



Full wwPDB EM Validation Report ⓘ

Apr 20, 2024 – 07:41 pm BST

PDB ID : 7O1A
EMDB ID : EMD-12694
Title : Cryo-EM structure of an Escherichia coli TnaC(R23F)-ribosome complex stalled in response to L-tryptophan
Authors : van der Stel, A.X.; Gordon, E.R.; Sengupta, A.; Martinez, A.K.; Klepacki, D.; Perry, T.N.; Herrero del Valle, A.; Vazquez-Laslop, N.; Sachs, M.S.; Cruz-Vera, L.R.; Innis, C.A.
Deposited on : 2021-03-29
Resolution : 2.40 Å (reported)
Based on initial model : 6TBV

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

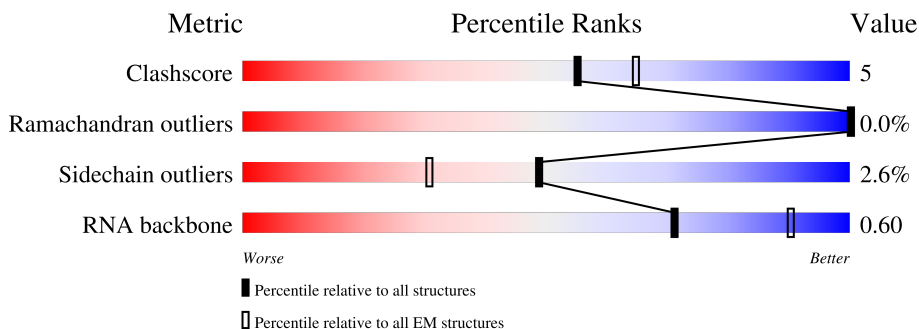
EMDB validation analysis : 0.0.1.dev92
Mogul : 1.8.4, CSD as541be (2020)
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36.2

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 2.40 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.







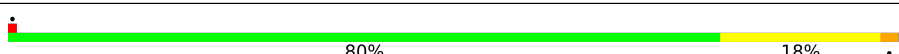
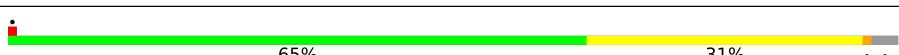
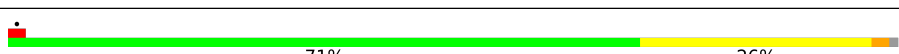
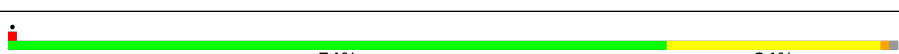
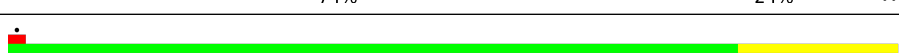

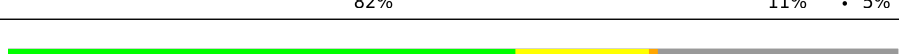
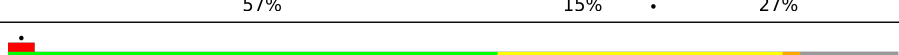

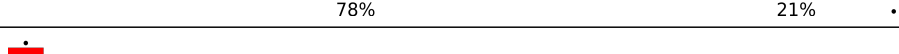
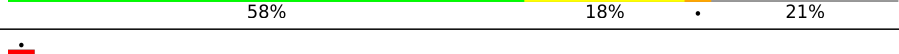




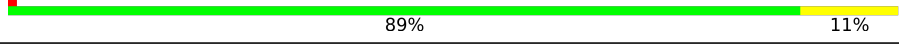
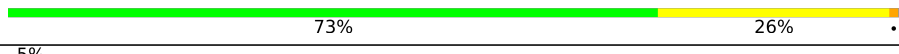
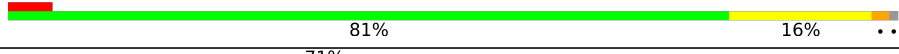



| Metric | Whole archive (#Entries) | EM structures (#Entries) |
|-----------------------|--------------------------|--------------------------|
| Clashscore | 158937 | 4297 |
| Ramachandran outliers | 154571 | 4023 |
| Sidechain outliers | 154315 | 3826 |
| RNA backbone | 4643 | 859 |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1 | AA | 1534 | |
| 2 | AB | 240 | |
| 3 | AC | 233 | |
| 4 | AD | 206 | |
| 5 | AE | 167 | |
| 6 | AF | 135 | |
| 7 | AG | 179 | |



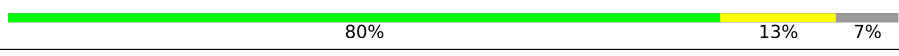


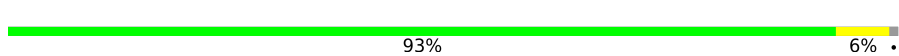
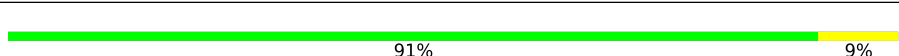
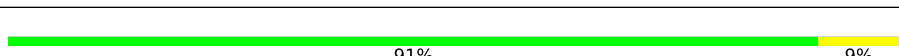
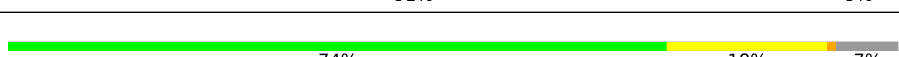

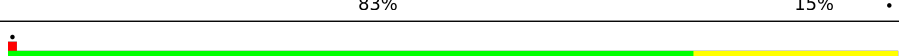
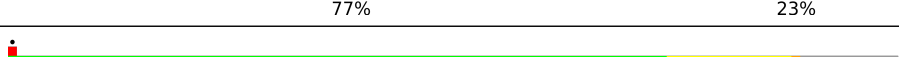
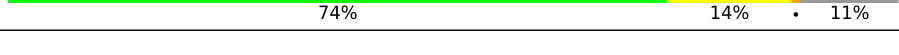


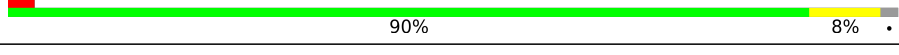
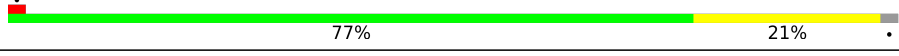




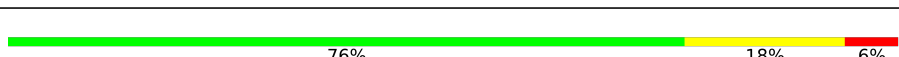
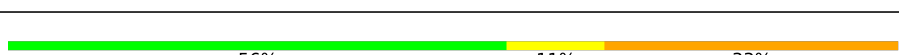
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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|---|
| 8 | AH | 130 |  72% 25% .. |
| 9 | AI | 130 |  8% 60% 35% .. |
| 10 | AJ | 103 |  16% 62% 30% . . |
| 11 | AK | 129 |  74% 17% 9% |
| 12 | AL | 124 |  80% 18% .. |
| 13 | AM | 118 |  65% 31% .. |
| 14 | AN | 102 |  71% 26% .. |
| 15 | AO | 89 |  74% 24% .. |
| 16 | AP | 82 |  82% 18% |
| 17 | AQ | 84 |  82% 11% . 5% |
| 18 | AR | 75 |  57% 15% . 27% |
| 19 | AS | 92 |  55% 32% . 11% |
| 20 | AT | 87 |  78% 21% . |
| 21 | AU | 71 |  58% 18% . 21% |
| 22 | BA | 2897 |  57% 33% 9% . |
| 23 | BB | 120 |  68% 30% . |
| 24 | BC | 273 |  82% 15% .. |
| 25 | BD | 209 |  88% 10% . |
| 26 | BE | 201 |  89% 11% |
| 27 | BF | 179 |  73% 26% .. |
| 28 | BG | 177 |  5% 81% 16% .. |
| 29 | BH | 149 |  71% 73% 26% . |
| 30 | BI | 70 |  23% 67% 27% 6% |
| 31 | BJ | 142 |  82% 18% . |
| 32 | BK | 123 |  81% 19% |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 33 | BL | 144 |  88% 11% |
| 34 | BM | 136 |  79% 19% |
| 35 | BN | 127 |  80% 13% 7% |
| 36 | BO | 117 |  87% 12% |
| 37 | BP | 115 |  87% 11% |
| 38 | BQ | 118 |  93% 6% |
| 39 | BR | 103 |  91% 9% |
| 40 | BS | 110 |  91% 9% |
| 41 | BT | 100 |  74% 18% 7% |
| 42 | BU | 104 |  83% 15% |
| 43 | BV | 94 |  77% 23% |
| 44 | BW | 85 |  74% 14% 11% |
| 45 | BX | 78 |  87% 10% |
| 46 | BY | 63 |  87% 10% |
| 47 | BZ | 59 |  90% 8% |
| 48 | B0 | 57 |  77% 21% |
| 49 | B1 | 55 |  58% 35% 7% |
| 50 | B2 | 46 |  83% 17% |
| 51 | B3 | 65 |  86% 12% |
| 52 | B4 | 38 |  82% 18% |
| 53 | B5 | 17 |  76% 18% 6% |
| 54 | B7 | 9 |  56% 11% 33% |
| 55 | B8 | 77 |  42% 35% 19% |

2 Entry composition [i](#)

There are 60 unique types of molecules in this entry. The entry contains 146602 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called Ribosomal RNA 16S.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-------|------|-------|------|---------|-------|
| | | | Total | C | N | O | P | | |
| 1 | AA | 1534 | 32930 | 14694 | 6041 | 10661 | 1534 | 0 | 0 |

- Molecule 2 is a protein called 30S ribosomal protein S2.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 2 | AB | 224 | 1753 | 1109 | 315 | 321 | 8 | 0 | 0 |

- Molecule 3 is a protein called 30S ribosomal protein S3.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 3 | AC | 206 | 1624 | 1028 | 305 | 288 | 3 | 0 | 0 |

- Molecule 4 is a protein called 30S ribosomal protein S4.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 4 | AD | 205 | 1643 | 1026 | 315 | 298 | 4 | 0 | 0 |

- Molecule 5 is a protein called 30S ribosomal protein S5.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 5 | AE | 155 | 1144 | 711 | 216 | 211 | 6 | 0 | 0 |

- Molecule 6 is a protein called 30S ribosomal protein S6.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 6 | AF | 106 | 862 | 545 | 156 | 154 | 7 | 0 | 0 |

- Molecule 7 is a protein called 30S ribosomal protein S7.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 7 | AG | 151 | 1181 | 735 | 227 | 215 | 4 | 0 | 0 |

- Molecule 8 is a protein called 30S ribosomal protein S8.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 8 | AH | 129 | 979 | 616 | 173 | 184 | 6 | 0 | 0 |

- Molecule 9 is a protein called 30S ribosomal protein S9.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 9 | AI | 127 | 1022 | 634 | 206 | 179 | 3 | 0 | 0 |

- Molecule 10 is a protein called 30S ribosomal protein S10.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 10 | AJ | 99 | 795 | 498 | 152 | 144 | 1 | 0 | 0 |

- Molecule 11 is a protein called 30S ribosomal protein S11.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 11 | AK | 117 | 877 | 540 | 174 | 160 | 3 | 0 | 0 |

- Molecule 12 is a protein called 30S ribosomal protein S12.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 12 | AL | 123 | 957 | 591 | 196 | 165 | 5 | 0 | 0 |

- Molecule 13 is a protein called 30S ribosomal protein S13.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 13 | AM | 114 | 883 | 546 | 178 | 156 | 3 | 0 | 0 |

- Molecule 14 is a protein called 30S ribosomal protein S14.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 14 | AN | 101 | 799 | 498 | 165 | 133 | 3 | 0 | 0 |

There is a discrepancy between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|-----------|------------|
| AN | 35 | ALA | - | insertion | UNP P0AG59 |

- Molecule 15 is a protein called 30S ribosomal protein S15.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 15 | AO | 88 | 714 | 439 | 144 | 130 | 1 | 0 | 0 |

- Molecule 16 is a protein called 30S ribosomal protein S16.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 16 | AP | 82 | 649 | 406 | 128 | 114 | 1 | 0 | 0 |

- Molecule 17 is a protein called 30S ribosomal protein S17.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 17 | AQ | 80 | 648 | 411 | 121 | 113 | 3 | 0 | 0 |

- Molecule 18 is a protein called 30S ribosomal protein S18.

| Mol | Chain | Residues | Atoms | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---------|-------|
| | | | Total | C | N | O | | |
| 18 | AR | 55 | 455 | 288 | 86 | 81 | 0 | 0 |

- Molecule 19 is a protein called 30S ribosomal protein S19.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 19 | AS | 82 | 656 | 419 | 125 | 110 | 2 | 0 | 0 |

- Molecule 20 is a protein called 30S ribosomal protein S20.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 20 | AT | 86 | Total | C | N | O | S | 0 | 0 |
| | | | 670 | 414 | 138 | 115 | 3 | | |

- Molecule 21 is a protein called 30S ribosomal protein S21.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| 21 | AU | 56 | Total | C | N | O | S | 0 | 0 |
| | | | 465 | 290 | 96 | 78 | 1 | | |

- Molecule 22 is a RNA chain called Ribosomal RNA 23S.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-------|-------|-------|------|---------|-------|
| 22 | BA | 2897 | Total | C | N | O | P | 0 | 0 |
| | | | 62209 | 27759 | 11446 | 20107 | 2897 | | |

- Molecule 23 is a RNA chain called Ribosomal RNA 5S.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|-----|---------|-------|
| 23 | BB | 120 | Total | C | N | O | P | 0 | 0 |
| | | | 2569 | 1144 | 468 | 837 | 120 | | |

- Molecule 24 is a protein called 50S ribosomal protein L2.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 24 | BC | 271 | Total | C | N | O | S | 0 | 0 |
| | | | 2082 | 1288 | 423 | 364 | 7 | | |

- Molecule 25 is a protein called 50S ribosomal protein L3.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 25 | BD | 209 | Total | C | N | O | S | 0 | 0 |
| | | | 1566 | 980 | 288 | 294 | 4 | | |

- Molecule 26 is a protein called 50S ribosomal protein L4.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 26 | BE | 201 | Total | C | N | O | S | 0 | 0 |
| | | | 1552 | 974 | 283 | 290 | 5 | | |

- Molecule 27 is a protein called 50S ribosomal protein L5.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 27 | BF | 177 | Total | C | N | O | S | 0 | 0 |
| | | | 1410 | 899 | 249 | 256 | 6 | | |

- Molecule 28 is a protein called 50S ribosomal protein L6.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 28 | BG | 176 | Total | C | N | O | S | 0 | 0 |
| | | | 1323 | 832 | 243 | 246 | 2 | | |

- Molecule 29 is a protein called 50S ribosomal protein L9.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 29 | BH | 149 | Total | C | N | O | S | 0 | 0 |
| | | | 1110 | 699 | 197 | 213 | 1 | | |

- Molecule 30 is a protein called 50S ribosomal protein L31.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| 30 | BI | 66 | Total | C | N | O | S | 0 | 0 |
| | | | 522 | 323 | 99 | 94 | 6 | | |

- Molecule 31 is a protein called 50S ribosomal protein L13.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 31 | BJ | 142 | Total | C | N | O | S | 0 | 0 |
| | | | 1129 | 714 | 212 | 199 | 4 | | |

- Molecule 32 is a protein called 50S ribosomal protein L14.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 32 | BK | 123 | Total | C | N | O | S | 0 | 0 |
| | | | 946 | 593 | 181 | 166 | 6 | | |

- Molecule 33 is a protein called 50S ribosomal protein L15.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 33 | BL | 144 | Total | C | N | O | S | 0 | 0 |
| | | | 1053 | 654 | 207 | 190 | 2 | | |

- Molecule 34 is a protein called 50S ribosomal protein L16.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 34 | BM | 136 | 1075 | 686 | 205 | 178 | 6 | 0 | 0 |

- Molecule 35 is a protein called 50S ribosomal protein L17.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 35 | BN | 118 | 945 | 585 | 194 | 161 | 5 | 0 | 0 |

- Molecule 36 is a protein called 50S ribosomal protein L18.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 36 | BO | 117 | 900 | 557 | 179 | 163 | 1 | 0 | 0 |

- Molecule 37 is a protein called 50S ribosomal protein L19.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 37 | BP | 114 | 917 | 574 | 179 | 163 | 1 | 0 | 0 |

- Molecule 38 is a protein called 50S ribosomal protein L20.

| Mol | Chain | Residues | Atoms | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---------|-------|
| | | | Total | C | N | O | | |
| 38 | BQ | 117 | 947 | 604 | 192 | 151 | 0 | 0 |

- Molecule 39 is a protein called 50S ribosomal protein L21.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 39 | BR | 103 | 816 | 516 | 153 | 145 | 2 | 0 | 0 |

- Molecule 40 is a protein called 50S ribosomal protein L22.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 40 | BS | 110 | 857 | 532 | 166 | 156 | 3 | 0 | 0 |

- Molecule 41 is a protein called 50S ribosomal protein L23.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 41 | BT | 93 | 738 | 466 | 139 | 131 | 2 | 0 | 0 |

- Molecule 42 is a protein called 50S ribosomal protein L24.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 42 | BU | 102 | 779 | 492 | 146 | 141 | | 0 | 0 |

- Molecule 43 is a protein called 50S ribosomal protein L25.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 43 | BV | 94 | 753 | 479 | 137 | 134 | 3 | 0 | 0 |

- Molecule 44 is a protein called 50S ribosomal protein L27.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 44 | BW | 76 | 580 | 359 | 117 | 103 | 1 | 0 | 0 |

- Molecule 45 is a protein called 50S ribosomal protein L28.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 45 | BX | 77 | 625 | 388 | 129 | 106 | 2 | 0 | 0 |

- Molecule 46 is a protein called 50S ribosomal protein L29.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 46 | BY | 62 | 501 | 308 | 98 | 94 | 1 | 0 | 0 |

- Molecule 47 is a protein called 50S ribosomal protein L30.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 47 | BZ | 58 | 449 | 281 | 87 | 79 | 2 | 0 | 0 |

- Molecule 48 is a protein called 50S ribosomal protein L32.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| 48 | B0 | 56 | Total | C | N | O | S | 0 | 0 |
| | | | 444 | 269 | 94 | 80 | 1 | | |

- Molecule 49 is a protein called 50S ribosomal protein L33.

| Mol | Chain | Residues | Atoms | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---------|-------|
| 49 | B1 | 51 | Total | C | N | O | 0 | 0 |
| | | | 414 | 266 | 76 | 72 | | |

- Molecule 50 is a protein called 50S ribosomal protein L34.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| 50 | B2 | 46 | Total | C | N | O | S | 0 | 0 |
| | | | 377 | 228 | 90 | 57 | 2 | | |

- Molecule 51 is a protein called 50S ribosomal protein L35.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|----|---|---------|-------|
| 51 | B3 | 64 | Total | C | N | O | S | 0 | 0 |
| | | | 504 | 323 | 105 | 74 | 2 | | |

- Molecule 52 is a protein called 50S ribosomal protein L36.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| 52 | B4 | 38 | Total | C | N | O | S | 0 | 0 |
| | | | 302 | 185 | 65 | 48 | 4 | | |

- Molecule 53 is a protein called TnaC - Tryptophanase leader peptide - R23F.

| Mol | Chain | Residues | Atoms | | | | AltConf | Trace |
|-----|-------|----------|-------|----|----|----|---------|-------|
| 53 | B5 | 17 | Total | C | N | O | 0 | 0 |
| | | | 146 | 97 | 24 | 25 | | |

- Molecule 54 is a RNA chain called mRNA.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|----|----|----|---|---------|-------|
| 54 | B7 | 9 | Total | C | N | O | P | 0 | 0 |
| | | | 191 | 85 | 34 | 63 | 9 | | |

- Molecule 55 is a RNA chain called P-site tRNA-Pro.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---------|-------|
| | | | Total | C | N | O | P | | |
| 55 | B8 | 77 | 1648 | 735 | 295 | 541 | 77 | 0 | 0 |

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|--------------|-----------|---------|
| 56 | AA | 86 | Total 86 | Mg 86 | 0 |
| 56 | BA | 233 | Total 233 | Mg 233 | 0 |
| 56 | BB | 1 | Total 1 | Mg 1 | 0 |
| 56 | BC | 1 | Total 1 | Mg 1 | 0 |
| 56 | BD | 2 | Total 2 | Mg 2 | 0 |
| 56 | BL | 1 | Total 1 | Mg 1 | 0 |
| 56 | B8 | 2 | Total 2 | Mg 2 | 0 |

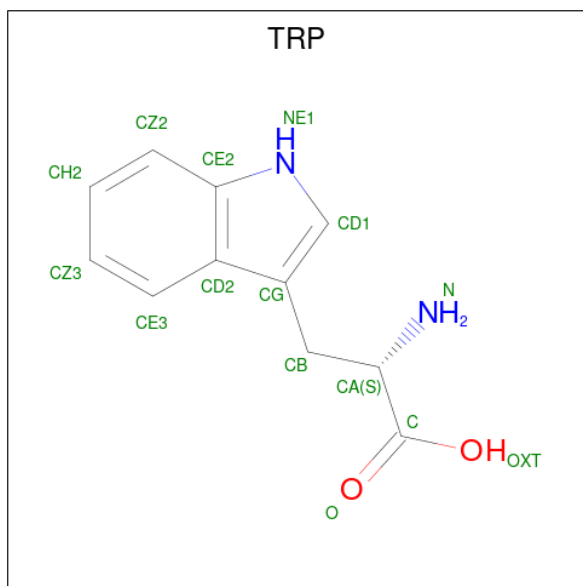
- Molecule 57 is POTASSIUM ION (three-letter code: K) (formula: K).

| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|--------------|----------|---------|
| 57 | AA | 38 | Total 38 | K 38 | 0 |
| 57 | AM | 1 | Total 1 | K 1 | 0 |
| 57 | BA | 104 | Total 104 | K 104 | 0 |
| 57 | BB | 1 | Total 1 | K 1 | 0 |
| 57 | BC | 1 | Total 1 | K 1 | 0 |
| 57 | BD | 1 | Total 1 | K 1 | 0 |
| 57 | BM | 1 | Total 1 | K 1 | 0 |

- Molecule 58 is ZINC ION (three-letter code: ZN) (formula: Zn).

| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|-------|----|---------|
| 58 | AB | 1 | Total | Zn | 0 |
| | | | 1 | 1 | |
| 58 | BI | 1 | Total | Zn | 0 |
| | | | 1 | 1 | |
| 58 | B4 | 1 | Total | Zn | 0 |
| | | | 1 | 1 | |

- Molecule 59 is TRYPTOPHAN (three-letter code: TRP) (formula: $C_{11}H_{12}N_2O_2$).



| Mol | Chain | Residues | Atoms | | | | AltConf |
|-----|-------|----------|-------|----|---|---|---------|
| 59 | BA | 1 | Total | C | N | O | 0 |
| | | | 15 | 11 | 2 | 2 | |

- Molecule 60 is water.

| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|-------|------|---------|
| 60 | AA | 184 | Total | O | 0 |
| | | | 184 | 184 | |
| 60 | AK | 1 | Total | O | 0 |
| | | | 1 | 1 | |
| 60 | AN | 1 | Total | O | 0 |
| | | | 1 | 1 | |
| 60 | BA | 1672 | Total | O | 0 |
| | | | 1672 | 1672 | |
| 60 | BB | 2 | Total | O | 0 |
| | | | 2 | 2 | |
| 60 | BC | 38 | Total | O | 0 |
| | | | 38 | 38 | |

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| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|-------------|---------|---------|
| 60 | BD | 14 | Total 14 | O 14 | 0 |
| 60 | BE | 21 | Total 21 | O 21 | 0 |
| 60 | BF | 1 | Total 1 | O 1 | 0 |
| 60 | BJ | 2 | Total 2 | O 2 | 0 |
| 60 | BK | 3 | Total 3 | O 3 | 0 |
| 60 | BL | 14 | Total 14 | O 14 | 0 |
| 60 | BM | 2 | Total 2 | O 2 | 0 |
| 60 | BN | 9 | Total 9 | O 9 | 0 |
| 60 | BO | 1 | Total 1 | O 1 | 0 |
| 60 | BP | 2 | Total 2 | O 2 | 0 |
| 60 | BQ | 12 | Total 12 | O 12 | 0 |
| 60 | BR | 4 | Total 4 | O 4 | 0 |
| 60 | BS | 7 | Total 7 | O 7 | 0 |
| 60 | BT | 3 | Total 3 | O 3 | 0 |
| 60 | BU | 1 | Total 1 | O 1 | 0 |
| 60 | BW | 5 | Total 5 | O 5 | 0 |
| 60 | BX | 4 | Total 4 | O 4 | 0 |
| 60 | B0 | 4 | Total 4 | O 4 | 0 |
| 60 | B2 | 6 | Total 6 | O 6 | 0 |
| 60 | B3 | 7 | Total 7 | O 7 | 0 |
| 60 | B4 | 1 | Total 1 | O 1 | 0 |

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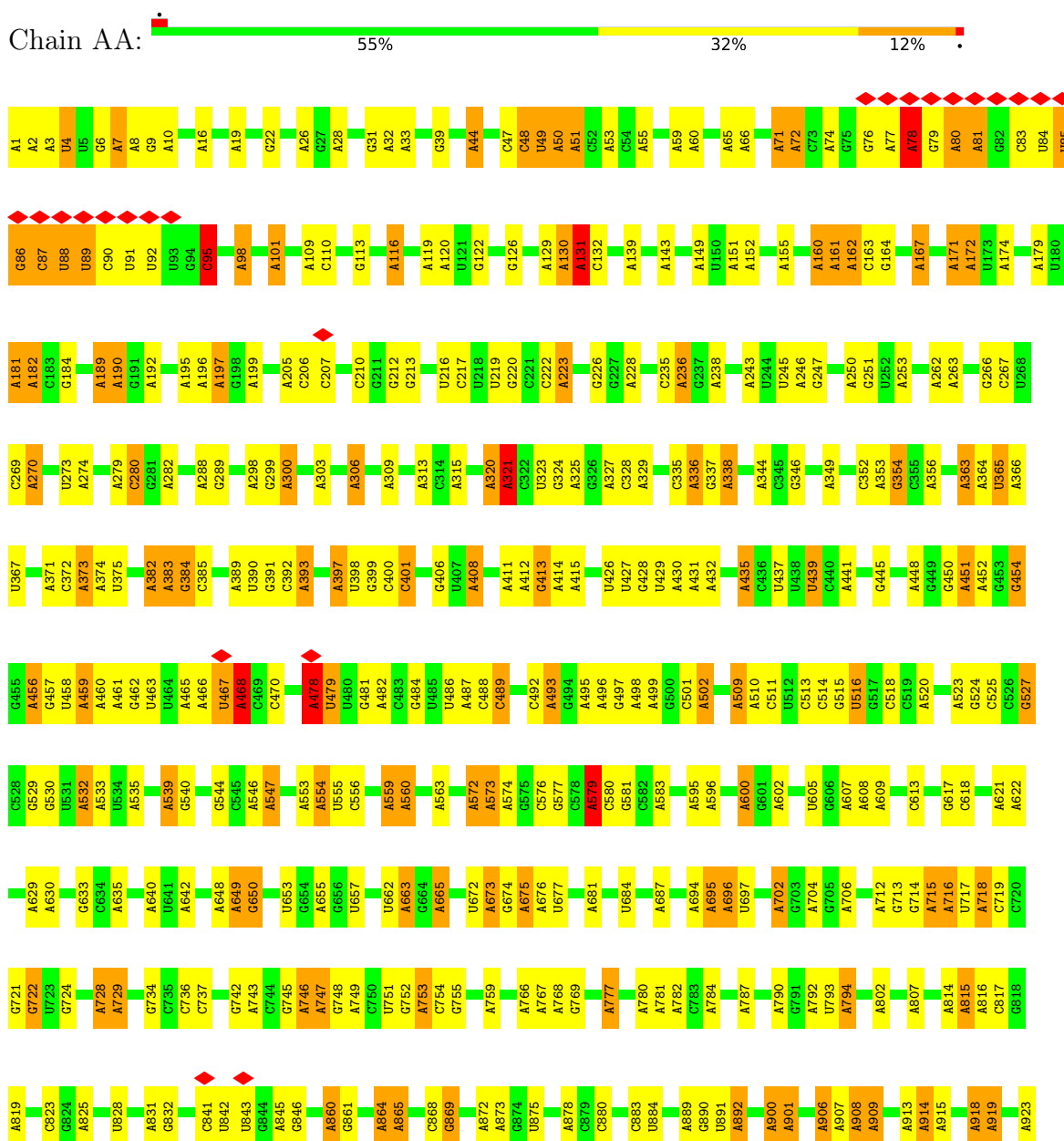
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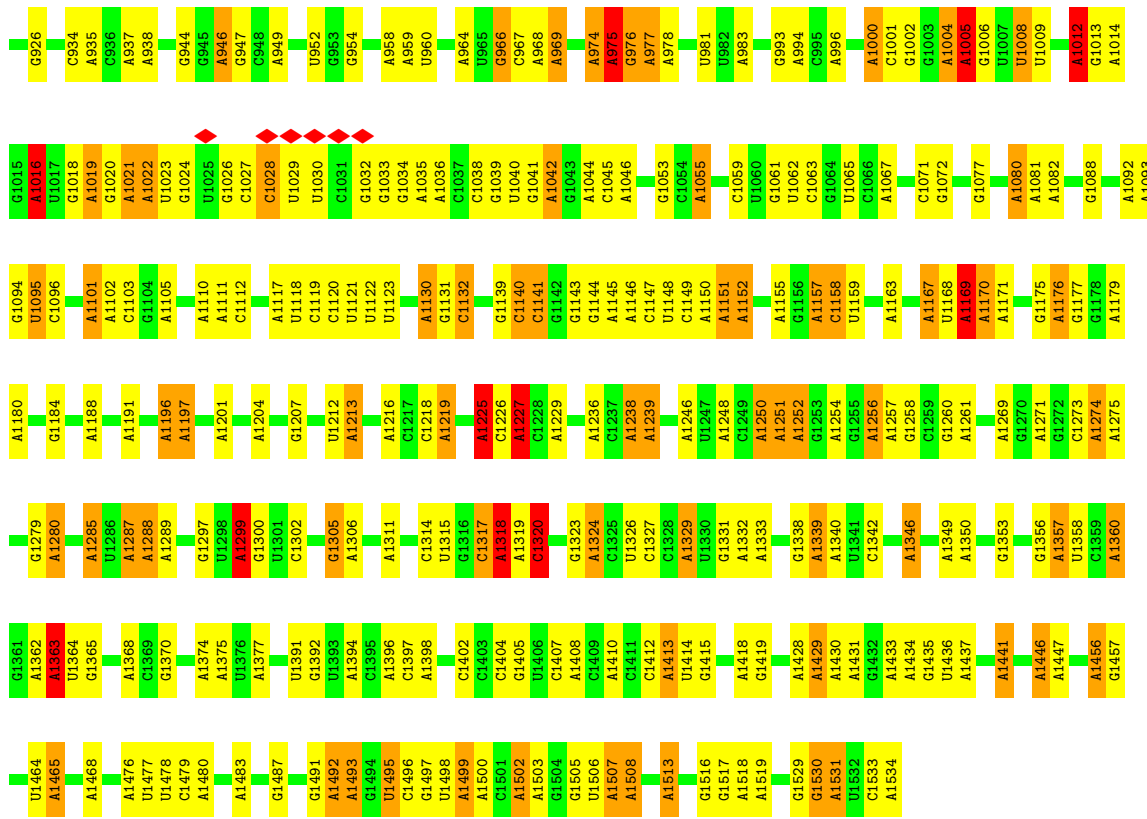
| Mol | Chain | Residues | Atoms | | AltConf |
|------------|--------------|-----------------|--------------|---|----------------|
| 60 | B5 | 2 | Total | O | 0 |
| | | | 2 | 2 | |
| 60 | B8 | 3 | Total | O | 0 |
| | | | 3 | 3 | |

3 Residue-property plots

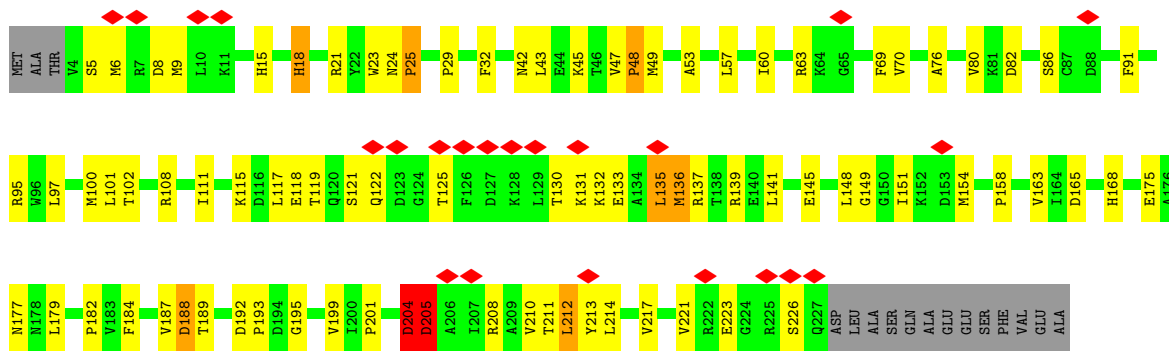
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: Ribosomal RNA 16S

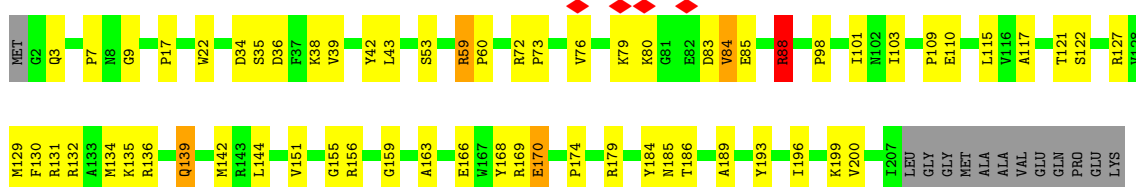




• Molecule 2: 30S ribosomal protein S2

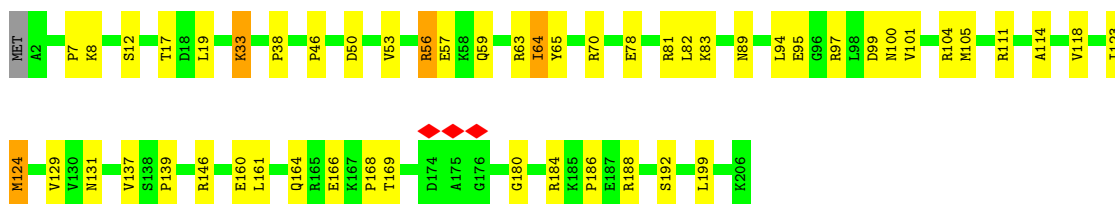
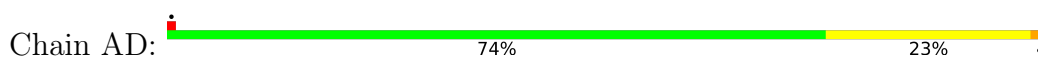


• Molecule 3: 30S ribosomal protein S3

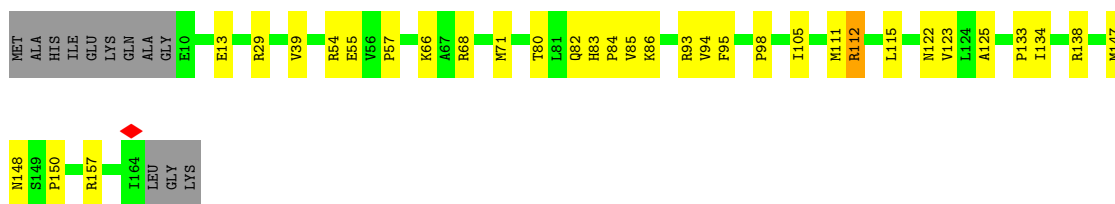
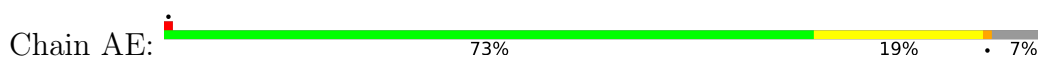


PRO
ALA
ALA
GLN
PRO
PRO
LYS
LYS
GLN
GLN
ARG
LYS
GLY
ARG
LYS

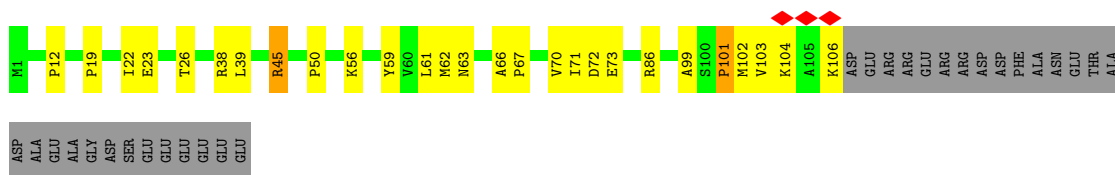
• Molecule 4: 30S ribosomal protein S4



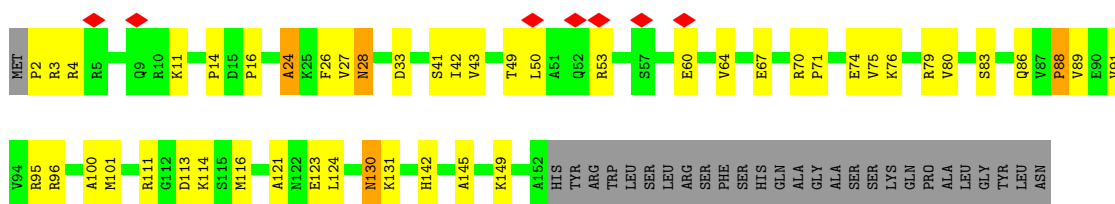
• Molecule 5: 30S ribosomal protein S5



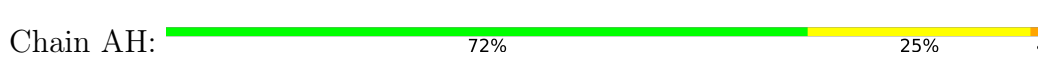
• Molecule 6: 30S ribosomal protein S6



• Molecule 7: 30S ribosomal protein S7

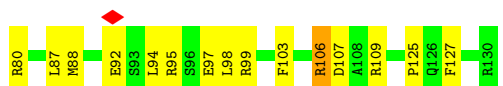
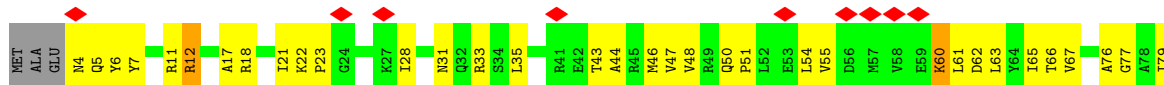


• Molecule 8: 30S ribosomal protein S8

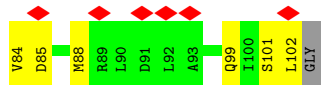
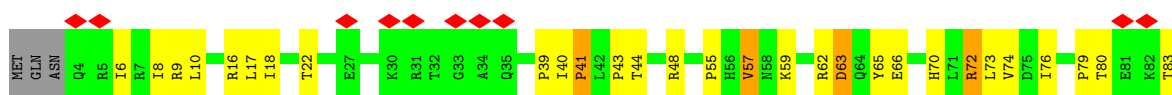




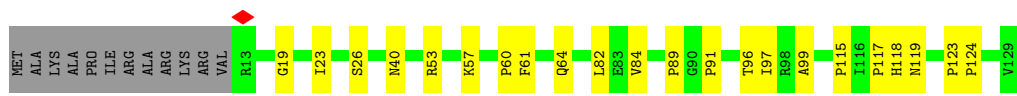
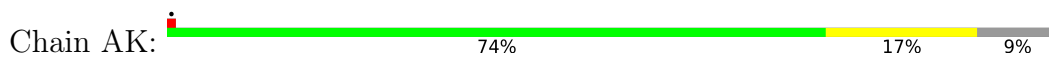
- Molecule 9: 30S ribosomal protein S9



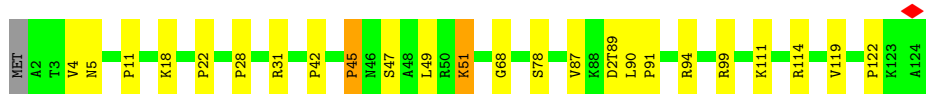
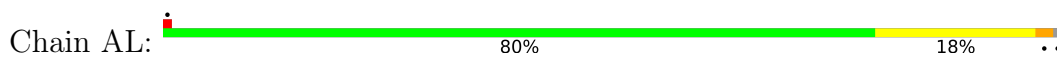
- Molecule 10: 30S ribosomal protein S10



- Molecule 11: 30S ribosomal protein S11

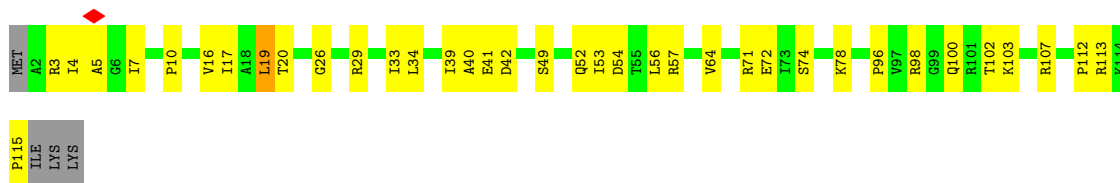


- Molecule 12: 30S ribosomal protein S12



- Molecule 13: 30S ribosomal protein S13

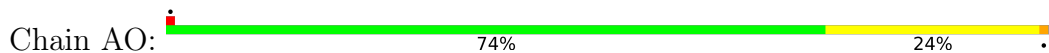




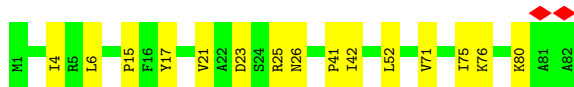
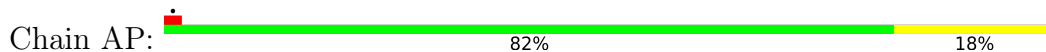
- Molecule 14: 30S ribosomal protein S14



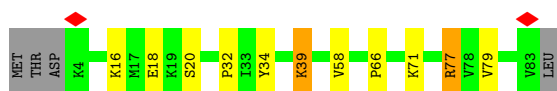
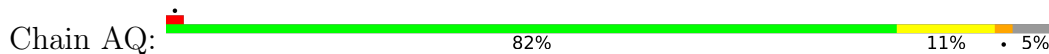
- Molecule 15: 30S ribosomal protein S15



- Molecule 16: 30S ribosomal protein S16



- Molecule 17: 30S ribosomal protein S17

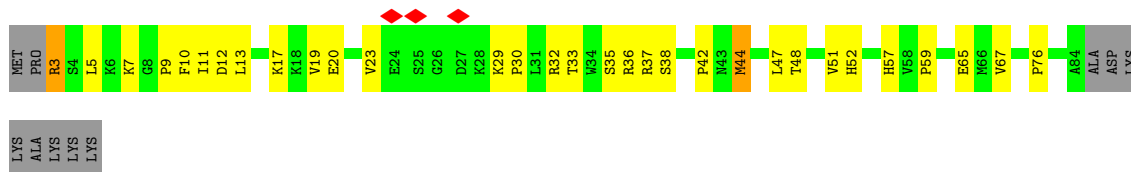


- Molecule 18: 30S ribosomal protein S18

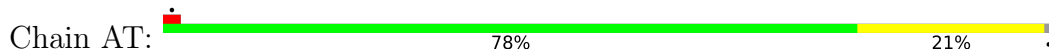


- Molecule 19: 30S ribosomal protein S19





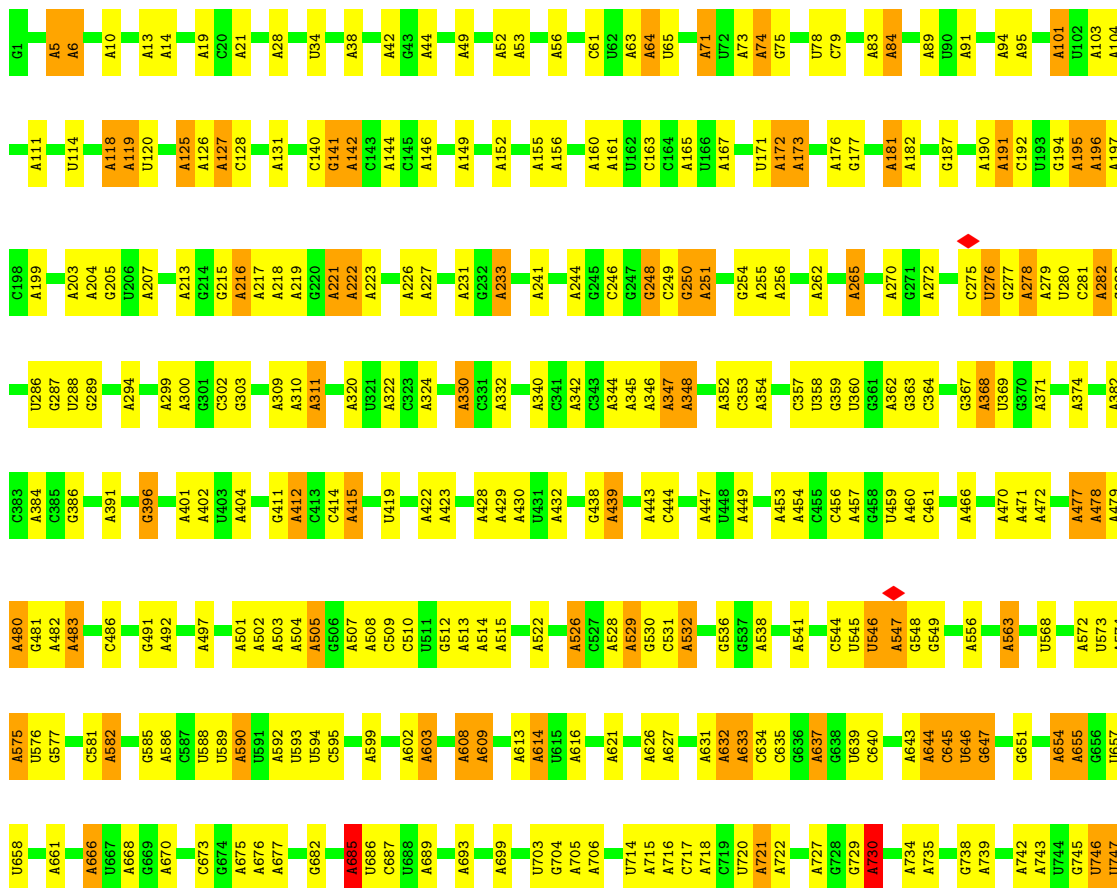
• Molecule 20: 30S ribosomal protein S20

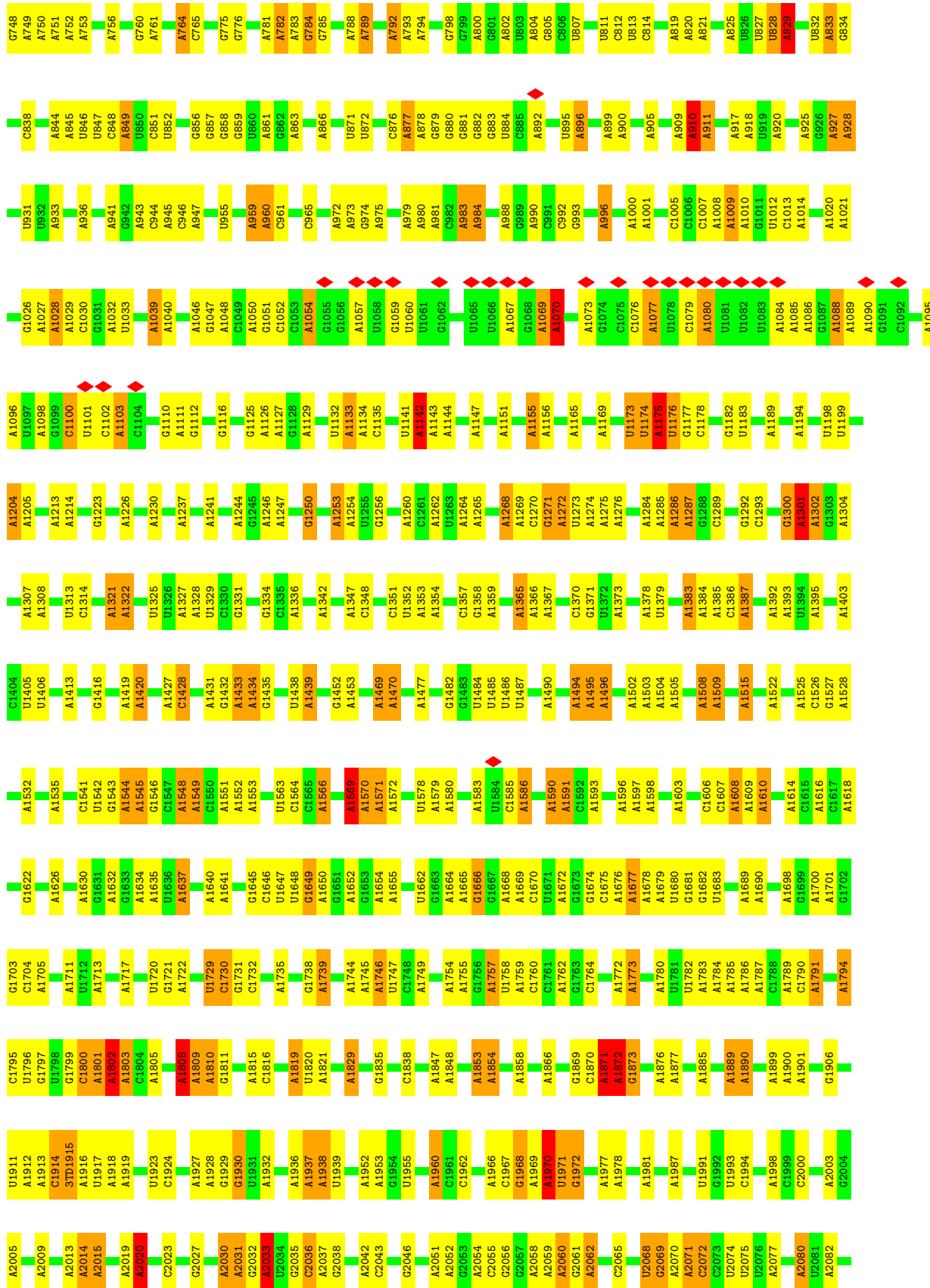


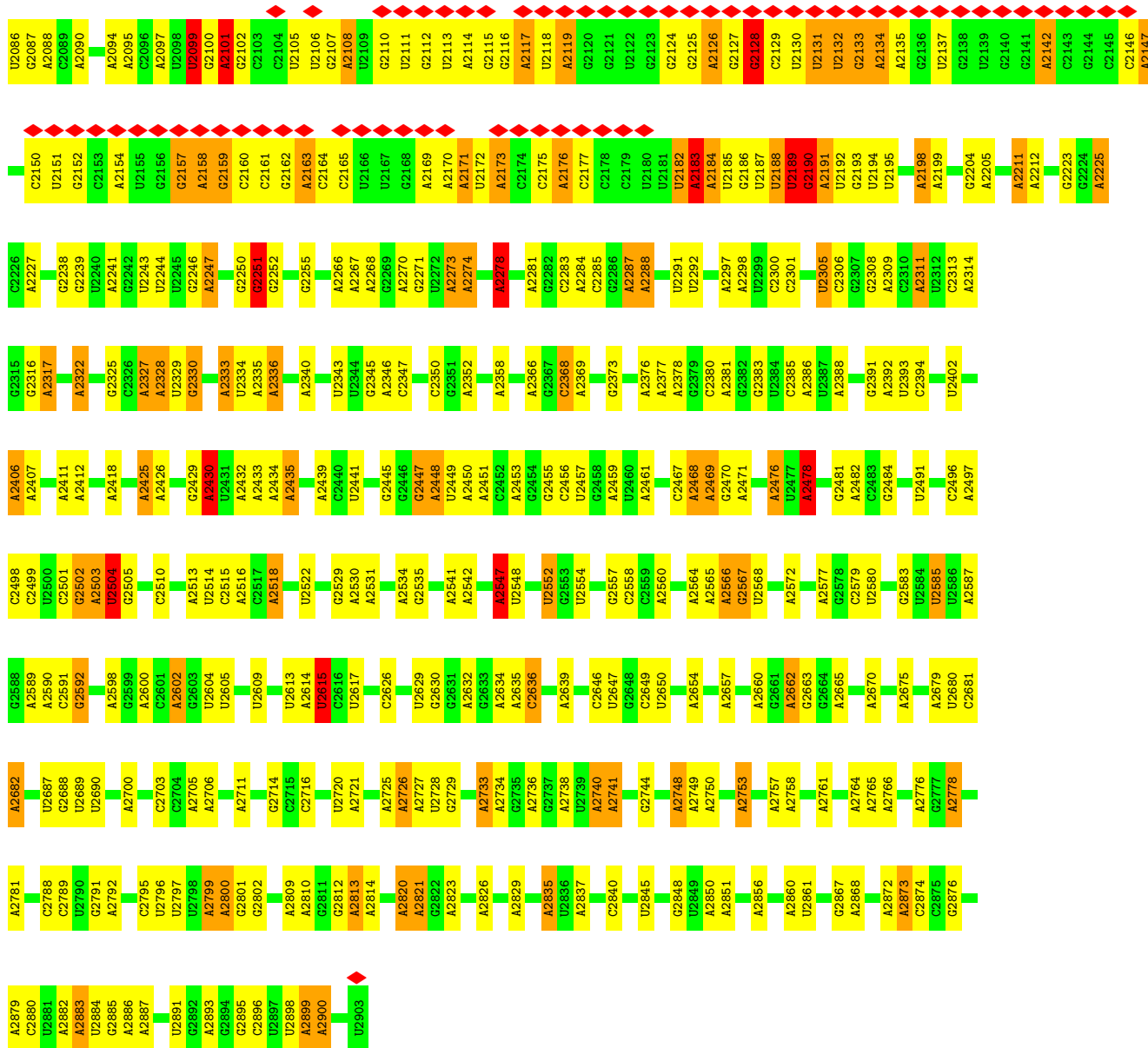
• Molecule 21: 30S ribosomal protein S21



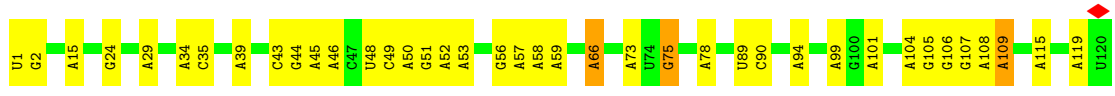
• Molecule 22: Ribosomal RNA 23S



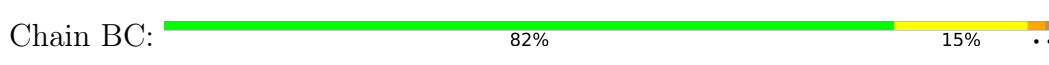


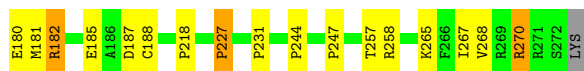


• Molecule 23: Ribosomal RNA 5S

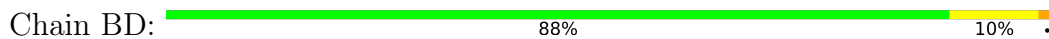


• Molecule 24: 50S ribosomal protein L2

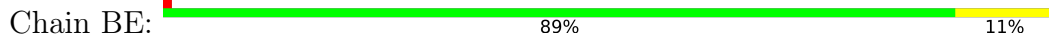




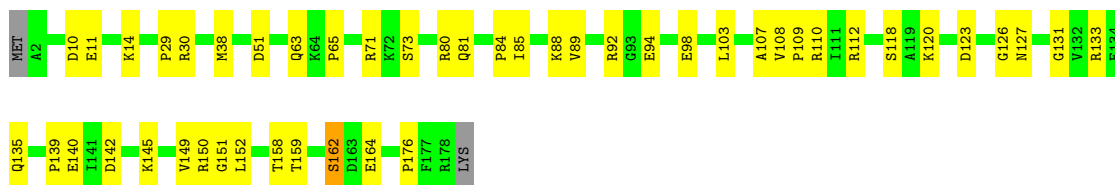
• Molecule 25: 50S ribosomal protein L3



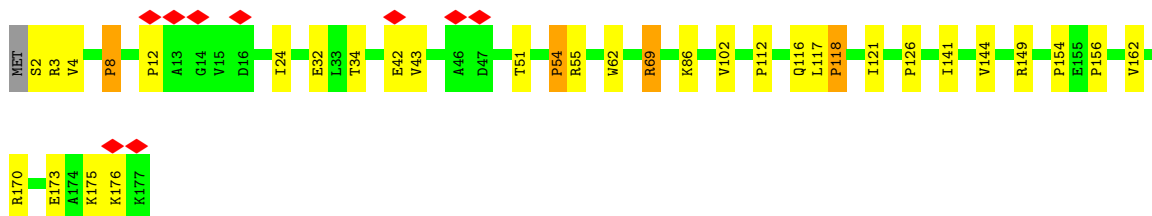
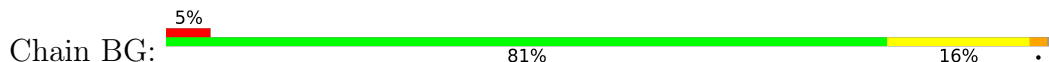
• Molecule 26: 50S ribosomal protein L4



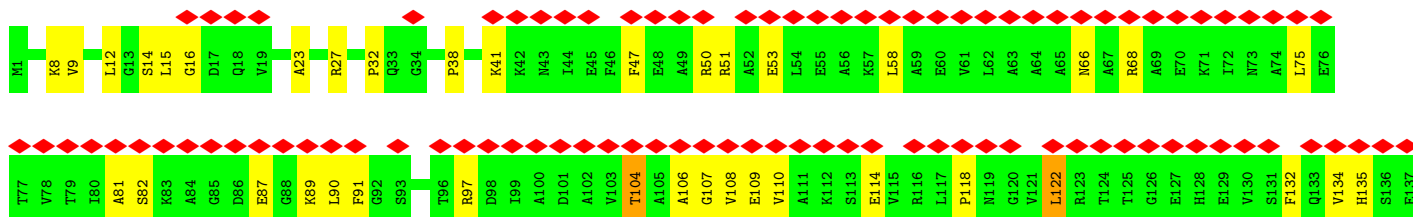
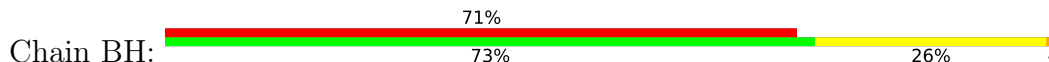
• Molecule 27: 50S ribosomal protein L5

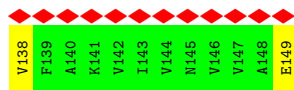


• Molecule 28: 50S ribosomal protein L6



• Molecule 29: 50S ribosomal protein L9

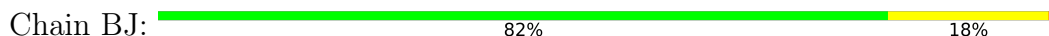




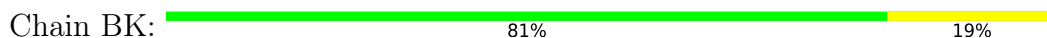
• Molecule 30: 50S ribosomal protein L31



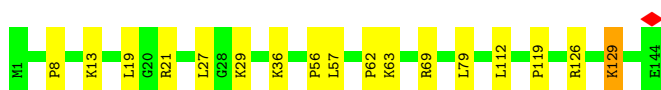
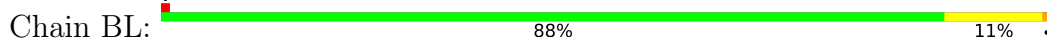
• Molecule 31: 50S ribosomal protein L13



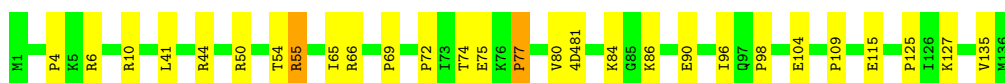
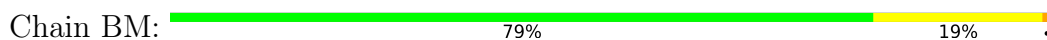
• Molecule 32: 50S ribosomal protein L14



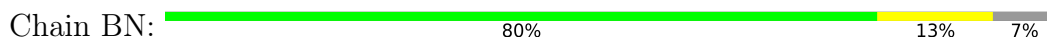
• Molecule 33: 50S ribosomal protein L15



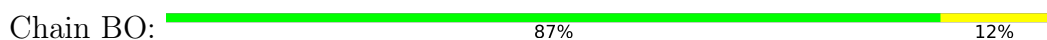
• Molecule 34: 50S ribosomal protein L16



• Molecule 35: 50S ribosomal protein L17

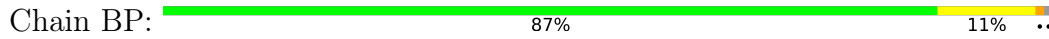


• Molecule 36: 50S ribosomal protein L18

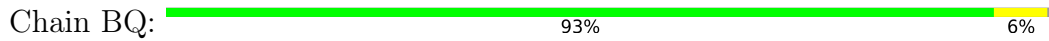




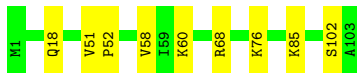
- Molecule 37: 50S ribosomal protein L19



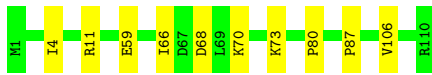
- Molecule 38: 50S ribosomal protein L20



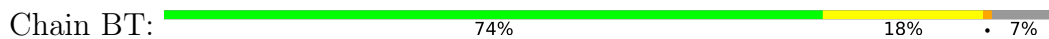
- Molecule 39: 50S ribosomal protein L21



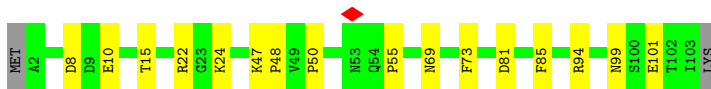
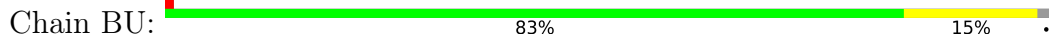
- Molecule 40: 50S ribosomal protein L22



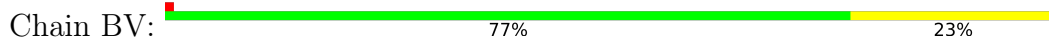
- Molecule 41: 50S ribosomal protein L23



- Molecule 42: 50S ribosomal protein L24

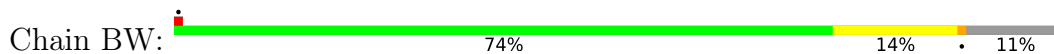


- Molecule 43: 50S ribosomal protein L25





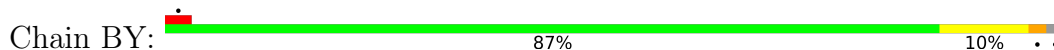
• Molecule 44: 50S ribosomal protein L27



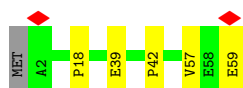
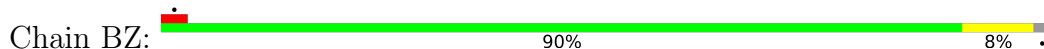
• Molecule 45: 50S ribosomal protein L28



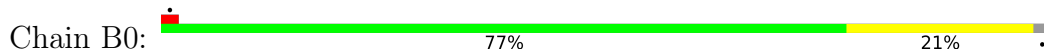
• Molecule 46: 50S ribosomal protein L29



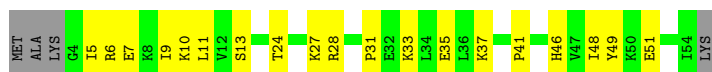
• Molecule 47: 50S ribosomal protein L30




• Molecule 48: 50S ribosomal protein L32

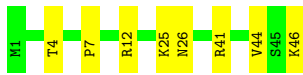


• Molecule 49: 50S ribosomal protein L33




• Molecule 50: 50S ribosomal protein L34

Chain B2:  83% 17%




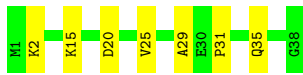
- Molecule 51: 50S ribosomal protein L35

Chain B3:  86% 12%




- Molecule 52: 50S ribosomal protein L36

Chain B4:  82% 18%



- Molecule 53: ThaC - Tryptophanase leader peptide - R23F

Chain B5:  76% 18% 6%



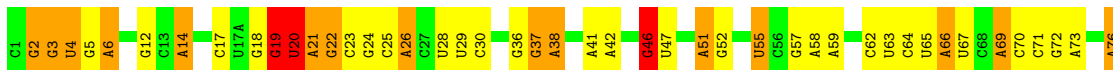
- Molecule 54: mRNA

Chain B7:  56% 11% 33%



- Molecule 55: P-site tRNA-Pro

Chain B8:  42% 35% 19%



4 Experimental information

| Property | Value | Source |
|--------------------------------------|---|-----------|
| EM reconstruction method | SINGLE PARTICLE | Depositor |
| Imposed symmetry | POINT, C1 | Depositor |
| Number of particles used | 191230 | Depositor |
| Resolution determination method | FSC 0.143 CUT-OFF | Depositor |
| CTF correction method | PHASE FLIPPING AND AMPLITUDE CORRECTION | Depositor |
| Microscope | FEI TITAN KRIOS | Depositor |
| Voltage (kV) | 300 | Depositor |
| Electron dose ($e^-/\text{\AA}^2$) | 44 | Depositor |
| Minimum defocus (nm) | -400 | Depositor |
| Maximum defocus (nm) | -1600 | Depositor |
| Magnification | 59880 | Depositor |
| Image detector | GATAN K2 SUMMIT (4k x 4k) | Depositor |
| Maximum map value | 0.111 | Depositor |
| Minimum map value | -0.028 | Depositor |
| Average map value | 0.001 | Depositor |
| Map value standard deviation | 0.007 | Depositor |
| Recommended contour level | 0.0075 | Depositor |
| Map size (Å) | 271.375, 271.375, 271.375 | wwPDB |
| Map dimensions | 325, 325, 325 | wwPDB |
| Map angles (°) | 90.0, 90.0, 90.0 | wwPDB |
| Pixel spacing (Å) | 0.835, 0.835, 0.835 | Depositor |

5 Model quality i

5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: UR3, D2T, 2MA, PSU, OMU, MEQ, MG, ZN, 5MC, 5MU, MA6, 2MG, 4OC, K, 6MZ, G7M, OMC, 1MG, OMG, 4D4, 3TD

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|-------------------|-------------|--------------------|
| | | RMSZ | # $ Z > 5$ | RMSZ | # $ Z > 5$ |
| 1 | AA | 1.48 | 1296/36593 (3.5%) | 3.33 | 3996/57081 (7.0%) |
| 2 | AB | 0.90 | 9/1784 (0.5%) | 1.10 | 13/2403 (0.5%) |
| 3 | AC | 0.86 | 7/1651 (0.4%) | 0.69 | 3/2225 (0.1%) |
| 4 | AD | 0.80 | 6/1665 (0.4%) | 0.65 | 2/2227 (0.1%) |
| 5 | AE | 0.87 | 5/1157 (0.4%) | 0.61 | 1/1557 (0.1%) |
| 6 | AF | 0.94 | 5/881 (0.6%) | 0.58 | 0/1189 |
| 7 | AG | 0.99 | 8/1195 (0.7%) | 0.70 | 1/1602 (0.1%) |
| 8 | AH | 0.96 | 6/989 (0.6%) | 0.69 | 2/1326 (0.2%) |
| 9 | AI | 0.73 | 3/1034 (0.3%) | 0.72 | 2/1375 (0.1%) |
| 10 | AJ | 1.08 | 6/805 (0.7%) | 0.74 | 0/1089 |
| 11 | AK | 1.12 | 7/893 (0.8%) | 0.67 | 0/1205 |
| 12 | AL | 1.09 | 8/960 (0.8%) | 0.62 | 0/1286 |
| 13 | AM | 0.91 | 5/892 (0.6%) | 0.74 | 2/1193 (0.2%) |
| 14 | AN | 0.90 | 4/811 (0.5%) | 0.63 | 1/1081 (0.1%) |
| 15 | AO | 0.32 | 0/722 | 0.53 | 0/964 |
| 16 | AP | 0.73 | 2/659 (0.3%) | 0.57 | 0/884 |
| 17 | AQ | 0.73 | 2/657 (0.3%) | 0.77 | 2/881 (0.2%) |
| 18 | AR | 0.84 | 2/462 (0.4%) | 0.58 | 0/621 |
| 19 | AS | 1.08 | 5/672 (0.7%) | 0.78 | 2/904 (0.2%) |
| 20 | AT | 0.56 | 1/676 (0.1%) | 0.47 | 0/895 |
| 21 | AU | 1.15 | 5/472 (1.1%) | 0.62 | 0/627 |
| 22 | BA | 1.57 | 2305/69121 (3.3%) | 3.43 | 7802/107828 (7.2%) |
| 23 | BB | 1.34 | 75/2872 (2.6%) | 2.95 | 243/4478 (5.4%) |
| 24 | BC | 1.14 | 17/2121 (0.8%) | 0.65 | 0/2852 |
| 25 | BD | 0.86 | 8/1576 (0.5%) | 0.56 | 0/2119 |
| 26 | BE | 0.76 | 5/1571 (0.3%) | 0.55 | 0/2113 |
| 27 | BF | 0.84 | 6/1434 (0.4%) | 0.63 | 2/1926 (0.1%) |
| 28 | BG | 0.98 | 8/1343 (0.6%) | 0.59 | 0/1816 |
| 29 | BH | 0.71 | 3/1121 (0.3%) | 0.67 | 2/1515 (0.1%) |
| 30 | BI | 0.82 | 2/531 (0.4%) | 0.70 | 1/709 (0.1%) |
| 31 | BJ | 0.92 | 6/1152 (0.5%) | 0.55 | 0/1551 |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|--------------------|-------------|---------------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 32 | BK | 0.93 | 5/955 (0.5%) | 0.63 | 0/1279 |
| 33 | BL | 0.83 | 4/1062 (0.4%) | 0.58 | 0/1413 |
| 34 | BM | 1.02 | 7/1081 (0.6%) | 0.59 | 0/1443 |
| 35 | BN | 0.86 | 4/958 (0.4%) | 0.61 | 0/1281 |
| 36 | BO | 0.65 | 2/910 (0.2%) | 0.50 | 0/1219 |
| 37 | BP | 0.80 | 3/929 (0.3%) | 0.56 | 0/1242 |
| 38 | BQ | 0.38 | 0/960 | 0.50 | 0/1278 |
| 39 | BR | 0.63 | 2/829 (0.2%) | 0.56 | 0/1107 |
| 40 | BS | 0.69 | 2/864 (0.2%) | 0.59 | 0/1156 |
| 41 | BT | 0.64 | 1/744 (0.1%) | 0.78 | 4/994 (0.4%) |
| 42 | BU | 0.82 | 3/787 (0.4%) | 0.58 | 0/1051 |
| 43 | BV | 0.92 | 4/766 (0.5%) | 0.56 | 0/1025 |
| 44 | BW | 0.64 | 1/587 (0.2%) | 0.55 | 0/776 |
| 45 | BX | 0.77 | 2/635 (0.3%) | 0.55 | 0/848 |
| 46 | BY | 0.30 | 0/502 | 0.45 | 0/667 |
| 47 | BZ | 0.84 | 2/453 (0.4%) | 0.54 | 0/605 |
| 48 | B0 | 0.65 | 1/450 (0.2%) | 0.58 | 0/599 |
| 49 | B1 | 0.92 | 2/421 (0.5%) | 0.60 | 0/561 |
| 50 | B2 | 0.75 | 1/380 (0.3%) | 0.56 | 0/498 |
| 51 | B3 | 1.13 | 4/513 (0.8%) | 0.61 | 0/676 |
| 52 | B4 | 0.79 | 1/303 (0.3%) | 0.55 | 0/397 |
| 53 | B5 | 1.33 | 2/151 (1.3%) | 0.90 | 1/205 (0.5%) |
| 54 | B7 | 1.51 | 6/212 (2.8%) | 2.52 | 12/328 (3.7%) |
| 55 | B8 | 1.53 | 41/1765 (2.3%) | 3.06 | 169/2750 (6.1%) |
| All | All | 1.38 | 3927/155689 (2.5%) | 2.93 | 12263/232920 (5.3%) |

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 2 | AB | 0 | 2 |
| 7 | AG | 0 | 1 |
| 29 | BH | 0 | 2 |
| 43 | BV | 0 | 1 |
| All | All | 0 | 6 |

All (3927) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2449 | U | C5-C6 | 23.39 | 1.55 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 55 | B8 | 20 | U | C5-C6 | 22.49 | 1.54 | 1.34 |
| 10 | AJ | 41 | PRO | N-CD | 12.96 | 1.66 | 1.47 |
| 7 | AG | 2 | PRO | N-CD | 12.92 | 1.66 | 1.47 |
| 21 | AU | 2 | PRO | N-CD | 12.52 | 1.65 | 1.47 |
| 51 | B3 | 63 | PRO | N-CD | 12.17 | 1.64 | 1.47 |
| 12 | AL | 45 | PRO | N-CD | 12.15 | 1.64 | 1.47 |
| 24 | BC | 11 | PRO | N-CD | 12.09 | 1.64 | 1.47 |
| 10 | AJ | 39 | PRO | N-CD | 12.08 | 1.64 | 1.47 |
| 29 | BH | 118 | PRO | N-CD | 12.04 | 1.64 | 1.47 |
| 25 | BD | 152 | PRO | N-CD | 12.02 | 1.64 | 1.47 |
| 39 | BR | 52 | PRO | N-CD | 12.01 | 1.64 | 1.47 |
| 28 | BG | 156 | PRO | N-CD | 11.95 | 1.64 | 1.47 |
| 24 | BC | 8 | PRO | N-CD | 11.93 | 1.64 | 1.47 |
| 11 | AK | 117 | PRO | N-CD | 11.89 | 1.64 | 1.47 |
| 3 | AC | 174 | PRO | N-CD | 11.83 | 1.64 | 1.47 |
| 8 | AH | 93 | PRO | N-CD | 11.80 | 1.64 | 1.47 |
| 2 | AB | 29 | PRO | N-CD | 11.80 | 1.64 | 1.47 |
| 27 | BF | 84 | PRO | N-CD | 11.79 | 1.64 | 1.47 |
| 7 | AG | 14 | PRO | N-CD | 11.78 | 1.64 | 1.47 |
| 51 | B3 | 2 | PRO | N-CD | 11.77 | 1.64 | 1.47 |
| 13 | AM | 115 | PRO | N-CD | 11.76 | 1.64 | 1.47 |
| 33 | BL | 8 | PRO | N-CD | 11.75 | 1.64 | 1.47 |
| 5 | AE | 150 | PRO | N-CD | 11.74 | 1.64 | 1.47 |
| 21 | AU | 11 | PRO | N-CD | 11.72 | 1.64 | 1.47 |
| 8 | AH | 6 | PRO | N-CD | 11.72 | 1.64 | 1.47 |
| 10 | AJ | 79 | PRO | N-CD | 11.72 | 1.64 | 1.47 |
| 50 | B2 | 7 | PRO | N-CD | 11.67 | 1.64 | 1.47 |
| 40 | BS | 87 | PRO | N-CD | 11.61 | 1.64 | 1.47 |
| 25 | BD | 23 | PRO | N-CD | 11.60 | 1.64 | 1.47 |
| 35 | BN | 85 | PRO | N-CD | 11.60 | 1.64 | 1.47 |
| 5 | AE | 98 | PRO | N-CD | 11.59 | 1.64 | 1.47 |
| 36 | BO | 32 | PRO | N-CD | 11.56 | 1.64 | 1.47 |
| 20 | AT | 56 | PRO | N-CD | 11.56 | 1.64 | 1.47 |
| 3 | AC | 17 | PRO | N-CD | 11.55 | 1.64 | 1.47 |
| 2 | AB | 48 | PRO | N-CD | 11.55 | 1.64 | 1.47 |
| 7 | AG | 71 | PRO | N-CD | 11.54 | 1.64 | 1.47 |
| 4 | AD | 38 | PRO | N-CD | 11.53 | 1.64 | 1.47 |
| 43 | BV | 84 | PRO | N-CD | 11.51 | 1.64 | 1.47 |
| 24 | BC | 29 | PRO | N-CD | 11.50 | 1.64 | 1.47 |
| 53 | B5 | 24 | PRO | N-CD | 11.49 | 1.64 | 1.47 |
| 14 | AN | 52 | PRO | N-CD | 11.49 | 1.64 | 1.47 |
| 34 | BM | 69 | PRO | N-CD | 11.49 | 1.64 | 1.47 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 42 | BU | 48 | PRO | N-CD | 11.48 | 1.64 | 1.47 |
| 28 | BG | 118 | PRO | N-CD | 11.45 | 1.63 | 1.47 |
| 2 | AB | 193 | PRO | N-CD | 11.45 | 1.63 | 1.47 |
| 28 | BG | 154 | PRO | N-CD | 11.45 | 1.63 | 1.47 |
| 24 | BC | 247 | PRO | N-CD | 11.44 | 1.63 | 1.47 |
| 41 | BT | 14 | PRO | N-CD | 11.42 | 1.63 | 1.47 |
| 14 | AN | 57 | PRO | N-CD | 11.41 | 1.63 | 1.47 |
| 11 | AK | 89 | PRO | N-CD | 11.39 | 1.63 | 1.47 |
| 42 | BU | 55 | PRO | N-CD | 11.39 | 1.63 | 1.47 |
| 44 | BW | 74 | PRO | N-CD | 11.38 | 1.63 | 1.47 |
| 49 | B1 | 31 | PRO | N-CD | 11.38 | 1.63 | 1.47 |
| 3 | AC | 109 | PRO | N-CD | 11.38 | 1.63 | 1.47 |
| 6 | AF | 67 | PRO | N-CD | 11.33 | 1.63 | 1.47 |
| 24 | BC | 85 | PRO | N-CD | 11.32 | 1.63 | 1.47 |
| 18 | AR | 69 | PRO | N-CD | 11.32 | 1.63 | 1.47 |
| 24 | BC | 126 | PRO | N-CD | 11.32 | 1.63 | 1.47 |
| 2 | AB | 158 | PRO | N-CD | 11.31 | 1.63 | 1.47 |
| 7 | AG | 88 | PRO | N-CD | 11.31 | 1.63 | 1.47 |
| 4 | AD | 7 | PRO | N-CD | 11.30 | 1.63 | 1.47 |
| 28 | BG | 54 | PRO | N-CD | 11.28 | 1.63 | 1.47 |
| 31 | BJ | 137 | PRO | N-CD | 11.27 | 1.63 | 1.47 |
| 26 | BE | 129 | PRO | N-CD | 11.26 | 1.63 | 1.47 |
| 37 | BP | 18 | PRO | N-CD | 11.25 | 1.63 | 1.47 |
| 4 | AD | 186 | PRO | N-CD | 11.24 | 1.63 | 1.47 |
| 19 | AS | 42 | PRO | N-CD | 11.23 | 1.63 | 1.47 |
| 27 | BF | 29 | PRO | N-CD | 11.22 | 1.63 | 1.47 |
| 45 | BX | 12 | PRO | N-CD | 11.21 | 1.63 | 1.47 |
| 32 | BK | 102 | PRO | N-CD | 11.20 | 1.63 | 1.47 |
| 4 | AD | 46 | PRO | N-CD | 11.20 | 1.63 | 1.47 |
| 37 | BP | 22 | PRO | N-CD | 11.19 | 1.63 | 1.47 |
| 11 | AK | 91 | PRO | N-CD | 11.19 | 1.63 | 1.47 |
| 3 | AC | 7 | PRO | N-CD | 11.16 | 1.63 | 1.47 |
| 12 | AL | 22 | PRO | N-CD | 11.16 | 1.63 | 1.47 |
| 8 | AH | 28 | PRO | N-CD | 11.15 | 1.63 | 1.47 |
| 13 | AM | 96 | PRO | N-CD | 11.15 | 1.63 | 1.47 |
| 9 | AI | 23 | PRO | N-CD | 11.14 | 1.63 | 1.47 |
| 31 | BJ | 97 | PRO | N-CD | 11.14 | 1.63 | 1.47 |
| 51 | B3 | 46 | PRO | N-CD | 11.13 | 1.63 | 1.47 |
| 34 | BM | 72 | PRO | N-CD | 11.12 | 1.63 | 1.47 |
| 34 | BM | 125 | PRO | N-CD | 11.11 | 1.63 | 1.47 |
| 27 | BF | 176 | PRO | N-CD | 11.10 | 1.63 | 1.47 |
| 33 | BL | 62 | PRO | N-CD | 11.10 | 1.63 | 1.47 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 43 | BV | 37 | PRO | N-CD | 11.09 | 1.63 | 1.47 |
| 2 | AB | 201 | PRO | N-CD | 11.09 | 1.63 | 1.47 |
| 11 | AK | 115 | PRO | N-CD | 11.08 | 1.63 | 1.47 |
| 11 | AK | 123 | PRO | N-CD | 11.07 | 1.63 | 1.47 |
| 24 | BC | 75 | PRO | N-CD | 11.06 | 1.63 | 1.47 |
| 43 | BV | 27 | PRO | N-CD | 11.06 | 1.63 | 1.47 |
| 10 | AJ | 43 | PRO | N-CD | 11.04 | 1.63 | 1.47 |
| 14 | AN | 70 | PRO | N-CD | 11.04 | 1.63 | 1.47 |
| 16 | AP | 41 | PRO | N-CD | 11.04 | 1.63 | 1.47 |
| 24 | BC | 32 | PRO | N-CD | 11.04 | 1.63 | 1.47 |
| 28 | BG | 126 | PRO | N-CD | 11.02 | 1.63 | 1.47 |
| 24 | BC | 107 | PRO | N-CD | 11.01 | 1.63 | 1.47 |
| 33 | BL | 119 | PRO | N-CD | 11.00 | 1.63 | 1.47 |
| 7 | AG | 93 | PRO | N-CD | 11.00 | 1.63 | 1.47 |
| 19 | AS | 59 | PRO | N-CD | 11.00 | 1.63 | 1.47 |
| 24 | BC | 22 | PRO | N-CD | 10.99 | 1.63 | 1.47 |
| 25 | BD | 194 | PRO | N-CD | 10.99 | 1.63 | 1.47 |
| 37 | BP | 79 | PRO | N-CD | 10.99 | 1.63 | 1.47 |
| 25 | BD | 63 | PRO | N-CD | 10.97 | 1.63 | 1.47 |
| 5 | AE | 57 | PRO | N-CD | 10.97 | 1.63 | 1.47 |
| 16 | AP | 15 | PRO | N-CD | 10.95 | 1.63 | 1.47 |
| 29 | BH | 32 | PRO | N-CD | 10.94 | 1.63 | 1.47 |
| 5 | AE | 84 | PRO | N-CD | 10.93 | 1.63 | 1.47 |
| 26 | BE | 89 | PRO | N-CD | 10.91 | 1.63 | 1.47 |
| 19 | AS | 30 | PRO | N-CD | 10.91 | 1.63 | 1.47 |
| 3 | AC | 60 | PRO | N-CD | 10.90 | 1.63 | 1.47 |
| 25 | BD | 205 | PRO | N-CD | 10.89 | 1.63 | 1.47 |
| 28 | BG | 112 | PRO | N-CD | 10.89 | 1.63 | 1.47 |
| 42 | BU | 50 | PRO | N-CD | 10.89 | 1.63 | 1.47 |
| 45 | BX | 31 | PRO | N-CD | 10.89 | 1.63 | 1.47 |
| 12 | AL | 42 | PRO | N-CD | 10.89 | 1.63 | 1.47 |
| 17 | AQ | 66 | PRO | N-CD | 10.89 | 1.63 | 1.47 |
| 13 | AM | 112 | PRO | N-CD | 10.88 | 1.63 | 1.47 |
| 2 | AB | 182 | PRO | N-CD | 10.87 | 1.63 | 1.47 |
| 8 | AH | 81 | PRO | N-CD | 10.88 | 1.63 | 1.47 |
| 12 | AL | 91 | PRO | N-CD | 10.88 | 1.63 | 1.47 |
| 30 | BI | 7 | PRO | N-CD | 10.85 | 1.63 | 1.47 |
| 26 | BE | 177 | PRO | N-CD | 10.84 | 1.63 | 1.47 |
| 12 | AL | 28 | PRO | N-CD | 10.84 | 1.63 | 1.47 |
| 33 | BL | 56 | PRO | N-CD | 10.83 | 1.63 | 1.47 |
| 36 | BO | 42 | PRO | N-CD | 10.82 | 1.63 | 1.47 |
| 26 | BE | 76 | PRO | N-CD | 10.81 | 1.62 | 1.47 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 34 | BM | 4 | PRO | N-CD | 10.80 | 1.62 | 1.47 |
| 49 | B1 | 41 | PRO | N-CD | 10.80 | 1.62 | 1.47 |
| 47 | BZ | 42 | PRO | N-CD | 10.80 | 1.62 | 1.47 |
| 2 | AB | 25 | PRO | N-CD | 10.79 | 1.62 | 1.47 |
| 26 | BE | 59 | PRO | N-CD | 10.79 | 1.62 | 1.47 |
| 19 | AS | 9 | PRO | N-CD | 10.79 | 1.62 | 1.47 |
| 19 | AS | 76 | PRO | N-CD | 10.79 | 1.62 | 1.47 |
| 6 | AF | 101 | PRO | N-CD | 10.78 | 1.62 | 1.47 |
| 3 | AC | 98 | PRO | N-CD | 10.77 | 1.62 | 1.47 |
| 4 | AD | 168 | PRO | N-CD | 10.75 | 1.62 | 1.47 |
| 21 | AU | 41 | PRO | N-CD | 10.75 | 1.62 | 1.47 |
| 35 | BN | 39 | PRO | N-CD | 10.75 | 1.62 | 1.47 |
| 24 | BC | 131 | PRO | N-CD | 10.75 | 1.62 | 1.47 |
| 25 | BD | 143 | PRO | N-CD | 10.74 | 1.62 | 1.47 |
| 11 | AK | 124 | PRO | N-CD | 10.72 | 1.62 | 1.47 |
| 31 | BJ | 113 | PRO | N-CD | 10.71 | 1.62 | 1.47 |
| 12 | AL | 122 | PRO | N-CD | 10.70 | 1.62 | 1.47 |
| 30 | BI | 42 | PRO | N-CD | 10.70 | 1.62 | 1.47 |
| 43 | BV | 81 | PRO | N-CD | 10.69 | 1.62 | 1.47 |
| 34 | BM | 109 | PRO | N-CD | 10.68 | 1.62 | 1.47 |
| 32 | BK | 120 | PRO | N-CD | 10.67 | 1.62 | 1.47 |
| 27 | BF | 139 | PRO | N-CD | 10.66 | 1.62 | 1.47 |
| 35 | BN | 109 | PRO | N-CD | 10.66 | 1.62 | 1.47 |
| 52 | B4 | 31 | PRO | N-CD | 10.66 | 1.62 | 1.47 |
| 6 | AF | 50 | PRO | N-CD | 10.64 | 1.62 | 1.47 |
| 11 | AK | 60 | PRO | N-CD | 10.64 | 1.62 | 1.47 |
| 28 | BG | 12 | PRO | N-CD | 10.62 | 1.62 | 1.47 |
| 24 | BC | 148 | PRO | N-CD | 10.62 | 1.62 | 1.47 |
| 34 | BM | 77 | PRO | N-CD | 10.61 | 1.62 | 1.47 |
| 29 | BH | 38 | PRO | N-CD | 10.60 | 1.62 | 1.47 |
| 4 | AD | 139 | PRO | N-CD | 10.60 | 1.62 | 1.47 |
| 6 | AF | 19 | PRO | N-CD | 10.57 | 1.62 | 1.47 |
| 6 | AF | 12 | PRO | N-CD | 10.56 | 1.62 | 1.47 |
| 9 | AI | 51 | PRO | N-CD | 10.56 | 1.62 | 1.47 |
| 24 | BC | 244 | PRO | N-CD | 10.54 | 1.62 | 1.47 |
| 8 | AH | 57 | PRO | N-CD | 10.54 | 1.62 | 1.47 |
| 32 | BK | 72 | PRO | N-CD | 10.52 | 1.62 | 1.47 |
| 35 | BN | 50 | PRO | N-CD | 10.51 | 1.62 | 1.47 |
| 31 | BJ | 110 | PRO | N-CD | 10.48 | 1.62 | 1.47 |
| 27 | BF | 109 | PRO | N-CD | 10.46 | 1.62 | 1.47 |
| 12 | AL | 11 | PRO | N-CD | 10.39 | 1.62 | 1.47 |
| 27 | BF | 65 | PRO | N-CD | 10.38 | 1.62 | 1.47 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 24 | BC | 218 | PRO | N-CD | 10.38 | 1.62 | 1.47 |
| 48 | B0 | 8 | PRO | N-CD | 10.37 | 1.62 | 1.47 |
| 32 | BK | 94 | PRO | N-CD | 10.36 | 1.62 | 1.47 |
| 40 | BS | 80 | PRO | N-CD | 10.35 | 1.62 | 1.47 |
| 18 | AR | 41 | PRO | N-CD | 10.35 | 1.62 | 1.47 |
| 34 | BM | 98 | PRO | N-CD | 10.34 | 1.62 | 1.47 |
| 17 | AQ | 32 | PRO | N-CD | 10.33 | 1.62 | 1.47 |
| 24 | BC | 136 | PRO | N-CD | 10.29 | 1.62 | 1.47 |
| 28 | BG | 8 | PRO | N-CD | 10.27 | 1.62 | 1.47 |
| 9 | AI | 125 | PRO | N-CD | 10.27 | 1.62 | 1.47 |
| 10 | AJ | 55 | PRO | N-CD | 10.27 | 1.62 | 1.47 |
| 14 | AN | 94 | PRO | N-CD | 10.23 | 1.62 | 1.47 |
| 47 | BZ | 18 | PRO | N-CD | 10.19 | 1.62 | 1.47 |
| 13 | AM | 10 | PRO | N-CD | 10.19 | 1.62 | 1.47 |
| 3 | AC | 73 | PRO | N-CD | 10.14 | 1.62 | 1.47 |
| 7 | AG | 16 | PRO | N-CD | 10.14 | 1.62 | 1.47 |
| 32 | BK | 48 | PRO | N-CD | 10.13 | 1.62 | 1.47 |
| 31 | BJ | 46 | PRO | N-CD | 10.12 | 1.62 | 1.47 |
| 22 | BA | 2449 | U | N1-C6 | 10.08 | 1.47 | 1.38 |
| 55 | B8 | 20 | U | N1-C6 | 10.07 | 1.47 | 1.38 |
| 1 | AA | 412 | A | C8-N7 | 10.03 | 1.38 | 1.31 |
| 24 | BC | 227 | PRO | N-CD | 9.99 | 1.61 | 1.47 |
| 5 | AE | 133 | PRO | N-CD | 9.95 | 1.61 | 1.47 |
| 31 | BJ | 8 | PRO | N-CD | 9.90 | 1.61 | 1.47 |
| 22 | BA | 2451 | A | C8-N7 | 9.88 | 1.38 | 1.31 |
| 54 | B7 | 7 | U | O3'-P | -9.82 | 1.49 | 1.61 |
| 24 | BC | 231 | PRO | N-CD | 9.59 | 1.61 | 1.47 |
| 1 | AA | 622 | A | C8-N7 | 9.33 | 1.38 | 1.31 |
| 1 | AA | 1446 | A | C8-N7 | 9.28 | 1.38 | 1.31 |
| 1 | AA | 1004 | A | C8-N7 | 9.26 | 1.38 | 1.31 |
| 1 | AA | 460 | A | C8-N7 | 9.20 | 1.38 | 1.31 |
| 22 | BA | 1847 | A | C8-N7 | 9.17 | 1.38 | 1.31 |
| 1 | AA | 431 | A | C8-N7 | 9.02 | 1.37 | 1.31 |
| 55 | B8 | 20 | U | C4-C5 | 8.97 | 1.51 | 1.43 |
| 1 | AA | 74 | A | C8-N7 | 8.86 | 1.37 | 1.31 |
| 22 | BA | 1848 | A | C8-N7 | 8.86 | 1.37 | 1.31 |
| 1 | AA | 1332 | A | C8-N7 | 8.84 | 1.37 | 1.31 |
| 1 | AA | 274 | A | C8-N7 | 8.80 | 1.37 | 1.31 |
| 51 | B3 | 2 | PRO | N-CA | -8.78 | 1.32 | 1.47 |
| 1 | AA | 1213 | A | C8-N7 | 8.78 | 1.37 | 1.31 |
| 7 | AG | 2 | PRO | N-CA | -8.78 | 1.32 | 1.47 |
| 1 | AA | 253 | A | C8-N7 | 8.77 | 1.37 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 461 | A | C8-N7 | 8.73 | 1.37 | 1.31 |
| 2 | AB | 204 | ASP | CB-CG | -8.66 | 1.33 | 1.51 |
| 1 | AA | 1340 | A | C8-N7 | 8.57 | 1.37 | 1.31 |
| 1 | AA | 1204 | A | C8-N7 | 8.51 | 1.37 | 1.31 |
| 22 | BA | 2872 | A | C8-N7 | 8.51 | 1.37 | 1.31 |
| 22 | BA | 1739 | A | C8-N7 | 8.49 | 1.37 | 1.31 |
| 22 | BA | 2101 | A | C8-N7 | 8.49 | 1.37 | 1.31 |
| 22 | BA | 2117 | A | C8-N7 | 8.45 | 1.37 | 1.31 |
| 22 | BA | 2449 | U | C4-C5 | 8.43 | 1.51 | 1.43 |
| 1 | AA | 996 | A | C8-N7 | 8.42 | 1.37 | 1.31 |
| 1 | AA | 1500 | A | C8-N7 | 8.42 | 1.37 | 1.31 |
| 1 | AA | 1447 | A | C8-N7 | 8.41 | 1.37 | 1.31 |
| 22 | BA | 821 | A | C5-C4 | -8.41 | 1.32 | 1.38 |
| 1 | AA | 152 | A | C8-N7 | 8.39 | 1.37 | 1.31 |
| 21 | AU | 2 | PRO | N-CA | -8.37 | 1.33 | 1.47 |
| 22 | BA | 1077 | A | C8-N7 | 8.37 | 1.37 | 1.31 |
| 1 | AA | 958 | A | C8-N7 | 8.34 | 1.37 | 1.31 |
| 1 | AA | 554 | A | C8-N7 | 8.33 | 1.37 | 1.31 |
| 22 | BA | 1070 | A | C8-N7 | 8.33 | 1.37 | 1.31 |
| 1 | AA | 1239 | A | C8-N7 | 8.32 | 1.37 | 1.31 |
| 22 | BA | 2147 | A | C8-N7 | 8.31 | 1.37 | 1.31 |
| 22 | BA | 2119 | A | C8-N7 | 8.30 | 1.37 | 1.31 |
| 22 | BA | 1420 | A | C8-N7 | 8.29 | 1.37 | 1.31 |
| 1 | AA | 459 | A | C8-N7 | 8.29 | 1.37 | 1.31 |
| 22 | BA | 2430 | A | C8-N7 | 8.29 | 1.37 | 1.31 |
| 22 | BA | 10 | A | C8-N7 | 8.28 | 1.37 | 1.31 |
| 1 | AA | 1130 | A | C8-N7 | 8.28 | 1.37 | 1.31 |
| 1 | AA | 1534 | A | C8-N7 | 8.28 | 1.37 | 1.31 |
| 22 | BA | 2191 | A | C8-N7 | 8.27 | 1.37 | 1.31 |
| 1 | AA | 1005 | A | C8-N7 | 8.27 | 1.37 | 1.31 |
| 22 | BA | 354 | A | C8-N7 | 8.27 | 1.37 | 1.31 |
| 22 | BA | 352 | A | C8-N7 | 8.26 | 1.37 | 1.31 |
| 22 | BA | 959 | A | C5-C4 | -8.25 | 1.32 | 1.38 |
| 1 | AA | 408 | A | C8-N7 | 8.24 | 1.37 | 1.31 |
| 22 | BA | 1080 | A | C8-N7 | 8.24 | 1.37 | 1.31 |
| 1 | AA | 665 | A | C8-N7 | 8.24 | 1.37 | 1.31 |
| 22 | BA | 1603 | A | C5-C4 | -8.24 | 1.32 | 1.38 |
| 1 | AA | 1329 | A | C8-N7 | 8.23 | 1.37 | 1.31 |
| 22 | BA | 1583 | A | C8-N7 | 8.23 | 1.37 | 1.31 |
| 1 | AA | 1044 | A | C8-N7 | 8.22 | 1.37 | 1.31 |
| 22 | BA | 1089 | A | C8-N7 | 8.22 | 1.37 | 1.31 |
| 1 | AA | 196 | A | C8-N7 | 8.21 | 1.37 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1353 | A | C5-C4 | -8.19 | 1.33 | 1.38 |
| 22 | BA | 2171 | A | C8-N7 | 8.19 | 1.37 | 1.31 |
| 1 | AA | 1346 | A | C8-N7 | 8.19 | 1.37 | 1.31 |
| 1 | AA | 1257 | A | C8-N7 | 8.18 | 1.37 | 1.31 |
| 1 | AA | 1179 | A | C8-N7 | 8.18 | 1.37 | 1.31 |
| 22 | BA | 279 | A | C8-N7 | 8.17 | 1.37 | 1.31 |
| 22 | BA | 1434 | A | C8-N7 | 8.17 | 1.37 | 1.31 |
| 1 | AA | 182 | A | C8-N7 | 8.17 | 1.37 | 1.31 |
| 1 | AA | 520 | A | C8-N7 | 8.15 | 1.37 | 1.31 |
| 1 | AA | 1151 | A | C8-N7 | 8.14 | 1.37 | 1.31 |
| 1 | AA | 81 | A | C8-N7 | 8.13 | 1.37 | 1.31 |
| 1 | AA | 171 | A | C8-N7 | 8.13 | 1.37 | 1.31 |
| 1 | AA | 1188 | A | C8-N7 | 8.12 | 1.37 | 1.31 |
| 1 | AA | 1016 | A | C8-N7 | 8.12 | 1.37 | 1.31 |
| 1 | AA | 1042 | A | C8-N7 | 8.11 | 1.37 | 1.31 |
| 1 | AA | 1019 | A | C8-N7 | 8.11 | 1.37 | 1.31 |
| 22 | BA | 1057 | A | C8-N7 | 8.11 | 1.37 | 1.31 |
| 22 | BA | 1050 | A | C8-N7 | 8.10 | 1.37 | 1.31 |
| 1 | AA | 192 | A | C8-N7 | 8.09 | 1.37 | 1.31 |
| 1 | AA | 1377 | A | C8-N7 | 8.08 | 1.37 | 1.31 |
| 22 | BA | 1046 | A | C8-N7 | 8.08 | 1.37 | 1.31 |
| 1 | AA | 1360 | A | C8-N7 | 8.08 | 1.37 | 1.31 |
| 22 | BA | 547 | A | C8-N7 | 8.07 | 1.37 | 1.31 |
| 1 | AA | 371 | A | C8-N7 | 8.06 | 1.37 | 1.31 |
| 1 | AA | 366 | A | C8-N7 | 8.06 | 1.37 | 1.31 |
| 1 | AA | 189 | A | C8-N7 | 8.06 | 1.37 | 1.31 |
| 1 | AA | 195 | A | C8-N7 | 8.05 | 1.37 | 1.31 |
| 1 | AA | 1150 | A | C8-N7 | 8.04 | 1.37 | 1.31 |
| 1 | AA | 452 | A | C8-N7 | 8.04 | 1.37 | 1.31 |
| 1 | AA | 1287 | A | C8-N7 | 8.04 | 1.37 | 1.31 |
| 1 | AA | 1288 | A | C8-N7 | 8.04 | 1.37 | 1.31 |
| 23 | BB | 119 | A | C8-N7 | 8.04 | 1.37 | 1.31 |
| 1 | AA | 1000 | A | C8-N7 | 8.04 | 1.37 | 1.31 |
| 1 | AA | 1299 | A | C8-N7 | 8.03 | 1.37 | 1.31 |
| 22 | BA | 2211 | A | C8-N7 | 8.03 | 1.37 | 1.31 |
| 1 | AA | 389 | A | C8-N7 | 8.03 | 1.37 | 1.31 |
| 1 | AA | 414 | A | C8-N7 | 8.03 | 1.37 | 1.31 |
| 22 | BA | 877 | A | C8-N7 | 8.03 | 1.37 | 1.31 |
| 54 | B7 | 9 | A | C8-N7 | 8.03 | 1.37 | 1.31 |
| 1 | AA | 149 | A | C8-N7 | 8.02 | 1.37 | 1.31 |
| 1 | AA | 393 | A | C8-N7 | 8.02 | 1.37 | 1.31 |
| 22 | BA | 1175 | A | C8-N7 | 8.01 | 1.37 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 1246 | A | C8-N7 | 8.01 | 1.37 | 1.31 |
| 1 | AA | 1250 | A | C8-N7 | 8.01 | 1.37 | 1.31 |
| 22 | BA | 1095 | A | C8-N7 | 8.01 | 1.37 | 1.31 |
| 1 | AA | 1155 | A | C8-N7 | 8.00 | 1.37 | 1.31 |
| 1 | AA | 1227 | A | C8-N7 | 8.00 | 1.37 | 1.31 |
| 1 | AA | 451 | A | C8-N7 | 7.99 | 1.37 | 1.31 |
| 22 | BA | 2564 | A | C5-C4 | -7.99 | 1.33 | 1.38 |
| 1 | AA | 468 | A | C8-N7 | 7.98 | 1.37 | 1.31 |
| 1 | AA | 1145 | A | C8-N7 | 7.98 | 1.37 | 1.31 |
| 22 | BA | 1505 | A | C8-N7 | 7.98 | 1.37 | 1.31 |
| 22 | BA | 899 | A | C8-N7 | 7.97 | 1.37 | 1.31 |
| 22 | BA | 2095 | A | C8-N7 | 7.97 | 1.37 | 1.31 |
| 1 | AA | 1022 | A | C8-N7 | 7.97 | 1.37 | 1.31 |
| 22 | BA | 1069 | A | C8-N7 | 7.97 | 1.37 | 1.31 |
| 22 | BA | 1504 | A | C8-N7 | 7.97 | 1.37 | 1.31 |
| 22 | BA | 1535 | A | C8-N7 | 7.96 | 1.37 | 1.31 |
| 1 | AA | 1318 | A | C8-N7 | 7.96 | 1.37 | 1.31 |
| 22 | BA | 1262 | A | C5-C4 | -7.96 | 1.33 | 1.38 |
| 22 | BA | 1090 | A | C8-N7 | 7.96 | 1.37 | 1.31 |
| 1 | AA | 1014 | A | C8-N7 | 7.95 | 1.37 | 1.31 |
| 22 | BA | 582 | A | C5-C4 | -7.95 | 1.33 | 1.38 |
| 1 | AA | 80 | A | C8-N7 | 7.95 | 1.37 | 1.31 |
| 22 | BA | 1413 | A | C8-N7 | 7.95 | 1.37 | 1.31 |
| 1 | AA | 197 | A | C8-N7 | 7.94 | 1.37 | 1.31 |
| 22 | BA | 878 | A | C8-N7 | 7.94 | 1.37 | 1.31 |
| 1 | AA | 143 | A | C8-N7 | 7.94 | 1.37 | 1.31 |
| 1 | AA | 1492 | A | C8-N7 | 7.94 | 1.37 | 1.31 |
| 22 | BA | 1735 | A | C8-N7 | 7.94 | 1.37 | 1.31 |
| 1 | AA | 1251 | A | C8-N7 | 7.93 | 1.37 | 1.31 |
| 22 | BA | 2169 | A | C8-N7 | 7.93 | 1.37 | 1.31 |
| 22 | BA | 2134 | A | C8-N7 | 7.93 | 1.37 | 1.31 |
| 1 | AA | 1216 | A | C8-N7 | 7.93 | 1.37 | 1.31 |
| 1 | AA | 1280 | A | C8-N7 | 7.93 | 1.37 | 1.31 |
| 1 | AA | 44 | A | C8-N7 | 7.93 | 1.37 | 1.31 |
| 1 | AA | 974 | A | C8-N7 | 7.91 | 1.37 | 1.31 |
| 1 | AA | 1117 | A | C8-N7 | 7.91 | 1.37 | 1.31 |
| 22 | BA | 119 | A | C8-N7 | 7.91 | 1.37 | 1.31 |
| 22 | BA | 666 | A | C5-C4 | -7.90 | 1.33 | 1.38 |
| 1 | AA | 415 | A | C8-N7 | 7.90 | 1.37 | 1.31 |
| 1 | AA | 456 | A | C8-N7 | 7.90 | 1.37 | 1.31 |
| 1 | AA | 872 | A | C8-N7 | 7.89 | 1.37 | 1.31 |
| 1 | AA | 435 | A | C8-N7 | 7.89 | 1.37 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1142 | A | C5-C4 | -7.89 | 1.33 | 1.38 |
| 1 | AA | 493 | A | C8-N7 | 7.89 | 1.37 | 1.31 |
| 22 | BA | 1586 | A | C8-N7 | 7.89 | 1.37 | 1.31 |
| 22 | BA | 2449 | U | C2-N3 | 7.89 | 1.43 | 1.37 |
| 22 | BA | 2602 | A | C8-N7 | 7.88 | 1.37 | 1.31 |
| 1 | AA | 1252 | A | C8-N7 | 7.88 | 1.37 | 1.31 |
| 1 | AA | 546 | A | C8-N7 | 7.88 | 1.37 | 1.31 |
| 22 | BA | 2135 | A | C8-N7 | 7.88 | 1.37 | 1.31 |
| 22 | BA | 1067 | A | C8-N7 | 7.87 | 1.37 | 1.31 |
| 1 | AA | 131 | A | C8-N7 | 7.87 | 1.37 | 1.31 |
| 1 | AA | 179 | A | C8-N7 | 7.87 | 1.37 | 1.31 |
| 1 | AA | 1105 | A | C8-N7 | 7.87 | 1.37 | 1.31 |
| 22 | BA | 1515 | A | C8-N7 | 7.87 | 1.37 | 1.31 |
| 22 | BA | 2749 | A | C8-N7 | 7.87 | 1.37 | 1.31 |
| 1 | AA | 151 | A | C8-N7 | 7.87 | 1.37 | 1.31 |
| 22 | BA | 1503 | A | C8-N7 | 7.87 | 1.37 | 1.31 |
| 1 | AA | 749 | A | C8-N7 | 7.87 | 1.37 | 1.31 |
| 1 | AA | 539 | A | C8-N7 | 7.86 | 1.37 | 1.31 |
| 22 | BA | 735 | A | C5-C4 | -7.86 | 1.33 | 1.38 |
| 1 | AA | 889 | A | C8-N7 | 7.86 | 1.37 | 1.31 |
| 1 | AA | 1238 | A | C8-N7 | 7.86 | 1.37 | 1.31 |
| 1 | AA | 753 | A | C8-N7 | 7.86 | 1.37 | 1.31 |
| 1 | AA | 1274 | A | C8-N7 | 7.86 | 1.37 | 1.31 |
| 22 | BA | 900 | A | C8-N7 | 7.86 | 1.37 | 1.31 |
| 1 | AA | 1333 | A | C8-N7 | 7.86 | 1.37 | 1.31 |
| 22 | BA | 2430 | A | N9-C4 | -7.86 | 1.33 | 1.37 |
| 22 | BA | 2469 | A | C5-C4 | -7.86 | 1.33 | 1.38 |
| 1 | AA | 621 | A | C8-N7 | 7.86 | 1.37 | 1.31 |
| 1 | AA | 1146 | A | C8-N7 | 7.85 | 1.37 | 1.31 |
| 22 | BA | 1096 | A | C8-N7 | 7.85 | 1.37 | 1.31 |
| 1 | AA | 1269 | A | C8-N7 | 7.85 | 1.37 | 1.31 |
| 1 | AA | 66 | A | C8-N7 | 7.85 | 1.37 | 1.31 |
| 1 | AA | 2 | A | C8-N7 | 7.84 | 1.37 | 1.31 |
| 1 | AA | 913 | A | C8-N7 | 7.84 | 1.37 | 1.31 |
| 22 | BA | 2541 | A | C5-C4 | -7.84 | 1.33 | 1.38 |
| 1 | AA | 845 | A | C8-N7 | 7.84 | 1.37 | 1.31 |
| 1 | AA | 1368 | A | C8-N7 | 7.83 | 1.37 | 1.31 |
| 22 | BA | 1086 | A | C8-N7 | 7.83 | 1.37 | 1.31 |
| 1 | AA | 1035 | A | C8-N7 | 7.83 | 1.37 | 1.31 |
| 1 | AA | 71 | A | C8-N7 | 7.83 | 1.37 | 1.31 |
| 1 | AA | 704 | A | C8-N7 | 7.83 | 1.37 | 1.31 |
| 1 | AA | 129 | A | C8-N7 | 7.82 | 1.37 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 978 | A | C8-N7 | 7.82 | 1.37 | 1.31 |
| 22 | BA | 1808 | A | C8-N7 | 7.82 | 1.37 | 1.31 |
| 22 | BA | 2381 | A | C5-C4 | -7.82 | 1.33 | 1.38 |
| 1 | AA | 1349 | A | C8-N7 | 7.82 | 1.37 | 1.31 |
| 22 | BA | 2753 | A | C8-N7 | 7.82 | 1.37 | 1.31 |
| 22 | BA | 1244 | A | C5-C4 | -7.82 | 1.33 | 1.38 |
| 1 | AA | 509 | A | C8-N7 | 7.81 | 1.37 | 1.31 |
| 1 | AA | 1456 | A | C8-N7 | 7.81 | 1.37 | 1.31 |
| 1 | AA | 1 | A | C8-N7 | 7.81 | 1.37 | 1.31 |
| 1 | AA | 60 | A | C8-N7 | 7.81 | 1.37 | 1.31 |
| 22 | BA | 1978 | A | C5-C4 | -7.81 | 1.33 | 1.38 |
| 1 | AA | 353 | A | C8-N7 | 7.81 | 1.37 | 1.31 |
| 1 | AA | 167 | A | C8-N7 | 7.80 | 1.37 | 1.31 |
| 1 | AA | 579 | A | C8-N7 | 7.80 | 1.37 | 1.31 |
| 22 | BA | 2094 | A | C8-N7 | 7.80 | 1.37 | 1.31 |
| 1 | AA | 139 | A | C8-N7 | 7.80 | 1.37 | 1.31 |
| 1 | AA | 1248 | A | C8-N7 | 7.80 | 1.37 | 1.31 |
| 1 | AA | 648 | A | C8-N7 | 7.79 | 1.37 | 1.31 |
| 1 | AA | 1080 | A | C8-N7 | 7.79 | 1.37 | 1.31 |
| 1 | AA | 1311 | A | C8-N7 | 7.79 | 1.37 | 1.31 |
| 22 | BA | 1640 | A | C5-C4 | -7.79 | 1.33 | 1.38 |
| 1 | AA | 243 | A | C8-N7 | 7.79 | 1.37 | 1.31 |
| 22 | BA | 1566 | A | C5-C4 | -7.79 | 1.33 | 1.38 |
| 1 | AA | 747 | A | C8-N7 | 7.79 | 1.36 | 1.31 |
| 22 | BA | 2154 | A | C8-N7 | 7.79 | 1.36 | 1.31 |
| 1 | AA | 465 | A | C5-C4 | -7.78 | 1.33 | 1.38 |
| 1 | AA | 1289 | A | C8-N7 | 7.78 | 1.36 | 1.31 |
| 1 | AA | 466 | A | C8-N7 | 7.78 | 1.36 | 1.31 |
| 1 | AA | 547 | A | C8-N7 | 7.78 | 1.36 | 1.31 |
| 22 | BA | 2309 | A | C8-N7 | 7.78 | 1.36 | 1.31 |
| 1 | AA | 1410 | A | C8-N7 | 7.78 | 1.36 | 1.31 |
| 22 | BA | 1952 | A | C5-C4 | -7.77 | 1.33 | 1.38 |
| 1 | AA | 1169 | A | C8-N7 | 7.77 | 1.36 | 1.31 |
| 22 | BA | 896 | A | C8-N7 | 7.77 | 1.36 | 1.31 |
| 22 | BA | 2170 | A | C8-N7 | 7.77 | 1.36 | 1.31 |
| 22 | BA | 1103 | A | C8-N7 | 7.77 | 1.36 | 1.31 |
| 1 | AA | 1180 | A | C8-N7 | 7.76 | 1.36 | 1.31 |
| 1 | AA | 72 | A | C8-N7 | 7.76 | 1.36 | 1.31 |
| 1 | AA | 959 | A | C8-N7 | 7.76 | 1.36 | 1.31 |
| 1 | AA | 441 | A | C8-N7 | 7.76 | 1.36 | 1.31 |
| 1 | AA | 572 | A | C8-N7 | 7.76 | 1.36 | 1.31 |
| 22 | BA | 556 | A | C5-C4 | -7.76 | 1.33 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 925 | A | C5-C4 | -7.76 | 1.33 | 1.38 |
| 1 | AA | 77 | A | C8-N7 | 7.75 | 1.36 | 1.31 |
| 1 | AA | 600 | A | C8-N7 | 7.75 | 1.36 | 1.31 |
| 1 | AA | 482 | A | C8-N7 | 7.75 | 1.36 | 1.31 |
| 1 | AA | 1441 | A | C8-N7 | 7.75 | 1.36 | 1.31 |
| 22 | BA | 1241 | A | C5-C4 | -7.75 | 1.33 | 1.38 |
| 1 | AA | 374 | A | C8-N7 | 7.75 | 1.36 | 1.31 |
| 22 | BA | 1073 | A | C8-N7 | 7.75 | 1.36 | 1.31 |
| 1 | AA | 172 | A | C8-N7 | 7.75 | 1.36 | 1.31 |
| 22 | BA | 172 | A | C8-N7 | 7.75 | 1.36 | 1.31 |
| 22 | BA | 613 | A | C8-N7 | 7.75 | 1.36 | 1.31 |
| 1 | AA | 223 | A | C8-N7 | 7.75 | 1.36 | 1.31 |
| 1 | AA | 336 | A | C8-N7 | 7.75 | 1.36 | 1.31 |
| 22 | BA | 181 | A | C8-N7 | 7.75 | 1.36 | 1.31 |
| 22 | BA | 1590 | A | C8-N7 | 7.75 | 1.36 | 1.31 |
| 1 | AA | 1152 | A | C8-N7 | 7.74 | 1.36 | 1.31 |
| 22 | BA | 56 | A | C5-C4 | -7.74 | 1.33 | 1.38 |
| 22 | BA | 1509 | A | C8-N7 | 7.74 | 1.36 | 1.31 |
| 22 | BA | 2126 | A | C8-N7 | 7.74 | 1.36 | 1.31 |
| 1 | AA | 363 | A | C8-N7 | 7.73 | 1.36 | 1.31 |
| 22 | BA | 2657 | A | C8-N7 | 7.73 | 1.36 | 1.31 |
| 1 | AA | 640 | A | C8-N7 | 7.73 | 1.36 | 1.31 |
| 1 | AA | 1067 | A | C8-N7 | 7.73 | 1.36 | 1.31 |
| 1 | AA | 1201 | A | C8-N7 | 7.72 | 1.36 | 1.31 |
| 1 | AA | 8 | A | C8-N7 | 7.72 | 1.36 | 1.31 |
| 22 | BA | 272 | A | C8-N7 | 7.72 | 1.36 | 1.31 |
| 1 | AA | 532 | A | C8-N7 | 7.72 | 1.36 | 1.31 |
| 1 | AA | 969 | A | C8-N7 | 7.72 | 1.36 | 1.31 |
| 1 | AA | 1101 | A | C8-N7 | 7.71 | 1.36 | 1.31 |
| 22 | BA | 161 | A | C8-N7 | 7.71 | 1.36 | 1.31 |
| 22 | BA | 892 | A | C8-N7 | 7.71 | 1.36 | 1.31 |
| 1 | AA | 432 | A | C8-N7 | 7.71 | 1.36 | 1.31 |
| 1 | AA | 306 | A | C8-N7 | 7.71 | 1.36 | 1.31 |
| 1 | AA | 496 | A | C8-N7 | 7.71 | 1.36 | 1.31 |
| 1 | AA | 1111 | A | C8-N7 | 7.71 | 1.36 | 1.31 |
| 22 | BA | 1495 | A | C8-N7 | 7.71 | 1.36 | 1.31 |
| 22 | BA | 1028 | A | C5-C4 | -7.71 | 1.33 | 1.38 |
| 22 | BA | 563 | A | C5-C4 | -7.70 | 1.33 | 1.38 |
| 1 | AA | 595 | A | C8-N7 | 7.70 | 1.36 | 1.31 |
| 22 | BA | 342 | A | C8-N7 | 7.70 | 1.36 | 1.31 |
| 22 | BA | 470 | A | C5-C4 | -7.70 | 1.33 | 1.38 |
| 22 | BA | 2042 | A | C5-C4 | -7.69 | 1.33 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 1036 | A | C8-N7 | 7.69 | 1.36 | 1.31 |
| 1 | AA | 1110 | A | C8-N7 | 7.69 | 1.36 | 1.31 |
| 22 | BA | 2163 | A | C8-N7 | 7.68 | 1.36 | 1.31 |
| 1 | AA | 949 | A | C8-N7 | 7.67 | 1.36 | 1.31 |
| 1 | AA | 994 | A | C8-N7 | 7.67 | 1.36 | 1.31 |
| 22 | BA | 532 | A | C5-C4 | -7.67 | 1.33 | 1.38 |
| 1 | AA | 655 | A | C8-N7 | 7.67 | 1.36 | 1.31 |
| 22 | BA | 685 | A | C5-C4 | -7.67 | 1.33 | 1.38 |
| 22 | BA | 1304 | A | C5-C4 | -7.67 | 1.33 | 1.38 |
| 1 | AA | 382 | A | C8-N7 | 7.66 | 1.36 | 1.31 |
| 1 | AA | 535 | A | C8-N7 | 7.66 | 1.36 | 1.31 |
| 1 | AA | 673 | A | C8-N7 | 7.66 | 1.36 | 1.31 |
| 1 | AA | 1157 | A | C8-N7 | 7.66 | 1.36 | 1.31 |
| 22 | BA | 2809 | A | C5-C4 | -7.66 | 1.33 | 1.38 |
| 22 | BA | 391 | A | C5-C4 | -7.66 | 1.33 | 1.38 |
| 1 | AA | 831 | A | C8-N7 | 7.66 | 1.36 | 1.31 |
| 1 | AA | 1285 | A | C8-N7 | 7.66 | 1.36 | 1.31 |
| 22 | BA | 2184 | A | C8-N7 | 7.66 | 1.36 | 1.31 |
| 22 | BA | 2660 | A | C8-N7 | 7.65 | 1.36 | 1.31 |
| 1 | AA | 205 | A | C8-N7 | 7.65 | 1.36 | 1.31 |
| 1 | AA | 315 | A | C8-N7 | 7.65 | 1.36 | 1.31 |
| 1 | AA | 1176 | A | C8-N7 | 7.65 | 1.36 | 1.31 |
| 1 | AA | 1493 | A | C8-N7 | 7.65 | 1.36 | 1.31 |
| 1 | AA | 1219 | A | C8-N7 | 7.64 | 1.36 | 1.31 |
| 1 | AA | 199 | A | C8-N7 | 7.64 | 1.36 | 1.31 |
| 1 | AA | 649 | A | C8-N7 | 7.64 | 1.36 | 1.31 |
| 1 | AA | 1092 | A | C8-N7 | 7.64 | 1.36 | 1.31 |
| 22 | BA | 1532 | A | C8-N7 | 7.64 | 1.36 | 1.31 |
| 22 | BA | 2158 | A | C8-N7 | 7.63 | 1.36 | 1.31 |
| 22 | BA | 2530 | A | C8-N7 | 7.63 | 1.36 | 1.31 |
| 22 | BA | 2176 | A | C8-N7 | 7.63 | 1.36 | 1.31 |
| 1 | AA | 825 | A | C8-N7 | 7.63 | 1.36 | 1.31 |
| 1 | AA | 98 | A | C8-N7 | 7.63 | 1.36 | 1.31 |
| 22 | BA | 668 | A | C5-C4 | -7.63 | 1.33 | 1.38 |
| 22 | BA | 1970 | A | C5-C4 | -7.63 | 1.33 | 1.38 |
| 22 | BA | 1998 | A | C5-C4 | -7.63 | 1.33 | 1.38 |
| 22 | BA | 1609 | A | C5-C4 | -7.63 | 1.33 | 1.38 |
| 22 | BA | 111 | A | C8-N7 | 7.62 | 1.36 | 1.31 |
| 1 | AA | 1093 | A | C8-N7 | 7.62 | 1.36 | 1.31 |
| 22 | BA | 142 | A | C8-N7 | 7.62 | 1.36 | 1.31 |
| 22 | BA | 917 | A | C5-C4 | -7.62 | 1.33 | 1.38 |
| 1 | AA | 983 | A | C8-N7 | 7.62 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1020 | A | C8-N7 | 7.62 | 1.36 | 1.31 |
| 22 | BA | 2600 | A | C5-C4 | -7.62 | 1.33 | 1.38 |
| 22 | BA | 84 | A | C5-C4 | -7.61 | 1.33 | 1.38 |
| 22 | BA | 453 | A | C5-C4 | -7.61 | 1.33 | 1.38 |
| 22 | BA | 2142 | A | C8-N7 | 7.61 | 1.36 | 1.31 |
| 22 | BA | 2459 | A | C5-C4 | -7.61 | 1.33 | 1.38 |
| 1 | AA | 282 | A | C8-N7 | 7.61 | 1.36 | 1.31 |
| 1 | AA | 495 | A | C8-N7 | 7.61 | 1.36 | 1.31 |
| 22 | BA | 1916 | A | C8-N7 | 7.61 | 1.36 | 1.31 |
| 1 | AA | 1275 | A | C8-N7 | 7.61 | 1.36 | 1.31 |
| 1 | AA | 155 | A | C8-N7 | 7.61 | 1.36 | 1.31 |
| 22 | BA | 1508 | A | C8-N7 | 7.61 | 1.36 | 1.31 |
| 22 | BA | 160 | A | C8-N7 | 7.60 | 1.36 | 1.31 |
| 22 | BA | 1322 | A | C5-C4 | -7.60 | 1.33 | 1.38 |
| 22 | BA | 1913 | A | C8-N7 | 7.60 | 1.36 | 1.31 |
| 22 | BA | 2758 | A | C8-N7 | 7.60 | 1.36 | 1.31 |
| 1 | AA | 236 | A | C8-N7 | 7.60 | 1.36 | 1.31 |
| 22 | BA | 1871 | A | C8-N7 | 7.60 | 1.36 | 1.31 |
| 22 | BA | 1205 | A | C8-N7 | 7.59 | 1.36 | 1.31 |
| 22 | BA | 2469 | A | C8-N7 | 7.59 | 1.36 | 1.31 |
| 22 | BA | 165 | A | C8-N7 | 7.59 | 1.36 | 1.31 |
| 22 | BA | 788 | A | C5-C4 | -7.59 | 1.33 | 1.38 |
| 22 | BA | 1392 | A | C5-C4 | -7.59 | 1.33 | 1.38 |
| 1 | AA | 3 | A | C8-N7 | 7.59 | 1.36 | 1.31 |
| 1 | AA | 1362 | A | C8-N7 | 7.58 | 1.36 | 1.31 |
| 22 | BA | 2738 | A | C5-C4 | -7.58 | 1.33 | 1.38 |
| 1 | AA | 120 | A | C8-N7 | 7.58 | 1.36 | 1.31 |
| 1 | AA | 478 | A | C8-N7 | 7.58 | 1.36 | 1.31 |
| 1 | AA | 1021 | A | C8-N7 | 7.58 | 1.36 | 1.31 |
| 22 | BA | 126 | A | C5-C4 | -7.58 | 1.33 | 1.38 |
| 1 | AA | 935 | A | C8-N7 | 7.58 | 1.36 | 1.31 |
| 22 | BA | 1626 | A | C5-C4 | -7.58 | 1.33 | 1.38 |
| 22 | BA | 2020 | A | C5-C4 | -7.58 | 1.33 | 1.38 |
| 1 | AA | 16 | A | C8-N7 | 7.58 | 1.36 | 1.31 |
| 22 | BA | 2406 | A | C8-N7 | 7.58 | 1.36 | 1.31 |
| 1 | AA | 1225 | A | C8-N7 | 7.57 | 1.36 | 1.31 |
| 22 | BA | 362 | A | C8-N7 | 7.57 | 1.36 | 1.31 |
| 22 | BA | 905 | A | C8-N7 | 7.57 | 1.36 | 1.31 |
| 22 | BA | 608 | A | C5-C4 | -7.57 | 1.33 | 1.38 |
| 22 | BA | 1084 | A | C8-N7 | 7.57 | 1.36 | 1.31 |
| 1 | AA | 263 | A | C8-N7 | 7.57 | 1.36 | 1.31 |
| 1 | AA | 1271 | A | C8-N7 | 7.57 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 609 | A | C8-N7 | 7.57 | 1.36 | 1.31 |
| 22 | BA | 2054 | A | C5-C4 | -7.57 | 1.33 | 1.38 |
| 1 | AA | 1171 | A | C8-N7 | 7.56 | 1.36 | 1.31 |
| 22 | BA | 1705 | A | C5-C4 | -7.56 | 1.33 | 1.38 |
| 1 | AA | 1167 | A | C8-N7 | 7.56 | 1.36 | 1.31 |
| 1 | AA | 101 | A | C8-N7 | 7.55 | 1.36 | 1.31 |
| 1 | AA | 279 | A | C8-N7 | 7.55 | 1.36 | 1.31 |
| 1 | AA | 7 | A | C8-N7 | 7.55 | 1.36 | 1.31 |
| 1 | AA | 174 | A | C8-N7 | 7.55 | 1.36 | 1.31 |
| 22 | BA | 1039 | A | C8-N7 | 7.55 | 1.36 | 1.31 |
| 55 | B8 | 76 | A | C5-C4 | -7.54 | 1.33 | 1.38 |
| 1 | AA | 1350 | A | C8-N7 | 7.54 | 1.36 | 1.31 |
| 22 | BA | 1960 | A | C5-C4 | -7.54 | 1.33 | 1.38 |
| 22 | BA | 1427 | A | C8-N7 | 7.54 | 1.36 | 1.31 |
| 1 | AA | 766 | A | C8-N7 | 7.54 | 1.36 | 1.31 |
| 1 | AA | 262 | A | C8-N7 | 7.54 | 1.36 | 1.31 |
| 1 | AA | 411 | A | C8-N7 | 7.54 | 1.36 | 1.31 |
| 22 | BA | 541 | A | C5-C4 | -7.53 | 1.33 | 1.38 |
| 1 | AA | 1256 | A | C8-N7 | 7.52 | 1.36 | 1.31 |
| 22 | BA | 1652 | A | C5-C4 | -7.52 | 1.33 | 1.38 |
| 22 | BA | 347 | A | C8-N7 | 7.51 | 1.36 | 1.31 |
| 22 | BA | 2761 | A | C8-N7 | 7.51 | 1.36 | 1.31 |
| 22 | BA | 910 | A | C5-C4 | -7.51 | 1.33 | 1.38 |
| 1 | AA | 675 | A | C8-N7 | 7.51 | 1.36 | 1.31 |
| 22 | BA | 330 | A | C5-C4 | -7.51 | 1.33 | 1.38 |
| 1 | AA | 583 | A | C8-N7 | 7.51 | 1.36 | 1.31 |
| 22 | BA | 197 | A | C5-C4 | -7.51 | 1.33 | 1.38 |
| 1 | AA | 777 | A | C8-N7 | 7.51 | 1.36 | 1.31 |
| 22 | BA | 299 | A | C5-C4 | -7.51 | 1.33 | 1.38 |
| 22 | BA | 2183 | A | C8-N7 | 7.51 | 1.36 | 1.31 |
| 22 | BA | 572 | A | C5-C4 | -7.50 | 1.33 | 1.38 |
| 1 | AA | 487 | A | C8-N7 | 7.50 | 1.36 | 1.31 |
| 1 | AA | 1254 | A | C8-N7 | 7.50 | 1.36 | 1.31 |
| 1 | AA | 510 | A | C8-N7 | 7.50 | 1.36 | 1.31 |
| 1 | AA | 975 | A | C8-N7 | 7.50 | 1.36 | 1.31 |
| 22 | BA | 282 | A | C8-N7 | 7.50 | 1.36 | 1.31 |
| 22 | BA | 1966 | A | C5-C4 | -7.50 | 1.33 | 1.38 |
| 1 | AA | 1468 | A | C5-C4 | -7.49 | 1.33 | 1.38 |
| 1 | AA | 430 | A | C8-N7 | 7.49 | 1.36 | 1.31 |
| 1 | AA | 523 | A | C8-N7 | 7.49 | 1.36 | 1.31 |
| 22 | BA | 1054 | A | C8-N7 | 7.49 | 1.36 | 1.31 |
| 22 | BA | 794 | A | C5-C4 | -7.49 | 1.33 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 607 | A | C8-N7 | 7.49 | 1.36 | 1.31 |
| 22 | BA | 368 | A | C8-N7 | 7.48 | 1.36 | 1.31 |
| 22 | BA | 716 | A | C8-N7 | 7.48 | 1.36 | 1.31 |
| 22 | BA | 1932 | A | C5-C4 | -7.48 | 1.33 | 1.38 |
| 1 | AA | 1191 | A | C8-N7 | 7.48 | 1.36 | 1.31 |
| 22 | BA | 1048 | A | C8-N7 | 7.48 | 1.36 | 1.31 |
| 22 | BA | 750 | A | C5-C4 | -7.48 | 1.33 | 1.38 |
| 1 | AA | 309 | A | C8-N7 | 7.48 | 1.36 | 1.31 |
| 22 | BA | 1027 | A | C5-C4 | -7.48 | 1.33 | 1.38 |
| 22 | BA | 2060 | A | C5-C4 | -7.47 | 1.33 | 1.38 |
| 1 | AA | 1363 | A | C8-N7 | 7.47 | 1.36 | 1.31 |
| 22 | BA | 155 | A | C8-N7 | 7.47 | 1.36 | 1.31 |
| 1 | AA | 602 | A | C8-N7 | 7.47 | 1.36 | 1.31 |
| 22 | BA | 2013 | A | C5-C4 | -7.47 | 1.33 | 1.38 |
| 1 | AA | 499 | A | C8-N7 | 7.47 | 1.36 | 1.31 |
| 1 | AA | 687 | A | C8-N7 | 7.47 | 1.36 | 1.31 |
| 22 | BA | 195 | A | C8-N7 | 7.47 | 1.36 | 1.31 |
| 22 | BA | 508 | A | C8-N7 | 7.46 | 1.36 | 1.31 |
| 22 | BA | 972 | A | C5-C4 | -7.46 | 1.33 | 1.38 |
| 1 | AA | 1480 | A | C8-N7 | 7.46 | 1.36 | 1.31 |
| 22 | BA | 1593 | A | C8-N7 | 7.46 | 1.36 | 1.31 |
| 22 | BA | 911 | A | C5-C4 | -7.46 | 1.33 | 1.38 |
| 1 | AA | 228 | A | C8-N7 | 7.46 | 1.36 | 1.31 |
| 22 | BA | 670 | A | C5-C4 | -7.46 | 1.33 | 1.38 |
| 22 | BA | 1272 | A | C5-C4 | -7.46 | 1.33 | 1.38 |
| 1 | AA | 792 | A | C5-C4 | -7.46 | 1.33 | 1.38 |
| 13 | AM | 115 | PRO | N-CA | -7.46 | 1.34 | 1.47 |
| 22 | BA | 84 | A | C8-N7 | 7.45 | 1.36 | 1.31 |
| 22 | BA | 2108 | A | C8-N7 | 7.45 | 1.36 | 1.31 |
| 1 | AA | 78 | A | C8-N7 | 7.45 | 1.36 | 1.31 |
| 1 | AA | 681 | A | C8-N7 | 7.45 | 1.36 | 1.31 |
| 1 | AA | 918 | A | C8-N7 | 7.45 | 1.36 | 1.31 |
| 22 | BA | 1490 | A | C8-N7 | 7.45 | 1.36 | 1.31 |
| 22 | BA | 2670 | A | C5-C4 | -7.45 | 1.33 | 1.38 |
| 1 | AA | 1196 | A | C8-N7 | 7.45 | 1.36 | 1.31 |
| 1 | AA | 130 | A | C8-N7 | 7.44 | 1.36 | 1.31 |
| 1 | AA | 815 | A | C8-N7 | 7.44 | 1.36 | 1.31 |
| 22 | BA | 2311 | A | C8-N7 | 7.44 | 1.36 | 1.31 |
| 22 | BA | 2654 | A | C8-N7 | 7.44 | 1.36 | 1.31 |
| 1 | AA | 274 | A | C5-C4 | -7.44 | 1.33 | 1.38 |
| 1 | AA | 238 | A | C8-N7 | 7.44 | 1.36 | 1.31 |
| 1 | AA | 1319 | A | C5-C4 | -7.44 | 1.33 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1040 | A | C8-N7 | 7.44 | 1.36 | 1.31 |
| 22 | BA | 1672 | A | C5-C4 | -7.43 | 1.33 | 1.38 |
| 1 | AA | 767 | A | C5-C4 | -7.43 | 1.33 | 1.38 |
| 1 | AA | 1102 | A | C8-N7 | 7.43 | 1.36 | 1.31 |
| 1 | AA | 321 | A | C8-N7 | 7.42 | 1.36 | 1.31 |
| 1 | AA | 1434 | A | C8-N7 | 7.42 | 1.36 | 1.31 |
| 1 | AA | 270 | A | C8-N7 | 7.42 | 1.36 | 1.31 |
| 22 | BA | 344 | A | C8-N7 | 7.42 | 1.36 | 1.31 |
| 1 | AA | 1046 | A | C8-N7 | 7.42 | 1.36 | 1.31 |
| 22 | BA | 1354 | A | C5-C4 | -7.42 | 1.33 | 1.38 |
| 22 | BA | 1085 | A | C8-N7 | 7.42 | 1.36 | 1.31 |
| 22 | BA | 1717 | A | C8-N7 | 7.42 | 1.36 | 1.31 |
| 1 | AA | 919 | A | C8-N7 | 7.41 | 1.36 | 1.31 |
| 1 | AA | 676 | A | C8-N7 | 7.41 | 1.36 | 1.31 |
| 22 | BA | 2314 | A | C8-N7 | 7.41 | 1.36 | 1.31 |
| 22 | BA | 2435 | A | C5-C4 | -7.41 | 1.33 | 1.38 |
| 23 | BB | 15 | A | C8-N7 | 7.41 | 1.36 | 1.31 |
| 22 | BA | 1419 | A | C8-N7 | 7.41 | 1.36 | 1.31 |
| 22 | BA | 2377 | A | C5-C4 | -7.41 | 1.33 | 1.38 |
| 1 | AA | 729 | A | C8-N7 | 7.41 | 1.36 | 1.31 |
| 22 | BA | 1580 | A | C8-N7 | 7.40 | 1.36 | 1.31 |
| 22 | BA | 2376 | A | C5-C4 | -7.40 | 1.33 | 1.38 |
| 23 | BB | 104 | A | C5-C4 | -7.40 | 1.33 | 1.38 |
| 1 | AA | 119 | A | C8-N7 | 7.40 | 1.36 | 1.31 |
| 22 | BA | 654 | A | C8-N7 | 7.40 | 1.36 | 1.31 |
| 1 | AA | 181 | A | C8-N7 | 7.39 | 1.36 | 1.31 |
| 1 | AA | 1531 | A | C8-N7 | 7.39 | 1.36 | 1.31 |
| 1 | AA | 1413 | A | C8-N7 | 7.39 | 1.36 | 1.31 |
| 23 | BB | 53 | A | C8-N7 | 7.39 | 1.36 | 1.31 |
| 1 | AA | 909 | A | C8-N7 | 7.39 | 1.36 | 1.31 |
| 1 | AA | 663 | A | C8-N7 | 7.39 | 1.36 | 1.31 |
| 1 | AA | 1340 | A | C5-C4 | -7.39 | 1.33 | 1.38 |
| 1 | AA | 1374 | A | C8-N7 | 7.39 | 1.36 | 1.31 |
| 22 | BA | 1151 | A | C5-C4 | -7.39 | 1.33 | 1.38 |
| 23 | BB | 66 | A | C8-N7 | 7.39 | 1.36 | 1.31 |
| 1 | AA | 364 | A | C8-N7 | 7.38 | 1.36 | 1.31 |
| 22 | BA | 1194 | A | C5-C4 | -7.38 | 1.33 | 1.38 |
| 1 | AA | 635 | A | C8-N7 | 7.38 | 1.36 | 1.31 |
| 22 | BA | 255 | A | C5-C4 | -7.38 | 1.33 | 1.38 |
| 22 | BA | 1453 | A | C8-N7 | 7.38 | 1.36 | 1.31 |
| 22 | BA | 504 | A | C8-N7 | 7.38 | 1.36 | 1.31 |
| 1 | AA | 344 | A | C8-N7 | 7.38 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 262 | A | C5-C4 | -7.38 | 1.33 | 1.38 |
| 23 | BB | 34 | A | C8-N7 | 7.38 | 1.36 | 1.31 |
| 22 | BA | 2800 | A | C8-N7 | 7.37 | 1.36 | 1.31 |
| 22 | BA | 1000 | A | C5-C4 | -7.37 | 1.33 | 1.38 |
| 1 | AA | 1324 | A | C8-N7 | 7.37 | 1.36 | 1.31 |
| 22 | BA | 5 | A | C8-N7 | 7.37 | 1.36 | 1.31 |
| 22 | BA | 2635 | A | C5-C4 | -7.37 | 1.33 | 1.38 |
| 22 | BA | 213 | A | C8-N7 | 7.36 | 1.36 | 1.31 |
| 22 | BA | 693 | A | C5-C4 | -7.36 | 1.33 | 1.38 |
| 22 | BA | 1287 | A | C5-C4 | -7.36 | 1.33 | 1.38 |
| 1 | AA | 349 | A | C8-N7 | 7.35 | 1.36 | 1.31 |
| 1 | AA | 298 | A | C8-N7 | 7.35 | 1.36 | 1.31 |
| 25 | BD | 152 | PRO | N-CA | -7.35 | 1.34 | 1.47 |
| 1 | AA | 878 | A | C8-N7 | 7.35 | 1.36 | 1.31 |
| 1 | AA | 325 | A | C8-N7 | 7.35 | 1.36 | 1.31 |
| 1 | AA | 1236 | A | C8-N7 | 7.35 | 1.36 | 1.31 |
| 22 | BA | 270 | A | C8-N7 | 7.35 | 1.36 | 1.31 |
| 1 | AA | 246 | A | C8-N7 | 7.34 | 1.36 | 1.31 |
| 1 | AA | 1082 | A | C8-N7 | 7.34 | 1.36 | 1.31 |
| 22 | BA | 2471 | A | C5-C4 | -7.34 | 1.33 | 1.38 |
| 1 | AA | 448 | A | C8-N7 | 7.34 | 1.36 | 1.31 |
| 1 | AA | 712 | A | C8-N7 | 7.34 | 1.36 | 1.31 |
| 22 | BA | 415 | A | C5-C4 | -7.34 | 1.33 | 1.38 |
| 22 | BA | 1502 | A | C8-N7 | 7.34 | 1.36 | 1.31 |
| 22 | BA | 1549 | A | C5-C4 | -7.34 | 1.33 | 1.38 |
| 1 | AA | 465 | A | C8-N7 | 7.33 | 1.36 | 1.31 |
| 1 | AA | 1507 | A | C8-N7 | 7.33 | 1.36 | 1.31 |
| 22 | BA | 309 | A | C5-C4 | -7.33 | 1.33 | 1.38 |
| 22 | BA | 2542 | A | C5-C4 | -7.33 | 1.33 | 1.38 |
| 22 | BA | 1889 | A | C8-N7 | 7.33 | 1.36 | 1.31 |
| 1 | AA | 303 | A | C8-N7 | 7.33 | 1.36 | 1.31 |
| 22 | BA | 278 | A | C8-N7 | 7.33 | 1.36 | 1.31 |
| 22 | BA | 2750 | A | C8-N7 | 7.33 | 1.36 | 1.31 |
| 23 | BB | 115 | A | C8-N7 | 7.32 | 1.36 | 1.31 |
| 22 | BA | 348 | A | C8-N7 | 7.32 | 1.36 | 1.31 |
| 22 | BA | 1156 | A | C5-C4 | -7.32 | 1.33 | 1.38 |
| 22 | BA | 1596 | A | C8-N7 | 7.32 | 1.36 | 1.31 |
| 1 | AA | 1513 | A | C8-N7 | 7.32 | 1.36 | 1.31 |
| 1 | AA | 327 | A | C8-N7 | 7.32 | 1.36 | 1.31 |
| 22 | BA | 909 | A | C5-C4 | -7.32 | 1.33 | 1.38 |
| 22 | BA | 2781 | A | C5-C4 | -7.32 | 1.33 | 1.38 |
| 1 | AA | 946 | A | C8-N7 | 7.32 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 715 | A | C8-N7 | 7.32 | 1.36 | 1.31 |
| 22 | BA | 2482 | A | C5-C4 | -7.32 | 1.33 | 1.38 |
| 1 | AA | 1375 | A | C8-N7 | 7.31 | 1.36 | 1.31 |
| 22 | BA | 825 | A | C5-C4 | -7.31 | 1.33 | 1.38 |
| 22 | BA | 996 | A | C5-C4 | -7.31 | 1.33 | 1.38 |
| 22 | BA | 1169 | A | C8-N7 | 7.31 | 1.36 | 1.31 |
| 22 | BA | 1383 | A | C8-N7 | 7.31 | 1.36 | 1.31 |
| 22 | BA | 507 | A | C8-N7 | 7.31 | 1.36 | 1.31 |
| 22 | BA | 1264 | A | C5-C4 | -7.31 | 1.33 | 1.38 |
| 22 | BA | 213 | A | C5-C4 | -7.31 | 1.33 | 1.38 |
| 22 | BA | 2173 | A | C8-N7 | 7.31 | 1.36 | 1.31 |
| 22 | BA | 2468 | A | C5-C4 | -7.31 | 1.33 | 1.38 |
| 22 | BA | 2900 | A | C8-N7 | 7.31 | 1.36 | 1.31 |
| 1 | AA | 250 | A | C8-N7 | 7.31 | 1.36 | 1.31 |
| 1 | AA | 461 | A | N3-C4 | 7.30 | 1.39 | 1.34 |
| 1 | AA | 1398 | A | C8-N7 | 7.30 | 1.36 | 1.31 |
| 22 | BA | 199 | A | C5-C4 | -7.30 | 1.33 | 1.38 |
| 22 | BA | 1821 | A | C5-C4 | -7.30 | 1.33 | 1.38 |
| 22 | BA | 2792 | A | C8-N7 | 7.30 | 1.36 | 1.31 |
| 22 | BA | 223 | A | C5-C4 | -7.30 | 1.33 | 1.38 |
| 1 | AA | 1306 | A | C8-N7 | 7.29 | 1.36 | 1.31 |
| 1 | AA | 1163 | A | C8-N7 | 7.29 | 1.36 | 1.31 |
| 22 | BA | 632 | A | C5-C4 | -7.29 | 1.33 | 1.38 |
| 22 | BA | 1858 | A | C5-C4 | -7.29 | 1.33 | 1.38 |
| 1 | AA | 313 | A | C8-N7 | 7.29 | 1.36 | 1.31 |
| 22 | BA | 2003 | A | C5-C4 | -7.29 | 1.33 | 1.38 |
| 1 | AA | 65 | A | C8-N7 | 7.29 | 1.36 | 1.31 |
| 1 | AA | 642 | A | C8-N7 | 7.29 | 1.36 | 1.31 |
| 22 | BA | 721 | A | C8-N7 | 7.28 | 1.36 | 1.31 |
| 22 | BA | 792 | A | C5-C4 | -7.28 | 1.33 | 1.38 |
| 22 | BA | 1591 | A | C8-N7 | 7.28 | 1.36 | 1.31 |
| 1 | AA | 728 | A | C8-N7 | 7.28 | 1.36 | 1.31 |
| 1 | AA | 706 | A | C8-N7 | 7.28 | 1.36 | 1.31 |
| 22 | BA | 2453 | A | C5-C4 | -7.28 | 1.33 | 1.38 |
| 22 | BA | 2700 | A | C5-C4 | -7.28 | 1.33 | 1.38 |
| 22 | BA | 793 | A | C5-C4 | -7.27 | 1.33 | 1.38 |
| 22 | BA | 1749 | A | C8-N7 | 7.27 | 1.36 | 1.31 |
| 22 | BA | 1098 | A | C8-N7 | 7.27 | 1.36 | 1.31 |
| 22 | BA | 1579 | A | C8-N7 | 7.27 | 1.36 | 1.31 |
| 22 | BA | 1494 | A | C8-N7 | 7.27 | 1.36 | 1.31 |
| 22 | BA | 1759 | A | C5-C4 | -7.27 | 1.33 | 1.38 |
| 22 | BA | 1762 | A | C5-C4 | -7.27 | 1.33 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2748 | A | C8-N7 | 7.27 | 1.36 | 1.31 |
| 1 | AA | 109 | A | C8-N7 | 7.26 | 1.36 | 1.31 |
| 1 | AA | 160 | A | C8-N7 | 7.26 | 1.36 | 1.31 |
| 22 | BA | 1936 | A | C5-C4 | -7.26 | 1.33 | 1.38 |
| 1 | AA | 1261 | A | C8-N7 | 7.26 | 1.36 | 1.31 |
| 22 | BA | 1632 | A | C5-C4 | -7.26 | 1.33 | 1.38 |
| 1 | AA | 1229 | A | C8-N7 | 7.26 | 1.36 | 1.31 |
| 22 | BA | 2198 | A | C8-N7 | 7.26 | 1.36 | 1.31 |
| 1 | AA | 964 | A | C8-N7 | 7.26 | 1.36 | 1.31 |
| 22 | BA | 599 | A | C5-C4 | -7.25 | 1.33 | 1.38 |
| 22 | BA | 727 | A | C5-C4 | -7.25 | 1.33 | 1.38 |
| 1 | AA | 553 | A | C8-N7 | 7.25 | 1.36 | 1.31 |
| 22 | BA | 2764 | A | C8-N7 | 7.25 | 1.36 | 1.31 |
| 22 | BA | 460 | A | C5-C4 | -7.25 | 1.33 | 1.38 |
| 22 | BA | 2433 | A | C5-C4 | -7.25 | 1.33 | 1.38 |
| 22 | BA | 2670 | A | C8-N7 | 7.25 | 1.36 | 1.31 |
| 22 | BA | 222 | A | C5-C4 | -7.25 | 1.33 | 1.38 |
| 22 | BA | 227 | A | C5-C4 | -7.24 | 1.33 | 1.38 |
| 22 | BA | 609 | A | C5-C4 | -7.24 | 1.33 | 1.38 |
| 23 | BB | 58 | A | C8-N7 | 7.24 | 1.36 | 1.31 |
| 1 | AA | 694 | A | C8-N7 | 7.24 | 1.36 | 1.31 |
| 22 | BA | 44 | A | C8-N7 | 7.24 | 1.36 | 1.31 |
| 1 | AA | 320 | A | C8-N7 | 7.24 | 1.36 | 1.31 |
| 1 | AA | 915 | A | C8-N7 | 7.24 | 1.36 | 1.31 |
| 1 | AA | 502 | A | C8-N7 | 7.24 | 1.36 | 1.31 |
| 1 | AA | 608 | A | C8-N7 | 7.24 | 1.36 | 1.31 |
| 22 | BA | 1285 | A | C8-N7 | 7.24 | 1.36 | 1.31 |
| 22 | BA | 176 | A | C5-C4 | -7.23 | 1.33 | 1.38 |
| 22 | BA | 1342 | A | C5-C4 | -7.23 | 1.33 | 1.38 |
| 22 | BA | 643 | A | C5-C4 | -7.23 | 1.33 | 1.38 |
| 22 | BA | 1496 | A | C8-N7 | 7.23 | 1.36 | 1.31 |
| 22 | BA | 734 | A | C5-C4 | -7.23 | 1.33 | 1.38 |
| 22 | BA | 1722 | A | C8-N7 | 7.23 | 1.36 | 1.31 |
| 22 | BA | 1809 | A | C5-C4 | -7.23 | 1.33 | 1.38 |
| 1 | AA | 26 | A | C8-N7 | 7.23 | 1.36 | 1.31 |
| 22 | BA | 1570 | A | C5-C4 | -7.23 | 1.33 | 1.38 |
| 22 | BA | 1111 | A | C8-N7 | 7.23 | 1.36 | 1.31 |
| 1 | AA | 702 | A | C8-N7 | 7.22 | 1.36 | 1.31 |
| 23 | BB | 45 | A | C8-N7 | 7.22 | 1.36 | 1.31 |
| 1 | AA | 1055 | A | C8-N7 | 7.22 | 1.36 | 1.31 |
| 22 | BA | 94 | A | C8-N7 | 7.22 | 1.36 | 1.31 |
| 22 | BA | 2879 | A | C5-C4 | -7.22 | 1.33 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 784 | A | C8-N7 | 7.22 | 1.36 | 1.31 |
| 1 | AA | 860 | A | C8-N7 | 7.22 | 1.36 | 1.31 |
| 1 | AA | 1012 | A | C8-N7 | 7.22 | 1.36 | 1.31 |
| 22 | BA | 1938 | A | C5-C4 | -7.22 | 1.33 | 1.38 |
| 22 | BA | 2534 | A | C8-N7 | 7.22 | 1.36 | 1.31 |
| 22 | BA | 621 | A | C8-N7 | 7.21 | 1.36 | 1.31 |
| 22 | BA | 2033 | A | C8-N7 | 7.21 | 1.36 | 1.31 |
| 1 | AA | 19 | A | C8-N7 | 7.21 | 1.36 | 1.31 |
| 22 | BA | 984 | A | C5-C4 | -7.21 | 1.33 | 1.38 |
| 1 | AA | 59 | A | C8-N7 | 7.21 | 1.36 | 1.31 |
| 22 | BA | 19 | A | C5-C4 | -7.21 | 1.33 | 1.38 |
| 22 | BA | 730 | A | C5-C4 | -7.21 | 1.33 | 1.38 |
| 22 | BA | 1866 | A | C8-N7 | 7.21 | 1.36 | 1.31 |
| 22 | BA | 2009 | A | C5-C4 | -7.20 | 1.33 | 1.38 |
| 22 | BA | 2726 | A | C8-N7 | 7.20 | 1.36 | 1.31 |
| 1 | AA | 596 | A | C8-N7 | 7.20 | 1.36 | 1.31 |
| 22 | BA | 575 | A | C5-C4 | -7.20 | 1.33 | 1.38 |
| 1 | AA | 937 | A | C8-N7 | 7.20 | 1.36 | 1.31 |
| 1 | AA | 50 | A | C8-N7 | 7.20 | 1.36 | 1.31 |
| 1 | AA | 782 | A | C8-N7 | 7.20 | 1.36 | 1.31 |
| 22 | BA | 2317 | A | C8-N7 | 7.20 | 1.36 | 1.31 |
| 22 | BA | 322 | A | C8-N7 | 7.19 | 1.36 | 1.31 |
| 22 | BA | 439 | A | C8-N7 | 7.19 | 1.36 | 1.31 |
| 22 | BA | 454 | A | C8-N7 | 7.19 | 1.36 | 1.31 |
| 1 | AA | 10 | A | C8-N7 | 7.19 | 1.36 | 1.31 |
| 22 | BA | 207 | A | C5-C4 | -7.19 | 1.33 | 1.38 |
| 22 | BA | 2471 | A | C8-N7 | 7.19 | 1.36 | 1.31 |
| 23 | BB | 46 | A | C8-N7 | 7.19 | 1.36 | 1.31 |
| 23 | BB | 108 | A | C8-N7 | 7.19 | 1.36 | 1.31 |
| 22 | BA | 404 | A | C8-N7 | 7.19 | 1.36 | 1.31 |
| 1 | AA | 51 | A | C8-N7 | 7.18 | 1.36 | 1.31 |
| 22 | BA | 592 | A | C5-C4 | -7.18 | 1.33 | 1.38 |
| 22 | BA | 603 | A | C8-N7 | 7.18 | 1.36 | 1.31 |
| 22 | BA | 866 | A | C5-C4 | -7.18 | 1.33 | 1.38 |
| 22 | BA | 1155 | A | C5-C4 | -7.18 | 1.33 | 1.38 |
| 22 | BA | 1690 | A | C5-C4 | -7.18 | 1.33 | 1.38 |
| 22 | BA | 2679 | A | C5-C4 | -7.18 | 1.33 | 1.38 |
| 22 | BA | 603 | A | C5-C4 | -7.18 | 1.33 | 1.38 |
| 22 | BA | 2572 | A | C5-C4 | -7.18 | 1.33 | 1.38 |
| 22 | BA | 324 | A | C5-C4 | -7.18 | 1.33 | 1.38 |
| 22 | BA | 382 | A | C5-C4 | -7.18 | 1.33 | 1.38 |
| 1 | AA | 906 | A | C8-N7 | 7.17 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 752 | A | C8-N7 | 7.17 | 1.36 | 1.31 |
| 22 | BA | 2058 | A | C5-C4 | -7.17 | 1.33 | 1.38 |
| 22 | BA | 676 | A | C5-C4 | -7.17 | 1.33 | 1.38 |
| 23 | BB | 109 | A | C8-N7 | 7.17 | 1.36 | 1.31 |
| 1 | AA | 560 | A | C8-N7 | 7.17 | 1.36 | 1.31 |
| 22 | BA | 2090 | A | C5-C4 | -7.17 | 1.33 | 1.38 |
| 22 | BA | 2820 | A | C8-N7 | 7.16 | 1.36 | 1.31 |
| 22 | BA | 1794 | A | C5-C4 | -7.16 | 1.33 | 1.38 |
| 22 | BA | 644 | A | C5-C4 | -7.16 | 1.33 | 1.38 |
| 22 | BA | 1987 | A | C5-C4 | -7.16 | 1.33 | 1.38 |
| 22 | BA | 2675 | A | C5-C4 | -7.16 | 1.33 | 1.38 |
| 22 | BA | 2821 | A | C5-C4 | -7.16 | 1.33 | 1.38 |
| 22 | BA | 2835 | A | C5-C4 | -7.16 | 1.33 | 1.38 |
| 1 | AA | 338 | A | C8-N7 | 7.16 | 1.36 | 1.31 |
| 1 | AA | 1396 | A | C8-N7 | 7.16 | 1.36 | 1.31 |
| 1 | AA | 161 | A | C8-N7 | 7.15 | 1.36 | 1.31 |
| 22 | BA | 2740 | A | C5-C4 | -7.15 | 1.33 | 1.38 |
| 22 | BA | 2478 | A | C5-C4 | -7.15 | 1.33 | 1.38 |
| 22 | BA | 1789 | A | C5-C4 | -7.15 | 1.33 | 1.38 |
| 22 | BA | 1088 | A | C8-N7 | 7.15 | 1.36 | 1.31 |
| 22 | BA | 1664 | A | C5-C4 | -7.15 | 1.33 | 1.38 |
| 22 | BA | 2097 | A | C8-N7 | 7.15 | 1.36 | 1.31 |
| 22 | BA | 2059 | A | C8-N7 | 7.14 | 1.36 | 1.31 |
| 22 | BA | 2736 | A | C8-N7 | 7.14 | 1.36 | 1.31 |
| 1 | AA | 411 | A | C5-C4 | -7.14 | 1.33 | 1.38 |
| 1 | AA | 629 | A | C8-N7 | 7.14 | 1.36 | 1.31 |
| 22 | BA | 614 | A | C8-N7 | 7.14 | 1.36 | 1.31 |
| 22 | BA | 346 | A | C8-N7 | 7.14 | 1.36 | 1.31 |
| 22 | BA | 1419 | A | C5-C4 | -7.14 | 1.33 | 1.38 |
| 22 | BA | 1129 | A | C5-C4 | -7.14 | 1.33 | 1.38 |
| 22 | BA | 2080 | A | C5-C4 | -7.14 | 1.33 | 1.38 |
| 1 | AA | 968 | A | C8-N7 | 7.13 | 1.36 | 1.31 |
| 1 | AA | 923 | A | C8-N7 | 7.13 | 1.36 | 1.31 |
| 22 | BA | 1755 | A | C5-C4 | -7.13 | 1.33 | 1.38 |
| 22 | BA | 1230 | A | C5-C4 | -7.13 | 1.33 | 1.38 |
| 22 | BA | 1754 | A | N3-C4 | 7.13 | 1.39 | 1.34 |
| 22 | BA | 146 | A | C8-N7 | 7.13 | 1.36 | 1.31 |
| 22 | BA | 1885 | A | C8-N7 | 7.12 | 1.36 | 1.31 |
| 22 | BA | 2451 | A | N3-C4 | 7.12 | 1.39 | 1.34 |
| 22 | BA | 1918 | A | C8-N7 | 7.12 | 1.36 | 1.31 |
| 22 | BA | 423 | A | C8-N7 | 7.12 | 1.36 | 1.31 |
| 22 | BA | 637 | A | C8-N7 | 7.12 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 28 | A | C5-C4 | -7.11 | 1.33 | 1.38 |
| 22 | BA | 1525 | A | C5-C4 | -7.11 | 1.33 | 1.38 |
| 22 | BA | 2899 | A | C8-N7 | 7.11 | 1.36 | 1.31 |
| 22 | BA | 920 | A | C5-C4 | -7.11 | 1.33 | 1.38 |
| 22 | BA | 1805 | A | C5-C4 | -7.11 | 1.33 | 1.38 |
| 22 | BA | 1858 | A | C8-N7 | 7.11 | 1.36 | 1.31 |
| 22 | BA | 749 | A | C5-C4 | -7.11 | 1.33 | 1.38 |
| 1 | AA | 1408 | A | C8-N7 | 7.11 | 1.36 | 1.31 |
| 22 | BA | 2634 | A | C5-C4 | -7.11 | 1.33 | 1.38 |
| 22 | BA | 1378 | A | C5-C4 | -7.10 | 1.33 | 1.38 |
| 1 | AA | 1394 | A | C8-N7 | 7.10 | 1.36 | 1.31 |
| 23 | BB | 50 | A | C8-N7 | 7.10 | 1.36 | 1.31 |
| 1 | AA | 1508 | A | C8-N7 | 7.10 | 1.36 | 1.31 |
| 22 | BA | 231 | A | C5-C4 | -7.10 | 1.33 | 1.38 |
| 22 | BA | 742 | A | C5-C4 | -7.10 | 1.33 | 1.38 |
| 22 | BA | 1635 | A | C5-C4 | -7.10 | 1.33 | 1.38 |
| 1 | AA | 28 | A | C8-N7 | 7.10 | 1.36 | 1.31 |
| 22 | BA | 789 | A | C5-C4 | -7.10 | 1.33 | 1.38 |
| 22 | BA | 1359 | A | C5-C4 | -7.10 | 1.33 | 1.38 |
| 23 | BB | 73 | A | C5-C4 | -7.10 | 1.33 | 1.38 |
| 22 | BA | 980 | A | C5-C4 | -7.10 | 1.33 | 1.38 |
| 22 | BA | 144 | A | C5-C4 | -7.09 | 1.33 | 1.38 |
| 1 | AA | 630 | A | C8-N7 | 7.09 | 1.36 | 1.31 |
| 22 | BA | 2346 | A | C8-N7 | 7.09 | 1.36 | 1.31 |
| 1 | AA | 787 | A | C5-C4 | -7.09 | 1.33 | 1.38 |
| 1 | AA | 766 | A | C5-C4 | -7.09 | 1.33 | 1.38 |
| 22 | BA | 1544 | A | C8-N7 | 7.09 | 1.36 | 1.31 |
| 22 | BA | 513 | A | C5-C4 | -7.09 | 1.33 | 1.38 |
| 1 | AA | 1476 | A | C8-N7 | 7.08 | 1.36 | 1.31 |
| 22 | BA | 1308 | A | C5-C4 | -7.08 | 1.33 | 1.38 |
| 22 | BA | 1403 | A | C5-C4 | -7.08 | 1.33 | 1.38 |
| 22 | BA | 1912 | A | C8-N7 | 7.08 | 1.36 | 1.31 |
| 23 | BB | 78 | A | C5-C4 | -7.08 | 1.33 | 1.38 |
| 22 | BA | 457 | A | C8-N7 | 7.08 | 1.36 | 1.31 |
| 22 | BA | 1384 | A | C8-N7 | 7.08 | 1.36 | 1.31 |
| 22 | BA | 1919 | A | C8-N7 | 7.08 | 1.36 | 1.31 |
| 22 | BA | 1977 | A | C5-C4 | -7.08 | 1.33 | 1.38 |
| 1 | AA | 718 | A | C8-N7 | 7.08 | 1.36 | 1.31 |
| 22 | BA | 472 | A | C5-C4 | -7.08 | 1.33 | 1.38 |
| 22 | BA | 529 | A | C8-N7 | 7.08 | 1.36 | 1.31 |
| 22 | BA | 204 | A | C5-C4 | -7.08 | 1.33 | 1.38 |
| 1 | AA | 32 | A | C8-N7 | 7.07 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 116 | A | C8-N7 | 7.07 | 1.36 | 1.31 |
| 22 | BA | 933 | A | C5-C4 | -7.07 | 1.33 | 1.38 |
| 22 | BA | 1000 | A | C8-N7 | 7.07 | 1.36 | 1.31 |
| 1 | AA | 1430 | A | C5-C4 | -7.07 | 1.33 | 1.38 |
| 23 | BB | 94 | A | C5-C4 | -7.07 | 1.33 | 1.38 |
| 1 | AA | 792 | A | C8-N7 | 7.06 | 1.36 | 1.31 |
| 22 | BA | 479 | A | C5-C4 | -7.06 | 1.33 | 1.38 |
| 22 | BA | 1877 | A | C8-N7 | 7.06 | 1.36 | 1.31 |
| 22 | BA | 1787 | A | C5-C4 | -7.06 | 1.33 | 1.38 |
| 22 | BA | 1014 | A | C8-N7 | 7.06 | 1.36 | 1.31 |
| 22 | BA | 1815 | A | C5-C4 | -7.06 | 1.33 | 1.38 |
| 22 | BA | 294 | A | C8-N7 | 7.06 | 1.36 | 1.31 |
| 22 | BA | 2439 | A | C8-N7 | 7.06 | 1.36 | 1.31 |
| 1 | AA | 1437 | A | C8-N7 | 7.05 | 1.36 | 1.31 |
| 22 | BA | 144 | A | C8-N7 | 7.05 | 1.36 | 1.31 |
| 22 | BA | 1522 | A | C8-N7 | 7.05 | 1.36 | 1.31 |
| 22 | BA | 1545 | A | C8-N7 | 7.05 | 1.36 | 1.31 |
| 22 | BA | 2392 | A | C5-C4 | -7.05 | 1.33 | 1.38 |
| 22 | BA | 2727 | A | C5-C4 | -7.05 | 1.33 | 1.38 |
| 1 | AA | 695 | A | C8-N7 | 7.05 | 1.36 | 1.31 |
| 22 | BA | 2566 | A | C8-N7 | 7.05 | 1.36 | 1.31 |
| 1 | AA | 977 | A | C8-N7 | 7.05 | 1.36 | 1.31 |
| 22 | BA | 1246 | A | C8-N7 | 7.05 | 1.36 | 1.31 |
| 22 | BA | 718 | A | C8-N7 | 7.05 | 1.36 | 1.31 |
| 22 | BA | 1571 | A | C5-C4 | -7.05 | 1.33 | 1.38 |
| 1 | AA | 253 | A | C5-C4 | -7.04 | 1.33 | 1.38 |
| 22 | BA | 1548 | A | C5-C4 | -7.04 | 1.33 | 1.38 |
| 22 | BA | 1786 | A | C5-C4 | -7.04 | 1.33 | 1.38 |
| 1 | AA | 573 | A | C8-N7 | 7.04 | 1.36 | 1.31 |
| 22 | BA | 2340 | A | C5-C4 | -7.04 | 1.33 | 1.38 |
| 1 | AA | 1502 | A | C8-N7 | 7.04 | 1.36 | 1.31 |
| 22 | BA | 941 | A | C5-C4 | -7.04 | 1.33 | 1.38 |
| 22 | BA | 1829 | A | C5-C4 | -7.04 | 1.33 | 1.38 |
| 22 | BA | 1328 | A | C5-C4 | -7.04 | 1.33 | 1.38 |
| 22 | BA | 1321 | A | C8-N7 | 7.04 | 1.36 | 1.31 |
| 22 | BA | 1655 | A | C5-C4 | -7.04 | 1.33 | 1.38 |
| 23 | BB | 39 | A | C8-N7 | 7.03 | 1.36 | 1.31 |
| 1 | AA | 53 | A | C8-N7 | 7.03 | 1.36 | 1.31 |
| 22 | BA | 614 | A | C5-C4 | -7.03 | 1.33 | 1.38 |
| 1 | AA | 313 | A | C5-C4 | -7.03 | 1.33 | 1.38 |
| 22 | BA | 221 | A | C8-N7 | 7.03 | 1.36 | 1.31 |
| 22 | BA | 443 | A | C5-C4 | -7.03 | 1.33 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 432 | A | C5-C4 | -7.03 | 1.33 | 1.38 |
| 22 | BA | 384 | A | C5-C4 | -7.02 | 1.33 | 1.38 |
| 22 | BA | 1876 | A | C8-N7 | 7.02 | 1.36 | 1.31 |
| 22 | BA | 2212 | A | C8-N7 | 7.02 | 1.36 | 1.31 |
| 22 | BA | 156 | A | C8-N7 | 7.02 | 1.36 | 1.31 |
| 22 | BA | 936 | A | C5-C4 | -7.02 | 1.33 | 1.38 |
| 22 | BA | 2893 | A | C5-C4 | -7.02 | 1.33 | 1.38 |
| 1 | AA | 19 | A | C5-C4 | -7.02 | 1.33 | 1.38 |
| 22 | BA | 146 | A | C5-C4 | -7.02 | 1.33 | 1.38 |
| 22 | BA | 2632 | A | C5-C4 | -7.02 | 1.33 | 1.38 |
| 22 | BA | 2114 | A | C8-N7 | 7.02 | 1.36 | 1.31 |
| 22 | BA | 2358 | A | C5-C4 | -7.02 | 1.33 | 1.38 |
| 22 | BA | 196 | A | C5-C4 | -7.01 | 1.33 | 1.38 |
| 22 | BA | 945 | A | C8-N7 | 7.01 | 1.36 | 1.31 |
| 22 | BA | 1347 | A | C5-C4 | -7.01 | 1.33 | 1.38 |
| 22 | BA | 428 | A | C5-C4 | -7.01 | 1.33 | 1.38 |
| 22 | BA | 2531 | A | C8-N7 | 7.01 | 1.36 | 1.31 |
| 1 | AA | 759 | A | C8-N7 | 7.01 | 1.36 | 1.31 |
| 22 | BA | 2899 | A | C5-C4 | -7.00 | 1.33 | 1.38 |
| 22 | BA | 125 | A | C8-N7 | 7.00 | 1.36 | 1.31 |
| 55 | B8 | 58 | A | C8-N7 | 7.00 | 1.36 | 1.31 |
| 22 | BA | 104 | A | C8-N7 | 7.00 | 1.36 | 1.31 |
| 22 | BA | 89 | A | C8-N7 | 7.00 | 1.36 | 1.31 |
| 22 | BA | 1383 | A | C5-C4 | -7.00 | 1.33 | 1.38 |
| 23 | BB | 29 | A | C8-N7 | 7.00 | 1.36 | 1.31 |
| 22 | BA | 947 | A | C5-C4 | -7.00 | 1.33 | 1.38 |
| 22 | BA | 300 | A | C5-C4 | -6.99 | 1.33 | 1.38 |
| 22 | BA | 1801 | A | C5-C4 | -6.99 | 1.33 | 1.38 |
| 22 | BA | 213 | A | N3-C4 | 6.99 | 1.39 | 1.34 |
| 22 | BA | 219 | A | C5-C4 | -6.99 | 1.33 | 1.38 |
| 22 | BA | 905 | A | C5-C4 | -6.99 | 1.33 | 1.38 |
| 22 | BA | 1032 | A | C8-N7 | 6.99 | 1.36 | 1.31 |
| 22 | BA | 2733 | A | C8-N7 | 6.99 | 1.36 | 1.31 |
| 22 | BA | 2019 | A | C5-C4 | -6.98 | 1.33 | 1.38 |
| 1 | AA | 1035 | A | N3-C4 | 6.98 | 1.39 | 1.34 |
| 22 | BA | 2418 | A | C5-C4 | -6.98 | 1.33 | 1.38 |
| 22 | BA | 42 | A | C8-N7 | 6.98 | 1.36 | 1.31 |
| 23 | BB | 52 | A | C8-N7 | 6.98 | 1.36 | 1.31 |
| 22 | BA | 2518 | A | C5-C4 | -6.98 | 1.33 | 1.38 |
| 55 | B8 | 51 | A | C8-N7 | 6.98 | 1.36 | 1.31 |
| 1 | AA | 892 | A | C5-C4 | -6.98 | 1.33 | 1.38 |
| 22 | BA | 439 | A | C5-C4 | -6.97 | 1.33 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1713 | A | C8-N7 | 6.97 | 1.36 | 1.31 |
| 22 | BA | 2547 | A | C8-N7 | 6.97 | 1.36 | 1.31 |
| 22 | BA | 1650 | A | C5-C4 | -6.97 | 1.33 | 1.38 |
| 22 | BA | 1268 | A | C5-C4 | -6.97 | 1.33 | 1.38 |
| 1 | AA | 1339 | A | C5-C4 | -6.96 | 1.33 | 1.38 |
| 22 | BA | 743 | A | C5-C4 | -6.96 | 1.33 | 1.38 |
| 22 | BA | 761 | A | C8-N7 | 6.96 | 1.36 | 1.31 |
| 22 | BA | 2882 | A | C8-N7 | 6.96 | 1.36 | 1.31 |
| 22 | BA | 2589 | A | C5-C4 | -6.96 | 1.33 | 1.38 |
| 22 | BA | 973 | A | C8-N7 | 6.96 | 1.36 | 1.31 |
| 22 | BA | 1885 | A | C5-C4 | -6.96 | 1.33 | 1.38 |
| 22 | BA | 1569 | A | C5-C4 | -6.96 | 1.33 | 1.38 |
| 1 | AA | 303 | A | C5-C4 | -6.96 | 1.33 | 1.38 |
| 22 | BA | 655 | A | C8-N7 | 6.95 | 1.36 | 1.31 |
| 1 | AA | 288 | A | C8-N7 | 6.95 | 1.36 | 1.31 |
| 22 | BA | 1385 | A | C5-C4 | -6.95 | 1.33 | 1.38 |
| 22 | BA | 2366 | A | C5-C4 | -6.95 | 1.33 | 1.38 |
| 1 | AA | 559 | A | C8-N7 | 6.95 | 1.36 | 1.31 |
| 22 | BA | 1630 | A | C8-N7 | 6.95 | 1.36 | 1.31 |
| 22 | BA | 125 | A | C5-C4 | -6.94 | 1.33 | 1.38 |
| 22 | BA | 631 | A | C5-C4 | -6.94 | 1.33 | 1.38 |
| 1 | AA | 938 | A | C8-N7 | 6.94 | 1.36 | 1.31 |
| 22 | BA | 340 | A | C8-N7 | 6.94 | 1.36 | 1.31 |
| 1 | AA | 864 | A | C8-N7 | 6.94 | 1.36 | 1.31 |
| 22 | BA | 74 | A | C8-N7 | 6.94 | 1.36 | 1.31 |
| 22 | BA | 119 | A | C5-C4 | -6.94 | 1.33 | 1.38 |
| 1 | AA | 900 | A | C5-C4 | -6.94 | 1.33 | 1.38 |
| 22 | BA | 1247 | A | C5-C4 | -6.94 | 1.33 | 1.38 |
| 22 | BA | 1367 | A | C5-C4 | -6.94 | 1.33 | 1.38 |
| 22 | BA | 1803 | A | C5-C4 | -6.94 | 1.33 | 1.38 |
| 1 | AA | 787 | A | C8-N7 | 6.93 | 1.36 | 1.31 |
| 22 | BA | 1284 | A | C5-C4 | -6.93 | 1.33 | 1.38 |
| 22 | BA | 1286 | A | C5-C4 | -6.93 | 1.33 | 1.38 |
| 22 | BA | 1810 | A | N7-C5 | -6.93 | 1.35 | 1.39 |
| 22 | BA | 1392 | A | C8-N7 | 6.93 | 1.36 | 1.31 |
| 1 | AA | 498 | A | N3-C4 | 6.93 | 1.39 | 1.34 |
| 1 | AA | 1503 | A | C8-N7 | 6.93 | 1.36 | 1.31 |
| 22 | BA | 241 | A | C8-N7 | 6.93 | 1.36 | 1.31 |
| 22 | BA | 722 | A | C5-C4 | -6.93 | 1.33 | 1.38 |
| 22 | BA | 322 | A | C5-C4 | -6.93 | 1.33 | 1.38 |
| 22 | BA | 2893 | A | C8-N7 | 6.93 | 1.36 | 1.31 |
| 22 | BA | 2856 | A | C8-N7 | 6.93 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 746 | A | C8-N7 | 6.92 | 1.36 | 1.31 |
| 22 | BA | 1525 | A | C8-N7 | 6.92 | 1.36 | 1.31 |
| 22 | BA | 1144 | A | C5-C4 | -6.92 | 1.33 | 1.38 |
| 22 | BA | 1353 | A | C8-N7 | 6.92 | 1.36 | 1.31 |
| 22 | BA | 2835 | A | C8-N7 | 6.92 | 1.36 | 1.31 |
| 1 | AA | 373 | A | C8-N7 | 6.92 | 1.36 | 1.31 |
| 1 | AA | 908 | A | C8-N7 | 6.92 | 1.36 | 1.31 |
| 22 | BA | 2287 | A | C5-C4 | -6.92 | 1.33 | 1.38 |
| 22 | BA | 221 | A | C5-C4 | -6.92 | 1.33 | 1.38 |
| 22 | BA | 501 | A | C5-C4 | -6.92 | 1.33 | 1.38 |
| 1 | AA | 7 | A | C5-C4 | -6.91 | 1.33 | 1.38 |
| 22 | BA | 661 | A | C5-C4 | -6.91 | 1.33 | 1.38 |
| 22 | BA | 1213 | A | C5-C4 | -6.91 | 1.33 | 1.38 |
| 55 | B8 | 42 | A | C8-N7 | 6.91 | 1.36 | 1.31 |
| 1 | AA | 873 | A | C5-C4 | -6.91 | 1.33 | 1.38 |
| 22 | BA | 2052 | A | C5-C4 | -6.91 | 1.33 | 1.38 |
| 22 | BA | 111 | A | C5-C4 | -6.91 | 1.33 | 1.38 |
| 22 | BA | 1515 | A | C5-C4 | -6.91 | 1.33 | 1.38 |
| 1 | AA | 356 | A | C8-N7 | 6.91 | 1.36 | 1.31 |
| 22 | BA | 1927 | A | C8-N7 | 6.91 | 1.36 | 1.31 |
| 22 | BA | 2476 | A | C8-N7 | 6.91 | 1.36 | 1.31 |
| 1 | AA | 498 | A | C8-N7 | 6.91 | 1.36 | 1.31 |
| 22 | BA | 1654 | A | C5-C4 | -6.91 | 1.33 | 1.38 |
| 22 | BA | 2823 | A | C5-C4 | -6.91 | 1.33 | 1.38 |
| 22 | BA | 2225 | A | C5-C4 | -6.90 | 1.33 | 1.38 |
| 22 | BA | 1711 | A | C5-C4 | -6.90 | 1.33 | 1.38 |
| 23 | BB | 115 | A | C5-C4 | -6.90 | 1.33 | 1.38 |
| 22 | BA | 161 | A | C5-C4 | -6.90 | 1.33 | 1.38 |
| 22 | BA | 626 | A | C8-N7 | 6.90 | 1.36 | 1.31 |
| 1 | AA | 1197 | A | C8-N7 | 6.89 | 1.36 | 1.31 |
| 22 | BA | 233 | A | C5-C4 | -6.89 | 1.33 | 1.38 |
| 22 | BA | 1204 | A | C8-N7 | 6.89 | 1.36 | 1.31 |
| 22 | BA | 2070 | A | C5-C4 | -6.89 | 1.33 | 1.38 |
| 22 | BA | 2851 | A | C5-C4 | -6.89 | 1.33 | 1.38 |
| 22 | BA | 2736 | A | C5-C4 | -6.89 | 1.33 | 1.38 |
| 22 | BA | 2799 | A | N3-C4 | 6.89 | 1.39 | 1.34 |
| 1 | AA | 1357 | A | C8-N7 | 6.89 | 1.36 | 1.31 |
| 22 | BA | 621 | A | C5-C4 | -6.89 | 1.33 | 1.38 |
| 22 | BA | 2725 | A | C5-C4 | -6.89 | 1.33 | 1.38 |
| 22 | BA | 574 | A | C8-N7 | 6.88 | 1.36 | 1.31 |
| 22 | BA | 721 | A | C5-C4 | -6.88 | 1.33 | 1.38 |
| 1 | AA | 1476 | A | C5-C4 | -6.88 | 1.33 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 538 | A | C5-C4 | -6.88 | 1.33 | 1.38 |
| 22 | BA | 471 | A | C5-C4 | -6.88 | 1.33 | 1.38 |
| 22 | BA | 1597 | A | C8-N7 | 6.88 | 1.36 | 1.31 |
| 22 | BA | 1676 | A | C5-C4 | -6.88 | 1.33 | 1.38 |
| 22 | BA | 2406 | A | C5-C4 | -6.88 | 1.33 | 1.38 |
| 1 | AA | 1429 | A | C5-C4 | -6.88 | 1.33 | 1.38 |
| 22 | BA | 1637 | A | C5-C4 | -6.88 | 1.33 | 1.38 |
| 22 | BA | 2792 | A | C5-C4 | -6.88 | 1.33 | 1.38 |
| 22 | BA | 294 | A | C5-C4 | -6.87 | 1.33 | 1.38 |
| 22 | BA | 1143 | A | C5-C4 | -6.87 | 1.33 | 1.38 |
| 22 | BA | 21 | A | C5-C4 | -6.87 | 1.33 | 1.38 |
| 22 | BA | 447 | A | C5-C4 | -6.87 | 1.33 | 1.38 |
| 22 | BA | 1147 | A | C8-N7 | 6.87 | 1.36 | 1.31 |
| 22 | BA | 1819 | A | C5-C4 | -6.87 | 1.33 | 1.38 |
| 22 | BA | 1937 | A | C8-N7 | 6.87 | 1.36 | 1.31 |
| 1 | AA | 784 | A | C5-C4 | -6.87 | 1.33 | 1.38 |
| 22 | BA | 167 | A | C8-N7 | 6.87 | 1.36 | 1.31 |
| 22 | BA | 1700 | A | C5-C4 | -6.87 | 1.33 | 1.38 |
| 1 | AA | 533 | A | C8-N7 | 6.87 | 1.36 | 1.31 |
| 22 | BA | 49 | A | C5-C4 | -6.87 | 1.33 | 1.38 |
| 22 | BA | 2266 | A | C8-N7 | 6.86 | 1.36 | 1.31 |
| 22 | BA | 861 | A | C5-C4 | -6.86 | 1.33 | 1.38 |
| 22 | BA | 2268 | A | C5-C4 | -6.86 | 1.33 | 1.38 |
| 1 | AA | 397 | A | C8-N7 | 6.86 | 1.36 | 1.31 |
| 22 | BA | 2378 | A | C5-C4 | -6.86 | 1.33 | 1.38 |
| 22 | BA | 1745 | A | C8-N7 | 6.86 | 1.36 | 1.31 |
| 1 | AA | 583 | A | C5-C4 | -6.86 | 1.33 | 1.38 |
| 1 | AA | 743 | A | C8-N7 | 6.86 | 1.36 | 1.31 |
| 1 | AA | 819 | A | C8-N7 | 6.86 | 1.36 | 1.31 |
| 22 | BA | 6 | A | C8-N7 | 6.86 | 1.36 | 1.31 |
| 22 | BA | 218 | A | C5-C4 | -6.86 | 1.33 | 1.38 |
| 22 | BA | 1744 | A | C8-N7 | 6.86 | 1.36 | 1.31 |
| 1 | AA | 1319 | A | C8-N7 | 6.85 | 1.36 | 1.31 |
| 1 | AA | 865 | A | C8-N7 | 6.85 | 1.36 | 1.31 |
| 1 | AA | 915 | A | C5-C4 | -6.85 | 1.33 | 1.38 |
| 22 | BA | 1147 | A | C5-C4 | -6.85 | 1.33 | 1.38 |
| 22 | BA | 1678 | A | C5-C4 | -6.85 | 1.33 | 1.38 |
| 22 | BA | 514 | A | C5-C4 | -6.85 | 1.33 | 1.38 |
| 22 | BA | 2766 | A | C5-C4 | -6.85 | 1.33 | 1.38 |
| 1 | AA | 816 | A | C5-C4 | -6.85 | 1.33 | 1.38 |
| 22 | BA | 979 | A | C5-C4 | -6.85 | 1.33 | 1.38 |
| 22 | BA | 1912 | A | C5-C4 | -6.85 | 1.33 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 371 | A | C8-N7 | 6.85 | 1.36 | 1.31 |
| 22 | BA | 504 | A | C5-C4 | -6.85 | 1.33 | 1.38 |
| 22 | BA | 231 | A | C8-N7 | 6.84 | 1.36 | 1.31 |
| 22 | BA | 802 | A | C5-C4 | -6.84 | 1.33 | 1.38 |
| 22 | BA | 2740 | A | C8-N7 | 6.84 | 1.36 | 1.31 |
| 1 | AA | 807 | A | C8-N7 | 6.84 | 1.36 | 1.31 |
| 22 | BA | 1302 | A | C5-C4 | -6.84 | 1.33 | 1.38 |
| 1 | AA | 574 | A | C8-N7 | 6.84 | 1.36 | 1.31 |
| 22 | BA | 2829 | A | C5-C4 | -6.84 | 1.33 | 1.38 |
| 23 | BB | 99 | A | C5-C4 | -6.84 | 1.33 | 1.38 |
| 53 | B5 | 24 | PRO | N-CA | -6.84 | 1.35 | 1.47 |
| 1 | AA | 781 | A | C8-N7 | 6.84 | 1.36 | 1.31 |
| 22 | BA | 1165 | A | C5-C4 | -6.84 | 1.33 | 1.38 |
| 22 | BA | 2062 | A | C8-N7 | 6.84 | 1.36 | 1.31 |
| 22 | BA | 2734 | A | C8-N7 | 6.84 | 1.36 | 1.31 |
| 1 | AA | 1081 | A | C8-N7 | 6.83 | 1.36 | 1.31 |
| 22 | BA | 1853 | A | C5-C4 | -6.83 | 1.33 | 1.38 |
| 1 | AA | 790 | A | C8-N7 | 6.83 | 1.36 | 1.31 |
| 22 | BA | 529 | A | C5-C4 | -6.83 | 1.33 | 1.38 |
| 22 | BA | 602 | A | C8-N7 | 6.83 | 1.36 | 1.31 |
| 22 | BA | 705 | A | C5-C4 | -6.83 | 1.33 | 1.38 |
| 22 | BA | 1395 | A | C5-C4 | -6.83 | 1.33 | 1.38 |
| 22 | BA | 1247 | A | C8-N7 | 6.83 | 1.36 | 1.31 |
| 22 | BA | 2590 | A | C5-C4 | -6.83 | 1.33 | 1.38 |
| 22 | BA | 1008 | A | C5-C4 | -6.83 | 1.33 | 1.38 |
| 22 | BA | 2886 | A | C5-C4 | -6.83 | 1.33 | 1.38 |
| 1 | AA | 715 | A | C8-N7 | 6.83 | 1.36 | 1.31 |
| 22 | BA | 2814 | A | C8-N7 | 6.83 | 1.36 | 1.31 |
| 1 | AA | 1428 | A | C8-N7 | 6.83 | 1.36 | 1.31 |
| 22 | BA | 131 | A | C5-C4 | -6.83 | 1.33 | 1.38 |
| 22 | BA | 2439 | A | C5-C4 | -6.83 | 1.33 | 1.38 |
| 22 | BA | 95 | A | C8-N7 | 6.82 | 1.36 | 1.31 |
| 23 | BB | 57 | A | C8-N7 | 6.82 | 1.36 | 1.31 |
| 22 | BA | 83 | A | C8-N7 | 6.82 | 1.36 | 1.31 |
| 22 | BA | 265 | A | C5-C4 | -6.82 | 1.33 | 1.38 |
| 22 | BA | 1366 | A | C5-C4 | -6.82 | 1.33 | 1.38 |
| 22 | BA | 1969 | A | C5-C4 | -6.82 | 1.33 | 1.38 |
| 22 | BA | 1927 | A | C5-C4 | -6.82 | 1.33 | 1.38 |
| 1 | AA | 1394 | A | C5-C4 | -6.82 | 1.33 | 1.38 |
| 22 | BA | 1551 | A | C8-N7 | 6.82 | 1.36 | 1.31 |
| 55 | B8 | 20 | U | C2-N3 | 6.82 | 1.42 | 1.37 |
| 22 | BA | 503 | A | C8-N7 | 6.82 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 845 | A | C5-C4 | -6.82 | 1.33 | 1.38 |
| 22 | BA | 2388 | A | N3-C4 | 6.82 | 1.39 | 1.34 |
| 1 | AA | 1429 | A | C8-N7 | 6.81 | 1.36 | 1.31 |
| 22 | BA | 2887 | A | C5-C4 | -6.81 | 1.33 | 1.38 |
| 1 | AA | 892 | A | C8-N7 | 6.81 | 1.36 | 1.31 |
| 22 | BA | 677 | A | C5-C4 | -6.81 | 1.33 | 1.38 |
| 55 | B8 | 6 | A | C8-N7 | 6.81 | 1.36 | 1.31 |
| 22 | BA | 718 | A | C5-C4 | -6.81 | 1.33 | 1.38 |
| 22 | BA | 2386 | A | C5-C4 | -6.81 | 1.33 | 1.38 |
| 1 | AA | 1081 | A | C5-C4 | -6.81 | 1.33 | 1.38 |
| 22 | BA | 483 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 1169 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 1269 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 2705 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 2883 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 2173 | A | N3-C4 | 6.80 | 1.39 | 1.34 |
| 22 | BA | 181 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 675 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 1204 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 1598 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 191 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 1791 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 1848 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 1876 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 2273 | A | C5-C4 | -6.80 | 1.33 | 1.38 |
| 22 | BA | 479 | A | C8-N7 | 6.79 | 1.36 | 1.31 |
| 22 | BA | 2205 | A | C5-C4 | -6.79 | 1.33 | 1.38 |
| 1 | AA | 246 | A | C5-C4 | -6.79 | 1.33 | 1.38 |
| 22 | BA | 800 | A | C5-C4 | -6.79 | 1.33 | 1.38 |
| 22 | BA | 983 | A | C5-C4 | -6.79 | 1.33 | 1.38 |
| 22 | BA | 71 | A | C5-C4 | -6.79 | 1.33 | 1.38 |
| 22 | BA | 2868 | A | C5-C4 | -6.79 | 1.33 | 1.38 |
| 1 | AA | 309 | A | C5-C4 | -6.79 | 1.33 | 1.38 |
| 22 | BA | 722 | A | C8-N7 | 6.79 | 1.36 | 1.31 |
| 22 | BA | 432 | A | C8-N7 | 6.79 | 1.36 | 1.31 |
| 22 | BA | 753 | A | C5-C4 | -6.79 | 1.33 | 1.38 |
| 22 | BA | 1254 | A | C5-C4 | -6.79 | 1.33 | 1.38 |
| 22 | BA | 2270 | A | C5-C4 | -6.79 | 1.33 | 1.38 |
| 55 | B8 | 69 | A | C8-N7 | 6.79 | 1.36 | 1.31 |
| 22 | BA | 1194 | A | C8-N7 | 6.79 | 1.36 | 1.31 |
| 22 | BA | 2288 | A | C8-N7 | 6.79 | 1.36 | 1.31 |
| 1 | AA | 1499 | A | C5-C4 | -6.78 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 781 | A | C8-N7 | 6.78 | 1.36 | 1.31 |
| 22 | BA | 1754 | A | C5-C4 | -6.78 | 1.34 | 1.38 |
| 1 | AA | 327 | A | C5-C4 | -6.78 | 1.34 | 1.38 |
| 22 | BA | 103 | A | C5-C4 | -6.78 | 1.34 | 1.38 |
| 23 | BB | 39 | A | C5-C4 | -6.78 | 1.34 | 1.38 |
| 1 | AA | 1163 | A | C5-C4 | -6.78 | 1.34 | 1.38 |
| 22 | BA | 1246 | A | C5-C4 | -6.78 | 1.34 | 1.38 |
| 22 | BA | 2426 | A | C5-C4 | -6.78 | 1.34 | 1.38 |
| 1 | AA | 816 | A | C8-N7 | 6.77 | 1.36 | 1.31 |
| 22 | BA | 244 | A | C5-C4 | -6.77 | 1.34 | 1.38 |
| 22 | BA | 1548 | A | C8-N7 | 6.77 | 1.36 | 1.31 |
| 22 | BA | 988 | A | C5-C4 | -6.77 | 1.34 | 1.38 |
| 22 | BA | 173 | A | C5-C4 | -6.77 | 1.34 | 1.38 |
| 1 | AA | 459 | A | N3-C4 | 6.77 | 1.39 | 1.34 |
| 1 | AA | 780 | A | C8-N7 | 6.76 | 1.36 | 1.31 |
| 22 | BA | 2478 | A | C8-N7 | 6.76 | 1.36 | 1.31 |
| 22 | BA | 2882 | A | C5-C4 | -6.76 | 1.34 | 1.38 |
| 22 | BA | 2369 | A | C5-C4 | -6.76 | 1.34 | 1.38 |
| 1 | AA | 596 | A | C5-C4 | -6.76 | 1.34 | 1.38 |
| 1 | AA | 814 | A | C5-C4 | -6.76 | 1.34 | 1.38 |
| 22 | BA | 2757 | A | C8-N7 | 6.76 | 1.36 | 1.31 |
| 1 | AA | 715 | A | C5-C4 | -6.76 | 1.34 | 1.38 |
| 22 | BA | 2247 | A | C5-C4 | -6.76 | 1.34 | 1.38 |
| 22 | BA | 173 | A | C8-N7 | 6.76 | 1.36 | 1.31 |
| 22 | BA | 345 | A | C8-N7 | 6.76 | 1.36 | 1.31 |
| 22 | BA | 863 | A | C5-C4 | -6.76 | 1.34 | 1.38 |
| 22 | BA | 1689 | A | C5-C4 | -6.76 | 1.34 | 1.38 |
| 22 | BA | 1890 | A | C8-N7 | 6.75 | 1.36 | 1.31 |
| 22 | BA | 706 | A | C5-C4 | -6.75 | 1.34 | 1.38 |
| 1 | AA | 160 | A | C5-C4 | -6.75 | 1.34 | 1.38 |
| 22 | BA | 689 | A | C5-C4 | -6.75 | 1.34 | 1.38 |
| 1 | AA | 238 | A | C5-C4 | -6.75 | 1.34 | 1.38 |
| 22 | BA | 1387 | A | C8-N7 | 6.74 | 1.36 | 1.31 |
| 22 | BA | 91 | A | C8-N7 | 6.74 | 1.36 | 1.31 |
| 22 | BA | 1913 | A | C5-C4 | -6.74 | 1.34 | 1.38 |
| 1 | AA | 572 | A | C5-C4 | -6.74 | 1.34 | 1.38 |
| 22 | BA | 1453 | A | C5-C4 | -6.74 | 1.34 | 1.38 |
| 22 | BA | 2826 | A | C5-C4 | -6.74 | 1.34 | 1.38 |
| 22 | BA | 1439 | A | C5-C4 | -6.74 | 1.34 | 1.38 |
| 1 | AA | 329 | A | C8-N7 | 6.73 | 1.36 | 1.31 |
| 1 | AA | 1433 | A | C8-N7 | 6.73 | 1.36 | 1.31 |
| 22 | BA | 6 | A | C5-C4 | -6.73 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2198 | A | C5-C4 | -6.73 | 1.34 | 1.38 |
| 22 | BA | 2205 | A | C8-N7 | 6.73 | 1.36 | 1.31 |
| 22 | BA | 2820 | A | C5-C4 | -6.73 | 1.34 | 1.38 |
| 1 | AA | 120 | A | C5-C4 | -6.73 | 1.34 | 1.38 |
| 22 | BA | 127 | A | C5-C4 | -6.73 | 1.34 | 1.38 |
| 22 | BA | 182 | A | C8-N7 | 6.73 | 1.36 | 1.31 |
| 22 | BA | 2333 | A | C5-C4 | -6.73 | 1.34 | 1.38 |
| 1 | AA | 236 | A | C5-C4 | -6.73 | 1.34 | 1.38 |
| 1 | AA | 663 | A | C5-C4 | -6.73 | 1.34 | 1.38 |
| 1 | AA | 1410 | A | C5-C4 | -6.73 | 1.34 | 1.38 |
| 22 | BA | 429 | A | C5-C4 | -6.73 | 1.34 | 1.38 |
| 1 | AA | 907 | A | C8-N7 | 6.72 | 1.36 | 1.31 |
| 22 | BA | 979 | A | C8-N7 | 6.72 | 1.36 | 1.31 |
| 22 | BA | 2015 | A | C5-C4 | -6.72 | 1.34 | 1.38 |
| 22 | BA | 430 | A | C8-N7 | 6.72 | 1.36 | 1.31 |
| 1 | AA | 1431 | A | C5-C4 | -6.72 | 1.34 | 1.38 |
| 10 | AJ | 39 | PRO | N-CA | -6.72 | 1.35 | 1.47 |
| 22 | BA | 2327 | A | N3-C4 | 6.72 | 1.38 | 1.34 |
| 22 | BA | 2298 | A | C8-N7 | 6.72 | 1.36 | 1.31 |
| 22 | BA | 2434 | A | C5-C4 | -6.72 | 1.34 | 1.38 |
| 22 | BA | 1286 | A | C8-N7 | 6.71 | 1.36 | 1.31 |
| 22 | BA | 265 | A | C8-N7 | 6.71 | 1.36 | 1.31 |
| 22 | BA | 1890 | A | C5-C4 | -6.71 | 1.34 | 1.38 |
| 22 | BA | 2241 | A | C8-N7 | 6.71 | 1.36 | 1.31 |
| 22 | BA | 804 | A | C8-N7 | 6.71 | 1.36 | 1.31 |
| 1 | AA | 802 | A | C8-N7 | 6.71 | 1.36 | 1.31 |
| 22 | BA | 2154 | A | N3-C4 | 6.71 | 1.38 | 1.34 |
| 55 | B8 | 6 | A | C5-C4 | -6.71 | 1.34 | 1.38 |
| 1 | AA | 151 | A | C5-C4 | -6.71 | 1.34 | 1.38 |
| 22 | BA | 310 | A | C5-C4 | -6.71 | 1.34 | 1.38 |
| 22 | BA | 1553 | A | C5-C4 | -6.71 | 1.34 | 1.38 |
| 22 | BA | 2665 | A | C8-N7 | 6.71 | 1.36 | 1.31 |
| 22 | BA | 602 | A | C5-C4 | -6.70 | 1.34 | 1.38 |
| 22 | BA | 1189 | A | N3-C4 | 6.70 | 1.38 | 1.34 |
| 22 | BA | 528 | A | C5-C4 | -6.70 | 1.34 | 1.38 |
| 1 | AA | 8 | A | C5-C4 | -6.70 | 1.34 | 1.38 |
| 22 | BA | 480 | A | C5-C4 | -6.70 | 1.34 | 1.38 |
| 22 | BA | 782 | A | N3-C4 | 6.70 | 1.38 | 1.34 |
| 22 | BA | 2450 | A | C8-N7 | 6.70 | 1.36 | 1.31 |
| 22 | BA | 508 | A | C5-C4 | -6.70 | 1.34 | 1.38 |
| 22 | BA | 2376 | A | C8-N7 | 6.70 | 1.36 | 1.31 |
| 22 | BA | 1165 | A | C8-N7 | 6.70 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 53 | A | C5-C4 | -6.69 | 1.34 | 1.38 |
| 22 | BA | 1134 | A | C8-N7 | 6.69 | 1.36 | 1.31 |
| 22 | BA | 1981 | A | C5-C4 | -6.69 | 1.34 | 1.38 |
| 22 | BA | 2411 | A | C5-C4 | -6.69 | 1.34 | 1.38 |
| 22 | BA | 1551 | A | C5-C4 | -6.69 | 1.34 | 1.38 |
| 22 | BA | 1677 | A | C5-C4 | -6.69 | 1.34 | 1.38 |
| 22 | BA | 2314 | A | C5-C4 | -6.69 | 1.34 | 1.38 |
| 22 | BA | 2810 | A | C8-N7 | 6.69 | 1.36 | 1.31 |
| 22 | BA | 1393 | A | C5-C4 | -6.69 | 1.34 | 1.38 |
| 22 | BA | 975 | A | C8-N7 | 6.69 | 1.36 | 1.31 |
| 22 | BA | 2799 | A | C8-N7 | 6.69 | 1.36 | 1.31 |
| 22 | BA | 1810 | A | C5-C4 | -6.68 | 1.34 | 1.38 |
| 1 | AA | 498 | A | C5-C4 | -6.68 | 1.34 | 1.38 |
| 1 | AA | 845 | A | N3-C4 | 6.68 | 1.38 | 1.34 |
| 22 | BA | 1566 | A | C8-N7 | 6.68 | 1.36 | 1.31 |
| 22 | BA | 1953 | A | C5-C4 | -6.68 | 1.34 | 1.38 |
| 22 | BA | 2031 | A | C8-N7 | 6.68 | 1.36 | 1.31 |
| 22 | BA | 2241 | A | C5-C4 | -6.68 | 1.34 | 1.38 |
| 22 | BA | 2328 | A | C5-C4 | -6.68 | 1.34 | 1.38 |
| 22 | BA | 71 | A | C8-N7 | 6.68 | 1.36 | 1.31 |
| 22 | BA | 1477 | A | C5-C4 | -6.68 | 1.34 | 1.38 |
| 22 | BA | 1987 | A | C8-N7 | 6.68 | 1.36 | 1.31 |
| 1 | AA | 353 | A | C5-C4 | -6.68 | 1.34 | 1.38 |
| 22 | BA | 1640 | A | C8-N7 | 6.68 | 1.36 | 1.31 |
| 22 | BA | 1214 | A | C5-C4 | -6.68 | 1.34 | 1.38 |
| 22 | BA | 2158 | A | N3-C4 | 6.68 | 1.38 | 1.34 |
| 22 | BA | 1593 | A | C5-C4 | -6.67 | 1.34 | 1.38 |
| 22 | BA | 1745 | A | C5-C4 | -6.67 | 1.34 | 1.38 |
| 22 | BA | 2322 | A | C8-N7 | 6.67 | 1.36 | 1.31 |
| 22 | BA | 332 | A | C8-N7 | 6.67 | 1.36 | 1.31 |
| 22 | BA | 756 | A | C5-C4 | -6.67 | 1.34 | 1.38 |
| 22 | BA | 1630 | A | C5-C4 | -6.67 | 1.34 | 1.38 |
| 22 | BA | 2547 | A | C5-C4 | -6.67 | 1.34 | 1.38 |
| 1 | AA | 1333 | A | N3-C4 | 6.67 | 1.38 | 1.34 |
| 22 | BA | 1545 | A | C5-C4 | -6.67 | 1.34 | 1.38 |
| 22 | BA | 2468 | A | C8-N7 | 6.67 | 1.36 | 1.31 |
| 1 | AA | 371 | A | C5-C4 | -6.66 | 1.34 | 1.38 |
| 22 | BA | 95 | A | C5-C4 | -6.66 | 1.34 | 1.38 |
| 22 | BA | 227 | A | C8-N7 | 6.66 | 1.36 | 1.31 |
| 22 | BA | 1365 | A | C5-C4 | -6.66 | 1.34 | 1.38 |
| 22 | BA | 141 | G | C6-N1 | -6.66 | 1.34 | 1.39 |
| 1 | AA | 26 | A | C5-C4 | -6.66 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 1465 | A | C8-N7 | 6.66 | 1.36 | 1.31 |
| 22 | BA | 422 | A | C8-N7 | 6.66 | 1.36 | 1.31 |
| 22 | BA | 2566 | A | C5-C4 | -6.66 | 1.34 | 1.38 |
| 22 | BA | 2887 | A | C8-N7 | 6.66 | 1.36 | 1.31 |
| 1 | AA | 675 | A | C5-C4 | -6.65 | 1.34 | 1.38 |
| 1 | AA | 1201 | A | C5-C4 | -6.65 | 1.34 | 1.38 |
| 1 | AA | 1229 | A | C5-C4 | -6.65 | 1.34 | 1.38 |
| 22 | BA | 590 | A | C5-C4 | -6.65 | 1.34 | 1.38 |
| 22 | BA | 2430 | A | C5-C4 | -6.65 | 1.34 | 1.38 |
| 22 | BA | 2665 | A | C5-C4 | -6.65 | 1.34 | 1.38 |
| 1 | AA | 320 | A | C5-C4 | -6.65 | 1.34 | 1.38 |
| 22 | BA | 103 | A | C8-N7 | 6.65 | 1.36 | 1.31 |
| 1 | AA | 298 | A | C5-C4 | -6.65 | 1.34 | 1.38 |
| 1 | AA | 767 | A | C8-N7 | 6.65 | 1.36 | 1.31 |
| 1 | AA | 1430 | A | C8-N7 | 6.65 | 1.36 | 1.31 |
| 22 | BA | 1089 | A | N3-C4 | 6.65 | 1.38 | 1.34 |
| 1 | AA | 1499 | A | C8-N7 | 6.65 | 1.36 | 1.31 |
| 1 | AA | 768 | A | C8-N7 | 6.64 | 1.36 | 1.31 |
| 22 | BA | 1773 | A | C5-C4 | -6.64 | 1.34 | 1.38 |
| 1 | AA | 914 | A | C5-C4 | -6.64 | 1.34 | 1.38 |
| 1 | AA | 77 | A | N3-C4 | 6.64 | 1.38 | 1.34 |
| 1 | AA | 288 | A | C5-C4 | -6.64 | 1.34 | 1.38 |
| 1 | AA | 1239 | A | C5-C4 | -6.64 | 1.34 | 1.38 |
| 22 | BA | 756 | A | C8-N7 | 6.64 | 1.36 | 1.31 |
| 22 | BA | 2298 | A | C5-C4 | -6.64 | 1.34 | 1.38 |
| 22 | BA | 1336 | A | C5-C4 | -6.64 | 1.34 | 1.38 |
| 55 | B8 | 38 | A | C5-C4 | -6.64 | 1.34 | 1.38 |
| 22 | BA | 1090 | A | N3-C4 | 6.64 | 1.38 | 1.34 |
| 22 | BA | 1504 | A | C5-C4 | -6.64 | 1.34 | 1.38 |
| 22 | BA | 2060 | A | C8-N7 | 6.64 | 1.36 | 1.31 |
| 22 | BA | 104 | A | C5-C4 | -6.63 | 1.34 | 1.38 |
| 22 | BA | 251 | A | N7-C5 | -6.63 | 1.35 | 1.39 |
| 22 | BA | 1757 | A | C5-C4 | -6.63 | 1.34 | 1.38 |
| 22 | BA | 2778 | A | C5-C4 | -6.63 | 1.34 | 1.38 |
| 22 | BA | 1439 | A | C8-N7 | 6.63 | 1.36 | 1.31 |
| 22 | BA | 1853 | A | C8-N7 | 6.63 | 1.36 | 1.31 |
| 23 | BB | 108 | A | C5-C4 | -6.63 | 1.34 | 1.38 |
| 1 | AA | 1101 | A | C5-C4 | -6.63 | 1.34 | 1.38 |
| 1 | AA | 1332 | A | C5-C4 | -6.63 | 1.34 | 1.38 |
| 22 | BA | 149 | A | C5-C4 | -6.63 | 1.34 | 1.38 |
| 22 | BA | 155 | A | C5-C4 | -6.63 | 1.34 | 1.38 |
| 22 | BA | 909 | A | C8-N7 | 6.63 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 920 | A | C8-N7 | 6.63 | 1.36 | 1.31 |
| 22 | BA | 716 | A | C5-C4 | -6.63 | 1.34 | 1.38 |
| 22 | BA | 2873 | A | C5-C4 | -6.63 | 1.34 | 1.38 |
| 1 | AA | 1329 | A | C5-C4 | -6.62 | 1.34 | 1.38 |
| 22 | BA | 348 | A | C5-C4 | -6.62 | 1.34 | 1.38 |
| 22 | BA | 2461 | A | C5-C4 | -6.62 | 1.34 | 1.38 |
| 1 | AA | 694 | A | C5-C4 | -6.62 | 1.34 | 1.38 |
| 22 | BA | 217 | A | C8-N7 | 6.62 | 1.36 | 1.31 |
| 22 | BA | 1327 | A | C5-C4 | -6.62 | 1.34 | 1.38 |
| 1 | AA | 1465 | A | C5-C4 | -6.62 | 1.34 | 1.38 |
| 22 | BA | 699 | A | C8-N7 | 6.62 | 1.36 | 1.31 |
| 22 | BA | 927 | A | C5-C4 | -6.62 | 1.34 | 1.38 |
| 22 | BA | 1502 | A | C5-C4 | -6.62 | 1.34 | 1.38 |
| 22 | BA | 1528 | A | N3-C4 | 6.62 | 1.38 | 1.34 |
| 22 | BA | 627 | A | C8-N7 | 6.62 | 1.36 | 1.31 |
| 22 | BA | 1253 | A | C8-N7 | 6.62 | 1.36 | 1.31 |
| 22 | BA | 1610 | A | C5-C4 | -6.62 | 1.34 | 1.38 |
| 22 | BA | 457 | A | C5-C4 | -6.61 | 1.34 | 1.38 |
| 22 | BA | 492 | A | C5-C4 | -6.61 | 1.34 | 1.38 |
| 22 | BA | 933 | A | C8-N7 | 6.61 | 1.36 | 1.31 |
| 22 | BA | 1780 | A | C8-N7 | 6.61 | 1.36 | 1.31 |
| 1 | AA | 609 | A | C5-C4 | -6.61 | 1.34 | 1.38 |
| 22 | BA | 1528 | A | C5-C4 | -6.61 | 1.34 | 1.38 |
| 1 | AA | 913 | A | C5-C4 | -6.61 | 1.34 | 1.38 |
| 22 | BA | 320 | A | C8-N7 | 6.61 | 1.36 | 1.31 |
| 22 | BA | 1477 | A | C8-N7 | 6.61 | 1.36 | 1.31 |
| 22 | BA | 1713 | A | C5-C4 | -6.61 | 1.34 | 1.38 |
| 1 | AA | 1151 | A | N3-C4 | 6.60 | 1.38 | 1.34 |
| 22 | BA | 739 | A | C5-C4 | -6.60 | 1.34 | 1.38 |
| 22 | BA | 2340 | A | C8-N7 | 6.60 | 1.36 | 1.31 |
| 22 | BA | 1496 | A | C5-C4 | -6.60 | 1.34 | 1.38 |
| 22 | BA | 2274 | A | C5-C4 | -6.60 | 1.34 | 1.38 |
| 22 | BA | 2632 | A | C8-N7 | 6.60 | 1.36 | 1.31 |
| 22 | BA | 2748 | A | C5-C4 | -6.60 | 1.34 | 1.38 |
| 22 | BA | 2799 | A | C2-N3 | 6.60 | 1.39 | 1.33 |
| 22 | BA | 1275 | A | C5-C4 | -6.60 | 1.34 | 1.38 |
| 22 | BA | 2284 | A | C5-C4 | -6.60 | 1.34 | 1.38 |
| 22 | BA | 2706 | A | C5-C4 | -6.60 | 1.34 | 1.38 |
| 1 | AA | 696 | A | C8-N7 | 6.59 | 1.36 | 1.31 |
| 22 | BA | 1634 | A | C8-N7 | 6.59 | 1.36 | 1.31 |
| 22 | BA | 515 | A | C5-C4 | -6.59 | 1.34 | 1.38 |
| 22 | BA | 1307 | A | C5-C4 | -6.59 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2809 | A | C8-N7 | 6.59 | 1.36 | 1.31 |
| 1 | AA | 55 | A | C8-N7 | 6.59 | 1.36 | 1.31 |
| 1 | AA | 743 | A | C5-C4 | -6.59 | 1.34 | 1.38 |
| 23 | BB | 109 | A | C5-C4 | -6.59 | 1.34 | 1.38 |
| 1 | AA | 553 | A | C5-C4 | -6.59 | 1.34 | 1.38 |
| 22 | BA | 2860 | A | C8-N7 | 6.59 | 1.36 | 1.31 |
| 1 | AA | 1000 | A | N3-C4 | 6.59 | 1.38 | 1.34 |
| 1 | AA | 1036 | A | N3-C4 | 6.59 | 1.38 | 1.34 |
| 22 | BA | 1701 | A | C5-C4 | -6.59 | 1.34 | 1.38 |
| 22 | BA | 526 | A | C8-N7 | 6.58 | 1.36 | 1.31 |
| 22 | BA | 1679 | A | C5-C4 | -6.58 | 1.34 | 1.38 |
| 22 | BA | 2598 | A | C5-C4 | -6.58 | 1.34 | 1.38 |
| 22 | BA | 2741 | A | C5-C4 | -6.58 | 1.34 | 1.38 |
| 1 | AA | 228 | A | C5-C4 | -6.58 | 1.34 | 1.38 |
| 22 | BA | 1470 | A | C8-N7 | 6.58 | 1.36 | 1.31 |
| 22 | BA | 1665 | A | C5-C4 | -6.58 | 1.34 | 1.38 |
| 22 | BA | 21 | A | C8-N7 | 6.57 | 1.36 | 1.31 |
| 22 | BA | 2776 | A | C5-C4 | -6.57 | 1.34 | 1.38 |
| 22 | BA | 2829 | A | C8-N7 | 6.57 | 1.36 | 1.31 |
| 22 | BA | 342 | A | C5-C4 | -6.57 | 1.34 | 1.38 |
| 22 | BA | 1433 | A | C5-C4 | -6.57 | 1.34 | 1.38 |
| 22 | BA | 1597 | A | C5-C4 | -6.57 | 1.34 | 1.38 |
| 22 | BA | 2147 | A | N3-C4 | 6.57 | 1.38 | 1.34 |
| 55 | B8 | 41 | A | C8-N7 | 6.57 | 1.36 | 1.31 |
| 22 | BA | 1327 | A | C8-N7 | 6.57 | 1.36 | 1.31 |
| 1 | AA | 33 | A | C8-N7 | 6.57 | 1.36 | 1.31 |
| 1 | AA | 1441 | A | N3-C4 | 6.57 | 1.38 | 1.34 |
| 22 | BA | 1616 | A | C5-C4 | -6.57 | 1.34 | 1.38 |
| 22 | BA | 2516 | A | C5-C4 | -6.57 | 1.34 | 1.38 |
| 22 | BA | 5 | A | C5-C4 | -6.57 | 1.34 | 1.38 |
| 22 | BA | 1427 | A | C5-C4 | -6.57 | 1.34 | 1.38 |
| 22 | BA | 1698 | A | C8-N7 | 6.57 | 1.36 | 1.31 |
| 1 | AA | 716 | A | C5-C4 | -6.56 | 1.34 | 1.38 |
| 22 | BA | 1544 | A | C5-C4 | -6.56 | 1.34 | 1.38 |
| 22 | BA | 216 | A | C5-C4 | -6.56 | 1.34 | 1.38 |
| 22 | BA | 497 | A | C5-C4 | -6.56 | 1.34 | 1.38 |
| 22 | BA | 616 | A | C8-N7 | 6.56 | 1.36 | 1.31 |
| 22 | BA | 1433 | A | C8-N7 | 6.56 | 1.36 | 1.31 |
| 22 | BA | 1749 | A | C5-C4 | -6.56 | 1.34 | 1.38 |
| 22 | BA | 2094 | A | N3-C4 | 6.56 | 1.38 | 1.34 |
| 23 | BB | 59 | A | C2-N3 | 6.56 | 1.39 | 1.33 |
| 22 | BA | 800 | A | C8-N7 | 6.56 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 844 | A | C5-C4 | -6.56 | 1.34 | 1.38 |
| 22 | BA | 936 | A | C8-N7 | 6.56 | 1.36 | 1.31 |
| 23 | BB | 29 | A | C5-C4 | -6.56 | 1.34 | 1.38 |
| 1 | AA | 907 | A | C5-C4 | -6.56 | 1.34 | 1.38 |
| 22 | BA | 1321 | A | C5-C4 | -6.56 | 1.34 | 1.38 |
| 22 | BA | 2311 | A | C5-C4 | -6.56 | 1.34 | 1.38 |
| 22 | BA | 2227 | A | C5-C4 | -6.56 | 1.34 | 1.38 |
| 22 | BA | 2281 | A | C8-N7 | 6.56 | 1.36 | 1.31 |
| 22 | BA | 167 | A | C5-C4 | -6.55 | 1.34 | 1.38 |
| 22 | BA | 844 | A | C8-N7 | 6.55 | 1.36 | 1.31 |
| 1 | AA | 975 | A | C5-C4 | -6.55 | 1.34 | 1.38 |
| 22 | BA | 1073 | A | N3-C4 | 6.55 | 1.38 | 1.34 |
| 22 | BA | 1253 | A | C5-C4 | -6.55 | 1.34 | 1.38 |
| 22 | BA | 2199 | A | C5-C4 | -6.55 | 1.34 | 1.38 |
| 22 | BA | 2810 | A | C5-C4 | -6.55 | 1.34 | 1.38 |
| 22 | BA | 2639 | A | C8-N7 | 6.55 | 1.36 | 1.31 |
| 22 | BA | 42 | A | C5-C4 | -6.55 | 1.34 | 1.38 |
| 22 | BA | 1552 | A | C8-N7 | 6.55 | 1.36 | 1.31 |
| 22 | BA | 1596 | A | C5-C4 | -6.55 | 1.34 | 1.38 |
| 22 | BA | 2212 | A | C5-C4 | -6.55 | 1.34 | 1.38 |
| 22 | BA | 2682 | A | C5-C4 | -6.55 | 1.34 | 1.38 |
| 1 | AA | 498 | A | C2-N3 | 6.55 | 1.39 | 1.33 |
| 1 | AA | 1428 | A | C5-C4 | -6.55 | 1.34 | 1.38 |
| 22 | BA | 1711 | A | C8-N7 | 6.55 | 1.36 | 1.31 |
| 55 | B8 | 14 | A | C8-N7 | 6.55 | 1.36 | 1.31 |
| 22 | BA | 1641 | A | C5-C4 | -6.54 | 1.34 | 1.38 |
| 22 | BA | 1676 | A | N3-C4 | 6.54 | 1.38 | 1.34 |
| 1 | AA | 33 | A | C5-C4 | -6.54 | 1.34 | 1.38 |
| 22 | BA | 761 | A | N3-C4 | 6.54 | 1.38 | 1.34 |
| 22 | BA | 1301 | A | C8-N7 | 6.54 | 1.36 | 1.31 |
| 22 | BA | 2317 | A | C5-C4 | -6.54 | 1.34 | 1.38 |
| 39 | BR | 52 | PRO | N-CA | -6.54 | 1.36 | 1.47 |
| 22 | BA | 504 | A | N3-C4 | 6.54 | 1.38 | 1.34 |
| 22 | BA | 2062 | A | C5-C4 | -6.54 | 1.34 | 1.38 |
| 22 | BA | 2856 | A | C5-C4 | -6.54 | 1.34 | 1.38 |
| 22 | BA | 262 | A | N3-C4 | 6.54 | 1.38 | 1.34 |
| 22 | BA | 764 | A | C8-N7 | 6.54 | 1.36 | 1.31 |
| 22 | BA | 981 | A | C5-C4 | -6.54 | 1.34 | 1.38 |
| 1 | AA | 116 | A | C5-C4 | -6.54 | 1.34 | 1.38 |
| 22 | BA | 118 | A | C5-C4 | -6.54 | 1.34 | 1.38 |
| 22 | BA | 2425 | A | C5-C4 | -6.54 | 1.34 | 1.38 |
| 1 | AA | 349 | A | C5-C4 | -6.53 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 563 | A | C8-N7 | 6.53 | 1.36 | 1.31 |
| 22 | BA | 2764 | A | C5-C4 | -6.53 | 1.34 | 1.38 |
| 1 | AA | 1413 | A | C5-C4 | -6.53 | 1.34 | 1.38 |
| 22 | BA | 2142 | A | N3-C4 | 6.53 | 1.38 | 1.34 |
| 22 | BA | 526 | A | C5-C4 | -6.53 | 1.34 | 1.38 |
| 22 | BA | 1126 | A | C5-C4 | -6.53 | 1.34 | 1.38 |
| 22 | BA | 1301 | A | C5-C4 | -6.53 | 1.34 | 1.38 |
| 1 | AA | 608 | A | C5-C4 | -6.53 | 1.34 | 1.38 |
| 1 | AA | 759 | A | C5-C4 | -6.53 | 1.34 | 1.38 |
| 1 | AA | 32 | A | C5-C4 | -6.53 | 1.34 | 1.38 |
| 1 | AA | 60 | A | C5-C4 | -6.53 | 1.34 | 1.38 |
| 1 | AA | 315 | A | C5-C4 | -6.53 | 1.34 | 1.38 |
| 1 | AA | 1398 | A | C5-C4 | -6.53 | 1.34 | 1.38 |
| 22 | BA | 402 | A | C5-C4 | -6.53 | 1.34 | 1.38 |
| 22 | BA | 1746 | A | C8-N7 | 6.53 | 1.36 | 1.31 |
| 22 | BA | 2741 | A | C8-N7 | 6.53 | 1.36 | 1.31 |
| 22 | BA | 2749 | A | N3-C4 | 6.53 | 1.38 | 1.34 |
| 1 | AA | 1261 | A | N3-C4 | 6.52 | 1.38 | 1.34 |
| 22 | BA | 14 | A | C5-C4 | -6.52 | 1.34 | 1.38 |
| 22 | BA | 1032 | A | C5-C4 | -6.52 | 1.34 | 1.38 |
| 22 | BA | 1086 | A | C5-C4 | -6.52 | 1.34 | 1.38 |
| 22 | BA | 1373 | A | C8-N7 | 6.52 | 1.36 | 1.31 |
| 1 | AA | 411 | A | N3-C4 | 6.52 | 1.38 | 1.34 |
| 55 | B8 | 73 | A | C8-N7 | 6.52 | 1.36 | 1.31 |
| 22 | BA | 1111 | A | C5-C4 | -6.52 | 1.34 | 1.38 |
| 22 | BA | 1265 | A | C8-N7 | 6.52 | 1.36 | 1.31 |
| 22 | BA | 1284 | A | C8-N7 | 6.52 | 1.36 | 1.31 |
| 22 | BA | 2765 | A | C5-C4 | -6.52 | 1.34 | 1.38 |
| 22 | BA | 1754 | A | C8-N7 | 6.52 | 1.36 | 1.31 |
| 22 | BA | 2037 | A | C5-C4 | -6.52 | 1.34 | 1.38 |
| 22 | BA | 845 | A | N3-C4 | 6.51 | 1.38 | 1.34 |
| 22 | BA | 1336 | A | C8-N7 | 6.51 | 1.36 | 1.31 |
| 22 | BA | 2031 | A | N3-C4 | 6.51 | 1.38 | 1.34 |
| 1 | AA | 1163 | A | N3-C4 | 6.51 | 1.38 | 1.34 |
| 1 | AA | 1483 | A | C5-C4 | -6.51 | 1.34 | 1.38 |
| 22 | BA | 1014 | A | C5-C4 | -6.51 | 1.34 | 1.38 |
| 22 | BA | 1237 | A | C8-N7 | 6.51 | 1.36 | 1.31 |
| 22 | BA | 2346 | A | C5-C4 | -6.51 | 1.34 | 1.38 |
| 1 | AA | 1447 | A | C5-C4 | -6.51 | 1.34 | 1.38 |
| 22 | BA | 332 | A | C5-C4 | -6.51 | 1.34 | 1.38 |
| 22 | BA | 981 | A | C8-N7 | 6.51 | 1.36 | 1.31 |
| 22 | BA | 2117 | A | N3-C4 | 6.51 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2432 | A | C5-C4 | -6.51 | 1.34 | 1.38 |
| 22 | BA | 2726 | A | C5-C4 | -6.51 | 1.34 | 1.38 |
| 22 | BA | 63 | A | C5-C4 | -6.50 | 1.34 | 1.38 |
| 22 | BA | 783 | A | C5-C4 | -6.50 | 1.34 | 1.38 |
| 22 | BA | 310 | A | C8-N7 | 6.50 | 1.36 | 1.31 |
| 22 | BA | 1001 | A | C5-C4 | -6.50 | 1.34 | 1.38 |
| 22 | BA | 1276 | A | C5-C4 | -6.50 | 1.34 | 1.38 |
| 22 | BA | 2434 | A | C8-N7 | 6.50 | 1.36 | 1.31 |
| 1 | AA | 681 | A | C5-C4 | -6.50 | 1.34 | 1.38 |
| 1 | AA | 909 | A | C5-C4 | -6.50 | 1.34 | 1.38 |
| 1 | AA | 1196 | A | C5-C4 | -6.50 | 1.34 | 1.38 |
| 22 | BA | 152 | A | C8-N7 | 6.50 | 1.36 | 1.31 |
| 22 | BA | 1274 | A | C5-C4 | -6.50 | 1.34 | 1.38 |
| 22 | BA | 1900 | A | C8-N7 | 6.50 | 1.36 | 1.31 |
| 22 | BA | 1901 | A | C8-N7 | 6.50 | 1.36 | 1.31 |
| 1 | AA | 878 | A | C5-C4 | -6.50 | 1.34 | 1.38 |
| 1 | AA | 1377 | A | C5-C4 | -6.50 | 1.34 | 1.38 |
| 22 | BA | 423 | A | C5-C4 | -6.50 | 1.34 | 1.38 |
| 22 | BA | 2163 | A | N3-C4 | 6.50 | 1.38 | 1.34 |
| 22 | BA | 2134 | A | N3-C4 | 6.50 | 1.38 | 1.34 |
| 1 | AA | 718 | A | C5-C4 | -6.49 | 1.34 | 1.38 |
| 22 | BA | 64 | A | C8-N7 | 6.49 | 1.36 | 1.31 |
| 22 | BA | 466 | A | C5-C4 | -6.49 | 1.34 | 1.38 |
| 22 | BA | 655 | A | C5-C4 | -6.49 | 1.34 | 1.38 |
| 22 | BA | 1679 | A | C8-N7 | 6.49 | 1.36 | 1.31 |
| 22 | BA | 2333 | A | C8-N7 | 6.49 | 1.36 | 1.31 |
| 22 | BA | 222 | A | C8-N7 | 6.49 | 1.36 | 1.31 |
| 22 | BA | 347 | A | C5-C4 | -6.49 | 1.34 | 1.38 |
| 22 | BA | 2560 | A | C5-C4 | -6.49 | 1.34 | 1.38 |
| 22 | BA | 160 | A | C5-C4 | -6.49 | 1.34 | 1.38 |
| 22 | BA | 1803 | A | N3-C4 | 6.49 | 1.38 | 1.34 |
| 22 | BA | 2639 | A | C5-C4 | -6.49 | 1.34 | 1.38 |
| 22 | BA | 1134 | A | C5-C4 | -6.49 | 1.34 | 1.38 |
| 23 | BB | 104 | A | C8-N7 | 6.49 | 1.36 | 1.31 |
| 1 | AA | 716 | A | C8-N7 | 6.48 | 1.36 | 1.31 |
| 1 | AA | 794 | A | C5-C4 | -6.48 | 1.34 | 1.38 |
| 23 | BB | 59 | A | C8-N7 | 6.48 | 1.36 | 1.31 |
| 22 | BA | 505 | A | C5-C4 | -6.48 | 1.34 | 1.38 |
| 22 | BA | 1634 | A | C5-C4 | -6.48 | 1.34 | 1.38 |
| 1 | AA | 2 | A | C5-C4 | -6.48 | 1.34 | 1.38 |
| 1 | AA | 243 | A | C5-C4 | -6.48 | 1.34 | 1.38 |
| 22 | BA | 918 | A | C5-C4 | -6.48 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2270 | A | C8-N7 | 6.48 | 1.36 | 1.31 |
| 1 | AA | 706 | A | N3-C4 | 6.48 | 1.38 | 1.34 |
| 22 | BA | 833 | A | C5-C4 | -6.48 | 1.34 | 1.38 |
| 22 | BA | 945 | A | C5-C4 | -6.48 | 1.34 | 1.38 |
| 23 | BB | 73 | A | C8-N7 | 6.48 | 1.36 | 1.31 |
| 1 | AA | 918 | A | C5-C4 | -6.48 | 1.34 | 1.38 |
| 22 | BA | 241 | A | C5-C4 | -6.48 | 1.34 | 1.38 |
| 22 | BA | 1189 | A | C5-C4 | -6.47 | 1.34 | 1.38 |
| 1 | AA | 53 | A | C5-C4 | -6.47 | 1.34 | 1.38 |
| 22 | BA | 2051 | A | C5-C4 | -6.47 | 1.34 | 1.38 |
| 22 | BA | 2336 | A | C5-C4 | -6.47 | 1.34 | 1.38 |
| 22 | BA | 89 | A | C5-C4 | -6.47 | 1.34 | 1.38 |
| 22 | BA | 1040 | A | C5-C4 | -6.47 | 1.34 | 1.38 |
| 1 | AA | 80 | A | N3-C4 | 6.47 | 1.38 | 1.34 |
| 22 | BA | 927 | A | C8-N7 | 6.47 | 1.36 | 1.31 |
| 22 | BA | 1378 | A | C8-N7 | 6.47 | 1.36 | 1.31 |
| 22 | BA | 2476 | A | C5-C4 | -6.47 | 1.34 | 1.38 |
| 22 | BA | 637 | A | C5-C4 | -6.47 | 1.34 | 1.38 |
| 22 | BA | 2088 | A | C5-C4 | -6.47 | 1.34 | 1.38 |
| 22 | BA | 2733 | A | C5-C4 | -6.47 | 1.34 | 1.38 |
| 1 | AA | 412 | A | N3-C4 | 6.46 | 1.38 | 1.34 |
| 22 | BA | 1156 | A | N3-C4 | 6.46 | 1.38 | 1.34 |
| 55 | B8 | 66 | A | C8-N7 | 6.46 | 1.36 | 1.31 |
| 1 | AA | 1 | A | N3-C4 | 6.46 | 1.38 | 1.34 |
| 1 | AA | 3 | A | C5-C4 | -6.46 | 1.34 | 1.38 |
| 1 | AA | 1434 | A | C5-C4 | -6.46 | 1.34 | 1.38 |
| 22 | BA | 1272 | A | C8-N7 | 6.46 | 1.36 | 1.31 |
| 22 | BA | 1503 | A | C5-C4 | -6.46 | 1.34 | 1.38 |
| 22 | BA | 401 | A | C5-C4 | -6.46 | 1.34 | 1.38 |
| 22 | BA | 478 | A | C8-N7 | 6.46 | 1.36 | 1.31 |
| 22 | BA | 1783 | A | C5-C4 | -6.46 | 1.34 | 1.38 |
| 22 | BA | 2031 | A | C5-C4 | -6.46 | 1.34 | 1.38 |
| 22 | BA | 2184 | A | N3-C4 | 6.46 | 1.38 | 1.34 |
| 1 | AA | 197 | A | C5-C4 | -6.46 | 1.34 | 1.38 |
| 22 | BA | 1701 | A | C8-N7 | 6.46 | 1.36 | 1.31 |
| 22 | BA | 1801 | A | C8-N7 | 6.46 | 1.36 | 1.31 |
| 1 | AA | 10 | A | C5-C4 | -6.45 | 1.34 | 1.38 |
| 1 | AA | 523 | A | C5-C4 | -6.45 | 1.34 | 1.38 |
| 22 | BA | 513 | A | N7-C5 | -6.45 | 1.35 | 1.39 |
| 22 | BA | 2837 | A | C5-C4 | -6.45 | 1.34 | 1.38 |
| 1 | AA | 499 | A | C5-C4 | -6.45 | 1.34 | 1.38 |
| 22 | BA | 943 | A | C5-C4 | -6.45 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1009 | A | C5-C4 | -6.45 | 1.34 | 1.38 |
| 22 | BA | 2565 | A | C5-C4 | -6.45 | 1.34 | 1.38 |
| 22 | BA | 960 | A | N3-C4 | 6.45 | 1.38 | 1.34 |
| 1 | AA | 802 | A | C5-C4 | -6.45 | 1.34 | 1.38 |
| 1 | AA | 914 | A | C8-N7 | 6.45 | 1.36 | 1.31 |
| 22 | BA | 346 | A | C5-C4 | -6.45 | 1.34 | 1.38 |
| 22 | BA | 633 | A | C8-N7 | 6.45 | 1.36 | 1.31 |
| 22 | BA | 706 | A | C8-N7 | 6.45 | 1.36 | 1.31 |
| 22 | BA | 804 | A | C5-C4 | -6.45 | 1.34 | 1.38 |
| 22 | BA | 1522 | A | C5-C4 | -6.45 | 1.34 | 1.38 |
| 22 | BA | 1784 | A | C5-C4 | -6.45 | 1.34 | 1.38 |
| 22 | BA | 1872 | A | C8-N7 | 6.45 | 1.36 | 1.31 |
| 22 | BA | 1877 | A | C5-C4 | -6.45 | 1.34 | 1.38 |
| 22 | BA | 2154 | A | C5-C4 | -6.45 | 1.34 | 1.38 |
| 22 | BA | 1532 | A | C5-C4 | -6.44 | 1.34 | 1.38 |
| 1 | AA | 356 | A | C5-C4 | -6.44 | 1.34 | 1.38 |
| 22 | BA | 502 | A | C5-C4 | -6.44 | 1.34 | 1.38 |
| 22 | BA | 782 | A | C5-C4 | -6.44 | 1.34 | 1.38 |
| 22 | BA | 1111 | A | N3-C4 | 6.44 | 1.38 | 1.34 |
| 22 | BA | 1431 | A | C5-C4 | -6.44 | 1.34 | 1.38 |
| 22 | BA | 1626 | A | C8-N7 | 6.44 | 1.36 | 1.31 |
| 22 | BA | 1509 | A | C5-C4 | -6.44 | 1.34 | 1.38 |
| 1 | AA | 1431 | A | C8-N7 | 6.44 | 1.36 | 1.31 |
| 22 | BA | 508 | A | N3-C4 | 6.44 | 1.38 | 1.34 |
| 1 | AA | 51 | A | C5-C4 | -6.43 | 1.34 | 1.38 |
| 1 | AA | 602 | A | C5-C4 | -6.43 | 1.34 | 1.38 |
| 22 | BA | 1937 | A | C5-C4 | -6.43 | 1.34 | 1.38 |
| 22 | BA | 2381 | A | C8-N7 | 6.43 | 1.36 | 1.31 |
| 1 | AA | 161 | A | C5-C4 | -6.43 | 1.34 | 1.38 |
| 1 | AA | 777 | A | C5-C4 | -6.43 | 1.34 | 1.38 |
| 22 | BA | 74 | A | C5-C4 | -6.43 | 1.34 | 1.38 |
| 22 | BA | 2412 | A | C5-C4 | -6.43 | 1.34 | 1.38 |
| 23 | BB | 52 | A | C5-C4 | -6.43 | 1.34 | 1.38 |
| 22 | BA | 1932 | A | C8-N7 | 6.43 | 1.36 | 1.31 |
| 1 | AA | 55 | A | C5-C4 | -6.43 | 1.34 | 1.38 |
| 23 | BB | 78 | A | C8-N7 | 6.43 | 1.36 | 1.31 |
| 22 | BA | 866 | A | C8-N7 | 6.43 | 1.36 | 1.31 |
| 22 | BA | 1054 | A | N3-C4 | 6.43 | 1.38 | 1.34 |
| 22 | BA | 2377 | A | C8-N7 | 6.43 | 1.36 | 1.31 |
| 1 | AA | 574 | A | C5-C4 | -6.42 | 1.34 | 1.38 |
| 22 | BA | 38 | A | C5-C4 | -6.42 | 1.34 | 1.38 |
| 22 | BA | 1230 | A | C8-N7 | 6.42 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2322 | A | C5-C4 | -6.42 | 1.34 | 1.38 |
| 55 | B8 | 26 | A | C5-C4 | -6.42 | 1.34 | 1.38 |
| 55 | B8 | 58 | A | C5-C4 | -6.42 | 1.34 | 1.38 |
| 1 | AA | 600 | A | C5-C4 | -6.42 | 1.34 | 1.38 |
| 22 | BA | 522 | A | C5-C4 | -6.42 | 1.34 | 1.38 |
| 22 | BA | 1632 | A | C8-N7 | 6.42 | 1.36 | 1.31 |
| 1 | AA | 1289 | A | C5-C4 | -6.42 | 1.34 | 1.38 |
| 22 | BA | 1614 | A | C8-N7 | 6.42 | 1.36 | 1.31 |
| 22 | BA | 2183 | A | N3-C4 | 6.42 | 1.38 | 1.34 |
| 1 | AA | 1339 | A | C8-N7 | 6.42 | 1.36 | 1.31 |
| 22 | BA | 1854 | A | C5-C4 | -6.42 | 1.34 | 1.38 |
| 1 | AA | 1318 | A | C5-C4 | -6.42 | 1.34 | 1.38 |
| 22 | BA | 2682 | A | C8-N7 | 6.42 | 1.36 | 1.31 |
| 23 | BB | 34 | A | C5-C4 | -6.42 | 1.34 | 1.38 |
| 1 | AA | 1275 | A | C5-C4 | -6.42 | 1.34 | 1.38 |
| 1 | AA | 1507 | A | C5-C4 | -6.42 | 1.34 | 1.38 |
| 22 | BA | 960 | A | N7-C5 | -6.41 | 1.35 | 1.39 |
| 22 | BA | 2757 | A | N3-C4 | 6.41 | 1.38 | 1.34 |
| 1 | AA | 1299 | A | C5-C4 | -6.41 | 1.34 | 1.38 |
| 1 | AA | 364 | A | C5-C4 | -6.41 | 1.34 | 1.38 |
| 1 | AA | 468 | A | N3-C4 | 6.41 | 1.38 | 1.34 |
| 1 | AA | 1492 | A | C5-C4 | -6.41 | 1.34 | 1.38 |
| 22 | BA | 2327 | A | C5-C4 | -6.41 | 1.34 | 1.38 |
| 1 | AA | 1513 | A | C5-C4 | -6.41 | 1.34 | 1.38 |
| 22 | BA | 477 | A | C5-C4 | -6.41 | 1.34 | 1.38 |
| 22 | BA | 1048 | A | N3-C4 | 6.41 | 1.38 | 1.34 |
| 22 | BA | 1899 | A | C5-C4 | -6.41 | 1.34 | 1.38 |
| 1 | AA | 665 | A | C5-C4 | -6.41 | 1.34 | 1.38 |
| 1 | AA | 510 | A | C5-C4 | -6.40 | 1.34 | 1.38 |
| 1 | AA | 712 | A | C5-C4 | -6.40 | 1.34 | 1.38 |
| 22 | BA | 83 | A | C5-C4 | -6.40 | 1.34 | 1.38 |
| 22 | BA | 13 | A | C8-N7 | 6.40 | 1.36 | 1.31 |
| 22 | BA | 216 | A | C8-N7 | 6.40 | 1.36 | 1.31 |
| 23 | BB | 119 | A | N3-C4 | 6.40 | 1.38 | 1.34 |
| 22 | BA | 715 | A | C5-C4 | -6.40 | 1.34 | 1.38 |
| 1 | AA | 502 | A | C5-C4 | -6.39 | 1.34 | 1.38 |
| 1 | AA | 1257 | A | N3-C4 | 6.39 | 1.38 | 1.34 |
| 22 | BA | 928 | A | C5-C4 | -6.39 | 1.34 | 1.38 |
| 22 | BA | 1572 | A | C5-C4 | -6.39 | 1.34 | 1.38 |
| 22 | BA | 2378 | A | C8-N7 | 6.39 | 1.36 | 1.31 |
| 22 | BA | 829 | A | C5-C4 | -6.39 | 1.34 | 1.38 |
| 22 | BA | 1960 | A | C8-N7 | 6.39 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2171 | A | N3-C4 | 6.39 | 1.38 | 1.34 |
| 1 | AA | 172 | A | C5-C4 | -6.39 | 1.34 | 1.38 |
| 1 | AA | 181 | A | C5-C4 | -6.39 | 1.34 | 1.38 |
| 1 | AA | 676 | A | C5-C4 | -6.39 | 1.34 | 1.38 |
| 22 | BA | 1020 | A | C5-C4 | -6.39 | 1.34 | 1.38 |
| 22 | BA | 1084 | A | N3-C4 | 6.39 | 1.38 | 1.34 |
| 22 | BA | 1698 | A | C5-C4 | -6.39 | 1.34 | 1.38 |
| 22 | BA | 2407 | A | C5-C4 | -6.39 | 1.34 | 1.38 |
| 1 | AA | 306 | A | C5-C4 | -6.39 | 1.34 | 1.38 |
| 1 | AA | 1201 | A | N3-C4 | 6.38 | 1.38 | 1.34 |
| 22 | BA | 309 | A | C8-N7 | 6.38 | 1.36 | 1.31 |
| 22 | BA | 449 | A | C5-C4 | -6.38 | 1.34 | 1.38 |
| 22 | BA | 2531 | A | C5-C4 | -6.38 | 1.34 | 1.38 |
| 22 | BA | 2776 | A | C8-N7 | 6.38 | 1.36 | 1.31 |
| 1 | AA | 640 | A | C5-C4 | -6.38 | 1.34 | 1.38 |
| 22 | BA | 1579 | A | C5-C4 | -6.38 | 1.34 | 1.38 |
| 22 | BA | 1928 | A | C5-C4 | -6.38 | 1.34 | 1.38 |
| 1 | AA | 143 | A | C5-C4 | -6.38 | 1.34 | 1.38 |
| 22 | BA | 782 | A | C8-N7 | 6.38 | 1.36 | 1.31 |
| 22 | BA | 1080 | A | N3-C4 | 6.38 | 1.38 | 1.34 |
| 22 | BA | 1359 | A | C8-N7 | 6.38 | 1.36 | 1.31 |
| 1 | AA | 1000 | A | C5-C4 | -6.38 | 1.34 | 1.38 |
| 22 | BA | 1609 | A | C8-N7 | 6.38 | 1.36 | 1.31 |
| 22 | BA | 1783 | A | N3-C4 | 6.38 | 1.38 | 1.34 |
| 1 | AA | 74 | A | C5-C4 | -6.38 | 1.34 | 1.38 |
| 1 | AA | 1408 | A | C5-C4 | -6.38 | 1.34 | 1.38 |
| 1 | AA | 59 | A | C5-C4 | -6.37 | 1.34 | 1.38 |
| 1 | AA | 78 | A | N3-C4 | 6.37 | 1.38 | 1.34 |
| 1 | AA | 495 | A | C5-C4 | -6.37 | 1.34 | 1.38 |
| 1 | AA | 1256 | A | C5-C4 | -6.37 | 1.34 | 1.38 |
| 22 | BA | 1098 | A | N3-C4 | 6.37 | 1.38 | 1.34 |
| 22 | BA | 2518 | A | C8-N7 | 6.37 | 1.36 | 1.31 |
| 1 | AA | 935 | A | C5-C4 | -6.37 | 1.34 | 1.38 |
| 1 | AA | 1483 | A | N3-C4 | 6.37 | 1.38 | 1.34 |
| 22 | BA | 1610 | A | C8-N7 | 6.37 | 1.36 | 1.31 |
| 22 | BA | 152 | A | C5-C4 | -6.37 | 1.34 | 1.38 |
| 22 | BA | 2126 | A | N3-C4 | 6.37 | 1.38 | 1.34 |
| 1 | AA | 1117 | A | C5-C4 | -6.37 | 1.34 | 1.38 |
| 22 | BA | 204 | A | C8-N7 | 6.37 | 1.36 | 1.31 |
| 22 | BA | 311 | A | C8-N7 | 6.37 | 1.36 | 1.31 |
| 1 | AA | 119 | A | C5-C4 | -6.37 | 1.34 | 1.38 |
| 22 | BA | 502 | A | C8-N7 | 6.37 | 1.36 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1214 | A | C8-N7 | 6.37 | 1.36 | 1.31 |
| 22 | BA | 2005 | A | C5-C4 | -6.37 | 1.34 | 1.38 |
| 23 | BB | 119 | A | C5-C4 | -6.37 | 1.34 | 1.38 |
| 1 | AA | 946 | A | C5-C4 | -6.37 | 1.34 | 1.38 |
| 22 | BA | 2662 | A | C8-N7 | 6.37 | 1.36 | 1.31 |
| 22 | BA | 2711 | A | N3-C4 | 6.37 | 1.38 | 1.34 |
| 1 | AA | 44 | A | C5-C4 | -6.36 | 1.34 | 1.38 |
| 22 | BA | 990 | A | C5-C4 | -6.36 | 1.34 | 1.38 |
| 22 | BA | 2169 | A | N3-C4 | 6.36 | 1.38 | 1.34 |
| 22 | BA | 2711 | A | C8-N7 | 6.36 | 1.36 | 1.31 |
| 22 | BA | 2900 | A | C5-C4 | -6.36 | 1.34 | 1.38 |
| 1 | AA | 781 | A | C5-C4 | -6.36 | 1.34 | 1.38 |
| 22 | BA | 654 | A | C5-C4 | -6.36 | 1.34 | 1.38 |
| 22 | BA | 1057 | A | N3-C4 | 6.36 | 1.38 | 1.34 |
| 22 | BA | 1552 | A | C5-C4 | -6.36 | 1.34 | 1.38 |
| 22 | BA | 2411 | A | C8-N7 | 6.36 | 1.36 | 1.31 |
| 22 | BA | 616 | A | C5-C4 | -6.36 | 1.34 | 1.38 |
| 1 | AA | 389 | A | N3-C4 | 6.36 | 1.38 | 1.34 |
| 1 | AA | 456 | A | C5-C4 | -6.36 | 1.34 | 1.38 |
| 22 | BA | 1021 | A | C5-C4 | -6.36 | 1.34 | 1.38 |
| 1 | AA | 53 | A | N3-C4 | 6.36 | 1.38 | 1.34 |
| 1 | AA | 321 | A | C5-C4 | -6.36 | 1.34 | 1.38 |
| 12 | AL | 45 | PRO | N-CA | -6.36 | 1.36 | 1.47 |
| 22 | BA | 196 | A | C8-N7 | 6.36 | 1.35 | 1.31 |
| 22 | BA | 272 | A | C5-C4 | -6.36 | 1.34 | 1.38 |
| 22 | BA | 2278 | A | C5-C4 | -6.36 | 1.34 | 1.38 |
| 23 | BB | 58 | A | C5-C4 | -6.36 | 1.34 | 1.38 |
| 23 | BB | 59 | A | N3-C4 | 6.36 | 1.38 | 1.34 |
| 1 | AA | 109 | A | C5-C4 | -6.35 | 1.34 | 1.38 |
| 1 | AA | 533 | A | N3-C4 | 6.35 | 1.38 | 1.34 |
| 1 | AA | 560 | A | C5-C4 | -6.35 | 1.34 | 1.38 |
| 22 | BA | 64 | A | C5-C4 | -6.35 | 1.34 | 1.38 |
| 22 | BA | 1096 | A | N3-C4 | 6.35 | 1.38 | 1.34 |
| 22 | BA | 2335 | A | N3-C4 | 6.35 | 1.38 | 1.34 |
| 22 | BA | 2614 | A | C5-C4 | -6.35 | 1.34 | 1.38 |
| 1 | AA | 344 | A | C5-C4 | -6.35 | 1.34 | 1.38 |
| 22 | BA | 1505 | A | C5-C4 | -6.35 | 1.34 | 1.38 |
| 22 | BA | 2850 | A | C8-N7 | 6.35 | 1.35 | 1.31 |
| 22 | BA | 53 | A | C8-N7 | 6.34 | 1.35 | 1.31 |
| 22 | BA | 497 | A | C8-N7 | 6.34 | 1.35 | 1.31 |
| 22 | BA | 973 | A | C5-C4 | -6.34 | 1.34 | 1.38 |
| 22 | BA | 1095 | A | N3-C4 | 6.34 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 1418 | A | C5-C4 | -6.34 | 1.34 | 1.38 |
| 22 | BA | 1918 | A | C5-C4 | -6.34 | 1.34 | 1.38 |
| 22 | BA | 2297 | A | C5-C4 | -6.34 | 1.34 | 1.38 |
| 1 | AA | 383 | A | N3-C4 | 6.34 | 1.38 | 1.34 |
| 22 | BA | 1916 | A | C5-C4 | -6.34 | 1.34 | 1.38 |
| 22 | BA | 2281 | A | C5-C4 | -6.34 | 1.34 | 1.38 |
| 22 | BA | 2813 | A | C5-C4 | -6.34 | 1.34 | 1.38 |
| 23 | BB | 101 | A | C5-C4 | -6.34 | 1.34 | 1.38 |
| 1 | AA | 130 | A | C5-C4 | -6.34 | 1.34 | 1.38 |
| 1 | AA | 373 | A | N3-C4 | 6.34 | 1.38 | 1.34 |
| 1 | AA | 825 | A | C5-C4 | -6.34 | 1.34 | 1.38 |
| 1 | AA | 1157 | A | N3-C4 | 6.34 | 1.38 | 1.34 |
| 1 | AA | 655 | A | C5-C4 | -6.34 | 1.34 | 1.38 |
| 22 | BA | 422 | A | N3-C4 | 6.34 | 1.38 | 1.34 |
| 22 | BA | 899 | A | C5-C4 | -6.34 | 1.34 | 1.38 |
| 22 | BA | 1496 | A | N3-C4 | 6.34 | 1.38 | 1.34 |
| 22 | BA | 1669 | A | N3-C4 | 6.34 | 1.38 | 1.34 |
| 22 | BA | 182 | A | C5-C4 | -6.33 | 1.34 | 1.38 |
| 1 | AA | 906 | A | C5-C4 | -6.33 | 1.34 | 1.38 |
| 22 | BA | 374 | A | C8-N7 | 6.33 | 1.35 | 1.31 |
| 22 | BA | 2560 | A | C8-N7 | 6.33 | 1.35 | 1.31 |
| 55 | B8 | 41 | A | C5-C4 | -6.33 | 1.34 | 1.38 |
| 1 | AA | 171 | A | N3-C4 | 6.33 | 1.38 | 1.34 |
| 22 | BA | 101 | A | C5-C4 | -6.33 | 1.34 | 1.38 |
| 55 | B8 | 51 | A | C5-C4 | -6.33 | 1.34 | 1.38 |
| 1 | AA | 1502 | A | C5-C4 | -6.33 | 1.34 | 1.38 |
| 1 | AA | 456 | A | N3-C4 | 6.33 | 1.38 | 1.34 |
| 1 | AA | 1252 | A | N3-C4 | 6.33 | 1.38 | 1.34 |
| 22 | BA | 412 | A | C5-C4 | -6.33 | 1.34 | 1.38 |
| 22 | BA | 2114 | A | N3-C4 | 6.33 | 1.38 | 1.34 |
| 22 | BA | 282 | A | C5-C4 | -6.33 | 1.34 | 1.38 |
| 22 | BA | 256 | A | C5-C4 | -6.33 | 1.34 | 1.38 |
| 22 | BA | 783 | A | N3-C4 | 6.33 | 1.38 | 1.34 |
| 22 | BA | 1127 | A | C5-C4 | -6.33 | 1.34 | 1.38 |
| 1 | AA | 937 | A | C5-C4 | -6.32 | 1.34 | 1.38 |
| 1 | AA | 573 | A | C5-C4 | -6.32 | 1.34 | 1.38 |
| 22 | BA | 1928 | A | C8-N7 | 6.32 | 1.35 | 1.31 |
| 22 | BA | 2451 | A | C5-C4 | -6.32 | 1.34 | 1.38 |
| 1 | AA | 994 | A | N3-C4 | 6.32 | 1.38 | 1.34 |
| 1 | AA | 1170 | A | C8-N7 | 6.32 | 1.35 | 1.31 |
| 22 | BA | 13 | A | C5-C4 | -6.32 | 1.34 | 1.38 |
| 22 | BA | 478 | A | C5-C4 | -6.32 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2425 | A | C8-N7 | 6.32 | 1.35 | 1.31 |
| 22 | BA | 482 | A | C5-C4 | -6.32 | 1.34 | 1.38 |
| 22 | BA | 1755 | A | C8-N7 | 6.32 | 1.35 | 1.31 |
| 1 | AA | 408 | A | N3-C4 | 6.32 | 1.38 | 1.34 |
| 1 | AA | 1157 | A | C5-C4 | -6.32 | 1.34 | 1.38 |
| 22 | BA | 1039 | A | C5-C4 | -6.32 | 1.34 | 1.38 |
| 22 | BA | 1260 | A | C5-C4 | -6.32 | 1.34 | 1.38 |
| 22 | BA | 199 | A | C8-N7 | 6.31 | 1.35 | 1.31 |
| 22 | BA | 21 | A | N3-C4 | 6.31 | 1.38 | 1.34 |
| 22 | BA | 627 | A | C5-C4 | -6.31 | 1.34 | 1.38 |
| 22 | BA | 1027 | A | C8-N7 | 6.31 | 1.35 | 1.31 |
| 22 | BA | 226 | A | C5-C4 | -6.31 | 1.34 | 1.38 |
| 22 | BA | 928 | A | C8-N7 | 6.31 | 1.35 | 1.31 |
| 22 | BA | 730 | A | N3-C4 | 6.31 | 1.38 | 1.34 |
| 22 | BA | 1508 | A | C5-C4 | -6.31 | 1.34 | 1.38 |
| 22 | BA | 1690 | A | C8-N7 | 6.31 | 1.35 | 1.31 |
| 22 | BA | 2266 | A | C5-C4 | -6.31 | 1.34 | 1.38 |
| 1 | AA | 129 | A | C5-C4 | -6.31 | 1.34 | 1.38 |
| 1 | AA | 807 | A | C5-C4 | -6.31 | 1.34 | 1.38 |
| 22 | BA | 279 | A | C5-C4 | -6.31 | 1.34 | 1.38 |
| 22 | BA | 1744 | A | C5-C4 | -6.31 | 1.34 | 1.38 |
| 22 | BA | 2750 | A | C5-C4 | -6.31 | 1.34 | 1.38 |
| 22 | BA | 2761 | A | C5-C4 | -6.31 | 1.34 | 1.38 |
| 1 | AA | 629 | A | C5-C4 | -6.31 | 1.34 | 1.38 |
| 1 | AA | 448 | A | N3-C4 | 6.30 | 1.38 | 1.34 |
| 1 | AA | 794 | A | C8-N7 | 6.30 | 1.35 | 1.31 |
| 1 | AA | 968 | A | C5-C4 | -6.30 | 1.34 | 1.38 |
| 22 | BA | 44 | A | C5-C4 | -6.30 | 1.34 | 1.38 |
| 22 | BA | 820 | A | C5-C4 | -6.30 | 1.34 | 1.38 |
| 1 | AA | 72 | A | C5-C4 | -6.30 | 1.34 | 1.38 |
| 1 | AA | 919 | A | C5-C4 | -6.30 | 1.34 | 1.38 |
| 22 | BA | 2706 | A | C8-N7 | 6.30 | 1.35 | 1.31 |
| 1 | AA | 1145 | A | N3-C4 | 6.30 | 1.38 | 1.34 |
| 22 | BA | 1571 | A | N3-C4 | 6.30 | 1.38 | 1.34 |
| 1 | AA | 554 | A | C5-C4 | -6.30 | 1.34 | 1.38 |
| 22 | BA | 643 | A | C8-N7 | 6.30 | 1.35 | 1.31 |
| 22 | BA | 1819 | A | C8-N7 | 6.30 | 1.35 | 1.31 |
| 22 | BA | 127 | A | C8-N7 | 6.30 | 1.35 | 1.31 |
| 22 | BA | 2119 | A | N3-C4 | 6.30 | 1.38 | 1.34 |
| 1 | AA | 1275 | A | N3-C4 | 6.30 | 1.38 | 1.34 |
| 22 | BA | 1308 | A | N7-C5 | -6.30 | 1.35 | 1.39 |
| 22 | BA | 1669 | A | C8-N7 | 6.30 | 1.35 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2432 | A | C8-N7 | 6.30 | 1.35 | 1.31 |
| 1 | AA | 1437 | A | C5-C4 | -6.29 | 1.34 | 1.38 |
| 22 | BA | 282 | A | N3-C4 | 6.29 | 1.38 | 1.34 |
| 22 | BA | 1029 | A | C5-C4 | -6.29 | 1.34 | 1.38 |
| 1 | AA | 336 | A | C5-C4 | -6.29 | 1.34 | 1.38 |
| 22 | BA | 344 | A | C5-C4 | -6.29 | 1.34 | 1.38 |
| 22 | BA | 352 | A | C5-C4 | -6.29 | 1.34 | 1.38 |
| 22 | BA | 404 | A | C5-C4 | -6.29 | 1.34 | 1.38 |
| 22 | BA | 449 | A | C8-N7 | 6.29 | 1.35 | 1.31 |
| 22 | BA | 590 | A | C8-N7 | 6.29 | 1.35 | 1.31 |
| 22 | BA | 764 | A | C5-C4 | -6.29 | 1.34 | 1.38 |
| 22 | BA | 2327 | A | C8-N7 | 6.29 | 1.35 | 1.31 |
| 1 | AA | 1219 | A | N3-C4 | 6.29 | 1.38 | 1.34 |
| 22 | BA | 428 | A | C8-N7 | 6.29 | 1.35 | 1.31 |
| 22 | BA | 2059 | A | N3-C4 | 6.29 | 1.38 | 1.34 |
| 22 | BA | 2227 | A | C8-N7 | 6.29 | 1.35 | 1.31 |
| 22 | BA | 2425 | A | N3-C4 | 6.29 | 1.38 | 1.34 |
| 22 | BA | 149 | A | C8-N7 | 6.29 | 1.35 | 1.31 |
| 22 | BA | 1054 | A | C5-C4 | -6.29 | 1.34 | 1.38 |
| 22 | BA | 1746 | A | C5-C4 | -6.29 | 1.34 | 1.38 |
| 1 | AA | 630 | A | N3-C4 | 6.29 | 1.38 | 1.34 |
| 22 | BA | 278 | A | N3-C4 | 6.29 | 1.38 | 1.34 |
| 1 | AA | 432 | A | N3-C4 | 6.29 | 1.38 | 1.34 |
| 1 | AA | 1022 | A | N3-C4 | 6.29 | 1.38 | 1.34 |
| 22 | BA | 1226 | A | C5-C4 | -6.29 | 1.34 | 1.38 |
| 1 | AA | 441 | A | N3-C4 | 6.28 | 1.38 | 1.34 |
| 22 | BA | 507 | A | C5-C4 | -6.28 | 1.34 | 1.38 |
| 22 | BA | 2738 | A | C8-N7 | 6.28 | 1.35 | 1.31 |
| 22 | BA | 2850 | A | C5-C4 | -6.28 | 1.34 | 1.38 |
| 1 | AA | 1254 | A | C5-C4 | -6.28 | 1.34 | 1.38 |
| 1 | AA | 1433 | A | C5-C4 | -6.28 | 1.34 | 1.38 |
| 1 | AA | 78 | A | C5-C4 | -6.28 | 1.34 | 1.38 |
| 22 | BA | 626 | A | C5-C4 | -6.28 | 1.34 | 1.38 |
| 22 | BA | 1470 | A | N3-C4 | 6.28 | 1.38 | 1.34 |
| 22 | BA | 1591 | A | C5-C4 | -6.28 | 1.34 | 1.38 |
| 22 | BA | 1780 | A | C5-C4 | -6.28 | 1.34 | 1.38 |
| 1 | AA | 28 | A | C5-C4 | -6.28 | 1.34 | 1.38 |
| 1 | AA | 270 | A | C5-C4 | -6.28 | 1.34 | 1.38 |
| 1 | AA | 1362 | A | C5-C4 | -6.28 | 1.34 | 1.38 |
| 22 | BA | 324 | A | C8-N7 | 6.28 | 1.35 | 1.31 |
| 55 | B8 | 21 | A | C8-N7 | 6.28 | 1.35 | 1.31 |
| 1 | AA | 1155 | A | C5-C4 | -6.27 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1073 | A | C5-C4 | -6.27 | 1.34 | 1.38 |
| 23 | BB | 45 | A | C5-C4 | -6.27 | 1.34 | 1.38 |
| 1 | AA | 1111 | A | C5-C4 | -6.27 | 1.34 | 1.38 |
| 22 | BA | 320 | A | C5-C4 | -6.27 | 1.34 | 1.38 |
| 22 | BA | 1385 | A | C8-N7 | 6.27 | 1.35 | 1.31 |
| 22 | BA | 2198 | A | N3-C4 | 6.27 | 1.38 | 1.34 |
| 22 | BA | 896 | A | N3-C4 | 6.27 | 1.38 | 1.34 |
| 23 | BB | 50 | A | C5-C4 | -6.27 | 1.34 | 1.38 |
| 1 | AA | 131 | A | C5-C4 | -6.27 | 1.34 | 1.38 |
| 22 | BA | 1549 | A | C8-N7 | 6.27 | 1.35 | 1.31 |
| 23 | BB | 53 | A | C5-C4 | -6.27 | 1.34 | 1.38 |
| 1 | AA | 16 | A | C5-C4 | -6.27 | 1.34 | 1.38 |
| 1 | AA | 728 | A | C5-C4 | -6.27 | 1.34 | 1.38 |
| 22 | BA | 1127 | A | C8-N7 | 6.27 | 1.35 | 1.31 |
| 22 | BA | 1347 | A | C8-N7 | 6.27 | 1.35 | 1.31 |
| 22 | BA | 1772 | A | C8-N7 | 6.27 | 1.35 | 1.31 |
| 22 | BA | 2448 | A | C8-N7 | 6.27 | 1.35 | 1.31 |
| 1 | AA | 415 | A | N3-C4 | 6.27 | 1.38 | 1.34 |
| 22 | BA | 627 | A | N3-C4 | 6.27 | 1.38 | 1.34 |
| 1 | AA | 192 | A | N3-C4 | 6.26 | 1.38 | 1.34 |
| 1 | AA | 864 | A | C5-C4 | -6.26 | 1.34 | 1.38 |
| 22 | BA | 94 | A | C5-C4 | -6.26 | 1.34 | 1.38 |
| 22 | BA | 2734 | A | C5-C4 | -6.26 | 1.34 | 1.38 |
| 1 | AA | 1012 | A | C5-C4 | -6.26 | 1.34 | 1.38 |
| 1 | AA | 356 | A | N3-C4 | 6.26 | 1.38 | 1.34 |
| 1 | AA | 938 | A | C5-C4 | -6.26 | 1.34 | 1.38 |
| 22 | BA | 217 | A | C5-C4 | -6.26 | 1.34 | 1.38 |
| 1 | AA | 1274 | A | N3-C4 | 6.26 | 1.38 | 1.34 |
| 22 | BA | 2778 | A | C8-N7 | 6.26 | 1.35 | 1.31 |
| 55 | B8 | 59 | A | C8-N7 | 6.26 | 1.35 | 1.31 |
| 1 | AA | 397 | A | C5-C4 | -6.26 | 1.34 | 1.38 |
| 1 | AA | 873 | A | C8-N7 | 6.26 | 1.35 | 1.31 |
| 22 | BA | 1532 | A | N3-C4 | 6.26 | 1.38 | 1.34 |
| 1 | AA | 478 | A | N3-C4 | 6.26 | 1.38 | 1.34 |
| 22 | BA | 1304 | A | C8-N7 | 6.26 | 1.35 | 1.31 |
| 1 | AA | 1179 | A | N3-C4 | 6.25 | 1.38 | 1.34 |
| 22 | BA | 1384 | A | C5-C4 | -6.25 | 1.34 | 1.38 |
| 1 | AA | 325 | A | C5-C4 | -6.25 | 1.34 | 1.38 |
| 1 | AA | 563 | A | C5-C4 | -6.25 | 1.34 | 1.38 |
| 22 | BA | 300 | A | C8-N7 | 6.25 | 1.35 | 1.31 |
| 22 | BA | 734 | A | C8-N7 | 6.25 | 1.35 | 1.31 |
| 22 | BA | 849 | A | C5-C4 | -6.25 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2267 | A | C5-C4 | -6.25 | 1.34 | 1.38 |
| 1 | AA | 1167 | A | N3-C4 | 6.25 | 1.38 | 1.34 |
| 22 | BA | 402 | A | C8-N7 | 6.25 | 1.35 | 1.31 |
| 22 | BA | 2183 | A | C5-C4 | -6.25 | 1.34 | 1.38 |
| 22 | BA | 2821 | A | C8-N7 | 6.25 | 1.35 | 1.31 |
| 1 | AA | 1146 | A | N3-C4 | 6.25 | 1.38 | 1.34 |
| 1 | AA | 1534 | A | N3-C4 | 6.25 | 1.38 | 1.34 |
| 1 | AA | 1285 | A | C5-C4 | -6.25 | 1.34 | 1.38 |
| 22 | BA | 429 | A | C8-N7 | 6.25 | 1.35 | 1.31 |
| 22 | BA | 1395 | A | C8-N7 | 6.25 | 1.35 | 1.31 |
| 22 | BA | 1598 | A | C8-N7 | 6.25 | 1.35 | 1.31 |
| 22 | BA | 1717 | A | C5-C4 | -6.25 | 1.34 | 1.38 |
| 1 | AA | 155 | A | C5-C4 | -6.25 | 1.34 | 1.38 |
| 22 | BA | 689 | A | C8-N7 | 6.25 | 1.35 | 1.31 |
| 22 | BA | 654 | A | N3-C4 | 6.25 | 1.38 | 1.34 |
| 1 | AA | 1102 | A | C5-C4 | -6.24 | 1.34 | 1.38 |
| 22 | BA | 311 | A | C5-C4 | -6.24 | 1.34 | 1.38 |
| 22 | BA | 2170 | A | N3-C4 | 6.24 | 1.38 | 1.34 |
| 22 | BA | 2273 | A | N3-C4 | 6.24 | 1.38 | 1.34 |
| 22 | BA | 2297 | A | C8-N7 | 6.24 | 1.35 | 1.31 |
| 22 | BA | 2572 | A | C8-N7 | 6.24 | 1.35 | 1.31 |
| 1 | AA | 338 | A | C5-C4 | -6.24 | 1.34 | 1.38 |
| 1 | AA | 393 | A | N3-C4 | 6.24 | 1.38 | 1.34 |
| 1 | AA | 1396 | A | N3-C4 | 6.24 | 1.38 | 1.34 |
| 1 | AA | 696 | A | C5-C4 | -6.24 | 1.34 | 1.38 |
| 1 | AA | 949 | A | C5-C4 | -6.24 | 1.34 | 1.38 |
| 1 | AA | 1012 | A | N3-C4 | 6.24 | 1.38 | 1.34 |
| 22 | BA | 63 | A | C8-N7 | 6.24 | 1.35 | 1.31 |
| 22 | BA | 925 | A | C8-N7 | 6.24 | 1.35 | 1.31 |
| 1 | AA | 964 | A | C5-C4 | -6.24 | 1.34 | 1.38 |
| 22 | BA | 1938 | A | C8-N7 | 6.24 | 1.35 | 1.31 |
| 1 | AA | 1080 | A | C5-C4 | -6.24 | 1.34 | 1.38 |
| 22 | BA | 156 | A | C5-C4 | -6.23 | 1.34 | 1.38 |
| 1 | AA | 1093 | A | C5-C4 | -6.23 | 1.34 | 1.38 |
| 22 | BA | 2309 | A | N3-C4 | 6.23 | 1.38 | 1.34 |
| 22 | BA | 2734 | A | N3-C4 | 6.23 | 1.38 | 1.34 |
| 22 | BA | 2856 | A | N3-C4 | 6.23 | 1.38 | 1.34 |
| 1 | AA | 553 | A | N3-C4 | 6.23 | 1.38 | 1.34 |
| 22 | BA | 1569 | A | C8-N7 | 6.23 | 1.35 | 1.31 |
| 22 | BA | 2813 | A | N3-C4 | 6.23 | 1.38 | 1.34 |
| 23 | BB | 15 | A | C5-C4 | -6.23 | 1.34 | 1.38 |
| 1 | AA | 190 | A | C8-N7 | 6.23 | 1.35 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1802 | A | C5-C4 | -6.23 | 1.34 | 1.38 |
| 22 | BA | 2448 | A | C5-C4 | -6.23 | 1.34 | 1.38 |
| 22 | BA | 845 | A | C8-N7 | 6.23 | 1.35 | 1.31 |
| 22 | BA | 1285 | A | C5-C4 | -6.23 | 1.34 | 1.38 |
| 1 | AA | 640 | A | N3-C4 | 6.22 | 1.38 | 1.34 |
| 1 | AA | 1180 | A | N3-C4 | 6.22 | 1.38 | 1.34 |
| 22 | BA | 783 | A | C8-N7 | 6.22 | 1.35 | 1.31 |
| 22 | BA | 1046 | A | N3-C4 | 6.22 | 1.38 | 1.34 |
| 22 | BA | 1655 | A | N3-C4 | 6.22 | 1.38 | 1.34 |
| 1 | AA | 66 | A | C5-C4 | -6.22 | 1.34 | 1.38 |
| 1 | AA | 197 | A | N3-C4 | 6.22 | 1.38 | 1.34 |
| 1 | AA | 1204 | A | C5-C4 | -6.22 | 1.34 | 1.38 |
| 22 | BA | 2369 | A | C8-N7 | 6.22 | 1.35 | 1.31 |
| 22 | BA | 142 | A | C5-C4 | -6.22 | 1.34 | 1.38 |
| 22 | BA | 538 | A | C8-N7 | 6.22 | 1.35 | 1.31 |
| 22 | BA | 613 | A | N3-C4 | 6.22 | 1.38 | 1.34 |
| 22 | BA | 2800 | A | C5-C4 | -6.22 | 1.34 | 1.38 |
| 55 | B8 | 26 | A | C8-N7 | 6.22 | 1.35 | 1.31 |
| 1 | AA | 246 | A | N3-C4 | 6.22 | 1.38 | 1.34 |
| 1 | AA | 1152 | A | N3-C4 | 6.22 | 1.38 | 1.34 |
| 22 | BA | 362 | A | N3-C4 | 6.22 | 1.38 | 1.34 |
| 1 | AA | 749 | A | N3-C4 | 6.21 | 1.38 | 1.34 |
| 22 | BA | 541 | A | C8-N7 | 6.21 | 1.35 | 1.31 |
| 22 | BA | 1274 | A | C8-N7 | 6.21 | 1.35 | 1.31 |
| 1 | AA | 174 | A | N3-C4 | 6.21 | 1.38 | 1.34 |
| 1 | AA | 746 | A | N3-C4 | 6.21 | 1.38 | 1.34 |
| 1 | AA | 649 | A | C5-C4 | -6.21 | 1.34 | 1.38 |
| 22 | BA | 430 | A | C5-C4 | -6.21 | 1.34 | 1.38 |
| 22 | BA | 2094 | A | C5-C4 | -6.21 | 1.34 | 1.38 |
| 22 | BA | 2882 | A | N3-C4 | 6.21 | 1.38 | 1.34 |
| 22 | BA | 2799 | A | C5-C4 | -6.21 | 1.34 | 1.38 |
| 1 | AA | 1021 | A | N3-C4 | 6.20 | 1.38 | 1.34 |
| 22 | BA | 2097 | A | C5-C4 | -6.20 | 1.34 | 1.38 |
| 1 | AA | 753 | A | C5-C4 | -6.20 | 1.34 | 1.38 |
| 1 | AA | 1196 | A | N3-C4 | 6.20 | 1.38 | 1.34 |
| 22 | BA | 1919 | A | C5-C4 | -6.20 | 1.34 | 1.38 |
| 1 | AA | 908 | A | C5-C4 | -6.20 | 1.34 | 1.38 |
| 1 | AA | 1288 | A | N3-C4 | 6.20 | 1.38 | 1.34 |
| 22 | BA | 483 | A | C8-N7 | 6.20 | 1.35 | 1.31 |
| 22 | BA | 2070 | A | C8-N7 | 6.20 | 1.35 | 1.31 |
| 22 | BA | 2225 | A | C8-N7 | 6.20 | 1.35 | 1.31 |
| 23 | BB | 57 | A | C5-C4 | -6.20 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 195 | A | C5-C4 | -6.19 | 1.34 | 1.38 |
| 22 | BA | 503 | A | C5-C4 | -6.19 | 1.34 | 1.38 |
| 22 | BA | 1586 | A | C5-C4 | -6.19 | 1.34 | 1.38 |
| 1 | AA | 687 | A | C5-C4 | -6.19 | 1.34 | 1.38 |
| 1 | AA | 831 | A | N3-C4 | 6.19 | 1.38 | 1.34 |
| 22 | BA | 661 | A | C8-N7 | 6.19 | 1.35 | 1.31 |
| 22 | BA | 1021 | A | C8-N7 | 6.19 | 1.35 | 1.31 |
| 22 | BA | 1490 | A | C5-C4 | -6.19 | 1.34 | 1.38 |
| 22 | BA | 1652 | A | C8-N7 | 6.19 | 1.35 | 1.31 |
| 1 | AA | 300 | A | N3-C4 | 6.19 | 1.38 | 1.34 |
| 1 | AA | 687 | A | N3-C4 | 6.19 | 1.38 | 1.34 |
| 1 | AA | 996 | A | C5-C4 | -6.19 | 1.34 | 1.38 |
| 22 | BA | 2497 | A | C5-C4 | -6.19 | 1.34 | 1.38 |
| 1 | AA | 907 | A | N3-C4 | 6.19 | 1.38 | 1.34 |
| 1 | AA | 1046 | A | N3-C4 | 6.19 | 1.38 | 1.34 |
| 22 | BA | 73 | A | C5-C4 | -6.19 | 1.34 | 1.38 |
| 1 | AA | 250 | A | N3-C4 | 6.19 | 1.38 | 1.34 |
| 1 | AA | 1145 | A | C5-C4 | -6.19 | 1.34 | 1.38 |
| 22 | BA | 2753 | A | N3-C4 | 6.19 | 1.38 | 1.34 |
| 1 | AA | 630 | A | C5-C4 | -6.19 | 1.34 | 1.38 |
| 1 | AA | 1437 | A | N3-C4 | 6.19 | 1.38 | 1.34 |
| 22 | BA | 172 | A | C5-C4 | -6.19 | 1.34 | 1.38 |
| 22 | BA | 1070 | A | N3-C4 | 6.19 | 1.38 | 1.34 |
| 22 | BA | 1328 | A | C8-N7 | 6.19 | 1.35 | 1.31 |
| 1 | AA | 1374 | A | C5-C4 | -6.18 | 1.34 | 1.38 |
| 22 | BA | 1205 | A | C5-C4 | -6.18 | 1.34 | 1.38 |
| 22 | BA | 2095 | A | C5-C4 | -6.18 | 1.34 | 1.38 |
| 22 | BA | 2335 | A | C8-N7 | 6.18 | 1.35 | 1.31 |
| 1 | AA | 329 | A | C5-C4 | -6.18 | 1.34 | 1.38 |
| 1 | AA | 781 | A | N3-C4 | 6.18 | 1.38 | 1.34 |
| 1 | AA | 949 | A | N3-C4 | 6.18 | 1.38 | 1.34 |
| 1 | AA | 1004 | A | C5-C4 | -6.18 | 1.34 | 1.38 |
| 1 | AA | 560 | A | N3-C4 | 6.18 | 1.38 | 1.34 |
| 22 | BA | 165 | A | C5-C4 | -6.18 | 1.34 | 1.38 |
| 1 | AA | 815 | A | C5-C4 | -6.18 | 1.34 | 1.38 |
| 22 | BA | 1342 | A | C8-N7 | 6.18 | 1.35 | 1.31 |
| 23 | BB | 66 | A | C5-C4 | -6.18 | 1.34 | 1.38 |
| 1 | AA | 704 | A | C5-C4 | -6.18 | 1.34 | 1.38 |
| 22 | BA | 2426 | A | C8-N7 | 6.18 | 1.35 | 1.31 |
| 22 | BA | 2388 | A | C5-C4 | -6.17 | 1.34 | 1.38 |
| 22 | BA | 2813 | A | C8-N7 | 6.17 | 1.35 | 1.31 |
| 22 | BA | 941 | A | C8-N7 | 6.17 | 1.35 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 23 | BB | 52 | A | N3-C4 | 6.17 | 1.38 | 1.34 |
| 1 | AA | 1169 | A | N3-C4 | 6.17 | 1.38 | 1.34 |
| 1 | AA | 199 | A | N3-C4 | 6.17 | 1.38 | 1.34 |
| 1 | AA | 466 | A | N3-C4 | 6.17 | 1.38 | 1.34 |
| 22 | BA | 1998 | A | C8-N7 | 6.17 | 1.35 | 1.31 |
| 22 | BA | 2088 | A | C8-N7 | 6.17 | 1.35 | 1.31 |
| 1 | AA | 495 | A | N3-C4 | 6.17 | 1.38 | 1.34 |
| 22 | BA | 1393 | A | C8-N7 | 6.17 | 1.35 | 1.31 |
| 22 | BA | 2598 | A | C8-N7 | 6.17 | 1.35 | 1.31 |
| 1 | AA | 65 | A | C5-C4 | -6.17 | 1.34 | 1.38 |
| 1 | AA | 1151 | A | C5-C4 | -6.17 | 1.34 | 1.38 |
| 1 | AA | 1333 | A | C5-C4 | -6.17 | 1.34 | 1.38 |
| 22 | BA | 751 | A | N3-C4 | 6.17 | 1.38 | 1.34 |
| 22 | BA | 1553 | A | N3-C4 | 6.17 | 1.38 | 1.34 |
| 1 | AA | 1248 | A | N3-C4 | 6.16 | 1.38 | 1.34 |
| 22 | BA | 190 | A | C5-C4 | -6.16 | 1.34 | 1.38 |
| 22 | BA | 219 | A | C8-N7 | 6.16 | 1.35 | 1.31 |
| 22 | BA | 878 | A | N3-C4 | 6.16 | 1.38 | 1.34 |
| 1 | AA | 1042 | A | N3-C4 | 6.16 | 1.38 | 1.34 |
| 1 | AA | 1167 | A | C5-C4 | -6.16 | 1.34 | 1.38 |
| 22 | BA | 547 | A | N3-C4 | 6.16 | 1.38 | 1.34 |
| 1 | AA | 729 | A | C5-C4 | -6.16 | 1.34 | 1.38 |
| 1 | AA | 1256 | A | N3-C4 | 6.16 | 1.38 | 1.34 |
| 22 | BA | 2042 | A | C8-N7 | 6.16 | 1.35 | 1.31 |
| 1 | AA | 81 | A | N3-C4 | 6.16 | 1.38 | 1.34 |
| 22 | BA | 1373 | A | C5-C4 | -6.16 | 1.34 | 1.38 |
| 1 | AA | 72 | A | N3-C4 | 6.16 | 1.38 | 1.34 |
| 1 | AA | 174 | A | C5-C4 | -6.16 | 1.34 | 1.38 |
| 1 | AA | 1110 | A | C5-C4 | -6.16 | 1.34 | 1.38 |
| 22 | BA | 819 | A | C5-C4 | -6.16 | 1.34 | 1.38 |
| 22 | BA | 1508 | A | N3-C4 | 6.16 | 1.38 | 1.34 |
| 22 | BA | 2711 | A | C5-C4 | -6.15 | 1.34 | 1.38 |
| 1 | AA | 1044 | A | C5-C4 | -6.15 | 1.34 | 1.38 |
| 22 | BA | 960 | A | C5-C4 | -6.15 | 1.34 | 1.38 |
| 22 | BA | 1050 | A | C5-C4 | -6.15 | 1.34 | 1.38 |
| 22 | BA | 1469 | A | C8-N7 | 6.15 | 1.35 | 1.31 |
| 22 | BA | 877 | A | C5-C4 | -6.15 | 1.34 | 1.38 |
| 22 | BA | 1001 | A | C8-N7 | 6.15 | 1.35 | 1.31 |
| 22 | BA | 1151 | A | C8-N7 | 6.15 | 1.35 | 1.31 |
| 22 | BA | 1772 | A | N3-C4 | 6.15 | 1.38 | 1.34 |
| 22 | BA | 2461 | A | C8-N7 | 6.15 | 1.35 | 1.31 |
| 22 | BA | 2518 | A | N3-C4 | 6.15 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 207 | A | C8-N7 | 6.15 | 1.35 | 1.31 |
| 1 | AA | 1246 | A | C5-C4 | -6.15 | 1.34 | 1.38 |
| 22 | BA | 1244 | A | N3-C4 | 6.15 | 1.38 | 1.34 |
| 22 | BA | 1586 | A | N3-C4 | 6.15 | 1.38 | 1.34 |
| 22 | BA | 2014 | A | C5-C4 | -6.15 | 1.34 | 1.38 |
| 22 | BA | 2602 | A | C5-C4 | -6.15 | 1.34 | 1.38 |
| 1 | AA | 336 | A | N3-C4 | 6.14 | 1.38 | 1.34 |
| 22 | BA | 340 | A | C5-C4 | -6.14 | 1.34 | 1.38 |
| 22 | BA | 176 | A | N3-C4 | 6.14 | 1.38 | 1.34 |
| 22 | BA | 1744 | A | N3-C4 | 6.14 | 1.38 | 1.34 |
| 1 | AA | 451 | A | C5-C4 | -6.14 | 1.34 | 1.38 |
| 22 | BA | 2577 | A | C8-N7 | 6.14 | 1.35 | 1.31 |
| 22 | BA | 477 | A | C8-N7 | 6.14 | 1.35 | 1.31 |
| 22 | BA | 1815 | A | C8-N7 | 6.14 | 1.35 | 1.31 |
| 1 | AA | 496 | A | C5-C4 | -6.14 | 1.34 | 1.38 |
| 1 | AA | 969 | A | C5-C4 | -6.14 | 1.34 | 1.38 |
| 1 | AA | 1180 | A | C5-C4 | -6.14 | 1.34 | 1.38 |
| 22 | BA | 142 | A | N3-C4 | 6.14 | 1.38 | 1.34 |
| 1 | AA | 152 | A | C5-C4 | -6.13 | 1.34 | 1.38 |
| 1 | AA | 1246 | A | N3-C4 | 6.13 | 1.38 | 1.34 |
| 1 | AA | 1396 | A | C5-C4 | -6.13 | 1.34 | 1.38 |
| 22 | BA | 677 | A | N3-C4 | 6.13 | 1.38 | 1.34 |
| 22 | BA | 750 | A | N3-C4 | 6.13 | 1.38 | 1.34 |
| 22 | BA | 1067 | A | N3-C4 | 6.13 | 1.38 | 1.34 |
| 22 | BA | 1420 | A | C5-C4 | -6.13 | 1.34 | 1.38 |
| 22 | BA | 1591 | A | N3-C4 | 6.13 | 1.38 | 1.34 |
| 1 | AA | 327 | A | N3-C4 | 6.13 | 1.38 | 1.34 |
| 1 | AA | 435 | A | N3-C4 | 6.13 | 1.38 | 1.34 |
| 1 | AA | 461 | A | C2-N3 | 6.13 | 1.39 | 1.33 |
| 1 | AA | 1171 | A | N3-C4 | 6.13 | 1.38 | 1.34 |
| 1 | AA | 1225 | A | C5-C4 | -6.13 | 1.34 | 1.38 |
| 22 | BA | 1403 | A | C8-N7 | 6.13 | 1.35 | 1.31 |
| 22 | BA | 1735 | A | C5-C4 | -6.13 | 1.34 | 1.38 |
| 22 | BA | 2482 | A | C8-N7 | 6.13 | 1.35 | 1.31 |
| 1 | AA | 509 | A | C5-C4 | -6.13 | 1.34 | 1.38 |
| 22 | BA | 10 | A | C5-C4 | -6.13 | 1.34 | 1.38 |
| 22 | BA | 118 | A | C8-N7 | 6.13 | 1.35 | 1.31 |
| 22 | BA | 2634 | A | C8-N7 | 6.13 | 1.35 | 1.31 |
| 1 | AA | 414 | A | C5-C4 | -6.13 | 1.34 | 1.38 |
| 1 | AA | 608 | A | N3-C4 | 6.13 | 1.38 | 1.34 |
| 1 | AA | 1225 | A | N3-C4 | 6.13 | 1.38 | 1.34 |
| 1 | AA | 1493 | A | C5-C4 | -6.13 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 176 | A | C8-N7 | 6.13 | 1.35 | 1.31 |
| 1 | AA | 1019 | A | C5-C4 | -6.12 | 1.34 | 1.38 |
| 1 | AA | 532 | A | N3-C4 | 6.12 | 1.38 | 1.34 |
| 22 | BA | 371 | A | C5-C4 | -6.12 | 1.34 | 1.38 |
| 22 | BA | 1701 | A | N3-C4 | 6.12 | 1.38 | 1.34 |
| 55 | B8 | 66 | A | N3-C4 | 6.12 | 1.38 | 1.34 |
| 1 | AA | 59 | A | N3-C4 | 6.12 | 1.38 | 1.34 |
| 22 | BA | 1805 | A | C8-N7 | 6.12 | 1.35 | 1.31 |
| 1 | AA | 974 | A | C5-C4 | -6.12 | 1.34 | 1.38 |
| 22 | BA | 833 | A | C8-N7 | 6.12 | 1.35 | 1.31 |
| 1 | AA | 1170 | A | N3-C4 | 6.12 | 1.38 | 1.34 |
| 1 | AA | 262 | A | N3-C4 | 6.12 | 1.38 | 1.34 |
| 1 | AA | 1236 | A | C5-C4 | -6.12 | 1.34 | 1.38 |
| 22 | BA | 2108 | A | N3-C4 | 6.12 | 1.38 | 1.34 |
| 22 | BA | 2660 | A | C5-C4 | -6.12 | 1.34 | 1.38 |
| 1 | AA | 397 | A | N3-C4 | 6.11 | 1.38 | 1.34 |
| 1 | AA | 1082 | A | C5-C4 | -6.11 | 1.34 | 1.38 |
| 22 | BA | 505 | A | C8-N7 | 6.11 | 1.35 | 1.31 |
| 22 | BA | 2725 | A | C8-N7 | 6.11 | 1.35 | 1.31 |
| 23 | BB | 39 | A | N3-C4 | 6.11 | 1.38 | 1.34 |
| 1 | AA | 205 | A | N3-C4 | 6.11 | 1.38 | 1.34 |
| 22 | BA | 2171 | A | C5-C4 | -6.11 | 1.34 | 1.38 |
| 55 | B8 | 73 | A | N3-C4 | 6.11 | 1.38 | 1.34 |
| 1 | AA | 496 | A | N3-C4 | 6.11 | 1.38 | 1.34 |
| 1 | AA | 499 | A | N3-C4 | 6.11 | 1.38 | 1.34 |
| 1 | AA | 1363 | A | N3-C4 | 6.11 | 1.38 | 1.34 |
| 22 | BA | 2814 | A | C5-C4 | -6.11 | 1.34 | 1.38 |
| 1 | AA | 55 | A | N3-C4 | 6.11 | 1.38 | 1.34 |
| 22 | BA | 752 | A | C5-C4 | -6.11 | 1.34 | 1.38 |
| 22 | BA | 2657 | A | C5-C4 | -6.11 | 1.34 | 1.38 |
| 1 | AA | 152 | A | N3-C4 | 6.11 | 1.38 | 1.34 |
| 1 | AA | 819 | A | C5-C4 | -6.11 | 1.34 | 1.38 |
| 22 | BA | 892 | A | N3-C4 | 6.11 | 1.38 | 1.34 |
| 22 | BA | 1794 | A | C8-N7 | 6.11 | 1.35 | 1.31 |
| 1 | AA | 635 | A | C5-C4 | -6.11 | 1.34 | 1.38 |
| 1 | AA | 1191 | A | N3-C4 | 6.11 | 1.38 | 1.34 |
| 22 | BA | 345 | A | C5-C4 | -6.11 | 1.34 | 1.38 |
| 22 | BA | 742 | A | C8-N7 | 6.11 | 1.35 | 1.31 |
| 22 | BA | 1133 | A | C5-C4 | -6.11 | 1.34 | 1.38 |
| 22 | BA | 1866 | A | C5-C4 | -6.11 | 1.34 | 1.38 |
| 1 | AA | 366 | A | C5-C4 | -6.10 | 1.34 | 1.38 |
| 1 | AA | 673 | A | N3-C4 | 6.10 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 889 | A | C5-C4 | -6.10 | 1.34 | 1.38 |
| 1 | AA | 1346 | A | C5-C4 | -6.10 | 1.34 | 1.38 |
| 22 | BA | 1103 | A | N3-C4 | 6.10 | 1.38 | 1.34 |
| 1 | AA | 1257 | A | C5-C4 | -6.10 | 1.34 | 1.38 |
| 22 | BA | 1265 | A | C5-C4 | -6.10 | 1.34 | 1.38 |
| 1 | AA | 263 | A | C5-C4 | -6.10 | 1.34 | 1.38 |
| 1 | AA | 465 | A | N3-C4 | 6.10 | 1.38 | 1.34 |
| 1 | AA | 300 | A | C5-C4 | -6.10 | 1.34 | 1.38 |
| 22 | BA | 1275 | A | C8-N7 | 6.10 | 1.35 | 1.31 |
| 22 | BA | 2352 | A | C5-C4 | -6.10 | 1.34 | 1.38 |
| 1 | AA | 642 | A | C5-C4 | -6.10 | 1.34 | 1.38 |
| 1 | AA | 1014 | A | N3-C4 | 6.10 | 1.38 | 1.34 |
| 22 | BA | 73 | A | C8-N7 | 6.10 | 1.35 | 1.31 |
| 22 | BA | 676 | A | C8-N7 | 6.10 | 1.35 | 1.31 |
| 22 | BA | 699 | A | C5-C4 | -6.10 | 1.34 | 1.38 |
| 22 | BA | 1085 | A | C5-C4 | -6.10 | 1.34 | 1.38 |
| 22 | BA | 1590 | A | C5-C4 | -6.10 | 1.34 | 1.38 |
| 1 | AA | 250 | A | C5-C4 | -6.09 | 1.34 | 1.38 |
| 1 | AA | 1021 | A | C5-C4 | -6.09 | 1.34 | 1.38 |
| 1 | AA | 1324 | A | N3-C4 | 6.09 | 1.38 | 1.34 |
| 22 | BA | 1151 | A | N3-C4 | 6.09 | 1.38 | 1.34 |
| 22 | BA | 2268 | A | C8-N7 | 6.09 | 1.35 | 1.31 |
| 1 | AA | 161 | A | N3-C4 | 6.09 | 1.38 | 1.34 |
| 1 | AA | 1022 | A | C5-C4 | -6.09 | 1.34 | 1.38 |
| 1 | AA | 1150 | A | N3-C4 | 6.09 | 1.38 | 1.34 |
| 22 | BA | 1254 | A | C8-N7 | 6.09 | 1.35 | 1.31 |
| 1 | AA | 182 | A | N3-C4 | 6.09 | 1.38 | 1.34 |
| 1 | AA | 282 | A | C5-C4 | -6.09 | 1.34 | 1.38 |
| 1 | AA | 676 | A | N3-C4 | 6.09 | 1.38 | 1.34 |
| 22 | BA | 52 | A | C5-C4 | -6.09 | 1.34 | 1.38 |
| 22 | BA | 118 | A | N3-C4 | 6.09 | 1.38 | 1.34 |
| 22 | BA | 1762 | A | C8-N7 | 6.09 | 1.35 | 1.31 |
| 1 | AA | 189 | A | N3-C4 | 6.09 | 1.38 | 1.34 |
| 1 | AA | 1044 | A | N3-C4 | 6.09 | 1.38 | 1.34 |
| 22 | BA | 218 | A | C8-N7 | 6.09 | 1.35 | 1.31 |
| 1 | AA | 182 | A | C5-C4 | -6.09 | 1.34 | 1.38 |
| 1 | AA | 533 | A | C5-C4 | -6.09 | 1.34 | 1.38 |
| 1 | AA | 547 | A | C5-C4 | -6.09 | 1.34 | 1.38 |
| 22 | BA | 1876 | A | N3-C4 | 6.09 | 1.38 | 1.34 |
| 22 | BA | 2407 | A | C8-N7 | 6.09 | 1.35 | 1.31 |
| 22 | BA | 2868 | A | N3-C4 | 6.09 | 1.38 | 1.34 |
| 1 | AA | 412 | A | C5-C4 | -6.08 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 780 | A | C5-C4 | -6.08 | 1.34 | 1.38 |
| 1 | AA | 1046 | A | C2-N3 | 6.08 | 1.39 | 1.33 |
| 1 | AA | 1197 | A | C5-C4 | -6.08 | 1.34 | 1.38 |
| 22 | BA | 1808 | A | C5-C4 | -6.08 | 1.34 | 1.38 |
| 23 | BB | 101 | A | C2-N3 | 6.08 | 1.39 | 1.33 |
| 1 | AA | 749 | A | C5-C4 | -6.08 | 1.34 | 1.38 |
| 1 | AA | 1005 | A | N3-C4 | 6.08 | 1.38 | 1.34 |
| 22 | BA | 101 | A | C8-N7 | 6.08 | 1.35 | 1.31 |
| 22 | BA | 2860 | A | C5-C4 | -6.08 | 1.34 | 1.38 |
| 1 | AA | 2 | A | N3-C4 | 6.08 | 1.38 | 1.34 |
| 22 | BA | 984 | A | N3-C4 | 6.08 | 1.38 | 1.34 |
| 1 | AA | 747 | A | N3-C4 | 6.08 | 1.38 | 1.34 |
| 22 | BA | 633 | A | N3-C4 | 6.08 | 1.38 | 1.34 |
| 22 | BA | 1787 | A | N3-C4 | 6.08 | 1.38 | 1.34 |
| 22 | BA | 2211 | A | C5-C4 | -6.08 | 1.34 | 1.38 |
| 1 | AA | 262 | A | C5-C4 | -6.08 | 1.34 | 1.38 |
| 1 | AA | 595 | A | C5-C4 | -6.08 | 1.34 | 1.38 |
| 1 | AA | 958 | A | C5-C4 | -6.08 | 1.34 | 1.38 |
| 1 | AA | 1092 | A | C5-C4 | -6.08 | 1.34 | 1.38 |
| 1 | AA | 1105 | A | C5-C4 | -6.08 | 1.34 | 1.38 |
| 22 | BA | 141 | G | N7-C5 | 6.08 | 1.42 | 1.39 |
| 1 | AA | 487 | A | N3-C4 | 6.08 | 1.38 | 1.34 |
| 1 | AA | 1105 | A | N3-C4 | 6.08 | 1.38 | 1.34 |
| 22 | BA | 1785 | A | C5-C4 | -6.08 | 1.34 | 1.38 |
| 55 | B8 | 42 | A | C5-C4 | -6.08 | 1.34 | 1.38 |
| 22 | BA | 299 | A | C8-N7 | 6.07 | 1.35 | 1.31 |
| 22 | BA | 1077 | A | C5-C4 | -6.07 | 1.34 | 1.38 |
| 22 | BA | 1413 | A | C5-C4 | -6.07 | 1.34 | 1.38 |
| 22 | BA | 1583 | A | N3-C4 | 6.07 | 1.38 | 1.34 |
| 22 | BA | 2748 | A | N3-C4 | 6.07 | 1.38 | 1.34 |
| 1 | AA | 179 | A | N3-C4 | 6.07 | 1.38 | 1.34 |
| 23 | BB | 101 | A | C8-N7 | 6.07 | 1.35 | 1.31 |
| 1 | AA | 695 | A | C5-C4 | -6.07 | 1.34 | 1.38 |
| 22 | BA | 2274 | A | C8-N7 | 6.07 | 1.35 | 1.31 |
| 22 | BA | 2665 | A | N3-C4 | 6.07 | 1.38 | 1.34 |
| 1 | AA | 1311 | A | C5-C4 | -6.07 | 1.34 | 1.38 |
| 22 | BA | 1029 | A | N3-C4 | 6.07 | 1.38 | 1.34 |
| 22 | BA | 2513 | A | C5-C4 | -6.07 | 1.34 | 1.38 |
| 1 | AA | 50 | A | C5-C4 | -6.07 | 1.34 | 1.38 |
| 1 | AA | 1152 | A | C5-C4 | -6.07 | 1.34 | 1.38 |
| 1 | AA | 1531 | A | N3-C4 | 6.07 | 1.38 | 1.34 |
| 22 | BA | 1668 | A | C8-N7 | 6.07 | 1.35 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2101 | A | C5-C4 | -6.07 | 1.34 | 1.38 |
| 22 | BA | 1069 | A | C5-C4 | -6.07 | 1.34 | 1.38 |
| 1 | AA | 167 | A | C5-C4 | -6.06 | 1.34 | 1.38 |
| 22 | BA | 2080 | A | C8-N7 | 6.06 | 1.35 | 1.31 |
| 22 | BA | 792 | A | N3-C4 | 6.06 | 1.38 | 1.34 |
| 22 | BA | 1308 | A | C8-N7 | 6.06 | 1.35 | 1.31 |
| 1 | AA | 535 | A | C5-C4 | -6.06 | 1.34 | 1.38 |
| 1 | AA | 1254 | A | N3-C4 | 6.06 | 1.38 | 1.34 |
| 22 | BA | 2766 | A | C8-N7 | 6.06 | 1.35 | 1.31 |
| 1 | AA | 831 | A | C5-C4 | -6.06 | 1.34 | 1.38 |
| 22 | BA | 270 | A | C5-C4 | -6.06 | 1.34 | 1.38 |
| 22 | BA | 756 | A | N3-C4 | 6.06 | 1.38 | 1.34 |
| 22 | BA | 1936 | A | N3-C4 | 6.06 | 1.38 | 1.34 |
| 22 | BA | 1689 | A | C8-N7 | 6.06 | 1.35 | 1.31 |
| 1 | AA | 1036 | A | C5-C4 | -6.05 | 1.34 | 1.38 |
| 22 | BA | 1722 | A | C5-C4 | -6.05 | 1.34 | 1.38 |
| 22 | BA | 2590 | A | C8-N7 | 6.05 | 1.35 | 1.31 |
| 1 | AA | 1169 | A | C5-C4 | -6.05 | 1.34 | 1.38 |
| 1 | AA | 1269 | A | N3-C4 | 6.05 | 1.38 | 1.34 |
| 1 | AA | 1360 | A | C5-C4 | -6.05 | 1.34 | 1.38 |
| 22 | BA | 63 | A | N3-C4 | 6.05 | 1.38 | 1.34 |
| 22 | BA | 1237 | A | C5-C4 | -6.05 | 1.34 | 1.38 |
| 22 | BA | 1307 | A | C8-N7 | 6.05 | 1.35 | 1.31 |
| 1 | AA | 189 | A | C5-C4 | -6.05 | 1.34 | 1.38 |
| 22 | BA | 631 | A | N3-C4 | 6.05 | 1.38 | 1.34 |
| 22 | BA | 2317 | A | N3-C4 | 6.05 | 1.38 | 1.34 |
| 1 | AA | 315 | A | N3-C4 | 6.05 | 1.38 | 1.34 |
| 22 | BA | 507 | A | N3-C4 | 6.05 | 1.38 | 1.34 |
| 1 | AA | 1311 | A | N3-C4 | 6.05 | 1.38 | 1.34 |
| 22 | BA | 689 | A | N3-C4 | 6.05 | 1.38 | 1.34 |
| 1 | AA | 1155 | A | N3-C4 | 6.04 | 1.38 | 1.34 |
| 1 | AA | 1480 | A | C5-C4 | -6.04 | 1.34 | 1.38 |
| 1 | AA | 171 | A | C5-C4 | -6.04 | 1.34 | 1.38 |
| 1 | AA | 279 | A | C5-C4 | -6.04 | 1.34 | 1.38 |
| 1 | AA | 432 | A | C5-C4 | -6.04 | 1.34 | 1.38 |
| 22 | BA | 501 | A | C8-N7 | 6.04 | 1.35 | 1.31 |
| 22 | BA | 1237 | A | N3-C4 | 6.04 | 1.38 | 1.34 |
| 22 | BA | 2101 | A | N3-C4 | 6.04 | 1.38 | 1.34 |
| 22 | BA | 2758 | A | C5-C4 | -6.04 | 1.34 | 1.38 |
| 1 | AA | 622 | A | C5-C4 | -6.04 | 1.34 | 1.38 |
| 22 | BA | 1142 | A | C8-N7 | 6.04 | 1.35 | 1.31 |
| 1 | AA | 98 | A | C5-C4 | -6.04 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 1092 | A | N3-C4 | 6.04 | 1.38 | 1.34 |
| 22 | BA | 38 | A | C8-N7 | 6.04 | 1.35 | 1.31 |
| 22 | BA | 1772 | A | C5-C4 | -6.04 | 1.34 | 1.38 |
| 22 | BA | 1090 | A | C5-C4 | -6.04 | 1.34 | 1.38 |
| 22 | BA | 2478 | A | N3-C4 | 6.04 | 1.38 | 1.34 |
| 22 | BA | 91 | A | C5-C4 | -6.04 | 1.34 | 1.38 |
| 22 | BA | 368 | A | C5-C4 | -6.04 | 1.34 | 1.38 |
| 22 | BA | 2309 | A | C5-C4 | -6.04 | 1.34 | 1.38 |
| 1 | AA | 1271 | A | C5-C4 | -6.03 | 1.34 | 1.38 |
| 22 | BA | 347 | A | N3-C4 | 6.03 | 1.38 | 1.34 |
| 22 | BA | 2097 | A | N3-C4 | 6.03 | 1.38 | 1.34 |
| 1 | AA | 344 | A | N3-C4 | 6.03 | 1.38 | 1.34 |
| 1 | AA | 393 | A | C5-C4 | -6.03 | 1.34 | 1.38 |
| 1 | AA | 460 | A | C5-C4 | -6.03 | 1.34 | 1.38 |
| 22 | BA | 1274 | A | N3-C4 | 6.03 | 1.38 | 1.34 |
| 22 | BA | 2119 | A | C5-C4 | -6.03 | 1.34 | 1.38 |
| 22 | BA | 2453 | A | N3-C4 | 6.03 | 1.38 | 1.34 |
| 22 | BA | 2792 | A | N3-C4 | 6.03 | 1.38 | 1.34 |
| 1 | AA | 547 | A | N3-C4 | 6.03 | 1.38 | 1.34 |
| 22 | BA | 1089 | A | C5-C4 | -6.03 | 1.34 | 1.38 |
| 22 | BA | 1413 | A | N3-C4 | 6.03 | 1.38 | 1.34 |
| 22 | BA | 2158 | A | C5-C4 | -6.03 | 1.34 | 1.38 |
| 1 | AA | 1055 | A | C5-C4 | -6.03 | 1.34 | 1.38 |
| 22 | BA | 513 | A | N3-C4 | 6.03 | 1.38 | 1.34 |
| 22 | BA | 2336 | A | C8-N7 | 6.03 | 1.35 | 1.31 |
| 22 | BA | 2614 | A | C8-N7 | 6.03 | 1.35 | 1.31 |
| 1 | AA | 1261 | A | C5-C4 | -6.02 | 1.34 | 1.38 |
| 1 | AA | 1289 | A | N3-C4 | 6.02 | 1.38 | 1.34 |
| 1 | AA | 1375 | A | N3-C4 | 6.02 | 1.38 | 1.34 |
| 22 | BA | 2418 | A | C8-N7 | 6.02 | 1.35 | 1.31 |
| 1 | AA | 1014 | A | C5-C4 | -6.02 | 1.34 | 1.38 |
| 22 | BA | 1966 | A | C8-N7 | 6.02 | 1.35 | 1.31 |
| 1 | AA | 1500 | A | N3-C4 | 6.02 | 1.38 | 1.34 |
| 1 | AA | 430 | A | C5-C4 | -6.02 | 1.34 | 1.38 |
| 1 | AA | 655 | A | N3-C4 | 6.02 | 1.38 | 1.34 |
| 22 | BA | 1490 | A | N3-C4 | 6.02 | 1.38 | 1.34 |
| 22 | BA | 1713 | A | N3-C4 | 6.02 | 1.38 | 1.34 |
| 22 | BA | 2135 | A | N3-C4 | 6.02 | 1.38 | 1.34 |
| 22 | BA | 2542 | A | C8-N7 | 6.02 | 1.35 | 1.31 |
| 1 | AA | 205 | A | C5-C4 | -6.02 | 1.34 | 1.38 |
| 1 | AA | 900 | A | C8-N7 | 6.02 | 1.35 | 1.31 |
| 1 | AA | 1176 | A | C5-C4 | -6.02 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1641 | A | C8-N7 | 6.02 | 1.35 | 1.31 |
| 22 | BA | 1722 | A | N3-C4 | 6.02 | 1.38 | 1.34 |
| 22 | BA | 2051 | A | C8-N7 | 6.02 | 1.35 | 1.31 |
| 22 | BA | 2482 | A | N3-C4 | 6.02 | 1.38 | 1.34 |
| 1 | AA | 1394 | A | N3-C4 | 6.02 | 1.38 | 1.34 |
| 22 | BA | 466 | A | C8-N7 | 6.02 | 1.35 | 1.31 |
| 1 | AA | 199 | A | C5-C4 | -6.01 | 1.34 | 1.38 |
| 1 | AA | 696 | A | N3-C4 | 6.01 | 1.38 | 1.34 |
| 22 | BA | 2142 | A | C2-N3 | 6.01 | 1.39 | 1.33 |
| 22 | BA | 1144 | A | C8-N7 | 6.01 | 1.35 | 1.31 |
| 1 | AA | 579 | A | C5-C4 | -6.01 | 1.34 | 1.38 |
| 1 | AA | 694 | A | N3-C4 | 6.01 | 1.38 | 1.34 |
| 1 | AA | 702 | A | C5-C4 | -6.01 | 1.34 | 1.38 |
| 1 | AA | 1441 | A | C5-C4 | -6.01 | 1.34 | 1.38 |
| 1 | AA | 162 | A | N3-C4 | 6.01 | 1.38 | 1.34 |
| 22 | BA | 2287 | A | N3-C4 | 6.01 | 1.38 | 1.34 |
| 1 | AA | 32 | A | N3-C4 | 6.01 | 1.38 | 1.34 |
| 1 | AA | 1067 | A | C5-C4 | -6.01 | 1.34 | 1.38 |
| 1 | AA | 1188 | A | C5-C4 | -6.01 | 1.34 | 1.38 |
| 22 | BA | 382 | A | N3-C4 | 6.01 | 1.38 | 1.34 |
| 22 | BA | 616 | A | N3-C4 | 6.01 | 1.38 | 1.34 |
| 22 | BA | 878 | A | C5-C4 | -6.01 | 1.34 | 1.38 |
| 22 | BA | 896 | A | C5-C4 | -6.01 | 1.34 | 1.38 |
| 22 | BA | 1590 | A | N3-C4 | 6.01 | 1.38 | 1.34 |
| 1 | AA | 253 | A | N3-C4 | 6.00 | 1.38 | 1.34 |
| 1 | AA | 282 | A | N3-C4 | 6.00 | 1.38 | 1.34 |
| 1 | AA | 77 | A | C5-C4 | -6.00 | 1.34 | 1.38 |
| 1 | AA | 162 | A | C5-C4 | -6.00 | 1.34 | 1.38 |
| 22 | BA | 262 | A | C8-N7 | 6.00 | 1.35 | 1.31 |
| 22 | BA | 384 | A | C8-N7 | 6.00 | 1.35 | 1.31 |
| 22 | BA | 918 | A | C8-N7 | 6.00 | 1.35 | 1.31 |
| 22 | BA | 1871 | A | C5-C4 | -6.00 | 1.34 | 1.38 |
| 22 | BA | 2534 | A | C5-C4 | -6.00 | 1.34 | 1.38 |
| 1 | AA | 635 | A | N3-C4 | 6.00 | 1.38 | 1.34 |
| 1 | AA | 1004 | A | N3-C4 | 6.00 | 1.38 | 1.34 |
| 22 | BA | 2851 | A | C8-N7 | 6.00 | 1.35 | 1.31 |
| 1 | AA | 959 | A | C5-C4 | -6.00 | 1.34 | 1.38 |
| 22 | BA | 1987 | A | N3-C4 | 6.00 | 1.38 | 1.34 |
| 1 | AA | 195 | A | C5-C4 | -6.00 | 1.34 | 1.38 |
| 22 | BA | 195 | A | N3-C4 | 6.00 | 1.38 | 1.34 |
| 22 | BA | 1900 | A | C5-C4 | -6.00 | 1.34 | 1.38 |
| 1 | AA | 101 | A | C5-C4 | -6.00 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 5 | A | N3-C4 | 6.00 | 1.38 | 1.34 |
| 22 | BA | 863 | A | C8-N7 | 6.00 | 1.35 | 1.31 |
| 22 | BA | 1050 | A | N3-C4 | 6.00 | 1.38 | 1.34 |
| 22 | BA | 1420 | A | N3-C4 | 6.00 | 1.38 | 1.34 |
| 22 | BA | 2117 | A | C5-C4 | -6.00 | 1.34 | 1.38 |
| 22 | BA | 73 | A | N3-C4 | 6.00 | 1.38 | 1.34 |
| 22 | BA | 203 | A | C8-N7 | 6.00 | 1.35 | 1.31 |
| 22 | BA | 2531 | A | N3-C4 | 6.00 | 1.38 | 1.34 |
| 1 | AA | 983 | A | C5-C4 | -5.99 | 1.34 | 1.38 |
| 22 | BA | 2868 | A | C8-N7 | 5.99 | 1.35 | 1.31 |
| 1 | AA | 139 | A | C5-C4 | -5.99 | 1.34 | 1.38 |
| 1 | AA | 996 | A | N3-C4 | 5.99 | 1.38 | 1.34 |
| 22 | BA | 472 | A | C8-N7 | 5.99 | 1.35 | 1.31 |
| 22 | BA | 2654 | A | N3-C4 | 5.99 | 1.38 | 1.34 |
| 1 | AA | 243 | A | N3-C4 | 5.99 | 1.38 | 1.34 |
| 22 | BA | 38 | A | N3-C4 | 5.99 | 1.38 | 1.34 |
| 22 | BA | 1477 | A | N3-C4 | 5.99 | 1.38 | 1.34 |
| 22 | BA | 2082 | A | C5-C4 | -5.99 | 1.34 | 1.38 |
| 1 | AA | 1508 | A | C5-C4 | -5.99 | 1.34 | 1.38 |
| 22 | BA | 789 | A | C8-N7 | 5.99 | 1.35 | 1.31 |
| 22 | BA | 2753 | A | C5-C4 | -5.99 | 1.34 | 1.38 |
| 1 | AA | 609 | A | N3-C4 | 5.99 | 1.38 | 1.34 |
| 1 | AA | 1250 | A | C5-C4 | -5.99 | 1.34 | 1.38 |
| 22 | BA | 849 | A | C8-N7 | 5.99 | 1.35 | 1.31 |
| 1 | AA | 374 | A | N3-C4 | 5.99 | 1.38 | 1.34 |
| 22 | BA | 203 | A | C5-C4 | -5.99 | 1.34 | 1.38 |
| 22 | BA | 354 | A | C5-C4 | -5.99 | 1.34 | 1.38 |
| 22 | BA | 990 | A | N3-C4 | 5.99 | 1.38 | 1.34 |
| 1 | AA | 451 | A | N3-C4 | 5.98 | 1.38 | 1.34 |
| 1 | AA | 706 | A | C5-C4 | -5.98 | 1.34 | 1.38 |
| 22 | BA | 1453 | A | N3-C4 | 5.98 | 1.38 | 1.34 |
| 22 | BA | 1580 | A | C5-C4 | -5.98 | 1.34 | 1.38 |
| 22 | BA | 2142 | A | C5-C4 | -5.98 | 1.34 | 1.38 |
| 22 | BA | 2184 | A | C5-C4 | -5.98 | 1.34 | 1.38 |
| 55 | B8 | 69 | A | C5-C4 | -5.98 | 1.34 | 1.38 |
| 1 | AA | 596 | A | N3-C4 | 5.98 | 1.38 | 1.34 |
| 1 | AA | 1251 | A | C5-C4 | -5.98 | 1.34 | 1.38 |
| 22 | BA | 743 | A | C8-N7 | 5.98 | 1.35 | 1.31 |
| 22 | BA | 1494 | A | C5-C4 | -5.98 | 1.34 | 1.38 |
| 1 | AA | 139 | A | N3-C4 | 5.98 | 1.38 | 1.34 |
| 1 | AA | 1456 | A | C5-C4 | -5.98 | 1.34 | 1.38 |
| 1 | AA | 71 | A | N3-C4 | 5.98 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 131 | A | C8-N7 | 5.98 | 1.35 | 1.31 |
| 1 | AA | 901 | A | C5-C4 | -5.98 | 1.34 | 1.38 |
| 1 | AA | 1146 | A | C5-C4 | -5.97 | 1.34 | 1.38 |
| 1 | AA | 1216 | A | C5-C4 | -5.97 | 1.34 | 1.38 |
| 1 | AA | 1251 | A | N3-C4 | 5.97 | 1.38 | 1.34 |
| 1 | AA | 923 | A | N3-C4 | 5.97 | 1.38 | 1.34 |
| 1 | AA | 977 | A | C5-C4 | -5.97 | 1.34 | 1.38 |
| 22 | BA | 592 | A | C8-N7 | 5.97 | 1.35 | 1.31 |
| 22 | BA | 1069 | A | N3-C4 | 5.97 | 1.38 | 1.34 |
| 22 | BA | 2530 | A | C5-C4 | -5.97 | 1.34 | 1.38 |
| 1 | AA | 190 | A | N3-C4 | 5.97 | 1.38 | 1.34 |
| 1 | AA | 1248 | A | C5-C4 | -5.97 | 1.34 | 1.38 |
| 1 | AA | 71 | A | C5-C4 | -5.97 | 1.34 | 1.38 |
| 1 | AA | 181 | A | N3-C4 | 5.97 | 1.38 | 1.34 |
| 1 | AA | 790 | A | C5-C4 | -5.97 | 1.34 | 1.38 |
| 22 | BA | 226 | A | C8-N7 | 5.97 | 1.35 | 1.31 |
| 22 | BA | 270 | A | N3-C4 | 5.97 | 1.38 | 1.34 |
| 22 | BA | 1155 | A | N3-C4 | 5.97 | 1.38 | 1.34 |
| 1 | AA | 1374 | A | N3-C4 | 5.97 | 1.38 | 1.34 |
| 22 | BA | 346 | A | N3-C4 | 5.97 | 1.38 | 1.34 |
| 1 | AA | 865 | A | C5-C4 | -5.97 | 1.34 | 1.38 |
| 22 | BA | 1739 | A | N3-C4 | 5.97 | 1.38 | 1.34 |
| 22 | BA | 1848 | A | N3-C4 | 5.97 | 1.38 | 1.34 |
| 22 | BA | 2288 | A | N3-C4 | 5.97 | 1.38 | 1.34 |
| 22 | BA | 2887 | A | N3-C4 | 5.96 | 1.38 | 1.34 |
| 22 | BA | 1809 | A | C8-N7 | 5.96 | 1.35 | 1.31 |
| 1 | AA | 460 | A | N3-C4 | 5.96 | 1.38 | 1.34 |
| 1 | AA | 1216 | A | N3-C4 | 5.96 | 1.38 | 1.34 |
| 1 | AA | 1219 | A | C5-C4 | -5.96 | 1.34 | 1.38 |
| 22 | BA | 2725 | A | N3-C4 | 5.96 | 1.38 | 1.34 |
| 22 | BA | 2886 | A | C8-N7 | 5.96 | 1.35 | 1.31 |
| 1 | AA | 938 | A | N3-C4 | 5.96 | 1.38 | 1.34 |
| 1 | AA | 414 | A | N3-C4 | 5.96 | 1.38 | 1.34 |
| 22 | BA | 900 | A | N3-C4 | 5.96 | 1.38 | 1.34 |
| 22 | BA | 1608 | A | C8-N7 | 5.96 | 1.35 | 1.31 |
| 22 | BA | 2014 | A | C8-N7 | 5.96 | 1.35 | 1.31 |
| 22 | BA | 2059 | A | C5-C4 | -5.96 | 1.34 | 1.38 |
| 22 | BA | 1365 | A | C8-N7 | 5.96 | 1.35 | 1.31 |
| 22 | BA | 53 | A | N3-C4 | 5.96 | 1.38 | 1.34 |
| 22 | BA | 152 | A | N3-C4 | 5.96 | 1.38 | 1.34 |
| 22 | BA | 1085 | A | N3-C4 | 5.95 | 1.38 | 1.34 |
| 22 | BA | 1953 | A | C8-N7 | 5.95 | 1.35 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 935 | A | N3-C4 | 5.95 | 1.38 | 1.34 |
| 1 | AA | 130 | A | N3-C4 | 5.95 | 1.38 | 1.34 |
| 1 | AA | 502 | A | N3-C4 | 5.95 | 1.38 | 1.34 |
| 22 | BA | 1583 | A | C5-C4 | -5.95 | 1.34 | 1.38 |
| 22 | BA | 1616 | A | C8-N7 | 5.95 | 1.35 | 1.31 |
| 22 | BA | 2700 | A | C8-N7 | 5.95 | 1.35 | 1.31 |
| 1 | AA | 994 | A | C5-C4 | -5.95 | 1.34 | 1.38 |
| 22 | BA | 928 | A | N3-C4 | 5.95 | 1.38 | 1.34 |
| 22 | BA | 2077 | A | C5-C4 | -5.95 | 1.34 | 1.38 |
| 22 | BA | 362 | A | C5-C4 | -5.95 | 1.34 | 1.38 |
| 1 | AA | 675 | A | N3-C4 | 5.95 | 1.38 | 1.34 |
| 22 | BA | 739 | A | C8-N7 | 5.95 | 1.35 | 1.31 |
| 55 | B8 | 38 | A | C8-N7 | 5.95 | 1.35 | 1.31 |
| 1 | AA | 695 | A | N3-C4 | 5.94 | 1.38 | 1.34 |
| 22 | BA | 1535 | A | N3-C4 | 5.94 | 1.38 | 1.34 |
| 22 | BA | 2114 | A | C5-C4 | -5.94 | 1.34 | 1.38 |
| 23 | BB | 73 | A | N3-C4 | 5.94 | 1.38 | 1.34 |
| 1 | AA | 1201 | A | C2-N3 | 5.94 | 1.38 | 1.33 |
| 22 | BA | 829 | A | C8-N7 | 5.94 | 1.35 | 1.31 |
| 1 | AA | 468 | A | C5-C4 | -5.94 | 1.34 | 1.38 |
| 22 | BA | 165 | A | N3-C4 | 5.94 | 1.38 | 1.34 |
| 1 | AA | 607 | A | C5-C4 | -5.94 | 1.34 | 1.38 |
| 22 | BA | 602 | A | N3-C4 | 5.94 | 1.38 | 1.34 |
| 22 | BA | 1098 | A | C5-C4 | -5.94 | 1.34 | 1.38 |
| 1 | AA | 872 | A | C5-C4 | -5.94 | 1.34 | 1.38 |
| 1 | AA | 1410 | A | N3-C4 | 5.94 | 1.38 | 1.34 |
| 22 | BA | 279 | A | N3-C4 | 5.94 | 1.38 | 1.34 |
| 22 | BA | 2268 | A | N3-C4 | 5.94 | 1.38 | 1.34 |
| 22 | BA | 2513 | A | N3-C4 | 5.94 | 1.38 | 1.34 |
| 1 | AA | 1306 | A | C5-C4 | -5.93 | 1.34 | 1.38 |
| 1 | AA | 1349 | A | N3-C4 | 5.93 | 1.38 | 1.34 |
| 22 | BA | 1745 | A | N3-C4 | 5.93 | 1.38 | 1.34 |
| 22 | BA | 1872 | A | N3-C4 | 5.93 | 1.38 | 1.34 |
| 1 | AA | 1239 | A | N3-C4 | 5.93 | 1.38 | 1.34 |
| 22 | BA | 547 | A | C5-C4 | -5.93 | 1.34 | 1.38 |
| 22 | BA | 613 | A | C5-C4 | -5.93 | 1.34 | 1.38 |
| 22 | BA | 2566 | A | N3-C4 | 5.93 | 1.38 | 1.34 |
| 22 | BA | 1302 | A | C8-N7 | 5.93 | 1.35 | 1.31 |
| 22 | BA | 1665 | A | N3-C4 | 5.93 | 1.38 | 1.34 |
| 1 | AA | 704 | A | N3-C4 | 5.93 | 1.38 | 1.34 |
| 1 | AA | 901 | A | N7-C5 | -5.93 | 1.35 | 1.39 |
| 22 | BA | 354 | A | N3-C4 | 5.93 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 603 | A | N3-C4 | 5.93 | 1.38 | 1.34 |
| 22 | BA | 1322 | A | N3-C4 | 5.93 | 1.38 | 1.34 |
| 22 | BA | 1548 | A | N3-C4 | 5.93 | 1.38 | 1.34 |
| 22 | BA | 2082 | A | C8-N7 | 5.93 | 1.35 | 1.31 |
| 1 | AA | 65 | A | N3-C4 | 5.93 | 1.38 | 1.34 |
| 1 | AA | 430 | A | N3-C4 | 5.93 | 1.38 | 1.34 |
| 1 | AA | 1016 | A | C5-C4 | -5.93 | 1.34 | 1.38 |
| 22 | BA | 1133 | A | C8-N7 | 5.93 | 1.35 | 1.31 |
| 22 | BA | 1829 | A | C8-N7 | 5.93 | 1.35 | 1.31 |
| 22 | BA | 2311 | A | N3-C4 | 5.93 | 1.38 | 1.34 |
| 1 | AA | 363 | A | C5-C4 | -5.92 | 1.34 | 1.38 |
| 1 | AA | 1349 | A | C5-C4 | -5.92 | 1.34 | 1.38 |
| 1 | AA | 1368 | A | C5-C4 | -5.92 | 1.34 | 1.38 |
| 22 | BA | 344 | A | N3-C4 | 5.92 | 1.38 | 1.34 |
| 22 | BA | 1901 | A | C5-C4 | -5.92 | 1.34 | 1.38 |
| 22 | BA | 2837 | A | C8-N7 | 5.92 | 1.35 | 1.31 |
| 22 | BA | 1088 | A | C5-C4 | -5.92 | 1.34 | 1.38 |
| 22 | BA | 2883 | A | N3-C4 | 5.92 | 1.38 | 1.34 |
| 1 | AA | 718 | A | N3-C4 | 5.92 | 1.38 | 1.34 |
| 23 | BB | 99 | A | C8-N7 | 5.92 | 1.35 | 1.31 |
| 1 | AA | 306 | A | N3-C4 | 5.92 | 1.38 | 1.34 |
| 22 | BA | 1276 | A | C8-N7 | 5.92 | 1.35 | 1.31 |
| 22 | BA | 2176 | A | N3-C4 | 5.92 | 1.38 | 1.34 |
| 1 | AA | 539 | A | C5-C4 | -5.92 | 1.34 | 1.38 |
| 1 | AA | 1306 | A | N3-C4 | 5.92 | 1.38 | 1.34 |
| 22 | BA | 1287 | A | N3-C4 | 5.92 | 1.38 | 1.34 |
| 1 | AA | 487 | A | C5-C4 | -5.91 | 1.34 | 1.38 |
| 1 | AA | 1329 | A | N3-C4 | 5.91 | 1.38 | 1.34 |
| 1 | AA | 1531 | A | C5-C4 | -5.91 | 1.34 | 1.38 |
| 1 | AA | 98 | A | N3-C4 | 5.91 | 1.38 | 1.34 |
| 22 | BA | 1669 | A | C5-C4 | -5.91 | 1.34 | 1.38 |
| 54 | B7 | 9 | A | C5-C4 | -5.91 | 1.34 | 1.38 |
| 1 | AA | 1197 | A | N3-C4 | 5.91 | 1.38 | 1.34 |
| 22 | BA | 2287 | A | C8-N7 | 5.91 | 1.35 | 1.31 |
| 22 | BA | 2682 | A | N3-C4 | 5.91 | 1.38 | 1.34 |
| 1 | AA | 155 | A | N3-C4 | 5.91 | 1.38 | 1.34 |
| 1 | AA | 374 | A | C5-C4 | -5.91 | 1.34 | 1.38 |
| 1 | AA | 1288 | A | C5-C4 | -5.91 | 1.34 | 1.38 |
| 1 | AA | 1357 | A | C5-C4 | -5.91 | 1.34 | 1.38 |
| 22 | BA | 632 | A | C8-N7 | 5.91 | 1.35 | 1.31 |
| 1 | AA | 1252 | A | C5-C4 | -5.90 | 1.34 | 1.38 |
| 22 | BA | 1877 | A | N3-C4 | 5.90 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1981 | A | C8-N7 | 5.90 | 1.35 | 1.31 |
| 22 | BA | 2602 | A | N3-C4 | 5.90 | 1.38 | 1.34 |
| 1 | AA | 1238 | A | C5-C4 | -5.90 | 1.34 | 1.38 |
| 22 | BA | 492 | A | N3-C4 | 5.90 | 1.38 | 1.34 |
| 22 | BA | 1469 | A | C5-C4 | -5.90 | 1.34 | 1.38 |
| 22 | BA | 2003 | A | C8-N7 | 5.90 | 1.35 | 1.31 |
| 22 | BA | 2679 | A | C8-N7 | 5.90 | 1.35 | 1.31 |
| 22 | BA | 2851 | A | N3-C4 | 5.90 | 1.38 | 1.34 |
| 55 | B8 | 59 | A | C5-C4 | -5.90 | 1.34 | 1.38 |
| 1 | AA | 1102 | A | N3-C4 | 5.90 | 1.38 | 1.34 |
| 22 | BA | 233 | A | C8-N7 | 5.90 | 1.35 | 1.31 |
| 22 | BA | 2662 | A | C5-C4 | -5.90 | 1.34 | 1.38 |
| 22 | BA | 89 | A | N3-C4 | 5.90 | 1.38 | 1.34 |
| 22 | BA | 2468 | A | N3-C4 | 5.90 | 1.38 | 1.34 |
| 1 | AA | 873 | A | N3-C4 | 5.90 | 1.38 | 1.34 |
| 22 | BA | 1503 | A | N3-C4 | 5.90 | 1.38 | 1.34 |
| 22 | BA | 2657 | A | N3-C4 | 5.89 | 1.38 | 1.34 |
| 1 | AA | 865 | A | N3-C4 | 5.89 | 1.38 | 1.34 |
| 22 | BA | 14 | A | C8-N7 | 5.89 | 1.35 | 1.31 |
| 1 | AA | 1269 | A | C5-C4 | -5.89 | 1.34 | 1.38 |
| 22 | BA | 310 | A | N3-C4 | 5.89 | 1.38 | 1.34 |
| 1 | AA | 338 | A | N3-C4 | 5.89 | 1.38 | 1.34 |
| 1 | AA | 946 | A | N3-C4 | 5.89 | 1.38 | 1.34 |
| 1 | AA | 1285 | A | N3-C4 | 5.89 | 1.38 | 1.34 |
| 1 | AA | 408 | A | C5-C4 | -5.88 | 1.34 | 1.38 |
| 1 | AA | 539 | A | N3-C4 | 5.88 | 1.38 | 1.34 |
| 1 | AA | 129 | A | N3-C4 | 5.88 | 1.38 | 1.34 |
| 1 | AA | 1046 | A | C5-C4 | -5.88 | 1.34 | 1.38 |
| 22 | BA | 1175 | A | C5-C4 | -5.88 | 1.34 | 1.38 |
| 22 | BA | 294 | A | N3-C4 | 5.88 | 1.38 | 1.34 |
| 22 | BA | 586 | A | C8-N7 | 5.88 | 1.35 | 1.31 |
| 22 | BA | 900 | A | C5-C4 | -5.88 | 1.34 | 1.38 |
| 22 | BA | 1916 | A | N3-C4 | 5.88 | 1.38 | 1.34 |
| 1 | AA | 814 | A | C8-N7 | 5.88 | 1.35 | 1.31 |
| 1 | AA | 1346 | A | N3-C4 | 5.88 | 1.38 | 1.34 |
| 1 | AA | 329 | A | N3-C4 | 5.88 | 1.38 | 1.34 |
| 1 | AA | 482 | A | N3-C4 | 5.88 | 1.38 | 1.34 |
| 1 | AA | 595 | A | N3-C4 | 5.88 | 1.38 | 1.34 |
| 1 | AA | 814 | A | N3-C4 | 5.88 | 1.38 | 1.34 |
| 22 | BA | 1126 | A | C8-N7 | 5.88 | 1.35 | 1.31 |
| 22 | BA | 1268 | A | C8-N7 | 5.88 | 1.35 | 1.31 |
| 54 | B7 | 8 | G | N9-C4 | -5.88 | 1.33 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 1319 | A | N3-C4 | 5.88 | 1.38 | 1.34 |
| 22 | BA | 71 | A | N3-C4 | 5.88 | 1.38 | 1.34 |
| 1 | AA | 493 | A | N3-C4 | 5.87 | 1.38 | 1.34 |
| 1 | AA | 1363 | A | C5-C4 | -5.87 | 1.34 | 1.38 |
| 22 | BA | 743 | A | N3-C4 | 5.87 | 1.38 | 1.34 |
| 22 | BA | 471 | A | C8-N7 | 5.87 | 1.35 | 1.31 |
| 22 | BA | 793 | A | N3-C4 | 5.87 | 1.38 | 1.34 |
| 22 | BA | 1439 | A | N3-C4 | 5.87 | 1.38 | 1.34 |
| 22 | BA | 1635 | A | C8-N7 | 5.87 | 1.35 | 1.31 |
| 1 | AA | 1287 | A | N3-C4 | 5.87 | 1.38 | 1.34 |
| 1 | AA | 1350 | A | C5-C4 | -5.87 | 1.34 | 1.38 |
| 22 | BA | 49 | A | C8-N7 | 5.87 | 1.35 | 1.31 |
| 1 | AA | 546 | A | C5-C4 | -5.87 | 1.34 | 1.38 |
| 1 | AA | 1503 | A | C5-C4 | -5.87 | 1.34 | 1.38 |
| 1 | AA | 759 | A | N3-C4 | 5.87 | 1.38 | 1.34 |
| 22 | BA | 2335 | A | N7-C5 | -5.87 | 1.35 | 1.39 |
| 22 | BA | 2411 | A | N3-C4 | 5.87 | 1.38 | 1.34 |
| 23 | BB | 34 | A | N3-C4 | 5.87 | 1.38 | 1.34 |
| 1 | AA | 923 | A | C5-C4 | -5.86 | 1.34 | 1.38 |
| 22 | BA | 522 | A | C8-N7 | 5.86 | 1.35 | 1.31 |
| 22 | BA | 1067 | A | C5-C4 | -5.86 | 1.34 | 1.38 |
| 22 | BA | 1175 | A | N3-C4 | 5.86 | 1.38 | 1.34 |
| 22 | BA | 1336 | A | N3-C4 | 5.86 | 1.38 | 1.34 |
| 22 | BA | 959 | A | N3-C4 | 5.86 | 1.38 | 1.34 |
| 22 | BA | 1866 | A | N3-C4 | 5.86 | 1.38 | 1.34 |
| 22 | BA | 251 | A | N3-C4 | 5.86 | 1.38 | 1.34 |
| 22 | BA | 255 | A | N3-C4 | 5.86 | 1.38 | 1.34 |
| 22 | BA | 345 | A | N3-C4 | 5.86 | 1.38 | 1.34 |
| 22 | BA | 2406 | A | N3-C4 | 5.86 | 1.38 | 1.34 |
| 22 | BA | 2547 | A | N3-C4 | 5.86 | 1.38 | 1.34 |
| 22 | BA | 83 | A | N3-C4 | 5.86 | 1.38 | 1.34 |
| 22 | BA | 348 | A | N3-C4 | 5.86 | 1.38 | 1.34 |
| 22 | BA | 2560 | A | N3-C4 | 5.86 | 1.38 | 1.34 |
| 22 | BA | 2886 | A | N3-C4 | 5.86 | 1.38 | 1.34 |
| 1 | AA | 466 | A | C5-C4 | -5.85 | 1.34 | 1.38 |
| 1 | AA | 964 | A | N3-C4 | 5.85 | 1.38 | 1.34 |
| 1 | AA | 461 | A | C5-C4 | -5.85 | 1.34 | 1.38 |
| 22 | BA | 1785 | A | N3-C4 | 5.85 | 1.38 | 1.34 |
| 1 | AA | 167 | A | N3-C4 | 5.85 | 1.38 | 1.34 |
| 22 | BA | 1403 | A | N3-C4 | 5.85 | 1.38 | 1.34 |
| 1 | AA | 746 | A | C5-C4 | -5.85 | 1.34 | 1.38 |
| 1 | AA | 1093 | A | N3-C4 | 5.85 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 705 | A | N3-C4 | 5.85 | 1.38 | 1.34 |
| 22 | BA | 1010 | A | C8-N7 | 5.85 | 1.35 | 1.31 |
| 22 | BA | 1387 | A | C5-C4 | -5.85 | 1.34 | 1.38 |
| 22 | BA | 1598 | A | N3-C4 | 5.85 | 1.38 | 1.34 |
| 1 | AA | 825 | A | N3-C4 | 5.85 | 1.38 | 1.34 |
| 1 | AA | 914 | A | N3-C4 | 5.85 | 1.38 | 1.34 |
| 1 | AA | 977 | A | N3-C4 | 5.85 | 1.38 | 1.34 |
| 1 | AA | 1503 | A | N3-C4 | 5.85 | 1.38 | 1.34 |
| 23 | BB | 57 | A | N3-C4 | 5.85 | 1.38 | 1.34 |
| 1 | AA | 1280 | A | C5-C4 | -5.85 | 1.34 | 1.38 |
| 1 | AA | 1318 | A | N3-C4 | 5.85 | 1.38 | 1.34 |
| 1 | AA | 349 | A | N3-C4 | 5.84 | 1.38 | 1.34 |
| 1 | AA | 1250 | A | N3-C4 | 5.84 | 1.38 | 1.34 |
| 1 | AA | 1271 | A | N3-C4 | 5.84 | 1.38 | 1.34 |
| 22 | BA | 1143 | A | N3-C4 | 5.84 | 1.38 | 1.34 |
| 1 | AA | 1170 | A | C5-C4 | -5.84 | 1.34 | 1.38 |
| 23 | BB | 15 | A | N3-C4 | 5.84 | 1.38 | 1.34 |
| 1 | AA | 493 | A | C5-C4 | -5.84 | 1.34 | 1.38 |
| 1 | AA | 1324 | A | C5-C4 | -5.84 | 1.34 | 1.38 |
| 1 | AA | 909 | A | N3-C4 | 5.84 | 1.38 | 1.34 |
| 1 | AA | 546 | A | N3-C4 | 5.84 | 1.38 | 1.34 |
| 22 | BA | 1354 | A | N7-C5 | -5.84 | 1.35 | 1.39 |
| 22 | BA | 1889 | A | C5-C4 | -5.84 | 1.34 | 1.38 |
| 23 | BB | 59 | A | C5-C4 | -5.84 | 1.34 | 1.38 |
| 1 | AA | 1055 | A | N3-C4 | 5.83 | 1.38 | 1.34 |
| 22 | BA | 861 | A | C8-N7 | 5.83 | 1.35 | 1.31 |
| 22 | BA | 2020 | A | C8-N7 | 5.83 | 1.35 | 1.31 |
| 22 | BA | 2516 | A | C8-N7 | 5.83 | 1.35 | 1.31 |
| 1 | AA | 978 | A | C5-C4 | -5.83 | 1.34 | 1.38 |
| 1 | AA | 1468 | A | N3-C4 | 5.83 | 1.38 | 1.34 |
| 22 | BA | 644 | A | C8-N7 | 5.83 | 1.35 | 1.31 |
| 22 | BA | 1821 | A | C8-N7 | 5.83 | 1.35 | 1.31 |
| 1 | AA | 768 | A | C5-C4 | -5.83 | 1.34 | 1.38 |
| 1 | AA | 1150 | A | C5-C4 | -5.83 | 1.34 | 1.38 |
| 22 | BA | 2199 | A | C8-N7 | 5.83 | 1.35 | 1.31 |
| 22 | BA | 1593 | A | N3-C4 | 5.82 | 1.38 | 1.34 |
| 22 | BA | 1735 | A | N3-C4 | 5.82 | 1.38 | 1.34 |
| 22 | BA | 2662 | A | N3-C4 | 5.82 | 1.38 | 1.34 |
| 22 | BA | 330 | A | C8-N7 | 5.82 | 1.35 | 1.31 |
| 1 | AA | 309 | A | N3-C4 | 5.82 | 1.38 | 1.34 |
| 22 | BA | 52 | A | N3-C4 | 5.82 | 1.38 | 1.34 |
| 22 | BA | 1088 | A | N3-C4 | 5.82 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 535 | A | N3-C4 | 5.82 | 1.38 | 1.34 |
| 1 | AA | 559 | A | C5-C4 | -5.82 | 1.34 | 1.38 |
| 1 | AA | 621 | A | C5-C4 | -5.82 | 1.34 | 1.38 |
| 1 | AA | 969 | A | N3-C4 | 5.82 | 1.38 | 1.34 |
| 22 | BA | 1096 | A | C5-C4 | -5.82 | 1.34 | 1.38 |
| 1 | AA | 792 | A | N3-C4 | 5.82 | 1.38 | 1.34 |
| 1 | AA | 1413 | A | N3-C4 | 5.82 | 1.38 | 1.34 |
| 22 | BA | 877 | A | N3-C4 | 5.82 | 1.38 | 1.34 |
| 22 | BA | 927 | A | N3-C4 | 5.82 | 1.38 | 1.34 |
| 1 | AA | 681 | A | N3-C4 | 5.81 | 1.38 | 1.34 |
| 1 | AA | 712 | A | N3-C4 | 5.81 | 1.38 | 1.34 |
| 1 | AA | 573 | A | N3-C4 | 5.81 | 1.38 | 1.34 |
| 1 | AA | 1274 | A | C5-C4 | -5.81 | 1.34 | 1.38 |
| 22 | BA | 2019 | A | C8-N7 | 5.81 | 1.35 | 1.31 |
| 22 | BA | 2163 | A | C5-C4 | -5.81 | 1.34 | 1.38 |
| 22 | BA | 2781 | A | C8-N7 | 5.81 | 1.35 | 1.31 |
| 23 | BB | 50 | A | N3-C4 | 5.81 | 1.38 | 1.34 |
| 1 | AA | 28 | A | N3-C4 | 5.81 | 1.38 | 1.34 |
| 22 | BA | 223 | A | C8-N7 | 5.81 | 1.35 | 1.31 |
| 22 | BA | 368 | A | N3-C4 | 5.81 | 1.38 | 1.34 |
| 22 | BA | 1077 | A | N3-C4 | 5.81 | 1.38 | 1.34 |
| 22 | BA | 1672 | A | C8-N7 | 5.81 | 1.35 | 1.31 |
| 22 | BA | 1739 | A | C5-C4 | -5.81 | 1.34 | 1.38 |
| 22 | BA | 2352 | A | N3-C4 | 5.81 | 1.38 | 1.34 |
| 1 | AA | 179 | A | C5-C4 | -5.81 | 1.34 | 1.38 |
| 1 | AA | 373 | A | C5-C4 | -5.81 | 1.34 | 1.38 |
| 22 | BA | 996 | A | C8-N7 | 5.81 | 1.35 | 1.31 |
| 1 | AA | 452 | A | C5-C4 | -5.81 | 1.34 | 1.38 |
| 22 | BA | 637 | A | N3-C4 | 5.81 | 1.38 | 1.34 |
| 22 | BA | 2071 | A | C5-C4 | -5.81 | 1.34 | 1.38 |
| 22 | BA | 146 | A | N3-C4 | 5.80 | 1.38 | 1.34 |
| 22 | BA | 574 | A | C5-C4 | -5.80 | 1.34 | 1.38 |
| 22 | BA | 1046 | A | C5-C4 | -5.80 | 1.34 | 1.38 |
| 22 | BA | 1544 | A | N3-C4 | 5.80 | 1.38 | 1.34 |
| 1 | AA | 192 | A | C5-C4 | -5.80 | 1.34 | 1.38 |
| 1 | AA | 520 | A | N3-C4 | 5.80 | 1.38 | 1.34 |
| 22 | BA | 233 | A | N3-C4 | 5.80 | 1.38 | 1.34 |
| 22 | BA | 984 | A | C8-N7 | 5.80 | 1.35 | 1.31 |
| 22 | BA | 1383 | A | N3-C4 | 5.80 | 1.38 | 1.34 |
| 22 | BA | 84 | A | N3-C4 | 5.80 | 1.38 | 1.34 |
| 22 | BA | 332 | A | N3-C4 | 5.80 | 1.38 | 1.34 |
| 22 | BA | 1700 | A | C8-N7 | 5.80 | 1.35 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1829 | A | N3-C4 | 5.80 | 1.38 | 1.34 |
| 22 | BA | 2635 | A | N3-C4 | 5.80 | 1.38 | 1.34 |
| 22 | BA | 2893 | A | N3-C4 | 5.80 | 1.38 | 1.34 |
| 1 | AA | 50 | A | N3-C4 | 5.80 | 1.38 | 1.34 |
| 22 | BA | 1367 | A | C8-N7 | 5.80 | 1.35 | 1.31 |
| 22 | BA | 2733 | A | N3-C4 | 5.80 | 1.38 | 1.34 |
| 22 | BA | 1969 | A | C8-N7 | 5.80 | 1.35 | 1.31 |
| 1 | AA | 602 | A | N3-C4 | 5.80 | 1.38 | 1.34 |
| 22 | BA | 2335 | A | C5-C4 | -5.80 | 1.34 | 1.38 |
| 1 | AA | 274 | A | N3-C4 | 5.79 | 1.38 | 1.34 |
| 1 | AA | 1111 | A | N3-C4 | 5.79 | 1.38 | 1.34 |
| 1 | AA | 223 | A | N3-C4 | 5.79 | 1.38 | 1.34 |
| 22 | BA | 751 | A | C5-C4 | -5.79 | 1.34 | 1.38 |
| 22 | BA | 480 | A | C8-N7 | 5.79 | 1.35 | 1.31 |
| 22 | BA | 1366 | A | C8-N7 | 5.79 | 1.35 | 1.31 |
| 22 | BA | 2879 | A | C8-N7 | 5.79 | 1.35 | 1.31 |
| 23 | BB | 101 | A | N3-C4 | 5.79 | 1.38 | 1.34 |
| 1 | AA | 663 | A | N3-C4 | 5.79 | 1.38 | 1.34 |
| 22 | BA | 2826 | A | C8-N7 | 5.79 | 1.35 | 1.31 |
| 1 | AA | 1163 | A | C2-N3 | 5.79 | 1.38 | 1.33 |
| 1 | AA | 1229 | A | N3-C4 | 5.79 | 1.38 | 1.34 |
| 22 | BA | 514 | A | N3-C4 | 5.79 | 1.38 | 1.34 |
| 22 | BA | 2461 | A | N3-C4 | 5.79 | 1.38 | 1.34 |
| 22 | BA | 804 | A | N3-C4 | 5.79 | 1.38 | 1.34 |
| 22 | BA | 1434 | A | C5-C4 | -5.79 | 1.34 | 1.38 |
| 1 | AA | 33 | A | N3-C4 | 5.79 | 1.38 | 1.34 |
| 1 | AA | 1492 | A | N3-C4 | 5.79 | 1.38 | 1.34 |
| 22 | BA | 1028 | A | N3-C4 | 5.79 | 1.38 | 1.34 |
| 22 | BA | 1505 | A | N3-C4 | 5.79 | 1.38 | 1.34 |
| 1 | AA | 533 | A | C2-N3 | 5.78 | 1.38 | 1.33 |
| 1 | AA | 782 | A | C5-C4 | -5.78 | 1.34 | 1.38 |
| 1 | AA | 1081 | A | N3-C4 | 5.78 | 1.38 | 1.34 |
| 1 | AA | 1375 | A | C5-C4 | -5.78 | 1.34 | 1.38 |
| 22 | BA | 272 | A | N3-C4 | 5.78 | 1.38 | 1.34 |
| 1 | AA | 649 | A | N3-C4 | 5.78 | 1.38 | 1.34 |
| 1 | AA | 1280 | A | N3-C4 | 5.78 | 1.38 | 1.34 |
| 22 | BA | 1001 | A | N3-C4 | 5.78 | 1.38 | 1.34 |
| 22 | BA | 1084 | A | C5-C4 | -5.78 | 1.34 | 1.38 |
| 22 | BA | 1553 | A | C8-N7 | 5.78 | 1.35 | 1.31 |
| 22 | BA | 2267 | A | C8-N7 | 5.78 | 1.35 | 1.31 |
| 22 | BA | 1008 | A | C8-N7 | 5.78 | 1.35 | 1.31 |
| 22 | BA | 1070 | A | C5-C4 | -5.78 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1572 | A | C8-N7 | 5.78 | 1.35 | 1.31 |
| 22 | BA | 2033 | A | C5-C4 | -5.78 | 1.34 | 1.38 |
| 1 | AA | 728 | A | N3-C4 | 5.78 | 1.38 | 1.34 |
| 1 | AA | 743 | A | N3-C4 | 5.78 | 1.38 | 1.34 |
| 22 | BA | 278 | A | C5-C4 | -5.78 | 1.34 | 1.38 |
| 22 | BA | 2726 | A | N3-C4 | 5.78 | 1.38 | 1.34 |
| 22 | BA | 2781 | A | N3-C4 | 5.78 | 1.38 | 1.34 |
| 1 | AA | 149 | A | N3-C4 | 5.78 | 1.38 | 1.34 |
| 1 | AA | 673 | A | C5-C4 | -5.78 | 1.34 | 1.38 |
| 1 | AA | 143 | A | N3-C4 | 5.77 | 1.38 | 1.34 |
| 1 | AA | 872 | A | N3-C4 | 5.77 | 1.38 | 1.34 |
| 22 | BA | 2173 | A | C5-C4 | -5.77 | 1.34 | 1.38 |
| 1 | AA | 16 | A | N3-C4 | 5.77 | 1.38 | 1.34 |
| 1 | AA | 974 | A | N3-C4 | 5.77 | 1.38 | 1.34 |
| 22 | BA | 454 | A | C5-C4 | -5.77 | 1.34 | 1.38 |
| 22 | BA | 1028 | A | C8-N7 | 5.77 | 1.35 | 1.31 |
| 22 | BA | 2211 | A | N3-C4 | 5.77 | 1.38 | 1.34 |
| 22 | BA | 144 | A | N3-C4 | 5.77 | 1.38 | 1.34 |
| 22 | BA | 705 | A | N7-C5 | -5.77 | 1.35 | 1.39 |
| 22 | BA | 825 | A | N3-C4 | 5.77 | 1.38 | 1.34 |
| 22 | BA | 1535 | A | C5-C4 | -5.77 | 1.34 | 1.38 |
| 55 | B8 | 21 | A | C5-C4 | -5.77 | 1.34 | 1.38 |
| 1 | AA | 908 | A | N3-C4 | 5.76 | 1.38 | 1.34 |
| 1 | AA | 1042 | A | C5-C4 | -5.76 | 1.34 | 1.38 |
| 22 | BA | 2386 | A | N3-C4 | 5.76 | 1.38 | 1.34 |
| 23 | BB | 46 | A | C5-C4 | -5.76 | 1.34 | 1.38 |
| 22 | BA | 861 | A | N3-C4 | 5.76 | 1.38 | 1.34 |
| 22 | BA | 2388 | A | C8-N7 | 5.76 | 1.35 | 1.31 |
| 22 | BA | 2654 | A | C5-C4 | -5.76 | 1.34 | 1.38 |
| 23 | BB | 94 | A | C8-N7 | 5.76 | 1.35 | 1.31 |
| 1 | AA | 648 | A | N3-C4 | 5.76 | 1.38 | 1.34 |
| 1 | AA | 906 | A | N3-C4 | 5.76 | 1.38 | 1.34 |
| 1 | AA | 1340 | A | N3-C4 | 5.76 | 1.38 | 1.34 |
| 22 | BA | 1773 | A | C8-N7 | 5.76 | 1.35 | 1.31 |
| 23 | BB | 53 | A | N3-C4 | 5.76 | 1.38 | 1.34 |
| 55 | B8 | 66 | A | C5-C4 | -5.76 | 1.34 | 1.38 |
| 1 | AA | 1368 | A | N3-C4 | 5.76 | 1.38 | 1.34 |
| 1 | AA | 1434 | A | N3-C4 | 5.76 | 1.38 | 1.34 |
| 22 | BA | 167 | A | N3-C4 | 5.76 | 1.38 | 1.34 |
| 1 | AA | 190 | A | C5-C4 | -5.76 | 1.34 | 1.38 |
| 22 | BA | 460 | A | C8-N7 | 5.76 | 1.35 | 1.31 |
| 1 | AA | 119 | A | N3-C4 | 5.75 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 190 | A | N7-C5 | -5.75 | 1.35 | 1.39 |
| 22 | BA | 781 | A | C5-C4 | -5.75 | 1.34 | 1.38 |
| 54 | B7 | 9 | A | N3-C4 | 5.75 | 1.38 | 1.34 |
| 22 | BA | 432 | A | N3-C4 | 5.75 | 1.38 | 1.34 |
| 22 | BA | 825 | A | C8-N7 | 5.75 | 1.35 | 1.31 |
| 22 | BA | 1494 | A | N3-C4 | 5.75 | 1.38 | 1.34 |
| 22 | BA | 1810 | A | N3-C4 | 5.75 | 1.38 | 1.34 |
| 1 | AA | 149 | A | C5-C4 | -5.75 | 1.34 | 1.38 |
| 22 | BA | 1021 | A | N3-C4 | 5.75 | 1.38 | 1.34 |
| 1 | AA | 160 | A | N3-C4 | 5.75 | 1.38 | 1.34 |
| 1 | AA | 1362 | A | N3-C4 | 5.75 | 1.38 | 1.34 |
| 22 | BA | 666 | A | C8-N7 | 5.75 | 1.35 | 1.31 |
| 22 | BA | 1127 | A | N3-C4 | 5.75 | 1.38 | 1.34 |
| 22 | BA | 2899 | A | N3-C4 | 5.75 | 1.38 | 1.34 |
| 1 | AA | 1238 | A | N3-C4 | 5.74 | 1.38 | 1.34 |
| 22 | BA | 866 | A | N3-C4 | 5.74 | 1.38 | 1.34 |
| 22 | BA | 1086 | A | N3-C4 | 5.74 | 1.38 | 1.34 |
| 22 | BA | 1387 | A | N3-C4 | 5.74 | 1.38 | 1.34 |
| 22 | BA | 2288 | A | C5-C4 | -5.74 | 1.34 | 1.38 |
| 23 | BB | 104 | A | N3-C4 | 5.74 | 1.38 | 1.34 |
| 23 | BB | 108 | A | N3-C4 | 5.74 | 1.38 | 1.34 |
| 1 | AA | 1480 | A | N3-C4 | 5.74 | 1.38 | 1.34 |
| 1 | AA | 1191 | A | C5-C4 | -5.74 | 1.34 | 1.38 |
| 22 | BA | 943 | A | N3-C4 | 5.74 | 1.38 | 1.34 |
| 22 | BA | 1469 | A | N3-C4 | 5.74 | 1.38 | 1.34 |
| 22 | BA | 1635 | A | N3-C4 | 5.74 | 1.38 | 1.34 |
| 1 | AA | 383 | A | C2-N3 | 5.74 | 1.38 | 1.33 |
| 1 | AA | 532 | A | C5-C4 | -5.74 | 1.34 | 1.38 |
| 1 | AA | 1227 | A | N3-C4 | 5.74 | 1.38 | 1.34 |
| 22 | BA | 1580 | A | N3-C4 | 5.74 | 1.38 | 1.34 |
| 1 | AA | 80 | A | C5-C4 | -5.73 | 1.34 | 1.38 |
| 1 | AA | 196 | A | N3-C4 | 5.73 | 1.38 | 1.34 |
| 22 | BA | 374 | A | C5-C4 | -5.73 | 1.34 | 1.38 |
| 22 | BA | 572 | A | N3-C4 | 5.73 | 1.38 | 1.34 |
| 1 | AA | 101 | A | N3-C4 | 5.73 | 1.38 | 1.34 |
| 1 | AA | 288 | A | N3-C4 | 5.73 | 1.38 | 1.34 |
| 22 | BA | 103 | A | N3-C4 | 5.73 | 1.38 | 1.34 |
| 22 | BA | 1000 | A | N3-C4 | 5.73 | 1.38 | 1.34 |
| 22 | BA | 1080 | A | C5-C4 | -5.73 | 1.34 | 1.38 |
| 22 | BA | 2058 | A | C8-N7 | 5.73 | 1.35 | 1.31 |
| 22 | BA | 64 | A | N3-C4 | 5.73 | 1.38 | 1.34 |
| 22 | BA | 1241 | A | N3-C4 | 5.73 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1276 | A | N3-C4 | 5.73 | 1.38 | 1.34 |
| 22 | BA | 1614 | A | C5-C4 | -5.73 | 1.34 | 1.38 |
| 1 | AA | 1350 | A | N3-C4 | 5.73 | 1.38 | 1.34 |
| 22 | BA | 382 | A | C8-N7 | 5.73 | 1.35 | 1.31 |
| 22 | BA | 1746 | A | N3-C4 | 5.73 | 1.38 | 1.34 |
| 1 | AA | 353 | A | N3-C4 | 5.73 | 1.38 | 1.34 |
| 1 | AA | 648 | A | C5-C4 | -5.73 | 1.34 | 1.38 |
| 22 | BA | 2765 | A | C8-N7 | 5.73 | 1.35 | 1.31 |
| 1 | AA | 1433 | A | N3-C4 | 5.72 | 1.38 | 1.34 |
| 22 | BA | 492 | A | C8-N7 | 5.72 | 1.35 | 1.31 |
| 22 | BA | 633 | A | C5-C4 | -5.72 | 1.34 | 1.38 |
| 22 | BA | 1509 | A | N3-C4 | 5.72 | 1.38 | 1.34 |
| 22 | BA | 789 | A | N3-C4 | 5.72 | 1.38 | 1.34 |
| 22 | BA | 1009 | A | N3-C4 | 5.72 | 1.38 | 1.34 |
| 22 | BA | 1705 | A | C8-N7 | 5.72 | 1.35 | 1.31 |
| 22 | BA | 2757 | A | C5-C4 | -5.72 | 1.34 | 1.38 |
| 22 | BA | 2758 | A | N3-C4 | 5.72 | 1.38 | 1.34 |
| 1 | AA | 1179 | A | C5-C4 | -5.72 | 1.34 | 1.38 |
| 22 | BA | 141 | G | C2-N3 | 5.72 | 1.37 | 1.32 |
| 1 | AA | 120 | A | N3-C4 | 5.72 | 1.38 | 1.34 |
| 22 | BA | 111 | A | N3-C4 | 5.72 | 1.38 | 1.34 |
| 22 | BA | 197 | A | N3-C4 | 5.72 | 1.38 | 1.34 |
| 22 | BA | 515 | A | C8-N7 | 5.72 | 1.35 | 1.31 |
| 1 | AA | 1236 | A | N3-C4 | 5.72 | 1.38 | 1.34 |
| 22 | BA | 244 | A | C8-N7 | 5.72 | 1.35 | 1.31 |
| 22 | BA | 749 | A | C8-N7 | 5.72 | 1.35 | 1.31 |
| 22 | BA | 899 | A | N3-C4 | 5.72 | 1.38 | 1.34 |
| 22 | BA | 1327 | A | N3-C4 | 5.72 | 1.38 | 1.34 |
| 1 | AA | 448 | A | C5-C4 | -5.71 | 1.34 | 1.38 |
| 1 | AA | 665 | A | N3-C4 | 5.71 | 1.38 | 1.34 |
| 1 | AA | 1287 | A | C5-C4 | -5.71 | 1.34 | 1.38 |
| 22 | BA | 2082 | A | N3-C4 | 5.71 | 1.38 | 1.34 |
| 1 | AA | 364 | A | N3-C4 | 5.71 | 1.38 | 1.34 |
| 1 | AA | 1468 | A | C8-N7 | 5.71 | 1.35 | 1.31 |
| 22 | BA | 127 | A | N3-C4 | 5.71 | 1.38 | 1.34 |
| 22 | BA | 2564 | A | C8-N7 | 5.71 | 1.35 | 1.31 |
| 1 | AA | 382 | A | N3-C4 | 5.71 | 1.38 | 1.34 |
| 1 | AA | 629 | A | N3-C4 | 5.71 | 1.38 | 1.34 |
| 22 | BA | 466 | A | N3-C4 | 5.71 | 1.38 | 1.34 |
| 22 | BA | 2750 | A | N3-C4 | 5.71 | 1.38 | 1.34 |
| 22 | BA | 2134 | A | C5-C4 | -5.71 | 1.34 | 1.38 |
| 1 | AA | 196 | A | C5-C4 | -5.71 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1819 | A | N3-C4 | 5.71 | 1.38 | 1.34 |
| 22 | BA | 1872 | A | C5-C4 | -5.71 | 1.34 | 1.38 |
| 22 | BA | 2352 | A | C8-N7 | 5.71 | 1.35 | 1.31 |
| 22 | BA | 2766 | A | N3-C4 | 5.71 | 1.38 | 1.34 |
| 1 | AA | 1019 | A | N3-C4 | 5.70 | 1.38 | 1.34 |
| 1 | AA | 1082 | A | N3-C4 | 5.70 | 1.38 | 1.34 |
| 22 | BA | 1010 | A | N3-C4 | 5.70 | 1.38 | 1.34 |
| 22 | BA | 2062 | A | N3-C4 | 5.70 | 1.38 | 1.34 |
| 22 | BA | 2284 | A | C8-N7 | 5.70 | 1.35 | 1.31 |
| 23 | BB | 45 | A | N3-C4 | 5.70 | 1.38 | 1.34 |
| 1 | AA | 441 | A | C5-C4 | -5.70 | 1.34 | 1.38 |
| 22 | BA | 251 | A | C5-C4 | -5.70 | 1.34 | 1.38 |
| 1 | AA | 845 | A | C5-C4 | -5.70 | 1.34 | 1.38 |
| 1 | AA | 1493 | A | N3-C4 | 5.70 | 1.38 | 1.34 |
| 22 | BA | 42 | A | N3-C4 | 5.70 | 1.38 | 1.34 |
| 22 | BA | 2281 | A | N3-C4 | 5.70 | 1.38 | 1.34 |
| 1 | AA | 162 | A | C8-N7 | 5.70 | 1.35 | 1.31 |
| 1 | AA | 523 | A | N3-C4 | 5.70 | 1.38 | 1.34 |
| 22 | BA | 265 | A | N3-C4 | 5.70 | 1.38 | 1.34 |
| 22 | BA | 716 | A | N3-C4 | 5.70 | 1.38 | 1.34 |
| 22 | BA | 221 | A | N3-C4 | 5.69 | 1.38 | 1.34 |
| 22 | BA | 2270 | A | N3-C4 | 5.69 | 1.38 | 1.34 |
| 8 | AH | 96 | MET | CB-CG | -5.69 | 1.33 | 1.51 |
| 22 | BA | 1664 | A | N3-C4 | 5.69 | 1.38 | 1.34 |
| 22 | BA | 2577 | A | C5-C4 | -5.69 | 1.34 | 1.38 |
| 22 | BA | 91 | A | N3-C4 | 5.69 | 1.38 | 1.34 |
| 22 | BA | 1785 | A | C8-N7 | 5.69 | 1.35 | 1.31 |
| 22 | BA | 2765 | A | N3-C4 | 5.69 | 1.38 | 1.34 |
| 1 | AA | 673 | A | C2-N3 | 5.69 | 1.38 | 1.33 |
| 22 | BA | 422 | A | C5-C4 | -5.69 | 1.34 | 1.38 |
| 1 | AA | 1171 | A | C5-C4 | -5.69 | 1.34 | 1.38 |
| 22 | BA | 718 | A | N3-C4 | 5.69 | 1.38 | 1.34 |
| 22 | BA | 1393 | A | N3-C4 | 5.69 | 1.38 | 1.34 |
| 22 | BA | 1655 | A | C8-N7 | 5.69 | 1.35 | 1.31 |
| 1 | AA | 1080 | A | N3-C4 | 5.68 | 1.38 | 1.34 |
| 22 | BA | 677 | A | C8-N7 | 5.68 | 1.35 | 1.31 |
| 22 | BA | 1322 | A | C8-N7 | 5.68 | 1.35 | 1.31 |
| 22 | BA | 2572 | A | N3-C4 | 5.68 | 1.38 | 1.34 |
| 1 | AA | 1213 | A | C5-C4 | -5.68 | 1.34 | 1.38 |
| 22 | BA | 1392 | A | N3-C4 | 5.68 | 1.38 | 1.34 |
| 22 | BA | 2761 | A | N3-C4 | 5.68 | 1.38 | 1.34 |
| 22 | BA | 479 | A | N3-C4 | 5.68 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 131 | A | N3-C4 | 5.68 | 1.38 | 1.34 |
| 22 | BA | 715 | A | N3-C4 | 5.68 | 1.38 | 1.34 |
| 22 | BA | 1155 | A | C8-N7 | 5.68 | 1.35 | 1.31 |
| 23 | BB | 99 | A | N3-C4 | 5.68 | 1.38 | 1.34 |
| 1 | AA | 1447 | A | N3-C4 | 5.68 | 1.38 | 1.34 |
| 1 | AA | 1035 | A | C5-C4 | -5.67 | 1.34 | 1.38 |
| 22 | BA | 1528 | A | C8-N7 | 5.67 | 1.35 | 1.31 |
| 22 | BA | 1495 | A | C5-C4 | -5.67 | 1.34 | 1.38 |
| 22 | BA | 1913 | A | N3-C4 | 5.67 | 1.38 | 1.34 |
| 22 | BA | 160 | A | N3-C4 | 5.67 | 1.38 | 1.34 |
| 22 | BA | 2298 | A | N3-C4 | 5.67 | 1.38 | 1.34 |
| 23 | BB | 29 | A | N3-C4 | 5.67 | 1.38 | 1.34 |
| 22 | BA | 13 | A | N3-C4 | 5.67 | 1.38 | 1.34 |
| 22 | BA | 1853 | A | N3-C4 | 5.67 | 1.38 | 1.34 |
| 1 | AA | 959 | A | N3-C4 | 5.67 | 1.38 | 1.34 |
| 22 | BA | 56 | A | C8-N7 | 5.67 | 1.35 | 1.31 |
| 22 | BA | 497 | A | N3-C4 | 5.67 | 1.38 | 1.34 |
| 22 | BA | 909 | A | N3-C4 | 5.67 | 1.38 | 1.34 |
| 22 | BA | 1367 | A | N3-C4 | 5.67 | 1.38 | 1.34 |
| 22 | BA | 2090 | A | C8-N7 | 5.67 | 1.35 | 1.31 |
| 1 | AA | 300 | A | C8-N7 | 5.66 | 1.35 | 1.31 |
| 1 | AA | 1170 | A | C2-N3 | 5.66 | 1.38 | 1.33 |
| 22 | BA | 190 | A | C8-N7 | 5.66 | 1.35 | 1.31 |
| 22 | BA | 996 | A | N3-C4 | 5.66 | 1.38 | 1.34 |
| 22 | BA | 2634 | A | N3-C4 | 5.66 | 1.38 | 1.34 |
| 22 | BA | 2565 | A | C8-N7 | 5.66 | 1.35 | 1.31 |
| 1 | AA | 172 | A | N3-C4 | 5.66 | 1.38 | 1.34 |
| 22 | BA | 156 | A | N3-C4 | 5.66 | 1.38 | 1.34 |
| 22 | BA | 2191 | A | C5-C4 | -5.66 | 1.34 | 1.38 |
| 22 | BA | 181 | A | N3-C4 | 5.66 | 1.38 | 1.34 |
| 22 | BA | 1247 | A | N3-C4 | 5.66 | 1.38 | 1.34 |
| 1 | AA | 190 | A | C2-N3 | 5.66 | 1.38 | 1.33 |
| 22 | BA | 217 | A | N3-C4 | 5.66 | 1.38 | 1.34 |
| 1 | AA | 510 | A | N3-C4 | 5.66 | 1.38 | 1.34 |
| 22 | BA | 182 | A | N3-C4 | 5.66 | 1.38 | 1.34 |
| 22 | BA | 1966 | A | N3-C4 | 5.65 | 1.38 | 1.34 |
| 1 | AA | 1500 | A | C5-C4 | -5.65 | 1.34 | 1.38 |
| 22 | BA | 990 | A | C8-N7 | 5.65 | 1.35 | 1.31 |
| 22 | BA | 2077 | A | N3-C4 | 5.65 | 1.38 | 1.34 |
| 55 | B8 | 73 | A | C5-C4 | -5.65 | 1.34 | 1.38 |
| 22 | BA | 2060 | A | N3-C4 | 5.65 | 1.38 | 1.34 |
| 22 | BA | 2169 | A | C5-C4 | -5.65 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 173 | A | N3-C4 | 5.65 | 1.38 | 1.34 |
| 22 | BA | 820 | A | N3-C4 | 5.65 | 1.38 | 1.34 |
| 1 | AA | 1117 | A | N3-C4 | 5.65 | 1.38 | 1.34 |
| 22 | BA | 742 | A | N3-C4 | 5.65 | 1.38 | 1.34 |
| 22 | BA | 2721 | A | C5-C4 | -5.65 | 1.34 | 1.38 |
| 1 | AA | 228 | A | N3-C4 | 5.64 | 1.38 | 1.34 |
| 22 | BA | 2705 | A | C8-N7 | 5.64 | 1.35 | 1.31 |
| 22 | BA | 342 | A | N3-C4 | 5.64 | 1.38 | 1.34 |
| 22 | BA | 415 | A | C8-N7 | 5.64 | 1.35 | 1.31 |
| 22 | BA | 608 | A | C8-N7 | 5.64 | 1.35 | 1.31 |
| 22 | BA | 1802 | A | N3-C4 | 5.64 | 1.38 | 1.34 |
| 22 | BA | 1630 | A | N3-C4 | 5.64 | 1.38 | 1.34 |
| 22 | BA | 371 | A | N3-C4 | 5.63 | 1.38 | 1.34 |
| 22 | BA | 1597 | A | N3-C4 | 5.63 | 1.38 | 1.34 |
| 22 | BA | 2170 | A | C5-C4 | -5.63 | 1.34 | 1.38 |
| 22 | BA | 447 | A | N7-C5 | -5.63 | 1.35 | 1.39 |
| 22 | BA | 1637 | A | C8-N7 | 5.63 | 1.35 | 1.31 |
| 22 | BA | 2005 | A | N3-C4 | 5.63 | 1.38 | 1.34 |
| 22 | BA | 1264 | A | C8-N7 | 5.63 | 1.35 | 1.31 |
| 22 | BA | 1918 | A | N3-C4 | 5.63 | 1.38 | 1.34 |
| 1 | AA | 1035 | A | C2-N3 | 5.63 | 1.38 | 1.33 |
| 22 | BA | 2776 | A | N3-C4 | 5.63 | 1.38 | 1.34 |
| 1 | AA | 574 | A | N3-C4 | 5.63 | 1.38 | 1.34 |
| 22 | BA | 1260 | A | C8-N7 | 5.63 | 1.35 | 1.31 |
| 22 | BA | 1755 | A | N3-C4 | 5.62 | 1.38 | 1.34 |
| 22 | BA | 2199 | A | N3-C4 | 5.62 | 1.38 | 1.34 |
| 1 | AA | 116 | A | N3-C4 | 5.62 | 1.38 | 1.34 |
| 22 | BA | 1241 | A | N7-C5 | -5.62 | 1.35 | 1.39 |
| 22 | BA | 1603 | A | N3-C4 | 5.62 | 1.38 | 1.34 |
| 1 | AA | 889 | A | N3-C4 | 5.62 | 1.38 | 1.34 |
| 1 | AA | 983 | A | N3-C4 | 5.62 | 1.38 | 1.34 |
| 1 | AA | 1110 | A | N3-C4 | 5.62 | 1.38 | 1.34 |
| 22 | BA | 2829 | A | N3-C4 | 5.62 | 1.38 | 1.34 |
| 22 | BA | 792 | A | C8-N7 | 5.62 | 1.35 | 1.31 |
| 22 | BA | 892 | A | C5-C4 | -5.62 | 1.34 | 1.38 |
| 22 | BA | 256 | A | C8-N7 | 5.62 | 1.35 | 1.31 |
| 22 | BA | 2278 | A | N3-C4 | 5.62 | 1.38 | 1.34 |
| 22 | BA | 423 | A | N3-C4 | 5.61 | 1.38 | 1.34 |
| 22 | BA | 668 | A | C8-N7 | 5.61 | 1.35 | 1.31 |
| 22 | BA | 1572 | A | N7-C5 | -5.61 | 1.35 | 1.39 |
| 22 | BA | 1610 | A | N3-C4 | 5.61 | 1.38 | 1.34 |
| 22 | BA | 2058 | A | N3-C4 | 5.61 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2227 | A | N3-C4 | 5.61 | 1.38 | 1.34 |
| 1 | AA | 236 | A | N3-C4 | 5.61 | 1.38 | 1.34 |
| 22 | BA | 2191 | A | N3-C4 | 5.61 | 1.38 | 1.34 |
| 1 | AA | 579 | A | N3-C4 | 5.61 | 1.38 | 1.34 |
| 1 | AA | 753 | A | N3-C4 | 5.61 | 1.38 | 1.34 |
| 22 | BA | 794 | A | N3-C4 | 5.61 | 1.38 | 1.34 |
| 22 | BA | 2850 | A | N3-C4 | 5.61 | 1.38 | 1.34 |
| 22 | BA | 1608 | A | C5-C4 | -5.61 | 1.34 | 1.38 |
| 1 | AA | 389 | A | C2-N3 | 5.61 | 1.38 | 1.33 |
| 22 | BA | 528 | A | C8-N7 | 5.61 | 1.35 | 1.31 |
| 22 | BA | 1757 | A | C8-N7 | 5.61 | 1.35 | 1.31 |
| 22 | BA | 2328 | A | N3-C4 | 5.61 | 1.38 | 1.34 |
| 22 | BA | 1470 | A | C5-C4 | -5.60 | 1.34 | 1.38 |
| 1 | AA | 1 | A | C5-C4 | -5.60 | 1.34 | 1.38 |
| 1 | AA | 782 | A | N3-C4 | 5.60 | 1.38 | 1.34 |
| 1 | AA | 1441 | A | C2-N3 | 5.60 | 1.38 | 1.33 |
| 22 | BA | 477 | A | N3-C4 | 5.60 | 1.38 | 1.34 |
| 22 | BA | 575 | A | C8-N7 | 5.60 | 1.35 | 1.31 |
| 22 | BA | 2135 | A | C5-C4 | -5.60 | 1.34 | 1.38 |
| 1 | AA | 482 | A | C5-C4 | -5.60 | 1.34 | 1.38 |
| 22 | BA | 925 | A | N3-C4 | 5.60 | 1.38 | 1.34 |
| 22 | BA | 1431 | A | C8-N7 | 5.60 | 1.35 | 1.31 |
| 22 | BA | 2810 | A | N3-C4 | 5.60 | 1.38 | 1.34 |
| 1 | AA | 77 | A | C2-N3 | 5.60 | 1.38 | 1.33 |
| 1 | AA | 563 | A | N3-C4 | 5.60 | 1.38 | 1.34 |
| 1 | AA | 1016 | A | N3-C4 | 5.60 | 1.38 | 1.34 |
| 22 | BA | 412 | A | C8-N7 | 5.60 | 1.35 | 1.31 |
| 1 | AA | 223 | A | C5-C4 | -5.60 | 1.34 | 1.38 |
| 1 | AA | 913 | A | N3-C4 | 5.60 | 1.38 | 1.34 |
| 22 | BA | 626 | A | N3-C4 | 5.59 | 1.38 | 1.34 |
| 22 | BA | 1668 | A | C5-C4 | -5.59 | 1.34 | 1.38 |
| 1 | AA | 878 | A | N3-C4 | 5.59 | 1.38 | 1.34 |
| 22 | BA | 722 | A | N3-C4 | 5.59 | 1.38 | 1.34 |
| 1 | AA | 1299 | A | N3-C4 | 5.59 | 1.38 | 1.34 |
| 22 | BA | 655 | A | N3-C4 | 5.59 | 1.38 | 1.34 |
| 22 | BA | 1057 | A | C5-C4 | -5.59 | 1.34 | 1.38 |
| 22 | BA | 2340 | A | N3-C4 | 5.59 | 1.38 | 1.34 |
| 1 | AA | 303 | A | N3-C4 | 5.59 | 1.38 | 1.34 |
| 22 | BA | 1969 | A | N7-C5 | -5.59 | 1.35 | 1.39 |
| 22 | BA | 2108 | A | C5-C4 | -5.59 | 1.34 | 1.38 |
| 22 | BA | 2009 | A | C8-N7 | 5.59 | 1.35 | 1.31 |
| 1 | AA | 1130 | A | N3-C4 | 5.59 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 101 | A | N3-C4 | 5.59 | 1.38 | 1.34 |
| 22 | BA | 2860 | A | N3-C4 | 5.59 | 1.38 | 1.34 |
| 1 | AA | 919 | A | N3-C4 | 5.58 | 1.38 | 1.34 |
| 22 | BA | 1165 | A | N3-C4 | 5.58 | 1.38 | 1.34 |
| 22 | BA | 1213 | A | N7-C5 | -5.58 | 1.35 | 1.39 |
| 22 | BA | 1549 | A | N3-C4 | 5.58 | 1.38 | 1.34 |
| 22 | BA | 1551 | A | N3-C4 | 5.58 | 1.38 | 1.34 |
| 22 | BA | 1978 | A | N3-C4 | 5.58 | 1.38 | 1.34 |
| 22 | BA | 492 | A | N7-C5 | -5.58 | 1.35 | 1.39 |
| 22 | BA | 586 | A | C5-C4 | -5.58 | 1.34 | 1.38 |
| 22 | BA | 1419 | A | N3-C4 | 5.58 | 1.38 | 1.34 |
| 22 | BA | 1791 | A | C8-N7 | 5.58 | 1.35 | 1.31 |
| 22 | BA | 2738 | A | N3-C4 | 5.58 | 1.38 | 1.34 |
| 22 | BA | 443 | A | C8-N7 | 5.58 | 1.35 | 1.31 |
| 1 | AA | 1418 | A | N3-C4 | 5.58 | 1.38 | 1.34 |
| 22 | BA | 482 | A | N7-C5 | -5.58 | 1.35 | 1.39 |
| 22 | BA | 918 | A | N3-C4 | 5.58 | 1.38 | 1.34 |
| 22 | BA | 1654 | A | C8-N7 | 5.58 | 1.35 | 1.31 |
| 22 | BA | 2433 | A | C8-N7 | 5.58 | 1.35 | 1.31 |
| 54 | B7 | 8 | G | P-O5' | 5.58 | 1.65 | 1.59 |
| 1 | AA | 502 | A | C2-N3 | 5.57 | 1.38 | 1.33 |
| 22 | BA | 1342 | A | N3-C4 | 5.57 | 1.38 | 1.34 |
| 22 | BA | 1579 | A | N3-C4 | 5.57 | 1.38 | 1.34 |
| 22 | BA | 1634 | A | N3-C4 | 5.57 | 1.38 | 1.34 |
| 22 | BA | 391 | A | C8-N7 | 5.57 | 1.35 | 1.31 |
| 22 | BA | 981 | A | N3-C4 | 5.57 | 1.38 | 1.34 |
| 1 | AA | 270 | A | N3-C4 | 5.56 | 1.38 | 1.34 |
| 22 | BA | 2590 | A | N3-C4 | 5.56 | 1.38 | 1.34 |
| 1 | AA | 382 | A | C5-C4 | -5.56 | 1.34 | 1.38 |
| 22 | BA | 2054 | A | N3-C4 | 5.56 | 1.38 | 1.34 |
| 23 | BB | 115 | A | N3-C4 | 5.56 | 1.38 | 1.34 |
| 1 | AA | 26 | A | N3-C4 | 5.56 | 1.38 | 1.34 |
| 22 | BA | 1570 | A | C8-N7 | 5.56 | 1.35 | 1.31 |
| 22 | BA | 1572 | A | N3-C4 | 5.56 | 1.38 | 1.34 |
| 22 | BA | 1664 | A | N7-C5 | -5.56 | 1.35 | 1.39 |
| 1 | AA | 768 | A | N3-C4 | 5.56 | 1.38 | 1.34 |
| 22 | BA | 1095 | A | C5-C4 | -5.56 | 1.34 | 1.38 |
| 22 | BA | 2377 | A | N3-C4 | 5.56 | 1.38 | 1.34 |
| 1 | AA | 435 | A | C5-C4 | -5.56 | 1.34 | 1.38 |
| 1 | AA | 1005 | A | C5-C4 | -5.56 | 1.34 | 1.38 |
| 1 | AA | 1456 | A | N3-C4 | 5.56 | 1.38 | 1.34 |
| 22 | BA | 1711 | A | N3-C4 | 5.56 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 702 | A | N3-C4 | 5.55 | 1.38 | 1.34 |
| 1 | AA | 1357 | A | N3-C4 | 5.55 | 1.38 | 1.34 |
| 22 | BA | 693 | A | N3-C4 | 5.55 | 1.38 | 1.34 |
| 22 | BA | 2513 | A | C8-N7 | 5.55 | 1.35 | 1.31 |
| 22 | BA | 1040 | A | N3-C4 | 5.55 | 1.38 | 1.34 |
| 55 | B8 | 51 | A | N3-C4 | 5.55 | 1.38 | 1.34 |
| 22 | BA | 911 | A | C8-N7 | 5.55 | 1.35 | 1.31 |
| 1 | AA | 937 | A | N3-C4 | 5.55 | 1.38 | 1.34 |
| 22 | BA | 197 | A | N7-C5 | -5.55 | 1.35 | 1.39 |
| 22 | BA | 471 | A | N3-C4 | 5.55 | 1.38 | 1.34 |
| 22 | BA | 753 | A | C8-N7 | 5.55 | 1.35 | 1.31 |
| 22 | BA | 1029 | A | C8-N7 | 5.55 | 1.35 | 1.31 |
| 22 | BA | 1705 | A | N3-C4 | 5.55 | 1.38 | 1.34 |
| 1 | AA | 746 | A | C2-N3 | 5.54 | 1.38 | 1.33 |
| 22 | BA | 1969 | A | N3-C4 | 5.54 | 1.38 | 1.34 |
| 1 | AA | 300 | A | N7-C5 | -5.54 | 1.35 | 1.39 |
| 1 | AA | 1188 | A | N3-C4 | 5.54 | 1.38 | 1.34 |
| 22 | BA | 802 | A | N3-C4 | 5.54 | 1.38 | 1.34 |
| 1 | AA | 19 | A | N3-C4 | 5.54 | 1.38 | 1.34 |
| 22 | BA | 457 | A | N3-C4 | 5.54 | 1.38 | 1.34 |
| 22 | BA | 1032 | A | N3-C4 | 5.54 | 1.38 | 1.34 |
| 22 | BA | 1652 | A | N7-C5 | -5.54 | 1.35 | 1.39 |
| 22 | BA | 1970 | A | N3-C4 | 5.54 | 1.38 | 1.34 |
| 22 | BA | 730 | A | N7-C5 | -5.54 | 1.35 | 1.39 |
| 22 | BA | 1134 | A | N3-C4 | 5.54 | 1.38 | 1.34 |
| 22 | BA | 2126 | A | C5-C4 | -5.54 | 1.34 | 1.38 |
| 22 | BA | 1794 | A | N3-C4 | 5.54 | 1.38 | 1.34 |
| 22 | BA | 1689 | A | N3-C4 | 5.54 | 1.38 | 1.34 |
| 22 | BA | 2005 | A | C8-N7 | 5.54 | 1.35 | 1.31 |
| 1 | AA | 60 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 1 | AA | 1377 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 22 | BA | 10 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 22 | BA | 574 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 22 | BA | 1871 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 22 | BA | 2448 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 22 | BA | 2598 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 22 | BA | 631 | A | C8-N7 | 5.53 | 1.35 | 1.31 |
| 1 | AA | 44 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 22 | BA | 324 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 22 | BA | 1668 | A | N7-C5 | -5.53 | 1.35 | 1.39 |
| 22 | BA | 1890 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 22 | BA | 721 | A | N3-C4 | 5.53 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1932 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 1 | AA | 431 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 22 | BA | 207 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 22 | BA | 401 | A | C8-N7 | 5.53 | 1.35 | 1.31 |
| 22 | BA | 1009 | A | C8-N7 | 5.53 | 1.35 | 1.31 |
| 22 | BA | 1098 | A | C2-N3 | 5.53 | 1.38 | 1.33 |
| 22 | BA | 1308 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 22 | BA | 1717 | A | N3-C4 | 5.53 | 1.38 | 1.34 |
| 22 | BA | 1899 | A | C8-N7 | 5.53 | 1.35 | 1.31 |
| 22 | BA | 95 | A | N3-C4 | 5.52 | 1.38 | 1.34 |
| 22 | BA | 1194 | A | N3-C4 | 5.52 | 1.38 | 1.34 |
| 22 | BA | 1981 | A | N3-C4 | 5.52 | 1.38 | 1.34 |
| 1 | AA | 622 | A | N3-C4 | 5.52 | 1.38 | 1.34 |
| 1 | AA | 780 | A | N3-C4 | 5.52 | 1.38 | 1.34 |
| 22 | BA | 241 | A | N3-C4 | 5.52 | 1.38 | 1.34 |
| 1 | AA | 1534 | A | C5-C4 | -5.52 | 1.34 | 1.38 |
| 22 | BA | 447 | A | C8-N7 | 5.52 | 1.35 | 1.31 |
| 22 | BA | 483 | A | N3-C4 | 5.52 | 1.38 | 1.34 |
| 22 | BA | 2749 | A | C5-C4 | -5.52 | 1.34 | 1.38 |
| 55 | B8 | 14 | A | C5-C4 | -5.52 | 1.34 | 1.38 |
| 22 | BA | 2366 | A | N3-C4 | 5.52 | 1.38 | 1.34 |
| 1 | AA | 3 | A | N3-C4 | 5.51 | 1.38 | 1.34 |
| 1 | AA | 10 | A | N3-C4 | 5.51 | 1.38 | 1.34 |
| 1 | AA | 509 | A | N3-C4 | 5.51 | 1.38 | 1.34 |
| 22 | BA | 52 | A | C8-N7 | 5.51 | 1.35 | 1.31 |
| 1 | AA | 747 | A | C5-C4 | -5.51 | 1.34 | 1.38 |
| 22 | BA | 2721 | A | C8-N7 | 5.51 | 1.35 | 1.31 |
| 1 | AA | 131 | A | N3-C4 | 5.51 | 1.38 | 1.34 |
| 1 | AA | 366 | A | N3-C4 | 5.51 | 1.38 | 1.34 |
| 22 | BA | 309 | A | N3-C4 | 5.51 | 1.38 | 1.34 |
| 22 | BA | 1039 | A | N3-C4 | 5.51 | 1.38 | 1.34 |
| 22 | BA | 2883 | A | C8-N7 | 5.51 | 1.35 | 1.31 |
| 22 | BA | 2077 | A | N7-C5 | -5.51 | 1.35 | 1.39 |
| 22 | BA | 2154 | A | C2-N3 | 5.51 | 1.38 | 1.33 |
| 1 | AA | 968 | A | N3-C4 | 5.51 | 1.38 | 1.34 |
| 1 | AA | 1430 | A | N3-C4 | 5.51 | 1.38 | 1.34 |
| 22 | BA | 590 | A | N3-C4 | 5.51 | 1.38 | 1.34 |
| 22 | BA | 972 | A | C8-N7 | 5.50 | 1.35 | 1.31 |
| 1 | AA | 452 | A | N3-C4 | 5.50 | 1.38 | 1.34 |
| 22 | BA | 1054 | A | C2-N3 | 5.50 | 1.38 | 1.33 |
| 22 | BA | 1359 | A | N3-C4 | 5.50 | 1.38 | 1.34 |
| 22 | BA | 917 | A | N3-C4 | 5.50 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 777 | A | N3-C4 | 5.50 | 1.38 | 1.34 |
| 22 | BA | 599 | A | C8-N7 | 5.50 | 1.35 | 1.31 |
| 22 | BA | 1889 | A | N3-C4 | 5.50 | 1.38 | 1.34 |
| 22 | BA | 1654 | A | N3-C4 | 5.50 | 1.38 | 1.34 |
| 22 | BA | 2820 | A | N3-C4 | 5.50 | 1.38 | 1.34 |
| 1 | AA | 55 | A | C2-N3 | 5.50 | 1.38 | 1.33 |
| 22 | BA | 819 | A | N3-C4 | 5.50 | 1.38 | 1.34 |
| 22 | BA | 528 | A | N3-C4 | 5.49 | 1.38 | 1.34 |
| 22 | BA | 947 | A | N3-C4 | 5.49 | 1.38 | 1.34 |
| 22 | BA | 2459 | A | C8-N7 | 5.49 | 1.35 | 1.31 |
| 22 | BA | 2273 | A | C8-N7 | 5.49 | 1.35 | 1.31 |
| 1 | AA | 478 | A | C5-C4 | -5.49 | 1.34 | 1.38 |
| 22 | BA | 1608 | A | N3-C4 | 5.49 | 1.38 | 1.34 |
| 22 | BA | 1912 | A | N3-C4 | 5.49 | 1.38 | 1.34 |
| 1 | AA | 860 | A | N3-C4 | 5.49 | 1.38 | 1.34 |
| 22 | BA | 2088 | A | N3-C4 | 5.49 | 1.38 | 1.34 |
| 23 | BB | 78 | A | N3-C4 | 5.49 | 1.38 | 1.34 |
| 22 | BA | 1048 | A | C5-C4 | -5.49 | 1.34 | 1.38 |
| 1 | AA | 860 | A | C5-C4 | -5.49 | 1.34 | 1.38 |
| 1 | AA | 1219 | A | C2-N3 | 5.49 | 1.38 | 1.33 |
| 22 | BA | 1096 | A | C2-N3 | 5.49 | 1.38 | 1.33 |
| 1 | AA | 1499 | A | N3-C4 | 5.48 | 1.38 | 1.34 |
| 22 | BA | 1008 | A | N3-C4 | 5.48 | 1.38 | 1.34 |
| 22 | BA | 1678 | A | C8-N7 | 5.48 | 1.35 | 1.31 |
| 22 | BA | 256 | A | N3-C4 | 5.48 | 1.38 | 1.34 |
| 22 | BA | 2170 | A | C2-N3 | 5.48 | 1.38 | 1.33 |
| 1 | AA | 900 | A | N3-C4 | 5.48 | 1.38 | 1.34 |
| 22 | BA | 1952 | A | C8-N7 | 5.48 | 1.35 | 1.31 |
| 22 | BA | 1936 | A | C2-N3 | 5.48 | 1.38 | 1.33 |
| 1 | AA | 1067 | A | N3-C4 | 5.47 | 1.38 | 1.34 |
| 22 | BA | 1265 | A | N7-C5 | -5.47 | 1.35 | 1.39 |
| 22 | BA | 2541 | A | C8-N7 | 5.47 | 1.35 | 1.31 |
| 22 | BA | 161 | A | N3-C4 | 5.47 | 1.38 | 1.34 |
| 22 | BA | 764 | A | N3-C4 | 5.47 | 1.38 | 1.34 |
| 22 | BA | 1650 | A | N3-C4 | 5.47 | 1.38 | 1.34 |
| 22 | BA | 1854 | A | N3-C4 | 5.47 | 1.38 | 1.34 |
| 22 | BA | 2900 | A | N3-C4 | 5.47 | 1.38 | 1.34 |
| 22 | BA | 244 | A | N3-C4 | 5.47 | 1.38 | 1.34 |
| 1 | AA | 794 | A | N3-C4 | 5.47 | 1.38 | 1.34 |
| 22 | BA | 505 | A | N7-C5 | -5.47 | 1.35 | 1.39 |
| 22 | BA | 1020 | A | N3-C4 | 5.47 | 1.38 | 1.34 |
| 22 | BA | 1262 | A | C8-N7 | 5.47 | 1.35 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 1213 | A | N3-C4 | 5.47 | 1.38 | 1.34 |
| 22 | BA | 1143 | A | C8-N7 | 5.47 | 1.35 | 1.31 |
| 22 | BA | 2225 | A | N3-C4 | 5.47 | 1.38 | 1.34 |
| 22 | BA | 2826 | A | N3-C4 | 5.47 | 1.38 | 1.34 |
| 55 | B8 | 69 | A | N3-C4 | 5.47 | 1.38 | 1.34 |
| 1 | AA | 1465 | A | N3-C4 | 5.46 | 1.38 | 1.34 |
| 22 | BA | 126 | A | C8-N7 | 5.46 | 1.35 | 1.31 |
| 22 | BA | 401 | A | N3-C4 | 5.46 | 1.38 | 1.34 |
| 22 | BA | 1847 | A | N3-C4 | 5.46 | 1.38 | 1.34 |
| 22 | BA | 2070 | A | N3-C4 | 5.46 | 1.38 | 1.34 |
| 22 | BA | 2453 | A | C8-N7 | 5.46 | 1.35 | 1.31 |
| 1 | AA | 790 | A | N3-C4 | 5.46 | 1.38 | 1.34 |
| 22 | BA | 2052 | A | N3-C4 | 5.46 | 1.38 | 1.34 |
| 22 | BA | 1080 | A | C2-N3 | 5.46 | 1.38 | 1.33 |
| 22 | BA | 2247 | A | C8-N7 | 5.46 | 1.35 | 1.31 |
| 22 | BA | 556 | A | C8-N7 | 5.46 | 1.35 | 1.31 |
| 22 | BA | 2176 | A | C5-C4 | -5.46 | 1.34 | 1.38 |
| 22 | BA | 2274 | A | N7-C5 | -5.46 | 1.35 | 1.39 |
| 1 | AA | 66 | A | N3-C4 | 5.46 | 1.38 | 1.34 |
| 1 | AA | 1130 | A | C5-C4 | -5.46 | 1.34 | 1.38 |
| 22 | BA | 125 | A | N3-C4 | 5.46 | 1.38 | 1.34 |
| 22 | BA | 2241 | A | N3-C4 | 5.46 | 1.38 | 1.34 |
| 22 | BA | 2322 | A | N3-C4 | 5.46 | 1.38 | 1.34 |
| 22 | BA | 2577 | A | N7-C5 | -5.46 | 1.35 | 1.39 |
| 22 | BA | 2809 | A | N3-C4 | 5.46 | 1.38 | 1.34 |
| 1 | AA | 1408 | A | N3-C4 | 5.46 | 1.38 | 1.34 |
| 22 | BA | 49 | A | N7-C5 | -5.46 | 1.35 | 1.39 |
| 22 | BA | 1129 | A | C8-N7 | 5.46 | 1.35 | 1.31 |
| 1 | AA | 807 | A | N3-C4 | 5.45 | 1.38 | 1.34 |
| 22 | BA | 988 | A | C8-N7 | 5.45 | 1.35 | 1.31 |
| 22 | BA | 988 | A | N3-C4 | 5.45 | 1.38 | 1.34 |
| 22 | BA | 1784 | A | C8-N7 | 5.45 | 1.35 | 1.31 |
| 22 | BA | 1354 | A | N3-C4 | 5.45 | 1.38 | 1.34 |
| 22 | BA | 2635 | A | C8-N7 | 5.45 | 1.35 | 1.31 |
| 22 | BA | 2740 | A | N3-C4 | 5.45 | 1.38 | 1.34 |
| 22 | BA | 983 | A | C8-N7 | 5.45 | 1.35 | 1.31 |
| 22 | BA | 2267 | A | N3-C4 | 5.45 | 1.38 | 1.34 |
| 23 | BB | 59 | A | N1-C2 | 5.45 | 1.39 | 1.34 |
| 22 | BA | 614 | A | N3-C4 | 5.45 | 1.38 | 1.34 |
| 22 | BA | 429 | A | N3-C4 | 5.44 | 1.38 | 1.34 |
| 22 | BA | 844 | A | N3-C4 | 5.44 | 1.38 | 1.34 |
| 22 | BA | 2314 | A | N3-C4 | 5.44 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 1431 | A | N3-C4 | 5.44 | 1.38 | 1.34 |
| 22 | BA | 592 | A | N3-C4 | 5.44 | 1.38 | 1.34 |
| 22 | BA | 910 | A | C8-N7 | 5.44 | 1.35 | 1.31 |
| 22 | BA | 1147 | A | N3-C4 | 5.44 | 1.38 | 1.34 |
| 22 | BA | 2632 | A | N3-C4 | 5.44 | 1.38 | 1.34 |
| 22 | BA | 819 | A | N7-C5 | -5.44 | 1.35 | 1.39 |
| 22 | BA | 2439 | A | N3-C4 | 5.44 | 1.38 | 1.34 |
| 22 | BA | 402 | A | N3-C4 | 5.44 | 1.38 | 1.34 |
| 22 | BA | 1010 | A | C5-C4 | -5.44 | 1.34 | 1.38 |
| 22 | BA | 2764 | A | N3-C4 | 5.44 | 1.38 | 1.34 |
| 22 | BA | 1801 | A | N3-C4 | 5.43 | 1.38 | 1.34 |
| 22 | BA | 2778 | A | N3-C4 | 5.43 | 1.38 | 1.34 |
| 55 | B8 | 6 | A | N3-C4 | 5.43 | 1.38 | 1.34 |
| 1 | AA | 1507 | A | N3-C4 | 5.43 | 1.38 | 1.34 |
| 22 | BA | 541 | A | N3-C4 | 5.43 | 1.38 | 1.34 |
| 1 | AA | 383 | A | C8-N7 | 5.43 | 1.35 | 1.31 |
| 22 | BA | 1373 | A | N3-C4 | 5.43 | 1.38 | 1.34 |
| 22 | BA | 2042 | A | N3-C4 | 5.43 | 1.38 | 1.34 |
| 1 | AA | 363 | A | N3-C4 | 5.43 | 1.38 | 1.34 |
| 22 | BA | 936 | A | N3-C4 | 5.43 | 1.38 | 1.34 |
| 22 | BA | 1571 | A | C8-N7 | 5.43 | 1.35 | 1.31 |
| 1 | AA | 151 | A | N3-C4 | 5.43 | 1.38 | 1.34 |
| 1 | AA | 199 | A | C2-N3 | 5.43 | 1.38 | 1.33 |
| 22 | BA | 983 | A | N7-C5 | -5.43 | 1.35 | 1.39 |
| 22 | BA | 2037 | A | C8-N7 | 5.43 | 1.35 | 1.31 |
| 1 | AA | 787 | A | N3-C4 | 5.42 | 1.38 | 1.34 |
| 1 | AA | 415 | A | C5-C4 | -5.42 | 1.34 | 1.38 |
| 1 | AA | 1176 | A | N3-C4 | 5.42 | 1.38 | 1.34 |
| 22 | BA | 1665 | A | C8-N7 | 5.42 | 1.35 | 1.31 |
| 22 | BA | 1021 | A | N7-C5 | -5.42 | 1.35 | 1.39 |
| 22 | BA | 2095 | A | N3-C4 | 5.42 | 1.38 | 1.34 |
| 1 | AA | 975 | A | N3-C4 | 5.42 | 1.38 | 1.34 |
| 22 | BA | 1103 | A | C2-N3 | 5.42 | 1.38 | 1.33 |
| 22 | BA | 2378 | A | N3-C4 | 5.42 | 1.38 | 1.34 |
| 1 | AA | 397 | A | C2-N3 | 5.41 | 1.38 | 1.33 |
| 1 | AA | 640 | A | C2-N3 | 5.41 | 1.38 | 1.33 |
| 1 | AA | 1101 | A | N3-C4 | 5.41 | 1.38 | 1.34 |
| 22 | BA | 191 | A | C8-N7 | 5.41 | 1.35 | 1.31 |
| 22 | BA | 311 | A | N3-C4 | 5.41 | 1.38 | 1.34 |
| 22 | BA | 1698 | A | N3-C4 | 5.41 | 1.38 | 1.34 |
| 1 | AA | 383 | A | C5-C4 | -5.41 | 1.34 | 1.38 |
| 22 | BA | 2369 | A | N3-C4 | 5.41 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 526 | A | N3-C4 | 5.41 | 1.38 | 1.34 |
| 22 | BA | 2412 | A | C8-N7 | 5.41 | 1.35 | 1.31 |
| 22 | BA | 2297 | A | N3-C4 | 5.41 | 1.38 | 1.34 |
| 22 | BA | 19 | A | N3-C4 | 5.40 | 1.38 | 1.34 |
| 1 | AA | 1261 | A | C2-N3 | 5.40 | 1.38 | 1.33 |
| 22 | BA | 1759 | A | C8-N7 | 5.40 | 1.35 | 1.31 |
| 22 | BA | 2450 | A | C5-C4 | -5.40 | 1.34 | 1.38 |
| 22 | BA | 2497 | A | N7-C5 | -5.40 | 1.36 | 1.39 |
| 22 | BA | 973 | A | N3-C4 | 5.40 | 1.38 | 1.34 |
| 22 | BA | 2873 | A | N3-C4 | 5.40 | 1.38 | 1.34 |
| 1 | AA | 162 | A | C2-N3 | 5.40 | 1.38 | 1.33 |
| 22 | BA | 172 | A | N3-C4 | 5.40 | 1.38 | 1.34 |
| 22 | BA | 1635 | A | N7-C5 | -5.40 | 1.36 | 1.39 |
| 1 | AA | 459 | A | C2-N3 | 5.39 | 1.38 | 1.33 |
| 22 | BA | 1321 | A | N3-C4 | 5.39 | 1.38 | 1.34 |
| 22 | BA | 1899 | A | N7-C5 | -5.39 | 1.36 | 1.39 |
| 1 | AA | 320 | A | N3-C4 | 5.39 | 1.38 | 1.34 |
| 22 | BA | 2660 | A | N3-C4 | 5.39 | 1.38 | 1.34 |
| 1 | AA | 784 | A | N3-C4 | 5.39 | 1.38 | 1.34 |
| 1 | AA | 321 | A | N3-C4 | 5.39 | 1.38 | 1.34 |
| 22 | BA | 2126 | A | C2-N3 | 5.39 | 1.38 | 1.33 |
| 22 | BA | 19 | A | C8-N7 | 5.39 | 1.35 | 1.31 |
| 22 | BA | 482 | A | N3-C4 | 5.39 | 1.38 | 1.34 |
| 22 | BA | 2184 | A | C2-N3 | 5.39 | 1.38 | 1.33 |
| 1 | AA | 60 | A | C2-N3 | 5.38 | 1.38 | 1.33 |
| 22 | BA | 1088 | A | C2-N3 | 5.38 | 1.38 | 1.33 |
| 22 | BA | 1872 | A | C2-N3 | 5.38 | 1.38 | 1.33 |
| 22 | BA | 2333 | A | N3-C4 | 5.38 | 1.38 | 1.34 |
| 22 | BA | 447 | A | N3-C4 | 5.38 | 1.38 | 1.34 |
| 22 | BA | 792 | A | N7-C5 | -5.38 | 1.36 | 1.39 |
| 22 | BA | 2015 | A | C8-N7 | 5.38 | 1.35 | 1.31 |
| 22 | BA | 2534 | A | N3-C4 | 5.38 | 1.38 | 1.34 |
| 1 | AA | 382 | A | C2-N3 | 5.38 | 1.38 | 1.33 |
| 1 | AA | 1508 | A | N3-C4 | 5.38 | 1.38 | 1.34 |
| 22 | BA | 2469 | A | N3-C4 | 5.38 | 1.38 | 1.34 |
| 22 | BA | 391 | A | N3-C4 | 5.38 | 1.38 | 1.34 |
| 22 | BA | 439 | A | N3-C4 | 5.38 | 1.38 | 1.34 |
| 23 | BB | 109 | A | N3-C4 | 5.38 | 1.38 | 1.34 |
| 22 | BA | 1640 | A | N3-C4 | 5.38 | 1.38 | 1.34 |
| 22 | BA | 1286 | A | N3-C4 | 5.37 | 1.38 | 1.34 |
| 22 | BA | 1762 | A | N3-C4 | 5.37 | 1.38 | 1.34 |
| 22 | BA | 2051 | A | N7-C5 | -5.37 | 1.36 | 1.39 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 933 | A | N3-C4 | 5.37 | 1.38 | 1.34 |
| 22 | BA | 2872 | A | C5-C4 | -5.37 | 1.34 | 1.38 |
| 22 | BA | 863 | A | N3-C4 | 5.37 | 1.38 | 1.34 |
| 22 | BA | 1650 | A | C8-N7 | 5.37 | 1.35 | 1.31 |
| 22 | BA | 2823 | A | C8-N7 | 5.37 | 1.35 | 1.31 |
| 1 | AA | 81 | A | C5-C4 | -5.37 | 1.34 | 1.38 |
| 1 | AA | 263 | A | N3-C4 | 5.37 | 1.38 | 1.34 |
| 22 | BA | 56 | A | N3-C4 | 5.37 | 1.38 | 1.34 |
| 22 | BA | 1552 | A | N3-C4 | 5.37 | 1.38 | 1.34 |
| 22 | BA | 2278 | A | C8-N7 | 5.37 | 1.35 | 1.31 |
| 1 | AA | 101 | A | C2-N3 | 5.36 | 1.38 | 1.33 |
| 1 | AA | 238 | A | N3-C4 | 5.36 | 1.38 | 1.34 |
| 22 | BA | 609 | A | N3-C4 | 5.36 | 1.38 | 1.34 |
| 22 | BA | 821 | A | C8-N7 | 5.36 | 1.35 | 1.31 |
| 22 | BA | 374 | A | N3-C4 | 5.36 | 1.38 | 1.34 |
| 22 | BA | 685 | A | C8-N7 | 5.36 | 1.35 | 1.31 |
| 22 | BA | 1301 | A | N3-C4 | 5.36 | 1.38 | 1.34 |
| 22 | BA | 1669 | A | N7-C5 | -5.36 | 1.36 | 1.39 |
| 22 | BA | 412 | A | N3-C4 | 5.36 | 1.38 | 1.34 |
| 1 | AA | 195 | A | N3-C4 | 5.36 | 1.38 | 1.34 |
| 1 | AA | 8 | A | N3-C4 | 5.36 | 1.38 | 1.34 |
| 1 | AA | 300 | A | C2-N3 | 5.36 | 1.38 | 1.33 |
| 22 | BA | 300 | A | N3-C4 | 5.36 | 1.38 | 1.34 |
| 22 | BA | 470 | A | N7-C5 | -5.36 | 1.36 | 1.39 |
| 1 | AA | 1171 | A | C2-N3 | 5.35 | 1.38 | 1.33 |
| 22 | BA | 453 | A | N3-C4 | 5.35 | 1.38 | 1.34 |
| 1 | AA | 1418 | A | C8-N7 | 5.35 | 1.35 | 1.31 |
| 22 | BA | 2589 | A | C8-N7 | 5.35 | 1.35 | 1.31 |
| 22 | BA | 2873 | A | N7-C5 | -5.35 | 1.36 | 1.39 |
| 22 | BA | 1722 | A | C2-N3 | 5.35 | 1.38 | 1.33 |
| 22 | BA | 2736 | A | N3-C4 | 5.35 | 1.38 | 1.34 |
| 1 | AA | 642 | A | N3-C4 | 5.35 | 1.38 | 1.34 |
| 22 | BA | 222 | A | N3-C4 | 5.35 | 1.38 | 1.34 |
| 22 | BA | 505 | A | N3-C4 | 5.35 | 1.38 | 1.34 |
| 1 | AA | 901 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 1 | AA | 1000 | A | C2-N3 | 5.34 | 1.38 | 1.33 |
| 22 | BA | 572 | A | C8-N7 | 5.34 | 1.35 | 1.31 |
| 22 | BA | 1784 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 1 | AA | 371 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 1 | AA | 1152 | A | C2-N3 | 5.34 | 1.38 | 1.33 |
| 22 | BA | 1302 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 22 | BA | 2412 | A | N3-C4 | 5.34 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2450 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 22 | BA | 430 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 22 | BA | 155 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 22 | BA | 2247 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 22 | BA | 2705 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 1 | AA | 716 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 1 | AA | 1513 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 22 | BA | 1253 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 22 | BA | 2071 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 22 | BA | 2800 | A | N3-C4 | 5.34 | 1.38 | 1.34 |
| 22 | BA | 2205 | A | N3-C4 | 5.33 | 1.38 | 1.34 |
| 22 | BA | 538 | A | N3-C4 | 5.33 | 1.38 | 1.34 |
| 22 | BA | 1998 | A | N3-C4 | 5.33 | 1.38 | 1.34 |
| 22 | BA | 2433 | A | N3-C4 | 5.33 | 1.38 | 1.34 |
| 55 | B8 | 21 | A | N3-C4 | 5.33 | 1.38 | 1.34 |
| 1 | AA | 1257 | A | C2-N3 | 5.33 | 1.38 | 1.33 |
| 1 | AA | 389 | A | C5-C4 | -5.33 | 1.35 | 1.38 |
| 1 | AA | 994 | A | C2-N3 | 5.33 | 1.38 | 1.33 |
| 22 | BA | 502 | A | N3-C4 | 5.33 | 1.38 | 1.34 |
| 22 | BA | 547 | A | C2-N3 | 5.33 | 1.38 | 1.33 |
| 22 | BA | 1641 | A | N3-C4 | 5.33 | 1.38 | 1.34 |
| 22 | BA | 670 | A | C8-N7 | 5.33 | 1.35 | 1.31 |
| 22 | BA | 1205 | A | N3-C4 | 5.33 | 1.38 | 1.34 |
| 22 | BA | 104 | A | N3-C4 | 5.32 | 1.38 | 1.34 |
| 22 | BA | 362 | A | C2-N3 | 5.32 | 1.38 | 1.33 |
| 22 | BA | 404 | A | N3-C4 | 5.32 | 1.38 | 1.34 |
| 22 | BA | 1504 | A | N3-C4 | 5.32 | 1.38 | 1.34 |
| 22 | BA | 1553 | A | N7-C5 | -5.32 | 1.36 | 1.39 |
| 1 | AA | 729 | A | N3-C4 | 5.32 | 1.38 | 1.34 |
| 22 | BA | 49 | A | N3-C4 | 5.32 | 1.38 | 1.34 |
| 22 | BA | 1757 | A | N3-C4 | 5.32 | 1.38 | 1.34 |
| 22 | BA | 1773 | A | N7-C5 | -5.32 | 1.36 | 1.39 |
| 1 | AA | 53 | A | C2-N3 | 5.32 | 1.38 | 1.33 |
| 1 | AA | 1055 | A | C2-N3 | 5.32 | 1.38 | 1.33 |
| 22 | BA | 613 | A | C2-N3 | 5.32 | 1.38 | 1.33 |
| 22 | BA | 1156 | A | C8-N7 | 5.32 | 1.35 | 1.31 |
| 1 | AA | 864 | A | N3-C4 | 5.32 | 1.38 | 1.34 |
| 22 | BA | 532 | A | N3-C4 | 5.32 | 1.38 | 1.34 |
| 22 | BA | 1244 | A | C8-N7 | 5.32 | 1.35 | 1.31 |
| 22 | BA | 1802 | A | C8-N7 | 5.31 | 1.35 | 1.31 |
| 22 | BA | 1821 | A | N3-C4 | 5.31 | 1.38 | 1.34 |
| 22 | BA | 1847 | A | C5-C4 | -5.31 | 1.35 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 431 | A | C5-C4 | -5.31 | 1.35 | 1.38 |
| 1 | AA | 1004 | A | C2-N3 | 5.31 | 1.38 | 1.33 |
| 22 | BA | 920 | A | N3-C4 | 5.31 | 1.38 | 1.34 |
| 22 | BA | 2392 | A | N3-C4 | 5.31 | 1.38 | 1.34 |
| 22 | BA | 428 | A | N3-C4 | 5.31 | 1.38 | 1.34 |
| 22 | BA | 1272 | A | N3-C4 | 5.31 | 1.38 | 1.34 |
| 1 | AA | 270 | A | C2-N3 | 5.31 | 1.38 | 1.33 |
| 1 | AA | 532 | A | C2-N3 | 5.31 | 1.38 | 1.33 |
| 1 | AA | 1 | A | C2-N3 | 5.30 | 1.38 | 1.33 |
| 1 | AA | 1188 | A | C2-N3 | 5.30 | 1.38 | 1.33 |
| 22 | BA | 751 | A | C8-N7 | 5.30 | 1.35 | 1.31 |
| 22 | BA | 1805 | A | N3-C4 | 5.30 | 1.38 | 1.34 |
| 22 | BA | 2176 | A | C2-N3 | 5.30 | 1.38 | 1.33 |
| 55 | B8 | 58 | A | N3-C4 | 5.30 | 1.38 | 1.34 |
| 22 | BA | 735 | A | N3-C4 | 5.30 | 1.38 | 1.34 |
| 22 | BA | 1014 | A | N3-C4 | 5.30 | 1.38 | 1.34 |
| 22 | BA | 1802 | A | N7-C5 | -5.30 | 1.36 | 1.39 |
| 1 | AA | 978 | A | N3-C4 | 5.30 | 1.38 | 1.34 |
| 22 | BA | 654 | A | C2-N3 | 5.30 | 1.38 | 1.33 |
| 22 | BA | 1275 | A | N3-C4 | 5.30 | 1.38 | 1.34 |
| 22 | BA | 983 | A | N3-C4 | 5.30 | 1.38 | 1.34 |
| 1 | AA | 415 | A | C2-N3 | 5.30 | 1.38 | 1.33 |
| 1 | AA | 1167 | A | C2-N3 | 5.30 | 1.38 | 1.33 |
| 1 | AA | 1227 | A | C5-C4 | -5.30 | 1.35 | 1.38 |
| 22 | BA | 905 | A | N3-C4 | 5.30 | 1.38 | 1.34 |
| 22 | BA | 2147 | A | C5-C4 | -5.29 | 1.35 | 1.38 |
| 22 | BA | 1095 | A | C2-N3 | 5.29 | 1.38 | 1.33 |
| 22 | BA | 2270 | A | N7-C5 | -5.29 | 1.36 | 1.39 |
| 22 | BA | 1204 | A | N3-C4 | 5.29 | 1.38 | 1.34 |
| 1 | AA | 1151 | A | C2-N3 | 5.29 | 1.38 | 1.33 |
| 22 | BA | 203 | A | N3-C4 | 5.29 | 1.38 | 1.34 |
| 22 | BA | 621 | A | N3-C4 | 5.29 | 1.38 | 1.34 |
| 22 | BA | 1502 | A | N3-C4 | 5.29 | 1.38 | 1.34 |
| 22 | BA | 1525 | A | N3-C4 | 5.29 | 1.38 | 1.34 |
| 1 | AA | 1197 | A | C2-N3 | 5.29 | 1.38 | 1.33 |
| 1 | AA | 1271 | A | C2-N3 | 5.29 | 1.38 | 1.33 |
| 22 | BA | 44 | A | N3-C4 | 5.29 | 1.38 | 1.34 |
| 22 | BA | 199 | A | N3-C4 | 5.29 | 1.38 | 1.34 |
| 22 | BA | 218 | A | N3-C4 | 5.29 | 1.38 | 1.34 |
| 22 | BA | 1470 | A | C2-N3 | 5.29 | 1.38 | 1.33 |
| 22 | BA | 1637 | A | N3-C4 | 5.29 | 1.38 | 1.34 |
| 22 | BA | 739 | A | N3-C4 | 5.29 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1569 | A | N3-C4 | 5.29 | 1.38 | 1.34 |
| 22 | BA | 1603 | A | C8-N7 | 5.29 | 1.35 | 1.31 |
| 22 | BA | 2003 | A | N3-C4 | 5.29 | 1.38 | 1.34 |
| 22 | BA | 1269 | A | C8-N7 | 5.28 | 1.35 | 1.31 |
| 1 | AA | 498 | A | N1-C2 | 5.28 | 1.39 | 1.34 |
| 1 | AA | 1246 | A | C2-N3 | 5.28 | 1.38 | 1.33 |
| 22 | BA | 1264 | A | N7-C5 | -5.28 | 1.36 | 1.39 |
| 22 | BA | 2212 | A | N3-C4 | 5.28 | 1.38 | 1.34 |
| 1 | AA | 520 | A | C5-C4 | -5.28 | 1.35 | 1.38 |
| 22 | BA | 522 | A | N3-C4 | 5.28 | 1.38 | 1.34 |
| 1 | AA | 715 | A | N3-C4 | 5.28 | 1.38 | 1.34 |
| 1 | AA | 1446 | A | C5-C4 | -5.28 | 1.35 | 1.38 |
| 22 | BA | 794 | A | C8-N7 | 5.28 | 1.35 | 1.31 |
| 1 | AA | 174 | A | C2-N3 | 5.28 | 1.38 | 1.33 |
| 22 | BA | 514 | A | C8-N7 | 5.28 | 1.35 | 1.31 |
| 22 | BA | 586 | A | N7-C5 | -5.28 | 1.36 | 1.39 |
| 22 | BA | 972 | A | N3-C4 | 5.28 | 1.38 | 1.34 |
| 22 | BA | 119 | A | N3-C4 | 5.28 | 1.38 | 1.34 |
| 22 | BA | 1676 | A | C8-N7 | 5.28 | 1.35 | 1.31 |
| 22 | BA | 2358 | A | C8-N7 | 5.28 | 1.35 | 1.31 |
| 22 | BA | 1226 | A | C8-N7 | 5.27 | 1.35 | 1.31 |
| 22 | BA | 2158 | A | C2-N3 | 5.27 | 1.38 | 1.33 |
| 1 | AA | 32 | A | C2-N3 | 5.27 | 1.38 | 1.33 |
| 22 | BA | 415 | A | N3-C4 | 5.27 | 1.38 | 1.34 |
| 22 | BA | 1285 | A | N3-C4 | 5.27 | 1.38 | 1.34 |
| 22 | BA | 1901 | A | N3-C4 | 5.27 | 1.38 | 1.34 |
| 22 | BA | 2459 | A | N3-C4 | 5.27 | 1.38 | 1.34 |
| 22 | BA | 28 | A | C8-N7 | 5.26 | 1.35 | 1.31 |
| 22 | BA | 750 | A | C8-N7 | 5.26 | 1.35 | 1.31 |
| 22 | BA | 2346 | A | N3-C4 | 5.26 | 1.38 | 1.34 |
| 22 | BA | 2614 | A | N3-C4 | 5.26 | 1.38 | 1.34 |
| 1 | AA | 1176 | A | C2-N3 | 5.26 | 1.38 | 1.33 |
| 22 | BA | 1591 | A | C2-N3 | 5.26 | 1.38 | 1.33 |
| 22 | BA | 1677 | A | N7-C5 | -5.26 | 1.36 | 1.39 |
| 22 | BA | 2727 | A | N3-C4 | 5.26 | 1.38 | 1.34 |
| 1 | AA | 712 | A | C2-N3 | 5.26 | 1.38 | 1.33 |
| 1 | AA | 1502 | A | N3-C4 | 5.26 | 1.38 | 1.34 |
| 22 | BA | 675 | A | C8-N7 | 5.26 | 1.35 | 1.31 |
| 22 | BA | 1596 | A | N3-C4 | 5.26 | 1.38 | 1.34 |
| 22 | BA | 2266 | A | N3-C4 | 5.26 | 1.38 | 1.34 |
| 22 | BA | 2366 | A | C8-N7 | 5.26 | 1.35 | 1.31 |
| 22 | BA | 2679 | A | N3-C4 | 5.26 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 55 | B8 | 76 | A | C8-N7 | 5.26 | 1.35 | 1.31 |
| 22 | BA | 2013 | A | N7-C5 | -5.25 | 1.36 | 1.39 |
| 22 | BA | 2821 | A | N3-C4 | 5.25 | 1.38 | 1.34 |
| 21 | AU | 2 | PRO | CG-CD | -5.25 | 1.33 | 1.50 |
| 22 | BA | 706 | A | N3-C4 | 5.25 | 1.38 | 1.34 |
| 1 | AA | 78 | A | C2-N3 | 5.24 | 1.38 | 1.33 |
| 1 | AA | 1350 | A | C2-N3 | 5.24 | 1.38 | 1.33 |
| 22 | BA | 2757 | A | C2-N3 | 5.24 | 1.38 | 1.33 |
| 22 | BA | 1431 | A | N3-C4 | 5.24 | 1.38 | 1.34 |
| 22 | BA | 2169 | A | C2-N3 | 5.24 | 1.38 | 1.33 |
| 1 | AA | 408 | A | C2-N3 | 5.24 | 1.38 | 1.33 |
| 1 | AA | 819 | A | N3-C4 | 5.24 | 1.38 | 1.34 |
| 22 | BA | 320 | A | N3-C4 | 5.24 | 1.38 | 1.34 |
| 22 | BA | 226 | A | N3-C4 | 5.24 | 1.38 | 1.34 |
| 22 | BA | 833 | A | N3-C4 | 5.24 | 1.38 | 1.34 |
| 22 | BA | 1103 | A | C5-C4 | -5.24 | 1.35 | 1.38 |
| 1 | AA | 162 | A | N7-C5 | -5.24 | 1.36 | 1.39 |
| 22 | BA | 643 | A | N3-C4 | 5.24 | 1.38 | 1.34 |
| 22 | BA | 676 | A | N3-C4 | 5.24 | 1.38 | 1.34 |
| 1 | AA | 1248 | A | C2-N3 | 5.23 | 1.38 | 1.33 |
| 1 | AA | 1299 | A | C2-N3 | 5.23 | 1.38 | 1.33 |
| 1 | AA | 189 | A | C2-N3 | 5.23 | 1.38 | 1.33 |
| 1 | AA | 487 | A | C2-N3 | 5.23 | 1.38 | 1.33 |
| 1 | AA | 958 | A | N3-C4 | 5.23 | 1.38 | 1.34 |
| 1 | AA | 938 | A | C2-N3 | 5.23 | 1.38 | 1.33 |
| 22 | BA | 1070 | A | C2-N3 | 5.23 | 1.38 | 1.33 |
| 22 | BA | 1189 | A | C8-N7 | 5.23 | 1.35 | 1.31 |
| 22 | BA | 1535 | A | C2-N3 | 5.23 | 1.38 | 1.33 |
| 1 | AA | 155 | A | C2-N3 | 5.23 | 1.38 | 1.33 |
| 22 | BA | 2873 | A | C8-N7 | 5.23 | 1.35 | 1.31 |
| 1 | AA | 7 | A | N3-C4 | 5.22 | 1.38 | 1.34 |
| 1 | AA | 1275 | A | C2-N3 | 5.22 | 1.38 | 1.33 |
| 1 | AA | 1339 | A | N3-C4 | 5.22 | 1.38 | 1.34 |
| 22 | BA | 1241 | A | C8-N7 | 5.22 | 1.35 | 1.31 |
| 22 | BA | 1919 | A | N3-C4 | 5.22 | 1.38 | 1.34 |
| 22 | BA | 2009 | A | N3-C4 | 5.22 | 1.38 | 1.34 |
| 1 | AA | 1191 | A | C2-N3 | 5.22 | 1.38 | 1.33 |
| 1 | AA | 1360 | A | N3-C4 | 5.22 | 1.38 | 1.34 |
| 22 | BA | 1029 | A | N7-C5 | -5.22 | 1.36 | 1.39 |
| 22 | BA | 2094 | A | C2-N3 | 5.22 | 1.38 | 1.33 |
| 22 | BA | 2670 | A | N3-C4 | 5.22 | 1.38 | 1.34 |
| 22 | BA | 661 | A | N3-C4 | 5.22 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1609 | A | N3-C4 | 5.22 | 1.38 | 1.34 |
| 22 | BA | 101 | A | C2-N3 | 5.22 | 1.38 | 1.33 |
| 22 | BA | 322 | A | N3-C4 | 5.22 | 1.38 | 1.34 |
| 22 | BA | 1057 | A | C2-N3 | 5.22 | 1.38 | 1.33 |
| 22 | BA | 2163 | A | C2-N3 | 5.22 | 1.38 | 1.33 |
| 22 | BA | 482 | A | C8-N7 | 5.22 | 1.35 | 1.31 |
| 22 | BA | 1230 | A | N3-C4 | 5.22 | 1.38 | 1.34 |
| 22 | BA | 2675 | A | C8-N7 | 5.22 | 1.35 | 1.31 |
| 1 | AA | 892 | A | N3-C4 | 5.21 | 1.38 | 1.34 |
| 22 | BA | 1786 | A | N3-C4 | 5.21 | 1.38 | 1.34 |
| 1 | AA | 1012 | A | C2-N3 | 5.21 | 1.38 | 1.33 |
| 1 | AA | 468 | A | C2-N3 | 5.21 | 1.38 | 1.33 |
| 22 | BA | 191 | A | N3-C4 | 5.21 | 1.38 | 1.34 |
| 22 | BA | 917 | A | C8-N7 | 5.21 | 1.35 | 1.31 |
| 22 | BA | 2741 | A | N7-C5 | -5.21 | 1.36 | 1.39 |
| 22 | BA | 820 | A | C8-N7 | 5.21 | 1.35 | 1.31 |
| 22 | BA | 2837 | A | N3-C4 | 5.21 | 1.38 | 1.34 |
| 1 | AA | 600 | A | N3-C4 | 5.21 | 1.38 | 1.34 |
| 1 | AA | 1483 | A | C8-N7 | 5.20 | 1.35 | 1.31 |
| 22 | BA | 1144 | A | N3-C4 | 5.20 | 1.38 | 1.34 |
| 22 | BA | 2471 | A | N3-C4 | 5.20 | 1.38 | 1.34 |
| 22 | BA | 685 | A | N3-C4 | 5.20 | 1.38 | 1.34 |
| 22 | BA | 2173 | A | C2-N3 | 5.20 | 1.38 | 1.33 |
| 1 | AA | 553 | A | C2-N3 | 5.20 | 1.38 | 1.33 |
| 1 | AA | 607 | A | N3-C4 | 5.20 | 1.38 | 1.34 |
| 1 | AA | 747 | A | C2-N3 | 5.20 | 1.38 | 1.33 |
| 1 | AA | 98 | A | C2-N3 | 5.20 | 1.38 | 1.33 |
| 1 | AA | 460 | A | C2-N3 | 5.20 | 1.38 | 1.33 |
| 1 | AA | 602 | A | C2-N3 | 5.20 | 1.38 | 1.33 |
| 22 | BA | 735 | A | N7-C5 | -5.20 | 1.36 | 1.39 |
| 22 | BA | 1515 | A | N3-C4 | 5.20 | 1.38 | 1.34 |
| 22 | BA | 1570 | A | N3-C4 | 5.20 | 1.38 | 1.34 |
| 22 | BA | 1641 | A | N7-C5 | -5.20 | 1.36 | 1.39 |
| 22 | BA | 1977 | A | N3-C4 | 5.20 | 1.38 | 1.34 |
| 22 | BA | 2706 | A | N3-C4 | 5.20 | 1.38 | 1.34 |
| 22 | BA | 802 | A | C8-N7 | 5.20 | 1.35 | 1.31 |
| 22 | BA | 2476 | A | N3-C4 | 5.20 | 1.38 | 1.34 |
| 22 | BA | 2037 | A | N3-C4 | 5.20 | 1.38 | 1.34 |
| 1 | AA | 459 | A | C5-C4 | -5.19 | 1.35 | 1.38 |
| 1 | AA | 1483 | A | N7-C5 | -5.19 | 1.36 | 1.39 |
| 22 | BA | 1786 | A | C8-N7 | 5.19 | 1.35 | 1.31 |
| 22 | BA | 2097 | A | C2-N3 | 5.19 | 1.38 | 1.33 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 223 | A | C2-N3 | 5.19 | 1.38 | 1.33 |
| 1 | AA | 915 | A | N3-C4 | 5.19 | 1.38 | 1.34 |
| 22 | BA | 532 | A | C8-N7 | 5.19 | 1.35 | 1.31 |
| 22 | BA | 1090 | A | C2-N3 | 5.19 | 1.38 | 1.33 |
| 23 | BB | 58 | A | N3-C4 | 5.19 | 1.38 | 1.34 |
| 22 | BA | 1264 | A | N3-C4 | 5.19 | 1.38 | 1.34 |
| 23 | BB | 46 | A | N3-C4 | 5.19 | 1.38 | 1.34 |
| 22 | BA | 2090 | A | N3-C4 | 5.19 | 1.38 | 1.34 |
| 1 | AA | 816 | A | N3-C4 | 5.19 | 1.38 | 1.34 |
| 22 | BA | 730 | A | C8-N7 | 5.19 | 1.35 | 1.31 |
| 1 | AA | 1288 | A | C2-N3 | 5.18 | 1.38 | 1.33 |
| 22 | BA | 1254 | A | N3-C4 | 5.18 | 1.38 | 1.34 |
| 1 | AA | 1105 | A | C2-N3 | 5.18 | 1.38 | 1.33 |
| 22 | BA | 975 | A | C5-C4 | -5.18 | 1.35 | 1.38 |
| 22 | BA | 1073 | A | C2-N3 | 5.18 | 1.38 | 1.33 |
| 22 | BA | 1089 | A | C2-N3 | 5.18 | 1.38 | 1.33 |
| 22 | BA | 1262 | A | N7-C5 | -5.18 | 1.36 | 1.39 |
| 22 | BA | 2530 | A | N3-C4 | 5.18 | 1.38 | 1.34 |
| 1 | AA | 802 | A | N3-C4 | 5.18 | 1.38 | 1.34 |
| 22 | BA | 299 | A | N3-C4 | 5.18 | 1.38 | 1.34 |
| 22 | BA | 821 | A | N3-C4 | 5.18 | 1.38 | 1.34 |
| 22 | BA | 460 | A | N3-C4 | 5.17 | 1.38 | 1.34 |
| 22 | BA | 1304 | A | N3-C4 | 5.17 | 1.38 | 1.34 |
| 22 | BA | 1700 | A | N3-C4 | 5.17 | 1.38 | 1.34 |
| 22 | BA | 401 | A | N7-C5 | -5.17 | 1.36 | 1.39 |
| 22 | BA | 749 | A | N3-C4 | 5.17 | 1.38 | 1.34 |
| 22 | BA | 14 | A | N3-C4 | 5.17 | 1.38 | 1.34 |
| 22 | BA | 845 | A | C2-N3 | 5.17 | 1.38 | 1.33 |
| 22 | BA | 896 | A | C2-N3 | 5.17 | 1.38 | 1.33 |
| 22 | BA | 900 | A | C2-N3 | 5.17 | 1.38 | 1.33 |
| 22 | BA | 1046 | A | C2-N3 | 5.17 | 1.38 | 1.33 |
| 1 | AA | 51 | A | N3-C4 | 5.17 | 1.38 | 1.34 |
| 1 | AA | 435 | A | C2-N3 | 5.17 | 1.38 | 1.33 |
| 1 | AA | 383 | A | N7-C5 | -5.17 | 1.36 | 1.39 |
| 1 | AA | 1022 | A | C2-N3 | 5.17 | 1.38 | 1.33 |
| 22 | BA | 1937 | A | N3-C4 | 5.17 | 1.38 | 1.34 |
| 22 | BA | 2434 | A | N3-C4 | 5.17 | 1.38 | 1.34 |
| 22 | BA | 2778 | A | N7-C5 | -5.17 | 1.36 | 1.39 |
| 22 | BA | 272 | A | C2-N3 | 5.17 | 1.38 | 1.33 |
| 22 | BA | 2328 | A | C8-N7 | 5.17 | 1.35 | 1.31 |
| 1 | AA | 1251 | A | C2-N3 | 5.16 | 1.38 | 1.33 |
| 22 | BA | 1226 | A | N3-C4 | 5.16 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1998 | A | N7-C5 | -5.16 | 1.36 | 1.39 |
| 22 | BA | 2183 | A | C2-N3 | 5.16 | 1.38 | 1.33 |
| 1 | AA | 315 | A | C2-N3 | 5.16 | 1.38 | 1.33 |
| 1 | AA | 456 | A | C2-N3 | 5.16 | 1.38 | 1.33 |
| 22 | BA | 2134 | A | C2-N3 | 5.16 | 1.38 | 1.33 |
| 22 | BA | 2336 | A | N3-C4 | 5.16 | 1.38 | 1.34 |
| 22 | BA | 984 | A | N7-C5 | -5.16 | 1.36 | 1.39 |
| 55 | B8 | 59 | A | N3-C4 | 5.16 | 1.38 | 1.34 |
| 1 | AA | 478 | A | C2-N3 | 5.16 | 1.38 | 1.33 |
| 22 | BA | 94 | A | N3-C4 | 5.16 | 1.38 | 1.34 |
| 22 | BA | 1590 | A | C2-N3 | 5.16 | 1.38 | 1.33 |
| 22 | BA | 1385 | A | N3-C4 | 5.15 | 1.38 | 1.34 |
| 25 | BD | 152 | PRO | CG-CD | -5.15 | 1.33 | 1.50 |
| 22 | BA | 196 | A | N3-C4 | 5.15 | 1.38 | 1.34 |
| 22 | BA | 197 | A | C8-N7 | 5.15 | 1.35 | 1.31 |
| 22 | BA | 727 | A | C8-N7 | 5.15 | 1.35 | 1.31 |
| 22 | BA | 943 | A | C8-N7 | 5.15 | 1.35 | 1.31 |
| 22 | BA | 2564 | A | N3-C4 | 5.15 | 1.38 | 1.34 |
| 1 | AA | 1375 | A | C2-N3 | 5.15 | 1.38 | 1.33 |
| 23 | BB | 94 | A | N3-C4 | 5.15 | 1.38 | 1.34 |
| 22 | BA | 1085 | A | C2-N3 | 5.15 | 1.38 | 1.33 |
| 1 | AA | 298 | A | N3-C4 | 5.15 | 1.38 | 1.34 |
| 1 | AA | 432 | A | C2-N3 | 5.15 | 1.38 | 1.33 |
| 22 | BA | 608 | A | N3-C4 | 5.15 | 1.38 | 1.34 |
| 22 | BA | 2706 | A | N7-C5 | -5.15 | 1.36 | 1.39 |
| 1 | AA | 1150 | A | C2-N3 | 5.14 | 1.38 | 1.33 |
| 22 | BA | 190 | A | N3-C4 | 5.14 | 1.38 | 1.34 |
| 1 | AA | 1042 | A | C2-N3 | 5.14 | 1.38 | 1.33 |
| 23 | BB | 119 | A | C2-N3 | 5.14 | 1.38 | 1.33 |
| 22 | BA | 2284 | A | N3-C4 | 5.14 | 1.38 | 1.34 |
| 1 | AA | 279 | A | N3-C4 | 5.14 | 1.38 | 1.34 |
| 1 | AA | 1036 | A | C2-N3 | 5.14 | 1.38 | 1.33 |
| 22 | BA | 503 | A | N3-C4 | 5.14 | 1.38 | 1.34 |
| 1 | AA | 865 | A | C2-N3 | 5.13 | 1.38 | 1.33 |
| 22 | BA | 480 | A | N3-C4 | 5.13 | 1.38 | 1.34 |
| 22 | BA | 1048 | A | C2-N3 | 5.13 | 1.38 | 1.33 |
| 22 | BA | 1580 | A | C2-N3 | 5.13 | 1.38 | 1.33 |
| 1 | AA | 430 | A | C2-N3 | 5.13 | 1.38 | 1.33 |
| 1 | AA | 1180 | A | C2-N3 | 5.13 | 1.38 | 1.33 |
| 22 | BA | 74 | A | N3-C4 | 5.13 | 1.38 | 1.34 |
| 22 | BA | 749 | A | N7-C5 | -5.13 | 1.36 | 1.39 |
| 22 | BA | 1803 | A | C8-N7 | 5.13 | 1.35 | 1.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 1374 | A | C2-N3 | 5.13 | 1.38 | 1.33 |
| 1 | AA | 635 | A | C2-N3 | 5.13 | 1.38 | 1.33 |
| 22 | BA | 761 | A | C5-C4 | -5.13 | 1.35 | 1.38 |
| 22 | BA | 1780 | A | N3-C4 | 5.13 | 1.38 | 1.34 |
| 1 | AA | 181 | A | C2-N3 | 5.13 | 1.38 | 1.33 |
| 1 | AA | 1044 | A | C2-N3 | 5.13 | 1.38 | 1.33 |
| 22 | BA | 1528 | A | N7-C5 | -5.13 | 1.36 | 1.39 |
| 22 | BA | 2386 | A | C8-N7 | 5.13 | 1.35 | 1.31 |
| 22 | BA | 1522 | A | N3-C4 | 5.12 | 1.38 | 1.34 |
| 22 | BA | 1027 | A | N3-C4 | 5.12 | 1.38 | 1.34 |
| 22 | BA | 1155 | A | N7-C5 | -5.12 | 1.36 | 1.39 |
| 22 | BA | 1571 | A | N7-C5 | -5.12 | 1.36 | 1.39 |
| 22 | BA | 508 | A | C2-N3 | 5.12 | 1.38 | 1.33 |
| 22 | BA | 609 | A | C8-N7 | 5.12 | 1.35 | 1.31 |
| 22 | BA | 960 | A | C2-N3 | 5.12 | 1.38 | 1.33 |
| 22 | BA | 2675 | A | N3-C4 | 5.12 | 1.38 | 1.34 |
| 22 | BA | 556 | A | N3-C4 | 5.12 | 1.38 | 1.34 |
| 22 | BA | 1029 | A | C2-N3 | 5.12 | 1.38 | 1.33 |
| 22 | BA | 1532 | A | C2-N3 | 5.12 | 1.38 | 1.33 |
| 1 | AA | 996 | A | C2-N3 | 5.12 | 1.38 | 1.33 |
| 1 | AA | 1005 | A | C2-N3 | 5.12 | 1.38 | 1.33 |
| 1 | AA | 1398 | A | N3-C4 | 5.12 | 1.38 | 1.34 |
| 22 | BA | 878 | A | C2-N3 | 5.12 | 1.38 | 1.33 |
| 22 | BA | 892 | A | C2-N3 | 5.12 | 1.38 | 1.33 |
| 22 | BA | 1254 | A | N7-C5 | -5.12 | 1.36 | 1.39 |
| 1 | AA | 815 | A | N3-C4 | 5.12 | 1.38 | 1.34 |
| 22 | BA | 196 | A | N7-C5 | -5.12 | 1.36 | 1.39 |
| 1 | AA | 1333 | A | C2-N3 | 5.11 | 1.38 | 1.33 |
| 1 | AA | 1349 | A | C2-N3 | 5.11 | 1.38 | 1.33 |
| 1 | AA | 923 | A | C2-N3 | 5.11 | 1.38 | 1.33 |
| 22 | BA | 279 | A | C2-N3 | 5.11 | 1.38 | 1.33 |
| 22 | BA | 1365 | A | N3-C4 | 5.11 | 1.38 | 1.34 |
| 22 | BA | 2147 | A | C2-N3 | 5.11 | 1.38 | 1.33 |
| 1 | AA | 539 | A | C2-N3 | 5.11 | 1.38 | 1.33 |
| 1 | AA | 72 | A | C2-N3 | 5.11 | 1.38 | 1.33 |
| 1 | AA | 901 | A | C2-N3 | 5.11 | 1.38 | 1.33 |
| 2 | AB | 205 | ASP | CB-CG | 5.11 | 1.62 | 1.51 |
| 22 | BA | 282 | A | C2-N3 | 5.11 | 1.38 | 1.33 |
| 1 | AA | 681 | A | C2-N3 | 5.10 | 1.38 | 1.33 |
| 1 | AA | 964 | A | C2-N3 | 5.10 | 1.38 | 1.33 |
| 22 | BA | 2135 | A | C2-N3 | 5.10 | 1.38 | 1.33 |
| 22 | BA | 2426 | A | N3-C4 | 5.10 | 1.38 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 2776 | A | N7-C5 | -5.10 | 1.36 | 1.39 |
| 22 | BA | 2497 | A | C8-N7 | 5.10 | 1.35 | 1.31 |
| 1 | AA | 250 | A | C2-N3 | 5.10 | 1.38 | 1.33 |
| 1 | AA | 1280 | A | C2-N3 | 5.10 | 1.38 | 1.33 |
| 1 | AA | 80 | A | C2-N3 | 5.10 | 1.38 | 1.33 |
| 1 | AA | 374 | A | C2-N3 | 5.10 | 1.38 | 1.33 |
| 22 | BA | 1848 | A | C2-N3 | 5.10 | 1.38 | 1.33 |
| 1 | AA | 608 | A | C2-N3 | 5.09 | 1.38 | 1.33 |
| 22 | BA | 142 | A | C2-N3 | 5.09 | 1.38 | 1.33 |
| 22 | BA | 348 | A | C2-N3 | 5.09 | 1.38 | 1.33 |
| 22 | BA | 1084 | A | C2-N3 | 5.09 | 1.38 | 1.33 |
| 22 | BA | 1690 | A | N3-C4 | 5.09 | 1.38 | 1.34 |
| 1 | AA | 28 | A | C2-N3 | 5.09 | 1.38 | 1.33 |
| 1 | AA | 831 | A | C2-N3 | 5.09 | 1.38 | 1.33 |
| 1 | AA | 1306 | A | C2-N3 | 5.09 | 1.38 | 1.33 |
| 22 | BA | 668 | A | N3-C4 | 5.09 | 1.38 | 1.34 |
| 22 | BA | 1495 | A | N3-C4 | 5.09 | 1.38 | 1.34 |
| 22 | BA | 1854 | A | C8-N7 | 5.09 | 1.35 | 1.31 |
| 22 | BA | 1111 | A | C2-N3 | 5.09 | 1.38 | 1.33 |
| 22 | BA | 1287 | A | C8-N7 | 5.09 | 1.35 | 1.31 |
| 22 | BA | 1469 | A | C2-N3 | 5.09 | 1.38 | 1.33 |
| 1 | AA | 1357 | A | C2-N3 | 5.09 | 1.38 | 1.33 |
| 1 | AA | 572 | A | N3-C4 | 5.08 | 1.38 | 1.34 |
| 22 | BA | 218 | A | C2-N3 | 5.08 | 1.38 | 1.33 |
| 1 | AA | 288 | A | C2-N3 | 5.08 | 1.38 | 1.33 |
| 1 | AA | 1252 | A | C2-N3 | 5.08 | 1.38 | 1.33 |
| 22 | BA | 482 | A | C2-N3 | 5.08 | 1.38 | 1.33 |
| 22 | BA | 532 | A | N7-C5 | -5.08 | 1.36 | 1.39 |
| 55 | B8 | 26 | A | N3-C4 | 5.08 | 1.37 | 1.34 |
| 22 | BA | 223 | A | N3-C4 | 5.08 | 1.37 | 1.34 |
| 22 | BA | 2675 | A | N7-C5 | -5.08 | 1.36 | 1.39 |
| 1 | AA | 192 | A | C2-N3 | 5.08 | 1.38 | 1.33 |
| 1 | AA | 205 | A | C2-N3 | 5.08 | 1.38 | 1.33 |
| 22 | BA | 156 | A | C2-N3 | 5.08 | 1.38 | 1.33 |
| 22 | BA | 368 | A | C2-N3 | 5.08 | 1.38 | 1.33 |
| 22 | BA | 829 | A | N3-C4 | 5.08 | 1.37 | 1.34 |
| 22 | BA | 2054 | A | C8-N7 | 5.08 | 1.35 | 1.31 |
| 22 | BA | 2900 | A | C2-N3 | 5.08 | 1.38 | 1.33 |
| 1 | AA | 845 | A | C2-N3 | 5.08 | 1.38 | 1.33 |
| 1 | AA | 935 | A | C2-N3 | 5.08 | 1.38 | 1.33 |
| 1 | AA | 1428 | A | N3-C4 | 5.08 | 1.37 | 1.34 |
| 22 | BA | 449 | A | N3-C4 | 5.08 | 1.37 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 947 | A | N7-C5 | -5.08 | 1.36 | 1.39 |
| 22 | BA | 2071 | A | C8-N7 | 5.08 | 1.35 | 1.31 |
| 22 | BA | 2721 | A | N7-C5 | -5.08 | 1.36 | 1.39 |
| 1 | AA | 523 | A | C2-N3 | 5.07 | 1.38 | 1.33 |
| 22 | BA | 126 | A | N3-C4 | 5.07 | 1.37 | 1.34 |
| 22 | BA | 1307 | A | N3-C4 | 5.07 | 1.37 | 1.34 |
| 1 | AA | 1418 | A | N7-C5 | -5.07 | 1.36 | 1.39 |
| 22 | BA | 529 | A | N3-C4 | 5.07 | 1.37 | 1.34 |
| 22 | BA | 2792 | A | C2-N3 | 5.07 | 1.38 | 1.33 |
| 22 | BA | 715 | A | C2-N3 | 5.07 | 1.38 | 1.33 |
| 22 | BA | 1586 | A | C2-N3 | 5.07 | 1.38 | 1.33 |
| 22 | BA | 743 | A | N7-C5 | -5.07 | 1.36 | 1.39 |
| 22 | BA | 911 | A | N7-C5 | -5.06 | 1.36 | 1.39 |
| 1 | AA | 279 | A | C2-N3 | 5.06 | 1.38 | 1.33 |
| 22 | BA | 1213 | A | N3-C4 | 5.06 | 1.37 | 1.34 |
| 1 | AA | 743 | A | C2-N3 | 5.06 | 1.38 | 1.33 |
| 22 | BA | 1366 | A | N7-C5 | -5.06 | 1.36 | 1.39 |
| 1 | AA | 946 | A | C2-N3 | 5.06 | 1.38 | 1.33 |
| 1 | AA | 1289 | A | C2-N3 | 5.06 | 1.38 | 1.33 |
| 1 | AA | 649 | A | C2-N3 | 5.05 | 1.38 | 1.33 |
| 22 | BA | 354 | A | C2-N3 | 5.05 | 1.38 | 1.33 |
| 22 | BA | 1808 | A | N3-C4 | 5.05 | 1.37 | 1.34 |
| 1 | AA | 629 | A | C2-N3 | 5.05 | 1.38 | 1.33 |
| 1 | AA | 718 | A | C2-N3 | 5.05 | 1.38 | 1.33 |
| 1 | AA | 983 | A | C2-N3 | 5.05 | 1.38 | 1.33 |
| 1 | AA | 1021 | A | C2-N3 | 5.05 | 1.38 | 1.33 |
| 22 | BA | 582 | A | C8-N7 | 5.05 | 1.35 | 1.31 |
| 22 | BA | 675 | A | N3-C4 | 5.05 | 1.37 | 1.34 |
| 22 | BA | 750 | A | N7-C5 | -5.05 | 1.36 | 1.39 |
| 1 | AA | 143 | A | C2-N3 | 5.05 | 1.38 | 1.33 |
| 22 | BA | 2412 | A | C2-N3 | 5.05 | 1.38 | 1.33 |
| 22 | BA | 255 | A | C8-N7 | 5.04 | 1.35 | 1.31 |
| 22 | BA | 1749 | A | N3-C4 | 5.04 | 1.37 | 1.34 |
| 22 | BA | 2589 | A | N3-C4 | 5.04 | 1.37 | 1.34 |
| 22 | BA | 1847 | A | C2-N3 | 5.04 | 1.38 | 1.33 |
| 22 | BA | 1871 | A | C2-N3 | 5.04 | 1.38 | 1.33 |
| 23 | BB | 66 | A | N3-C4 | 5.04 | 1.37 | 1.34 |
| 1 | AA | 411 | A | C2-N3 | 5.04 | 1.38 | 1.33 |
| 1 | AA | 1269 | A | C2-N3 | 5.04 | 1.38 | 1.33 |
| 22 | BA | 1069 | A | C2-N3 | 5.04 | 1.38 | 1.33 |
| 22 | BA | 1927 | A | N3-C4 | 5.04 | 1.37 | 1.34 |
| 22 | BA | 2114 | A | C2-N3 | 5.04 | 1.38 | 1.33 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 216 | A | N7-C5 | -5.04 | 1.36 | 1.39 |
| 1 | AA | 1534 | A | C2-N3 | 5.04 | 1.38 | 1.33 |
| 22 | BA | 454 | A | N3-C4 | 5.04 | 1.37 | 1.34 |
| 22 | BA | 1265 | A | N3-C4 | 5.04 | 1.37 | 1.34 |
| 22 | BA | 1854 | A | C2-N3 | 5.04 | 1.38 | 1.33 |
| 22 | BA | 2602 | A | C2-N3 | 5.04 | 1.38 | 1.33 |
| 22 | BA | 2879 | A | N7-C5 | -5.04 | 1.36 | 1.39 |
| 1 | AA | 1093 | A | C2-N3 | 5.04 | 1.38 | 1.33 |
| 22 | BA | 470 | A | N3-C4 | 5.04 | 1.37 | 1.34 |
| 23 | BB | 57 | A | C2-N3 | 5.04 | 1.38 | 1.33 |
| 1 | AA | 1254 | A | C2-N3 | 5.04 | 1.38 | 1.33 |
| 1 | AA | 1493 | A | C2-N3 | 5.04 | 1.38 | 1.33 |
| 22 | BA | 453 | A | N7-C5 | -5.04 | 1.36 | 1.39 |
| 22 | BA | 1938 | A | N3-C4 | 5.04 | 1.37 | 1.34 |
| 1 | AA | 59 | A | C2-N3 | 5.03 | 1.38 | 1.33 |
| 22 | BA | 1759 | A | N3-C4 | 5.03 | 1.37 | 1.34 |
| 1 | AA | 1155 | A | C2-N3 | 5.03 | 1.38 | 1.33 |
| 22 | BA | 217 | A | N7-C5 | -5.03 | 1.36 | 1.39 |
| 22 | BA | 340 | A | N3-C4 | 5.03 | 1.37 | 1.34 |
| 22 | BA | 959 | A | C8-N7 | 5.03 | 1.35 | 1.31 |
| 22 | BA | 1040 | A | C2-N3 | 5.03 | 1.38 | 1.33 |
| 22 | BA | 1050 | A | C2-N3 | 5.03 | 1.38 | 1.33 |
| 22 | BA | 1916 | A | C2-N3 | 5.03 | 1.38 | 1.33 |
| 22 | BA | 2171 | A | C2-N3 | 5.03 | 1.38 | 1.33 |
| 1 | AA | 655 | A | C2-N3 | 5.03 | 1.38 | 1.33 |
| 22 | BA | 415 | A | N7-C5 | -5.03 | 1.36 | 1.39 |
| 22 | BA | 699 | A | N7-C5 | -5.03 | 1.36 | 1.39 |
| 22 | BA | 44 | A | C2-N3 | 5.02 | 1.38 | 1.33 |
| 23 | BB | 73 | A | C2-N3 | 5.02 | 1.38 | 1.33 |
| 1 | AA | 1363 | A | C2-N3 | 5.02 | 1.38 | 1.33 |
| 22 | BA | 2531 | A | C2-N3 | 5.02 | 1.38 | 1.33 |
| 22 | BA | 1142 | A | N3-C4 | 5.02 | 1.37 | 1.34 |
| 1 | AA | 465 | A | C2-N3 | 5.02 | 1.38 | 1.33 |
| 22 | BA | 278 | A | C2-N3 | 5.02 | 1.38 | 1.33 |
| 1 | AA | 139 | A | C2-N3 | 5.02 | 1.38 | 1.33 |
| 1 | AA | 298 | A | C2-N3 | 5.02 | 1.38 | 1.33 |
| 1 | AA | 1318 | A | C2-N3 | 5.02 | 1.38 | 1.33 |
| 22 | BA | 21 | A | C2-N3 | 5.02 | 1.38 | 1.33 |
| 1 | AA | 109 | A | N3-C4 | 5.01 | 1.37 | 1.34 |
| 1 | AA | 452 | A | C2-N3 | 5.01 | 1.38 | 1.33 |
| 1 | AA | 1324 | A | C2-N3 | 5.01 | 1.38 | 1.33 |
| 7 | AG | 2 | PRO | CG-CD | -5.01 | 1.34 | 1.50 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | AA | 81 | A | C2-N3 | 5.01 | 1.38 | 1.33 |
| 22 | BA | 1413 | A | C2-N3 | 5.01 | 1.38 | 1.33 |
| 22 | BA | 980 | A | N3-C4 | 5.01 | 1.37 | 1.34 |
| 22 | BA | 1214 | A | N3-C4 | 5.01 | 1.37 | 1.34 |
| 22 | BA | 1626 | A | N3-C4 | 5.01 | 1.37 | 1.34 |
| 22 | BA | 2407 | A | N3-C4 | 5.01 | 1.37 | 1.34 |
| 1 | AA | 1368 | A | C2-N3 | 5.01 | 1.38 | 1.33 |
| 22 | BA | 1593 | A | C2-N3 | 5.01 | 1.38 | 1.33 |
| 1 | AA | 509 | A | C2-N3 | 5.01 | 1.38 | 1.33 |
| 22 | BA | 2309 | A | C2-N3 | 5.01 | 1.38 | 1.33 |
| 22 | BA | 586 | A | N3-C4 | 5.01 | 1.37 | 1.34 |
| 22 | BA | 1641 | A | C2-N3 | 5.01 | 1.38 | 1.33 |
| 22 | BA | 1928 | A | N3-C4 | 5.01 | 1.37 | 1.34 |
| 1 | AA | 596 | A | C2-N3 | 5.00 | 1.38 | 1.33 |
| 1 | AA | 860 | A | C2-N3 | 5.00 | 1.38 | 1.33 |
| 22 | BA | 1953 | A | N3-C4 | 5.00 | 1.37 | 1.34 |
| 1 | AA | 1531 | A | C2-N3 | 5.00 | 1.38 | 1.33 |
| 22 | BA | 632 | A | N3-C4 | 5.00 | 1.37 | 1.34 |
| 22 | BA | 1067 | A | C2-N3 | 5.00 | 1.38 | 1.33 |
| 22 | BA | 2054 | A | N7-C5 | -5.00 | 1.36 | 1.39 |

All (12263) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2872 | A | N1-C6-N6 | -26.13 | 102.92 | 118.60 |
| 22 | BA | 1848 | A | N1-C6-N6 | -22.75 | 104.95 | 118.60 |
| 22 | BA | 1285 | A | N1-C6-N6 | -22.74 | 104.95 | 118.60 |
| 22 | BA | 1253 | A | N1-C6-N6 | -22.72 | 104.97 | 118.60 |
| 1 | AA | 1299 | A | N1-C6-N6 | -22.71 | 104.97 | 118.60 |
| 1 | AA | 1446 | A | N1-C6-N6 | -22.59 | 105.05 | 118.60 |
| 22 | BA | 515 | A | N1-C6-N6 | -22.48 | 105.11 | 118.60 |
| 22 | BA | 1434 | A | N1-C6-N6 | -22.29 | 105.22 | 118.60 |
| 1 | AA | 1332 | A | N1-C6-N6 | -22.28 | 105.23 | 118.60 |
| 22 | BA | 1000 | A | N1-C6-N6 | -22.23 | 105.26 | 118.60 |
| 22 | BA | 941 | A | N1-C6-N6 | -22.19 | 105.28 | 118.60 |
| 22 | BA | 699 | A | N1-C6-N6 | -22.00 | 105.40 | 118.60 |
| 22 | BA | 13 | A | N1-C6-N6 | -21.99 | 105.40 | 118.60 |
| 22 | BA | 764 | A | N1-C6-N6 | -21.98 | 105.41 | 118.60 |
| 22 | BA | 2726 | A | N1-C6-N6 | -21.90 | 105.46 | 118.60 |
| 22 | BA | 782 | A | N1-C6-N6 | -21.87 | 105.48 | 118.60 |
| 22 | BA | 119 | A | N1-C6-N6 | -21.86 | 105.48 | 118.60 |
| 22 | BA | 479 | A | N1-C6-N6 | -21.85 | 105.49 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|--------|-------------|----------|
| 22 | BA | 1214 | A | N1-C6-N6 | -21.80 | 105.52 | 118.60 |
| 22 | BA | 207 | A | N1-C6-N6 | -21.78 | 105.53 | 118.60 |
| 22 | BA | 783 | A | N1-C6-N6 | -21.73 | 105.56 | 118.60 |
| 22 | BA | 563 | A | N1-C6-N6 | -21.64 | 105.61 | 118.60 |
| 1 | AA | 1446 | A | C2-N3-C4 | 21.59 | 121.39 | 110.60 |
| 22 | BA | 2882 | A | N1-C6-N6 | -21.58 | 105.66 | 118.60 |
| 22 | BA | 1853 | A | N1-C6-N6 | -21.57 | 105.66 | 118.60 |
| 22 | BA | 804 | A | N1-C6-N6 | -21.57 | 105.66 | 118.60 |
| 22 | BA | 1000 | A | C2-N3-C4 | 21.56 | 121.38 | 110.60 |
| 22 | BA | 781 | A | N1-C6-N6 | -21.55 | 105.67 | 118.60 |
| 22 | BA | 529 | A | N1-C6-N6 | -21.53 | 105.68 | 118.60 |
| 22 | BA | 2598 | A | N1-C6-N6 | -21.53 | 105.68 | 118.60 |
| 22 | BA | 586 | A | N1-C6-N6 | -21.49 | 105.70 | 118.60 |
| 22 | BA | 2060 | A | N1-C2-N3 | -21.48 | 118.56 | 129.30 |
| 2 | AB | 188 | ASP | CB-CG-OD1 | 21.47 | 137.62 | 118.30 |
| 22 | BA | 502 | A | N1-C6-N6 | -21.43 | 105.74 | 118.60 |
| 1 | AA | 412 | A | N1-C6-N6 | -21.40 | 105.76 | 118.60 |
| 22 | BA | 621 | A | N1-C6-N6 | -21.39 | 105.77 | 118.60 |
| 22 | BA | 1787 | A | C2-N3-C4 | 21.37 | 121.28 | 110.60 |
| 1 | AA | 465 | A | N1-C6-N6 | -21.37 | 105.78 | 118.60 |
| 22 | BA | 165 | A | N1-C6-N6 | -21.35 | 105.79 | 118.60 |
| 22 | BA | 1668 | A | N1-C6-N6 | -21.31 | 105.81 | 118.60 |
| 1 | AA | 431 | A | N1-C6-N6 | -21.29 | 105.83 | 118.60 |
| 22 | BA | 782 | A | C2-N3-C4 | 21.26 | 121.23 | 110.60 |
| 1 | AA | 1213 | A | N1-C6-N6 | -21.25 | 105.85 | 118.60 |
| 22 | BA | 457 | A | N1-C6-N6 | -21.20 | 105.88 | 118.60 |
| 1 | AA | 1004 | A | N1-C6-N6 | -21.19 | 105.89 | 118.60 |
| 22 | BA | 752 | A | N1-C6-N6 | -21.18 | 105.89 | 118.60 |
| 22 | BA | 2060 | A | N1-C6-N6 | -21.14 | 105.92 | 118.60 |
| 22 | BA | 1937 | A | N1-C6-N6 | -21.13 | 105.92 | 118.60 |
| 22 | BA | 2566 | A | N1-C2-N3 | -21.12 | 118.74 | 129.30 |
| 22 | BA | 2590 | A | N1-C6-N6 | -21.11 | 105.93 | 118.60 |
| 22 | BA | 2005 | A | N1-C6-N6 | -21.11 | 105.94 | 118.60 |
| 22 | BA | 2764 | A | N1-C6-N6 | -21.10 | 105.94 | 118.60 |
| 22 | BA | 1819 | A | N1-C6-N6 | -21.09 | 105.94 | 118.60 |
| 22 | BA | 2810 | A | N1-C6-N6 | -21.08 | 105.95 | 118.60 |
| 22 | BA | 2826 | A | N1-C6-N6 | -21.03 | 105.98 | 118.60 |
| 22 | BA | 1286 | A | N1-C6-N6 | -21.01 | 106.00 | 118.60 |
| 22 | BA | 794 | A | C2-N3-C4 | 20.99 | 121.09 | 110.60 |
| 22 | BA | 1353 | A | N1-C6-N6 | -20.98 | 106.01 | 118.60 |
| 1 | AA | 1447 | A | N1-C6-N6 | -20.98 | 106.01 | 118.60 |
| 1 | AA | 889 | A | N1-C6-N6 | -20.96 | 106.03 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1544 | A | N1-C6-N6 | -20.94 | 106.04 | 118.60 |
| 22 | BA | 310 | A | N1-C6-N6 | -20.93 | 106.04 | 118.60 |
| 1 | AA | 704 | A | N1-C6-N6 | -20.93 | 106.04 | 118.60 |
| 1 | AA | 313 | A | C2-N3-C4 | 20.89 | 121.05 | 110.60 |
| 22 | BA | 2541 | A | N1-C6-N6 | -20.88 | 106.07 | 118.60 |
| 1 | AA | 665 | A | N1-C6-N6 | -20.87 | 106.08 | 118.60 |
| 22 | BA | 466 | A | N1-C6-N6 | -20.87 | 106.08 | 118.60 |
| 22 | BA | 1632 | A | N1-C6-N6 | -20.83 | 106.10 | 118.60 |
| 22 | BA | 2406 | A | N1-C6-N6 | -20.83 | 106.10 | 118.60 |
| 22 | BA | 675 | A | N1-C6-N6 | -20.83 | 106.10 | 118.60 |
| 22 | BA | 2430 | A | N1-C6-N6 | -20.83 | 106.11 | 118.60 |
| 22 | BA | 84 | A | N1-C6-N6 | -20.82 | 106.11 | 118.60 |
| 22 | BA | 322 | A | N1-C6-N6 | -20.81 | 106.11 | 118.60 |
| 22 | BA | 478 | A | N1-C6-N6 | -20.81 | 106.11 | 118.60 |
| 22 | BA | 241 | A | N1-C6-N6 | -20.81 | 106.12 | 118.60 |
| 22 | BA | 1569 | A | N1-C6-N6 | -20.80 | 106.12 | 118.60 |
| 22 | BA | 2448 | A | N1-C6-N6 | -20.79 | 106.13 | 118.60 |
| 1 | AA | 1239 | A | N1-C6-N6 | -20.78 | 106.13 | 118.60 |
| 22 | BA | 2758 | A | N1-C6-N6 | -20.76 | 106.15 | 118.60 |
| 1 | AA | 461 | A | C2-N3-C4 | 20.73 | 120.97 | 110.60 |
| 22 | BA | 979 | A | N1-C6-N6 | -20.71 | 106.17 | 118.60 |
| 22 | BA | 984 | A | N1-C6-N6 | -20.71 | 106.17 | 118.60 |
| 1 | AA | 1340 | A | N1-C2-N3 | -20.71 | 118.95 | 129.30 |
| 22 | BA | 2835 | A | N1-C6-N6 | -20.70 | 106.18 | 118.60 |
| 22 | BA | 1650 | A | C2-N3-C4 | 20.69 | 120.95 | 110.60 |
| 22 | BA | 514 | A | N1-C6-N6 | -20.66 | 106.20 | 118.60 |
| 1 | AA | 1500 | A | C2-N3-C4 | 20.66 | 120.93 | 110.60 |
| 22 | BA | 973 | A | N1-C6-N6 | -20.64 | 106.21 | 118.60 |
| 22 | BA | 1630 | A | N1-C6-N6 | -20.61 | 106.23 | 118.60 |
| 22 | BA | 1789 | A | N1-C6-N6 | -20.61 | 106.23 | 118.60 |
| 22 | BA | 207 | A | C2-N3-C4 | 20.60 | 120.90 | 110.60 |
| 1 | AA | 777 | A | N1-C6-N6 | -20.59 | 106.25 | 118.60 |
| 22 | BA | 2614 | A | C2-N3-C4 | 20.59 | 120.89 | 110.60 |
| 22 | BA | 1545 | A | N1-C6-N6 | -20.57 | 106.26 | 118.60 |
| 22 | BA | 2450 | A | N1-C6-N6 | -20.56 | 106.26 | 118.60 |
| 22 | BA | 1655 | A | N1-C6-N6 | -20.56 | 106.27 | 118.60 |
| 1 | AA | 152 | A | N1-C6-N6 | -20.54 | 106.28 | 118.60 |
| 22 | BA | 1392 | A | N1-C6-N6 | -20.54 | 106.28 | 118.60 |
| 22 | BA | 761 | A | N1-C6-N6 | -20.54 | 106.28 | 118.60 |
| 22 | BA | 689 | A | C2-N3-C4 | 20.53 | 120.86 | 110.60 |
| 22 | BA | 1821 | A | N1-C6-N6 | -20.52 | 106.29 | 118.60 |
| 22 | BA | 2273 | A | C2-N3-C4 | 20.51 | 120.86 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2060 | A | C2-N3-C4 | 20.51 | 120.86 | 110.60 |
| 22 | BA | 160 | A | N1-C6-N6 | -20.51 | 106.30 | 118.60 |
| 22 | BA | 1395 | A | N1-C6-N6 | -20.50 | 106.30 | 118.60 |
| 22 | BA | 563 | A | C2-N3-C4 | 20.50 | 120.85 | 110.60 |
| 22 | BA | 2749 | A | N1-C6-N6 | -20.49 | 106.30 | 118.60 |
| 22 | BA | 2542 | A | N1-C6-N6 | -20.49 | 106.31 | 118.60 |
| 1 | AA | 915 | A | N1-C6-N6 | -20.47 | 106.32 | 118.60 |
| 22 | BA | 2572 | A | N1-C6-N6 | -20.47 | 106.32 | 118.60 |
| 22 | BA | 504 | A | N1-C2-N3 | -20.44 | 119.08 | 129.30 |
| 22 | BA | 783 | A | C2-N3-C4 | 20.44 | 120.82 | 110.60 |
| 22 | BA | 1754 | A | N1-C6-N6 | -20.43 | 106.34 | 118.60 |
| 22 | BA | 1204 | A | N1-C6-N6 | -20.43 | 106.34 | 118.60 |
| 22 | BA | 1598 | A | N1-C6-N6 | -20.42 | 106.35 | 118.60 |
| 22 | BA | 1028 | A | N1-C2-N3 | -20.42 | 119.09 | 129.30 |
| 22 | BA | 84 | A | N1-C2-N3 | -20.41 | 119.09 | 129.30 |
| 22 | BA | 677 | A | C2-N3-C4 | 20.41 | 120.81 | 110.60 |
| 22 | BA | 1889 | A | N1-C6-N6 | -20.41 | 106.36 | 118.60 |
| 1 | AA | 1500 | A | N1-C6-N6 | -20.41 | 106.36 | 118.60 |
| 22 | BA | 479 | A | N1-C2-N3 | -20.40 | 119.10 | 129.30 |
| 22 | BA | 1655 | A | N1-C2-N3 | -20.39 | 119.11 | 129.30 |
| 22 | BA | 217 | A | N1-C6-N6 | -20.37 | 106.38 | 118.60 |
| 22 | BA | 2033 | A | N1-C6-N6 | -20.37 | 106.38 | 118.60 |
| 22 | BA | 1392 | A | C2-N3-C4 | 20.36 | 120.78 | 110.60 |
| 1 | AA | 151 | A | N1-C6-N6 | -20.36 | 106.38 | 118.60 |
| 22 | BA | 1308 | A | N1-C6-N6 | -20.36 | 106.38 | 118.60 |
| 22 | BA | 1156 | A | N1-C6-N6 | -20.35 | 106.39 | 118.60 |
| 22 | BA | 1515 | A | N1-C6-N6 | -20.34 | 106.39 | 118.60 |
| 22 | BA | 685 | A | C2-N3-C4 | 20.33 | 120.77 | 110.60 |
| 22 | BA | 1754 | A | N1-C2-N3 | -20.33 | 119.14 | 129.30 |
| 22 | BA | 2281 | A | C2-N3-C4 | 20.32 | 120.76 | 110.60 |
| 22 | BA | 10 | A | N1-C6-N6 | -20.30 | 106.42 | 118.60 |
| 22 | BA | 750 | A | C2-N3-C4 | 20.29 | 120.75 | 110.60 |
| 22 | BA | 734 | A | N1-C6-N6 | -20.29 | 106.43 | 118.60 |
| 1 | AA | 958 | A | N1-C6-N6 | -20.28 | 106.43 | 118.60 |
| 1 | AA | 1340 | A | N1-C6-N6 | -20.28 | 106.44 | 118.60 |
| 1 | AA | 460 | A | C2-N3-C4 | 20.27 | 120.74 | 110.60 |
| 22 | BA | 1544 | A | C2-N3-C4 | 20.26 | 120.73 | 110.60 |
| 1 | AA | 819 | A | N1-C6-N6 | -20.25 | 106.45 | 118.60 |
| 22 | BA | 1598 | A | C2-N3-C4 | 20.24 | 120.72 | 110.60 |
| 1 | AA | 459 | A | C2-N3-C4 | 20.23 | 120.72 | 110.60 |
| 22 | BA | 111 | A | N1-C6-N6 | -20.23 | 106.47 | 118.60 |
| 22 | BA | 2781 | A | N1-C2-N3 | -20.21 | 119.19 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1655 | A | C2-N3-C4 | 20.20 | 120.70 | 110.60 |
| 22 | BA | 1205 | A | N1-C6-N6 | -20.20 | 106.48 | 118.60 |
| 22 | BA | 1998 | A | C2-N3-C4 | 20.20 | 120.70 | 110.60 |
| 22 | BA | 1603 | A | C2-N3-C4 | 20.19 | 120.69 | 110.60 |
| 22 | BA | 1848 | A | C2-N3-C4 | 20.18 | 120.69 | 110.60 |
| 22 | BA | 1789 | A | N1-C2-N3 | -20.17 | 119.22 | 129.30 |
| 22 | BA | 2451 | A | C2-N3-C4 | 20.17 | 120.68 | 110.60 |
| 22 | BA | 279 | A | N1-C6-N6 | -20.16 | 106.51 | 118.60 |
| 22 | BA | 1253 | A | C2-N3-C4 | 20.15 | 120.67 | 110.60 |
| 22 | BA | 1819 | A | C2-N3-C4 | 20.15 | 120.67 | 110.60 |
| 22 | BA | 2565 | A | N1-C6-N6 | -20.15 | 106.51 | 118.60 |
| 22 | BA | 1890 | A | N1-C6-N6 | -20.15 | 106.51 | 118.60 |
| 23 | BB | 46 | A | N1-C6-N6 | -20.15 | 106.51 | 118.60 |
| 22 | BA | 2776 | A | N1-C6-N6 | -20.14 | 106.51 | 118.60 |
| 22 | BA | 2080 | A | C2-N3-C4 | 20.14 | 120.67 | 110.60 |
| 22 | BA | 332 | A | N1-C6-N6 | -20.14 | 106.52 | 118.60 |
| 22 | BA | 126 | A | N1-C2-N3 | -20.13 | 119.24 | 129.30 |
| 22 | BA | 1439 | A | N1-C6-N6 | -20.12 | 106.53 | 118.60 |
| 22 | BA | 2469 | A | C2-N3-C4 | 20.12 | 120.66 | 110.60 |
| 1 | AA | 120 | A | N1-C6-N6 | -20.11 | 106.53 | 118.60 |
| 22 | BA | 203 | A | N1-C6-N6 | -20.11 | 106.53 | 118.60 |
| 1 | AA | 1238 | A | N1-C6-N6 | -20.10 | 106.54 | 118.60 |
| 22 | BA | 457 | A | N1-C2-N3 | -20.10 | 119.25 | 129.30 |
| 22 | BA | 1551 | A | N1-C6-N6 | -20.10 | 106.54 | 118.60 |
| 22 | BA | 1214 | A | C2-N3-C4 | 20.09 | 120.64 | 110.60 |
| 22 | BA | 1853 | A | N1-C2-N3 | -20.08 | 119.26 | 129.30 |
| 1 | AA | 802 | A | N1-C6-N6 | -20.07 | 106.56 | 118.60 |
| 22 | BA | 782 | A | N1-C2-N3 | -20.07 | 119.27 | 129.30 |
| 22 | BA | 1378 | A | N1-C6-N6 | -20.06 | 106.56 | 118.60 |
| 1 | AA | 59 | A | N1-C6-N6 | -20.05 | 106.57 | 118.60 |
| 22 | BA | 195 | A | C2-N3-C4 | 20.04 | 120.62 | 110.60 |
| 22 | BA | 1156 | A | N1-C2-N3 | -20.03 | 119.28 | 129.30 |
| 22 | BA | 802 | A | C2-N3-C4 | 20.02 | 120.61 | 110.60 |
| 22 | BA | 2199 | A | N1-C6-N6 | -20.02 | 106.59 | 118.60 |
| 22 | BA | 514 | A | N1-C2-N3 | -20.01 | 119.29 | 129.30 |
| 22 | BA | 1570 | A | N1-C6-N6 | -20.00 | 106.60 | 118.60 |
| 1 | AA | 1004 | A | C2-N3-C4 | 20.00 | 120.60 | 110.60 |
| 22 | BA | 1275 | A | N1-C6-N6 | -19.99 | 106.60 | 118.60 |
| 22 | BA | 2753 | A | N1-C6-N6 | -19.99 | 106.61 | 118.60 |
| 22 | BA | 1597 | A | N1-C6-N6 | -19.98 | 106.61 | 118.60 |
| 22 | BA | 1366 | A | N1-C6-N6 | -19.98 | 106.61 | 118.60 |
| 1 | AA | 26 | A | N1-C6-N6 | -19.98 | 106.61 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 216 | A | N1-C6-N6 | -19.98 | 106.61 | 118.60 |
| 1 | AA | 274 | A | N1-C2-N3 | -19.97 | 119.32 | 129.30 |
| 22 | BA | 2837 | A | N1-C6-N6 | -19.96 | 106.62 | 118.60 |
| 1 | AA | 363 | A | N1-C6-N6 | -19.96 | 106.62 | 118.60 |
| 22 | BA | 927 | A | N1-C6-N6 | -19.96 | 106.62 | 118.60 |
| 22 | BA | 1253 | A | N1-C2-N3 | -19.96 | 119.32 | 129.30 |
| 22 | BA | 529 | A | N1-C2-N3 | -19.96 | 119.32 | 129.30 |
| 22 | BA | 1808 | A | N1-C6-N6 | -19.96 | 106.62 | 118.60 |
| 22 | BA | 621 | A | C2-N3-C4 | 19.96 | 120.58 | 110.60 |
| 22 | BA | 2273 | A | N1-C2-N3 | -19.94 | 119.33 | 129.30 |
| 22 | BA | 478 | A | C2-N3-C4 | 19.94 | 120.57 | 110.60 |
| 22 | BA | 2837 | A | C2-N3-C4 | 19.94 | 120.57 | 110.60 |
| 22 | BA | 1791 | A | N1-C6-N6 | -19.93 | 106.64 | 118.60 |
| 22 | BA | 988 | A | N1-C6-N6 | -19.92 | 106.65 | 118.60 |
| 22 | BA | 270 | A | N1-C6-N6 | -19.91 | 106.65 | 118.60 |
| 22 | BA | 2741 | A | N1-C6-N6 | -19.91 | 106.66 | 118.60 |
| 1 | AA | 1502 | A | N1-C6-N6 | -19.90 | 106.66 | 118.60 |
| 22 | BA | 1165 | A | N1-C2-N3 | -19.89 | 119.36 | 129.30 |
| 22 | BA | 608 | A | N1-C2-N3 | -19.89 | 119.36 | 129.30 |
| 22 | BA | 800 | A | N1-C6-N6 | -19.89 | 106.67 | 118.60 |
| 1 | AA | 16 | A | N1-C6-N6 | -19.88 | 106.67 | 118.60 |
| 22 | BA | 1353 | A | C2-N3-C4 | 19.86 | 120.53 | 110.60 |
| 1 | AA | 906 | A | N1-C6-N6 | -19.86 | 106.68 | 118.60 |
| 22 | BA | 608 | A | C2-N3-C4 | 19.85 | 120.53 | 110.60 |
| 22 | BA | 309 | A | N1-C6-N6 | -19.85 | 106.69 | 118.60 |
| 22 | BA | 637 | A | N1-C2-N3 | -19.85 | 119.38 | 129.30 |
| 22 | BA | 191 | A | C2-N3-C4 | 19.85 | 120.52 | 110.60 |
| 1 | AA | 676 | A | N1-C6-N6 | -19.84 | 106.69 | 118.60 |
| 22 | BA | 1640 | A | C2-N3-C4 | 19.84 | 120.52 | 110.60 |
| 22 | BA | 2740 | A | C2-N3-C4 | 19.84 | 120.52 | 110.60 |
| 1 | AA | 253 | A | N1-C6-N6 | -19.84 | 106.69 | 118.60 |
| 22 | BA | 1791 | A | C2-N3-C4 | 19.84 | 120.52 | 110.60 |
| 1 | AA | 792 | A | N1-C6-N6 | -19.83 | 106.70 | 118.60 |
| 1 | AA | 825 | A | N1-C6-N6 | -19.82 | 106.70 | 118.60 |
| 22 | BA | 497 | A | N1-C6-N6 | -19.82 | 106.71 | 118.60 |
| 22 | BA | 2873 | A | N1-C6-N6 | -19.82 | 106.71 | 118.60 |
| 22 | BA | 2005 | A | C2-N3-C4 | 19.81 | 120.50 | 110.60 |
| 22 | BA | 905 | A | N1-C6-N6 | -19.80 | 106.72 | 118.60 |
| 22 | BA | 1853 | A | C2-N3-C4 | 19.80 | 120.50 | 110.60 |
| 22 | BA | 572 | A | C2-N3-C4 | 19.80 | 120.50 | 110.60 |
| 22 | BA | 1772 | A | C2-N3-C4 | 19.80 | 120.50 | 110.60 |
| 22 | BA | 71 | A | N1-C6-N6 | -19.80 | 106.72 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1322 | A | N1-C2-N3 | -19.80 | 119.40 | 129.30 |
| 22 | BA | 244 | A | C2-N3-C4 | 19.80 | 120.50 | 110.60 |
| 22 | BA | 2883 | A | N1-C6-N6 | -19.80 | 106.72 | 118.60 |
| 1 | AA | 996 | A | N1-C6-N6 | -19.79 | 106.72 | 118.60 |
| 22 | BA | 222 | A | N1-C6-N6 | -19.79 | 106.72 | 118.60 |
| 22 | BA | 2451 | A | N1-C6-N6 | -19.79 | 106.72 | 118.60 |
| 23 | BB | 59 | A | C2-N3-C4 | 19.79 | 120.50 | 110.60 |
| 1 | AA | 498 | A | C2-N3-C4 | 19.78 | 120.49 | 110.60 |
| 22 | BA | 2014 | A | N1-C6-N6 | -19.78 | 106.73 | 118.60 |
| 1 | AA | 1346 | A | N1-C6-N6 | -19.78 | 106.73 | 118.60 |
| 22 | BA | 1028 | A | C2-N3-C4 | 19.78 | 120.49 | 110.60 |
| 55 | B8 | 41 | A | N1-C6-N6 | -19.78 | 106.73 | 118.60 |
| 1 | AA | 195 | A | N1-C6-N6 | -19.77 | 106.74 | 118.60 |
| 22 | BA | 532 | A | N1-C6-N6 | -19.77 | 106.74 | 118.60 |
| 22 | BA | 199 | A | N1-C6-N6 | -19.77 | 106.74 | 118.60 |
| 22 | BA | 262 | A | N1-C6-N6 | -19.77 | 106.74 | 118.60 |
| 22 | BA | 1672 | A | N1-C6-N6 | -19.77 | 106.74 | 118.60 |
| 22 | BA | 221 | A | N1-C2-N3 | -19.76 | 119.42 | 129.30 |
| 22 | BA | 160 | A | C2-N3-C4 | 19.76 | 120.48 | 110.60 |
| 1 | AA | 938 | A | C2-N3-C4 | 19.76 | 120.48 | 110.60 |
| 22 | BA | 1439 | A | C2-N3-C4 | 19.76 | 120.48 | 110.60 |
| 22 | BA | 1586 | A | N1-C6-N6 | -19.76 | 106.75 | 118.60 |
| 22 | BA | 1936 | A | C2-N3-C4 | 19.76 | 120.48 | 110.60 |
| 22 | BA | 1847 | A | C2-N3-C4 | 19.75 | 120.48 | 110.60 |
| 22 | BA | 21 | A | C2-N3-C4 | 19.75 | 120.48 | 110.60 |
| 22 | BA | 685 | A | N1-C6-N6 | -19.75 | 106.75 | 118.60 |
| 22 | BA | 1783 | A | N1-C2-N3 | -19.75 | 119.42 | 129.30 |
| 1 | AA | 44 | A | N1-C6-N6 | -19.75 | 106.75 | 118.60 |
| 22 | BA | 1001 | A | N1-C6-N6 | -19.74 | 106.76 | 118.60 |
| 22 | BA | 2589 | A | N1-C6-N6 | -19.73 | 106.76 | 118.60 |
| 1 | AA | 919 | A | N1-C6-N6 | -19.73 | 106.76 | 118.60 |
| 1 | AA | 918 | A | N1-C6-N6 | -19.73 | 106.76 | 118.60 |
| 22 | BA | 1762 | A | N1-C6-N6 | -19.73 | 106.77 | 118.60 |
| 22 | BA | 1970 | A | N1-C2-N3 | -19.73 | 119.44 | 129.30 |
| 22 | BA | 1936 | A | N1-C2-N3 | -19.72 | 119.44 | 129.30 |
| 1 | AA | 1476 | A | N1-C6-N6 | -19.72 | 106.77 | 118.60 |
| 1 | AA | 151 | A | C2-N3-C4 | 19.72 | 120.46 | 110.60 |
| 22 | BA | 191 | A | N1-C6-N6 | -19.71 | 106.77 | 118.60 |
| 55 | B8 | 58 | A | N1-C2-N3 | -19.71 | 119.44 | 129.30 |
| 22 | BA | 1244 | A | C2-N3-C4 | 19.71 | 120.45 | 110.60 |
| 23 | BB | 78 | A | N1-C6-N6 | -19.70 | 106.78 | 118.60 |
| 22 | BA | 621 | A | N1-C2-N3 | -19.69 | 119.45 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 460 | A | N1-C6-N6 | -19.69 | 106.78 | 118.60 |
| 23 | BB | 101 | A | N1-C6-N6 | -19.68 | 106.79 | 118.60 |
| 22 | BA | 1189 | A | C2-N3-C4 | 19.68 | 120.44 | 110.60 |
| 22 | BA | 825 | A | C2-N3-C4 | 19.68 | 120.44 | 110.60 |
| 22 | BA | 959 | A | N1-C2-N3 | -19.68 | 119.46 | 129.30 |
| 22 | BA | 2358 | A | N1-C6-N6 | -19.68 | 106.79 | 118.60 |
| 22 | BA | 342 | A | N1-C6-N6 | -19.67 | 106.80 | 118.60 |
| 22 | BA | 825 | A | N1-C6-N6 | -19.67 | 106.80 | 118.60 |
| 55 | B8 | 42 | A | C2-N3-C4 | 19.67 | 120.44 | 110.60 |
| 22 | BA | 602 | A | N1-C6-N6 | -19.67 | 106.80 | 118.60 |
| 22 | BA | 2003 | A | C2-N3-C4 | 19.67 | 120.43 | 110.60 |
| 22 | BA | 972 | A | C2-N3-C4 | 19.66 | 120.43 | 110.60 |
| 22 | BA | 1420 | A | N1-C6-N6 | -19.66 | 106.81 | 118.60 |
| 1 | AA | 935 | A | N1-C6-N6 | -19.65 | 106.81 | 118.60 |
| 1 | AA | 282 | A | N1-C6-N6 | -19.64 | 106.81 | 118.60 |
| 22 | BA | 2682 | A | N1-C6-N6 | -19.64 | 106.82 | 118.60 |
| 1 | AA | 520 | A | N1-C6-N6 | -19.64 | 106.82 | 118.60 |
| 22 | BA | 507 | A | N1-C2-N3 | -19.64 | 119.48 | 129.30 |
| 22 | BA | 449 | A | C2-N3-C4 | 19.63 | 120.42 | 110.60 |
| 22 | BA | 2700 | A | C2-N3-C4 | 19.63 | 120.42 | 110.60 |
| 22 | BA | 1755 | A | C2-N3-C4 | 19.63 | 120.41 | 110.60 |
| 22 | BA | 2266 | A | C2-N3-C4 | 19.63 | 120.41 | 110.60 |
| 1 | AA | 900 | A | N1-C6-N6 | -19.62 | 106.83 | 118.60 |
| 22 | BA | 1265 | A | N1-C6-N6 | -19.62 | 106.83 | 118.60 |
| 22 | BA | 2469 | A | N1-C6-N6 | -19.62 | 106.83 | 118.60 |
| 22 | BA | 1129 | A | N1-C6-N6 | -19.62 | 106.83 | 118.60 |
| 22 | BA | 973 | A | C2-N3-C4 | 19.62 | 120.41 | 110.60 |
| 22 | BA | 1672 | A | C2-N3-C4 | 19.62 | 120.41 | 110.60 |
| 1 | AA | 872 | A | C2-N3-C4 | 19.61 | 120.41 | 110.60 |
| 22 | BA | 1392 | A | N1-C2-N3 | -19.61 | 119.49 | 129.30 |
| 22 | BA | 981 | A | N1-C2-N3 | -19.61 | 119.49 | 129.30 |
| 22 | BA | 1755 | A | N1-C6-N6 | -19.61 | 106.83 | 118.60 |
| 1 | AA | 553 | A | C2-N3-C4 | 19.61 | 120.40 | 110.60 |
| 22 | BA | 262 | A | C2-N3-C4 | 19.61 | 120.40 | 110.60 |
| 22 | BA | 1268 | A | C2-N3-C4 | 19.61 | 120.40 | 110.60 |
| 22 | BA | 1755 | A | N1-C2-N3 | -19.61 | 119.50 | 129.30 |
| 1 | AA | 909 | A | N1-C6-N6 | -19.61 | 106.84 | 118.60 |
| 22 | BA | 2198 | A | N1-C2-N3 | -19.61 | 119.50 | 129.30 |
| 1 | AA | 482 | A | N1-C6-N6 | -19.60 | 106.84 | 118.60 |
| 1 | AA | 753 | A | N1-C6-N6 | -19.60 | 106.84 | 118.60 |
| 22 | BA | 2327 | A | C2-N3-C4 | 19.60 | 120.40 | 110.60 |
| 23 | BB | 101 | A | C2-N3-C4 | 19.60 | 120.40 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 766 | A | N1-C6-N6 | -19.59 | 106.84 | 118.60 |
| 1 | AA | 1299 | A | C2-N3-C4 | 19.59 | 120.40 | 110.60 |
| 22 | BA | 83 | A | N1-C6-N6 | -19.59 | 106.84 | 118.60 |
| 22 | BA | 2721 | A | N1-C6-N6 | -19.59 | 106.85 | 118.60 |
| 22 | BA | 2198 | A | N1-C6-N6 | -19.59 | 106.85 | 118.60 |
| 1 | AA | 1287 | A | N1-C6-N6 | -19.58 | 106.85 | 118.60 |
| 22 | BA | 1679 | A | C2-N3-C4 | 19.58 | 120.39 | 110.60 |
| 22 | BA | 990 | A | N1-C6-N6 | -19.57 | 106.86 | 118.60 |
| 1 | AA | 572 | A | N1-C6-N6 | -19.57 | 106.86 | 118.60 |
| 1 | AA | 253 | A | C2-N3-C4 | 19.57 | 120.38 | 110.60 |
| 23 | BB | 53 | A | N1-C6-N6 | -19.57 | 106.86 | 118.60 |
| 22 | BA | 821 | A | N1-C6-N6 | -19.56 | 106.86 | 118.60 |
| 22 | BA | 2823 | A | N1-C6-N6 | -19.56 | 106.87 | 118.60 |
| 22 | BA | 2547 | A | N1-C6-N6 | -19.55 | 106.87 | 118.60 |
| 22 | BA | 1847 | A | N1-C6-N6 | -19.55 | 106.87 | 118.60 |
| 22 | BA | 2727 | A | C2-N3-C4 | 19.55 | 120.38 | 110.60 |
| 1 | AA | 321 | A | N1-C6-N6 | -19.55 | 106.87 | 118.60 |
| 22 | BA | 727 | A | N1-C2-N3 | -19.55 | 119.53 | 129.30 |
| 22 | BA | 1287 | A | C2-N3-C4 | 19.55 | 120.38 | 110.60 |
| 22 | BA | 213 | A | C2-N3-C4 | 19.55 | 120.37 | 110.60 |
| 22 | BA | 1927 | A | N1-C6-N6 | -19.55 | 106.87 | 118.60 |
| 22 | BA | 2388 | A | N1-C2-N3 | -19.55 | 119.53 | 129.30 |
| 22 | BA | 1784 | A | N1-C6-N6 | -19.54 | 106.87 | 118.60 |
| 22 | BA | 2212 | A | N1-C6-N6 | -19.54 | 106.88 | 118.60 |
| 22 | BA | 423 | A | C2-N3-C4 | 19.54 | 120.37 | 110.60 |
| 22 | BA | 222 | A | N1-C2-N3 | -19.54 | 119.53 | 129.30 |
| 1 | AA | 673 | A | C2-N3-C4 | 19.53 | 120.37 | 110.60 |
| 22 | BA | 2634 | A | C2-N3-C4 | 19.53 | 120.37 | 110.60 |
| 22 | BA | 2826 | A | C2-N3-C4 | 19.53 | 120.37 | 110.60 |
| 22 | BA | 603 | A | N1-C2-N3 | -19.53 | 119.54 | 129.30 |
| 23 | BB | 109 | A | N1-C6-N6 | -19.52 | 106.89 | 118.60 |
| 1 | AA | 116 | A | C2-N3-C4 | 19.52 | 120.36 | 110.60 |
| 1 | AA | 607 | A | N1-C6-N6 | -19.52 | 106.89 | 118.60 |
| 1 | AA | 274 | A | C2-N3-C4 | 19.52 | 120.36 | 110.60 |
| 22 | BA | 443 | A | N1-C6-N6 | -19.52 | 106.89 | 118.60 |
| 22 | BA | 1032 | A | N1-C6-N6 | -19.52 | 106.89 | 118.60 |
| 22 | BA | 1427 | A | N1-C6-N6 | -19.52 | 106.89 | 118.60 |
| 22 | BA | 1608 | A | C2-N3-C4 | 19.52 | 120.36 | 110.60 |
| 22 | BA | 1000 | A | N1-C2-N3 | -19.51 | 119.54 | 129.30 |
| 22 | BA | 2266 | A | N1-C2-N3 | -19.51 | 119.54 | 129.30 |
| 22 | BA | 213 | A | N1-C2-N3 | -19.51 | 119.55 | 129.30 |
| 22 | BA | 1194 | A | N1-C6-N6 | -19.51 | 106.89 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1608 | A | N1-C6-N6 | -19.50 | 106.90 | 118.60 |
| 22 | BA | 1287 | A | N1-C2-N3 | -19.50 | 119.55 | 129.30 |
| 22 | BA | 1427 | A | N1-C2-N3 | -19.50 | 119.55 | 129.30 |
| 22 | BA | 310 | A | N1-C2-N3 | -19.50 | 119.55 | 129.30 |
| 22 | BA | 910 | A | N1-C2-N3 | -19.49 | 119.55 | 129.30 |
| 22 | BA | 1336 | A | C2-N3-C4 | 19.49 | 120.35 | 110.60 |
| 22 | BA | 975 | A | N1-C6-N6 | -19.48 | 106.91 | 118.60 |
| 22 | BA | 1786 | A | N1-C6-N6 | -19.48 | 106.91 | 118.60 |
| 22 | BA | 2439 | A | N1-C6-N6 | -19.48 | 106.91 | 118.60 |
| 22 | BA | 2281 | A | N1-C6-N6 | -19.48 | 106.92 | 118.60 |
| 22 | BA | 207 | A | N1-C2-N3 | -19.47 | 119.56 | 129.30 |
| 22 | BA | 602 | A | N1-C2-N3 | -19.47 | 119.56 | 129.30 |
| 22 | BA | 2542 | A | C2-N3-C4 | 19.47 | 120.33 | 110.60 |
| 22 | BA | 195 | A | N1-C6-N6 | -19.46 | 106.92 | 118.60 |
| 22 | BA | 821 | A | N1-C2-N3 | -19.46 | 119.57 | 129.30 |
| 22 | BA | 532 | A | C2-N3-C4 | 19.46 | 120.33 | 110.60 |
| 22 | BA | 1260 | A | C2-N3-C4 | 19.45 | 120.33 | 110.60 |
| 22 | BA | 1165 | A | N1-C6-N6 | -19.45 | 106.93 | 118.60 |
| 22 | BA | 918 | A | N1-C6-N6 | -19.45 | 106.93 | 118.60 |
| 22 | BA | 2829 | A | N1-C6-N6 | -19.44 | 106.93 | 118.60 |
| 22 | BA | 2199 | A | C2-N3-C4 | 19.44 | 120.32 | 110.60 |
| 1 | AA | 1311 | A | N1-C6-N6 | -19.44 | 106.94 | 118.60 |
| 1 | AA | 596 | A | N1-C6-N6 | -19.44 | 106.94 | 118.60 |
| 1 | AA | 1513 | A | C2-N3-C4 | 19.44 | 120.32 | 110.60 |
| 22 | BA | 2052 | A | N1-C6-N6 | -19.44 | 106.94 | 118.60 |
| 1 | AA | 129 | A | N1-C6-N6 | -19.43 | 106.94 | 118.60 |
| 22 | BA | 599 | A | C2-N3-C4 | 19.43 | 120.32 | 110.60 |
| 1 | AA | 792 | A | N1-C2-N3 | -19.43 | 119.58 | 129.30 |
| 1 | AA | 253 | A | N1-C2-N3 | -19.43 | 119.59 | 129.30 |
| 22 | BA | 2781 | A | N1-C6-N6 | -19.43 | 106.94 | 118.60 |
| 22 | BA | 2453 | A | C2-N3-C4 | 19.42 | 120.31 | 110.60 |
| 22 | BA | 1246 | A | N1-C6-N6 | -19.42 | 106.95 | 118.60 |
| 22 | BA | 1165 | A | C2-N3-C4 | 19.42 | 120.31 | 110.60 |
| 1 | AA | 408 | A | N1-C6-N6 | -19.42 | 106.95 | 118.60 |
| 22 | BA | 118 | A | N1-C2-N3 | -19.41 | 119.59 | 129.30 |
| 22 | BA | 739 | A | N1-C2-N3 | -19.41 | 119.59 | 129.30 |
| 1 | AA | 412 | A | N1-C2-N3 | -19.41 | 119.59 | 129.30 |
| 1 | AA | 621 | A | C2-N3-C4 | 19.41 | 120.30 | 110.60 |
| 55 | B8 | 66 | A | N1-C2-N3 | -19.41 | 119.60 | 129.30 |
| 22 | BA | 342 | A | C2-N3-C4 | 19.41 | 120.30 | 110.60 |
| 22 | BA | 2738 | A | N1-C2-N3 | -19.41 | 119.60 | 129.30 |
| 1 | AA | 1500 | A | N1-C2-N3 | -19.40 | 119.60 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1268 | A | N1-C2-N3 | -19.40 | 119.60 | 129.30 |
| 22 | BA | 2031 | A | N1-C2-N3 | -19.40 | 119.60 | 129.30 |
| 22 | BA | 980 | A | C2-N3-C4 | 19.39 | 120.30 | 110.60 |
| 22 | BA | 1525 | A | N1-C6-N6 | -19.39 | 106.96 | 118.60 |
| 22 | BA | 2031 | A | C2-N3-C4 | 19.39 | 120.30 | 110.60 |
| 1 | AA | 1163 | A | C2-N3-C4 | 19.39 | 120.29 | 110.60 |
| 22 | BA | 820 | A | C2-N3-C4 | 19.39 | 120.29 | 110.60 |
| 22 | BA | 2614 | A | N1-C6-N6 | -19.39 | 106.97 | 118.60 |
| 22 | BA | 2726 | A | C2-N3-C4 | 19.39 | 120.29 | 110.60 |
| 1 | AA | 1398 | A | N1-C6-N6 | -19.39 | 106.97 | 118.60 |
| 22 | BA | 2829 | A | N1-C2-N3 | -19.37 | 119.61 | 129.30 |
| 22 | BA | 2411 | A | N1-C6-N6 | -19.37 | 106.98 | 118.60 |
| 22 | BA | 764 | A | N1-C2-N3 | -19.37 | 119.61 | 129.30 |
| 23 | BB | 115 | A | C2-N3-C4 | 19.37 | 120.29 | 110.60 |
| 22 | BA | 1086 | A | N1-C6-N6 | -19.37 | 106.98 | 118.60 |
| 1 | AA | 309 | A | N1-C2-N3 | -19.37 | 119.62 | 129.30 |
| 22 | BA | 675 | A | C2-N3-C4 | 19.37 | 120.28 | 110.60 |
| 22 | BA | 2781 | A | C2-N3-C4 | 19.37 | 120.28 | 110.60 |
| 22 | BA | 522 | A | C2-N3-C4 | 19.37 | 120.28 | 110.60 |
| 22 | BA | 2748 | A | N1-C6-N6 | -19.36 | 106.98 | 118.60 |
| 22 | BA | 423 | A | N1-C6-N6 | -19.35 | 106.99 | 118.60 |
| 22 | BA | 1759 | A | C2-N3-C4 | 19.35 | 120.28 | 110.60 |
| 22 | BA | 2572 | A | N1-C2-N3 | -19.35 | 119.63 | 129.30 |
| 1 | AA | 1092 | A | N1-C6-N6 | -19.35 | 106.99 | 118.60 |
| 1 | AA | 1180 | A | N1-C6-N6 | -19.34 | 106.99 | 118.60 |
| 22 | BA | 637 | A | N1-C6-N6 | -19.34 | 107.00 | 118.60 |
| 22 | BA | 631 | A | N1-C2-N3 | -19.34 | 119.63 | 129.30 |
| 22 | BA | 983 | A | N1-C2-N3 | -19.33 | 119.63 | 129.30 |
| 1 | AA | 509 | A | C2-N3-C4 | 19.33 | 120.27 | 110.60 |
| 22 | BA | 1496 | A | N1-C2-N3 | -19.33 | 119.64 | 129.30 |
| 22 | BA | 2513 | A | C2-N3-C4 | 19.33 | 120.27 | 110.60 |
| 22 | BA | 1998 | A | N1-C6-N6 | -19.33 | 107.00 | 118.60 |
| 22 | BA | 2736 | A | N1-C6-N6 | -19.33 | 107.00 | 118.60 |
| 22 | BA | 685 | A | N1-C2-N3 | -19.32 | 119.64 | 129.30 |
| 22 | BA | 1570 | A | C2-N3-C4 | 19.32 | 120.26 | 110.60 |
| 22 | BA | 278 | A | C2-N3-C4 | 19.32 | 120.26 | 110.60 |
| 22 | BA | 330 | A | C2-N3-C4 | 19.31 | 120.26 | 110.60 |
| 1 | AA | 172 | A | N1-C6-N6 | -19.31 | 107.01 | 118.60 |
| 22 | BA | 1214 | A | N1-C2-N3 | -19.31 | 119.64 | 129.30 |
| 22 | BA | 1632 | A | C2-N3-C4 | 19.31 | 120.25 | 110.60 |
| 22 | BA | 149 | A | N1-C6-N6 | -19.31 | 107.02 | 118.60 |
| 22 | BA | 592 | A | C2-N3-C4 | 19.31 | 120.25 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1912 | A | N1-C6-N6 | -19.31 | 107.02 | 118.60 |
| 22 | BA | 750 | A | N1-C2-N3 | -19.30 | 119.65 | 129.30 |
| 22 | BA | 2657 | A | N1-C6-N6 | -19.30 | 107.02 | 118.60 |
| 1 | AA | 1333 | A | N1-C6-N6 | -19.30 | 107.02 | 118.60 |
| 1 | AA | 320 | A | N1-C6-N6 | -19.30 | 107.02 | 118.60 |
| 1 | AA | 1428 | A | N1-C6-N6 | -19.30 | 107.02 | 118.60 |
| 1 | AA | 781 | A | N1-C6-N6 | -19.29 | 107.02 | 118.60 |
| 1 | AA | 397 | A | C2-N3-C4 | 19.29 | 120.25 | 110.60 |
| 22 | BA | 2679 | A | C2-N3-C4 | 19.29 | 120.25 | 110.60 |
| 22 | BA | 2879 | A | N1-C6-N6 | -19.29 | 107.03 | 118.60 |
| 22 | BA | 2212 | A | C2-N3-C4 | 19.29 | 120.24 | 110.60 |
| 1 | AA | 72 | A | N1-C6-N6 | -19.28 | 107.03 | 118.60 |
| 1 | AA | 336 | A | C2-N3-C4 | 19.28 | 120.24 | 110.60 |
| 22 | BA | 1603 | A | N1-C2-N3 | -19.28 | 119.66 | 129.30 |
| 22 | BA | 866 | A | N1-C6-N6 | -19.28 | 107.03 | 118.60 |
| 22 | BA | 959 | A | C2-N3-C4 | 19.27 | 120.24 | 110.60 |
| 22 | BA | 2241 | A | C2-N3-C4 | 19.27 | 120.24 | 110.60 |
| 22 | BA | 42 | A | C2-N3-C4 | 19.27 | 120.23 | 110.60 |
| 22 | BA | 788 | A | N1-C6-N6 | -19.27 | 107.04 | 118.60 |
| 22 | BA | 1858 | A | N1-C6-N6 | -19.27 | 107.04 | 118.60 |
| 22 | BA | 661 | A | C2-N3-C4 | 19.27 | 120.23 | 110.60 |
| 22 | BA | 753 | A | C2-N3-C4 | 19.27 | 120.23 | 110.60 |
| 22 | BA | 1987 | A | C2-N3-C4 | 19.27 | 120.23 | 110.60 |
| 22 | BA | 2868 | A | C2-N3-C4 | 19.27 | 120.23 | 110.60 |
| 1 | AA | 466 | A | N1-C6-N6 | -19.26 | 107.04 | 118.60 |
| 22 | BA | 2542 | A | N1-C2-N3 | -19.26 | 119.67 | 129.30 |
| 22 | BA | 529 | A | C2-N3-C4 | 19.26 | 120.23 | 110.60 |
| 22 | BA | 2340 | A | C2-N3-C4 | 19.26 | 120.23 | 110.60 |
| 22 | BA | 1987 | A | N1-C2-N3 | -19.26 | 119.67 | 129.30 |
| 22 | BA | 716 | A | N1-C2-N3 | -19.25 | 119.67 | 129.30 |
| 22 | BA | 1522 | A | N1-C6-N6 | -19.25 | 107.05 | 118.60 |
| 22 | BA | 1367 | A | C2-N3-C4 | 19.25 | 120.23 | 110.60 |
| 1 | AA | 151 | A | N1-C2-N3 | -19.25 | 119.67 | 129.30 |
| 22 | BA | 221 | A | C2-N3-C4 | 19.25 | 120.22 | 110.60 |
| 22 | BA | 119 | A | N1-C2-N3 | -19.25 | 119.68 | 129.30 |
| 22 | BA | 71 | A | C2-N3-C4 | 19.24 | 120.22 | 110.60 |
| 22 | BA | 2406 | A | N1-C2-N3 | -19.24 | 119.68 | 129.30 |
| 1 | AA | 171 | A | N1-C6-N6 | -19.23 | 107.06 | 118.60 |
| 22 | BA | 1367 | A | N1-C6-N6 | -19.23 | 107.06 | 118.60 |
| 22 | BA | 1515 | A | C2-N3-C4 | 19.23 | 120.22 | 110.60 |
| 22 | BA | 2860 | A | N1-C6-N6 | -19.23 | 107.06 | 118.60 |
| 1 | AA | 465 | A | N1-C2-N3 | -19.23 | 119.69 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 374 | A | N1-C6-N6 | -19.23 | 107.06 | 118.60 |
| 22 | BA | 347 | A | N1-C6-N6 | -19.23 | 107.06 | 118.60 |
| 22 | BA | 727 | A | C2-N3-C4 | 19.23 | 120.21 | 110.60 |
| 22 | BA | 515 | A | C2-N3-C4 | 19.22 | 120.21 | 110.60 |
| 22 | BA | 727 | A | N1-C6-N6 | -19.22 | 107.06 | 118.60 |
| 22 | BA | 190 | A | N1-C6-N6 | -19.22 | 107.07 | 118.60 |
| 1 | AA | 119 | A | N1-C6-N6 | -19.22 | 107.07 | 118.60 |
| 22 | BA | 294 | A | N1-C2-N3 | -19.22 | 119.69 | 129.30 |
| 22 | BA | 1359 | A | N1-C2-N3 | -19.22 | 119.69 | 129.30 |
| 22 | BA | 1403 | A | C2-N3-C4 | 19.22 | 120.21 | 110.60 |
| 1 | AA | 553 | A | N1-C6-N6 | -19.22 | 107.07 | 118.60 |
| 1 | AA | 1269 | A | N1-C6-N6 | -19.22 | 107.07 | 118.60 |
| 22 | BA | 1272 | A | N1-C6-N6 | -19.22 | 107.07 | 118.60 |
| 22 | BA | 602 | A | C2-N3-C4 | 19.21 | 120.21 | 110.60 |
| 22 | BA | 2765 | A | C2-N3-C4 | 19.21 | 120.21 | 110.60 |
| 23 | BB | 99 | A | N1-C6-N6 | -19.21 | 107.07 | 118.60 |
| 22 | BA | 899 | A | N1-C6-N6 | -19.21 | 107.08 | 118.60 |
| 22 | BA | 1020 | A | N1-C2-N3 | -19.21 | 119.70 | 129.30 |
| 22 | BA | 1936 | A | N1-C6-N6 | -19.21 | 107.08 | 118.60 |
| 55 | B8 | 6 | A | N1-C2-N3 | -19.21 | 119.70 | 129.30 |
| 22 | BA | 1762 | A | C2-N3-C4 | 19.21 | 120.20 | 110.60 |
| 22 | BA | 2266 | A | N1-C6-N6 | -19.21 | 107.08 | 118.60 |
| 22 | BA | 706 | A | N1-C6-N6 | -19.20 | 107.08 | 118.60 |
| 55 | B8 | 42 | A | N1-C6-N6 | -19.20 | 107.08 | 118.60 |
| 22 | BA | 2577 | A | N1-C6-N6 | -19.20 | 107.08 | 118.60 |
| 1 | AA | 621 | A | N1-C6-N6 | -19.20 | 107.08 | 118.60 |
| 22 | BA | 74 | A | N1-C6-N6 | -19.20 | 107.08 | 118.60 |
| 1 | AA | 274 | A | N1-C6-N6 | -19.19 | 107.08 | 118.60 |
| 55 | B8 | 76 | A | N1-C2-N3 | -19.19 | 119.70 | 129.30 |
| 22 | BA | 1504 | A | N1-C6-N6 | -19.19 | 107.09 | 118.60 |
| 22 | BA | 241 | A | N1-C2-N3 | -19.19 | 119.71 | 129.30 |
| 55 | B8 | 58 | A | C2-N3-C4 | 19.19 | 120.19 | 110.60 |
| 22 | BA | 1496 | A | C2-N3-C4 | 19.19 | 120.19 | 110.60 |
| 22 | BA | 223 | A | N1-C2-N3 | -19.18 | 119.71 | 129.30 |
| 22 | BA | 1579 | A | N1-C6-N6 | -19.18 | 107.09 | 118.60 |
| 22 | BA | 2566 | A | N1-C6-N6 | -19.18 | 107.09 | 118.60 |
| 1 | AA | 583 | A | N1-C6-N6 | -19.18 | 107.09 | 118.60 |
| 22 | BA | 1570 | A | N1-C2-N3 | -19.18 | 119.71 | 129.30 |
| 1 | AA | 313 | A | N1-C6-N6 | -19.18 | 107.09 | 118.60 |
| 22 | BA | 2469 | A | N1-C2-N3 | -19.18 | 119.71 | 129.30 |
| 1 | AA | 872 | A | N1-C6-N6 | -19.17 | 107.10 | 118.60 |
| 22 | BA | 800 | A | N1-C2-N3 | -19.17 | 119.71 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2736 | A | C2-N3-C4 | 19.17 | 120.19 | 110.60 |
| 22 | BA | 2101 | A | N1-C6-N6 | -19.17 | 107.10 | 118.60 |
| 22 | BA | 1254 | A | N1-C6-N6 | -19.17 | 107.10 | 118.60 |
| 22 | BA | 1739 | A | C2-N3-C4 | 19.16 | 120.18 | 110.60 |
| 22 | BA | 2247 | A | C2-N3-C4 | 19.16 | 120.18 | 110.60 |
| 22 | BA | 1544 | A | N1-C2-N3 | -19.16 | 119.72 | 129.30 |
| 22 | BA | 2059 | A | N1-C6-N6 | -19.16 | 107.11 | 118.60 |
| 22 | BA | 764 | A | C2-N3-C4 | 19.16 | 120.18 | 110.60 |
| 22 | BA | 1626 | A | N1-C2-N3 | -19.16 | 119.72 | 129.30 |
| 22 | BA | 1383 | A | N1-C6-N6 | -19.16 | 107.11 | 118.60 |
| 22 | BA | 346 | A | N1-C6-N6 | -19.15 | 107.11 | 118.60 |
| 22 | BA | 877 | A | N1-C6-N6 | -19.15 | 107.11 | 118.60 |
| 22 | BA | 2005 | A | N1-C2-N3 | -19.15 | 119.72 | 129.30 |
| 1 | AA | 665 | A | N1-C2-N3 | -19.15 | 119.73 | 129.30 |
| 22 | BA | 199 | A | C2-N3-C4 | 19.15 | 120.17 | 110.60 |
| 1 | AA | 179 | A | N1-C6-N6 | -19.15 | 107.11 | 118.60 |
| 22 | BA | 340 | A | N1-C6-N6 | -19.15 | 107.11 | 118.60 |
| 22 | BA | 793 | A | N1-C2-N3 | -19.14 | 119.73 | 129.30 |
| 22 | BA | 2134 | A | N1-C6-N6 | -19.14 | 107.11 | 118.60 |
| 22 | BA | 668 | A | N1-C2-N3 | -19.14 | 119.73 | 129.30 |
| 22 | BA | 222 | A | C2-N3-C4 | 19.14 | 120.17 | 110.60 |
| 22 | BA | 2080 | A | N1-C6-N6 | -19.14 | 107.12 | 118.60 |
| 22 | BA | 2748 | A | N1-C2-N3 | -19.13 | 119.73 | 129.30 |
| 22 | BA | 1327 | A | N1-C6-N6 | -19.13 | 107.12 | 118.60 |
| 22 | BA | 1378 | A | C2-N3-C4 | 19.13 | 120.16 | 110.60 |
| 22 | BA | 1932 | A | N1-C6-N6 | -19.13 | 107.12 | 118.60 |
| 22 | BA | 2882 | A | C2-N3-C4 | 19.13 | 120.16 | 110.60 |
| 1 | AA | 892 | A | C2-N3-C4 | 19.12 | 120.16 | 110.60 |
| 55 | B8 | 42 | A | N1-C2-N3 | -19.12 | 119.74 | 129.30 |
| 1 | AA | 60 | A | N1-C2-N3 | -19.12 | 119.74 | 129.30 |
| 22 | BA | 541 | A | C2-N3-C4 | 19.12 | 120.16 | 110.60 |
| 22 | BA | 1142 | A | N1-C6-N6 | -19.12 | 107.13 | 118.60 |
| 22 | BA | 1794 | A | C2-N3-C4 | 19.12 | 120.16 | 110.60 |
| 22 | BA | 457 | A | C2-N3-C4 | 19.12 | 120.16 | 110.60 |
| 22 | BA | 1848 | A | N1-C2-N3 | -19.12 | 119.74 | 129.30 |
| 22 | BA | 2411 | A | C2-N3-C4 | 19.12 | 120.16 | 110.60 |
| 22 | BA | 204 | A | N1-C6-N6 | -19.11 | 107.13 | 118.60 |
| 22 | BA | 789 | A | N1-C6-N6 | -19.11 | 107.13 | 118.60 |
| 22 | BA | 1453 | A | N1-C6-N6 | -19.11 | 107.13 | 118.60 |
| 22 | BA | 2054 | A | C2-N3-C4 | 19.11 | 120.16 | 110.60 |
| 1 | AA | 816 | A | C2-N3-C4 | 19.11 | 120.16 | 110.60 |
| 22 | BA | 1525 | A | N1-C2-N3 | -19.11 | 119.74 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 431 | A | N1-C2-N3 | -19.11 | 119.75 | 129.30 |
| 22 | BA | 439 | A | C2-N3-C4 | 19.11 | 120.16 | 110.60 |
| 22 | BA | 2639 | A | N1-C6-N6 | -19.11 | 107.13 | 118.60 |
| 22 | BA | 2211 | A | N1-C6-N6 | -19.11 | 107.14 | 118.60 |
| 22 | BA | 219 | A | C2-N3-C4 | 19.10 | 120.15 | 110.60 |
| 1 | AA | 1022 | A | N1-C6-N6 | -19.10 | 107.14 | 118.60 |
| 22 | BA | 2314 | A | N1-C6-N6 | -19.09 | 107.14 | 118.60 |
| 22 | BA | 2376 | A | N1-C2-N3 | -19.09 | 119.75 | 129.30 |
| 1 | AA | 1349 | A | N1-C6-N6 | -19.09 | 107.15 | 118.60 |
| 55 | B8 | 73 | A | N1-C2-N3 | -19.09 | 119.76 | 129.30 |
| 1 | AA | 81 | A | N1-C6-N6 | -19.09 | 107.15 | 118.60 |
| 22 | BA | 1008 | A | N1-C6-N6 | -19.09 | 107.15 | 118.60 |
| 55 | B8 | 51 | A | N1-C2-N3 | -19.09 | 119.76 | 129.30 |
| 22 | BA | 1342 | A | N1-C6-N6 | -19.08 | 107.15 | 118.60 |
| 22 | BA | 1156 | A | C2-N3-C4 | 19.08 | 120.14 | 110.60 |
| 22 | BA | 2062 | A | N1-C6-N6 | -19.08 | 107.15 | 118.60 |
| 1 | AA | 1456 | A | N1-C6-N6 | -19.08 | 107.15 | 118.60 |
| 22 | BA | 984 | A | C2-N3-C4 | 19.08 | 120.14 | 110.60 |
| 22 | BA | 2439 | A | C2-N3-C4 | 19.08 | 120.14 | 110.60 |
| 22 | BA | 739 | A | C2-N3-C4 | 19.07 | 120.14 | 110.60 |
| 22 | BA | 1490 | A | N1-C6-N6 | -19.07 | 107.16 | 118.60 |
| 1 | AA | 197 | A | N1-C2-N3 | -19.07 | 119.77 | 129.30 |
| 1 | AA | 1179 | A | N1-C6-N6 | -19.07 | 107.16 | 118.60 |
| 1 | AA | 1191 | A | C2-N3-C4 | 19.07 | 120.14 | 110.60 |
| 22 | BA | 821 | A | C2-N3-C4 | 19.07 | 120.14 | 110.60 |
| 1 | AA | 1513 | A | N1-C6-N6 | -19.07 | 107.16 | 118.60 |
| 22 | BA | 2173 | A | N1-C6-N6 | -19.07 | 107.16 | 118.60 |
| 22 | BA | 920 | A | C2-N3-C4 | 19.07 | 120.13 | 110.60 |
| 1 | AA | 1333 | A | C2-N3-C4 | 19.07 | 120.13 | 110.60 |
| 22 | BA | 94 | A | N1-C6-N6 | -19.06 | 107.16 | 118.60 |
| 22 | BA | 2003 | A | N1-C6-N6 | -19.06 | 107.16 | 118.60 |
| 1 | AA | 182 | A | N1-C6-N6 | -19.06 | 107.17 | 118.60 |
| 22 | BA | 899 | A | C2-N3-C4 | 19.06 | 120.13 | 110.60 |
| 22 | BA | 2635 | A | C2-N3-C4 | 19.05 | 120.13 | 110.60 |
| 22 | BA | 2738 | A | N1-C6-N6 | -19.05 | 107.17 | 118.60 |
| 22 | BA | 1301 | A | N1-C6-N6 | -19.05 | 107.17 | 118.60 |
| 1 | AA | 787 | A | N1-C2-N3 | -19.05 | 119.77 | 129.30 |
| 22 | BA | 1901 | A | N1-C6-N6 | -19.05 | 107.17 | 118.60 |
| 1 | AA | 1188 | A | N1-C6-N6 | -19.05 | 107.17 | 118.60 |
| 22 | BA | 1264 | A | N1-C2-N3 | -19.05 | 119.78 | 129.30 |
| 1 | AA | 715 | A | C2-N3-C4 | 19.05 | 120.12 | 110.60 |
| 22 | BA | 2434 | A | N1-C6-N6 | -19.05 | 107.17 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 5 | A | C2-N3-C4 | 19.04 | 120.12 | 110.60 |
| 22 | BA | 1204 | A | N1-C2-N3 | -19.04 | 119.78 | 129.30 |
| 22 | BA | 513 | A | C2-N3-C4 | 19.04 | 120.12 | 110.60 |
| 22 | BA | 1698 | A | N1-C6-N6 | -19.04 | 107.18 | 118.60 |
| 22 | BA | 1265 | A | C2-N3-C4 | 19.04 | 120.12 | 110.60 |
| 22 | BA | 2439 | A | N1-C2-N3 | -19.04 | 119.78 | 129.30 |
| 1 | AA | 7 | A | N1-C6-N6 | -19.03 | 107.18 | 118.60 |
| 22 | BA | 1395 | A | N1-C2-N3 | -19.03 | 119.78 | 129.30 |
| 22 | BA | 988 | A | C2-N3-C4 | 19.03 | 120.12 | 110.60 |
| 22 | BA | 2070 | A | C2-N3-C4 | 19.03 | 120.11 | 110.60 |
| 22 | BA | 1286 | A | C2-N3-C4 | 19.03 | 120.11 | 110.60 |
| 22 | BA | 2051 | A | C2-N3-C4 | 19.02 | 120.11 | 110.60 |
| 22 | BA | 1286 | A | N1-C2-N3 | -19.02 | 119.79 | 129.30 |
| 1 | AA | 336 | A | N1-C6-N6 | -19.02 | 107.19 | 118.60 |
| 1 | AA | 1476 | A | C2-N3-C4 | 19.02 | 120.11 | 110.60 |
| 22 | BA | 1470 | A | C2-N3-C4 | 19.02 | 120.11 | 110.60 |
| 22 | BA | 1932 | A | N1-C2-N3 | -19.02 | 119.79 | 129.30 |
| 1 | AA | 356 | A | C2-N3-C4 | 19.02 | 120.11 | 110.60 |
| 22 | BA | 346 | A | N1-C2-N3 | -19.02 | 119.79 | 129.30 |
| 22 | BA | 1142 | A | C2-N3-C4 | 19.02 | 120.11 | 110.60 |
| 22 | BA | 10 | A | N1-C2-N3 | -19.01 | 119.79 | 129.30 |
| 22 | BA | 609 | A | N1-C6-N6 | -19.01 | 107.19 | 118.60 |
| 22 | BA | 892 | A | N1-C6-N6 | -19.01 | 107.19 | 118.60 |
| 1 | AA | 539 | A | C2-N3-C4 | 19.01 | 120.11 | 110.60 |
| 22 | BA | 941 | A | C2-N3-C4 | 19.01 | 120.11 | 110.60 |
| 1 | AA | 712 | A | C2-N3-C4 | 19.01 | 120.11 | 110.60 |
| 22 | BA | 819 | A | C2-N3-C4 | 19.01 | 120.11 | 110.60 |
| 22 | BA | 1759 | A | N1-C2-N3 | -19.00 | 119.80 | 129.30 |
| 1 | AA | 313 | A | N1-C2-N3 | -19.00 | 119.80 | 129.30 |
| 22 | BA | 2352 | A | N1-C6-N6 | -19.00 | 107.20 | 118.60 |
| 1 | AA | 975 | A | N1-C6-N6 | -19.00 | 107.20 | 118.60 |
| 55 | B8 | 73 | A | C2-N3-C4 | 19.00 | 120.10 | 110.60 |
| 22 | BA | 1175 | A | N1-C6-N6 | -18.99 | 107.20 | 118.60 |
| 22 | BA | 1495 | A | N1-C6-N6 | -18.99 | 107.21 | 118.60 |
| 22 | BA | 2468 | A | N1-C2-N3 | -18.99 | 119.81 | 129.30 |
| 22 | BA | 973 | A | N1-C2-N3 | -18.99 | 119.81 | 129.30 |
| 22 | BA | 2346 | A | N1-C6-N6 | -18.99 | 107.21 | 118.60 |
| 1 | AA | 1145 | A | N1-C6-N6 | -18.98 | 107.21 | 118.60 |
| 22 | BA | 1028 | A | N1-C6-N6 | -18.98 | 107.21 | 118.60 |
| 22 | BA | 1598 | A | N1-C2-N3 | -18.98 | 119.81 | 129.30 |
| 22 | BA | 2267 | A | C2-N3-C4 | 18.98 | 120.09 | 110.60 |
| 1 | AA | 1201 | A | C2-N3-C4 | 18.98 | 120.09 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 815 | A | N1-C6-N6 | -18.98 | 107.21 | 118.60 |
| 22 | BA | 2311 | A | N1-C6-N6 | -18.98 | 107.21 | 118.60 |
| 22 | BA | 1815 | A | N1-C2-N3 | -18.98 | 119.81 | 129.30 |
| 1 | AA | 196 | A | N1-C6-N6 | -18.98 | 107.21 | 118.60 |
| 22 | BA | 2020 | A | C2-N3-C4 | 18.98 | 120.09 | 110.60 |
| 22 | BA | 2406 | A | C2-N3-C4 | 18.98 | 120.09 | 110.60 |
| 22 | BA | 111 | A | C2-N3-C4 | 18.97 | 120.09 | 110.60 |
| 22 | BA | 1952 | A | N1-C2-N3 | -18.97 | 119.81 | 129.30 |
| 22 | BA | 2778 | A | C2-N3-C4 | 18.97 | 120.09 | 110.60 |
| 22 | BA | 1809 | A | N1-C2-N3 | -18.97 | 119.82 | 129.30 |
| 22 | BA | 2298 | A | N1-C6-N6 | -18.97 | 107.22 | 118.60 |
| 22 | BA | 1244 | A | N1-C2-N3 | -18.97 | 119.82 | 129.30 |
| 22 | BA | 1981 | A | N1-C6-N6 | -18.97 | 107.22 | 118.60 |
| 22 | BA | 2453 | A | N1-C6-N6 | -18.97 | 107.22 | 118.60 |
| 22 | BA | 1616 | A | N1-C6-N6 | -18.96 | 107.22 | 118.60 |
| 1 | AA | 1499 | A | N1-C6-N6 | -18.96 | 107.22 | 118.60 |
| 22 | BA | 1144 | A | C2-N3-C4 | 18.96 | 120.08 | 110.60 |
| 22 | BA | 2682 | A | C2-N3-C4 | 18.96 | 120.08 | 110.60 |
| 22 | BA | 2212 | A | N1-C2-N3 | -18.96 | 119.82 | 129.30 |
| 1 | AA | 1434 | A | N1-C6-N6 | -18.95 | 107.23 | 118.60 |
| 22 | BA | 91 | A | N1-C6-N6 | -18.95 | 107.23 | 118.60 |
| 22 | BA | 804 | A | N1-C2-N3 | -18.95 | 119.82 | 129.30 |
| 1 | AA | 768 | A | N1-C6-N6 | -18.95 | 107.23 | 118.60 |
| 22 | BA | 160 | A | N1-C2-N3 | -18.95 | 119.82 | 129.30 |
| 22 | BA | 231 | A | N1-C6-N6 | -18.95 | 107.23 | 118.60 |
| 22 | BA | 627 | A | N1-C2-N3 | -18.95 | 119.82 | 129.30 |
| 1 | AA | 152 | A | C2-N3-C4 | 18.95 | 120.08 | 110.60 |
| 22 | BA | 1569 | A | C2-N3-C4 | 18.95 | 120.07 | 110.60 |
| 22 | BA | 2887 | A | N1-C6-N6 | -18.95 | 107.23 | 118.60 |
| 22 | BA | 2734 | A | C2-N3-C4 | 18.95 | 120.07 | 110.60 |
| 1 | AA | 1394 | A | N1-C2-N3 | -18.95 | 119.83 | 129.30 |
| 22 | BA | 925 | A | C2-N3-C4 | 18.95 | 120.07 | 110.60 |
| 22 | BA | 1637 | A | N1-C6-N6 | -18.95 | 107.23 | 118.60 |
| 22 | BA | 878 | A | N1-C6-N6 | -18.95 | 107.23 | 118.60 |
| 22 | BA | 2090 | A | C2-N3-C4 | 18.94 | 120.07 | 110.60 |
| 22 | BA | 2541 | A | C2-N3-C4 | 18.94 | 120.07 | 110.60 |
| 1 | AA | 554 | A | N1-C6-N6 | -18.94 | 107.24 | 118.60 |
| 1 | AA | 673 | A | N1-C6-N6 | -18.94 | 107.24 | 118.60 |
| 1 | AA | 825 | A | C2-N3-C4 | 18.94 | 120.07 | 110.60 |
| 22 | BA | 1549 | A | C2-N3-C4 | 18.94 | 120.07 | 110.60 |
| 1 | AA | 414 | A | N1-C6-N6 | -18.94 | 107.24 | 118.60 |
| 22 | BA | 2451 | A | N1-C2-N3 | -18.94 | 119.83 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 675 | A | N1-C6-N6 | -18.94 | 107.24 | 118.60 |
| 22 | BA | 13 | A | C2-N3-C4 | 18.94 | 120.07 | 110.60 |
| 22 | BA | 1477 | A | N1-C2-N3 | -18.94 | 119.83 | 129.30 |
| 1 | AA | 1340 | A | C2-N3-C4 | 18.93 | 120.07 | 110.60 |
| 22 | BA | 943 | A | C2-N3-C4 | 18.93 | 120.07 | 110.60 |
| 22 | BA | 2147 | A | N1-C6-N6 | -18.93 | 107.24 | 118.60 |
| 22 | BA | 2850 | A | N1-C6-N6 | -18.93 | 107.24 | 118.60 |
| 22 | BA | 127 | A | N1-C2-N3 | -18.93 | 119.84 | 129.30 |
| 1 | AA | 197 | A | N1-C6-N6 | -18.93 | 107.24 | 118.60 |
| 22 | BA | 1385 | A | N1-C6-N6 | -18.93 | 107.25 | 118.60 |
| 22 | BA | 1937 | A | C2-N3-C4 | 18.92 | 120.06 | 110.60 |
| 1 | AA | 977 | A | C2-N3-C4 | 18.92 | 120.06 | 110.60 |
| 22 | BA | 402 | A | N1-C6-N6 | -18.92 | 107.25 | 118.60 |
| 1 | AA | 1016 | A | N1-C6-N6 | -18.92 | 107.25 | 118.60 |
| 22 | BA | 1548 | A | C2-N3-C4 | 18.92 | 120.06 | 110.60 |
| 22 | BA | 608 | A | N1-C6-N6 | -18.92 | 107.25 | 118.60 |
| 22 | BA | 1593 | A | C2-N3-C4 | 18.92 | 120.06 | 110.60 |
| 1 | AA | 32 | A | C2-N3-C4 | 18.91 | 120.06 | 110.60 |
| 22 | BA | 432 | A | C2-N3-C4 | 18.91 | 120.06 | 110.60 |
| 55 | B8 | 41 | A | C2-N3-C4 | 18.91 | 120.06 | 110.60 |
| 55 | B8 | 73 | A | N1-C6-N6 | -18.91 | 107.25 | 118.60 |
| 1 | AA | 878 | A | N1-C6-N6 | -18.91 | 107.25 | 118.60 |
| 1 | AA | 1246 | A | N1-C6-N6 | -18.91 | 107.25 | 118.60 |
| 22 | BA | 819 | A | N1-C6-N6 | -18.91 | 107.25 | 118.60 |
| 22 | BA | 2564 | A | C2-N3-C4 | 18.91 | 120.05 | 110.60 |
| 22 | BA | 2766 | A | C2-N3-C4 | 18.91 | 120.05 | 110.60 |
| 1 | AA | 949 | A | C2-N3-C4 | 18.91 | 120.05 | 110.60 |
| 22 | BA | 1571 | A | C2-N3-C4 | 18.91 | 120.05 | 110.60 |
| 22 | BA | 1885 | A | N1-C2-N3 | -18.90 | 119.85 | 129.30 |
| 22 | BA | 371 | A | N1-C6-N6 | -18.90 | 107.26 | 118.60 |
| 22 | BA | 861 | A | C2-N3-C4 | 18.90 | 120.05 | 110.60 |
| 22 | BA | 2042 | A | N1-C2-N3 | -18.90 | 119.85 | 129.30 |
| 22 | BA | 1571 | A | N1-C2-N3 | -18.90 | 119.85 | 129.30 |
| 22 | BA | 265 | A | N1-C2-N3 | -18.90 | 119.85 | 129.30 |
| 22 | BA | 1070 | A | N1-C6-N6 | -18.90 | 107.26 | 118.60 |
| 22 | BA | 1640 | A | N1-C6-N6 | -18.90 | 107.26 | 118.60 |
| 22 | BA | 1784 | A | N1-C2-N3 | -18.90 | 119.85 | 129.30 |
| 23 | BB | 29 | A | N1-C6-N6 | -18.90 | 107.26 | 118.60 |
| 1 | AA | 152 | A | N1-C2-N3 | -18.89 | 119.85 | 129.30 |
| 1 | AA | 1239 | A | N1-C2-N3 | -18.89 | 119.85 | 129.30 |
| 22 | BA | 643 | A | N1-C2-N3 | -18.89 | 119.85 | 129.30 |
| 22 | BA | 2590 | A | C2-N3-C4 | 18.89 | 120.05 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2657 | A | N1-C2-N3 | -18.89 | 119.85 | 129.30 |
| 22 | BA | 2478 | A | C2-N3-C4 | 18.89 | 120.05 | 110.60 |
| 22 | BA | 2518 | A | C2-N3-C4 | 18.89 | 120.05 | 110.60 |
| 1 | AA | 116 | A | N1-C6-N6 | -18.89 | 107.27 | 118.60 |
| 22 | BA | 1127 | A | N1-C6-N6 | -18.89 | 107.27 | 118.60 |
| 22 | BA | 1213 | A | C2-N3-C4 | 18.89 | 120.04 | 110.60 |
| 22 | BA | 2872 | A | C5-C6-N6 | 18.88 | 138.81 | 123.70 |
| 1 | AA | 496 | A | N1-C2-N3 | -18.88 | 119.86 | 129.30 |
| 22 | BA | 1535 | A | N1-C6-N6 | -18.88 | 107.27 | 118.60 |
| 1 | AA | 935 | A | C2-N3-C4 | 18.88 | 120.04 | 110.60 |
| 22 | BA | 2340 | A | N1-C2-N3 | -18.88 | 119.86 | 129.30 |
| 22 | BA | 1155 | A | N1-C2-N3 | -18.88 | 119.86 | 129.30 |
| 22 | BA | 2459 | A | C2-N3-C4 | 18.88 | 120.04 | 110.60 |
| 22 | BA | 332 | A | N1-C2-N3 | -18.88 | 119.86 | 129.30 |
| 1 | AA | 243 | A | N1-C6-N6 | -18.87 | 107.28 | 118.60 |
| 22 | BA | 670 | A | C2-N3-C4 | 18.87 | 120.04 | 110.60 |
| 1 | AA | 1248 | A | N1-C6-N6 | -18.87 | 107.28 | 118.60 |
| 22 | BA | 802 | A | N1-C6-N6 | -18.87 | 107.28 | 118.60 |
| 22 | BA | 972 | A | N1-C2-N3 | -18.87 | 119.86 | 129.30 |
| 1 | AA | 353 | A | N1-C6-N6 | -18.87 | 107.28 | 118.60 |
| 22 | BA | 2119 | A | N1-C6-N6 | -18.87 | 107.28 | 118.60 |
| 22 | BA | 501 | A | N1-C6-N6 | -18.87 | 107.28 | 118.60 |
| 22 | BA | 507 | A | C2-N3-C4 | 18.87 | 120.03 | 110.60 |
| 22 | BA | 165 | A | C2-N3-C4 | 18.86 | 120.03 | 110.60 |
| 22 | BA | 310 | A | C2-N3-C4 | 18.86 | 120.03 | 110.60 |
| 22 | BA | 453 | A | C2-N3-C4 | 18.86 | 120.03 | 110.60 |
| 22 | BA | 1916 | A | N1-C6-N6 | -18.86 | 107.28 | 118.60 |
| 22 | BA | 2095 | A | N1-C6-N6 | -18.86 | 107.28 | 118.60 |
| 22 | BA | 1434 | A | N1-C2-N3 | -18.86 | 119.87 | 129.30 |
| 1 | AA | 353 | A | C2-N3-C4 | 18.86 | 120.03 | 110.60 |
| 1 | AA | 1225 | A | N1-C6-N6 | -18.86 | 107.28 | 118.60 |
| 1 | AA | 1480 | A | N1-C6-N6 | -18.86 | 107.28 | 118.60 |
| 22 | BA | 415 | A | N1-C2-N3 | -18.86 | 119.87 | 129.30 |
| 22 | BA | 637 | A | C2-N3-C4 | 18.86 | 120.03 | 110.60 |
| 22 | BA | 735 | A | C2-N3-C4 | 18.86 | 120.03 | 110.60 |
| 22 | BA | 1419 | A | N1-C6-N6 | -18.86 | 107.28 | 118.60 |
| 22 | BA | 2835 | A | C2-N3-C4 | 18.86 | 120.03 | 110.60 |
| 22 | BA | 1001 | A | C2-N3-C4 | 18.86 | 120.03 | 110.60 |
| 22 | BA | 1264 | A | C2-N3-C4 | 18.86 | 120.03 | 110.60 |
| 22 | BA | 1744 | A | N1-C6-N6 | -18.86 | 107.28 | 118.60 |
| 22 | BA | 1640 | A | N1-C2-N3 | -18.86 | 119.87 | 129.30 |
| 22 | BA | 265 | A | C2-N3-C4 | 18.85 | 120.03 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1794 | A | N1-C2-N3 | -18.85 | 119.87 | 129.30 |
| 22 | BA | 2632 | A | N1-C6-N6 | -18.85 | 107.29 | 118.60 |
| 1 | AA | 622 | A | N1-C2-N3 | -18.85 | 119.87 | 129.30 |
| 1 | AA | 1019 | A | N1-C6-N6 | -18.85 | 107.29 | 118.60 |
| 1 | AA | 1110 | A | N1-C6-N6 | -18.85 | 107.29 | 118.60 |
| 22 | BA | 655 | A | N1-C6-N6 | -18.85 | 107.29 | 118.60 |
| 22 | BA | 515 | A | N1-C2-N3 | -18.85 | 119.88 | 129.30 |
| 22 | BA | 1901 | A | C2-N3-C4 | 18.85 | 120.03 | 110.60 |
| 22 | BA | 479 | A | C2-N3-C4 | 18.85 | 120.02 | 110.60 |
| 1 | AA | 949 | A | N1-C6-N6 | -18.84 | 107.29 | 118.60 |
| 22 | BA | 1803 | A | N1-C2-N3 | -18.84 | 119.88 | 129.30 |
| 22 | BA | 2823 | A | N1-C2-N3 | -18.84 | 119.88 | 129.30 |
| 22 | BA | 1551 | A | C2-N3-C4 | 18.84 | 120.02 | 110.60 |
| 22 | BA | 2726 | A | N1-C2-N3 | -18.84 | 119.88 | 129.30 |
| 1 | AA | 1238 | A | C2-N3-C4 | 18.84 | 120.02 | 110.60 |
| 22 | BA | 64 | A | C2-N3-C4 | 18.84 | 120.02 | 110.60 |
| 22 | BA | 231 | A | C2-N3-C4 | 18.84 | 120.02 | 110.60 |
| 22 | BA | 1129 | A | N1-C2-N3 | -18.84 | 119.88 | 129.30 |
| 1 | AA | 98 | A | N1-C6-N6 | -18.84 | 107.30 | 118.60 |
| 1 | AA | 573 | A | C2-N3-C4 | 18.84 | 120.02 | 110.60 |
| 1 | AA | 1363 | A | C2-N3-C4 | 18.84 | 120.02 | 110.60 |
| 22 | BA | 508 | A | N1-C2-N3 | -18.83 | 119.88 | 129.30 |
| 22 | BA | 1359 | A | N1-C6-N6 | -18.83 | 107.30 | 118.60 |
| 1 | AA | 915 | A | N1-C2-N3 | -18.83 | 119.88 | 129.30 |
| 22 | BA | 1717 | A | N1-C6-N6 | -18.83 | 107.30 | 118.60 |
| 22 | BA | 699 | A | C2-N3-C4 | 18.83 | 120.02 | 110.60 |
| 22 | BA | 2639 | A | N1-C2-N3 | -18.83 | 119.89 | 129.30 |
| 22 | BA | 1630 | A | N1-C2-N3 | -18.83 | 119.89 | 129.30 |
| 22 | BA | 1960 | A | C2-N3-C4 | 18.83 | 120.01 | 110.60 |
| 1 | AA | 288 | A | C2-N3-C4 | 18.83 | 120.01 | 110.60 |
| 1 | AA | 478 | A | N1-C6-N6 | -18.83 | 107.30 | 118.60 |
| 22 | BA | 217 | A | C2-N3-C4 | 18.83 | 120.01 | 110.60 |
| 22 | BA | 1086 | A | N1-C2-N3 | -18.83 | 119.89 | 129.30 |
| 22 | BA | 1978 | A | N1-C2-N3 | -18.83 | 119.89 | 129.30 |
| 1 | AA | 1250 | A | N1-C6-N6 | -18.82 | 107.31 | 118.60 |
| 22 | BA | 2117 | A | N1-C2-N3 | -18.82 | 119.89 | 129.30 |
| 22 | BA | 2173 | A | C2-N3-C4 | 18.82 | 120.01 | 110.60 |
| 22 | BA | 2778 | A | N1-C2-N3 | -18.82 | 119.89 | 129.30 |
| 1 | AA | 336 | A | N1-C2-N3 | -18.82 | 119.89 | 129.30 |
| 22 | BA | 1978 | A | C2-N3-C4 | 18.82 | 120.01 | 110.60 |
| 22 | BA | 2711 | A | C2-N3-C4 | 18.82 | 120.01 | 110.60 |
| 22 | BA | 1237 | A | N1-C2-N3 | -18.82 | 119.89 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1791 | A | N1-C2-N3 | -18.82 | 119.89 | 129.30 |
| 1 | AA | 913 | A | N1-C2-N3 | -18.81 | 119.89 | 129.30 |
| 22 | BA | 1322 | A | N1-C6-N6 | -18.81 | 107.31 | 118.60 |
| 22 | BA | 2516 | A | C2-N3-C4 | 18.81 | 120.01 | 110.60 |
| 22 | BA | 1802 | A | N1-C6-N6 | -18.81 | 107.31 | 118.60 |
| 22 | BA | 1327 | A | C2-N3-C4 | 18.81 | 120.00 | 110.60 |
| 22 | BA | 199 | A | N1-C2-N3 | -18.81 | 119.90 | 129.30 |
| 22 | BA | 265 | A | N1-C6-N6 | -18.81 | 107.31 | 118.60 |
| 22 | BA | 432 | A | N1-C6-N6 | -18.81 | 107.31 | 118.60 |
| 22 | BA | 990 | A | C2-N3-C4 | 18.81 | 120.00 | 110.60 |
| 22 | BA | 1701 | A | N1-C6-N6 | -18.81 | 107.31 | 118.60 |
| 55 | B8 | 51 | A | C2-N3-C4 | 18.80 | 120.00 | 110.60 |
| 1 | AA | 364 | A | N1-C6-N6 | -18.80 | 107.32 | 118.60 |
| 22 | BA | 300 | A | N1-C2-N3 | -18.80 | 119.90 | 129.30 |
| 22 | BA | 1759 | A | N1-C6-N6 | -18.80 | 107.32 | 118.60 |
| 22 | BA | 1772 | A | N1-C6-N6 | -18.80 | 107.32 | 118.60 |
| 23 | BB | 78 | A | C2-N3-C4 | 18.80 | 120.00 | 110.60 |
| 1 | AA | 1014 | A | N1-C6-N6 | -18.80 | 107.32 | 118.60 |
| 22 | BA | 422 | A | C2-N3-C4 | 18.80 | 120.00 | 110.60 |
| 22 | BA | 1275 | A | N1-C2-N3 | -18.80 | 119.90 | 129.30 |
| 22 | BA | 2426 | A | N1-C2-N3 | -18.80 | 119.90 | 129.30 |
| 22 | BA | 2733 | A | N1-C6-N6 | -18.80 | 107.32 | 118.60 |
| 1 | AA | 596 | A | C2-N3-C4 | 18.80 | 120.00 | 110.60 |
| 22 | BA | 42 | A | N1-C2-N3 | -18.80 | 119.90 | 129.30 |
| 22 | BA | 661 | A | N1-C2-N3 | -18.80 | 119.90 | 129.30 |
| 22 | BA | 1008 | A | N1-C2-N3 | -18.80 | 119.90 | 129.30 |
| 22 | BA | 1342 | A | N1-C2-N3 | -18.80 | 119.90 | 129.30 |
| 22 | BA | 1668 | A | N1-C2-N3 | -18.80 | 119.90 | 129.30 |
| 1 | AA | 523 | A | N1-C2-N3 | -18.79 | 119.90 | 129.30 |
| 1 | AA | 1225 | A | C2-N3-C4 | 18.79 | 119.99 | 110.60 |
| 22 | BA | 2268 | A | N1-C6-N6 | -18.79 | 107.33 | 118.60 |
| 1 | AA | 282 | A | C2-N3-C4 | 18.79 | 119.99 | 110.60 |
| 1 | AA | 309 | A | C2-N3-C4 | 18.79 | 119.99 | 110.60 |
| 22 | BA | 73 | A | N1-C2-N3 | -18.79 | 119.91 | 129.30 |
| 22 | BA | 582 | A | C2-N3-C4 | 18.79 | 119.99 | 110.60 |
| 22 | BA | 2740 | A | N1-C6-N6 | -18.79 | 107.33 | 118.60 |
| 1 | AA | 459 | A | N1-C2-N3 | -18.78 | 119.91 | 129.30 |
| 1 | AA | 1213 | A | N1-C2-N3 | -18.78 | 119.91 | 129.30 |
| 1 | AA | 1428 | A | C2-N3-C4 | 18.78 | 119.99 | 110.60 |
| 22 | BA | 432 | A | N1-C2-N3 | -18.78 | 119.91 | 129.30 |
| 1 | AA | 2 | A | C2-N3-C4 | 18.78 | 119.99 | 110.60 |
| 22 | BA | 429 | A | N1-C2-N3 | -18.78 | 119.91 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 563 | A | N1-C2-N3 | -18.78 | 119.91 | 129.30 |
| 22 | BA | 2468 | A | N1-C6-N6 | -18.78 | 107.33 | 118.60 |
| 1 | AA | 238 | A | N1-C6-N6 | -18.77 | 107.34 | 118.60 |
| 1 | AA | 1035 | A | C2-N3-C4 | 18.77 | 119.99 | 110.60 |
| 22 | BA | 255 | A | C2-N3-C4 | 18.77 | 119.98 | 110.60 |
| 22 | BA | 689 | A | N1-C6-N6 | -18.77 | 107.34 | 118.60 |
| 22 | BA | 2471 | A | N1-C2-N3 | -18.77 | 119.92 | 129.30 |
| 23 | BB | 73 | A | C2-N3-C4 | 18.77 | 119.98 | 110.60 |
| 22 | BA | 2433 | A | N1-C2-N3 | -18.77 | 119.92 | 129.30 |
| 1 | AA | 816 | A | N1-C2-N3 | -18.77 | 119.92 | 129.30 |
| 22 | BA | 1932 | A | C2-N3-C4 | 18.76 | 119.98 | 110.60 |
| 22 | BA | 2094 | A | N1-C6-N6 | -18.76 | 107.34 | 118.60 |
| 22 | BA | 2602 | A | N1-C6-N6 | -18.76 | 107.34 | 118.60 |
| 23 | BB | 104 | A | N1-C6-N6 | -18.76 | 107.34 | 118.60 |
| 22 | BA | 1784 | A | C2-N3-C4 | 18.76 | 119.98 | 110.60 |
| 22 | BA | 125 | A | C2-N3-C4 | 18.76 | 119.98 | 110.60 |
| 22 | BA | 514 | A | C2-N3-C4 | 18.76 | 119.98 | 110.60 |
| 22 | BA | 1194 | A | C2-N3-C4 | 18.76 | 119.98 | 110.60 |
| 22 | BA | 1802 | A | C2-N3-C4 | 18.76 | 119.98 | 110.60 |
| 55 | B8 | 59 | A | N1-C6-N6 | -18.76 | 107.34 | 118.60 |
| 1 | AA | 120 | A | N1-C2-N3 | -18.76 | 119.92 | 129.30 |
| 22 | BA | 1048 | A | N1-C6-N6 | -18.76 | 107.35 | 118.60 |
| 22 | BA | 1395 | A | C2-N3-C4 | 18.76 | 119.98 | 110.60 |
| 22 | BA | 1001 | A | N1-C2-N3 | -18.75 | 119.92 | 129.30 |
| 22 | BA | 1789 | A | C2-N3-C4 | 18.75 | 119.98 | 110.60 |
| 22 | BA | 2635 | A | N1-C6-N6 | -18.75 | 107.35 | 118.60 |
| 1 | AA | 608 | A | C2-N3-C4 | 18.75 | 119.98 | 110.60 |
| 22 | BA | 2761 | A | N1-C6-N6 | -18.75 | 107.35 | 118.60 |
| 22 | BA | 28 | A | N1-C2-N3 | -18.75 | 119.93 | 129.30 |
| 1 | AA | 1188 | A | C2-N3-C4 | 18.75 | 119.97 | 110.60 |
| 22 | BA | 513 | A | N1-C2-N3 | -18.75 | 119.93 | 129.30 |
| 1 | AA | 572 | A | N1-C2-N3 | -18.75 | 119.93 | 129.30 |
| 1 | AA | 913 | A | N1-C6-N6 | -18.75 | 107.35 | 118.60 |
| 22 | BA | 2826 | A | N1-C2-N3 | -18.75 | 119.93 | 129.30 |
| 1 | AA | 655 | A | C2-N3-C4 | 18.74 | 119.97 | 110.60 |
| 1 | AA | 675 | A | C2-N3-C4 | 18.74 | 119.97 | 110.60 |
| 22 | BA | 1175 | A | C2-N3-C4 | 18.74 | 119.97 | 110.60 |
| 1 | AA | 59 | A | C2-N3-C4 | 18.74 | 119.97 | 110.60 |
| 22 | BA | 1597 | A | C2-N3-C4 | 18.74 | 119.97 | 110.60 |
| 1 | AA | 502 | A | C2-N3-C4 | 18.74 | 119.97 | 110.60 |
| 22 | BA | 1548 | A | N1-C2-N3 | -18.74 | 119.93 | 129.30 |
| 1 | AA | 327 | A | C2-N3-C4 | 18.74 | 119.97 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1189 | A | N1-C6-N6 | -18.74 | 107.36 | 118.60 |
| 1 | AA | 60 | A | N1-C6-N6 | -18.74 | 107.36 | 118.60 |
| 22 | BA | 2468 | A | C2-N3-C4 | 18.74 | 119.97 | 110.60 |
| 22 | BA | 104 | A | N1-C6-N6 | -18.73 | 107.36 | 118.60 |
| 22 | BA | 460 | A | C2-N3-C4 | 18.73 | 119.97 | 110.60 |
| 1 | AA | 694 | A | C2-N3-C4 | 18.73 | 119.97 | 110.60 |
| 22 | BA | 1103 | A | N1-C6-N6 | -18.73 | 107.36 | 118.60 |
| 1 | AA | 1377 | A | N1-C6-N6 | -18.73 | 107.36 | 118.60 |
| 22 | BA | 1308 | A | C2-N3-C4 | 18.73 | 119.96 | 110.60 |
| 22 | BA | 320 | A | N1-C6-N6 | -18.73 | 107.36 | 118.60 |
| 22 | BA | 1260 | A | N1-C6-N6 | -18.73 | 107.36 | 118.60 |
| 22 | BA | 2589 | A | C2-N3-C4 | 18.73 | 119.96 | 110.60 |
| 22 | BA | 1069 | A | N1-C6-N6 | -18.72 | 107.37 | 118.60 |
| 22 | BA | 2284 | A | C2-N3-C4 | 18.72 | 119.96 | 110.60 |
| 22 | BA | 2471 | A | C2-N3-C4 | 18.72 | 119.96 | 110.60 |
| 1 | AA | 573 | A | N1-C2-N3 | -18.72 | 119.94 | 129.30 |
| 1 | AA | 1360 | A | N1-C6-N6 | -18.72 | 107.37 | 118.60 |
| 22 | BA | 415 | A | C2-N3-C4 | 18.72 | 119.96 | 110.60 |
| 22 | BA | 526 | A | N1-C6-N6 | -18.72 | 107.37 | 118.60 |
| 22 | BA | 2054 | A | N1-C2-N3 | -18.72 | 119.94 | 129.30 |
| 22 | BA | 2327 | A | N1-C2-N3 | -18.72 | 119.94 | 129.30 |
| 22 | BA | 2274 | A | N1-C6-N6 | -18.71 | 107.37 | 118.60 |
| 22 | BA | 21 | A | N1-C6-N6 | -18.71 | 107.37 | 118.60 |
| 22 | BA | 1262 | A | C2-N3-C4 | 18.71 | 119.95 | 110.60 |
| 22 | BA | 2450 | A | C2-N3-C4 | 18.71 | 119.96 | 110.60 |
| 22 | BA | 2478 | A | N1-C2-N3 | -18.71 | 119.94 | 129.30 |
| 1 | AA | 1044 | A | N1-C6-N6 | -18.71 | 107.38 | 118.60 |
| 22 | BA | 655 | A | N1-C2-N3 | -18.71 | 119.94 | 129.30 |
| 1 | AA | 320 | A | C2-N3-C4 | 18.71 | 119.95 | 110.60 |
| 22 | BA | 497 | A | C2-N3-C4 | 18.70 | 119.95 | 110.60 |
| 22 | BA | 900 | A | N1-C6-N6 | -18.70 | 107.38 | 118.60 |
| 1 | AA | 1285 | A | N1-C2-N3 | -18.70 | 119.95 | 129.30 |
| 1 | AA | 792 | A | C2-N3-C4 | 18.70 | 119.95 | 110.60 |
| 23 | BB | 94 | A | C2-N3-C4 | 18.70 | 119.95 | 110.60 |
| 22 | BA | 342 | A | N1-C2-N3 | -18.70 | 119.95 | 129.30 |
| 22 | BA | 347 | A | C2-N3-C4 | 18.69 | 119.95 | 110.60 |
| 22 | BA | 1630 | A | C2-N3-C4 | 18.69 | 119.95 | 110.60 |
| 22 | BA | 2560 | A | N1-C6-N6 | -18.69 | 107.39 | 118.60 |
| 1 | AA | 533 | A | N1-C6-N6 | -18.69 | 107.39 | 118.60 |
| 22 | BA | 14 | A | C2-N3-C4 | 18.69 | 119.95 | 110.60 |
| 22 | BA | 693 | A | C2-N3-C4 | 18.69 | 119.95 | 110.60 |
| 22 | BA | 1029 | A | N1-C6-N6 | -18.69 | 107.39 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1268 | A | N1-C6-N6 | -18.69 | 107.39 | 118.60 |
| 22 | BA | 176 | A | C2-N3-C4 | 18.69 | 119.94 | 110.60 |
| 22 | BA | 255 | A | N1-C2-N3 | -18.69 | 119.96 | 129.30 |
| 22 | BA | 716 | A | N1-C6-N6 | -18.69 | 107.39 | 118.60 |
| 1 | AA | 382 | A | C2-N3-C4 | 18.69 | 119.94 | 110.60 |
| 22 | BA | 1551 | A | N1-C2-N3 | -18.69 | 119.96 | 129.30 |
| 1 | AA | 1067 | A | N1-C6-N6 | -18.68 | 107.39 | 118.60 |
| 1 | AA | 1288 | A | C2-N3-C4 | 18.68 | 119.94 | 110.60 |
| 22 | BA | 219 | A | N1-C2-N3 | -18.68 | 119.96 | 129.30 |
| 22 | BA | 1048 | A | C2-N3-C4 | 18.68 | 119.94 | 110.60 |
| 1 | AA | 533 | A | C2-N3-C4 | 18.68 | 119.94 | 110.60 |
| 1 | AA | 969 | A | N1-C6-N6 | -18.68 | 107.39 | 118.60 |
| 22 | BA | 173 | A | C2-N3-C4 | 18.68 | 119.94 | 110.60 |
| 22 | BA | 943 | A | N1-C2-N3 | -18.68 | 119.96 | 129.30 |
| 22 | BA | 1230 | A | C2-N3-C4 | 18.68 | 119.94 | 110.60 |
| 22 | BA | 454 | A | N1-C6-N6 | -18.68 | 107.39 | 118.60 |
| 1 | AA | 1332 | A | C2-N3-C4 | 18.67 | 119.94 | 110.60 |
| 22 | BA | 905 | A | C2-N3-C4 | 18.67 | 119.94 | 110.60 |
| 22 | BA | 2736 | A | N1-C2-N3 | -18.67 | 119.96 | 129.30 |
| 1 | AA | 978 | A | N1-C6-N6 | -18.67 | 107.40 | 118.60 |
| 22 | BA | 1322 | A | C2-N3-C4 | 18.67 | 119.94 | 110.60 |
| 23 | BB | 73 | A | N1-C2-N3 | -18.67 | 119.97 | 129.30 |
| 1 | AA | 306 | A | C2-N3-C4 | 18.67 | 119.93 | 110.60 |
| 1 | AA | 408 | A | C2-N3-C4 | 18.67 | 119.93 | 110.60 |
| 22 | BA | 262 | A | N1-C2-N3 | -18.67 | 119.97 | 129.30 |
| 55 | B8 | 21 | A | N1-C2-N3 | -18.66 | 119.97 | 129.30 |
| 22 | BA | 1086 | A | C2-N3-C4 | 18.66 | 119.93 | 110.60 |
| 22 | BA | 1285 | A | C2-N3-C4 | 18.66 | 119.93 | 110.60 |
| 22 | BA | 1809 | A | C2-N3-C4 | 18.66 | 119.93 | 110.60 |
| 22 | BA | 752 | A | C2-N3-C4 | 18.66 | 119.93 | 110.60 |
| 22 | BA | 1977 | A | N1-C2-N3 | -18.66 | 119.97 | 129.30 |
| 22 | BA | 1084 | A | N1-C6-N6 | -18.66 | 107.40 | 118.60 |
| 1 | AA | 263 | A | N1-C6-N6 | -18.65 | 107.41 | 118.60 |
| 22 | BA | 172 | A | N1-C6-N6 | -18.65 | 107.41 | 118.60 |
| 22 | BA | 1057 | A | N1-C2-N3 | -18.65 | 119.97 | 129.30 |
| 22 | BA | 1749 | A | C2-N3-C4 | 18.65 | 119.93 | 110.60 |
| 1 | AA | 189 | A | N1-C6-N6 | -18.65 | 107.41 | 118.60 |
| 22 | BA | 161 | A | N1-C6-N6 | -18.65 | 107.41 | 118.60 |
| 22 | BA | 661 | A | N1-C6-N6 | -18.65 | 107.41 | 118.60 |
| 22 | BA | 1151 | A | C2-N3-C4 | 18.65 | 119.92 | 110.60 |
| 1 | AA | 412 | A | C2-N3-C4 | 18.65 | 119.92 | 110.60 |
| 1 | AA | 1429 | A | C2-N3-C4 | 18.65 | 119.92 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 84 | A | C2-N3-C4 | 18.65 | 119.92 | 110.60 |
| 22 | BA | 789 | A | C2-N3-C4 | 18.64 | 119.92 | 110.60 |
| 22 | BA | 2114 | A | C2-N3-C4 | 18.64 | 119.92 | 110.60 |
| 22 | BA | 2700 | A | N1-C6-N6 | -18.64 | 107.41 | 118.60 |
| 1 | AA | 306 | A | N1-C6-N6 | -18.64 | 107.41 | 118.60 |
| 1 | AA | 1289 | A | N1-C6-N6 | -18.64 | 107.41 | 118.60 |
| 22 | BA | 125 | A | N1-C2-N3 | -18.64 | 119.98 | 129.30 |
| 22 | BA | 2448 | A | N1-C2-N3 | -18.64 | 119.98 | 129.30 |
| 1 | AA | 461 | A | N1-C2-N3 | -18.64 | 119.98 | 129.30 |
| 1 | AA | 1349 | A | C2-N3-C4 | 18.64 | 119.92 | 110.60 |
| 1 | AA | 174 | A | N1-C6-N6 | -18.64 | 107.42 | 118.60 |
| 1 | AA | 1410 | A | N1-C6-N6 | -18.64 | 107.42 | 118.60 |
| 22 | BA | 959 | A | N1-C6-N6 | -18.64 | 107.42 | 118.60 |
| 22 | BA | 300 | A | C2-N3-C4 | 18.64 | 119.92 | 110.60 |
| 22 | BA | 2448 | A | C2-N3-C4 | 18.64 | 119.92 | 110.60 |
| 1 | AA | 101 | A | C2-N3-C4 | 18.63 | 119.92 | 110.60 |
| 22 | BA | 675 | A | N1-C2-N3 | -18.63 | 119.98 | 129.30 |
| 22 | BA | 2879 | A | C2-N3-C4 | 18.63 | 119.92 | 110.60 |
| 1 | AA | 1430 | A | N1-C2-N3 | -18.63 | 119.98 | 129.30 |
| 22 | BA | 1815 | A | C2-N3-C4 | 18.63 | 119.92 | 110.60 |
| 22 | BA | 1439 | A | N1-C2-N3 | -18.63 | 119.98 | 129.30 |
| 22 | BA | 111 | A | N1-C2-N3 | -18.63 | 119.98 | 129.30 |
| 22 | BA | 1057 | A | C2-N3-C4 | 18.63 | 119.91 | 110.60 |
| 22 | BA | 1384 | A | C2-N3-C4 | 18.63 | 119.92 | 110.60 |
| 22 | BA | 1548 | A | N1-C6-N6 | -18.63 | 107.42 | 118.60 |
| 22 | BA | 74 | A | C2-N3-C4 | 18.63 | 119.91 | 110.60 |
| 22 | BA | 2740 | A | N1-C2-N3 | -18.63 | 119.99 | 129.30 |
| 1 | AA | 1502 | A | N1-C2-N3 | -18.63 | 119.99 | 129.30 |
| 22 | BA | 391 | A | N1-C2-N3 | -18.63 | 119.99 | 129.30 |
| 22 | BA | 1393 | A | N1-C2-N3 | -18.63 | 119.99 | 129.30 |
| 22 | BA | 2835 | A | N1-C2-N3 | -18.63 | 119.99 | 129.30 |
| 1 | AA | 787 | A | C2-N3-C4 | 18.62 | 119.91 | 110.60 |
| 1 | AA | 787 | A | N1-C6-N6 | -18.62 | 107.42 | 118.60 |
| 22 | BA | 1354 | A | C2-N3-C4 | 18.62 | 119.91 | 110.60 |
| 22 | BA | 2142 | A | C2-N3-C4 | 18.62 | 119.91 | 110.60 |
| 22 | BA | 49 | A | N1-C6-N6 | -18.62 | 107.43 | 118.60 |
| 22 | BA | 1264 | A | N1-C6-N6 | -18.62 | 107.43 | 118.60 |
| 1 | AA | 393 | A | C2-N3-C4 | 18.62 | 119.91 | 110.60 |
| 22 | BA | 42 | A | N1-C6-N6 | -18.62 | 107.43 | 118.60 |
| 1 | AA | 1257 | A | N1-C6-N6 | -18.62 | 107.43 | 118.60 |
| 1 | AA | 560 | A | N1-C2-N3 | -18.61 | 119.99 | 129.30 |
| 22 | BA | 1772 | A | N1-C2-N3 | -18.61 | 119.99 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 60 | A | C2-N3-C4 | 18.61 | 119.91 | 110.60 |
| 1 | AA | 389 | A | N1-C6-N6 | -18.61 | 107.43 | 118.60 |
| 22 | BA | 1635 | A | N1-C2-N3 | -18.61 | 119.99 | 129.30 |
| 22 | BA | 2003 | A | N1-C2-N3 | -18.61 | 119.99 | 129.30 |
| 22 | BA | 2317 | A | N1-C6-N6 | -18.61 | 107.43 | 118.60 |
| 1 | AA | 174 | A | C2-N3-C4 | 18.61 | 119.91 | 110.60 |
| 1 | AA | 26 | A | N1-C2-N3 | -18.61 | 120.00 | 129.30 |
| 1 | AA | 918 | A | C2-N3-C4 | 18.61 | 119.91 | 110.60 |
| 22 | BA | 429 | A | C2-N3-C4 | 18.61 | 119.91 | 110.60 |
| 22 | BA | 10 | A | C2-N3-C4 | 18.61 | 119.90 | 110.60 |
| 22 | BA | 94 | A | C2-N3-C4 | 18.61 | 119.90 | 110.60 |
| 22 | BA | 2749 | A | N1-C2-N3 | -18.61 | 120.00 | 129.30 |
| 1 | AA | 574 | A | N1-C2-N3 | -18.60 | 120.00 | 129.30 |
| 22 | BA | 1780 | A | N1-C2-N3 | -18.60 | 120.00 | 129.30 |
| 22 | BA | 1966 | A | N1-C2-N3 | -18.60 | 120.00 | 129.30 |
| 1 | AA | 919 | A | N1-C2-N3 | -18.60 | 120.00 | 129.30 |
| 1 | AA | 1046 | A | C2-N3-C4 | 18.60 | 119.90 | 110.60 |
| 1 | AA | 766 | A | C2-N3-C4 | 18.60 | 119.90 | 110.60 |
| 22 | BA | 750 | A | N1-C6-N6 | -18.60 | 107.44 | 118.60 |
| 1 | AA | 197 | A | C2-N3-C4 | 18.60 | 119.90 | 110.60 |
| 22 | BA | 820 | A | N1-C6-N6 | -18.60 | 107.44 | 118.60 |
| 22 | BA | 1321 | A | N1-C6-N6 | -18.60 | 107.44 | 118.60 |
| 22 | BA | 1739 | A | N1-C6-N6 | -18.60 | 107.44 | 118.60 |
| 1 | AA | 1229 | A | C2-N3-C4 | 18.60 | 119.90 | 110.60 |
| 22 | BA | 1672 | A | N1-C2-N3 | -18.60 | 120.00 | 129.30 |
| 22 | BA | 547 | A | N1-C6-N6 | -18.60 | 107.44 | 118.60 |
| 1 | AA | 1434 | A | C2-N3-C4 | 18.59 | 119.90 | 110.60 |
| 1 | AA | 130 | A | N1-C2-N3 | -18.59 | 120.00 | 129.30 |
| 22 | BA | 794 | A | N1-C2-N3 | -18.59 | 120.00 | 129.30 |
| 22 | BA | 1899 | A | N1-C6-N6 | -18.59 | 107.44 | 118.60 |
| 1 | AA | 435 | A | C2-N3-C4 | 18.59 | 119.89 | 110.60 |
| 22 | BA | 2392 | A | C2-N3-C4 | 18.59 | 119.89 | 110.60 |
| 1 | AA | 1035 | A | N1-C6-N6 | -18.59 | 107.45 | 118.60 |
| 22 | BA | 1477 | A | C2-N3-C4 | 18.59 | 119.89 | 110.60 |
| 22 | BA | 1754 | A | C2-N3-C4 | 18.59 | 119.89 | 110.60 |
| 22 | BA | 1785 | A | N1-C2-N3 | -18.59 | 120.01 | 129.30 |
| 22 | BA | 2497 | A | N1-C6-N6 | -18.59 | 107.45 | 118.60 |
| 1 | AA | 1410 | A | C2-N3-C4 | 18.59 | 119.89 | 110.60 |
| 22 | BA | 2665 | A | C2-N3-C4 | 18.59 | 119.89 | 110.60 |
| 22 | BA | 1029 | A | C2-N3-C4 | 18.59 | 119.89 | 110.60 |
| 1 | AA | 143 | A | N1-C6-N6 | -18.58 | 107.45 | 118.60 |
| 22 | BA | 173 | A | N1-C6-N6 | -18.58 | 107.45 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 460 | A | N1-C2-N3 | -18.58 | 120.01 | 129.30 |
| 22 | BA | 2706 | A | C2-N3-C4 | 18.58 | 119.89 | 110.60 |
| 22 | BA | 119 | A | C2-N3-C4 | 18.58 | 119.89 | 110.60 |
| 1 | AA | 1285 | A | N1-C6-N6 | -18.58 | 107.45 | 118.60 |
| 1 | AA | 51 | A | N1-C6-N6 | -18.58 | 107.45 | 118.60 |
| 1 | AA | 1130 | A | N1-C6-N6 | -18.58 | 107.45 | 118.60 |
| 22 | BA | 299 | A | C2-N3-C4 | 18.58 | 119.89 | 110.60 |
| 23 | BB | 115 | A | N1-C2-N3 | -18.58 | 120.01 | 129.30 |
| 1 | AA | 676 | A | C2-N3-C4 | 18.58 | 119.89 | 110.60 |
| 1 | AA | 149 | A | N1-C6-N6 | -18.57 | 107.45 | 118.60 |
| 1 | AA | 1080 | A | N1-C6-N6 | -18.57 | 107.46 | 118.60 |
| 22 | BA | 528 | A | N1-C2-N3 | -18.57 | 120.01 | 129.30 |
| 22 | BA | 1385 | A | N1-C2-N3 | -18.57 | 120.01 | 129.30 |
| 22 | BA | 1610 | A | N1-C6-N6 | -18.57 | 107.45 | 118.60 |
| 22 | BA | 244 | A | N1-C6-N6 | -18.57 | 107.46 | 118.60 |
| 22 | BA | 1067 | A | N1-C6-N6 | -18.57 | 107.46 | 118.60 |
| 22 | BA | 2598 | A | C2-N3-C4 | 18.57 | 119.89 | 110.60 |
| 1 | AA | 389 | A | C2-N3-C4 | 18.57 | 119.88 | 110.60 |
| 1 | AA | 435 | A | N1-C6-N6 | -18.57 | 107.46 | 118.60 |
| 22 | BA | 294 | A | N1-C6-N6 | -18.57 | 107.46 | 118.60 |
| 22 | BA | 1419 | A | N1-C2-N3 | -18.57 | 120.02 | 129.30 |
| 23 | BB | 50 | A | C2-N3-C4 | 18.56 | 119.88 | 110.60 |
| 22 | BA | 2051 | A | N1-C6-N6 | -18.56 | 107.46 | 118.60 |
| 1 | AA | 1493 | A | N1-C6-N6 | -18.56 | 107.46 | 118.60 |
| 1 | AA | 1377 | A | N1-C2-N3 | -18.55 | 120.02 | 129.30 |
| 22 | BA | 1147 | A | N1-C2-N3 | -18.55 | 120.02 | 129.30 |
| 1 | AA | 1261 | A | C2-N3-C4 | 18.55 | 119.88 | 110.60 |
| 22 | BA | 2856 | A | C2-N3-C4 | 18.55 | 119.88 | 110.60 |
| 22 | BA | 1262 | A | N1-C6-N6 | -18.55 | 107.47 | 118.60 |
| 22 | BA | 1809 | A | N1-C6-N6 | -18.55 | 107.47 | 118.60 |
| 22 | BA | 2478 | A | N1-C6-N6 | -18.55 | 107.47 | 118.60 |
| 1 | AA | 547 | A | N1-C6-N6 | -18.55 | 107.47 | 118.60 |
| 1 | AA | 1157 | A | C2-N3-C4 | 18.55 | 119.87 | 110.60 |
| 22 | BA | 845 | A | C2-N3-C4 | 18.55 | 119.87 | 110.60 |
| 1 | AA | 1180 | A | C2-N3-C4 | 18.55 | 119.87 | 110.60 |
| 22 | BA | 2309 | A | N1-C6-N6 | -18.55 | 107.47 | 118.60 |
| 55 | B8 | 69 | A | N1-C2-N3 | -18.55 | 120.03 | 129.30 |
| 22 | BA | 2657 | A | C2-N3-C4 | 18.54 | 119.87 | 110.60 |
| 1 | AA | 546 | A | C2-N3-C4 | 18.54 | 119.87 | 110.60 |
| 1 | AA | 1152 | A | C2-N3-C4 | 18.54 | 119.87 | 110.60 |
| 22 | BA | 146 | A | C2-N3-C4 | 18.54 | 119.87 | 110.60 |
| 22 | BA | 508 | A | C2-N3-C4 | 18.54 | 119.87 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 603 | A | C2-N3-C4 | 18.54 | 119.87 | 110.60 |
| 22 | BA | 1698 | A | C2-N3-C4 | 18.54 | 119.87 | 110.60 |
| 1 | AA | 493 | A | N1-C2-N3 | -18.54 | 120.03 | 129.30 |
| 1 | AA | 1101 | A | N1-C2-N3 | -18.54 | 120.03 | 129.30 |
| 1 | AA | 1004 | A | N1-C2-N3 | -18.54 | 120.03 | 129.30 |
| 22 | BA | 2392 | A | N1-C6-N6 | -18.54 | 107.48 | 118.60 |
| 1 | AA | 958 | A | C2-N3-C4 | 18.54 | 119.87 | 110.60 |
| 1 | AA | 1499 | A | C2-N3-C4 | 18.54 | 119.87 | 110.60 |
| 22 | BA | 404 | A | N1-C6-N6 | -18.54 | 107.48 | 118.60 |
| 22 | BA | 1650 | A | N1-C2-N3 | -18.54 | 120.03 | 129.30 |
| 22 | BA | 1254 | A | C2-N3-C4 | 18.54 | 119.87 | 110.60 |
| 22 | BA | 1586 | A | C2-N3-C4 | 18.54 | 119.87 | 110.60 |
| 22 | BA | 1966 | A | C2-N3-C4 | 18.54 | 119.87 | 110.60 |
| 22 | BA | 2392 | A | N1-C2-N3 | -18.54 | 120.03 | 129.30 |
| 1 | AA | 596 | A | N1-C2-N3 | -18.54 | 120.03 | 129.30 |
| 22 | BA | 866 | A | N1-C2-N3 | -18.53 | 120.03 | 129.30 |
| 22 | BA | 2738 | A | C2-N3-C4 | 18.53 | 119.87 | 110.60 |
| 1 | AA | 131 | A | C2-N3-C4 | 18.53 | 119.87 | 110.60 |
| 1 | AA | 802 | A | C2-N3-C4 | 18.53 | 119.87 | 110.60 |
| 22 | BA | 1301 | A | C2-N3-C4 | 18.53 | 119.87 | 110.60 |
| 1 | AA | 781 | A | C2-N3-C4 | 18.53 | 119.86 | 110.60 |
| 1 | AA | 1252 | A | C2-N3-C4 | 18.53 | 119.86 | 110.60 |
| 22 | BA | 28 | A | N1-C6-N6 | -18.53 | 107.48 | 118.60 |
| 1 | AA | 1012 | A | C2-N3-C4 | 18.53 | 119.86 | 110.60 |
| 1 | AA | 1289 | A | N1-C2-N3 | -18.53 | 120.04 | 129.30 |
| 22 | BA | 2823 | A | C2-N3-C4 | 18.53 | 119.86 | 110.60 |
| 1 | AA | 595 | A | N1-C6-N6 | -18.53 | 107.48 | 118.60 |
| 1 | AA | 1196 | A | N1-C2-N3 | -18.53 | 120.04 | 129.30 |
| 1 | AA | 466 | A | C2-N3-C4 | 18.52 | 119.86 | 110.60 |
| 1 | AA | 909 | A | N1-C2-N3 | -18.52 | 120.04 | 129.30 |
| 1 | AA | 1246 | A | C2-N3-C4 | 18.52 | 119.86 | 110.60 |
| 22 | BA | 71 | A | N1-C2-N3 | -18.52 | 120.04 | 129.30 |
| 22 | BA | 270 | A | C2-N3-C4 | 18.52 | 119.86 | 110.60 |
| 22 | BA | 2062 | A | N1-C2-N3 | -18.52 | 120.04 | 129.30 |
| 22 | BA | 2314 | A | C2-N3-C4 | 18.52 | 119.86 | 110.60 |
| 22 | BA | 2761 | A | C2-N3-C4 | 18.52 | 119.86 | 110.60 |
| 1 | AA | 72 | A | C2-N3-C4 | 18.52 | 119.86 | 110.60 |
| 1 | AA | 914 | A | N1-C2-N3 | -18.52 | 120.04 | 129.30 |
| 22 | BA | 1284 | A | N1-C6-N6 | -18.52 | 107.49 | 118.60 |
| 22 | BA | 1525 | A | C2-N3-C4 | 18.52 | 119.86 | 110.60 |
| 22 | BA | 2450 | A | N1-C2-N3 | -18.52 | 120.04 | 129.30 |
| 1 | AA | 116 | A | N1-C2-N3 | -18.52 | 120.04 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 696 | A | N1-C2-N3 | -18.52 | 120.04 | 129.30 |
| 1 | AA | 1036 | A | C2-N3-C4 | 18.52 | 119.86 | 110.60 |
| 22 | BA | 1805 | A | C2-N3-C4 | 18.52 | 119.86 | 110.60 |
| 22 | BA | 2776 | A | N1-C2-N3 | -18.52 | 120.04 | 129.30 |
| 22 | BA | 348 | A | C2-N3-C4 | 18.52 | 119.86 | 110.60 |
| 22 | BA | 644 | A | C2-N3-C4 | 18.52 | 119.86 | 110.60 |
| 1 | AA | 306 | A | N1-C2-N3 | -18.51 | 120.04 | 129.30 |
| 1 | AA | 460 | A | N1-C2-N3 | -18.51 | 120.04 | 129.30 |
| 1 | AA | 892 | A | N1-C6-N6 | -18.51 | 107.49 | 118.60 |
| 22 | BA | 502 | A | N1-C2-N3 | -18.51 | 120.04 | 129.30 |
| 22 | BA | 1808 | A | C2-N3-C4 | 18.51 | 119.86 | 110.60 |
| 22 | BA | 742 | A | C2-N3-C4 | 18.51 | 119.85 | 110.60 |
| 22 | BA | 756 | A | C2-N3-C4 | 18.51 | 119.86 | 110.60 |
| 1 | AA | 728 | A | C2-N3-C4 | 18.51 | 119.85 | 110.60 |
| 1 | AA | 983 | A | C2-N3-C4 | 18.51 | 119.85 | 110.60 |
| 1 | AA | 1280 | A | N1-C6-N6 | -18.51 | 107.50 | 118.60 |
| 22 | BA | 793 | A | C2-N3-C4 | 18.51 | 119.85 | 110.60 |
| 22 | BA | 2088 | A | C2-N3-C4 | 18.51 | 119.85 | 110.60 |
| 1 | AA | 161 | A | N1-C6-N6 | -18.51 | 107.50 | 118.60 |
| 22 | BA | 190 | A | C2-N3-C4 | 18.51 | 119.85 | 110.60 |
| 1 | AA | 327 | A | N1-C2-N3 | -18.50 | 120.05 | 129.30 |
| 1 | AA | 393 | A | N1-C2-N3 | -18.50 | 120.05 | 129.30 |
| 22 | BA | 2829 | A | C2-N3-C4 | 18.50 | 119.85 | 110.60 |
| 23 | BB | 109 | A | C2-N3-C4 | 18.50 | 119.85 | 110.60 |
| 22 | BA | 1144 | A | N1-C6-N6 | -18.50 | 107.50 | 118.60 |
| 22 | BA | 1070 | A | N1-C2-N3 | -18.50 | 120.05 | 129.30 |
| 22 | BA | 2765 | A | N1-C6-N6 | -18.50 | 107.50 | 118.60 |
| 22 | BA | 1008 | A | C2-N3-C4 | 18.50 | 119.85 | 110.60 |
| 1 | AA | 946 | A | C2-N3-C4 | 18.50 | 119.85 | 110.60 |
| 22 | BA | 670 | A | N1-C6-N6 | -18.50 | 107.50 | 118.60 |
| 22 | BA | 981 | A | N1-C6-N6 | -18.50 | 107.50 | 118.60 |
| 22 | BA | 1365 | A | N1-C6-N6 | -18.50 | 107.50 | 118.60 |
| 22 | BA | 2134 | A | C2-N3-C4 | 18.50 | 119.85 | 110.60 |
| 23 | BB | 58 | A | N1-C6-N6 | -18.50 | 107.50 | 118.60 |
| 22 | BA | 899 | A | N1-C2-N3 | -18.49 | 120.05 | 129.30 |
| 22 | BA | 1635 | A | C2-N3-C4 | 18.49 | 119.85 | 110.60 |
| 22 | BA | 1927 | A | C2-N3-C4 | 18.49 | 119.85 | 110.60 |
| 22 | BA | 2154 | A | C2-N3-C4 | 18.49 | 119.85 | 110.60 |
| 22 | BA | 1785 | A | N1-C6-N6 | -18.49 | 107.50 | 118.60 |
| 22 | BA | 299 | A | N1-C2-N3 | -18.49 | 120.06 | 129.30 |
| 22 | BA | 943 | A | N1-C6-N6 | -18.49 | 107.51 | 118.60 |
| 22 | BA | 1626 | A | C2-N3-C4 | 18.49 | 119.84 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2778 | A | N1-C6-N6 | -18.49 | 107.51 | 118.60 |
| 1 | AA | 1368 | A | C2-N3-C4 | 18.49 | 119.84 | 110.60 |
| 1 | AA | 509 | A | N1-C6-N6 | -18.49 | 107.51 | 118.60 |
| 22 | BA | 2191 | A | N1-C6-N6 | -18.49 | 107.51 | 118.60 |
| 22 | BA | 2377 | A | N1-C2-N3 | -18.49 | 120.06 | 129.30 |
| 1 | AA | 189 | A | C2-N3-C4 | 18.48 | 119.84 | 110.60 |
| 1 | AA | 959 | A | N1-C6-N6 | -18.48 | 107.51 | 118.60 |
| 1 | AA | 1101 | A | N1-C6-N6 | -18.48 | 107.51 | 118.60 |
| 22 | BA | 1634 | A | N1-C6-N6 | -18.48 | 107.51 | 118.60 |
| 22 | BA | 2311 | A | C2-N3-C4 | 18.48 | 119.84 | 110.60 |
| 22 | BA | 2322 | A | C2-N3-C4 | 18.48 | 119.84 | 110.60 |
| 1 | AA | 1080 | A | N1-C2-N3 | -18.48 | 120.06 | 129.30 |
| 23 | BB | 104 | A | C2-N3-C4 | 18.48 | 119.84 | 110.60 |
| 1 | AA | 1318 | A | N1-C6-N6 | -18.48 | 107.51 | 118.60 |
| 1 | AA | 983 | A | N1-C6-N6 | -18.48 | 107.51 | 118.60 |
| 22 | BA | 167 | A | N1-C6-N6 | -18.48 | 107.51 | 118.60 |
| 22 | BA | 928 | A | C2-N3-C4 | 18.48 | 119.84 | 110.60 |
| 22 | BA | 1204 | A | C2-N3-C4 | 18.48 | 119.84 | 110.60 |
| 22 | BA | 2560 | A | C2-N3-C4 | 18.48 | 119.84 | 110.60 |
| 22 | BA | 1009 | A | N1-C2-N3 | -18.48 | 120.06 | 129.30 |
| 22 | BA | 1762 | A | N1-C2-N3 | -18.48 | 120.06 | 129.30 |
| 22 | BA | 2850 | A | C2-N3-C4 | 18.48 | 119.84 | 110.60 |
| 23 | BB | 39 | A | N1-C2-N3 | -18.48 | 120.06 | 129.30 |
| 1 | AA | 715 | A | N1-C2-N3 | -18.48 | 120.06 | 129.30 |
| 22 | BA | 221 | A | N1-C6-N6 | -18.48 | 107.52 | 118.60 |
| 22 | BA | 1583 | A | N1-C6-N6 | -18.47 | 107.52 | 118.60 |
| 1 | AA | 665 | A | C2-N3-C4 | 18.47 | 119.84 | 110.60 |
| 23 | BB | 104 | A | N1-C2-N3 | -18.47 | 120.06 | 129.30 |
| 1 | AA | 964 | A | C2-N3-C4 | 18.47 | 119.83 | 110.60 |
| 22 | BA | 1384 | A | N1-C6-N6 | -18.47 | 107.52 | 118.60 |
| 1 | AA | 349 | A | C2-N3-C4 | 18.47 | 119.83 | 110.60 |
| 1 | AA | 1067 | A | N1-C2-N3 | -18.47 | 120.07 | 129.30 |
| 22 | BA | 933 | A | C2-N3-C4 | 18.46 | 119.83 | 110.60 |
| 22 | BA | 2126 | A | N1-C6-N6 | -18.46 | 107.52 | 118.60 |
| 22 | BA | 2518 | A | N1-C6-N6 | -18.46 | 107.52 | 118.60 |
| 55 | B8 | 69 | A | N1-C6-N6 | -18.46 | 107.52 | 118.60 |
| 1 | AA | 1005 | A | C2-N3-C4 | 18.46 | 119.83 | 110.60 |
| 22 | BA | 1274 | A | C2-N3-C4 | 18.46 | 119.83 | 110.60 |
| 22 | BA | 2070 | A | N1-C2-N3 | -18.46 | 120.07 | 129.30 |
| 55 | B8 | 58 | A | N1-C6-N6 | -18.46 | 107.52 | 118.60 |
| 1 | AA | 622 | A | C2-N3-C4 | 18.46 | 119.83 | 110.60 |
| 1 | AA | 753 | A | N1-C2-N3 | -18.46 | 120.07 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 1105 | A | C2-N3-C4 | 18.46 | 119.83 | 110.60 |
| 1 | AA | 1145 | A | N1-C2-N3 | -18.46 | 120.07 | 129.30 |
| 22 | BA | 21 | A | N1-C2-N3 | -18.46 | 120.07 | 129.30 |
| 22 | BA | 2317 | A | C2-N3-C4 | 18.46 | 119.83 | 110.60 |
| 1 | AA | 878 | A | C2-N3-C4 | 18.46 | 119.83 | 110.60 |
| 1 | AA | 1311 | A | C2-N3-C4 | 18.46 | 119.83 | 110.60 |
| 22 | BA | 127 | A | N1-C6-N6 | -18.46 | 107.52 | 118.60 |
| 22 | BA | 165 | A | N1-C2-N3 | -18.46 | 120.07 | 129.30 |
| 22 | BA | 453 | A | N1-C2-N3 | -18.46 | 120.07 | 129.30 |
| 22 | BA | 2270 | A | N1-C6-N6 | -18.46 | 107.53 | 118.60 |
| 22 | BA | 53 | A | N1-C2-N3 | -18.46 | 120.07 | 129.30 |
| 22 | BA | 1717 | A | C2-N3-C4 | 18.45 | 119.83 | 110.60 |
| 23 | BB | 45 | A | N1-C6-N6 | -18.45 | 107.53 | 118.60 |
| 22 | BA | 2705 | A | C2-N3-C4 | 18.45 | 119.83 | 110.60 |
| 22 | BA | 825 | A | N1-C2-N3 | -18.45 | 120.08 | 129.30 |
| 22 | BA | 1593 | A | N1-C2-N3 | -18.45 | 120.08 | 129.30 |
| 1 | AA | 889 | A | N1-C2-N3 | -18.45 | 120.08 | 129.30 |
| 54 | B7 | 9 | A | N1-C2-N3 | -18.45 | 120.08 | 129.30 |
| 22 | BA | 279 | A | N1-C2-N3 | -18.45 | 120.08 | 129.30 |
| 22 | BA | 2757 | A | C2-N3-C4 | 18.45 | 119.82 | 110.60 |
| 22 | BA | 1427 | A | C2-N3-C4 | 18.45 | 119.82 | 110.60 |
| 22 | BA | 2810 | A | C2-N3-C4 | 18.45 | 119.82 | 110.60 |
| 22 | BA | 1593 | A | N1-C6-N6 | -18.44 | 107.53 | 118.60 |
| 1 | AA | 262 | A | N1-C2-N3 | -18.44 | 120.08 | 129.30 |
| 22 | BA | 279 | A | C2-N3-C4 | 18.44 | 119.82 | 110.60 |
| 22 | BA | 382 | A | C2-N3-C4 | 18.44 | 119.82 | 110.60 |
| 22 | BA | 1069 | A | N1-C2-N3 | -18.44 | 120.08 | 129.30 |
| 22 | BA | 1745 | A | N1-C2-N3 | -18.44 | 120.08 | 129.30 |
| 1 | AA | 1042 | A | N1-C6-N6 | -18.43 | 107.54 | 118.60 |
| 55 | B8 | 66 | A | C2-N3-C4 | 18.43 | 119.82 | 110.60 |
| 1 | AA | 262 | A | C2-N3-C4 | 18.43 | 119.82 | 110.60 |
| 1 | AA | 675 | A | N1-C2-N3 | -18.43 | 120.08 | 129.30 |
| 1 | AA | 746 | A | C2-N3-C4 | 18.43 | 119.82 | 110.60 |
| 22 | BA | 1039 | A | N1-C6-N6 | -18.43 | 107.54 | 118.60 |
| 22 | BA | 2809 | A | N1-C2-N3 | -18.43 | 120.08 | 129.30 |
| 1 | AA | 160 | A | N1-C2-N3 | -18.43 | 120.08 | 129.30 |
| 22 | BA | 1786 | A | N1-C2-N3 | -18.43 | 120.09 | 129.30 |
| 22 | BA | 2572 | A | C2-N3-C4 | 18.43 | 119.81 | 110.60 |
| 1 | AA | 349 | A | N1-C6-N6 | -18.43 | 107.54 | 118.60 |
| 22 | BA | 1046 | A | N1-C6-N6 | -18.43 | 107.54 | 118.60 |
| 22 | BA | 204 | A | C2-N3-C4 | 18.43 | 119.81 | 110.60 |
| 22 | BA | 781 | A | C2-N3-C4 | 18.43 | 119.81 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 1288 | A | N1-C6-N6 | -18.42 | 107.55 | 118.60 |
| 1 | AA | 938 | A | N1-C6-N6 | -18.42 | 107.55 | 118.60 |
| 1 | AA | 1204 | A | N1-C6-N6 | -18.42 | 107.55 | 118.60 |
| 22 | BA | 2887 | A | C2-N3-C4 | 18.42 | 119.81 | 110.60 |
| 22 | BA | 2366 | A | C2-N3-C4 | 18.42 | 119.81 | 110.60 |
| 22 | BA | 2426 | A | C2-N3-C4 | 18.42 | 119.81 | 110.60 |
| 22 | BA | 2461 | A | C2-N3-C4 | 18.42 | 119.81 | 110.60 |
| 23 | BB | 108 | A | N1-C2-N3 | -18.42 | 120.09 | 129.30 |
| 1 | AA | 1016 | A | C2-N3-C4 | 18.42 | 119.81 | 110.60 |
| 1 | AA | 411 | A | N1-C2-N3 | -18.42 | 120.09 | 129.30 |
| 22 | BA | 910 | A | C2-N3-C4 | 18.42 | 119.81 | 110.60 |
| 22 | BA | 2734 | A | N1-C2-N3 | -18.42 | 120.09 | 129.30 |
| 1 | AA | 977 | A | N1-C6-N6 | -18.42 | 107.55 | 118.60 |
| 22 | BA | 2287 | A | N1-C2-N3 | -18.42 | 120.09 | 129.30 |
| 1 | AA | 906 | A | C2-N3-C4 | 18.41 | 119.81 | 110.60 |
| 1 | AA | 640 | A | C2-N3-C4 | 18.41 | 119.81 | 110.60 |
| 22 | BA | 1918 | A | N1-C6-N6 | -18.41 | 107.55 | 118.60 |
| 1 | AA | 53 | A | C2-N3-C4 | 18.41 | 119.81 | 110.60 |
| 1 | AA | 349 | A | N1-C2-N3 | -18.41 | 120.09 | 129.30 |
| 1 | AA | 510 | A | N1-C2-N3 | -18.41 | 120.09 | 129.30 |
| 1 | AA | 1044 | A | C2-N3-C4 | 18.41 | 119.81 | 110.60 |
| 22 | BA | 1549 | A | N1-C6-N6 | -18.41 | 107.55 | 118.60 |
| 22 | BA | 278 | A | N1-C2-N3 | -18.41 | 120.09 | 129.30 |
| 1 | AA | 560 | A | C2-N3-C4 | 18.41 | 119.80 | 110.60 |
| 1 | AA | 1169 | A | N1-C6-N6 | -18.41 | 107.56 | 118.60 |
| 22 | BA | 2288 | A | N1-C2-N3 | -18.41 | 120.10 | 129.30 |
| 1 | AA | 1319 | A | N1-C6-N6 | -18.41 | 107.56 | 118.60 |
| 22 | BA | 294 | A | C2-N3-C4 | 18.41 | 119.80 | 110.60 |
| 22 | BA | 1700 | A | N1-C6-N6 | -18.41 | 107.56 | 118.60 |
| 22 | BA | 1783 | A | C2-N3-C4 | 18.41 | 119.80 | 110.60 |
| 1 | AA | 315 | A | N1-C6-N6 | -18.41 | 107.56 | 118.60 |
| 22 | BA | 2764 | A | N1-C2-N3 | -18.41 | 120.10 | 129.30 |
| 22 | BA | 1821 | A | C2-N3-C4 | 18.40 | 119.80 | 110.60 |
| 22 | BA | 2899 | A | N1-C6-N6 | -18.40 | 107.56 | 118.60 |
| 22 | BA | 2042 | A | C2-N3-C4 | 18.40 | 119.80 | 110.60 |
| 22 | BA | 2893 | A | N1-C2-N3 | -18.40 | 120.10 | 129.30 |
| 1 | AA | 825 | A | N1-C2-N3 | -18.40 | 120.10 | 129.30 |
| 22 | BA | 829 | A | N1-C2-N3 | -18.40 | 120.10 | 129.30 |
| 1 | AA | 1319 | A | N1-C2-N3 | -18.40 | 120.10 | 129.30 |
| 22 | BA | 2015 | A | C2-N3-C4 | 18.40 | 119.80 | 110.60 |
| 22 | BA | 2062 | A | C2-N3-C4 | 18.40 | 119.80 | 110.60 |
| 22 | BA | 590 | A | N1-C6-N6 | -18.39 | 107.56 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 706 | A | C2-N3-C4 | 18.39 | 119.80 | 110.60 |
| 22 | BA | 44 | A | N1-C6-N6 | -18.39 | 107.56 | 118.60 |
| 22 | BA | 2860 | A | N1-C2-N3 | -18.39 | 120.10 | 129.30 |
| 22 | BA | 492 | A | N1-C2-N3 | -18.39 | 120.11 | 129.30 |
| 22 | BA | 613 | A | C2-N3-C4 | 18.39 | 119.80 | 110.60 |
| 22 | BA | 972 | A | N1-C6-N6 | -18.39 | 107.57 | 118.60 |
| 22 | BA | 1403 | A | N1-C6-N6 | -18.39 | 107.57 | 118.60 |
| 1 | AA | 908 | A | N1-C6-N6 | -18.39 | 107.57 | 118.60 |
| 22 | BA | 2632 | A | C2-N3-C4 | 18.39 | 119.80 | 110.60 |
| 55 | B8 | 6 | A | N1-C6-N6 | -18.39 | 107.57 | 118.60 |
| 1 | AA | 246 | A | N1-C2-N3 | -18.39 | 120.11 | 129.30 |
| 1 | AA | 1329 | A | N1-C6-N6 | -18.39 | 107.57 | 118.60 |
| 22 | BA | 2799 | A | C2-N3-C4 | 18.39 | 119.79 | 110.60 |
| 1 | AA | 1329 | A | C2-N3-C4 | 18.39 | 119.79 | 110.60 |
| 22 | BA | 172 | A | C2-N3-C4 | 18.39 | 119.79 | 110.60 |
| 22 | BA | 670 | A | N1-C2-N3 | -18.39 | 120.11 | 129.30 |
| 22 | BA | 322 | A | N1-C2-N3 | -18.38 | 120.11 | 129.30 |
| 1 | AA | 777 | A | N1-C2-N3 | -18.38 | 120.11 | 129.30 |
| 22 | BA | 2376 | A | C2-N3-C4 | 18.38 | 119.79 | 110.60 |
| 22 | BA | 2598 | A | N1-C2-N3 | -18.38 | 120.11 | 129.30 |
| 22 | BA | 2516 | A | N1-C6-N6 | -18.38 | 107.57 | 118.60 |
| 1 | AA | 1499 | A | N1-C2-N3 | -18.38 | 120.11 | 129.30 |
| 22 | BA | 196 | A | C2-N3-C4 | 18.38 | 119.79 | 110.60 |
| 1 | AA | 236 | A | N1-C6-N6 | -18.38 | 107.57 | 118.60 |
| 1 | AA | 243 | A | N1-C2-N3 | -18.38 | 120.11 | 129.30 |
| 1 | AA | 1251 | A | N1-C6-N6 | -18.38 | 107.57 | 118.60 |
| 1 | AA | 1261 | A | N1-C6-N6 | -18.38 | 107.57 | 118.60 |
| 1 | AA | 1350 | A | C2-N3-C4 | 18.38 | 119.79 | 110.60 |
| 22 | BA | 429 | A | N1-C6-N6 | -18.38 | 107.58 | 118.60 |
| 22 | BA | 497 | A | N1-C2-N3 | -18.38 | 120.11 | 129.30 |
| 22 | BA | 945 | A | N1-C6-N6 | -18.38 | 107.57 | 118.60 |
| 22 | BA | 1808 | A | N1-C2-N3 | -18.38 | 120.11 | 129.30 |
| 22 | BA | 1918 | A | C2-N3-C4 | 18.37 | 119.79 | 110.60 |
| 22 | BA | 1969 | A | N1-C2-N3 | -18.37 | 120.11 | 129.30 |
| 22 | BA | 789 | A | N1-C2-N3 | -18.37 | 120.11 | 129.30 |
| 22 | BA | 1803 | A | C2-N3-C4 | 18.37 | 119.79 | 110.60 |
| 22 | BA | 1858 | A | C2-N3-C4 | 18.37 | 119.79 | 110.60 |
| 1 | AA | 288 | A | N1-C2-N3 | -18.37 | 120.11 | 129.30 |
| 1 | AA | 1005 | A | N1-C6-N6 | -18.37 | 107.58 | 118.60 |
| 22 | BA | 492 | A | N1-C6-N6 | -18.37 | 107.58 | 118.60 |
| 1 | AA | 8 | A | N1-C2-N3 | -18.37 | 120.12 | 129.30 |
| 1 | AA | 676 | A | N1-C2-N3 | -18.37 | 120.12 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 1155 | A | C2-N3-C4 | 18.37 | 119.78 | 110.60 |
| 1 | AA | 573 | A | N1-C6-N6 | -18.37 | 107.58 | 118.60 |
| 22 | BA | 2199 | A | N1-C2-N3 | -18.37 | 120.12 | 129.30 |
| 22 | BA | 2114 | A | N1-C6-N6 | -18.36 | 107.58 | 118.60 |
| 22 | BA | 905 | A | N1-C2-N3 | -18.36 | 120.12 | 129.30 |
| 22 | BA | 1885 | A | N1-C6-N6 | -18.36 | 107.58 | 118.60 |
| 22 | BA | 2873 | A | N1-C2-N3 | -18.36 | 120.12 | 129.30 |
| 1 | AA | 1413 | A | N1-C6-N6 | -18.36 | 107.58 | 118.60 |
| 22 | BA | 401 | A | C2-N3-C4 | 18.36 | 119.78 | 110.60 |
| 22 | BA | 735 | A | N1-C2-N3 | -18.36 | 120.12 | 129.30 |
| 22 | BA | 2565 | A | N1-C2-N3 | -18.36 | 120.12 | 129.30 |
| 1 | AA | 344 | A | N1-C6-N6 | -18.36 | 107.58 | 118.60 |
| 22 | BA | 508 | A | N1-C6-N6 | -18.36 | 107.58 | 118.60 |
| 22 | BA | 592 | A | N1-C6-N6 | -18.36 | 107.58 | 118.60 |
| 22 | BA | 2377 | A | C2-N3-C4 | 18.36 | 119.78 | 110.60 |
| 22 | BA | 2632 | A | N1-C2-N3 | -18.36 | 120.12 | 129.30 |
| 1 | AA | 1362 | A | N1-C6-N6 | -18.36 | 107.59 | 118.60 |
| 22 | BA | 1596 | A | N1-C6-N6 | -18.36 | 107.59 | 118.60 |
| 22 | BA | 2453 | A | N1-C2-N3 | -18.36 | 120.12 | 129.30 |
| 1 | AA | 2 | A | N1-C6-N6 | -18.36 | 107.59 | 118.60 |
| 22 | BA | 423 | A | N1-C2-N3 | -18.35 | 120.12 | 129.30 |
| 1 | AA | 532 | A | C2-N3-C4 | 18.35 | 119.78 | 110.60 |
| 22 | BA | 1067 | A | N1-C2-N3 | -18.35 | 120.12 | 129.30 |
| 22 | BA | 1885 | A | C2-N3-C4 | 18.35 | 119.78 | 110.60 |
| 22 | BA | 2377 | A | N1-C6-N6 | -18.35 | 107.59 | 118.60 |
| 22 | BA | 256 | A | C2-N3-C4 | 18.35 | 119.77 | 110.60 |
| 22 | BA | 1067 | A | C2-N3-C4 | 18.35 | 119.77 | 110.60 |
| 22 | BA | 1085 | A | C2-N3-C4 | 18.35 | 119.77 | 110.60 |
| 1 | AA | 1110 | A | C2-N3-C4 | 18.35 | 119.77 | 110.60 |
| 22 | BA | 74 | A | N1-C2-N3 | -18.35 | 120.13 | 129.30 |
| 22 | BA | 800 | A | C2-N3-C4 | 18.35 | 119.77 | 110.60 |
| 22 | BA | 103 | A | N1-C6-N6 | -18.34 | 107.59 | 118.60 |
| 1 | AA | 1150 | A | N1-C6-N6 | -18.34 | 107.59 | 118.60 |
| 55 | B8 | 26 | A | C2-N3-C4 | 18.34 | 119.77 | 110.60 |
| 1 | AA | 8 | A | N1-C6-N6 | -18.34 | 107.60 | 118.60 |
| 1 | AA | 26 | A | C2-N3-C4 | 18.34 | 119.77 | 110.60 |
| 1 | AA | 1324 | A | C2-N3-C4 | 18.34 | 119.77 | 110.60 |
| 23 | BB | 99 | A | C2-N3-C4 | 18.34 | 119.77 | 110.60 |
| 1 | AA | 1289 | A | C2-N3-C4 | 18.33 | 119.77 | 110.60 |
| 22 | BA | 195 | A | N1-C2-N3 | -18.33 | 120.13 | 129.30 |
| 22 | BA | 502 | A | C2-N3-C4 | 18.33 | 119.77 | 110.60 |
| 1 | AA | 72 | A | N1-C2-N3 | -18.33 | 120.13 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 448 | A | N1-C6-N6 | -18.33 | 107.60 | 118.60 |
| 1 | AA | 1333 | A | N1-C2-N3 | -18.33 | 120.13 | 129.30 |
| 22 | BA | 556 | A | C2-N3-C4 | 18.33 | 119.77 | 110.60 |
| 22 | BA | 2376 | A | N1-C6-N6 | -18.33 | 107.60 | 118.60 |
| 1 | AA | 393 | A | N1-C6-N6 | -18.33 | 107.60 | 118.60 |
| 1 | AA | 1081 | A | C2-N3-C4 | 18.33 | 119.77 | 110.60 |
| 1 | AA | 1117 | A | N1-C2-N3 | -18.33 | 120.14 | 129.30 |
| 22 | BA | 447 | A | N1-C2-N3 | -18.33 | 120.14 | 129.30 |
| 22 | BA | 1057 | A | N1-C6-N6 | -18.33 | 107.60 | 118.60 |
| 22 | BA | 2565 | A | C2-N3-C4 | 18.33 | 119.77 | 110.60 |
| 22 | BA | 2750 | A | N1-C2-N3 | -18.33 | 120.14 | 129.30 |
| 22 | BA | 877 | A | C2-N3-C4 | 18.33 | 119.76 | 110.60 |
| 54 | B7 | 9 | A | N1-C6-N6 | -18.33 | 107.60 | 118.60 |
| 22 | BA | 447 | A | N1-C6-N6 | -18.33 | 107.61 | 118.60 |
| 22 | BA | 892 | A | C2-N3-C4 | 18.32 | 119.76 | 110.60 |
| 22 | BA | 227 | A | C2-N3-C4 | 18.32 | 119.76 | 110.60 |
| 1 | AA | 753 | A | C2-N3-C4 | 18.32 | 119.76 | 110.60 |
| 22 | BA | 332 | A | C2-N3-C4 | 18.32 | 119.76 | 110.60 |
| 22 | BA | 863 | A | C2-N3-C4 | 18.32 | 119.76 | 110.60 |
| 1 | AA | 1036 | A | N1-C6-N6 | -18.32 | 107.61 | 118.60 |
| 22 | BA | 866 | A | C2-N3-C4 | 18.32 | 119.76 | 110.60 |
| 1 | AA | 182 | A | N1-C2-N3 | -18.32 | 120.14 | 129.30 |
| 22 | BA | 1900 | A | C2-N3-C4 | 18.32 | 119.76 | 110.60 |
| 23 | BB | 115 | A | N1-C6-N6 | -18.32 | 107.61 | 118.60 |
| 1 | AA | 1377 | A | C2-N3-C4 | 18.32 | 119.76 | 110.60 |
| 22 | BA | 742 | A | N1-C2-N3 | -18.32 | 120.14 | 129.30 |
| 22 | BA | 984 | A | N1-C2-N3 | -18.32 | 120.14 | 129.30 |
| 22 | BA | 1566 | A | N1-C2-N3 | -18.31 | 120.14 | 129.30 |
| 1 | AA | 174 | A | N1-C2-N3 | -18.31 | 120.14 | 129.30 |
| 22 | BA | 990 | A | N1-C2-N3 | -18.31 | 120.14 | 129.30 |
| 22 | BA | 1420 | A | C2-N3-C4 | 18.31 | 119.76 | 110.60 |
| 22 | BA | 2564 | A | N1-C6-N6 | -18.31 | 107.61 | 118.60 |
| 1 | AA | 81 | A | C2-N3-C4 | 18.31 | 119.75 | 110.60 |
| 22 | BA | 1085 | A | N1-C6-N6 | -18.31 | 107.62 | 118.60 |
| 1 | AA | 814 | A | N1-C6-N6 | -18.30 | 107.62 | 118.60 |
| 22 | BA | 2205 | A | C2-N3-C4 | 18.30 | 119.75 | 110.60 |
| 22 | BA | 928 | A | N1-C6-N6 | -18.30 | 107.62 | 118.60 |
| 55 | B8 | 51 | A | N1-C6-N6 | -18.30 | 107.62 | 118.60 |
| 1 | AA | 74 | A | N1-C6-N6 | -18.30 | 107.62 | 118.60 |
| 1 | AA | 344 | A | N1-C2-N3 | -18.30 | 120.15 | 129.30 |
| 22 | BA | 1773 | A | N1-C6-N6 | -18.30 | 107.62 | 118.60 |
| 22 | BA | 368 | A | N1-C6-N6 | -18.30 | 107.62 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2184 | A | N1-C6-N6 | -18.30 | 107.62 | 118.60 |
| 1 | AA | 496 | A | C2-N3-C4 | 18.30 | 119.75 | 110.60 |
| 22 | BA | 2198 | A | C2-N3-C4 | 18.30 | 119.75 | 110.60 |
| 22 | BA | 2278 | A | C2-N3-C4 | 18.30 | 119.75 | 110.60 |
| 1 | AA | 974 | A | N1-C2-N3 | -18.30 | 120.15 | 129.30 |
| 1 | AA | 1171 | A | C2-N3-C4 | 18.30 | 119.75 | 110.60 |
| 22 | BA | 2566 | A | C2-N3-C4 | 18.29 | 119.75 | 110.60 |
| 1 | AA | 546 | A | N1-C6-N6 | -18.29 | 107.62 | 118.60 |
| 22 | BA | 1877 | A | N1-C6-N6 | -18.29 | 107.62 | 118.60 |
| 1 | AA | 131 | A | N1-C6-N6 | -18.29 | 107.62 | 118.60 |
| 1 | AA | 1080 | A | C2-N3-C4 | 18.29 | 119.75 | 110.60 |
| 22 | BA | 2639 | A | C2-N3-C4 | 18.29 | 119.75 | 110.60 |
| 22 | BA | 804 | A | C2-N3-C4 | 18.29 | 119.75 | 110.60 |
| 22 | BA | 1354 | A | N1-C2-N3 | -18.29 | 120.16 | 129.30 |
| 22 | BA | 749 | A | N1-C6-N6 | -18.29 | 107.63 | 118.60 |
| 22 | BA | 927 | A | C2-N3-C4 | 18.29 | 119.74 | 110.60 |
| 22 | BA | 103 | A | C2-N3-C4 | 18.29 | 119.74 | 110.60 |
| 22 | BA | 278 | A | N1-C6-N6 | -18.29 | 107.63 | 118.60 |
| 22 | BA | 1129 | A | C2-N3-C4 | 18.29 | 119.74 | 110.60 |
| 22 | BA | 2471 | A | N1-C6-N6 | -18.29 | 107.63 | 118.60 |
| 1 | AA | 98 | A | C2-N3-C4 | 18.29 | 119.74 | 110.60 |
| 22 | BA | 541 | A | N1-C2-N3 | -18.29 | 120.16 | 129.30 |
| 22 | BA | 1889 | A | C2-N3-C4 | 18.28 | 119.74 | 110.60 |
| 1 | AA | 1447 | A | N1-C2-N3 | -18.28 | 120.16 | 129.30 |
| 22 | BA | 1679 | A | N1-C6-N6 | -18.28 | 107.63 | 118.60 |
| 22 | BA | 2476 | A | C2-N3-C4 | 18.28 | 119.74 | 110.60 |
| 1 | AA | 635 | A | C2-N3-C4 | 18.28 | 119.74 | 110.60 |
| 1 | AA | 236 | A | C2-N3-C4 | 18.28 | 119.74 | 110.60 |
| 1 | AA | 315 | A | C2-N3-C4 | 18.28 | 119.74 | 110.60 |
| 1 | AA | 767 | A | N1-C2-N3 | -18.28 | 120.16 | 129.30 |
| 22 | BA | 644 | A | N1-C6-N6 | -18.28 | 107.63 | 118.60 |
| 22 | BA | 1077 | A | N1-C6-N6 | -18.28 | 107.63 | 118.60 |
| 1 | AA | 1 | A | C2-N3-C4 | 18.27 | 119.74 | 110.60 |
| 1 | AA | 482 | A | C2-N3-C4 | 18.27 | 119.74 | 110.60 |
| 1 | AA | 608 | A | N1-C2-N3 | -18.27 | 120.16 | 129.30 |
| 22 | BA | 64 | A | N1-C6-N6 | -18.27 | 107.64 | 118.60 |
| 1 | AA | 909 | A | C2-N3-C4 | 18.27 | 119.73 | 110.60 |
| 1 | AA | 1329 | A | N1-C2-N3 | -18.27 | 120.16 | 129.30 |
| 1 | AA | 1430 | A | N1-C6-N6 | -18.27 | 107.64 | 118.60 |
| 22 | BA | 1665 | A | N1-C6-N6 | -18.27 | 107.64 | 118.60 |
| 22 | BA | 633 | A | N1-C6-N6 | -18.27 | 107.64 | 118.60 |
| 1 | AA | 456 | A | N1-C2-N3 | -18.27 | 120.17 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 14 | A | N1-C2-N3 | -18.27 | 120.17 | 129.30 |
| 22 | BA | 1090 | A | N1-C6-N6 | -18.27 | 107.64 | 118.60 |
| 1 | AA | 579 | A | C2-N3-C4 | 18.27 | 119.73 | 110.60 |
| 22 | BA | 2015 | A | N1-C2-N3 | -18.27 | 120.17 | 129.30 |
| 22 | BA | 2163 | A | N1-C6-N6 | -18.27 | 107.64 | 118.60 |
| 1 | AA | 539 | A | N1-C6-N6 | -18.26 | 107.64 | 118.60 |
| 22 | BA | 2547 | A | C2-N3-C4 | 18.26 | 119.73 | 110.60 |
| 1 | AA | 374 | A | C2-N3-C4 | 18.26 | 119.73 | 110.60 |
| 22 | BA | 541 | A | N1-C6-N6 | -18.26 | 107.64 | 118.60 |
| 22 | BA | 1090 | A | N1-C2-N3 | -18.26 | 120.17 | 129.30 |
| 1 | AA | 1251 | A | C2-N3-C4 | 18.26 | 119.73 | 110.60 |
| 22 | BA | 1597 | A | N1-C2-N3 | -18.26 | 120.17 | 129.30 |
| 55 | B8 | 69 | A | C2-N3-C4 | 18.26 | 119.73 | 110.60 |
| 1 | AA | 1 | A | N1-C6-N6 | -18.26 | 107.65 | 118.60 |
| 22 | BA | 988 | A | N1-C2-N3 | -18.26 | 120.17 | 129.30 |
| 22 | BA | 1143 | A | N1-C2-N3 | -18.25 | 120.17 | 129.30 |
| 22 | BA | 1503 | A | N1-C2-N3 | -18.25 | 120.17 | 129.30 |
| 22 | BA | 2749 | A | C2-N3-C4 | 18.25 | 119.73 | 110.60 |
| 1 | AA | 1269 | A | C2-N3-C4 | 18.25 | 119.72 | 110.60 |
| 22 | BA | 44 | A | C2-N3-C4 | 18.25 | 119.73 | 110.60 |
| 22 | BA | 466 | A | C2-N3-C4 | 18.25 | 119.73 | 110.60 |
| 22 | BA | 877 | A | N1-C2-N3 | -18.25 | 120.17 | 129.30 |
| 1 | AA | 1042 | A | C2-N3-C4 | 18.25 | 119.72 | 110.60 |
| 22 | BA | 241 | A | C2-N3-C4 | 18.25 | 119.72 | 110.60 |
| 22 | BA | 2171 | A | N1-C2-N3 | -18.25 | 120.17 | 129.30 |
| 1 | AA | 802 | A | N1-C2-N3 | -18.25 | 120.18 | 129.30 |
| 1 | AA | 1021 | A | N1-C2-N3 | -18.25 | 120.18 | 129.30 |
| 22 | BA | 480 | A | C2-N3-C4 | 18.25 | 119.72 | 110.60 |
| 22 | BA | 2792 | A | C2-N3-C4 | 18.25 | 119.72 | 110.60 |
| 1 | AA | 493 | A | N1-C6-N6 | -18.25 | 107.65 | 118.60 |
| 1 | AA | 622 | A | N1-C6-N6 | -18.25 | 107.65 | 118.60 |
| 1 | AA | 919 | A | C2-N3-C4 | 18.25 | 119.72 | 110.60 |
| 22 | BA | 1127 | A | N1-C2-N3 | -18.25 | 120.18 | 129.30 |
| 22 | BA | 1262 | A | N1-C2-N3 | -18.25 | 120.18 | 129.30 |
| 1 | AA | 53 | A | N1-C2-N3 | -18.24 | 120.18 | 129.30 |
| 1 | AA | 767 | A | C2-N3-C4 | 18.24 | 119.72 | 110.60 |
| 22 | BA | 1050 | A | N1-C6-N6 | -18.24 | 107.65 | 118.60 |
| 22 | BA | 2887 | A | N1-C2-N3 | -18.24 | 120.18 | 129.30 |
| 1 | AA | 172 | A | N1-C2-N3 | -18.24 | 120.18 | 129.30 |
| 22 | BA | 586 | A | C2-N3-C4 | 18.24 | 119.72 | 110.60 |
| 22 | BA | 910 | A | N1-C6-N6 | -18.24 | 107.66 | 118.60 |
| 22 | BA | 1509 | A | C2-N3-C4 | 18.24 | 119.72 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1700 | A | N1-C2-N3 | -18.24 | 120.18 | 129.30 |
| 22 | BA | 2117 | A | N1-C6-N6 | -18.24 | 107.66 | 118.60 |
| 1 | AA | 1093 | A | C2-N3-C4 | 18.24 | 119.72 | 110.60 |
| 22 | BA | 1654 | A | N1-C2-N3 | -18.24 | 120.18 | 129.30 |
| 22 | BA | 1713 | A | N1-C2-N3 | -18.24 | 120.18 | 129.30 |
| 1 | AA | 1229 | A | N1-C6-N6 | -18.24 | 107.66 | 118.60 |
| 22 | BA | 1495 | A | C2-N3-C4 | 18.24 | 119.72 | 110.60 |
| 22 | BA | 2589 | A | N1-C2-N3 | -18.24 | 120.18 | 129.30 |
| 1 | AA | 1105 | A | N1-C2-N3 | -18.23 | 120.18 | 129.30 |
| 22 | BA | 146 | A | N1-C6-N6 | -18.23 | 107.66 | 118.60 |
| 22 | BA | 244 | A | N1-C2-N3 | -18.23 | 120.18 | 129.30 |
| 22 | BA | 783 | A | N1-C2-N3 | -18.23 | 120.18 | 129.30 |
| 22 | BA | 1569 | A | N1-C2-N3 | -18.23 | 120.18 | 129.30 |
| 22 | BA | 1928 | A | N1-C2-N3 | -18.23 | 120.18 | 129.30 |
| 22 | BA | 2590 | A | N1-C2-N3 | -18.23 | 120.18 | 129.30 |
| 22 | BA | 2531 | A | N1-C6-N6 | -18.23 | 107.66 | 118.60 |
| 1 | AA | 7 | A | N1-C2-N3 | -18.23 | 120.18 | 129.30 |
| 22 | BA | 2872 | A | N1-C2-N3 | -18.23 | 120.18 | 129.30 |
| 1 | AA | 1362 | A | C2-N3-C4 | 18.23 | 119.72 | 110.60 |
| 22 | BA | 203 | A | C2-N3-C4 | 18.23 | 119.72 | 110.60 |
| 1 | AA | 547 | A | N1-C2-N3 | -18.23 | 120.19 | 129.30 |
| 22 | BA | 1580 | A | N1-C6-N6 | -18.23 | 107.66 | 118.60 |
| 1 | AA | 353 | A | N1-C2-N3 | -18.23 | 120.19 | 129.30 |
| 22 | BA | 739 | A | N1-C6-N6 | -18.23 | 107.67 | 118.60 |
| 22 | BA | 829 | A | N1-C6-N6 | -18.23 | 107.67 | 118.60 |
| 22 | BA | 1522 | A | C2-N3-C4 | 18.23 | 119.71 | 110.60 |
| 1 | AA | 171 | A | N1-C2-N3 | -18.22 | 120.19 | 129.30 |
| 22 | BA | 599 | A | N1-C2-N3 | -18.22 | 120.19 | 129.30 |
| 22 | BA | 1504 | A | C2-N3-C4 | 18.22 | 119.71 | 110.60 |
| 1 | AA | 499 | A | N1-C6-N6 | -18.22 | 107.67 | 118.60 |
| 55 | B8 | 59 | A | C2-N3-C4 | 18.22 | 119.71 | 110.60 |
| 1 | AA | 1022 | A | C2-N3-C4 | 18.22 | 119.71 | 110.60 |
| 22 | BA | 1085 | A | N1-C2-N3 | -18.22 | 120.19 | 129.30 |
| 22 | BA | 1490 | A | C2-N3-C4 | 18.22 | 119.71 | 110.60 |
| 22 | BA | 1515 | A | N1-C2-N3 | -18.22 | 120.19 | 129.30 |
| 22 | BA | 1522 | A | N1-C2-N3 | -18.22 | 120.19 | 129.30 |
| 22 | BA | 1928 | A | N1-C6-N6 | -18.22 | 107.67 | 118.60 |
| 1 | AA | 1269 | A | N1-C2-N3 | -18.21 | 120.19 | 129.30 |
| 22 | BA | 705 | A | C2-N3-C4 | 18.21 | 119.71 | 110.60 |
| 22 | BA | 1226 | A | N1-C6-N6 | -18.21 | 107.67 | 118.60 |
| 22 | BA | 1916 | A | C2-N3-C4 | 18.21 | 119.71 | 110.60 |
| 22 | BA | 2411 | A | N1-C2-N3 | -18.21 | 120.19 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 412 | A | N1-C2-N3 | -18.21 | 120.19 | 129.30 |
| 22 | BA | 2856 | A | N1-C6-N6 | -18.21 | 107.67 | 118.60 |
| 22 | BA | 430 | A | N1-C2-N3 | -18.21 | 120.19 | 129.30 |
| 22 | BA | 1070 | A | C2-N3-C4 | 18.21 | 119.70 | 110.60 |
| 22 | BA | 2298 | A | C2-N3-C4 | 18.21 | 119.70 | 110.60 |
| 22 | BA | 118 | A | C2-N3-C4 | 18.21 | 119.70 | 110.60 |
| 22 | BA | 2821 | A | C2-N3-C4 | 18.21 | 119.70 | 110.60 |
| 22 | BA | 1469 | A | C2-N3-C4 | 18.20 | 119.70 | 110.60 |
| 1 | AA | 600 | A | N1-C2-N3 | -18.20 | 120.20 | 129.30 |
| 22 | BA | 1143 | A | C2-N3-C4 | 18.20 | 119.70 | 110.60 |
| 1 | AA | 120 | A | C2-N3-C4 | 18.20 | 119.70 | 110.60 |
| 1 | AA | 303 | A | N1-C6-N6 | -18.20 | 107.68 | 118.60 |
| 22 | BA | 2634 | A | N1-C6-N6 | -18.20 | 107.68 | 118.60 |
| 1 | AA | 238 | A | C2-N3-C4 | 18.20 | 119.70 | 110.60 |
| 1 | AA | 889 | A | C2-N3-C4 | 18.20 | 119.70 | 110.60 |
| 22 | BA | 1096 | A | N1-C2-N3 | -18.20 | 120.20 | 129.30 |
| 22 | BA | 1272 | A | N1-C2-N3 | -18.20 | 120.20 | 129.30 |
| 22 | BA | 716 | A | C2-N3-C4 | 18.20 | 119.70 | 110.60 |
| 23 | BB | 29 | A | C2-N3-C4 | 18.20 | 119.70 | 110.60 |
| 1 | AA | 958 | A | N1-C2-N3 | -18.19 | 120.20 | 129.30 |
| 22 | BA | 1089 | A | N1-C6-N6 | -18.19 | 107.68 | 118.60 |
| 55 | B8 | 38 | A | N1-C2-N3 | -18.19 | 120.20 | 129.30 |
| 22 | BA | 979 | A | C2-N3-C4 | 18.19 | 119.70 | 110.60 |
| 1 | AA | 478 | A | C2-N3-C4 | 18.19 | 119.69 | 110.60 |
| 1 | AA | 1413 | A | N1-C2-N3 | -18.19 | 120.20 | 129.30 |
| 22 | BA | 311 | A | N1-C2-N3 | -18.19 | 120.20 | 129.30 |
| 1 | AA | 704 | A | N1-C2-N3 | -18.19 | 120.20 | 129.30 |
| 1 | AA | 1016 | A | N1-C2-N3 | -18.19 | 120.21 | 129.30 |
| 1 | AA | 1437 | A | N1-C2-N3 | -18.19 | 120.21 | 129.30 |
| 22 | BA | 1610 | A | N1-C2-N3 | -18.19 | 120.20 | 129.30 |
| 1 | AA | 282 | A | N1-C2-N3 | -18.19 | 120.21 | 129.30 |
| 22 | BA | 382 | A | N1-C2-N3 | -18.19 | 120.21 | 129.30 |
| 22 | BA | 1641 | A | C2-N3-C4 | 18.19 | 119.69 | 110.60 |
| 22 | BA | 556 | A | N1-C6-N6 | -18.19 | 107.69 | 118.60 |
| 22 | BA | 1080 | A | C2-N3-C4 | 18.19 | 119.69 | 110.60 |
| 23 | BB | 53 | A | N1-C2-N3 | -18.19 | 120.21 | 129.30 |
| 1 | AA | 777 | A | C2-N3-C4 | 18.18 | 119.69 | 110.60 |
| 22 | BA | 614 | A | N1-C2-N3 | -18.18 | 120.21 | 129.30 |
| 22 | BA | 980 | A | N1-C2-N3 | -18.18 | 120.21 | 129.30 |
| 22 | BA | 1614 | A | N1-C6-N6 | -18.18 | 107.69 | 118.60 |
| 22 | BA | 2019 | A | C2-N3-C4 | 18.18 | 119.69 | 110.60 |
| 22 | BA | 1284 | A | C2-N3-C4 | 18.18 | 119.69 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 501 | A | C2-N3-C4 | 18.18 | 119.69 | 110.60 |
| 22 | BA | 2268 | A | N1-C2-N3 | -18.18 | 120.21 | 129.30 |
| 1 | AA | 59 | A | N1-C2-N3 | -18.18 | 120.21 | 129.30 |
| 22 | BA | 2211 | A | N1-C2-N3 | -18.18 | 120.21 | 129.30 |
| 22 | BA | 2425 | A | C2-N3-C4 | 18.18 | 119.69 | 110.60 |
| 1 | AA | 845 | A | N1-C6-N6 | -18.18 | 107.69 | 118.60 |
| 22 | BA | 927 | A | N1-C2-N3 | -18.18 | 120.21 | 129.30 |
| 22 | BA | 1700 | A | C2-N3-C4 | 18.18 | 119.69 | 110.60 |
| 1 | AA | 205 | A | C2-N3-C4 | 18.18 | 119.69 | 110.60 |
| 1 | AA | 205 | A | N1-C6-N6 | -18.18 | 107.69 | 118.60 |
| 1 | AA | 1287 | A | C2-N3-C4 | 18.18 | 119.69 | 110.60 |
| 22 | BA | 346 | A | C2-N3-C4 | 18.18 | 119.69 | 110.60 |
| 22 | BA | 443 | A | C2-N3-C4 | 18.18 | 119.69 | 110.60 |
| 22 | BA | 2476 | A | N1-C6-N6 | -18.18 | 107.69 | 118.60 |
| 22 | BA | 2837 | A | N1-C2-N3 | -18.18 | 120.21 | 129.30 |
| 55 | B8 | 14 | A | N1-C6-N6 | -18.18 | 107.69 | 118.60 |
| 22 | BA | 401 | A | N1-C6-N6 | -18.17 | 107.70 | 118.60 |
| 22 | BA | 1420 | A | N1-C2-N3 | -18.17 | 120.21 | 129.30 |
| 22 | BA | 1632 | A | N1-C2-N3 | -18.17 | 120.21 | 129.30 |
| 22 | BA | 1739 | A | N1-C2-N3 | -18.17 | 120.21 | 129.30 |
| 22 | BA | 2322 | A | N1-C6-N6 | -18.17 | 107.70 | 118.60 |
| 22 | BA | 2660 | A | C2-N3-C4 | 18.17 | 119.69 | 110.60 |
| 1 | AA | 179 | A | N1-C2-N3 | -18.17 | 120.22 | 129.30 |
| 22 | BA | 2741 | A | C2-N3-C4 | 18.17 | 119.69 | 110.60 |
| 22 | BA | 2821 | A | N1-C2-N3 | -18.17 | 120.22 | 129.30 |
| 1 | AA | 363 | A | C2-N3-C4 | 18.17 | 119.68 | 110.60 |
| 1 | AA | 915 | A | C2-N3-C4 | 18.17 | 119.68 | 110.60 |
| 1 | AA | 10 | A | C2-N3-C4 | 18.17 | 119.68 | 110.60 |
| 1 | AA | 171 | A | C2-N3-C4 | 18.17 | 119.68 | 110.60 |
| 22 | BA | 1953 | A | N1-C6-N6 | -18.17 | 107.70 | 118.60 |
| 1 | AA | 1368 | A | N1-C6-N6 | -18.17 | 107.70 | 118.60 |
| 22 | BA | 676 | A | N1-C2-N3 | -18.17 | 120.22 | 129.30 |
| 22 | BA | 1505 | A | N1-C6-N6 | -18.17 | 107.70 | 118.60 |
| 1 | AA | 1261 | A | N1-C2-N3 | -18.16 | 120.22 | 129.30 |
| 22 | BA | 1009 | A | C2-N3-C4 | 18.16 | 119.68 | 110.60 |
| 22 | BA | 1098 | A | C2-N3-C4 | 18.16 | 119.68 | 110.60 |
| 1 | AA | 964 | A | N1-C6-N6 | -18.16 | 107.70 | 118.60 |
| 22 | BA | 654 | A | N1-C6-N6 | -18.16 | 107.70 | 118.60 |
| 22 | BA | 1327 | A | N1-C2-N3 | -18.16 | 120.22 | 129.30 |
| 22 | BA | 2366 | A | N1-C6-N6 | -18.16 | 107.70 | 118.60 |
| 1 | AA | 975 | A | N1-C2-N3 | -18.16 | 120.22 | 129.30 |
| 22 | BA | 125 | A | N1-C6-N6 | -18.16 | 107.70 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 528 | A | N1-C6-N6 | -18.16 | 107.70 | 118.60 |
| 22 | BA | 1566 | A | N1-C6-N6 | -18.16 | 107.70 | 118.60 |
| 22 | BA | 1073 | A | N1-C6-N6 | -18.16 | 107.70 | 118.60 |
| 1 | AA | 155 | A | C2-N3-C4 | 18.16 | 119.68 | 110.60 |
| 1 | AA | 535 | A | N1-C6-N6 | -18.16 | 107.71 | 118.60 |
| 1 | AA | 563 | A | C2-N3-C4 | 18.16 | 119.68 | 110.60 |
| 1 | AA | 364 | A | C2-N3-C4 | 18.15 | 119.68 | 110.60 |
| 1 | AA | 994 | A | C2-N3-C4 | 18.15 | 119.68 | 110.60 |
| 1 | AA | 1430 | A | C2-N3-C4 | 18.15 | 119.68 | 110.60 |
| 22 | BA | 1147 | A | C2-N3-C4 | 18.15 | 119.68 | 110.60 |
| 22 | BA | 2287 | A | C2-N3-C4 | 18.15 | 119.68 | 110.60 |
| 1 | AA | 749 | A | N1-C6-N6 | -18.15 | 107.71 | 118.60 |
| 22 | BA | 142 | A | C2-N3-C4 | 18.15 | 119.67 | 110.60 |
| 22 | BA | 197 | A | N1-C2-N3 | -18.15 | 120.22 | 129.30 |
| 22 | BA | 1111 | A | N1-C2-N3 | -18.15 | 120.22 | 129.30 |
| 22 | BA | 1453 | A | N1-C2-N3 | -18.15 | 120.22 | 129.30 |
| 22 | BA | 1383 | A | C2-N3-C4 | 18.15 | 119.67 | 110.60 |
| 1 | AA | 642 | A | N1-C6-N6 | -18.15 | 107.71 | 118.60 |
| 22 | BA | 391 | A | C2-N3-C4 | 18.15 | 119.67 | 110.60 |
| 22 | BA | 1378 | A | N1-C2-N3 | -18.15 | 120.23 | 129.30 |
| 1 | AA | 1398 | A | C2-N3-C4 | 18.14 | 119.67 | 110.60 |
| 22 | BA | 933 | A | N1-C6-N6 | -18.14 | 107.71 | 118.60 |
| 22 | BA | 2564 | A | N1-C2-N3 | -18.14 | 120.23 | 129.30 |
| 1 | AA | 1111 | A | N1-C6-N6 | -18.14 | 107.71 | 118.60 |
| 22 | BA | 218 | A | C2-N3-C4 | 18.14 | 119.67 | 110.60 |
| 22 | BA | 689 | A | N1-C2-N3 | -18.14 | 120.23 | 129.30 |
| 22 | BA | 1126 | A | N1-C6-N6 | -18.14 | 107.71 | 118.60 |
| 22 | BA | 1650 | A | N1-C6-N6 | -18.14 | 107.71 | 118.60 |
| 1 | AA | 1019 | A | N1-C2-N3 | -18.14 | 120.23 | 129.30 |
| 22 | BA | 146 | A | N1-C2-N3 | -18.14 | 120.23 | 129.30 |
| 22 | BA | 715 | A | N1-C2-N3 | -18.14 | 120.23 | 129.30 |
| 22 | BA | 1336 | A | N1-C2-N3 | -18.14 | 120.23 | 129.30 |
| 22 | BA | 2297 | A | N1-C6-N6 | -18.14 | 107.72 | 118.60 |
| 1 | AA | 1155 | A | N1-C6-N6 | -18.14 | 107.72 | 118.60 |
| 1 | AA | 415 | A | N1-C6-N6 | -18.14 | 107.72 | 118.60 |
| 1 | AA | 1171 | A | N1-C6-N6 | -18.14 | 107.72 | 118.60 |
| 22 | BA | 348 | A | N1-C6-N6 | -18.14 | 107.72 | 118.60 |
| 22 | BA | 2097 | A | C2-N3-C4 | 18.14 | 119.67 | 110.60 |
| 23 | BB | 34 | A | C2-N3-C4 | 18.14 | 119.67 | 110.60 |
| 22 | BA | 1366 | A | C2-N3-C4 | 18.13 | 119.67 | 110.60 |
| 1 | AA | 65 | A | N1-C6-N6 | -18.13 | 107.72 | 118.60 |
| 22 | BA | 181 | A | N1-C2-N3 | -18.13 | 120.23 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2169 | A | N1-C6-N6 | -18.13 | 107.72 | 118.60 |
| 23 | BB | 94 | A | N1-C6-N6 | -18.13 | 107.72 | 118.60 |
| 1 | AA | 16 | A | C2-N3-C4 | 18.13 | 119.67 | 110.60 |
| 22 | BA | 947 | A | C2-N3-C4 | 18.13 | 119.67 | 110.60 |
| 22 | BA | 2094 | A | C2-N3-C4 | 18.13 | 119.66 | 110.60 |
| 1 | AA | 968 | A | N1-C6-N6 | -18.13 | 107.72 | 118.60 |
| 22 | BA | 900 | A | C2-N3-C4 | 18.13 | 119.66 | 110.60 |
| 22 | BA | 1095 | A | N1-C6-N6 | -18.13 | 107.72 | 118.60 |
| 22 | BA | 1246 | A | C2-N3-C4 | 18.13 | 119.66 | 110.60 |
| 22 | BA | 2476 | A | N1-C2-N3 | -18.13 | 120.24 | 129.30 |
| 22 | BA | 1579 | A | C2-N3-C4 | 18.12 | 119.66 | 110.60 |
| 1 | AA | 181 | A | N1-C2-N3 | -18.12 | 120.24 | 129.30 |
| 22 | BA | 142 | A | N1-C6-N6 | -18.12 | 107.73 | 118.60 |
| 22 | BA | 270 | A | N1-C2-N3 | -18.12 | 120.24 | 129.30 |
| 22 | BA | 344 | A | C2-N3-C4 | 18.12 | 119.66 | 110.60 |
| 22 | BA | 1591 | A | N1-C2-N3 | -18.12 | 120.24 | 129.30 |
| 23 | BB | 53 | A | C2-N3-C4 | 18.12 | 119.66 | 110.60 |
| 1 | AA | 728 | A | N1-C6-N6 | -18.12 | 107.73 | 118.60 |
| 22 | BA | 404 | A | N1-C2-N3 | -18.12 | 120.24 | 129.30 |
| 22 | BA | 1307 | A | N1-C6-N6 | -18.12 | 107.73 | 118.60 |
| 22 | BA | 1367 | A | N1-C2-N3 | -18.12 | 120.24 | 129.30 |
| 1 | AA | 250 | A | N1-C6-N6 | -18.12 | 107.73 | 118.60 |
| 1 | AA | 860 | A | N1-C6-N6 | -18.12 | 107.73 | 118.60 |
| 22 | BA | 1032 | A | N1-C2-N3 | -18.12 | 120.24 | 129.30 |
| 22 | BA | 2882 | A | N1-C2-N3 | -18.12 | 120.24 | 129.30 |
| 1 | AA | 1441 | A | N1-C2-N3 | -18.12 | 120.24 | 129.30 |
| 1 | AA | 432 | A | N1-C6-N6 | -18.11 | 107.73 | 118.60 |
| 22 | BA | 155 | A | N1-C2-N3 | -18.11 | 120.24 | 129.30 |
| 22 | BA | 503 | A | N1-C6-N6 | -18.11 | 107.73 | 118.60 |
| 22 | BA | 802 | A | N1-C2-N3 | -18.11 | 120.24 | 129.30 |
| 22 | BA | 1276 | A | C2-N3-C4 | 18.11 | 119.66 | 110.60 |
| 22 | BA | 1383 | A | N1-C2-N3 | -18.11 | 120.24 | 129.30 |
| 22 | BA | 2800 | A | N1-C2-N3 | -18.11 | 120.24 | 129.30 |
| 22 | BA | 2813 | A | C2-N3-C4 | 18.11 | 119.66 | 110.60 |
| 23 | BB | 119 | A | C2-N3-C4 | 18.11 | 119.66 | 110.60 |
| 22 | BA | 981 | A | C2-N3-C4 | 18.11 | 119.66 | 110.60 |
| 1 | AA | 696 | A | C2-N3-C4 | 18.11 | 119.66 | 110.60 |
| 1 | AA | 814 | A | C2-N3-C4 | 18.11 | 119.66 | 110.60 |
| 1 | AA | 907 | A | C2-N3-C4 | 18.11 | 119.66 | 110.60 |
| 1 | AA | 1362 | A | N1-C2-N3 | -18.11 | 120.24 | 129.30 |
| 22 | BA | 204 | A | N1-C2-N3 | -18.11 | 120.25 | 129.30 |
| 22 | BA | 2883 | A | N1-C2-N3 | -18.11 | 120.25 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 330 | A | N1-C2-N3 | -18.11 | 120.25 | 129.30 |
| 55 | B8 | 6 | A | C2-N3-C4 | 18.11 | 119.65 | 110.60 |
| 1 | AA | 414 | A | N1-C2-N3 | -18.11 | 120.25 | 129.30 |
| 22 | BA | 402 | A | C2-N3-C4 | 18.11 | 119.65 | 110.60 |
| 22 | BA | 1494 | A | N1-C2-N3 | -18.11 | 120.25 | 129.30 |
| 23 | BB | 50 | A | N1-C2-N3 | -18.11 | 120.25 | 129.30 |
| 55 | B8 | 26 | A | N1-C2-N3 | -18.11 | 120.25 | 129.30 |
| 1 | AA | 1035 | A | N1-C2-N3 | -18.10 | 120.25 | 129.30 |
| 22 | BA | 1652 | A | N1-C6-N6 | -18.10 | 107.74 | 118.60 |
| 1 | AA | 179 | A | C2-N3-C4 | 18.10 | 119.65 | 110.60 |
| 22 | BA | 38 | A | C2-N3-C4 | 18.10 | 119.65 | 110.60 |
| 1 | AA | 1433 | A | N1-C6-N6 | -18.10 | 107.74 | 118.60 |
| 22 | BA | 2660 | A | N1-C6-N6 | -18.10 | 107.74 | 118.60 |
| 1 | AA | 535 | A | N1-C2-N3 | -18.10 | 120.25 | 129.30 |
| 22 | BA | 1373 | A | C2-N3-C4 | 18.10 | 119.65 | 110.60 |
| 22 | BA | 1502 | A | N1-C2-N3 | -18.10 | 120.25 | 129.30 |
| 22 | BA | 1583 | A | N1-C2-N3 | -18.10 | 120.25 | 129.30 |
| 22 | BA | 1952 | A | C2-N3-C4 | 18.10 | 119.65 | 110.60 |
| 1 | AA | 687 | A | N1-C2-N3 | -18.09 | 120.25 | 129.30 |
| 1 | AA | 694 | A | N1-C6-N6 | -18.09 | 107.74 | 118.60 |
| 22 | BA | 181 | A | C2-N3-C4 | 18.09 | 119.65 | 110.60 |
| 23 | BB | 29 | A | N1-C2-N3 | -18.09 | 120.25 | 129.30 |
| 22 | BA | 272 | A | C2-N3-C4 | 18.09 | 119.65 | 110.60 |
| 1 | AA | 236 | A | N1-C2-N3 | -18.09 | 120.25 | 129.30 |
| 22 | BA | 401 | A | N1-C2-N3 | -18.09 | 120.25 | 129.30 |
| 22 | BA | 631 | A | C2-N3-C4 | 18.09 | 119.65 | 110.60 |
| 22 | BA | 1665 | A | C2-N3-C4 | 18.09 | 119.65 | 110.60 |
| 22 | BA | 1786 | A | C2-N3-C4 | 18.09 | 119.64 | 110.60 |
| 22 | BA | 2764 | A | C2-N3-C4 | 18.09 | 119.64 | 110.60 |
| 1 | AA | 747 | A | N1-C6-N6 | -18.09 | 107.75 | 118.60 |
| 22 | BA | 1089 | A | N1-C2-N3 | -18.09 | 120.26 | 129.30 |
| 1 | AA | 583 | A | C2-N3-C4 | 18.09 | 119.64 | 110.60 |
| 22 | BA | 1010 | A | N1-C2-N3 | -18.09 | 120.26 | 129.30 |
| 22 | BA | 1032 | A | C2-N3-C4 | 18.09 | 119.64 | 110.60 |
| 22 | BA | 1080 | A | N1-C6-N6 | -18.09 | 107.75 | 118.60 |
| 22 | BA | 2158 | A | N1-C6-N6 | -18.09 | 107.75 | 118.60 |
| 1 | AA | 1092 | A | N1-C2-N3 | -18.08 | 120.26 | 129.30 |
| 1 | AA | 1246 | A | N1-C2-N3 | -18.08 | 120.26 | 129.30 |
| 1 | AA | 1042 | A | N1-C2-N3 | -18.08 | 120.26 | 129.30 |
| 1 | AA | 366 | A | N1-C6-N6 | -18.08 | 107.75 | 118.60 |
| 22 | BA | 1359 | A | C2-N3-C4 | 18.08 | 119.64 | 110.60 |
| 1 | AA | 747 | A | C2-N3-C4 | 18.08 | 119.64 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 371 | A | C2-N3-C4 | 18.08 | 119.64 | 110.60 |
| 22 | BA | 1960 | A | N1-C6-N6 | -18.08 | 107.75 | 118.60 |
| 22 | BA | 2706 | A | N1-C6-N6 | -18.08 | 107.75 | 118.60 |
| 23 | BB | 78 | A | N1-C2-N3 | -18.08 | 120.26 | 129.30 |
| 1 | AA | 130 | A | C2-N3-C4 | 18.07 | 119.64 | 110.60 |
| 1 | AA | 262 | A | N1-C6-N6 | -18.07 | 107.75 | 118.60 |
| 22 | BA | 1302 | A | C2-N3-C4 | 18.07 | 119.64 | 110.60 |
| 22 | BA | 1328 | A | C2-N3-C4 | 18.07 | 119.64 | 110.60 |
| 1 | AA | 747 | A | N1-C2-N3 | -18.07 | 120.26 | 129.30 |
| 22 | BA | 528 | A | C2-N3-C4 | 18.07 | 119.64 | 110.60 |
| 22 | BA | 1384 | A | N1-C2-N3 | -18.07 | 120.27 | 129.30 |
| 22 | BA | 1503 | A | N1-C6-N6 | -18.07 | 107.76 | 118.60 |
| 22 | BA | 1757 | A | N1-C6-N6 | -18.07 | 107.76 | 118.60 |
| 1 | AA | 1022 | A | N1-C2-N3 | -18.07 | 120.27 | 129.30 |
| 1 | AA | 1396 | A | C2-N3-C4 | 18.07 | 119.64 | 110.60 |
| 1 | AA | 704 | A | C2-N3-C4 | 18.07 | 119.63 | 110.60 |
| 1 | AA | 1021 | A | C2-N3-C4 | 18.07 | 119.63 | 110.60 |
| 1 | AA | 1152 | A | N1-C6-N6 | -18.07 | 107.76 | 118.60 |
| 1 | AA | 1219 | A | C2-N3-C4 | 18.07 | 119.63 | 110.60 |
| 22 | BA | 1745 | A | C2-N3-C4 | 18.07 | 119.64 | 110.60 |
| 22 | BA | 89 | A | N1-C2-N3 | -18.07 | 120.27 | 129.30 |
| 22 | BA | 654 | A | C2-N3-C4 | 18.07 | 119.63 | 110.60 |
| 1 | AA | 1 | A | N1-C2-N3 | -18.07 | 120.27 | 129.30 |
| 1 | AA | 192 | A | C2-N3-C4 | 18.07 | 119.63 | 110.60 |
| 1 | AA | 781 | A | N1-C2-N3 | -18.07 | 120.27 | 129.30 |
| 22 | BA | 2682 | A | N1-C2-N3 | -18.07 | 120.27 | 129.30 |
| 22 | BA | 91 | A | N1-C2-N3 | -18.06 | 120.27 | 129.30 |
| 22 | BA | 925 | A | N1-C2-N3 | -18.06 | 120.27 | 129.30 |
| 22 | BA | 1744 | A | C2-N3-C4 | 18.06 | 119.63 | 110.60 |
| 1 | AA | 2 | A | N1-C2-N3 | -18.06 | 120.27 | 129.30 |
| 22 | BA | 532 | A | N1-C2-N3 | -18.06 | 120.27 | 129.30 |
| 22 | BA | 2675 | A | C2-N3-C4 | 18.06 | 119.63 | 110.60 |
| 22 | BA | 1705 | A | C2-N3-C4 | 18.06 | 119.63 | 110.60 |
| 22 | BA | 2497 | A | C2-N3-C4 | 18.06 | 119.63 | 110.60 |
| 1 | AA | 559 | A | N1-C6-N6 | -18.06 | 107.77 | 118.60 |
| 22 | BA | 2675 | A | N1-C2-N3 | -18.06 | 120.27 | 129.30 |
| 1 | AA | 167 | A | C2-N3-C4 | 18.06 | 119.63 | 110.60 |
| 22 | BA | 538 | A | N1-C6-N6 | -18.05 | 107.77 | 118.60 |
| 22 | BA | 2734 | A | N1-C6-N6 | -18.05 | 107.77 | 118.60 |
| 1 | AA | 1179 | A | N1-C2-N3 | -18.05 | 120.27 | 129.30 |
| 1 | AA | 1248 | A | C2-N3-C4 | 18.05 | 119.63 | 110.60 |
| 1 | AA | 1447 | A | C2-N3-C4 | 18.05 | 119.63 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1676 | A | N1-C2-N3 | -18.05 | 120.27 | 129.30 |
| 1 | AA | 749 | A | C2-N3-C4 | 18.05 | 119.63 | 110.60 |
| 1 | AA | 1254 | A | N1-C6-N6 | -18.05 | 107.77 | 118.60 |
| 55 | B8 | 41 | A | N1-C2-N3 | -18.05 | 120.27 | 129.30 |
| 1 | AA | 1349 | A | N1-C2-N3 | -18.05 | 120.28 | 129.30 |
| 22 | BA | 2518 | A | N1-C2-N3 | -18.05 | 120.28 | 129.30 |
| 22 | BA | 1247 | A | C2-N3-C4 | 18.05 | 119.62 | 110.60 |
| 1 | AA | 609 | A | C2-N3-C4 | 18.05 | 119.62 | 110.60 |
| 22 | BA | 909 | A | C2-N3-C4 | 18.05 | 119.62 | 110.60 |
| 22 | BA | 1572 | A | C2-N3-C4 | 18.05 | 119.62 | 110.60 |
| 1 | AA | 878 | A | N1-C2-N3 | -18.04 | 120.28 | 129.30 |
| 1 | AA | 602 | A | C2-N3-C4 | 18.04 | 119.62 | 110.60 |
| 22 | BA | 1169 | A | N1-C6-N6 | -18.04 | 107.78 | 118.60 |
| 23 | BB | 119 | A | N1-C2-N3 | -18.04 | 120.28 | 129.30 |
| 1 | AA | 1318 | A | C2-N3-C4 | 18.04 | 119.62 | 110.60 |
| 22 | BA | 1654 | A | C2-N3-C4 | 18.04 | 119.62 | 110.60 |
| 22 | BA | 1803 | A | N1-C6-N6 | -18.04 | 107.78 | 118.60 |
| 1 | AA | 303 | A | C2-N3-C4 | 18.04 | 119.62 | 110.60 |
| 1 | AA | 1256 | A | N1-C2-N3 | -18.04 | 120.28 | 129.30 |
| 22 | BA | 454 | A | N1-C2-N3 | -18.04 | 120.28 | 129.30 |
| 22 | BA | 1690 | A | N1-C6-N6 | -18.04 | 107.78 | 118.60 |
| 22 | BA | 2602 | A | N1-C2-N3 | -18.04 | 120.28 | 129.30 |
| 22 | BA | 1050 | A | C2-N3-C4 | 18.04 | 119.62 | 110.60 |
| 22 | BA | 2298 | A | N1-C2-N3 | -18.03 | 120.28 | 129.30 |
| 22 | BA | 2635 | A | N1-C2-N3 | -18.03 | 120.28 | 129.30 |
| 22 | BA | 2665 | A | N1-C6-N6 | -18.03 | 107.78 | 118.60 |
| 23 | BB | 52 | A | N1-C2-N3 | -18.03 | 120.28 | 129.30 |
| 22 | BA | 1230 | A | N1-C2-N3 | -18.03 | 120.28 | 129.30 |
| 22 | BA | 2183 | A | N1-C2-N3 | -18.03 | 120.28 | 129.30 |
| 22 | BA | 1020 | A | C2-N3-C4 | 18.03 | 119.62 | 110.60 |
| 22 | BA | 1509 | A | N1-C6-N6 | -18.03 | 107.78 | 118.60 |
| 1 | AA | 495 | A | N1-C2-N3 | -18.03 | 120.28 | 129.30 |
| 1 | AA | 1318 | A | N1-C2-N3 | -18.03 | 120.28 | 129.30 |
| 1 | AA | 1346 | A | N1-C2-N3 | -18.03 | 120.29 | 129.30 |
| 22 | BA | 721 | A | C2-N3-C4 | 18.03 | 119.61 | 110.60 |
| 22 | BA | 2634 | A | N1-C2-N3 | -18.03 | 120.29 | 129.30 |
| 22 | BA | 2800 | A | N1-C6-N6 | -18.03 | 107.78 | 118.60 |
| 22 | BA | 2014 | A | N1-C2-N3 | -18.02 | 120.29 | 129.30 |
| 22 | BA | 181 | A | N1-C6-N6 | -18.02 | 107.79 | 118.60 |
| 22 | BA | 666 | A | C2-N3-C4 | 18.02 | 119.61 | 110.60 |
| 1 | AA | 149 | A | N1-C2-N3 | -18.02 | 120.29 | 129.30 |
| 22 | BA | 896 | A | N1-C2-N3 | -18.02 | 120.29 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1040 | A | N1-C6-N6 | -18.02 | 107.79 | 118.60 |
| 1 | AA | 718 | A | C2-N3-C4 | 18.02 | 119.61 | 110.60 |
| 22 | BA | 155 | A | C2-N3-C4 | 18.02 | 119.61 | 110.60 |
| 22 | BA | 2352 | A | C2-N3-C4 | 18.02 | 119.61 | 110.60 |
| 1 | AA | 315 | A | N1-C2-N3 | -18.02 | 120.29 | 129.30 |
| 1 | AA | 759 | A | N1-C2-N3 | -18.02 | 120.29 | 129.30 |
| 22 | BA | 5 | A | N1-C2-N3 | -18.02 | 120.29 | 129.30 |
| 22 | BA | 538 | A | N1-C2-N3 | -18.02 | 120.29 | 129.30 |
| 22 | BA | 1912 | A | N1-C2-N3 | -18.02 | 120.29 | 129.30 |
| 22 | BA | 2119 | A | N1-C2-N3 | -18.02 | 120.29 | 129.30 |
| 22 | BA | 2530 | A | N1-C6-N6 | -18.02 | 107.79 | 118.60 |
| 1 | AA | 101 | A | N1-C6-N6 | -18.02 | 107.79 | 118.60 |
| 1 | AA | 523 | A | N1-C6-N6 | -18.02 | 107.79 | 118.60 |
| 22 | BA | 56 | A | C2-N3-C4 | 18.02 | 119.61 | 110.60 |
| 22 | BA | 586 | A | N1-C2-N3 | -18.02 | 120.29 | 129.30 |
| 22 | BA | 1669 | A | C2-N3-C4 | 18.02 | 119.61 | 110.60 |
| 22 | BA | 1713 | A | N1-C6-N6 | -18.02 | 107.79 | 118.60 |
| 22 | BA | 1981 | A | N1-C2-N3 | -18.02 | 120.29 | 129.30 |
| 1 | AA | 78 | A | N1-C2-N3 | -18.01 | 120.29 | 129.30 |
| 1 | AA | 189 | A | N1-C2-N3 | -18.01 | 120.29 | 129.30 |
| 22 | BA | 371 | A | N1-C2-N3 | -18.01 | 120.29 | 129.30 |
| 22 | BA | 2095 | A | C2-N3-C4 | 18.01 | 119.61 | 110.60 |
| 22 | BA | 176 | A | N1-C2-N3 | -18.01 | 120.29 | 129.30 |
| 22 | BA | 2366 | A | N1-C2-N3 | -18.01 | 120.29 | 129.30 |
| 22 | BA | 226 | A | N1-C6-N6 | -18.01 | 107.79 | 118.60 |
| 1 | AA | 344 | A | C2-N3-C4 | 18.01 | 119.60 | 110.60 |
| 1 | AA | 414 | A | C2-N3-C4 | 18.01 | 119.61 | 110.60 |
| 1 | AA | 1288 | A | N1-C2-N3 | -18.01 | 120.30 | 129.30 |
| 22 | BA | 1328 | A | N1-C6-N6 | -18.01 | 107.80 | 118.60 |
| 22 | BA | 1470 | A | N1-C6-N6 | -18.01 | 107.80 | 118.60 |
| 22 | BA | 1805 | A | N1-C2-N3 | -18.01 | 120.30 | 129.30 |
| 1 | AA | 161 | A | C2-N3-C4 | 18.00 | 119.60 | 110.60 |
| 1 | AA | 968 | A | N1-C2-N3 | -18.00 | 120.30 | 129.30 |
| 1 | AA | 1513 | A | N1-C2-N3 | -18.00 | 120.30 | 129.30 |
| 22 | BA | 216 | A | C2-N3-C4 | 18.00 | 119.60 | 110.60 |
| 22 | BA | 330 | A | N1-C6-N6 | -18.00 | 107.80 | 118.60 |
| 22 | BA | 676 | A | C2-N3-C4 | 18.00 | 119.60 | 110.60 |
| 22 | BA | 1960 | A | N1-C2-N3 | -18.00 | 120.30 | 129.30 |
| 23 | BB | 109 | A | N1-C2-N3 | -18.00 | 120.30 | 129.30 |
| 1 | AA | 149 | A | C2-N3-C4 | 18.00 | 119.60 | 110.60 |
| 22 | BA | 483 | A | C2-N3-C4 | 18.00 | 119.60 | 110.60 |
| 22 | BA | 575 | A | N1-C2-N3 | -18.00 | 120.30 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1088 | A | C2-N3-C4 | 18.00 | 119.60 | 110.60 |
| 22 | BA | 2883 | A | C2-N3-C4 | 18.00 | 119.60 | 110.60 |
| 1 | AA | 192 | A | N1-C6-N6 | -18.00 | 107.80 | 118.60 |
| 1 | AA | 1248 | A | N1-C2-N3 | -18.00 | 120.30 | 129.30 |
| 22 | BA | 574 | A | N1-C2-N3 | -18.00 | 120.30 | 129.30 |
| 22 | BA | 918 | A | C2-N3-C4 | 18.00 | 119.60 | 110.60 |
| 1 | AA | 1398 | A | N1-C2-N3 | -18.00 | 120.30 | 129.30 |
| 22 | BA | 1307 | A | C2-N3-C4 | 18.00 | 119.60 | 110.60 |
| 1 | AA | 109 | A | N1-C6-N6 | -18.00 | 107.80 | 118.60 |
| 1 | AA | 1117 | A | N1-C6-N6 | -18.00 | 107.80 | 118.60 |
| 23 | BB | 57 | A | C2-N3-C4 | 18.00 | 119.60 | 110.60 |
| 1 | AA | 695 | A | N1-C6-N6 | -18.00 | 107.80 | 118.60 |
| 1 | AA | 1285 | A | C2-N3-C4 | 18.00 | 119.60 | 110.60 |
| 1 | AA | 1332 | A | N1-C2-N3 | -18.00 | 120.30 | 129.30 |
| 22 | BA | 2851 | A | N1-C2-N3 | -18.00 | 120.30 | 129.30 |
| 22 | BA | 2899 | A | C2-N3-C4 | 18.00 | 119.60 | 110.60 |
| 23 | BB | 108 | A | N1-C6-N6 | -18.00 | 107.80 | 118.60 |
| 1 | AA | 994 | A | N1-C6-N6 | -17.99 | 107.80 | 118.60 |
| 22 | BA | 845 | A | N1-C2-N3 | -17.99 | 120.30 | 129.30 |
| 1 | AA | 1157 | A | N1-C6-N6 | -17.99 | 107.80 | 118.60 |
| 1 | AA | 1254 | A | C2-N3-C4 | 17.99 | 119.59 | 110.60 |
| 1 | AA | 780 | A | C2-N3-C4 | 17.99 | 119.59 | 110.60 |
| 22 | BA | 1453 | A | C2-N3-C4 | 17.99 | 119.59 | 110.60 |
| 22 | BA | 1819 | A | N1-C2-N3 | -17.99 | 120.31 | 129.30 |
| 22 | BA | 1854 | A | C2-N3-C4 | 17.99 | 119.59 | 110.60 |
| 1 | AA | 1257 | A | C2-N3-C4 | 17.99 | 119.59 | 110.60 |
| 22 | BA | 2900 | A | C2-N3-C4 | 17.99 | 119.59 | 110.60 |
| 1 | AA | 71 | A | N1-C2-N3 | -17.98 | 120.31 | 129.30 |
| 22 | BA | 2711 | A | N1-C2-N3 | -17.98 | 120.31 | 129.30 |
| 22 | BA | 2776 | A | C2-N3-C4 | 17.98 | 119.59 | 110.60 |
| 1 | AA | 487 | A | C2-N3-C4 | 17.98 | 119.59 | 110.60 |
| 22 | BA | 1175 | A | N1-C2-N3 | -17.98 | 120.31 | 129.30 |
| 22 | BA | 1304 | A | N1-C2-N3 | -17.98 | 120.31 | 129.30 |
| 22 | BA | 1508 | A | N1-C2-N3 | -17.98 | 120.31 | 129.30 |
| 23 | BB | 15 | A | C2-N3-C4 | 17.98 | 119.59 | 110.60 |
| 1 | AA | 743 | A | C2-N3-C4 | 17.98 | 119.59 | 110.60 |
| 1 | AA | 1225 | A | N1-C2-N3 | -17.98 | 120.31 | 129.30 |
| 22 | BA | 920 | A | N1-C2-N3 | -17.98 | 120.31 | 129.30 |
| 22 | BA | 2541 | A | N1-C2-N3 | -17.98 | 120.31 | 129.30 |
| 22 | BA | 428 | A | N1-C6-N6 | -17.97 | 107.81 | 118.60 |
| 1 | AA | 907 | A | N1-C2-N3 | -17.97 | 120.31 | 129.30 |
| 1 | AA | 1082 | A | N1-C6-N6 | -17.97 | 107.82 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1609 | A | C2-N3-C4 | 17.97 | 119.59 | 110.60 |
| 1 | AA | 478 | A | N1-C2-N3 | -17.97 | 120.31 | 129.30 |
| 22 | BA | 156 | A | C2-N3-C4 | 17.97 | 119.58 | 110.60 |
| 1 | AA | 873 | A | N1-C2-N3 | -17.97 | 120.31 | 129.30 |
| 1 | AA | 1067 | A | C2-N3-C4 | 17.97 | 119.58 | 110.60 |
| 22 | BA | 345 | A | C2-N3-C4 | 17.97 | 119.58 | 110.60 |
| 22 | BA | 616 | A | C2-N3-C4 | 17.97 | 119.58 | 110.60 |
| 22 | BA | 2058 | A | N1-C2-N3 | -17.97 | 120.31 | 129.30 |
| 22 | BA | 2336 | A | N1-C2-N3 | -17.97 | 120.31 | 129.30 |
| 1 | AA | 1257 | A | N1-C2-N3 | -17.97 | 120.32 | 129.30 |
| 22 | BA | 613 | A | N1-C6-N6 | -17.97 | 107.82 | 118.60 |
| 1 | AA | 279 | A | N1-C6-N6 | -17.97 | 107.82 | 118.60 |
| 1 | AA | 1019 | A | C2-N3-C4 | 17.97 | 119.58 | 110.60 |
| 1 | AA | 1167 | A | N1-C2-N3 | -17.96 | 120.32 | 129.30 |
| 1 | AA | 609 | A | N1-C2-N3 | -17.96 | 120.32 | 129.30 |
| 1 | AA | 872 | A | N1-C2-N3 | -17.96 | 120.32 | 129.30 |
| 1 | AA | 3 | A | N1-C2-N3 | -17.96 | 120.32 | 129.30 |
| 1 | AA | 523 | A | C2-N3-C4 | 17.96 | 119.58 | 110.60 |
| 1 | AA | 864 | A | C2-N3-C4 | 17.96 | 119.58 | 110.60 |
| 22 | BA | 1871 | A | N1-C2-N3 | -17.96 | 120.32 | 129.30 |
| 22 | BA | 2227 | A | N1-C6-N6 | -17.96 | 107.82 | 118.60 |
| 1 | AA | 996 | A | N1-C2-N3 | -17.96 | 120.32 | 129.30 |
| 22 | BA | 556 | A | N1-C2-N3 | -17.96 | 120.32 | 129.30 |
| 22 | BA | 1039 | A | N1-C2-N3 | -17.96 | 120.32 | 129.30 |
| 55 | B8 | 14 | A | C2-N3-C4 | 17.96 | 119.58 | 110.60 |
| 22 | BA | 309 | A | N1-C2-N3 | -17.96 | 120.32 | 129.30 |
| 22 | BA | 2810 | A | N1-C2-N3 | -17.96 | 120.32 | 129.30 |
| 1 | AA | 1191 | A | N1-C2-N3 | -17.95 | 120.32 | 129.30 |
| 1 | AA | 1213 | A | C2-N3-C4 | 17.95 | 119.58 | 110.60 |
| 22 | BA | 574 | A | C2-N3-C4 | 17.95 | 119.58 | 110.60 |
| 22 | BA | 1347 | A | N1-C2-N3 | -17.95 | 120.32 | 129.30 |
| 22 | BA | 2665 | A | N1-C2-N3 | -17.95 | 120.32 | 129.30 |
| 1 | AA | 119 | A | N1-C2-N3 | -17.95 | 120.32 | 129.30 |
| 22 | BA | 1189 | A | N1-C2-N3 | -17.95 | 120.32 | 129.30 |
| 22 | BA | 1274 | A | N1-C2-N3 | -17.95 | 120.32 | 129.30 |
| 22 | BA | 1495 | A | N1-C2-N3 | -17.95 | 120.32 | 129.30 |
| 22 | BA | 2288 | A | C2-N3-C4 | 17.95 | 119.58 | 110.60 |
| 22 | BA | 2711 | A | N1-C6-N6 | -17.95 | 107.83 | 118.60 |
| 1 | AA | 19 | A | C2-N3-C4 | 17.95 | 119.57 | 110.60 |
| 1 | AA | 629 | A | C2-N3-C4 | 17.95 | 119.57 | 110.60 |
| 22 | BA | 227 | A | N1-C2-N3 | -17.95 | 120.33 | 129.30 |
| 22 | BA | 749 | A | C2-N3-C4 | 17.95 | 119.57 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1821 | A | N1-C2-N3 | -17.95 | 120.33 | 129.30 |
| 22 | BA | 2750 | A | C2-N3-C4 | 17.95 | 119.57 | 110.60 |
| 1 | AA | 908 | A | N1-C2-N3 | -17.95 | 120.33 | 129.30 |
| 22 | BA | 1111 | A | C2-N3-C4 | 17.95 | 119.57 | 110.60 |
| 22 | BA | 1847 | A | N1-C2-N3 | -17.95 | 120.33 | 129.30 |
| 22 | BA | 1969 | A | N1-C6-N6 | -17.95 | 107.83 | 118.60 |
| 1 | AA | 1374 | A | C2-N3-C4 | 17.94 | 119.57 | 110.60 |
| 22 | BA | 2388 | A | C2-N3-C4 | 17.94 | 119.57 | 110.60 |
| 1 | AA | 364 | A | N1-C2-N3 | -17.94 | 120.33 | 129.30 |
| 1 | AA | 892 | A | N1-C2-N3 | -17.94 | 120.33 | 129.30 |
| 22 | BA | 144 | A | C2-N3-C4 | 17.94 | 119.57 | 110.60 |
| 22 | BA | 320 | A | C2-N3-C4 | 17.94 | 119.57 | 110.60 |
| 22 | BA | 402 | A | N1-C2-N3 | -17.94 | 120.33 | 129.30 |
| 1 | AA | 1275 | A | N1-C2-N3 | -17.94 | 120.33 | 129.30 |
| 22 | BA | 1744 | A | N1-C2-N3 | -17.94 | 120.33 | 129.30 |
| 22 | BA | 1966 | A | N1-C6-N6 | -17.94 | 107.84 | 118.60 |
| 22 | BA | 2191 | A | N1-C2-N3 | -17.94 | 120.33 | 129.30 |
| 22 | BA | 2369 | A | C2-N3-C4 | 17.94 | 119.57 | 110.60 |
| 22 | BA | 2560 | A | N1-C2-N3 | -17.94 | 120.33 | 129.30 |
| 1 | AA | 129 | A | N1-C2-N3 | -17.94 | 120.33 | 129.30 |
| 1 | AA | 243 | A | C2-N3-C4 | 17.94 | 119.57 | 110.60 |
| 22 | BA | 2856 | A | N1-C2-N3 | -17.94 | 120.33 | 129.30 |
| 22 | BA | 2868 | A | N1-C2-N3 | -17.94 | 120.33 | 129.30 |
| 22 | BA | 345 | A | N1-C2-N3 | -17.93 | 120.33 | 129.30 |
| 22 | BA | 1596 | A | N1-C2-N3 | -17.93 | 120.33 | 129.30 |
| 22 | BA | 1787 | A | N1-C6-N6 | -17.93 | 107.84 | 118.60 |
| 23 | BB | 94 | A | N1-C2-N3 | -17.93 | 120.33 | 129.30 |
| 1 | AA | 78 | A | C2-N3-C4 | 17.93 | 119.57 | 110.60 |
| 22 | BA | 2758 | A | N1-C2-N3 | -17.93 | 120.33 | 129.30 |
| 22 | BA | 1046 | A | N1-C2-N3 | -17.93 | 120.33 | 129.30 |
| 22 | BA | 2205 | A | N1-C6-N6 | -17.93 | 107.84 | 118.60 |
| 22 | BA | 925 | A | N1-C6-N6 | -17.93 | 107.84 | 118.60 |
| 1 | AA | 16 | A | N1-C2-N3 | -17.93 | 120.34 | 129.30 |
| 1 | AA | 831 | A | N1-C6-N6 | -17.93 | 107.84 | 118.60 |
| 1 | AA | 1014 | A | C2-N3-C4 | 17.93 | 119.56 | 110.60 |
| 1 | AA | 1176 | A | C2-N3-C4 | 17.93 | 119.56 | 110.60 |
| 1 | AA | 1229 | A | N1-C2-N3 | -17.93 | 120.34 | 129.30 |
| 22 | BA | 1504 | A | N1-C2-N3 | -17.93 | 120.34 | 129.30 |
| 23 | BB | 99 | A | N1-C2-N3 | -17.93 | 120.34 | 129.30 |
| 1 | AA | 131 | A | N1-C2-N3 | -17.93 | 120.34 | 129.30 |
| 1 | AA | 1196 | A | N1-C6-N6 | -17.93 | 107.84 | 118.60 |
| 1 | AA | 607 | A | C2-N3-C4 | 17.92 | 119.56 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 900 | A | C2-N3-C4 | 17.92 | 119.56 | 110.60 |
| 22 | BA | 344 | A | N1-C6-N6 | -17.92 | 107.85 | 118.60 |
| 22 | BA | 526 | A | C2-N3-C4 | 17.92 | 119.56 | 110.60 |
| 1 | AA | 441 | A | C2-N3-C4 | 17.92 | 119.56 | 110.60 |
| 1 | AA | 456 | A | C2-N3-C4 | 17.92 | 119.56 | 110.60 |
| 22 | BA | 320 | A | N1-C2-N3 | -17.92 | 120.34 | 129.30 |
| 22 | BA | 501 | A | N1-C2-N3 | -17.92 | 120.34 | 129.30 |
| 22 | BA | 1998 | A | N1-C2-N3 | -17.92 | 120.34 | 129.30 |
| 22 | BA | 2268 | A | C2-N3-C4 | 17.92 | 119.56 | 110.60 |
| 22 | BA | 2899 | A | N1-C2-N3 | -17.92 | 120.34 | 129.30 |
| 1 | AA | 199 | A | C2-N3-C4 | 17.92 | 119.56 | 110.60 |
| 22 | BA | 2412 | A | N1-C6-N6 | -17.92 | 107.85 | 118.60 |
| 1 | AA | 155 | A | N1-C2-N3 | -17.91 | 120.34 | 129.30 |
| 1 | AA | 160 | A | C2-N3-C4 | 17.91 | 119.56 | 110.60 |
| 1 | AA | 415 | A | C2-N3-C4 | 17.91 | 119.56 | 110.60 |
| 22 | BA | 344 | A | N1-C2-N3 | -17.91 | 120.34 | 129.30 |
| 22 | BA | 422 | A | N1-C6-N6 | -17.91 | 107.85 | 118.60 |
| 22 | BA | 1287 | A | N1-C6-N6 | -17.91 | 107.85 | 118.60 |
| 22 | BA | 1434 | A | C2-N3-C4 | 17.91 | 119.56 | 110.60 |
| 22 | BA | 2171 | A | C2-N3-C4 | 17.91 | 119.56 | 110.60 |
| 1 | AA | 161 | A | N1-C2-N3 | -17.91 | 120.34 | 129.30 |
| 22 | BA | 52 | A | C2-N3-C4 | 17.91 | 119.56 | 110.60 |
| 1 | AA | 1275 | A | C2-N3-C4 | 17.91 | 119.55 | 110.60 |
| 22 | BA | 1713 | A | C2-N3-C4 | 17.91 | 119.55 | 110.60 |
| 22 | BA | 2381 | A | N1-C2-N3 | -17.91 | 120.35 | 129.30 |
| 1 | AA | 1151 | A | C2-N3-C4 | 17.91 | 119.55 | 110.60 |
| 22 | BA | 918 | A | N1-C2-N3 | -17.91 | 120.35 | 129.30 |
| 22 | BA | 2346 | A | C2-N3-C4 | 17.91 | 119.55 | 110.60 |
| 22 | BA | 2809 | A | C2-N3-C4 | 17.91 | 119.55 | 110.60 |
| 22 | BA | 149 | A | C2-N3-C4 | 17.90 | 119.55 | 110.60 |
| 22 | BA | 1591 | A | C2-N3-C4 | 17.90 | 119.55 | 110.60 |
| 22 | BA | 1900 | A | N1-C2-N3 | -17.90 | 120.35 | 129.30 |
| 22 | BA | 2792 | A | N1-C2-N3 | -17.90 | 120.35 | 129.30 |
| 1 | AA | 80 | A | N1-C2-N3 | -17.90 | 120.35 | 129.30 |
| 1 | AA | 1394 | A | C2-N3-C4 | 17.90 | 119.55 | 110.60 |
| 22 | BA | 1676 | A | N1-C6-N6 | -17.90 | 107.86 | 118.60 |
| 22 | BA | 2070 | A | N1-C6-N6 | -17.90 | 107.86 | 118.60 |
| 22 | BA | 666 | A | N1-C2-N3 | -17.90 | 120.35 | 129.30 |
| 22 | BA | 1532 | A | N1-C2-N3 | -17.90 | 120.35 | 129.30 |
| 22 | BA | 2134 | A | N1-C2-N3 | -17.90 | 120.35 | 129.30 |
| 1 | AA | 77 | A | C2-N3-C4 | 17.90 | 119.55 | 110.60 |
| 1 | AA | 432 | A | C2-N3-C4 | 17.90 | 119.55 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 699 | A | N1-C2-N3 | -17.90 | 120.35 | 129.30 |
| 22 | BA | 1021 | A | C2-N3-C4 | 17.90 | 119.55 | 110.60 |
| 22 | BA | 1147 | A | N1-C6-N6 | -17.90 | 107.86 | 118.60 |
| 1 | AA | 706 | A | C2-N3-C4 | 17.90 | 119.55 | 110.60 |
| 1 | AA | 205 | A | N1-C2-N3 | -17.90 | 120.35 | 129.30 |
| 1 | AA | 432 | A | N1-C2-N3 | -17.90 | 120.35 | 129.30 |
| 1 | AA | 451 | A | N1-C6-N6 | -17.90 | 107.86 | 118.60 |
| 1 | AA | 465 | A | C2-N3-C4 | 17.90 | 119.55 | 110.60 |
| 1 | AA | 900 | A | N1-C2-N3 | -17.90 | 120.35 | 129.30 |
| 22 | BA | 2311 | A | N1-C2-N3 | -17.90 | 120.35 | 129.30 |
| 22 | BA | 2886 | A | N1-C2-N3 | -17.90 | 120.35 | 129.30 |
| 55 | B8 | 21 | A | C2-N3-C4 | 17.90 | 119.55 | 110.60 |
| 22 | BA | 2170 | A | C2-N3-C4 | 17.89 | 119.55 | 110.60 |
| 23 | BB | 15 | A | N1-C2-N3 | -17.89 | 120.35 | 129.30 |
| 1 | AA | 600 | A | N1-C6-N6 | -17.89 | 107.86 | 118.60 |
| 1 | AA | 1256 | A | C2-N3-C4 | 17.89 | 119.55 | 110.60 |
| 22 | BA | 2335 | A | C2-N3-C4 | 17.89 | 119.55 | 110.60 |
| 1 | AA | 238 | A | N1-C2-N3 | -17.89 | 120.35 | 129.30 |
| 1 | AA | 784 | A | C2-N3-C4 | 17.89 | 119.55 | 110.60 |
| 22 | BA | 2173 | A | N1-C2-N3 | -17.89 | 120.35 | 129.30 |
| 22 | BA | 1095 | A | C2-N3-C4 | 17.89 | 119.55 | 110.60 |
| 22 | BA | 1342 | A | C2-N3-C4 | 17.89 | 119.55 | 110.60 |
| 22 | BA | 2077 | A | C2-N3-C4 | 17.89 | 119.55 | 110.60 |
| 22 | BA | 2314 | A | N1-C2-N3 | -17.89 | 120.36 | 129.30 |
| 22 | BA | 2654 | A | N1-C6-N6 | -17.89 | 107.86 | 118.60 |
| 1 | AA | 1081 | A | N1-C6-N6 | -17.89 | 107.87 | 118.60 |
| 22 | BA | 547 | A | N1-C2-N3 | -17.89 | 120.36 | 129.30 |
| 22 | BA | 896 | A | N1-C6-N6 | -17.89 | 107.87 | 118.60 |
| 22 | BA | 1090 | A | C2-N3-C4 | 17.89 | 119.54 | 110.60 |
| 1 | AA | 1239 | A | C2-N3-C4 | 17.89 | 119.54 | 110.60 |
| 22 | BA | 300 | A | N1-C6-N6 | -17.89 | 107.87 | 118.60 |
| 23 | BB | 34 | A | N1-C2-N3 | -17.89 | 120.36 | 129.30 |
| 22 | BA | 1637 | A | C2-N3-C4 | 17.88 | 119.54 | 110.60 |
| 1 | AA | 974 | A | C2-N3-C4 | 17.88 | 119.54 | 110.60 |
| 22 | BA | 632 | A | N1-C2-N3 | -17.88 | 120.36 | 129.30 |
| 22 | BA | 1096 | A | N1-C6-N6 | -17.88 | 107.87 | 118.60 |
| 22 | BA | 2176 | A | N1-C6-N6 | -17.88 | 107.87 | 118.60 |
| 1 | AA | 167 | A | N1-C2-N3 | -17.88 | 120.36 | 129.30 |
| 1 | AA | 223 | A | C2-N3-C4 | 17.88 | 119.54 | 110.60 |
| 1 | AA | 461 | A | N1-C6-N6 | -17.88 | 107.87 | 118.60 |
| 22 | BA | 1151 | A | N1-C2-N3 | -17.88 | 120.36 | 129.30 |
| 22 | BA | 1336 | A | N1-C6-N6 | -17.88 | 107.87 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1347 | A | C2-N3-C4 | 17.88 | 119.54 | 110.60 |
| 1 | AA | 44 | A | N1-C2-N3 | -17.88 | 120.36 | 129.30 |
| 1 | AA | 1413 | A | C2-N3-C4 | 17.88 | 119.54 | 110.60 |
| 22 | BA | 2328 | A | N1-C2-N3 | -17.88 | 120.36 | 129.30 |
| 1 | AA | 831 | A | C2-N3-C4 | 17.88 | 119.54 | 110.60 |
| 22 | BA | 1050 | A | N1-C2-N3 | -17.88 | 120.36 | 129.30 |
| 22 | BA | 1505 | A | C2-N3-C4 | 17.88 | 119.54 | 110.60 |
| 22 | BA | 2184 | A | C2-N3-C4 | 17.88 | 119.54 | 110.60 |
| 22 | BA | 2227 | A | C2-N3-C4 | 17.88 | 119.54 | 110.60 |
| 1 | AA | 374 | A | N1-C2-N3 | -17.87 | 120.36 | 129.30 |
| 22 | BA | 173 | A | N1-C2-N3 | -17.87 | 120.36 | 129.30 |
| 22 | BA | 1698 | A | N1-C2-N3 | -17.87 | 120.36 | 129.30 |
| 22 | BA | 1927 | A | N1-C2-N3 | -17.87 | 120.36 | 129.30 |
| 22 | BA | 1969 | A | C2-N3-C4 | 17.87 | 119.54 | 110.60 |
| 22 | BA | 2309 | A | N1-C2-N3 | -17.87 | 120.36 | 129.30 |
| 22 | BA | 933 | A | N1-C2-N3 | -17.87 | 120.36 | 129.30 |
| 22 | BA | 2037 | A | C2-N3-C4 | 17.87 | 119.54 | 110.60 |
| 22 | BA | 609 | A | N1-C2-N3 | -17.87 | 120.36 | 129.30 |
| 22 | BA | 2435 | A | C2-N3-C4 | 17.87 | 119.53 | 110.60 |
| 22 | BA | 382 | A | N1-C6-N6 | -17.87 | 107.88 | 118.60 |
| 22 | BA | 592 | A | N1-C2-N3 | -17.87 | 120.36 | 129.30 |
| 22 | BA | 1987 | A | N1-C6-N6 | -17.87 | 107.88 | 118.60 |
| 1 | AA | 1036 | A | N1-C2-N3 | -17.87 | 120.37 | 129.30 |
| 1 | AA | 1197 | A | C2-N3-C4 | 17.87 | 119.53 | 110.60 |
| 1 | AA | 1534 | A | N1-C6-N6 | -17.87 | 107.88 | 118.60 |
| 22 | BA | 167 | A | C2-N3-C4 | 17.87 | 119.53 | 110.60 |
| 22 | BA | 439 | A | N1-C2-N3 | -17.87 | 120.37 | 129.30 |
| 22 | BA | 941 | A | N1-C2-N3 | -17.87 | 120.37 | 129.30 |
| 22 | BA | 2009 | A | C2-N3-C4 | 17.87 | 119.53 | 110.60 |
| 1 | AA | 228 | A | N1-C2-N3 | -17.87 | 120.37 | 129.30 |
| 1 | AA | 468 | A | N1-C6-N6 | -17.87 | 107.88 | 118.60 |
| 1 | AA | 794 | A | N1-C6-N6 | -17.86 | 107.88 | 118.60 |
| 22 | BA | 1347 | A | N1-C6-N6 | -17.86 | 107.88 | 118.60 |
| 1 | AA | 1117 | A | C2-N3-C4 | 17.86 | 119.53 | 110.60 |
| 22 | BA | 1676 | A | C2-N3-C4 | 17.86 | 119.53 | 110.60 |
| 1 | AA | 130 | A | N1-C6-N6 | -17.86 | 107.88 | 118.60 |
| 1 | AA | 1111 | A | C2-N3-C4 | 17.86 | 119.53 | 110.60 |
| 22 | BA | 191 | A | N1-C2-N3 | -17.86 | 120.37 | 129.30 |
| 22 | BA | 643 | A | C2-N3-C4 | 17.86 | 119.53 | 110.60 |
| 22 | BA | 718 | A | N1-C6-N6 | -17.86 | 107.88 | 118.60 |
| 1 | AA | 694 | A | N1-C2-N3 | -17.86 | 120.37 | 129.30 |
| 1 | AA | 695 | A | C2-N3-C4 | 17.86 | 119.53 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 233 | A | N1-C2-N3 | -17.86 | 120.37 | 129.30 |
| 22 | BA | 792 | A | N1-C2-N3 | -17.86 | 120.37 | 129.30 |
| 1 | AA | 908 | A | C2-N3-C4 | 17.86 | 119.53 | 110.60 |
| 1 | AA | 968 | A | C2-N3-C4 | 17.86 | 119.53 | 110.60 |
| 1 | AA | 1410 | A | N1-C2-N3 | -17.86 | 120.37 | 129.30 |
| 22 | BA | 996 | A | N1-C2-N3 | -17.86 | 120.37 | 129.30 |
| 22 | BA | 1096 | A | C2-N3-C4 | 17.86 | 119.53 | 110.60 |
| 22 | BA | 1858 | A | N1-C2-N3 | -17.86 | 120.37 | 129.30 |
| 22 | BA | 2147 | A | N1-C2-N3 | -17.86 | 120.37 | 129.30 |
| 1 | AA | 1251 | A | N1-C2-N3 | -17.85 | 120.37 | 129.30 |
| 1 | AA | 1306 | A | C2-N3-C4 | 17.85 | 119.53 | 110.60 |
| 22 | BA | 2381 | A | C2-N3-C4 | 17.85 | 119.53 | 110.60 |
| 22 | BA | 2433 | A | C2-N3-C4 | 17.85 | 119.53 | 110.60 |
| 22 | BA | 2753 | A | N1-C2-N3 | -17.85 | 120.37 | 129.30 |
| 1 | AA | 408 | A | N1-C2-N3 | -17.85 | 120.37 | 129.30 |
| 1 | AA | 975 | A | C2-N3-C4 | 17.85 | 119.53 | 110.60 |
| 22 | BA | 936 | A | N1-C2-N3 | -17.85 | 120.38 | 129.30 |
| 22 | BA | 1027 | A | C2-N3-C4 | 17.85 | 119.53 | 110.60 |
| 22 | BA | 1749 | A | N1-C6-N6 | -17.85 | 107.89 | 118.60 |
| 1 | AA | 1102 | A | C2-N3-C4 | 17.85 | 119.52 | 110.60 |
| 22 | BA | 547 | A | C2-N3-C4 | 17.85 | 119.52 | 110.60 |
| 22 | BA | 2765 | A | N1-C2-N3 | -17.85 | 120.38 | 129.30 |
| 1 | AA | 250 | A | N1-C2-N3 | -17.85 | 120.38 | 129.30 |
| 22 | BA | 2799 | A | N1-C2-N3 | -17.85 | 120.38 | 129.30 |
| 1 | AA | 223 | A | N1-C6-N6 | -17.84 | 107.89 | 118.60 |
| 22 | BA | 1431 | A | C2-N3-C4 | 17.84 | 119.52 | 110.60 |
| 22 | BA | 2335 | A | N1-C6-N6 | -17.84 | 107.89 | 118.60 |
| 1 | AA | 1280 | A | C2-N3-C4 | 17.84 | 119.52 | 110.60 |
| 22 | BA | 89 | A | C2-N3-C4 | 17.84 | 119.52 | 110.60 |
| 1 | AA | 1005 | A | N1-C2-N3 | -17.84 | 120.38 | 129.30 |
| 22 | BA | 1509 | A | N1-C2-N3 | -17.84 | 120.38 | 129.30 |
| 22 | BA | 2170 | A | N1-C6-N6 | -17.84 | 107.89 | 118.60 |
| 22 | BA | 2328 | A | N1-C6-N6 | -17.84 | 107.89 | 118.60 |
| 1 | AA | 560 | A | N1-C6-N6 | -17.84 | 107.90 | 118.60 |
| 22 | BA | 64 | A | N1-C2-N3 | -17.84 | 120.38 | 129.30 |
| 22 | BA | 1502 | A | C2-N3-C4 | 17.84 | 119.52 | 110.60 |
| 1 | AA | 456 | A | N1-C6-N6 | -17.84 | 107.90 | 118.60 |
| 1 | AA | 1155 | A | N1-C2-N3 | -17.84 | 120.38 | 129.30 |
| 22 | BA | 1705 | A | N1-C2-N3 | -17.84 | 120.38 | 129.30 |
| 22 | BA | 1937 | A | N1-C2-N3 | -17.84 | 120.38 | 129.30 |
| 22 | BA | 2225 | A | N1-C2-N3 | -17.84 | 120.38 | 129.30 |
| 22 | BA | 38 | A | N1-C2-N3 | -17.83 | 120.38 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2014 | A | C2-N3-C4 | 17.83 | 119.52 | 110.60 |
| 22 | BA | 483 | A | N1-C2-N3 | -17.83 | 120.38 | 129.30 |
| 22 | BA | 1039 | A | C2-N3-C4 | 17.83 | 119.52 | 110.60 |
| 22 | BA | 1169 | A | C2-N3-C4 | 17.83 | 119.52 | 110.60 |
| 1 | AA | 1093 | A | N1-C6-N6 | -17.83 | 107.90 | 118.60 |
| 22 | BA | 131 | A | C2-N3-C4 | 17.83 | 119.52 | 110.60 |
| 22 | BA | 161 | A | N1-C2-N3 | -17.83 | 120.39 | 129.30 |
| 22 | BA | 1089 | A | C2-N3-C4 | 17.83 | 119.51 | 110.60 |
| 22 | BA | 1689 | A | C2-N3-C4 | 17.83 | 119.51 | 110.60 |
| 22 | BA | 2147 | A | C2-N3-C4 | 17.83 | 119.51 | 110.60 |
| 22 | BA | 2170 | A | N1-C2-N3 | -17.83 | 120.39 | 129.30 |
| 1 | AA | 50 | A | N1-C2-N3 | -17.83 | 120.39 | 129.30 |
| 22 | BA | 2135 | A | N1-C6-N6 | -17.83 | 107.91 | 118.60 |
| 1 | AA | 71 | A | N1-C6-N6 | -17.82 | 107.91 | 118.60 |
| 1 | AA | 482 | A | N1-C2-N3 | -17.82 | 120.39 | 129.30 |
| 1 | AA | 766 | A | N1-C2-N3 | -17.82 | 120.39 | 129.30 |
| 22 | BA | 101 | A | C2-N3-C4 | 17.82 | 119.51 | 110.60 |
| 22 | BA | 2101 | A | C2-N3-C4 | 17.82 | 119.51 | 110.60 |
| 22 | BA | 2278 | A | N1-C6-N6 | -17.82 | 107.91 | 118.60 |
| 23 | BB | 57 | A | N1-C6-N6 | -17.82 | 107.91 | 118.60 |
| 1 | AA | 81 | A | N1-C2-N3 | -17.82 | 120.39 | 129.30 |
| 1 | AA | 1465 | A | C2-N3-C4 | 17.82 | 119.51 | 110.60 |
| 1 | AA | 80 | A | C2-N3-C4 | 17.82 | 119.51 | 110.60 |
| 22 | BA | 1916 | A | N1-C2-N3 | -17.82 | 120.39 | 129.30 |
| 22 | BA | 2071 | A | N1-C6-N6 | -17.82 | 107.91 | 118.60 |
| 1 | AA | 321 | A | N1-C2-N3 | -17.82 | 120.39 | 129.30 |
| 22 | BA | 1073 | A | C2-N3-C4 | 17.82 | 119.51 | 110.60 |
| 22 | BA | 2211 | A | C2-N3-C4 | 17.82 | 119.51 | 110.60 |
| 22 | BA | 722 | A | C2-N3-C4 | 17.82 | 119.51 | 110.60 |
| 22 | BA | 794 | A | N1-C6-N6 | -17.81 | 107.91 | 118.60 |
| 1 | AA | 28 | A | C2-N3-C4 | 17.81 | 119.51 | 110.60 |
| 1 | AA | 196 | A | N1-C2-N3 | -17.81 | 120.39 | 129.30 |
| 22 | BA | 2273 | A | N1-C6-N6 | -17.81 | 107.91 | 118.60 |
| 1 | AA | 553 | A | N1-C2-N3 | -17.81 | 120.40 | 129.30 |
| 1 | AA | 937 | A | C2-N3-C4 | 17.81 | 119.50 | 110.60 |
| 1 | AA | 1350 | A | N1-C6-N6 | -17.81 | 107.92 | 118.60 |
| 22 | BA | 282 | A | N1-C2-N3 | -17.81 | 120.39 | 129.30 |
| 22 | BA | 693 | A | N1-C6-N6 | -17.81 | 107.91 | 118.60 |
| 22 | BA | 2369 | A | N1-C2-N3 | -17.81 | 120.39 | 129.30 |
| 1 | AA | 382 | A | N1-C6-N6 | -17.81 | 107.92 | 118.60 |
| 1 | AA | 780 | A | N1-C6-N6 | -17.81 | 107.92 | 118.60 |
| 1 | AA | 974 | A | N1-C6-N6 | -17.81 | 107.92 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 1396 | A | N1-C2-N3 | -17.81 | 120.40 | 129.30 |
| 55 | B8 | 76 | A | N1-C6-N6 | -17.81 | 107.92 | 118.60 |
| 1 | AA | 270 | A | C2-N3-C4 | 17.80 | 119.50 | 110.60 |
| 22 | BA | 1603 | A | N1-C6-N6 | -17.80 | 107.92 | 118.60 |
| 23 | BB | 45 | A | C2-N3-C4 | 17.80 | 119.50 | 110.60 |
| 1 | AA | 7 | A | C2-N3-C4 | 17.80 | 119.50 | 110.60 |
| 1 | AA | 451 | A | N1-C2-N3 | -17.80 | 120.40 | 129.30 |
| 1 | AA | 814 | A | N1-C2-N3 | -17.80 | 120.40 | 129.30 |
| 22 | BA | 28 | A | C2-N3-C4 | 17.80 | 119.50 | 110.60 |
| 22 | BA | 1580 | A | C2-N3-C4 | 17.80 | 119.50 | 110.60 |
| 22 | BA | 2482 | A | C2-N3-C4 | 17.80 | 119.50 | 110.60 |
| 1 | AA | 1236 | A | C2-N3-C4 | 17.80 | 119.50 | 110.60 |
| 1 | AA | 780 | A | N1-C2-N3 | -17.80 | 120.40 | 129.30 |
| 1 | AA | 1431 | A | N1-C2-N3 | -17.80 | 120.40 | 129.30 |
| 22 | BA | 1549 | A | N1-C2-N3 | -17.80 | 120.40 | 129.30 |
| 1 | AA | 44 | A | C2-N3-C4 | 17.80 | 119.50 | 110.60 |
| 1 | AA | 996 | A | C2-N3-C4 | 17.80 | 119.50 | 110.60 |
| 1 | AA | 10 | A | N1-C2-N3 | -17.80 | 120.40 | 129.30 |
| 22 | BA | 721 | A | N1-C2-N3 | -17.80 | 120.40 | 129.30 |
| 22 | BA | 1127 | A | C2-N3-C4 | 17.80 | 119.50 | 110.60 |
| 1 | AA | 321 | A | C2-N3-C4 | 17.79 | 119.50 | 110.60 |
| 1 | AA | 451 | A | C2-N3-C4 | 17.79 | 119.50 | 110.60 |
| 22 | BA | 2748 | A | C2-N3-C4 | 17.79 | 119.50 | 110.60 |
| 22 | BA | 643 | A | N1-C6-N6 | -17.79 | 107.93 | 118.60 |
| 1 | AA | 65 | A | N1-C2-N3 | -17.79 | 120.41 | 129.30 |
| 1 | AA | 468 | A | C2-N3-C4 | 17.79 | 119.50 | 110.60 |
| 22 | BA | 56 | A | N1-C6-N6 | -17.79 | 107.93 | 118.60 |
| 1 | AA | 143 | A | C2-N3-C4 | 17.79 | 119.49 | 110.60 |
| 22 | BA | 460 | A | N1-C6-N6 | -17.79 | 107.93 | 118.60 |
| 1 | AA | 630 | A | N1-C2-N3 | -17.78 | 120.41 | 129.30 |
| 1 | AA | 1146 | A | N1-C2-N3 | -17.78 | 120.41 | 129.30 |
| 1 | AA | 621 | A | N1-C2-N3 | -17.78 | 120.41 | 129.30 |
| 22 | BA | 2183 | A | C2-N3-C4 | 17.78 | 119.49 | 110.60 |
| 1 | AA | 595 | A | N1-C2-N3 | -17.78 | 120.41 | 129.30 |
| 1 | AA | 949 | A | N1-C2-N3 | -17.78 | 120.41 | 129.30 |
| 22 | BA | 734 | A | C2-N3-C4 | 17.78 | 119.49 | 110.60 |
| 22 | BA | 454 | A | C2-N3-C4 | 17.78 | 119.49 | 110.60 |
| 1 | AA | 1360 | A | C2-N3-C4 | 17.78 | 119.49 | 110.60 |
| 22 | BA | 503 | A | C2-N3-C4 | 17.78 | 119.49 | 110.60 |
| 22 | BA | 1901 | A | N1-C2-N3 | -17.78 | 120.41 | 129.30 |
| 23 | BB | 52 | A | N1-C6-N6 | -17.78 | 107.93 | 118.60 |
| 1 | AA | 129 | A | C2-N3-C4 | 17.77 | 119.49 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 1428 | A | N1-C2-N3 | -17.77 | 120.41 | 129.30 |
| 22 | BA | 677 | A | N1-C2-N3 | -17.77 | 120.41 | 129.30 |
| 22 | BA | 1810 | A | C2-N3-C4 | 17.77 | 119.49 | 110.60 |
| 22 | BA | 2434 | A | C2-N3-C4 | 17.77 | 119.49 | 110.60 |
| 1 | AA | 595 | A | C2-N3-C4 | 17.77 | 119.49 | 110.60 |
| 22 | BA | 2654 | A | N1-C2-N3 | -17.77 | 120.41 | 129.30 |
| 1 | AA | 1145 | A | C2-N3-C4 | 17.77 | 119.48 | 110.60 |
| 22 | BA | 14 | A | N1-C6-N6 | -17.77 | 107.94 | 118.60 |
| 22 | BA | 354 | A | N1-C6-N6 | -17.77 | 107.94 | 118.60 |
| 1 | AA | 3 | A | C2-N3-C4 | 17.77 | 119.48 | 110.60 |
| 1 | AA | 1434 | A | N1-C2-N3 | -17.77 | 120.42 | 129.30 |
| 22 | BA | 53 | A | C2-N3-C4 | 17.77 | 119.48 | 110.60 |
| 22 | BA | 844 | A | C2-N3-C4 | 17.77 | 119.48 | 110.60 |
| 22 | BA | 996 | A | C2-N3-C4 | 17.77 | 119.48 | 110.60 |
| 1 | AA | 914 | A | C2-N3-C4 | 17.77 | 119.48 | 110.60 |
| 22 | BA | 833 | A | C2-N3-C4 | 17.77 | 119.48 | 110.60 |
| 22 | BA | 1098 | A | N1-C2-N3 | -17.77 | 120.42 | 129.30 |
| 22 | BA | 1142 | A | N1-C2-N3 | -17.77 | 120.42 | 129.30 |
| 1 | AA | 1227 | A | N1-C6-N6 | -17.76 | 107.94 | 118.60 |
| 22 | BA | 5 | A | N1-C6-N6 | -17.76 | 107.94 | 118.60 |
| 22 | BA | 203 | A | N1-C2-N3 | -17.76 | 120.42 | 129.30 |
| 22 | BA | 428 | A | N1-C2-N3 | -17.76 | 120.42 | 129.30 |
| 22 | BA | 676 | A | N1-C6-N6 | -17.76 | 107.94 | 118.60 |
| 22 | BA | 1103 | A | C2-N3-C4 | 17.76 | 119.48 | 110.60 |
| 22 | BA | 2119 | A | C2-N3-C4 | 17.76 | 119.48 | 110.60 |
| 22 | BA | 2705 | A | N1-C2-N3 | -17.76 | 120.42 | 129.30 |
| 1 | AA | 865 | A | C2-N3-C4 | 17.76 | 119.48 | 110.60 |
| 1 | AA | 1000 | A | C2-N3-C4 | 17.76 | 119.48 | 110.60 |
| 22 | BA | 2750 | A | N1-C6-N6 | -17.76 | 107.94 | 118.60 |
| 1 | AA | 509 | A | N1-C2-N3 | -17.76 | 120.42 | 129.30 |
| 1 | AA | 923 | A | C2-N3-C4 | 17.76 | 119.48 | 110.60 |
| 1 | AA | 1167 | A | N1-C6-N6 | -17.76 | 107.94 | 118.60 |
| 22 | BA | 590 | A | C2-N3-C4 | 17.76 | 119.48 | 110.60 |
| 22 | BA | 340 | A | C2-N3-C4 | 17.75 | 119.48 | 110.60 |
| 22 | BA | 1535 | A | C2-N3-C4 | 17.75 | 119.48 | 110.60 |
| 22 | BA | 1545 | A | C2-N3-C4 | 17.75 | 119.48 | 110.60 |
| 22 | BA | 471 | A | N1-C2-N3 | -17.75 | 120.42 | 129.30 |
| 22 | BA | 743 | A | N1-C6-N6 | -17.75 | 107.95 | 118.60 |
| 22 | BA | 878 | A | N1-C2-N3 | -17.75 | 120.42 | 129.30 |
| 1 | AA | 635 | A | N1-C6-N6 | -17.75 | 107.95 | 118.60 |
| 1 | AA | 160 | A | N1-C6-N6 | -17.75 | 107.95 | 118.60 |
| 22 | BA | 1247 | A | N1-C6-N6 | -17.75 | 107.95 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1871 | A | C2-N3-C4 | 17.75 | 119.47 | 110.60 |
| 1 | AA | 468 | A | N1-C2-N3 | -17.75 | 120.43 | 129.30 |
| 22 | BA | 213 | A | N1-C6-N6 | -17.75 | 107.95 | 118.60 |
| 22 | BA | 1413 | A | C2-N3-C4 | 17.75 | 119.47 | 110.60 |
| 1 | AA | 250 | A | C2-N3-C4 | 17.74 | 119.47 | 110.60 |
| 1 | AA | 53 | A | N1-C6-N6 | -17.74 | 107.95 | 118.60 |
| 1 | AA | 807 | A | N1-C6-N6 | -17.74 | 107.95 | 118.60 |
| 1 | AA | 1346 | A | C2-N3-C4 | 17.74 | 119.47 | 110.60 |
| 22 | BA | 917 | A | N1-C6-N6 | -17.74 | 107.95 | 118.60 |
| 22 | BA | 936 | A | C2-N3-C4 | 17.74 | 119.47 | 110.60 |
| 22 | BA | 2058 | A | C2-N3-C4 | 17.74 | 119.47 | 110.60 |
| 54 | B7 | 9 | A | C2-N3-C4 | 17.74 | 119.47 | 110.60 |
| 22 | BA | 470 | A | N1-C2-N3 | -17.74 | 120.43 | 129.30 |
| 1 | AA | 411 | A | C2-N3-C4 | 17.74 | 119.47 | 110.60 |
| 22 | BA | 920 | A | N1-C6-N6 | -17.74 | 107.96 | 118.60 |
| 22 | BA | 1876 | A | N1-C2-N3 | -17.74 | 120.43 | 129.30 |
| 22 | BA | 2176 | A | C2-N3-C4 | 17.74 | 119.47 | 110.60 |
| 22 | BA | 2336 | A | C2-N3-C4 | 17.74 | 119.47 | 110.60 |
| 22 | BA | 2813 | A | N1-C2-N3 | -17.74 | 120.43 | 129.30 |
| 1 | AA | 1446 | A | N1-C2-N3 | -17.73 | 120.43 | 129.30 |
| 22 | BA | 572 | A | N1-C2-N3 | -17.73 | 120.43 | 129.30 |
| 22 | BA | 2482 | A | N1-C2-N3 | -17.73 | 120.43 | 129.30 |
| 22 | BA | 2033 | A | C2-N3-C4 | 17.73 | 119.47 | 110.60 |
| 22 | BA | 2547 | A | N1-C2-N3 | -17.73 | 120.43 | 129.30 |
| 1 | AA | 782 | A | N1-C6-N6 | -17.73 | 107.96 | 118.60 |
| 22 | BA | 627 | A | N1-C6-N6 | -17.73 | 107.96 | 118.60 |
| 22 | BA | 1301 | A | N1-C2-N3 | -17.73 | 120.43 | 129.30 |
| 22 | BA | 1365 | A | C2-N3-C4 | 17.73 | 119.47 | 110.60 |
| 22 | BA | 1722 | A | C2-N3-C4 | 17.73 | 119.47 | 110.60 |
| 22 | BA | 1596 | A | C2-N3-C4 | 17.73 | 119.47 | 110.60 |
| 22 | BA | 2176 | A | N1-C2-N3 | -17.73 | 120.44 | 129.30 |
| 22 | BA | 2241 | A | N1-C2-N3 | -17.73 | 120.44 | 129.30 |
| 22 | BA | 2809 | A | N1-C6-N6 | -17.73 | 107.96 | 118.60 |
| 1 | AA | 640 | A | N1-C2-N3 | -17.73 | 120.44 | 129.30 |
| 22 | BA | 1490 | A | N1-C2-N3 | -17.73 | 120.44 | 129.30 |
| 1 | AA | 78 | A | N1-C6-N6 | -17.72 | 107.97 | 118.60 |
| 22 | BA | 2513 | A | N1-C6-N6 | -17.72 | 107.97 | 118.60 |
| 22 | BA | 1899 | A | N1-C2-N3 | -17.72 | 120.44 | 129.30 |
| 22 | BA | 2019 | A | N1-C6-N6 | -17.72 | 107.97 | 118.60 |
| 1 | AA | 607 | A | N1-C2-N3 | -17.72 | 120.44 | 129.30 |
| 22 | BA | 504 | A | C2-N3-C4 | 17.72 | 119.46 | 110.60 |
| 22 | BA | 2378 | A | C2-N3-C4 | 17.72 | 119.46 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 103 | A | N1-C2-N3 | -17.72 | 120.44 | 129.30 |
| 22 | BA | 1913 | A | N1-C2-N3 | -17.72 | 120.44 | 129.30 |
| 22 | BA | 1913 | A | N1-C6-N6 | -17.72 | 107.97 | 118.60 |
| 22 | BA | 2459 | A | N1-C2-N3 | -17.72 | 120.44 | 129.30 |
| 22 | BA | 2725 | A | C2-N3-C4 | 17.72 | 119.46 | 110.60 |
| 55 | B8 | 38 | A | C2-N3-C4 | 17.72 | 119.46 | 110.60 |
| 1 | AA | 1179 | A | C2-N3-C4 | 17.71 | 119.46 | 110.60 |
| 1 | AA | 1014 | A | N1-C2-N3 | -17.71 | 120.44 | 129.30 |
| 1 | AA | 1092 | A | C2-N3-C4 | 17.71 | 119.46 | 110.60 |
| 1 | AA | 1507 | A | N1-C2-N3 | -17.71 | 120.44 | 129.30 |
| 22 | BA | 1749 | A | N1-C2-N3 | -17.71 | 120.44 | 129.30 |
| 22 | BA | 2183 | A | N1-C6-N6 | -17.71 | 107.97 | 118.60 |
| 1 | AA | 655 | A | N1-C6-N6 | -17.71 | 107.97 | 118.60 |
| 22 | BA | 226 | A | C2-N3-C4 | 17.71 | 119.45 | 110.60 |
| 22 | BA | 1265 | A | N1-C2-N3 | -17.71 | 120.44 | 129.30 |
| 23 | BB | 66 | A | N1-C6-N6 | -17.71 | 107.97 | 118.60 |
| 1 | AA | 1180 | A | N1-C2-N3 | -17.71 | 120.45 | 129.30 |
| 22 | BA | 718 | A | C2-N3-C4 | 17.71 | 119.45 | 110.60 |
| 22 | BA | 718 | A | N1-C2-N3 | -17.71 | 120.45 | 129.30 |
| 22 | BA | 756 | A | N1-C2-N3 | -17.71 | 120.45 | 129.30 |
| 22 | BA | 945 | A | N1-C2-N3 | -17.71 | 120.45 | 129.30 |
| 1 | AA | 831 | A | N1-C2-N3 | -17.71 | 120.45 | 129.30 |
| 1 | AA | 1167 | A | C2-N3-C4 | 17.71 | 119.45 | 110.60 |
| 22 | BA | 73 | A | C2-N3-C4 | 17.71 | 119.45 | 110.60 |
| 1 | AA | 448 | A | C2-N3-C4 | 17.70 | 119.45 | 110.60 |
| 1 | AA | 819 | A | C2-N3-C4 | 17.70 | 119.45 | 110.60 |
| 1 | AA | 1275 | A | N1-C6-N6 | -17.70 | 107.98 | 118.60 |
| 22 | BA | 1054 | A | C2-N3-C4 | 17.70 | 119.45 | 110.60 |
| 22 | BA | 430 | A | C2-N3-C4 | 17.70 | 119.45 | 110.60 |
| 22 | BA | 861 | A | N1-C2-N3 | -17.70 | 120.45 | 129.30 |
| 22 | BA | 49 | A | C2-N3-C4 | 17.70 | 119.45 | 110.60 |
| 22 | BA | 1009 | A | N1-C6-N6 | -17.70 | 107.98 | 118.60 |
| 22 | BA | 19 | A | N1-C2-N3 | -17.70 | 120.45 | 129.30 |
| 22 | BA | 91 | A | C2-N3-C4 | 17.70 | 119.45 | 110.60 |
| 22 | BA | 322 | A | C2-N3-C4 | 17.70 | 119.45 | 110.60 |
| 22 | BA | 722 | A | N1-C2-N3 | -17.70 | 120.45 | 129.30 |
| 22 | BA | 743 | A | C2-N3-C4 | 17.70 | 119.45 | 110.60 |
| 22 | BA | 1757 | A | N1-C2-N3 | -17.70 | 120.45 | 129.30 |
| 1 | AA | 139 | A | N1-C6-N6 | -17.70 | 107.98 | 118.60 |
| 22 | BA | 272 | A | N1-C6-N6 | -17.70 | 107.98 | 118.60 |
| 22 | BA | 1665 | A | N1-C2-N3 | -17.70 | 120.45 | 129.30 |
| 22 | BA | 1805 | A | N1-C6-N6 | -17.70 | 107.98 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2725 | A | N1-C2-N3 | -17.70 | 120.45 | 129.30 |
| 1 | AA | 1102 | A | N1-C6-N6 | -17.69 | 107.98 | 118.60 |
| 1 | AA | 279 | A | N1-C2-N3 | -17.69 | 120.45 | 129.30 |
| 1 | AA | 663 | A | C2-N3-C4 | 17.69 | 119.44 | 110.60 |
| 22 | BA | 616 | A | N1-C2-N3 | -17.69 | 120.46 | 129.30 |
| 1 | AA | 977 | A | N1-C2-N3 | -17.69 | 120.46 | 129.30 |
| 22 | BA | 1247 | A | N1-C2-N3 | -17.69 | 120.46 | 129.30 |
| 1 | AA | 969 | A | C2-N3-C4 | 17.68 | 119.44 | 110.60 |
| 22 | BA | 1433 | A | N1-C6-N6 | -17.68 | 107.99 | 118.60 |
| 1 | AA | 702 | A | N1-C6-N6 | -17.68 | 107.99 | 118.60 |
| 1 | AA | 1021 | A | N1-C6-N6 | -17.68 | 107.99 | 118.60 |
| 1 | AA | 1046 | A | N1-C6-N6 | -17.68 | 107.99 | 118.60 |
| 22 | BA | 603 | A | N1-C6-N6 | -17.68 | 107.99 | 118.60 |
| 22 | BA | 1801 | A | N1-C2-N3 | -17.68 | 120.46 | 129.30 |
| 22 | BA | 233 | A | C2-N3-C4 | 17.68 | 119.44 | 110.60 |
| 1 | AA | 172 | A | C2-N3-C4 | 17.68 | 119.44 | 110.60 |
| 22 | BA | 196 | A | N1-C2-N3 | -17.68 | 120.46 | 129.30 |
| 22 | BA | 1912 | A | C2-N3-C4 | 17.68 | 119.44 | 110.60 |
| 22 | BA | 2322 | A | N1-C2-N3 | -17.68 | 120.46 | 129.30 |
| 1 | AA | 487 | A | N1-C6-N6 | -17.67 | 108.00 | 118.60 |
| 22 | BA | 89 | A | N1-C6-N6 | -17.67 | 108.00 | 118.60 |
| 22 | BA | 980 | A | N1-C6-N6 | -17.67 | 108.00 | 118.60 |
| 22 | BA | 2088 | A | N1-C2-N3 | -17.67 | 120.46 | 129.30 |
| 22 | BA | 492 | A | C2-N3-C4 | 17.67 | 119.44 | 110.60 |
| 22 | BA | 633 | A | N1-C2-N3 | -17.67 | 120.46 | 129.30 |
| 22 | BA | 2154 | A | N1-C2-N3 | -17.67 | 120.46 | 129.30 |
| 1 | AA | 547 | A | C2-N3-C4 | 17.67 | 119.44 | 110.60 |
| 1 | AA | 1429 | A | N1-C2-N3 | -17.67 | 120.47 | 129.30 |
| 22 | BA | 582 | A | N1-C2-N3 | -17.67 | 120.47 | 129.30 |
| 22 | BA | 2358 | A | C2-N3-C4 | 17.67 | 119.43 | 110.60 |
| 1 | AA | 873 | A | C2-N3-C4 | 17.66 | 119.43 | 110.60 |
| 1 | AA | 1157 | A | N1-C2-N3 | -17.66 | 120.47 | 129.30 |
| 1 | AA | 1082 | A | C2-N3-C4 | 17.66 | 119.43 | 110.60 |
| 1 | AA | 1271 | A | N1-C6-N6 | -17.66 | 108.00 | 118.60 |
| 22 | BA | 73 | A | N1-C6-N6 | -17.66 | 108.00 | 118.60 |
| 1 | AA | 630 | A | C2-N3-C4 | 17.66 | 119.43 | 110.60 |
| 1 | AA | 1280 | A | N1-C2-N3 | -17.66 | 120.47 | 129.30 |
| 22 | BA | 1260 | A | N1-C2-N3 | -17.66 | 120.47 | 129.30 |
| 22 | BA | 1321 | A | N1-C2-N3 | -17.66 | 120.47 | 129.30 |
| 22 | BA | 1711 | A | C2-N3-C4 | 17.66 | 119.43 | 110.60 |
| 22 | BA | 715 | A | C2-N3-C4 | 17.66 | 119.43 | 110.60 |
| 22 | BA | 1014 | A | N1-C2-N3 | -17.66 | 120.47 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2660 | A | N1-C2-N3 | -17.66 | 120.47 | 129.30 |
| 1 | AA | 50 | A | N1-C6-N6 | -17.66 | 108.01 | 118.60 |
| 1 | AA | 1531 | A | C2-N3-C4 | 17.66 | 119.43 | 110.60 |
| 22 | BA | 2288 | A | N1-C6-N6 | -17.66 | 108.01 | 118.60 |
| 23 | BB | 119 | A | N1-C6-N6 | -17.66 | 108.01 | 118.60 |
| 22 | BA | 1690 | A | N1-C2-N3 | -17.65 | 120.47 | 129.30 |
| 1 | AA | 441 | A | N1-C6-N6 | -17.65 | 108.01 | 118.60 |
| 1 | AA | 702 | A | N1-C2-N3 | -17.65 | 120.47 | 129.30 |
| 1 | AA | 1531 | A | N1-C6-N6 | -17.65 | 108.01 | 118.60 |
| 22 | BA | 2090 | A | N1-C2-N3 | -17.65 | 120.47 | 129.30 |
| 22 | BA | 2346 | A | N1-C2-N3 | -17.65 | 120.47 | 129.30 |
| 1 | AA | 263 | A | C2-N3-C4 | 17.65 | 119.42 | 110.60 |
| 1 | AA | 1250 | A | N1-C2-N3 | -17.65 | 120.48 | 129.30 |
| 22 | BA | 1711 | A | N1-C2-N3 | -17.65 | 120.48 | 129.30 |
| 22 | BA | 1505 | A | N1-C2-N3 | -17.65 | 120.48 | 129.30 |
| 22 | BA | 626 | A | N1-C2-N3 | -17.64 | 120.48 | 129.30 |
| 22 | BA | 1610 | A | C2-N3-C4 | 17.64 | 119.42 | 110.60 |
| 22 | BA | 1230 | A | N1-C6-N6 | -17.64 | 108.01 | 118.60 |
| 22 | BA | 1609 | A | N1-C2-N3 | -17.64 | 120.48 | 129.30 |
| 1 | AA | 510 | A | N1-C6-N6 | -17.64 | 108.02 | 118.60 |
| 1 | AA | 629 | A | N1-C2-N3 | -17.64 | 120.48 | 129.30 |
| 1 | AA | 1146 | A | N1-C6-N6 | -17.64 | 108.02 | 118.60 |
| 1 | AA | 288 | A | N1-C6-N6 | -17.64 | 108.02 | 118.60 |
| 1 | AA | 499 | A | C2-N3-C4 | 17.64 | 119.42 | 110.60 |
| 22 | BA | 1237 | A | C2-N3-C4 | 17.64 | 119.42 | 110.60 |
| 22 | BA | 2800 | A | C2-N3-C4 | 17.64 | 119.42 | 110.60 |
| 22 | BA | 52 | A | N1-C2-N3 | -17.64 | 120.48 | 129.30 |
| 22 | BA | 256 | A | N1-C2-N3 | -17.64 | 120.48 | 129.30 |
| 22 | BA | 2071 | A | C2-N3-C4 | 17.64 | 119.42 | 110.60 |
| 1 | AA | 366 | A | C2-N3-C4 | 17.64 | 119.42 | 110.60 |
| 1 | AA | 687 | A | C2-N3-C4 | 17.64 | 119.42 | 110.60 |
| 1 | AA | 768 | A | C2-N3-C4 | 17.64 | 119.42 | 110.60 |
| 1 | AA | 1044 | A | N1-C2-N3 | -17.64 | 120.48 | 129.30 |
| 22 | BA | 1580 | A | N1-C2-N3 | -17.64 | 120.48 | 129.30 |
| 1 | AA | 139 | A | N1-C2-N3 | -17.63 | 120.48 | 129.30 |
| 22 | BA | 347 | A | N1-C2-N3 | -17.63 | 120.48 | 129.30 |
| 22 | BA | 2388 | A | N1-C6-N6 | -17.63 | 108.02 | 118.60 |
| 22 | BA | 2662 | A | N1-C2-N3 | -17.63 | 120.48 | 129.30 |
| 1 | AA | 452 | A | C2-N3-C4 | 17.63 | 119.42 | 110.60 |
| 1 | AA | 572 | A | C2-N3-C4 | 17.63 | 119.42 | 110.60 |
| 1 | AA | 1480 | A | N1-C2-N3 | -17.63 | 120.48 | 129.30 |
| 22 | BA | 218 | A | N1-C6-N6 | -17.63 | 108.02 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 466 | A | N1-C2-N3 | -17.63 | 120.48 | 129.30 |
| 22 | BA | 896 | A | C2-N3-C4 | 17.63 | 119.42 | 110.60 |
| 1 | AA | 493 | A | C2-N3-C4 | 17.63 | 119.42 | 110.60 |
| 22 | BA | 1583 | A | C2-N3-C4 | 17.63 | 119.42 | 110.60 |
| 1 | AA | 119 | A | C2-N3-C4 | 17.63 | 119.42 | 110.60 |
| 1 | AA | 906 | A | N1-C2-N3 | -17.63 | 120.48 | 129.30 |
| 1 | AA | 1503 | A | N1-C2-N3 | -17.63 | 120.48 | 129.30 |
| 22 | BA | 256 | A | N1-C6-N6 | -17.63 | 108.02 | 118.60 |
| 22 | BA | 504 | A | N1-C6-N6 | -17.63 | 108.02 | 118.60 |
| 1 | AA | 435 | A | N1-C2-N3 | -17.62 | 120.49 | 129.30 |
| 22 | BA | 443 | A | N1-C2-N3 | -17.62 | 120.49 | 129.30 |
| 1 | AA | 195 | A | N1-C2-N3 | -17.62 | 120.49 | 129.30 |
| 1 | AA | 1396 | A | N1-C6-N6 | -17.62 | 108.03 | 118.60 |
| 1 | AA | 1534 | A | C2-N3-C4 | 17.62 | 119.41 | 110.60 |
| 22 | BA | 63 | A | N1-C2-N3 | -17.62 | 120.49 | 129.30 |
| 22 | BA | 892 | A | N1-C2-N3 | -17.62 | 120.49 | 129.30 |
| 22 | BA | 2758 | A | C2-N3-C4 | 17.62 | 119.41 | 110.60 |
| 1 | AA | 1111 | A | N1-C2-N3 | -17.62 | 120.49 | 129.30 |
| 1 | AA | 1492 | A | N1-C6-N6 | -17.62 | 108.03 | 118.60 |
| 1 | AA | 687 | A | N1-C6-N6 | -17.62 | 108.03 | 118.60 |
| 1 | AA | 574 | A | N1-C6-N6 | -17.61 | 108.03 | 118.60 |
| 22 | BA | 2868 | A | N1-C6-N6 | -17.61 | 108.03 | 118.60 |
| 1 | AA | 907 | A | N1-C6-N6 | -17.61 | 108.03 | 118.60 |
| 22 | BA | 1088 | A | N1-C6-N6 | -17.61 | 108.03 | 118.60 |
| 1 | AA | 109 | A | N1-C2-N3 | -17.61 | 120.50 | 129.30 |
| 22 | BA | 613 | A | N1-C2-N3 | -17.61 | 120.50 | 129.30 |
| 22 | BA | 1890 | A | C2-N3-C4 | 17.61 | 119.41 | 110.60 |
| 1 | AA | 298 | A | N1-C2-N3 | -17.61 | 120.50 | 129.30 |
| 1 | AA | 329 | A | C2-N3-C4 | 17.61 | 119.40 | 110.60 |
| 1 | AA | 749 | A | N1-C2-N3 | -17.61 | 120.50 | 129.30 |
| 1 | AA | 935 | A | N1-C2-N3 | -17.61 | 120.50 | 129.30 |
| 22 | BA | 2386 | A | N1-C2-N3 | -17.61 | 120.50 | 129.30 |
| 1 | AA | 1480 | A | C2-N3-C4 | 17.61 | 119.40 | 110.60 |
| 23 | BB | 52 | A | C2-N3-C4 | 17.61 | 119.40 | 110.60 |
| 22 | BA | 734 | A | N1-C2-N3 | -17.60 | 120.50 | 129.30 |
| 22 | BA | 1269 | A | N1-C6-N6 | -17.60 | 108.04 | 118.60 |
| 22 | BA | 2418 | A | C2-N3-C4 | 17.60 | 119.40 | 110.60 |
| 1 | AA | 1429 | A | N1-C6-N6 | -17.60 | 108.04 | 118.60 |
| 22 | BA | 1226 | A | N1-C2-N3 | -17.60 | 120.50 | 129.30 |
| 55 | B8 | 14 | A | N1-C2-N3 | -17.60 | 120.50 | 129.30 |
| 1 | AA | 8 | A | C2-N3-C4 | 17.60 | 119.40 | 110.60 |
| 1 | AA | 495 | A | N1-C6-N6 | -17.60 | 108.04 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 937 | A | N1-C6-N6 | -17.60 | 108.04 | 118.60 |
| 22 | BA | 2425 | A | N1-C2-N3 | -17.60 | 120.50 | 129.30 |
| 22 | BA | 368 | A | N1-C2-N3 | -17.59 | 120.50 | 129.30 |
| 22 | BA | 447 | A | C2-N3-C4 | 17.59 | 119.40 | 110.60 |
| 22 | BA | 1027 | A | N1-C2-N3 | -17.59 | 120.50 | 129.30 |
| 22 | BA | 1535 | A | N1-C2-N3 | -17.59 | 120.50 | 129.30 |
| 22 | BA | 1829 | A | C2-N3-C4 | 17.59 | 119.40 | 110.60 |
| 22 | BA | 2281 | A | N1-C2-N3 | -17.59 | 120.50 | 129.30 |
| 22 | BA | 1302 | A | N1-C2-N3 | -17.59 | 120.50 | 129.30 |
| 1 | AA | 695 | A | N1-C2-N3 | -17.59 | 120.50 | 129.30 |
| 22 | BA | 83 | A | C2-N3-C4 | 17.59 | 119.39 | 110.60 |
| 22 | BA | 345 | A | N1-C6-N6 | -17.59 | 108.05 | 118.60 |
| 1 | AA | 325 | A | N1-C6-N6 | -17.59 | 108.05 | 118.60 |
| 1 | AA | 373 | A | C2-N3-C4 | 17.59 | 119.39 | 110.60 |
| 1 | AA | 864 | A | N1-C6-N6 | -17.59 | 108.05 | 118.60 |
| 22 | BA | 522 | A | N1-C2-N3 | -17.59 | 120.51 | 129.30 |
| 22 | BA | 1169 | A | N1-C2-N3 | -17.59 | 120.51 | 129.30 |
| 1 | AA | 1110 | A | N1-C2-N3 | -17.59 | 120.51 | 129.30 |
| 22 | BA | 478 | A | N1-C2-N3 | -17.59 | 120.51 | 129.30 |
| 22 | BA | 2893 | A | C2-N3-C4 | 17.59 | 119.39 | 110.60 |
| 55 | B8 | 76 | A | C2-N3-C4 | 17.59 | 119.39 | 110.60 |
| 1 | AA | 55 | A | C2-N3-C4 | 17.59 | 119.39 | 110.60 |
| 22 | BA | 483 | A | N1-C6-N6 | -17.59 | 108.05 | 118.60 |
| 22 | BA | 1385 | A | C2-N3-C4 | 17.59 | 119.39 | 110.60 |
| 22 | BA | 2052 | A | C2-N3-C4 | 17.59 | 119.39 | 110.60 |
| 1 | AA | 19 | A | N1-C6-N6 | -17.58 | 108.05 | 118.60 |
| 1 | AA | 1188 | A | N1-C2-N3 | -17.58 | 120.51 | 129.30 |
| 1 | AA | 1507 | A | C2-N3-C4 | 17.58 | 119.39 | 110.60 |
| 22 | BA | 1689 | A | N1-C2-N3 | -17.58 | 120.51 | 129.30 |
| 22 | BA | 1787 | A | N1-C2-N3 | -17.58 | 120.51 | 129.30 |
| 22 | BA | 2873 | A | C2-N3-C4 | 17.58 | 119.39 | 110.60 |
| 22 | BA | 1494 | A | C2-N3-C4 | 17.58 | 119.39 | 110.60 |
| 22 | BA | 1553 | A | N1-C2-N3 | -17.58 | 120.51 | 129.30 |
| 1 | AA | 629 | A | N1-C6-N6 | -17.58 | 108.05 | 118.60 |
| 22 | BA | 1020 | A | N1-C6-N6 | -17.58 | 108.05 | 118.60 |
| 1 | AA | 109 | A | C2-N3-C4 | 17.58 | 119.39 | 110.60 |
| 1 | AA | 182 | A | C2-N3-C4 | 17.58 | 119.39 | 110.60 |
| 1 | AA | 1250 | A | C2-N3-C4 | 17.57 | 119.39 | 110.60 |
| 22 | BA | 627 | A | C2-N3-C4 | 17.57 | 119.39 | 110.60 |
| 22 | BA | 1126 | A | C2-N3-C4 | 17.57 | 119.39 | 110.60 |
| 22 | BA | 1717 | A | N1-C2-N3 | -17.57 | 120.51 | 129.30 |
| 22 | BA | 126 | A | C2-N3-C4 | 17.57 | 119.39 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2169 | A | N1-C2-N3 | -17.57 | 120.51 | 129.30 |
| 1 | AA | 162 | A | C2-N3-C4 | 17.57 | 119.39 | 110.60 |
| 1 | AA | 1081 | A | N1-C2-N3 | -17.57 | 120.51 | 129.30 |
| 22 | BA | 1552 | A | N1-C2-N3 | -17.57 | 120.51 | 129.30 |
| 23 | BB | 108 | A | C2-N3-C4 | 17.57 | 119.39 | 110.60 |
| 22 | BA | 2135 | A | C2-N3-C4 | 17.57 | 119.39 | 110.60 |
| 22 | BA | 2163 | A | C2-N3-C4 | 17.57 | 119.39 | 110.60 |
| 22 | BA | 2577 | A | C2-N3-C4 | 17.57 | 119.39 | 110.60 |
| 1 | AA | 1503 | A | N1-C6-N6 | -17.57 | 108.06 | 118.60 |
| 22 | BA | 374 | A | N1-C6-N6 | -17.57 | 108.06 | 118.60 |
| 22 | BA | 614 | A | N1-C6-N6 | -17.57 | 108.06 | 118.60 |
| 22 | BA | 1387 | A | C2-N3-C4 | 17.57 | 119.38 | 110.60 |
| 22 | BA | 1566 | A | C2-N3-C4 | 17.57 | 119.38 | 110.60 |
| 1 | AA | 1252 | A | N1-C2-N3 | -17.57 | 120.52 | 129.30 |
| 22 | BA | 2114 | A | N1-C2-N3 | -17.57 | 120.52 | 129.30 |
| 22 | BA | 2336 | A | N1-C6-N6 | -17.57 | 108.06 | 118.60 |
| 22 | BA | 706 | A | N1-C2-N3 | -17.57 | 120.52 | 129.30 |
| 22 | BA | 2080 | A | N1-C2-N3 | -17.57 | 120.52 | 129.30 |
| 1 | AA | 80 | A | N1-C6-N6 | -17.56 | 108.06 | 118.60 |
| 1 | AA | 794 | A | N1-C2-N3 | -17.56 | 120.52 | 129.30 |
| 22 | BA | 1470 | A | N1-C2-N3 | -17.56 | 120.52 | 129.30 |
| 22 | BA | 340 | A | N1-C2-N3 | -17.56 | 120.52 | 129.30 |
| 1 | AA | 466 | A | N1-C2-N3 | -17.56 | 120.52 | 129.30 |
| 1 | AA | 532 | A | N1-C6-N6 | -17.56 | 108.06 | 118.60 |
| 22 | BA | 2247 | A | N1-C6-N6 | -17.56 | 108.06 | 118.60 |
| 1 | AA | 602 | A | N1-C6-N6 | -17.56 | 108.06 | 118.60 |
| 22 | BA | 1508 | A | C2-N3-C4 | 17.55 | 119.38 | 110.60 |
| 22 | BA | 2117 | A | C2-N3-C4 | 17.55 | 119.38 | 110.60 |
| 1 | AA | 1394 | A | N1-C6-N6 | -17.55 | 108.07 | 118.60 |
| 22 | BA | 1366 | A | N1-C2-N3 | -17.55 | 120.52 | 129.30 |
| 22 | BA | 743 | A | N1-C2-N3 | -17.55 | 120.53 | 129.30 |
| 22 | BA | 975 | A | C2-N3-C4 | 17.55 | 119.38 | 110.60 |
| 1 | AA | 729 | A | C2-N3-C4 | 17.55 | 119.38 | 110.60 |
| 23 | BB | 39 | A | C2-N3-C4 | 17.55 | 119.37 | 110.60 |
| 1 | AA | 535 | A | C2-N3-C4 | 17.55 | 119.37 | 110.60 |
| 22 | BA | 917 | A | C2-N3-C4 | 17.55 | 119.37 | 110.60 |
| 1 | AA | 303 | A | N1-C2-N3 | -17.54 | 120.53 | 129.30 |
| 22 | BA | 1144 | A | N1-C2-N3 | -17.54 | 120.53 | 129.30 |
| 22 | BA | 1802 | A | N1-C2-N3 | -17.54 | 120.53 | 129.30 |
| 22 | BA | 1014 | A | C2-N3-C4 | 17.54 | 119.37 | 110.60 |
| 22 | BA | 1073 | A | N1-C2-N3 | -17.54 | 120.53 | 129.30 |
| 22 | BA | 1077 | A | C2-N3-C4 | 17.54 | 119.37 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1735 | A | N1-C6-N6 | -17.54 | 108.07 | 118.60 |
| 22 | BA | 2766 | A | N1-C6-N6 | -17.54 | 108.08 | 118.60 |
| 22 | BA | 820 | A | N1-C2-N3 | -17.54 | 120.53 | 129.30 |
| 22 | BA | 1284 | A | N1-C2-N3 | -17.54 | 120.53 | 129.30 |
| 22 | BA | 2154 | A | N1-C6-N6 | -17.54 | 108.08 | 118.60 |
| 1 | AA | 1311 | A | N1-C2-N3 | -17.54 | 120.53 | 129.30 |
| 22 | BA | 2705 | A | N1-C6-N6 | -17.54 | 108.08 | 118.60 |
| 22 | BA | 2900 | A | N1-C6-N6 | -17.54 | 108.08 | 118.60 |
| 1 | AA | 309 | A | N1-C6-N6 | -17.54 | 108.08 | 118.60 |
| 22 | BA | 2191 | A | C2-N3-C4 | 17.54 | 119.37 | 110.60 |
| 1 | AA | 1238 | A | N1-C2-N3 | -17.53 | 120.53 | 129.30 |
| 1 | AA | 1408 | A | N1-C6-N6 | -17.53 | 108.08 | 118.60 |
| 22 | BA | 751 | A | C2-N3-C4 | 17.53 | 119.37 | 110.60 |
| 1 | AA | 845 | A | N1-C2-N3 | -17.53 | 120.53 | 129.30 |
| 1 | AA | 1374 | A | N1-C2-N3 | -17.53 | 120.53 | 129.30 |
| 1 | AA | 51 | A | C2-N3-C4 | 17.53 | 119.36 | 110.60 |
| 22 | BA | 1877 | A | C2-N3-C4 | 17.53 | 119.36 | 110.60 |
| 22 | BA | 1889 | A | N1-C2-N3 | -17.53 | 120.53 | 129.30 |
| 1 | AA | 10 | A | N1-C6-N6 | -17.53 | 108.08 | 118.60 |
| 22 | BA | 1254 | A | N1-C2-N3 | -17.53 | 120.54 | 129.30 |
| 22 | BA | 1608 | A | N1-C2-N3 | -17.53 | 120.54 | 129.30 |
| 1 | AA | 635 | A | N1-C2-N3 | -17.52 | 120.54 | 129.30 |
| 1 | AA | 1363 | A | N1-C6-N6 | -17.52 | 108.08 | 118.60 |
| 22 | BA | 1155 | A | C2-N3-C4 | 17.52 | 119.36 | 110.60 |
| 22 | BA | 1373 | A | N1-C2-N3 | -17.52 | 120.54 | 129.30 |
| 1 | AA | 1274 | A | N1-C2-N3 | -17.52 | 120.54 | 129.30 |
| 22 | BA | 1634 | A | C2-N3-C4 | 17.52 | 119.36 | 110.60 |
| 22 | BA | 1746 | A | C2-N3-C4 | 17.52 | 119.36 | 110.60 |
| 22 | BA | 2309 | A | C2-N3-C4 | 17.52 | 119.36 | 110.60 |
| 22 | BA | 2333 | A | N1-C2-N3 | -17.52 | 120.54 | 129.30 |
| 1 | AA | 51 | A | N1-C2-N3 | -17.52 | 120.54 | 129.30 |
| 1 | AA | 510 | A | C2-N3-C4 | 17.52 | 119.36 | 110.60 |
| 1 | AA | 1483 | A | N1-C2-N3 | -17.52 | 120.54 | 129.30 |
| 22 | BA | 144 | A | N1-C2-N3 | -17.52 | 120.54 | 129.30 |
| 22 | BA | 2531 | A | C2-N3-C4 | 17.52 | 119.36 | 110.60 |
| 1 | AA | 1534 | A | N1-C2-N3 | -17.52 | 120.54 | 129.30 |
| 1 | AA | 1287 | A | N1-C2-N3 | -17.52 | 120.54 | 129.30 |
| 1 | AA | 33 | A | N1-C2-N3 | -17.51 | 120.54 | 129.30 |
| 22 | BA | 104 | A | C2-N3-C4 | 17.51 | 119.36 | 110.60 |
| 22 | BA | 1048 | A | N1-C2-N3 | -17.51 | 120.54 | 129.30 |
| 22 | BA | 1918 | A | N1-C2-N3 | -17.51 | 120.54 | 129.30 |
| 22 | BA | 142 | A | N1-C2-N3 | -17.51 | 120.54 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 1150 | A | N1-C2-N3 | -17.51 | 120.55 | 129.30 |
| 1 | AA | 1374 | A | N1-C6-N6 | -17.51 | 108.09 | 118.60 |
| 22 | BA | 19 | A | C2-N3-C4 | 17.51 | 119.36 | 110.60 |
| 22 | BA | 1586 | A | N1-C2-N3 | -17.51 | 120.55 | 129.30 |
| 1 | AA | 913 | A | C2-N3-C4 | 17.51 | 119.35 | 110.60 |
| 1 | AA | 1441 | A | C2-N3-C4 | 17.51 | 119.35 | 110.60 |
| 23 | BB | 46 | A | N1-C2-N3 | -17.51 | 120.55 | 129.30 |
| 1 | AA | 1093 | A | N1-C2-N3 | -17.51 | 120.55 | 129.30 |
| 1 | AA | 1437 | A | C2-N3-C4 | 17.51 | 119.35 | 110.60 |
| 23 | BB | 46 | A | C2-N3-C4 | 17.51 | 119.35 | 110.60 |
| 1 | AA | 496 | A | N1-C6-N6 | -17.51 | 108.10 | 118.60 |
| 1 | AA | 609 | A | N1-C6-N6 | -17.51 | 108.10 | 118.60 |
| 1 | AA | 946 | A | N1-C2-N3 | -17.50 | 120.55 | 129.30 |
| 1 | AA | 1476 | A | N1-C2-N3 | -17.50 | 120.55 | 129.30 |
| 22 | BA | 1590 | A | C2-N3-C4 | 17.50 | 119.35 | 110.60 |
| 22 | BA | 2169 | A | C2-N3-C4 | 17.50 | 119.35 | 110.60 |
| 22 | BA | 2171 | A | N1-C6-N6 | -17.50 | 108.10 | 118.60 |
| 22 | BA | 2679 | A | N1-C2-N3 | -17.50 | 120.55 | 129.30 |
| 22 | BA | 439 | A | N1-C6-N6 | -17.50 | 108.10 | 118.60 |
| 22 | BA | 507 | A | N1-C6-N6 | -17.50 | 108.10 | 118.60 |
| 1 | AA | 845 | A | C2-N3-C4 | 17.50 | 119.35 | 110.60 |
| 22 | BA | 2530 | A | C2-N3-C4 | 17.50 | 119.35 | 110.60 |
| 1 | AA | 539 | A | N1-C2-N3 | -17.50 | 120.55 | 129.30 |
| 22 | BA | 368 | A | C2-N3-C4 | 17.50 | 119.35 | 110.60 |
| 1 | AA | 167 | A | N1-C6-N6 | -17.50 | 108.10 | 118.60 |
| 1 | AA | 901 | A | C2-N3-C4 | 17.50 | 119.35 | 110.60 |
| 1 | AA | 1130 | A | C2-N3-C4 | 17.50 | 119.35 | 110.60 |
| 22 | BA | 654 | A | N1-C2-N3 | -17.50 | 120.55 | 129.30 |
| 22 | BA | 2097 | A | N1-C2-N3 | -17.50 | 120.55 | 129.30 |
| 1 | AA | 320 | A | N1-C2-N3 | -17.49 | 120.55 | 129.30 |
| 1 | AA | 382 | A | N1-C2-N3 | -17.49 | 120.55 | 129.30 |
| 1 | AA | 1055 | A | N1-C2-N3 | -17.49 | 120.55 | 129.30 |
| 1 | AA | 1468 | A | N1-C2-N3 | -17.49 | 120.55 | 129.30 |
| 1 | AA | 815 | A | N1-C2-N3 | -17.49 | 120.55 | 129.30 |
| 1 | AA | 1169 | A | N1-C2-N3 | -17.49 | 120.55 | 129.30 |
| 22 | BA | 1095 | A | N1-C2-N3 | -17.49 | 120.55 | 129.30 |
| 22 | BA | 1308 | A | N1-C2-N3 | -17.49 | 120.55 | 129.30 |
| 1 | AA | 33 | A | C2-N3-C4 | 17.49 | 119.34 | 110.60 |
| 1 | AA | 728 | A | N1-C2-N3 | -17.49 | 120.56 | 129.30 |
| 22 | BA | 1746 | A | N1-C6-N6 | -17.49 | 108.11 | 118.60 |
| 1 | AA | 329 | A | N1-C6-N6 | -17.49 | 108.11 | 118.60 |
| 1 | AA | 546 | A | N1-C2-N3 | -17.49 | 120.56 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1126 | A | N1-C2-N3 | -17.49 | 120.56 | 129.30 |
| 1 | AA | 1324 | A | N1-C6-N6 | -17.49 | 108.11 | 118.60 |
| 22 | BA | 1634 | A | N1-C2-N3 | -17.49 | 120.56 | 129.30 |
| 22 | BA | 2270 | A | C2-N3-C4 | 17.49 | 119.34 | 110.60 |
| 22 | BA | 2418 | A | N1-C2-N3 | -17.49 | 120.56 | 129.30 |
| 22 | BA | 412 | A | C2-N3-C4 | 17.48 | 119.34 | 110.60 |
| 22 | BA | 1014 | A | N1-C6-N6 | -17.48 | 108.11 | 118.60 |
| 1 | AA | 1146 | A | C2-N3-C4 | 17.48 | 119.34 | 110.60 |
| 1 | AA | 1433 | A | N1-C2-N3 | -17.48 | 120.56 | 129.30 |
| 22 | BA | 1553 | A | C2-N3-C4 | 17.48 | 119.34 | 110.60 |
| 1 | AA | 532 | A | N1-C2-N3 | -17.48 | 120.56 | 129.30 |
| 1 | AA | 914 | A | N1-C6-N6 | -17.48 | 108.11 | 118.60 |
| 22 | BA | 1494 | A | N1-C6-N6 | -17.48 | 108.11 | 118.60 |
| 22 | BA | 1664 | A | C2-N3-C4 | 17.48 | 119.34 | 110.60 |
| 1 | AA | 441 | A | N1-C2-N3 | -17.48 | 120.56 | 129.30 |
| 22 | BA | 979 | A | N1-C2-N3 | -17.48 | 120.56 | 129.30 |
| 22 | BA | 2879 | A | N1-C2-N3 | -17.48 | 120.56 | 129.30 |
| 22 | BA | 1876 | A | C2-N3-C4 | 17.47 | 119.34 | 110.60 |
| 22 | BA | 470 | A | C2-N3-C4 | 17.47 | 119.33 | 110.60 |
| 22 | BA | 1029 | A | N1-C2-N3 | -17.47 | 120.56 | 129.30 |
| 22 | BA | 1237 | A | N1-C6-N6 | -17.47 | 108.12 | 118.60 |
| 22 | BA | 614 | A | C2-N3-C4 | 17.47 | 119.33 | 110.60 |
| 22 | BA | 1419 | A | C2-N3-C4 | 17.47 | 119.33 | 110.60 |
| 1 | AA | 430 | A | N1-C6-N6 | -17.47 | 108.12 | 118.60 |
| 1 | AA | 1256 | A | N1-C6-N6 | -17.47 | 108.12 | 118.60 |
| 1 | AA | 1441 | A | N1-C6-N6 | -17.47 | 108.12 | 118.60 |
| 22 | BA | 1307 | A | N1-C2-N3 | -17.47 | 120.57 | 129.30 |
| 22 | BA | 2358 | A | N1-C2-N3 | -17.47 | 120.57 | 129.30 |
| 1 | AA | 794 | A | C2-N3-C4 | 17.46 | 119.33 | 110.60 |
| 1 | AA | 139 | A | C2-N3-C4 | 17.46 | 119.33 | 110.60 |
| 22 | BA | 449 | A | N1-C6-N6 | -17.46 | 108.12 | 118.60 |
| 22 | BA | 1780 | A | N1-C6-N6 | -17.46 | 108.12 | 118.60 |
| 1 | AA | 715 | A | N1-C6-N6 | -17.46 | 108.12 | 118.60 |
| 22 | BA | 49 | A | N1-C2-N3 | -17.46 | 120.57 | 129.30 |
| 22 | BA | 2274 | A | N1-C2-N3 | -17.46 | 120.57 | 129.30 |
| 22 | BA | 2412 | A | N1-C2-N3 | -17.46 | 120.57 | 129.30 |
| 1 | AA | 65 | A | C2-N3-C4 | 17.46 | 119.33 | 110.60 |
| 1 | AA | 969 | A | N1-C2-N3 | -17.46 | 120.57 | 129.30 |
| 22 | BA | 354 | A | C2-N3-C4 | 17.46 | 119.33 | 110.60 |
| 22 | BA | 1900 | A | N1-C6-N6 | -17.46 | 108.13 | 118.60 |
| 22 | BA | 2513 | A | N1-C2-N3 | -17.46 | 120.57 | 129.30 |
| 1 | AA | 681 | A | N1-C2-N3 | -17.45 | 120.57 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 1216 | A | C2-N3-C4 | 17.45 | 119.33 | 110.60 |
| 1 | AA | 1502 | A | C2-N3-C4 | 17.45 | 119.33 | 110.60 |
| 22 | BA | 1084 | A | C2-N3-C4 | 17.45 | 119.33 | 110.60 |
| 1 | AA | 298 | A | N1-C6-N6 | -17.45 | 108.13 | 118.60 |
| 1 | AA | 712 | A | N1-C6-N6 | -17.45 | 108.13 | 118.60 |
| 22 | BA | 1241 | A | C2-N3-C4 | 17.45 | 119.33 | 110.60 |
| 1 | AA | 1151 | A | N1-C2-N3 | -17.45 | 120.58 | 129.30 |
| 22 | BA | 616 | A | N1-C6-N6 | -17.45 | 108.13 | 118.60 |
| 22 | BA | 2135 | A | N1-C2-N3 | -17.44 | 120.58 | 129.30 |
| 22 | BA | 1040 | A | N1-C2-N3 | -17.44 | 120.58 | 129.30 |
| 1 | AA | 1236 | A | N1-C2-N3 | -17.44 | 120.58 | 129.30 |
| 22 | BA | 182 | A | C2-N3-C4 | 17.44 | 119.32 | 110.60 |
| 22 | BA | 2142 | A | N1-C6-N6 | -17.44 | 108.14 | 118.60 |
| 22 | BA | 2733 | A | C2-N3-C4 | 17.44 | 119.32 | 110.60 |
| 1 | AA | 1252 | A | N1-C6-N6 | -17.44 | 108.14 | 118.60 |
| 22 | BA | 1477 | A | N1-C6-N6 | -17.44 | 108.14 | 118.60 |
| 22 | BA | 1503 | A | C2-N3-C4 | 17.44 | 119.32 | 110.60 |
| 1 | AA | 759 | A | N1-C6-N6 | -17.44 | 108.14 | 118.60 |
| 1 | AA | 1196 | A | C2-N3-C4 | 17.44 | 119.32 | 110.60 |
| 22 | BA | 1890 | A | N1-C2-N3 | -17.44 | 120.58 | 129.30 |
| 1 | AA | 1176 | A | N1-C2-N3 | -17.43 | 120.58 | 129.30 |
| 22 | BA | 751 | A | N1-C2-N3 | -17.43 | 120.58 | 129.30 |
| 1 | AA | 430 | A | C2-N3-C4 | 17.43 | 119.32 | 110.60 |
| 1 | AA | 1216 | A | N1-C6-N6 | -17.43 | 108.14 | 118.60 |
| 22 | BA | 374 | A | N1-C2-N3 | -17.43 | 120.58 | 129.30 |
| 22 | BA | 1652 | A | C2-N3-C4 | 17.43 | 119.32 | 110.60 |
| 1 | AA | 71 | A | C2-N3-C4 | 17.43 | 119.31 | 110.60 |
| 1 | AA | 937 | A | N1-C2-N3 | -17.43 | 120.59 | 129.30 |
| 1 | AA | 1012 | A | N1-C6-N6 | -17.43 | 108.14 | 118.60 |
| 22 | BA | 1701 | A | N1-C2-N3 | -17.43 | 120.59 | 129.30 |
| 22 | BA | 1794 | A | N1-C6-N6 | -17.43 | 108.14 | 118.60 |
| 22 | BA | 2058 | A | N1-C6-N6 | -17.43 | 108.14 | 118.60 |
| 22 | BA | 2860 | A | C2-N3-C4 | 17.43 | 119.31 | 110.60 |
| 1 | AA | 600 | A | C2-N3-C4 | 17.42 | 119.31 | 110.60 |
| 22 | BA | 63 | A | C2-N3-C4 | 17.42 | 119.31 | 110.60 |
| 22 | BA | 2662 | A | C2-N3-C4 | 17.42 | 119.31 | 110.60 |
| 1 | AA | 681 | A | C2-N3-C4 | 17.42 | 119.31 | 110.60 |
| 1 | AA | 1271 | A | C2-N3-C4 | 17.42 | 119.31 | 110.60 |
| 23 | BB | 15 | A | N1-C6-N6 | -17.42 | 108.15 | 118.60 |
| 1 | AA | 964 | A | N1-C2-N3 | -17.42 | 120.59 | 129.30 |
| 22 | BA | 1077 | A | N1-C2-N3 | -17.42 | 120.59 | 129.30 |
| 22 | BA | 1304 | A | N1-C6-N6 | -17.42 | 108.15 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1690 | A | C2-N3-C4 | 17.42 | 119.31 | 110.60 |
| 22 | BA | 2733 | A | N1-C2-N3 | -17.42 | 120.59 | 129.30 |
| 22 | BA | 844 | A | N1-C2-N3 | -17.42 | 120.59 | 129.30 |
| 22 | BA | 2327 | A | N1-C6-N6 | -17.42 | 108.15 | 118.60 |
| 22 | BA | 2333 | A | C2-N3-C4 | 17.42 | 119.31 | 110.60 |
| 1 | AA | 873 | A | N1-C6-N6 | -17.41 | 108.15 | 118.60 |
| 22 | BA | 632 | A | C2-N3-C4 | 17.41 | 119.31 | 110.60 |
| 1 | AA | 3 | A | N1-C6-N6 | -17.41 | 108.15 | 118.60 |
| 1 | AA | 759 | A | C2-N3-C4 | 17.41 | 119.31 | 110.60 |
| 22 | BA | 219 | A | N1-C6-N6 | -17.41 | 108.15 | 118.60 |
| 22 | BA | 1433 | A | N1-C2-N3 | -17.41 | 120.59 | 129.30 |
| 22 | BA | 2753 | A | C2-N3-C4 | 17.41 | 119.31 | 110.60 |
| 22 | BA | 384 | A | N1-C6-N6 | -17.41 | 108.15 | 118.60 |
| 22 | BA | 1302 | A | N1-C6-N6 | -17.41 | 108.15 | 118.60 |
| 22 | BA | 2163 | A | N1-C2-N3 | -17.41 | 120.59 | 129.30 |
| 1 | AA | 499 | A | N1-C2-N3 | -17.41 | 120.60 | 129.30 |
| 1 | AA | 1363 | A | N1-C2-N3 | -17.41 | 120.59 | 129.30 |
| 22 | BA | 38 | A | N1-C6-N6 | -17.41 | 108.16 | 118.60 |
| 1 | AA | 143 | A | N1-C2-N3 | -17.41 | 120.60 | 129.30 |
| 22 | BA | 829 | A | C2-N3-C4 | 17.41 | 119.30 | 110.60 |
| 22 | BA | 753 | A | N1-C6-N6 | -17.40 | 108.16 | 118.60 |
| 1 | AA | 1055 | A | C2-N3-C4 | 17.40 | 119.30 | 110.60 |
| 22 | BA | 1431 | A | N1-C6-N6 | -17.40 | 108.16 | 118.60 |
| 55 | B8 | 59 | A | N1-C2-N3 | -17.40 | 120.60 | 129.30 |
| 22 | BA | 960 | A | C2-N3-C4 | 17.40 | 119.30 | 110.60 |
| 22 | BA | 2270 | A | N1-C2-N3 | -17.40 | 120.60 | 129.30 |
| 1 | AA | 1169 | A | C2-N3-C4 | 17.40 | 119.30 | 110.60 |
| 1 | AA | 1408 | A | N1-C2-N3 | -17.40 | 120.60 | 129.30 |
| 22 | BA | 127 | A | C2-N3-C4 | 17.40 | 119.30 | 110.60 |
| 22 | BA | 471 | A | N1-C6-N6 | -17.40 | 108.16 | 118.60 |
| 1 | AA | 574 | A | C2-N3-C4 | 17.39 | 119.30 | 110.60 |
| 1 | AA | 1150 | A | C2-N3-C4 | 17.39 | 119.30 | 110.60 |
| 22 | BA | 2158 | A | N1-C2-N3 | -17.39 | 120.60 | 129.30 |
| 22 | BA | 2412 | A | C2-N3-C4 | 17.39 | 119.30 | 110.60 |
| 22 | BA | 2602 | A | C2-N3-C4 | 17.39 | 119.30 | 110.60 |
| 22 | BA | 2247 | A | N1-C2-N3 | -17.39 | 120.61 | 129.30 |
| 22 | BA | 1069 | A | C2-N3-C4 | 17.39 | 119.29 | 110.60 |
| 22 | BA | 2158 | A | C2-N3-C4 | 17.39 | 119.29 | 110.60 |
| 22 | BA | 217 | A | N1-C2-N3 | -17.38 | 120.61 | 129.30 |
| 22 | BA | 928 | A | N1-C2-N3 | -17.38 | 120.61 | 129.30 |
| 22 | BA | 1877 | A | N1-C2-N3 | -17.38 | 120.61 | 129.30 |
| 22 | BA | 2317 | A | N1-C2-N3 | -17.38 | 120.61 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2386 | A | C2-N3-C4 | 17.38 | 119.29 | 110.60 |
| 22 | BA | 94 | A | N1-C2-N3 | -17.38 | 120.61 | 129.30 |
| 22 | BA | 1321 | A | C2-N3-C4 | 17.38 | 119.29 | 110.60 |
| 22 | BA | 1590 | A | N1-C6-N6 | -17.38 | 108.17 | 118.60 |
| 23 | BB | 73 | A | N1-C6-N6 | -17.38 | 108.17 | 118.60 |
| 1 | AA | 1431 | A | C2-N3-C4 | 17.38 | 119.29 | 110.60 |
| 22 | BA | 2031 | A | N1-C6-N6 | -17.38 | 108.17 | 118.60 |
| 1 | AA | 246 | A | C2-N3-C4 | 17.37 | 119.29 | 110.60 |
| 1 | AA | 640 | A | N1-C6-N6 | -17.37 | 108.18 | 118.60 |
| 22 | BA | 95 | A | N1-C2-N3 | -17.37 | 120.61 | 129.30 |
| 1 | AA | 816 | A | N1-C6-N6 | -17.37 | 108.18 | 118.60 |
| 1 | AA | 430 | A | N1-C2-N3 | -17.36 | 120.62 | 129.30 |
| 22 | BA | 2820 | A | N1-C6-N6 | -17.36 | 108.18 | 118.60 |
| 22 | BA | 362 | A | N1-C2-N3 | -17.36 | 120.62 | 129.30 |
| 22 | BA | 574 | A | N1-C6-N6 | -17.36 | 108.18 | 118.60 |
| 22 | BA | 2101 | A | N1-C2-N3 | -17.36 | 120.62 | 129.30 |
| 1 | AA | 356 | A | N1-C2-N3 | -17.36 | 120.62 | 129.30 |
| 22 | BA | 1496 | A | N1-C6-N6 | -17.36 | 108.19 | 118.60 |
| 22 | BA | 2009 | A | N1-C6-N6 | -17.36 | 108.19 | 118.60 |
| 1 | AA | 819 | A | N1-C2-N3 | -17.36 | 120.62 | 129.30 |
| 22 | BA | 167 | A | N1-C2-N3 | -17.36 | 120.62 | 129.30 |
| 1 | AA | 101 | A | N1-C2-N3 | -17.36 | 120.62 | 129.30 |
| 1 | AA | 1483 | A | C2-N3-C4 | 17.36 | 119.28 | 110.60 |
| 22 | BA | 1635 | A | N1-C6-N6 | -17.36 | 108.19 | 118.60 |
| 23 | BB | 58 | A | C2-N3-C4 | 17.36 | 119.28 | 110.60 |
| 22 | BA | 1913 | A | C2-N3-C4 | 17.36 | 119.28 | 110.60 |
| 22 | BA | 715 | A | N1-C6-N6 | -17.35 | 108.19 | 118.60 |
| 22 | BA | 95 | A | C2-N3-C4 | 17.35 | 119.28 | 110.60 |
| 22 | BA | 1365 | A | N1-C2-N3 | -17.35 | 120.63 | 129.30 |
| 22 | BA | 1735 | A | N1-C2-N3 | -17.35 | 120.63 | 129.30 |
| 22 | BA | 216 | A | N1-C2-N3 | -17.35 | 120.63 | 129.30 |
| 22 | BA | 2267 | A | N1-C2-N3 | -17.35 | 120.63 | 129.30 |
| 1 | AA | 1151 | A | N1-C6-N6 | -17.34 | 108.19 | 118.60 |
| 22 | BA | 1088 | A | N1-C2-N3 | -17.34 | 120.63 | 129.30 |
| 22 | BA | 1735 | A | C2-N3-C4 | 17.34 | 119.27 | 110.60 |
| 22 | BA | 1205 | A | C2-N3-C4 | 17.34 | 119.27 | 110.60 |
| 22 | BA | 1353 | A | N1-C2-N3 | -17.34 | 120.63 | 129.30 |
| 1 | AA | 1082 | A | N1-C2-N3 | -17.34 | 120.63 | 129.30 |
| 22 | BA | 218 | A | N1-C2-N3 | -17.34 | 120.63 | 129.30 |
| 22 | BA | 2328 | A | C2-N3-C4 | 17.34 | 119.27 | 110.60 |
| 1 | AA | 1456 | A | C2-N3-C4 | 17.34 | 119.27 | 110.60 |
| 22 | BA | 1194 | A | N1-C2-N3 | -17.34 | 120.63 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 55 | B8 | 26 | A | N1-C6-N6 | -17.34 | 108.20 | 118.60 |
| 22 | BA | 1579 | A | N1-C2-N3 | -17.33 | 120.63 | 129.30 |
| 22 | BA | 1046 | A | C2-N3-C4 | 17.33 | 119.27 | 110.60 |
| 22 | BA | 1272 | A | C2-N3-C4 | 17.33 | 119.27 | 110.60 |
| 22 | BA | 1276 | A | N1-C2-N3 | -17.33 | 120.64 | 129.30 |
| 1 | AA | 1000 | A | N1-C6-N6 | -17.33 | 108.20 | 118.60 |
| 22 | BA | 2851 | A | C2-N3-C4 | 17.33 | 119.26 | 110.60 |
| 1 | AA | 648 | A | N1-C2-N3 | -17.33 | 120.64 | 129.30 |
| 1 | AA | 712 | A | N1-C2-N3 | -17.32 | 120.64 | 129.30 |
| 22 | BA | 878 | A | C2-N3-C4 | 17.32 | 119.26 | 110.60 |
| 22 | BA | 1801 | A | N1-C6-N6 | -17.32 | 108.21 | 118.60 |
| 1 | AA | 815 | A | C2-N3-C4 | 17.32 | 119.26 | 110.60 |
| 22 | BA | 2009 | A | N1-C2-N3 | -17.32 | 120.64 | 129.30 |
| 1 | AA | 702 | A | C2-N3-C4 | 17.32 | 119.26 | 110.60 |
| 1 | AA | 1456 | A | N1-C2-N3 | -17.32 | 120.64 | 129.30 |
| 1 | AA | 579 | A | N1-C6-N6 | -17.32 | 108.21 | 118.60 |
| 22 | BA | 324 | A | N1-C2-N3 | -17.32 | 120.64 | 129.30 |
| 1 | AA | 1508 | A | C2-N3-C4 | 17.32 | 119.26 | 110.60 |
| 22 | BA | 1151 | A | N1-C6-N6 | -17.32 | 108.21 | 118.60 |
| 22 | BA | 1508 | A | N1-C6-N6 | -17.32 | 108.21 | 118.60 |
| 22 | BA | 1678 | A | N1-C6-N6 | -17.31 | 108.21 | 118.60 |
| 22 | BA | 2126 | A | C2-N3-C4 | 17.31 | 119.26 | 110.60 |
| 1 | AA | 602 | A | N1-C2-N3 | -17.31 | 120.64 | 129.30 |
| 1 | AA | 790 | A | C2-N3-C4 | 17.31 | 119.25 | 110.60 |
| 22 | BA | 83 | A | N1-C2-N3 | -17.31 | 120.64 | 129.30 |
| 22 | BA | 730 | A | C2-N3-C4 | 17.31 | 119.25 | 110.60 |
| 22 | BA | 753 | A | N1-C2-N3 | -17.31 | 120.65 | 129.30 |
| 22 | BA | 1528 | A | N1-C2-N3 | -17.31 | 120.64 | 129.30 |
| 22 | BA | 749 | A | N1-C2-N3 | -17.31 | 120.65 | 129.30 |
| 22 | BA | 819 | A | N1-C2-N3 | -17.31 | 120.65 | 129.30 |
| 1 | AA | 195 | A | C2-N3-C4 | 17.31 | 119.25 | 110.60 |
| 22 | BA | 2378 | A | N1-C2-N3 | -17.31 | 120.65 | 129.30 |
| 1 | AA | 1254 | A | N1-C2-N3 | -17.30 | 120.65 | 129.30 |
| 22 | BA | 2654 | A | C2-N3-C4 | 17.30 | 119.25 | 110.60 |
| 1 | AA | 338 | A | C2-N3-C4 | 17.30 | 119.25 | 110.60 |
| 22 | BA | 917 | A | N1-C2-N3 | -17.30 | 120.65 | 129.30 |
| 22 | BA | 1532 | A | C2-N3-C4 | 17.30 | 119.25 | 110.60 |
| 22 | BA | 1866 | A | N1-C2-N3 | -17.30 | 120.65 | 129.30 |
| 1 | AA | 192 | A | N1-C2-N3 | -17.30 | 120.65 | 129.30 |
| 22 | BA | 900 | A | N1-C2-N3 | -17.30 | 120.65 | 129.30 |
| 22 | BA | 1711 | A | N1-C6-N6 | -17.30 | 108.22 | 118.60 |
| 1 | AA | 1493 | A | N1-C2-N3 | -17.30 | 120.65 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 477 | A | C2-N3-C4 | 17.30 | 119.25 | 110.60 |
| 22 | BA | 1871 | A | N1-C6-N6 | -17.30 | 108.22 | 118.60 |
| 22 | BA | 2434 | A | N1-C2-N3 | -17.30 | 120.65 | 129.30 |
| 22 | BA | 1590 | A | N1-C2-N3 | -17.30 | 120.65 | 129.30 |
| 22 | BA | 2820 | A | N1-C2-N3 | -17.30 | 120.65 | 129.30 |
| 22 | BA | 156 | A | N1-C2-N3 | -17.29 | 120.65 | 129.30 |
| 1 | AA | 431 | A | C2-N3-C4 | 17.29 | 119.25 | 110.60 |
| 1 | AA | 860 | A | C2-N3-C4 | 17.29 | 119.25 | 110.60 |
| 22 | BA | 1591 | A | N1-C6-N6 | -17.29 | 108.23 | 118.60 |
| 22 | BA | 1746 | A | N1-C2-N3 | -17.29 | 120.65 | 129.30 |
| 1 | AA | 28 | A | N1-C2-N3 | -17.29 | 120.66 | 129.30 |
| 1 | AA | 784 | A | N1-C6-N6 | -17.29 | 108.23 | 118.60 |
| 1 | AA | 1163 | A | N1-C2-N3 | -17.29 | 120.66 | 129.30 |
| 1 | AA | 1152 | A | N1-C2-N3 | -17.29 | 120.66 | 129.30 |
| 1 | AA | 1350 | A | N1-C2-N3 | -17.29 | 120.66 | 129.30 |
| 1 | AA | 1130 | A | N1-C2-N3 | -17.29 | 120.66 | 129.30 |
| 22 | BA | 227 | A | N1-C6-N6 | -17.29 | 108.23 | 118.60 |
| 1 | AA | 263 | A | N1-C2-N3 | -17.29 | 120.66 | 129.30 |
| 1 | AA | 327 | A | N1-C6-N6 | -17.28 | 108.23 | 118.60 |
| 1 | AA | 1492 | A | N1-C2-N3 | -17.28 | 120.66 | 129.30 |
| 22 | BA | 1528 | A | C2-N3-C4 | 17.28 | 119.24 | 110.60 |
| 1 | AA | 938 | A | N1-C2-N3 | -17.28 | 120.66 | 129.30 |
| 22 | BA | 1815 | A | N1-C6-N6 | -17.28 | 108.23 | 118.60 |
| 1 | AA | 716 | A | C2-N3-C4 | 17.28 | 119.24 | 110.60 |
| 22 | BA | 1328 | A | N1-C2-N3 | -17.28 | 120.66 | 129.30 |
| 22 | BA | 1854 | A | N1-C2-N3 | -17.28 | 120.66 | 129.30 |
| 1 | AA | 1468 | A | C2-N3-C4 | 17.28 | 119.24 | 110.60 |
| 1 | AA | 554 | A | C2-N3-C4 | 17.28 | 119.24 | 110.60 |
| 1 | AA | 1236 | A | N1-C6-N6 | -17.28 | 108.23 | 118.60 |
| 22 | BA | 1054 | A | N1-C6-N6 | -17.28 | 108.23 | 118.60 |
| 22 | BA | 2426 | A | N1-C6-N6 | -17.28 | 108.23 | 118.60 |
| 22 | BA | 1616 | A | N1-C2-N3 | -17.28 | 120.66 | 129.30 |
| 22 | BA | 472 | A | N1-C2-N3 | -17.27 | 120.66 | 129.30 |
| 1 | AA | 1465 | A | N1-C6-N6 | -17.27 | 108.24 | 118.60 |
| 22 | BA | 2814 | A | N1-C6-N6 | -17.27 | 108.24 | 118.60 |
| 22 | BA | 1269 | A | C2-N3-C4 | 17.27 | 119.23 | 110.60 |
| 22 | BA | 1899 | A | C2-N3-C4 | 17.27 | 119.23 | 110.60 |
| 22 | BA | 374 | A | C2-N3-C4 | 17.27 | 119.23 | 110.60 |
| 22 | BA | 2278 | A | N1-C2-N3 | -17.27 | 120.67 | 129.30 |
| 22 | BA | 2872 | A | C2-N3-C4 | 17.27 | 119.23 | 110.60 |
| 22 | BA | 911 | A | N1-C2-N3 | -17.27 | 120.67 | 129.30 |
| 22 | BA | 505 | A | C2-N3-C4 | 17.27 | 119.23 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 526 | A | N1-C2-N3 | -17.27 | 120.67 | 129.30 |
| 22 | BA | 668 | A | N1-C6-N6 | -17.27 | 108.24 | 118.60 |
| 22 | BA | 2205 | A | N1-C2-N3 | -17.27 | 120.67 | 129.30 |
| 1 | AA | 1357 | A | C2-N3-C4 | 17.26 | 119.23 | 110.60 |
| 22 | BA | 2054 | A | N1-C6-N6 | -17.26 | 108.24 | 118.60 |
| 22 | BA | 2792 | A | N1-C6-N6 | -17.26 | 108.24 | 118.60 |
| 22 | BA | 152 | A | N1-C2-N3 | -17.26 | 120.67 | 129.30 |
| 22 | BA | 2284 | A | N1-C6-N6 | -17.26 | 108.24 | 118.60 |
| 22 | BA | 1040 | A | C2-N3-C4 | 17.26 | 119.23 | 110.60 |
| 22 | BA | 1919 | A | N1-C2-N3 | -17.26 | 120.67 | 129.30 |
| 1 | AA | 1101 | A | C2-N3-C4 | 17.26 | 119.23 | 110.60 |
| 22 | BA | 1532 | A | N1-C6-N6 | -17.26 | 108.25 | 118.60 |
| 22 | BA | 1393 | A | N1-C6-N6 | -17.25 | 108.25 | 118.60 |
| 22 | BA | 2670 | A | C2-N3-C4 | 17.25 | 119.23 | 110.60 |
| 1 | AA | 1368 | A | N1-C2-N3 | -17.25 | 120.67 | 129.30 |
| 23 | BB | 50 | A | N1-C6-N6 | -17.25 | 108.25 | 118.60 |
| 1 | AA | 1418 | A | C2-N3-C4 | 17.25 | 119.22 | 110.60 |
| 22 | BA | 1977 | A | C2-N3-C4 | 17.25 | 119.22 | 110.60 |
| 22 | BA | 2037 | A | N1-C2-N3 | -17.25 | 120.68 | 129.30 |
| 22 | BA | 1745 | A | N1-C6-N6 | -17.24 | 108.25 | 118.60 |
| 22 | BA | 1953 | A | N1-C2-N3 | -17.24 | 120.68 | 129.30 |
| 22 | BA | 118 | A | N1-C6-N6 | -17.24 | 108.26 | 118.60 |
| 22 | BA | 482 | A | C2-N3-C4 | 17.24 | 119.22 | 110.60 |
| 22 | BA | 2886 | A | C2-N3-C4 | 17.24 | 119.22 | 110.60 |
| 1 | AA | 298 | A | C2-N3-C4 | 17.23 | 119.22 | 110.60 |
| 22 | BA | 471 | A | C2-N3-C4 | 17.23 | 119.22 | 110.60 |
| 22 | BA | 472 | A | C2-N3-C4 | 17.23 | 119.22 | 110.60 |
| 22 | BA | 226 | A | N1-C2-N3 | -17.23 | 120.68 | 129.30 |
| 22 | BA | 2037 | A | N1-C6-N6 | -17.23 | 108.26 | 118.60 |
| 22 | BA | 2821 | A | N1-C6-N6 | -17.23 | 108.26 | 118.60 |
| 22 | BA | 53 | A | N1-C6-N6 | -17.23 | 108.26 | 118.60 |
| 55 | B8 | 21 | A | N1-C6-N6 | -17.23 | 108.26 | 118.60 |
| 1 | AA | 946 | A | N1-C6-N6 | -17.23 | 108.26 | 118.60 |
| 1 | AA | 1531 | A | N1-C2-N3 | -17.23 | 120.69 | 129.30 |
| 22 | BA | 348 | A | N1-C2-N3 | -17.23 | 120.69 | 129.30 |
| 22 | BA | 1403 | A | N1-C2-N3 | -17.22 | 120.69 | 129.30 |
| 22 | BA | 1572 | A | N1-C6-N6 | -17.22 | 108.27 | 118.60 |
| 1 | AA | 1503 | A | C2-N3-C4 | 17.22 | 119.21 | 110.60 |
| 22 | BA | 844 | A | N1-C6-N6 | -17.22 | 108.27 | 118.60 |
| 22 | BA | 2435 | A | N1-C2-N3 | -17.22 | 120.69 | 129.30 |
| 1 | AA | 373 | A | N1-C6-N6 | -17.22 | 108.27 | 118.60 |
| 22 | BA | 223 | A | C2-N3-C4 | 17.22 | 119.21 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 1000 | A | N1-C2-N3 | -17.21 | 120.69 | 129.30 |
| 22 | BA | 1054 | A | N1-C2-N3 | -17.21 | 120.69 | 129.30 |
| 22 | BA | 1213 | A | N1-C2-N3 | -17.21 | 120.69 | 129.30 |
| 1 | AA | 1227 | A | N1-C2-N3 | -17.21 | 120.69 | 129.30 |
| 22 | BA | 1502 | A | N1-C6-N6 | -17.21 | 108.27 | 118.60 |
| 22 | BA | 2700 | A | N1-C2-N3 | -17.21 | 120.69 | 129.30 |
| 22 | BA | 1783 | A | N1-C6-N6 | -17.21 | 108.28 | 118.60 |
| 1 | AA | 716 | A | N1-C6-N6 | -17.21 | 108.28 | 118.60 |
| 22 | BA | 626 | A | C2-N3-C4 | 17.21 | 119.20 | 110.60 |
| 22 | BA | 196 | A | N1-C6-N6 | -17.20 | 108.28 | 118.60 |
| 22 | BA | 272 | A | N1-C2-N3 | -17.20 | 120.70 | 129.30 |
| 1 | AA | 228 | A | C2-N3-C4 | 17.20 | 119.20 | 110.60 |
| 1 | AA | 389 | A | N1-C2-N3 | -17.20 | 120.70 | 129.30 |
| 22 | BA | 1981 | A | C2-N3-C4 | 17.20 | 119.20 | 110.60 |
| 22 | BA | 1304 | A | C2-N3-C4 | 17.20 | 119.20 | 110.60 |
| 1 | AA | 959 | A | C2-N3-C4 | 17.20 | 119.20 | 110.60 |
| 22 | BA | 668 | A | C2-N3-C4 | 17.20 | 119.20 | 110.60 |
| 22 | BA | 721 | A | N1-C6-N6 | -17.20 | 108.28 | 118.60 |
| 22 | BA | 945 | A | C2-N3-C4 | 17.20 | 119.20 | 110.60 |
| 22 | BA | 2082 | A | C2-N3-C4 | 17.20 | 119.20 | 110.60 |
| 22 | BA | 909 | A | N1-C6-N6 | -17.20 | 108.28 | 118.60 |
| 22 | BA | 182 | A | N1-C6-N6 | -17.19 | 108.28 | 118.60 |
| 1 | AA | 807 | A | C2-N3-C4 | 17.19 | 119.19 | 110.60 |
| 1 | AA | 807 | A | N1-C2-N3 | -17.19 | 120.70 | 129.30 |
| 22 | BA | 2267 | A | N1-C6-N6 | -17.19 | 108.29 | 118.60 |
| 1 | AA | 994 | A | N1-C2-N3 | -17.19 | 120.71 | 129.30 |
| 1 | AA | 199 | A | N1-C6-N6 | -17.19 | 108.29 | 118.60 |
| 1 | AA | 648 | A | N1-C6-N6 | -17.18 | 108.29 | 118.60 |
| 23 | BB | 45 | A | N1-C2-N3 | -17.18 | 120.71 | 129.30 |
| 22 | BA | 2432 | A | C2-N3-C4 | 17.18 | 119.19 | 110.60 |
| 22 | BA | 2850 | A | N1-C2-N3 | -17.18 | 120.71 | 129.30 |
| 1 | AA | 181 | A | C2-N3-C4 | 17.18 | 119.19 | 110.60 |
| 1 | AA | 655 | A | N1-C2-N3 | -17.18 | 120.71 | 129.30 |
| 1 | AA | 329 | A | N1-C2-N3 | -17.17 | 120.71 | 129.30 |
| 22 | BA | 2534 | A | N1-C6-N6 | -17.17 | 108.30 | 118.60 |
| 1 | AA | 1197 | A | N1-C2-N3 | -17.17 | 120.72 | 129.30 |
| 22 | BA | 2052 | A | N1-C2-N3 | -17.17 | 120.71 | 129.30 |
| 1 | AA | 583 | A | N1-C2-N3 | -17.17 | 120.72 | 129.30 |
| 1 | AA | 371 | A | C2-N3-C4 | 17.17 | 119.18 | 110.60 |
| 22 | BA | 2033 | A | N1-C2-N3 | -17.17 | 120.72 | 129.30 |
| 23 | BB | 57 | A | N1-C2-N3 | -17.17 | 120.72 | 129.30 |
| 22 | BA | 2227 | A | N1-C2-N3 | -17.17 | 120.72 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1866 | A | C2-N3-C4 | 17.16 | 119.18 | 110.60 |
| 1 | AA | 579 | A | N1-C2-N3 | -17.16 | 120.72 | 129.30 |
| 1 | AA | 918 | A | N1-C2-N3 | -17.16 | 120.72 | 129.30 |
| 22 | BA | 155 | A | N1-C6-N6 | -17.16 | 108.30 | 118.60 |
| 22 | BA | 309 | A | C2-N3-C4 | 17.16 | 119.18 | 110.60 |
| 22 | BA | 2335 | A | N1-C2-N3 | -17.16 | 120.72 | 129.30 |
| 22 | BA | 2340 | A | N1-C6-N6 | -17.16 | 108.30 | 118.60 |
| 1 | AA | 1306 | A | N1-C2-N3 | -17.16 | 120.72 | 129.30 |
| 22 | BA | 480 | A | N1-C2-N3 | -17.16 | 120.72 | 129.30 |
| 1 | AA | 371 | A | N1-C6-N6 | -17.16 | 108.31 | 118.60 |
| 22 | BA | 1780 | A | C2-N3-C4 | 17.16 | 119.18 | 110.60 |
| 1 | AA | 959 | A | N1-C2-N3 | -17.16 | 120.72 | 129.30 |
| 22 | BA | 104 | A | N1-C2-N3 | -17.16 | 120.72 | 129.30 |
| 22 | BA | 2019 | A | N1-C2-N3 | -17.15 | 120.72 | 129.30 |
| 1 | AA | 1105 | A | N1-C6-N6 | -17.15 | 108.31 | 118.60 |
| 22 | BA | 792 | A | C2-N3-C4 | 17.14 | 119.17 | 110.60 |
| 22 | BA | 2094 | A | N1-C2-N3 | -17.14 | 120.73 | 129.30 |
| 1 | AA | 746 | A | N1-C6-N6 | -17.14 | 108.31 | 118.60 |
| 1 | AA | 50 | A | C2-N3-C4 | 17.14 | 119.17 | 110.60 |
| 1 | AA | 649 | A | N1-C6-N6 | -17.14 | 108.32 | 118.60 |
| 1 | AA | 1219 | A | N1-C2-N3 | -17.14 | 120.73 | 129.30 |
| 22 | BA | 2381 | A | N1-C6-N6 | -17.13 | 108.32 | 118.60 |
| 22 | BA | 947 | A | N1-C2-N3 | -17.13 | 120.73 | 129.30 |
| 22 | BA | 1952 | A | N1-C6-N6 | -17.13 | 108.32 | 118.60 |
| 1 | AA | 1437 | A | N1-C6-N6 | -17.13 | 108.32 | 118.60 |
| 22 | BA | 1010 | A | C2-N3-C4 | 17.13 | 119.17 | 110.60 |
| 22 | BA | 1080 | A | N1-C2-N3 | -17.13 | 120.73 | 129.30 |
| 22 | BA | 2727 | A | N1-C2-N3 | -17.13 | 120.74 | 129.30 |
| 1 | AA | 718 | A | N1-C2-N3 | -17.13 | 120.74 | 129.30 |
| 1 | AA | 649 | A | C2-N3-C4 | 17.12 | 119.16 | 110.60 |
| 1 | AA | 1012 | A | N1-C2-N3 | -17.12 | 120.74 | 129.30 |
| 22 | BA | 362 | A | C2-N3-C4 | 17.12 | 119.16 | 110.60 |
| 1 | AA | 716 | A | N1-C2-N3 | -17.12 | 120.74 | 129.30 |
| 22 | BA | 2184 | A | N1-C2-N3 | -17.12 | 120.74 | 129.30 |
| 22 | BA | 6 | A | N1-C2-N3 | -17.12 | 120.74 | 129.30 |
| 1 | AA | 648 | A | C2-N3-C4 | 17.12 | 119.16 | 110.60 |
| 1 | AA | 1306 | A | N1-C6-N6 | -17.12 | 108.33 | 118.60 |
| 22 | BA | 2407 | A | C2-N3-C4 | 17.12 | 119.16 | 110.60 |
| 1 | AA | 196 | A | C2-N3-C4 | 17.11 | 119.16 | 110.60 |
| 22 | BA | 412 | A | N1-C6-N6 | -17.11 | 108.33 | 118.60 |
| 22 | BA | 1938 | A | N1-C2-N3 | -17.11 | 120.74 | 129.30 |
| 22 | BA | 2534 | A | C2-N3-C4 | 17.11 | 119.16 | 110.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 655 | A | C2-N3-C4 | 17.11 | 119.16 | 110.60 |
| 22 | BA | 1785 | A | C2-N3-C4 | 17.11 | 119.16 | 110.60 |
| 22 | BA | 2886 | A | N1-C6-N6 | -17.11 | 108.33 | 118.60 |
| 22 | BA | 1274 | A | N1-C6-N6 | -17.11 | 108.33 | 118.60 |
| 1 | AA | 363 | A | N1-C2-N3 | -17.11 | 120.75 | 129.30 |
| 22 | BA | 428 | A | C2-N3-C4 | 17.11 | 119.15 | 110.60 |
| 22 | BA | 1469 | A | N1-C2-N3 | -17.11 | 120.75 | 129.30 |
| 1 | AA | 1163 | A | N1-C6-N6 | -17.10 | 108.34 | 118.60 |
| 22 | BA | 282 | A | C2-N3-C4 | 17.10 | 119.15 | 110.60 |
| 22 | BA | 2274 | A | C2-N3-C4 | 17.10 | 119.15 | 110.60 |
| 22 | BA | 172 | A | N1-C2-N3 | -17.10 | 120.75 | 129.30 |
| 22 | BA | 1433 | A | C2-N3-C4 | 17.09 | 119.15 | 110.60 |
| 22 | BA | 156 | A | N1-C6-N6 | -17.09 | 108.34 | 118.60 |
| 1 | AA | 1324 | A | N1-C2-N3 | -17.09 | 120.75 | 129.30 |
| 22 | BA | 2051 | A | N1-C2-N3 | -17.09 | 120.75 | 129.30 |
| 23 | BB | 58 | A | N1-C2-N3 | -17.09 | 120.76 | 129.30 |
| 1 | AA | 1271 | A | N1-C2-N3 | -17.09 | 120.76 | 129.30 |
| 1 | AA | 495 | A | C2-N3-C4 | 17.09 | 119.14 | 110.60 |
| 1 | AA | 520 | A | N1-C2-N3 | -17.09 | 120.76 | 129.30 |
| 22 | BA | 693 | A | N1-C2-N3 | -17.09 | 120.76 | 129.30 |
| 22 | BA | 1801 | A | C2-N3-C4 | 17.08 | 119.14 | 110.60 |
| 22 | BA | 788 | A | N1-C2-N3 | -17.08 | 120.76 | 129.30 |
| 22 | BA | 1134 | A | N1-C2-N3 | -17.08 | 120.76 | 129.30 |
| 22 | BA | 1205 | A | N1-C2-N3 | -17.08 | 120.76 | 129.30 |
| 1 | AA | 663 | A | N1-C6-N6 | -17.08 | 108.35 | 118.60 |
| 22 | BA | 44 | A | N1-C2-N3 | -17.08 | 120.76 | 129.30 |
| 22 | BA | 1027 | A | N1-C6-N6 | -17.08 | 108.35 | 118.60 |
| 22 | BA | 1111 | A | N1-C6-N6 | -17.08 | 108.35 | 118.60 |
| 22 | BA | 1919 | A | N1-C6-N6 | -17.08 | 108.35 | 118.60 |
| 1 | AA | 1274 | A | N1-C6-N6 | -17.08 | 108.35 | 118.60 |
| 22 | BA | 1938 | A | C2-N3-C4 | 17.08 | 119.14 | 110.60 |
| 22 | BA | 2757 | A | N1-C2-N3 | -17.08 | 120.76 | 129.30 |
| 1 | AA | 1176 | A | N1-C6-N6 | -17.07 | 108.36 | 118.60 |
| 1 | AA | 270 | A | N1-C6-N6 | -17.07 | 108.36 | 118.60 |
| 1 | AA | 459 | A | N1-C6-N6 | -17.07 | 108.36 | 118.60 |
| 1 | AA | 608 | A | N1-C6-N6 | -17.07 | 108.36 | 118.60 |
| 22 | BA | 299 | A | N1-C6-N6 | -17.07 | 108.36 | 118.60 |
| 1 | AA | 642 | A | C2-N3-C4 | 17.06 | 119.13 | 110.60 |
| 1 | AA | 270 | A | N1-C2-N3 | -17.06 | 120.77 | 129.30 |
| 1 | AA | 366 | A | N1-C2-N3 | -17.06 | 120.77 | 129.30 |
| 22 | BA | 144 | A | N1-C6-N6 | -17.06 | 108.36 | 118.60 |
| 22 | BA | 1722 | A | N1-C2-N3 | -17.06 | 120.77 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1829 | A | N1-C2-N3 | -17.06 | 120.77 | 129.30 |
| 22 | BA | 2082 | A | N1-C6-N6 | -17.06 | 108.37 | 118.60 |
| 22 | BA | 2352 | A | N1-C2-N3 | -17.05 | 120.77 | 129.30 |
| 1 | AA | 1483 | A | N1-C6-N6 | -17.05 | 108.37 | 118.60 |
| 22 | BA | 190 | A | N1-C2-N3 | -17.05 | 120.77 | 129.30 |
| 22 | BA | 2851 | A | N1-C6-N6 | -17.05 | 108.37 | 118.60 |
| 22 | BA | 2432 | A | N1-C6-N6 | -17.05 | 108.37 | 118.60 |
| 1 | AA | 415 | A | N1-C2-N3 | -17.05 | 120.78 | 129.30 |
| 1 | AA | 520 | A | C2-N3-C4 | 17.05 | 119.12 | 110.60 |
| 1 | AA | 246 | A | N1-C6-N6 | -17.05 | 108.37 | 118.60 |
| 22 | BA | 56 | A | N1-C2-N3 | -17.05 | 120.78 | 129.30 |
| 22 | BA | 2766 | A | N1-C2-N3 | -17.05 | 120.78 | 129.30 |
| 1 | AA | 448 | A | N1-C2-N3 | -17.04 | 120.78 | 129.30 |
| 1 | AA | 1357 | A | N1-C2-N3 | -17.04 | 120.78 | 129.30 |
| 22 | BA | 2459 | A | N1-C6-N6 | -17.04 | 108.37 | 118.60 |
| 22 | BA | 609 | A | C2-N3-C4 | 17.04 | 119.12 | 110.60 |
| 22 | BA | 909 | A | N1-C2-N3 | -17.04 | 120.78 | 129.30 |
| 1 | AA | 983 | A | N1-C2-N3 | -17.04 | 120.78 | 129.30 |
| 22 | BA | 161 | A | C2-N3-C4 | 17.04 | 119.12 | 110.60 |
| 22 | BA | 324 | A | C2-N3-C4 | 17.03 | 119.12 | 110.60 |
| 22 | BA | 960 | A | N1-C2-N3 | -17.03 | 120.78 | 129.30 |
| 22 | BA | 1953 | A | C2-N3-C4 | 17.03 | 119.12 | 110.60 |
| 1 | AA | 155 | A | N1-C6-N6 | -17.03 | 108.38 | 118.60 |
| 22 | BA | 282 | A | N1-C6-N6 | -17.03 | 108.38 | 118.60 |
| 55 | B8 | 38 | A | N1-C6-N6 | -17.03 | 108.38 | 118.60 |
| 1 | AA | 98 | A | N1-C2-N3 | -17.03 | 120.79 | 129.30 |
| 22 | BA | 538 | A | C2-N3-C4 | 17.02 | 119.11 | 110.60 |
| 22 | BA | 911 | A | C2-N3-C4 | 17.02 | 119.11 | 110.60 |
| 22 | BA | 13 | A | N1-C2-N3 | -17.02 | 120.79 | 129.30 |
| 1 | AA | 487 | A | N1-C2-N3 | -17.01 | 120.79 | 129.30 |
| 22 | BA | 1103 | A | N1-C2-N3 | -17.01 | 120.79 | 129.30 |
| 22 | BA | 1354 | A | N1-C6-N6 | -17.01 | 108.39 | 118.60 |
| 22 | BA | 626 | A | N1-C6-N6 | -17.01 | 108.39 | 118.60 |
| 1 | AA | 1492 | A | C2-N3-C4 | 17.01 | 119.10 | 110.60 |
| 22 | BA | 2126 | A | N1-C2-N3 | -17.01 | 120.80 | 129.30 |
| 22 | BA | 2082 | A | N1-C2-N3 | -17.00 | 120.80 | 129.30 |
| 1 | AA | 1191 | A | N1-C6-N6 | -17.00 | 108.40 | 118.60 |
| 22 | BA | 2814 | A | N1-C2-N3 | -17.00 | 120.80 | 129.30 |
| 1 | AA | 790 | A | N1-C6-N6 | -17.00 | 108.40 | 118.60 |
| 22 | BA | 1928 | A | C2-N3-C4 | 17.00 | 119.10 | 110.60 |
| 22 | BA | 2425 | A | N1-C6-N6 | -17.00 | 108.40 | 118.60 |
| 22 | BA | 522 | A | N1-C6-N6 | -17.00 | 108.40 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2432 | A | N1-C2-N3 | -17.00 | 120.80 | 129.30 |
| 1 | AA | 190 | A | C2-N3-C4 | 16.99 | 119.10 | 110.60 |
| 1 | AA | 502 | A | N1-C6-N6 | -16.99 | 108.41 | 118.60 |
| 22 | BA | 2297 | A | N1-C2-N3 | -16.99 | 120.80 | 129.30 |
| 23 | BB | 34 | A | N1-C6-N6 | -16.99 | 108.41 | 118.60 |
| 1 | AA | 729 | A | N1-C6-N6 | -16.99 | 108.41 | 118.60 |
| 22 | BA | 95 | A | N1-C6-N6 | -16.99 | 108.41 | 118.60 |
| 22 | BA | 1084 | A | N1-C2-N3 | -16.98 | 120.81 | 129.30 |
| 22 | BA | 1387 | A | N1-C2-N3 | -16.98 | 120.81 | 129.30 |
| 22 | BA | 761 | A | C2-N3-C4 | 16.98 | 119.09 | 110.60 |
| 1 | AA | 1431 | A | N1-C6-N6 | -16.98 | 108.41 | 118.60 |
| 1 | AA | 1507 | A | N1-C6-N6 | -16.98 | 108.41 | 118.60 |
| 22 | BA | 575 | A | C2-N3-C4 | 16.98 | 119.09 | 110.60 |
| 22 | BA | 1010 | A | N1-C6-N6 | -16.97 | 108.42 | 118.60 |
| 22 | BA | 633 | A | C2-N3-C4 | 16.97 | 119.09 | 110.60 |
| 22 | BA | 1689 | A | N1-C6-N6 | -16.97 | 108.42 | 118.60 |
| 1 | AA | 66 | A | N1-C6-N6 | -16.97 | 108.42 | 118.60 |
| 22 | BA | 722 | A | N1-C6-N6 | -16.97 | 108.42 | 118.60 |
| 22 | BA | 176 | A | N1-C6-N6 | -16.96 | 108.42 | 118.60 |
| 22 | BA | 384 | A | N1-C2-N3 | -16.96 | 120.82 | 129.30 |
| 22 | BA | 1552 | A | C2-N3-C4 | 16.96 | 119.08 | 110.60 |
| 22 | BA | 1876 | A | N1-C6-N6 | -16.96 | 108.42 | 118.60 |
| 22 | BA | 1134 | A | C2-N3-C4 | 16.96 | 119.08 | 110.60 |
| 22 | BA | 2013 | A | C2-N3-C4 | 16.96 | 119.08 | 110.60 |
| 22 | BA | 590 | A | N1-C2-N3 | -16.96 | 120.82 | 129.30 |
| 1 | AA | 649 | A | N1-C2-N3 | -16.95 | 120.82 | 129.30 |
| 1 | AA | 630 | A | N1-C6-N6 | -16.95 | 108.43 | 118.60 |
| 1 | AA | 33 | A | N1-C6-N6 | -16.95 | 108.43 | 118.60 |
| 1 | AA | 1274 | A | C2-N3-C4 | 16.95 | 119.08 | 110.60 |
| 1 | AA | 1418 | A | N1-C2-N3 | -16.95 | 120.82 | 129.30 |
| 22 | BA | 1133 | A | N1-C2-N3 | -16.95 | 120.83 | 129.30 |
| 22 | BA | 1393 | A | C2-N3-C4 | 16.95 | 119.08 | 110.60 |
| 22 | BA | 1572 | A | N1-C2-N3 | -16.95 | 120.83 | 129.30 |
| 1 | AA | 338 | A | N1-C2-N3 | -16.95 | 120.83 | 129.30 |
| 1 | AA | 279 | A | C2-N3-C4 | 16.95 | 119.07 | 110.60 |
| 1 | AA | 865 | A | N1-C2-N3 | -16.95 | 120.83 | 129.30 |
| 22 | BA | 1637 | A | N1-C2-N3 | -16.95 | 120.83 | 129.30 |
| 22 | BA | 1641 | A | N1-C2-N3 | -16.95 | 120.83 | 129.30 |
| 22 | BA | 1654 | A | N1-C6-N6 | -16.95 | 108.43 | 118.60 |
| 1 | AA | 1508 | A | N1-C6-N6 | -16.94 | 108.43 | 118.60 |
| 1 | AA | 743 | A | N1-C6-N6 | -16.94 | 108.44 | 118.60 |
| 22 | BA | 1276 | A | N1-C6-N6 | -16.94 | 108.44 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1545 | A | N1-C2-N3 | -16.94 | 120.83 | 129.30 |
| 22 | BA | 152 | A | C2-N3-C4 | 16.93 | 119.07 | 110.60 |
| 22 | BA | 1098 | A | N1-C6-N6 | -16.93 | 108.44 | 118.60 |
| 1 | AA | 663 | A | N1-C2-N3 | -16.93 | 120.84 | 129.30 |
| 1 | AA | 864 | A | N1-C2-N3 | -16.92 | 120.84 | 129.30 |
| 1 | AA | 1465 | A | N1-C2-N3 | -16.92 | 120.84 | 129.30 |
| 22 | BA | 1701 | A | C2-N3-C4 | 16.92 | 119.06 | 110.60 |
| 22 | BA | 1829 | A | N1-C6-N6 | -16.92 | 108.45 | 118.60 |
| 1 | AA | 681 | A | N1-C6-N6 | -16.92 | 108.45 | 118.60 |
| 22 | BA | 2516 | A | N1-C2-N3 | -16.92 | 120.84 | 129.30 |
| 1 | AA | 338 | A | N1-C6-N6 | -16.91 | 108.45 | 118.60 |
| 1 | AA | 498 | A | N1-C6-N6 | -16.91 | 108.45 | 118.60 |
| 1 | AA | 782 | A | N1-C2-N3 | -16.91 | 120.84 | 129.30 |
| 22 | BA | 480 | A | N1-C6-N6 | -16.91 | 108.45 | 118.60 |
| 22 | BA | 788 | A | C2-N3-C4 | 16.91 | 119.05 | 110.60 |
| 22 | BA | 2761 | A | N1-C2-N3 | -16.91 | 120.84 | 129.30 |
| 1 | AA | 228 | A | N1-C6-N6 | -16.90 | 108.46 | 118.60 |
| 1 | AA | 1102 | A | N1-C2-N3 | -16.90 | 120.85 | 129.30 |
| 22 | BA | 505 | A | N1-C2-N3 | -16.90 | 120.85 | 129.30 |
| 22 | BA | 6 | A | C2-N3-C4 | 16.89 | 119.05 | 110.60 |
| 22 | BA | 255 | A | N1-C6-N6 | -16.89 | 108.47 | 118.60 |
| 22 | BA | 2059 | A | N1-C2-N3 | -16.89 | 120.86 | 129.30 |
| 22 | BA | 2741 | A | N1-C2-N3 | -16.89 | 120.86 | 129.30 |
| 22 | BA | 1469 | A | N1-C6-N6 | -16.89 | 108.47 | 118.60 |
| 1 | AA | 1204 | A | C2-N3-C4 | 16.88 | 119.04 | 110.60 |
| 22 | BA | 2435 | A | N1-C6-N6 | -16.88 | 108.47 | 118.60 |
| 22 | BA | 632 | A | N1-C6-N6 | -16.87 | 108.48 | 118.60 |
| 1 | AA | 356 | A | N1-C6-N6 | -16.87 | 108.48 | 118.60 |
| 22 | BA | 735 | A | N1-C6-N6 | -16.86 | 108.48 | 118.60 |
| 22 | BA | 1552 | A | N1-C6-N6 | -16.86 | 108.48 | 118.60 |
| 22 | BA | 2497 | A | N1-C2-N3 | -16.86 | 120.87 | 129.30 |
| 22 | BA | 1275 | A | C2-N3-C4 | 16.85 | 119.03 | 110.60 |
| 22 | BA | 1285 | A | N1-C2-N3 | -16.85 | 120.87 | 129.30 |
| 22 | BA | 52 | A | N1-C6-N6 | -16.85 | 108.49 | 118.60 |
| 22 | BA | 849 | A | C2-N3-C4 | 16.85 | 119.02 | 110.60 |
| 1 | AA | 74 | A | C2-N3-C4 | 16.84 | 119.02 | 110.60 |
| 22 | BA | 1679 | A | N1-C2-N3 | -16.84 | 120.88 | 129.30 |
| 1 | AA | 642 | A | N1-C2-N3 | -16.84 | 120.88 | 129.30 |
| 22 | BA | 2015 | A | N1-C6-N6 | -16.84 | 108.50 | 118.60 |
| 22 | BA | 354 | A | N1-C2-N3 | -16.84 | 120.88 | 129.30 |
| 22 | BA | 730 | A | N1-C2-N3 | -16.84 | 120.88 | 129.30 |
| 22 | BA | 1938 | A | N1-C6-N6 | -16.84 | 108.50 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 559 | A | C2-N3-C4 | 16.83 | 119.02 | 110.60 |
| 1 | AA | 768 | A | N1-C2-N3 | -16.83 | 120.89 | 129.30 |
| 1 | AA | 1408 | A | C2-N3-C4 | 16.83 | 119.01 | 110.60 |
| 1 | AA | 373 | A | N1-C2-N3 | -16.82 | 120.89 | 129.30 |
| 22 | BA | 1133 | A | N1-C6-N6 | -16.82 | 108.51 | 118.60 |
| 22 | BA | 2059 | A | C2-N3-C4 | 16.82 | 119.01 | 110.60 |
| 22 | BA | 2706 | A | N1-C2-N3 | -16.82 | 120.89 | 129.30 |
| 22 | BA | 182 | A | N1-C2-N3 | -16.82 | 120.89 | 129.30 |
| 22 | BA | 2142 | A | N1-C2-N3 | -16.81 | 120.89 | 129.30 |
| 22 | BA | 1413 | A | N1-C6-N6 | -16.80 | 108.52 | 118.60 |
| 1 | AA | 452 | A | N1-C6-N6 | -16.80 | 108.52 | 118.60 |
| 22 | BA | 404 | A | C2-N3-C4 | 16.80 | 119.00 | 110.60 |
| 22 | BA | 2600 | A | C2-N3-C4 | 16.80 | 119.00 | 110.60 |
| 1 | AA | 729 | A | N1-C2-N3 | -16.79 | 120.90 | 129.30 |
| 1 | AA | 782 | A | C2-N3-C4 | 16.79 | 119.00 | 110.60 |
| 22 | BA | 1773 | A | C2-N3-C4 | 16.79 | 119.00 | 110.60 |
| 22 | BA | 1241 | A | N1-C2-N3 | -16.79 | 120.91 | 129.30 |
| 22 | BA | 1616 | A | C2-N3-C4 | 16.79 | 118.99 | 110.60 |
| 22 | BA | 2088 | A | N1-C6-N6 | -16.79 | 108.53 | 118.60 |
| 22 | BA | 197 | A | C2-N3-C4 | 16.78 | 118.99 | 110.60 |
| 22 | BA | 1614 | A | N1-C2-N3 | -16.78 | 120.91 | 129.30 |
| 1 | AA | 1493 | A | C2-N3-C4 | 16.78 | 118.99 | 110.60 |
| 22 | BA | 233 | A | N1-C6-N6 | -16.77 | 108.54 | 118.60 |
| 22 | BA | 6 | A | N1-C6-N6 | -16.77 | 108.54 | 118.60 |
| 22 | BA | 352 | A | N1-C6-N6 | -16.77 | 108.54 | 118.60 |
| 1 | AA | 563 | A | N1-C2-N3 | -16.76 | 120.92 | 129.30 |
| 22 | BA | 2013 | A | N1-C2-N3 | -16.76 | 120.92 | 129.30 |
| 22 | BA | 2679 | A | N1-C6-N6 | -16.76 | 108.54 | 118.60 |
| 1 | AA | 19 | A | N1-C2-N3 | -16.76 | 120.92 | 129.30 |
| 22 | BA | 2020 | A | N1-C2-N3 | -16.76 | 120.92 | 129.30 |
| 1 | AA | 790 | A | N1-C2-N3 | -16.75 | 120.92 | 129.30 |
| 22 | BA | 1652 | A | N1-C2-N3 | -16.75 | 120.92 | 129.30 |
| 22 | BA | 2378 | A | N1-C6-N6 | -16.75 | 108.55 | 118.60 |
| 22 | BA | 2721 | A | C2-N3-C4 | 16.75 | 118.98 | 110.60 |
| 1 | AA | 1375 | A | N1-C6-N6 | -16.74 | 108.56 | 118.60 |
| 22 | BA | 677 | A | N1-C6-N6 | -16.74 | 108.56 | 118.60 |
| 1 | AA | 1170 | A | C2-N3-C4 | 16.72 | 118.96 | 110.60 |
| 22 | BA | 572 | A | N1-C6-N6 | -16.72 | 108.57 | 118.60 |
| 22 | BA | 477 | A | N1-C2-N3 | -16.71 | 120.94 | 129.30 |
| 22 | BA | 2461 | A | N1-C6-N6 | -16.71 | 108.57 | 118.60 |
| 22 | BA | 2534 | A | N1-C2-N3 | -16.71 | 120.94 | 129.30 |
| 1 | AA | 55 | A | N1-C6-N6 | -16.70 | 108.58 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1614 | A | C2-N3-C4 | 16.69 | 118.95 | 110.60 |
| 22 | BA | 752 | A | N1-C2-N3 | -16.69 | 120.95 | 129.30 |
| 1 | AA | 1216 | A | N1-C2-N3 | -16.69 | 120.96 | 129.30 |
| 1 | AA | 767 | A | N1-C6-N6 | -16.68 | 108.59 | 118.60 |
| 22 | BA | 505 | A | N1-C6-N6 | -16.68 | 108.59 | 118.60 |
| 1 | AA | 1227 | A | C2-N3-C4 | 16.68 | 118.94 | 110.60 |
| 22 | BA | 311 | A | C2-N3-C4 | 16.67 | 118.94 | 110.60 |
| 1 | AA | 397 | A | N1-C2-N3 | -16.66 | 120.97 | 129.30 |
| 22 | BA | 705 | A | N1-C6-N6 | -16.66 | 108.60 | 118.60 |
| 22 | BA | 2097 | A | N1-C6-N6 | -16.66 | 108.60 | 118.60 |
| 1 | AA | 559 | A | N1-C2-N3 | -16.66 | 120.97 | 129.30 |
| 22 | BA | 2900 | A | N1-C2-N3 | -16.65 | 120.97 | 129.30 |
| 1 | AA | 502 | A | N1-C2-N3 | -16.64 | 120.98 | 129.30 |
| 22 | BA | 1919 | A | C2-N3-C4 | 16.64 | 118.92 | 110.60 |
| 23 | BB | 66 | A | N1-C2-N3 | -16.64 | 120.98 | 129.30 |
| 22 | BA | 1678 | A | C2-N3-C4 | 16.63 | 118.92 | 110.60 |
| 22 | BA | 1872 | A | C2-N3-C4 | 16.63 | 118.92 | 110.60 |
| 22 | BA | 1413 | A | N1-C2-N3 | -16.63 | 120.98 | 129.30 |
| 22 | BA | 2721 | A | N1-C2-N3 | -16.63 | 120.98 | 129.30 |
| 22 | BA | 863 | A | N1-C2-N3 | -16.63 | 120.99 | 129.30 |
| 22 | BA | 1021 | A | N1-C2-N3 | -16.63 | 120.99 | 129.30 |
| 22 | BA | 477 | A | N1-C6-N6 | -16.62 | 108.63 | 118.60 |
| 22 | BA | 2077 | A | N1-C2-N3 | -16.62 | 120.99 | 129.30 |
| 22 | BA | 2108 | A | C2-N3-C4 | 16.62 | 118.91 | 110.60 |
| 22 | BA | 1133 | A | C2-N3-C4 | 16.61 | 118.91 | 110.60 |
| 22 | BA | 861 | A | N1-C6-N6 | -16.61 | 108.63 | 118.60 |
| 22 | BA | 666 | A | N1-C6-N6 | -16.61 | 108.64 | 118.60 |
| 22 | BA | 2727 | A | N1-C6-N6 | -16.60 | 108.64 | 118.60 |
| 22 | BA | 1244 | A | N1-C6-N6 | -16.60 | 108.64 | 118.60 |
| 22 | BA | 781 | A | N1-C2-N3 | -16.60 | 121.00 | 129.30 |
| 1 | AA | 706 | A | N1-C6-N6 | -16.60 | 108.64 | 118.60 |
| 22 | BA | 2407 | A | N1-C2-N3 | -16.60 | 121.00 | 129.30 |
| 22 | BA | 149 | A | N1-C2-N3 | -16.60 | 121.00 | 129.30 |
| 22 | BA | 756 | A | N1-C6-N6 | -16.59 | 108.64 | 118.60 |
| 22 | BA | 833 | A | N1-C2-N3 | -16.59 | 121.00 | 129.30 |
| 22 | BA | 311 | A | N1-C6-N6 | -16.59 | 108.65 | 118.60 |
| 1 | AA | 1375 | A | C2-N3-C4 | 16.59 | 118.89 | 110.60 |
| 1 | AA | 300 | A | C2-N3-C4 | 16.58 | 118.89 | 110.60 |
| 22 | BA | 1226 | A | C2-N3-C4 | 16.58 | 118.89 | 110.60 |
| 22 | BA | 2369 | A | N1-C6-N6 | -16.58 | 108.65 | 118.60 |
| 1 | AA | 32 | A | N1-C2-N3 | -16.57 | 121.01 | 129.30 |
| 22 | BA | 503 | A | N1-C2-N3 | -16.57 | 121.02 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1431 | A | N1-C2-N3 | -16.57 | 121.02 | 129.30 |
| 22 | BA | 2814 | A | C2-N3-C4 | 16.57 | 118.88 | 110.60 |
| 22 | BA | 384 | A | C2-N3-C4 | 16.56 | 118.88 | 110.60 |
| 22 | BA | 324 | A | N1-C6-N6 | -16.55 | 108.67 | 118.60 |
| 22 | BA | 1722 | A | N1-C6-N6 | -16.55 | 108.67 | 118.60 |
| 22 | BA | 2670 | A | N1-C2-N3 | -16.54 | 121.03 | 129.30 |
| 1 | AA | 1433 | A | C2-N3-C4 | 16.54 | 118.87 | 110.60 |
| 22 | BA | 1757 | A | C2-N3-C4 | 16.53 | 118.87 | 110.60 |
| 1 | AA | 1339 | A | N1-C2-N3 | -16.53 | 121.04 | 129.30 |
| 22 | BA | 2757 | A | N1-C6-N6 | -16.53 | 108.68 | 118.60 |
| 22 | BA | 126 | A | N1-C6-N6 | -16.52 | 108.69 | 118.60 |
| 1 | AA | 325 | A | C2-N3-C4 | 16.51 | 118.86 | 110.60 |
| 1 | AA | 865 | A | N1-C6-N6 | -16.51 | 108.69 | 118.60 |
| 22 | BA | 644 | A | N1-C2-N3 | -16.51 | 121.04 | 129.30 |
| 22 | BA | 2461 | A | N1-C2-N3 | -16.51 | 121.05 | 129.30 |
| 22 | BA | 449 | A | N1-C2-N3 | -16.50 | 121.05 | 129.30 |
| 1 | AA | 66 | A | C2-N3-C4 | 16.50 | 118.85 | 110.60 |
| 22 | BA | 2071 | A | N1-C2-N3 | -16.50 | 121.05 | 129.30 |
| 22 | BA | 582 | A | N1-C6-N6 | -16.50 | 108.70 | 118.60 |
| 1 | AA | 199 | A | N1-C2-N3 | -16.49 | 121.06 | 129.30 |
| 1 | AA | 1171 | A | N1-C2-N3 | -16.48 | 121.06 | 129.30 |
| 22 | BA | 2418 | A | N1-C6-N6 | -16.47 | 108.72 | 118.60 |
| 1 | AA | 746 | A | N1-C2-N3 | -16.47 | 121.07 | 129.30 |
| 1 | AA | 325 | A | N1-C2-N3 | -16.46 | 121.07 | 129.30 |
| 22 | BA | 422 | A | N1-C2-N3 | -16.45 | 121.08 | 129.30 |
| 22 | BA | 63 | A | N1-C6-N6 | -16.45 | 108.73 | 118.60 |
| 22 | BA | 1810 | A | N1-C2-N3 | -16.44 | 121.08 | 129.30 |
| 23 | BB | 39 | A | N1-C6-N6 | -16.44 | 108.74 | 118.60 |
| 1 | AA | 1357 | A | N1-C6-N6 | -16.44 | 108.74 | 118.60 |
| 1 | AA | 1508 | A | N1-C2-N3 | -16.44 | 121.08 | 129.30 |
| 1 | AA | 743 | A | N1-C2-N3 | -16.43 | 121.08 | 129.30 |
| 22 | BA | 975 | A | N1-C2-N3 | -16.42 | 121.09 | 129.30 |
| 22 | BA | 2108 | A | N1-C6-N6 | -16.42 | 108.75 | 118.60 |
| 22 | BA | 2530 | A | N1-C2-N3 | -16.42 | 121.09 | 129.30 |
| 1 | AA | 223 | A | N1-C2-N3 | -16.41 | 121.09 | 129.30 |
| 1 | AA | 77 | A | N1-C2-N3 | -16.41 | 121.09 | 129.30 |
| 1 | AA | 1299 | A | N1-C2-N3 | -16.41 | 121.09 | 129.30 |
| 22 | BA | 1668 | A | C2-N3-C4 | 16.41 | 118.80 | 110.60 |
| 22 | BA | 453 | A | N1-C6-N6 | -16.40 | 108.76 | 118.60 |
| 22 | BA | 1609 | A | N1-C6-N6 | -16.39 | 108.77 | 118.60 |
| 1 | AA | 978 | A | N1-C2-N3 | -16.39 | 121.11 | 129.30 |
| 22 | BA | 2108 | A | N1-C2-N3 | -16.39 | 121.11 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 397 | A | N1-C6-N6 | -16.38 | 108.77 | 118.60 |
| 1 | AA | 162 | A | N1-C2-N3 | -16.38 | 121.11 | 129.30 |
| 23 | BB | 59 | A | N1-C6-N6 | -16.38 | 108.77 | 118.60 |
| 22 | BA | 1155 | A | N1-C6-N6 | -16.38 | 108.77 | 118.60 |
| 22 | BA | 1143 | A | N1-C6-N6 | -16.38 | 108.78 | 118.60 |
| 22 | BA | 2284 | A | N1-C2-N3 | -16.38 | 121.11 | 129.30 |
| 22 | BA | 2531 | A | N1-C2-N3 | -16.37 | 121.11 | 129.30 |
| 22 | BA | 1213 | A | N1-C6-N6 | -16.37 | 108.78 | 118.60 |
| 22 | BA | 2095 | A | N1-C2-N3 | -16.36 | 121.12 | 129.30 |
| 22 | BA | 1866 | A | N1-C6-N6 | -16.35 | 108.79 | 118.60 |
| 22 | BA | 472 | A | N1-C6-N6 | -16.35 | 108.79 | 118.60 |
| 1 | AA | 1375 | A | N1-C2-N3 | -16.35 | 121.13 | 129.30 |
| 22 | BA | 1571 | A | N1-C6-N6 | -16.35 | 108.79 | 118.60 |
| 22 | BA | 2090 | A | N1-C6-N6 | -16.34 | 108.80 | 118.60 |
| 22 | BA | 2430 | A | N1-C2-N3 | -16.34 | 121.13 | 129.30 |
| 23 | BB | 66 | A | C2-N3-C4 | 16.34 | 118.77 | 110.60 |
| 22 | BA | 751 | A | N1-C6-N6 | -16.34 | 108.80 | 118.60 |
| 1 | AA | 706 | A | N1-C2-N3 | -16.32 | 121.14 | 129.30 |
| 22 | BA | 1664 | A | N1-C2-N3 | -16.30 | 121.15 | 129.30 |
| 22 | BA | 936 | A | N1-C6-N6 | -16.29 | 108.82 | 118.60 |
| 22 | BA | 352 | A | N1-C2-N3 | -16.27 | 121.16 | 129.30 |
| 22 | BA | 2670 | A | N1-C6-N6 | -16.27 | 108.84 | 118.60 |
| 22 | BA | 2662 | A | N1-C6-N6 | -16.26 | 108.84 | 118.60 |
| 22 | BA | 101 | A | N1-C2-N3 | -16.25 | 121.17 | 129.30 |
| 1 | AA | 55 | A | N1-C2-N3 | -16.25 | 121.17 | 129.30 |
| 1 | AA | 1219 | A | N1-C6-N6 | -16.25 | 108.85 | 118.60 |
| 22 | BA | 362 | A | N1-C6-N6 | -16.25 | 108.85 | 118.60 |
| 22 | BA | 742 | A | N1-C6-N6 | -16.25 | 108.85 | 118.60 |
| 1 | AA | 77 | A | N1-C6-N6 | -16.24 | 108.86 | 118.60 |
| 22 | BA | 2675 | A | N1-C6-N6 | -16.24 | 108.86 | 118.60 |
| 1 | AA | 181 | A | N1-C6-N6 | -16.24 | 108.86 | 118.60 |
| 1 | AA | 718 | A | N1-C6-N6 | -16.23 | 108.86 | 118.60 |
| 22 | BA | 1978 | A | N1-C6-N6 | -16.23 | 108.86 | 118.60 |
| 22 | BA | 1773 | A | N1-C2-N3 | -16.22 | 121.19 | 129.30 |
| 22 | BA | 1678 | A | N1-C2-N3 | -16.21 | 121.19 | 129.30 |
| 55 | B8 | 66 | A | N1-C6-N6 | -16.21 | 108.87 | 118.60 |
| 22 | BA | 2297 | A | C2-N3-C4 | 16.20 | 118.70 | 110.60 |
| 22 | BA | 2077 | A | N1-C6-N6 | -16.20 | 108.88 | 118.60 |
| 22 | BA | 1705 | A | N1-C6-N6 | -16.20 | 108.88 | 118.60 |
| 1 | AA | 300 | A | N1-C2-N3 | -16.19 | 121.21 | 129.30 |
| 1 | AA | 1170 | A | N1-C2-N3 | -16.19 | 121.21 | 129.30 |
| 22 | BA | 2013 | A | N1-C6-N6 | -16.18 | 108.89 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 983 | A | C2-N3-C4 | 16.18 | 118.69 | 110.60 |
| 22 | BA | 599 | A | N1-C6-N6 | -16.16 | 108.90 | 118.60 |
| 22 | BA | 223 | A | N1-C6-N6 | -16.15 | 108.91 | 118.60 |
| 22 | BA | 705 | A | N1-C2-N3 | -16.14 | 121.23 | 129.30 |
| 22 | BA | 2241 | A | N1-C6-N6 | -16.13 | 108.92 | 118.60 |
| 22 | BA | 391 | A | N1-C6-N6 | -16.13 | 108.92 | 118.60 |
| 22 | BA | 1134 | A | N1-C6-N6 | -16.13 | 108.92 | 118.60 |
| 22 | BA | 2577 | A | N1-C2-N3 | -16.13 | 121.24 | 129.30 |
| 22 | BA | 2893 | A | N1-C6-N6 | -16.12 | 108.92 | 118.60 |
| 1 | AA | 383 | A | C2-N3-C4 | 16.12 | 118.66 | 110.60 |
| 1 | AA | 696 | A | N1-C6-N6 | -16.11 | 108.94 | 118.60 |
| 1 | AA | 1055 | A | N1-C6-N6 | -16.09 | 108.94 | 118.60 |
| 1 | AA | 32 | A | N1-C6-N6 | -16.09 | 108.95 | 118.60 |
| 1 | AA | 66 | A | N1-C2-N3 | -16.08 | 121.26 | 129.30 |
| 1 | AA | 554 | A | N1-C2-N3 | -16.07 | 121.27 | 129.30 |
| 22 | BA | 1872 | A | N1-C2-N3 | -16.07 | 121.27 | 129.30 |
| 22 | BA | 2287 | A | N1-C6-N6 | -16.07 | 108.96 | 118.60 |
| 1 | AA | 784 | A | N1-C2-N3 | -16.06 | 121.27 | 129.30 |
| 22 | BA | 575 | A | N1-C6-N6 | -16.06 | 108.97 | 118.60 |
| 22 | BA | 2386 | A | N1-C6-N6 | -16.04 | 108.98 | 118.60 |
| 22 | BA | 231 | A | N1-C2-N3 | -16.03 | 121.28 | 129.30 |
| 1 | AA | 74 | A | N1-C2-N3 | -16.03 | 121.29 | 129.30 |
| 22 | BA | 2225 | A | C2-N3-C4 | 16.02 | 118.61 | 110.60 |
| 22 | BA | 2433 | A | N1-C6-N6 | -16.02 | 108.99 | 118.60 |
| 1 | AA | 1197 | A | N1-C6-N6 | -16.01 | 109.00 | 118.60 |
| 22 | BA | 1677 | A | N1-C2-N3 | -16.01 | 121.30 | 129.30 |
| 1 | AA | 978 | A | C2-N3-C4 | 16.00 | 118.60 | 110.60 |
| 22 | BA | 2725 | A | N1-C6-N6 | -16.00 | 109.00 | 118.60 |
| 1 | AA | 923 | A | N1-C6-N6 | -15.99 | 109.00 | 118.60 |
| 22 | BA | 1021 | A | N1-C6-N6 | -15.99 | 109.01 | 118.60 |
| 22 | BA | 2225 | A | N1-C6-N6 | -15.99 | 109.01 | 118.60 |
| 1 | AA | 1339 | A | N1-C6-N6 | -15.94 | 109.03 | 118.60 |
| 22 | BA | 2482 | A | N1-C6-N6 | -15.94 | 109.03 | 118.60 |
| 22 | BA | 1626 | A | N1-C6-N6 | -15.94 | 109.04 | 118.60 |
| 22 | BA | 197 | A | N1-C6-N6 | -15.94 | 109.04 | 118.60 |
| 22 | BA | 131 | A | N1-C2-N3 | -15.92 | 121.34 | 129.30 |
| 1 | AA | 1360 | A | N1-C2-N3 | -15.91 | 121.34 | 129.30 |
| 22 | BA | 415 | A | N1-C6-N6 | -15.91 | 109.06 | 118.60 |
| 22 | BA | 833 | A | N1-C6-N6 | -15.90 | 109.06 | 118.60 |
| 1 | AA | 923 | A | N1-C2-N3 | -15.90 | 121.35 | 129.30 |
| 1 | AA | 28 | A | N1-C6-N6 | -15.89 | 109.07 | 118.60 |
| 22 | BA | 2600 | A | N1-C2-N3 | -15.88 | 121.36 | 129.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|--------|-------------|----------|
| 22 | BA | 1373 | A | N1-C6-N6 | -15.88 | 109.07 | 118.60 |
| 1 | AA | 901 | A | N1-C2-N3 | -15.87 | 121.36 | 129.30 |
| 22 | BA | 19 | A | N1-C6-N6 | -15.86 | 109.08 | 118.60 |
| 1 | AA | 411 | A | N1-C6-N6 | -15.86 | 109.08 | 118.60 |
| 22 | BA | 1977 | A | N1-C6-N6 | -15.86 | 109.08 | 118.60 |
| 22 | BA | 2820 | A | C2-N3-C4 | 15.85 | 118.53 | 110.60 |
| 22 | BA | 352 | A | C2-N3-C4 | 15.82 | 118.51 | 110.60 |
| 22 | BA | 1387 | A | N1-C6-N6 | -15.82 | 109.11 | 118.60 |
| 22 | BA | 947 | A | N1-C6-N6 | -15.81 | 109.11 | 118.60 |
| 1 | AA | 190 | A | N1-C2-N3 | -15.81 | 121.40 | 129.30 |
| 1 | AA | 1339 | A | C2-N3-C4 | 15.80 | 118.50 | 110.60 |
| 22 | BA | 996 | A | N1-C6-N6 | -15.79 | 109.13 | 118.60 |
| 22 | BA | 1872 | A | N1-C6-N6 | -15.78 | 109.13 | 118.60 |
| 22 | BA | 1553 | A | N1-C6-N6 | -15.74 | 109.16 | 118.60 |
| 1 | AA | 673 | A | N1-C2-N3 | -15.73 | 121.43 | 129.30 |
| 22 | BA | 482 | A | N1-C2-N3 | -15.71 | 121.45 | 129.30 |
| 22 | BA | 1970 | A | O5'-P-OP1 | -15.70 | 91.57 | 105.70 |
| 22 | BA | 1669 | A | N1-C2-N3 | -15.64 | 121.48 | 129.30 |
| 1 | AA | 371 | A | N1-C2-N3 | -15.64 | 121.48 | 129.30 |
| 22 | BA | 1854 | A | N1-C6-N6 | -15.63 | 109.22 | 118.60 |
| 22 | BA | 251 | A | C2-N3-C4 | 15.60 | 118.40 | 110.60 |
| 1 | AA | 1319 | A | C2-N3-C4 | 15.60 | 118.40 | 110.60 |
| 22 | BA | 1669 | A | N1-C6-N6 | -15.59 | 109.25 | 118.60 |
| 22 | BA | 2813 | A | N1-C6-N6 | -15.58 | 109.25 | 118.60 |
| 22 | BA | 849 | A | N1-C2-N3 | -15.57 | 121.51 | 129.30 |
| 1 | AA | 860 | A | N1-C2-N3 | -15.56 | 121.52 | 129.30 |
| 55 | B8 | 19 | G | OP1-P-O3' | -15.56 | 70.96 | 105.20 |
| 22 | BA | 2333 | A | N1-C6-N6 | -15.54 | 109.27 | 118.60 |
| 22 | BA | 470 | A | N1-C6-N6 | -15.50 | 109.30 | 118.60 |
| 1 | AA | 533 | A | N1-C2-N3 | -15.49 | 121.55 | 129.30 |
| 22 | BA | 761 | A | N1-C2-N3 | -15.49 | 121.56 | 129.30 |
| 1 | AA | 1046 | A | N1-C2-N3 | -15.48 | 121.56 | 129.30 |
| 1 | AA | 1201 | A | N1-C6-N6 | -15.48 | 109.31 | 118.60 |
| 22 | BA | 1269 | A | N1-C2-N3 | -15.47 | 121.56 | 129.30 |
| 1 | AA | 1468 | A | N1-C6-N6 | -15.46 | 109.32 | 118.60 |
| 22 | BA | 1641 | A | N1-C6-N6 | -15.45 | 109.33 | 118.60 |
| 22 | BA | 430 | A | N1-C6-N6 | -15.45 | 109.33 | 118.60 |
| 22 | BA | 2042 | A | N1-C6-N6 | -15.45 | 109.33 | 118.60 |
| 22 | BA | 845 | A | N1-C6-N6 | -15.44 | 109.33 | 118.60 |
| 22 | BA | 2614 | A | N1-C2-N3 | -15.44 | 121.58 | 129.30 |
| 1 | AA | 383 | A | N1-C2-N3 | -15.40 | 121.60 | 129.30 |
| 22 | BA | 849 | A | N1-C6-N6 | -15.38 | 109.37 | 118.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|--------|-------------|----------|
| 22 | BA | 1246 | A | N1-C2-N3 | -15.38 | 121.61 | 129.30 |
| 22 | BA | 2430 | A | C5-C6-N6 | 15.36 | 135.99 | 123.70 |
| 22 | BA | 1528 | A | N1-C6-N6 | -15.36 | 109.39 | 118.60 |
| 1 | AA | 1201 | A | N1-C2-N3 | -15.35 | 121.63 | 129.30 |
| 22 | BA | 631 | A | N1-C6-N6 | -15.35 | 109.39 | 118.60 |
| 1 | AA | 431 | A | C5-C6-N6 | 15.34 | 135.97 | 123.70 |
| 22 | BA | 2020 | A | N1-C6-N6 | -15.34 | 109.40 | 118.60 |
| 1 | AA | 563 | A | N1-C6-N6 | -15.30 | 109.42 | 118.60 |
| 1 | AA | 452 | A | N1-C2-N3 | -15.27 | 121.67 | 129.30 |
| 22 | BA | 983 | A | N1-C6-N6 | -15.25 | 109.45 | 118.60 |
| 22 | BA | 1434 | A | C5-C6-N6 | 15.21 | 135.87 | 123.70 |
| 1 | AA | 1418 | A | N1-C6-N6 | -15.21 | 109.47 | 118.60 |
| 22 | BA | 101 | A | N1-C6-N6 | -15.20 | 109.48 | 118.60 |
| 22 | BA | 131 | A | N1-C6-N6 | -15.13 | 109.52 | 118.60 |
| 22 | BA | 1677 | A | C2-N3-C4 | 15.13 | 118.16 | 110.60 |
| 22 | BA | 863 | A | N1-C6-N6 | -15.11 | 109.53 | 118.60 |
| 22 | BA | 793 | A | N1-C6-N6 | -15.09 | 109.54 | 118.60 |
| 22 | BA | 513 | A | N1-C6-N6 | -15.02 | 109.59 | 118.60 |
| 1 | AA | 465 | A | N7-C8-N9 | -14.96 | 106.32 | 113.80 |
| 22 | BA | 482 | A | N1-C6-N6 | -14.95 | 109.63 | 118.60 |
| 22 | BA | 1664 | A | N1-C6-N6 | -14.95 | 109.63 | 118.60 |
| 22 | BA | 152 | A | N1-C6-N6 | -14.92 | 109.65 | 118.60 |
| 22 | BA | 2407 | A | N1-C6-N6 | -14.84 | 109.69 | 118.60 |
| 1 | AA | 1204 | A | N1-C2-N3 | -14.80 | 121.90 | 129.30 |
| 22 | BA | 1668 | A | C5-C6-N6 | 14.64 | 135.41 | 123.70 |
| 1 | AA | 901 | A | N1-C6-N6 | -14.63 | 109.82 | 118.60 |
| 22 | BA | 251 | A | N1-C6-N6 | -14.62 | 109.83 | 118.60 |
| 1 | AA | 162 | A | N1-C6-N6 | -14.59 | 109.84 | 118.60 |
| 22 | BA | 251 | A | N1-C2-N3 | -14.59 | 122.00 | 129.30 |
| 2 | AB | 205 | ASP | CB-CG-OD1 | 14.46 | 131.32 | 118.30 |
| 22 | BA | 586 | A | C5-C6-N6 | 14.43 | 135.25 | 123.70 |
| 2 | AB | 204 | ASP | N-CA-CB | -14.40 | 84.67 | 110.60 |
| 23 | BB | 101 | A | N3-C4-C5 | -14.40 | 116.72 | 126.80 |
| 22 | BA | 1970 | A | C2-N3-C4 | 14.40 | 117.80 | 110.60 |
| 22 | BA | 2600 | A | N1-C6-N6 | -14.34 | 110.00 | 118.60 |
| 22 | BA | 2799 | A | N1-C6-N6 | -14.31 | 110.02 | 118.60 |
| 22 | BA | 960 | A | N1-C6-N6 | -14.26 | 110.04 | 118.60 |
| 22 | BA | 792 | A | N1-C6-N6 | -14.22 | 110.06 | 118.60 |
| 1 | AA | 1170 | A | N1-C6-N6 | -14.22 | 110.07 | 118.60 |
| 22 | BA | 1241 | A | N1-C6-N6 | -14.18 | 110.09 | 118.60 |
| 1 | AA | 1213 | A | C5-C6-N6 | 14.02 | 134.91 | 123.70 |
| 22 | BA | 800 | A | C5-C6-N6 | 13.95 | 134.86 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 699 | A | C5-C6-N6 | 13.93 | 134.85 | 123.70 |
| 22 | BA | 1285 | A | C5-C6-N6 | 13.87 | 134.79 | 123.70 |
| 22 | BA | 457 | A | C5-C6-N6 | 13.85 | 134.78 | 123.70 |
| 22 | BA | 804 | A | C5-C6-N6 | 13.75 | 134.70 | 123.70 |
| 22 | BA | 1937 | A | C5-C6-N6 | 13.73 | 134.69 | 123.70 |
| 1 | AA | 498 | A | N1-C2-N3 | -13.71 | 122.44 | 129.30 |
| 22 | BA | 1810 | A | N1-C6-N6 | -13.70 | 110.38 | 118.60 |
| 22 | BA | 781 | A | C5-C6-N6 | 13.67 | 134.64 | 123.70 |
| 22 | BA | 1970 | A | N1-C6-N6 | -13.66 | 110.41 | 118.60 |
| 1 | AA | 1446 | A | C5-C6-N6 | 13.64 | 134.62 | 123.70 |
| 22 | BA | 941 | A | C5-C6-N6 | 13.64 | 134.62 | 123.70 |
| 22 | BA | 515 | A | C5-C6-N6 | 13.64 | 134.61 | 123.70 |
| 22 | BA | 1677 | A | N1-C6-N6 | -13.64 | 110.42 | 118.60 |
| 22 | BA | 911 | A | N1-C6-N6 | -13.59 | 110.44 | 118.60 |
| 22 | BA | 2726 | A | C5-C6-N6 | 13.59 | 134.57 | 123.70 |
| 23 | BB | 59 | A | N1-C2-N3 | -13.59 | 122.50 | 129.30 |
| 22 | BA | 479 | A | C5-C6-N6 | 13.57 | 134.56 | 123.70 |
| 22 | BA | 764 | A | C5-C6-N6 | 13.56 | 134.55 | 123.70 |
| 22 | BA | 13 | A | C5-C6-N6 | 13.54 | 134.54 | 123.70 |
| 22 | BA | 1253 | A | C5-C6-N6 | 13.49 | 134.49 | 123.70 |
| 22 | BA | 502 | A | C5-C6-N6 | 13.48 | 134.49 | 123.70 |
| 23 | BB | 59 | A | N3-C4-C5 | -13.47 | 117.37 | 126.80 |
| 22 | BA | 1275 | A | C5-C6-N6 | 13.45 | 134.46 | 123.70 |
| 22 | BA | 2764 | A | C5-C6-N6 | 13.40 | 134.42 | 123.70 |
| 1 | AA | 520 | A | C5-C6-N6 | 13.33 | 134.36 | 123.70 |
| 22 | BA | 2882 | A | C5-C6-N6 | 13.32 | 134.36 | 123.70 |
| 22 | BA | 2450 | A | C5-C6-N6 | 13.30 | 134.34 | 123.70 |
| 22 | BA | 563 | A | C5-C6-N6 | 13.29 | 134.34 | 123.70 |
| 22 | BA | 621 | A | C5-C6-N6 | 13.29 | 134.34 | 123.70 |
| 55 | B8 | 6 | A | N7-C8-N9 | -13.28 | 107.16 | 113.80 |
| 1 | AA | 300 | A | N1-C6-N6 | -13.27 | 110.64 | 118.60 |
| 22 | BA | 2598 | A | C5-C6-N6 | 13.27 | 134.32 | 123.70 |
| 1 | AA | 1332 | A | N7-C8-N9 | -13.26 | 107.17 | 113.80 |
| 22 | BA | 783 | A | C5-C6-N6 | 13.26 | 134.31 | 123.70 |
| 1 | AA | 1319 | A | N7-C8-N9 | -13.23 | 107.19 | 113.80 |
| 22 | BA | 1789 | A | C5-C6-N6 | 13.23 | 134.28 | 123.70 |
| 22 | BA | 975 | A | C5-C6-N6 | 13.19 | 134.25 | 123.70 |
| 1 | AA | 498 | A | N3-C4-C5 | -13.17 | 117.58 | 126.80 |
| 22 | BA | 119 | A | C5-C6-N6 | 13.17 | 134.23 | 123.70 |
| 22 | BA | 2033 | A | C5-C6-N6 | 13.15 | 134.22 | 123.70 |
| 22 | BA | 2872 | A | N9-C4-C5 | 13.14 | 111.06 | 105.80 |
| 1 | AA | 274 | A | N7-C8-N9 | -13.14 | 107.23 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 207 | A | C5-C6-N6 | 13.13 | 134.20 | 123.70 |
| 22 | BA | 165 | A | C5-C6-N6 | 13.12 | 134.20 | 123.70 |
| 22 | BA | 241 | A | C5-C6-N6 | 13.11 | 134.18 | 123.70 |
| 22 | BA | 529 | A | C5-C6-N6 | 13.11 | 134.19 | 123.70 |
| 22 | BA | 2577 | A | C5-C6-N6 | 13.10 | 134.18 | 123.70 |
| 22 | BA | 466 | A | C5-C6-N6 | 13.10 | 134.18 | 123.70 |
| 22 | BA | 752 | A | C5-C6-N6 | 13.10 | 134.18 | 123.70 |
| 22 | BA | 141 | G | C5-N7-C8 | -13.05 | 97.77 | 104.30 |
| 1 | AA | 1299 | A | C5-C6-N6 | 13.04 | 134.14 | 123.70 |
| 22 | BA | 1214 | A | C5-C6-N6 | 13.03 | 134.12 | 123.70 |
| 22 | BA | 2448 | A | C5-C6-N6 | 13.03 | 134.13 | 123.70 |
| 22 | BA | 322 | A | C5-C6-N6 | 13.02 | 134.12 | 123.70 |
| 55 | B8 | 58 | A | N7-C8-N9 | -13.02 | 107.29 | 113.80 |
| 22 | BA | 2826 | A | C5-C6-N6 | 13.01 | 134.11 | 123.70 |
| 22 | BA | 1821 | A | C5-C6-N6 | 13.00 | 134.10 | 123.70 |
| 22 | BA | 761 | A | C5-C6-N6 | 12.99 | 134.09 | 123.70 |
| 1 | AA | 889 | A | C5-C6-N6 | 12.98 | 134.08 | 123.70 |
| 22 | BA | 2758 | A | C5-C6-N6 | 12.97 | 134.08 | 123.70 |
| 22 | BA | 2590 | A | C5-C6-N6 | 12.95 | 134.06 | 123.70 |
| 22 | BA | 2753 | A | C5-C6-N6 | 12.91 | 134.03 | 123.70 |
| 22 | BA | 2572 | A | N7-C8-N9 | -12.90 | 107.35 | 113.80 |
| 22 | BA | 2721 | A | C5-C6-N6 | 12.87 | 134.00 | 123.70 |
| 22 | BA | 675 | A | C5-C6-N6 | 12.82 | 133.95 | 123.70 |
| 22 | BA | 2823 | A | C5-C6-N6 | 12.82 | 133.95 | 123.70 |
| 22 | BA | 2060 | A | C5-C6-N6 | 12.81 | 133.95 | 123.70 |
| 23 | BB | 46 | A | C5-C6-N6 | 12.80 | 133.94 | 123.70 |
| 22 | BA | 1308 | A | C5-C6-N6 | 12.79 | 133.93 | 123.70 |
| 1 | AA | 777 | A | C5-C6-N6 | 12.77 | 133.91 | 123.70 |
| 22 | BA | 1853 | A | C5-C6-N6 | 12.76 | 133.90 | 123.70 |
| 22 | BA | 734 | A | C5-C6-N6 | 12.74 | 133.89 | 123.70 |
| 22 | BA | 1890 | A | C5-C6-N6 | 12.74 | 133.89 | 123.70 |
| 1 | AA | 819 | A | C5-C6-N6 | 12.73 | 133.88 | 123.70 |
| 22 | BA | 2005 | A | C5-C6-N6 | 12.73 | 133.88 | 123.70 |
| 22 | BA | 217 | A | C5-C6-N6 | 12.72 | 133.88 | 123.70 |
| 22 | BA | 1000 | A | C5-C6-N6 | 12.71 | 133.87 | 123.70 |
| 1 | AA | 1332 | A | C5-C6-N6 | 12.69 | 133.85 | 123.70 |
| 22 | BA | 1754 | A | C5-C6-N6 | 12.69 | 133.85 | 123.70 |
| 22 | BA | 1545 | A | C5-C6-N6 | 12.68 | 133.84 | 123.70 |
| 1 | AA | 190 | A | N1-C6-N6 | -12.66 | 111.00 | 118.60 |
| 22 | BA | 1205 | A | C5-C6-N6 | 12.66 | 133.83 | 123.70 |
| 22 | BA | 1819 | A | C5-C6-N6 | 12.66 | 133.82 | 123.70 |
| 22 | BA | 2572 | A | C5-C6-N6 | 12.64 | 133.81 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|--------|-------------|----------|
| 22 | BA | 1889 | A | C5-C6-N6 | 12.63 | 133.81 | 123.70 |
| 22 | BA | 1848 | A | C5-C6-N6 | 12.63 | 133.80 | 123.70 |
| 22 | BA | 514 | A | C5-C6-N6 | 12.63 | 133.80 | 123.70 |
| 22 | BA | 478 | A | C5-C6-N6 | 12.62 | 133.79 | 123.70 |
| 22 | BA | 730 | A | N1-C6-N6 | -12.62 | 111.03 | 118.60 |
| 22 | BA | 984 | A | C5-C6-N6 | 12.62 | 133.80 | 123.70 |
| 1 | AA | 665 | A | C5-C6-N6 | 12.61 | 133.79 | 123.70 |
| 22 | BA | 1395 | A | C5-C6-N6 | 12.61 | 133.79 | 123.70 |
| 55 | B8 | 51 | A | N7-C8-N9 | -12.59 | 107.51 | 113.80 |
| 1 | AA | 1502 | A | C5-C6-N6 | 12.58 | 133.76 | 123.70 |
| 22 | BA | 782 | A | C5-C6-N6 | 12.57 | 133.76 | 123.70 |
| 22 | BA | 1551 | A | C5-C6-N6 | 12.57 | 133.76 | 123.70 |
| 22 | BA | 2810 | A | C5-C6-N6 | 12.53 | 133.72 | 123.70 |
| 1 | AA | 16 | A | C5-C6-N6 | 12.52 | 133.72 | 123.70 |
| 22 | BA | 2749 | A | C5-C6-N6 | 12.52 | 133.71 | 123.70 |
| 22 | BA | 979 | A | C5-C6-N6 | 12.51 | 133.70 | 123.70 |
| 1 | AA | 704 | A | C5-C6-N6 | 12.50 | 133.70 | 123.70 |
| 22 | BA | 216 | A | C5-C6-N6 | 12.49 | 133.70 | 123.70 |
| 1 | AA | 607 | A | C5-C6-N6 | 12.49 | 133.69 | 123.70 |
| 22 | BA | 2589 | A | C5-C6-N6 | 12.48 | 133.68 | 123.70 |
| 22 | BA | 2873 | A | C5-C6-N6 | 12.48 | 133.68 | 123.70 |
| 22 | BA | 990 | A | C5-C6-N6 | 12.48 | 133.68 | 123.70 |
| 22 | BA | 2014 | A | C5-C6-N6 | 12.48 | 133.68 | 123.70 |
| 22 | BA | 1787 | A | N3-C4-C5 | -12.46 | 118.07 | 126.80 |
| 1 | AA | 1340 | A | N7-C8-N9 | -12.46 | 107.57 | 113.80 |
| 22 | BA | 1630 | A | C5-C6-N6 | 12.46 | 133.66 | 123.70 |
| 22 | BA | 2741 | A | C5-C6-N6 | 12.45 | 133.66 | 123.70 |
| 22 | BA | 1544 | A | C5-C6-N6 | 12.45 | 133.66 | 123.70 |
| 22 | BA | 2358 | A | C5-C6-N6 | 12.45 | 133.66 | 123.70 |
| 2 | AB | 204 | ASP | CB-CG-OD2 | -12.44 | 107.11 | 118.30 |
| 22 | BA | 1786 | A | C5-C6-N6 | 12.44 | 133.65 | 123.70 |
| 22 | BA | 1265 | A | C5-C6-N6 | 12.43 | 133.65 | 123.70 |
| 22 | BA | 1791 | A | C5-C6-N6 | 12.42 | 133.63 | 123.70 |
| 22 | BA | 2274 | A | C5-C6-N6 | 12.42 | 133.63 | 123.70 |
| 1 | AA | 860 | A | C5-C6-N6 | 12.41 | 133.63 | 123.70 |
| 22 | BA | 2406 | A | C5-C6-N6 | 12.41 | 133.63 | 123.70 |
| 22 | BA | 84 | A | C5-C6-N6 | 12.41 | 133.63 | 123.70 |
| 1 | AA | 802 | A | C5-C6-N6 | 12.41 | 133.63 | 123.70 |
| 22 | BA | 973 | A | C5-C6-N6 | 12.40 | 133.62 | 123.70 |
| 1 | AA | 321 | A | C5-C6-N6 | 12.40 | 133.62 | 123.70 |
| 22 | BA | 2835 | A | C5-C6-N6 | 12.38 | 133.61 | 123.70 |
| 1 | AA | 1239 | A | C5-C6-N6 | 12.37 | 133.60 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 310 | A | C5-C6-N6 | 12.36 | 133.59 | 123.70 |
| 22 | BA | 1286 | A | C5-C6-N6 | 12.36 | 133.59 | 123.70 |
| 1 | AA | 958 | A | C5-C6-N6 | 12.35 | 133.58 | 123.70 |
| 22 | BA | 203 | A | C5-C6-N6 | 12.35 | 133.58 | 123.70 |
| 22 | BA | 2883 | A | C5-C6-N6 | 12.35 | 133.58 | 123.70 |
| 1 | AA | 978 | A | C5-C6-N6 | 12.33 | 133.56 | 123.70 |
| 1 | AA | 383 | A | N1-C6-N6 | -12.32 | 111.21 | 118.60 |
| 22 | BA | 504 | A | N7-C8-N9 | -12.32 | 107.64 | 113.80 |
| 22 | BA | 160 | A | C5-C6-N6 | 12.30 | 133.54 | 123.70 |
| 22 | BA | 959 | A | N7-C8-N9 | -12.28 | 107.66 | 113.80 |
| 22 | BA | 927 | A | C5-C6-N6 | 12.28 | 133.53 | 123.70 |
| 22 | BA | 1970 | A | N7-C8-N9 | -12.28 | 107.66 | 113.80 |
| 22 | BA | 2776 | A | C5-C6-N6 | 12.28 | 133.53 | 123.70 |
| 22 | BA | 1366 | A | C5-C6-N6 | 12.28 | 133.53 | 123.70 |
| 1 | AA | 919 | A | C5-C6-N6 | 12.27 | 133.52 | 123.70 |
| 22 | BA | 2860 | A | C5-C6-N6 | 12.27 | 133.51 | 123.70 |
| 22 | BA | 1420 | A | C5-C6-N6 | 12.27 | 133.51 | 123.70 |
| 22 | BA | 2614 | A | N3-C4-C5 | -12.27 | 118.21 | 126.80 |
| 1 | AA | 792 | A | N7-C8-N9 | -12.26 | 107.67 | 113.80 |
| 55 | B8 | 41 | A | N7-C8-N9 | -12.26 | 107.67 | 113.80 |
| 22 | BA | 1204 | A | C5-C6-N6 | 12.24 | 133.49 | 123.70 |
| 55 | B8 | 20 | U | C5-C6-N1 | -12.24 | 116.58 | 122.70 |
| 1 | AA | 120 | A | C5-C6-N6 | 12.23 | 133.49 | 123.70 |
| 22 | BA | 1569 | A | C5-C6-N6 | 12.23 | 133.49 | 123.70 |
| 22 | BA | 1981 | A | C5-C6-N6 | 12.23 | 133.49 | 123.70 |
| 1 | AA | 996 | A | C5-C6-N6 | 12.22 | 133.48 | 123.70 |
| 22 | BA | 918 | A | C5-C6-N6 | 12.22 | 133.48 | 123.70 |
| 22 | BA | 190 | A | C5-C6-N6 | 12.22 | 133.47 | 123.70 |
| 22 | BA | 1129 | A | C5-C6-N6 | 12.22 | 133.48 | 123.70 |
| 22 | BA | 1784 | A | C5-C6-N6 | 12.21 | 133.47 | 123.70 |
| 1 | AA | 915 | A | C5-C6-N6 | 12.21 | 133.47 | 123.70 |
| 22 | BA | 2542 | A | C5-C6-N6 | 12.21 | 133.47 | 123.70 |
| 1 | AA | 572 | A | C5-C6-N6 | 12.20 | 133.46 | 123.70 |
| 22 | BA | 943 | A | C5-C6-N6 | 12.19 | 133.45 | 123.70 |
| 22 | BA | 1156 | A | C5-C6-N6 | 12.19 | 133.46 | 123.70 |
| 22 | BA | 1515 | A | C5-C6-N6 | 12.19 | 133.45 | 123.70 |
| 22 | BA | 1598 | A | C5-C6-N6 | 12.19 | 133.45 | 123.70 |
| 22 | BA | 309 | A | C5-C6-N6 | 12.18 | 133.45 | 123.70 |
| 22 | BA | 454 | A | C5-C6-N6 | 12.18 | 133.44 | 123.70 |
| 1 | AA | 1238 | A | C5-C6-N6 | 12.17 | 133.44 | 123.70 |
| 22 | BA | 905 | A | C5-C6-N6 | 12.17 | 133.44 | 123.70 |
| 22 | BA | 1597 | A | C5-C6-N6 | 12.16 | 133.43 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 820 | A | C5-C6-N6 | 12.16 | 133.43 | 123.70 |
| 22 | BA | 497 | A | C5-C6-N6 | 12.15 | 133.42 | 123.70 |
| 1 | AA | 253 | A | N7-C8-N9 | -12.15 | 107.73 | 113.80 |
| 1 | AA | 412 | A | C5-C6-N6 | 12.15 | 133.42 | 123.70 |
| 22 | BA | 1127 | A | C5-C6-N6 | 12.15 | 133.42 | 123.70 |
| 1 | AA | 1447 | A | C5-C6-N6 | 12.14 | 133.41 | 123.70 |
| 22 | BA | 1616 | A | C5-C6-N6 | 12.13 | 133.40 | 123.70 |
| 22 | BA | 2054 | A | N7-C8-N9 | -12.12 | 107.74 | 113.80 |
| 1 | AA | 1299 | A | N7-C8-N9 | -12.12 | 107.74 | 113.80 |
| 22 | BA | 1632 | A | C5-C6-N6 | 12.12 | 133.40 | 123.70 |
| 22 | BA | 1655 | A | C5-C6-N6 | 12.12 | 133.40 | 123.70 |
| 22 | BA | 1570 | A | C5-C6-N6 | 12.11 | 133.39 | 123.70 |
| 22 | BA | 1353 | A | C5-C6-N6 | 12.11 | 133.39 | 123.70 |
| 1 | AA | 1500 | A | C5-C6-N6 | 12.11 | 133.39 | 123.70 |
| 22 | BA | 1899 | A | C5-C6-N6 | 12.10 | 133.38 | 123.70 |
| 1 | AA | 152 | A | C5-C6-N6 | 12.10 | 133.38 | 123.70 |
| 22 | BA | 111 | A | C5-C6-N6 | 12.10 | 133.38 | 123.70 |
| 22 | BA | 2297 | A | C5-C6-N6 | 12.09 | 133.37 | 123.70 |
| 1 | AA | 900 | A | C5-C6-N6 | 12.08 | 133.36 | 123.70 |
| 1 | AA | 195 | A | C5-C6-N6 | 12.07 | 133.36 | 123.70 |
| 22 | BA | 10 | A | C5-C6-N6 | 12.07 | 133.35 | 123.70 |
| 55 | B8 | 42 | A | N7-C8-N9 | -12.06 | 107.77 | 113.80 |
| 22 | BA | 191 | A | C5-C6-N6 | 12.05 | 133.34 | 123.70 |
| 22 | BA | 2565 | A | C5-C6-N6 | 12.05 | 133.34 | 123.70 |
| 22 | BA | 1427 | A | C5-C6-N6 | 12.03 | 133.32 | 123.70 |
| 22 | BA | 2268 | A | C5-C6-N6 | 12.03 | 133.32 | 123.70 |
| 22 | BA | 2518 | A | N7-C8-N9 | -12.03 | 107.78 | 113.80 |
| 22 | BA | 2352 | A | C5-C6-N6 | 12.03 | 133.32 | 123.70 |
| 1 | AA | 196 | A | C5-C6-N6 | 12.02 | 133.32 | 123.70 |
| 23 | BB | 53 | A | C5-C6-N6 | 12.02 | 133.32 | 123.70 |
| 1 | AA | 1398 | A | C5-C6-N6 | 12.02 | 133.31 | 123.70 |
| 22 | BA | 1001 | A | C5-C6-N6 | 12.02 | 133.31 | 123.70 |
| 22 | BA | 1272 | A | C5-C6-N6 | 12.02 | 133.31 | 123.70 |
| 22 | BA | 443 | A | C5-C6-N6 | 12.01 | 133.31 | 123.70 |
| 1 | AA | 1004 | A | C5-C6-N6 | 12.01 | 133.31 | 123.70 |
| 22 | BA | 270 | A | C5-C6-N6 | 12.01 | 133.31 | 123.70 |
| 22 | BA | 1495 | A | C5-C6-N6 | 12.00 | 133.30 | 123.70 |
| 22 | BA | 83 | A | C5-C6-N6 | 12.00 | 133.30 | 123.70 |
| 1 | AA | 676 | A | C5-C6-N6 | 11.99 | 133.30 | 123.70 |
| 1 | AA | 151 | A | C5-C6-N6 | 11.99 | 133.29 | 123.70 |
| 22 | BA | 1808 | A | C5-C6-N6 | 11.99 | 133.29 | 123.70 |
| 1 | AA | 673 | A | N3-C4-C5 | -11.99 | 118.41 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 753 | A | C5-C6-N6 | 11.99 | 133.29 | 123.70 |
| 22 | BA | 2266 | A | C5-C6-N6 | 11.98 | 133.29 | 123.70 |
| 55 | B8 | 59 | A | N7-C8-N9 | -11.98 | 107.81 | 113.80 |
| 1 | AA | 129 | A | C5-C6-N6 | 11.98 | 133.28 | 123.70 |
| 22 | BA | 2198 | A | C5-C6-N6 | 11.98 | 133.28 | 123.70 |
| 1 | AA | 363 | A | C5-C6-N6 | 11.98 | 133.28 | 123.70 |
| 1 | AA | 768 | A | C5-C6-N6 | 11.98 | 133.28 | 123.70 |
| 22 | BA | 1614 | A | C5-C6-N6 | 11.98 | 133.28 | 123.70 |
| 22 | BA | 2439 | A | C5-C6-N6 | 11.97 | 133.28 | 123.70 |
| 22 | BA | 1327 | A | C5-C6-N6 | 11.97 | 133.28 | 123.70 |
| 22 | BA | 1755 | A | C5-C6-N6 | 11.97 | 133.27 | 123.70 |
| 1 | AA | 411 | A | N7-C8-N9 | -11.96 | 107.82 | 113.80 |
| 1 | AA | 1239 | A | N7-C8-N9 | -11.96 | 107.82 | 113.80 |
| 22 | BA | 2639 | A | C5-C6-N6 | 11.96 | 133.27 | 123.70 |
| 1 | AA | 915 | A | N7-C8-N9 | -11.96 | 107.82 | 113.80 |
| 1 | AA | 482 | A | C5-C6-N6 | 11.95 | 133.26 | 123.70 |
| 1 | AA | 149 | A | C5-C6-N6 | 11.94 | 133.25 | 123.70 |
| 1 | AA | 59 | A | C5-C6-N6 | 11.94 | 133.25 | 123.70 |
| 22 | BA | 1029 | A | C5-C6-N6 | 11.94 | 133.25 | 123.70 |
| 22 | BA | 2682 | A | C5-C6-N6 | 11.93 | 133.25 | 123.70 |
| 1 | AA | 1446 | A | N3-C4-C5 | -11.93 | 118.45 | 126.80 |
| 55 | B8 | 69 | A | N7-C8-N9 | -11.93 | 107.84 | 113.80 |
| 22 | BA | 71 | A | N7-C8-N9 | -11.92 | 107.84 | 113.80 |
| 22 | BA | 2212 | A | C5-C6-N6 | 11.92 | 133.24 | 123.70 |
| 55 | B8 | 73 | A | N7-C8-N9 | -11.92 | 107.84 | 113.80 |
| 22 | BA | 1342 | A | C5-C6-N6 | 11.92 | 133.24 | 123.70 |
| 22 | BA | 199 | A | C5-C6-N6 | 11.92 | 133.24 | 123.70 |
| 1 | AA | 906 | A | C5-C6-N6 | 11.91 | 133.23 | 123.70 |
| 1 | AA | 374 | A | C5-C6-N6 | 11.91 | 133.23 | 123.70 |
| 1 | AA | 1092 | A | C5-C6-N6 | 11.91 | 133.23 | 123.70 |
| 22 | BA | 655 | A | C5-C6-N6 | 11.91 | 133.23 | 123.70 |
| 22 | BA | 1353 | A | N7-C8-N9 | -11.91 | 107.84 | 113.80 |
| 1 | AA | 1287 | A | C5-C6-N6 | 11.90 | 133.22 | 123.70 |
| 55 | B8 | 76 | A | N7-C8-N9 | -11.90 | 107.85 | 113.80 |
| 1 | AA | 1179 | A | C5-C6-N6 | 11.89 | 133.21 | 123.70 |
| 22 | BA | 988 | A | C5-C6-N6 | 11.89 | 133.21 | 123.70 |
| 1 | AA | 371 | A | N7-C8-N9 | -11.88 | 107.86 | 113.80 |
| 22 | BA | 788 | A | C5-C6-N6 | 11.88 | 133.20 | 123.70 |
| 22 | BA | 91 | A | C5-C6-N6 | 11.87 | 133.20 | 123.70 |
| 22 | BA | 2602 | A | N7-C8-N9 | -11.87 | 107.86 | 113.80 |
| 22 | BA | 371 | A | C5-C6-N6 | 11.87 | 133.19 | 123.70 |
| 22 | BA | 340 | A | C5-C6-N6 | 11.86 | 133.19 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 81 | A | C5-C6-N6 | 11.86 | 133.19 | 123.70 |
| 1 | AA | 179 | A | C5-C6-N6 | 11.86 | 133.19 | 123.70 |
| 1 | AA | 119 | A | C5-C6-N6 | 11.86 | 133.19 | 123.70 |
| 22 | BA | 492 | A | C5-C6-N6 | 11.86 | 133.19 | 123.70 |
| 22 | BA | 1439 | A | C5-C6-N6 | 11.86 | 133.18 | 123.70 |
| 22 | BA | 2433 | A | N7-C8-N9 | -11.85 | 107.87 | 113.80 |
| 1 | AA | 172 | A | C5-C6-N6 | 11.85 | 133.18 | 123.70 |
| 22 | BA | 279 | A | C5-C6-N6 | 11.84 | 133.17 | 123.70 |
| 1 | AA | 1456 | A | C5-C6-N6 | 11.84 | 133.17 | 123.70 |
| 22 | BA | 2670 | A | N7-C8-N9 | -11.84 | 107.88 | 113.80 |
| 23 | BB | 101 | A | N1-C2-N3 | -11.84 | 123.38 | 129.30 |
| 22 | BA | 727 | A | C5-C6-N6 | 11.83 | 133.17 | 123.70 |
| 22 | BA | 1928 | A | C5-C6-N6 | 11.83 | 133.16 | 123.70 |
| 22 | BA | 602 | A | C5-C6-N6 | 11.83 | 133.16 | 123.70 |
| 1 | AA | 26 | A | C5-C6-N6 | 11.82 | 133.16 | 123.70 |
| 1 | AA | 1447 | A | N7-C8-N9 | -11.82 | 107.89 | 113.80 |
| 23 | BB | 109 | A | C5-C6-N6 | 11.82 | 133.16 | 123.70 |
| 22 | BA | 2199 | A | C5-C6-N6 | 11.82 | 133.16 | 123.70 |
| 22 | BA | 643 | A | N7-C8-N9 | -11.82 | 107.89 | 113.80 |
| 22 | BA | 1385 | A | C5-C6-N6 | 11.82 | 133.16 | 123.70 |
| 1 | AA | 975 | A | C5-C6-N6 | 11.81 | 133.15 | 123.70 |
| 22 | BA | 332 | A | C5-C6-N6 | 11.81 | 133.15 | 123.70 |
| 22 | BA | 1927 | A | C5-C6-N6 | 11.81 | 133.15 | 123.70 |
| 22 | BA | 2541 | A | C5-C6-N6 | 11.81 | 133.15 | 123.70 |
| 22 | BA | 1032 | A | C5-C6-N6 | 11.81 | 133.15 | 123.70 |
| 22 | BA | 28 | A | C5-C6-N6 | 11.81 | 133.15 | 123.70 |
| 1 | AA | 918 | A | C5-C6-N6 | 11.80 | 133.14 | 123.70 |
| 1 | AA | 397 | A | N3-C4-C5 | -11.80 | 118.54 | 126.80 |
| 22 | BA | 1701 | A | C5-C6-N6 | 11.80 | 133.14 | 123.70 |
| 22 | BA | 1392 | A | C5-C6-N6 | 11.79 | 133.14 | 123.70 |
| 1 | AA | 1476 | A | C5-C6-N6 | 11.79 | 133.13 | 123.70 |
| 22 | BA | 1378 | A | C5-C6-N6 | 11.79 | 133.13 | 123.70 |
| 22 | BA | 1226 | A | C5-C6-N6 | 11.79 | 133.13 | 123.70 |
| 22 | BA | 788 | A | N7-C8-N9 | -11.79 | 107.91 | 113.80 |
| 22 | BA | 2566 | A | C5-C6-N6 | 11.78 | 133.12 | 123.70 |
| 22 | BA | 2657 | A | C5-C6-N6 | 11.78 | 133.12 | 123.70 |
| 22 | BA | 1912 | A | C5-C6-N6 | 11.78 | 133.12 | 123.70 |
| 22 | BA | 783 | A | N3-C4-C5 | -11.77 | 118.56 | 126.80 |
| 1 | AA | 909 | A | C5-C6-N6 | 11.76 | 133.11 | 123.70 |
| 22 | BA | 1086 | A | C5-C6-N6 | 11.76 | 133.11 | 123.70 |
| 22 | BA | 532 | A | C5-C6-N6 | 11.76 | 133.10 | 123.70 |
| 22 | BA | 1913 | A | N7-C8-N9 | -11.75 | 107.92 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|--------|-------------|----------|
| 22 | BA | 1566 | A | N7-C8-N9 | -11.75 | 107.93 | 113.80 |
| 1 | AA | 1269 | A | C5-C6-N6 | 11.74 | 133.10 | 123.70 |
| 1 | AA | 8 | A | N7-C8-N9 | -11.74 | 107.93 | 113.80 |
| 1 | AA | 461 | A | N3-C4-C5 | -11.73 | 118.59 | 126.80 |
| 55 | B8 | 38 | A | N7-C8-N9 | -11.73 | 107.93 | 113.80 |
| 1 | AA | 1248 | A | C5-C6-N6 | 11.73 | 133.08 | 123.70 |
| 22 | BA | 71 | A | C5-C6-N6 | 11.72 | 133.08 | 123.70 |
| 22 | BA | 2829 | A | C5-C6-N6 | 11.72 | 133.08 | 123.70 |
| 1 | AA | 44 | A | C5-C6-N6 | 11.72 | 133.07 | 123.70 |
| 22 | BA | 346 | A | C5-C6-N6 | 11.72 | 133.07 | 123.70 |
| 22 | BA | 1165 | A | C5-C6-N6 | 11.72 | 133.07 | 123.70 |
| 1 | AA | 913 | A | C5-C6-N6 | 11.71 | 133.07 | 123.70 |
| 22 | BA | 1773 | A | C5-C6-N6 | 11.71 | 133.07 | 123.70 |
| 22 | BA | 2062 | A | C5-C6-N6 | 11.71 | 133.07 | 123.70 |
| 22 | BA | 1586 | A | C5-C6-N6 | 11.71 | 133.06 | 123.70 |
| 22 | BA | 789 | A | C5-C6-N6 | 11.70 | 133.06 | 123.70 |
| 22 | BA | 2335 | A | C5-C6-N6 | 11.70 | 133.06 | 123.70 |
| 22 | BA | 2211 | A | C5-C6-N6 | 11.70 | 133.06 | 123.70 |
| 1 | AA | 1016 | A | C5-C6-N6 | 11.69 | 133.06 | 123.70 |
| 22 | BA | 819 | A | C5-C6-N6 | 11.69 | 133.05 | 123.70 |
| 1 | AA | 1513 | A | C5-C6-N6 | 11.69 | 133.05 | 123.70 |
| 22 | BA | 222 | A | C5-C6-N6 | 11.69 | 133.05 | 123.70 |
| 23 | BB | 58 | A | C5-C6-N6 | 11.68 | 133.05 | 123.70 |
| 1 | AA | 1145 | A | C5-C6-N6 | 11.68 | 133.04 | 123.70 |
| 22 | BA | 1672 | A | C5-C6-N6 | 11.68 | 133.04 | 123.70 |
| 1 | AA | 959 | A | C5-C6-N6 | 11.68 | 133.04 | 123.70 |
| 22 | BA | 631 | A | N7-C8-N9 | -11.68 | 107.96 | 113.80 |
| 22 | BA | 149 | A | C5-C6-N6 | 11.68 | 133.04 | 123.70 |
| 22 | BA | 2497 | A | C5-C6-N6 | 11.68 | 133.04 | 123.70 |
| 22 | BA | 794 | A | N3-C4-C5 | -11.67 | 118.63 | 126.80 |
| 22 | BA | 945 | A | C5-C6-N6 | 11.67 | 133.04 | 123.70 |
| 23 | BB | 99 | A | C5-C6-N6 | 11.67 | 133.04 | 123.70 |
| 22 | BA | 1610 | A | C5-C6-N6 | 11.67 | 133.03 | 123.70 |
| 22 | BA | 127 | A | C5-C6-N6 | 11.66 | 133.03 | 123.70 |
| 22 | BA | 1073 | A | N7-C8-N9 | -11.66 | 107.97 | 113.80 |
| 1 | AA | 815 | A | C5-C6-N6 | 11.65 | 133.02 | 123.70 |
| 22 | BA | 677 | A | N3-C4-C5 | -11.65 | 118.64 | 126.80 |
| 22 | BA | 1084 | A | C5-C6-N6 | 11.65 | 133.02 | 123.70 |
| 22 | BA | 2411 | A | C5-C6-N6 | 11.65 | 133.02 | 123.70 |
| 1 | AA | 74 | A | N7-C8-N9 | -11.65 | 107.97 | 113.80 |
| 22 | BA | 1936 | A | N3-C4-C5 | -11.65 | 118.64 | 126.80 |
| 2 | AB | 205 | ASP | CB-CG-OD2 | -11.65 | 107.82 | 118.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1301 | A | C5-C6-N6 | 11.65 | 133.02 | 123.70 |
| 1 | AA | 408 | A | C5-C6-N6 | 11.64 | 133.01 | 123.70 |
| 1 | AA | 996 | A | N7-C8-N9 | -11.64 | 107.98 | 113.80 |
| 23 | BB | 78 | A | C5-C6-N6 | 11.64 | 133.01 | 123.70 |
| 22 | BA | 449 | A | N3-C4-C5 | -11.63 | 118.66 | 126.80 |
| 22 | BA | 1780 | A | C5-C6-N6 | 11.63 | 133.01 | 123.70 |
| 1 | AA | 1346 | A | C5-C6-N6 | 11.63 | 133.00 | 123.70 |
| 22 | BA | 2191 | A | C5-C6-N6 | 11.63 | 133.00 | 123.70 |
| 22 | BA | 423 | A | C5-C6-N6 | 11.63 | 133.00 | 123.70 |
| 22 | BA | 1069 | A | N7-C8-N9 | -11.62 | 107.99 | 113.80 |
| 1 | AA | 243 | A | C5-C6-N6 | 11.62 | 133.00 | 123.70 |
| 1 | AA | 432 | A | N7-C8-N9 | -11.62 | 107.99 | 113.80 |
| 22 | BA | 1762 | A | C5-C6-N6 | 11.62 | 133.00 | 123.70 |
| 22 | BA | 1953 | A | C5-C6-N6 | 11.62 | 133.00 | 123.70 |
| 1 | AA | 321 | A | N7-C8-N9 | -11.62 | 107.99 | 113.80 |
| 22 | BA | 429 | A | C5-C6-N6 | 11.62 | 132.99 | 123.70 |
| 1 | AA | 466 | A | C5-C6-N6 | 11.61 | 132.99 | 123.70 |
| 22 | BA | 825 | A | C5-C6-N6 | 11.61 | 132.99 | 123.70 |
| 1 | AA | 282 | A | C5-C6-N6 | 11.61 | 132.99 | 123.70 |
| 22 | BA | 705 | A | N3-C4-C5 | -11.61 | 118.67 | 126.80 |
| 1 | AA | 825 | A | C5-C6-N6 | 11.61 | 132.99 | 123.70 |
| 22 | BA | 2198 | A | N7-C8-N9 | -11.61 | 108.00 | 113.80 |
| 22 | BA | 2298 | A | C5-C6-N6 | 11.60 | 132.98 | 123.70 |
| 22 | BA | 322 | A | N7-C8-N9 | -11.60 | 108.00 | 113.80 |
| 22 | BA | 609 | A | C5-C6-N6 | 11.60 | 132.98 | 123.70 |
| 22 | BA | 821 | A | C5-C6-N6 | 11.60 | 132.98 | 123.70 |
| 22 | BA | 231 | A | N7-C8-N9 | -11.60 | 108.00 | 113.80 |
| 22 | BA | 1810 | A | N3-C4-C5 | -11.60 | 118.68 | 126.80 |
| 22 | BA | 2434 | A | C5-C6-N6 | 11.60 | 132.98 | 123.70 |
| 22 | BA | 627 | A | C5-C6-N6 | 11.59 | 132.97 | 123.70 |
| 22 | BA | 1637 | A | C5-C6-N6 | 11.59 | 132.97 | 123.70 |
| 1 | AA | 1022 | A | C5-C6-N6 | 11.59 | 132.97 | 123.70 |
| 22 | BA | 637 | A | C5-C6-N6 | 11.59 | 132.97 | 123.70 |
| 22 | BA | 1103 | A | C5-C6-N6 | 11.58 | 132.97 | 123.70 |
| 1 | AA | 1434 | A | C5-C6-N6 | 11.58 | 132.97 | 123.70 |
| 1 | AA | 583 | A | C5-C6-N6 | 11.57 | 132.96 | 123.70 |
| 23 | BB | 29 | A | C5-C6-N6 | 11.57 | 132.95 | 123.70 |
| 55 | B8 | 26 | A | N7-C8-N9 | -11.57 | 108.02 | 113.80 |
| 1 | AA | 478 | A | C5-C6-N6 | 11.56 | 132.95 | 123.70 |
| 1 | AA | 935 | A | C5-C6-N6 | 11.56 | 132.95 | 123.70 |
| 22 | BA | 866 | A | C5-C6-N6 | 11.56 | 132.95 | 123.70 |
| 1 | AA | 383 | A | C4-C5-C6 | 11.56 | 122.78 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 459 | A | N3-C4-C5 | -11.56 | 118.71 | 126.80 |
| 22 | BA | 538 | A | C5-C6-N6 | 11.56 | 132.94 | 123.70 |
| 1 | AA | 44 | A | N7-C8-N9 | -11.55 | 108.03 | 113.80 |
| 1 | AA | 171 | A | C5-C6-N6 | 11.55 | 132.94 | 123.70 |
| 1 | AA | 1130 | A | C5-C6-N6 | 11.55 | 132.94 | 123.70 |
| 22 | BA | 104 | A | C5-C6-N6 | 11.55 | 132.94 | 123.70 |
| 22 | BA | 802 | A | C5-C6-N6 | 11.55 | 132.94 | 123.70 |
| 1 | AA | 766 | A | C5-C6-N6 | 11.55 | 132.94 | 123.70 |
| 55 | B8 | 21 | A | N7-C8-N9 | -11.55 | 108.03 | 113.80 |
| 1 | AA | 787 | A | N7-C8-N9 | -11.54 | 108.03 | 113.80 |
| 22 | BA | 2781 | A | C5-C6-N6 | 11.54 | 132.94 | 123.70 |
| 1 | AA | 533 | A | N3-C4-C5 | -11.54 | 118.72 | 126.80 |
| 1 | AA | 1480 | A | C5-C6-N6 | 11.54 | 132.93 | 123.70 |
| 22 | BA | 2748 | A | C5-C6-N6 | 11.54 | 132.94 | 123.70 |
| 1 | AA | 1275 | A | N7-C8-N9 | -11.54 | 108.03 | 113.80 |
| 22 | BA | 1322 | A | N7-C8-N9 | -11.54 | 108.03 | 113.80 |
| 1 | AA | 1441 | A | N7-C8-N9 | -11.54 | 108.03 | 113.80 |
| 22 | BA | 1650 | A | N3-C4-C5 | -11.54 | 118.72 | 126.80 |
| 22 | BA | 2281 | A | N3-C4-C5 | -11.54 | 118.72 | 126.80 |
| 22 | BA | 1525 | A | C5-C6-N6 | 11.54 | 132.93 | 123.70 |
| 22 | BA | 1525 | A | N7-C8-N9 | -11.53 | 108.03 | 113.80 |
| 22 | BA | 2270 | A | C5-C6-N6 | 11.54 | 132.93 | 123.70 |
| 22 | BA | 2733 | A | C5-C6-N6 | 11.53 | 132.93 | 123.70 |
| 22 | BA | 402 | A | C5-C6-N6 | 11.53 | 132.93 | 123.70 |
| 1 | AA | 1180 | A | C5-C6-N6 | 11.53 | 132.92 | 123.70 |
| 1 | AA | 1329 | A | N7-C8-N9 | -11.53 | 108.04 | 113.80 |
| 22 | BA | 2134 | A | C5-C6-N6 | 11.53 | 132.92 | 123.70 |
| 22 | BA | 899 | A | C5-C6-N6 | 11.53 | 132.92 | 123.70 |
| 22 | BA | 2227 | A | N7-C8-N9 | -11.53 | 108.04 | 113.80 |
| 22 | BA | 1522 | A | C5-C6-N6 | 11.53 | 132.92 | 123.70 |
| 22 | BA | 2287 | A | N7-C8-N9 | -11.53 | 108.04 | 113.80 |
| 22 | BA | 608 | A | N7-C8-N9 | -11.52 | 108.04 | 113.80 |
| 22 | BA | 1802 | A | C5-C6-N6 | 11.52 | 132.92 | 123.70 |
| 22 | BA | 2119 | A | C5-C6-N6 | 11.52 | 132.92 | 123.70 |
| 22 | BA | 1069 | A | C5-C6-N6 | 11.52 | 132.92 | 123.70 |
| 1 | AA | 182 | A | C5-C6-N6 | 11.52 | 132.91 | 123.70 |
| 22 | BA | 1634 | A | C5-C6-N6 | 11.52 | 132.91 | 123.70 |
| 1 | AA | 7 | A | C5-C6-N6 | 11.52 | 132.91 | 123.70 |
| 22 | BA | 2173 | A | C5-C6-N6 | 11.52 | 132.91 | 123.70 |
| 22 | BA | 204 | A | C5-C6-N6 | 11.51 | 132.91 | 123.70 |
| 22 | BA | 320 | A | C5-C6-N6 | 11.51 | 132.91 | 123.70 |
| 1 | AA | 60 | A | C5-C6-N6 | 11.51 | 132.91 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|--------|-------------|----------|
| 1 | AA | 465 | A | C8-N9-C4 | 11.51 | 110.40 | 105.80 |
| 22 | BA | 877 | A | C5-C6-N6 | 11.50 | 132.90 | 123.70 |
| 22 | BA | 1321 | A | C5-C6-N6 | 11.50 | 132.90 | 123.70 |
| 22 | BA | 1070 | A | C5-C6-N6 | 11.50 | 132.90 | 123.70 |
| 1 | AA | 1499 | A | C5-C6-N6 | 11.50 | 132.90 | 123.70 |
| 22 | BA | 2119 | A | N7-C8-N9 | -11.50 | 108.05 | 113.80 |
| 22 | BA | 2147 | A | C5-C6-N6 | 11.50 | 132.90 | 123.70 |
| 22 | BA | 49 | A | C5-C6-N6 | 11.49 | 132.90 | 123.70 |
| 1 | AA | 1067 | A | C5-C6-N6 | 11.49 | 132.89 | 123.70 |
| 22 | BA | 422 | A | N3-C4-C5 | -11.49 | 118.75 | 126.80 |
| 22 | BA | 981 | A | C5-C6-N6 | 11.49 | 132.89 | 123.70 |
| 1 | AA | 559 | A | C5-C6-N6 | 11.49 | 132.89 | 123.70 |
| 1 | AA | 1285 | A | C5-C6-N6 | 11.49 | 132.89 | 123.70 |
| 22 | BA | 2346 | A | C5-C6-N6 | 11.49 | 132.89 | 123.70 |
| 1 | AA | 1428 | A | C5-C6-N6 | 11.48 | 132.89 | 123.70 |
| 22 | BA | 878 | A | C5-C6-N6 | 11.48 | 132.89 | 123.70 |
| 22 | BA | 1901 | A | C5-C6-N6 | 11.48 | 132.88 | 123.70 |
| 22 | BA | 2388 | A | N7-C8-N9 | -11.48 | 108.06 | 113.80 |
| 22 | BA | 1384 | A | C5-C6-N6 | 11.48 | 132.88 | 123.70 |
| 22 | BA | 2101 | A | C5-C6-N6 | 11.48 | 132.88 | 123.70 |
| 22 | BA | 2879 | A | C5-C6-N6 | 11.48 | 132.88 | 123.70 |
| 1 | AA | 1225 | A | C5-C6-N6 | 11.48 | 132.88 | 123.70 |
| 1 | AA | 1250 | A | C5-C6-N6 | 11.48 | 132.88 | 123.70 |
| 1 | AA | 781 | A | C5-C6-N6 | 11.47 | 132.88 | 123.70 |
| 22 | BA | 1365 | A | C5-C6-N6 | 11.47 | 132.88 | 123.70 |
| 1 | AA | 938 | A | N3-C4-C5 | -11.47 | 118.77 | 126.80 |
| 1 | AA | 621 | A | C5-C6-N6 | 11.47 | 132.87 | 123.70 |
| 22 | BA | 1608 | A | C5-C6-N6 | 11.47 | 132.87 | 123.70 |
| 22 | BA | 2309 | A | C5-C6-N6 | 11.47 | 132.87 | 123.70 |
| 1 | AA | 1019 | A | C5-C6-N6 | 11.46 | 132.87 | 123.70 |
| 22 | BA | 1142 | A | N7-C8-N9 | -11.46 | 108.07 | 113.80 |
| 1 | AA | 596 | A | N7-C8-N9 | -11.46 | 108.07 | 113.80 |
| 22 | BA | 94 | A | C5-C6-N6 | 11.46 | 132.87 | 123.70 |
| 22 | BA | 2117 | A | C5-C6-N6 | 11.46 | 132.87 | 123.70 |
| 22 | BA | 1759 | A | N7-C8-N9 | -11.46 | 108.07 | 113.80 |
| 1 | AA | 1110 | A | C5-C6-N6 | 11.45 | 132.86 | 123.70 |
| 1 | AA | 901 | A | N3-C4-C5 | -11.45 | 118.78 | 126.80 |
| 1 | AA | 1046 | A | N3-C4-C5 | -11.45 | 118.78 | 126.80 |
| 22 | BA | 2288 | A | C5-C6-N6 | 11.45 | 132.86 | 123.70 |
| 2 | AB | 188 | ASP | CB-CG-OD2 | -11.45 | 108.00 | 118.30 |
| 22 | BA | 1048 | A | C5-C6-N6 | 11.45 | 132.86 | 123.70 |
| 22 | BA | 2736 | A | C5-C6-N6 | 11.45 | 132.86 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 342 | A | C5-C6-N6 | 11.45 | 132.86 | 123.70 |
| 22 | BA | 404 | A | C5-C6-N6 | 11.45 | 132.86 | 123.70 |
| 22 | BA | 1453 | A | C5-C6-N6 | 11.45 | 132.86 | 123.70 |
| 22 | BA | 1579 | A | C5-C6-N6 | 11.45 | 132.86 | 123.70 |
| 22 | BA | 1679 | A | N3-C4-C5 | -11.44 | 118.79 | 126.80 |
| 22 | BA | 2449 | U | C5-C6-N1 | -11.44 | 116.98 | 122.70 |
| 1 | AA | 197 | A | N7-C8-N9 | -11.44 | 108.08 | 113.80 |
| 1 | AA | 554 | A | C5-C6-N6 | 11.44 | 132.85 | 123.70 |
| 22 | BA | 1088 | A | N7-C8-N9 | -11.44 | 108.08 | 113.80 |
| 22 | BA | 1008 | A | C5-C6-N6 | 11.43 | 132.85 | 123.70 |
| 22 | BA | 1490 | A | C5-C6-N6 | 11.43 | 132.85 | 123.70 |
| 22 | BA | 2837 | A | C5-C6-N6 | 11.43 | 132.84 | 123.70 |
| 22 | BA | 111 | A | N7-C8-N9 | -11.42 | 108.09 | 113.80 |
| 1 | AA | 120 | A | N7-C8-N9 | -11.42 | 108.09 | 113.80 |
| 22 | BA | 428 | A | N7-C8-N9 | -11.42 | 108.09 | 113.80 |
| 1 | AA | 1101 | A | C5-C6-N6 | 11.42 | 132.83 | 123.70 |
| 22 | BA | 161 | A | C5-C6-N6 | 11.41 | 132.83 | 123.70 |
| 22 | BA | 829 | A | C5-C6-N6 | 11.41 | 132.83 | 123.70 |
| 1 | AA | 1014 | A | C5-C6-N6 | 11.41 | 132.83 | 123.70 |
| 1 | AA | 1004 | A | N7-C8-N9 | -11.40 | 108.10 | 113.80 |
| 22 | BA | 1535 | A | C5-C6-N6 | 11.40 | 132.82 | 123.70 |
| 22 | BA | 2727 | A | N3-C4-C5 | -11.40 | 118.82 | 126.80 |
| 1 | AA | 197 | A | C5-C6-N6 | 11.40 | 132.82 | 123.70 |
| 1 | AA | 1101 | A | N7-C8-N9 | -11.40 | 108.10 | 113.80 |
| 1 | AA | 1201 | A | N3-C4-C5 | -11.40 | 118.82 | 126.80 |
| 1 | AA | 1493 | A | C5-C6-N6 | 11.39 | 132.82 | 123.70 |
| 22 | BA | 1067 | A | C5-C6-N6 | 11.39 | 132.82 | 123.70 |
| 22 | BA | 2476 | A | C5-C6-N6 | 11.39 | 132.82 | 123.70 |
| 22 | BA | 2059 | A | C5-C6-N6 | 11.39 | 132.81 | 123.70 |
| 22 | BA | 2154 | A | N7-C8-N9 | -11.39 | 108.11 | 113.80 |
| 22 | BA | 910 | A | N7-C8-N9 | -11.39 | 108.11 | 113.80 |
| 22 | BA | 2799 | A | N3-C4-C5 | -11.39 | 118.83 | 126.80 |
| 22 | BA | 1669 | A | N3-C4-C5 | -11.38 | 118.83 | 126.80 |
| 22 | BA | 2340 | A | N7-C8-N9 | -11.38 | 108.11 | 113.80 |
| 22 | BA | 2547 | A | C5-C6-N6 | 11.38 | 132.80 | 123.70 |
| 1 | AA | 51 | A | C5-C6-N6 | 11.38 | 132.80 | 123.70 |
| 22 | BA | 204 | A | N7-C8-N9 | -11.37 | 108.11 | 113.80 |
| 22 | BA | 655 | A | N7-C8-N9 | -11.37 | 108.11 | 113.80 |
| 22 | BA | 294 | A | N7-C8-N9 | -11.37 | 108.11 | 113.80 |
| 22 | BA | 2809 | A | N7-C8-N9 | -11.37 | 108.11 | 113.80 |
| 1 | AA | 547 | A | C5-C6-N6 | 11.36 | 132.79 | 123.70 |
| 22 | BA | 716 | A | C5-C6-N6 | 11.36 | 132.79 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 448 | A | C5-C6-N6 | 11.36 | 132.79 | 123.70 |
| 1 | AA | 499 | A | N7-C8-N9 | -11.36 | 108.12 | 113.80 |
| 1 | AA | 642 | A | C5-C6-N6 | 11.36 | 132.78 | 123.70 |
| 22 | BA | 1254 | A | C5-C6-N6 | 11.35 | 132.78 | 123.70 |
| 1 | AA | 414 | A | C5-C6-N6 | 11.35 | 132.78 | 123.70 |
| 1 | AA | 572 | A | N7-C8-N9 | -11.35 | 108.13 | 113.80 |
| 22 | BA | 892 | A | C5-C6-N6 | 11.35 | 132.78 | 123.70 |
| 1 | AA | 792 | A | C5-C6-N6 | 11.34 | 132.77 | 123.70 |
| 22 | BA | 347 | A | C5-C6-N6 | 11.34 | 132.77 | 123.70 |
| 22 | BA | 1268 | A | C5-C6-N6 | 11.34 | 132.77 | 123.70 |
| 22 | BA | 2471 | A | N7-C8-N9 | -11.34 | 108.13 | 113.80 |
| 1 | AA | 320 | A | C5-C6-N6 | 11.34 | 132.77 | 123.70 |
| 1 | AA | 468 | A | N7-C8-N9 | -11.34 | 108.13 | 113.80 |
| 22 | BA | 279 | A | N7-C8-N9 | -11.34 | 108.13 | 113.80 |
| 55 | B8 | 21 | A | C5-C6-N6 | 11.34 | 132.77 | 123.70 |
| 22 | BA | 2883 | A | N7-C8-N9 | -11.34 | 108.13 | 113.80 |
| 22 | BA | 670 | A | C5-C6-N6 | 11.34 | 132.77 | 123.70 |
| 1 | AA | 1311 | A | C5-C6-N6 | 11.33 | 132.77 | 123.70 |
| 22 | BA | 547 | A | C5-C6-N6 | 11.33 | 132.77 | 123.70 |
| 22 | BA | 74 | A | C5-C6-N6 | 11.33 | 132.76 | 123.70 |
| 1 | AA | 1196 | A | N7-C8-N9 | -11.33 | 108.14 | 113.80 |
| 22 | BA | 2311 | A | C5-C6-N6 | 11.32 | 132.76 | 123.70 |
| 1 | AA | 32 | A | N3-C4-C5 | -11.32 | 118.88 | 126.80 |
| 22 | BA | 689 | A | N7-C8-N9 | -11.32 | 108.14 | 113.80 |
| 22 | BA | 1189 | A | N3-C4-C5 | -11.32 | 118.88 | 126.80 |
| 22 | BA | 1504 | A | N7-C8-N9 | -11.32 | 108.14 | 113.80 |
| 22 | BA | 84 | A | N7-C8-N9 | -11.32 | 108.14 | 113.80 |
| 22 | BA | 2095 | A | C5-C6-N6 | 11.32 | 132.75 | 123.70 |
| 22 | BA | 401 | A | C5-C6-N6 | 11.32 | 132.75 | 123.70 |
| 22 | BA | 1367 | A | C5-C6-N6 | 11.32 | 132.75 | 123.70 |
| 22 | BA | 1089 | A | N7-C8-N9 | -11.31 | 108.14 | 113.80 |
| 22 | BA | 1175 | A | C5-C6-N6 | 11.31 | 132.75 | 123.70 |
| 22 | BA | 2792 | A | N7-C8-N9 | -11.31 | 108.14 | 113.80 |
| 22 | BA | 1785 | A | C5-C6-N6 | 11.31 | 132.75 | 123.70 |
| 22 | BA | 1916 | A | C5-C6-N6 | 11.31 | 132.75 | 123.70 |
| 22 | BA | 2632 | A | N7-C8-N9 | -11.31 | 108.14 | 113.80 |
| 1 | AA | 161 | A | C5-C6-N6 | 11.31 | 132.75 | 123.70 |
| 1 | AA | 1333 | A | C5-C6-N6 | 11.31 | 132.75 | 123.70 |
| 1 | AA | 1188 | A | C5-C6-N6 | 11.30 | 132.74 | 123.70 |
| 1 | AA | 782 | A | C5-C6-N6 | 11.30 | 132.74 | 123.70 |
| 22 | BA | 2766 | A | N3-C4-C5 | -11.30 | 118.89 | 126.80 |
| 22 | BA | 2117 | A | N7-C8-N9 | -11.30 | 108.15 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1272 | A | N7-C8-N9 | -11.30 | 108.15 | 113.80 |
| 22 | BA | 1603 | A | N7-C8-N9 | -11.30 | 108.15 | 113.80 |
| 22 | BA | 2453 | A | C5-C6-N6 | 11.30 | 132.74 | 123.70 |
| 22 | BA | 2887 | A | C5-C6-N6 | 11.30 | 132.74 | 123.70 |
| 1 | AA | 205 | A | C5-C6-N6 | 11.30 | 132.74 | 123.70 |
| 22 | BA | 2564 | A | N7-C8-N9 | -11.30 | 108.15 | 113.80 |
| 22 | BA | 144 | A | N7-C8-N9 | -11.29 | 108.15 | 113.80 |
| 22 | BA | 925 | A | N7-C8-N9 | -11.30 | 108.15 | 113.80 |
| 22 | BA | 1307 | A | C5-C6-N6 | 11.30 | 132.74 | 123.70 |
| 22 | BA | 2430 | A | C2-N3-C4 | 11.29 | 116.25 | 110.60 |
| 1 | AA | 26 | A | N7-C8-N9 | -11.29 | 108.15 | 113.80 |
| 1 | AA | 1204 | A | N7-C8-N9 | -11.29 | 108.16 | 113.80 |
| 22 | BA | 910 | A | C5-C6-N6 | 11.29 | 132.73 | 123.70 |
| 22 | BA | 1111 | A | N7-C8-N9 | -11.29 | 108.16 | 113.80 |
| 1 | AA | 309 | A | N7-C8-N9 | -11.29 | 108.16 | 113.80 |
| 22 | BA | 706 | A | C5-C6-N6 | 11.28 | 132.73 | 123.70 |
| 22 | BA | 1912 | A | N7-C8-N9 | -11.29 | 108.16 | 113.80 |
| 1 | AA | 55 | A | N7-C8-N9 | -11.28 | 108.16 | 113.80 |
| 22 | BA | 590 | A | C5-C6-N6 | 11.28 | 132.72 | 123.70 |
| 22 | BA | 2412 | A | C5-C6-N6 | 11.28 | 132.72 | 123.70 |
| 1 | AA | 1377 | A | C5-C6-N6 | 11.28 | 132.72 | 123.70 |
| 22 | BA | 603 | A | N7-C8-N9 | -11.28 | 108.16 | 113.80 |
| 22 | BA | 1987 | A | N7-C8-N9 | -11.28 | 108.16 | 113.80 |
| 1 | AA | 595 | A | C5-C6-N6 | 11.28 | 132.72 | 123.70 |
| 22 | BA | 1504 | A | C5-C6-N6 | 11.28 | 132.72 | 123.70 |
| 22 | BA | 2482 | A | N7-C8-N9 | -11.28 | 108.16 | 113.80 |
| 22 | BA | 802 | A | N3-C4-C5 | -11.27 | 118.91 | 126.80 |
| 22 | BA | 1819 | A | N3-C4-C5 | -11.27 | 118.91 | 126.80 |
| 22 | BA | 2632 | A | C5-C6-N6 | 11.27 | 132.72 | 123.70 |
| 1 | AA | 263 | A | C5-C6-N6 | 11.27 | 132.71 | 123.70 |
| 1 | AA | 364 | A | C5-C6-N6 | 11.26 | 132.71 | 123.70 |
| 1 | AA | 969 | A | C5-C6-N6 | 11.26 | 132.71 | 123.70 |
| 22 | BA | 368 | A | C5-C6-N6 | 11.26 | 132.71 | 123.70 |
| 1 | AA | 1167 | A | N7-C8-N9 | -11.26 | 108.17 | 113.80 |
| 22 | BA | 1046 | A | C5-C6-N6 | 11.26 | 132.71 | 123.70 |
| 22 | BA | 1287 | A | N7-C8-N9 | -11.26 | 108.17 | 113.80 |
| 22 | BA | 2418 | A | N7-C8-N9 | -11.26 | 108.17 | 113.80 |
| 22 | BA | 2589 | A | N7-C8-N9 | -11.26 | 108.17 | 113.80 |
| 22 | BA | 1847 | A | C5-C6-N6 | 11.26 | 132.70 | 123.70 |
| 22 | BA | 131 | A | N3-C4-C5 | -11.25 | 118.92 | 126.80 |
| 1 | AA | 1256 | A | N7-C8-N9 | -11.25 | 108.17 | 113.80 |
| 22 | BA | 572 | A | N3-C4-C5 | -11.25 | 118.92 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2080 | A | N3-C4-C5 | -11.25 | 118.92 | 126.80 |
| 1 | AA | 246 | A | N7-C8-N9 | -11.25 | 108.18 | 113.80 |
| 22 | BA | 2101 | A | N7-C8-N9 | -11.25 | 108.18 | 113.80 |
| 22 | BA | 2459 | A | N7-C8-N9 | -11.24 | 108.18 | 113.80 |
| 1 | AA | 878 | A | C5-C6-N6 | 11.24 | 132.69 | 123.70 |
| 22 | BA | 1213 | A | N3-C4-C5 | -11.24 | 118.93 | 126.80 |
| 22 | BA | 1246 | A | C5-C6-N6 | 11.24 | 132.69 | 123.70 |
| 22 | BA | 2328 | A | C5-C6-N6 | 11.24 | 132.69 | 123.70 |
| 22 | BA | 2541 | A | N7-C8-N9 | -11.24 | 108.18 | 113.80 |
| 22 | BA | 1260 | A | C5-C6-N6 | 11.24 | 132.69 | 123.70 |
| 22 | BA | 101 | A | N3-C4-C5 | -11.23 | 118.94 | 126.80 |
| 22 | BA | 633 | A | C5-C6-N6 | 11.23 | 132.69 | 123.70 |
| 22 | BA | 1583 | A | C5-C6-N6 | 11.23 | 132.69 | 123.70 |
| 22 | BA | 1858 | A | C5-C6-N6 | 11.23 | 132.68 | 123.70 |
| 22 | BA | 482 | A | N3-C4-C5 | -11.23 | 118.94 | 126.80 |
| 22 | BA | 820 | A | N3-C4-C5 | -11.23 | 118.94 | 126.80 |
| 22 | BA | 1304 | A | N7-C8-N9 | -11.23 | 108.19 | 113.80 |
| 1 | AA | 1340 | A | C5-C6-N6 | 11.22 | 132.68 | 123.70 |
| 22 | BA | 195 | A | C5-C6-N6 | 11.22 | 132.68 | 123.70 |
| 22 | BA | 1194 | A | C5-C6-N6 | 11.22 | 132.68 | 123.70 |
| 1 | AA | 1377 | A | N7-C8-N9 | -11.22 | 108.19 | 113.80 |
| 22 | BA | 2814 | A | C5-C6-N6 | 11.22 | 132.68 | 123.70 |
| 22 | BA | 1744 | A | C5-C6-N6 | 11.22 | 132.67 | 123.70 |
| 1 | AA | 349 | A | N7-C8-N9 | -11.22 | 108.19 | 113.80 |
| 22 | BA | 1652 | A | C5-C6-N6 | 11.21 | 132.67 | 123.70 |
| 22 | BA | 1626 | A | N7-C8-N9 | -11.21 | 108.19 | 113.80 |
| 22 | BA | 282 | A | N7-C8-N9 | -11.21 | 108.19 | 113.80 |
| 22 | BA | 1453 | A | N7-C8-N9 | -11.21 | 108.19 | 113.80 |
| 1 | AA | 1151 | A | N7-C8-N9 | -11.21 | 108.19 | 113.80 |
| 1 | AA | 190 | A | N3-C4-C5 | -11.21 | 118.95 | 126.80 |
| 22 | BA | 689 | A | N3-C4-C5 | -11.21 | 118.95 | 126.80 |
| 1 | AA | 1213 | A | N7-C8-N9 | -11.20 | 108.20 | 113.80 |
| 22 | BA | 1678 | A | C5-C6-N6 | 11.21 | 132.66 | 123.70 |
| 1 | AA | 1035 | A | C5-C6-N6 | 11.20 | 132.66 | 123.70 |
| 1 | AA | 74 | A | C5-C6-N6 | 11.20 | 132.66 | 123.70 |
| 22 | BA | 447 | A | C5-C6-N6 | 11.20 | 132.66 | 123.70 |
| 1 | AA | 1349 | A | C5-C6-N6 | 11.20 | 132.66 | 123.70 |
| 1 | AA | 143 | A | C5-C6-N6 | 11.20 | 132.66 | 123.70 |
| 1 | AA | 414 | A | N7-C8-N9 | -11.19 | 108.20 | 113.80 |
| 1 | AA | 908 | A | C5-C6-N6 | 11.19 | 132.66 | 123.70 |
| 22 | BA | 2530 | A | C5-C6-N6 | 11.19 | 132.66 | 123.70 |
| 22 | BA | 2850 | A | C5-C6-N6 | 11.19 | 132.65 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 160 | A | N7-C8-N9 | -11.19 | 108.20 | 113.80 |
| 22 | BA | 528 | A | C5-C6-N6 | 11.19 | 132.65 | 123.70 |
| 22 | BA | 1077 | A | C5-C6-N6 | 11.19 | 132.65 | 123.70 |
| 22 | BA | 2281 | A | C5-C6-N6 | 11.19 | 132.65 | 123.70 |
| 22 | BA | 2392 | A | C5-C6-N6 | 11.19 | 132.65 | 123.70 |
| 1 | AA | 814 | A | C5-C6-N6 | 11.19 | 132.65 | 123.70 |
| 23 | BB | 119 | A | N7-C8-N9 | -11.19 | 108.21 | 113.80 |
| 1 | AA | 383 | A | N3-C4-C5 | -11.18 | 118.97 | 126.80 |
| 1 | AA | 1080 | A | C5-C6-N6 | 11.18 | 132.65 | 123.70 |
| 22 | BA | 1385 | A | N7-C8-N9 | -11.18 | 108.21 | 113.80 |
| 22 | BA | 1609 | A | N7-C8-N9 | -11.18 | 108.21 | 113.80 |
| 1 | AA | 7 | A | N7-C8-N9 | -11.18 | 108.21 | 113.80 |
| 22 | BA | 676 | A | C5-C6-N6 | 11.18 | 132.64 | 123.70 |
| 22 | BA | 1772 | A | C5-C6-N6 | 11.18 | 132.64 | 123.70 |
| 22 | BA | 1583 | A | N7-C8-N9 | -11.18 | 108.21 | 113.80 |
| 22 | BA | 1169 | A | N7-C8-N9 | -11.17 | 108.21 | 113.80 |
| 1 | AA | 1081 | A | N7-C8-N9 | -11.17 | 108.21 | 113.80 |
| 22 | BA | 1698 | A | C5-C6-N6 | 11.17 | 132.64 | 123.70 |
| 22 | BA | 547 | A | N7-C8-N9 | -11.17 | 108.22 | 113.80 |
| 1 | AA | 675 | A | C5-C6-N6 | 11.17 | 132.63 | 123.70 |
| 22 | BA | 2126 | A | C5-C6-N6 | 11.17 | 132.63 | 123.70 |
| 22 | BA | 1978 | A | N7-C8-N9 | -11.17 | 108.22 | 113.80 |
| 1 | AA | 8 | A | C5-C6-N6 | 11.16 | 132.63 | 123.70 |
| 1 | AA | 1246 | A | C5-C6-N6 | 11.16 | 132.63 | 123.70 |
| 22 | BA | 959 | A | C5-C6-N6 | 11.16 | 132.63 | 123.70 |
| 22 | BA | 2009 | A | N7-C8-N9 | -11.16 | 108.22 | 113.80 |
| 22 | BA | 2821 | A | N7-C8-N9 | -11.16 | 108.22 | 113.80 |
| 1 | AA | 366 | A | C5-C6-N6 | 11.16 | 132.63 | 123.70 |
| 1 | AA | 787 | A | C5-C6-N6 | 11.16 | 132.63 | 123.70 |
| 1 | AA | 1150 | A | C5-C6-N6 | 11.16 | 132.63 | 123.70 |
| 22 | BA | 391 | A | N7-C8-N9 | -11.16 | 108.22 | 113.80 |
| 22 | BA | 1086 | A | N7-C8-N9 | -11.16 | 108.22 | 113.80 |
| 22 | BA | 1717 | A | C5-C6-N6 | 11.16 | 132.63 | 123.70 |
| 22 | BA | 1757 | A | C5-C6-N6 | 11.16 | 132.63 | 123.70 |
| 23 | BB | 45 | A | C5-C6-N6 | 11.15 | 132.62 | 123.70 |
| 22 | BA | 191 | A | N3-C4-C5 | -11.15 | 118.99 | 126.80 |
| 22 | BA | 1998 | A | N3-C4-C5 | -11.15 | 118.99 | 126.80 |
| 1 | AA | 320 | A | N7-C8-N9 | -11.15 | 108.23 | 113.80 |
| 1 | AA | 353 | A | N7-C8-N9 | -11.15 | 108.23 | 113.80 |
| 1 | AA | 695 | A | C5-C6-N6 | 11.15 | 132.62 | 123.70 |
| 22 | BA | 2071 | A | C5-C6-N6 | 11.15 | 132.62 | 123.70 |
| 22 | BA | 226 | A | C5-C6-N6 | 11.14 | 132.62 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2051 | A | C5-C6-N6 | 11.14 | 132.62 | 123.70 |
| 22 | BA | 2516 | A | C5-C6-N6 | 11.14 | 132.62 | 123.70 |
| 22 | BA | 1262 | A | C5-C6-N6 | 11.14 | 132.61 | 123.70 |
| 1 | AA | 777 | A | N7-C8-N9 | -11.14 | 108.23 | 113.80 |
| 1 | AA | 502 | A | N3-C4-C5 | -11.14 | 119.00 | 126.80 |
| 1 | AA | 1280 | A | C5-C6-N6 | 11.14 | 132.61 | 123.70 |
| 22 | BA | 1090 | A | N7-C8-N9 | -11.14 | 108.23 | 113.80 |
| 22 | BA | 1147 | A | N7-C8-N9 | -11.14 | 108.23 | 113.80 |
| 22 | BA | 1046 | A | N7-C8-N9 | -11.13 | 108.23 | 113.80 |
| 22 | BA | 2851 | A | N7-C8-N9 | -11.13 | 108.23 | 113.80 |
| 1 | AA | 306 | A | C5-C6-N6 | 11.13 | 132.60 | 123.70 |
| 1 | AA | 949 | A | C5-C6-N6 | 11.13 | 132.60 | 123.70 |
| 1 | AA | 1433 | A | C5-C6-N6 | 11.13 | 132.60 | 123.70 |
| 22 | BA | 1952 | A | N7-C8-N9 | -11.13 | 108.23 | 113.80 |
| 1 | AA | 1204 | A | C5-C6-N6 | 11.13 | 132.60 | 123.70 |
| 1 | AA | 1019 | A | N7-C8-N9 | -11.13 | 108.24 | 113.80 |
| 22 | BA | 1505 | A | N7-C8-N9 | -11.13 | 108.24 | 113.80 |
| 22 | BA | 374 | A | C5-C6-N6 | 11.12 | 132.60 | 123.70 |
| 54 | B7 | 9 | A | C5-C6-N6 | 11.12 | 132.60 | 123.70 |
| 1 | AA | 1299 | A | N3-C4-C5 | -11.12 | 119.01 | 126.80 |
| 22 | BA | 1269 | A | C5-C6-N6 | 11.12 | 132.60 | 123.70 |
| 1 | AA | 958 | A | N7-C8-N9 | -11.12 | 108.24 | 113.80 |
| 22 | BA | 479 | A | N7-C8-N9 | -11.12 | 108.24 | 113.80 |
| 22 | BA | 1039 | A | C5-C6-N6 | 11.12 | 132.60 | 123.70 |
| 22 | BA | 2406 | A | N7-C8-N9 | -11.12 | 108.24 | 113.80 |
| 22 | BA | 501 | A | C5-C6-N6 | 11.12 | 132.59 | 123.70 |
| 22 | BA | 167 | A | C5-C6-N6 | 11.12 | 132.59 | 123.70 |
| 22 | BA | 2665 | A | N7-C8-N9 | -11.12 | 108.24 | 113.80 |
| 22 | BA | 1503 | A | N7-C8-N9 | -11.12 | 108.24 | 113.80 |
| 1 | AA | 344 | A | C5-C6-N6 | 11.11 | 132.59 | 123.70 |
| 22 | BA | 2135 | A | C5-C6-N6 | 11.11 | 132.59 | 123.70 |
| 22 | BA | 2738 | A | C5-C6-N6 | 11.11 | 132.59 | 123.70 |
| 1 | AA | 1319 | A | C5-C6-N6 | 11.11 | 132.59 | 123.70 |
| 22 | BA | 715 | A | N7-C8-N9 | -11.11 | 108.25 | 113.80 |
| 22 | BA | 2169 | A | C5-C6-N6 | 11.11 | 132.59 | 123.70 |
| 1 | AA | 495 | A | N7-C8-N9 | -11.11 | 108.25 | 113.80 |
| 22 | BA | 1070 | A | N7-C8-N9 | -11.11 | 108.25 | 113.80 |
| 22 | BA | 2682 | A | N7-C8-N9 | -11.11 | 108.25 | 113.80 |
| 1 | AA | 493 | A | C5-C6-N6 | 11.10 | 132.58 | 123.70 |
| 1 | AA | 499 | A | C5-C6-N6 | 11.10 | 132.58 | 123.70 |
| 22 | BA | 1095 | A | C5-C6-N6 | 11.10 | 132.58 | 123.70 |
| 22 | BA | 1580 | A | C5-C6-N6 | 11.10 | 132.58 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 265 | A | C5-C6-N6 | 11.10 | 132.58 | 123.70 |
| 22 | BA | 1470 | A | N3-C4-C5 | -11.10 | 119.03 | 126.80 |
| 22 | BA | 2163 | A | C5-C6-N6 | 11.10 | 132.58 | 123.70 |
| 22 | BA | 262 | A | N7-C8-N9 | -11.10 | 108.25 | 113.80 |
| 22 | BA | 504 | A | C5-C6-N6 | 11.10 | 132.58 | 123.70 |
| 1 | AA | 1360 | A | C5-C6-N6 | 11.09 | 132.57 | 123.70 |
| 1 | AA | 1430 | A | C5-C6-N6 | 11.09 | 132.57 | 123.70 |
| 22 | BA | 503 | A | C5-C6-N6 | 11.09 | 132.57 | 123.70 |
| 22 | BA | 2531 | A | N7-C8-N9 | -11.09 | 108.25 | 113.80 |
| 22 | BA | 928 | A | C5-C6-N6 | 11.09 | 132.57 | 123.70 |
| 22 | BA | 2388 | A | C5-C6-N6 | 11.09 | 132.57 | 123.70 |
| 1 | AA | 535 | A | C5-C6-N6 | 11.09 | 132.57 | 123.70 |
| 22 | BA | 2336 | A | C5-C6-N6 | 11.09 | 132.57 | 123.70 |
| 22 | BA | 1876 | A | N7-C8-N9 | -11.09 | 108.26 | 113.80 |
| 22 | BA | 2052 | A | C5-C6-N6 | 11.09 | 132.57 | 123.70 |
| 22 | BA | 2602 | A | C5-C6-N6 | 11.09 | 132.57 | 123.70 |
| 22 | BA | 716 | A | N7-C8-N9 | -11.08 | 108.26 | 113.80 |
| 22 | BA | 1490 | A | N7-C8-N9 | -11.08 | 108.26 | 113.80 |
| 1 | AA | 702 | A | C5-C6-N6 | 11.08 | 132.56 | 123.70 |
| 1 | AA | 1169 | A | C5-C6-N6 | 11.08 | 132.56 | 123.70 |
| 1 | AA | 1246 | A | N7-C8-N9 | -11.08 | 108.26 | 113.80 |
| 22 | BA | 1427 | A | N7-C8-N9 | -11.08 | 108.26 | 113.80 |
| 22 | BA | 1548 | A | N7-C8-N9 | -11.08 | 108.26 | 113.80 |
| 22 | BA | 2725 | A | N7-C8-N9 | -11.08 | 108.26 | 113.80 |
| 22 | BA | 792 | A | N7-C8-N9 | -11.07 | 108.26 | 113.80 |
| 1 | AA | 1227 | A | C5-C6-N6 | 11.07 | 132.56 | 123.70 |
| 22 | BA | 1630 | A | N7-C8-N9 | -11.07 | 108.27 | 113.80 |
| 22 | BA | 223 | A | N7-C8-N9 | -11.07 | 108.27 | 113.80 |
| 22 | BA | 262 | A | C5-C6-N6 | 11.07 | 132.56 | 123.70 |
| 22 | BA | 637 | A | N7-C8-N9 | -11.07 | 108.27 | 113.80 |
| 22 | BA | 1090 | A | C5-C6-N6 | 11.07 | 132.56 | 123.70 |
| 1 | AA | 1413 | A | C5-C6-N6 | 11.07 | 132.55 | 123.70 |
| 22 | BA | 103 | A | C5-C6-N6 | 11.06 | 132.55 | 123.70 |
| 22 | BA | 1126 | A | C5-C6-N6 | 11.06 | 132.55 | 123.70 |
| 22 | BA | 1532 | A | N7-C8-N9 | -11.06 | 108.27 | 113.80 |
| 22 | BA | 2835 | A | N7-C8-N9 | -11.06 | 108.27 | 113.80 |
| 1 | AA | 845 | A | C5-C6-N6 | 11.06 | 132.55 | 123.70 |
| 1 | AA | 1394 | A | N7-C8-N9 | -11.06 | 108.27 | 113.80 |
| 22 | BA | 526 | A | C5-C6-N6 | 11.06 | 132.55 | 123.70 |
| 22 | BA | 1021 | A | N3-C4-C5 | -11.06 | 119.06 | 126.80 |
| 1 | AA | 189 | A | C5-C6-N6 | 11.06 | 132.55 | 123.70 |
| 22 | BA | 2284 | A | N3-C4-C5 | -11.06 | 119.06 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 72 | A | C5-C6-N6 | 11.06 | 132.55 | 123.70 |
| 1 | AA | 238 | A | C5-C6-N6 | 11.06 | 132.54 | 123.70 |
| 1 | AA | 432 | A | C5-C6-N6 | 11.06 | 132.55 | 123.70 |
| 22 | BA | 1608 | A | N3-C4-C5 | -11.06 | 119.06 | 126.80 |
| 22 | BA | 1809 | A | C5-C6-N6 | 11.06 | 132.55 | 123.70 |
| 22 | BA | 1494 | A | C5-C6-N6 | 11.05 | 132.54 | 123.70 |
| 1 | AA | 1437 | A | N7-C8-N9 | -11.05 | 108.28 | 113.80 |
| 22 | BA | 478 | A | N3-C4-C5 | -11.05 | 119.06 | 126.80 |
| 22 | BA | 513 | A | N3-C4-C5 | -11.05 | 119.06 | 126.80 |
| 22 | BA | 1144 | A | C5-C6-N6 | 11.05 | 132.54 | 123.70 |
| 22 | BA | 2051 | A | N3-C4-C5 | -11.05 | 119.06 | 126.80 |
| 1 | AA | 1117 | A | N7-C8-N9 | -11.04 | 108.28 | 113.80 |
| 22 | BA | 1419 | A | C5-C6-N6 | 11.04 | 132.54 | 123.70 |
| 1 | AA | 415 | A | C5-C6-N6 | 11.04 | 132.53 | 123.70 |
| 1 | AA | 574 | A | C5-C6-N6 | 11.04 | 132.53 | 123.70 |
| 1 | AA | 780 | A | C5-C6-N6 | 11.04 | 132.53 | 123.70 |
| 22 | BA | 666 | A | N7-C8-N9 | -11.04 | 108.28 | 113.80 |
| 22 | BA | 1885 | A | N7-C8-N9 | -11.04 | 108.28 | 113.80 |
| 22 | BA | 1700 | A | C5-C6-N6 | 11.04 | 132.53 | 123.70 |
| 1 | AA | 1042 | A | C5-C6-N6 | 11.04 | 132.53 | 123.70 |
| 22 | BA | 432 | A | C5-C6-N6 | 11.04 | 132.53 | 123.70 |
| 1 | AA | 1493 | A | N7-C8-N9 | -11.03 | 108.28 | 113.80 |
| 22 | BA | 222 | A | N7-C8-N9 | -11.03 | 108.28 | 113.80 |
| 22 | BA | 1054 | A | N7-C8-N9 | -11.03 | 108.28 | 113.80 |
| 22 | BA | 1383 | A | C5-C6-N6 | 11.03 | 132.53 | 123.70 |
| 1 | AA | 50 | A | C5-C6-N6 | 11.03 | 132.52 | 123.70 |
| 1 | AA | 315 | A | N7-C8-N9 | -11.03 | 108.29 | 113.80 |
| 1 | AA | 1229 | A | N7-C8-N9 | -11.03 | 108.29 | 113.80 |
| 22 | BA | 352 | A | N7-C8-N9 | -11.03 | 108.29 | 113.80 |
| 22 | BA | 522 | A | N3-C4-C5 | -11.03 | 119.08 | 126.80 |
| 22 | BA | 1749 | A | C5-C6-N6 | 11.03 | 132.52 | 123.70 |
| 1 | AA | 1000 | A | N7-C8-N9 | -11.03 | 108.29 | 113.80 |
| 22 | BA | 1321 | A | N7-C8-N9 | -11.03 | 108.29 | 113.80 |
| 23 | BB | 104 | A | C5-C6-N6 | 11.03 | 132.52 | 123.70 |
| 1 | AA | 174 | A | C5-C6-N6 | 11.02 | 132.52 | 123.70 |
| 22 | BA | 344 | A | C5-C6-N6 | 11.02 | 132.52 | 123.70 |
| 22 | BA | 1322 | A | C5-C6-N6 | 11.02 | 132.52 | 123.70 |
| 22 | BA | 614 | A | N7-C8-N9 | -11.02 | 108.29 | 113.80 |
| 22 | BA | 384 | A | C5-C6-N6 | 11.02 | 132.51 | 123.70 |
| 22 | BA | 1010 | A | C5-C6-N6 | 11.02 | 132.51 | 123.70 |
| 22 | BA | 2314 | A | C5-C6-N6 | 11.02 | 132.51 | 123.70 |
| 22 | BA | 2366 | A | C5-C6-N6 | 11.02 | 132.51 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 640 | A | N7-C8-N9 | -11.02 | 108.29 | 113.80 |
| 22 | BA | 819 | A | N3-C4-C5 | -11.01 | 119.09 | 126.80 |
| 22 | BA | 1918 | A | C5-C6-N6 | 11.01 | 132.51 | 123.70 |
| 22 | BA | 1919 | A | C5-C6-N6 | 11.01 | 132.51 | 123.70 |
| 1 | AA | 162 | A | N3-C4-C5 | -11.01 | 119.10 | 126.80 |
| 22 | BA | 1000 | A | N3-C4-C5 | -11.01 | 119.10 | 126.80 |
| 23 | BB | 108 | A | C5-C6-N6 | 11.01 | 132.50 | 123.70 |
| 22 | BA | 213 | A | N7-C8-N9 | -11.00 | 108.30 | 113.80 |
| 1 | AA | 325 | A | C5-C6-N6 | 11.00 | 132.50 | 123.70 |
| 22 | BA | 146 | A | N7-C8-N9 | -11.00 | 108.30 | 113.80 |
| 22 | BA | 909 | A | N7-C8-N9 | -11.00 | 108.30 | 113.80 |
| 22 | BA | 2278 | A | C5-C6-N6 | 11.00 | 132.50 | 123.70 |
| 22 | BA | 574 | A | C5-C6-N6 | 11.00 | 132.50 | 123.70 |
| 22 | BA | 896 | A | N7-C8-N9 | -11.00 | 108.30 | 113.80 |
| 22 | BA | 905 | A | N7-C8-N9 | -11.00 | 108.30 | 113.80 |
| 1 | AA | 1329 | A | C5-C6-N6 | 10.99 | 132.50 | 123.70 |
| 1 | AA | 596 | A | C5-C6-N6 | 10.99 | 132.49 | 123.70 |
| 1 | AA | 978 | A | N7-C8-N9 | -10.99 | 108.30 | 113.80 |
| 22 | BA | 73 | A | C5-C6-N6 | 10.99 | 132.49 | 123.70 |
| 22 | BA | 1284 | A | C5-C6-N6 | 10.99 | 132.49 | 123.70 |
| 22 | BA | 2060 | A | N7-C8-N9 | -10.99 | 108.31 | 113.80 |
| 22 | BA | 1085 | A | C5-C6-N6 | 10.99 | 132.49 | 123.70 |
| 22 | BA | 1858 | A | N7-C8-N9 | -10.99 | 108.31 | 113.80 |
| 22 | BA | 2062 | A | N7-C8-N9 | -10.99 | 108.31 | 113.80 |
| 22 | BA | 2176 | A | C5-C6-N6 | 10.99 | 132.49 | 123.70 |
| 22 | BA | 2513 | A | N3-C4-C5 | -10.98 | 119.11 | 126.80 |
| 1 | AA | 451 | A | N7-C8-N9 | -10.98 | 108.31 | 113.80 |
| 22 | BA | 1596 | A | N7-C8-N9 | -10.98 | 108.31 | 113.80 |
| 22 | BA | 900 | A | C5-C6-N6 | 10.98 | 132.48 | 123.70 |
| 22 | BA | 1508 | A | N7-C8-N9 | -10.98 | 108.31 | 113.80 |
| 22 | BA | 1286 | A | N7-C8-N9 | -10.98 | 108.31 | 113.80 |
| 22 | BA | 1877 | A | C5-C6-N6 | 10.98 | 132.48 | 123.70 |
| 22 | BA | 2800 | A | C5-C6-N6 | 10.98 | 132.48 | 123.70 |
| 1 | AA | 1155 | A | N7-C8-N9 | -10.97 | 108.31 | 113.80 |
| 22 | BA | 685 | A | C5-C6-N6 | 10.97 | 132.48 | 123.70 |
| 22 | BA | 2227 | A | C5-C6-N6 | 10.97 | 132.48 | 123.70 |
| 1 | AA | 306 | A | N7-C8-N9 | -10.97 | 108.31 | 113.80 |
| 22 | BA | 1420 | A | N7-C8-N9 | -10.97 | 108.31 | 113.80 |
| 1 | AA | 181 | A | N7-C8-N9 | -10.97 | 108.32 | 113.80 |
| 22 | BA | 1029 | A | N3-C4-C5 | -10.97 | 119.12 | 126.80 |
| 22 | BA | 1050 | A | C5-C6-N6 | 10.97 | 132.47 | 123.70 |
| 22 | BA | 2376 | A | C5-C6-N6 | 10.97 | 132.47 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2700 | A | N3-C4-C5 | -10.97 | 119.12 | 126.80 |
| 1 | AA | 1374 | A | N7-C8-N9 | -10.97 | 108.32 | 113.80 |
| 22 | BA | 1014 | A | N7-C8-N9 | -10.97 | 108.32 | 113.80 |
| 1 | AA | 131 | A | C5-C6-N6 | 10.96 | 132.47 | 123.70 |
| 22 | BA | 2700 | A | C5-C6-N6 | 10.96 | 132.47 | 123.70 |
| 22 | BA | 2778 | A | C5-C6-N6 | 10.96 | 132.47 | 123.70 |
| 1 | AA | 1196 | A | C5-C6-N6 | 10.96 | 132.47 | 123.70 |
| 1 | AA | 1534 | A | C5-C6-N6 | 10.96 | 132.47 | 123.70 |
| 22 | BA | 1596 | A | C5-C6-N6 | 10.96 | 132.47 | 123.70 |
| 22 | BA | 2381 | A | N7-C8-N9 | -10.96 | 108.32 | 113.80 |
| 1 | AA | 1289 | A | C5-C6-N6 | 10.96 | 132.47 | 123.70 |
| 23 | BB | 73 | A | N7-C8-N9 | -10.96 | 108.32 | 113.80 |
| 1 | AA | 1251 | A | C5-C6-N6 | 10.95 | 132.46 | 123.70 |
| 22 | BA | 1470 | A | C5-C6-N6 | 10.96 | 132.46 | 123.70 |
| 22 | BA | 1783 | A | C5-C6-N6 | 10.95 | 132.46 | 123.70 |
| 1 | AA | 1 | A | C5-C6-N6 | 10.95 | 132.46 | 123.70 |
| 1 | AA | 583 | A | N7-C8-N9 | -10.95 | 108.33 | 113.80 |
| 1 | AA | 968 | A | C5-C6-N6 | 10.95 | 132.46 | 123.70 |
| 22 | BA | 1264 | A | C5-C6-N6 | 10.95 | 132.46 | 123.70 |
| 22 | BA | 1419 | A | N7-C8-N9 | -10.95 | 108.33 | 113.80 |
| 1 | AA | 130 | A | C5-C6-N6 | 10.95 | 132.46 | 123.70 |
| 22 | BA | 1503 | A | C5-C6-N6 | 10.95 | 132.46 | 123.70 |
| 1 | AA | 300 | A | N3-C4-C5 | -10.94 | 119.14 | 126.80 |
| 1 | AA | 1163 | A | N3-C4-C5 | -10.94 | 119.14 | 126.80 |
| 22 | BA | 19 | A | N7-C8-N9 | -10.94 | 108.33 | 113.80 |
| 22 | BA | 2882 | A | N7-C8-N9 | -10.94 | 108.33 | 113.80 |
| 55 | B8 | 14 | A | C5-C6-N6 | 10.94 | 132.45 | 123.70 |
| 1 | AA | 1408 | A | C5-C6-N6 | 10.94 | 132.45 | 123.70 |
| 22 | BA | 1969 | A | C5-C6-N6 | 10.94 | 132.45 | 123.70 |
| 22 | BA | 2171 | A | N7-C8-N9 | -10.94 | 108.33 | 113.80 |
| 1 | AA | 563 | A | N3-C4-C5 | -10.94 | 119.15 | 126.80 |
| 22 | BA | 2377 | A | N7-C8-N9 | -10.94 | 108.33 | 113.80 |
| 22 | BA | 2654 | A | C5-C6-N6 | 10.93 | 132.45 | 123.70 |
| 22 | BA | 1020 | A | C5-C6-N6 | 10.93 | 132.44 | 123.70 |
| 22 | BA | 2471 | A | C5-C6-N6 | 10.93 | 132.44 | 123.70 |
| 1 | AA | 143 | A | N7-C8-N9 | -10.93 | 108.34 | 113.80 |
| 1 | AA | 1531 | A | C5-C6-N6 | 10.93 | 132.44 | 123.70 |
| 22 | BA | 793 | A | N7-C8-N9 | -10.93 | 108.34 | 113.80 |
| 22 | BA | 2706 | A | C5-C6-N6 | 10.93 | 132.44 | 123.70 |
| 1 | AA | 1257 | A | C5-C6-N6 | 10.92 | 132.44 | 123.70 |
| 22 | BA | 251 | A | N3-C4-C5 | -10.92 | 119.15 | 126.80 |
| 22 | BA | 2247 | A | N3-C4-C5 | -10.92 | 119.15 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 1171 | A | N3-C4-C5 | -10.92 | 119.16 | 126.80 |
| 1 | AA | 1502 | A | N7-C8-N9 | -10.92 | 108.34 | 113.80 |
| 22 | BA | 181 | A | N7-C8-N9 | -10.92 | 108.34 | 113.80 |
| 22 | BA | 2163 | A | N7-C8-N9 | -10.92 | 108.34 | 113.80 |
| 22 | BA | 2468 | A | N7-C8-N9 | -10.92 | 108.34 | 113.80 |
| 1 | AA | 1067 | A | N7-C8-N9 | -10.92 | 108.34 | 113.80 |
| 22 | BA | 141 | G | N7-C8-N9 | 10.92 | 118.56 | 113.10 |
| 22 | BA | 1347 | A | C5-C6-N6 | 10.92 | 132.43 | 123.70 |
| 23 | BB | 57 | A | C5-C6-N6 | 10.92 | 132.43 | 123.70 |
| 55 | B8 | 66 | A | N7-C8-N9 | -10.92 | 108.34 | 113.80 |
| 1 | AA | 435 | A | C5-C6-N6 | 10.91 | 132.43 | 123.70 |
| 1 | AA | 1163 | A | N7-C8-N9 | -10.91 | 108.34 | 113.80 |
| 22 | BA | 1057 | A | C5-C6-N6 | 10.91 | 132.43 | 123.70 |
| 1 | AA | 553 | A | N3-C4-C5 | -10.91 | 119.16 | 126.80 |
| 22 | BA | 1302 | A | N7-C8-N9 | -10.91 | 108.34 | 113.80 |
| 55 | B8 | 73 | A | C5-C6-N6 | 10.91 | 132.43 | 123.70 |
| 22 | BA | 2513 | A | C5-C6-N6 | 10.91 | 132.43 | 123.70 |
| 1 | AA | 313 | A | N3-C4-C5 | -10.91 | 119.16 | 126.80 |
| 22 | BA | 1509 | A | N7-C8-N9 | -10.91 | 108.35 | 113.80 |
| 22 | BA | 2740 | A | C5-C6-N6 | 10.91 | 132.43 | 123.70 |
| 1 | AA | 546 | A | C5-C6-N6 | 10.91 | 132.43 | 123.70 |
| 22 | BA | 1089 | A | C5-C6-N6 | 10.91 | 132.43 | 123.70 |
| 1 | AA | 914 | A | N7-C8-N9 | -10.90 | 108.35 | 113.80 |
| 22 | BA | 483 | A | N7-C8-N9 | -10.90 | 108.35 | 113.80 |
| 1 | AA | 1503 | A | C5-C6-N6 | 10.90 | 132.42 | 123.70 |
| 22 | BA | 721 | A | N7-C8-N9 | -10.90 | 108.35 | 113.80 |
| 22 | BA | 1241 | A | N3-C4-C5 | -10.90 | 119.17 | 126.80 |
| 22 | BA | 1403 | A | N3-C4-C5 | -10.90 | 119.17 | 126.80 |
| 1 | AA | 983 | A | C5-C6-N6 | 10.89 | 132.42 | 123.70 |
| 1 | AA | 1111 | A | N7-C8-N9 | -10.89 | 108.35 | 113.80 |
| 22 | BA | 172 | A | C5-C6-N6 | 10.89 | 132.42 | 123.70 |
| 22 | BA | 1739 | A | C5-C6-N6 | 10.89 | 132.42 | 123.70 |
| 1 | AA | 139 | A | N7-C8-N9 | -10.89 | 108.36 | 113.80 |
| 17 | AQ | 16 | LYS | CD-CE-NZ | 10.89 | 136.75 | 111.70 |
| 22 | BA | 1275 | A | N7-C8-N9 | -10.89 | 108.36 | 113.80 |
| 22 | BA | 2134 | A | N7-C8-N9 | -10.89 | 108.36 | 113.80 |
| 1 | AA | 182 | A | N7-C8-N9 | -10.89 | 108.36 | 113.80 |
| 1 | AA | 1111 | A | C5-C6-N6 | 10.89 | 132.41 | 123.70 |
| 1 | AA | 465 | A | C5-C6-N6 | 10.89 | 132.41 | 123.70 |
| 1 | AA | 1499 | A | N7-C8-N9 | -10.89 | 108.36 | 113.80 |
| 22 | BA | 299 | A | N7-C8-N9 | -10.89 | 108.36 | 113.80 |
| 22 | BA | 739 | A | C5-C6-N6 | 10.89 | 132.41 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 866 | A | N7-C8-N9 | -10.89 | 108.36 | 113.80 |
| 22 | BA | 2317 | A | C5-C6-N6 | 10.88 | 132.41 | 123.70 |
| 1 | AA | 1410 | A | N7-C8-N9 | -10.88 | 108.36 | 113.80 |
| 22 | BA | 654 | A | N7-C8-N9 | -10.88 | 108.36 | 113.80 |
| 1 | AA | 59 | A | N7-C8-N9 | -10.88 | 108.36 | 113.80 |
| 22 | BA | 1635 | A | C5-C6-N6 | 10.88 | 132.41 | 123.70 |
| 1 | AA | 279 | A | C5-C6-N6 | 10.88 | 132.40 | 123.70 |
| 1 | AA | 600 | A | N7-C8-N9 | -10.88 | 108.36 | 113.80 |
| 22 | BA | 324 | A | N7-C8-N9 | -10.88 | 108.36 | 113.80 |
| 22 | BA | 1932 | A | C5-C6-N6 | 10.88 | 132.40 | 123.70 |
| 22 | BA | 1759 | A | C5-C6-N6 | 10.88 | 132.40 | 123.70 |
| 22 | BA | 2660 | A | C5-C6-N6 | 10.88 | 132.40 | 123.70 |
| 1 | AA | 250 | A | C5-C6-N6 | 10.87 | 132.40 | 123.70 |
| 22 | BA | 1359 | A | C5-C6-N6 | 10.87 | 132.40 | 123.70 |
| 22 | BA | 1431 | A | C5-C6-N6 | 10.87 | 132.40 | 123.70 |
| 22 | BA | 2333 | A | N7-C8-N9 | -10.87 | 108.36 | 113.80 |
| 1 | AA | 393 | A | C5-C6-N6 | 10.87 | 132.40 | 123.70 |
| 1 | AA | 794 | A | N7-C8-N9 | -10.87 | 108.36 | 113.80 |
| 22 | BA | 1610 | A | N7-C8-N9 | -10.87 | 108.36 | 113.80 |
| 22 | BA | 354 | A | N7-C8-N9 | -10.87 | 108.36 | 113.80 |
| 22 | BA | 1664 | A | N3-C4-C5 | -10.87 | 119.19 | 126.80 |
| 22 | BA | 1936 | A | C5-C6-N6 | 10.87 | 132.40 | 123.70 |
| 1 | AA | 349 | A | C5-C6-N6 | 10.87 | 132.39 | 123.70 |
| 22 | BA | 2377 | A | C5-C6-N6 | 10.87 | 132.39 | 123.70 |
| 1 | AA | 872 | A | C5-C6-N6 | 10.86 | 132.39 | 123.70 |
| 22 | BA | 196 | A | N7-C8-N9 | -10.86 | 108.37 | 113.80 |
| 22 | BA | 1552 | A | C5-C6-N6 | 10.87 | 132.39 | 123.70 |
| 1 | AA | 509 | A | C5-C6-N6 | 10.86 | 132.39 | 123.70 |
| 1 | AA | 1021 | A | N7-C8-N9 | -10.86 | 108.37 | 113.80 |
| 22 | BA | 256 | A | C5-C6-N6 | 10.86 | 132.39 | 123.70 |
| 22 | BA | 782 | A | N3-C4-C5 | -10.86 | 119.20 | 126.80 |
| 22 | BA | 1960 | A | C5-C6-N6 | 10.86 | 132.38 | 123.70 |
| 22 | BA | 1966 | A | N7-C8-N9 | -10.86 | 108.37 | 113.80 |
| 22 | BA | 2142 | A | N3-C4-C5 | -10.86 | 119.20 | 126.80 |
| 55 | B8 | 41 | A | C5-C6-N6 | 10.86 | 132.38 | 123.70 |
| 1 | AA | 353 | A | C5-C6-N6 | 10.85 | 132.38 | 123.70 |
| 1 | AA | 430 | A | C5-C6-N6 | 10.85 | 132.38 | 123.70 |
| 22 | BA | 2114 | A | C5-C6-N6 | 10.85 | 132.38 | 123.70 |
| 22 | BA | 1998 | A | C5-C6-N6 | 10.85 | 132.38 | 123.70 |
| 22 | BA | 685 | A | N7-C8-N9 | -10.85 | 108.38 | 113.80 |
| 22 | BA | 749 | A | C5-C6-N6 | 10.85 | 132.38 | 123.70 |
| 22 | BA | 900 | A | N7-C8-N9 | -10.85 | 108.38 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 65 | A | C5-C6-N6 | 10.85 | 132.38 | 123.70 |
| 55 | B8 | 59 | A | C5-C6-N6 | 10.85 | 132.38 | 123.70 |
| 22 | BA | 892 | A | N7-C8-N9 | -10.84 | 108.38 | 113.80 |
| 1 | AA | 336 | A | C5-C6-N6 | 10.84 | 132.37 | 123.70 |
| 1 | AA | 1036 | A | C5-C6-N6 | 10.84 | 132.37 | 123.70 |
| 22 | BA | 172 | A | N7-C8-N9 | -10.84 | 108.38 | 113.80 |
| 22 | BA | 996 | A | N7-C8-N9 | -10.84 | 108.38 | 113.80 |
| 22 | BA | 44 | A | C5-C6-N6 | 10.84 | 132.37 | 123.70 |
| 22 | BA | 508 | A | C5-C6-N6 | 10.84 | 132.37 | 123.70 |
| 1 | AA | 1146 | A | N7-C8-N9 | -10.84 | 108.38 | 113.80 |
| 1 | AA | 1005 | A | C5-C6-N6 | 10.84 | 132.37 | 123.70 |
| 22 | BA | 1665 | A | C5-C6-N6 | 10.84 | 132.37 | 123.70 |
| 22 | BA | 2314 | A | N7-C8-N9 | -10.84 | 108.38 | 113.80 |
| 22 | BA | 42 | A | C5-C6-N6 | 10.83 | 132.37 | 123.70 |
| 22 | BA | 181 | A | C5-C6-N6 | 10.83 | 132.37 | 123.70 |
| 22 | BA | 1598 | A | N3-C4-C5 | -10.83 | 119.22 | 126.80 |
| 1 | AA | 313 | A | C5-C6-N6 | 10.83 | 132.37 | 123.70 |
| 22 | BA | 1189 | A | C5-C6-N6 | 10.83 | 132.36 | 123.70 |
| 22 | BA | 1960 | A | N7-C8-N9 | -10.83 | 108.39 | 113.80 |
| 1 | AA | 767 | A | N7-C8-N9 | -10.83 | 108.39 | 113.80 |
| 22 | BA | 644 | A | N7-C8-N9 | -10.83 | 108.39 | 113.80 |
| 22 | BA | 1088 | A | C5-C6-N6 | 10.83 | 132.36 | 123.70 |
| 22 | BA | 1433 | A | C5-C6-N6 | 10.83 | 132.36 | 123.70 |
| 22 | BA | 1755 | A | N7-C8-N9 | -10.83 | 108.39 | 113.80 |
| 22 | BA | 2468 | A | C5-C6-N6 | 10.83 | 132.36 | 123.70 |
| 22 | BA | 734 | A | N7-C8-N9 | -10.82 | 108.39 | 113.80 |
| 23 | BB | 39 | A | N7-C8-N9 | -10.82 | 108.39 | 113.80 |
| 22 | BA | 1853 | A | N7-C8-N9 | -10.82 | 108.39 | 113.80 |
| 22 | BA | 1900 | A | C5-C6-N6 | 10.82 | 132.36 | 123.70 |
| 1 | AA | 873 | A | N7-C8-N9 | -10.82 | 108.39 | 113.80 |
| 22 | BA | 896 | A | C5-C6-N6 | 10.82 | 132.36 | 123.70 |
| 22 | BA | 231 | A | C5-C6-N6 | 10.82 | 132.35 | 123.70 |
| 22 | BA | 749 | A | N7-C8-N9 | -10.82 | 108.39 | 113.80 |
| 22 | BA | 1505 | A | C5-C6-N6 | 10.82 | 132.35 | 123.70 |
| 22 | BA | 2679 | A | N3-C4-C5 | -10.82 | 119.23 | 126.80 |
| 22 | BA | 125 | A | N7-C8-N9 | -10.81 | 108.39 | 113.80 |
| 22 | BA | 347 | A | N7-C8-N9 | -10.81 | 108.39 | 113.80 |
| 22 | BA | 750 | A | N3-C4-C5 | -10.81 | 119.23 | 126.80 |
| 22 | BA | 2170 | A | C5-C6-N6 | 10.81 | 132.35 | 123.70 |
| 1 | AA | 253 | A | C5-C6-N6 | 10.81 | 132.35 | 123.70 |
| 1 | AA | 663 | A | N7-C8-N9 | -10.81 | 108.39 | 113.80 |
| 1 | AA | 1500 | A | N3-C4-C5 | -10.81 | 119.23 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 330 | A | N3-C4-C5 | -10.81 | 119.23 | 126.80 |
| 22 | BA | 294 | A | C5-C6-N6 | 10.81 | 132.35 | 123.70 |
| 1 | AA | 1117 | A | C5-C6-N6 | 10.81 | 132.35 | 123.70 |
| 1 | AA | 1362 | A | C5-C6-N6 | 10.81 | 132.35 | 123.70 |
| 23 | BB | 52 | A | N7-C8-N9 | -10.81 | 108.39 | 113.80 |
| 1 | AA | 262 | A | C5-C6-N6 | 10.81 | 132.34 | 123.70 |
| 22 | BA | 2776 | A | N7-C8-N9 | -10.81 | 108.40 | 113.80 |
| 1 | AA | 747 | A | C5-C6-N6 | 10.80 | 132.34 | 123.70 |
| 1 | AA | 977 | A | C5-C6-N6 | 10.80 | 132.34 | 123.70 |
| 22 | BA | 1067 | A | N7-C8-N9 | -10.80 | 108.40 | 113.80 |
| 22 | BA | 1073 | A | C5-C6-N6 | 10.80 | 132.34 | 123.70 |
| 22 | BA | 528 | A | N7-C8-N9 | -10.80 | 108.40 | 113.80 |
| 1 | AA | 243 | A | N7-C8-N9 | -10.80 | 108.40 | 113.80 |
| 22 | BA | 689 | A | C5-C6-N6 | 10.80 | 132.34 | 123.70 |
| 1 | AA | 1145 | A | N7-C8-N9 | -10.80 | 108.40 | 113.80 |
| 22 | BA | 1151 | A | N7-C8-N9 | -10.80 | 108.40 | 113.80 |
| 22 | BA | 2765 | A | C5-C6-N6 | 10.79 | 132.34 | 123.70 |
| 22 | BA | 878 | A | N7-C8-N9 | -10.79 | 108.40 | 113.80 |
| 1 | AA | 408 | A | N7-C8-N9 | -10.79 | 108.41 | 113.80 |
| 22 | BA | 563 | A | N3-C4-C5 | -10.79 | 119.25 | 126.80 |
| 1 | AA | 327 | A | N7-C8-N9 | -10.79 | 108.41 | 113.80 |
| 1 | AA | 749 | A | C5-C6-N6 | 10.79 | 132.33 | 123.70 |
| 22 | BA | 1237 | A | C5-C6-N6 | 10.79 | 132.33 | 123.70 |
| 1 | AA | 892 | A | C5-C6-N6 | 10.79 | 132.33 | 123.70 |
| 22 | BA | 582 | A | N7-C8-N9 | -10.79 | 108.41 | 113.80 |
| 22 | BA | 2750 | A | N7-C8-N9 | -10.79 | 108.41 | 113.80 |
| 22 | BA | 217 | A | N3-C4-C5 | -10.79 | 119.25 | 126.80 |
| 22 | BA | 278 | A | C5-C6-N6 | 10.78 | 132.33 | 123.70 |
| 22 | BA | 936 | A | N7-C8-N9 | -10.78 | 108.41 | 113.80 |
| 22 | BA | 1285 | A | N3-C4-C5 | -10.79 | 119.25 | 126.80 |
| 22 | BA | 2757 | A | N3-C4-C5 | -10.78 | 119.25 | 126.80 |
| 1 | AA | 949 | A | N7-C8-N9 | -10.78 | 108.41 | 113.80 |
| 22 | BA | 1593 | A | N7-C8-N9 | -10.78 | 108.41 | 113.80 |
| 22 | BA | 2899 | A | C5-C6-N6 | 10.78 | 132.32 | 123.70 |
| 1 | AA | 160 | A | C5-C6-N6 | 10.78 | 132.32 | 123.70 |
| 22 | BA | 52 | A | C5-C6-N6 | 10.78 | 132.32 | 123.70 |
| 22 | BA | 718 | A | C5-C6-N6 | 10.78 | 132.32 | 123.70 |
| 22 | BA | 1009 | A | C5-C6-N6 | 10.78 | 132.32 | 123.70 |
| 22 | BA | 1050 | A | N7-C8-N9 | -10.78 | 108.41 | 113.80 |
| 1 | AA | 1346 | A | N7-C8-N9 | -10.77 | 108.41 | 113.80 |
| 22 | BA | 311 | A | C5-C6-N6 | 10.77 | 132.32 | 123.70 |
| 22 | BA | 1805 | A | N7-C8-N9 | -10.77 | 108.41 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 1261 | A | C5-C6-N6 | 10.77 | 132.32 | 123.70 |
| 1 | AA | 784 | A | N7-C8-N9 | -10.77 | 108.42 | 113.80 |
| 1 | AA | 860 | A | N3-C4-C5 | -10.77 | 119.26 | 126.80 |
| 1 | AA | 873 | A | C5-C6-N6 | 10.77 | 132.32 | 123.70 |
| 1 | AA | 1318 | A | C5-C6-N6 | 10.77 | 132.32 | 123.70 |
| 22 | BA | 1096 | A | N7-C8-N9 | -10.77 | 108.42 | 113.80 |
| 22 | BA | 1469 | A | N3-C4-C5 | -10.77 | 119.26 | 126.80 |
| 1 | AA | 456 | A | N7-C8-N9 | -10.77 | 108.42 | 113.80 |
| 22 | BA | 1194 | A | N7-C8-N9 | -10.77 | 108.42 | 113.80 |
| 22 | BA | 1342 | A | N7-C8-N9 | -10.77 | 108.42 | 113.80 |
| 22 | BA | 2080 | A | C5-C6-N6 | 10.77 | 132.31 | 123.70 |
| 1 | AA | 468 | A | C5-C6-N6 | 10.77 | 132.31 | 123.70 |
| 22 | BA | 804 | A | N7-C8-N9 | -10.77 | 108.42 | 113.80 |
| 22 | BA | 863 | A | N3-C4-C5 | -10.77 | 119.26 | 126.80 |
| 23 | BB | 53 | A | N7-C8-N9 | -10.77 | 108.42 | 113.80 |
| 22 | BA | 428 | A | C5-C6-N6 | 10.76 | 132.31 | 123.70 |
| 22 | BA | 1308 | A | N7-C8-N9 | -10.76 | 108.42 | 113.80 |
| 22 | BA | 1654 | A | N7-C8-N9 | -10.76 | 108.42 | 113.80 |
| 22 | BA | 2837 | A | N3-C4-C5 | -10.76 | 119.27 | 126.80 |
| 22 | BA | 1522 | A | N7-C8-N9 | -10.76 | 108.42 | 113.80 |
| 1 | AA | 794 | A | C5-C6-N6 | 10.76 | 132.31 | 123.70 |
| 22 | BA | 2158 | A | C5-C6-N6 | 10.76 | 132.31 | 123.70 |
| 1 | AA | 681 | A | N7-C8-N9 | -10.76 | 108.42 | 113.80 |
| 1 | AA | 1271 | A | N7-C8-N9 | -10.76 | 108.42 | 113.80 |
| 1 | AA | 602 | A | N7-C8-N9 | -10.75 | 108.42 | 113.80 |
| 1 | AA | 687 | A | C5-C6-N6 | 10.75 | 132.30 | 123.70 |
| 22 | BA | 613 | A | C5-C6-N6 | 10.75 | 132.30 | 123.70 |
| 22 | BA | 1328 | A | C5-C6-N6 | 10.75 | 132.30 | 123.70 |
| 1 | AA | 98 | A | C5-C6-N6 | 10.75 | 132.30 | 123.70 |
| 1 | AA | 130 | A | N7-C8-N9 | -10.75 | 108.42 | 113.80 |
| 1 | AA | 151 | A | N7-C8-N9 | -10.75 | 108.42 | 113.80 |
| 1 | AA | 190 | A | C4-C5-C6 | 10.75 | 122.38 | 117.00 |
| 1 | AA | 547 | A | N7-C8-N9 | -10.75 | 108.42 | 113.80 |
| 22 | BA | 2273 | A | C5-C6-N6 | 10.75 | 132.30 | 123.70 |
| 55 | B8 | 42 | A | C5-C6-N6 | 10.75 | 132.30 | 123.70 |
| 1 | AA | 706 | A | N3-C4-C5 | -10.75 | 119.28 | 126.80 |
| 22 | BA | 1700 | A | N7-C8-N9 | -10.75 | 108.43 | 113.80 |
| 1 | AA | 712 | A | N7-C8-N9 | -10.74 | 108.43 | 113.80 |
| 22 | BA | 89 | A | N7-C8-N9 | -10.74 | 108.43 | 113.80 |
| 22 | BA | 1705 | A | N7-C8-N9 | -10.74 | 108.43 | 113.80 |
| 1 | AA | 356 | A | N3-C4-C5 | -10.74 | 119.28 | 126.80 |
| 22 | BA | 125 | A | C5-C6-N6 | 10.74 | 132.29 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 933 | A | N7-C8-N9 | -10.74 | 108.43 | 113.80 |
| 1 | AA | 901 | A | C4-C5-C6 | 10.74 | 122.37 | 117.00 |
| 22 | BA | 21 | A | N7-C8-N9 | -10.74 | 108.43 | 113.80 |
| 22 | BA | 2019 | A | C5-C6-N6 | 10.74 | 132.29 | 123.70 |
| 1 | AA | 1285 | A | N7-C8-N9 | -10.74 | 108.43 | 113.80 |
| 22 | BA | 927 | A | N7-C8-N9 | -10.74 | 108.43 | 113.80 |
| 22 | BA | 2736 | A | N7-C8-N9 | -10.74 | 108.43 | 113.80 |
| 1 | AA | 189 | A | N7-C8-N9 | -10.74 | 108.43 | 113.80 |
| 22 | BA | 5 | A | N7-C8-N9 | -10.74 | 108.43 | 113.80 |
| 1 | AA | 913 | A | N7-C8-N9 | -10.74 | 108.43 | 113.80 |
| 1 | AA | 964 | A | C5-C6-N6 | 10.74 | 132.29 | 123.70 |
| 22 | BA | 718 | A | N7-C8-N9 | -10.74 | 108.43 | 113.80 |
| 22 | BA | 1801 | A | C5-C6-N6 | 10.73 | 132.29 | 123.70 |
| 1 | AA | 553 | A | N7-C8-N9 | -10.73 | 108.43 | 113.80 |
| 1 | AA | 573 | A | C5-C6-N6 | 10.73 | 132.29 | 123.70 |
| 22 | BA | 38 | A | C5-C6-N6 | 10.73 | 132.29 | 123.70 |
| 22 | BA | 1383 | A | N7-C8-N9 | -10.73 | 108.43 | 113.80 |
| 1 | AA | 71 | A | C5-C6-N6 | 10.73 | 132.29 | 123.70 |
| 1 | AA | 1289 | A | N7-C8-N9 | -10.73 | 108.43 | 113.80 |
| 1 | AA | 1333 | A | N7-C8-N9 | -10.73 | 108.43 | 113.80 |
| 22 | BA | 126 | A | N7-C8-N9 | -10.73 | 108.43 | 113.80 |
| 22 | BA | 2893 | A | N7-C8-N9 | -10.73 | 108.44 | 113.80 |
| 1 | AA | 1022 | A | N7-C8-N9 | -10.73 | 108.44 | 113.80 |
| 1 | AA | 1044 | A | C5-C6-N6 | 10.73 | 132.28 | 123.70 |
| 1 | AA | 1339 | A | N7-C8-N9 | -10.73 | 108.44 | 113.80 |
| 22 | BA | 2322 | A | C5-C6-N6 | 10.73 | 132.28 | 123.70 |
| 22 | BA | 2740 | A | N3-C4-C5 | -10.73 | 119.29 | 126.80 |
| 22 | BA | 1040 | A | C5-C6-N6 | 10.73 | 132.28 | 123.70 |
| 22 | BA | 2461 | A | N3-C4-C5 | -10.73 | 119.29 | 126.80 |
| 22 | BA | 2879 | A | N7-C8-N9 | -10.73 | 108.44 | 113.80 |
| 1 | AA | 807 | A | C5-C6-N6 | 10.72 | 132.28 | 123.70 |
| 1 | AA | 655 | A | N7-C8-N9 | -10.72 | 108.44 | 113.80 |
| 22 | BA | 1808 | A | N7-C8-N9 | -10.72 | 108.44 | 113.80 |
| 1 | AA | 1311 | A | N7-C8-N9 | -10.72 | 108.44 | 113.80 |
| 22 | BA | 346 | A | N7-C8-N9 | -10.72 | 108.44 | 113.80 |
| 1 | AA | 493 | A | N7-C8-N9 | -10.71 | 108.44 | 113.80 |
| 22 | BA | 104 | A | N7-C8-N9 | -10.71 | 108.44 | 113.80 |
| 23 | BB | 104 | A | N7-C8-N9 | -10.71 | 108.44 | 113.80 |
| 22 | BA | 1679 | A | C5-C6-N6 | 10.71 | 132.27 | 123.70 |
| 22 | BA | 2478 | A | C5-C6-N6 | 10.71 | 132.27 | 123.70 |
| 55 | B8 | 14 | A | N7-C8-N9 | -10.71 | 108.44 | 113.80 |
| 1 | AA | 914 | A | C5-C6-N6 | 10.71 | 132.27 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|--------|-------------|----------|
| 22 | BA | 1676 | A | C5-C6-N6 | 10.71 | 132.27 | 123.70 |
| 1 | AA | 53 | A | N7-C8-N9 | -10.71 | 108.45 | 113.80 |
| 22 | BA | 345 | A | C5-C6-N6 | 10.71 | 132.27 | 123.70 |
| 22 | BA | 972 | A | C5-C6-N6 | 10.71 | 132.27 | 123.70 |
| 22 | BA | 2082 | A | C5-C6-N6 | 10.71 | 132.27 | 123.70 |
| 22 | BA | 2750 | A | C5-C6-N6 | 10.71 | 132.27 | 123.70 |
| 1 | AA | 51 | A | N7-C8-N9 | -10.70 | 108.45 | 113.80 |
| 1 | AA | 1082 | A | C5-C6-N6 | 10.71 | 132.26 | 123.70 |
| 22 | BA | 2547 | A | N7-C8-N9 | -10.71 | 108.45 | 113.80 |
| 1 | AA | 2 | A | C5-C6-N6 | 10.70 | 132.26 | 123.70 |
| 1 | AA | 864 | A | C5-C6-N6 | 10.70 | 132.26 | 123.70 |
| 22 | BA | 753 | A | N3-C4-C5 | -10.70 | 119.31 | 126.80 |
| 22 | BA | 1080 | A | C5-C6-N6 | 10.70 | 132.26 | 123.70 |
| 22 | BA | 167 | A | N7-C8-N9 | -10.70 | 108.45 | 113.80 |
| 22 | BA | 1544 | A | N3-C4-C5 | -10.70 | 119.31 | 126.80 |
| 22 | BA | 1590 | A | N7-C8-N9 | -10.70 | 108.45 | 113.80 |
| 23 | BB | 29 | A | N7-C8-N9 | -10.70 | 108.45 | 113.80 |
| 1 | AA | 1368 | A | C5-C6-N6 | 10.70 | 132.26 | 123.70 |
| 22 | BA | 644 | A | N3-C4-C5 | -10.69 | 119.31 | 126.80 |
| 22 | BA | 1244 | A | N7-C8-N9 | -10.70 | 108.45 | 113.80 |
| 22 | BA | 1502 | A | N7-C8-N9 | -10.70 | 108.45 | 113.80 |
| 22 | BA | 1744 | A | N7-C8-N9 | -10.69 | 108.45 | 113.80 |
| 1 | AA | 1374 | A | C5-C6-N6 | 10.69 | 132.25 | 123.70 |
| 1 | AA | 1105 | A | N7-C8-N9 | -10.69 | 108.45 | 113.80 |
| 22 | BA | 917 | A | N7-C8-N9 | -10.69 | 108.45 | 113.80 |
| 22 | BA | 960 | A | N3-C4-C5 | -10.69 | 119.32 | 126.80 |
| 22 | BA | 2184 | A | N7-C8-N9 | -10.69 | 108.45 | 113.80 |
| 1 | AA | 560 | A | N7-C8-N9 | -10.69 | 108.46 | 113.80 |
| 22 | BA | 21 | A | N3-C4-C5 | -10.69 | 119.32 | 126.80 |
| 1 | AA | 642 | A | N7-C8-N9 | -10.69 | 108.46 | 113.80 |
| 22 | BA | 556 | A | N7-C8-N9 | -10.69 | 108.45 | 113.80 |
| 22 | BA | 2309 | A | N7-C8-N9 | -10.69 | 108.45 | 113.80 |
| 22 | BA | 2478 | A | N7-C8-N9 | -10.69 | 108.46 | 113.80 |
| 22 | BA | 1147 | A | C5-C6-N6 | 10.69 | 132.25 | 123.70 |
| 22 | BA | 2298 | A | N7-C8-N9 | -10.69 | 108.46 | 113.80 |
| 22 | BA | 422 | A | C5-C6-N6 | 10.68 | 132.25 | 123.70 |
| 22 | BA | 1096 | A | C5-C6-N6 | 10.68 | 132.25 | 123.70 |
| 1 | AA | 509 | A | N3-C4-C5 | -10.68 | 119.32 | 126.80 |
| 19 | AS | 3 | ARG | NE-CZ-NH2 | -10.68 | 114.96 | 120.30 |
| 1 | AA | 609 | A | C5-C6-N6 | 10.68 | 132.24 | 123.70 |
| 22 | BA | 693 | A | N3-C4-C5 | -10.68 | 119.33 | 126.80 |
| 1 | AA | 600 | A | C5-C6-N6 | 10.68 | 132.24 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 176 | A | N7-C8-N9 | -10.68 | 108.46 | 113.80 |
| 22 | BA | 668 | A | N7-C8-N9 | -10.68 | 108.46 | 113.80 |
| 22 | BA | 1393 | A | N7-C8-N9 | -10.68 | 108.46 | 113.80 |
| 22 | BA | 1077 | A | N7-C8-N9 | -10.67 | 108.46 | 113.80 |
| 1 | AA | 109 | A | C5-C6-N6 | 10.67 | 132.24 | 123.70 |
| 1 | AA | 974 | A | C5-C6-N6 | 10.67 | 132.24 | 123.70 |
| 22 | BA | 244 | A | N3-C4-C5 | -10.67 | 119.33 | 126.80 |
| 22 | BA | 1057 | A | N7-C8-N9 | -10.67 | 108.46 | 113.80 |
| 1 | AA | 223 | A | C5-C6-N6 | 10.67 | 132.24 | 123.70 |
| 1 | AA | 759 | A | C5-C6-N6 | 10.67 | 132.24 | 123.70 |
| 1 | AA | 1375 | A | N7-C8-N9 | -10.67 | 108.47 | 113.80 |
| 22 | BA | 2800 | A | N7-C8-N9 | -10.67 | 108.47 | 113.80 |
| 23 | BB | 58 | A | N7-C8-N9 | -10.67 | 108.46 | 113.80 |
| 1 | AA | 935 | A | N7-C8-N9 | -10.67 | 108.47 | 113.80 |
| 1 | AA | 430 | A | N7-C8-N9 | -10.67 | 108.47 | 113.80 |
| 1 | AA | 676 | A | N7-C8-N9 | -10.67 | 108.47 | 113.80 |
| 1 | AA | 983 | A | N3-C4-C5 | -10.67 | 119.33 | 126.80 |
| 1 | AA | 746 | A | N3-C4-C5 | -10.66 | 119.33 | 126.80 |
| 23 | BB | 66 | A | C5-C6-N6 | 10.66 | 132.23 | 123.70 |
| 1 | AA | 172 | A | N7-C8-N9 | -10.66 | 108.47 | 113.80 |
| 1 | AA | 205 | A | N7-C8-N9 | -10.66 | 108.47 | 113.80 |
| 1 | AA | 539 | A | C5-C6-N6 | 10.66 | 132.23 | 123.70 |
| 1 | AA | 621 | A | N3-C4-C5 | -10.66 | 119.34 | 126.80 |
| 1 | AA | 1016 | A | N7-C8-N9 | -10.66 | 108.47 | 113.80 |
| 1 | AA | 675 | A | N7-C8-N9 | -10.66 | 108.47 | 113.80 |
| 1 | AA | 845 | A | N7-C8-N9 | -10.66 | 108.47 | 113.80 |
| 1 | AA | 1146 | A | C5-C6-N6 | 10.66 | 132.23 | 123.70 |
| 1 | AA | 1201 | A | N7-C8-N9 | -10.66 | 108.47 | 113.80 |
| 22 | BA | 1977 | A | N7-C8-N9 | -10.66 | 108.47 | 113.80 |
| 22 | BA | 1640 | A | N7-C8-N9 | -10.65 | 108.47 | 113.80 |
| 22 | BA | 1885 | A | C5-C6-N6 | 10.65 | 132.22 | 123.70 |
| 22 | BA | 1603 | A | N3-C4-C5 | -10.65 | 119.34 | 126.80 |
| 22 | BA | 1784 | A | N7-C8-N9 | -10.65 | 108.47 | 113.80 |
| 22 | BA | 2241 | A | N3-C4-C5 | -10.65 | 119.34 | 126.80 |
| 22 | BA | 2560 | A | C5-C6-N6 | 10.65 | 132.22 | 123.70 |
| 22 | BA | 2590 | A | N7-C8-N9 | -10.65 | 108.47 | 113.80 |
| 1 | AA | 969 | A | N7-C8-N9 | -10.65 | 108.48 | 113.80 |
| 1 | AA | 1005 | A | N7-C8-N9 | -10.65 | 108.48 | 113.80 |
| 22 | BA | 2761 | A | C5-C6-N6 | 10.65 | 132.22 | 123.70 |
| 22 | BA | 1028 | A | C5-C6-N6 | 10.65 | 132.22 | 123.70 |
| 22 | BA | 1048 | A | N3-C4-C5 | -10.65 | 119.35 | 126.80 |
| 23 | BB | 52 | A | C5-C6-N6 | 10.65 | 132.22 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 228 | A | N7-C8-N9 | -10.64 | 108.48 | 113.80 |
| 22 | BA | 432 | A | N7-C8-N9 | -10.64 | 108.48 | 113.80 |
| 22 | BA | 2114 | A | N3-C4-C5 | -10.64 | 119.35 | 126.80 |
| 22 | BA | 1535 | A | N7-C8-N9 | -10.64 | 108.48 | 113.80 |
| 1 | AA | 655 | A | N3-C4-C5 | -10.64 | 119.35 | 126.80 |
| 1 | AA | 55 | A | N3-C4-C5 | -10.64 | 119.36 | 126.80 |
| 1 | AA | 1225 | A | N7-C8-N9 | -10.64 | 108.48 | 113.80 |
| 22 | BA | 142 | A | N7-C8-N9 | -10.63 | 108.48 | 113.80 |
| 22 | BA | 227 | A | N7-C8-N9 | -10.63 | 108.48 | 113.80 |
| 22 | BA | 1328 | A | N7-C8-N9 | -10.64 | 108.48 | 113.80 |
| 22 | BA | 2376 | A | N7-C8-N9 | -10.63 | 108.48 | 113.80 |
| 1 | AA | 236 | A | C5-C6-N6 | 10.63 | 132.21 | 123.70 |
| 1 | AA | 452 | A | N7-C8-N9 | -10.63 | 108.48 | 113.80 |
| 22 | BA | 251 | A | C4-C5-C6 | 10.63 | 122.32 | 117.00 |
| 1 | AA | 539 | A | N3-C4-C5 | -10.63 | 119.36 | 126.80 |
| 22 | BA | 2705 | A | C5-C6-N6 | 10.63 | 132.21 | 123.70 |
| 1 | AA | 1150 | A | N7-C8-N9 | -10.63 | 108.48 | 113.80 |
| 1 | AA | 1171 | A | C5-C6-N6 | 10.63 | 132.20 | 123.70 |
| 22 | BA | 861 | A | N3-C4-C5 | -10.63 | 119.36 | 126.80 |
| 22 | BA | 1028 | A | N7-C8-N9 | -10.63 | 108.49 | 113.80 |
| 22 | BA | 2158 | A | N7-C8-N9 | -10.63 | 108.49 | 113.80 |
| 22 | BA | 1632 | A | N7-C8-N9 | -10.62 | 108.49 | 113.80 |
| 22 | BA | 1713 | A | C5-C6-N6 | 10.62 | 132.20 | 123.70 |
| 22 | BA | 207 | A | N3-C4-C5 | -10.62 | 119.36 | 126.80 |
| 22 | BA | 2031 | A | N7-C8-N9 | -10.62 | 108.49 | 113.80 |
| 22 | BA | 2267 | A | N3-C4-C5 | -10.62 | 119.36 | 126.80 |
| 1 | AA | 994 | A | C5-C6-N6 | 10.62 | 132.20 | 123.70 |
| 22 | BA | 2886 | A | N7-C8-N9 | -10.62 | 108.49 | 113.80 |
| 1 | AA | 2 | A | N7-C8-N9 | -10.62 | 108.49 | 113.80 |
| 1 | AA | 192 | A | C5-C6-N6 | 10.62 | 132.19 | 123.70 |
| 22 | BA | 233 | A | N7-C8-N9 | -10.62 | 108.49 | 113.80 |
| 22 | BA | 608 | A | C5-C6-N6 | 10.62 | 132.19 | 123.70 |
| 22 | BA | 1871 | A | C5-C6-N6 | 10.62 | 132.20 | 123.70 |
| 1 | AA | 872 | A | N3-C4-C5 | -10.62 | 119.37 | 126.80 |
| 22 | BA | 933 | A | C5-C6-N6 | 10.62 | 132.19 | 123.70 |
| 22 | BA | 1040 | A | N7-C8-N9 | -10.62 | 108.49 | 113.80 |
| 1 | AA | 129 | A | N7-C8-N9 | -10.62 | 108.49 | 113.80 |
| 22 | BA | 980 | A | N7-C8-N9 | -10.62 | 108.49 | 113.80 |
| 22 | BA | 1241 | A | N7-C8-N9 | -10.62 | 108.49 | 113.80 |
| 22 | BA | 1794 | A | N7-C8-N9 | -10.62 | 108.49 | 113.80 |
| 22 | BA | 2738 | A | N7-C8-N9 | -10.62 | 108.49 | 113.80 |
| 1 | AA | 441 | A | C5-C6-N6 | 10.61 | 132.19 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 1350 | A | C5-C6-N6 | 10.61 | 132.19 | 123.70 |
| 22 | BA | 899 | A | N7-C8-N9 | -10.61 | 108.49 | 113.80 |
| 22 | BA | 2070 | A | C5-C6-N6 | 10.61 | 132.19 | 123.70 |
| 1 | AA | 1492 | A | N7-C8-N9 | -10.61 | 108.50 | 113.80 |
| 22 | BA | 244 | A | C5-C6-N6 | 10.61 | 132.19 | 123.70 |
| 22 | BA | 532 | A | N3-C4-C5 | -10.61 | 119.37 | 126.80 |
| 22 | BA | 592 | A | N3-C4-C5 | -10.61 | 119.37 | 126.80 |
| 22 | BA | 2170 | A | N7-C8-N9 | -10.61 | 108.50 | 113.80 |
| 22 | BA | 2173 | A | N3-C4-C5 | -10.61 | 119.37 | 126.80 |
| 22 | BA | 614 | A | C5-C6-N6 | 10.61 | 132.19 | 123.70 |
| 1 | AA | 923 | A | N3-C4-C5 | -10.61 | 119.38 | 126.80 |
| 1 | AA | 116 | A | C5-C6-N6 | 10.61 | 132.18 | 123.70 |
| 22 | BA | 483 | A | C5-C6-N6 | 10.61 | 132.18 | 123.70 |
| 22 | BA | 1359 | A | N7-C8-N9 | -10.61 | 108.50 | 113.80 |
| 22 | BA | 2273 | A | N3-C4-C5 | -10.61 | 119.38 | 126.80 |
| 23 | BB | 115 | A | C5-C6-N6 | 10.61 | 132.18 | 123.70 |
| 1 | AA | 1254 | A | C5-C6-N6 | 10.60 | 132.18 | 123.70 |
| 22 | BA | 1509 | A | C5-C6-N6 | 10.60 | 132.18 | 123.70 |
| 22 | BA | 1598 | A | N7-C8-N9 | -10.60 | 108.50 | 113.80 |
| 22 | BA | 1672 | A | N7-C8-N9 | -10.60 | 108.50 | 113.80 |
| 22 | BA | 1133 | A | C5-C6-N6 | 10.60 | 132.18 | 123.70 |
| 1 | AA | 451 | A | C5-C6-N6 | 10.60 | 132.18 | 123.70 |
| 1 | AA | 629 | A | C5-C6-N6 | 10.60 | 132.18 | 123.70 |
| 22 | BA | 1336 | A | N3-C4-C5 | -10.60 | 119.38 | 126.80 |
| 1 | AA | 523 | A | C5-C6-N6 | 10.60 | 132.18 | 123.70 |
| 1 | AA | 718 | A | N3-C4-C5 | -10.60 | 119.38 | 126.80 |
| 1 | AA | 1257 | A | N7-C8-N9 | -10.60 | 108.50 | 113.80 |
| 1 | AA | 1269 | A | N7-C8-N9 | -10.60 | 108.50 | 113.80 |
| 22 | BA | 173 | A | C5-C6-N6 | 10.60 | 132.18 | 123.70 |
| 1 | AA | 65 | A | N7-C8-N9 | -10.59 | 108.50 | 113.80 |
| 22 | BA | 789 | A | N7-C8-N9 | -10.59 | 108.50 | 113.80 |
| 1 | AA | 1169 | A | N7-C8-N9 | -10.59 | 108.50 | 113.80 |
| 1 | AA | 1288 | A | C5-C6-N6 | 10.59 | 132.17 | 123.70 |
| 22 | BA | 1854 | A | N3-C4-C5 | -10.59 | 119.39 | 126.80 |
| 1 | AA | 33 | A | N7-C8-N9 | -10.59 | 108.51 | 113.80 |
| 1 | AA | 1492 | A | C5-C6-N6 | 10.59 | 132.17 | 123.70 |
| 22 | BA | 89 | A | C5-C6-N6 | 10.59 | 132.17 | 123.70 |
| 22 | BA | 1247 | A | N7-C8-N9 | -10.59 | 108.51 | 113.80 |
| 22 | BA | 2734 | A | C5-C6-N6 | 10.59 | 132.17 | 123.70 |
| 22 | BA | 1572 | A | C5-C6-N6 | 10.59 | 132.17 | 123.70 |
| 1 | AA | 80 | A | C5-C6-N6 | 10.58 | 132.17 | 123.70 |
| 22 | BA | 643 | A | C5-C6-N6 | 10.58 | 132.17 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 712 | A | N3-C4-C5 | -10.58 | 119.39 | 126.80 |
| 22 | BA | 13 | A | N3-C4-C5 | -10.58 | 119.39 | 126.80 |
| 22 | BA | 975 | A | N3-C4-C5 | -10.58 | 119.39 | 126.80 |
| 22 | BA | 2225 | A | C5-C6-N6 | 10.58 | 132.16 | 123.70 |
| 1 | AA | 1410 | A | C5-C6-N6 | 10.58 | 132.16 | 123.70 |
| 1 | AA | 1503 | A | N7-C8-N9 | -10.58 | 108.51 | 113.80 |
| 22 | BA | 5 | A | N3-C4-C5 | -10.58 | 119.39 | 126.80 |
| 22 | BA | 1287 | A | C5-C6-N6 | 10.58 | 132.16 | 123.70 |
| 1 | AA | 374 | A | N7-C8-N9 | -10.57 | 108.51 | 113.80 |
| 22 | BA | 423 | A | N3-C4-C5 | -10.57 | 119.40 | 126.80 |
| 22 | BA | 917 | A | C5-C6-N6 | 10.57 | 132.16 | 123.70 |
| 22 | BA | 1260 | A | N3-C4-C5 | -10.57 | 119.40 | 126.80 |
| 1 | AA | 131 | A | N7-C8-N9 | -10.57 | 108.51 | 113.80 |
| 1 | AA | 496 | A | C5-C6-N6 | 10.57 | 132.16 | 123.70 |
| 1 | AA | 553 | A | C5-C6-N6 | 10.57 | 132.16 | 123.70 |
| 1 | AA | 1271 | A | C5-C6-N6 | 10.57 | 132.16 | 123.70 |
| 22 | BA | 218 | A | N3-C4-C5 | -10.57 | 119.40 | 126.80 |
| 22 | BA | 278 | A | N3-C4-C5 | -10.57 | 119.40 | 126.80 |
| 22 | BA | 661 | A | N7-C8-N9 | -10.57 | 108.52 | 113.80 |
| 22 | BA | 845 | A | N3-C4-C5 | -10.57 | 119.40 | 126.80 |
| 22 | BA | 1847 | A | N3-C4-C5 | -10.57 | 119.40 | 126.80 |
| 22 | BA | 1566 | A | C5-C6-N6 | 10.57 | 132.16 | 123.70 |
| 1 | AA | 1394 | A | C5-C6-N6 | 10.57 | 132.15 | 123.70 |
| 22 | BA | 1244 | A | N3-C4-C5 | -10.57 | 119.40 | 126.80 |
| 22 | BA | 2003 | A | C5-C6-N6 | 10.57 | 132.15 | 123.70 |
| 1 | AA | 298 | A | N7-C8-N9 | -10.56 | 108.52 | 113.80 |
| 1 | AA | 487 | A | C5-C6-N6 | 10.56 | 132.15 | 123.70 |
| 22 | BA | 1805 | A | C5-C6-N6 | 10.56 | 132.15 | 123.70 |
| 22 | BA | 2432 | A | C5-C6-N6 | 10.56 | 132.15 | 123.70 |
| 22 | BA | 2534 | A | C5-C6-N6 | 10.56 | 132.15 | 123.70 |
| 1 | AA | 1093 | A | C5-C6-N6 | 10.56 | 132.15 | 123.70 |
| 22 | BA | 64 | A | C5-C6-N6 | 10.56 | 132.15 | 123.70 |
| 22 | BA | 1735 | A | N7-C8-N9 | -10.56 | 108.52 | 113.80 |
| 1 | AA | 694 | A | C5-C6-N6 | 10.56 | 132.15 | 123.70 |
| 1 | AA | 728 | A | C5-C6-N6 | 10.56 | 132.15 | 123.70 |
| 22 | BA | 2142 | A | N7-C8-N9 | -10.56 | 108.52 | 113.80 |
| 22 | BA | 2662 | A | C5-C6-N6 | 10.56 | 132.15 | 123.70 |
| 1 | AA | 167 | A | N7-C8-N9 | -10.56 | 108.52 | 113.80 |
| 1 | AA | 523 | A | N7-C8-N9 | -10.56 | 108.52 | 113.80 |
| 22 | BA | 1000 | A | N7-C8-N9 | -10.56 | 108.52 | 113.80 |
| 22 | BA | 1393 | A | C5-C6-N6 | 10.56 | 132.15 | 123.70 |
| 22 | BA | 2781 | A | N7-C8-N9 | -10.56 | 108.52 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 510 | A | C5-C6-N6 | 10.55 | 132.14 | 123.70 |
| 22 | BA | 362 | A | N7-C8-N9 | -10.55 | 108.52 | 113.80 |
| 22 | BA | 1144 | A | N3-C4-C5 | -10.56 | 119.41 | 126.80 |
| 22 | BA | 941 | A | N7-C8-N9 | -10.55 | 108.52 | 113.80 |
| 22 | BA | 1347 | A | N7-C8-N9 | -10.55 | 108.52 | 113.80 |
| 22 | BA | 2679 | A | N7-C8-N9 | -10.55 | 108.52 | 113.80 |
| 1 | AA | 78 | A | N7-C8-N9 | -10.55 | 108.53 | 113.80 |
| 1 | AA | 1036 | A | N7-C8-N9 | -10.55 | 108.53 | 113.80 |
| 22 | BA | 2856 | A | N7-C8-N9 | -10.55 | 108.53 | 113.80 |
| 1 | AA | 3 | A | C5-C6-N6 | 10.54 | 132.13 | 123.70 |
| 22 | BA | 821 | A | N7-C8-N9 | -10.54 | 108.53 | 113.80 |
| 22 | BA | 980 | A | N3-C4-C5 | -10.55 | 119.42 | 126.80 |
| 1 | AA | 101 | A | N3-C4-C5 | -10.54 | 119.42 | 126.80 |
| 1 | AA | 825 | A | N7-C8-N9 | -10.54 | 108.53 | 113.80 |
| 1 | AA | 937 | A | C5-C6-N6 | 10.54 | 132.13 | 123.70 |
| 1 | AA | 1250 | A | N7-C8-N9 | -10.54 | 108.53 | 113.80 |
| 1 | AA | 1513 | A | N3-C4-C5 | -10.54 | 119.42 | 126.80 |
| 22 | BA | 2183 | A | N7-C8-N9 | -10.54 | 108.53 | 113.80 |
| 22 | BA | 1276 | A | N3-C4-C5 | -10.54 | 119.42 | 126.80 |
| 1 | AA | 238 | A | N7-C8-N9 | -10.54 | 108.53 | 113.80 |
| 1 | AA | 495 | A | C5-C6-N6 | 10.54 | 132.13 | 123.70 |
| 22 | BA | 1572 | A | N3-C4-C5 | -10.54 | 119.42 | 126.80 |
| 1 | AA | 329 | A | C5-C6-N6 | 10.54 | 132.13 | 123.70 |
| 1 | AA | 974 | A | N7-C8-N9 | -10.54 | 108.53 | 113.80 |
| 22 | BA | 142 | A | C5-C6-N6 | 10.54 | 132.13 | 123.70 |
| 22 | BA | 1690 | A | C5-C6-N6 | 10.54 | 132.13 | 123.70 |
| 1 | AA | 975 | A | N7-C8-N9 | -10.53 | 108.53 | 113.80 |
| 22 | BA | 1890 | A | N7-C8-N9 | -10.54 | 108.53 | 113.80 |
| 22 | BA | 2761 | A | N3-C4-C5 | -10.54 | 119.42 | 126.80 |
| 22 | BA | 2706 | A | N3-C4-C5 | -10.53 | 119.43 | 126.80 |
| 1 | AA | 498 | A | N7-C8-N9 | -10.53 | 108.53 | 113.80 |
| 22 | BA | 742 | A | N7-C8-N9 | -10.53 | 108.53 | 113.80 |
| 22 | BA | 1821 | A | N7-C8-N9 | -10.53 | 108.53 | 113.80 |
| 22 | BA | 1829 | A | N7-C8-N9 | -10.53 | 108.53 | 113.80 |
| 22 | BA | 2335 | A | N3-C4-C5 | -10.53 | 119.43 | 126.80 |
| 1 | AA | 496 | A | N7-C8-N9 | -10.53 | 108.53 | 113.80 |
| 1 | AA | 1375 | A | C5-C6-N6 | 10.53 | 132.12 | 123.70 |
| 22 | BA | 91 | A | N7-C8-N9 | -10.53 | 108.54 | 113.80 |
| 22 | BA | 1586 | A | N7-C8-N9 | -10.53 | 108.53 | 113.80 |
| 22 | BA | 2820 | A | C5-C6-N6 | 10.53 | 132.12 | 123.70 |
| 1 | AA | 1191 | A | N3-C4-C5 | -10.53 | 119.43 | 126.80 |
| 22 | BA | 196 | A | C5-C6-N6 | 10.53 | 132.12 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 920 | A | C5-C6-N6 | 10.53 | 132.12 | 123.70 |
| 22 | BA | 2820 | A | N7-C8-N9 | -10.53 | 108.54 | 113.80 |
| 1 | AA | 344 | A | N7-C8-N9 | -10.52 | 108.54 | 113.80 |
| 1 | AA | 1021 | A | C5-C6-N6 | 10.52 | 132.12 | 123.70 |
| 1 | AA | 1428 | A | N7-C8-N9 | -10.52 | 108.54 | 113.80 |
| 22 | BA | 352 | A | C5-C6-N6 | 10.52 | 132.12 | 123.70 |
| 22 | BA | 644 | A | C5-C6-N6 | 10.52 | 132.12 | 123.70 |
| 22 | BA | 2531 | A | C5-C6-N6 | 10.52 | 132.12 | 123.70 |
| 1 | AA | 609 | A | N7-C8-N9 | -10.52 | 108.54 | 113.80 |
| 1 | AA | 968 | A | N7-C8-N9 | -10.52 | 108.54 | 113.80 |
| 22 | BA | 2042 | A | N7-C8-N9 | -10.52 | 108.54 | 113.80 |
| 22 | BA | 83 | A | N7-C8-N9 | -10.52 | 108.54 | 113.80 |
| 22 | BA | 221 | A | C5-C6-N6 | 10.52 | 132.11 | 123.70 |
| 22 | BA | 382 | A | C5-C6-N6 | 10.52 | 132.11 | 123.70 |
| 22 | BA | 1746 | A | C5-C6-N6 | 10.52 | 132.11 | 123.70 |
| 22 | BA | 2005 | A | N7-C8-N9 | -10.52 | 108.54 | 113.80 |
| 22 | BA | 2459 | A | N3-C4-C5 | -10.52 | 119.44 | 126.80 |
| 1 | AA | 460 | A | C5-C6-N6 | 10.51 | 132.11 | 123.70 |
| 22 | BA | 2094 | A | C5-C6-N6 | 10.51 | 132.11 | 123.70 |
| 22 | BA | 2434 | A | N7-C8-N9 | -10.51 | 108.54 | 113.80 |
| 22 | BA | 219 | A | C5-C6-N6 | 10.51 | 132.11 | 123.70 |
| 22 | BA | 443 | A | N7-C8-N9 | -10.51 | 108.54 | 113.80 |
| 1 | AA | 649 | A | N7-C8-N9 | -10.51 | 108.55 | 113.80 |
| 1 | AA | 1362 | A | N7-C8-N9 | -10.51 | 108.55 | 113.80 |
| 1 | AA | 336 | A | N7-C8-N9 | -10.51 | 108.55 | 113.80 |
| 22 | BA | 300 | A | C5-C6-N6 | 10.51 | 132.10 | 123.70 |
| 22 | BA | 430 | A | N7-C8-N9 | -10.51 | 108.55 | 113.80 |
| 22 | BA | 751 | A | C5-C6-N6 | 10.51 | 132.10 | 123.70 |
| 22 | BA | 1085 | A | N7-C8-N9 | -10.51 | 108.55 | 113.80 |
| 22 | BA | 1745 | A | N7-C8-N9 | -10.51 | 108.55 | 113.80 |
| 22 | BA | 2003 | A | N3-C4-C5 | -10.51 | 119.45 | 126.80 |
| 22 | BA | 2868 | A | N3-C4-C5 | -10.51 | 119.45 | 126.80 |
| 1 | AA | 116 | A | N3-C4-C5 | -10.50 | 119.45 | 126.80 |
| 1 | AA | 1254 | A | N7-C8-N9 | -10.50 | 108.55 | 113.80 |
| 1 | AA | 1483 | A | C5-C6-N6 | 10.50 | 132.10 | 123.70 |
| 22 | BA | 1548 | A | C5-C6-N6 | 10.50 | 132.10 | 123.70 |
| 22 | BA | 2560 | A | N7-C8-N9 | -10.50 | 108.55 | 113.80 |
| 22 | BA | 2311 | A | N7-C8-N9 | -10.50 | 108.55 | 113.80 |
| 22 | BA | 2665 | A | C5-C6-N6 | 10.50 | 132.10 | 123.70 |
| 22 | BA | 2711 | A | C5-C6-N6 | 10.50 | 132.10 | 123.70 |
| 22 | BA | 2809 | A | C5-C6-N6 | 10.50 | 132.10 | 123.70 |
| 1 | AA | 77 | A | N3-C4-C5 | -10.50 | 119.45 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1142 | A | C5-C6-N6 | 10.50 | 132.10 | 123.70 |
| 1 | AA | 900 | A | N7-C8-N9 | -10.49 | 108.55 | 113.80 |
| 22 | BA | 2850 | A | N3-C4-C5 | -10.49 | 119.45 | 126.80 |
| 1 | AA | 498 | A | C5-C6-N1 | 10.49 | 122.95 | 117.70 |
| 1 | AA | 831 | A | C5-C6-N6 | 10.49 | 132.09 | 123.70 |
| 1 | AA | 1275 | A | C5-C6-N6 | 10.49 | 132.09 | 123.70 |
| 22 | BA | 1014 | A | C5-C6-N6 | 10.49 | 132.09 | 123.70 |
| 22 | BA | 1169 | A | C5-C6-N6 | 10.49 | 132.09 | 123.70 |
| 22 | BA | 2327 | A | N3-C4-C5 | -10.49 | 119.45 | 126.80 |
| 22 | BA | 2634 | A | N3-C4-C5 | -10.49 | 119.46 | 126.80 |
| 1 | AA | 907 | A | N7-C8-N9 | -10.49 | 108.56 | 113.80 |
| 22 | BA | 2614 | A | C5-C6-N6 | 10.49 | 132.09 | 123.70 |
| 22 | BA | 480 | A | N3-C4-C5 | -10.49 | 119.46 | 126.80 |
| 1 | AA | 907 | A | C5-C6-N6 | 10.48 | 132.09 | 123.70 |
| 22 | BA | 457 | A | N7-C8-N9 | -10.48 | 108.56 | 113.80 |
| 22 | BA | 2469 | A | N7-C8-N9 | -10.48 | 108.56 | 113.80 |
| 22 | BA | 53 | A | N7-C8-N9 | -10.48 | 108.56 | 113.80 |
| 22 | BA | 119 | A | N7-C8-N9 | -10.48 | 108.56 | 113.80 |
| 1 | AA | 560 | A | C5-C6-N6 | 10.48 | 132.08 | 123.70 |
| 1 | AA | 1102 | A | C5-C6-N6 | 10.48 | 132.08 | 123.70 |
| 22 | BA | 532 | A | N7-C8-N9 | -10.48 | 108.56 | 113.80 |
| 22 | BA | 984 | A | N3-C4-C5 | -10.48 | 119.47 | 126.80 |
| 22 | BA | 1597 | A | N7-C8-N9 | -10.48 | 108.56 | 113.80 |
| 22 | BA | 1927 | A | N7-C8-N9 | -10.48 | 108.56 | 113.80 |
| 22 | BA | 2077 | A | N3-C4-C5 | -10.48 | 119.47 | 126.80 |
| 1 | AA | 1465 | A | N7-C8-N9 | -10.47 | 108.56 | 113.80 |
| 22 | BA | 14 | A | C5-C6-N6 | 10.47 | 132.08 | 123.70 |
| 22 | BA | 149 | A | N3-C4-C5 | -10.47 | 119.47 | 126.80 |
| 22 | BA | 480 | A | C5-C6-N6 | 10.47 | 132.08 | 123.70 |
| 22 | BA | 508 | A | N7-C8-N9 | -10.47 | 108.56 | 113.80 |
| 22 | BA | 1938 | A | N7-C8-N9 | -10.47 | 108.56 | 113.80 |
| 22 | BA | 2003 | A | N7-C8-N9 | -10.47 | 108.56 | 113.80 |
| 22 | BA | 654 | A | C5-C6-N6 | 10.47 | 132.08 | 123.70 |
| 1 | AA | 630 | A | N7-C8-N9 | -10.47 | 108.57 | 113.80 |
| 22 | BA | 1508 | A | C5-C6-N6 | 10.47 | 132.07 | 123.70 |
| 22 | BA | 2058 | A | C5-C6-N6 | 10.47 | 132.07 | 123.70 |
| 22 | BA | 2635 | A | C5-C6-N6 | 10.47 | 132.07 | 123.70 |
| 1 | AA | 977 | A | N3-C4-C5 | -10.46 | 119.47 | 126.80 |
| 22 | BA | 2369 | A | N7-C8-N9 | -10.47 | 108.57 | 113.80 |
| 1 | AA | 1152 | A | C5-C6-N6 | 10.46 | 132.07 | 123.70 |
| 22 | BA | 505 | A | C5-C6-N6 | 10.46 | 132.07 | 123.70 |
| 22 | BA | 1528 | A | N3-C4-C5 | -10.47 | 119.47 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2199 | A | N3-C4-C5 | -10.47 | 119.47 | 126.80 |
| 22 | BA | 1551 | A | N7-C8-N9 | -10.46 | 108.57 | 113.80 |
| 1 | AA | 139 | A | C5-C6-N6 | 10.46 | 132.07 | 123.70 |
| 1 | AA | 174 | A | N7-C8-N9 | -10.46 | 108.57 | 113.80 |
| 1 | AA | 303 | A | N7-C8-N9 | -10.46 | 108.57 | 113.80 |
| 1 | AA | 373 | A | C5-C6-N6 | 10.46 | 132.07 | 123.70 |
| 22 | BA | 1392 | A | N7-C8-N9 | -10.46 | 108.57 | 113.80 |
| 22 | BA | 2183 | A | C5-C6-N6 | 10.46 | 132.07 | 123.70 |
| 23 | BB | 115 | A | N7-C8-N9 | -10.46 | 108.57 | 113.80 |
| 1 | AA | 535 | A | N7-C8-N9 | -10.46 | 108.57 | 113.80 |
| 22 | BA | 715 | A | C5-C6-N6 | 10.46 | 132.07 | 123.70 |
| 22 | BA | 752 | A | N7-C8-N9 | -10.46 | 108.57 | 113.80 |
| 22 | BA | 1469 | A | C5-C6-N6 | 10.46 | 132.07 | 123.70 |
| 22 | BA | 1757 | A | N7-C8-N9 | -10.46 | 108.57 | 113.80 |
| 22 | BA | 2426 | A | C5-C6-N6 | 10.46 | 132.06 | 123.70 |
| 23 | BB | 101 | A | C4-C5-C6 | 10.46 | 122.23 | 117.00 |
| 1 | AA | 155 | A | N7-C8-N9 | -10.46 | 108.57 | 113.80 |
| 1 | AA | 1035 | A | N3-C4-C5 | -10.46 | 119.48 | 126.80 |
| 1 | AA | 1238 | A | N7-C8-N9 | -10.46 | 108.57 | 113.80 |
| 22 | BA | 1735 | A | C5-C6-N6 | 10.46 | 132.06 | 123.70 |
| 22 | BA | 2184 | A | C5-C6-N6 | 10.46 | 132.06 | 123.70 |
| 22 | BA | 1156 | A | N7-C8-N9 | -10.45 | 108.57 | 113.80 |
| 22 | BA | 1641 | A | N3-C4-C5 | -10.45 | 119.48 | 126.80 |
| 1 | AA | 743 | A | N3-C4-C5 | -10.45 | 119.48 | 126.80 |
| 22 | BA | 1877 | A | N7-C8-N9 | -10.45 | 108.58 | 113.80 |
| 22 | BA | 2758 | A | N7-C8-N9 | -10.45 | 108.58 | 113.80 |
| 1 | AA | 1012 | A | N3-C4-C5 | -10.45 | 119.48 | 126.80 |
| 22 | BA | 272 | A | N7-C8-N9 | -10.45 | 108.58 | 113.80 |
| 22 | BA | 1304 | A | C5-C6-N6 | 10.45 | 132.06 | 123.70 |
| 22 | BA | 1913 | A | C5-C6-N6 | 10.45 | 132.06 | 123.70 |
| 1 | AA | 10 | A | N7-C8-N9 | -10.45 | 108.58 | 113.80 |
| 1 | AA | 382 | A | N3-C4-C5 | -10.45 | 119.49 | 126.80 |
| 1 | AA | 579 | A | N3-C4-C5 | -10.45 | 119.49 | 126.80 |
| 1 | AA | 908 | A | N7-C8-N9 | -10.45 | 108.58 | 113.80 |
| 22 | BA | 1616 | A | N7-C8-N9 | -10.45 | 108.58 | 113.80 |
| 23 | BB | 109 | A | N7-C8-N9 | -10.45 | 108.58 | 113.80 |
| 22 | BA | 460 | A | C5-C6-N6 | 10.44 | 132.06 | 123.70 |
| 1 | AA | 1044 | A | N7-C8-N9 | -10.44 | 108.58 | 113.80 |
| 1 | AA | 694 | A | N7-C8-N9 | -10.44 | 108.58 | 113.80 |
| 1 | AA | 1318 | A | N7-C8-N9 | -10.44 | 108.58 | 113.80 |
| 1 | AA | 1396 | A | N7-C8-N9 | -10.44 | 108.58 | 113.80 |
| 22 | BA | 722 | A | N7-C8-N9 | -10.44 | 108.58 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 964 | A | N3-C4-C5 | -10.44 | 119.50 | 126.80 |
| 1 | AA | 1363 | A | N3-C4-C5 | -10.44 | 119.49 | 126.80 |
| 22 | BA | 1127 | A | N7-C8-N9 | -10.43 | 108.58 | 113.80 |
| 22 | BA | 1373 | A | N3-C4-C5 | -10.43 | 119.50 | 126.80 |
| 1 | AA | 1229 | A | C5-C6-N6 | 10.43 | 132.05 | 123.70 |
| 22 | BA | 735 | A | N7-C8-N9 | -10.43 | 108.58 | 113.80 |
| 22 | BA | 1247 | A | C5-C6-N6 | 10.43 | 132.05 | 123.70 |
| 22 | BA | 1677 | A | N7-C8-N9 | -10.43 | 108.58 | 113.80 |
| 1 | AA | 1046 | A | N7-C8-N9 | -10.43 | 108.58 | 113.80 |
| 1 | AA | 478 | A | N7-C8-N9 | -10.43 | 108.59 | 113.80 |
| 22 | BA | 2634 | A | N7-C8-N9 | -10.43 | 108.59 | 113.80 |
| 1 | AA | 1429 | A | N7-C8-N9 | -10.43 | 108.59 | 113.80 |
| 1 | AA | 315 | A | C5-C6-N6 | 10.42 | 132.04 | 123.70 |
| 1 | AA | 918 | A | N7-C8-N9 | -10.42 | 108.59 | 113.80 |
| 1 | AA | 1408 | A | N7-C8-N9 | -10.42 | 108.59 | 113.80 |
| 22 | BA | 471 | A | C5-C6-N6 | 10.42 | 132.04 | 123.70 |
| 22 | BA | 983 | A | C5-C6-N6 | 10.42 | 132.04 | 123.70 |
| 1 | AA | 1413 | A | N7-C8-N9 | -10.42 | 108.59 | 113.80 |
| 22 | BA | 1269 | A | N3-C4-C5 | -10.42 | 119.51 | 126.80 |
| 1 | AA | 1468 | A | N7-C8-N9 | -10.42 | 108.59 | 113.80 |
| 22 | BA | 255 | A | N3-C4-C5 | -10.42 | 119.51 | 126.80 |
| 22 | BA | 632 | A | C5-C6-N6 | 10.42 | 132.03 | 123.70 |
| 22 | BA | 1549 | A | N7-C8-N9 | -10.42 | 108.59 | 113.80 |
| 1 | AA | 749 | A | N7-C8-N9 | -10.41 | 108.59 | 113.80 |
| 1 | AA | 831 | A | N7-C8-N9 | -10.41 | 108.59 | 113.80 |
| 22 | BA | 753 | A | C5-C6-N6 | 10.41 | 132.03 | 123.70 |
| 22 | BA | 1367 | A | N3-C4-C5 | -10.41 | 119.51 | 126.80 |
| 1 | AA | 1012 | A | N7-C8-N9 | -10.41 | 108.59 | 113.80 |
| 1 | AA | 1251 | A | N7-C8-N9 | -10.41 | 108.59 | 113.80 |
| 22 | BA | 1966 | A | C5-C6-N6 | 10.41 | 132.03 | 123.70 |
| 1 | AA | 1167 | A | C5-C6-N6 | 10.41 | 132.03 | 123.70 |
| 22 | BA | 1593 | A | C5-C6-N6 | 10.41 | 132.03 | 123.70 |
| 22 | BA | 972 | A | N3-C4-C5 | -10.41 | 119.51 | 126.80 |
| 1 | AA | 382 | A | C5-C6-N6 | 10.41 | 132.03 | 123.70 |
| 1 | AA | 393 | A | N7-C8-N9 | -10.41 | 108.60 | 113.80 |
| 1 | AA | 3 | A | N7-C8-N9 | -10.41 | 108.60 | 113.80 |
| 1 | AA | 716 | A | C5-C6-N6 | 10.41 | 132.03 | 123.70 |
| 1 | AA | 1055 | A | N7-C8-N9 | -10.41 | 108.60 | 113.80 |
| 1 | AA | 1274 | A | C5-C6-N6 | 10.41 | 132.03 | 123.70 |
| 22 | BA | 330 | A | N7-C8-N9 | -10.41 | 108.60 | 113.80 |
| 22 | BA | 1780 | A | N7-C8-N9 | -10.41 | 108.60 | 113.80 |
| 1 | AA | 546 | A | N7-C8-N9 | -10.40 | 108.60 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 579 | A | C5-C6-N6 | 10.40 | 132.02 | 123.70 |
| 1 | AA | 1324 | A | N3-C4-C5 | -10.40 | 119.52 | 126.80 |
| 22 | BA | 1672 | A | N3-C4-C5 | -10.40 | 119.52 | 126.80 |
| 1 | AA | 16 | A | N7-C8-N9 | -10.40 | 108.60 | 113.80 |
| 22 | BA | 781 | A | N3-C4-C5 | -10.40 | 119.52 | 126.80 |
| 22 | BA | 2577 | A | N3-C4-C5 | -10.40 | 119.52 | 126.80 |
| 22 | BA | 2765 | A | N3-C4-C5 | -10.40 | 119.52 | 126.80 |
| 22 | BA | 2225 | A | N7-C8-N9 | -10.40 | 108.60 | 113.80 |
| 55 | B8 | 58 | A | C5-C6-N6 | 10.40 | 132.02 | 123.70 |
| 22 | BA | 1711 | A | N7-C8-N9 | -10.40 | 108.60 | 113.80 |
| 22 | BA | 190 | A | N3-C4-C5 | -10.40 | 119.52 | 126.80 |
| 22 | BA | 2639 | A | N7-C8-N9 | -10.40 | 108.60 | 113.80 |
| 22 | BA | 981 | A | N7-C8-N9 | -10.40 | 108.60 | 113.80 |
| 22 | BA | 2516 | A | N3-C4-C5 | -10.40 | 119.52 | 126.80 |
| 1 | AA | 648 | A | N7-C8-N9 | -10.39 | 108.60 | 113.80 |
| 1 | AA | 673 | A | C5-C6-N6 | 10.39 | 132.01 | 123.70 |
| 1 | AA | 179 | A | N7-C8-N9 | -10.39 | 108.61 | 113.80 |
| 1 | AA | 300 | A | C4-C5-C6 | 10.39 | 122.20 | 117.00 |
| 22 | BA | 1403 | A | N7-C8-N9 | -10.39 | 108.61 | 113.80 |
| 22 | BA | 1713 | A | N7-C8-N9 | -10.39 | 108.61 | 113.80 |
| 22 | BA | 2211 | A | N7-C8-N9 | -10.39 | 108.61 | 113.80 |
| 23 | BB | 15 | A | C5-C6-N6 | 10.39 | 132.01 | 123.70 |
| 1 | AA | 303 | A | C5-C6-N6 | 10.39 | 132.01 | 123.70 |
| 22 | BA | 2829 | A | N7-C8-N9 | -10.38 | 108.61 | 113.80 |
| 23 | BB | 57 | A | N3-C4-C5 | -10.38 | 119.53 | 126.80 |
| 55 | B8 | 51 | A | C5-C6-N6 | 10.38 | 132.01 | 123.70 |
| 1 | AA | 574 | A | N7-C8-N9 | -10.38 | 108.61 | 113.80 |
| 22 | BA | 928 | A | N3-C4-C5 | -10.38 | 119.53 | 126.80 |
| 22 | BA | 2826 | A | N3-C4-C5 | -10.38 | 119.53 | 126.80 |
| 1 | AA | 1434 | A | N7-C8-N9 | -10.38 | 108.61 | 113.80 |
| 22 | BA | 2899 | A | N7-C8-N9 | -10.38 | 108.61 | 113.80 |
| 22 | BA | 218 | A | C5-C6-N6 | 10.38 | 132.00 | 123.70 |
| 22 | BA | 348 | A | C5-C6-N6 | 10.38 | 132.00 | 123.70 |
| 22 | BA | 2564 | A | C5-C6-N6 | 10.38 | 132.00 | 123.70 |
| 1 | AA | 1152 | A | N3-C4-C5 | -10.38 | 119.54 | 126.80 |
| 1 | AA | 1360 | A | N7-C8-N9 | -10.38 | 108.61 | 113.80 |
| 22 | BA | 1020 | A | N7-C8-N9 | -10.38 | 108.61 | 113.80 |
| 1 | AA | 19 | A | C5-C6-N6 | 10.37 | 132.00 | 123.70 |
| 1 | AA | 1155 | A | C5-C6-N6 | 10.37 | 132.00 | 123.70 |
| 22 | BA | 262 | A | N3-C4-C5 | -10.37 | 119.54 | 126.80 |
| 22 | BA | 627 | A | N7-C8-N9 | -10.37 | 108.61 | 113.80 |
| 22 | BA | 1570 | A | N7-C8-N9 | -10.37 | 108.61 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 236 | A | N7-C8-N9 | -10.37 | 108.62 | 113.80 |
| 1 | AA | 1441 | A | C5-C6-N6 | 10.37 | 132.00 | 123.70 |
| 22 | BA | 44 | A | N3-C4-C5 | -10.37 | 119.54 | 126.80 |
| 1 | AA | 441 | A | N7-C8-N9 | -10.37 | 108.62 | 113.80 |
| 22 | BA | 155 | A | N7-C8-N9 | -10.37 | 108.62 | 113.80 |
| 1 | AA | 1256 | A | C5-C6-N6 | 10.37 | 131.99 | 123.70 |
| 22 | BA | 727 | A | N7-C8-N9 | -10.37 | 108.62 | 113.80 |
| 22 | BA | 1810 | A | C4-C5-C6 | 10.37 | 122.18 | 117.00 |
| 22 | BA | 2734 | A | N7-C8-N9 | -10.37 | 108.62 | 113.80 |
| 22 | BA | 920 | A | N7-C8-N9 | -10.36 | 108.62 | 113.80 |
| 22 | BA | 1214 | A | N3-C4-C5 | -10.36 | 119.55 | 126.80 |
| 1 | AA | 282 | A | N7-C8-N9 | -10.36 | 108.62 | 113.80 |
| 22 | BA | 439 | A | N3-C4-C5 | -10.36 | 119.55 | 126.80 |
| 22 | BA | 761 | A | N3-C4-C5 | -10.36 | 119.55 | 126.80 |
| 22 | BA | 2205 | A | C5-C6-N6 | 10.36 | 131.99 | 123.70 |
| 22 | BA | 2886 | A | C5-C6-N6 | 10.36 | 131.99 | 123.70 |
| 22 | BA | 1749 | A | N7-C8-N9 | -10.36 | 108.62 | 113.80 |
| 1 | AA | 298 | A | C5-C6-N6 | 10.36 | 131.99 | 123.70 |
| 1 | AA | 356 | A | N7-C8-N9 | -10.36 | 108.62 | 113.80 |
| 1 | AA | 389 | A | C5-C6-N6 | 10.36 | 131.99 | 123.70 |
| 22 | BA | 844 | A | C5-C6-N6 | 10.36 | 131.99 | 123.70 |
| 22 | BA | 1722 | A | N3-C4-C5 | -10.36 | 119.55 | 126.80 |
| 22 | BA | 2090 | A | N3-C4-C5 | -10.36 | 119.55 | 126.80 |
| 55 | B8 | 69 | A | C5-C6-N6 | 10.36 | 131.99 | 123.70 |
| 1 | AA | 325 | A | N7-C8-N9 | -10.35 | 108.62 | 113.80 |
| 1 | AA | 728 | A | N7-C8-N9 | -10.35 | 108.62 | 113.80 |
| 22 | BA | 439 | A | N7-C8-N9 | -10.35 | 108.62 | 113.80 |
| 22 | BA | 2660 | A | N7-C8-N9 | -10.35 | 108.62 | 113.80 |
| 22 | BA | 825 | A | N3-C4-C5 | -10.35 | 119.55 | 126.80 |
| 22 | BA | 2094 | A | N7-C8-N9 | -10.35 | 108.62 | 113.80 |
| 1 | AA | 1368 | A | N7-C8-N9 | -10.35 | 108.63 | 113.80 |
| 22 | BA | 1098 | A | N7-C8-N9 | -10.35 | 108.63 | 113.80 |
| 1 | AA | 1157 | A | N7-C8-N9 | -10.35 | 108.63 | 113.80 |
| 22 | BA | 2851 | A | C5-C6-N6 | 10.35 | 131.98 | 123.70 |
| 23 | BB | 34 | A | N7-C8-N9 | -10.35 | 108.63 | 113.80 |
| 1 | AA | 665 | A | N7-C8-N9 | -10.34 | 108.63 | 113.80 |
| 22 | BA | 730 | A | N3-C4-C5 | -10.34 | 119.56 | 126.80 |
| 22 | BA | 2097 | A | N7-C8-N9 | -10.34 | 108.63 | 113.80 |
| 22 | BA | 2868 | A | C5-C6-N6 | 10.34 | 131.97 | 123.70 |
| 22 | BA | 146 | A | C5-C6-N6 | 10.34 | 131.97 | 123.70 |
| 1 | AA | 71 | A | N7-C8-N9 | -10.34 | 108.63 | 113.80 |
| 1 | AA | 435 | A | N7-C8-N9 | -10.34 | 108.63 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1591 | A | N7-C8-N9 | -10.34 | 108.63 | 113.80 |
| 1 | AA | 389 | A | N3-C4-C5 | -10.34 | 119.56 | 126.80 |
| 22 | BA | 675 | A | N7-C8-N9 | -10.34 | 108.63 | 113.80 |
| 1 | AA | 1398 | A | N7-C8-N9 | -10.34 | 108.63 | 113.80 |
| 22 | BA | 2297 | A | N7-C8-N9 | -10.34 | 108.63 | 113.80 |
| 22 | BA | 354 | A | C5-C6-N6 | 10.34 | 131.97 | 123.70 |
| 22 | BA | 947 | A | N7-C8-N9 | -10.34 | 108.63 | 113.80 |
| 22 | BA | 2317 | A | N7-C8-N9 | -10.34 | 108.63 | 113.80 |
| 22 | BA | 2635 | A | N3-C4-C5 | -10.34 | 119.56 | 126.80 |
| 1 | AA | 223 | A | N3-C4-C5 | -10.33 | 119.57 | 126.80 |
| 1 | AA | 1170 | A | N3-C4-C5 | -10.33 | 119.57 | 126.80 |
| 22 | BA | 1431 | A | N3-C4-C5 | -10.33 | 119.57 | 126.80 |
| 22 | BA | 2268 | A | N7-C8-N9 | -10.33 | 108.63 | 113.80 |
| 22 | BA | 2879 | A | N3-C4-C5 | -10.33 | 119.57 | 126.80 |
| 55 | B8 | 6 | A | C5-C6-N6 | 10.33 | 131.97 | 123.70 |
| 1 | AA | 199 | A | N3-C4-C5 | -10.33 | 119.57 | 126.80 |
| 1 | AA | 1110 | A | N7-C8-N9 | -10.33 | 108.64 | 113.80 |
| 22 | BA | 1689 | A | N7-C8-N9 | -10.33 | 108.64 | 113.80 |
| 22 | BA | 2826 | A | N7-C8-N9 | -10.33 | 108.64 | 113.80 |
| 1 | AA | 199 | A | N7-C8-N9 | -10.33 | 108.64 | 113.80 |
| 1 | AA | 781 | A | N7-C8-N9 | -10.33 | 108.64 | 113.80 |
| 22 | BA | 877 | A | N7-C8-N9 | -10.33 | 108.64 | 113.80 |
| 22 | BA | 1048 | A | N7-C8-N9 | -10.33 | 108.64 | 113.80 |
| 23 | BB | 57 | A | N7-C8-N9 | -10.33 | 108.64 | 113.80 |
| 1 | AA | 415 | A | N3-C4-C5 | -10.32 | 119.57 | 126.80 |
| 55 | B8 | 76 | A | C5-C6-N6 | 10.32 | 131.96 | 123.70 |
| 1 | AA | 246 | A | C5-C6-N6 | 10.32 | 131.96 | 123.70 |
| 22 | BA | 332 | A | N7-C8-N9 | -10.32 | 108.64 | 113.80 |
| 1 | AA | 487 | A | N3-C4-C5 | -10.32 | 119.58 | 126.80 |
| 1 | AA | 729 | A | C5-C6-N6 | 10.32 | 131.96 | 123.70 |
| 22 | BA | 941 | A | N3-C4-C5 | -10.32 | 119.58 | 126.80 |
| 1 | AA | 263 | A | N7-C8-N9 | -10.32 | 108.64 | 113.80 |
| 1 | AA | 865 | A | N3-C4-C5 | -10.32 | 119.58 | 126.80 |
| 1 | AA | 946 | A | N3-C4-C5 | -10.32 | 119.58 | 126.80 |
| 1 | AA | 1130 | A | N7-C8-N9 | -10.32 | 108.64 | 113.80 |
| 22 | BA | 1528 | A | N7-C8-N9 | -10.32 | 108.64 | 113.80 |
| 22 | BA | 1571 | A | N3-C4-C5 | -10.32 | 119.58 | 126.80 |
| 22 | BA | 2887 | A | N7-C8-N9 | -10.32 | 108.64 | 113.80 |
| 1 | AA | 520 | A | N7-C8-N9 | -10.31 | 108.64 | 113.80 |
| 22 | BA | 1654 | A | C5-C6-N6 | 10.31 | 131.95 | 123.70 |
| 22 | BA | 1952 | A | C5-C6-N6 | 10.31 | 131.95 | 123.70 |
| 1 | AA | 456 | A | C5-C6-N6 | 10.31 | 131.95 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1802 | A | N3-C4-C5 | -10.31 | 119.58 | 126.80 |
| 1 | AA | 759 | A | N7-C8-N9 | -10.31 | 108.65 | 113.80 |
| 1 | AA | 1363 | A | N7-C8-N9 | -10.31 | 108.65 | 113.80 |
| 1 | AA | 595 | A | N7-C8-N9 | -10.31 | 108.65 | 113.80 |
| 22 | BA | 668 | A | C5-C6-N6 | 10.31 | 131.95 | 123.70 |
| 1 | AA | 1216 | A | C5-C6-N6 | 10.31 | 131.94 | 123.70 |
| 22 | BA | 1549 | A | N3-C4-C5 | -10.31 | 119.59 | 126.80 |
| 1 | AA | 635 | A | C5-C6-N6 | 10.30 | 131.94 | 123.70 |
| 1 | AA | 1429 | A | C5-C6-N6 | 10.30 | 131.94 | 123.70 |
| 22 | BA | 1080 | A | N7-C8-N9 | -10.30 | 108.65 | 113.80 |
| 23 | BB | 78 | A | N7-C8-N9 | -10.30 | 108.65 | 113.80 |
| 22 | BA | 538 | A | N7-C8-N9 | -10.30 | 108.65 | 113.80 |
| 22 | BA | 943 | A | N3-C4-C5 | -10.30 | 119.59 | 126.80 |
| 1 | AA | 807 | A | N7-C8-N9 | -10.30 | 108.65 | 113.80 |
| 22 | BA | 1981 | A | N7-C8-N9 | -10.30 | 108.65 | 113.80 |
| 1 | AA | 573 | A | N7-C8-N9 | -10.30 | 108.65 | 113.80 |
| 22 | BA | 460 | A | N7-C8-N9 | -10.30 | 108.65 | 113.80 |
| 1 | AA | 648 | A | C5-C6-N6 | 10.30 | 131.94 | 123.70 |
| 1 | AA | 101 | A | N7-C8-N9 | -10.29 | 108.65 | 113.80 |
| 1 | AA | 250 | A | N7-C8-N9 | -10.29 | 108.65 | 113.80 |
| 22 | BA | 401 | A | N3-C4-C5 | -10.29 | 119.59 | 126.80 |
| 1 | AA | 101 | A | C5-C6-N6 | 10.29 | 131.93 | 123.70 |
| 1 | AA | 167 | A | C5-C6-N6 | 10.29 | 131.93 | 123.70 |
| 22 | BA | 94 | A | N3-C4-C5 | -10.29 | 119.59 | 126.80 |
| 22 | BA | 1586 | A | N3-C4-C5 | -10.29 | 119.60 | 126.80 |
| 22 | BA | 2327 | A | C5-C6-N6 | 10.29 | 131.93 | 123.70 |
| 1 | AA | 1252 | A | N3-C4-C5 | -10.29 | 119.60 | 126.80 |
| 1 | AA | 72 | A | N7-C8-N9 | -10.29 | 108.66 | 113.80 |
| 1 | AA | 959 | A | N7-C8-N9 | -10.29 | 108.66 | 113.80 |
| 22 | BA | 182 | A | C5-C6-N6 | 10.29 | 131.93 | 123.70 |
| 22 | BA | 221 | A | N7-C8-N9 | -10.29 | 108.66 | 113.80 |
| 22 | BA | 2108 | A | C5-C6-N6 | 10.29 | 131.93 | 123.70 |
| 1 | AA | 373 | A | N7-C8-N9 | -10.28 | 108.66 | 113.80 |
| 1 | AA | 946 | A | N7-C8-N9 | -10.28 | 108.66 | 113.80 |
| 22 | BA | 661 | A | C5-C6-N6 | 10.29 | 131.93 | 123.70 |
| 1 | AA | 1042 | A | N7-C8-N9 | -10.28 | 108.66 | 113.80 |
| 1 | AA | 1179 | A | N7-C8-N9 | -10.28 | 108.66 | 113.80 |
| 1 | AA | 1429 | A | N3-C4-C5 | -10.28 | 119.60 | 126.80 |
| 22 | BA | 1918 | A | N3-C4-C5 | -10.28 | 119.60 | 126.80 |
| 22 | BA | 2740 | A | N7-C8-N9 | -10.28 | 108.66 | 113.80 |
| 22 | BA | 2247 | A | C5-C6-N6 | 10.28 | 131.92 | 123.70 |
| 1 | AA | 994 | A | N3-C4-C5 | -10.28 | 119.61 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1580 | A | N7-C8-N9 | -10.28 | 108.66 | 113.80 |
| 22 | BA | 2322 | A | N7-C8-N9 | -10.28 | 108.66 | 113.80 |
| 1 | AA | 510 | A | N7-C8-N9 | -10.28 | 108.66 | 113.80 |
| 1 | AA | 892 | A | N3-C4-C5 | -10.28 | 119.61 | 126.80 |
| 1 | AA | 1287 | A | N7-C8-N9 | -10.28 | 108.66 | 113.80 |
| 22 | BA | 735 | A | N3-C4-C5 | -10.28 | 119.61 | 126.80 |
| 22 | BA | 750 | A | C5-C6-N6 | 10.28 | 131.92 | 123.70 |
| 22 | BA | 1111 | A | C5-C6-N6 | 10.28 | 131.92 | 123.70 |
| 22 | BA | 1262 | A | N3-C4-C5 | -10.28 | 119.61 | 126.80 |
| 23 | BB | 94 | A | C5-C6-N6 | 10.28 | 131.92 | 123.70 |
| 1 | AA | 1236 | A | C5-C6-N6 | 10.27 | 131.92 | 123.70 |
| 1 | AA | 1350 | A | N3-C4-C5 | -10.27 | 119.61 | 126.80 |
| 22 | BA | 1848 | A | N7-C8-N9 | -10.27 | 108.66 | 113.80 |
| 22 | BA | 2212 | A | N7-C8-N9 | -10.27 | 108.66 | 113.80 |
| 22 | BA | 2635 | A | N7-C8-N9 | -10.27 | 108.66 | 113.80 |
| 1 | AA | 19 | A | N7-C8-N9 | -10.27 | 108.67 | 113.80 |
| 22 | BA | 231 | A | N3-C4-C5 | -10.27 | 119.61 | 126.80 |
| 22 | BA | 412 | A | C5-C6-N6 | 10.27 | 131.92 | 123.70 |
| 22 | BA | 556 | A | C5-C6-N6 | 10.27 | 131.92 | 123.70 |
| 22 | BA | 1711 | A | C5-C6-N6 | 10.27 | 131.92 | 123.70 |
| 22 | BA | 582 | A | N3-C4-C5 | -10.27 | 119.61 | 126.80 |
| 22 | BA | 756 | A | N3-C4-C5 | -10.27 | 119.61 | 126.80 |
| 22 | BA | 2634 | A | C5-C6-N6 | 10.27 | 131.92 | 123.70 |
| 1 | AA | 1360 | A | N3-C4-C5 | -10.27 | 119.61 | 126.80 |
| 22 | BA | 384 | A | N7-C8-N9 | -10.27 | 108.67 | 113.80 |
| 22 | BA | 2900 | A | N3-C4-C5 | -10.27 | 119.61 | 126.80 |
| 1 | AA | 363 | A | N7-C8-N9 | -10.27 | 108.67 | 113.80 |
| 22 | BA | 176 | A | N3-C4-C5 | -10.27 | 119.61 | 126.80 |
| 1 | AA | 608 | A | N7-C8-N9 | -10.27 | 108.67 | 113.80 |
| 22 | BA | 825 | A | N7-C8-N9 | -10.27 | 108.67 | 113.80 |
| 22 | BA | 1353 | A | N9-C4-C5 | 10.27 | 109.91 | 105.80 |
| 1 | AA | 919 | A | N7-C8-N9 | -10.26 | 108.67 | 113.80 |
| 1 | AA | 1035 | A | N7-C8-N9 | -10.26 | 108.67 | 113.80 |
| 1 | AA | 1280 | A | N7-C8-N9 | -10.26 | 108.67 | 113.80 |
| 22 | BA | 103 | A | N7-C8-N9 | -10.26 | 108.67 | 113.80 |
| 22 | BA | 126 | A | C5-C6-N6 | 10.26 | 131.91 | 123.70 |
| 22 | BA | 1336 | A | N7-C8-N9 | -10.26 | 108.67 | 113.80 |
| 22 | BA | 2019 | A | N3-C4-C5 | -10.26 | 119.61 | 126.80 |
| 1 | AA | 161 | A | N7-C8-N9 | -10.26 | 108.67 | 113.80 |
| 22 | BA | 1749 | A | N3-C4-C5 | -10.26 | 119.62 | 126.80 |
| 1 | AA | 466 | A | N3-C4-C5 | -10.26 | 119.62 | 126.80 |
| 1 | AA | 532 | A | N7-C8-N9 | -10.26 | 108.67 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 1274 | A | N7-C8-N9 | -10.26 | 108.67 | 113.80 |
| 22 | BA | 1327 | A | N3-C4-C5 | -10.26 | 119.62 | 126.80 |
| 22 | BA | 794 | A | N7-C8-N9 | -10.26 | 108.67 | 113.80 |
| 22 | BA | 1532 | A | C5-C6-N6 | 10.26 | 131.91 | 123.70 |
| 22 | BA | 2205 | A | N3-C4-C5 | -10.26 | 119.62 | 126.80 |
| 22 | BA | 1754 | A | N7-C8-N9 | -10.26 | 108.67 | 113.80 |
| 22 | BA | 2497 | A | N3-C4-C5 | -10.26 | 119.62 | 126.80 |
| 1 | AA | 119 | A | N7-C8-N9 | -10.26 | 108.67 | 113.80 |
| 1 | AA | 694 | A | N3-C4-C5 | -10.26 | 119.62 | 126.80 |
| 1 | AA | 1014 | A | N7-C8-N9 | -10.26 | 108.67 | 113.80 |
| 1 | AA | 1188 | A | N3-C4-C5 | -10.26 | 119.62 | 126.80 |
| 22 | BA | 344 | A | N7-C8-N9 | -10.26 | 108.67 | 113.80 |
| 22 | BA | 2518 | A | N3-C4-C5 | -10.26 | 119.62 | 126.80 |
| 22 | BA | 2856 | A | C5-C6-N6 | 10.26 | 131.91 | 123.70 |
| 1 | AA | 1333 | A | N3-C4-C5 | -10.26 | 119.62 | 126.80 |
| 22 | BA | 1439 | A | N3-C4-C5 | -10.26 | 119.62 | 126.80 |
| 22 | BA | 2450 | A | N3-C4-C5 | -10.26 | 119.62 | 126.80 |
| 22 | BA | 626 | A | C5-C6-N6 | 10.25 | 131.90 | 123.70 |
| 22 | BA | 482 | A | C4-C5-C6 | 10.25 | 122.13 | 117.00 |
| 22 | BA | 845 | A | N7-C8-N9 | -10.25 | 108.67 | 113.80 |
| 22 | BA | 1265 | A | N3-C4-C5 | -10.25 | 119.62 | 126.80 |
| 22 | BA | 2095 | A | N3-C4-C5 | -10.25 | 119.62 | 126.80 |
| 22 | BA | 2171 | A | C5-C6-N6 | 10.25 | 131.90 | 123.70 |
| 22 | BA | 2366 | A | N7-C8-N9 | -10.25 | 108.67 | 113.80 |
| 22 | BA | 2518 | A | C5-C6-N6 | 10.25 | 131.90 | 123.70 |
| 23 | BB | 108 | A | N7-C8-N9 | -10.25 | 108.67 | 113.80 |
| 22 | BA | 572 | A | N7-C8-N9 | -10.25 | 108.67 | 113.80 |
| 1 | AA | 1180 | A | N3-C4-C5 | -10.25 | 119.63 | 126.80 |
| 22 | BA | 575 | A | C5-C6-N6 | 10.25 | 131.90 | 123.70 |
| 1 | AA | 373 | A | N3-C4-C5 | -10.25 | 119.63 | 126.80 |
| 22 | BA | 1690 | A | N7-C8-N9 | -10.25 | 108.68 | 113.80 |
| 1 | AA | 1434 | A | N3-C4-C5 | -10.24 | 119.63 | 126.80 |
| 22 | BA | 599 | A | N3-C4-C5 | -10.24 | 119.63 | 126.80 |
| 22 | BA | 1084 | A | N7-C8-N9 | -10.24 | 108.68 | 113.80 |
| 1 | AA | 98 | A | N7-C8-N9 | -10.24 | 108.68 | 113.80 |
| 22 | BA | 706 | A | N7-C8-N9 | -10.24 | 108.68 | 113.80 |
| 22 | BA | 2705 | A | N3-C4-C5 | -10.24 | 119.63 | 126.80 |
| 22 | BA | 2733 | A | N7-C8-N9 | -10.24 | 108.68 | 113.80 |
| 1 | AA | 815 | A | N7-C8-N9 | -10.23 | 108.68 | 113.80 |
| 22 | BA | 472 | A | C5-C6-N6 | 10.23 | 131.89 | 123.70 |
| 22 | BA | 802 | A | N7-C8-N9 | -10.23 | 108.68 | 113.80 |
| 22 | BA | 160 | A | N7-C8-N9 | -10.23 | 108.68 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 563 | A | N7-C8-N9 | -10.23 | 108.68 | 113.80 |
| 22 | BA | 2741 | A | N3-C4-C5 | -10.23 | 119.64 | 126.80 |
| 22 | BA | 616 | A | C5-C6-N6 | 10.23 | 131.88 | 123.70 |
| 22 | BA | 1762 | A | N3-C4-C5 | -10.23 | 119.64 | 126.80 |
| 22 | BA | 2711 | A | N3-C4-C5 | -10.23 | 119.64 | 126.80 |
| 22 | BA | 161 | A | N7-C8-N9 | -10.23 | 108.69 | 113.80 |
| 1 | AA | 935 | A | N3-C4-C5 | -10.23 | 119.64 | 126.80 |
| 22 | BA | 1786 | A | N7-C8-N9 | -10.23 | 108.69 | 113.80 |
| 22 | BA | 1872 | A | N3-C4-C5 | -10.23 | 119.64 | 126.80 |
| 1 | AA | 1306 | A | C5-C6-N6 | 10.22 | 131.88 | 123.70 |
| 1 | AA | 1465 | A | C5-C6-N6 | 10.22 | 131.88 | 123.70 |
| 22 | BA | 2352 | A | N3-C4-C5 | -10.22 | 119.64 | 126.80 |
| 1 | AA | 1219 | A | N3-C4-C5 | -10.22 | 119.64 | 126.80 |
| 22 | BA | 348 | A | N3-C4-C5 | -10.22 | 119.65 | 126.80 |
| 22 | BA | 541 | A | N3-C4-C5 | -10.22 | 119.64 | 126.80 |
| 22 | BA | 1080 | A | N3-C4-C5 | -10.22 | 119.64 | 126.80 |
| 23 | BB | 99 | A | N7-C8-N9 | -10.22 | 108.69 | 113.80 |
| 1 | AA | 228 | A | C5-C6-N6 | 10.22 | 131.88 | 123.70 |
| 22 | BA | 1353 | A | N3-C4-C5 | -10.22 | 119.65 | 126.80 |
| 22 | BA | 661 | A | N3-C4-C5 | -10.22 | 119.65 | 126.80 |
| 22 | BA | 2766 | A | C5-C6-N6 | 10.22 | 131.87 | 123.70 |
| 1 | AA | 270 | A | N7-C8-N9 | -10.21 | 108.69 | 113.80 |
| 1 | AA | 1092 | A | N7-C8-N9 | -10.21 | 108.69 | 113.80 |
| 22 | BA | 56 | A | N7-C8-N9 | -10.21 | 108.69 | 113.80 |
| 22 | BA | 342 | A | N7-C8-N9 | -10.21 | 108.69 | 113.80 |
| 22 | BA | 348 | A | N7-C8-N9 | -10.21 | 108.69 | 113.80 |
| 22 | BA | 371 | A | N7-C8-N9 | -10.21 | 108.69 | 113.80 |
| 22 | BA | 1129 | A | N7-C8-N9 | -10.21 | 108.69 | 113.80 |
| 22 | BA | 2358 | A | N7-C8-N9 | -10.21 | 108.69 | 113.80 |
| 55 | B8 | 59 | A | N3-C4-C5 | -10.22 | 119.65 | 126.80 |
| 1 | AA | 937 | A | N7-C8-N9 | -10.21 | 108.69 | 113.80 |
| 1 | AA | 1197 | A | N3-C4-C5 | -10.21 | 119.65 | 126.80 |
| 1 | AA | 364 | A | N7-C8-N9 | -10.21 | 108.70 | 113.80 |
| 1 | AA | 607 | A | N7-C8-N9 | -10.21 | 108.70 | 113.80 |
| 22 | BA | 1477 | A | C5-C6-N6 | 10.21 | 131.87 | 123.70 |
| 1 | AA | 171 | A | N7-C8-N9 | -10.21 | 108.70 | 113.80 |
| 1 | AA | 622 | A | C5-C6-N6 | 10.20 | 131.86 | 123.70 |
| 1 | AA | 790 | A | C5-C6-N6 | 10.20 | 131.86 | 123.70 |
| 22 | BA | 1230 | A | C5-C6-N6 | 10.20 | 131.86 | 123.70 |
| 22 | BA | 1502 | A | C5-C6-N6 | 10.20 | 131.86 | 123.70 |
| 22 | BA | 1803 | A | C5-C6-N6 | 10.20 | 131.86 | 123.70 |
| 1 | AA | 77 | A | N7-C8-N9 | -10.20 | 108.70 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 227 | A | C5-C6-N6 | 10.20 | 131.86 | 123.70 |
| 22 | BA | 2070 | A | N7-C8-N9 | -10.20 | 108.70 | 113.80 |
| 1 | AA | 19 | A | N3-C4-C5 | -10.20 | 119.66 | 126.80 |
| 22 | BA | 6 | A | C5-C6-N6 | 10.20 | 131.86 | 123.70 |
| 22 | BA | 2095 | A | N7-C8-N9 | -10.20 | 108.70 | 113.80 |
| 22 | BA | 1655 | A | N7-C8-N9 | -10.20 | 108.70 | 113.80 |
| 22 | BA | 1689 | A | C5-C6-N6 | 10.20 | 131.86 | 123.70 |
| 22 | BA | 1205 | A | N7-C8-N9 | -10.20 | 108.70 | 113.80 |
| 1 | AA | 1252 | A | C5-C6-N6 | 10.20 | 131.86 | 123.70 |
| 1 | AA | 1261 | A | N3-C4-C5 | -10.20 | 119.66 | 126.80 |
| 22 | BA | 2482 | A | N3-C4-C5 | -10.20 | 119.66 | 126.80 |
| 1 | AA | 1368 | A | N3-C4-C5 | -10.20 | 119.66 | 126.80 |
| 22 | BA | 64 | A | N7-C8-N9 | -10.20 | 108.70 | 113.80 |
| 22 | BA | 95 | A | C5-C6-N6 | 10.20 | 131.86 | 123.70 |
| 22 | BA | 173 | A | N7-C8-N9 | -10.20 | 108.70 | 113.80 |
| 22 | BA | 541 | A | C5-C6-N6 | 10.20 | 131.86 | 123.70 |
| 22 | BA | 603 | A | C5-C6-N6 | 10.20 | 131.86 | 123.70 |
| 22 | BA | 613 | A | N7-C8-N9 | -10.20 | 108.70 | 113.80 |
| 22 | BA | 368 | A | N7-C8-N9 | -10.19 | 108.70 | 113.80 |
| 22 | BA | 507 | A | C5-C6-N6 | 10.19 | 131.85 | 123.70 |
| 22 | BA | 1998 | A | N7-C8-N9 | -10.19 | 108.70 | 113.80 |
| 22 | BA | 2675 | A | N7-C8-N9 | -10.19 | 108.70 | 113.80 |
| 1 | AA | 1157 | A | C5-C6-N6 | 10.19 | 131.85 | 123.70 |
| 22 | BA | 947 | A | N3-C4-C5 | -10.19 | 119.67 | 126.80 |
| 1 | AA | 1157 | A | N3-C4-C5 | -10.19 | 119.67 | 126.80 |
| 22 | BA | 1027 | A | N7-C8-N9 | -10.19 | 108.71 | 113.80 |
| 22 | BA | 127 | A | N7-C8-N9 | -10.19 | 108.71 | 113.80 |
| 22 | BA | 1938 | A | C5-C6-N6 | 10.19 | 131.85 | 123.70 |
| 23 | BB | 115 | A | N3-C4-C5 | -10.18 | 119.67 | 126.80 |
| 1 | AA | 1238 | A | N3-C4-C5 | -10.18 | 119.67 | 126.80 |
| 1 | AA | 1456 | A | N7-C8-N9 | -10.18 | 108.71 | 113.80 |
| 22 | BA | 311 | A | N7-C8-N9 | -10.18 | 108.71 | 113.80 |
| 1 | AA | 10 | A | C5-C6-N6 | 10.18 | 131.84 | 123.70 |
| 22 | BA | 347 | A | N3-C4-C5 | -10.18 | 119.67 | 126.80 |
| 1 | AA | 382 | A | N7-C8-N9 | -10.18 | 108.71 | 113.80 |
| 1 | AA | 1082 | A | N7-C8-N9 | -10.18 | 108.71 | 113.80 |
| 22 | BA | 1496 | A | N7-C8-N9 | -10.18 | 108.71 | 113.80 |
| 1 | AA | 994 | A | N7-C8-N9 | -10.18 | 108.71 | 113.80 |
| 22 | BA | 925 | A | N3-C4-C5 | -10.18 | 119.67 | 126.80 |
| 22 | BA | 1772 | A | N3-C4-C5 | -10.18 | 119.67 | 126.80 |
| 22 | BA | 1039 | A | N7-C8-N9 | -10.18 | 108.71 | 113.80 |
| 22 | BA | 2386 | A | N7-C8-N9 | -10.18 | 108.71 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 546 | A | N3-C4-C5 | -10.17 | 119.68 | 126.80 |
| 22 | BA | 454 | A | N7-C8-N9 | -10.17 | 108.71 | 113.80 |
| 22 | BA | 1640 | A | N3-C4-C5 | -10.17 | 119.68 | 126.80 |
| 22 | BA | 2020 | A | N3-C4-C5 | -10.17 | 119.68 | 126.80 |
| 22 | BA | 2665 | A | N3-C4-C5 | -10.17 | 119.68 | 126.80 |
| 22 | BA | 693 | A | N7-C8-N9 | -10.17 | 108.72 | 113.80 |
| 22 | BA | 2682 | A | N3-C4-C5 | -10.17 | 119.68 | 126.80 |
| 22 | BA | 165 | A | N7-C8-N9 | -10.17 | 108.72 | 113.80 |
| 22 | BA | 1434 | A | N9-C4-C5 | 10.17 | 109.87 | 105.80 |
| 22 | BA | 1739 | A | N3-C4-C5 | -10.17 | 119.68 | 126.80 |
| 22 | BA | 2439 | A | N7-C8-N9 | -10.17 | 108.72 | 113.80 |
| 1 | AA | 431 | A | N7-C8-N9 | -10.16 | 108.72 | 113.80 |
| 1 | AA | 878 | A | N7-C8-N9 | -10.16 | 108.72 | 113.80 |
| 1 | AA | 906 | A | N7-C8-N9 | -10.16 | 108.72 | 113.80 |
| 22 | BA | 2173 | A | N7-C8-N9 | -10.16 | 108.72 | 113.80 |
| 1 | AA | 1476 | A | N7-C8-N9 | -10.16 | 108.72 | 113.80 |
| 1 | AA | 1534 | A | N7-C8-N9 | -10.16 | 108.72 | 113.80 |
| 22 | BA | 172 | A | N3-C4-C5 | -10.16 | 119.69 | 126.80 |
| 22 | BA | 1937 | A | N7-C8-N9 | -10.16 | 108.72 | 113.80 |
| 22 | BA | 56 | A | C5-C6-N6 | 10.16 | 131.83 | 123.70 |
| 22 | BA | 592 | A | N7-C8-N9 | -10.16 | 108.72 | 113.80 |
| 22 | BA | 743 | A | C5-C6-N6 | 10.16 | 131.83 | 123.70 |
| 22 | BA | 2530 | A | N3-C4-C5 | -10.16 | 119.69 | 126.80 |
| 22 | BA | 2534 | A | N7-C8-N9 | -10.16 | 108.72 | 113.80 |
| 1 | AA | 1216 | A | N7-C8-N9 | -10.16 | 108.72 | 113.80 |
| 22 | BA | 21 | A | C5-C6-N6 | 10.16 | 131.83 | 123.70 |
| 22 | BA | 160 | A | N3-C4-C5 | -10.16 | 119.69 | 126.80 |
| 1 | AA | 768 | A | N3-C4-C5 | -10.16 | 119.69 | 126.80 |
| 22 | BA | 53 | A | C5-C6-N6 | 10.16 | 131.83 | 123.70 |
| 22 | BA | 592 | A | C5-C6-N6 | 10.16 | 131.83 | 123.70 |
| 22 | BA | 1969 | A | N7-C8-N9 | -10.16 | 108.72 | 113.80 |
| 22 | BA | 2135 | A | N7-C8-N9 | -10.16 | 108.72 | 113.80 |
| 1 | AA | 338 | A | C5-C6-N6 | 10.15 | 131.82 | 123.70 |
| 22 | BA | 863 | A | N7-C8-N9 | -10.15 | 108.72 | 113.80 |
| 22 | BA | 1590 | A | C5-C6-N6 | 10.15 | 131.82 | 123.70 |
| 22 | BA | 2461 | A | N7-C8-N9 | -10.15 | 108.72 | 113.80 |
| 1 | AA | 28 | A | N3-C4-C5 | -10.15 | 119.69 | 126.80 |
| 1 | AA | 649 | A | C5-C6-N6 | 10.15 | 131.82 | 123.70 |
| 1 | AA | 864 | A | N3-C4-C5 | -10.15 | 119.69 | 126.80 |
| 22 | BA | 1698 | A | N7-C8-N9 | -10.15 | 108.72 | 113.80 |
| 22 | BA | 2425 | A | N7-C8-N9 | -10.15 | 108.72 | 113.80 |
| 22 | BA | 2748 | A | N7-C8-N9 | -10.15 | 108.72 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 554 | A | N7-C8-N9 | -10.15 | 108.73 | 113.80 |
| 22 | BA | 63 | A | N7-C8-N9 | -10.15 | 108.72 | 113.80 |
| 22 | BA | 1794 | A | N3-C4-C5 | -10.15 | 119.70 | 126.80 |
| 22 | BA | 2317 | A | N3-C4-C5 | -10.15 | 119.70 | 126.80 |
| 23 | BB | 50 | A | N7-C8-N9 | -10.15 | 108.73 | 113.80 |
| 1 | AA | 66 | A | C5-C6-N6 | 10.14 | 131.81 | 123.70 |
| 1 | AA | 814 | A | N3-C4-C5 | -10.14 | 119.70 | 126.80 |
| 22 | BA | 64 | A | N3-C4-C5 | -10.14 | 119.70 | 126.80 |
| 22 | BA | 255 | A | C5-C6-N6 | 10.14 | 131.81 | 123.70 |
| 22 | BA | 514 | A | N7-C8-N9 | -10.14 | 108.73 | 113.80 |
| 22 | BA | 1591 | A | C5-C6-N6 | 10.14 | 131.82 | 123.70 |
| 22 | BA | 2418 | A | C5-C6-N6 | 10.14 | 131.81 | 123.70 |
| 1 | AA | 448 | A | N3-C4-C5 | -10.14 | 119.70 | 126.80 |
| 22 | BA | 1801 | A | N7-C8-N9 | -10.14 | 108.73 | 113.80 |
| 1 | AA | 704 | A | N7-C8-N9 | -10.14 | 108.73 | 113.80 |
| 22 | BA | 1194 | A | N3-C4-C5 | -10.14 | 119.70 | 126.80 |
| 22 | BA | 2882 | A | N3-C4-C5 | -10.14 | 119.70 | 126.80 |
| 1 | AA | 816 | A | N7-C8-N9 | -10.14 | 108.73 | 113.80 |
| 22 | BA | 920 | A | N3-C4-C5 | -10.14 | 119.70 | 126.80 |
| 22 | BA | 1274 | A | C5-C6-N6 | 10.14 | 131.81 | 123.70 |
| 22 | BA | 1287 | A | N3-C4-C5 | -10.13 | 119.70 | 126.80 |
| 22 | BA | 2031 | A | C5-C6-N6 | 10.13 | 131.80 | 123.70 |
| 1 | AA | 602 | A | C5-C6-N6 | 10.13 | 131.80 | 123.70 |
| 1 | AA | 949 | A | N3-C4-C5 | -10.13 | 119.71 | 126.80 |
| 22 | BA | 1717 | A | N3-C4-C5 | -10.13 | 119.71 | 126.80 |
| 22 | BA | 2094 | A | N3-C4-C5 | -10.13 | 119.71 | 126.80 |
| 1 | AA | 1324 | A | C5-C6-N6 | 10.13 | 131.80 | 123.70 |
| 1 | AA | 192 | A | N7-C8-N9 | -10.13 | 108.74 | 113.80 |
| 1 | AA | 753 | A | N7-C8-N9 | -10.12 | 108.74 | 113.80 |
| 1 | AA | 1306 | A | N3-C4-C5 | -10.12 | 119.71 | 126.80 |
| 1 | AA | 1418 | A | N7-C8-N9 | -10.13 | 108.74 | 113.80 |
| 22 | BA | 2077 | A | C5-C6-N6 | 10.13 | 131.80 | 123.70 |
| 22 | BA | 2154 | A | N3-C4-C5 | -10.12 | 119.71 | 126.80 |
| 1 | AA | 389 | A | N7-C8-N9 | -10.12 | 108.74 | 113.80 |
| 22 | BA | 677 | A | N7-C8-N9 | -10.12 | 108.74 | 113.80 |
| 1 | AA | 262 | A | N7-C8-N9 | -10.12 | 108.74 | 113.80 |
| 1 | AA | 1306 | A | N7-C8-N9 | -10.12 | 108.74 | 113.80 |
| 22 | BA | 156 | A | N7-C8-N9 | -10.12 | 108.74 | 113.80 |
| 22 | BA | 1134 | A | N7-C8-N9 | -10.12 | 108.74 | 113.80 |
| 22 | BA | 1918 | A | N7-C8-N9 | -10.12 | 108.74 | 113.80 |
| 1 | AA | 366 | A | N7-C8-N9 | -10.12 | 108.74 | 113.80 |
| 1 | AA | 706 | A | N7-C8-N9 | -10.12 | 108.74 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 2425 | A | N3-C4-C5 | -10.12 | 119.72 | 126.80 |
| 1 | AA | 55 | A | C5-C6-N6 | 10.11 | 131.79 | 123.70 |
| 1 | AA | 460 | A | N3-C4-C5 | -10.11 | 119.72 | 126.80 |
| 1 | AA | 1248 | A | N7-C8-N9 | -10.12 | 108.74 | 113.80 |
| 2 | AB | 205 | ASP | CB-CA-C | 10.11 | 130.63 | 110.40 |
| 22 | BA | 503 | A | N3-C4-C5 | -10.12 | 119.72 | 126.80 |
| 1 | AA | 743 | A | N7-C8-N9 | -10.11 | 108.75 | 113.80 |
| 22 | BA | 38 | A | N7-C8-N9 | -10.11 | 108.74 | 113.80 |
| 22 | BA | 94 | A | N7-C8-N9 | -10.11 | 108.74 | 113.80 |
| 22 | BA | 282 | A | C5-C6-N6 | 10.11 | 131.79 | 123.70 |
| 1 | AA | 66 | A | N7-C8-N9 | -10.11 | 108.75 | 113.80 |
| 22 | BA | 207 | A | N7-C8-N9 | -10.11 | 108.75 | 113.80 |
| 22 | BA | 1569 | A | N7-C8-N9 | -10.11 | 108.75 | 113.80 |
| 22 | BA | 1932 | A | N7-C8-N9 | -10.11 | 108.75 | 113.80 |
| 1 | AA | 1 | A | N3-C4-C5 | -10.11 | 119.72 | 126.80 |
| 1 | AA | 98 | A | N3-C4-C5 | -10.11 | 119.72 | 126.80 |
| 1 | AA | 1081 | A | C5-C6-N6 | 10.11 | 131.78 | 123.70 |
| 22 | BA | 1144 | A | N7-C8-N9 | -10.11 | 108.75 | 113.80 |
| 22 | BA | 118 | A | C5-C6-N6 | 10.11 | 131.78 | 123.70 |
| 1 | AA | 460 | A | N7-C8-N9 | -10.10 | 108.75 | 113.80 |
| 1 | AA | 728 | A | N3-C4-C5 | -10.10 | 119.73 | 126.80 |
| 22 | BA | 453 | A | N7-C8-N9 | -10.10 | 108.75 | 113.80 |
| 1 | AA | 149 | A | N7-C8-N9 | -10.10 | 108.75 | 113.80 |
| 1 | AA | 1176 | A | C5-C6-N6 | 10.10 | 131.78 | 123.70 |
| 1 | AA | 889 | A | N7-C8-N9 | -10.10 | 108.75 | 113.80 |
| 1 | AA | 1531 | A | N3-C4-C5 | -10.10 | 119.73 | 126.80 |
| 22 | BA | 800 | A | N7-C8-N9 | -10.10 | 108.75 | 113.80 |
| 22 | BA | 2531 | A | N3-C4-C5 | -10.10 | 119.73 | 126.80 |
| 23 | BB | 34 | A | C5-C6-N6 | 10.10 | 131.78 | 123.70 |
| 1 | AA | 909 | A | N7-C8-N9 | -10.10 | 108.75 | 113.80 |
| 1 | AA | 1476 | A | N3-C4-C5 | -10.10 | 119.73 | 126.80 |
| 22 | BA | 613 | A | N3-C4-C5 | -10.10 | 119.73 | 126.80 |
| 22 | BA | 1246 | A | N7-C8-N9 | -10.10 | 108.75 | 113.80 |
| 22 | BA | 1637 | A | N3-C4-C5 | -10.10 | 119.73 | 126.80 |
| 22 | BA | 2873 | A | N7-C8-N9 | -10.09 | 108.75 | 113.80 |
| 1 | AA | 983 | A | N7-C8-N9 | -10.09 | 108.76 | 113.80 |
| 1 | AA | 1180 | A | N7-C8-N9 | -10.09 | 108.75 | 113.80 |
| 22 | BA | 196 | A | N3-C4-C5 | -10.09 | 119.74 | 126.80 |
| 22 | BA | 142 | A | N3-C4-C5 | -10.09 | 119.74 | 126.80 |
| 1 | AA | 892 | A | N7-C8-N9 | -10.09 | 108.76 | 113.80 |
| 22 | BA | 945 | A | N7-C8-N9 | -10.09 | 108.76 | 113.80 |
| 22 | BA | 1553 | A | N7-C8-N9 | -10.09 | 108.76 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1650 | A | C5-C6-N6 | 10.09 | 131.77 | 123.70 |
| 1 | AA | 816 | A | N3-C4-C5 | -10.08 | 119.74 | 126.80 |
| 22 | BA | 195 | A | N3-C4-C5 | -10.08 | 119.74 | 126.80 |
| 22 | BA | 2872 | A | N7-C8-N9 | -10.08 | 108.76 | 113.80 |
| 1 | AA | 1004 | A | N3-C4-C5 | -10.08 | 119.74 | 126.80 |
| 22 | BA | 118 | A | N7-C8-N9 | -10.08 | 108.76 | 113.80 |
| 22 | BA | 429 | A | N7-C8-N9 | -10.08 | 108.76 | 113.80 |
| 22 | BA | 1413 | A | N7-C8-N9 | -10.08 | 108.76 | 113.80 |
| 22 | BA | 2013 | A | N7-C8-N9 | -10.08 | 108.76 | 113.80 |
| 23 | BB | 66 | A | N7-C8-N9 | -10.08 | 108.76 | 113.80 |
| 22 | BA | 256 | A | N3-C4-C5 | -10.08 | 119.75 | 126.80 |
| 22 | BA | 2469 | A | C5-C6-N6 | 10.08 | 131.76 | 123.70 |
| 23 | BB | 45 | A | N3-C4-C5 | -10.08 | 119.75 | 126.80 |
| 55 | B8 | 41 | A | N3-C4-C5 | -10.08 | 119.75 | 126.80 |
| 22 | BA | 95 | A | N7-C8-N9 | -10.07 | 108.76 | 113.80 |
| 22 | BA | 1549 | A | C5-C6-N6 | 10.07 | 131.76 | 123.70 |
| 1 | AA | 608 | A | N3-C4-C5 | -10.07 | 119.75 | 126.80 |
| 22 | BA | 265 | A | N7-C8-N9 | -10.07 | 108.76 | 113.80 |
| 1 | AA | 715 | A | N3-C4-C5 | -10.07 | 119.75 | 126.80 |
| 1 | AA | 1036 | A | N3-C4-C5 | -10.07 | 119.75 | 126.80 |
| 1 | AA | 1225 | A | N3-C4-C5 | -10.07 | 119.75 | 126.80 |
| 1 | AA | 1437 | A | C5-C6-N6 | 10.07 | 131.76 | 123.70 |
| 22 | BA | 1098 | A | N3-C4-C5 | -10.07 | 119.75 | 126.80 |
| 22 | BA | 675 | A | N3-C4-C5 | -10.07 | 119.75 | 126.80 |
| 22 | BA | 1916 | A | N7-C8-N9 | -10.07 | 108.77 | 113.80 |
| 22 | BA | 2813 | A | N3-C4-C5 | -10.07 | 119.75 | 126.80 |
| 1 | AA | 288 | A | N7-C8-N9 | -10.07 | 108.77 | 113.80 |
| 22 | BA | 590 | A | N3-C4-C5 | -10.07 | 119.75 | 126.80 |
| 22 | BA | 1008 | A | N7-C8-N9 | -10.07 | 108.77 | 113.80 |
| 22 | BA | 233 | A | C5-C6-N6 | 10.07 | 131.75 | 123.70 |
| 22 | BA | 1088 | A | N3-C4-C5 | -10.07 | 119.75 | 126.80 |
| 22 | BA | 1098 | A | C5-C6-N6 | 10.07 | 131.75 | 123.70 |
| 22 | BA | 1103 | A | N3-C4-C5 | -10.07 | 119.75 | 126.80 |
| 22 | BA | 1794 | A | C5-C6-N6 | 10.07 | 131.75 | 123.70 |
| 22 | BA | 2126 | A | N7-C8-N9 | -10.07 | 108.77 | 113.80 |
| 1 | AA | 938 | A | C5-C6-N6 | 10.06 | 131.75 | 123.70 |
| 22 | BA | 182 | A | N3-C4-C5 | -10.06 | 119.75 | 126.80 |
| 22 | BA | 833 | A | N3-C4-C5 | -10.06 | 119.75 | 126.80 |
| 22 | BA | 5 | A | C5-C6-N6 | 10.06 | 131.75 | 123.70 |
| 22 | BA | 241 | A | N7-C8-N9 | -10.06 | 108.77 | 113.80 |
| 22 | BA | 466 | A | N3-C4-C5 | -10.06 | 119.75 | 126.80 |
| 22 | BA | 477 | A | N3-C4-C5 | -10.06 | 119.76 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 988 | A | N7-C8-N9 | -10.06 | 108.77 | 113.80 |
| 22 | BA | 1054 | A | C5-C6-N6 | 10.06 | 131.75 | 123.70 |
| 22 | BA | 1175 | A | N7-C8-N9 | -10.06 | 108.77 | 113.80 |
| 22 | BA | 1632 | A | N3-C4-C5 | -10.06 | 119.75 | 126.80 |
| 54 | B7 | 9 | A | N7-C8-N9 | -10.06 | 108.77 | 113.80 |
| 1 | AA | 532 | A | C5-C6-N6 | 10.06 | 131.75 | 123.70 |
| 1 | AA | 1418 | A | N3-C4-C5 | -10.06 | 119.76 | 126.80 |
| 22 | BA | 1477 | A | N7-C8-N9 | -10.06 | 108.77 | 113.80 |
| 55 | B8 | 14 | A | N3-C4-C5 | -10.06 | 119.76 | 126.80 |
| 1 | AA | 435 | A | N3-C4-C5 | -10.06 | 119.76 | 126.80 |
| 22 | BA | 1095 | A | N7-C8-N9 | -10.06 | 108.77 | 113.80 |
| 1 | AA | 1081 | A | N3-C4-C5 | -10.06 | 119.76 | 126.80 |
| 22 | BA | 1640 | A | C5-C6-N6 | 10.05 | 131.74 | 123.70 |
| 1 | AA | 1102 | A | N3-C4-C5 | -10.05 | 119.76 | 126.80 |
| 22 | BA | 515 | A | N7-C8-N9 | -10.05 | 108.77 | 113.80 |
| 22 | BA | 2169 | A | N7-C8-N9 | -10.05 | 108.77 | 113.80 |
| 22 | BA | 2560 | A | N3-C4-C5 | -10.05 | 119.76 | 126.80 |
| 1 | AA | 274 | A | C5-C6-N6 | 10.05 | 131.74 | 123.70 |
| 1 | AA | 329 | A | N3-C4-C5 | -10.05 | 119.77 | 126.80 |
| 22 | BA | 216 | A | N7-C8-N9 | -10.05 | 108.78 | 113.80 |
| 1 | AA | 533 | A | C5-C6-N6 | 10.05 | 131.74 | 123.70 |
| 1 | AA | 1465 | A | N3-C4-C5 | -10.04 | 119.77 | 126.80 |
| 22 | BA | 1274 | A | N7-C8-N9 | -10.05 | 108.78 | 113.80 |
| 22 | BA | 1302 | A | C5-C6-N6 | 10.05 | 131.74 | 123.70 |
| 22 | BA | 2366 | A | N3-C4-C5 | -10.04 | 119.77 | 126.80 |
| 1 | AA | 1261 | A | N7-C8-N9 | -10.04 | 108.78 | 113.80 |
| 22 | BA | 1392 | A | N3-C4-C5 | -10.04 | 119.77 | 126.80 |
| 1 | AA | 1507 | A | N7-C8-N9 | -10.04 | 108.78 | 113.80 |
| 22 | BA | 1308 | A | N3-C4-C5 | -10.04 | 119.77 | 126.80 |
| 22 | BA | 1552 | A | N7-C8-N9 | -10.04 | 108.78 | 113.80 |
| 22 | BA | 52 | A | N7-C8-N9 | -10.04 | 108.78 | 113.80 |
| 22 | BA | 699 | A | N3-C4-C5 | -10.04 | 119.77 | 126.80 |
| 22 | BA | 2097 | A | N3-C4-C5 | -10.04 | 119.77 | 126.80 |
| 22 | BA | 2837 | A | N7-C8-N9 | -10.04 | 108.78 | 113.80 |
| 1 | AA | 81 | A | N7-C8-N9 | -10.04 | 108.78 | 113.80 |
| 22 | BA | 750 | A | N7-C8-N9 | -10.04 | 108.78 | 113.80 |
| 22 | BA | 1142 | A | N3-C4-C5 | -10.04 | 119.78 | 126.80 |
| 22 | BA | 1151 | A | N3-C4-C5 | -10.04 | 119.78 | 126.80 |
| 22 | BA | 1327 | A | N7-C8-N9 | -10.04 | 108.78 | 113.80 |
| 22 | BA | 1889 | A | N7-C8-N9 | -10.04 | 108.78 | 113.80 |
| 22 | BA | 2411 | A | N3-C4-C5 | -10.03 | 119.78 | 126.80 |
| 1 | AA | 1433 | A | N7-C8-N9 | -10.03 | 108.78 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1701 | A | N7-C8-N9 | -10.03 | 108.78 | 113.80 |
| 22 | BA | 2080 | A | N7-C8-N9 | -10.03 | 108.78 | 113.80 |
| 22 | BA | 1354 | A | N3-C4-C5 | -10.03 | 119.78 | 126.80 |
| 22 | BA | 2273 | A | N7-C8-N9 | -10.03 | 108.79 | 113.80 |
| 55 | B8 | 42 | A | N3-C4-C5 | -10.03 | 119.78 | 126.80 |
| 1 | AA | 223 | A | N7-C8-N9 | -10.03 | 108.79 | 113.80 |
| 22 | BA | 42 | A | N7-C8-N9 | -10.03 | 108.79 | 113.80 |
| 22 | BA | 320 | A | N7-C8-N9 | -10.03 | 108.79 | 113.80 |
| 22 | BA | 616 | A | N3-C4-C5 | -10.03 | 119.78 | 126.80 |
| 1 | AA | 1152 | A | N7-C8-N9 | -10.02 | 108.79 | 113.80 |
| 22 | BA | 1819 | A | N7-C8-N9 | -10.02 | 108.79 | 113.80 |
| 22 | BA | 1301 | A | N3-C4-C5 | -10.02 | 119.78 | 126.80 |
| 22 | BA | 2212 | A | N3-C4-C5 | -10.02 | 119.78 | 126.80 |
| 1 | AA | 288 | A | C5-C6-N6 | 10.02 | 131.72 | 123.70 |
| 1 | AA | 466 | A | N7-C8-N9 | -10.02 | 108.79 | 113.80 |
| 1 | AA | 1363 | A | C5-C6-N6 | 10.02 | 131.72 | 123.70 |
| 22 | BA | 990 | A | N3-C4-C5 | -10.02 | 119.79 | 126.80 |
| 22 | BA | 2734 | A | N3-C4-C5 | -10.02 | 119.79 | 126.80 |
| 22 | BA | 2900 | A | N7-C8-N9 | -10.02 | 108.79 | 113.80 |
| 22 | BA | 2542 | A | N7-C8-N9 | -10.02 | 108.79 | 113.80 |
| 1 | AA | 78 | A | C5-C6-N6 | 10.02 | 131.71 | 123.70 |
| 1 | AA | 288 | A | N3-C4-C5 | -10.01 | 119.79 | 126.80 |
| 22 | BA | 1032 | A | N7-C8-N9 | -10.01 | 108.79 | 113.80 |
| 22 | BA | 2425 | A | C5-C6-N6 | 10.01 | 131.71 | 123.70 |
| 1 | AA | 313 | A | N7-C8-N9 | -10.01 | 108.79 | 113.80 |
| 1 | AA | 630 | A | C5-C6-N6 | 10.01 | 131.71 | 123.70 |
| 1 | AA | 1236 | A | N7-C8-N9 | -10.01 | 108.80 | 113.80 |
| 22 | BA | 310 | A | N7-C8-N9 | -10.01 | 108.80 | 113.80 |
| 22 | BA | 1916 | A | N3-C4-C5 | -10.01 | 119.79 | 126.80 |
| 22 | BA | 1165 | A | N7-C8-N9 | -10.01 | 108.80 | 113.80 |
| 22 | BA | 1953 | A | N7-C8-N9 | -10.01 | 108.80 | 113.80 |
| 22 | BA | 2435 | A | C5-C6-N6 | 10.01 | 131.71 | 123.70 |
| 1 | AA | 816 | A | C5-C6-N6 | 10.00 | 131.70 | 123.70 |
| 1 | AA | 906 | A | N3-C4-C5 | -10.00 | 119.80 | 126.80 |
| 22 | BA | 2154 | A | C5-C6-N6 | 10.00 | 131.70 | 123.70 |
| 22 | BA | 197 | A | C5-C6-N6 | 10.00 | 131.70 | 123.70 |
| 23 | BB | 119 | A | C5-C6-N6 | 10.00 | 131.70 | 123.70 |
| 1 | AA | 635 | A | N7-C8-N9 | -10.00 | 108.80 | 113.80 |
| 22 | BA | 226 | A | N7-C8-N9 | -10.00 | 108.80 | 113.80 |
| 22 | BA | 404 | A | N7-C8-N9 | -10.00 | 108.80 | 113.80 |
| 22 | BA | 1829 | A | N3-C4-C5 | -10.00 | 119.80 | 126.80 |
| 22 | BA | 2868 | A | N7-C8-N9 | -10.00 | 108.80 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 22 | BA | 1274 | A | N3-C4-C5 | -10.00 | 119.80 | 126.80 |
| 22 | BA | 472 | A | N7-C8-N9 | -9.99 | 108.80 | 113.80 |
| 1 | AA | 532 | A | N3-C4-C5 | -9.99 | 119.81 | 126.80 |
| 22 | BA | 6 | A | N7-C8-N9 | -9.99 | 108.80 | 113.80 |
| 22 | BA | 743 | A | N7-C8-N9 | -9.99 | 108.80 | 113.80 |
| 1 | AA | 50 | A | N7-C8-N9 | -9.99 | 108.80 | 113.80 |
| 1 | AA | 1508 | A | N3-C4-C5 | -9.99 | 119.81 | 126.80 |
| 22 | BA | 602 | A | N7-C8-N9 | -9.99 | 108.81 | 113.80 |
| 22 | BA | 980 | A | C5-C6-N6 | 9.99 | 131.69 | 123.70 |
| 22 | BA | 1987 | A | C5-C6-N6 | 9.99 | 131.69 | 123.70 |
| 22 | BA | 849 | A | N3-C4-C5 | -9.99 | 119.81 | 126.80 |
| 22 | BA | 1829 | A | C5-C6-N6 | 9.98 | 131.69 | 123.70 |
| 22 | BA | 52 | A | N3-C4-C5 | -9.98 | 119.81 | 126.80 |
| 22 | BA | 497 | A | N7-C8-N9 | -9.98 | 108.81 | 113.80 |
| 23 | BB | 73 | A | N3-C4-C5 | -9.98 | 119.81 | 126.80 |
| 22 | BA | 167 | A | N3-C4-C5 | -9.98 | 119.81 | 126.80 |
| 1 | AA | 53 | A | C5-C6-N6 | 9.98 | 131.68 | 123.70 |
| 1 | AA | 1428 | A | N3-C4-C5 | -9.98 | 119.81 | 126.80 |
| 22 | BA | 1413 | A | N3-C4-C5 | -9.98 | 119.81 | 126.80 |
| 22 | BA | 382 | A | N7-C8-N9 | -9.98 | 108.81 | 113.80 |
| 22 | BA | 2205 | A | N7-C8-N9 | -9.98 | 108.81 | 113.80 |
| 22 | BA | 2778 | A | N7-C8-N9 | -9.98 | 108.81 | 113.80 |
| 1 | AA | 1350 | A | N7-C8-N9 | -9.98 | 108.81 | 113.80 |
| 22 | BA | 173 | A | N3-C4-C5 | -9.98 | 119.81 | 126.80 |
| 22 | BA | 300 | A | N7-C8-N9 | -9.98 | 108.81 | 113.80 |
| 22 | BA | 449 | A | C5-C6-N6 | 9.98 | 131.68 | 123.70 |
| 22 | BA | 2764 | A | N7-C8-N9 | -9.98 | 108.81 | 113.80 |
| 22 | BA | 2821 | A | C5-C6-N6 | 9.98 | 131.68 | 123.70 |
| 22 | BA | 1635 | A | N3-C4-C5 | -9.97 | 119.82 | 126.80 |
| 22 | BA | 2052 | A | N7-C8-N9 | -9.97 | 108.81 | 113.80 |
| 22 | BA | 2662 | A | N3-C4-C5 | -9.97 | 119.82 | 126.80 |
| 22 | BA | 1722 | A | C5-C6-N6 | 9.97 | 131.68 | 123.70 |
| 22 | BA | 1805 | A | N3-C4-C5 | -9.97 | 119.82 | 126.80 |
| 22 | BA | 2088 | A | N3-C4-C5 | -9.97 | 119.82 | 126.80 |
| 1 | AA | 766 | A | N7-C8-N9 | -9.97 | 108.81 | 113.80 |
| 22 | BA | 1889 | A | N3-C4-C5 | -9.97 | 119.82 | 126.80 |
| 1 | AA | 461 | A | N7-C8-N9 | -9.97 | 108.81 | 113.80 |
| 22 | BA | 2278 | A | N3-C4-C5 | -9.97 | 119.82 | 126.80 |
| 22 | BA | 2753 | A | N7-C8-N9 | -9.97 | 108.81 | 113.80 |
| 1 | AA | 907 | A | N3-C4-C5 | -9.97 | 119.82 | 126.80 |
| 22 | BA | 103 | A | N3-C4-C5 | -9.97 | 119.82 | 126.80 |
| 22 | BA | 1285 | A | N9-C4-C5 | 9.97 | 109.79 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1553 | A | N3-C4-C5 | -9.96 | 119.82 | 126.80 |
| 22 | BA | 1815 | A | C5-C6-N6 | 9.96 | 131.67 | 123.70 |
| 22 | BA | 2015 | A | C5-C6-N6 | 9.96 | 131.67 | 123.70 |
| 1 | AA | 487 | A | N7-C8-N9 | -9.96 | 108.82 | 113.80 |
| 22 | BA | 10 | A | N7-C8-N9 | -9.96 | 108.82 | 113.80 |
| 22 | BA | 2241 | A | N7-C8-N9 | -9.96 | 108.82 | 113.80 |
| 22 | BA | 2726 | A | N7-C8-N9 | -9.96 | 108.82 | 113.80 |
| 1 | AA | 1254 | A | N3-C4-C5 | -9.96 | 119.83 | 126.80 |
| 1 | AA | 1374 | A | N3-C4-C5 | -9.96 | 119.83 | 126.80 |
| 22 | BA | 2590 | A | N3-C4-C5 | -9.96 | 119.83 | 126.80 |
| 1 | AA | 33 | A | C5-C6-N6 | 9.96 | 131.66 | 123.70 |
| 1 | AA | 687 | A | N7-C8-N9 | -9.96 | 108.82 | 113.80 |
| 22 | BA | 340 | A | N7-C8-N9 | -9.96 | 108.82 | 113.80 |
| 22 | BA | 1866 | A | C5-C6-N6 | 9.96 | 131.66 | 123.70 |
| 22 | BA | 2058 | A | N7-C8-N9 | -9.96 | 108.82 | 113.80 |
| 23 | BB | 73 | A | C5-C6-N6 | 9.96 | 131.66 | 123.70 |
| 1 | AA | 1176 | A | N7-C8-N9 | -9.95 | 108.82 | 113.80 |
| 22 | BA | 751 | A | N3-C4-C5 | -9.95 | 119.83 | 126.80 |
| 22 | BA | 1809 | A | N7-C8-N9 | -9.95 | 108.82 | 113.80 |
| 22 | BA | 2872 | A | C4-C5-N7 | -9.95 | 105.72 | 110.70 |
| 1 | AA | 533 | A | N7-C8-N9 | -9.95 | 108.83 | 113.80 |
| 1 | AA | 1170 | A | N7-C8-N9 | -9.95 | 108.83 | 113.80 |
| 22 | BA | 2451 | A | N3-C4-C5 | -9.95 | 119.84 | 126.80 |
| 22 | BA | 213 | A | N3-C4-C5 | -9.95 | 119.84 | 126.80 |
| 22 | BA | 1175 | A | N3-C4-C5 | -9.95 | 119.84 | 126.80 |
| 1 | AA | 320 | A | N3-C4-C5 | -9.94 | 119.84 | 126.80 |
| 22 | BA | 2778 | A | N3-C4-C5 | -9.95 | 119.84 | 126.80 |
| 22 | BA | 1515 | A | N3-C4-C5 | -9.94 | 119.84 | 126.80 |
| 1 | AA | 715 | A | C5-C6-N6 | 9.94 | 131.65 | 123.70 |
| 1 | AA | 1102 | A | N7-C8-N9 | -9.94 | 108.83 | 113.80 |
| 1 | AA | 1349 | A | N7-C8-N9 | -9.94 | 108.83 | 113.80 |
| 22 | BA | 38 | A | N3-C4-C5 | -9.94 | 119.84 | 126.80 |
| 22 | BA | 2071 | A | N3-C4-C5 | -9.94 | 119.84 | 126.80 |
| 22 | BA | 155 | A | C5-C6-N6 | 9.94 | 131.65 | 123.70 |
| 22 | BA | 742 | A | N3-C4-C5 | -9.94 | 119.84 | 126.80 |
| 22 | BA | 1387 | A | N3-C4-C5 | -9.94 | 119.84 | 126.80 |
| 22 | BA | 1676 | A | N3-C4-C5 | -9.94 | 119.85 | 126.80 |
| 1 | AA | 116 | A | N7-C8-N9 | -9.93 | 108.83 | 113.80 |
| 1 | AA | 192 | A | N3-C4-C5 | -9.93 | 119.85 | 126.80 |
| 1 | AA | 629 | A | N7-C8-N9 | -9.93 | 108.83 | 113.80 |
| 1 | AA | 1396 | A | C5-C6-N6 | 9.93 | 131.65 | 123.70 |
| 1 | AA | 1468 | A | N3-C4-C5 | -9.93 | 119.85 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1515 | A | N9-C4-C5 | 9.93 | 109.77 | 105.80 |
| 23 | BB | 94 | A | N3-C4-C5 | -9.93 | 119.85 | 126.80 |
| 22 | BA | 1637 | A | N7-C8-N9 | -9.93 | 108.83 | 113.80 |
| 22 | BA | 2856 | A | N3-C4-C5 | -9.93 | 119.85 | 126.80 |
| 22 | BA | 1095 | A | N3-C4-C5 | -9.93 | 119.85 | 126.80 |
| 1 | AA | 640 | A | N3-C4-C5 | -9.93 | 119.85 | 126.80 |
| 22 | BA | 990 | A | N7-C8-N9 | -9.93 | 108.84 | 113.80 |
| 22 | BA | 2654 | A | N7-C8-N9 | -9.93 | 108.84 | 113.80 |
| 1 | AA | 59 | A | N3-C4-C5 | -9.92 | 119.85 | 126.80 |
| 22 | BA | 1469 | A | N7-C8-N9 | -9.92 | 108.84 | 113.80 |
| 22 | BA | 453 | A | N3-C4-C5 | -9.92 | 119.86 | 126.80 |
| 22 | BA | 1143 | A | N3-C4-C5 | -9.92 | 119.85 | 126.80 |
| 1 | AA | 1288 | A | N7-C8-N9 | -9.92 | 108.84 | 113.80 |
| 22 | BA | 492 | A | N3-C4-C5 | -9.92 | 119.86 | 126.80 |
| 22 | BA | 1264 | A | N7-C8-N9 | -9.92 | 108.84 | 113.80 |
| 1 | AA | 635 | A | N3-C4-C5 | -9.92 | 119.86 | 126.80 |
| 1 | AA | 1093 | A | N3-C4-C5 | -9.92 | 119.86 | 126.80 |
| 22 | BA | 917 | A | N3-C4-C5 | -9.92 | 119.86 | 126.80 |
| 22 | BA | 1354 | A | C5-C6-N6 | 9.92 | 131.63 | 123.70 |
| 22 | BA | 2037 | A | C5-C6-N6 | 9.92 | 131.63 | 123.70 |
| 22 | BA | 2340 | A | N3-C4-C5 | -9.92 | 119.86 | 126.80 |
| 1 | AA | 1288 | A | N3-C4-C5 | -9.91 | 119.86 | 126.80 |
| 22 | BA | 226 | A | N3-C4-C5 | -9.91 | 119.86 | 126.80 |
| 22 | BA | 382 | A | N3-C4-C5 | -9.91 | 119.86 | 126.80 |
| 22 | BA | 752 | A | N3-C4-C5 | -9.91 | 119.86 | 126.80 |
| 22 | BA | 1365 | A | N3-C4-C5 | -9.91 | 119.86 | 126.80 |
| 22 | BA | 1336 | A | C5-C6-N6 | 9.91 | 131.63 | 123.70 |
| 22 | BA | 1551 | A | N3-C4-C5 | -9.91 | 119.86 | 126.80 |
| 1 | AA | 32 | A | N7-C8-N9 | -9.91 | 108.84 | 113.80 |
| 22 | BA | 42 | A | N3-C4-C5 | -9.91 | 119.86 | 126.80 |
| 22 | BA | 2757 | A | C5-C6-N6 | 9.91 | 131.63 | 123.70 |
| 1 | AA | 152 | A | N7-C8-N9 | -9.91 | 108.84 | 113.80 |
| 1 | AA | 196 | A | N7-C8-N9 | -9.91 | 108.85 | 113.80 |
| 1 | AA | 814 | A | N7-C8-N9 | -9.91 | 108.84 | 113.80 |
| 22 | BA | 270 | A | N7-C8-N9 | -9.91 | 108.84 | 113.80 |
| 22 | BA | 753 | A | N7-C8-N9 | -9.91 | 108.84 | 113.80 |
| 22 | BA | 1366 | A | N3-C4-C5 | -9.91 | 119.86 | 126.80 |
| 22 | BA | 1579 | A | N3-C4-C5 | -9.91 | 119.86 | 126.80 |
| 22 | BA | 2476 | A | N7-C8-N9 | -9.91 | 108.84 | 113.80 |
| 1 | AA | 1093 | A | N7-C8-N9 | -9.91 | 108.85 | 113.80 |
| 22 | BA | 899 | A | N3-C4-C5 | -9.91 | 119.86 | 126.80 |
| 22 | BA | 272 | A | N3-C4-C5 | -9.91 | 119.87 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1 | A | N7-C8-N9 | -9.90 | 108.85 | 113.80 |
| 22 | BA | 497 | A | N3-C4-C5 | -9.90 | 119.87 | 126.80 |
| 22 | BA | 2191 | A | N7-C8-N9 | -9.90 | 108.85 | 113.80 |
| 22 | BA | 2059 | A | N7-C8-N9 | -9.90 | 108.85 | 113.80 |
| 1 | AA | 718 | A | N7-C8-N9 | -9.90 | 108.85 | 113.80 |
| 1 | AA | 766 | A | N3-C4-C5 | -9.90 | 119.87 | 126.80 |
| 22 | BA | 2900 | A | C5-C6-N6 | 9.90 | 131.62 | 123.70 |
| 23 | BB | 39 | A | C5-C6-N6 | 9.90 | 131.62 | 123.70 |
| 1 | AA | 579 | A | N7-C8-N9 | -9.90 | 108.85 | 113.80 |
| 22 | BA | 844 | A | N7-C8-N9 | -9.90 | 108.85 | 113.80 |
| 22 | BA | 1084 | A | N3-C4-C5 | -9.90 | 119.87 | 126.80 |
| 22 | BA | 1668 | A | N7-C8-N9 | -9.90 | 108.85 | 113.80 |
| 1 | AA | 205 | A | N3-C4-C5 | -9.90 | 119.87 | 126.80 |
| 22 | BA | 1395 | A | N7-C8-N9 | -9.90 | 108.85 | 113.80 |
| 22 | BA | 1597 | A | N3-C4-C5 | -9.90 | 119.87 | 126.80 |
| 22 | BA | 1876 | A | C5-C6-N6 | 9.90 | 131.62 | 123.70 |
| 22 | BA | 2860 | A | N7-C8-N9 | -9.90 | 108.85 | 113.80 |
| 22 | BA | 2453 | A | N3-C4-C5 | -9.90 | 119.87 | 126.80 |
| 22 | BA | 1772 | A | N7-C8-N9 | -9.89 | 108.85 | 113.80 |
| 22 | BA | 2288 | A | N7-C8-N9 | -9.89 | 108.85 | 113.80 |
| 22 | BA | 2426 | A | N7-C8-N9 | -9.89 | 108.85 | 113.80 |
| 22 | BA | 28 | A | N7-C8-N9 | -9.89 | 108.86 | 113.80 |
| 22 | BA | 219 | A | N3-C4-C5 | -9.89 | 119.88 | 126.80 |
| 22 | BA | 1496 | A | C5-C6-N6 | 9.89 | 131.61 | 123.70 |
| 22 | BA | 2270 | A | N7-C8-N9 | -9.89 | 108.86 | 113.80 |
| 22 | BA | 219 | A | N7-C8-N9 | -9.89 | 108.86 | 113.80 |
| 22 | BA | 2614 | A | N9-C4-C5 | 9.89 | 109.76 | 105.80 |
| 22 | BA | 1001 | A | N3-C4-C5 | -9.89 | 119.88 | 126.80 |
| 1 | AA | 1188 | A | N7-C8-N9 | -9.88 | 108.86 | 113.80 |
| 1 | AA | 1513 | A | N7-C8-N9 | -9.88 | 108.86 | 113.80 |
| 22 | BA | 621 | A | N3-C4-C5 | -9.88 | 119.88 | 126.80 |
| 22 | BA | 2598 | A | N3-C4-C5 | -9.88 | 119.88 | 126.80 |
| 22 | BA | 608 | A | N3-C4-C5 | -9.88 | 119.88 | 126.80 |
| 22 | BA | 632 | A | N7-C8-N9 | -9.88 | 108.86 | 113.80 |
| 22 | BA | 743 | A | N3-C4-C5 | -9.88 | 119.88 | 126.80 |
| 22 | BA | 272 | A | C5-C6-N6 | 9.88 | 131.60 | 123.70 |
| 22 | BA | 1213 | A | C5-C6-N6 | 9.88 | 131.60 | 123.70 |
| 22 | BA | 1284 | A | N3-C4-C5 | -9.88 | 119.88 | 126.80 |
| 22 | BA | 1579 | A | N7-C8-N9 | -9.88 | 108.86 | 113.80 |
| 22 | BA | 2381 | A | C5-C6-N6 | 9.88 | 131.60 | 123.70 |
| 22 | BA | 1268 | A | N3-C4-C5 | -9.88 | 119.89 | 126.80 |
| 22 | BA | 1759 | A | N3-C4-C5 | -9.88 | 119.89 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1970 | A | C8-N9-C4 | 9.88 | 109.75 | 105.80 |
| 22 | BA | 2378 | A | C5-C6-N6 | 9.88 | 131.60 | 123.70 |
| 1 | AA | 767 | A | C5-C6-N6 | 9.88 | 131.60 | 123.70 |
| 1 | AA | 309 | A | C5-C6-N6 | 9.87 | 131.60 | 123.70 |
| 1 | AA | 452 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 22 | BA | 2013 | A | C5-C6-N6 | 9.87 | 131.60 | 123.70 |
| 22 | BA | 2054 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 1 | AA | 363 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 1 | AA | 781 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 1 | AA | 825 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 22 | BA | 71 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 22 | BA | 344 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 22 | BA | 685 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 22 | BA | 1073 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 23 | BB | 46 | A | N7-C8-N9 | -9.87 | 108.86 | 113.80 |
| 22 | BA | 900 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 22 | BA | 1705 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 1 | AA | 441 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 1 | AA | 509 | A | N7-C8-N9 | -9.87 | 108.87 | 113.80 |
| 22 | BA | 1254 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 22 | BA | 1746 | A | N7-C8-N9 | -9.87 | 108.87 | 113.80 |
| 22 | BA | 1901 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 22 | BA | 2407 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 22 | BA | 2478 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 1 | AA | 174 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 1 | AA | 655 | A | C5-C6-N6 | 9.86 | 131.59 | 123.70 |
| 22 | BA | 1745 | A | C5-C6-N6 | 9.87 | 131.59 | 123.70 |
| 22 | BA | 1848 | A | N3-C4-C5 | -9.87 | 119.89 | 126.80 |
| 22 | BA | 1937 | A | N3-C4-C5 | -9.86 | 119.89 | 126.80 |
| 1 | AA | 1320 | C | C6-N1-C2 | 9.86 | 124.25 | 120.30 |
| 1 | AA | 502 | A | N7-C8-N9 | -9.86 | 108.87 | 113.80 |
| 22 | BA | 1307 | A | N3-C4-C5 | -9.86 | 119.90 | 126.80 |
| 1 | AA | 408 | A | N3-C4-C5 | -9.86 | 119.90 | 126.80 |
| 22 | BA | 1054 | A | N3-C4-C5 | -9.86 | 119.90 | 126.80 |
| 22 | BA | 1665 | A | N7-C8-N9 | -9.86 | 108.87 | 113.80 |
| 1 | AA | 448 | A | N7-C8-N9 | -9.86 | 108.87 | 113.80 |
| 1 | AA | 790 | A | N3-C4-C5 | -9.86 | 119.90 | 126.80 |
| 1 | AA | 1055 | A | C5-C6-N6 | 9.86 | 131.59 | 123.70 |
| 22 | BA | 203 | A | N3-C4-C5 | -9.86 | 119.90 | 126.80 |
| 22 | BA | 374 | A | N7-C8-N9 | -9.86 | 108.87 | 113.80 |
| 1 | AA | 715 | A | N7-C8-N9 | -9.85 | 108.87 | 113.80 |
| 1 | AA | 977 | A | N7-C8-N9 | -9.85 | 108.87 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1431 | A | N7-C8-N9 | -9.85 | 108.87 | 113.80 |
| 22 | BA | 270 | A | N3-C4-C5 | -9.85 | 119.90 | 126.80 |
| 1 | AA | 1176 | A | N3-C4-C5 | -9.85 | 119.90 | 126.80 |
| 22 | BA | 2082 | A | N7-C8-N9 | -9.85 | 108.87 | 113.80 |
| 22 | BA | 2711 | A | N7-C8-N9 | -9.85 | 108.87 | 113.80 |
| 23 | BB | 59 | A | C4-C5-C6 | 9.85 | 121.93 | 117.00 |
| 22 | BA | 2412 | A | N7-C8-N9 | -9.85 | 108.87 | 113.80 |
| 23 | BB | 50 | A | N3-C4-C5 | -9.85 | 119.90 | 126.80 |
| 1 | AA | 482 | A | N7-C8-N9 | -9.85 | 108.88 | 113.80 |
| 22 | BA | 199 | A | N3-C4-C5 | -9.85 | 119.91 | 126.80 |
| 22 | BA | 255 | A | N7-C8-N9 | -9.85 | 108.88 | 113.80 |
| 22 | BA | 342 | A | N3-C4-C5 | -9.85 | 119.91 | 126.80 |
| 22 | BA | 599 | A | N7-C8-N9 | -9.85 | 108.88 | 113.80 |
| 22 | BA | 1791 | A | N3-C4-C5 | -9.85 | 119.91 | 126.80 |
| 22 | BA | 2352 | A | N7-C8-N9 | -9.85 | 108.88 | 113.80 |
| 22 | BA | 2267 | A | N7-C8-N9 | -9.85 | 108.88 | 113.80 |
| 1 | AA | 270 | A | N3-C4-C5 | -9.85 | 119.91 | 126.80 |
| 1 | AA | 1110 | A | N3-C4-C5 | -9.85 | 119.91 | 126.80 |
| 1 | AA | 2 | A | N3-C4-C5 | -9.84 | 119.91 | 126.80 |
| 1 | AA | 81 | A | N3-C4-C5 | -9.84 | 119.91 | 126.80 |
| 22 | BA | 1365 | A | N7-C8-N9 | -9.84 | 108.88 | 113.80 |
| 22 | BA | 1678 | A | N3-C4-C5 | -9.84 | 119.91 | 126.80 |
| 22 | BA | 1787 | A | C5-C6-N6 | 9.84 | 131.57 | 123.70 |
| 22 | BA | 2589 | A | N3-C4-C5 | -9.84 | 119.91 | 126.80 |
| 22 | BA | 2799 | A | N7-C8-N9 | -9.84 | 108.88 | 113.80 |
| 22 | BA | 216 | A | N3-C4-C5 | -9.84 | 119.91 | 126.80 |
| 22 | BA | 693 | A | C5-C6-N6 | 9.84 | 131.57 | 123.70 |
| 22 | BA | 2090 | A | N7-C8-N9 | -9.84 | 108.88 | 113.80 |
| 22 | BA | 706 | A | N3-C4-C5 | -9.84 | 119.92 | 126.80 |
| 22 | BA | 1439 | A | N7-C8-N9 | -9.84 | 108.88 | 113.80 |
| 22 | BA | 1744 | A | N3-C4-C5 | -9.84 | 119.92 | 126.80 |
| 23 | BB | 99 | A | N3-C4-C5 | -9.84 | 119.92 | 126.80 |
| 1 | AA | 374 | A | N3-C4-C5 | -9.83 | 119.92 | 126.80 |
| 1 | AA | 1171 | A | N7-C8-N9 | -9.83 | 108.88 | 113.80 |
| 22 | BA | 2031 | A | N3-C4-C5 | -9.83 | 119.92 | 126.80 |
| 1 | AA | 873 | A | N3-C4-C5 | -9.83 | 119.92 | 126.80 |
| 22 | BA | 13 | A | N7-C8-N9 | -9.83 | 108.89 | 113.80 |
| 1 | AA | 10 | A | N3-C4-C5 | -9.83 | 119.92 | 126.80 |
| 1 | AA | 282 | A | N3-C4-C5 | -9.83 | 119.92 | 126.80 |
| 22 | BA | 49 | A | N7-C8-N9 | -9.83 | 108.89 | 113.80 |
| 22 | BA | 1490 | A | N3-C4-C5 | -9.83 | 119.92 | 126.80 |
| 1 | AA | 16 | A | N3-C4-C5 | -9.82 | 119.92 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 499 | A | N3-C4-C5 | -9.82 | 119.92 | 126.80 |
| 23 | BB | 15 | A | N7-C8-N9 | -9.82 | 108.89 | 113.80 |
| 22 | BA | 447 | A | N7-C8-N9 | -9.82 | 108.89 | 113.80 |
| 1 | AA | 279 | A | N7-C8-N9 | -9.82 | 108.89 | 113.80 |
| 1 | AA | 559 | A | N7-C8-N9 | -9.82 | 108.89 | 113.80 |
| 1 | AA | 1005 | A | N3-C4-C5 | -9.82 | 119.93 | 126.80 |
| 22 | BA | 2453 | A | N7-C8-N9 | -9.82 | 108.89 | 113.80 |
| 1 | AA | 1080 | A | N7-C8-N9 | -9.82 | 108.89 | 113.80 |
| 22 | BA | 309 | A | N7-C8-N9 | -9.82 | 108.89 | 113.80 |
| 22 | BA | 477 | A | C5-C6-N6 | 9.82 | 131.56 | 123.70 |
| 22 | BA | 1900 | A | N3-C4-C5 | -9.82 | 119.93 | 126.80 |
| 23 | BB | 50 | A | C5-C6-N6 | 9.82 | 131.56 | 123.70 |
| 1 | AA | 327 | A | N3-C4-C5 | -9.82 | 119.93 | 126.80 |
| 22 | BA | 526 | A | N3-C4-C5 | -9.82 | 119.93 | 126.80 |
| 22 | BA | 1378 | A | N3-C4-C5 | -9.82 | 119.93 | 126.80 |
| 22 | BA | 1722 | A | N7-C8-N9 | -9.82 | 108.89 | 113.80 |
| 1 | AA | 607 | A | N3-C4-C5 | -9.82 | 119.93 | 126.80 |
| 22 | BA | 781 | A | N7-C8-N9 | -9.82 | 108.89 | 113.80 |
| 1 | AA | 1410 | A | N3-C4-C5 | -9.81 | 119.93 | 126.80 |
| 1 | AA | 1508 | A | C5-C6-N6 | 9.81 | 131.55 | 123.70 |
| 22 | BA | 2311 | A | N3-C4-C5 | -9.81 | 119.93 | 126.80 |
| 22 | BA | 2134 | A | N3-C4-C5 | -9.81 | 119.93 | 126.80 |
| 22 | BA | 505 | A | N3-C4-C5 | -9.81 | 119.93 | 126.80 |
| 22 | BA | 609 | A | N7-C8-N9 | -9.81 | 108.89 | 113.80 |
| 1 | AA | 602 | A | N3-C4-C5 | -9.81 | 119.93 | 126.80 |
| 22 | BA | 73 | A | N7-C8-N9 | -9.81 | 108.89 | 113.80 |
| 1 | AA | 430 | A | N3-C4-C5 | -9.81 | 119.94 | 126.80 |
| 22 | BA | 983 | A | N7-C8-N9 | -9.81 | 108.90 | 113.80 |
| 23 | BB | 59 | A | N7-C8-N9 | -9.81 | 108.90 | 113.80 |
| 1 | AA | 767 | A | N3-C4-C5 | -9.81 | 119.94 | 126.80 |
| 1 | AA | 1311 | A | N3-C4-C5 | -9.81 | 119.94 | 126.80 |
| 1 | AA | 478 | A | N3-C4-C5 | -9.80 | 119.94 | 126.80 |
| 1 | AA | 583 | A | N3-C4-C5 | -9.80 | 119.94 | 126.80 |
| 22 | BA | 541 | A | N7-C8-N9 | -9.80 | 108.90 | 113.80 |
| 22 | BA | 749 | A | N3-C4-C5 | -9.80 | 119.94 | 126.80 |
| 22 | BA | 833 | A | C5-C6-N6 | 9.80 | 131.54 | 123.70 |
| 1 | AA | 1339 | A | C5-C6-N6 | 9.80 | 131.54 | 123.70 |
| 22 | BA | 705 | A | C5-C6-N6 | 9.80 | 131.54 | 123.70 |
| 22 | BA | 2657 | A | N7-C8-N9 | -9.80 | 108.90 | 113.80 |
| 1 | AA | 675 | A | N3-C4-C5 | -9.80 | 119.94 | 126.80 |
| 22 | BA | 2009 | A | C5-C6-N6 | 9.80 | 131.54 | 123.70 |
| 22 | BA | 56 | A | N3-C4-C5 | -9.80 | 119.94 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 144 | A | N3-C4-C5 | -9.80 | 119.94 | 126.80 |
| 22 | BA | 2476 | A | N3-C4-C5 | -9.80 | 119.94 | 126.80 |
| 1 | AA | 353 | A | N3-C4-C5 | -9.80 | 119.94 | 126.80 |
| 1 | AA | 729 | A | N7-C8-N9 | -9.80 | 108.90 | 113.80 |
| 1 | AA | 1480 | A | N7-C8-N9 | -9.79 | 108.90 | 113.80 |
| 22 | BA | 111 | A | N3-C4-C5 | -9.79 | 119.94 | 126.80 |
| 22 | BA | 345 | A | N7-C8-N9 | -9.80 | 108.90 | 113.80 |
| 22 | BA | 1569 | A | N3-C4-C5 | -9.79 | 119.94 | 126.80 |
| 22 | BA | 1689 | A | N3-C4-C5 | -9.79 | 119.94 | 126.80 |
| 22 | BA | 1960 | A | N3-C4-C5 | -9.79 | 119.94 | 126.80 |
| 22 | BA | 2346 | A | N7-C8-N9 | -9.79 | 108.90 | 113.80 |
| 1 | AA | 681 | A | C5-C6-N6 | 9.79 | 131.53 | 123.70 |
| 1 | AA | 336 | A | N3-C4-C5 | -9.79 | 119.95 | 126.80 |
| 22 | BA | 156 | A | N3-C4-C5 | -9.79 | 119.95 | 126.80 |
| 22 | BA | 1246 | A | N3-C4-C5 | -9.79 | 119.94 | 126.80 |
| 22 | BA | 2097 | A | C5-C6-N6 | 9.79 | 131.53 | 123.70 |
| 23 | BB | 109 | A | N3-C4-C5 | -9.79 | 119.94 | 126.80 |
| 22 | BA | 2336 | A | N7-C8-N9 | -9.79 | 108.90 | 113.80 |
| 1 | AA | 327 | A | C5-C6-N6 | 9.79 | 131.53 | 123.70 |
| 1 | AA | 790 | A | N7-C8-N9 | -9.79 | 108.91 | 113.80 |
| 1 | AA | 1055 | A | N3-C4-C5 | -9.79 | 119.95 | 126.80 |
| 22 | BA | 1126 | A | N7-C8-N9 | -9.79 | 108.91 | 113.80 |
| 22 | BA | 2037 | A | N7-C8-N9 | -9.79 | 108.91 | 113.80 |
| 1 | AA | 1229 | A | N3-C4-C5 | -9.79 | 119.95 | 126.80 |
| 22 | BA | 44 | A | N7-C8-N9 | -9.79 | 108.91 | 113.80 |
| 22 | BA | 933 | A | N3-C4-C5 | -9.79 | 119.95 | 126.80 |
| 22 | BA | 979 | A | N3-C4-C5 | -9.78 | 119.95 | 126.80 |
| 22 | BA | 1403 | A | C5-C6-N6 | 9.79 | 131.53 | 123.70 |
| 22 | BA | 1571 | A | C5-C6-N6 | 9.79 | 131.53 | 123.70 |
| 22 | BA | 1593 | A | N3-C4-C5 | -9.79 | 119.95 | 126.80 |
| 22 | BA | 2761 | A | N7-C8-N9 | -9.78 | 108.91 | 113.80 |
| 22 | BA | 735 | A | C5-C6-N6 | 9.78 | 131.53 | 123.70 |
| 1 | AA | 802 | A | N7-C8-N9 | -9.78 | 108.91 | 113.80 |
| 1 | AA | 1375 | A | N3-C4-C5 | -9.78 | 119.95 | 126.80 |
| 22 | BA | 146 | A | N3-C4-C5 | -9.78 | 119.95 | 126.80 |
| 22 | BA | 2082 | A | N3-C4-C5 | -9.78 | 119.95 | 126.80 |
| 22 | BA | 2566 | A | N7-C8-N9 | -9.78 | 108.91 | 113.80 |
| 22 | BA | 2019 | A | N7-C8-N9 | -9.78 | 108.91 | 113.80 |
| 22 | BA | 2823 | A | N3-C4-C5 | -9.78 | 119.95 | 126.80 |
| 1 | AA | 782 | A | N7-C8-N9 | -9.78 | 108.91 | 113.80 |
| 22 | BA | 1580 | A | N3-C4-C5 | -9.77 | 119.96 | 126.80 |
| 22 | BA | 104 | A | N3-C4-C5 | -9.77 | 119.96 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 973 | A | N3-C4-C5 | -9.77 | 119.96 | 126.80 |
| 22 | BA | 1872 | A | C5-C6-N6 | 9.77 | 131.52 | 123.70 |
| 22 | BA | 2147 | A | N7-C8-N9 | -9.77 | 108.91 | 113.80 |
| 1 | AA | 1430 | A | N7-C8-N9 | -9.77 | 108.92 | 113.80 |
| 22 | BA | 223 | A | C5-C6-N6 | 9.77 | 131.51 | 123.70 |
| 22 | BA | 699 | A | N7-C8-N9 | -9.77 | 108.92 | 113.80 |
| 22 | BA | 1276 | A | N7-C8-N9 | -9.77 | 108.92 | 113.80 |
| 22 | BA | 1665 | A | N3-C4-C5 | -9.77 | 119.96 | 126.80 |
| 22 | BA | 2014 | A | N7-C8-N9 | -9.77 | 108.92 | 113.80 |
| 1 | AA | 1357 | A | C5-C6-N6 | 9.77 | 131.51 | 123.70 |
| 22 | BA | 616 | A | N7-C8-N9 | -9.77 | 108.92 | 113.80 |
| 22 | BA | 470 | A | N3-C4-C5 | -9.77 | 119.97 | 126.80 |
| 22 | BA | 2015 | A | N3-C4-C5 | -9.77 | 119.96 | 126.80 |
| 22 | BA | 2792 | A | N3-C4-C5 | -9.77 | 119.97 | 126.80 |
| 22 | BA | 152 | A | N7-C8-N9 | -9.76 | 108.92 | 113.80 |
| 22 | BA | 156 | A | C5-C6-N6 | 9.76 | 131.51 | 123.70 |
| 22 | BA | 330 | A | C5-C6-N6 | 9.76 | 131.51 | 123.70 |
| 22 | BA | 471 | A | N7-C8-N9 | -9.76 | 108.92 | 113.80 |
| 22 | BA | 1276 | A | C5-C6-N6 | 9.76 | 131.51 | 123.70 |
| 1 | AA | 696 | A | C5-C6-N6 | 9.76 | 131.51 | 123.70 |
| 22 | BA | 925 | A | C5-C6-N6 | 9.76 | 131.51 | 123.70 |
| 22 | BA | 2184 | A | N3-C4-C5 | -9.76 | 119.97 | 126.80 |
| 23 | BB | 58 | A | N3-C4-C5 | -9.76 | 119.97 | 126.80 |
| 1 | AA | 629 | A | N3-C4-C5 | -9.76 | 119.97 | 126.80 |
| 1 | AA | 695 | A | N3-C4-C5 | -9.76 | 119.97 | 126.80 |
| 1 | AA | 706 | A | C5-C6-N6 | 9.76 | 131.51 | 123.70 |
| 22 | BA | 63 | A | C5-C6-N6 | 9.76 | 131.50 | 123.70 |
| 22 | BA | 1509 | A | N3-C4-C5 | -9.76 | 119.97 | 126.80 |
| 1 | AA | 749 | A | N3-C4-C5 | -9.75 | 119.97 | 126.80 |
| 22 | BA | 670 | A | N7-C8-N9 | -9.75 | 108.92 | 113.80 |
| 22 | BA | 1603 | A | C5-C6-N6 | 9.75 | 131.50 | 123.70 |
| 22 | BA | 299 | A | C5-C6-N6 | 9.75 | 131.50 | 123.70 |
| 22 | BA | 756 | A | N7-C8-N9 | -9.75 | 108.92 | 113.80 |
| 22 | BA | 1384 | A | N3-C4-C5 | -9.75 | 119.97 | 126.80 |
| 1 | AA | 747 | A | N7-C8-N9 | -9.75 | 108.93 | 113.80 |
| 1 | AA | 964 | A | N7-C8-N9 | -9.75 | 108.93 | 113.80 |
| 1 | AA | 189 | A | N3-C4-C5 | -9.74 | 119.98 | 126.80 |
| 22 | BA | 1155 | A | N7-C8-N9 | -9.74 | 108.93 | 113.80 |
| 22 | BA | 2411 | A | N7-C8-N9 | -9.74 | 108.93 | 113.80 |
| 1 | AA | 80 | A | N3-C4-C5 | -9.74 | 119.98 | 126.80 |
| 1 | AA | 303 | A | N3-C4-C5 | -9.74 | 119.98 | 126.80 |
| 1 | AA | 640 | A | C5-C6-N6 | 9.74 | 131.49 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1357 | A | N3-C4-C5 | -9.74 | 119.98 | 126.80 |
| 22 | BA | 654 | A | N3-C4-C5 | -9.74 | 119.98 | 126.80 |
| 22 | BA | 751 | A | N7-C8-N9 | -9.74 | 108.93 | 113.80 |
| 1 | AA | 937 | A | N3-C4-C5 | -9.74 | 119.98 | 126.80 |
| 22 | BA | 199 | A | N7-C8-N9 | -9.74 | 108.93 | 113.80 |
| 22 | BA | 721 | A | C5-C6-N6 | 9.74 | 131.49 | 123.70 |
| 22 | BA | 2005 | A | N3-C4-C5 | -9.74 | 119.98 | 126.80 |
| 1 | AA | 1349 | A | N3-C4-C5 | -9.74 | 119.98 | 126.80 |
| 22 | BA | 443 | A | N3-C4-C5 | -9.74 | 119.98 | 126.80 |
| 22 | BA | 721 | A | N3-C4-C5 | -9.74 | 119.98 | 126.80 |
| 22 | BA | 2727 | A | N7-C8-N9 | -9.74 | 108.93 | 113.80 |
| 22 | BA | 1237 | A | N7-C8-N9 | -9.73 | 108.93 | 113.80 |
| 22 | BA | 1302 | A | N3-C4-C5 | -9.73 | 119.99 | 126.80 |
| 22 | BA | 1919 | A | N7-C8-N9 | -9.73 | 108.93 | 113.80 |
| 22 | BA | 2369 | A | N3-C4-C5 | -9.73 | 119.99 | 126.80 |
| 22 | BA | 2435 | A | N7-C8-N9 | -9.73 | 108.93 | 113.80 |
| 22 | BA | 1433 | A | N7-C8-N9 | -9.73 | 108.94 | 113.80 |
| 1 | AA | 195 | A | N7-C8-N9 | -9.73 | 108.94 | 113.80 |
| 22 | BA | 2432 | A | N7-C8-N9 | -9.73 | 108.94 | 113.80 |
| 1 | AA | 1219 | A | N7-C8-N9 | -9.72 | 108.94 | 113.80 |
| 22 | BA | 415 | A | N3-C4-C5 | -9.72 | 119.99 | 126.80 |
| 22 | BA | 1494 | A | N7-C8-N9 | -9.72 | 108.94 | 113.80 |
| 1 | AA | 72 | A | N3-C4-C5 | -9.72 | 119.99 | 126.80 |
| 1 | AA | 729 | A | N3-C4-C5 | -9.72 | 120.00 | 126.80 |
| 22 | BA | 1784 | A | N3-C4-C5 | -9.72 | 120.00 | 126.80 |
| 55 | B8 | 21 | A | N3-C4-C5 | -9.72 | 119.99 | 126.80 |
| 1 | AA | 1191 | A | C5-C6-N6 | 9.72 | 131.47 | 123.70 |
| 1 | AA | 1246 | A | N3-C4-C5 | -9.72 | 120.00 | 126.80 |
| 22 | BA | 975 | A | N7-C8-N9 | -9.72 | 108.94 | 113.80 |
| 22 | BA | 988 | A | N3-C4-C5 | -9.72 | 120.00 | 126.80 |
| 1 | AA | 366 | A | N3-C4-C5 | -9.71 | 120.00 | 126.80 |
| 22 | BA | 1021 | A | C5-C6-N6 | 9.71 | 131.47 | 123.70 |
| 22 | BA | 1027 | A | C5-C6-N6 | 9.71 | 131.47 | 123.70 |
| 22 | BA | 2247 | A | N7-C8-N9 | -9.71 | 108.94 | 113.80 |
| 1 | AA | 482 | A | N3-C4-C5 | -9.71 | 120.00 | 126.80 |
| 22 | BA | 74 | A | N7-C8-N9 | -9.71 | 108.94 | 113.80 |
| 22 | BA | 144 | A | C5-C6-N6 | 9.71 | 131.47 | 123.70 |
| 1 | AA | 663 | A | N3-C4-C5 | -9.71 | 120.00 | 126.80 |
| 1 | AA | 696 | A | N3-C4-C5 | -9.71 | 120.00 | 126.80 |
| 1 | AA | 878 | A | N3-C4-C5 | -9.71 | 120.00 | 126.80 |
| 22 | BA | 1204 | A | N7-C8-N9 | -9.71 | 108.94 | 113.80 |
| 22 | BA | 1871 | A | N7-C8-N9 | -9.71 | 108.94 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2547 | A | N3-C4-C5 | -9.71 | 120.00 | 126.80 |
| 1 | AA | 155 | A | C5-C6-N6 | 9.71 | 131.47 | 123.70 |
| 1 | AA | 1155 | A | N3-C4-C5 | -9.71 | 120.00 | 126.80 |
| 22 | BA | 911 | A | N3-C4-C5 | -9.71 | 120.00 | 126.80 |
| 22 | BA | 1717 | A | N7-C8-N9 | -9.71 | 108.95 | 113.80 |
| 22 | BA | 2792 | A | C5-C6-N6 | 9.71 | 131.47 | 123.70 |
| 22 | BA | 1877 | A | N3-C4-C5 | -9.71 | 120.01 | 126.80 |
| 1 | AA | 901 | A | C5-C6-N6 | 9.70 | 131.46 | 123.70 |
| 23 | BB | 78 | A | N3-C4-C5 | -9.70 | 120.01 | 126.80 |
| 1 | AA | 1431 | A | C5-C6-N6 | 9.70 | 131.46 | 123.70 |
| 22 | BA | 165 | A | N3-C4-C5 | -9.70 | 120.01 | 126.80 |
| 22 | BA | 2565 | A | N7-C8-N9 | -9.70 | 108.95 | 113.80 |
| 22 | BA | 1328 | A | N3-C4-C5 | -9.70 | 120.01 | 126.80 |
| 1 | AA | 338 | A | N3-C4-C5 | -9.70 | 120.01 | 126.80 |
| 1 | AA | 596 | A | N3-C4-C5 | -9.70 | 120.01 | 126.80 |
| 22 | BA | 95 | A | N3-C4-C5 | -9.70 | 120.01 | 126.80 |
| 1 | AA | 1044 | A | N3-C4-C5 | -9.70 | 120.01 | 126.80 |
| 22 | BA | 324 | A | C5-C6-N6 | 9.70 | 131.46 | 123.70 |
| 22 | BA | 508 | A | N3-C4-C5 | -9.70 | 120.01 | 126.80 |
| 22 | BA | 2700 | A | N7-C8-N9 | -9.70 | 108.95 | 113.80 |
| 1 | AA | 1236 | A | N3-C4-C5 | -9.69 | 120.02 | 126.80 |
| 1 | AA | 865 | A | C5-C6-N6 | 9.69 | 131.45 | 123.70 |
| 1 | AA | 1000 | A | C5-C6-N6 | 9.69 | 131.45 | 123.70 |
| 22 | BA | 1143 | A | N7-C8-N9 | -9.69 | 108.96 | 113.80 |
| 22 | BA | 1545 | A | N3-C4-C5 | -9.69 | 120.02 | 126.80 |
| 22 | BA | 1477 | A | N3-C4-C5 | -9.68 | 120.02 | 126.80 |
| 22 | BA | 1977 | A | C5-C6-N6 | 9.68 | 131.45 | 123.70 |
| 1 | AA | 860 | A | N7-C8-N9 | -9.68 | 108.96 | 113.80 |
| 22 | BA | 197 | A | N7-C8-N9 | -9.68 | 108.96 | 113.80 |
| 22 | BA | 1262 | A | N7-C8-N9 | -9.68 | 108.96 | 113.80 |
| 22 | BA | 2227 | A | N3-C4-C5 | -9.68 | 120.02 | 126.80 |
| 22 | BA | 2564 | A | N3-C4-C5 | -9.68 | 120.03 | 126.80 |
| 22 | BA | 2736 | A | N3-C4-C5 | -9.68 | 120.02 | 126.80 |
| 22 | BA | 2469 | A | N3-C4-C5 | -9.68 | 120.03 | 126.80 |
| 1 | AA | 1000 | A | N3-C4-C5 | -9.68 | 120.03 | 126.80 |
| 22 | BA | 1676 | A | N7-C8-N9 | -9.68 | 108.96 | 113.80 |
| 1 | AA | 151 | A | N3-C4-C5 | -9.67 | 120.03 | 126.80 |
| 1 | AA | 1082 | A | N3-C4-C5 | -9.67 | 120.03 | 126.80 |
| 22 | BA | 181 | A | N3-C4-C5 | -9.67 | 120.03 | 126.80 |
| 22 | BA | 345 | A | N3-C4-C5 | -9.67 | 120.03 | 126.80 |
| 22 | BA | 1927 | A | N3-C4-C5 | -9.67 | 120.03 | 126.80 |
| 22 | BA | 2126 | A | N3-C4-C5 | -9.67 | 120.03 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1858 | A | N3-C4-C5 | -9.67 | 120.03 | 126.80 |
| 1 | AA | 1105 | A | C5-C6-N6 | 9.67 | 131.44 | 123.70 |
| 22 | BA | 829 | A | N7-C8-N9 | -9.67 | 108.97 | 113.80 |
| 22 | BA | 244 | A | N7-C8-N9 | -9.67 | 108.97 | 113.80 |
| 22 | BA | 477 | A | N7-C8-N9 | -9.67 | 108.97 | 113.80 |
| 22 | BA | 1413 | A | C5-C6-N6 | 9.67 | 131.43 | 123.70 |
| 22 | BA | 2284 | A | N7-C8-N9 | -9.67 | 108.97 | 113.80 |
| 1 | AA | 1248 | A | N3-C4-C5 | -9.66 | 120.03 | 126.80 |
| 22 | BA | 1268 | A | N7-C8-N9 | -9.66 | 108.97 | 113.80 |
| 1 | AA | 1287 | A | N3-C4-C5 | -9.66 | 120.04 | 126.80 |
| 22 | BA | 1496 | A | N3-C4-C5 | -9.66 | 120.04 | 126.80 |
| 22 | BA | 2322 | A | N3-C4-C5 | -9.66 | 120.03 | 126.80 |
| 22 | BA | 1103 | A | N7-C8-N9 | -9.66 | 108.97 | 113.80 |
| 22 | BA | 1387 | A | N7-C8-N9 | -9.66 | 108.97 | 113.80 |
| 22 | BA | 2009 | A | N3-C4-C5 | -9.66 | 120.04 | 126.80 |
| 1 | AA | 432 | A | N3-C4-C5 | -9.66 | 120.04 | 126.80 |
| 22 | BA | 449 | A | N7-C8-N9 | -9.66 | 108.97 | 113.80 |
| 22 | BA | 460 | A | N3-C4-C5 | -9.66 | 120.04 | 126.80 |
| 22 | BA | 722 | A | N3-C4-C5 | -9.66 | 120.04 | 126.80 |
| 22 | BA | 1609 | A | N3-C4-C5 | -9.65 | 120.04 | 126.80 |
| 1 | AA | 393 | A | N3-C4-C5 | -9.65 | 120.04 | 126.80 |
| 1 | AA | 918 | A | N3-C4-C5 | -9.65 | 120.04 | 126.80 |
| 22 | BA | 1230 | A | N3-C4-C5 | -9.65 | 120.04 | 126.80 |
| 1 | AA | 716 | A | N7-C8-N9 | -9.65 | 108.97 | 113.80 |
| 22 | BA | 689 | A | C5-N7-C8 | 9.65 | 108.72 | 103.90 |
| 22 | BA | 892 | A | N3-C4-C5 | -9.65 | 120.04 | 126.80 |
| 22 | BA | 927 | A | N3-C4-C5 | -9.65 | 120.05 | 126.80 |
| 22 | BA | 2058 | A | N3-C4-C5 | -9.65 | 120.05 | 126.80 |
| 1 | AA | 53 | A | N3-C4-C5 | -9.65 | 120.05 | 126.80 |
| 22 | BA | 1434 | A | N7-C8-N9 | -9.65 | 108.97 | 113.80 |
| 1 | AA | 573 | A | N3-C4-C5 | -9.65 | 120.05 | 126.80 |
| 1 | AA | 609 | A | N3-C4-C5 | -9.65 | 120.05 | 126.80 |
| 22 | BA | 14 | A | N3-C4-C5 | -9.65 | 120.05 | 126.80 |
| 22 | BA | 402 | A | N7-C8-N9 | -9.65 | 108.98 | 113.80 |
| 22 | BA | 722 | A | C5-C6-N6 | 9.65 | 131.42 | 123.70 |
| 22 | BA | 492 | A | N7-C8-N9 | -9.64 | 108.98 | 113.80 |
| 22 | BA | 1134 | A | C5-C6-N6 | 9.64 | 131.41 | 123.70 |
| 22 | BA | 1155 | A | C5-C6-N6 | 9.64 | 131.41 | 123.70 |
| 22 | BA | 1247 | A | N3-C4-C5 | -9.64 | 120.05 | 126.80 |
| 22 | BA | 2810 | A | N3-C4-C5 | -9.64 | 120.05 | 126.80 |
| 1 | AA | 1483 | A | N3-C4-C5 | -9.64 | 120.05 | 126.80 |
| 22 | BA | 423 | A | N7-C8-N9 | -9.64 | 108.98 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1111 | A | N3-C4-C5 | -9.64 | 120.05 | 126.80 |
| 22 | BA | 2015 | A | N7-C8-N9 | -9.64 | 108.98 | 113.80 |
| 22 | BA | 905 | A | N3-C4-C5 | -9.64 | 120.05 | 126.80 |
| 22 | BA | 182 | A | N7-C8-N9 | -9.64 | 108.98 | 113.80 |
| 22 | BA | 1431 | A | N7-C8-N9 | -9.64 | 108.98 | 113.80 |
| 1 | AA | 306 | A | N3-C4-C5 | -9.64 | 120.06 | 126.80 |
| 1 | AA | 539 | A | N7-C8-N9 | -9.63 | 108.98 | 113.80 |
| 22 | BA | 402 | A | N3-C4-C5 | -9.63 | 120.06 | 126.80 |
| 22 | BA | 936 | A | C5-C6-N6 | 9.63 | 131.41 | 123.70 |
| 1 | AA | 415 | A | N7-C8-N9 | -9.63 | 108.98 | 113.80 |
| 1 | AA | 371 | A | C5-C6-N6 | 9.63 | 131.40 | 123.70 |
| 22 | BA | 739 | A | N3-C4-C5 | -9.63 | 120.06 | 126.80 |
| 22 | BA | 1230 | A | N7-C8-N9 | -9.63 | 108.98 | 113.80 |
| 22 | BA | 2088 | A | C5-C6-N6 | 9.63 | 131.40 | 123.70 |
| 22 | BA | 2451 | A | N9-C4-C5 | 9.63 | 109.65 | 105.80 |
| 1 | AA | 908 | A | N3-C4-C5 | -9.62 | 120.06 | 126.80 |
| 1 | AA | 1507 | A | C5-C6-N6 | 9.62 | 131.40 | 123.70 |
| 22 | BA | 1544 | A | N7-C8-N9 | -9.62 | 108.99 | 113.80 |
| 55 | B8 | 26 | A | N3-C4-C5 | -9.62 | 120.06 | 126.80 |
| 1 | AA | 131 | A | N3-C4-C5 | -9.62 | 120.07 | 126.80 |
| 1 | AA | 109 | A | N7-C8-N9 | -9.62 | 108.99 | 113.80 |
| 1 | AA | 1483 | A | N7-C8-N9 | -9.62 | 108.99 | 113.80 |
| 1 | AA | 199 | A | C5-C6-N6 | 9.62 | 131.39 | 123.70 |
| 22 | BA | 979 | A | N7-C8-N9 | -9.62 | 108.99 | 113.80 |
| 22 | BA | 1987 | A | N3-C4-C5 | -9.62 | 120.07 | 126.80 |
| 22 | BA | 2835 | A | N3-C4-C5 | -9.62 | 120.07 | 126.80 |
| 1 | AA | 676 | A | N3-C4-C5 | -9.61 | 120.07 | 126.80 |
| 22 | BA | 2733 | A | N3-C4-C5 | -9.61 | 120.07 | 126.80 |
| 22 | BA | 996 | A | N3-C4-C5 | -9.61 | 120.07 | 126.80 |
| 22 | BA | 2267 | A | C5-C6-N6 | 9.61 | 131.39 | 123.70 |
| 1 | AA | 431 | A | N9-C4-C5 | 9.61 | 109.64 | 105.80 |
| 1 | AA | 938 | A | N7-C8-N9 | -9.61 | 109.00 | 113.80 |
| 22 | BA | 2660 | A | N3-C4-C5 | -9.61 | 120.07 | 126.80 |
| 1 | AA | 315 | A | N3-C4-C5 | -9.61 | 120.08 | 126.80 |
| 1 | AA | 1022 | A | N3-C4-C5 | -9.61 | 120.08 | 126.80 |
| 22 | BA | 401 | A | N7-C8-N9 | -9.61 | 109.00 | 113.80 |
| 22 | BA | 2887 | A | N3-C4-C5 | -9.61 | 120.08 | 126.80 |
| 22 | BA | 2675 | A | N3-C4-C5 | -9.60 | 120.08 | 126.80 |
| 1 | AA | 819 | A | N7-C8-N9 | -9.60 | 109.00 | 113.80 |
| 1 | AA | 149 | A | N3-C4-C5 | -9.60 | 120.08 | 126.80 |
| 1 | AA | 364 | A | N3-C4-C5 | -9.60 | 120.08 | 126.80 |
| 22 | BA | 2600 | A | N3-C4-C5 | -9.60 | 120.08 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 2821 | A | N3-C4-C5 | -9.60 | 120.08 | 126.80 |
| 1 | AA | 780 | A | N7-C8-N9 | -9.60 | 109.00 | 113.80 |
| 1 | AA | 784 | A | C5-C6-N6 | 9.60 | 131.38 | 123.70 |
| 1 | AA | 1012 | A | C5-C6-N6 | 9.60 | 131.38 | 123.70 |
| 22 | BA | 1890 | A | N3-C4-C5 | -9.60 | 120.08 | 126.80 |
| 1 | AA | 1042 | A | N3-C4-C5 | -9.60 | 120.08 | 126.80 |
| 22 | BA | 1938 | A | N3-C4-C5 | -9.60 | 120.08 | 126.80 |
| 22 | BA | 2070 | A | N3-C4-C5 | -9.60 | 120.08 | 126.80 |
| 1 | AA | 262 | A | N3-C4-C5 | -9.59 | 120.08 | 126.80 |
| 1 | AA | 270 | A | C5-C6-N6 | 9.59 | 131.37 | 123.70 |
| 22 | BA | 1548 | A | N3-C4-C5 | -9.59 | 120.08 | 126.80 |
| 22 | BA | 2541 | A | N3-C4-C5 | -9.59 | 120.08 | 126.80 |
| 22 | BA | 2899 | A | N3-C4-C5 | -9.59 | 120.08 | 126.80 |
| 22 | BA | 2284 | A | C5-C6-N6 | 9.59 | 131.37 | 123.70 |
| 1 | AA | 28 | A | N7-C8-N9 | -9.59 | 109.00 | 113.80 |
| 1 | AA | 155 | A | N3-C4-C5 | -9.59 | 120.09 | 126.80 |
| 1 | AA | 1105 | A | N3-C4-C5 | -9.59 | 120.09 | 126.80 |
| 22 | BA | 152 | A | N3-C4-C5 | -9.59 | 120.09 | 126.80 |
| 22 | BA | 556 | A | N3-C4-C5 | -9.59 | 120.09 | 126.80 |
| 22 | BA | 2392 | A | N3-C4-C5 | -9.59 | 120.09 | 126.80 |
| 22 | BA | 1678 | A | N7-C8-N9 | -9.59 | 109.01 | 113.80 |
| 22 | BA | 1932 | A | N3-C4-C5 | -9.59 | 120.09 | 126.80 |
| 22 | BA | 2020 | A | N7-C8-N9 | -9.58 | 109.01 | 113.80 |
| 1 | AA | 60 | A | N3-C4-C5 | -9.58 | 120.09 | 126.80 |
| 22 | BA | 251 | A | C5-C6-N6 | 9.58 | 131.37 | 123.70 |
| 22 | BA | 1057 | A | N3-C4-C5 | -9.58 | 120.09 | 126.80 |
| 1 | AA | 468 | A | N3-C4-C5 | -9.58 | 120.09 | 126.80 |
| 22 | BA | 718 | A | N3-C4-C5 | -9.58 | 120.09 | 126.80 |
| 22 | BA | 1050 | A | N3-C4-C5 | -9.58 | 120.09 | 126.80 |
| 22 | BA | 1373 | A | C5-C6-N6 | 9.58 | 131.36 | 123.70 |
| 22 | BA | 2278 | A | N7-C8-N9 | -9.58 | 109.01 | 113.80 |
| 22 | BA | 2270 | A | N3-C4-C5 | -9.57 | 120.10 | 126.80 |
| 23 | BB | 53 | A | N3-C4-C5 | -9.57 | 120.10 | 126.80 |
| 1 | AA | 162 | A | C4-C5-C6 | 9.57 | 121.79 | 117.00 |
| 1 | AA | 831 | A | N3-C4-C5 | -9.57 | 120.10 | 126.80 |
| 22 | BA | 1021 | A | N7-C8-N9 | -9.57 | 109.01 | 113.80 |
| 22 | BA | 1143 | A | C5-C6-N6 | 9.57 | 131.36 | 123.70 |
| 22 | BA | 1635 | A | N7-C8-N9 | -9.57 | 109.01 | 113.80 |
| 22 | BA | 1669 | A | C5-C6-N6 | 9.57 | 131.36 | 123.70 |
| 1 | AA | 401 | C | O5'-P-OP2 | -9.57 | 97.08 | 105.70 |
| 22 | BA | 861 | A | C5-C6-N6 | 9.57 | 131.36 | 123.70 |
| 22 | BA | 1205 | A | N3-C4-C5 | -9.57 | 120.10 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2288 | A | N3-C4-C5 | -9.57 | 120.10 | 126.80 |
| 22 | BA | 2369 | A | C5-C6-N6 | 9.57 | 131.36 | 123.70 |
| 22 | BA | 2386 | A | C5-C6-N6 | 9.57 | 131.36 | 123.70 |
| 22 | BA | 2392 | A | N7-C8-N9 | -9.57 | 109.02 | 113.80 |
| 22 | BA | 2657 | A | N3-C4-C5 | -9.57 | 120.10 | 126.80 |
| 1 | AA | 608 | A | C5-C6-N6 | 9.57 | 131.35 | 123.70 |
| 1 | AA | 1251 | A | N3-C4-C5 | -9.57 | 120.10 | 126.80 |
| 23 | BB | 94 | A | N7-C8-N9 | -9.57 | 109.02 | 113.80 |
| 1 | AA | 946 | A | C5-C6-N6 | 9.56 | 131.35 | 123.70 |
| 22 | BA | 470 | A | N7-C8-N9 | -9.56 | 109.02 | 113.80 |
| 22 | BA | 63 | A | N3-C4-C5 | -9.56 | 120.11 | 126.80 |
| 22 | BA | 2378 | A | N3-C4-C5 | -9.56 | 120.11 | 126.80 |
| 22 | BA | 2340 | A | C5-C6-N6 | 9.56 | 131.35 | 123.70 |
| 22 | BA | 2298 | A | N3-C4-C5 | -9.56 | 120.11 | 126.80 |
| 1 | AA | 1197 | A | N7-C8-N9 | -9.55 | 109.02 | 113.80 |
| 22 | BA | 2600 | A | N7-C8-N9 | -9.55 | 109.02 | 113.80 |
| 22 | BA | 368 | A | N3-C4-C5 | -9.55 | 120.11 | 126.80 |
| 22 | BA | 1307 | A | N7-C8-N9 | -9.55 | 109.03 | 113.80 |
| 22 | BA | 2412 | A | N3-C4-C5 | -9.55 | 120.11 | 126.80 |
| 22 | BA | 49 | A | N3-C4-C5 | -9.55 | 120.12 | 126.80 |
| 22 | BA | 1591 | A | N3-C4-C5 | -9.55 | 120.12 | 126.80 |
| 22 | BA | 2287 | A | C5-C6-N6 | 9.55 | 131.34 | 123.70 |
| 1 | AA | 1275 | A | N3-C4-C5 | -9.55 | 120.12 | 126.80 |
| 22 | BA | 362 | A | C5-C6-N6 | 9.55 | 131.34 | 123.70 |
| 22 | BA | 2114 | A | N7-C8-N9 | -9.55 | 109.03 | 113.80 |
| 22 | BA | 2675 | A | C5-C6-N6 | 9.55 | 131.34 | 123.70 |
| 1 | AA | 1111 | A | N3-C4-C5 | -9.55 | 120.12 | 126.80 |
| 22 | BA | 412 | A | N7-C8-N9 | -9.54 | 109.03 | 113.80 |
| 22 | BA | 844 | A | N3-C4-C5 | -9.54 | 120.12 | 126.80 |
| 22 | BA | 2176 | A | N3-C4-C5 | -9.54 | 120.12 | 126.80 |
| 1 | AA | 621 | A | N7-C8-N9 | -9.54 | 109.03 | 113.80 |
| 1 | AA | 1271 | A | N3-C4-C5 | -9.54 | 120.12 | 126.80 |
| 22 | BA | 586 | A | N3-C4-C5 | -9.54 | 120.12 | 126.80 |
| 22 | BA | 849 | A | N7-C8-N9 | -9.54 | 109.03 | 113.80 |
| 1 | AA | 1319 | A | C8-N9-C4 | 9.54 | 109.61 | 105.80 |
| 1 | AA | 143 | A | N3-C4-C5 | -9.53 | 120.13 | 126.80 |
| 22 | BA | 439 | A | C5-C6-N6 | 9.54 | 131.33 | 123.70 |
| 1 | AA | 959 | A | N3-C4-C5 | -9.53 | 120.13 | 126.80 |
| 22 | BA | 362 | A | N3-C4-C5 | -9.53 | 120.13 | 126.80 |
| 22 | BA | 727 | A | N3-C4-C5 | -9.53 | 120.13 | 126.80 |
| 22 | BA | 1027 | A | N3-C4-C5 | -9.53 | 120.13 | 126.80 |
| 22 | BA | 2033 | A | N9-C4-C5 | 9.53 | 109.61 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 263 | A | N3-C4-C5 | -9.53 | 120.13 | 126.80 |
| 22 | BA | 602 | A | N3-C4-C5 | -9.53 | 120.13 | 126.80 |
| 22 | BA | 1286 | A | N3-C4-C5 | -9.53 | 120.13 | 126.80 |
| 22 | BA | 1762 | A | N7-C8-N9 | -9.53 | 109.04 | 113.80 |
| 22 | BA | 2054 | A | C5-C6-N6 | 9.53 | 131.32 | 123.70 |
| 22 | BA | 1545 | A | N7-C8-N9 | -9.53 | 109.04 | 113.80 |
| 1 | AA | 1130 | A | N3-C4-C5 | -9.52 | 120.13 | 126.80 |
| 22 | BA | 1085 | A | N3-C4-C5 | -9.52 | 120.13 | 126.80 |
| 22 | BA | 101 | A | C4-C5-C6 | 9.52 | 121.76 | 117.00 |
| 22 | BA | 1978 | A | N3-C4-C5 | -9.52 | 120.14 | 126.80 |
| 1 | AA | 161 | A | N3-C4-C5 | -9.52 | 120.14 | 126.80 |
| 23 | BB | 45 | A | N7-C8-N9 | -9.52 | 109.04 | 113.80 |
| 55 | B8 | 66 | A | N3-C4-C5 | -9.52 | 120.14 | 126.80 |
| 1 | AA | 60 | A | N7-C8-N9 | -9.52 | 109.04 | 113.80 |
| 22 | BA | 670 | A | N3-C4-C5 | -9.52 | 120.14 | 126.80 |
| 22 | BA | 2135 | A | N3-C4-C5 | -9.52 | 120.14 | 126.80 |
| 1 | AA | 784 | A | N3-C4-C5 | -9.52 | 120.14 | 126.80 |
| 22 | BA | 472 | A | N3-C4-C5 | -9.52 | 120.14 | 126.80 |
| 22 | BA | 482 | A | C5-C6-N6 | 9.51 | 131.31 | 123.70 |
| 22 | BA | 1571 | A | N7-C8-N9 | -9.51 | 109.05 | 113.80 |
| 1 | AA | 349 | A | N3-C4-C5 | -9.51 | 120.14 | 126.80 |
| 22 | BA | 19 | A | C5-C6-N6 | 9.51 | 131.31 | 123.70 |
| 22 | BA | 503 | A | N7-C8-N9 | -9.51 | 109.05 | 113.80 |
| 22 | BA | 666 | A | N3-C4-C5 | -9.51 | 120.14 | 126.80 |
| 22 | BA | 2088 | A | N7-C8-N9 | -9.51 | 109.05 | 113.80 |
| 22 | BA | 432 | A | N3-C4-C5 | -9.50 | 120.15 | 126.80 |
| 22 | BA | 1241 | A | C4-C5-C6 | 9.50 | 121.75 | 117.00 |
| 22 | BA | 2439 | A | N3-C4-C5 | -9.50 | 120.15 | 126.80 |
| 1 | AA | 1014 | A | N3-C4-C5 | -9.50 | 120.15 | 126.80 |
| 22 | BA | 2335 | A | N7-C8-N9 | -9.50 | 109.05 | 113.80 |
| 22 | BA | 1866 | A | N3-C4-C5 | -9.50 | 120.15 | 126.80 |
| 22 | BA | 483 | A | N3-C4-C5 | -9.50 | 120.15 | 126.80 |
| 22 | BA | 429 | A | N3-C4-C5 | -9.49 | 120.15 | 126.80 |
| 22 | BA | 1700 | A | N3-C4-C5 | -9.49 | 120.15 | 126.80 |
| 22 | BA | 2451 | A | C5-C6-N6 | 9.49 | 131.30 | 123.70 |
| 22 | BA | 1679 | A | N7-C8-N9 | -9.49 | 109.05 | 113.80 |
| 22 | BA | 2287 | A | N3-C4-C5 | -9.49 | 120.16 | 126.80 |
| 22 | BA | 1698 | A | N3-C4-C5 | -9.49 | 120.16 | 126.80 |
| 22 | BA | 2090 | A | C5-C6-N6 | 9.49 | 131.29 | 123.70 |
| 1 | AA | 1216 | A | N3-C4-C5 | -9.49 | 120.16 | 126.80 |
| 23 | BB | 104 | A | N3-C4-C5 | -9.49 | 120.16 | 126.80 |
| 22 | BA | 1655 | A | N3-C4-C5 | -9.48 | 120.16 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1016 | A | N3-C4-C5 | -9.48 | 120.16 | 126.80 |
| 1 | AA | 1151 | A | N3-C4-C5 | -9.48 | 120.16 | 126.80 |
| 22 | BA | 1067 | A | N3-C4-C5 | -9.48 | 120.16 | 126.80 |
| 22 | BA | 2435 | A | N3-C4-C5 | -9.48 | 120.16 | 126.80 |
| 22 | BA | 213 | A | C5-C6-N6 | 9.48 | 131.28 | 123.70 |
| 22 | BA | 227 | A | N3-C4-C5 | -9.48 | 120.16 | 126.80 |
| 22 | BA | 415 | A | N7-C8-N9 | -9.48 | 109.06 | 113.80 |
| 22 | BA | 529 | A | N7-C8-N9 | -9.48 | 109.06 | 113.80 |
| 22 | BA | 789 | A | N3-C4-C5 | -9.48 | 120.16 | 126.80 |
| 1 | AA | 559 | A | N3-C4-C5 | -9.48 | 120.17 | 126.80 |
| 1 | AA | 630 | A | N3-C4-C5 | -9.48 | 120.17 | 126.80 |
| 1 | AA | 969 | A | N3-C4-C5 | -9.48 | 120.17 | 126.80 |
| 22 | BA | 633 | A | N7-C8-N9 | -9.48 | 109.06 | 113.80 |
| 22 | BA | 1284 | A | N7-C8-N9 | -9.48 | 109.06 | 113.80 |
| 55 | B8 | 51 | A | N3-C4-C5 | -9.48 | 120.17 | 126.80 |
| 22 | BA | 1634 | A | N3-C4-C5 | -9.48 | 120.17 | 126.80 |
| 1 | AA | 412 | A | N7-C8-N9 | -9.47 | 109.06 | 113.80 |
| 22 | BA | 2432 | A | N3-C4-C5 | -9.47 | 120.17 | 126.80 |
| 22 | BA | 141 | G | C4-C5-N7 | 9.47 | 114.59 | 110.80 |
| 22 | BA | 574 | A | N3-C4-C5 | -9.47 | 120.17 | 126.80 |
| 22 | BA | 676 | A | N3-C4-C5 | -9.47 | 120.17 | 126.80 |
| 1 | AA | 1534 | A | N3-C4-C5 | -9.47 | 120.17 | 126.80 |
| 1 | AA | 1151 | A | C5-C6-N6 | 9.47 | 131.27 | 123.70 |
| 22 | BA | 1928 | A | N7-C8-N9 | -9.47 | 109.07 | 113.80 |
| 22 | BA | 2108 | A | N3-C4-C5 | -9.47 | 120.17 | 126.80 |
| 22 | BA | 2169 | A | N3-C4-C5 | -9.47 | 120.17 | 126.80 |
| 22 | BA | 1151 | A | C5-C6-N6 | 9.46 | 131.27 | 123.70 |
| 22 | BA | 1773 | A | N7-C8-N9 | -9.46 | 109.07 | 113.80 |
| 22 | BA | 2542 | A | N3-C4-C5 | -9.46 | 120.17 | 126.80 |
| 23 | BB | 29 | A | N3-C4-C5 | -9.46 | 120.17 | 126.80 |
| 41 | BT | 1 | MET | CB-CG-SD | -9.46 | 84.01 | 112.40 |
| 1 | AA | 451 | A | N3-C4-C5 | -9.46 | 120.18 | 126.80 |
| 22 | BA | 176 | A | C5-C6-N6 | 9.46 | 131.27 | 123.70 |
| 22 | BA | 299 | A | N3-C4-C5 | -9.46 | 120.18 | 126.80 |
| 22 | BA | 1505 | A | N3-C4-C5 | -9.46 | 120.18 | 126.80 |
| 22 | BA | 1866 | A | N7-C8-N9 | -9.46 | 109.07 | 113.80 |
| 22 | BA | 1966 | A | N3-C4-C5 | -9.46 | 120.18 | 126.80 |
| 22 | BA | 877 | A | N3-C4-C5 | -9.46 | 120.18 | 126.80 |
| 1 | AA | 1324 | A | N7-C8-N9 | -9.46 | 109.07 | 113.80 |
| 22 | BA | 1039 | A | N3-C4-C5 | -9.46 | 120.18 | 126.80 |
| 22 | BA | 2468 | A | N3-C4-C5 | -9.46 | 120.18 | 126.80 |
| 22 | BA | 699 | A | N9-C4-C5 | 9.45 | 109.58 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2163 | A | N3-C4-C5 | -9.46 | 120.18 | 126.80 |
| 1 | AA | 167 | A | N3-C4-C5 | -9.45 | 120.18 | 126.80 |
| 1 | AA | 1269 | A | N3-C4-C5 | -9.45 | 120.18 | 126.80 |
| 1 | AA | 702 | A | N7-C8-N9 | -9.45 | 109.08 | 113.80 |
| 22 | BA | 1366 | A | N7-C8-N9 | -9.45 | 109.07 | 113.80 |
| 22 | BA | 1384 | A | N7-C8-N9 | -9.45 | 109.07 | 113.80 |
| 1 | AA | 802 | A | N3-C4-C5 | -9.45 | 120.19 | 126.80 |
| 22 | BA | 756 | A | C5-C6-N6 | 9.45 | 131.26 | 123.70 |
| 22 | BA | 2534 | A | N3-C4-C5 | -9.45 | 120.19 | 126.80 |
| 1 | AA | 33 | A | N3-C4-C5 | -9.45 | 120.19 | 126.80 |
| 22 | BA | 1590 | A | N3-C4-C5 | -9.45 | 120.19 | 126.80 |
| 22 | BA | 1746 | A | N3-C4-C5 | -9.45 | 120.19 | 126.80 |
| 1 | AA | 747 | A | N3-C4-C5 | -9.44 | 120.19 | 126.80 |
| 1 | AA | 1252 | A | N7-C8-N9 | -9.44 | 109.08 | 113.80 |
| 22 | BA | 278 | A | N7-C8-N9 | -9.44 | 109.08 | 113.80 |
| 22 | BA | 626 | A | N3-C4-C5 | -9.44 | 120.19 | 126.80 |
| 22 | BA | 1169 | A | N3-C4-C5 | -9.44 | 120.19 | 126.80 |
| 22 | BA | 2358 | A | N3-C4-C5 | -9.44 | 120.19 | 126.80 |
| 22 | BA | 2741 | A | N9-C4-C5 | 9.44 | 109.58 | 105.80 |
| 1 | AA | 1531 | A | N7-C8-N9 | -9.44 | 109.08 | 113.80 |
| 1 | AA | 743 | A | C5-C6-N6 | 9.44 | 131.25 | 123.70 |
| 22 | BA | 1090 | A | N3-C4-C5 | -9.44 | 120.19 | 126.80 |
| 22 | BA | 2883 | A | N3-C4-C5 | -9.44 | 120.19 | 126.80 |
| 55 | B8 | 38 | A | C5-C6-N6 | 9.44 | 131.25 | 123.70 |
| 22 | BA | 1755 | A | N3-C4-C5 | -9.44 | 120.19 | 126.80 |
| 1 | AA | 642 | A | N3-C4-C5 | -9.43 | 120.20 | 126.80 |
| 22 | BA | 1420 | A | N3-C4-C5 | -9.43 | 120.20 | 126.80 |
| 22 | BA | 2346 | A | N3-C4-C5 | -9.43 | 120.20 | 126.80 |
| 22 | BA | 705 | A | C4-C5-C6 | 9.43 | 121.72 | 117.00 |
| 22 | BA | 918 | A | N7-C8-N9 | -9.43 | 109.08 | 113.80 |
| 22 | BA | 1553 | A | C5-C6-N6 | 9.43 | 131.25 | 123.70 |
| 1 | AA | 595 | A | N3-C4-C5 | -9.43 | 120.20 | 126.80 |
| 22 | BA | 1254 | A | N7-C8-N9 | -9.43 | 109.09 | 113.80 |
| 22 | BA | 1301 | A | N7-C8-N9 | -9.43 | 109.09 | 113.80 |
| 22 | BA | 1535 | A | N3-C4-C5 | -9.43 | 120.20 | 126.80 |
| 22 | BA | 1495 | A | N3-C4-C5 | -9.43 | 120.20 | 126.80 |
| 22 | BA | 2314 | A | N3-C4-C5 | -9.43 | 120.20 | 126.80 |
| 1 | AA | 1480 | A | N3-C4-C5 | -9.42 | 120.20 | 126.80 |
| 22 | BA | 191 | A | N7-C8-N9 | -9.42 | 109.09 | 113.80 |
| 22 | BA | 1494 | A | N3-C4-C5 | -9.42 | 120.20 | 126.80 |
| 22 | BA | 1495 | A | N7-C8-N9 | -9.42 | 109.09 | 113.80 |
| 22 | BA | 2430 | A | N7-C8-N9 | -9.42 | 109.09 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1 | AA | 452 | A | C5-C6-N6 | 9.42 | 131.24 | 123.70 |
| 1 | AA | 712 | A | C5-C6-N6 | 9.42 | 131.24 | 123.70 |
| 1 | AA | 1362 | A | N3-C4-C5 | -9.42 | 120.21 | 126.80 |
| 22 | BA | 354 | A | N3-C4-C5 | -9.42 | 120.21 | 126.80 |
| 22 | BA | 2281 | A | N7-C8-N9 | -9.42 | 109.09 | 113.80 |
| 23 | BB | 34 | A | N3-C4-C5 | -9.42 | 120.21 | 126.80 |
| 1 | AA | 1396 | A | N3-C4-C5 | -9.42 | 120.21 | 126.80 |
| 1 | AA | 718 | A | C5-C6-N6 | 9.42 | 131.23 | 123.70 |
| 1 | AA | 51 | A | N3-C4-C5 | -9.41 | 120.21 | 126.80 |
| 22 | BA | 1321 | A | N3-C4-C5 | -9.41 | 120.21 | 126.80 |
| 22 | BA | 1502 | A | N3-C4-C5 | -9.41 | 120.21 | 126.80 |
| 22 | BA | 2726 | A | N3-C4-C5 | -9.41 | 120.21 | 126.80 |
| 1 | AA | 80 | A | N7-C8-N9 | -9.41 | 109.09 | 113.80 |
| 22 | BA | 233 | A | N3-C4-C5 | -9.41 | 120.21 | 126.80 |
| 1 | AA | 250 | A | N3-C4-C5 | -9.41 | 120.21 | 126.80 |
| 1 | AA | 649 | A | N3-C4-C5 | -9.41 | 120.21 | 126.80 |
| 1 | AA | 958 | A | N3-C4-C5 | -9.41 | 120.21 | 126.80 |
| 22 | BA | 89 | A | N3-C4-C5 | -9.41 | 120.21 | 126.80 |
| 22 | BA | 522 | A | C5-C6-N6 | 9.41 | 131.23 | 123.70 |
| 55 | B8 | 73 | A | N3-C4-C5 | -9.41 | 120.21 | 126.80 |
| 1 | AA | 687 | A | N3-C4-C5 | -9.41 | 120.22 | 126.80 |
| 22 | BA | 792 | A | N3-C4-C5 | -9.41 | 120.22 | 126.80 |
| 22 | BA | 866 | A | N3-C4-C5 | -9.41 | 120.22 | 126.80 |
| 22 | BA | 1872 | A | N7-C8-N9 | -9.41 | 109.10 | 113.80 |
| 22 | BA | 2433 | A | C5-C6-N6 | 9.41 | 131.23 | 123.70 |
| 22 | BA | 2459 | A | C5-C6-N6 | 9.41 | 131.23 | 123.70 |
| 9 | AI | 11 | ARG | NE-CZ-NH1 | 9.40 | 125.00 | 120.30 |
| 22 | BA | 374 | A | N3-C4-C5 | -9.40 | 120.22 | 126.80 |
| 22 | BA | 1014 | A | N3-C4-C5 | -9.40 | 120.22 | 126.80 |
| 22 | BA | 1378 | A | N7-C8-N9 | -9.40 | 109.10 | 113.80 |
| 22 | BA | 1969 | A | N3-C4-C5 | -9.40 | 120.22 | 126.80 |
| 1 | AA | 1256 | A | N3-C4-C5 | -9.40 | 120.22 | 126.80 |
| 22 | BA | 2158 | A | N3-C4-C5 | -9.40 | 120.22 | 126.80 |
| 22 | BA | 2170 | A | N3-C4-C5 | -9.40 | 120.22 | 126.80 |
| 22 | BA | 265 | A | N3-C4-C5 | -9.40 | 120.22 | 126.80 |
| 22 | BA | 2183 | A | N3-C4-C5 | -9.40 | 120.22 | 126.80 |
| 22 | BA | 454 | A | N3-C4-C5 | -9.40 | 120.22 | 126.80 |
| 22 | BA | 928 | A | N7-C8-N9 | -9.40 | 109.10 | 113.80 |
| 22 | BA | 1876 | A | N3-C4-C5 | -9.39 | 120.22 | 126.80 |
| 1 | AA | 864 | A | N7-C8-N9 | -9.39 | 109.10 | 113.80 |
| 1 | AA | 1257 | A | N3-C4-C5 | -9.39 | 120.23 | 126.80 |
| 1 | AA | 1430 | A | N3-C4-C5 | -9.39 | 120.23 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 742 | A | C5-C6-N6 | 9.39 | 131.21 | 123.70 |
| 22 | BA | 2268 | A | N3-C4-C5 | -9.39 | 120.23 | 126.80 |
| 1 | AA | 325 | A | N3-C4-C5 | -9.39 | 120.23 | 126.80 |
| 22 | BA | 2386 | A | N3-C4-C5 | -9.39 | 120.23 | 126.80 |
| 1 | AA | 780 | A | N3-C4-C5 | -9.38 | 120.23 | 126.80 |
| 22 | BA | 391 | A | C5-C6-N6 | 9.39 | 131.21 | 123.70 |
| 22 | BA | 1285 | A | N7-C8-N9 | -9.38 | 109.11 | 113.80 |
| 23 | BB | 46 | A | N3-C4-C5 | -9.39 | 120.23 | 126.80 |
| 23 | BB | 101 | A | C5-C6-N1 | 9.39 | 122.39 | 117.70 |
| 22 | BA | 1032 | A | N3-C4-C5 | -9.38 | 120.23 | 126.80 |
| 1 | AA | 1280 | A | N3-C4-C5 | -9.38 | 120.23 | 126.80 |
| 22 | BA | 2378 | A | N7-C8-N9 | -9.38 | 109.11 | 113.80 |
| 22 | BA | 2850 | A | N7-C8-N9 | -9.38 | 109.11 | 113.80 |
| 1 | AA | 968 | A | N3-C4-C5 | -9.38 | 120.24 | 126.80 |
| 22 | BA | 203 | A | N7-C8-N9 | -9.38 | 109.11 | 113.80 |
| 22 | BA | 340 | A | N3-C4-C5 | -9.38 | 120.24 | 126.80 |
| 22 | BA | 2721 | A | N7-C8-N9 | -9.37 | 109.11 | 113.80 |
| 1 | AA | 397 | A | N7-C8-N9 | -9.37 | 109.11 | 113.80 |
| 1 | AA | 461 | A | C5-C6-N6 | 9.37 | 131.20 | 123.70 |
| 1 | AA | 1146 | A | N3-C4-C5 | -9.37 | 120.24 | 126.80 |
| 22 | BA | 501 | A | N3-C4-C5 | -9.37 | 120.24 | 126.80 |
| 1 | AA | 1169 | A | N3-C4-C5 | -9.37 | 120.24 | 126.80 |
| 22 | BA | 676 | A | N7-C8-N9 | -9.37 | 109.12 | 113.80 |
| 1 | AA | 162 | A | N7-C8-N9 | -9.37 | 109.12 | 113.80 |
| 22 | BA | 74 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |
| 22 | BA | 1745 | A | N3-C4-C5 | -9.37 | 120.25 | 126.80 |
| 1 | AA | 914 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |
| 1 | AA | 78 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |
| 22 | BA | 300 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |
| 22 | BA | 1126 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |
| 22 | BA | 1808 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |
| 22 | BA | 2241 | A | C5-C6-N6 | 9.36 | 131.19 | 123.70 |
| 1 | AA | 663 | A | C5-C6-N6 | 9.36 | 131.19 | 123.70 |
| 22 | BA | 1652 | A | N7-C8-N9 | -9.36 | 109.12 | 113.80 |
| 22 | BA | 1803 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |
| 1 | AA | 236 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |
| 22 | BA | 1347 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |
| 22 | BA | 1773 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |
| 22 | BA | 1853 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |
| 22 | BA | 2471 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |
| 23 | BB | 119 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |
| 22 | BA | 528 | A | N3-C4-C5 | -9.36 | 120.25 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2516 | A | N7-C8-N9 | -9.36 | 109.12 | 113.80 |
| 22 | BA | 666 | A | C5-C6-N6 | 9.35 | 131.18 | 123.70 |
| 1 | AA | 753 | A | N3-C4-C5 | -9.35 | 120.25 | 126.80 |
| 1 | AA | 1318 | A | N3-C4-C5 | -9.35 | 120.25 | 126.80 |
| 1 | AA | 412 | A | N9-C4-C5 | 9.35 | 109.54 | 105.80 |
| 22 | BA | 2059 | A | N3-C4-C5 | -9.35 | 120.25 | 126.80 |
| 1 | AA | 1398 | A | N3-C4-C5 | -9.35 | 120.26 | 126.80 |
| 22 | BA | 1134 | A | N3-C4-C5 | -9.35 | 120.26 | 126.80 |
| 1 | AA | 845 | A | N3-C4-C5 | -9.34 | 120.26 | 126.80 |
| 1 | AA | 1456 | A | N3-C4-C5 | -9.34 | 120.26 | 126.80 |
| 22 | BA | 320 | A | N3-C4-C5 | -9.34 | 120.26 | 126.80 |
| 22 | BA | 936 | A | N3-C4-C5 | -9.34 | 120.26 | 126.80 |
| 22 | BA | 960 | A | C4-C5-C6 | 9.34 | 121.67 | 117.00 |
| 22 | BA | 1264 | A | N3-C4-C5 | -9.34 | 120.26 | 126.80 |
| 22 | BA | 2810 | A | N7-C8-N9 | -9.34 | 109.13 | 113.80 |
| 1 | AA | 496 | A | N3-C4-C5 | -9.34 | 120.26 | 126.80 |
| 22 | BA | 2142 | A | C5-C6-N6 | 9.34 | 131.17 | 123.70 |
| 22 | BA | 2309 | A | N3-C4-C5 | -9.34 | 120.26 | 126.80 |
| 22 | BA | 2062 | A | N3-C4-C5 | -9.34 | 120.27 | 126.80 |
| 1 | AA | 344 | A | N3-C4-C5 | -9.33 | 120.27 | 126.80 |
| 1 | AA | 563 | A | N7-C8-N9 | -9.33 | 109.13 | 113.80 |
| 22 | BA | 1735 | A | N3-C4-C5 | -9.33 | 120.27 | 126.80 |
| 22 | BA | 911 | A | N7-C8-N9 | -9.33 | 109.14 | 113.80 |
| 22 | BA | 959 | A | N3-C4-C5 | -9.33 | 120.27 | 126.80 |
| 22 | BA | 574 | A | N7-C8-N9 | -9.33 | 109.14 | 113.80 |
| 1 | AA | 338 | A | N7-C8-N9 | -9.32 | 109.14 | 113.80 |
| 22 | BA | 1165 | A | N3-C4-C5 | -9.32 | 120.27 | 126.80 |
| 22 | BA | 1789 | A | N7-C8-N9 | -9.32 | 109.14 | 113.80 |
| 1 | AA | 130 | A | N3-C4-C5 | -9.32 | 120.28 | 126.80 |
| 1 | AA | 900 | A | N3-C4-C5 | -9.32 | 120.28 | 126.80 |
| 22 | BA | 1504 | A | N3-C4-C5 | -9.32 | 120.28 | 126.80 |
| 22 | BA | 1871 | A | N3-C4-C5 | -9.32 | 120.28 | 126.80 |
| 22 | BA | 2407 | A | N7-C8-N9 | -9.32 | 109.14 | 113.80 |
| 22 | BA | 2727 | A | C5-C6-N6 | 9.32 | 131.16 | 123.70 |
| 1 | AA | 179 | A | N3-C4-C5 | -9.32 | 120.28 | 126.80 |
| 22 | BA | 2766 | A | N7-C8-N9 | -9.32 | 109.14 | 113.80 |
| 1 | AA | 860 | A | C4-C5-C6 | 9.32 | 121.66 | 117.00 |
| 22 | BA | 1246 | A | N9-C4-C5 | 9.32 | 109.53 | 105.80 |
| 22 | BA | 1634 | A | N7-C8-N9 | -9.32 | 109.14 | 113.80 |
| 22 | BA | 2426 | A | N3-C4-C5 | -9.32 | 120.28 | 126.80 |
| 55 | B8 | 58 | A | N3-C4-C5 | -9.32 | 120.28 | 126.80 |
| 1 | AA | 356 | A | C5-C6-N6 | 9.31 | 131.15 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 560 | A | N3-C4-C5 | -9.31 | 120.28 | 126.80 |
| 22 | BA | 2013 | A | N3-C4-C5 | -9.31 | 120.28 | 126.80 |
| 1 | AA | 3 | A | N3-C4-C5 | -9.31 | 120.28 | 126.80 |
| 1 | AA | 695 | A | N7-C8-N9 | -9.31 | 109.14 | 113.80 |
| 1 | AA | 181 | A | C5-C6-N6 | 9.31 | 131.15 | 123.70 |
| 1 | AA | 716 | A | N3-C4-C5 | -9.31 | 120.28 | 126.80 |
| 1 | AA | 1508 | A | N7-C8-N9 | -9.31 | 109.14 | 113.80 |
| 22 | BA | 101 | A | C5-C6-N6 | 9.31 | 131.15 | 123.70 |
| 22 | BA | 1664 | A | N7-C8-N9 | -9.31 | 109.15 | 113.80 |
| 22 | BA | 2327 | A | N7-C8-N9 | -9.31 | 109.14 | 113.80 |
| 22 | BA | 2434 | A | N3-C4-C5 | -9.31 | 120.28 | 126.80 |
| 1 | AA | 152 | A | N3-C4-C5 | -9.30 | 120.29 | 126.80 |
| 1 | AA | 807 | A | N3-C4-C5 | -9.30 | 120.29 | 126.80 |
| 22 | BA | 1387 | A | C5-C6-N6 | 9.31 | 131.15 | 123.70 |
| 22 | BA | 2014 | A | N3-C4-C5 | -9.30 | 120.29 | 126.80 |
| 22 | BA | 2033 | A | N3-C4-C5 | -9.30 | 120.29 | 126.80 |
| 22 | BA | 2893 | A | C5-C6-N6 | 9.30 | 131.14 | 123.70 |
| 22 | BA | 430 | A | N3-C4-C5 | -9.30 | 120.29 | 126.80 |
| 1 | AA | 1507 | A | N3-C4-C5 | -9.30 | 120.29 | 126.80 |
| 22 | BA | 2882 | A | C5-N7-C8 | 9.30 | 108.55 | 103.90 |
| 22 | BA | 447 | A | N3-C4-C5 | -9.30 | 120.29 | 126.80 |
| 22 | BA | 861 | A | N7-C8-N9 | -9.30 | 109.15 | 113.80 |
| 22 | BA | 1453 | A | N3-C4-C5 | -9.30 | 120.29 | 126.80 |
| 22 | BA | 2037 | A | N3-C4-C5 | -9.30 | 120.29 | 126.80 |
| 1 | AA | 702 | A | N3-C4-C5 | -9.29 | 120.29 | 126.80 |
| 1 | AA | 865 | A | N7-C8-N9 | -9.29 | 109.15 | 113.80 |
| 22 | BA | 820 | A | N7-C8-N9 | -9.30 | 109.15 | 113.80 |
| 22 | BA | 1937 | A | N9-C4-C5 | 9.30 | 109.52 | 105.80 |
| 22 | BA | 391 | A | N3-C4-C5 | -9.29 | 120.29 | 126.80 |
| 22 | BA | 471 | A | N3-C4-C5 | -9.29 | 120.30 | 126.80 |
| 22 | BA | 522 | A | N7-C8-N9 | -9.29 | 109.15 | 113.80 |
| 22 | BA | 1308 | A | C5-N7-C8 | 9.29 | 108.55 | 103.90 |
| 1 | AA | 768 | A | N7-C8-N9 | -9.29 | 109.16 | 113.80 |
| 1 | AA | 329 | A | N7-C8-N9 | -9.29 | 109.16 | 113.80 |
| 1 | AA | 1150 | A | N3-C4-C5 | -9.29 | 120.30 | 126.80 |
| 22 | BA | 19 | A | N3-C4-C5 | -9.29 | 120.30 | 126.80 |
| 1 | AA | 1170 | A | C4-C5-C6 | 9.29 | 121.64 | 117.00 |
| 22 | BA | 2377 | A | N3-C4-C5 | -9.29 | 120.30 | 126.80 |
| 1 | AA | 681 | A | N3-C4-C5 | -9.28 | 120.30 | 126.80 |
| 1 | AA | 1021 | A | N3-C4-C5 | -9.29 | 120.30 | 126.80 |
| 1 | AA | 171 | A | N3-C4-C5 | -9.28 | 120.30 | 126.80 |
| 1 | AA | 520 | A | N3-C4-C5 | -9.28 | 120.30 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1786 | A | N3-C4-C5 | -9.28 | 120.31 | 126.80 |
| 22 | BA | 2721 | A | N3-C4-C5 | -9.28 | 120.31 | 126.80 |
| 1 | AA | 746 | A | C5-C6-N6 | 9.27 | 131.12 | 123.70 |
| 1 | AA | 1080 | A | N3-C4-C5 | -9.27 | 120.31 | 126.80 |
| 22 | BA | 1086 | A | N3-C4-C5 | -9.27 | 120.31 | 126.80 |
| 1 | AA | 1495 | U | N1-C2-O2 | 9.27 | 129.29 | 122.80 |
| 1 | AA | 1499 | A | N3-C4-C5 | -9.27 | 120.31 | 126.80 |
| 22 | BA | 502 | A | N3-C4-C5 | -9.27 | 120.31 | 126.80 |
| 22 | BA | 984 | A | N7-C8-N9 | -9.27 | 109.16 | 113.80 |
| 55 | B8 | 69 | A | N3-C4-C5 | -9.27 | 120.31 | 126.80 |
| 1 | AA | 50 | A | N3-C4-C5 | -9.27 | 120.31 | 126.80 |
| 1 | AA | 459 | A | C5-C6-N6 | 9.27 | 131.12 | 123.70 |
| 1 | AA | 746 | A | N7-C8-N9 | -9.27 | 109.17 | 113.80 |
| 22 | BA | 819 | A | N7-C8-N9 | -9.27 | 109.17 | 113.80 |
| 22 | BA | 1626 | A | N3-C4-C5 | -9.27 | 120.31 | 126.80 |
| 22 | BA | 1711 | A | N3-C4-C5 | -9.27 | 120.31 | 126.80 |
| 23 | BB | 52 | A | N3-C4-C5 | -9.27 | 120.31 | 126.80 |
| 22 | BA | 1028 | A | N3-C4-C5 | -9.26 | 120.31 | 126.80 |
| 22 | BA | 1214 | A | N7-C8-N9 | -9.26 | 109.17 | 113.80 |
| 22 | BA | 2632 | A | N3-C4-C5 | -9.26 | 120.32 | 126.80 |
| 22 | BA | 918 | A | N3-C4-C5 | -9.25 | 120.32 | 126.80 |
| 22 | BA | 2101 | A | N3-C4-C5 | -9.25 | 120.32 | 126.80 |
| 22 | BA | 788 | A | N3-C4-C5 | -9.25 | 120.32 | 126.80 |
| 1 | AA | 1046 | A | C5-C6-N6 | 9.25 | 131.10 | 123.70 |
| 22 | BA | 1096 | A | N3-C4-C5 | -9.25 | 120.33 | 126.80 |
| 22 | BA | 2886 | A | N3-C4-C5 | -9.25 | 120.33 | 126.80 |
| 1 | AA | 1289 | A | N3-C4-C5 | -9.24 | 120.33 | 126.80 |
| 22 | BA | 1029 | A | N7-C8-N9 | -9.24 | 109.18 | 113.80 |
| 22 | BA | 83 | A | N3-C4-C5 | -9.24 | 120.33 | 126.80 |
| 22 | BA | 1854 | A | C5-C6-N6 | 9.24 | 131.09 | 123.70 |
| 22 | BA | 2266 | A | N3-C4-C5 | -9.24 | 120.33 | 126.80 |
| 22 | BA | 2893 | A | N3-C4-C5 | -9.24 | 120.33 | 126.80 |
| 23 | BB | 15 | A | N3-C4-C5 | -9.24 | 120.33 | 126.80 |
| 1 | AA | 819 | A | N3-C4-C5 | -9.24 | 120.33 | 126.80 |
| 22 | BA | 195 | A | N9-C4-C5 | 9.24 | 109.50 | 105.80 |
| 1 | AA | 1092 | A | N3-C4-C5 | -9.24 | 120.33 | 126.80 |
| 1 | AA | 1431 | A | N3-C4-C5 | -9.24 | 120.33 | 126.80 |
| 22 | BA | 1978 | A | C5-C6-N6 | 9.24 | 131.09 | 123.70 |
| 1 | AA | 66 | A | N3-C4-C5 | -9.23 | 120.34 | 126.80 |
| 22 | BA | 91 | A | N3-C4-C5 | -9.23 | 120.34 | 126.80 |
| 22 | BA | 1528 | A | C5-C6-N6 | 9.23 | 131.09 | 123.70 |
| 1 | AA | 502 | A | C5-C6-N6 | 9.23 | 131.08 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 975 | A | N3-C4-C5 | -9.23 | 120.34 | 126.80 |
| 22 | BA | 190 | A | N7-C8-N9 | -9.23 | 109.19 | 113.80 |
| 22 | BA | 1353 | A | C5-N7-C8 | 9.23 | 108.51 | 103.90 |
| 22 | BA | 1641 | A | C5-C6-N6 | 9.23 | 131.08 | 123.70 |
| 55 | B8 | 26 | A | C5-C6-N6 | 9.23 | 131.08 | 123.70 |
| 22 | BA | 621 | A | N9-C4-C5 | 9.22 | 109.49 | 105.80 |
| 22 | BA | 2328 | A | N3-C4-C5 | -9.22 | 120.34 | 126.80 |
| 22 | BA | 586 | A | N9-C4-C5 | 9.22 | 109.49 | 105.80 |
| 22 | BA | 909 | A | C5-C6-N6 | 9.22 | 131.08 | 123.70 |
| 1 | AA | 139 | A | N3-C4-C5 | -9.22 | 120.34 | 126.80 |
| 22 | BA | 502 | A | N7-C8-N9 | -9.22 | 109.19 | 113.80 |
| 22 | BA | 1654 | A | N3-C4-C5 | -9.22 | 120.35 | 126.80 |
| 1 | AA | 129 | A | N3-C4-C5 | -9.22 | 120.35 | 126.80 |
| 1 | AA | 1167 | A | N3-C4-C5 | -9.22 | 120.35 | 126.80 |
| 22 | BA | 1809 | A | N3-C4-C5 | -9.22 | 120.35 | 126.80 |
| 22 | BA | 125 | A | N3-C4-C5 | -9.22 | 120.35 | 126.80 |
| 22 | BA | 715 | A | N3-C4-C5 | -9.22 | 120.35 | 126.80 |
| 22 | BA | 794 | A | C5-C6-N6 | 9.22 | 131.07 | 123.70 |
| 22 | BA | 2147 | A | N3-C4-C5 | -9.22 | 120.35 | 126.80 |
| 22 | BA | 1508 | A | N3-C4-C5 | -9.22 | 120.35 | 126.80 |
| 1 | AA | 1413 | A | N3-C4-C5 | -9.21 | 120.35 | 126.80 |
| 1 | AA | 1179 | A | N3-C4-C5 | -9.21 | 120.35 | 126.80 |
| 22 | BA | 14 | A | N7-C8-N9 | -9.21 | 109.19 | 113.80 |
| 22 | BA | 849 | A | C5-C6-N6 | 9.21 | 131.07 | 123.70 |
| 22 | BA | 371 | A | N3-C4-C5 | -9.21 | 120.35 | 126.80 |
| 22 | BA | 1713 | A | N3-C4-C5 | -9.21 | 120.35 | 126.80 |
| 22 | BA | 1077 | A | N3-C4-C5 | -9.21 | 120.35 | 126.80 |
| 22 | BA | 1189 | A | N7-C8-N9 | -9.21 | 109.19 | 113.80 |
| 22 | BA | 1901 | A | N7-C8-N9 | -9.21 | 109.19 | 113.80 |
| 1 | AA | 109 | A | N3-C4-C5 | -9.21 | 120.36 | 126.80 |
| 1 | AA | 498 | A | N3-C4-N9 | 9.21 | 134.77 | 127.40 |
| 22 | BA | 1040 | A | N3-C4-C5 | -9.21 | 120.35 | 126.80 |
| 22 | BA | 1609 | A | C5-C6-N6 | 9.21 | 131.07 | 123.70 |
| 1 | AA | 794 | A | N3-C4-C5 | -9.21 | 120.36 | 126.80 |
| 1 | AA | 1329 | A | N3-C4-C5 | -9.21 | 120.36 | 126.80 |
| 22 | BA | 2171 | A | N3-C4-C5 | -9.21 | 120.36 | 126.80 |
| 22 | BA | 734 | A | N3-C4-C5 | -9.20 | 120.36 | 126.80 |
| 22 | BA | 793 | A | N3-C4-C5 | -9.20 | 120.36 | 126.80 |
| 22 | BA | 1652 | A | N3-C4-C5 | -9.20 | 120.36 | 126.80 |
| 22 | BA | 2679 | A | C5-C6-N6 | 9.20 | 131.06 | 123.70 |
| 22 | BA | 2274 | A | N3-C4-C5 | -9.20 | 120.36 | 126.80 |
| 22 | BA | 1552 | A | N3-C4-C5 | -9.20 | 120.36 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 2333 | A | N3-C4-C5 | -9.20 | 120.36 | 126.80 |
| 22 | BA | 2706 | A | N7-C8-N9 | -9.20 | 109.20 | 113.80 |
| 55 | B8 | 38 | A | N3-C4-C5 | -9.20 | 120.36 | 126.80 |
| 22 | BA | 526 | A | N7-C8-N9 | -9.19 | 109.20 | 113.80 |
| 22 | BA | 632 | A | N3-C4-C5 | -9.19 | 120.37 | 126.80 |
| 22 | BA | 2809 | A | N3-C4-C5 | -9.19 | 120.37 | 126.80 |
| 22 | BA | 2823 | A | N7-C8-N9 | -9.19 | 109.20 | 113.80 |
| 22 | BA | 155 | A | N3-C4-C5 | -9.19 | 120.37 | 126.80 |
| 22 | BA | 324 | A | N3-C4-C5 | -9.19 | 120.37 | 126.80 |
| 22 | BA | 2530 | A | N7-C8-N9 | -9.19 | 109.20 | 113.80 |
| 22 | BA | 505 | A | N7-C8-N9 | -9.19 | 109.21 | 113.80 |
| 22 | BA | 572 | A | C5-C6-N6 | 9.19 | 131.05 | 123.70 |
| 22 | BA | 2765 | A | N7-C8-N9 | -9.19 | 109.21 | 113.80 |
| 1 | AA | 1437 | A | N3-C4-C5 | -9.18 | 120.37 | 126.80 |
| 22 | BA | 279 | A | N3-C4-C5 | -9.18 | 120.37 | 126.80 |
| 22 | BA | 470 | A | C5-C6-N6 | 9.18 | 131.05 | 123.70 |
| 22 | BA | 515 | A | N3-C4-C5 | -9.18 | 120.37 | 126.80 |
| 22 | BA | 101 | A | N7-C8-N9 | -9.18 | 109.21 | 113.80 |
| 1 | AA | 197 | A | N3-C4-C5 | -9.18 | 120.38 | 126.80 |
| 22 | BA | 1787 | A | N7-C8-N9 | -9.18 | 109.21 | 113.80 |
| 22 | BA | 547 | A | N3-C4-C5 | -9.17 | 120.38 | 126.80 |
| 1 | AA | 238 | A | N3-C4-C5 | -9.17 | 120.38 | 126.80 |
| 1 | AA | 1320 | C | O5'-P-OP1 | -9.17 | 97.45 | 105.70 |
| 22 | BA | 1009 | A | N3-C4-C5 | -9.17 | 120.38 | 126.80 |
| 1 | AA | 1320 | C | N3-C2-O2 | 9.17 | 128.32 | 121.90 |
| 1 | AA | 1067 | A | N3-C4-C5 | -9.16 | 120.39 | 126.80 |
| 22 | BA | 2211 | A | N3-C4-C5 | -9.16 | 120.39 | 126.80 |
| 22 | BA | 590 | A | N7-C8-N9 | -9.16 | 109.22 | 113.80 |
| 1 | AA | 523 | A | N3-C4-C5 | -9.16 | 120.39 | 126.80 |
| 22 | BA | 131 | A | N7-C8-N9 | -9.16 | 109.22 | 113.80 |
| 22 | BA | 384 | A | N3-C4-C5 | -9.16 | 120.39 | 126.80 |
| 22 | BA | 2705 | A | N7-C8-N9 | -9.16 | 109.22 | 113.80 |
| 22 | BA | 2565 | A | N3-C4-C5 | -9.16 | 120.39 | 126.80 |
| 22 | BA | 256 | A | N7-C8-N9 | -9.15 | 109.22 | 113.80 |
| 22 | BA | 2749 | A | N3-C4-C5 | -9.15 | 120.39 | 126.80 |
| 1 | AA | 65 | A | N3-C4-C5 | -9.15 | 120.39 | 126.80 |
| 1 | AA | 414 | A | N3-C4-C5 | -9.15 | 120.39 | 126.80 |
| 22 | BA | 2418 | A | N3-C4-C5 | -9.15 | 120.39 | 126.80 |
| 22 | BA | 730 | A | N7-C8-N9 | -9.15 | 109.22 | 113.80 |
| 22 | BA | 2376 | A | N3-C4-C5 | -9.15 | 120.39 | 126.80 |
| 22 | BA | 2851 | A | N3-C4-C5 | -9.15 | 120.39 | 126.80 |
| 22 | BA | 1664 | A | C4-C5-C6 | 9.15 | 121.57 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 221 | A | N3-C4-C5 | -9.14 | 120.40 | 126.80 |
| 22 | BA | 1129 | A | N3-C4-C5 | -9.14 | 120.40 | 126.80 |
| 22 | BA | 1821 | A | N3-C4-C5 | -9.14 | 120.40 | 126.80 |
| 22 | BA | 1919 | A | N3-C4-C5 | -9.14 | 120.40 | 126.80 |
| 22 | BA | 1596 | A | N3-C4-C5 | -9.14 | 120.40 | 126.80 |
| 22 | BA | 1802 | A | N7-C8-N9 | -9.14 | 109.23 | 113.80 |
| 1 | AA | 71 | A | N3-C4-C5 | -9.14 | 120.40 | 126.80 |
| 22 | BA | 2052 | A | N3-C4-C5 | -9.14 | 120.40 | 126.80 |
| 22 | BA | 2381 | A | N3-C4-C5 | -9.14 | 120.40 | 126.80 |
| 22 | BA | 2433 | A | N3-C4-C5 | -9.14 | 120.40 | 126.80 |
| 1 | AA | 1250 | A | N3-C4-C5 | -9.14 | 120.40 | 126.80 |
| 1 | AA | 190 | A | N7-C8-N9 | -9.14 | 109.23 | 113.80 |
| 1 | AA | 298 | A | N3-C4-C5 | -9.13 | 120.41 | 126.80 |
| 1 | AA | 759 | A | N3-C4-C5 | -9.14 | 120.41 | 126.80 |
| 1 | AA | 996 | A | N3-C4-C5 | -9.14 | 120.41 | 126.80 |
| 23 | BB | 59 | A | N3-C4-N9 | 9.14 | 134.71 | 127.40 |
| 1 | AA | 909 | A | N3-C4-C5 | -9.13 | 120.41 | 126.80 |
| 1 | AA | 919 | A | N3-C4-C5 | -9.13 | 120.41 | 126.80 |
| 22 | BA | 1570 | A | N3-C4-C5 | -9.13 | 120.41 | 126.80 |
| 1 | AA | 74 | A | N9-C4-C5 | 9.13 | 109.45 | 105.80 |
| 22 | BA | 575 | A | N7-C8-N9 | -9.13 | 109.23 | 113.80 |
| 22 | BA | 1213 | A | N7-C8-N9 | -9.13 | 109.23 | 113.80 |
| 22 | BA | 1253 | A | N3-C4-C5 | -9.13 | 120.41 | 126.80 |
| 22 | BA | 1754 | A | N3-C4-C5 | -9.13 | 120.41 | 126.80 |
| 1 | AA | 787 | A | N3-C4-C5 | -9.13 | 120.41 | 126.80 |
| 22 | BA | 1690 | A | N3-C4-C5 | -9.12 | 120.41 | 126.80 |
| 22 | BA | 1900 | A | N7-C8-N9 | -9.12 | 109.24 | 113.80 |
| 22 | BA | 2738 | A | N3-C4-C5 | -9.12 | 120.41 | 126.80 |
| 1 | AA | 44 | A | N3-C4-C5 | -9.12 | 120.41 | 126.80 |
| 1 | AA | 782 | A | N3-C4-C5 | -9.12 | 120.41 | 126.80 |
| 22 | BA | 2764 | A | N3-C4-C5 | -9.12 | 120.41 | 126.80 |
| 1 | AA | 243 | A | N3-C4-C5 | -9.12 | 120.42 | 126.80 |
| 22 | BA | 1070 | A | N3-C4-C5 | -9.12 | 120.42 | 126.80 |
| 22 | BA | 2191 | A | N3-C4-C5 | -9.12 | 120.42 | 126.80 |
| 22 | BA | 149 | A | N7-C8-N9 | -9.12 | 109.24 | 113.80 |
| 22 | BA | 1630 | A | N3-C4-C5 | -9.12 | 120.42 | 126.80 |
| 22 | BA | 2654 | A | N3-C4-C5 | -9.12 | 120.42 | 126.80 |
| 55 | B8 | 66 | A | C5-C6-N6 | 9.12 | 130.99 | 123.70 |
| 22 | BA | 2406 | A | N3-C4-C5 | -9.11 | 120.42 | 126.80 |
| 1 | AA | 1197 | A | C5-C6-N6 | 9.11 | 130.99 | 123.70 |
| 1 | AA | 1219 | A | C5-C6-N6 | 9.11 | 130.99 | 123.70 |
| 22 | BA | 1354 | A | N7-C8-N9 | -9.11 | 109.24 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1664 | A | C5-C6-N6 | 9.11 | 130.99 | 123.70 |
| 22 | BA | 2336 | A | N3-C4-C5 | -9.11 | 120.42 | 126.80 |
| 1 | AA | 246 | A | N3-C4-C5 | -9.11 | 120.42 | 126.80 |
| 22 | BA | 2776 | A | N3-C4-C5 | -9.11 | 120.42 | 126.80 |
| 1 | AA | 1377 | A | N3-C4-C5 | -9.11 | 120.43 | 126.80 |
| 1 | AA | 554 | A | N3-C4-C5 | -9.10 | 120.43 | 126.80 |
| 22 | BA | 633 | A | N3-C4-C5 | -9.10 | 120.43 | 126.80 |
| 22 | BA | 2749 | A | N7-C8-N9 | -9.10 | 109.25 | 113.80 |
| 22 | BA | 2753 | A | N3-C4-C5 | -9.10 | 120.43 | 126.80 |
| 23 | BB | 66 | A | N3-C4-C5 | -9.10 | 120.43 | 126.80 |
| 22 | BA | 1433 | A | N3-C4-C5 | -9.10 | 120.43 | 126.80 |
| 22 | BA | 2176 | A | N7-C8-N9 | -9.10 | 109.25 | 113.80 |
| 22 | BA | 1226 | A | N7-C8-N9 | -9.10 | 109.25 | 113.80 |
| 22 | BA | 2108 | A | N7-C8-N9 | -9.10 | 109.25 | 113.80 |
| 22 | BA | 2662 | A | N7-C8-N9 | -9.09 | 109.25 | 113.80 |
| 22 | BA | 478 | A | N9-C4-C5 | 9.09 | 109.44 | 105.80 |
| 22 | BA | 1848 | A | N9-C4-C5 | 9.09 | 109.44 | 105.80 |
| 22 | BA | 705 | A | N7-C8-N9 | -9.09 | 109.26 | 113.80 |
| 22 | BA | 1899 | A | N3-C4-C5 | -9.09 | 120.44 | 126.80 |
| 1 | AA | 535 | A | N3-C4-C5 | -9.08 | 120.44 | 126.80 |
| 1 | AA | 648 | A | N3-C4-C5 | -9.08 | 120.44 | 126.80 |
| 22 | BA | 621 | A | N7-C8-N9 | -9.08 | 109.26 | 113.80 |
| 22 | BA | 1089 | A | N3-C4-C5 | -9.08 | 120.44 | 126.80 |
| 1 | AA | 456 | A | N3-C4-C5 | -9.08 | 120.44 | 126.80 |
| 22 | BA | 501 | A | N7-C8-N9 | -9.08 | 109.26 | 113.80 |
| 22 | BA | 310 | A | N3-C4-C5 | -9.07 | 120.45 | 126.80 |
| 22 | BA | 2589 | A | C5-N7-C8 | 9.07 | 108.44 | 103.90 |
| 1 | AA | 1204 | A | N9-C4-C5 | 9.07 | 109.43 | 105.80 |
| 22 | BA | 2042 | A | N3-C4-C5 | -9.07 | 120.45 | 126.80 |
| 22 | BA | 2813 | A | N7-C8-N9 | -9.07 | 109.26 | 113.80 |
| 22 | BA | 2060 | A | N3-C4-C5 | -9.07 | 120.45 | 126.80 |
| 1 | AA | 1408 | A | N3-C4-C5 | -9.06 | 120.46 | 126.80 |
| 22 | BA | 131 | A | C4-C5-C6 | 9.06 | 121.53 | 117.00 |
| 22 | BA | 1127 | A | N3-C4-C5 | -9.06 | 120.46 | 126.80 |
| 22 | BA | 2095 | A | N9-C4-C5 | 9.06 | 109.43 | 105.80 |
| 22 | BA | 2450 | A | N9-C4-C5 | 9.06 | 109.42 | 105.80 |
| 22 | BA | 453 | A | C5-C6-N6 | 9.06 | 130.95 | 123.70 |
| 22 | BA | 2119 | A | N3-C4-C5 | -9.06 | 120.46 | 126.80 |
| 22 | BA | 2448 | A | N3-C4-C5 | -9.06 | 120.46 | 126.80 |
| 22 | BA | 2598 | A | N7-C8-N9 | -9.06 | 109.27 | 113.80 |
| 1 | AA | 1446 | A | N9-C4-C5 | 9.06 | 109.42 | 105.80 |
| 22 | BA | 800 | A | N9-C4-C5 | 9.05 | 109.42 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1610 | A | N3-C4-C5 | -9.05 | 120.46 | 126.80 |
| 22 | BA | 2328 | A | N7-C8-N9 | -9.05 | 109.27 | 113.80 |
| 22 | BA | 2872 | A | C5-N7-C8 | 9.05 | 108.43 | 103.90 |
| 1 | AA | 253 | A | N3-C4-C5 | -9.05 | 120.46 | 126.80 |
| 1 | AA | 1441 | A | N3-C4-C5 | -9.05 | 120.46 | 126.80 |
| 22 | BA | 1669 | A | C4-C5-C6 | 9.05 | 121.53 | 117.00 |
| 22 | BA | 1953 | A | N3-C4-C5 | -9.05 | 120.47 | 126.80 |
| 1 | AA | 321 | A | N3-C4-C5 | -9.05 | 120.47 | 126.80 |
| 1 | AA | 1468 | A | C5-C6-N6 | 9.05 | 130.94 | 123.70 |
| 22 | BA | 1001 | A | N7-C8-N9 | -9.05 | 109.28 | 113.80 |
| 22 | BA | 1913 | A | N3-C4-C5 | -9.04 | 120.47 | 126.80 |
| 1 | AA | 1019 | A | N3-C4-C5 | -9.04 | 120.47 | 126.80 |
| 1 | AA | 1503 | A | N3-C4-C5 | -9.04 | 120.47 | 126.80 |
| 22 | BA | 2781 | A | N3-C4-C5 | -9.04 | 120.47 | 126.80 |
| 22 | BA | 821 | A | N3-C4-C5 | -9.04 | 120.47 | 126.80 |
| 22 | BA | 1383 | A | N3-C4-C5 | -9.04 | 120.47 | 126.80 |
| 22 | BA | 582 | A | C5-C6-N6 | 9.04 | 130.93 | 123.70 |
| 22 | BA | 1010 | A | N7-C8-N9 | -9.04 | 109.28 | 113.80 |
| 22 | BA | 430 | A | C5-C6-N6 | 9.04 | 130.93 | 123.70 |
| 22 | BA | 739 | A | N7-C8-N9 | -9.04 | 109.28 | 113.80 |
| 22 | BA | 1936 | A | N3-C4-N9 | 9.04 | 134.63 | 127.40 |
| 1 | AA | 309 | A | N3-C4-C5 | -9.03 | 120.48 | 126.80 |
| 22 | BA | 603 | A | N3-C4-C5 | -9.03 | 120.48 | 126.80 |
| 23 | BB | 108 | A | N3-C4-C5 | -9.03 | 120.48 | 126.80 |
| 22 | BA | 2800 | A | N3-C4-C5 | -9.03 | 120.48 | 126.80 |
| 22 | BA | 538 | A | N3-C4-C5 | -9.03 | 120.48 | 126.80 |
| 22 | BA | 833 | A | N7-C8-N9 | -9.03 | 109.28 | 113.80 |
| 22 | BA | 896 | A | N3-C4-C5 | -9.03 | 120.48 | 126.80 |
| 1 | AA | 974 | A | N3-C4-C5 | -9.03 | 120.48 | 126.80 |
| 22 | BA | 6 | A | N3-C4-C5 | -9.03 | 120.48 | 126.80 |
| 22 | BA | 529 | A | N3-C4-C5 | -9.03 | 120.48 | 126.80 |
| 22 | BA | 947 | A | C5-C6-N6 | 9.03 | 130.92 | 123.70 |
| 22 | BA | 1367 | A | N7-C8-N9 | -9.03 | 109.29 | 113.80 |
| 22 | BA | 2333 | A | C5-C6-N6 | 9.03 | 130.92 | 123.70 |
| 1 | AA | 923 | A | N7-C8-N9 | -9.02 | 109.29 | 113.80 |
| 1 | AA | 1418 | A | C5-C6-N6 | 9.02 | 130.92 | 123.70 |
| 1 | AA | 1433 | A | N3-C4-C5 | -9.02 | 120.48 | 126.80 |
| 22 | BA | 614 | A | N3-C4-C5 | -9.02 | 120.49 | 126.80 |
| 22 | BA | 1912 | A | N3-C4-C5 | -9.02 | 120.49 | 126.80 |
| 22 | BA | 599 | A | C5-C6-N6 | 9.01 | 130.91 | 123.70 |
| 22 | BA | 1614 | A | N3-C4-C5 | -9.01 | 120.49 | 126.80 |
| 22 | BA | 2274 | A | N7-C8-N9 | -9.01 | 109.29 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2482 | A | C5-C6-N6 | 9.01 | 130.91 | 123.70 |
| 22 | BA | 507 | A | N3-C4-C5 | -9.01 | 120.49 | 126.80 |
| 22 | BA | 1783 | A | N7-C8-N9 | -9.01 | 109.30 | 113.80 |
| 1 | AA | 162 | A | C5-C6-N6 | 9.01 | 130.91 | 123.70 |
| 1 | AA | 777 | A | N3-C4-C5 | -9.01 | 120.50 | 126.80 |
| 1 | AA | 1394 | A | N3-C4-C5 | -9.01 | 120.50 | 126.80 |
| 22 | BA | 73 | A | N3-C4-C5 | -9.01 | 120.50 | 126.80 |
| 22 | BA | 222 | A | N3-C4-C5 | -9.00 | 120.50 | 126.80 |
| 22 | BA | 1677 | A | C5-C6-N6 | 9.00 | 130.90 | 123.70 |
| 22 | BA | 1008 | A | N3-C4-C5 | -8.99 | 120.50 | 126.80 |
| 22 | BA | 1952 | A | N3-C4-C5 | -8.99 | 120.50 | 126.80 |
| 22 | BA | 2670 | A | N3-C4-C5 | -8.99 | 120.51 | 126.80 |
| 22 | BA | 909 | A | N3-C4-C5 | -8.99 | 120.51 | 126.80 |
| 1 | AA | 815 | A | N3-C4-C5 | -8.99 | 120.51 | 126.80 |
| 22 | BA | 2883 | A | C5-N7-C8 | 8.99 | 108.39 | 103.90 |
| 22 | BA | 2814 | A | N3-C4-C5 | -8.98 | 120.51 | 126.80 |
| 1 | AA | 26 | A | N3-C4-C5 | -8.98 | 120.51 | 126.80 |
| 1 | AA | 1285 | A | N3-C4-C5 | -8.98 | 120.52 | 126.80 |
| 1 | AA | 1274 | A | N3-C4-C5 | -8.98 | 120.52 | 126.80 |
| 22 | BA | 1801 | A | N3-C4-C5 | -8.98 | 120.52 | 126.80 |
| 1 | AA | 547 | A | N3-C4-C5 | -8.97 | 120.52 | 126.80 |
| 22 | BA | 309 | A | N3-C4-C5 | -8.97 | 120.52 | 126.80 |
| 22 | BA | 346 | A | N3-C4-C5 | -8.97 | 120.52 | 126.80 |
| 22 | BA | 1532 | A | N3-C4-C5 | -8.97 | 120.52 | 126.80 |
| 1 | AA | 1227 | A | N3-C4-C5 | -8.97 | 120.52 | 126.80 |
| 1 | AA | 28 | A | C5-C6-N6 | 8.96 | 130.87 | 123.70 |
| 22 | BA | 1395 | A | N3-C4-C5 | -8.96 | 120.53 | 126.80 |
| 22 | BA | 2033 | A | N7-C8-N9 | -8.96 | 109.32 | 113.80 |
| 22 | BA | 2799 | A | C4-C5-C6 | 8.96 | 121.48 | 117.00 |
| 22 | BA | 1705 | A | C5-C6-N6 | 8.96 | 130.87 | 123.70 |
| 22 | BA | 2670 | A | C5-C6-N6 | 8.96 | 130.87 | 123.70 |
| 22 | BA | 1650 | A | N7-C8-N9 | -8.96 | 109.32 | 113.80 |
| 55 | B8 | 76 | A | N3-C4-C5 | -8.96 | 120.53 | 126.80 |
| 22 | BA | 2448 | A | N7-C8-N9 | -8.96 | 109.32 | 113.80 |
| 23 | BB | 39 | A | N3-C4-C5 | -8.96 | 120.53 | 126.80 |
| 22 | BA | 752 | A | N9-C4-C5 | 8.95 | 109.38 | 105.80 |
| 22 | BA | 1237 | A | N3-C4-C5 | -8.95 | 120.53 | 126.80 |
| 22 | BA | 1885 | A | N3-C4-C5 | -8.95 | 120.53 | 126.80 |
| 1 | AA | 923 | A | C5-C6-N6 | 8.95 | 130.86 | 123.70 |
| 1 | AA | 1204 | A | N3-C4-C5 | -8.95 | 120.54 | 126.80 |
| 22 | BA | 788 | A | C5-N7-C8 | 8.94 | 108.37 | 103.90 |
| 22 | BA | 631 | A | C5-C6-N6 | 8.94 | 130.85 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 120 | A | N3-C4-C5 | -8.94 | 120.54 | 126.80 |
| 1 | AA | 673 | A | N7-C8-N9 | -8.94 | 109.33 | 113.80 |
| 22 | BA | 415 | A | C5-C6-N6 | 8.94 | 130.85 | 123.70 |
| 22 | BA | 231 | A | C5-N7-C8 | 8.93 | 108.37 | 103.90 |
| 22 | BA | 1147 | A | N3-C4-C5 | -8.93 | 120.55 | 126.80 |
| 1 | AA | 554 | A | N9-C4-C5 | 8.93 | 109.37 | 105.80 |
| 22 | BA | 781 | A | N9-C4-C5 | 8.93 | 109.37 | 105.80 |
| 22 | BA | 1009 | A | N7-C8-N9 | -8.93 | 109.33 | 113.80 |
| 22 | BA | 1803 | A | N7-C8-N9 | -8.93 | 109.33 | 113.80 |
| 22 | BA | 2461 | A | C5-C6-N6 | 8.93 | 130.84 | 123.70 |
| 22 | BA | 2497 | A | N7-C8-N9 | -8.93 | 109.34 | 113.80 |
| 22 | BA | 2725 | A | C5-C6-N6 | 8.93 | 130.84 | 123.70 |
| 1 | AA | 704 | A | N3-C4-C5 | -8.92 | 120.56 | 126.80 |
| 22 | BA | 643 | A | N3-C4-C5 | -8.92 | 120.55 | 126.80 |
| 22 | BA | 1815 | A | N3-C4-C5 | -8.92 | 120.55 | 126.80 |
| 22 | BA | 2199 | A | N7-C8-N9 | -8.92 | 109.34 | 113.80 |
| 22 | BA | 1133 | A | N7-C8-N9 | -8.92 | 109.34 | 113.80 |
| 22 | BA | 1522 | A | N3-C4-C5 | -8.92 | 120.56 | 126.80 |
| 22 | BA | 1977 | A | N3-C4-C5 | -8.90 | 120.57 | 126.80 |
| 22 | BA | 2750 | A | N3-C4-C5 | -8.90 | 120.57 | 126.80 |
| 1 | AA | 313 | A | N9-C4-C5 | 8.90 | 109.36 | 105.80 |
| 22 | BA | 118 | A | N3-C4-C5 | -8.90 | 120.57 | 126.80 |
| 22 | BA | 972 | A | N7-C8-N9 | -8.90 | 109.35 | 113.80 |
| 22 | BA | 792 | A | C5-C6-N6 | 8.89 | 130.82 | 123.70 |
| 22 | BA | 2813 | A | C5-C6-N6 | 8.89 | 130.82 | 123.70 |
| 23 | BB | 101 | A | C5-C6-N6 | 8.89 | 130.82 | 123.70 |
| 1 | AA | 1170 | A | C5-C6-N6 | 8.89 | 130.81 | 123.70 |
| 22 | BA | 282 | A | N3-C4-C5 | -8.89 | 120.58 | 126.80 |
| 22 | BA | 878 | A | N3-C4-C5 | -8.89 | 120.58 | 126.80 |
| 22 | BA | 945 | A | N3-C4-C5 | -8.89 | 120.58 | 126.80 |
| 22 | BA | 1652 | A | N9-C4-C5 | 8.89 | 109.36 | 105.80 |
| 22 | BA | 2882 | A | N9-C4-C5 | 8.89 | 109.36 | 105.80 |
| 1 | AA | 181 | A | N3-C4-C5 | -8.89 | 120.58 | 126.80 |
| 1 | AA | 889 | A | N3-C4-C5 | -8.88 | 120.58 | 126.80 |
| 22 | BA | 960 | A | N7-C8-N9 | -8.89 | 109.36 | 113.80 |
| 22 | BA | 152 | A | C5-C6-N6 | 8.88 | 130.81 | 123.70 |
| 22 | BA | 764 | A | N9-C4-C5 | 8.88 | 109.35 | 105.80 |
| 22 | BA | 960 | A | C5-C6-N6 | 8.88 | 130.80 | 123.70 |
| 22 | BA | 332 | A | N3-C4-C5 | -8.87 | 120.59 | 126.80 |
| 23 | BB | 101 | A | N3-C4-N9 | 8.87 | 134.50 | 127.40 |
| 22 | BA | 412 | A | N3-C4-C5 | -8.87 | 120.59 | 126.80 |
| 22 | BA | 457 | A | N3-C4-C5 | -8.87 | 120.59 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1046 | A | N3-C4-C5 | -8.87 | 120.59 | 126.80 |
| 22 | BA | 1677 | A | N3-C4-C5 | -8.87 | 120.59 | 126.80 |
| 22 | BA | 1791 | A | N7-C8-N9 | -8.87 | 109.36 | 113.80 |
| 22 | BA | 2227 | A | C5-N7-C8 | 8.87 | 108.33 | 103.90 |
| 1 | AA | 520 | A | N9-C4-C5 | 8.86 | 109.35 | 105.80 |
| 22 | BA | 1583 | A | N3-C4-C5 | -8.86 | 120.59 | 126.80 |
| 22 | BA | 10 | A | N3-C4-C5 | -8.86 | 120.60 | 126.80 |
| 22 | BA | 2860 | A | N3-C4-C5 | -8.86 | 120.60 | 126.80 |
| 22 | BA | 1133 | A | N3-C4-C5 | -8.86 | 120.60 | 126.80 |
| 22 | BA | 1928 | A | N3-C4-C5 | -8.86 | 120.60 | 126.80 |
| 22 | BA | 1899 | A | N7-C8-N9 | -8.86 | 109.37 | 113.80 |
| 1 | AA | 119 | A | N3-C4-C5 | -8.85 | 120.60 | 126.80 |
| 22 | BA | 53 | A | N3-C4-C5 | -8.85 | 120.60 | 126.80 |
| 22 | BA | 2577 | A | N7-C8-N9 | -8.85 | 109.37 | 113.80 |
| 22 | BA | 2764 | A | N9-C4-C5 | 8.85 | 109.34 | 105.80 |
| 1 | AA | 1117 | A | N3-C4-C5 | -8.85 | 120.61 | 126.80 |
| 22 | BA | 1020 | A | N3-C4-C5 | -8.85 | 120.61 | 126.80 |
| 22 | BA | 1626 | A | C5-C6-N6 | 8.85 | 130.78 | 123.70 |
| 22 | BA | 2297 | A | N3-C4-C5 | -8.85 | 120.61 | 126.80 |
| 22 | BA | 161 | A | N3-C4-C5 | -8.84 | 120.61 | 126.80 |
| 22 | BA | 428 | A | N3-C4-C5 | -8.84 | 120.61 | 126.80 |
| 22 | BA | 1701 | A | N3-C4-C5 | -8.84 | 120.61 | 126.80 |
| 22 | BA | 575 | A | N3-C4-C5 | -8.83 | 120.62 | 126.80 |
| 22 | BA | 1260 | A | N7-C8-N9 | -8.83 | 109.38 | 113.80 |
| 22 | BA | 2639 | A | N3-C4-C5 | -8.83 | 120.62 | 126.80 |
| 22 | BA | 981 | A | N3-C4-C5 | -8.83 | 120.62 | 126.80 |
| 22 | BA | 2572 | A | C5-N7-C8 | 8.82 | 108.31 | 103.90 |
| 22 | BA | 1021 | A | C4-C5-C6 | 8.82 | 121.41 | 117.00 |
| 22 | BA | 197 | A | N3-C4-C5 | -8.82 | 120.63 | 126.80 |
| 1 | AA | 228 | A | N3-C4-C5 | -8.82 | 120.63 | 126.80 |
| 1 | AA | 371 | A | N3-C4-C5 | -8.81 | 120.63 | 126.80 |
| 22 | BA | 1269 | A | N7-C8-N9 | -8.81 | 109.39 | 113.80 |
| 22 | BA | 627 | A | N3-C4-C5 | -8.81 | 120.63 | 126.80 |
| 22 | BA | 716 | A | N3-C4-C5 | -8.81 | 120.64 | 126.80 |
| 22 | BA | 2388 | A | N3-C4-C5 | -8.81 | 120.64 | 126.80 |
| 22 | BA | 1503 | A | N3-C4-C5 | -8.80 | 120.64 | 126.80 |
| 22 | BA | 2682 | A | C5-N7-C8 | 8.80 | 108.30 | 103.90 |
| 1 | AA | 563 | A | C5-C6-N6 | 8.80 | 130.74 | 123.70 |
| 22 | BA | 1783 | A | N3-C4-C5 | -8.80 | 120.64 | 126.80 |
| 1 | AA | 1492 | A | N3-C4-C5 | -8.79 | 120.64 | 126.80 |
| 22 | BA | 1304 | A | N3-C4-C5 | -8.79 | 120.64 | 126.80 |
| 55 | B8 | 6 | A | N3-C4-C5 | -8.79 | 120.65 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1163 | A | C5-C6-N6 | 8.79 | 130.73 | 123.70 |
| 22 | BA | 28 | A | N3-C4-C5 | -8.79 | 120.65 | 126.80 |
| 22 | BA | 204 | A | N3-C4-C5 | -8.78 | 120.65 | 126.80 |
| 22 | BA | 294 | A | N3-C4-C5 | -8.78 | 120.65 | 126.80 |
| 22 | BA | 782 | A | N7-C8-N9 | -8.78 | 109.41 | 113.80 |
| 22 | BA | 1970 | A | C5-C6-N6 | 8.78 | 130.72 | 123.70 |
| 22 | BA | 513 | A | C5-C6-N6 | 8.78 | 130.72 | 123.70 |
| 22 | BA | 1785 | A | N7-C8-N9 | -8.78 | 109.41 | 113.80 |
| 1 | AA | 622 | A | N7-C8-N9 | -8.77 | 109.41 | 113.80 |
| 1 | AA | 55 | A | C4-C5-C6 | 8.76 | 121.38 | 117.00 |
| 22 | BA | 513 | A | N7-C8-N9 | -8.76 | 109.42 | 113.80 |
| 1 | AA | 1191 | A | N7-C8-N9 | -8.76 | 109.42 | 113.80 |
| 22 | BA | 119 | A | N9-C4-C5 | 8.76 | 109.30 | 105.80 |
| 22 | BA | 800 | A | N3-C4-C5 | -8.76 | 120.67 | 126.80 |
| 22 | BA | 804 | A | N3-C4-C5 | -8.76 | 120.67 | 126.80 |
| 1 | AA | 411 | A | N3-C4-C5 | -8.76 | 120.67 | 126.80 |
| 22 | BA | 1854 | A | N7-C8-N9 | -8.76 | 109.42 | 113.80 |
| 1 | AA | 1145 | A | N3-C4-C5 | -8.75 | 120.67 | 126.80 |
| 22 | BA | 1213 | A | C4-C5-C6 | 8.75 | 121.38 | 117.00 |
| 22 | BA | 1616 | A | N3-C4-C5 | -8.75 | 120.67 | 126.80 |
| 22 | BA | 631 | A | N3-C4-C5 | -8.75 | 120.68 | 126.80 |
| 22 | BA | 1528 | A | C4-C5-C6 | 8.75 | 121.38 | 117.00 |
| 22 | BA | 1872 | A | C4-C5-C6 | 8.75 | 121.38 | 117.00 |
| 1 | AA | 77 | A | C5-C6-N6 | 8.75 | 130.70 | 123.70 |
| 1 | AA | 510 | A | N3-C4-C5 | -8.75 | 120.68 | 126.80 |
| 22 | BA | 218 | A | N7-C8-N9 | -8.74 | 109.43 | 113.80 |
| 22 | BA | 637 | A | N3-C4-C5 | -8.74 | 120.68 | 126.80 |
| 23 | BB | 59 | A | C5-C6-N1 | 8.74 | 122.07 | 117.70 |
| 22 | BA | 1214 | A | N9-C4-C5 | 8.74 | 109.30 | 105.80 |
| 1 | AA | 160 | A | N3-C4-C5 | -8.74 | 120.69 | 126.80 |
| 22 | BA | 677 | A | C5-C6-N6 | 8.74 | 130.69 | 123.70 |
| 22 | BA | 1156 | A | N3-C4-C5 | -8.73 | 120.69 | 126.80 |
| 22 | BA | 996 | A | C5-C6-N6 | 8.73 | 130.69 | 123.70 |
| 1 | AA | 498 | A | C4-C5-C6 | 8.73 | 121.36 | 117.00 |
| 22 | BA | 241 | A | N3-C4-C5 | -8.73 | 120.69 | 126.80 |
| 22 | BA | 2198 | A | N3-C4-C5 | -8.72 | 120.69 | 126.80 |
| 54 | B7 | 9 | A | N3-C4-C5 | -8.72 | 120.69 | 126.80 |
| 22 | BA | 2054 | A | C5-N7-C8 | 8.72 | 108.26 | 103.90 |
| 22 | BA | 2388 | A | C5-N7-C8 | 8.71 | 108.26 | 103.90 |
| 1 | AA | 978 | A | N3-C4-C5 | -8.71 | 120.70 | 126.80 |
| 1 | AA | 55 | A | C5-N7-C8 | 8.70 | 108.25 | 103.90 |
| 1 | AA | 1299 | A | C5-N7-C8 | 8.70 | 108.25 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1378 | A | N9-C4-C5 | 8.70 | 109.28 | 105.80 |
| 1 | AA | 493 | A | N3-C4-C5 | -8.70 | 120.71 | 126.80 |
| 22 | BA | 609 | A | N3-C4-C5 | -8.70 | 120.71 | 126.80 |
| 22 | BA | 2577 | A | N9-C4-C5 | 8.70 | 109.28 | 105.80 |
| 22 | BA | 2873 | A | N3-C4-C5 | -8.70 | 120.71 | 126.80 |
| 1 | AA | 383 | A | N7-C8-N9 | -8.69 | 109.45 | 113.80 |
| 1 | AA | 172 | A | N3-C4-C5 | -8.69 | 120.72 | 126.80 |
| 1 | AA | 766 | A | N9-C4-C5 | 8.69 | 109.28 | 105.80 |
| 22 | BA | 2266 | A | N7-C8-N9 | -8.69 | 109.45 | 113.80 |
| 1 | AA | 7 | A | N3-C4-C5 | -8.68 | 120.72 | 126.80 |
| 22 | BA | 1757 | A | N3-C4-C5 | -8.68 | 120.72 | 126.80 |
| 1 | AA | 182 | A | N3-C4-C5 | -8.68 | 120.72 | 126.80 |
| 23 | BB | 101 | A | N7-C8-N9 | -8.68 | 109.46 | 113.80 |
| 1 | AA | 622 | A | N3-C4-C5 | -8.68 | 120.73 | 126.80 |
| 1 | AA | 1493 | A | N3-C4-C5 | -8.67 | 120.73 | 126.80 |
| 22 | BA | 1155 | A | N3-C4-C5 | -8.67 | 120.73 | 126.80 |
| 22 | BA | 1847 | A | N9-C4-C5 | 8.67 | 109.27 | 105.80 |
| 22 | BA | 513 | A | C4-C5-C6 | 8.67 | 121.33 | 117.00 |
| 22 | BA | 975 | A | C5-N7-C8 | 8.67 | 108.24 | 103.90 |
| 22 | BA | 749 | A | C5-N7-C8 | 8.66 | 108.23 | 103.90 |
| 22 | BA | 2530 | A | N9-C4-C5 | 8.66 | 109.26 | 105.80 |
| 1 | AA | 196 | A | N3-C4-C5 | -8.66 | 120.74 | 126.80 |
| 22 | BA | 764 | A | N3-C4-C5 | -8.65 | 120.74 | 126.80 |
| 22 | BA | 1819 | A | C5-N7-C8 | 8.65 | 108.23 | 103.90 |
| 1 | AA | 696 | A | N7-C8-N9 | -8.65 | 109.47 | 113.80 |
| 22 | BA | 2758 | A | N3-C4-C5 | -8.65 | 120.75 | 126.80 |
| 22 | BA | 2829 | A | N3-C4-C5 | -8.65 | 120.75 | 126.80 |
| 22 | BA | 1226 | A | N3-C4-C5 | -8.64 | 120.75 | 126.80 |
| 22 | BA | 1244 | A | C5-C6-N6 | 8.64 | 130.61 | 123.70 |
| 22 | BA | 1342 | A | N3-C4-C5 | -8.64 | 120.75 | 126.80 |
| 1 | AA | 279 | A | N3-C4-C5 | -8.64 | 120.75 | 126.80 |
| 1 | AA | 1346 | A | N3-C4-C5 | -8.64 | 120.75 | 126.80 |
| 1 | AA | 860 | A | N9-C4-C5 | 8.63 | 109.25 | 105.80 |
| 22 | BA | 2513 | A | N7-C8-N9 | -8.63 | 109.48 | 113.80 |
| 1 | AA | 495 | A | N3-C4-C5 | -8.62 | 120.76 | 126.80 |
| 22 | BA | 514 | A | N3-C4-C5 | -8.62 | 120.76 | 126.80 |
| 22 | BA | 1373 | A | N7-C8-N9 | -8.62 | 109.49 | 113.80 |
| 22 | BA | 1815 | A | N7-C8-N9 | -8.62 | 109.49 | 113.80 |
| 1 | AA | 195 | A | N3-C4-C5 | -8.62 | 120.76 | 126.80 |
| 22 | BA | 2042 | A | C5-C6-N6 | 8.62 | 130.60 | 123.70 |
| 1 | AA | 274 | A | N3-C4-C5 | -8.62 | 120.77 | 126.80 |
| 1 | AA | 860 | A | C5-N7-C8 | 8.62 | 108.21 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 915 | A | N3-C4-C5 | -8.62 | 120.77 | 126.80 |
| 22 | BA | 1470 | A | N7-C8-N9 | -8.62 | 109.49 | 113.80 |
| 22 | BA | 466 | A | N7-C8-N9 | -8.61 | 109.49 | 113.80 |
| 22 | BA | 1322 | A | N3-C4-C5 | -8.61 | 120.77 | 126.80 |
| 41 | BT | 1 | MET | CB-CA-C | -8.61 | 93.19 | 110.40 |
| 22 | BA | 217 | A | N9-C4-C5 | 8.60 | 109.24 | 105.80 |
| 22 | BA | 975 | A | C4-C5-C6 | 8.60 | 121.30 | 117.00 |
| 1 | AA | 411 | A | C5-C6-N6 | 8.59 | 130.57 | 123.70 |
| 22 | BA | 910 | A | N3-C4-C5 | -8.59 | 120.78 | 126.80 |
| 22 | BA | 1000 | A | N9-C4-C5 | 8.59 | 109.24 | 105.80 |
| 22 | BA | 1265 | A | N7-C8-N9 | -8.59 | 109.50 | 113.80 |
| 22 | BA | 2117 | A | N3-C4-C5 | -8.59 | 120.79 | 126.80 |
| 22 | BA | 586 | A | N7-C8-N9 | -8.58 | 109.51 | 113.80 |
| 22 | BA | 1572 | A | N7-C8-N9 | -8.58 | 109.51 | 113.80 |
| 1 | AA | 913 | A | N3-C4-C5 | -8.57 | 120.80 | 126.80 |
| 1 | AA | 1213 | A | N9-C4-C5 | 8.57 | 109.23 | 105.80 |
| 22 | BA | 119 | A | N3-C4-C5 | -8.57 | 120.80 | 126.80 |
| 1 | AA | 1213 | A | N3-C4-C5 | -8.57 | 120.80 | 126.80 |
| 22 | BA | 2757 | A | N7-C8-N9 | -8.57 | 109.52 | 113.80 |
| 22 | BA | 1204 | A | N3-C4-C5 | -8.56 | 120.81 | 126.80 |
| 22 | BA | 2614 | A | C5-N7-C8 | 8.56 | 108.18 | 103.90 |
| 22 | BA | 2407 | A | C5-C6-N6 | 8.56 | 130.55 | 123.70 |
| 22 | BA | 2451 | A | C5-C6-N1 | 8.56 | 121.98 | 117.70 |
| 22 | BA | 2814 | A | N7-C8-N9 | -8.56 | 109.52 | 113.80 |
| 22 | BA | 1810 | A | C5-C6-N6 | 8.55 | 130.54 | 123.70 |
| 22 | BA | 127 | A | N3-C4-C5 | -8.54 | 120.82 | 126.80 |
| 22 | BA | 191 | A | C5-N7-C8 | 8.54 | 108.17 | 103.90 |
| 22 | BA | 730 | A | C4-C5-C6 | 8.54 | 121.27 | 117.00 |
| 1 | AA | 665 | A | N3-C4-C5 | -8.53 | 120.83 | 126.80 |
| 22 | BA | 1434 | A | N3-C4-C5 | -8.53 | 120.83 | 126.80 |
| 22 | BA | 2614 | A | N7-C8-N9 | -8.53 | 109.54 | 113.80 |
| 22 | BA | 959 | A | C5-N7-C8 | 8.52 | 108.16 | 103.90 |
| 1 | AA | 563 | A | C4-C5-C6 | 8.52 | 121.26 | 117.00 |
| 22 | BA | 1566 | A | N3-C4-C5 | -8.52 | 120.84 | 126.80 |
| 22 | BA | 322 | A | N3-C4-C5 | -8.51 | 120.84 | 126.80 |
| 22 | BA | 781 | A | C5-N7-C8 | 8.51 | 108.16 | 103.90 |
| 22 | BA | 1515 | A | N7-C8-N9 | -8.51 | 109.54 | 113.80 |
| 22 | BA | 626 | A | N7-C8-N9 | -8.51 | 109.55 | 113.80 |
| 22 | BA | 1010 | A | N3-C4-C5 | -8.51 | 120.84 | 126.80 |
| 55 | B8 | 6 | A | C8-N9-C4 | 8.51 | 109.20 | 105.80 |
| 22 | BA | 422 | A | N7-C8-N9 | -8.51 | 109.55 | 113.80 |
| 22 | BA | 793 | A | C5-C6-N6 | 8.51 | 130.50 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 13 | A | N9-C4-C5 | 8.50 | 109.20 | 105.80 |
| 22 | BA | 217 | A | N7-C8-N9 | -8.50 | 109.55 | 113.80 |
| 1 | AA | 1339 | A | N3-C4-C5 | -8.50 | 120.85 | 126.80 |
| 22 | BA | 563 | A | C5-N7-C8 | 8.50 | 108.15 | 103.90 |
| 1 | AA | 1196 | A | N3-C4-C5 | -8.49 | 120.85 | 126.80 |
| 22 | BA | 943 | A | N7-C8-N9 | -8.49 | 109.55 | 113.80 |
| 22 | BA | 1359 | A | N3-C4-C5 | -8.49 | 120.86 | 126.80 |
| 1 | AA | 901 | A | N7-C8-N9 | -8.49 | 109.55 | 113.80 |
| 22 | BA | 1936 | A | N7-C8-N9 | -8.49 | 109.56 | 113.80 |
| 1 | AA | 1332 | A | N3-C4-C5 | -8.49 | 120.86 | 126.80 |
| 1 | AA | 1446 | A | N7-C8-N9 | -8.49 | 109.56 | 113.80 |
| 1 | AA | 1357 | A | N7-C8-N9 | -8.48 | 109.56 | 113.80 |
| 22 | BA | 1739 | A | N7-C8-N9 | -8.48 | 109.56 | 113.80 |
| 22 | BA | 2602 | A | N3-C4-C5 | -8.48 | 120.86 | 126.80 |
| 1 | AA | 74 | A | N3-C4-C5 | -8.48 | 120.86 | 126.80 |
| 22 | BA | 2748 | A | N3-C4-C5 | -8.48 | 120.86 | 126.80 |
| 1 | AA | 1502 | A | N3-C4-C5 | -8.48 | 120.86 | 126.80 |
| 22 | BA | 1272 | A | N3-C4-C5 | -8.47 | 120.87 | 126.80 |
| 22 | BA | 1937 | A | C5-N7-C8 | 8.47 | 108.14 | 103.90 |
| 22 | BA | 2335 | A | C4-C5-C6 | 8.46 | 121.23 | 117.00 |
| 22 | BA | 2274 | A | N9-C4-C5 | 8.45 | 109.18 | 105.80 |
| 22 | BA | 422 | A | N9-C4-C5 | 8.45 | 109.18 | 105.80 |
| 22 | BA | 829 | A | N3-C4-C5 | -8.45 | 120.88 | 126.80 |
| 22 | BA | 2225 | A | N3-C4-C5 | -8.45 | 120.89 | 126.80 |
| 22 | BA | 2725 | A | N3-C4-C5 | -8.44 | 120.89 | 126.80 |
| 22 | BA | 131 | A | C5-C6-N6 | 8.44 | 130.45 | 123.70 |
| 22 | BA | 2281 | A | N9-C4-C5 | 8.44 | 109.18 | 105.80 |
| 22 | BA | 262 | A | C5-N7-C8 | 8.44 | 108.12 | 103.90 |
| 1 | AA | 792 | A | N3-C4-C5 | -8.44 | 120.89 | 126.80 |
| 1 | AA | 32 | A | C5-C6-N6 | 8.43 | 130.44 | 123.70 |
| 22 | BA | 699 | A | C5-N7-C8 | 8.43 | 108.11 | 103.90 |
| 22 | BA | 825 | A | C5-N7-C8 | 8.43 | 108.11 | 103.90 |
| 1 | AA | 572 | A | N3-C4-C5 | -8.42 | 120.90 | 126.80 |
| 22 | BA | 2335 | A | C5-N7-C8 | 8.42 | 108.11 | 103.90 |
| 22 | BA | 1069 | A | N3-C4-C5 | -8.42 | 120.91 | 126.80 |
| 22 | BA | 13 | A | C5-N7-C8 | 8.42 | 108.11 | 103.90 |
| 55 | B8 | 58 | A | C5-N7-C8 | 8.42 | 108.11 | 103.90 |
| 22 | BA | 820 | A | C5-N7-C8 | 8.40 | 108.10 | 103.90 |
| 22 | BA | 2741 | A | N7-C8-N9 | -8.40 | 109.60 | 113.80 |
| 22 | BA | 586 | A | C5-N7-C8 | 8.40 | 108.10 | 103.90 |
| 22 | BA | 644 | A | C5-N7-C8 | 8.40 | 108.10 | 103.90 |
| 1 | AA | 8 | A | N3-C4-C5 | -8.39 | 120.93 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2826 | A | C5-N7-C8 | 8.38 | 108.09 | 103.90 |
| 1 | AA | 383 | A | C5-C6-N6 | 8.38 | 130.41 | 123.70 |
| 1 | AA | 889 | A | N9-C4-C5 | 8.38 | 109.15 | 105.80 |
| 22 | BA | 1780 | A | N3-C4-C5 | -8.38 | 120.94 | 126.80 |
| 22 | BA | 423 | A | N9-C4-C5 | 8.37 | 109.15 | 105.80 |
| 22 | BA | 457 | A | N9-C4-C5 | 8.36 | 109.14 | 105.80 |
| 22 | BA | 1029 | A | C4-C5-C6 | 8.36 | 121.18 | 117.00 |
| 22 | BA | 2590 | A | C5-N7-C8 | 8.36 | 108.08 | 103.90 |
| 1 | AA | 300 | A | C5-C6-N6 | 8.36 | 130.38 | 123.70 |
| 22 | BA | 478 | A | N7-C8-N9 | -8.36 | 109.62 | 113.80 |
| 22 | BA | 1525 | A | N3-C4-C5 | -8.36 | 120.95 | 126.80 |
| 22 | BA | 783 | A | N9-C4-C5 | 8.35 | 109.14 | 105.80 |
| 22 | BA | 2753 | A | N9-C4-C5 | 8.35 | 109.14 | 105.80 |
| 22 | BA | 802 | A | C5-N7-C8 | 8.35 | 108.08 | 103.90 |
| 22 | BA | 1285 | A | C5-N7-C8 | 8.35 | 108.08 | 103.90 |
| 1 | AA | 996 | A | C5-N7-C8 | 8.34 | 108.07 | 103.90 |
| 22 | BA | 975 | A | N9-C4-C5 | 8.34 | 109.14 | 105.80 |
| 22 | BA | 675 | A | C5-N7-C8 | 8.34 | 108.07 | 103.90 |
| 1 | AA | 520 | A | C5-N7-C8 | 8.34 | 108.07 | 103.90 |
| 1 | AA | 1447 | A | N3-C4-C5 | -8.33 | 120.97 | 126.80 |
| 22 | BA | 466 | A | N9-C4-C5 | 8.33 | 109.13 | 105.80 |
| 22 | BA | 1029 | A | C5-N7-C8 | 8.33 | 108.07 | 103.90 |
| 22 | BA | 2051 | A | N7-C8-N9 | -8.33 | 109.63 | 113.80 |
| 22 | BA | 1265 | A | N9-C4-C5 | 8.32 | 109.13 | 105.80 |
| 22 | BA | 2598 | A | N9-C4-C5 | 8.32 | 109.13 | 105.80 |
| 22 | BA | 820 | A | C4-C5-C6 | 8.32 | 121.16 | 117.00 |
| 22 | BA | 1469 | A | C4-C5-C6 | 8.32 | 121.16 | 117.00 |
| 1 | AA | 1434 | A | C5-N7-C8 | 8.31 | 108.06 | 103.90 |
| 22 | BA | 71 | A | C5-N7-C8 | 8.31 | 108.06 | 103.90 |
| 22 | BA | 1393 | A | N3-C4-C5 | -8.31 | 120.98 | 126.80 |
| 22 | BA | 761 | A | N9-C4-C5 | 8.30 | 109.12 | 105.80 |
| 1 | AA | 1101 | A | N3-C4-C5 | -8.30 | 120.99 | 126.80 |
| 22 | BA | 941 | A | C5-N7-C8 | 8.29 | 108.05 | 103.90 |
| 55 | B8 | 51 | A | C5-N7-C8 | 8.29 | 108.05 | 103.90 |
| 22 | BA | 905 | A | N9-C4-C5 | 8.29 | 109.12 | 105.80 |
| 1 | AA | 583 | A | N9-C4-C5 | 8.29 | 109.11 | 105.80 |
| 22 | BA | 2577 | A | C5-N7-C8 | 8.29 | 108.05 | 103.90 |
| 22 | BA | 2810 | A | N9-C4-C5 | 8.29 | 109.12 | 105.80 |
| 55 | B8 | 59 | A | C5-N7-C8 | 8.29 | 108.04 | 103.90 |
| 22 | BA | 2518 | A | C5-N7-C8 | 8.29 | 108.04 | 103.90 |
| 22 | BA | 1981 | A | N3-C4-C5 | -8.28 | 121.00 | 126.80 |
| 1 | AA | 574 | A | N3-C4-C5 | -8.28 | 121.01 | 126.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 38 | A | C5-N7-C8 | 8.28 | 108.04 | 103.90 |
| 1 | AA | 432 | A | C5-N7-C8 | 8.27 | 108.03 | 103.90 |
| 22 | BA | 311 | A | N3-C4-C5 | -8.27 | 121.02 | 126.80 |
| 22 | BA | 1269 | A | C4-C5-C6 | 8.27 | 121.13 | 117.00 |
| 22 | BA | 532 | A | C5-N7-C8 | 8.26 | 108.03 | 103.90 |
| 22 | BA | 1677 | A | C4-C5-C6 | 8.26 | 121.13 | 117.00 |
| 22 | BA | 2799 | A | N3-C4-N9 | 8.26 | 134.01 | 127.40 |
| 1 | AA | 431 | A | N3-C4-C5 | -8.26 | 121.02 | 126.80 |
| 22 | BA | 1000 | A | C5-N7-C8 | 8.26 | 108.03 | 103.90 |
| 22 | BA | 1641 | A | N7-C8-N9 | -8.26 | 109.67 | 113.80 |
| 1 | AA | 1434 | A | N9-C4-C5 | 8.26 | 109.10 | 105.80 |
| 1 | AA | 1513 | A | N9-C4-C5 | 8.26 | 109.10 | 105.80 |
| 22 | BA | 191 | A | N9-C4-C5 | 8.26 | 109.10 | 105.80 |
| 22 | BA | 1854 | A | C4-C5-C6 | 8.26 | 121.13 | 117.00 |
| 1 | AA | 397 | A | C5-C6-N6 | 8.25 | 130.30 | 123.70 |
| 55 | B8 | 73 | A | C5-N7-C8 | 8.25 | 108.03 | 103.90 |
| 22 | BA | 1205 | A | N9-C4-C5 | 8.25 | 109.10 | 105.80 |
| 22 | BA | 1614 | A | N9-C4-C5 | 8.25 | 109.10 | 105.80 |
| 22 | BA | 1805 | A | C5-N7-C8 | 8.24 | 108.02 | 103.90 |
| 1 | AA | 706 | A | C4-C5-C6 | 8.24 | 121.12 | 117.00 |
| 55 | B8 | 21 | A | C5-N7-C8 | 8.24 | 108.02 | 103.90 |
| 22 | BA | 507 | A | N7-C8-N9 | -8.24 | 109.68 | 113.80 |
| 22 | BA | 1597 | A | C5-N7-C8 | 8.24 | 108.02 | 103.90 |
| 1 | AA | 16 | A | N9-C4-C5 | 8.23 | 109.09 | 105.80 |
| 22 | BA | 655 | A | N3-C4-C5 | -8.22 | 121.04 | 126.80 |
| 22 | BA | 752 | A | C5-N7-C8 | 8.22 | 108.01 | 103.90 |
| 1 | AA | 465 | A | C5-C6-N1 | 8.22 | 121.81 | 117.70 |
| 1 | AA | 533 | A | C4-C5-C6 | 8.22 | 121.11 | 117.00 |
| 22 | BA | 2071 | A | N7-C8-N9 | -8.22 | 109.69 | 113.80 |
| 22 | BA | 223 | A | N3-C4-C5 | -8.22 | 121.05 | 126.80 |
| 1 | AA | 412 | A | N3-C4-C5 | -8.22 | 121.05 | 126.80 |
| 22 | BA | 1890 | A | C5-N7-C8 | 8.22 | 108.01 | 103.90 |
| 22 | BA | 1241 | A | C5-C6-N6 | 8.22 | 130.27 | 123.70 |
| 22 | BA | 2346 | A | N9-C4-C5 | 8.21 | 109.08 | 105.80 |
| 22 | BA | 1088 | A | C5-N7-C8 | 8.21 | 108.01 | 103.90 |
| 22 | BA | 1419 | A | N3-C4-C5 | -8.21 | 121.05 | 126.80 |
| 22 | BA | 2837 | A | C5-N7-C8 | 8.21 | 108.00 | 103.90 |
| 22 | BA | 2430 | A | N9-C4-C5 | 8.21 | 109.08 | 105.80 |
| 22 | BA | 1784 | A | C5-N7-C8 | 8.20 | 108.00 | 103.90 |
| 22 | BA | 2459 | A | C5-N7-C8 | 8.20 | 108.00 | 103.90 |
| 22 | BA | 2766 | A | C4-C5-C6 | 8.20 | 121.10 | 117.00 |
| 1 | AA | 673 | A | N9-C4-C5 | 8.20 | 109.08 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1385 | A | N3-C4-C5 | -8.19 | 121.07 | 126.80 |
| 1 | AA | 600 | A | N3-C4-C5 | -8.19 | 121.07 | 126.80 |
| 1 | AA | 958 | A | N9-C4-C5 | 8.19 | 109.07 | 105.80 |
| 22 | BA | 231 | A | N9-C4-C5 | 8.18 | 109.07 | 105.80 |
| 22 | BA | 216 | A | C5-N7-C8 | 8.18 | 107.99 | 103.90 |
| 22 | BA | 1253 | A | N9-C4-C5 | 8.18 | 109.07 | 105.80 |
| 22 | BA | 2757 | A | C4-C5-C6 | 8.18 | 121.09 | 117.00 |
| 22 | BA | 2776 | A | C5-N7-C8 | 8.18 | 107.99 | 103.90 |
| 22 | BA | 2662 | A | C4-C5-C6 | 8.18 | 121.09 | 117.00 |
| 1 | AA | 274 | A | C8-N9-C4 | 8.17 | 109.07 | 105.80 |
| 22 | BA | 979 | A | N9-C4-C5 | 8.17 | 109.07 | 105.80 |
| 1 | AA | 1046 | A | C4-C5-C6 | 8.17 | 121.08 | 117.00 |
| 1 | AA | 397 | A | C4-C5-C6 | 8.16 | 121.08 | 117.00 |
| 22 | BA | 216 | A | N9-C4-C5 | 8.16 | 109.06 | 105.80 |
| 22 | BA | 1785 | A | N3-C4-C5 | -8.16 | 121.09 | 126.80 |
| 55 | B8 | 42 | A | C5-N7-C8 | 8.16 | 107.98 | 103.90 |
| 22 | BA | 1630 | A | C5-N7-C8 | 8.16 | 107.98 | 103.90 |
| 22 | BA | 1847 | A | N7-C8-N9 | -8.16 | 109.72 | 113.80 |
| 22 | BA | 1427 | A | N3-C4-C5 | -8.16 | 121.09 | 126.80 |
| 22 | BA | 1614 | A | N7-C8-N9 | -8.16 | 109.72 | 113.80 |
| 55 | B8 | 41 | A | C5-N7-C8 | 8.15 | 107.98 | 103.90 |
| 22 | BA | 480 | A | N7-C8-N9 | -8.15 | 109.72 | 113.80 |
| 22 | BA | 1641 | A | C4-C5-C6 | 8.15 | 121.08 | 117.00 |
| 1 | AA | 16 | A | C5-N7-C8 | 8.14 | 107.97 | 103.90 |
| 22 | BA | 529 | A | N9-C4-C5 | 8.14 | 109.06 | 105.80 |
| 22 | BA | 1672 | A | C5-N7-C8 | 8.14 | 107.97 | 103.90 |
| 23 | BB | 59 | A | C5-N7-C8 | 8.14 | 107.97 | 103.90 |
| 1 | AA | 371 | A | C5-N7-C8 | 8.14 | 107.97 | 103.90 |
| 22 | BA | 449 | A | C5-N7-C8 | 8.14 | 107.97 | 103.90 |
| 1 | AA | 499 | A | C5-N7-C8 | 8.14 | 107.97 | 103.90 |
| 22 | BA | 482 | A | N7-C8-N9 | -8.13 | 109.73 | 113.80 |
| 22 | BA | 668 | A | N3-C4-C5 | -8.13 | 121.11 | 126.80 |
| 22 | BA | 2009 | A | C5-N7-C8 | 8.13 | 107.97 | 103.90 |
| 22 | BA | 2101 | A | N9-C4-C5 | 8.14 | 109.06 | 105.80 |
| 22 | BA | 1073 | A | C5-N7-C8 | 8.13 | 107.97 | 103.90 |
| 22 | BA | 2572 | A | N3-C4-C5 | -8.13 | 121.11 | 126.80 |
| 22 | BA | 1470 | A | C4-C5-C6 | 8.13 | 121.06 | 117.00 |
| 22 | BA | 927 | A | C5-N7-C8 | 8.13 | 107.96 | 103.90 |
| 1 | AA | 1428 | A | C5-N7-C8 | 8.12 | 107.96 | 103.90 |
| 1 | AA | 553 | A | C5-N7-C8 | 8.12 | 107.96 | 103.90 |
| 22 | BA | 1598 | A | C5-N7-C8 | 8.12 | 107.96 | 103.90 |
| 1 | AA | 1375 | A | C4-C5-C6 | 8.12 | 121.06 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 1608 | A | N7-C8-N9 | -8.12 | 109.74 | 113.80 |
| 22 | BA | 990 | A | C5-N7-C8 | 8.11 | 107.95 | 103.90 |
| 22 | BA | 1678 | A | C4-C5-C6 | 8.11 | 121.06 | 117.00 |
| 22 | BA | 1789 | A | N3-C4-C5 | -8.11 | 121.12 | 126.80 |
| 22 | BA | 2761 | A | N9-C4-C5 | 8.11 | 109.04 | 105.80 |
| 1 | AA | 1204 | A | C5-N7-C8 | 8.10 | 107.95 | 103.90 |
| 22 | BA | 863 | A | C5-C6-N6 | 8.10 | 130.18 | 123.70 |
| 22 | BA | 2433 | A | C5-N7-C8 | 8.10 | 107.95 | 103.90 |
| 1 | AA | 1500 | A | N7-C8-N9 | -8.10 | 109.75 | 113.80 |
| 22 | BA | 2450 | A | N7-C8-N9 | -8.09 | 109.75 | 113.80 |
| 1 | AA | 321 | A | C5-N7-C8 | 8.09 | 107.95 | 103.90 |
| 22 | BA | 2281 | A | C5-N7-C8 | 8.09 | 107.94 | 103.90 |
| 9 | AI | 11 | ARG | NE-CZ-NH2 | -8.09 | 116.26 | 120.30 |
| 22 | BA | 111 | A | C5-N7-C8 | 8.09 | 107.94 | 103.90 |
| 22 | BA | 673 | C | C2-N3-C4 | -8.09 | 115.86 | 119.90 |
| 22 | BA | 203 | A | N9-C4-C5 | 8.08 | 109.03 | 105.80 |
| 22 | BA | 849 | A | C4-C5-C6 | 8.08 | 121.04 | 117.00 |
| 22 | BA | 1722 | A | C4-C5-C6 | 8.08 | 121.04 | 117.00 |
| 22 | BA | 1286 | A | C5-N7-C8 | 8.08 | 107.94 | 103.90 |
| 1 | AA | 454 | G | N3-C4-N9 | 8.07 | 130.84 | 126.00 |
| 22 | BA | 1572 | A | C4-C5-C6 | 8.07 | 121.04 | 117.00 |
| 55 | B8 | 6 | A | C5-N7-C8 | 8.07 | 107.94 | 103.90 |
| 22 | BA | 422 | A | C4-C5-C6 | 8.07 | 121.03 | 117.00 |
| 22 | BA | 911 | A | C4-C5-C6 | 8.07 | 121.03 | 117.00 |
| 22 | BA | 479 | A | N3-C4-C5 | -8.06 | 121.16 | 126.80 |
| 22 | BA | 2665 | A | C5-N7-C8 | 8.06 | 107.93 | 103.90 |
| 22 | BA | 2005 | A | C5-N7-C8 | 8.06 | 107.93 | 103.90 |
| 22 | BA | 44 | A | N9-C4-C5 | 8.05 | 109.02 | 105.80 |
| 22 | BA | 1551 | A | C5-N7-C8 | 8.05 | 107.93 | 103.90 |
| 22 | BA | 2726 | A | N9-C4-C5 | 8.05 | 109.02 | 105.80 |
| 22 | BA | 1287 | A | C5-N7-C8 | 8.04 | 107.92 | 103.90 |
| 1 | AA | 320 | A | C5-N7-C8 | 8.04 | 107.92 | 103.90 |
| 22 | BA | 911 | A | C5-C6-N6 | 8.04 | 130.13 | 123.70 |
| 1 | AA | 1227 | A | N9-C4-C5 | 8.04 | 109.02 | 105.80 |
| 22 | BA | 1819 | A | N9-C4-C5 | 8.04 | 109.01 | 105.80 |
| 1 | AA | 1188 | A | N9-C4-C5 | 8.03 | 109.01 | 105.80 |
| 22 | BA | 845 | A | C5-C6-N6 | 8.03 | 130.13 | 123.70 |
| 22 | BA | 2077 | A | C4-C5-C6 | 8.04 | 121.02 | 117.00 |
| 1 | AA | 718 | A | C4-C5-C6 | 8.03 | 121.02 | 117.00 |
| 22 | BA | 1936 | A | C4-C5-C6 | 8.03 | 121.02 | 117.00 |
| 1 | AA | 1418 | A | C4-C5-C6 | 8.03 | 121.01 | 117.00 |
| 22 | BA | 1528 | A | C5-N7-C8 | 8.03 | 107.91 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 480 | A | C4-C5-C6 | 8.03 | 121.01 | 117.00 |
| 22 | BA | 2352 | A | C5-N7-C8 | 8.02 | 107.91 | 103.90 |
| 22 | BA | 512 | G | O4'-C1'-N9 | 8.02 | 114.62 | 108.20 |
| 22 | BA | 751 | A | C5-N7-C8 | 8.02 | 107.91 | 103.90 |
| 22 | BA | 825 | A | N9-C4-C5 | 8.02 | 109.01 | 105.80 |
| 22 | BA | 1001 | A | N9-C4-C5 | 8.02 | 109.01 | 105.80 |
| 22 | BA | 734 | A | C5-N7-C8 | 8.02 | 107.91 | 103.90 |
| 22 | BA | 1755 | A | C5-N7-C8 | 8.02 | 107.91 | 103.90 |
| 1 | AA | 781 | A | C5-N7-C8 | 8.02 | 107.91 | 103.90 |
| 1 | AA | 1491 | G | OP1-P-O3' | -8.01 | 87.58 | 105.20 |
| 1 | AA | 32 | A | C4-C5-C6 | 8.01 | 121.00 | 117.00 |
| 1 | AA | 621 | A | N9-C4-C5 | 8.01 | 109.00 | 105.80 |
| 22 | BA | 404 | A | N3-C4-C5 | -8.00 | 121.20 | 126.80 |
| 1 | AA | 753 | A | N9-C4-C5 | 7.99 | 109.00 | 105.80 |
| 22 | BA | 352 | A | N3-C4-C5 | -7.99 | 121.21 | 126.80 |
| 22 | BA | 2447 | G | C6-N1-C2 | -7.99 | 120.31 | 125.10 |
| 22 | BA | 218 | A | C4-C5-C6 | 7.98 | 120.99 | 117.00 |
| 1 | AA | 1468 | A | C4-C5-C6 | 7.98 | 120.99 | 117.00 |
| 22 | BA | 84 | A | N3-C4-C5 | -7.98 | 121.22 | 126.80 |
| 1 | AA | 673 | A | C4-C5-C6 | 7.97 | 120.99 | 117.00 |
| 22 | BA | 515 | A | C5-N7-C8 | 7.97 | 107.89 | 103.90 |
| 22 | BA | 1545 | A | N9-C4-C5 | 7.97 | 108.99 | 105.80 |
| 1 | AA | 190 | A | C5-C6-N6 | 7.97 | 130.07 | 123.70 |
| 22 | BA | 2851 | A | C5-N7-C8 | 7.97 | 107.88 | 103.90 |
| 22 | BA | 1431 | A | C5-N7-C8 | 7.97 | 107.88 | 103.90 |
| 1 | AA | 371 | A | N9-C4-C5 | 7.96 | 108.99 | 105.80 |
| 22 | BA | 526 | A | N9-C4-C5 | 7.96 | 108.99 | 105.80 |
| 22 | BA | 1787 | A | C5-N7-C8 | 7.96 | 107.88 | 103.90 |
| 22 | BA | 1275 | A | N3-C4-C5 | -7.96 | 121.23 | 126.80 |
| 22 | BA | 204 | A | C5-N7-C8 | 7.96 | 107.88 | 103.90 |
| 23 | BB | 101 | A | C5-N7-C8 | 7.96 | 107.88 | 103.90 |
| 22 | BA | 804 | A | C5-N7-C8 | 7.96 | 107.88 | 103.90 |
| 22 | BA | 449 | A | C4-C5-C6 | 7.95 | 120.98 | 117.00 |
| 22 | BA | 783 | A | N7-C8-N9 | -7.95 | 109.82 | 113.80 |
| 22 | BA | 2821 | A | C5-N7-C8 | 7.95 | 107.88 | 103.90 |
| 22 | BA | 126 | A | N3-C4-C5 | -7.95 | 121.24 | 126.80 |
| 22 | BA | 21 | A | C5-N7-C8 | 7.95 | 107.87 | 103.90 |
| 22 | BA | 1889 | A | N9-C4-C5 | 7.95 | 108.98 | 105.80 |
| 1 | AA | 502 | A | C4-C5-C6 | 7.95 | 120.97 | 117.00 |
| 1 | AA | 1246 | A | C5-N7-C8 | 7.95 | 107.87 | 103.90 |
| 22 | BA | 764 | A | N7-C8-N9 | -7.95 | 109.83 | 113.80 |
| 22 | BA | 322 | A | C5-N7-C8 | 7.94 | 107.87 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1227 | A | N7-C8-N9 | -7.94 | 109.83 | 113.80 |
| 22 | BA | 2542 | A | N9-C4-C5 | 7.94 | 108.98 | 105.80 |
| 1 | AA | 74 | A | C5-N7-C8 | 7.94 | 107.87 | 103.90 |
| 1 | AA | 900 | A | C5-N7-C8 | 7.94 | 107.87 | 103.90 |
| 22 | BA | 207 | A | N9-C4-C5 | 7.94 | 108.98 | 105.80 |
| 22 | BA | 804 | A | N9-C4-C5 | 7.94 | 108.98 | 105.80 |
| 22 | BA | 2101 | A | C5-N7-C8 | 7.94 | 107.87 | 103.90 |
| 22 | BA | 342 | A | N9-C4-C5 | 7.94 | 108.98 | 105.80 |
| 1 | AA | 1171 | A | C4-C5-C6 | 7.94 | 120.97 | 117.00 |
| 1 | AA | 1239 | A | N3-C4-C5 | -7.93 | 121.25 | 126.80 |
| 22 | BA | 2273 | A | C5-N7-C8 | 7.93 | 107.87 | 103.90 |
| 22 | BA | 2513 | A | N9-C4-C5 | 7.93 | 108.97 | 105.80 |
| 22 | BA | 1253 | A | N7-C8-N9 | -7.93 | 109.83 | 113.80 |
| 1 | AA | 978 | A | C5-N7-C8 | 7.93 | 107.87 | 103.90 |
| 22 | BA | 2154 | A | C5-N7-C8 | 7.93 | 107.86 | 103.90 |
| 1 | AA | 572 | A | N9-C4-C5 | 7.93 | 108.97 | 105.80 |
| 1 | AA | 958 | A | C5-N7-C8 | 7.93 | 107.86 | 103.90 |
| 1 | AA | 923 | A | C4-C5-C6 | 7.92 | 120.96 | 117.00 |
| 22 | BA | 165 | A | N9-C4-C5 | 7.92 | 108.97 | 105.80 |
| 22 | BA | 492 | A | C4-C5-C6 | 7.92 | 120.96 | 117.00 |
| 8 | AH | 96 | MET | N-CA-CB | -7.92 | 96.34 | 110.60 |
| 22 | BA | 479 | A | N9-C4-C5 | 7.92 | 108.97 | 105.80 |
| 22 | BA | 2541 | A | C5-N7-C8 | 7.92 | 107.86 | 103.90 |
| 22 | BA | 2060 | A | N9-C4-C5 | 7.92 | 108.97 | 105.80 |
| 1 | AA | 583 | A | C5-N7-C8 | 7.92 | 107.86 | 103.90 |
| 22 | BA | 1998 | A | C5-N7-C8 | 7.92 | 107.86 | 103.90 |
| 1 | AA | 44 | A | C5-N7-C8 | 7.91 | 107.86 | 103.90 |
| 1 | AA | 918 | A | N9-C4-C5 | 7.91 | 108.97 | 105.80 |
| 22 | BA | 1759 | A | C5-N7-C8 | 7.91 | 107.86 | 103.90 |
| 22 | BA | 1262 | A | N9-C4-C5 | 7.91 | 108.97 | 105.80 |
| 1 | AA | 195 | A | N9-C4-C5 | 7.91 | 108.96 | 105.80 |
| 22 | BA | 821 | A | N9-C4-C5 | 7.91 | 108.96 | 105.80 |
| 22 | BA | 1194 | A | C5-N7-C8 | 7.91 | 107.86 | 103.90 |
| 22 | BA | 10 | A | N9-C4-C5 | 7.91 | 108.96 | 105.80 |
| 22 | BA | 483 | A | C5-N7-C8 | 7.91 | 107.85 | 103.90 |
| 1 | AA | 1332 | A | C8-N9-C4 | 7.90 | 108.96 | 105.80 |
| 22 | BA | 941 | A | N9-C4-C5 | 7.90 | 108.96 | 105.80 |
| 22 | BA | 2700 | A | C5-N7-C8 | 7.90 | 107.85 | 103.90 |
| 22 | BA | 972 | A | N9-C4-C5 | 7.90 | 108.96 | 105.80 |
| 22 | BA | 1637 | A | C5-N7-C8 | 7.90 | 107.85 | 103.90 |
| 22 | BA | 1189 | A | C5-N7-C8 | 7.90 | 107.85 | 103.90 |
| 1 | AA | 151 | A | N9-C4-C5 | 7.90 | 108.96 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 83 | A | C5-N7-C8 | 7.90 | 107.85 | 103.90 |
| 55 | B8 | 20 | U | OP1-P-OP2 | 7.90 | 131.45 | 119.60 |
| 22 | BA | 677 | A | N3-C4-N9 | 7.89 | 133.71 | 127.40 |
| 22 | BA | 1890 | A | N9-C4-C5 | 7.89 | 108.96 | 105.80 |
| 22 | BA | 199 | A | N9-C4-C5 | 7.89 | 108.96 | 105.80 |
| 22 | BA | 515 | A | N9-C4-C5 | 7.89 | 108.96 | 105.80 |
| 22 | BA | 2820 | A | N3-C4-C5 | -7.89 | 121.28 | 126.80 |
| 22 | BA | 794 | A | C5-N7-C8 | 7.89 | 107.84 | 103.90 |
| 22 | BA | 2600 | A | C5-C6-N6 | 7.89 | 130.01 | 123.70 |
| 1 | AA | 949 | A | C5-N7-C8 | 7.88 | 107.84 | 103.90 |
| 22 | BA | 1373 | A | C4-C5-C6 | 7.88 | 120.94 | 117.00 |
| 22 | BA | 2268 | A | C5-N7-C8 | 7.88 | 107.84 | 103.90 |
| 22 | BA | 457 | A | C5-N7-C8 | 7.88 | 107.84 | 103.90 |
| 22 | BA | 2449 | U | N3-C2-O2 | -7.88 | 116.69 | 122.20 |
| 22 | BA | 705 | A | C5-N7-C8 | 7.88 | 107.84 | 103.90 |
| 22 | BA | 160 | A | N9-C4-C5 | 7.87 | 108.95 | 105.80 |
| 22 | BA | 167 | A | C5-N7-C8 | 7.87 | 107.83 | 103.90 |
| 22 | BA | 1308 | A | N9-C4-C5 | 7.87 | 108.95 | 105.80 |
| 1 | AA | 996 | A | N9-C4-C5 | 7.87 | 108.95 | 105.80 |
| 22 | BA | 203 | A | C5-N7-C8 | 7.87 | 107.83 | 103.90 |
| 22 | BA | 753 | A | C5-N7-C8 | 7.86 | 107.83 | 103.90 |
| 22 | BA | 2051 | A | N9-C4-C5 | 7.86 | 108.94 | 105.80 |
| 22 | BA | 1772 | A | C5-N7-C8 | 7.86 | 107.83 | 103.90 |
| 22 | BA | 2835 | A | C5-N7-C8 | 7.86 | 107.83 | 103.90 |
| 22 | BA | 454 | A | N9-C4-C5 | 7.86 | 108.94 | 105.80 |
| 1 | AA | 596 | A | C5-N7-C8 | 7.86 | 107.83 | 103.90 |
| 22 | BA | 819 | A | C4-C5-C6 | 7.85 | 120.93 | 117.00 |
| 22 | BA | 347 | A | C5-N7-C8 | 7.85 | 107.83 | 103.90 |
| 22 | BA | 800 | A | C5-N7-C8 | 7.85 | 107.82 | 103.90 |
| 22 | BA | 2564 | A | C5-N7-C8 | 7.85 | 107.83 | 103.90 |
| 1 | AA | 1238 | A | N9-C4-C5 | 7.85 | 108.94 | 105.80 |
| 22 | BA | 454 | A | C5-N7-C8 | 7.85 | 107.82 | 103.90 |
| 22 | BA | 917 | A | C5-N7-C8 | 7.85 | 107.82 | 103.90 |
| 22 | BA | 1286 | A | N9-C4-C5 | 7.85 | 108.94 | 105.80 |
| 1 | AA | 1275 | A | C5-N7-C8 | 7.84 | 107.82 | 103.90 |
| 22 | BA | 819 | A | C5-N7-C8 | 7.84 | 107.82 | 103.90 |
| 22 | BA | 1453 | A | C5-N7-C8 | 7.84 | 107.82 | 103.90 |
| 1 | AA | 300 | A | N7-C8-N9 | -7.84 | 109.88 | 113.80 |
| 22 | BA | 502 | A | N9-C4-C5 | 7.84 | 108.94 | 105.80 |
| 1 | AA | 655 | A | C5-N7-C8 | 7.84 | 107.82 | 103.90 |
| 1 | AA | 397 | A | N3-C4-N9 | 7.84 | 133.67 | 127.40 |
| 22 | BA | 492 | A | C5-N7-C8 | 7.84 | 107.82 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 55 | B8 | 20 | U | N3-C4-C5 | 7.83 | 119.30 | 114.60 |
| 1 | AA | 131 | A | N9-C4-C5 | 7.83 | 108.93 | 105.80 |
| 22 | BA | 2577 | A | C4-C5-C6 | 7.83 | 120.92 | 117.00 |
| 22 | BA | 1553 | A | C4-C5-C6 | 7.83 | 120.91 | 117.00 |
| 1 | AA | 374 | A | C5-N7-C8 | 7.82 | 107.81 | 103.90 |
| 1 | AA | 792 | A | C5-N7-C8 | 7.82 | 107.81 | 103.90 |
| 22 | BA | 1597 | A | N9-C4-C5 | 7.82 | 108.93 | 105.80 |
| 22 | BA | 207 | A | C5-N7-C8 | 7.82 | 107.81 | 103.90 |
| 22 | BA | 1275 | A | C5-N7-C8 | 7.82 | 107.81 | 103.90 |
| 22 | BA | 505 | A | C4-C5-C6 | 7.82 | 120.91 | 117.00 |
| 22 | BA | 905 | A | C5-N7-C8 | 7.82 | 107.81 | 103.90 |
| 22 | BA | 2711 | A | C5-N7-C8 | 7.82 | 107.81 | 103.90 |
| 1 | AA | 935 | A | C5-N7-C8 | 7.81 | 107.81 | 103.90 |
| 22 | BA | 1431 | A | C4-C5-C6 | 7.81 | 120.91 | 117.00 |
| 22 | BA | 1551 | A | N9-C4-C5 | 7.81 | 108.92 | 105.80 |
| 1 | AA | 901 | A | C5-N7-C8 | 7.81 | 107.81 | 103.90 |
| 22 | BA | 449 | A | N9-C4-C5 | 7.81 | 108.92 | 105.80 |
| 22 | BA | 563 | A | N9-C4-C5 | 7.81 | 108.92 | 105.80 |
| 22 | BA | 1586 | A | C5-N7-C8 | 7.81 | 107.80 | 103.90 |
| 22 | BA | 2837 | A | N9-C4-C5 | 7.81 | 108.92 | 105.80 |
| 22 | BA | 2872 | A | N3-C4-C5 | -7.81 | 121.33 | 126.80 |
| 1 | AA | 1333 | A | C5-N7-C8 | 7.81 | 107.80 | 103.90 |
| 1 | AA | 533 | A | C5-N7-C8 | 7.80 | 107.80 | 103.90 |
| 1 | AA | 356 | A | C5-N7-C8 | 7.80 | 107.80 | 103.90 |
| 22 | BA | 2482 | A | C5-N7-C8 | 7.80 | 107.80 | 103.90 |
| 22 | BA | 241 | A | N9-C4-C5 | 7.80 | 108.92 | 105.80 |
| 22 | BA | 2298 | A | C5-N7-C8 | 7.79 | 107.80 | 103.90 |
| 22 | BA | 2497 | A | C5-N7-C8 | 7.79 | 107.80 | 103.90 |
| 1 | AA | 919 | A | N9-C4-C5 | 7.79 | 108.92 | 105.80 |
| 22 | BA | 2471 | A | C5-N7-C8 | 7.79 | 107.80 | 103.90 |
| 1 | AA | 915 | A | C5-N7-C8 | 7.79 | 107.79 | 103.90 |
| 1 | AA | 1238 | A | C5-N7-C8 | 7.79 | 107.79 | 103.90 |
| 1 | AA | 665 | A | N9-C4-C5 | 7.79 | 108.91 | 105.80 |
| 22 | BA | 270 | A | N9-C4-C5 | 7.79 | 108.91 | 105.80 |
| 22 | BA | 1470 | A | N9-C4-C5 | 7.79 | 108.92 | 105.80 |
| 22 | BA | 1927 | A | C5-N7-C8 | 7.79 | 107.79 | 103.90 |
| 22 | BA | 2095 | A | C5-N7-C8 | 7.78 | 107.79 | 103.90 |
| 22 | BA | 423 | A | C5-N7-C8 | 7.78 | 107.79 | 103.90 |
| 22 | BA | 528 | A | C5-N7-C8 | 7.78 | 107.79 | 103.90 |
| 22 | BA | 2284 | A | C4-C5-C6 | 7.78 | 120.89 | 117.00 |
| 22 | BA | 1048 | A | C5-N7-C8 | 7.78 | 107.79 | 103.90 |
| 22 | BA | 2077 | A | N7-C8-N9 | -7.78 | 109.91 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 363 | A | N9-C4-C5 | 7.78 | 108.91 | 105.80 |
| 1 | AA | 1480 | A | N9-C4-C5 | 7.78 | 108.91 | 105.80 |
| 22 | BA | 1367 | A | N9-C4-C5 | 7.78 | 108.91 | 105.80 |
| 1 | AA | 468 | A | C5-N7-C8 | 7.77 | 107.79 | 103.90 |
| 1 | AA | 1375 | A | C5-N7-C8 | 7.77 | 107.79 | 103.90 |
| 22 | BA | 2530 | A | C4-C5-C6 | 7.77 | 120.89 | 117.00 |
| 1 | AA | 706 | A | C5-N7-C8 | 7.77 | 107.78 | 103.90 |
| 22 | BA | 479 | A | C5-N7-C8 | 7.77 | 107.78 | 103.90 |
| 22 | BA | 1111 | A | C5-N7-C8 | 7.77 | 107.78 | 103.90 |
| 22 | BA | 973 | A | N7-C8-N9 | -7.76 | 109.92 | 113.80 |
| 22 | BA | 1786 | A | C5-N7-C8 | 7.76 | 107.78 | 103.90 |
| 22 | BA | 1787 | A | N3-C4-N9 | 7.76 | 133.61 | 127.40 |
| 22 | BA | 1810 | A | N7-C8-N9 | -7.76 | 109.92 | 113.80 |
| 55 | B8 | 20 | U | N3-C2-O2 | -7.76 | 116.77 | 122.20 |
| 1 | AA | 622 | A | N9-C4-C5 | 7.76 | 108.90 | 105.80 |
| 22 | BA | 1077 | A | N9-C4-C5 | 7.76 | 108.90 | 105.80 |
| 22 | BA | 947 | A | C5-N7-C8 | 7.76 | 107.78 | 103.90 |
| 22 | BA | 2632 | A | C5-N7-C8 | 7.76 | 107.78 | 103.90 |
| 22 | BA | 1603 | A | C5-N7-C8 | 7.76 | 107.78 | 103.90 |
| 22 | BA | 783 | A | C5-N7-C8 | 7.75 | 107.78 | 103.90 |
| 22 | BA | 807 | U | C2-N3-C4 | -7.75 | 122.35 | 127.00 |
| 22 | BA | 2019 | A | C5-N7-C8 | 7.75 | 107.77 | 103.90 |
| 1 | AA | 1398 | A | N9-C4-C5 | 7.75 | 108.90 | 105.80 |
| 1 | AA | 1201 | A | C4-C5-C6 | 7.74 | 120.87 | 117.00 |
| 22 | BA | 582 | A | C5-N7-C8 | 7.74 | 107.77 | 103.90 |
| 1 | AA | 465 | A | C5-N7-C8 | 7.74 | 107.77 | 103.90 |
| 22 | BA | 190 | A | C5-N7-C8 | 7.74 | 107.77 | 103.90 |
| 22 | BA | 2560 | A | C5-N7-C8 | 7.74 | 107.77 | 103.90 |
| 22 | BA | 608 | A | C5-N7-C8 | 7.74 | 107.77 | 103.90 |
| 22 | BA | 1610 | A | C5-N7-C8 | 7.74 | 107.77 | 103.90 |
| 1 | AA | 373 | A | C4-C5-C6 | 7.73 | 120.87 | 117.00 |
| 1 | AA | 1213 | A | C5-N7-C8 | 7.73 | 107.77 | 103.90 |
| 22 | BA | 1144 | A | C5-N7-C8 | 7.73 | 107.77 | 103.90 |
| 22 | BA | 1632 | A | C5-N7-C8 | 7.73 | 107.77 | 103.90 |
| 22 | BA | 572 | A | C5-N7-C8 | 7.73 | 107.76 | 103.90 |
| 1 | AA | 162 | A | C5-N7-C8 | 7.73 | 107.76 | 103.90 |
| 22 | BA | 2471 | A | N9-C4-C5 | 7.73 | 108.89 | 105.80 |
| 1 | AA | 59 | A | C5-N7-C8 | 7.72 | 107.76 | 103.90 |
| 22 | BA | 1678 | A | C5-N7-C8 | 7.72 | 107.76 | 103.90 |
| 1 | AA | 872 | A | N7-C8-N9 | -7.72 | 109.94 | 113.80 |
| 1 | AA | 498 | A | C5-N7-C8 | 7.72 | 107.76 | 103.90 |
| 22 | BA | 965 | C | C6-N1-C2 | -7.71 | 117.21 | 120.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1090 | A | C5-N7-C8 | 7.71 | 107.75 | 103.90 |
| 22 | BA | 1668 | A | C5-N7-C8 | 7.71 | 107.75 | 103.90 |
| 22 | BA | 2386 | A | C5-N7-C8 | 7.71 | 107.75 | 103.90 |
| 1 | AA | 1418 | A | C5-N7-C8 | 7.71 | 107.75 | 103.90 |
| 22 | BA | 631 | A | C5-N7-C8 | 7.71 | 107.75 | 103.90 |
| 22 | BA | 1247 | A | C5-N7-C8 | 7.70 | 107.75 | 103.90 |
| 22 | BA | 1679 | A | C4-C5-C6 | 7.70 | 120.85 | 117.00 |
| 1 | AA | 873 | A | C5-N7-C8 | 7.70 | 107.75 | 103.90 |
| 1 | AA | 408 | A | C5-N7-C8 | 7.69 | 107.75 | 103.90 |
| 1 | AA | 1531 | A | C4-C5-C6 | 7.69 | 120.85 | 117.00 |
| 22 | BA | 1960 | A | C5-N7-C8 | 7.69 | 107.75 | 103.90 |
| 22 | BA | 255 | A | C4-C5-C6 | 7.69 | 120.84 | 117.00 |
| 1 | AA | 673 | A | C5-N7-C8 | 7.69 | 107.74 | 103.90 |
| 22 | BA | 196 | A | C5-N7-C8 | 7.69 | 107.74 | 103.90 |
| 22 | BA | 1717 | A | N9-C4-C5 | 7.69 | 108.88 | 105.80 |
| 22 | BA | 1570 | A | C5-N7-C8 | 7.68 | 107.74 | 103.90 |
| 1 | AA | 246 | A | C5-N7-C8 | 7.68 | 107.74 | 103.90 |
| 1 | AA | 865 | A | C4-C5-C6 | 7.68 | 120.84 | 117.00 |
| 22 | BA | 2119 | A | C5-N7-C8 | 7.68 | 107.74 | 103.90 |
| 55 | B8 | 14 | A | C5-N7-C8 | 7.68 | 107.74 | 103.90 |
| 22 | BA | 352 | A | N9-C4-C5 | 7.68 | 108.87 | 105.80 |
| 22 | BA | 1469 | A | C5-N7-C8 | 7.68 | 107.74 | 103.90 |
| 22 | BA | 1544 | A | N9-C4-C5 | 7.68 | 108.87 | 105.80 |
| 22 | BA | 1762 | A | N9-C4-C5 | 7.68 | 108.87 | 105.80 |
| 22 | BA | 2019 | A | N9-C4-C5 | 7.68 | 108.87 | 105.80 |
| 1 | AA | 349 | A | C5-N7-C8 | 7.67 | 107.74 | 103.90 |
| 22 | BA | 2003 | A | C5-N7-C8 | 7.67 | 107.73 | 103.90 |
| 1 | AA | 1081 | A | C5-N7-C8 | 7.67 | 107.73 | 103.90 |
| 1 | AA | 1495 | U | N3-C2-O2 | -7.67 | 116.83 | 122.20 |
| 22 | BA | 693 | A | C5-N7-C8 | 7.67 | 107.73 | 103.90 |
| 1 | AA | 1055 | A | C4-C5-C6 | 7.67 | 120.83 | 117.00 |
| 22 | BA | 2062 | A | C5-N7-C8 | 7.67 | 107.73 | 103.90 |
| 1 | AA | 60 | A | N9-C4-C5 | 7.67 | 108.87 | 105.80 |
| 1 | AA | 819 | A | N9-C4-C5 | 7.67 | 108.87 | 105.80 |
| 22 | BA | 1029 | A | N9-C4-C5 | 7.67 | 108.87 | 105.80 |
| 22 | BA | 2060 | A | C5-N7-C8 | 7.67 | 107.73 | 103.90 |
| 22 | BA | 1927 | A | N9-C4-C5 | 7.66 | 108.86 | 105.80 |
| 22 | BA | 960 | A | C5-N7-C8 | 7.66 | 107.73 | 103.90 |
| 22 | BA | 1054 | A | C5-N7-C8 | 7.66 | 107.73 | 103.90 |
| 1 | AA | 978 | A | N9-C4-C5 | 7.66 | 108.86 | 105.80 |
| 1 | AA | 694 | A | C5-N7-C8 | 7.66 | 107.73 | 103.90 |
| 22 | BA | 980 | A | C5-N7-C8 | 7.66 | 107.73 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1679 | A | C5-N7-C8 | 7.66 | 107.73 | 103.90 |
| 22 | BA | 2020 | A | C5-C6-N6 | 7.66 | 129.82 | 123.70 |
| 55 | B8 | 69 | A | C5-N7-C8 | 7.66 | 107.73 | 103.90 |
| 22 | BA | 2134 | A | C5-N7-C8 | 7.65 | 107.73 | 103.90 |
| 22 | BA | 2614 | A | C4-C5-C6 | 7.65 | 120.83 | 117.00 |
| 22 | BA | 2317 | A | C5-N7-C8 | 7.65 | 107.73 | 103.90 |
| 22 | BA | 104 | A | C5-N7-C8 | 7.65 | 107.72 | 103.90 |
| 22 | BA | 983 | A | N3-C4-C5 | -7.65 | 121.45 | 126.80 |
| 22 | BA | 1912 | A | C5-N7-C8 | 7.65 | 107.72 | 103.90 |
| 1 | AA | 1329 | A | C5-N7-C8 | 7.64 | 107.72 | 103.90 |
| 1 | AA | 1410 | A | C5-N7-C8 | 7.64 | 107.72 | 103.90 |
| 22 | BA | 443 | A | C5-N7-C8 | 7.64 | 107.72 | 103.90 |
| 1 | AA | 197 | A | C5-N7-C8 | 7.64 | 107.72 | 103.90 |
| 1 | AA | 205 | A | C5-N7-C8 | 7.64 | 107.72 | 103.90 |
| 1 | AA | 1513 | A | C5-N7-C8 | 7.64 | 107.72 | 103.90 |
| 23 | BB | 57 | A | C4-C5-C6 | 7.64 | 120.82 | 117.00 |
| 1 | AA | 196 | A | N9-C4-C5 | 7.64 | 108.85 | 105.80 |
| 1 | AA | 784 | A | N9-C4-C5 | 7.64 | 108.86 | 105.80 |
| 22 | BA | 2080 | A | C5-N7-C8 | 7.64 | 107.72 | 103.90 |
| 22 | BA | 2453 | A | C5-N7-C8 | 7.64 | 107.72 | 103.90 |
| 22 | BA | 1032 | A | N9-C4-C5 | 7.63 | 108.85 | 105.80 |
| 22 | BA | 1241 | A | C5-N7-C8 | 7.63 | 107.72 | 103.90 |
| 22 | BA | 1669 | A | N7-C8-N9 | -7.63 | 109.98 | 113.80 |
| 22 | BA | 2513 | A | C5-N7-C8 | 7.63 | 107.72 | 103.90 |
| 22 | BA | 2727 | A | C5-N7-C8 | 7.63 | 107.72 | 103.90 |
| 22 | BA | 590 | A | N9-C4-C5 | 7.63 | 108.85 | 105.80 |
| 22 | BA | 2358 | A | C5-N7-C8 | 7.63 | 107.72 | 103.90 |
| 1 | AA | 1179 | A | N9-C4-C5 | 7.63 | 108.85 | 105.80 |
| 22 | BA | 1194 | A | N9-C4-C5 | 7.63 | 108.85 | 105.80 |
| 1 | AA | 607 | A | C5-N7-C8 | 7.63 | 107.71 | 103.90 |
| 22 | BA | 574 | A | N9-C4-C5 | 7.63 | 108.85 | 105.80 |
| 22 | BA | 1420 | A | C5-N7-C8 | 7.62 | 107.71 | 103.90 |
| 22 | BA | 1269 | A | N9-C4-C5 | 7.62 | 108.85 | 105.80 |
| 23 | BB | 75 | G | C6-N1-C2 | -7.62 | 120.53 | 125.10 |
| 22 | BA | 2448 | A | N9-C4-C5 | 7.62 | 108.85 | 105.80 |
| 22 | BA | 2879 | A | C5-N7-C8 | 7.62 | 107.71 | 103.90 |
| 22 | BA | 2531 | A | C5-N7-C8 | 7.62 | 107.71 | 103.90 |
| 22 | BA | 2749 | A | N9-C4-C5 | 7.62 | 108.85 | 105.80 |
| 55 | B8 | 21 | A | C4-C5-C6 | 7.62 | 120.81 | 117.00 |
| 1 | AA | 1046 | A | C5-N7-C8 | 7.62 | 107.71 | 103.90 |
| 22 | BA | 1366 | A | N9-C4-C5 | 7.62 | 108.85 | 105.80 |
| 22 | BA | 1668 | A | N9-C4-C5 | 7.62 | 108.85 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2297 | A | C5-N7-C8 | 7.62 | 107.71 | 103.90 |
| 1 | AA | 704 | A | N9-C4-C5 | 7.61 | 108.84 | 105.80 |
| 1 | AA | 1022 | A | C5-N7-C8 | 7.61 | 107.70 | 103.90 |
| 1 | AA | 129 | A | N9-C4-C5 | 7.61 | 108.84 | 105.80 |
| 1 | AA | 1441 | A | C5-N7-C8 | 7.61 | 107.70 | 103.90 |
| 22 | BA | 1829 | A | C5-N7-C8 | 7.60 | 107.70 | 103.90 |
| 1 | AA | 1311 | A | C5-N7-C8 | 7.60 | 107.70 | 103.90 |
| 22 | BA | 1050 | A | C5-N7-C8 | 7.60 | 107.70 | 103.90 |
| 22 | BA | 1490 | A | C5-N7-C8 | 7.60 | 107.70 | 103.90 |
| 41 | BT | 1 | MET | N-CA-C | 7.60 | 131.52 | 111.00 |
| 22 | BA | 52 | A | C4-C5-C6 | 7.60 | 120.80 | 117.00 |
| 22 | BA | 925 | A | C5-N7-C8 | 7.60 | 107.70 | 103.90 |
| 22 | BA | 627 | A | C5-N7-C8 | 7.60 | 107.70 | 103.90 |
| 1 | AA | 487 | A | C4-C5-C6 | 7.59 | 120.80 | 117.00 |
| 22 | BA | 1889 | A | C5-N7-C8 | 7.59 | 107.70 | 103.90 |
| 22 | BA | 2753 | A | C5-N7-C8 | 7.59 | 107.70 | 103.90 |
| 22 | BA | 1630 | A | N9-C4-C5 | 7.59 | 108.84 | 105.80 |
| 1 | AA | 430 | A | C5-N7-C8 | 7.59 | 107.69 | 103.90 |
| 1 | AA | 1180 | A | N9-C4-C5 | 7.59 | 108.84 | 105.80 |
| 22 | BA | 401 | A | C5-N7-C8 | 7.59 | 107.69 | 103.90 |
| 22 | BA | 751 | A | C4-C5-C6 | 7.59 | 120.80 | 117.00 |
| 22 | BA | 504 | A | N3-C4-C5 | -7.59 | 121.49 | 126.80 |
| 22 | BA | 2434 | A | C5-N7-C8 | 7.59 | 107.69 | 103.90 |
| 1 | AA | 1216 | A | N9-C4-C5 | 7.58 | 108.83 | 105.80 |
| 1 | AA | 408 | A | N9-C4-C5 | 7.58 | 108.83 | 105.80 |
| 22 | BA | 1069 | A | C5-N7-C8 | 7.58 | 107.69 | 103.90 |
| 22 | BA | 2366 | A | C5-N7-C8 | 7.58 | 107.69 | 103.90 |
| 1 | AA | 313 | A | C5-N7-C8 | 7.58 | 107.69 | 103.90 |
| 22 | BA | 1327 | A | C5-N7-C8 | 7.58 | 107.69 | 103.90 |
| 1 | AA | 1201 | A | C5-C6-N1 | 7.58 | 121.49 | 117.70 |
| 22 | BA | 1470 | A | C5-N7-C8 | 7.58 | 107.69 | 103.90 |
| 22 | BA | 172 | A | C5-N7-C8 | 7.58 | 107.69 | 103.90 |
| 22 | BA | 655 | A | C5-N7-C8 | 7.58 | 107.69 | 103.90 |
| 22 | BA | 1213 | A | C5-N7-C8 | 7.58 | 107.69 | 103.90 |
| 22 | BA | 2706 | A | N9-C4-C5 | 7.58 | 108.83 | 105.80 |
| 1 | AA | 77 | A | C4-C5-C6 | 7.57 | 120.79 | 117.00 |
| 1 | AA | 969 | A | C5-N7-C8 | 7.57 | 107.69 | 103.90 |
| 1 | AA | 1035 | A | C5-N7-C8 | 7.57 | 107.69 | 103.90 |
| 1 | AA | 1465 | A | C4-C5-C6 | 7.57 | 120.79 | 117.00 |
| 22 | BA | 428 | A | C5-N7-C8 | 7.57 | 107.69 | 103.90 |
| 22 | BA | 1505 | A | C5-N7-C8 | 7.57 | 107.69 | 103.90 |
| 22 | BA | 2766 | A | C5-N7-C8 | 7.57 | 107.69 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 84 | A | N9-C4-C5 | 7.57 | 108.83 | 105.80 |
| 22 | BA | 973 | A | N9-C4-C5 | 7.57 | 108.83 | 105.80 |
| 22 | BA | 1353 | A | C4-C5-N7 | -7.57 | 106.92 | 110.70 |
| 22 | BA | 2602 | A | C5-N7-C8 | 7.57 | 107.69 | 103.90 |
| 22 | BA | 2734 | A | C5-N7-C8 | 7.57 | 107.69 | 103.90 |
| 22 | BA | 644 | A | C4-C5-C6 | 7.57 | 120.78 | 117.00 |
| 22 | BA | 1246 | A | C5-N7-C8 | 7.57 | 107.68 | 103.90 |
| 1 | AA | 873 | A | C4-C5-C6 | 7.57 | 120.78 | 117.00 |
| 22 | BA | 181 | A | C5-N7-C8 | 7.57 | 107.68 | 103.90 |
| 22 | BA | 1165 | A | N9-C4-C5 | 7.57 | 108.83 | 105.80 |
| 22 | BA | 2051 | A | C4-C5-C6 | 7.57 | 120.78 | 117.00 |
| 23 | BB | 99 | A | C5-N7-C8 | 7.57 | 107.68 | 103.90 |
| 22 | BA | 2614 | A | C4-C5-N7 | -7.56 | 106.92 | 110.70 |
| 1 | AA | 572 | A | C5-N7-C8 | 7.56 | 107.68 | 103.90 |
| 1 | AA | 1374 | A | C5-N7-C8 | 7.56 | 107.68 | 103.90 |
| 22 | BA | 706 | A | C5-N7-C8 | 7.56 | 107.68 | 103.90 |
| 22 | BA | 1504 | A | C5-N7-C8 | 7.56 | 107.68 | 103.90 |
| 1 | AA | 1476 | A | N9-C4-C5 | 7.56 | 108.82 | 105.80 |
| 22 | BA | 753 | A | C4-C5-C6 | 7.56 | 120.78 | 117.00 |
| 22 | BA | 1403 | A | C5-N7-C8 | 7.56 | 107.68 | 103.90 |
| 22 | BA | 2482 | A | C4-C5-C6 | 7.56 | 120.78 | 117.00 |
| 1 | AA | 676 | A | C5-N7-C8 | 7.56 | 107.68 | 103.90 |
| 22 | BA | 1749 | A | C5-N7-C8 | 7.56 | 107.68 | 103.90 |
| 22 | BA | 1749 | A | N9-C4-C5 | 7.56 | 108.82 | 105.80 |
| 22 | BA | 2270 | A | N9-C4-C5 | 7.56 | 108.82 | 105.80 |
| 1 | AA | 743 | A | C4-C5-C6 | 7.56 | 120.78 | 117.00 |
| 1 | AA | 28 | A | C4-C5-C6 | 7.55 | 120.78 | 117.00 |
| 22 | BA | 149 | A | N9-C4-C5 | 7.55 | 108.82 | 105.80 |
| 22 | BA | 1794 | A | C5-N7-C8 | 7.55 | 107.68 | 103.90 |
| 22 | BA | 2721 | A | C5-N7-C8 | 7.55 | 107.67 | 103.90 |
| 22 | BA | 2108 | A | C4-C5-C6 | 7.55 | 120.78 | 117.00 |
| 22 | BA | 676 | A | N9-C4-C5 | 7.55 | 108.82 | 105.80 |
| 22 | BA | 2727 | A | C4-C5-C6 | 7.55 | 120.77 | 117.00 |
| 1 | AA | 579 | A | N9-C4-C5 | 7.55 | 108.82 | 105.80 |
| 22 | BA | 1302 | A | C5-N7-C8 | 7.55 | 107.67 | 103.90 |
| 22 | BA | 1147 | A | C5-N7-C8 | 7.54 | 107.67 | 103.90 |
| 23 | BB | 57 | A | C5-N7-C8 | 7.54 | 107.67 | 103.90 |
| 22 | BA | 2247 | A | C5-N7-C8 | 7.54 | 107.67 | 103.90 |
| 22 | BA | 2266 | A | N9-C4-C5 | 7.54 | 108.82 | 105.80 |
| 1 | AA | 320 | A | N9-C4-C5 | 7.54 | 108.81 | 105.80 |
| 22 | BA | 1247 | A | N9-C4-C5 | 7.54 | 108.81 | 105.80 |
| 1 | AA | 19 | A | N9-C4-C5 | 7.53 | 108.81 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|------|-------------|----------|
| 22 | BA | 920 | A | C5-N7-C8 | 7.53 | 107.67 | 103.90 |
| 23 | BB | 58 | A | C5-N7-C8 | 7.53 | 107.67 | 103.90 |
| 1 | AA | 152 | A | N9-C4-C5 | 7.53 | 108.81 | 105.80 |
| 1 | AA | 1332 | A | C5-N7-C8 | 7.53 | 107.67 | 103.90 |
| 22 | BA | 146 | A | C5-N7-C8 | 7.53 | 107.67 | 103.90 |
| 1 | AA | 353 | A | C5-N7-C8 | 7.53 | 107.66 | 103.90 |
| 1 | AA | 1428 | A | N9-C4-C5 | 7.53 | 108.81 | 105.80 |
| 22 | BA | 2740 | A | C5-N7-C8 | 7.53 | 107.67 | 103.90 |
| 1 | AA | 642 | A | C5-N7-C8 | 7.53 | 107.66 | 103.90 |
| 22 | BA | 152 | A | C4-C5-C6 | 7.53 | 120.76 | 117.00 |
| 22 | BA | 792 | A | C4-C5-C6 | 7.53 | 120.76 | 117.00 |
| 22 | BA | 2094 | A | C5-N7-C8 | 7.53 | 107.66 | 103.90 |
| 1 | AA | 452 | A | C5-N7-C8 | 7.53 | 107.66 | 103.90 |
| 22 | BA | 1853 | A | C5-N7-C8 | 7.53 | 107.66 | 103.90 |
| 22 | BA | 2173 | A | C5-N7-C8 | 7.53 | 107.66 | 103.90 |
| 22 | BA | 2418 | A | C5-N7-C8 | 7.53 | 107.66 | 103.90 |
| 55 | B8 | 76 | A | C5-N7-C8 | 7.53 | 107.66 | 103.90 |
| 22 | BA | 2778 | A | C5-N7-C8 | 7.52 | 107.66 | 103.90 |
| 1 | AA | 1225 | A | C5-N7-C8 | 7.52 | 107.66 | 103.90 |
| 22 | BA | 2706 | A | C4-C5-C6 | 7.52 | 120.76 | 117.00 |
| 23 | BB | 53 | A | C5-N7-C8 | 7.52 | 107.66 | 103.90 |
| 22 | BA | 802 | A | C4-C5-C6 | 7.52 | 120.76 | 117.00 |
| 22 | BA | 1021 | A | C5-N7-C8 | 7.52 | 107.66 | 103.90 |
| 22 | BA | 1322 | A | C5-N7-C8 | 7.52 | 107.66 | 103.90 |
| 1 | AA | 430 | A | C4-C5-C6 | 7.52 | 120.76 | 117.00 |
| 22 | BA | 735 | A | C5-N7-C8 | 7.52 | 107.66 | 103.90 |
| 22 | BA | 863 | A | C4-C5-C6 | 7.51 | 120.76 | 117.00 |
| 22 | BA | 1366 | A | C5-N7-C8 | 7.51 | 107.66 | 103.90 |
| 22 | BA | 866 | A | C5-N7-C8 | 7.51 | 107.66 | 103.90 |
| 22 | BA | 1392 | A | N9-C4-C5 | 7.51 | 108.81 | 105.80 |
| 1 | AA | 325 | A | C4-C5-C6 | 7.51 | 120.75 | 117.00 |
| 1 | AA | 1019 | A | C5-N7-C8 | 7.51 | 107.66 | 103.90 |
| 22 | BA | 1772 | A | N9-C4-C5 | 7.51 | 108.80 | 105.80 |
| 22 | BA | 2657 | A | N9-C4-C5 | 7.51 | 108.80 | 105.80 |
| 22 | BA | 1088 | A | C4-C5-C6 | 7.50 | 120.75 | 117.00 |
| 22 | BA | 1264 | A | C5-N7-C8 | 7.50 | 107.65 | 103.90 |
| 22 | BA | 1744 | A | C5-N7-C8 | 7.50 | 107.65 | 103.90 |
| 22 | BA | 2736 | A | C5-N7-C8 | 7.50 | 107.65 | 103.90 |
| 1 | AA | 373 | A | C5-N7-C8 | 7.50 | 107.65 | 103.90 |
| 1 | AA | 431 | A | C5-N7-C8 | 7.50 | 107.65 | 103.90 |
| 22 | BA | 2835 | A | N9-C4-C5 | 7.50 | 108.80 | 105.80 |
| 23 | BB | 29 | A | C5-N7-C8 | 7.50 | 107.65 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|------|-------------|----------|
| 22 | BA | 833 | A | C4-C5-C6 | 7.50 | 120.75 | 117.00 |
| 1 | AA | 1197 | A | C4-C5-C6 | 7.50 | 120.75 | 117.00 |
| 22 | BA | 2031 | A | C5-N7-C8 | 7.50 | 107.65 | 103.90 |
| 22 | BA | 2439 | A | N9-C4-C5 | 7.50 | 108.80 | 105.80 |
| 1 | AA | 1016 | A | C5-N7-C8 | 7.49 | 107.65 | 103.90 |
| 22 | BA | 1384 | A | N9-C4-C5 | 7.49 | 108.80 | 105.80 |
| 22 | BA | 429 | A | C5-N7-C8 | 7.49 | 107.65 | 103.90 |
| 22 | BA | 1787 | A | C4-C5-C6 | 7.49 | 120.75 | 117.00 |
| 22 | BA | 2033 | A | C5-N7-C8 | 7.49 | 107.64 | 103.90 |
| 22 | BA | 2094 | A | N9-C4-C5 | 7.49 | 108.80 | 105.80 |
| 1 | AA | 435 | A | C5-N7-C8 | 7.49 | 107.64 | 103.90 |
| 1 | AA | 825 | A | C5-N7-C8 | 7.49 | 107.64 | 103.90 |
| 1 | AA | 1180 | A | C5-N7-C8 | 7.49 | 107.64 | 103.90 |
| 1 | AA | 1360 | A | N9-C4-C5 | 7.49 | 108.80 | 105.80 |
| 22 | BA | 2241 | A | C5-N7-C8 | 7.49 | 107.64 | 103.90 |
| 22 | BA | 2634 | A | C5-N7-C8 | 7.49 | 107.64 | 103.90 |
| 22 | BA | 1676 | A | C5-N7-C8 | 7.49 | 107.64 | 103.90 |
| 1 | AA | 949 | A | N9-C4-C5 | 7.49 | 108.79 | 105.80 |
| 22 | BA | 103 | A | C5-N7-C8 | 7.49 | 107.64 | 103.90 |
| 22 | BA | 1689 | A | C5-N7-C8 | 7.48 | 107.64 | 103.90 |
| 1 | AA | 1429 | A | C5-N7-C8 | 7.48 | 107.64 | 103.90 |
| 22 | BA | 1272 | A | C5-N7-C8 | 7.48 | 107.64 | 103.90 |
| 22 | BA | 2412 | A | C5-N7-C8 | 7.48 | 107.64 | 103.90 |
| 22 | BA | 470 | A | C4-C5-C6 | 7.48 | 120.74 | 117.00 |
| 22 | BA | 547 | A | C5-N7-C8 | 7.48 | 107.64 | 103.90 |
| 22 | BA | 2868 | A | C5-N7-C8 | 7.48 | 107.64 | 103.90 |
| 1 | AA | 129 | A | C5-N7-C8 | 7.48 | 107.64 | 103.90 |
| 1 | AA | 383 | A | N3-C4-N9 | 7.48 | 133.38 | 127.40 |
| 1 | AA | 777 | A | C5-N7-C8 | 7.48 | 107.64 | 103.90 |
| 22 | BA | 892 | A | C5-N7-C8 | 7.48 | 107.64 | 103.90 |
| 22 | BA | 2163 | A | C5-N7-C8 | 7.48 | 107.64 | 103.90 |
| 22 | BA | 2278 | A | C5-N7-C8 | 7.48 | 107.64 | 103.90 |
| 1 | AA | 131 | A | C5-N7-C8 | 7.47 | 107.64 | 103.90 |
| 22 | BA | 401 | A | C4-C5-C6 | 7.47 | 120.74 | 117.00 |
| 22 | BA | 1260 | A | N9-C4-C5 | 7.47 | 108.79 | 105.80 |
| 22 | BA | 1829 | A | C4-C5-C6 | 7.47 | 120.74 | 117.00 |
| 22 | BA | 1987 | A | C5-N7-C8 | 7.47 | 107.64 | 103.90 |
| 22 | BA | 2369 | A | C5-N7-C8 | 7.47 | 107.64 | 103.90 |
| 22 | BA | 2700 | A | N9-C4-C5 | 7.47 | 108.79 | 105.80 |
| 22 | BA | 2873 | A | C5-N7-C8 | 7.47 | 107.64 | 103.90 |
| 1 | AA | 336 | A | C5-N7-C8 | 7.47 | 107.63 | 103.90 |
| 1 | AA | 1269 | A | C5-N7-C8 | 7.47 | 107.63 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|------|-------------|----------|
| 1 | AA | 1357 | A | C4-C5-C6 | 7.47 | 120.73 | 117.00 |
| 22 | BA | 984 | A | C5-N7-C8 | 7.47 | 107.64 | 103.90 |
| 22 | BA | 2314 | A | C5-N7-C8 | 7.47 | 107.64 | 103.90 |
| 1 | AA | 414 | A | C5-N7-C8 | 7.47 | 107.63 | 103.90 |
| 1 | AA | 143 | A | C5-N7-C8 | 7.47 | 107.63 | 103.90 |
| 1 | AA | 451 | A | C5-N7-C8 | 7.47 | 107.63 | 103.90 |
| 1 | AA | 906 | A | C5-N7-C8 | 7.47 | 107.63 | 103.90 |
| 1 | AA | 938 | A | C4-C5-C6 | 7.47 | 120.73 | 117.00 |
| 22 | BA | 2014 | A | C5-N7-C8 | 7.47 | 107.63 | 103.90 |
| 1 | AA | 640 | A | C5-N7-C8 | 7.46 | 107.63 | 103.90 |
| 1 | AA | 1036 | A | C5-N7-C8 | 7.46 | 107.63 | 103.90 |
| 1 | AA | 1248 | A | N9-C4-C5 | 7.46 | 108.79 | 105.80 |
| 22 | BA | 1586 | A | N9-C4-C5 | 7.46 | 108.79 | 105.80 |
| 22 | BA | 1677 | A | C5-N7-C8 | 7.46 | 107.63 | 103.90 |
| 1 | AA | 466 | A | C5-N7-C8 | 7.46 | 107.63 | 103.90 |
| 1 | AA | 509 | A | N9-C4-C5 | 7.46 | 108.78 | 105.80 |
| 22 | BA | 477 | A | C4-C5-C6 | 7.46 | 120.73 | 117.00 |
| 22 | BA | 685 | A | C5-N7-C8 | 7.46 | 107.63 | 103.90 |
| 22 | BA | 2733 | A | C5-N7-C8 | 7.46 | 107.63 | 103.90 |
| 22 | BA | 1086 | A | C5-N7-C8 | 7.46 | 107.63 | 103.90 |
| 22 | BA | 1262 | A | C5-N7-C8 | 7.46 | 107.63 | 103.90 |
| 1 | AA | 223 | A | C4-C5-C6 | 7.46 | 120.73 | 117.00 |
| 22 | BA | 900 | A | C5-N7-C8 | 7.46 | 107.63 | 103.90 |
| 23 | BB | 101 | A | N9-C4-C5 | 7.46 | 108.78 | 105.80 |
| 22 | BA | 190 | A | C4-C5-C6 | 7.46 | 120.73 | 117.00 |
| 22 | BA | 1169 | A | C5-N7-C8 | 7.46 | 107.63 | 103.90 |
| 22 | BA | 2198 | A | C5-N7-C8 | 7.46 | 107.63 | 103.90 |
| 1 | AA | 712 | A | C5-N7-C8 | 7.46 | 107.63 | 103.90 |
| 1 | AA | 1503 | A | C5-N7-C8 | 7.46 | 107.63 | 103.90 |
| 1 | AA | 1219 | A | C4-C5-C6 | 7.45 | 120.73 | 117.00 |
| 22 | BA | 643 | A | C5-N7-C8 | 7.45 | 107.63 | 103.90 |
| 22 | BA | 820 | A | N9-C4-C5 | 7.45 | 108.78 | 105.80 |
| 22 | BA | 1495 | A | N9-C4-C5 | 7.45 | 108.78 | 105.80 |
| 22 | BA | 2497 | A | C4-C5-C6 | 7.45 | 120.73 | 117.00 |
| 23 | BB | 46 | A | C5-N7-C8 | 7.45 | 107.63 | 103.90 |
| 1 | AA | 120 | A | C5-N7-C8 | 7.45 | 107.63 | 103.90 |
| 22 | BA | 217 | A | C4-C5-C6 | 7.45 | 120.73 | 117.00 |
| 1 | AA | 356 | A | C4-C5-C6 | 7.45 | 120.72 | 117.00 |
| 1 | AA | 1251 | A | N9-C4-C5 | 7.45 | 108.78 | 105.80 |
| 22 | BA | 190 | A | N9-C4-C5 | 7.45 | 108.78 | 105.80 |
| 1 | AA | 913 | A | N9-C4-C5 | 7.45 | 108.78 | 105.80 |
| 1 | AA | 1016 | A | N9-C4-C5 | 7.45 | 108.78 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1346 | A | N9-C4-C5 | 7.45 | 108.78 | 105.80 |
| 22 | BA | 2497 | A | N9-C4-C5 | 7.45 | 108.78 | 105.80 |
| 1 | AA | 149 | A | N9-C4-C5 | 7.44 | 108.78 | 105.80 |
| 1 | AA | 579 | A | C4-C5-C6 | 7.44 | 120.72 | 117.00 |
| 22 | BA | 1070 | A | C5-N7-C8 | 7.44 | 107.62 | 103.90 |
| 22 | BA | 1244 | A | C5-N7-C8 | 7.44 | 107.62 | 103.90 |
| 22 | BA | 1504 | A | N9-C4-C5 | 7.44 | 108.78 | 105.80 |
| 1 | AA | 151 | A | C5-N7-C8 | 7.44 | 107.62 | 103.90 |
| 1 | AA | 602 | A | C5-N7-C8 | 7.44 | 107.62 | 103.90 |
| 22 | BA | 1821 | A | C5-N7-C8 | 7.44 | 107.62 | 103.90 |
| 22 | BA | 2287 | A | C5-N7-C8 | 7.44 | 107.62 | 103.90 |
| 22 | BA | 2670 | A | C5-N7-C8 | 7.44 | 107.62 | 103.90 |
| 23 | BB | 78 | A | C5-N7-C8 | 7.44 | 107.62 | 103.90 |
| 1 | AA | 2 | A | C5-N7-C8 | 7.43 | 107.62 | 103.90 |
| 1 | AA | 784 | A | C5-N7-C8 | 7.43 | 107.62 | 103.90 |
| 22 | BA | 5 | A | C5-N7-C8 | 7.43 | 107.62 | 103.90 |
| 22 | BA | 988 | A | C5-N7-C8 | 7.43 | 107.62 | 103.90 |
| 1 | AA | 415 | A | C4-C5-C6 | 7.43 | 120.72 | 117.00 |
| 1 | AA | 1167 | A | C5-N7-C8 | 7.43 | 107.62 | 103.90 |
| 1 | AA | 1340 | A | N3-C4-C5 | -7.43 | 121.60 | 126.80 |
| 22 | BA | 845 | A | C4-C5-C6 | 7.43 | 120.72 | 117.00 |
| 1 | AA | 546 | A | N9-C4-C5 | 7.43 | 108.77 | 105.80 |
| 1 | AA | 994 | A | C5-N7-C8 | 7.43 | 107.61 | 103.90 |
| 1 | AA | 7 | A | C5-N7-C8 | 7.43 | 107.61 | 103.90 |
| 1 | AA | 959 | A | C5-N7-C8 | 7.43 | 107.61 | 103.90 |
| 22 | BA | 572 | A | C4-C5-C6 | 7.43 | 120.71 | 117.00 |
| 22 | BA | 1084 | A | C5-N7-C8 | 7.43 | 107.61 | 103.90 |
| 22 | BA | 1276 | A | C4-C5-C6 | 7.43 | 120.71 | 117.00 |
| 22 | BA | 1664 | A | N3-C4-N9 | 7.43 | 133.34 | 127.40 |
| 22 | BA | 83 | A | N9-C4-C5 | 7.42 | 108.77 | 105.80 |
| 22 | BA | 2082 | A | C5-N7-C8 | 7.42 | 107.61 | 103.90 |
| 1 | AA | 547 | A | C5-N7-C8 | 7.42 | 107.61 | 103.90 |
| 1 | AA | 1130 | A | N9-C4-C5 | 7.42 | 108.77 | 105.80 |
| 22 | BA | 1274 | A | C5-N7-C8 | 7.42 | 107.61 | 103.90 |
| 22 | BA | 1583 | A | C5-N7-C8 | 7.42 | 107.61 | 103.90 |
| 1 | AA | 607 | A | N9-C4-C5 | 7.42 | 108.77 | 105.80 |
| 1 | AA | 1251 | A | C5-N7-C8 | 7.42 | 107.61 | 103.90 |
| 1 | AA | 1340 | A | C8-N9-C4 | 7.42 | 108.77 | 105.80 |
| 22 | BA | 1205 | A | C5-N7-C8 | 7.42 | 107.61 | 103.90 |
| 1 | AA | 1368 | A | C5-N7-C8 | 7.42 | 107.61 | 103.90 |
| 22 | BA | 1548 | A | C5-N7-C8 | 7.42 | 107.61 | 103.90 |
| 1 | AA | 546 | A | C5-N7-C8 | 7.42 | 107.61 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 729 | A | N9-C4-C5 | 7.42 | 108.77 | 105.80 |
| 22 | BA | 1434 | A | C5-N7-C8 | 7.42 | 107.61 | 103.90 |
| 22 | BA | 1981 | A | C5-N7-C8 | 7.42 | 107.61 | 103.90 |
| 22 | BA | 2434 | A | N9-C4-C5 | 7.42 | 108.77 | 105.80 |
| 22 | BA | 2826 | A | N9-C4-C5 | 7.42 | 108.77 | 105.80 |
| 1 | AA | 363 | A | C5-N7-C8 | 7.41 | 107.61 | 103.90 |
| 22 | BA | 2469 | A | C5-C6-N1 | 7.41 | 121.41 | 117.70 |
| 1 | AA | 1093 | A | N9-C4-C5 | 7.41 | 108.77 | 105.80 |
| 1 | AA | 1014 | A | N9-C4-C5 | 7.41 | 108.76 | 105.80 |
| 1 | AA | 1110 | A | N9-C4-C5 | 7.41 | 108.76 | 105.80 |
| 1 | AA | 1360 | A | C5-N7-C8 | 7.41 | 107.61 | 103.90 |
| 22 | BA | 125 | A | C5-N7-C8 | 7.41 | 107.61 | 103.90 |
| 22 | BA | 191 | A | C4-C5-C6 | 7.41 | 120.70 | 117.00 |
| 22 | BA | 432 | A | C5-N7-C8 | 7.41 | 107.61 | 103.90 |
| 22 | BA | 742 | A | C5-N7-C8 | 7.41 | 107.61 | 103.90 |
| 1 | AA | 171 | A | N9-C4-C5 | 7.41 | 108.76 | 105.80 |
| 22 | BA | 91 | A | C5-N7-C8 | 7.41 | 107.60 | 103.90 |
| 22 | BA | 2317 | A | N9-C4-C5 | 7.41 | 108.76 | 105.80 |
| 1 | AA | 1170 | A | C5-N7-C8 | 7.41 | 107.60 | 103.90 |
| 1 | AA | 1492 | A | N9-C4-C5 | 7.41 | 108.76 | 105.80 |
| 22 | BA | 2184 | A | C5-N7-C8 | 7.41 | 107.60 | 103.90 |
| 1 | AA | 1398 | A | C5-N7-C8 | 7.40 | 107.60 | 103.90 |
| 22 | BA | 1876 | A | C5-N7-C8 | 7.40 | 107.60 | 103.90 |
| 1 | AA | 465 | A | N3-C4-C5 | -7.40 | 121.62 | 126.80 |
| 1 | AA | 579 | A | C5-N7-C8 | 7.40 | 107.60 | 103.90 |
| 22 | BA | 2764 | A | C5-N7-C8 | 7.40 | 107.60 | 103.90 |
| 23 | BB | 52 | A | C5-N7-C8 | 7.40 | 107.60 | 103.90 |
| 1 | AA | 26 | A | C5-N7-C8 | 7.40 | 107.60 | 103.90 |
| 1 | AA | 66 | A | N9-C4-C5 | 7.40 | 108.76 | 105.80 |
| 1 | AA | 675 | A | C5-N7-C8 | 7.40 | 107.60 | 103.90 |
| 22 | BA | 2792 | A | C5-N7-C8 | 7.40 | 107.60 | 103.90 |
| 1 | AA | 1306 | A | C4-C5-C6 | 7.40 | 120.70 | 117.00 |
| 22 | BA | 2142 | A | C4-C5-C6 | 7.40 | 120.70 | 117.00 |
| 1 | AA | 938 | A | C5-N7-C8 | 7.39 | 107.60 | 103.90 |
| 1 | AA | 1229 | A | C5-N7-C8 | 7.39 | 107.60 | 103.90 |
| 1 | AA | 336 | A | N9-C4-C5 | 7.39 | 108.76 | 105.80 |
| 22 | BA | 792 | A | C5-N7-C8 | 7.39 | 107.60 | 103.90 |
| 1 | AA | 1111 | A | C5-N7-C8 | 7.39 | 107.60 | 103.90 |
| 22 | BA | 89 | A | C5-N7-C8 | 7.39 | 107.60 | 103.90 |
| 22 | BA | 1014 | A | C5-N7-C8 | 7.39 | 107.60 | 103.90 |
| 22 | BA | 1328 | A | C5-N7-C8 | 7.39 | 107.60 | 103.90 |
| 1 | AA | 19 | A | C5-N7-C8 | 7.39 | 107.59 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 374 | A | N9-C4-C5 | 7.39 | 108.76 | 105.80 |
| 22 | BA | 44 | A | C5-N7-C8 | 7.39 | 107.59 | 103.90 |
| 22 | BA | 270 | A | C5-N7-C8 | 7.39 | 107.59 | 103.90 |
| 22 | BA | 1046 | A | C5-N7-C8 | 7.39 | 107.59 | 103.90 |
| 22 | BA | 782 | A | N9-C4-C5 | 7.39 | 108.75 | 105.80 |
| 22 | BA | 1284 | A | N9-C4-C5 | 7.39 | 108.75 | 105.80 |
| 22 | BA | 1679 | A | N9-C4-C5 | 7.39 | 108.75 | 105.80 |
| 22 | BA | 947 | A | C4-C5-C6 | 7.39 | 120.69 | 117.00 |
| 22 | BA | 2311 | A | C5-N7-C8 | 7.39 | 107.59 | 103.90 |
| 22 | BA | 2882 | A | C4-C5-N7 | -7.39 | 107.01 | 110.70 |
| 23 | BB | 58 | A | C4-C5-C6 | 7.38 | 120.69 | 117.00 |
| 22 | BA | 1189 | A | C4-C5-C6 | 7.38 | 120.69 | 117.00 |
| 22 | BA | 1265 | A | C5-N7-C8 | 7.38 | 107.59 | 103.90 |
| 22 | BA | 2070 | A | C5-N7-C8 | 7.38 | 107.59 | 103.90 |
| 22 | BA | 2288 | A | C5-N7-C8 | 7.38 | 107.59 | 103.90 |
| 1 | AA | 478 | A | C5-N7-C8 | 7.38 | 107.59 | 103.90 |
| 22 | BA | 165 | A | C5-N7-C8 | 7.38 | 107.59 | 103.90 |
| 1 | AA | 223 | A | C5-N7-C8 | 7.38 | 107.59 | 103.90 |
| 1 | AA | 1256 | A | C5-N7-C8 | 7.38 | 107.59 | 103.90 |
| 22 | BA | 255 | A | C5-N7-C8 | 7.38 | 107.59 | 103.90 |
| 22 | BA | 111 | A | N9-C4-C5 | 7.38 | 108.75 | 105.80 |
| 22 | BA | 1439 | A | C5-N7-C8 | 7.38 | 107.59 | 103.90 |
| 22 | BA | 2411 | A | N9-C4-C5 | 7.38 | 108.75 | 105.80 |
| 22 | BA | 1802 | A | C5-N7-C8 | 7.38 | 107.59 | 103.90 |
| 22 | BA | 371 | A | C5-N7-C8 | 7.37 | 107.59 | 103.90 |
| 22 | BA | 821 | A | C5-N7-C8 | 7.37 | 107.59 | 103.90 |
| 22 | BA | 1420 | A | N9-C4-C5 | 7.37 | 108.75 | 105.80 |
| 1 | AA | 906 | A | N9-C4-C5 | 7.37 | 108.75 | 105.80 |
| 1 | AA | 908 | A | C5-N7-C8 | 7.37 | 107.58 | 103.90 |
| 22 | BA | 222 | A | C5-N7-C8 | 7.37 | 107.59 | 103.90 |
| 22 | BA | 422 | A | C5-N7-C8 | 7.37 | 107.59 | 103.90 |
| 22 | BA | 2635 | A | C5-N7-C8 | 7.37 | 107.58 | 103.90 |
| 1 | AA | 790 | A | C4-C5-C6 | 7.37 | 120.69 | 117.00 |
| 22 | BA | 718 | A | C5-N7-C8 | 7.37 | 107.58 | 103.90 |
| 1 | AA | 366 | A | N9-C4-C5 | 7.37 | 108.75 | 105.80 |
| 1 | AA | 1163 | A | C5-N7-C8 | 7.37 | 107.58 | 103.90 |
| 1 | AA | 1254 | A | C5-N7-C8 | 7.37 | 107.58 | 103.90 |
| 22 | BA | 2309 | A | C5-N7-C8 | 7.37 | 107.58 | 103.90 |
| 22 | BA | 2425 | A | C5-N7-C8 | 7.37 | 107.58 | 103.90 |
| 1 | AA | 2 | A | N9-C4-C5 | 7.37 | 108.75 | 105.80 |
| 1 | AA | 1465 | A | C5-N7-C8 | 7.37 | 107.58 | 103.90 |
| 22 | BA | 2411 | A | C5-N7-C8 | 7.37 | 107.58 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 23 | BB | 109 | A | C5-N7-C8 | 7.37 | 107.58 | 103.90 |
| 22 | BA | 899 | A | C5-N7-C8 | 7.36 | 107.58 | 103.90 |
| 1 | AA | 1377 | A | C5-N7-C8 | 7.36 | 107.58 | 103.90 |
| 1 | AA | 179 | A | N9-C4-C5 | 7.36 | 108.75 | 105.80 |
| 1 | AA | 461 | A | N3-C4-N9 | 7.36 | 133.29 | 127.40 |
| 1 | AA | 1508 | A | C4-C5-C6 | 7.36 | 120.68 | 117.00 |
| 22 | BA | 861 | A | C4-C5-C6 | 7.36 | 120.68 | 117.00 |
| 22 | BA | 2191 | A | N9-C4-C5 | 7.36 | 108.74 | 105.80 |
| 22 | BA | 2587 | A | N1-C6-N6 | -7.36 | 114.18 | 118.60 |
| 23 | BB | 46 | A | N9-C4-C5 | 7.36 | 108.74 | 105.80 |
| 22 | BA | 592 | A | C5-N7-C8 | 7.36 | 107.58 | 103.90 |
| 1 | AA | 1004 | A | N9-C4-C5 | 7.36 | 108.74 | 105.80 |
| 22 | BA | 2711 | A | N9-C4-C5 | 7.36 | 108.74 | 105.80 |
| 1 | AA | 1374 | A | C4-C5-C6 | 7.36 | 120.68 | 117.00 |
| 22 | BA | 2516 | A | C5-N7-C8 | 7.36 | 107.58 | 103.90 |
| 1 | AA | 448 | A | C4-C5-C6 | 7.35 | 120.68 | 117.00 |
| 22 | BA | 1067 | A | C5-N7-C8 | 7.35 | 107.58 | 103.90 |
| 1 | AA | 119 | A | N9-C4-C5 | 7.35 | 108.74 | 105.80 |
| 22 | BA | 1596 | A | C5-N7-C8 | 7.35 | 107.58 | 103.90 |
| 1 | AA | 918 | A | C5-N7-C8 | 7.35 | 107.58 | 103.90 |
| 1 | AA | 1169 | A | C5-N7-C8 | 7.35 | 107.58 | 103.90 |
| 1 | AA | 1500 | A | N9-C4-C5 | 7.35 | 108.74 | 105.80 |
| 22 | BA | 1552 | A | C5-N7-C8 | 7.35 | 107.58 | 103.90 |
| 22 | BA | 1285 | A | C4-C5-N7 | -7.35 | 107.03 | 110.70 |
| 1 | AA | 1101 | A | C5-N7-C8 | 7.35 | 107.57 | 103.90 |
| 22 | BA | 2407 | A | C4-C5-C6 | 7.35 | 120.67 | 117.00 |
| 1 | AA | 787 | A | C5-N7-C8 | 7.34 | 107.57 | 103.90 |
| 1 | AA | 676 | A | N9-C4-C5 | 7.34 | 108.74 | 105.80 |
| 1 | AA | 845 | A | C5-N7-C8 | 7.34 | 107.57 | 103.90 |
| 22 | BA | 990 | A | N9-C4-C5 | 7.34 | 108.74 | 105.80 |
| 1 | AA | 781 | A | N9-C4-C5 | 7.34 | 108.74 | 105.80 |
| 22 | BA | 750 | A | C5-N7-C8 | 7.34 | 107.57 | 103.90 |
| 22 | BA | 1700 | A | C5-N7-C8 | 7.34 | 107.57 | 103.90 |
| 22 | BA | 1791 | A | N9-C4-C5 | 7.34 | 108.74 | 105.80 |
| 22 | BA | 2270 | A | C5-N7-C8 | 7.34 | 107.57 | 103.90 |
| 1 | AA | 1067 | A | C5-N7-C8 | 7.34 | 107.57 | 103.90 |
| 22 | BA | 52 | A | C5-N7-C8 | 7.34 | 107.57 | 103.90 |
| 22 | BA | 1214 | A | C5-N7-C8 | 7.34 | 107.57 | 103.90 |
| 22 | BA | 1701 | A | C5-N7-C8 | 7.34 | 107.57 | 103.90 |
| 22 | BA | 1808 | A | C5-N7-C8 | 7.34 | 107.57 | 103.90 |
| 22 | BA | 1810 | A | N3-C4-N9 | 7.34 | 133.27 | 127.40 |
| 22 | BA | 1509 | A | C5-N7-C8 | 7.34 | 107.57 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 199 | A | C4-C5-C6 | 7.34 | 120.67 | 117.00 |
| 1 | AA | 1005 | A | C5-N7-C8 | 7.34 | 107.57 | 103.90 |
| 22 | BA | 1089 | A | C5-N7-C8 | 7.34 | 107.57 | 103.90 |
| 22 | BA | 2097 | A | C4-C5-C6 | 7.34 | 120.67 | 117.00 |
| 22 | BA | 920 | A | N9-C4-C5 | 7.33 | 108.73 | 105.80 |
| 1 | AA | 746 | A | C4-C5-C6 | 7.33 | 120.67 | 117.00 |
| 22 | BA | 279 | A | C5-N7-C8 | 7.33 | 107.57 | 103.90 |
| 22 | BA | 1085 | A | C5-N7-C8 | 7.33 | 107.57 | 103.90 |
| 22 | BA | 2478 | A | C5-N7-C8 | 7.33 | 107.57 | 103.90 |
| 22 | BA | 2850 | A | N9-C4-C5 | 7.33 | 108.73 | 105.80 |
| 1 | AA | 306 | A | C5-N7-C8 | 7.33 | 107.57 | 103.90 |
| 1 | AA | 441 | A | C5-N7-C8 | 7.33 | 107.57 | 103.90 |
| 22 | BA | 1048 | A | C4-C5-C6 | 7.33 | 120.67 | 117.00 |
| 1 | AA | 794 | A | C5-N7-C8 | 7.33 | 107.56 | 103.90 |
| 22 | BA | 2241 | A | C4-C5-C6 | 7.33 | 120.67 | 117.00 |
| 22 | BA | 2761 | A | C5-N7-C8 | 7.33 | 107.56 | 103.90 |
| 22 | BA | 1342 | A | C5-N7-C8 | 7.33 | 107.56 | 103.90 |
| 22 | BA | 1668 | A | N3-C4-C5 | -7.33 | 121.67 | 126.80 |
| 22 | BA | 340 | A | C5-N7-C8 | 7.32 | 107.56 | 103.90 |
| 22 | BA | 2158 | A | C5-N7-C8 | 7.32 | 107.56 | 103.90 |
| 1 | AA | 983 | A | C4-C5-C6 | 7.32 | 120.66 | 117.00 |
| 22 | BA | 94 | A | C5-N7-C8 | 7.32 | 107.56 | 103.90 |
| 22 | BA | 1241 | A | N3-C4-N9 | 7.32 | 133.26 | 127.40 |
| 22 | BA | 1347 | A | C5-N7-C8 | 7.32 | 107.56 | 103.90 |
| 22 | BA | 1387 | A | C4-C5-C6 | 7.32 | 120.66 | 117.00 |
| 22 | BA | 2082 | A | C4-C5-C6 | 7.32 | 120.66 | 117.00 |
| 22 | BA | 1773 | A | C5-N7-C8 | 7.32 | 107.56 | 103.90 |
| 22 | BA | 1853 | A | N9-C4-C5 | 7.32 | 108.73 | 105.80 |
| 22 | BA | 1634 | A | N9-C4-C5 | 7.32 | 108.73 | 105.80 |
| 1 | AA | 382 | A | C5-N7-C8 | 7.32 | 107.56 | 103.90 |
| 23 | BB | 119 | A | C5-N7-C8 | 7.32 | 107.56 | 103.90 |
| 55 | B8 | 58 | A | C8-N9-C4 | 7.32 | 108.73 | 105.80 |
| 22 | BA | 101 | A | N3-C4-N9 | 7.31 | 133.25 | 127.40 |
| 1 | AA | 814 | A | C5-N7-C8 | 7.31 | 107.56 | 103.90 |
| 1 | AA | 1152 | A | C5-N7-C8 | 7.31 | 107.56 | 103.90 |
| 1 | AA | 1152 | A | N9-C4-C5 | 7.31 | 108.72 | 105.80 |
| 22 | BA | 217 | A | C5-N7-C8 | 7.31 | 107.56 | 103.90 |
| 1 | AA | 1287 | A | N9-C4-C5 | 7.31 | 108.72 | 105.80 |
| 22 | BA | 213 | A | C5-N7-C8 | 7.31 | 107.56 | 103.90 |
| 22 | BA | 522 | A | C4-C5-C6 | 7.31 | 120.66 | 117.00 |
| 22 | BA | 2314 | A | N9-C4-C5 | 7.31 | 108.72 | 105.80 |
| 22 | BA | 2706 | A | C5-N7-C8 | 7.31 | 107.55 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1413 | A | N9-C4-C5 | 7.31 | 108.72 | 105.80 |
| 22 | BA | 1525 | A | C5-N7-C8 | 7.31 | 107.55 | 103.90 |
| 22 | BA | 2241 | A | N9-C4-C5 | 7.31 | 108.72 | 105.80 |
| 22 | BA | 2725 | A | C5-N7-C8 | 7.31 | 107.55 | 103.90 |
| 1 | AA | 101 | A | C5-N7-C8 | 7.30 | 107.55 | 103.90 |
| 22 | BA | 1307 | A | C5-N7-C8 | 7.30 | 107.55 | 103.90 |
| 1 | AA | 243 | A | C5-N7-C8 | 7.30 | 107.55 | 103.90 |
| 22 | BA | 1365 | A | C5-N7-C8 | 7.30 | 107.55 | 103.90 |
| 1 | AA | 461 | A | C4-C5-C6 | 7.30 | 120.65 | 117.00 |
| 22 | BA | 176 | A | C5-N7-C8 | 7.30 | 107.55 | 103.90 |
| 22 | BA | 1978 | A | C5-N7-C8 | 7.30 | 107.55 | 103.90 |
| 1 | AA | 559 | A | C4-C5-C6 | 7.30 | 120.65 | 117.00 |
| 1 | AA | 452 | A | N9-C4-C5 | 7.30 | 108.72 | 105.80 |
| 1 | AA | 1004 | A | C5-N7-C8 | 7.30 | 107.55 | 103.90 |
| 22 | BA | 142 | A | C5-N7-C8 | 7.30 | 107.55 | 103.90 |
| 22 | BA | 2547 | A | C5-N7-C8 | 7.30 | 107.55 | 103.90 |
| 22 | BA | 2850 | A | C5-N7-C8 | 7.30 | 107.55 | 103.90 |
| 1 | AA | 919 | A | C5-N7-C8 | 7.29 | 107.55 | 103.90 |
| 22 | BA | 1260 | A | C5-N7-C8 | 7.29 | 107.55 | 103.90 |
| 22 | BA | 761 | A | N7-C8-N9 | -7.29 | 110.15 | 113.80 |
| 22 | BA | 1080 | A | C5-N7-C8 | 7.29 | 107.55 | 103.90 |
| 22 | BA | 2080 | A | N9-C4-C5 | 7.29 | 108.72 | 105.80 |
| 22 | BA | 2381 | A | C5-N7-C8 | 7.29 | 107.55 | 103.90 |
| 23 | BB | 109 | A | N9-C4-C5 | 7.29 | 108.72 | 105.80 |
| 22 | BA | 251 | A | N7-C8-N9 | -7.29 | 110.16 | 113.80 |
| 22 | BA | 1655 | A | C5-N7-C8 | 7.29 | 107.55 | 103.90 |
| 22 | BA | 2327 | A | C5-N7-C8 | 7.29 | 107.55 | 103.90 |
| 22 | BA | 1084 | A | C4-C5-C6 | 7.29 | 120.64 | 117.00 |
| 1 | AA | 190 | A | N3-C4-N9 | 7.29 | 133.23 | 127.40 |
| 22 | BA | 2247 | A | C4-C5-C6 | 7.29 | 120.64 | 117.00 |
| 22 | BA | 2758 | A | N9-C4-C5 | 7.29 | 108.72 | 105.80 |
| 22 | BA | 2679 | A | C5-N7-C8 | 7.29 | 107.54 | 103.90 |
| 1 | AA | 189 | A | C5-N7-C8 | 7.29 | 107.54 | 103.90 |
| 1 | AA | 560 | A | C5-N7-C8 | 7.29 | 107.54 | 103.90 |
| 22 | BA | 149 | A | C4-C5-C6 | 7.29 | 120.64 | 117.00 |
| 22 | BA | 1579 | A | N9-C4-C5 | 7.29 | 108.71 | 105.80 |
| 22 | BA | 1780 | A | C5-N7-C8 | 7.29 | 107.54 | 103.90 |
| 22 | BA | 2799 | A | C5-C6-N6 | 7.29 | 129.53 | 123.70 |
| 22 | BA | 344 | A | N9-C4-C5 | 7.28 | 108.71 | 105.80 |
| 22 | BA | 1039 | A | N9-C4-C5 | 7.28 | 108.71 | 105.80 |
| 22 | BA | 1080 | A | N9-C4-C5 | 7.28 | 108.71 | 105.80 |
| 1 | AA | 1287 | A | C5-N7-C8 | 7.28 | 107.54 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|------|-------------|----------|
| 22 | BA | 504 | A | C5-N7-C8 | 7.28 | 107.54 | 103.90 |
| 22 | BA | 2733 | A | N9-C4-C5 | 7.28 | 108.71 | 105.80 |
| 1 | AA | 1368 | A | N9-C4-C5 | 7.28 | 108.71 | 105.80 |
| 22 | BA | 503 | A | N9-C4-C5 | 7.28 | 108.71 | 105.80 |
| 22 | BA | 2212 | A | C5-N7-C8 | 7.28 | 107.54 | 103.90 |
| 22 | BA | 2860 | A | N9-C4-C5 | 7.28 | 108.71 | 105.80 |
| 1 | AA | 1163 | A | C4-C5-C6 | 7.28 | 120.64 | 117.00 |
| 1 | AA | 1410 | A | N9-C4-C5 | 7.28 | 108.71 | 105.80 |
| 22 | BA | 2114 | A | C4-C5-C6 | 7.28 | 120.64 | 117.00 |
| 22 | BA | 2225 | A | C4-C5-C6 | 7.28 | 120.64 | 117.00 |
| 22 | BA | 1773 | A | N9-C4-C5 | 7.27 | 108.71 | 105.80 |
| 22 | BA | 1966 | A | C5-N7-C8 | 7.27 | 107.54 | 103.90 |
| 1 | AA | 1146 | A | C5-N7-C8 | 7.27 | 107.54 | 103.90 |
| 1 | AA | 1476 | A | C5-N7-C8 | 7.27 | 107.54 | 103.90 |
| 22 | BA | 160 | A | C5-N7-C8 | 7.27 | 107.54 | 103.90 |
| 1 | AA | 19 | A | C4-C5-C6 | 7.27 | 120.64 | 117.00 |
| 1 | AA | 864 | A | C4-C5-C6 | 7.27 | 120.64 | 117.00 |
| 22 | BA | 42 | A | N9-C4-C5 | 7.27 | 108.71 | 105.80 |
| 22 | BA | 1001 | A | C5-N7-C8 | 7.27 | 107.53 | 103.90 |
| 22 | BA | 1269 | A | C5-N7-C8 | 7.27 | 107.53 | 103.90 |
| 1 | AA | 1130 | A | C5-N7-C8 | 7.27 | 107.53 | 103.90 |
| 22 | BA | 1580 | A | C5-N7-C8 | 7.27 | 107.53 | 103.90 |
| 22 | BA | 1632 | A | N9-C4-C5 | 7.27 | 108.71 | 105.80 |
| 23 | BB | 115 | A | C5-N7-C8 | 7.27 | 107.53 | 103.90 |
| 22 | BA | 503 | A | C4-C5-C6 | 7.27 | 120.63 | 117.00 |
| 22 | BA | 1336 | A | C5-N7-C8 | 7.27 | 107.53 | 103.90 |
| 22 | BA | 2727 | A | N3-C4-N9 | 7.27 | 133.21 | 127.40 |
| 1 | AA | 768 | A | C4-C5-C6 | 7.26 | 120.63 | 117.00 |
| 1 | AA | 768 | A | N9-C4-C5 | 7.26 | 108.70 | 105.80 |
| 22 | BA | 2776 | A | N9-C4-C5 | 7.26 | 108.70 | 105.80 |
| 1 | AA | 964 | A | C4-C5-C6 | 7.26 | 120.63 | 117.00 |
| 22 | BA | 556 | A | C5-N7-C8 | 7.26 | 107.53 | 103.90 |
| 22 | BA | 1544 | A | C5-N7-C8 | 7.26 | 107.53 | 103.90 |
| 22 | BA | 1098 | A | C4-C5-C6 | 7.26 | 120.63 | 117.00 |
| 1 | AA | 1324 | A | C4-C5-C6 | 7.25 | 120.63 | 117.00 |
| 1 | AA | 1437 | A | C5-N7-C8 | 7.25 | 107.53 | 103.90 |
| 22 | BA | 311 | A | C5-N7-C8 | 7.25 | 107.53 | 103.90 |
| 22 | BA | 675 | A | N9-C4-C5 | 7.25 | 108.70 | 105.80 |
| 22 | BA | 1151 | A | C5-N7-C8 | 7.25 | 107.53 | 103.90 |
| 22 | BA | 2412 | A | C4-C5-C6 | 7.25 | 120.63 | 117.00 |
| 22 | BA | 2461 | A | C4-C5-C6 | 7.25 | 120.63 | 117.00 |
| 22 | BA | 322 | A | N9-C4-C5 | 7.25 | 108.70 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 677 | A | C5-N7-C8 | 7.25 | 107.53 | 103.90 |
| 22 | BA | 1877 | A | C5-N7-C8 | 7.25 | 107.53 | 103.90 |
| 22 | BA | 2070 | A | N9-C4-C5 | 7.25 | 108.70 | 105.80 |
| 22 | BA | 2340 | A | C5-N7-C8 | 7.25 | 107.53 | 103.90 |
| 22 | BA | 2542 | A | C5-N7-C8 | 7.25 | 107.53 | 103.90 |
| 1 | AA | 282 | A | C5-N7-C8 | 7.25 | 107.53 | 103.90 |
| 22 | BA | 241 | A | C5-N7-C8 | 7.25 | 107.53 | 103.90 |
| 22 | BA | 1321 | A | C5-N7-C8 | 7.25 | 107.53 | 103.90 |
| 22 | BA | 2705 | A | C4-C5-C6 | 7.25 | 120.62 | 117.00 |
| 1 | AA | 609 | A | C5-N7-C8 | 7.25 | 107.52 | 103.90 |
| 1 | AA | 509 | A | C5-N7-C8 | 7.25 | 107.52 | 103.90 |
| 22 | BA | 1635 | A | C4-C5-C6 | 7.25 | 120.62 | 117.00 |
| 22 | BA | 354 | A | C5-N7-C8 | 7.25 | 107.52 | 103.90 |
| 1 | AA | 914 | A | C5-N7-C8 | 7.24 | 107.52 | 103.90 |
| 22 | BA | 1103 | A | C5-N7-C8 | 7.24 | 107.52 | 103.90 |
| 22 | BA | 1327 | A | N9-C4-C5 | 7.24 | 108.70 | 105.80 |
| 22 | BA | 480 | A | N9-C4-C5 | 7.24 | 108.70 | 105.80 |
| 22 | BA | 586 | A | C4-C5-N7 | -7.24 | 107.08 | 110.70 |
| 22 | BA | 2516 | A | N9-C4-C5 | 7.24 | 108.70 | 105.80 |
| 1 | AA | 8 | A | C5-N7-C8 | 7.24 | 107.52 | 103.90 |
| 1 | AA | 935 | A | N9-C4-C5 | 7.24 | 108.69 | 105.80 |
| 22 | BA | 95 | A | C4-C5-C6 | 7.24 | 120.62 | 117.00 |
| 22 | BA | 167 | A | C4-C5-C6 | 7.24 | 120.62 | 117.00 |
| 22 | BA | 2432 | A | C4-C5-C6 | 7.24 | 120.62 | 117.00 |
| 22 | BA | 1096 | A | C5-N7-C8 | 7.24 | 107.52 | 103.90 |
| 22 | BA | 1276 | A | C5-N7-C8 | 7.24 | 107.52 | 103.90 |
| 1 | AA | 768 | A | C5-N7-C8 | 7.24 | 107.52 | 103.90 |
| 22 | BA | 309 | A | N9-C4-C5 | 7.24 | 108.69 | 105.80 |
| 1 | AA | 913 | A | C5-N7-C8 | 7.23 | 107.52 | 103.90 |
| 1 | AA | 1150 | A | C5-N7-C8 | 7.23 | 107.52 | 103.90 |
| 22 | BA | 503 | A | C5-N7-C8 | 7.23 | 107.52 | 103.90 |
| 22 | BA | 845 | A | N3-C4-N9 | 7.23 | 133.19 | 127.40 |
| 1 | AA | 621 | A | C5-N7-C8 | 7.23 | 107.52 | 103.90 |
| 1 | AA | 1000 | A | C5-N7-C8 | 7.23 | 107.52 | 103.90 |
| 22 | BA | 794 | A | N3-C4-N9 | 7.23 | 133.19 | 127.40 |
| 22 | BA | 1937 | A | C4-C5-N7 | -7.23 | 107.08 | 110.70 |
| 1 | AA | 675 | A | N9-C4-C5 | 7.23 | 108.69 | 105.80 |
| 22 | BA | 472 | A | C4-C5-C6 | 7.23 | 120.62 | 117.00 |
| 22 | BA | 2900 | A | C4-C5-C6 | 7.23 | 120.62 | 117.00 |
| 1 | AA | 466 | A | N9-C4-C5 | 7.23 | 108.69 | 105.80 |
| 22 | BA | 1969 | A | C5-N7-C8 | 7.23 | 107.51 | 103.90 |
| 22 | BA | 2205 | A | C5-N7-C8 | 7.23 | 107.51 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1105 | A | C5-N7-C8 | 7.23 | 107.51 | 103.90 |
| 1 | AA | 1151 | A | C5-N7-C8 | 7.23 | 107.51 | 103.90 |
| 1 | AA | 459 | A | C4-C5-C6 | 7.22 | 120.61 | 117.00 |
| 22 | BA | 1127 | A | C5-N7-C8 | 7.22 | 107.51 | 103.90 |
| 22 | BA | 2377 | A | C5-N7-C8 | 7.22 | 107.51 | 103.90 |
| 1 | AA | 767 | A | C5-N7-C8 | 7.22 | 107.51 | 103.90 |
| 22 | BA | 677 | A | C4-C5-C6 | 7.22 | 120.61 | 117.00 |
| 22 | BA | 1669 | A | N9-C4-C5 | 7.22 | 108.69 | 105.80 |
| 22 | BA | 2142 | A | C5-N7-C8 | 7.22 | 107.51 | 103.90 |
| 22 | BA | 2459 | A | C4-C5-C6 | 7.22 | 120.61 | 117.00 |
| 22 | BA | 38 | A | N9-C4-C5 | 7.22 | 108.69 | 105.80 |
| 22 | BA | 282 | A | C5-N7-C8 | 7.22 | 107.51 | 103.90 |
| 22 | BA | 1392 | A | C5-N7-C8 | 7.22 | 107.51 | 103.90 |
| 1 | AA | 1110 | A | C5-N7-C8 | 7.22 | 107.51 | 103.90 |
| 1 | AA | 1252 | A | N9-C4-C5 | 7.22 | 108.69 | 105.80 |
| 1 | AA | 1413 | A | C5-N7-C8 | 7.22 | 107.51 | 103.90 |
| 22 | BA | 1637 | A | C4-C5-C6 | 7.22 | 120.61 | 117.00 |
| 22 | BA | 2646 | C | C6-N1-C2 | -7.22 | 117.41 | 120.30 |
| 22 | BA | 2809 | A | C5-N7-C8 | 7.22 | 107.51 | 103.90 |
| 1 | AA | 994 | A | C4-C5-C6 | 7.22 | 120.61 | 117.00 |
| 1 | AA | 1021 | A | C5-N7-C8 | 7.22 | 107.51 | 103.90 |
| 1 | AA | 51 | A | C5-N7-C8 | 7.22 | 107.51 | 103.90 |
| 1 | AA | 130 | A | C5-N7-C8 | 7.22 | 107.51 | 103.90 |
| 1 | AA | 303 | A | N9-C4-C5 | 7.22 | 108.69 | 105.80 |
| 55 | B8 | 26 | A | C5-N7-C8 | 7.22 | 107.51 | 103.90 |
| 1 | AA | 1261 | A | C5-N7-C8 | 7.21 | 107.51 | 103.90 |
| 22 | BA | 735 | A | C4-C5-C6 | 7.21 | 120.61 | 117.00 |
| 22 | BA | 2352 | A | C4-C5-C6 | 7.21 | 120.61 | 117.00 |
| 1 | AA | 199 | A | C5-N7-C8 | 7.21 | 107.51 | 103.90 |
| 1 | AA | 655 | A | C4-C5-C6 | 7.21 | 120.61 | 117.00 |
| 1 | AA | 814 | A | C4-C5-C6 | 7.21 | 120.61 | 117.00 |
| 1 | AA | 1311 | A | N9-C4-C5 | 7.21 | 108.68 | 105.80 |
| 1 | AA | 1360 | A | C4-C5-C6 | 7.21 | 120.61 | 117.00 |
| 1 | AA | 1483 | A | C4-C5-C6 | 7.21 | 120.61 | 117.00 |
| 22 | BA | 572 | A | N3-C4-N9 | 7.21 | 133.17 | 127.40 |
| 22 | BA | 899 | A | N9-C4-C5 | 7.21 | 108.68 | 105.80 |
| 22 | BA | 2297 | A | C4-C5-C6 | 7.21 | 120.61 | 117.00 |
| 22 | BA | 2736 | A | N9-C4-C5 | 7.21 | 108.68 | 105.80 |
| 22 | BA | 2856 | A | C5-N7-C8 | 7.21 | 107.50 | 103.90 |
| 22 | BA | 144 | A | C5-N7-C8 | 7.21 | 107.50 | 103.90 |
| 22 | BA | 789 | A | C5-N7-C8 | 7.21 | 107.50 | 103.90 |
| 22 | BA | 1204 | A | N9-C4-C5 | 7.21 | 108.68 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|------|-------------|----------|
| 1 | AA | 959 | A | N9-C4-C5 | 7.21 | 108.68 | 105.80 |
| 1 | AA | 1201 | A | C5-N7-C8 | 7.21 | 107.50 | 103.90 |
| 22 | BA | 2058 | A | C5-N7-C8 | 7.21 | 107.50 | 103.90 |
| 22 | BA | 514 | A | C5-N7-C8 | 7.21 | 107.50 | 103.90 |
| 22 | BA | 2461 | A | C5-N7-C8 | 7.20 | 107.50 | 103.90 |
| 22 | BA | 1938 | A | C4-C5-C6 | 7.20 | 120.60 | 117.00 |
| 1 | AA | 1269 | A | N9-C4-C5 | 7.20 | 108.68 | 105.80 |
| 22 | BA | 44 | A | C4-C5-C6 | 7.20 | 120.60 | 117.00 |
| 22 | BA | 1057 | A | C5-N7-C8 | 7.20 | 107.50 | 103.90 |
| 22 | BA | 614 | A | C5-N7-C8 | 7.20 | 107.50 | 103.90 |
| 22 | BA | 1749 | A | C4-C5-C6 | 7.20 | 120.60 | 117.00 |
| 22 | BA | 2887 | A | C5-N7-C8 | 7.20 | 107.50 | 103.90 |
| 22 | BA | 374 | A | C5-N7-C8 | 7.20 | 107.50 | 103.90 |
| 22 | BA | 1010 | A | N9-C4-C5 | 7.20 | 108.68 | 105.80 |
| 22 | BA | 1393 | A | C5-N7-C8 | 7.20 | 107.50 | 103.90 |
| 22 | BA | 1552 | A | C4-C5-C6 | 7.19 | 120.60 | 117.00 |
| 1 | AA | 161 | A | C5-N7-C8 | 7.19 | 107.50 | 103.90 |
| 1 | AA | 1092 | A | N9-C4-C5 | 7.19 | 108.68 | 105.80 |
| 22 | BA | 226 | A | C5-N7-C8 | 7.19 | 107.50 | 103.90 |
| 1 | AA | 174 | A | C5-N7-C8 | 7.19 | 107.50 | 103.90 |
| 1 | AA | 907 | A | C5-N7-C8 | 7.19 | 107.50 | 103.90 |
| 22 | BA | 233 | A | C5-N7-C8 | 7.19 | 107.50 | 103.90 |
| 22 | BA | 1616 | A | C5-N7-C8 | 7.19 | 107.50 | 103.90 |
| 22 | BA | 654 | A | C5-N7-C8 | 7.19 | 107.49 | 103.90 |
| 22 | BA | 342 | A | C5-N7-C8 | 7.19 | 107.49 | 103.90 |
| 22 | BA | 1858 | A | C5-N7-C8 | 7.19 | 107.49 | 103.90 |
| 1 | AA | 53 | A | C5-N7-C8 | 7.18 | 107.49 | 103.90 |
| 1 | AA | 101 | A | C4-C5-C6 | 7.18 | 120.59 | 117.00 |
| 22 | BA | 727 | A | C5-N7-C8 | 7.18 | 107.49 | 103.90 |
| 1 | AA | 263 | A | N9-C4-C5 | 7.18 | 108.67 | 105.80 |
| 22 | BA | 1439 | A | N9-C4-C5 | 7.18 | 108.67 | 105.80 |
| 1 | AA | 149 | A | C5-N7-C8 | 7.18 | 107.49 | 103.90 |
| 22 | BA | 182 | A | C4-C5-C6 | 7.18 | 120.59 | 117.00 |
| 22 | BA | 346 | A | C5-N7-C8 | 7.18 | 107.49 | 103.90 |
| 22 | BA | 1998 | A | N9-C4-C5 | 7.18 | 108.67 | 105.80 |
| 1 | AA | 1176 | A | C4-C5-C6 | 7.18 | 120.59 | 117.00 |
| 1 | AA | 1179 | A | C5-N7-C8 | 7.18 | 107.49 | 103.90 |
| 22 | BA | 1054 | A | C4-C5-C6 | 7.18 | 120.59 | 117.00 |
| 22 | BA | 1304 | A | C5-N7-C8 | 7.18 | 107.49 | 103.90 |
| 1 | AA | 179 | A | C5-N7-C8 | 7.17 | 107.49 | 103.90 |
| 1 | AA | 1035 | A | C4-C5-C6 | 7.17 | 120.59 | 117.00 |
| 1 | AA | 1145 | A | C5-N7-C8 | 7.17 | 107.49 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 497 | A | C5-N7-C8 | 7.17 | 107.49 | 103.90 |
| 22 | BA | 661 | A | C5-N7-C8 | 7.17 | 107.49 | 103.90 |
| 22 | BA | 928 | A | C5-N7-C8 | 7.17 | 107.49 | 103.90 |
| 22 | BA | 1385 | A | C5-N7-C8 | 7.17 | 107.49 | 103.90 |
| 22 | BA | 1913 | A | C5-N7-C8 | 7.17 | 107.49 | 103.90 |
| 1 | AA | 1155 | A | C5-N7-C8 | 7.17 | 107.48 | 103.90 |
| 1 | AA | 1157 | A | C5-N7-C8 | 7.17 | 107.49 | 103.90 |
| 22 | BA | 1952 | A | C5-N7-C8 | 7.17 | 107.48 | 103.90 |
| 22 | BA | 1301 | A | N9-C4-C5 | 7.17 | 108.67 | 105.80 |
| 22 | BA | 2205 | A | N9-C4-C5 | 7.17 | 108.67 | 105.80 |
| 22 | BA | 2212 | A | N9-C4-C5 | 7.17 | 108.67 | 105.80 |
| 22 | BA | 2566 | A | N3-C4-C5 | -7.17 | 121.78 | 126.80 |
| 22 | BA | 2758 | A | C5-N7-C8 | 7.17 | 107.48 | 103.90 |
| 1 | AA | 1014 | A | C5-N7-C8 | 7.17 | 107.48 | 103.90 |
| 55 | B8 | 20 | U | O5'-P-OP1 | 7.17 | 119.30 | 110.70 |
| 22 | BA | 1156 | A | C5-N7-C8 | 7.17 | 107.48 | 103.90 |
| 22 | BA | 1569 | A | N9-C4-C5 | 7.17 | 108.67 | 105.80 |
| 1 | AA | 329 | A | C4-C5-C6 | 7.16 | 120.58 | 117.00 |
| 1 | AA | 642 | A | C4-C5-C6 | 7.16 | 120.58 | 117.00 |
| 1 | AA | 1246 | A | N9-C4-C5 | 7.16 | 108.66 | 105.80 |
| 1 | AA | 81 | A | C5-N7-C8 | 7.16 | 107.48 | 103.90 |
| 1 | AA | 315 | A | C5-N7-C8 | 7.16 | 107.48 | 103.90 |
| 22 | BA | 513 | A | N3-C4-N9 | 7.16 | 133.13 | 127.40 |
| 22 | BA | 2311 | A | N9-C4-C5 | 7.16 | 108.66 | 105.80 |
| 22 | BA | 2726 | A | C5-N7-C8 | 7.16 | 107.48 | 103.90 |
| 1 | AA | 1012 | A | C4-C5-C6 | 7.16 | 120.58 | 117.00 |
| 1 | AA | 338 | A | C4-C5-C6 | 7.16 | 120.58 | 117.00 |
| 1 | AA | 1102 | A | C4-C5-C6 | 7.16 | 120.58 | 117.00 |
| 22 | BA | 2014 | A | N9-C4-C5 | 7.16 | 108.66 | 105.80 |
| 1 | AA | 969 | A | N9-C4-C5 | 7.15 | 108.66 | 105.80 |
| 55 | B8 | 38 | A | C8-N9-C4 | 7.15 | 108.66 | 105.80 |
| 1 | AA | 160 | A | C5-N7-C8 | 7.15 | 107.47 | 103.90 |
| 22 | BA | 19 | A | C5-N7-C8 | 7.15 | 107.47 | 103.90 |
| 23 | BB | 104 | A | C5-N7-C8 | 7.15 | 107.47 | 103.90 |
| 1 | AA | 1408 | A | C5-N7-C8 | 7.15 | 107.47 | 103.90 |
| 22 | BA | 1032 | A | C5-N7-C8 | 7.15 | 107.47 | 103.90 |
| 1 | AA | 1456 | A | C5-N7-C8 | 7.15 | 107.47 | 103.90 |
| 1 | AA | 1502 | A | C5-N7-C8 | 7.15 | 107.47 | 103.90 |
| 22 | BA | 244 | A | C5-N7-C8 | 7.15 | 107.47 | 103.90 |
| 22 | BA | 508 | A | C5-N7-C8 | 7.15 | 107.47 | 103.90 |
| 22 | BA | 2598 | A | C5-N7-C8 | 7.15 | 107.47 | 103.90 |
| 1 | AA | 1350 | A | C5-N7-C8 | 7.15 | 107.47 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|------|-------------|----------|
| 22 | BA | 344 | A | C5-N7-C8 | 7.15 | 107.47 | 103.90 |
| 22 | BA | 2298 | A | N9-C4-C5 | 7.15 | 108.66 | 105.80 |
| 22 | BA | 2346 | A | C5-N7-C8 | 7.15 | 107.47 | 103.90 |
| 22 | BA | 2740 | A | N9-C4-C5 | 7.15 | 108.66 | 105.80 |
| 1 | AA | 223 | A | N9-C4-C5 | 7.14 | 108.66 | 105.80 |
| 1 | AA | 983 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 22 | BA | 161 | A | N9-C4-C5 | 7.14 | 108.66 | 105.80 |
| 22 | BA | 743 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 1 | AA | 44 | A | N9-C4-C5 | 7.14 | 108.66 | 105.80 |
| 1 | AA | 309 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 1 | AA | 448 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 1 | AA | 1248 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 22 | BA | 182 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 22 | BA | 478 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 22 | BA | 2274 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 22 | BA | 2860 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 1 | AA | 1499 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 1 | AA | 743 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 1 | AA | 968 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 22 | BA | 340 | A | N9-C4-C5 | 7.14 | 108.66 | 105.80 |
| 22 | BA | 2900 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 1 | AA | 98 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 22 | BA | 2741 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 1 | AA | 383 | A | C5-N7-C8 | 7.14 | 107.47 | 103.90 |
| 1 | AA | 802 | A | N9-C4-C5 | 7.14 | 108.65 | 105.80 |
| 1 | AA | 864 | A | N9-C4-C5 | 7.14 | 108.66 | 105.80 |
| 1 | AA | 1022 | A | N9-C4-C5 | 7.14 | 108.66 | 105.80 |
| 22 | BA | 2534 | A | C5-N7-C8 | 7.13 | 107.47 | 103.90 |
| 22 | BA | 127 | A | C5-N7-C8 | 7.13 | 107.47 | 103.90 |
| 22 | BA | 734 | A | N9-C4-C5 | 7.13 | 108.65 | 105.80 |
| 22 | BA | 1919 | A | C4-C5-C6 | 7.13 | 120.57 | 117.00 |
| 1 | AA | 749 | A | C5-N7-C8 | 7.13 | 107.47 | 103.90 |
| 22 | BA | 2468 | A | C5-N7-C8 | 7.13 | 107.47 | 103.90 |
| 1 | AA | 167 | A | C5-N7-C8 | 7.13 | 107.46 | 103.90 |
| 1 | AA | 1044 | A | N9-C4-C5 | 7.13 | 108.65 | 105.80 |
| 1 | AA | 1271 | A | C5-N7-C8 | 7.13 | 107.46 | 103.90 |
| 22 | BA | 877 | A | N9-C4-C5 | 7.13 | 108.65 | 105.80 |
| 22 | BA | 1077 | A | C5-N7-C8 | 7.13 | 107.46 | 103.90 |
| 22 | BA | 1566 | A | C5-N7-C8 | 7.13 | 107.46 | 103.90 |
| 22 | BA | 1848 | A | C5-N7-C8 | 7.13 | 107.46 | 103.90 |
| 22 | BA | 1866 | A | C4-C5-C6 | 7.13 | 120.56 | 117.00 |
| 1 | AA | 959 | A | C4-C5-C6 | 7.13 | 120.56 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|------|-------------|----------|
| 1 | AA | 1492 | A | C5-N7-C8 | 7.13 | 107.46 | 103.90 |
| 22 | BA | 42 | A | C5-N7-C8 | 7.13 | 107.46 | 103.90 |
| 22 | BA | 2059 | A | C5-N7-C8 | 7.13 | 107.46 | 103.90 |
| 1 | AA | 499 | A | C4-C5-C6 | 7.12 | 120.56 | 117.00 |
| 22 | BA | 1080 | A | C4-C5-C6 | 7.12 | 120.56 | 117.00 |
| 1 | AA | 353 | A | N9-C4-C5 | 7.12 | 108.65 | 105.80 |
| 1 | AA | 696 | A | C4-C5-C6 | 7.12 | 120.56 | 117.00 |
| 1 | AA | 946 | A | C5-N7-C8 | 7.12 | 107.46 | 103.90 |
| 22 | BA | 2211 | A | N9-C4-C5 | 7.12 | 108.65 | 105.80 |
| 1 | AA | 554 | A | C5-N7-C8 | 7.12 | 107.46 | 103.90 |
| 22 | BA | 2700 | A | C4-C5-C6 | 7.12 | 120.56 | 117.00 |
| 1 | AA | 694 | A | N9-C4-C5 | 7.12 | 108.65 | 105.80 |
| 22 | BA | 1717 | A | C5-N7-C8 | 7.12 | 107.46 | 103.90 |
| 23 | BB | 53 | A | N9-C4-C5 | 7.12 | 108.65 | 105.80 |
| 1 | AA | 630 | A | C5-N7-C8 | 7.12 | 107.46 | 103.90 |
| 1 | AA | 964 | A | N9-C4-C5 | 7.12 | 108.65 | 105.80 |
| 22 | BA | 1532 | A | C5-N7-C8 | 7.12 | 107.46 | 103.90 |
| 1 | AA | 327 | A | C5-N7-C8 | 7.11 | 107.46 | 103.90 |
| 1 | AA | 1055 | A | C5-N7-C8 | 7.11 | 107.46 | 103.90 |
| 22 | BA | 1143 | A | C4-C5-C6 | 7.11 | 120.56 | 117.00 |
| 22 | BA | 1395 | A | N9-C4-C5 | 7.11 | 108.65 | 105.80 |
| 22 | BA | 1427 | A | N9-C4-C5 | 7.11 | 108.64 | 105.80 |
| 22 | BA | 1549 | A | C5-N7-C8 | 7.11 | 107.46 | 103.90 |
| 22 | BA | 1918 | A | C5-N7-C8 | 7.11 | 107.46 | 103.90 |
| 22 | BA | 2530 | A | C5-N7-C8 | 7.11 | 107.46 | 103.90 |
| 22 | BA | 2600 | A | C4-C5-C6 | 7.11 | 120.56 | 117.00 |
| 22 | BA | 1593 | A | C5-N7-C8 | 7.11 | 107.46 | 103.90 |
| 22 | BA | 2513 | A | C4-C5-C6 | 7.11 | 120.56 | 117.00 |
| 22 | BA | 2879 | A | C4-C5-C6 | 7.11 | 120.56 | 117.00 |
| 1 | AA | 1171 | A | C5-N7-C8 | 7.11 | 107.45 | 103.90 |
| 22 | BA | 2899 | A | C5-N7-C8 | 7.11 | 107.46 | 103.90 |
| 22 | BA | 227 | A | C5-N7-C8 | 7.11 | 107.45 | 103.90 |
| 1 | AA | 1019 | A | N9-C4-C5 | 7.11 | 108.64 | 105.80 |
| 22 | BA | 910 | A | C5-N7-C8 | 7.11 | 107.45 | 103.90 |
| 1 | AA | 547 | A | N9-C4-C5 | 7.11 | 108.64 | 105.80 |
| 1 | AA | 1350 | A | C4-C5-C6 | 7.11 | 120.55 | 117.00 |
| 22 | BA | 1103 | A | C4-C5-C6 | 7.11 | 120.55 | 117.00 |
| 22 | BA | 362 | A | C4-C5-C6 | 7.10 | 120.55 | 117.00 |
| 22 | BA | 1264 | A | N9-C4-C5 | 7.10 | 108.64 | 105.80 |
| 1 | AA | 238 | A | N9-C4-C5 | 7.10 | 108.64 | 105.80 |
| 1 | AA | 344 | A | C5-N7-C8 | 7.10 | 107.45 | 103.90 |
| 1 | AA | 563 | A | N3-C4-N9 | 7.10 | 133.08 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1152 | A | C4-C5-C6 | 7.10 | 120.55 | 117.00 |
| 23 | BB | 45 | A | C4-C5-C6 | 7.10 | 120.55 | 117.00 |
| 22 | BA | 1095 | A | C4-C5-C6 | 7.10 | 120.55 | 117.00 |
| 22 | BA | 1413 | A | C4-C5-C6 | 7.10 | 120.55 | 117.00 |
| 1 | AA | 190 | A | C5-N7-C8 | 7.10 | 107.45 | 103.90 |
| 1 | AA | 1046 | A | N3-C4-N9 | 7.10 | 133.08 | 127.40 |
| 22 | BA | 1039 | A | C5-N7-C8 | 7.10 | 107.45 | 103.90 |
| 23 | BB | 115 | A | N9-C4-C5 | 7.10 | 108.64 | 105.80 |
| 22 | BA | 917 | A | C4-C5-C6 | 7.10 | 120.55 | 117.00 |
| 1 | AA | 243 | A | N9-C4-C5 | 7.09 | 108.64 | 105.80 |
| 1 | AA | 1346 | A | C5-N7-C8 | 7.09 | 107.45 | 103.90 |
| 22 | BA | 56 | A | C5-N7-C8 | 7.09 | 107.45 | 103.90 |
| 22 | BA | 1427 | A | C5-N7-C8 | 7.09 | 107.45 | 103.90 |
| 22 | BA | 1571 | A | C5-N7-C8 | 7.09 | 107.45 | 103.90 |
| 1 | AA | 502 | A | C5-N7-C8 | 7.09 | 107.45 | 103.90 |
| 22 | BA | 1522 | A | C5-N7-C8 | 7.09 | 107.45 | 103.90 |
| 1 | AA | 393 | A | C5-N7-C8 | 7.09 | 107.45 | 103.90 |
| 22 | BA | 1571 | A | C4-C5-C6 | 7.09 | 120.55 | 117.00 |
| 22 | BA | 1848 | A | C5-C6-N1 | 7.09 | 121.25 | 117.70 |
| 22 | BA | 1021 | A | N3-C4-N9 | 7.09 | 133.07 | 127.40 |
| 22 | BA | 1142 | A | C5-N7-C8 | 7.09 | 107.44 | 103.90 |
| 22 | BA | 705 | A | N3-C4-N9 | 7.09 | 133.07 | 127.40 |
| 22 | BA | 13 | A | C4-C5-N7 | -7.09 | 107.16 | 110.70 |
| 22 | BA | 590 | A | C5-N7-C8 | 7.09 | 107.44 | 103.90 |
| 22 | BA | 602 | A | C5-N7-C8 | 7.09 | 107.44 | 103.90 |
| 22 | BA | 1711 | A | C5-N7-C8 | 7.09 | 107.44 | 103.90 |
| 1 | AA | 831 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |
| 1 | AA | 816 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |
| 22 | BA | 1808 | A | N9-C4-C5 | 7.08 | 108.63 | 105.80 |
| 1 | AA | 487 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |
| 22 | BA | 196 | A | C4-C5-C6 | 7.08 | 120.54 | 117.00 |
| 22 | BA | 447 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |
| 22 | BA | 896 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |
| 22 | BA | 1098 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |
| 1 | AA | 1329 | A | N9-C4-C5 | 7.08 | 108.63 | 105.80 |
| 22 | BA | 981 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |
| 22 | BA | 1165 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |
| 1 | AA | 456 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |
| 1 | AA | 635 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |
| 1 | AA | 790 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |
| 1 | AA | 1289 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |
| 22 | BA | 1254 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|------|-------------|----------|
| 22 | BA | 2003 | A | N9-C4-C5 | 7.08 | 108.63 | 105.80 |
| 23 | BB | 73 | A | C5-N7-C8 | 7.08 | 107.44 | 103.90 |
| 22 | BA | 1755 | A | N9-C4-C5 | 7.07 | 108.63 | 105.80 |
| 22 | BA | 2823 | A | C5-N7-C8 | 7.07 | 107.44 | 103.90 |
| 1 | AA | 482 | A | N9-C4-C5 | 7.07 | 108.63 | 105.80 |
| 1 | AA | 1456 | A | N9-C4-C5 | 7.07 | 108.63 | 105.80 |
| 22 | BA | 979 | A | C5-N7-C8 | 7.07 | 107.44 | 103.90 |
| 22 | BA | 1665 | A | C5-N7-C8 | 7.07 | 107.44 | 103.90 |
| 22 | BA | 1802 | A | C4-C5-C6 | 7.07 | 120.54 | 117.00 |
| 1 | AA | 197 | A | N9-C4-C5 | 7.07 | 108.63 | 105.80 |
| 22 | BA | 933 | A | C5-N7-C8 | 7.07 | 107.44 | 103.90 |
| 22 | BA | 984 | A | N9-C4-C5 | 7.07 | 108.63 | 105.80 |
| 22 | BA | 2090 | A | C5-N7-C8 | 7.07 | 107.44 | 103.90 |
| 22 | BA | 2335 | A | N9-C4-C5 | 7.07 | 108.63 | 105.80 |
| 22 | BA | 761 | A | C4-C5-C6 | 7.07 | 120.53 | 117.00 |
| 1 | AA | 937 | A | C5-N7-C8 | 7.07 | 107.43 | 103.90 |
| 22 | BA | 1244 | A | N3-C4-N9 | 7.07 | 133.05 | 127.40 |
| 1 | AA | 263 | A | C5-N7-C8 | 7.07 | 107.43 | 103.90 |
| 1 | AA | 382 | A | C4-C5-C6 | 7.07 | 120.53 | 117.00 |
| 1 | AA | 539 | A | C4-C5-C6 | 7.07 | 120.53 | 117.00 |
| 1 | AA | 907 | A | C4-C5-C6 | 7.07 | 120.53 | 117.00 |
| 22 | BA | 384 | A | C5-N7-C8 | 7.07 | 107.43 | 103.90 |
| 22 | BA | 1095 | A | C5-N7-C8 | 7.07 | 107.43 | 103.90 |
| 22 | BA | 1395 | A | C5-N7-C8 | 7.07 | 107.43 | 103.90 |
| 22 | BA | 2675 | A | C5-N7-C8 | 7.07 | 107.43 | 103.90 |
| 22 | BA | 1773 | A | C4-C5-C6 | 7.06 | 120.53 | 117.00 |
| 22 | BA | 1872 | A | C5-N7-C8 | 7.06 | 107.43 | 103.90 |
| 22 | BA | 1970 | A | O5'-P-OP2 | 7.06 | 119.18 | 110.70 |
| 1 | AA | 1117 | A | C5-N7-C8 | 7.06 | 107.43 | 103.90 |
| 1 | AA | 1196 | A | C5-N7-C8 | 7.06 | 107.43 | 103.90 |
| 22 | BA | 1698 | A | C5-N7-C8 | 7.06 | 107.43 | 103.90 |
| 22 | BA | 2211 | A | C5-N7-C8 | 7.06 | 107.43 | 103.90 |
| 1 | AA | 1092 | A | C5-N7-C8 | 7.06 | 107.43 | 103.90 |
| 22 | BA | 330 | A | C5-N7-C8 | 7.06 | 107.43 | 103.90 |
| 22 | BA | 1050 | A | N9-C4-C5 | 7.06 | 108.62 | 105.80 |
| 22 | BA | 1938 | A | C5-N7-C8 | 7.06 | 107.43 | 103.90 |
| 22 | BA | 1953 | A | C5-N7-C8 | 7.06 | 107.43 | 103.90 |
| 1 | AA | 414 | A | N9-C4-C5 | 7.06 | 108.62 | 105.80 |
| 22 | BA | 460 | A | C5-N7-C8 | 7.06 | 107.43 | 103.90 |
| 22 | BA | 1701 | A | N9-C4-C5 | 7.06 | 108.62 | 105.80 |
| 22 | BA | 1960 | A | N9-C4-C5 | 7.06 | 108.62 | 105.80 |
| 1 | AA | 171 | A | C5-N7-C8 | 7.06 | 107.43 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1252 | A | C4-C5-C6 | 7.06 | 120.53 | 117.00 |
| 22 | BA | 94 | A | N9-C4-C5 | 7.06 | 108.62 | 105.80 |
| 22 | BA | 2013 | A | C5-N7-C8 | 7.06 | 107.43 | 103.90 |
| 22 | BA | 2071 | A | C4-C5-C6 | 7.06 | 120.53 | 117.00 |
| 1 | AA | 270 | A | C4-C5-C6 | 7.05 | 120.53 | 117.00 |
| 1 | AA | 816 | A | N9-C4-C5 | 7.05 | 108.62 | 105.80 |
| 22 | BA | 1503 | A | C5-N7-C8 | 7.05 | 107.43 | 103.90 |
| 1 | AA | 767 | A | C4-C5-C6 | 7.05 | 120.53 | 117.00 |
| 1 | AA | 1285 | A | C5-N7-C8 | 7.05 | 107.43 | 103.90 |
| 22 | BA | 141 | G | N9-C4-C5 | -7.05 | 102.58 | 105.40 |
| 22 | BA | 1431 | A | N9-C4-C5 | 7.05 | 108.62 | 105.80 |
| 22 | BA | 1635 | A | C5-N7-C8 | 7.05 | 107.42 | 103.90 |
| 1 | AA | 766 | A | C5-N7-C8 | 7.05 | 107.42 | 103.90 |
| 1 | AA | 819 | A | C5-N7-C8 | 7.05 | 107.42 | 103.90 |
| 22 | BA | 309 | A | C5-N7-C8 | 7.05 | 107.42 | 103.90 |
| 22 | BA | 2117 | A | C5-N7-C8 | 7.05 | 107.42 | 103.90 |
| 22 | BA | 204 | A | N9-C4-C5 | 7.05 | 108.62 | 105.80 |
| 1 | AA | 81 | A | N9-C4-C5 | 7.05 | 108.62 | 105.80 |
| 22 | BA | 1413 | A | N9-C4-C5 | 7.04 | 108.62 | 105.80 |
| 22 | BA | 522 | A | C5-N7-C8 | 7.04 | 107.42 | 103.90 |
| 22 | BA | 1739 | A | N9-C4-C5 | 7.04 | 108.62 | 105.80 |
| 1 | AA | 205 | A | C4-C5-C6 | 7.04 | 120.52 | 117.00 |
| 1 | AA | 728 | A | C5-N7-C8 | 7.04 | 107.42 | 103.90 |
| 1 | AA | 1429 | A | C4-C5-C6 | 7.04 | 120.52 | 117.00 |
| 55 | B8 | 59 | A | C4-C5-C6 | 7.04 | 120.52 | 117.00 |
| 1 | AA | 782 | A | C5-N7-C8 | 7.04 | 107.42 | 103.90 |
| 22 | BA | 104 | A | C4-C5-C6 | 7.04 | 120.52 | 117.00 |
| 22 | BA | 637 | A | C5-N7-C8 | 7.04 | 107.42 | 103.90 |
| 22 | BA | 1508 | A | C5-N7-C8 | 7.04 | 107.42 | 103.90 |
| 1 | AA | 393 | A | N9-C4-C5 | 7.04 | 108.61 | 105.80 |
| 1 | AA | 1468 | A | C5-N7-C8 | 7.04 | 107.42 | 103.90 |
| 22 | BA | 590 | A | C4-C5-C6 | 7.04 | 120.52 | 117.00 |
| 1 | AA | 977 | A | C5-N7-C8 | 7.03 | 107.42 | 103.90 |
| 22 | BA | 878 | A | C5-N7-C8 | 7.03 | 107.42 | 103.90 |
| 22 | BA | 1008 | A | C5-N7-C8 | 7.03 | 107.42 | 103.90 |
| 22 | BA | 2052 | A | C5-N7-C8 | 7.03 | 107.42 | 103.90 |
| 22 | BA | 2886 | A | C5-N7-C8 | 7.03 | 107.42 | 103.90 |
| 1 | AA | 364 | A | N9-C4-C5 | 7.03 | 108.61 | 105.80 |
| 22 | BA | 1262 | A | C4-C5-C6 | 7.03 | 120.52 | 117.00 |
| 1 | AA | 366 | A | C4-C5-C6 | 7.03 | 120.52 | 117.00 |
| 1 | AA | 459 | A | N3-C4-N9 | 7.03 | 133.03 | 127.40 |
| 1 | AA | 1377 | A | N9-C4-C5 | 7.03 | 108.61 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 513 | A | C5-N7-C8 | 7.03 | 107.42 | 103.90 |
| 22 | BA | 1654 | A | C5-N7-C8 | 7.03 | 107.42 | 103.90 |
| 22 | BA | 2071 | A | N9-C4-C5 | 7.03 | 108.61 | 105.80 |
| 22 | BA | 2392 | A | C5-N7-C8 | 7.03 | 107.42 | 103.90 |
| 1 | AA | 1333 | A | N9-C4-C5 | 7.03 | 108.61 | 105.80 |
| 1 | AA | 10 | A | C5-N7-C8 | 7.03 | 107.41 | 103.90 |
| 1 | AA | 415 | A | C5-N7-C8 | 7.03 | 107.41 | 103.90 |
| 22 | BA | 613 | A | C4-C5-C6 | 7.03 | 120.51 | 117.00 |
| 22 | BA | 1918 | A | C4-C5-C6 | 7.03 | 120.51 | 117.00 |
| 1 | AA | 1102 | A | C5-N7-C8 | 7.03 | 107.41 | 103.90 |
| 22 | BA | 125 | A | N9-C4-C5 | 7.03 | 108.61 | 105.80 |
| 22 | BA | 1609 | A | C5-N7-C8 | 7.03 | 107.41 | 103.90 |
| 22 | BA | 2205 | A | C4-C5-C6 | 7.03 | 120.51 | 117.00 |
| 22 | BA | 2327 | A | N9-C4-C5 | 7.03 | 108.61 | 105.80 |
| 22 | BA | 2425 | A | C4-C5-C6 | 7.03 | 120.51 | 117.00 |
| 22 | BA | 863 | A | C5-N7-C8 | 7.02 | 107.41 | 103.90 |
| 22 | BA | 975 | A | C4-C5-N7 | -7.02 | 107.19 | 110.70 |
| 1 | AA | 139 | A | C5-N7-C8 | 7.02 | 107.41 | 103.90 |
| 1 | AA | 1093 | A | C5-N7-C8 | 7.02 | 107.41 | 103.90 |
| 22 | BA | 104 | A | N9-C4-C5 | 7.02 | 108.61 | 105.80 |
| 22 | BA | 609 | A | C5-N7-C8 | 7.02 | 107.41 | 103.90 |
| 22 | BA | 689 | A | N9-C4-C5 | 7.02 | 108.61 | 105.80 |
| 22 | BA | 1144 | A | N9-C4-C5 | 7.02 | 108.61 | 105.80 |
| 22 | BA | 1040 | A | C5-N7-C8 | 7.02 | 107.41 | 103.90 |
| 22 | BA | 2284 | A | C5-N7-C8 | 7.02 | 107.41 | 103.90 |
| 1 | AA | 815 | A | N9-C4-C5 | 7.02 | 108.61 | 105.80 |
| 22 | BA | 1254 | A | N9-C4-C5 | 7.02 | 108.61 | 105.80 |
| 22 | BA | 2531 | A | C4-C5-C6 | 7.02 | 120.51 | 117.00 |
| 22 | BA | 219 | A | C5-N7-C8 | 7.02 | 107.41 | 103.90 |
| 22 | BA | 1129 | A | C5-N7-C8 | 7.02 | 107.41 | 103.90 |
| 22 | BA | 2019 | A | C4-C5-C6 | 7.02 | 120.51 | 117.00 |
| 22 | BA | 1134 | A | C4-C5-C6 | 7.02 | 120.51 | 117.00 |
| 22 | BA | 2572 | A | C8-N9-C4 | 7.02 | 108.61 | 105.80 |
| 1 | AA | 364 | A | C5-N7-C8 | 7.01 | 107.41 | 103.90 |
| 22 | BA | 541 | A | N9-C4-C5 | 7.01 | 108.61 | 105.80 |
| 22 | BA | 716 | A | C5-N7-C8 | 7.01 | 107.41 | 103.90 |
| 22 | BA | 936 | A | C5-N7-C8 | 7.01 | 107.41 | 103.90 |
| 22 | BA | 2899 | A | N9-C4-C5 | 7.01 | 108.61 | 105.80 |
| 22 | BA | 2058 | A | C4-C5-C6 | 7.01 | 120.51 | 117.00 |
| 1 | AA | 1191 | A | C4-C5-C6 | 7.01 | 120.51 | 117.00 |
| 22 | BA | 439 | A | C5-N7-C8 | 7.01 | 107.41 | 103.90 |
| 22 | BA | 909 | A | C5-N7-C8 | 7.01 | 107.41 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1819 | A | C4-C5-C6 | 7.01 | 120.51 | 117.00 |
| 1 | AA | 1534 | A | N9-C4-C5 | 7.01 | 108.60 | 105.80 |
| 22 | BA | 2288 | A | C4-C5-C6 | 7.01 | 120.50 | 117.00 |
| 1 | AA | 411 | A | C5-N7-C8 | 7.01 | 107.40 | 103.90 |
| 22 | BA | 1111 | A | C4-C5-C6 | 7.01 | 120.50 | 117.00 |
| 22 | BA | 1579 | A | C5-N7-C8 | 7.01 | 107.40 | 103.90 |
| 22 | BA | 1722 | A | C5-N7-C8 | 7.01 | 107.40 | 103.90 |
| 22 | BA | 2829 | A | C5-N7-C8 | 7.01 | 107.40 | 103.90 |
| 1 | AA | 782 | A | N9-C4-C5 | 7.00 | 108.60 | 105.80 |
| 1 | AA | 878 | A | C5-N7-C8 | 7.00 | 107.40 | 103.90 |
| 22 | BA | 402 | A | C5-N7-C8 | 7.00 | 107.40 | 103.90 |
| 22 | BA | 1569 | A | C5-N7-C8 | 7.00 | 107.40 | 103.90 |
| 22 | BA | 1650 | A | C5-N7-C8 | 7.00 | 107.40 | 103.90 |
| 22 | BA | 2147 | A | N9-C4-C5 | 7.00 | 108.60 | 105.80 |
| 22 | BA | 2639 | A | C5-N7-C8 | 7.00 | 107.40 | 103.90 |
| 55 | B8 | 14 | A | C4-C5-C6 | 7.00 | 120.50 | 117.00 |
| 22 | BA | 95 | A | C5-N7-C8 | 7.00 | 107.40 | 103.90 |
| 22 | BA | 721 | A | C5-N7-C8 | 7.00 | 107.40 | 103.90 |
| 22 | BA | 783 | A | C4-C5-C6 | 7.00 | 120.50 | 117.00 |
| 22 | BA | 2577 | A | C4-C5-N7 | -7.00 | 107.20 | 110.70 |
| 1 | AA | 889 | A | C5-N7-C8 | 7.00 | 107.40 | 103.90 |
| 1 | AA | 974 | A | C5-N7-C8 | 7.00 | 107.40 | 103.90 |
| 22 | BA | 616 | A | C4-C5-C6 | 7.00 | 120.50 | 117.00 |
| 22 | BA | 1367 | A | C5-N7-C8 | 7.00 | 107.40 | 103.90 |
| 1 | AA | 1480 | A | C5-N7-C8 | 7.00 | 107.40 | 103.90 |
| 22 | BA | 2366 | A | C4-C5-C6 | 7.00 | 120.50 | 117.00 |
| 1 | AA | 1250 | A | C5-N7-C8 | 7.00 | 107.40 | 103.90 |
| 22 | BA | 863 | A | N3-C4-N9 | 6.99 | 132.99 | 127.40 |
| 1 | AA | 780 | A | C5-N7-C8 | 6.99 | 107.40 | 103.90 |
| 22 | BA | 466 | A | C5-N7-C8 | 6.99 | 107.40 | 103.90 |
| 22 | BA | 2309 | A | N9-C4-C5 | 6.99 | 108.60 | 105.80 |
| 22 | BA | 2426 | A | C5-N7-C8 | 6.99 | 107.40 | 103.90 |
| 1 | AA | 282 | A | N9-C4-C5 | 6.99 | 108.60 | 105.80 |
| 22 | BA | 730 | A | C5-C6-N6 | 6.99 | 129.29 | 123.70 |
| 1 | AA | 1434 | A | C4-C5-C6 | 6.99 | 120.49 | 117.00 |
| 22 | BA | 918 | A | C5-N7-C8 | 6.99 | 107.39 | 103.90 |
| 22 | BA | 2051 | A | C5-N7-C8 | 6.99 | 107.39 | 103.90 |
| 22 | BA | 2800 | A | C5-N7-C8 | 6.99 | 107.39 | 103.90 |
| 1 | AA | 274 | A | C5-N7-C8 | 6.99 | 107.39 | 103.90 |
| 1 | AA | 595 | A | C5-N7-C8 | 6.99 | 107.39 | 103.90 |
| 22 | BA | 1268 | A | C5-N7-C8 | 6.99 | 107.39 | 103.90 |
| 22 | BA | 502 | A | C5-N7-C8 | 6.98 | 107.39 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2453 | A | N9-C4-C5 | 6.98 | 108.59 | 105.80 |
| 1 | AA | 1102 | A | N9-C4-C5 | 6.98 | 108.59 | 105.80 |
| 1 | AA | 1250 | A | N9-C4-C5 | 6.98 | 108.59 | 105.80 |
| 22 | BA | 294 | A | C5-N7-C8 | 6.98 | 107.39 | 103.90 |
| 22 | BA | 613 | A | C5-N7-C8 | 6.98 | 107.39 | 103.90 |
| 1 | AA | 253 | A | C5-N7-C8 | 6.98 | 107.39 | 103.90 |
| 1 | AA | 573 | A | C5-N7-C8 | 6.98 | 107.39 | 103.90 |
| 1 | AA | 1339 | A | C4-C5-C6 | 6.98 | 120.49 | 117.00 |
| 22 | BA | 2154 | A | C4-C5-C6 | 6.98 | 120.49 | 117.00 |
| 22 | BA | 2738 | A | C5-N7-C8 | 6.98 | 107.39 | 103.90 |
| 22 | BA | 49 | A | C5-N7-C8 | 6.98 | 107.39 | 103.90 |
| 1 | AA | 807 | A | C5-N7-C8 | 6.98 | 107.39 | 103.90 |
| 22 | BA | 149 | A | C5-N7-C8 | 6.98 | 107.39 | 103.90 |
| 22 | BA | 368 | A | C5-N7-C8 | 6.98 | 107.39 | 103.90 |
| 22 | BA | 538 | A | C5-N7-C8 | 6.98 | 107.39 | 103.90 |
| 22 | BA | 781 | A | C4-C5-N7 | -6.98 | 107.21 | 110.70 |
| 22 | BA | 2741 | A | C4-C5-C6 | 6.98 | 120.49 | 117.00 |
| 22 | BA | 980 | A | C4-C5-C6 | 6.97 | 120.49 | 117.00 |
| 22 | BA | 1821 | A | N9-C4-C5 | 6.97 | 108.59 | 105.80 |
| 1 | AA | 759 | A | C5-N7-C8 | 6.97 | 107.39 | 103.90 |
| 22 | BA | 5 | A | C4-C5-C6 | 6.97 | 120.49 | 117.00 |
| 22 | BA | 127 | A | N9-C4-C5 | 6.97 | 108.59 | 105.80 |
| 22 | BA | 1378 | A | C5-N7-C8 | 6.97 | 107.39 | 103.90 |
| 22 | BA | 1590 | A | C5-N7-C8 | 6.97 | 107.39 | 103.90 |
| 22 | BA | 2810 | A | C5-N7-C8 | 6.97 | 107.39 | 103.90 |
| 1 | AA | 1362 | A | C5-N7-C8 | 6.97 | 107.38 | 103.90 |
| 22 | BA | 909 | A | N9-C4-C5 | 6.97 | 108.59 | 105.80 |
| 22 | BA | 1545 | A | C5-N7-C8 | 6.97 | 107.39 | 103.90 |
| 22 | BA | 1977 | A | C5-N7-C8 | 6.97 | 107.38 | 103.90 |
| 22 | BA | 2173 | A | C4-C5-C6 | 6.97 | 120.48 | 117.00 |
| 1 | AA | 509 | A | C4-C5-C6 | 6.97 | 120.48 | 117.00 |
| 1 | AA | 681 | A | C5-N7-C8 | 6.97 | 107.38 | 103.90 |
| 1 | AA | 1101 | A | N9-C4-C5 | 6.97 | 108.59 | 105.80 |
| 22 | BA | 348 | A | C5-N7-C8 | 6.97 | 107.38 | 103.90 |
| 22 | BA | 453 | A | C5-N7-C8 | 6.97 | 107.38 | 103.90 |
| 22 | BA | 1552 | A | N9-C4-C5 | 6.97 | 108.59 | 105.80 |
| 1 | AA | 535 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 22 | BA | 131 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 22 | BA | 1301 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 22 | BA | 1580 | A | C4-C5-C6 | 6.96 | 120.48 | 117.00 |
| 22 | BA | 1810 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 1 | AA | 298 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1705 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 1 | AA | 860 | A | C4-C5-N7 | -6.96 | 107.22 | 110.70 |
| 1 | AA | 878 | A | N9-C4-C5 | 6.96 | 108.58 | 105.80 |
| 22 | BA | 324 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 22 | BA | 715 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 1 | AA | 66 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 22 | BA | 374 | A | C4-C5-C6 | 6.96 | 120.48 | 117.00 |
| 22 | BA | 752 | A | C4-C5-N7 | -6.96 | 107.22 | 110.70 |
| 22 | BA | 1307 | A | C4-C5-C6 | 6.96 | 120.48 | 117.00 |
| 22 | BA | 2169 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 1 | AA | 143 | A | N9-C4-C5 | 6.96 | 108.58 | 105.80 |
| 1 | AA | 192 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 1 | AA | 1447 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 22 | BA | 1735 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 1 | AA | 303 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 1 | AA | 1188 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 1 | AA | 1201 | A | N3-C4-N9 | 6.96 | 132.96 | 127.40 |
| 22 | BA | 332 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 22 | BA | 603 | A | C5-N7-C8 | 6.96 | 107.38 | 103.90 |
| 1 | AA | 482 | A | C5-N7-C8 | 6.95 | 107.38 | 103.90 |
| 1 | AA | 753 | A | C5-N7-C8 | 6.95 | 107.38 | 103.90 |
| 22 | BA | 526 | A | C5-N7-C8 | 6.95 | 107.38 | 103.90 |
| 22 | BA | 2665 | A | C4-C5-C6 | 6.95 | 120.48 | 117.00 |
| 2 | AB | 205 | ASP | N-CA-CB | -6.95 | 98.09 | 110.60 |
| 22 | BA | 1383 | A | C5-N7-C8 | 6.95 | 107.38 | 103.90 |
| 22 | BA | 1614 | A | C4-C5-C6 | 6.95 | 120.48 | 117.00 |
| 1 | AA | 274 | A | C5-C6-N1 | 6.95 | 121.17 | 117.70 |
| 22 | BA | 1916 | A | C4-C5-C6 | 6.95 | 120.47 | 117.00 |
| 22 | BA | 2169 | A | N9-C4-C5 | 6.95 | 108.58 | 105.80 |
| 22 | BA | 94 | A | C4-C5-C6 | 6.95 | 120.47 | 117.00 |
| 22 | BA | 1307 | A | N9-C4-C5 | 6.95 | 108.58 | 105.80 |
| 22 | BA | 1453 | A | N9-C4-C5 | 6.95 | 108.58 | 105.80 |
| 22 | BA | 2679 | A | C4-C5-C6 | 6.95 | 120.47 | 117.00 |
| 1 | AA | 1012 | A | C5-N7-C8 | 6.95 | 107.37 | 103.90 |
| 22 | BA | 14 | A | N9-C4-C5 | 6.95 | 108.58 | 105.80 |
| 22 | BA | 299 | A | C5-N7-C8 | 6.95 | 107.37 | 103.90 |
| 22 | BA | 2450 | A | C5-N7-C8 | 6.95 | 107.37 | 103.90 |
| 1 | AA | 1394 | A | C5-N7-C8 | 6.94 | 107.37 | 103.90 |
| 22 | BA | 2183 | A | C5-N7-C8 | 6.94 | 107.37 | 103.90 |
| 1 | AA | 595 | A | N9-C4-C5 | 6.94 | 108.58 | 105.80 |
| 22 | BA | 2033 | A | C4-C5-N7 | -6.94 | 107.23 | 110.70 |
| 1 | AA | 539 | A | N9-C4-C5 | 6.94 | 108.58 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1 | AA | 629 | A | C4-C5-C6 | 6.94 | 120.47 | 117.00 |
| 22 | BA | 173 | A | C5-N7-C8 | 6.94 | 107.37 | 103.90 |
| 22 | BA | 354 | A | N9-C4-C5 | 6.94 | 108.58 | 105.80 |
| 22 | BA | 2095 | A | C4-C5-C6 | 6.94 | 120.47 | 117.00 |
| 22 | BA | 2171 | A | C5-N7-C8 | 6.94 | 107.37 | 103.90 |
| 22 | BA | 2814 | A | C4-C5-C6 | 6.94 | 120.47 | 117.00 |
| 1 | AA | 502 | A | N9-C4-C5 | 6.94 | 108.58 | 105.80 |
| 22 | BA | 2750 | A | C5-N7-C8 | 6.94 | 107.37 | 103.90 |
| 1 | AA | 32 | A | C5-N7-C8 | 6.94 | 107.37 | 103.90 |
| 1 | AA | 974 | A | N9-C4-C5 | 6.94 | 108.58 | 105.80 |
| 1 | AA | 1 | A | C4-C5-C6 | 6.94 | 120.47 | 117.00 |
| 1 | AA | 1216 | A | C5-N7-C8 | 6.94 | 107.37 | 103.90 |
| 22 | BA | 1762 | A | C5-N7-C8 | 6.94 | 107.37 | 103.90 |
| 22 | BA | 344 | A | C4-C5-C6 | 6.93 | 120.47 | 117.00 |
| 22 | BA | 1434 | A | C4-C5-N7 | -6.93 | 107.23 | 110.70 |
| 22 | BA | 1572 | A | C5-N7-C8 | 6.93 | 107.37 | 103.90 |
| 1 | AA | 366 | A | C5-N7-C8 | 6.93 | 107.37 | 103.90 |
| 22 | BA | 2813 | A | C4-C5-C6 | 6.93 | 120.47 | 117.00 |
| 1 | AA | 192 | A | N9-C4-C5 | 6.93 | 108.57 | 105.80 |
| 1 | AA | 825 | A | N9-C4-C5 | 6.93 | 108.57 | 105.80 |
| 22 | BA | 64 | A | C5-N7-C8 | 6.93 | 107.37 | 103.90 |
| 22 | BA | 2534 | A | C4-C5-C6 | 6.93 | 120.47 | 117.00 |
| 1 | AA | 900 | A | N9-C4-C5 | 6.93 | 108.57 | 105.80 |
| 22 | BA | 278 | A | C4-C5-C6 | 6.93 | 120.46 | 117.00 |
| 22 | BA | 718 | A | C4-C5-C6 | 6.93 | 120.46 | 117.00 |
| 22 | BA | 1313 | U | C2-N1-C1' | 6.93 | 126.01 | 117.70 |
| 1 | AA | 1044 | A | C5-N7-C8 | 6.93 | 107.36 | 103.90 |
| 22 | BA | 1020 | A | N9-C4-C5 | 6.93 | 108.57 | 105.80 |
| 22 | BA | 1553 | A | C5-N7-C8 | 6.93 | 107.36 | 103.90 |
| 1 | AA | 65 | A | C5-N7-C8 | 6.92 | 107.36 | 103.90 |
| 22 | BA | 2358 | A | N9-C4-C5 | 6.92 | 108.57 | 105.80 |
| 22 | BA | 2322 | A | C5-N7-C8 | 6.92 | 107.36 | 103.90 |
| 22 | BA | 347 | A | N9-C4-C5 | 6.92 | 108.57 | 105.80 |
| 22 | BA | 800 | A | C4-C5-N7 | -6.92 | 107.24 | 110.70 |
| 1 | AA | 533 | A | N3-C4-N9 | 6.92 | 132.94 | 127.40 |
| 1 | AA | 1145 | A | N9-C4-C5 | 6.92 | 108.57 | 105.80 |
| 1 | AA | 1363 | A | C5-N7-C8 | 6.92 | 107.36 | 103.90 |
| 1 | AA | 1430 | A | N9-C4-C5 | 6.92 | 108.57 | 105.80 |
| 22 | BA | 1899 | A | N9-C4-C5 | 6.92 | 108.57 | 105.80 |
| 22 | BA | 2119 | A | N9-C4-C5 | 6.92 | 108.57 | 105.80 |
| 22 | BA | 2352 | A | N9-C4-C5 | 6.92 | 108.57 | 105.80 |
| 22 | BA | 199 | A | C5-N7-C8 | 6.92 | 107.36 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|------|-------------|----------|
| 1 | AA | 155 | A | C5-N7-C8 | 6.92 | 107.36 | 103.90 |
| 1 | AA | 238 | A | C5-N7-C8 | 6.92 | 107.36 | 103.90 |
| 22 | BA | 38 | A | C4-C5-C6 | 6.92 | 120.46 | 117.00 |
| 22 | BA | 1020 | A | C5-N7-C8 | 6.92 | 107.36 | 103.90 |
| 22 | BA | 2587 | A | C5-C6-N1 | 6.92 | 121.16 | 117.70 |
| 22 | BA | 2721 | A | C4-C5-C6 | 6.92 | 120.46 | 117.00 |
| 22 | BA | 1010 | A | C5-N7-C8 | 6.91 | 107.36 | 103.90 |
| 22 | BA | 1073 | A | C4-C5-C6 | 6.91 | 120.46 | 117.00 |
| 22 | BA | 2660 | A | C5-N7-C8 | 6.91 | 107.36 | 103.90 |
| 1 | AA | 325 | A | C5-N7-C8 | 6.91 | 107.35 | 103.90 |
| 22 | BA | 103 | A | C4-C5-C6 | 6.91 | 120.45 | 117.00 |
| 22 | BA | 1678 | A | N9-C4-C5 | 6.91 | 108.56 | 105.80 |
| 22 | BA | 1998 | A | C4-C5-C6 | 6.91 | 120.45 | 117.00 |
| 22 | BA | 2281 | A | C4-C5-C6 | 6.91 | 120.45 | 117.00 |
| 1 | AA | 119 | A | C5-N7-C8 | 6.91 | 107.35 | 103.90 |
| 1 | AA | 938 | A | N9-C4-C5 | 6.91 | 108.56 | 105.80 |
| 22 | BA | 532 | A | C4-C5-C6 | 6.91 | 120.45 | 117.00 |
| 22 | BA | 2376 | A | C5-N7-C8 | 6.91 | 107.35 | 103.90 |
| 1 | AA | 946 | A | C4-C5-C6 | 6.91 | 120.45 | 117.00 |
| 22 | BA | 2675 | A | C4-C5-C6 | 6.91 | 120.45 | 117.00 |
| 22 | BA | 2829 | A | N9-C4-C5 | 6.91 | 108.56 | 105.80 |
| 1 | AA | 520 | A | C4-C5-C6 | 6.90 | 120.45 | 117.00 |
| 22 | BA | 1494 | A | C4-C5-C6 | 6.90 | 120.45 | 117.00 |
| 22 | BA | 541 | A | C5-N7-C8 | 6.90 | 107.35 | 103.90 |
| 1 | AA | 749 | A | N9-C4-C5 | 6.90 | 108.56 | 105.80 |
| 1 | AA | 1493 | A | C5-N7-C8 | 6.90 | 107.35 | 103.90 |
| 22 | BA | 352 | A | C5-N7-C8 | 6.90 | 107.35 | 103.90 |
| 22 | BA | 2476 | A | N9-C4-C5 | 6.90 | 108.56 | 105.80 |
| 1 | AA | 262 | A | C5-N7-C8 | 6.90 | 107.35 | 103.90 |
| 1 | AA | 495 | A | C5-N7-C8 | 6.90 | 107.35 | 103.90 |
| 22 | BA | 382 | A | C5-N7-C8 | 6.90 | 107.35 | 103.90 |
| 22 | BA | 2900 | A | N9-C4-C5 | 6.90 | 108.56 | 105.80 |
| 1 | AA | 1408 | A | C4-C5-C6 | 6.90 | 120.45 | 117.00 |
| 22 | BA | 142 | A | C4-C5-C6 | 6.90 | 120.45 | 117.00 |
| 1 | AA | 649 | A | C5-N7-C8 | 6.90 | 107.35 | 103.90 |
| 1 | AA | 3 | A | N9-C4-C5 | 6.89 | 108.56 | 105.80 |
| 22 | BA | 833 | A | N9-C4-C5 | 6.89 | 108.56 | 105.80 |
| 22 | BA | 1570 | A | N9-C4-C5 | 6.89 | 108.56 | 105.80 |
| 22 | BA | 2274 | A | C4-C5-C6 | 6.89 | 120.45 | 117.00 |
| 22 | BA | 2406 | A | C5-N7-C8 | 6.89 | 107.35 | 103.90 |
| 1 | AA | 712 | A | C4-C5-C6 | 6.89 | 120.45 | 117.00 |
| 22 | BA | 73 | A | C5-N7-C8 | 6.89 | 107.35 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 144 | A | C4-C5-C6 | 6.89 | 120.45 | 117.00 |
| 22 | BA | 197 | A | C4-C5-C6 | 6.89 | 120.45 | 117.00 |
| 1 | AA | 1491 | G | C8-N9-C4 | 6.89 | 109.16 | 106.40 |
| 22 | BA | 1144 | A | C4-C5-C6 | 6.89 | 120.44 | 117.00 |
| 1 | AA | 1042 | A | C5-N7-C8 | 6.89 | 107.34 | 103.90 |
| 22 | BA | 1365 | A | C4-C5-C6 | 6.89 | 120.44 | 117.00 |
| 22 | BA | 1635 | A | N9-C4-C5 | 6.89 | 108.56 | 105.80 |
| 22 | BA | 119 | A | C5-N7-C8 | 6.89 | 107.34 | 103.90 |
| 22 | BA | 330 | A | N3-C4-N9 | 6.89 | 132.91 | 127.40 |
| 22 | BA | 582 | A | C4-C5-C6 | 6.89 | 120.44 | 117.00 |
| 1 | AA | 553 | A | N9-C4-C5 | 6.88 | 108.55 | 105.80 |
| 1 | AA | 1429 | A | N9-C4-C5 | 6.88 | 108.55 | 105.80 |
| 22 | BA | 265 | A | C5-N7-C8 | 6.88 | 107.34 | 103.90 |
| 22 | BA | 2284 | A | N3-C4-N9 | 6.88 | 132.91 | 127.40 |
| 1 | AA | 33 | A | C5-N7-C8 | 6.88 | 107.34 | 103.90 |
| 22 | BA | 2850 | A | C4-C5-C6 | 6.88 | 120.44 | 117.00 |
| 22 | BA | 482 | A | C5-N7-C8 | 6.88 | 107.34 | 103.90 |
| 22 | BA | 699 | A | C4-C5-N7 | -6.88 | 107.26 | 110.70 |
| 1 | AA | 609 | A | N9-C4-C5 | 6.88 | 108.55 | 105.80 |
| 1 | AA | 1257 | A | C5-N7-C8 | 6.88 | 107.34 | 103.90 |
| 22 | BA | 1583 | A | N9-C4-C5 | 6.88 | 108.55 | 105.80 |
| 1 | AA | 964 | A | C5-N7-C8 | 6.88 | 107.34 | 103.90 |
| 22 | BA | 1084 | A | N9-C4-C5 | 6.88 | 108.55 | 105.80 |
| 1 | AA | 621 | A | C4-C5-C6 | 6.88 | 120.44 | 117.00 |
| 1 | AA | 1306 | A | C5-N7-C8 | 6.88 | 107.34 | 103.90 |
| 22 | BA | 384 | A | C4-C5-C6 | 6.88 | 120.44 | 117.00 |
| 22 | BA | 472 | A | C5-N7-C8 | 6.88 | 107.34 | 103.90 |
| 22 | BA | 1664 | A | C5-N7-C8 | 6.88 | 107.34 | 103.90 |
| 22 | BA | 2090 | A | C4-C5-C6 | 6.88 | 120.44 | 117.00 |
| 22 | BA | 2199 | A | N9-C4-C5 | 6.88 | 108.55 | 105.80 |
| 1 | AA | 1368 | A | C4-C5-C6 | 6.88 | 120.44 | 117.00 |
| 22 | BA | 471 | A | C5-N7-C8 | 6.88 | 107.34 | 103.90 |
| 1 | AA | 441 | A | C4-C5-C6 | 6.87 | 120.44 | 117.00 |
| 1 | AA | 901 | A | N3-C4-N9 | 6.87 | 132.90 | 127.40 |
| 22 | BA | 945 | A | C5-N7-C8 | 6.87 | 107.34 | 103.90 |
| 22 | BA | 1672 | A | N9-C4-C5 | 6.87 | 108.55 | 105.80 |
| 22 | BA | 2270 | A | C4-C5-C6 | 6.87 | 120.44 | 117.00 |
| 1 | AA | 975 | A | C5-N7-C8 | 6.87 | 107.33 | 103.90 |
| 1 | AA | 1201 | A | C5-C6-N6 | 6.87 | 129.20 | 123.70 |
| 1 | AA | 1320 | C | O5'-P-OP2 | 6.87 | 118.95 | 110.70 |
| 22 | BA | 599 | A | C5-N7-C8 | 6.87 | 107.34 | 103.90 |
| 1 | AA | 49 | U | N3-C4-O4 | -6.87 | 114.59 | 119.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1289 | A | N9-C4-C5 | 6.87 | 108.55 | 105.80 |
| 22 | BA | 2267 | A | N3-C4-N9 | 6.87 | 132.90 | 127.40 |
| 23 | BB | 45 | A | C5-N7-C8 | 6.87 | 107.33 | 103.90 |
| 1 | AA | 1271 | A | C4-C5-C6 | 6.87 | 120.43 | 117.00 |
| 1 | AA | 1363 | A | C4-C5-C6 | 6.87 | 120.44 | 117.00 |
| 22 | BA | 423 | A | C4-C5-C6 | 6.87 | 120.43 | 117.00 |
| 22 | BA | 2170 | A | C5-N7-C8 | 6.87 | 107.33 | 103.90 |
| 22 | BA | 368 | A | C4-C5-C6 | 6.87 | 120.43 | 117.00 |
| 1 | AA | 695 | A | C4-C5-C6 | 6.86 | 120.43 | 117.00 |
| 22 | BA | 1637 | A | N9-C4-C5 | 6.86 | 108.55 | 105.80 |
| 1 | AA | 1483 | A | C5-N7-C8 | 6.86 | 107.33 | 103.90 |
| 22 | BA | 1502 | A | C5-N7-C8 | 6.86 | 107.33 | 103.90 |
| 1 | AA | 3 | A | C5-N7-C8 | 6.86 | 107.33 | 103.90 |
| 22 | BA | 943 | A | C5-N7-C8 | 6.86 | 107.33 | 103.90 |
| 22 | BA | 1384 | A | C5-N7-C8 | 6.86 | 107.33 | 103.90 |
| 23 | BB | 78 | A | N9-C4-C5 | 6.86 | 108.54 | 105.80 |
| 1 | AA | 608 | A | C5-N7-C8 | 6.86 | 107.33 | 103.90 |
| 1 | AA | 694 | A | C4-C5-C6 | 6.86 | 120.43 | 117.00 |
| 22 | BA | 182 | A | N9-C4-C5 | 6.86 | 108.54 | 105.80 |
| 22 | BA | 666 | A | C5-N7-C8 | 6.86 | 107.33 | 103.90 |
| 22 | BA | 793 | A | C5-N7-C8 | 6.86 | 107.33 | 103.90 |
| 22 | BA | 1103 | A | N9-C4-C5 | 6.86 | 108.54 | 105.80 |
| 1 | AA | 66 | A | C4-C5-C6 | 6.86 | 120.43 | 117.00 |
| 1 | AA | 729 | A | C4-C5-C6 | 6.86 | 120.43 | 117.00 |
| 1 | AA | 1513 | A | C4-C5-C6 | 6.86 | 120.43 | 117.00 |
| 22 | BA | 928 | A | C4-C5-C6 | 6.85 | 120.43 | 117.00 |
| 22 | BA | 943 | A | N9-C4-C5 | 6.85 | 108.54 | 105.80 |
| 22 | BA | 2705 | A | C5-N7-C8 | 6.85 | 107.33 | 103.90 |
| 1 | AA | 702 | A | N9-C4-C5 | 6.85 | 108.54 | 105.80 |
| 1 | AA | 802 | A | C5-N7-C8 | 6.85 | 107.33 | 103.90 |
| 22 | BA | 602 | A | N9-C4-C5 | 6.85 | 108.54 | 105.80 |
| 22 | BA | 2225 | A | C5-N7-C8 | 6.85 | 107.33 | 103.90 |
| 1 | AA | 50 | A | C4-C5-C6 | 6.85 | 120.42 | 117.00 |
| 1 | AA | 1254 | A | C4-C5-C6 | 6.85 | 120.42 | 117.00 |
| 22 | BA | 84 | A | C5-N7-C8 | 6.85 | 107.32 | 103.90 |
| 22 | BA | 1328 | A | N9-C4-C5 | 6.85 | 108.54 | 105.80 |
| 22 | BA | 1901 | A | N9-C4-C5 | 6.85 | 108.54 | 105.80 |
| 23 | BB | 39 | A | C5-N7-C8 | 6.85 | 107.32 | 103.90 |
| 1 | AA | 520 | A | C4-C5-N7 | -6.85 | 107.28 | 110.70 |
| 1 | AA | 182 | A | C5-N7-C8 | 6.84 | 107.32 | 103.90 |
| 22 | BA | 231 | A | C4-C5-N7 | -6.84 | 107.28 | 110.70 |
| 22 | BA | 928 | A | N9-C4-C5 | 6.84 | 108.54 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1791 | A | C5-N7-C8 | 6.84 | 107.32 | 103.90 |
| 22 | BA | 2126 | A | C5-N7-C8 | 6.84 | 107.32 | 103.90 |
| 22 | BA | 2518 | A | N3-C4-N9 | 6.84 | 132.88 | 127.40 |
| 22 | BA | 2781 | A | C5-N7-C8 | 6.84 | 107.32 | 103.90 |
| 23 | BB | 45 | A | N9-C4-C5 | 6.84 | 108.54 | 105.80 |
| 1 | AA | 32 | A | N3-C4-N9 | 6.84 | 132.88 | 127.40 |
| 22 | BA | 2682 | A | N9-C4-C5 | 6.84 | 108.54 | 105.80 |
| 1 | AA | 7 | A | N9-C4-C5 | 6.84 | 108.54 | 105.80 |
| 1 | AA | 98 | A | N9-C4-C5 | 6.84 | 108.54 | 105.80 |
| 22 | BA | 1900 | A | C4-C5-C6 | 6.84 | 120.42 | 117.00 |
| 1 | AA | 182 | A | N9-C4-C5 | 6.84 | 108.54 | 105.80 |
| 1 | AA | 983 | A | N9-C4-C5 | 6.84 | 108.54 | 105.80 |
| 22 | BA | 256 | A | C5-N7-C8 | 6.84 | 107.32 | 103.90 |
| 22 | BA | 505 | A | C5-N7-C8 | 6.84 | 107.32 | 103.90 |
| 22 | BA | 1496 | A | C5-N7-C8 | 6.84 | 107.32 | 103.90 |
| 1 | AA | 1299 | A | N3-C4-N9 | 6.84 | 132.87 | 127.40 |
| 22 | BA | 320 | A | C5-N7-C8 | 6.84 | 107.32 | 103.90 |
| 22 | BA | 802 | A | N3-C4-N9 | 6.84 | 132.87 | 127.40 |
| 1 | AA | 607 | A | C4-C5-C6 | 6.84 | 120.42 | 117.00 |
| 22 | BA | 984 | A | C4-C5-C6 | 6.84 | 120.42 | 117.00 |
| 22 | BA | 2267 | A | C5-N7-C8 | 6.84 | 107.32 | 103.90 |
| 1 | AA | 466 | A | C4-C5-C6 | 6.83 | 120.42 | 117.00 |
| 1 | AA | 1204 | A | C4-C5-N7 | -6.83 | 107.28 | 110.70 |
| 1 | AA | 1261 | A | C4-C5-C6 | 6.83 | 120.42 | 117.00 |
| 22 | BA | 794 | A | C4-C5-C6 | 6.83 | 120.42 | 117.00 |
| 22 | BA | 2037 | A | C5-N7-C8 | 6.83 | 107.32 | 103.90 |
| 1 | AA | 452 | A | C4-C5-C6 | 6.83 | 120.42 | 117.00 |
| 22 | BA | 1916 | A | C5-N7-C8 | 6.83 | 107.32 | 103.90 |
| 22 | BA | 439 | A | N9-C4-C5 | 6.83 | 108.53 | 105.80 |
| 1 | AA | 344 | A | N9-C4-C5 | 6.83 | 108.53 | 105.80 |
| 1 | AA | 1350 | A | N9-C4-C5 | 6.83 | 108.53 | 105.80 |
| 22 | BA | 103 | A | N9-C4-C5 | 6.83 | 108.53 | 105.80 |
| 22 | BA | 782 | A | C5-N7-C8 | 6.83 | 107.31 | 103.90 |
| 22 | BA | 2662 | A | C5-N7-C8 | 6.83 | 107.31 | 103.90 |
| 1 | AA | 1257 | A | N9-C4-C5 | 6.83 | 108.53 | 105.80 |
| 22 | BA | 1308 | A | C4-C5-C6 | 6.82 | 120.41 | 117.00 |
| 22 | BA | 1503 | A | N9-C4-C5 | 6.82 | 108.53 | 105.80 |
| 22 | BA | 216 | A | C4-C5-C6 | 6.82 | 120.41 | 117.00 |
| 22 | BA | 1213 | A | N3-C4-N9 | 6.82 | 132.86 | 127.40 |
| 23 | BB | 59 | A | C5-C6-N6 | 6.82 | 129.16 | 123.70 |
| 55 | B8 | 51 | A | C8-N9-C4 | 6.82 | 108.53 | 105.80 |
| 1 | AA | 1508 | A | C5-N7-C8 | 6.82 | 107.31 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 977 | A | C4-C5-C6 | 6.82 | 120.41 | 117.00 |
| 22 | BA | 348 | A | N9-C4-C5 | 6.82 | 108.53 | 105.80 |
| 22 | BA | 960 | A | N3-C4-N9 | 6.82 | 132.85 | 127.40 |
| 22 | BA | 1871 | A | N9-C4-C5 | 6.82 | 108.53 | 105.80 |
| 22 | BA | 2080 | A | C4-C5-C6 | 6.82 | 120.41 | 117.00 |
| 1 | AA | 431 | A | C4-C5-N7 | -6.82 | 107.29 | 110.70 |
| 22 | BA | 156 | A | C4-C5-C6 | 6.82 | 120.41 | 117.00 |
| 22 | BA | 1705 | A | C4-C5-C6 | 6.82 | 120.41 | 117.00 |
| 22 | BA | 2135 | A | C5-N7-C8 | 6.82 | 107.31 | 103.90 |
| 22 | BA | 345 | A | C5-N7-C8 | 6.81 | 107.31 | 103.90 |
| 22 | BA | 574 | A | C5-N7-C8 | 6.81 | 107.31 | 103.90 |
| 22 | BA | 1876 | A | C4-C5-C6 | 6.81 | 120.41 | 117.00 |
| 1 | AA | 1324 | A | C5-N7-C8 | 6.81 | 107.31 | 103.90 |
| 22 | BA | 693 | A | C4-C5-C6 | 6.81 | 120.41 | 117.00 |
| 1 | AA | 460 | A | C5-C6-N1 | 6.81 | 121.11 | 117.70 |
| 1 | AA | 149 | A | C4-C5-C6 | 6.81 | 120.40 | 117.00 |
| 22 | BA | 943 | A | C4-C5-C6 | 6.81 | 120.41 | 117.00 |
| 22 | BA | 1626 | A | C5-N7-C8 | 6.81 | 107.31 | 103.90 |
| 22 | BA | 2435 | A | C5-N7-C8 | 6.81 | 107.30 | 103.90 |
| 54 | B7 | 9 | A | N9-C4-C5 | 6.81 | 108.52 | 105.80 |
| 1 | AA | 435 | A | N9-C4-C5 | 6.81 | 108.52 | 105.80 |
| 1 | AA | 1318 | A | N9-C4-C5 | 6.81 | 108.52 | 105.80 |
| 22 | BA | 457 | A | C4-C5-N7 | -6.81 | 107.30 | 110.70 |
| 1 | AA | 546 | A | C4-C5-C6 | 6.80 | 120.40 | 117.00 |
| 22 | BA | 722 | A | C4-C5-C6 | 6.80 | 120.40 | 117.00 |
| 22 | BA | 2560 | A | N9-C4-C5 | 6.80 | 108.52 | 105.80 |
| 22 | BA | 2679 | A | N3-C4-N9 | 6.80 | 132.84 | 127.40 |
| 22 | BA | 222 | A | N9-C4-C5 | 6.80 | 108.52 | 105.80 |
| 22 | BA | 2547 | A | N9-C4-C5 | 6.80 | 108.52 | 105.80 |
| 22 | BA | 2740 | A | C4-C5-C6 | 6.80 | 120.40 | 117.00 |
| 22 | BA | 272 | A | C5-N7-C8 | 6.80 | 107.30 | 103.90 |
| 22 | BA | 722 | A | C5-N7-C8 | 6.80 | 107.30 | 103.90 |
| 22 | BA | 756 | A | C4-C5-C6 | 6.80 | 120.40 | 117.00 |
| 22 | BA | 2873 | A | N9-C4-C5 | 6.80 | 108.52 | 105.80 |
| 1 | AA | 1111 | A | N9-C4-C5 | 6.80 | 108.52 | 105.80 |
| 1 | AA | 1534 | A | C5-N7-C8 | 6.80 | 107.30 | 103.90 |
| 22 | BA | 63 | A | C4-C5-C6 | 6.80 | 120.40 | 117.00 |
| 22 | BA | 996 | A | C5-N7-C8 | 6.80 | 107.30 | 103.90 |
| 22 | BA | 2071 | A | C5-N7-C8 | 6.80 | 107.30 | 103.90 |
| 22 | BA | 2328 | A | C4-C5-C6 | 6.80 | 120.40 | 117.00 |
| 1 | AA | 300 | A | N3-C4-N9 | 6.79 | 132.84 | 127.40 |
| 22 | BA | 176 | A | C4-C5-C6 | 6.79 | 120.40 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2823 | A | N9-C4-C5 | 6.79 | 108.52 | 105.80 |
| 1 | AA | 892 | A | C5-N7-C8 | 6.79 | 107.30 | 103.90 |
| 22 | BA | 833 | A | C5-N7-C8 | 6.79 | 107.30 | 103.90 |
| 1 | AA | 60 | A | C4-C5-C6 | 6.79 | 120.40 | 117.00 |
| 1 | AA | 172 | A | N9-C4-C5 | 6.79 | 108.52 | 105.80 |
| 22 | BA | 172 | A | N9-C4-C5 | 6.79 | 108.52 | 105.80 |
| 22 | BA | 563 | A | C4-C5-N7 | -6.79 | 107.31 | 110.70 |
| 1 | AA | 535 | A | N9-C4-C5 | 6.79 | 108.52 | 105.80 |
| 22 | BA | 2378 | A | C4-C5-C6 | 6.79 | 120.39 | 117.00 |
| 1 | AA | 80 | A | C4-C5-C6 | 6.79 | 120.39 | 117.00 |
| 1 | AA | 162 | A | N3-C4-N9 | 6.79 | 132.83 | 127.40 |
| 22 | BA | 945 | A | N9-C4-C5 | 6.79 | 108.51 | 105.80 |
| 22 | BA | 1413 | A | C5-N7-C8 | 6.79 | 107.29 | 103.90 |
| 1 | AA | 120 | A | N9-C4-C5 | 6.78 | 108.51 | 105.80 |
| 1 | AA | 415 | A | N9-C4-C5 | 6.78 | 108.51 | 105.80 |
| 1 | AA | 648 | A | C5-N7-C8 | 6.78 | 107.29 | 103.90 |
| 1 | AA | 649 | A | N9-C4-C5 | 6.78 | 108.51 | 105.80 |
| 1 | AA | 687 | A | C5-N7-C8 | 6.78 | 107.29 | 103.90 |
| 1 | AA | 777 | A | N9-C4-C5 | 6.78 | 108.51 | 105.80 |
| 1 | AA | 872 | A | N9-C4-C5 | 6.78 | 108.51 | 105.80 |
| 1 | AA | 1531 | A | C5-N7-C8 | 6.78 | 107.29 | 103.90 |
| 22 | BA | 1652 | A | C5-N7-C8 | 6.78 | 107.29 | 103.90 |
| 1 | AA | 629 | A | C5-N7-C8 | 6.78 | 107.29 | 103.90 |
| 1 | AA | 1036 | A | N9-C4-C5 | 6.78 | 108.51 | 105.80 |
| 1 | AA | 1236 | A | N9-C4-C5 | 6.78 | 108.51 | 105.80 |
| 1 | AA | 1239 | A | C5-N7-C8 | 6.78 | 107.29 | 103.90 |
| 1 | AA | 1252 | A | C5-N7-C8 | 6.78 | 107.29 | 103.90 |
| 1 | AA | 1280 | A | N9-C4-C5 | 6.78 | 108.51 | 105.80 |
| 22 | BA | 1321 | A | C4-C5-C6 | 6.78 | 120.39 | 117.00 |
| 1 | AA | 270 | A | C5-N7-C8 | 6.78 | 107.29 | 103.90 |
| 1 | AA | 1236 | A | C5-N7-C8 | 6.78 | 107.29 | 103.90 |
| 1 | AA | 461 | A | C5-N7-C8 | 6.78 | 107.29 | 103.90 |
| 1 | AA | 1093 | A | C4-C5-C6 | 6.78 | 120.39 | 117.00 |
| 22 | BA | 980 | A | N3-C4-N9 | 6.78 | 132.82 | 127.40 |
| 22 | BA | 2135 | A | C4-C5-C6 | 6.78 | 120.39 | 117.00 |
| 22 | BA | 2589 | A | N9-C4-C5 | 6.78 | 108.51 | 105.80 |
| 23 | BB | 29 | A | N9-C4-C5 | 6.78 | 108.51 | 105.80 |
| 23 | BB | 66 | A | C4-C5-C6 | 6.78 | 120.39 | 117.00 |
| 1 | AA | 432 | A | C4-C5-C6 | 6.77 | 120.39 | 117.00 |
| 22 | BA | 13 | A | C4-C5-C6 | 6.77 | 120.39 | 117.00 |
| 22 | BA | 1608 | A | C4-C5-C6 | 6.77 | 120.39 | 117.00 |
| 1 | AA | 1150 | A | N9-C4-C5 | 6.77 | 108.51 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2381 | A | N9-C4-C5 | 6.77 | 108.51 | 105.80 |
| 22 | BA | 2761 | A | C4-C5-C6 | 6.77 | 120.39 | 117.00 |
| 22 | BA | 1028 | A | C5-N7-C8 | 6.77 | 107.29 | 103.90 |
| 22 | BA | 2134 | A | N9-C4-C5 | 6.77 | 108.51 | 105.80 |
| 22 | BA | 2657 | A | C5-N7-C8 | 6.77 | 107.28 | 103.90 |
| 1 | AA | 356 | A | N9-C4-C5 | 6.77 | 108.51 | 105.80 |
| 22 | BA | 2268 | A | N9-C4-C5 | 6.77 | 108.51 | 105.80 |
| 22 | BA | 482 | A | N3-C4-N9 | 6.76 | 132.81 | 127.40 |
| 1 | AA | 189 | A | N9-C4-C5 | 6.76 | 108.50 | 105.80 |
| 1 | AA | 338 | A | N9-C4-C5 | 6.76 | 108.50 | 105.80 |
| 1 | AA | 937 | A | C4-C5-C6 | 6.76 | 120.38 | 117.00 |
| 22 | BA | 1900 | A | N9-C4-C5 | 6.76 | 108.50 | 105.80 |
| 22 | BA | 626 | A | C4-C5-C6 | 6.76 | 120.38 | 117.00 |
| 22 | BA | 2814 | A | N9-C4-C5 | 6.76 | 108.50 | 105.80 |
| 1 | AA | 74 | A | C4-C5-N7 | -6.76 | 107.32 | 110.70 |
| 22 | BA | 706 | A | N9-C4-C5 | 6.76 | 108.50 | 105.80 |
| 22 | BA | 1802 | A | N9-C4-C5 | 6.76 | 108.50 | 105.80 |
| 1 | AA | 172 | A | C5-N7-C8 | 6.76 | 107.28 | 103.90 |
| 1 | AA | 456 | A | N9-C4-C5 | 6.76 | 108.50 | 105.80 |
| 22 | BA | 251 | A | N3-C4-N9 | 6.76 | 132.81 | 127.40 |
| 22 | BA | 1746 | A | C5-N7-C8 | 6.76 | 107.28 | 103.90 |
| 22 | BA | 2476 | A | C5-N7-C8 | 6.76 | 107.28 | 103.90 |
| 1 | AA | 33 | A | C4-C5-C6 | 6.75 | 120.38 | 117.00 |
| 1 | AA | 493 | A | C5-N7-C8 | 6.75 | 107.28 | 103.90 |
| 22 | BA | 877 | A | C5-N7-C8 | 6.75 | 107.28 | 103.90 |
| 22 | BA | 1354 | A | C4-C5-C6 | 6.75 | 120.38 | 117.00 |
| 23 | BB | 50 | A | C5-N7-C8 | 6.75 | 107.28 | 103.90 |
| 1 | AA | 978 | A | C4-C5-C6 | 6.75 | 120.38 | 117.00 |
| 1 | AA | 1082 | A | C5-N7-C8 | 6.75 | 107.28 | 103.90 |
| 22 | BA | 1981 | A | N9-C4-C5 | 6.75 | 108.50 | 105.80 |
| 22 | BA | 2191 | A | C5-N7-C8 | 6.75 | 107.28 | 103.90 |
| 22 | BA | 2883 | A | N9-C4-C5 | 6.75 | 108.50 | 105.80 |
| 1 | AA | 539 | A | C5-N7-C8 | 6.75 | 107.28 | 103.90 |
| 1 | AA | 975 | A | N9-C4-C5 | 6.75 | 108.50 | 105.80 |
| 22 | BA | 1650 | A | N3-C4-N9 | 6.75 | 132.80 | 127.40 |
| 1 | AA | 718 | A | C5-N7-C8 | 6.75 | 107.27 | 103.90 |
| 1 | AA | 1288 | A | N9-C4-C5 | 6.75 | 108.50 | 105.80 |
| 22 | BA | 2317 | A | C4-C5-C6 | 6.75 | 120.37 | 117.00 |
| 1 | AA | 1130 | A | C4-C5-C6 | 6.74 | 120.37 | 117.00 |
| 1 | AA | 1225 | A | N9-C4-C5 | 6.74 | 108.50 | 105.80 |
| 22 | BA | 750 | A | N3-C4-N9 | 6.74 | 132.79 | 127.40 |
| 22 | BA | 1347 | A | N9-C4-C5 | 6.74 | 108.50 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 1809 | A | C5-N7-C8 | 6.74 | 107.27 | 103.90 |
| 22 | BA | 1901 | A | C5-N7-C8 | 6.74 | 107.27 | 103.90 |
| 22 | BA | 2015 | A | C5-N7-C8 | 6.74 | 107.27 | 103.90 |
| 1 | AA | 649 | A | C4-C5-C6 | 6.74 | 120.37 | 117.00 |
| 1 | AA | 815 | A | C5-N7-C8 | 6.74 | 107.27 | 103.90 |
| 2 | AB | 188 | ASP | OD1-CG-OD2 | -6.74 | 110.49 | 123.30 |
| 22 | BA | 256 | A | C4-C5-C6 | 6.74 | 120.37 | 117.00 |
| 22 | BA | 632 | A | C4-C5-C6 | 6.74 | 120.37 | 117.00 |
| 22 | BA | 756 | A | C5-N7-C8 | 6.74 | 107.27 | 103.90 |
| 22 | BA | 2439 | A | C5-N7-C8 | 6.74 | 107.27 | 103.90 |
| 1 | AA | 831 | A | N9-C4-C5 | 6.74 | 108.50 | 105.80 |
| 1 | AA | 1446 | A | C5-N7-C8 | 6.74 | 107.27 | 103.90 |
| 22 | BA | 310 | A | C5-N7-C8 | 6.74 | 107.27 | 103.90 |
| 22 | BA | 621 | A | C5-N7-C8 | 6.74 | 107.27 | 103.90 |
| 22 | BA | 849 | A | C5-N7-C8 | 6.74 | 107.27 | 103.90 |
| 22 | BA | 1419 | A | C5-N7-C8 | 6.74 | 107.27 | 103.90 |
| 1 | AA | 1081 | A | C4-C5-C6 | 6.73 | 120.37 | 117.00 |
| 22 | BA | 131 | A | N3-C4-N9 | 6.73 | 132.79 | 127.40 |
| 22 | BA | 310 | A | N9-C4-C5 | 6.73 | 108.49 | 105.80 |
| 22 | BA | 348 | A | C4-C5-C6 | 6.73 | 120.37 | 117.00 |
| 22 | BA | 1205 | A | C4-C5-C6 | 6.73 | 120.36 | 117.00 |
| 22 | BA | 1285 | A | C4-C5-C6 | 6.73 | 120.36 | 117.00 |
| 22 | BA | 1509 | A | N9-C4-C5 | 6.73 | 108.49 | 105.80 |
| 22 | BA | 1603 | A | C4-C5-C6 | 6.73 | 120.36 | 117.00 |
| 22 | BA | 2013 | A | C4-C5-C6 | 6.73 | 120.36 | 117.00 |
| 22 | BA | 391 | A | C5-N7-C8 | 6.73 | 107.27 | 103.90 |
| 22 | BA | 1928 | A | N9-C4-C5 | 6.73 | 108.49 | 105.80 |
| 55 | B8 | 38 | A | C5-N7-C8 | 6.73 | 107.27 | 103.90 |
| 1 | AA | 655 | A | N9-C4-C5 | 6.73 | 108.49 | 105.80 |
| 22 | BA | 2176 | A | C4-C5-C6 | 6.73 | 120.36 | 117.00 |
| 1 | AA | 116 | A | C5-N7-C8 | 6.72 | 107.26 | 103.90 |
| 1 | AA | 559 | A | C5-N7-C8 | 6.72 | 107.26 | 103.90 |
| 1 | AA | 1236 | A | C4-C5-C6 | 6.72 | 120.36 | 117.00 |
| 1 | AA | 1433 | A | C5-N7-C8 | 6.72 | 107.26 | 103.90 |
| 22 | BA | 218 | A | N9-C4-C5 | 6.72 | 108.49 | 105.80 |
| 22 | BA | 1189 | A | N3-C4-N9 | 6.72 | 132.78 | 127.40 |
| 22 | BA | 2227 | A | C4-C5-C6 | 6.72 | 120.36 | 117.00 |
| 22 | BA | 233 | A | C4-C5-C6 | 6.72 | 120.36 | 117.00 |
| 22 | BA | 1272 | A | N9-C4-C5 | 6.72 | 108.49 | 105.80 |
| 22 | BA | 721 | A | C4-C5-C6 | 6.72 | 120.36 | 117.00 |
| 22 | BA | 1274 | A | C4-C5-C6 | 6.72 | 120.36 | 117.00 |
| 23 | BB | 34 | A | C5-N7-C8 | 6.72 | 107.26 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|------|-------------|----------|
| 22 | BA | 251 | A | C5-N7-C8 | 6.72 | 107.26 | 103.90 |
| 22 | BA | 497 | A | N9-C4-C5 | 6.72 | 108.49 | 105.80 |
| 22 | BA | 508 | A | N9-C4-C5 | 6.72 | 108.49 | 105.80 |
| 22 | BA | 1689 | A | C4-C5-C6 | 6.72 | 120.36 | 117.00 |
| 22 | BA | 1854 | A | C5-N7-C8 | 6.72 | 107.26 | 103.90 |
| 22 | BA | 2766 | A | N3-C4-N9 | 6.72 | 132.78 | 127.40 |
| 55 | B8 | 66 | A | C5-N7-C8 | 6.72 | 107.26 | 103.90 |
| 1 | AA | 1319 | A | C5-N7-C8 | 6.72 | 107.26 | 103.90 |
| 22 | BA | 74 | A | N9-C4-C5 | 6.72 | 108.49 | 105.80 |
| 22 | BA | 1591 | A | C5-N7-C8 | 6.72 | 107.26 | 103.90 |
| 22 | BA | 2199 | A | C5-N7-C8 | 6.72 | 107.26 | 103.90 |
| 1 | AA | 782 | A | C4-C5-C6 | 6.71 | 120.36 | 117.00 |
| 22 | BA | 53 | A | C5-N7-C8 | 6.71 | 107.26 | 103.90 |
| 22 | BA | 492 | A | N9-C4-C5 | 6.71 | 108.49 | 105.80 |
| 1 | AA | 1408 | A | N9-C4-C5 | 6.71 | 108.48 | 105.80 |
| 1 | AA | 77 | A | C5-N7-C8 | 6.71 | 107.26 | 103.90 |
| 1 | AA | 192 | A | C4-C5-C6 | 6.71 | 120.36 | 117.00 |
| 1 | AA | 441 | A | N9-C4-C5 | 6.71 | 108.48 | 105.80 |
| 1 | AA | 729 | A | C5-N7-C8 | 6.71 | 107.26 | 103.90 |
| 22 | BA | 844 | A | C5-N7-C8 | 6.71 | 107.26 | 103.90 |
| 22 | BA | 2327 | A | C4-C5-C6 | 6.71 | 120.36 | 117.00 |
| 22 | BA | 181 | A | C4-C5-C6 | 6.71 | 120.36 | 117.00 |
| 22 | BA | 1126 | A | C5-N7-C8 | 6.71 | 107.25 | 103.90 |
| 1 | AA | 71 | A | C5-N7-C8 | 6.71 | 107.25 | 103.90 |
| 1 | AA | 389 | A | C5-N7-C8 | 6.71 | 107.25 | 103.90 |
| 1 | AA | 1239 | A | C8-N9-C4 | 6.71 | 108.48 | 105.80 |
| 22 | BA | 279 | A | N9-C4-C5 | 6.71 | 108.48 | 105.80 |
| 22 | BA | 1717 | A | C4-C5-C6 | 6.71 | 120.36 | 117.00 |
| 1 | AA | 50 | A | C5-N7-C8 | 6.71 | 107.25 | 103.90 |
| 22 | BA | 1713 | A | C5-N7-C8 | 6.71 | 107.25 | 103.90 |
| 22 | BA | 324 | A | C4-C5-C6 | 6.71 | 120.35 | 117.00 |
| 22 | BA | 300 | A | C5-N7-C8 | 6.70 | 107.25 | 103.90 |
| 22 | BA | 1494 | A | C5-N7-C8 | 6.70 | 107.25 | 103.90 |
| 22 | BA | 1641 | A | N9-C4-C5 | 6.70 | 108.48 | 105.80 |
| 22 | BA | 2660 | A | N9-C4-C5 | 6.70 | 108.48 | 105.80 |
| 1 | AA | 228 | A | C5-N7-C8 | 6.70 | 107.25 | 103.90 |
| 22 | BA | 226 | A | C4-C5-C6 | 6.70 | 120.35 | 117.00 |
| 22 | BA | 332 | A | N9-C4-C5 | 6.70 | 108.48 | 105.80 |
| 1 | AA | 1157 | A | C4-C5-C6 | 6.70 | 120.35 | 117.00 |
| 22 | BA | 1572 | A | N9-C4-C5 | 6.70 | 108.48 | 105.80 |
| 22 | BA | 1885 | A | C5-N7-C8 | 6.70 | 107.25 | 103.90 |
| 22 | BA | 2126 | A | C4-C5-C6 | 6.70 | 120.35 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 451 | A | N9-C4-C5 | 6.70 | 108.48 | 105.80 |
| 22 | BA | 1327 | A | C4-C5-C6 | 6.70 | 120.35 | 117.00 |
| 22 | BA | 2097 | A | C5-N7-C8 | 6.70 | 107.25 | 103.90 |
| 1 | AA | 1080 | A | N9-C4-C5 | 6.70 | 108.48 | 105.80 |
| 1 | AA | 10 | A | C4-C5-C6 | 6.70 | 120.35 | 117.00 |
| 22 | BA | 1603 | A | N3-C4-N9 | 6.70 | 132.76 | 127.40 |
| 22 | BA | 1650 | A | C4-C5-C6 | 6.70 | 120.35 | 117.00 |
| 1 | AA | 1349 | A | N9-C4-C5 | 6.69 | 108.48 | 105.80 |
| 1 | AA | 1508 | A | N9-C4-C5 | 6.69 | 108.48 | 105.80 |
| 22 | BA | 191 | A | C4-C5-N7 | -6.69 | 107.35 | 110.70 |
| 22 | BA | 2654 | A | C5-N7-C8 | 6.69 | 107.25 | 103.90 |
| 22 | BA | 2721 | A | N9-C4-C5 | 6.69 | 108.48 | 105.80 |
| 1 | AA | 1396 | A | C5-N7-C8 | 6.69 | 107.25 | 103.90 |
| 22 | BA | 996 | A | C4-C5-C6 | 6.69 | 120.35 | 117.00 |
| 22 | BA | 1745 | A | C5-N7-C8 | 6.69 | 107.25 | 103.90 |
| 22 | BA | 2516 | A | C4-C5-C6 | 6.69 | 120.35 | 117.00 |
| 1 | AA | 288 | A | C5-N7-C8 | 6.69 | 107.25 | 103.90 |
| 22 | BA | 223 | A | C5-N7-C8 | 6.69 | 107.25 | 103.90 |
| 23 | BB | 108 | A | C5-N7-C8 | 6.69 | 107.25 | 103.90 |
| 1 | AA | 279 | A | N9-C4-C5 | 6.69 | 108.48 | 105.80 |
| 22 | BA | 432 | A | N9-C4-C5 | 6.69 | 108.47 | 105.80 |
| 22 | BA | 1932 | A | C5-N7-C8 | 6.69 | 107.25 | 103.90 |
| 1 | AA | 602 | A | C4-C5-C6 | 6.69 | 120.34 | 117.00 |
| 1 | AA | 1362 | A | N9-C4-C5 | 6.69 | 108.47 | 105.80 |
| 22 | BA | 1650 | A | N9-C4-C5 | 6.69 | 108.47 | 105.80 |
| 1 | AA | 499 | A | N9-C4-C5 | 6.69 | 108.47 | 105.80 |
| 23 | BB | 94 | A | C5-N7-C8 | 6.69 | 107.24 | 103.90 |
| 1 | AA | 702 | A | C4-C5-C6 | 6.68 | 120.34 | 117.00 |
| 1 | AA | 1213 | A | C4-C5-N7 | -6.68 | 107.36 | 110.70 |
| 22 | BA | 918 | A | N9-C4-C5 | 6.68 | 108.47 | 105.80 |
| 23 | BB | 73 | A | C4-C5-C6 | 6.68 | 120.34 | 117.00 |
| 1 | AA | 523 | A | C5-N7-C8 | 6.68 | 107.24 | 103.90 |
| 22 | BA | 1040 | A | N9-C4-C5 | 6.68 | 108.47 | 105.80 |
| 22 | BA | 1900 | A | C5-N7-C8 | 6.68 | 107.24 | 103.90 |
| 22 | BA | 2450 | A | C4-C5-C6 | 6.68 | 120.34 | 117.00 |
| 22 | BA | 861 | A | C5-N7-C8 | 6.68 | 107.24 | 103.90 |
| 22 | BA | 2114 | A | C5-N7-C8 | 6.68 | 107.24 | 103.90 |
| 1 | AA | 374 | A | C4-C5-C6 | 6.68 | 120.34 | 117.00 |
| 1 | AA | 629 | A | N9-C4-C5 | 6.68 | 108.47 | 105.80 |
| 1 | AA | 704 | A | C5-N7-C8 | 6.68 | 107.24 | 103.90 |
| 22 | BA | 1634 | A | C5-N7-C8 | 6.68 | 107.24 | 103.90 |
| 1 | AA | 174 | A | N9-C4-C5 | 6.68 | 108.47 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 16 | A | C4-C5-C6 | 6.68 | 120.34 | 117.00 |
| 1 | AA | 1188 | A | C4-C5-C6 | 6.68 | 120.34 | 117.00 |
| 22 | BA | 19 | A | C4-C5-C6 | 6.68 | 120.34 | 117.00 |
| 22 | BA | 430 | A | C5-N7-C8 | 6.68 | 107.24 | 103.90 |
| 22 | BA | 1419 | A | N9-C4-C5 | 6.68 | 108.47 | 105.80 |
| 22 | BA | 1801 | A | C4-C5-C6 | 6.68 | 120.34 | 117.00 |
| 1 | AA | 1280 | A | C5-N7-C8 | 6.67 | 107.24 | 103.90 |
| 1 | AA | 1456 | A | C4-C5-C6 | 6.67 | 120.34 | 117.00 |
| 22 | BA | 1522 | A | N9-C4-C5 | 6.67 | 108.47 | 105.80 |
| 22 | BA | 1591 | A | C4-C5-C6 | 6.67 | 120.34 | 117.00 |
| 22 | BA | 1858 | A | N9-C4-C5 | 6.67 | 108.47 | 105.80 |
| 22 | BA | 2142 | A | N3-C4-N9 | 6.67 | 132.74 | 127.40 |
| 1 | AA | 71 | A | N9-C4-C5 | 6.67 | 108.47 | 105.80 |
| 1 | AA | 468 | A | N9-C4-C5 | 6.67 | 108.47 | 105.80 |
| 22 | BA | 920 | A | C4-C5-C6 | 6.67 | 120.33 | 117.00 |
| 22 | BA | 2733 | A | C4-C5-C6 | 6.67 | 120.33 | 117.00 |
| 1 | AA | 635 | A | N9-C4-C5 | 6.67 | 108.47 | 105.80 |
| 22 | BA | 749 | A | C4-C5-C6 | 6.67 | 120.33 | 117.00 |
| 23 | BB | 108 | A | N9-C4-C5 | 6.67 | 108.47 | 105.80 |
| 1 | AA | 780 | A | N9-C4-C5 | 6.66 | 108.47 | 105.80 |
| 22 | BA | 1819 | A | C4-C5-N7 | -6.66 | 107.37 | 110.70 |
| 1 | AA | 468 | A | C4-C5-C6 | 6.66 | 120.33 | 117.00 |
| 22 | BA | 172 | A | C4-C5-C6 | 6.66 | 120.33 | 117.00 |
| 1 | AA | 1163 | A | N3-C4-N9 | 6.66 | 132.73 | 127.40 |
| 22 | BA | 2406 | A | N9-C4-C5 | 6.66 | 108.46 | 105.80 |
| 22 | BA | 2893 | A | C5-N7-C8 | 6.66 | 107.23 | 103.90 |
| 1 | AA | 1180 | A | C4-C5-C6 | 6.66 | 120.33 | 117.00 |
| 22 | BA | 453 | A | C4-C5-C6 | 6.66 | 120.33 | 117.00 |
| 22 | BA | 676 | A | C5-N7-C8 | 6.66 | 107.23 | 103.90 |
| 1 | AA | 609 | A | C4-C5-C6 | 6.66 | 120.33 | 117.00 |
| 22 | BA | 402 | A | N9-C4-C5 | 6.66 | 108.46 | 105.80 |
| 22 | BA | 2386 | A | C4-C5-C6 | 6.66 | 120.33 | 117.00 |
| 1 | AA | 1339 | A | C5-N7-C8 | 6.65 | 107.23 | 103.90 |
| 1 | AA | 1105 | A | N9-C4-C5 | 6.65 | 108.46 | 105.80 |
| 22 | BA | 632 | A | C5-N7-C8 | 6.65 | 107.23 | 103.90 |
| 22 | BA | 1477 | A | C5-N7-C8 | 6.65 | 107.23 | 103.90 |
| 22 | BA | 2358 | A | C4-C5-C6 | 6.65 | 120.33 | 117.00 |
| 22 | BA | 2765 | A | N3-C4-N9 | 6.65 | 132.72 | 127.40 |
| 1 | AA | 663 | A | C5-N7-C8 | 6.65 | 107.22 | 103.90 |
| 22 | BA | 505 | A | N9-C4-C5 | 6.65 | 108.46 | 105.80 |
| 22 | BA | 1505 | A | N9-C4-C5 | 6.65 | 108.46 | 105.80 |
| 22 | BA | 1805 | A | C4-C5-C6 | 6.65 | 120.33 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|------|-------------|----------|
| 1 | AA | 865 | A | C5-N7-C8 | 6.65 | 107.22 | 103.90 |
| 22 | BA | 1014 | A | C4-C5-C6 | 6.65 | 120.32 | 117.00 |
| 22 | BA | 1495 | A | C5-N7-C8 | 6.65 | 107.22 | 103.90 |
| 22 | BA | 2333 | A | C5-N7-C8 | 6.65 | 107.22 | 103.90 |
| 22 | BA | 1786 | A | N9-C4-C5 | 6.65 | 108.46 | 105.80 |
| 1 | AA | 532 | A | C5-N7-C8 | 6.64 | 107.22 | 103.90 |
| 1 | AA | 695 | A | N9-C4-C5 | 6.64 | 108.46 | 105.80 |
| 22 | BA | 1133 | A | N9-C4-C5 | 6.64 | 108.46 | 105.80 |
| 22 | BA | 1803 | A | N9-C4-C5 | 6.64 | 108.46 | 105.80 |
| 22 | BA | 2267 | A | C4-C5-C6 | 6.64 | 120.32 | 117.00 |
| 22 | BA | 2534 | A | N9-C4-C5 | 6.64 | 108.46 | 105.80 |
| 1 | AA | 460 | A | N9-C4-C5 | 6.64 | 108.46 | 105.80 |
| 22 | BA | 101 | A | C5-N7-C8 | 6.64 | 107.22 | 103.90 |
| 22 | BA | 522 | A | N9-C4-C5 | 6.64 | 108.46 | 105.80 |
| 1 | AA | 1005 | A | N9-C4-C5 | 6.64 | 108.46 | 105.80 |
| 1 | AA | 1042 | A | N9-C4-C5 | 6.64 | 108.46 | 105.80 |
| 22 | BA | 156 | A | C5-N7-C8 | 6.64 | 107.22 | 103.90 |
| 22 | BA | 689 | A | C4-C5-C6 | 6.64 | 120.32 | 117.00 |
| 22 | BA | 988 | A | N9-C4-C5 | 6.64 | 108.46 | 105.80 |
| 1 | AA | 321 | A | N9-C4-C5 | 6.64 | 108.46 | 105.80 |
| 1 | AA | 583 | A | C4-C5-C6 | 6.64 | 120.32 | 117.00 |
| 1 | AA | 602 | A | N9-C4-C5 | 6.64 | 108.45 | 105.80 |
| 22 | BA | 63 | A | C5-N7-C8 | 6.64 | 107.22 | 103.90 |
| 22 | BA | 2565 | A | C5-N7-C8 | 6.64 | 107.22 | 103.90 |
| 23 | BB | 58 | A | N9-C4-C5 | 6.64 | 108.45 | 105.80 |
| 54 | B7 | 9 | A | C5-N7-C8 | 6.64 | 107.22 | 103.90 |
| 1 | AA | 1000 | A | C4-C5-C6 | 6.64 | 120.32 | 117.00 |
| 22 | BA | 1598 | A | N9-C4-C5 | 6.64 | 108.45 | 105.80 |
| 1 | AA | 1225 | A | C4-C5-C6 | 6.64 | 120.32 | 117.00 |
| 22 | BA | 1608 | A | C5-N7-C8 | 6.63 | 107.22 | 103.90 |
| 22 | BA | 1616 | A | N9-C4-C5 | 6.63 | 108.45 | 105.80 |
| 22 | BA | 2432 | A | C5-N7-C8 | 6.63 | 107.22 | 103.90 |
| 22 | BA | 781 | A | C4-C5-C6 | 6.63 | 120.32 | 117.00 |
| 1 | AA | 298 | A | C4-C5-C6 | 6.63 | 120.31 | 117.00 |
| 1 | AA | 937 | A | N9-C4-C5 | 6.63 | 108.45 | 105.80 |
| 1 | AA | 1157 | A | N9-C4-C5 | 6.63 | 108.45 | 105.80 |
| 22 | BA | 670 | A | C5-N7-C8 | 6.63 | 107.22 | 103.90 |
| 22 | BA | 1403 | A | C4-C5-C6 | 6.63 | 120.32 | 117.00 |
| 1 | AA | 382 | A | N9-C4-C5 | 6.63 | 108.45 | 105.80 |
| 22 | BA | 155 | A | C5-N7-C8 | 6.63 | 107.22 | 103.90 |
| 22 | BA | 345 | A | C4-C5-C6 | 6.63 | 120.31 | 117.00 |
| 22 | BA | 1916 | A | N9-C4-C5 | 6.63 | 108.45 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|------|-------------|----------|
| 1 | AA | 59 | A | N9-C4-C5 | 6.63 | 108.45 | 105.80 |
| 1 | AA | 1430 | A | C5-N7-C8 | 6.63 | 107.21 | 103.90 |
| 22 | BA | 794 | A | C5-C6-N1 | 6.63 | 121.01 | 117.70 |
| 22 | BA | 2247 | A | N9-C4-C5 | 6.63 | 108.45 | 105.80 |
| 1 | AA | 1507 | A | N9-C4-C5 | 6.62 | 108.45 | 105.80 |
| 22 | BA | 1580 | A | N9-C4-C5 | 6.62 | 108.45 | 105.80 |
| 1 | AA | 1349 | A | C5-N7-C8 | 6.62 | 107.21 | 103.90 |
| 22 | BA | 504 | A | C8-N9-C4 | 6.62 | 108.45 | 105.80 |
| 22 | BA | 972 | A | C5-N7-C8 | 6.62 | 107.21 | 103.90 |
| 1 | AA | 553 | A | C4-C5-C6 | 6.62 | 120.31 | 117.00 |
| 1 | AA | 716 | A | C4-C5-C6 | 6.62 | 120.31 | 117.00 |
| 1 | AA | 1531 | A | N9-C4-C5 | 6.62 | 108.45 | 105.80 |
| 1 | AA | 1036 | A | C4-C5-C6 | 6.62 | 120.31 | 117.00 |
| 1 | AA | 1117 | A | N9-C4-C5 | 6.62 | 108.45 | 105.80 |
| 22 | BA | 1067 | A | N9-C4-C5 | 6.62 | 108.45 | 105.80 |
| 22 | BA | 1226 | A | C5-N7-C8 | 6.62 | 107.21 | 103.90 |
| 22 | BA | 2734 | A | N9-C4-C5 | 6.62 | 108.45 | 105.80 |
| 22 | BA | 2886 | A | C4-C5-C6 | 6.62 | 120.31 | 117.00 |
| 22 | BA | 676 | A | C4-C5-C6 | 6.62 | 120.31 | 117.00 |
| 22 | BA | 1275 | A | N9-C4-C5 | 6.62 | 108.45 | 105.80 |
| 22 | BA | 1890 | A | C4-C5-C6 | 6.61 | 120.31 | 117.00 |
| 22 | BA | 2823 | A | C4-C5-C6 | 6.61 | 120.31 | 117.00 |
| 22 | BA | 743 | A | C4-C5-C6 | 6.61 | 120.31 | 117.00 |
| 55 | B8 | 76 | A | C8-N9-C4 | 6.61 | 108.44 | 105.80 |
| 1 | AA | 199 | A | N9-C4-C5 | 6.61 | 108.44 | 105.80 |
| 1 | AA | 1248 | A | C4-C5-C6 | 6.61 | 120.30 | 117.00 |
| 22 | BA | 1086 | A | N9-C4-C5 | 6.61 | 108.44 | 105.80 |
| 22 | BA | 1528 | A | N3-C4-N9 | 6.61 | 132.69 | 127.40 |
| 1 | AA | 26 | A | N9-C4-C5 | 6.61 | 108.44 | 105.80 |
| 1 | AA | 262 | A | N9-C4-C5 | 6.61 | 108.44 | 105.80 |
| 1 | AA | 747 | A | N9-C4-C5 | 6.61 | 108.44 | 105.80 |
| 22 | BA | 1535 | A | C5-N7-C8 | 6.61 | 107.20 | 103.90 |
| 22 | BA | 2336 | A | C5-N7-C8 | 6.61 | 107.20 | 103.90 |
| 1 | AA | 687 | A | C4-C5-C6 | 6.61 | 120.30 | 117.00 |
| 1 | AA | 728 | A | C4-C5-C6 | 6.61 | 120.30 | 117.00 |
| 1 | AA | 1507 | A | C5-N7-C8 | 6.61 | 107.20 | 103.90 |
| 22 | BA | 362 | A | C5-N7-C8 | 6.61 | 107.20 | 103.90 |
| 22 | BA | 6 | A | C4-C5-C6 | 6.60 | 120.30 | 117.00 |
| 22 | BA | 1912 | A | N9-C4-C5 | 6.60 | 108.44 | 105.80 |
| 1 | AA | 81 | A | C4-C5-C6 | 6.60 | 120.30 | 117.00 |
| 1 | AA | 574 | A | C5-N7-C8 | 6.60 | 107.20 | 103.90 |
| 1 | AA | 1275 | A | C4-C5-C6 | 6.60 | 120.30 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 429 | A | N9-C4-C5 | 6.60 | 108.44 | 105.80 |
| 22 | BA | 927 | A | N9-C4-C5 | 6.60 | 108.44 | 105.80 |
| 22 | BA | 1805 | A | N9-C4-C5 | 6.60 | 108.44 | 105.80 |
| 1 | AA | 1288 | A | C5-N7-C8 | 6.60 | 107.20 | 103.90 |
| 22 | BA | 1596 | A | N9-C4-C5 | 6.60 | 108.44 | 105.80 |
| 1 | AA | 10 | A | N9-C4-C5 | 6.60 | 108.44 | 105.80 |
| 1 | AA | 630 | A | C4-C5-C6 | 6.60 | 120.30 | 117.00 |
| 22 | BA | 1090 | A | N9-C4-C5 | 6.60 | 108.44 | 105.80 |
| 22 | BA | 1387 | A | C5-N7-C8 | 6.60 | 107.20 | 103.90 |
| 22 | BA | 2015 | A | C4-C5-C6 | 6.60 | 120.30 | 117.00 |
| 22 | BA | 2893 | A | C4-C5-C6 | 6.60 | 120.30 | 117.00 |
| 1 | AA | 143 | A | C4-C5-C6 | 6.60 | 120.30 | 117.00 |
| 22 | BA | 1246 | A | C4-C5-N7 | -6.60 | 107.40 | 110.70 |
| 22 | BA | 2088 | A | C5-N7-C8 | 6.60 | 107.20 | 103.90 |
| 22 | BA | 447 | A | C4-C5-C6 | 6.60 | 120.30 | 117.00 |
| 22 | BA | 944 | C | C5-C4-N4 | 6.60 | 124.82 | 120.20 |
| 55 | B8 | 41 | A | C8-N9-C4 | 6.60 | 108.44 | 105.80 |
| 1 | AA | 161 | A | N9-C4-C5 | 6.59 | 108.44 | 105.80 |
| 22 | BA | 14 | A | C5-N7-C8 | 6.59 | 107.20 | 103.90 |
| 22 | BA | 1308 | A | C4-C5-N7 | -6.59 | 107.40 | 110.70 |
| 22 | BA | 1783 | A | C5-N7-C8 | 6.59 | 107.20 | 103.90 |
| 22 | BA | 1877 | A | C4-C5-C6 | 6.59 | 120.30 | 117.00 |
| 1 | AA | 1 | A | C5-N7-C8 | 6.59 | 107.20 | 103.90 |
| 1 | AA | 306 | A | N9-C4-C5 | 6.59 | 108.44 | 105.80 |
| 1 | AA | 1176 | A | C5-N7-C8 | 6.59 | 107.20 | 103.90 |
| 22 | BA | 197 | A | C5-N7-C8 | 6.59 | 107.20 | 103.90 |
| 22 | BA | 272 | A | C4-C5-C6 | 6.59 | 120.30 | 117.00 |
| 1 | AA | 914 | A | C4-C5-C6 | 6.59 | 120.30 | 117.00 |
| 22 | BA | 1367 | A | C4-C5-C6 | 6.59 | 120.30 | 117.00 |
| 22 | BA | 1690 | A | C5-N7-C8 | 6.59 | 107.19 | 103.90 |
| 22 | BA | 1746 | A | C4-C5-C6 | 6.59 | 120.30 | 117.00 |
| 1 | AA | 478 | A | C4-C5-C6 | 6.59 | 120.30 | 117.00 |
| 22 | BA | 49 | A | C4-C5-C6 | 6.59 | 120.30 | 117.00 |
| 22 | BA | 1366 | A | C4-C5-C6 | 6.59 | 120.30 | 117.00 |
| 22 | BA | 1586 | A | C4-C5-C6 | 6.59 | 120.29 | 117.00 |
| 22 | BA | 2005 | A | N9-C4-C5 | 6.59 | 108.44 | 105.80 |
| 22 | BA | 532 | A | N9-C4-C5 | 6.59 | 108.44 | 105.80 |
| 22 | BA | 1640 | A | C5-C6-N1 | 6.59 | 120.99 | 117.70 |
| 22 | BA | 181 | A | N9-C4-C5 | 6.59 | 108.43 | 105.80 |
| 1 | AA | 909 | A | C5-N7-C8 | 6.58 | 107.19 | 103.90 |
| 1 | AA | 994 | A | N9-C4-C5 | 6.58 | 108.43 | 105.80 |
| 1 | AA | 80 | A | N9-C4-C5 | 6.58 | 108.43 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 250 | A | C5-N7-C8 | 6.58 | 107.19 | 103.90 |
| 1 | AA | 864 | A | C5-N7-C8 | 6.58 | 107.19 | 103.90 |
| 1 | AA | 1318 | A | C5-N7-C8 | 6.58 | 107.19 | 103.90 |
| 1 | AA | 635 | A | C4-C5-C6 | 6.58 | 120.29 | 117.00 |
| 1 | AA | 938 | A | N3-C4-N9 | 6.58 | 132.66 | 127.40 |
| 1 | AA | 759 | A | N9-C4-C5 | 6.58 | 108.43 | 105.80 |
| 22 | BA | 844 | A | C4-C5-C6 | 6.58 | 120.29 | 117.00 |
| 22 | BA | 1265 | A | C4-C5-C6 | 6.58 | 120.29 | 117.00 |
| 1 | AA | 968 | A | N9-C4-C5 | 6.58 | 108.43 | 105.80 |
| 22 | BA | 878 | A | N9-C4-C5 | 6.58 | 108.43 | 105.80 |
| 22 | BA | 2278 | A | C4-C5-C6 | 6.58 | 120.29 | 117.00 |
| 22 | BA | 1342 | A | N9-C4-C5 | 6.58 | 108.43 | 105.80 |
| 22 | BA | 1579 | A | C4-C5-C6 | 6.58 | 120.29 | 117.00 |
| 1 | AA | 608 | A | C4-C5-C6 | 6.57 | 120.29 | 117.00 |
| 1 | AA | 1285 | A | N9-C4-C5 | 6.57 | 108.43 | 105.80 |
| 22 | BA | 1070 | A | N9-C4-C5 | 6.57 | 108.43 | 105.80 |
| 22 | BA | 1953 | A | N9-C4-C5 | 6.57 | 108.43 | 105.80 |
| 22 | BA | 2169 | A | C4-C5-C6 | 6.57 | 120.29 | 117.00 |
| 1 | AA | 1502 | A | N9-C4-C5 | 6.57 | 108.43 | 105.80 |
| 22 | BA | 510 | C | C6-N1-C2 | -6.57 | 117.67 | 120.30 |
| 22 | BA | 1328 | A | C4-C5-C6 | 6.57 | 120.28 | 117.00 |
| 22 | BA | 2868 | A | C4-C5-C6 | 6.57 | 120.28 | 117.00 |
| 1 | AA | 600 | A | N9-C4-C5 | 6.57 | 108.43 | 105.80 |
| 1 | AA | 1082 | A | C4-C5-C6 | 6.57 | 120.28 | 117.00 |
| 1 | AA | 389 | A | N9-C4-C5 | 6.57 | 108.43 | 105.80 |
| 22 | BA | 644 | A | N9-C4-C5 | 6.57 | 108.43 | 105.80 |
| 22 | BA | 1640 | A | C5-N7-C8 | 6.56 | 107.18 | 103.90 |
| 22 | BA | 2433 | A | C4-C5-C6 | 6.56 | 120.28 | 117.00 |
| 1 | AA | 640 | A | C4-C5-C6 | 6.56 | 120.28 | 117.00 |
| 1 | AA | 1534 | A | C4-C5-C6 | 6.56 | 120.28 | 117.00 |
| 22 | BA | 89 | A | N9-C4-C5 | 6.56 | 108.42 | 105.80 |
| 22 | BA | 1050 | A | C4-C5-C6 | 6.56 | 120.28 | 117.00 |
| 1 | AA | 1274 | A | C5-N7-C8 | 6.56 | 107.18 | 103.90 |
| 22 | BA | 819 | A | N3-C4-N9 | 6.56 | 132.65 | 127.40 |
| 22 | BA | 1301 | A | C4-C5-C6 | 6.56 | 120.28 | 117.00 |
| 1 | AA | 1216 | A | C4-C5-C6 | 6.56 | 120.28 | 117.00 |
| 22 | BA | 1175 | A | C5-N7-C8 | 6.56 | 107.18 | 103.90 |
| 22 | BA | 1433 | A | C5-N7-C8 | 6.56 | 107.18 | 103.90 |
| 22 | BA | 1502 | A | C4-C5-C6 | 6.56 | 120.28 | 117.00 |
| 22 | BA | 2117 | A | N9-C4-C5 | 6.56 | 108.42 | 105.80 |
| 1 | AA | 397 | A | C5-N7-C8 | 6.56 | 107.18 | 103.90 |
| 1 | AA | 759 | A | C4-C5-C6 | 6.56 | 120.28 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1155 | A | N9-C4-C5 | 6.56 | 108.42 | 105.80 |
| 22 | BA | 6 | A | C5-N7-C8 | 6.56 | 107.18 | 103.90 |
| 22 | BA | 347 | A | C4-C5-C6 | 6.56 | 120.28 | 117.00 |
| 22 | BA | 2059 | A | N9-C4-C5 | 6.56 | 108.42 | 105.80 |
| 22 | BA | 1871 | A | C4-C5-C6 | 6.56 | 120.28 | 117.00 |
| 1 | AA | 1067 | A | N9-C4-C5 | 6.55 | 108.42 | 105.80 |
| 22 | BA | 1549 | A | C4-C5-C6 | 6.55 | 120.28 | 117.00 |
| 22 | BA | 2778 | A | N9-C4-C5 | 6.55 | 108.42 | 105.80 |
| 1 | AA | 600 | A | C5-N7-C8 | 6.55 | 107.18 | 103.90 |
| 1 | AA | 1324 | A | N9-C4-C5 | 6.55 | 108.42 | 105.80 |
| 22 | BA | 845 | A | C5-N7-C8 | 6.55 | 107.18 | 103.90 |
| 1 | AA | 139 | A | N9-C4-C5 | 6.55 | 108.42 | 105.80 |
| 1 | AA | 435 | A | C4-C5-C6 | 6.55 | 120.28 | 117.00 |
| 22 | BA | 218 | A | C5-N7-C8 | 6.55 | 107.18 | 103.90 |
| 22 | BA | 2660 | A | C4-C5-C6 | 6.55 | 120.28 | 117.00 |
| 55 | B8 | 59 | A | N3-C4-N9 | 6.55 | 132.64 | 127.40 |
| 22 | BA | 730 | A | N3-C4-N9 | 6.55 | 132.64 | 127.40 |
| 22 | BA | 2418 | A | C4-C5-C6 | 6.55 | 120.28 | 117.00 |
| 23 | BB | 15 | A | N9-C4-C5 | 6.55 | 108.42 | 105.80 |
| 55 | B8 | 66 | A | N3-C4-N9 | 6.55 | 132.64 | 127.40 |
| 1 | AA | 288 | A | C4-C5-C6 | 6.55 | 120.27 | 117.00 |
| 1 | AA | 665 | A | C5-N7-C8 | 6.55 | 107.17 | 103.90 |
| 1 | AA | 49 | U | C5-C4-O4 | 6.55 | 129.83 | 125.90 |
| 1 | AA | 51 | A | C4-C5-C6 | 6.55 | 120.27 | 117.00 |
| 1 | AA | 640 | A | N9-C4-C5 | 6.55 | 108.42 | 105.80 |
| 1 | AA | 1219 | A | C5-N7-C8 | 6.55 | 107.17 | 103.90 |
| 22 | BA | 1871 | A | C5-N7-C8 | 6.55 | 107.17 | 103.90 |
| 22 | BA | 2108 | A | N9-C4-C5 | 6.55 | 108.42 | 105.80 |
| 22 | BA | 2328 | A | C5-N7-C8 | 6.54 | 107.17 | 103.90 |
| 1 | AA | 1110 | A | C4-C5-C6 | 6.54 | 120.27 | 117.00 |
| 22 | BA | 1244 | A | C4-C5-C6 | 6.54 | 120.27 | 117.00 |
| 22 | BA | 2476 | A | C4-C5-C6 | 6.54 | 120.27 | 117.00 |
| 22 | BA | 2883 | A | C4-C5-N7 | -6.54 | 107.43 | 110.70 |
| 1 | AA | 681 | A | C4-C5-C6 | 6.54 | 120.27 | 117.00 |
| 22 | BA | 1040 | A | C4-C5-C6 | 6.54 | 120.27 | 117.00 |
| 22 | BA | 1676 | A | C4-C5-C6 | 6.54 | 120.27 | 117.00 |
| 22 | BA | 715 | A | C4-C5-C6 | 6.54 | 120.27 | 117.00 |
| 22 | BA | 28 | A | C5-N7-C8 | 6.54 | 107.17 | 103.90 |
| 22 | BA | 56 | A | C4-C5-C6 | 6.54 | 120.27 | 117.00 |
| 22 | BA | 244 | A | C4-C5-C6 | 6.54 | 120.27 | 117.00 |
| 22 | BA | 616 | A | C5-N7-C8 | 6.54 | 107.17 | 103.90 |
| 22 | BA | 739 | A | N9-C4-C5 | 6.54 | 108.42 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 1735 | A | C4-C5-C6 | 6.54 | 120.27 | 117.00 |
| 1 | AA | 687 | A | N9-C4-C5 | 6.54 | 108.41 | 105.80 |
| 1 | AA | 1169 | A | C4-C5-C6 | 6.54 | 120.27 | 117.00 |
| 22 | BA | 1354 | A | C5-N7-C8 | 6.54 | 107.17 | 103.90 |
| 22 | BA | 480 | A | C5-N7-C8 | 6.53 | 107.17 | 103.90 |
| 22 | BA | 1669 | A | C5-N7-C8 | 6.53 | 107.17 | 103.90 |
| 22 | BA | 483 | A | N9-C4-C5 | 6.53 | 108.41 | 105.80 |
| 22 | BA | 2821 | A | C4-C5-C6 | 6.53 | 120.27 | 117.00 |
| 22 | BA | 483 | A | C4-C5-C6 | 6.53 | 120.27 | 117.00 |
| 55 | B8 | 69 | A | C8-N9-C4 | 6.53 | 108.41 | 105.80 |
| 22 | BA | 1008 | A | N9-C4-C5 | 6.53 | 108.41 | 105.80 |
| 55 | B8 | 59 | A | C8-N9-C4 | 6.53 | 108.41 | 105.80 |
| 1 | AA | 532 | A | C4-C5-C6 | 6.53 | 120.26 | 117.00 |
| 1 | AA | 935 | A | C4-C5-C6 | 6.53 | 120.26 | 117.00 |
| 1 | AA | 949 | A | C4-C5-C6 | 6.53 | 120.26 | 117.00 |
| 22 | BA | 990 | A | C4-C5-C6 | 6.53 | 120.26 | 117.00 |
| 22 | BA | 2184 | A | N9-C4-C5 | 6.53 | 108.41 | 105.80 |
| 22 | BA | 10 | A | C5-N7-C8 | 6.53 | 107.16 | 103.90 |
| 22 | BA | 1133 | A | C4-C5-C6 | 6.53 | 120.26 | 117.00 |
| 1 | AA | 298 | A | N9-C4-C5 | 6.52 | 108.41 | 105.80 |
| 22 | BA | 900 | A | N9-C4-C5 | 6.52 | 108.41 | 105.80 |
| 22 | BA | 2184 | A | C4-C5-C6 | 6.52 | 120.26 | 117.00 |
| 22 | BA | 2297 | A | N9-C4-C5 | 6.52 | 108.41 | 105.80 |
| 22 | BA | 477 | A | C5-N7-C8 | 6.52 | 107.16 | 103.90 |
| 22 | BA | 1230 | A | N9-C4-C5 | 6.52 | 108.41 | 105.80 |
| 22 | BA | 2765 | A | C5-N7-C8 | 6.52 | 107.16 | 103.90 |
| 22 | BA | 28 | A | N9-C4-C5 | 6.52 | 108.41 | 105.80 |
| 22 | BA | 1969 | A | C4-C5-C6 | 6.52 | 120.26 | 117.00 |
| 22 | BA | 2288 | A | N9-C4-C5 | 6.52 | 108.41 | 105.80 |
| 1 | AA | 130 | A | N9-C4-C5 | 6.51 | 108.41 | 105.80 |
| 1 | AA | 253 | A | C5-C6-N1 | 6.51 | 120.96 | 117.70 |
| 22 | BA | 1494 | A | N9-C4-C5 | 6.51 | 108.41 | 105.80 |
| 22 | BA | 1593 | A | N9-C4-C5 | 6.51 | 108.41 | 105.80 |
| 22 | BA | 1634 | A | C4-C5-C6 | 6.51 | 120.26 | 117.00 |
| 22 | BA | 1918 | A | N9-C4-C5 | 6.51 | 108.41 | 105.80 |
| 1 | AA | 1254 | A | N9-C4-C5 | 6.51 | 108.41 | 105.80 |
| 1 | AA | 1274 | A | C4-C5-C6 | 6.51 | 120.26 | 117.00 |
| 22 | BA | 983 | A | C5-N7-C8 | 6.51 | 107.16 | 103.90 |
| 14 | AN | 46 | LEU | CB-CG-CD1 | -6.51 | 99.93 | 111.00 |
| 22 | BA | 1608 | A | N9-C4-C5 | 6.51 | 108.40 | 105.80 |
| 22 | BA | 1609 | A | C4-C5-C6 | 6.51 | 120.25 | 117.00 |
| 22 | BA | 167 | A | N9-C4-C5 | 6.51 | 108.40 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 756 | A | N9-C4-C5 | 6.51 | 108.40 | 105.80 |
| 22 | BA | 1284 | A | C5-N7-C8 | 6.51 | 107.15 | 103.90 |
| 22 | BA | 1508 | A | C4-C5-C6 | 6.50 | 120.25 | 117.00 |
| 22 | BA | 320 | A | N9-C4-C5 | 6.50 | 108.40 | 105.80 |
| 22 | BA | 1085 | A | N9-C4-C5 | 6.50 | 108.40 | 105.80 |
| 22 | BA | 1509 | A | C4-C5-C6 | 6.50 | 120.25 | 117.00 |
| 1 | AA | 746 | A | C5-N7-C8 | 6.50 | 107.15 | 103.90 |
| 1 | AA | 816 | A | C4-C5-C6 | 6.50 | 120.25 | 117.00 |
| 22 | BA | 1928 | A | C5-N7-C8 | 6.50 | 107.15 | 103.90 |
| 22 | BA | 2654 | A | N9-C4-C5 | 6.50 | 108.40 | 105.80 |
| 22 | BA | 693 | A | N3-C4-N9 | 6.50 | 132.60 | 127.40 |
| 22 | BA | 866 | A | N9-C4-C5 | 6.50 | 108.40 | 105.80 |
| 22 | BA | 2095 | A | C4-C5-N7 | -6.50 | 107.45 | 110.70 |
| 22 | BA | 1525 | A | N9-C4-C5 | 6.50 | 108.40 | 105.80 |
| 1 | AA | 196 | A | C5-N7-C8 | 6.50 | 107.15 | 103.90 |
| 1 | AA | 493 | A | N9-C4-C5 | 6.50 | 108.40 | 105.80 |
| 22 | BA | 654 | A | C4-C5-C6 | 6.50 | 120.25 | 117.00 |
| 1 | AA | 8 | A | N9-C4-C5 | 6.50 | 108.40 | 105.80 |
| 22 | BA | 382 | A | C4-C5-C6 | 6.50 | 120.25 | 117.00 |
| 22 | BA | 466 | A | C4-C5-C6 | 6.50 | 120.25 | 117.00 |
| 22 | BA | 1502 | A | N9-C4-C5 | 6.50 | 108.40 | 105.80 |
| 22 | BA | 1698 | A | N9-C4-C5 | 6.50 | 108.40 | 105.80 |
| 22 | BA | 2176 | A | N9-C4-C5 | 6.49 | 108.40 | 105.80 |
| 1 | AA | 1446 | A | C4-C5-C6 | 6.49 | 120.25 | 117.00 |
| 1 | AA | 1229 | A | N9-C4-C5 | 6.49 | 108.40 | 105.80 |
| 1 | AA | 1433 | A | C4-C5-C6 | 6.49 | 120.25 | 117.00 |
| 22 | BA | 142 | A | N9-C4-C5 | 6.49 | 108.40 | 105.80 |
| 22 | BA | 788 | A | C4-C5-C6 | 6.49 | 120.25 | 117.00 |
| 1 | AA | 98 | A | C4-C5-C6 | 6.49 | 120.24 | 117.00 |
| 1 | AA | 1111 | A | C4-C5-C6 | 6.49 | 120.25 | 117.00 |
| 22 | BA | 1069 | A | N9-C4-C5 | 6.49 | 108.39 | 105.80 |
| 22 | BA | 1095 | A | N9-C4-C5 | 6.49 | 108.39 | 105.80 |
| 22 | BA | 1126 | A | C4-C5-C6 | 6.49 | 120.24 | 117.00 |
| 22 | BA | 936 | A | C4-C5-C6 | 6.49 | 120.24 | 117.00 |
| 22 | BA | 1237 | A | C5-N7-C8 | 6.49 | 107.14 | 103.90 |
| 22 | BA | 1590 | A | C4-C5-C6 | 6.49 | 120.24 | 117.00 |
| 22 | BA | 2426 | A | N9-C4-C5 | 6.49 | 108.39 | 105.80 |
| 22 | BA | 2614 | A | C5-C6-N1 | 6.49 | 120.94 | 117.70 |
| 22 | BA | 262 | A | N9-C4-C5 | 6.48 | 108.39 | 105.80 |
| 22 | BA | 2114 | A | N3-C4-N9 | 6.48 | 132.59 | 127.40 |
| 22 | BA | 2309 | A | C4-C5-C6 | 6.48 | 120.24 | 117.00 |
| 1 | AA | 205 | A | N9-C4-C5 | 6.48 | 108.39 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1 | AA | 747 | A | C5-N7-C8 | 6.48 | 107.14 | 103.90 |
| 1 | AA | 1227 | A | C4-C5-C6 | 6.48 | 120.24 | 117.00 |
| 1 | AA | 695 | A | C5-N7-C8 | 6.48 | 107.14 | 103.90 |
| 22 | BA | 155 | A | N9-C4-C5 | 6.48 | 108.39 | 105.80 |
| 22 | BA | 547 | A | N9-C4-C5 | 6.48 | 108.39 | 105.80 |
| 1 | AA | 448 | A | N9-C4-C5 | 6.48 | 108.39 | 105.80 |
| 22 | BA | 1899 | A | C5-N7-C8 | 6.48 | 107.14 | 103.90 |
| 22 | BA | 2887 | A | N9-C4-C5 | 6.48 | 108.39 | 105.80 |
| 22 | BA | 219 | A | C4-C5-C6 | 6.47 | 120.24 | 117.00 |
| 22 | BA | 574 | A | C4-C5-C6 | 6.47 | 120.24 | 117.00 |
| 22 | BA | 575 | A | C4-C5-C6 | 6.47 | 120.24 | 117.00 |
| 1 | AA | 78 | A | C5-N7-C8 | 6.47 | 107.14 | 103.90 |
| 1 | AA | 236 | A | C5-N7-C8 | 6.47 | 107.14 | 103.90 |
| 22 | BA | 626 | A | N9-C4-C5 | 6.47 | 108.39 | 105.80 |
| 1 | AA | 908 | A | C4-C5-C6 | 6.47 | 120.23 | 117.00 |
| 22 | BA | 1854 | A | N3-C4-N9 | 6.47 | 132.58 | 127.40 |
| 1 | AA | 1080 | A | C5-N7-C8 | 6.47 | 107.14 | 103.90 |
| 1 | AA | 1170 | A | N3-C4-N9 | 6.47 | 132.58 | 127.40 |
| 22 | BA | 2765 | A | C4-C5-C6 | 6.47 | 120.23 | 117.00 |
| 1 | AA | 1447 | A | C8-N9-C4 | 6.47 | 108.39 | 105.80 |
| 22 | BA | 2461 | A | N3-C4-N9 | 6.47 | 132.57 | 127.40 |
| 55 | B8 | 26 | A | C8-N9-C4 | 6.47 | 108.39 | 105.80 |
| 1 | AA | 1132 | C | C2-N1-C1' | 6.47 | 125.91 | 118.80 |
| 22 | BA | 6 | A | N9-C4-C5 | 6.47 | 108.39 | 105.80 |
| 22 | BA | 478 | A | C4-C5-C6 | 6.47 | 120.23 | 117.00 |
| 22 | BA | 1553 | A | N3-C4-N9 | 6.47 | 132.57 | 127.40 |
| 22 | BA | 2287 | A | N3-C4-N9 | 6.47 | 132.57 | 127.40 |
| 22 | BA | 661 | A | N9-C4-C5 | 6.46 | 108.39 | 105.80 |
| 22 | BA | 2792 | A | C4-C5-C6 | 6.46 | 120.23 | 117.00 |
| 1 | AA | 461 | A | C5-C6-N1 | 6.46 | 120.93 | 117.70 |
| 1 | AA | 968 | A | C4-C5-C6 | 6.46 | 120.23 | 117.00 |
| 1 | AA | 181 | A | C5-N7-C8 | 6.46 | 107.13 | 103.90 |
| 1 | AA | 1163 | A | C5-C6-N1 | 6.46 | 120.93 | 117.70 |
| 22 | BA | 152 | A | C5-N7-C8 | 6.46 | 107.13 | 103.90 |
| 22 | BA | 804 | A | C4-C5-N7 | -6.46 | 107.47 | 110.70 |
| 22 | BA | 1744 | A | C4-C5-C6 | 6.46 | 120.23 | 117.00 |
| 22 | BA | 2705 | A | N9-C4-C5 | 6.46 | 108.39 | 105.80 |
| 22 | BA | 1433 | A | N9-C4-C5 | 6.46 | 108.38 | 105.80 |
| 22 | BA | 2287 | A | C4-C5-C6 | 6.46 | 120.23 | 117.00 |
| 22 | BA | 2757 | A | N3-C4-N9 | 6.46 | 132.57 | 127.40 |
| 1 | AA | 397 | A | C5-C6-N1 | 6.46 | 120.93 | 117.70 |
| 1 | AA | 459 | A | N7-C8-N9 | -6.46 | 110.57 | 113.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1299 | A | C4-C5-C6 | 6.46 | 120.23 | 117.00 |
| 23 | BB | 66 | A | C5-N7-C8 | 6.46 | 107.13 | 103.90 |
| 1 | AA | 716 | A | C5-N7-C8 | 6.46 | 107.13 | 103.90 |
| 1 | AA | 1171 | A | N3-C4-N9 | 6.46 | 132.56 | 127.40 |
| 1 | AA | 1319 | A | N3-C4-C5 | -6.46 | 122.28 | 126.80 |
| 1 | AA | 1476 | A | C4-C5-C6 | 6.46 | 120.23 | 117.00 |
| 22 | BA | 2163 | A | C4-C5-C6 | 6.46 | 120.23 | 117.00 |
| 1 | AA | 909 | A | N9-C4-C5 | 6.46 | 108.38 | 105.80 |
| 1 | AA | 1146 | A | C4-C5-C6 | 6.46 | 120.23 | 117.00 |
| 22 | BA | 430 | A | C4-C5-C6 | 6.46 | 120.23 | 117.00 |
| 22 | BA | 1496 | A | N9-C4-C5 | 6.46 | 108.38 | 105.80 |
| 1 | AA | 715 | A | C5-N7-C8 | 6.45 | 107.13 | 103.90 |
| 22 | BA | 2435 | A | C4-C5-C6 | 6.45 | 120.23 | 117.00 |
| 22 | BA | 2378 | A | N9-C4-C5 | 6.45 | 108.38 | 105.80 |
| 1 | AA | 315 | A | N9-C4-C5 | 6.45 | 108.38 | 105.80 |
| 3 | AC | 85 | GLU | CA-CB-CG | 6.45 | 127.59 | 113.40 |
| 22 | BA | 195 | A | N7-C8-N9 | -6.45 | 110.57 | 113.80 |
| 1 | AA | 648 | A | N9-C4-C5 | 6.45 | 108.38 | 105.80 |
| 1 | AA | 845 | A | N9-C4-C5 | 6.45 | 108.38 | 105.80 |
| 22 | BA | 278 | A | N3-C4-N9 | 6.45 | 132.56 | 127.40 |
| 22 | BA | 2147 | A | C5-N7-C8 | 6.45 | 107.12 | 103.90 |
| 22 | BA | 2639 | A | N9-C4-C5 | 6.45 | 108.38 | 105.80 |
| 1 | AA | 958 | A | C4-C5-N7 | -6.45 | 107.48 | 110.70 |
| 22 | BA | 1089 | A | N9-C4-C5 | 6.45 | 108.38 | 105.80 |
| 22 | BA | 1169 | A | C4-C5-C6 | 6.45 | 120.22 | 117.00 |
| 22 | BA | 1490 | A | C4-C5-C6 | 6.45 | 120.22 | 117.00 |
| 22 | BA | 52 | A | N3-C4-N9 | 6.44 | 132.56 | 127.40 |
| 1 | AA | 1176 | A | N9-C4-C5 | 6.44 | 108.38 | 105.80 |
| 22 | BA | 219 | A | N9-C4-C5 | 6.44 | 108.38 | 105.80 |
| 22 | BA | 272 | A | N9-C4-C5 | 6.44 | 108.38 | 105.80 |
| 22 | BA | 2369 | A | C4-C5-C6 | 6.44 | 120.22 | 117.00 |
| 22 | BA | 2820 | A | C5-N7-C8 | 6.44 | 107.12 | 103.90 |
| 1 | AA | 51 | A | N9-C4-C5 | 6.44 | 108.38 | 105.80 |
| 22 | BA | 1877 | A | N9-C4-C5 | 6.44 | 108.38 | 105.80 |
| 1 | AA | 329 | A | C5-N7-C8 | 6.44 | 107.12 | 103.90 |
| 22 | BA | 941 | A | C4-C5-C6 | 6.44 | 120.22 | 117.00 |
| 22 | BA | 730 | A | C5-N7-C8 | 6.44 | 107.12 | 103.90 |
| 22 | BA | 2592 | G | N3-C4-N9 | 6.44 | 129.86 | 126.00 |
| 55 | B8 | 66 | A | C4-C5-C6 | 6.44 | 120.22 | 117.00 |
| 1 | AA | 510 | A | N9-C4-C5 | 6.43 | 108.37 | 105.80 |
| 1 | AA | 706 | A | N9-C4-C5 | 6.43 | 108.37 | 105.80 |
| 1 | AA | 807 | A | N9-C4-C5 | 6.43 | 108.37 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 231 | A | C4-C5-C6 | 6.43 | 120.22 | 117.00 |
| 22 | BA | 1652 | A | C4-C5-C6 | 6.43 | 120.22 | 117.00 |
| 1 | AA | 715 | A | C4-C5-C6 | 6.43 | 120.22 | 117.00 |
| 22 | BA | 739 | A | C5-N7-C8 | 6.43 | 107.12 | 103.90 |
| 1 | AA | 663 | A | C4-C5-C6 | 6.43 | 120.22 | 117.00 |
| 1 | AA | 702 | A | C5-N7-C8 | 6.43 | 107.11 | 103.90 |
| 22 | BA | 1143 | A | C5-N7-C8 | 6.43 | 107.11 | 103.90 |
| 22 | BA | 2734 | A | C4-C5-C6 | 6.43 | 120.22 | 117.00 |
| 1 | AA | 728 | A | N9-C4-C5 | 6.43 | 108.37 | 105.80 |
| 22 | BA | 415 | A | C4-C5-C6 | 6.43 | 120.21 | 117.00 |
| 22 | BA | 2432 | A | N9-C4-C5 | 6.43 | 108.37 | 105.80 |
| 22 | BA | 900 | A | C4-C5-C6 | 6.43 | 120.21 | 117.00 |
| 22 | BA | 1789 | A | C5-N7-C8 | 6.43 | 107.11 | 103.90 |
| 22 | BA | 2478 | A | N9-C4-C5 | 6.43 | 108.37 | 105.80 |
| 1 | AA | 1332 | A | C5-C6-N1 | 6.42 | 120.91 | 117.70 |
| 22 | BA | 330 | A | C4-C5-C6 | 6.42 | 120.21 | 117.00 |
| 22 | BA | 1803 | A | C5-N7-C8 | 6.42 | 107.11 | 103.90 |
| 22 | BA | 1960 | A | C4-C5-C6 | 6.42 | 120.21 | 117.00 |
| 23 | BB | 46 | A | C4-C5-C6 | 6.42 | 120.21 | 117.00 |
| 1 | AA | 780 | A | C4-C5-C6 | 6.42 | 120.21 | 117.00 |
| 1 | AA | 923 | A | N9-C4-C5 | 6.42 | 108.37 | 105.80 |
| 22 | BA | 278 | A | C5-N7-C8 | 6.42 | 107.11 | 103.90 |
| 22 | BA | 443 | A | C4-C5-C6 | 6.42 | 120.21 | 117.00 |
| 23 | BB | 57 | A | N9-C4-C5 | 6.42 | 108.37 | 105.80 |
| 22 | BA | 1608 | A | N3-C4-N9 | 6.42 | 132.53 | 127.40 |
| 22 | BA | 1690 | A | C4-C5-C6 | 6.42 | 120.21 | 117.00 |
| 22 | BA | 2482 | A | N3-C4-N9 | 6.42 | 132.53 | 127.40 |
| 1 | AA | 246 | A | C4-C5-C6 | 6.42 | 120.21 | 117.00 |
| 1 | AA | 749 | A | C4-C5-C6 | 6.42 | 120.21 | 117.00 |
| 1 | AA | 1046 | A | C5-C6-N1 | 6.42 | 120.91 | 117.70 |
| 22 | BA | 633 | A | C5-N7-C8 | 6.42 | 107.11 | 103.90 |
| 22 | BA | 2158 | A | N9-C4-C5 | 6.42 | 108.37 | 105.80 |
| 22 | BA | 1230 | A | C5-N7-C8 | 6.42 | 107.11 | 103.90 |
| 22 | BA | 471 | A | C4-C5-C6 | 6.41 | 120.21 | 117.00 |
| 22 | BA | 538 | A | C4-C5-C6 | 6.41 | 120.21 | 117.00 |
| 22 | BA | 1977 | A | C4-C5-C6 | 6.41 | 120.21 | 117.00 |
| 22 | BA | 2183 | A | N9-C4-C5 | 6.41 | 108.36 | 105.80 |
| 1 | AA | 996 | A | C4-C5-N7 | -6.41 | 107.49 | 110.70 |
| 22 | BA | 1403 | A | C5-C6-N1 | 6.41 | 120.91 | 117.70 |
| 22 | BA | 2298 | A | C4-C5-C6 | 6.41 | 120.21 | 117.00 |
| 1 | AA | 915 | A | N9-C4-C5 | 6.41 | 108.36 | 105.80 |
| 22 | BA | 749 | A | N9-C4-C5 | 6.41 | 108.36 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 2094 | A | C4-C5-C6 | 6.41 | 120.21 | 117.00 |
| 1 | AA | 72 | A | C5-N7-C8 | 6.41 | 107.10 | 103.90 |
| 1 | AA | 228 | A | N9-C4-C5 | 6.41 | 108.36 | 105.80 |
| 1 | AA | 1012 | A | N3-C4-N9 | 6.41 | 132.53 | 127.40 |
| 1 | AA | 1305 | G | O4'-C1'-N9 | 6.41 | 113.33 | 108.20 |
| 22 | BA | 1260 | A | C4-C5-C6 | 6.41 | 120.20 | 117.00 |
| 22 | BA | 1268 | A | N9-C4-C5 | 6.41 | 108.36 | 105.80 |
| 22 | BA | 1287 | A | N3-C4-N9 | 6.41 | 132.53 | 127.40 |
| 1 | AA | 865 | A | N9-C4-C5 | 6.41 | 108.36 | 105.80 |
| 1 | AA | 642 | A | N9-C4-C5 | 6.41 | 108.36 | 105.80 |
| 22 | BA | 627 | A | N9-C4-C5 | 6.41 | 108.36 | 105.80 |
| 22 | BA | 1928 | A | C4-C5-C6 | 6.41 | 120.20 | 117.00 |
| 23 | BB | 39 | A | C4-C5-C6 | 6.41 | 120.20 | 117.00 |
| 1 | AA | 1169 | A | N9-C4-C5 | 6.40 | 108.36 | 105.80 |
| 22 | BA | 1890 | A | C4-C5-N7 | -6.40 | 107.50 | 110.70 |
| 1 | AA | 1430 | A | C4-C5-C6 | 6.40 | 120.20 | 117.00 |
| 22 | BA | 959 | A | C8-N9-C4 | 6.40 | 108.36 | 105.80 |
| 22 | BA | 1090 | A | C4-C5-C6 | 6.40 | 120.20 | 117.00 |
| 22 | BA | 972 | A | C4-C5-C6 | 6.40 | 120.20 | 117.00 |
| 22 | BA | 1953 | A | C4-C5-C6 | 6.40 | 120.20 | 117.00 |
| 1 | AA | 1150 | A | C4-C5-C6 | 6.40 | 120.20 | 117.00 |
| 22 | BA | 1403 | A | N3-C4-N9 | 6.40 | 132.52 | 127.40 |
| 22 | BA | 2311 | A | C4-C5-C6 | 6.40 | 120.20 | 117.00 |
| 22 | BA | 2459 | A | N3-C4-N9 | 6.40 | 132.52 | 127.40 |
| 22 | BA | 2899 | A | C4-C5-C6 | 6.40 | 120.20 | 117.00 |
| 1 | AA | 155 | A | C4-C5-C6 | 6.40 | 120.20 | 117.00 |
| 22 | BA | 244 | A | N9-C4-C5 | 6.40 | 108.36 | 105.80 |
| 22 | BA | 1175 | A | N9-C4-C5 | 6.40 | 108.36 | 105.80 |
| 1 | AA | 1261 | A | N9-C4-C5 | 6.39 | 108.36 | 105.80 |
| 22 | BA | 699 | A | C4-C5-C6 | 6.39 | 120.20 | 117.00 |
| 1 | AA | 338 | A | C5-N7-C8 | 6.39 | 107.10 | 103.90 |
| 1 | AA | 648 | A | C4-C5-C6 | 6.39 | 120.20 | 117.00 |
| 22 | BA | 265 | A | N9-C4-C5 | 6.39 | 108.36 | 105.80 |
| 22 | BA | 1705 | A | N3-C4-N9 | 6.39 | 132.51 | 127.40 |
| 22 | BA | 1039 | A | C4-C5-C6 | 6.39 | 120.19 | 117.00 |
| 1 | AA | 161 | A | C4-C5-C6 | 6.39 | 120.19 | 117.00 |
| 1 | AA | 746 | A | N3-C4-N9 | 6.39 | 132.51 | 127.40 |
| 1 | AA | 923 | A | C5-N7-C8 | 6.39 | 107.09 | 103.90 |
| 1 | AA | 174 | A | C4-C5-C6 | 6.39 | 120.19 | 117.00 |
| 1 | AA | 673 | A | N3-C4-N9 | 6.39 | 132.51 | 127.40 |
| 22 | BA | 1359 | A | C5-N7-C8 | 6.39 | 107.09 | 103.90 |
| 22 | BA | 1668 | A | C4-C5-N7 | -6.39 | 107.51 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2753 | A | C4-C5-C6 | 6.39 | 120.19 | 117.00 |
| 1 | AA | 389 | A | C4-C5-C6 | 6.38 | 120.19 | 117.00 |
| 1 | AA | 236 | A | N9-C4-C5 | 6.38 | 108.35 | 105.80 |
| 1 | AA | 349 | A | N9-C4-C5 | 6.38 | 108.35 | 105.80 |
| 1 | AA | 510 | A | C5-N7-C8 | 6.38 | 107.09 | 103.90 |
| 1 | AA | 55 | A | N3-C4-N9 | 6.38 | 132.50 | 127.40 |
| 1 | AA | 845 | A | C4-C5-C6 | 6.38 | 120.19 | 117.00 |
| 23 | BB | 115 | A | C4-C5-C6 | 6.38 | 120.19 | 117.00 |
| 1 | AA | 77 | A | N3-C4-N9 | 6.38 | 132.50 | 127.40 |
| 1 | AA | 1299 | A | C5-C6-N1 | 6.38 | 120.89 | 117.70 |
| 1 | AA | 3 | A | C4-C5-C6 | 6.38 | 120.19 | 117.00 |
| 1 | AA | 116 | A | C4-C5-C6 | 6.38 | 120.19 | 117.00 |
| 1 | AA | 1035 | A | N9-C4-C5 | 6.38 | 108.35 | 105.80 |
| 22 | BA | 742 | A | C4-C5-C6 | 6.38 | 120.19 | 117.00 |
| 1 | AA | 303 | A | C4-C5-C6 | 6.38 | 120.19 | 117.00 |
| 22 | BA | 1057 | A | N9-C4-C5 | 6.38 | 108.35 | 105.80 |
| 22 | BA | 592 | A | C4-C5-C6 | 6.37 | 120.19 | 117.00 |
| 22 | BA | 1284 | A | C4-C5-C6 | 6.37 | 120.19 | 117.00 |
| 23 | BB | 50 | A | N9-C4-C5 | 6.37 | 108.35 | 105.80 |
| 1 | AA | 487 | A | N9-C4-C5 | 6.37 | 108.35 | 105.80 |
| 22 | BA | 161 | A | C5-N7-C8 | 6.37 | 107.09 | 103.90 |
| 22 | BA | 1347 | A | C4-C5-C6 | 6.37 | 120.19 | 117.00 |
| 22 | BA | 1551 | A | C4-C5-N7 | -6.37 | 107.51 | 110.70 |
| 1 | AA | 892 | A | C4-C5-C6 | 6.37 | 120.18 | 117.00 |
| 1 | AA | 1238 | A | C4-C5-C6 | 6.37 | 120.18 | 117.00 |
| 1 | AA | 1340 | A | C5-C6-N1 | 6.37 | 120.88 | 117.70 |
| 22 | BA | 74 | A | C5-N7-C8 | 6.37 | 107.08 | 103.90 |
| 22 | BA | 2062 | A | N9-C4-C5 | 6.37 | 108.35 | 105.80 |
| 1 | AA | 1333 | A | C4-C5-C6 | 6.37 | 120.18 | 117.00 |
| 22 | BA | 173 | A | C4-C5-C6 | 6.37 | 120.18 | 117.00 |
| 55 | B8 | 41 | A | C5-C6-N1 | 6.37 | 120.88 | 117.70 |
| 1 | AA | 451 | A | C4-C5-C6 | 6.36 | 120.18 | 117.00 |
| 22 | BA | 1469 | A | N3-C4-N9 | 6.36 | 132.49 | 127.40 |
| 22 | BA | 2173 | A | N3-C4-N9 | 6.36 | 132.49 | 127.40 |
| 1 | AA | 533 | A | N9-C4-C5 | 6.36 | 108.34 | 105.80 |
| 1 | AA | 892 | A | N9-C4-C5 | 6.36 | 108.34 | 105.80 |
| 22 | BA | 599 | A | C4-C5-C6 | 6.36 | 120.18 | 117.00 |
| 22 | BA | 1711 | A | C4-C5-C6 | 6.36 | 120.18 | 117.00 |
| 1 | AA | 1431 | A | C5-N7-C8 | 6.36 | 107.08 | 103.90 |
| 22 | BA | 1365 | A | N9-C4-C5 | 6.36 | 108.34 | 105.80 |
| 1 | AA | 250 | A | C4-C5-C6 | 6.36 | 120.18 | 117.00 |
| 1 | AA | 595 | A | C4-C5-C6 | 6.36 | 120.18 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 196 | A | N3-C4-N9 | 6.36 | 132.49 | 127.40 |
| 22 | BA | 526 | A | C4-C5-C6 | 6.36 | 120.18 | 117.00 |
| 22 | BA | 783 | A | C4-C5-N7 | -6.36 | 107.52 | 110.70 |
| 22 | BA | 1336 | A | N9-C4-C5 | 6.36 | 108.34 | 105.80 |
| 22 | BA | 1545 | A | C4-C5-C6 | 6.36 | 120.18 | 117.00 |
| 22 | BA | 2042 | A | C5-N7-C8 | 6.36 | 107.08 | 103.90 |
| 22 | BA | 508 | A | C4-C5-C6 | 6.35 | 120.18 | 117.00 |
| 22 | BA | 793 | A | C4-C5-C6 | 6.35 | 120.18 | 117.00 |
| 22 | BA | 118 | A | C5-N7-C8 | 6.35 | 107.08 | 103.90 |
| 1 | AA | 533 | A | C5-C6-N1 | 6.35 | 120.88 | 117.70 |
| 22 | BA | 2376 | A | N9-C4-C5 | 6.35 | 108.34 | 105.80 |
| 23 | BB | 50 | A | C4-C5-C6 | 6.35 | 120.18 | 117.00 |
| 22 | BA | 793 | A | N3-C4-N9 | 6.35 | 132.48 | 127.40 |
| 22 | BA | 614 | A | C4-C5-C6 | 6.35 | 120.17 | 117.00 |
| 22 | BA | 2158 | A | C4-C5-C6 | 6.35 | 120.17 | 117.00 |
| 1 | AA | 1256 | A | C4-C5-C6 | 6.35 | 120.17 | 117.00 |
| 22 | BA | 1000 | A | C5-C6-N1 | 6.34 | 120.87 | 117.70 |
| 22 | BA | 1142 | A | N3-C4-N9 | 6.34 | 132.48 | 127.40 |
| 22 | BA | 227 | A | C4-C5-C6 | 6.34 | 120.17 | 117.00 |
| 22 | BA | 1669 | A | N3-C4-N9 | 6.34 | 132.47 | 127.40 |
| 22 | BA | 1809 | A | N9-C4-C5 | 6.34 | 108.34 | 105.80 |
| 22 | BA | 1169 | A | N9-C4-C5 | 6.34 | 108.34 | 105.80 |
| 22 | BA | 2766 | A | N9-C4-C5 | 6.34 | 108.34 | 105.80 |
| 3 | AC | 88 | ARG | CG-CD-NE | 6.34 | 125.11 | 111.80 |
| 22 | BA | 2101 | A | C4-C5-N7 | -6.34 | 107.53 | 110.70 |
| 1 | AA | 80 | A | C5-N7-C8 | 6.34 | 107.07 | 103.90 |
| 1 | AA | 167 | A | C4-C5-C6 | 6.34 | 120.17 | 117.00 |
| 22 | BA | 1000 | A | C4-C5-N7 | -6.34 | 107.53 | 110.70 |
| 22 | BA | 2268 | A | C4-C5-C6 | 6.34 | 120.17 | 117.00 |
| 22 | BA | 2589 | A | C4-C5-N7 | -6.34 | 107.53 | 110.70 |
| 1 | AA | 1251 | A | C4-C5-C6 | 6.34 | 120.17 | 117.00 |
| 22 | BA | 1027 | A | C4-C5-C6 | 6.33 | 120.17 | 117.00 |
| 22 | BA | 1046 | A | N9-C4-C5 | 6.33 | 108.33 | 105.80 |
| 22 | BA | 1505 | A | C4-C5-C6 | 6.33 | 120.17 | 117.00 |
| 22 | BA | 2333 | A | C4-C5-C6 | 6.33 | 120.17 | 117.00 |
| 22 | BA | 2634 | A | C4-C5-C6 | 6.33 | 120.17 | 117.00 |
| 55 | B8 | 20 | U | C5-C4-O4 | -6.33 | 122.10 | 125.90 |
| 22 | BA | 340 | A | C4-C5-C6 | 6.33 | 120.17 | 117.00 |
| 22 | BA | 2077 | A | C5-N7-C8 | 6.33 | 107.07 | 103.90 |
| 22 | BA | 2682 | A | C4-C5-C6 | 6.33 | 120.17 | 117.00 |
| 22 | BA | 1189 | A | N9-C4-C5 | 6.33 | 108.33 | 105.80 |
| 22 | BA | 1477 | A | C4-C5-C6 | 6.33 | 120.17 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2020 | A | N9-C4-C5 | 6.33 | 108.33 | 105.80 |
| 22 | BA | 2154 | A | N9-C4-C5 | 6.33 | 108.33 | 105.80 |
| 23 | BB | 52 | A | C4-C5-C6 | 6.33 | 120.17 | 117.00 |
| 22 | BA | 203 | A | C4-C5-C6 | 6.33 | 120.16 | 117.00 |
| 22 | BA | 614 | A | N9-C4-C5 | 6.33 | 108.33 | 105.80 |
| 22 | BA | 753 | A | N3-C4-N9 | 6.33 | 132.46 | 127.40 |
| 22 | BA | 1048 | A | N9-C4-C5 | 6.33 | 108.33 | 105.80 |
| 22 | BA | 1535 | A | C4-C5-C6 | 6.33 | 120.16 | 117.00 |
| 1 | AA | 411 | A | C8-N9-C4 | 6.33 | 108.33 | 105.80 |
| 22 | BA | 522 | A | N3-C4-N9 | 6.33 | 132.46 | 127.40 |
| 22 | BA | 666 | A | C4-C5-C6 | 6.33 | 120.16 | 117.00 |
| 22 | BA | 1433 | A | C4-C5-C6 | 6.33 | 120.16 | 117.00 |
| 22 | BA | 2054 | A | N3-C4-N9 | 6.33 | 132.46 | 127.40 |
| 1 | AA | 496 | A | C5-N7-C8 | 6.32 | 107.06 | 103.90 |
| 22 | BA | 637 | A | N9-C4-C5 | 6.32 | 108.33 | 105.80 |
| 22 | BA | 981 | A | N9-C4-C5 | 6.32 | 108.33 | 105.80 |
| 22 | BA | 1247 | A | C4-C5-C6 | 6.32 | 120.16 | 117.00 |
| 22 | BA | 2191 | A | C4-C5-C6 | 6.32 | 120.16 | 117.00 |
| 1 | AA | 1428 | A | C4-C5-C6 | 6.32 | 120.16 | 117.00 |
| 22 | BA | 1780 | A | N9-C4-C5 | 6.32 | 108.33 | 105.80 |
| 1 | AA | 969 | A | C4-C5-C6 | 6.32 | 120.16 | 117.00 |
| 22 | BA | 1373 | A | N9-C4-C5 | 6.32 | 108.33 | 105.80 |
| 1 | AA | 263 | A | C4-C5-C6 | 6.32 | 120.16 | 117.00 |
| 22 | BA | 2176 | A | C5-N7-C8 | 6.32 | 107.06 | 103.90 |
| 1 | AA | 160 | A | N9-C4-C5 | 6.32 | 108.33 | 105.80 |
| 22 | BA | 443 | A | N9-C4-C5 | 6.32 | 108.33 | 105.80 |
| 22 | BA | 1735 | A | N9-C4-C5 | 6.32 | 108.33 | 105.80 |
| 22 | BA | 1794 | A | C4-C5-C6 | 6.32 | 120.16 | 117.00 |
| 22 | BA | 2478 | A | C4-C5-C6 | 6.32 | 120.16 | 117.00 |
| 22 | BA | 2826 | A | C4-C5-C6 | 6.32 | 120.16 | 117.00 |
| 22 | BA | 454 | A | C4-C5-N7 | -6.31 | 107.54 | 110.70 |
| 22 | BA | 1287 | A | C4-C5-C6 | 6.31 | 120.16 | 117.00 |
| 22 | BA | 2088 | A | C4-C5-C6 | 6.31 | 120.16 | 117.00 |
| 1 | AA | 130 | A | C4-C5-C6 | 6.31 | 120.16 | 117.00 |
| 1 | AA | 718 | A | N3-C4-N9 | 6.31 | 132.45 | 127.40 |
| 23 | BB | 99 | A | C4-C5-C6 | 6.31 | 120.16 | 117.00 |
| 22 | BA | 575 | A | N9-C4-C5 | 6.31 | 108.33 | 105.80 |
| 22 | BA | 861 | A | N3-C4-N9 | 6.31 | 132.45 | 127.40 |
| 22 | BA | 1383 | A | N9-C4-C5 | 6.31 | 108.33 | 105.80 |
| 22 | BA | 1679 | A | N3-C4-N9 | 6.31 | 132.45 | 127.40 |
| 22 | BA | 2183 | A | C4-C5-C6 | 6.31 | 120.16 | 117.00 |
| 1 | AA | 101 | A | N9-C4-C5 | 6.31 | 108.32 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1022 | A | C4-C5-C6 | 6.31 | 120.15 | 117.00 |
| 1 | AA | 1503 | A | C4-C5-C6 | 6.31 | 120.16 | 117.00 |
| 55 | B8 | 38 | A | N3-C4-N9 | 6.31 | 132.45 | 127.40 |
| 55 | B8 | 73 | A | C8-N9-C4 | 6.31 | 108.32 | 105.80 |
| 22 | BA | 735 | A | N3-C4-N9 | 6.31 | 132.45 | 127.40 |
| 22 | BA | 64 | A | C4-C5-C6 | 6.30 | 120.15 | 117.00 |
| 22 | BA | 1794 | A | N9-C4-C5 | 6.30 | 108.32 | 105.80 |
| 22 | BA | 2879 | A | N3-C4-N9 | 6.30 | 132.44 | 127.40 |
| 1 | AA | 195 | A | C5-N7-C8 | 6.30 | 107.05 | 103.90 |
| 22 | BA | 2407 | A | C5-N7-C8 | 6.30 | 107.05 | 103.90 |
| 55 | B8 | 41 | A | N3-C4-N9 | 6.30 | 132.44 | 127.40 |
| 1 | AA | 16 | A | C4-C5-N7 | -6.30 | 107.55 | 110.70 |
| 1 | AA | 715 | A | N9-C4-C5 | 6.30 | 108.32 | 105.80 |
| 1 | AA | 975 | A | C4-C5-C6 | 6.30 | 120.15 | 117.00 |
| 22 | BA | 528 | A | C4-C5-C6 | 6.30 | 120.15 | 117.00 |
| 22 | BA | 627 | A | C4-C5-C6 | 6.30 | 120.15 | 117.00 |
| 22 | BA | 789 | A | N9-C4-C5 | 6.30 | 108.32 | 105.80 |
| 22 | BA | 1029 | A | C4-C5-N7 | -6.30 | 107.55 | 110.70 |
| 22 | BA | 1757 | A | C5-N7-C8 | 6.30 | 107.05 | 103.90 |
| 22 | BA | 439 | A | C4-C5-C6 | 6.30 | 120.15 | 117.00 |
| 22 | BA | 1151 | A | C4-C5-C6 | 6.30 | 120.15 | 117.00 |
| 22 | BA | 1866 | A | N9-C4-C5 | 6.30 | 108.32 | 105.80 |
| 22 | BA | 1889 | A | C4-C5-C6 | 6.30 | 120.15 | 117.00 |
| 1 | AA | 371 | A | C4-C5-N7 | -6.30 | 107.55 | 110.70 |
| 1 | AA | 901 | A | N9-C4-C5 | 6.30 | 108.32 | 105.80 |
| 22 | BA | 91 | A | C4-C5-C6 | 6.30 | 120.15 | 117.00 |
| 22 | BA | 1700 | A | C4-C5-C6 | 6.30 | 120.15 | 117.00 |
| 22 | BA | 2170 | A | C4-C5-C6 | 6.30 | 120.15 | 117.00 |
| 1 | AA | 523 | A | N9-C4-C5 | 6.29 | 108.32 | 105.80 |
| 22 | BA | 282 | A | C4-C5-C6 | 6.29 | 120.15 | 117.00 |
| 22 | BA | 529 | A | C5-N7-C8 | 6.29 | 107.05 | 103.90 |
| 22 | BA | 2682 | A | C4-C5-N7 | -6.29 | 107.55 | 110.70 |
| 1 | AA | 262 | A | C4-C5-C6 | 6.29 | 120.14 | 117.00 |
| 22 | BA | 354 | A | C4-C5-C6 | 6.29 | 120.15 | 117.00 |
| 22 | BA | 689 | A | N3-C4-N9 | 6.29 | 132.43 | 127.40 |
| 22 | BA | 1978 | A | N3-C4-N9 | 6.29 | 132.43 | 127.40 |
| 1 | AA | 167 | A | N9-C4-C5 | 6.29 | 108.32 | 105.80 |
| 1 | AA | 325 | A | N9-C4-C5 | 6.29 | 108.32 | 105.80 |
| 1 | AA | 743 | A | N9-C4-C5 | 6.29 | 108.32 | 105.80 |
| 22 | BA | 2851 | A | C4-C5-C6 | 6.29 | 120.14 | 117.00 |
| 22 | BA | 844 | A | N9-C4-C5 | 6.29 | 108.31 | 105.80 |
| 22 | BA | 933 | A | C4-C5-C6 | 6.29 | 120.14 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 430 | A | N9-C4-C5 | 6.29 | 108.31 | 105.80 |
| 22 | BA | 2407 | A | N3-C4-N9 | 6.29 | 132.43 | 127.40 |
| 22 | BA | 5 | A | N3-C4-N9 | 6.28 | 132.43 | 127.40 |
| 22 | BA | 368 | A | N9-C4-C5 | 6.28 | 108.31 | 105.80 |
| 22 | BA | 1598 | A | C4-C5-C6 | 6.28 | 120.14 | 117.00 |
| 22 | BA | 1787 | A | N9-C4-C5 | 6.28 | 108.31 | 105.80 |
| 22 | BA | 371 | A | N9-C4-C5 | 6.28 | 108.31 | 105.80 |
| 22 | BA | 1614 | A | C5-N7-C8 | 6.28 | 107.04 | 103.90 |
| 22 | BA | 2090 | A | N3-C4-N9 | 6.28 | 132.43 | 127.40 |
| 22 | BA | 2273 | A | N3-C4-N9 | 6.28 | 132.43 | 127.40 |
| 22 | BA | 2635 | A | C4-C5-C6 | 6.28 | 120.14 | 117.00 |
| 22 | BA | 1403 | A | N9-C4-C5 | 6.28 | 108.31 | 105.80 |
| 22 | BA | 1711 | A | N9-C4-C5 | 6.28 | 108.31 | 105.80 |
| 22 | BA | 1858 | A | C4-C5-C6 | 6.28 | 120.14 | 117.00 |
| 1 | AA | 814 | A | N9-C4-C5 | 6.28 | 108.31 | 105.80 |
| 22 | BA | 173 | A | N9-C4-C5 | 6.28 | 108.31 | 105.80 |
| 1 | AA | 502 | A | N3-C4-N9 | 6.27 | 132.42 | 127.40 |
| 22 | BA | 1551 | A | C4-C5-C6 | 6.27 | 120.14 | 117.00 |
| 22 | BA | 255 | A | N3-C4-N9 | 6.27 | 132.42 | 127.40 |
| 22 | BA | 1754 | A | C5-N7-C8 | 6.27 | 107.04 | 103.90 |
| 22 | BA | 2126 | A | N9-C4-C5 | 6.27 | 108.31 | 105.80 |
| 22 | BA | 2412 | A | N9-C4-C5 | 6.27 | 108.31 | 105.80 |
| 23 | BB | 53 | A | C4-C5-C6 | 6.27 | 120.14 | 117.00 |
| 1 | AA | 329 | A | N9-C4-C5 | 6.27 | 108.31 | 105.80 |
| 1 | AA | 1246 | A | C4-C5-C6 | 6.27 | 120.14 | 117.00 |
| 22 | BA | 21 | A | N9-C4-C5 | 6.27 | 108.31 | 105.80 |
| 22 | BA | 213 | A | N9-C4-C5 | 6.27 | 108.31 | 105.80 |
| 22 | BA | 2564 | A | N9-C4-C5 | 6.27 | 108.31 | 105.80 |
| 22 | BA | 2738 | A | N9-C4-C5 | 6.27 | 108.31 | 105.80 |
| 1 | AA | 313 | A | C4-C5-C6 | 6.27 | 120.13 | 117.00 |
| 22 | BA | 1597 | A | C4-C5-N7 | -6.27 | 107.57 | 110.70 |
| 22 | BA | 1872 | A | N3-C4-N9 | 6.27 | 132.41 | 127.40 |
| 1 | AA | 563 | A | C5-N7-C8 | 6.26 | 107.03 | 103.90 |
| 1 | AA | 596 | A | N9-C4-C5 | 6.26 | 108.31 | 105.80 |
| 22 | BA | 1098 | A | N3-C4-N9 | 6.26 | 132.41 | 127.40 |
| 22 | BA | 1276 | A | N9-C4-C5 | 6.26 | 108.31 | 105.80 |
| 1 | AA | 50 | A | N9-C4-C5 | 6.26 | 108.31 | 105.80 |
| 1 | AA | 228 | A | C4-C5-C6 | 6.26 | 120.13 | 117.00 |
| 1 | AA | 807 | A | C4-C5-C6 | 6.26 | 120.13 | 117.00 |
| 22 | BA | 1027 | A | C5-N7-C8 | 6.26 | 107.03 | 103.90 |
| 55 | B8 | 26 | A | N3-C4-N9 | 6.26 | 132.41 | 127.40 |
| 22 | BA | 449 | A | N3-C4-N9 | 6.26 | 132.41 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 718 | A | N9-C4-C5 | 6.26 | 108.30 | 105.80 |
| 22 | BA | 1919 | A | N9-C4-C5 | 6.26 | 108.31 | 105.80 |
| 22 | BA | 2813 | A | C5-N7-C8 | 6.26 | 107.03 | 103.90 |
| 1 | AA | 363 | A | C4-C5-C6 | 6.26 | 120.13 | 117.00 |
| 1 | AA | 831 | A | C4-C5-C6 | 6.26 | 120.13 | 117.00 |
| 22 | BA | 2273 | A | C4-C5-C6 | 6.26 | 120.13 | 117.00 |
| 22 | BA | 2378 | A | C5-N7-C8 | 6.26 | 107.03 | 103.90 |
| 22 | BA | 1866 | A | C5-N7-C8 | 6.26 | 107.03 | 103.90 |
| 22 | BA | 2369 | A | N9-C4-C5 | 6.26 | 108.30 | 105.80 |
| 1 | AA | 116 | A | N9-C4-C5 | 6.26 | 108.30 | 105.80 |
| 1 | AA | 794 | A | C4-C5-C6 | 6.26 | 120.13 | 117.00 |
| 22 | BA | 470 | A | C5-N7-C8 | 6.26 | 107.03 | 103.90 |
| 22 | BA | 689 | A | C4-C5-N7 | -6.26 | 107.57 | 110.70 |
| 22 | BA | 1701 | A | C4-C5-C6 | 6.26 | 120.13 | 117.00 |
| 22 | BA | 1889 | A | C4-C5-N7 | -6.26 | 107.57 | 110.70 |
| 1 | AA | 560 | A | N9-C4-C5 | 6.25 | 108.30 | 105.80 |
| 1 | AA | 790 | A | N9-C4-C5 | 6.25 | 108.30 | 105.80 |
| 22 | BA | 1067 | A | C4-C5-C6 | 6.25 | 120.13 | 117.00 |
| 1 | AA | 1280 | A | C4-C5-C6 | 6.25 | 120.13 | 117.00 |
| 22 | BA | 1515 | A | C5-N7-C8 | 6.25 | 107.03 | 103.90 |
| 22 | BA | 2809 | A | C4-C5-C6 | 6.25 | 120.13 | 117.00 |
| 22 | BA | 374 | A | N9-C4-C5 | 6.25 | 108.30 | 105.80 |
| 22 | BA | 1384 | A | C4-C5-C6 | 6.25 | 120.12 | 117.00 |
| 1 | AA | 28 | A | C5-N7-C8 | 6.25 | 107.02 | 103.90 |
| 1 | AA | 1005 | A | C4-C5-C6 | 6.25 | 120.12 | 117.00 |
| 22 | BA | 2670 | A | N9-C4-C5 | 6.25 | 108.30 | 105.80 |
| 22 | BA | 742 | A | N9-C4-C5 | 6.25 | 108.30 | 105.80 |
| 22 | BA | 2247 | A | N3-C4-N9 | 6.25 | 132.40 | 127.40 |
| 22 | BA | 1226 | A | N9-C4-C5 | 6.24 | 108.30 | 105.80 |
| 22 | BA | 1544 | A | C4-C5-C6 | 6.24 | 120.12 | 117.00 |
| 22 | BA | 2425 | A | N9-C4-C5 | 6.24 | 108.30 | 105.80 |
| 22 | BA | 391 | A | C4-C5-C6 | 6.24 | 120.12 | 117.00 |
| 22 | BA | 1919 | A | C5-N7-C8 | 6.24 | 107.02 | 103.90 |
| 22 | BA | 2820 | A | N9-C4-C5 | 6.24 | 108.30 | 105.80 |
| 1 | AA | 781 | A | C4-C5-C6 | 6.24 | 120.12 | 117.00 |
| 1 | AA | 1434 | A | C4-C5-N7 | -6.24 | 107.58 | 110.70 |
| 22 | BA | 216 | A | C4-C5-N7 | -6.24 | 107.58 | 110.70 |
| 22 | BA | 825 | A | C4-C5-N7 | -6.24 | 107.58 | 110.70 |
| 22 | BA | 2278 | A | N9-C4-C5 | 6.24 | 108.30 | 105.80 |
| 22 | BA | 2322 | A | N9-C4-C5 | 6.24 | 108.30 | 105.80 |
| 1 | AA | 712 | A | N3-C4-N9 | 6.24 | 132.39 | 127.40 |
| 1 | AA | 1151 | A | N9-C4-C5 | 6.24 | 108.30 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 227 | A | N9-C4-C5 | 6.24 | 108.30 | 105.80 |
| 22 | BA | 1096 | A | C4-C5-C6 | 6.24 | 120.12 | 117.00 |
| 2 | AB | 18 | HIS | CB-CA-C | 6.24 | 122.87 | 110.40 |
| 1 | AA | 412 | A | C5-C6-N1 | 6.24 | 120.82 | 117.70 |
| 22 | BA | 311 | A | C4-C5-C6 | 6.24 | 120.12 | 117.00 |
| 22 | BA | 2322 | A | C4-C5-C6 | 6.24 | 120.12 | 117.00 |
| 22 | BA | 1175 | A | C4-C5-C6 | 6.23 | 120.12 | 117.00 |
| 22 | BA | 1205 | A | C4-C5-N7 | -6.23 | 107.58 | 110.70 |
| 1 | AA | 716 | A | N9-C4-C5 | 6.23 | 108.29 | 105.80 |
| 22 | BA | 925 | A | C4-C5-C6 | 6.23 | 120.12 | 117.00 |
| 22 | BA | 2778 | A | C4-C5-C6 | 6.23 | 120.12 | 117.00 |
| 22 | BA | 91 | A | N9-C4-C5 | 6.23 | 108.29 | 105.80 |
| 22 | BA | 1665 | A | C4-C5-C6 | 6.23 | 120.11 | 117.00 |
| 22 | BA | 2541 | A | N9-C4-C5 | 6.23 | 108.29 | 105.80 |
| 22 | BA | 2560 | A | C4-C5-C6 | 6.23 | 120.11 | 117.00 |
| 23 | BB | 73 | A | N3-C4-N9 | 6.23 | 132.38 | 127.40 |
| 1 | AA | 1197 | A | C5-N7-C8 | 6.22 | 107.01 | 103.90 |
| 22 | BA | 89 | A | C4-C5-C6 | 6.22 | 120.11 | 117.00 |
| 22 | BA | 95 | A | N9-C4-C5 | 6.22 | 108.29 | 105.80 |
| 22 | BA | 345 | A | N9-C4-C5 | 6.22 | 108.29 | 105.80 |
| 55 | B8 | 19 | G | OP2-P-O3' | -6.22 | 91.50 | 105.20 |
| 22 | BA | 131 | A | N9-C4-C5 | 6.22 | 108.29 | 105.80 |
| 22 | BA | 1151 | A | N3-C4-N9 | 6.22 | 132.38 | 127.40 |
| 22 | BA | 1762 | A | C4-C5-C6 | 6.22 | 120.11 | 117.00 |
| 22 | BA | 2635 | A | N3-C4-N9 | 6.22 | 132.38 | 127.40 |
| 23 | BB | 108 | A | C4-C5-C6 | 6.22 | 120.11 | 117.00 |
| 22 | BA | 829 | A | C5-N7-C8 | 6.22 | 107.01 | 103.90 |
| 22 | BA | 1952 | A | C4-C5-C6 | 6.22 | 120.11 | 117.00 |
| 22 | BA | 2654 | A | C4-C5-C6 | 6.22 | 120.11 | 117.00 |
| 22 | BA | 2856 | A | N9-C4-C5 | 6.22 | 108.29 | 105.80 |
| 23 | BB | 34 | A | N9-C4-C5 | 6.22 | 108.29 | 105.80 |
| 22 | BA | 21 | A | N3-C4-N9 | 6.22 | 132.38 | 127.40 |
| 22 | BA | 300 | A | N9-C4-C5 | 6.22 | 108.29 | 105.80 |
| 22 | BA | 905 | A | C4-C5-N7 | -6.22 | 107.59 | 110.70 |
| 22 | BA | 2281 | A | C4-C5-N7 | -6.21 | 107.59 | 110.70 |
| 1 | AA | 327 | A | C4-C5-C6 | 6.21 | 120.11 | 117.00 |
| 1 | AA | 408 | A | C4-C5-C6 | 6.21 | 120.11 | 117.00 |
| 1 | AA | 1274 | A | N9-C4-C5 | 6.21 | 108.28 | 105.80 |
| 22 | BA | 404 | A | N9-C4-C5 | 6.21 | 108.28 | 105.80 |
| 22 | BA | 497 | A | C4-C5-C6 | 6.21 | 120.11 | 117.00 |
| 22 | BA | 592 | A | N3-C4-N9 | 6.21 | 132.37 | 127.40 |
| 22 | BA | 2426 | A | C4-C5-C6 | 6.21 | 120.11 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2632 | A | N9-C4-C5 | 6.21 | 108.28 | 105.80 |
| 1 | AA | 1004 | A | C5-C6-N1 | 6.21 | 120.80 | 117.70 |
| 22 | BA | 1571 | A | N3-C4-N9 | 6.21 | 132.37 | 127.40 |
| 23 | BB | 101 | A | C6-N1-C2 | -6.21 | 114.88 | 118.60 |
| 1 | AA | 1340 | A | C5-N7-C8 | 6.21 | 107.00 | 103.90 |
| 22 | BA | 470 | A | N3-C4-N9 | 6.21 | 132.37 | 127.40 |
| 22 | BA | 1336 | A | C4-C5-C6 | 6.21 | 120.10 | 117.00 |
| 22 | BA | 1354 | A | N9-C4-C5 | 6.21 | 108.28 | 105.80 |
| 22 | BA | 1134 | A | C5-N7-C8 | 6.21 | 107.00 | 103.90 |
| 22 | BA | 1739 | A | C4-C5-C6 | 6.21 | 120.10 | 117.00 |
| 22 | BA | 507 | A | N9-C4-C5 | 6.20 | 108.28 | 105.80 |
| 23 | BB | 109 | A | C4-C5-C6 | 6.20 | 120.10 | 117.00 |
| 1 | AA | 53 | A | N9-C4-C5 | 6.20 | 108.28 | 105.80 |
| 1 | AA | 978 | A | C4-C5-N7 | -6.20 | 107.60 | 110.70 |
| 22 | BA | 176 | A | N3-C4-N9 | 6.20 | 132.36 | 127.40 |
| 22 | BA | 1085 | A | C4-C5-C6 | 6.20 | 120.10 | 117.00 |
| 22 | BA | 2665 | A | N9-C4-C5 | 6.20 | 108.28 | 105.80 |
| 1 | AA | 139 | A | C4-C5-C6 | 6.20 | 120.10 | 117.00 |
| 1 | AA | 189 | A | C4-C5-C6 | 6.20 | 120.10 | 117.00 |
| 1 | AA | 1196 | A | N9-C4-C5 | 6.20 | 108.28 | 105.80 |
| 22 | BA | 21 | A | C5-C6-N1 | 6.20 | 120.80 | 117.70 |
| 22 | BA | 1532 | A | C4-C5-C6 | 6.20 | 120.10 | 117.00 |
| 22 | BA | 2600 | A | C5-N7-C8 | 6.20 | 107.00 | 103.90 |
| 22 | BA | 541 | A | C4-C5-C6 | 6.20 | 120.10 | 117.00 |
| 22 | BA | 563 | A | C4-C5-C6 | 6.20 | 120.10 | 117.00 |
| 1 | AA | 1171 | A | N9-C4-C5 | 6.20 | 108.28 | 105.80 |
| 22 | BA | 927 | A | C4-C5-C6 | 6.20 | 120.10 | 117.00 |
| 22 | BA | 983 | A | C4-C5-C6 | 6.20 | 120.10 | 117.00 |
| 22 | BA | 2080 | A | N3-C4-N9 | 6.20 | 132.36 | 127.40 |
| 22 | BA | 2764 | A | C4-C5-N7 | -6.20 | 107.60 | 110.70 |
| 22 | BA | 2336 | A | C4-C5-C6 | 6.19 | 120.10 | 117.00 |
| 22 | BA | 2590 | A | N9-C4-C5 | 6.19 | 108.28 | 105.80 |
| 1 | AA | 155 | A | N9-C4-C5 | 6.19 | 108.28 | 105.80 |
| 1 | AA | 478 | A | N9-C4-C5 | 6.19 | 108.28 | 105.80 |
| 22 | BA | 161 | A | C4-C5-C6 | 6.19 | 120.10 | 117.00 |
| 22 | BA | 412 | A | C5-N7-C8 | 6.19 | 107.00 | 103.90 |
| 22 | BA | 670 | A | N9-C4-C5 | 6.19 | 108.28 | 105.80 |
| 22 | BA | 899 | A | C4-C5-C6 | 6.19 | 120.10 | 117.00 |
| 22 | BA | 1129 | A | N9-C4-C5 | 6.19 | 108.28 | 105.80 |
| 23 | BB | 99 | A | N9-C4-C5 | 6.19 | 108.28 | 105.80 |
| 1 | AA | 364 | A | C4-C5-C6 | 6.19 | 120.09 | 117.00 |
| 22 | BA | 402 | A | C4-C5-C6 | 6.19 | 120.09 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1096 | A | N9-C4-C5 | 6.19 | 108.28 | 105.80 |
| 22 | BA | 1913 | A | C4-C5-C6 | 6.19 | 120.10 | 117.00 |
| 22 | BA | 401 | A | N9-C4-C5 | 6.19 | 108.28 | 105.80 |
| 22 | BA | 1801 | A | C5-N7-C8 | 6.19 | 106.99 | 103.90 |
| 1 | AA | 706 | A | N3-C4-N9 | 6.19 | 132.35 | 127.40 |
| 1 | AA | 573 | A | N9-C4-C5 | 6.18 | 108.27 | 105.80 |
| 1 | AA | 1288 | A | C4-C5-C6 | 6.18 | 120.09 | 117.00 |
| 22 | BA | 221 | A | C5-N7-C8 | 6.18 | 106.99 | 103.90 |
| 22 | BA | 1373 | A | C5-N7-C8 | 6.18 | 106.99 | 103.90 |
| 22 | BA | 2868 | A | N9-C4-C5 | 6.18 | 108.27 | 105.80 |
| 1 | AA | 1191 | A | N9-C4-C5 | 6.18 | 108.27 | 105.80 |
| 22 | BA | 2776 | A | C4-C5-N7 | -6.18 | 107.61 | 110.70 |
| 22 | BA | 2518 | A | C8-N9-C4 | 6.18 | 108.27 | 105.80 |
| 22 | BA | 2583 | G | N1-C6-O6 | -6.18 | 116.19 | 119.90 |
| 22 | BA | 346 | A | N9-C4-C5 | 6.18 | 108.27 | 105.80 |
| 22 | BA | 941 | A | C4-C5-N7 | -6.18 | 107.61 | 110.70 |
| 22 | BA | 1270 | C | C6-N1-C2 | -6.18 | 117.83 | 120.30 |
| 1 | AA | 1014 | A | C4-C5-C6 | 6.17 | 120.09 | 117.00 |
| 22 | BA | 820 | A | C4-C5-N7 | -6.17 | 107.61 | 110.70 |
| 22 | BA | 2336 | A | N9-C4-C5 | 6.17 | 108.27 | 105.80 |
| 23 | BB | 66 | A | N9-C4-C5 | 6.17 | 108.27 | 105.80 |
| 1 | AA | 608 | A | N9-C4-C5 | 6.17 | 108.27 | 105.80 |
| 1 | AA | 872 | A | C4-C5-C6 | 6.17 | 120.09 | 117.00 |
| 1 | AA | 1418 | A | N3-C4-N9 | 6.17 | 132.34 | 127.40 |
| 22 | BA | 1054 | A | N9-C4-C5 | 6.17 | 108.27 | 105.80 |
| 22 | BA | 2054 | A | C4-C5-C6 | 6.17 | 120.09 | 117.00 |
| 22 | BA | 21 | A | C4-C5-C6 | 6.17 | 120.08 | 117.00 |
| 22 | BA | 2058 | A | N9-C4-C5 | 6.17 | 108.27 | 105.80 |
| 22 | BA | 56 | A | N9-C4-C5 | 6.17 | 108.27 | 105.80 |
| 22 | BA | 2009 | A | C4-C5-C6 | 6.17 | 120.08 | 117.00 |
| 22 | BA | 2059 | A | C4-C5-C6 | 6.17 | 120.08 | 117.00 |
| 1 | AA | 1446 | A | C4-C5-N7 | -6.17 | 107.62 | 110.70 |
| 22 | BA | 2800 | A | N9-C4-C5 | 6.17 | 108.27 | 105.80 |
| 1 | AA | 459 | A | N9-C4-C5 | 6.17 | 108.27 | 105.80 |
| 1 | AA | 1410 | A | C4-C5-C6 | 6.17 | 120.08 | 117.00 |
| 22 | BA | 2134 | A | C4-C5-C6 | 6.17 | 120.08 | 117.00 |
| 1 | AA | 1468 | A | N3-C4-N9 | 6.16 | 132.33 | 127.40 |
| 22 | BA | 2377 | A | N9-C4-C5 | 6.16 | 108.27 | 105.80 |
| 1 | AA | 1398 | A | C4-C5-C6 | 6.16 | 120.08 | 117.00 |
| 22 | BA | 477 | A | N3-C4-N9 | 6.16 | 132.33 | 127.40 |
| 22 | BA | 996 | A | N3-C4-N9 | 6.16 | 132.33 | 127.40 |
| 22 | BA | 1143 | A | N3-C4-N9 | 6.16 | 132.33 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 2346 | A | C4-C5-C6 | 6.16 | 120.08 | 117.00 |
| 1 | AA | 72 | A | N9-C4-C5 | 6.16 | 108.26 | 105.80 |
| 1 | AA | 1197 | A | N3-C4-N9 | 6.16 | 132.33 | 127.40 |
| 22 | BA | 1598 | A | N3-C4-N9 | 6.16 | 132.33 | 127.40 |
| 1 | AA | 1042 | A | C4-C5-C6 | 6.16 | 120.08 | 117.00 |
| 22 | BA | 1998 | A | N3-C4-N9 | 6.16 | 132.33 | 127.40 |
| 22 | BA | 1757 | A | C4-C5-C6 | 6.16 | 120.08 | 117.00 |
| 22 | BA | 2020 | A | C5-C6-N1 | 6.16 | 120.78 | 117.70 |
| 22 | BA | 479 | A | C4-C5-N7 | -6.15 | 107.62 | 110.70 |
| 22 | BA | 1722 | A | N9-C4-C5 | 6.15 | 108.26 | 105.80 |
| 1 | AA | 1363 | A | N3-C4-N9 | 6.15 | 132.32 | 127.40 |
| 22 | BA | 146 | A | N9-C4-C5 | 6.15 | 108.26 | 105.80 |
| 22 | BA | 1048 | A | N3-C4-N9 | 6.15 | 132.32 | 127.40 |
| 22 | BA | 1226 | A | C4-C5-C6 | 6.15 | 120.08 | 117.00 |
| 1 | AA | 766 | A | C4-C5-C6 | 6.15 | 120.08 | 117.00 |
| 22 | BA | 1532 | A | N9-C4-C5 | 6.15 | 108.26 | 105.80 |
| 22 | BA | 2541 | A | C5-C6-N1 | 6.15 | 120.77 | 117.70 |
| 22 | BA | 126 | A | C5-N7-C8 | 6.15 | 106.97 | 103.90 |
| 22 | BA | 556 | A | C4-C5-C6 | 6.15 | 120.07 | 117.00 |
| 22 | BA | 2453 | A | C4-C5-C6 | 6.15 | 120.07 | 117.00 |
| 1 | AA | 152 | A | C5-N7-C8 | 6.15 | 106.97 | 103.90 |
| 22 | BA | 14 | A | C4-C5-C6 | 6.15 | 120.07 | 117.00 |
| 1 | AA | 553 | A | C5-C6-N1 | 6.14 | 120.77 | 117.70 |
| 1 | AA | 1357 | A | N9-C4-C5 | 6.14 | 108.26 | 105.80 |
| 4 | AD | 33 | LYS | CD-CE-NZ | -6.14 | 97.57 | 111.70 |
| 22 | BA | 592 | A | N9-C4-C5 | 6.14 | 108.26 | 105.80 |
| 22 | BA | 2634 | A | N3-C4-N9 | 6.14 | 132.31 | 127.40 |
| 1 | AA | 71 | A | C4-C5-C6 | 6.14 | 120.07 | 117.00 |
| 22 | BA | 454 | A | C4-C5-C6 | 6.14 | 120.07 | 117.00 |
| 22 | BA | 819 | A | N9-C4-C5 | 6.14 | 108.26 | 105.80 |
| 1 | AA | 583 | A | C4-C5-N7 | -6.14 | 107.63 | 110.70 |
| 22 | BA | 415 | A | N3-C4-N9 | 6.14 | 132.31 | 127.40 |
| 22 | BA | 705 | A | N9-C4-C5 | 6.14 | 108.26 | 105.80 |
| 22 | BA | 896 | A | C4-C5-C6 | 6.14 | 120.07 | 117.00 |
| 22 | BA | 1938 | A | N9-C4-C5 | 6.14 | 108.26 | 105.80 |
| 1 | AA | 1219 | A | N9-C4-C5 | 6.14 | 108.25 | 105.80 |
| 13 | AM | 42 | ASP | CB-CG-OD1 | 6.14 | 123.82 | 118.30 |
| 22 | BA | 244 | A | N3-C4-N9 | 6.14 | 132.31 | 127.40 |
| 22 | BA | 1713 | A | N9-C4-C5 | 6.14 | 108.25 | 105.80 |
| 22 | BA | 547 | A | C4-C5-C6 | 6.13 | 120.07 | 117.00 |
| 22 | BA | 2077 | A | N3-C4-N9 | 6.13 | 132.31 | 127.40 |
| 22 | BA | 685 | A | C5-C6-N1 | 6.13 | 120.77 | 117.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 1142 | A | C5-C6-N1 | 6.13 | 120.77 | 117.70 |
| 1 | AA | 1158 | C | C2-N1-C1' | 6.13 | 125.55 | 118.80 |
| 1 | AA | 1433 | A | N9-C4-C5 | 6.13 | 108.25 | 105.80 |
| 22 | BA | 1127 | A | C4-C5-C6 | 6.13 | 120.07 | 117.00 |
| 22 | BA | 1829 | A | N9-C4-C5 | 6.13 | 108.25 | 105.80 |
| 22 | BA | 2108 | A | C5-N7-C8 | 6.13 | 106.97 | 103.90 |
| 1 | AA | 279 | A | C5-N7-C8 | 6.13 | 106.97 | 103.90 |
| 22 | BA | 2097 | A | N3-C4-N9 | 6.13 | 132.30 | 127.40 |
| 22 | BA | 1672 | A | C4-C5-C6 | 6.13 | 120.06 | 117.00 |
| 1 | AA | 1146 | A | N9-C4-C5 | 6.13 | 108.25 | 105.80 |
| 1 | AA | 1306 | A | N9-C4-C5 | 6.13 | 108.25 | 105.80 |
| 1 | AA | 1374 | A | N9-C4-C5 | 6.13 | 108.25 | 105.80 |
| 22 | BA | 213 | A | C5-C6-N1 | 6.13 | 120.76 | 117.70 |
| 1 | AA | 32 | A | N9-C4-C5 | 6.12 | 108.25 | 105.80 |
| 1 | AA | 498 | A | C5-C6-N6 | 6.12 | 128.60 | 123.70 |
| 22 | BA | 2518 | A | C4-C5-C6 | 6.12 | 120.06 | 117.00 |
| 22 | BA | 1786 | A | C4-C5-N7 | -6.12 | 107.64 | 110.70 |
| 1 | AA | 344 | A | C4-C5-C6 | 6.12 | 120.06 | 117.00 |
| 1 | AA | 977 | A | N3-C4-N9 | 6.12 | 132.30 | 127.40 |
| 22 | BA | 782 | A | C5-C6-N1 | 6.12 | 120.76 | 117.70 |
| 1 | AA | 1016 | A | C4-C5-C6 | 6.12 | 120.06 | 117.00 |
| 22 | BA | 1302 | A | C4-C5-C6 | 6.12 | 120.06 | 117.00 |
| 22 | BA | 1469 | A | N9-C4-C5 | 6.12 | 108.25 | 105.80 |
| 1 | AA | 181 | A | C4-C5-C6 | 6.12 | 120.06 | 117.00 |
| 1 | AA | 1167 | A | N9-C4-C5 | 6.12 | 108.25 | 105.80 |
| 22 | BA | 783 | A | N3-C4-N9 | 6.12 | 132.29 | 127.40 |
| 23 | BB | 119 | A | N9-C4-C5 | 6.12 | 108.25 | 105.80 |
| 1 | AA | 2 | A | C4-C5-C6 | 6.12 | 120.06 | 117.00 |
| 1 | AA | 1191 | A | N3-C4-N9 | 6.12 | 132.29 | 127.40 |
| 1 | AA | 1238 | A | C4-C5-N7 | -6.12 | 107.64 | 110.70 |
| 22 | BA | 514 | A | N9-C4-C5 | 6.12 | 108.25 | 105.80 |
| 1 | AA | 1155 | A | C4-C5-C6 | 6.11 | 120.06 | 117.00 |
| 22 | BA | 482 | A | N9-C4-C5 | 6.11 | 108.25 | 105.80 |
| 22 | BA | 1385 | A | N9-C4-C5 | 6.11 | 108.25 | 105.80 |
| 22 | BA | 471 | A | N9-C4-C5 | 6.11 | 108.25 | 105.80 |
| 22 | BA | 2670 | A | C4-C5-C6 | 6.11 | 120.06 | 117.00 |
| 22 | BA | 2826 | A | C4-C5-N7 | -6.11 | 107.64 | 110.70 |
| 55 | B8 | 42 | A | N3-C4-N9 | 6.11 | 132.29 | 127.40 |
| 22 | BA | 582 | A | N3-C4-N9 | 6.11 | 132.29 | 127.40 |
| 22 | BA | 633 | A | C4-C5-C6 | 6.11 | 120.06 | 117.00 |
| 1 | AA | 288 | A | N9-C4-C5 | 6.11 | 108.24 | 105.80 |
| 22 | BA | 422 | A | C4-C5-N7 | -6.11 | 107.64 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2451 | A | N7-C8-N9 | -6.11 | 110.75 | 113.80 |
| 1 | AA | 320 | A | C4-C5-N7 | -6.11 | 107.65 | 110.70 |
| 22 | BA | 28 | A | C4-C5-C6 | 6.11 | 120.05 | 117.00 |
| 22 | BA | 1630 | A | C4-C5-N7 | -6.11 | 107.65 | 110.70 |
| 22 | BA | 2448 | A | C5-N7-C8 | 6.11 | 106.95 | 103.90 |
| 1 | AA | 553 | A | N3-C4-N9 | 6.11 | 132.28 | 127.40 |
| 1 | AA | 1287 | A | C4-C5-C6 | 6.11 | 120.05 | 117.00 |
| 22 | BA | 203 | A | C4-C5-N7 | -6.11 | 107.65 | 110.70 |
| 22 | BA | 391 | A | N3-C4-N9 | 6.11 | 132.28 | 127.40 |
| 55 | B8 | 42 | A | C8-N9-C4 | 6.11 | 108.24 | 105.80 |
| 22 | BA | 501 | A | N9-C4-C5 | 6.10 | 108.24 | 105.80 |
| 1 | AA | 250 | A | N9-C4-C5 | 6.10 | 108.24 | 105.80 |
| 22 | BA | 241 | A | C4-C5-N7 | -6.10 | 107.65 | 110.70 |
| 22 | BA | 2602 | A | N9-C4-C5 | 6.10 | 108.24 | 105.80 |
| 1 | AA | 673 | A | C5-C6-N1 | 6.10 | 120.75 | 117.70 |
| 22 | BA | 1655 | A | N9-C4-C5 | 6.10 | 108.24 | 105.80 |
| 22 | BA | 2287 | A | C8-N9-C4 | 6.10 | 108.24 | 105.80 |
| 22 | BA | 2868 | A | N3-C4-N9 | 6.10 | 132.28 | 127.40 |
| 22 | BA | 429 | A | C4-C5-C6 | 6.10 | 120.05 | 117.00 |
| 22 | BA | 675 | A | C4-C5-N7 | -6.10 | 107.65 | 110.70 |
| 22 | BA | 677 | A | C5-C6-N1 | 6.10 | 120.75 | 117.70 |
| 22 | BA | 820 | A | N3-C4-N9 | 6.10 | 132.28 | 127.40 |
| 22 | BA | 2566 | A | N9-C4-C5 | 6.10 | 108.24 | 105.80 |
| 22 | BA | 2749 | A | C5-N7-C8 | 6.10 | 106.95 | 103.90 |
| 22 | BA | 2750 | A | N9-C4-C5 | 6.10 | 108.24 | 105.80 |
| 1 | AA | 1492 | A | C4-C5-C6 | 6.10 | 120.05 | 117.00 |
| 22 | BA | 515 | A | C4-C5-N7 | -6.10 | 107.65 | 110.70 |
| 22 | BA | 1590 | A | N9-C4-C5 | 6.10 | 108.24 | 105.80 |
| 22 | BA | 1744 | A | N9-C4-C5 | 6.10 | 108.24 | 105.80 |
| 1 | AA | 1275 | A | N9-C4-C5 | 6.09 | 108.24 | 105.80 |
| 22 | BA | 1336 | A | N3-C4-N9 | 6.09 | 132.28 | 127.40 |
| 22 | BA | 1597 | A | C4-C5-C6 | 6.09 | 120.05 | 117.00 |
| 22 | BA | 1077 | A | C4-C5-C6 | 6.09 | 120.05 | 117.00 |
| 22 | BA | 1244 | A | C5-C6-N1 | 6.09 | 120.75 | 117.70 |
| 22 | BA | 1746 | A | N9-C4-C5 | 6.09 | 108.24 | 105.80 |
| 23 | BB | 104 | A | N9-C4-C5 | 6.09 | 108.24 | 105.80 |
| 1 | AA | 131 | A | C4-C5-C6 | 6.09 | 120.04 | 117.00 |
| 22 | BA | 1276 | A | N3-C4-N9 | 6.09 | 132.27 | 127.40 |
| 1 | AA | 1179 | A | C4-C5-C6 | 6.09 | 120.04 | 117.00 |
| 1 | AA | 1437 | A | C4-C5-C6 | 6.09 | 120.04 | 117.00 |
| 22 | BA | 1966 | A | C4-C5-C6 | 6.09 | 120.04 | 117.00 |
| 22 | BA | 2170 | A | N9-C4-C5 | 6.09 | 108.23 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 750 | A | C4-C5-C6 | 6.08 | 120.04 | 117.00 |
| 22 | BA | 423 | A | C4-C5-N7 | -6.08 | 107.66 | 110.70 |
| 1 | AA | 65 | A | C4-C5-C6 | 6.08 | 120.04 | 117.00 |
| 1 | AA | 306 | A | C4-C5-C6 | 6.08 | 120.04 | 117.00 |
| 1 | AA | 1271 | A | N9-C4-C5 | 6.08 | 108.23 | 105.80 |
| 22 | BA | 320 | A | C4-C5-C6 | 6.08 | 120.04 | 117.00 |
| 22 | BA | 800 | A | C4-C5-C6 | 6.08 | 120.04 | 117.00 |
| 22 | BA | 936 | A | N9-C4-C5 | 6.08 | 108.23 | 105.80 |
| 22 | BA | 2211 | A | C4-C5-C6 | 6.08 | 120.04 | 117.00 |
| 22 | BA | 892 | A | C4-C5-C6 | 6.08 | 120.04 | 117.00 |
| 22 | BA | 1133 | A | C5-N7-C8 | 6.08 | 106.94 | 103.90 |
| 22 | BA | 1610 | A | N9-C4-C5 | 6.08 | 108.23 | 105.80 |
| 22 | BA | 2042 | A | C4-C5-C6 | 6.08 | 120.04 | 117.00 |
| 22 | BA | 2212 | A | C4-C5-C6 | 6.08 | 120.04 | 117.00 |
| 1 | AA | 559 | A | N9-C4-C5 | 6.08 | 108.23 | 105.80 |
| 1 | AA | 747 | A | C4-C5-C6 | 6.08 | 120.04 | 117.00 |
| 1 | AA | 574 | A | N9-C4-C5 | 6.07 | 108.23 | 105.80 |
| 1 | AA | 977 | A | N9-C4-C5 | 6.07 | 108.23 | 105.80 |
| 1 | AA | 1229 | A | C4-C5-C6 | 6.07 | 120.04 | 117.00 |
| 22 | BA | 644 | A | N3-C4-N9 | 6.07 | 132.26 | 127.40 |
| 22 | BA | 2000 | C | N1-C2-O2 | 6.07 | 122.54 | 118.90 |
| 22 | BA | 2340 | A | N3-C4-N9 | 6.07 | 132.26 | 127.40 |
| 1 | AA | 496 | A | C4-C5-C6 | 6.07 | 120.03 | 117.00 |
| 1 | AA | 1021 | A | C4-C5-C6 | 6.07 | 120.04 | 117.00 |
| 22 | BA | 753 | A | N9-C4-C5 | 6.07 | 108.23 | 105.80 |
| 22 | BA | 2634 | A | N9-C4-C5 | 6.07 | 108.23 | 105.80 |
| 22 | BA | 83 | A | C4-C5-C6 | 6.07 | 120.03 | 117.00 |
| 22 | BA | 792 | A | N3-C4-N9 | 6.07 | 132.25 | 127.40 |
| 22 | BA | 947 | A | N3-C4-N9 | 6.07 | 132.25 | 127.40 |
| 22 | BA | 2711 | A | C4-C5-C6 | 6.07 | 120.03 | 117.00 |
| 1 | AA | 101 | A | N3-C4-N9 | 6.07 | 132.25 | 127.40 |
| 1 | AA | 320 | A | C4-C5-C6 | 6.07 | 120.03 | 117.00 |
| 1 | AA | 923 | A | N3-C4-N9 | 6.07 | 132.25 | 127.40 |
| 22 | BA | 2009 | A | N9-C4-C5 | 6.07 | 108.23 | 105.80 |
| 22 | BA | 2572 | A | C4-C5-N7 | -6.07 | 107.67 | 110.70 |
| 1 | AA | 253 | A | C8-N9-C4 | 6.07 | 108.23 | 105.80 |
| 1 | AA | 279 | A | C4-C5-C6 | 6.07 | 120.03 | 117.00 |
| 1 | AA | 300 | A | C5-N7-C8 | 6.07 | 106.93 | 103.90 |
| 22 | BA | 632 | A | N9-C4-C5 | 6.07 | 108.23 | 105.80 |
| 22 | BA | 734 | A | C4-C5-C6 | 6.07 | 120.03 | 117.00 |
| 23 | BB | 15 | A | C5-N7-C8 | 6.07 | 106.93 | 103.90 |
| 23 | BB | 104 | A | C4-C5-C6 | 6.07 | 120.03 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 716 | A | N9-C4-C5 | 6.06 | 108.23 | 105.80 |
| 22 | BA | 1616 | A | C4-C5-C6 | 6.06 | 120.03 | 117.00 |
| 1 | AA | 53 | A | C4-C5-C6 | 6.06 | 120.03 | 117.00 |
| 22 | BA | 460 | A | C4-C5-C6 | 6.06 | 120.03 | 117.00 |
| 22 | BA | 1978 | A | C4-C5-C6 | 6.06 | 120.03 | 117.00 |
| 22 | BA | 2077 | A | N9-C4-C5 | 6.06 | 108.22 | 105.80 |
| 22 | BA | 2883 | A | C4-C5-C6 | 6.06 | 120.03 | 117.00 |
| 1 | AA | 116 | A | N3-C4-N9 | 6.06 | 132.25 | 127.40 |
| 1 | AA | 1441 | A | C4-C5-C6 | 6.06 | 120.03 | 117.00 |
| 22 | BA | 727 | A | C4-C5-C6 | 6.06 | 120.03 | 117.00 |
| 22 | BA | 1495 | A | C4-C5-C6 | 6.06 | 120.03 | 117.00 |
| 22 | BA | 2741 | A | C4-C5-N7 | -6.06 | 107.67 | 110.70 |
| 22 | BA | 2813 | A | N3-C4-N9 | 6.06 | 132.25 | 127.40 |
| 1 | AA | 1021 | A | N9-C4-C5 | 6.06 | 108.22 | 105.80 |
| 22 | BA | 311 | A | N9-C4-C5 | 6.06 | 108.22 | 105.80 |
| 22 | BA | 979 | A | C4-C5-C6 | 6.06 | 120.03 | 117.00 |
| 55 | B8 | 14 | A | N3-C4-N9 | 6.06 | 132.25 | 127.40 |
| 22 | BA | 49 | A | N9-C4-C5 | 6.06 | 108.22 | 105.80 |
| 22 | BA | 599 | A | N9-C4-C5 | 6.06 | 108.22 | 105.80 |
| 22 | BA | 2799 | A | C5-N7-C8 | 6.06 | 106.93 | 103.90 |
| 22 | BA | 925 | A | N9-C4-C5 | 6.05 | 108.22 | 105.80 |
| 22 | BA | 1147 | A | N9-C4-C5 | 6.05 | 108.22 | 105.80 |
| 22 | BA | 2199 | A | C4-C5-C6 | 6.05 | 120.03 | 117.00 |
| 1 | AA | 675 | A | C4-C5-C6 | 6.05 | 120.02 | 117.00 |
| 1 | AA | 681 | A | N9-C4-C5 | 6.05 | 108.22 | 105.80 |
| 1 | AA | 906 | A | C4-C5-C6 | 6.05 | 120.03 | 117.00 |
| 1 | AA | 1507 | A | C4-C5-C6 | 6.05 | 120.03 | 117.00 |
| 22 | BA | 1286 | A | C4-C5-N7 | -6.05 | 107.68 | 110.70 |
| 23 | BB | 119 | A | C4-C5-C6 | 6.05 | 120.03 | 117.00 |
| 1 | AA | 246 | A | N9-C4-C5 | 6.05 | 108.22 | 105.80 |
| 22 | BA | 1899 | A | C4-C5-C6 | 6.05 | 120.02 | 117.00 |
| 1 | AA | 315 | A | C4-C5-C6 | 6.04 | 120.02 | 117.00 |
| 22 | BA | 146 | A | C4-C5-C6 | 6.04 | 120.02 | 117.00 |
| 1 | AA | 270 | A | N9-C4-C5 | 6.04 | 108.22 | 105.80 |
| 1 | AA | 1269 | A | C4-C5-C6 | 6.04 | 120.02 | 117.00 |
| 22 | BA | 1420 | A | C4-C5-C6 | 6.04 | 120.02 | 117.00 |
| 1 | AA | 495 | A | N9-C4-C5 | 6.04 | 108.22 | 105.80 |
| 22 | BA | 538 | A | N9-C4-C5 | 6.04 | 108.22 | 105.80 |
| 1 | AA | 1413 | A | C4-C5-C6 | 6.04 | 120.02 | 117.00 |
| 22 | BA | 270 | A | C4-C5-C6 | 6.04 | 120.02 | 117.00 |
| 22 | BA | 453 | A | N3-C4-N9 | 6.04 | 132.23 | 127.40 |
| 22 | BA | 478 | A | C4-C5-N7 | -6.04 | 107.68 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 2171 | A | N9-C4-C5 | 6.04 | 108.22 | 105.80 |
| 22 | BA | 2449 | U | N1-C2-N3 | 6.04 | 118.52 | 114.90 |
| 55 | B8 | 21 | A | N3-C4-N9 | 6.04 | 132.23 | 127.40 |
| 22 | BA | 2003 | A | C4-C5-C6 | 6.04 | 120.02 | 117.00 |
| 22 | BA | 2589 | A | C4-C5-C6 | 6.04 | 120.02 | 117.00 |
| 22 | BA | 2703 | C | C6-N1-C2 | -6.04 | 117.89 | 120.30 |
| 23 | BB | 34 | A | C4-C5-C6 | 6.04 | 120.02 | 117.00 |
| 55 | B8 | 26 | A | C5-C6-N1 | 6.04 | 120.72 | 117.70 |
| 1 | AA | 309 | A | N9-C4-C5 | 6.03 | 108.21 | 105.80 |
| 1 | AA | 712 | A | N9-C4-C5 | 6.03 | 108.21 | 105.80 |
| 1 | AA | 1167 | A | C4-C5-C6 | 6.03 | 120.02 | 117.00 |
| 1 | AA | 1201 | A | N9-C4-C5 | 6.03 | 108.21 | 105.80 |
| 1 | AA | 1375 | A | N9-C4-C5 | 6.03 | 108.21 | 105.80 |
| 22 | BA | 802 | A | N9-C4-C5 | 6.03 | 108.21 | 105.80 |
| 22 | BA | 1213 | A | N9-C4-C5 | 6.03 | 108.21 | 105.80 |
| 1 | AA | 1311 | A | C4-C5-C6 | 6.03 | 120.02 | 117.00 |
| 22 | BA | 1230 | A | C4-C5-C6 | 6.03 | 120.02 | 117.00 |
| 22 | BA | 2497 | A | C4-C5-N7 | -6.03 | 107.69 | 110.70 |
| 1 | AA | 878 | A | C4-C5-C6 | 6.03 | 120.01 | 117.00 |
| 22 | BA | 654 | A | N9-C4-C5 | 6.03 | 108.21 | 105.80 |
| 22 | BA | 1932 | A | N9-C4-C5 | 6.03 | 108.21 | 105.80 |
| 22 | BA | 2082 | A | N9-C4-C5 | 6.03 | 108.21 | 105.80 |
| 22 | BA | 2565 | A | N9-C4-C5 | 6.03 | 108.21 | 105.80 |
| 1 | AA | 432 | A | N9-C4-C5 | 6.02 | 108.21 | 105.80 |
| 1 | AA | 946 | A | N3-C4-N9 | 6.02 | 132.22 | 127.40 |
| 1 | AA | 1431 | A | C4-C5-C6 | 6.02 | 120.01 | 117.00 |
| 22 | BA | 1254 | A | C4-C5-C6 | 6.02 | 120.01 | 117.00 |
| 22 | BA | 2753 | A | C4-C5-N7 | -6.02 | 107.69 | 110.70 |
| 22 | BA | 1784 | A | C4-C5-C6 | 6.02 | 120.01 | 117.00 |
| 22 | BA | 655 | A | N9-C4-C5 | 6.02 | 108.21 | 105.80 |
| 1 | AA | 1480 | A | C4-C5-C6 | 6.02 | 120.01 | 117.00 |
| 22 | BA | 73 | A | N9-C4-C5 | 6.02 | 108.21 | 105.80 |
| 22 | BA | 1549 | A | N9-C4-C5 | 6.02 | 108.21 | 105.80 |
| 22 | BA | 1689 | A | N9-C4-C5 | 6.02 | 108.21 | 105.80 |
| 1 | AA | 65 | A | N9-C4-C5 | 6.01 | 108.21 | 105.80 |
| 1 | AA | 109 | A | C4-C5-C6 | 6.01 | 120.01 | 117.00 |
| 1 | AA | 349 | A | C4-C5-C6 | 6.01 | 120.01 | 117.00 |
| 1 | AA | 1092 | A | C4-C5-C6 | 6.01 | 120.01 | 117.00 |
| 22 | BA | 156 | A | N9-C4-C5 | 6.01 | 108.21 | 105.80 |
| 1 | AA | 1082 | A | N9-C4-C5 | 6.01 | 108.20 | 105.80 |
| 1 | AA | 356 | A | N3-C4-N9 | 6.01 | 132.21 | 127.40 |
| 22 | BA | 447 | A | N9-C4-C5 | 6.01 | 108.20 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 609 | A | N9-C4-C5 | 6.01 | 108.20 | 105.80 |
| 1 | AA | 59 | A | C4-C5-C6 | 6.01 | 120.00 | 117.00 |
| 22 | BA | 322 | A | C4-C5-N7 | -6.01 | 107.69 | 110.70 |
| 22 | BA | 1549 | A | N3-C4-N9 | 6.01 | 132.21 | 127.40 |
| 1 | AA | 908 | A | N9-C4-C5 | 6.01 | 108.20 | 105.80 |
| 22 | BA | 262 | A | C5-C6-N1 | 6.01 | 120.70 | 117.70 |
| 1 | AA | 1 | A | N9-C4-C5 | 6.00 | 108.20 | 105.80 |
| 22 | BA | 616 | A | N3-C4-N9 | 6.00 | 132.20 | 127.40 |
| 23 | BB | 52 | A | N9-C4-C5 | 6.00 | 108.20 | 105.80 |
| 55 | B8 | 69 | A | N3-C4-N9 | 6.00 | 132.20 | 127.40 |
| 1 | AA | 946 | A | N9-C4-C5 | 6.00 | 108.20 | 105.80 |
| 22 | BA | 608 | A | N3-C4-N9 | 6.00 | 132.20 | 127.40 |
| 1 | AA | 460 | A | C5-N7-C8 | 6.00 | 106.90 | 103.90 |
| 1 | AA | 743 | A | N3-C4-N9 | 6.00 | 132.20 | 127.40 |
| 1 | AA | 938 | A | C5-C6-N1 | 6.00 | 120.70 | 117.70 |
| 22 | BA | 472 | A | N9-C4-C5 | 6.00 | 108.20 | 105.80 |
| 22 | BA | 633 | A | N9-C4-C5 | 6.00 | 108.20 | 105.80 |
| 22 | BA | 829 | A | N9-C4-C5 | 6.00 | 108.20 | 105.80 |
| 1 | AA | 373 | A | N9-C4-C5 | 6.00 | 108.20 | 105.80 |
| 22 | BA | 788 | A | N9-C4-C5 | 6.00 | 108.20 | 105.80 |
| 22 | BA | 1927 | A | C4-C5-C6 | 6.00 | 120.00 | 117.00 |
| 22 | BA | 2411 | A | C4-C5-C6 | 6.00 | 120.00 | 117.00 |
| 55 | B8 | 66 | A | C8-N9-C4 | 6.00 | 108.20 | 105.80 |
| 22 | BA | 155 | A | C4-C5-C6 | 6.00 | 120.00 | 117.00 |
| 22 | BA | 2340 | A | C4-C5-C6 | 6.00 | 120.00 | 117.00 |
| 22 | BA | 486 | C | C6-N1-C2 | -5.99 | 117.90 | 120.30 |
| 22 | BA | 1265 | A | C4-C5-N7 | -5.99 | 107.70 | 110.70 |
| 22 | BA | 1626 | A | C4-C5-C6 | 5.99 | 120.00 | 117.00 |
| 22 | BA | 2757 | A | C5-N7-C8 | 5.99 | 106.90 | 103.90 |
| 55 | B8 | 21 | A | C8-N9-C4 | 5.99 | 108.20 | 105.80 |
| 22 | BA | 2273 | A | N9-C4-C5 | 5.99 | 108.20 | 105.80 |
| 22 | BA | 2430 | A | O4'-C1'-N9 | 5.99 | 112.99 | 108.20 |
| 22 | BA | 1378 | A | C4-C5-N7 | -5.99 | 107.71 | 110.70 |
| 22 | BA | 2726 | A | C4-C5-N7 | -5.99 | 107.71 | 110.70 |
| 1 | AA | 1493 | A | C4-C5-C6 | 5.99 | 119.99 | 117.00 |
| 22 | BA | 1937 | A | C4-C5-C6 | 5.99 | 119.99 | 117.00 |
| 22 | BA | 2135 | A | N9-C4-C5 | 5.99 | 108.19 | 105.80 |
| 27 | BF | 109 | PRO | CA-N-CD | -5.99 | 103.12 | 111.50 |
| 22 | BA | 1722 | A | N3-C4-N9 | 5.99 | 132.19 | 127.40 |
| 22 | BA | 2142 | A | C5-C6-N1 | 5.99 | 120.69 | 117.70 |
| 22 | BA | 330 | A | C5-C6-N1 | 5.98 | 120.69 | 117.70 |
| 1 | AA | 781 | A | C4-C5-N7 | -5.98 | 107.71 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1250 | A | C4-C5-C6 | 5.98 | 119.99 | 117.00 |
| 22 | BA | 532 | A | N3-C4-N9 | 5.98 | 132.19 | 127.40 |
| 22 | BA | 1027 | A | N9-C4-C5 | 5.98 | 108.19 | 105.80 |
| 22 | BA | 1275 | A | C4-C5-N7 | -5.98 | 107.71 | 110.70 |
| 22 | BA | 2014 | A | C4-C5-C6 | 5.98 | 119.99 | 117.00 |
| 1 | AA | 802 | A | C4-C5-C6 | 5.98 | 119.99 | 117.00 |
| 22 | BA | 2598 | A | C4-C5-N7 | -5.98 | 107.71 | 110.70 |
| 23 | BB | 94 | A | C4-C5-C6 | 5.98 | 119.99 | 117.00 |
| 22 | BA | 382 | A | N9-C4-C5 | 5.98 | 108.19 | 105.80 |
| 22 | BA | 2366 | A | N3-C4-N9 | 5.98 | 132.18 | 127.40 |
| 22 | BA | 2856 | A | C4-C5-C6 | 5.98 | 119.99 | 117.00 |
| 1 | AA | 1067 | A | C4-C5-C6 | 5.98 | 119.99 | 117.00 |
| 1 | AA | 1256 | A | N9-C4-C5 | 5.98 | 108.19 | 105.80 |
| 22 | BA | 1009 | A | C4-C5-C6 | 5.98 | 119.99 | 117.00 |
| 22 | BA | 1204 | A | C5-N7-C8 | 5.98 | 106.89 | 103.90 |
| 22 | BA | 141 | G | C6-C5-N7 | -5.98 | 126.81 | 130.40 |
| 1 | AA | 630 | A | N9-C4-C5 | 5.97 | 108.19 | 105.80 |
| 22 | BA | 788 | A | C4-C5-N7 | -5.97 | 107.71 | 110.70 |
| 22 | BA | 861 | A | N9-C4-C5 | 5.97 | 108.19 | 105.80 |
| 22 | BA | 1549 | A | C5-C6-N1 | 5.97 | 120.69 | 117.70 |
| 1 | AA | 1044 | A | C4-C5-C6 | 5.97 | 119.99 | 117.00 |
| 22 | BA | 1654 | A | N3-C4-N9 | 5.97 | 132.18 | 127.40 |
| 22 | BA | 1759 | A | N3-C4-N9 | 5.97 | 132.18 | 127.40 |
| 22 | BA | 1987 | A | N9-C4-C5 | 5.97 | 108.19 | 105.80 |
| 23 | BB | 29 | A | C4-C5-C6 | 5.97 | 119.99 | 117.00 |
| 1 | AA | 523 | A | C4-C5-C6 | 5.97 | 119.98 | 117.00 |
| 1 | AA | 482 | A | C4-C5-C6 | 5.97 | 119.98 | 117.00 |
| 1 | AA | 1257 | A | C4-C5-C6 | 5.97 | 119.98 | 117.00 |
| 22 | BA | 1373 | A | N3-C4-N9 | 5.97 | 132.18 | 127.40 |
| 8 | AH | 96 | MET | CA-CB-CG | 5.97 | 123.44 | 113.30 |
| 22 | BA | 2003 | A | C5-C6-N1 | 5.97 | 120.68 | 117.70 |
| 1 | AA | 327 | A | N9-C4-C5 | 5.97 | 108.19 | 105.80 |
| 1 | AA | 363 | A | C4-C5-N7 | -5.97 | 107.72 | 110.70 |
| 1 | AA | 373 | A | N3-C4-N9 | 5.97 | 132.17 | 127.40 |
| 22 | BA | 2392 | A | C4-C5-C6 | 5.97 | 119.98 | 117.00 |
| 1 | AA | 535 | A | C4-C5-C6 | 5.96 | 119.98 | 117.00 |
| 1 | AA | 1493 | A | N9-C4-C5 | 5.96 | 108.19 | 105.80 |
| 22 | BA | 586 | A | C4-C5-C6 | 5.96 | 119.98 | 117.00 |
| 1 | AA | 1363 | A | N9-C4-C5 | 5.96 | 108.19 | 105.80 |
| 22 | BA | 1640 | A | N3-C4-N9 | 5.96 | 132.17 | 127.40 |
| 22 | BA | 1654 | A | C4-C5-C6 | 5.96 | 119.98 | 117.00 |
| 22 | BA | 2227 | A | N9-C4-C5 | 5.96 | 108.18 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1 | AA | 1035 | A | N3-C4-N9 | 5.96 | 132.17 | 127.40 |
| 22 | BA | 461 | C | C6-N1-C2 | -5.96 | 117.92 | 120.30 |
| 22 | BA | 631 | A | C8-N9-C4 | 5.96 | 108.18 | 105.80 |
| 22 | BA | 2792 | A | N9-C4-C5 | 5.96 | 108.18 | 105.80 |
| 1 | AA | 393 | A | C4-C5-C6 | 5.96 | 119.98 | 117.00 |
| 1 | AA | 1499 | A | N9-C4-C5 | 5.96 | 108.18 | 105.80 |
| 22 | BA | 794 | A | N9-C4-C5 | 5.96 | 108.18 | 105.80 |
| 22 | BA | 1214 | A | C4-C5-N7 | -5.96 | 107.72 | 110.70 |
| 1 | AA | 1204 | A | C4-C5-C6 | 5.95 | 119.98 | 117.00 |
| 1 | AA | 1465 | A | N3-C4-N9 | 5.95 | 132.16 | 127.40 |
| 22 | BA | 71 | A | N3-C4-N9 | 5.95 | 132.16 | 127.40 |
| 22 | BA | 2072 | C | C6-N1-C2 | -5.95 | 117.92 | 120.30 |
| 22 | BA | 1001 | A | C4-C5-C6 | 5.95 | 119.98 | 117.00 |
| 55 | B8 | 38 | A | C4-C5-C6 | 5.95 | 119.97 | 117.00 |
| 1 | AA | 353 | A | C4-C5-C6 | 5.95 | 119.97 | 117.00 |
| 22 | BA | 706 | A | C4-C5-C6 | 5.95 | 119.97 | 117.00 |
| 22 | BA | 2757 | A | N9-C4-C5 | 5.95 | 108.18 | 105.80 |
| 23 | BB | 39 | A | N9-C4-C5 | 5.95 | 108.18 | 105.80 |
| 1 | AA | 129 | A | C4-C5-C6 | 5.95 | 119.97 | 117.00 |
| 2 | AB | 135 | LEU | CB-CG-CD2 | 5.95 | 121.11 | 111.00 |
| 22 | BA | 1641 | A | C5-N7-C8 | 5.95 | 106.87 | 103.90 |
| 22 | BA | 2163 | A | N9-C4-C5 | 5.95 | 108.18 | 105.80 |
| 1 | AA | 60 | A | C5-N7-C8 | 5.95 | 106.87 | 103.90 |
| 1 | AA | 655 | A | N3-C4-N9 | 5.95 | 132.16 | 127.40 |
| 22 | BA | 2531 | A | N3-C4-N9 | 5.95 | 132.16 | 127.40 |
| 22 | BA | 2837 | A | C4-C5-N7 | -5.95 | 107.73 | 110.70 |
| 1 | AA | 28 | A | N3-C4-N9 | 5.94 | 132.16 | 127.40 |
| 1 | AA | 547 | A | C4-C5-C6 | 5.94 | 119.97 | 117.00 |
| 1 | AA | 792 | A | N9-C4-C5 | 5.94 | 108.18 | 105.80 |
| 1 | AA | 873 | A | N3-C4-N9 | 5.94 | 132.15 | 127.40 |
| 22 | BA | 5 | A | N9-C4-C5 | 5.94 | 108.18 | 105.80 |
| 22 | BA | 262 | A | C4-C5-C6 | 5.94 | 119.97 | 117.00 |
| 22 | BA | 1088 | A | N3-C4-N9 | 5.94 | 132.15 | 127.40 |
| 22 | BA | 1610 | A | C4-C5-C6 | 5.94 | 119.97 | 117.00 |
| 22 | BA | 1453 | A | C4-C5-C6 | 5.94 | 119.97 | 117.00 |
| 22 | BA | 1713 | A | C4-C5-C6 | 5.94 | 119.97 | 117.00 |
| 22 | BA | 1901 | A | C4-C5-C6 | 5.94 | 119.97 | 117.00 |
| 22 | BA | 1966 | A | N9-C4-C5 | 5.94 | 108.17 | 105.80 |
| 1 | AA | 1105 | A | C4-C5-C6 | 5.93 | 119.97 | 117.00 |
| 22 | BA | 1490 | A | N9-C4-C5 | 5.93 | 108.17 | 105.80 |
| 22 | BA | 2171 | A | C4-C5-C6 | 5.93 | 119.97 | 117.00 |
| 22 | BA | 83 | A | C4-C5-N7 | -5.93 | 107.73 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 599 | A | N3-C4-N9 | 5.93 | 132.15 | 127.40 |
| 22 | BA | 1745 | A | C4-C5-C6 | 5.93 | 119.97 | 117.00 |
| 22 | BA | 299 | A | C4-C5-C6 | 5.93 | 119.97 | 117.00 |
| 55 | B8 | 26 | A | C4-C5-C6 | 5.93 | 119.97 | 117.00 |
| 1 | AA | 313 | A | C4-C5-N7 | -5.93 | 107.74 | 110.70 |
| 22 | BA | 64 | A | N9-C4-C5 | 5.93 | 108.17 | 105.80 |
| 22 | BA | 428 | A | C4-C5-C6 | 5.93 | 119.97 | 117.00 |
| 22 | BA | 1046 | A | C4-C5-C6 | 5.93 | 119.97 | 117.00 |
| 22 | BA | 1387 | A | N3-C4-N9 | 5.93 | 132.14 | 127.40 |
| 30 | BI | 40 | CYS | CA-CB-SG | 5.93 | 124.67 | 114.00 |
| 22 | BA | 1127 | A | N9-C4-C5 | 5.93 | 108.17 | 105.80 |
| 22 | BA | 1786 | A | C4-C5-C6 | 5.93 | 119.96 | 117.00 |
| 1 | AA | 1431 | A | N9-C4-C5 | 5.93 | 108.17 | 105.80 |
| 22 | BA | 661 | A | C5-C6-N1 | 5.93 | 120.66 | 117.70 |
| 22 | BA | 2748 | A | N9-C4-C5 | 5.93 | 108.17 | 105.80 |
| 22 | BA | 2800 | A | C4-C5-C6 | 5.93 | 119.96 | 117.00 |
| 1 | AA | 1396 | A | C4-C5-C6 | 5.92 | 119.96 | 117.00 |
| 22 | BA | 1155 | A | C4-C5-C6 | 5.92 | 119.96 | 117.00 |
| 22 | BA | 1155 | A | C5-N7-C8 | 5.92 | 106.86 | 103.90 |
| 22 | BA | 2439 | A | C4-C5-C6 | 5.92 | 119.96 | 117.00 |
| 1 | AA | 78 | A | C4-C5-C6 | 5.92 | 119.96 | 117.00 |
| 22 | BA | 2471 | A | C4-C5-C6 | 5.92 | 119.96 | 117.00 |
| 22 | BA | 2060 | A | C4-C5-N7 | -5.92 | 107.74 | 110.70 |
| 22 | BA | 1969 | A | N9-C4-C5 | 5.92 | 108.17 | 105.80 |
| 1 | AA | 1151 | A | C4-C5-C6 | 5.92 | 119.96 | 117.00 |
| 1 | AA | 1362 | A | C4-C5-C6 | 5.92 | 119.96 | 117.00 |
| 22 | BA | 165 | A | C4-C5-N7 | -5.92 | 107.74 | 110.70 |
| 22 | BA | 793 | A | C8-N9-C4 | 5.92 | 108.17 | 105.80 |
| 22 | BA | 918 | A | C4-C5-C6 | 5.92 | 119.96 | 117.00 |
| 22 | BA | 2335 | A | C4-C5-N7 | -5.92 | 107.74 | 110.70 |
| 1 | AA | 718 | A | N9-C4-C5 | 5.92 | 108.17 | 105.80 |
| 22 | BA | 613 | A | N9-C4-C5 | 5.92 | 108.17 | 105.80 |
| 1 | AA | 454 | G | C6-C5-N7 | -5.91 | 126.85 | 130.40 |
| 1 | AA | 753 | A | C4-C5-C6 | 5.91 | 119.96 | 117.00 |
| 1 | AA | 900 | A | C4-C5-C6 | 5.91 | 119.96 | 117.00 |
| 22 | BA | 217 | A | C4-C5-N7 | -5.91 | 107.74 | 110.70 |
| 22 | BA | 401 | A | N3-C4-N9 | 5.91 | 132.13 | 127.40 |
| 22 | BA | 1690 | A | N9-C4-C5 | 5.91 | 108.17 | 105.80 |
| 22 | BA | 1847 | A | C4-C5-C6 | 5.91 | 119.96 | 117.00 |
| 22 | BA | 2020 | A | C4-C5-C6 | 5.91 | 119.96 | 117.00 |
| 1 | AA | 983 | A | N3-C4-N9 | 5.91 | 132.13 | 127.40 |
| 22 | BA | 415 | A | C5-N7-C8 | 5.91 | 106.86 | 103.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1014 | A | N9-C4-C5 | 5.91 | 108.16 | 105.80 |
| 22 | BA | 1057 | A | C4-C5-C6 | 5.91 | 119.95 | 117.00 |
| 22 | BA | 207 | A | C4-C5-N7 | -5.91 | 107.75 | 110.70 |
| 22 | BA | 905 | A | C4-C5-C6 | 5.91 | 119.95 | 117.00 |
| 22 | BA | 1439 | A | C4-C5-C6 | 5.91 | 119.95 | 117.00 |
| 22 | BA | 2020 | A | C5-N7-C8 | 5.91 | 106.85 | 103.90 |
| 1 | AA | 1513 | A | C4-C5-N7 | -5.91 | 107.75 | 110.70 |
| 22 | BA | 1477 | A | N9-C4-C5 | 5.91 | 108.16 | 105.80 |
| 1 | AA | 1349 | A | C4-C5-C6 | 5.91 | 119.95 | 117.00 |
| 1 | AA | 1446 | A | N3-C4-N9 | 5.91 | 132.12 | 127.40 |
| 22 | BA | 64 | A | N3-C4-N9 | 5.91 | 132.12 | 127.40 |
| 22 | BA | 2005 | A | C4-C5-N7 | -5.91 | 107.75 | 110.70 |
| 1 | AA | 1441 | A | N9-C4-C5 | 5.90 | 108.16 | 105.80 |
| 22 | BA | 459 | U | N3-C2-O2 | -5.90 | 118.07 | 122.20 |
| 22 | BA | 256 | A | N3-C4-N9 | 5.90 | 132.12 | 127.40 |
| 22 | BA | 2386 | A | N9-C4-C5 | 5.90 | 108.16 | 105.80 |
| 22 | BA | 352 | A | C4-C5-C6 | 5.90 | 119.95 | 117.00 |
| 22 | BA | 1431 | A | C4-C5-N7 | -5.90 | 107.75 | 110.70 |
| 22 | BA | 2037 | A | N9-C4-C5 | 5.90 | 108.16 | 105.80 |
| 1 | AA | 918 | A | C4-C5-C6 | 5.90 | 119.95 | 117.00 |
| 22 | BA | 2510 | C | C6-N1-C2 | -5.90 | 117.94 | 120.30 |
| 1 | AA | 532 | A | N3-C4-N9 | 5.90 | 132.12 | 127.40 |
| 22 | BA | 73 | A | C4-C5-C6 | 5.90 | 119.95 | 117.00 |
| 22 | BA | 925 | A | C5-C6-N1 | 5.90 | 120.65 | 117.70 |
| 1 | AA | 872 | A | N3-C4-N9 | 5.89 | 132.12 | 127.40 |
| 1 | AA | 974 | A | C4-C5-C6 | 5.89 | 119.95 | 117.00 |
| 22 | BA | 603 | A | N9-C4-C5 | 5.89 | 108.16 | 105.80 |
| 22 | BA | 1503 | A | C4-C5-C6 | 5.89 | 119.95 | 117.00 |
| 22 | BA | 2471 | A | C4-C5-N7 | -5.89 | 107.75 | 110.70 |
| 22 | BA | 412 | A | C4-C5-C6 | 5.89 | 119.94 | 117.00 |
| 1 | AA | 554 | A | C4-C5-N7 | -5.89 | 107.76 | 110.70 |
| 22 | BA | 1274 | A | N9-C4-C5 | 5.89 | 108.16 | 105.80 |
| 22 | BA | 2662 | A | N9-C4-C5 | 5.89 | 108.16 | 105.80 |
| 22 | BA | 1268 | A | C4-C5-C6 | 5.89 | 119.94 | 117.00 |
| 22 | BA | 2434 | A | C4-C5-N7 | -5.89 | 107.76 | 110.70 |
| 22 | BA | 1237 | A | C4-C5-C6 | 5.88 | 119.94 | 117.00 |
| 22 | BA | 2268 | A | C4-C5-N7 | -5.88 | 107.76 | 110.70 |
| 22 | BA | 2376 | A | C4-C5-C6 | 5.88 | 119.94 | 117.00 |
| 22 | BA | 685 | A | N9-C4-C5 | 5.88 | 108.15 | 105.80 |
| 22 | BA | 1194 | A | C4-C5-C6 | 5.88 | 119.94 | 117.00 |
| 22 | BA | 675 | A | C4-C5-C6 | 5.88 | 119.94 | 117.00 |
| 22 | BA | 1640 | A | N9-C4-C5 | 5.88 | 108.15 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1927 | A | C4-C5-N7 | -5.88 | 107.76 | 110.70 |
| 22 | BA | 668 | A | C5-N7-C8 | 5.88 | 106.84 | 103.90 |
| 22 | BA | 925 | A | N3-C4-N9 | 5.88 | 132.10 | 127.40 |
| 22 | BA | 2725 | A | N9-C4-C5 | 5.88 | 108.15 | 105.80 |
| 22 | BA | 750 | A | C5-C6-N1 | 5.88 | 120.64 | 117.70 |
| 22 | BA | 1009 | A | C5-N7-C8 | 5.88 | 106.84 | 103.90 |
| 22 | BA | 1142 | A | C8-N9-C4 | 5.88 | 108.15 | 105.80 |
| 1 | AA | 996 | A | C4-C5-C6 | 5.88 | 119.94 | 117.00 |
| 22 | BA | 144 | A | N3-C4-N9 | 5.88 | 132.10 | 127.40 |
| 22 | BA | 204 | A | C4-C5-N7 | -5.88 | 107.76 | 110.70 |
| 22 | BA | 218 | A | N3-C4-N9 | 5.88 | 132.10 | 127.40 |
| 22 | BA | 917 | A | N3-C4-N9 | 5.88 | 132.10 | 127.40 |
| 1 | AA | 321 | A | C4-C5-C6 | 5.88 | 119.94 | 117.00 |
| 22 | BA | 613 | A | N3-C4-N9 | 5.88 | 132.10 | 127.40 |
| 23 | BB | 57 | A | N3-C4-N9 | 5.88 | 132.10 | 127.40 |
| 1 | AA | 1219 | A | N3-C4-N9 | 5.87 | 132.10 | 127.40 |
| 22 | BA | 802 | A | C4-C5-N7 | -5.87 | 107.76 | 110.70 |
| 22 | BA | 2530 | A | C4-C5-N7 | -5.87 | 107.76 | 110.70 |
| 1 | AA | 28 | A | N9-C4-C5 | 5.87 | 108.15 | 105.80 |
| 1 | AA | 1081 | A | N3-C4-N9 | 5.87 | 132.10 | 127.40 |
| 22 | BA | 2281 | A | N3-C4-N9 | 5.87 | 132.10 | 127.40 |
| 1 | AA | 1394 | A | C4-C5-C6 | 5.87 | 119.94 | 117.00 |
| 55 | B8 | 41 | A | C4-C5-C6 | 5.87 | 119.94 | 117.00 |
| 22 | BA | 1572 | A | N3-C4-N9 | 5.87 | 132.09 | 127.40 |
| 1 | AA | 712 | A | C5-C6-N1 | 5.87 | 120.63 | 117.70 |
| 1 | AA | 1000 | A | N9-C4-C5 | 5.87 | 108.15 | 105.80 |
| 1 | AA | 746 | A | N9-C4-C5 | 5.86 | 108.15 | 105.80 |
| 22 | BA | 849 | A | N9-C4-C5 | 5.86 | 108.14 | 105.80 |
| 22 | BA | 909 | A | C5-C6-N1 | 5.86 | 120.63 | 117.70 |
| 22 | BA | 2602 | A | C8-N9-C4 | 5.86 | 108.14 | 105.80 |
| 22 | BA | 2449 | U | N3-C4-C5 | 5.86 | 118.12 | 114.60 |
| 22 | BA | 2700 | A | N3-C4-N9 | 5.86 | 132.09 | 127.40 |
| 1 | AA | 907 | A | N9-C4-C5 | 5.86 | 108.14 | 105.80 |
| 22 | BA | 384 | A | N9-C4-C5 | 5.86 | 108.14 | 105.80 |
| 23 | BB | 94 | A | N3-C4-N9 | 5.86 | 132.09 | 127.40 |
| 1 | AA | 767 | A | N9-C4-C5 | 5.86 | 108.14 | 105.80 |
| 1 | AA | 408 | A | C4-C5-N7 | -5.85 | 107.77 | 110.70 |
| 22 | BA | 1247 | A | C4-C5-N7 | -5.85 | 107.77 | 110.70 |
| 1 | AA | 784 | A | C4-C5-C6 | 5.85 | 119.93 | 117.00 |
| 22 | BA | 2388 | A | C4-C5-C6 | 5.85 | 119.93 | 117.00 |
| 1 | AA | 1081 | A | N9-C4-C5 | 5.85 | 108.14 | 105.80 |
| 22 | BA | 1665 | A | N3-C4-N9 | 5.85 | 132.08 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 55 | B8 | 76 | A | N3-C4-N9 | 5.85 | 132.08 | 127.40 |
| 1 | AA | 55 | A | N9-C4-C5 | 5.85 | 108.14 | 105.80 |
| 1 | AA | 572 | A | C4-C5-N7 | -5.85 | 107.78 | 110.70 |
| 1 | AA | 663 | A | N9-C4-C5 | 5.85 | 108.14 | 105.80 |
| 1 | AA | 1019 | A | C4-C5-C6 | 5.85 | 119.92 | 117.00 |
| 1 | AA | 1483 | A | N3-C4-N9 | 5.85 | 132.08 | 127.40 |
| 22 | BA | 877 | A | C4-C5-C6 | 5.85 | 119.92 | 117.00 |
| 22 | BA | 933 | A | N3-C4-N9 | 5.85 | 132.08 | 127.40 |
| 22 | BA | 1470 | A | C4-C5-N7 | -5.85 | 107.78 | 110.70 |
| 1 | AA | 1046 | A | N9-C4-C5 | 5.84 | 108.14 | 105.80 |
| 1 | AA | 1080 | A | C4-C5-C6 | 5.84 | 119.92 | 117.00 |
| 55 | B8 | 42 | A | C5-C6-N1 | 5.84 | 120.62 | 117.70 |
| 1 | AA | 72 | A | C4-C5-C6 | 5.84 | 119.92 | 117.00 |
| 1 | AA | 487 | A | N3-C4-N9 | 5.84 | 132.07 | 127.40 |
| 22 | BA | 1847 | A | C5-N7-C8 | 5.84 | 106.82 | 103.90 |
| 22 | BA | 2119 | A | C4-C5-C6 | 5.84 | 119.92 | 117.00 |
| 22 | BA | 2748 | A | C5-N7-C8 | 5.84 | 106.82 | 103.90 |
| 1 | AA | 1 | A | N3-C4-N9 | 5.84 | 132.07 | 127.40 |
| 22 | BA | 739 | A | C4-C5-C6 | 5.84 | 119.92 | 117.00 |
| 22 | BA | 911 | A | C5-N7-C8 | 5.84 | 106.82 | 103.90 |
| 22 | BA | 2173 | A | N9-C4-C5 | 5.84 | 108.14 | 105.80 |
| 22 | BA | 2450 | A | C4-C5-N7 | -5.84 | 107.78 | 110.70 |
| 55 | B8 | 20 | U | C6-N1-C2 | 5.84 | 124.50 | 121.00 |
| 22 | BA | 990 | A | C4-C5-N7 | -5.84 | 107.78 | 110.70 |
| 22 | BA | 1819 | A | N3-C4-N9 | 5.84 | 132.07 | 127.40 |
| 22 | BA | 1998 | A | C5-C6-N1 | 5.84 | 120.62 | 117.70 |
| 22 | BA | 2468 | A | C4-C5-C6 | 5.84 | 119.92 | 117.00 |
| 1 | AA | 179 | A | C4-C5-C6 | 5.83 | 119.92 | 117.00 |
| 1 | AA | 1163 | A | N9-C4-C5 | 5.83 | 108.13 | 105.80 |
| 55 | B8 | 51 | A | N3-C4-N9 | 5.83 | 132.07 | 127.40 |
| 22 | BA | 1535 | A | N9-C4-C5 | 5.83 | 108.13 | 105.80 |
| 22 | BA | 1566 | A | C8-N9-C4 | 5.83 | 108.13 | 105.80 |
| 55 | B8 | 73 | A | N3-C4-N9 | 5.83 | 132.07 | 127.40 |
| 22 | BA | 63 | A | N3-C4-N9 | 5.83 | 132.07 | 127.40 |
| 22 | BA | 262 | A | N3-C4-N9 | 5.83 | 132.07 | 127.40 |
| 22 | BA | 2461 | A | N9-C4-C5 | 5.83 | 108.13 | 105.80 |
| 22 | BA | 256 | A | N9-C4-C5 | 5.83 | 108.13 | 105.80 |
| 22 | BA | 2392 | A | N9-C4-C5 | 5.83 | 108.13 | 105.80 |
| 1 | AA | 439 | U | C5-C4-O4 | -5.83 | 122.40 | 125.90 |
| 1 | AA | 539 | A | N3-C4-N9 | 5.83 | 132.06 | 127.40 |
| 1 | AA | 1324 | A | N3-C4-N9 | 5.83 | 132.06 | 127.40 |
| 22 | BA | 422 | A | N3-C4-N9 | 5.83 | 132.06 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1237 | A | N9-C4-C5 | 5.83 | 108.13 | 105.80 |
| 22 | BA | 751 | A | N3-C4-N9 | 5.83 | 132.06 | 127.40 |
| 1 | AA | 382 | A | N3-C4-N9 | 5.83 | 132.06 | 127.40 |
| 22 | BA | 1593 | A | C4-C5-C6 | 5.83 | 119.91 | 117.00 |
| 22 | BA | 2088 | A | N3-C4-N9 | 5.83 | 132.06 | 127.40 |
| 55 | B8 | 76 | A | C4-C5-C6 | 5.83 | 119.91 | 117.00 |
| 1 | AA | 865 | A | N3-C4-N9 | 5.82 | 132.06 | 127.40 |
| 1 | AA | 914 | A | N3-C4-N9 | 5.82 | 132.06 | 127.40 |
| 1 | AA | 1500 | A | C5-N7-C8 | 5.82 | 106.81 | 103.90 |
| 22 | BA | 631 | A | C4-C5-C6 | 5.82 | 119.91 | 117.00 |
| 22 | BA | 1089 | A | C4-C5-C6 | 5.82 | 119.91 | 117.00 |
| 22 | BA | 1010 | A | C4-C5-C6 | 5.82 | 119.91 | 117.00 |
| 23 | BB | 101 | A | C4-C5-N7 | -5.82 | 107.79 | 110.70 |
| 22 | BA | 2352 | A | C4-C5-N7 | -5.82 | 107.79 | 110.70 |
| 22 | BA | 2675 | A | N3-C4-N9 | 5.82 | 132.06 | 127.40 |
| 1 | AA | 32 | A | C5-C6-N1 | 5.82 | 120.61 | 117.70 |
| 22 | BA | 42 | A | C4-C5-C6 | 5.82 | 119.91 | 117.00 |
| 22 | BA | 1420 | A | C4-C5-N7 | -5.82 | 107.79 | 110.70 |
| 22 | BA | 1515 | A | C4-C5-C6 | 5.82 | 119.91 | 117.00 |
| 22 | BA | 1676 | A | N9-C4-C5 | 5.82 | 108.13 | 105.80 |
| 22 | BA | 119 | A | C4-C5-N7 | -5.82 | 107.79 | 110.70 |
| 22 | BA | 722 | A | N9-C4-C5 | 5.82 | 108.13 | 105.80 |
| 22 | BA | 1470 | A | N3-C4-N9 | 5.82 | 132.05 | 127.40 |
| 23 | BB | 15 | A | C4-C5-C6 | 5.82 | 119.91 | 117.00 |
| 1 | AA | 560 | A | C4-C5-C6 | 5.82 | 119.91 | 117.00 |
| 22 | BA | 2740 | A | N3-C4-N9 | 5.82 | 132.05 | 127.40 |
| 1 | AA | 949 | A | C4-C5-N7 | -5.81 | 107.79 | 110.70 |
| 22 | BA | 2062 | A | C4-C5-C6 | 5.81 | 119.91 | 117.00 |
| 22 | BA | 2860 | A | C4-C5-C6 | 5.81 | 119.91 | 117.00 |
| 1 | AA | 892 | A | N3-C4-N9 | 5.81 | 132.05 | 127.40 |
| 22 | BA | 226 | A | N9-C4-C5 | 5.81 | 108.12 | 105.80 |
| 22 | BA | 444 | C | C6-N1-C2 | -5.81 | 117.98 | 120.30 |
| 22 | BA | 1598 | A | C4-C5-N7 | -5.81 | 107.80 | 110.70 |
| 22 | BA | 1780 | A | C4-C5-C6 | 5.81 | 119.91 | 117.00 |
| 22 | BA | 2547 | A | C4-C5-C6 | 5.81 | 119.90 | 117.00 |
| 1 | AA | 461 | A | N9-C4-C5 | 5.81 | 108.12 | 105.80 |
| 22 | BA | 752 | A | C4-C5-C6 | 5.81 | 119.90 | 117.00 |
| 22 | BA | 849 | A | N3-C4-N9 | 5.81 | 132.04 | 127.40 |
| 22 | BA | 1508 | A | N9-C4-C5 | 5.81 | 108.12 | 105.80 |
| 22 | BA | 404 | A | C5-N7-C8 | 5.81 | 106.80 | 103.90 |
| 22 | BA | 1970 | A | C5-N7-C8 | 5.80 | 106.80 | 103.90 |
| 22 | BA | 2600 | A | N3-C4-N9 | 5.80 | 132.04 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 221 | A | N9-C4-C5 | 5.80 | 108.12 | 105.80 |
| 22 | BA | 362 | A | N3-C4-N9 | 5.80 | 132.04 | 127.40 |
| 22 | BA | 782 | A | N3-C4-N9 | 5.80 | 132.04 | 127.40 |
| 22 | BA | 449 | A | C4-C5-N7 | -5.80 | 107.80 | 110.70 |
| 22 | BA | 1274 | A | N3-C4-N9 | 5.80 | 132.04 | 127.40 |
| 22 | BA | 2088 | A | N9-C4-C5 | 5.80 | 108.12 | 105.80 |
| 1 | AA | 573 | A | C4-C5-C6 | 5.80 | 119.90 | 117.00 |
| 22 | BA | 1515 | A | C4-C5-N7 | -5.80 | 107.80 | 110.70 |
| 22 | BA | 1785 | A | N9-C4-C5 | 5.80 | 108.12 | 105.80 |
| 55 | B8 | 19 | G | O4'-C1'-N9 | -5.80 | 103.56 | 108.20 |
| 1 | AA | 365 | U | C5-C4-O4 | 5.80 | 129.38 | 125.90 |
| 22 | BA | 1009 | A | N9-C4-C5 | 5.80 | 108.12 | 105.80 |
| 22 | BA | 1353 | A | C5-C6-N1 | 5.80 | 120.60 | 117.70 |
| 22 | BA | 2101 | A | C4-C5-C6 | 5.80 | 119.90 | 117.00 |
| 22 | BA | 2513 | A | C4-C5-N7 | -5.80 | 107.80 | 110.70 |
| 22 | BA | 2887 | A | C4-C5-C6 | 5.80 | 119.90 | 117.00 |
| 22 | BA | 190 | A | C4-C5-N7 | -5.79 | 107.80 | 110.70 |
| 22 | BA | 1304 | A | C4-C5-C6 | 5.79 | 119.90 | 117.00 |
| 22 | BA | 1912 | A | C4-C5-C6 | 5.79 | 119.90 | 117.00 |
| 22 | BA | 2198 | A | C8-N9-C4 | 5.79 | 108.12 | 105.80 |
| 1 | AA | 1306 | A | N3-C4-N9 | 5.79 | 132.03 | 127.40 |
| 22 | BA | 1641 | A | N3-C4-N9 | 5.79 | 132.03 | 127.40 |
| 22 | BA | 2328 | A | N9-C4-C5 | 5.79 | 108.12 | 105.80 |
| 22 | BA | 2665 | A | N3-C4-N9 | 5.79 | 132.03 | 127.40 |
| 1 | AA | 907 | A | N3-C4-N9 | 5.79 | 132.03 | 127.40 |
| 22 | BA | 743 | A | N9-C4-C5 | 5.79 | 108.12 | 105.80 |
| 22 | BA | 2266 | A | C5-N7-C8 | 5.79 | 106.80 | 103.90 |
| 54 | B7 | 8 | G | C8-N9-C4 | 5.79 | 108.72 | 106.40 |
| 1 | AA | 1299 | A | N9-C4-C5 | 5.79 | 108.12 | 105.80 |
| 22 | BA | 309 | A | C4-C5-C6 | 5.79 | 119.89 | 117.00 |
| 22 | BA | 371 | A | C4-C5-C6 | 5.79 | 119.89 | 117.00 |
| 22 | BA | 2614 | A | N3-C4-N9 | 5.79 | 132.03 | 127.40 |
| 1 | AA | 1318 | A | C4-C5-C6 | 5.79 | 119.89 | 117.00 |
| 1 | AA | 1500 | A | N3-C4-N9 | 5.79 | 132.03 | 127.40 |
| 22 | BA | 44 | A | C4-C5-N7 | -5.79 | 107.81 | 110.70 |
| 22 | BA | 528 | A | N3-C4-N9 | 5.79 | 132.03 | 127.40 |
| 22 | BA | 2435 | A | N9-C4-C5 | 5.79 | 108.11 | 105.80 |
| 1 | AA | 889 | A | C4-C5-N7 | -5.78 | 107.81 | 110.70 |
| 22 | BA | 2662 | A | N3-C4-N9 | 5.78 | 132.03 | 127.40 |
| 22 | BA | 2835 | A | C4-C5-N7 | -5.78 | 107.81 | 110.70 |
| 22 | BA | 2531 | A | N9-C4-C5 | 5.78 | 108.11 | 105.80 |
| 22 | BA | 1676 | A | N3-C4-N9 | 5.78 | 132.02 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1757 | A | C8-N9-C4 | 5.78 | 108.11 | 105.80 |
| 22 | BA | 2377 | A | C4-C5-C6 | 5.78 | 119.89 | 117.00 |
| 22 | BA | 2468 | A | N9-C4-C5 | 5.78 | 108.11 | 105.80 |
| 22 | BA | 878 | A | C4-C5-C6 | 5.78 | 119.89 | 117.00 |
| 22 | BA | 2781 | A | N9-C4-C5 | 5.78 | 108.11 | 105.80 |
| 22 | BA | 592 | A | C5-C6-N1 | 5.78 | 120.59 | 117.70 |
| 22 | BA | 643 | A | C4-C5-C6 | 5.78 | 119.89 | 117.00 |
| 22 | BA | 1126 | A | N9-C4-C5 | 5.78 | 108.11 | 105.80 |
| 22 | BA | 2031 | A | C4-C5-C6 | 5.78 | 119.89 | 117.00 |
| 22 | BA | 2147 | A | C4-C5-C6 | 5.78 | 119.89 | 117.00 |
| 22 | BA | 1848 | A | C4-C5-N7 | -5.78 | 107.81 | 110.70 |
| 1 | AA | 607 | A | C4-C5-N7 | -5.77 | 107.81 | 110.70 |
| 22 | BA | 1032 | A | C4-C5-C6 | 5.77 | 119.89 | 117.00 |
| 22 | BA | 1392 | A | C5-C6-N1 | 5.77 | 120.59 | 117.70 |
| 22 | BA | 866 | A | C4-C5-C6 | 5.77 | 119.89 | 117.00 |
| 22 | BA | 959 | A | N3-C4-N9 | 5.77 | 132.02 | 127.40 |
| 22 | BA | 1784 | A | N3-C4-N9 | 5.77 | 132.02 | 127.40 |
| 29 | BH | 122 | LEU | CA-CB-CG | 5.77 | 128.58 | 115.30 |
| 22 | BA | 631 | A | N3-C4-N9 | 5.77 | 132.02 | 127.40 |
| 22 | BA | 1787 | A | C5-C6-N1 | 5.77 | 120.58 | 117.70 |
| 1 | AA | 554 | A | C4-C5-C6 | 5.77 | 119.88 | 117.00 |
| 22 | BA | 111 | A | C4-C5-C6 | 5.77 | 119.88 | 117.00 |
| 22 | BA | 1272 | A | C4-C5-N7 | -5.77 | 107.82 | 110.70 |
| 22 | BA | 2031 | A | N3-C4-N9 | 5.77 | 132.01 | 127.40 |
| 22 | BA | 2433 | A | N3-C4-N9 | 5.77 | 132.01 | 127.40 |
| 1 | AA | 1158 | C | N1-C2-O2 | 5.77 | 122.36 | 118.90 |
| 1 | AA | 389 | A | C5-C6-N1 | 5.76 | 120.58 | 117.70 |
| 22 | BA | 1073 | A | N9-C4-C5 | 5.76 | 108.11 | 105.80 |
| 22 | BA | 53 | A | N9-C4-C5 | 5.76 | 108.11 | 105.80 |
| 22 | BA | 751 | A | N9-C4-C5 | 5.76 | 108.11 | 105.80 |
| 53 | B5 | 24 | PRO | CA-N-CD | -5.76 | 103.43 | 111.50 |
| 1 | AA | 389 | A | N3-C4-N9 | 5.76 | 132.01 | 127.40 |
| 22 | BA | 226 | A | N3-C4-N9 | 5.76 | 132.01 | 127.40 |
| 22 | BA | 1029 | A | N3-C4-N9 | 5.76 | 132.01 | 127.40 |
| 22 | BA | 1603 | A | C5-C6-N1 | 5.76 | 120.58 | 117.70 |
| 1 | AA | 696 | A | N3-C4-N9 | 5.76 | 132.00 | 127.40 |
| 22 | BA | 1073 | A | N3-C4-N9 | 5.76 | 132.00 | 127.40 |
| 22 | BA | 2461 | A | C5-C6-N1 | 5.76 | 120.58 | 117.70 |
| 22 | BA | 2518 | A | C5-C6-N1 | 5.76 | 120.58 | 117.70 |
| 1 | AA | 495 | A | C4-C5-C6 | 5.75 | 119.88 | 117.00 |
| 22 | BA | 643 | A | C8-N9-C4 | 5.75 | 108.10 | 105.80 |
| 1 | AA | 129 | A | C4-C5-N7 | -5.75 | 107.82 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 321 | A | C4-C5-N7 | -5.75 | 107.82 | 110.70 |
| 1 | AA | 1503 | A | N9-C4-C5 | 5.75 | 108.10 | 105.80 |
| 22 | BA | 582 | A | N9-C4-C5 | 5.75 | 108.10 | 105.80 |
| 22 | BA | 1596 | A | C4-C5-C6 | 5.75 | 119.88 | 117.00 |
| 22 | BA | 2635 | A | C5-C6-N1 | 5.75 | 120.58 | 117.70 |
| 1 | AA | 1447 | A | C5-C6-N1 | 5.75 | 120.58 | 117.70 |
| 22 | BA | 727 | A | N9-C4-C5 | 5.75 | 108.10 | 105.80 |
| 22 | BA | 945 | A | C4-C5-C6 | 5.75 | 119.88 | 117.00 |
| 23 | BB | 75 | G | C5-C6-N1 | 5.75 | 114.38 | 111.50 |
| 1 | AA | 1394 | A | N9-C4-C5 | 5.75 | 108.10 | 105.80 |
| 1 | AA | 44 | A | C4-C5-N7 | -5.75 | 107.83 | 110.70 |
| 22 | BA | 911 | A | N3-C4-N9 | 5.75 | 132.00 | 127.40 |
| 1 | AA | 673 | A | C4-C5-N7 | -5.75 | 107.83 | 110.70 |
| 1 | AA | 1117 | A | C4-C5-C6 | 5.75 | 119.87 | 117.00 |
| 22 | BA | 670 | A | C4-C5-C6 | 5.75 | 119.87 | 117.00 |
| 22 | BA | 743 | A | N3-C4-N9 | 5.75 | 132.00 | 127.40 |
| 1 | AA | 1239 | A | N9-C4-C5 | 5.75 | 108.10 | 105.80 |
| 22 | BA | 111 | A | C4-C5-N7 | -5.75 | 107.83 | 110.70 |
| 22 | BA | 439 | A | C5-C6-N1 | 5.75 | 120.57 | 117.70 |
| 22 | BA | 1001 | A | C4-C5-N7 | -5.75 | 107.83 | 110.70 |
| 22 | BA | 1586 | A | C4-C5-N7 | -5.75 | 107.83 | 110.70 |
| 22 | BA | 1932 | A | C4-C5-C6 | 5.75 | 119.87 | 117.00 |
| 22 | BA | 2835 | A | C4-C5-C6 | 5.74 | 119.87 | 117.00 |
| 1 | AA | 282 | A | C4-C5-C6 | 5.74 | 119.87 | 117.00 |
| 22 | BA | 1028 | A | C5-C6-N1 | 5.74 | 120.57 | 117.70 |
| 1 | AA | 236 | A | C4-C5-C6 | 5.74 | 119.87 | 117.00 |
| 1 | AA | 365 | U | C2-N3-C4 | 5.74 | 130.44 | 127.00 |
| 22 | BA | 1100 | C | C6-N1-C2 | -5.74 | 118.00 | 120.30 |
| 22 | BA | 1194 | A | C4-C5-N7 | -5.74 | 107.83 | 110.70 |
| 22 | BA | 2381 | A | C4-C5-C6 | 5.74 | 119.87 | 117.00 |
| 1 | AA | 596 | A | C5-C6-N1 | 5.74 | 120.57 | 117.70 |
| 22 | BA | 1088 | A | N9-C4-C5 | 5.74 | 108.09 | 105.80 |
| 22 | BA | 1918 | A | N3-C4-N9 | 5.74 | 131.99 | 127.40 |
| 1 | AA | 814 | A | N3-C4-N9 | 5.74 | 131.99 | 127.40 |
| 22 | BA | 460 | A | N3-C4-N9 | 5.74 | 131.99 | 127.40 |
| 22 | BA | 2080 | A | C5-C6-N1 | 5.74 | 120.57 | 117.70 |
| 22 | BA | 2015 | A | N3-C4-N9 | 5.74 | 131.99 | 127.40 |
| 1 | AA | 1016 | A | C4-C5-N7 | -5.73 | 107.83 | 110.70 |
| 22 | BA | 756 | A | N3-C4-N9 | 5.73 | 131.99 | 127.40 |
| 22 | BA | 2873 | A | C4-C5-N7 | -5.73 | 107.83 | 110.70 |
| 1 | AA | 746 | A | C5-C6-N1 | 5.73 | 120.57 | 117.70 |
| 22 | BA | 621 | A | C4-C5-N7 | -5.73 | 107.83 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 199 | A | N3-C4-N9 | 5.73 | 131.98 | 127.40 |
| 1 | AA | 243 | A | C4-C5-C6 | 5.73 | 119.86 | 117.00 |
| 1 | AA | 918 | A | C4-C5-N7 | -5.73 | 107.83 | 110.70 |
| 22 | BA | 927 | A | C4-C5-N7 | -5.73 | 107.84 | 110.70 |
| 22 | BA | 979 | A | C4-C5-N7 | -5.73 | 107.83 | 110.70 |
| 22 | BA | 1591 | A | N3-C4-N9 | 5.73 | 131.98 | 127.40 |
| 22 | BA | 2425 | A | N3-C4-N9 | 5.73 | 131.98 | 127.40 |
| 22 | BA | 2705 | A | N3-C4-N9 | 5.73 | 131.98 | 127.40 |
| 1 | AA | 1055 | A | N3-C4-N9 | 5.73 | 131.98 | 127.40 |
| 1 | AA | 1299 | A | C4-C5-N7 | -5.73 | 107.84 | 110.70 |
| 22 | BA | 1070 | A | C4-C5-C6 | 5.73 | 119.86 | 117.00 |
| 22 | BA | 2434 | A | C4-C5-C6 | 5.73 | 119.86 | 117.00 |
| 1 | AA | 608 | A | N3-C4-N9 | 5.73 | 131.98 | 127.40 |
| 1 | AA | 1261 | A | N3-C4-N9 | 5.73 | 131.98 | 127.40 |
| 22 | BA | 1302 | A | N3-C4-N9 | 5.73 | 131.98 | 127.40 |
| 22 | BA | 1772 | A | C4-C5-N7 | -5.73 | 107.84 | 110.70 |
| 55 | B8 | 6 | A | N3-C4-N9 | 5.73 | 131.98 | 127.40 |
| 1 | AA | 33 | A | N3-C4-N9 | 5.72 | 131.98 | 127.40 |
| 22 | BA | 1144 | A | N3-C4-N9 | 5.72 | 131.98 | 127.40 |
| 22 | BA | 2020 | A | N3-C4-N9 | 5.72 | 131.98 | 127.40 |
| 22 | BA | 2469 | A | C5-N7-C8 | 5.72 | 106.76 | 103.90 |
| 22 | BA | 2598 | A | C4-C5-C6 | 5.72 | 119.86 | 117.00 |
| 1 | AA | 470 | C | N1-C2-O2 | 5.72 | 122.33 | 118.90 |
| 1 | AA | 1180 | A | C4-C5-N7 | -5.72 | 107.84 | 110.70 |
| 1 | AA | 1246 | A | C4-C5-N7 | -5.72 | 107.84 | 110.70 |
| 22 | BA | 825 | A | C4-C5-C6 | 5.72 | 119.86 | 117.00 |
| 1 | AA | 119 | A | C4-C5-C6 | 5.72 | 119.86 | 117.00 |
| 22 | BA | 262 | A | C4-C5-N7 | -5.72 | 107.84 | 110.70 |
| 22 | BA | 556 | A | N3-C4-N9 | 5.72 | 131.98 | 127.40 |
| 22 | BA | 1794 | A | N3-C4-N9 | 5.72 | 131.98 | 127.40 |
| 22 | BA | 2199 | A | N3-C4-N9 | 5.72 | 131.97 | 127.40 |
| 23 | BB | 24 | G | C6-N1-C2 | -5.72 | 121.67 | 125.10 |
| 23 | BB | 46 | A | C4-C5-N7 | -5.72 | 107.84 | 110.70 |
| 1 | AA | 913 | A | C4-C5-C6 | 5.72 | 119.86 | 117.00 |
| 22 | BA | 668 | A | C8-N9-C4 | 5.72 | 108.09 | 105.80 |
| 1 | AA | 676 | A | C4-C5-C6 | 5.72 | 119.86 | 117.00 |
| 1 | AA | 1428 | A | C4-C5-N7 | -5.72 | 107.84 | 110.70 |
| 22 | BA | 1156 | A | N9-C4-C5 | 5.72 | 108.09 | 105.80 |
| 22 | BA | 1566 | A | N9-C4-C5 | 5.72 | 108.09 | 105.80 |
| 22 | BA | 1609 | A | N3-C4-N9 | 5.72 | 131.97 | 127.40 |
| 22 | BA | 2051 | A | N3-C4-N9 | 5.72 | 131.97 | 127.40 |
| 1 | AA | 374 | A | C4-C5-N7 | -5.71 | 107.84 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1 | AA | 1329 | A | C4-C5-C6 | 5.71 | 119.86 | 117.00 |
| 2 | AB | 212 | LEU | CA-CB-CG | 5.71 | 128.44 | 115.30 |
| 22 | BA | 666 | A | N3-C4-N9 | 5.71 | 131.97 | 127.40 |
| 22 | BA | 2227 | A | C4-C5-N7 | -5.71 | 107.84 | 110.70 |
| 22 | BA | 2447 | G | C5-C6-N1 | 5.71 | 114.36 | 111.50 |
| 1 | AA | 819 | A | C4-C5-N7 | -5.71 | 107.84 | 110.70 |
| 1 | AA | 1377 | A | C4-C5-C6 | 5.71 | 119.86 | 117.00 |
| 22 | BA | 19 | A | N3-C4-N9 | 5.71 | 131.97 | 127.40 |
| 22 | BA | 661 | A | N3-C4-N9 | 5.71 | 131.97 | 127.40 |
| 22 | BA | 1808 | A | C4-C5-C6 | 5.71 | 119.85 | 117.00 |
| 22 | BA | 2274 | A | C4-C5-N7 | -5.71 | 107.85 | 110.70 |
| 1 | AA | 288 | A | N3-C4-N9 | 5.71 | 131.97 | 127.40 |
| 1 | AA | 498 | A | C6-N1-C2 | -5.71 | 115.18 | 118.60 |
| 22 | BA | 53 | A | C4-C5-C6 | 5.71 | 119.85 | 117.00 |
| 22 | BA | 71 | A | C8-N9-C4 | 5.71 | 108.08 | 105.80 |
| 22 | BA | 608 | A | C5-C6-N1 | 5.71 | 120.55 | 117.70 |
| 22 | BA | 721 | A | N3-C4-N9 | 5.70 | 131.96 | 127.40 |
| 22 | BA | 2657 | A | C4-C5-C6 | 5.70 | 119.85 | 117.00 |
| 1 | AA | 825 | A | C4-C5-C6 | 5.70 | 119.85 | 117.00 |
| 22 | BA | 892 | A | N9-C4-C5 | 5.70 | 108.08 | 105.80 |
| 54 | B7 | 8 | G | OP1-P-OP2 | 5.70 | 128.15 | 119.60 |
| 55 | B8 | 58 | A | N3-C4-N9 | 5.70 | 131.96 | 127.40 |
| 1 | AA | 994 | A | N3-C4-N9 | 5.70 | 131.96 | 127.40 |
| 22 | BA | 1030 | C | C6-N1-C2 | -5.70 | 118.02 | 120.30 |
| 1 | AA | 253 | A | N9-C4-C5 | 5.70 | 108.08 | 105.80 |
| 22 | BA | 609 | A | C4-C5-C6 | 5.70 | 119.85 | 117.00 |
| 1 | AA | 116 | A | C5-C6-N1 | 5.70 | 120.55 | 117.70 |
| 1 | AA | 171 | A | C4-C5-C6 | 5.70 | 119.85 | 117.00 |
| 22 | BA | 1142 | A | C4-C5-C6 | 5.70 | 119.85 | 117.00 |
| 22 | BA | 2882 | A | C4-C5-C6 | 5.70 | 119.85 | 117.00 |
| 1 | AA | 532 | A | N9-C4-C5 | 5.70 | 108.08 | 105.80 |
| 1 | AA | 1500 | A | C4-C5-C6 | 5.70 | 119.85 | 117.00 |
| 22 | BA | 575 | A | C5-N7-C8 | 5.70 | 106.75 | 103.90 |
| 22 | BA | 2469 | A | N3-C4-N9 | 5.69 | 131.96 | 127.40 |
| 1 | AA | 431 | A | C4-C5-C6 | 5.69 | 119.85 | 117.00 |
| 22 | BA | 685 | A | N3-C4-N9 | 5.69 | 131.95 | 127.40 |
| 22 | BA | 1504 | A | C4-C5-C6 | 5.69 | 119.85 | 117.00 |
| 22 | BA | 2094 | A | C5-C6-N1 | 5.69 | 120.55 | 117.70 |
| 22 | BA | 2154 | A | N3-C4-N9 | 5.69 | 131.95 | 127.40 |
| 1 | AA | 162 | A | N9-C4-C5 | 5.69 | 108.08 | 105.80 |
| 22 | BA | 947 | A | N9-C4-C5 | 5.69 | 108.08 | 105.80 |
| 22 | BA | 199 | A | C4-C5-C6 | 5.69 | 119.84 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 382 | A | N3-C4-N9 | 5.69 | 131.95 | 127.40 |
| 22 | BA | 1801 | A | N9-C4-C5 | 5.69 | 108.07 | 105.80 |
| 22 | BA | 255 | A | N9-C4-C5 | 5.68 | 108.07 | 105.80 |
| 22 | BA | 693 | A | N9-C4-C5 | 5.68 | 108.07 | 105.80 |
| 22 | BA | 1134 | A | N3-C4-N9 | 5.68 | 131.95 | 127.40 |
| 22 | BA | 1829 | A | N3-C4-N9 | 5.68 | 131.95 | 127.40 |
| 1 | AA | 819 | A | C4-C5-C6 | 5.68 | 119.84 | 117.00 |
| 22 | BA | 1353 | A | C4-C5-C6 | 5.68 | 119.84 | 117.00 |
| 22 | BA | 2501 | C | C6-N1-C1' | 5.68 | 127.62 | 120.80 |
| 1 | AA | 313 | A | C5-C6-N1 | 5.68 | 120.54 | 117.70 |
| 22 | BA | 2033 | A | C4-C5-C6 | 5.68 | 119.84 | 117.00 |
| 22 | BA | 2198 | A | N9-C4-C5 | 5.68 | 108.07 | 105.80 |
| 22 | BA | 2335 | A | N3-C4-N9 | 5.68 | 131.94 | 127.40 |
| 22 | BA | 896 | A | N9-C4-C5 | 5.68 | 108.07 | 105.80 |
| 1 | AA | 465 | A | N3-C4-N9 | 5.68 | 131.94 | 127.40 |
| 1 | AA | 919 | A | C4-C5-N7 | -5.68 | 107.86 | 110.70 |
| 1 | AA | 1055 | A | N9-C4-C5 | 5.68 | 108.07 | 105.80 |
| 22 | BA | 845 | A | C5-C6-N1 | 5.68 | 120.54 | 117.70 |
| 22 | BA | 1678 | A | C4-C5-N7 | -5.68 | 107.86 | 110.70 |
| 22 | BA | 1754 | A | N3-C4-N9 | 5.68 | 131.94 | 127.40 |
| 22 | BA | 1913 | A | C8-N9-C4 | 5.68 | 108.07 | 105.80 |
| 22 | BA | 223 | A | C8-N9-C4 | 5.67 | 108.07 | 105.80 |
| 22 | BA | 2820 | A | C4-C5-C6 | 5.67 | 119.84 | 117.00 |
| 22 | BA | 2821 | A | N9-C4-C5 | 5.67 | 108.07 | 105.80 |
| 22 | BA | 2837 | A | C5-C6-N1 | 5.67 | 120.54 | 117.70 |
| 22 | BA | 2750 | A | C4-C5-C6 | 5.67 | 119.84 | 117.00 |
| 22 | BA | 2031 | A | N9-C4-C5 | 5.67 | 108.07 | 105.80 |
| 22 | BA | 1354 | A | N3-C4-N9 | 5.67 | 131.94 | 127.40 |
| 1 | AA | 906 | A | C4-C5-N7 | -5.67 | 107.87 | 110.70 |
| 1 | AA | 1465 | A | N9-C4-C5 | 5.67 | 108.07 | 105.80 |
| 22 | BA | 1253 | A | C5-C6-N1 | 5.67 | 120.53 | 117.70 |
| 22 | BA | 118 | A | N9-C4-C5 | 5.67 | 108.07 | 105.80 |
| 22 | BA | 1672 | A | N3-C4-N9 | 5.67 | 131.93 | 127.40 |
| 22 | BA | 1700 | A | N3-C4-N9 | 5.67 | 131.93 | 127.40 |
| 22 | BA | 2241 | A | N3-C4-N9 | 5.67 | 131.93 | 127.40 |
| 22 | BA | 2327 | A | N3-C4-N9 | 5.67 | 131.93 | 127.40 |
| 23 | BB | 94 | A | N9-C4-C5 | 5.67 | 108.07 | 105.80 |
| 1 | AA | 1151 | A | C5-C6-N1 | 5.67 | 120.53 | 117.70 |
| 22 | BA | 2872 | A | C6-N1-C2 | 5.67 | 122.00 | 118.60 |
| 22 | BA | 928 | A | N3-C4-N9 | 5.66 | 131.93 | 127.40 |
| 22 | BA | 1086 | A | C4-C5-C6 | 5.66 | 119.83 | 117.00 |
| 22 | BA | 2114 | A | N9-C4-C5 | 5.66 | 108.06 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1 | AA | 621 | A | C4-C5-N7 | -5.66 | 107.87 | 110.70 |
| 22 | BA | 1913 | A | N9-C4-C5 | 5.66 | 108.06 | 105.80 |
| 22 | BA | 910 | A | C8-N9-C4 | 5.66 | 108.06 | 105.80 |
| 22 | BA | 1821 | A | C4-C5-N7 | -5.66 | 107.87 | 110.70 |
| 22 | BA | 2014 | A | C4-C5-N7 | -5.66 | 107.87 | 110.70 |
| 1 | AA | 160 | A | C4-C5-C6 | 5.65 | 119.83 | 117.00 |
| 1 | AA | 329 | A | N3-C4-N9 | 5.65 | 131.92 | 127.40 |
| 1 | AA | 715 | A | N3-C4-N9 | 5.65 | 131.92 | 127.40 |
| 22 | BA | 1936 | A | C5-C6-N1 | 5.65 | 120.53 | 117.70 |
| 1 | AA | 44 | A | C4-C5-C6 | 5.65 | 119.83 | 117.00 |
| 1 | AA | 151 | A | C4-C5-N7 | -5.65 | 107.87 | 110.70 |
| 1 | AA | 767 | A | N3-C4-N9 | 5.65 | 131.92 | 127.40 |
| 1 | AA | 959 | A | C4-C5-N7 | -5.65 | 107.87 | 110.70 |
| 1 | AA | 1374 | A | N3-C4-N9 | 5.65 | 131.92 | 127.40 |
| 22 | BA | 1020 | A | C4-C5-C6 | 5.65 | 119.83 | 117.00 |
| 22 | BA | 1548 | A | N9-C4-C5 | 5.65 | 108.06 | 105.80 |
| 22 | BA | 2003 | A | N3-C4-N9 | 5.65 | 131.92 | 127.40 |
| 1 | AA | 196 | A | C4-C5-C6 | 5.65 | 119.83 | 117.00 |
| 22 | BA | 282 | A | N9-C4-C5 | 5.65 | 108.06 | 105.80 |
| 22 | BA | 439 | A | N3-C4-N9 | 5.65 | 131.92 | 127.40 |
| 22 | BA | 1977 | A | N3-C4-N9 | 5.65 | 131.92 | 127.40 |
| 1 | AA | 459 | A | C5-C6-N1 | 5.65 | 120.52 | 117.70 |
| 22 | BA | 2142 | A | N9-C4-C5 | 5.65 | 108.06 | 105.80 |
| 1 | AA | 676 | A | C4-C5-N7 | -5.65 | 107.88 | 110.70 |
| 22 | BA | 1670 | C | N1-C2-O2 | 5.65 | 122.29 | 118.90 |
| 22 | BA | 1803 | A | C4-C5-C6 | 5.65 | 119.82 | 117.00 |
| 22 | BA | 2585 | U | O4'-C1'-N1 | 5.64 | 112.72 | 108.20 |
| 1 | AA | 1289 | A | C4-C5-C6 | 5.64 | 119.82 | 117.00 |
| 22 | BA | 1321 | A | N9-C4-C5 | 5.64 | 108.06 | 105.80 |
| 22 | BA | 2433 | A | C8-N9-C4 | 5.64 | 108.06 | 105.80 |
| 22 | BA | 2635 | A | N9-C4-C5 | 5.64 | 108.06 | 105.80 |
| 1 | AA | 792 | A | C5-C6-N1 | 5.64 | 120.52 | 117.70 |
| 22 | BA | 1802 | A | N3-C4-N9 | 5.64 | 131.91 | 127.40 |
| 22 | BA | 2761 | A | C4-C5-N7 | -5.64 | 107.88 | 110.70 |
| 1 | AA | 1299 | A | C8-N9-C4 | 5.64 | 108.06 | 105.80 |
| 22 | BA | 1504 | A | C4-C5-N7 | -5.64 | 107.88 | 110.70 |
| 22 | BA | 2893 | A | N9-C4-C5 | 5.64 | 108.06 | 105.80 |
| 1 | AA | 415 | A | N3-C4-N9 | 5.64 | 131.91 | 127.40 |
| 1 | AA | 1311 | A | C4-C5-N7 | -5.64 | 107.88 | 110.70 |
| 1 | AA | 448 | A | N3-C4-N9 | 5.63 | 131.91 | 127.40 |
| 1 | AA | 456 | A | C4-C5-C6 | 5.63 | 119.82 | 117.00 |
| 1 | AA | 489 | C | O4'-C1'-N1 | 5.63 | 112.71 | 108.20 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1151 | A | C5-C6-N1 | 5.63 | 120.52 | 117.70 |
| 22 | BA | 2513 | A | N3-C4-N9 | 5.63 | 131.91 | 127.40 |
| 22 | BA | 2837 | A | C4-C5-C6 | 5.63 | 119.82 | 117.00 |
| 55 | B8 | 42 | A | C4-C5-C6 | 5.63 | 119.82 | 117.00 |
| 22 | BA | 693 | A | C5-C6-N1 | 5.63 | 120.52 | 117.70 |
| 23 | BB | 78 | A | C4-C5-C6 | 5.63 | 119.82 | 117.00 |
| 22 | BA | 126 | A | C8-N9-C4 | 5.63 | 108.05 | 105.80 |
| 22 | BA | 160 | A | C4-C5-C6 | 5.63 | 119.81 | 117.00 |
| 22 | BA | 432 | A | C4-C5-C6 | 5.63 | 119.81 | 117.00 |
| 22 | BA | 673 | C | N1-C2-N3 | 5.63 | 123.14 | 119.20 |
| 22 | BA | 984 | A | N3-C4-N9 | 5.63 | 131.91 | 127.40 |
| 22 | BA | 1490 | A | N3-C4-N9 | 5.63 | 131.91 | 127.40 |
| 22 | BA | 1632 | A | C4-C5-N7 | -5.63 | 107.89 | 110.70 |
| 22 | BA | 1650 | A | C5-C6-N1 | 5.63 | 120.52 | 117.70 |
| 22 | BA | 1783 | A | N9-C4-C5 | 5.63 | 108.05 | 105.80 |
| 22 | BA | 152 | A | N3-C4-N9 | 5.63 | 131.90 | 127.40 |
| 22 | BA | 501 | A | C4-C5-C6 | 5.63 | 119.81 | 117.00 |
| 1 | AA | 696 | A | C5-N7-C8 | 5.63 | 106.72 | 103.90 |
| 1 | AA | 919 | A | C4-C5-C6 | 5.63 | 119.81 | 117.00 |
| 22 | BA | 721 | A | N9-C4-C5 | 5.63 | 108.05 | 105.80 |
| 22 | BA | 1571 | A | N9-C4-C5 | 5.63 | 108.05 | 105.80 |
| 22 | BA | 1583 | A | C4-C5-C6 | 5.63 | 119.81 | 117.00 |
| 1 | AA | 900 | A | C4-C5-N7 | -5.63 | 107.89 | 110.70 |
| 22 | BA | 761 | A | C4-C5-N7 | -5.63 | 107.89 | 110.70 |
| 1 | AA | 728 | A | N3-C4-N9 | 5.62 | 131.90 | 127.40 |
| 22 | BA | 1111 | A | N3-C4-N9 | 5.62 | 131.90 | 127.40 |
| 1 | AA | 872 | A | C5-C6-N1 | 5.62 | 120.51 | 117.70 |
| 22 | BA | 466 | A | C4-C5-N7 | -5.62 | 107.89 | 110.70 |
| 22 | BA | 1147 | A | C4-C5-C6 | 5.62 | 119.81 | 117.00 |
| 55 | B8 | 51 | A | C4-C5-C6 | 5.62 | 119.81 | 117.00 |
| 1 | AA | 411 | A | C4-C5-C6 | 5.62 | 119.81 | 117.00 |
| 1 | AA | 499 | A | C4-C5-N7 | -5.62 | 107.89 | 110.70 |
| 1 | AA | 502 | A | C5-C6-N1 | 5.62 | 120.51 | 117.70 |
| 1 | AA | 787 | A | C4-C5-C6 | 5.62 | 119.81 | 117.00 |
| 19 | AS | 3 | ARG | N-CA-C | -5.62 | 95.82 | 111.00 |
| 22 | BA | 191 | A | N3-C4-N9 | 5.62 | 131.90 | 127.40 |
| 22 | BA | 270 | A | C4-C5-N7 | -5.62 | 107.89 | 110.70 |
| 22 | BA | 300 | A | C4-C5-C6 | 5.62 | 119.81 | 117.00 |
| 22 | BA | 1111 | A | N9-C4-C5 | 5.62 | 108.05 | 105.80 |
| 1 | AA | 1499 | A | C4-C5-C6 | 5.62 | 119.81 | 117.00 |
| 22 | BA | 2015 | A | N9-C4-C5 | 5.62 | 108.05 | 105.80 |
| 1 | AA | 510 | A | C4-C5-C6 | 5.62 | 119.81 | 117.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 815 | A | C4-C5-C6 | 5.62 | 119.81 | 117.00 |
| 22 | BA | 2366 | A | N9-C4-C5 | 5.62 | 108.05 | 105.80 |
| 22 | BA | 197 | A | N9-C4-C5 | 5.62 | 108.05 | 105.80 |
| 22 | BA | 213 | A | C4-C5-C6 | 5.62 | 119.81 | 117.00 |
| 22 | BA | 1810 | A | N9-C4-C5 | 5.62 | 108.05 | 105.80 |
| 22 | BA | 2590 | A | N3-C4-N9 | 5.62 | 131.89 | 127.40 |
| 1 | AA | 958 | A | C4-C5-C6 | 5.61 | 119.81 | 117.00 |
| 22 | BA | 2037 | A | C4-C5-C6 | 5.61 | 119.81 | 117.00 |
| 1 | AA | 439 | U | C2-N3-C4 | -5.61 | 123.63 | 127.00 |
| 1 | AA | 496 | A | N3-C4-N9 | 5.61 | 131.89 | 127.40 |
| 1 | AA | 784 | A | C4-C5-N7 | -5.61 | 107.89 | 110.70 |
| 22 | BA | 627 | A | C4-C5-N7 | -5.61 | 107.89 | 110.70 |
| 22 | BA | 2019 | A | C4-C5-N7 | -5.61 | 107.89 | 110.70 |
| 22 | BA | 2764 | A | C4-C5-C6 | 5.61 | 119.81 | 117.00 |
| 1 | AA | 509 | A | N3-C4-N9 | 5.61 | 131.89 | 127.40 |
| 22 | BA | 2117 | A | C4-C5-C6 | 5.61 | 119.81 | 117.00 |
| 1 | AA | 77 | A | N9-C4-C5 | 5.61 | 108.04 | 105.80 |
| 1 | AA | 327 | A | N3-C4-N9 | 5.61 | 131.88 | 127.40 |
| 1 | AA | 753 | A | C4-C5-N7 | -5.61 | 107.90 | 110.70 |
| 22 | BA | 1876 | A | N9-C4-C5 | 5.61 | 108.04 | 105.80 |
| 22 | BA | 2572 | A | N9-C4-C5 | 5.61 | 108.04 | 105.80 |
| 1 | AA | 8 | A | C8-N9-C4 | 5.61 | 108.04 | 105.80 |
| 22 | BA | 2590 | A | C4-C5-C6 | 5.61 | 119.80 | 117.00 |
| 1 | AA | 1285 | A | C4-C5-C6 | 5.60 | 119.80 | 117.00 |
| 22 | BA | 1359 | A | N9-C4-C5 | 5.60 | 108.04 | 105.80 |
| 22 | BA | 1632 | A | C5-C6-N1 | 5.60 | 120.50 | 117.70 |
| 22 | BA | 2278 | A | N3-C4-N9 | 5.60 | 131.88 | 127.40 |
| 22 | BA | 104 | A | C4-C5-N7 | -5.60 | 107.90 | 110.70 |
| 22 | BA | 233 | A | N3-C4-N9 | 5.60 | 131.88 | 127.40 |
| 22 | BA | 1772 | A | C4-C5-C6 | 5.60 | 119.80 | 117.00 |
| 22 | BA | 251 | A | N9-C4-C5 | 5.60 | 108.04 | 105.80 |
| 22 | BA | 2459 | A | N9-C4-C5 | 5.60 | 108.04 | 105.80 |
| 1 | AA | 766 | A | C4-C5-N7 | -5.60 | 107.90 | 110.70 |
| 22 | BA | 541 | A | C5-C6-N1 | 5.60 | 120.50 | 117.70 |
| 22 | BA | 1336 | A | C5-C6-N1 | 5.60 | 120.50 | 117.70 |
| 1 | AA | 365 | U | N1-C2-O2 | 5.60 | 126.72 | 122.80 |
| 1 | AA | 414 | A | C4-C5-C6 | 5.60 | 119.80 | 117.00 |
| 1 | AA | 935 | A | C4-C5-N7 | -5.60 | 107.90 | 110.70 |
| 1 | AA | 1157 | A | N3-C4-N9 | 5.60 | 131.88 | 127.40 |
| 22 | BA | 278 | A | N9-C4-C5 | 5.60 | 108.04 | 105.80 |
| 22 | BA | 1393 | A | N9-C4-C5 | 5.60 | 108.04 | 105.80 |
| 22 | BA | 764 | A | C4-C5-N7 | -5.60 | 107.90 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 2346 | A | C4-C5-N7 | -5.60 | 107.90 | 110.70 |
| 22 | BA | 892 | A | N3-C4-N9 | 5.59 | 131.88 | 127.40 |
| 22 | BA | 173 | A | N3-C4-N9 | 5.59 | 131.87 | 127.40 |
| 22 | BA | 1028 | A | N9-C4-C5 | 5.59 | 108.04 | 105.80 |
| 22 | BA | 1854 | A | N9-C4-C5 | 5.59 | 108.04 | 105.80 |
| 1 | AA | 270 | A | N3-C4-N9 | 5.59 | 131.87 | 127.40 |
| 22 | BA | 2189 | U | P-O3'-C3' | 5.59 | 126.41 | 119.70 |
| 22 | BA | 2810 | A | C4-C5-N7 | -5.59 | 107.90 | 110.70 |
| 22 | BA | 71 | A | C4-C5-C6 | 5.59 | 119.79 | 117.00 |
| 22 | BA | 943 | A | N3-C4-N9 | 5.59 | 131.87 | 127.40 |
| 22 | BA | 988 | A | C4-C5-C6 | 5.59 | 119.79 | 117.00 |
| 22 | BA | 2052 | A | C5-C6-N1 | 5.59 | 120.49 | 117.70 |
| 55 | B8 | 69 | A | C5-C6-N1 | 5.59 | 120.49 | 117.70 |
| 1 | AA | 1357 | A | C5-N7-C8 | 5.58 | 106.69 | 103.90 |
| 22 | BA | 917 | A | N9-C4-C5 | 5.58 | 108.03 | 105.80 |
| 22 | BA | 2706 | A | C4-C5-N7 | -5.58 | 107.91 | 110.70 |
| 22 | BA | 142 | A | N3-C4-N9 | 5.58 | 131.87 | 127.40 |
| 22 | BA | 1378 | A | C4-C5-C6 | 5.58 | 119.79 | 117.00 |
| 1 | AA | 1333 | A | C4-C5-N7 | -5.58 | 107.91 | 110.70 |
| 22 | BA | 38 | A | C4-C5-N7 | -5.58 | 107.91 | 110.70 |
| 22 | BA | 207 | A | C4-C5-C6 | 5.58 | 119.79 | 117.00 |
| 22 | BA | 1269 | A | C4-C5-N7 | -5.58 | 107.91 | 110.70 |
| 22 | BA | 1302 | A | N9-C4-C5 | 5.58 | 108.03 | 105.80 |
| 22 | BA | 2284 | A | N9-C4-C5 | 5.58 | 108.03 | 105.80 |
| 22 | BA | 2856 | A | N3-C4-N9 | 5.58 | 131.86 | 127.40 |
| 22 | BA | 2094 | A | C4-C5-N7 | -5.58 | 107.91 | 110.70 |
| 22 | BA | 1853 | A | C4-C5-N7 | -5.58 | 107.91 | 110.70 |
| 1 | AA | 131 | A | C4-C5-N7 | -5.57 | 107.91 | 110.70 |
| 1 | AA | 663 | A | N3-C4-N9 | 5.57 | 131.86 | 127.40 |
| 1 | AA | 964 | A | N3-C4-N9 | 5.57 | 131.86 | 127.40 |
| 22 | BA | 501 | A | C5-N7-C8 | 5.57 | 106.69 | 103.90 |
| 1 | AA | 452 | A | C4-C5-N7 | -5.57 | 107.92 | 110.70 |
| 1 | AA | 787 | A | C8-N9-C4 | 5.57 | 108.03 | 105.80 |
| 1 | AA | 431 | A | C6-N1-C2 | 5.57 | 121.94 | 118.60 |
| 1 | AA | 622 | A | C5-C6-N1 | 5.57 | 120.48 | 117.70 |
| 22 | BA | 213 | A | N3-C4-N9 | 5.57 | 131.85 | 127.40 |
| 22 | BA | 742 | A | N3-C4-N9 | 5.57 | 131.85 | 127.40 |
| 22 | BA | 749 | A | C4-C5-N7 | -5.57 | 107.92 | 110.70 |
| 22 | BA | 1548 | A | N3-C4-N9 | 5.57 | 131.85 | 127.40 |
| 1 | AA | 197 | A | C4-C5-C6 | 5.57 | 119.78 | 117.00 |
| 1 | AA | 371 | A | C4-C5-C6 | 5.57 | 119.78 | 117.00 |
| 1 | AA | 792 | A | C8-N9-C4 | 5.57 | 108.03 | 105.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1366 | A | C4-C5-N7 | -5.57 | 107.92 | 110.70 |
| 22 | BA | 2792 | A | N3-C4-N9 | 5.57 | 131.85 | 127.40 |
| 1 | AA | 794 | A | N9-C4-C5 | 5.56 | 108.03 | 105.80 |
| 1 | AA | 1350 | A | N3-C4-N9 | 5.56 | 131.85 | 127.40 |
| 22 | BA | 459 | U | N1-C2-O2 | 5.56 | 126.69 | 122.80 |
| 22 | BA | 1632 | A | C4-C5-C6 | 5.56 | 119.78 | 117.00 |
| 22 | BA | 2411 | A | C4-C5-N7 | -5.56 | 107.92 | 110.70 |
| 1 | AA | 1398 | A | C4-C5-N7 | -5.56 | 107.92 | 110.70 |
| 22 | BA | 1689 | A | N3-C4-N9 | 5.56 | 131.85 | 127.40 |
| 22 | BA | 1815 | A | N9-C4-C5 | 5.56 | 108.02 | 105.80 |
| 22 | BA | 2721 | A | C4-C5-N7 | -5.56 | 107.92 | 110.70 |
| 1 | AA | 300 | A | N9-C4-C5 | 5.56 | 108.02 | 105.80 |
| 1 | AA | 768 | A | C4-C5-N7 | -5.56 | 107.92 | 110.70 |
| 22 | BA | 715 | A | N9-C4-C5 | 5.56 | 108.02 | 105.80 |
| 22 | BA | 2090 | A | N9-C4-C5 | 5.56 | 108.02 | 105.80 |
| 22 | BA | 2711 | A | C4-C5-N7 | -5.56 | 107.92 | 110.70 |
| 22 | BA | 2821 | A | N3-C4-N9 | 5.56 | 131.85 | 127.40 |
| 22 | BA | 156 | A | N3-C4-N9 | 5.56 | 131.85 | 127.40 |
| 22 | BA | 299 | A | N9-C4-C5 | 5.56 | 108.02 | 105.80 |
| 22 | BA | 1214 | A | C4-C5-C6 | 5.56 | 119.78 | 117.00 |
| 22 | BA | 1744 | A | N3-C4-N9 | 5.56 | 131.85 | 127.40 |
| 1 | AA | 1429 | A | N3-C4-N9 | 5.55 | 131.84 | 127.40 |
| 22 | BA | 176 | A | N9-C4-C5 | 5.55 | 108.02 | 105.80 |
| 22 | BA | 502 | A | C4-C5-N7 | -5.55 | 107.92 | 110.70 |
| 22 | BA | 526 | A | C4-C5-N7 | -5.55 | 107.92 | 110.70 |
| 22 | BA | 1548 | A | C5-C6-N1 | 5.55 | 120.48 | 117.70 |
| 1 | AA | 1191 | A | C5-N7-C8 | 5.55 | 106.68 | 103.90 |
| 1 | AA | 1012 | A | C5-C6-N1 | 5.55 | 120.48 | 117.70 |
| 22 | BA | 480 | A | N3-C4-N9 | 5.55 | 131.84 | 127.40 |
| 22 | BA | 1652 | A | C4-C5-N7 | -5.55 | 107.92 | 110.70 |
| 22 | BA | 792 | A | C8-N9-C4 | 5.55 | 108.02 | 105.80 |
| 22 | BA | 1304 | A | N9-C4-C5 | 5.55 | 108.02 | 105.80 |
| 22 | BA | 2809 | A | N9-C4-C5 | 5.55 | 108.02 | 105.80 |
| 22 | BA | 2469 | A | N9-C4-C5 | 5.54 | 108.02 | 105.80 |
| 1 | AA | 274 | A | N3-C4-N9 | 5.54 | 131.84 | 127.40 |
| 1 | AA | 1197 | A | N9-C4-C5 | 5.54 | 108.02 | 105.80 |
| 22 | BA | 1789 | A | N9-C4-C5 | 5.54 | 108.02 | 105.80 |
| 22 | BA | 1791 | A | C4-C5-C6 | 5.54 | 119.77 | 117.00 |
| 22 | BA | 1932 | A | C5-C6-N1 | 5.54 | 120.47 | 117.70 |
| 22 | BA | 2070 | A | C4-C5-C6 | 5.54 | 119.77 | 117.00 |
| 22 | BA | 2082 | A | N3-C4-N9 | 5.54 | 131.83 | 127.40 |
| 22 | BA | 722 | A | N3-C4-N9 | 5.54 | 131.83 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 22 | BA | 734 | A | C4-C5-N7 | -5.54 | 107.93 | 110.70 |
| 22 | BA | 1054 | A | N3-C4-N9 | 5.54 | 131.83 | 127.40 |
| 22 | BA | 2013 | A | N9-C4-C5 | 5.54 | 108.02 | 105.80 |
| 1 | AA | 1375 | A | N3-C4-N9 | 5.54 | 131.83 | 127.40 |
| 1 | AA | 553 | A | C4-C5-N7 | -5.54 | 107.93 | 110.70 |
| 22 | BA | 391 | A | C8-N9-C4 | 5.54 | 108.02 | 105.80 |
| 1 | AA | 439 | U | C2-N1-C1' | 5.54 | 124.34 | 117.70 |
| 1 | AA | 1000 | A | N3-C4-N9 | 5.53 | 131.83 | 127.40 |
| 22 | BA | 348 | A | N3-C4-N9 | 5.53 | 131.83 | 127.40 |
| 22 | BA | 563 | A | N3-C4-N9 | 5.53 | 131.83 | 127.40 |
| 22 | BA | 644 | A | C4-C5-N7 | -5.53 | 107.93 | 110.70 |
| 22 | BA | 910 | A | C4-C5-C6 | 5.53 | 119.77 | 117.00 |
| 22 | BA | 1327 | A | C4-C5-N7 | -5.53 | 107.93 | 110.70 |
| 55 | B8 | 6 | A | C5-C6-N1 | 5.53 | 120.47 | 117.70 |
| 22 | BA | 1387 | A | N9-C4-C5 | 5.53 | 108.01 | 105.80 |
| 1 | AA | 55 | A | C4-C5-N7 | -5.53 | 107.94 | 110.70 |
| 17 | AQ | 16 | LYS | N-CA-CB | -5.53 | 100.64 | 110.60 |
| 22 | BA | 2099 | U | C5'-C4'-O4' | 5.53 | 115.74 | 109.10 |
| 22 | BA | 1622 | G | N9-C4-C5 | -5.53 | 103.19 | 105.40 |
| 22 | BA | 2388 | A | C4-C5-N7 | -5.53 | 107.94 | 110.70 |
| 23 | BB | 53 | A | C4-C5-N7 | -5.53 | 107.94 | 110.70 |
| 1 | AA | 460 | A | N3-C4-N9 | 5.53 | 131.82 | 127.40 |
| 22 | BA | 1275 | A | C4-C5-C6 | 5.53 | 119.76 | 117.00 |
| 22 | BA | 1952 | A | N3-C4-N9 | 5.53 | 131.82 | 127.40 |
| 22 | BA | 2900 | A | N3-C4-N9 | 5.53 | 131.82 | 127.40 |
| 22 | BA | 748 | G | O4'-C1'-N9 | 5.53 | 112.62 | 108.20 |
| 22 | BA | 1129 | A | C4-C5-C6 | 5.53 | 119.76 | 117.00 |
| 22 | BA | 1749 | A | C4-C5-N7 | -5.53 | 107.94 | 110.70 |
| 22 | BA | 2119 | A | C4-C5-N7 | -5.53 | 107.94 | 110.70 |
| 1 | AA | 1531 | A | N3-C4-N9 | 5.52 | 131.82 | 127.40 |
| 22 | BA | 616 | A | N9-C4-C5 | 5.52 | 108.01 | 105.80 |
| 1 | AA | 754 | C | C2-N1-C1' | 5.52 | 124.88 | 118.80 |
| 22 | BA | 1262 | A | C4-C5-N7 | -5.52 | 107.94 | 110.70 |
| 22 | BA | 1544 | A | N3-C4-N9 | 5.52 | 131.82 | 127.40 |
| 1 | AA | 663 | A | C5-C6-N1 | 5.52 | 120.46 | 117.70 |
| 22 | BA | 152 | A | N9-C4-C5 | 5.52 | 108.01 | 105.80 |
| 22 | BA | 1672 | A | C4-C5-N7 | -5.52 | 107.94 | 110.70 |
| 22 | BA | 2700 | A | C4-C5-N7 | -5.52 | 107.94 | 110.70 |
| 22 | BA | 187 | G | N1-C6-O6 | -5.52 | 116.59 | 119.90 |
| 22 | BA | 1477 | A | N3-C4-N9 | 5.52 | 131.81 | 127.40 |
| 22 | BA | 1698 | A | C4-C5-C6 | 5.52 | 119.76 | 117.00 |
| 22 | BA | 1757 | A | N3-C4-N9 | 5.52 | 131.81 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1 | AA | 1022 | A | C4-C5-N7 | -5.52 | 107.94 | 110.70 |
| 1 | AA | 1495 | U | C2-N1-C1' | 5.52 | 124.32 | 117.70 |
| 22 | BA | 265 | A | C4-C5-C6 | 5.52 | 119.76 | 117.00 |
| 22 | BA | 1260 | A | N3-C4-N9 | 5.52 | 131.81 | 127.40 |
| 22 | BA | 1260 | A | C4-C5-N7 | -5.51 | 107.94 | 110.70 |
| 22 | BA | 2837 | A | N3-C4-N9 | 5.51 | 131.81 | 127.40 |
| 22 | BA | 2850 | A | N3-C4-N9 | 5.51 | 131.81 | 127.40 |
| 1 | AA | 1188 | A | C4-C5-N7 | -5.51 | 107.94 | 110.70 |
| 22 | BA | 1431 | A | N3-C4-N9 | 5.51 | 131.81 | 127.40 |
| 22 | BA | 1544 | A | C4-C5-N7 | -5.51 | 107.94 | 110.70 |
| 22 | BA | 2799 | A | C5-C6-N1 | 5.51 | 120.46 | 117.70 |
| 55 | B8 | 58 | A | C5-C6-N1 | 5.51 | 120.46 | 117.70 |
| 1 | AA | 777 | A | C4-C5-N7 | -5.51 | 107.95 | 110.70 |
| 22 | BA | 654 | A | N3-C4-N9 | 5.51 | 131.81 | 127.40 |
| 22 | BA | 764 | A | C5-N7-C8 | 5.51 | 106.65 | 103.90 |
| 22 | BA | 1496 | A | C4-C5-C6 | 5.51 | 119.75 | 117.00 |
| 1 | AA | 1287 | A | C4-C5-N7 | -5.51 | 107.95 | 110.70 |
| 2 | AB | 205 | ASP | OD1-CG-OD2 | -5.51 | 112.84 | 123.30 |
| 22 | BA | 504 | A | N9-C4-C5 | 5.50 | 108.00 | 105.80 |
| 22 | BA | 1626 | A | N3-C4-N9 | 5.50 | 131.80 | 127.40 |
| 1 | AA | 74 | A | C4-C5-C6 | 5.50 | 119.75 | 117.00 |
| 1 | AA | 493 | A | C4-C5-C6 | 5.50 | 119.75 | 117.00 |
| 1 | AA | 1346 | A | C4-C5-N7 | -5.50 | 107.95 | 110.70 |
| 22 | BA | 503 | A | C4-C5-N7 | -5.50 | 107.95 | 110.70 |
| 22 | BA | 789 | A | C4-C5-C6 | 5.50 | 119.75 | 117.00 |
| 22 | BA | 1175 | A | N3-C4-N9 | 5.50 | 131.80 | 127.40 |
| 22 | BA | 2042 | A | N3-C4-N9 | 5.50 | 131.80 | 127.40 |
| 22 | BA | 2886 | A | N3-C4-N9 | 5.50 | 131.80 | 127.40 |
| 23 | BB | 99 | A | N3-C4-N9 | 5.50 | 131.80 | 127.40 |
| 1 | AA | 195 | A | C4-C5-N7 | -5.50 | 107.95 | 110.70 |
| 22 | BA | 1759 | A | C4-C5-C6 | 5.50 | 119.75 | 117.00 |
| 22 | BA | 2776 | A | C4-C5-C6 | 5.50 | 119.75 | 117.00 |
| 22 | BA | 2813 | A | N9-C4-C5 | 5.50 | 108.00 | 105.80 |
| 55 | B8 | 69 | A | C4-C5-C6 | 5.50 | 119.75 | 117.00 |
| 22 | BA | 160 | A | C4-C5-N7 | -5.50 | 107.95 | 110.70 |
| 1 | AA | 1396 | A | N3-C4-N9 | 5.50 | 131.80 | 127.40 |
| 22 | BA | 299 | A | N3-C4-N9 | 5.50 | 131.80 | 127.40 |
| 22 | BA | 1155 | A | N9-C4-C5 | 5.50 | 108.00 | 105.80 |
| 22 | BA | 2358 | A | C4-C5-N7 | -5.50 | 107.95 | 110.70 |
| 22 | BA | 2873 | A | C4-C5-C6 | 5.50 | 119.75 | 117.00 |
| 1 | AA | 238 | A | C4-C5-C6 | 5.50 | 119.75 | 117.00 |
| 1 | AA | 1360 | A | C4-C5-N7 | -5.50 | 107.95 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 172 | A | N3-C4-N9 | 5.50 | 131.80 | 127.40 |
| 22 | BA | 1365 | A | N3-C4-N9 | 5.50 | 131.80 | 127.40 |
| 22 | BA | 1545 | A | C4-C5-N7 | -5.50 | 107.95 | 110.70 |
| 22 | BA | 1773 | A | C4-C5-N7 | -5.50 | 107.95 | 110.70 |
| 22 | BA | 2758 | A | C4-C5-N7 | -5.50 | 107.95 | 110.70 |
| 1 | AA | 1130 | A | C4-C5-N7 | -5.50 | 107.95 | 110.70 |
| 22 | BA | 223 | A | C4-C5-C6 | 5.50 | 119.75 | 117.00 |
| 22 | BA | 661 | A | C4-C5-C6 | 5.50 | 119.75 | 117.00 |
| 22 | BA | 1885 | A | C4-C5-C6 | 5.50 | 119.75 | 117.00 |
| 22 | BA | 2309 | A | C4-C5-N7 | -5.50 | 107.95 | 110.70 |
| 22 | BA | 911 | A | N9-C4-C5 | 5.49 | 108.00 | 105.80 |
| 1 | AA | 77 | A | C5-C6-N1 | 5.49 | 120.44 | 117.70 |
| 22 | BA | 199 | A | C4-C5-N7 | -5.49 | 107.95 | 110.70 |
| 22 | BA | 1809 | A | C4-C5-C6 | 5.49 | 119.75 | 117.00 |
| 22 | BA | 2314 | A | C4-C5-N7 | -5.49 | 107.95 | 110.70 |
| 1 | AA | 790 | A | N3-C4-N9 | 5.49 | 131.79 | 127.40 |
| 22 | BA | 56 | A | N3-C4-N9 | 5.49 | 131.79 | 127.40 |
| 22 | BA | 1677 | A | N3-C4-N9 | 5.49 | 131.79 | 127.40 |
| 22 | BA | 2227 | A | N3-C4-N9 | 5.49 | 131.79 | 127.40 |
| 55 | B8 | 14 | A | N9-C4-C5 | 5.49 | 108.00 | 105.80 |
| 22 | BA | 2736 | A | C4-C5-C6 | 5.49 | 119.74 | 117.00 |
| 22 | BA | 125 | A | C4-C5-C6 | 5.49 | 119.74 | 117.00 |
| 22 | BA | 2352 | A | N3-C4-N9 | 5.49 | 131.79 | 127.40 |
| 1 | AA | 1179 | A | C4-C5-N7 | -5.48 | 107.96 | 110.70 |
| 1 | AA | 1396 | A | N9-C4-C5 | 5.48 | 107.99 | 105.80 |
| 1 | AA | 59 | A | C4-C5-N7 | -5.48 | 107.96 | 110.70 |
| 22 | BA | 146 | A | N3-C4-N9 | 5.48 | 131.78 | 127.40 |
| 22 | BA | 294 | A | C8-N9-C4 | 5.48 | 107.99 | 105.80 |
| 22 | BA | 1739 | A | C5-N7-C8 | 5.48 | 106.64 | 103.90 |
| 22 | BA | 2068 | U | N1-C2-O2 | 5.48 | 126.64 | 122.80 |
| 22 | BA | 2626 | C | C6-N1-C2 | -5.48 | 118.11 | 120.30 |
| 1 | AA | 478 | A | N3-C4-N9 | 5.48 | 131.78 | 127.40 |
| 22 | BA | 84 | A | C4-C5-N7 | -5.48 | 107.96 | 110.70 |
| 22 | BA | 984 | A | C4-C5-N7 | -5.48 | 107.96 | 110.70 |
| 22 | BA | 167 | A | N3-C4-N9 | 5.48 | 131.78 | 127.40 |
| 1 | AA | 78 | A | N3-C4-N9 | 5.48 | 131.78 | 127.40 |
| 1 | AA | 336 | A | C5-C6-N1 | 5.48 | 120.44 | 117.70 |
| 1 | AA | 696 | A | N9-C4-C5 | 5.48 | 107.99 | 105.80 |
| 22 | BA | 959 | A | C4-C5-C6 | 5.48 | 119.74 | 117.00 |
| 22 | BA | 1593 | A | C5-C6-N1 | 5.47 | 120.44 | 117.70 |
| 22 | BA | 2298 | A | C4-C5-N7 | -5.47 | 107.96 | 110.70 |
| 22 | BA | 94 | A | N3-C4-N9 | 5.47 | 131.78 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 602 | A | C4-C5-C6 | 5.47 | 119.74 | 117.00 |
| 22 | BA | 2392 | A | N3-C4-N9 | 5.47 | 131.78 | 127.40 |
| 1 | AA | 655 | A | C5-C6-N1 | 5.47 | 120.44 | 117.70 |
| 1 | AA | 1196 | A | C4-C5-C6 | 5.47 | 119.74 | 117.00 |
| 1 | AA | 1012 | A | N9-C4-C5 | 5.47 | 107.99 | 105.80 |
| 22 | BA | 430 | A | N3-C4-N9 | 5.47 | 131.78 | 127.40 |
| 22 | BA | 2516 | A | N3-C4-N9 | 5.47 | 131.78 | 127.40 |
| 22 | BA | 2682 | A | N3-C4-N9 | 5.47 | 131.78 | 127.40 |
| 1 | AA | 223 | A | N3-C4-N9 | 5.47 | 131.77 | 127.40 |
| 1 | AA | 1251 | A | C4-C5-N7 | -5.47 | 107.97 | 110.70 |
| 22 | BA | 751 | A | C4-C5-N7 | -5.47 | 107.97 | 110.70 |
| 22 | BA | 1745 | A | N3-C4-N9 | 5.47 | 131.78 | 127.40 |
| 22 | BA | 2000 | C | N3-C2-O2 | -5.47 | 118.07 | 121.90 |
| 1 | AA | 120 | A | C4-C5-C6 | 5.47 | 119.73 | 117.00 |
| 1 | AA | 353 | A | C4-C5-N7 | -5.47 | 107.97 | 110.70 |
| 1 | AA | 454 | G | N3-C4-C5 | -5.47 | 125.87 | 128.60 |
| 22 | BA | 1755 | A | C4-C5-N7 | -5.47 | 107.97 | 110.70 |
| 22 | BA | 2281 | A | C5-C6-N1 | 5.47 | 120.43 | 117.70 |
| 1 | AA | 1329 | A | C4-C5-N7 | -5.46 | 107.97 | 110.70 |
| 1 | AA | 1480 | A | C4-C5-N7 | -5.46 | 107.97 | 110.70 |
| 22 | BA | 347 | A | C4-C5-N7 | -5.46 | 107.97 | 110.70 |
| 22 | BA | 727 | A | N3-C4-N9 | 5.46 | 131.77 | 127.40 |
| 22 | BA | 1609 | A | N9-C4-C5 | 5.46 | 107.99 | 105.80 |
| 22 | BA | 2761 | A | C5-C6-N1 | 5.46 | 120.43 | 117.70 |
| 22 | BA | 1264 | A | C4-C5-C6 | 5.46 | 119.73 | 117.00 |
| 22 | BA | 1784 | A | N9-C4-C5 | 5.46 | 107.98 | 105.80 |
| 22 | BA | 2054 | A | C5-C6-N1 | 5.46 | 120.43 | 117.70 |
| 1 | AA | 1254 | A | N3-C4-N9 | 5.46 | 131.77 | 127.40 |
| 1 | AA | 1333 | A | N3-C4-N9 | 5.46 | 131.77 | 127.40 |
| 22 | BA | 167 | A | C4-C5-N7 | -5.46 | 107.97 | 110.70 |
| 22 | BA | 943 | A | C4-C5-N7 | -5.46 | 107.97 | 110.70 |
| 1 | AA | 109 | A | C5-N7-C8 | 5.46 | 106.63 | 103.90 |
| 1 | AA | 1082 | A | N3-C4-N9 | 5.46 | 131.76 | 127.40 |
| 22 | BA | 74 | A | C4-C5-C6 | 5.46 | 119.73 | 117.00 |
| 22 | BA | 1847 | A | C5-C6-N1 | 5.46 | 120.43 | 117.70 |
| 22 | BA | 1987 | A | C4-C5-C6 | 5.46 | 119.73 | 117.00 |
| 22 | BA | 1987 | A | C5-C6-N1 | 5.46 | 120.43 | 117.70 |
| 22 | BA | 2733 | A | C4-C5-N7 | -5.46 | 107.97 | 110.70 |
| 22 | BA | 2734 | A | N3-C4-N9 | 5.46 | 131.76 | 127.40 |
| 1 | AA | 596 | A | C4-C5-C6 | 5.46 | 119.73 | 117.00 |
| 22 | BA | 1084 | A | C4-C5-N7 | -5.45 | 107.97 | 110.70 |
| 22 | BA | 1194 | A | C5-C6-N1 | 5.45 | 120.43 | 117.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 1614 | A | C4-C5-N7 | -5.45 | 107.97 | 110.70 |
| 22 | BA | 1805 | A | C4-C5-N7 | -5.45 | 107.97 | 110.70 |
| 22 | BA | 2542 | A | C4-C5-N7 | -5.45 | 107.97 | 110.70 |
| 1 | AA | 969 | A | C4-C5-N7 | -5.45 | 107.97 | 110.70 |
| 22 | BA | 1745 | A | N9-C4-C5 | 5.45 | 107.98 | 105.80 |
| 22 | BA | 1853 | A | C5-C6-N1 | 5.45 | 120.43 | 117.70 |
| 22 | BA | 1977 | A | C8-N9-C4 | 5.45 | 107.98 | 105.80 |
| 1 | AA | 19 | A | C4-C5-N7 | -5.45 | 107.98 | 110.70 |
| 3 | AC | 84 | VAL | CG1-CB-CG2 | -5.45 | 102.18 | 110.90 |
| 22 | BA | 347 | A | N3-C4-N9 | 5.45 | 131.76 | 127.40 |
| 22 | BA | 821 | A | C4-C5-N7 | -5.45 | 107.97 | 110.70 |
| 22 | BA | 2879 | A | N9-C4-C5 | 5.45 | 107.98 | 105.80 |
| 1 | AA | 72 | A | C5-C6-N1 | 5.45 | 120.42 | 117.70 |
| 1 | AA | 1456 | A | C4-C5-N7 | -5.45 | 107.98 | 110.70 |
| 22 | BA | 272 | A | N3-C4-N9 | 5.45 | 131.76 | 127.40 |
| 22 | BA | 603 | A | C4-C5-C6 | 5.45 | 119.72 | 117.00 |
| 22 | BA | 1701 | A | C4-C5-N7 | -5.45 | 107.98 | 110.70 |
| 22 | BA | 1916 | A | N3-C4-N9 | 5.45 | 131.76 | 127.40 |
| 1 | AA | 466 | A | C4-C5-N7 | -5.44 | 107.98 | 110.70 |
| 1 | AA | 1410 | A | C5-C6-N1 | 5.44 | 120.42 | 117.70 |
| 55 | B8 | 21 | A | C4-C5-N7 | -5.44 | 107.98 | 110.70 |
| 1 | AA | 109 | A | N9-C4-C5 | 5.44 | 107.98 | 105.80 |
| 1 | AA | 1110 | A | C4-C5-N7 | -5.44 | 107.98 | 110.70 |
| 1 | AA | 430 | A | N3-C4-N9 | 5.44 | 131.75 | 127.40 |
| 1 | AA | 432 | A | N3-C4-N9 | 5.44 | 131.75 | 127.40 |
| 22 | BA | 1095 | A | N3-C4-N9 | 5.44 | 131.75 | 127.40 |
| 22 | BA | 2856 | A | C5-C6-N1 | 5.44 | 120.42 | 117.70 |
| 1 | AA | 1225 | A | N3-C4-N9 | 5.44 | 131.75 | 127.40 |
| 1 | AA | 1357 | A | N3-C4-N9 | 5.44 | 131.75 | 127.40 |
| 22 | BA | 324 | A | N3-C4-N9 | 5.44 | 131.75 | 127.40 |
| 22 | BA | 1286 | A | C5-C6-N1 | 5.44 | 120.42 | 117.70 |
| 1 | AA | 1145 | A | C4-C5-C6 | 5.44 | 119.72 | 117.00 |
| 22 | BA | 443 | A | C4-C5-N7 | -5.44 | 107.98 | 110.70 |
| 22 | BA | 541 | A | N3-C4-N9 | 5.44 | 131.75 | 127.40 |
| 1 | AA | 336 | A | C4-C5-C6 | 5.43 | 119.72 | 117.00 |
| 22 | BA | 1268 | A | N3-C4-N9 | 5.43 | 131.75 | 127.40 |
| 23 | BB | 58 | A | C4-C5-N7 | -5.43 | 107.98 | 110.70 |
| 22 | BA | 231 | A | C5-C6-N1 | 5.43 | 120.42 | 117.70 |
| 22 | BA | 750 | A | N9-C4-C5 | 5.43 | 107.97 | 105.80 |
| 22 | BA | 2590 | A | C4-C5-N7 | -5.43 | 107.98 | 110.70 |
| 23 | BB | 50 | A | N3-C4-N9 | 5.43 | 131.75 | 127.40 |
| 1 | AA | 95 | C | C2-N1-C1' | 5.43 | 124.77 | 118.80 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 165 | A | C4-C5-C6 | 5.43 | 119.71 | 117.00 |
| 22 | BA | 933 | A | N9-C4-C5 | 5.43 | 107.97 | 105.80 |
| 22 | BA | 2706 | A | N3-C4-N9 | 5.43 | 131.74 | 127.40 |
| 1 | AA | 72 | A | N3-C4-N9 | 5.43 | 131.74 | 127.40 |
| 22 | BA | 272 | A | C5-C6-N1 | 5.43 | 120.41 | 117.70 |
| 22 | BA | 460 | A | N9-C4-C5 | 5.43 | 107.97 | 105.80 |
| 1 | AA | 432 | A | C4-C5-N7 | -5.43 | 107.99 | 110.70 |
| 1 | AA | 546 | A | C4-C5-N7 | -5.43 | 107.99 | 110.70 |
| 22 | BA | 219 | A | N3-C4-N9 | 5.43 | 131.74 | 127.40 |
| 22 | BA | 1987 | A | N3-C4-N9 | 5.43 | 131.74 | 127.40 |
| 1 | AA | 78 | A | N9-C4-C5 | 5.42 | 107.97 | 105.80 |
| 1 | AA | 1101 | A | C4-C5-N7 | -5.42 | 107.99 | 110.70 |
| 1 | AA | 1216 | A | C4-C5-N7 | -5.42 | 107.99 | 110.70 |
| 22 | BA | 1805 | A | N3-C4-N9 | 5.42 | 131.74 | 127.40 |
| 22 | BA | 2778 | A | N3-C4-N9 | 5.42 | 131.74 | 127.40 |
| 1 | AA | 1152 | A | N3-C4-N9 | 5.42 | 131.74 | 127.40 |
| 22 | BA | 608 | A | C4-C5-C6 | 5.42 | 119.71 | 117.00 |
| 1 | AA | 98 | A | N3-C4-N9 | 5.42 | 131.74 | 127.40 |
| 22 | BA | 195 | A | C4-C5-C6 | 5.42 | 119.71 | 117.00 |
| 22 | BA | 346 | A | C4-C5-C6 | 5.42 | 119.71 | 117.00 |
| 22 | BA | 2038 | G | N1-C6-O6 | -5.42 | 116.65 | 119.90 |
| 1 | AA | 197 | A | C4-C5-N7 | -5.42 | 107.99 | 110.70 |
| 22 | BA | 2639 | A | C4-C5-C6 | 5.42 | 119.71 | 117.00 |
| 1 | AA | 909 | A | C4-C5-C6 | 5.42 | 119.71 | 117.00 |
| 1 | AA | 1036 | A | N3-C4-N9 | 5.42 | 131.74 | 127.40 |
| 1 | AA | 205 | A | N3-C4-N9 | 5.42 | 131.73 | 127.40 |
| 1 | AA | 694 | A | N3-C4-N9 | 5.42 | 131.73 | 127.40 |
| 1 | AA | 908 | A | N3-C4-N9 | 5.42 | 131.73 | 127.40 |
| 22 | BA | 1321 | A | N3-C4-N9 | 5.42 | 131.73 | 127.40 |
| 22 | BA | 1876 | A | N3-C4-N9 | 5.42 | 131.73 | 127.40 |
| 22 | BA | 2478 | A | N3-C4-N9 | 5.42 | 131.73 | 127.40 |
| 22 | BA | 2560 | A | C4-C5-N7 | -5.42 | 107.99 | 110.70 |
| 22 | BA | 590 | A | C4-C5-N7 | -5.42 | 107.99 | 110.70 |
| 22 | BA | 2009 | A | N3-C4-N9 | 5.42 | 131.73 | 127.40 |
| 1 | AA | 547 | A | C4-C5-N7 | -5.41 | 107.99 | 110.70 |
| 22 | BA | 2225 | A | N9-C4-C5 | 5.41 | 107.97 | 105.80 |
| 1 | AA | 640 | A | N3-C4-N9 | 5.41 | 131.73 | 127.40 |
| 22 | BA | 352 | A | C4-C5-N7 | -5.41 | 107.99 | 110.70 |
| 22 | BA | 2391 | G | O4'-C1'-N9 | 5.41 | 112.53 | 108.20 |
| 22 | BA | 2810 | A | C4-C5-C6 | 5.41 | 119.70 | 117.00 |
| 1 | AA | 315 | A | C5-C6-N1 | 5.41 | 120.41 | 117.70 |
| 22 | BA | 1077 | A | C4-C5-N7 | -5.41 | 108.00 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 1960 | A | C4-C5-N7 | -5.41 | 108.00 | 110.70 |
| 22 | BA | 1314 | C | C2-N1-C1' | 5.41 | 124.75 | 118.80 |
| 22 | BA | 1246 | A | C4-C5-C6 | 5.41 | 119.70 | 117.00 |
| 22 | BA | 1885 | A | N9-C4-C5 | 5.41 | 107.96 | 105.80 |
| 22 | BA | 2435 | A | N3-C4-N9 | 5.41 | 131.72 | 127.40 |
| 22 | BA | 2634 | A | C5-C6-N1 | 5.40 | 120.40 | 117.70 |
| 22 | BA | 1637 | A | N3-C4-N9 | 5.40 | 131.72 | 127.40 |
| 1 | AA | 98 | A | C5-C6-N1 | 5.40 | 120.40 | 117.70 |
| 1 | AA | 223 | A | C4-C5-N7 | -5.40 | 108.00 | 110.70 |
| 1 | AA | 1176 | A | N3-C4-N9 | 5.40 | 131.72 | 127.40 |
| 22 | BA | 1010 | A | C4-C5-N7 | -5.40 | 108.00 | 110.70 |
| 22 | BA | 2459 | A | C5-C6-N1 | 5.40 | 120.40 | 117.70 |
| 1 | AA | 435 | A | N3-C4-N9 | 5.40 | 131.72 | 127.40 |
| 1 | AA | 1437 | A | N3-C4-N9 | 5.40 | 131.72 | 127.40 |
| 22 | BA | 1453 | A | C4-C5-N7 | -5.40 | 108.00 | 110.70 |
| 22 | BA | 1070 | A | C4-C5-N7 | -5.40 | 108.00 | 110.70 |
| 22 | BA | 2727 | A | N9-C4-C5 | 5.40 | 107.96 | 105.80 |
| 1 | AA | 120 | A | C4-C5-N7 | -5.39 | 108.00 | 110.70 |
| 1 | AA | 509 | A | C4-C5-N7 | -5.39 | 108.00 | 110.70 |
| 22 | BA | 195 | A | C5-C6-N1 | 5.39 | 120.40 | 117.70 |
| 22 | BA | 2054 | A | C8-N9-C4 | 5.39 | 107.96 | 105.80 |
| 22 | BA | 2314 | A | C4-C5-C6 | 5.39 | 119.70 | 117.00 |
| 22 | BA | 2632 | A | C4-C5-C6 | 5.39 | 119.70 | 117.00 |
| 1 | AA | 149 | A | C4-C5-N7 | -5.39 | 108.00 | 110.70 |
| 1 | AA | 787 | A | N9-C4-C5 | 5.39 | 107.96 | 105.80 |
| 1 | AA | 1252 | A | N3-C4-N9 | 5.39 | 131.71 | 127.40 |
| 1 | AA | 1508 | A | N3-C4-N9 | 5.39 | 131.72 | 127.40 |
| 22 | BA | 2134 | A | C4-C5-N7 | -5.39 | 108.00 | 110.70 |
| 22 | BA | 643 | A | N3-C4-N9 | 5.39 | 131.71 | 127.40 |
| 22 | BA | 1069 | A | C4-C5-N7 | -5.39 | 108.00 | 110.70 |
| 22 | BA | 1272 | A | C4-C5-C6 | 5.39 | 119.70 | 117.00 |
| 1 | AA | 1014 | A | C4-C5-N7 | -5.39 | 108.00 | 110.70 |
| 22 | BA | 144 | A | N9-C4-C5 | 5.39 | 107.96 | 105.80 |
| 22 | BA | 716 | A | C4-C5-C6 | 5.39 | 119.69 | 117.00 |
| 22 | BA | 1566 | A | C4-C5-C6 | 5.39 | 119.69 | 117.00 |
| 22 | BA | 1654 | A | C8-N9-C4 | 5.39 | 107.96 | 105.80 |
| 1 | AA | 784 | A | C5-C6-N1 | 5.39 | 120.39 | 117.70 |
| 22 | BA | 819 | A | C4-C5-N7 | -5.39 | 108.01 | 110.70 |
| 1 | AA | 7 | A | C4-C5-C6 | 5.39 | 119.69 | 117.00 |
| 22 | BA | 1785 | A | C5-N7-C8 | 5.39 | 106.59 | 103.90 |
| 22 | BA | 2205 | A | N3-C4-N9 | 5.39 | 131.71 | 127.40 |
| 22 | BA | 2317 | A | C4-C5-N7 | -5.39 | 108.01 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 2369 | A | N3-C4-N9 | 5.39 | 131.71 | 127.40 |
| 22 | BA | 2560 | A | C5-C6-N1 | 5.39 | 120.39 | 117.70 |
| 22 | BA | 2560 | A | N3-C4-N9 | 5.39 | 131.71 | 127.40 |
| 22 | BA | 2679 | A | C5-C6-N1 | 5.39 | 120.39 | 117.70 |
| 22 | BA | 149 | A | N3-C4-N9 | 5.38 | 131.71 | 127.40 |
| 22 | BA | 655 | A | C4-C5-C6 | 5.38 | 119.69 | 117.00 |
| 22 | BA | 920 | A | C4-C5-N7 | -5.38 | 108.01 | 110.70 |
| 22 | BA | 1569 | A | C4-C5-N7 | -5.38 | 108.01 | 110.70 |
| 22 | BA | 532 | A | C4-C5-N7 | -5.38 | 108.01 | 110.70 |
| 22 | BA | 1439 | A | N3-C4-N9 | 5.38 | 131.71 | 127.40 |
| 22 | BA | 1569 | A | C5-C6-N1 | 5.38 | 120.39 | 117.70 |
| 22 | BA | 1665 | A | N9-C4-C5 | 5.38 | 107.95 | 105.80 |
| 23 | BB | 29 | A | C4-C5-N7 | -5.38 | 108.01 | 110.70 |
| 23 | BB | 45 | A | N3-C4-N9 | 5.38 | 131.71 | 127.40 |
| 1 | AA | 7 | A | C4-C5-N7 | -5.38 | 108.01 | 110.70 |
| 22 | BA | 205 | G | O4'-C1'-N9 | 5.38 | 112.50 | 108.20 |
| 22 | BA | 556 | A | C5-C6-N1 | 5.38 | 120.39 | 117.70 |
| 22 | BA | 1968 | G | O5'-P-OP1 | -5.38 | 100.86 | 105.70 |
| 1 | AA | 1225 | A | C4-C5-N7 | -5.38 | 108.01 | 110.70 |
| 1 | AA | 1269 | A | C4-C5-N7 | -5.38 | 108.01 | 110.70 |
| 22 | BA | 1103 | A | N3-C4-N9 | 5.38 | 131.70 | 127.40 |
| 22 | BA | 1392 | A | C4-C5-N7 | -5.38 | 108.01 | 110.70 |
| 22 | BA | 2333 | A | N9-C4-C5 | 5.38 | 107.95 | 105.80 |
| 1 | AA | 675 | A | C4-C5-N7 | -5.38 | 108.01 | 110.70 |
| 22 | BA | 1912 | A | C4-C5-N7 | -5.38 | 108.01 | 110.70 |
| 22 | BA | 2615 | U | N3-C2-O2 | -5.38 | 118.44 | 122.20 |
| 22 | BA | 2860 | A | C4-C5-N7 | -5.38 | 108.01 | 110.70 |
| 22 | BA | 983 | A | N9-C4-C5 | 5.38 | 107.95 | 105.80 |
| 22 | BA | 1679 | A | C4-C5-N7 | -5.38 | 108.01 | 110.70 |
| 22 | BA | 2013 | A | N3-C4-N9 | 5.38 | 131.70 | 127.40 |
| 22 | BA | 2826 | A | N3-C4-N9 | 5.38 | 131.70 | 127.40 |
| 22 | BA | 95 | A | N3-C4-N9 | 5.38 | 131.70 | 127.40 |
| 22 | BA | 900 | A | N3-C4-N9 | 5.38 | 131.70 | 127.40 |
| 1 | AA | 1092 | A | C4-C5-N7 | -5.37 | 108.01 | 110.70 |
| 22 | BA | 749 | A | N3-C4-N9 | 5.37 | 131.70 | 127.40 |
| 22 | BA | 782 | A | C4-C5-N7 | -5.37 | 108.01 | 110.70 |
| 22 | BA | 1069 | A | C4-C5-C6 | 5.37 | 119.69 | 117.00 |
| 22 | BA | 1739 | A | N3-C4-N9 | 5.37 | 131.70 | 127.40 |
| 22 | BA | 2468 | A | N3-C4-N9 | 5.37 | 131.70 | 127.40 |
| 22 | BA | 2851 | A | N9-C4-C5 | 5.37 | 107.95 | 105.80 |
| 1 | AA | 869 | G | N1-C6-O6 | -5.37 | 116.68 | 119.90 |
| 1 | AA | 946 | A | C5-C6-N1 | 5.37 | 120.39 | 117.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 182 | A | N3-C4-N9 | 5.37 | 131.70 | 127.40 |
| 22 | BA | 655 | A | C8-N9-C4 | 5.37 | 107.95 | 105.80 |
| 22 | BA | 1802 | A | C4-C5-N7 | -5.37 | 108.01 | 110.70 |
| 22 | BA | 1080 | A | C4-C5-N7 | -5.37 | 108.02 | 110.70 |
| 22 | BA | 1144 | A | C4-C5-N7 | -5.37 | 108.02 | 110.70 |
| 1 | AA | 59 | A | N3-C4-N9 | 5.37 | 131.69 | 127.40 |
| 1 | AA | 1019 | A | C4-C5-N7 | -5.37 | 108.02 | 110.70 |
| 22 | BA | 190 | A | N3-C4-N9 | 5.37 | 131.69 | 127.40 |
| 22 | BA | 735 | A | N9-C4-C5 | 5.37 | 107.95 | 105.80 |
| 22 | BA | 1000 | A | C4-C5-C6 | 5.37 | 119.69 | 117.00 |
| 22 | BA | 1932 | A | N3-C4-N9 | 5.37 | 131.70 | 127.40 |
| 22 | BA | 807 | U | N1-C2-N3 | 5.37 | 118.12 | 114.90 |
| 22 | BA | 1970 | A | N3-C4-C5 | -5.37 | 123.04 | 126.80 |
| 1 | AA | 182 | A | C4-C5-C6 | 5.37 | 119.68 | 117.00 |
| 1 | AA | 579 | A | N3-C4-N9 | 5.37 | 131.69 | 127.40 |
| 22 | BA | 71 | A | N9-C4-C5 | 5.37 | 107.95 | 105.80 |
| 22 | BA | 572 | A | C5-C6-N1 | 5.37 | 120.38 | 117.70 |
| 22 | BA | 2284 | A | C5-C6-N1 | 5.37 | 120.38 | 117.70 |
| 22 | BA | 2564 | A | C5-C6-N1 | 5.37 | 120.38 | 117.70 |
| 1 | AA | 655 | A | C4-C5-N7 | -5.36 | 108.02 | 110.70 |
| 22 | BA | 2453 | A | C4-C5-N7 | -5.36 | 108.02 | 110.70 |
| 1 | AA | 414 | A | C4-C5-N7 | -5.36 | 108.02 | 110.70 |
| 1 | AA | 466 | A | N3-C4-N9 | 5.36 | 131.69 | 127.40 |
| 22 | BA | 443 | A | N3-C4-N9 | 5.36 | 131.69 | 127.40 |
| 23 | BB | 115 | A | N3-C4-N9 | 5.36 | 131.69 | 127.40 |
| 22 | BA | 1872 | A | N9-C4-C5 | 5.36 | 107.94 | 105.80 |
| 1 | AA | 454 | G | N9-C4-C5 | -5.36 | 103.26 | 105.40 |
| 7 | AG | 33 | ASP | N-CA-CB | -5.36 | 100.95 | 110.60 |
| 22 | BA | 833 | A | N3-C4-N9 | 5.36 | 131.69 | 127.40 |
| 22 | BA | 2058 | A | N3-C4-N9 | 5.36 | 131.69 | 127.40 |
| 22 | BA | 2333 | A | N3-C4-N9 | 5.36 | 131.69 | 127.40 |
| 22 | BA | 1327 | A | N3-C4-N9 | 5.36 | 131.69 | 127.40 |
| 22 | BA | 2814 | A | C5-N7-C8 | 5.36 | 106.58 | 103.90 |
| 1 | AA | 596 | A | N3-C4-N9 | 5.35 | 131.68 | 127.40 |
| 22 | BA | 342 | A | C4-C5-N7 | -5.35 | 108.02 | 110.70 |
| 1 | AA | 1248 | A | C4-C5-N7 | -5.35 | 108.02 | 110.70 |
| 55 | B8 | 59 | A | C4-C5-N7 | -5.35 | 108.02 | 110.70 |
| 22 | BA | 345 | A | N3-C4-N9 | 5.35 | 131.68 | 127.40 |
| 22 | BA | 141 | G | O4'-C1'-N9 | -5.35 | 103.92 | 108.20 |
| 22 | BA | 2418 | A | N3-C4-N9 | 5.35 | 131.68 | 127.40 |
| 22 | BA | 2850 | A | C4-C5-N7 | -5.35 | 108.03 | 110.70 |
| 1 | AA | 1410 | A | C4-C5-N7 | -5.35 | 108.03 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 1 | AA | 1476 | A | C4-C5-N7 | -5.35 | 108.03 | 110.70 |
| 22 | BA | 172 | A | C4-C5-N7 | -5.35 | 108.03 | 110.70 |
| 22 | BA | 829 | A | C4-C5-C6 | 5.35 | 119.67 | 117.00 |
| 55 | B8 | 51 | A | C5-C6-N1 | 5.35 | 120.37 | 117.70 |
| 22 | BA | 173 | A | C5-C6-N1 | 5.35 | 120.37 | 117.70 |
| 22 | BA | 1640 | A | C4-C5-C6 | 5.35 | 119.67 | 117.00 |
| 1 | AA | 635 | A | N3-C4-N9 | 5.34 | 131.68 | 127.40 |
| 22 | BA | 127 | A | C4-C5-N7 | -5.34 | 108.03 | 110.70 |
| 22 | BA | 492 | A | C4-C5-N7 | -5.34 | 108.03 | 110.70 |
| 22 | BA | 1637 | A | C4-C5-N7 | -5.34 | 108.03 | 110.70 |
| 1 | AA | 1093 | A | C4-C5-N7 | -5.34 | 108.03 | 110.70 |
| 1 | AA | 2 | A | C4-C5-N7 | -5.34 | 108.03 | 110.70 |
| 1 | AA | 53 | A | N3-C4-N9 | 5.34 | 131.67 | 127.40 |
| 1 | AA | 573 | A | N3-C4-N9 | 5.34 | 131.67 | 127.40 |
| 1 | AA | 1502 | A | C4-C5-N7 | -5.34 | 108.03 | 110.70 |
| 22 | BA | 428 | A | C8-N9-C4 | 5.34 | 107.94 | 105.80 |
| 22 | BA | 522 | A | C5-C6-N1 | 5.34 | 120.37 | 117.70 |
| 22 | BA | 556 | A | N9-C4-C5 | 5.34 | 107.94 | 105.80 |
| 22 | BA | 1759 | A | N9-C4-C5 | 5.34 | 107.94 | 105.80 |
| 22 | BA | 2617 | U | N3-C2-O2 | -5.34 | 118.46 | 122.20 |
| 1 | AA | 172 | A | C4-C5-C6 | 5.34 | 119.67 | 117.00 |
| 1 | AA | 1152 | A | C4-C5-N7 | -5.34 | 108.03 | 110.70 |
| 22 | BA | 125 | A | C4-C5-N7 | -5.34 | 108.03 | 110.70 |
| 22 | BA | 146 | A | C5-C6-N1 | 5.34 | 120.37 | 117.70 |
| 22 | BA | 310 | A | C5-C6-N1 | 5.34 | 120.37 | 117.70 |
| 22 | BA | 2052 | A | N3-C4-N9 | 5.34 | 131.67 | 127.40 |
| 22 | BA | 2297 | A | C4-C5-N7 | -5.34 | 108.03 | 110.70 |
| 22 | BA | 2322 | A | N3-C4-N9 | 5.34 | 131.67 | 127.40 |
| 22 | BA | 2388 | A | N9-C4-C5 | 5.34 | 107.94 | 105.80 |
| 22 | BA | 221 | A | C5-C6-N1 | 5.33 | 120.37 | 117.70 |
| 29 | BH | 32 | PRO | CA-N-CD | -5.33 | 104.03 | 111.50 |
| 1 | AA | 356 | A | C5-C6-N1 | 5.33 | 120.37 | 117.70 |
| 22 | BA | 1383 | A | C5-C6-N1 | 5.33 | 120.37 | 117.70 |
| 22 | BA | 1535 | A | N3-C4-N9 | 5.33 | 131.67 | 127.40 |
| 22 | BA | 1994 | C | C6-N1-C2 | -5.33 | 118.17 | 120.30 |
| 22 | BA | 2135 | A | N3-C4-N9 | 5.33 | 131.67 | 127.40 |
| 55 | B8 | 38 | A | C5-C6-N1 | 5.33 | 120.37 | 117.70 |
| 1 | AA | 196 | A | C4-C5-N7 | -5.33 | 108.03 | 110.70 |
| 22 | BA | 582 | A | C5-C6-N1 | 5.33 | 120.36 | 117.70 |
| 22 | BA | 1000 | A | N3-C4-N9 | 5.33 | 131.66 | 127.40 |
| 22 | BA | 1027 | A | N3-C4-N9 | 5.33 | 131.67 | 127.40 |
| 1 | AA | 109 | A | N3-C4-N9 | 5.33 | 131.66 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 2564 | A | N3-C4-N9 | 5.33 | 131.66 | 127.40 |
| 22 | BA | 2848 | G | O4'-C1'-N9 | 5.33 | 112.46 | 108.20 |
| 1 | AA | 574 | A | C4-C5-C6 | 5.33 | 119.67 | 117.00 |
| 1 | AA | 935 | A | N3-C4-N9 | 5.33 | 131.66 | 127.40 |
| 22 | BA | 626 | A | C5-N7-C8 | 5.33 | 106.56 | 103.90 |
| 22 | BA | 1032 | A | C4-C5-N7 | -5.33 | 108.04 | 110.70 |
| 1 | AA | 8 | A | C4-C5-C6 | 5.33 | 119.66 | 117.00 |
| 22 | BA | 1666 | G | O5'-P-OP1 | -5.33 | 100.91 | 105.70 |
| 22 | BA | 2126 | A | N3-C4-N9 | 5.33 | 131.66 | 127.40 |
| 55 | B8 | 42 | A | N9-C4-C5 | 5.33 | 107.93 | 105.80 |
| 1 | AA | 913 | A | C4-C5-N7 | -5.33 | 108.04 | 110.70 |
| 1 | AA | 1368 | A | C4-C5-N7 | -5.33 | 108.04 | 110.70 |
| 22 | BA | 127 | A | C4-C5-C6 | 5.33 | 119.66 | 117.00 |
| 22 | BA | 430 | A | N9-C4-C5 | 5.33 | 107.93 | 105.80 |
| 22 | BA | 973 | A | C5-N7-C8 | 5.33 | 106.56 | 103.90 |
| 22 | BA | 1938 | A | N3-C4-N9 | 5.33 | 131.66 | 127.40 |
| 22 | BA | 2051 | A | C4-C5-N7 | -5.33 | 108.04 | 110.70 |
| 22 | BA | 2564 | A | C4-C5-C6 | 5.33 | 119.66 | 117.00 |
| 1 | AA | 53 | A | C5-C6-N1 | 5.32 | 120.36 | 117.70 |
| 1 | AA | 621 | A | N3-C4-N9 | 5.32 | 131.66 | 127.40 |
| 22 | BA | 49 | A | N3-C4-N9 | 5.32 | 131.66 | 127.40 |
| 22 | BA | 207 | A | N3-C4-N9 | 5.32 | 131.66 | 127.40 |
| 1 | AA | 1145 | A | C4-C5-N7 | -5.32 | 108.04 | 110.70 |
| 22 | BA | 492 | A | N3-C4-N9 | 5.32 | 131.66 | 127.40 |
| 22 | BA | 2679 | A | N9-C4-C5 | 5.32 | 107.93 | 105.80 |
| 22 | BA | 2052 | A | N9-C4-C5 | 5.32 | 107.93 | 105.80 |
| 22 | BA | 2439 | A | C4-C5-N7 | -5.32 | 108.04 | 110.70 |
| 22 | BA | 2851 | A | N3-C4-N9 | 5.32 | 131.66 | 127.40 |
| 1 | AA | 873 | A | N9-C4-C5 | 5.32 | 107.93 | 105.80 |
| 1 | AA | 1229 | A | N3-C4-N9 | 5.32 | 131.66 | 127.40 |
| 22 | BA | 472 | A | N3-C4-N9 | 5.32 | 131.65 | 127.40 |
| 1 | AA | 181 | A | C8-N9-C4 | 5.32 | 107.93 | 105.80 |
| 1 | AA | 618 | C | C5-C4-N4 | 5.32 | 123.92 | 120.20 |
| 1 | AA | 938 | A | C4-C5-N7 | -5.32 | 108.04 | 110.70 |
| 22 | BA | 1103 | A | C4-C5-N7 | -5.32 | 108.04 | 110.70 |
| 22 | BA | 1214 | A | C5-C6-N1 | 5.32 | 120.36 | 117.70 |
| 22 | BA | 1755 | A | C4-C5-C6 | 5.32 | 119.66 | 117.00 |
| 22 | BA | 1936 | A | C8-N9-C1' | -5.32 | 118.13 | 127.70 |
| 22 | BA | 2418 | A | N9-C4-C5 | 5.32 | 107.93 | 105.80 |
| 22 | BA | 2547 | A | C4-C5-N7 | -5.32 | 108.04 | 110.70 |
| 22 | BA | 2749 | A | C4-C5-N7 | -5.32 | 108.04 | 110.70 |
| 23 | BB | 94 | A | C5-C6-N1 | 5.32 | 120.36 | 117.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 655 | A | C4-C5-N7 | -5.31 | 108.04 | 110.70 |
| 22 | BA | 1427 | A | C4-C5-N7 | -5.31 | 108.04 | 110.70 |
| 22 | BA | 2311 | A | C4-C5-N7 | -5.31 | 108.04 | 110.70 |
| 1 | AA | 694 | A | C4-C5-N7 | -5.31 | 108.04 | 110.70 |
| 22 | BA | 342 | A | C4-C5-C6 | 5.31 | 119.66 | 117.00 |
| 22 | BA | 1246 | A | C5-C6-N1 | 5.31 | 120.36 | 117.70 |
| 22 | BA | 2665 | A | C4-C5-N7 | -5.31 | 108.04 | 110.70 |
| 22 | BA | 1395 | A | C4-C5-N7 | -5.31 | 108.04 | 110.70 |
| 22 | BA | 1803 | A | C5-C6-N1 | 5.31 | 120.36 | 117.70 |
| 22 | BA | 1966 | A | N3-C4-N9 | 5.31 | 131.65 | 127.40 |
| 22 | BA | 2670 | A | C8-N9-C4 | 5.31 | 107.92 | 105.80 |
| 1 | AA | 1004 | A | C4-C5-N7 | -5.31 | 108.05 | 110.70 |
| 22 | BA | 141 | G | C5-C6-O6 | -5.31 | 125.42 | 128.60 |
| 22 | BA | 244 | A | C5-C6-N1 | 5.31 | 120.36 | 117.70 |
| 22 | BA | 729 | G | N3-C4-C5 | -5.31 | 125.94 | 128.60 |
| 22 | BA | 1787 | A | C4-C5-N7 | -5.31 | 108.05 | 110.70 |
| 22 | BA | 2393 | U | N3-C2-O2 | -5.31 | 118.48 | 122.20 |
| 1 | AA | 864 | A | N3-C4-N9 | 5.31 | 131.65 | 127.40 |
| 1 | AA | 1271 | A | N3-C4-N9 | 5.31 | 131.65 | 127.40 |
| 1 | AA | 1275 | A | N3-C4-N9 | 5.31 | 131.65 | 127.40 |
| 22 | BA | 821 | A | C4-C5-C6 | 5.31 | 119.65 | 117.00 |
| 23 | BB | 57 | A | C4-C5-N7 | -5.31 | 108.05 | 110.70 |
| 1 | AA | 630 | A | N3-C4-N9 | 5.30 | 131.64 | 127.40 |
| 1 | AA | 1102 | A | N3-C4-N9 | 5.30 | 131.64 | 127.40 |
| 22 | BA | 103 | A | N3-C4-N9 | 5.30 | 131.64 | 127.40 |
| 22 | BA | 497 | A | N3-C4-N9 | 5.30 | 131.64 | 127.40 |
| 22 | BA | 753 | A | C4-C5-N7 | -5.30 | 108.05 | 110.70 |
| 22 | BA | 1028 | A | N3-C4-N9 | 5.30 | 131.64 | 127.40 |
| 22 | BA | 1269 | A | N3-C4-N9 | 5.30 | 131.64 | 127.40 |
| 22 | BA | 1593 | A | N3-C4-N9 | 5.30 | 131.64 | 127.40 |
| 22 | BA | 2097 | A | N9-C4-C5 | 5.30 | 107.92 | 105.80 |
| 1 | AA | 336 | A | C4-C5-N7 | -5.30 | 108.05 | 110.70 |
| 22 | BA | 1005 | C | C6-N1-C2 | -5.30 | 118.18 | 120.30 |
| 1 | AA | 119 | A | C4-C5-N7 | -5.30 | 108.05 | 110.70 |
| 1 | AA | 435 | A | C4-C5-N7 | -5.30 | 108.05 | 110.70 |
| 1 | AA | 1288 | A | N3-C4-N9 | 5.30 | 131.64 | 127.40 |
| 22 | BA | 1080 | A | N3-C4-N9 | 5.30 | 131.64 | 127.40 |
| 22 | BA | 1717 | A | C4-C5-N7 | -5.30 | 108.05 | 110.70 |
| 1 | AA | 10 | A | N3-C4-N9 | 5.30 | 131.64 | 127.40 |
| 1 | AA | 468 | A | C4-C5-N7 | -5.30 | 108.05 | 110.70 |
| 22 | BA | 1126 | A | N3-C4-N9 | 5.30 | 131.64 | 127.40 |
| 22 | BA | 2163 | A | N3-C4-N9 | 5.30 | 131.64 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 2340 | A | C5-C6-N1 | 5.30 | 120.35 | 117.70 |
| 23 | BB | 75 | G | N3-C4-C5 | -5.30 | 125.95 | 128.60 |
| 1 | AA | 152 | A | C5-C6-N1 | 5.30 | 120.35 | 117.70 |
| 1 | AA | 816 | A | N3-C4-N9 | 5.30 | 131.64 | 127.40 |
| 22 | BA | 91 | A | C4-C5-N7 | -5.30 | 108.05 | 110.70 |
| 22 | BA | 838 | C | N3-C2-O2 | -5.30 | 118.19 | 121.90 |
| 22 | BA | 1069 | A | C8-N9-C4 | 5.30 | 107.92 | 105.80 |
| 22 | BA | 1393 | A | C4-C5-C6 | 5.30 | 119.65 | 117.00 |
| 22 | BA | 2099 | U | O4'-C1'-N1 | 5.30 | 112.44 | 108.20 |
| 1 | AA | 155 | A | N3-C4-N9 | 5.29 | 131.64 | 127.40 |
| 1 | AA | 179 | A | C4-C5-N7 | -5.29 | 108.05 | 110.70 |
| 1 | AA | 1000 | A | C5-C6-N1 | 5.29 | 120.35 | 117.70 |
| 22 | BA | 574 | A | C4-C5-N7 | -5.29 | 108.05 | 110.70 |
| 1 | AA | 174 | A | N3-C4-N9 | 5.29 | 131.63 | 127.40 |
| 22 | BA | 342 | A | C5-C6-N1 | 5.29 | 120.35 | 117.70 |
| 22 | BA | 1548 | A | C4-C5-C6 | 5.29 | 119.65 | 117.00 |
| 22 | BA | 1622 | G | N3-C4-N9 | 5.29 | 129.18 | 126.00 |
| 22 | BA | 1970 | A | C6-N1-C2 | 5.29 | 121.78 | 118.60 |
| 22 | BA | 2065 | C | C6-N1-C2 | -5.29 | 118.18 | 120.30 |
| 22 | BA | 2071 | A | C4-C5-N7 | -5.29 | 108.05 | 110.70 |
| 23 | BB | 59 | A | N9-C4-C5 | 5.29 | 107.92 | 105.80 |
| 1 | AA | 1081 | A | C5-C6-N1 | 5.29 | 120.35 | 117.70 |
| 22 | BA | 1570 | A | C4-C5-N7 | -5.29 | 108.05 | 110.70 |
| 1 | AA | 787 | A | N3-C4-N9 | 5.29 | 131.63 | 127.40 |
| 54 | B7 | 9 | A | C4-C5-C6 | 5.29 | 119.64 | 117.00 |
| 22 | BA | 1367 | A | C4-C5-N7 | -5.29 | 108.06 | 110.70 |
| 22 | BA | 2212 | A | C4-C5-N7 | -5.29 | 108.06 | 110.70 |
| 22 | BA | 126 | A | C4-C5-C6 | 5.29 | 119.64 | 117.00 |
| 22 | BA | 344 | A | C4-C5-N7 | -5.29 | 108.06 | 110.70 |
| 22 | BA | 1783 | A | C4-C5-C6 | 5.29 | 119.64 | 117.00 |
| 1 | AA | 411 | A | C5-C6-N1 | 5.29 | 120.34 | 117.70 |
| 1 | AA | 1157 | A | C5-C6-N1 | 5.29 | 120.34 | 117.70 |
| 22 | BA | 981 | A | C4-C5-C6 | 5.29 | 119.64 | 117.00 |
| 22 | BA | 1978 | A | C8-N9-C4 | 5.29 | 107.91 | 105.80 |
| 22 | BA | 2314 | A | C5-C6-N1 | 5.29 | 120.34 | 117.70 |
| 22 | BA | 2541 | A | C4-C5-N7 | -5.29 | 108.06 | 110.70 |
| 1 | AA | 1044 | A | C5-C6-N1 | 5.28 | 120.34 | 117.70 |
| 1 | AA | 1368 | A | N3-C4-N9 | 5.28 | 131.63 | 127.40 |
| 1 | AA | 1502 | A | C4-C5-C6 | 5.28 | 119.64 | 117.00 |
| 22 | BA | 149 | A | C4-C5-N7 | -5.28 | 108.06 | 110.70 |
| 22 | BA | 1635 | A | N3-C4-N9 | 5.28 | 131.63 | 127.40 |
| 1 | AA | 353 | A | C5-C6-N1 | 5.28 | 120.34 | 117.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 715 | A | N3-C4-N9 | 5.28 | 131.62 | 127.40 |
| 22 | BA | 1552 | A | C4-C5-N7 | -5.28 | 108.06 | 110.70 |
| 22 | BA | 1936 | A | C5-N7-C8 | 5.28 | 106.54 | 103.90 |
| 22 | BA | 2541 | A | N3-C4-N9 | 5.28 | 131.62 | 127.40 |
| 22 | BA | 2579 | C | O5'-P-OP1 | -5.28 | 100.95 | 105.70 |
| 1 | AA | 533 | A | C4-C5-N7 | -5.28 | 108.06 | 110.70 |
| 1 | AA | 1101 | A | C4-C5-C6 | 5.28 | 119.64 | 117.00 |
| 1 | AA | 1446 | A | C5-C6-N1 | 5.28 | 120.34 | 117.70 |
| 22 | BA | 2430 | A | C6-N1-C2 | 5.28 | 121.77 | 118.60 |
| 1 | AA | 441 | A | N3-C4-N9 | 5.28 | 131.62 | 127.40 |
| 22 | BA | 608 | A | N9-C4-C5 | 5.28 | 107.91 | 105.80 |
| 22 | BA | 1634 | A | C4-C5-N7 | -5.28 | 108.06 | 110.70 |
| 22 | BA | 1700 | A | N9-C4-C5 | 5.28 | 107.91 | 105.80 |
| 1 | AA | 441 | A | C4-C5-N7 | -5.28 | 108.06 | 110.70 |
| 1 | AA | 470 | C | C6-N1-C2 | -5.28 | 118.19 | 120.30 |
| 22 | BA | 1048 | A | C4-C5-N7 | -5.28 | 108.06 | 110.70 |
| 22 | BA | 1342 | A | C4-C5-N7 | -5.28 | 108.06 | 110.70 |
| 22 | BA | 1505 | A | C4-C5-N7 | -5.28 | 108.06 | 110.70 |
| 22 | BA | 1655 | A | C5-C6-N1 | 5.28 | 120.34 | 117.70 |
| 22 | BA | 2184 | A | N3-C4-N9 | 5.28 | 131.62 | 127.40 |
| 22 | BA | 246 | C | C6-N1-C2 | -5.27 | 118.19 | 120.30 |
| 22 | BA | 453 | A | N9-C4-C5 | 5.27 | 107.91 | 105.80 |
| 22 | BA | 899 | A | C4-C5-N7 | -5.27 | 108.06 | 110.70 |
| 22 | BA | 1014 | A | N3-C4-N9 | 5.27 | 131.62 | 127.40 |
| 22 | BA | 1586 | A | N3-C4-N9 | 5.27 | 131.62 | 127.40 |
| 22 | BA | 1877 | A | N3-C4-N9 | 5.27 | 131.62 | 127.40 |
| 22 | BA | 2602 | A | C4-C5-N7 | -5.27 | 108.06 | 110.70 |
| 22 | BA | 2711 | A | N3-C4-N9 | 5.27 | 131.62 | 127.40 |
| 1 | AA | 794 | A | N3-C4-N9 | 5.27 | 131.62 | 127.40 |
| 1 | AA | 1005 | A | N3-C4-N9 | 5.27 | 131.62 | 127.40 |
| 22 | BA | 1969 | A | N3-C4-N9 | 5.27 | 131.62 | 127.40 |
| 22 | BA | 2893 | A | N3-C4-N9 | 5.27 | 131.62 | 127.40 |
| 1 | AA | 263 | A | C4-C5-N7 | -5.27 | 108.07 | 110.70 |
| 1 | AA | 356 | A | C4-C5-N7 | -5.27 | 108.07 | 110.70 |
| 22 | BA | 2809 | A | N3-C4-N9 | 5.27 | 131.61 | 127.40 |
| 22 | BA | 1730 | C | N1-C2-O2 | 5.27 | 122.06 | 118.90 |
| 1 | AA | 280 | C | C6-N1-C2 | 5.26 | 122.41 | 120.30 |
| 1 | AA | 602 | A | N3-C4-N9 | 5.26 | 131.61 | 127.40 |
| 1 | AA | 1418 | A | N9-C4-C5 | 5.26 | 107.91 | 105.80 |
| 1 | AA | 1437 | A | N9-C4-C5 | 5.26 | 107.91 | 105.80 |
| 22 | BA | 572 | A | N9-C4-C5 | 5.26 | 107.91 | 105.80 |
| 22 | BA | 1784 | A | C4-C5-N7 | -5.26 | 108.07 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 22 | BA | 2386 | A | N3-C4-N9 | 5.26 | 131.61 | 127.40 |
| 22 | BA | 1008 | A | C4-C5-C6 | 5.26 | 119.63 | 117.00 |
| 22 | BA | 1569 | A | C4-C5-C6 | 5.26 | 119.63 | 117.00 |
| 1 | AA | 845 | A | C4-C5-N7 | -5.26 | 108.07 | 110.70 |
| 22 | BA | 332 | A | C5-C6-N1 | 5.26 | 120.33 | 117.70 |
| 22 | BA | 477 | A | N9-C4-C5 | 5.26 | 107.90 | 105.80 |
| 22 | BA | 502 | A | C4-C5-C6 | 5.26 | 119.63 | 117.00 |
| 22 | BA | 1253 | A | C5-N7-C8 | 5.26 | 106.53 | 103.90 |
| 22 | BA | 2547 | A | C5-C6-N1 | 5.26 | 120.33 | 117.70 |
| 22 | BA | 2736 | A | C4-C5-N7 | -5.26 | 108.07 | 110.70 |
| 1 | AA | 640 | A | C5-C6-N1 | 5.26 | 120.33 | 117.70 |
| 22 | BA | 505 | A | N3-C4-N9 | 5.26 | 131.61 | 127.40 |
| 22 | BA | 2810 | A | C5-C6-N1 | 5.26 | 120.33 | 117.70 |
| 1 | AA | 470 | C | C2-N1-C1' | 5.26 | 124.58 | 118.80 |
| 1 | AA | 768 | A | N3-C4-N9 | 5.26 | 131.60 | 127.40 |
| 1 | AA | 1396 | A | C5-C6-N1 | 5.26 | 120.33 | 117.70 |
| 22 | BA | 222 | A | C4-C5-N7 | -5.26 | 108.07 | 110.70 |
| 22 | BA | 2430 | A | C5'-C4'-O4' | 5.26 | 115.41 | 109.10 |
| 22 | BA | 2516 | A | C4-C5-N7 | -5.26 | 108.07 | 110.70 |
| 1 | AA | 559 | A | N3-C4-N9 | 5.25 | 131.60 | 127.40 |
| 22 | BA | 114 | U | C2-N1-C1' | 5.25 | 124.01 | 117.70 |
| 22 | BA | 1272 | A | C8-N9-C4 | 5.25 | 107.90 | 105.80 |
| 23 | BB | 104 | A | N3-C4-N9 | 5.25 | 131.60 | 127.40 |
| 22 | BA | 118 | A | C4-C5-C6 | 5.25 | 119.63 | 117.00 |
| 22 | BA | 2497 | A | N3-C4-N9 | 5.25 | 131.60 | 127.40 |
| 22 | BA | 233 | A | N9-C4-C5 | 5.25 | 107.90 | 105.80 |
| 22 | BA | 718 | A | N3-C4-N9 | 5.25 | 131.60 | 127.40 |
| 22 | BA | 1591 | A | N9-C4-C5 | 5.25 | 107.90 | 105.80 |
| 22 | BA | 1655 | A | N3-C4-N9 | 5.25 | 131.60 | 127.40 |
| 1 | AA | 195 | A | C4-C5-C6 | 5.25 | 119.62 | 117.00 |
| 1 | AA | 243 | A | C4-C5-N7 | -5.25 | 108.08 | 110.70 |
| 22 | BA | 689 | A | C5-C6-N1 | 5.25 | 120.32 | 117.70 |
| 22 | BA | 1616 | A | C4-C5-N7 | -5.25 | 108.08 | 110.70 |
| 22 | BA | 2267 | A | C5-C6-N1 | 5.25 | 120.32 | 117.70 |
| 1 | AA | 499 | A | N3-C4-N9 | 5.25 | 131.60 | 127.40 |
| 1 | AA | 642 | A | C4-C5-N7 | -5.25 | 108.08 | 110.70 |
| 22 | BA | 71 | A | C4-C5-N7 | -5.25 | 108.08 | 110.70 |
| 22 | BA | 1603 | A | N9-C4-C5 | 5.25 | 107.90 | 105.80 |
| 22 | BA | 2036 | C | C6-N1-C2 | -5.25 | 118.20 | 120.30 |
| 55 | B8 | 42 | A | C4-C5-N7 | -5.25 | 108.08 | 110.70 |
| 1 | AA | 181 | A | N3-C4-N9 | 5.25 | 131.60 | 127.40 |
| 22 | BA | 2425 | A | C4-C5-N7 | -5.25 | 108.08 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1 | AA | 151 | A | C5-C6-N1 | 5.24 | 120.32 | 117.70 |
| 1 | AA | 309 | A | C5-C6-N1 | 5.24 | 120.32 | 117.70 |
| 22 | BA | 2340 | A | C8-N9-C4 | 5.24 | 107.90 | 105.80 |
| 22 | BA | 621 | A | C4-C5-C6 | 5.24 | 119.62 | 117.00 |
| 1 | AA | 366 | A | C4-C5-N7 | -5.24 | 108.08 | 110.70 |
| 1 | AA | 815 | A | C4-C5-N7 | -5.24 | 108.08 | 110.70 |
| 1 | AA | 1024 | G | O4'-C1'-N9 | 5.24 | 112.39 | 108.20 |
| 1 | AA | 1360 | A | N3-C4-N9 | 5.24 | 131.59 | 127.40 |
| 22 | BA | 279 | A | C5-C6-N1 | 5.24 | 120.32 | 117.70 |
| 22 | BA | 866 | A | C4-C5-N7 | -5.24 | 108.08 | 110.70 |
| 22 | BA | 1580 | A | N3-C4-N9 | 5.24 | 131.59 | 127.40 |
| 22 | BA | 1821 | A | C4-C5-C6 | 5.24 | 119.62 | 117.00 |
| 22 | BA | 1981 | A | C4-C5-N7 | -5.24 | 108.08 | 110.70 |
| 1 | AA | 199 | A | C5-C6-N1 | 5.24 | 120.32 | 117.70 |
| 1 | AA | 1256 | A | N3-C4-N9 | 5.24 | 131.59 | 127.40 |
| 22 | BA | 2191 | A | C4-C5-N7 | -5.24 | 108.08 | 110.70 |
| 22 | BA | 1067 | A | C4-C5-N7 | -5.24 | 108.08 | 110.70 |
| 22 | BA | 1383 | A | C4-C5-C6 | 5.24 | 119.62 | 117.00 |
| 55 | B8 | 73 | A | C5-C6-N1 | 5.23 | 120.32 | 117.70 |
| 1 | AA | 80 | A | N3-C4-N9 | 5.23 | 131.58 | 127.40 |
| 1 | AA | 1111 | A | C4-C5-N7 | -5.23 | 108.08 | 110.70 |
| 22 | BA | 1791 | A | C4-C5-N7 | -5.23 | 108.08 | 110.70 |
| 22 | BA | 2062 | A | C4-C5-N7 | -5.23 | 108.09 | 110.70 |
| 22 | BA | 2184 | A | C5-C6-N1 | 5.23 | 120.31 | 117.70 |
| 1 | AA | 78 | A | C5-C6-N1 | 5.23 | 120.31 | 117.70 |
| 1 | AA | 743 | A | C5-C6-N1 | 5.23 | 120.31 | 117.70 |
| 1 | AA | 1320 | C | N1-C2-N3 | -5.23 | 115.54 | 119.20 |
| 22 | BA | 371 | A | C4-C5-N7 | -5.23 | 108.09 | 110.70 |
| 22 | BA | 603 | A | C8-N9-C4 | 5.23 | 107.89 | 105.80 |
| 22 | BA | 673 | C | N1-C2-O2 | -5.23 | 115.76 | 118.90 |
| 22 | BA | 2005 | A | N3-C4-N9 | 5.23 | 131.58 | 127.40 |
| 1 | AA | 192 | A | N3-C4-N9 | 5.23 | 131.58 | 127.40 |
| 22 | BA | 706 | A | N3-C4-N9 | 5.23 | 131.58 | 127.40 |
| 22 | BA | 1367 | A | N3-C4-N9 | 5.22 | 131.58 | 127.40 |
| 22 | BA | 1496 | A | N3-C4-N9 | 5.22 | 131.58 | 127.40 |
| 22 | BA | 2449 | U | C5-C4-O4 | -5.22 | 122.77 | 125.90 |
| 22 | BA | 2589 | A | N3-C4-N9 | 5.22 | 131.58 | 127.40 |
| 22 | BA | 670 | A | N3-C4-N9 | 5.22 | 131.58 | 127.40 |
| 1 | AA | 303 | A | C5-C6-N1 | 5.22 | 120.31 | 117.70 |
| 22 | BA | 1084 | A | N3-C4-N9 | 5.22 | 131.58 | 127.40 |
| 22 | BA | 2734 | A | C4-C5-N7 | -5.22 | 108.09 | 110.70 |
| 1 | AA | 706 | A | C4-C5-N7 | -5.22 | 108.09 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1 | AA | 825 | A | C5-C6-N1 | 5.22 | 120.31 | 117.70 |
| 22 | BA | 715 | A | C8-N9-C4 | 5.22 | 107.89 | 105.80 |
| 22 | BA | 980 | A | C5-C6-N1 | 5.22 | 120.31 | 117.70 |
| 22 | BA | 1050 | A | C4-C5-N7 | -5.22 | 108.09 | 110.70 |
| 23 | BB | 58 | A | N3-C4-N9 | 5.22 | 131.58 | 127.40 |
| 22 | BA | 282 | A | C8-N9-C4 | 5.22 | 107.89 | 105.80 |
| 22 | BA | 1746 | A | N3-C4-N9 | 5.22 | 131.57 | 127.40 |
| 22 | BA | 2448 | A | C4-C5-N7 | -5.22 | 108.09 | 110.70 |
| 1 | AA | 171 | A | C4-C5-N7 | -5.22 | 108.09 | 110.70 |
| 22 | BA | 1590 | A | N3-C4-N9 | 5.22 | 131.57 | 127.40 |
| 22 | BA | 2412 | A | N3-C4-N9 | 5.22 | 131.57 | 127.40 |
| 1 | AA | 411 | A | N3-C4-N9 | 5.21 | 131.57 | 127.40 |
| 1 | AA | 802 | A | C4-C5-N7 | -5.21 | 108.09 | 110.70 |
| 1 | AA | 1155 | A | N3-C4-N9 | 5.21 | 131.57 | 127.40 |
| 1 | AA | 1441 | A | C8-N9-C4 | 5.21 | 107.89 | 105.80 |
| 22 | BA | 5 | A | C5-C6-N1 | 5.21 | 120.31 | 117.70 |
| 22 | BA | 1322 | A | N9-C4-C5 | 5.21 | 107.89 | 105.80 |
| 55 | B8 | 73 | A | C4-C5-N7 | -5.21 | 108.09 | 110.70 |
| 22 | BA | 103 | A | C4-C5-N7 | -5.21 | 108.09 | 110.70 |
| 22 | BA | 250 | G | C5-C6-O6 | 5.21 | 131.73 | 128.60 |
| 22 | BA | 1189 | A | C4-C5-N7 | -5.21 | 108.09 | 110.70 |
| 1 | AA | 695 | A | N3-C4-N9 | 5.21 | 131.57 | 127.40 |
| 22 | BA | 176 | A | C5-C6-N1 | 5.21 | 120.31 | 117.70 |
| 22 | BA | 177 | G | O4'-C1'-N9 | 5.21 | 112.37 | 108.20 |
| 22 | BA | 368 | A | N3-C4-N9 | 5.21 | 131.57 | 127.40 |
| 22 | BA | 1413 | A | N3-C4-N9 | 5.21 | 131.57 | 127.40 |
| 22 | BA | 1759 | A | C8-N9-C4 | 5.21 | 107.89 | 105.80 |
| 22 | BA | 1780 | A | C4-C5-N7 | -5.21 | 108.09 | 110.70 |
| 22 | BA | 1901 | A | N3-C4-N9 | 5.21 | 131.57 | 127.40 |
| 22 | BA | 503 | A | N3-C4-N9 | 5.21 | 131.57 | 127.40 |
| 1 | AA | 825 | A | C4-C5-N7 | -5.21 | 108.10 | 110.70 |
| 1 | AA | 915 | A | C8-N9-C4 | 5.21 | 107.88 | 105.80 |
| 22 | BA | 1544 | A | C5-C6-N1 | 5.21 | 120.30 | 117.70 |
| 1 | AA | 937 | A | N3-C4-N9 | 5.21 | 131.56 | 127.40 |
| 22 | BA | 324 | A | N9-C4-C5 | 5.21 | 107.88 | 105.80 |
| 22 | BA | 2273 | A | C4-C5-N7 | -5.21 | 108.10 | 110.70 |
| 1 | AA | 1150 | A | C4-C5-N7 | -5.21 | 108.10 | 110.70 |
| 22 | BA | 2468 | A | C5-C6-N1 | 5.21 | 120.30 | 117.70 |
| 1 | AA | 26 | A | C4-C5-N7 | -5.20 | 108.10 | 110.70 |
| 1 | AA | 901 | A | C4-C5-N7 | -5.20 | 108.10 | 110.70 |
| 22 | BA | 666 | A | N9-C4-C5 | 5.20 | 107.88 | 105.80 |
| 22 | BA | 844 | A | N3-C4-N9 | 5.20 | 131.56 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 2340 | A | N9-C4-C5 | 5.20 | 107.88 | 105.80 |
| 22 | BA | 2900 | A | C5-C6-N1 | 5.20 | 120.30 | 117.70 |
| 55 | B8 | 20 | U | C4-C5-C6 | -5.20 | 116.58 | 119.70 |
| 22 | BA | 909 | A | C4-C5-C6 | 5.20 | 119.60 | 117.00 |
| 22 | BA | 1583 | A | C4-C5-N7 | -5.20 | 108.10 | 110.70 |
| 1 | AA | 81 | A | C4-C5-N7 | -5.20 | 108.10 | 110.70 |
| 1 | AA | 349 | A | C4-C5-N7 | -5.20 | 108.10 | 110.70 |
| 22 | BA | 900 | A | C4-C5-N7 | -5.20 | 108.10 | 110.70 |
| 22 | BA | 920 | A | N3-C4-N9 | 5.20 | 131.56 | 127.40 |
| 22 | BA | 1359 | A | C5-C6-N1 | 5.20 | 120.30 | 117.70 |
| 22 | BA | 1749 | A | N3-C4-N9 | 5.20 | 131.56 | 127.40 |
| 22 | BA | 2134 | A | N3-C4-N9 | 5.20 | 131.56 | 127.40 |
| 22 | BA | 2190 | G | C8-N9-C4 | -5.20 | 104.32 | 106.40 |
| 41 | BT | 1 | MET | CA-C-N | -5.20 | 105.76 | 117.20 |
| 1 | AA | 143 | A | C4-C5-N7 | -5.20 | 108.10 | 110.70 |
| 22 | BA | 2080 | A | C4-C5-N7 | -5.20 | 108.10 | 110.70 |
| 1 | AA | 629 | A | N3-C4-N9 | 5.20 | 131.56 | 127.40 |
| 22 | BA | 1057 | A | N3-C4-N9 | 5.20 | 131.56 | 127.40 |
| 1 | AA | 489 | C | C2-N1-C1' | 5.20 | 124.52 | 118.80 |
| 1 | AA | 1035 | A | C4-C5-N7 | -5.20 | 108.10 | 110.70 |
| 1 | AA | 1196 | A | C8-N9-C4 | 5.20 | 107.88 | 105.80 |
| 1 | AA | 1311 | A | C5-C6-N1 | 5.20 | 120.30 | 117.70 |
| 22 | BA | 1378 | A | C5-C6-N1 | 5.20 | 120.30 | 117.70 |
| 22 | BA | 1900 | A | N3-C4-N9 | 5.20 | 131.56 | 127.40 |
| 55 | B8 | 41 | A | C4-C5-N7 | -5.20 | 108.10 | 110.70 |
| 1 | AA | 383 | A | C6-C5-N7 | -5.19 | 128.67 | 132.30 |
| 1 | AA | 665 | A | C4-C5-N7 | -5.19 | 108.11 | 110.70 |
| 1 | AA | 1229 | A | C5-C6-N1 | 5.19 | 120.30 | 117.70 |
| 22 | BA | 279 | A | C4-C5-C6 | 5.19 | 119.59 | 117.00 |
| 22 | BA | 877 | A | C4-C5-N7 | -5.19 | 108.11 | 110.70 |
| 1 | AA | 546 | A | N3-C4-N9 | 5.19 | 131.55 | 127.40 |
| 1 | AA | 1413 | A | C4-C5-N7 | -5.19 | 108.11 | 110.70 |
| 4 | AD | 64 | ILE | CG1-CB-CG2 | -5.19 | 99.99 | 111.40 |
| 22 | BA | 453 | A | C5-C6-N1 | 5.19 | 120.29 | 117.70 |
| 22 | BA | 1328 | A | C4-C5-N7 | -5.19 | 108.11 | 110.70 |
| 22 | BA | 1469 | A | C4-C5-N7 | -5.19 | 108.11 | 110.70 |
| 22 | BA | 1088 | A | C4-C5-N7 | -5.19 | 108.11 | 110.70 |
| 22 | BA | 1230 | A | N3-C4-N9 | 5.19 | 131.55 | 127.40 |
| 1 | AA | 66 | A | C4-C5-N7 | -5.18 | 108.11 | 110.70 |
| 1 | AA | 371 | A | C5-C6-N1 | 5.18 | 120.29 | 117.70 |
| 22 | BA | 94 | A | C4-C5-N7 | -5.18 | 108.11 | 110.70 |
| 22 | BA | 412 | A | N3-C4-N9 | 5.18 | 131.55 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 959 | A | C4-C5-N7 | -5.18 | 108.11 | 110.70 |
| 22 | BA | 2212 | A | N3-C4-N9 | 5.18 | 131.55 | 127.40 |
| 23 | BB | 109 | A | C4-C5-N7 | -5.18 | 108.11 | 110.70 |
| 1 | AA | 1447 | A | N9-C4-C5 | 5.18 | 107.87 | 105.80 |
| 22 | BA | 675 | A | N3-C4-N9 | 5.18 | 131.55 | 127.40 |
| 22 | BA | 1301 | A | N3-C4-N9 | 5.18 | 131.55 | 127.40 |
| 22 | BA | 2071 | A | N3-C4-N9 | 5.18 | 131.55 | 127.40 |
| 22 | BA | 2670 | A | C5-C6-N1 | 5.18 | 120.29 | 117.70 |
| 22 | BA | 2792 | A | C5-C6-N1 | 5.18 | 120.29 | 117.70 |
| 23 | BB | 119 | A | C5-C6-N1 | 5.18 | 120.29 | 117.70 |
| 1 | AA | 315 | A | N3-C4-N9 | 5.18 | 131.54 | 127.40 |
| 22 | BA | 1522 | A | C4-C5-C6 | 5.18 | 119.59 | 117.00 |
| 22 | BA | 1626 | A | N9-C4-C5 | 5.18 | 107.87 | 105.80 |
| 1 | AA | 8 | A | C4-C5-N7 | -5.18 | 108.11 | 110.70 |
| 1 | AA | 250 | A | N3-C4-N9 | 5.18 | 131.54 | 127.40 |
| 1 | AA | 1151 | A | N3-C4-N9 | 5.18 | 131.54 | 127.40 |
| 1 | AA | 1340 | A | N9-C4-C5 | 5.18 | 107.87 | 105.80 |
| 22 | BA | 309 | A | C4-C5-N7 | -5.18 | 108.11 | 110.70 |
| 22 | BA | 988 | A | N3-C4-N9 | 5.18 | 131.54 | 127.40 |
| 22 | BA | 2170 | A | N3-C4-N9 | 5.18 | 131.54 | 127.40 |
| 22 | BA | 2211 | A | C4-C5-N7 | -5.18 | 108.11 | 110.70 |
| 22 | BA | 2288 | A | C4-C5-N7 | -5.18 | 108.11 | 110.70 |
| 22 | BA | 928 | A | C4-C5-N7 | -5.18 | 108.11 | 110.70 |
| 1 | AA | 1483 | A | N9-C4-C5 | 5.18 | 107.87 | 105.80 |
| 22 | BA | 227 | A | N3-C4-N9 | 5.18 | 131.54 | 127.40 |
| 22 | BA | 789 | A | C4-C5-N7 | -5.18 | 108.11 | 110.70 |
| 22 | BA | 1021 | A | N9-C4-C5 | 5.18 | 107.87 | 105.80 |
| 22 | BA | 1495 | A | C4-C5-N7 | -5.18 | 108.11 | 110.70 |
| 22 | BA | 1609 | A | C8-N9-C4 | 5.18 | 107.87 | 105.80 |
| 22 | BA | 2037 | A | N3-C4-N9 | 5.18 | 131.54 | 127.40 |
| 55 | B8 | 58 | A | C4-C5-N7 | -5.18 | 108.11 | 110.70 |
| 22 | BA | 1039 | A | C4-C5-N7 | -5.17 | 108.11 | 110.70 |
| 22 | BA | 2317 | A | N3-C4-N9 | 5.17 | 131.54 | 127.40 |
| 22 | BA | 2867 | G | O4'-C1'-N9 | 5.17 | 112.34 | 108.20 |
| 22 | BA | 2886 | A | N9-C4-C5 | 5.17 | 107.87 | 105.80 |
| 1 | AA | 309 | A | C4-C5-C6 | 5.17 | 119.59 | 117.00 |
| 1 | AA | 1349 | A | N3-C4-N9 | 5.17 | 131.54 | 127.40 |
| 55 | B8 | 58 | A | C4-C5-C6 | 5.17 | 119.59 | 117.00 |
| 1 | AA | 608 | A | C5-C6-N1 | 5.17 | 120.29 | 117.70 |
| 1 | AA | 825 | A | N3-C4-N9 | 5.17 | 131.54 | 127.40 |
| 1 | AA | 1180 | A | N3-C4-N9 | 5.17 | 131.54 | 127.40 |
| 22 | BA | 429 | A | C4-C5-N7 | -5.17 | 108.11 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 863 | A | C5-C6-N1 | 5.17 | 120.29 | 117.70 |
| 22 | BA | 1439 | A | C5-C6-N1 | 5.17 | 120.29 | 117.70 |
| 22 | BA | 1509 | A | N3-C4-N9 | 5.17 | 131.54 | 127.40 |
| 1 | AA | 579 | A | C4-C5-N7 | -5.17 | 108.12 | 110.70 |
| 22 | BA | 181 | A | N3-C4-N9 | 5.17 | 131.53 | 127.40 |
| 22 | BA | 1632 | A | N3-C4-N9 | 5.17 | 131.53 | 127.40 |
| 1 | AA | 777 | A | C4-C5-C6 | 5.17 | 119.58 | 117.00 |
| 1 | AA | 1155 | A | C5-C6-N1 | 5.17 | 120.28 | 117.70 |
| 1 | AA | 1250 | A | C4-C5-N7 | -5.17 | 108.12 | 110.70 |
| 1 | AA | 1288 | A | C5-C6-N1 | 5.17 | 120.28 | 117.70 |
| 22 | BA | 119 | A | C5-C6-N1 | 5.17 | 120.28 | 117.70 |
| 22 | BA | 2887 | A | N3-C4-N9 | 5.17 | 131.53 | 127.40 |
| 1 | AA | 1227 | A | C5-N7-C8 | 5.16 | 106.48 | 103.90 |
| 22 | BA | 761 | A | C5-N7-C8 | 5.16 | 106.48 | 103.90 |
| 22 | BA | 1090 | A | C4-C5-N7 | -5.16 | 108.12 | 110.70 |
| 22 | BA | 2241 | A | C4-C5-N7 | -5.16 | 108.12 | 110.70 |
| 22 | BA | 2453 | A | N3-C4-N9 | 5.16 | 131.53 | 127.40 |
| 22 | BA | 2600 | A | N9-C4-C5 | 5.16 | 107.87 | 105.80 |
| 22 | BA | 2632 | A | C4-C5-N7 | -5.16 | 108.12 | 110.70 |
| 22 | BA | 2675 | A | N9-C4-C5 | 5.16 | 107.87 | 105.80 |
| 22 | BA | 2761 | A | N3-C4-N9 | 5.16 | 131.53 | 127.40 |
| 22 | BA | 2823 | A | C4-C5-N7 | -5.16 | 108.12 | 110.70 |
| 1 | AA | 189 | A | C4-C5-N7 | -5.16 | 108.12 | 110.70 |
| 22 | BA | 1675 | C | C6-N1-C2 | -5.16 | 118.24 | 120.30 |
| 22 | BA | 1808 | A | C4-C5-N7 | -5.16 | 108.12 | 110.70 |
| 22 | BA | 1866 | A | N3-C4-N9 | 5.16 | 131.53 | 127.40 |
| 22 | BA | 1938 | A | C4-C5-N7 | -5.16 | 108.12 | 110.70 |
| 1 | AA | 19 | A | N3-C4-N9 | 5.16 | 131.53 | 127.40 |
| 22 | BA | 340 | A | C4-C5-N7 | -5.16 | 108.12 | 110.70 |
| 22 | BA | 428 | A | N9-C4-C5 | 5.16 | 107.86 | 105.80 |
| 22 | BA | 1508 | A | N3-C4-N9 | 5.16 | 131.53 | 127.40 |
| 22 | BA | 1759 | A | C5-C6-N1 | 5.16 | 120.28 | 117.70 |
| 22 | BA | 2823 | A | N3-C4-N9 | 5.16 | 131.53 | 127.40 |
| 1 | AA | 430 | A | C4-C5-N7 | -5.16 | 108.12 | 110.70 |
| 22 | BA | 348 | A | C5-C6-N1 | 5.16 | 120.28 | 117.70 |
| 1 | AA | 415 | A | C4-C5-N7 | -5.16 | 108.12 | 110.70 |
| 1 | AA | 482 | A | C4-C5-N7 | -5.16 | 108.12 | 110.70 |
| 1 | AA | 596 | A | C4-C5-N7 | -5.16 | 108.12 | 110.70 |
| 22 | BA | 412 | A | N9-C4-C5 | 5.16 | 107.86 | 105.80 |
| 22 | BA | 515 | A | C5-C6-N1 | 5.16 | 120.28 | 117.70 |
| 22 | BA | 739 | A | N3-C4-N9 | 5.16 | 131.52 | 127.40 |
| 22 | BA | 1678 | A | N3-C4-N9 | 5.16 | 131.53 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 22 | BA | 1858 | A | C5-C6-N1 | 5.16 | 120.28 | 117.70 |
| 22 | BA | 2328 | A | N3-C4-N9 | 5.16 | 131.53 | 127.40 |
| 55 | B8 | 59 | A | C5-C6-N1 | 5.16 | 120.28 | 117.70 |
| 1 | AA | 1492 | A | C4-C5-N7 | -5.15 | 108.12 | 110.70 |
| 22 | BA | 1307 | A | N3-C4-N9 | 5.15 | 131.52 | 127.40 |
| 22 | BA | 2247 | A | C4-C5-N7 | -5.15 | 108.12 | 110.70 |
| 22 | BA | 2541 | A | C4-C5-C6 | 5.15 | 119.58 | 117.00 |
| 54 | B7 | 7 | U | P-O3'-C3' | 5.15 | 125.88 | 119.70 |
| 1 | AA | 101 | A | C5-C6-N1 | 5.15 | 120.28 | 117.70 |
| 22 | BA | 972 | A | N3-C4-N9 | 5.15 | 131.52 | 127.40 |
| 22 | BA | 1762 | A | C4-C5-N7 | -5.15 | 108.12 | 110.70 |
| 22 | BA | 1772 | A | N3-C4-N9 | 5.15 | 131.52 | 127.40 |
| 22 | BA | 1838 | C | C6-N1-C2 | -5.15 | 118.24 | 120.30 |
| 1 | AA | 1275 | A | C4-C5-N7 | -5.15 | 108.12 | 110.70 |
| 22 | BA | 2009 | A | C5-C6-N1 | 5.15 | 120.28 | 117.70 |
| 22 | BA | 2154 | A | C4-C5-N7 | -5.15 | 108.12 | 110.70 |
| 22 | BA | 2184 | A | C4-C5-N7 | -5.15 | 108.12 | 110.70 |
| 1 | AA | 915 | A | C4-C5-N7 | -5.15 | 108.13 | 110.70 |
| 22 | BA | 330 | A | N9-C4-C5 | 5.15 | 107.86 | 105.80 |
| 22 | BA | 354 | A | C4-C5-N7 | -5.15 | 108.13 | 110.70 |
| 22 | BA | 428 | A | N3-C4-N9 | 5.15 | 131.52 | 127.40 |
| 22 | BA | 1322 | A | C8-N9-C4 | 5.15 | 107.86 | 105.80 |
| 22 | BA | 2266 | A | C4-C5-C6 | 5.15 | 119.57 | 117.00 |
| 23 | BB | 78 | A | C4-C5-N7 | -5.15 | 108.13 | 110.70 |
| 1 | AA | 189 | A | N3-C4-N9 | 5.15 | 131.52 | 127.40 |
| 22 | BA | 2809 | A | C8-N9-C4 | 5.15 | 107.86 | 105.80 |
| 1 | AA | 282 | A | C4-C5-N7 | -5.14 | 108.13 | 110.70 |
| 1 | AA | 1213 | A | C4-C5-C6 | 5.14 | 119.57 | 117.00 |
| 22 | BA | 789 | A | N3-C4-N9 | 5.14 | 131.51 | 127.40 |
| 22 | BA | 1952 | A | C8-N9-C4 | 5.14 | 107.86 | 105.80 |
| 23 | BB | 99 | A | C4-C5-N7 | -5.14 | 108.13 | 110.70 |
| 1 | AA | 1170 | A | N9-C4-C5 | 5.14 | 107.86 | 105.80 |
| 22 | BA | 927 | A | N3-C4-N9 | 5.14 | 131.51 | 127.40 |
| 22 | BA | 988 | A | C4-C5-N7 | -5.14 | 108.13 | 110.70 |
| 22 | BA | 1189 | A | C5-C6-N1 | 5.14 | 120.27 | 117.70 |
| 22 | BA | 2019 | A | N3-C4-N9 | 5.14 | 131.51 | 127.40 |
| 22 | BA | 2163 | A | O5'-P-OP1 | -5.14 | 101.07 | 105.70 |
| 1 | AA | 602 | A | C4-C5-N7 | -5.14 | 108.13 | 110.70 |
| 1 | AA | 1008 | U | O4'-C1'-N1 | 5.14 | 112.31 | 108.20 |
| 1 | AA | 1067 | A | C4-C5-N7 | -5.14 | 108.13 | 110.70 |
| 22 | BA | 529 | A | C4-C5-N7 | -5.14 | 108.13 | 110.70 |
| 22 | BA | 2378 | A | N3-C4-N9 | 5.14 | 131.51 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1 | AA | 205 | A | C4-C5-N7 | -5.14 | 108.13 | 110.70 |
| 1 | AA | 288 | A | C5-C6-N1 | 5.14 | 120.27 | 117.70 |
| 1 | AA | 1004 | A | N3-C4-N9 | 5.14 | 131.51 | 127.40 |
| 22 | BA | 294 | A | N9-C4-C5 | 5.14 | 107.86 | 105.80 |
| 22 | BA | 501 | A | N3-C4-N9 | 5.14 | 131.51 | 127.40 |
| 22 | BA | 2542 | A | C4-C5-C6 | 5.14 | 119.57 | 117.00 |
| 1 | AA | 344 | A | C4-C5-N7 | -5.14 | 108.13 | 110.70 |
| 1 | AA | 1146 | A | N3-C4-N9 | 5.14 | 131.51 | 127.40 |
| 1 | AA | 1239 | A | C5-C6-N1 | 5.14 | 120.27 | 117.70 |
| 22 | BA | 10 | A | C4-C5-N7 | -5.14 | 108.13 | 110.70 |
| 22 | BA | 784 | G | P-O3'-C3' | 5.14 | 125.87 | 119.70 |
| 13 | AM | 19 | LEU | CA-CB-CG | -5.14 | 103.48 | 115.30 |
| 22 | BA | 1395 | A | C4-C5-C6 | 5.14 | 119.57 | 117.00 |
| 1 | AA | 270 | A | C5-C6-N1 | 5.13 | 120.27 | 117.70 |
| 1 | AA | 306 | A | N3-C4-N9 | 5.13 | 131.51 | 127.40 |
| 1 | AA | 1499 | A | N3-C4-N9 | 5.13 | 131.51 | 127.40 |
| 22 | BA | 217 | A | N3-C4-N9 | 5.13 | 131.51 | 127.40 |
| 22 | BA | 404 | A | C4-C5-C6 | 5.13 | 119.57 | 117.00 |
| 22 | BA | 936 | A | N3-C4-N9 | 5.13 | 131.51 | 127.40 |
| 22 | BA | 2003 | A | C4-C5-N7 | -5.13 | 108.13 | 110.70 |
| 22 | BA | 2406 | A | C5-C6-N1 | 5.13 | 120.27 | 117.70 |
| 22 | BA | 706 | A | C4-C5-N7 | -5.13 | 108.13 | 110.70 |
| 23 | BB | 34 | A | N3-C4-N9 | 5.13 | 131.51 | 127.40 |
| 1 | AA | 535 | A | C4-C5-N7 | -5.13 | 108.13 | 110.70 |
| 22 | BA | 996 | A | C8-N9-C4 | 5.13 | 107.85 | 105.80 |
| 22 | BA | 1089 | A | C4-C5-N7 | -5.13 | 108.13 | 110.70 |
| 23 | BB | 119 | A | N3-C4-N9 | 5.13 | 131.50 | 127.40 |
| 1 | AA | 130 | A | C4-C5-N7 | -5.13 | 108.14 | 110.70 |
| 1 | AA | 964 | A | C4-C5-N7 | -5.13 | 108.14 | 110.70 |
| 22 | BA | 2366 | A | C4-C5-N7 | -5.13 | 108.14 | 110.70 |
| 1 | AA | 349 | A | N3-C4-N9 | 5.13 | 131.50 | 127.40 |
| 1 | AA | 749 | A | C4-C5-N7 | -5.13 | 108.14 | 110.70 |
| 22 | BA | 447 | A | N3-C4-N9 | 5.13 | 131.50 | 127.40 |
| 22 | BA | 1596 | A | C4-C5-N7 | -5.13 | 108.14 | 110.70 |
| 22 | BA | 972 | A | C4-C5-N7 | -5.13 | 108.14 | 110.70 |
| 22 | BA | 1347 | A | C4-C5-N7 | -5.13 | 108.14 | 110.70 |
| 22 | BA | 1885 | A | N3-C4-N9 | 5.13 | 131.50 | 127.40 |
| 22 | BA | 2501 | C | C5-C4-N4 | 5.13 | 123.79 | 120.20 |
| 1 | AA | 167 | A | N3-C4-N9 | 5.12 | 131.50 | 127.40 |
| 22 | BA | 508 | A | N3-C4-N9 | 5.12 | 131.50 | 127.40 |
| 22 | BA | 1858 | A | N3-C4-N9 | 5.12 | 131.50 | 127.40 |
| 1 | AA | 1167 | A | C4-C5-N7 | -5.12 | 108.14 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1009 | A | N3-C4-N9 | 5.12 | 131.50 | 127.40 |
| 22 | BA | 1254 | A | N3-C4-N9 | 5.12 | 131.50 | 127.40 |
| 22 | BA | 1579 | A | C4-C5-N7 | -5.12 | 108.14 | 110.70 |
| 1 | AA | 1346 | A | C5-C6-N1 | 5.12 | 120.26 | 117.70 |
| 22 | BA | 84 | A | C5-C6-N1 | 5.12 | 120.26 | 117.70 |
| 22 | BA | 478 | A | N3-C4-N9 | 5.12 | 131.50 | 127.40 |
| 22 | BA | 1522 | A | C4-C5-N7 | -5.12 | 108.14 | 110.70 |
| 22 | BA | 2198 | A | C4-C5-C6 | 5.12 | 119.56 | 117.00 |
| 22 | BA | 207 | A | C5-C6-N1 | 5.12 | 120.26 | 117.70 |
| 22 | BA | 2476 | A | N3-C4-N9 | 5.12 | 131.50 | 127.40 |
| 1 | AA | 949 | A | N3-C4-N9 | 5.12 | 131.50 | 127.40 |
| 1 | AA | 496 | A | N9-C4-C5 | 5.12 | 107.85 | 105.80 |
| 1 | AA | 1408 | A | C4-C5-N7 | -5.12 | 108.14 | 110.70 |
| 22 | BA | 2094 | A | N3-C4-N9 | 5.12 | 131.49 | 127.40 |
| 1 | AA | 814 | A | C4-C5-N7 | -5.12 | 108.14 | 110.70 |
| 22 | BA | 1253 | A | C4-C5-N7 | -5.12 | 108.14 | 110.70 |
| 22 | BA | 2270 | A | C4-C5-N7 | -5.12 | 108.14 | 110.70 |
| 1 | AA | 572 | A | C4-C5-C6 | 5.11 | 119.56 | 117.00 |
| 22 | BA | 910 | A | N3-C4-N9 | 5.11 | 131.49 | 127.40 |
| 22 | BA | 1151 | A | N9-C4-C5 | 5.11 | 107.85 | 105.80 |
| 22 | BA | 144 | A | C8-N9-C4 | 5.11 | 107.84 | 105.80 |
| 22 | BA | 2288 | A | N3-C4-N9 | 5.11 | 131.49 | 127.40 |
| 22 | BA | 2478 | A | C5-C6-N1 | 5.11 | 120.26 | 117.70 |
| 1 | AA | 704 | A | C5-C6-N1 | 5.11 | 120.25 | 117.70 |
| 1 | AA | 1500 | A | C5-C6-N1 | 5.11 | 120.25 | 117.70 |
| 22 | BA | 294 | A | N3-C4-N9 | 5.11 | 131.49 | 127.40 |
| 22 | BA | 1762 | A | N3-C4-N9 | 5.11 | 131.49 | 127.40 |
| 1 | AA | 161 | A | C4-C5-N7 | -5.11 | 108.15 | 110.70 |
| 22 | BA | 2128 | G | N1-C6-O6 | -5.11 | 116.83 | 119.90 |
| 22 | BA | 2199 | A | C5-C6-N1 | 5.11 | 120.25 | 117.70 |
| 1 | AA | 451 | A | C4-C5-N7 | -5.11 | 108.15 | 110.70 |
| 1 | AA | 1036 | A | C4-C5-N7 | -5.11 | 108.15 | 110.70 |
| 1 | AA | 282 | A | N3-C4-N9 | 5.10 | 131.48 | 127.40 |
| 1 | AA | 1105 | A | C5-C6-N1 | 5.10 | 120.25 | 117.70 |
| 22 | BA | 182 | A | C4-C5-N7 | -5.10 | 108.15 | 110.70 |
| 23 | BB | 52 | A | N3-C4-N9 | 5.10 | 131.48 | 127.40 |
| 1 | AA | 338 | A | N3-C4-N9 | 5.10 | 131.48 | 127.40 |
| 1 | AA | 860 | A | N3-C4-N9 | 5.10 | 131.48 | 127.40 |
| 1 | AA | 1431 | A | N3-C4-N9 | 5.10 | 131.48 | 127.40 |
| 22 | BA | 2176 | A | N3-C4-N9 | 5.10 | 131.48 | 127.40 |
| 22 | BA | 374 | A | N3-C4-N9 | 5.10 | 131.48 | 127.40 |
| 55 | B8 | 51 | A | C4-C5-N7 | -5.10 | 108.15 | 110.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1 | AA | 681 | A | N3-C4-N9 | 5.10 | 131.48 | 127.40 |
| 1 | AA | 914 | A | C8-N9-C4 | 5.10 | 107.84 | 105.80 |
| 22 | BA | 221 | A | N3-C4-N9 | 5.10 | 131.48 | 127.40 |
| 22 | BA | 2169 | A | C4-C5-N7 | -5.10 | 108.15 | 110.70 |
| 22 | BA | 2738 | A | C4-C5-C6 | 5.10 | 119.55 | 117.00 |
| 22 | BA | 1981 | A | C4-C5-C6 | 5.10 | 119.55 | 117.00 |
| 1 | AA | 1493 | A | C8-N9-C4 | 5.10 | 107.84 | 105.80 |
| 22 | BA | 402 | A | N3-C4-N9 | 5.10 | 131.48 | 127.40 |
| 22 | BA | 1705 | A | C5-C6-N1 | 5.10 | 120.25 | 117.70 |
| 1 | AA | 313 | A | N3-C4-N9 | 5.09 | 131.48 | 127.40 |
| 1 | AA | 1021 | A | N3-C4-N9 | 5.09 | 131.48 | 127.40 |
| 1 | AA | 1513 | A | N3-C4-N9 | 5.09 | 131.47 | 127.40 |
| 22 | BA | 644 | A | C5-C6-N1 | 5.09 | 120.25 | 117.70 |
| 22 | BA | 2547 | A | N3-C4-N9 | 5.09 | 131.48 | 127.40 |
| 1 | AA | 595 | A | C4-C5-N7 | -5.09 | 108.15 | 110.70 |
| 22 | BA | 56 | A | C5-C6-N1 | 5.09 | 120.25 | 117.70 |
| 1 | AA | 151 | A | C4-C5-C6 | 5.09 | 119.55 | 117.00 |
| 22 | BA | 1098 | A | N9-C4-C5 | 5.09 | 107.84 | 105.80 |
| 22 | BA | 1169 | A | N3-C4-N9 | 5.09 | 131.47 | 127.40 |
| 22 | BA | 1285 | A | C5-C6-N1 | 5.09 | 120.25 | 117.70 |
| 22 | BA | 1528 | A | N9-C4-C5 | 5.09 | 107.84 | 105.80 |
| 22 | BA | 1829 | A | C4-C5-N7 | -5.09 | 108.16 | 110.70 |
| 22 | BA | 2411 | A | N3-C4-N9 | 5.09 | 131.47 | 127.40 |
| 1 | AA | 81 | A | N3-C4-N9 | 5.09 | 131.47 | 127.40 |
| 22 | BA | 1503 | A | C4-C5-N7 | -5.09 | 108.16 | 110.70 |
| 22 | BA | 2636 | C | N1-C2-O2 | 5.09 | 121.95 | 118.90 |
| 1 | AA | 452 | A | C5-C6-N1 | 5.09 | 120.24 | 117.70 |
| 1 | AA | 831 | A | C4-C5-N7 | -5.09 | 108.16 | 110.70 |
| 1 | AA | 1236 | A | N3-C4-N9 | 5.09 | 131.47 | 127.40 |
| 1 | AA | 1261 | A | C4-C5-N7 | -5.09 | 108.16 | 110.70 |
| 1 | AA | 1377 | A | C4-C5-N7 | -5.09 | 108.16 | 110.70 |
| 22 | BA | 38 | A | N3-C4-N9 | 5.09 | 131.47 | 127.40 |
| 22 | BA | 646 | U | O4'-C1'-N1 | 5.09 | 112.27 | 108.20 |
| 22 | BA | 2740 | A | C5-C6-N1 | 5.09 | 120.24 | 117.70 |
| 1 | AA | 1004 | A | C4-C5-C6 | 5.08 | 119.54 | 117.00 |
| 22 | BA | 384 | A | N3-C4-N9 | 5.08 | 131.47 | 127.40 |
| 22 | BA | 975 | A | N3-C4-N9 | 5.08 | 131.47 | 127.40 |
| 22 | BA | 1669 | A | C4-C5-N7 | -5.08 | 108.16 | 110.70 |
| 22 | BA | 1913 | A | N3-C4-N9 | 5.08 | 131.47 | 127.40 |
| 27 | BF | 123 | ASP | CB-CG-OD1 | 5.08 | 122.88 | 118.30 |
| 1 | AA | 33 | A | N9-C4-C5 | 5.08 | 107.83 | 105.80 |
| 1 | AA | 262 | A | N3-C4-N9 | 5.08 | 131.47 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1 | AA | 749 | A | N3-C4-N9 | 5.08 | 131.47 | 127.40 |
| 22 | BA | 300 | A | N3-C4-N9 | 5.08 | 131.47 | 127.40 |
| 22 | BA | 990 | A | N3-C4-N9 | 5.08 | 131.47 | 127.40 |
| 55 | B8 | 73 | A | C4-C5-C6 | 5.08 | 119.54 | 117.00 |
| 22 | BA | 2005 | A | C4-C5-C6 | 5.08 | 119.54 | 117.00 |
| 22 | BA | 2035 | G | O4'-C1'-N9 | 5.08 | 112.27 | 108.20 |
| 1 | AA | 935 | A | C5-C6-N1 | 5.08 | 120.24 | 117.70 |
| 22 | BA | 1085 | A | N3-C4-N9 | 5.08 | 131.46 | 127.40 |
| 22 | BA | 1264 | A | C4-C5-N7 | -5.08 | 108.16 | 110.70 |
| 22 | BA | 483 | A | C4-C5-N7 | -5.08 | 108.16 | 110.70 |
| 22 | BA | 1331 | G | C8-N9-C4 | -5.08 | 104.37 | 106.40 |
| 22 | BA | 1762 | A | C5-C6-N1 | 5.08 | 120.24 | 117.70 |
| 22 | BA | 2738 | A | C5-C6-N1 | 5.08 | 120.24 | 117.70 |
| 23 | BB | 115 | A | C4-C5-N7 | -5.08 | 108.16 | 110.70 |
| 1 | AA | 327 | A | C5-C6-N1 | 5.08 | 120.24 | 117.70 |
| 22 | BA | 941 | A | N3-C4-N9 | 5.08 | 131.46 | 127.40 |
| 1 | AA | 1534 | A | C4-C5-N7 | -5.07 | 108.16 | 110.70 |
| 22 | BA | 401 | A | C4-C5-N7 | -5.07 | 108.16 | 110.70 |
| 22 | BA | 471 | A | N3-C4-N9 | 5.07 | 131.46 | 127.40 |
| 22 | BA | 917 | A | C4-C5-N7 | -5.07 | 108.16 | 110.70 |
| 22 | BA | 1754 | A | C4-C5-C6 | 5.07 | 119.54 | 117.00 |
| 22 | BA | 2432 | A | N3-C4-N9 | 5.07 | 131.46 | 127.40 |
| 1 | AA | 782 | A | C4-C5-N7 | -5.07 | 108.16 | 110.70 |
| 22 | BA | 788 | A | N3-C4-N9 | 5.07 | 131.46 | 127.40 |
| 22 | BA | 960 | A | N9-C4-C5 | 5.07 | 107.83 | 105.80 |
| 1 | AA | 253 | A | N3-C4-N9 | 5.07 | 131.46 | 127.40 |
| 1 | AA | 1333 | A | C5-C6-N1 | 5.07 | 120.23 | 117.70 |
| 1 | AA | 1491 | G | N3-C4-C5 | 5.07 | 131.13 | 128.60 |
| 1 | AA | 1167 | A | C8-N9-C4 | 5.07 | 107.83 | 105.80 |
| 22 | BA | 63 | A | N9-C4-C5 | 5.07 | 107.83 | 105.80 |
| 22 | BA | 362 | A | N9-C4-C5 | 5.07 | 107.83 | 105.80 |
| 22 | BA | 423 | A | N3-C4-N9 | 5.07 | 131.45 | 127.40 |
| 22 | BA | 1100 | C | C2-N1-C1' | 5.07 | 124.37 | 118.80 |
| 1 | AA | 325 | A | N3-C4-N9 | 5.07 | 131.45 | 127.40 |
| 1 | AA | 1042 | A | N3-C4-N9 | 5.07 | 131.45 | 127.40 |
| 22 | BA | 1204 | A | C4-C5-N7 | -5.07 | 108.17 | 110.70 |
| 22 | BA | 1730 | C | C2-N1-C1' | 5.07 | 124.37 | 118.80 |
| 22 | BA | 547 | A | C4-C5-N7 | -5.06 | 108.17 | 110.70 |
| 22 | BA | 705 | A | C4-C5-N7 | -5.06 | 108.17 | 110.70 |
| 22 | BA | 899 | A | N3-C4-N9 | 5.06 | 131.45 | 127.40 |
| 1 | AA | 1105 | A | N3-C4-N9 | 5.06 | 131.45 | 127.40 |
| 22 | BA | 896 | A | N3-C4-N9 | 5.06 | 131.45 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 22 | BA | 1819 | A | C5-C6-N1 | 5.06 | 120.23 | 117.70 |
| 1 | AA | 1374 | A | C4-C5-N7 | -5.06 | 108.17 | 110.70 |
| 22 | BA | 1127 | A | C4-C5-N7 | -5.06 | 108.17 | 110.70 |
| 22 | BA | 1525 | A | C8-N9-C4 | 5.06 | 107.82 | 105.80 |
| 22 | BA | 1998 | A | C4-C5-N7 | -5.06 | 108.17 | 110.70 |
| 22 | BA | 2173 | A | C4-C5-N7 | -5.06 | 108.17 | 110.70 |
| 23 | BB | 78 | A | N3-C4-N9 | 5.06 | 131.45 | 127.40 |
| 1 | AA | 26 | A | C5-C6-N1 | 5.06 | 120.23 | 117.70 |
| 1 | AA | 906 | A | N3-C4-N9 | 5.06 | 131.44 | 127.40 |
| 1 | AA | 1429 | A | C4-C5-N7 | -5.06 | 108.17 | 110.70 |
| 22 | BA | 1608 | A | C5-C6-N1 | 5.06 | 120.23 | 117.70 |
| 22 | BA | 1847 | A | C4-C5-N7 | -5.06 | 108.17 | 110.70 |
| 1 | AA | 373 | A | C4-C5-N7 | -5.06 | 108.17 | 110.70 |
| 1 | AA | 1476 | A | N3-C4-N9 | 5.05 | 131.44 | 127.40 |
| 22 | BA | 10 | A | C5-C6-N1 | 5.05 | 120.23 | 117.70 |
| 22 | BA | 1328 | A | N3-C4-N9 | 5.05 | 131.44 | 127.40 |
| 22 | BA | 1698 | A | N3-C4-N9 | 5.05 | 131.44 | 127.40 |
| 22 | BA | 2205 | A | C4-C5-N7 | -5.05 | 108.17 | 110.70 |
| 1 | AA | 1285 | A | C4-C5-N7 | -5.05 | 108.17 | 110.70 |
| 22 | BA | 21 | A | C4-C5-N7 | -5.05 | 108.17 | 110.70 |
| 22 | BA | 721 | A | C5-C6-N1 | 5.05 | 120.23 | 117.70 |
| 22 | BA | 1194 | A | N3-C4-N9 | 5.05 | 131.44 | 127.40 |
| 1 | AA | 642 | A | N3-C4-N9 | 5.05 | 131.44 | 127.40 |
| 1 | AA | 1044 | A | C4-C5-N7 | -5.05 | 108.17 | 110.70 |
| 22 | BA | 279 | A | C4-C5-N7 | -5.05 | 108.17 | 110.70 |
| 22 | BA | 2660 | A | N3-C4-N9 | 5.05 | 131.44 | 127.40 |
| 1 | AA | 98 | A | C4-C5-N7 | -5.05 | 108.17 | 110.70 |
| 1 | AA | 609 | A | C4-C5-N7 | -5.05 | 108.17 | 110.70 |
| 1 | AA | 715 | A | C5-C6-N1 | 5.05 | 120.22 | 117.70 |
| 1 | AA | 878 | A | C4-C5-N7 | -5.05 | 108.17 | 110.70 |
| 22 | BA | 1165 | A | C4-C5-N7 | -5.05 | 108.18 | 110.70 |
| 22 | BA | 222 | A | C5-C6-N1 | 5.05 | 120.22 | 117.70 |
| 1 | AA | 181 | A | N9-C4-C5 | 5.05 | 107.82 | 105.80 |
| 1 | AA | 468 | A | N3-C4-N9 | 5.05 | 131.44 | 127.40 |
| 1 | AA | 1468 | A | N9-C4-C5 | 5.05 | 107.82 | 105.80 |
| 22 | BA | 44 | A | N3-C4-N9 | 5.05 | 131.44 | 127.40 |
| 22 | BA | 2412 | A | C4-C5-N7 | -5.05 | 108.18 | 110.70 |
| 22 | BA | 483 | A | N3-C4-N9 | 5.04 | 131.44 | 127.40 |
| 1 | AA | 236 | A | C5-C6-N1 | 5.04 | 120.22 | 117.70 |
| 1 | AA | 864 | A | C4-C5-N7 | -5.04 | 108.18 | 110.70 |
| 1 | AA | 1375 | A | C4-C5-N7 | -5.04 | 108.18 | 110.70 |
| 22 | BA | 654 | A | C5-C6-N1 | 5.04 | 120.22 | 117.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 22 | BA | 743 | A | C5-C6-N1 | 5.04 | 120.22 | 117.70 |
| 22 | BA | 825 | A | N3-C4-N9 | 5.04 | 131.44 | 127.40 |
| 22 | BA | 1351 | C | N3-C2-O2 | -5.04 | 118.37 | 121.90 |
| 22 | BA | 2377 | A | N3-C4-N9 | 5.04 | 131.44 | 127.40 |
| 22 | BA | 2531 | A | C5-C6-N1 | 5.04 | 120.22 | 117.70 |
| 22 | BA | 2154 | A | C5-C6-N1 | 5.04 | 120.22 | 117.70 |
| 22 | BA | 2198 | A | C4-C5-N7 | -5.04 | 108.18 | 110.70 |
| 22 | BA | 1960 | A | N3-C4-N9 | 5.04 | 131.43 | 127.40 |
| 1 | AA | 1332 | A | N3-C4-N9 | 5.04 | 131.43 | 127.40 |
| 22 | BA | 104 | A | N3-C4-N9 | 5.04 | 131.43 | 127.40 |
| 22 | BA | 1143 | A | N9-C4-C5 | 5.04 | 107.82 | 105.80 |
| 1 | AA | 766 | A | C5-C6-N1 | 5.04 | 120.22 | 117.70 |
| 22 | BA | 2542 | A | C5-C6-N1 | 5.04 | 120.22 | 117.70 |
| 1 | AA | 1102 | A | C4-C5-N7 | -5.04 | 108.18 | 110.70 |
| 1 | AA | 1503 | A | N3-C4-N9 | 5.04 | 131.43 | 127.40 |
| 5 | AE | 112 | ARG | NE-CZ-NH1 | 5.04 | 122.82 | 120.30 |
| 22 | BA | 983 | A | C6-N1-C2 | 5.04 | 121.62 | 118.60 |
| 22 | BA | 1434 | A | C4-C5-C6 | 5.04 | 119.52 | 117.00 |
| 22 | BA | 1439 | A | C4-C5-N7 | -5.04 | 108.18 | 110.70 |
| 22 | BA | 2171 | A | N3-C4-N9 | 5.04 | 131.43 | 127.40 |
| 22 | BA | 42 | A | N3-C4-N9 | 5.03 | 131.43 | 127.40 |
| 22 | BA | 1262 | A | N3-C4-N9 | 5.03 | 131.43 | 127.40 |
| 22 | BA | 1610 | A | C4-C5-N7 | -5.03 | 108.18 | 110.70 |
| 22 | BA | 1073 | A | C4-C5-N7 | -5.03 | 108.18 | 110.70 |
| 1 | AA | 161 | A | N3-C4-N9 | 5.03 | 131.42 | 127.40 |
| 22 | BA | 64 | A | C5-C6-N1 | 5.03 | 120.22 | 117.70 |
| 22 | BA | 1384 | A | C4-C5-N7 | -5.03 | 108.19 | 110.70 |
| 22 | BA | 1672 | A | C5-C6-N1 | 5.03 | 120.22 | 117.70 |
| 22 | BA | 2835 | A | C5-C6-N1 | 5.03 | 120.22 | 117.70 |
| 1 | AA | 1005 | A | C4-C5-N7 | -5.03 | 108.19 | 110.70 |
| 22 | BA | 1365 | A | C4-C5-N7 | -5.03 | 108.19 | 110.70 |
| 22 | BA | 1385 | A | C8-N9-C4 | 5.03 | 107.81 | 105.80 |
| 1 | AA | 303 | A | C4-C5-N7 | -5.03 | 108.19 | 110.70 |
| 22 | BA | 181 | A | C4-C5-N7 | -5.03 | 108.19 | 110.70 |
| 22 | BA | 265 | A | N3-C4-N9 | 5.03 | 131.42 | 127.40 |
| 22 | BA | 626 | A | N3-C4-N9 | 5.03 | 131.42 | 127.40 |
| 22 | BA | 1403 | A | C4-C5-N7 | -5.03 | 108.19 | 110.70 |
| 22 | BA | 1579 | A | N3-C4-N9 | 5.03 | 131.42 | 127.40 |
| 22 | BA | 1690 | A | N3-C4-N9 | 5.03 | 131.42 | 127.40 |
| 22 | BA | 2388 | A | N3-C4-N9 | 5.03 | 131.42 | 127.40 |
| 1 | AA | 495 | A | C8-N9-C4 | 5.03 | 107.81 | 105.80 |
| 1 | AA | 716 | A | N3-C4-N9 | 5.03 | 131.42 | 127.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1 | AA | 915 | A | C5-C6-N1 | 5.03 | 120.21 | 117.70 |
| 1 | AA | 974 | A | C4-C5-N7 | -5.03 | 108.19 | 110.70 |
| 1 | AA | 1350 | A | C4-C5-N7 | -5.03 | 108.19 | 110.70 |
| 22 | BA | 101 | A | N9-C4-C5 | 5.03 | 107.81 | 105.80 |
| 22 | BA | 1046 | A | C4-C5-N7 | -5.03 | 108.19 | 110.70 |
| 22 | BA | 1815 | A | N3-C4-N9 | 5.03 | 131.42 | 127.40 |
| 22 | BA | 825 | A | C5-C6-N1 | 5.02 | 120.21 | 117.70 |
| 1 | AA | 190 | A | N9-C4-C5 | 5.02 | 107.81 | 105.80 |
| 1 | AA | 560 | A | N3-C4-N9 | 5.02 | 131.42 | 127.40 |
| 22 | BA | 195 | A | C4-C5-N7 | -5.02 | 108.19 | 110.70 |
| 22 | BA | 2781 | A | N3-C4-N9 | 5.02 | 131.42 | 127.40 |
| 1 | AA | 869 | G | C5-C6-O6 | 5.02 | 131.61 | 128.60 |
| 22 | BA | 1392 | A | N3-C4-N9 | 5.02 | 131.42 | 127.40 |
| 55 | B8 | 41 | A | N9-C4-C5 | 5.02 | 107.81 | 105.80 |
| 1 | AA | 1229 | A | C4-C5-N7 | -5.02 | 108.19 | 110.70 |
| 22 | BA | 1525 | A | C4-C5-N7 | -5.02 | 108.19 | 110.70 |
| 22 | BA | 1717 | A | N3-C4-N9 | 5.02 | 131.41 | 127.40 |
| 22 | BA | 2158 | A | N3-C4-N9 | 5.02 | 131.41 | 127.40 |
| 1 | AA | 1339 | A | N3-C4-N9 | 5.02 | 131.41 | 127.40 |
| 22 | BA | 2501 | C | C2-N1-C1' | -5.02 | 113.28 | 118.80 |
| 1 | AA | 878 | A | N3-C4-N9 | 5.02 | 131.41 | 127.40 |
| 22 | BA | 142 | A | C4-C5-N7 | -5.02 | 108.19 | 110.70 |
| 1 | AA | 1257 | A | C4-C5-N7 | -5.01 | 108.19 | 110.70 |
| 22 | BA | 1289 | C | C6-N1-C2 | -5.01 | 118.29 | 120.30 |
| 22 | BA | 1307 | A | C4-C5-N7 | -5.01 | 108.19 | 110.70 |
| 22 | BA | 2163 | A | C4-C5-N7 | -5.01 | 108.19 | 110.70 |
| 23 | BB | 73 | A | N9-C4-C5 | 5.01 | 107.81 | 105.80 |
| 1 | AA | 51 | A | N3-C4-N9 | 5.01 | 131.41 | 127.40 |
| 22 | BA | 19 | A | C8-N9-C4 | 5.01 | 107.81 | 105.80 |
| 22 | BA | 2183 | A | N3-C4-N9 | 5.01 | 131.41 | 127.40 |
| 22 | BA | 2330 | G | C8-N9-C4 | -5.01 | 104.39 | 106.40 |
| 1 | AA | 353 | A | N3-C4-N9 | 5.01 | 131.41 | 127.40 |
| 1 | AA | 364 | A | C4-C5-N7 | -5.01 | 108.19 | 110.70 |
| 1 | AA | 470 | C | N3-C2-O2 | -5.01 | 118.39 | 121.90 |
| 1 | AA | 994 | A | C4-C5-N7 | -5.01 | 108.19 | 110.70 |
| 1 | AA | 1169 | A | C4-C5-N7 | -5.01 | 108.19 | 110.70 |
| 22 | BA | 1801 | A | N3-C4-N9 | 5.01 | 131.41 | 127.40 |
| 22 | BA | 2059 | A | C4-C5-N7 | -5.01 | 108.19 | 110.70 |
| 22 | BA | 2108 | A | N3-C4-N9 | 5.01 | 131.41 | 127.40 |
| 22 | BA | 2327 | A | C4-C5-N7 | -5.01 | 108.19 | 110.70 |
| 22 | BA | 2482 | A | N9-C4-C5 | 5.01 | 107.80 | 105.80 |
| 22 | BA | 2727 | A | C5-C6-N1 | 5.01 | 120.20 | 117.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 23 | BB | 115 | A | C5-C6-N1 | 5.01 | 120.21 | 117.70 |
| 1 | AA | 320 | A | C5-C6-N1 | 5.01 | 120.20 | 117.70 |
| 1 | AA | 831 | A | N3-C4-N9 | 5.01 | 131.41 | 127.40 |
| 22 | BA | 1490 | A | C4-C5-N7 | -5.01 | 108.20 | 110.70 |
| 23 | BB | 78 | A | C5-C6-N1 | 5.01 | 120.20 | 117.70 |
| 1 | AA | 1167 | A | N3-C4-N9 | 5.01 | 131.41 | 127.40 |
| 22 | BA | 1086 | A | C4-C5-N7 | -5.01 | 108.20 | 110.70 |
| 22 | BA | 2311 | A | N3-C4-N9 | 5.01 | 131.41 | 127.40 |
| 22 | BA | 42 | A | C5-C6-N1 | 5.01 | 120.20 | 117.70 |
| 22 | BA | 1735 | A | N3-C4-N9 | 5.01 | 131.41 | 127.40 |
| 22 | BA | 2161 | C | N3-C2-O2 | -5.00 | 118.40 | 121.90 |
| 1 | AA | 26 | A | C4-C5-C6 | 5.00 | 119.50 | 117.00 |
| 1 | AA | 968 | A | C4-C5-N7 | -5.00 | 108.20 | 110.70 |
| 1 | AA | 1394 | A | N3-C4-N9 | 5.00 | 131.40 | 127.40 |
| 22 | BA | 13 | A | N3-C4-N9 | 5.00 | 131.40 | 127.40 |
| 22 | BA | 429 | A | N3-C4-N9 | 5.00 | 131.40 | 127.40 |
| 22 | BA | 513 | A | N9-C4-C5 | 5.00 | 107.80 | 105.80 |
| 22 | BA | 1342 | A | C4-C5-C6 | 5.00 | 119.50 | 117.00 |
| 22 | BA | 1496 | A | C5-C6-N1 | 5.00 | 120.20 | 117.70 |
| 22 | BA | 1598 | A | C5-C6-N1 | 5.00 | 120.20 | 117.70 |
| 1 | AA | 172 | A | C4-C5-N7 | -5.00 | 108.20 | 110.70 |
| 22 | BA | 632 | A | N3-C4-N9 | 5.00 | 131.40 | 127.40 |
| 22 | BA | 1877 | A | C4-C5-N7 | -5.00 | 108.20 | 110.70 |

There are no chirality outliers.

All (6) planarity outliers are listed below:

| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|-----------|
| 2 | AB | 204 | ASP | Sidechain |
| 2 | AB | 205 | ASP | Sidechain |
| 7 | AG | 24 | ALA | Mainchain |
| 29 | BH | 104 | THR | Peptide |
| 29 | BH | 66 | ASN | Peptide |
| 43 | BV | 34 | LYS | Peptide |

5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1 | AA | 32930 | 0 | 16580 | 240 | 0 |
| 2 | AB | 1753 | 0 | 1780 | 60 | 0 |
| 3 | AC | 1624 | 0 | 1696 | 41 | 0 |
| 4 | AD | 1643 | 0 | 1707 | 38 | 0 |
| 5 | AE | 1144 | 0 | 1185 | 25 | 0 |
| 6 | AF | 862 | 0 | 864 | 34 | 0 |
| 7 | AG | 1181 | 0 | 1238 | 31 | 0 |
| 8 | AH | 979 | 0 | 1031 | 29 | 0 |
| 9 | AI | 1022 | 0 | 1070 | 36 | 0 |
| 10 | AJ | 795 | 0 | 836 | 26 | 0 |
| 11 | AK | 877 | 0 | 887 | 16 | 0 |
| 12 | AL | 957 | 0 | 1017 | 12 | 0 |
| 13 | AM | 883 | 0 | 941 | 25 | 0 |
| 14 | AN | 799 | 0 | 841 | 23 | 0 |
| 15 | AO | 714 | 0 | 734 | 18 | 0 |
| 16 | AP | 649 | 0 | 666 | 10 | 0 |
| 17 | AQ | 648 | 0 | 691 | 12 | 0 |
| 18 | AR | 455 | 0 | 478 | 13 | 0 |
| 19 | AS | 656 | 0 | 680 | 25 | 0 |
| 20 | AT | 670 | 0 | 719 | 10 | 0 |
| 21 | AU | 465 | 0 | 491 | 9 | 0 |
| 22 | BA | 62209 | 0 | 31290 | 320 | 0 |
| 23 | BB | 2569 | 0 | 1301 | 7 | 0 |
| 24 | BC | 2082 | 0 | 2154 | 27 | 0 |
| 25 | BD | 1566 | 0 | 1617 | 12 | 0 |
| 26 | BE | 1552 | 0 | 1619 | 10 | 0 |
| 27 | BF | 1410 | 0 | 1444 | 26 | 0 |
| 28 | BG | 1323 | 0 | 1371 | 18 | 0 |
| 29 | BH | 1110 | 0 | 1148 | 28 | 0 |
| 30 | BI | 522 | 0 | 520 | 13 | 0 |
| 31 | BJ | 1129 | 0 | 1162 | 14 | 0 |
| 32 | BK | 946 | 0 | 1023 | 13 | 0 |
| 33 | BL | 1053 | 0 | 1128 | 12 | 0 |
| 34 | BM | 1075 | 0 | 1155 | 14 | 0 |
| 35 | BN | 945 | 0 | 989 | 9 | 0 |
| 36 | BO | 900 | 0 | 935 | 8 | 0 |
| 37 | BP | 917 | 0 | 962 | 9 | 0 |
| 38 | BQ | 947 | 0 | 1019 | 7 | 0 |
| 39 | BR | 816 | 0 | 839 | 7 | 0 |
| 40 | BS | 857 | 0 | 922 | 7 | 0 |
| 41 | BT | 738 | 0 | 807 | 10 | 0 |
| 42 | BU | 779 | 0 | 831 | 11 | 0 |
| 43 | BV | 753 | 0 | 780 | 9 | 0 |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 44 | BW | 580 | 0 | 594 | 21 | 0 |
| 45 | BX | 625 | 0 | 652 | 4 | 0 |
| 46 | BY | 501 | 0 | 531 | 5 | 0 |
| 47 | BZ | 449 | 0 | 488 | 1 | 0 |
| 48 | B0 | 444 | 0 | 458 | 5 | 0 |
| 49 | B1 | 414 | 0 | 442 | 12 | 0 |
| 50 | B2 | 377 | 0 | 418 | 5 | 0 |
| 51 | B3 | 504 | 0 | 572 | 4 | 0 |
| 52 | B4 | 302 | 0 | 340 | 4 | 0 |
| 53 | B5 | 146 | 0 | 139 | 3 | 0 |
| 54 | B7 | 191 | 0 | 99 | 0 | 0 |
| 55 | B8 | 1648 | 0 | 833 | 27 | 0 |
| 56 | AA | 86 | 0 | 0 | 0 | 0 |
| 56 | B8 | 2 | 0 | 0 | 0 | 0 |
| 56 | BA | 233 | 0 | 0 | 0 | 0 |
| 56 | BB | 1 | 0 | 0 | 0 | 0 |
| 56 | BC | 1 | 0 | 0 | 0 | 0 |
| 56 | BD | 2 | 0 | 0 | 0 | 0 |
| 56 | BL | 1 | 0 | 0 | 0 | 0 |
| 57 | AA | 38 | 0 | 0 | 0 | 0 |
| 57 | AM | 1 | 0 | 0 | 0 | 0 |
| 57 | BA | 104 | 0 | 0 | 1 | 0 |
| 57 | BB | 1 | 0 | 0 | 0 | 0 |
| 57 | BC | 1 | 0 | 0 | 0 | 0 |
| 57 | BD | 1 | 0 | 0 | 0 | 0 |
| 57 | BM | 1 | 0 | 0 | 0 | 0 |
| 58 | AB | 1 | 0 | 0 | 0 | 0 |
| 58 | B4 | 1 | 0 | 0 | 0 | 0 |
| 58 | BI | 1 | 0 | 0 | 0 | 0 |
| 59 | BA | 15 | 0 | 9 | 0 | 0 |
| 60 | AA | 184 | 0 | 0 | 1 | 0 |
| 60 | AK | 1 | 0 | 0 | 0 | 0 |
| 60 | AN | 1 | 0 | 0 | 0 | 0 |
| 60 | B0 | 4 | 0 | 0 | 0 | 0 |
| 60 | B2 | 6 | 0 | 0 | 0 | 0 |
| 60 | B3 | 7 | 0 | 0 | 0 | 0 |
| 60 | B4 | 1 | 0 | 0 | 0 | 0 |
| 60 | B5 | 2 | 0 | 0 | 1 | 0 |
| 60 | B8 | 3 | 0 | 0 | 1 | 0 |
| 60 | BA | 1672 | 0 | 0 | 25 | 0 |
| 60 | BB | 2 | 0 | 0 | 0 | 0 |
| 60 | BC | 38 | 0 | 0 | 1 | 0 |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|--------|----------|----------|---------|--------------|
| 60 | BD | 14 | 0 | 0 | 0 | 0 |
| 60 | BE | 21 | 0 | 0 | 2 | 0 |
| 60 | BF | 1 | 0 | 0 | 0 | 0 |
| 60 | BJ | 2 | 0 | 0 | 0 | 0 |
| 60 | BK | 3 | 0 | 0 | 0 | 0 |
| 60 | BL | 14 | 0 | 0 | 0 | 0 |
| 60 | BM | 2 | 0 | 0 | 0 | 0 |
| 60 | BN | 9 | 0 | 0 | 0 | 0 |
| 60 | BO | 1 | 0 | 0 | 0 | 0 |
| 60 | BP | 2 | 0 | 0 | 0 | 0 |
| 60 | BQ | 12 | 0 | 0 | 0 | 0 |
| 60 | BR | 4 | 0 | 0 | 0 | 0 |
| 60 | BS | 7 | 0 | 0 | 0 | 0 |
| 60 | BT | 3 | 0 | 0 | 0 | 0 |
| 60 | BU | 1 | 0 | 0 | 0 | 0 |
| 60 | BW | 5 | 0 | 0 | 3 | 0 |
| 60 | BX | 4 | 0 | 0 | 0 | 0 |
| All | All | 146602 | 0 | 96723 | 1260 | 0 |

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 5.

All (1260) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:AF:39:LEU:HD11 | 6:AF:62:MET:CE | 1.55 | 1.34 |
| 6:AF:39:LEU:CD1 | 6:AF:62:MET:CE | 2.07 | 1.33 |
| 42:BU:10:GLU:OE2 | 42:BU:73:PHE:HB3 | 1.34 | 1.23 |
| 6:AF:39:LEU:CD1 | 6:AF:62:MET:HE2 | 1.65 | 1.19 |
| 6:AF:39:LEU:HD12 | 6:AF:62:MET:HG2 | 1.27 | 1.14 |
| 55:B8:22:G:N7 | 55:B8:46:G7M:N2 | 1.96 | 1.13 |
| 49:B1:35:GLU:OE1 | 49:B1:48:ILE:HG23 | 1.49 | 1.12 |
| 14:AN:49:GLN:NE2 | 19:AS:10:PHE:CE1 | 2.22 | 1.08 |
| 22:BA:2330:G:O2' | 44:BW:44:LYS:NZ | 1.87 | 1.06 |
| 44:BW:42:GLY:H | 44:BW:44:LYS:HZ3 | 1.04 | 1.03 |
| 6:AF:39:LEU:HD11 | 6:AF:62:MET:HE3 | 1.36 | 1.02 |
| 42:BU:10:GLU:OE2 | 42:BU:73:PHE:CB | 2.09 | 1.00 |
| 6:AF:39:LEU:HD11 | 6:AF:62:MET:HE2 | 1.18 | 1.00 |
| 6:AF:39:LEU:HD12 | 6:AF:62:MET:CG | 1.91 | 0.99 |
| 27:BF:94:GLU:OE2 | 27:BF:98:GLU:OE2 | 1.79 | 0.99 |
| 7:AG:74:GLU:HG2 | 7:AG:91:VAL:HG22 | 1.45 | 0.99 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:AG:74:GLU:HG2 | 7:AG:91:VAL:CG2 | 1.94 | 0.98 |
| 5:AE:83:HIS:NE2 | 5:AE:147:MET:HG3 | 1.85 | 0.92 |
| 1:AA:49:U:C4 | 1:AA:365:U:O4 | 2.23 | 0.92 |
| 6:AF:39:LEU:CD1 | 6:AF:62:MET:HG2 | 2.00 | 0.92 |
| 14:AN:49:GLN:HE21 | 19:AS:10:PHE:HE1 | 1.18 | 0.91 |
| 14:AN:49:GLN:NE2 | 19:AS:10:PHE:CZ | 2.39 | 0.90 |
| 6:AF:39:LEU:HD13 | 6:AF:62:MET:HE2 | 1.51 | 0.90 |
| 1:AA:49:U:O4 | 1:AA:365:U:O4 | 1.91 | 0.88 |
| 1:AA:49:U:C5 | 1:AA:365:U:O4 | 2.28 | 0.87 |
| 17:AQ:77:ARG:HE | 17:AQ:79:VAL:HG12 | 1.40 | 0.86 |
| 49:B1:35:GLU:OE1 | 49:B1:48:ILE:CG2 | 2.23 | 0.86 |
| 28:BG:24:ILE:HD11 | 28:BG:43:VAL:HG11 | 1.59 | 0.84 |
| 6:AF:101:PRO:HG2 | 18:AR:25:ASP:OD1 | 1.77 | 0.84 |
| 6:AF:39:LEU:HD13 | 6:AF:62:MET:CE | 2.03 | 0.83 |
| 44:BW:41:ARG:H | 44:BW:44:LYS:HE2 | 1.43 | 0.82 |
| 25:BD:184:ARG:NH1 | 37:BP:7:GLN:OE1 | 2.14 | 0.81 |
| 3:AC:132:ARG:HG2 | 3:AC:136:ARG:NH1 | 1.95 | 0.81 |
| 5:AE:94:VAL:HG13 | 5:AE:111:MET:HE3 | 1.61 | 0.81 |
| 44:BW:44:LYS:HD2 | 44:BW:44:LYS:H | 1.45 | 0.81 |
| 2:AB:15:HIS:HB3 | 2:AB:43:LEU:HD21 | 1.61 | 0.81 |
| 3:AC:135:LYS:O | 3:AC:139:GLN:HG2 | 1.81 | 0.80 |
| 5:AE:112:ARG:HG3 | 5:AE:112:ARG:HH11 | 1.46 | 0.80 |
| 2:AB:165:ASP:HB2 | 2:AB:204:ASP:OD1 | 1.81 | 0.80 |
| 55:B8:18:G:O2' | 55:B8:57:G:N2 | 2.15 | 0.80 |
| 6:AF:22:ILE:HG23 | 6:AF:62:MET:CE | 2.13 | 0.79 |
| 29:BH:81:ALA:HB1 | 29:BH:149:GLU:HG2 | 1.63 | 0.79 |
| 2:AB:6:MET:SD | 2:AB:47:VAL:HG11 | 2.23 | 0.79 |
| 42:BU:8:ASP:OD1 | 42:BU:24:LYS:NZ | 2.15 | 0.78 |
| 9:AI:28:ILE:HG12 | 9:AI:63:LEU:HD21 | 1.66 | 0.78 |
| 11:AK:53:ARG:HH12 | 11:AK:57:LYS:HD3 | 1.46 | 0.78 |
| 8:AH:95:VAL:O | 8:AH:96:MET:HB3 | 1.84 | 0.78 |
| 7:AG:50:LEU:HD21 | 7:AG:124:LEU:HB3 | 1.64 | 0.78 |
| 3:AC:84:VAL:HG23 | 3:AC:88:ARG:NH1 | 1.99 | 0.77 |
| 3:AC:132:ARG:HG2 | 3:AC:136:ARG:HH12 | 1.48 | 0.77 |
| 6:AF:39:LEU:CD1 | 6:AF:62:MET:CG | 2.59 | 0.77 |
| 1:AA:401:C:OP2 | 4:AD:70:ARG:NH1 | 2.16 | 0.76 |
| 22:BA:2189:U:H2' | 22:BA:2190:G:C8 | 2.21 | 0.76 |
| 29:BH:82:SER:N | 29:BH:149:GLU:HG3 | 2.01 | 0.76 |
| 22:BA:2840:C:H5'' | 35:BN:53:THR:HG21 | 1.67 | 0.75 |
| 6:AF:38:ARG:HH21 | 6:AF:61:LEU:HD21 | 1.51 | 0.75 |
| 22:BA:760:G:OP1 | 60:BA:3402:HOH:O | 2.05 | 0.75 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:AG:74:GLU:CG | 7:AG:91:VAL:HG22 | 2.16 | 0.75 |
| 6:AF:39:LEU:CD1 | 6:AF:62:MET:SD | 2.74 | 0.75 |
| 22:BA:1800:C:OP2 | 24:BC:182:ARG:NH2 | 2.20 | 0.75 |
| 11:AK:23:ILE:HG12 | 11:AK:96:THR:HG21 | 1.66 | 0.74 |
| 11:AK:64:GLN:HG3 | 11:AK:99:ALA:HB2 | 1.68 | 0.74 |
| 10:AJ:22:THR:HG21 | 10:AJ:72:ARG:HG2 | 1.70 | 0.74 |
| 9:AI:18:ARG:HG2 | 9:AI:66:THR:HG22 | 1.69 | 0.74 |
| 55:B8:55:PSU:O2' | 55:B8:57:G:N7 | 2.20 | 0.74 |
| 6:AF:22:ILE:HG23 | 6:AF:62:MET:HE2 | 1.70 | 0.74 |
| 6:AF:39:LEU:HD13 | 6:AF:62:MET:SD | 2.28 | 0.74 |
| 22:BA:1649:G:O2' | 35:BN:106:ASP:OD2 | 2.06 | 0.74 |
| 6:AF:39:LEU:CD1 | 6:AF:62:MET:HE3 | 2.01 | 0.73 |
| 1:AA:742:G:OP1 | 15:AO:58:ARG:NH2 | 2.21 | 0.73 |
| 4:AD:56:ARG:HE | 4:AD:56:ARG:HA | 1.53 | 0.73 |
| 60:BA:3713:HOH:O | 38:BQ:41:LYS:HE3 | 1.88 | 0.73 |
| 1:AA:458:U:H2' | 1:AA:459:A:C8 | 2.22 | 0.73 |
| 1:AA:458:U:H2' | 1:AA:459:A:H8 | 1.52 | 0.73 |
| 1:AA:1356:G:H2' | 1:AA:1357:A:C8 | 2.23 | 0.73 |
| 24:BC:148:PRO:CD | 24:BC:185:GLU:OE2 | 2.36 | 0.73 |
| 15:AO:89:ARG:NH2 | 22:BA:714:U:O4 | 2.22 | 0.73 |
| 13:AM:16:VAL:HB | 13:AM:41:GLU:HB2 | 1.71 | 0.72 |
| 22:BA:2131:U:H5' | 22:BA:2132:U:H5'' | 1.71 | 0.72 |
| 22:BA:2134:A:OP2 | 22:BA:2157:G:N2 | 2.22 | 0.72 |
| 18:AR:26:ILE:HD11 | 18:AR:67:LEU:HD22 | 1.71 | 0.72 |
| 7:AG:67:GLU:OE2 | 7:AG:70:ARG:NH2 | 2.22 | 0.72 |
| 57:BA:3260:K:K | 60:BA:3487:HOH:O | 2.00 | 0.72 |
| 22:BA:1047:G:HO2' | 22:BA:1110:G:H1 | 1.35 | 0.72 |
| 22:BA:2898:U:O2' | 31:BJ:136:GLN:NE2 | 2.23 | 0.71 |
| 8:AH:43:GLU:HG2 | 8:AH:101:ILE:HG21 | 1.71 | 0.71 |
| 9:AI:106:ARG:NH1 | 9:AI:107:ASP:O | 2.23 | 0.71 |
| 3:AC:84:VAL:O | 3:AC:88:ARG:HG2 | 1.89 | 0.71 |
| 26:BE:164:LEU:O | 60:BE:301:HOH:O | 2.07 | 0.71 |
| 22:BA:1155:A:OP2 | 60:BA:3403:HOH:O | 2.09 | 0.71 |
| 22:BA:2470:G:OP1 | 34:BM:55:ARG:NH2 | 2.23 | 0.71 |
| 49:B1:5:ILE:HD12 | 49:B1:28:ARG:HH21 | 1.54 | 0.71 |
| 1:AA:1151:A:H5'' | 10:AJ:44:THR:HG23 | 1.71 | 0.71 |
| 1:AA:1061:G:OP2 | 3:AC:3:GLN:NE2 | 2.24 | 0.71 |
| 19:AS:67:VAL:O | 30:BI:56:ARG:NH2 | 2.24 | 0.71 |
| 55:B8:12:G:OP2 | 60:B8:201:HOH:O | 2.08 | 0.70 |
| 22:BA:1250:G:H5'' | 38:BQ:6:ARG:HD3 | 1.72 | 0.70 |
| 1:AA:544:G:OP1 | 4:AD:56:ARG:NH2 | 2.24 | 0.70 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:AG:50:LEU:HD11 | 7:AG:121:ALA:HA | 1.73 | 0.70 |
| 1:AA:823:C:HO2' | 8:AH:2:SER:N | 1.89 | 0.70 |
| 44:BW:39:ARG:HD3 | 60:BW:104:HOH:O | 1.90 | 0.70 |
| 44:BW:40:GLN:HB2 | 44:BW:44:LYS:HE2 | 1.73 | 0.70 |
| 10:AJ:6:ILE:HG22 | 10:AJ:76:ILE:HB | 1.73 | 0.70 |
| 40:BS:59:GLU:OE2 | 40:BS:66:ILE:HB | 1.92 | 0.70 |
| 1:AA:1055:A:O2' | 3:AC:156:ARG:NH1 | 2.25 | 0.69 |
| 22:BA:666:A:O2' | 60:BA:3404:HOH:O | 2.10 | 0.69 |
| 1:AA:600:A:H5'' | 8:AH:89:LYS:HD2 | 1.75 | 0.69 |
| 2:AB:18:HIS:NE2 | 2:AB:205:ASP:OD2 | 2.26 | 0.69 |
| 30:BI:14:ALA:HB1 | 30:BI:34:LEU:HD21 | 1.75 | 0.69 |
| 2:AB:122:GLN:O | 2:AB:125:THR:OG1 | 2.10 | 0.69 |
| 3:AC:151:VAL:HG22 | 3:AC:200:VAL:HG22 | 1.74 | 0.69 |
| 9:AI:12:ARG:NH1 | 9:AI:107:ASP:OD2 | 2.25 | 0.68 |
| 44:BW:42:GLY:H | 44:BW:44:LYS:NZ | 1.86 | 0.68 |
| 4:AD:12:SER:OG | 4:AD:17:THR:O | 2.11 | 0.68 |
| 25:BD:16:THR:HG22 | 25:BD:18:ASP:H | 1.59 | 0.68 |
| 1:AA:600:A:H5'' | 8:AH:89:LYS:CD | 2.24 | 0.68 |
| 3:AC:142:MET:HG3 | 3:AC:170:GLU:HG2 | 1.76 | 0.67 |
| 22:BA:1607:C:OP2 | 60:BA:3405:HOH:O | 2.12 | 0.67 |
| 22:BA:2185:U:H2' | 22:BA:2186:G:C8 | 2.29 | 0.67 |
| 4:AD:100:ASN:OD1 | 4:AD:111:ARG:NH1 | 2.28 | 0.67 |
| 22:BA:140:C:H5' | 22:BA:141:G:N7 | 2.09 | 0.67 |
| 2:AB:188:ASP:HB2 | 2:AB:204:ASP:OD2 | 1.94 | 0.67 |
| 13:AM:17:ILE:O | 13:AM:20:THR:OG1 | 2.11 | 0.67 |
| 22:BA:882:G:N2 | 22:BA:883:G:N7 | 2.42 | 0.67 |
| 2:AB:18:HIS:HE2 | 2:AB:188:ASP:CG | 1.98 | 0.67 |
| 10:AJ:40:ILE:HG22 | 10:AJ:73:LEU:HB3 | 1.77 | 0.66 |
| 29:BH:9:VAL:HG23 | 29:BH:12:LEU:HB2 | 1.76 | 0.66 |
| 14:AN:9:GLU:O | 14:AN:13:VAL:HG23 | 1.96 | 0.66 |
| 6:AF:66:ALA:HB3 | 6:AF:71:ILE:HD11 | 1.76 | 0.66 |
| 2:AB:6:MET:HE3 | 2:AB:43:LEU:HB3 | 1.78 | 0.66 |
| 1:AA:382:A:H2' | 1:AA:383:A:C8 | 2.31 | 0.66 |
| 1:AA:1059:C:O3' | 14:AN:85:ARG:NH2 | 2.29 | 0.66 |
| 1:AA:1147:C:O2 | 9:AI:18:ARG:NH1 | 2.29 | 0.66 |
| 22:BA:286:U:H2' | 22:BA:287:G:H8 | 1.61 | 0.66 |
| 1:AA:1323:G:H2' | 1:AA:1324:A:C8 | 2.31 | 0.66 |
| 5:AE:112:ARG:HG3 | 5:AE:112:ARG:NH1 | 2.08 | 0.65 |
| 14:AN:16:ALA:HA | 14:AN:55:SER:HA | 1.77 | 0.65 |
| 22:BA:2033:A:OP1 | 60:BA:3406:HOH:O | 2.15 | 0.65 |
| 48:B0:55:ILE:HD12 | 48:B0:57:LYS:HD2 | 1.79 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|---------------------|--------------------------|-------------------|
| 1:AA:1225:A:H3' | 13:AM:102:THR:HG21 | 1.79 | 0.65 |
| 4:AD:57:GLU:HG2 | 4:AD:199:LEU:HD12 | 1.79 | 0.65 |
| 1:AA:1505:G:OP2 | 60:AA:1802:HOH:O | 0.65 | 0.65 |
| 6:AF:86:ARG:NH1 | 18:AR:64:TYR:O | 2.29 | 0.65 |
| 32:BK:66:LYS:HE2 | 32:BK:81:GLY:HA2 | 1.77 | 0.65 |
| 1:AA:1320:C:H5'' | 19:AS:3:ARG:HH12 | 1.62 | 0.64 |
| 1:AA:1356:G:H2' | 1:AA:1357:A:H8 | 1.60 | 0.64 |
| 22:BA:248:G:N3 | 60:BA:3434:HOH:O | 2.30 | 0.64 |
| 53:B5:17:ASN:ND2 | 60:B5:101:HOH:O | 2.30 | 0.64 |
| 9:AI:47:VAL:CG2 | 9:AI:76:ALA:HB1 | 2.28 | 0.64 |
| 22:BA:1797:G:HO2' | 24:BC:257:THR:HG1 | 1.44 | 0.64 |
| 5:AE:80:THR:OG1 | 5:AE:122:ASN:O | 2.14 | 0.64 |
| 7:AG:74:GLU:HG2 | 7:AG:91:VAL:HG21 | 1.77 | 0.64 |
| 21:AU:28:VAL:HA | 21:AU:31:GLU:HB2 | 1.79 | 0.64 |
| 42:BU:10:GLU:OE1 | 42:BU:22:ARG:HD2 | 1.97 | 0.64 |
| 28:BG:42:GLU:HB3 | 28:BG:55:ARG:HH21 | 1.62 | 0.64 |
| 22:BA:568:U:H1' | 22:BA:2030:6MZ:H9C1 | 1.79 | 0.64 |
| 1:AA:49:U:O4 | 1:AA:365:U:C4 | 2.51 | 0.64 |
| 49:B1:7:GLU:OE1 | 49:B1:9:ILE:HG23 | 1.98 | 0.64 |
| 1:AA:346:G:OP1 | 37:BP:39:ARG:NH1 | 2.28 | 0.63 |
| 6:AF:99:ALA:O | 6:AF:104:LYS:NZ | 2.31 | 0.63 |
| 22:BA:651:G:H5' | 51:B3:19:LYS:HG3 | 1.81 | 0.63 |
| 41:BT:92:ASN:O | 41:BT:93:LEU:HB2 | 1.97 | 0.63 |
| 3:AC:84:VAL:HG23 | 3:AC:88:ARG:HH12 | 1.61 | 0.63 |
| 22:BA:1434:A:H2' | 22:BA:1435:G:C8 | 2.33 | 0.63 |
| 22:BA:2327:A:H2' | 22:BA:2328:A:C8 | 2.33 | 0.63 |
| 16:AP:4:ILE:HG12 | 16:AP:21:VAL:HG22 | 1.80 | 0.63 |
| 5:AE:83:HIS:CE1 | 5:AE:85:VAL:HG12 | 2.33 | 0.63 |
| 38:BQ:89:GLU:O | 38:BQ:89:GLU:HG2 | 1.98 | 0.63 |
| 2:AB:47:VAL:HG23 | 2:AB:48:PRO:HD3 | 1.81 | 0.63 |
| 3:AC:76:VAL:HG23 | 3:AC:103:ILE:HD13 | 1.79 | 0.63 |
| 46:BY:27:ASN:O | 46:BY:31:GLN:HG3 | 1.99 | 0.63 |
| 4:AD:65:TYR:CE2 | 4:AD:94:LEU:HB3 | 2.34 | 0.62 |
| 10:AJ:8:ILE:HD12 | 10:AJ:74:VAL:HG13 | 1.80 | 0.62 |
| 22:BA:536:G:OP2 | 60:BA:3407:HOH:O | 2.16 | 0.62 |
| 22:BA:1469:A:H2' | 22:BA:1470:A:C8 | 2.33 | 0.62 |
| 27:BF:10:ASP:O | 27:BF:14:LYS:NZ | 2.29 | 0.62 |
| 10:AJ:18:ILE:O | 10:AJ:22:THR:HG23 | 1.99 | 0.62 |
| 22:BA:2188:U:H2' | 22:BA:2189:U:C6 | 2.34 | 0.62 |
| 31:BJ:13:ARG:NH2 | 31:BJ:49:ASP:O | 2.32 | 0.62 |
| 33:BL:69:ARG:HG2 | 33:BL:69:ARG:HH11 | 1.64 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 20:AT:44:LYS:HG3 | 20:AT:87:ALA:HB3 | 1.81 | 0.62 |
| 28:BG:32:GLU:OE2 | 28:BG:34:THR:OG1 | 2.17 | 0.62 |
| 22:BA:1434:A:H2' | 22:BA:1435:G:H8 | 1.64 | 0.62 |
| 1:AA:1103:C:OP1 | 2:AB:95:ARG:NH2 | 2.32 | 0.62 |
| 1:AA:1339:A:H2 | 55:B8:30:C:HO2' | 1.46 | 0.62 |
| 27:BF:103:LEU:O | 27:BF:108:VAL:HG13 | 2.00 | 0.62 |
| 6:AF:45:ARG:O | 6:AF:56:LYS:HA | 1.98 | 0.61 |
| 9:AI:47:VAL:HG21 | 9:AI:76:ALA:HB1 | 1.82 | 0.61 |
| 15:AO:55:GLY:O | 15:AO:59:MET:HG3 | 2.00 | 0.61 |
| 1:AA:673:A:H2' | 1:AA:674:G:C8 | 2.35 | 0.61 |
| 17:AQ:77:ARG:HE | 17:AQ:79:VAL:CG1 | 2.10 | 0.61 |
| 22:BA:2159:G:H2' | 22:BA:2160:C:C6 | 2.36 | 0.61 |
| 11:AK:84:VAL:HG11 | 11:AK:97:ILE:HD11 | 1.81 | 0.61 |
| 12:AL:51:LYS:HD2 | 12:AL:51:LYS:N | 2.16 | 0.61 |
| 14:AN:80:SER:O | 14:AN:84:VAL:HG12 | 1.99 | 0.61 |
| 22:BA:992:C:OP1 | 39:BR:76:LYS:NZ | 2.34 | 0.61 |
| 22:BA:2250:G:OP1 | 34:BM:84:LYS:NZ | 2.32 | 0.61 |
| 30:BI:35:ASP:OD1 | 30:BI:35:ASP:N | 2.34 | 0.61 |
| 3:AC:22:TRP:HB3 | 3:AC:59:ARG:HB2 | 1.81 | 0.61 |
| 1:AA:1218:C:H2' | 1:AA:1219:A:C8 | 2.36 | 0.61 |
| 28:BG:170:ARG:NH1 | 52:B4:29:ALA:O | 2.33 | 0.61 |
| 44:BW:44:LYS:H | 44:BW:44:LYS:CD | 2.14 | 0.61 |
| 10:AJ:10:LEU:HD12 | 10:AJ:22:THR:HG22 | 1.82 | 0.61 |
| 28:BG:117:LEU:HD13 | 28:BG:118:PRO:HD2 | 1.83 | 0.61 |
| 22:BA:2187:U:H2' | 22:BA:2188:U:O4' | 2.01 | 0.61 |
| 27:BF:118:SER:OG | 27:BF:120:LYS:HG2 | 2.00 | 0.60 |
| 28:BG:4:VAL:O | 28:BG:69:ARG:HD2 | 2.01 | 0.60 |
| 49:B1:33:LYS:HD3 | 49:B1:51:GLU:HB3 | 1.83 | 0.60 |
| 23:BB:75:G:HO2' | 43:BV:88:HIS:HE2 | 1.47 | 0.60 |
| 26:BE:80:SER:OG | 60:BE:302:HOH:O | 2.13 | 0.60 |
| 22:BA:2273:A:H2' | 22:BA:2274:A:C8 | 2.37 | 0.60 |
| 22:BA:2032:G:C5 | 25:BD:150:MEQ:HE3 | 2.37 | 0.60 |
| 22:BA:2176:A:H2' | 22:BA:2177:C:C6 | 2.37 | 0.60 |
| 3:AC:53:SER:HB3 | 3:AC:115:LEU:HD21 | 1.83 | 0.60 |
| 19:AS:65:GLU:O | 30:BI:56:ARG:NH1 | 2.34 | 0.60 |
| 22:BA:275:C:H2' | 22:BA:276:U:H4' | 1.83 | 0.60 |
| 22:BA:2189:U:H2' | 22:BA:2190:G:H8 | 1.61 | 0.60 |
| 42:BU:10:GLU:OE2 | 42:BU:73:PHE:CD2 | 2.55 | 0.60 |
| 49:B1:37:LYS:NZ | 49:B1:46:HIS:O | 2.25 | 0.60 |
| 1:AA:337:G:H2' | 1:AA:338:A:C8 | 2.36 | 0.60 |
| 2:AB:133:GLU:HB3 | 2:AB:137:ARG:HD2 | 1.84 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|-------------------|--------------------------|-------------------|
| 6:AF:38:ARG:HG2 | 6:AF:63:ASN:HB3 | 1.84 | 0.60 |
| 8:AH:106:THR:HG22 | 8:AH:107:SER:N | 2.15 | 0.60 |
| 2:AB:6:MET:SD | 2:AB:47:VAL:CG1 | 2.89 | 0.60 |
| 1:AA:684:U:O4' | 11:AK:40:ASN:ND2 | 2.35 | 0.59 |
| 7:AG:4:ARG:HG3 | 7:AG:4:ARG:HH11 | 1.67 | 0.59 |
| 12:AL:68:GLY:O | 12:AL:99:ARG:NH1 | 2.35 | 0.59 |
| 1:AA:746:A:H2' | 1:AA:747:A:C8 | 2.37 | 0.59 |
| 7:AG:149:LYS:HG2 | 11:AK:61:PHE:CE2 | 2.37 | 0.59 |
| 1:AA:613:C:OP1 | 4:AD:81:ARG:NH1 | 2.29 | 0.59 |
| 8:AH:11:LEU:HD22 | 8:AH:75:ILE:HD11 | 1.83 | 0.59 |
| 22:BA:1970:A:H5'' | 22:BA:1971:U:OP1 | 2.02 | 0.59 |
| 22:BA:2068:U:N3 | 22:BA:2430:A:C2 | 2.71 | 0.59 |
| 32:BK:105:ARG:HG2 | 32:BK:108:ARG:HD2 | 1.84 | 0.59 |
| 22:BA:2184:A:H2' | 22:BA:2185:U:C6 | 2.37 | 0.59 |
| 43:BV:75:GLN:HB2 | 43:BV:92:VAL:HG23 | 1.83 | 0.59 |
| 9:AI:88:MET:HE3 | 9:AI:92:GLU:HA | 1.84 | 0.59 |
| 44:BW:42:GLY:N | 44:BW:44:LYS:HZ3 | 1.88 | 0.59 |
| 60:BA:4942:HOH:O | 38:BQ:11:ARG:HD2 | 2.03 | 0.59 |
| 24:BC:148:PRO:CG | 24:BC:185:GLU:OE2 | 2.51 | 0.59 |
| 35:BN:72:ASP:OD2 | 35:BN:75:ILE:HG12 | 2.03 | 0.59 |
| 4:AD:105:MET:SD | 4:AD:180:GLY:HA3 | 2.43 | 0.59 |
| 5:AE:157:ARG:NH2 | 8:AH:99:LEU:O | 2.36 | 0.59 |
| 8:AH:30:SER:O | 8:AH:34:VAL:HG23 | 2.01 | 0.59 |
| 8:AH:106:THR:HG21 | 8:AH:121:LEU:HB3 | 1.85 | 0.59 |
| 6:AF:101:PRO:CG | 18:AR:25:ASP:OD1 | 2.48 | 0.59 |
| 22:BA:281:C:H2' | 22:BA:282:A:H8 | 1.68 | 0.59 |
| 22:BA:639:U:H2' | 22:BA:640:C:C6 | 2.38 | 0.59 |
| 22:BA:1386:C:OP1 | 60:BA:3408:HOH:O | 2.17 | 0.59 |
| 22:BA:2134:A:N6 | 22:BA:2157:G:O2' | 2.36 | 0.59 |
| 24:BC:148:PRO:HD3 | 24:BC:185:GLU:OE2 | 2.02 | 0.59 |
| 41:BT:33:LYS:HG2 | 41:BT:80:TRP:CZ3 | 2.38 | 0.59 |
| 44:BW:44:LYS:HD2 | 44:BW:44:LYS:N | 2.16 | 0.59 |
| 10:AJ:48:ARG:NH1 | 10:AJ:66:GLU:OE1 | 2.36 | 0.58 |
| 22:BA:832:U:H2' | 22:BA:833:A:C8 | 2.38 | 0.58 |
| 22:BA:2107:G:H2' | 22:BA:2108:A:C8 | 2.38 | 0.58 |
| 28:BG:117:LEU:HD12 | 28:BG:121:ILE:HB | 1.84 | 0.58 |
| 3:AC:127:ARG:NH1 | 3:AC:127:ARG:HB2 | 2.18 | 0.58 |
| 22:BA:1007:C:OP1 | 31:BJ:37:ARG:NH1 | 2.37 | 0.58 |
| 6:AF:22:ILE:HG23 | 6:AF:62:MET:HE1 | 1.86 | 0.58 |
| 25:BD:35:THR:HG22 | 25:BD:73:VAL:HG21 | 1.85 | 0.58 |
| 27:BF:140:GLU:HA | 30:BI:28:VAL:HG12 | 1.85 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|-------------------|--------------------------|-------------------|
| 29:BH:15:LEU:HD22 | 29:BH:15:LEU:H | 1.67 | 0.58 |
| 11:AK:97:ILE:HG22 | 21:AU:12:PHE:CZ | 2.38 | 0.58 |
| 1:AA:539:A:H2' | 1:AA:540:G:C8 | 2.38 | 0.58 |
| 22:BA:250:G:H2' | 22:BA:251:A:C8 | 2.38 | 0.58 |
| 22:BA:414:C:H2' | 22:BA:415:A:C8 | 2.37 | 0.58 |
| 28:BG:2:SER:OG | 28:BG:3:ARG:N | 2.30 | 0.58 |
| 29:BH:108:VAL:HG13 | 29:BH:109:GLU:H | 1.69 | 0.58 |
| 44:BW:41:ARG:N | 44:BW:44:LYS:HE2 | 2.16 | 0.58 |
| 17:AQ:20:SER:HB3 | 17:AQ:71:LYS:HZ2 | 1.69 | 0.58 |
| 30:BI:43:PHE:HA | 30:BI:46:GLY:HA3 | 1.84 | 0.58 |
| 22:BA:871:U:H2' | 22:BA:872:U:C6 | 2.37 | 0.58 |
| 1:AA:445:G:H1 | 1:AA:489:C:H5 | 1.51 | 0.58 |
| 60:BA:4826:HOH:O | 50:B2:46:LYS:HD3 | 2.02 | 0.58 |
| 4:AD:160:GLU:O | 4:AD:164:GLN:HG2 | 2.03 | 0.57 |
| 17:AQ:39:LYS:HZ3 | 17:AQ:39:LYS:C | 2.07 | 0.57 |
| 22:BA:286:U:H2' | 22:BA:287:G:C8 | 2.37 | 0.57 |
| 60:BA:3605:HOH:O | 24:BC:227:PRO:HD2 | 2.04 | 0.57 |
| 42:BU:10:GLU:OE2 | 42:BU:73:PHE:CG | 2.56 | 0.57 |
| 11:AK:53:ARG:NH1 | 11:AK:57:LYS:HD3 | 2.16 | 0.57 |
| 14:AN:15:LEU:O | 14:AN:18:LYS:HB3 | 2.04 | 0.57 |
| 22:BA:2328:A:H2' | 22:BA:2329:U:C6 | 2.39 | 0.57 |
| 2:AB:111:ILE:HG22 | 2:AB:148:LEU:HD13 | 1.86 | 0.57 |
| 22:BA:1869:G:N2 | 22:BA:1871:A:O2' | 2.38 | 0.57 |
| 30:BI:30:HIS:CG | 30:BI:31:ASP:H | 2.21 | 0.57 |
| 7:AG:26:PHE:CD1 | 7:AG:101:MET:HG2 | 2.40 | 0.57 |
| 31:BJ:69:ARG:HG2 | 31:BJ:90:GLU:HG3 | 1.86 | 0.57 |
| 2:AB:18:HIS:NE2 | 2:AB:188:ASP:CG | 2.58 | 0.57 |
| 3:AC:127:ARG:HB2 | 3:AC:127:ARG:HH11 | 1.68 | 0.57 |
| 8:AH:106:THR:HG21 | 8:AH:121:LEU:CB | 2.34 | 0.57 |
| 1:AA:1038:C:H2' | 1:AA:1039:G:H8 | 1.67 | 0.57 |
| 42:BU:10:GLU:OE1 | 42:BU:22:ARG:HB3 | 2.04 | 0.57 |
| 1:AA:1320:C:OP2 | 19:AS:3:ARG:NH1 | 2.38 | 0.57 |
| 10:AJ:84:VAL:HG13 | 10:AJ:85:ASP:H | 1.69 | 0.57 |
| 10:AJ:84:VAL:O | 10:AJ:88:MET:HG3 | 2.04 | 0.57 |
| 15:AO:58:ARG:CZ | 15:AO:58:ARG:HB3 | 2.34 | 0.57 |
| 1:AA:375:U:H4' | 16:AP:17:TYR:CE2 | 2.40 | 0.57 |
| 22:BA:254:G:N7 | 51:B3:5:LYS:NZ | 2.53 | 0.57 |
| 1:AA:1287:A:H2' | 1:AA:1288:A:C8 | 2.40 | 0.57 |
| 7:AG:27:VAL:HG12 | 7:AG:43:VAL:HG21 | 1.87 | 0.57 |
| 55:B8:22:G:N7 | 55:B8:46:G7M:C2 | 2.67 | 0.57 |
| 1:AA:216:U:H2' | 1:AA:217:C:C6 | 2.40 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 1:AA:492:C:H2' | 1:AA:493:A:C8 | 2.40 | 0.56 |
| 13:AM:64:VAL:HG11 | 13:AM:72:GLU:OE2 | 2.04 | 0.56 |
| 15:AO:78:TYR:O | 15:AO:82:ILE:HG23 | 2.05 | 0.56 |
| 22:BA:2636:C:O2' | 25:BD:45:TYR:OH | 2.19 | 0.56 |
| 20:AT:66:LEU:HD23 | 20:AT:67:ILE:HG23 | 1.87 | 0.56 |
| 22:BA:1177:G:H2' | 22:BA:1178:C:H6 | 1.70 | 0.56 |
| 29:BH:104:THR:HA | 29:BH:107:GLY:N | 2.20 | 0.56 |
| 44:BW:40:GLN:HB2 | 44:BW:44:LYS:HD3 | 1.87 | 0.56 |
| 10:AJ:63:ASP:OD1 | 14:AN:98:LYS:NZ | 2.39 | 0.56 |
| 22:BA:910:A:H2' | 22:BA:911:A:C8 | 2.40 | 0.56 |
| 22:BA:2753:A:O2' | 52:B4:15:LYS:HE3 | 2.04 | 0.56 |
| 29:BH:8:LYS:HD3 | 29:BH:14:SER:HB3 | 1.86 | 0.56 |
| 2:AB:97:LEU:HB2 | 2:AB:100:MET:SD | 2.45 | 0.56 |
| 2:AB:70:VAL:HG12 | 2:AB:163:VAL:HA | 1.86 | 0.56 |
| 12:AL:94:ARG:HG3 | 12:AL:94:ARG:HH11 | 1.71 | 0.56 |
| 3:AC:42:TYR:HD1 | 3:AC:43:LEU:HD12 | 1.69 | 0.56 |
| 1:AA:363:A:OP2 | 12:AL:31:ARG:NH2 | 2.35 | 0.56 |
| 22:BA:682:G:H5' | 50:B2:26:ASN:OD1 | 2.06 | 0.56 |
| 29:BH:104:THR:HG21 | 29:BH:110:VAL:N | 2.21 | 0.56 |
| 42:BU:15:THR:HB | 42:BU:69:ASN:ND2 | 2.21 | 0.56 |
| 1:AA:1040:U:H2' | 1:AA:1041:G:H8 | 1.70 | 0.56 |
| 9:AI:43:THR:O | 9:AI:47:VAL:HG13 | 2.06 | 0.56 |
| 24:BC:5:LYS:NZ | 24:BC:16:VAL:O | 2.39 | 0.56 |
| 49:B1:27:LYS:HA | 49:B1:27:LYS:HE2 | 1.87 | 0.56 |
| 22:BA:249:C:O2 | 51:B3:12:LYS:NZ | 2.39 | 0.56 |
| 55:B8:2:G:O2' | 55:B8:3:G:H2' | 2.06 | 0.56 |
| 1:AA:299:G:H2' | 1:AA:300:A:C8 | 2.41 | 0.55 |
| 1:AA:1320:C:O2 | 19:AS:36:ARG:NH2 | 2.39 | 0.55 |
| 2:AB:163:VAL:N | 2:AB:184:PHE:O | 2.30 | 0.55 |
| 1:AA:1250:A:H2' | 1:AA:1251:A:C8 | 2.41 | 0.55 |
| 1:AA:944:G:N1 | 1:AA:1338:G:OP2 | 2.34 | 0.55 |
| 22:BA:2469:A:N6 | 22:BA:2481:G:O2' | 2.40 | 0.55 |
| 24:BC:267:ILE:HD13 | 24:BC:270:ARG:HH21 | 1.70 | 0.55 |
| 7:AG:93:PRO:HA | 7:AG:96:ARG:HG3 | 1.88 | 0.55 |
| 22:BA:526:A:H2' | 60:BA:4631:HOH:O | 2.06 | 0.55 |
| 22:BA:856:G:H2' | 22:BA:857:G:C8 | 2.41 | 0.55 |
| 10:AJ:57:VAL:O | 10:AJ:57:VAL:HG13 | 2.06 | 0.55 |
| 55:B8:3:G:H4' | 55:B8:4:U:OP1 | 2.07 | 0.55 |
| 3:AC:117:ALA:O | 3:AC:121:THR:HG23 | 2.06 | 0.55 |
| 22:BA:2100:G:O6 | 22:BA:2189:U:O4 | 2.25 | 0.55 |
| 4:AD:50:ASP:HA | 4:AD:53:VAL:HG22 | 1.89 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|-------------------|--------------------------|-------------------|
| 4:AD:104:ARG:HG2 | 4:AD:104:ARG:HH11 | 1.71 | 0.55 |
| 23:BB:1:U:H2' | 23:BB:2:G:H8 | 1.71 | 0.55 |
| 1:AA:1012:A:N6 | 1:AA:1018:G:O6 | 2.39 | 0.55 |
| 49:B1:9:ILE:HG21 | 49:B1:51:GLU:OE1 | 2.07 | 0.55 |
| 55:B8:37:1MG:H2' | 55:B8:38:A:C8 | 2.42 | 0.55 |
| 2:AB:204:ASP:C | 2:AB:205:ASP:OD1 | 2.45 | 0.55 |
| 22:BA:2182:U:H2' | 22:BA:2183:A:C8 | 2.42 | 0.55 |
| 4:AD:95:GLU:HA | 4:AD:100:ASN:HD22 | 1.72 | 0.54 |
| 18:AR:26:ILE:HG22 | 18:AR:30:LYS:NZ | 2.21 | 0.54 |
| 27:BF:135:GLN:HE21 | 27:BF:149:VAL:HA | 1.71 | 0.54 |
| 1:AA:1008:U:H1' | 1:AA:1009:U:C6 | 2.42 | 0.54 |
| 29:BH:104:THR:HA | 29:BH:107:GLY:H | 1.72 | 0.54 |
| 29:BH:114:GLU:OE1 | 29:BH:114:GLU:N | 2.41 | 0.54 |
| 9:AI:47:VAL:HA | 9:AI:50:GLN:HE21 | 1.71 | 0.54 |
| 22:BA:646:U:C5 | 22:BA:2368:C:H1' | 2.42 | 0.54 |
| 48:B0:38:HIS:ND1 | 48:B0:39:LEU:O | 2.39 | 0.54 |
| 1:AA:390:U:H2' | 1:AA:391:G:H8 | 1.73 | 0.54 |
| 21:AU:31:GLU:O | 21:AU:35:ARG:HG3 | 2.07 | 0.54 |
| 22:BA:1223:G:OP1 | 39:BR:68:ARG:NH1 | 2.39 | 0.54 |
| 3:AC:184:TYR:O | 3:AC:185:ASN:ND2 | 2.41 | 0.54 |
| 5:AE:115:LEU:HD13 | 5:AE:123:VAL:HG21 | 1.90 | 0.54 |
| 22:BA:358:U:C2 | 22:BA:359:G:C8 | 2.96 | 0.54 |
| 22:BA:832:U:H2' | 22:BA:833:A:H8 | 1.72 | 0.54 |
| 18:AR:26:ILE:CG2 | 18:AR:30:LYS:NZ | 2.71 | 0.54 |
| 22:BA:2128:G:H2' | 22:BA:2129:C:H6 | 1.72 | 0.54 |
| 22:BA:2796:U:H2' | 22:BA:2797:U:H2' | 1.89 | 0.54 |
| 1:AA:1088:G:H21 | 1:AA:1167:A:H61 | 1.54 | 0.54 |
| 1:AA:1320:C:C5' | 19:AS:3:ARG:HH12 | 2.20 | 0.54 |
| 22:BA:414:C:H2' | 22:BA:415:A:H8 | 1.73 | 0.54 |
| 35:BN:114:GLU:OE1 | 35:BN:118:ARG:NH1 | 2.41 | 0.54 |
| 1:AA:280:C:H42 | 17:AQ:39:LYS:NZ | 2.05 | 0.54 |
| 1:AA:714:G:H2' | 1:AA:715:A:C8 | 2.43 | 0.54 |
| 5:AE:111:MET:CE | 5:AE:125:ALA:HB1 | 2.38 | 0.54 |
| 22:BA:2394:C:H5'' | 33:BL:63:LYS:HE2 | 1.90 | 0.54 |
| 17:AQ:39:LYS:O | 17:AQ:39:LYS:HG3 | 2.08 | 0.54 |
| 22:BA:281:C:H2' | 22:BA:282:A:C8 | 2.43 | 0.54 |
| 25:BD:156:PHE:CE1 | 31:BJ:81:ILE:HD13 | 2.42 | 0.54 |
| 41:BT:11:LEU:O | 46:BY:29:ARG:NH1 | 2.41 | 0.54 |
| 55:B8:71:C:H2' | 55:B8:72:G:C8 | 2.43 | 0.54 |
| 8:AH:105:SER:HB2 | 8:AH:126:ILE:HD11 | 1.90 | 0.53 |
| 9:AI:46:MET:O | 9:AI:50:GLN:HG2 | 2.07 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 22:BA:2522:U:O2' | 22:BA:2647:U:OP1 | 2.21 | 0.53 |
| 10:AJ:16:ARG:HG2 | 10:AJ:16:ARG:HH11 | 1.73 | 0.53 |
| 24:BC:133:ARG:NE | 24:BC:187:ASP:OD1 | 2.39 | 0.53 |
| 1:AA:946:A:H2' | 1:AA:947:G:C8 | 2.44 | 0.53 |
| 2:AB:223:GLU:HA | 2:AB:226:SER:HB3 | 1.89 | 0.53 |
| 22:BA:1738:G:HO2' | 22:BA:1739:A:H8 | 1.56 | 0.53 |
| 27:BF:38:MET:HE2 | 27:BF:152:LEU:HB3 | 1.91 | 0.53 |
| 1:AA:1533:C:N3 | 21:AU:54:LYS:NZ | 2.55 | 0.53 |
| 2:AB:45:LYS:O | 2:AB:49:MET:HG2 | 2.09 | 0.53 |
| 15:AO:76:ALA:O | 15:AO:80:GLN:HG3 | 2.09 | 0.53 |
| 22:BA:685:A:OP2 | 60:BA:3411:HOH:O | 2.19 | 0.53 |
| 55:B8:66:A:H2' | 55:B8:67:U:C6 | 2.43 | 0.53 |
| 8:AH:88:ARG:HB2 | 8:AH:91:GLU:OE1 | 2.09 | 0.53 |
| 9:AI:87:LEU:HD11 | 9:AI:98:LEU:HD21 | 1.91 | 0.53 |
| 41:BT:67:VAL:HG22 | 41:BT:76:ARG:HG3 | 1.91 | 0.53 |
| 9:AI:80:ARG:HH21 | 9:AI:103:PHE:HA | 1.74 | 0.53 |
| 11:AK:53:ARG:NH1 | 11:AK:53:ARG:HA | 2.24 | 0.53 |
| 22:BA:2291:U:H2' | 22:BA:2292:U:C6 | 2.43 | 0.53 |
| 3:AC:36:ASP:OD1 | 3:AC:59:ARG:NH2 | 2.41 | 0.53 |
| 4:AD:97:ARG:O | 4:AD:101:VAL:HG23 | 2.09 | 0.53 |
| 22:BA:78:U:H2' | 22:BA:79:C:C6 | 2.44 | 0.53 |
| 22:BA:1009:A:OP1 | 31:BJ:39:LYS:NZ | 2.41 | 0.53 |
| 22:BA:2185:U:H2' | 22:BA:2186:G:H8 | 1.73 | 0.53 |
| 1:AA:212:G:H2' | 1:AA:213:G:C8 | 2.43 | 0.53 |
| 4:AD:82:LEU:HB2 | 4:AD:89:ASN:HD22 | 1.73 | 0.53 |
| 4:AD:101:VAL:O | 4:AD:105:MET:HG3 | 2.09 | 0.53 |
| 11:AK:97:ILE:HG22 | 21:AU:12:PHE:HZ | 1.73 | 0.53 |
| 22:BA:140:C:H5' | 22:BA:141:G:C8 | 2.44 | 0.53 |
| 22:BA:2191:A:H2' | 22:BA:2192:U:C6 | 2.44 | 0.53 |
| 22:BA:2246:G:H2' | 22:BA:2247:A:C8 | 2.44 | 0.53 |
| 22:BA:2250:G:O2' | 22:BA:2496:C:OP1 | 2.26 | 0.53 |
| 44:BW:40:GLN:HB2 | 44:BW:44:LYS:CE | 2.38 | 0.53 |
| 1:AA:717:U:H4' | 11:AK:119:ASN:HD22 | 1.73 | 0.52 |
| 18:AR:39:ILE:HD12 | 18:AR:59:ILE:HD12 | 1.91 | 0.52 |
| 22:BA:1348:C:OP1 | 60:BA:3410:HOH:O | 2.19 | 0.52 |
| 29:BH:104:THR:HG21 | 29:BH:110:VAL:H | 1.74 | 0.52 |
| 1:AA:87:C:H2' | 1:AA:88:U:H4' | 1.91 | 0.52 |
| 1:AA:171:A:H2' | 1:AA:172:A:C8 | 2.44 | 0.52 |
| 1:AA:769:G:H4' | 1:AA:1513:A:H4' | 1.91 | 0.52 |
| 1:AA:1530:G:N7 | 21:AU:46:LYS:NZ | 2.57 | 0.52 |
| 2:AB:208:ARG:HA | 2:AB:211:THR:OG1 | 2.09 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|--------------------|--------------------------|-------------------|
| 7:AG:26:PHE:HD1 | 7:AG:101:MET:HG2 | 1.73 | 0.52 |
| 22:BA:2478:A:OP2 | 52:B4:2:LYS:NZ | 2.26 | 0.52 |
| 2:AB:76:ALA:O | 2:AB:80:VAL:HG23 | 2.09 | 0.52 |
| 3:AC:35:SER:O | 3:AC:39:VAL:HG12 | 2.09 | 0.52 |
| 4:AD:65:TYR:CD2 | 4:AD:94:LEU:HB3 | 2.44 | 0.52 |
| 22:BA:1177:G:H2' | 22:BA:1178:C:C6 | 2.44 | 0.52 |
| 22:BA:1543:G:HO2' | 22:BA:1544:A:H8 | 1.55 | 0.52 |
| 26:BE:47:LYS:HA | 26:BE:51:GLU:OE1 | 2.09 | 0.52 |
| 12:AL:94:ARG:HG3 | 12:AL:94:ARG:NH1 | 2.25 | 0.52 |
| 19:AS:5:LEU:HD12 | 19:AS:5:LEU:H | 1.74 | 0.52 |
| 22:BA:585:G:N7 | 38:BQ:6:ARG:NH2 | 2.56 | 0.52 |
| 1:AA:384:G:H2' | 1:AA:385:C:C6 | 2.44 | 0.52 |
| 1:AA:1279:G:OP1 | 10:AJ:9:ARG:NH2 | 2.42 | 0.52 |
| 2:AB:130:THR:O | 2:AB:131:LYS:HB2 | 2.10 | 0.52 |
| 13:AM:107:ARG:NH2 | 13:AM:113:ARG:HA | 2.25 | 0.52 |
| 1:AA:529:G:H5' | 1:AA:530:G:OP2 | 2.09 | 0.52 |
| 9:AI:80:ARG:NH2 | 9:AI:103:PHE:HA | 2.24 | 0.52 |
| 22:BA:456:C:O2' | 41:BT:73:ARG:NH1 | 2.41 | 0.52 |
| 27:BF:94:GLU:O | 27:BF:98:GLU:HG3 | 2.09 | 0.52 |
| 33:BL:69:ARG:HG2 | 33:BL:69:ARG:NH1 | 2.24 | 0.52 |
| 1:AA:745:G:H2' | 1:AA:746:A:C8 | 2.44 | 0.52 |
| 9:AI:12:ARG:HG3 | 9:AI:77:GLY:HA3 | 1.92 | 0.52 |
| 11:AK:19:GLY:O | 11:AK:82:LEU:HA | 2.09 | 0.52 |
| 13:AM:4:ILE:HG22 | 13:AM:5:ALA:N | 2.25 | 0.52 |
| 22:BA:880:G:H2' | 22:BA:881:G:H8 | 1.73 | 0.52 |
| 3:AC:34:ASP:OD1 | 3:AC:38:LYS:NZ | 2.40 | 0.52 |
| 43:BV:64:VAL:HG22 | 43:BV:69:GLU:HG2 | 1.91 | 0.52 |
| 37:BP:32:VAL:HG23 | 37:BP:39:ARG:HG3 | 1.90 | 0.52 |
| 4:AD:160:GLU:OE1 | 4:AD:160:GLU:N | 2.39 | 0.52 |
| 7:AG:24:ALA:O | 7:AG:28:ASN:OD1 | 2.27 | 0.52 |
| 13:AM:98:ARG:HB2 | 13:AM:100:GLN:HE22 | 1.74 | 0.52 |
| 22:BA:1800:C:H3' | 24:BC:146:MET:HE1 | 1.92 | 0.52 |
| 22:BA:2812:G:H2' | 22:BA:2813:A:C8 | 2.45 | 0.52 |
| 1:AA:49:U:H5 | 1:AA:365:U:O4 | 1.89 | 0.51 |
| 1:AA:206:C:H2' | 1:AA:207:C:C6 | 2.45 | 0.51 |
| 10:AJ:66:GLU:HB3 | 14:AN:99:ALA:HB2 | 1.91 | 0.51 |
| 27:BF:142:ASP:HB3 | 27:BF:145:LYS:HE2 | 1.92 | 0.51 |
| 1:AA:728:A:H2' | 1:AA:729:A:C8 | 2.45 | 0.51 |
| 1:AA:1152:A:OP1 | 10:AJ:70:HIS:ND1 | 2.38 | 0.51 |
| 3:AC:130:PHE:O | 3:AC:134:MET:HG3 | 2.09 | 0.51 |
| 7:AG:70:ARG:HG2 | 7:AG:100:ALA:HB2 | 1.92 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|--------------------|--------------------------|-------------------|
| 20:AT:2:ALA:HB3 | 20:AT:8:LYS:HG3 | 1.93 | 0.51 |
| 22:BA:1662:U:OP2 | 60:BA:3413:HOH:O | 2.19 | 0.51 |
| 34:BM:75:GLU:HG3 | 34:BM:90:GLU:HG3 | 1.92 | 0.51 |
| 19:AS:12:ASP:OD2 | 19:AS:35:SER:OG | 2.08 | 0.51 |
| 22:BA:1485:U:H2' | 22:BA:1486:U:C6 | 2.46 | 0.51 |
| 28:BG:8:PRO:HB3 | 28:BG:51:THR:HG22 | 1.91 | 0.51 |
| 29:BH:8:LYS:CD | 29:BH:14:SER:HB3 | 2.40 | 0.51 |
| 22:BA:1590:A:H2' | 22:BA:1591:A:C8 | 2.45 | 0.51 |
| 31:BJ:95:ARG:HD2 | 31:BJ:96:ARG:NH1 | 2.25 | 0.51 |
| 1:AA:713:G:H2' | 1:AA:714:G:C8 | 2.45 | 0.51 |
| 1:AA:1318:A:H1' | 19:AS:37:ARG:CZ | 2.40 | 0.51 |
| 13:AM:4:ILE:HG23 | 13:AM:57:ARG:HG2 | 1.93 | 0.51 |
| 1:AA:126:G:OP1 | 1:AA:605:U:O2' | 2.24 | 0.51 |
| 1:AA:450:G:H5' | 1:AA:451:A:H5'' | 1.92 | 0.51 |
| 1:AA:539:A:H2' | 1:AA:540:G:H8 | 1.75 | 0.51 |
| 16:AP:52:LEU:HD21 | 16:AP:75:ILE:HG12 | 1.93 | 0.51 |
| 22:BA:2316:G:H2' | 22:BA:2317:A:H8 | 1.76 | 0.51 |
| 27:BF:94:GLU:OE2 | 27:BF:98:GLU:CD | 2.49 | 0.51 |
| 45:BX:69:ALA:HA | 45:BX:72:ARG:HE | 1.76 | 0.51 |
| 7:AG:75:VAL:CG1 | 7:AG:86:GLN:HB3 | 2.41 | 0.51 |
| 1:AA:269:C:H2' | 1:AA:270:A:C8 | 2.44 | 0.51 |
| 1:AA:390:U:H2' | 1:AA:391:G:C8 | 2.46 | 0.51 |
| 1:AA:524:G:H2' | 1:AA:525:C:C6 | 2.45 | 0.51 |
| 1:AA:1314:C:H2' | 1:AA:1315:U:C6 | 2.46 | 0.51 |
| 2:AB:6:MET:CE | 2:AB:43:LEU:HB3 | 2.40 | 0.51 |
| 9:AI:60:LYS:HE3 | 9:AI:61:LEU:HD23 | 1.93 | 0.51 |
| 18:AR:61:ARG:HG3 | 18:AR:61:ARG:HH11 | 1.76 | 0.51 |
| 22:BA:2447:G:H1' | 60:BA:4636:HOH:O | 2.11 | 0.51 |
| 55:B8:62:C:H2' | 55:B8:63:U:C6 | 2.46 | 0.51 |
| 6:AF:103:VAL:O | 6:AF:106:LYS:HB2 | 2.11 | 0.51 |
| 22:BA:1796:U:H2' | 22:BA:1797:G:H8 | 1.75 | 0.51 |
| 22:BA:2046:G:OP2 | 60:BA:3412:HOH:O | 2.19 | 0.51 |
| 32:BK:38:ILE:HD11 | 32:BK:112:PHE:HZ | 1.74 | 0.51 |
| 55:B8:69:A:H2' | 55:B8:70:C:C6 | 2.46 | 0.51 |
| 1:AA:579:A:O2' | 15:AO:54:ARG:NH1 | 2.43 | 0.51 |
| 1:AA:600:A:H5'' | 8:AH:89:LYS:HD3 | 1.93 | 0.51 |
| 1:AA:1033:G:H2' | 1:AA:1034:G:C8 | 2.46 | 0.51 |
| 2:AB:187:VAL:HG11 | 2:AB:199:VAL:HG13 | 1.93 | 0.51 |
| 12:AL:4:VAL:HG13 | 17:AQ:34:TYR:HB3 | 1.93 | 0.51 |
| 22:BA:1079:C:H2' | 22:BA:1080:A:H8 | 1.76 | 0.51 |
| 24:BC:78:VAL:HG21 | 24:BC:110:LEU:HD21 | 1.91 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 41:BT:6:ARG:HD2 | 41:BT:6:ARG:O | 2.10 | 0.51 |
| 2:AB:8:ASP:OD1 | 2:AB:9:MET:N | 2.43 | 0.50 |
| 5:AE:82:GLN:HB2 | 5:AE:83:HIS:HD2 | 1.76 | 0.50 |
| 8:AH:106:THR:CG2 | 8:AH:121:LEU:HB3 | 2.40 | 0.50 |
| 22:BA:1100:C:H2' | 22:BA:1101:U:O4' | 2.11 | 0.50 |
| 22:BA:1570:A:H2' | 22:BA:1571:A:C8 | 2.46 | 0.50 |
| 30:BI:14:ALA:HB1 | 30:BI:34:LEU:CD2 | 2.40 | 0.50 |
| 53:B5:14:ASN:O | 53:B5:20:VAL:HG21 | 2.11 | 0.50 |
| 9:AI:7:TYR:HE1 | 9:AI:18:ARG:HB2 | 1.76 | 0.50 |
| 22:BA:1300:G:H4' | 22:BA:1301:A:H5'' | 1.93 | 0.50 |
| 1:AA:1317:C:C4 | 14:AN:53:ARG:HD2 | 2.46 | 0.50 |
| 2:AB:18:HIS:CE1 | 2:AB:205:ASP:OD2 | 2.64 | 0.50 |
| 2:AB:60:ILE:HA | 2:AB:63:ARG:HH21 | 1.76 | 0.50 |
| 8:AH:106:THR:HG22 | 8:AH:107:SER:H | 1.76 | 0.50 |
| 8:AH:106:THR:HG23 | 8:AH:122:GLY:O | 2.12 | 0.50 |
| 22:BA:959:A:H2' | 22:BA:960:A:C8 | 2.46 | 0.50 |
| 28:BG:24:ILE:HD11 | 28:BG:43:VAL:CG1 | 2.36 | 0.50 |
| 4:AD:56:ARG:HA | 4:AD:56:ARG:NE | 2.23 | 0.50 |
| 7:AG:80:VAL:N | 7:AG:83:SER:O | 2.44 | 0.50 |
| 13:AM:54:ASP:HA | 13:AM:57:ARG:HB2 | 1.93 | 0.50 |
| 1:AA:235:C:H2' | 1:AA:236:A:C8 | 2.46 | 0.50 |
| 1:AA:1305:G:N2 | 1:AA:1331:G:H1' | 2.25 | 0.50 |
| 22:BA:608:A:H2' | 22:BA:609:A:C8 | 2.47 | 0.50 |
| 1:AA:219:U:H2' | 1:AA:220:G:H8 | 1.77 | 0.50 |
| 1:AA:890:G:O2' | 1:AA:906:A:N6 | 2.44 | 0.50 |
| 22:BA:798:G:OP1 | 60:BA:3414:HOH:O | 2.20 | 0.50 |
| 46:BY:19:LEU:O | 46:BY:23:ARG:HD3 | 2.11 | 0.50 |
| 1:AA:80:A:H2' | 1:AA:81:A:O4' | 2.12 | 0.50 |
| 1:AA:1530:G:H2' | 1:AA:1531:A:C8 | 2.47 | 0.50 |
| 21:AU:39:GLU:OE2 | 21:AU:44:GLU:HG3 | 2.11 | 0.50 |
| 26:BE:7:ASP:OD2 | 26:BE:122:GLU:HB2 | 2.11 | 0.50 |
| 22:BA:848:C:H2' | 22:BA:849:A:C8 | 2.47 | 0.50 |
| 22:BA:1870:C:O2' | 22:BA:1871:A:O5' | 2.30 | 0.50 |
| 25:BD:152:PRO:HG3 | 25:BD:156:PHE:CZ | 2.47 | 0.50 |
| 6:AF:45:ARG:HD3 | 6:AF:59:TYR:CG | 2.47 | 0.49 |
| 22:BA:191:A:H2' | 22:BA:192:C:C6 | 2.47 | 0.49 |
| 30:BI:13:THR:HB | 30:BI:23:LYS:HD3 | 1.92 | 0.49 |
| 32:BK:121:GLU:OE1 | 37:BP:65:SER:OG | 2.29 | 0.49 |
| 1:AA:1314:C:H2' | 1:AA:1315:U:H6 | 1.77 | 0.49 |
| 14:AN:46:LEU:HD11 | 19:AS:13:LEU:HB2 | 1.93 | 0.49 |
| 22:BA:172:A:H2' | 22:BA:173:A:C8 | 2.47 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 2:AB:217:VAL:O | 2:AB:221:VAL:HG13 | 2.11 | 0.49 |
| 7:AG:111:ARG:HH12 | 7:AG:123:GLU:N | 2.10 | 0.49 |
| 19:AS:19:VAL:HG21 | 19:AS:44:MET:HB3 | 1.93 | 0.49 |
| 22:BA:276:U:H2' | 22:BA:277:G:O4' | 2.13 | 0.49 |
| 22:BA:879:G:H2' | 22:BA:880:G:H8 | 1.76 | 0.49 |
| 22:BA:2193:G:H2' | 22:BA:2194:U:C6 | 2.46 | 0.49 |
| 1:AA:674:G:H21 | 11:AK:118:HIS:HB2 | 1.78 | 0.49 |
| 22:BA:1173:U:O2' | 22:BA:1174:U:O5' | 2.30 | 0.49 |
| 1:AA:1130:A:H2' | 1:AA:1131:G:C8 | 2.47 | 0.49 |
| 4:AD:124:MET:HG2 | 4:AD:146:ARG:HG3 | 1.95 | 0.49 |
| 9:AI:6:TYR:HB2 | 9:AI:21:ILE:CG1 | 2.43 | 0.49 |
| 19:AS:47:LEU:HD12 | 19:AS:48:THR:H | 1.77 | 0.49 |
| 23:BB:51:G:OP1 | 36:BO:63:LYS:NZ | 2.34 | 0.49 |
| 28:BG:102:VAL:HG22 | 28:BG:116:GLN:HG2 | 1.94 | 0.49 |
| 33:BL:57:LEU:HD22 | 51:B3:54:ASP:HB3 | 1.94 | 0.49 |
| 1:AA:426:U:P | 4:AD:33:LYS:NZ | 2.86 | 0.49 |
| 5:AE:13:GLU:OE2 | 5:AE:68:ARG:NH2 | 2.42 | 0.49 |
| 6:AF:70:VAL:HG23 | 6:AF:71:ILE:HD13 | 1.93 | 0.49 |
| 18:AR:61:ARG:HG3 | 18:AR:61:ARG:NH1 | 2.27 | 0.49 |
| 22:BA:833:A:H2' | 22:BA:834:G:C8 | 2.47 | 0.49 |
| 22:BA:1386:C:H2' | 22:BA:1387:A:C8 | 2.48 | 0.49 |
| 24:BC:180:GLU:OE2 | 24:BC:270:ARG:NH2 | 2.45 | 0.49 |
| 26:BE:23:PHE:CD1 | 26:BE:111:GLU:HG3 | 2.47 | 0.49 |
| 28:BG:117:LEU:HD11 | 28:BG:144:VAL:HG11 | 1.95 | 0.49 |
| 29:BH:16:GLY:HA2 | 29:BH:47:PHE:CE2 | 2.48 | 0.49 |
| 30:BI:30:HIS:CG | 30:BI:31:ASP:N | 2.80 | 0.49 |
| 4:AD:118:VAL:HG12 | 4:AD:123:ILE:HG13 | 1.94 | 0.49 |
| 22:BA:1590:A:H2' | 22:BA:1591:A:H8 | 1.76 | 0.49 |
| 22:BA:2128:G:H2' | 22:BA:2129:C:C6 | 2.47 | 0.49 |
| 1:AA:1112:C:O2' | 3:AC:179:ARG:HD2 | 2.12 | 0.49 |
| 1:AA:1143:G:H2' | 1:AA:1144:G:H8 | 1.78 | 0.49 |
| 1:AA:1151:A:HO2' | 1:AA:1152:A:H8 | 1.61 | 0.49 |
| 13:AM:71:ARG:HG3 | 13:AM:71:ARG:HH11 | 1.77 | 0.49 |
| 22:BA:2334:U:H1' | 36:BO:13:ARG:HD3 | 1.94 | 0.49 |
| 27:BF:63:GLN:HE21 | 27:BF:89:VAL:CG2 | 2.26 | 0.49 |
| 31:BJ:125:TYR:OH | 31:BJ:132:HIS:NE2 | 2.38 | 0.49 |
| 1:AA:280:C:H42 | 17:AQ:39:LYS:HZ1 | 1.60 | 0.49 |
| 1:AA:891:U:H2' | 1:AA:892:A:H8 | 1.76 | 0.49 |
| 1:AA:1414:U:H2' | 1:AA:1415:G:H8 | 1.78 | 0.49 |
| 22:BA:545:U:O2' | 22:BA:546:U:O4' | 2.30 | 0.49 |
| 22:BA:1175:A:H8 | 22:BA:1176:U:C4 | 2.31 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|--------------------|--------------------------|-------------------|
| 22:BA:2845:U:H5'' | 37:BP:52:ASN:O | 2.13 | 0.49 |
| 42:BU:99:ASN:ND2 | 42:BU:101:GLU:OE2 | 2.45 | 0.49 |
| 55:B8:19:G:H4' | 55:B8:20:U:OP2 | 2.11 | 0.49 |
| 1:AA:189:A:H2' | 1:AA:190:A:C8 | 2.48 | 0.49 |
| 1:AA:880:C:OP1 | 12:AL:5:ASN:ND2 | 2.46 | 0.49 |
| 22:BA:2086:U:H2' | 22:BA:2087:G:C8 | 2.48 | 0.49 |
| 22:BA:2305:U:H5'' | 27:BF:131:GLY:HA3 | 1.95 | 0.49 |
| 24:BC:145:GLU:HB2 | 24:BC:188:CYS:HB3 | 1.94 | 0.49 |
| 47:BZ:57:VAL:HG12 | 47:BZ:59:GLU:HG3 | 1.95 | 0.49 |
| 9:AI:22:LYS:HB2 | 9:AI:62:ASP:OD1 | 2.13 | 0.48 |
| 22:BA:1322:A:H5' | 40:BS:11:ARG:NH2 | 2.28 | 0.48 |
| 34:BM:50:ARG:HD3 | 34:BM:65:ILE:HD11 | 1.94 | 0.48 |
| 43:BV:2:PHE:HB2 | 43:BV:61:LEU:HD22 | 1.95 | 0.48 |
| 1:AA:300:A:O5' | 1:AA:300:A:H8 | 1.95 | 0.48 |
| 22:BA:1682:G:H2' | 22:BA:1683:U:C6 | 2.47 | 0.48 |
| 22:BA:2313:C:H5'' | 27:BF:88:LYS:HD2 | 1.95 | 0.48 |
| 22:BA:2680:U:O2' | 22:BA:2681:C:H5' | 2.13 | 0.48 |
| 22:BA:2795:C:H2' | 22:BA:2796:U:C6 | 2.48 | 0.48 |
| 11:AK:53:ARG:HH12 | 11:AK:57:LYS:CD | 2.21 | 0.48 |
| 22:BA:594:U:H2' | 22:BA:595:C:C6 | 2.49 | 0.48 |
| 22:BA:1485:U:H2' | 22:BA:1486:U:H6 | 1.77 | 0.48 |
| 22:BA:2101:A:H2' | 22:BA:2102:G:H8 | 1.78 | 0.48 |
| 1:AA:1412:C:H2' | 1:AA:1413:A:C8 | 2.49 | 0.48 |
| 2:AB:115:LYS:O | 2:AB:119:THR:HG22 | 2.14 | 0.48 |
| 4:AD:188:ARG:NH1 | 4:AD:192:SER:O | 2.44 | 0.48 |
| 7:AG:50:LEU:CD2 | 7:AG:124:LEU:HB3 | 2.39 | 0.48 |
| 9:AI:28:ILE:HG21 | 9:AI:35:LEU:HD12 | 1.94 | 0.48 |
| 22:BA:194:G:H2' | 22:BA:195:A:O4' | 2.13 | 0.48 |
| 24:BC:155:ALA:HB2 | 24:BC:162:VAL:HG23 | 1.95 | 0.48 |
| 22:BA:703:U:H2' | 22:BA:704:G:O4' | 2.13 | 0.48 |
| 22:BA:1494:A:H2' | 22:BA:1495:A:C8 | 2.49 | 0.48 |
| 1:AA:1088:G:N2 | 1:AA:1167:A:H61 | 2.10 | 0.48 |
| 3:AC:184:TYR:OH | 3:AC:199:LYS:HD3 | 2.13 | 0.48 |
| 4:AD:99:ASP:OD1 | 4:AD:100:ASN:N | 2.45 | 0.48 |
| 22:BA:358:U:H2' | 22:BA:359:G:H8 | 1.77 | 0.48 |
| 22:BA:2334:U:O2' | 36:BO:13:ARG:NH1 | 2.46 | 0.48 |
| 1:AA:674:G:H2' | 1:AA:675:A:C8 | 2.48 | 0.48 |
| 5:AE:105:ILE:HB | 5:AE:112:ARG:NH1 | 2.29 | 0.48 |
| 8:AH:96:MET:CG | 8:AH:99:LEU:HB2 | 2.43 | 0.48 |
| 16:AP:6:LEU:HB3 | 16:AP:17:TYR:HD2 | 1.78 | 0.48 |
| 22:BA:2291:U:OP1 | 22:BA:2380:C:O2' | 2.32 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 22:BA:2649:C:H2' | 22:BA:2650:U:H6 | 1.79 | 0.48 |
| 34:BM:66:ARG:NH1 | 34:BM:104:GLU:OE2 | 2.46 | 0.48 |
| 10:AJ:80:THR:HG22 | 10:AJ:83:THR:HG23 | 1.95 | 0.48 |
| 22:BA:5:A:H2' | 22:BA:6:A:C8 | 2.48 | 0.48 |
| 22:BA:419:U:OP1 | 60:BA:3416:HOH:O | 2.20 | 0.48 |
| 22:BA:1809:A:H2' | 22:BA:1810:A:C8 | 2.48 | 0.48 |
| 35:BN:35:LYS:HE2 | 35:BN:100:CYS:SG | 2.53 | 0.48 |
| 1:AA:1297:G:O2' | 7:AG:114:LYS:NZ | 2.47 | 0.48 |
| 22:BA:1173:U:O2' | 22:BA:1174:U:O4' | 2.32 | 0.48 |
| 22:BA:1495:A:H2' | 22:BA:1496:A:C8 | 2.49 | 0.48 |
| 22:BA:2728:U:HO2' | 22:BA:2729:G:H8 | 1.60 | 0.48 |
| 24:BC:38:SER:OG | 60:BC:401:HOH:O | 2.14 | 0.48 |
| 1:AA:280:C:N4 | 17:AQ:39:LYS:NZ | 2.62 | 0.48 |
| 1:AA:1062:U:H2' | 1:AA:1063:C:C6 | 2.49 | 0.48 |
| 1:AA:1251:A:H2' | 1:AA:1252:A:C8 | 2.49 | 0.48 |
| 1:AA:1464:U:H2' | 1:AA:1465:A:H8 | 1.79 | 0.48 |
| 4:AD:95:GLU:HA | 4:AD:100:ASN:ND2 | 2.29 | 0.48 |
| 9:AI:17:ALA:HB2 | 9:AI:67:VAL:HG12 | 1.95 | 0.48 |
| 9:AI:63:LEU:HD12 | 9:AI:65:ILE:HD11 | 1.96 | 0.48 |
| 15:AO:70:LEU:HD11 | 15:AO:77:ARG:HB3 | 1.95 | 0.48 |
| 22:BA:2193:G:H2' | 22:BA:2194:U:H6 | 1.78 | 0.48 |
| 32:BK:111:LYS:HG2 | 32:BK:112:PHE:CE1 | 2.49 | 0.48 |
| 1:AA:131:A:H2' | 1:AA:132:C:C6 | 2.49 | 0.47 |
| 1:AA:868:C:H2' | 1:AA:869:G:O4' | 2.13 | 0.47 |
| 1:AA:1273:C:H2' | 1:AA:1274:A:O4' | 2.14 | 0.47 |
| 22:BA:645:C:H2' | 22:BA:647:G:C8 | 2.49 | 0.47 |
| 22:BA:1102:C:H2' | 22:BA:1103:A:H8 | 1.78 | 0.47 |
| 2:AB:165:ASP:OD2 | 2:AB:168:HIS:HB2 | 2.14 | 0.47 |
| 6:AF:23:GLU:HA | 6:AF:26:THR:OG1 | 2.14 | 0.47 |
| 22:BA:347:A:H2' | 22:BA:348:A:C8 | 2.49 | 0.47 |
| 22:BA:1729:U:O2 | 22:BA:1731:G:N2 | 2.38 | 0.47 |
| 1:AA:674:G:H2' | 1:AA:675:A:H8 | 1.80 | 0.47 |
| 9:AI:5:GLN:HE22 | 9:AI:22:LYS:HD2 | 1.79 | 0.47 |
| 34:BM:50:ARG:O | 34:BM:54:THR:HG22 | 2.14 | 0.47 |
| 55:B8:23:C:H2' | 55:B8:24:G:H8 | 1.79 | 0.47 |
| 1:AA:1077:G:N2 | 1:AA:1080:A:OP2 | 2.43 | 0.47 |
| 3:AC:127:ARG:HH11 | 3:AC:127:ARG:CB | 2.26 | 0.47 |
| 22:BA:589:U:H2' | 22:BA:590:A:C8 | 2.49 | 0.47 |
| 1:AA:337:G:H2' | 1:AA:338:A:H8 | 1.80 | 0.47 |
| 22:BA:1322:A:H5' | 40:BS:11:ARG:HH21 | 1.80 | 0.47 |
| 22:BA:2071:A:H2' | 22:BA:2072:C:C6 | 2.50 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 22:BA:2311:A:N3 | 27:BF:85:ILE:HD11 | 2.30 | 0.47 |
| 22:BA:2788:C:H2' | 22:BA:2789:C:C6 | 2.50 | 0.47 |
| 29:BH:68:ARG:HH21 | 29:BH:134:VAL:HB | 1.79 | 0.47 |
| 34:BM:41:LEU:HG | 34:BM:96:ILE:HG13 | 1.95 | 0.47 |
| 22:BA:1047:G:O2' | 22:BA:1110:G:N1 | 2.41 | 0.47 |
| 22:BA:1799:G:OP1 | 24:BC:258:ARG:NH1 | 2.40 | 0.47 |
| 22:BA:2100:G:C2 | 22:BA:2101:A:H1' | 2.49 | 0.47 |
| 29:BH:122:LEU:HD12 | 29:BH:122:LEU:O | 2.15 | 0.47 |
| 1:AA:1218:C:H2' | 1:AA:1219:A:H8 | 1.79 | 0.47 |
| 1:AA:1315:U:O2 | 1:AA:1360:A:H2 | 1.97 | 0.47 |
| 2:AB:53:ALA:O | 2:AB:57:LEU:HD12 | 2.14 | 0.47 |
| 3:AC:110:GLU:HB2 | 3:AC:144:LEU:HD12 | 1.97 | 0.47 |
| 9:AI:7:TYR:CE1 | 9:AI:18:ARG:HB2 | 2.49 | 0.47 |
| 19:AS:29:LYS:H | 19:AS:29:LYS:HD2 | 1.79 | 0.47 |
| 22:BA:1059:G:H2' | 22:BA:1060:U:C5 | 2.49 | 0.47 |
| 22:BA:1720:U:H2' | 22:BA:1721:G:O4' | 2.14 | 0.47 |
| 22:BA:2455:G:H2' | 22:BA:2456:C:C6 | 2.49 | 0.47 |
| 27:BF:38:MET:CE | 27:BF:151:GLY:O | 2.62 | 0.47 |
| 35:BN:35:LYS:HG3 | 35:BN:112:TYR:CE1 | 2.50 | 0.47 |
| 50:B2:12:ARG:NH2 | 50:B2:44:VAL:HG21 | 2.30 | 0.47 |
| 1:AA:696:A:H2' | 1:AA:697:U:H6 | 1.80 | 0.47 |
| 1:AA:1279:G:P | 10:AJ:9:ARG:HH22 | 2.38 | 0.47 |
| 2:AB:212:LEU:HD12 | 2:AB:213:TYR:N | 2.30 | 0.47 |
| 4:AD:101:VAL:HG21 | 4:AD:137:VAL:HG21 | 1.96 | 0.47 |
| 13:AM:71:ARG:HG3 | 13:AM:71:ARG:NH1 | 2.29 | 0.47 |
| 15:AO:20:ASN:OD1 | 15:AO:21:ASP:N | 2.48 | 0.47 |
| 22:BA:588:U:H2' | 22:BA:589:U:C6 | 2.50 | 0.47 |
| 29:BH:50:ARG:HG3 | 29:BH:53:GLU:OE2 | 2.15 | 0.47 |
| 55:B8:23:C:H2' | 55:B8:24:G:C8 | 2.50 | 0.47 |
| 6:AF:72:ASP:OD1 | 6:AF:73:GLU:N | 2.47 | 0.47 |
| 7:AG:50:LEU:CD1 | 7:AG:121:ALA:HA | 2.43 | 0.47 |
| 22:BA:646:U:H5 | 22:BA:2368:C:H1' | 1.80 | 0.47 |
| 44:BW:40:GLN:HB2 | 44:BW:44:LYS:CD | 2.44 | 0.47 |
| 1:AA:1225:A:OP1 | 13:AM:102:THR:HG22 | 2.15 | 0.47 |
| 22:BA:1334:G:OP1 | 41:BT:69:ARG:NH2 | 2.48 | 0.47 |
| 22:BA:2514:U:H2' | 22:BA:2515:C:C6 | 2.50 | 0.47 |
| 25:BD:61:THR:HB | 25:BD:63:PRO:HD2 | 1.97 | 0.47 |
| 3:AC:155:GLY:O | 3:AC:196:ILE:HG12 | 2.14 | 0.46 |
| 16:AP:52:LEU:CD2 | 16:AP:75:ILE:HG12 | 2.46 | 0.46 |
| 22:BA:2278:A:OP1 | 34:BM:10:ARG:NH2 | 2.46 | 0.46 |
| 32:BK:63:VAL:HG12 | 32:BK:107:LEU:HD11 | 1.97 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AA:695:A:H2' | 1:AA:696:A:C8 | 2.51 | 0.46 |
| 2:AB:18:HIS:H | 2:AB:189:THR:HG22 | 1.79 | 0.46 |
| 20:AT:81:ALA:O | 20:AT:85:LYS:HD3 | 2.15 | 0.46 |
| 22:BA:64:A:H2' | 22:BA:65:U:C6 | 2.51 | 0.46 |
| 22:BA:1796:U:H2' | 22:BA:1797:G:C8 | 2.49 | 0.46 |
| 32:BK:105:ARG:HG2 | 32:BK:108:ARG:CD | 2.44 | 0.46 |
| 55:B8:51:A:H2' | 55:B8:52:G:C8 | 2.50 | 0.46 |
| 3:AC:159:GLY:HA2 | 3:AC:193:TYR:CD2 | 2.50 | 0.46 |
| 22:BA:141:G:N2 | 22:BA:142:A:C8 | 2.83 | 0.46 |
| 22:BA:1370:C:H2' | 22:BA:1371:G:O4' | 2.15 | 0.46 |
| 22:BA:2567:G:H2' | 22:BA:2568:U:C6 | 2.50 | 0.46 |
| 22:BA:2649:C:H2' | 22:BA:2650:U:C6 | 2.51 | 0.46 |
| 24:BC:148:PRO:HG2 | 24:BC:185:GLU:OE2 | 2.15 | 0.46 |
| 28:BG:24:ILE:CD1 | 28:BG:43:VAL:HG11 | 2.36 | 0.46 |
| 29:BH:81:ALA:HB1 | 29:BH:149:GLU:CG | 2.39 | 0.46 |
| 1:AA:1175:G:H2' | 1:AA:1176:A:H8 | 1.80 | 0.46 |
| 1:AA:1176:A:H2' | 1:AA:1177:G:C8 | 2.50 | 0.46 |
| 7:AG:60:GLU:O | 7:AG:64:VAL:HG22 | 2.15 | 0.46 |
| 13:AM:49:SER:HB3 | 13:AM:52:GLN:HG3 | 1.98 | 0.46 |
| 22:BA:280:U:H2' | 22:BA:281:C:C6 | 2.50 | 0.46 |
| 22:BA:2100:G:C6 | 22:BA:2101:A:C4 | 3.03 | 0.46 |
| 25:BD:105:LYS:HA | 25:BD:105:LYS:HD3 | 1.60 | 0.46 |
| 1:AA:1239:A:H62 | 1:AA:1299:A:H62 | 1.64 | 0.46 |
| 1:AA:1363:A:O2' | 1:AA:1365:G:N7 | 2.40 | 0.46 |
| 5:AE:86:LYS:HD3 | 5:AE:95:PHE:HB2 | 1.97 | 0.46 |
| 10:AJ:40:ILE:O | 10:AJ:72:ARG:HD3 | 2.15 | 0.46 |
| 10:AJ:40:ILE:CG2 | 10:AJ:73:LEU:HB3 | 2.43 | 0.46 |
| 22:BA:593:U:H2' | 22:BA:594:U:C6 | 2.50 | 0.46 |
| 22:BA:2255:G:O2' | 55:B8:3:G:OP2 | 2.25 | 0.46 |
| 7:AG:74:GLU:O | 7:AG:88:PRO:HA | 2.15 | 0.46 |
| 22:BA:363:G:H2' | 22:BA:364:C:C6 | 2.50 | 0.46 |
| 22:BA:2585:U:C2 | 53:B5:24:PRO:HG3 | 2.51 | 0.46 |
| 1:AA:751:U:H2' | 1:AA:752:G:O4' | 2.16 | 0.46 |
| 3:AC:121:THR:HB | 3:AC:189:ALA:HB2 | 1.97 | 0.46 |
| 12:AL:87:VAL:HG11 | 12:AL:90:LEU:HD12 | 1.98 | 0.46 |
| 22:BA:2130:U:O2' | 22:BA:2133:G:O2' | 2.29 | 0.46 |
| 22:BA:2591:C:H2' | 22:BA:2592:G:C8 | 2.50 | 0.46 |
| 22:BA:2740:A:H2' | 22:BA:2741:A:C8 | 2.51 | 0.46 |
| 31:BJ:49:ASP:OD1 | 31:BJ:121:LYS:NZ | 2.47 | 0.46 |
| 43:BV:6:ALA:HB2 | 43:BV:42:LEU:HD23 | 1.97 | 0.46 |
| 1:AA:89:U:H2' | 1:AA:90:C:C6 | 2.50 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|--------------------|--------------------------|-------------------|
| 1:AA:122:G:OP2 | 1:AA:122:G:H8 | 1.98 | 0.46 |
| 2:AB:108:ARG:HA | 2:AB:111:ILE:HG12 | 1.97 | 0.46 |
| 3:AC:39:VAL:O | 3:AC:43:LEU:HD13 | 2.15 | 0.46 |
| 14:AN:15:LEU:HD22 | 14:AN:54:ASP:HB2 | 1.97 | 0.46 |
| 15:AO:74:ASP:OD2 | 15:AO:77:ARG:NH1 | 2.48 | 0.46 |
| 22:BA:357:C:H2' | 22:BA:358:U:C6 | 2.50 | 0.46 |
| 22:BA:2099:U:H2' | 22:BA:2100:G:O5' | 2.16 | 0.46 |
| 29:BH:135:HIS:HB3 | 29:BH:138:VAL:HB | 1.97 | 0.46 |
| 1:AA:883:C:O2' | 1:AA:884:U:H5' | 2.16 | 0.46 |
| 4:AD:169:THR:HG23 | 4:AD:184:ARG:HH22 | 1.81 | 0.46 |
| 22:BA:828:U:H2' | 22:BA:829:A:C8 | 2.51 | 0.46 |
| 22:BA:1802:A:H2' | 22:BA:1803:A:C8 | 2.51 | 0.46 |
| 27:BF:10:ASP:OD1 | 27:BF:11:GLU:N | 2.49 | 0.46 |
| 31:BJ:7:LYS:O | 31:BJ:11:VAL:HG13 | 2.15 | 0.46 |
| 32:BK:40:LYS:HD3 | 32:BK:58:LEU:O | 2.16 | 0.46 |
| 34:BM:135:VAL:HG13 | 43:BV:57:TYR:CD2 | 2.51 | 0.46 |
| 1:AA:478:A:OP2 | 1:AA:479:U:H5'' | 2.16 | 0.46 |
| 5:AE:134:ILE:O | 5:AE:138:ARG:HG2 | 2.16 | 0.46 |
| 21:AU:25:LYS:HE3 | 21:AU:25:LYS:HB3 | 1.68 | 0.46 |
| 1:AA:719:C:O2 | 18:AR:39:ILE:HG22 | 2.16 | 0.45 |
| 1:AA:753:A:OP1 | 15:AO:69:TYR:OH | 2.34 | 0.45 |
| 4:AD:19:LEU:HD22 | 4:AD:64:ILE:HG13 | 1.97 | 0.45 |
| 7:AG:75:VAL:HG11 | 7:AG:86:GLN:HB3 | 1.98 | 0.45 |
| 22:BA:1484:U:H2' | 22:BA:1485:U:C6 | 2.51 | 0.45 |
| 39:BR:60:LYS:N | 39:BR:60:LYS:HD3 | 2.30 | 0.45 |
| 1:AA:908:A:H2' | 1:AA:909:A:C8 | 2.51 | 0.45 |
| 22:BA:396:G:OP2 | 45:BX:10:LYS:NZ | 2.46 | 0.45 |
| 22:BA:2251:OMG:HM23 | 22:BA:2251:OMG:H1' | 1.64 | 0.45 |
| 41:BT:53:VAL:CG1 | 41:BT:54:GLU:N | 2.79 | 0.45 |
| 49:B1:6:ARG:HG3 | 49:B1:24:THR:HB | 1.98 | 0.45 |
| 1:AA:501:C:H2' | 1:AA:502:A:C8 | 2.51 | 0.45 |
| 1:AA:954:G:H21 | 1:AA:1227:A:H62 | 1.63 | 0.45 |
| 1:AA:1122:U:H2' | 1:AA:1123:U:C6 | 2.51 | 0.45 |
| 1:AA:1435:G:H2' | 1:AA:1436:U:C6 | 2.51 | 0.45 |
| 23:BB:48:U:H2' | 23:BB:49:C:C6 | 2.51 | 0.45 |
| 44:BW:65:GLY:HA2 | 44:BW:85:GLU:HG3 | 1.99 | 0.45 |
| 1:AA:918:A:H2' | 1:AA:919:A:C8 | 2.52 | 0.45 |
| 4:AD:114:ALA:O | 4:AD:118:VAL:HG13 | 2.15 | 0.45 |
| 1:AA:413:G:H1' | 1:AA:428:G:N2 | 2.31 | 0.45 |
| 1:AA:426:U:OP1 | 4:AD:33:LYS:NZ | 2.49 | 0.45 |
| 1:AA:672:U:H2' | 1:AA:673:A:C8 | 2.51 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:AF:45:ARG:HD3 | 6:AF:59:TYR:HB2 | 1.98 | 0.45 |
| 15:AO:71:LYS:HE3 | 15:AO:71:LYS:HB3 | 1.77 | 0.45 |
| 44:BW:41:ARG:NH2 | 60:BW:101:HOH:O | 2.42 | 0.45 |
| 46:BY:19:LEU:HD12 | 46:BY:19:LEU:HA | 1.77 | 0.45 |
| 55:B8:25:C:H2' | 55:B8:26:A:O4' | 2.17 | 0.45 |
| 1:AA:426:U:H2' | 1:AA:427:U:C6 | 2.52 | 0.45 |
| 1:AA:1040:U:H2' | 1:AA:1041:G:C8 | 2.49 | 0.45 |
| 4:AD:166:GLU:N | 4:AD:166:GLU:OE1 | 2.49 | 0.45 |
| 8:AH:22:LYS:HB2 | 8:AH:22:LYS:HE2 | 1.63 | 0.45 |
| 10:AJ:59:LYS:NZ | 10:AJ:62:ARG:HH22 | 2.14 | 0.45 |
| 22:BA:730:A:H5' | 60:BA:3766:HOH:O | 2.16 | 0.45 |
| 22:BA:1357:C:H2' | 22:BA:1358:G:O4' | 2.16 | 0.45 |
| 22:BA:1808:A:H3' | 22:BA:1809:A:C8 | 2.52 | 0.45 |
| 22:BA:1923:U:H2' | 22:BA:1924:C:C6 | 2.52 | 0.45 |
| 22:BA:2223:G:O3' | 24:BC:265:LYS:HE3 | 2.16 | 0.45 |
| 25:BD:108:ASP:OD1 | 25:BD:173:GLN:HA | 2.16 | 0.45 |
| 37:BP:6:LYS:HD3 | 37:BP:6:LYS:HA | 1.66 | 0.45 |
| 55:B8:63:U:H2' | 55:B8:64:C:C6 | 2.52 | 0.45 |
| 1:AA:1120:C:H2' | 1:AA:1121:U:H6 | 1.81 | 0.45 |
| 4:AD:118:VAL:O | 4:AD:131:ASN:HA | 2.17 | 0.45 |
| 22:BA:369:U:O2' | 60:BA:3415:HOH:O | 2.20 | 0.45 |
| 22:BA:927:A:H2' | 22:BA:928:A:C8 | 2.51 | 0.45 |
| 22:BA:2100:G:O6 | 22:BA:2189:U:C4 | 2.70 | 0.45 |
| 2:AB:5:SER:O | 2:AB:9:MET:HG3 | 2.17 | 0.45 |
| 2:AB:45:LYS:O | 2:AB:48:PRO:HD2 | 2.17 | 0.45 |
| 7:AG:130:ASN:O | 7:AG:130:ASN:ND2 | 2.48 | 0.45 |
| 19:AS:11:ILE:HG13 | 19:AS:38:SER:HB2 | 1.98 | 0.45 |
| 22:BA:359:G:C5 | 22:BA:360:U:C5 | 3.05 | 0.45 |
| 30:BI:14:ALA:HA | 30:BI:32:LEU:O | 2.17 | 0.45 |
| 44:BW:41:ARG:NE | 60:BW:101:HOH:O | 2.41 | 0.45 |
| 7:AG:49:THR:O | 7:AG:53:ARG:HB2 | 2.16 | 0.45 |
| 22:BA:438:G:H2' | 22:BA:439:A:C8 | 2.52 | 0.45 |
| 40:BS:73:LYS:HB2 | 40:BS:106:VAL:HB | 1.98 | 0.45 |
| 1:AA:719:C:H2' | 18:AR:39:ILE:HG23 | 1.98 | 0.45 |
| 8:AH:112:THR:HG22 | 8:AH:114:ARG:H | 1.82 | 0.45 |
| 22:BA:1746:A:H2' | 22:BA:1747:U:C6 | 2.52 | 0.45 |
| 22:BA:2662:A:O5' | 22:BA:2662:A:H8 | 2.00 | 0.45 |
| 31:BJ:31:GLU:OE1 | 31:BJ:34:ARG:HD3 | 2.17 | 0.45 |
| 1:AA:715:A:H2' | 1:AA:716:A:C8 | 2.53 | 0.44 |
| 1:AA:1358:U:OP1 | 14:AN:75:ARG:HB2 | 2.16 | 0.44 |
| 22:BA:191:A:H2' | 22:BA:192:C:H6 | 1.82 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|-------------------|--------------------------|-------------------|
| 22:BA:1428:C:C5 | 22:BA:1569:A:H5'' | 2.52 | 0.44 |
| 22:BA:1794:A:H2' | 22:BA:1795:C:C6 | 2.52 | 0.44 |
| 35:BN:57:THR:HG23 | 35:BN:62:ASN:ND2 | 2.32 | 0.44 |
| 41:BT:7:LEU:HD22 | 41:BT:46:ALA:HB2 | 1.99 | 0.44 |
| 1:AA:900:A:H2' | 1:AA:901:A:C8 | 2.52 | 0.44 |
| 5:AE:105:ILE:HB | 5:AE:112:ARG:HH12 | 1.82 | 0.44 |
| 8:AH:106:THR:CG2 | 8:AH:107:SER:N | 2.80 | 0.44 |
| 21:AU:13:ASP:OD2 | 21:AU:17:ARG:NH2 | 2.51 | 0.44 |
| 22:BA:581:C:H2' | 22:BA:582:A:C8 | 2.52 | 0.44 |
| 22:BA:1102:C:C2 | 22:BA:1103:A:C8 | 3.05 | 0.44 |
| 22:BA:1432:G:H2' | 22:BA:1433:A:C8 | 2.52 | 0.44 |
| 22:BA:1819:A:H3' | 24:BC:177:ARG:HG2 | 1.99 | 0.44 |
| 29:BH:41:LYS:HG3 | 29:BH:41:LYS:O | 2.17 | 0.44 |
| 2:AB:23:TRP:CZ3 | 2:AB:25:PRO:HA | 2.51 | 0.44 |
| 2:AB:32:PHE:HD2 | 2:AB:42:ASN:ND2 | 2.16 | 0.44 |
| 16:AP:76:LYS:O | 16:AP:80:LYS:HD3 | 2.18 | 0.44 |
| 22:BA:363:G:H2' | 22:BA:364:C:H6 | 1.83 | 0.44 |
| 22:BA:813:U:H2' | 22:BA:814:C:C6 | 2.52 | 0.44 |
| 22:BA:1069:A:H4' | 22:BA:1070:A:H5'' | 2.00 | 0.44 |
| 43:BV:55:GLU:O | 43:BV:59:GLU:HG2 | 2.17 | 0.44 |
| 1:AA:31:G:O2' | 1:AA:48:C:N4 | 2.49 | 0.44 |
| 1:AA:662:U:H2' | 1:AA:663:A:C8 | 2.51 | 0.44 |
| 1:AA:1404:C:H2' | 1:AA:1405:G:C8 | 2.52 | 0.44 |
| 6:AF:102:MET:HE1 | 18:AR:24:LYS:HB3 | 2.00 | 0.44 |
| 13:AM:29:ARG:O | 13:AM:33:ILE:HG12 | 2.17 | 0.44 |
| 15:AO:73:LYS:HA | 15:AO:73:LYS:HD2 | 1.80 | 0.44 |
| 19:AS:32:ARG:HG2 | 19:AS:57:HIS:CE1 | 2.51 | 0.44 |
| 22:BA:1548:A:H2' | 22:BA:1549:A:C8 | 2.52 | 0.44 |
| 24:BC:120:VAL:HG22 | 29:BH:91:PHE:HB3 | 1.99 | 0.44 |
| 1:AA:320:A:H2' | 1:AA:321:A:O4' | 2.18 | 0.44 |
| 1:AA:363:A:OP2 | 12:AL:31:ARG:NE | 2.50 | 0.44 |
| 1:AA:1342:C:H4' | 9:AI:127:PHE:O | 2.17 | 0.44 |
| 13:AM:19:LEU:CD1 | 13:AM:34:LEU:HD11 | 2.48 | 0.44 |
| 14:AN:83:LYS:HD2 | 14:AN:83:LYS:HA | 1.66 | 0.44 |
| 36:BO:40:ILE:HD13 | 36:BO:47:VAL:HG22 | 2.00 | 0.44 |
| 1:AA:1456:A:H2' | 1:AA:1457:G:O4' | 2.17 | 0.44 |
| 2:AB:118:GLU:O | 2:AB:121:SER:OG | 2.24 | 0.44 |
| 8:AH:50:LYS:HE3 | 8:AH:60:GLU:HB3 | 2.00 | 0.44 |
| 9:AI:22:LYS:HE2 | 9:AI:62:ASP:OD1 | 2.18 | 0.44 |
| 10:AJ:6:ILE:HD12 | 10:AJ:102:LEU:HA | 1.99 | 0.44 |
| 13:AM:49:SER:O | 13:AM:53:ILE:HG13 | 2.17 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 22:BA:720:U:H2' | 22:BA:721:A:C8 | 2.53 | 0.44 |
| 22:BA:1028:A:N6 | 22:BA:1125:G:H2' | 2.32 | 0.44 |
| 22:BA:1292:G:H2' | 22:BA:1293:C:C6 | 2.52 | 0.44 |
| 32:BK:70:ARG:HD3 | 32:BK:76:VAL:HG22 | 1.99 | 0.44 |
| 34:BM:74:THR:O | 34:BM:75:GLU:HG2 | 2.18 | 0.44 |
| 40:BS:70:LYS:HB2 | 40:BS:70:LYS:NZ | 2.33 | 0.44 |
| 1:AA:1140:C:HO2' | 1:AA:1141:C:H6 | 1.65 | 0.44 |
| 2:AB:145:GLU:HG2 | 2:AB:149:GLY:HA3 | 1.98 | 0.44 |
| 3:AC:131:ARG:NH2 | 3:AC:166:GLU:OE2 | 2.50 | 0.44 |
| 9:AI:6:TYR:HB2 | 9:AI:21:ILE:HG13 | 1.99 | 0.44 |
| 22:BA:2074:U:H2' | 22:BA:2075:U:C6 | 2.52 | 0.44 |
| 29:BH:75:LEU:HD23 | 29:BH:106:ALA:HB1 | 1.98 | 0.44 |
| 1:AA:335:C:H2' | 1:AA:336:A:C8 | 2.53 | 0.44 |
| 1:AA:384:G:H2' | 1:AA:385:C:H6 | 1.82 | 0.44 |
| 2:AB:177:ASN:HD21 | 2:AB:195:GLY:CA | 2.30 | 0.44 |
| 2:AB:210:VAL:O | 2:AB:214:LEU:HD12 | 2.18 | 0.44 |
| 22:BA:1141:U:H4' | 22:BA:1142:A:O4' | 2.17 | 0.44 |
| 32:BK:105:ARG:HG2 | 32:BK:108:ARG:NE | 2.33 | 0.44 |
| 1:AA:91:U:H2' | 1:AA:92:U:O4' | 2.17 | 0.44 |
| 1:AA:456:A:H2' | 1:AA:457:G:C8 | 2.53 | 0.44 |
| 11:AK:84:VAL:HG11 | 11:AK:97:ILE:CD1 | 2.48 | 0.44 |
| 20:AT:43:ASP:OD2 | 20:AT:46:ALA:HB3 | 2.17 | 0.44 |
| 22:BA:358:U:H2' | 22:BA:359:G:C8 | 2.53 | 0.44 |
| 26:BE:22:ASP:OD1 | 26:BE:23:PHE:N | 2.51 | 0.44 |
| 2:AB:82:ASP:O | 2:AB:86:SER:HB3 | 2.18 | 0.43 |
| 3:AC:79:LYS:O | 3:AC:80:LYS:HB3 | 2.18 | 0.43 |
| 5:AE:39:VAL:HG13 | 5:AE:71:MET:CE | 2.48 | 0.43 |
| 10:AJ:84:VAL:HG13 | 10:AJ:85:ASP:N | 2.32 | 0.43 |
| 16:AP:23:ASP:HB3 | 16:AP:26:ASN:OD1 | 2.17 | 0.43 |
| 20:AT:28:MET:HE1 | 20:AT:66:LEU:HD22 | 1.98 | 0.43 |
| 20:AT:69:LYS:HB2 | 20:AT:69:LYS:HE2 | 1.73 | 0.43 |
| 22:BA:1703:G:H2' | 22:BA:1704:C:C6 | 2.52 | 0.43 |
| 22:BA:2557:G:H2' | 22:BA:2558:C:C6 | 2.53 | 0.43 |
| 22:BA:2801:G:H2' | 22:BA:2802:G:H8 | 1.82 | 0.43 |
| 25:BD:7:LYS:HD3 | 25:BD:198:GLY:HA2 | 1.99 | 0.43 |
| 39:BR:58:VAL:HG12 | 39:BR:60:LYS:HD3 | 2.00 | 0.43 |
| 1:AA:78:A:C6 | 1:AA:79:G:C6 | 3.06 | 0.43 |
| 1:AA:85:U:H4' | 1:AA:86:G:H4' | 1.99 | 0.43 |
| 1:AA:335:C:H2' | 1:AA:336:A:H8 | 1.83 | 0.43 |
| 1:AA:684:U:C1' | 11:AK:40:ASN:HD22 | 2.31 | 0.43 |
| 1:AA:981:U:O2' | 14:AN:61:ARG:HD3 | 2.19 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|--------------------|--------------------------|-------------------|
| 2:AB:102:THR:HG23 | 2:AB:175:GLU:CG | 2.49 | 0.43 |
| 22:BA:1405:U:H2' | 22:BA:1406:U:C6 | 2.53 | 0.43 |
| 22:BA:2899:A:H2' | 22:BA:2900:A:C8 | 2.53 | 0.43 |
| 27:BF:30:ARG:H | 27:BF:159:THR:HB | 1.82 | 0.43 |
| 28:BG:42:GLU:CB | 28:BG:55:ARG:HH21 | 2.29 | 0.43 |
| 45:BX:51:VAL:HG22 | 45:BX:52:SER:O | 2.18 | 0.43 |
| 46:BY:49:ASP:OD1 | 46:BY:52:ARG:NH1 | 2.52 | 0.43 |
| 50:B2:12:ARG:CZ | 50:B2:44:VAL:HG21 | 2.47 | 0.43 |
| 1:AA:4:U:O2' | 1:AA:6:G:OP1 | 2.36 | 0.43 |
| 1:AA:555:U:H2' | 1:AA:556:C:C6 | 2.53 | 0.43 |
| 2:AB:204:ASP:C | 2:AB:205:ASP:CG | 2.77 | 0.43 |
| 7:AG:4:ARG:HH11 | 7:AG:4:ARG:CG | 2.31 | 0.43 |
| 22:BA:880:G:H2' | 22:BA:881:G:C8 | 2.52 | 0.43 |
| 22:BA:2467:C:H2' | 22:BA:2468:A:O4' | 2.18 | 0.43 |
| 1:AA:323:U:H2' | 1:AA:324:G:O4' | 2.18 | 0.43 |
| 22:BA:1889:A:H2' | 22:BA:1890:A:C8 | 2.54 | 0.43 |
| 35:BN:53:THR:HA | 35:BN:56:LYS:HD3 | 2.01 | 0.43 |
| 8:AH:75:ILE:HD12 | 8:AH:129:VAL:HG22 | 2.01 | 0.43 |
| 9:AI:31:ASN:O | 9:AI:33:ARG:HD2 | 2.18 | 0.43 |
| 14:AN:11:LYS:HB3 | 14:AN:11:LYS:HE3 | 1.78 | 0.43 |
| 19:AS:17:LYS:O | 19:AS:20:GLU:HG3 | 2.18 | 0.43 |
| 22:BA:127:A:H5'' | 22:BA:128:C:O4' | 2.18 | 0.43 |
| 22:BA:632:A:H2' | 22:BA:633:A:C8 | 2.54 | 0.43 |
| 22:BA:1271:G:N7 | 22:BA:1325:U:H5 | 2.16 | 0.43 |
| 22:BA:1486:U:H2' | 22:BA:1487:U:C6 | 2.54 | 0.43 |
| 22:BA:2099:U:C2' | 22:BA:2100:G:O5' | 2.66 | 0.43 |
| 22:BA:2134:A:H8 | 22:BA:2157:G:H21 | 1.66 | 0.43 |
| 25:BD:16:THR:HG22 | 25:BD:18:ASP:N | 2.29 | 0.43 |
| 27:BF:38:MET:SD | 27:BF:150:ARG:HD3 | 2.58 | 0.43 |
| 52:B4:25:VAL:HB | 52:B4:35:GLN:HB2 | 2.01 | 0.43 |
| 7:AG:111:ARG:NH1 | 7:AG:123:GLU:N | 2.66 | 0.43 |
| 22:BA:1484:U:H2' | 22:BA:1485:U:H6 | 1.84 | 0.43 |
| 22:BA:1819:A:H5'' | 24:BC:160:THR:HG21 | 2.01 | 0.43 |
| 22:BA:2133:G:H2' | 22:BA:2157:G:H22 | 1.83 | 0.43 |
| 22:BA:2316:G:H2' | 22:BA:2317:A:C8 | 2.52 | 0.43 |
| 29:BH:15:LEU:H | 29:BH:15:LEU:CD2 | 2.29 | 0.43 |
| 33:BL:19:LEU:HD22 | 33:BL:27:LEU:HD22 | 2.00 | 0.43 |
| 36:BO:88:LYS:HG2 | 36:BO:116:GLN:HG2 | 2.00 | 0.43 |
| 1:AA:974:A:OP1 | 14:AN:69:ARG:NH2 | 2.48 | 0.43 |
| 1:AA:1001:C:H2' | 1:AA:1002:G:H8 | 1.84 | 0.43 |
| 22:BA:1079:C:H2' | 22:BA:1080:A:C8 | 2.53 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|--------------------|--------------------------|-------------------|
| 22:BA:1526:C:H2' | 22:BA:1527:G:O4' | 2.18 | 0.43 |
| 22:BA:2030:6MZ:C2 | 22:BA:2499:C:H5'' | 2.49 | 0.43 |
| 22:BA:2285:C:P | 49:B1:6:ARG:HH21 | 2.42 | 0.43 |
| 32:BK:105:ARG:HG2 | 32:BK:108:ARG:HE | 1.84 | 0.43 |
| 33:BL:29:LYS:O | 33:BL:29:LYS:HG2 | 2.19 | 0.43 |
| 1:AA:976:G:OP2 | 1:AA:1358:U:O2' | 2.37 | 0.43 |
| 1:AA:1148:U:H2' | 1:AA:1149:C:O4' | 2.19 | 0.43 |
| 1:AA:1226:C:H6 | 13:AM:102:THR:HG23 | 1.83 | 0.43 |
| 7:AG:76:LYS:HD3 | 7:AG:89:VAL:HG11 | 2.01 | 0.43 |
| 8:AH:96:MET:HG3 | 8:AH:99:LEU:HB2 | 2.01 | 0.43 |
| 9:AI:107:ASP:OD1 | 9:AI:109:ARG:HG3 | 2.19 | 0.43 |
| 22:BA:2455:G:H2' | 22:BA:2456:C:H6 | 1.84 | 0.43 |
| 22:BA:2801:G:H2' | 22:BA:2802:G:C8 | 2.54 | 0.43 |
| 44:BW:72:LYS:HE2 | 44:BW:72:LYS:HB2 | 1.88 | 0.43 |
| 1:AA:269:C:H2' | 1:AA:270:A:H8 | 1.81 | 0.43 |
| 1:AA:383:A:O5' | 1:AA:383:A:H8 | 2.02 | 0.43 |
| 3:AC:155:GLY:HA2 | 3:AC:163:ALA:HB1 | 2.01 | 0.43 |
| 4:AD:83:LYS:HD3 | 4:AD:83:LYS:N | 2.34 | 0.43 |
| 12:AL:49:LEU:HD23 | 12:AL:49:LEU:HA | 1.88 | 0.43 |
| 19:AS:19:VAL:O | 19:AS:23:VAL:HG13 | 2.19 | 0.43 |
| 19:AS:36:ARG:HD2 | 19:AS:52:HIS:O | 2.18 | 0.43 |
| 22:BA:881:G:H2' | 22:BA:882:G:H8 | 1.84 | 0.43 |
| 22:BA:2100:G:C6 | 22:BA:2190:G:C2 | 3.07 | 0.43 |
| 31:BJ:95:ARG:HD2 | 31:BJ:96:ARG:HH11 | 1.83 | 0.43 |
| 34:BM:74:THR:HG21 | 34:BM:86:LYS:HE3 | 2.01 | 0.43 |
| 1:AA:110:C:O2' | 16:AP:25:ARG:O | 2.36 | 0.43 |
| 1:AA:860:A:H2' | 1:AA:861:G:O4' | 2.19 | 0.43 |
| 16:AP:42:ILE:H | 16:AP:42:ILE:HG13 | 1.70 | 0.43 |
| 22:BA:1301:A:O2' | 22:BA:1302:A:H3' | 2.19 | 0.43 |
| 22:BA:1666:G:OP1 | 32:BK:66:LYS:HE3 | 2.19 | 0.43 |
| 28:BG:54:PRO:HG3 | 28:BG:62:TRP:CE2 | 2.54 | 0.43 |
| 37:BP:34:GLU:OE2 | 37:BP:39:ARG:NH2 | 2.50 | 0.43 |
| 1:AA:78:A:H2' | 1:AA:79:G:C8 | 2.53 | 0.42 |
| 1:AA:554:A:H2' | 1:AA:555:U:C6 | 2.54 | 0.42 |
| 1:AA:657:U:H4' | 15:AO:28:GLN:HG2 | 2.01 | 0.42 |
| 1:AA:875:U:O2' | 8:AH:15:ARG:NH1 | 2.50 | 0.42 |
| 1:AA:1119:C:H2' | 1:AA:1120:C:H6 | 1.83 | 0.42 |
| 1:AA:1391:U:H2' | 1:AA:1392:G:C8 | 2.53 | 0.42 |
| 2:AB:133:GLU:HB3 | 2:AB:137:ARG:CD | 2.47 | 0.42 |
| 8:AH:111:MET:HG3 | 8:AH:112:THR:O | 2.18 | 0.42 |
| 22:BA:993:G:OP2 | 38:BQ:51:ARG:NH2 | 2.53 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 22:BA:2343:U:HO2' | 22:BA:2373:G:HO2' | 1.52 | 0.42 |
| 27:BF:112:ARG:HB3 | 27:BF:112:ARG:NH1 | 2.34 | 0.42 |
| 44:BW:41:ARG:HD3 | 44:BW:41:ARG:HA | 1.82 | 0.42 |
| 1:AA:273:U:H1' | 17:AQ:18:GLU:OE2 | 2.19 | 0.42 |
| 1:AA:559:A:H4' | 1:AA:560:A:H3' | 2.00 | 0.42 |
| 2:AB:101:LEU:HB3 | 2:AB:179:LEU:HD12 | 2.01 | 0.42 |
| 3:AC:156:ARG:HE | 3:AC:193:TYR:HB3 | 1.84 | 0.42 |
| 5:AE:82:GLN:HB2 | 5:AE:83:HIS:CD2 | 2.52 | 0.42 |
| 9:AI:95:ARG:O | 9:AI:99:ARG:HG2 | 2.19 | 0.42 |
| 22:BA:2150:C:H2' | 22:BA:2151:U:O4' | 2.19 | 0.42 |
| 22:BA:2799:A:O2' | 22:BA:2800:A:H5'' | 2.20 | 0.42 |
| 24:BC:71:LYS:HG2 | 24:BC:74:ILE:HD12 | 2.01 | 0.42 |
| 28:BG:173:GLU:OE2 | 28:BG:176:LYS:HE2 | 2.19 | 0.42 |
| 1:AA:909:A:H5'' | 12:AL:18:LYS:HZ2 | 1.84 | 0.42 |
| 1:AA:1071:C:H2' | 1:AA:1072:G:H8 | 1.84 | 0.42 |
| 1:AA:1095:U:H2' | 1:AA:1096:C:C6 | 2.54 | 0.42 |
| 2:AB:24:ASN:ND2 | 2:AB:192:ASP:HB3 | 2.33 | 0.42 |
| 2:AB:139:ARG:HD2 | 2:AB:139:ARG:HA | 1.90 | 0.42 |
| 2:AB:151:ILE:HG13 | 2:AB:154:MET:CE | 2.49 | 0.42 |
| 22:BA:477:A:H2' | 22:BA:478:A:C8 | 2.53 | 0.42 |
| 22:BA:720:U:H2' | 22:BA:721:A:H8 | 1.84 | 0.42 |
| 22:BA:1198:U:H2' | 22:BA:1199:U:C6 | 2.55 | 0.42 |
| 22:BA:2175:C:H2' | 22:BA:2176:A:C8 | 2.54 | 0.42 |
| 22:BA:2504:PSU:N1 | 60:BA:3459:HOH:O | 2.37 | 0.42 |
| 29:BH:23:ALA:O | 29:BH:27:ARG:HD2 | 2.19 | 0.42 |
| 44:BW:25:ARG:HH11 | 44:BW:31:VAL:HG12 | 1.85 | 0.42 |
| 55:B8:37:1MG:H2' | 55:B8:38:A:H8 | 1.84 | 0.42 |
| 1:AA:1022:A:H2' | 1:AA:1023:U:O4' | 2.20 | 0.42 |
| 1:AA:1478:U:H2' | 1:AA:1479:C:C6 | 2.54 | 0.42 |
| 2:AB:101:LEU:N | 2:AB:175:GLU:OE2 | 2.48 | 0.42 |
| 2:AB:135:LEU:HD22 | 2:AB:136:MET:SD | 2.59 | 0.42 |
| 12:AL:114:ARG:HB2 | 12:AL:119:VAL:HB | 2.00 | 0.42 |
| 15:AO:8:THR:HG23 | 15:AO:31:LEU:HD21 | 2.01 | 0.42 |
| 22:BA:1637:A:H5' | 22:BA:1760:C:O2' | 2.19 | 0.42 |
| 55:B8:20:U:H6 | 55:B8:20:U:H2' | 1.63 | 0.42 |
| 1:AA:89:U:H2' | 1:AA:90:C:H6 | 1.85 | 0.42 |
| 1:AA:160:A:H2' | 1:AA:161:A:O4' | 2.19 | 0.42 |
| 1:AA:975:A:H8 | 1:AA:1357:A:HO2' | 1.66 | 0.42 |
| 1:AA:1038:C:H2' | 1:AA:1039:G:C8 | 2.52 | 0.42 |
| 1:AA:1118:U:H2' | 1:AA:1119:C:H6 | 1.84 | 0.42 |
| 5:AE:86:LYS:HD2 | 5:AE:94:VAL:O | 2.19 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|--------------------|--------------------------|-------------------|
| 15:AO:70:LEU:HD12 | 15:AO:70:LEU:O | 2.19 | 0.42 |
| 22:BA:568:U:OP1 | 33:BL:36:LYS:HE2 | 2.19 | 0.42 |
| 4:AD:161:LEU:HD23 | 4:AD:161:LEU:HA | 1.88 | 0.42 |
| 15:AO:36:ILE:HG13 | 15:AO:59:MET:CE | 2.49 | 0.42 |
| 15:AO:36:ILE:HG13 | 15:AO:59:MET:HE2 | 2.00 | 0.42 |
| 22:BA:483:A:OP1 | 42:BU:47:LYS:HE2 | 2.19 | 0.42 |
| 22:BA:687:C:H1' | 50:B2:4:THR:HG22 | 2.01 | 0.42 |
| 22:BA:848:C:H2' | 22:BA:849:A:H8 | 1.84 | 0.42 |
| 28:BG:149:ARG:HA | 28:BG:162:VAL:HG13 | 2.00 | 0.42 |
| 32:BK:106:GLU:OE1 | 32:BK:106:GLU:N | 2.52 | 0.42 |
| 1:AA:426:U:P | 4:AD:33:LYS:HZ1 | 2.41 | 0.42 |
| 1:AA:1013:G:N2 | 1:AA:1016:A:OP2 | 2.49 | 0.42 |
| 13:AM:39:ILE:HG22 | 13:AM:40:ALA:O | 2.20 | 0.42 |
| 22:BA:1545:A:H2' | 22:BA:1546:G:O4' | 2.20 | 0.42 |
| 29:BH:87:GLU:OE1 | 29:BH:89:LYS:HB3 | 2.20 | 0.42 |
| 39:BR:58:VAL:HG12 | 39:BR:60:LYS:CD | 2.50 | 0.42 |
| 48:B0:43:ILE:HG22 | 48:B0:49:TYR:HB2 | 2.00 | 0.42 |
| 1:AA:736:C:H2' | 1:AA:737:C:C6 | 2.54 | 0.42 |
| 2:AB:179:LEU:HD23 | 2:AB:179:LEU:HA | 1.90 | 0.42 |
| 5:AE:105:ILE:O | 5:AE:112:ARG:NH1 | 2.44 | 0.42 |
| 22:BA:1182:G:H2' | 22:BA:1183:U:O4' | 2.19 | 0.42 |
| 22:BA:1438:U:H2' | 22:BA:1439:A:H8 | 1.85 | 0.42 |
| 27:BF:126:GLY:O | 27:BF:158:THR:OG1 | 2.30 | 0.42 |
| 29:BH:15:LEU:HD21 | 29:BH:58:LEU:HD22 | 2.02 | 0.42 |
| 34:BM:75:GLU:HG3 | 34:BM:90:GLU:CG | 2.50 | 0.42 |
| 2:AB:108:ARG:O | 2:AB:111:ILE:HG12 | 2.20 | 0.42 |
| 2:AB:132:LYS:HB2 | 2:AB:133:GLU:HG2 | 2.01 | 0.42 |
| 4:AD:56:ARG:HH21 | 4:AD:59:GLN:HG3 | 1.83 | 0.42 |
| 13:AM:74:SER:O | 13:AM:78:LYS:HG3 | 2.20 | 0.42 |
| 22:BA:367:G:H2' | 22:BA:368:A:C8 | 2.55 | 0.42 |
| 22:BA:1039:A:H2 | 22:BA:1116:G:H22 | 1.68 | 0.42 |
| 22:BA:1585:C:H2' | 22:BA:1586:A:O4' | 2.19 | 0.42 |
| 22:BA:2687:U:H2' | 22:BA:2688:G:O4' | 2.20 | 0.42 |
| 30:BI:8:LYS:HA | 30:BI:8:LYS:HD2 | 1.83 | 0.42 |
| 1:AA:190:A:O5' | 1:AA:190:A:H8 | 2.03 | 0.42 |
| 1:AA:1397:C:P | 5:AE:29:ARG:HH22 | 2.43 | 0.42 |
| 1:AA:1477:U:H2' | 1:AA:1478:U:C6 | 2.55 | 0.42 |
| 2:AB:117:LEU:CD1 | 2:AB:141:LEU:HG | 2.50 | 0.42 |
| 9:AI:44:ALA:O | 9:AI:48:VAL:HG23 | 2.19 | 0.42 |
| 19:AS:33:THR:HG23 | 19:AS:51:VAL:HA | 2.01 | 0.42 |
| 22:BA:657:U:H2' | 22:BA:658:U:C6 | 2.55 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 22:BA:1797:G:O2' | 24:BC:257:THR:OG1 | 2.20 | 0.42 |
| 22:BA:2547:A:H2' | 22:BA:2548:U:C6 | 2.54 | 0.42 |
| 26:BE:192:ALA:O | 26:BE:196:VAL:HG13 | 2.20 | 0.42 |
| 1:AA:1027:C:H2' | 1:AA:1028:C:C6 | 2.55 | 0.41 |
| 5:AE:83:HIS:HE1 | 5:AE:85:VAL:HG12 | 1.82 | 0.41 |
| 6:AF:102:MET:CE | 18:AR:24:LYS:HB3 | 2.50 | 0.41 |
| 9:AI:44:ALA:O | 9:AI:47:VAL:HG22 | 2.19 | 0.41 |
| 22:BA:1680:U:H2' | 22:BA:1681:G:O4' | 2.20 | 0.41 |
| 22:BA:1872:A:H2' | 22:BA:1873:G:O4' | 2.20 | 0.41 |
| 24:BC:181:MET:HB2 | 24:BC:268:VAL:HB | 2.02 | 0.41 |
| 29:BH:108:VAL:HG13 | 29:BH:109:GLU:N | 2.33 | 0.41 |
| 31:BJ:35:ARG:HB2 | 31:BJ:54:ILE:HD11 | 2.02 | 0.41 |
| 35:BN:49:GLU:O | 35:BN:53:THR:HG23 | 2.20 | 0.41 |
| 49:B1:11:LEU:HB3 | 49:B1:49:TYR:HB3 | 2.01 | 0.41 |
| 1:AA:462:G:H2' | 1:AA:463:U:C6 | 2.55 | 0.41 |
| 1:AA:1279:G:P | 10:AJ:9:ARG:NH2 | 2.93 | 0.41 |
| 1:AA:1507:A:H2' | 1:AA:1508:A:C8 | 2.55 | 0.41 |
| 2:AB:18:HIS:CD2 | 2:AB:188:ASP:CG | 2.94 | 0.41 |
| 3:AC:72:ARG:HD3 | 3:AC:72:ARG:HA | 1.91 | 0.41 |
| 4:AD:104:ARG:HG2 | 4:AD:104:ARG:NH1 | 2.35 | 0.41 |
| 22:BA:746:PSU:H2' | 60:BA:4751:HOH:O | 2.19 | 0.41 |
| 22:BA:2243:U:H2' | 22:BA:2244:U:C6 | 2.55 | 0.41 |
| 22:BA:2484:G:OP1 | 34:BM:44:ARG:NH1 | 2.46 | 0.41 |
| 26:BE:23:PHE:HA | 26:BE:107:SER:OG | 2.20 | 0.41 |
| 27:BF:110:ARG:HE | 27:BF:110:ARG:HB3 | 1.65 | 0.41 |
| 28:BG:141:ILE:HD12 | 28:BG:141:ILE:HA | 1.93 | 0.41 |
| 43:BV:63:ILE:HG22 | 43:BV:65:VAL:HG23 | 2.02 | 0.41 |
| 1:AA:467:U:H3' | 1:AA:468:A:C5' | 2.51 | 0.41 |
| 1:AA:1530:G:H2' | 1:AA:1531:A:H8 | 1.85 | 0.41 |
| 9:AI:54:LEU:HD13 | 9:AI:97:GLU:OE2 | 2.20 | 0.41 |
| 14:AN:15:LEU:HD23 | 14:AN:55:SER:HB3 | 2.02 | 0.41 |
| 22:BA:282:A:H2' | 22:BA:283:G:C8 | 2.56 | 0.41 |
| 22:BA:1645:G:H5'' | 22:BA:1646:C:H5' | 2.03 | 0.41 |
| 22:BA:1820:U:OP1 | 24:BC:177:ARG:NE | 2.53 | 0.41 |
| 27:BF:103:LEU:HA | 27:BF:107:ALA:HB3 | 2.02 | 0.41 |
| 36:BO:49:VAL:HG21 | 36:BO:81:ARG:HB2 | 2.02 | 0.41 |
| 40:BS:68:ASP:OD1 | 40:BS:68:ASP:N | 2.52 | 0.41 |
| 1:AA:162:A:O5' | 1:AA:162:A:H8 | 2.02 | 0.41 |
| 1:AA:514:C:C2 | 1:AA:515:G:C8 | 3.08 | 0.41 |
| 2:AB:8:ASP:OD1 | 2:AB:9:MET:HG3 | 2.20 | 0.41 |
| 10:AJ:41:PRO:HA | 10:AJ:72:ARG:HD3 | 2.03 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|--------------------|--------------------------|-------------------|
| 23:BB:43:C:O2 | 27:BF:92:ARG:NH1 | 2.47 | 0.41 |
| 26:BE:153:LEU:HD21 | 26:BE:158:PHE:HB2 | 2.01 | 0.41 |
| 29:BH:132:PHE:CD1 | 29:BH:132:PHE:N | 2.89 | 0.41 |
| 55:B8:71:C:H2' | 55:B8:72:G:H8 | 1.83 | 0.41 |
| 1:AA:161:A:H2' | 1:AA:162:A:C8 | 2.55 | 0.41 |
| 1:AA:722:G:N3 | 1:AA:722:G:H2' | 2.35 | 0.41 |
| 1:AA:1326:U:H2' | 1:AA:1327:C:H6 | 1.85 | 0.41 |
| 3:AC:9:GLY:HA3 | 14:AN:89:MET:HE3 | 2.03 | 0.41 |
| 3:AC:134:MET:HE2 | 3:AC:168:TYR:CD1 | 2.55 | 0.41 |
| 9:AI:47:VAL:HA | 9:AI:50:GLN:CG | 2.50 | 0.41 |
| 22:BA:1970:A:H5' | 22:BA:1972:G:H1' | 2.03 | 0.41 |
| 22:BA:2552:OMU:HM23 | 22:BA:2554:U:C6 | 2.55 | 0.41 |
| 27:BF:94:GLU:OE2 | 27:BF:98:GLU:CG | 2.69 | 0.41 |
| 31:BJ:31:GLU:OE1 | 31:BJ:31:GLU:HA | 2.20 | 0.41 |
| 1:AA:1495:U:H2' | 1:AA:1496:C:H6 | 1.85 | 0.41 |
| 1:AA:1495:U:H2' | 1:AA:1496:C:C6 | 2.56 | 0.41 |
| 13:AM:56:LEU:HA | 13:AM:56:LEU:HD12 | 1.77 | 0.41 |
| 14:AN:46:LEU:HD12 | 14:AN:46:LEU:O | 2.19 | 0.41 |
| 22:BA:288:U:H2' | 22:BA:289:G:H8 | 1.86 | 0.41 |
| 22:BA:871:U:H2' | 22:BA:872:U:H6 | 1.86 | 0.41 |
| 22:BA:1076:C:H2' | 22:BA:1077:A:C8 | 2.56 | 0.41 |
| 22:BA:1930:G:N2 | 22:BA:1968:G:H2' | 2.36 | 0.41 |
| 23:BB:66:A:H61 | 23:BB:107:G:H2' | 1.86 | 0.41 |
| 39:BR:60:LYS:NZ | 39:BR:102:SER:OG | 2.53 | 0.41 |
| 40:BS:4:ILE:HG12 | 40:BS:106:VAL:HG22 | 2.02 | 0.41 |
| 1:AA:88:U:O2' | 1:AA:89:U:C6 | 2.72 | 0.41 |
| 1:AA:454:G:N2 | 1:AA:479:U:O2 | 2.54 | 0.41 |
| 1:AA:864:A:H2' | 1:AA:865:A:C8 | 2.55 | 0.41 |
| 1:AA:1005:A:C4 | 1:AA:1006:G:C8 | 3.08 | 0.41 |
| 5:AE:111:MET:HE1 | 5:AE:125:ALA:HB1 | 2.01 | 0.41 |
| 10:AJ:65:TYR:OH | 14:AN:85:ARG:HG3 | 2.21 | 0.41 |
| 22:BA:635:C:OP2 | 33:BL:126:ARG:NH2 | 2.50 | 0.41 |
| 22:BA:644:A:H2' | 22:BA:645:C:O4' | 2.21 | 0.41 |
| 22:BA:1563:U:H2' | 22:BA:1564:C:C6 | 2.56 | 0.41 |
| 22:BA:2105:U:H2' | 22:BA:2106:U:C6 | 2.55 | 0.41 |
| 33:BL:79:LEU:HD11 | 33:BL:112:LEU:HD12 | 2.03 | 0.41 |
| 38:BQ:86:ALA:O | 39:BR:51:VAL:HG23 | 2.21 | 0.41 |
| 45:BX:6:GLN:HG3 | 45:BX:50:ARG:O | 2.21 | 0.41 |
| 1:AA:1000:A:N6 | 1:AA:1041:G:O6 | 2.54 | 0.41 |
| 6:AF:56:LYS:HE3 | 6:AF:56:LYS:HB3 | 1.89 | 0.41 |
| 22:BA:1810:A:O5' | 22:BA:1810:A:H8 | 2.04 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|---------------------|--------------------------|-------------------|
| 22:BA:1853:A:H2' | 22:BA:1854:A:C8 | 2.56 | 0.41 |
| 22:BA:2720:U:OP1 | 37:BP:53:ARG:NH2 | 2.54 | 0.41 |
| 43:BV:73:LYS:NZ | 43:BV:73:LYS:HB3 | 2.36 | 0.41 |
| 1:AA:113:G:H1' | 1:AA:354:G:H5' | 2.03 | 0.41 |
| 1:AA:649:A:H2' | 1:AA:650:G:O4' | 2.21 | 0.41 |
| 7:AG:142:HIS:O | 7:AG:145:ALA:N | 2.54 | 0.41 |
| 14:AN:73:PHE:CE1 | 14:AN:78:GLY:HA2 | 2.56 | 0.41 |
| 19:AS:7:LYS:HZ3 | 19:AS:7:LYS:HG3 | 1.81 | 0.41 |
| 20:AT:76:LYS:O | 20:AT:80:THR:HG23 | 2.21 | 0.41 |
| 22:BA:876:C:H2' | 22:BA:877:A:O4' | 2.21 | 0.41 |
| 22:BA:882:G:N2 | 22:BA:895:U:H1' | 2.35 | 0.41 |
| 22:BA:2876:G:OP1 | 37:BP:2:SER:N | 2.54 | 0.41 |
| 22:BA:2895:G:H2' | 22:BA:2896:C:C6 | 2.56 | 0.41 |
| 24:BC:75:PRO:HB2 | 24:BC:97:LYS:HE2 | 2.02 | 0.41 |
| 33:BL:13:LYS:HD3 | 33:BL:13:LYS:HA | 1.86 | 0.41 |
| 33:BL:129:LYS:HE3 | 33:BL:129:LYS:HB3 | 1.75 | 0.41 |
| 34:BM:77:PRO:HG2 | 34:BM:80:VAL:HG11 | 2.02 | 0.41 |
| 36:BO:39:VAL:HB | 36:BO:49:VAL:HG13 | 2.03 | 0.41 |
| 55:B8:22:G:C5 | 55:B8:46:G7M:N2 | 2.68 | 0.41 |
| 55:B8:63:U:H2' | 55:B8:64:C:H6 | 1.85 | 0.41 |
| 1:AA:1464:U:H2' | 1:AA:1465:A:C8 | 2.56 | 0.41 |
| 3:AC:169:ARG:HD2 | 3:AC:170:GLU:N | 2.36 | 0.41 |
| 4:AD:124:MET:HE3 | 4:AD:129:VAL:HG22 | 2.03 | 0.41 |
| 8:AH:36:ILE:HD11 | 8:AH:126:ILE:HG21 | 2.03 | 0.41 |
| 17:AQ:58:VAL:HG12 | 17:AQ:79:VAL:CG2 | 2.51 | 0.41 |
| 19:AS:32:ARG:HE | 19:AS:57:HIS:CD2 | 2.38 | 0.41 |
| 20:AT:51:PHE:CE1 | 20:AT:55:GLN:HG3 | 2.56 | 0.41 |
| 22:BA:171:U:H2' | 22:BA:172:A:H8 | 1.86 | 0.41 |
| 22:BA:288:U:H2' | 22:BA:289:G:C8 | 2.56 | 0.41 |
| 22:BA:811:U:H2' | 33:BL:21:ARG:HA | 2.02 | 0.41 |
| 22:BA:1541:C:H2' | 22:BA:1542:U:C6 | 2.56 | 0.41 |
| 22:BA:2014:A:H2' | 22:BA:2015:A:C8 | 2.55 | 0.41 |
| 22:BA:2271:G:OP1 | 44:BW:18:ALA:HB1 | 2.21 | 0.41 |
| 22:BA:2300:C:H2' | 22:BA:2301:C:H6 | 1.86 | 0.41 |
| 24:BC:138:GLY:O | 24:BC:163:GLN:NE2 | 2.53 | 0.41 |
| 1:AA:580:C:H2' | 1:AA:581:G:O4' | 2.21 | 0.40 |
| 1:AA:677:U:H3 | 1:AA:713:G:H22 | 1.69 | 0.40 |
| 1:AA:1169:A:H2' | 1:AA:1170:A:C8 | 2.56 | 0.40 |
| 20:AT:24:ARG:HA | 20:AT:24:ARG:HD3 | 1.82 | 0.40 |
| 22:BA:2502:G:H5'' | 22:BA:2503:2MA:H5'' | 2.02 | 0.40 |
| 27:BF:162:SER:OG | 27:BF:164:GLU:CD | 2.59 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 41:BT:1:MET:HB2 | 41:BT:2:ILE:H | 1.50 | 0.40 |
| 42:BU:85:PHE:CE1 | 42:BU:94:ARG:HG2 | 2.56 | 0.40 |
| 3:AC:83:ASP:OD1 | 3:AC:84:VAL:N | 2.54 | 0.40 |
| 5:AE:111:MET:HE2 | 5:AE:125:ALA:HB1 | 2.03 | 0.40 |
| 8:AH:46:ILE:HD13 | 8:AH:61:LEU:HD23 | 2.04 | 0.40 |
| 9:AI:65:ILE:HD13 | 9:AI:79:ILE:HG23 | 2.03 | 0.40 |
| 13:AM:4:ILE:HA | 13:AM:57:ARG:HG2 | 2.04 | 0.40 |
| 13:AM:78:LYS:HB2 | 13:AM:78:LYS:HE2 | 1.87 | 0.40 |
| 22:BA:634:C:H2' | 22:BA:635:C:C6 | 2.57 | 0.40 |
| 22:BA:851:C:H2' | 22:BA:852:U:C6 | 2.55 | 0.40 |
| 22:BA:1544:A:H2' | 22:BA:1545:A:C8 | 2.56 | 0.40 |
| 22:BA:1914:C:H2' | 22:BA:1915:3TD:H6 | 2.03 | 0.40 |
| 22:BA:2246:G:H2' | 22:BA:2247:A:H8 | 1.85 | 0.40 |
| 1:AA:79:G:H2' | 1:AA:80:A:C8 | 2.56 | 0.40 |
| 1:AA:95:C:O2 | 1:AA:95:C:H2' | 2.21 | 0.40 |
| 1:AA:216:U:H2' | 1:AA:217:C:H6 | 1.83 | 0.40 |
| 1:AA:579:A:H2' | 1:AA:580:C:C6 | 2.56 | 0.40 |
| 1:AA:1041:G:H2' | 1:AA:1042:A:C8 | 2.55 | 0.40 |
| 1:AA:1329:A:H5'' | 13:AM:26:GLY:H | 1.85 | 0.40 |
| 3:AC:42:TYR:CD1 | 3:AC:43:LEU:HD12 | 2.54 | 0.40 |
| 5:AE:148:ASN:OD1 | 8:AH:96:MET:CE | 2.70 | 0.40 |
| 22:BA:347:A:H2' | 22:BA:348:A:H8 | 1.86 | 0.40 |
| 22:BA:1051:G:H2' | 22:BA:1052:C:O4' | 2.21 | 0.40 |
| 22:BA:1790:C:H2' | 22:BA:1791:A:C5 | 2.56 | 0.40 |
| 22:BA:2020:A:H5' | 48:B0:9:THR:CG2 | 2.50 | 0.40 |
| 22:BA:2615:U:C2 | 48:B0:4:GLN:HA | 2.56 | 0.40 |
| 49:B1:13:SER:HB2 | 49:B1:49:TYR:CZ | 2.56 | 0.40 |
| 55:B8:28:U:H2' | 55:B8:29:U:H6 | 1.87 | 0.40 |
| 1:AA:182:A:C4 | 1:AA:184:G:C8 | 3.10 | 0.40 |
| 1:AA:672:U:H2' | 1:AA:673:A:H8 | 1.86 | 0.40 |
| 1:AA:696:A:H2' | 1:AA:697:U:C6 | 2.55 | 0.40 |
| 1:AA:952:U:O4 | 13:AM:103:LYS:HD3 | 2.21 | 0.40 |
| 3:AC:88:ARG:HB3 | 3:AC:101:ILE:HG13 | 2.03 | 0.40 |
| 5:AE:55:GLU:OE1 | 5:AE:55:GLU:HA | 2.21 | 0.40 |
| 13:AM:3:ARG:HH22 | 13:AM:7:ILE:HG23 | 1.86 | 0.40 |
| 17:AQ:39:LYS:NZ | 17:AQ:39:LYS:O | 2.47 | 0.40 |
| 19:AS:19:VAL:CG2 | 19:AS:44:MET:HB3 | 2.51 | 0.40 |
| 22:BA:2305:U:H2' | 22:BA:2306:C:C6 | 2.57 | 0.40 |
| 26:BE:69:ARG:H | 26:BE:69:ARG:HG2 | 1.62 | 0.40 |
| 29:BH:82:SER:HB2 | 29:BH:90:LEU:HD13 | 2.04 | 0.40 |
| 1:AA:222:C:H2' | 1:AA:223:A:H8 | 1.86 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AA:235:C:H2' | 1:AA:236:A:H8 | 1.84 | 0.40 |
| 1:AA:399:G:H2' | 1:AA:400:C:C6 | 2.57 | 0.40 |
| 1:AA:1012:A:C6 | 1:AA:1018:G:C6 | 3.09 | 0.40 |
| 2:AB:102:THR:HG23 | 2:AB:175:GLU:HG3 | 2.02 | 0.40 |
| 7:AG:42:ILE:HD12 | 7:AG:116:MET:HB3 | 2.03 | 0.40 |
| 9:AI:55:VAL:HG22 | 9:AI:94:LEU:HD22 | 2.04 | 0.40 |
| 16:AP:71:VAL:O | 16:AP:75:ILE:HG13 | 2.20 | 0.40 |
| 22:BA:576:U:H2' | 22:BA:577:G:C8 | 2.56 | 0.40 |
| 22:BA:2151:U:H2' | 22:BA:2152:G:H8 | 1.86 | 0.40 |
| 23:BB:106:G:H2' | 23:BB:107:G:O4' | 2.22 | 0.40 |
| 27:BF:71:ARG:O | 27:BF:81:GLN:HG3 | 2.22 | 0.40 |
| 30:BI:14:ALA:N | 30:BI:22:MET:O | 2.55 | 0.40 |
| 36:BO:33:ARG:O | 36:BO:65:THR:OG1 | 2.39 | 0.40 |
| 55:B8:65:U:H2' | 55:B8:66:A:C8 | 2.56 | 0.40 |

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|---------------|-----------|---------|----------|-------------|-----|
| 2 | AB | 222/240 (92%) | 211 (95%) | 11 (5%) | 0 | 100 | 100 |
| 3 | AC | 204/233 (88%) | 193 (95%) | 11 (5%) | 0 | 100 | 100 |
| 4 | AD | 203/206 (98%) | 196 (97%) | 7 (3%) | 0 | 100 | 100 |
| 5 | AE | 153/167 (92%) | 146 (95%) | 7 (5%) | 0 | 100 | 100 |
| 6 | AF | 104/135 (77%) | 102 (98%) | 2 (2%) | 0 | 100 | 100 |
| 7 | AG | 149/179 (83%) | 136 (91%) | 13 (9%) | 0 | 100 | 100 |
| 8 | AH | 127/130 (98%) | 124 (98%) | 3 (2%) | 0 | 100 | 100 |
| 9 | AI | 125/130 (96%) | 114 (91%) | 11 (9%) | 0 | 100 | 100 |
| 10 | AJ | 97/103 (94%) | 92 (95%) | 4 (4%) | 1 (1%) | 15 | 23 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|---------------|------------|----------|----------|-------------|-----|
| 11 | AK | 115/129 (89%) | 109 (95%) | 6 (5%) | 0 | 100 | 100 |
| 12 | AL | 120/124 (97%) | 115 (96%) | 5 (4%) | 0 | 100 | 100 |
| 13 | AM | 112/118 (95%) | 108 (96%) | 4 (4%) | 0 | 100 | 100 |
| 14 | AN | 99/102 (97%) | 91 (92%) | 8 (8%) | 0 | 100 | 100 |
| 15 | AO | 86/89 (97%) | 83 (96%) | 3 (4%) | 0 | 100 | 100 |
| 16 | AP | 80/82 (98%) | 77 (96%) | 3 (4%) | 0 | 100 | 100 |
| 17 | AQ | 78/84 (93%) | 77 (99%) | 1 (1%) | 0 | 100 | 100 |
| 18 | AR | 53/75 (71%) | 51 (96%) | 2 (4%) | 0 | 100 | 100 |
| 19 | AS | 80/92 (87%) | 74 (92%) | 6 (8%) | 0 | 100 | 100 |
| 20 | AT | 84/87 (97%) | 81 (96%) | 3 (4%) | 0 | 100 | 100 |
| 21 | AU | 54/71 (76%) | 52 (96%) | 2 (4%) | 0 | 100 | 100 |
| 24 | BC | 269/273 (98%) | 263 (98%) | 6 (2%) | 0 | 100 | 100 |
| 25 | BD | 206/209 (99%) | 198 (96%) | 8 (4%) | 0 | 100 | 100 |
| 26 | BE | 199/201 (99%) | 195 (98%) | 4 (2%) | 0 | 100 | 100 |
| 27 | BF | 175/179 (98%) | 169 (97%) | 6 (3%) | 0 | 100 | 100 |
| 28 | BG | 174/177 (98%) | 173 (99%) | 1 (1%) | 0 | 100 | 100 |
| 29 | BH | 147/149 (99%) | 132 (90%) | 15 (10%) | 0 | 100 | 100 |
| 30 | BI | 64/70 (91%) | 54 (84%) | 10 (16%) | 0 | 100 | 100 |
| 31 | BJ | 140/142 (99%) | 140 (100%) | 0 | 0 | 100 | 100 |
| 32 | BK | 121/123 (98%) | 118 (98%) | 3 (2%) | 0 | 100 | 100 |
| 33 | BL | 142/144 (99%) | 135 (95%) | 7 (5%) | 0 | 100 | 100 |
| 34 | BM | 133/136 (98%) | 131 (98%) | 2 (2%) | 0 | 100 | 100 |
| 35 | BN | 116/127 (91%) | 112 (97%) | 4 (3%) | 0 | 100 | 100 |
| 36 | BO | 115/117 (98%) | 114 (99%) | 1 (1%) | 0 | 100 | 100 |
| 37 | BP | 112/115 (97%) | 110 (98%) | 2 (2%) | 0 | 100 | 100 |
| 38 | BQ | 115/118 (98%) | 115 (100%) | 0 | 0 | 100 | 100 |
| 39 | BR | 101/103 (98%) | 99 (98%) | 2 (2%) | 0 | 100 | 100 |
| 40 | BS | 108/110 (98%) | 106 (98%) | 2 (2%) | 0 | 100 | 100 |
| 41 | BT | 91/100 (91%) | 87 (96%) | 4 (4%) | 0 | 100 | 100 |
| 42 | BU | 100/104 (96%) | 98 (98%) | 2 (2%) | 0 | 100 | 100 |
| 43 | BV | 92/94 (98%) | 89 (97%) | 3 (3%) | 0 | 100 | 100 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|-----------------|------------|----------|----------|-------------|-----|
| 44 | BW | 74/85 (87%) | 71 (96%) | 3 (4%) | 0 | 100 | 100 |
| 45 | BX | 75/78 (96%) | 75 (100%) | 0 | 0 | 100 | 100 |
| 46 | BY | 60/63 (95%) | 59 (98%) | 1 (2%) | 0 | 100 | 100 |
| 47 | BZ | 56/59 (95%) | 55 (98%) | 1 (2%) | 0 | 100 | 100 |
| 48 | B0 | 54/57 (95%) | 54 (100%) | 0 | 0 | 100 | 100 |
| 49 | B1 | 49/55 (89%) | 48 (98%) | 1 (2%) | 0 | 100 | 100 |
| 50 | B2 | 44/46 (96%) | 42 (96%) | 2 (4%) | 0 | 100 | 100 |
| 51 | B3 | 62/65 (95%) | 57 (92%) | 5 (8%) | 0 | 100 | 100 |
| 52 | B4 | 36/38 (95%) | 36 (100%) | 0 | 0 | 100 | 100 |
| 53 | B5 | 15/17 (88%) | 14 (93%) | 1 (7%) | 0 | 100 | 100 |
| All | All | 5590/5930 (94%) | 5381 (96%) | 208 (4%) | 1 (0%) | 100 | 100 |

All (1) Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 10 | AJ | 57 | VAL |

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|---------------|-----------|----------|-------------|----|
| 2 | AB | 186/198 (94%) | 182 (98%) | 4 (2%) | 52 | 71 |
| 3 | AC | 170/190 (90%) | 163 (96%) | 7 (4%) | 30 | 48 |
| 4 | AD | 172/173 (99%) | 167 (97%) | 5 (3%) | 42 | 62 |
| 5 | AE | 118/126 (94%) | 115 (98%) | 3 (2%) | 47 | 67 |
| 6 | AF | 92/116 (79%) | 91 (99%) | 1 (1%) | 73 | 87 |
| 7 | AG | 124/147 (84%) | 115 (93%) | 9 (7%) | 14 | 22 |
| 8 | AH | 104/105 (99%) | 101 (97%) | 3 (3%) | 42 | 62 |
| 9 | AI | 105/107 (98%) | 101 (96%) | 4 (4%) | 33 | 51 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|----------------|-----------|----------|-------------|-----|
| 10 | AJ | 87/90 (97%) | 82 (94%) | 5 (6%) | 20 | 33 |
| 11 | AK | 90/99 (91%) | 89 (99%) | 1 (1%) | 73 | 87 |
| 12 | AL | 102/103 (99%) | 97 (95%) | 5 (5%) | 25 | 40 |
| 13 | AM | 92/96 (96%) | 92 (100%) | 0 | 100 | 100 |
| 14 | AN | 79/84 (94%) | 76 (96%) | 3 (4%) | 33 | 51 |
| 15 | AO | 76/77 (99%) | 74 (97%) | 2 (3%) | 46 | 66 |
| 16 | AP | 65/65 (100%) | 65 (100%) | 0 | 100 | 100 |
| 17 | AQ | 74/78 (95%) | 72 (97%) | 2 (3%) | 44 | 65 |
| 18 | AR | 48/65 (74%) | 46 (96%) | 2 (4%) | 30 | 47 |
| 19 | AS | 71/79 (90%) | 70 (99%) | 1 (1%) | 67 | 82 |
| 20 | AT | 65/66 (98%) | 65 (100%) | 0 | 100 | 100 |
| 21 | AU | 48/61 (79%) | 45 (94%) | 3 (6%) | 18 | 28 |
| 24 | BC | 216/218 (99%) | 213 (99%) | 3 (1%) | 67 | 82 |
| 25 | BD | 163/163 (100%) | 157 (96%) | 6 (4%) | 34 | 53 |
| 26 | BE | 165/165 (100%) | 162 (98%) | 3 (2%) | 59 | 76 |
| 27 | BF | 148/150 (99%) | 142 (96%) | 6 (4%) | 30 | 48 |
| 28 | BG | 137/138 (99%) | 134 (98%) | 3 (2%) | 52 | 71 |
| 29 | BH | 114/114 (100%) | 112 (98%) | 2 (2%) | 59 | 76 |
| 30 | BI | 59/62 (95%) | 57 (97%) | 2 (3%) | 37 | 56 |
| 31 | BJ | 116/116 (100%) | 114 (98%) | 2 (2%) | 60 | 78 |
| 32 | BK | 104/104 (100%) | 101 (97%) | 3 (3%) | 42 | 62 |
| 33 | BL | 103/103 (100%) | 102 (99%) | 1 (1%) | 76 | 88 |
| 34 | BM | 108/108 (100%) | 104 (96%) | 4 (4%) | 34 | 53 |
| 35 | BN | 98/103 (95%) | 98 (100%) | 0 | 100 | 100 |
| 36 | BO | 87/87 (100%) | 84 (97%) | 3 (3%) | 37 | 56 |
| 37 | BP | 99/100 (99%) | 96 (97%) | 3 (3%) | 41 | 61 |
| 38 | BQ | 89/90 (99%) | 88 (99%) | 1 (1%) | 73 | 87 |
| 39 | BR | 84/84 (100%) | 82 (98%) | 2 (2%) | 49 | 68 |
| 40 | BS | 93/93 (100%) | 93 (100%) | 0 | 100 | 100 |
| 41 | BT | 80/84 (95%) | 78 (98%) | 2 (2%) | 47 | 67 |
| 42 | BU | 83/85 (98%) | 82 (99%) | 1 (1%) | 71 | 85 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|-----------------|------------|----------|-------------|----|
| 43 | BV | 78/78 (100%) | 76 (97%) | 2 (3%) | 46 | 66 |
| 44 | BW | 57/63 (90%) | 55 (96%) | 2 (4%) | 36 | 55 |
| 45 | BX | 67/68 (98%) | 66 (98%) | 1 (2%) | 65 | 80 |
| 46 | BY | 54/55 (98%) | 53 (98%) | 1 (2%) | 57 | 75 |
| 47 | BZ | 48/49 (98%) | 47 (98%) | 1 (2%) | 53 | 72 |
| 48 | B0 | 47/48 (98%) | 44 (94%) | 3 (6%) | 17 | 28 |
| 49 | B1 | 45/49 (92%) | 44 (98%) | 1 (2%) | 52 | 71 |
| 50 | B2 | 38/38 (100%) | 36 (95%) | 2 (5%) | 22 | 37 |
| 51 | B3 | 51/52 (98%) | 50 (98%) | 1 (2%) | 55 | 74 |
| 52 | B4 | 34/34 (100%) | 33 (97%) | 1 (3%) | 42 | 62 |
| 53 | B5 | 17/17 (100%) | 16 (94%) | 1 (6%) | 19 | 32 |
| All | All | 4650/4843 (96%) | 4527 (97%) | 123 (3%) | 49 | 66 |

All (123) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 2 | AB | 21 | ARG |
| 2 | AB | 69 | PHE |
| 2 | AB | 91 | PHE |
| 2 | AB | 136 | MET |
| 3 | AC | 59 | ARG |
| 3 | AC | 88 | ARG |
| 3 | AC | 122 | SER |
| 3 | AC | 129 | MET |
| 3 | AC | 139 | GLN |
| 3 | AC | 170 | GLU |
| 3 | AC | 186 | THR |
| 4 | AD | 8 | LYS |
| 4 | AD | 56 | ARG |
| 4 | AD | 63 | ARG |
| 4 | AD | 78 | GLU |
| 4 | AD | 124 | MET |
| 5 | AE | 54 | ARG |
| 5 | AE | 66 | LYS |
| 5 | AE | 93 | ARG |
| 6 | AF | 45 | ARG |
| 7 | AG | 3 | ARG |
| 7 | AG | 11 | LYS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 7 | AG | 28 | ASN |
| 7 | AG | 41 | SER |
| 7 | AG | 79 | ARG |
| 7 | AG | 95 | ARG |
| 7 | AG | 113 | ASP |
| 7 | AG | 130 | ASN |
| 7 | AG | 131 | LYS |
| 8 | AH | 50 | LYS |
| 8 | AH | 89 | LYS |
| 8 | AH | 117 | ARG |
| 9 | AI | 4 | ASN |
| 9 | AI | 12 | ARG |
| 9 | AI | 60 | LYS |
| 9 | AI | 106 | ARG |
| 10 | AJ | 17 | LEU |
| 10 | AJ | 63 | ASP |
| 10 | AJ | 72 | ARG |
| 10 | AJ | 99 | GLN |
| 10 | AJ | 101 | SER |
| 11 | AK | 26 | SER |
| 12 | AL | 45 | PRO |
| 12 | AL | 47 | SER |
| 12 | AL | 51 | LYS |
| 12 | AL | 78 | SER |
| 12 | AL | 111 | LYS |
| 14 | AN | 4 | SER |
| 14 | AN | 63 | ARG |
| 14 | AN | 69 | ARG |
| 15 | AO | 24 | SER |
| 15 | AO | 58 | ARG |
| 17 | AQ | 39 | LYS |
| 17 | AQ | 77 | ARG |
| 18 | AR | 61 | ARG |
| 18 | AR | 73 | ARG |
| 19 | AS | 44 | MET |
| 21 | AU | 25 | LYS |
| 21 | AU | 35 | ARG |
| 21 | AU | 47 | ARG |
| 24 | BC | 5 | LYS |
| 24 | BC | 182 | ARG |
| 24 | BC | 270 | ARG |
| 25 | BD | 7 | LYS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 25 | BD | 13 | ARG |
| 25 | BD | 39 | ASP |
| 25 | BD | 100 | LEU |
| 25 | BD | 113 | SER |
| 25 | BD | 181 | ASP |
| 26 | BE | 88 | ARG |
| 26 | BE | 93 | SER |
| 26 | BE | 168 | ASP |
| 27 | BF | 51 | ASP |
| 27 | BF | 73 | SER |
| 27 | BF | 80 | ARG |
| 27 | BF | 127 | ASN |
| 27 | BF | 133 | ARG |
| 27 | BF | 162 | SER |
| 28 | BG | 69 | ARG |
| 28 | BG | 86 | LYS |
| 28 | BG | 175 | LYS |
| 29 | BH | 51 | ARG |
| 29 | BH | 97 | ARG |
| 30 | BI | 3 | LYS |
| 30 | BI | 15 | SER |
| 31 | BJ | 1 | MET |
| 31 | BJ | 95 | ARG |
| 32 | BK | 51 | LYS |
| 32 | BK | 53 | LYS |
| 32 | BK | 117 | SER |
| 33 | BL | 129 | LYS |
| 34 | BM | 6 | ARG |
| 34 | BM | 55 | ARG |
| 34 | BM | 115 | GLU |
| 34 | BM | 127 | LYS |
| 36 | BO | 1 | MET |
| 36 | BO | 45 | SER |
| 36 | BO | 63 | LYS |
| 37 | BP | 19 | SER |
| 37 | BP | 65 | SER |
| 37 | BP | 89 | ARG |
| 38 | BQ | 84 | LYS |
| 39 | BR | 18 | GLN |
| 39 | BR | 85 | LYS |
| 41 | BT | 24 | MET |
| 41 | BT | 64 | LYS |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 42 | BU | 81 | ASP |
| 43 | BV | 58 | SER |
| 43 | BV | 71 | LYS |
| 44 | BW | 44 | LYS |
| 44 | BW | 81 | SER |
| 45 | BX | 72 | ARG |
| 46 | BY | 23 | ARG |
| 47 | BZ | 39 | GLU |
| 48 | B0 | 11 | SER |
| 48 | B0 | 52 | ARG |
| 48 | B0 | 53 | LYS |
| 49 | B1 | 10 | LYS |
| 50 | B2 | 25 | LYS |
| 50 | B2 | 41 | ARG |
| 51 | B3 | 31 | HIS |
| 52 | B4 | 20 | ASP |
| 53 | B5 | 24 | PRO |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (6) such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 5 | AE | 135 | ASN |
| 9 | AI | 50 | GLN |
| 19 | AS | 57 | HIS |
| 28 | BG | 38 | ASN |
| 50 | B2 | 26 | ASN |
| 50 | B2 | 29 | GLN |

5.3.3 RNA [i](#)

| Mol | Chain | Analysed | Backbone Outliers | Pucker Outliers |
|-----|-------|-----------------|-------------------|-----------------|
| 1 | AA | 1530/1534 (99%) | 180 (11%) | 1 (0%) |
| 22 | BA | 2891/2897 (99%) | 295 (10%) | 15 (0%) |
| 23 | BB | 119/120 (99%) | 7 (5%) | 0 |
| 54 | B7 | 8/9 (88%) | 4 (50%) | 0 |
| 55 | B8 | 76/77 (98%) | 14 (18%) | 4 (5%) |
| All | All | 4624/4637 (99%) | 500 (10%) | 20 (0%) |

All (500) RNA backbone outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | AA | 4 | U |
| 1 | AA | 7 | A |
| 1 | AA | 9 | G |
| 1 | AA | 22 | G |
| 1 | AA | 39 | G |
| 1 | AA | 44 | A |
| 1 | AA | 47 | C |
| 1 | AA | 48 | C |
| 1 | AA | 50 | A |
| 1 | AA | 51 | A |
| 1 | AA | 71 | A |
| 1 | AA | 72 | A |
| 1 | AA | 76 | G |
| 1 | AA | 78 | A |
| 1 | AA | 83 | C |
| 1 | AA | 84 | U |
| 1 | AA | 85 | U |
| 1 | AA | 86 | G |
| 1 | AA | 87 | C |
| 1 | AA | 88 | U |
| 1 | AA | 89 | U |
| 1 | AA | 95 | C |
| 1 | AA | 98 | A |
| 1 | AA | 101 | A |
| 1 | AA | 116 | A |
| 1 | AA | 130 | A |
| 1 | AA | 131 | A |
| 1 | AA | 163 | C |
| 1 | AA | 164 | G |
| 1 | AA | 167 | A |
| 1 | AA | 181 | A |
| 1 | AA | 197 | A |
| 1 | AA | 210 | C |
| 1 | AA | 226 | G |
| 1 | AA | 245 | U |
| 1 | AA | 247 | G |
| 1 | AA | 251 | G |
| 1 | AA | 266 | G |
| 1 | AA | 267 | C |
| 1 | AA | 289 | G |
| 1 | AA | 306 | A |
| 1 | AA | 321 | A |
| 1 | AA | 328 | C |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | AA | 352 | C |
| 1 | AA | 354 | G |
| 1 | AA | 367 | U |
| 1 | AA | 372 | C |
| 1 | AA | 373 | A |
| 1 | AA | 384 | G |
| 1 | AA | 392 | C |
| 1 | AA | 393 | A |
| 1 | AA | 397 | A |
| 1 | AA | 398 | U |
| 1 | AA | 406 | G |
| 1 | AA | 408 | A |
| 1 | AA | 413 | G |
| 1 | AA | 429 | U |
| 1 | AA | 435 | A |
| 1 | AA | 437 | U |
| 1 | AA | 439 | U |
| 1 | AA | 467 | U |
| 1 | AA | 468 | A |
| 1 | AA | 478 | A |
| 1 | AA | 479 | U |
| 1 | AA | 481 | G |
| 1 | AA | 484 | G |
| 1 | AA | 486 | U |
| 1 | AA | 488 | C |
| 1 | AA | 497 | G |
| 1 | AA | 509 | A |
| 1 | AA | 511 | C |
| 1 | AA | 513 | C |
| 1 | AA | 516 | PSU |
| 1 | AA | 518 | C |
| 1 | AA | 527 | G7M |
| 1 | AA | 532 | A |
| 1 | AA | 547 | A |
| 1 | AA | 572 | A |
| 1 | AA | 573 | A |
| 1 | AA | 576 | C |
| 1 | AA | 577 | G |
| 1 | AA | 579 | A |
| 1 | AA | 617 | G |
| 1 | AA | 633 | G |
| 1 | AA | 650 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | AA | 653 | U |
| 1 | AA | 665 | A |
| 1 | AA | 702 | A |
| 1 | AA | 718 | A |
| 1 | AA | 721 | G |
| 1 | AA | 722 | G |
| 1 | AA | 724 | G |
| 1 | AA | 734 | G |
| 1 | AA | 748 | G |
| 1 | AA | 755 | G |
| 1 | AA | 777 | A |
| 1 | AA | 793 | U |
| 1 | AA | 794 | A |
| 1 | AA | 815 | A |
| 1 | AA | 817 | C |
| 1 | AA | 828 | U |
| 1 | AA | 832 | G |
| 1 | AA | 841 | C |
| 1 | AA | 842 | U |
| 1 | AA | 843 | U |
| 1 | AA | 846 | G |
| 1 | AA | 914 | A |
| 1 | AA | 926 | G |
| 1 | AA | 934 | C |
| 1 | AA | 960 | U |
| 1 | AA | 966 | 2MG |
| 1 | AA | 969 | A |
| 1 | AA | 975 | A |
| 1 | AA | 976 | G |
| 1 | AA | 977 | A |
| 1 | AA | 993 | G |
| 1 | AA | 1004 | A |
| 1 | AA | 1005 | A |
| 1 | AA | 1012 | A |
| 1 | AA | 1016 | A |
| 1 | AA | 1019 | A |
| 1 | AA | 1020 | G |
| 1 | AA | 1021 | A |
| 1 | AA | 1026 | G |
| 1 | AA | 1028 | C |
| 1 | AA | 1029 | U |
| 1 | AA | 1030 | U |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | AA | 1032 | G |
| 1 | AA | 1045 | C |
| 1 | AA | 1053 | G |
| 1 | AA | 1065 | U |
| 1 | AA | 1094 | G |
| 1 | AA | 1095 | U |
| 1 | AA | 1101 | A |
| 1 | AA | 1132 | C |
| 1 | AA | 1139 | G |
| 1 | AA | 1140 | C |
| 1 | AA | 1141 | C |
| 1 | AA | 1157 | A |
| 1 | AA | 1158 | C |
| 1 | AA | 1159 | U |
| 1 | AA | 1168 | U |
| 1 | AA | 1169 | A |
| 1 | AA | 1184 | G |
| 1 | AA | 1196 | A |
| 1 | AA | 1197 | A |
| 1 | AA | 1212 | U |
| 1 | AA | 1213 | A |
| 1 | AA | 1227 | A |
| 1 | AA | 1238 | A |
| 1 | AA | 1256 | A |
| 1 | AA | 1258 | G |
| 1 | AA | 1260 | G |
| 1 | AA | 1280 | A |
| 1 | AA | 1285 | A |
| 1 | AA | 1299 | A |
| 1 | AA | 1300 | G |
| 1 | AA | 1302 | C |
| 1 | AA | 1317 | C |
| 1 | AA | 1318 | A |
| 1 | AA | 1320 | C |
| 1 | AA | 1346 | A |
| 1 | AA | 1353 | G |
| 1 | AA | 1363 | A |
| 1 | AA | 1364 | U |
| 1 | AA | 1370 | G |
| 1 | AA | 1419 | G |
| 1 | AA | 1429 | A |
| 1 | AA | 1441 | A |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | AA | 1446 | A |
| 1 | AA | 1487 | G |
| 1 | AA | 1492 | A |
| 1 | AA | 1493 | A |
| 1 | AA | 1497 | G |
| 1 | AA | 1499 | A |
| 1 | AA | 1502 | A |
| 1 | AA | 1506 | U |
| 1 | AA | 1517 | G |
| 1 | AA | 1529 | G |
| 1 | AA | 1530 | G |
| 22 | BA | 34 | U |
| 22 | BA | 61 | C |
| 22 | BA | 71 | A |
| 22 | BA | 74 | A |
| 22 | BA | 75 | G |
| 22 | BA | 84 | A |
| 22 | BA | 101 | A |
| 22 | BA | 118 | A |
| 22 | BA | 119 | A |
| 22 | BA | 120 | U |
| 22 | BA | 163 | C |
| 22 | BA | 181 | A |
| 22 | BA | 196 | A |
| 22 | BA | 215 | G |
| 22 | BA | 216 | A |
| 22 | BA | 221 | A |
| 22 | BA | 222 | A |
| 22 | BA | 233 | A |
| 22 | BA | 248 | G |
| 22 | BA | 265 | A |
| 22 | BA | 276 | U |
| 22 | BA | 278 | A |
| 22 | BA | 302 | C |
| 22 | BA | 303 | G |
| 22 | BA | 311 | A |
| 22 | BA | 330 | A |
| 22 | BA | 353 | C |
| 22 | BA | 386 | G |
| 22 | BA | 396 | G |
| 22 | BA | 411 | G |
| 22 | BA | 412 | A |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 22 | BA | 480 | A |
| 22 | BA | 481 | G |
| 22 | BA | 491 | G |
| 22 | BA | 505 | A |
| 22 | BA | 509 | C |
| 22 | BA | 529 | A |
| 22 | BA | 530 | G |
| 22 | BA | 531 | C |
| 22 | BA | 532 | A |
| 22 | BA | 544 | C |
| 22 | BA | 546 | U |
| 22 | BA | 547 | A |
| 22 | BA | 548 | G |
| 22 | BA | 549 | G |
| 22 | BA | 563 | A |
| 22 | BA | 573 | U |
| 22 | BA | 575 | A |
| 22 | BA | 603 | A |
| 22 | BA | 614 | A |
| 22 | BA | 637 | A |
| 22 | BA | 645 | C |
| 22 | BA | 647 | G |
| 22 | BA | 654 | A |
| 22 | BA | 655 | A |
| 22 | BA | 685 | A |
| 22 | BA | 686 | U |
| 22 | BA | 717 | C |
| 22 | BA | 730 | A |
| 22 | BA | 738 | G |
| 22 | BA | 747 | 5MU |
| 22 | BA | 764 | A |
| 22 | BA | 765 | C |
| 22 | BA | 775 | G |
| 22 | BA | 776 | G |
| 22 | BA | 782 | A |
| 22 | BA | 784 | G |
| 22 | BA | 785 | G |
| 22 | BA | 789 | A |
| 22 | BA | 792 | A |
| 22 | BA | 805 | G |
| 22 | BA | 812 | C |
| 22 | BA | 827 | U |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 22 | BA | 828 | U |
| 22 | BA | 829 | A |
| 22 | BA | 846 | U |
| 22 | BA | 847 | U |
| 22 | BA | 858 | G |
| 22 | BA | 859 | G |
| 22 | BA | 884 | U |
| 22 | BA | 896 | A |
| 22 | BA | 910 | A |
| 22 | BA | 931 | U |
| 22 | BA | 946 | C |
| 22 | BA | 961 | C |
| 22 | BA | 974 | G |
| 22 | BA | 983 | A |
| 22 | BA | 996 | A |
| 22 | BA | 1012 | U |
| 22 | BA | 1013 | C |
| 22 | BA | 1026 | G |
| 22 | BA | 1033 | U |
| 22 | BA | 1054 | A |
| 22 | BA | 1070 | A |
| 22 | BA | 1088 | A |
| 22 | BA | 1112 | G |
| 22 | BA | 1132 | U |
| 22 | BA | 1133 | A |
| 22 | BA | 1135 | C |
| 22 | BA | 1142 | A |
| 22 | BA | 1173 | U |
| 22 | BA | 1174 | U |
| 22 | BA | 1175 | A |
| 22 | BA | 1176 | U |
| 22 | BA | 1204 | A |
| 22 | BA | 1250 | G |
| 22 | BA | 1253 | A |
| 22 | BA | 1256 | G |
| 22 | BA | 1268 | A |
| 22 | BA | 1271 | G |
| 22 | BA | 1272 | A |
| 22 | BA | 1273 | U |
| 22 | BA | 1287 | A |
| 22 | BA | 1300 | G |
| 22 | BA | 1301 | A |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 22 | BA | 1321 | A |
| 22 | BA | 1329 | U |
| 22 | BA | 1352 | U |
| 22 | BA | 1365 | A |
| 22 | BA | 1379 | U |
| 22 | BA | 1383 | A |
| 22 | BA | 1416 | G |
| 22 | BA | 1420 | A |
| 22 | BA | 1428 | C |
| 22 | BA | 1452 | G |
| 22 | BA | 1482 | G |
| 22 | BA | 1508 | A |
| 22 | BA | 1509 | A |
| 22 | BA | 1515 | A |
| 22 | BA | 1566 | A |
| 22 | BA | 1569 | A |
| 22 | BA | 1578 | U |
| 22 | BA | 1606 | C |
| 22 | BA | 1608 | A |
| 22 | BA | 1610 | A |
| 22 | BA | 1647 | U |
| 22 | BA | 1648 | U |
| 22 | BA | 1649 | G |
| 22 | BA | 1674 | G |
| 22 | BA | 1677 | A |
| 22 | BA | 1729 | U |
| 22 | BA | 1730 | C |
| 22 | BA | 1732 | C |
| 22 | BA | 1757 | A |
| 22 | BA | 1758 | U |
| 22 | BA | 1764 | C |
| 22 | BA | 1773 | A |
| 22 | BA | 1782 | U |
| 22 | BA | 1800 | C |
| 22 | BA | 1801 | A |
| 22 | BA | 1802 | A |
| 22 | BA | 1808 | A |
| 22 | BA | 1811 | G |
| 22 | BA | 1816 | C |
| 22 | BA | 1829 | A |
| 22 | BA | 1871 | A |
| 22 | BA | 1872 | A |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 22 | BA | 1873 | G |
| 22 | BA | 1906 | G |
| 22 | BA | 1914 | C |
| 22 | BA | 1929 | G |
| 22 | BA | 1930 | G |
| 22 | BA | 1937 | A |
| 22 | BA | 1938 | A |
| 22 | BA | 1955 | U |
| 22 | BA | 1960 | A |
| 22 | BA | 1967 | C |
| 22 | BA | 1970 | A |
| 22 | BA | 1971 | U |
| 22 | BA | 1972 | G |
| 22 | BA | 1991 | U |
| 22 | BA | 1993 | U |
| 22 | BA | 2020 | A |
| 22 | BA | 2023 | C |
| 22 | BA | 2027 | G |
| 22 | BA | 2031 | A |
| 22 | BA | 2033 | A |
| 22 | BA | 2036 | C |
| 22 | BA | 2043 | C |
| 22 | BA | 2055 | C |
| 22 | BA | 2056 | G |
| 22 | BA | 2060 | A |
| 22 | BA | 2061 | G |
| 22 | BA | 2062 | A |
| 22 | BA | 2069 | G7M |
| 22 | BA | 2080 | A |
| 22 | BA | 2099 | U |
| 22 | BA | 2101 | A |
| 22 | BA | 2110 | G |
| 22 | BA | 2111 | U |
| 22 | BA | 2112 | G |
| 22 | BA | 2113 | U |
| 22 | BA | 2115 | G |
| 22 | BA | 2116 | G |
| 22 | BA | 2117 | A |
| 22 | BA | 2118 | U |
| 22 | BA | 2119 | A |
| 22 | BA | 2124 | G |
| 22 | BA | 2125 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 22 | BA | 2126 | A |
| 22 | BA | 2127 | G |
| 22 | BA | 2128 | G |
| 22 | BA | 2131 | U |
| 22 | BA | 2132 | U |
| 22 | BA | 2133 | G |
| 22 | BA | 2137 | U |
| 22 | BA | 2142 | A |
| 22 | BA | 2147 | A |
| 22 | BA | 2157 | G |
| 22 | BA | 2158 | A |
| 22 | BA | 2159 | G |
| 22 | BA | 2163 | A |
| 22 | BA | 2164 | C |
| 22 | BA | 2165 | C |
| 22 | BA | 2171 | A |
| 22 | BA | 2172 | U |
| 22 | BA | 2173 | A |
| 22 | BA | 2182 | U |
| 22 | BA | 2183 | A |
| 22 | BA | 2188 | U |
| 22 | BA | 2189 | U |
| 22 | BA | 2190 | G |
| 22 | BA | 2195 | U |
| 22 | BA | 2198 | A |
| 22 | BA | 2204 | G |
| 22 | BA | 2211 | A |
| 22 | BA | 2225 | A |
| 22 | BA | 2238 | G |
| 22 | BA | 2239 | G |
| 22 | BA | 2252 | G |
| 22 | BA | 2278 | A |
| 22 | BA | 2283 | C |
| 22 | BA | 2287 | A |
| 22 | BA | 2288 | A |
| 22 | BA | 2305 | U |
| 22 | BA | 2308 | G |
| 22 | BA | 2322 | A |
| 22 | BA | 2325 | G |
| 22 | BA | 2333 | A |
| 22 | BA | 2336 | A |
| 22 | BA | 2345 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 22 | BA | 2347 | C |
| 22 | BA | 2350 | C |
| 22 | BA | 2368 | C |
| 22 | BA | 2383 | G |
| 22 | BA | 2385 | C |
| 22 | BA | 2402 | U |
| 22 | BA | 2406 | A |
| 22 | BA | 2425 | A |
| 22 | BA | 2429 | G |
| 22 | BA | 2430 | A |
| 22 | BA | 2435 | A |
| 22 | BA | 2441 | U |
| 22 | BA | 2448 | A |
| 22 | BA | 2476 | A |
| 22 | BA | 2478 | A |
| 22 | BA | 2491 | U |
| 22 | BA | 2502 | G |
| 22 | BA | 2504 | PSU |
| 22 | BA | 2505 | G |
| 22 | BA | 2518 | A |
| 22 | BA | 2529 | G |
| 22 | BA | 2535 | G |
| 22 | BA | 2547 | A |
| 22 | BA | 2566 | A |
| 22 | BA | 2567 | G |
| 22 | BA | 2602 | A |
| 22 | BA | 2609 | U |
| 22 | BA | 2613 | U |
| 22 | BA | 2615 | U |
| 22 | BA | 2629 | U |
| 22 | BA | 2630 | G |
| 22 | BA | 2663 | G |
| 22 | BA | 2682 | A |
| 22 | BA | 2689 | U |
| 22 | BA | 2690 | U |
| 22 | BA | 2714 | G |
| 22 | BA | 2716 | C |
| 22 | BA | 2726 | A |
| 22 | BA | 2733 | A |
| 22 | BA | 2744 | G |
| 22 | BA | 2748 | A |
| 22 | BA | 2778 | A |

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Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 22 | BA | 2791 | G |
| 22 | BA | 2820 | A |
| 22 | BA | 2821 | A |
| 22 | BA | 2835 | A |
| 22 | BA | 2861 | U |
| 22 | BA | 2873 | A |
| 22 | BA | 2874 | C |
| 22 | BA | 2880 | C |
| 22 | BA | 2883 | A |
| 22 | BA | 2884 | U |
| 22 | BA | 2885 | G |
| 22 | BA | 2891 | U |
| 23 | BB | 35 | C |
| 23 | BB | 44 | G |
| 23 | BB | 56 | G |
| 23 | BB | 89 | U |
| 23 | BB | 90 | C |
| 23 | BB | 105 | G |
| 23 | BB | 109 | A |
| 54 | B7 | 4 | C |
| 54 | B7 | 7 | U |
| 54 | B7 | 8 | G |
| 54 | B7 | 9 | A |
| 55 | B8 | 3 | G |
| 55 | B8 | 4 | U |
| 55 | B8 | 5 | G |
| 55 | B8 | 6 | A |
| 55 | B8 | 14 | A |
| 55 | B8 | 17 | C |
| 55 | B8 | 19 | G |
| 55 | B8 | 20 | U |
| 55 | B8 | 21 | A |
| 55 | B8 | 22 | G |
| 55 | B8 | 36 | G |
| 55 | B8 | 46 | G7M |
| 55 | B8 | 47 | U |
| 55 | B8 | 76 | A |

All (20) RNA pucker outliers are listed below:

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | AA | 1225 | A |

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| Mol | Chain | Res | Type |
|-----|-------|------|------|
| 22 | BA | 125 | A |
| 22 | BA | 764 | A |
| 22 | BA | 784 | G |
| 22 | BA | 984 | A |
| 22 | BA | 1286 | A |
| 22 | BA | 1608 | A |
| 22 | BA | 1970 | A |
| 22 | BA | 2099 | U |
| 22 | BA | 2146 | C |
| 22 | BA | 2162 | G |
| 22 | BA | 2188 | U |
| 22 | BA | 2189 | U |
| 22 | BA | 2251 | OMG |
| 22 | BA | 2518 | A |
| 22 | BA | 2873 | A |
| 55 | B8 | 2 | G |
| 55 | B8 | 3 | G |
| 55 | B8 | 19 | G |
| 55 | B8 | 20 | U |

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

40 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|-------|--------------|------|-------------|-------------|------|-------------|
| | | | | | Counts | RMSZ | # $ Z > 2$ | Counts | RMSZ | # $ Z > 2$ |
| 22 | 3TD | BA | 1915 | 22 | 18,22,23 | 4.17 | 8 (44%) | 22,32,35 | 1.65 | 3 (13%) |
| 1 | 4OC | AA | 1402 | 1,56 | 20,23,24 | 3.13 | 8 (40%) | 26,32,35 | 1.02 | 2 (7%) |
| 22 | PSU | BA | 2580 | 57,22 | 18,21,22 | 4.19 | 8 (44%) | 22,30,33 | 2.02 | 6 (27%) |
| 22 | G7M | BA | 2069 | 57,22 | 20,26,27 | 2.39 | 6 (30%) | 17,39,42 | 1.21 | 3 (17%) |
| 22 | PSU | BA | 2457 | 22 | 18,21,22 | 4.13 | 7 (38%) | 22,30,33 | 1.70 | 5 (22%) |
| 55 | 1MG | B8 | 37 | 55 | 18,26,27 | 2.48 | 5 (27%) | 19,39,42 | 1.34 | 3 (15%) |
| 22 | PSU | BA | 1911 | 22 | 18,21,22 | 4.28 | 7 (38%) | 22,30,33 | 1.86 | 5 (22%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|----------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 22 | 1MG | BA | 745 | 22 | 18,26,27 | 2.50 | 7 (38%) | 19,39,42 | 1.64 | 4 (21%) |
| 22 | 2MG | BA | 1835 | 22 | 18,26,27 | 2.36 | 7 (38%) | 16,38,41 | 1.45 | 3 (18%) |
| 12 | D2T | AL | 89 | 12 | 7,9,10 | 1.09 | 0 | 6,11,13 | 2.51 | 3 (50%) |
| 1 | 5MC | AA | 967 | 1 | 18,22,23 | 3.50 | 7 (38%) | 26,32,35 | 0.98 | 1 (3%) |
| 34 | 4D4 | BM | 81 | 34 | 9,11,12 | 2.52 | 3 (33%) | 8,13,15 | 1.06 | 0 |
| 1 | G7M | AA | 527 | 1 | 20,26,27 | 2.57 | 6 (30%) | 17,39,42 | 1.11 | 1 (5%) |
| 1 | UR3 | AA | 1498 | 1 | 19,22,23 | 3.02 | 8 (42%) | 26,32,35 | 1.42 | 2 (7%) |
| 1 | MA6 | AA | 1518 | 1 | 18,26,27 | 1.21 | 1 (5%) | 19,38,41 | 3.42 | 2 (10%) |
| 22 | 6MZ | BA | 2030 | 22 | 18,25,26 | 2.75 | 5 (27%) | 16,36,39 | 2.70 | 4 (25%) |
| 1 | 2MG | AA | 966 | 1 | 18,26,27 | 2.49 | 7 (38%) | 16,38,41 | 1.38 | 3 (18%) |
| 55 | PSU | B8 | 55 | 55 | 18,21,22 | 4.26 | 8 (44%) | 22,30,33 | 1.94 | 5 (22%) |
| 22 | OMC | BA | 2498 | 56,22 | 19,22,23 | 2.91 | 8 (42%) | 26,31,34 | 1.17 | 2 (7%) |
| 22 | PSU | BA | 1917 | 22 | 18,21,22 | 4.24 | 7 (38%) | 22,30,33 | 1.71 | 5 (22%) |
| 25 | MEQ | BD | 150 | 25 | 8,9,10 | 1.64 | 2 (25%) | 5,10,12 | 1.76 | 2 (40%) |
| 22 | PSU | BA | 2605 | 22 | 18,21,22 | 4.13 | 7 (38%) | 22,30,33 | 1.71 | 3 (13%) |
| 1 | 2MG | AA | 1207 | 1,57 | 18,26,27 | 2.57 | 7 (38%) | 16,38,41 | 1.42 | 3 (18%) |
| 22 | OMG | BA | 2251 | 57,22,55 | 18,26,27 | 2.46 | 8 (44%) | 19,38,41 | 1.89 | 8 (42%) |
| 22 | 5MC | BA | 1962 | 57,22 | 18,22,23 | 3.39 | 7 (38%) | 26,32,35 | 1.15 | 2 (7%) |
| 22 | PSU | BA | 2604 | 22 | 18,21,22 | 4.11 | 6 (33%) | 22,30,33 | 1.86 | 5 (22%) |
| 22 | OMU | BA | 2552 | 56,22 | 19,22,23 | 2.83 | 7 (36%) | 26,31,34 | 1.72 | 5 (19%) |
| 1 | PSU | AA | 516 | 1,56 | 18,21,22 | 4.35 | 7 (38%) | 22,30,33 | 1.66 | 4 (18%) |
| 1 | MA6 | AA | 1519 | 1 | 18,26,27 | 1.18 | 1 (5%) | 19,38,41 | 3.50 | 2 (10%) |
| 22 | 2MG | BA | 2445 | 22 | 18,26,27 | 2.43 | 7 (38%) | 16,38,41 | 1.39 | 2 (12%) |
| 22 | 6MZ | BA | 1618 | 22 | 18,25,26 | 2.91 | 4 (22%) | 16,36,39 | 1.95 | 3 (18%) |
| 22 | 5MU | BA | 1939 | 57,22 | 19,22,23 | 0.75 | 0 | 28,32,35 | 1.19 | 4 (14%) |
| 22 | PSU | BA | 2504 | 57,22 | 18,21,22 | 4.25 | 7 (38%) | 22,30,33 | 1.83 | 5 (22%) |
| 1 | 2MG | AA | 1516 | 1 | 18,26,27 | 2.47 | 7 (38%) | 16,38,41 | 1.44 | 3 (18%) |
| 22 | PSU | BA | 746 | 56,22 | 18,21,22 | 4.26 | 8 (44%) | 22,30,33 | 1.81 | 4 (18%) |
| 55 | G7M | B8 | 46 | 55 | 20,26,27 | 2.30 | 6 (30%) | 17,39,42 | 1.34 | 2 (11%) |
| 22 | PSU | BA | 955 | 22 | 18,21,22 | 4.18 | 7 (38%) | 22,30,33 | 1.50 | 4 (18%) |
| 1 | 5MC | AA | 1407 | 1 | 18,22,23 | 3.53 | 7 (38%) | 26,32,35 | 1.02 | 1 (3%) |
| 22 | 5MU | BA | 747 | 22 | 19,22,23 | 0.78 | 0 | 28,32,35 | 1.10 | 2 (7%) |
| 22 | 2MA | BA | 2503 | 56,22,57 | 17,25,26 | 2.41 | 5 (29%) | 17,37,40 | 1.33 | 2 (11%) |

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral

centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|------|----------|---------|------------|---------|
| 22 | 3TD | BA | 1915 | 22 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | 4OC | AA | 1402 | 1,56 | - | 2/9/29/30 | 0/2/2/2 |
| 22 | PSU | BA | 2580 | 57,22 | - | 0/7/25/26 | 0/2/2/2 |
| 22 | G7M | BA | 2069 | 57,22 | - | 2/3/25/26 | 0/3/3/3 |
| 22 | PSU | BA | 2457 | 22 | - | 0/7/25/26 | 0/2/2/2 |
| 55 | 1MG | B8 | 37 | 55 | - | 0/3/25/26 | 0/3/3/3 |
| 22 | PSU | BA | 1911 | 22 | - | 0/7/25/26 | 0/2/2/2 |
| 22 | 1MG | BA | 745 | 22 | - | 0/3/25/26 | 0/3/3/3 |
| 22 | 2MG | BA | 1835 | 22 | - | 0/5/27/28 | 0/3/3/3 |
| 12 | D2T | AL | 89 | 12 | - | 1/7/12/14 | - |
| 1 | 5MC | AA | 967 | 1 | - | 0/7/25/26 | 0/2/2/2 |
| 34 | 4D4 | BM | 81 | 34 | - | 3/11/12/14 | - |
| 1 | G7M | AA | 527 | 1 | - | 2/3/25/26 | 0/3/3/3 |
| 1 | UR3 | AA | 1498 | 1 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | MA6 | AA | 1518 | 1 | - | 0/7/29/30 | 0/3/3/3 |
| 22 | 6MZ | BA | 2030 | 22 | - | 2/5/27/28 | 0/3/3/3 |
| 1 | 2MG | AA | 966 | 1 | - | 2/5/27/28 | 0/3/3/3 |
| 55 | PSU | B8 | 55 | 55 | - | 2/7/25/26 | 0/2/2/2 |
| 22 | OMC | BA | 2498 | 56,22 | - | 0/9/27/28 | 0/2/2/2 |
| 22 | PSU | BA | 1917 | 22 | - | 0/7/25/26 | 0/2/2/2 |
| 25 | MEQ | BD | 150 | 25 | - | 3/8/9/11 | - |
| 22 | PSU | BA | 2605 | 22 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | 2MG | AA | 1207 | 1,57 | - | 0/5/27/28 | 0/3/3/3 |
| 22 | OMG | BA | 2251 | 57,22,55 | - | 3/5/27/28 | 0/3/3/3 |
| 22 | 5MC | BA | 1962 | 57,22 | - | 0/7/25/26 | 0/2/2/2 |
| 22 | PSU | BA | 2604 | 22 | - | 0/7/25/26 | 0/2/2/2 |
| 22 | OMU | BA | 2552 | 56,22 | - | 1/9/27/28 | 0/2/2/2 |
| 1 | PSU | AA | 516 | 1,56 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | MA6 | AA | 1519 | 1 | - | 2/7/29/30 | 0/3/3/3 |
| 22 | 2MG | BA | 2445 | 22 | - | 1/5/27/28 | 0/3/3/3 |
| 22 | 6MZ | BA | 1618 | 22 | - | 0/5/27/28 | 0/3/3/3 |
| 22 | 5MU | BA | 1939 | 57,22 | - | 0/7/25/26 | 0/2/2/2 |
| 22 | PSU | BA | 2504 | 57,22 | - | 2/7/25/26 | 0/2/2/2 |
| 1 | 2MG | AA | 1516 | 1 | - | 0/5/27/28 | 0/3/3/3 |
| 22 | PSU | BA | 746 | 56,22 | - | 1/7/25/26 | 0/2/2/2 |
| 55 | G7M | B8 | 46 | 55 | - | 0/3/25/26 | 0/3/3/3 |
| 22 | PSU | BA | 955 | 22 | - | 0/7/25/26 | 0/2/2/2 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|------|----------|---------|-----------|---------|
| 1 | 5MC | AA | 1407 | 1 | - | 0/7/25/26 | 0/2/2/2 |
| 22 | 5MU | BA | 747 | 22 | - | 1/7/25/26 | 0/2/2/2 |
| 22 | 2MA | BA | 2503 | 56,22,57 | - | 2/3/25/26 | 0/3/3/3 |

All (233) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 22 | BA | 1915 | 3TD | C6-C5 | 11.97 | 1.49 | 1.35 |
| 22 | BA | 746 | PSU | C6-C5 | 11.78 | 1.49 | 1.35 |
| 22 | BA | 2504 | PSU | C6-C5 | 11.65 | 1.48 | 1.35 |
| 1 | AA | 516 | PSU | C6-C5 | 11.65 | 1.48 | 1.35 |
| 22 | BA | 2580 | PSU | C6-C5 | 11.49 | 1.48 | 1.35 |
| 22 | BA | 1911 | PSU | C6-C5 | 11.36 | 1.48 | 1.35 |
| 22 | BA | 2605 | PSU | C6-C5 | 11.29 | 1.48 | 1.35 |
| 22 | BA | 955 | PSU | C6-C5 | 11.24 | 1.48 | 1.35 |
| 22 | BA | 2457 | PSU | C6-C5 | 11.21 | 1.48 | 1.35 |
| 22 | BA | 1917 | PSU | C6-C5 | 11.21 | 1.48 | 1.35 |
| 22 | BA | 2604 | PSU | C6-C5 | 11.15 | 1.48 | 1.35 |
| 55 | B8 | 55 | PSU | C6-C5 | 11.12 | 1.48 | 1.35 |
| 22 | BA | 1618 | 6MZ | C6-N6 | 10.99 | 1.53 | 1.35 |
| 22 | BA | 2030 | 6MZ | C6-N6 | 10.27 | 1.51 | 1.35 |
| 55 | B8 | 55 | PSU | C2-N1 | 9.84 | 1.50 | 1.36 |
| 22 | BA | 1911 | PSU | C2-N1 | 9.77 | 1.50 | 1.36 |
| 1 | AA | 516 | PSU | C2-N1 | 9.62 | 1.49 | 1.36 |
| 22 | BA | 746 | PSU | C2-N1 | 9.54 | 1.49 | 1.36 |
| 22 | BA | 1917 | PSU | C2-N1 | 9.45 | 1.49 | 1.36 |
| 22 | BA | 2605 | PSU | C2-N1 | 9.39 | 1.49 | 1.36 |
| 22 | BA | 2504 | PSU | C2-N1 | 9.36 | 1.49 | 1.36 |
| 1 | AA | 1407 | 5MC | C6-C5 | 9.26 | 1.49 | 1.34 |
| 22 | BA | 2604 | PSU | C2-N1 | 9.14 | 1.49 | 1.36 |
| 1 | AA | 967 | 5MC | C6-C5 | 8.89 | 1.49 | 1.34 |
| 22 | BA | 1962 | 5MC | C6-C5 | 8.85 | 1.49 | 1.34 |
| 22 | BA | 955 | PSU | C2-N1 | 8.82 | 1.48 | 1.36 |
| 22 | BA | 2580 | PSU | C2-N1 | 8.80 | 1.48 | 1.36 |
| 22 | BA | 2457 | PSU | C2-N1 | 8.77 | 1.48 | 1.36 |
| 22 | BA | 1915 | 3TD | C2-N1 | 8.71 | 1.48 | 1.37 |
| 1 | AA | 1498 | UR3 | C2-N1 | 8.25 | 1.50 | 1.38 |
| 1 | AA | 516 | PSU | C2-N3 | 7.31 | 1.50 | 1.37 |
| 22 | BA | 2580 | PSU | C2-N3 | 7.22 | 1.49 | 1.37 |
| 22 | BA | 2503 | 2MA | C2-N3 | 7.22 | 1.46 | 1.31 |
| 22 | BA | 1911 | PSU | C2-N3 | 7.07 | 1.49 | 1.37 |
| 22 | BA | 1917 | PSU | C2-N3 | 6.99 | 1.49 | 1.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|------|-------------|----------|
| 22 | BA | 955 | PSU | C2-N3 | 6.92 | 1.49 | 1.37 |
| 55 | B8 | 55 | PSU | C2-N3 | 6.88 | 1.49 | 1.37 |
| 22 | BA | 2504 | PSU | C2-N3 | 6.82 | 1.49 | 1.37 |
| 22 | BA | 2457 | PSU | C2-N3 | 6.81 | 1.49 | 1.37 |
| 22 | BA | 2604 | PSU | C2-N3 | 6.79 | 1.49 | 1.37 |
| 1 | AA | 1402 | 4OC | C4-N3 | 6.64 | 1.44 | 1.32 |
| 22 | BA | 746 | PSU | C2-N3 | 6.61 | 1.48 | 1.37 |
| 1 | AA | 967 | 5MC | C4-N3 | 6.48 | 1.45 | 1.34 |
| 1 | AA | 1402 | 4OC | C6-C5 | 6.45 | 1.50 | 1.35 |
| 22 | BA | 2552 | OMU | C2-N3 | 6.33 | 1.49 | 1.38 |
| 55 | B8 | 37 | 1MG | C2-N3 | 6.26 | 1.46 | 1.34 |
| 1 | AA | 1407 | 5MC | C4-N3 | 6.20 | 1.44 | 1.34 |
| 22 | BA | 745 | 1MG | C2-N3 | 6.10 | 1.45 | 1.34 |
| 34 | BM | 81 | 4D4 | CZ-NE | 6.09 | 1.45 | 1.33 |
| 22 | BA | 2605 | PSU | C2-N3 | 6.08 | 1.47 | 1.37 |
| 22 | BA | 1962 | 5MC | C4-N3 | 6.06 | 1.44 | 1.34 |
| 22 | BA | 2552 | OMU | C2-N1 | 6.06 | 1.48 | 1.38 |
| 1 | AA | 967 | 5MC | C2-N3 | 6.05 | 1.48 | 1.36 |
| 1 | AA | 1402 | 4OC | C2-N3 | 5.98 | 1.48 | 1.36 |
| 22 | BA | 2498 | OMC | C6-C5 | 5.94 | 1.48 | 1.35 |
| 1 | AA | 1407 | 5MC | C2-N3 | 5.88 | 1.48 | 1.36 |
| 1 | AA | 527 | G7M | C2-N3 | 5.87 | 1.47 | 1.33 |
| 22 | BA | 1962 | 5MC | C2-N3 | 5.73 | 1.48 | 1.36 |
| 22 | BA | 2498 | OMC | C2-N3 | 5.69 | 1.47 | 1.36 |
| 1 | AA | 1498 | UR3 | C6-C5 | 5.57 | 1.48 | 1.35 |
| 1 | AA | 1207 | 2MG | C2-N2 | 5.48 | 1.45 | 1.33 |
| 1 | AA | 966 | 2MG | C2-N2 | 5.42 | 1.45 | 1.33 |
| 22 | BA | 1915 | 3TD | C6-N1 | 5.37 | 1.45 | 1.36 |
| 1 | AA | 1516 | 2MG | C2-N2 | 5.32 | 1.45 | 1.33 |
| 1 | AA | 527 | G7M | C4-N3 | 5.25 | 1.50 | 1.37 |
| 22 | BA | 2552 | OMU | C6-C5 | 5.22 | 1.47 | 1.35 |
| 22 | BA | 2069 | G7M | C2-N3 | 5.22 | 1.45 | 1.33 |
| 55 | B8 | 46 | G7M | C2-N3 | 5.14 | 1.45 | 1.33 |
| 1 | AA | 1207 | 2MG | C4-N3 | 5.04 | 1.49 | 1.37 |
| 22 | BA | 2069 | G7M | C4-N3 | 5.02 | 1.49 | 1.37 |
| 22 | BA | 1917 | PSU | C6-N1 | 5.01 | 1.44 | 1.36 |
| 22 | BA | 2445 | 2MG | C2-N2 | 5.00 | 1.44 | 1.33 |
| 55 | B8 | 37 | 1MG | C4-N3 | 4.98 | 1.49 | 1.37 |
| 55 | B8 | 55 | PSU | C6-N1 | 4.95 | 1.44 | 1.36 |
| 22 | BA | 745 | 1MG | C4-N3 | 4.92 | 1.49 | 1.37 |
| 22 | BA | 2251 | OMG | C2-N3 | 4.90 | 1.45 | 1.33 |
| 22 | BA | 1911 | PSU | C6-N1 | 4.89 | 1.44 | 1.36 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|--------|-------|-------------|----------|
| 1 | AA | 1207 | 2MG | C2-N1 | 4.89 | 1.44 | 1.36 |
| 22 | BA | 2498 | OMC | C2-N1 | 4.88 | 1.50 | 1.40 |
| 1 | AA | 1498 | UR3 | C2-N3 | 4.87 | 1.48 | 1.39 |
| 22 | BA | 2605 | PSU | C6-N1 | 4.83 | 1.44 | 1.36 |
| 22 | BA | 1835 | 2MG | C2-N2 | 4.83 | 1.44 | 1.33 |
| 1 | AA | 516 | PSU | C6-N1 | 4.83 | 1.44 | 1.36 |
| 1 | AA | 527 | G7M | C6-N1 | 4.82 | 1.45 | 1.37 |
| 1 | AA | 966 | 2MG | C2-N1 | 4.81 | 1.44 | 1.36 |
| 1 | AA | 1516 | 2MG | C2-N1 | 4.77 | 1.44 | 1.36 |
| 22 | BA | 1915 | 3TD | C1'-C5 | -4.74 | 1.39 | 1.50 |
| 1 | AA | 966 | 2MG | C4-N3 | 4.71 | 1.48 | 1.37 |
| 22 | BA | 2504 | PSU | C6-N1 | 4.69 | 1.44 | 1.36 |
| 22 | BA | 2503 | 2MA | C4-N3 | 4.65 | 1.48 | 1.37 |
| 22 | BA | 2251 | OMG | C4-N3 | 4.65 | 1.48 | 1.37 |
| 1 | AA | 1516 | 2MG | C4-N3 | 4.64 | 1.48 | 1.37 |
| 55 | B8 | 37 | 1MG | C2-N2 | 4.62 | 1.42 | 1.34 |
| 1 | AA | 1402 | 4OC | C4-N4 | 4.61 | 1.45 | 1.35 |
| 55 | B8 | 46 | G7M | C6-N1 | 4.59 | 1.44 | 1.37 |
| 22 | BA | 1915 | 3TD | C2-N3 | 4.58 | 1.48 | 1.38 |
| 22 | BA | 2251 | OMG | C2-N2 | 4.57 | 1.45 | 1.34 |
| 1 | AA | 1407 | 5MC | C6-N1 | 4.56 | 1.45 | 1.38 |
| 22 | BA | 955 | PSU | C6-N1 | 4.56 | 1.43 | 1.36 |
| 22 | BA | 746 | PSU | C6-N1 | 4.55 | 1.43 | 1.36 |
| 22 | BA | 2457 | PSU | C6-N1 | 4.54 | 1.43 | 1.36 |
| 22 | BA | 2069 | G7M | C6-N1 | 4.53 | 1.44 | 1.37 |
| 22 | BA | 1835 | 2MG | C2-N1 | 4.52 | 1.43 | 1.36 |
| 22 | BA | 745 | 1MG | C2-N2 | 4.52 | 1.42 | 1.34 |
| 22 | BA | 2498 | OMC | C4-N4 | 4.42 | 1.44 | 1.33 |
| 22 | BA | 1835 | 2MG | C4-N3 | 4.39 | 1.48 | 1.37 |
| 1 | AA | 967 | 5MC | C6-N1 | 4.38 | 1.45 | 1.38 |
| 55 | B8 | 46 | G7M | C4-N3 | 4.37 | 1.48 | 1.37 |
| 22 | BA | 2445 | 2MG | C4-N3 | 4.37 | 1.48 | 1.37 |
| 22 | BA | 2604 | PSU | C6-N1 | 4.35 | 1.43 | 1.36 |
| 22 | BA | 2445 | 2MG | C2-N1 | 4.34 | 1.43 | 1.36 |
| 22 | BA | 2580 | PSU | C6-N1 | 4.31 | 1.43 | 1.36 |
| 1 | AA | 1498 | UR3 | O4-C4 | -4.29 | 1.14 | 1.23 |
| 22 | BA | 2498 | OMC | C4-N3 | 4.29 | 1.43 | 1.34 |
| 1 | AA | 1407 | 5MC | C4-N4 | 4.20 | 1.45 | 1.34 |
| 1 | AA | 967 | 5MC | C4-N4 | 4.19 | 1.45 | 1.34 |
| 22 | BA | 1962 | 5MC | C6-N1 | 4.13 | 1.45 | 1.38 |
| 1 | AA | 516 | PSU | C4-N3 | 4.08 | 1.46 | 1.38 |
| 1 | AA | 527 | G7M | C2-N2 | 4.08 | 1.43 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|--------|-------|-------------|----------|
| 1 | AA | 967 | 5MC | C2-N1 | 4.01 | 1.48 | 1.40 |
| 22 | BA | 1917 | PSU | C4-N3 | 4.01 | 1.46 | 1.38 |
| 1 | AA | 1407 | 5MC | C2-N1 | 3.98 | 1.48 | 1.40 |
| 22 | BA | 1962 | 5MC | C4-N4 | 3.97 | 1.44 | 1.34 |
| 22 | BA | 955 | PSU | C4-N3 | 3.94 | 1.46 | 1.38 |
| 22 | BA | 2552 | OMU | C4-N3 | 3.93 | 1.45 | 1.38 |
| 1 | AA | 1207 | 2MG | C6-N1 | 3.89 | 1.43 | 1.37 |
| 1 | AA | 1402 | 4OC | C2-N1 | 3.89 | 1.48 | 1.40 |
| 1 | AA | 1402 | 4OC | C5-C4 | 3.86 | 1.49 | 1.40 |
| 22 | BA | 1962 | 5MC | C2-N1 | 3.82 | 1.48 | 1.40 |
| 22 | BA | 2069 | G7M | C2-N2 | 3.80 | 1.43 | 1.34 |
| 1 | AA | 966 | 2MG | C6-N1 | 3.72 | 1.43 | 1.37 |
| 1 | AA | 527 | G7M | C5-C6 | 3.72 | 1.55 | 1.45 |
| 22 | BA | 1911 | PSU | C4-N3 | 3.71 | 1.45 | 1.38 |
| 22 | BA | 2457 | PSU | C4-N3 | 3.69 | 1.45 | 1.38 |
| 55 | B8 | 55 | PSU | C4-N3 | 3.64 | 1.45 | 1.38 |
| 22 | BA | 2445 | 2MG | C5-C6 | 3.63 | 1.54 | 1.47 |
| 22 | BA | 2580 | PSU | C4-N3 | 3.59 | 1.45 | 1.38 |
| 22 | BA | 2069 | G7M | C5-C6 | 3.58 | 1.54 | 1.45 |
| 55 | B8 | 46 | G7M | C2-N2 | 3.53 | 1.42 | 1.34 |
| 22 | BA | 2445 | 2MG | C6-N1 | 3.49 | 1.43 | 1.37 |
| 22 | BA | 2552 | OMU | O4-C4 | -3.47 | 1.17 | 1.24 |
| 22 | BA | 2504 | PSU | C4-N3 | 3.46 | 1.45 | 1.38 |
| 22 | BA | 2498 | OMC | O2-C2 | -3.45 | 1.17 | 1.23 |
| 22 | BA | 2604 | PSU | C4-N3 | 3.39 | 1.45 | 1.38 |
| 1 | AA | 1516 | 2MG | C6-N1 | 3.38 | 1.42 | 1.37 |
| 1 | AA | 1207 | 2MG | C5-C6 | 3.37 | 1.54 | 1.47 |
| 1 | AA | 1516 | 2MG | C5-C6 | 3.33 | 1.54 | 1.47 |
| 22 | BA | 2498 | OMC | C6-N1 | 3.32 | 1.46 | 1.38 |
| 1 | AA | 1402 | 4OC | C6-N1 | 3.26 | 1.45 | 1.38 |
| 22 | BA | 1618 | 6MZ | C2-N3 | 3.21 | 1.37 | 1.32 |
| 22 | BA | 2605 | PSU | C4-N3 | 3.18 | 1.44 | 1.38 |
| 1 | AA | 1402 | 4OC | O2-C2 | -3.16 | 1.17 | 1.23 |
| 22 | BA | 746 | PSU | C4-N3 | 3.12 | 1.44 | 1.38 |
| 22 | BA | 1835 | 2MG | C6-N1 | 3.11 | 1.42 | 1.37 |
| 22 | BA | 2251 | OMG | C5-C4 | -3.09 | 1.35 | 1.43 |
| 55 | B8 | 37 | 1MG | C5-C4 | -3.05 | 1.35 | 1.43 |
| 34 | BM | 81 | 4D4 | CZ-NH2 | 3.04 | 1.44 | 1.32 |
| 22 | BA | 745 | 1MG | C5-C4 | -3.04 | 1.35 | 1.43 |
| 25 | BD | 150 | MEQ | OE1-CD | -3.03 | 1.17 | 1.23 |
| 55 | B8 | 46 | G7M | C5-C6 | 3.03 | 1.53 | 1.45 |
| 22 | BA | 1835 | 2MG | C5-C6 | 2.99 | 1.53 | 1.47 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|--------|-------|-------------|----------|
| 22 | BA | 1962 | 5MC | O2-C2 | -2.98 | 1.18 | 1.23 |
| 22 | BA | 1835 | 2MG | C5-C4 | -2.96 | 1.35 | 1.43 |
| 1 | AA | 1407 | 5MC | O2-C2 | -2.94 | 1.18 | 1.23 |
| 22 | BA | 2251 | OMG | C6-N1 | 2.94 | 1.42 | 1.37 |
| 1 | AA | 1498 | UR3 | C5-C4 | 2.93 | 1.51 | 1.43 |
| 22 | BA | 2552 | OMU | O2-C2 | -2.92 | 1.17 | 1.23 |
| 22 | BA | 745 | 1MG | O6-C6 | -2.91 | 1.16 | 1.22 |
| 1 | AA | 527 | G7M | C2-N1 | 2.88 | 1.44 | 1.37 |
| 1 | AA | 1518 | MA6 | C5-C4 | -2.88 | 1.33 | 1.40 |
| 22 | BA | 955 | PSU | C1'-C5 | 2.83 | 1.56 | 1.50 |
| 22 | BA | 2030 | 6MZ | C2-N3 | 2.82 | 1.36 | 1.32 |
| 1 | AA | 966 | 2MG | C5-C6 | 2.82 | 1.53 | 1.47 |
| 55 | B8 | 46 | G7M | C2-N1 | 2.80 | 1.44 | 1.37 |
| 22 | BA | 1835 | 2MG | O6-C6 | -2.80 | 1.17 | 1.23 |
| 1 | AA | 966 | 2MG | C5-C4 | -2.78 | 1.36 | 1.43 |
| 22 | BA | 2445 | 2MG | C5-C4 | -2.78 | 1.36 | 1.43 |
| 22 | BA | 955 | PSU | O4-C4 | -2.77 | 1.18 | 1.23 |
| 1 | AA | 1498 | UR3 | O2-C2 | -2.76 | 1.17 | 1.22 |
| 1 | AA | 967 | 5MC | O2-C2 | -2.76 | 1.18 | 1.23 |
| 22 | BA | 2457 | PSU | C1'-C5 | 2.75 | 1.56 | 1.50 |
| 22 | BA | 2457 | PSU | O4-C4 | -2.75 | 1.18 | 1.23 |
| 22 | BA | 2604 | PSU | O4-C4 | -2.74 | 1.18 | 1.23 |
| 22 | BA | 2445 | 2MG | O6-C6 | -2.72 | 1.17 | 1.23 |
| 22 | BA | 2251 | OMG | O6-C6 | -2.70 | 1.17 | 1.23 |
| 22 | BA | 2251 | OMG | C5-C6 | 2.70 | 1.52 | 1.47 |
| 22 | BA | 2552 | OMU | C6-N1 | 2.69 | 1.44 | 1.38 |
| 22 | BA | 2503 | 2MA | C2-N1 | 2.69 | 1.44 | 1.36 |
| 1 | AA | 1519 | MA6 | C5-C4 | -2.67 | 1.33 | 1.40 |
| 1 | AA | 1516 | 2MG | C5-C4 | -2.64 | 1.36 | 1.43 |
| 22 | BA | 746 | PSU | C1'-C5 | 2.64 | 1.56 | 1.50 |
| 22 | BA | 2251 | OMG | C2-N1 | 2.60 | 1.44 | 1.37 |
| 22 | BA | 2030 | 6MZ | C5-C4 | -2.59 | 1.34 | 1.40 |
| 55 | B8 | 55 | PSU | O4-C4 | -2.53 | 1.18 | 1.23 |
| 22 | BA | 2580 | PSU | O4-C4 | -2.52 | 1.18 | 1.23 |
| 1 | AA | 1207 | 2MG | C5-C4 | -2.52 | 1.36 | 1.43 |
| 22 | BA | 2605 | PSU | C1'-C5 | 2.50 | 1.55 | 1.50 |
| 22 | BA | 1915 | 3TD | C4-N3 | 2.50 | 1.45 | 1.40 |
| 22 | BA | 1618 | 6MZ | C9-N6 | 2.49 | 1.49 | 1.45 |
| 22 | BA | 2503 | 2MA | C6-N1 | 2.49 | 1.43 | 1.38 |
| 22 | BA | 2504 | PSU | C1'-C5 | 2.48 | 1.55 | 1.50 |
| 22 | BA | 2069 | G7M | C2-N1 | 2.48 | 1.43 | 1.37 |
| 22 | BA | 1915 | 3TD | O2-C2 | -2.46 | 1.18 | 1.23 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 22 | BA | 1618 | 6MZ | C5-C4 | -2.46 | 1.34 | 1.40 |
| 1 | AA | 516 | PSU | C1'-C5 | 2.45 | 1.55 | 1.50 |
| 22 | BA | 746 | PSU | O4-C4 | -2.43 | 1.19 | 1.23 |
| 22 | BA | 1917 | PSU | C1'-C5 | 2.41 | 1.55 | 1.50 |
| 22 | BA | 2605 | PSU | O4-C4 | -2.41 | 1.19 | 1.23 |
| 1 | AA | 1498 | UR3 | C6-N1 | 2.40 | 1.43 | 1.38 |
| 22 | BA | 2504 | PSU | O4-C4 | -2.38 | 1.19 | 1.23 |
| 1 | AA | 1516 | 2MG | O6-C6 | -2.37 | 1.18 | 1.23 |
| 34 | BM | 81 | 4D4 | CZ-NH1 | -2.36 | 1.25 | 1.34 |
| 22 | BA | 2498 | OMC | C5-C4 | 2.35 | 1.48 | 1.42 |
| 22 | BA | 2503 | 2MA | C5-C4 | -2.34 | 1.37 | 1.43 |
| 1 | AA | 966 | 2MG | O6-C6 | -2.29 | 1.18 | 1.23 |
| 22 | BA | 745 | 1MG | C5-C6 | 2.29 | 1.54 | 1.47 |
| 22 | BA | 1911 | PSU | C1'-C5 | 2.25 | 1.55 | 1.50 |
| 55 | B8 | 37 | 1MG | O6-C6 | -2.24 | 1.18 | 1.22 |
| 22 | BA | 2580 | PSU | C1'-C5 | 2.23 | 1.55 | 1.50 |
| 1 | AA | 516 | PSU | O4-C4 | -2.22 | 1.19 | 1.23 |
| 55 | B8 | 55 | PSU | O4'-C1' | -2.20 | 1.40 | 1.43 |
| 25 | BD | 150 | MEQ | CD-NE2 | 2.19 | 1.44 | 1.34 |
| 22 | BA | 745 | 1MG | C6-N1 | 2.19 | 1.43 | 1.39 |
| 1 | AA | 1207 | 2MG | O6-C6 | -2.19 | 1.18 | 1.23 |
| 22 | BA | 2030 | 6MZ | C9-N6 | 2.19 | 1.48 | 1.45 |
| 55 | B8 | 55 | PSU | C1'-C5 | 2.17 | 1.55 | 1.50 |
| 22 | BA | 1911 | PSU | O4-C4 | -2.16 | 1.19 | 1.23 |
| 22 | BA | 2580 | PSU | O4'-C1' | -2.15 | 1.40 | 1.43 |
| 22 | BA | 1917 | PSU | O4-C4 | -2.15 | 1.19 | 1.23 |
| 1 | AA | 1498 | UR3 | C3U-N3 | -2.10 | 1.43 | 1.47 |
| 22 | BA | 2030 | 6MZ | C5-N7 | -2.06 | 1.32 | 1.39 |
| 22 | BA | 1915 | 3TD | O4-C4 | -2.02 | 1.18 | 1.23 |
| 22 | BA | 746 | PSU | O4'-C1' | -2.00 | 1.41 | 1.43 |

All (128) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|--------|-------------|----------|
| 1 | AA | 1519 | MA6 | N1-C6-N6 | -13.93 | 102.40 | 117.06 |
| 1 | AA | 1518 | MA6 | N1-C6-N6 | -13.60 | 102.74 | 117.06 |
| 22 | BA | 2030 | 6MZ | C9-N6-C6 | -7.09 | 116.76 | 122.87 |
| 1 | AA | 1518 | MA6 | N3-C2-N1 | -5.56 | 119.99 | 128.68 |
| 22 | BA | 1618 | 6MZ | N3-C2-N1 | -5.55 | 120.00 | 128.68 |
| 22 | BA | 2030 | 6MZ | N3-C2-N1 | -5.55 | 120.00 | 128.68 |
| 1 | AA | 1519 | MA6 | N3-C2-N1 | -5.45 | 120.16 | 128.68 |
| 22 | BA | 2552 | OMU | C4-N3-C2 | -5.40 | 119.45 | 126.58 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 1 | AA | 1498 | UR3 | C4-N3-C2 | -5.34 | 119.53 | 124.56 |
| 22 | BA | 1915 | 3TD | N1-C2-N3 | 5.25 | 120.28 | 116.14 |
| 55 | B8 | 55 | PSU | C4-N3-C2 | -5.23 | 118.81 | 126.34 |
| 22 | BA | 1911 | PSU | C4-N3-C2 | -4.75 | 119.49 | 126.34 |
| 22 | BA | 2604 | PSU | C4-N3-C2 | -4.75 | 119.50 | 126.34 |
| 22 | BA | 2457 | PSU | C4-N3-C2 | -4.66 | 119.62 | 126.34 |
| 22 | BA | 745 | 1MG | C5-C6-N1 | 4.65 | 120.90 | 113.90 |
| 22 | BA | 746 | PSU | C4-N3-C2 | -4.63 | 119.67 | 126.34 |
| 22 | BA | 746 | PSU | N1-C2-N3 | 4.62 | 120.36 | 115.13 |
| 22 | BA | 2504 | PSU | C4-N3-C2 | -4.51 | 119.84 | 126.34 |
| 22 | BA | 2504 | PSU | N1-C2-N3 | 4.49 | 120.21 | 115.13 |
| 22 | BA | 2604 | PSU | N1-C2-N3 | 4.48 | 120.20 | 115.13 |
| 22 | BA | 2580 | PSU | C4-N3-C2 | -4.46 | 119.92 | 126.34 |
| 22 | BA | 1917 | PSU | C4-N3-C2 | -4.43 | 119.95 | 126.34 |
| 12 | AL | 89 | D2T | CB1-SB-CB | 4.41 | 110.43 | 102.44 |
| 22 | BA | 1911 | PSU | N1-C2-N3 | 4.38 | 120.09 | 115.13 |
| 55 | B8 | 55 | PSU | N1-C2-N3 | 4.37 | 120.08 | 115.13 |
| 22 | BA | 2580 | PSU | N1-C2-N3 | 4.36 | 120.07 | 115.13 |
| 22 | BA | 2030 | 6MZ | C2-N1-C6 | 4.33 | 120.30 | 116.59 |
| 22 | BA | 2605 | PSU | C4-N3-C2 | -4.29 | 120.15 | 126.34 |
| 22 | BA | 955 | PSU | C4-N3-C2 | -4.18 | 120.32 | 126.34 |
| 22 | BA | 2605 | PSU | N1-C2-N3 | 4.12 | 119.80 | 115.13 |
| 1 | AA | 516 | PSU | C4-N3-C2 | -4.08 | 120.45 | 126.34 |
| 22 | BA | 1915 | 3TD | C4-N3-C2 | -4.05 | 120.22 | 124.61 |
| 22 | BA | 1618 | 6MZ | C2-N1-C6 | 4.00 | 120.02 | 116.59 |
| 55 | B8 | 37 | 1MG | C5-C6-N1 | 3.94 | 119.82 | 113.90 |
| 22 | BA | 1917 | PSU | N1-C2-N3 | 3.93 | 119.59 | 115.13 |
| 22 | BA | 2457 | PSU | N1-C2-N3 | 3.85 | 119.50 | 115.13 |
| 1 | AA | 516 | PSU | N1-C2-N3 | 3.76 | 119.39 | 115.13 |
| 22 | BA | 2552 | OMU | N3-C2-N1 | 3.69 | 119.79 | 114.89 |
| 22 | BA | 2580 | PSU | O2-C2-N1 | -3.64 | 118.78 | 122.79 |
| 22 | BA | 2552 | OMU | C5-C4-N3 | 3.57 | 120.19 | 114.84 |
| 22 | BA | 2445 | 2MG | C5-C6-N1 | 3.47 | 120.08 | 113.95 |
| 1 | AA | 1207 | 2MG | C5-C6-N1 | 3.46 | 120.06 | 113.95 |
| 22 | BA | 2503 | 2MA | C5-C6-N1 | 3.44 | 119.96 | 114.02 |
| 22 | BA | 2498 | OMC | O2-C2-N3 | -3.43 | 116.75 | 122.33 |
| 22 | BA | 2580 | PSU | C6-C5-C4 | 3.41 | 120.58 | 118.20 |
| 1 | AA | 966 | 2MG | C5-C6-N1 | 3.39 | 119.93 | 113.95 |
| 22 | BA | 1962 | 5MC | CM5-C5-C6 | -3.35 | 118.37 | 122.85 |
| 1 | AA | 1516 | 2MG | C5-C6-N1 | 3.34 | 119.86 | 113.95 |
| 22 | BA | 1835 | 2MG | C5-C6-N1 | 3.34 | 119.85 | 113.95 |
| 22 | BA | 2251 | OMG | O3'-C3'-C2' | 3.32 | 120.59 | 111.17 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 22 | BA | 1962 | 5MC | C5-C6-N1 | -3.32 | 119.93 | 123.34 |
| 22 | BA | 2251 | OMG | C5-C6-N1 | 3.31 | 119.80 | 113.95 |
| 12 | AL | 89 | D2T | OD2-CG-CB | 3.22 | 120.11 | 113.15 |
| 22 | BA | 2030 | 6MZ | C1'-N9-C4 | -3.21 | 121.00 | 126.64 |
| 22 | BA | 955 | PSU | N1-C2-N3 | 3.20 | 118.76 | 115.13 |
| 22 | BA | 2251 | OMG | C8-N7-C5 | 3.18 | 109.05 | 102.99 |
| 1 | AA | 516 | PSU | C6-N1-C2 | -3.18 | 119.43 | 122.68 |
| 22 | BA | 746 | PSU | C6-N1-C2 | -3.15 | 119.46 | 122.68 |
| 55 | B8 | 46 | G7M | C2-N1-C6 | -3.05 | 119.47 | 125.10 |
| 1 | AA | 967 | 5MC | C5-C6-N1 | -3.05 | 120.20 | 123.34 |
| 25 | BD | 150 | MEQ | CG-CD-NE2 | 2.98 | 120.42 | 116.29 |
| 55 | B8 | 46 | G7M | N2-C2-N1 | 2.96 | 123.02 | 116.71 |
| 22 | BA | 1911 | PSU | C6-N1-C2 | -2.96 | 119.66 | 122.68 |
| 22 | BA | 2503 | 2MA | C8-N7-C5 | 2.95 | 108.60 | 102.99 |
| 22 | BA | 2504 | PSU | C6-N1-C2 | -2.93 | 119.69 | 122.68 |
| 22 | BA | 1835 | 2MG | C8-N7-C5 | 2.92 | 108.55 | 102.99 |
| 22 | BA | 2580 | PSU | C6-N1-C2 | -2.92 | 119.70 | 122.68 |
| 22 | BA | 745 | 1MG | C8-N7-C5 | 2.91 | 108.53 | 102.99 |
| 22 | BA | 2552 | OMU | O4-C4-C5 | -2.89 | 120.08 | 125.16 |
| 1 | AA | 1407 | 5MC | C5-C6-N1 | -2.89 | 120.37 | 123.34 |
| 1 | AA | 527 | G7M | C2-N1-C6 | -2.85 | 119.84 | 125.10 |
| 55 | B8 | 55 | PSU | C6-C5-C4 | 2.84 | 120.19 | 118.20 |
| 22 | BA | 2504 | PSU | O2-C2-N1 | -2.84 | 119.67 | 122.79 |
| 22 | BA | 2445 | 2MG | C8-N7-C5 | 2.83 | 108.39 | 102.99 |
| 1 | AA | 1516 | 2MG | C8-N7-C5 | 2.83 | 108.38 | 102.99 |
| 22 | BA | 2604 | PSU | C6-C5-C4 | 2.77 | 120.13 | 118.20 |
| 22 | BA | 1917 | PSU | C6-N1-C2 | -2.77 | 119.85 | 122.68 |
| 1 | AA | 1207 | 2MG | C8-N7-C5 | 2.76 | 108.25 | 102.99 |
| 22 | BA | 1939 | 5MU | C4-N3-C2 | -2.73 | 123.81 | 127.35 |
| 22 | BA | 2251 | OMG | C2-N1-C6 | -2.73 | 120.08 | 125.10 |
| 22 | BA | 745 | 1MG | O6-C6-C5 | -2.71 | 119.40 | 124.19 |
| 1 | AA | 1402 | 4OC | C6-C5-C4 | 2.70 | 120.27 | 116.96 |
| 22 | BA | 2605 | PSU | C6-N1-C2 | -2.69 | 119.94 | 122.68 |
| 55 | B8 | 37 | 1MG | C8-N7-C5 | 2.68 | 108.09 | 102.99 |
| 22 | BA | 1911 | PSU | C6-C5-C4 | 2.65 | 120.05 | 118.20 |
| 1 | AA | 966 | 2MG | C8-N7-C5 | 2.62 | 107.98 | 102.99 |
| 22 | BA | 2580 | PSU | O4'-C1'-C2' | 2.60 | 108.81 | 105.14 |
| 22 | BA | 745 | 1MG | C2-N1-C6 | -2.60 | 118.84 | 120.95 |
| 22 | BA | 1835 | 2MG | CM2-N2-C2 | -2.56 | 118.21 | 123.86 |
| 22 | BA | 747 | 5MU | C6-C5-C4 | 2.55 | 120.17 | 118.03 |
| 22 | BA | 2604 | PSU | C6-N1-C2 | -2.55 | 120.08 | 122.68 |
| 22 | BA | 1939 | 5MU | C6-C5-C4 | 2.52 | 120.14 | 118.03 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 22 | BA | 2069 | G7M | C2-N1-C6 | -2.46 | 120.57 | 125.10 |
| 55 | B8 | 37 | 1MG | O6-C6-C5 | -2.46 | 119.84 | 124.19 |
| 55 | B8 | 55 | PSU | C6-N1-C2 | -2.45 | 120.18 | 122.68 |
| 22 | BA | 747 | 5MU | C4-N3-C2 | -2.43 | 124.20 | 127.35 |
| 22 | BA | 955 | PSU | O2-C2-N1 | -2.38 | 120.17 | 122.79 |
| 22 | BA | 2069 | G7M | N2-C2-N1 | 2.37 | 121.75 | 116.71 |
| 22 | BA | 746 | PSU | C6-C5-C4 | 2.35 | 119.84 | 118.20 |
| 1 | AA | 966 | 2MG | O6-C6-C5 | -2.35 | 119.78 | 124.37 |
| 22 | BA | 2457 | PSU | O2-C2-N1 | -2.34 | 120.21 | 122.79 |
| 22 | BA | 2552 | OMU | O2-C2-N1 | -2.34 | 119.68 | 122.79 |
| 22 | BA | 2251 | OMG | O6-C6-C5 | -2.34 | 119.81 | 124.37 |
| 25 | BD | 150 | MEQ | OE1-CD-CG | -2.31 | 117.79 | 122.02 |
| 1 | AA | 1402 | 4OC | C5-C4-N3 | -2.30 | 118.89 | 122.59 |
| 22 | BA | 2069 | G7M | N1-C2-N3 | -2.26 | 119.10 | 123.32 |
| 22 | BA | 2251 | OMG | C3'-C2'-C1' | -2.26 | 98.65 | 102.89 |
| 22 | BA | 2251 | OMG | O3'-C3'-C4' | 2.25 | 117.55 | 111.05 |
| 1 | AA | 1516 | 2MG | CM2-N2-C2 | -2.23 | 118.94 | 123.86 |
| 22 | BA | 2457 | PSU | C6-N1-C2 | -2.22 | 120.41 | 122.68 |
| 22 | BA | 2498 | OMC | C6-C5-C4 | 2.22 | 121.08 | 117.50 |
| 22 | BA | 2251 | OMG | N2-C2-N1 | 2.21 | 121.42 | 116.71 |
| 22 | BA | 1911 | PSU | O2-C2-N1 | -2.20 | 120.36 | 122.79 |
| 22 | BA | 2604 | PSU | O2-C2-N1 | -2.14 | 120.44 | 122.79 |
| 22 | BA | 1618 | 6MZ | C9-N6-C6 | -2.13 | 121.04 | 122.87 |
| 22 | BA | 1917 | PSU | O2-C2-N1 | -2.12 | 120.45 | 122.79 |
| 22 | BA | 955 | PSU | C6-N1-C2 | -2.08 | 120.55 | 122.68 |
| 22 | BA | 1939 | 5MU | C5-C6-N1 | -2.08 | 121.20 | 123.34 |
| 1 | AA | 1207 | 2MG | O6-C6-C5 | -2.07 | 120.33 | 124.37 |
| 1 | AA | 516 | PSU | O4'-C1'-C2' | 2.07 | 108.06 | 105.14 |
| 22 | BA | 2504 | PSU | C6-C5-C4 | 2.07 | 119.64 | 118.20 |
| 55 | B8 | 55 | PSU | O4'-C1'-C2' | 2.06 | 108.06 | 105.14 |
| 22 | BA | 2457 | PSU | O4'-C1'-C2' | 2.06 | 108.05 | 105.14 |
| 1 | AA | 1498 | UR3 | C3U-N3-C4 | 2.06 | 120.83 | 117.89 |
| 22 | BA | 1939 | 5MU | O4-C4-N3 | -2.03 | 116.22 | 120.12 |
| 22 | BA | 1917 | PSU | O4'-C1'-C2' | 2.03 | 108.01 | 105.14 |
| 12 | AL | 89 | D2T | OD2-CG-OD1 | -2.03 | 119.47 | 124.09 |
| 22 | BA | 1915 | 3TD | O4'-C1'-C2' | 2.01 | 107.98 | 105.14 |

There are no chirality outliers.

All (32) torsion outliers are listed below:

| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 1 | AA | 527 | G7M | C3'-C4'-C5'-O5' |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|------|------|-----------------|
| 1 | AA | 966 | 2MG | O4'-C4'-C5'-O5' |
| 1 | AA | 966 | 2MG | C3'-C4'-C5'-O5' |
| 1 | AA | 1519 | MA6 | O4'-C4'-C5'-O5' |
| 12 | AL | 89 | D2T | CG-CB-SB-CB1 |
| 25 | BD | 150 | MEQ | N-CA-CB-CG |
| 25 | BD | 150 | MEQ | C-CA-CB-CG |
| 25 | BD | 150 | MEQ | O-C-CA-CB |
| 55 | B8 | 55 | PSU | O4'-C1'-C5-C4 |
| 55 | B8 | 55 | PSU | O4'-C1'-C5-C6 |
| 22 | BA | 2030 | 6MZ | O4'-C4'-C5'-O5' |
| 22 | BA | 2251 | OMG | C1'-C2'-O2'-CM2 |
| 1 | AA | 527 | G7M | O4'-C4'-C5'-O5' |
| 22 | BA | 2030 | 6MZ | C3'-C4'-C5'-O5' |
| 22 | BA | 2504 | PSU | O4'-C4'-C5'-O5' |
| 1 | AA | 1519 | MA6 | C3'-C4'-C5'-O5' |
| 22 | BA | 2504 | PSU | C3'-C4'-C5'-O5' |
| 1 | AA | 1402 | 4OC | O4'-C4'-C5'-O5' |
| 22 | BA | 2251 | OMG | O4'-C4'-C5'-O5' |
| 34 | BM | 81 | 4D4 | OB-CB-CG-CD |
| 22 | BA | 2251 | OMG | C3'-C4'-C5'-O5' |
| 1 | AA | 1402 | 4OC | C3'-C4'-C5'-O5' |
| 22 | BA | 2445 | 2MG | C3'-C4'-C5'-O5' |
| 22 | BA | 747 | 5MU | C3'-C4'-C5'-O5' |
| 22 | BA | 2069 | G7M | C4'-C5'-O5'-P |
| 22 | BA | 2552 | OMU | C3'-C2'-O2'-CM2 |
| 22 | BA | 2069 | G7M | O4'-C4'-C5'-O5' |
| 34 | BM | 81 | 4D4 | CG-CD-NE-CZ |
| 34 | BM | 81 | 4D4 | CA-CB-CG-CD |
| 22 | BA | 2503 | 2MA | O4'-C4'-C5'-O5' |
| 22 | BA | 746 | PSU | O4'-C1'-C5-C6 |
| 22 | BA | 2503 | 2MA | C4'-C5'-O5'-P |

There are no ring outliers.

11 monomers are involved in 15 short contacts:

| Mol | Chain | Res | Type | Clashes | Symm-Clashes |
|-----|-------|------|------|---------|--------------|
| 22 | BA | 1915 | 3TD | 1 | 0 |
| 55 | B8 | 37 | 1MG | 2 | 0 |
| 22 | BA | 2030 | 6MZ | 2 | 0 |
| 55 | B8 | 55 | PSU | 1 | 0 |
| 25 | BD | 150 | MEQ | 1 | 0 |
| 22 | BA | 2251 | OMG | 1 | 0 |

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| Mol | Chain | Res | Type | Clashes | Symm-Clashes |
|-----|-------|------|------|---------|--------------|
| 22 | BA | 2552 | OMU | 1 | 0 |
| 22 | BA | 2504 | PSU | 1 | 0 |
| 22 | BA | 746 | PSU | 1 | 0 |
| 55 | B8 | 46 | G7M | 3 | 0 |
| 22 | BA | 2503 | 2MA | 1 | 0 |

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 477 ligands modelled in this entry, 476 are monoatomic - leaving 1 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|------|--------------|------|-------------|-------------|------|-------------|
| | | | | | Counts | RMSZ | $\# Z > 2$ | Counts | RMSZ | $\# Z > 2$ |
| 59 | TRP | BA | 3001 | - | 14,16,16 | 0.98 | 0 | 16,22,22 | 0.97 | 0 |

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|------|------|---------|----------|---------|
| 59 | TRP | BA | 3001 | - | - | 0/7/8/8 | 0/2/2/2 |

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

| Mol | Chain | Number of breaks |
|-----|-------|------------------|
| 22 | BA | 1 |

All chain breaks are listed below:

| Model | Chain | Residue-1 | Atom-1 | Residue-2 | Atom-2 | Distance (Å) |
|-------|-------|-----------|--------|-----------|--------|--------------|
| 1 | BA | 885:C | O3' | 892:A | P | 13.28 |

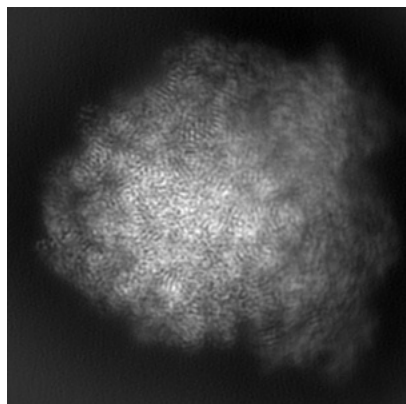
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-12694. These allow visual inspection of the internal detail of the map and identification of artifacts.

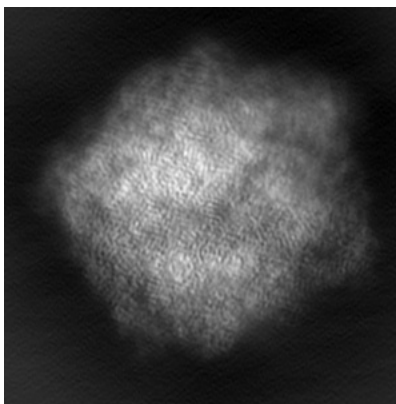
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

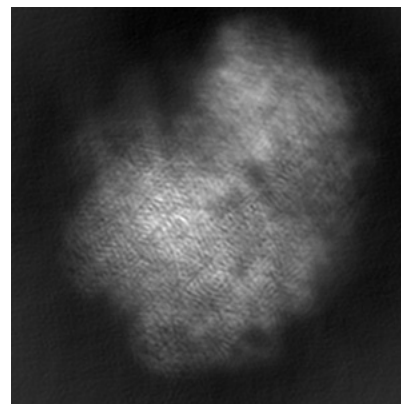
6.1.1 Primary map



X

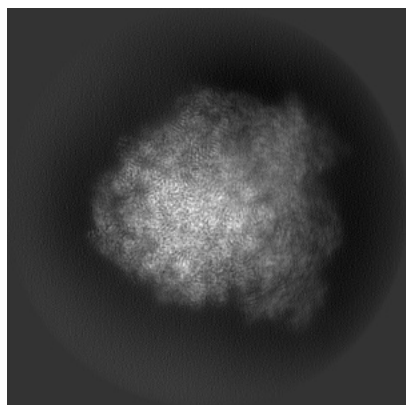


Y

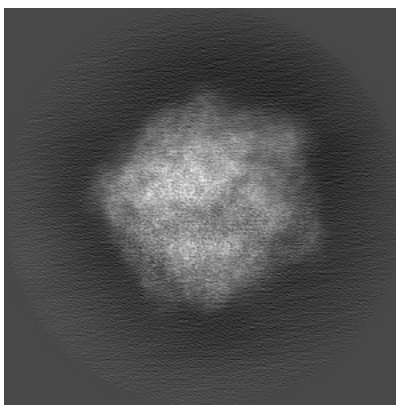


Z

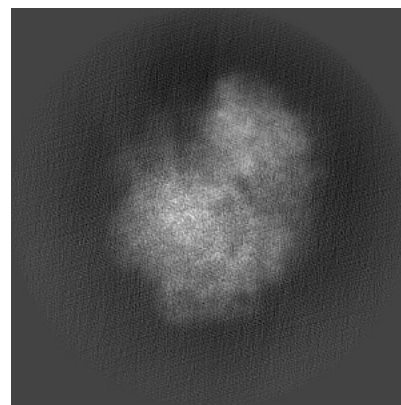
6.1.2 Raw map



X



Y

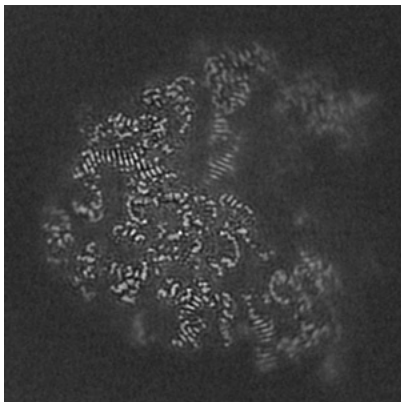


Z

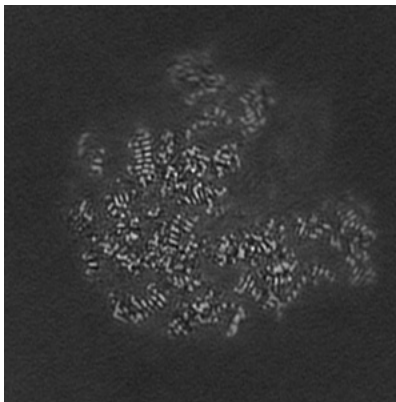
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

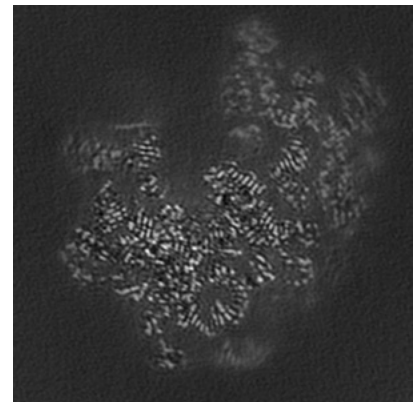
6.2.1 Primary map



X Index: 162

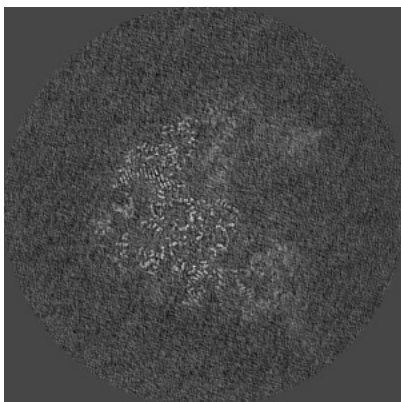


Y Index: 162

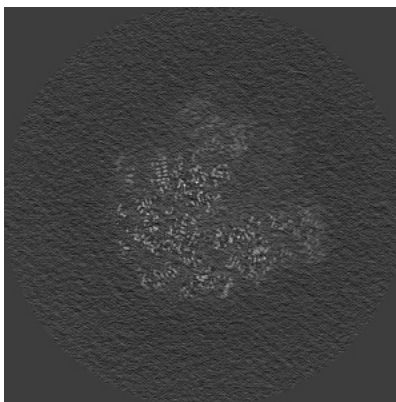


Z Index: 162

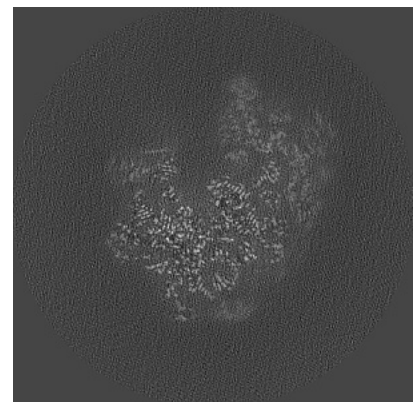
6.2.2 Raw map



X Index: 232



Y Index: 232

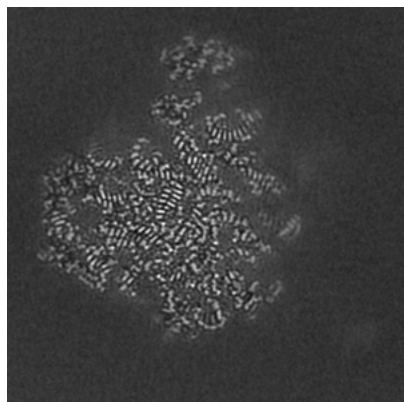


Z Index: 232

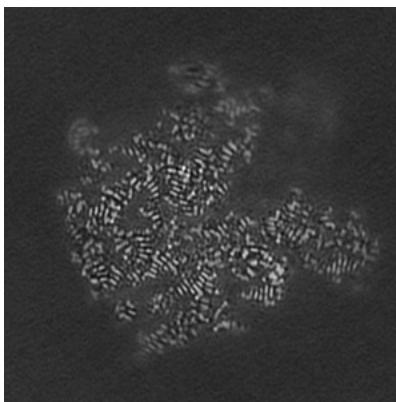
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

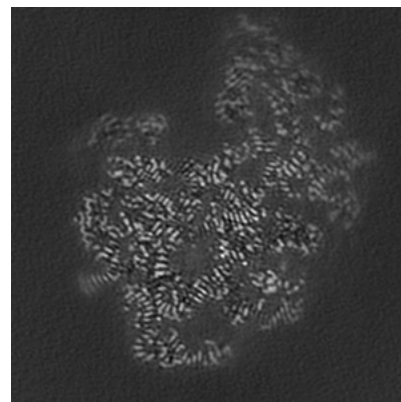
6.3.1 Primary map



X Index: 121

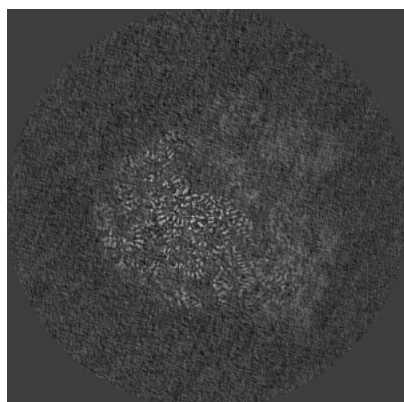


Y Index: 150

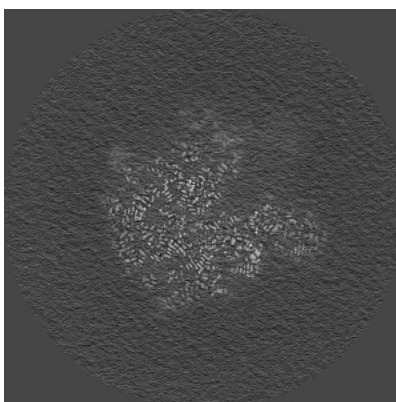


Z Index: 143

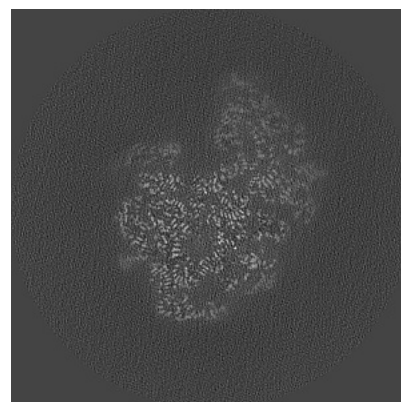
6.3.2 Raw map



X Index: 244



Y Index: 220

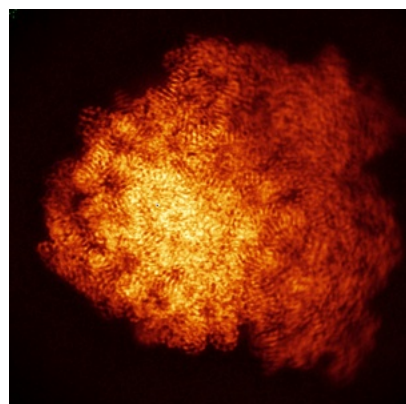


Z Index: 213

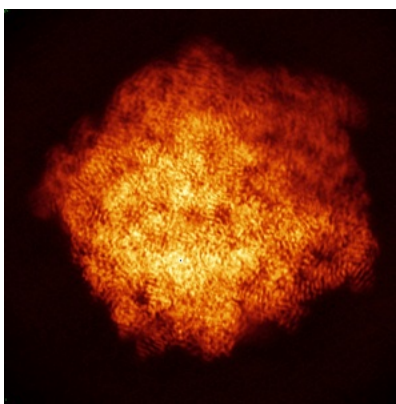
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

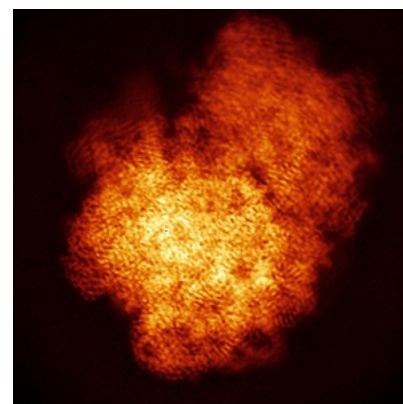
6.4.1 Primary map



X

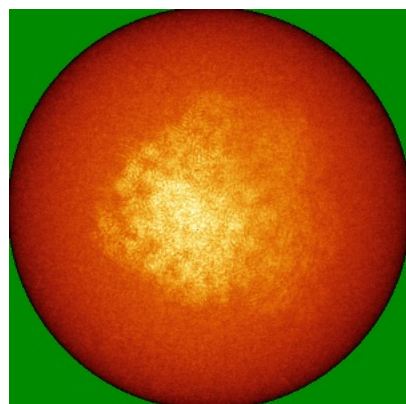


Y

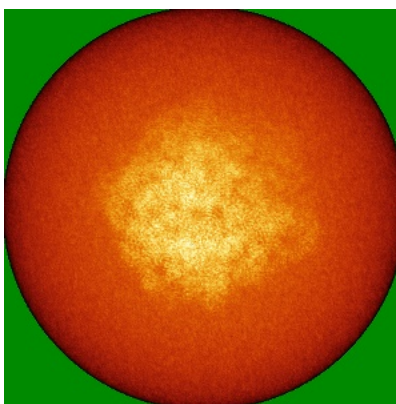


Z

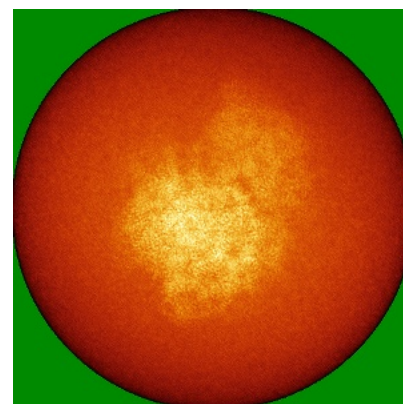
6.4.2 Raw map



X



Y

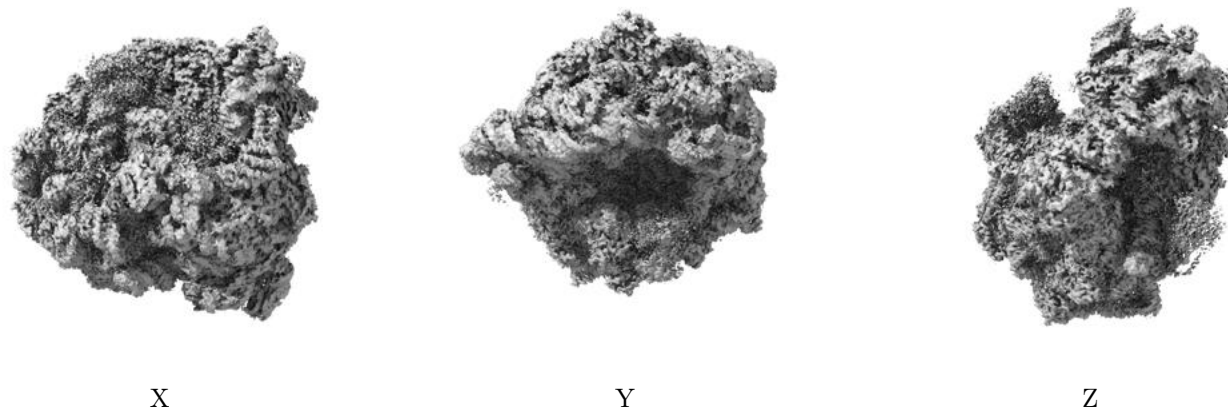


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

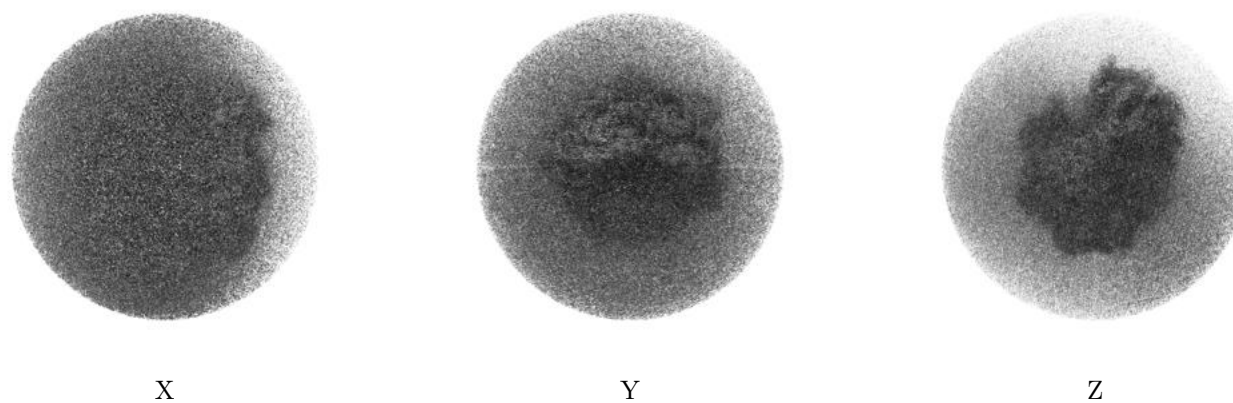
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.0075. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

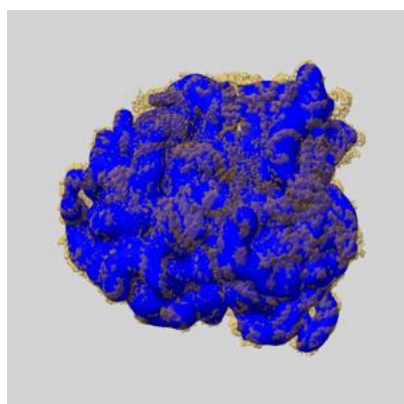
6.6 Mask visualisation [i](#)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

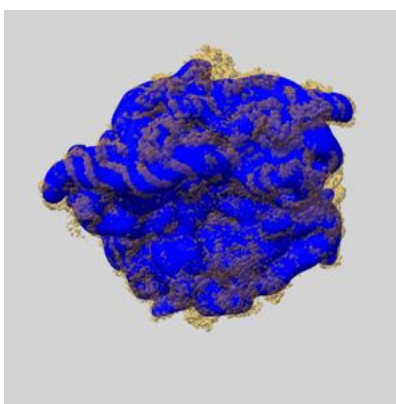
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

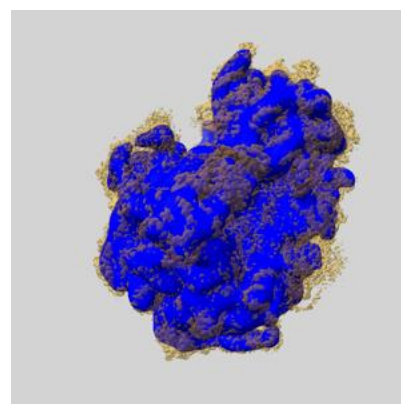
6.6.1 emd_12694_msk_1.map [i](#)



X



Y

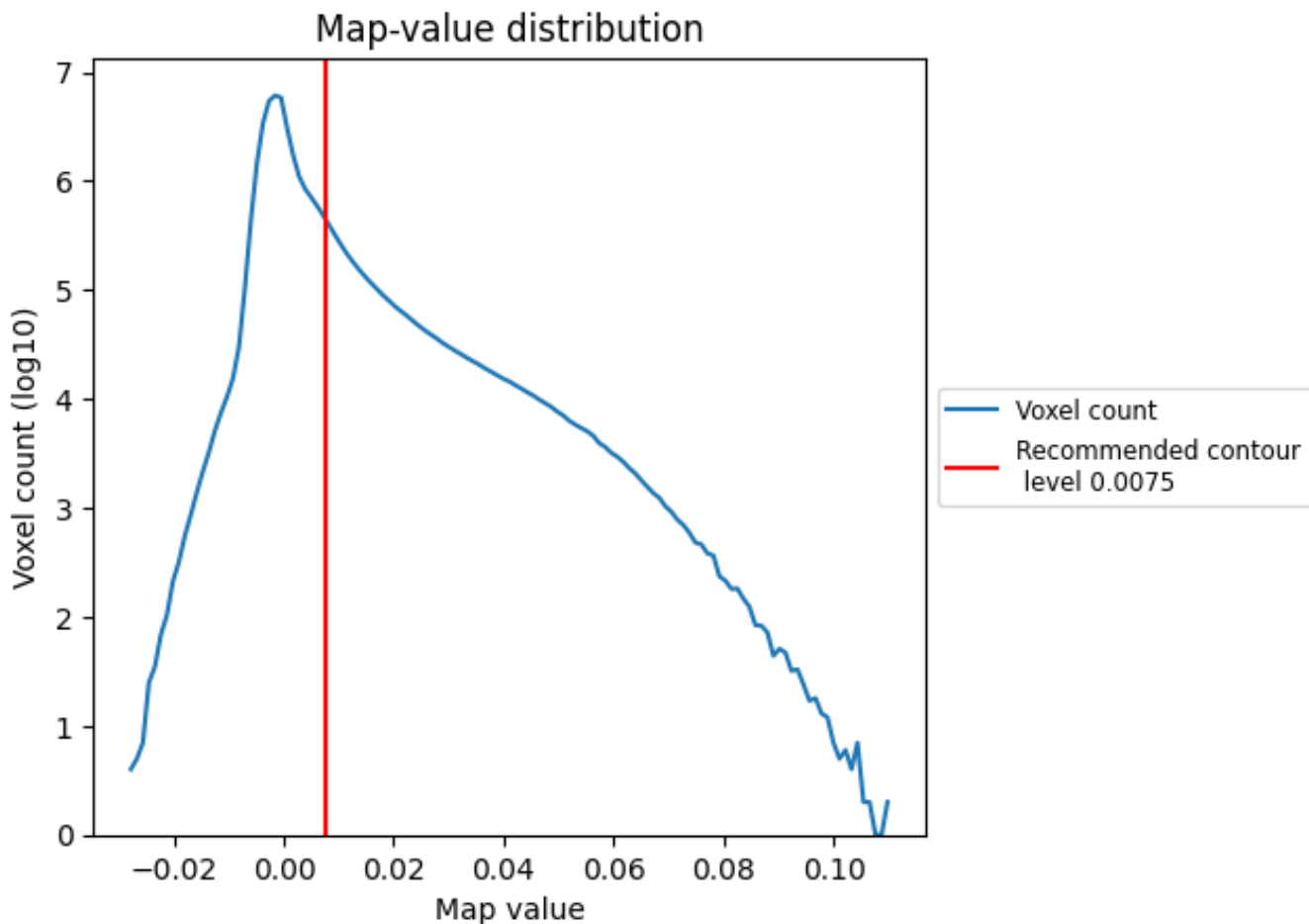


Z

7 Map analysis [i](#)

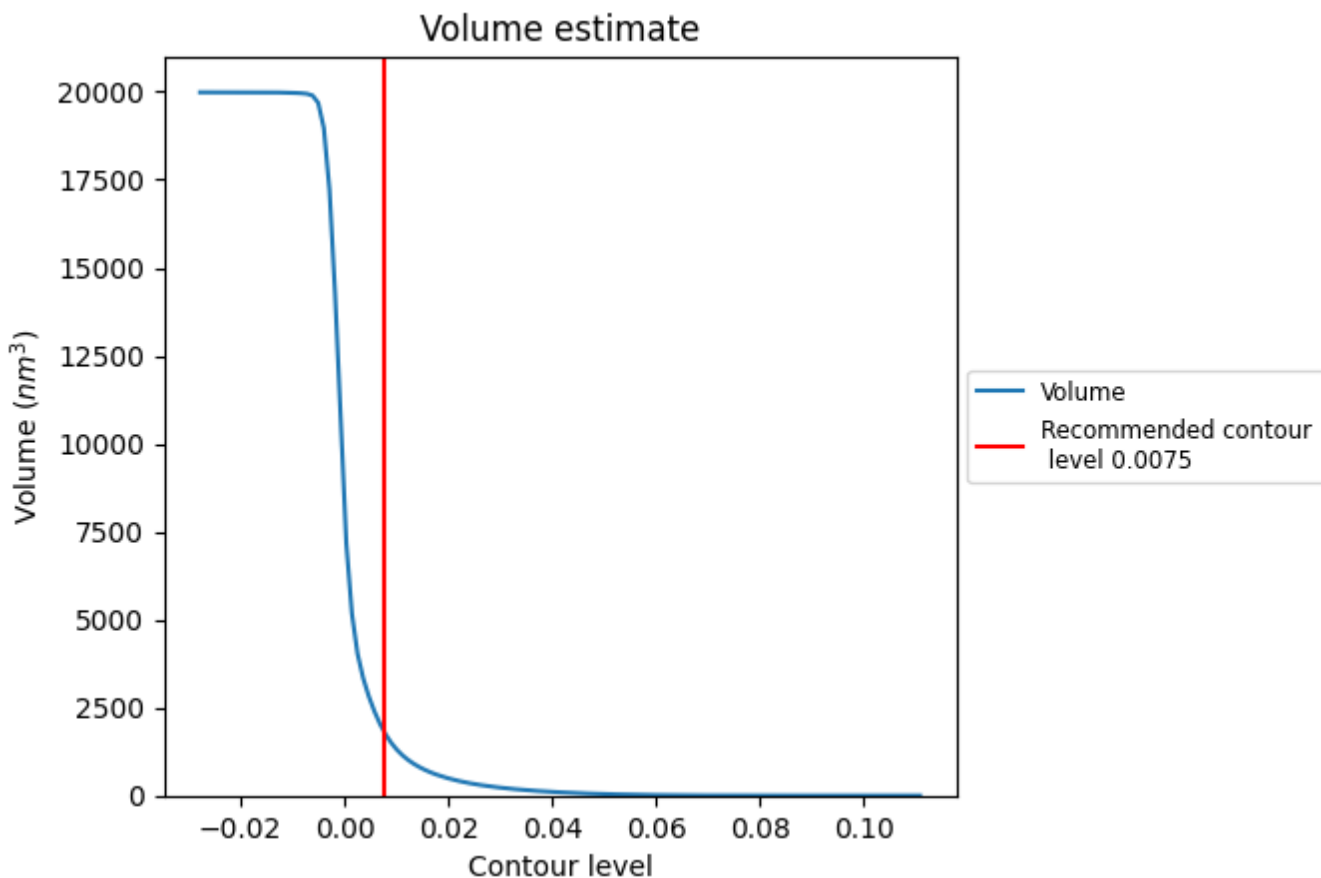
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

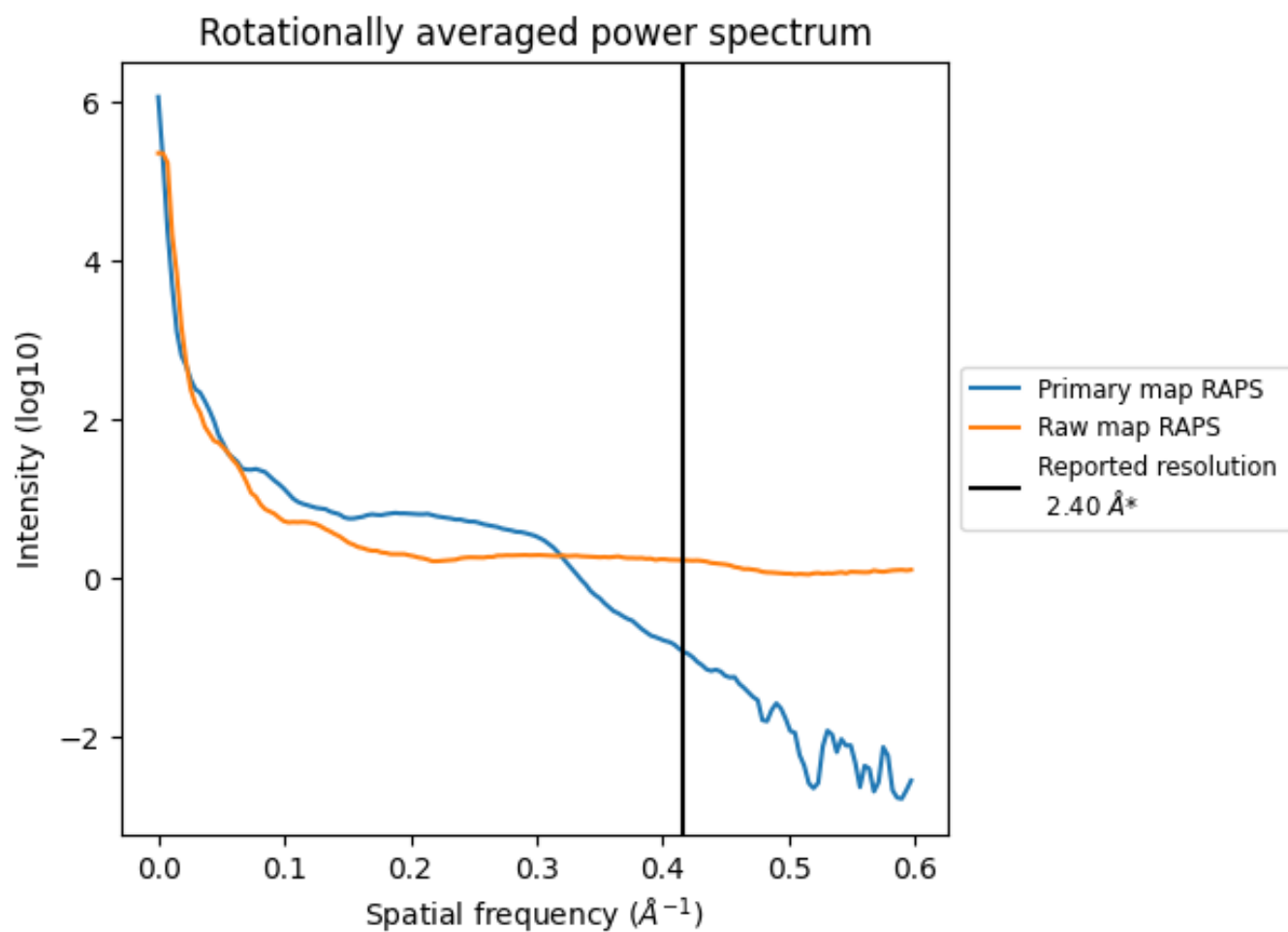
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1859 nm^3 ; this corresponds to an approximate mass of 1680 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum [\(i\)](#)

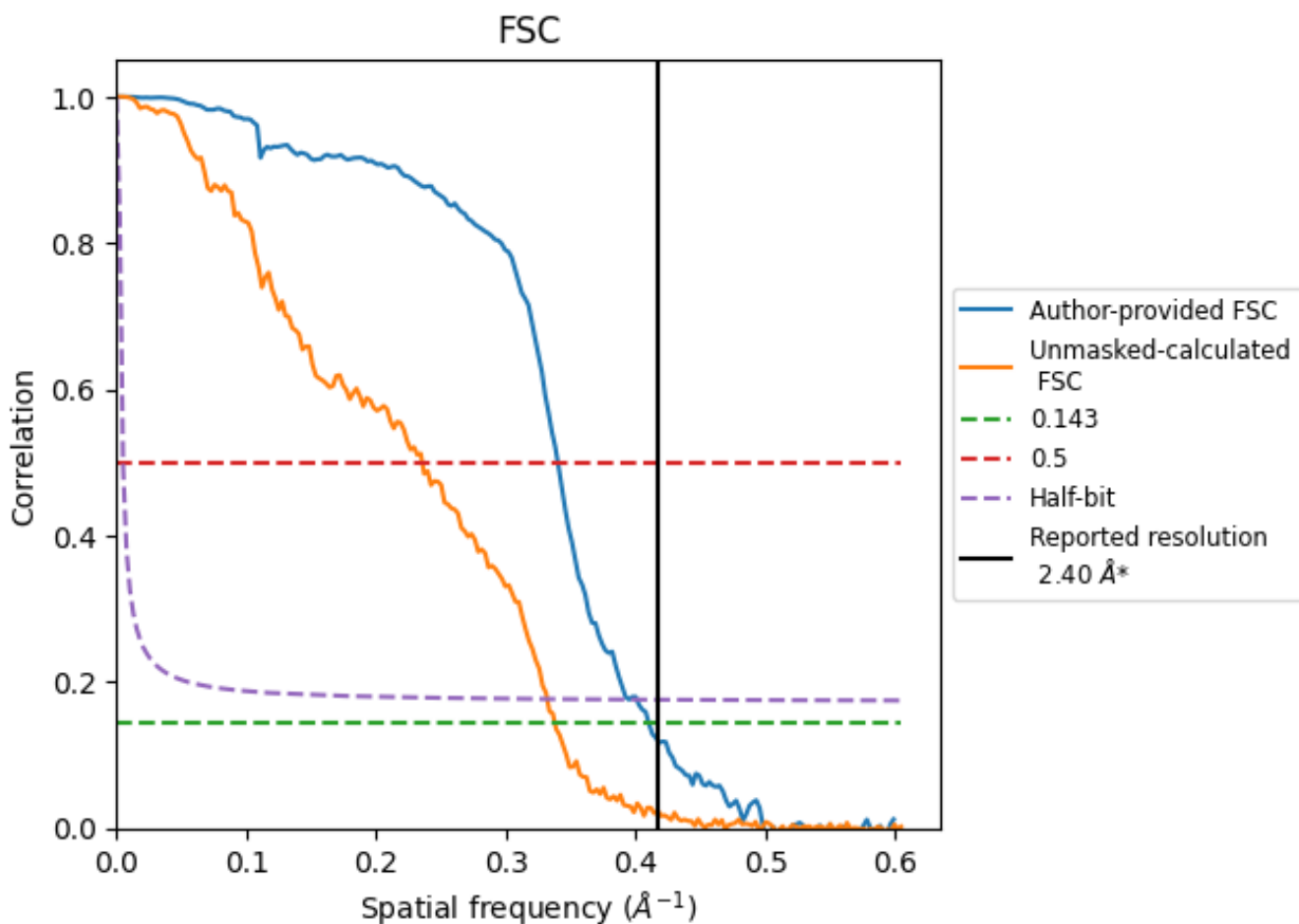


*Reported resolution corresponds to spatial frequency of 0.417 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.417 Å⁻¹

8.2 Resolution estimates [i](#)

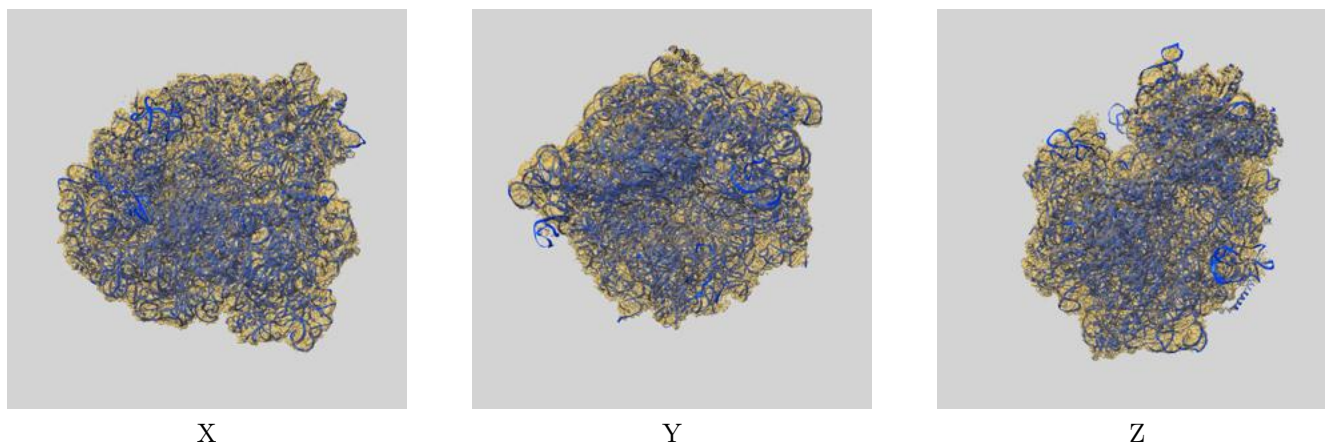
| Resolution estimate (Å) | Estimation criterion (FSC cut-off) | | |
|---------------------------|------------------------------------|------|----------|
| | 0.143 | 0.5 | Half-bit |
| Reported by author | 2.40 | - | - |
| Author-provided FSC curve | 2.44 | 2.94 | 2.49 |
| Unmasked-calculated* | 2.96 | 4.24 | 3.01 |

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 2.96 differs from the reported value 2.4 by more than 10 %

9 Map-model fit [i](#)

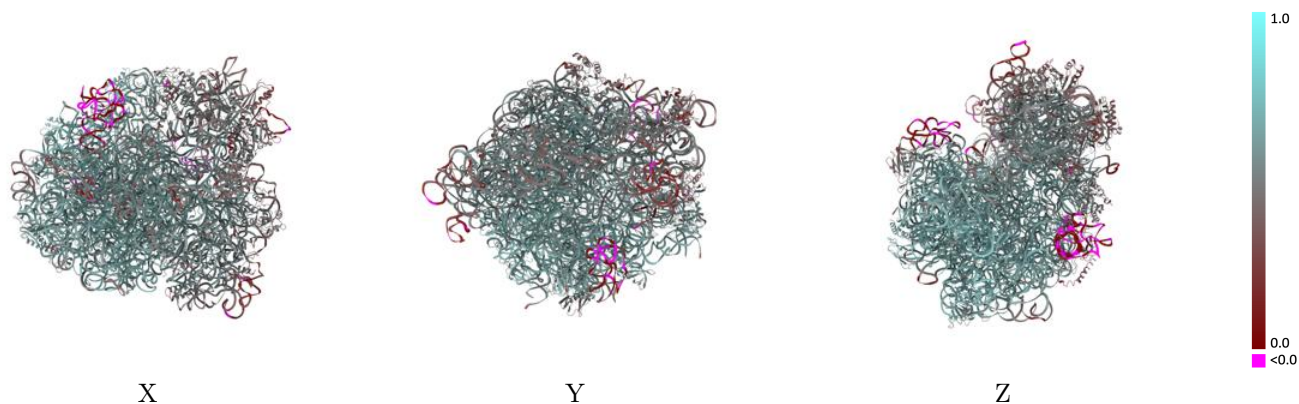
This section contains information regarding the fit between EMDB map EMD-12694 and PDB model 7O1A. Per-residue inclusion information can be found in section 3 on page 17.

9.1 Map-model overlay [i](#)



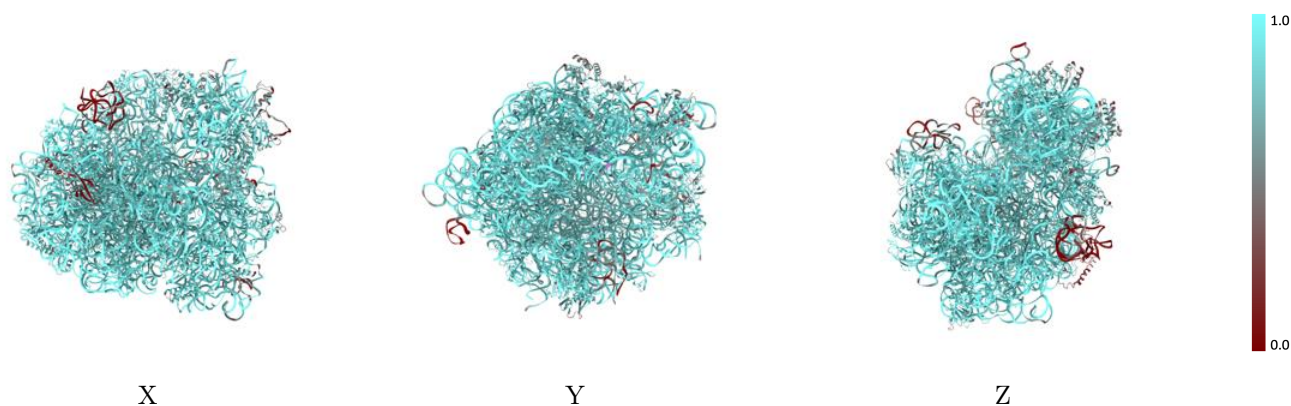
The images above show the 3D surface view of the map at the recommended contour level 0.0075 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



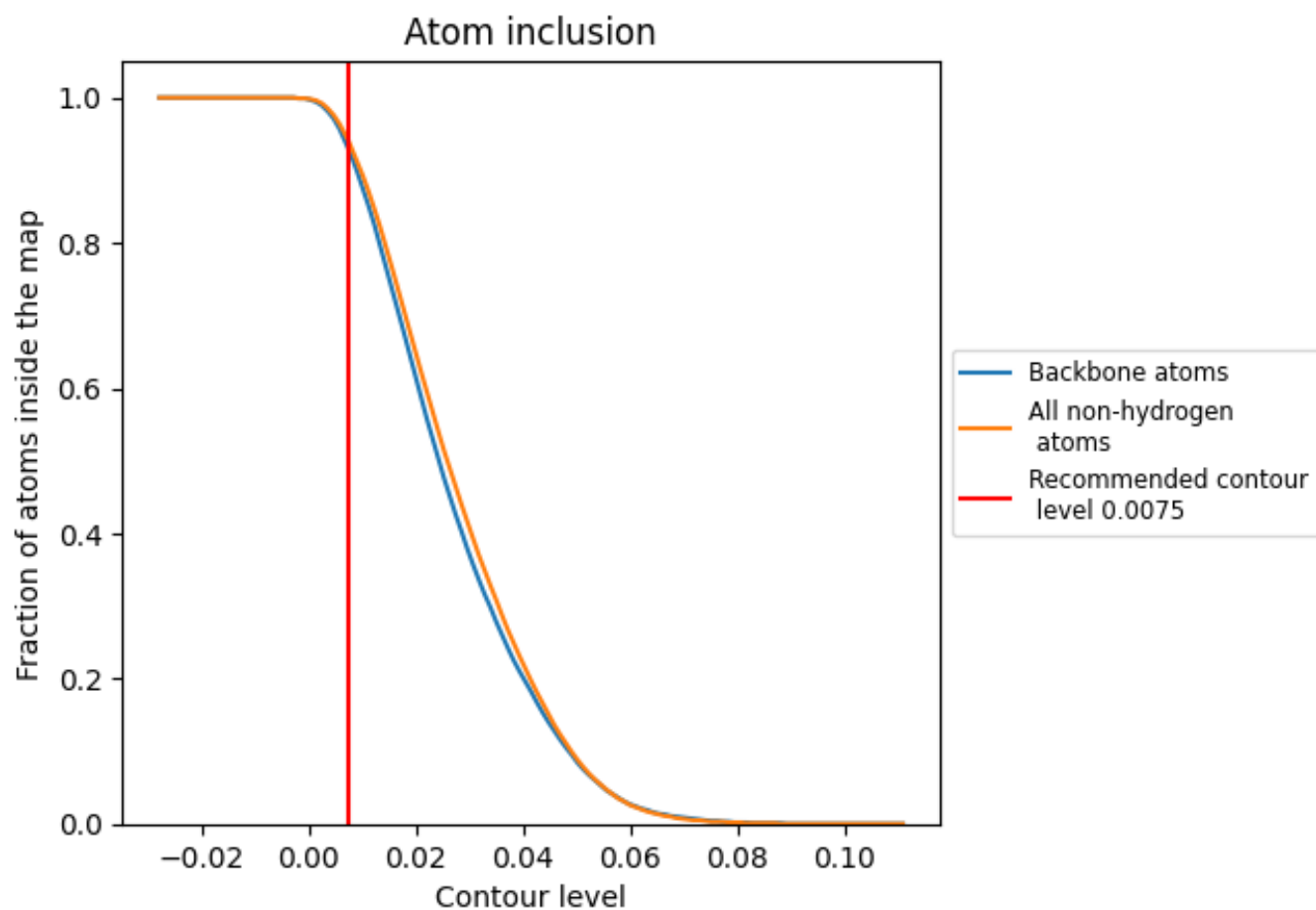
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.0075).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 93% of all backbone atoms, 94% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary











































The table lists the average atom inclusion at the recommended contour level (0.0075) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion | Q-score |
|-------|--|--|
| All |  0.9400 |  0.5730 |
| AA |  0.9620 |  0.5200 |
| AB |  0.6970 |  0.4140 |
| AC |  0.8590 |  0.4680 |
| AD |  0.8550 |  0.4620 |
| AE |  0.9490 |  0.5510 |
| AF |  0.8450 |  0.4420 |
| AG |  0.7770 |  0.4160 |
| AH |  0.9200 |  0.5320 |
| AI |  0.7830 |  0.4190 |
| AJ |  0.7400 |  0.4080 |
| AK |  0.9300 |  0.5220 |
| AL |  0.9460 |  0.5280 |
| AM |  0.8570 |  0.4650 |
| AN |  0.8670 |  0.4280 |
| AO |  0.9100 |  0.5140 |
| AP |  0.8990 |  0.4890 |
| AQ |  0.9110 |  0.4900 |
| AR |  0.9520 |  0.5250 |
| AS |  0.7860 |  0.4180 |
| AT |  0.9020 |  0.5080 |
| AU |  0.7990 |  0.4520 |
| B0 |  0.9560 |  0.6460 |
| B1 |  0.9610 |  0.6120 |
| B2 |  0.9830 |  0.6660 |
| B3 |  1.0000 |  0.6940 |
| B4 |  0.9800 |  0.6310 |
| B5 |  1.0000 |  0.6680 |
| B7 |  0.9950 |  0.5260 |
| B8 |  0.9980 |  0.5800 |
| BA |  0.9590 |  0.6150 |
| BB |  0.9900 |  0.6210 |
| BC |  0.9940 |  0.6630 |
| BD |  0.9720 |  0.6580 |
| BE |  0.9160 |  0.6240 |



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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| BF |  0.9210 |  0.5380 |
| BG |  0.8300 |  0.4980 |
| BH |  0.3010 |  0.3160 |
| BI |  0.6390 |  0.3620 |
| BJ |  0.9800 |  0.6500 |
| BK |  0.9920 |  0.6520 |
| BL |  0.9690 |  0.6470 |
| BM |  0.9900 |  0.6550 |
| BN |  0.9930 |  0.6780 |
| BO |  0.9580 |  0.6150 |
| BP |  0.9750 |  0.6430 |
| BQ |  0.9930 |  0.6810 |
| BR |  0.9510 |  0.6410 |
| BS |  0.9800 |  0.6590 |
| BT |  0.9390 |  0.6160 |
| BU |  0.9430 |  0.6080 |
| BV |  0.9190 |  0.5810 |
| BW |  0.9820 |  0.6580 |
| BX |  0.9900 |  0.6360 |
| BY |  0.8960 |  0.5870 |
| BZ |  0.9410 |  0.6470 |