wwPDB EM Validation Summary Report (i)

Dec 18, 2022 – 05:05 am GMT

PDB ID	:	6ZZX
EMDB ID	:	EMD-11588
Title	:	Structure of low-light grown Chlorella ohadii Photosystem I
Authors	:	Caspy, I.; Nelson, N.; Nechushtai, R.; Neumann, E.; Shkolnisky, Y.
Deposited on	:	2020-08-05
Resolution	:	2.70 Å(reported)
Based on initial model	:	6IJO

This is a wwPDB EM Validation Summary 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 (i) 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 (i)) were used in the production of this report:

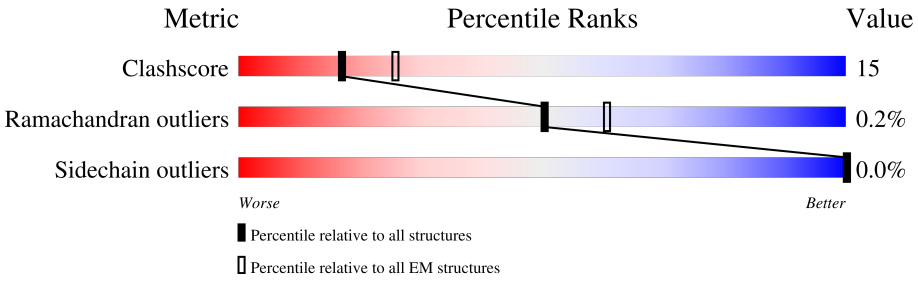
EMDB validation analysis	:	0.0.1.dev43
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.3

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.70 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

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 <=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	A	741	73% 27%
2	B	731	78% 22%
3	C	80	79% 21%
4	D	143	80% 20%
5	E	64	80% 20%
6	F	165	84% 16%
7	G	99	84% 16%
8	H	94	5% 68% 32%

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Mol	Chain	Length	Quality of chain
9	J	41	73% 27%
10	K	86	87% 13%
11	L	157	75% 25%
12	M	31	68% 32%
13	I	35	66% 34%
14	O	87	34% 71% 26%
15	1	192	74% 26%
15	a	192	100%
16	3	241	81% 19%
17	4	207	81% 19%
18	5	229	72% 28%
19	6	231	77% 23%
20	7	221	86% 14%
21	8	219	78% 21%
22	2	215	76% 24%
23	9	183	80% 20%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
24	CL0	A	1011	X	-	-	-
25	CLA	1	601	X	-	-	-
25	CLA	1	602	X	-	-	-
25	CLA	1	603	X	-	-	-
25	CLA	1	605	X	-	-	-
25	CLA	1	606	X	-	-	-
25	CLA	1	607	X	-	-	-
25	CLA	1	608	X	-	-	-
25	CLA	1	612	X	-	-	-
25	CLA	1	615	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
25	CLA	2	601	X	-	-	-
25	CLA	2	602	X	-	-	-
25	CLA	2	603	X	-	-	-
25	CLA	2	604	X	-	-	-
25	CLA	2	605	X	-	-	-
25	CLA	2	606	X	-	-	-
25	CLA	2	607	X	-	-	-
25	CLA	2	608	X	-	-	-
25	CLA	2	612	X	-	-	-
25	CLA	2	615	X	-	-	-
25	CLA	2	621	X	-	-	-
25	CLA	3	601	X	-	-	-
25	CLA	3	602	X	-	-	-
25	CLA	3	605	X	-	-	-
25	CLA	3	606	X	-	-	-
25	CLA	3	607	X	-	-	-
25	CLA	3	610	X	-	-	-
25	CLA	3	612	X	-	-	-
25	CLA	3	613	X	-	-	-
25	CLA	3	616	X	-	-	-
25	CLA	3	618	X	-	-	-
25	CLA	4	601	X	-	-	-
25	CLA	4	602	X	-	-	-
25	CLA	4	603	X	-	-	-
25	CLA	4	604	X	-	-	-
25	CLA	4	605	X	-	-	-
25	CLA	4	606	X	-	-	-
25	CLA	4	607	X	-	-	-
25	CLA	4	608	X	-	-	-
25	CLA	4	610	X	-	-	-
25	CLA	4	611	X	-	-	-
25	CLA	4	612	X	-	-	-
25	CLA	4	615	X	-	-	-
25	CLA	4	616	X	-	-	-
25	CLA	4	617	X	-	-	-
25	CLA	5	601	X	-	-	-
25	CLA	5	602	X	-	-	-
25	CLA	5	603	X	-	-	-
25	CLA	5	604	X	-	-	-
25	CLA	5	605	X	-	-	-
25	CLA	5	606	X	-	-	-
25	CLA	5	607	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
25	CLA	5	608	X	-	-	-
25	CLA	5	609	X	-	-	-
25	CLA	5	612	X	-	-	-
25	CLA	5	614	X	-	-	-
25	CLA	5	615	X	-	-	-
25	CLA	6	601	X	-	-	-
25	CLA	6	602	X	-	-	-
25	CLA	6	603	X	-	-	-
25	CLA	6	604	X	-	-	-
25	CLA	6	605	X	-	-	-
25	CLA	6	606	X	-	-	-
25	CLA	6	607	X	-	-	-
25	CLA	6	608	X	-	-	-
25	CLA	6	612	X	-	-	-
25	CLA	6	615	X	-	-	-
25	CLA	6	618	X	-	-	-
25	CLA	7	601	X	-	-	-
25	CLA	7	602	X	-	-	-
25	CLA	7	603	X	-	-	-
25	CLA	7	604	X	-	-	-
25	CLA	7	605	X	-	-	-
25	CLA	7	606	X	-	-	-
25	CLA	7	607	X	-	-	-
25	CLA	7	608	X	-	-	-
25	CLA	7	610	X	-	-	-
25	CLA	7	612	X	-	-	-
25	CLA	8	602	X	-	-	-
25	CLA	8	605	X	-	-	-
25	CLA	8	606	X	-	-	-
25	CLA	8	607	X	-	-	-
25	CLA	8	608	X	-	-	-
25	CLA	8	609	X	-	-	-
25	CLA	8	611	X	-	-	-
25	CLA	8	612	X	-	-	-
25	CLA	8	615	X	-	-	-
25	CLA	8	618	X	-	-	-
25	CLA	8	620	X	-	-	-
25	CLA	9	602	X	-	-	-
25	CLA	9	604	X	-	-	-
25	CLA	9	605	X	-	-	-
25	CLA	9	606	X	-	-	-
25	CLA	9	607	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
25	CLA	9	609	X	-	-	-
25	CLA	9	612	X	-	-	-
25	CLA	A	1012	X	-	-	-
25	CLA	A	1013	X	-	-	-
25	CLA	A	1101	X	-	-	-
25	CLA	A	1102	X	-	-	-
25	CLA	A	1103	X	-	-	-
25	CLA	A	1104	X	-	-	-
25	CLA	A	1105	X	-	-	-
25	CLA	A	1106	X	-	-	-
25	CLA	A	1107	X	-	-	-
25	CLA	A	1108	X	-	-	-
25	CLA	A	1109	X	-	-	-
25	CLA	A	1110	X	-	-	-
25	CLA	A	1111	X	-	-	-
25	CLA	A	1112	X	-	-	-
25	CLA	A	1113	X	-	-	-
25	CLA	A	1115	X	-	-	-
25	CLA	A	1116	X	-	-	-
25	CLA	A	1117	X	-	-	-
25	CLA	A	1118	X	-	-	-
25	CLA	A	1119	X	-	-	-
25	CLA	A	1120	X	-	-	-
25	CLA	A	1121	X	-	-	-
25	CLA	A	1122	X	-	-	-
25	CLA	A	1123	X	-	-	-
25	CLA	A	1124	X	-	-	-
25	CLA	A	1125	X	-	-	-
25	CLA	A	1126	X	-	-	-
25	CLA	A	1127	X	-	-	-
25	CLA	A	1128	X	-	-	-
25	CLA	A	1129	X	-	-	-
25	CLA	A	1130	X	-	-	-
25	CLA	A	1131	X	-	-	-
25	CLA	A	1132	X	-	-	-
25	CLA	A	1133	X	-	-	-
25	CLA	A	1134	X	-	-	-
25	CLA	A	1135	X	-	-	-
25	CLA	A	1136	X	-	-	-
25	CLA	A	1137	X	-	-	-
25	CLA	A	1138	X	-	-	-
25	CLA	A	1139	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
25	CLA	A	1140	X	-	-	-
25	CLA	A	1141	X	-	-	-
25	CLA	B	1021	X	-	-	-
25	CLA	B	1022	X	-	-	-
25	CLA	B	1023	X	-	-	-
25	CLA	B	1201	X	-	-	-
25	CLA	B	1202	X	-	-	-
25	CLA	B	1203	X	-	-	-
25	CLA	B	1204	X	-	-	-
25	CLA	B	1205	X	-	-	-
25	CLA	B	1206	X	-	-	-
25	CLA	B	1207	X	-	-	-
25	CLA	B	1208	X	-	-	-
25	CLA	B	1209	X	-	-	-
25	CLA	B	1210	X	-	-	-
25	CLA	B	1211	X	-	-	-
25	CLA	B	1212	X	-	-	-
25	CLA	B	1213	X	-	-	-
25	CLA	B	1214	X	-	-	-
25	CLA	B	1215	X	-	-	-
25	CLA	B	1216	X	-	-	-
25	CLA	B	1217	X	-	-	-
25	CLA	B	1218	X	-	-	-
25	CLA	B	1219	X	-	-	-
25	CLA	B	1220	X	-	-	-
25	CLA	B	1221	X	-	-	-
25	CLA	B	1222	X	-	-	-
25	CLA	B	1223	X	-	-	-
25	CLA	B	1224	X	-	-	-
25	CLA	B	1225	X	-	-	-
25	CLA	B	1226	X	-	-	-
25	CLA	B	1227	X	-	-	-
25	CLA	B	1228	X	-	-	-
25	CLA	B	1229	X	-	-	-
25	CLA	B	1230	X	-	-	-
25	CLA	B	1231	X	-	-	-
25	CLA	B	1232	X	-	-	-
25	CLA	B	1235	X	-	-	-
25	CLA	B	1236	X	-	-	-
25	CLA	B	1237	X	-	-	-
25	CLA	B	1238	X	-	-	-
25	CLA	B	1239	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
25	CLA	B	1240	X	-	-	-
25	CLA	F	1301	X	-	-	-
25	CLA	F	1302	X	-	-	-
25	CLA	G	1601	X	-	-	-
25	CLA	G	1602	X	-	-	-
25	CLA	G	1603	X	-	-	-
25	CLA	H	1701	X	-	-	-
25	CLA	H	1702	X	-	-	-
25	CLA	H	1703	X	-	-	-
25	CLA	J	1901	X	-	-	-
25	CLA	K	1401	X	-	-	-
25	CLA	K	1402	X	-	-	-
25	CLA	K	1403	X	-	-	-
25	CLA	K	1404	X	-	-	-
25	CLA	L	1501	X	-	-	-
25	CLA	L	1502	X	-	-	-
25	CLA	L	1503	X	-	-	-
25	CLA	L	1504	X	-	-	-
25	CLA	O	1801	X	-	-	-
25	CLA	O	1802	X	-	-	-
25	CLA	O	1803	X	-	-	-
25	CLA	a	601	X	-	-	-
25	CLA	a	602	X	-	-	-
25	CLA	a	603	X	-	-	-
25	CLA	a	605	X	-	-	-
25	CLA	a	607	X	-	-	-
25	CLA	a	608	X	-	-	-
25	CLA	a	611	X	-	-	-
25	CLA	a	612	X	-	-	-
25	CLA	a	615	X	-	-	-
26	CHL	1	604	X	-	-	-
26	CHL	1	609	X	-	-	-
26	CHL	1	610	X	-	-	-
26	CHL	1	611	X	-	-	-
26	CHL	1	613	X	-	-	-
26	CHL	2	609	X	-	-	-
26	CHL	2	610	X	-	-	-
26	CHL	2	613	X	-	-	-
26	CHL	3	603	X	-	-	-
26	CHL	3	604	X	-	-	-
26	CHL	3	608	X	-	-	-
26	CHL	3	611	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
26	CHL	4	609	X	-	-	-
26	CHL	4	613	X	-	-	-
26	CHL	4	618	X	-	-	-
26	CHL	5	610	X	-	-	-
26	CHL	5	611	X	-	-	-
26	CHL	5	613	X	-	-	-
26	CHL	5	617	X	-	-	-
26	CHL	5	618	X	-	-	-
26	CHL	6	609	X	-	-	-
26	CHL	6	610	X	-	-	-
26	CHL	6	611	X	-	-	-
26	CHL	6	613	X	-	-	-
26	CHL	6	617	X	-	-	-
26	CHL	6	619	X	-	-	-
26	CHL	7	609	X	-	-	-
26	CHL	7	611	X	-	-	-
26	CHL	7	613	X	-	-	-
26	CHL	7	615	X	-	-	-
26	CHL	7	617	X	-	-	-
26	CHL	8	601	X	-	-	-
26	CHL	8	603	X	-	-	-
26	CHL	8	604	X	-	-	-
26	CHL	8	610	X	-	-	-
26	CHL	8	613	X	-	-	-
26	CHL	9	601	X	-	-	-
26	CHL	9	603	X	-	-	-
26	CHL	9	608	X	-	-	-
26	CHL	9	610	X	-	-	-
26	CHL	9	613	X	-	-	-
26	CHL	A	1114	X	-	-	-
26	CHL	a	604	X	-	-	-
26	CHL	a	606	X	-	-	-
26	CHL	a	609	X	-	-	-
26	CHL	a	610	X	-	-	-
26	CHL	a	613	X	-	-	-
39	NEX	F	4001	X	-	-	-
40	RRX	3	506	X	-	-	-
40	RRX	J	4002	X	-	-	-
43	LUT	2	507	X	-	-	-
43	LUT	4	501	X	-	-	-
43	LUT	7	501	X	-	-	-
46	QTB	a	504	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
50	XAT	2	501	X	-	-	-
50	XAT	7	502	X	-	-	-
50	XAT	9	504	X	-	-	-
50	XAT	9	507	X	-	-	-

2 Entry composition (i)

There are 54 unique types of molecules in this entry. The entry contains 56369 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 protein called Photosystem I P700 chlorophyll a apoprotein A1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	741	5824	3815	988	1001	20	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	368	ALA	SER	conflict	UNP W8SY74
A	437	ILE	MET	conflict	UNP W8SY74

- Molecule 2 is a protein called Photosystem I P700 chlorophyll a apoprotein A2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	731	5796	3807	980	994	15	0	0

There are 5 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	?	-	THR	deletion	UNP W8SUA3
B	5	LEU	-	insertion	UNP W8SUA3
B	241	ALA	VAL	conflict	UNP W8SUA3
B	402	ALA	GLU	conflict	UNP W8SUA3
B	403	GLN	ALA	conflict	UNP W8SUA3

- Molecule 3 is a protein called Photosystem I iron-sulfur center.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	C	80	601	367	104	119	11	0	0

- Molecule 4 is a protein called Photosystem I reaction center subunit chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	D	143	Total	C	N	O	S	0	0
			1124	716	196	208	4		

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
D	188	ALA	VAL	conflict	UNP A0A2P6TKF8
D	320	ILE	VAL	conflict	UNP A0A2P6TKF8

- Molecule 5 is a protein called Photosystem I reaction center subunit IV.

Mol	Chain	Residues	Atoms				AltConf	Trace
5	E	64	Total	C	N	O	0	0
			509	323	91	95		

There are 5 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
E	44	GLN	THR	conflict	UNP A0A2P6U4S6
E	48	LEU	MET	conflict	UNP A0A2P6U4S6
E	96	VAL	GLU	conflict	UNP A0A2P6U4S6
E	97	ALA	GLU	conflict	UNP A0A2P6U4S6
E	98	ALA	VAL	conflict	UNP A0A2P6U4S6

- Molecule 6 is a protein called PSI-F.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	F	165	Total	C	N	O	S	0	0
			1277	830	216	228	3		

There are 11 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
F	346	LEU	MET	conflict	UNP A0A2P6TPV8
F	348	ASN	LYS	conflict	UNP A0A2P6TPV8
F	351	ALA	GLU	conflict	UNP A0A2P6TPV8
F	352	ASP	GLY	conflict	UNP A0A2P6TPV8
F	360	LYS	GLN	conflict	UNP A0A2P6TPV8
F	364	ALA	ASP	conflict	UNP A0A2P6TPV8
F	367	GLU	ASN	conflict	UNP A0A2P6TPV8
F	430	ALA	SER	conflict	UNP A0A2P6TPV8
F	431	ALA	SER	conflict	UNP A0A2P6TPV8

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Chain	Residue	Modelled	Actual	Comment	Reference
F	432	THR	MET	conflict	UNP A0A2P6TPV8
F	433	ALA	THR	conflict	UNP A0A2P6TPV8

- Molecule 7 is a protein called Photosystem I reaction center subunit chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	G	99	Total	C	N	O	S	0	0
			727	466	127	130	4		

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
G	1229	ALA	SER	conflict	UNP A0A2P6TZI8
G	1272	LEU	MET	conflict	UNP A0A2P6TZI8
G	1285	ILE	VAL	conflict	UNP A0A2P6TZI8
G	1313	ILE	LEU	conflict	UNP A0A2P6TZI8
G	1317	SER	HIS	conflict	UNP A0A2P6TZI8
G	1320	GLY	GLN	conflict	UNP A0A2P6TZI8
G	1321	LEU	VAL	conflict	UNP A0A2P6TZI8
G	1324	ASN	VAL	conflict	UNP A0A2P6TZI8

- Molecule 8 is a protein called Photosystem I reaction center subunit VI-chloroplastic-like.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	H	94	Total	C	N	O	S	0	0
			729	457	132	139	1		

There are 7 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
H	92	ILE	VAL	conflict	UNP A0A2P6TPU7
H	102	GLY	LEU	conflict	UNP A0A2P6TPU7
H	105	ALA	SER	conflict	UNP A0A2P6TPU7
H	106	ALA	SER	conflict	UNP A0A2P6TPU7
H	109	ARG	SER	conflict	UNP A0A2P6TPU7
H	?	-	ILE	deletion	UNP A0A2P6TPU7
H	113	VAL	LYS	conflict	UNP A0A2P6TPU7

- Molecule 9 is a protein called Photosystem I reaction center subunit IX.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	J	41	Total	C	N	O	S	0	0
			316	212	46	57	1		

- Molecule 10 is a protein called Photosystem I reaction center subunit chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	K	86	Total	C	N	O	S	0	0
			613	390	106	115	2		

There are 7 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
K	74	ALA	GLU	conflict	UNP A0A2P6U0J1
K	103	LEU	ILE	conflict	UNP A0A2P6U0J1
K	105	CYS	VAL	conflict	UNP A0A2P6U0J1
K	107	ILE	VAL	conflict	UNP A0A2P6U0J1
K	108	VAL	ILE	conflict	UNP A0A2P6U0J1
K	112	LYS	ARG	conflict	UNP A0A2P6U0J1
K	113	SER	GLY	conflict	UNP A0A2P6U0J1

- Molecule 11 is a protein called Photosystem I reaction center subunit XI.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	L	157	Total	C	N	O	S	0	0
			1165	758	192	211	4		

There are 5 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
L	350	TYR	PHE	conflict	UNP A0A2P6TC44
L	364	ASP	ASN	conflict	UNP A0A2P6TC44
L	?	-	ALA	deletion	UNP A0A2P6TC44
L	421	ASP	GLU	conflict	UNP A0A2P6TC44
L	443	LEU	ILE	conflict	UNP A0A2P6TC44

- Molecule 12 is a protein called Photosystem I reaction center subunit XII.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	M	31	Total	C	N	O	S	0	0
			239	163	36	39	1		

- Molecule 13 is a protein called Photosystem I reaction center subunit VIII.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	I	35	Total	C	N	O	S	0	0
			270	183	37	47	3		

- Molecule 14 is a protein called Photosystem I subunit O.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	O	87	Total	C	N	O	S	0	0
			679	453	109	115	2		

- Molecule 15 is a protein called Chlorophyll a-b binding protein, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	1	192	Total	C	N	O	S	0	0
			1405	900	237	261	7		
15	a	192	Total	C	N	O	S	0	0
			1405	900	237	261	7		

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
1	166	SER	LEU	conflict	UNP A0A2P6TT36
1	167	LYS	GLU	conflict	UNP A0A2P6TT36
1	171	THR	VAL	conflict	UNP A0A2P6TT36
1	194	THR	ASN	conflict	UNP A0A2P6TT36
1	196	ALA	GLN	conflict	UNP A0A2P6TT36
1	204	SER	ALA	conflict	UNP A0A2P6TT36
1	210	MET	LEU	conflict	UNP A0A2P6TT36
a	166	SER	LEU	conflict	UNP A0A2P6TT36
a	167	LYS	GLU	conflict	UNP A0A2P6TT36
a	171	THR	VAL	conflict	UNP A0A2P6TT36
a	194	THR	ASN	conflict	UNP A0A2P6TT36
a	196	ALA	GLN	conflict	UNP A0A2P6TT36
a	204	SER	ALA	conflict	UNP A0A2P6TT36
a	210	MET	LEU	conflict	UNP A0A2P6TT36

- Molecule 16 is a protein called Glutathione reductase.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	3	241	Total	C	N	O	S	0	0
			1844	1194	302	337	11		

There are 10 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
3	314	CYS	GLY	conflict	UNP A0A2P6TMT4
3	329	ILE	VAL	conflict	UNP A0A2P6TMT4
3	339	THR	SER	conflict	UNP A0A2P6TMT4
3	359	LYS	ASN	conflict	UNP A0A2P6TMT4
3	405	GLY	ALA	conflict	UNP A0A2P6TMT4
3	429	GLU	ALA	conflict	UNP A0A2P6TMT4
3	484	THR	ARG	conflict	UNP A0A2P6TMT4
3	485	ILE	ARG	conflict	UNP A0A2P6TMT4
3	486	LEU	ARG	conflict	UNP A0A2P6TMT4
3	487	LYS	ALA	conflict	UNP A0A2P6TMT4

- Molecule 17 is a protein called Lhca4.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	4	207	Total	C	N	O	S	0	0
			1631	1056	277	294	4		

- Molecule 18 is a protein called Chlorophyll a-b binding protein, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	5	229	Total	C	N	O	S	0	0
			1786	1146	310	317	13		

There are 7 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
5	32	LYS	ASP	conflict	UNP A0A2P6U4K1
5	38	VAL	ALA	conflict	UNP A0A2P6U4K1
5	40	ALA	SER	conflict	UNP A0A2P6U4K1
5	42	GLY	ALA	conflict	UNP A0A2P6U4K1
5	113	SER	GLY	conflict	UNP A0A2P6U4K1
5	127	ILE	LEU	conflict	UNP A0A2P6U4K1
5	195	VAL	ILE	conflict	UNP A0A2P6U4K1

- Molecule 19 is a protein called Chlorophyll a-b binding protein, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	6	231	Total	C	N	O	S	0	0
			1787	1168	295	314	10		

There are 5 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
6	83	CYS	ALA	conflict	UNP A0A2P6TPR7
6	94	LEU	MET	conflict	UNP A0A2P6TPR7
6	196	ILE	VAL	conflict	UNP A0A2P6TPR7
6	201	ALA	GLY	conflict	UNP A0A2P6TPR7
6	250	GLN	ASN	conflict	UNP A0A2P6TPR7

- Molecule 20 is a protein called Lhca7.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	7	221	Total	C	N	O	S	0	0
			1698	1090	294	308	6		

- Molecule 21 is a protein called Chlorophyll a-b binding protein, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	8	219	Total	C	N	O	S	0	0
			1669	1073	285	305	6		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
8	103	GLU	ASP	conflict	UNP A0A2P6TZ50

- Molecule 22 is a protein called Chlorophyll a-b binding protein, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	2	215	Total	C	N	O	S	0	0
			1666	1074	277	309	6		

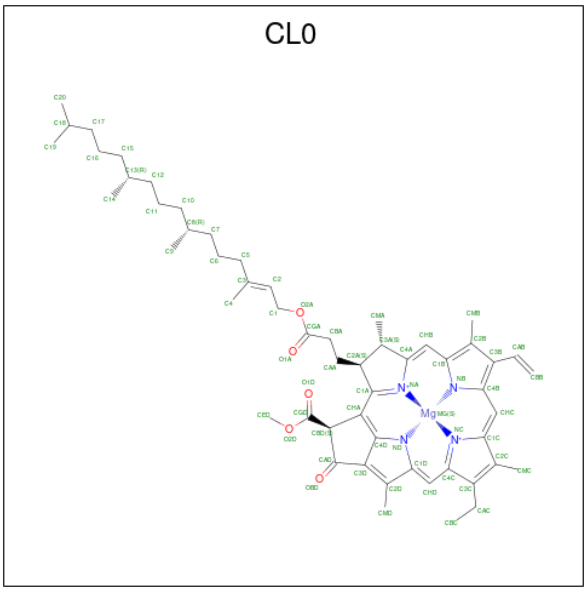
There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
2	64	ASP	GLU	conflict	UNP A0A2P6TMX4
2	97	PRO	ASN	conflict	UNP A0A2P6TMX4

- Molecule 23 is a protein called Chlorophyll a-b binding protein, chloroplastic.

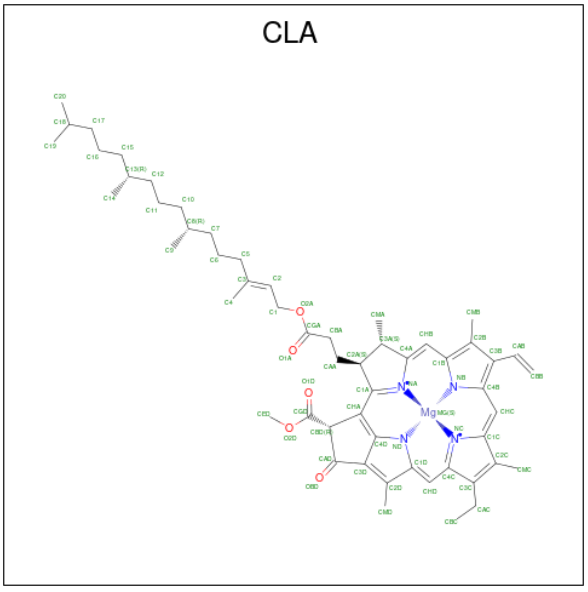
Mol	Chain	Residues	Atoms					AltConf	Trace
23	9	183	Total	C	N	O	S	0	0
			1406	909	237	254	6		

- Molecule 24 is CHLOROPHYLL A ISOMER (three-letter code: CL0) (formula: $C_{55}H_{72}MgN_4O_5$).



Mol	Chain	Residues	Atoms					AltConf
24	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	

- Molecule 25 is CHLOROPHYLL A (three-letter code: CLA) (formula: $C_{55}H_{72}MgN_4O_5$).



Mol	Chain	Residues	Atoms					AltConf
25	A	1	Total	C	Mg	N	O	0
			2532	2112	42	168	210	
25	A	1	Total	C	Mg	N	O	0
			2532	2112	42	168	210	
25	A	1	Total	C	Mg	N	O	0
			2532	2112	42	168	210	

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Mol	Chain	Residues	Atoms					AltConf
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0

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Mol	Chain	Residues	Atoms					AltConf
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	A	1	Total 2532	C 2112	Mg 42	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0

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Mol	Chain	Residues	Atoms					AltConf
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0
25	B	1	Total 2583	C 2164	Mg 41	N 168	O 210	0

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Mol	Chain	Residues	Atoms	AltConf
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	B	1	Total C Mg N O 2583 2164 41 168 210	0
25	F	1	Total C Mg N O 105 85 2 8 10	0
25	F	1	Total C Mg N O 105 85 2 8 10	0
25	G	1	Total C Mg N O 155 125 3 12 15	0

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Mol	Chain	Residues	Atoms					AltConf
25	G	1	Total	C	Mg	N	O	0
			155	125	3	12	15	
25	G	1	Total	C	Mg	N	O	0
			155	125	3	12	15	
25	H	1	Total	C	Mg	N	O	0
			156	126	3	12	15	
25	H	1	Total	C	Mg	N	O	0
			156	126	3	12	15	
25	H	1	Total	C	Mg	N	O	0
			156	126	3	12	15	
25	J	1	Total	C	Mg	N	O	0
			42	34	1	4	3	
25	K	1	Total	C	Mg	N	O	0
			200	160	4	16	20	
25	K	1	Total	C	Mg	N	O	0
			200	160	4	16	20	
25	K	1	Total	C	Mg	N	O	0
			200	160	4	16	20	
25	K	1	Total	C	Mg	N	O	0
			200	160	4	16	20	
25	L	1	Total	C	Mg	N	O	0
			205	165	4	16	20	
25	L	1	Total	C	Mg	N	O	0
			205	165	4	16	20	
25	L	1	Total	C	Mg	N	O	0
			205	165	4	16	20	
25	L	1	Total	C	Mg	N	O	0
			205	165	4	16	20	
25	O	1	Total	C	Mg	N	O	0
			134	108	3	12	11	
25	O	1	Total	C	Mg	N	O	0
			134	108	3	12	11	
25	O	1	Total	C	Mg	N	O	0
			134	108	3	12	11	
25	1	1	Total	C	Mg	N	O	0
			528	438	9	36	45	
25	1	1	Total	C	Mg	N	O	0
			528	438	9	36	45	
25	1	1	Total	C	Mg	N	O	0
			528	438	9	36	45	
25	1	1	Total	C	Mg	N	O	0
			528	438	9	36	45	

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Mol	Chain	Residues	Atoms					AltConf
25	1	1	Total 528	C 438	Mg 9	N 36	O 45	0
25	1	1	Total 528	C 438	Mg 9	N 36	O 45	0
25	1	1	Total 528	C 438	Mg 9	N 36	O 45	0
25	1	1	Total 528	C 438	Mg 9	N 36	O 45	0
25	1	1	Total 528	C 438	Mg 9	N 36	O 45	0
25	a	1	Total 496	C 406	Mg 9	N 36	O 45	0
25	a	1	Total 496	C 406	Mg 9	N 36	O 45	0
25	a	1	Total 496	C 406	Mg 9	N 36	O 45	0
25	a	1	Total 496	C 406	Mg 9	N 36	O 45	0
25	a	1	Total 496	C 406	Mg 9	N 36	O 45	0
25	a	1	Total 496	C 406	Mg 9	N 36	O 45	0
25	a	1	Total 496	C 406	Mg 9	N 36	O 45	0
25	a	1	Total 496	C 406	Mg 9	N 36	O 45	0
25	a	1	Total 496	C 406	Mg 9	N 36	O 45	0
25	3	1	Total 576	C 476	Mg 10	N 40	O 50	0
25	3	1	Total 576	C 476	Mg 10	N 40	O 50	0
25	3	1	Total 576	C 476	Mg 10	N 40	O 50	0
25	3	1	Total 576	C 476	Mg 10	N 40	O 50	0
25	3	1	Total 576	C 476	Mg 10	N 40	O 50	0
25	3	1	Total 576	C 476	Mg 10	N 40	O 50	0
25	3	1	Total 576	C 476	Mg 10	N 40	O 50	0

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Mol	Chain	Residues	Atoms					AltConf
25	3	1	Total 576	C 476	Mg 10	N 40	O 50	0
25	3	1	Total 576	C 476	Mg 10	N 40	O 50	0
25	3	1	Total 576	C 476	Mg 10	N 40	O 50	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	4	1	Total 768	C 628	Mg 14	N 56	O 70	0
25	5	1	Total 642	C 522	Mg 12	N 48	O 60	0
25	5	1	Total 642	C 522	Mg 12	N 48	O 60	0
25	5	1	Total 642	C 522	Mg 12	N 48	O 60	0
25	5	1	Total 642	C 522	Mg 12	N 48	O 60	0

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Mol	Chain	Residues	Atoms					AltConf
25	5	1	Total 642	C 522	Mg 12	N 48	O 60	0
25	5	1	Total 642	C 522	Mg 12	N 48	O 60	0
25	5	1	Total 642	C 522	Mg 12	N 48	O 60	0
25	5	1	Total 642	C 522	Mg 12	N 48	O 60	0
25	5	1	Total 642	C 522	Mg 12	N 48	O 60	0
25	5	1	Total 642	C 522	Mg 12	N 48	O 60	0
25	5	1	Total 642	C 522	Mg 12	N 48	O 60	0
25	5	1	Total 642	C 522	Mg 12	N 48	O 60	0
25	6	1	Total 624	C 514	Mg 11	N 44	O 55	0
25	6	1	Total 624	C 514	Mg 11	N 44	O 55	0
25	6	1	Total 624	C 514	Mg 11	N 44	O 55	0
25	6	1	Total 624	C 514	Mg 11	N 44	O 55	0
25	6	1	Total 624	C 514	Mg 11	N 44	O 55	0
25	6	1	Total 624	C 514	Mg 11	N 44	O 55	0
25	6	1	Total 624	C 514	Mg 11	N 44	O 55	0
25	6	1	Total 624	C 514	Mg 11	N 44	O 55	0
25	6	1	Total 624	C 514	Mg 11	N 44	O 55	0
25	6	1	Total 624	C 514	Mg 11	N 44	O 55	0
25	6	1	Total 624	C 514	Mg 11	N 44	O 55	0
25	7	1	Total 566	C 466	Mg 10	N 40	O 50	0
25	7	1	Total 566	C 466	Mg 10	N 40	O 50	0

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Mol	Chain	Residues	Atoms	AltConf
25	7	1	Total C Mg N O 566 466 10 40 50	0
25	7	1	Total C Mg N O 566 466 10 40 50	0
25	7	1	Total C Mg N O 566 466 10 40 50	0
25	7	1	Total C Mg N O 566 466 10 40 50	0
25	7	1	Total C Mg N O 566 466 10 40 50	0
25	7	1	Total C Mg N O 566 466 10 40 50	0
25	7	1	Total C Mg N O 566 466 10 40 50	0
25	7	1	Total C Mg N O 566 466 10 40 50	0
25	8	1	Total C Mg N O 573 463 11 44 55	0
25	8	1	Total C Mg N O 573 463 11 44 55	0
25	8	1	Total C Mg N O 573 463 11 44 55	0
25	8	1	Total C Mg N O 573 463 11 44 55	0
25	8	1	Total C Mg N O 573 463 11 44 55	0
25	8	1	Total C Mg N O 573 463 11 44 55	0
25	8	1	Total C Mg N O 573 463 11 44 55	0
25	8	1	Total C Mg N O 573 463 11 44 55	0
25	8	1	Total C Mg N O 573 463 11 44 55	0
25	8	1	Total C Mg N O 573 463 11 44 55	0
25	8	1	Total C Mg N O 573 463 11 44 55	0
25	2	1	Total C Mg N O 615 505 11 44 55	0
25	2	1	Total C Mg N O 615 505 11 44 55	0

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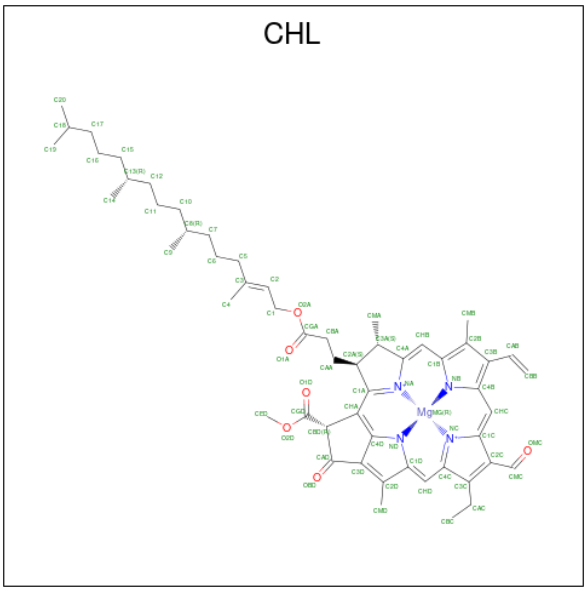
Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
25	2	1	615	505	11	44	55	0
25	2	1	615	505	11	44	55	0
25	2	1	615	505	11	44	55	0
25	2	1	615	505	11	44	55	0
25	2	1	615	505	11	44	55	0
25	2	1	615	505	11	44	55	0
25	2	1	615	505	11	44	55	0
25	2	1	615	505	11	44	55	0
25	2	1	615	505	11	44	55	0
25	9	1	379	309	7	28	35	0
25	9	1	379	309	7	28	35	0
25	9	1	379	309	7	28	35	0
25	9	1	379	309	7	28	35	0
25	9	1	379	309	7	28	35	0
25	9	1	379	309	7	28	35	0
25	9	1	379	309	7	28	35	0

- Molecule 26 is CHLOROPHYLL B (three-letter code: CHL) (formula: $C_{55}H_{70}MgN_4O_6$).



Mol	Chain	Residues	Atoms					AltConf
26	A	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
26	1	1	Total	C	Mg	N	O	0
			284	229	5	20	30	
26	1	1	Total	C	Mg	N	O	0
			284	229	5	20	30	
26	1	1	Total	C	Mg	N	O	0
			284	229	5	20	30	
26	1	1	Total	C	Mg	N	O	0
			284	229	5	20	30	
26	1	1	Total	C	Mg	N	O	0
			284	229	5	20	30	
26	a	1	Total	C	Mg	N	O	0
			264	209	5	20	30	
26	a	1	Total	C	Mg	N	O	0
			264	209	5	20	30	
26	a	1	Total	C	Mg	N	O	0
			264	209	5	20	30	
26	a	1	Total	C	Mg	N	O	0
			264	209	5	20	30	
26	a	1	Total	C	Mg	N	O	0
			264	209	5	20	30	
26	3	1	Total	C	Mg	N	O	0
			236	194	4	16	22	
26	3	1	Total	C	Mg	N	O	0
			236	194	4	16	22	
26	3	1	Total	C	Mg	N	O	0
			236	194	4	16	22	

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Mol	Chain	Residues	Atoms					AltConf
26	3	1	Total 236	C 194	Mg 4	N 16	O 22	0
26	4	1	Total 174	C 141	Mg 3	N 12	O 18	0
26	4	1	Total 174	C 141	Mg 3	N 12	O 18	0
26	4	1	Total 174	C 141	Mg 3	N 12	O 18	0
26	5	1	Total 271	C 216	Mg 5	N 20	O 30	0
26	5	1	Total 271	C 216	Mg 5	N 20	O 30	0
26	5	1	Total 271	C 216	Mg 5	N 20	O 30	0
26	5	1	Total 271	C 216	Mg 5	N 20	O 30	0
26	5	1	Total 271	C 216	Mg 5	N 20	O 30	0
26	6	1	Total 333	C 269	Mg 6	N 24	O 34	0
26	6	1	Total 333	C 269	Mg 6	N 24	O 34	0
26	6	1	Total 333	C 269	Mg 6	N 24	O 34	0
26	6	1	Total 333	C 269	Mg 6	N 24	O 34	0
26	6	1	Total 333	C 269	Mg 6	N 24	O 34	0
26	6	1	Total 333	C 269	Mg 6	N 24	O 34	0
26	7	1	Total 296	C 241	Mg 5	N 20	O 30	0
26	7	1	Total 296	C 241	Mg 5	N 20	O 30	0
26	7	1	Total 296	C 241	Mg 5	N 20	O 30	0
26	7	1	Total 296	C 241	Mg 5	N 20	O 30	0
26	7	1	Total 296	C 241	Mg 5	N 20	O 30	0
26	8	1	Total 296	C 241	Mg 5	N 20	O 30	0

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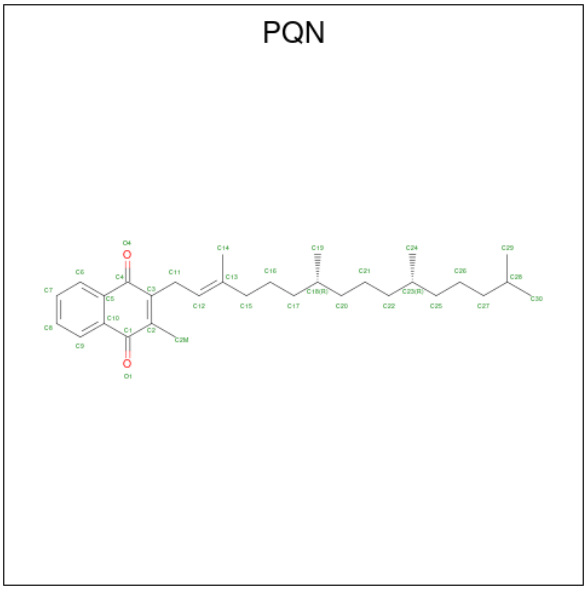
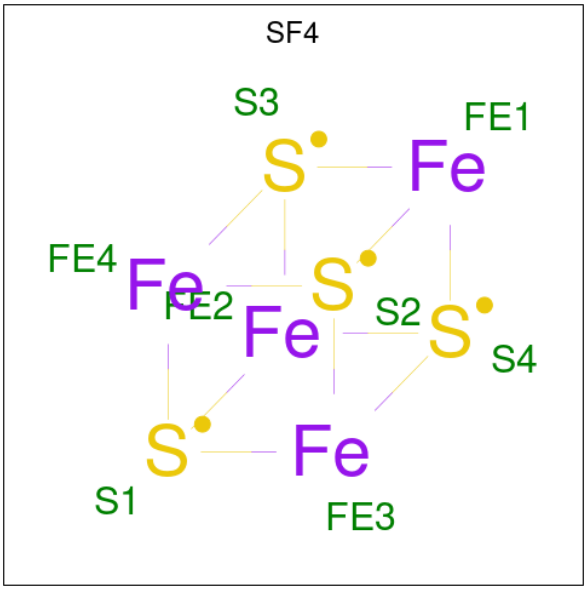
Mol	Chain	Residues	Atoms					AltConf
26	8	1	Total	C	Mg	N	O	0
			296	241	5	20	30	
26	8	1	Total	C	Mg	N	O	0
			296	241	5	20	30	
26	8	1	Total	C	Mg	N	O	0
			296	241	5	20	30	
26	8	1	Total	C	Mg	N	O	0
			296	241	5	20	30	
26	2	1	Total	C	Mg	N	O	0
			165	132	3	12	18	
26	2	1	Total	C	Mg	N	O	0
			165	132	3	12	18	
26	2	1	Total	C	Mg	N	O	0
			165	132	3	12	18	
26	9	1	Total	C	Mg	N	O	0
			273	220	5	20	28	
26	9	1	Total	C	Mg	N	O	0
			273	220	5	20	28	
26	9	1	Total	C	Mg	N	O	0
			273	220	5	20	28	
26	9	1	Total	C	Mg	N	O	0
			273	220	5	20	28	
26	9	1	Total	C	Mg	N	O	0
			273	220	5	20	28	

- Molecule 27 is PHYLLOQUINONE (three-letter code: PQN) (formula: $C_{31}H_{46}O_2$).



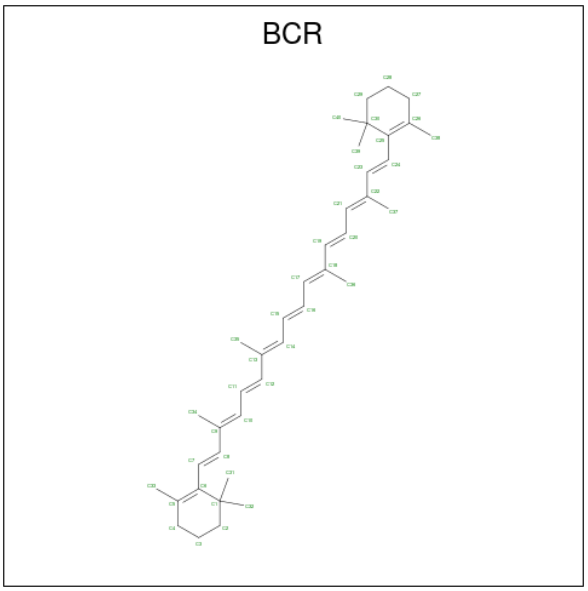
Mol	Chain	Residues	Atoms	AltConf
27	A	1	Total C O 33 31 2	0
27	B	1	Total C O 33 31 2	0

- Molecule 28 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	AltConf
28	A	1	Total Fe S 8 4 4	0
28	C	1	Total Fe S 16 8 8	0
28	C	1	Total Fe S 16 8 8	0

- Molecule 29 is BETA-CAROTENE (three-letter code: BCR) (formula: $C_{40}H_{56}$).



Mol	Chain	Residues	Atoms	AltConf
29	A	1	Total C 200 200	0
29	A	1	Total C 200 200	0
29	A	1	Total C 200 200	0
29	A	1	Total C 200 200	0
29	A	1	Total C 200 200	0
29	B	1	Total C 280 280	0
29	B	1	Total C 280 280	0
29	B	1	Total C 280 280	0
29	B	1	Total C 280 280	0
29	B	1	Total C 280 280	0
29	B	1	Total C 280 280	0
29	B	1	Total C 280 280	0
29	G	1	Total C 40 40	0
29	H	1	Total C 40 40	0

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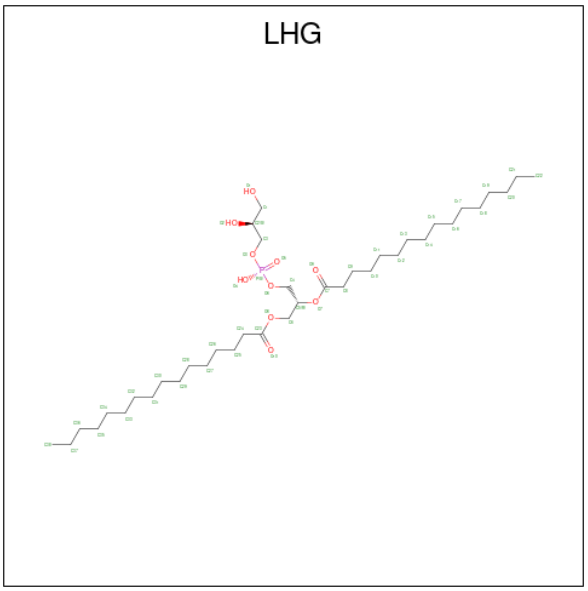
Mol	Chain	Residues	Atoms	AltConf
29	J	1	Total C 40 40	0
29	K	1	Total C 80 80	0
29	K	1	Total C 80 80	0
29	L	1	Total C 120 120	0
29	L	1	Total C 120 120	0
29	L	1	Total C 120 120	0
29	I	1	Total C 40 40	0
29	O	1	Total C 40 40	0
29	3	1	Total C 120 120	0
29	3	1	Total C 120 120	0
29	3	1	Total C 120 120	0
29	4	1	Total C 40 40	0
29	5	1	Total C 80 80	0
29	5	1	Total C 80 80	0
29	6	1	Total C 80 80	0
29	6	1	Total C 80 80	0
29	7	1	Total C 40 40	0
29	8	1	Total C 40 40	0

- Molecule 30 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula: $C_{38}H_{75}O_{10}P$).



Mol	Chain	Residues	Atoms				AltConf
30	A	1	Total	C	O	P	0
			144	111	30	3	
30	A	1	Total	C	O	P	0
			144	111	30	3	
30	A	1	Total	C	O	P	0
			144	111	30	3	
30	B	1	Total	C	O	P	0
			98	76	20	2	
30	B	1	Total	C	O	P	0
			98	76	20	2	
30	F	1	Total	C	O	P	0
			79	57	20	2	
30	F	1	Total	C	O	P	0
			79	57	20	2	
30	1	1	Total	C	O	P	0
			84	62	20	2	
30	1	1	Total	C	O	P	0
			84	62	20	2	
30	a	1	Total	C	O	P	0
			35	24	10	1	
30	3	1	Total	C	O	P	0
			49	38	10	1	
30	4	1	Total	C	O	P	0
			81	59	20	2	
30	4	1	Total	C	O	P	0
			81	59	20	2	
30	5	1	Total	C	O	P	0
			49	38	10	1	

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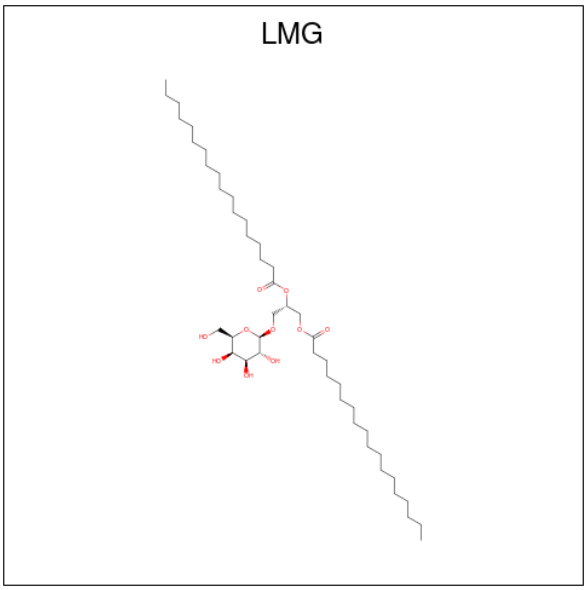
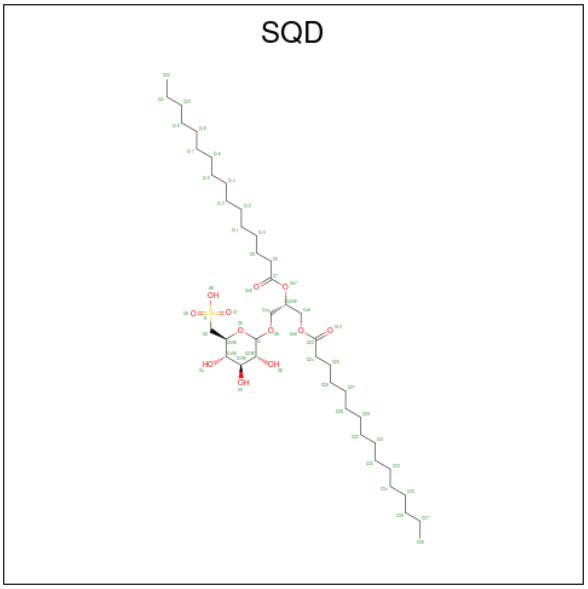
Mol	Chain	Residues	Atoms				AltConf
30	6	1	Total	C	O	P	0
			86	64	20	2	
30	6	1	Total	C	O	P	0
			86	64	20	2	
30	7	1	Total	C	O	P	0
			108	75	30	3	
30	7	1	Total	C	O	P	0
			108	75	30	3	
30	7	1	Total	C	O	P	0
			108	75	30	3	
30	8	1	Total	C	O	P	0
			37	26	10	1	
30	2	1	Total	C	O	P	0
			98	76	20	2	
30	2	1	Total	C	O	P	0
			98	76	20	2	
30	9	1	Total	C	O	P	0
			82	60	20	2	
30	9	1	Total	C	O	P	0
			82	60	20	2	

- Molecule 31 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: $C_{45}H_{86}O_{10}$).



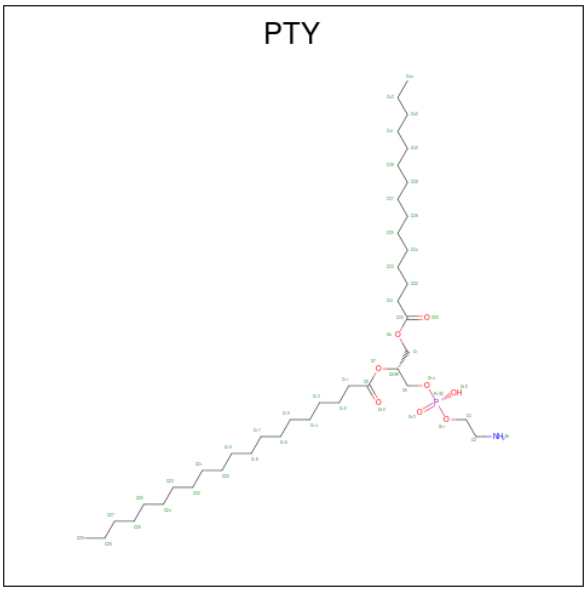
Mol	Chain	Residues	Atoms			AltConf
31	A	1	Total	C	O	0
			42	32	10	

- Molecule 32 is 1,2-DI-O-ACYL-3-O-[6-DEOXY-6-SULFO-ALPHA-D-GLUCOPYRANOSYL]-SN-GLYCEROL (three-letter code: SQD) (formula: $C_{41}H_{78}O_{12}S$).



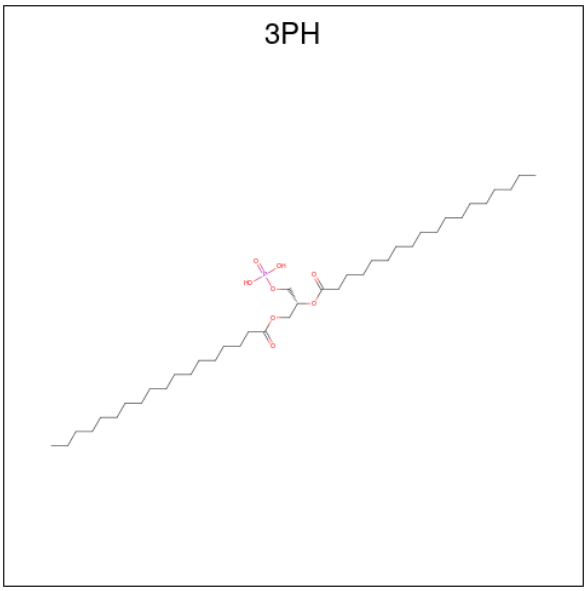
Mol	Chain	Residues	Atoms				AltConf
32	A	1	Total	C	O	S	0
			54	41	12	1	
32	G	1	Total	C	O	S	0
			46	33	12	1	
32	H	1	Total	C	O	S	0
			45	32	12	1	
32	I	1	Total	C	O	S	0
			54	41	12	1	
32	7	1	Total	C	O	S	0
			39	26	12	1	

- Molecule 33 is PHOSPHATIDYLETHANOLAMINE (three-letter code: PTY) (formula: $C_{40}H_{80}NO_8P$).



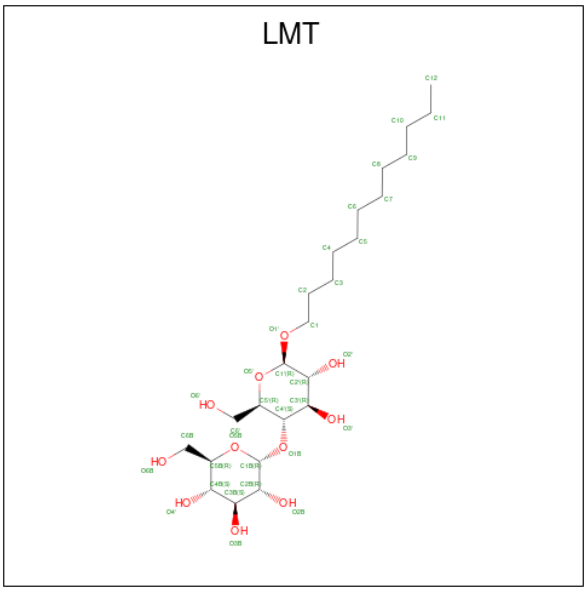
Mol	Chain	Residues	Atoms					AltConf
33	A	1	Total	C	N	O	P	0
			34	24	1	8	1	
33	B	1	Total	C	N	O	P	0
			42	32	1	8	1	
33	G	1	Total	C	N	O	P	0
			56	36	2	16	2	
33	G	1	Total	C	N	O	P	0
			56	36	2	16	2	
33	J	1	Total	C	N	O	P	0
			28	18	1	8	1	
33	a	1	Total	C	N	O	P	0
			76	56	2	16	2	
33	a	1	Total	C	N	O	P	0
			76	56	2	16	2	
33	3	1	Total	C	N	O	P	0
			38	28	1	8	1	
33	5	1	Total	C	N	O	P	0
			38	28	1	8	1	
33	7	1	Total	C	N	O	P	0
			33	23	1	8	1	
33	9	1	Total	C	N	O	P	0
			48	38	1	8	1	

- Molecule 34 is 1,2-DIACYL-GLYCEROL-3-SN-PHOSPHATE (three-letter code: 3PH) (formula: $C_{39}H_{77}O_8P$).



Mol	Chain	Residues	Atoms				AltConf
34	A	1	Total	C	O	P	0
			33	24	8	1	

- Molecule 35 is DODECYL-BETA-D-MALTOSIDE (three-letter code: LMT) (formula: $C_{24}H_{46}O_{11}$).



Mol	Chain	Residues	Atoms			AltConf
35	A	1	Total	C	O	0
			35	24	11	
35	B	1	Total	C	O	0
			35	24	11	

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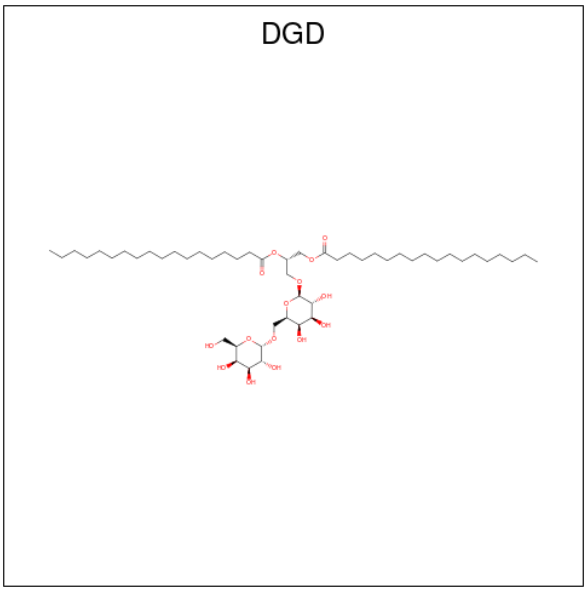
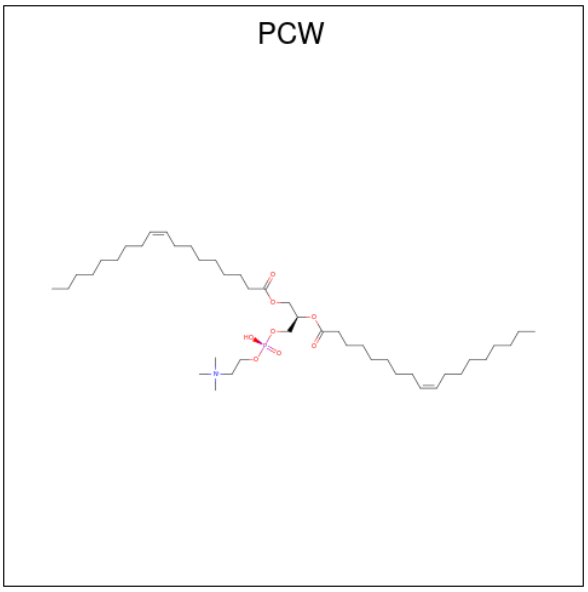
Mol	Chain	Residues	Atoms	AltConf
35	1	1	Total C O 35 24 11	0
35	2	1	Total C O 35 24 11	0

- Molecule 36 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula: $C_{51}H_{96}O_{15}$).



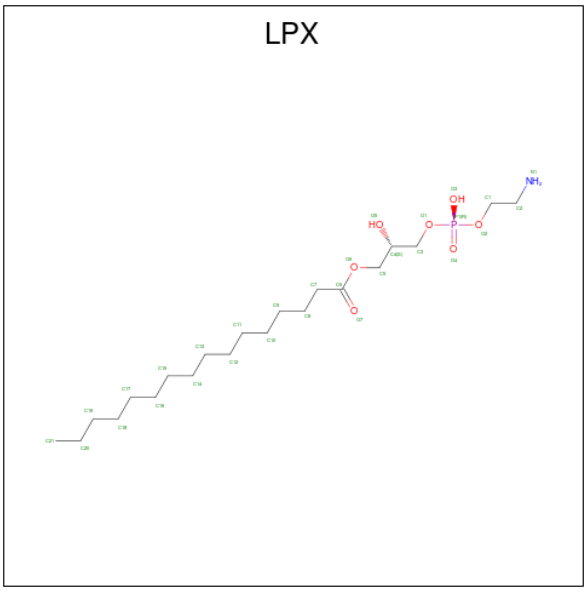
Mol	Chain	Residues	Atoms	AltConf
36	B	1	Total C O 66 51 15	0
36	7	1	Total C O 50 35 15	0
36	8	1	Total C O 105 75 30	0
36	8	1	Total C O 105 75 30	0

- Molecule 37 is 1,2-DIOLEOYL-SN-GLYCERO-3-PHOSPHOCHOLINE (three-letter code: PCW) (formula: $C_{44}H_{85}NO_8P$).



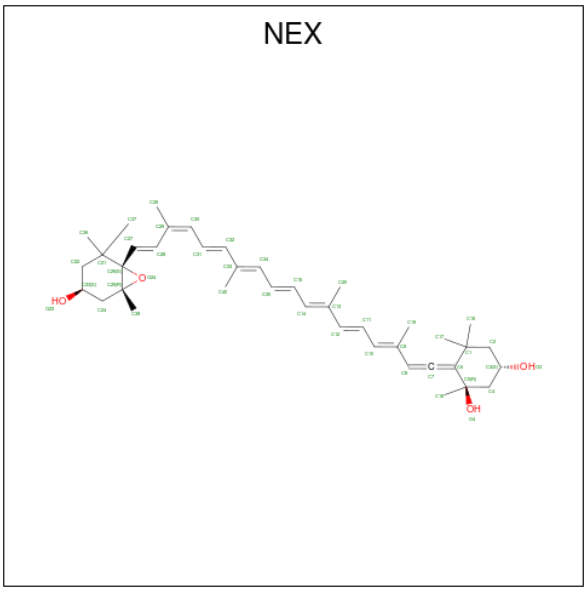
Mol	Chain	Residues	Atoms					AltConf
37	B	1	Total	C	N	O	P	0
			39	29	1	8	1	
37	K	1	Total	C	N	O	P	0
			77	57	2	16	2	
37	K	1	Total	C	N	O	P	0
			77	57	2	16	2	
37	6	1	Total	C	N	O	P	0
			36	26	1	8	1	

- Molecule 38 is (2S)-3-{[(R)-(2-aminoethoxy)(hydroxy)phosphoryl]oxy}-2-hydroxypropyl hexadecanoate (three-letter code: LPX) (formula: $C_{21}H_{44}NO_7P$).



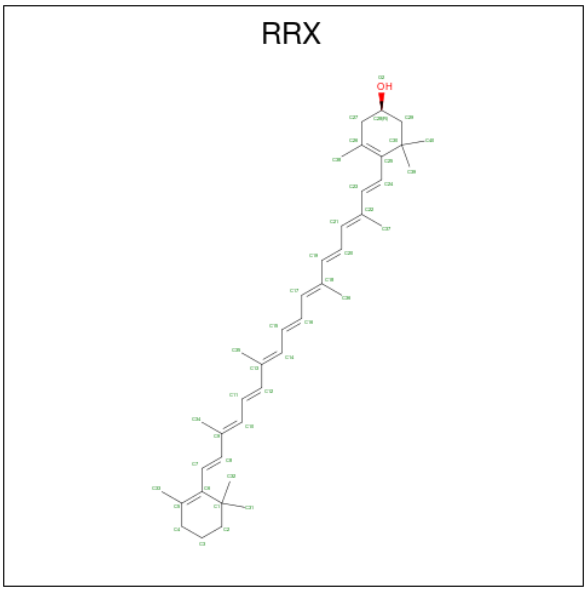
Mol	Chain	Residues	Atoms					AltConf
38	F	1	Total	C	N	O	P	0
			30	21	1	7	1	

- Molecule 39 is (1R,3R)-6-{(3E,5E,7E,9E,11E,13E,15E,17E)-18-[(1S,4R,6R)-4-HYDROXY-2,2,6-TRIMETHYL-7-OXABICYCLO[4.1.0]HEPT-1-YL]-3,7,12,16-TETRAMETHYLOCTADECA-1,3,5,7,9,11,13,15,17-NONAENYLIDENE}-1,5,5-TRIMETHYLCYCLOHEXANE-1,3-DIOL (three-letter code: NEX) (formula: $C_{40}H_{56}O_4$).



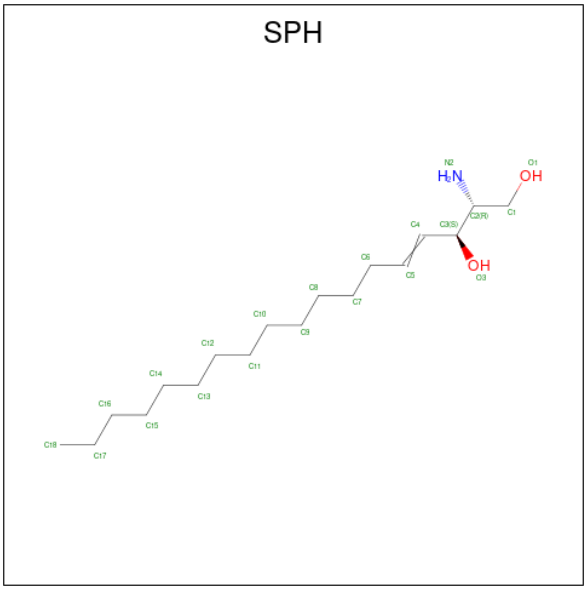
Mol	Chain	Residues	Atoms			AltConf
39	F	1	Total	C	O	0
			44	40	4	

- Molecule 40 is (3R)-beta,beta-caroten-3-ol (three-letter code: RRX) (formula: $C_{40}H_{56}O$).



Mol	Chain	Residues	Atoms			AltConf
40	J	1	Total	C	O	0
			41	40	1	
40	3	1	Total	C	O	0
			41	40	1	

- Molecule 41 is SPHINGOSINE (three-letter code: SPH) (formula: $C_{18}H_{37}NO_2$).



Mol	Chain	Residues	Atoms				AltConf
41	J	1	Total	C	N	O	0
			21	18	1	2	
41	4	1	Total	C	N	O	0
			21	18	1	2	

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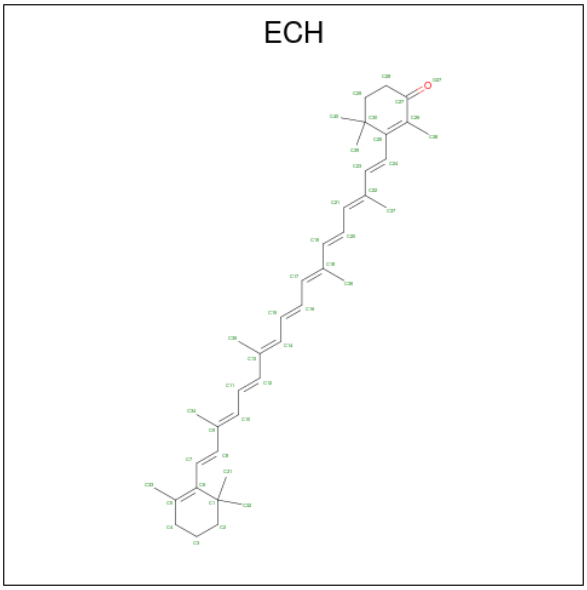
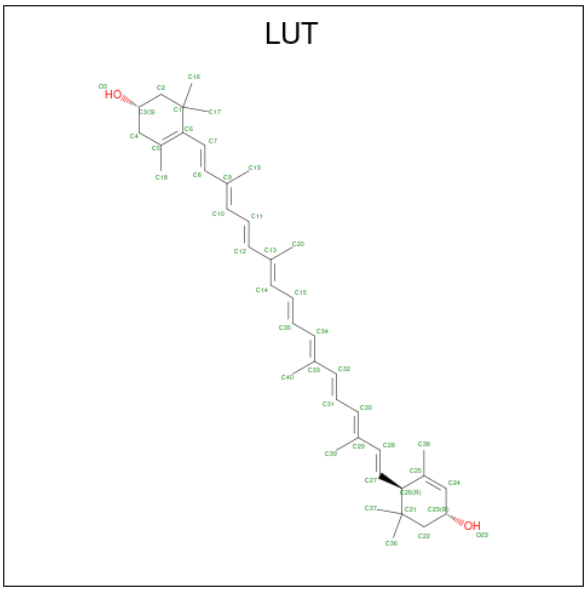
Mol	Chain	Residues	Atoms				AltConf
41	6	1	Total	C	N	O	0
			21	18	1	2	
41	9	1	Total	C	N	O	0
			21	18	1	2	

- Molecule 42 is beta,beta-caroten-4-one (three-letter code: ECH) (formula: $C_{40}H_{54}O$).



Mol	Chain	Residues	Atoms			AltConf
42	M	1	Total	C	O	0
			41	40	1	

- Molecule 43 is (3R,3'R,6S)-4,5-DIDEHYDRO-5,6-DIHYDRO-BETA,BETA-CAROTENE-3 ,3'-DIOL (three-letter code: LUT) (formula: $C_{40}H_{56}O_2$).



Mol	Chain	Residues	Atoms	AltConf
43	1	1	Total C O 84 80 4	0
43	1	1	Total C O 84 80 4	0
43	a	1	Total C O 126 120 6	0
43	a	1	Total C O 126 120 6	0
43	a	1	Total C O 126 120 6	0
43	3	1	Total C O 84 80 4	0
43	3	1	Total C O 84 80 4	0
43	4	1	Total C O 84 80 4	0
43	4	1	Total C O 84 80 4	0
43	5	1	Total C O 126 120 6	0
43	5	1	Total C O 126 120 6	0
43	5	1	Total C O 126 120 6	0
43	6	1	Total C O 84 80 4	0
43	6	1	Total C O 84 80 4	0

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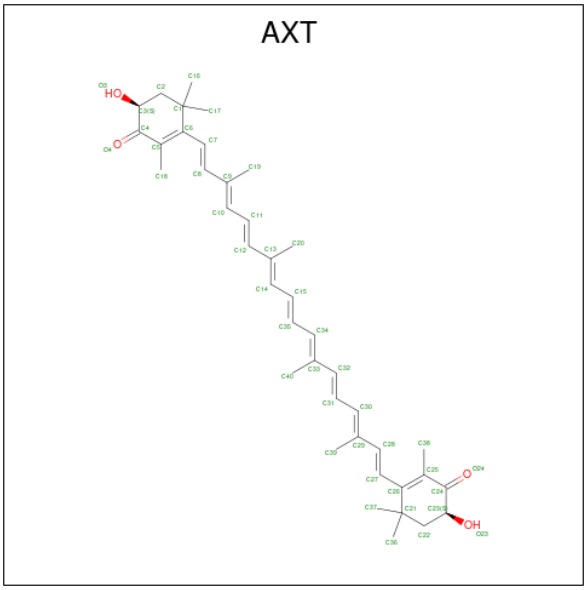
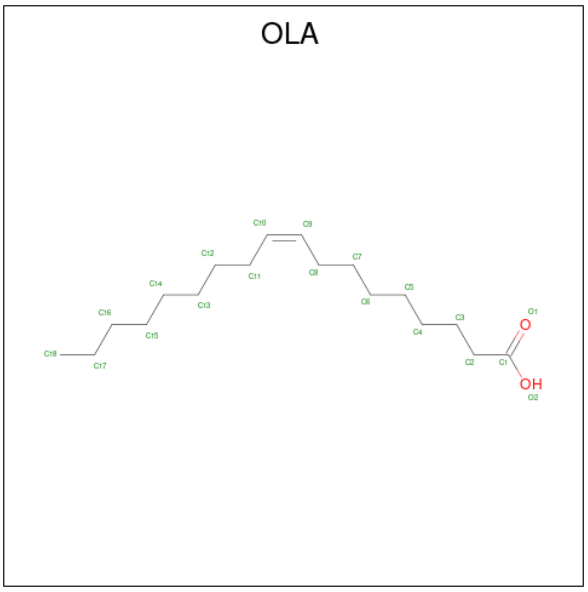
Mol	Chain	Residues	Atoms	AltConf
43	7	1	Total C O 42 40 2	0
43	8	1	Total C O 84 80 4	0
43	8	1	Total C O 84 80 4	0
43	2	1	Total C O 84 80 4	0
43	2	1	Total C O 84 80 4	0
43	9	1	Total C O 84 80 4	0
43	9	1	Total C O 84 80 4	0

- Molecule 44 is ASTAXANTHIN (three-letter code: AXT) (formula: $C_{40}H_{52}O_4$).



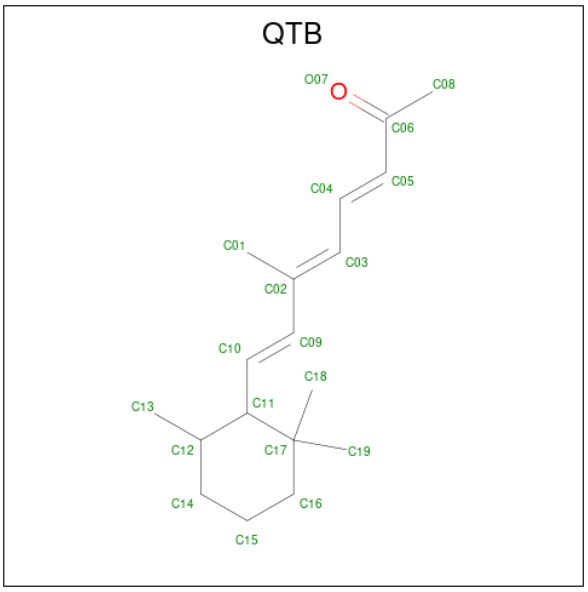
Mol	Chain	Residues	Atoms	AltConf
44	1	1	Total C O 43 40 3	0
44	7	1	Total C O 43 40 3	0

- Molecule 45 is OLEIC ACID (three-letter code: OLA) (formula: $C_{18}H_{34}O_2$).



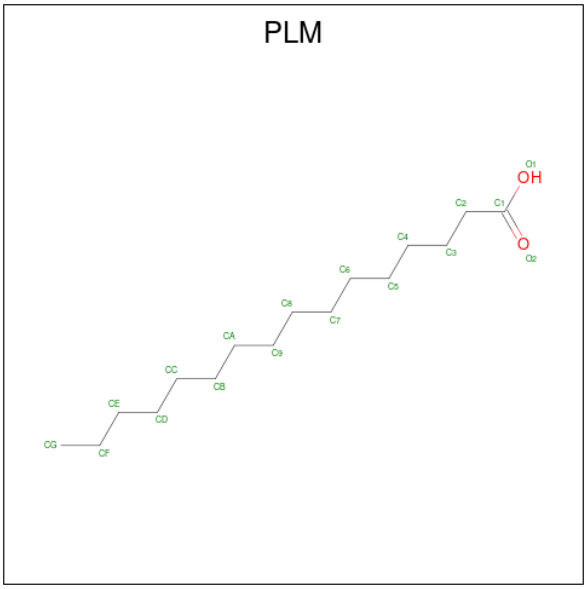
Mol	Chain	Residues	Atoms	AltConf
45	1	1	Total C O 20 18 2	0
45	a	1	Total C O 20 18 2	0
45	8	1	Total C O 40 36 4	0
45	8	1	Total C O 40 36 4	0

- Molecule 46 is (3 {E},5 {E},7 {E})-6-methyl-8-[(6 {R})-2,2,6-trimethylcyclohexyl]octa-3,5,7 -trien-2-one (three-letter code: QTB) (formula: $C_{18}H_{28}O$).



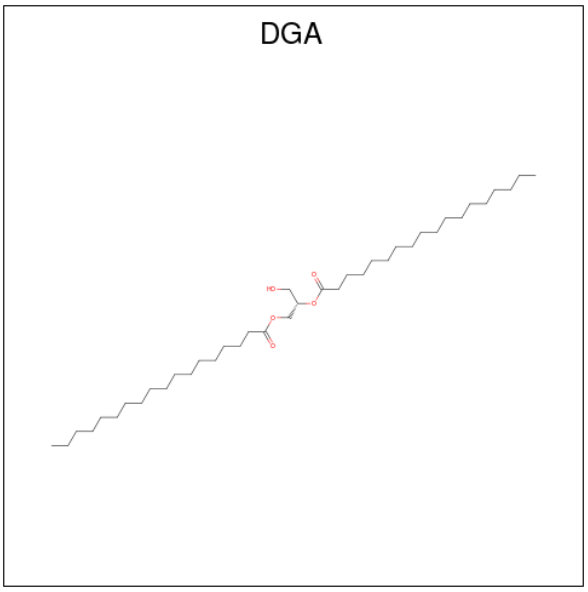
Mol	Chain	Residues	Atoms	AltConf
46	a	1	Total C O 19 18 1	0

- Molecule 47 is PALMITIC ACID (three-letter code: PLM) (formula: $C_{16}H_{32}O_2$).



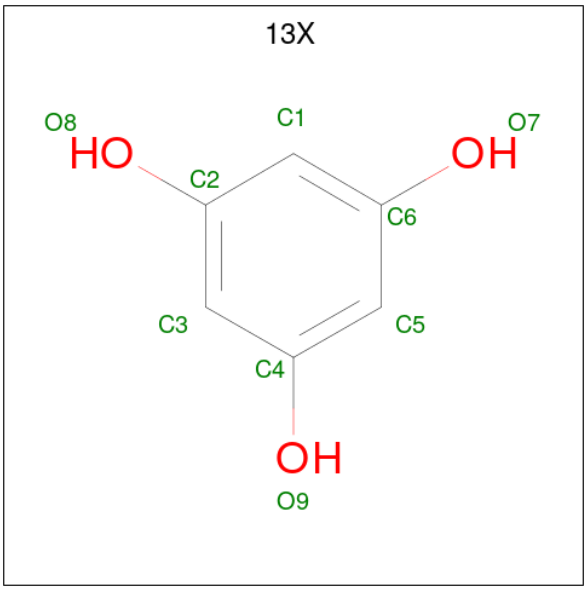
Mol	Chain	Residues	Atoms	AltConf
47	a	1	Total C O 17 16 1	0
47	4	1	Total C O 35 32 3	0
47	4	1	Total C O 35 32 3	0
47	5	1	Total C O 18 16 2	0
47	6	1	Total C O 18 16 2	0
47	8	1	Total C O 35 32 3	0
47	8	1	Total C O 35 32 3	0

- Molecule 48 is DIACYL GLYCEROL (three-letter code: DGA) (formula: $C_{39}H_{76}O_5$).



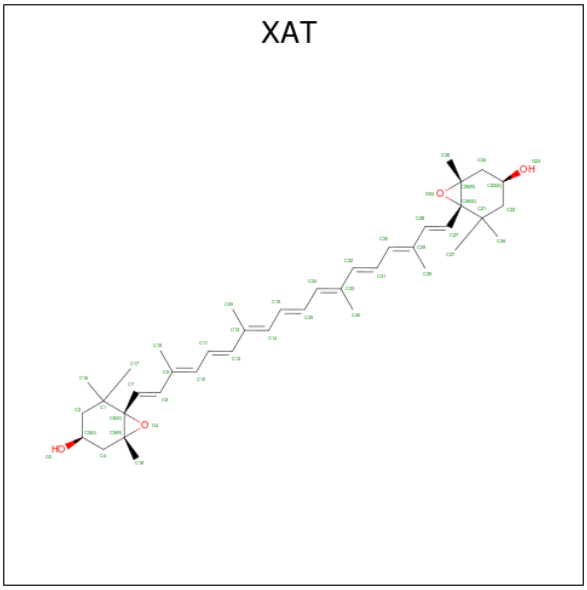
Mol	Chain	Residues	Atoms	AltConf
48	3	1	Total C O 24 19 5	0
48	5	1	Total C O 23 18 5	0
48	8	1	Total C O 40 35 5	0
48	2	1	Total C O 37 32 5	0

- Molecule 49 is benzene-1,3,5-triol (three-letter code: 13X) (formula: $C_6H_6O_3$).



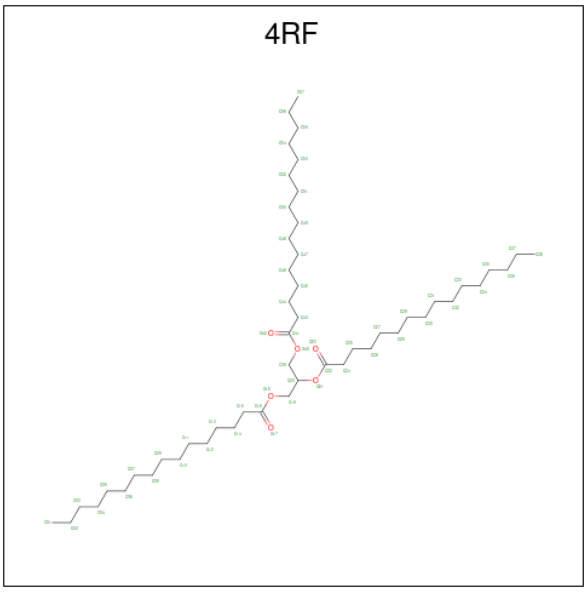
Mol	Chain	Residues	Atoms			AltConf
49	6	1	Total	C	O	0
			9	6	3	

- Molecule 50 is (3S,5R,6S,3'S,5'R,6'S)-5,6,5',6'-DIEPOXY-5,6,5',6'- TETRAHYDRO-BETA ,BETA-CAROTENE-3,3'-DIOL (three-letter code: XAT) (formula: $C_{40}H_{56}O_4$).



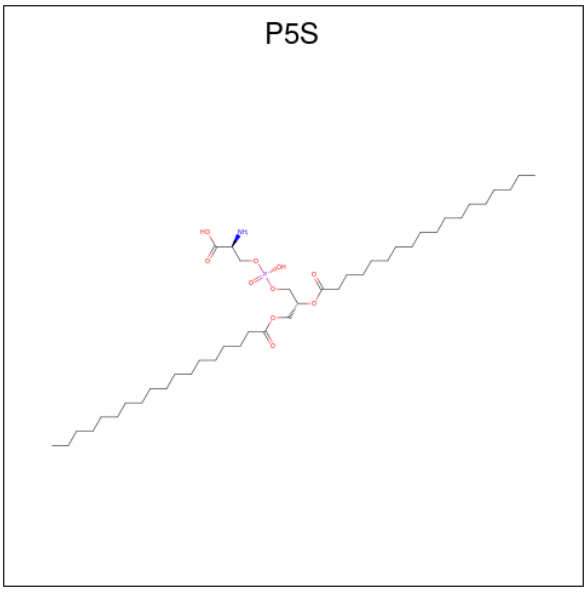
Mol	Chain	Residues	Atoms			AltConf
50	7	1	Total	C	O	0
			44	40	4	
50	2	1	Total	C	O	0
			44	40	4	
50	9	1	Total	C	O	0
			88	80	8	
50	9	1	Total	C	O	0
			88	80	8	

- Molecule 51 is Tripalmitoylglycerol (three-letter code: 4RF) (formula: $C_{51}H_{98}O_6$).



Mol	Chain	Residues	Atoms			AltConf
51	7	1	Total	C	O	0
			37	31	6	

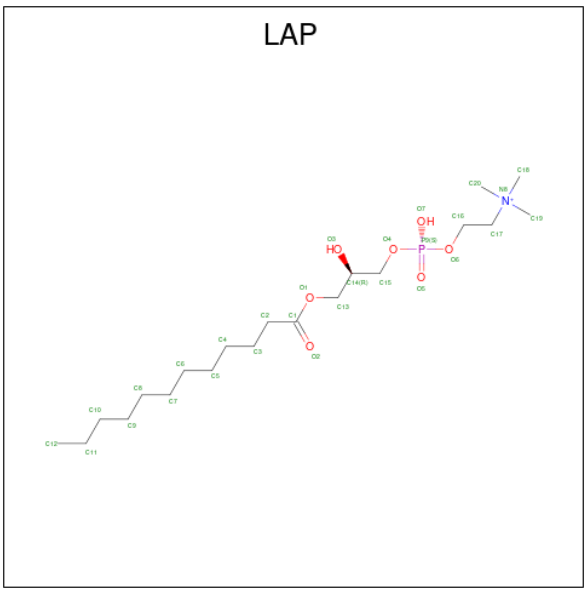
- Molecule 52 is O-[(R)-{[(2R)-2,3-bis(octadecanoyloxy)propyl]oxy}(hydroxy)phosphoryl]-L-serine (three-letter code: P5S) (formula: $C_{42}H_{82}NO_{10}P$).



Mol	Chain	Residues	Atoms					AltConf
52	8	1	Total	C	N	O	P	0
			37	25	1	10	1	

- Molecule 53 is [2-((1-OXODODECANOXY-(2-HYDROXY-3-PROPANYL))-PHOSPHONATE-OXY)-ETHYL]-TRIMETHYLAMMONIUM (three-letter code: LAP) (formula:

$C_{20}H_{43}NO_7P$).



Mol	Chain	Residues	Atoms					AltConf
53	8	1	Total	C	N	O	P	0
			29	20	1	7	1	

- Molecule 54 is water.

Mol	Chain	Residues	Atoms		AltConf
54	A	20	Total	O	0
			21	21	
54	A	1	Total	O	0
			21	21	
54	B	2	Total	O	0
			24	24	
54	B	2	Total	O	0
			24	24	
54	B	5	Total	O	0
			24	24	
54	B	6	Total	O	0
			24	24	
54	B	4	Total	O	0
			24	24	
54	B	3	Total	O	0
			24	24	
54	B	1	Total	O	0
			24	24	
54	B	1	Total	O	0
			24	24	

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Mol	Chain	Residues	Atoms	AltConf
54	C	1	Total O 2 2	0
54	C	1	Total O 2 2	0
54	D	1	Total O 2 2	0
54	D	1	Total O 2 2	0
54	E	1	Total O 1 1	0
54	F	1	Total O 3 3	0
54	F	1	Total O 3 3	0
54	F	1	Total O 3 3	0
54	G	1	Total O 3 3	0
54	G	2	Total O 3 3	0
54	H	1	Total O 1 1	0
54	J	1	Total O 1 1	0
54	K	3	Total O 3 3	0
54	L	1	Total O 2 2	0
54	L	1	Total O 2 2	0
54	M	1	Total O 1 1	0
54	1	5	Total O 5 5	0
54	a	1	Total O 1 1	0
54	3	4	Total O 5 5	0
54	3	1	Total O 5 5	0
54	4	3	Total O 4 4	0

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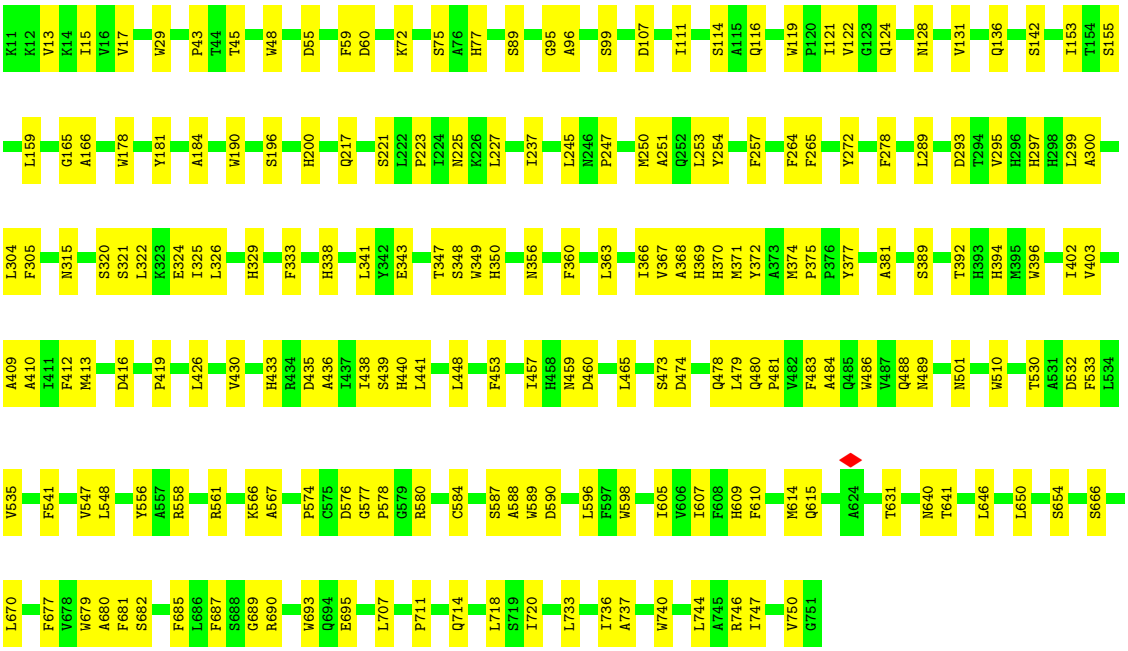
Mol	Chain	Residues	Atoms	AltConf
54	4	1	Total O 4 4	0
54	5	3	Total O 3 3	0
54	6	7	Total O 7 7	0
54	7	2	Total O 2 2	0
54	8	1	Total O 2 2	0
54	8	1	Total O 2 2	0
54	2	4	Total O 4 4	0
54	9	1	Total O 2 2	0
54	9	1	Total O 2 2	0

3 Residue-property plots (i)

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.

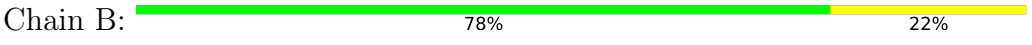
• Molecule 1: Photosystem I P700 chlorophyll a apoprotein A1

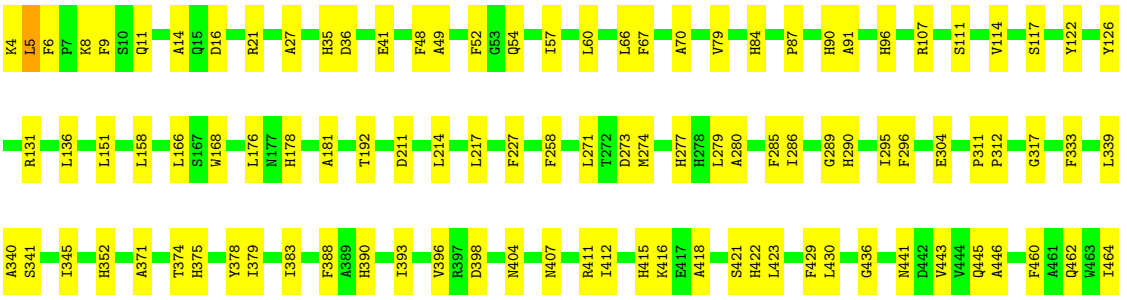
Chain A:

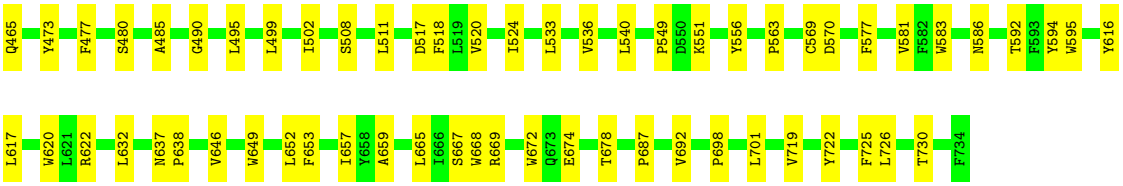


• Molecule 2: Photosystem I P700 chlorophyll a apoprotein A2

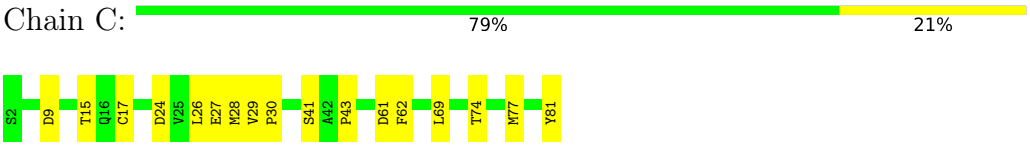
Chain B:



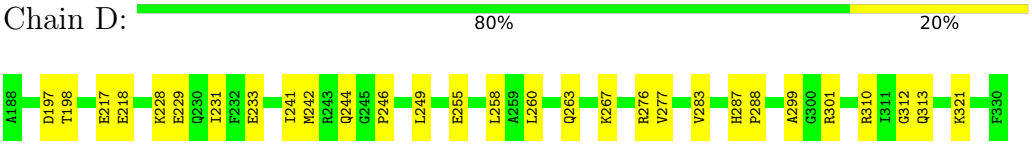




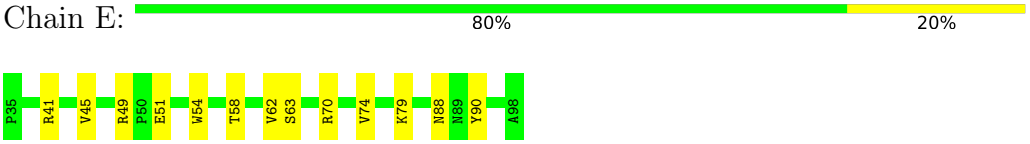
• Molecule 3: Photosystem I iron-sulfur center



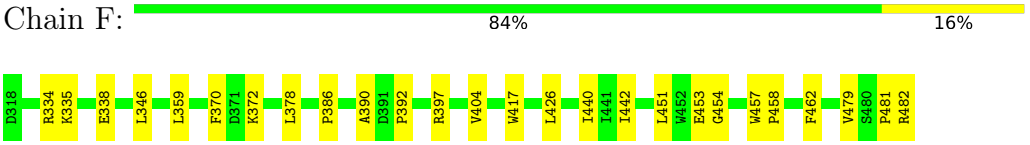
• Molecule 4: Photosystem I reaction center subunit chloroplastic



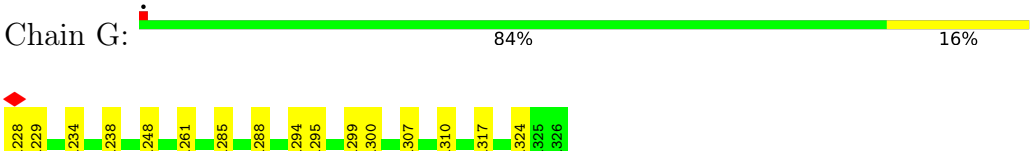
• Molecule 5: Photosystem I reaction center subunit IV



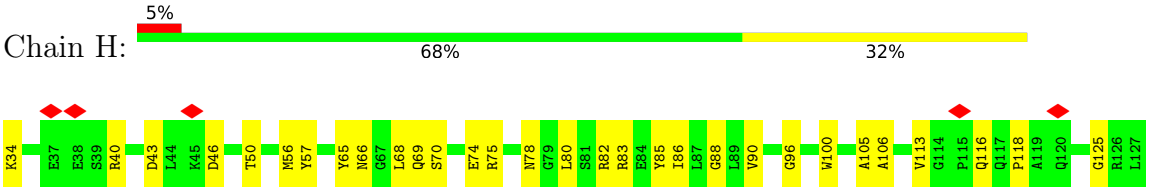
• Molecule 6: PSI-F



• Molecule 7: Photosystem I reaction center subunit chloroplastic

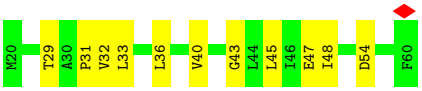


• Molecule 8: Photosystem I reaction center subunit VI-chloroplastic-like



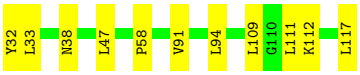
• Molecule 9: Photosystem I reaction center subunit IX

Chain J:



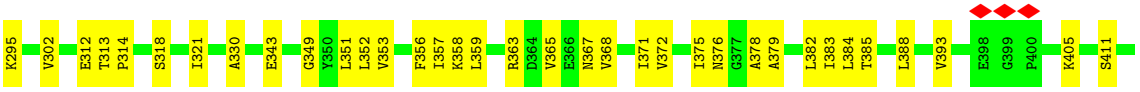
• Molecule 10: Photosystem I reaction center subunit chloroplastic

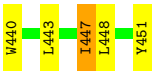
Chain K:



• Molecule 11: Photosystem I reaction center subunit XI

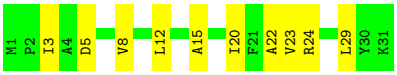
Chain L:





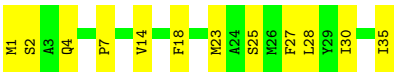
• Molecule 12: Photosystem I reaction center subunit XII

Chain M:



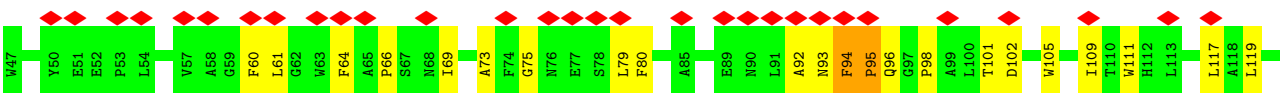
• Molecule 13: Photosystem I reaction center subunit VIII

Chain I:



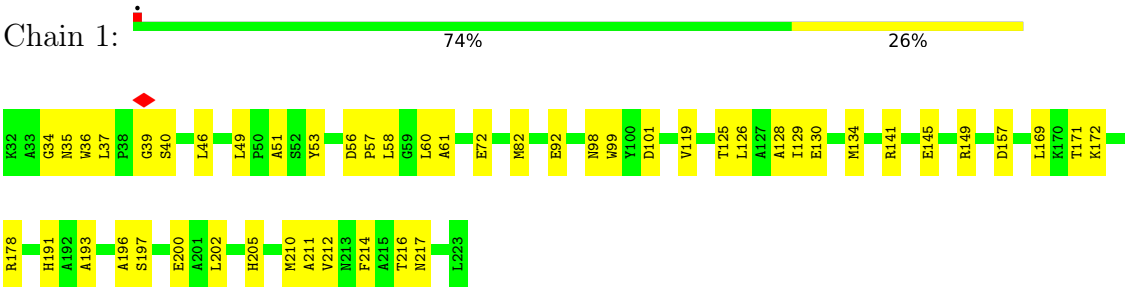
• Molecule 14: Photosystem I subunit O

Chain O:



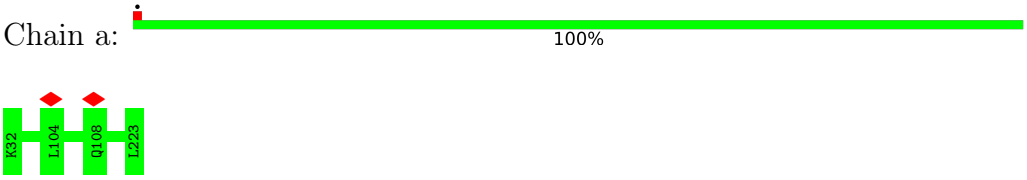
• Molecule 15: Chlorophyll a-b binding protein, chloroplastic

Chain 1:



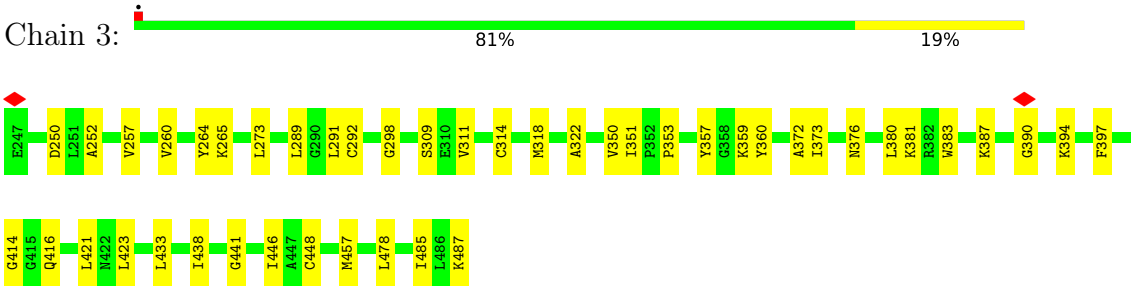
• Molecule 15: Chlorophyll a-b binding protein, chloroplastic

Chain a:



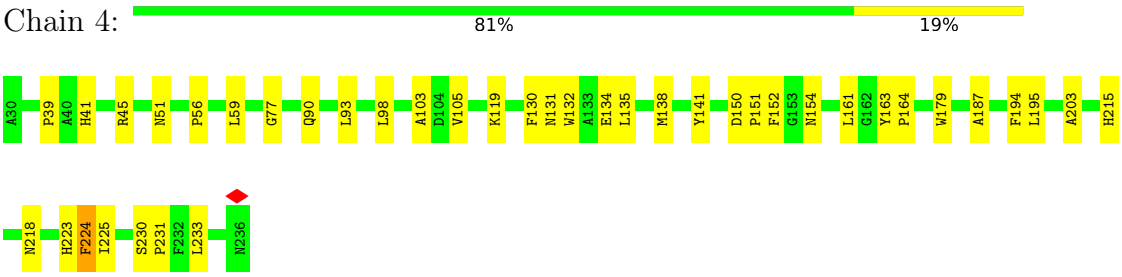
• Molecule 16: Glutathione reductase

Chain 3:



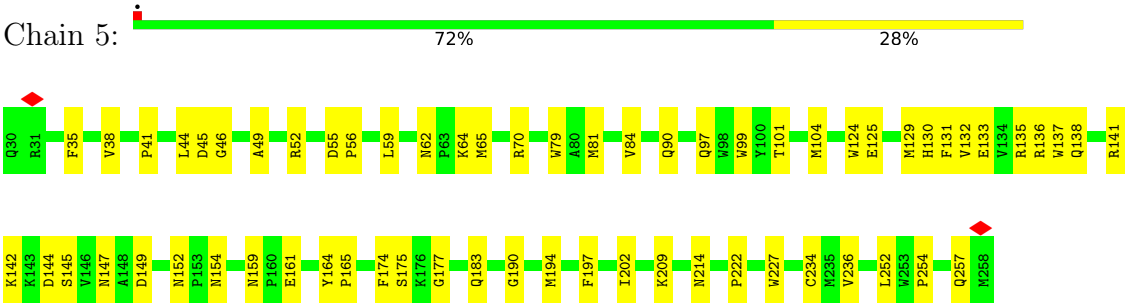
• Molecule 17: Lhca4

Chain 4:



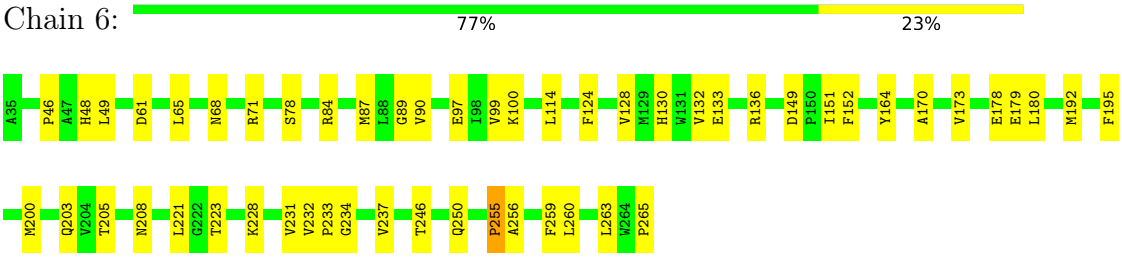
• Molecule 18: Chlorophyll a-b binding protein, chloroplastic

Chain 5:



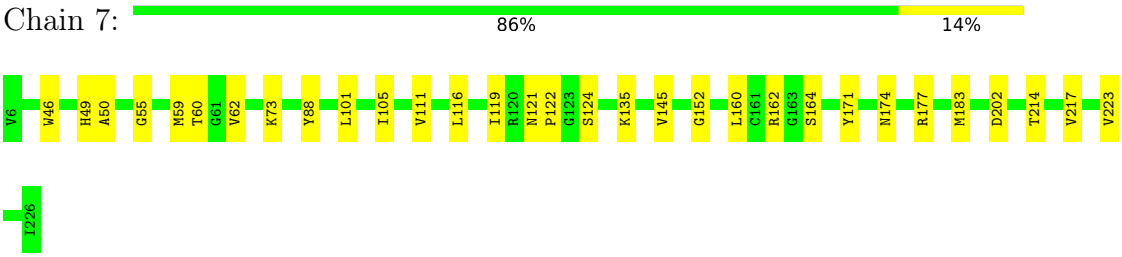
• Molecule 19: Chlorophyll a-b binding protein, chloroplastic

Chain 6:



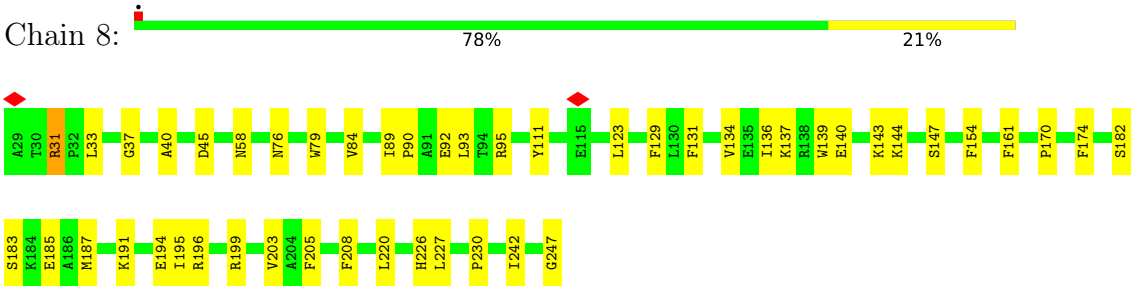
• Molecule 20: Lhca7

Chain 7:



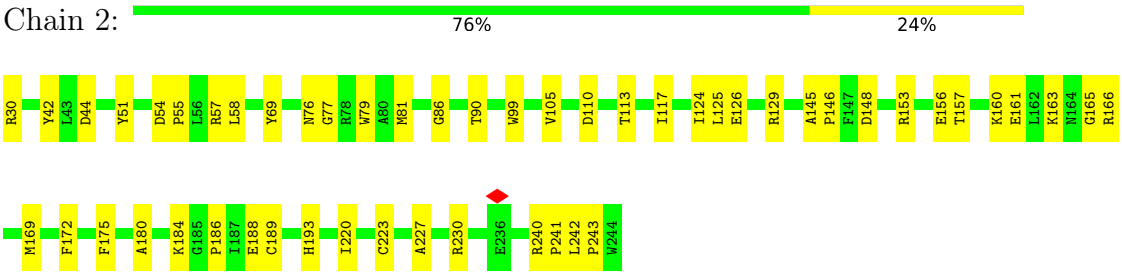
• Molecule 21: Chlorophyll a-b binding protein, chloroplastic

Chain 8:



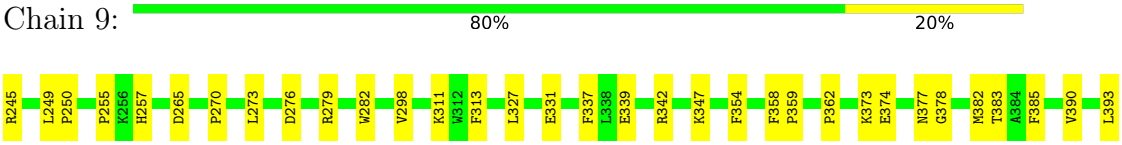
• Molecule 22: Chlorophyll a-b binding protein, chloroplastic

Chain 2:



• Molecule 23: Chlorophyll a-b binding protein, chloroplastic

Chain 9:




L394
T395
R396
M414
P423
G427

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	185138	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	49.05	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	2000	Depositor
Magnification	105000	Depositor
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.091	Depositor
Minimum map value	-0.046	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.003	Depositor
Recommended contour level	0.0112	Depositor
Map size (Å)	394.56, 394.56, 394.56	wwPDB
Map dimensions	480, 480, 480	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.82199997, 0.82199997, 0.82199997	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: PQN, QTB, SF4, AXT, LPX, OLA, PLM, LHG, XAT, LUT, CL0, DGD, BCR, LMT, LMG, CLA, 13X, 3PH, NEX, 4RF, PTY, SQD, LAP, DGA, P5S, ECH, RRX, CHL, SPH, PCW

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	A	0.27	0/6022	0.47	0/8215
2	B	0.27	0/6006	0.48	1/8205 (0.0%)
3	C	0.26	0/611	0.53	0/828
4	D	0.27	0/1150	0.52	0/1551
5	E	0.28	0/520	0.55	0/705
6	F	0.26	0/1309	0.47	0/1771
7	G	0.25	0/743	0.46	0/1007
8	H	0.27	0/744	0.54	0/1000
9	J	0.27	0/322	0.51	0/439
10	K	0.26	0/622	0.46	0/844
11	L	0.28	0/1195	0.51	0/1635
12	M	0.28	0/244	0.41	0/330
13	I	0.27	0/276	0.48	0/373
14	O	0.27	0/703	0.52	0/956
15	1	0.27	0/1443	0.48	0/1960
15	a	0.27	0/1443	0.47	0/1960
16	3	0.27	0/1896	0.46	0/2573
17	4	0.26	0/1681	0.44	0/2285
18	5	0.26	0/1842	0.45	0/2505
19	6	0.27	0/1845	0.48	0/2515
20	7	0.28	0/1748	0.49	0/2372
21	8	0.28	0/1717	0.48	0/2330
22	2	0.26	0/1708	0.47	0/2318
23	9	0.26	0/1444	0.45	0/1957
All	All	0.27	0/37234	0.48	1/50634 (0.0%)

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	5	LEU	CA-CB-CG	5.50	127.94	115.30

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

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	A	5824	0	5675	174	0
2	B	5796	0	5576	146	0
3	C	601	0	576	13	0
4	D	1124	0	1129	20	0
5	E	509	0	507	8	0
6	F	1277	0	1296	19	0
7	G	727	0	724	15	0
8	H	729	0	705	26	0
9	J	316	0	332	9	0
10	K	613	0	639	11	0
11	L	1165	0	1181	39	0
12	M	239	0	255	11	0
13	I	270	0	287	12	0
14	O	679	0	661	24	0
15	1	1405	0	1370	46	0
15	a	1405	0	1370	0	0
16	3	1844	0	1805	39	0
17	4	1631	0	1575	34	0
18	5	1786	0	1736	53	0
19	6	1787	0	1760	45	0
20	7	1698	0	1640	30	0
21	8	1669	0	1619	53	0
22	2	1666	0	1657	50	0
23	9	1406	0	1385	35	0
24	A	65	0	72	6	0
25	1	528	0	523	52	0
25	2	615	0	568	44	0
25	3	576	0	555	37	0
25	4	768	0	685	46	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
25	5	642	0	564	38	0
25	6	624	0	591	34	0
25	7	566	0	525	39	0
25	8	573	0	480	42	0
25	9	379	0	338	29	0
25	A	2532	0	2566	221	0
25	B	2583	0	2685	203	0
25	F	105	0	88	8	0
25	G	155	0	130	9	0
25	H	156	0	130	8	0
25	J	42	0	30	1	0
25	K	200	0	161	12	0
25	L	205	0	168	16	0
25	O	134	0	95	5	0
25	a	496	0	443	0	0
26	1	284	0	248	31	0
26	2	165	0	137	7	0
26	3	236	0	223	21	0
26	4	174	0	154	15	0
26	5	271	0	217	18	0
26	6	333	0	284	25	0
26	7	296	0	267	24	0
26	8	296	0	265	19	0
26	9	273	0	233	26	0
26	A	66	0	69	9	0
26	a	264	0	205	0	0
27	A	33	0	46	7	0
27	B	33	0	46	5	0
28	A	8	0	0	0	0
28	C	16	0	0	1	0
29	3	120	0	158	12	0
29	4	40	0	53	8	0
29	5	80	0	103	10	0
29	6	80	0	106	8	0
29	7	40	0	52	9	0
29	8	40	0	53	3	0
29	A	200	0	264	24	0
29	B	280	0	371	34	0
29	G	40	0	53	5	0
29	H	40	0	53	4	0
29	I	40	0	52	2	0
29	J	40	0	53	5	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	K	80	0	106	8	0
29	L	120	0	159	6	0
29	O	40	0	52	1	0
30	1	84	0	114	6	0
30	2	98	0	148	11	0
30	3	49	0	74	1	0
30	4	81	0	108	4	0
30	5	49	0	74	2	0
30	6	86	0	118	6	0
30	7	108	0	126	3	0
30	8	37	0	44	1	0
30	9	82	0	110	7	0
30	A	144	0	213	11	0
30	B	98	0	148	7	0
30	F	79	0	101	4	0
30	a	35	0	40	0	0
31	A	42	0	54	0	0
32	7	39	0	41	1	0
32	A	54	0	77	8	0
32	G	46	0	55	4	0
32	H	45	0	53	3	0
32	I	54	0	77	5	0
33	3	38	0	49	3	0
33	5	38	0	49	3	0
33	7	33	0	39	0	0
33	9	48	0	72	3	0
33	A	34	0	41	4	0
33	B	42	0	60	4	0
33	G	56	0	62	2	0
33	J	28	0	29	2	0
33	a	76	0	98	0	0
34	A	33	0	39	3	0
35	1	35	0	46	5	0
35	2	35	0	45	5	0
35	A	35	0	45	1	0
35	B	35	0	45	2	0
36	7	50	0	58	3	0
36	8	105	0	126	8	0
36	B	66	0	96	4	0
37	6	36	0	44	4	0
37	B	39	0	50	1	0
37	K	77	0	99	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
38	F	30	0	43	2	0
39	F	44	0	54	5	0
40	3	41	0	56	1	0
40	J	41	0	56	2	0
41	4	21	0	37	0	0
41	6	21	0	37	1	0
41	9	21	0	37	2	0
41	J	21	0	37	1	0
42	M	41	0	54	5	0
43	1	84	0	110	7	0
43	2	84	0	110	11	0
43	3	84	0	110	7	0
43	4	84	0	110	10	0
43	5	126	0	165	13	0
43	6	84	0	110	10	0
43	7	42	0	55	5	0
43	8	84	0	110	11	0
43	9	84	0	110	17	0
43	a	126	0	165	0	0
44	1	43	0	52	3	0
44	7	43	0	52	10	0
45	1	20	0	33	2	0
45	8	40	0	66	1	0
45	a	20	0	33	0	0
46	a	19	0	0	0	0
47	4	35	0	62	3	0
47	5	18	0	31	3	0
47	6	18	0	31	1	0
47	8	35	0	62	6	0
47	a	17	0	31	0	0
48	2	37	0	56	6	0
48	3	24	0	30	3	0
48	5	23	0	28	3	0
48	8	40	0	65	5	0
49	6	9	0	6	0	0
50	2	44	0	56	2	0
50	7	44	0	56	3	0
50	9	88	0	112	8	0
51	7	37	0	49	6	0
52	8	37	0	40	2	0
53	8	29	0	42	5	0
54	1	5	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	2	4	0	0	0	0
54	3	5	0	0	0	0
54	4	4	0	0	0	0
54	5	3	0	0	0	0
54	6	7	0	0	0	0
54	7	2	0	0	0	0
54	8	2	0	0	0	0
54	9	2	0	0	0	0
54	A	21	0	0	1	0
54	B	24	0	0	0	0
54	C	2	0	0	0	0
54	D	2	0	0	0	0
54	E	1	0	0	0	0
54	F	3	0	0	0	0
54	G	3	0	0	0	0
54	H	1	0	0	0	0
54	J	1	0	0	0	0
54	K	3	0	0	0	0
54	L	2	0	0	0	0
54	M	1	0	0	0	0
54	a	1	0	0	0	0
All	All	56369	0	56465	1650	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 15.

The worst 5 of 1650 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)
11:L:295:LYS:N	14:O:133:TYR:HH	1.63	0.94
50:9:504:XAT:H32	50:9:507:XAT:H10	1.50	0.94
1:A:396:TRP:CD1	25:A:1126:CLA:HAB	2.04	0.92
18:5:161:GLU:OE2	18:5:183:GLN:NE2	2.05	0.89
11:L:356:PHE:HB2	11:L:372:VAL:HG13	1.55	0.89

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
1	A	739/741 (100%)	709 (96%)	30 (4%)	0	100 100
2	B	729/731 (100%)	697 (96%)	32 (4%)	0	100 100
3	C	78/80 (98%)	76 (97%)	2 (3%)	0	100 100
4	D	141/143 (99%)	129 (92%)	12 (8%)	0	100 100
5	E	62/64 (97%)	60 (97%)	2 (3%)	0	100 100
6	F	163/165 (99%)	154 (94%)	9 (6%)	0	100 100
7	G	97/99 (98%)	94 (97%)	3 (3%)	0	100 100
8	H	92/94 (98%)	80 (87%)	11 (12%)	1 (1%)	14 34
9	J	39/41 (95%)	39 (100%)	0	0	100 100
10	K	84/86 (98%)	79 (94%)	5 (6%)	0	100 100
11	L	155/157 (99%)	144 (93%)	10 (6%)	1 (1%)	25 50
12	M	29/31 (94%)	29 (100%)	0	0	100 100
13	I	33/35 (94%)	29 (88%)	4 (12%)	0	100 100
14	O	85/87 (98%)	66 (78%)	16 (19%)	3 (4%)	3 8
15	1	190/192 (99%)	174 (92%)	15 (8%)	1 (0%)	29 54
15	a	190/192 (99%)	171 (90%)	19 (10%)	0	100 100
16	3	239/241 (99%)	225 (94%)	13 (5%)	1 (0%)	34 60
17	4	205/207 (99%)	184 (90%)	19 (9%)	2 (1%)	15 37
18	5	227/229 (99%)	214 (94%)	13 (6%)	0	100 100
19	6	229/231 (99%)	213 (93%)	15 (7%)	1 (0%)	34 60
20	7	219/221 (99%)	207 (94%)	11 (5%)	1 (0%)	29 54
21	8	217/219 (99%)	207 (95%)	10 (5%)	0	100 100
22	2	213/215 (99%)	197 (92%)	16 (8%)	0	100 100
23	9	181/183 (99%)	171 (94%)	10 (6%)	0	100 100
All	All	4636/4684 (99%)	4348 (94%)	277 (6%)	11 (0%)	50 73

5 of 11 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
8	H	118	PRO
14	O	93	ASN
14	O	95	PRO
15	1	36	TRP
17	4	224	PHE

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	
1	A	600/600 (100%)	600 (100%)	0	100	100
2	B	588/588 (100%)	588 (100%)	0	100	100
3	C	69/69 (100%)	69 (100%)	0	100	100
4	D	121/121 (100%)	121 (100%)	0	100	100
5	E	55/55 (100%)	55 (100%)	0	100	100
6	F	126/126 (100%)	126 (100%)	0	100	100
7	G	71/71 (100%)	71 (100%)	0	100	100
8	H	71/71 (100%)	71 (100%)	0	100	100
9	J	35/35 (100%)	35 (100%)	0	100	100
10	K	66/66 (100%)	66 (100%)	0	100	100
11	L	122/122 (100%)	122 (100%)	0	100	100
12	M	23/23 (100%)	23 (100%)	0	100	100
13	I	30/30 (100%)	30 (100%)	0	100	100
14	O	66/66 (100%)	66 (100%)	0	100	100
15	1	134/134 (100%)	134 (100%)	0	100	100
15	a	134/134 (100%)	134 (100%)	0	100	100
16	3	186/186 (100%)	186 (100%)	0	100	100
17	4	165/165 (100%)	165 (100%)	0	100	100
18	5	185/185 (100%)	185 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
19	6	187/187 (100%)	187 (100%)	0	100 100
20	7	176/176 (100%)	176 (100%)	0	100 100
21	8	168/168 (100%)	167 (99%)	1 (1%)	86 95
22	2	173/173 (100%)	173 (100%)	0	100 100
23	9	141/141 (100%)	141 (100%)	0	100 100
All	All	3692/3692 (100%)	3691 (100%)	1 (0%)	100 100

All (1) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
21	8	31	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (3) such sidechains are listed below:

Mol	Chain	Res	Type
14	O	131	GLN
15	a	35	ASN
17	4	131	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

403 ligands 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	$\#\|Z\| > 2$
25	CLA	a	601	-	60,68,73	1.40	9 (15%)	70,107,113	2.06	18 (25%)
30	LHG	9	802	-	48,48,48	0.38	0	51,54,54	1.13	3 (5%)
26	CHL	9	613	-	42,50,74	1.16	4 (9%)	44,85,114	1.47	8 (18%)
25	CLA	B	1232	-	45,53,73	1.62	8 (17%)	52,89,113	2.10	13 (25%)
52	P5S	8	805	-	35,36,53	1.16	3 (8%)	39,43,60	1.22	2 (5%)
29	BCR	L	4001	-	41,41,41	1.83	4 (9%)	56,56,56	4.29	16 (28%)
25	CLA	2	615	-	56,64,73	1.46	8 (14%)	65,102,113	2.12	16 (24%)
49	13X	6	805	-	9,9,9	0.88	0	12,12,12	0.38	0
25	CLA	H	1703	-	55,63,73	1.47	8 (14%)	64,101,113	2.09	15 (23%)
25	CLA	B	1217	-	56,64,73	1.46	10 (17%)	65,102,113	2.14	17 (26%)
47	PLM	5	804	-	17,17,17	0.57	0	17,17,17	1.13	0
25	CLA	2	607	30	65,73,73	1.36	8 (12%)	76,113,113	1.99	16 (21%)
25	CLA	7	606	-	54,62,73	1.48	7 (12%)	63,100,113	2.09	15 (23%)
25	CLA	H	1702	8	46,54,73	1.60	9 (19%)	53,90,113	2.20	13 (24%)
51	4RF	7	807	-	36,36,56	1.07	6 (16%)	39,39,59	1.14	3 (7%)
48	DGA	3	803	-	23,23,43	1.41	3 (13%)	25,25,45	1.34	2 (8%)
25	CLA	B	1210	-	65,73,73	1.35	8 (12%)	76,113,113	2.00	19 (25%)
43	LUT	7	501	-	42,43,43	2.38	1 (2%)	51,60,60	2.06	11 (21%)
25	CLA	4	612	17	62,70,73	1.37	7 (11%)	72,109,113	2.07	17 (23%)
26	CHL	7	613	-	61,69,74	0.92	4 (6%)	67,108,114	1.23	11 (16%)
27	PQN	A	2001	-	34,34,34	0.37	0	42,45,45	1.14	2 (4%)
29	BCR	5	504	-	41,41,41	1.84	4 (9%)	56,56,56	4.54	19 (33%)
25	CLA	8	612	-	50,58,73	1.53	7 (14%)	58,95,113	2.15	14 (24%)
25	CLA	8	605	-	55,63,73	1.48	9 (16%)	64,101,113	2.10	16 (25%)
25	CLA	A	1126	-	65,73,73	1.37	9 (13%)	76,113,113	1.98	17 (22%)
25	CLA	2	604	-	56,64,73	1.44	7 (12%)	65,102,113	2.18	18 (27%)
29	BCR	O	4001	-	41,41,41	1.85	4 (9%)	56,56,56	4.63	14 (25%)
25	CLA	2	603	22	60,68,73	1.40	8 (13%)	70,107,113	2.17	20 (28%)
29	BCR	5	503	-	41,41,41	1.83	4 (9%)	56,56,56	4.34	17 (30%)
25	CLA	B	1239	-	65,73,73	1.35	8 (12%)	76,113,113	1.95	17 (22%)
25	CLA	3	602	-	46,54,73	1.58	8 (17%)	53,90,113	2.15	16 (30%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
43	LUT	a	503	-	42,43,43	2.36	1 (2%)	51,60,60	2.28	15 (29%)
43	LUT	5	501	-	42,43,43	2.34	1 (2%)	51,60,60	1.92	14 (27%)
25	CLA	L	1504	-	50,58,73	1.56	8 (16%)	58,95,113	2.19	15 (25%)
25	CLA	a	607	-	58,66,73	1.44	9 (15%)	67,104,113	2.08	16 (23%)
25	CLA	A	1141	-	45,53,73	1.62	9 (20%)	52,89,113	2.21	12 (23%)
25	CLA	5	601	18	60,68,73	1.40	8 (13%)	70,107,113	2.08	20 (28%)
30	LHG	7	802	-	35,35,48	0.44	0	38,41,54	1.07	2 (5%)
25	CLA	7	610	-	60,68,73	1.41	9 (15%)	70,107,113	2.04	16 (22%)
33	PTY	a	802	-	37,37,49	1.00	4 (10%)	40,42,54	1.10	2 (5%)
25	CLA	1	603	-	65,73,73	1.34	7 (10%)	76,113,113	1.98	16 (21%)
38	LPX	F	5003	-	29,29,29	1.00	2 (6%)	31,33,33	0.93	1 (3%)
25	CLA	1	607	30	65,73,73	1.36	9 (13%)	76,113,113	1.92	15 (19%)
29	BCR	J	4001	-	41,41,41	1.83	4 (9%)	56,56,56	4.26	17 (30%)
50	XAT	9	507	-	39,47,47	0.69	1 (2%)	54,74,74	1.98	14 (25%)
24	CL0	A	1011	-	65,73,73	2.37	18 (27%)	76,113,113	2.50	21 (27%)
25	CLA	4	601	-	60,68,73	1.39	7 (11%)	70,107,113	2.09	19 (27%)
25	CLA	A	1109	25	65,73,73	1.35	8 (12%)	76,113,113	2.04	18 (23%)
25	CLA	6	607	30	55,63,73	1.48	8 (14%)	64,101,113	2.05	16 (25%)
25	CLA	A	1110	-	54,62,73	1.49	10 (18%)	62,99,113	2.13	16 (25%)
25	CLA	7	605	-	43,52,73	1.65	8 (18%)	49,88,113	2.06	15 (30%)
37	PCW	B	5004	-	38,38,53	1.29	4 (10%)	44,46,61	1.07	2 (4%)
30	LHG	a	801	-	34,34,48	0.45	0	37,40,54	1.10	3 (8%)
43	LUT	5	502	-	42,43,43	2.33	1 (2%)	51,60,60	1.90	11 (21%)
25	CLA	1	602	-	45,53,73	1.63	9 (20%)	52,89,113	2.10	13 (25%)
25	CLA	B	1229	-	65,73,73	1.36	8 (12%)	76,113,113	2.00	19 (25%)
25	CLA	8	602	-	52,60,73	1.51	8 (15%)	60,97,113	2.16	16 (26%)
25	CLA	B	1237	-	65,73,73	1.36	9 (13%)	76,113,113	1.92	15 (19%)
25	CLA	4	615	17	60,68,73	1.42	8 (13%)	70,107,113	1.96	15 (21%)
25	CLA	a	603	-	65,73,73	1.35	7 (10%)	76,113,113	2.05	17 (22%)
43	LUT	4	501	-	42,43,43	2.36	1 (2%)	51,60,60	2.01	12 (23%)
43	LUT	a	501	-	42,43,43	2.36	1 (2%)	51,60,60	2.07	12 (23%)
25	CLA	3	606	-	65,73,73	1.34	7 (10%)	76,113,113	1.96	15 (19%)
26	CHL	6	611	-	51,59,74	0.97	3 (5%)	55,96,114	1.43	11 (20%)
43	LUT	5	505	-	42,43,43	2.38	1 (2%)	51,60,60	2.28	14 (27%)
50	XAT	9	504	-	39,47,47	0.66	1 (2%)	54,74,74	6.69	16 (29%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
33	PTY	a	803	-	37,37,49	1.00	4 (10%)	40,42,54	1.08	2 (5%)
26	CHL	1	604	-	66,74,74	0.92	4 (6%)	73,114,114	1.32	9 (12%)
25	CLA	2	608	-	45,53,73	1.63	8 (17%)	52,89,113	2.10	12 (23%)
25	CLA	B	1211	-	55,63,73	1.46	8 (14%)	64,101,113	2.14	20 (31%)
25	CLA	K	1402	-	60,68,73	1.42	9 (15%)	70,107,113	2.05	17 (24%)
28	SF4	C	3002	3	0,12,12	-	-	-		
30	LHG	1	802	-	48,48,48	0.40	0	51,54,54	1.00	3 (5%)
25	CLA	A	1117	-	65,73,73	1.34	7 (10%)	76,113,113	2.11	17 (22%)
25	CLA	B	1238	-	65,73,73	1.36	9 (13%)	76,113,113	1.97	16 (21%)
25	CLA	A	1119	-	65,73,73	1.35	8 (12%)	76,113,113	1.91	16 (21%)
25	CLA	2	601	-	60,68,73	1.40	8 (13%)	70,107,113	2.18	18 (25%)
26	CHL	8	601	21	61,69,74	0.99	4 (6%)	67,108,114	1.41	9 (13%)
43	LUT	3	501	-	42,43,43	2.36	1 (2%)	51,60,60	1.96	14 (27%)
39	NEX	F	4001	-	38,46,46	3.37	9 (23%)	50,70,70	4.73	16 (32%)
30	LHG	6	802	-	36,36,48	0.43	0	39,42,54	1.24	3 (7%)
25	CLA	A	1108	-	65,73,73	1.36	8 (12%)	76,113,113	1.91	16 (21%)
25	CLA	F	1301	-	50,58,73	1.55	7 (14%)	58,95,113	2.20	15 (25%)
29	BCR	8	503	-	41,41,41	1.85	4 (9%)	56,56,56	4.24	12 (21%)
26	CHL	4	609	17	66,74,74	0.84	3 (4%)	73,114,114	1.25	10 (13%)
29	BCR	A	4002	-	41,41,41	1.80	4 (9%)	56,56,56	4.10	14 (25%)
25	CLA	F	1302	-	55,63,73	1.46	7 (12%)	64,101,113	2.13	17 (26%)
25	CLA	G	1601	-	50,58,73	1.55	8 (16%)	58,95,113	2.18	16 (27%)
25	CLA	L	1502	-	60,68,73	1.39	8 (13%)	70,107,113	2.09	18 (25%)
25	CLA	7	602	-	44,52,73	1.63	7 (15%)	51,88,113	2.11	13 (25%)
25	CLA	A	1135	-	51,59,73	1.55	9 (17%)	59,96,113	2.20	17 (28%)
25	CLA	B	1240	30	65,73,73	1.36	8 (12%)	76,113,113	2.00	18 (23%)
32	SQD	G	5001	-	45,46,54	0.84	0	54,57,65	0.95	2 (3%)
33	PTY	G	5002	-	27,27,49	1.03	2 (7%)	28,31,54	1.07	1 (3%)
25	CLA	B	1207	-	60,68,73	1.41	7 (11%)	70,107,113	1.97	15 (21%)
30	LHG	F	5001	-	42,42,48	0.42	0	45,48,54	1.10	2 (4%)
43	LUT	2	507	-	42,43,43	2.38	1 (2%)	51,60,60	2.56	18 (35%)
25	CLA	A	1013	-	65,73,73	1.33	7 (10%)	76,113,113	1.91	17 (22%)
29	BCR	A	4005	-	41,41,41	1.83	4 (9%)	56,56,56	4.22	13 (23%)
26	CHL	6	609	19	66,74,74	0.77	2 (3%)	73,114,114	1.25	12 (16%)
36	DGD	8	803	-	47,47,67	0.81	1 (2%)	61,61,81	1.09	3 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
25	CLA	2	612	-	50,58,73	1.56	9 (18%)	58,95,113	2.14	15 (25%)
30	LHG	2	801	25	48,48,48	0.36	0	51,54,54	1.03	2 (3%)
25	CLA	8	615	21	46,54,73	1.60	8 (17%)	53,90,113	2.19	14 (26%)
25	CLA	B	1230	-	58,66,73	1.41	6 (10%)	67,104,113	2.13	18 (26%)
43	LUT	8	501	-	42,43,43	2.35	1 (2%)	51,60,60	1.90	13 (25%)
25	CLA	3	610	16	57,65,73	1.43	8 (14%)	66,103,113	2.10	18 (27%)
44	AXT	1	502	-	44,44,45	2.95	15 (34%)	55,62,64	1.98	13 (23%)
25	CLA	A	1125	-	65,73,73	1.38	10 (15%)	76,113,113	1.93	16 (21%)
25	CLA	B	1212	-	57,65,73	1.43	7 (12%)	66,103,113	2.15	19 (28%)
25	CLA	4	606	-	50,58,73	1.53	8 (16%)	58,95,113	2.25	17 (29%)
29	BCR	3	505	-	41,41,41	1.83	4 (9%)	56,56,56	4.28	15 (26%)
25	CLA	B	1213	-	55,63,73	1.45	7 (12%)	64,101,113	2.13	17 (26%)
47	PLM	8	806	-	16,16,17	0.42	0	15,15,17	0.92	0
25	CLA	8	608	-	52,60,73	1.51	7 (13%)	60,97,113	2.18	17 (28%)
29	BCR	B	4005	-	41,41,41	1.84	4 (9%)	56,56,56	4.28	12 (21%)
25	CLA	1	615	15	46,54,73	1.59	7 (15%)	53,90,113	2.17	14 (26%)
43	LUT	1	501	-	42,43,43	2.36	1 (2%)	51,60,60	1.96	15 (29%)
30	LHG	F	5002	-	35,35,48	0.43	0	38,41,54	1.19	3 (7%)
25	CLA	1	608	-	60,68,73	1.40	9 (15%)	70,107,113	1.99	14 (20%)
30	LHG	4	801	-	48,48,48	0.39	0	51,54,54	0.99	2 (3%)
25	CLA	B	1220	-	60,68,73	1.41	9 (15%)	70,107,113	2.00	15 (21%)
48	DGA	5	803	-	22,22,43	1.43	3 (13%)	24,24,45	1.33	2 (8%)
25	CLA	A	1128	-	65,73,73	1.36	8 (12%)	76,113,113	2.02	16 (21%)
25	CLA	4	611	-	56,64,73	1.46	7 (12%)	65,102,113	2.11	17 (26%)
25	CLA	A	1012	-	65,73,73	1.37	8 (12%)	76,113,113	1.98	15 (19%)
45	OLA	8	808	-	19,19,19	0.56	0	19,19,19	1.03	0
25	CLA	A	1101	-	65,73,73	1.35	8 (12%)	76,113,113	1.96	18 (23%)
26	CHL	2	609	22	66,74,74	0.88	4 (6%)	73,114,114	1.23	10 (13%)
26	CHL	9	610	-	51,59,74	0.96	3 (5%)	55,96,114	1.42	12 (21%)
25	CLA	B	1201	-	65,73,73	1.34	7 (10%)	76,113,113	4.36	21 (27%)
26	CHL	8	613	-	51,59,74	0.97	3 (5%)	55,96,114	1.39	9 (16%)
25	CLA	a	615	15	46,54,73	1.61	8 (17%)	53,90,113	2.11	12 (22%)
25	CLA	5	608	-	45,53,73	1.63	8 (17%)	52,89,113	2.04	12 (23%)
25	CLA	a	608	-	55,63,73	1.48	9 (16%)	64,101,113	2.08	15 (23%)
26	CHL	9	608	-	48,56,74	0.98	3 (6%)	51,92,114	1.41	10 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
26	CHL	6	619	19	66,74,74	0.80	2 (3%)	73,114,114	1.35	11 (15%)
29	BCR	A	4001	-	41,41,41	1.82	4 (9%)	56,56,56	4.26	17 (30%)
25	CLA	5	614	18	46,54,73	1.61	8 (17%)	53,90,113	2.08	13 (24%)
29	BCR	L	4003	-	41,41,41	1.85	4 (9%)	56,56,56	4.35	15 (26%)
30	LHG	8	801	25	36,36,48	0.44	0	39,42,54	1.15	3 (7%)
25	CLA	B	1215	-	60,68,73	1.40	7 (11%)	70,107,113	1.97	13 (18%)
37	PCW	K	5001	-	40,40,53	1.26	4 (10%)	46,48,61	1.08	2 (4%)
25	CLA	B	1231	-	65,73,73	1.36	9 (13%)	76,113,113	1.92	14 (18%)
25	CLA	6	612	-	50,58,73	1.54	8 (16%)	58,95,113	2.19	15 (25%)
26	CHL	A	1114	-	66,74,74	0.87	3 (4%)	73,114,114	1.32	9 (12%)
25	CLA	3	613	-	61,69,73	1.38	8 (13%)	71,108,113	2.03	17 (23%)
25	CLA	A	1121	-	60,68,73	1.41	8 (13%)	70,107,113	2.10	18 (25%)
29	BCR	K	4002	-	41,41,41	1.84	4 (9%)	56,56,56	4.29	16 (28%)
25	CLA	5	607	-	60,68,73	1.41	8 (13%)	70,107,113	2.05	17 (24%)
33	PTY	A	5006	-	33,33,49	1.05	4 (12%)	36,38,54	1.10	2 (5%)
25	CLA	6	603	-	65,73,73	1.35	10 (15%)	76,113,113	1.97	16 (21%)
32	SQD	I	5001	-	53,54,54	0.80	0	62,65,65	0.89	2 (3%)
26	CHL	5	617	18	47,55,74	0.98	3 (6%)	50,91,114	1.46	11 (22%)
25	CLA	7	604	20	65,73,73	1.35	8 (12%)	76,113,113	2.01	17 (22%)
32	SQD	A	5005	-	53,54,54	0.79	0	62,65,65	0.91	2 (3%)
27	PQN	B	2002	-	34,34,34	0.37	0	42,45,45	1.05	3 (7%)
37	PCW	K	5002	-	35,35,53	1.31	4 (11%)	41,43,61	1.07	2 (4%)
25	CLA	8	618	21	60,68,73	1.41	8 (13%)	70,107,113	2.09	16 (22%)
25	CLA	A	1139	-	55,63,73	1.49	9 (16%)	64,101,113	2.08	15 (23%)
43	LUT	6	502	-	42,43,43	2.32	1 (2%)	51,60,60	1.98	14 (27%)
25	CLA	A	1137	-	60,68,73	1.42	8 (13%)	70,107,113	2.06	20 (28%)
26	CHL	1	613	-	48,56,74	0.92	2 (4%)	51,92,114	1.39	9 (17%)
25	CLA	1	612	15	65,73,73	1.36	8 (12%)	76,113,113	1.95	16 (21%)
30	LHG	9	801	-	32,32,48	0.47	0	35,38,54	1.18	3 (8%)
25	CLA	5	604	18	65,73,73	1.35	8 (12%)	76,113,113	1.98	16 (21%)
25	CLA	5	603	18	56,64,73	1.46	10 (17%)	65,102,113	2.11	17 (26%)
47	PLM	4	804	-	17,17,17	0.57	0	17,17,17	1.06	0
26	CHL	9	603	-	66,74,74	0.88	3 (4%)	73,114,114	1.16	8 (10%)
25	CLA	A	1123	-	65,73,73	1.36	10 (15%)	76,113,113	2.02	16 (21%)
25	CLA	8	609	21	60,68,73	1.41	8 (13%)	70,107,113	2.08	17 (24%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
25	CLA	G	1603	-	45,53,73	1.63	8 (17%)	52,89,113	2.11	14 (26%)
26	CHL	3	604	16	66,74,74	0.92	4 (6%)	73,114,114	1.38	9 (12%)
29	BCR	B	4002	-	41,41,41	1.84	4 (9%)	56,56,56	4.34	14 (25%)
25	CLA	B	1221	-	65,73,73	1.34	10 (15%)	76,113,113	2.03	18 (23%)
26	CHL	4	613	-	52,60,74	0.95	3 (5%)	56,97,114	1.34	10 (17%)
25	CLA	a	611	-	50,58,73	1.54	9 (18%)	58,95,113	2.19	16 (27%)
25	CLA	A	1103	-	65,73,73	1.33	7 (10%)	76,113,113	2.01	16 (21%)
25	CLA	3	616	-	56,64,73	1.45	7 (12%)	65,102,113	2.15	17 (26%)
25	CLA	8	607	30	46,54,73	1.61	8 (17%)	53,90,113	2.12	11 (20%)
30	LHG	B	5002	-	48,48,48	0.39	0	51,54,54	1.07	3 (5%)
30	LHG	B	5001	25	48,48,48	0.40	0	51,54,54	0.98	3 (5%)
25	CLA	B	1214	-	59,67,73	1.43	8 (13%)	68,105,113	2.09	16 (23%)
41	SPH	9	804	-	19,20,20	0.65	0	18,21,21	1.08	0
43	LUT	4	502	-	42,43,43	2.34	1 (2%)	51,60,60	1.93	13 (25%)
29	BCR	3	504	-	41,41,41	1.84	4 (9%)	56,56,56	4.33	17 (30%)
29	BCR	H	4001	-	41,41,41	1.86	4 (9%)	56,56,56	7.67	20 (35%)
29	BCR	G	4001	-	41,41,41	1.87	4 (9%)	56,56,56	4.42	15 (26%)
29	BCR	3	503	-	41,41,41	1.83	4 (9%)	56,56,56	4.31	15 (26%)
33	PTY	G	5003	-	27,27,49	1.02	2 (7%)	28,31,54	1.07	1 (3%)
29	BCR	B	4004	-	41,41,41	1.83	4 (9%)	56,56,56	4.26	15 (26%)
25	CLA	A	1133	-	65,73,73	1.37	9 (13%)	76,113,113	1.90	14 (18%)
25	CLA	B	1235	-	65,73,73	1.35	8 (12%)	76,113,113	2.03	17 (22%)
26	CHL	8	610	-	56,64,74	0.90	3 (5%)	61,102,114	1.40	13 (21%)
26	CHL	a	610	-	48,56,74	0.97	3 (6%)	51,92,114	1.37	10 (19%)
33	PTY	7	804	-	32,32,49	1.05	4 (12%)	35,37,54	1.19	2 (5%)
26	CHL	5	613	-	56,64,74	0.85	2 (3%)	61,102,114	1.37	11 (18%)
46	QTB	a	504	-	19,19,19	2.54	5 (26%)	20,26,26	2.83	8 (40%)
25	CLA	B	1206	2	65,73,73	1.34	7 (10%)	76,113,113	2.03	16 (21%)
30	LHG	A	5002	-	48,48,48	0.39	0	51,54,54	1.00	3 (5%)
25	CLA	a	612	15	57,65,73	1.45	9 (15%)	66,103,113	2.02	15 (22%)
25	CLA	a	605	-	55,63,73	1.46	8 (14%)	64,101,113	2.14	18 (28%)
26	CHL	1	611	-	56,64,74	0.92	3 (5%)	61,102,114	1.33	9 (14%)
25	CLA	9	612	-	65,73,73	1.36	9 (13%)	76,113,113	1.95	16 (21%)
25	CLA	6	615	54	65,73,73	1.36	8 (12%)	76,113,113	2.02	16 (21%)
30	LHG	5	801	-	48,48,48	0.38	0	51,54,54	1.08	3 (5%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
26	CHL	7	609	20	62,70,74	0.89	3 (4%)	68,109,114	1.26	10 (14%)
47	PLM	8	807	-	17,17,17	0.56	0	17,17,17	1.13	0
25	CLA	6	608	-	55,63,73	1.47	10 (18%)	64,101,113	2.14	16 (25%)
25	CLA	a	602	-	50,58,73	1.55	8 (16%)	58,95,113	2.17	17 (29%)
25	CLA	B	1236	-	53,61,73	1.50	9 (16%)	61,98,113	2.11	17 (27%)
25	CLA	B	1208	-	54,62,73	1.41	7 (12%)	67,100,113	2.11	18 (26%)
29	BCR	6	504	-	41,41,41	1.85	4 (9%)	56,56,56	4.42	17 (30%)
25	CLA	B	1023	-	65,73,73	1.35	7 (10%)	76,113,113	1.96	16 (21%)
26	CHL	5	611	-	51,59,74	1.05	4 (7%)	55,96,114	1.40	9 (16%)
33	PTY	3	802	-	37,37,49	0.99	4 (10%)	40,42,54	1.10	2 (5%)
25	CLA	A	1112	-	55,63,73	1.46	6 (10%)	64,101,113	2.22	17 (26%)
26	CHL	1	609	15	66,74,74	0.86	3 (4%)	73,114,114	1.16	9 (12%)
28	SF4	A	3001	1,2	0,12,12	-	-	-		
26	CHL	a	604	-	61,69,74	0.97	4 (6%)	67,108,114	1.39	9 (13%)
25	CLA	B	1202	-	65,73,73	1.35	9 (13%)	76,113,113	1.94	16 (21%)
25	CLA	2	605	-	60,68,73	1.42	9 (15%)	70,107,113	2.04	19 (27%)
25	CLA	3	601	16	65,73,73	1.35	7 (10%)	76,113,113	1.96	17 (22%)
29	BCR	B	4001	-	41,41,41	1.83	4 (9%)	56,56,56	4.28	13 (23%)
26	CHL	3	603	16	66,74,74	0.92	4 (6%)	73,114,114	1.16	8 (10%)
25	CLA	B	1205	-	65,73,73	1.35	10 (15%)	76,113,113	2.03	16 (21%)
25	CLA	4	605	-	46,54,73	1.61	8 (17%)	53,90,113	2.11	13 (24%)
25	CLA	A	1116	-	60,68,73	1.42	9 (15%)	70,107,113	2.00	15 (21%)
29	BCR	4	503	-	41,41,41	1.85	4 (9%)	56,56,56	4.37	12 (21%)
25	CLA	B	1218	-	55,63,73	1.46	7 (12%)	64,101,113	2.23	18 (28%)
25	CLA	B	1234	-	63,69,73	1.22	5 (7%)	71,99,113	2.17	17 (23%)
25	CLA	A	1111	-	65,73,73	1.34	7 (10%)	76,113,113	2.02	18 (23%)
25	CLA	G	1602	7	60,68,73	1.40	8 (13%)	70,107,113	2.05	18 (25%)
30	LHG	A	5001	-	48,48,48	0.39	0	51,54,54	1.10	3 (5%)
25	CLA	4	602	-	52,60,73	1.51	8 (15%)	60,97,113	2.14	17 (28%)
26	CHL	a	609	15	53,61,74	0.87	2 (3%)	57,98,114	1.34	12 (21%)
29	BCR	K	4001	-	41,41,41	1.83	4 (9%)	56,56,56	4.32	15 (26%)
29	BCR	B	4007	-	41,41,41	1.83	4 (9%)	56,56,56	4.34	15 (26%)
43	LUT	a	502	-	42,43,43	2.35	1 (2%)	51,60,60	1.97	14 (27%)
25	CLA	B	1203	2	65,73,73	1.35	8 (12%)	76,113,113	1.91	15 (19%)
45	OLA	1	803	-	19,19,19	0.56	0	19,19,19	1.03	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
25	CLA	B	1216	-	65,73,73	1.34	7 (10%)	76,113,113	1.94	18 (23%)
25	CLA	B	1204	-	65,73,73	1.36	9 (13%)	76,113,113	2.01	18 (23%)
30	LHG	6	801	25	48,48,48	0.40	0	51,54,54	1.05	3 (5%)
37	PCW	6	803	-	35,35,53	1.29	4 (11%)	41,43,61	1.13	2 (4%)
25	CLA	1	601	-	60,68,73	1.40	8 (13%)	70,107,113	2.03	17 (24%)
34	3PH	A	5007	-	32,32,47	1.02	4 (12%)	36,37,52	1.20	2 (5%)
30	LHG	3	801	25	48,48,48	0.40	0	51,54,54	1.03	3 (5%)
25	CLA	K	1401	-	46,54,73	1.60	7 (15%)	53,90,113	2.06	12 (22%)
26	CHL	7	615	20	51,59,74	0.96	3 (5%)	55,96,114	1.38	11 (20%)
25	CLA	2	602	-	52,60,73	1.52	8 (15%)	60,97,113	2.14	17 (28%)
25	CLA	A	1105	-	57,65,73	1.45	9 (15%)	66,103,113	2.07	15 (22%)
25	CLA	A	1122	-	60,68,73	1.42	9 (15%)	70,107,113	1.98	16 (22%)
33	PTY	5	802	-	37,37,49	0.99	4 (10%)	40,42,54	1.16	2 (5%)
25	CLA	A	1120	-	49,57,73	1.55	8 (16%)	55,93,113	2.26	16 (29%)
25	CLA	5	612	18	65,73,73	1.34	9 (13%)	76,113,113	1.97	17 (22%)
30	LHG	1	801	25	34,34,48	0.44	0	37,40,54	1.15	3 (8%)
25	CLA	4	610	-	65,73,73	1.37	8 (12%)	76,113,113	2.01	16 (21%)
25	CLA	8	611	-	50,58,73	1.52	7 (14%)	58,95,113	2.21	17 (29%)
53	LAP	8	810	-	28,28,28	1.22	2 (7%)	33,35,35	0.99	1 (3%)
44	AXT	7	504	-	44,44,45	2.41	17 (38%)	55,62,64	2.40	17 (30%)
25	CLA	L	1503	-	45,53,73	1.60	8 (17%)	52,89,113	2.16	15 (28%)
25	CLA	7	612	-	60,68,73	1.42	8 (13%)	70,107,113	2.01	16 (22%)
25	CLA	4	617	-	45,53,73	1.62	8 (17%)	52,89,113	2.15	14 (26%)
25	CLA	B	1022	54	65,73,73	1.38	9 (13%)	76,113,113	1.92	17 (22%)
25	CLA	A	1115	-	60,68,73	1.41	8 (13%)	70,107,113	2.01	16 (22%)
30	LHG	A	5003	-	45,45,48	0.40	0	48,51,54	1.04	3 (6%)
25	CLA	K	1403	10	49,57,73	1.56	8 (16%)	55,93,113	2.24	16 (29%)
25	CLA	A	1130	-	56,64,73	1.46	7 (12%)	65,102,113	2.08	15 (23%)
31	LMG	A	5004	-	42,42,55	0.78	2 (4%)	50,50,63	1.07	2 (4%)
45	OLA	8	809	-	19,19,19	0.57	0	19,19,19	1.00	0
26	CHL	5	610	-	66,74,74	0.83	3 (4%)	73,114,114	1.24	12 (16%)
25	CLA	3	612	16	50,58,73	1.52	7 (14%)	58,95,113	2.20	15 (25%)
32	SQD	7	805	-	38,39,54	0.90	0	47,50,65	1.01	3 (6%)
25	CLA	5	605	-	46,54,73	1.61	9 (19%)	53,90,113	2.11	14 (26%)
25	CLA	5	606	-	50,58,73	1.54	9 (18%)	58,95,113	2.23	17 (29%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
48	DGA	8	804	-	39,39,43	1.16	3 (7%)	41,41,45	1.57	3 (7%)
25	CLA	O	1802	-	55,63,73	1.47	8 (14%)	64,101,113	2.19	20 (31%)
25	CLA	2	606	-	46,54,73	1.60	7 (15%)	53,90,113	2.14	15 (28%)
26	CHL	6	610	-	56,64,74	0.93	3 (5%)	61,102,114	1.34	11 (18%)
25	CLA	A	1106	1	65,73,73	1.35	8 (12%)	76,113,113	2.02	17 (22%)
26	CHL	a	606	-	56,64,74	0.93	3 (5%)	61,102,114	1.37	12 (19%)
32	SQD	H	5001	-	44,45,54	0.85	0	53,56,65	0.97	2 (3%)
26	CHL	4	618	-	56,64,74	0.93	3 (5%)	61,102,114	1.31	11 (18%)
25	CLA	A	1136	-	65,73,73	1.36	8 (12%)	76,113,113	2.00	15 (19%)
26	CHL	3	608	-	43,51,74	1.04	3 (6%)	45,86,114	1.48	9 (20%)
25	CLA	B	1225	-	65,73,73	1.36	7 (10%)	76,113,113	1.91	16 (21%)
25	CLA	7	608	-	55,63,73	1.48	8 (14%)	64,101,113	2.10	16 (25%)
25	CLA	9	605	-	60,68,73	1.42	8 (13%)	70,107,113	2.04	18 (25%)
25	CLA	9	606	-	55,63,73	1.47	6 (10%)	64,101,113	2.06	16 (25%)
25	CLA	A	1104	1	65,73,73	1.35	8 (12%)	76,113,113	1.95	17 (22%)
25	CLA	A	1131	-	65,73,73	1.36	9 (13%)	76,113,113	1.97	15 (19%)
25	CLA	A	1118	-	55,63,73	1.48	9 (16%)	64,101,113	2.08	15 (23%)
48	DGA	2	803	-	36,36,43	1.19	3 (8%)	38,38,45	1.34	3 (7%)
35	LMT	B	5006	-	36,36,36	1.17	6 (16%)	47,47,47	0.95	1 (2%)
40	RRX	3	506	-	42,42,42	4.92	24 (57%)	57,58,58	2.81	21 (36%)
25	CLA	7	601	20	60,68,73	1.40	8 (13%)	70,107,113	2.07	17 (24%)
25	CLA	B	1223	-	65,73,73	1.37	9 (13%)	76,113,113	2.00	17 (22%)
30	LHG	7	801	25	36,36,48	0.44	0	39,42,54	1.11	2 (5%)
25	CLA	6	602	-	52,60,73	1.52	9 (17%)	60,97,113	2.13	17 (28%)
33	PTY	B	5005	-	41,41,49	0.93	4 (9%)	44,46,54	1.13	2 (4%)
25	CLA	A	1113	-	60,68,73	1.40	7 (11%)	70,107,113	2.07	19 (27%)
25	CLA	4	603	17	56,64,73	1.47	9 (16%)	65,102,113	2.03	16 (24%)
25	CLA	K	1404	10	45,53,73	1.62	10 (22%)	52,89,113	2.14	13 (25%)
26	CHL	8	604	21	62,70,74	0.97	4 (6%)	68,109,114	1.34	10 (14%)
26	CHL	7	611	-	56,64,74	0.91	3 (5%)	61,102,114	1.33	10 (16%)
25	CLA	4	607	-	55,63,73	1.48	8 (14%)	64,101,113	2.11	17 (26%)
25	CLA	4	604	-	60,68,73	1.40	9 (15%)	70,107,113	2.06	17 (24%)
26	CHL	a	613	-	46,54,74	0.98	3 (6%)	49,90,114	1.38	10 (20%)
36	DGD	8	802	-	60,60,67	1.08	5 (8%)	74,74,81	1.09	5 (6%)
25	CLA	B	1222	-	58,66,73	1.42	7 (12%)	67,104,113	2.09	17 (25%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
29	BCR	B	4006	-	41,41,41	1.83	4 (9%)	56,56,56	4.24	14 (25%)
43	LUT	2	502	-	42,43,43	2.37	1 (2%)	51,60,60	1.93	13 (25%)
25	CLA	B	1021	-	65,73,73	1.36	8 (12%)	76,113,113	1.95	15 (19%)
26	CHL	3	611	-	61,69,74	0.96	3 (4%)	67,108,114	1.32	10 (14%)
47	PLM	6	804	-	17,17,17	0.56	0	17,17,17	1.14	1 (5%)
25	CLA	A	1107	1	55,63,73	1.47	8 (14%)	64,101,113	2.11	18 (28%)
26	CHL	9	601	-	66,74,74	0.81	2 (3%)	73,114,114	1.27	11 (15%)
25	CLA	A	1134	1	60,68,73	1.42	9 (15%)	70,107,113	2.09	18 (25%)
43	LUT	1	503	-	42,43,43	2.38	1 (2%)	51,60,60	2.22	17 (33%)
25	CLA	9	602	-	46,54,73	1.58	7 (15%)	53,90,113	2.13	16 (30%)
25	CLA	6	618	-	46,54,73	1.61	8 (17%)	53,90,113	2.08	13 (24%)
25	CLA	3	618	16	46,54,73	1.61	8 (17%)	53,90,113	2.10	13 (24%)
30	LHG	2	802	-	48,48,48	0.39	0	51,54,54	1.12	3 (5%)
47	PLM	4	803	-	16,16,17	0.42	0	15,15,17	0.93	0
26	CHL	7	617	20	66,74,74	0.83	3 (4%)	73,114,114	1.20	9 (12%)
26	CHL	2	613	-	51,59,74	0.96	3 (5%)	55,96,114	1.38	9 (16%)
25	CLA	5	615	18	46,54,73	1.61	8 (17%)	53,90,113	2.12	13 (24%)
30	LHG	4	802	-	31,31,48	0.46	0	34,37,54	1.22	3 (8%)
25	CLA	B	1219	2	59,67,73	1.42	8 (13%)	68,105,113	2.07	17 (25%)
25	CLA	7	603	20	65,73,73	1.36	9 (13%)	76,113,113	2.00	17 (22%)
26	CHL	1	610	-	48,56,74	0.90	2 (4%)	51,92,114	1.46	12 (23%)
43	LUT	6	501	-	42,43,43	2.34	1 (2%)	51,60,60	1.88	14 (27%)
25	CLA	B	1226	-	65,73,73	1.37	8 (12%)	76,113,113	1.97	17 (22%)
25	CLA	H	1701	-	55,63,73	1.47	7 (12%)	64,101,113	2.12	15 (23%)
25	CLA	L	1501	11	50,58,73	1.55	8 (16%)	58,95,113	2.22	16 (27%)
25	CLA	B	1209	-	65,73,73	1.36	8 (12%)	76,113,113	1.98	16 (21%)
25	CLA	O	1801	-	36,46,73	1.77	8 (22%)	41,80,113	2.17	12 (29%)
25	CLA	8	620	-	45,53,73	1.62	10 (22%)	52,89,113	2.16	15 (28%)
29	BCR	A	4004	-	41,41,41	1.83	4 (9%)	56,56,56	4.31	18 (32%)
25	CLA	3	605	-	65,73,73	1.34	7 (10%)	76,113,113	1.98	17 (22%)
29	BCR	6	503	-	41,41,41	1.85	4 (9%)	56,56,56	4.24	14 (25%)
29	BCR	L	4002	-	41,41,41	1.83	4 (9%)	56,56,56	4.33	15 (26%)
26	CHL	2	610	-	48,56,74	0.96	3 (6%)	51,92,114	1.42	10 (19%)
25	CLA	6	606	19	65,73,73	1.37	9 (13%)	76,113,113	2.00	18 (23%)
29	BCR	A	4003	-	41,41,41	1.85	4 (9%)	56,56,56	4.42	17 (30%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
25	CLA	6	601	-	60,68,73	1.40	8 (13%)	70,107,113	2.05	19 (27%)
25	CLA	A	1132	-	65,73,73	1.34	8 (12%)	76,113,113	2.00	17 (22%)
25	CLA	1	605	-	65,73,73	1.33	9 (13%)	76,113,113	2.08	19 (25%)
26	CHL	6	617	19	43,51,74	1.02	3 (6%)	45,86,114	1.44	9 (20%)
25	CLA	A	1102	25	55,63,73	1.45	6 (10%)	64,101,113	2.20	17 (26%)
25	CLA	6	604	19	65,73,73	1.36	8 (12%)	76,113,113	1.95	19 (25%)
25	CLA	6	605	-	46,54,73	1.60	9 (19%)	53,90,113	2.15	14 (26%)
25	CLA	9	609	23	46,54,73	1.58	7 (15%)	53,90,113	2.18	15 (28%)
47	PLM	a	804	-	16,16,17	0.42	0	15,15,17	0.95	0
35	LMT	A	5008	-	36,36,36	1.18	6 (16%)	47,47,47	1.00	2 (4%)
25	CLA	9	604	23	60,68,73	1.40	7 (11%)	70,107,113	2.06	19 (27%)
30	LHG	7	803	-	34,34,48	0.44	0	37,40,54	1.15	3 (8%)
25	CLA	1	606	-	57,65,73	1.42	8 (14%)	66,103,113	2.19	17 (25%)
29	BCR	B	4003	-	41,41,41	1.86	4 (9%)	56,56,56	4.33	17 (30%)
26	CHL	5	618	-	51,59,74	0.99	3 (5%)	55,96,114	1.44	11 (20%)
43	LUT	9	501	-	42,43,43	2.35	1 (2%)	51,60,60	1.92	13 (25%)
41	SPH	4	805	-	19,20,20	0.64	0	18,21,21	1.08	1 (5%)
25	CLA	B	1224	-	65,73,73	1.36	8 (12%)	76,113,113	1.98	17 (22%)
25	CLA	3	607	30	65,73,73	1.35	8 (12%)	76,113,113	1.92	16 (21%)
33	PTY	9	803	-	47,47,49	0.89	4 (8%)	50,52,54	1.11	2 (4%)
25	CLA	4	608	-	51,59,73	1.53	9 (17%)	59,96,113	2.18	16 (27%)
25	CLA	9	607	-	47,55,73	1.59	9 (19%)	54,91,113	2.16	15 (27%)
25	CLA	5	602	-	52,60,73	1.51	8 (15%)	60,97,113	2.12	16 (26%)
25	CLA	J	1901	9	42,50,73	1.68	8 (19%)	48,85,113	2.20	13 (27%)
25	CLA	A	1140	-	55,63,73	1.48	8 (14%)	64,101,113	2.11	17 (26%)
25	CLA	7	607	30	59,67,73	1.42	8 (13%)	68,105,113	2.04	13 (19%)
50	XAT	7	502	-	39,47,47	0.70	1 (2%)	54,74,74	1.93	11 (20%)
41	SPH	6	806	-	19,20,20	0.64	0	18,21,21	1.07	1 (5%)
28	SF4	C	3003	3	0,12,12	-	-	-		
25	CLA	8	606	-	57,65,73	1.42	6 (10%)	66,103,113	2.09	17 (25%)
25	CLA	2	621	22	65,73,73	1.37	9 (13%)	76,113,113	2.02	16 (21%)
50	XAT	2	501	-	39,47,47	0.69	1 (2%)	54,74,74	1.98	14 (25%)
25	CLA	A	1129	-	50,58,73	1.54	9 (18%)	58,95,113	2.19	17 (29%)
25	CLA	5	609	18	51,59,73	1.53	7 (13%)	59,96,113	2.15	17 (28%)
25	CLA	B	1228	-	65,73,73	1.33	7 (10%)	76,113,113	2.04	19 (25%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
29	BCR	7	503	-	41,41,41	1.82	4 (9%)	56,56,56	4.31	17 (30%)
25	CLA	A	1124	-	55,63,73	1.48	8 (14%)	64,101,113	2.09	16 (25%)
25	CLA	O	1803	-	41,49,73	1.70	9 (21%)	47,84,113	2.24	15 (31%)
36	DGD	B	5003	-	67,67,67	1.18	7 (10%)	81,81,81	1.02	3 (3%)
43	LUT	8	502	-	42,43,43	2.33	1 (2%)	51,60,60	1.90	12 (23%)
43	LUT	9	502	-	42,43,43	2.32	1 (2%)	51,60,60	1.85	12 (23%)
40	RRX	J	4002	-	42,42,42	4.90	24 (57%)	57,58,58	2.66	21 (36%)
35	LMT	2	804	-	36,36,36	1.19	6 (16%)	47,47,47	1.06	2 (4%)
43	LUT	3	502	-	42,43,43	2.39	1 (2%)	51,60,60	1.96	13 (25%)
45	OLA	a	805	-	19,19,19	0.56	0	19,19,19	1.01	0
25	CLA	B	1227	-	50,58,73	1.55	9 (18%)	58,95,113	2.24	18 (31%)
35	LMT	1	804	-	36,36,36	1.16	6 (16%)	47,47,47	1.02	3 (6%)
42	ECH	M	4001	-	42,42,42	0.87	1 (2%)	55,58,58	2.00	14 (25%)
25	CLA	A	1127	-	65,73,73	1.36	6 (9%)	76,113,113	1.89	15 (19%)
26	CHL	8	603	21	66,74,74	0.91	4 (6%)	73,114,114	1.21	9 (12%)
33	PTY	J	5001	-	27,27,49	1.15	4 (14%)	30,32,54	1.20	2 (6%)
25	CLA	A	1138	-	65,73,73	1.35	9 (13%)	76,113,113	1.89	16 (21%)
29	BCR	I	4001	-	41,41,41	1.84	4 (9%)	56,56,56	4.29	16 (28%)
41	SPH	J	5002	-	19,20,20	0.67	0	18,21,21	0.91	0
36	DGD	7	806	-	51,51,67	0.92	3 (5%)	65,65,81	1.03	3 (4%)
25	CLA	4	616	-	50,58,73	1.56	8 (16%)	58,95,113	2.16	16 (27%)
26	CHL	6	613	-	51,59,74	0.91	2 (3%)	55,96,114	1.42	11 (20%)

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
25	CLA	a	601	-	1/1/14/20	9/31/109/115	-
30	LHG	9	802	-	-	27/53/53/53	-
26	CHL	9	613	-	3/3/15/26	0/10/108/137	-
25	CLA	B	1232	-	1/1/11/20	7/13/91/115	-
52	P5S	8	805	-	-	23/42/42/59	-
29	BCR	L	4001	-	-	12/29/63/63	0/2/2/2
25	CLA	2	615	-	1/1/13/20	6/27/105/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
49	13X	6	805	-	-	-	0/1/1/1
25	CLA	H	1703	-	1/1/13/20	9/25/103/115	-
25	CLA	B	1217	-	1/1/13/20	12/27/105/115	-
47	PLM	5	804	-	-	3/15/15/15	-
25	CLA	2	607	30	1/1/15/20	15/37/115/115	-
25	CLA	7	606	-	1/1/13/20	12/23/101/115	-
25	CLA	H	1702	8	1/1/11/20	8/15/93/115	-
51	4RF	7	807	-	-	19/39/39/59	-
48	DGA	3	803	-	-	14/25/25/45	-
25	CLA	B	1210	-	1/1/15/20	21/37/115/115	-
43	LUT	7	501	-	1/1/12/27	6/29/67/67	0/2/2/2
25	CLA	4	612	17	1/1/14/20	17/34/112/115	-
26	CHL	7	613	-	4/4/19/26	4/33/131/137	-
27	PQN	A	2001	-	-	7/23/43/43	0/2/2/2
29	BCR	5	504	-	-	12/29/63/63	0/2/2/2
25	CLA	8	612	-	1/1/12/20	8/19/97/115	-
25	CLA	8	605	-	1/1/13/20	13/25/103/115	-
25	CLA	A	1126	-	1/1/15/20	22/37/115/115	-
25	CLA	2	604	-	1/1/13/20	13/27/105/115	-
29	BCR	O	4001	-	-	13/29/63/63	0/2/2/2
25	CLA	2	603	22	1/1/14/20	12/31/109/115	-
29	BCR	5	503	-	-	13/29/63/63	0/2/2/2
25	CLA	B	1239	-	1/1/15/20	18/37/115/115	-
25	CLA	3	602	-	1/1/11/20	5/15/93/115	-
43	LUT	a	503	-	-	6/29/67/67	0/2/2/2
43	LUT	5	501	-	-	2/29/67/67	0/2/2/2
25	CLA	L	1504	-	1/1/12/20	9/19/97/115	-
25	CLA	a	607	-	1/1/13/20	14/29/107/115	-
25	CLA	A	1141	-	1/1/11/20	7/13/91/115	-
25	CLA	5	601	18	1/1/14/20	12/31/109/115	-
30	LHG	7	802	-	-	20/40/40/53	-
25	CLA	7	610	-	1/1/14/20	17/31/109/115	-
33	PTY	a	802	-	-	22/41/41/53	-
25	CLA	1	603	-	1/1/15/20	15/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
38	LPX	F	5003	-	-	12/31/31/31	-
25	CLA	1	607	30	1/1/15/20	18/37/115/115	-
50	XAT	9	507	-	1/1/12/26	8/31/93/93	0/4/4/4
29	BCR	J	4001	-	-	11/29/63/63	0/2/2/2
24	CL0	A	1011	-	3/3/20/25	10/37/135/135	-
25	CLA	4	601	-	1/1/14/20	10/31/109/115	-
25	CLA	A	1109	25	1/1/15/20	19/37/115/115	-
25	CLA	6	607	30	1/1/13/20	10/25/103/115	-
25	CLA	A	1110	-	1/1/12/20	9/24/102/115	-
25	CLA	7	605	-	1/1/11/20	4/11/89/115	-
37	PCW	B	5004	-	-	24/42/42/57	-
30	LHG	a	801	-	-	24/39/39/53	-
43	LUT	5	502	-	-	3/29/67/67	0/2/2/2
25	CLA	1	602	-	1/1/11/20	6/13/91/115	-
25	CLA	B	1229	-	1/1/15/20	12/37/115/115	-
25	CLA	8	602	-	1/1/12/20	4/22/100/115	-
25	CLA	B	1237	-	1/1/15/20	20/37/115/115	-
25	CLA	4	615	17	1/1/14/20	13/31/109/115	-
25	CLA	a	603	-	1/1/15/20	18/37/115/115	-
43	LUT	4	501	-	1/1/12/27	6/29/67/67	0/2/2/2
43	LUT	a	501	-	-	5/29/67/67	0/2/2/2
25	CLA	3	606	-	1/1/15/20	16/37/115/115	-
26	CHL	6	611	-	3/3/17/26	5/21/119/137	-
50	XAT	9	504	-	1/1/12/26	13/31/93/93	0/4/4/4
43	LUT	5	505	-	-	10/29/67/67	0/2/2/2
33	PTY	a	803	-	-	24/41/41/53	-
26	CHL	1	604	-	4/4/20/26	10/39/137/137	-
25	CLA	2	608	-	1/1/11/20	7/13/91/115	-
25	CLA	B	1211	-	1/1/13/20	11/25/103/115	-
25	CLA	K	1402	-	1/1/14/20	10/31/109/115	-
28	SF4	C	3002	3	-	-	0/6/5/5
25	CLA	A	1117	-	1/1/15/20	18/37/115/115	-
25	CLA	B	1238	-	1/1/15/20	9/37/115/115	-
25	CLA	2	601	-	1/1/14/20	11/31/109/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	A	1119	-	1/1/15/20	20/37/115/115	-
30	LHG	1	802	-	-	34/53/53/53	-
26	CHL	8	601	21	4/4/19/26	4/33/131/137	-
43	LUT	3	501	-	-	3/29/67/67	0/2/2/2
39	NEX	F	4001	-	1/1/12/25	14/27/83/83	0/3/3/3
30	LHG	6	802	-	-	25/41/41/53	-
25	CLA	A	1108	-	1/1/15/20	16/37/115/115	-
25	CLA	F	1301	-	1/1/12/20	11/19/97/115	-
29	BCR	8	503	-	-	16/29/63/63	0/2/2/2
26	CHL	4	609	17	4/4/20/26	12/39/137/137	-
29	BCR	A	4002	-	-	9/29/63/63	0/2/2/2
25	CLA	F	1302	-	1/1/13/20	10/25/103/115	-
25	CLA	G	1601	-	1/1/12/20	11/19/97/115	-
25	CLA	L	1502	-	1/1/14/20	14/31/109/115	-
25	CLA	7	602	-	1/1/11/20	4/11/89/115	-
25	CLA	A	1135	-	1/1/12/20	7/21/99/115	-
25	CLA	B	1240	30	1/1/15/20	12/37/115/115	-
32	SQD	G	5001	-	-	20/41/61/69	0/1/1/1
33	PTY	G	5002	-	-	10/30/30/53	-
25	CLA	B	1207	-	1/1/14/20	18/31/109/115	-
43	LUT	2	507	-	1/1/12/27	19/29/67/67	0/2/2/2
30	LHG	F	5001	-	-	28/47/47/53	-
25	CLA	A	1013	-	1/1/15/20	18/37/115/115	-
29	BCR	A	4005	-	-	16/29/63/63	0/2/2/2
26	CHL	6	609	19	4/4/20/26	10/39/137/137	-
36	DGD	8	803	-	-	18/35/75/95	0/2/2/2
25	CLA	2	612	-	1/1/12/20	10/19/97/115	-
30	LHG	2	801	25	-	31/53/53/53	-
25	CLA	8	615	21	1/1/11/20	9/15/93/115	-
25	CLA	B	1230	-	1/1/13/20	11/29/107/115	-
43	LUT	8	501	-	-	3/29/67/67	0/2/2/2
25	CLA	3	610	16	1/1/13/20	13/28/106/115	-
44	AXT	1	502	-	-	10/29/71/75	0/2/2/2
25	CLA	A	1125	-	1/1/15/20	25/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	B	1212	-	1/1/13/20	12/28/106/115	-
25	CLA	4	606	-	1/1/12/20	8/19/97/115	-
29	BCR	3	505	-	-	11/29/63/63	0/2/2/2
25	CLA	B	1213	-	1/1/13/20	14/25/103/115	-
47	PLM	8	806	-	-	6/13/14/15	-
25	CLA	8	608	-	1/1/12/20	8/22/100/115	-
29	BCR	B	4005	-	-	15/29/63/63	0/2/2/2
25	CLA	1	615	15	1/1/11/20	12/15/93/115	-
43	LUT	1	501	-	-	3/29/67/67	0/2/2/2
30	LHG	F	5002	-	-	19/40/40/53	-
25	CLA	1	608	-	1/1/14/20	15/31/109/115	-
30	LHG	4	801	-	-	30/53/53/53	-
25	CLA	B	1220	-	1/1/14/20	15/31/109/115	-
48	DGA	5	803	-	-	14/24/24/45	-
25	CLA	A	1128	-	1/1/15/20	20/37/115/115	-
25	CLA	4	611	-	1/1/13/20	9/27/105/115	-
25	CLA	A	1012	-	1/1/15/20	13/37/115/115	-
45	OLA	8	808	-	-	5/17/17/17	-
25	CLA	A	1101	-	1/1/15/20	24/37/115/115	-
26	CHL	2	609	22	4/4/20/26	11/39/137/137	-
26	CHL	9	610	-	3/3/17/26	2/21/119/137	-
25	CLA	B	1201	-	1/1/15/20	21/37/115/115	-
26	CHL	8	613	-	3/3/17/26	2/21/119/137	-
25	CLA	a	615	15	1/1/11/20	4/15/93/115	-
25	CLA	5	608	-	1/1/11/20	6/13/91/115	-
25	CLA	a	608	-	1/1/13/20	10/25/103/115	-
26	CHL	9	608	-	3/3/16/26	5/18/116/137	-
26	CHL	6	619	19	5/5/20/26	10/39/137/137	-
29	BCR	A	4001	-	-	13/29/63/63	0/2/2/2
25	CLA	5	614	18	1/1/11/20	6/15/93/115	-
29	BCR	L	4003	-	-	10/29/63/63	0/2/2/2
30	LHG	8	801	25	-	28/41/41/53	-
25	CLA	B	1215	-	1/1/14/20	16/31/109/115	-
37	PCW	K	5001	-	-	22/44/44/57	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	B	1231	-	1/1/15/20	17/37/115/115	-
25	CLA	6	612	-	1/1/12/20	11/19/97/115	-
26	CHL	A	1114	-	4/4/20/26	9/39/137/137	-
25	CLA	3	613	-	1/1/14/20	12/33/111/115	-
25	CLA	A	1121	-	1/1/14/20	19/31/109/115	-
29	BCR	K	4002	-	-	11/29/63/63	0/2/2/2
25	CLA	5	607	-	1/1/14/20	15/31/109/115	-
33	PTY	A	5006	-	-	14/37/37/53	-
25	CLA	6	603	-	1/1/15/20	15/37/115/115	-
32	SQD	I	5001	-	-	23/49/69/69	0/1/1/1
26	CHL	5	617	18	3/3/16/26	1/17/115/137	-
25	CLA	7	604	20	1/1/15/20	16/37/115/115	-
32	SQD	A	5005	-	-	20/49/69/69	0/1/1/1
27	PQN	B	2002	-	-	8/23/43/43	0/2/2/2
37	PCW	K	5002	-	-	17/39/39/57	-
25	CLA	8	618	21	1/1/14/20	17/31/109/115	-
25	CLA	A	1139	-	1/1/13/20	11/25/103/115	-
43	LUT	6	502	-	-	3/29/67/67	0/2/2/2
25	CLA	A	1137	-	1/1/14/20	14/31/109/115	-
26	CHL	1	613	-	3/3/16/26	2/18/116/137	-
25	CLA	1	612	15	1/1/15/20	21/37/115/115	-
30	LHG	9	801	-	-	18/37/37/53	-
25	CLA	5	604	18	1/1/15/20	13/37/115/115	-
25	CLA	5	603	18	1/1/13/20	16/27/105/115	-
47	PLM	4	804	-	-	9/15/15/15	-
26	CHL	9	603	-	4/4/20/26	8/39/137/137	-
25	CLA	A	1123	-	1/1/15/20	11/37/115/115	-
25	CLA	8	609	21	1/1/14/20	15/31/109/115	-
25	CLA	G	1603	-	1/1/11/20	5/13/91/115	-
26	CHL	3	604	16	4/4/20/26	8/39/137/137	-
29	BCR	B	4002	-	-	16/29/63/63	0/2/2/2
25	CLA	B	1221	-	1/1/15/20	9/37/115/115	-
26	CHL	4	613	-	3/3/17/26	4/23/121/137	-
25	CLA	a	611	-	1/1/12/20	8/19/97/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	A	1103	-	1/1/15/20	19/37/115/115	-
25	CLA	3	616	-	1/1/13/20	13/27/105/115	-
25	CLA	8	607	30	1/1/11/20	6/15/93/115	-
30	LHG	B	5002	-	-	29/53/53/53	-
30	LHG	B	5001	25	-	34/53/53/53	-
25	CLA	B	1214	-	1/1/13/20	17/30/108/115	-
41	SPH	9	804	-	-	13/21/21/21	-
43	LUT	4	502	-	-	4/29/67/67	0/2/2/2
29	BCR	3	504	-	-	11/29/63/63	0/2/2/2
29	BCR	H	4001	-	-	12/29/63/63	0/2/2/2
29	BCR	G	4001	-	-	12/29/63/63	0/2/2/2
29	BCR	3	503	-	-	12/29/63/63	0/2/2/2
33	PTY	G	5003	-	-	13/30/30/53	-
29	BCR	B	4004	-	-	9/29/63/63	0/2/2/2
25	CLA	A	1133	-	1/1/15/20	20/37/115/115	-
25	CLA	B	1235	-	1/1/15/20	21/37/115/115	-
26	CHL	8	610	-	5/5/18/26	4/27/125/137	-
26	CHL	a	610	-	3/3/16/26	0/18/116/137	-
33	PTY	7	804	-	-	16/36/36/53	-
26	CHL	5	613	-	4/4/18/26	3/27/125/137	-
46	QTB	a	504	-	1/1/5/10	1/11/28/28	0/1/1/1
25	CLA	B	1206	2	1/1/15/20	23/37/115/115	-
30	LHG	A	5002	-	-	37/53/53/53	-
25	CLA	a	612	15	1/1/13/20	10/28/106/115	-
25	CLA	a	605	-	1/1/13/20	10/25/103/115	-
26	CHL	1	611	-	4/4/18/26	4/27/125/137	-
25	CLA	9	612	-	1/1/15/20	13/37/115/115	-
25	CLA	6	615	54	1/1/15/20	15/37/115/115	-
30	LHG	5	801	-	-	35/53/53/53	-
26	CHL	7	609	20	4/4/19/26	10/35/133/137	-
47	PLM	8	807	-	-	5/15/15/15	-
25	CLA	6	608	-	1/1/13/20	7/25/103/115	-
25	CLA	a	602	-	1/1/12/20	8/19/97/115	-
25	CLA	B	1236	-	1/1/12/20	9/23/101/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	B	1208	-	1/1/13/20	11/25/101/115	-
29	BCR	6	504	-	-	13/29/63/63	0/2/2/2
25	CLA	B	1023	-	1/1/15/20	17/37/115/115	-
26	CHL	5	611	-	3/3/17/26	1/21/119/137	-
33	PTY	3	802	-	-	17/41/41/53	-
25	CLA	A	1112	-	1/1/13/20	16/25/103/115	-
26	CHL	1	609	15	4/4/20/26	12/39/137/137	-
28	SF4	A	3001	1,2	-	-	0/6/5/5
26	CHL	a	604	-	4/4/19/26	7/33/131/137	-
25	CLA	B	1202	-	1/1/15/20	17/37/115/115	-
25	CLA	2	605	-	1/1/14/20	18/31/109/115	-
25	CLA	3	601	16	1/1/15/20	14/37/115/115	-
29	BCR	B	4001	-	-	11/29/63/63	0/2/2/2
26	CHL	3	603	16	4/4/20/26	8/39/137/137	-
25	CLA	B	1205	-	1/1/15/20	12/37/115/115	-
25	CLA	4	605	-	1/1/11/20	5/15/93/115	-
25	CLA	A	1116	-	1/1/14/20	13/31/109/115	-
29	BCR	4	503	-	-	15/29/63/63	0/2/2/2
25	CLA	B	1218	-	1/1/13/20	7/25/103/115	-
25	CLA	B	1234	-	-	21/48/87/115	0/5/5/9
25	CLA	A	1111	-	1/1/15/20	21/37/115/115	-
25	CLA	G	1602	7	1/1/14/20	12/31/109/115	-
30	LHG	A	5001	-	-	32/53/53/53	-
25	CLA	4	602	-	1/1/12/20	7/22/100/115	-
26	CHL	a	609	15	3/3/17/26	4/24/122/137	-
29	BCR	K	4001	-	-	10/29/63/63	0/2/2/2
29	BCR	B	4007	-	-	7/29/63/63	0/2/2/2
43	LUT	a	502	-	-	1/29/67/67	0/2/2/2
25	CLA	B	1203	2	1/1/15/20	13/37/115/115	-
45	OLA	1	803	-	-	6/17/17/17	-
25	CLA	B	1216	-	1/1/15/20	20/37/115/115	-
25	CLA	B	1204	-	1/1/15/20	19/37/115/115	-
30	LHG	6	801	25	-	34/53/53/53	-
37	PCW	6	803	-	-	22/39/39/57	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	1	601	-	1/1/14/20	14/31/109/115	-
34	3PH	A	5007	-	-	17/34/34/49	-
30	LHG	3	801	25	-	33/53/53/53	-
25	CLA	K	1401	-	1/1/11/20	6/15/93/115	-
26	CHL	7	615	20	3/3/17/26	5/21/119/137	-
25	CLA	2	602	-	1/1/12/20	11/22/100/115	-
25	CLA	A	1105	-	1/1/13/20	4/28/106/115	-
25	CLA	A	1122	-	1/1/14/20	19/31/109/115	-
33	PTY	5	802	-	-	23/41/41/53	-
25	CLA	A	1120	-	1/1/11/20	7/18/96/115	-
25	CLA	5	612	18	1/1/15/20	24/37/115/115	-
30	LHG	1	801	25	-	25/39/39/53	-
25	CLA	4	610	-	1/1/15/20	20/37/115/115	-
25	CLA	8	611	-	1/1/12/20	6/19/97/115	-
53	LAP	8	810	-	-	15/30/30/30	-
44	AXT	7	504	-	-	14/29/71/75	0/2/2/2
25	CLA	L	1503	-	1/1/11/20	7/13/91/115	-
25	CLA	7	612	-	1/1/14/20	15/31/109/115	-
25	CLA	4	617	-	1/1/11/20	6/13/91/115	-
25	CLA	B	1022	54	1/1/15/20	13/37/115/115	-
25	CLA	A	1115	-	1/1/14/20	15/31/109/115	-
30	LHG	A	5003	-	-	26/50/50/53	-
25	CLA	K	1403	10	1/1/11/20	11/18/96/115	-
25	CLA	A	1130	-	1/1/13/20	11/27/105/115	-
31	LMG	A	5004	-	-	4/37/57/70	0/1/1/1
45	OLA	8	809	-	-	11/17/17/17	-
26	CHL	5	610	-	4/4/20/26	10/39/137/137	-
25	CLA	3	612	16	1/1/12/20	6/19/97/115	-
32	SQD	7	805	-	-	10/34/54/69	0/1/1/1
25	CLA	5	605	-	1/1/11/20	3/15/93/115	-
25	CLA	5	606	-	1/1/12/20	10/19/97/115	-
48	DGA	8	804	-	-	23/41/41/45	-
25	CLA	O	1802	-	1/1/13/20	13/25/103/115	-
25	CLA	2	606	-	1/1/11/20	4/15/93/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
26	CHL	6	610	-	4/4/18/26	6/27/125/137	-
25	CLA	A	1106	1	1/1/15/20	19/37/115/115	-
26	CHL	a	606	-	4/4/18/26	6/27/125/137	-
32	SQD	H	5001	-	-	8/40/60/69	0/1/1/1
26	CHL	4	618	-	4/4/18/26	4/27/125/137	-
25	CLA	A	1136	-	1/1/15/20	15/37/115/115	-
26	CHL	3	608	-	3/3/15/26	1/12/110/137	-
25	CLA	B	1225	-	1/1/15/20	6/37/115/115	-
25	CLA	7	608	-	1/1/13/20	10/25/103/115	-
25	CLA	9	605	-	1/1/14/20	12/31/109/115	-
25	CLA	9	606	-	1/1/13/20	7/25/103/115	-
25	CLA	A	1104	1	1/1/15/20	17/37/115/115	-
25	CLA	A	1131	-	1/1/15/20	12/37/115/115	-
25	CLA	A	1118	-	1/1/13/20	13/25/103/115	-
48	DGA	2	803	-	-	28/38/38/45	-
35	LMT	B	5006	-	-	9/21/61/61	0/2/2/2
40	RRX	3	506	-	1/1/11/25	11/29/65/65	0/2/2/2
25	CLA	7	601	20	1/1/14/20	16/31/109/115	-
25	CLA	B	1223	-	1/1/15/20	13/37/115/115	-
30	LHG	7	801	25	-	26/41/41/53	-
25	CLA	6	602	-	1/1/12/20	8/22/100/115	-
33	PTY	B	5005	-	-	20/45/45/53	-
25	CLA	A	1113	-	1/1/14/20	14/31/109/115	-
25	CLA	4	603	17	1/1/13/20	9/27/105/115	-
25	CLA	K	1404	10	1/1/11/20	5/13/91/115	-
26	CHL	8	604	21	4/4/19/26	13/35/133/137	-
26	CHL	7	611	-	4/4/18/26	7/27/125/137	-
25	CLA	4	607	-	1/1/13/20	9/25/103/115	-
25	CLA	4	604	-	1/1/14/20	11/31/109/115	-
26	CHL	a	613	-	3/3/16/26	6/15/113/137	-
36	DGD	8	802	-	-	18/48/88/95	0/2/2/2
25	CLA	B	1222	-	1/1/13/20	8/29/107/115	-
29	BCR	B	4006	-	-	15/29/63/63	0/2/2/2
43	LUT	2	502	-	-	2/29/67/67	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	B	1021	-	1/1/15/20	18/37/115/115	-
26	CHL	3	611	-	4/4/19/26	9/33/131/137	-
47	PLM	6	804	-	-	8/15/15/15	-
25	CLA	A	1107	1	1/1/13/20	9/25/103/115	-
26	CHL	9	601	-	4/4/20/26	8/39/137/137	-
25	CLA	A	1134	1	1/1/14/20	14/31/109/115	-
43	LUT	1	503	-	-	8/29/67/67	0/2/2/2
25	CLA	9	602	-	1/1/11/20	4/15/93/115	-
25	CLA	6	618	-	1/1/11/20	8/15/93/115	-
25	CLA	3	618	16	1/1/11/20	4/15/93/115	-
30	LHG	2	802	-	-	39/53/53/53	-
47	PLM	4	803	-	-	5/13/14/15	-
26	CHL	7	617	20	4/4/20/26	13/39/137/137	-
26	CHL	2	613	-	3/3/17/26	1/21/119/137	-
25	CLA	5	615	18	1/1/11/20	8/15/93/115	-
30	LHG	4	802	-	-	23/36/36/53	-
25	CLA	B	1219	2	1/1/13/20	14/30/108/115	-
25	CLA	7	603	20	1/1/15/20	24/37/115/115	-
26	CHL	1	610	-	3/3/16/26	2/18/116/137	-
43	LUT	6	501	-	-	3/29/67/67	0/2/2/2
25	CLA	B	1226	-	1/1/15/20	11/37/115/115	-
25	CLA	H	1701	-	1/1/13/20	10/25/103/115	-
25	CLA	L	1501	11	1/1/12/20	10/19/97/115	-
25	CLA	B	1209	-	1/1/15/20	16/37/115/115	-
25	CLA	O	1801	-	1/1/9/20	0/4/78/115	-
25	CLA	8	620	-	1/1/11/20	8/13/91/115	-
29	BCR	A	4004	-	-	12/29/63/63	0/2/2/2
25	CLA	3	605	-	1/1/15/20	16/37/115/115	-
29	BCR	6	503	-	-	16/29/63/63	0/2/2/2
29	BCR	L	4002	-	-	11/29/63/63	0/2/2/2
26	CHL	2	610	-	4/4/16/26	0/18/116/137	-
25	CLA	6	606	19	1/1/15/20	14/37/115/115	-
29	BCR	A	4003	-	-	12/29/63/63	0/2/2/2
25	CLA	6	601	-	1/1/14/20	13/31/109/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	A	1132	-	1/1/15/20	15/37/115/115	-
25	CLA	1	605	-	1/1/15/20	20/37/115/115	-
26	CHL	6	617	19	3/3/15/26	1/12/110/137	-
25	CLA	A	1102	25	1/1/13/20	10/25/103/115	-
25	CLA	6	604	19	1/1/15/20	16/37/115/115	-
25	CLA	6	605	-	1/1/11/20	6/15/93/115	-
25	CLA	9	609	23	1/1/11/20	6/15/93/115	-
47	PLM	a	804	-	-	4/13/14/15	-
35	LMT	A	5008	-	-	10/21/61/61	0/2/2/2
25	CLA	9	604	23	1/1/14/20	7/31/109/115	-
30	LHG	7	803	-	-	22/39/39/53	-
25	CLA	1	606	-	1/1/13/20	12/28/106/115	-
29	BCR	B	4003	-	-	7/29/63/63	0/2/2/2
26	CHL	5	618	-	3/3/17/26	2/21/119/137	-
43	LUT	9	501	-	-	3/29/67/67	0/2/2/2
41	SPH	4	805	-	-	9/21/21/21	-
25	CLA	B	1224	-	1/1/15/20	21/37/115/115	-
25	CLA	3	607	30	1/1/15/20	18/37/115/115	-
33	PTY	9	803	-	-	26/51/51/53	-
25	CLA	4	608	-	1/1/12/20	6/21/99/115	-
25	CLA	9	607	-	1/1/11/20	8/16/94/115	-
25	CLA	5	602	-	1/1/12/20	10/22/100/115	-
25	CLA	J	1901	9	1/1/10/20	6/10/88/115	-
25	CLA	A	1140	-	1/1/13/20	11/25/103/115	-
25	CLA	7	607	30	1/1/13/20	11/29/107/115	-
50	XAT	7	502	-	2/2/12/26	0/31/93/93	0/4/4/4
41	SPH	6	806	-	-	9/21/21/21	-
28	SF4	C	3003	3	-	-	0/6/5/5
25	CLA	8	606	-	1/1/13/20	15/28/106/115	-
25	CLA	2	621	22	1/1/15/20	16/37/115/115	-
50	XAT	2	501	-	2/2/12/26	0/31/93/93	0/4/4/4
25	CLA	A	1129	-	1/1/12/20	9/19/97/115	-
25	CLA	5	609	18	1/1/12/20	12/21/99/115	-
25	CLA	B	1228	-	1/1/15/20	18/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	BCR	7	503	-	-	11/29/63/63	0/2/2/2
25	CLA	A	1124	-	1/1/13/20	7/25/103/115	-
25	CLA	O	1803	-	1/1/10/20	5/8/86/115	-
36	DGD	B	5003	-	-	22/55/95/95	0/2/2/2
43	LUT	8	502	-	-	5/29/67/67	0/2/2/2
43	LUT	9	502	-	-	3/29/67/67	0/2/2/2
40	RRX	J	4002	-	1/1/11/25	13/29/65/65	0/2/2/2
35	LMT	2	804	-	-	6/21/61/61	0/2/2/2
43	LUT	3	502	-	-	2/29/67/67	0/2/2/2
45	OLA	a	805	-	-	7/17/17/17	-
25	CLA	B	1227	-	1/1/12/20	13/19/97/115	-
35	LMT	1	804	-	-	12/21/61/61	0/2/2/2
42	ECH	M	4001	-	-	5/29/66/66	0/2/2/2
25	CLA	A	1127	-	1/1/15/20	17/37/115/115	-
26	CHL	8	603	21	4/4/20/26	8/39/137/137	-
33	PTY	J	5001	-	-	21/31/31/53	-
25	CLA	A	1138	-	1/1/15/20	8/37/115/115	-
29	BCR	I	4001	-	-	15/29/63/63	0/2/2/2
41	SPH	J	5002	-	-	12/21/21/21	-
36	DGD	7	806	-	-	13/39/79/95	0/2/2/2
25	CLA	4	616	-	1/1/12/20	6/19/97/115	-
26	CHL	6	613	-	3/3/17/26	1/21/119/137	-

The worst 5 of 2215 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	3	506	RRX	C26-C25	15.50	1.61	1.34
40	J	4002	RRX	C26-C25	15.46	1.61	1.34
40	3	506	RRX	C5-C6	14.91	1.60	1.34
40	J	4002	RRX	C5-C6	14.73	1.59	1.34
43	3	502	LUT	C24-C25	14.67	1.51	1.33

The worst 5 of 4958 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
50	9	504	XAT	C20-C13-C14	-30.45	80.27	122.92
29	H	4001	BCR	C37-C22-C21	-30.28	80.51	122.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	H	4001	BCR	C23-C22-C21	27.27	160.78	118.94
50	9	504	XAT	C12-C13-C14	26.86	160.15	118.94
39	F	4001	NEX	C17-C1-C6	-26.13	87.08	110.47

5 of 394 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
24	A	1011	CL0	NA
24	A	1011	CL0	NC
24	A	1011	CL0	ND
25	A	1012	CLA	ND
25	A	1013	CLA	ND

5 of 4852 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
25	A	1102	CLA	C1A-C2A-CAA-CBA
25	A	1102	CLA	C3A-C2A-CAA-CBA
25	A	1103	CLA	C3A-C2A-CAA-CBA
25	A	1103	CLA	CHA-CBD-CGD-O1D
25	A	1103	CLA	CHA-CBD-CGD-O2D

There are no ring outliers.

362 monomers are involved in 1239 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
30	9	802	LHG	4	0
26	9	613	CHL	4	0
25	B	1232	CLA	2	0
52	8	805	P5S	2	0
29	L	4001	BCR	3	0
25	2	615	CLA	3	0
25	H	1703	CLA	5	0
25	B	1217	CLA	4	0
47	5	804	PLM	3	0
25	2	607	CLA	4	0
25	7	606	CLA	2	0
51	7	807	4RF	6	0
48	3	803	DGA	3	0
25	B	1210	CLA	2	0
43	7	501	LUT	5	0
25	4	612	CLA	8	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
26	7	613	CHL	12	0
27	A	2001	PQN	7	0
29	5	504	BCR	4	0
25	8	612	CLA	6	0
25	8	605	CLA	3	0
25	A	1126	CLA	13	0
25	2	604	CLA	14	0
29	O	4001	BCR	1	0
25	2	603	CLA	5	0
29	5	503	BCR	6	0
25	B	1239	CLA	4	0
25	3	602	CLA	3	0
43	5	501	LUT	5	0
25	L	1504	CLA	4	0
25	5	601	CLA	4	0
25	7	610	CLA	7	0
25	1	603	CLA	6	0
38	F	5003	LPX	2	0
25	1	607	CLA	4	0
29	J	4001	BCR	5	0
50	9	507	XAT	5	0
24	A	1011	CL0	6	0
25	4	601	CLA	6	0
25	A	1109	CLA	8	0
25	A	1110	CLA	4	0
25	7	605	CLA	5	0
37	B	5004	PCW	1	0
43	5	502	LUT	4	0
25	1	602	CLA	2	0
25	B	1229	CLA	7	0
25	8	602	CLA	5	0
25	B	1237	CLA	3	0
25	4	615	CLA	3	0
43	4	501	LUT	4	0
25	3	606	CLA	5	0
26	6	611	CHL	3	0
43	5	505	LUT	4	0
50	9	504	XAT	4	0
26	1	604	CHL	7	0
25	2	608	CLA	1	0
25	B	1211	CLA	1	0
25	K	1402	CLA	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
30	1	802	LHG	4	0
25	A	1117	CLA	7	0
25	B	1238	CLA	2	0
25	A	1119	CLA	11	0
25	2	601	CLA	7	0
26	8	601	CHL	5	0
43	3	501	LUT	3	0
39	F	4001	NEX	5	0
25	A	1108	CLA	9	0
25	F	1301	CLA	3	0
29	8	503	BCR	3	0
26	4	609	CHL	6	0
29	A	4002	BCR	4	0
25	F	1302	CLA	5	0
25	G	1601	CLA	2	0
25	L	1502	CLA	7	0
25	7	602	CLA	2	0
25	A	1135	CLA	3	0
25	B	1240	CLA	6	0
32	G	5001	SQD	4	0
33	G	5002	PTY	1	0
25	B	1207	CLA	6	0
30	F	5001	LHG	2	0
43	2	507	LUT	7	0
25	A	1013	CLA	8	0
29	A	4005	BCR	9	0
26	6	609	CHL	7	0
36	8	803	DGD	5	0
25	2	612	CLA	4	0
30	2	801	LHG	5	0
25	8	615	CLA	2	0
25	B	1230	CLA	10	0
43	8	501	LUT	6	0
25	3	610	CLA	3	0
44	1	502	AXT	3	0
25	A	1125	CLA	8	0
25	B	1212	CLA	3	0
25	4	606	CLA	3	0
29	3	505	BCR	4	0
25	B	1213	CLA	3	0
47	8	806	PLM	1	0
25	8	608	CLA	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
29	B	4005	BCR	6	0
25	1	615	CLA	2	0
43	1	501	LUT	4	0
30	F	5002	LHG	2	0
25	1	608	CLA	9	0
30	4	801	LHG	4	0
25	B	1220	CLA	10	0
48	5	803	DGA	3	0
25	A	1128	CLA	8	0
25	4	611	CLA	3	0
25	A	1012	CLA	12	0
25	A	1101	CLA	7	0
26	2	609	CHL	4	0
26	9	610	CHL	5	0
25	B	1201	CLA	8	0
26	8	613	CHL	4	0
25	5	608	CLA	2	0
26	9	608	CHL	2	0
26	6	619	CHL	7	0
29	A	4001	BCR	4	0
25	5	614	CLA	1	0
29	L	4003	BCR	1	0
30	8	801	LHG	1	0
25	B	1215	CLA	4	0
37	K	5001	PCW	2	0
25	B	1231	CLA	7	0
25	6	612	CLA	2	0
26	A	1114	CHL	9	0
25	3	613	CLA	5	0
25	A	1121	CLA	1	0
29	K	4002	BCR	3	0
25	5	607	CLA	3	0
33	A	5006	PTY	4	0
25	6	603	CLA	5	0
32	I	5001	SQD	5	0
26	5	617	CHL	2	0
25	7	604	CLA	5	0
32	A	5005	SQD	8	0
27	B	2002	PQN	5	0
37	K	5002	PCW	1	0
25	8	618	CLA	6	0
25	A	1139	CLA	5	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
43	6	502	LUT	5	0
25	A	1137	CLA	6	0
26	1	613	CHL	6	0
25	1	612	CLA	16	0
30	9	801	LHG	3	0
25	5	604	CLA	5	0
25	5	603	CLA	3	0
47	4	804	PLM	3	0
26	9	603	CHL	7	0
25	A	1123	CLA	5	0
25	8	609	CLA	6	0
25	G	1603	CLA	4	0
26	3	604	CHL	6	0
29	B	4002	BCR	5	0
25	B	1221	CLA	5	0
26	4	613	CHL	4	0
25	A	1103	CLA	9	0
25	3	616	CLA	3	0
25	8	607	CLA	2	0
30	B	5002	LHG	1	0
30	B	5001	LHG	6	0
25	B	1214	CLA	6	0
41	9	804	SPH	2	0
43	4	502	LUT	6	0
29	3	504	BCR	5	0
29	H	4001	BCR	4	0
29	G	4001	BCR	5	0
29	3	503	BCR	3	0
33	G	5003	PTY	1	0
29	B	4004	BCR	8	0
25	A	1133	CLA	7	0
25	B	1235	CLA	6	0
26	8	610	CHL	2	0
26	5	613	CHL	4	0
25	B	1206	CLA	7	0
30	A	5002	LHG	5	0
26	1	611	CHL	6	0
25	9	612	CLA	8	0
25	6	615	CLA	8	0
30	5	801	LHG	2	0
26	7	609	CHL	4	0
47	8	807	PLM	5	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
25	6	608	CLA	4	0
25	B	1236	CLA	7	0
25	B	1208	CLA	4	0
29	6	504	BCR	4	0
25	B	1023	CLA	7	0
26	5	611	CHL	3	0
33	3	802	PTY	3	0
25	A	1112	CLA	5	0
26	1	609	CHL	11	0
25	B	1202	CLA	5	0
25	2	605	CLA	4	0
25	3	601	CLA	8	0
29	B	4001	BCR	5	0
26	3	603	CHL	7	0
25	B	1205	CLA	6	0
25	4	605	CLA	3	0
25	A	1116	CLA	8	0
29	4	503	BCR	8	0
25	B	1218	CLA	4	0
25	B	1234	CLA	9	0
25	A	1111	CLA	8	0
25	G	1602	CLA	3	0
30	A	5001	LHG	3	0
25	4	602	CLA	2	0
29	K	4001	BCR	5	0
29	B	4007	BCR	4	0
25	B	1203	CLA	1	0
45	1	803	OLA	2	0
25	B	1216	CLA	7	0
25	B	1204	CLA	6	0
30	6	801	LHG	6	0
37	6	803	PCW	4	0
25	1	601	CLA	8	0
34	A	5007	3PH	3	0
30	3	801	LHG	1	0
25	K	1401	CLA	5	0
26	7	615	CHL	1	0
25	2	602	CLA	2	0
25	A	1105	CLA	6	0
25	A	1122	CLA	5	0
33	5	802	PTY	3	0
25	A	1120	CLA	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
25	5	612	CLA	11	0
30	1	801	LHG	2	0
25	4	610	CLA	4	0
25	8	611	CLA	4	0
53	8	810	LAP	5	0
44	7	504	AXT	10	0
25	L	1503	CLA	6	0
25	7	612	CLA	9	0
25	4	617	CLA	1	0
25	B	1022	CLA	9	0
25	A	1115	CLA	9	0
30	A	5003	LHG	3	0
25	K	1403	CLA	3	0
25	A	1130	CLA	8	0
45	8	809	OLA	1	0
26	5	610	CHL	5	0
25	3	612	CLA	5	0
32	7	805	SQD	1	0
25	5	605	CLA	4	0
25	5	606	CLA	3	0
48	8	804	DGA	5	0
25	O	1802	CLA	4	0
26	6	610	CHL	2	0
25	A	1106	CLA	7	0
32	H	5001	SQD	3	0
26	4	618	CHL	5	0
25	A	1136	CLA	3	0
26	3	608	CHL	2	0
25	B	1225	CLA	4	0
25	7	608	CLA	2	0
25	9	605	CLA	6	0
25	9	606	CLA	5	0
25	A	1104	CLA	3	0
25	A	1131	CLA	6	0
25	A	1118	CLA	3	0
48	2	803	DGA	6	0
35	B	5006	LMT	2	0
40	3	506	RRX	1	0
25	7	601	CLA	6	0
25	B	1223	CLA	2	0
25	6	602	CLA	2	0
33	B	5005	PTY	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
25	A	1113	CLA	7	0
25	4	603	CLA	3	0
25	K	1404	CLA	1	0
26	8	604	CHL	3	0
26	7	611	CHL	3	0
25	4	607	CLA	2	0
25	4	604	CLA	7	0
36	8	802	DGD	3	0
25	B	1222	CLA	6	0
29	B	4006	BCR	5	0
43	2	502	LUT	4	0
25	B	1021	CLA	9	0
26	3	611	CHL	7	0
47	6	804	PLM	1	0
25	A	1107	CLA	3	0
26	9	601	CHL	9	0
25	A	1134	CLA	4	0
43	1	503	LUT	3	0
25	9	602	CLA	2	0
25	3	618	CLA	1	0
30	2	802	LHG	6	0
26	7	617	CHL	5	0
26	2	613	CHL	1	0
25	5	615	CLA	1	0
25	B	1219	CLA	7	0
25	7	603	CLA	5	0
26	1	610	CHL	3	0
43	6	501	LUT	5	0
25	B	1226	CLA	6	0
25	H	1701	CLA	3	0
25	L	1501	CLA	1	0
25	B	1209	CLA	9	0
25	8	620	CLA	2	0
29	A	4004	BCR	4	0
25	3	605	CLA	6	0
29	6	503	BCR	4	0
29	L	4002	BCR	2	0
26	2	610	CHL	2	0
25	6	606	CLA	2	0
29	A	4003	BCR	4	0
25	6	601	CLA	7	0
25	A	1132	CLA	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
25	1	605	CLA	9	0
26	6	617	CHL	1	0
25	A	1102	CLA	4	0
25	6	604	CLA	5	0
25	6	605	CLA	2	0
25	9	609	CLA	3	0
35	A	5008	LMT	1	0
25	9	604	CLA	6	0
30	7	803	LHG	3	0
25	1	606	CLA	2	0
29	B	4003	BCR	1	0
26	5	618	CHL	4	0
43	9	501	LUT	9	0
25	B	1224	CLA	12	0
25	3	607	CLA	2	0
33	9	803	PTY	3	0
25	4	608	CLA	4	0
25	9	607	CLA	2	0
25	5	602	CLA	6	0
25	J	1901	CLA	1	0
25	A	1140	CLA	5	0
25	7	607	CLA	3	0
50	7	502	XAT	3	0
41	6	806	SPH	1	0
28	C	3003	SF4	1	0
25	8	606	CLA	5	0
25	2	621	CLA	3	0
50	2	501	XAT	2	0
25	A	1129	CLA	5	0
25	5	609	CLA	2	0
25	B	1228	CLA	5	0
29	7	503	BCR	9	0
25	A	1124	CLA	4	0
25	O	1803	CLA	1	0
36	B	5003	DGD	4	0
43	8	502	LUT	5	0
43	9	502	LUT	8	0
40	J	4002	RRX	2	0
35	2	804	LMT	5	0
43	3	502	LUT	4	0
25	B	1227	CLA	5	0
35	1	804	LMT	5	0

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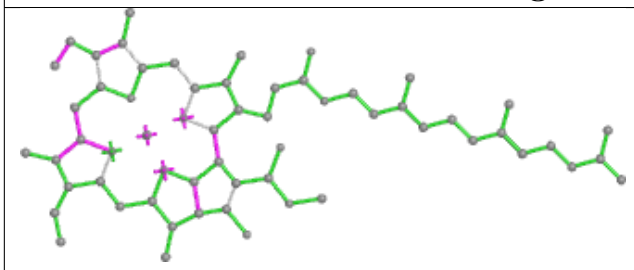
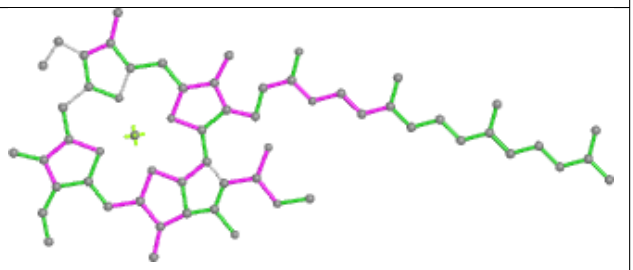
Mol	Chain	Res	Type	Clashes	Symm-Clashes
42	M	4001	ECH	5	0
25	A	1127	CLA	10	0
26	8	603	CHL	5	0
33	J	5001	PTY	2	0
25	A	1138	CLA	8	0
29	I	4001	BCR	2	0
41	J	5002	SPH	1	0
36	7	806	DGD	3	0
25	4	616	CLA	3	0
26	6	613	CHL	5	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

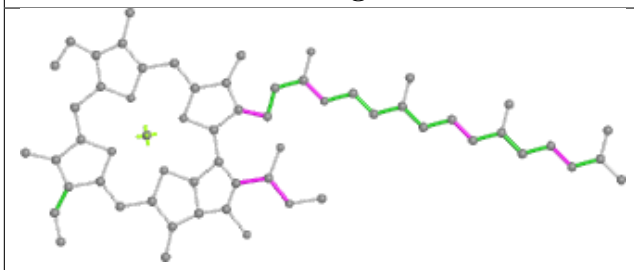
Ligand CLA a 601



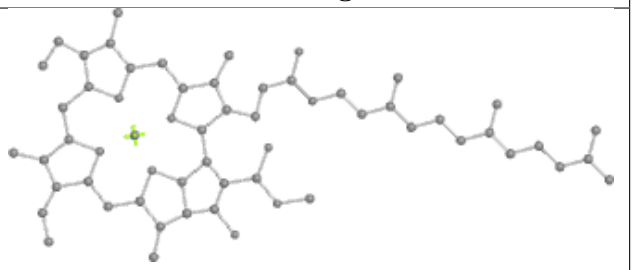
Bond lengths



Bond angles

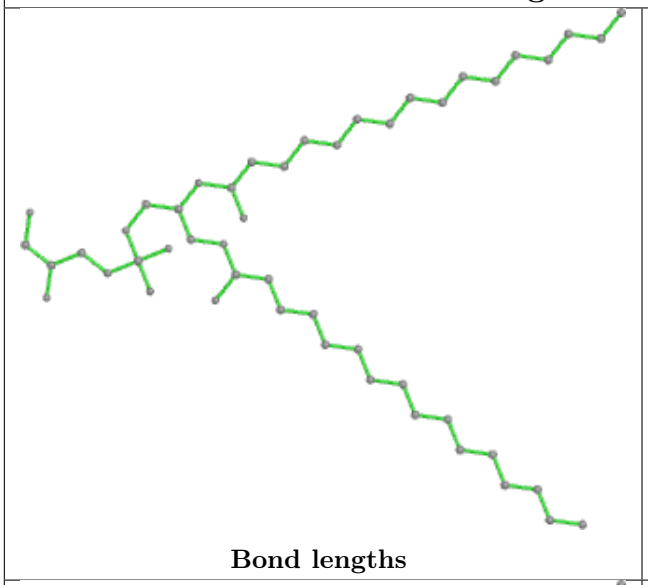


Torsions

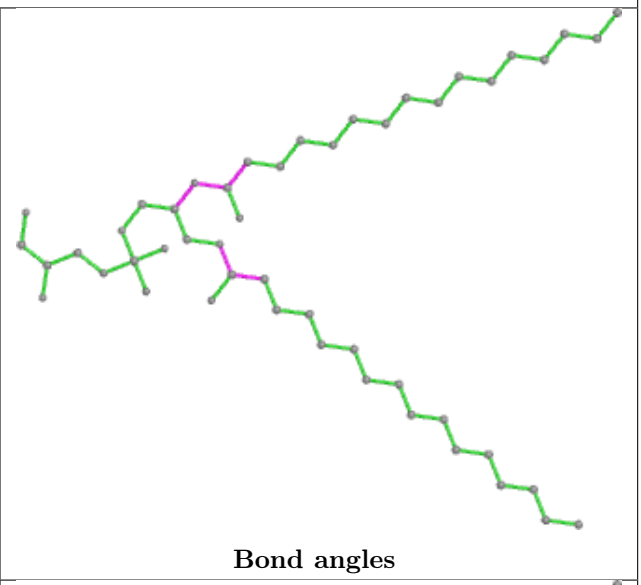


Rings

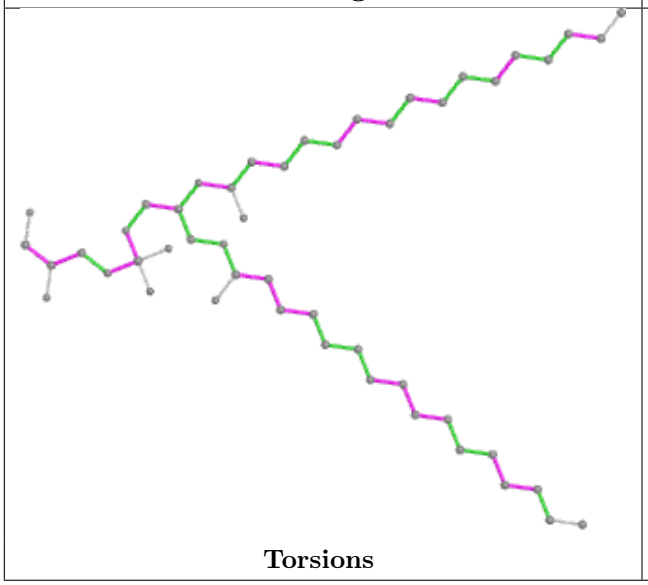
Ligand LHG 9 802



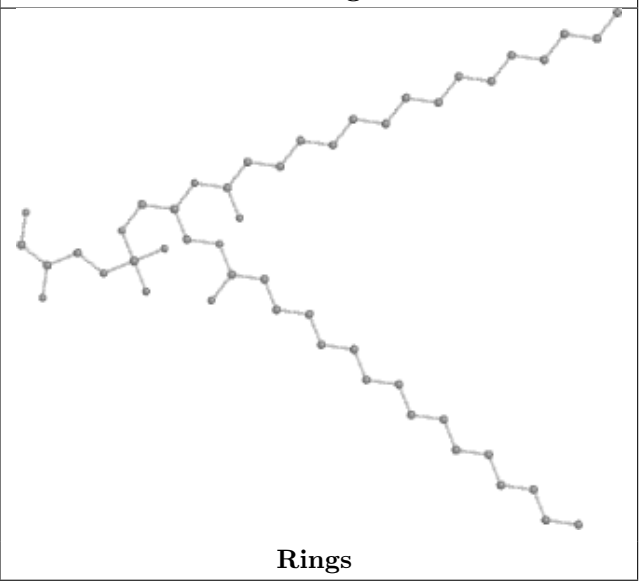
Bond lengths



Bond angles

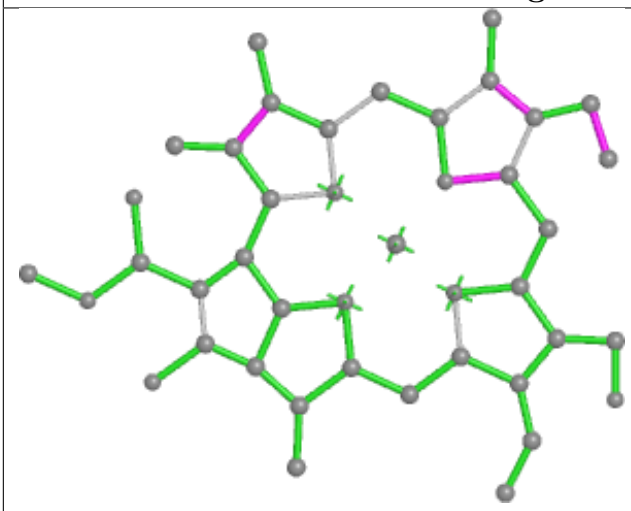


Torsions

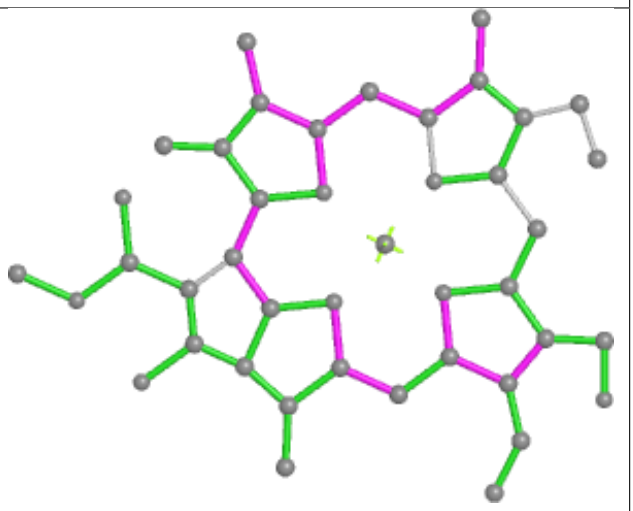


Rings

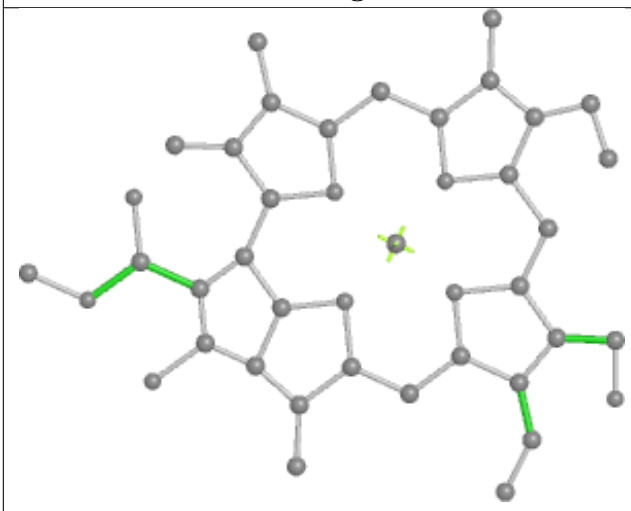
Ligand CHL 9 613



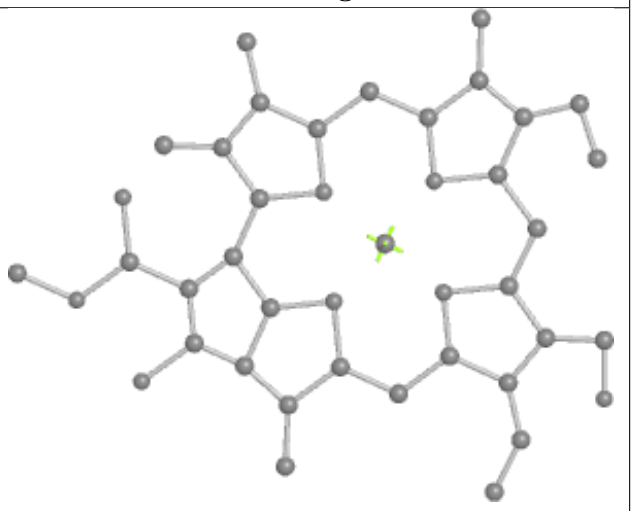
Bond lengths



Bond angles

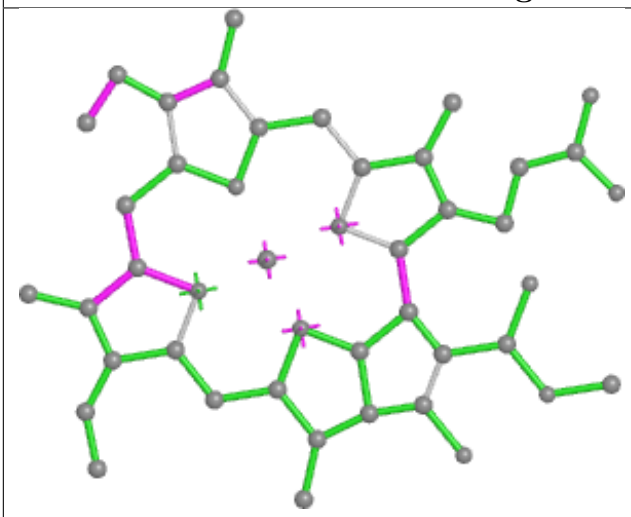


Torsions

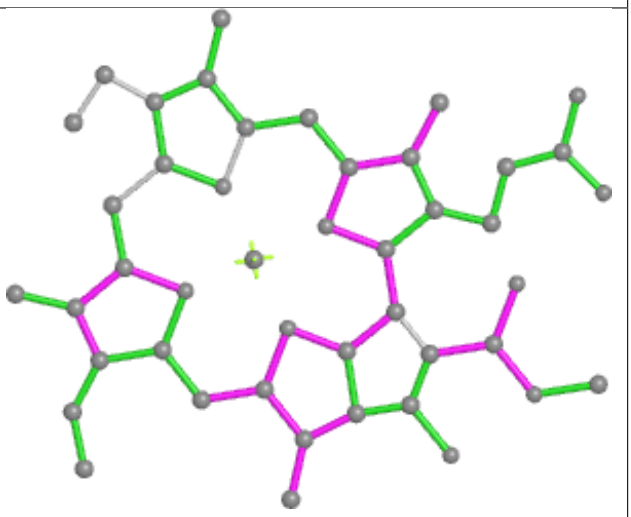


Rings

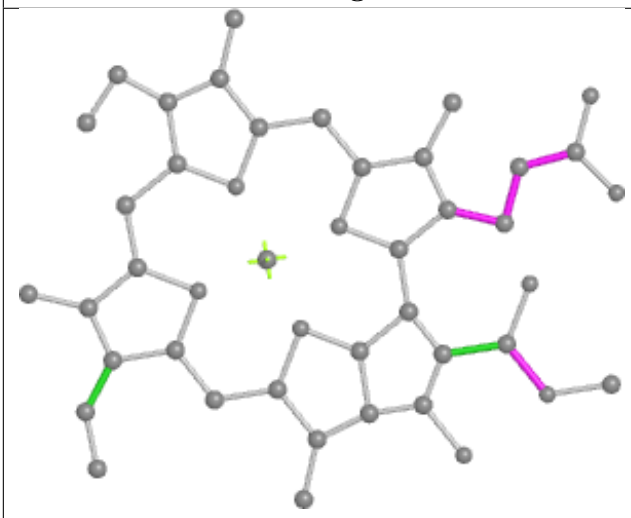
Ligand CLA B 1232



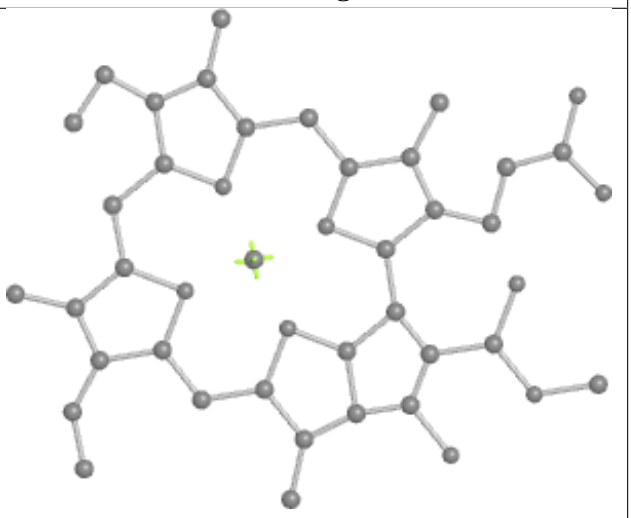
Bond lengths



Bond angles

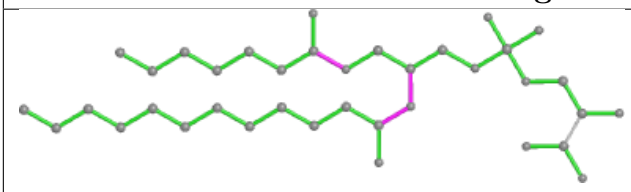


Torsions

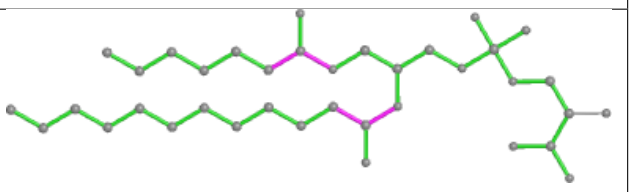


Rings

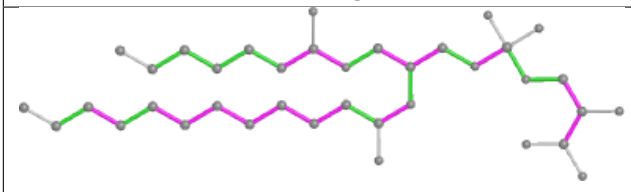
Ligand P5S 8 805



Bond lengths



Bond angles



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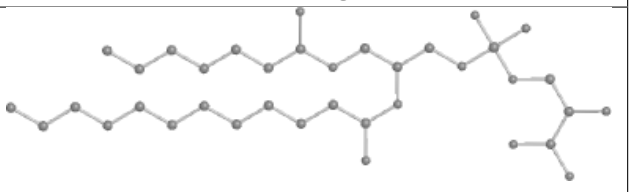
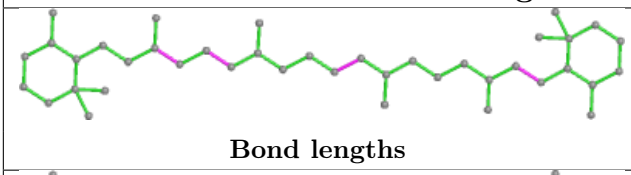


Rings

Ligand BCR L 4001



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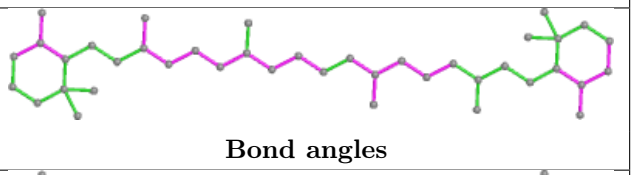

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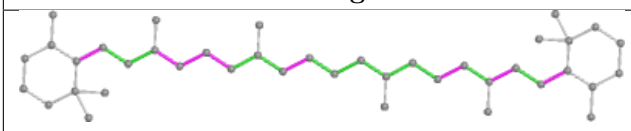

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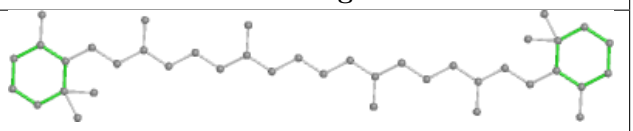
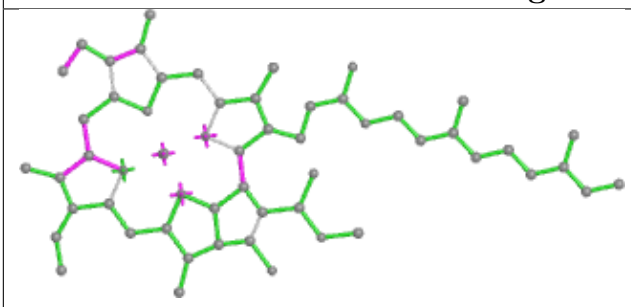


Rings

Ligand CLA 2 615



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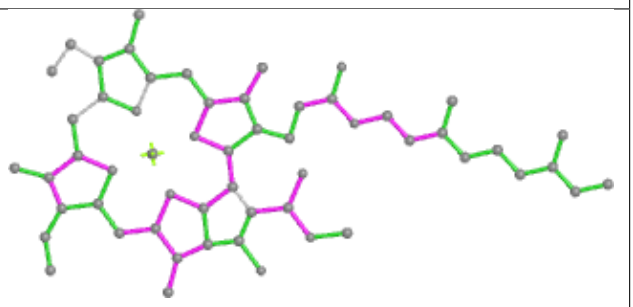

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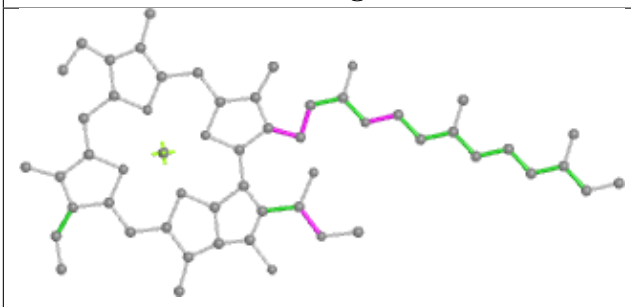

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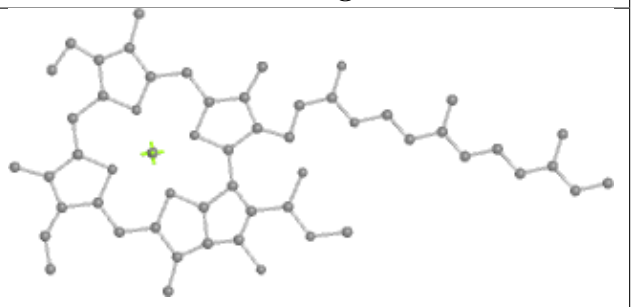
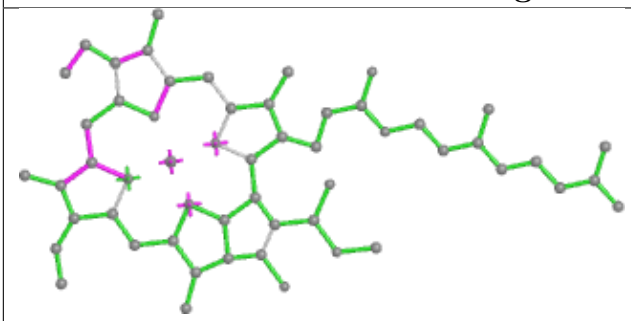


Rings

Ligand CLA H 1703



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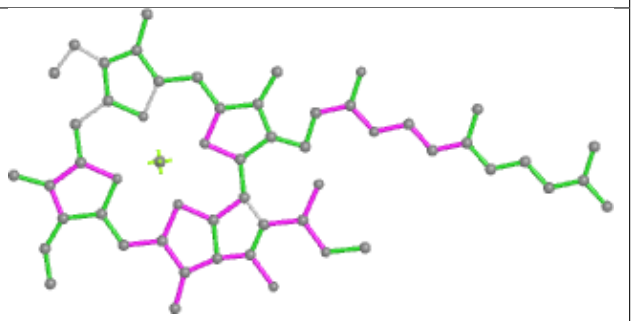

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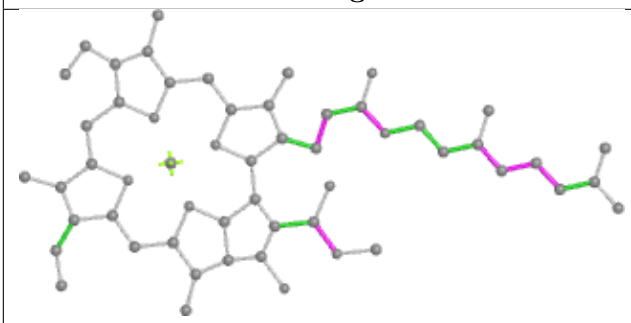
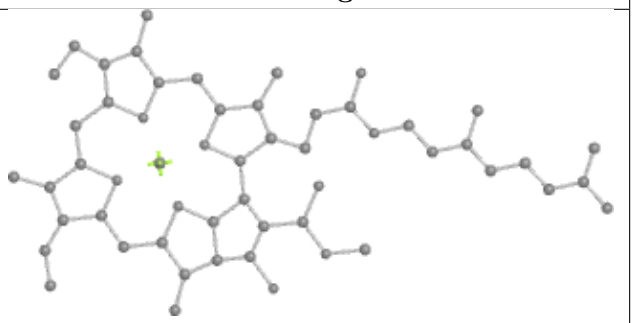
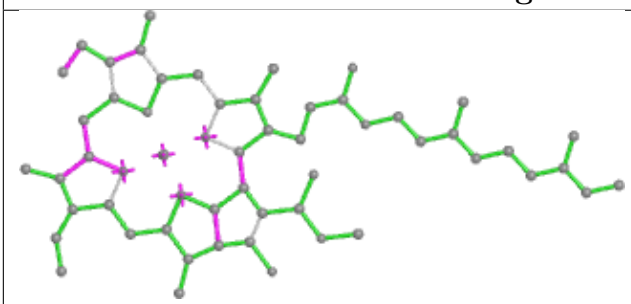


Torsions



Rings

Ligand CLA B 1217



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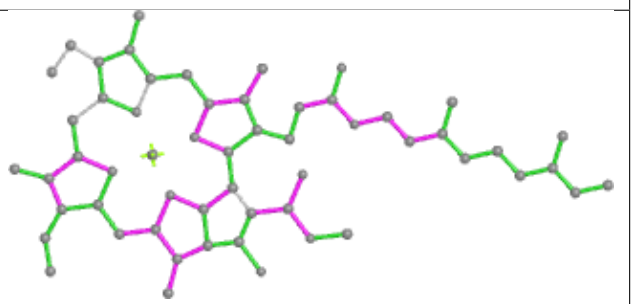
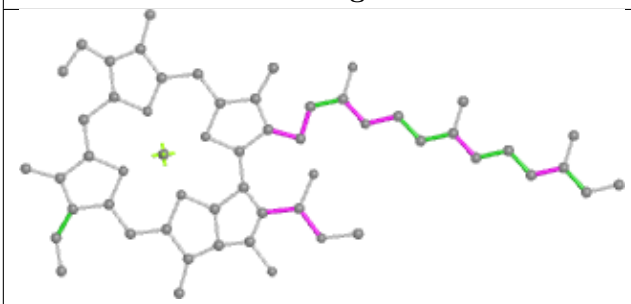


Bond angles



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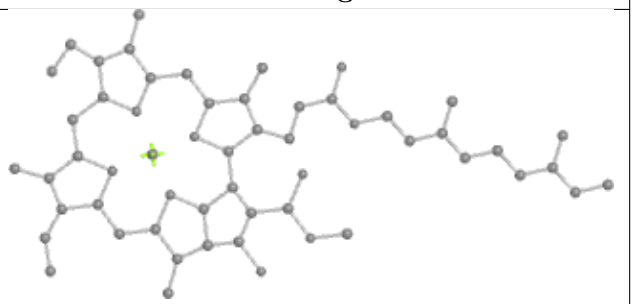
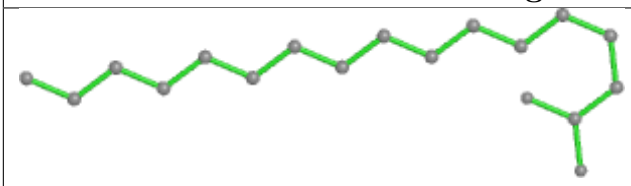


Rings

Ligand PLM 5 804



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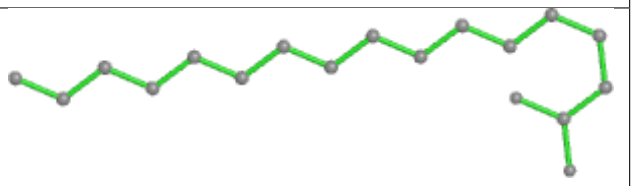

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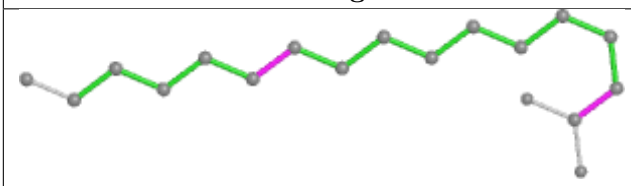

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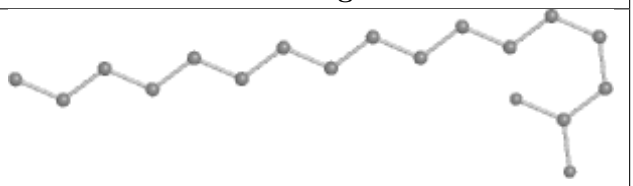
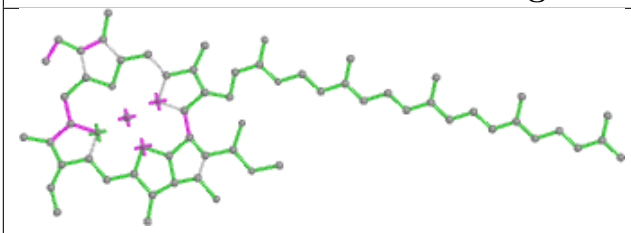


Rings

Ligand CLA 2 607



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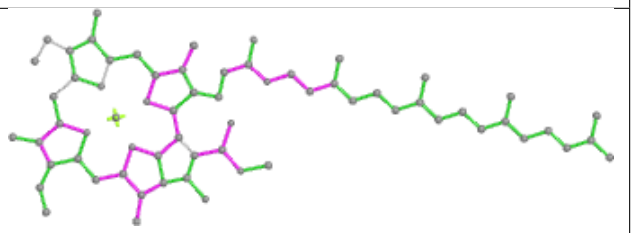
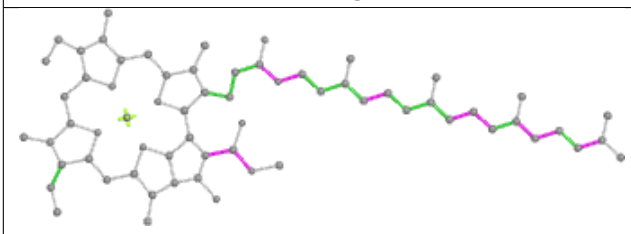


Bond angles



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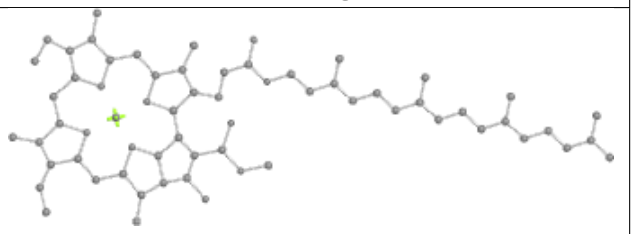
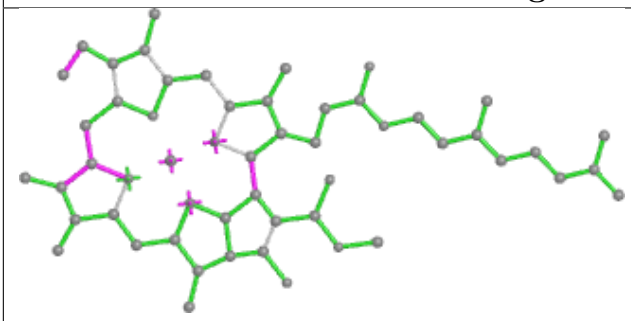
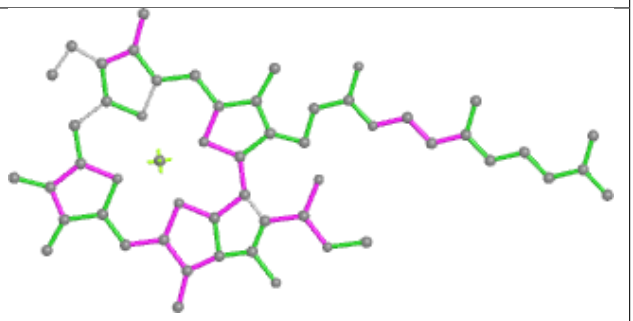


Rings

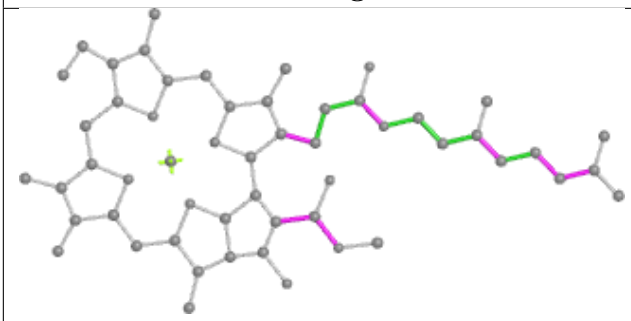
Ligand CLA 7 606



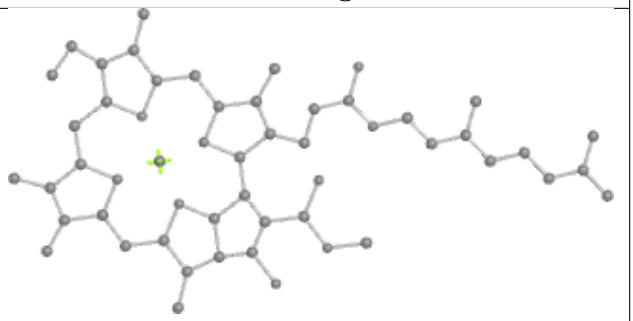
Bond lengths



Bond angles

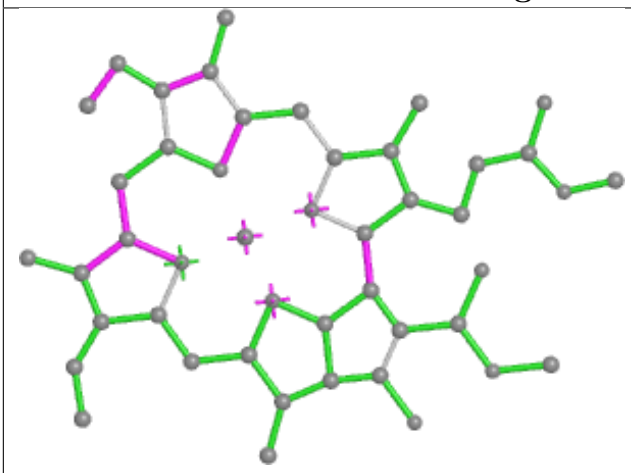


Torsions

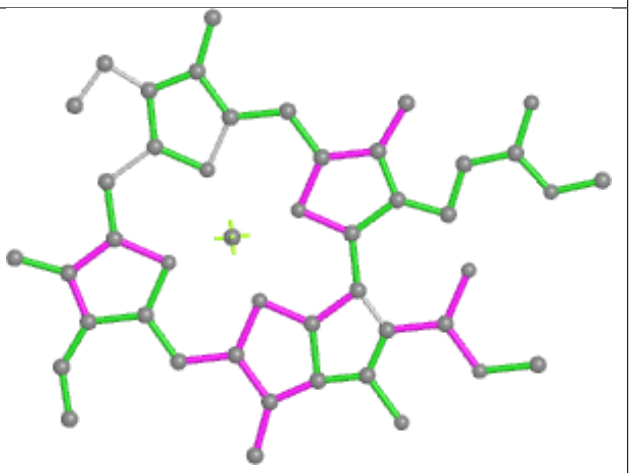


Rings

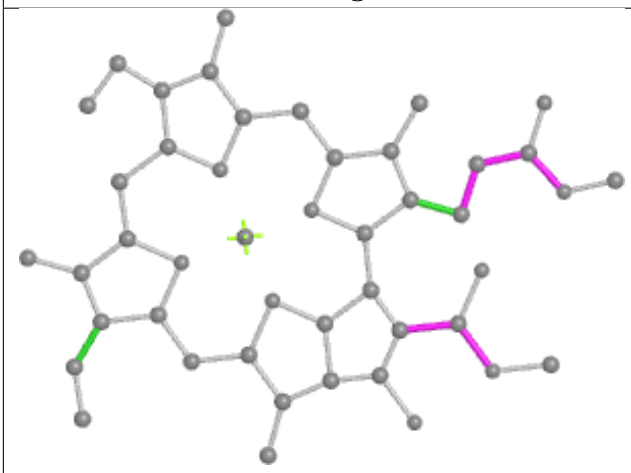
Ligand CLA H 1702



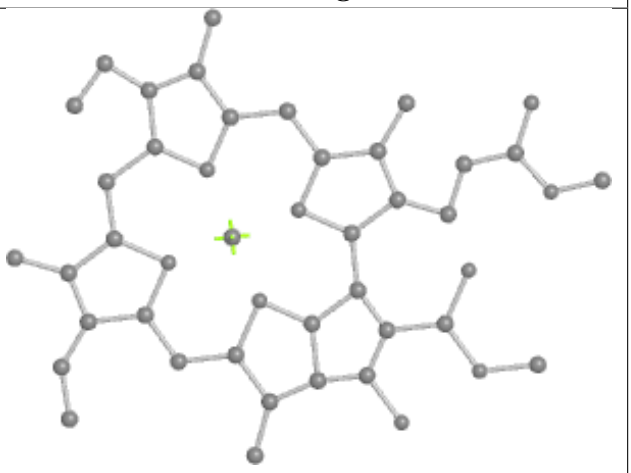
Bond lengths



Bond angles

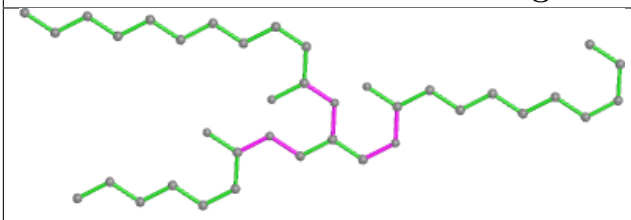


Torsions

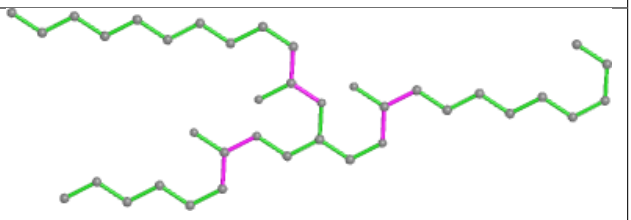


Rings

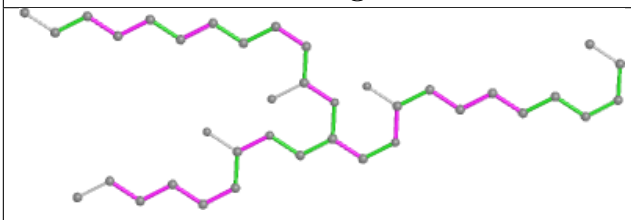
Ligand 4RF 7 807



Bond lengths



Bond angles



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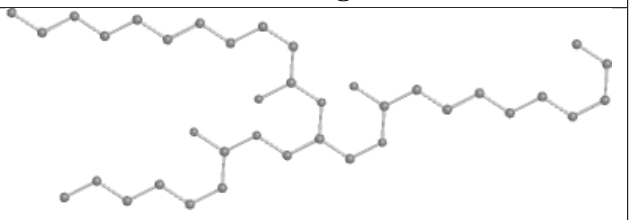
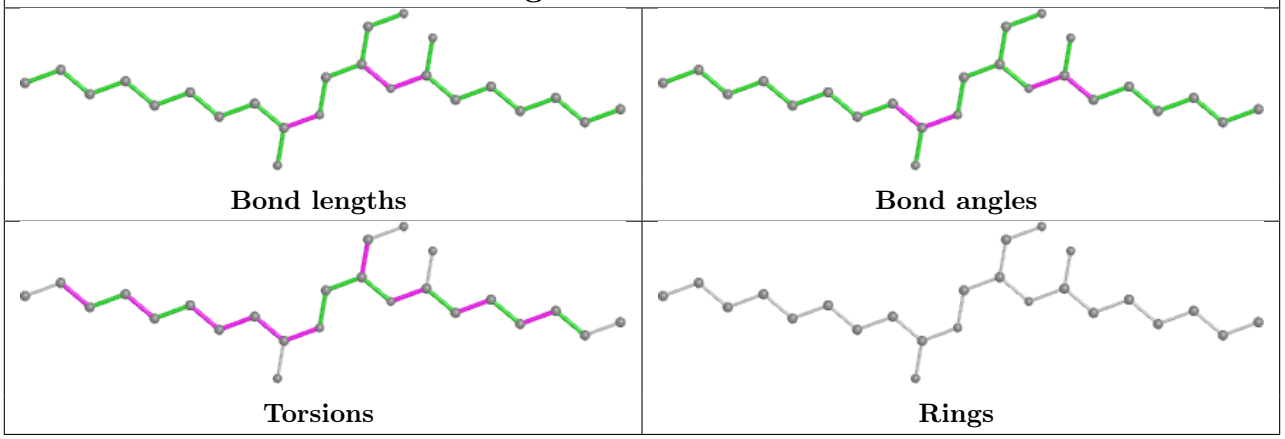
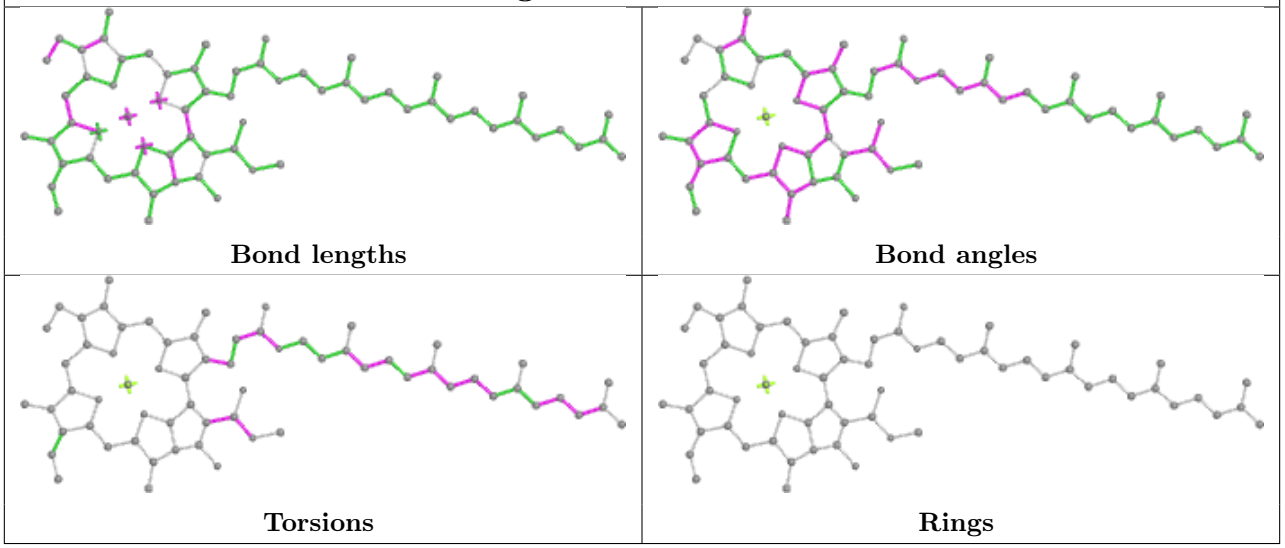


Rings

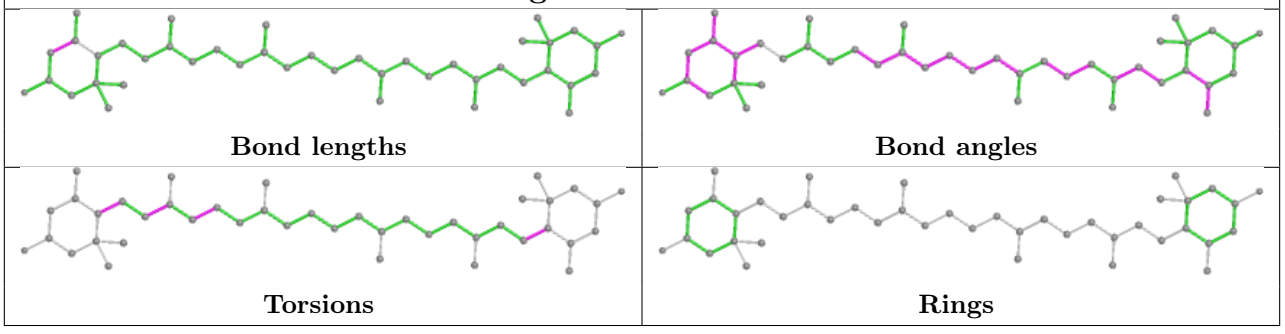
Ligand DGA 3 803



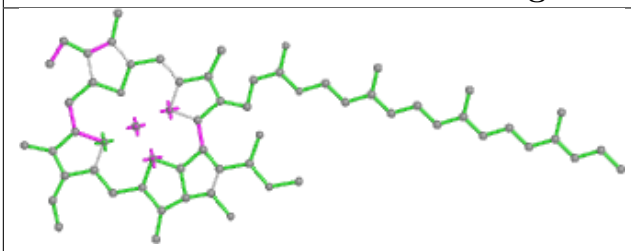
Ligand CLA B 1210



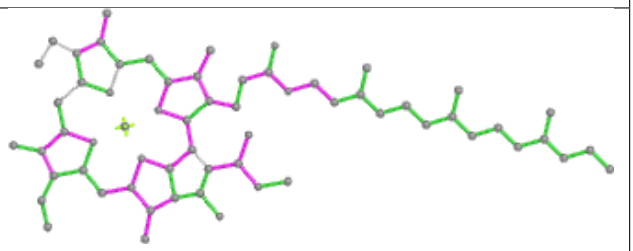
Ligand LUT 7 501



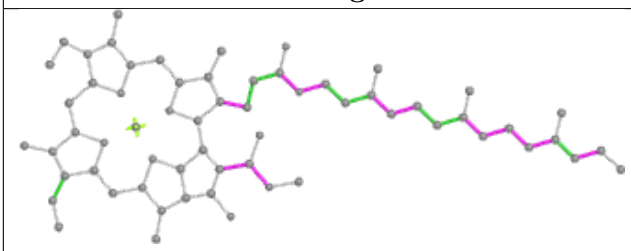
Ligand CLA 4 612



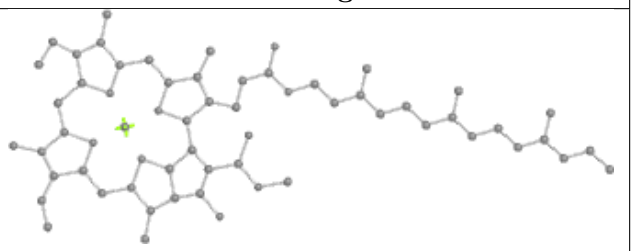
Bond lengths



Bond angles

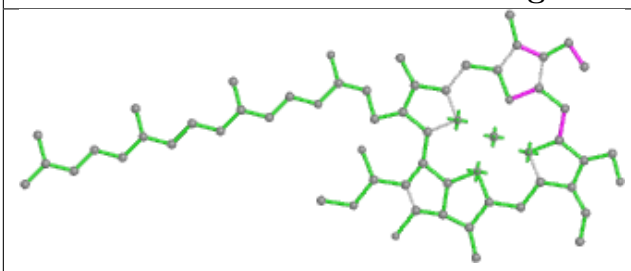


Torsions



Rings

Ligand CHL 7 613



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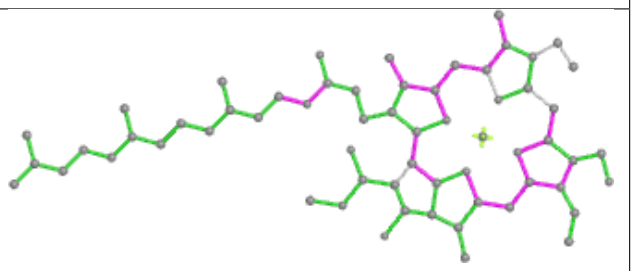
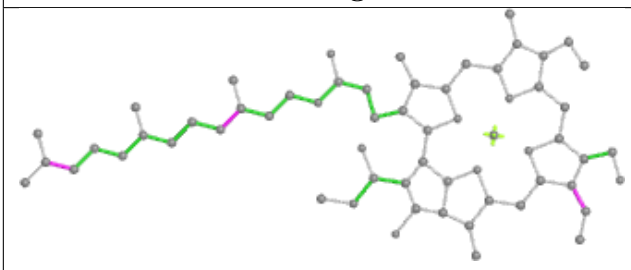


Bond angles



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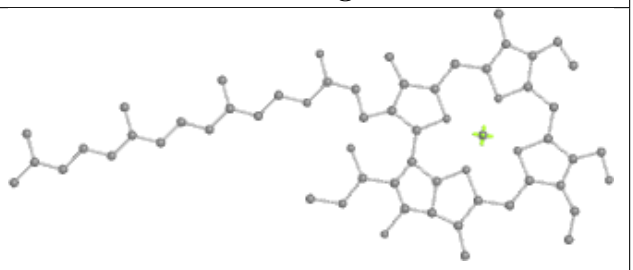
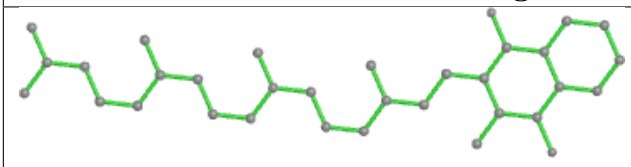


Rings

Ligand PQN A 2001



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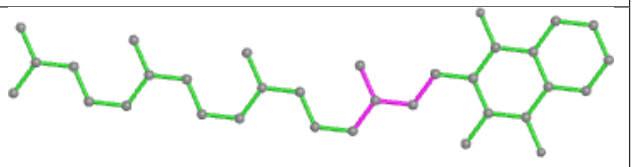

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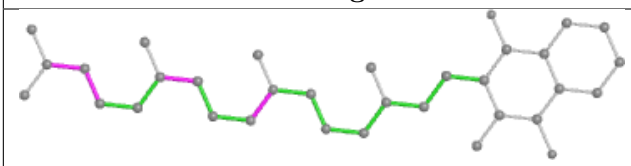

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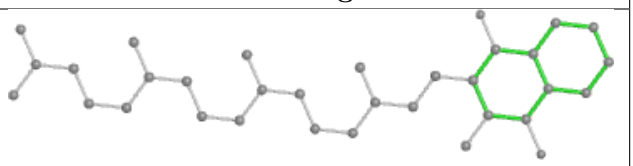
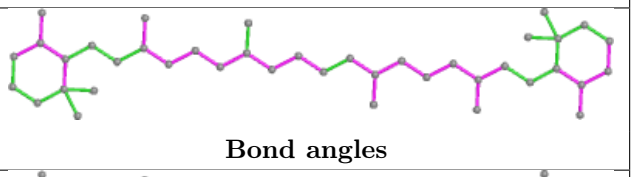


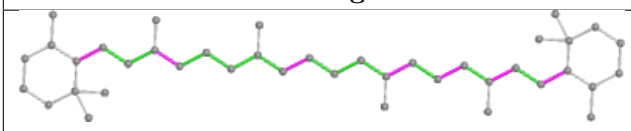
Rings

Ligand BCR 5 504

Bond lengths



Bond angles



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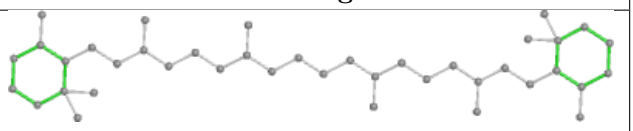
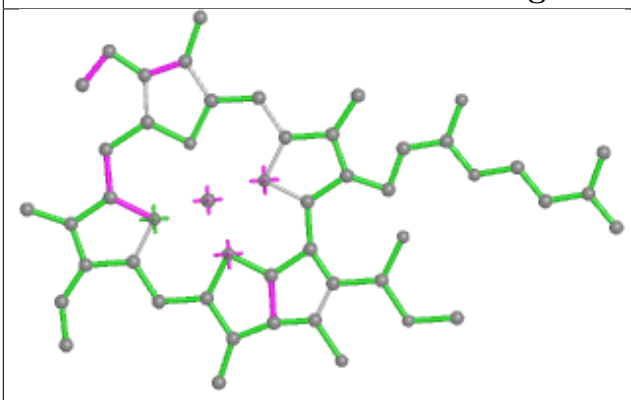


Rings

Ligand CLA 8 612



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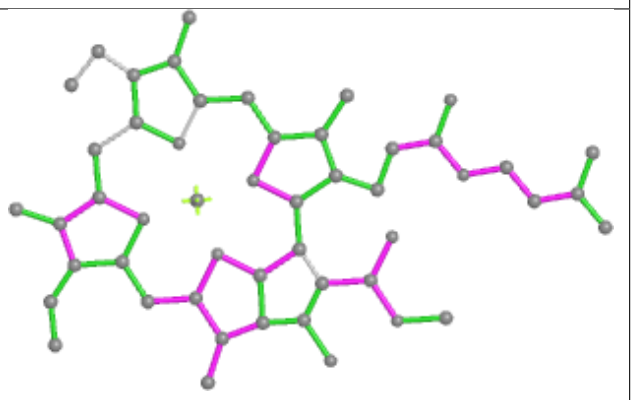
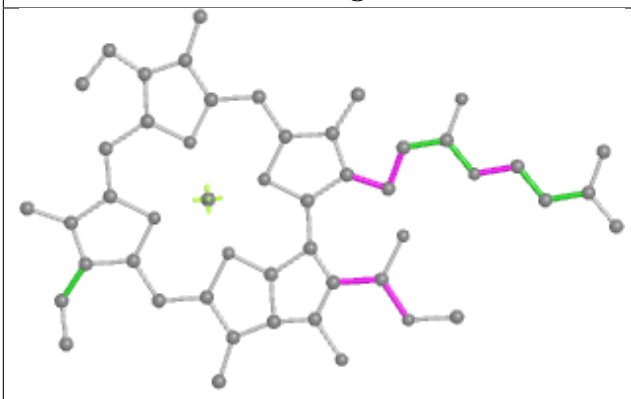


Bond angles



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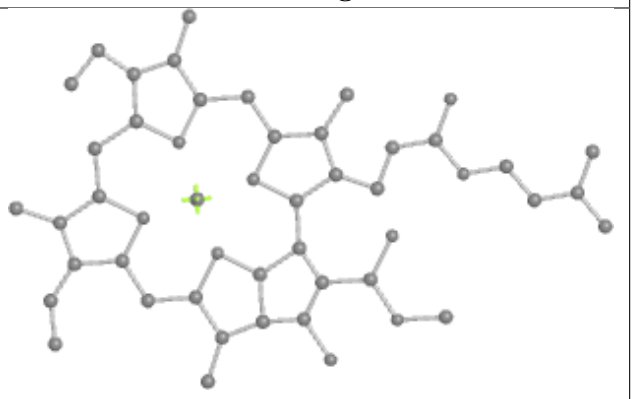
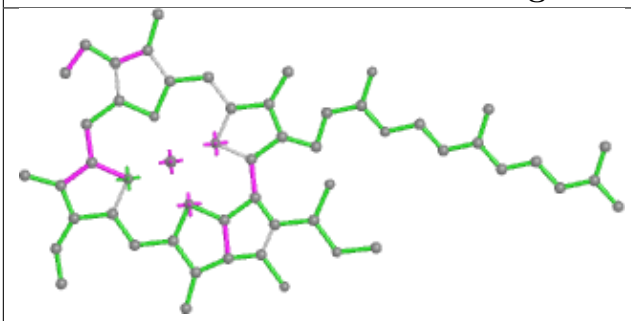


Rings

Ligand CLA 8 605



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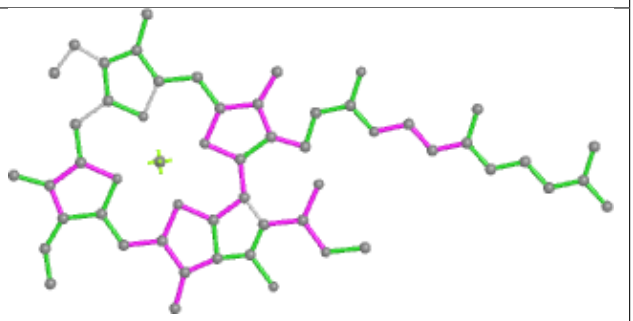
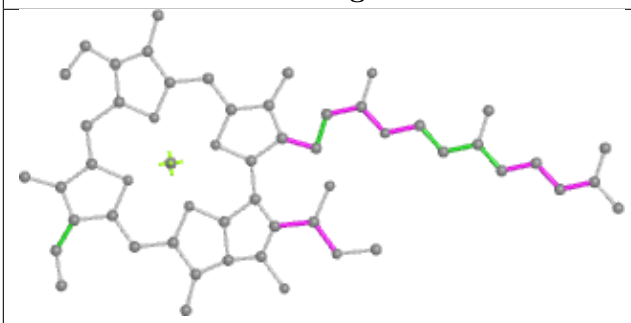
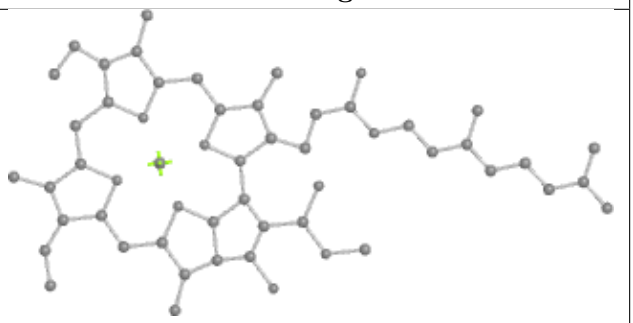


Bond angles

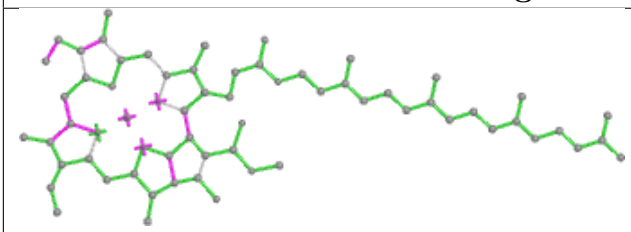


Torsions



Rings

Ligand CLA A 1126



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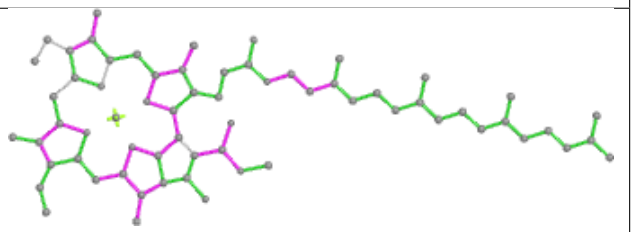

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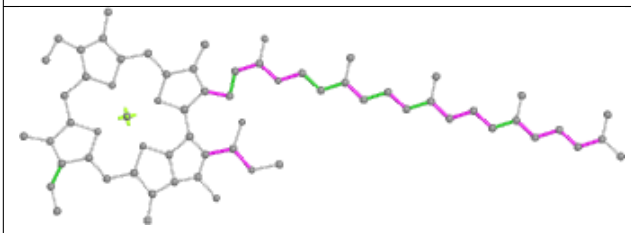

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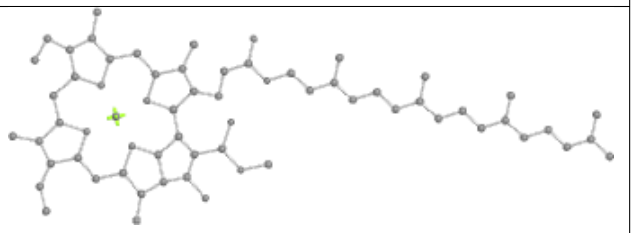
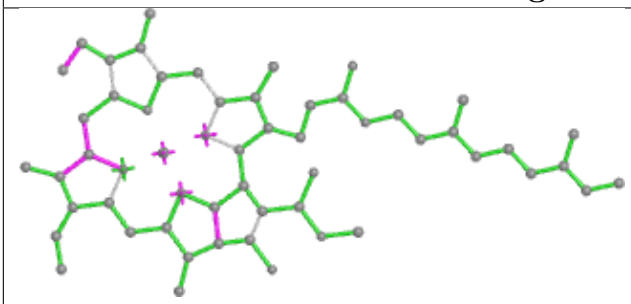


Rings

Ligand CLA 2 604



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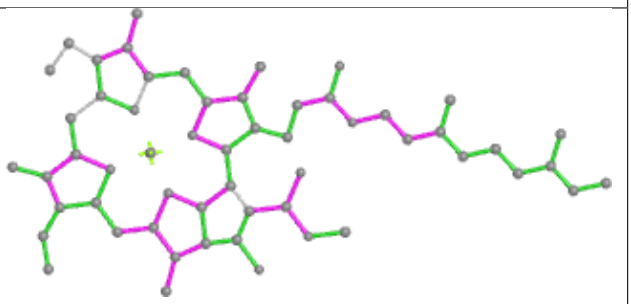

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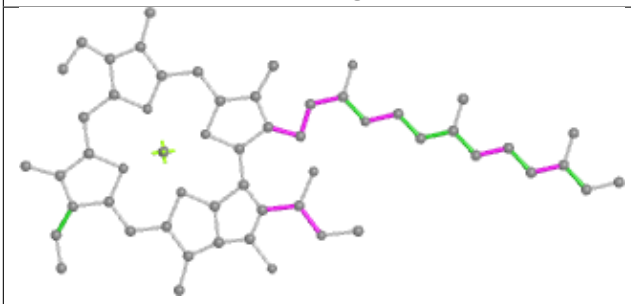

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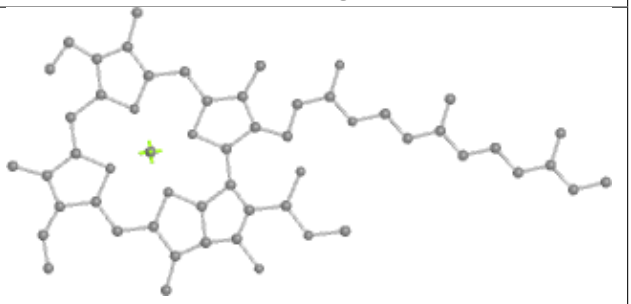
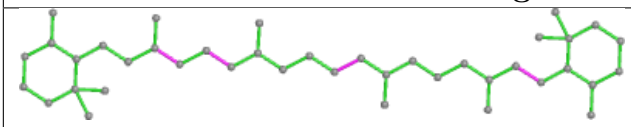


Rings

Ligand BCR O 4001



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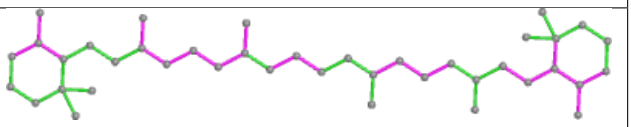
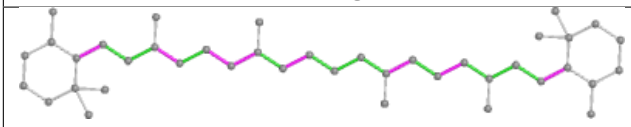


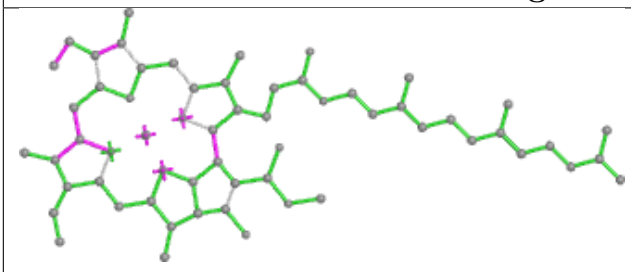
Bond angles



Torsions

Rings

Ligand CLA 2 603



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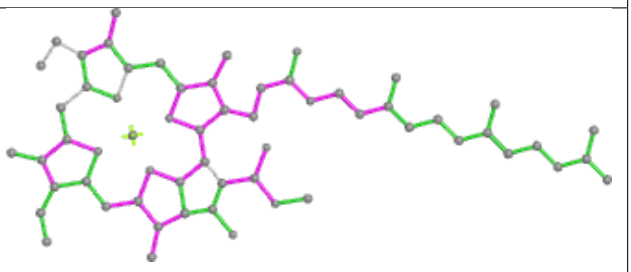
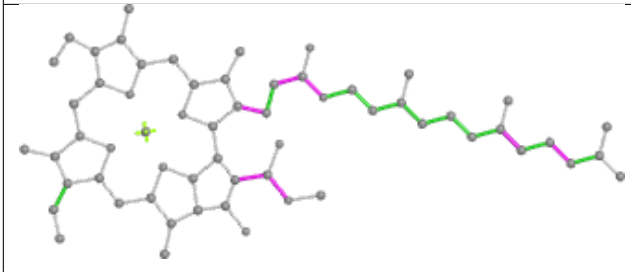
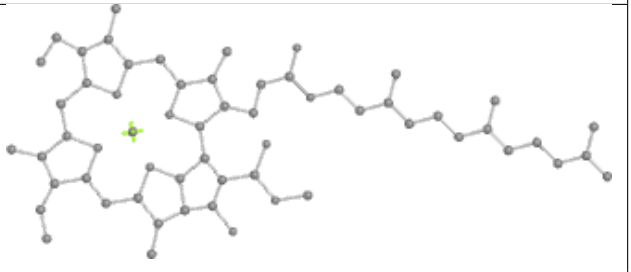


Bond angles

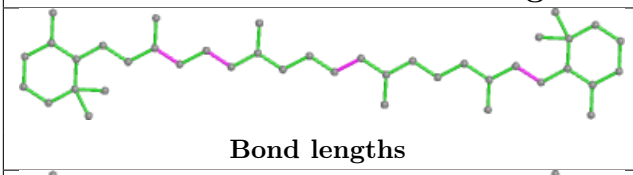


Torsions



Rings

Ligand BCR 5 503



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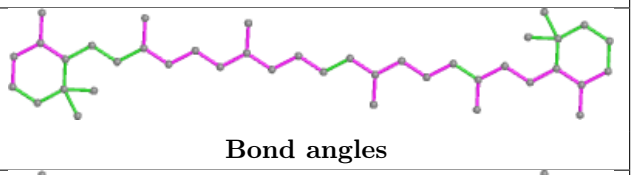
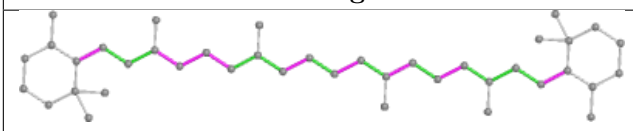


Bond angles



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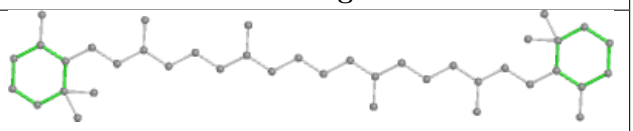
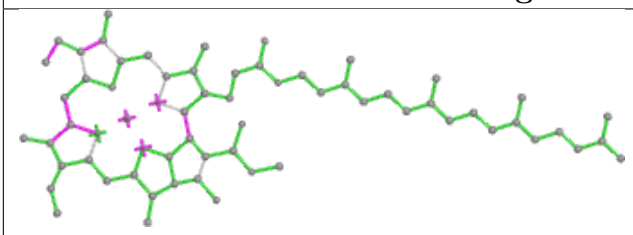
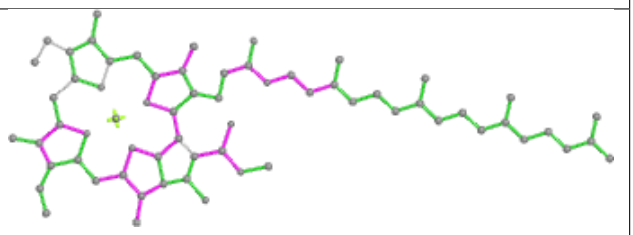


Rings

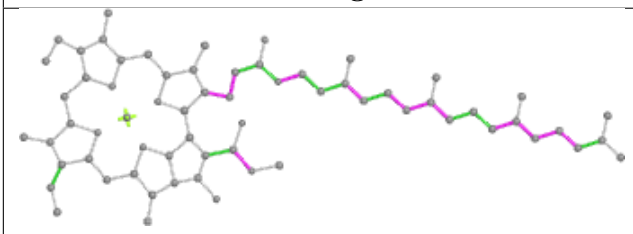
Ligand CLA B 1239



Bond lengths



Bond angles



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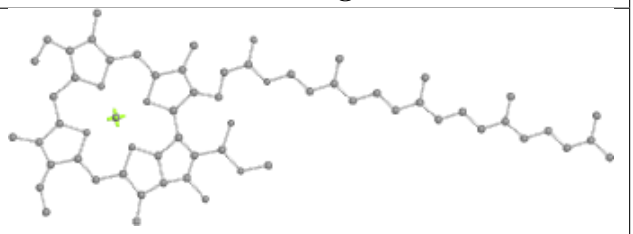
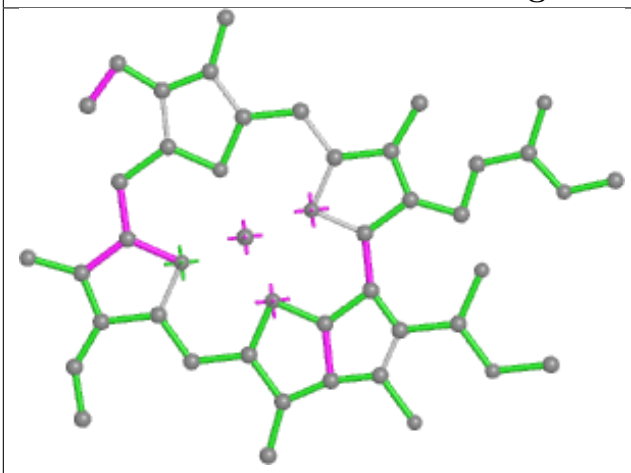
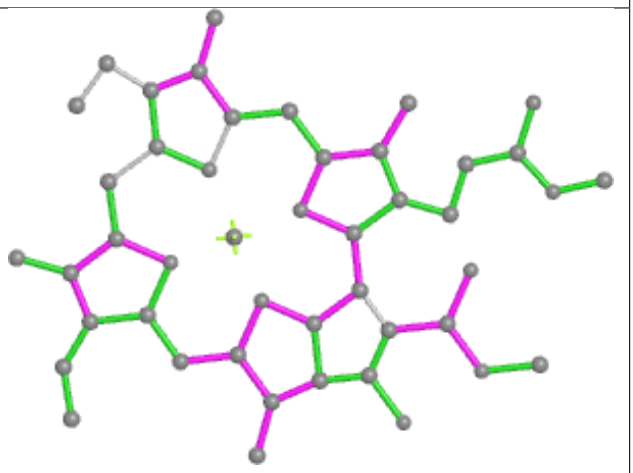


Rings

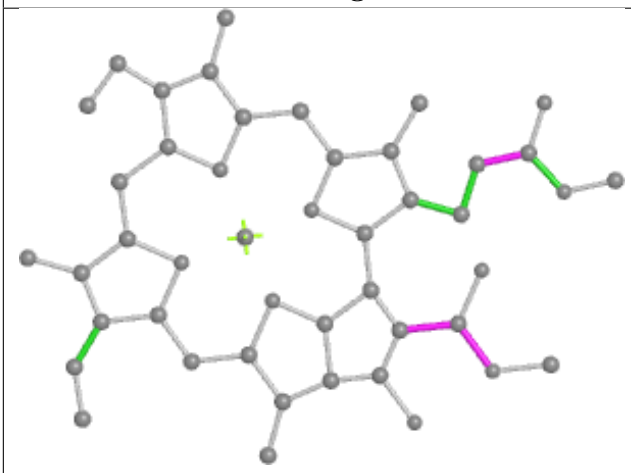
Ligand CLA 3 602



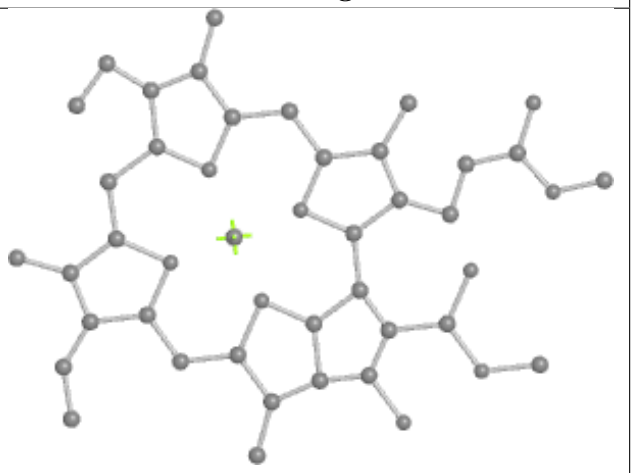
Bond lengths



Bond angles

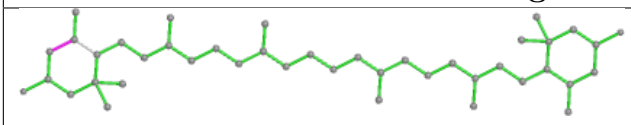


Torsions



Rings

Ligand LUT a 503



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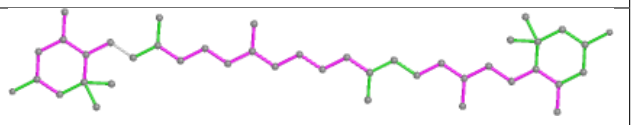

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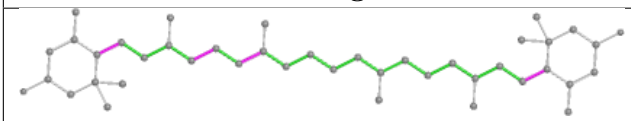

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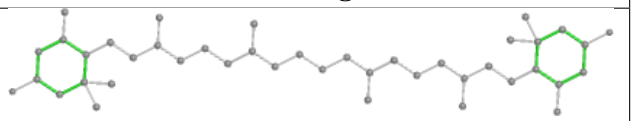
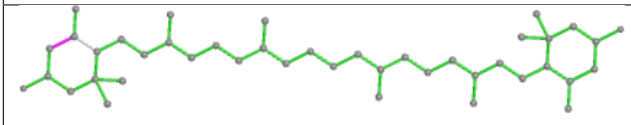


Rings

Ligand LUT 5 501



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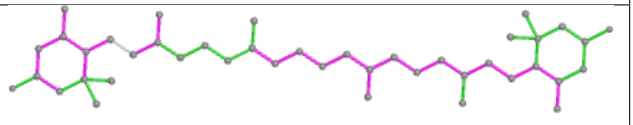

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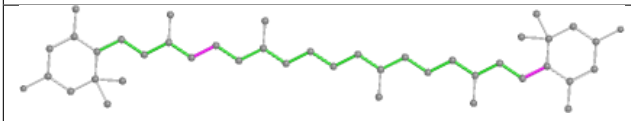

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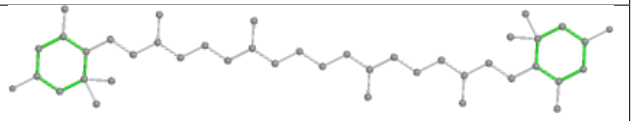
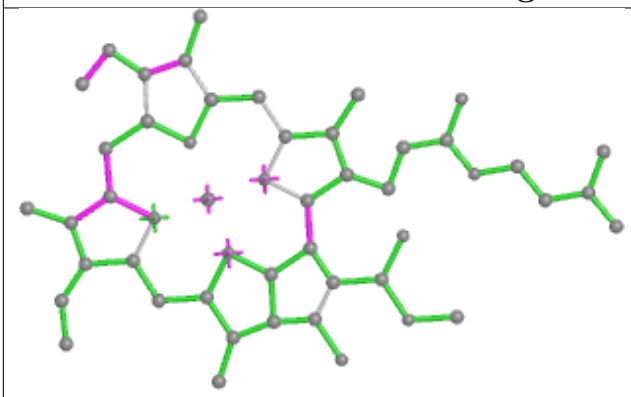


Rings

Ligand CLA L 1504



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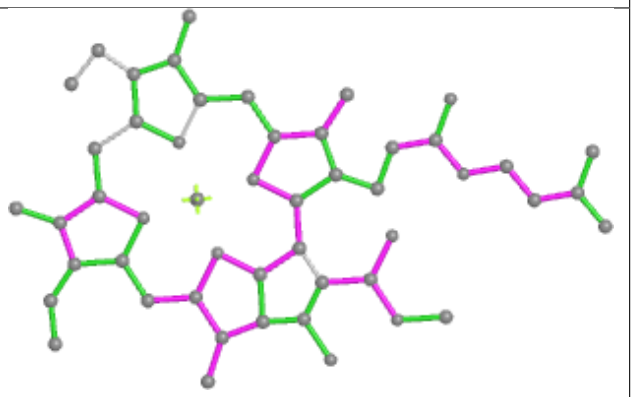
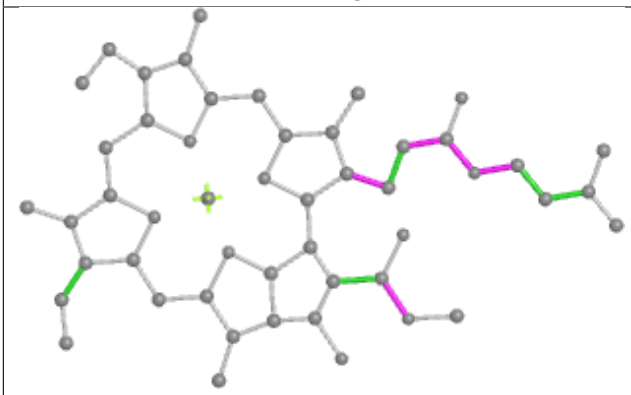


Bond angles



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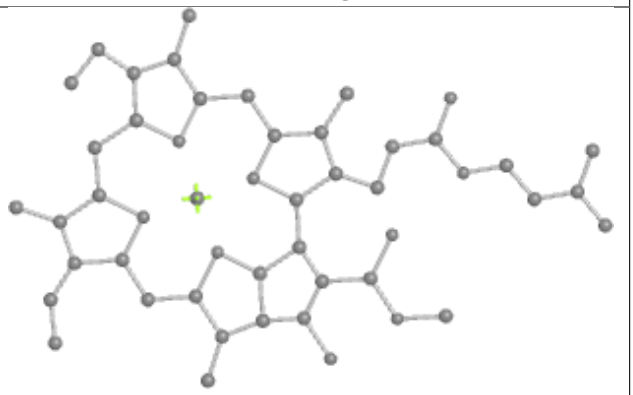
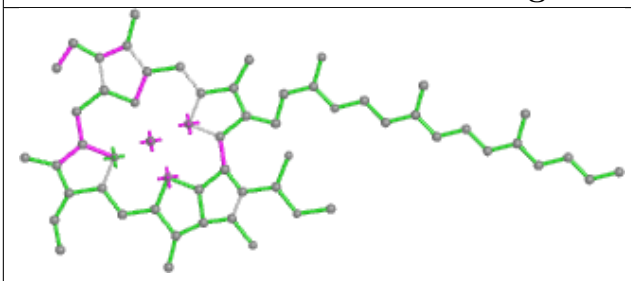


Rings

Ligand CLA a 607



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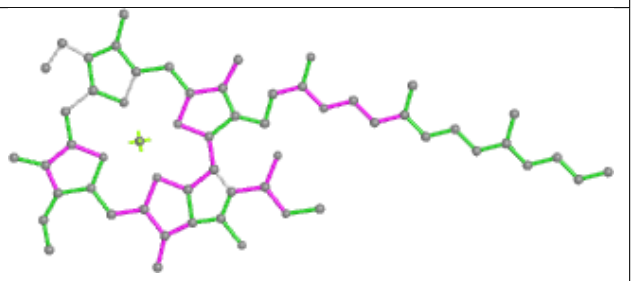
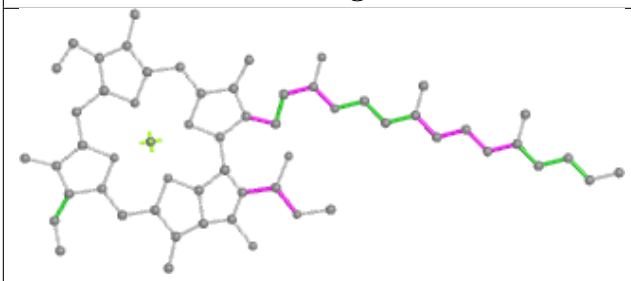


Bond angles



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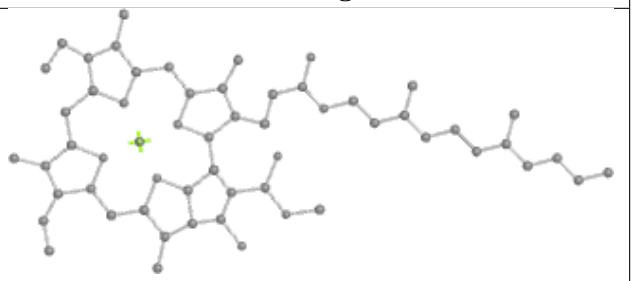
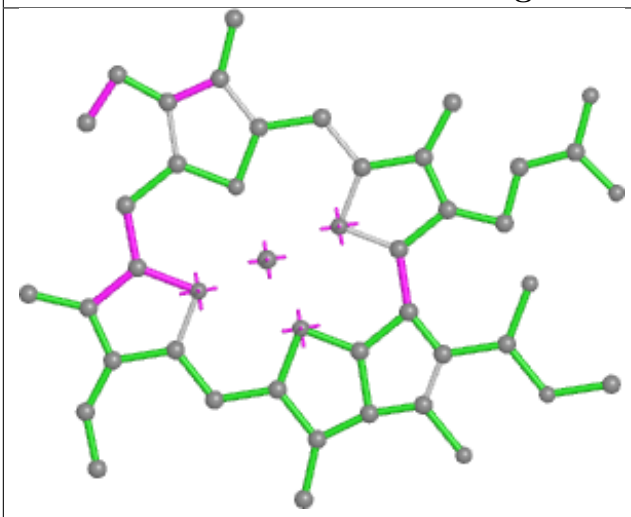


Rings

Ligand CLA A 1141



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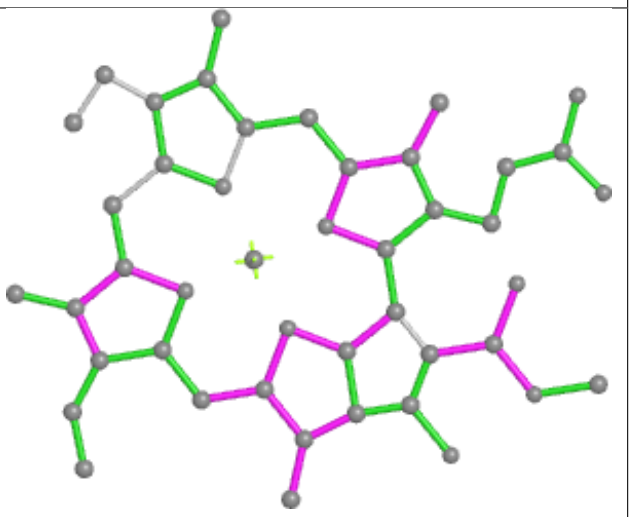

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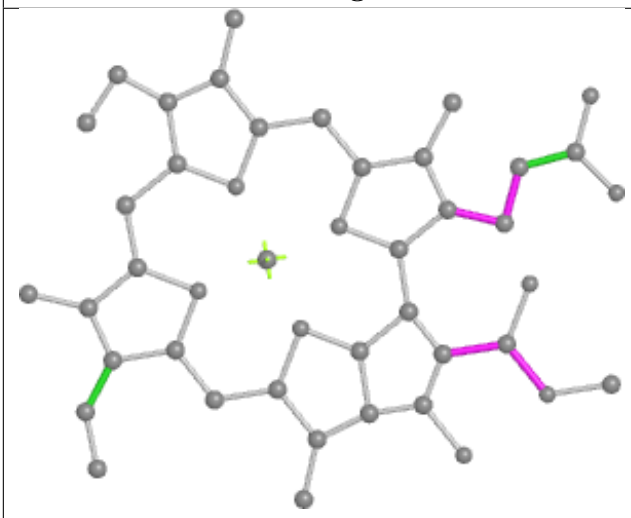

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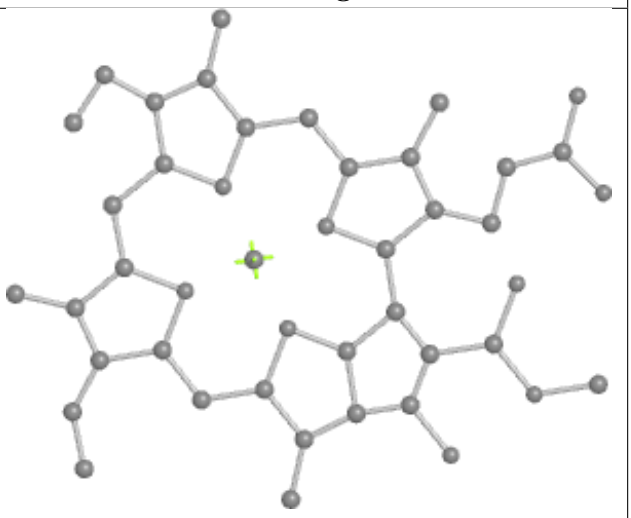
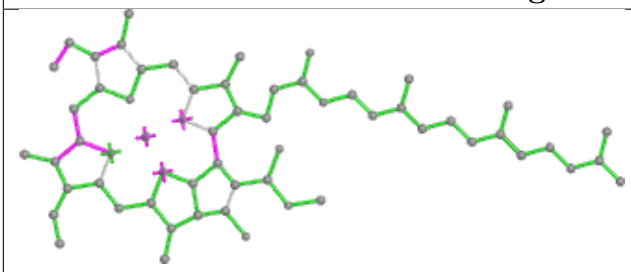


Rings

Ligand CLA 5 601



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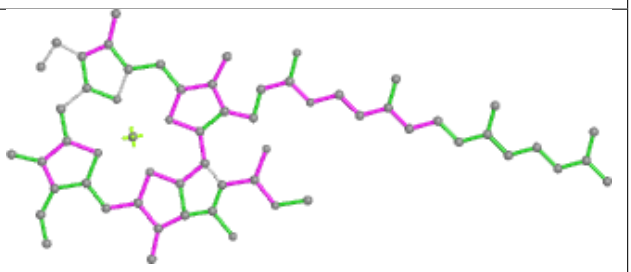
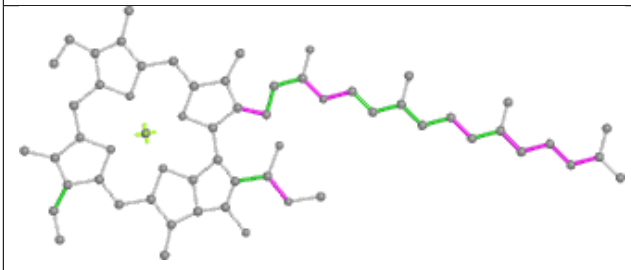


Bond angles



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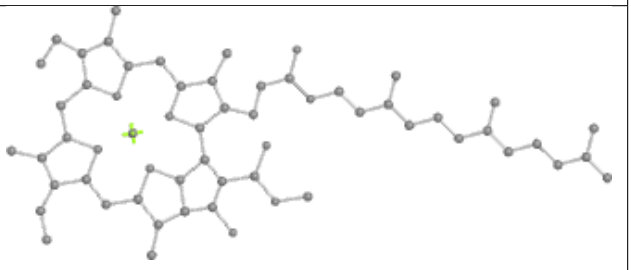
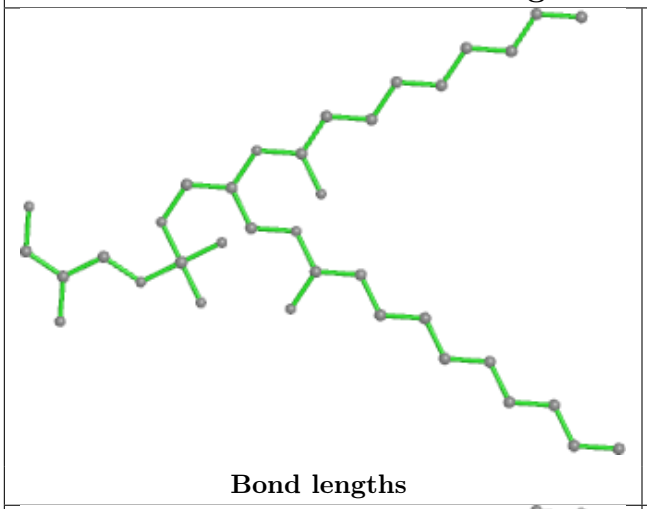


Rings

Ligand LHG 7 802



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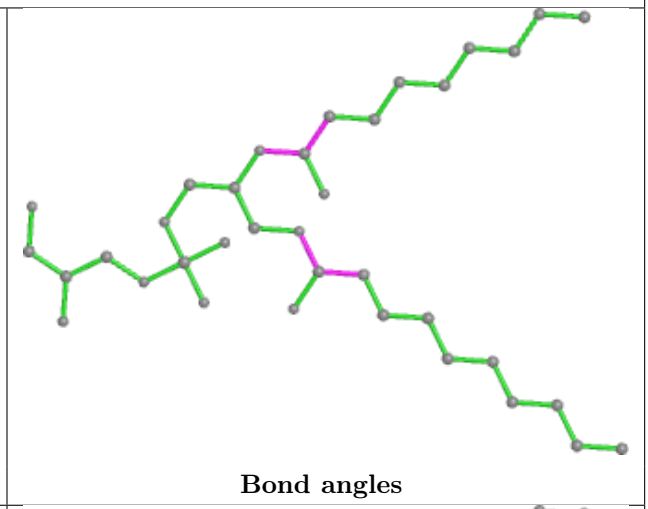

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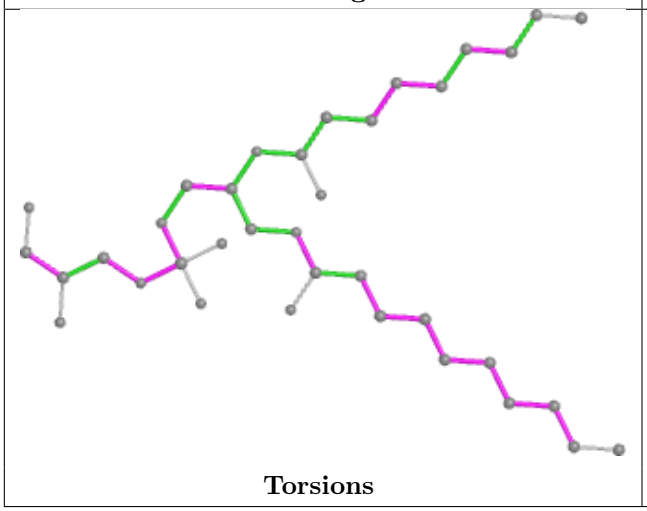

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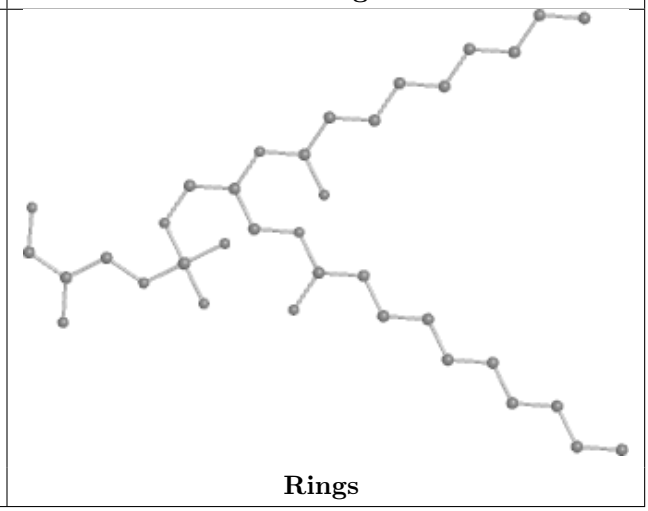
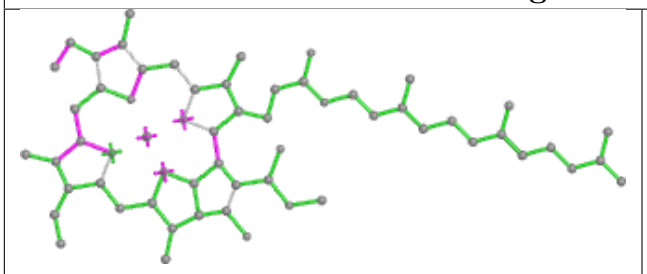


Rings

Ligand CLA 7 610



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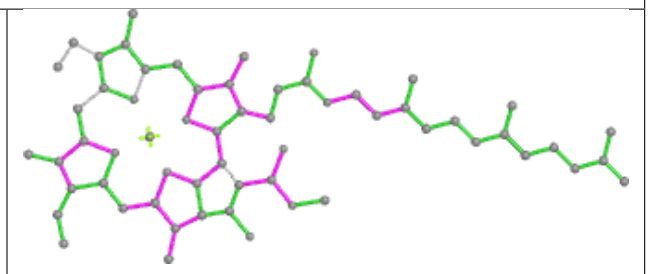
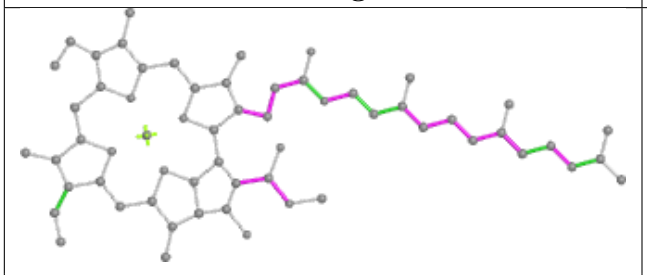


Bond angles



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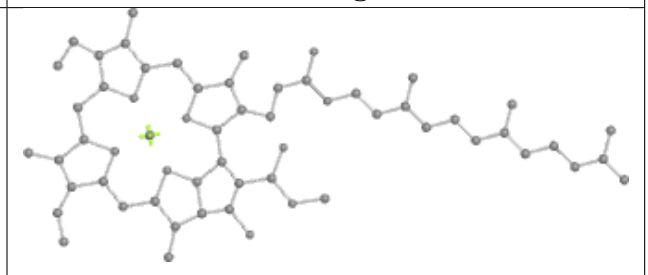
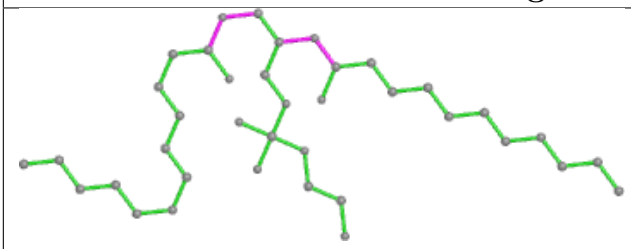


Rings

Ligand PTY a 802



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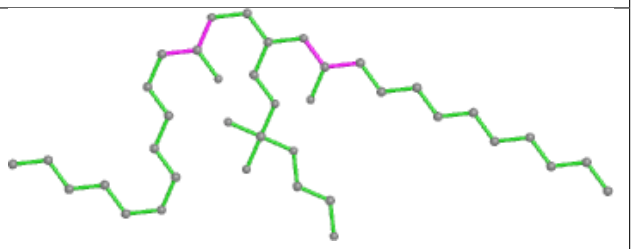

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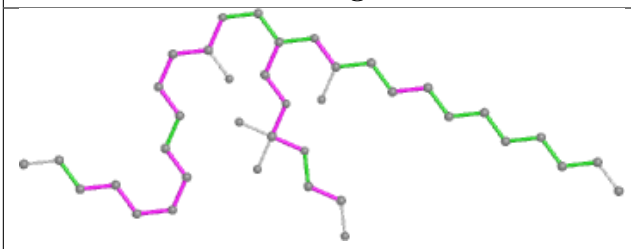

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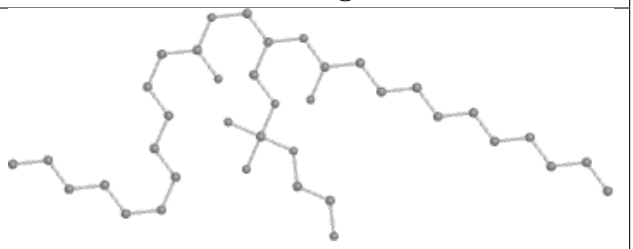
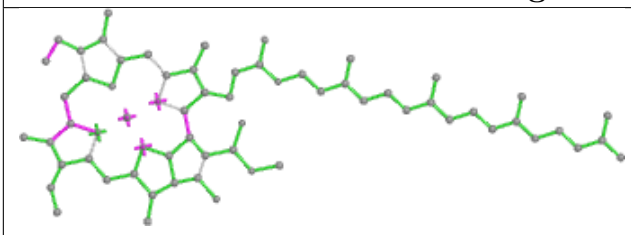


Rings

Ligand CLA 1 603



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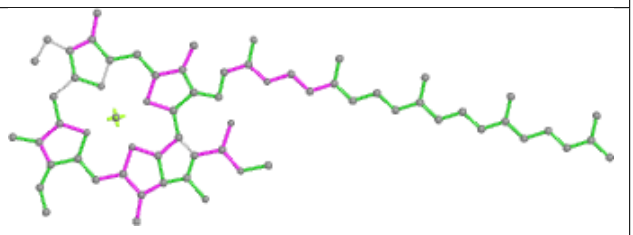
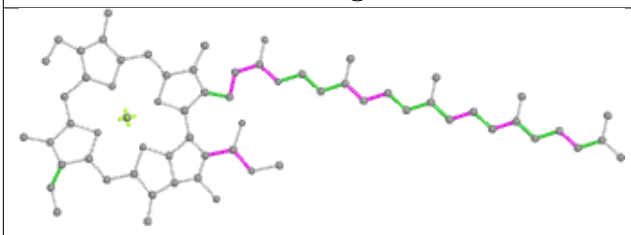


Bond angles



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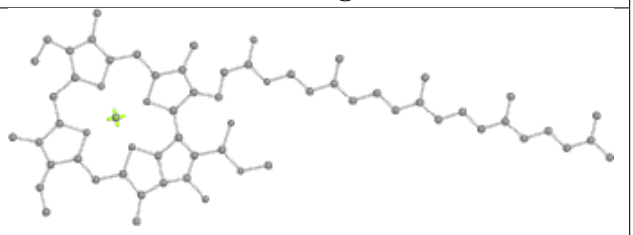
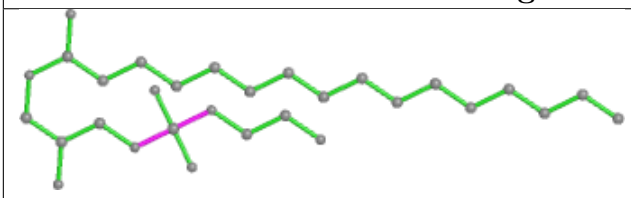


Rings

Ligand LPX F 5003



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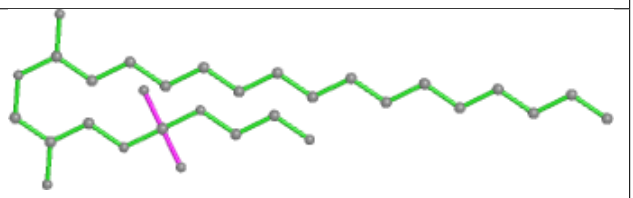
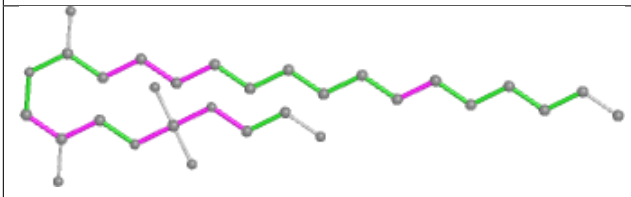


Bond angles



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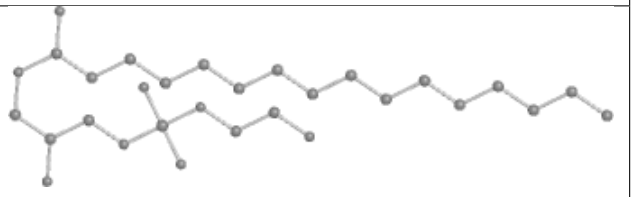
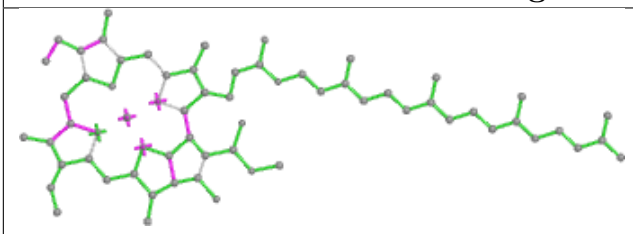


Rings

Ligand CLA 1 607



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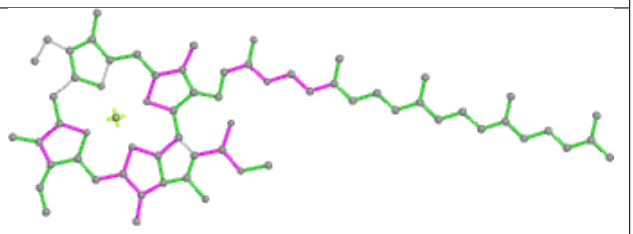
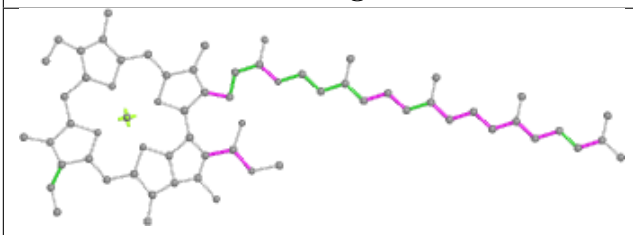


Bond angles



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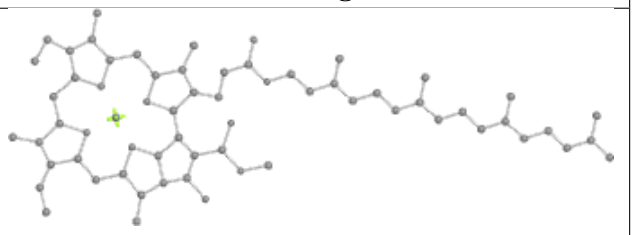
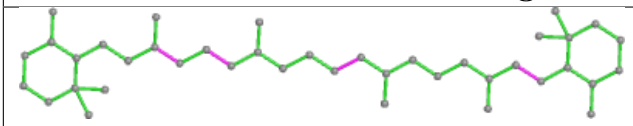


Rings

Ligand BCR J 4001



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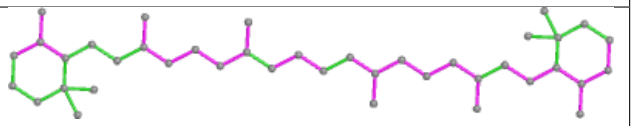
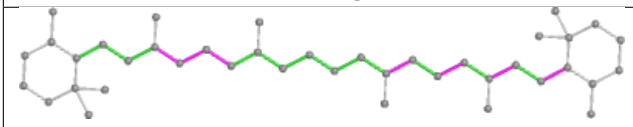


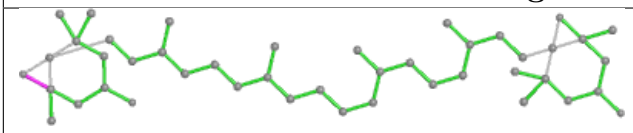
Bond angles



Torsions

Rings

Ligand XAT 9 507



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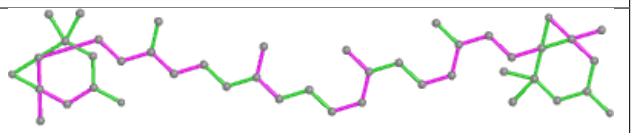
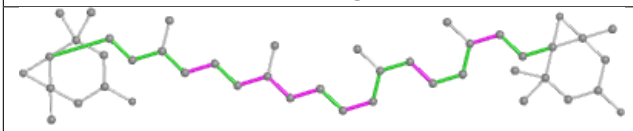
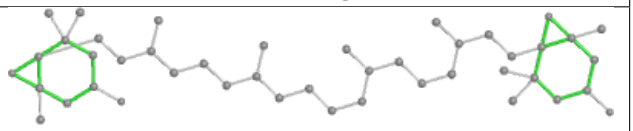


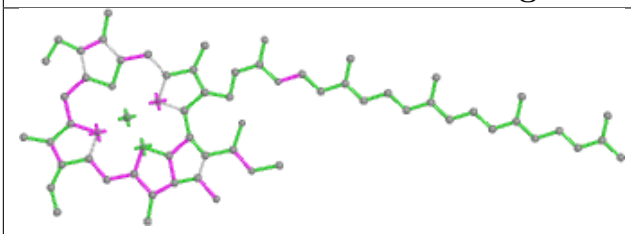
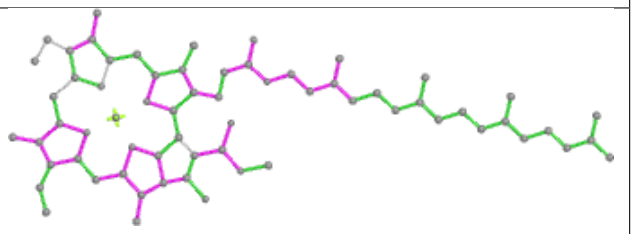
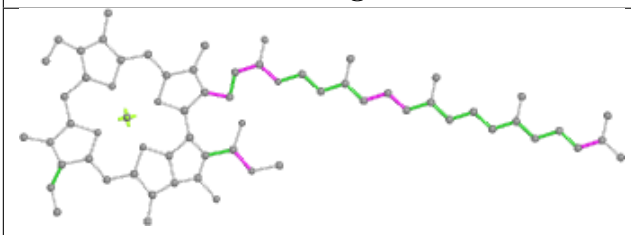
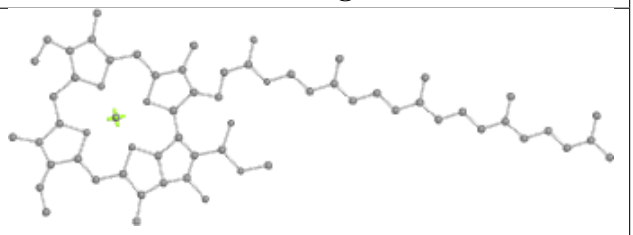
Bond angles

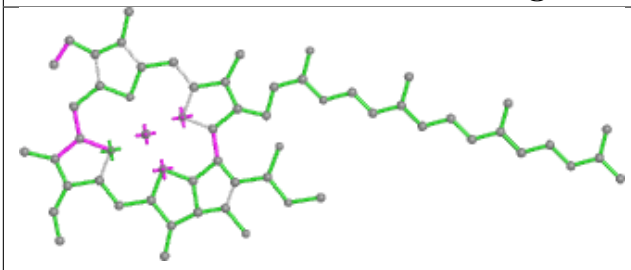
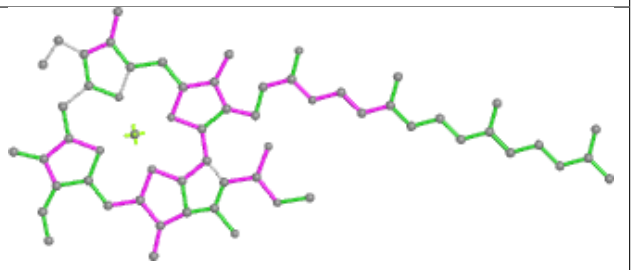
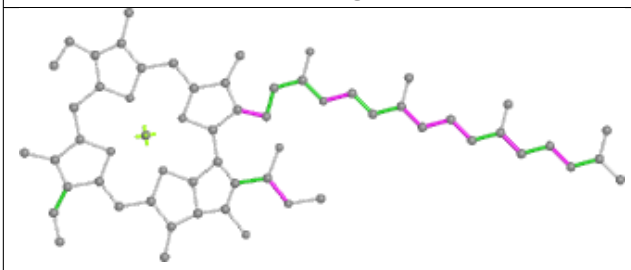
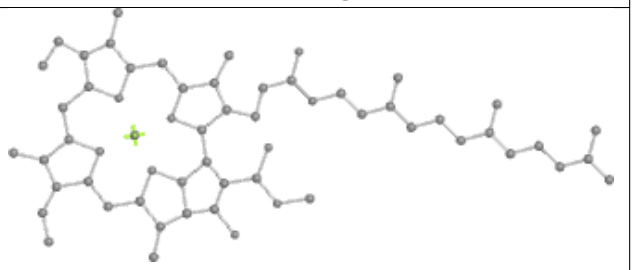


Torsions

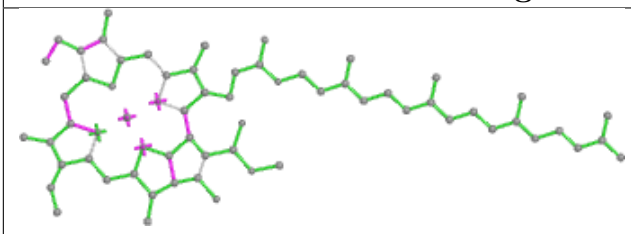


Rings

Ligand CL0 A 1011	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA 4 601	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA A 1109



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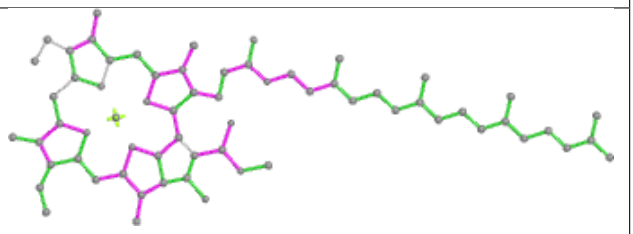
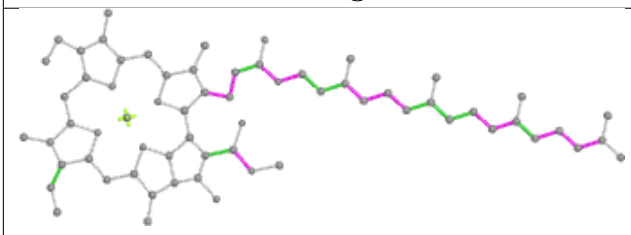


Bond angles



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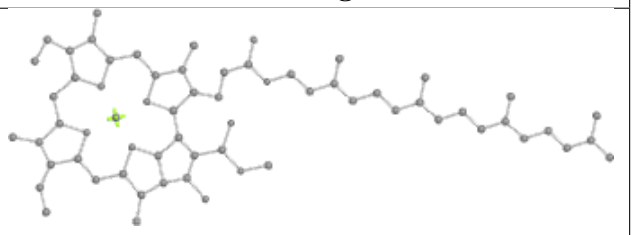
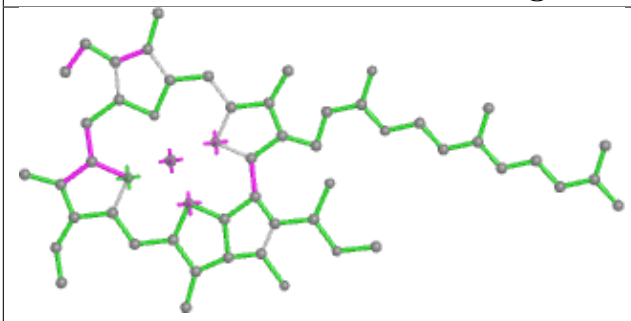


Rings

Ligand CLA 6 607



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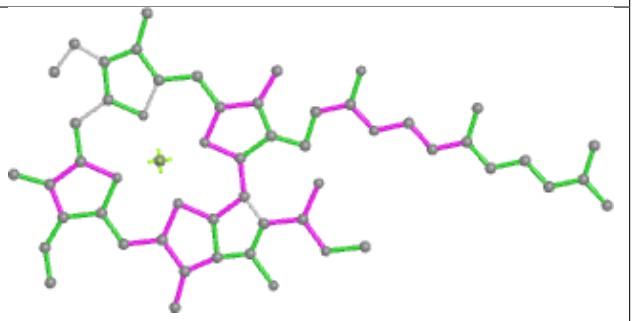

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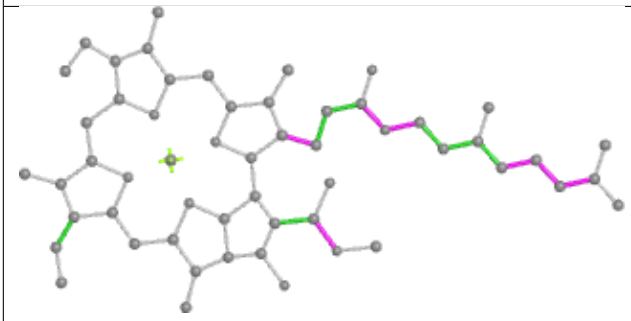

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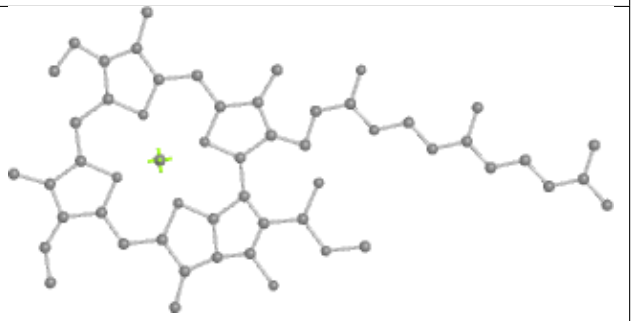
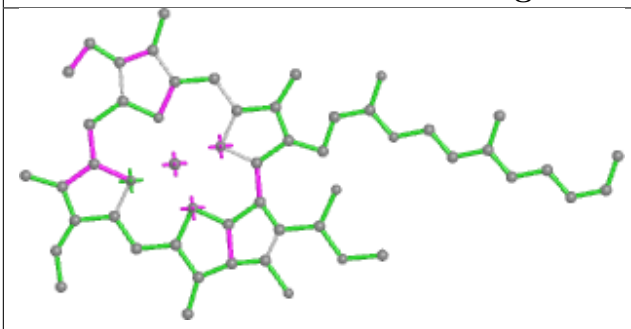


Rings

Ligand CLA A 1110



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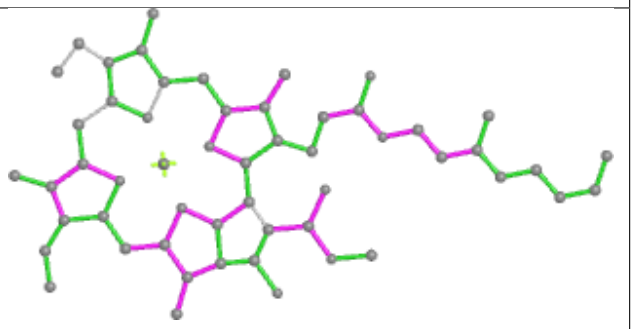

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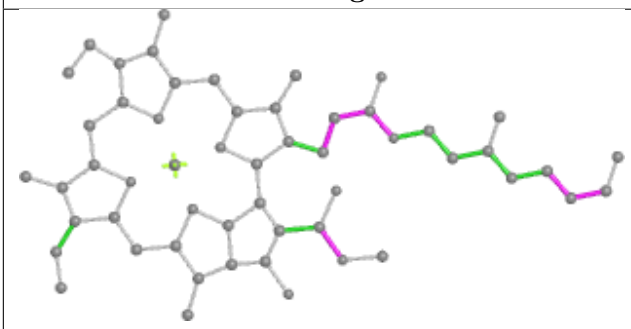

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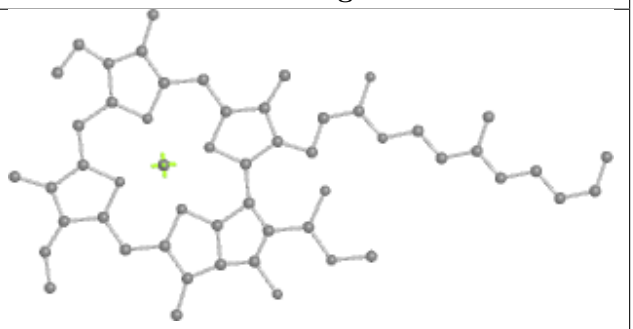
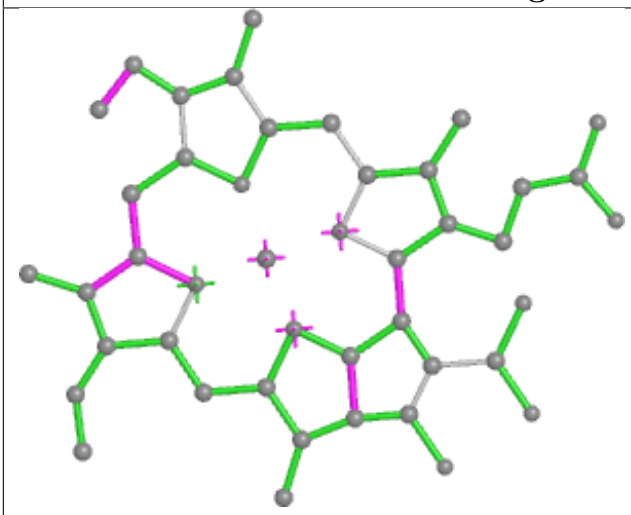


Rings

Ligand CLA 7 605



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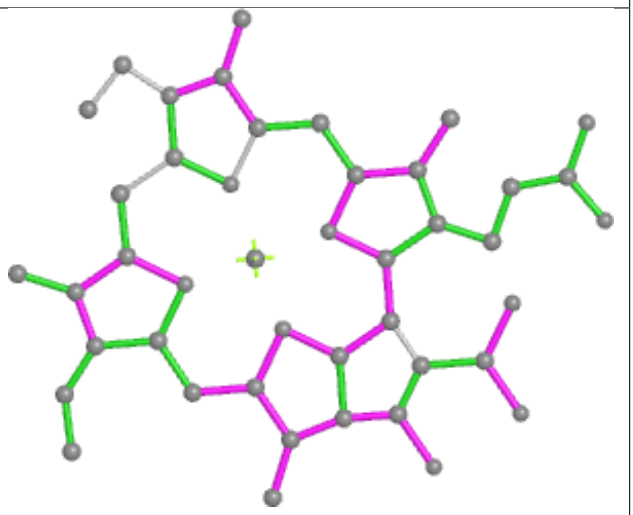
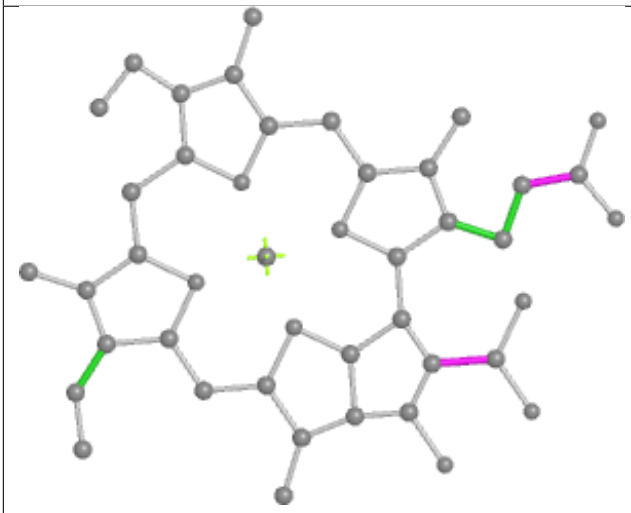


Bond angles



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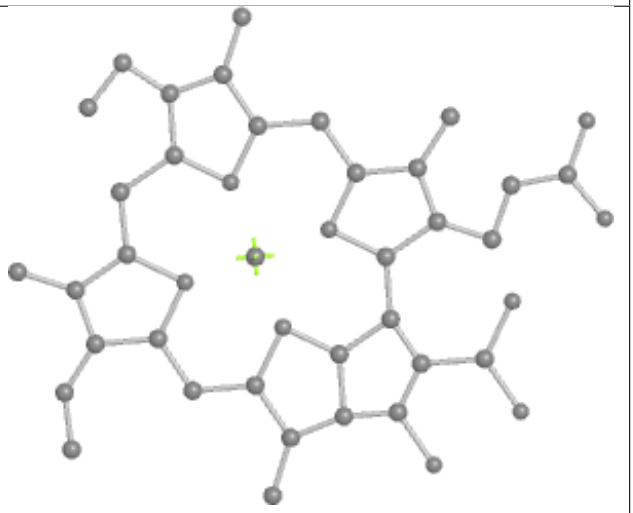
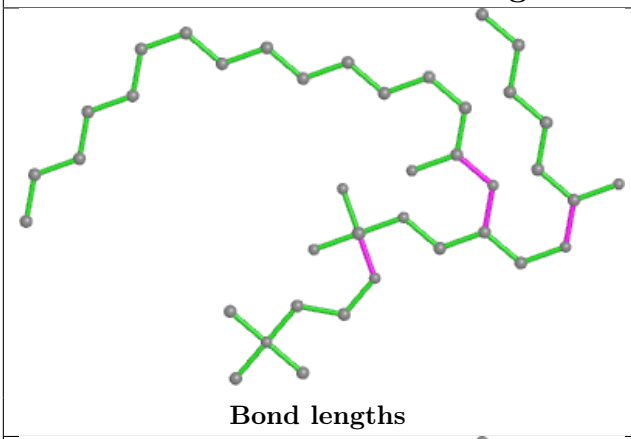


Rings

Ligand PCW B 5004



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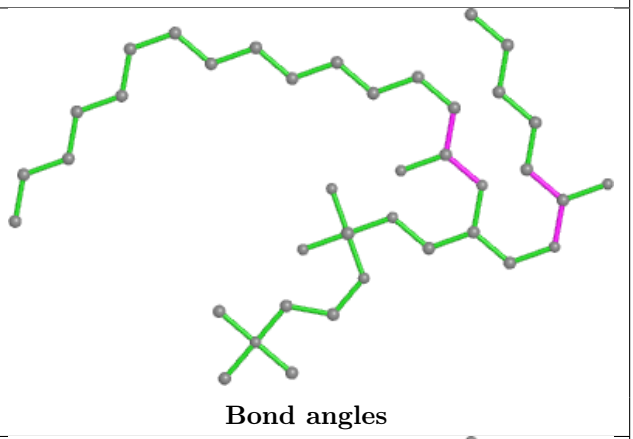

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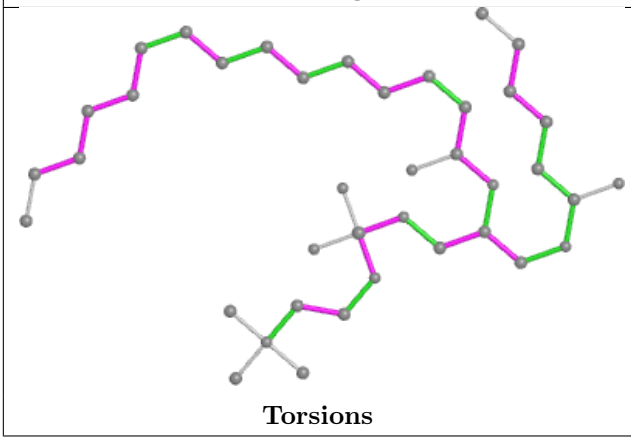

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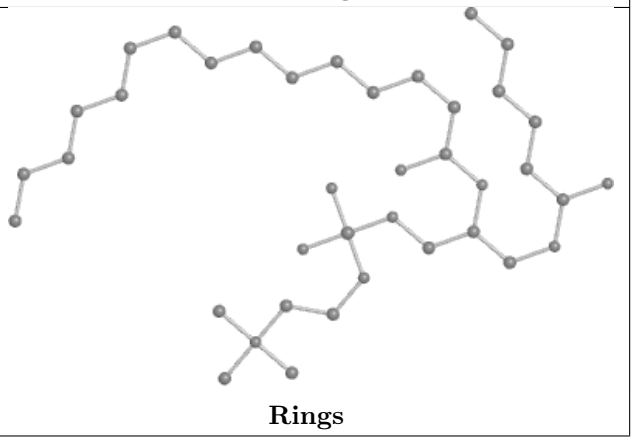
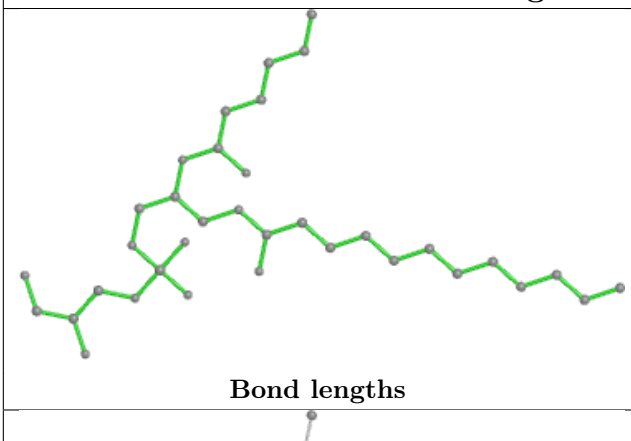
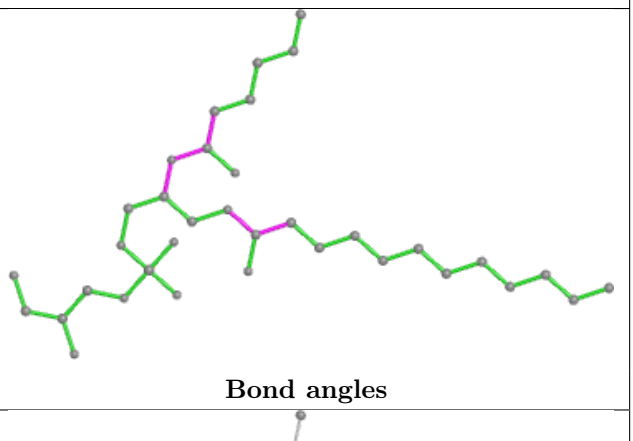


Rings

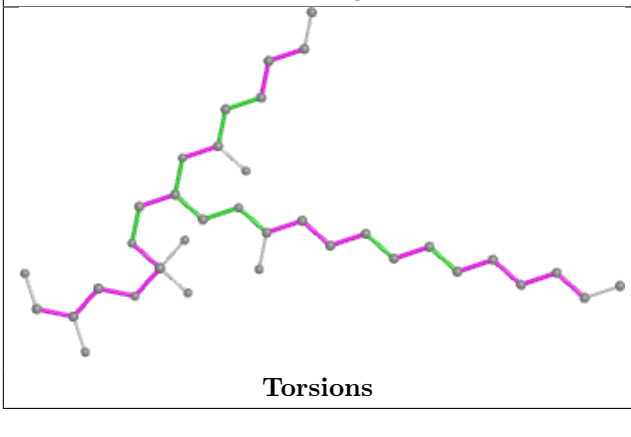
Ligand LHG a 801



Bond lengths



Bond angles



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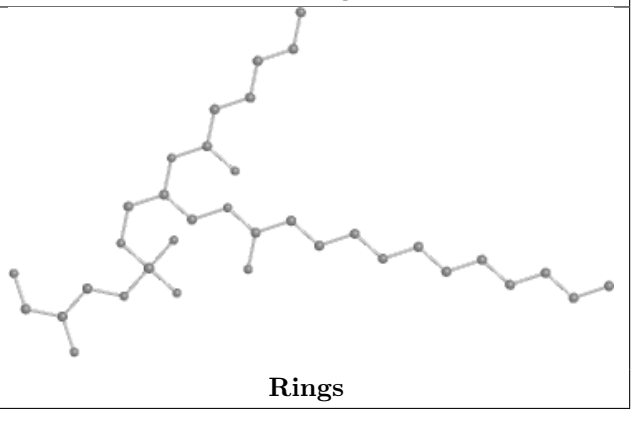
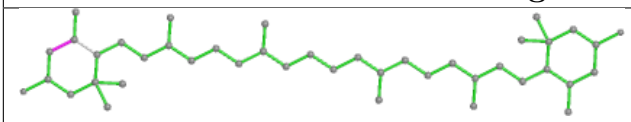


Rings

Ligand LUT 5 502



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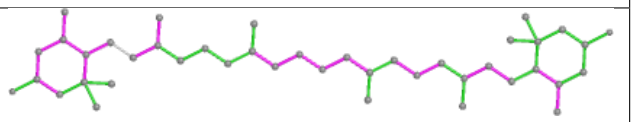

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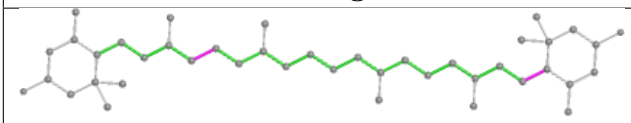

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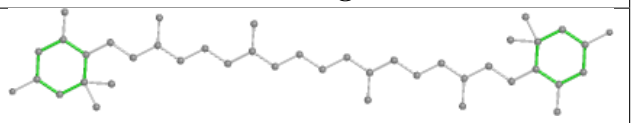
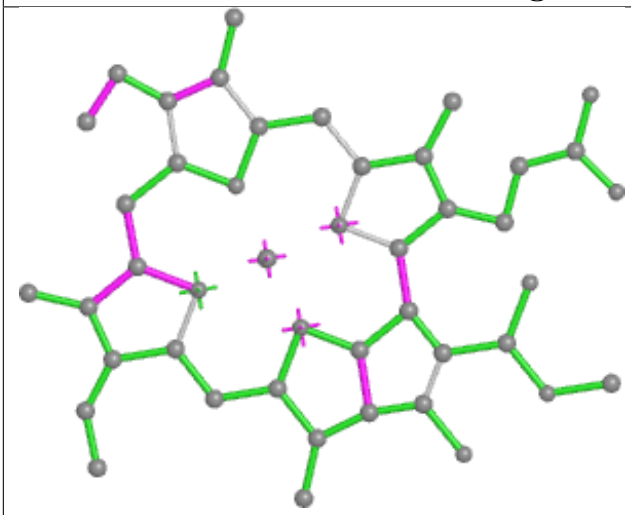


Rings

Ligand CLA 1 602



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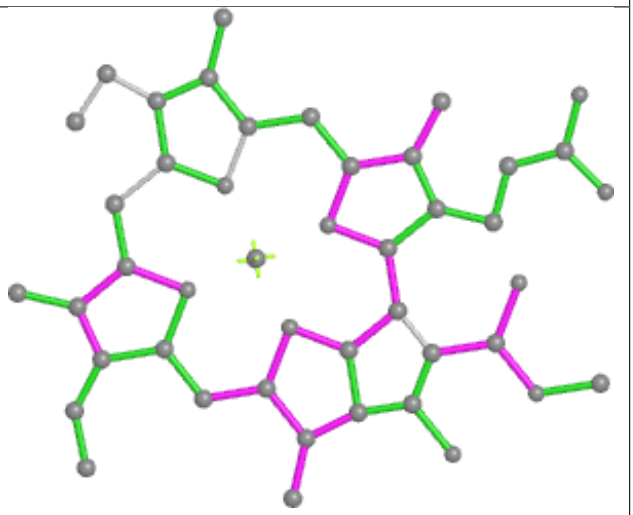

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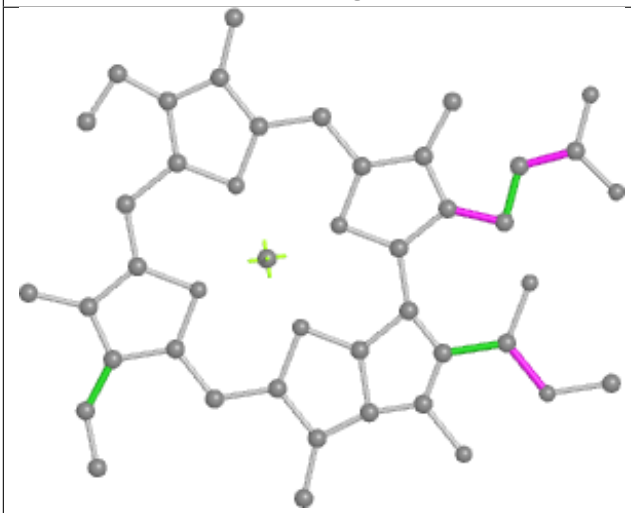

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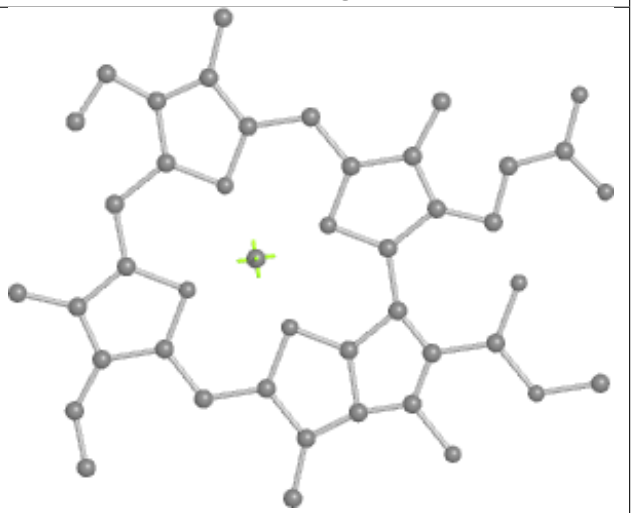
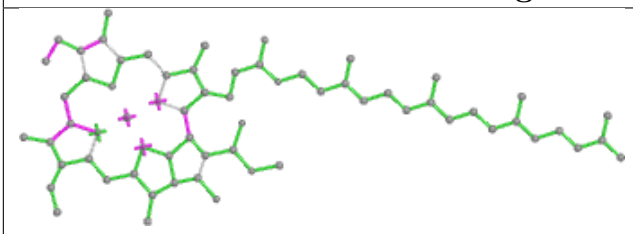


Rings

Ligand CLA B 1229



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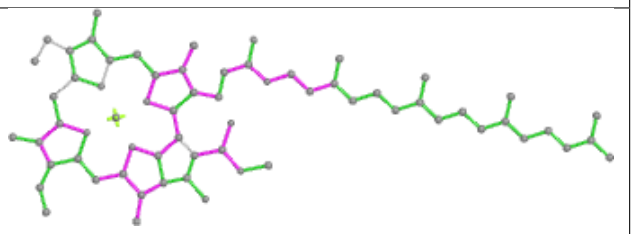
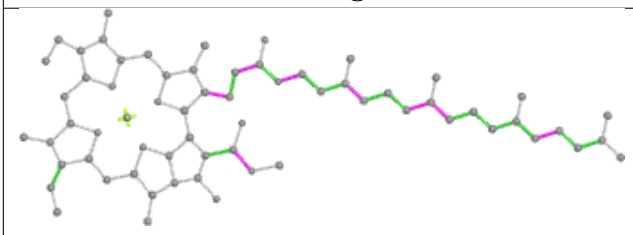


Bond angles



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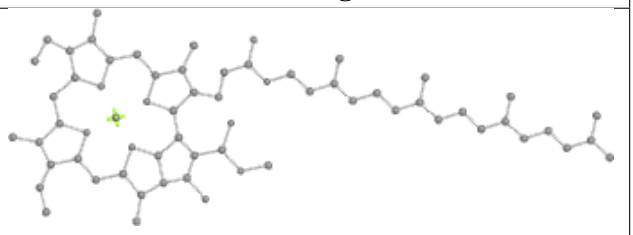
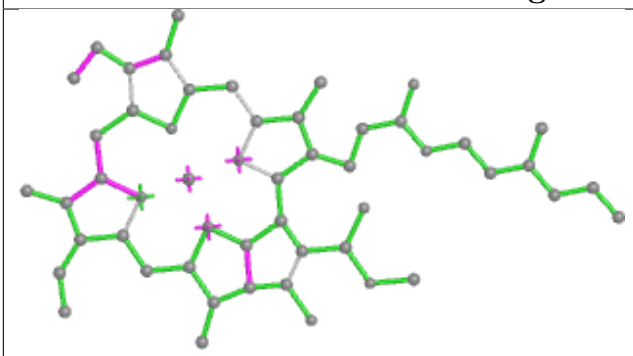


Rings

Ligand CLA 8 602



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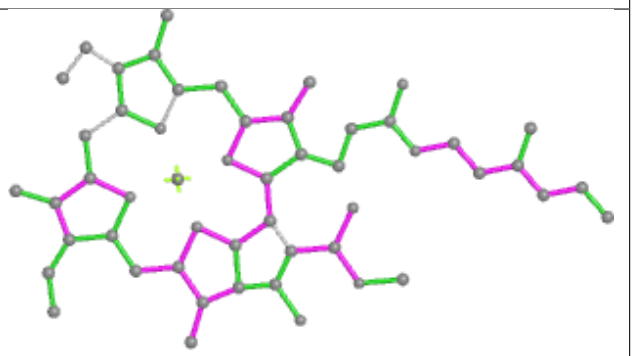
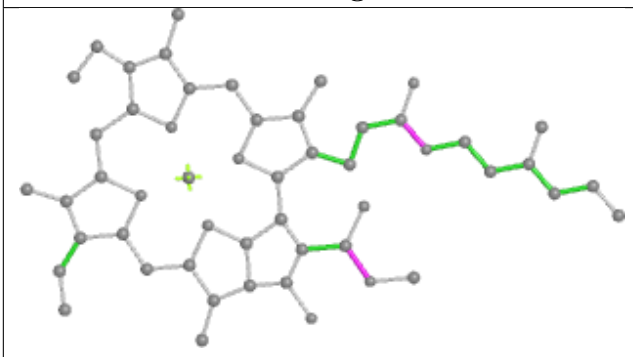


Bond angles



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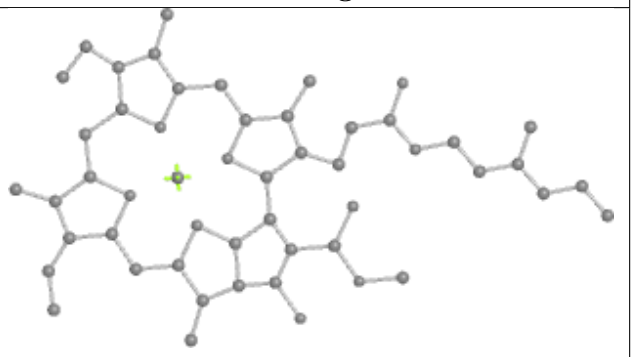
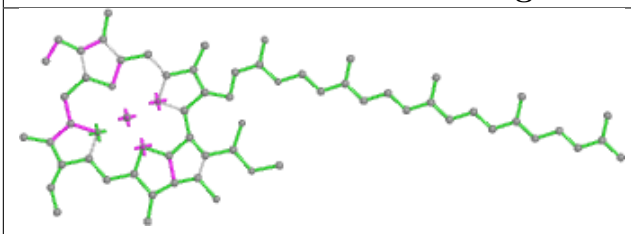
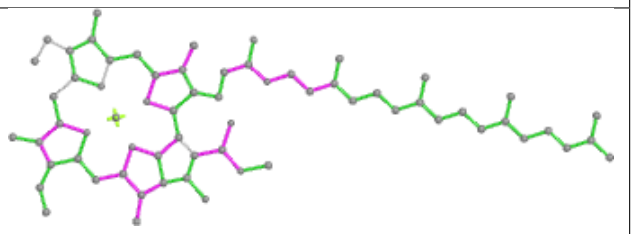
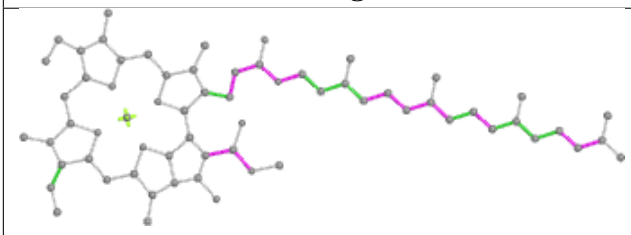
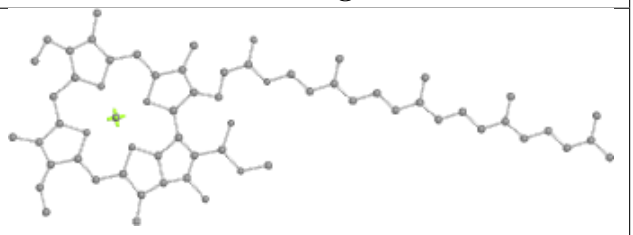
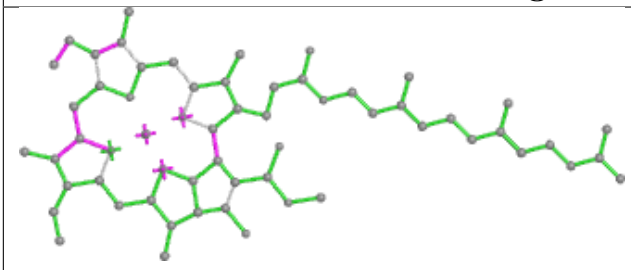
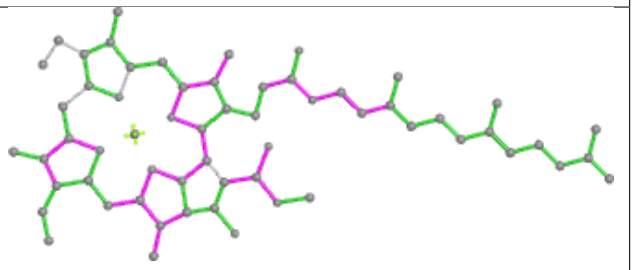
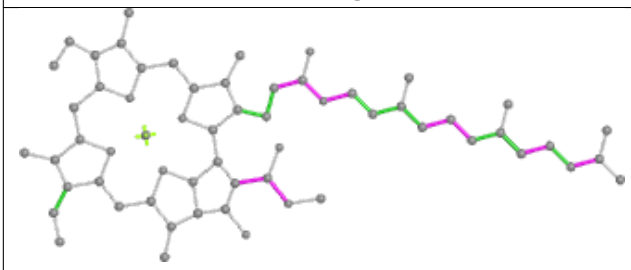
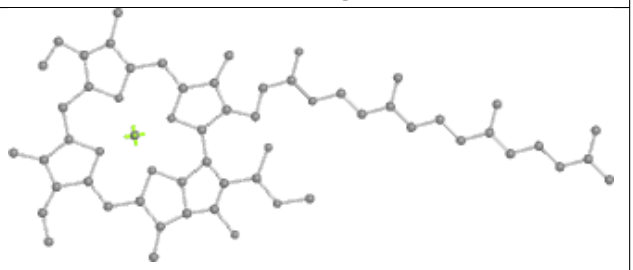
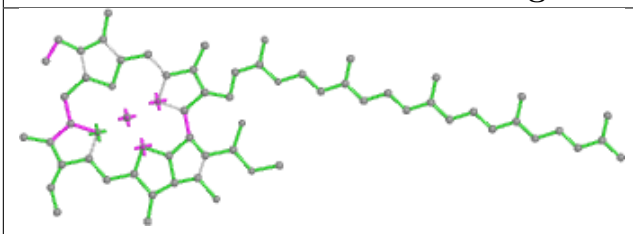


Rings

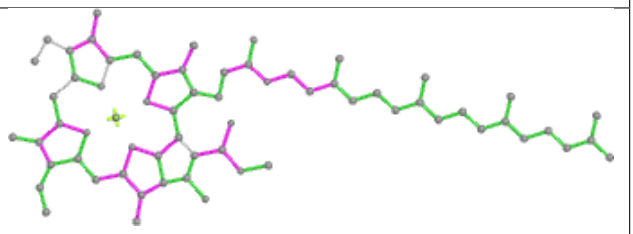
Ligand CLA B 1237	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA 4 615	
 Bond lengths	 Bond angles
 Torsions	 Rings

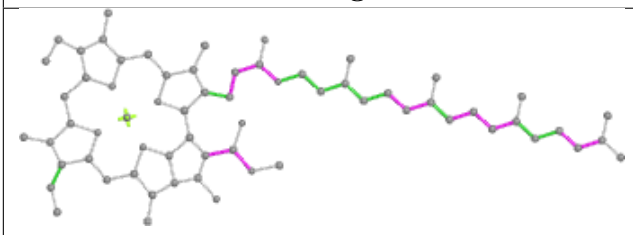
Ligand CLA a 603



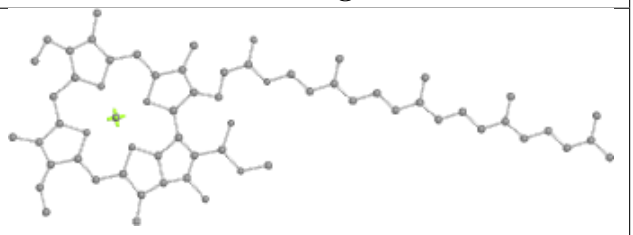
Bond lengths



Bond angles

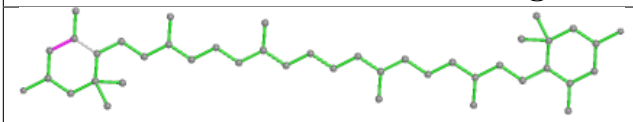


Torsions

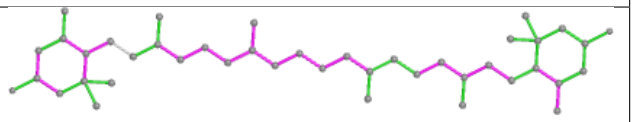


Rings

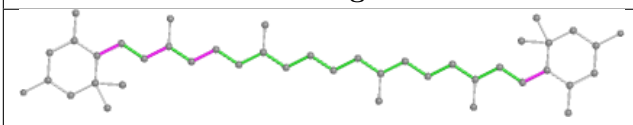
Ligand LUT 4 501



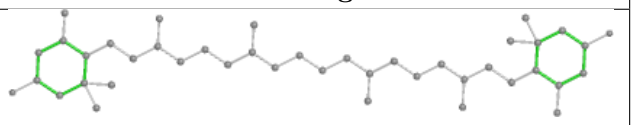
Bond lengths



Bond angles

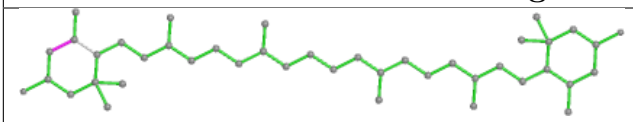


Torsions

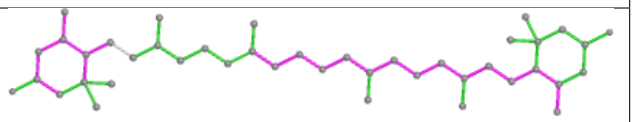


Rings

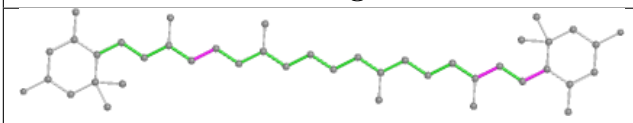
Ligand LUT a 501



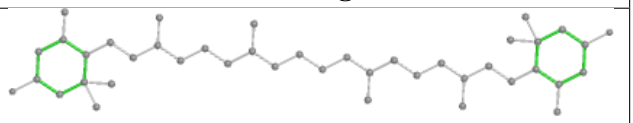
Bond lengths



Bond angles

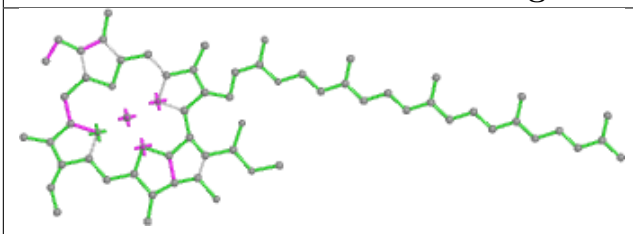


Torsions

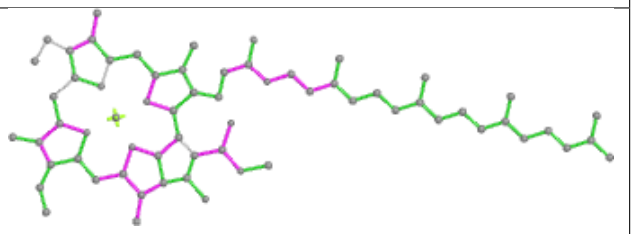


Rings

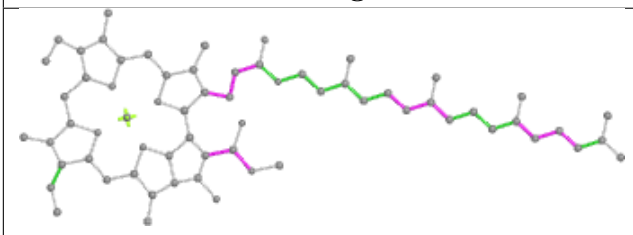
Ligand CLA 3 606



Bond lengths



Bond angles



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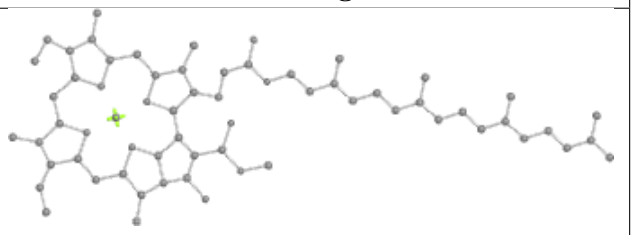
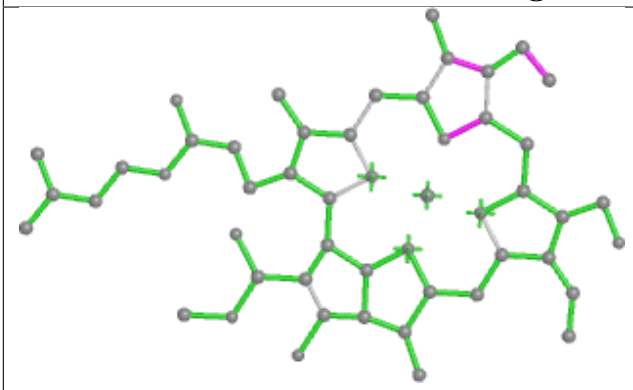


Rings

Ligand CHL 6 611



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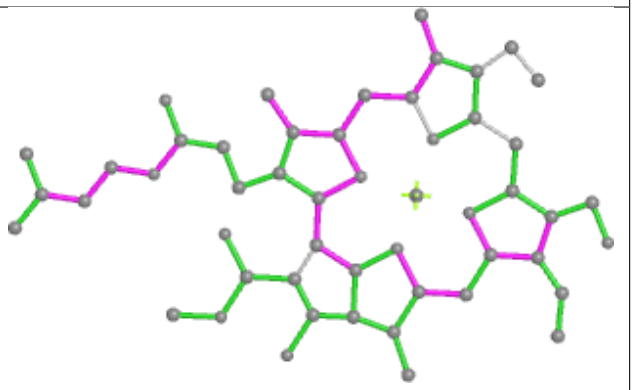
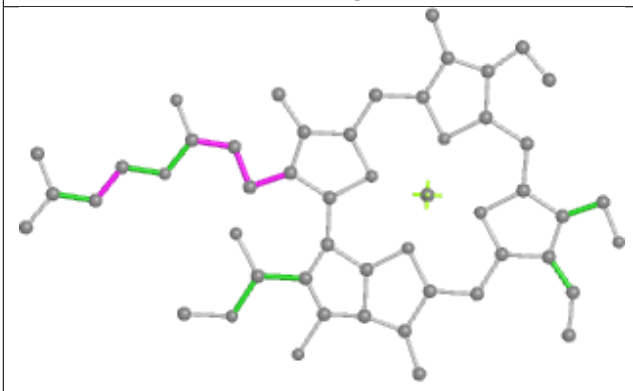
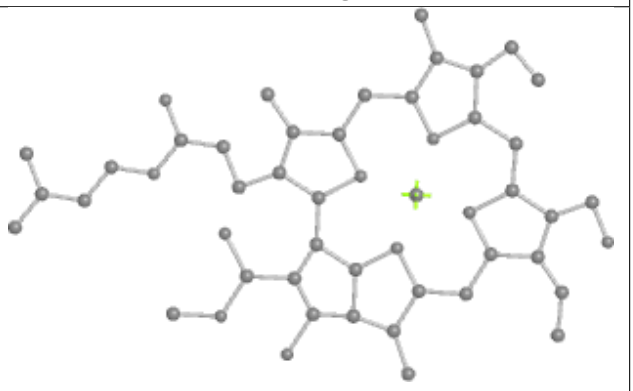


Bond angles



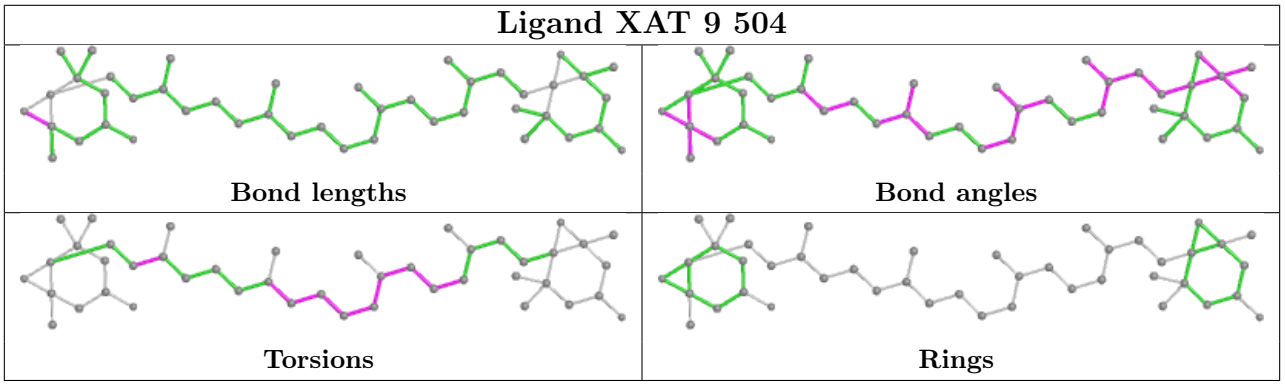
Torsions



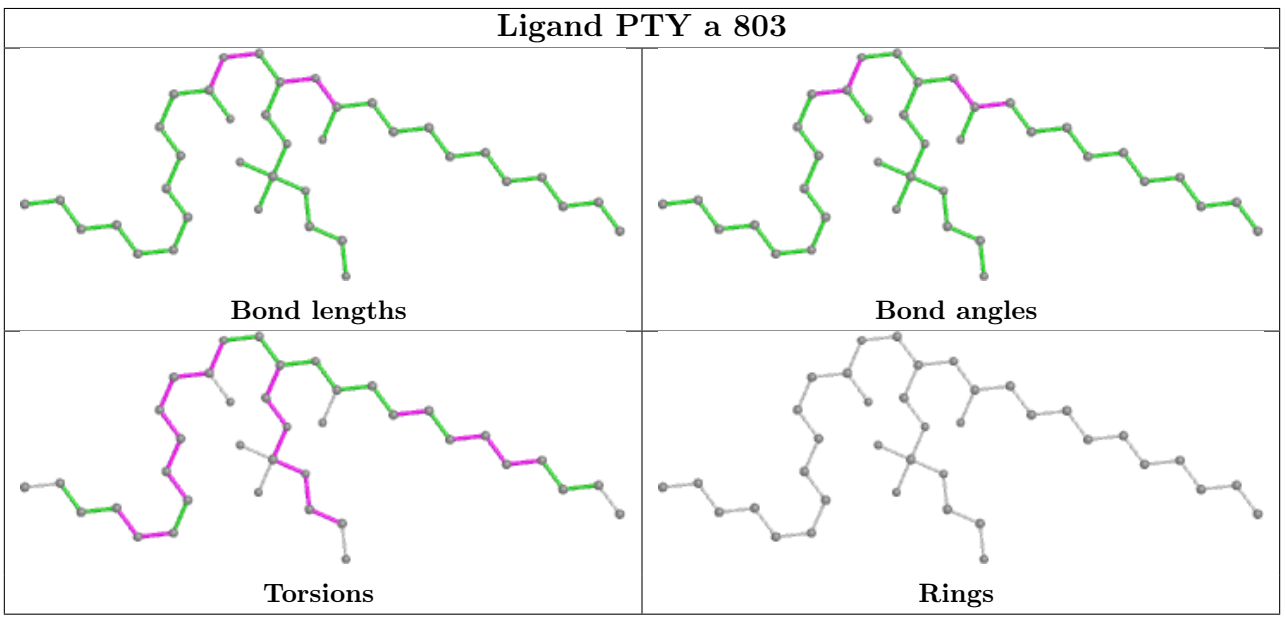
Rings

Ligand LUT 5 505

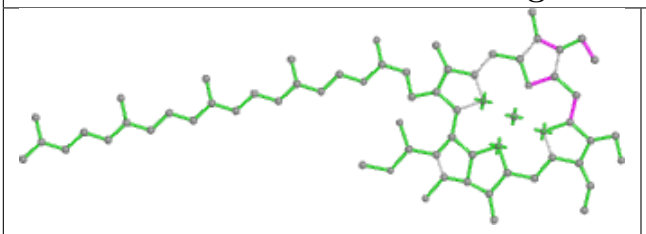
Ligand XAT 9 504



Ligand PTY a 803



Ligand CHL 1 604



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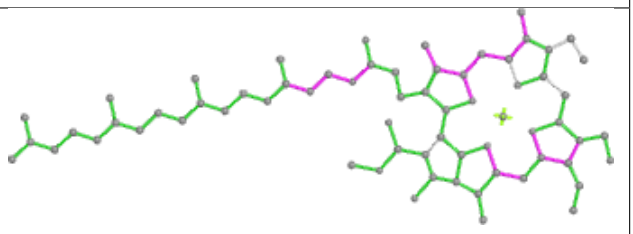
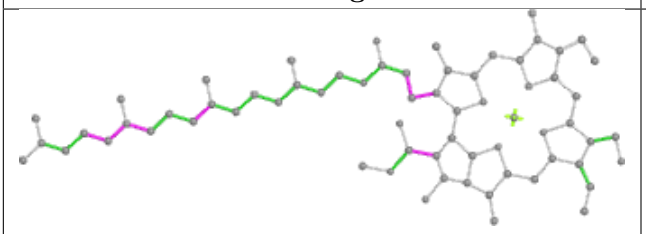


Bond angles



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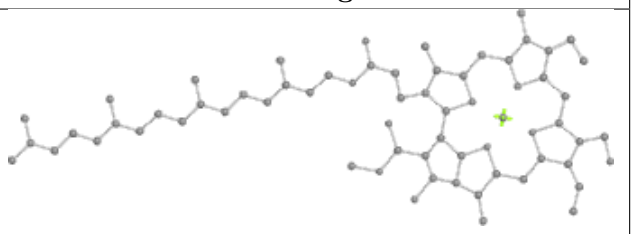
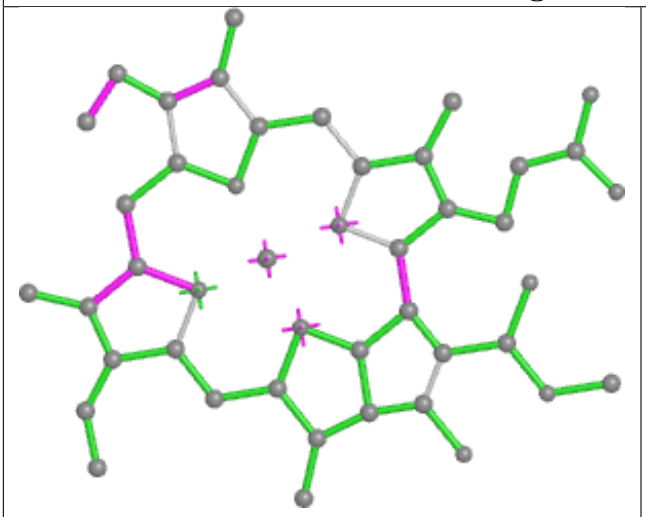


Rings

Ligand CLA 2 608



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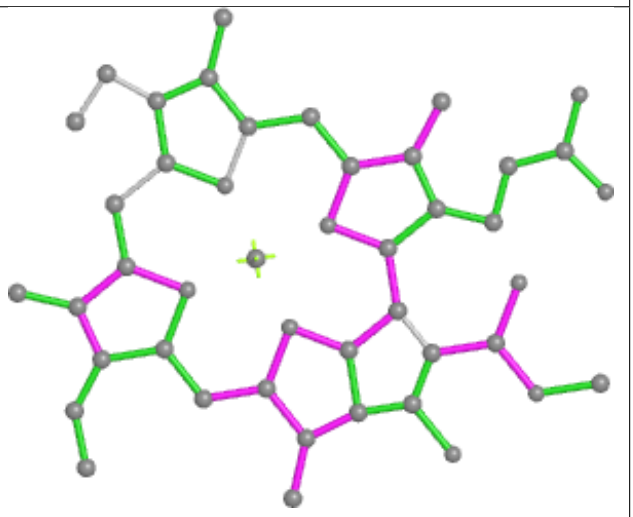
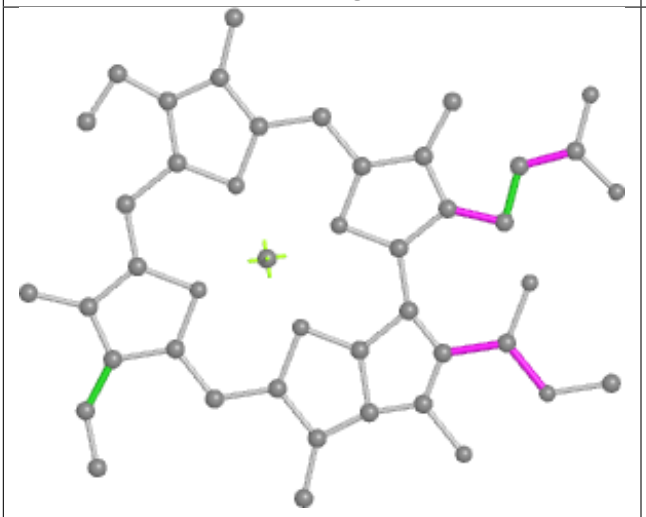


Bond angles



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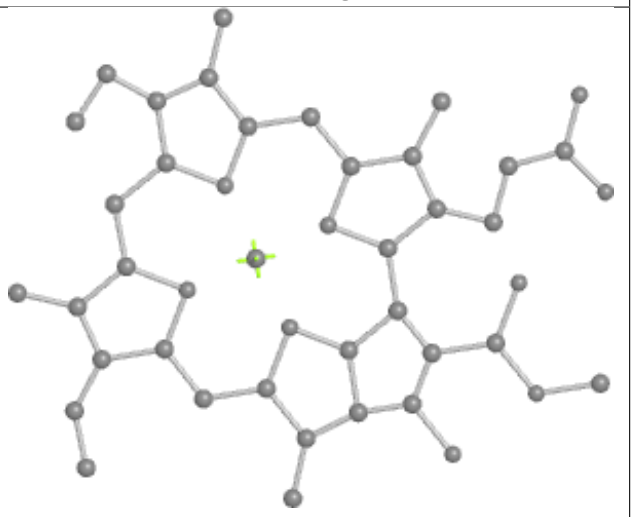
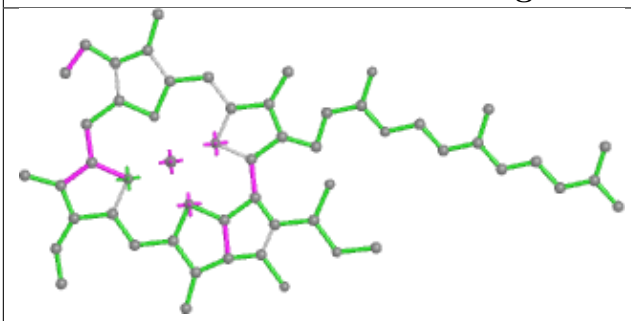


Rings

Ligand CLA B 1211



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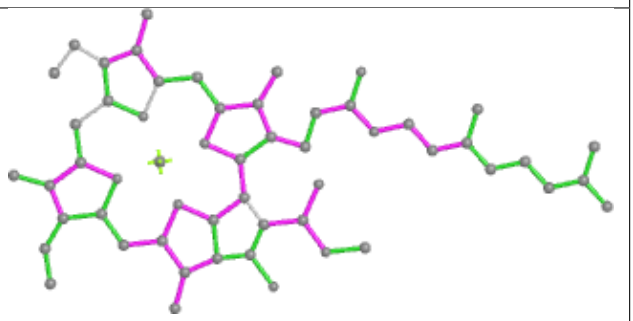
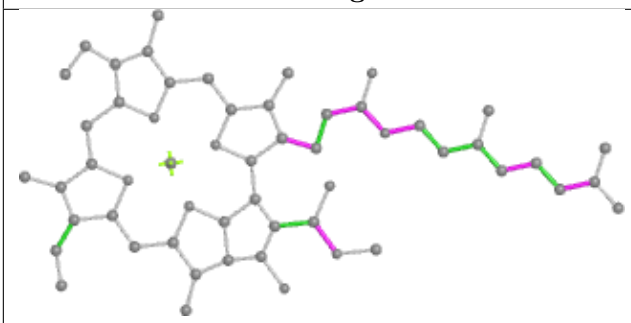
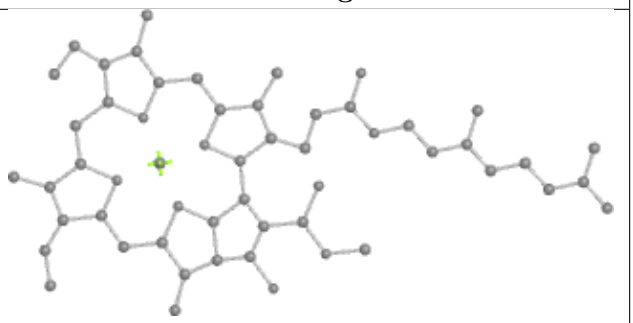


Bond angles

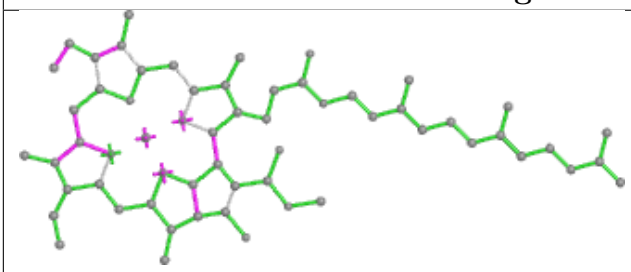


Torsions



Rings

Ligand CLA K 1402



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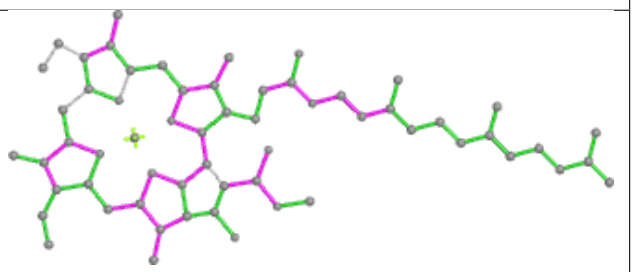
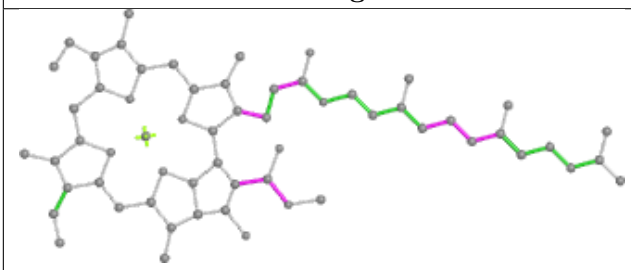
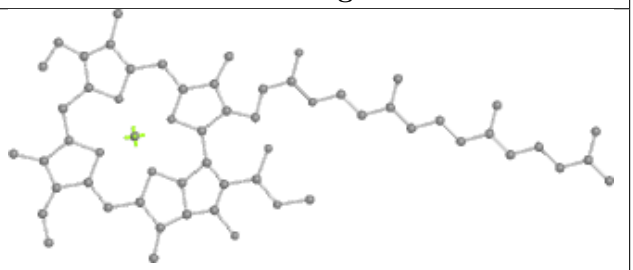


Bond angles

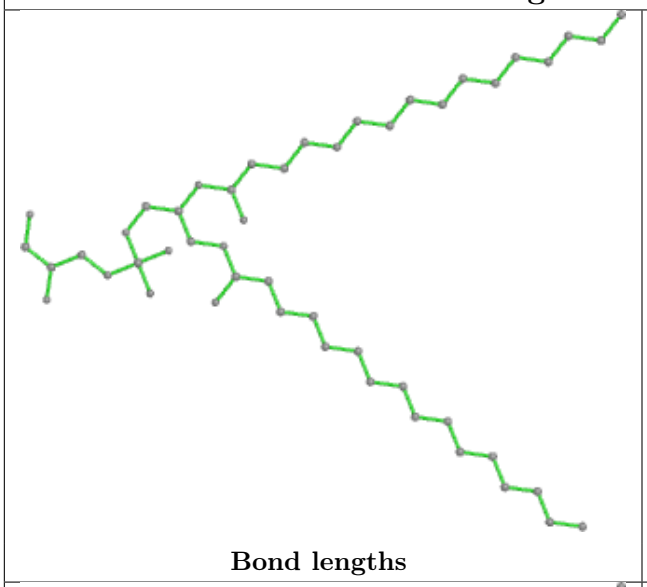


Torsions



Rings

Ligand LHG 1 802



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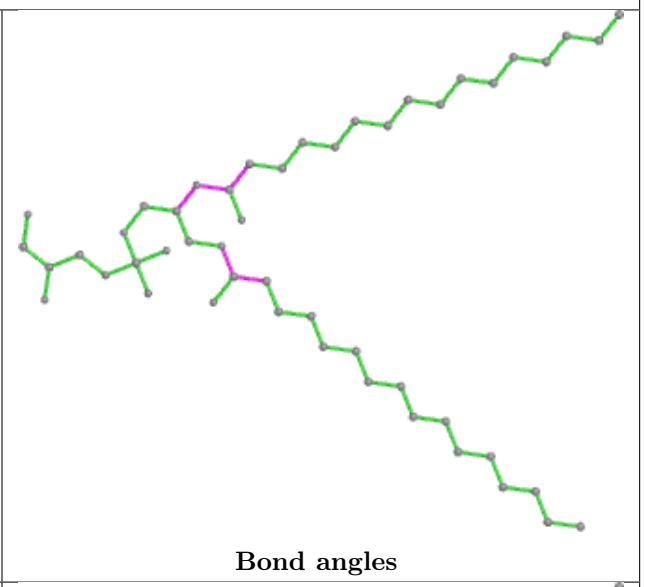
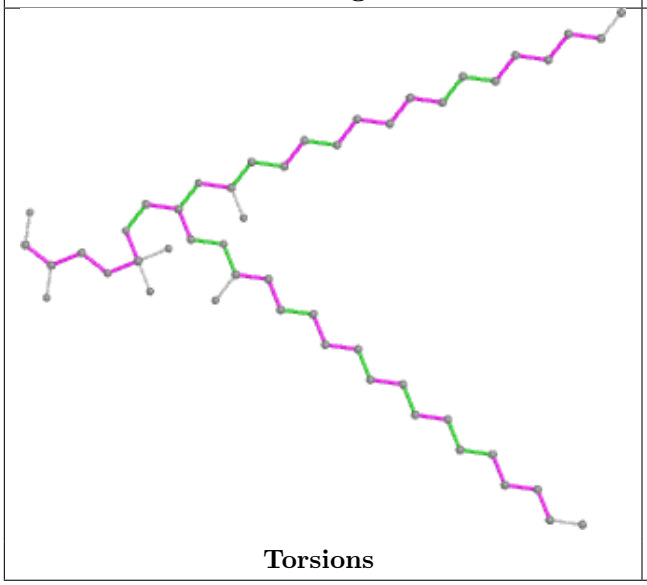


Bond angles



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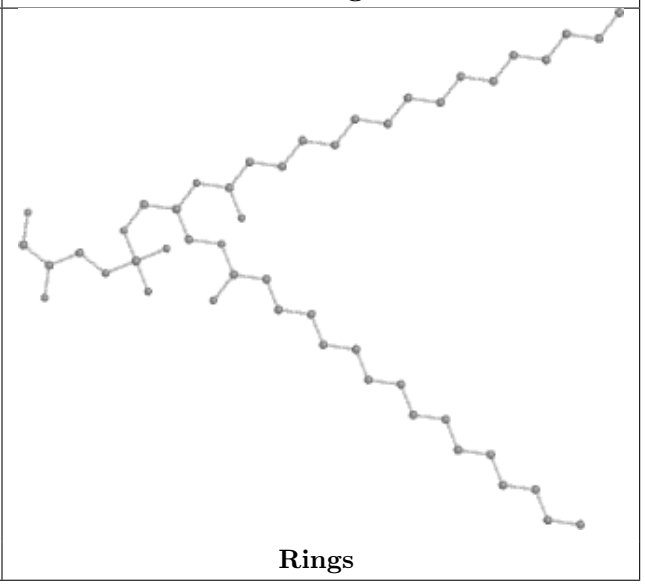
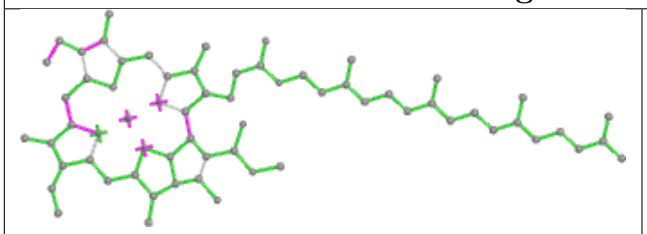


Rings

Ligand CLA A 1117



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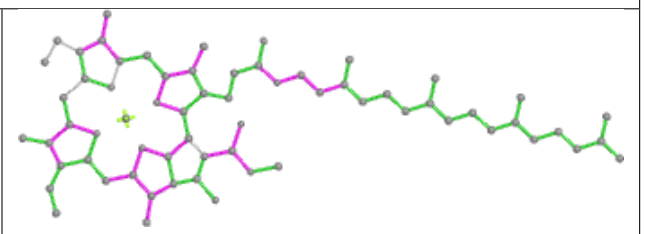
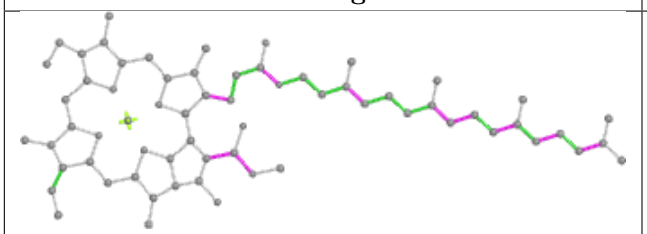


Bond angles



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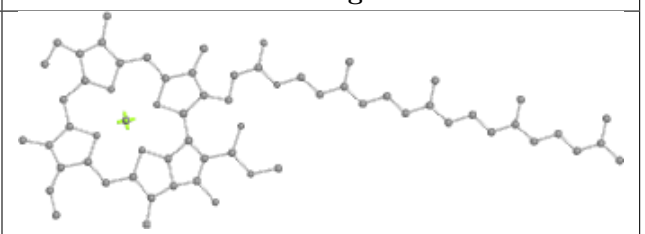
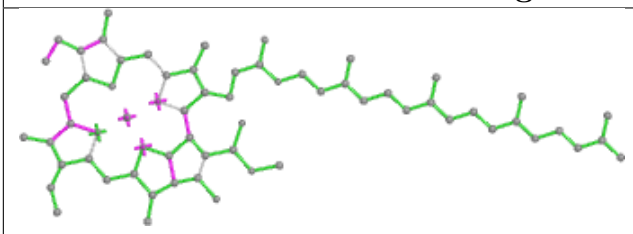


Rings

Ligand CLA B 1238



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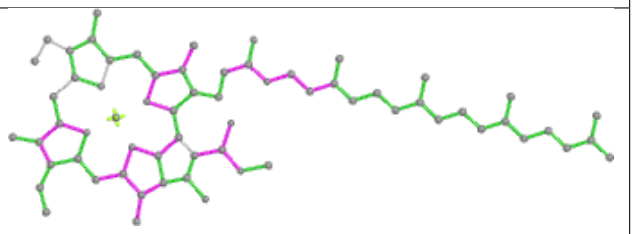
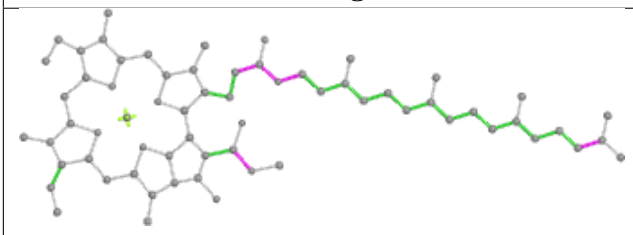
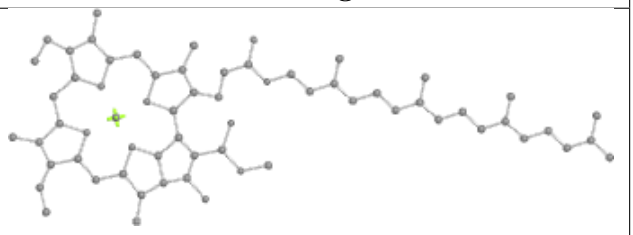


Bond angles

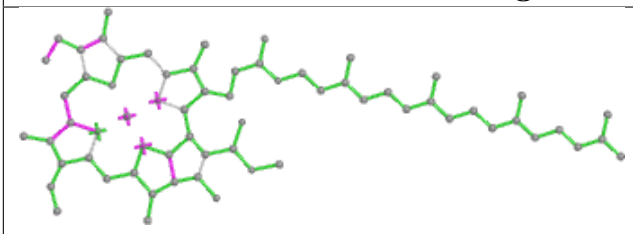


Torsions

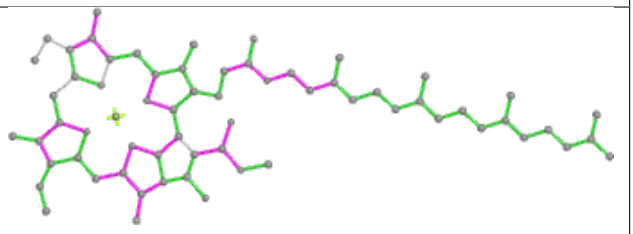


Rings

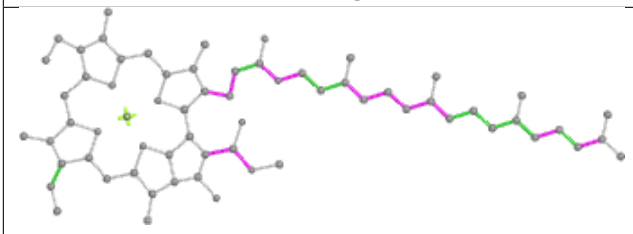
Ligand CLA A 1119



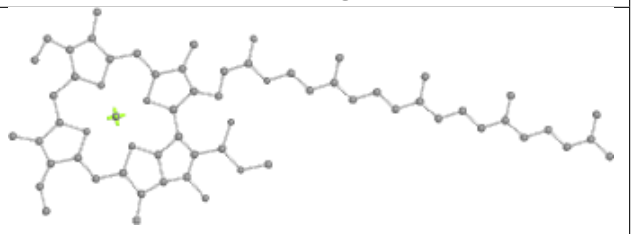
Bond lengths



Bond angles

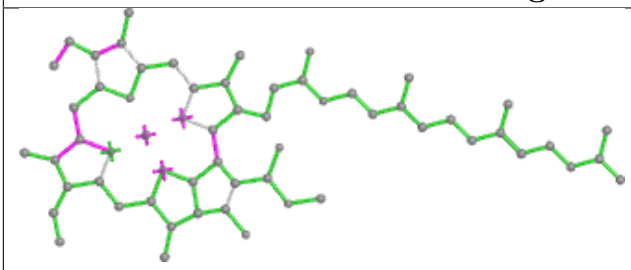


Torsions

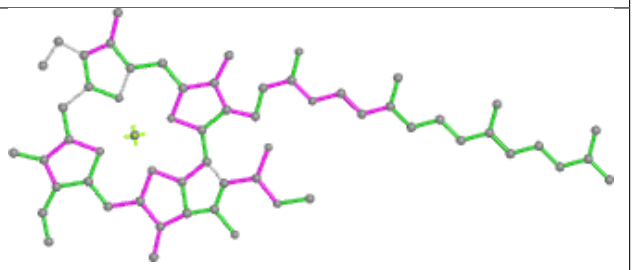


Rings

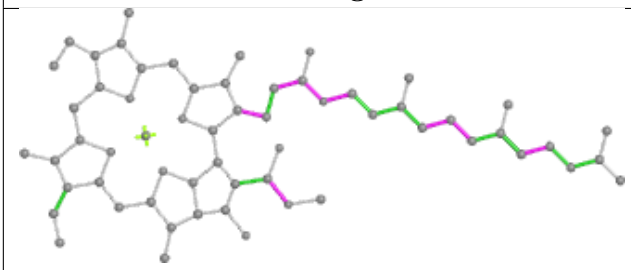
Ligand CLA 2 601



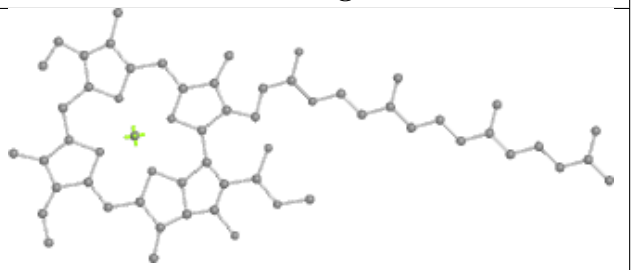
Bond lengths



Bond angles

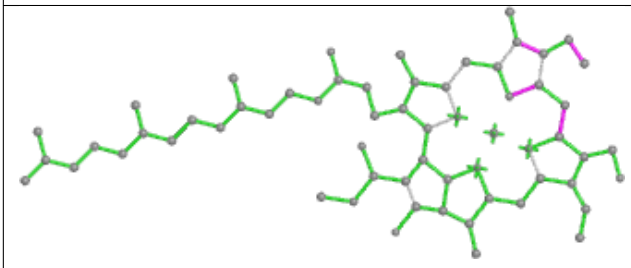


Torsions

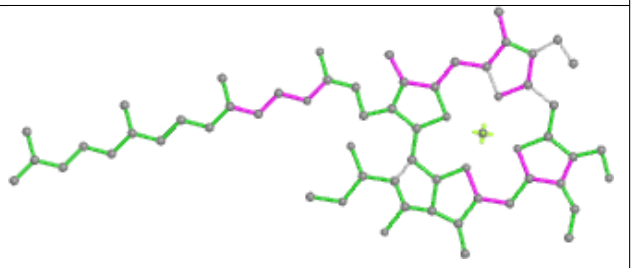


Rings

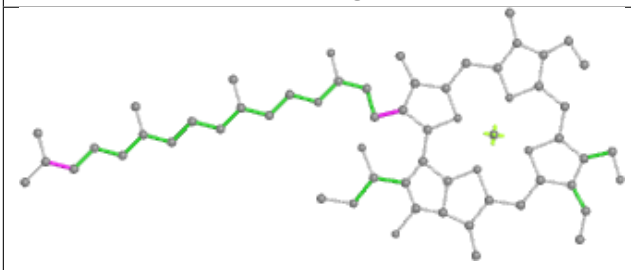
Ligand CHL 8 601



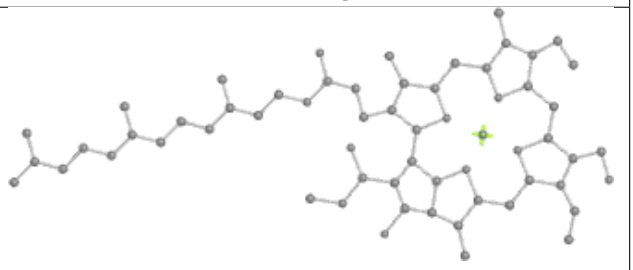
Bond lengths



Bond angles

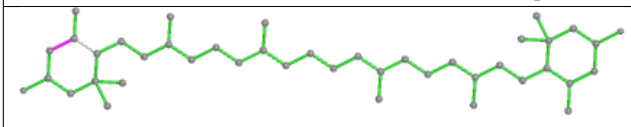


Torsions

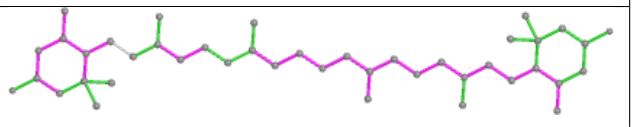


Rings

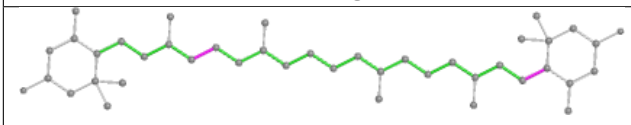
Ligand LUT 3 501



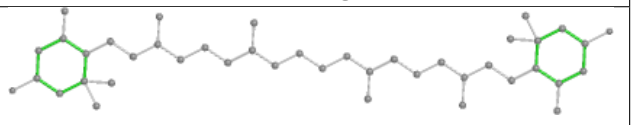
Bond lengths



Bond angles

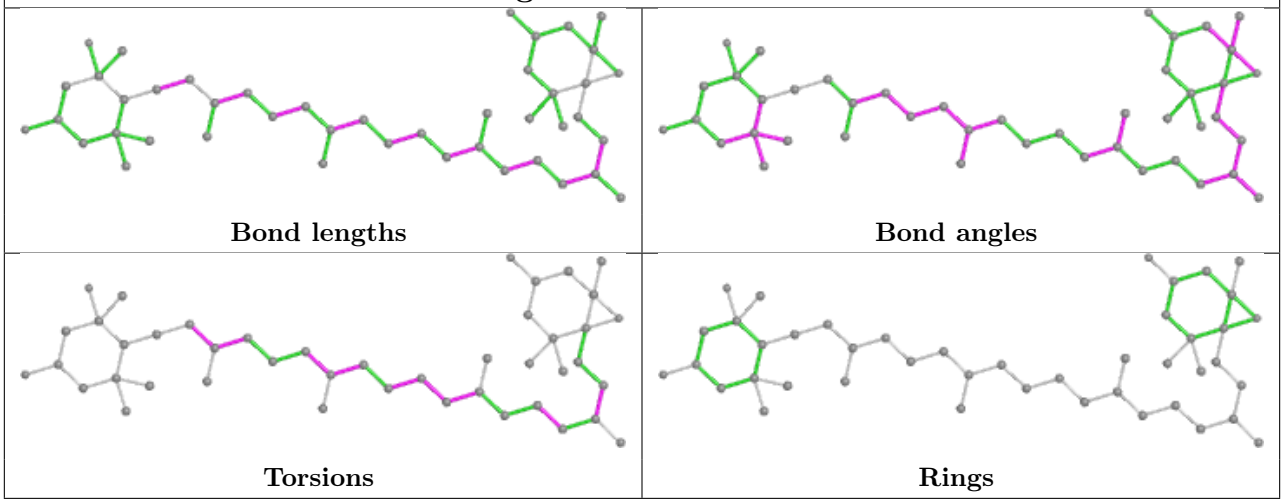


Torsions

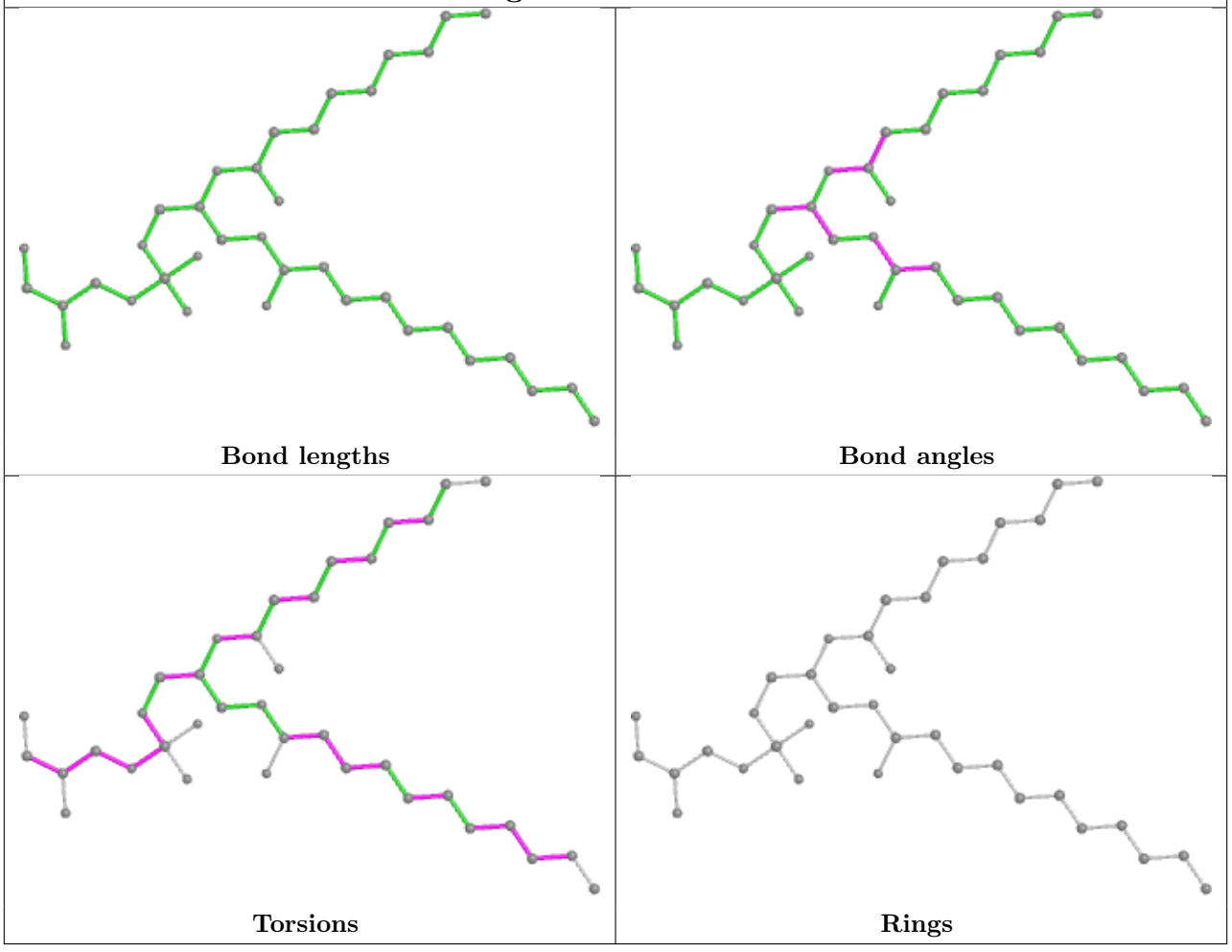


Rings

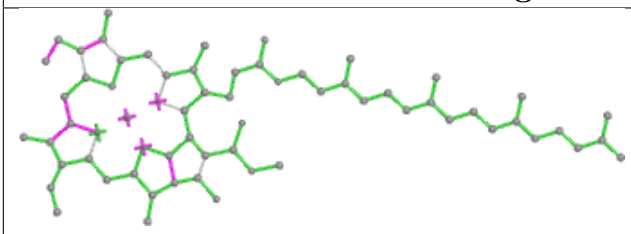
Ligand NEX F 4001



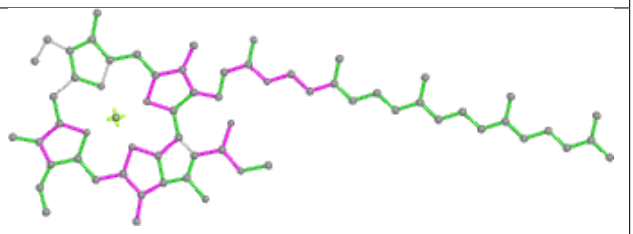
Ligand LHG 6 802



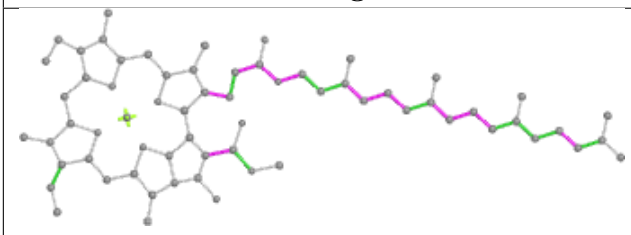
Ligand CLA A 1108



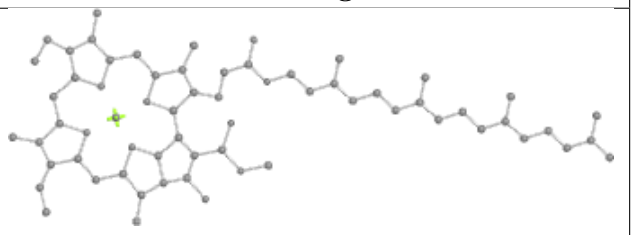
Bond lengths



Bond angles

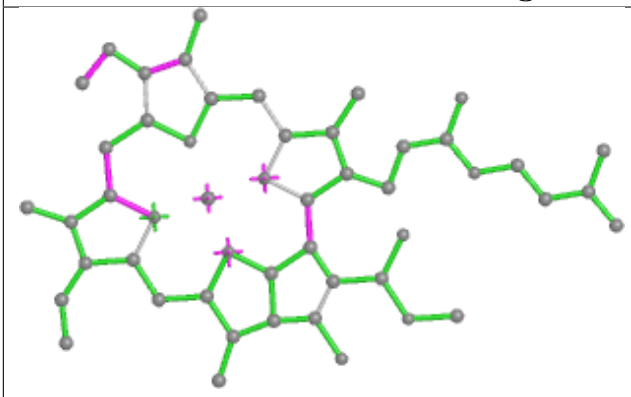


Torsions

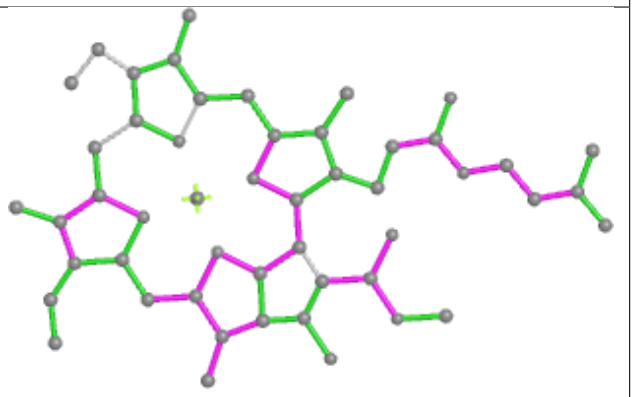


Rings

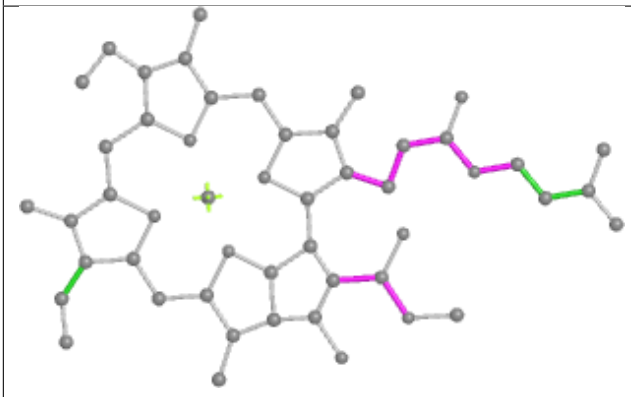
Ligand CLA F 1301



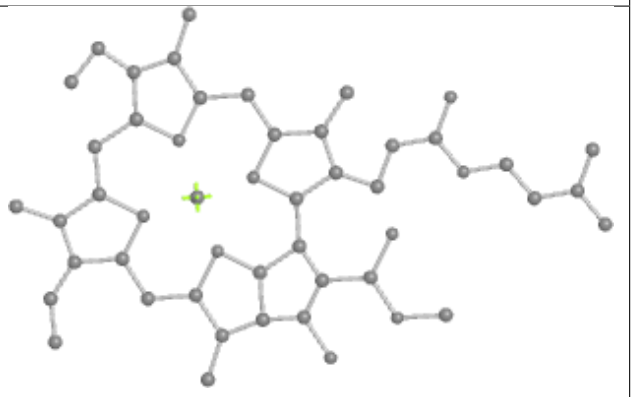
Bond lengths



Bond angles

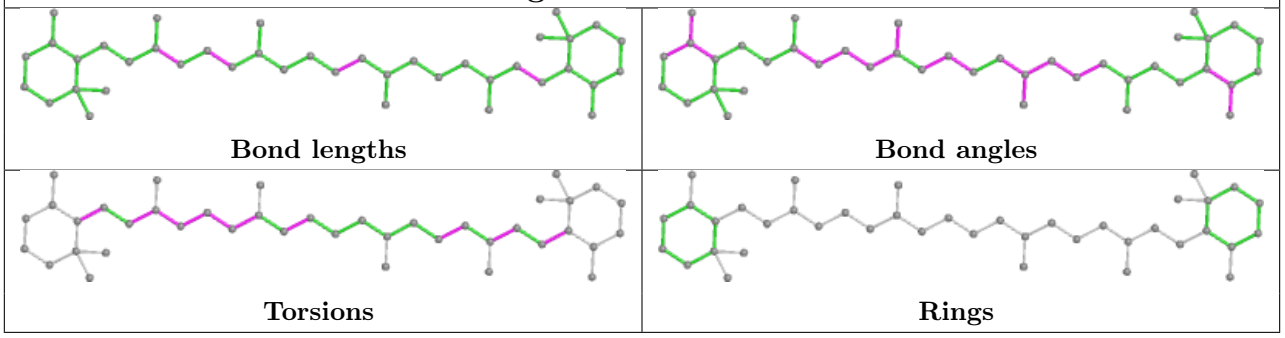


Torsions

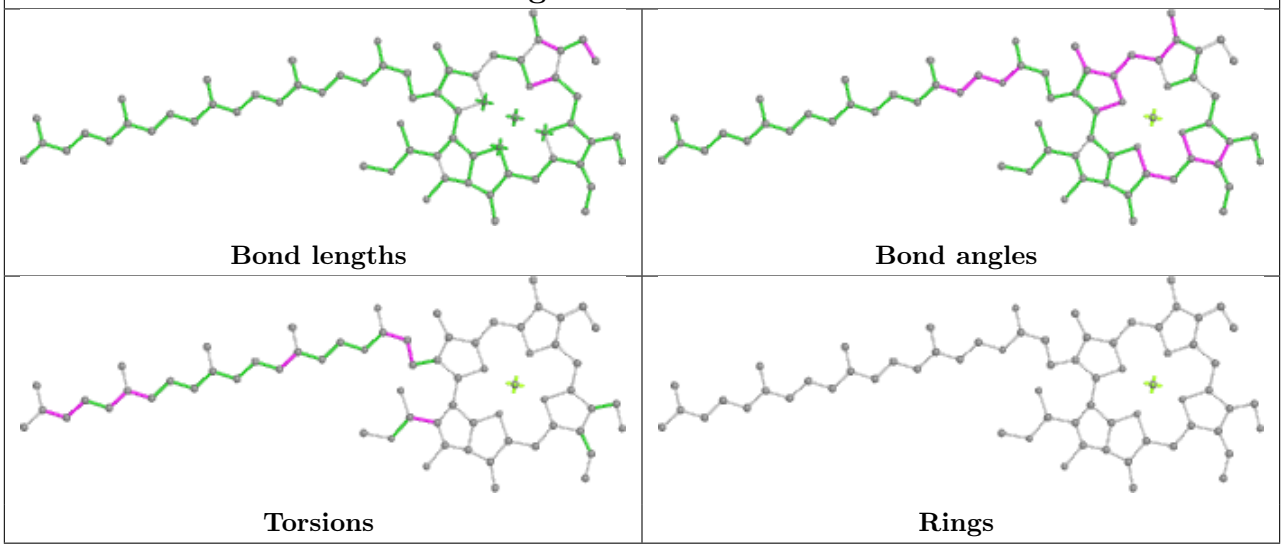


Rings

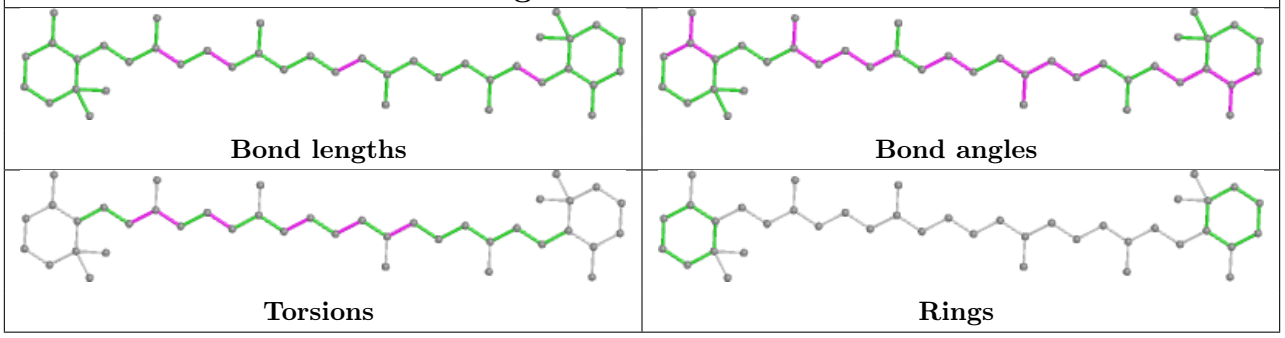
Ligand BCR 8 503



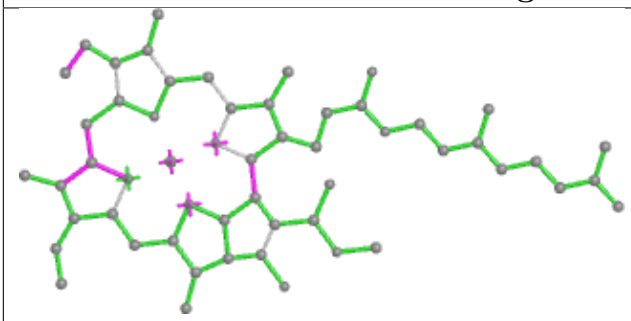
Ligand CHL 4 609



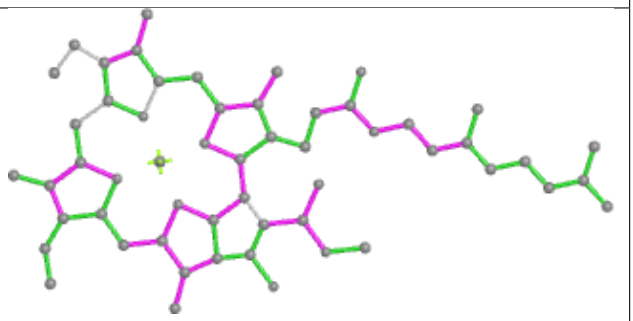
Ligand BCR A 4002



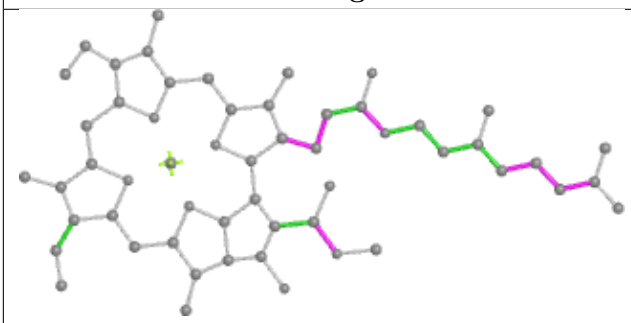
Ligand CLA F 1302



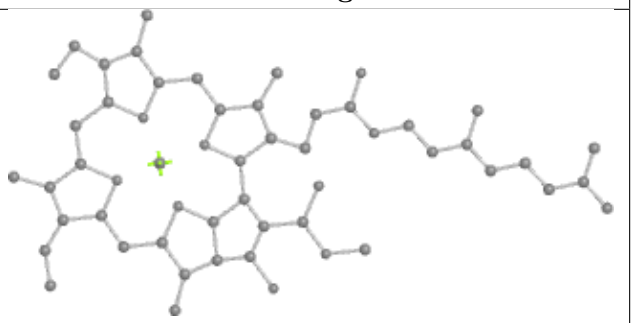
Bond lengths



Bond angles

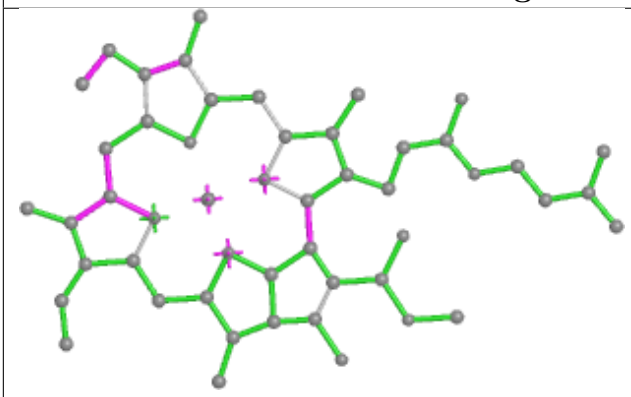


Torsions

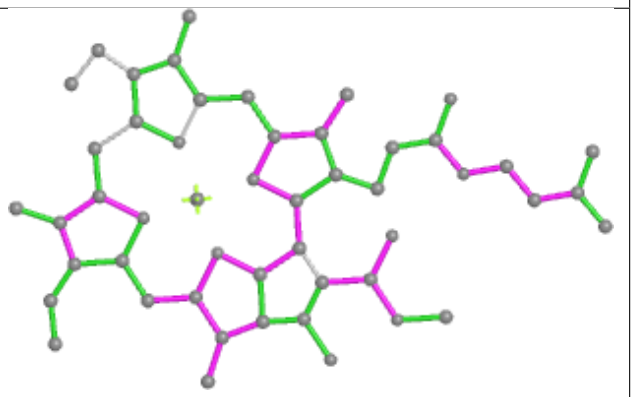


Rings

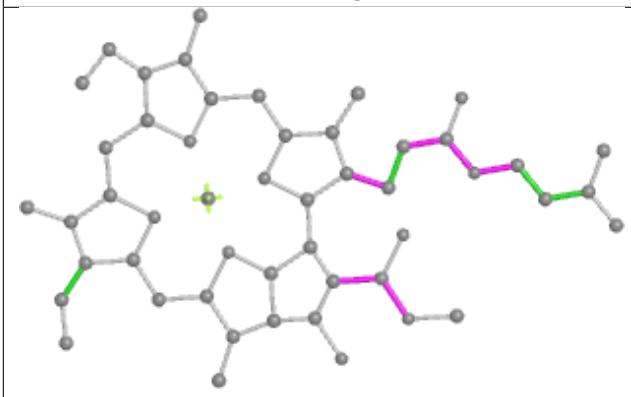
Ligand CLA G 1601



Bond lengths



Bond angles



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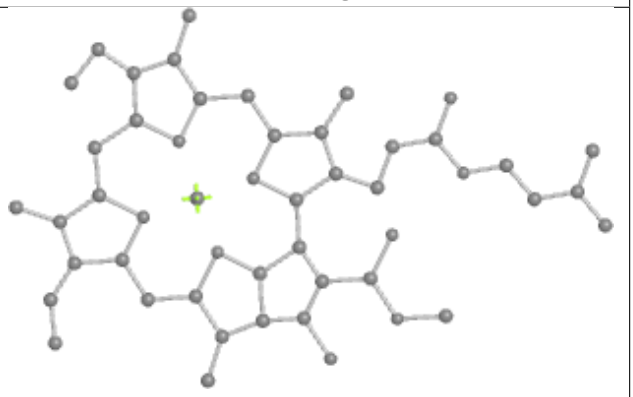
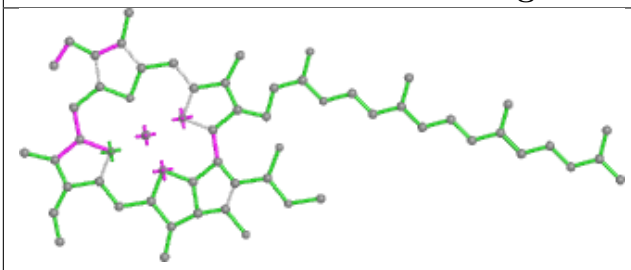


Rings

Ligand CLA L 1502



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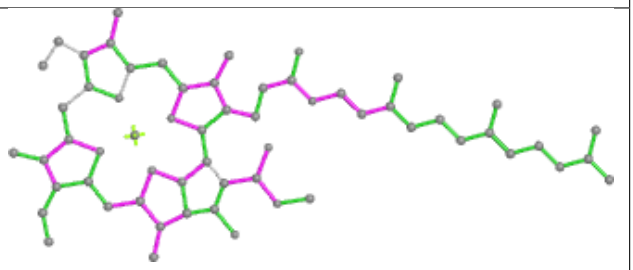
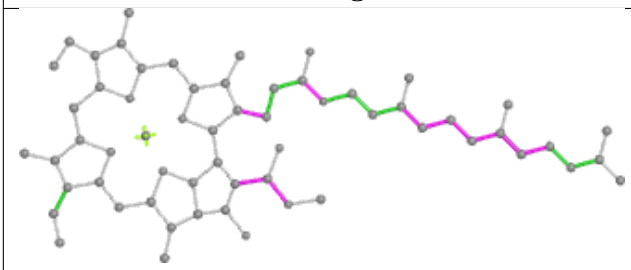


Bond angles



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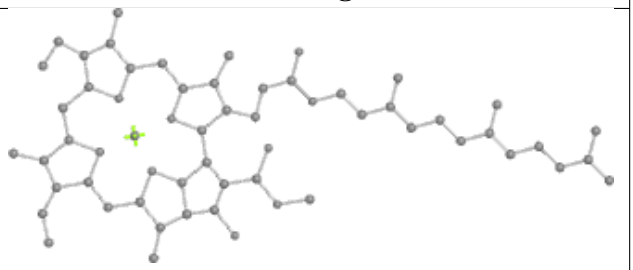
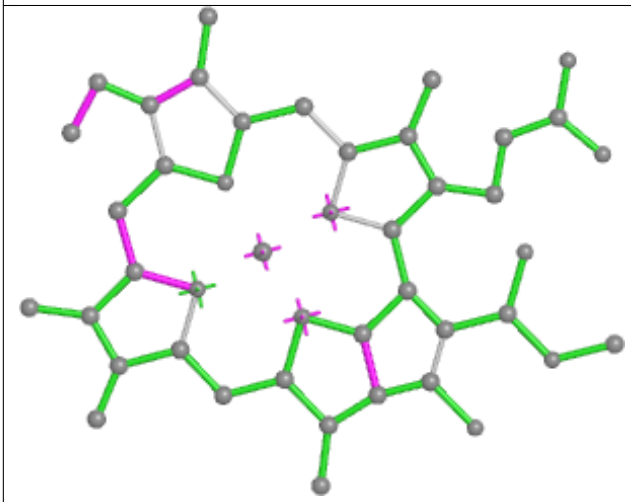


Rings

Ligand CLA 7 602



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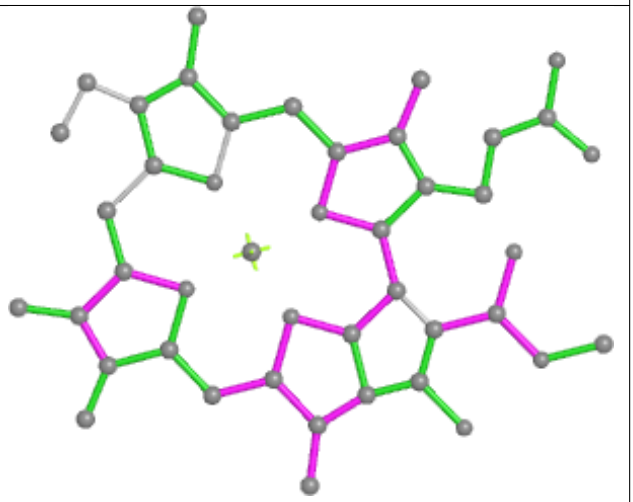
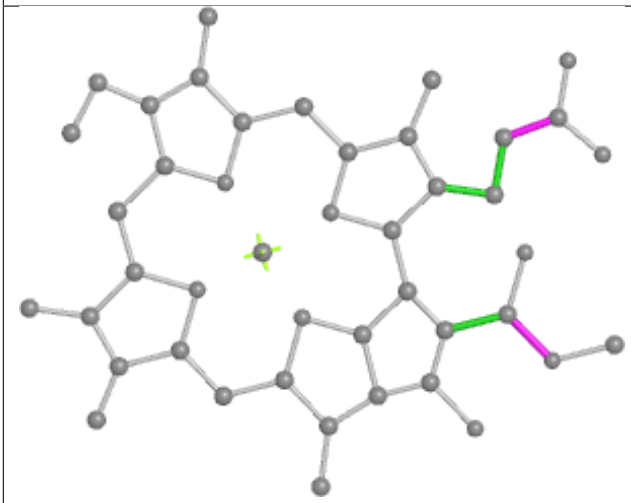
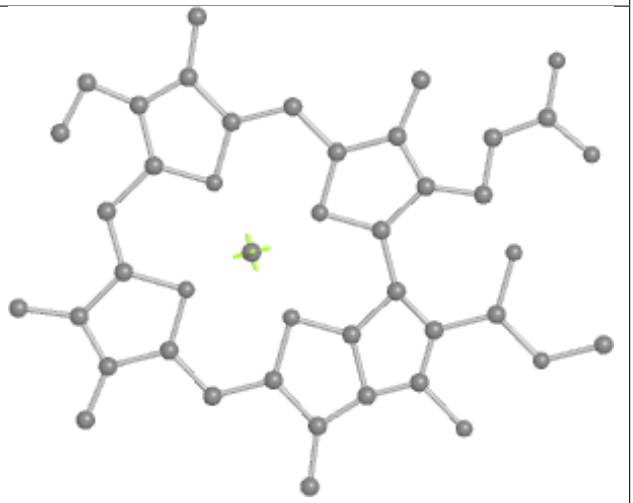


Bond angles

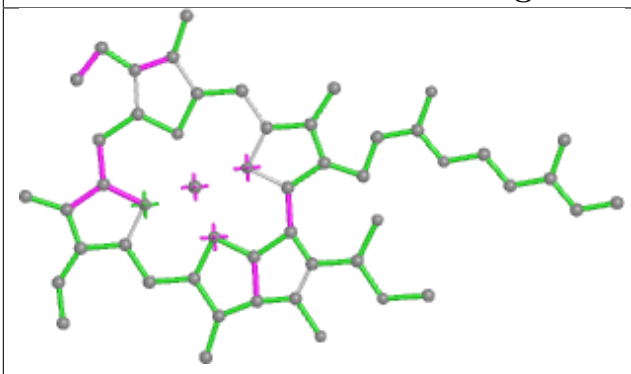


Torsions



Rings

Ligand CLA A 1135



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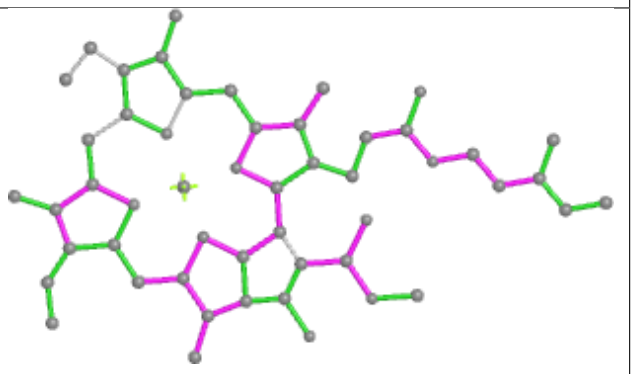
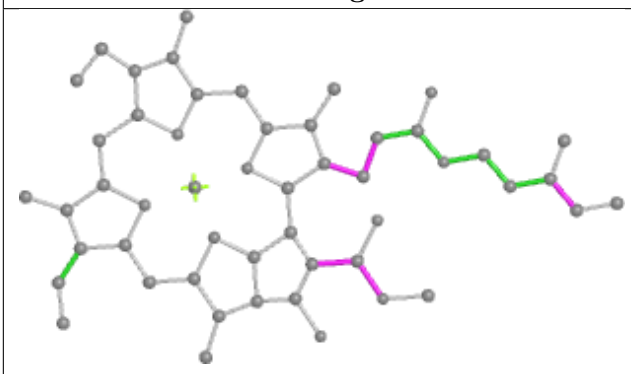


Bond angles



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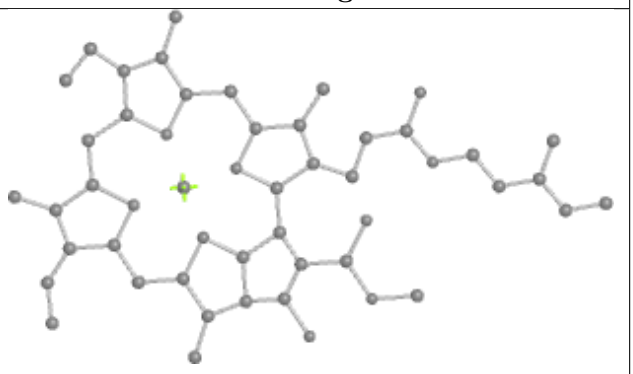
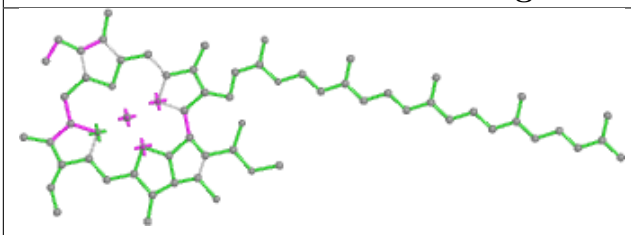


Rings

Ligand CLA B 1240



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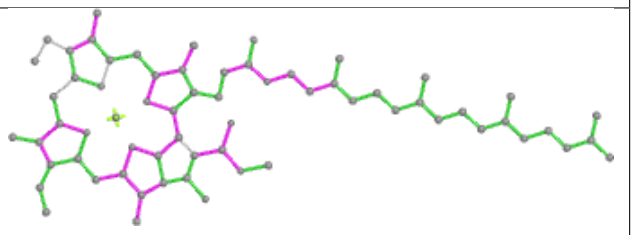
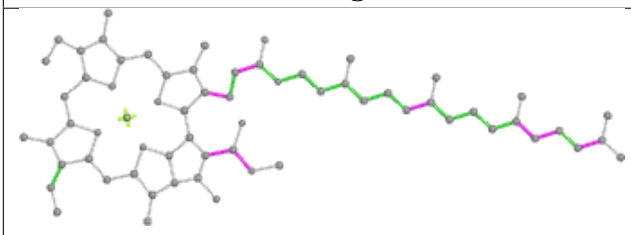
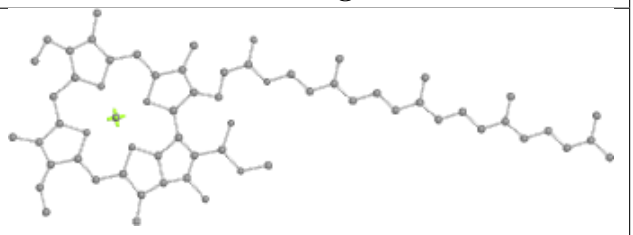


Bond angles

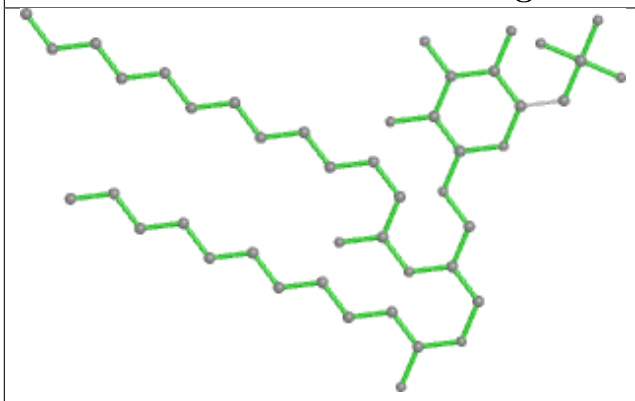


Torsions



Rings

Ligand SQD G 5001



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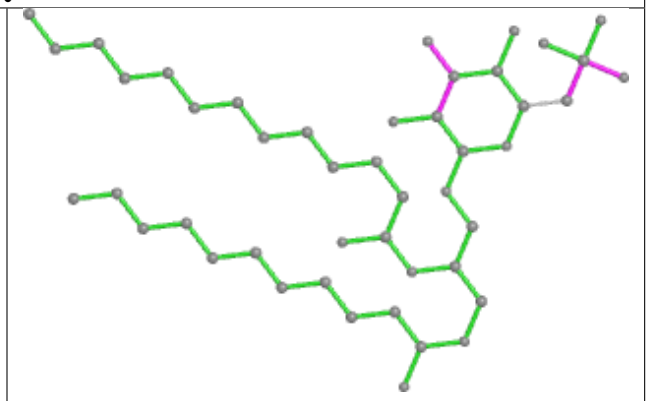
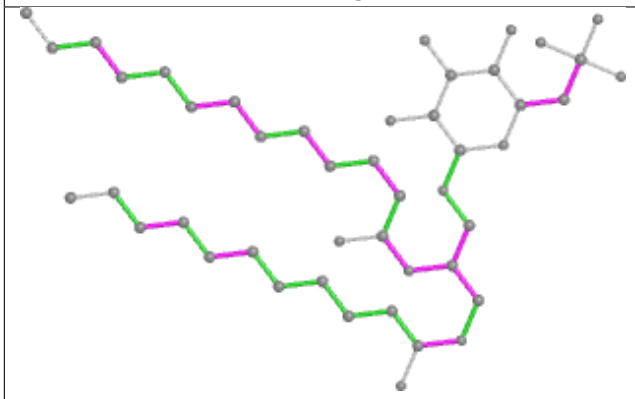
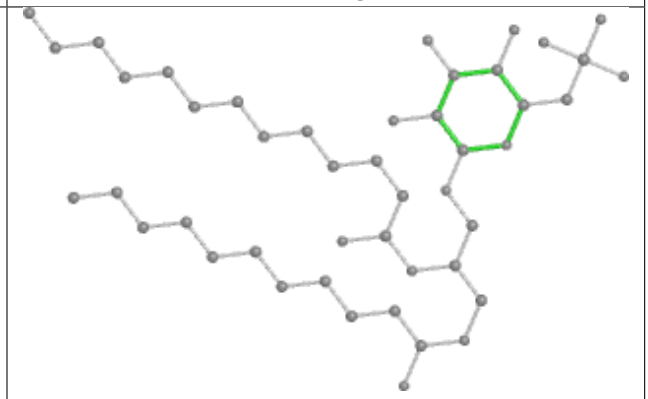


Bond angles

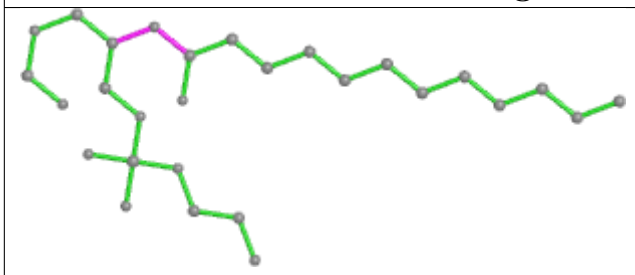


Torsions

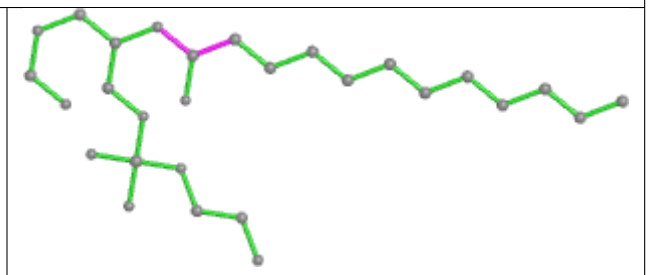


Rings

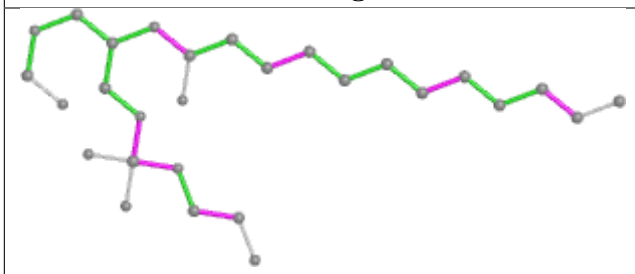
Ligand PTY G 5002



Bond lengths



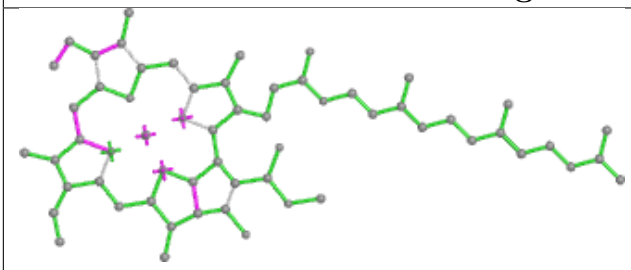
Bond angles



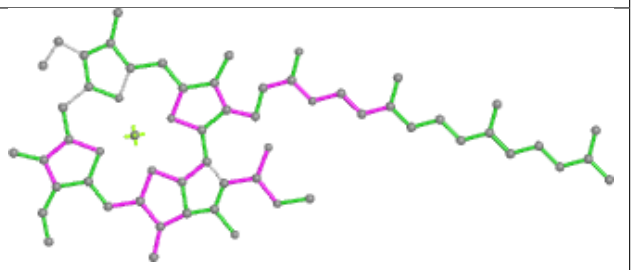
Torsions

Rings

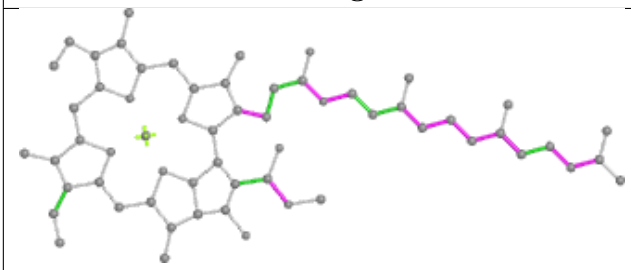
Ligand CLA B 1207



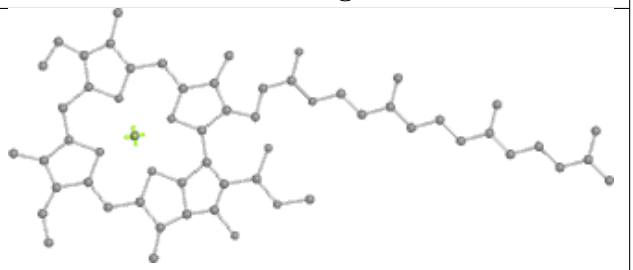
Bond lengths



Bond angles

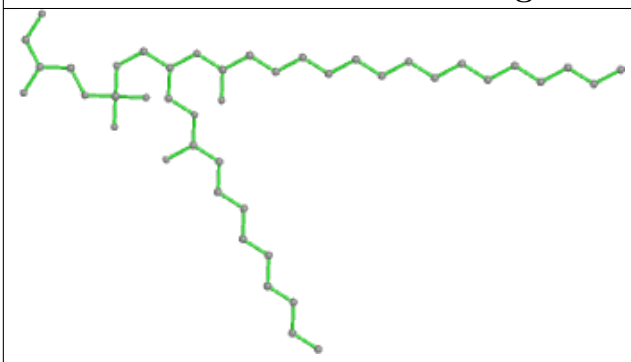


Torsions

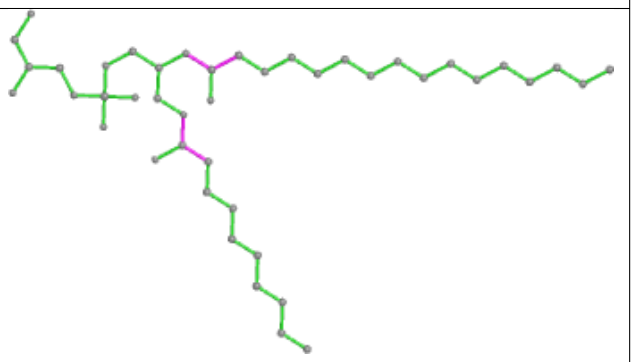


Rings

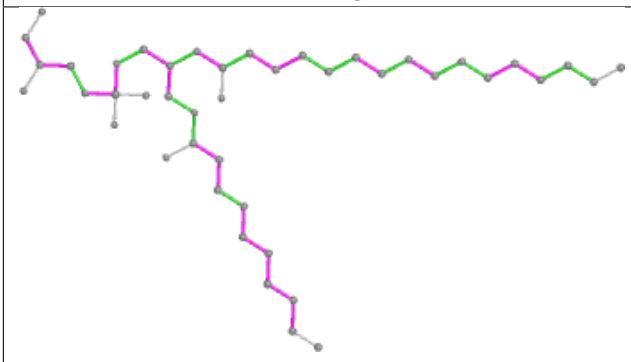
Ligand LHG F 5001



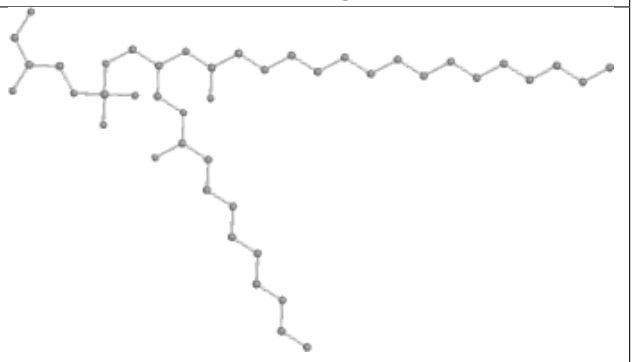
Bond lengths



Bond angles

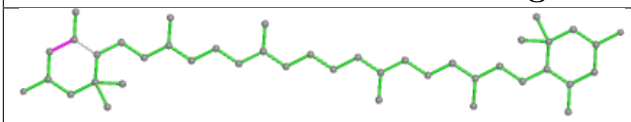


Torsions

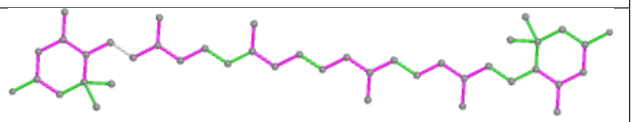


Rings

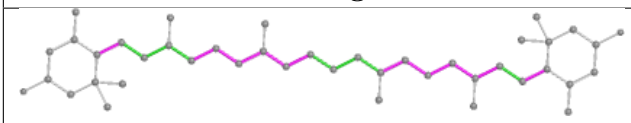
Ligand LUT 2 507



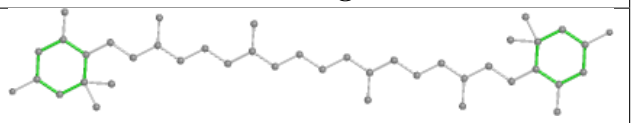
Bond lengths



Bond angles

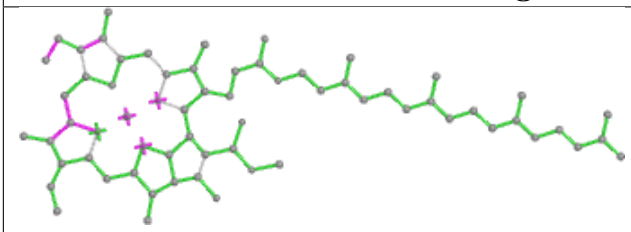


Torsions

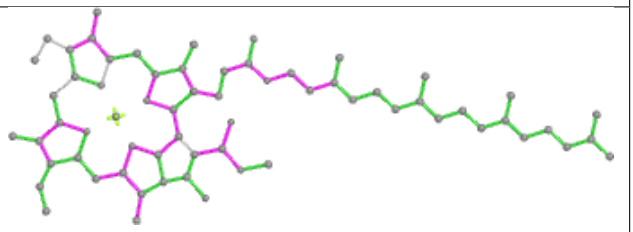


Rings

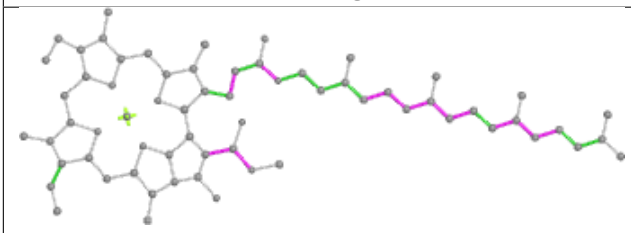
Ligand CLA A 1013



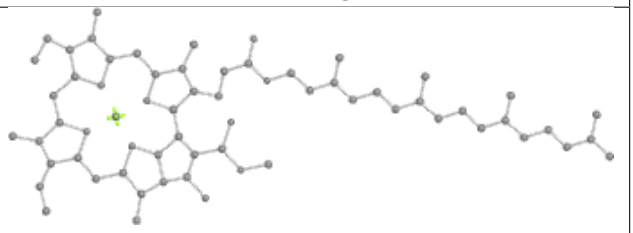
Bond lengths



Bond angles

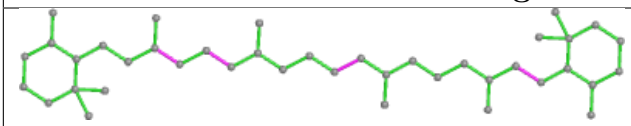


Torsions

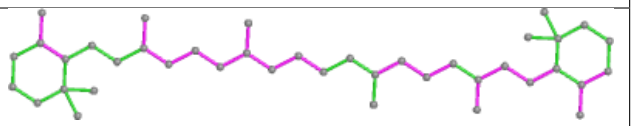


Rings

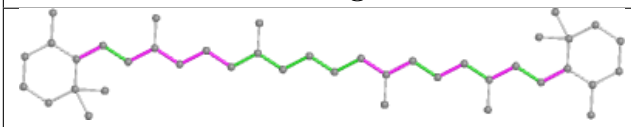
Ligand BCR A 4005



Bond lengths



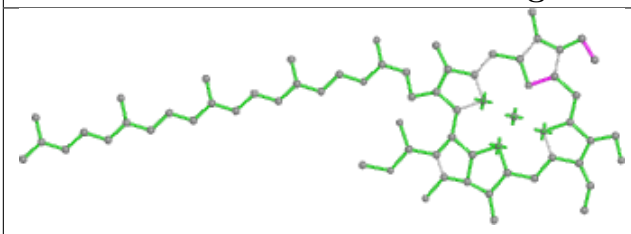
Bond angles



Torsions

Rings

Ligand CHL 6 609



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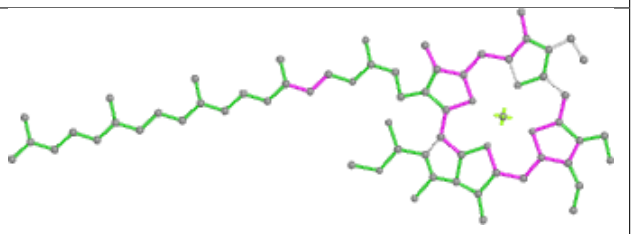
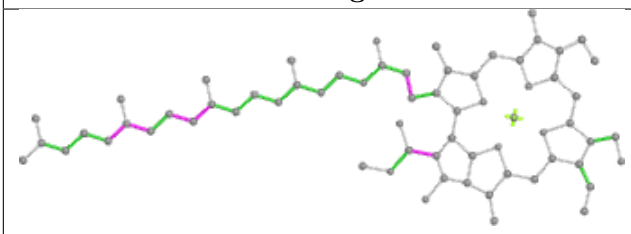


Bond angles



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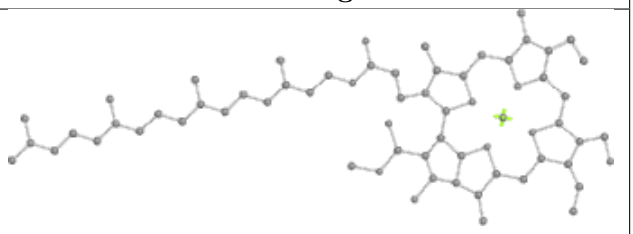
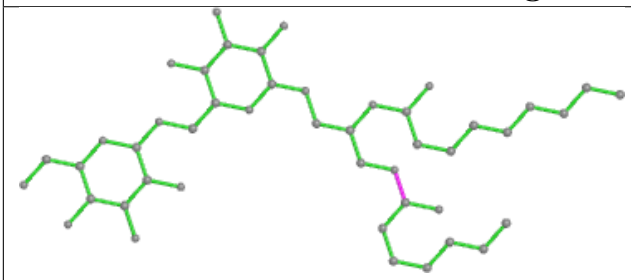


Rings

Ligand DGD 8 803



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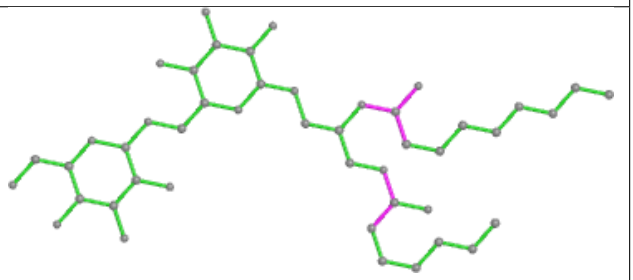
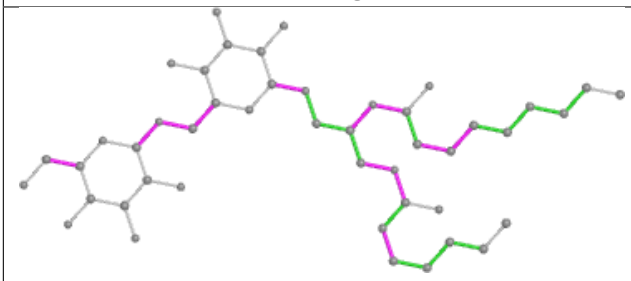


Bond angles



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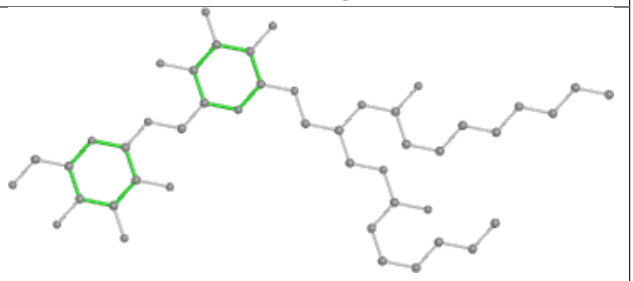
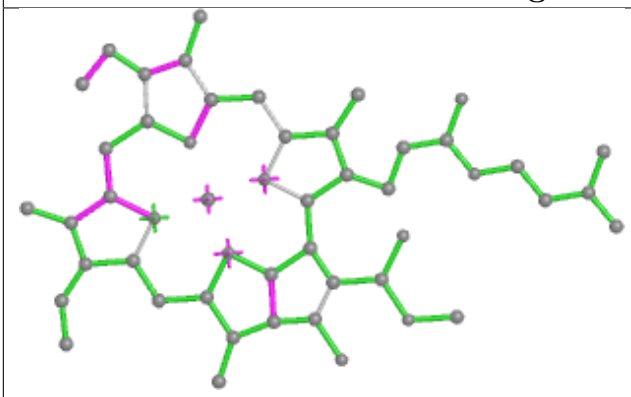


Rings

Ligand CLA 2 612



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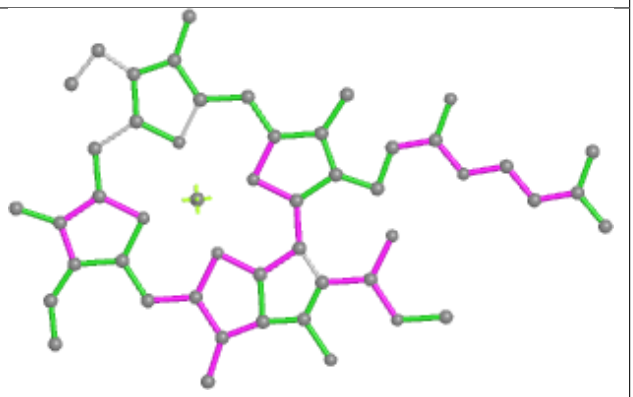
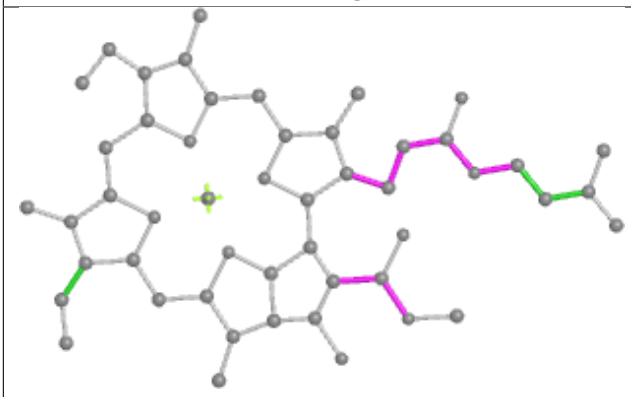


Bond angles



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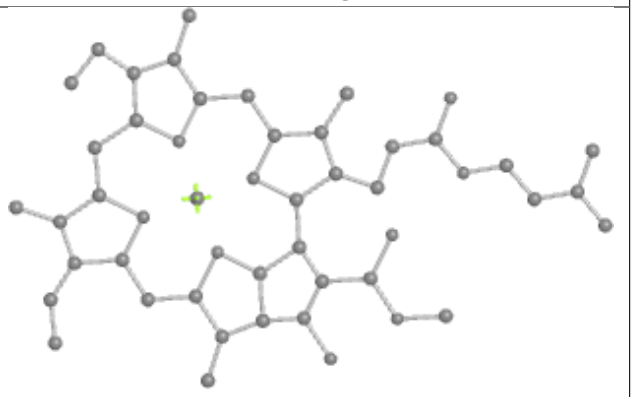
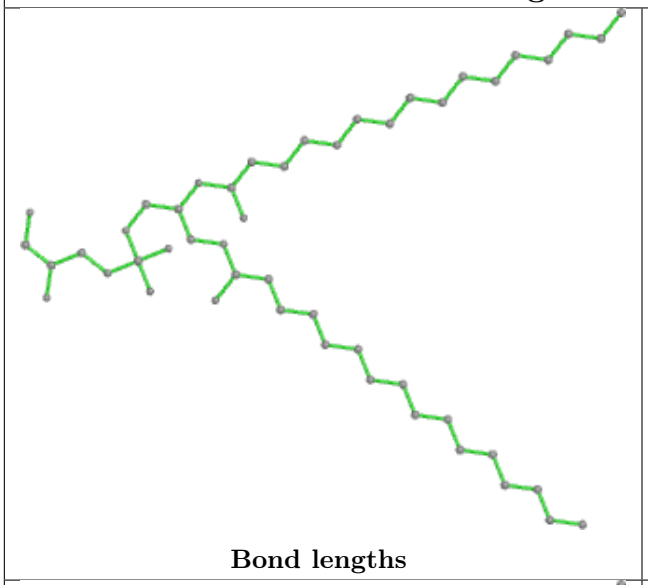


Rings

Ligand LHG 2 801



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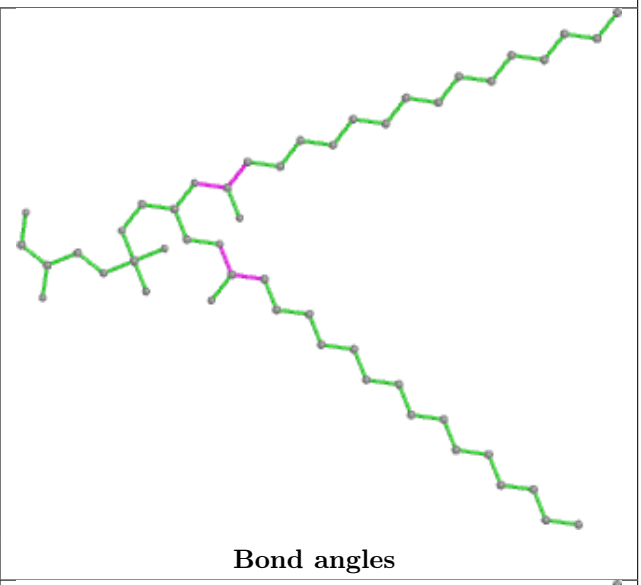
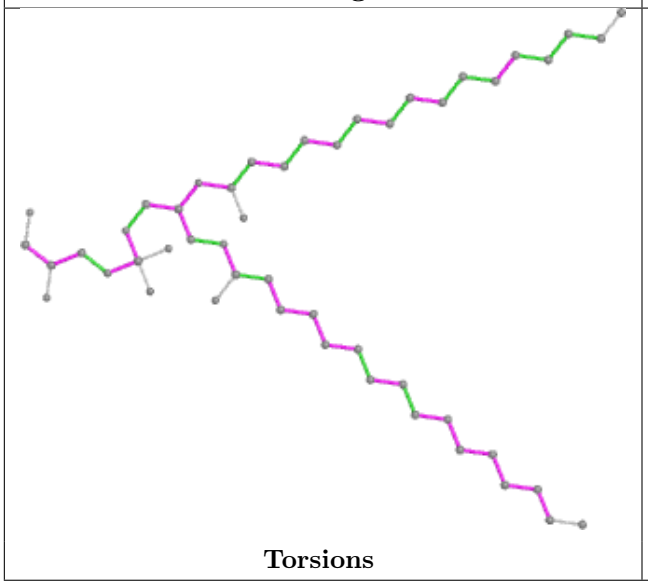


Bond angles



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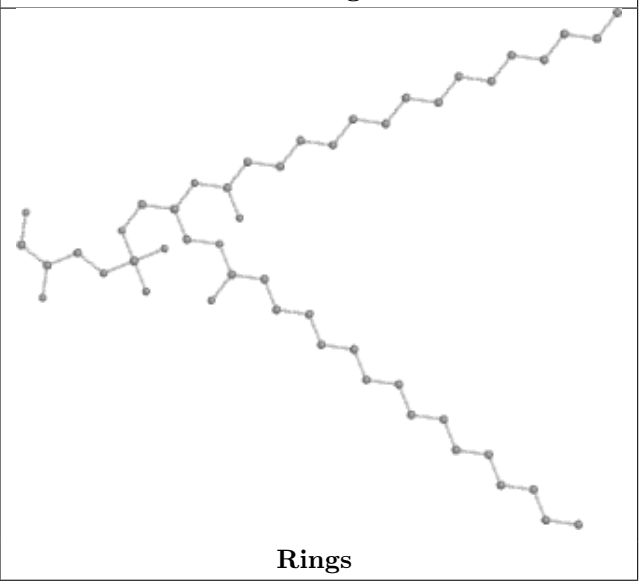
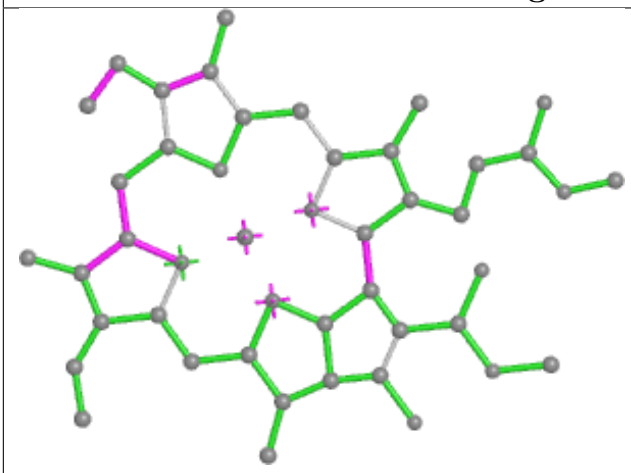


Rings

Ligand CLA 8 615



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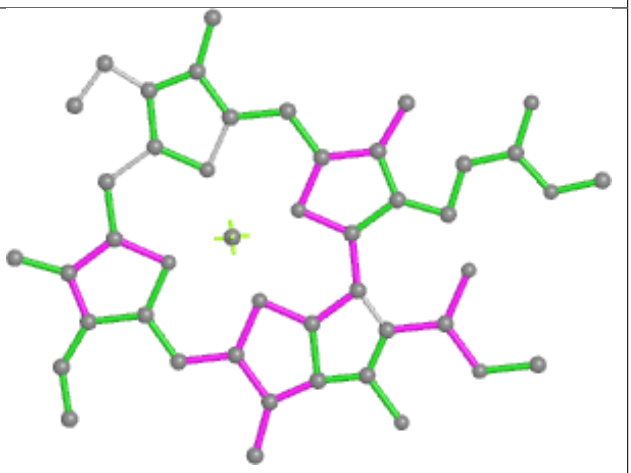
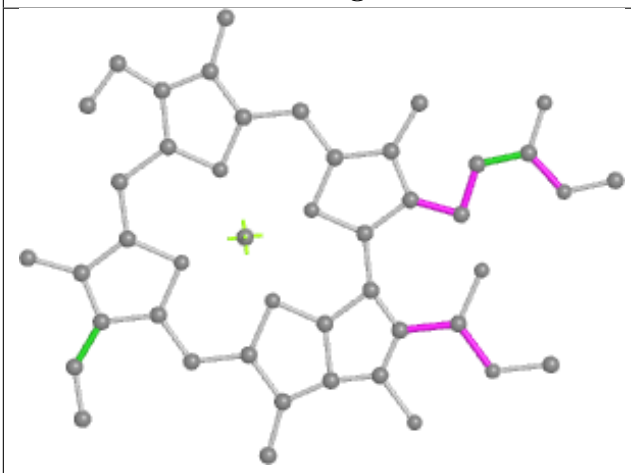


Bond angles



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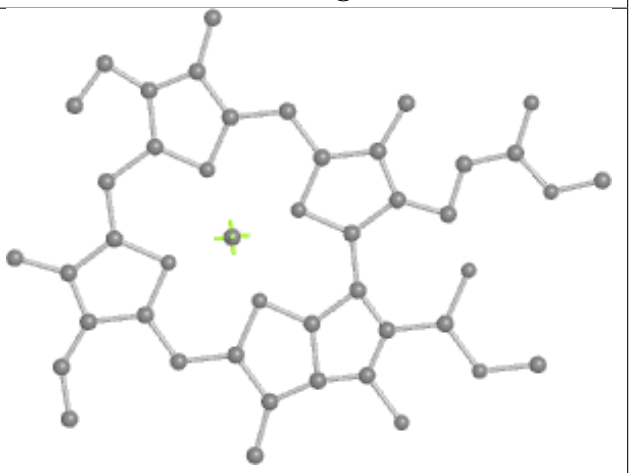
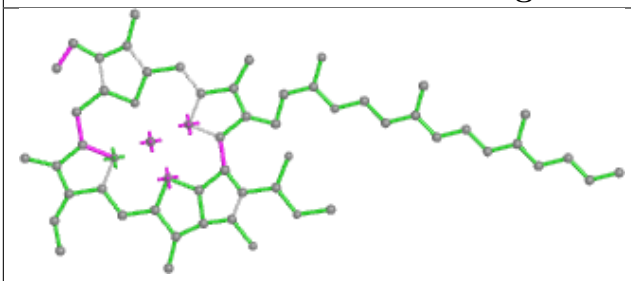
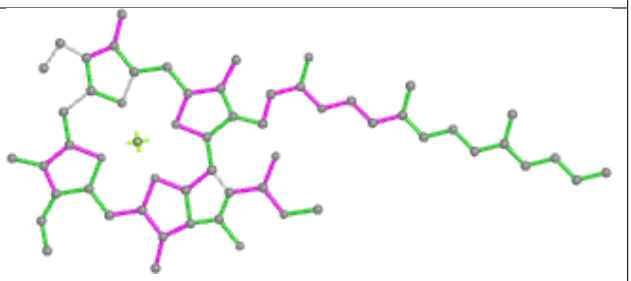


Rings

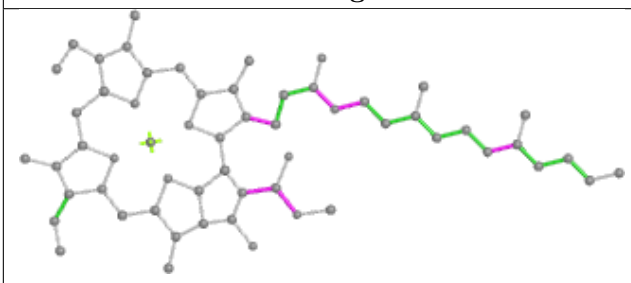
Ligand CLA B 1230



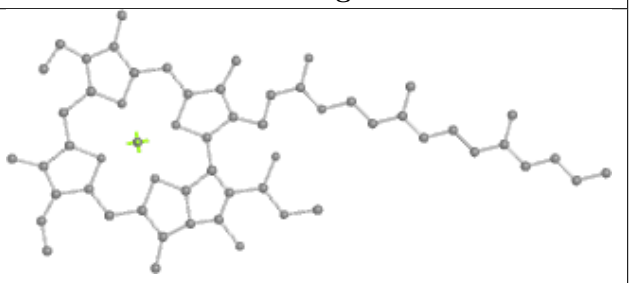
Bond lengths



Bond angles

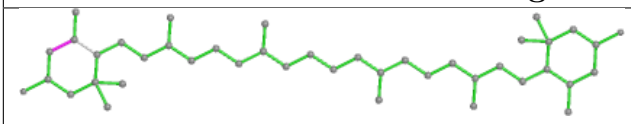


Torsions



Rings

Ligand LUT 8 501



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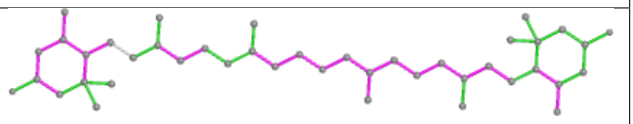
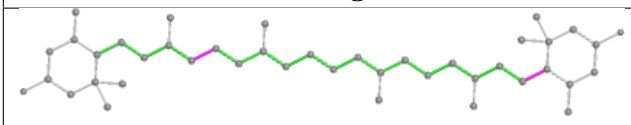


Bond angles



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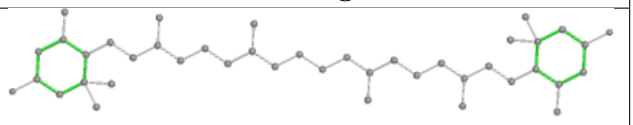
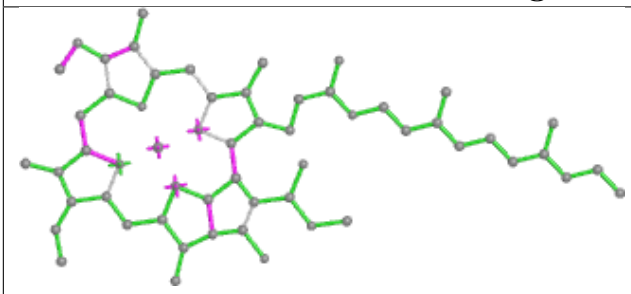


Rings

Ligand CLA 3 610



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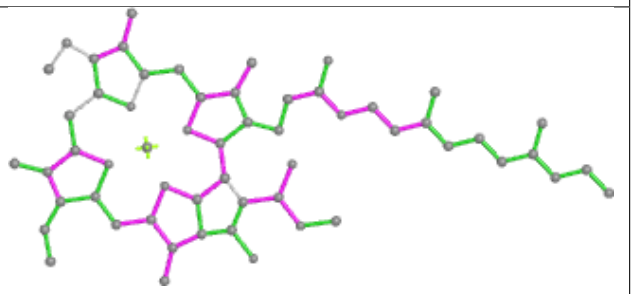
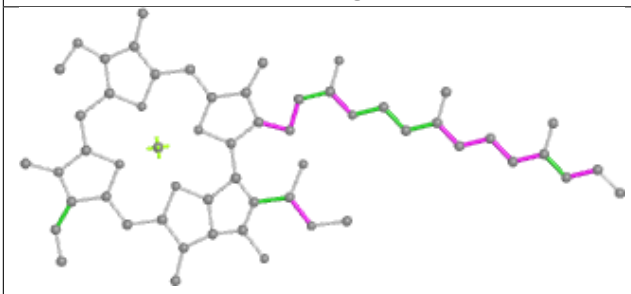


Bond angles



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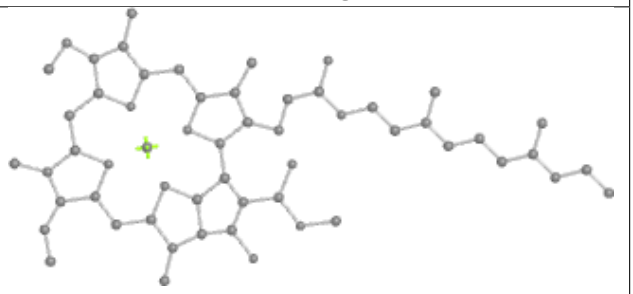
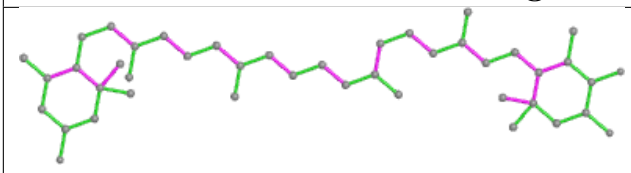


Rings

Ligand AXT 1 502



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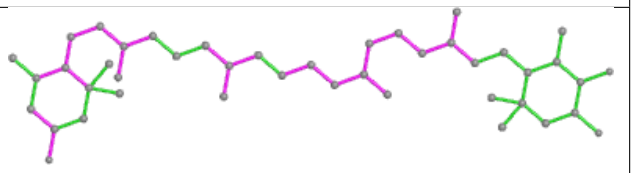
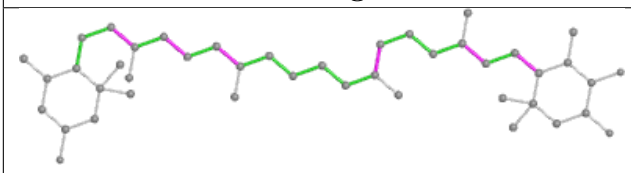
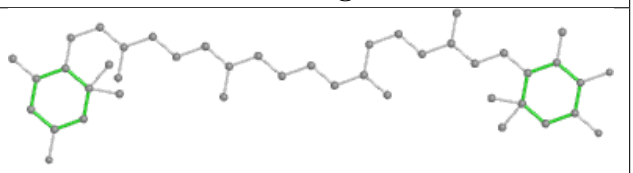


Bond angles

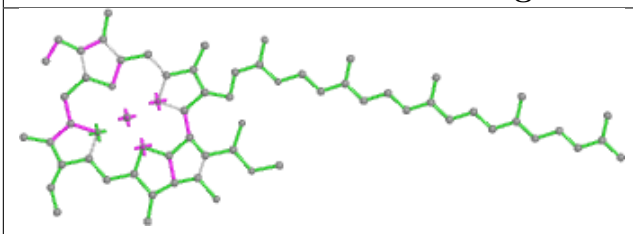


Torsions

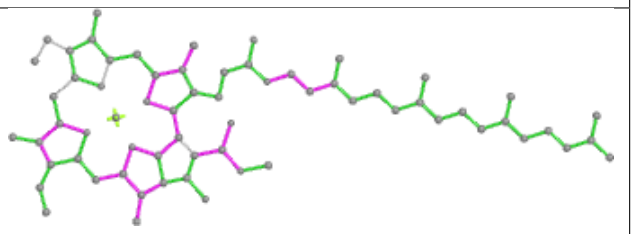


Rings

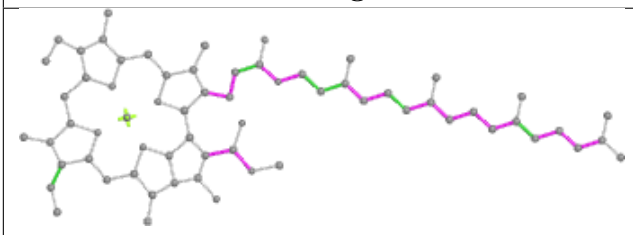
Ligand CLA A 1125



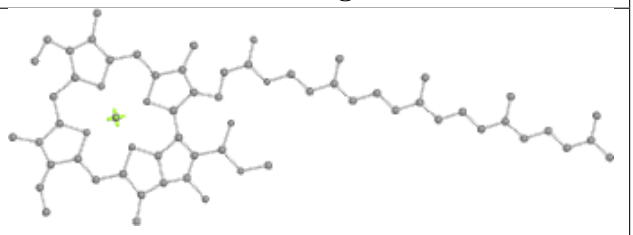
Bond lengths



Bond angles

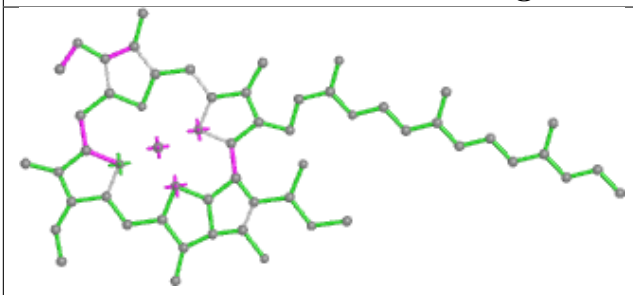


Torsions

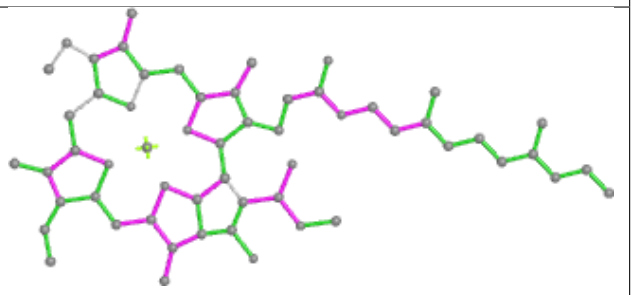


Rings

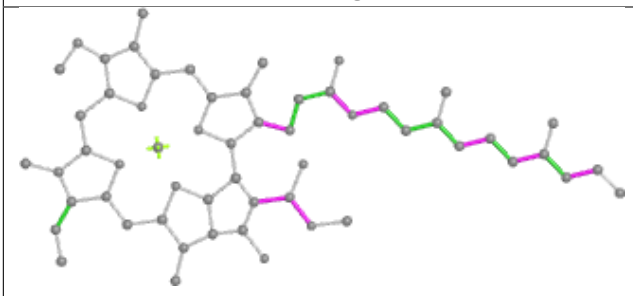
Ligand CLA B 1212



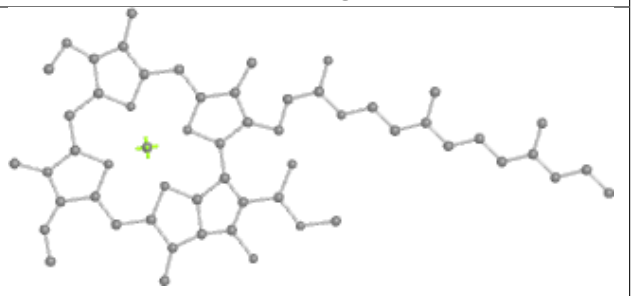
Bond lengths



Bond angles

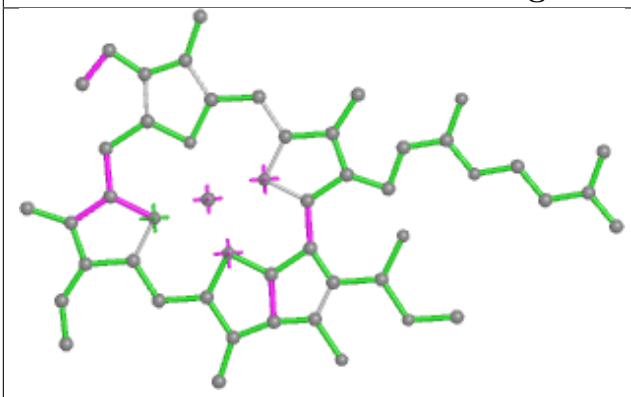


Torsions

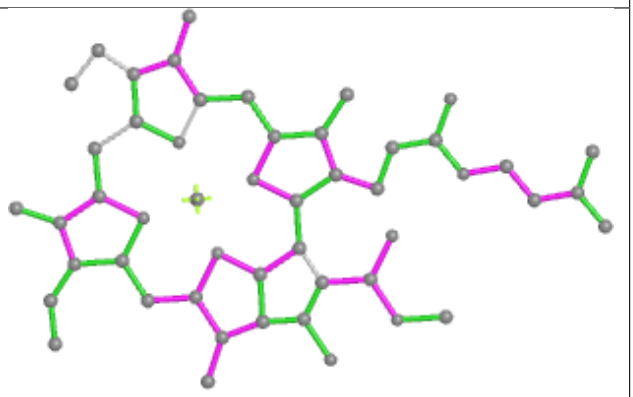


Rings

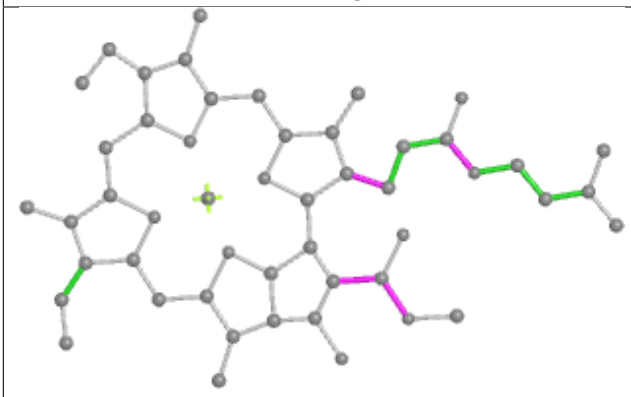
Ligand CLA 4 606



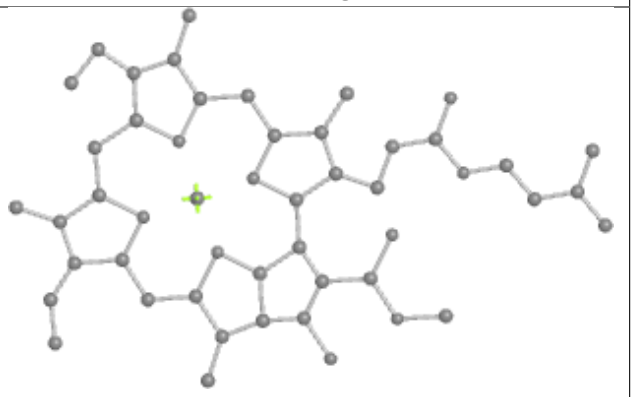
Bond lengths



Bond angles

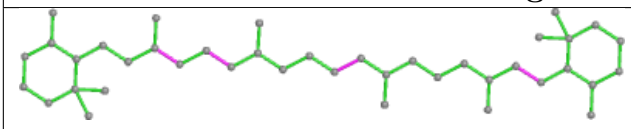


Torsions



Rings

Ligand BCR 3 505



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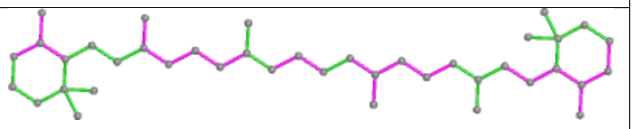
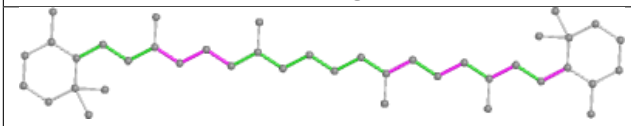
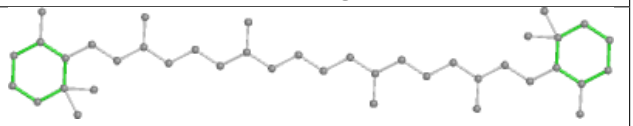


Bond angles

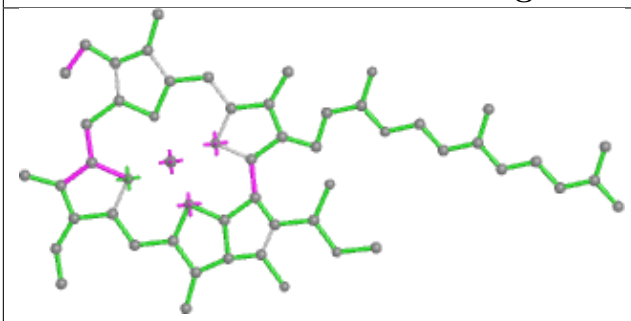


Torsions

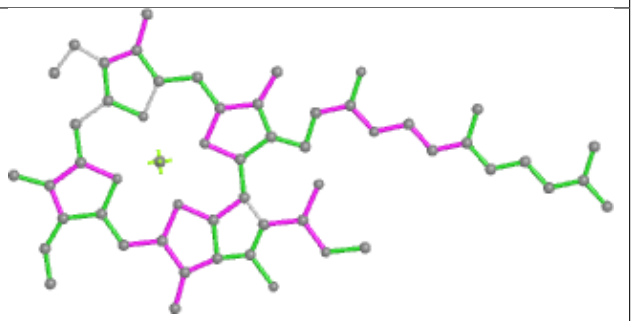


Rings

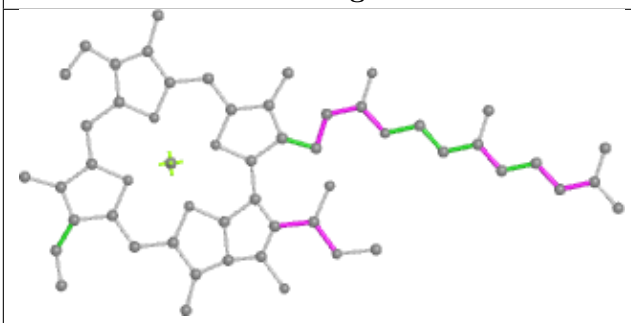
Ligand CLA B 1213



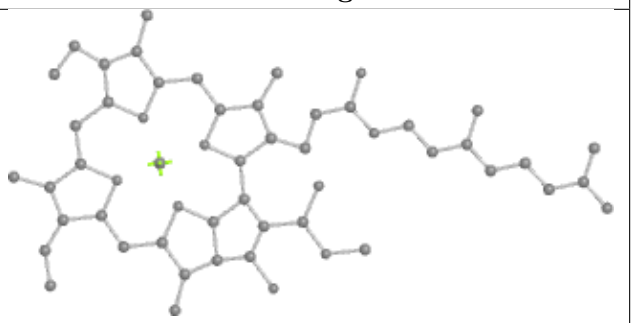
Bond lengths



Bond angles

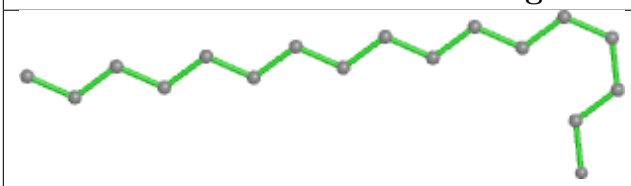


Torsions



Rings

Ligand PLM 8 806



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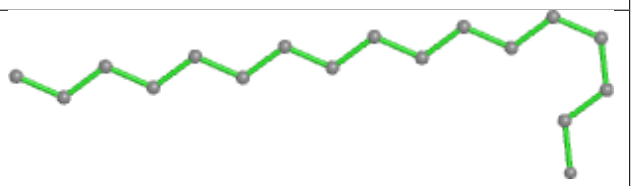
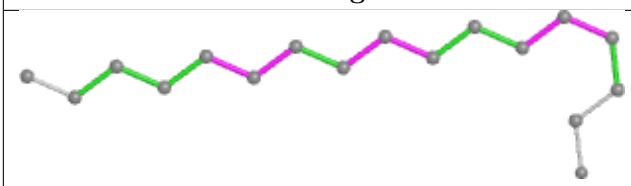


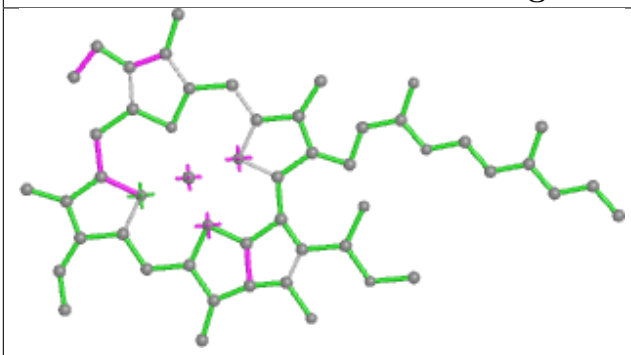
Bond angles



Torsions

Rings

Ligand CLA 8 608



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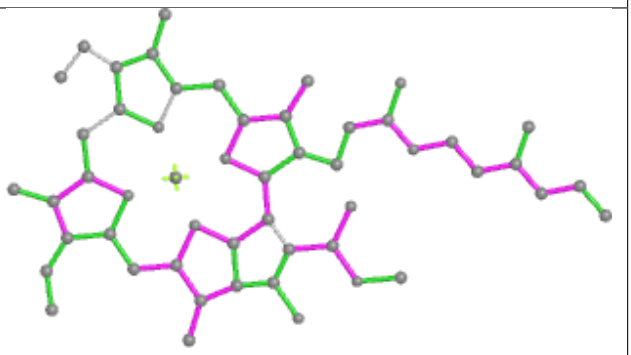
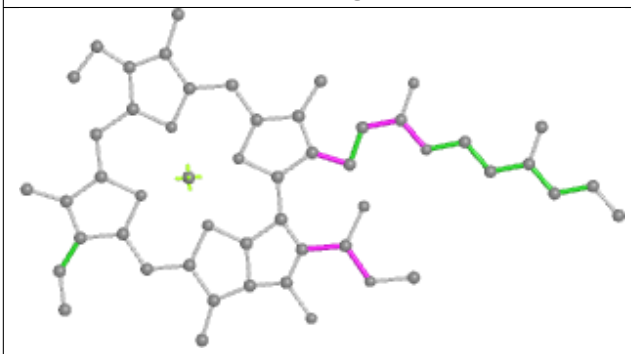
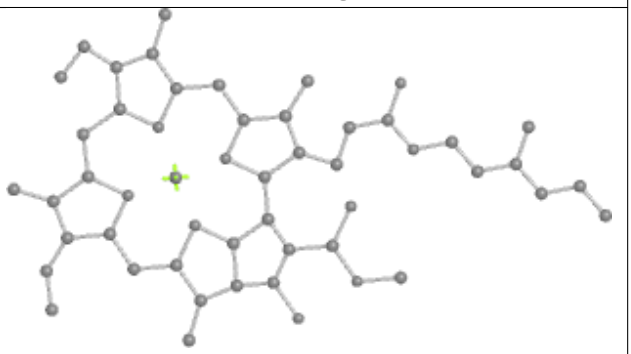


Bond angles

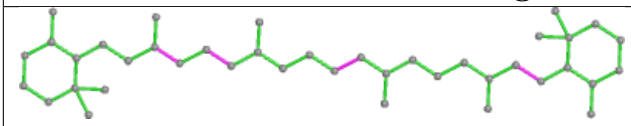


Torsions



Rings

Ligand BCR B 4005



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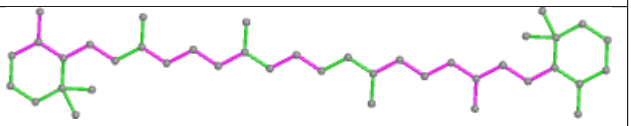
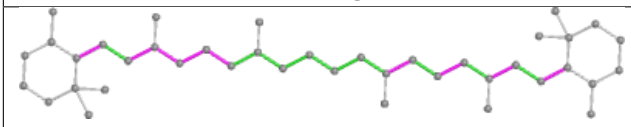


Bond angles



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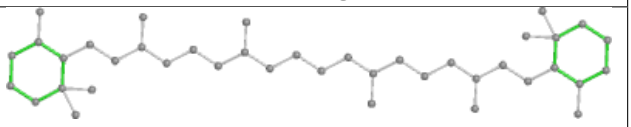
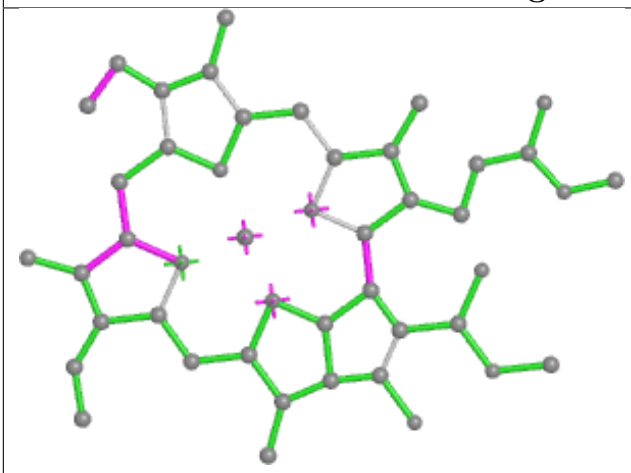


Rings

Ligand CLA 1 615



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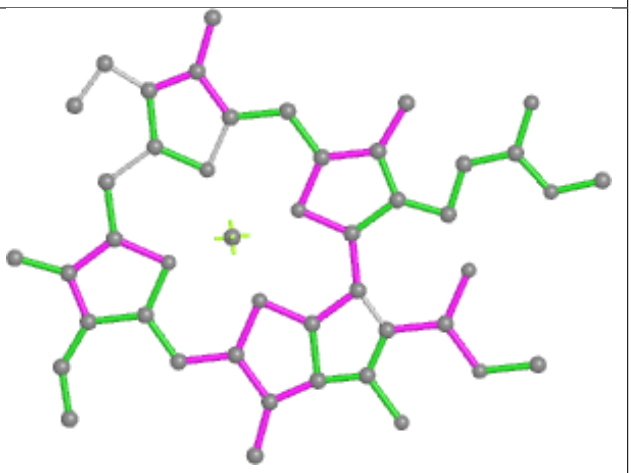
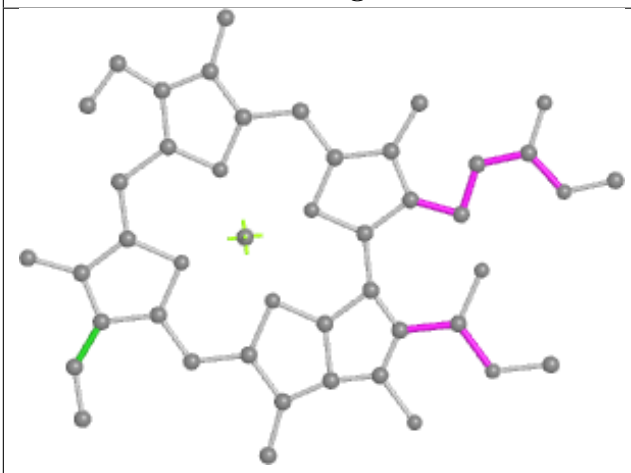


Bond angles



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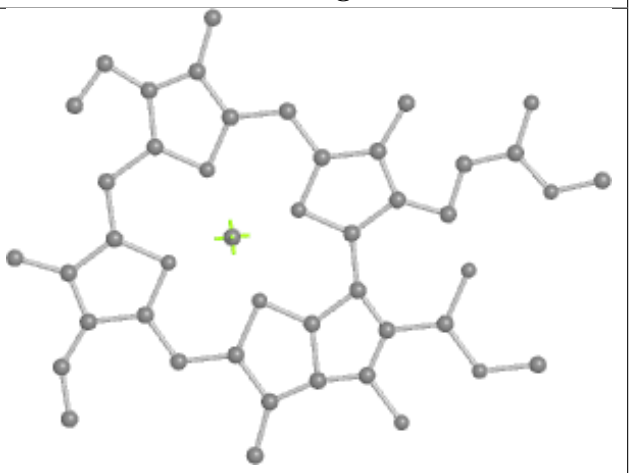
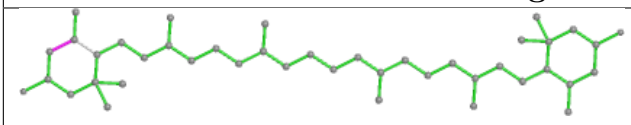


Rings

Ligand LUT 1 501



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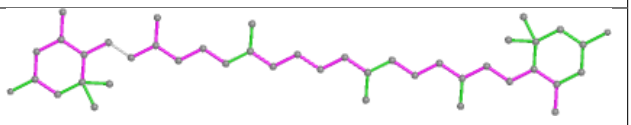
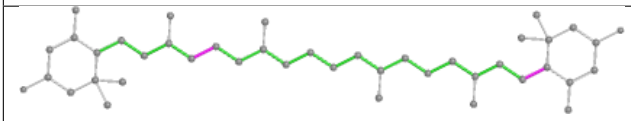


Bond angles



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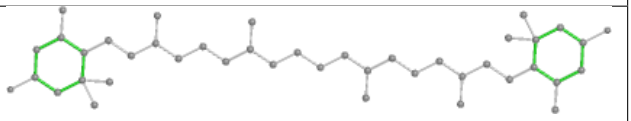
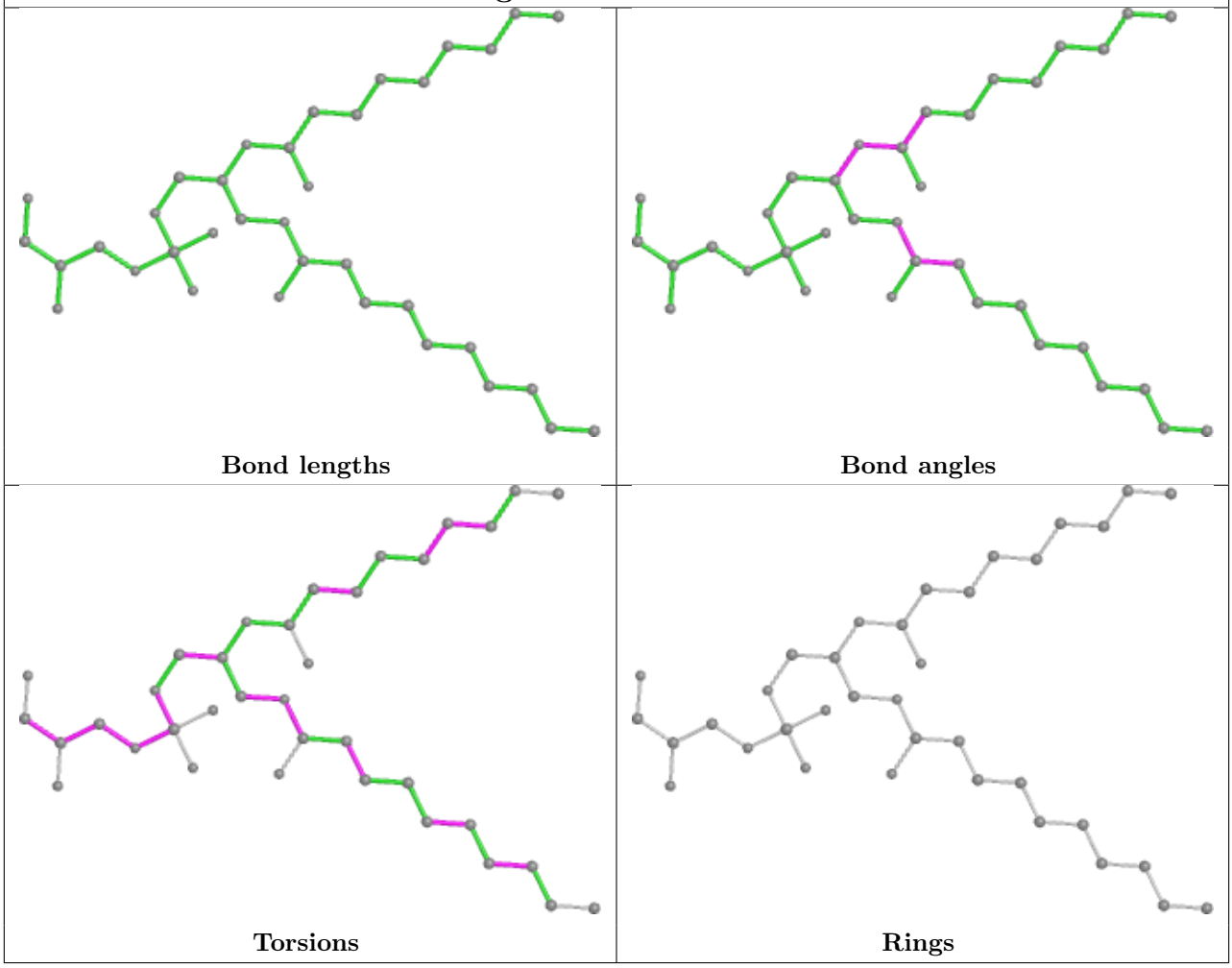
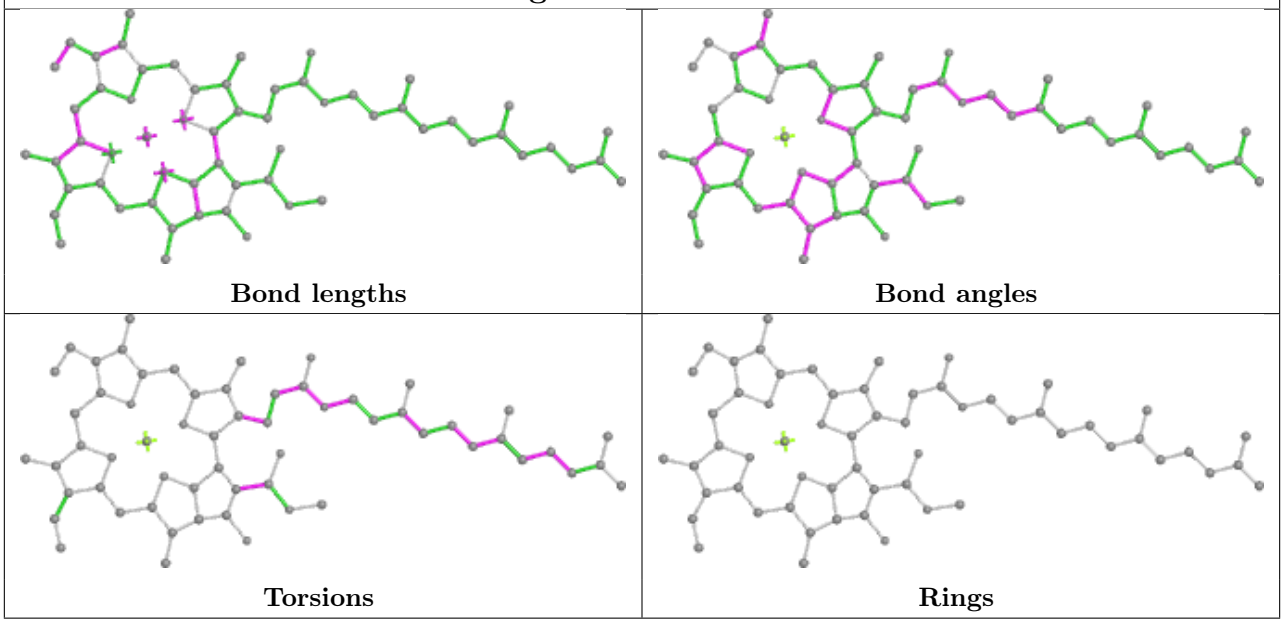


Rings

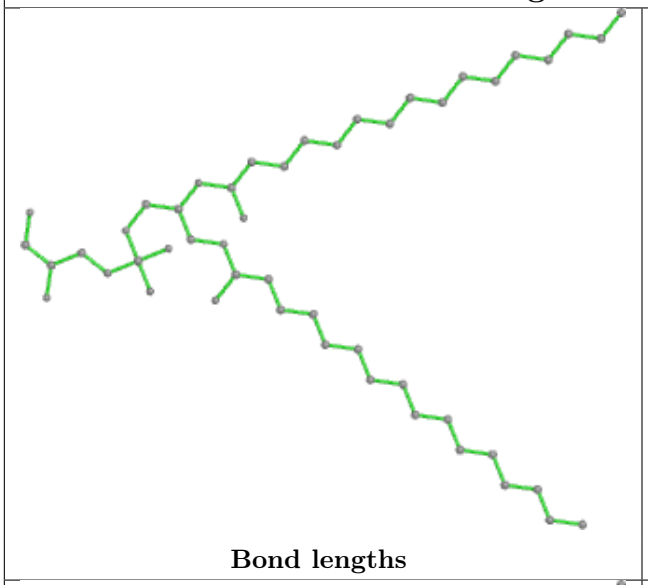
Ligand LHG F 5002



Ligand CLA 1 608



Ligand LHG 4 801



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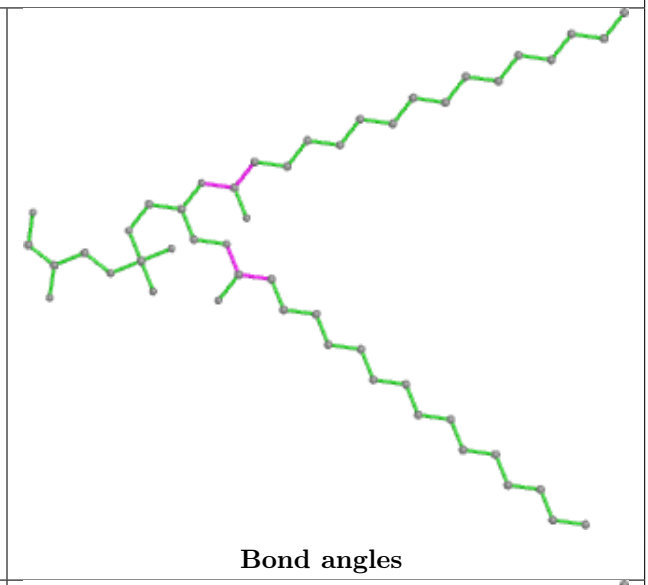
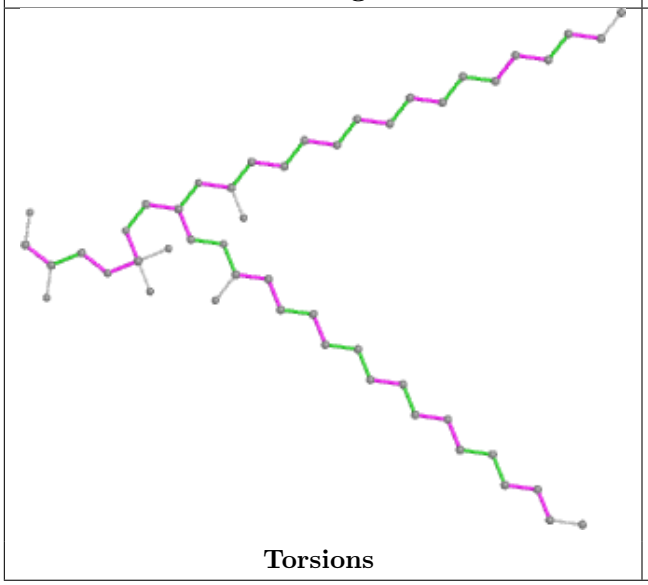
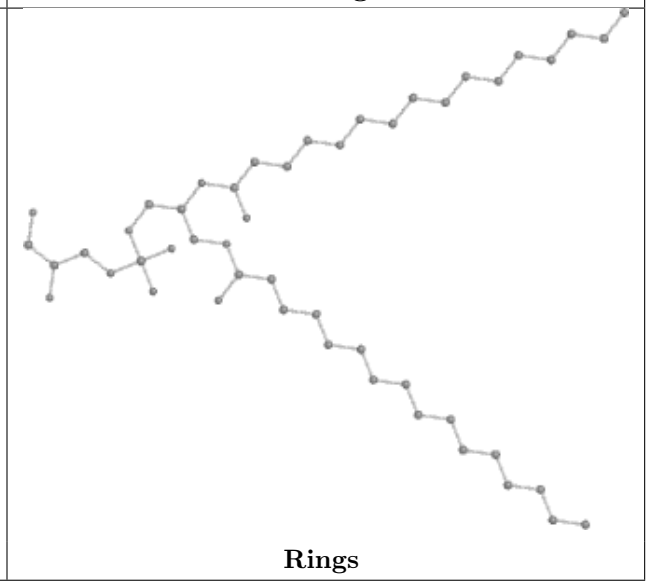


Bond angles

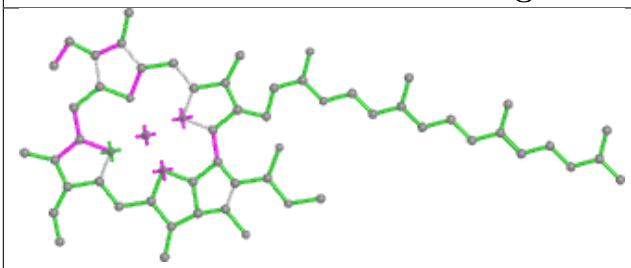


Torsions

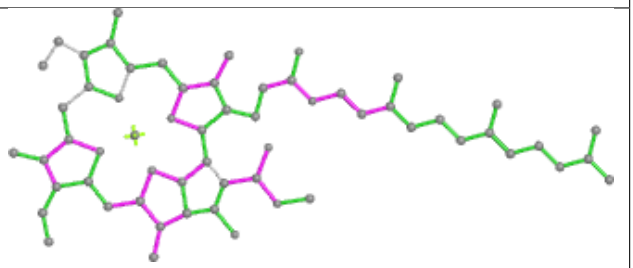


Rings

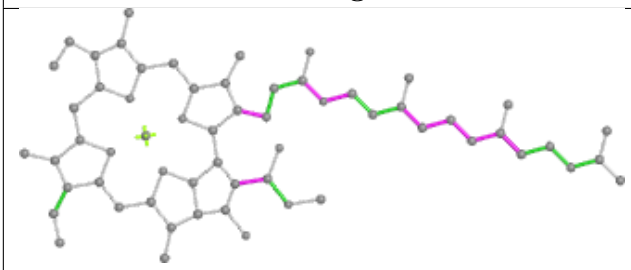
Ligand CLA B 1220



Bond lengths



Bond angles



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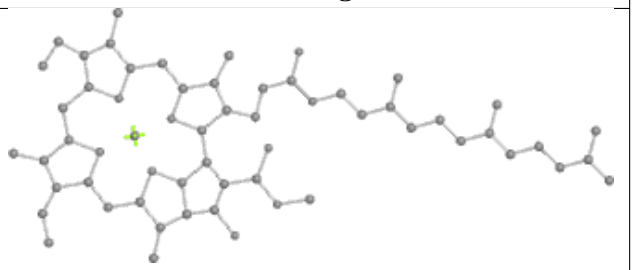
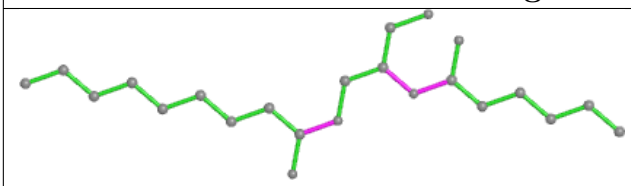


Rings

Ligand DGA 5 803



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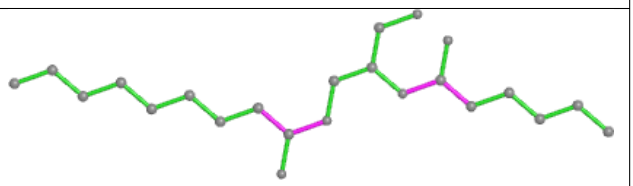
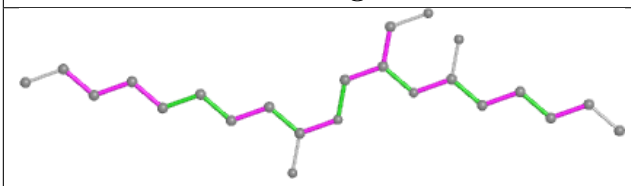


Bond angles



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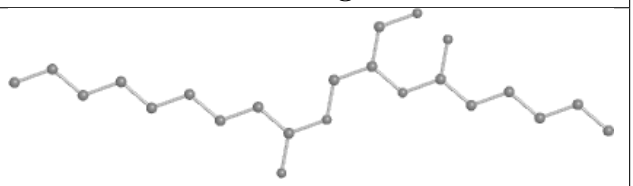
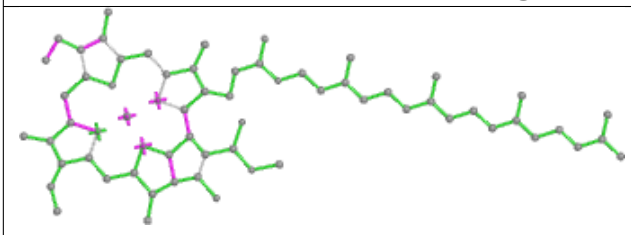


Rings

Ligand CLA A 1128



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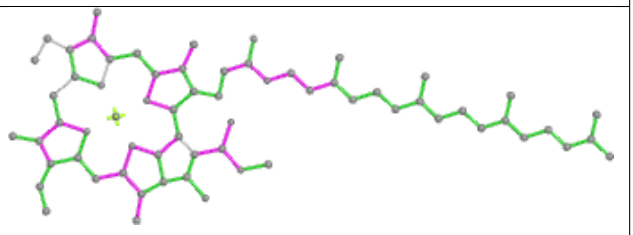
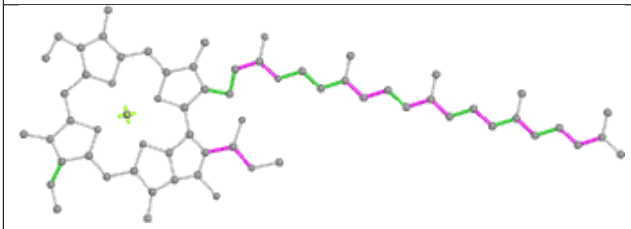
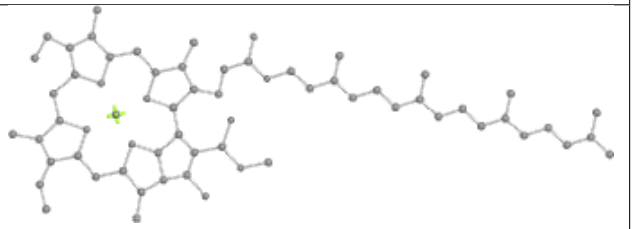


Bond angles

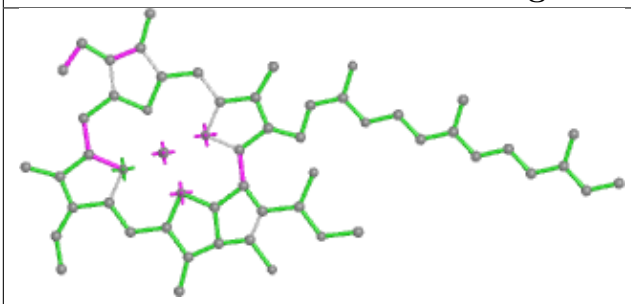


Torsions

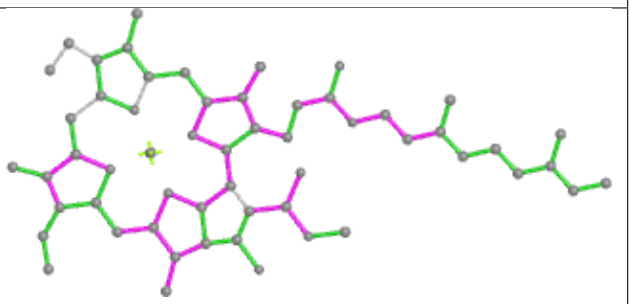


Rings

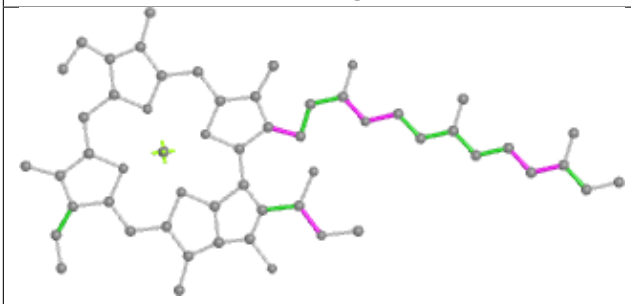
Ligand CLA 4 611



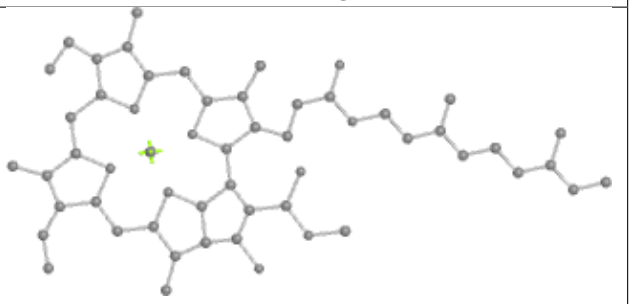
Bond lengths



Bond angles

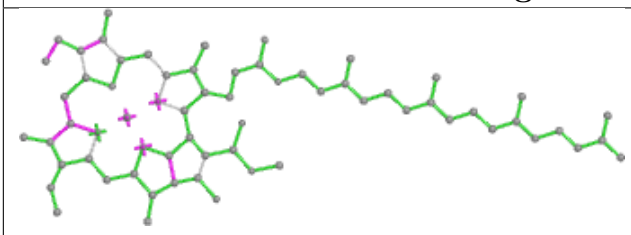


Torsions

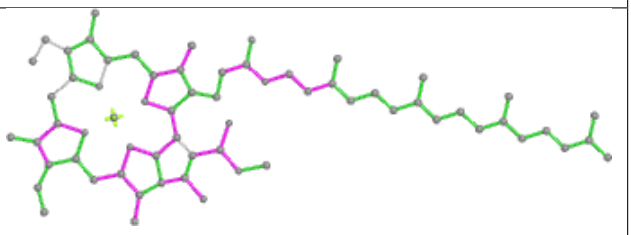


Rings

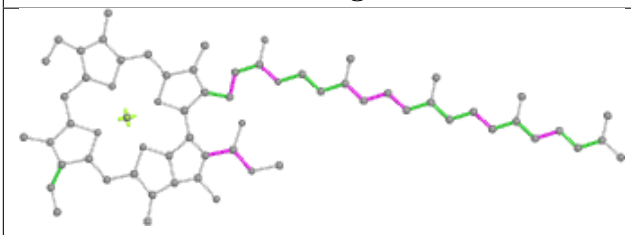
Ligand CLA A 1012



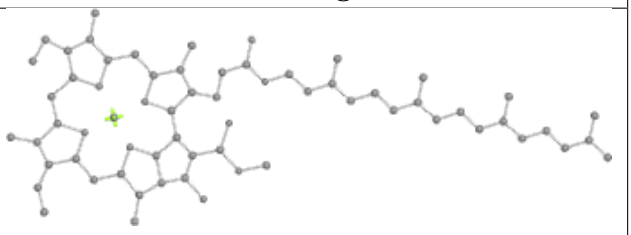
Bond lengths



Bond angles

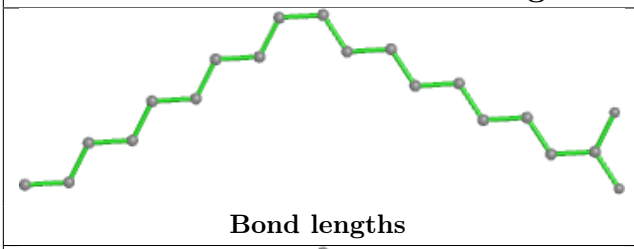


Torsions

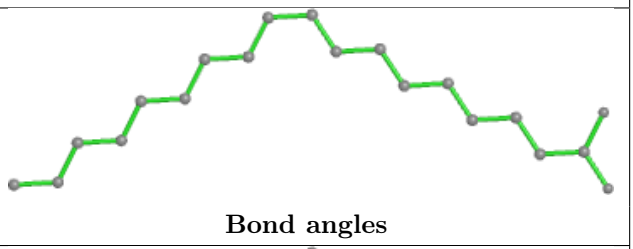


Rings

Ligand OLA 8 808



Bond lengths



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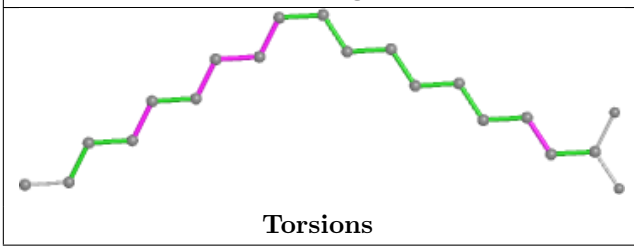
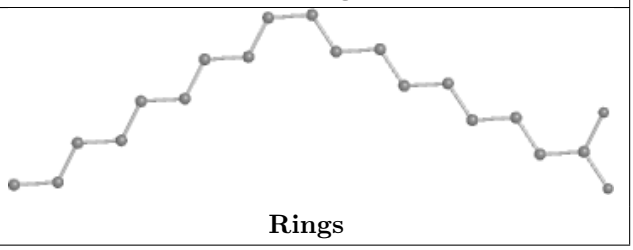
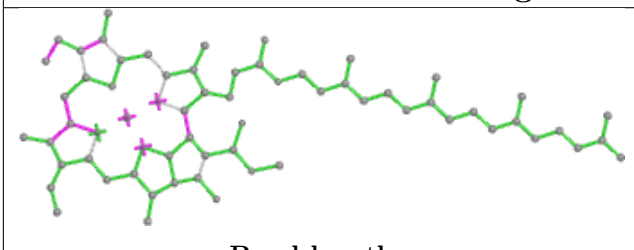


Torsions



Rings

Ligand CLA A 1101



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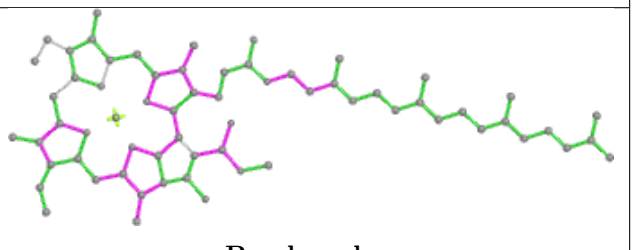

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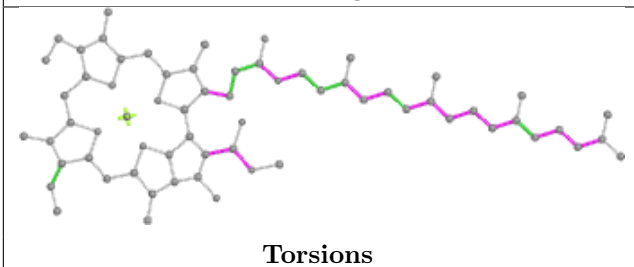

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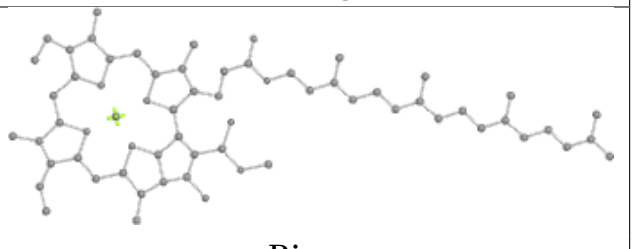
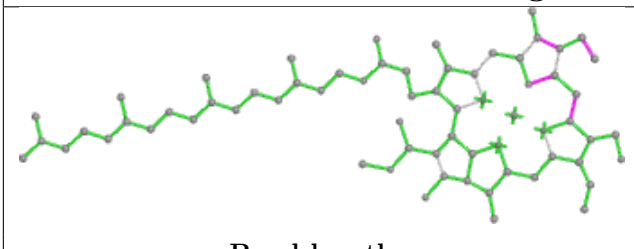


Rings

Ligand CHL 2 609



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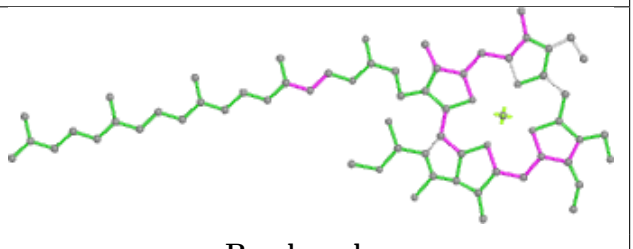

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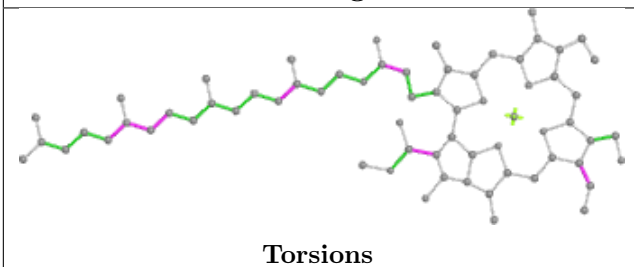

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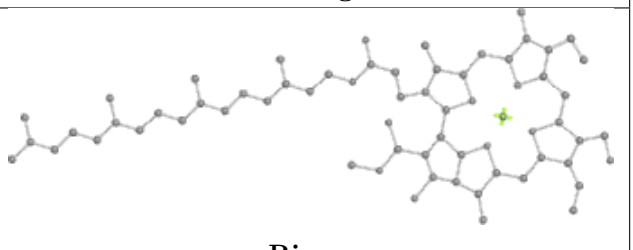

Rings

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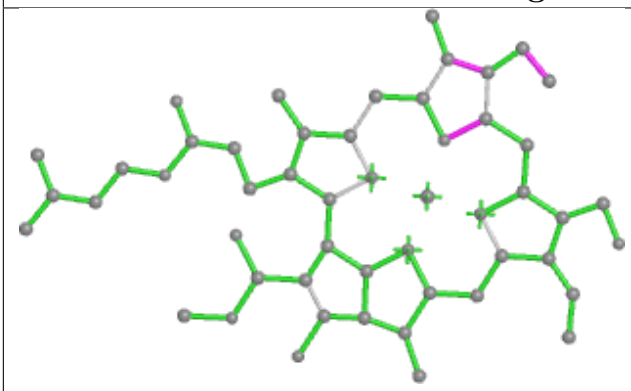

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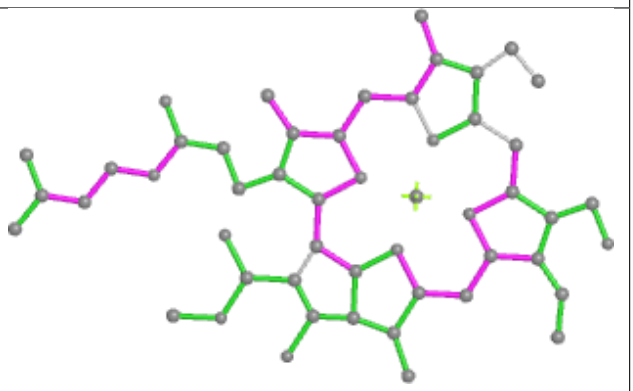

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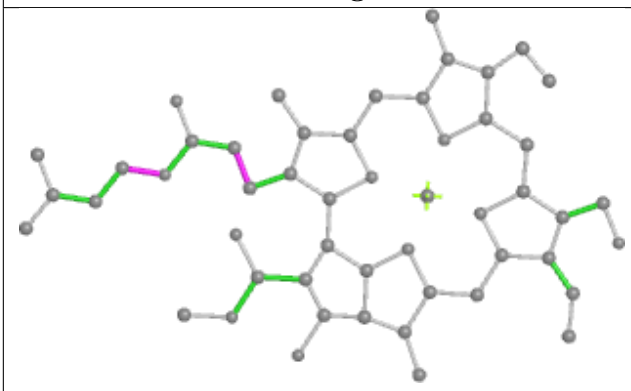

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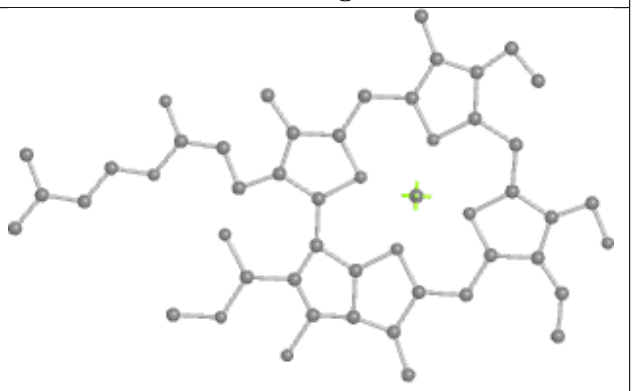
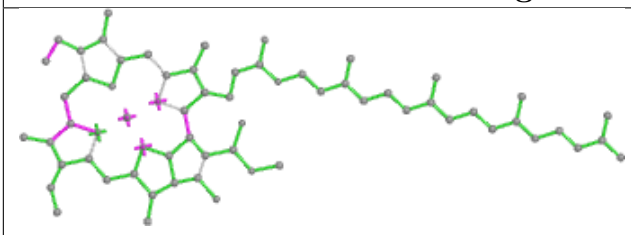


Rings

Ligand CLA B 1201



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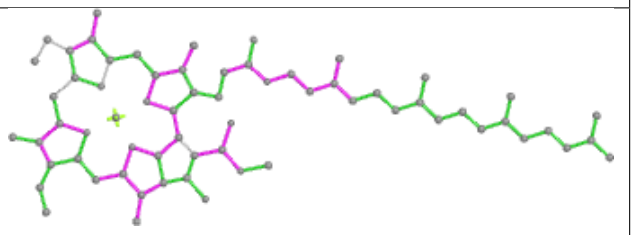

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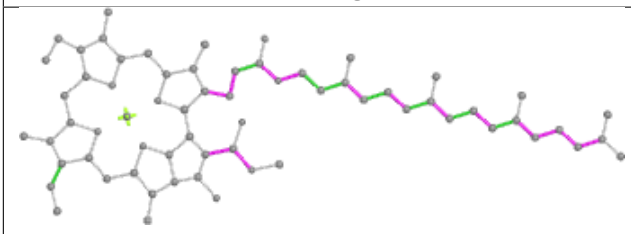

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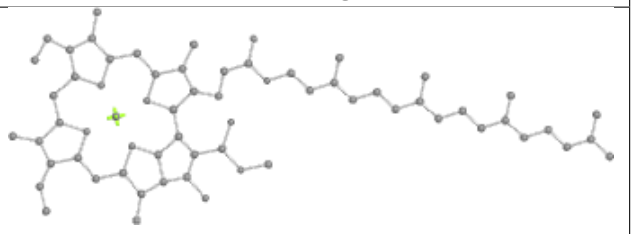
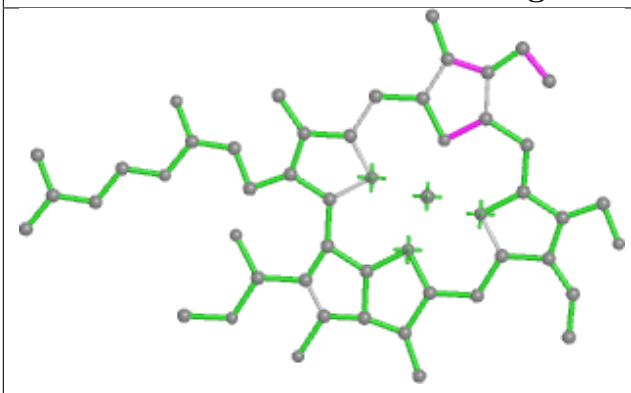


Rings

Ligand CHL 8 613



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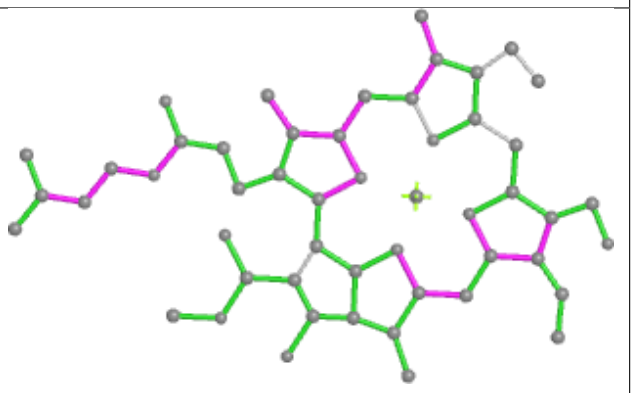

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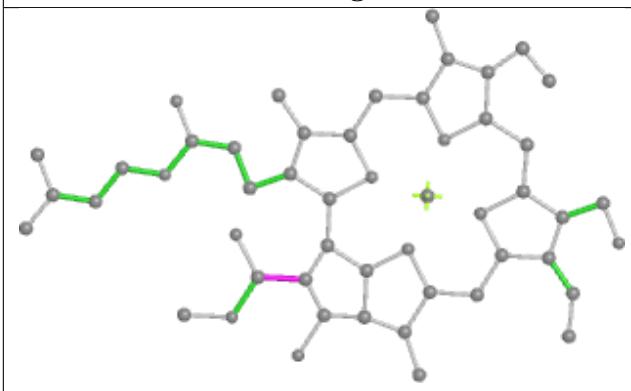

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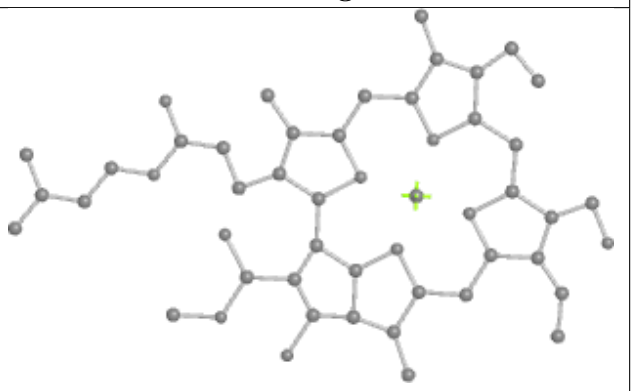
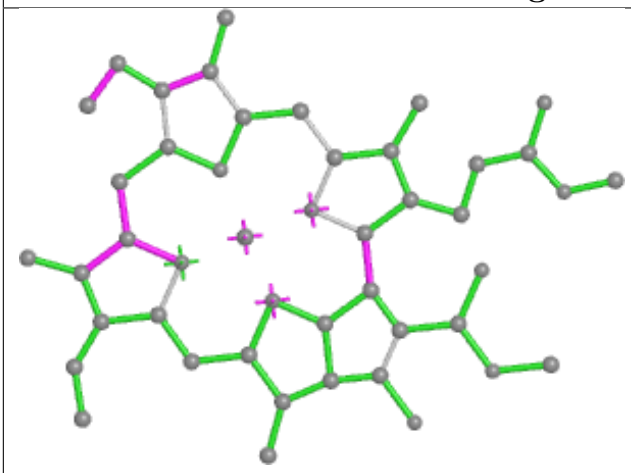


Rings

Ligand CLA a 615



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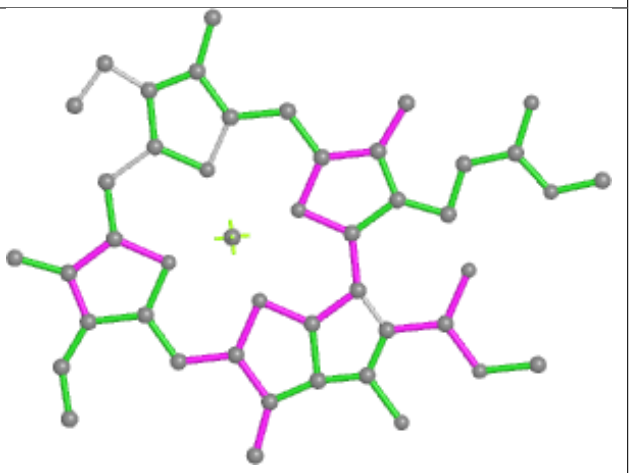

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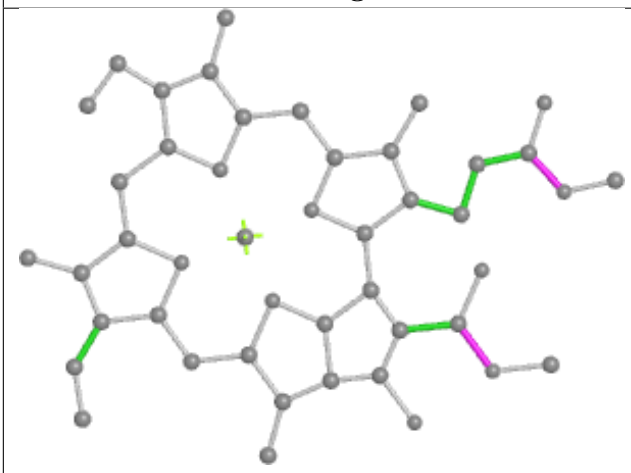

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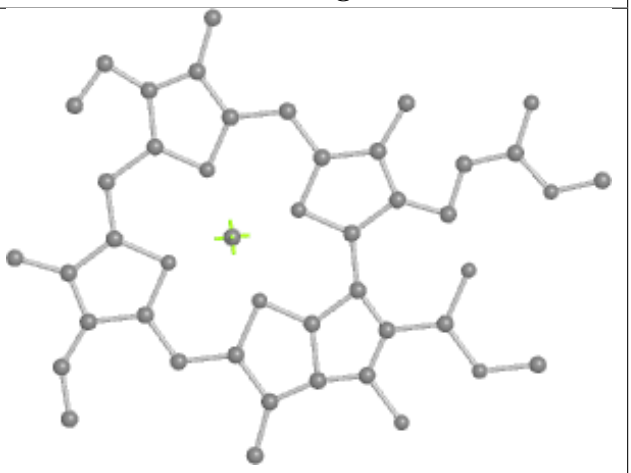
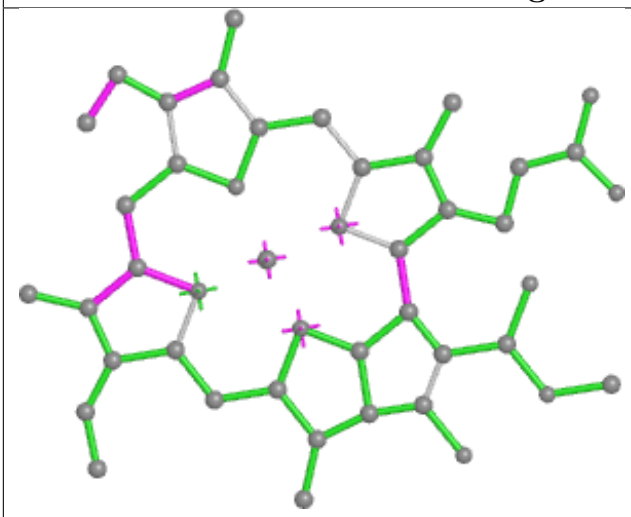


Rings

Ligand CLA 5 608



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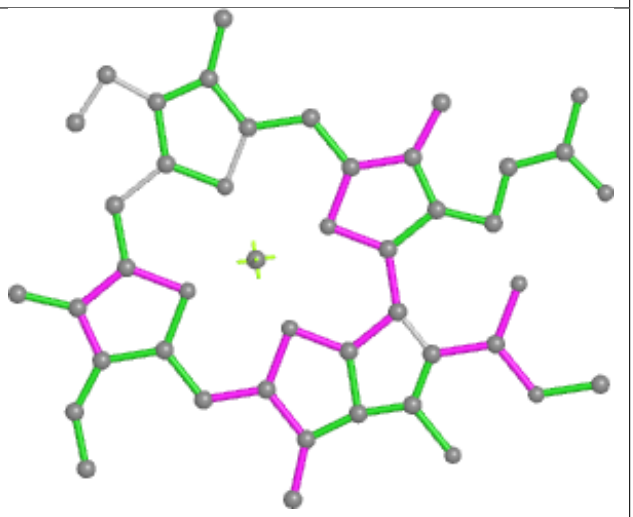

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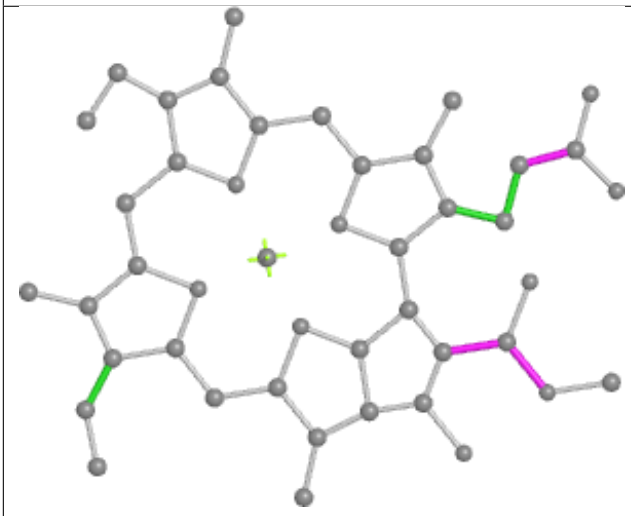

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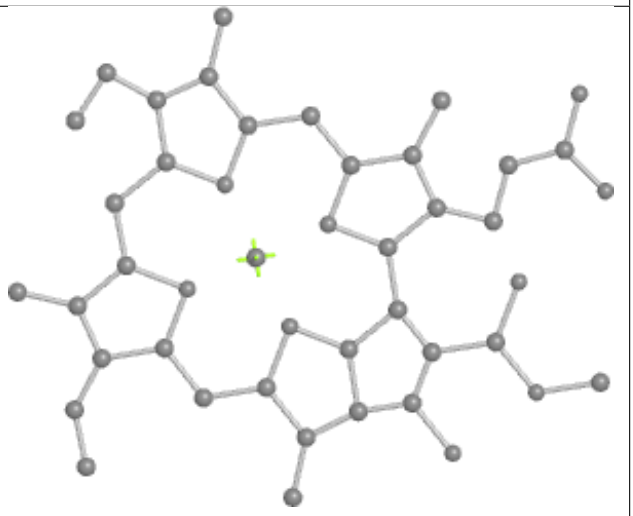

Rings

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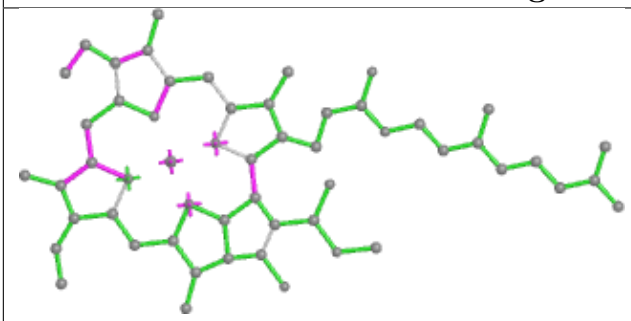

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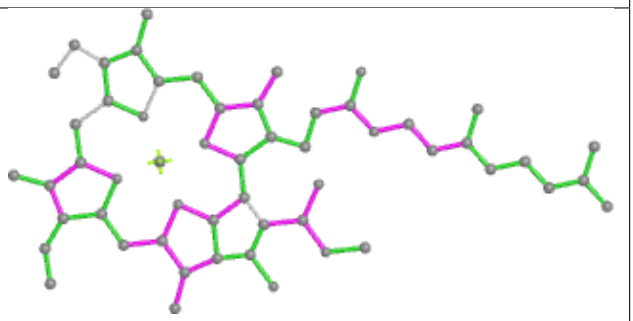

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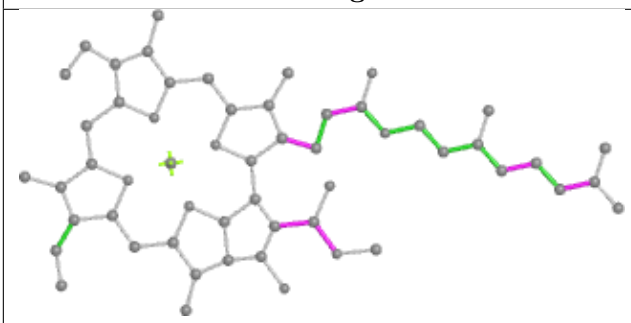

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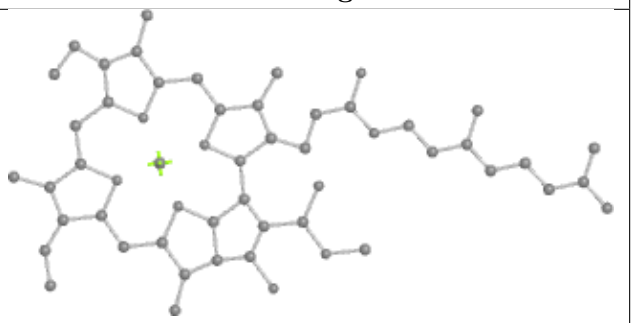
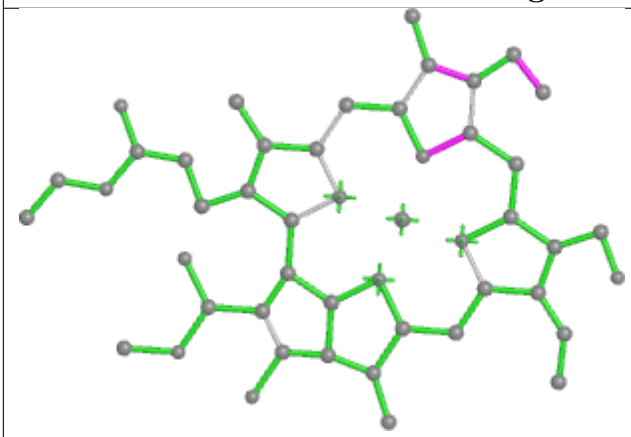


Rings

Ligand CHL 9 608



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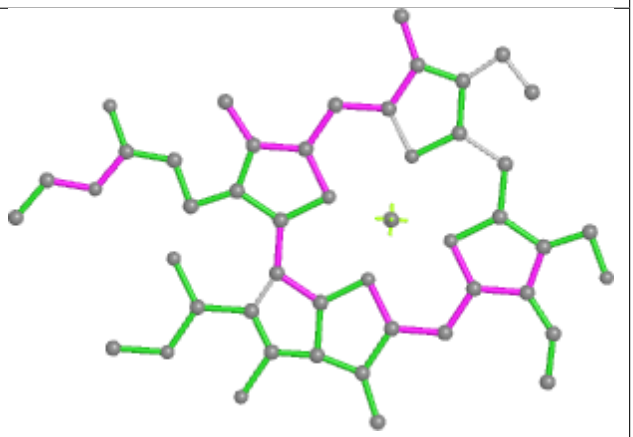

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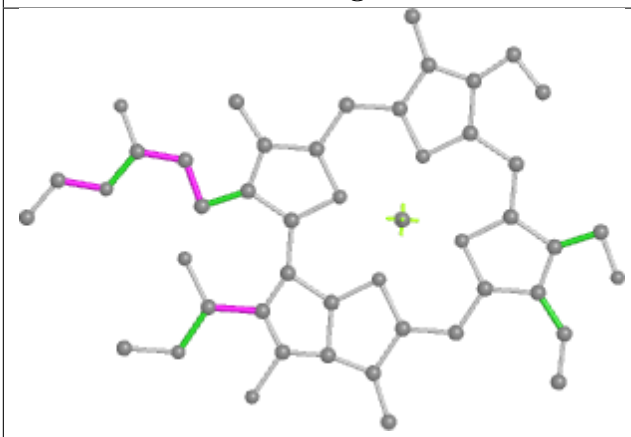

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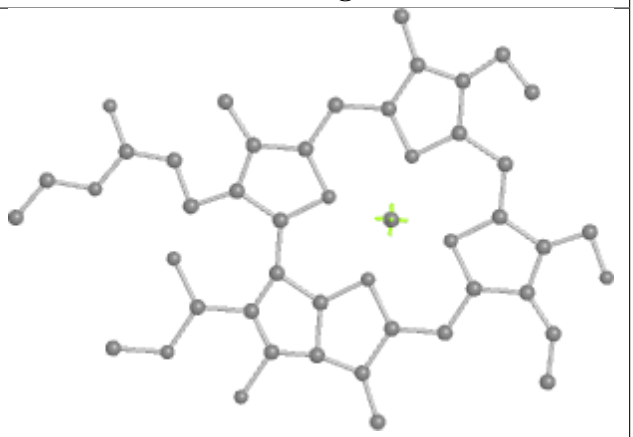
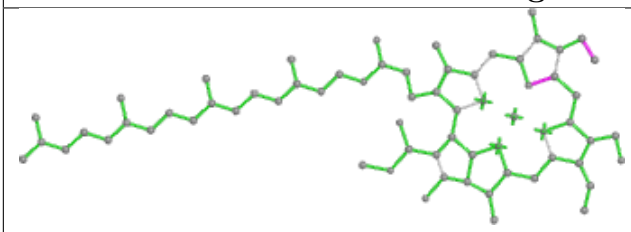


Rings

Ligand CHL 6 619



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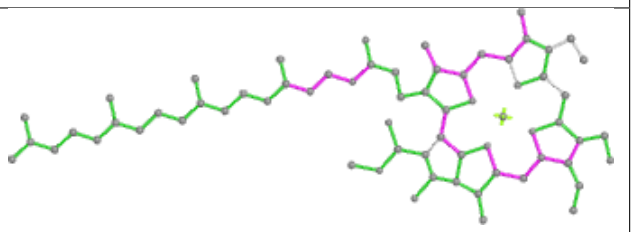
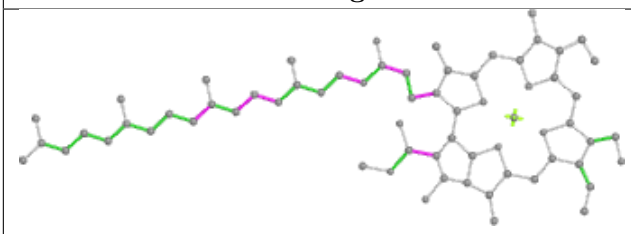


Bond angles



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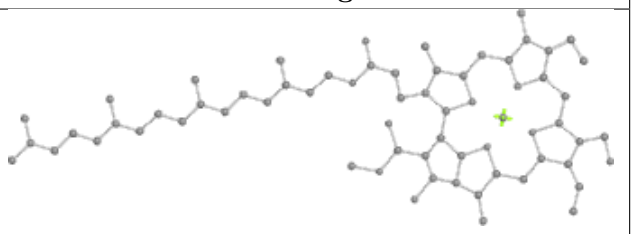
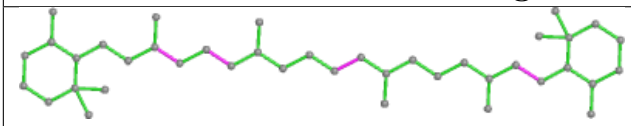


Rings

Ligand BCR A 4001



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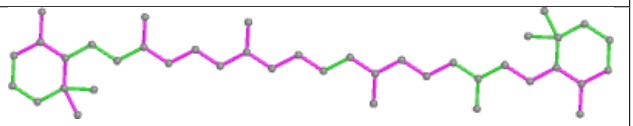

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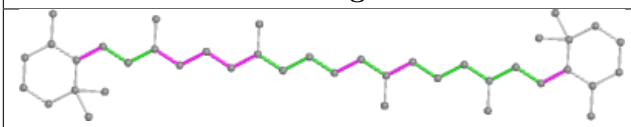

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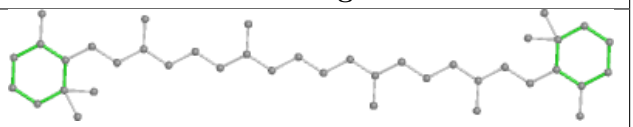
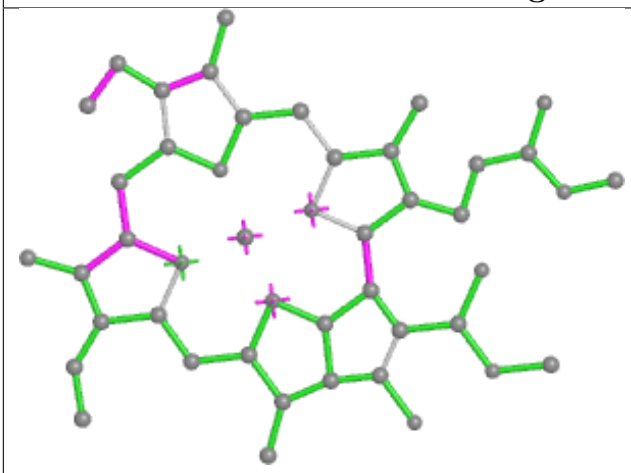


Rings

Ligand CLA 5 614



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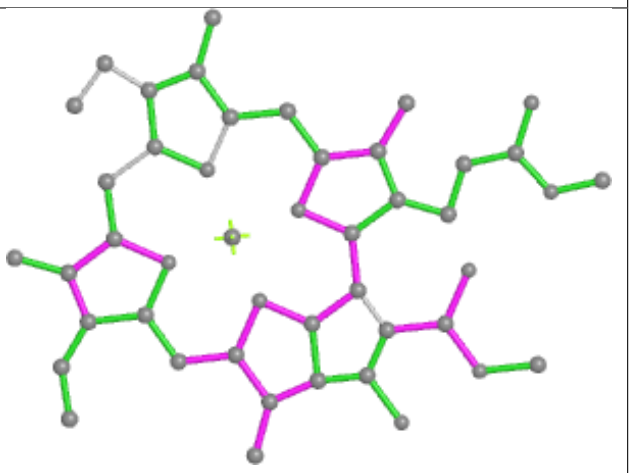
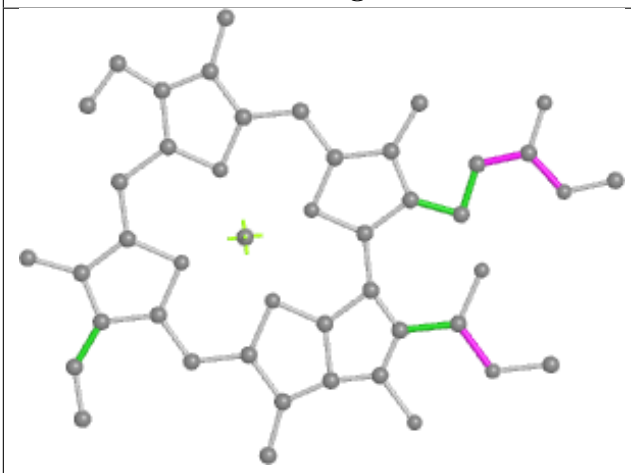


Bond angles



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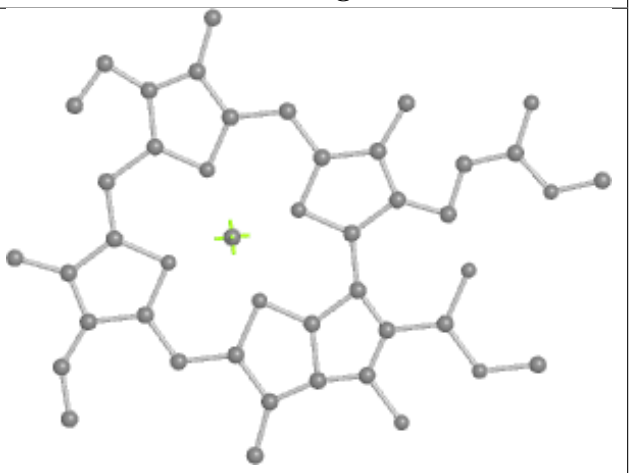
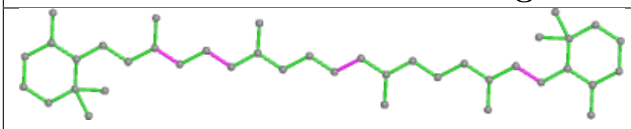


Rings

Ligand BCR L 4003



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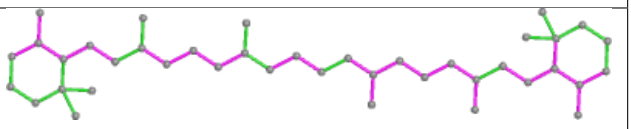
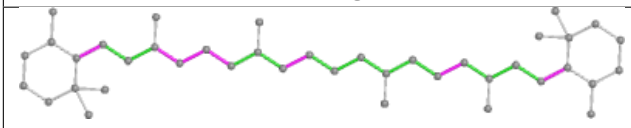


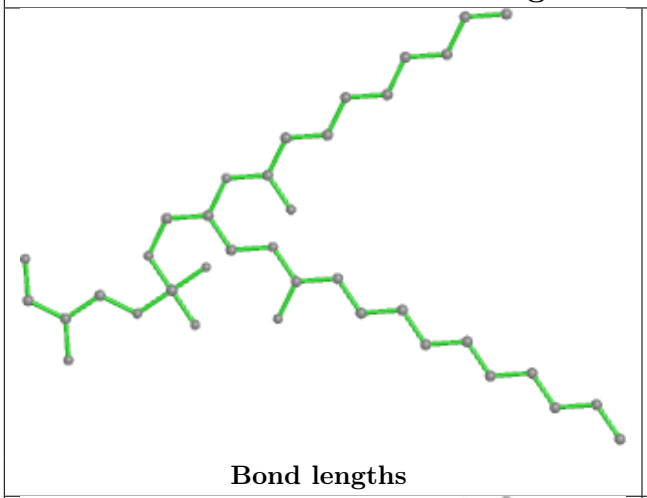
Bond angles



Torsions

Rings

Ligand LHG 8 801



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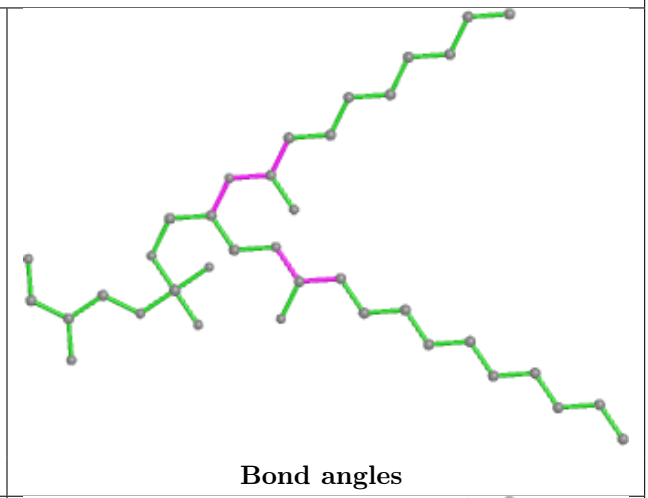
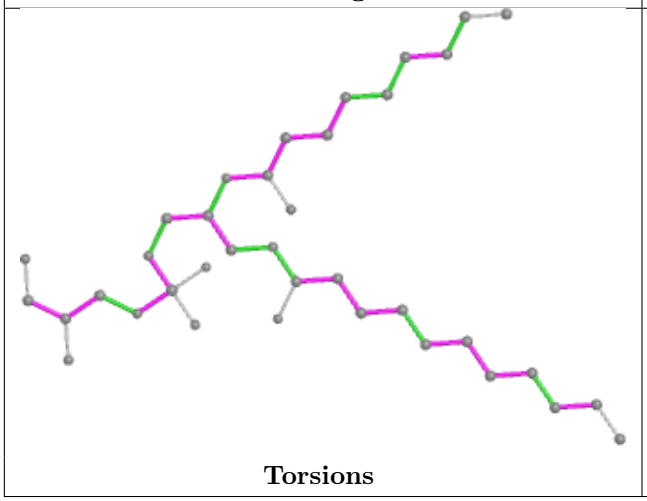


Bond angles



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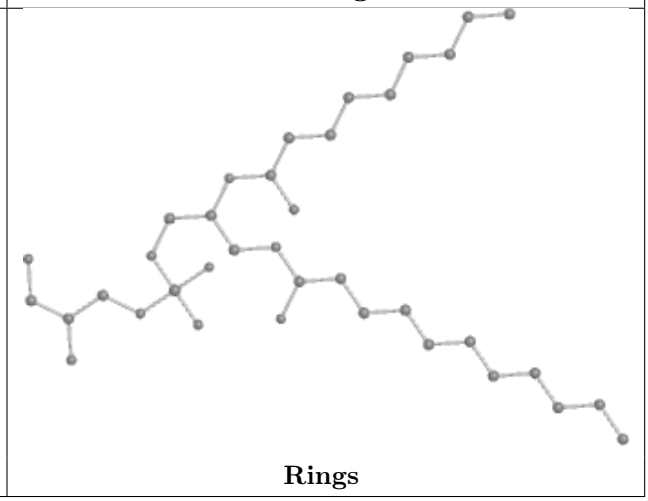
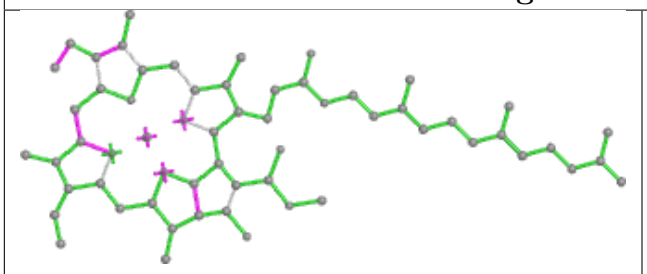
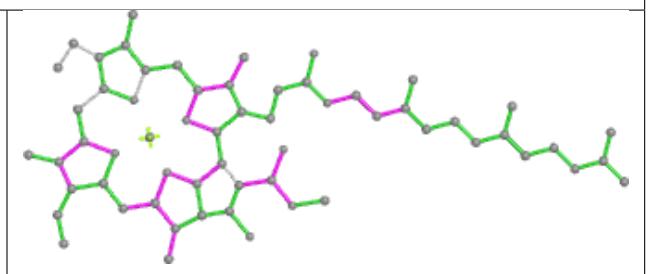


Rings

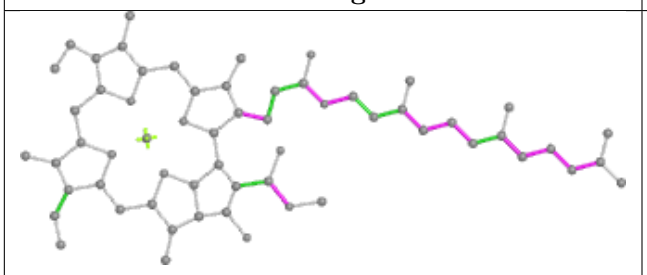
Ligand CLA B 1215



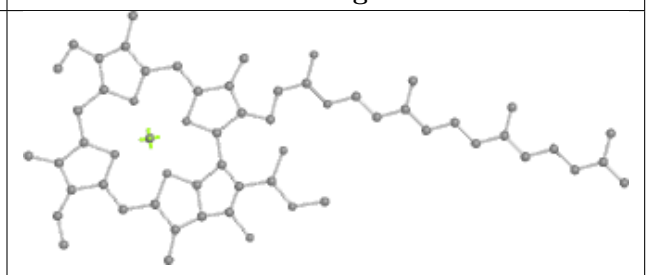
Bond lengths



Bond angles

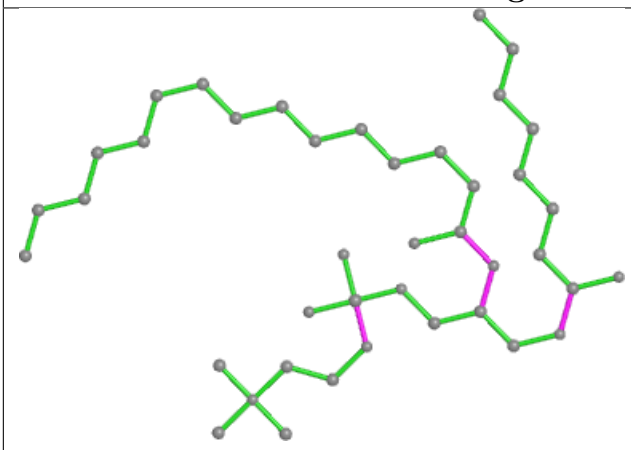


Torsions

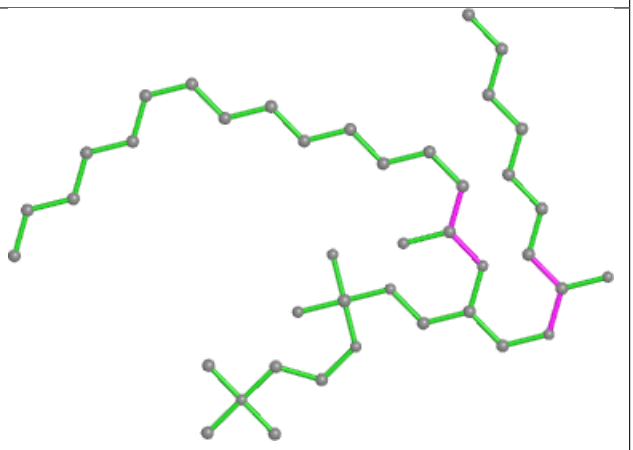


Rings

Ligand PCW K 5001



Bond lengths



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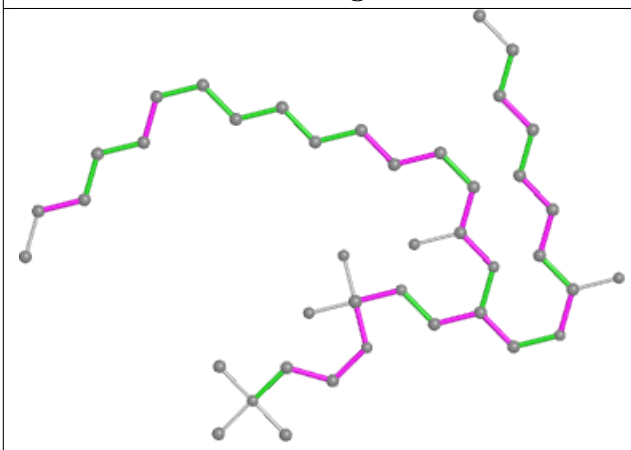
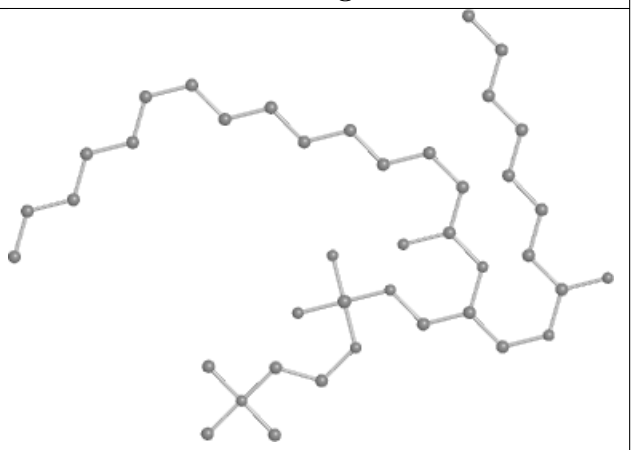
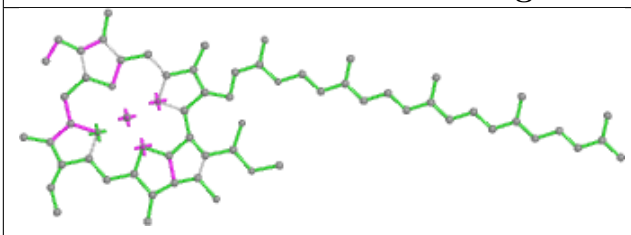


Torsions



Rings

Ligand CLA B 1231



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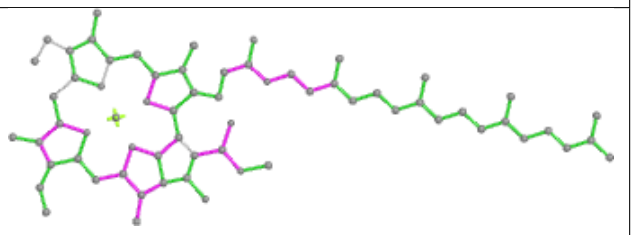
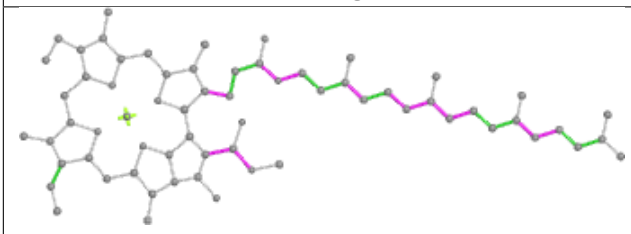


Bond angles



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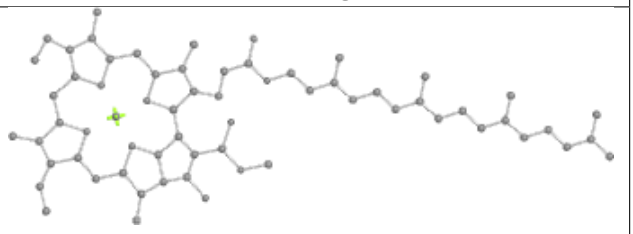
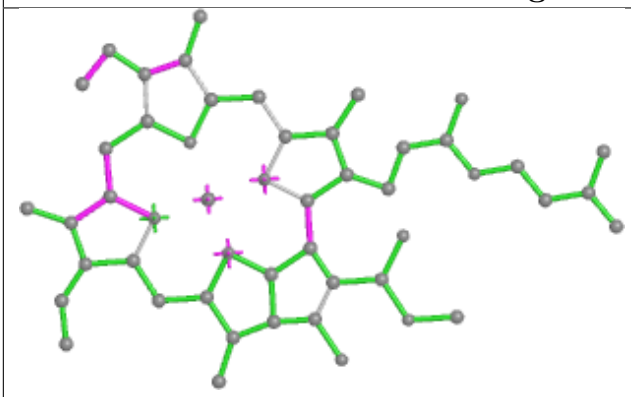


Rings

Ligand CLA 6 612



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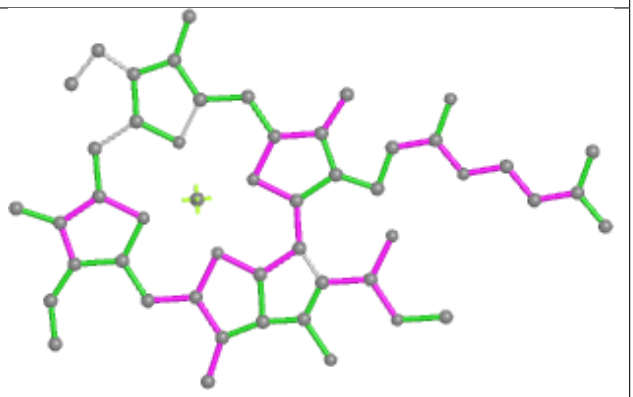
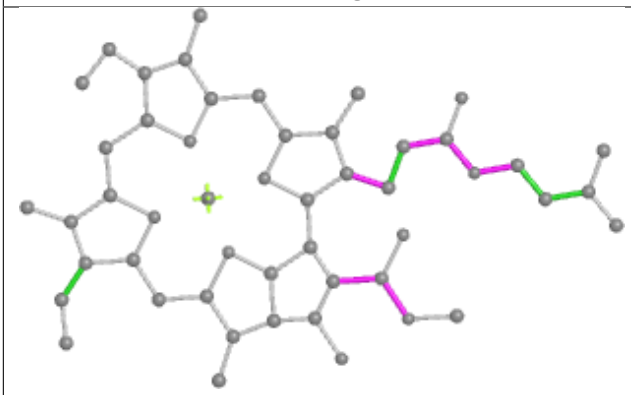


Bond angles



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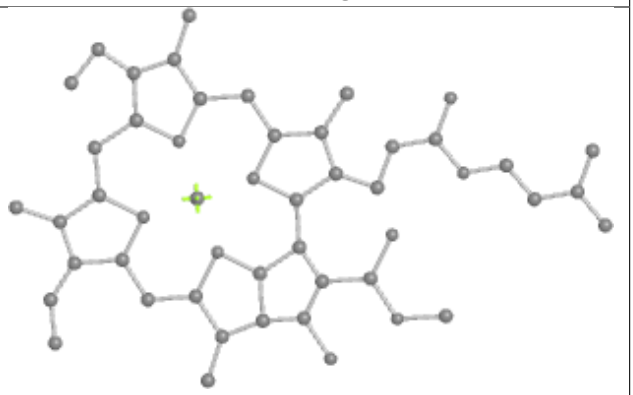
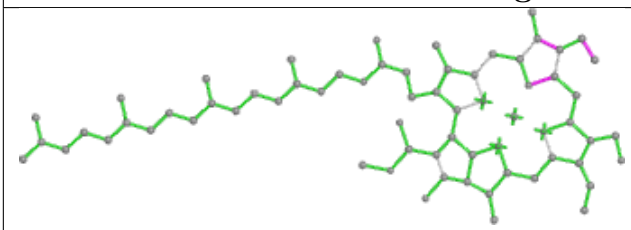


Rings

Ligand CHL A 1114



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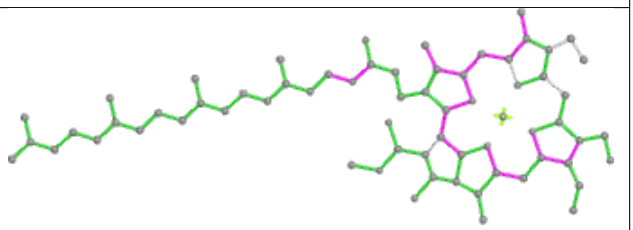
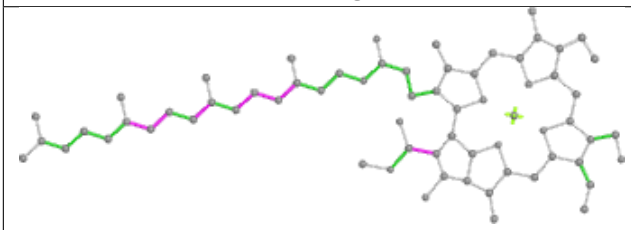


Bond angles



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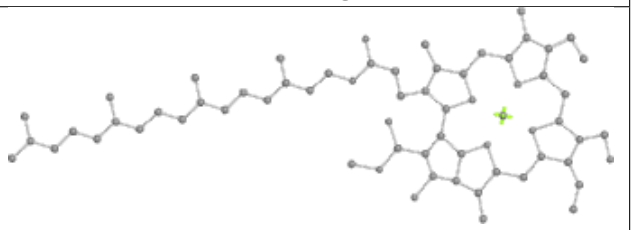
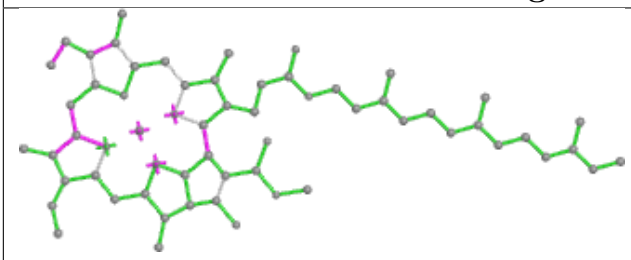


Rings

Ligand CLA 3 613



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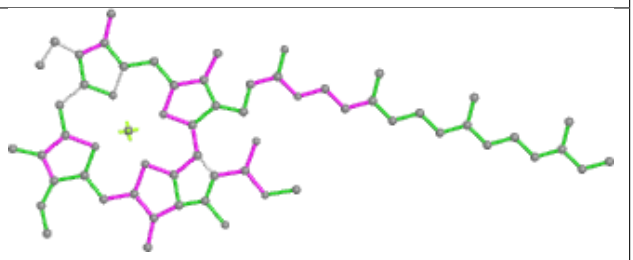
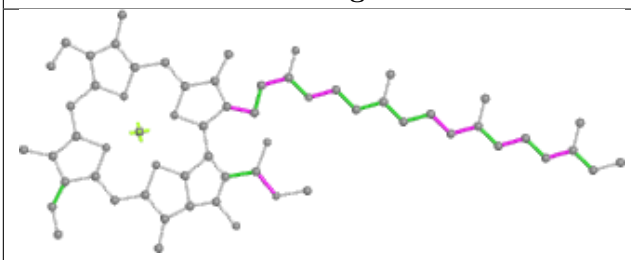


Bond angles



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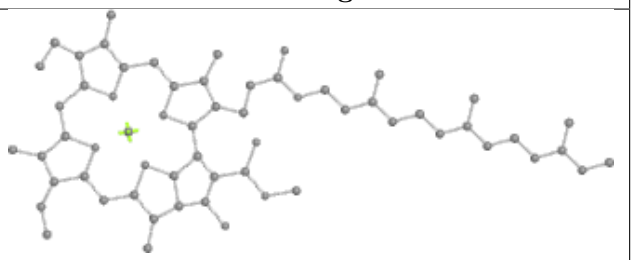
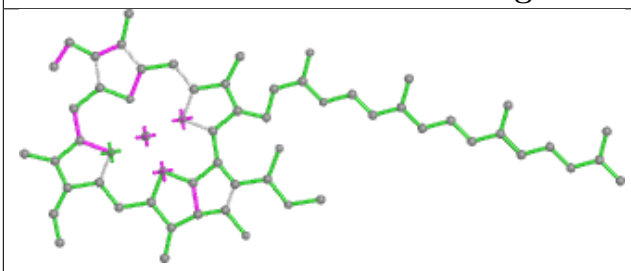


Rings

Ligand CLA A 1121



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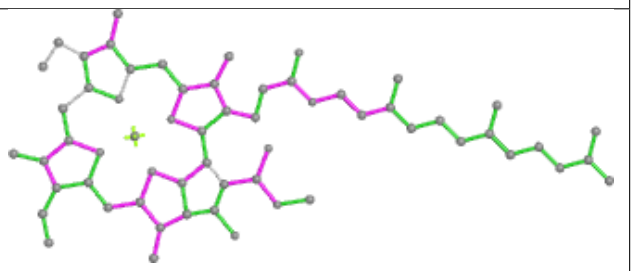
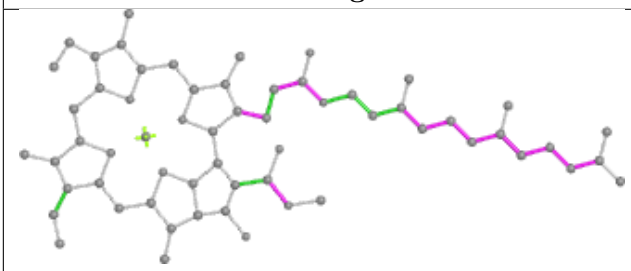


Bond angles



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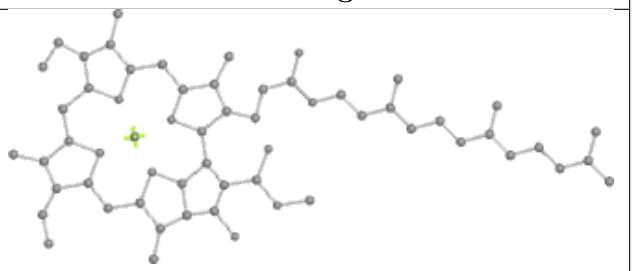
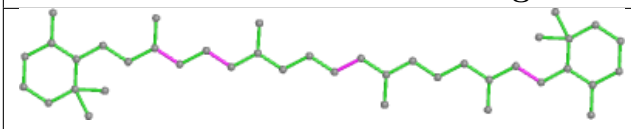
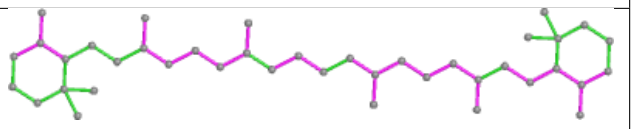


Rings

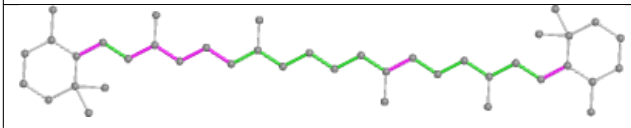
Ligand BCR K 4002



Bond lengths



Bond angles



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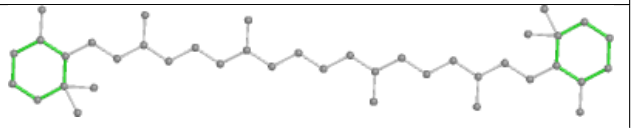
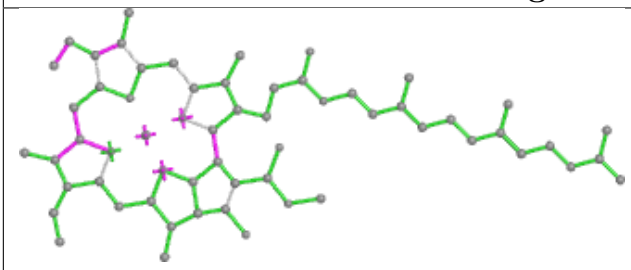
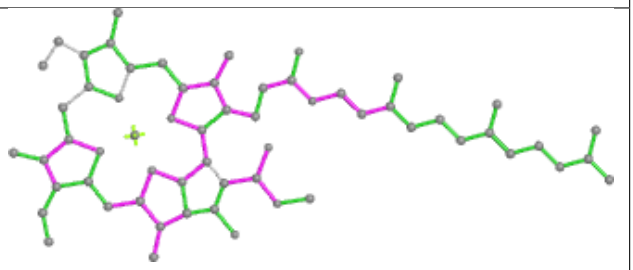
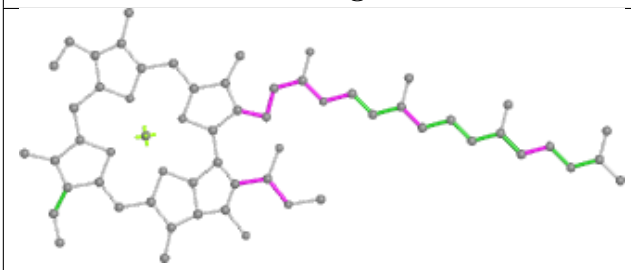
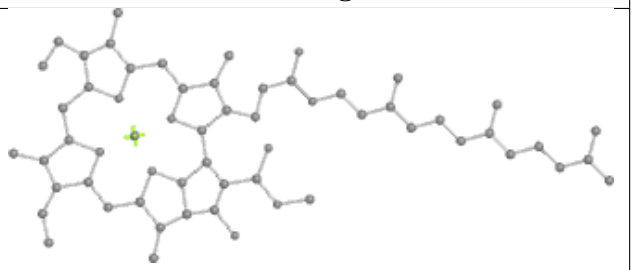
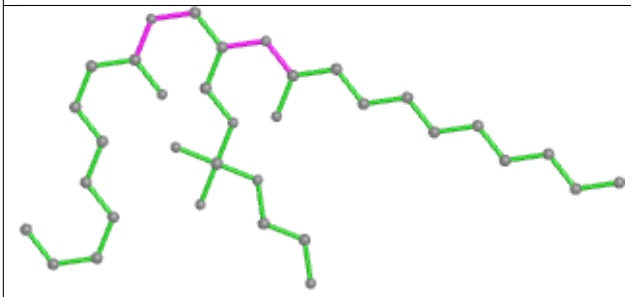
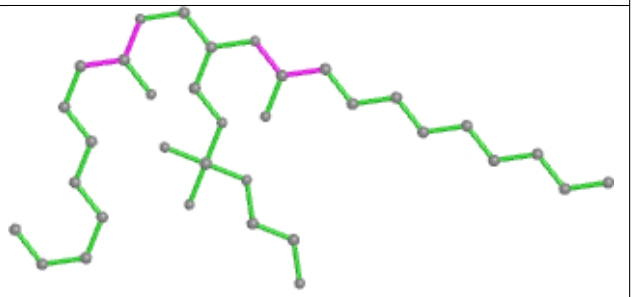
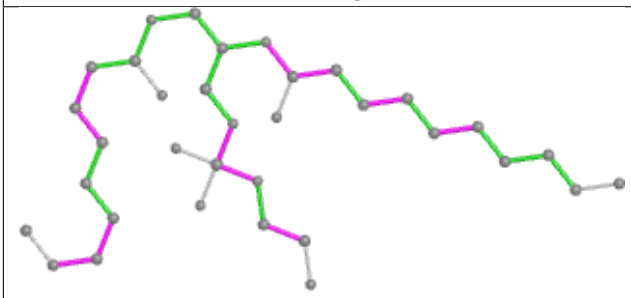
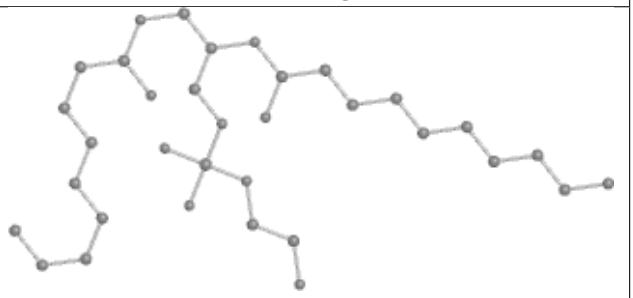
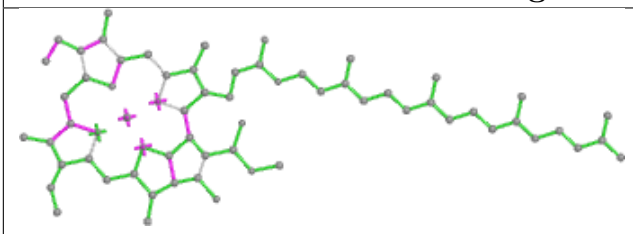


Rings

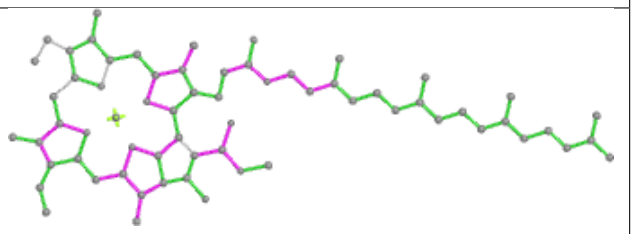
Ligand CLA 5 607	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand PTY A 5006	
 Bond lengths	 Bond angles
 Torsions	 Rings

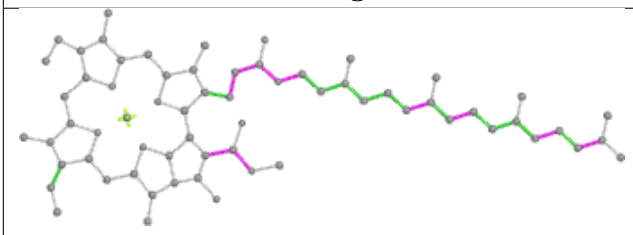
Ligand CLA 6 603



Bond lengths



Bond angles



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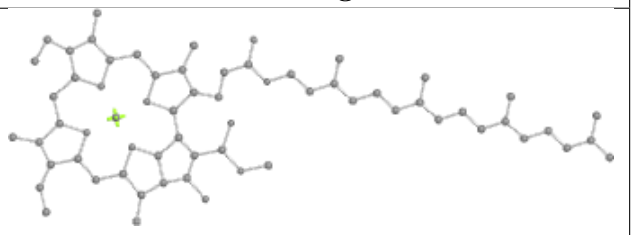
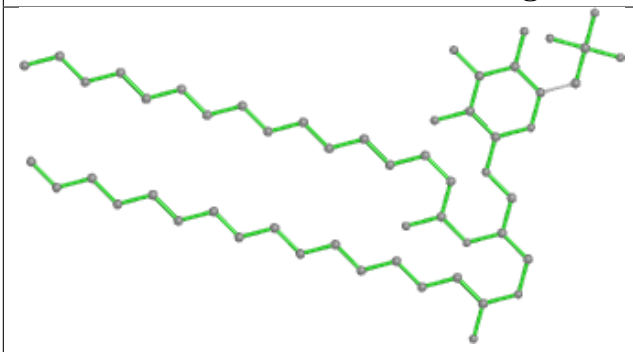


Rings

Ligand SQD I 5001



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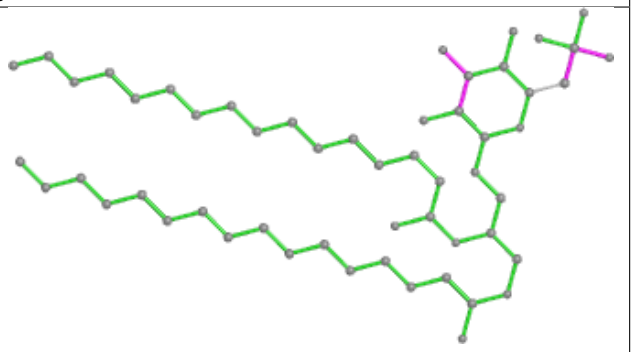
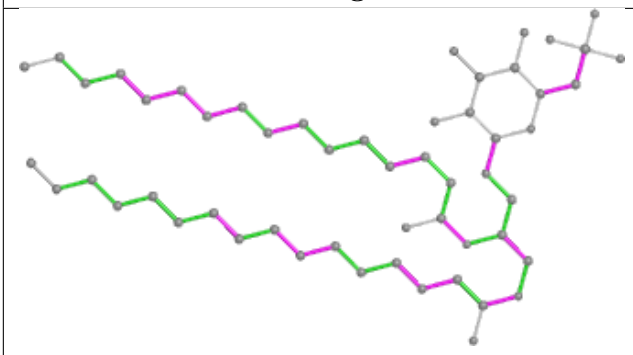
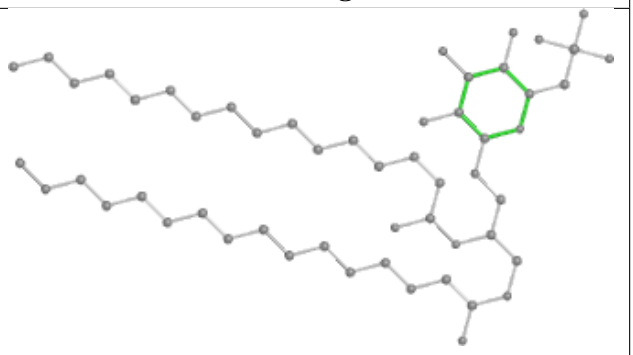


Bond angles

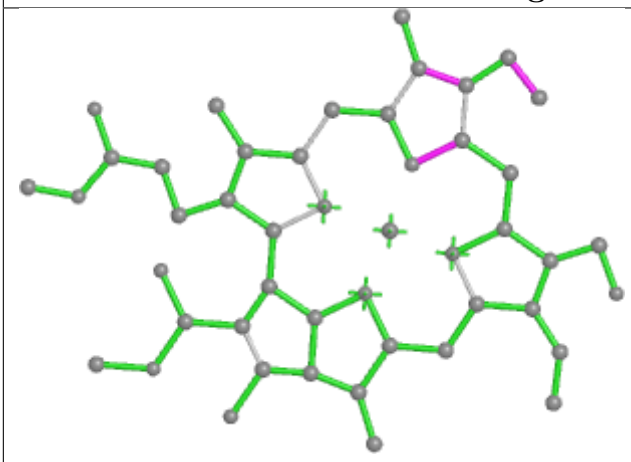


Torsions



Rings

Ligand CHL 5 617



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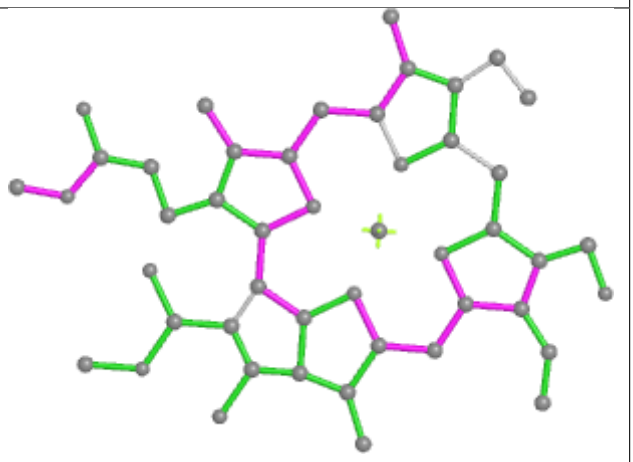
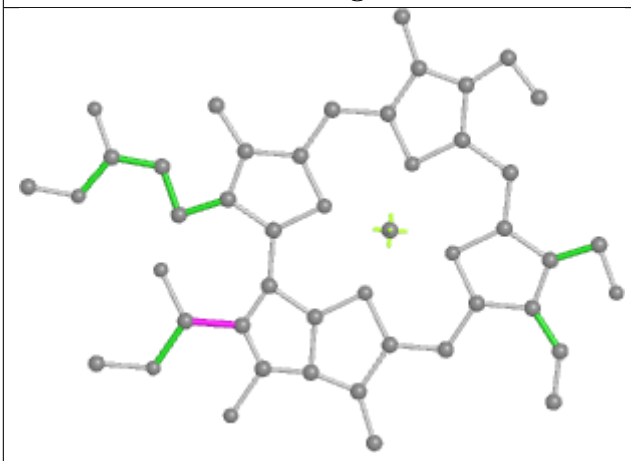
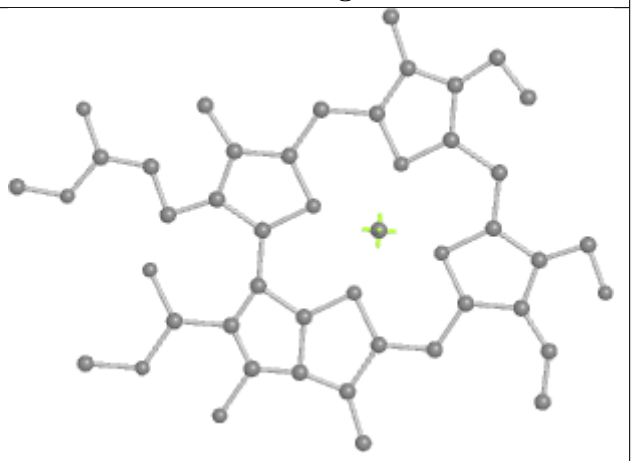


Bond angles

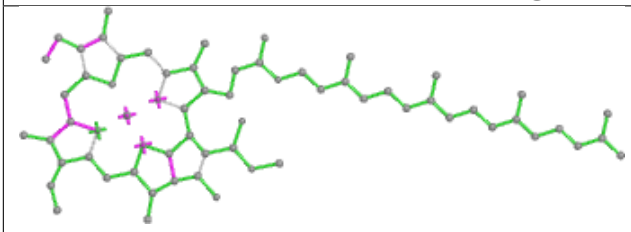


Torsions

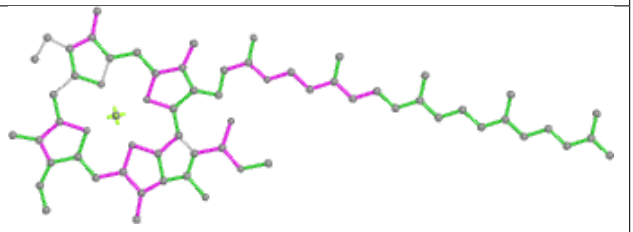


Rings

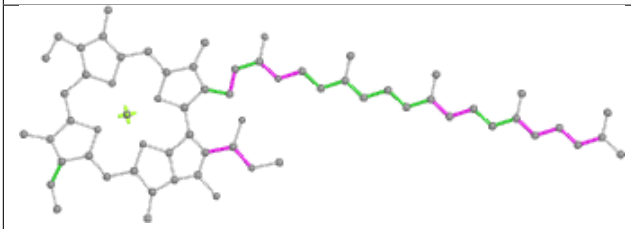
Ligand CLA 7 604



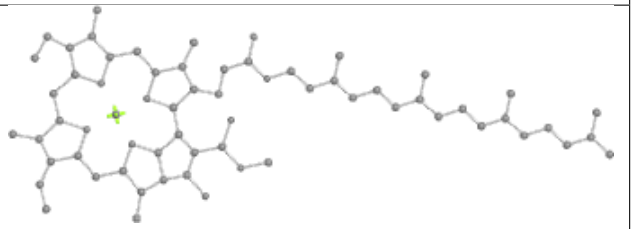
Bond lengths



Bond angles

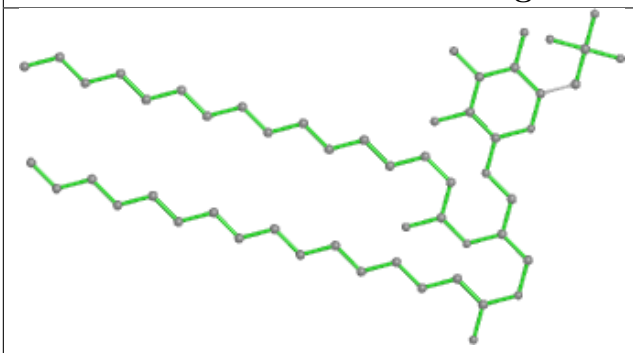


Torsions

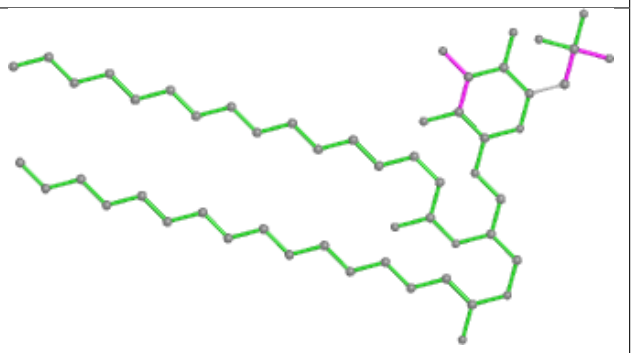


Rings

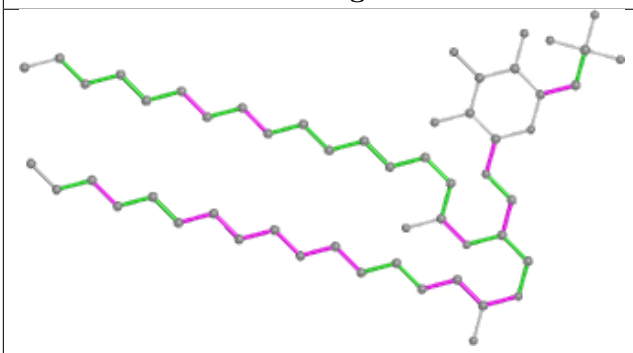
Ligand SQD A 5005



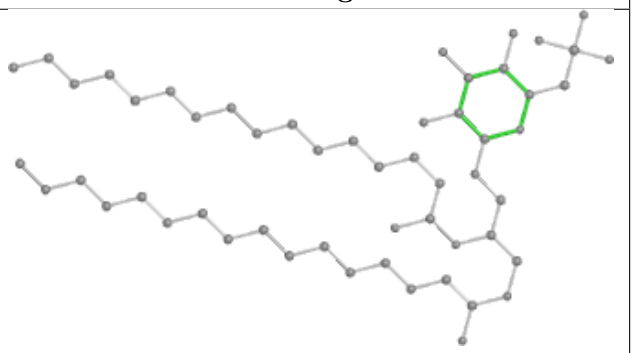
Bond lengths



Bond angles

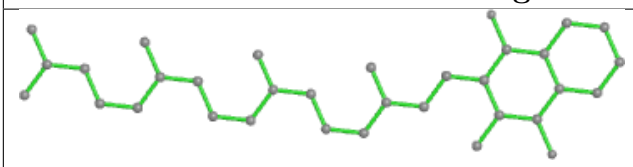


Torsions



Rings

Ligand PQN B 2002



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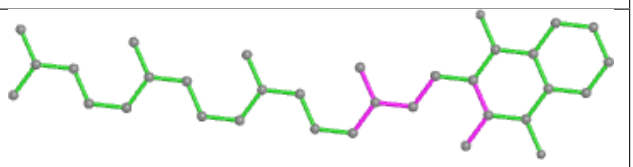

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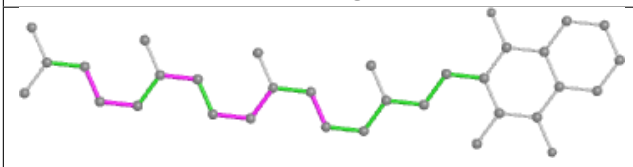

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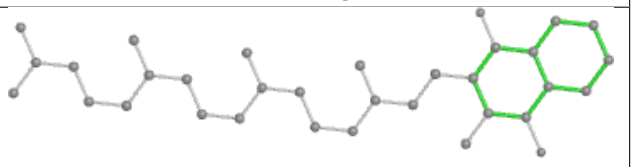
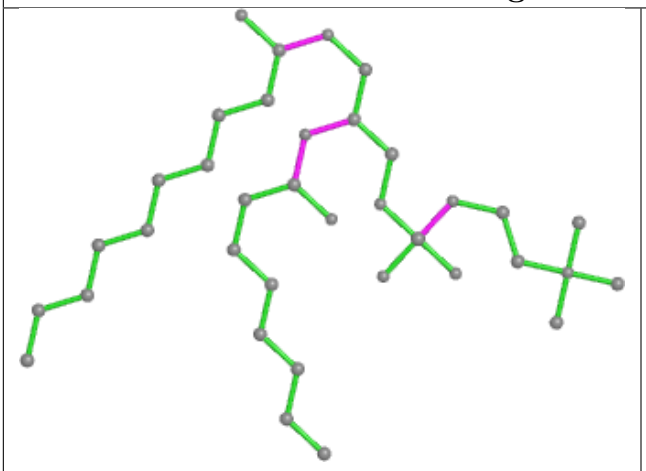


Rings

Ligand PCW K 5002



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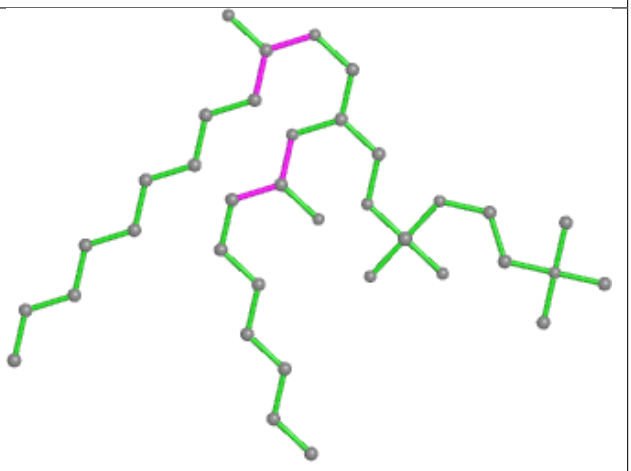

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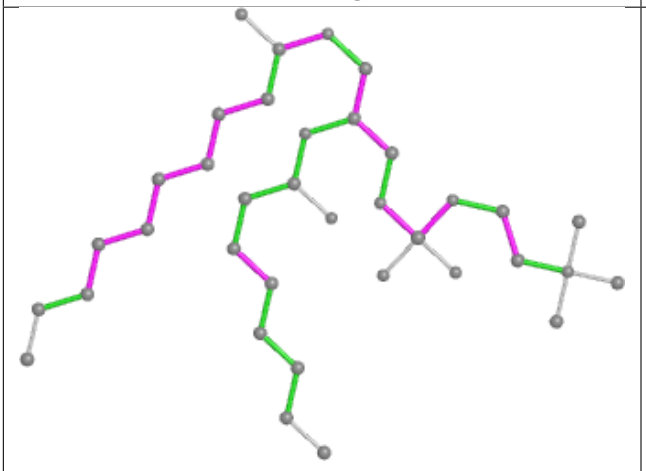

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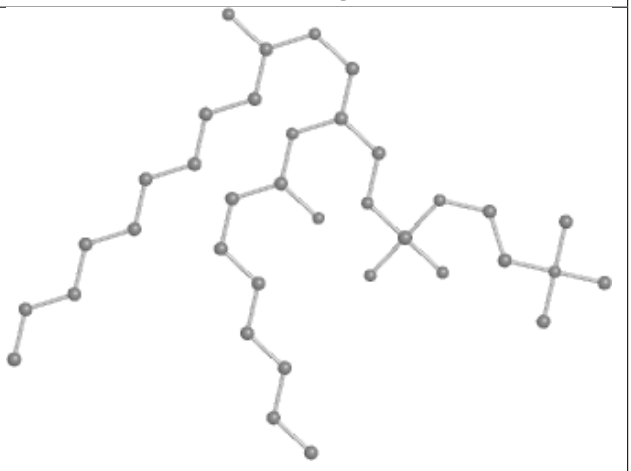
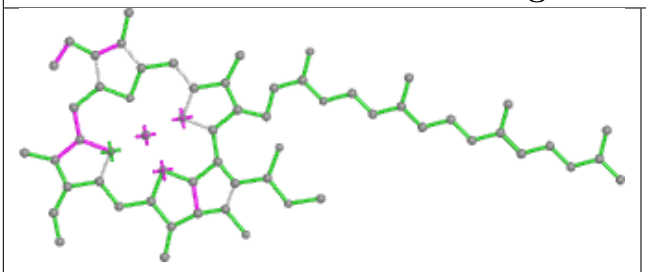


Rings

Ligand CLA 8 618



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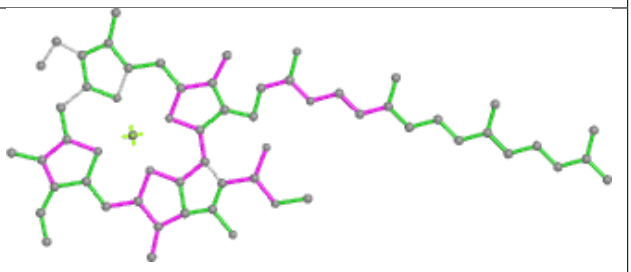

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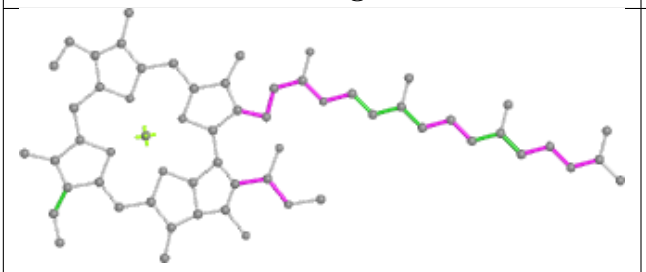

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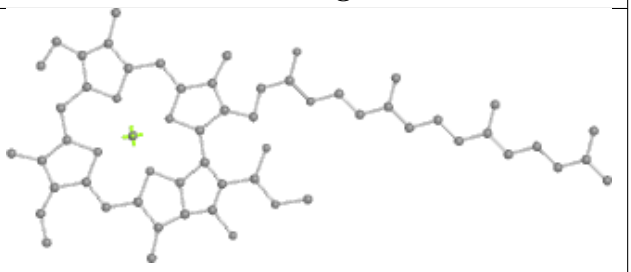
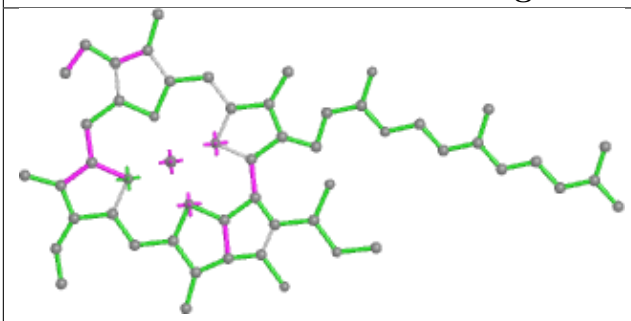


Rings

Ligand CLA A 1139



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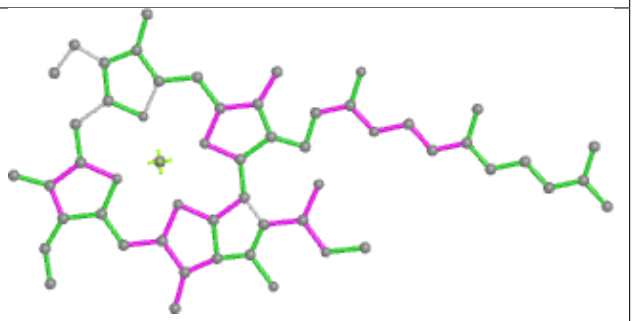

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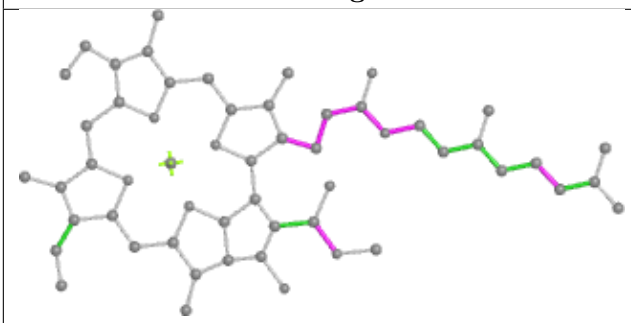

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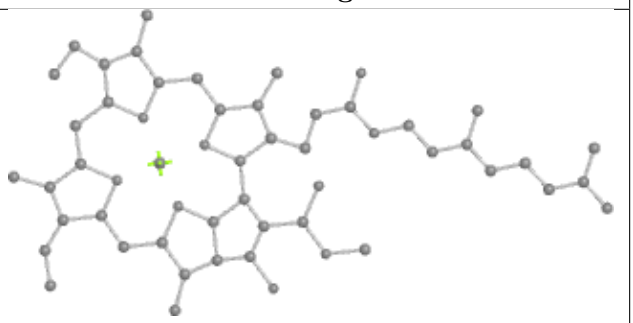
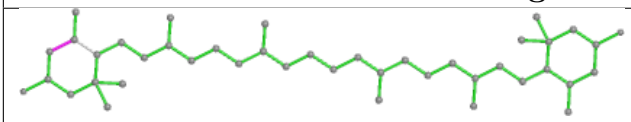


Rings

Ligand LUT 6 502



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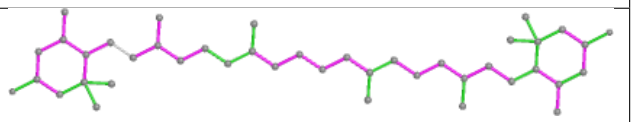

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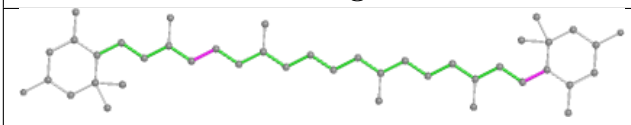

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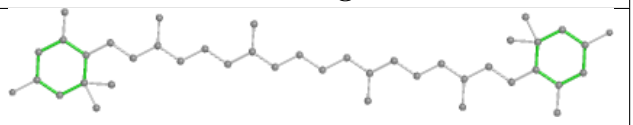
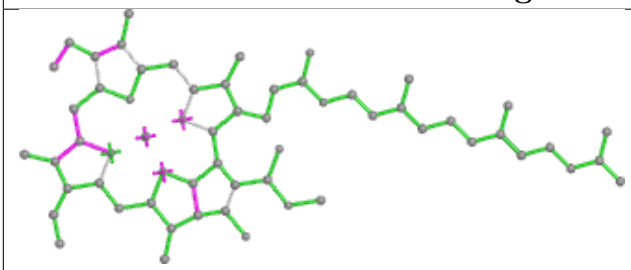


Rings

Ligand CLA A 1137



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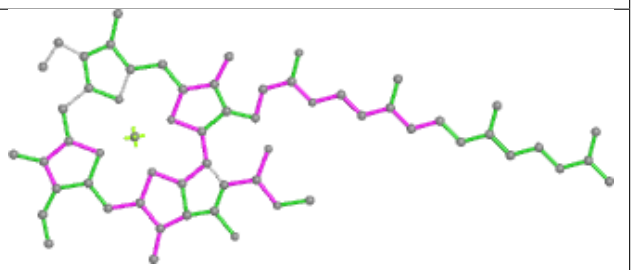

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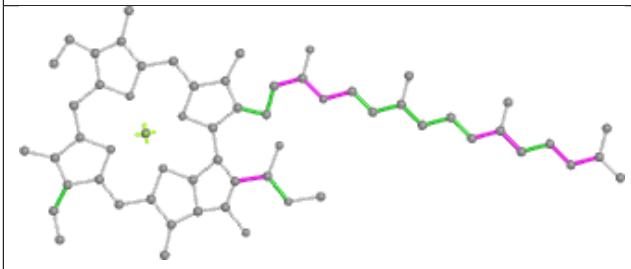

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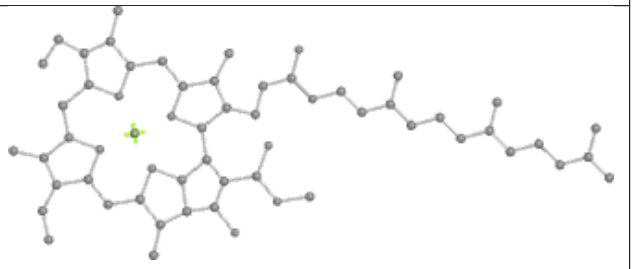
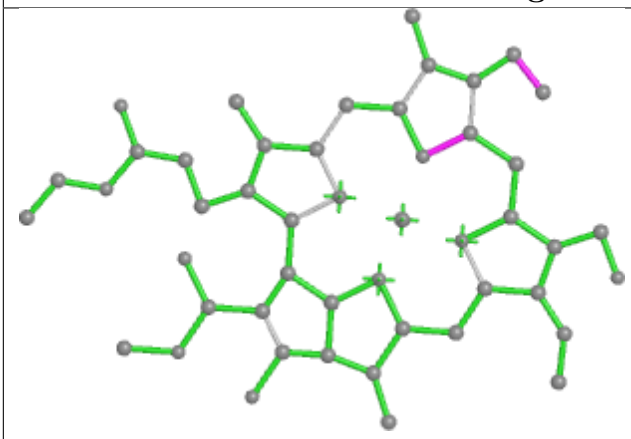


Rings

Ligand CHL 1 613



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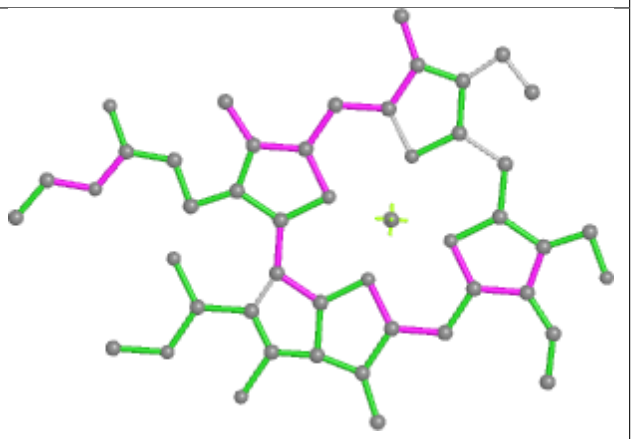

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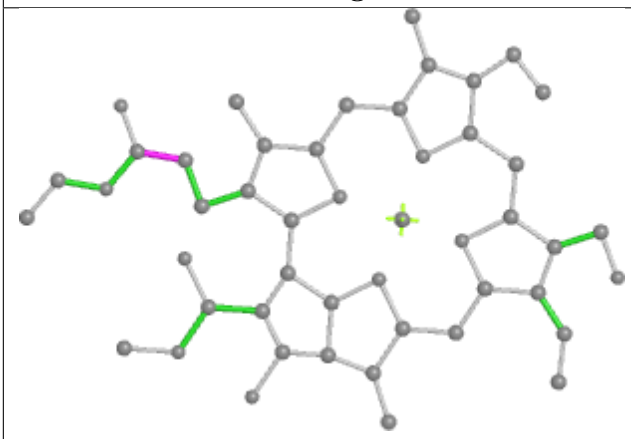

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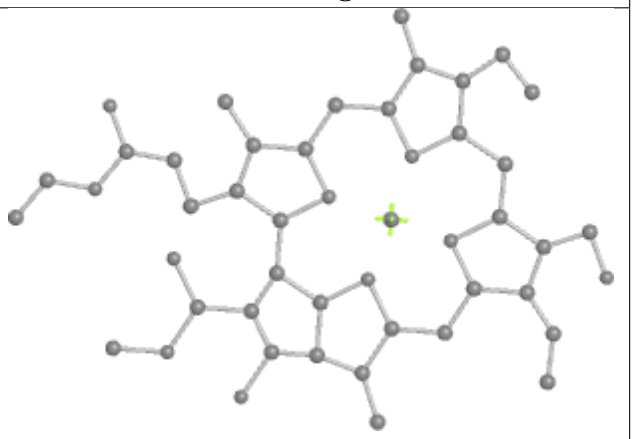

Rings

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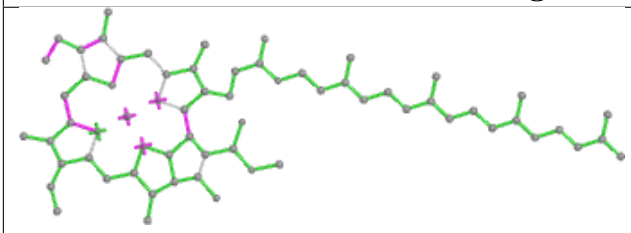

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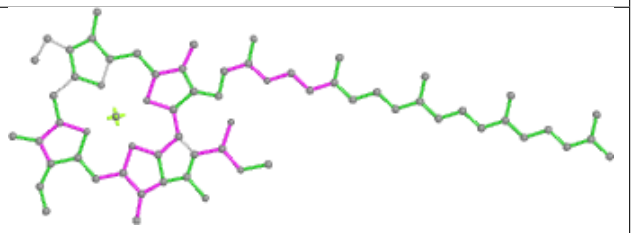

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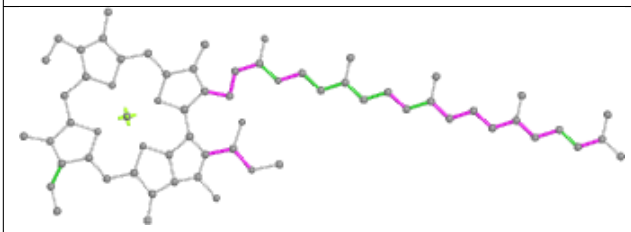

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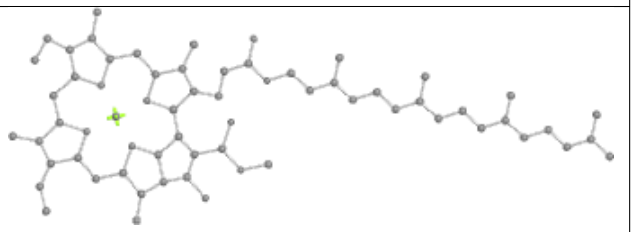
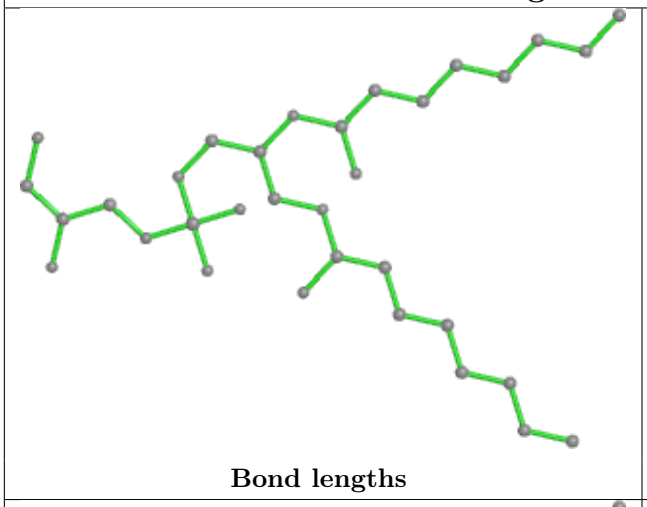


Rings

Ligand LHG 9 801



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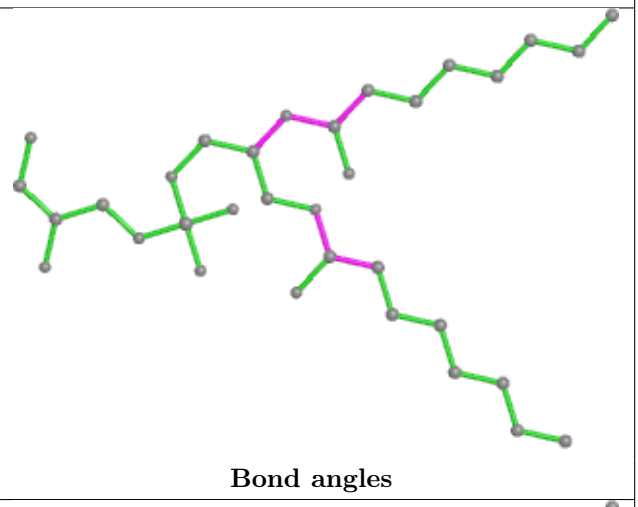

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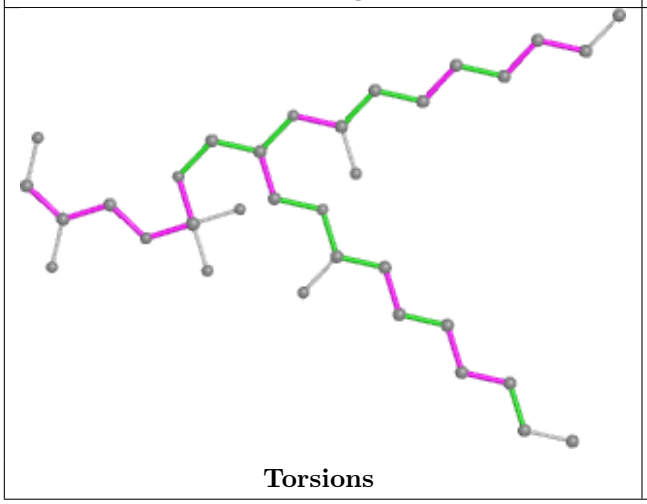

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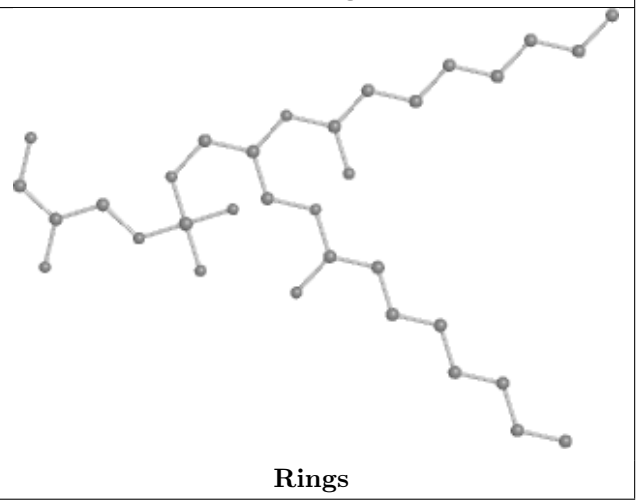
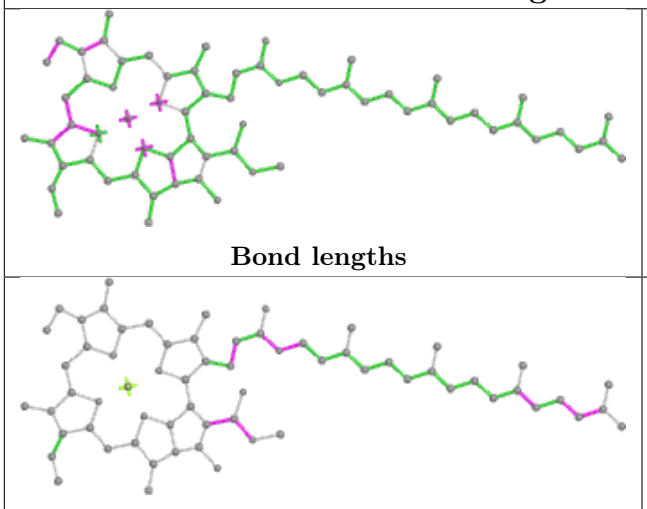


Rings

Ligand CLA 5 604



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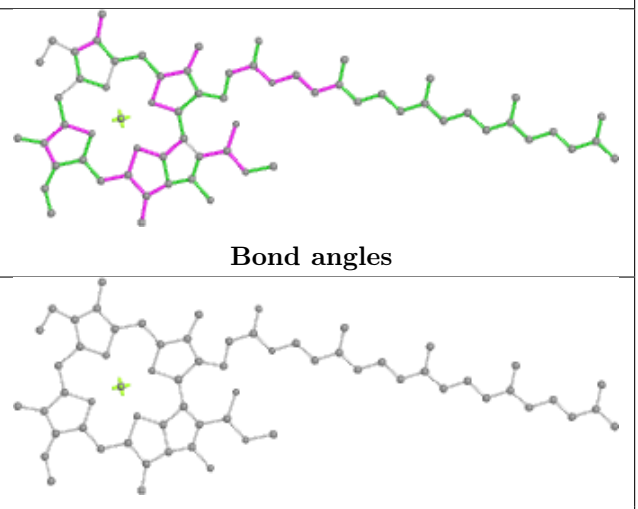
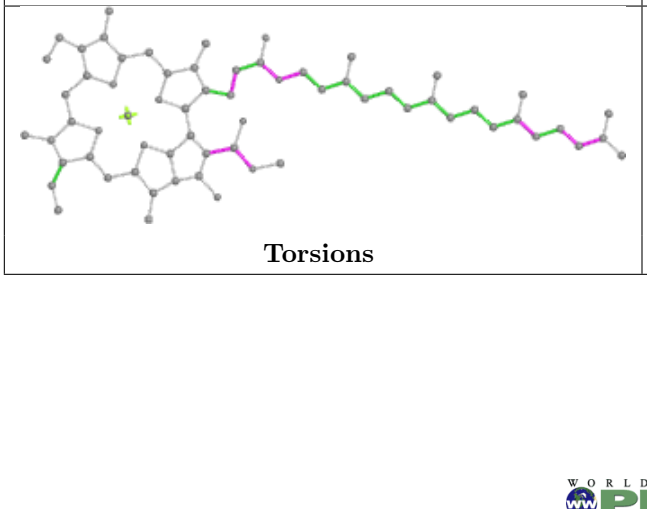


Bond angles



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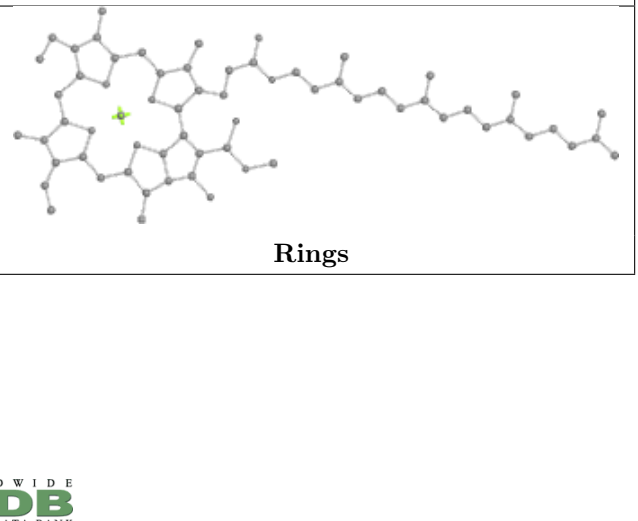
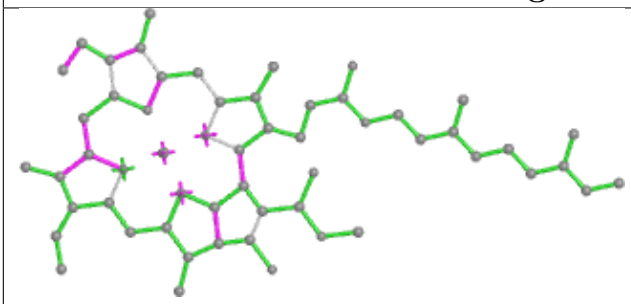


Rings

Ligand CLA 5 603



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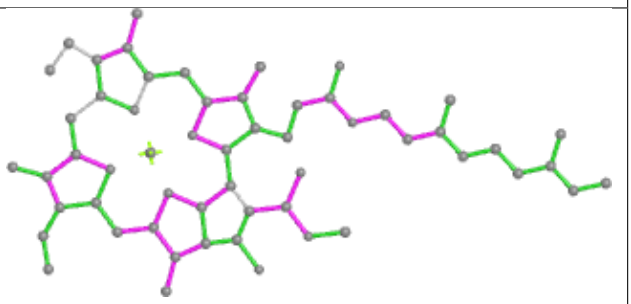
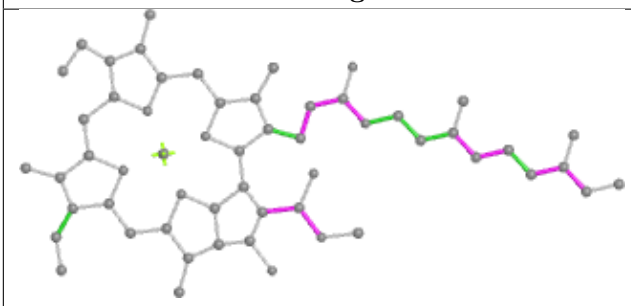


Bond angles



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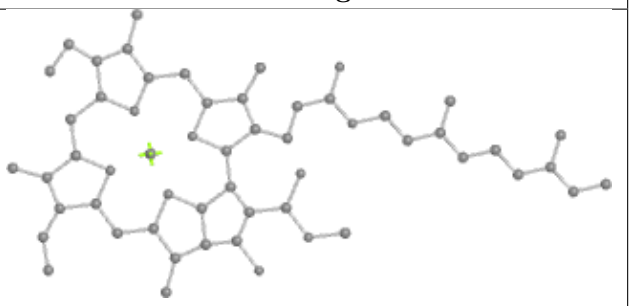
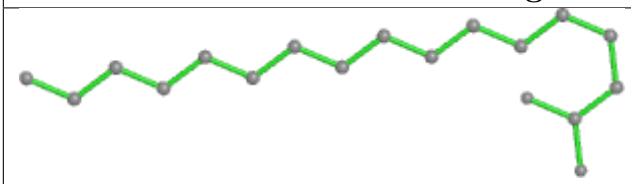


Rings

Ligand PLM 4 804



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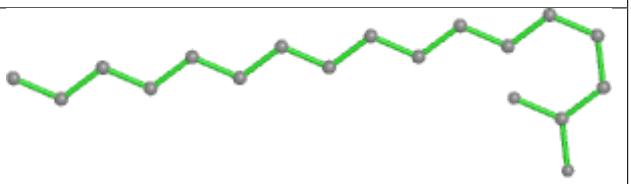
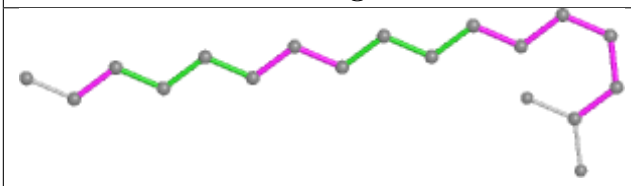


Bond angles



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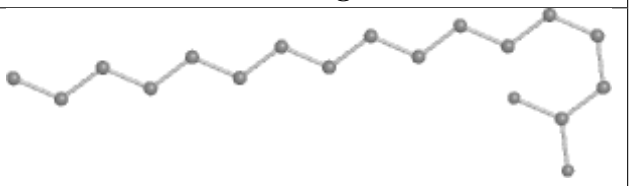
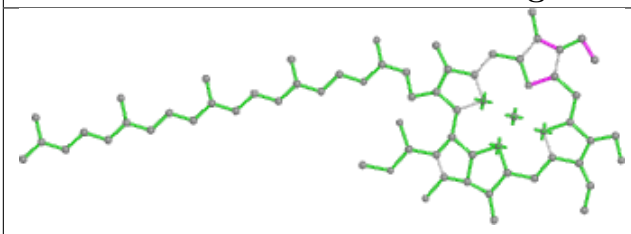


Rings

Ligand CHL 9 603



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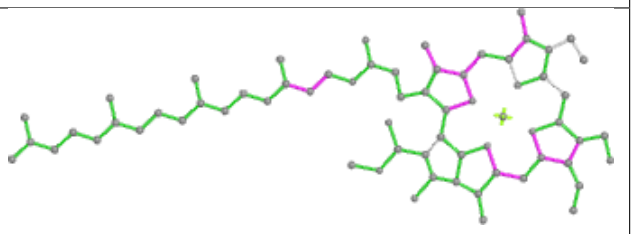
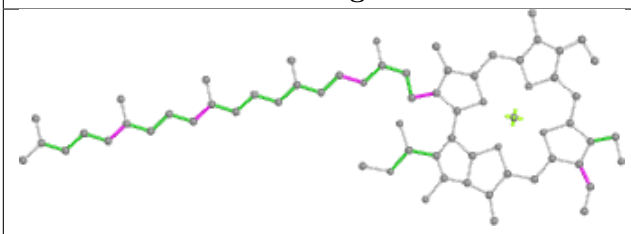


Bond angles



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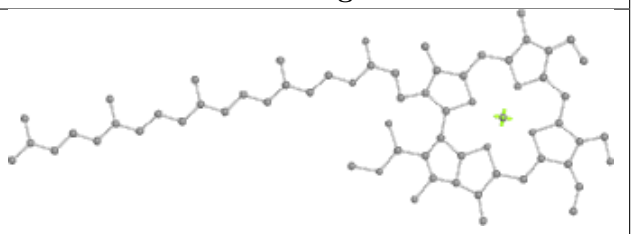
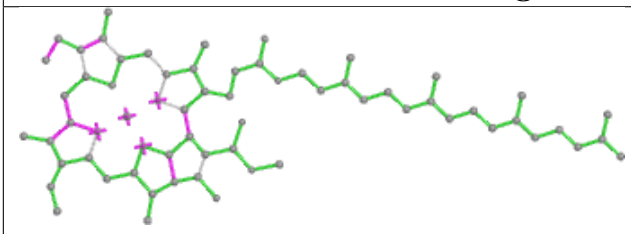


Rings

Ligand CLA A 1123



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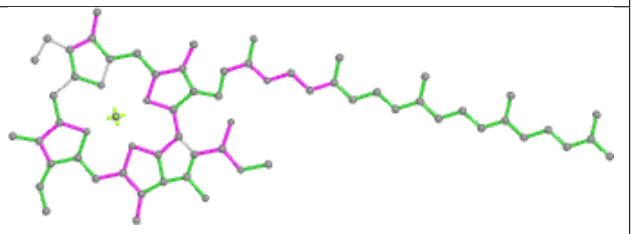
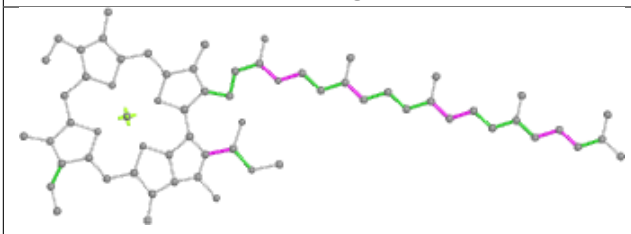
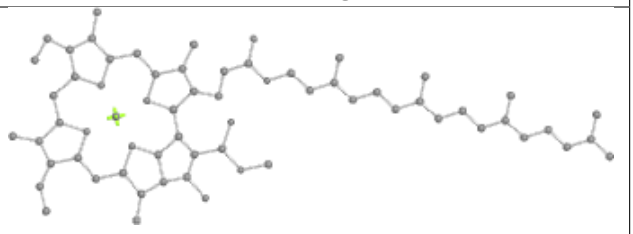


Bond angles

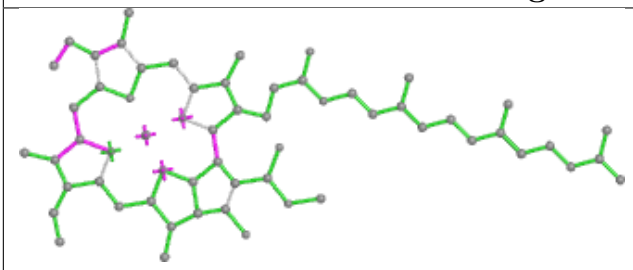


Torsions

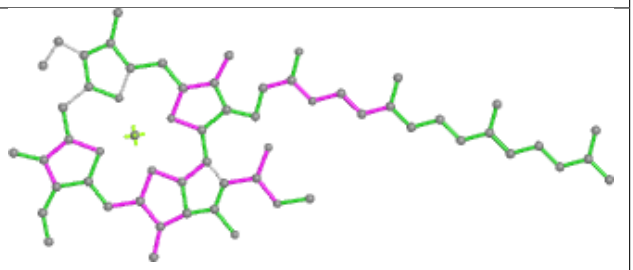


Rings

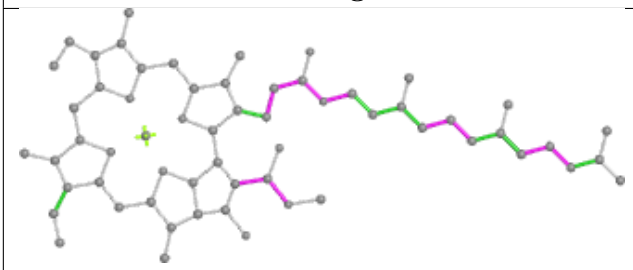
Ligand CLA 8 609



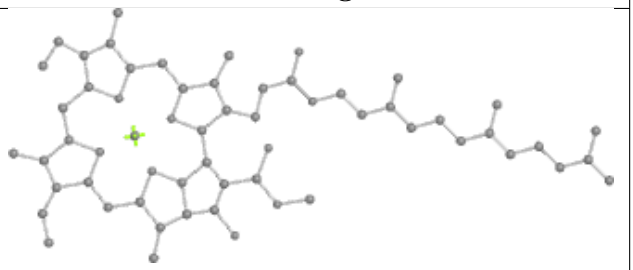
Bond lengths



Bond angles

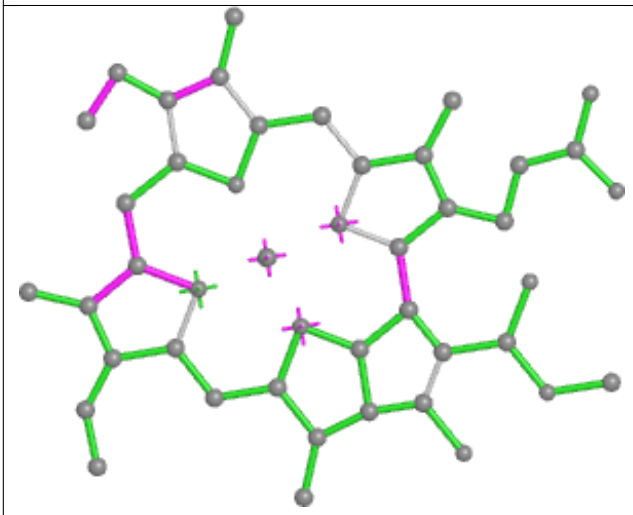


Torsions



Rings

Ligand CLA G 1603



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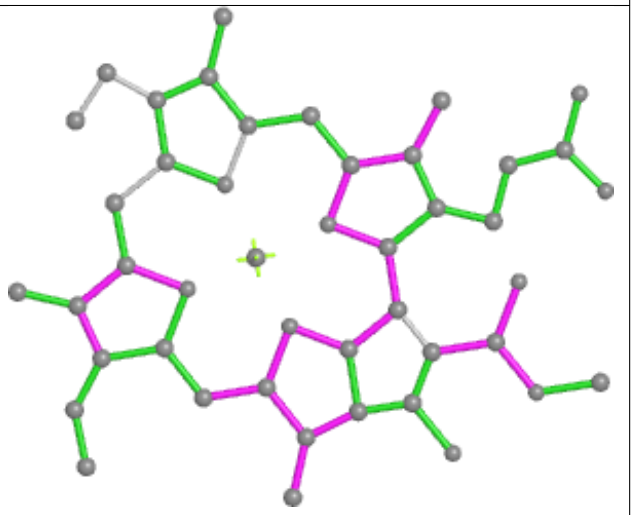
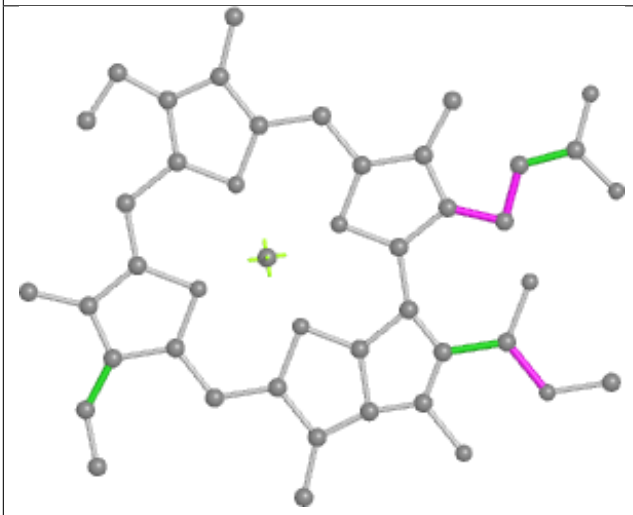
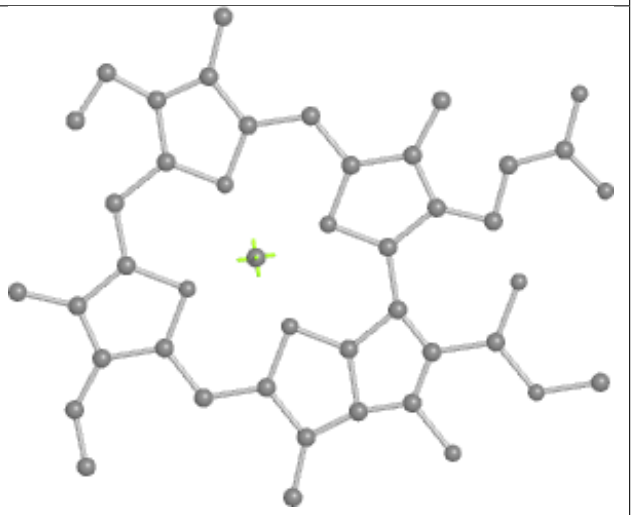


Bond angles

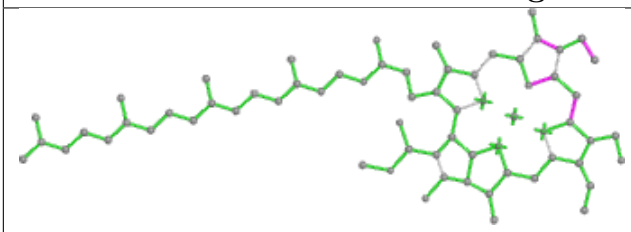


Torsions



Rings

Ligand CHL 3 604



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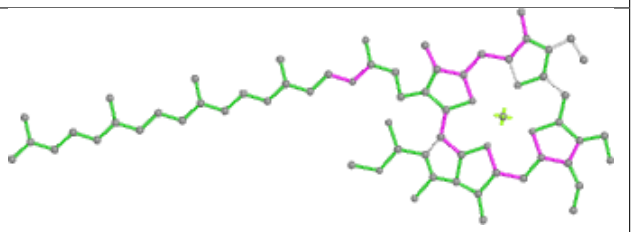
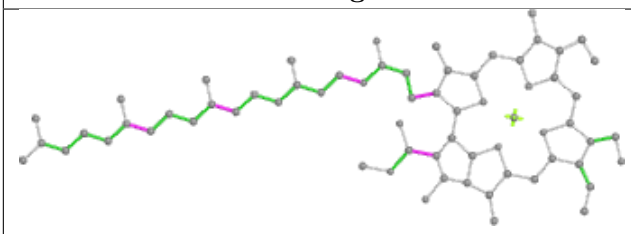


Bond angles



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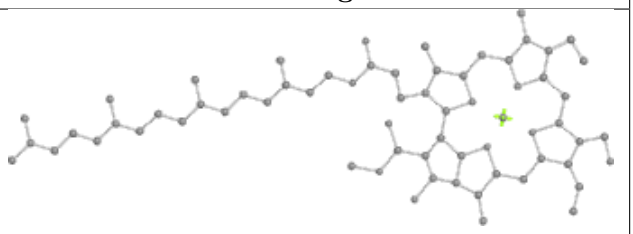
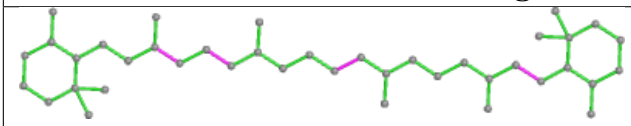


Rings

Ligand BCR B 4002



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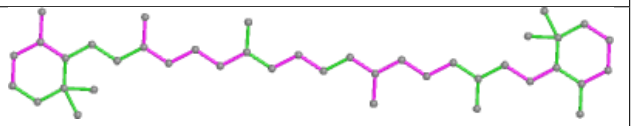
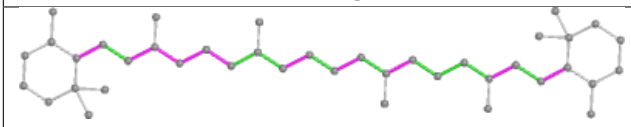


Bond angles



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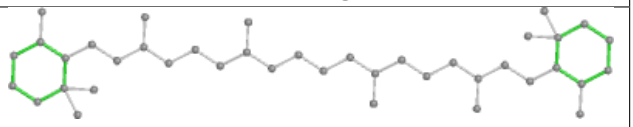
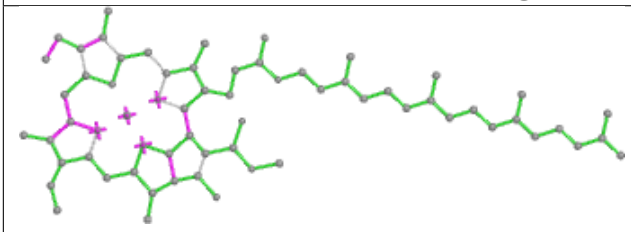


Rings

Ligand CLA B 1221



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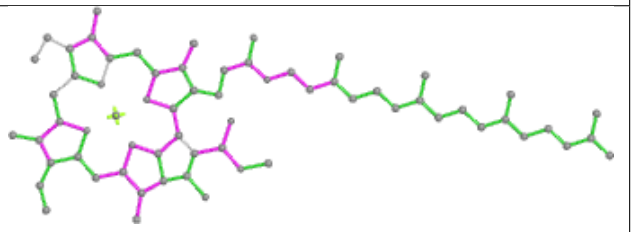
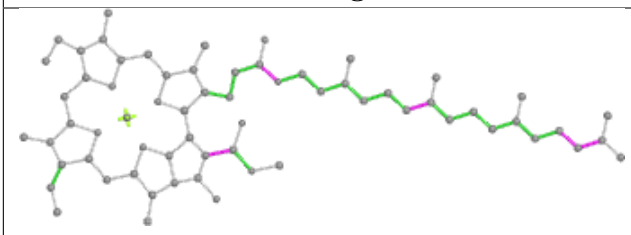


Bond angles



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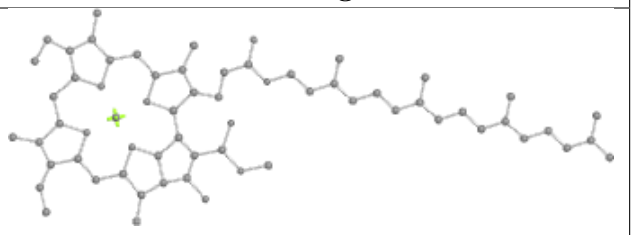
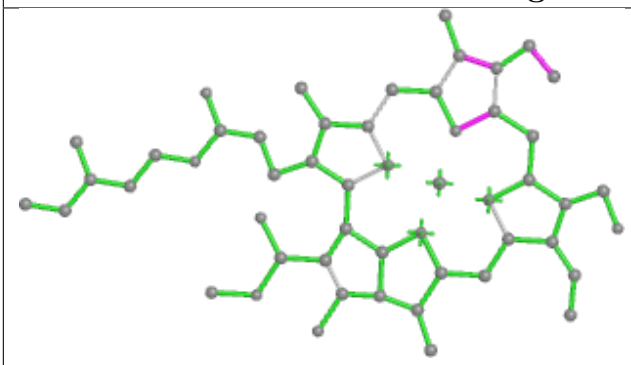


Rings

Ligand CHL 4 613



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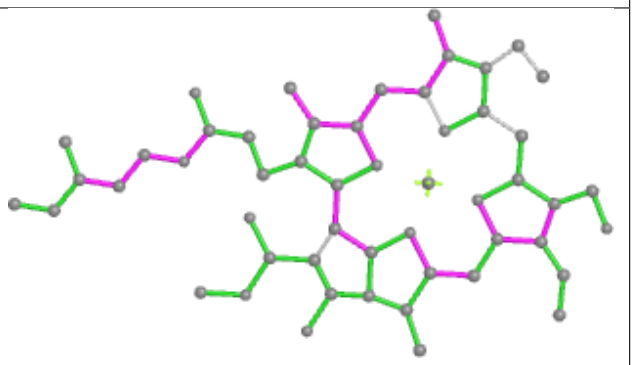

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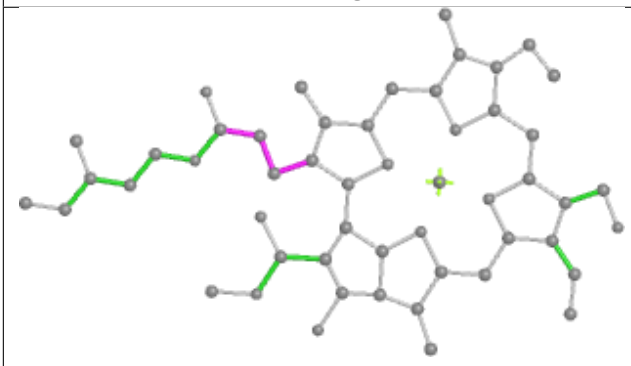

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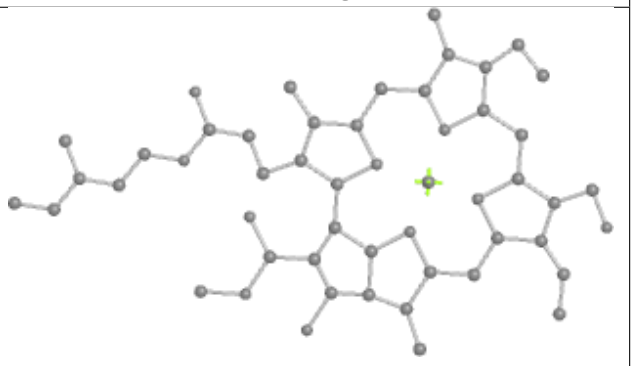
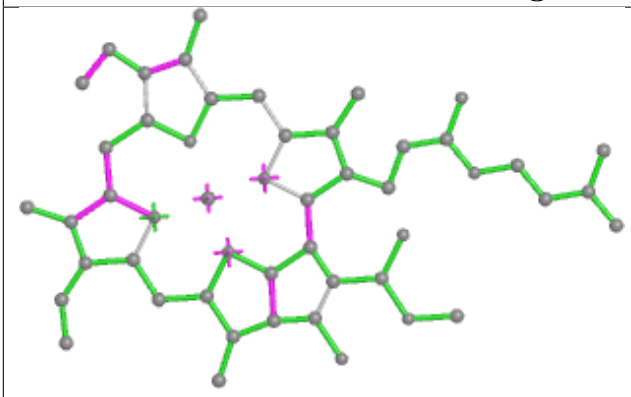


Rings

Ligand CLA a 611



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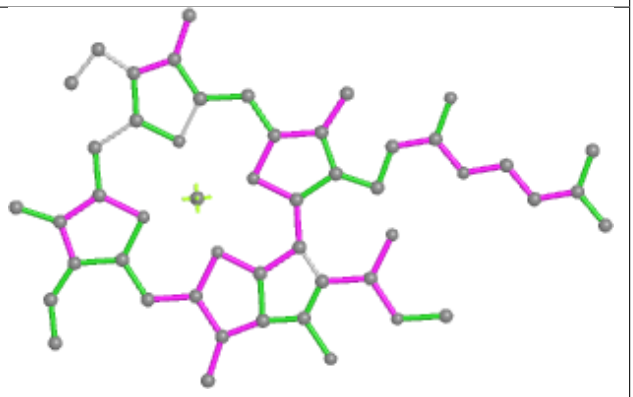
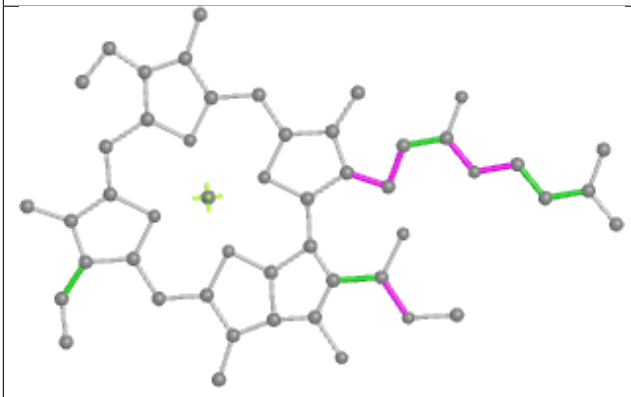


Bond angles



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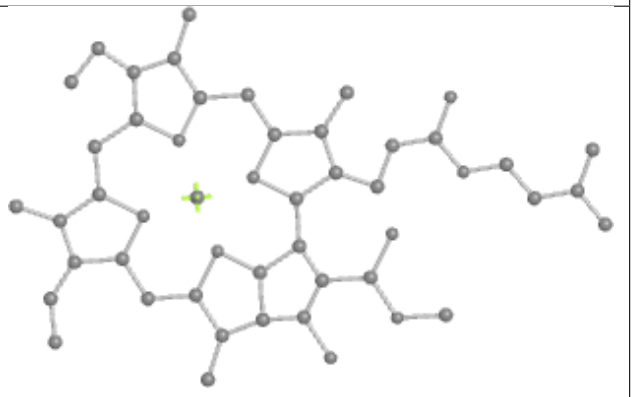
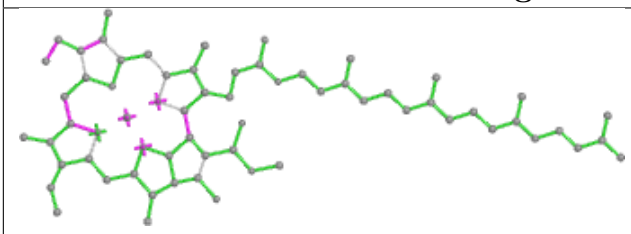


Rings

Ligand CLA A 1103



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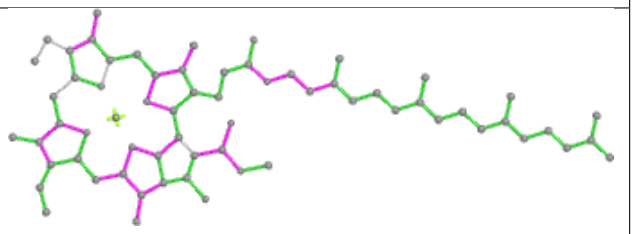

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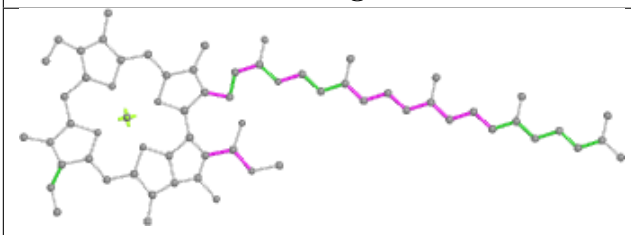

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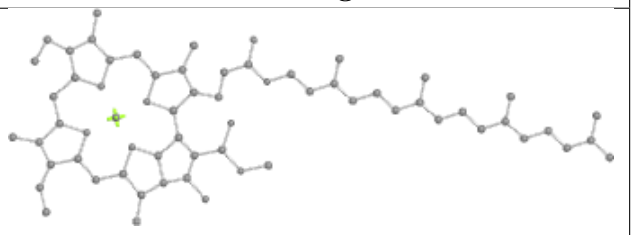
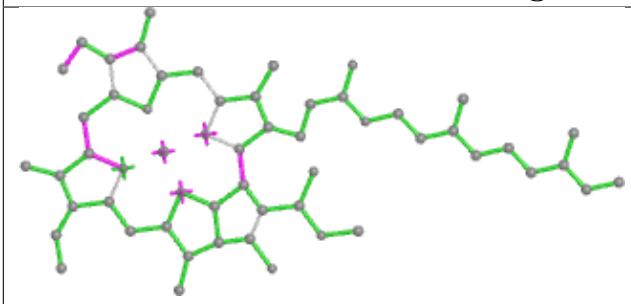


Rings

Ligand CLA 3 616



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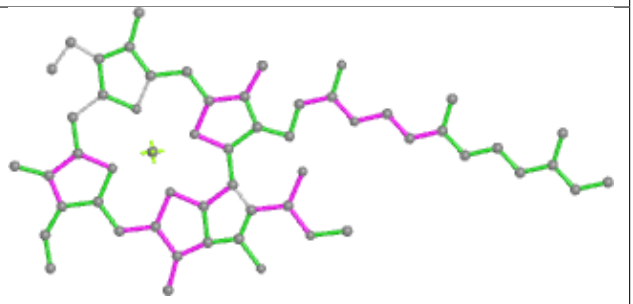
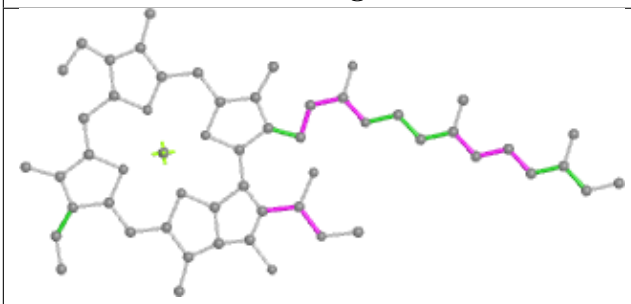


Bond angles



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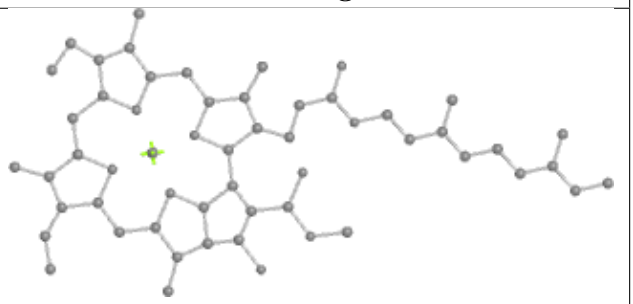
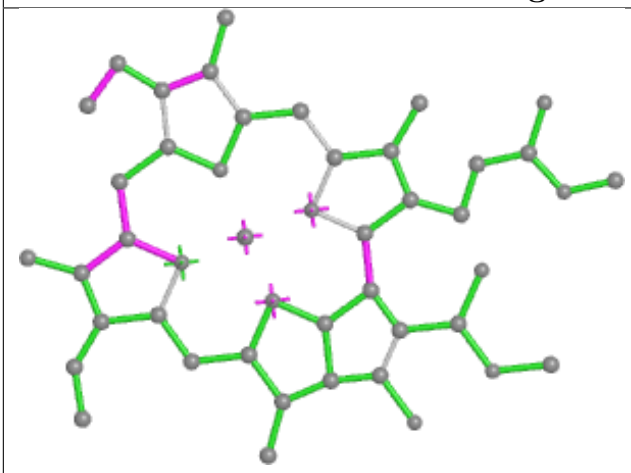


Rings

Ligand CLA 8 607



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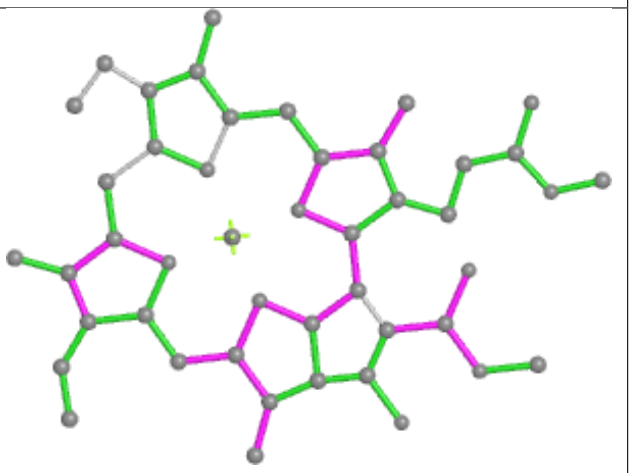
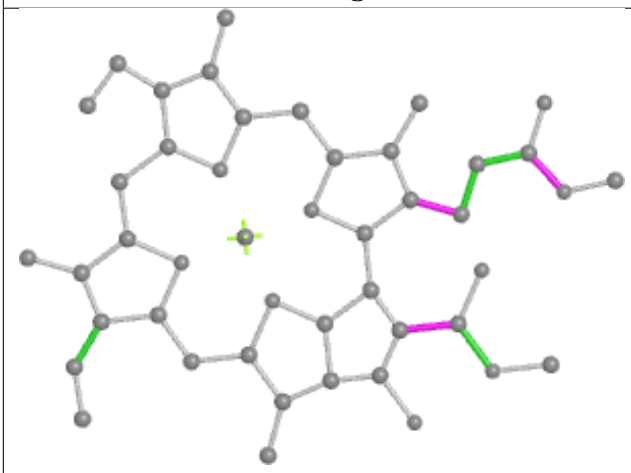


Bond angles



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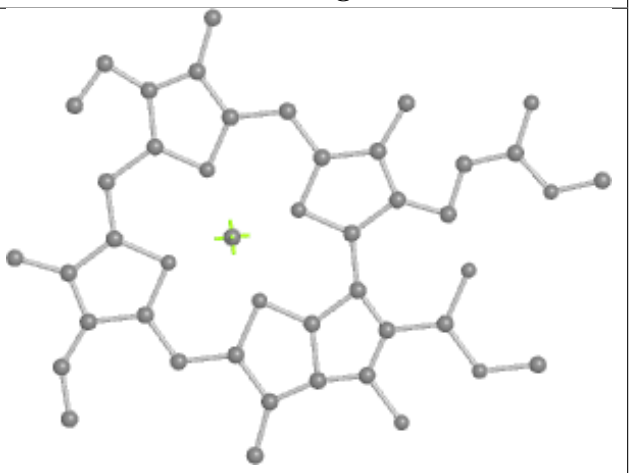
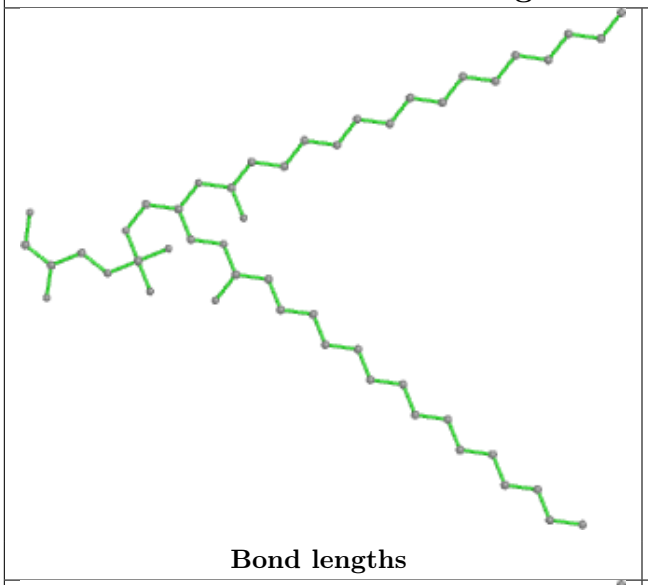


Rings

Ligand LHG B 5002



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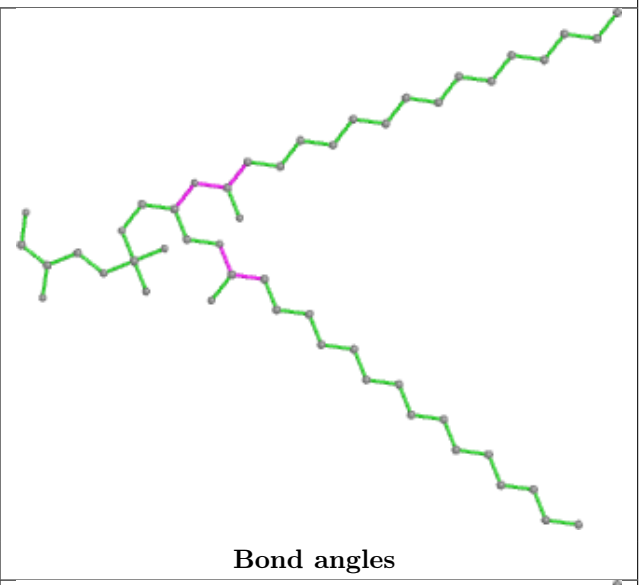
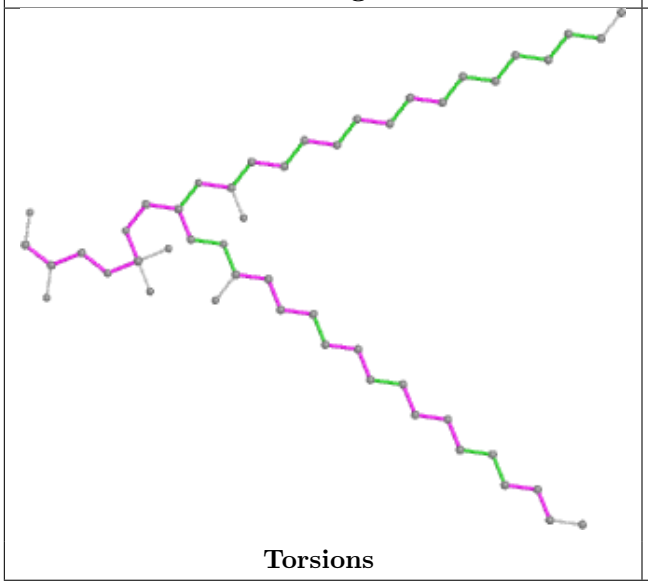


Bond angles



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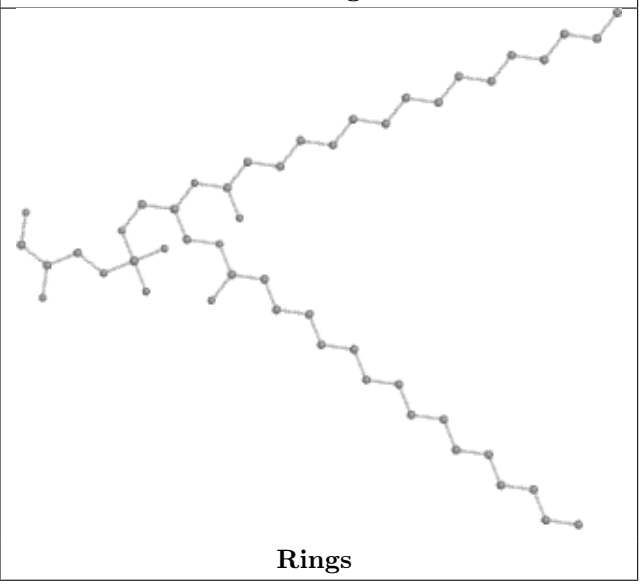
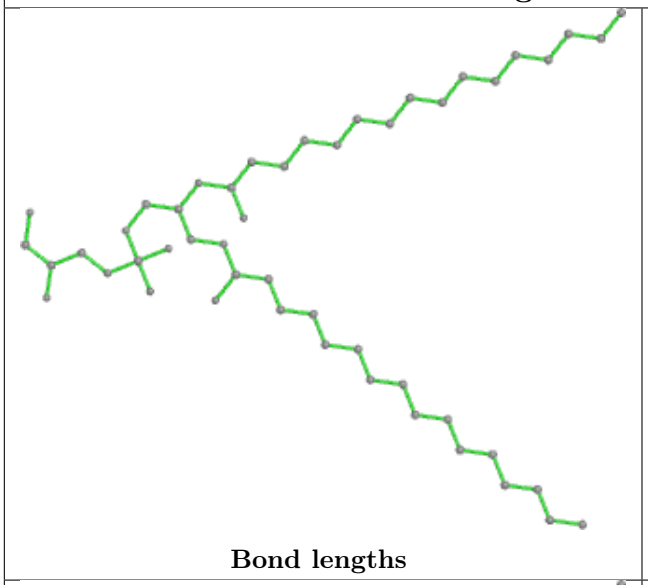


Rings

Ligand LHG B 5001



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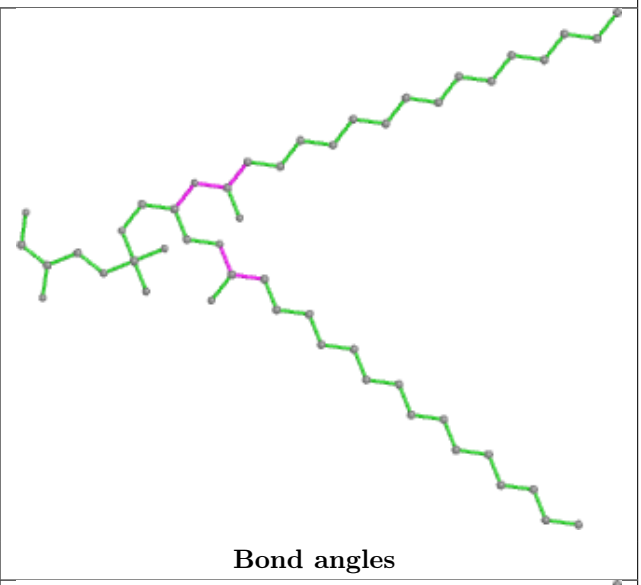
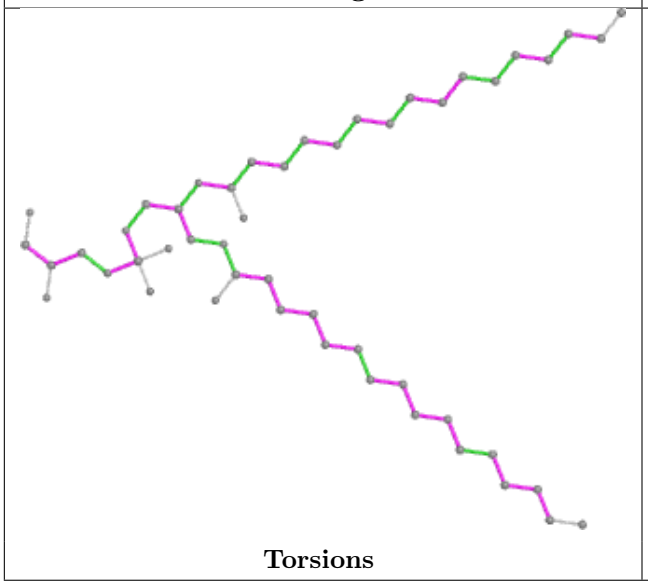


Bond angles



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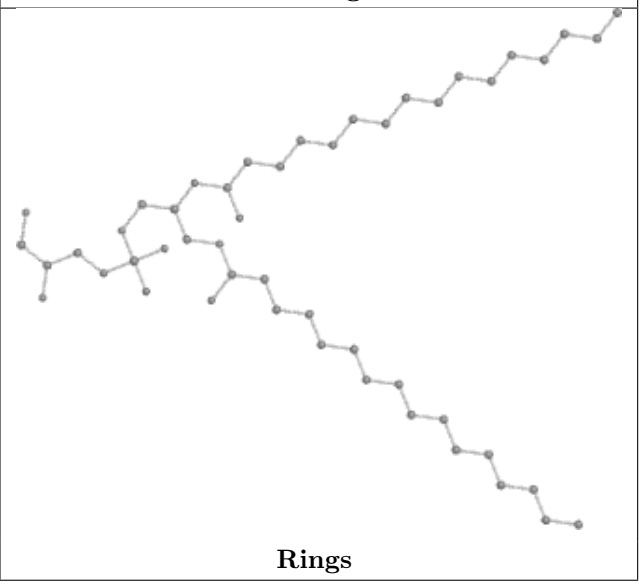
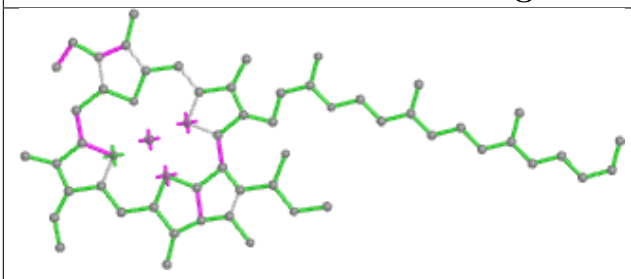
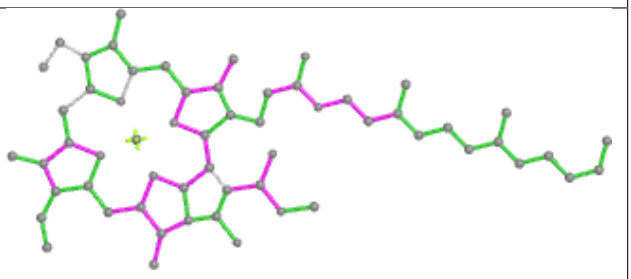


Rings

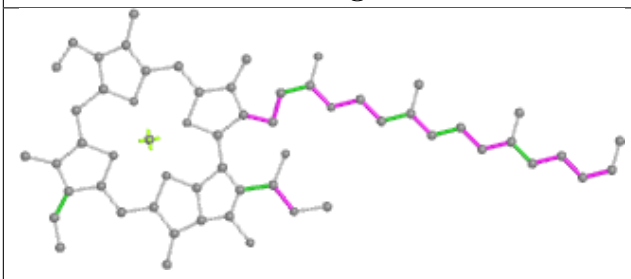
Ligand CLA B 1214



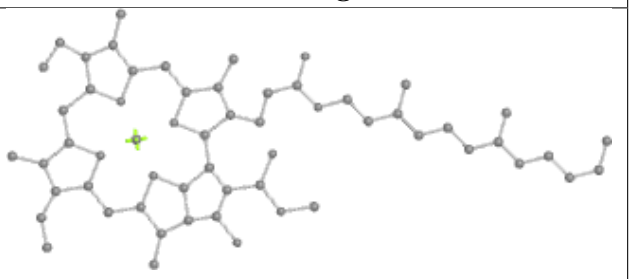
Bond lengths



Bond angles

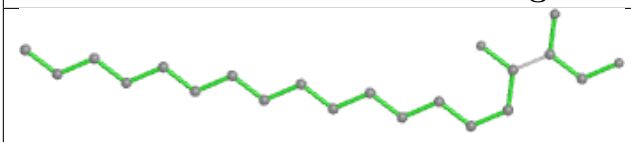


Torsions



Rings

Ligand SPH 9 804



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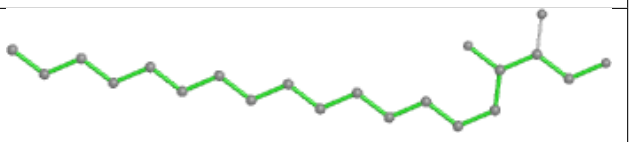
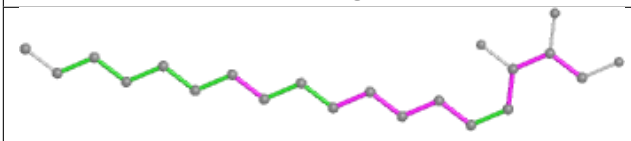


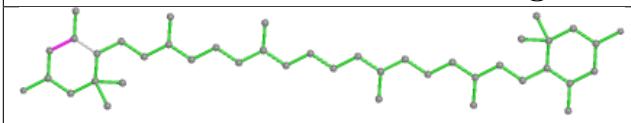
Bond angles



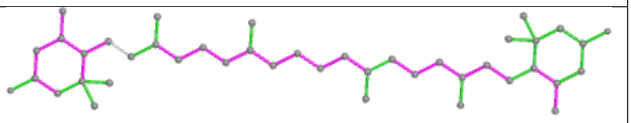
Torsions

Rings

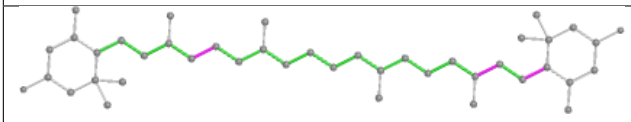
Ligand LUT 4 502



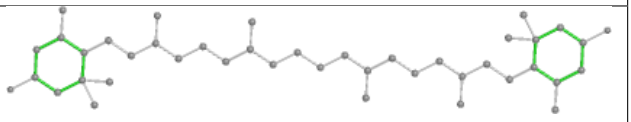
Bond lengths



Bond angles

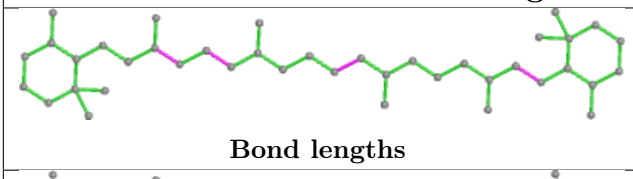


Torsions

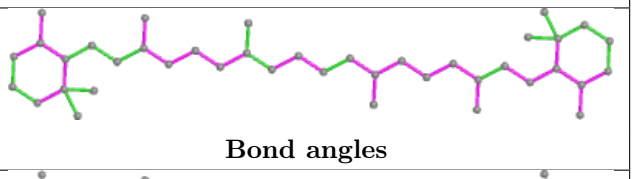


Rings

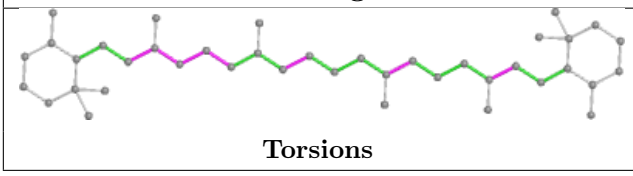
Ligand BCR 3 504



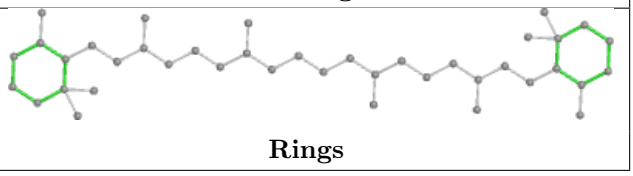
Bond lengths



Bond angles

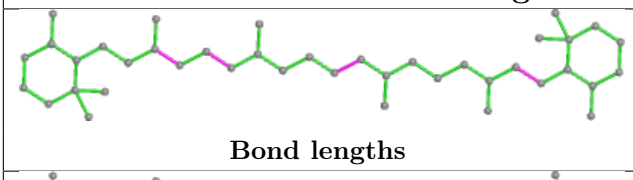


Torsions



Rings

Ligand BCR H 4001



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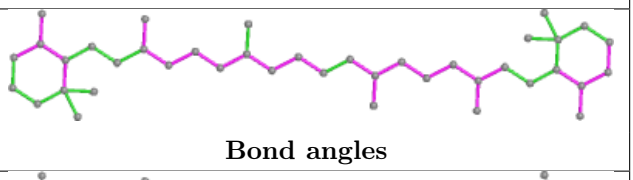
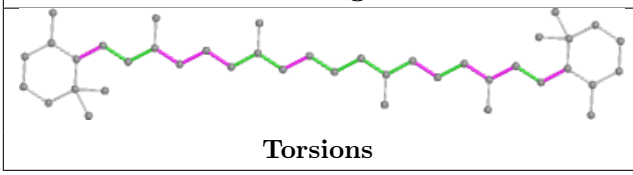
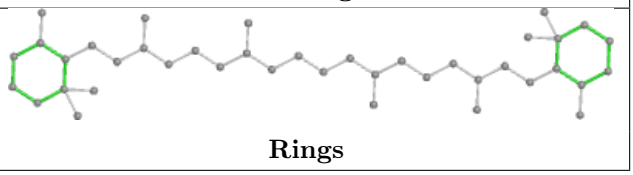


Bond angles

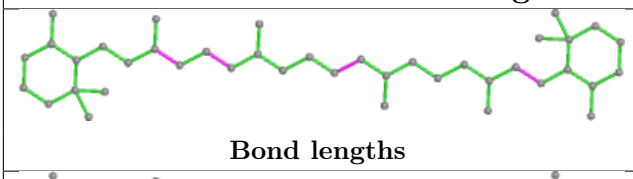


Torsions



Rings

Ligand BCR G 4001



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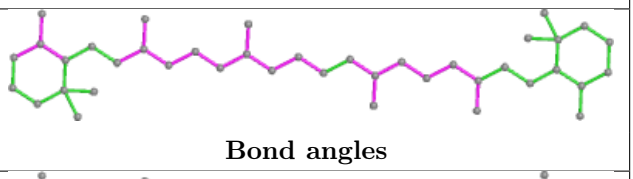
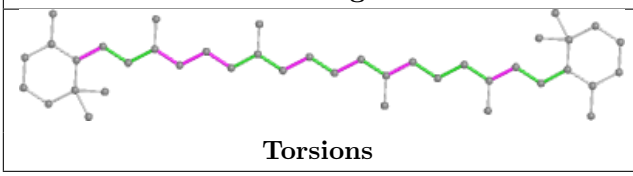
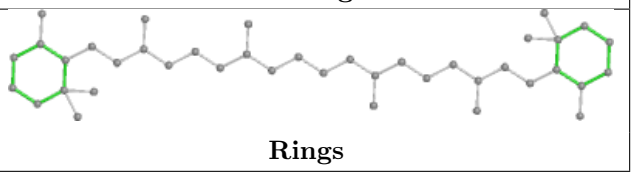


Bond angles

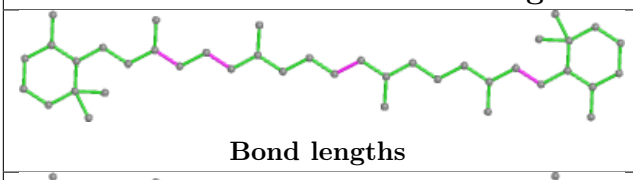


Torsions



Rings

Ligand BCR 3 503



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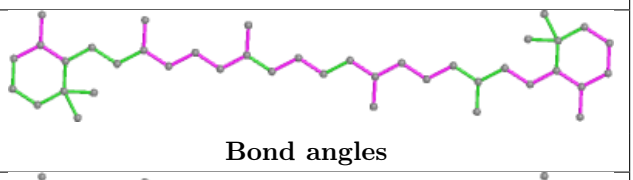

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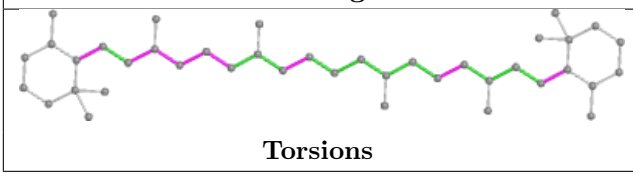

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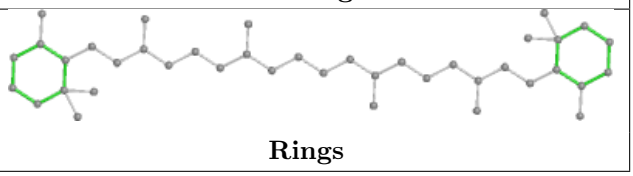
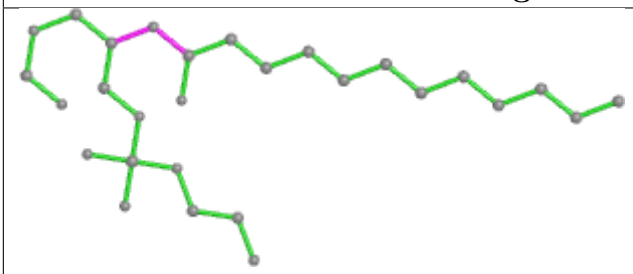


Rings

Ligand PTY G 5003



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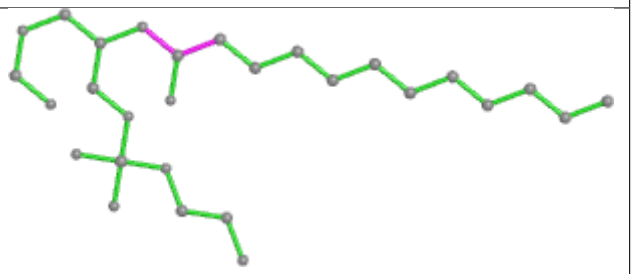

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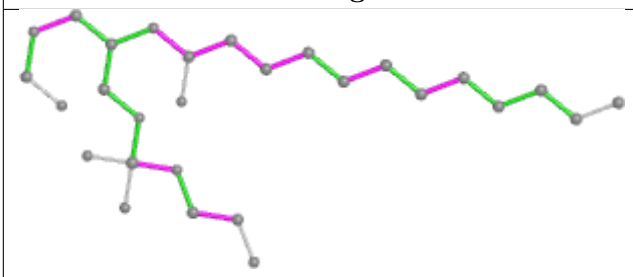
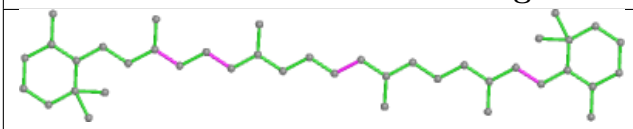


Torsions

Rings

Ligand BCR B 4004



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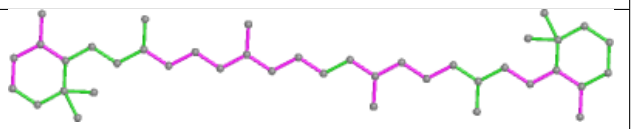
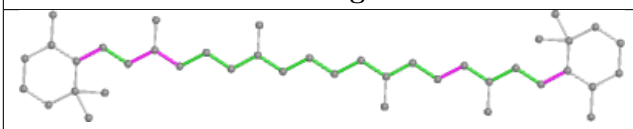
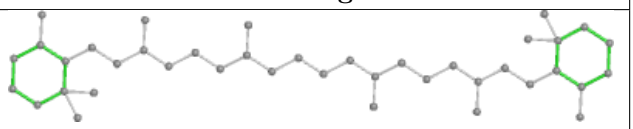


Bond angles

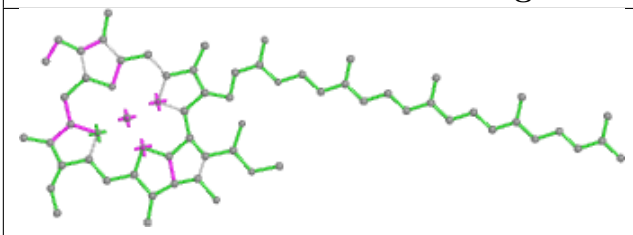


Torsions



Rings

Ligand CLA A 1133



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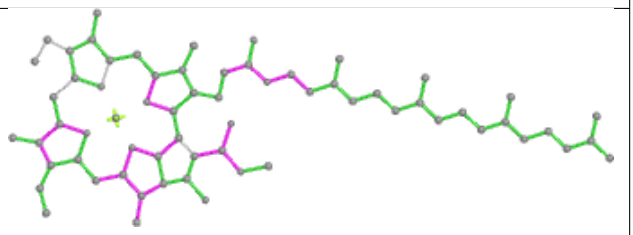

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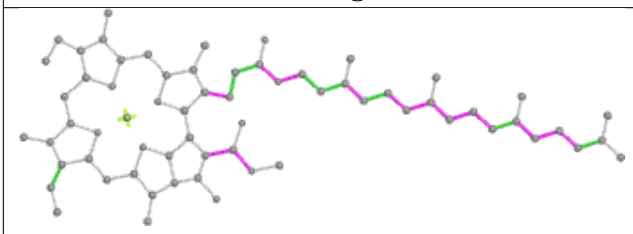

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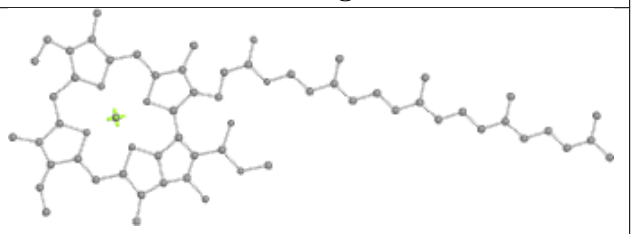
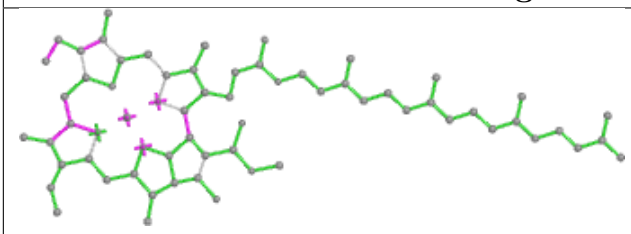


Rings

Ligand CLA B 1235



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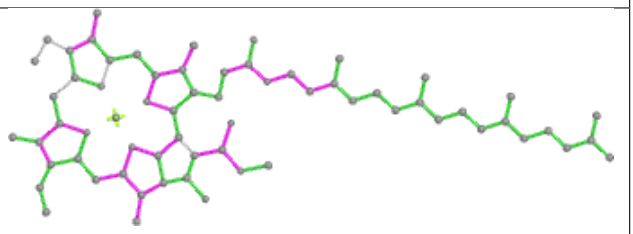
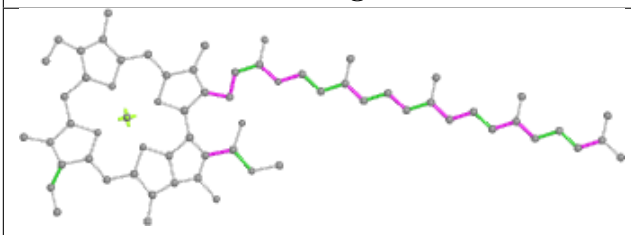


Bond angles



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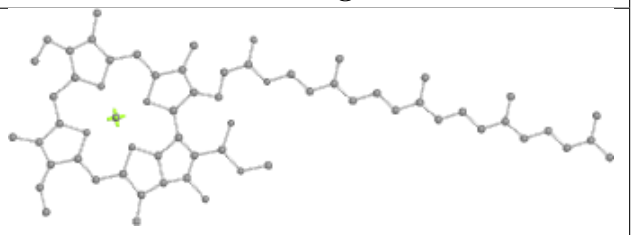
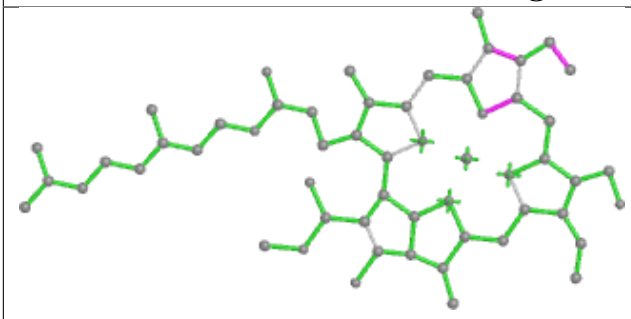


Rings

Ligand CHL 8 610



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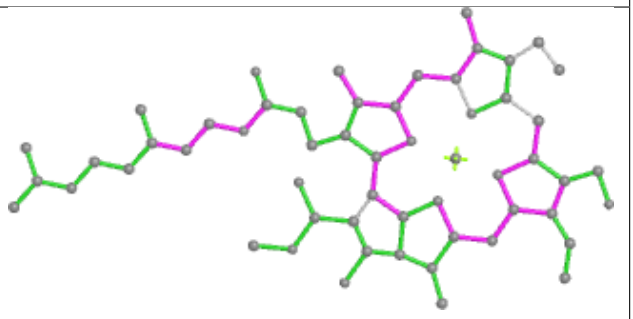
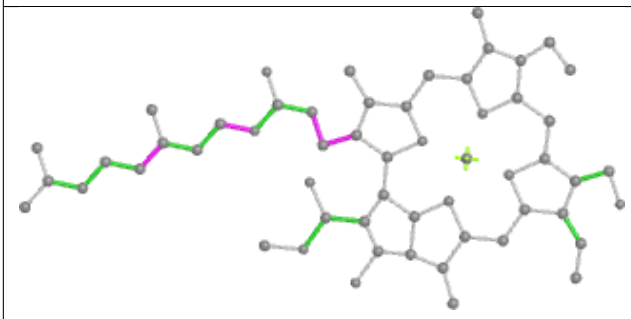
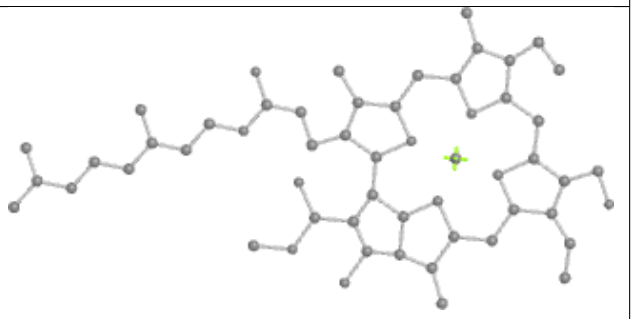


Bond angles

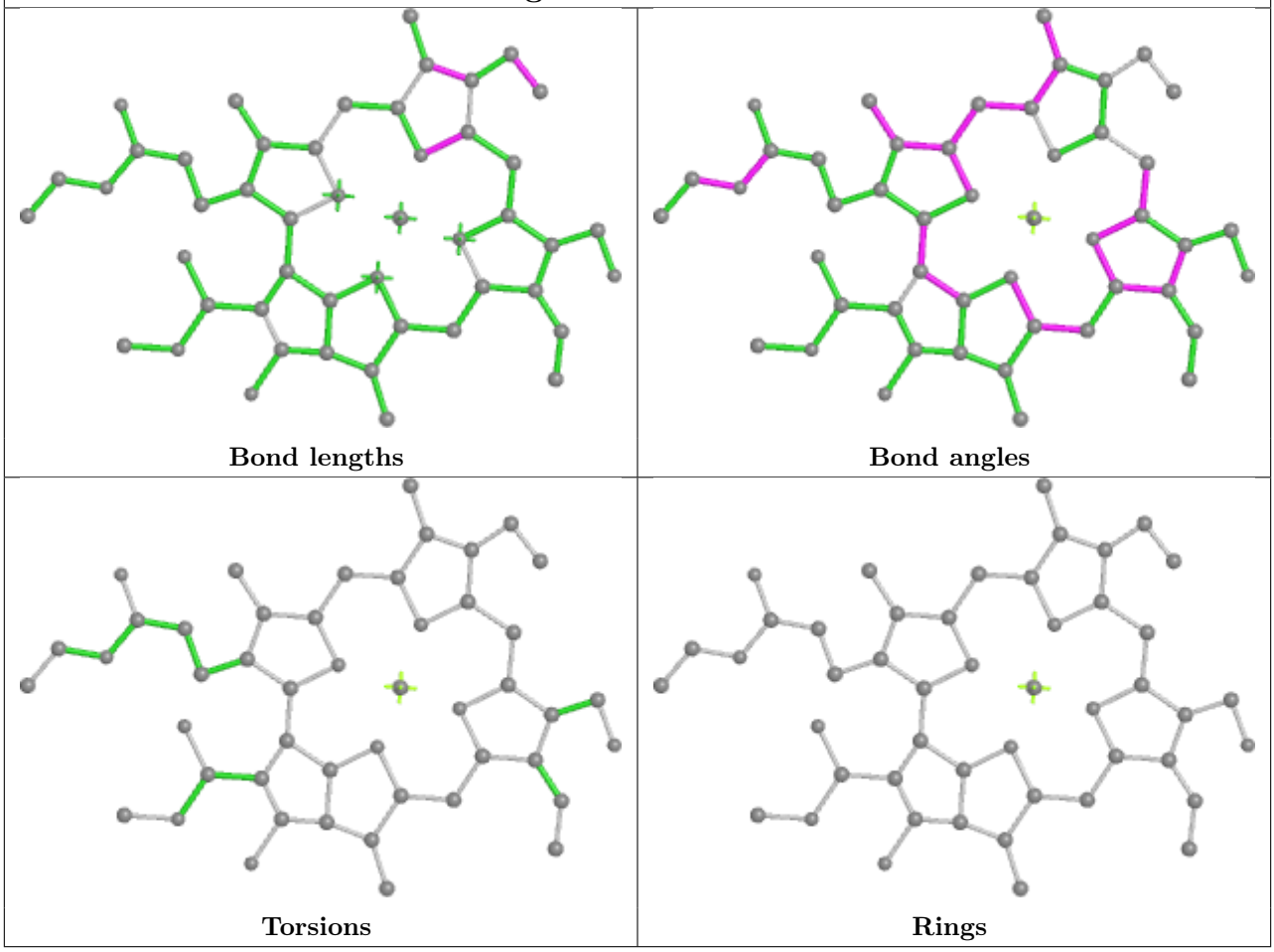


Torsions

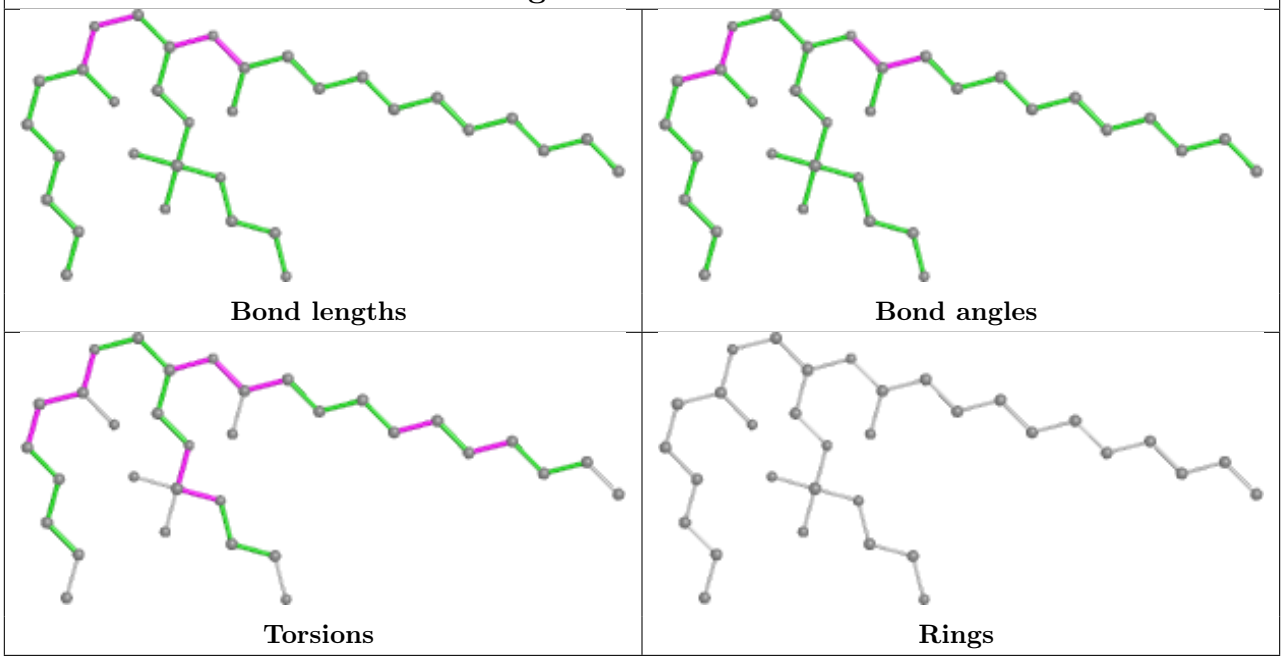


Rings

Ligand CHL a 610



Ligand PTY 7 804



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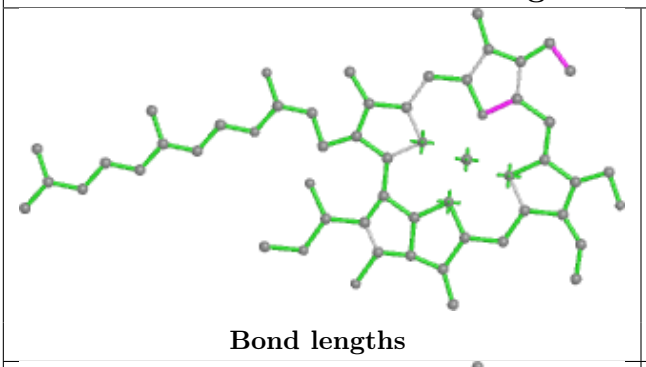

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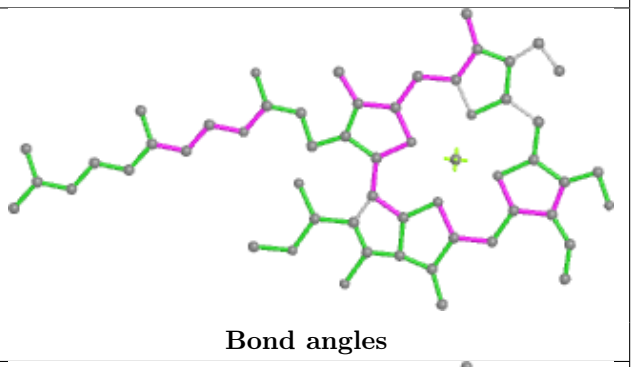
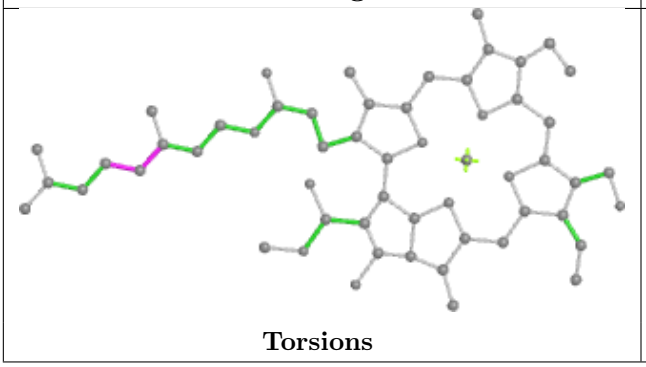


Bond angles



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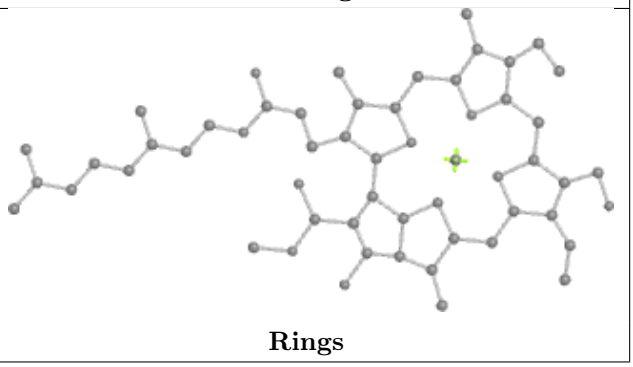
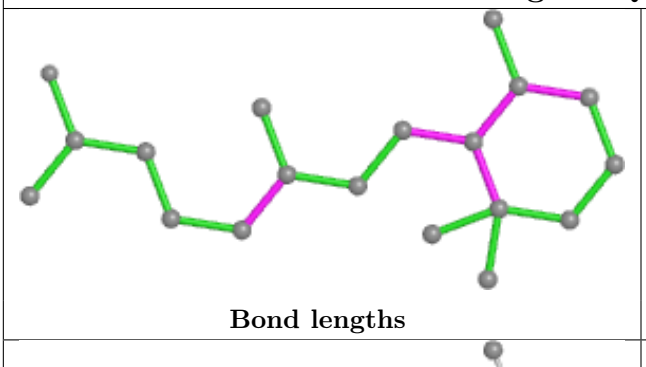


Rings

Ligand QTB a 504



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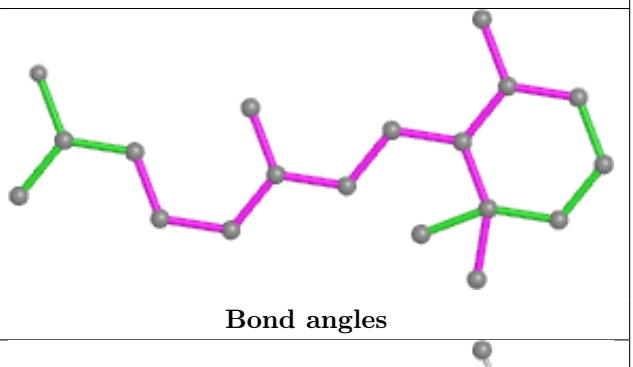
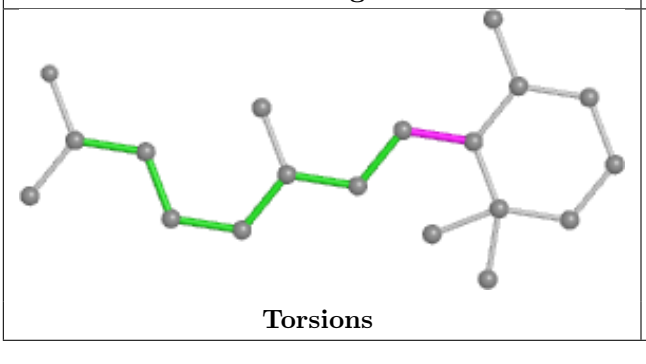


Bond angles



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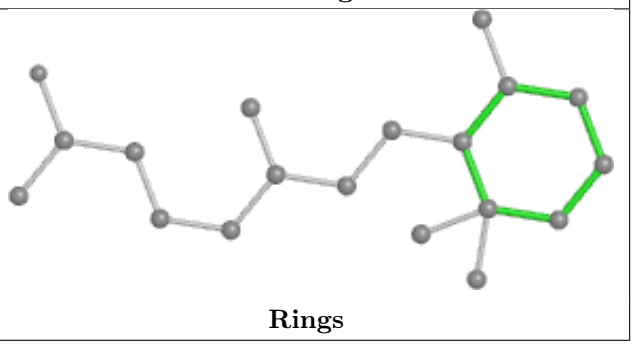
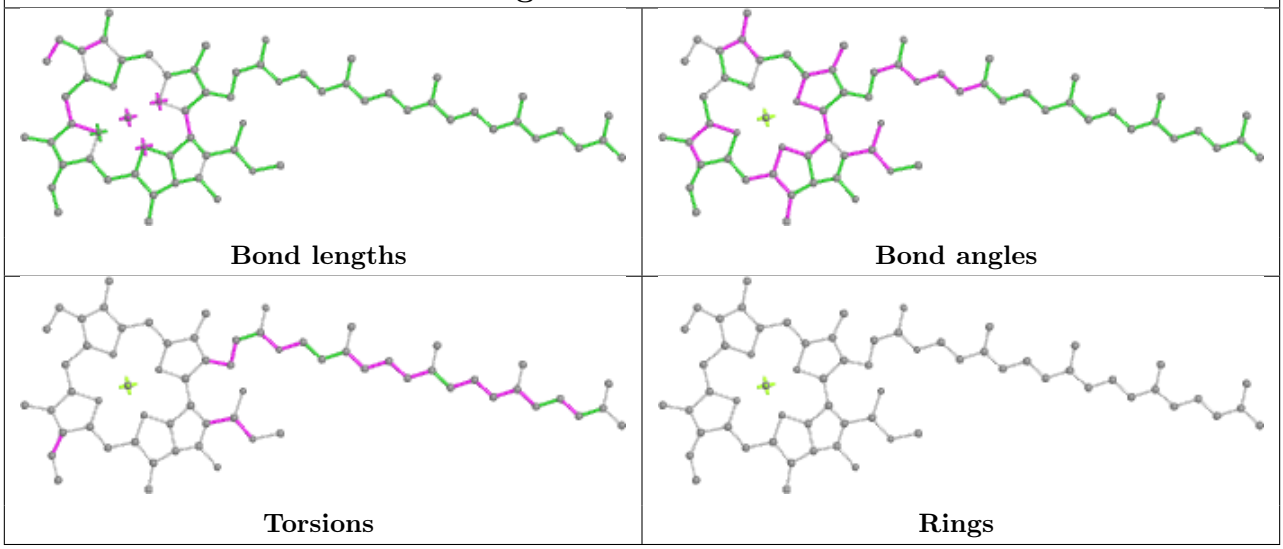
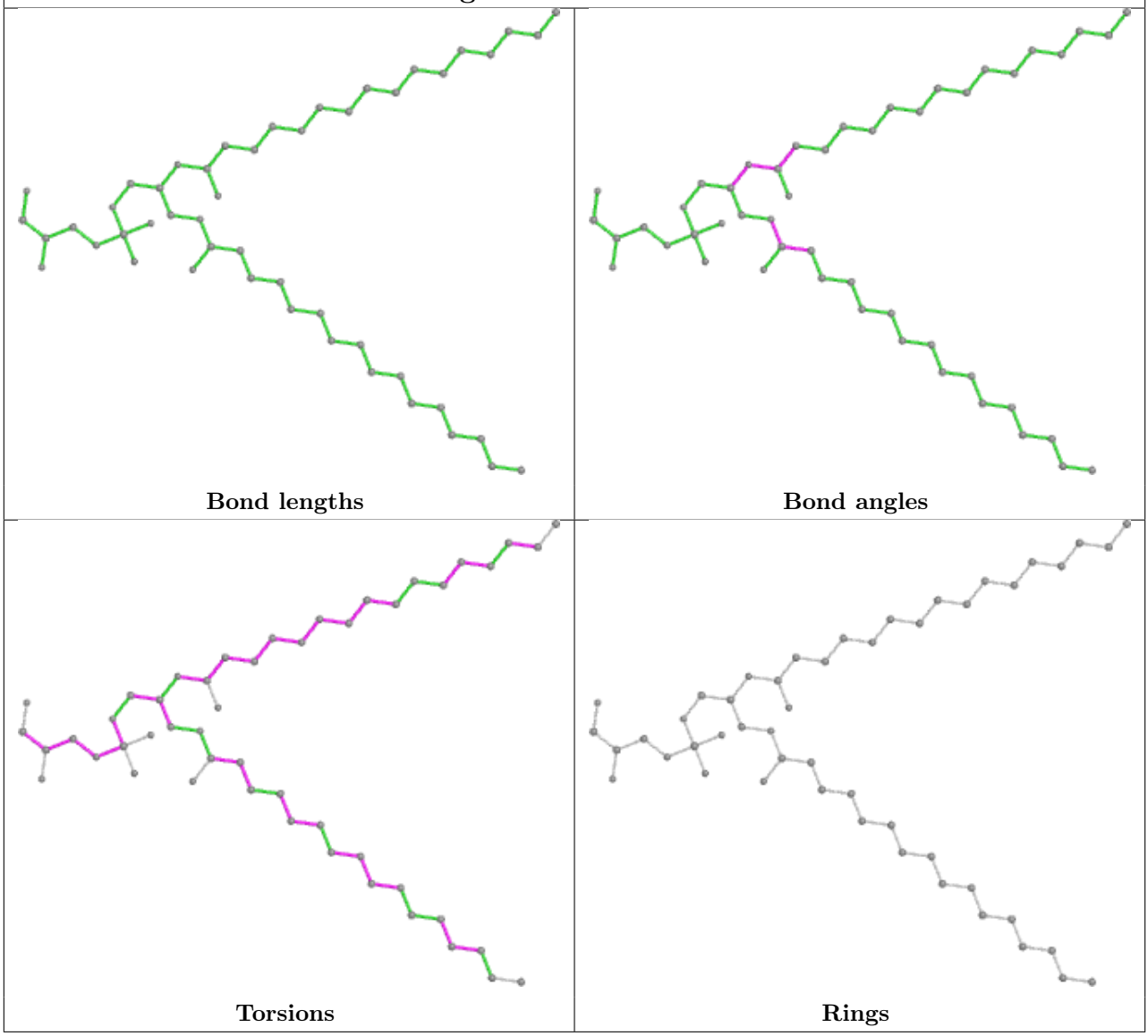


Rings

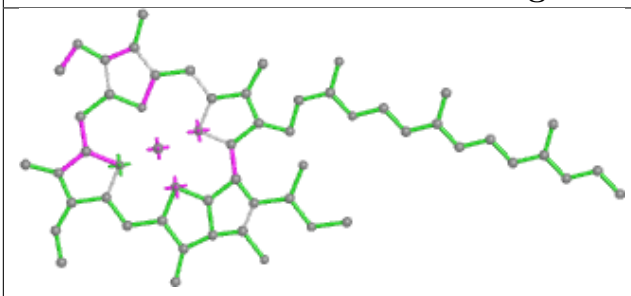
Ligand CLA B 1206



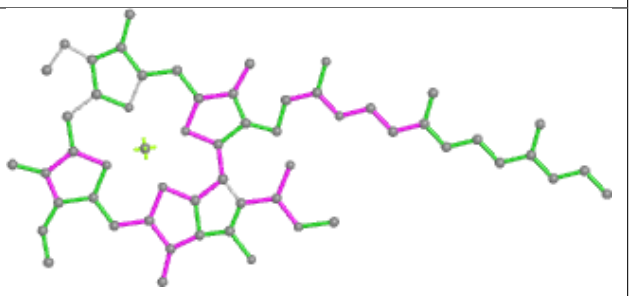
Ligand LHG A 5002



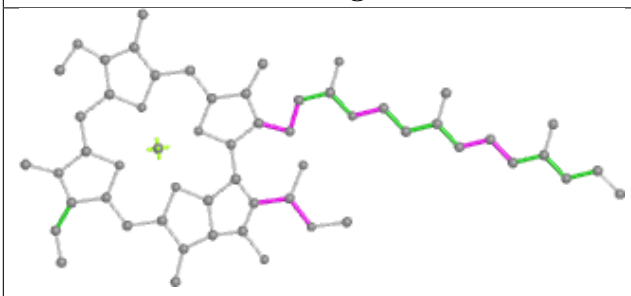
Ligand CLA a 612



Bond lengths



Bond angles



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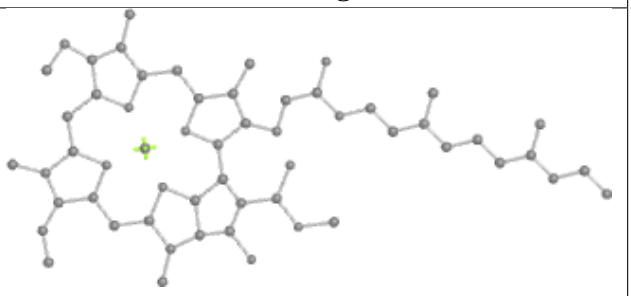
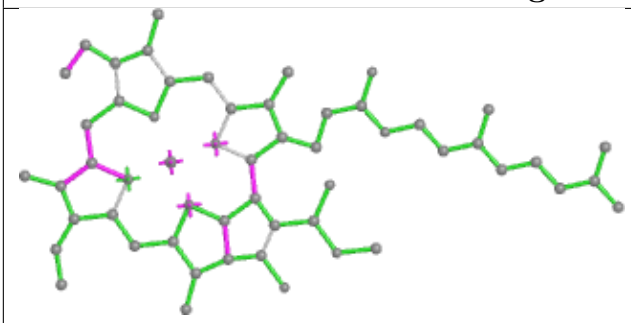
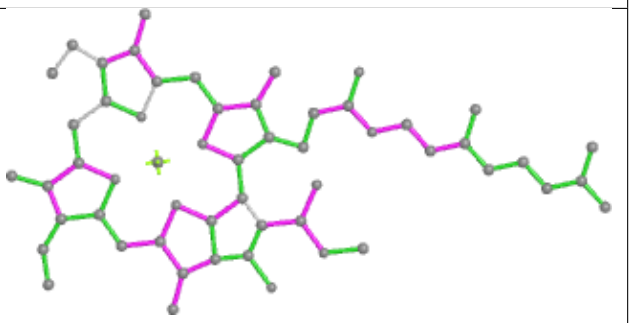


Rings

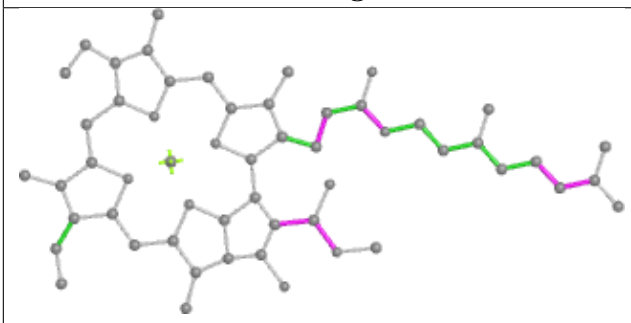
Ligand CLA a 605



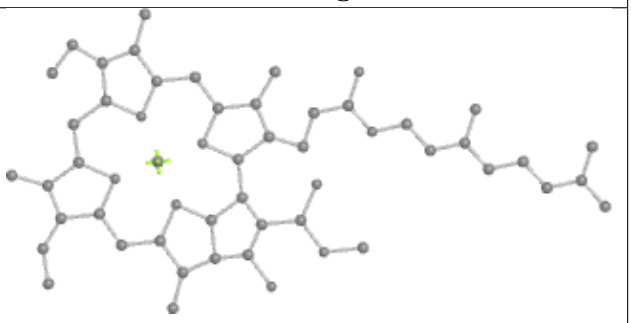
Bond lengths



Bond angles

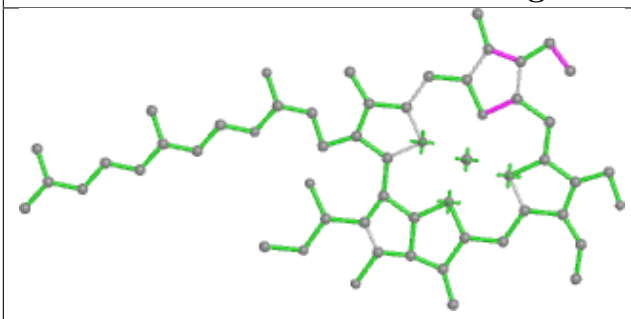


Torsions

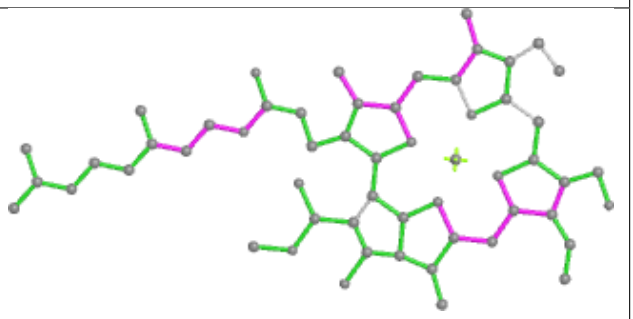


Rings

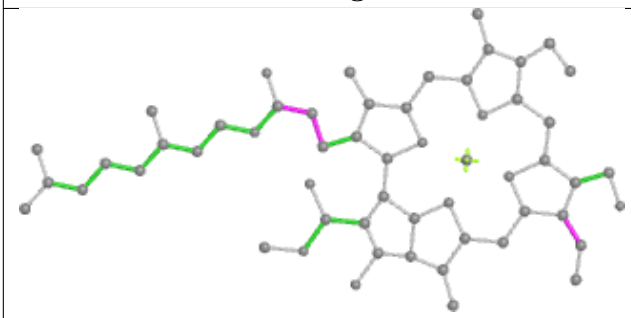
Ligand CHL 1 611



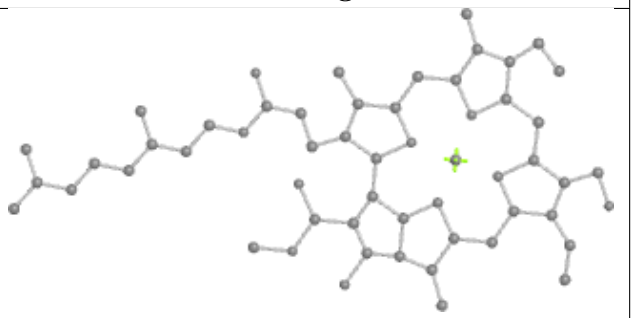
Bond lengths



Bond angles

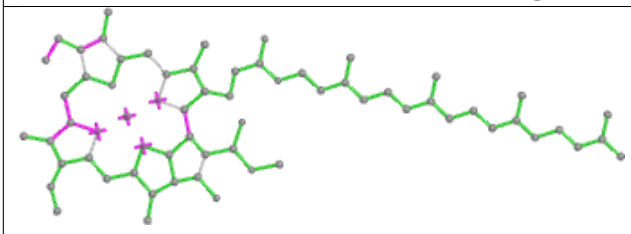


Torsions



Rings

Ligand CLA 9 612



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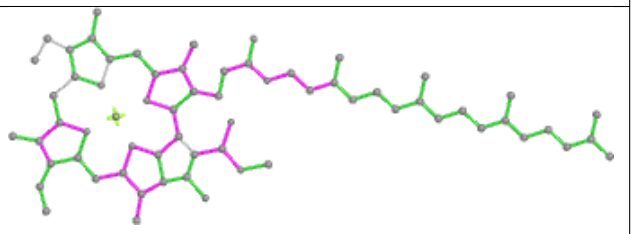

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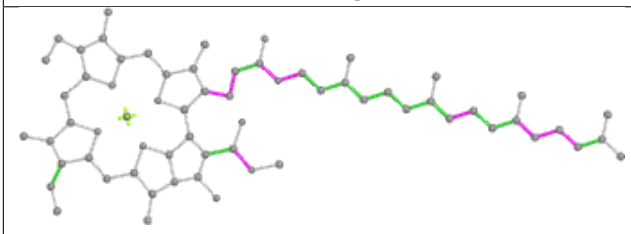

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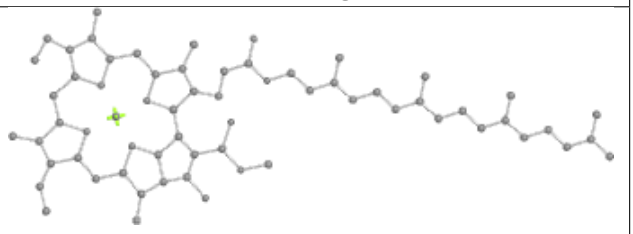
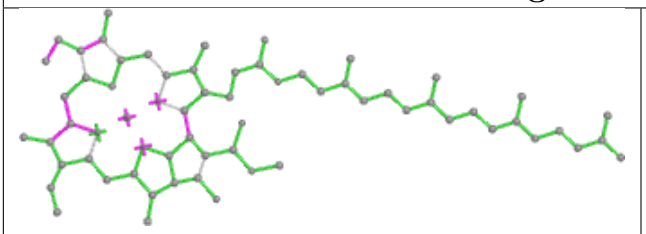


Rings

Ligand CLA 6 615



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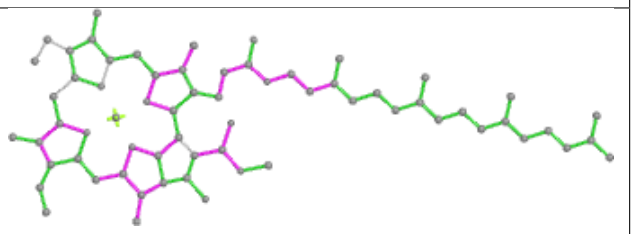
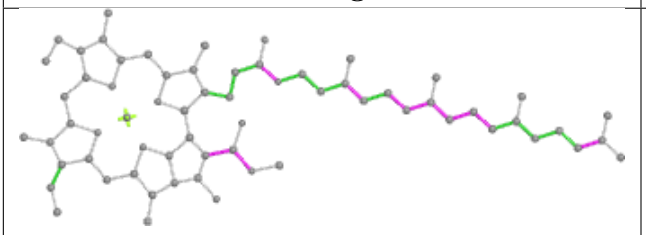


Bond angles



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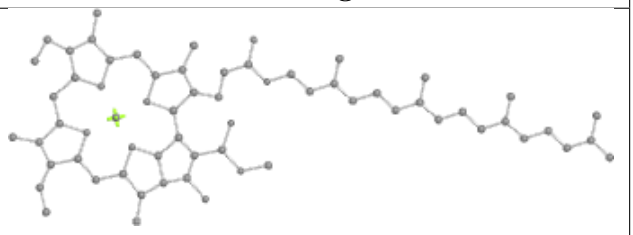
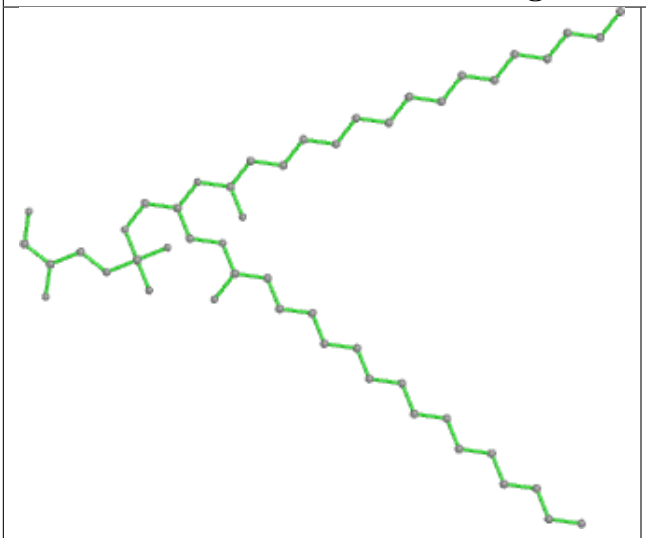


Rings

Ligand LHG 5 801



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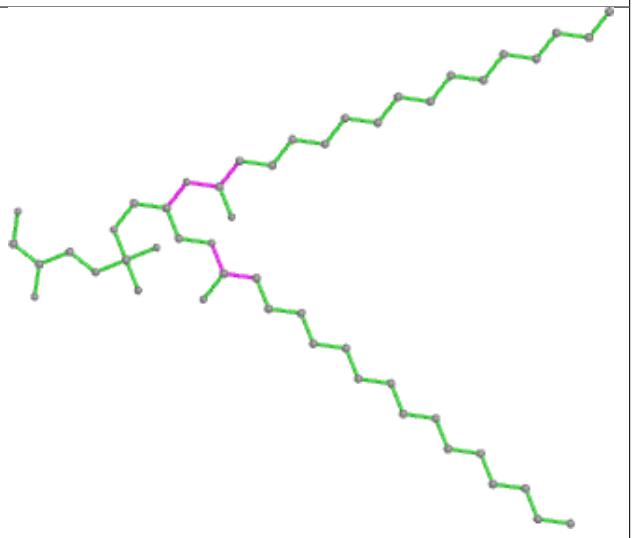
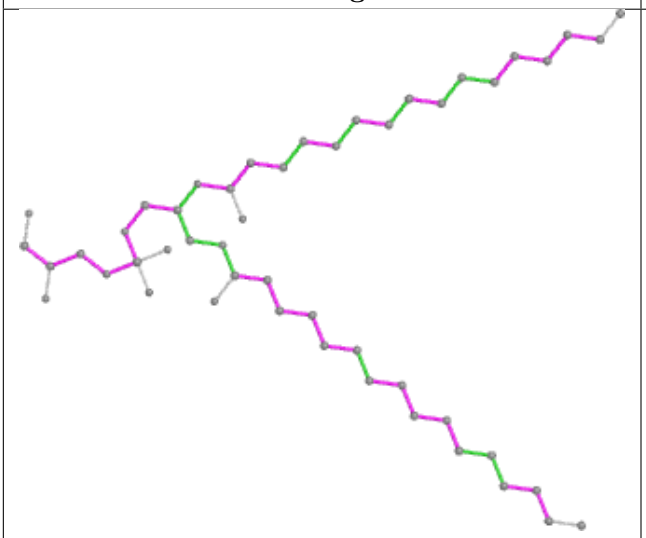


Bond angles



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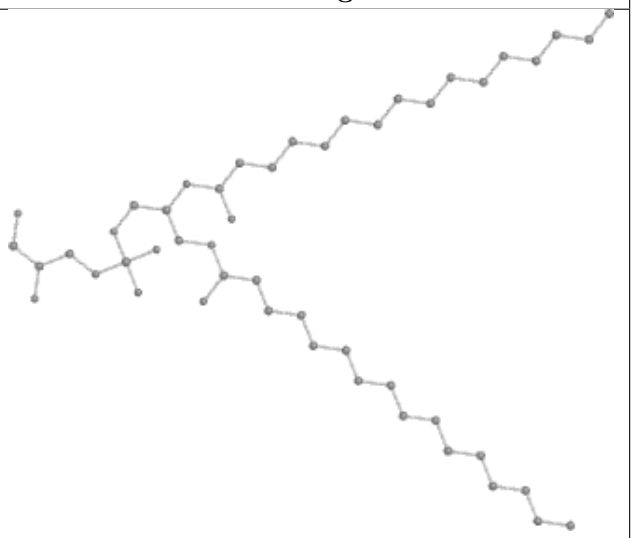

Rings

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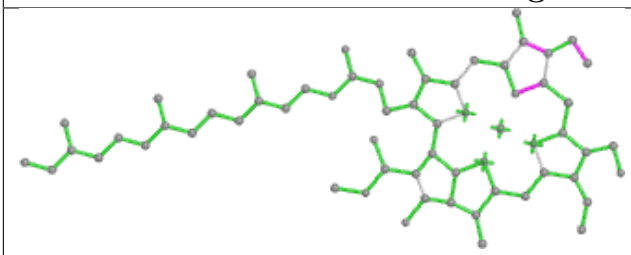
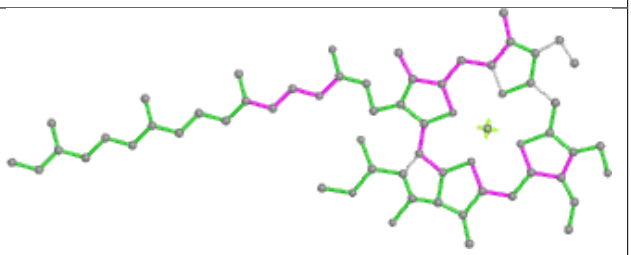
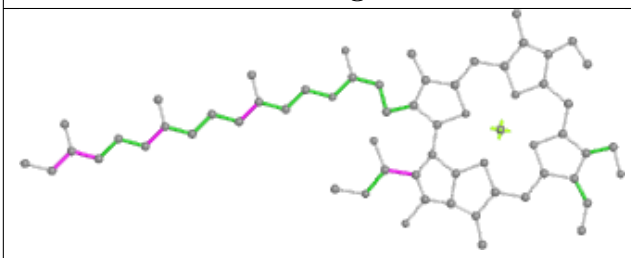
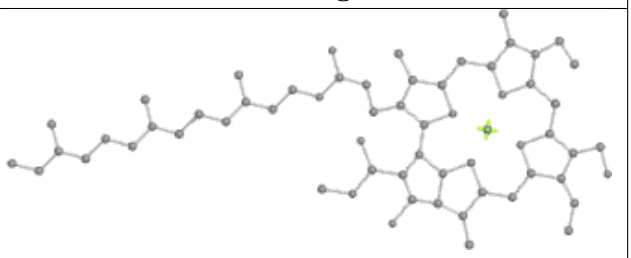
 Bond lengths	 Bond angles
 Torsions	 Rings

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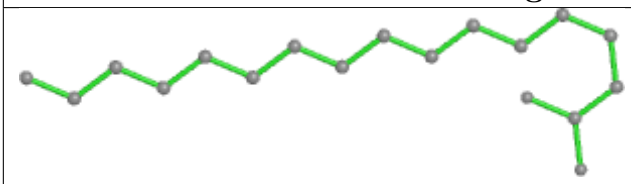
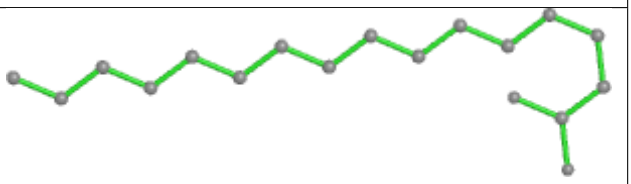
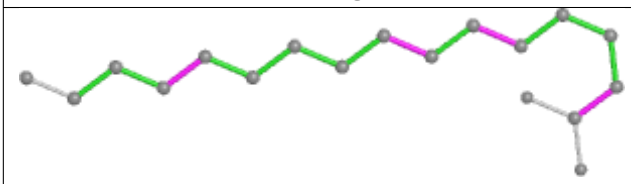
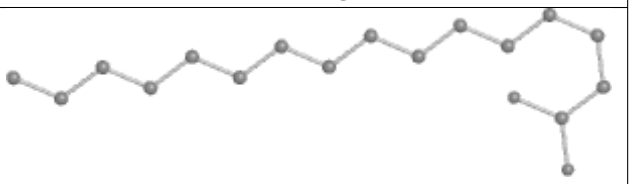
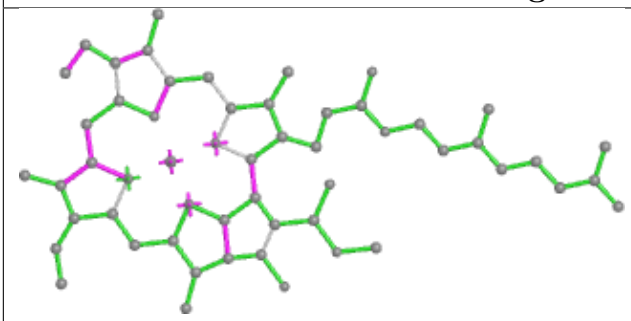
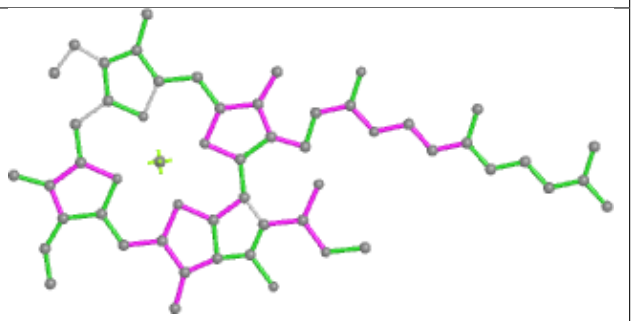
 Bond lengths	 Bond angles
 Torsions	 Rings

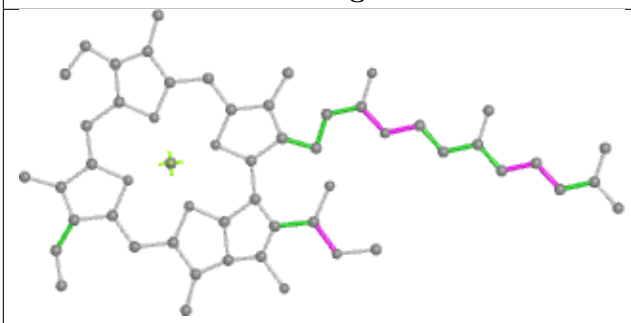
Ligand CLA 6 608



Bond lengths



Bond angles



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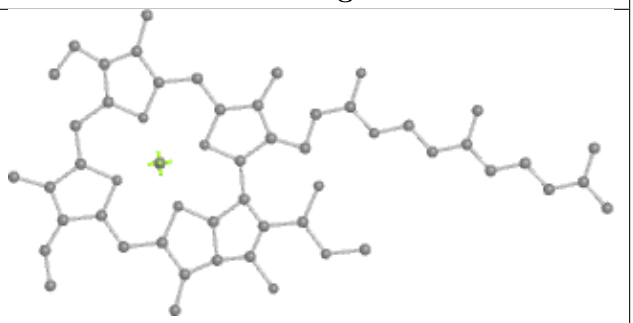
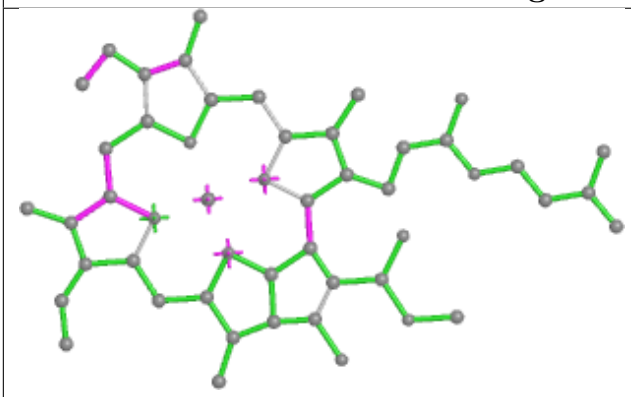
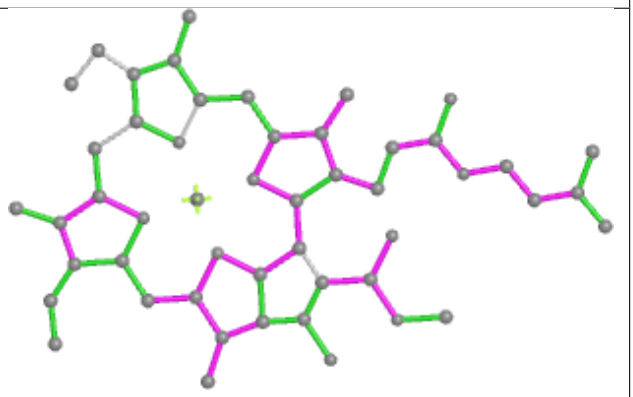


Rings

Ligand CLA a 602



Bond lengths



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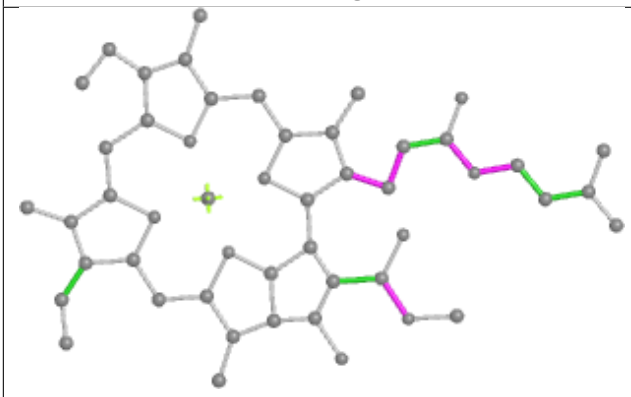

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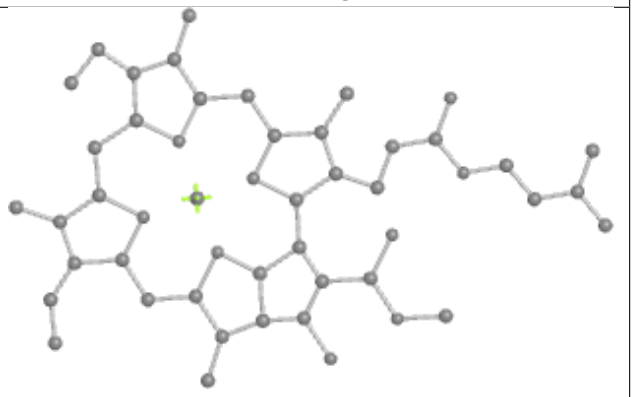
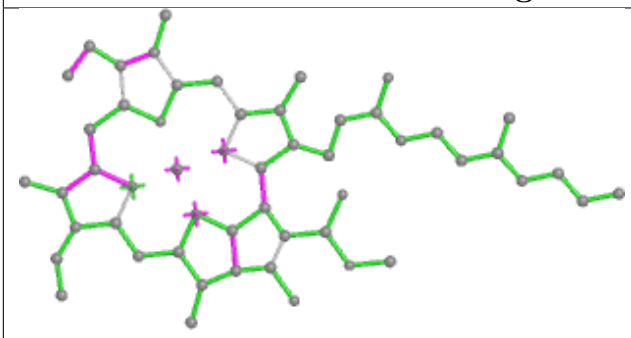
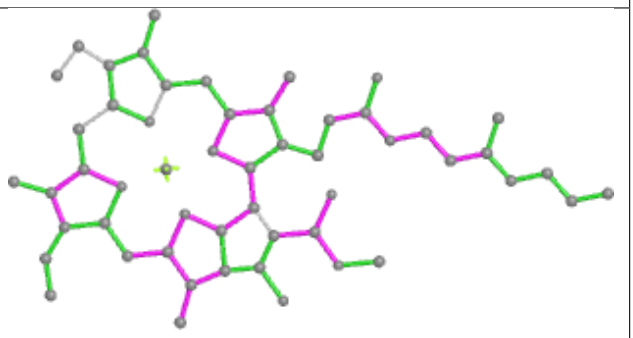
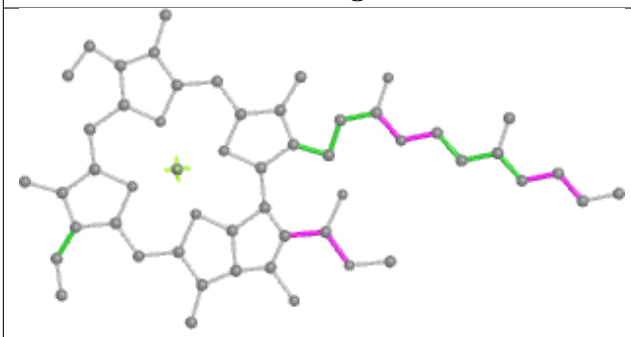
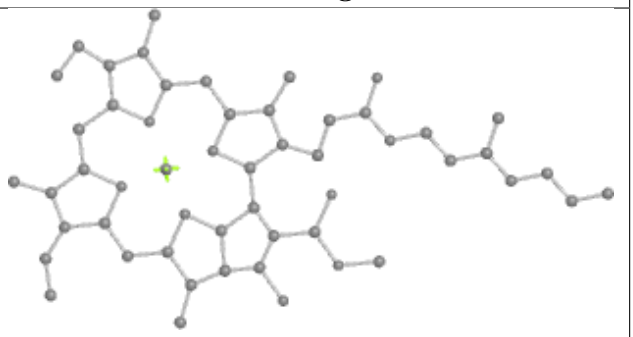


Rings

Ligand CLA B 1236	
 Bond lengths	 Bond angles
 Torsions	 Rings

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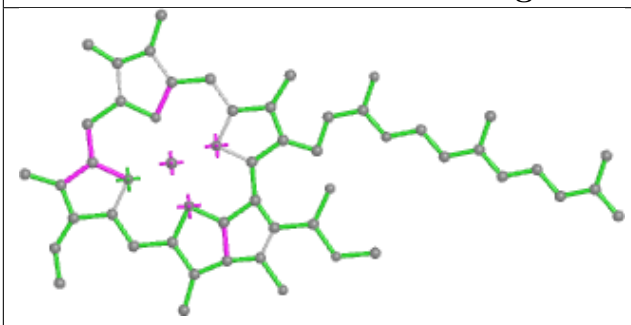
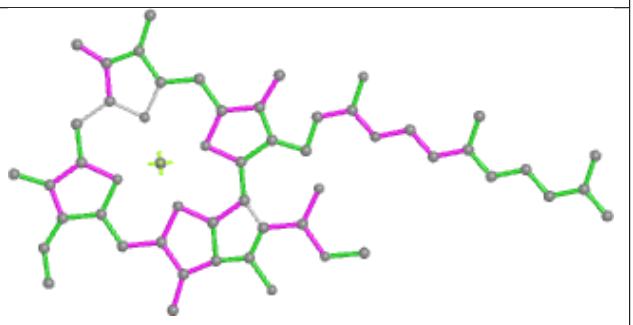
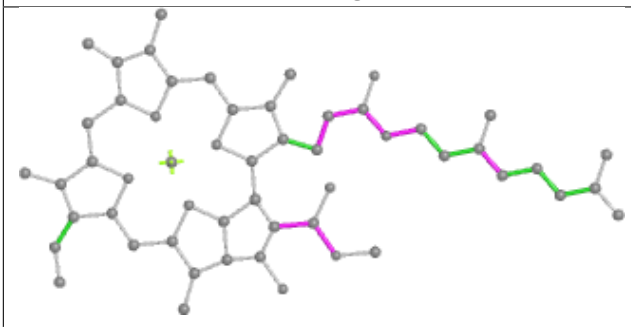
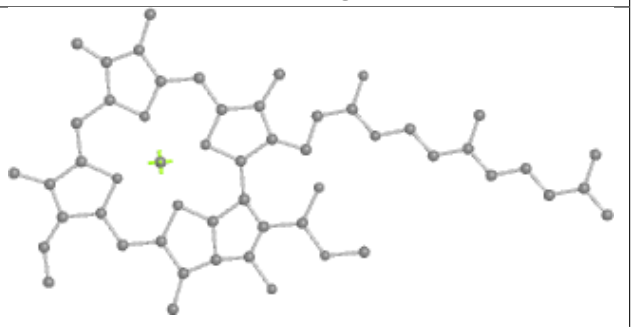
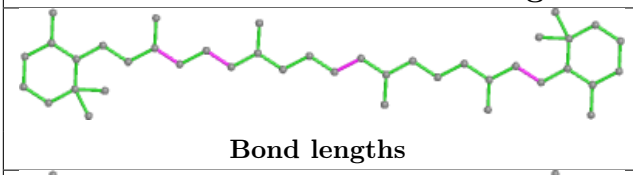
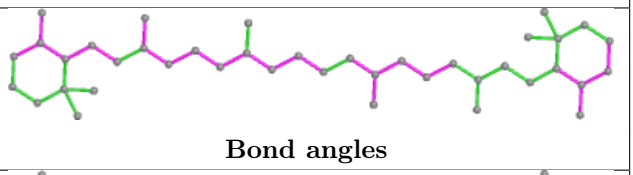
 Bond lengths	 Bond angles
 Torsions	 Rings

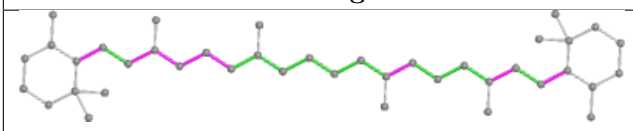
Ligand BCR 6 504



Bond lengths



Bond angles



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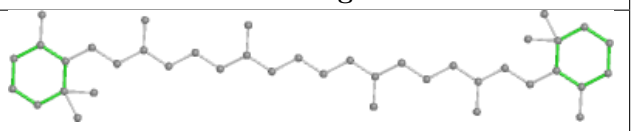
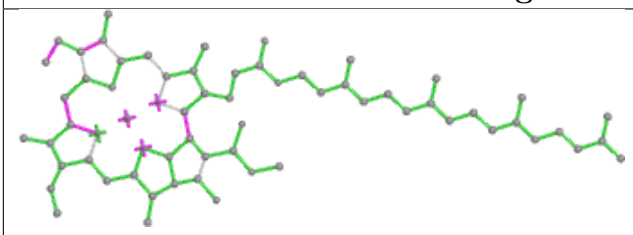


Rings

Ligand CLA B 1023



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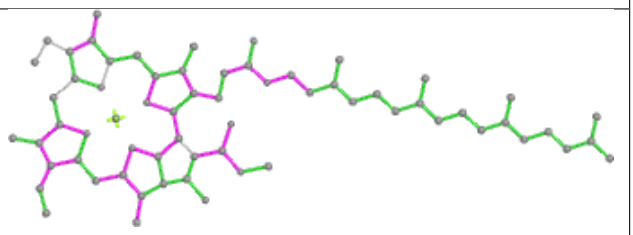
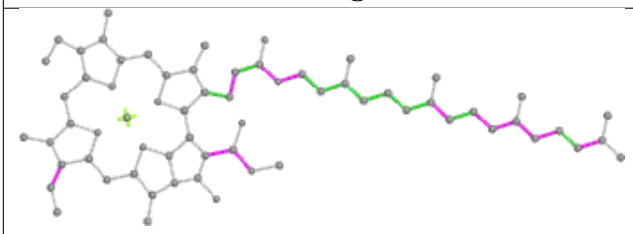


Bond angles



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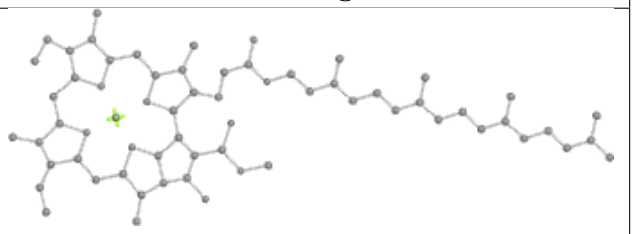
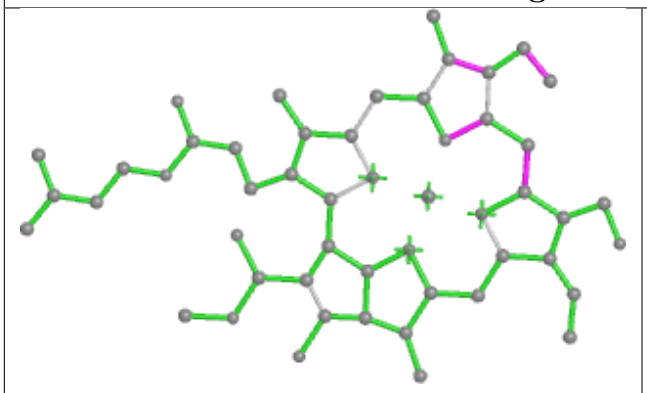
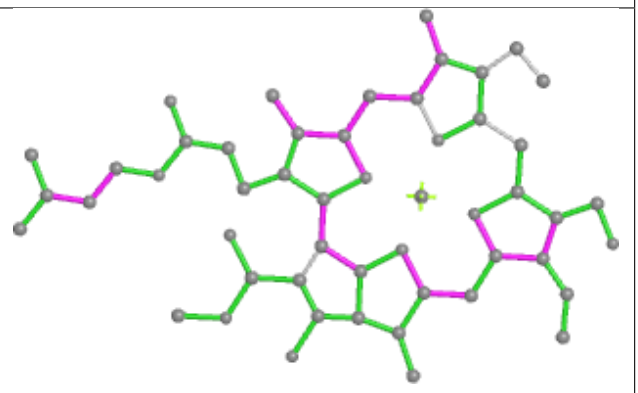


Rings

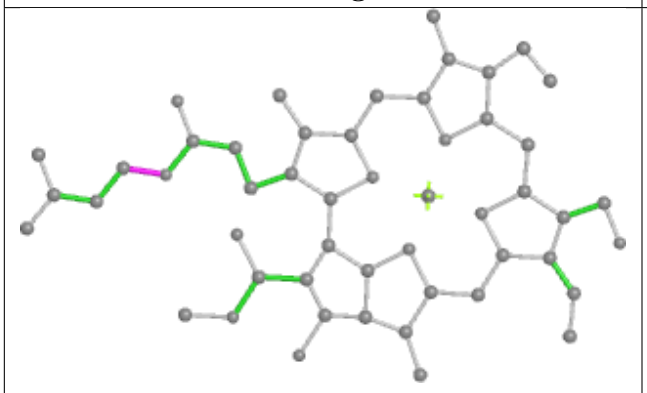
Ligand CHL 5 611



Bond lengths



Bond angles



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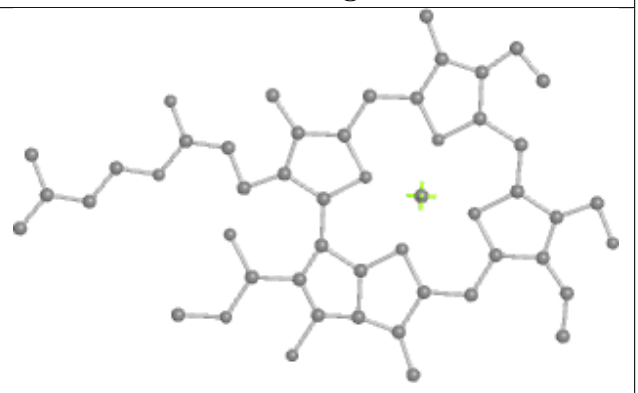
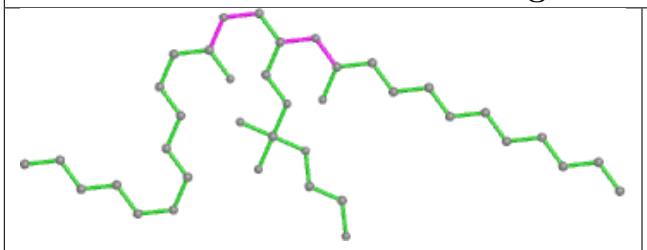


Rings

Ligand PTY 3 802



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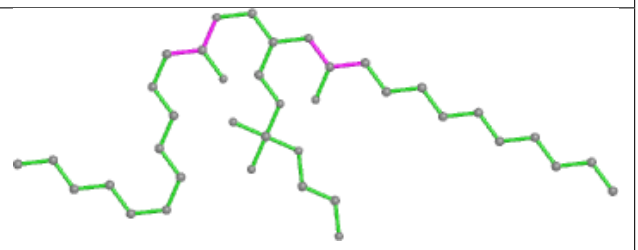
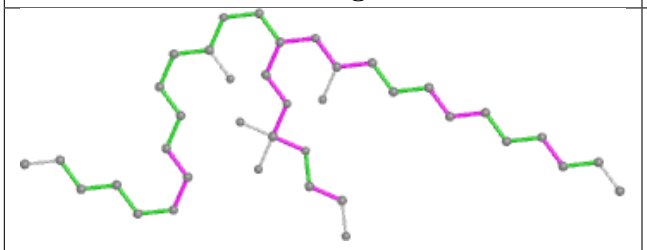


Bond angles



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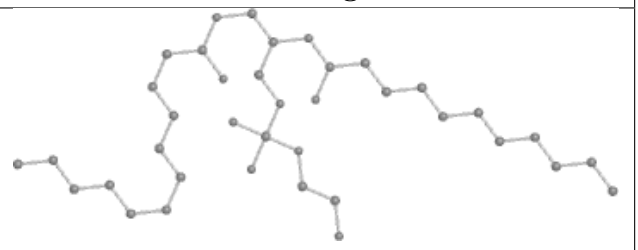
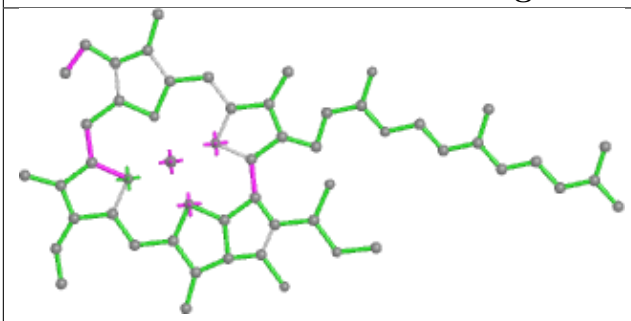
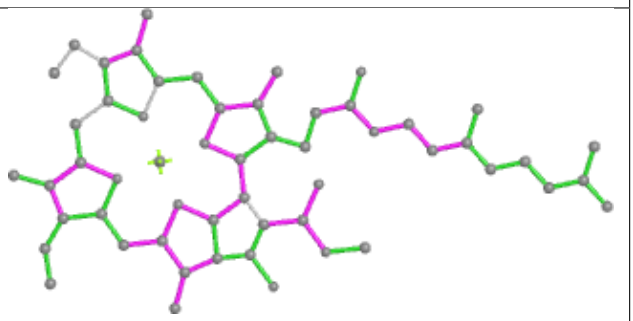


Rings

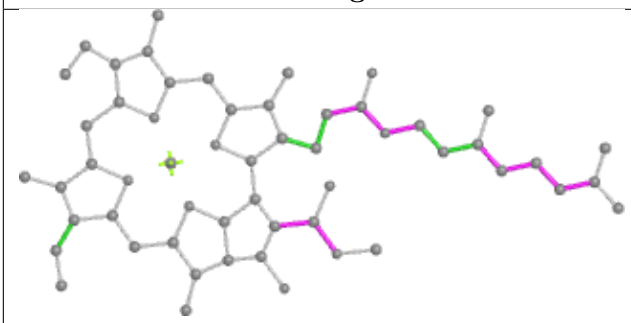
Ligand CLA A 1112



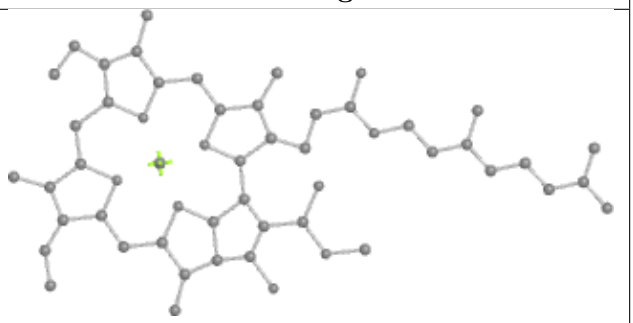
Bond lengths



Bond angles

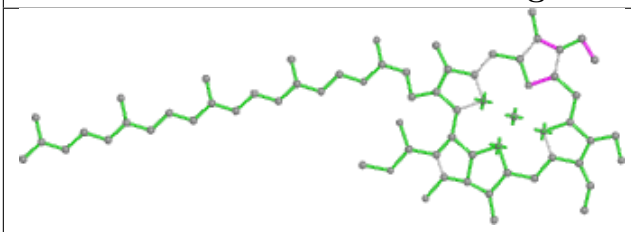


Torsions



Rings

Ligand CHL 1 609



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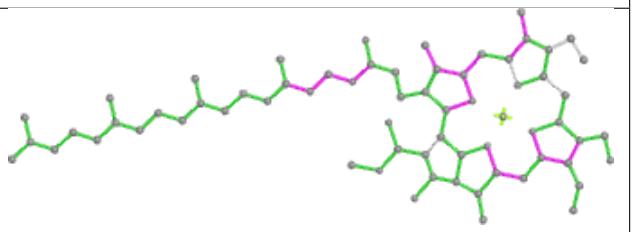
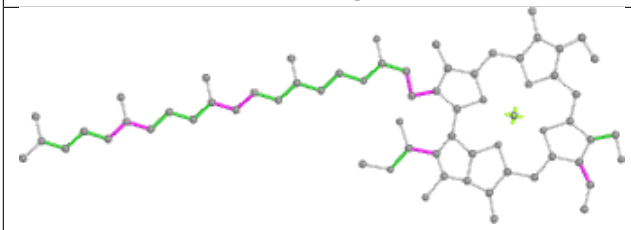


Bond angles



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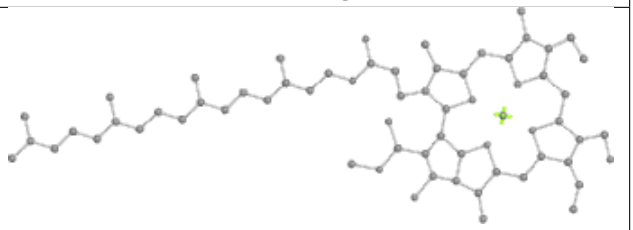
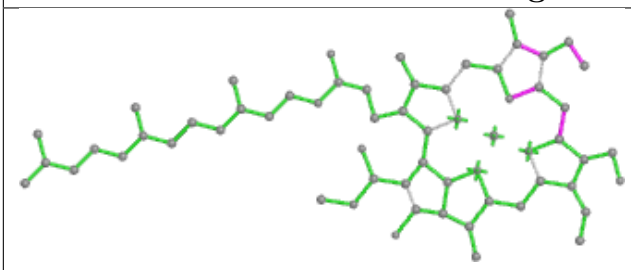


Rings

Ligand CHL a 604



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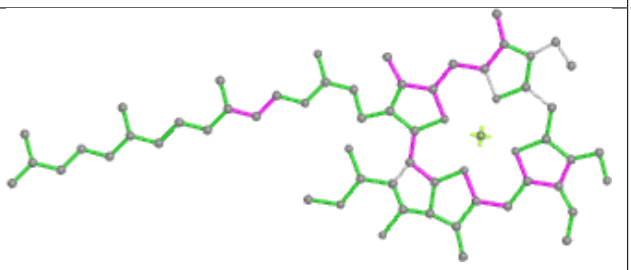

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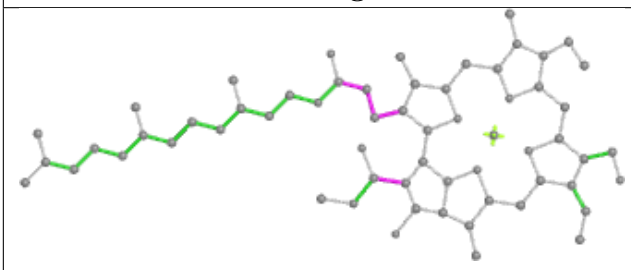

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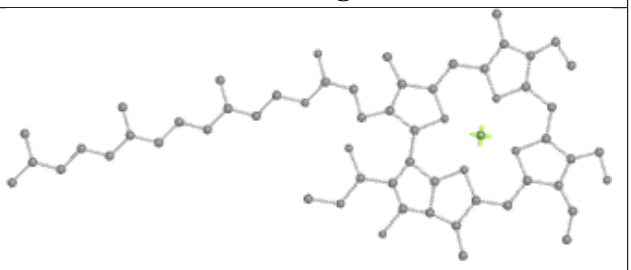
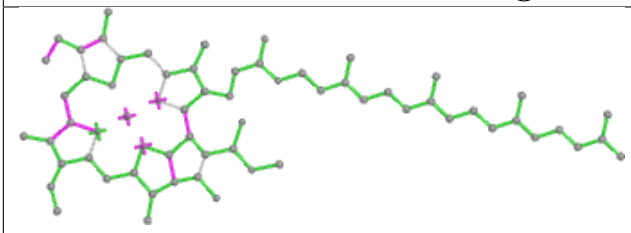


Rings

Ligand CLA B 1202



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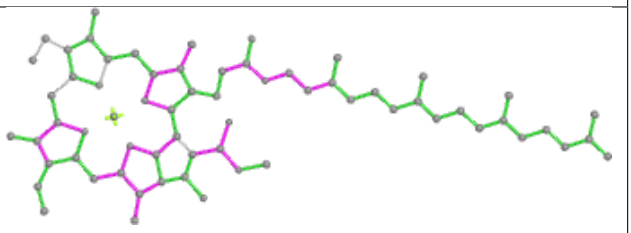
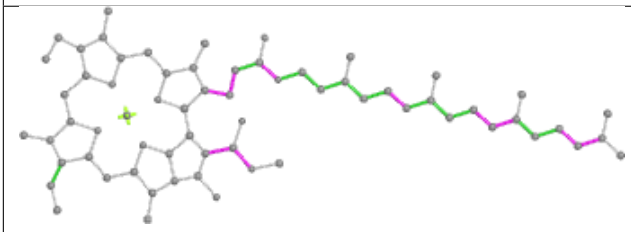


Bond angles



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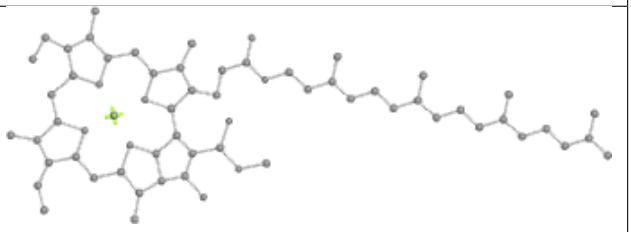
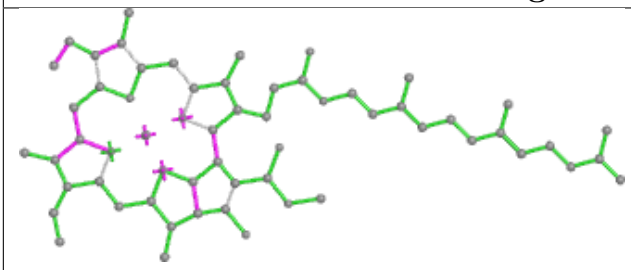


Rings

Ligand CLA 2 605



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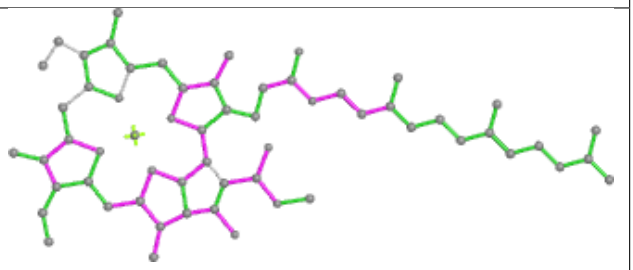

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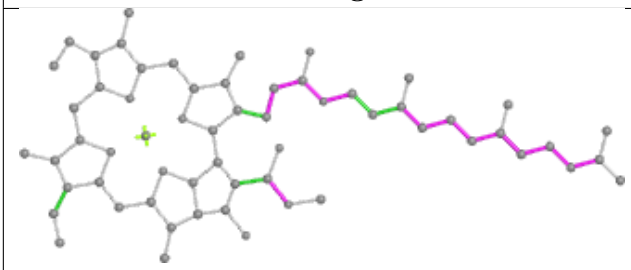

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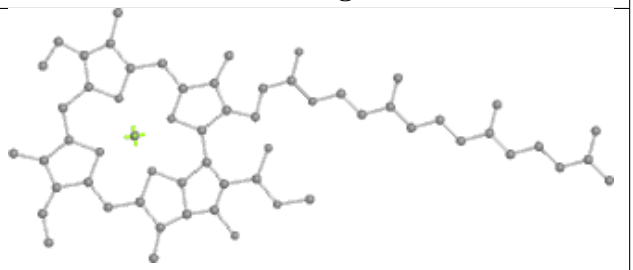
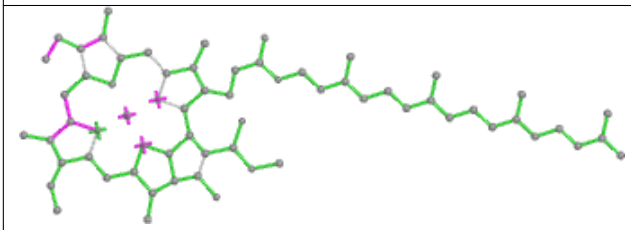


Rings

Ligand CLA 3 601



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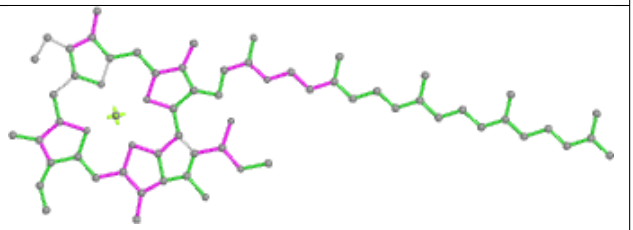

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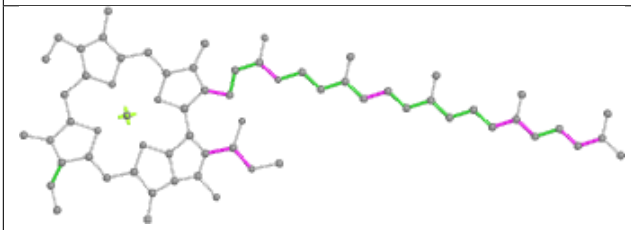

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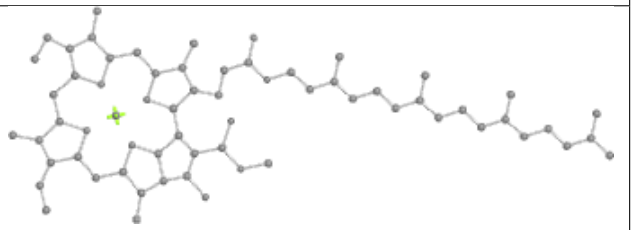
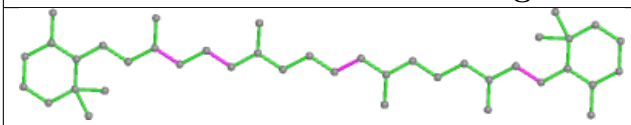


Rings

Ligand BCR B 4001



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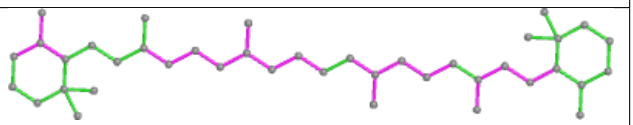

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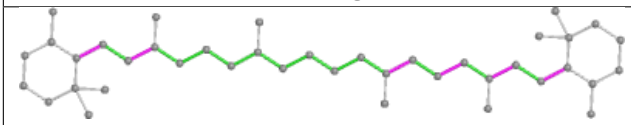

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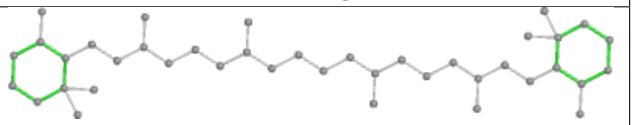
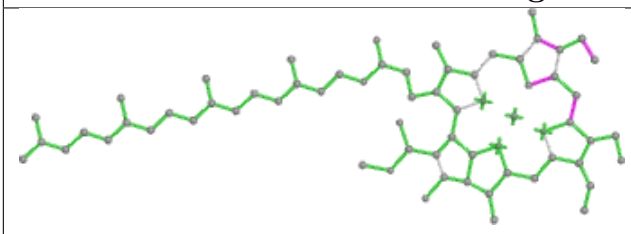


Rings

Ligand CHL 3 603



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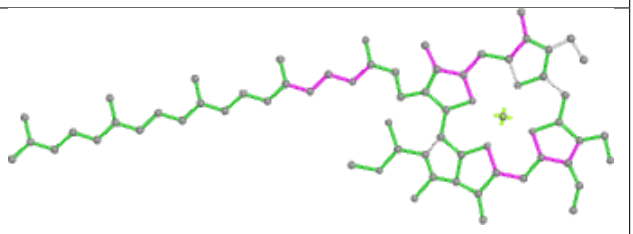

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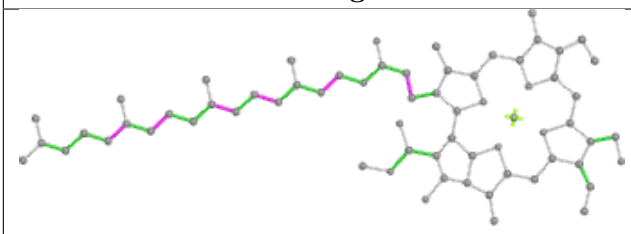

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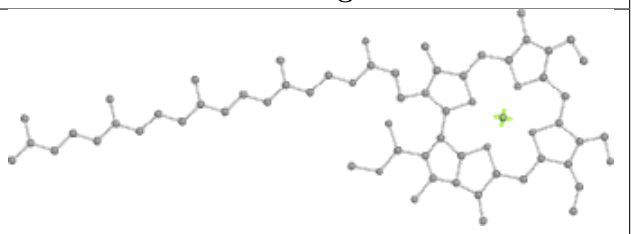
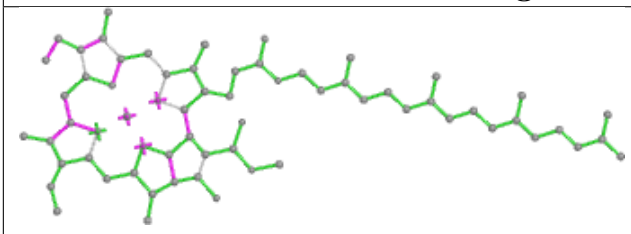


Rings

Ligand CLA B 1205



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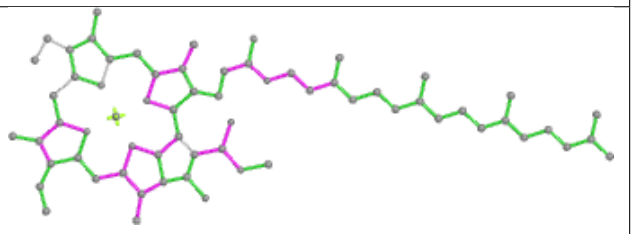

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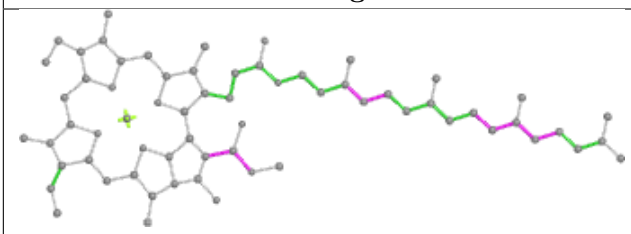

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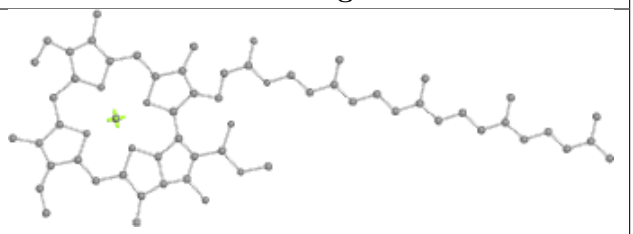
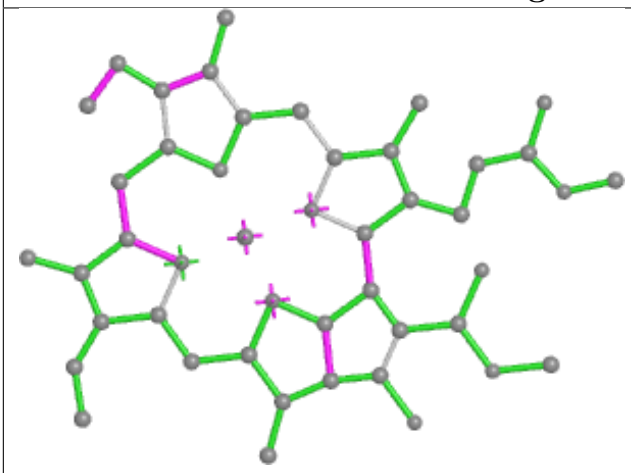


Rings

Ligand CLA 4 605



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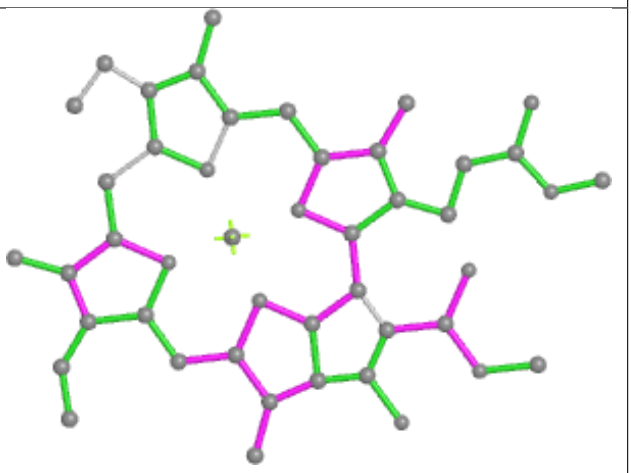

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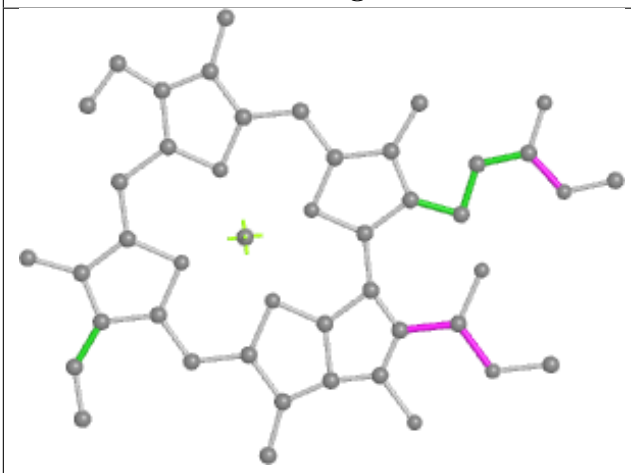

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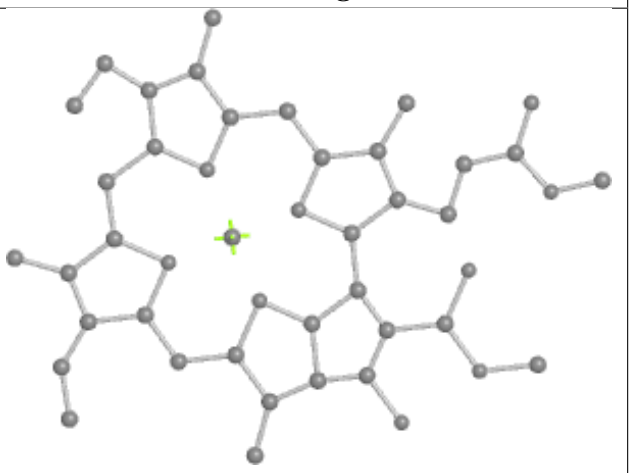
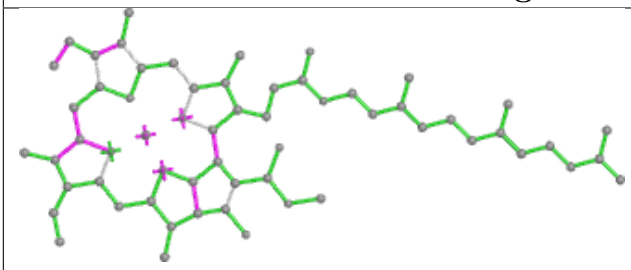


Rings

Ligand CLA A 1116



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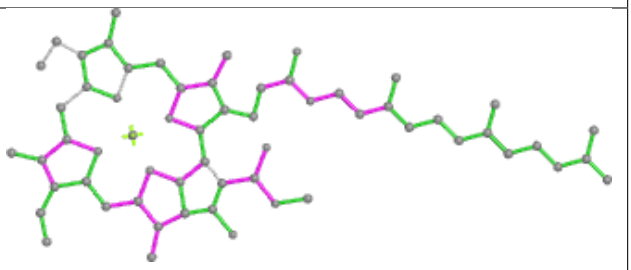

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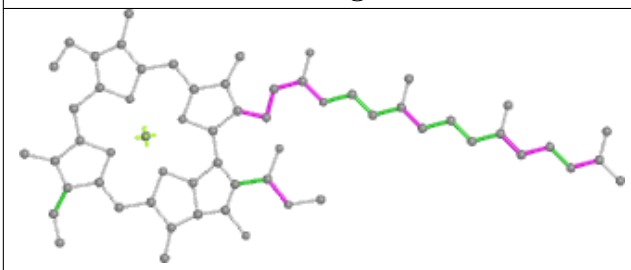

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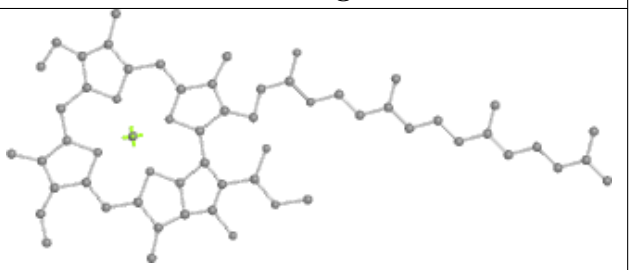
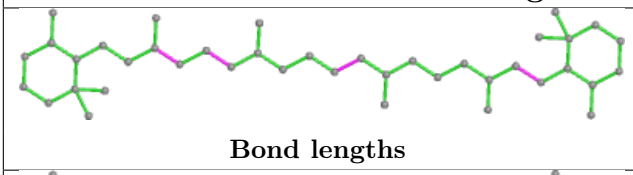


Rings

Ligand BCR 4 503



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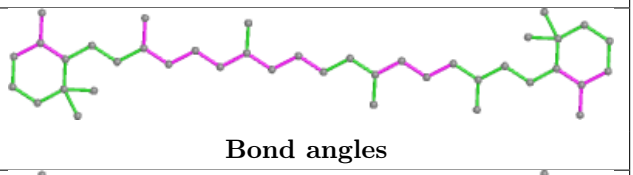
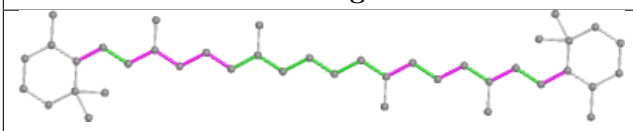


Bond angles



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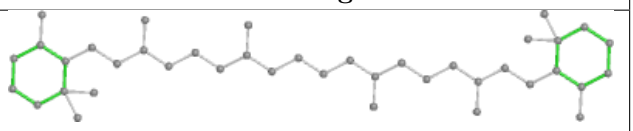
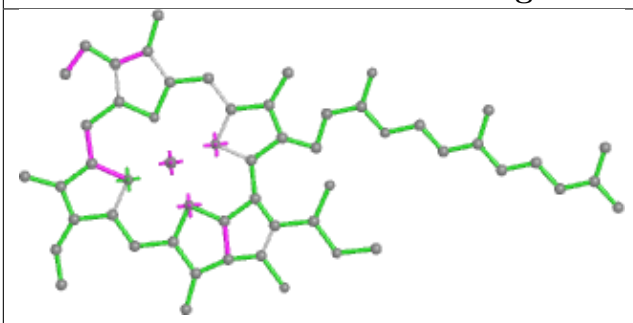
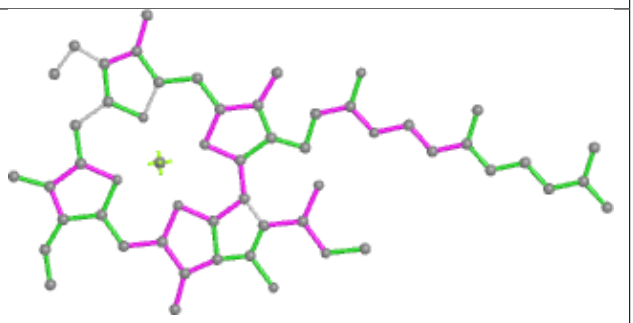


Rings

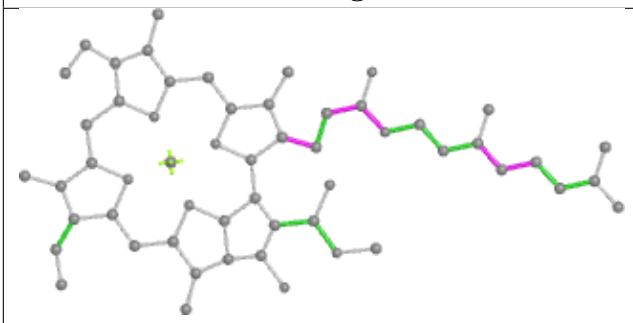
Ligand CLA B 1218



Bond lengths



Bond angles



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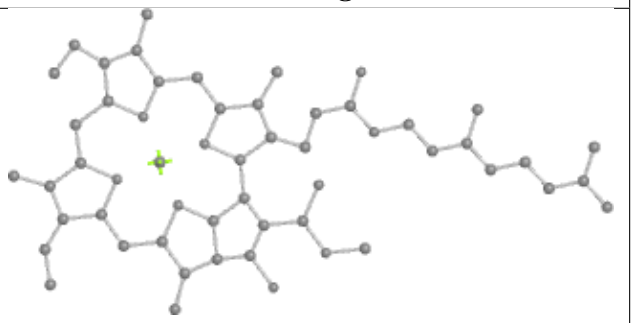
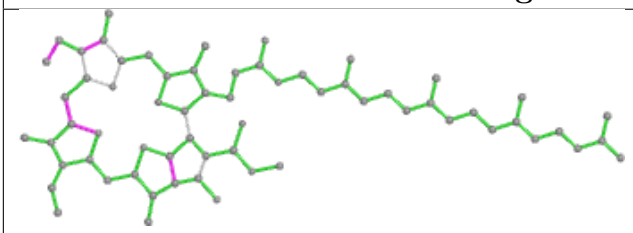


Rings

Ligand CLA B 1234



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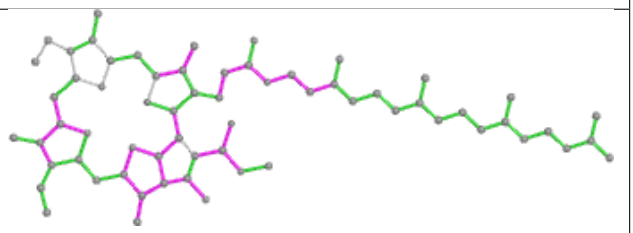
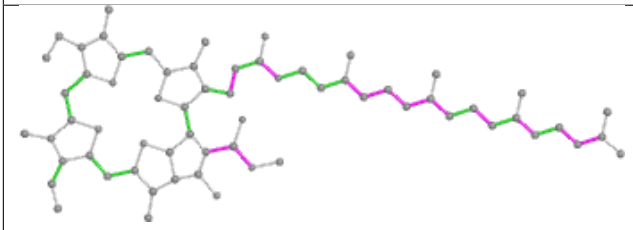


Bond angles



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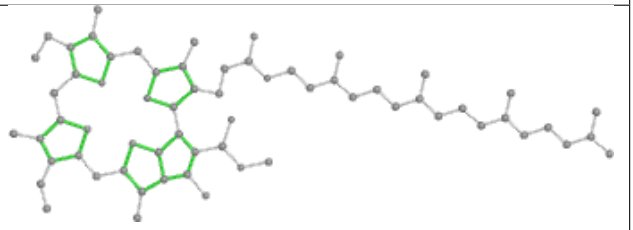
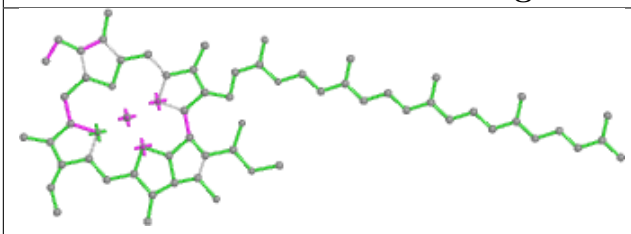
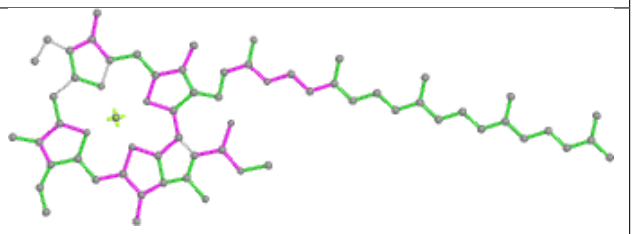
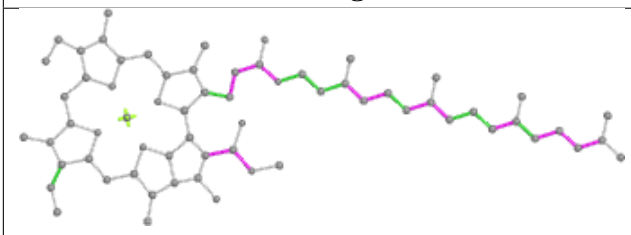
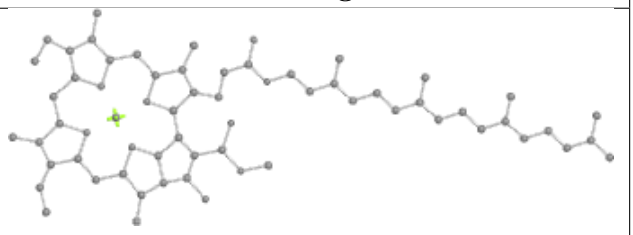
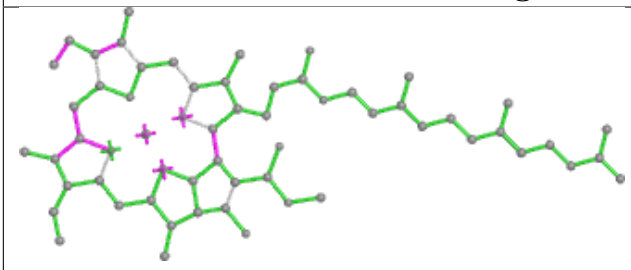
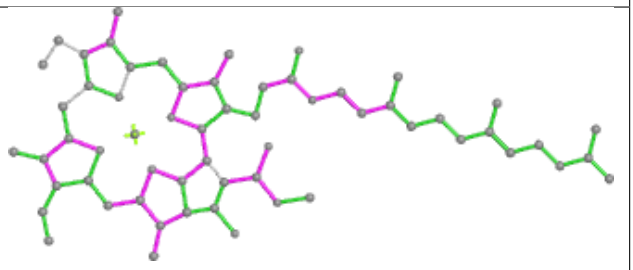
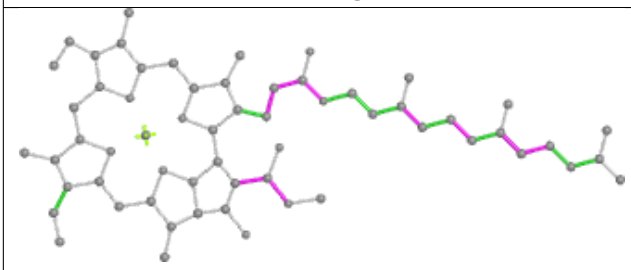
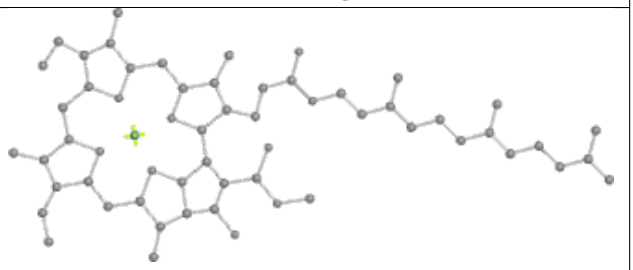
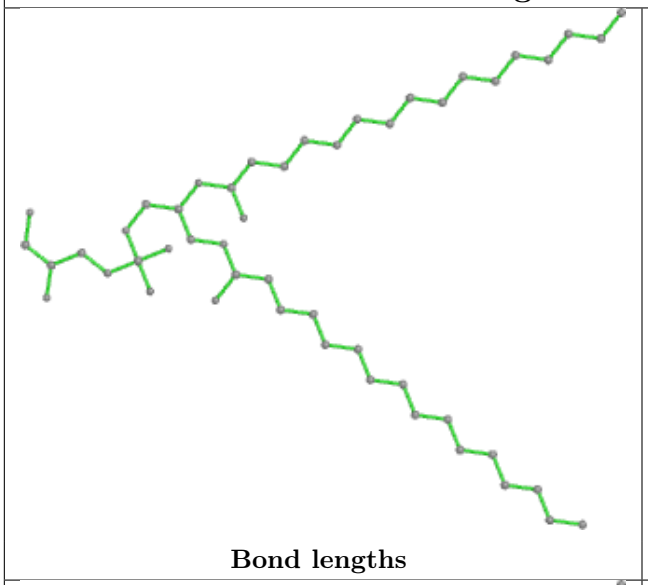


Rings

Ligand CLA A 1111	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA G 1602	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand LHG A 5001



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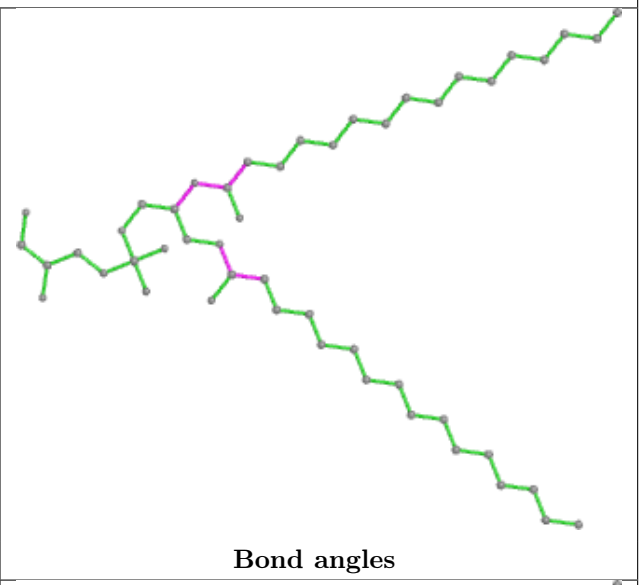

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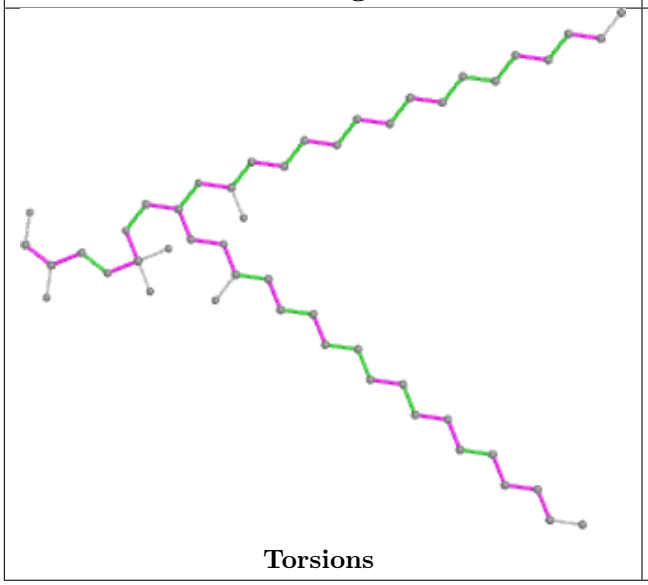

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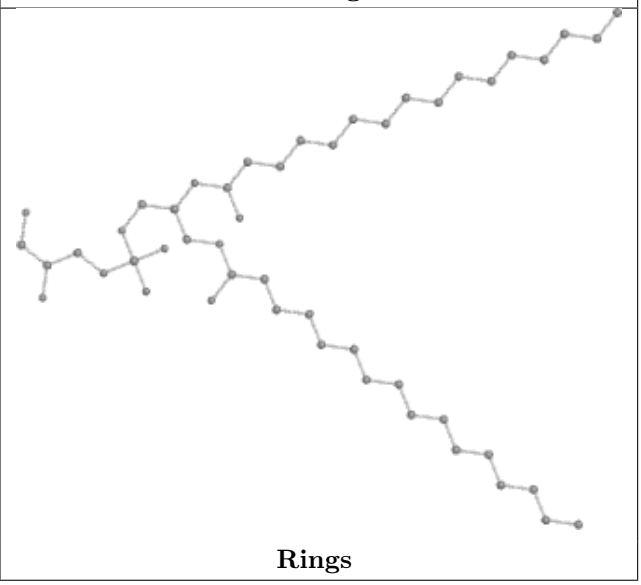
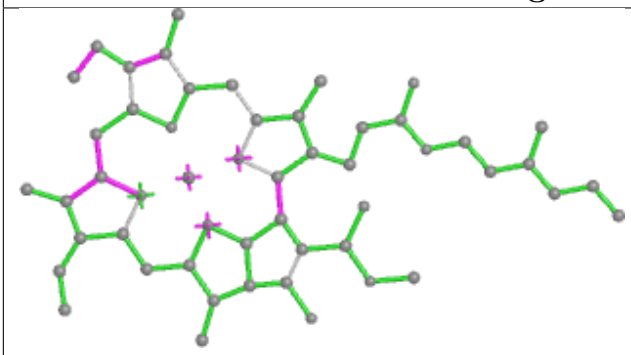


Rings

Ligand CLA 4 602



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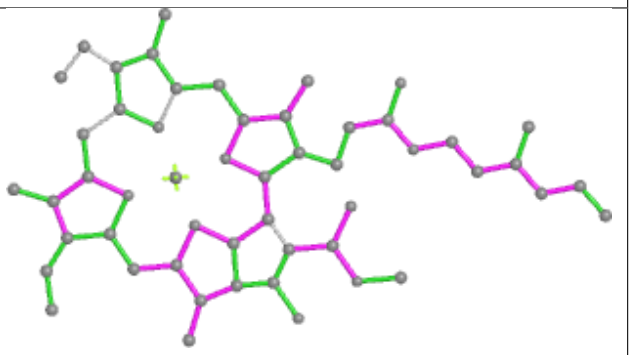

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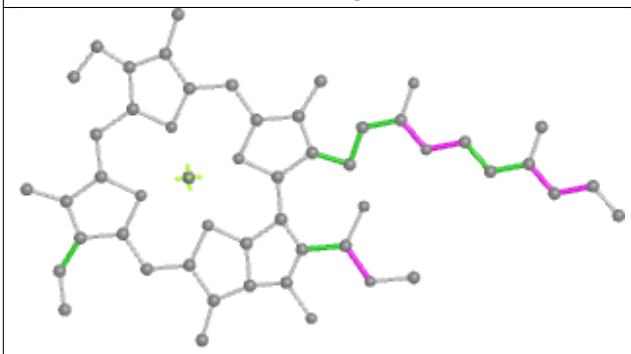

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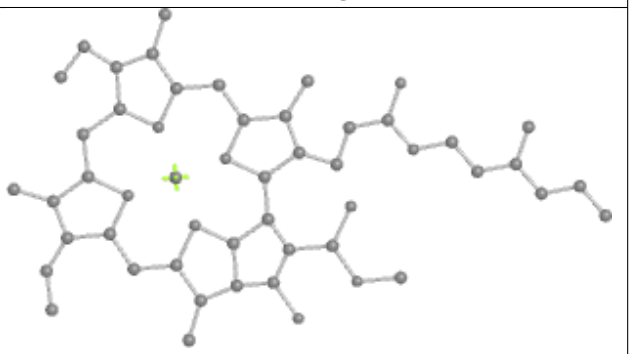
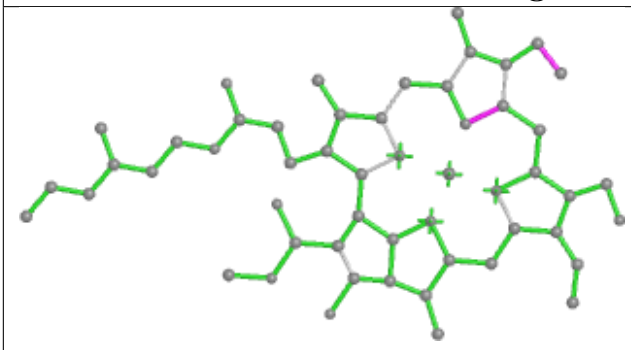


Rings

Ligand CHL a 609



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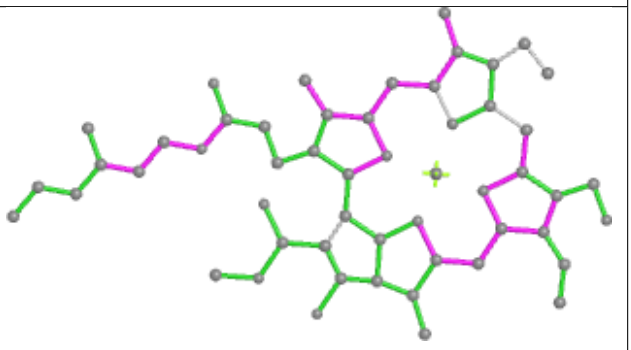

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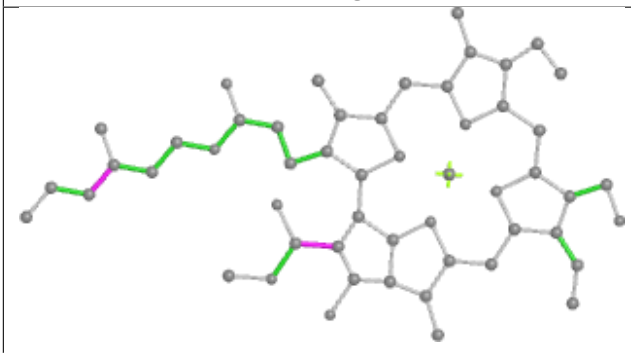

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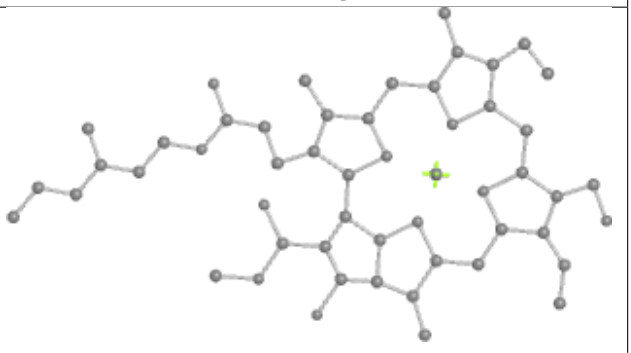
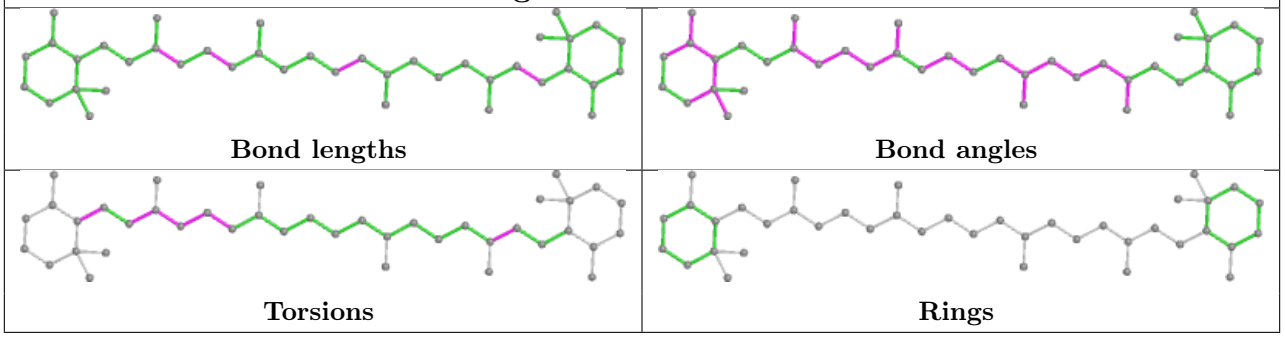


Rings

Ligand BCR K 4001



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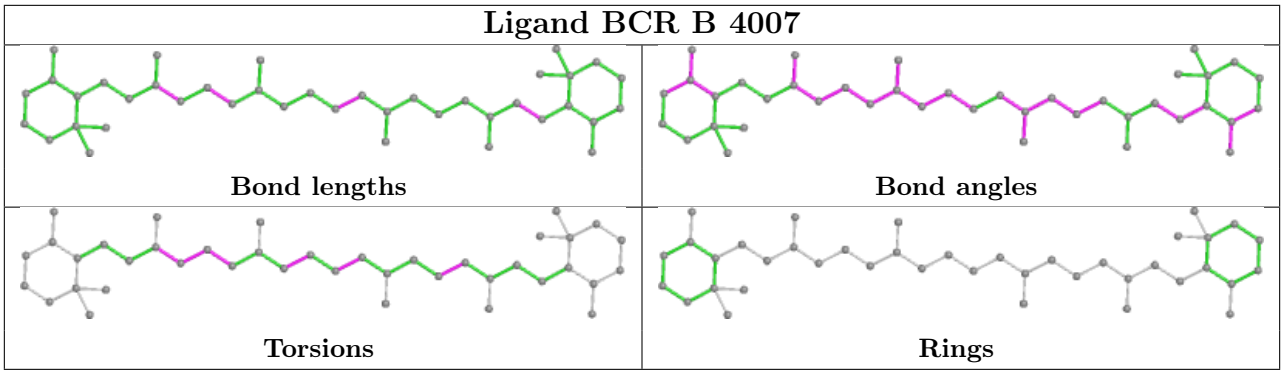

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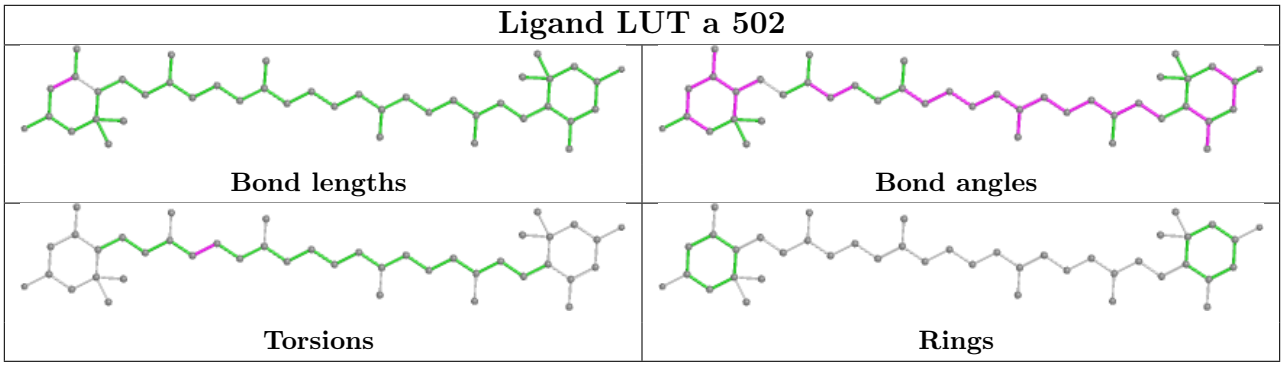

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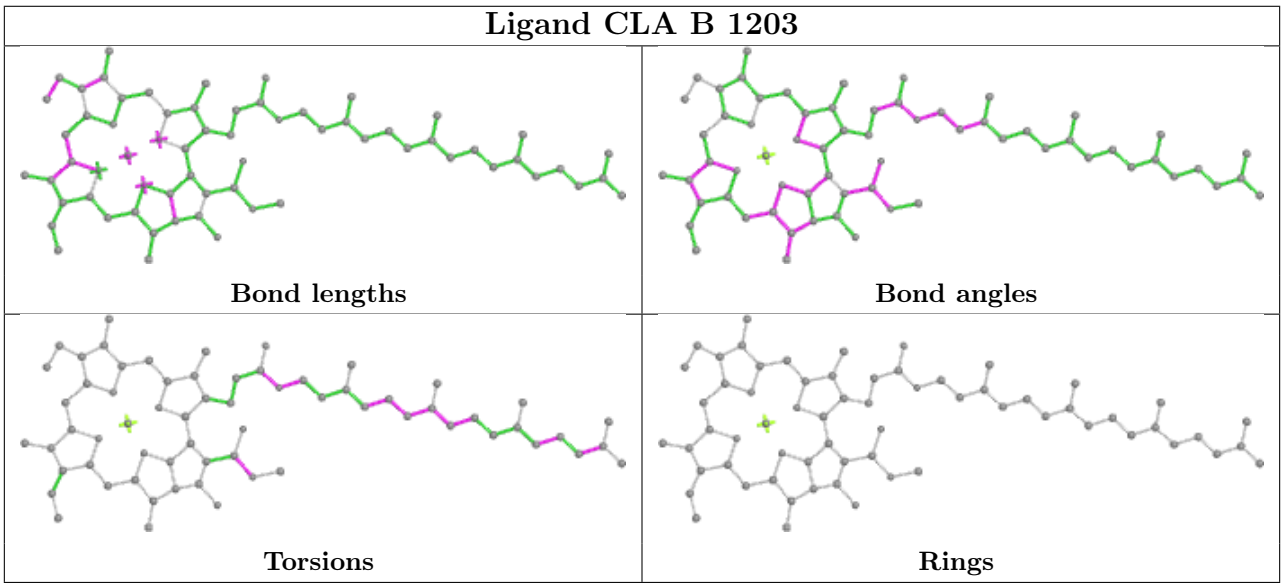

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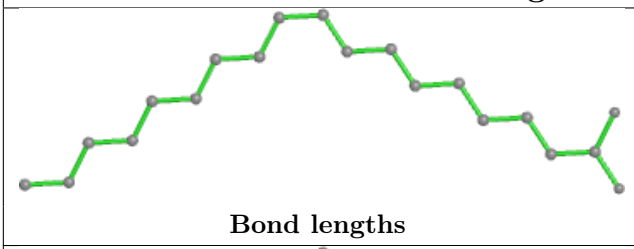
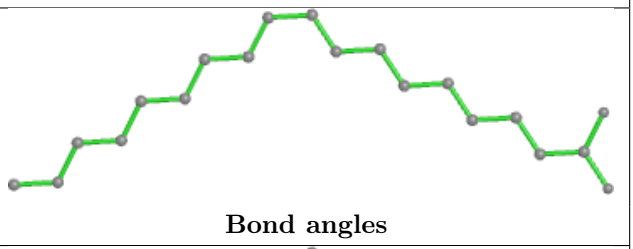

Bond lengths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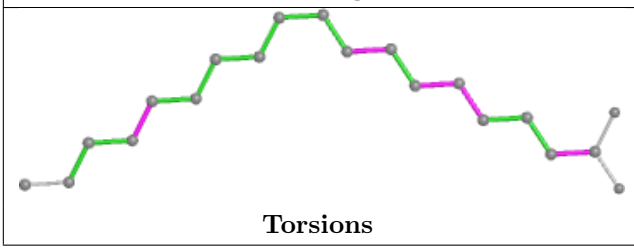
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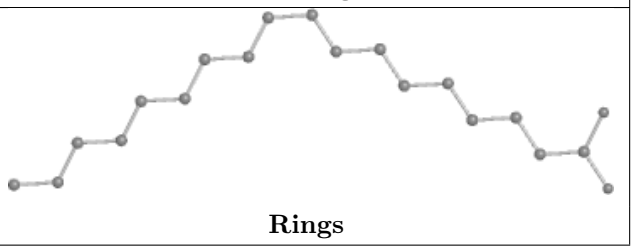
Rings

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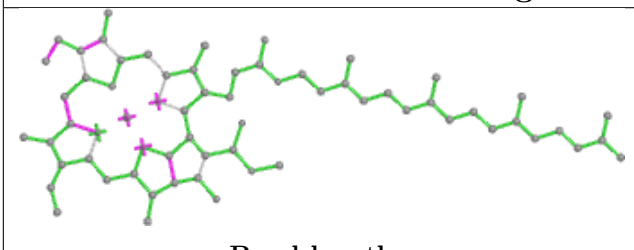
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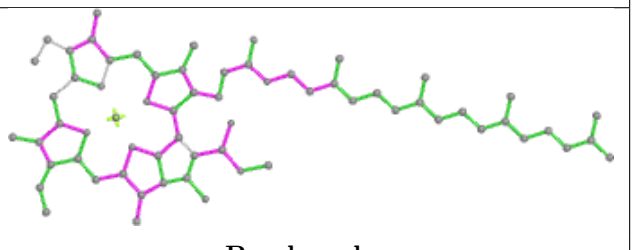
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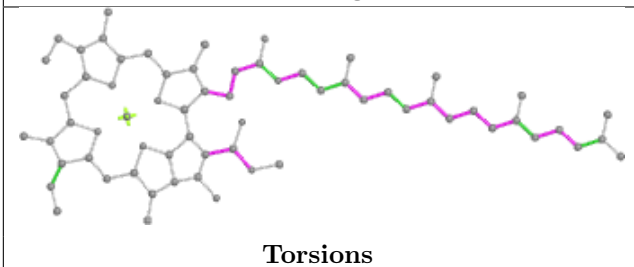
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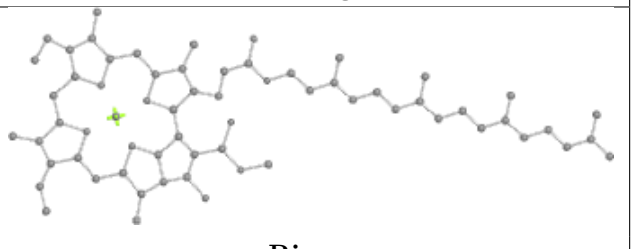
Rings

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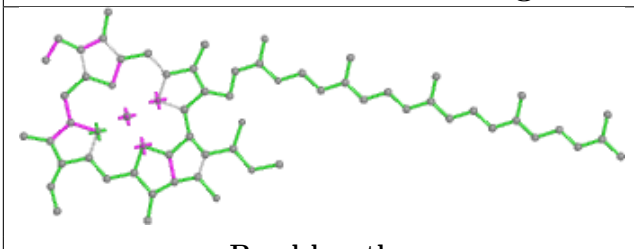
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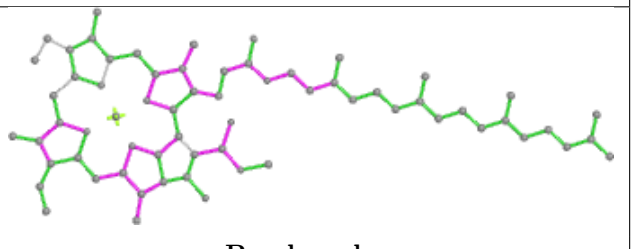
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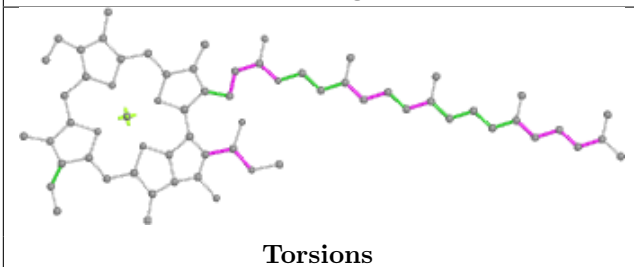
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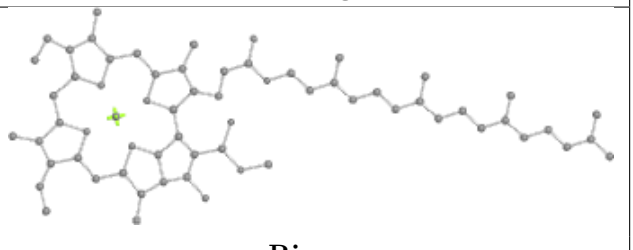
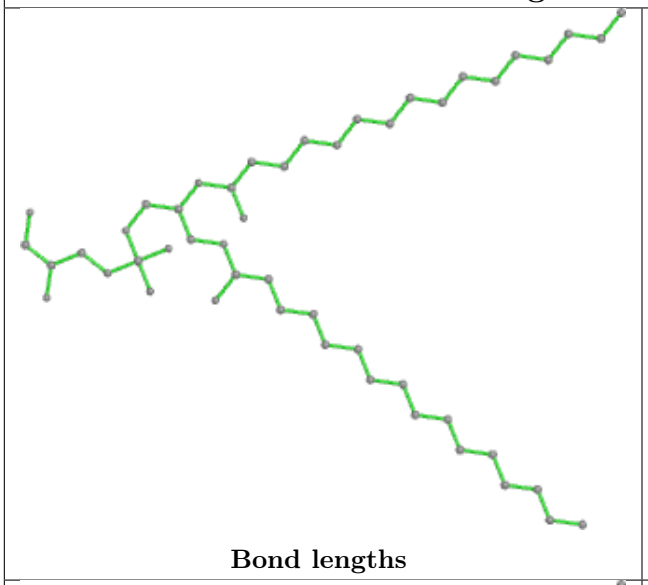

Rings

Ligand LHG 6 801



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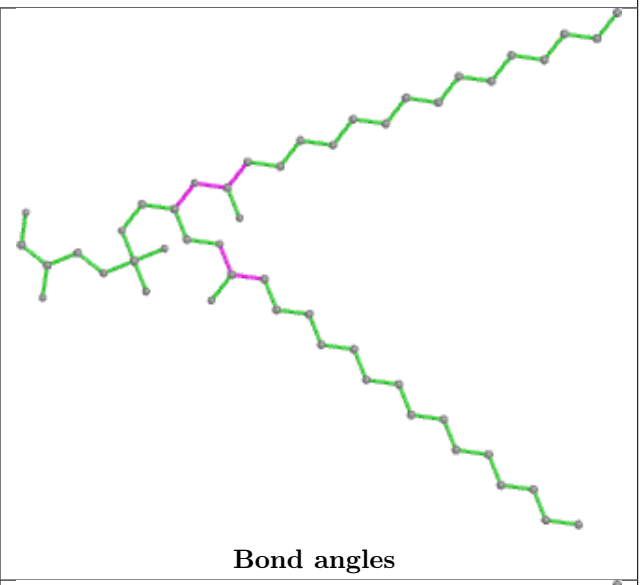

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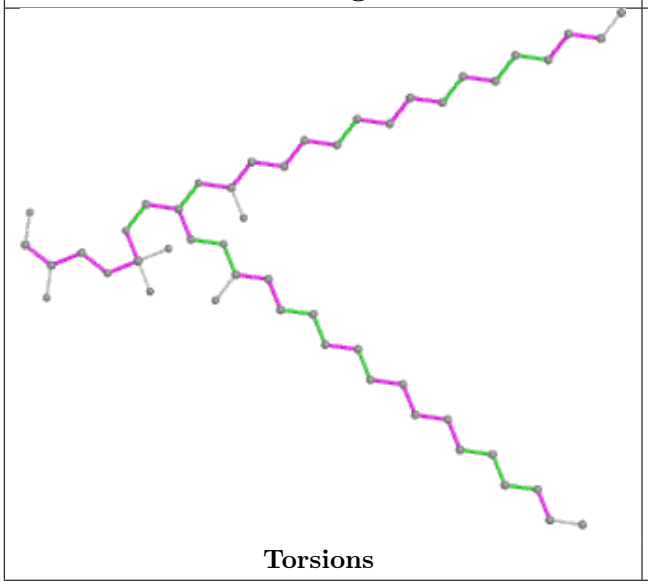

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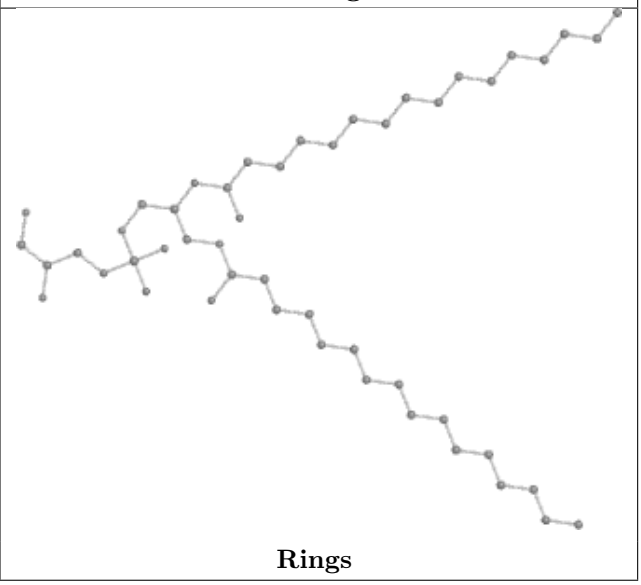
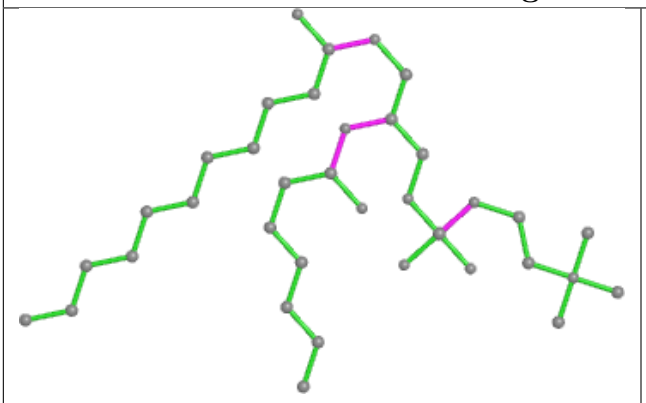


Rings

Ligand PCW 6 803



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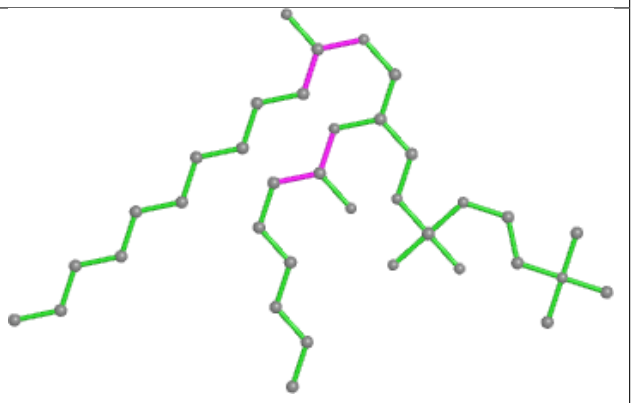

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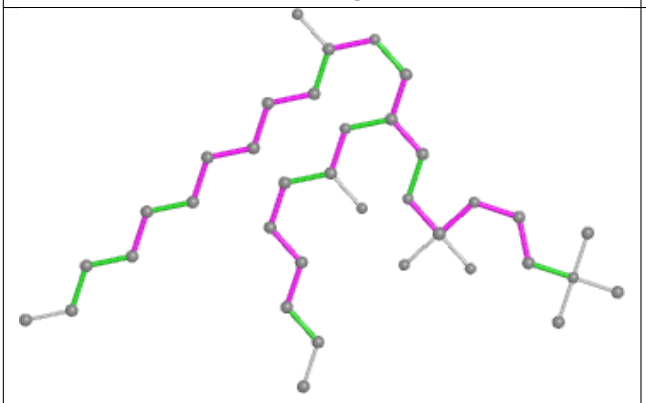

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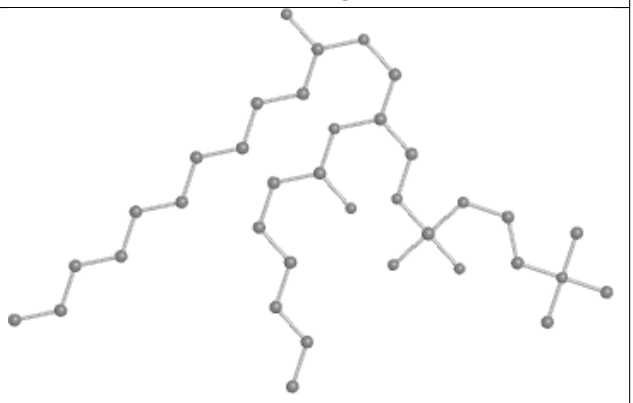
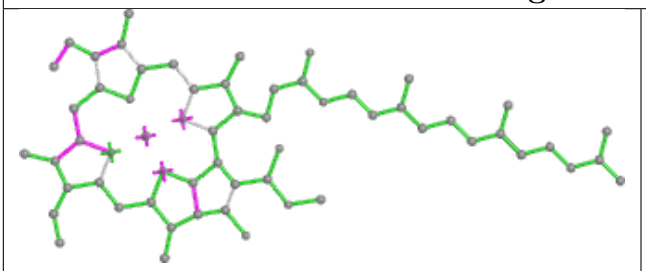


Rings

Ligand CLA 1 601



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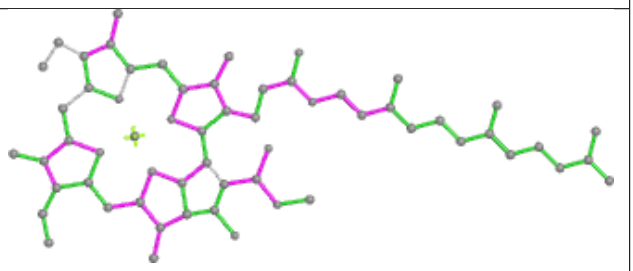
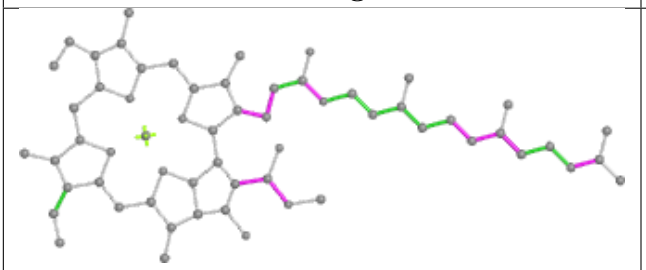


Bond angles



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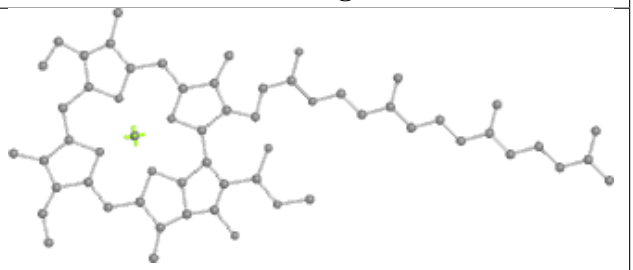
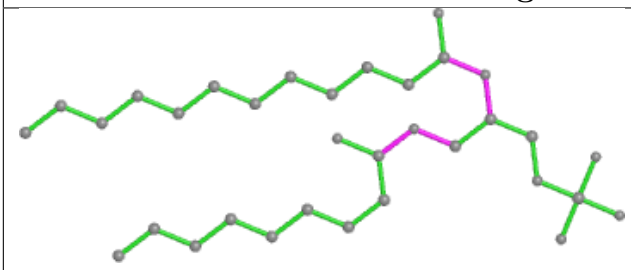


Rings

Ligand 3PH A 5007



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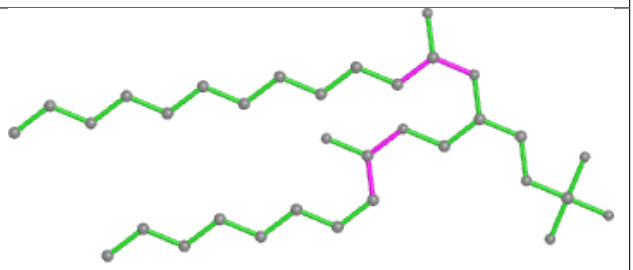

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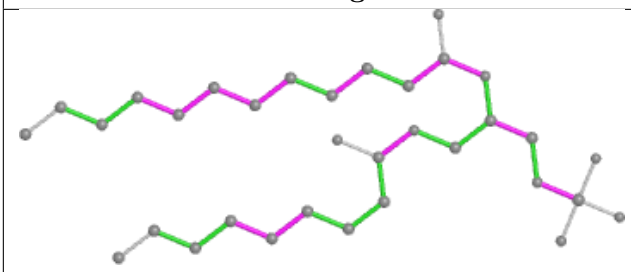

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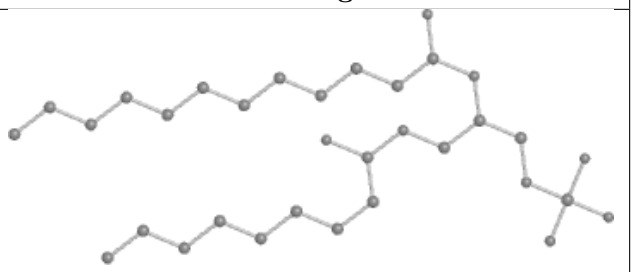
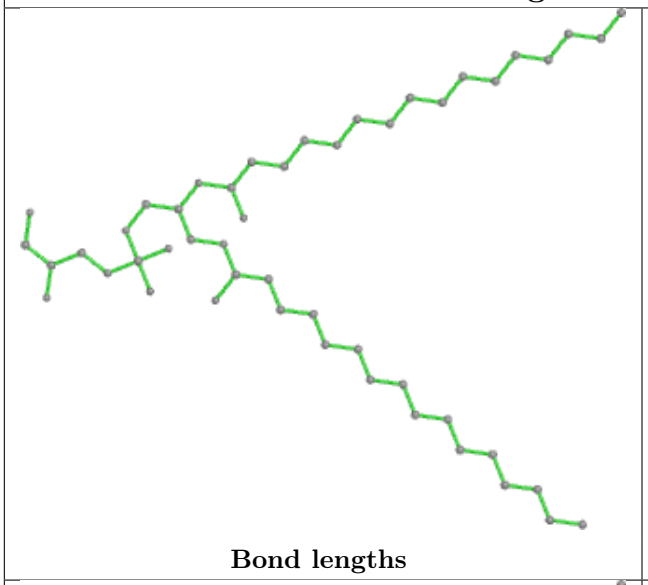


Rings

Ligand LHG 3 801



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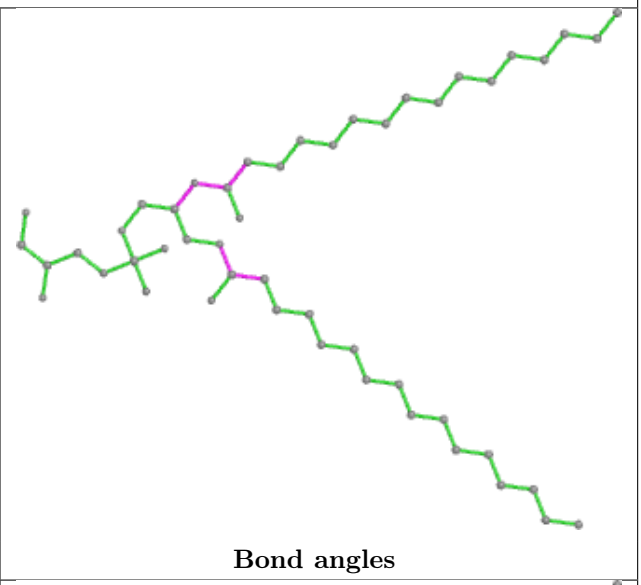

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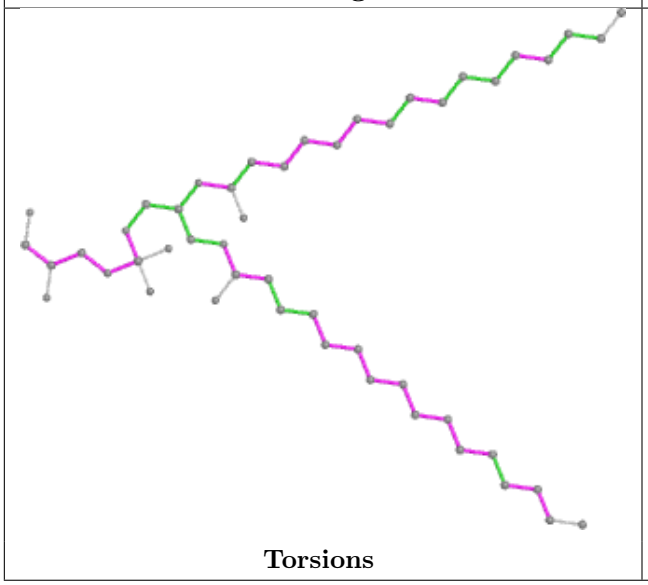

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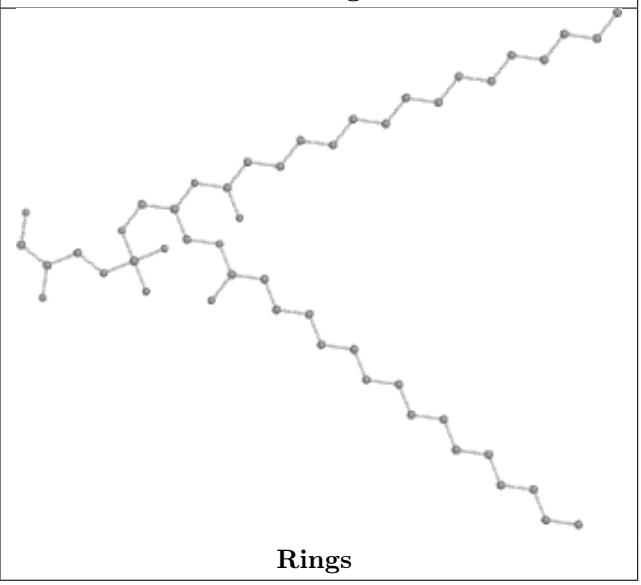
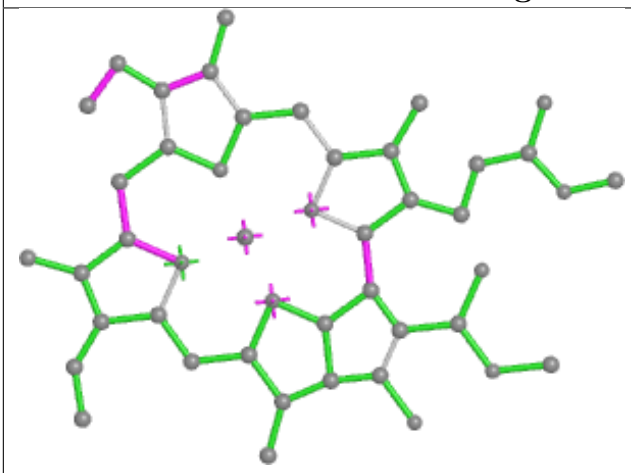


Rings

Ligand CLA K 1401



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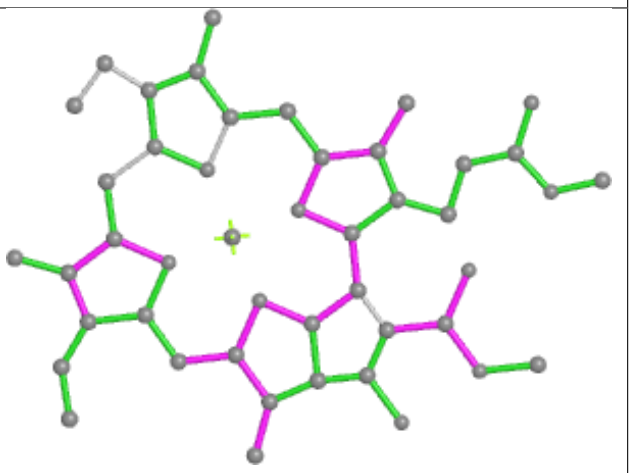
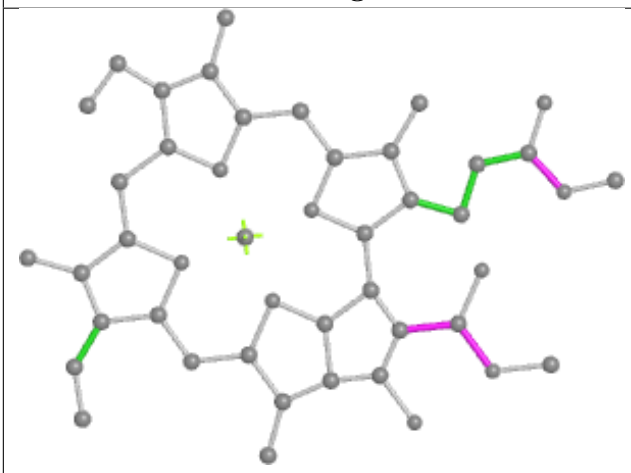


Bond angles



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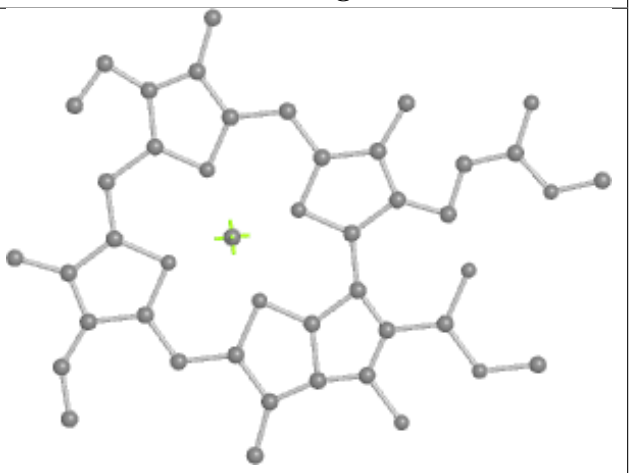
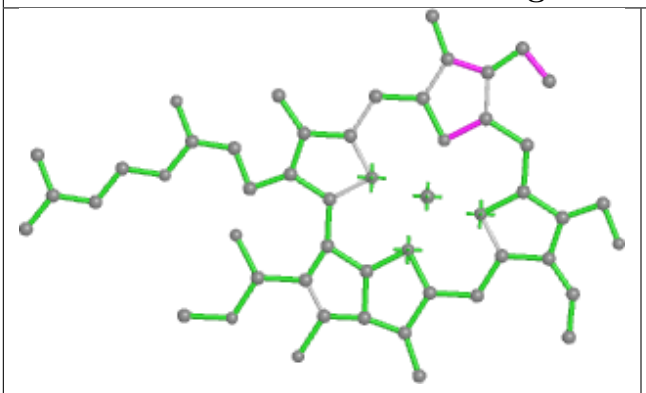
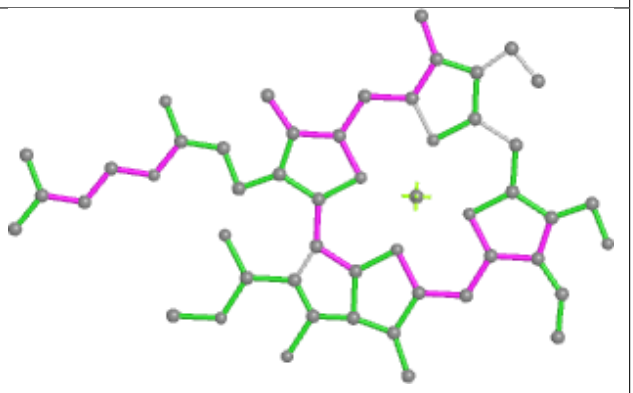


Rings

Ligand CHL 7 615



Bond lengths



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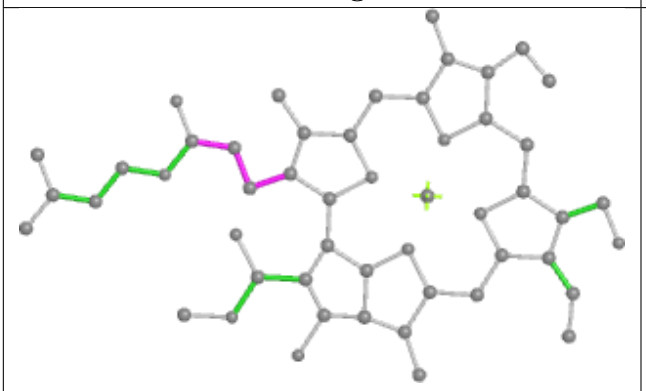
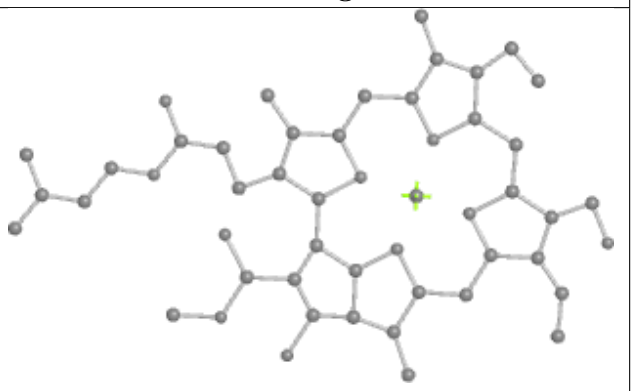
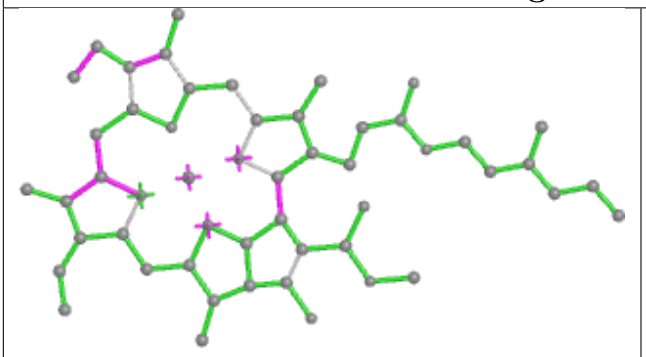


Torsions



Rings

Ligand CLA 2 602



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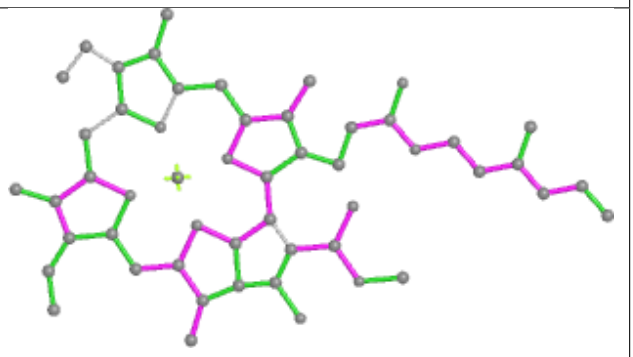

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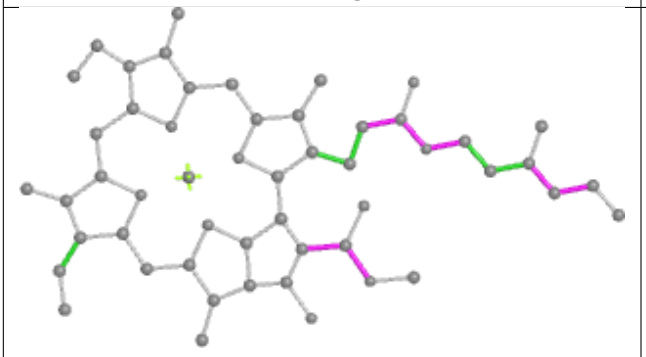

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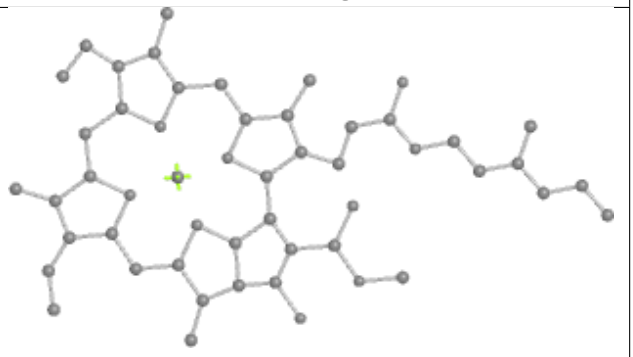
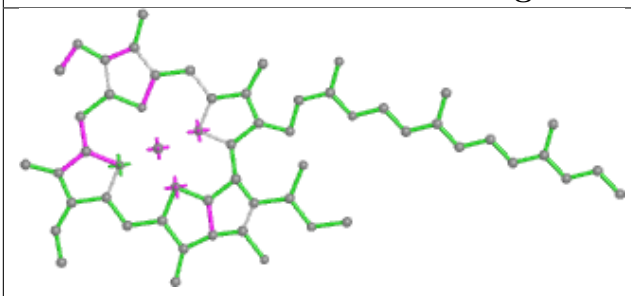


Rings

Ligand CLA A 1105



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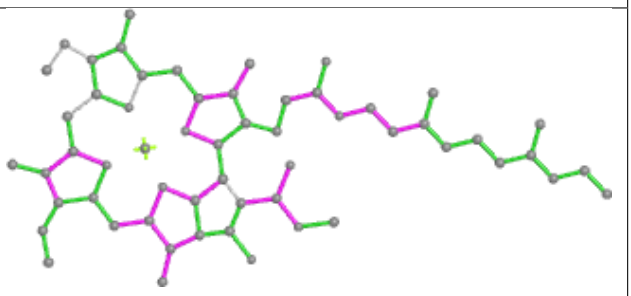

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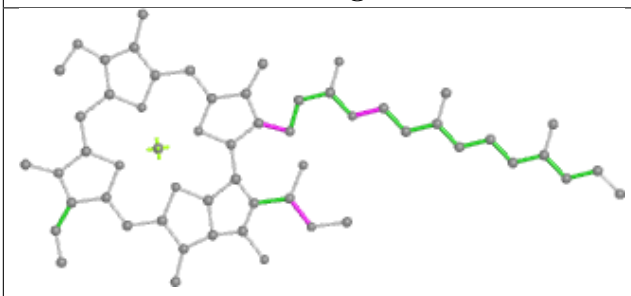

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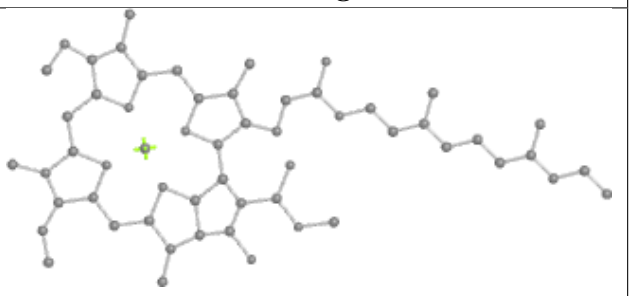
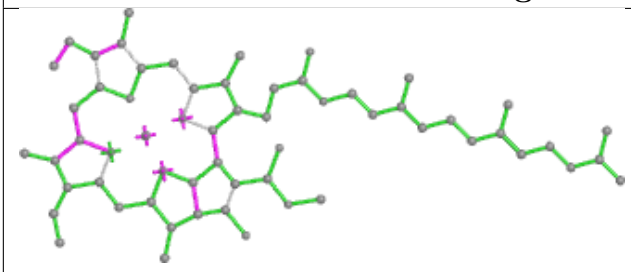


Rings

Ligand CLA A 1122



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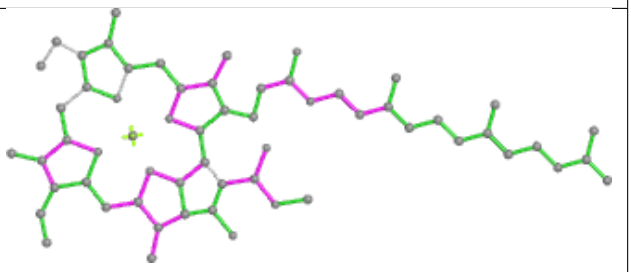

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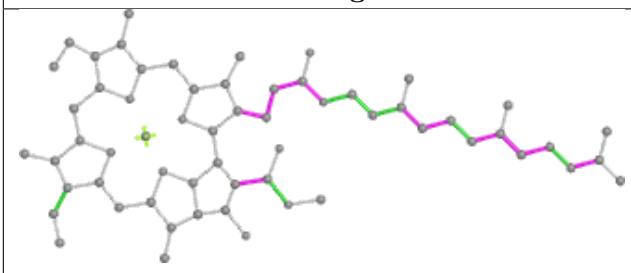

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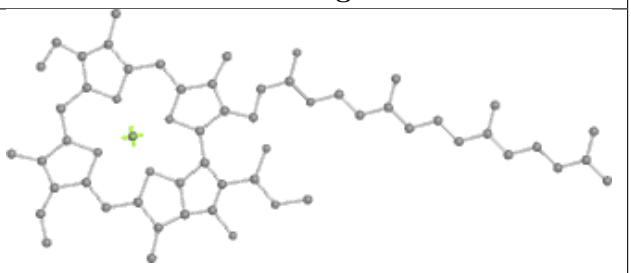
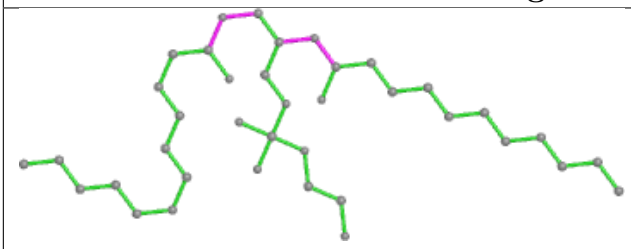


Rings

Ligand PTY 5 802



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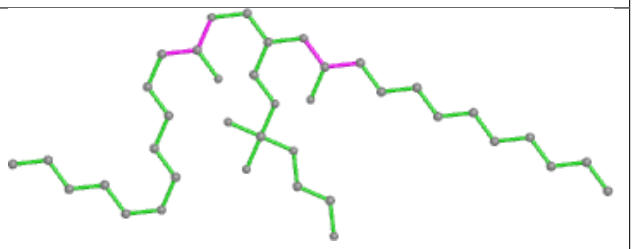

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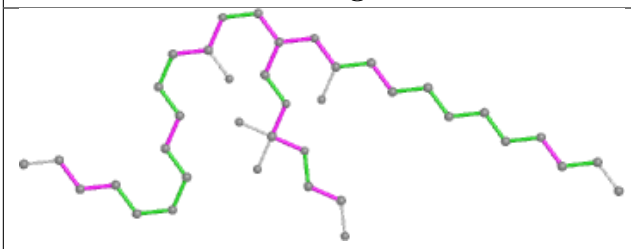

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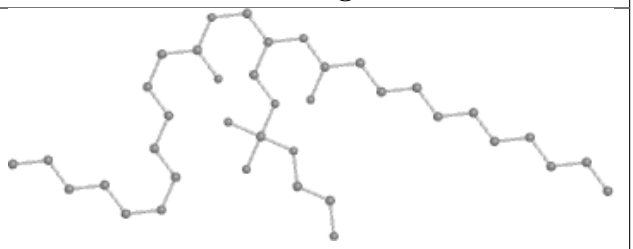
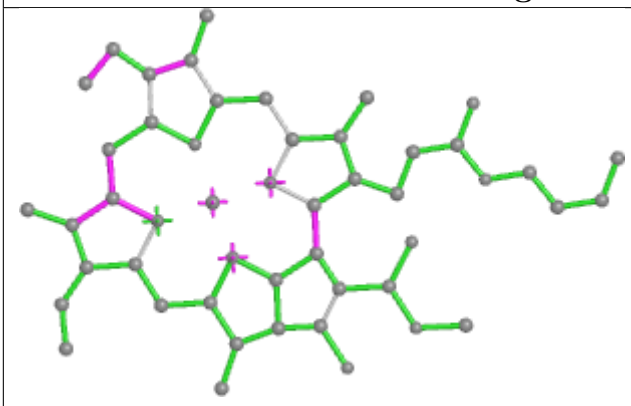


Rings

Ligand CLA A 1120



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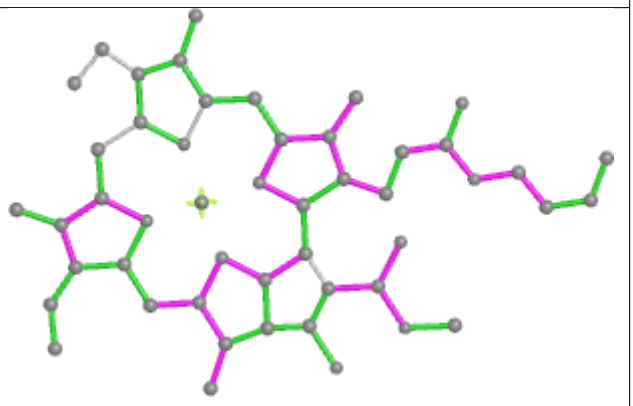
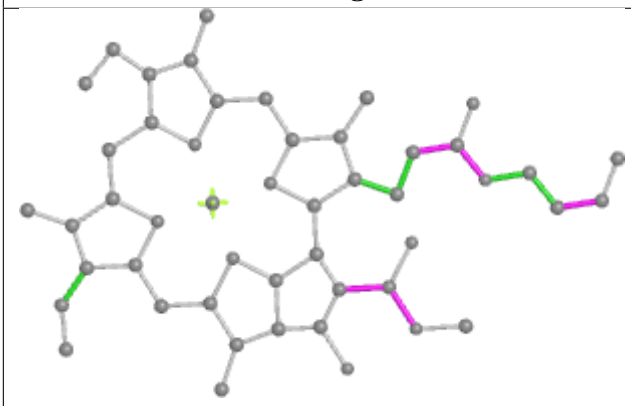


Bond angles



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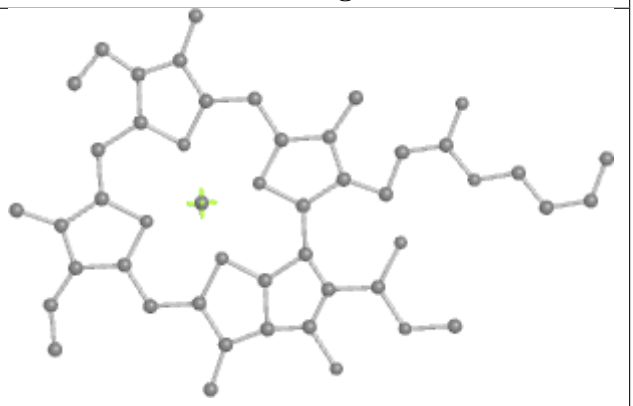
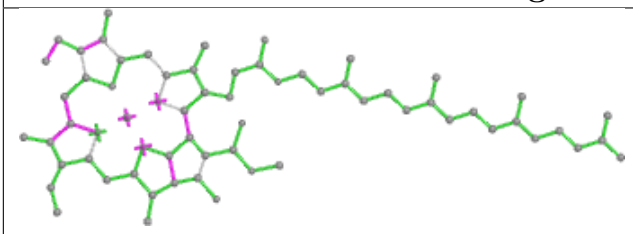


Rings

Ligand CLA 5 612



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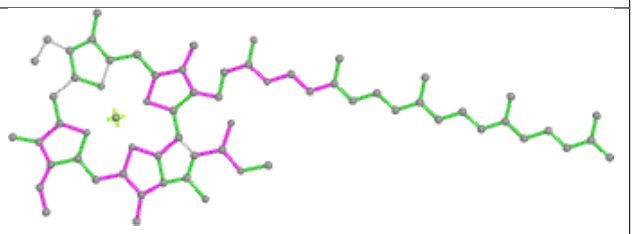

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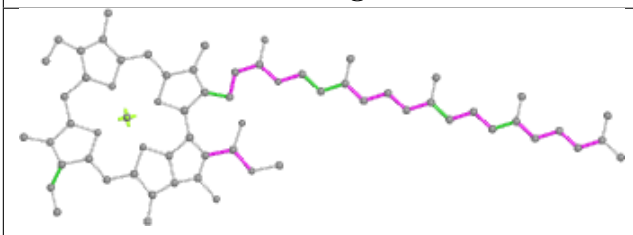

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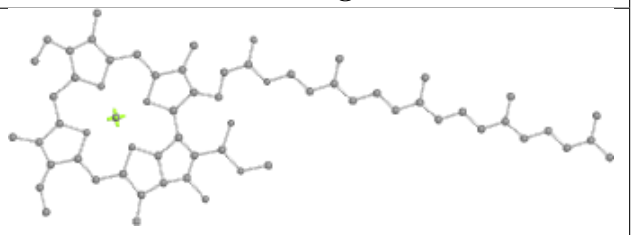
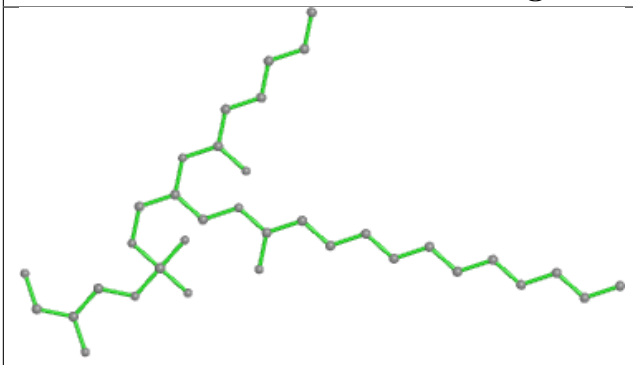


Rings

Ligand LHG 1 801



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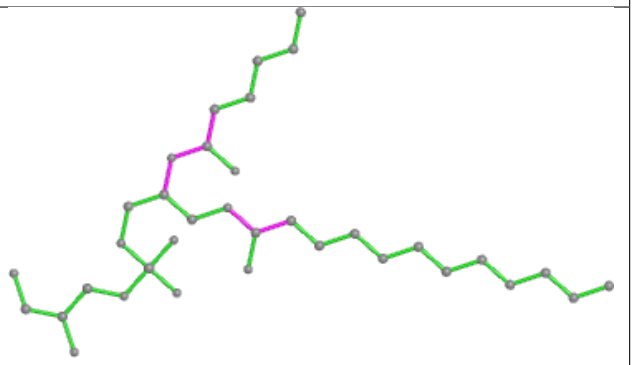

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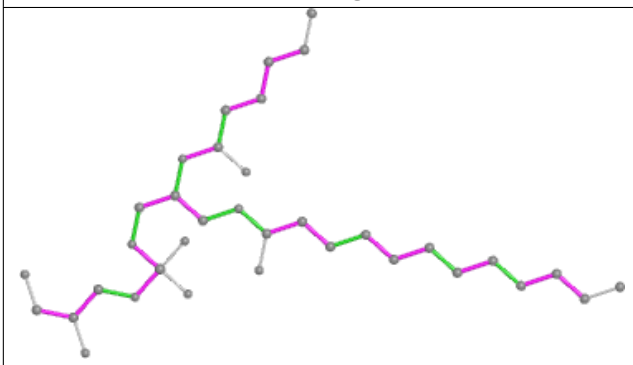

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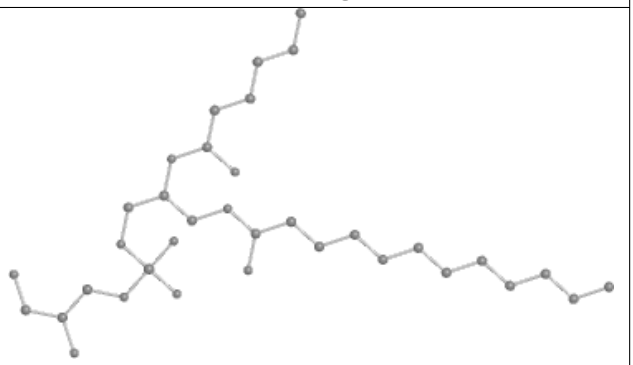
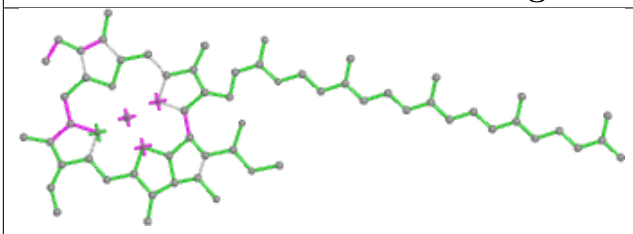
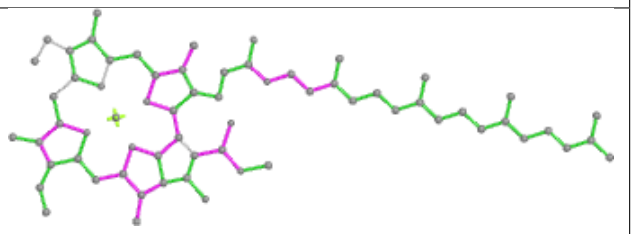


Rings

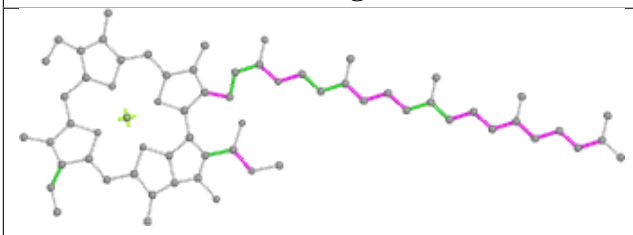
Ligand CLA 4 610



Bond lengths



Bond angles



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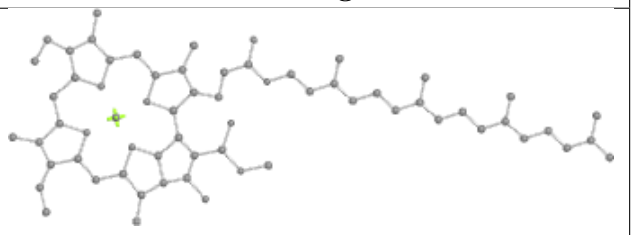
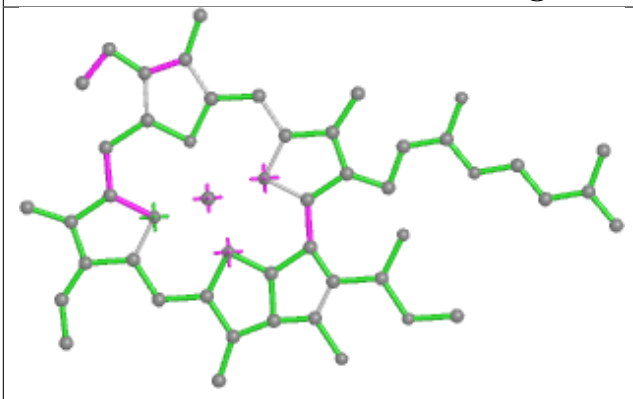


Rings

Ligand CLA 8 611



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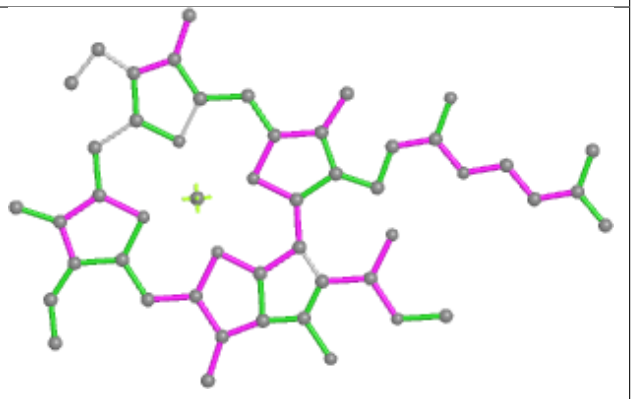

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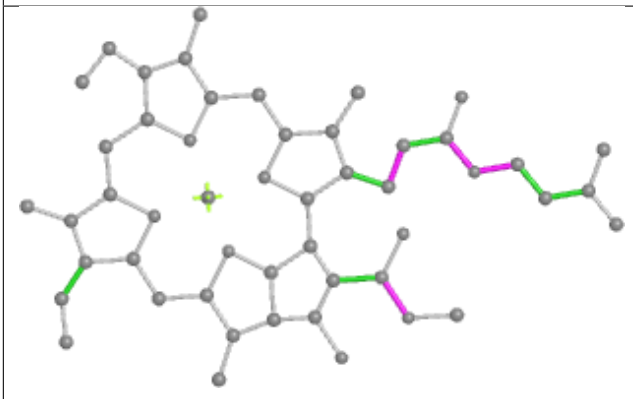

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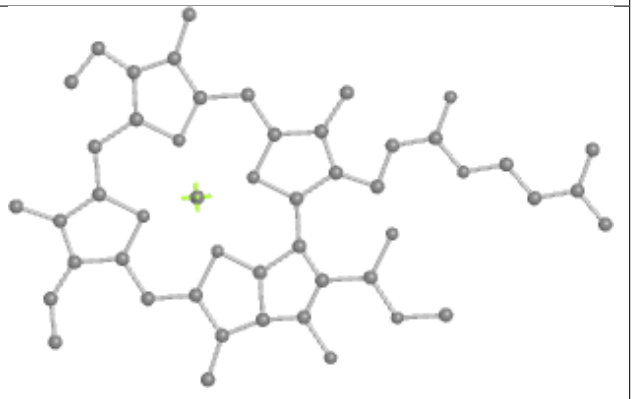
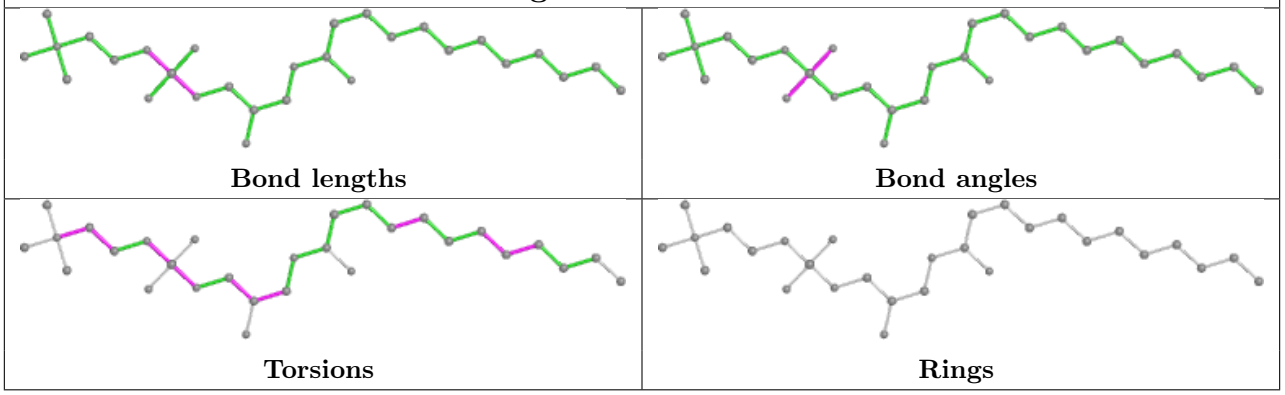
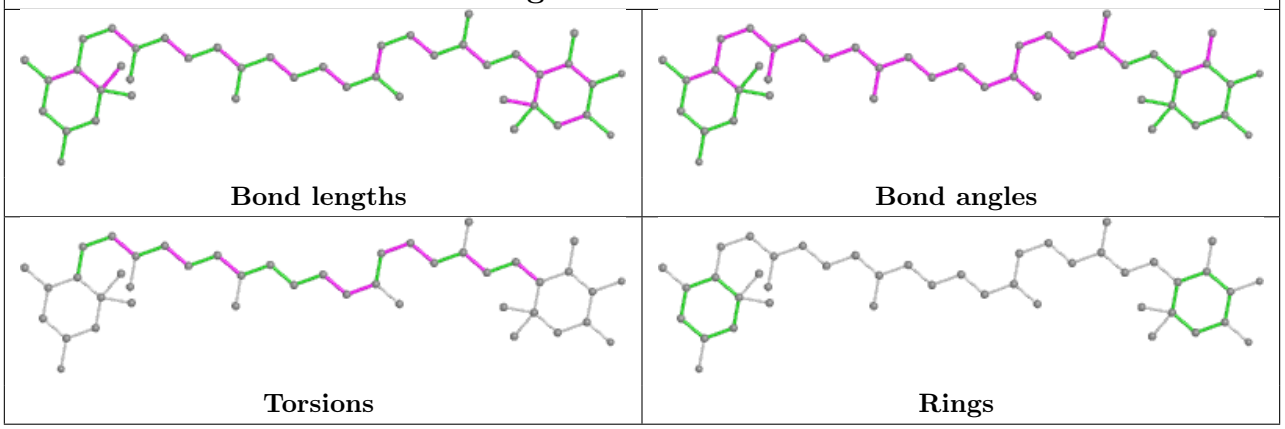


Rings

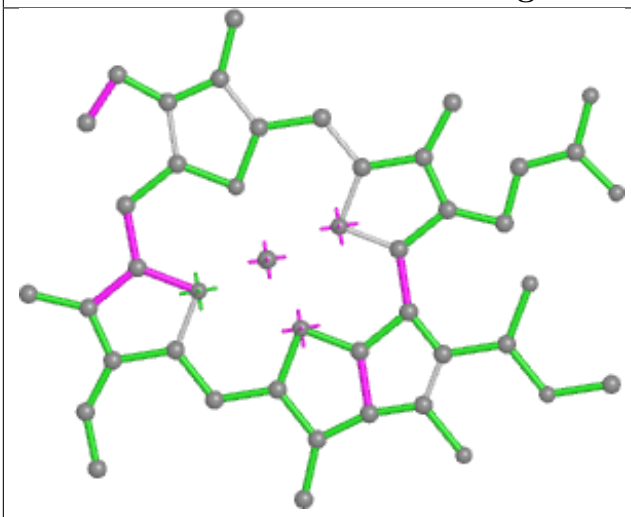
Ligand LAP 8 810



Ligand AXT 7 504



Ligand CLA L 1503



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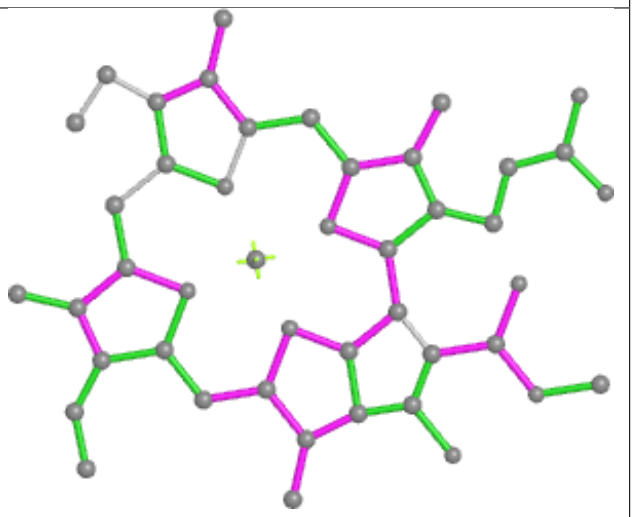

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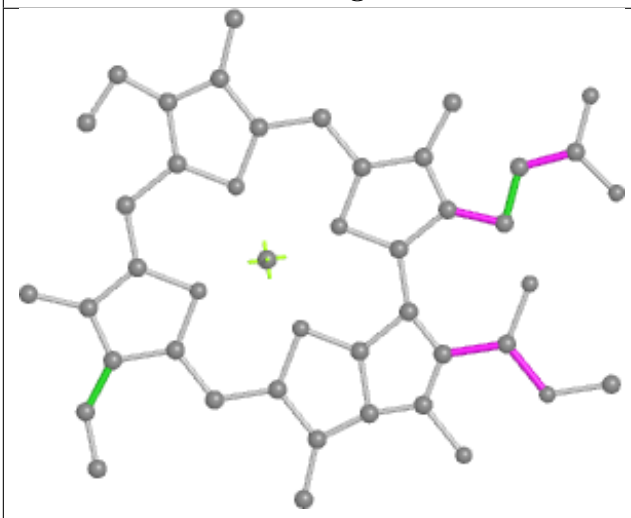

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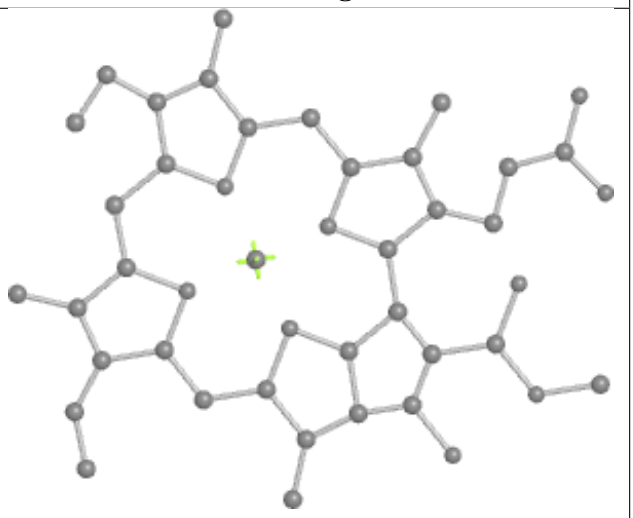
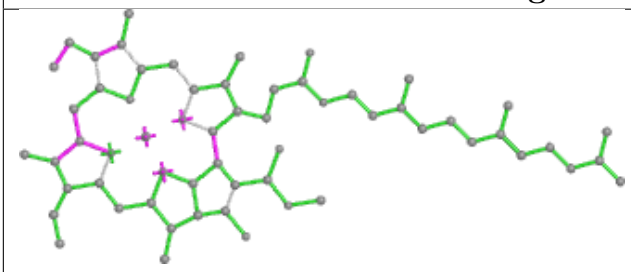


Rings

Ligand CLA 7 612



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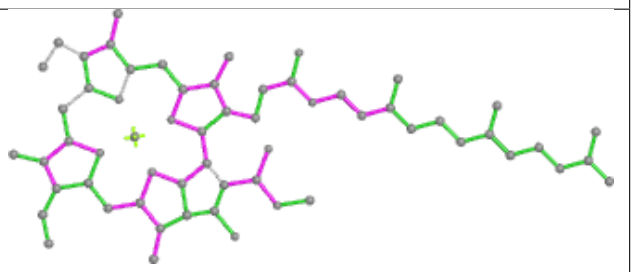
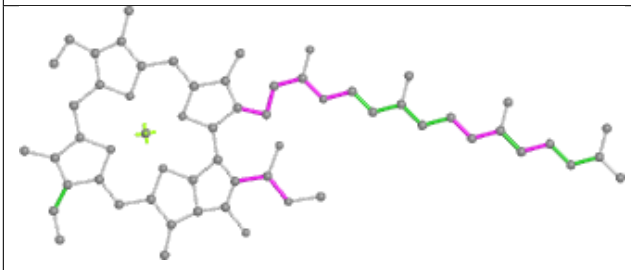


Bond angles



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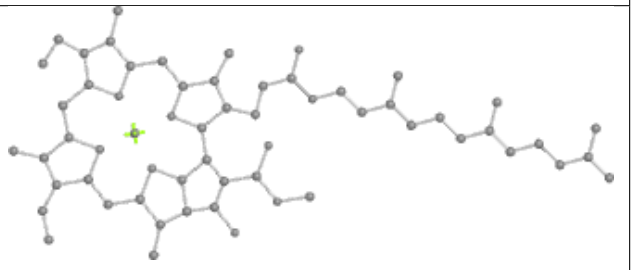
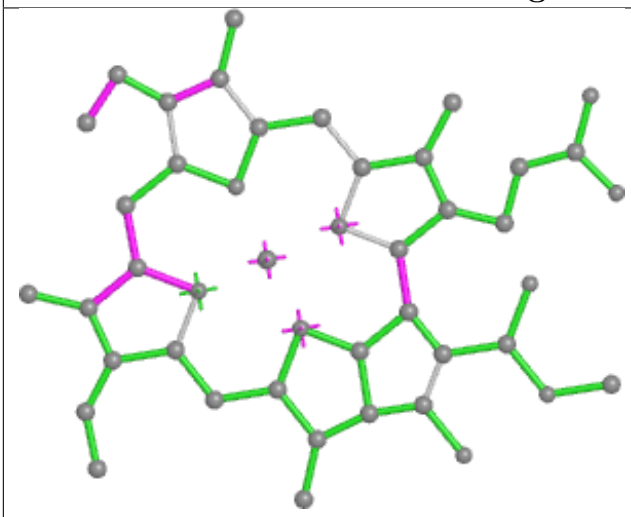


Rings

Ligand CLA 4 617



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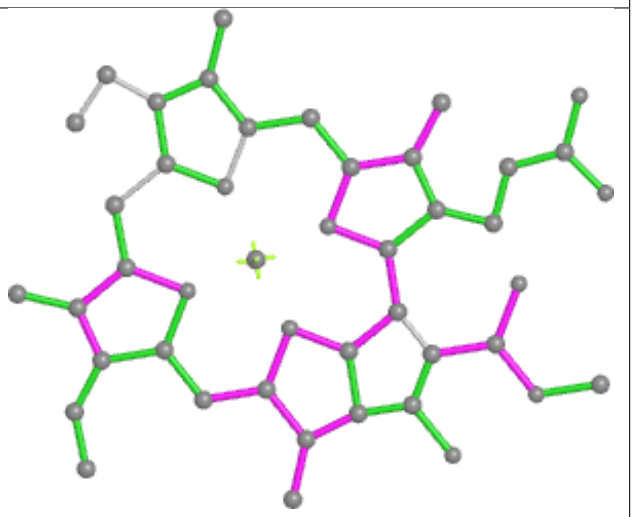
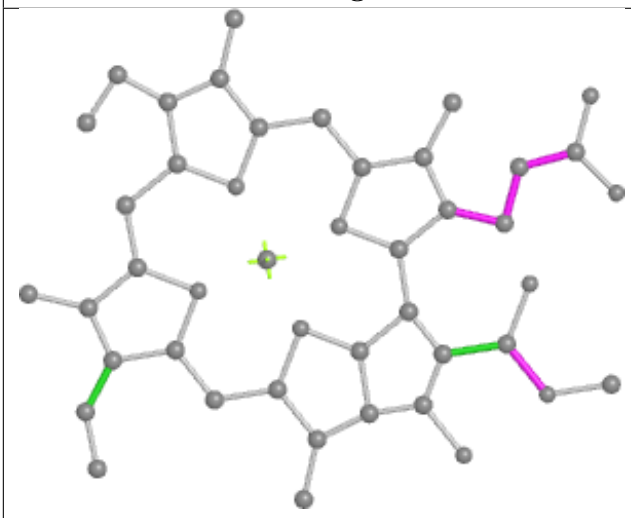


Bond angles



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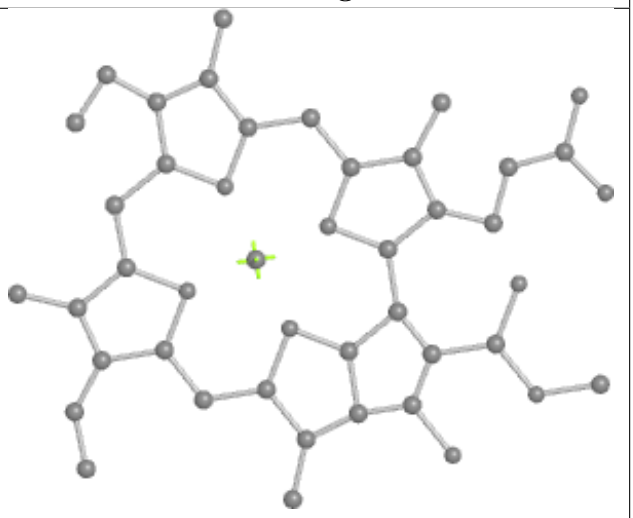
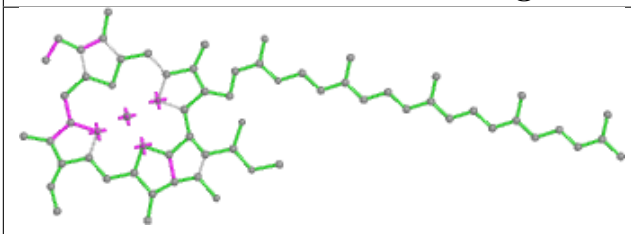
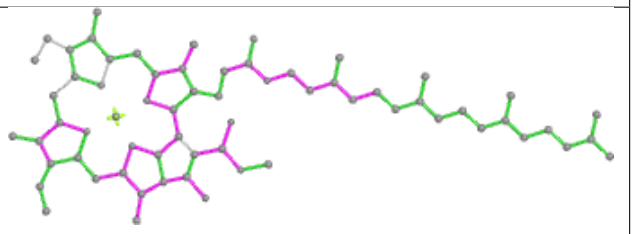


Rings

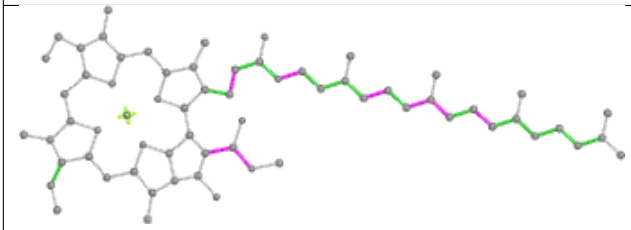
Ligand CLA B 1022



Bond lengths



Bond angles



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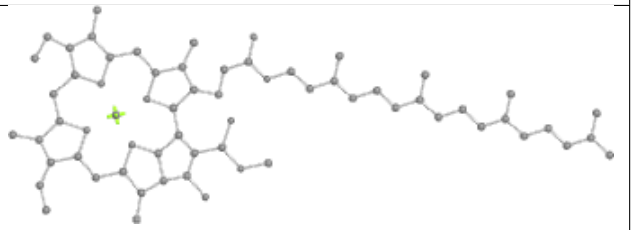
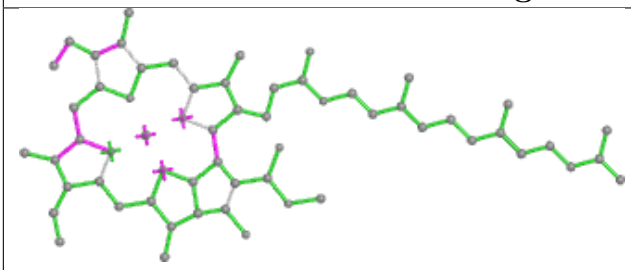
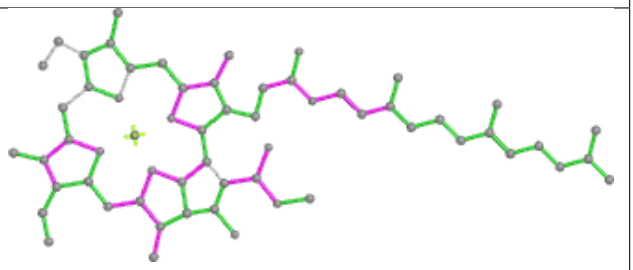


Rings

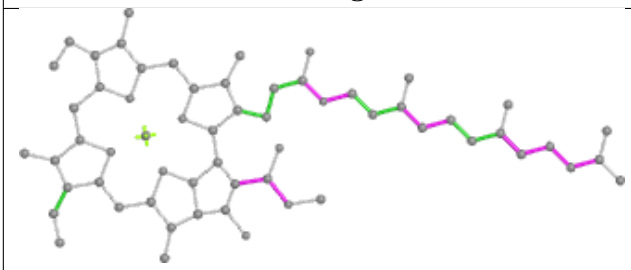
Ligand CLA A 1115



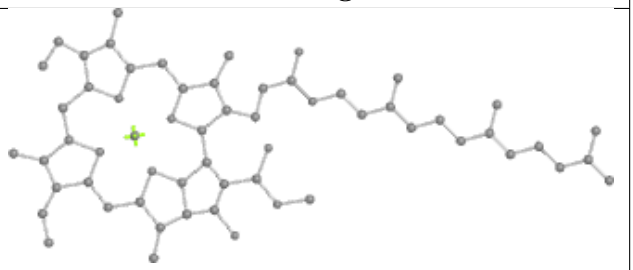
Bond lengths



Bond angles

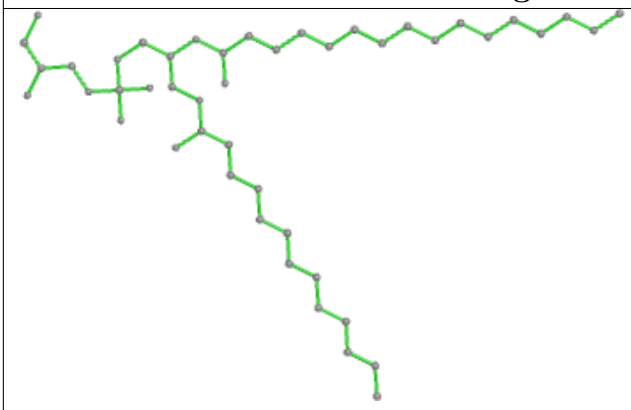


Torsions



Rings

Ligand LHG A 5003



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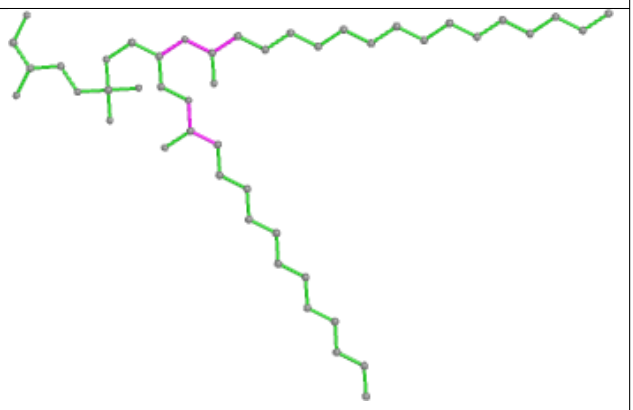

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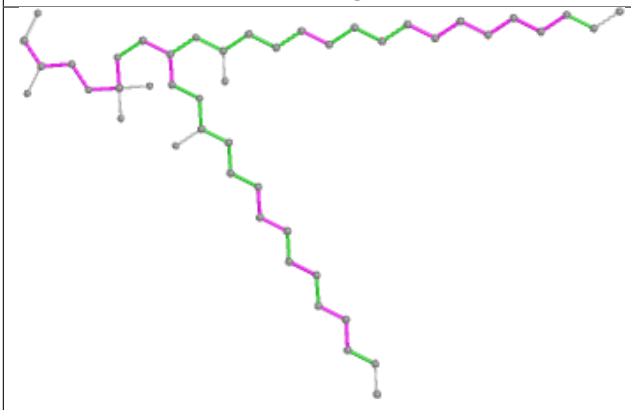

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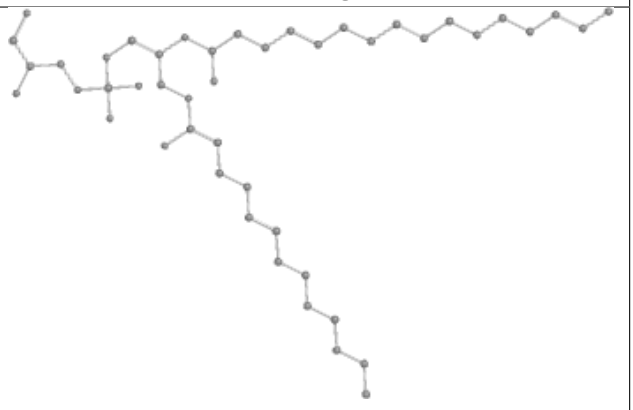
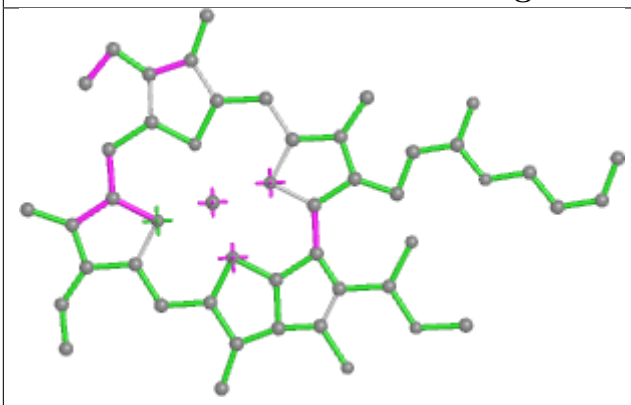


Rings

Ligand CLA K 1403



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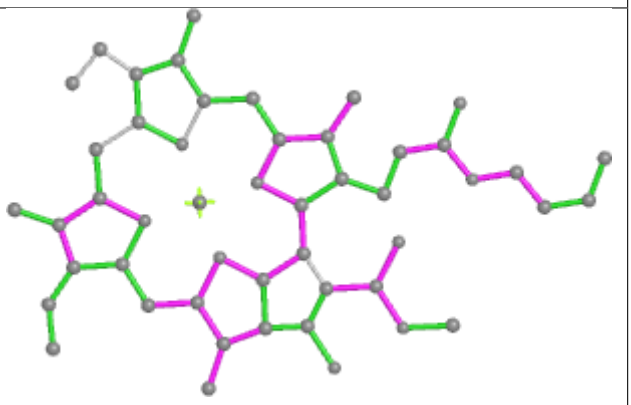
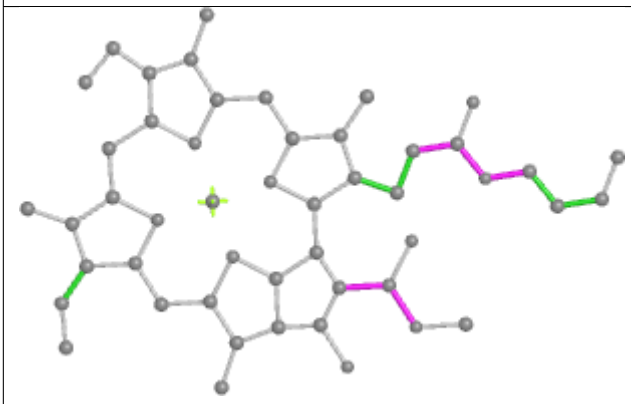


Bond angles



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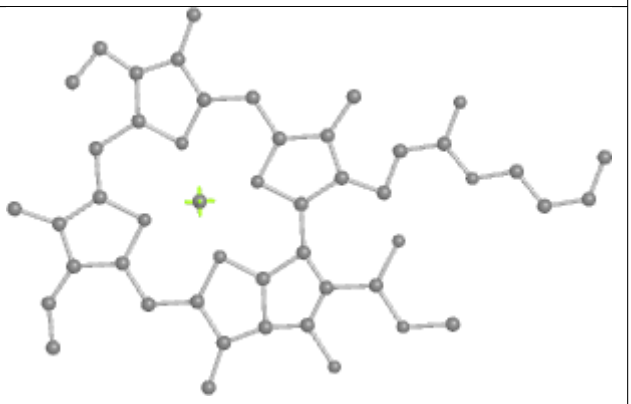
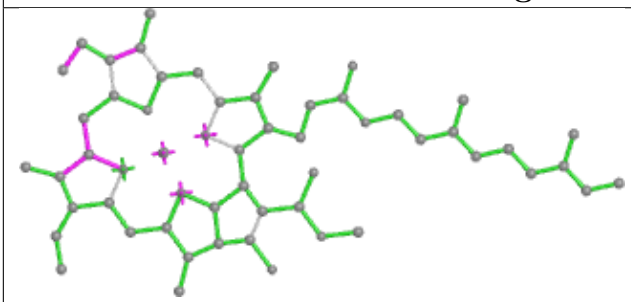


Rings

Ligand CLA A 1130



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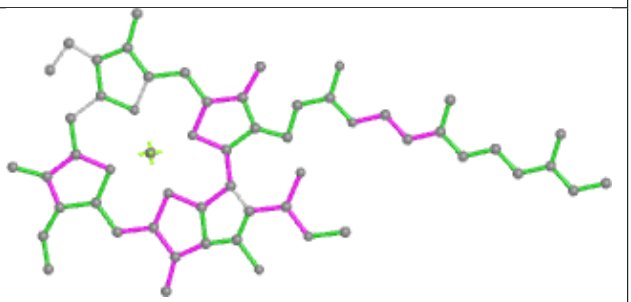
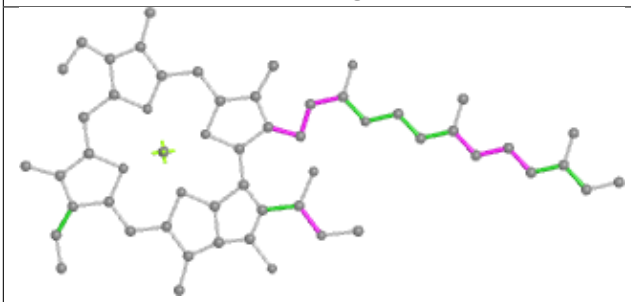


Bond angles



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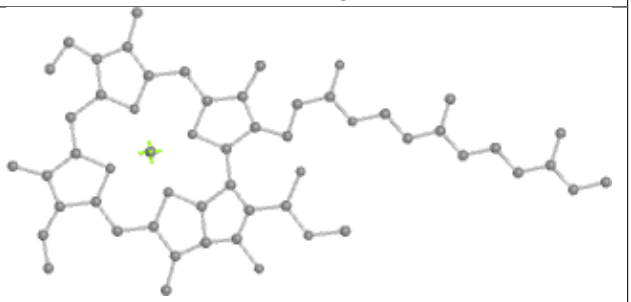
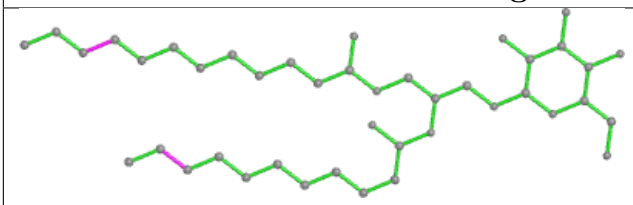


Rings

Ligand LMG A 5004



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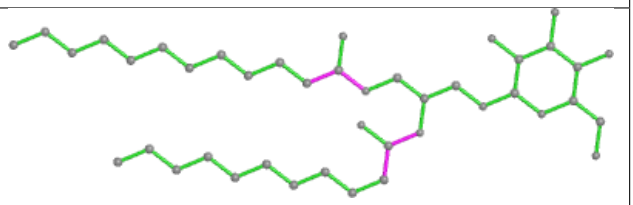
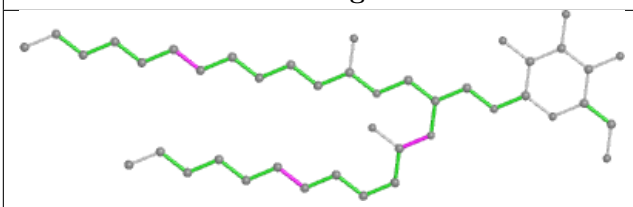


Bond angles



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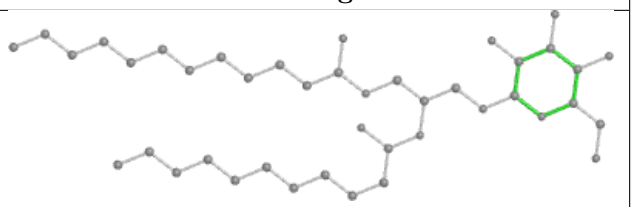
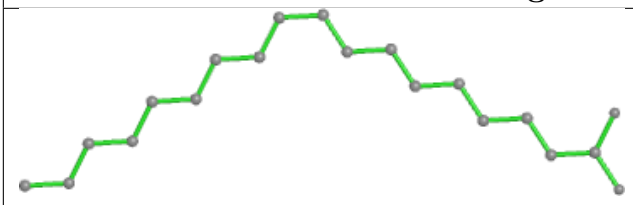


Rings

Ligand OLA 8 809



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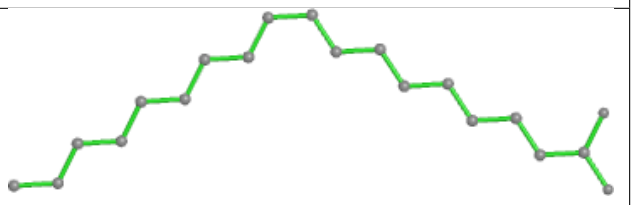
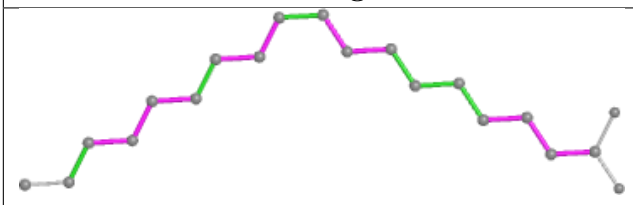


Bond angles



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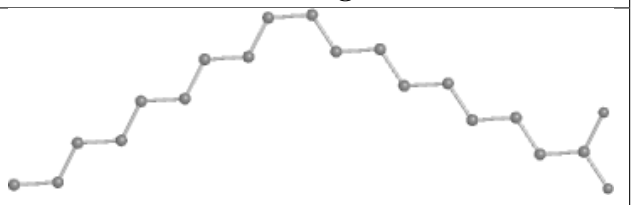
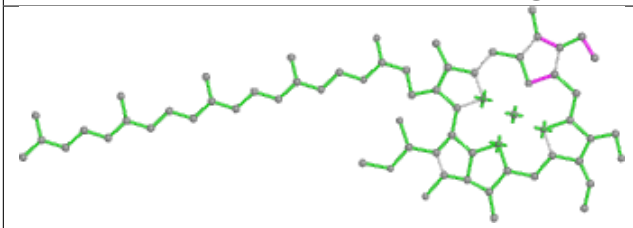


Rings

Ligand CHL 5 610



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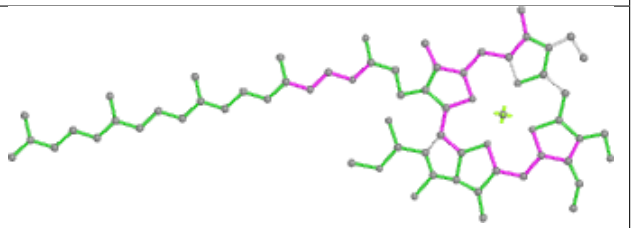

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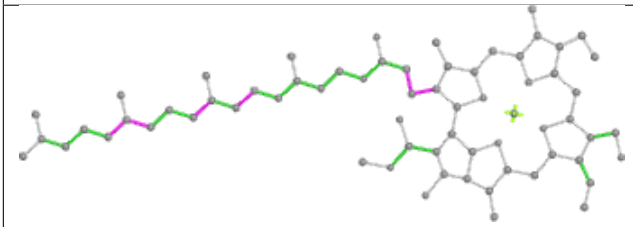

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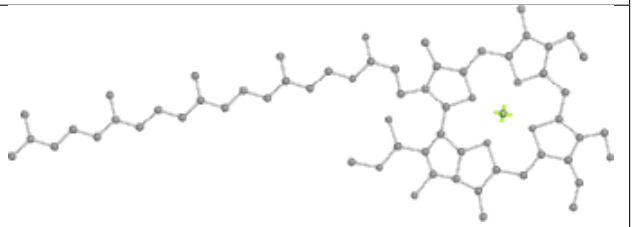
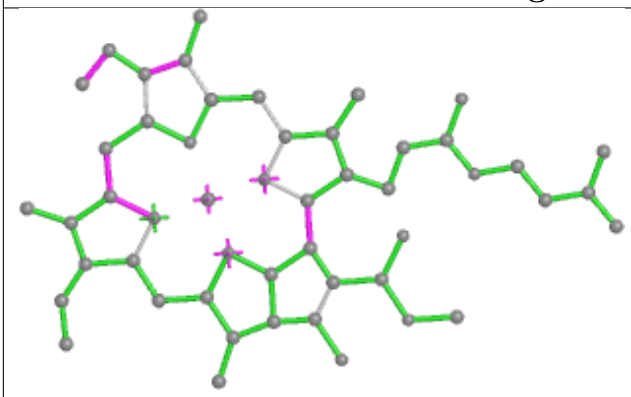


Rings

Ligand CLA 3 612



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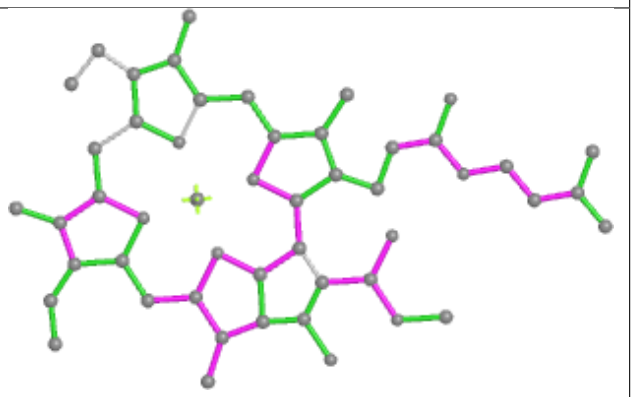
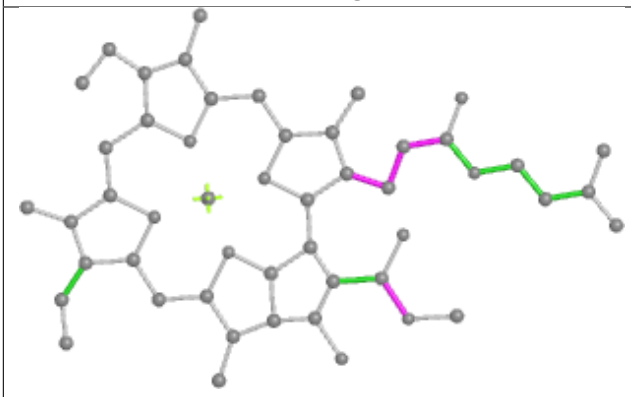


Bond angles



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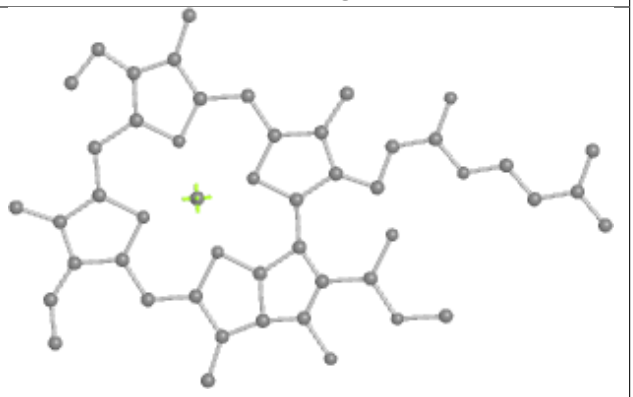
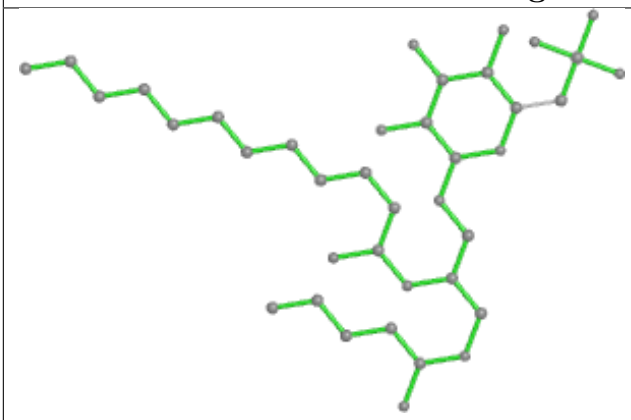


Rings

Ligand SQD 7 805



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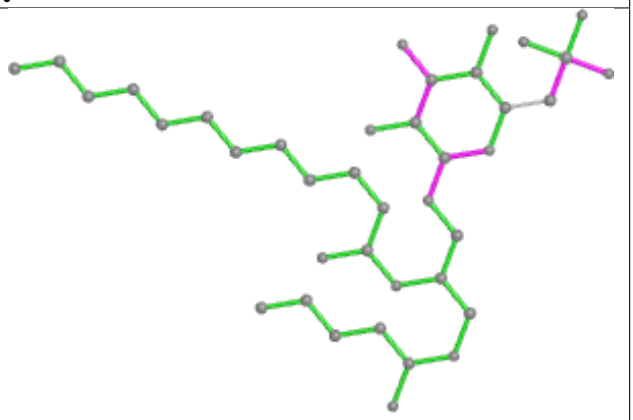
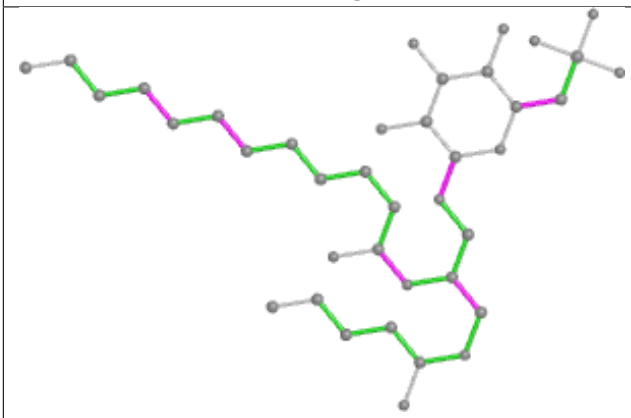


Bond angles



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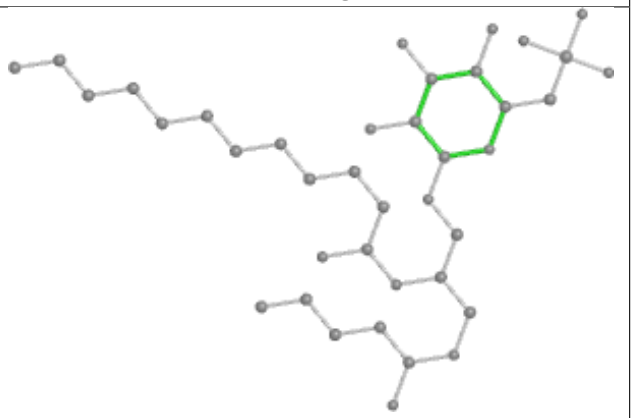
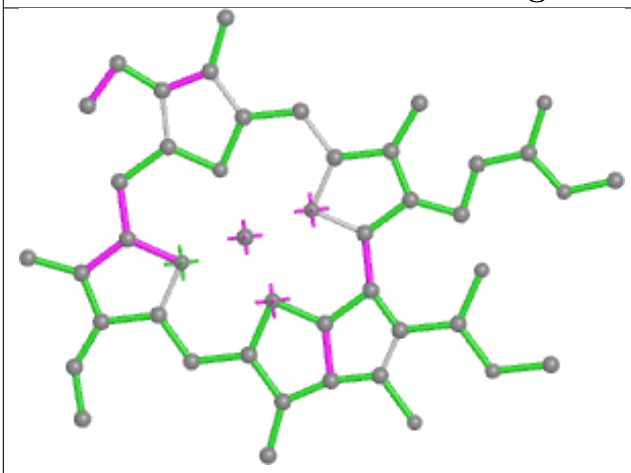


Rings

Ligand CLA 5 605



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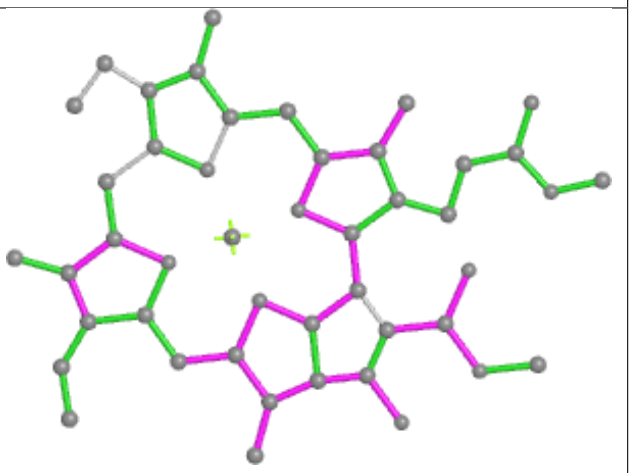

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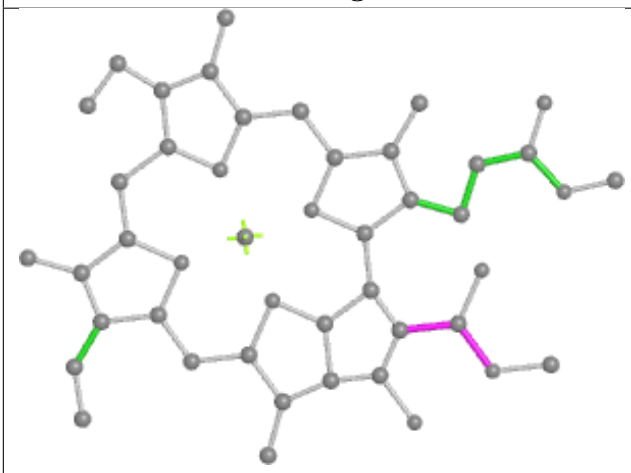

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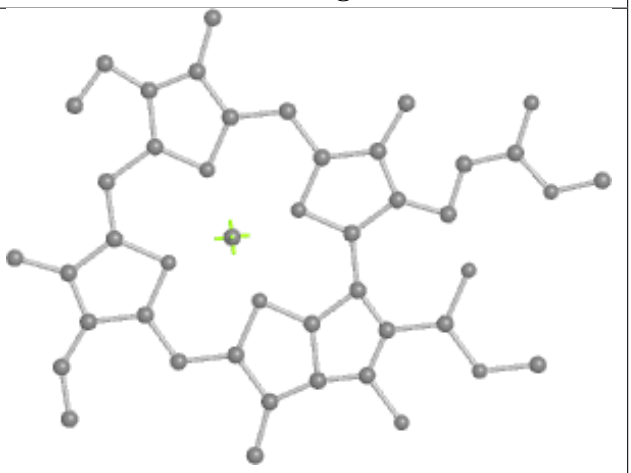

Rings

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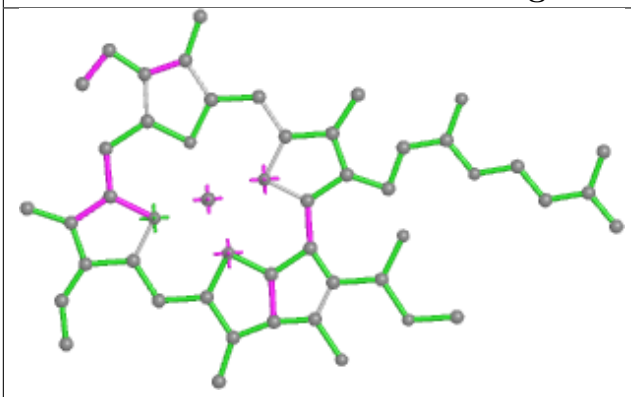

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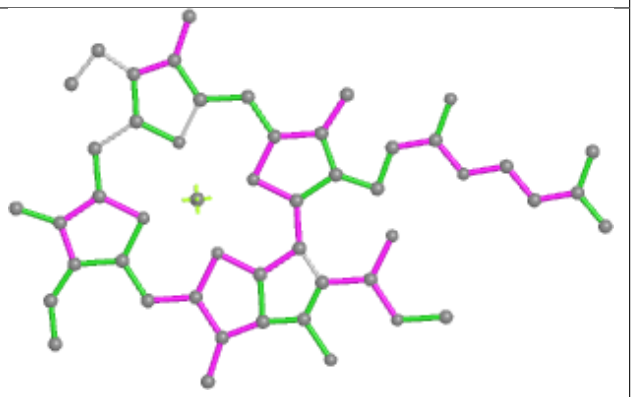

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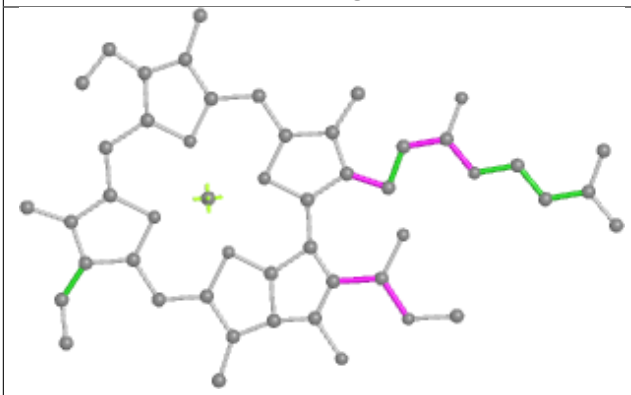

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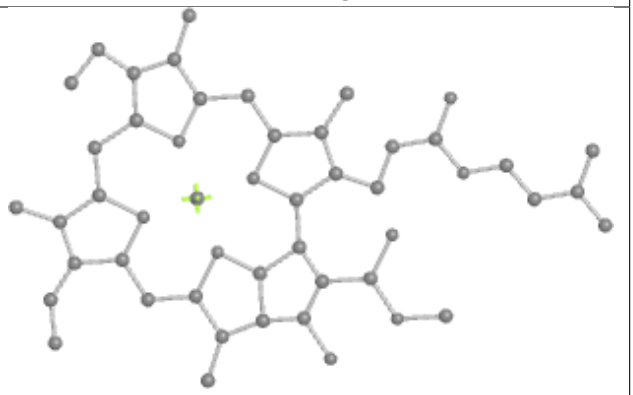
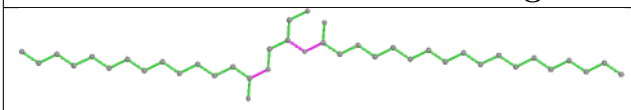


Rings

Ligand DGA 8 804



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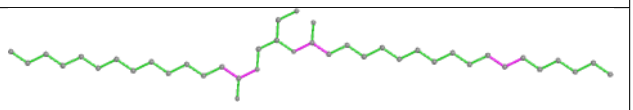
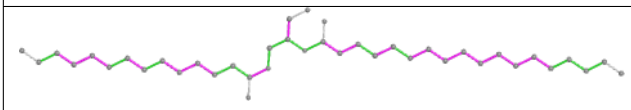


Bond angles



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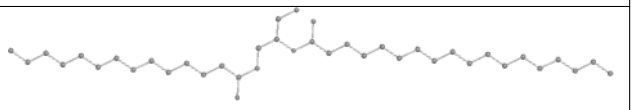
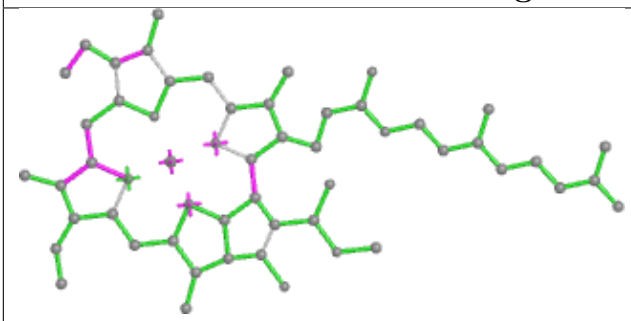


Rings

Ligand CLA O 1802



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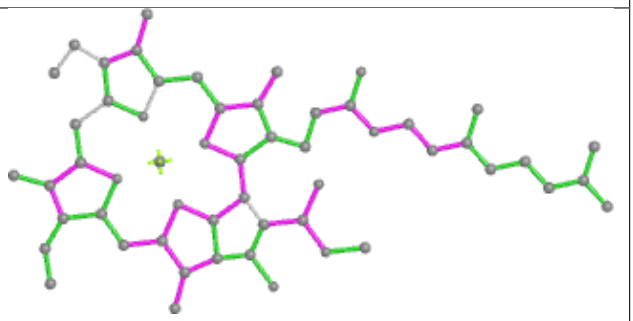
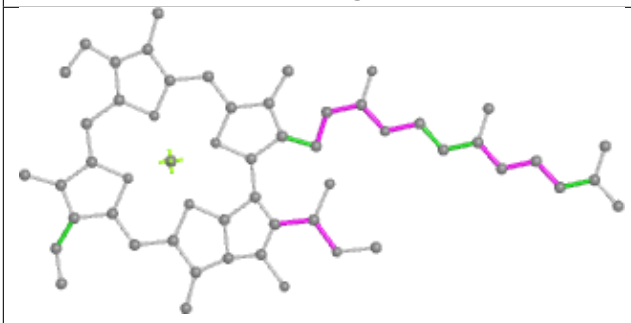
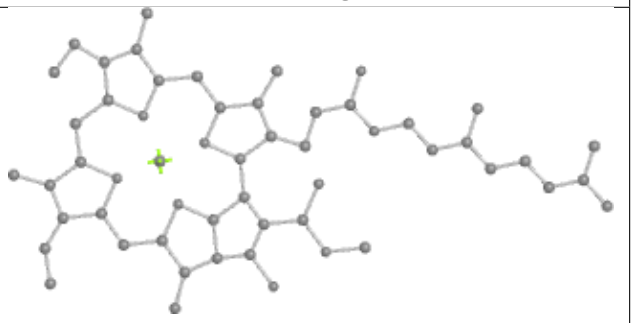


Bond angles

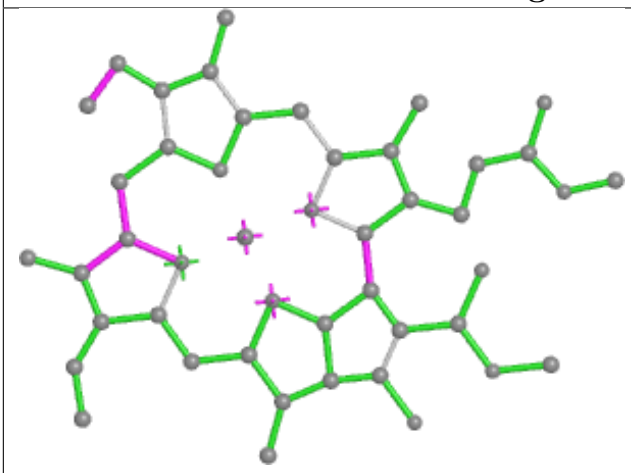


Torsions

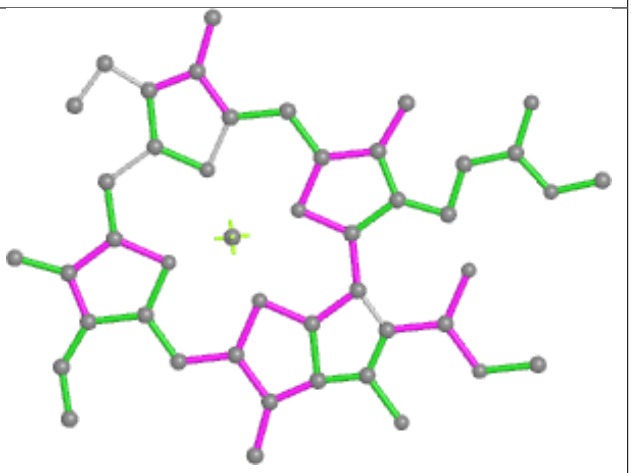


Rings

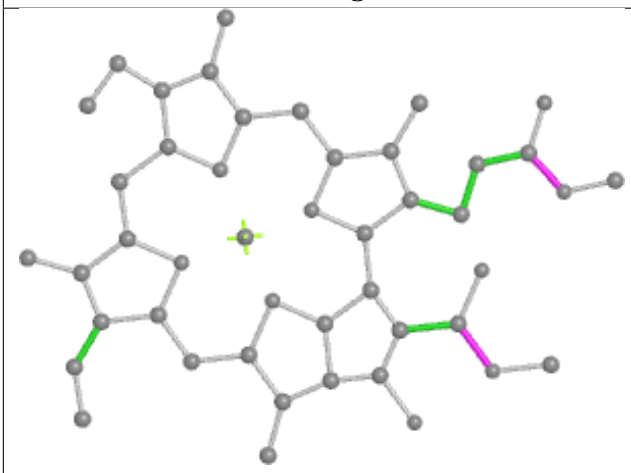
Ligand CLA 2 606



Bond lengths



Bond angles



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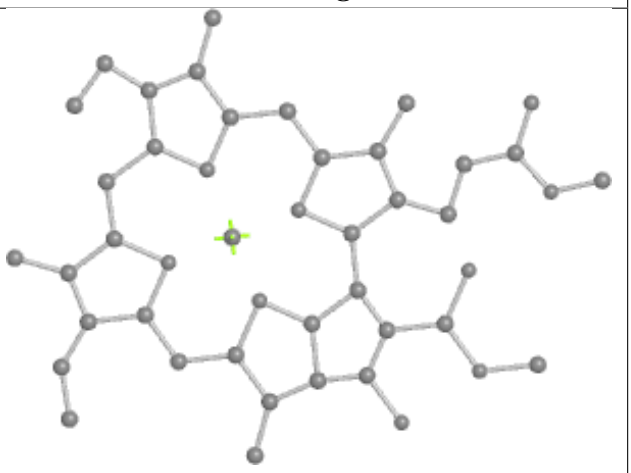
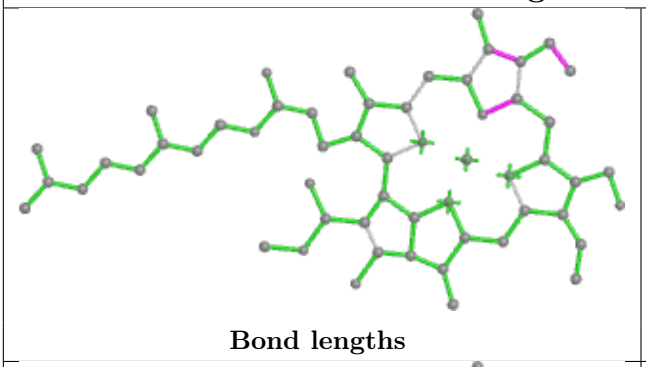
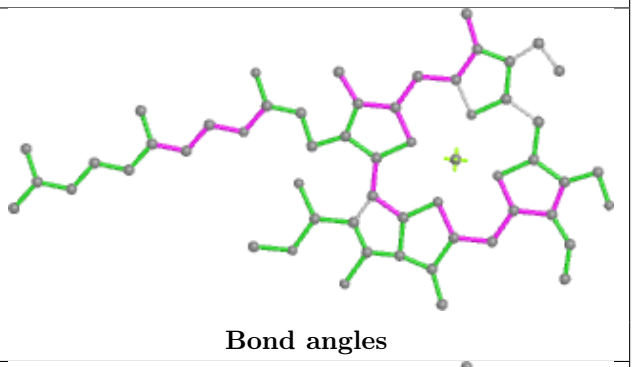


Rings

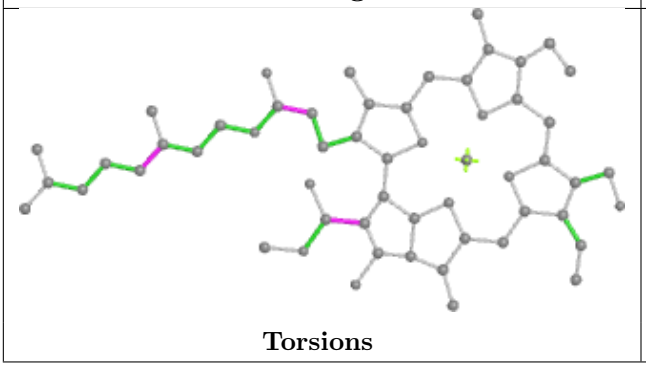
Ligand CHL 6 610



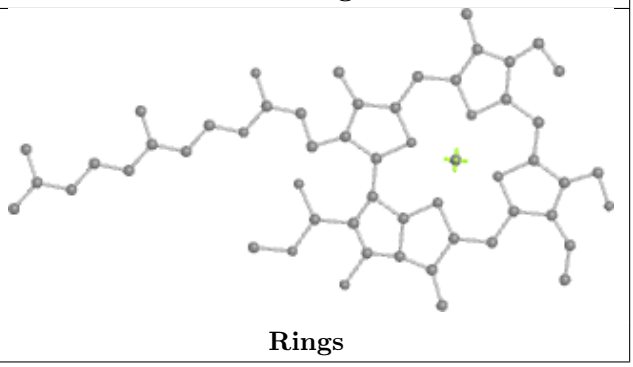
Bond lengths



Bond angles

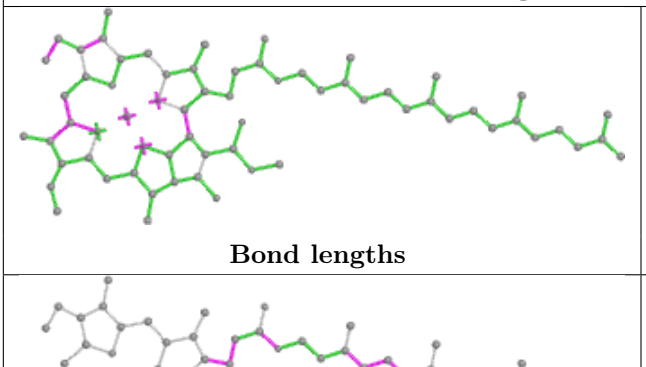


Torsions

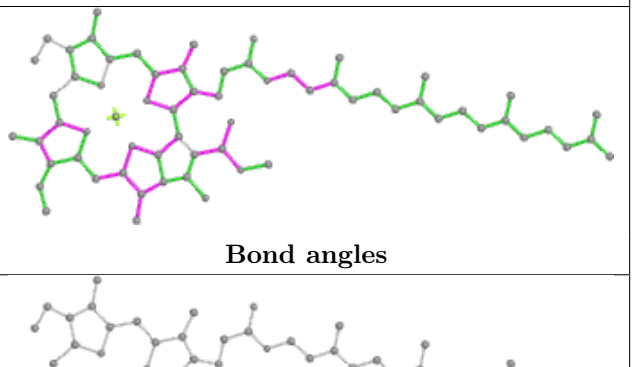


Rings

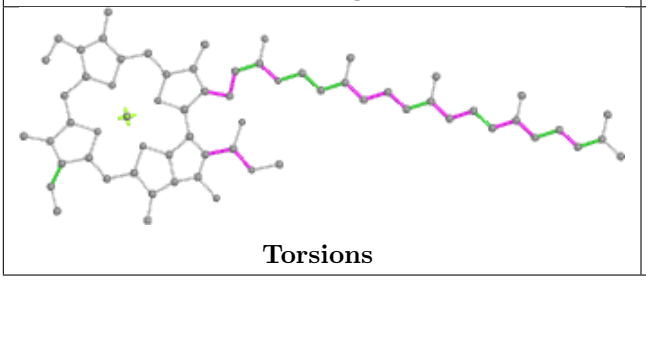
Ligand CLA A 1106



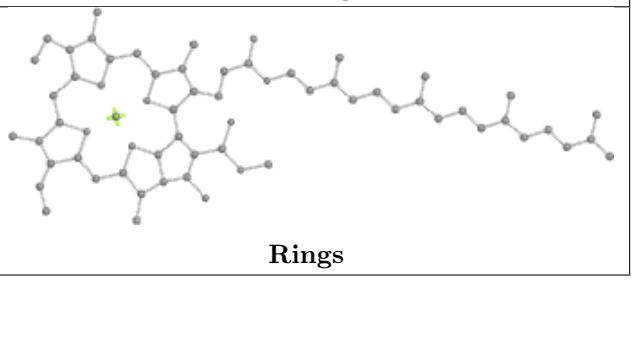
Bond lengths



Bond angles

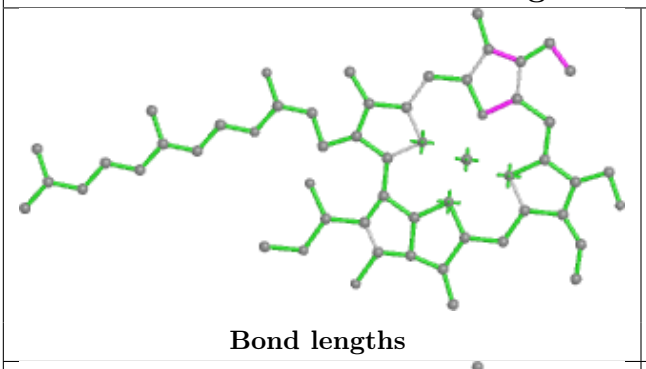


Torsions



Rings

Ligand CHL a 606



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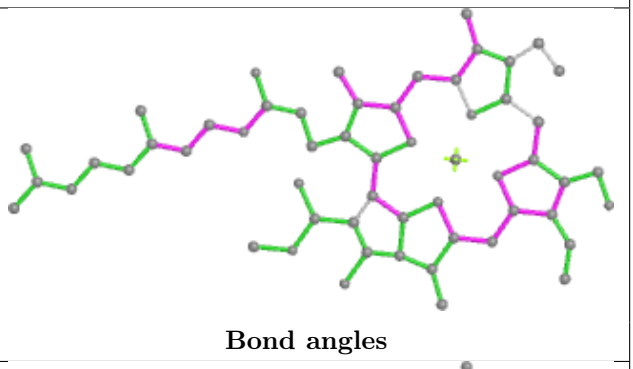
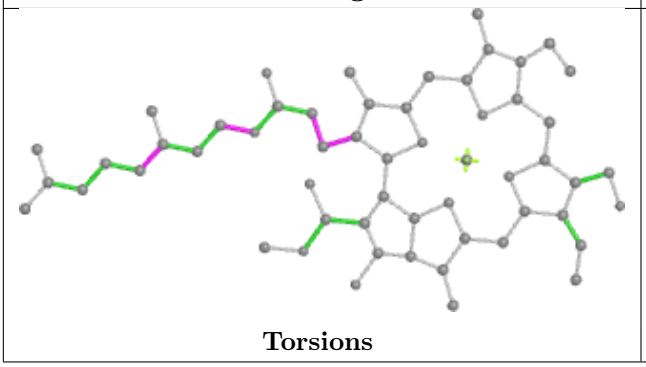


Bond angles



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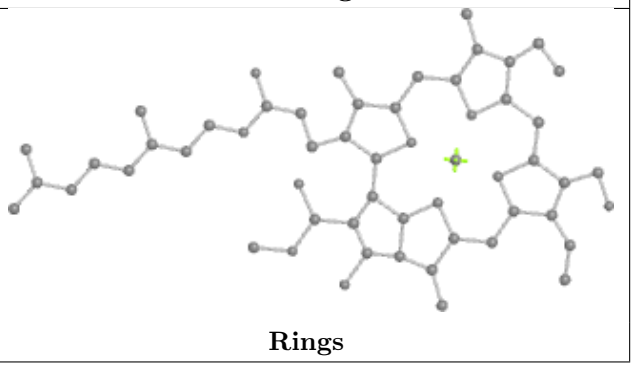
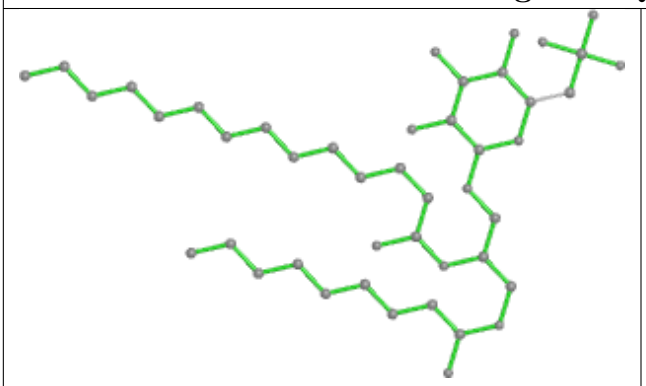


Rings

Ligand SQD H 5001



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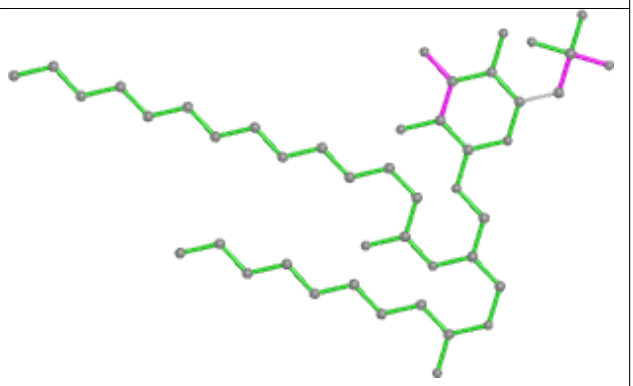
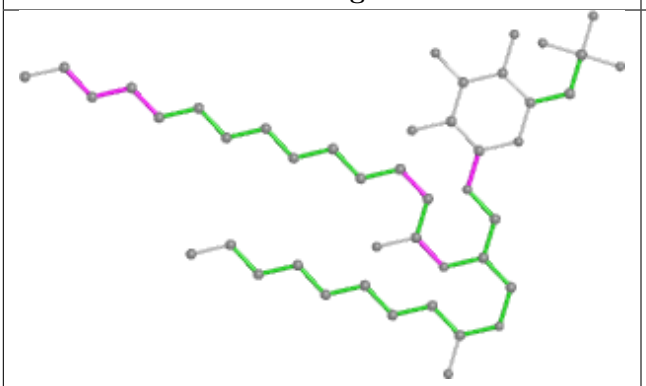
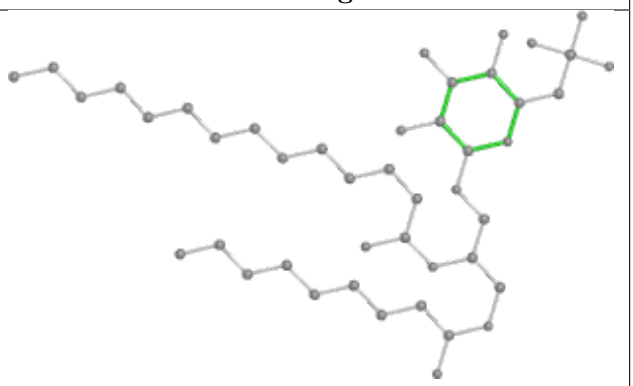


Bond angles

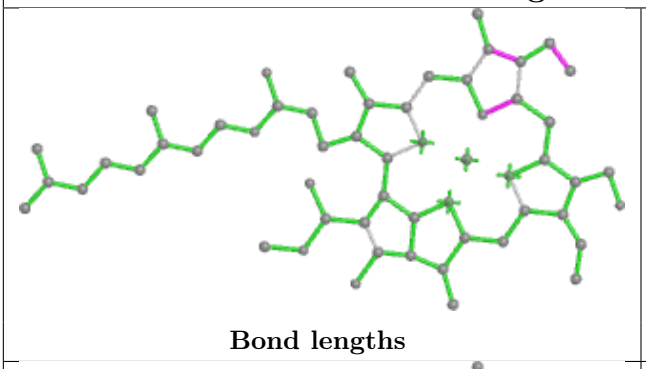


Torsions



Rings

Ligand CHL 4 618



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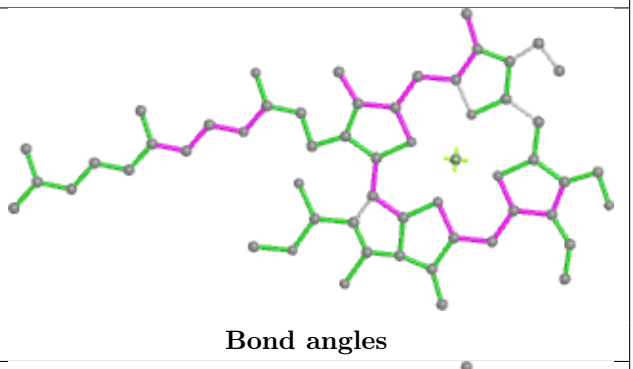
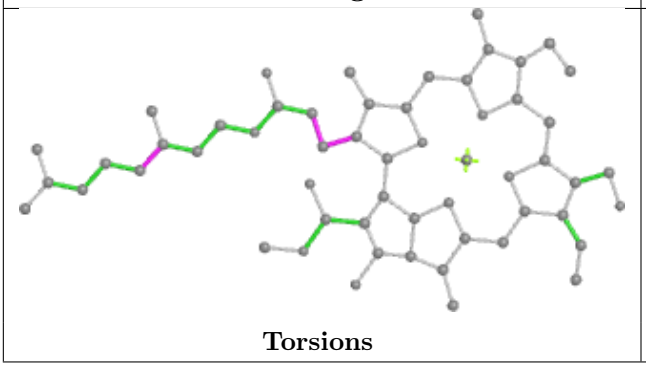


Bond angles



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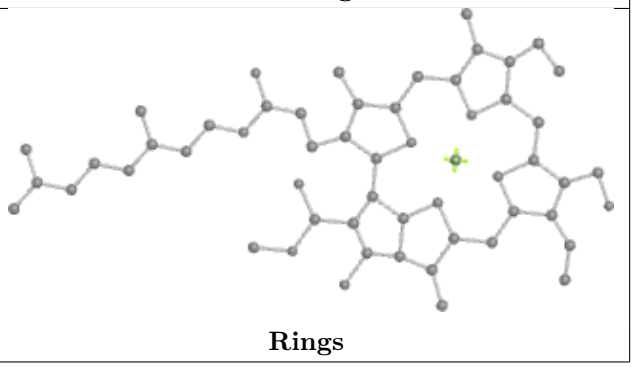
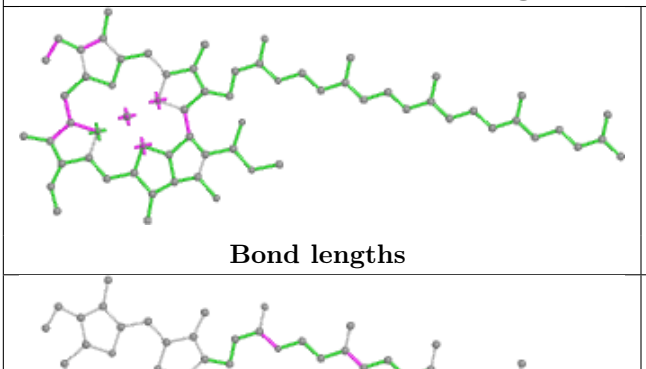


Rings

Ligand CLA A 1136



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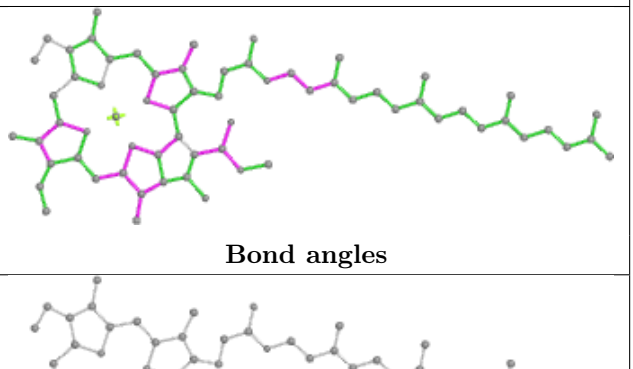
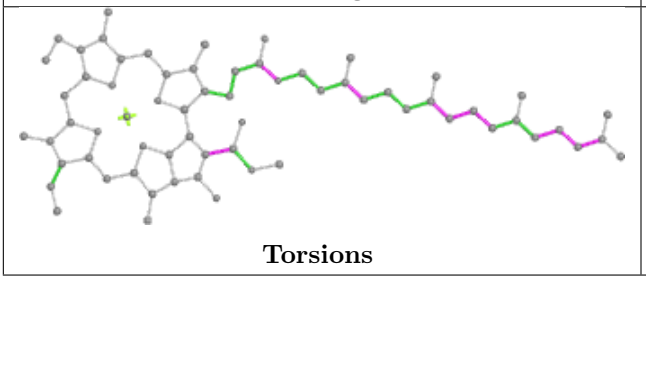


Bond angles



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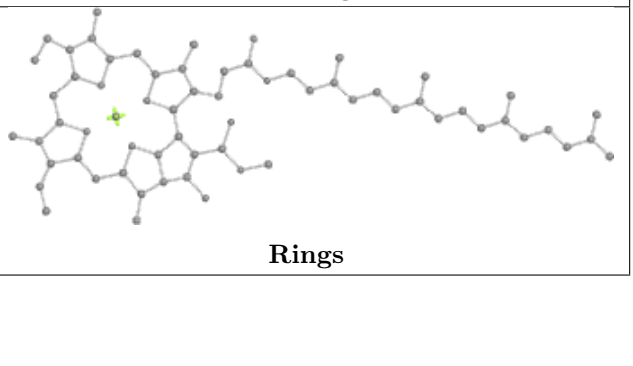
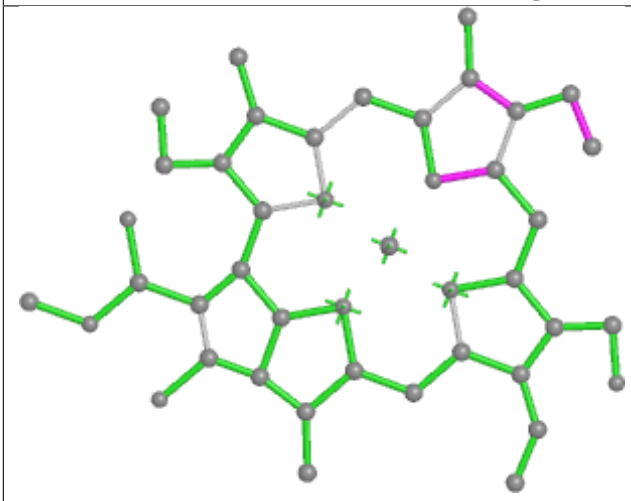


Rings

Ligand CHL 3 608



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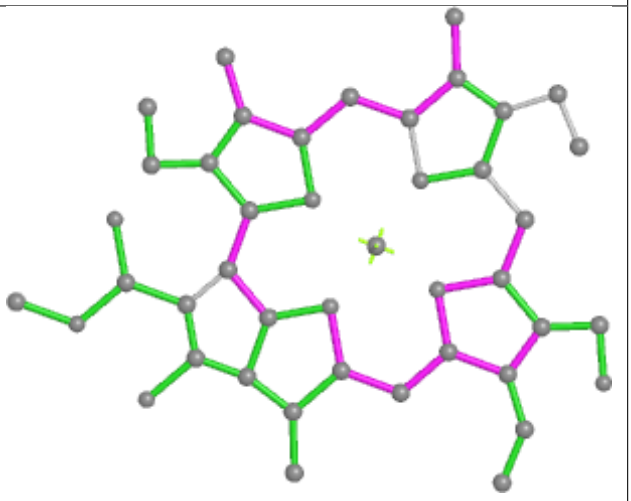
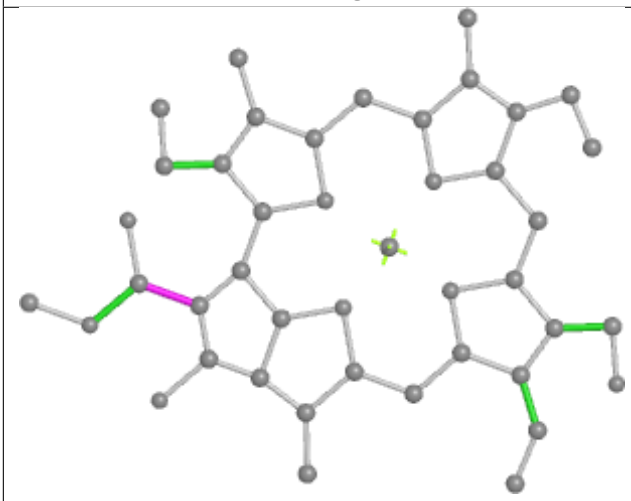


Bond angles



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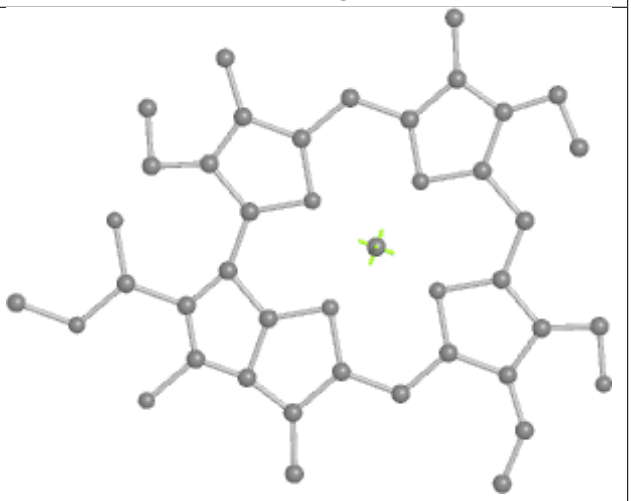
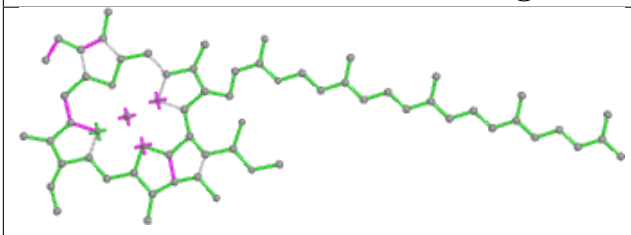


Rings

Ligand CLA B 1225



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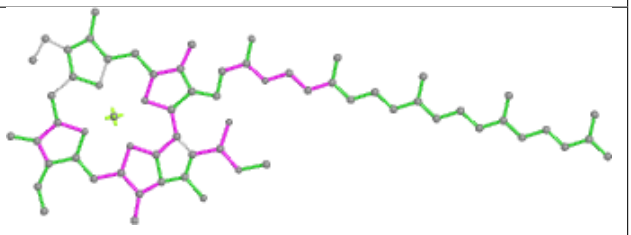
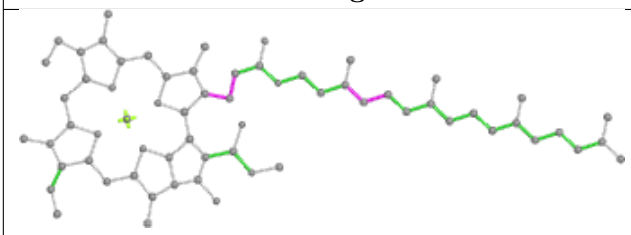


Bond angles



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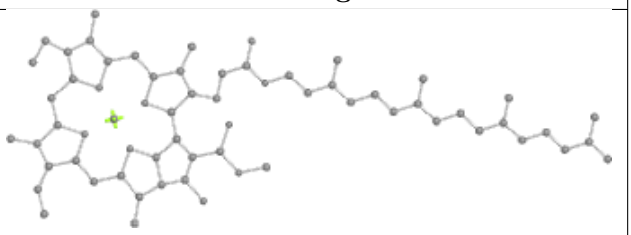
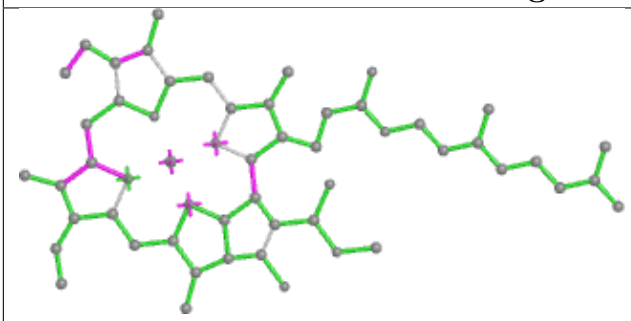


Rings

Ligand CLA 7 608



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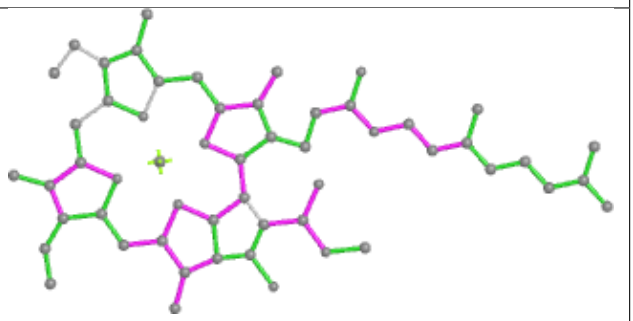
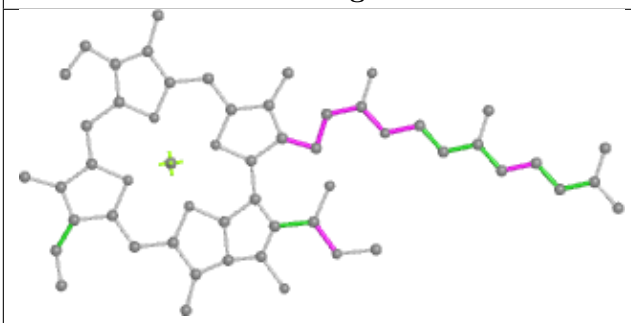


Bond angles



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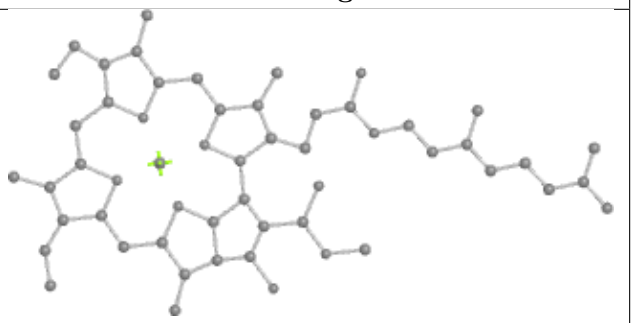
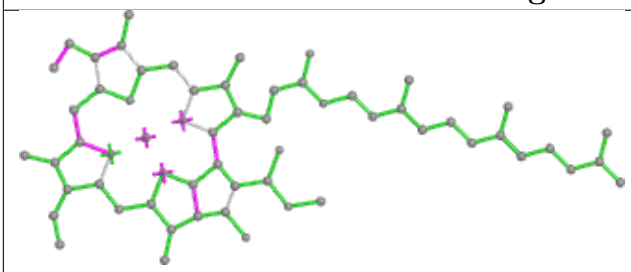


Rings

Ligand CLA 9 605



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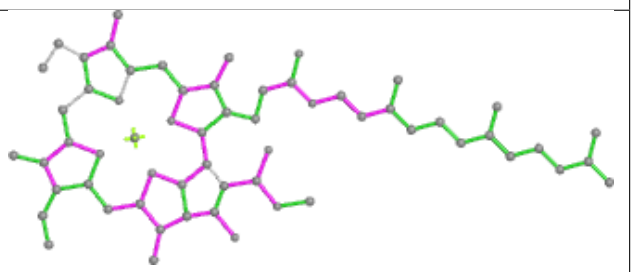
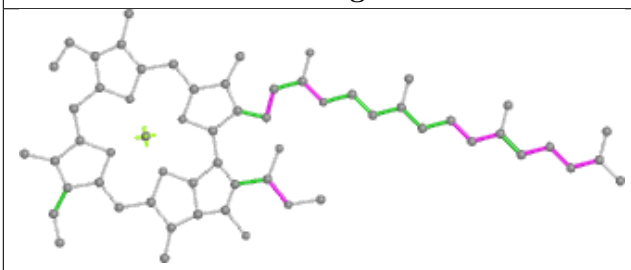


Bond angles



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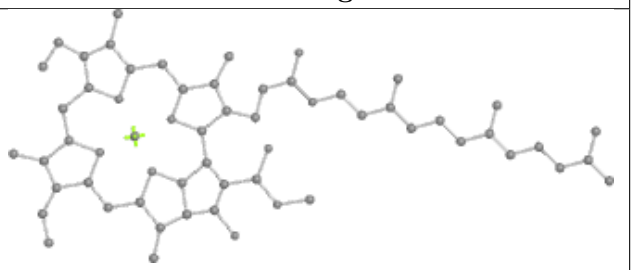

Rings

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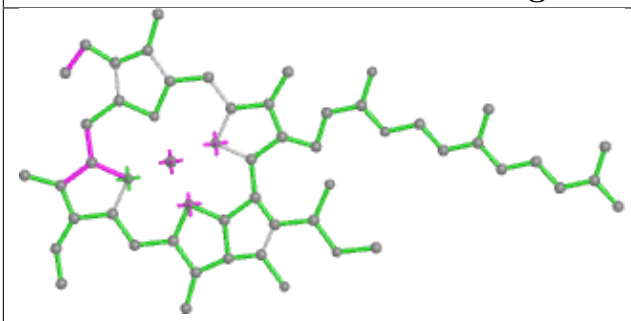

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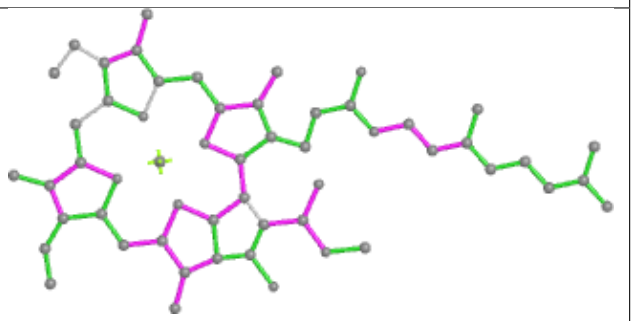
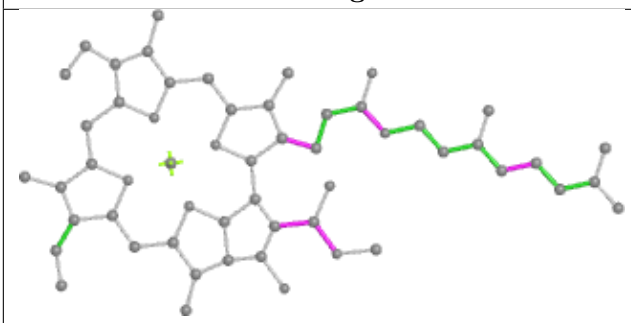


Bond angles



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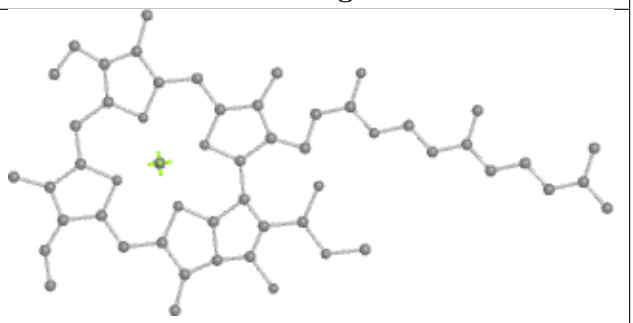
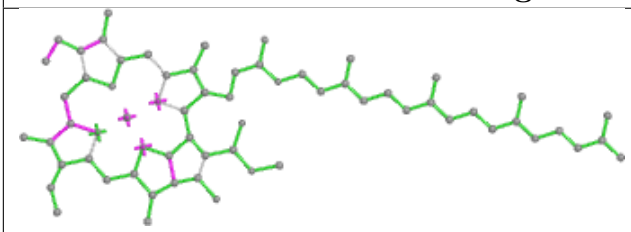


Rings

Ligand CLA A 1104



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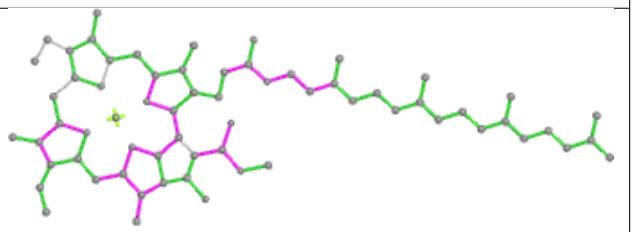
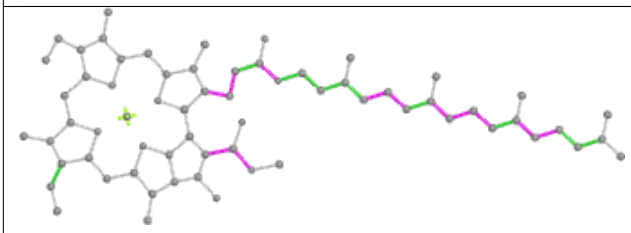


Bond angles



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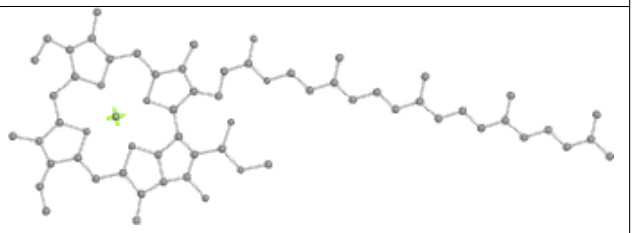
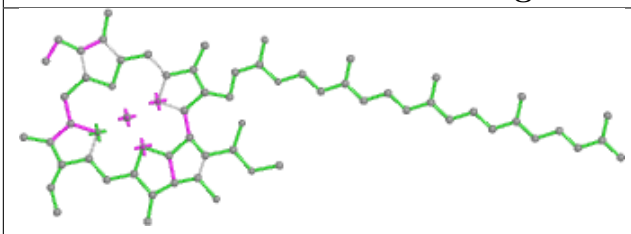


Rings

Ligand CLA A 1131



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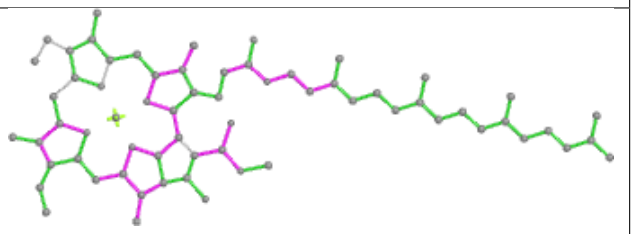
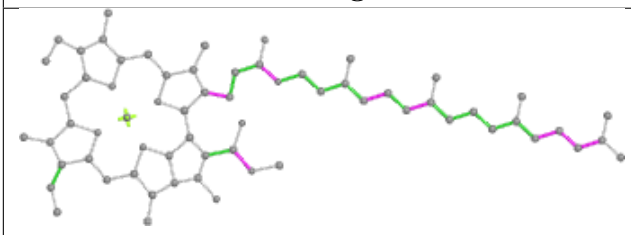
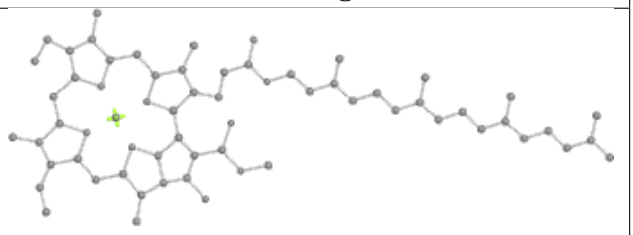


Bond angles

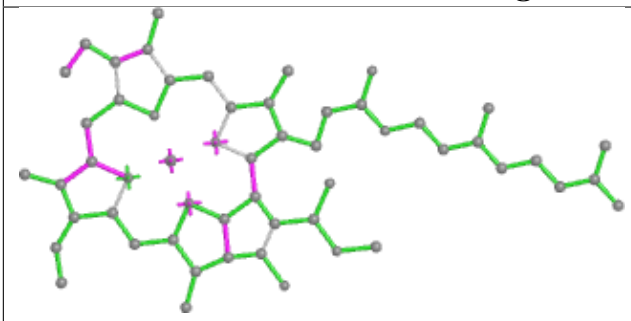


Torsions

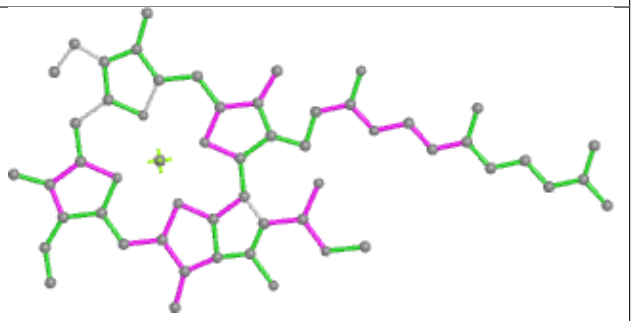


Rings

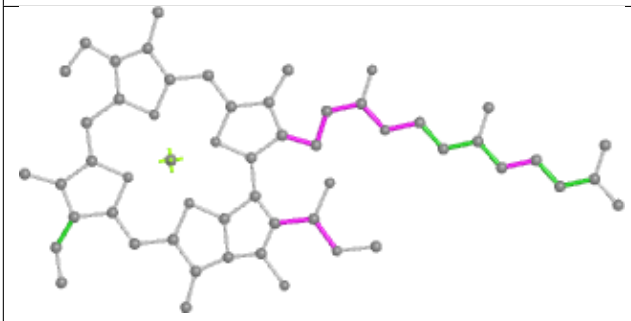
Ligand CLA A 1118



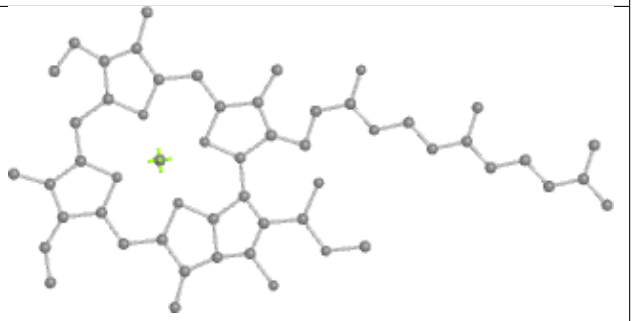
Bond lengths



Bond angles

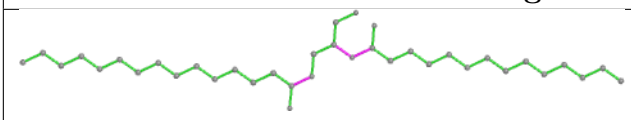


Torsions

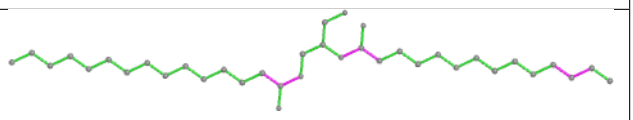


Rings

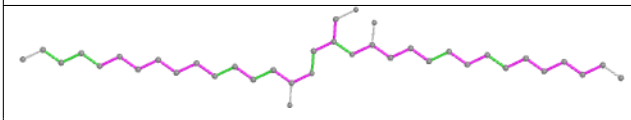
Ligand DGA 2 803



Bond lengths



Bond angles



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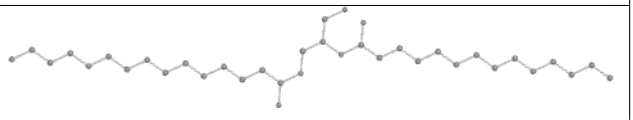
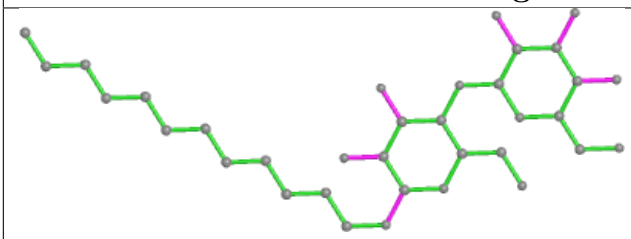
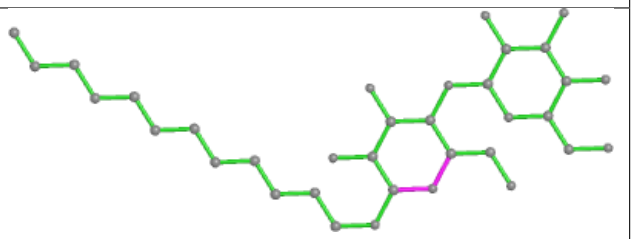


Rings

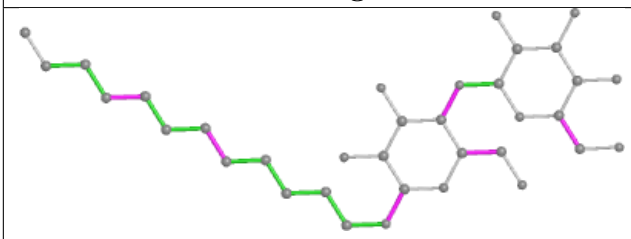
Ligand LMT B 5006



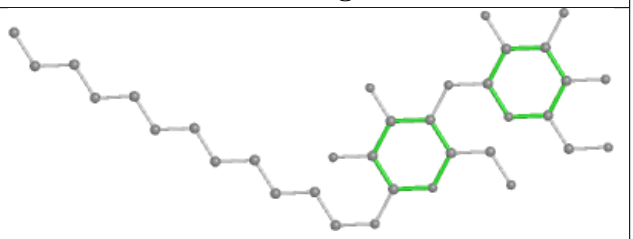
Bond lengths



Bond angles

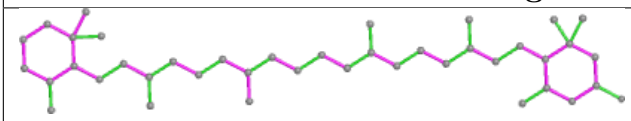


Torsions



Rings

Ligand RRX 3 506



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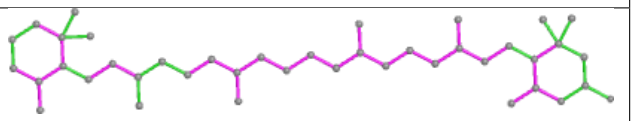
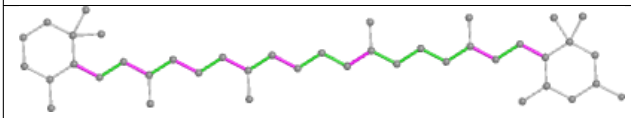
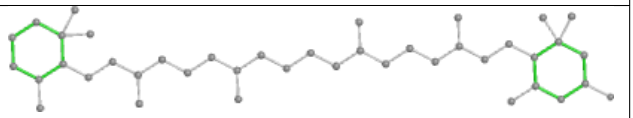


Bond angles

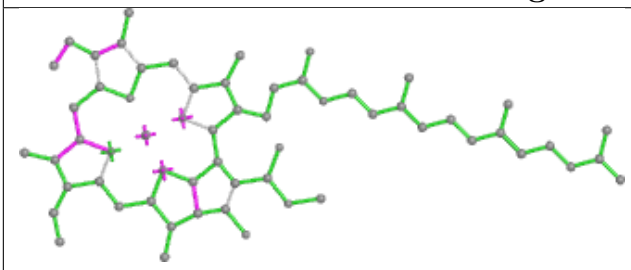


Torsions



Rings

Ligand CLA 7 601



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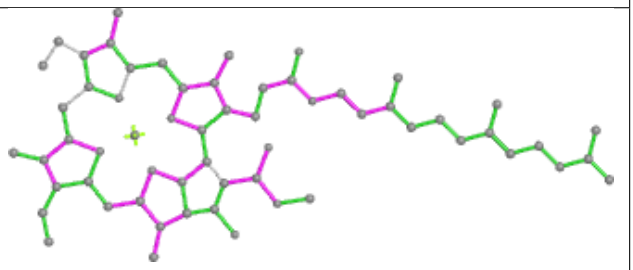
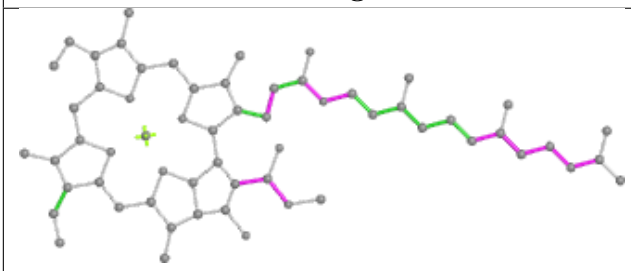
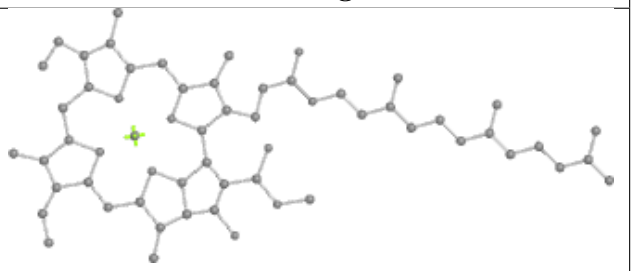


Bond angles

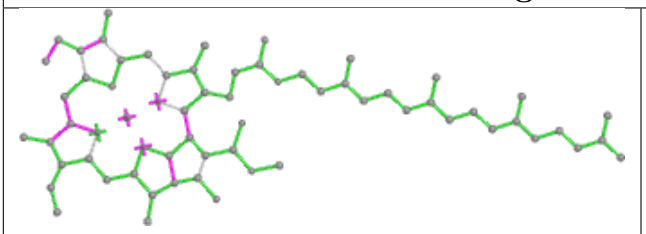


Torsions



Rings

Ligand CLA B 1223



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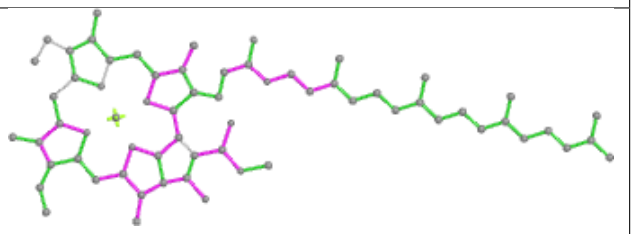
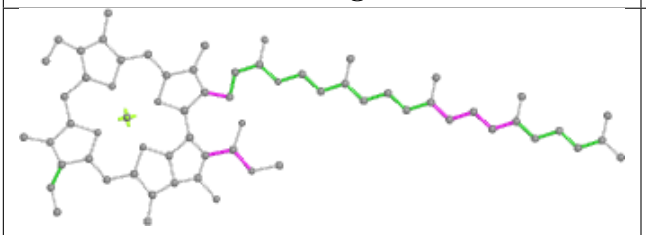


Bond angles



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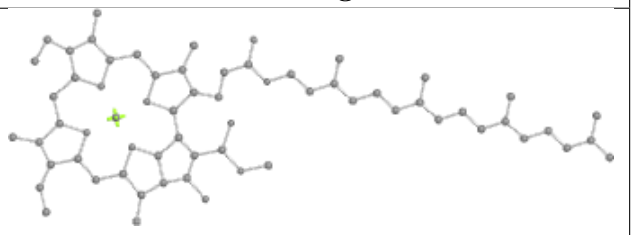
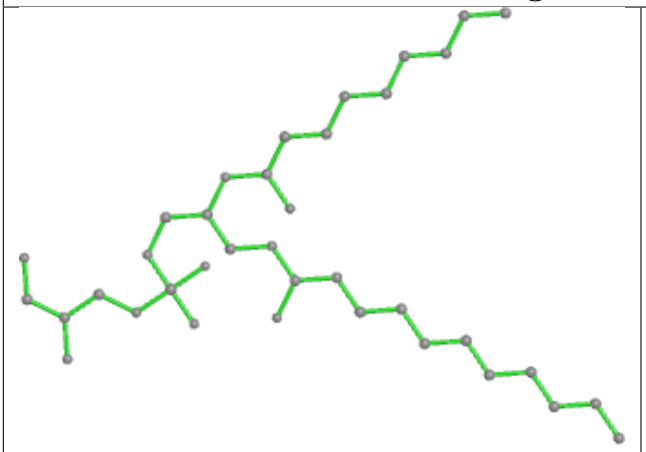


Rings

Ligand LHG 7 801



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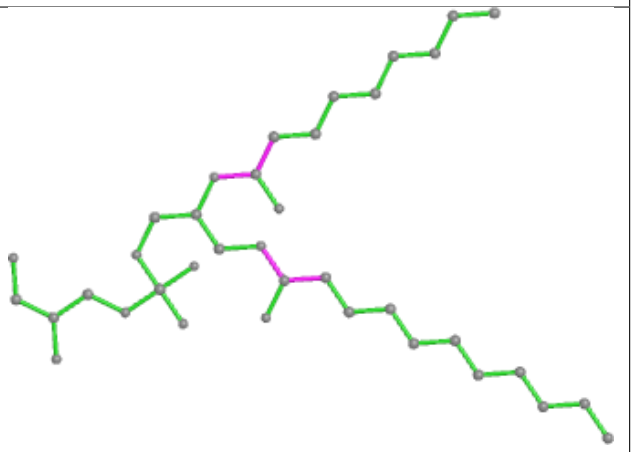
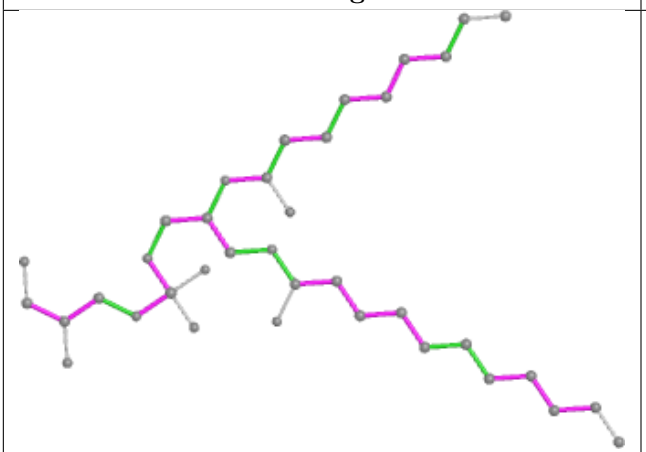


Bond angles



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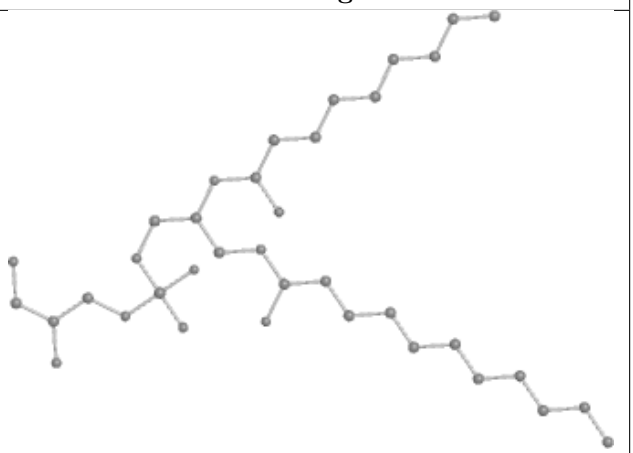
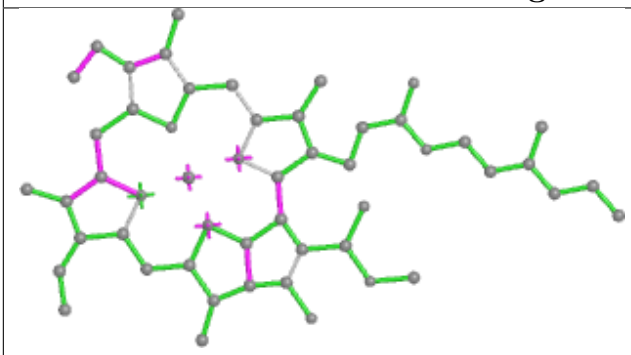
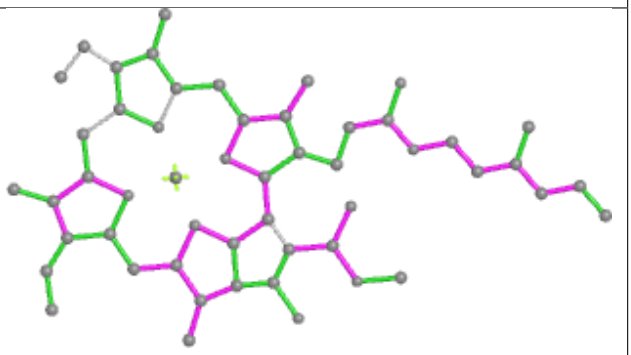
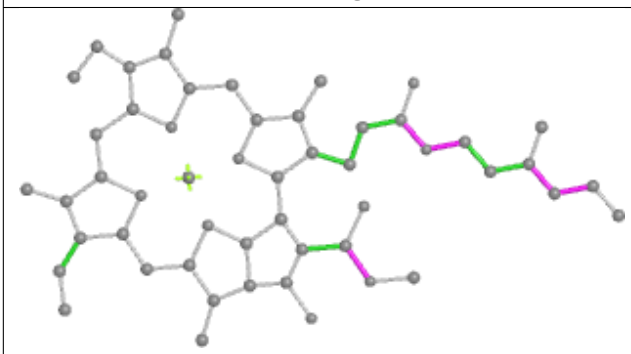
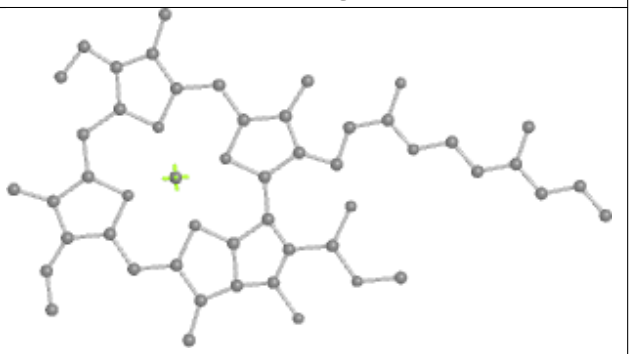


Rings

Ligand CLA 6 602	
	
Bond lengths	Bond angles
	
Torsions	Rings

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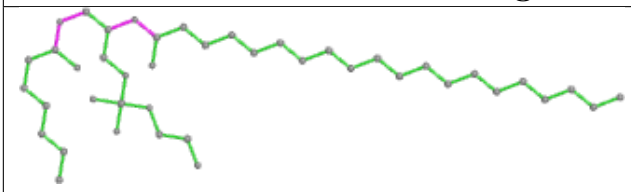
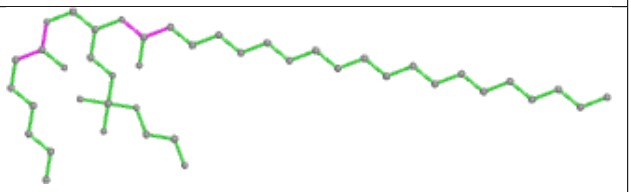
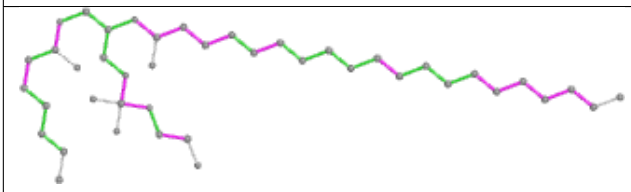
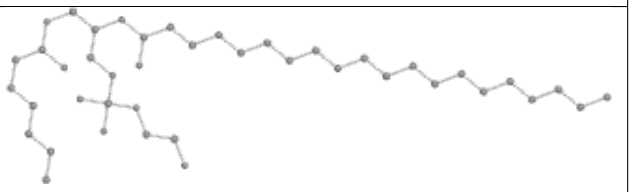
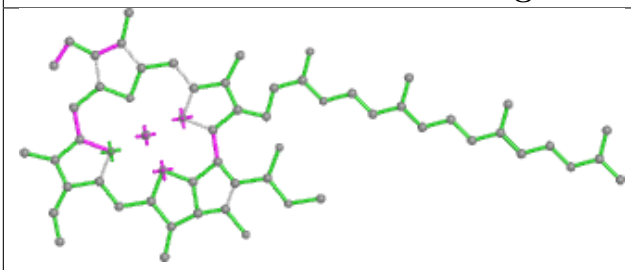
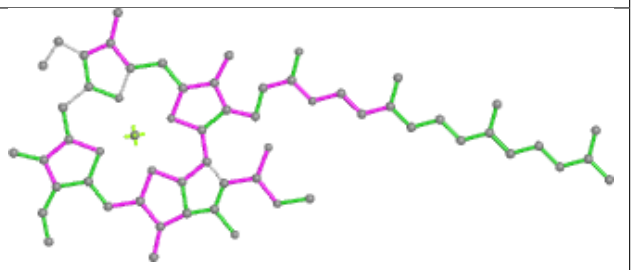
	
Bond lengths	Bond angles
	
Torsions	Rings

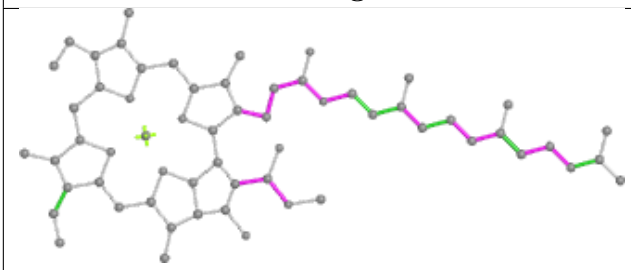
Ligand CLA A 1113



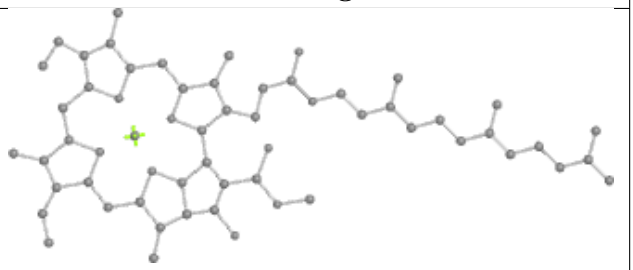
Bond lengths



Bond angles

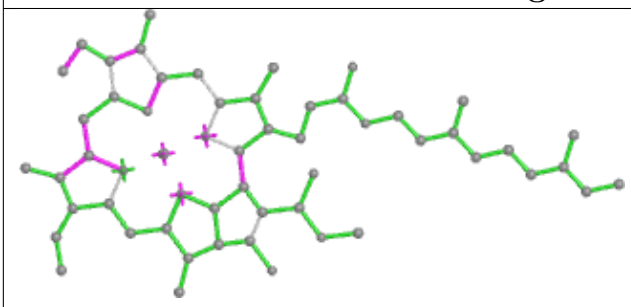


Torsions



Rings

Ligand CLA 4 603



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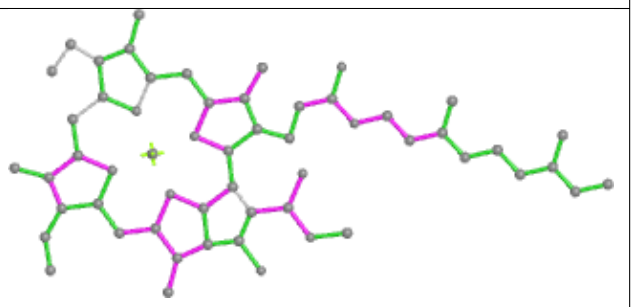
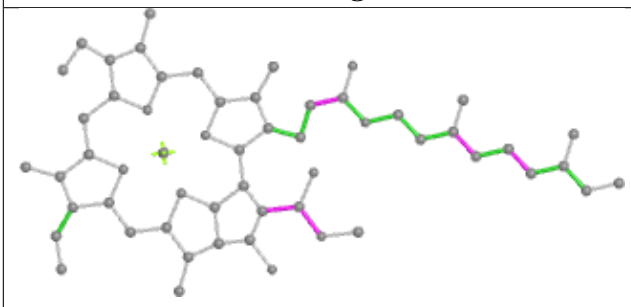


Bond angles



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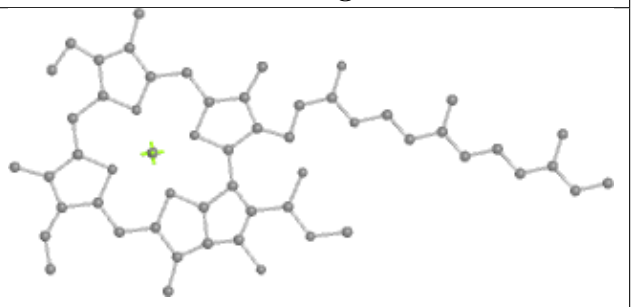
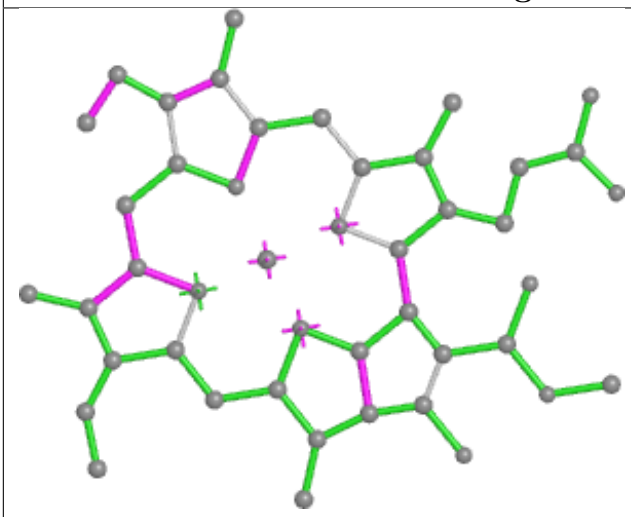


Rings

Ligand CLA K 1404



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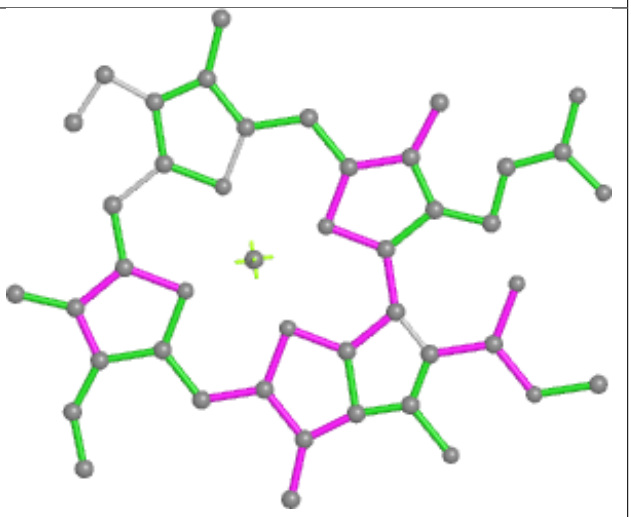
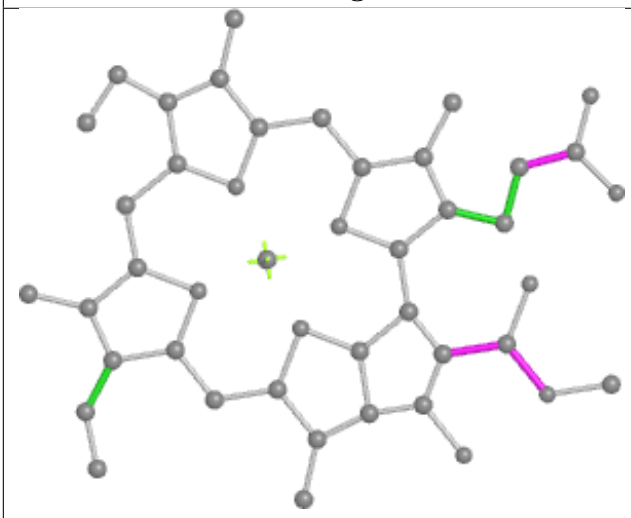


Bond angles



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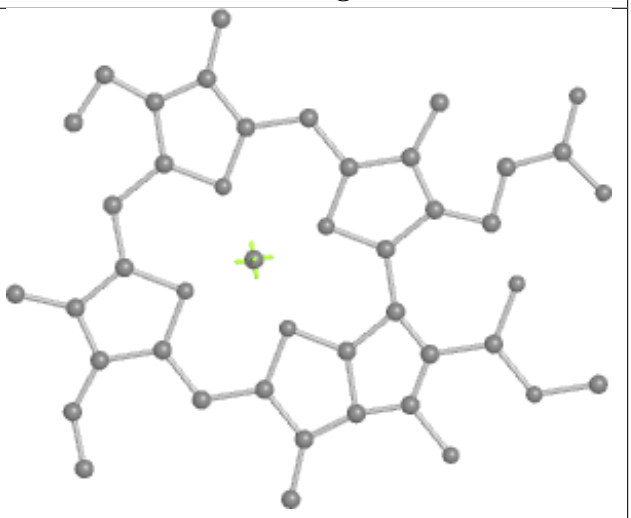
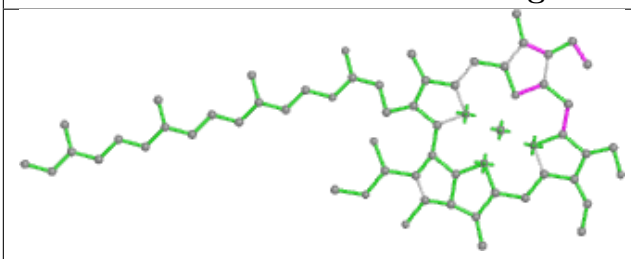


Rings

Ligand CHL 8 604



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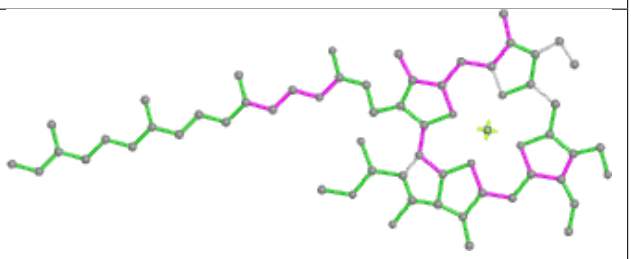
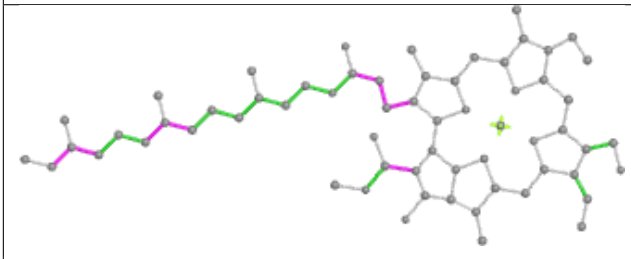
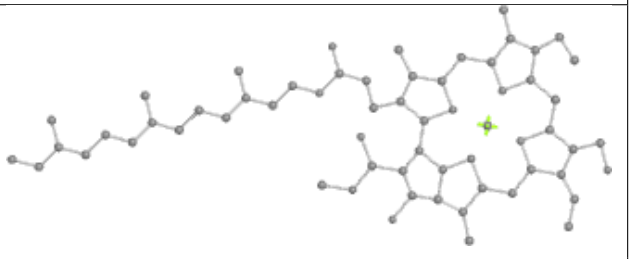


Bond angles

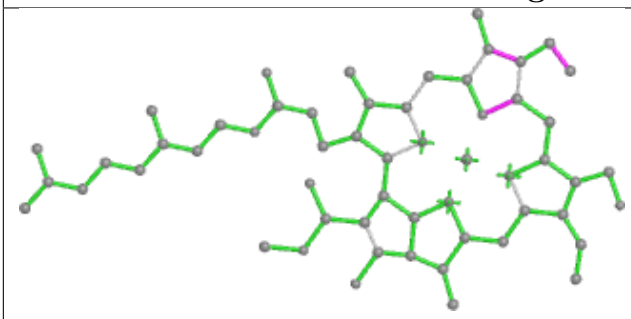


Torsions



Rings

Ligand CHL 7 611



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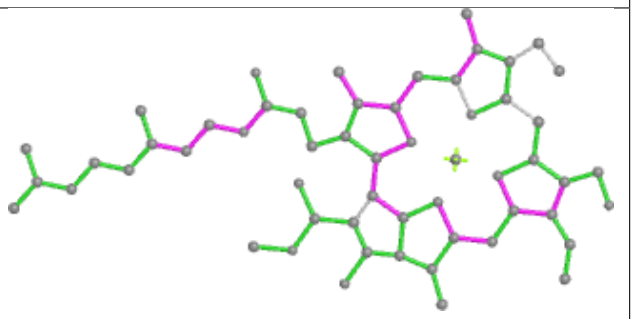
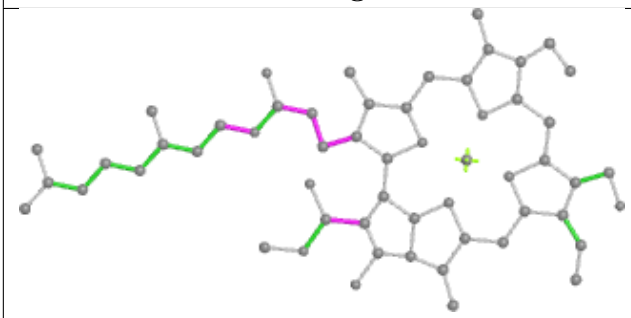


Bond angles



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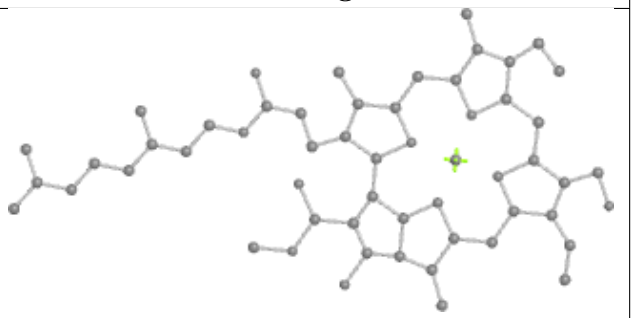
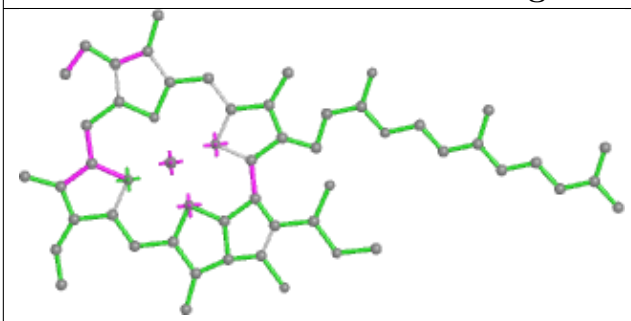


Rings

Ligand CLA 4 607



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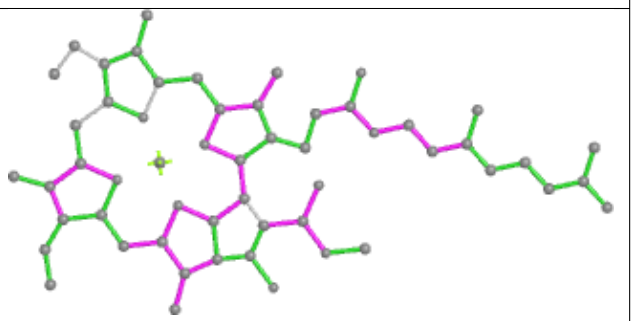
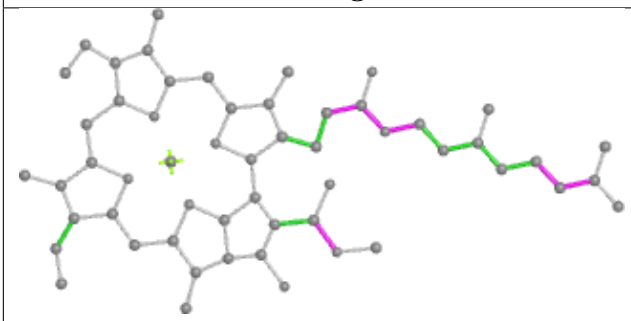


Bond angles



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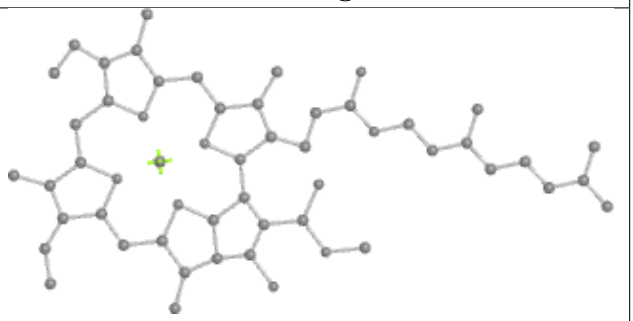
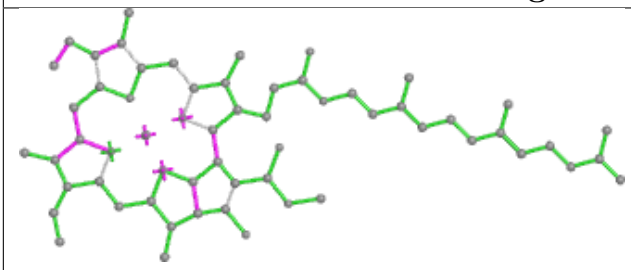


Rings

Ligand CLA 4 604



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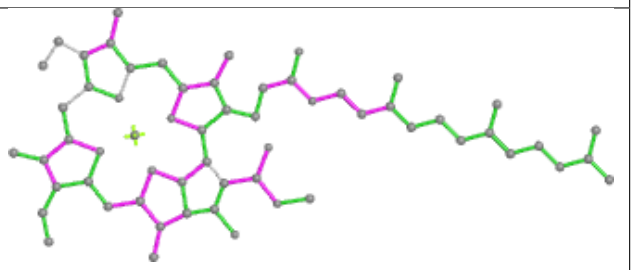
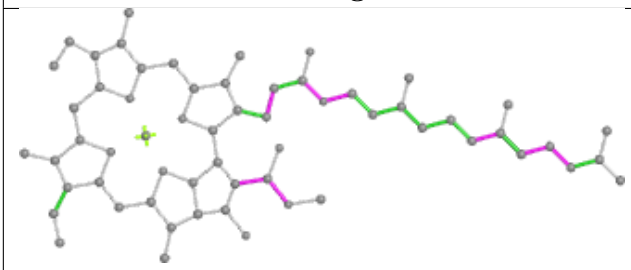
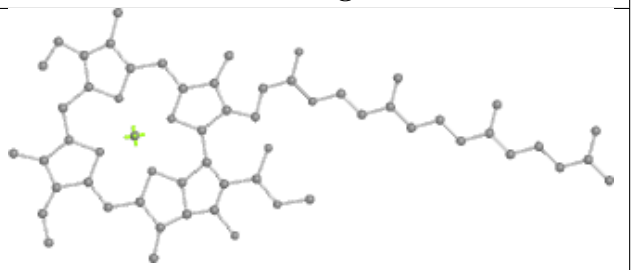


Bond angles

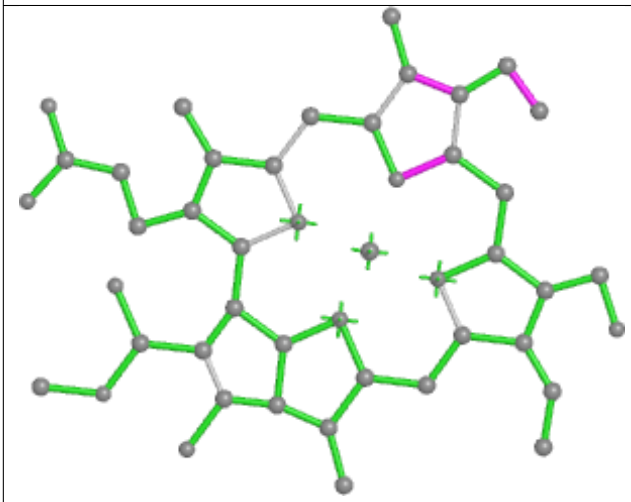


Torsions

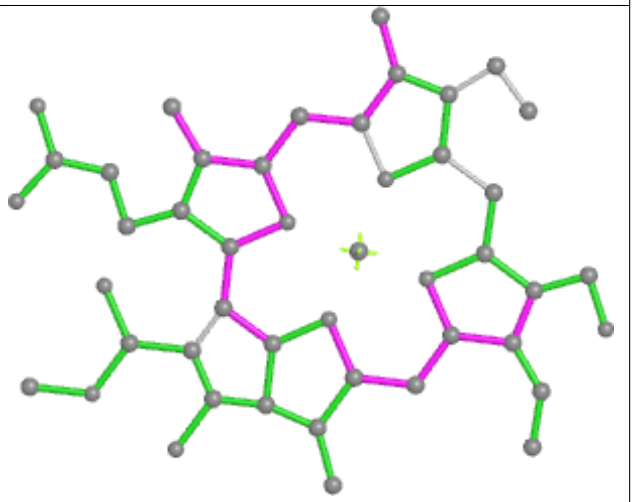


Rings

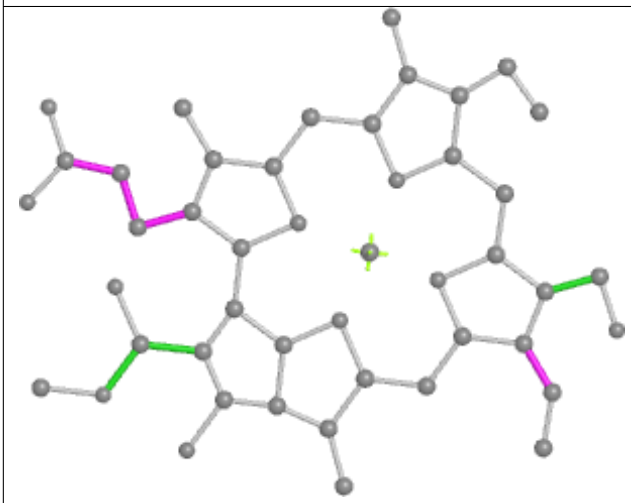
Ligand CHL a 613



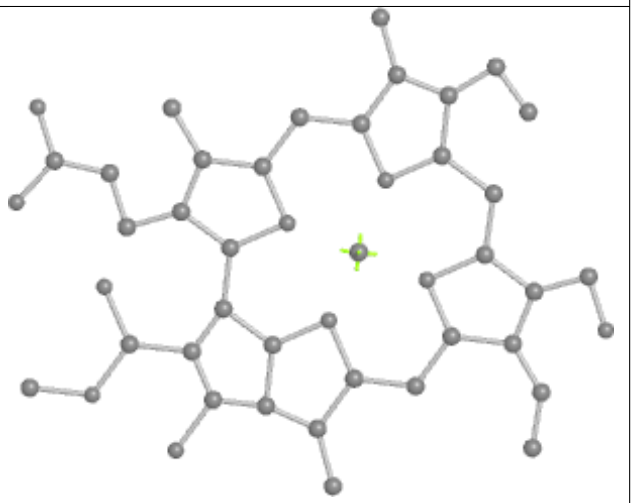
Bond lengths



Bond angles

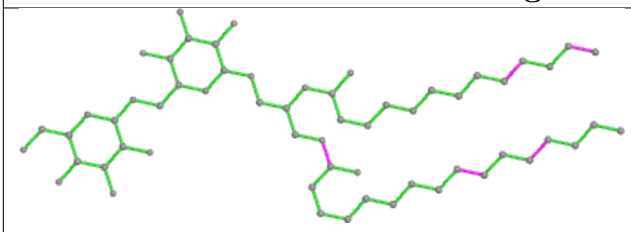


Torsions

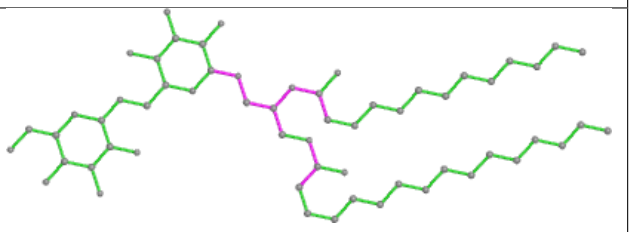


Rings

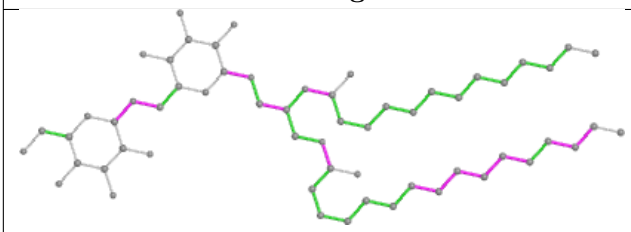
Ligand DGD 8 802



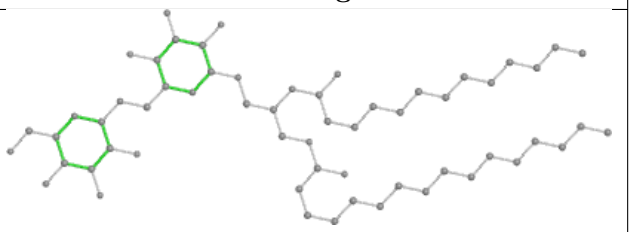
Bond lengths



Bond angles

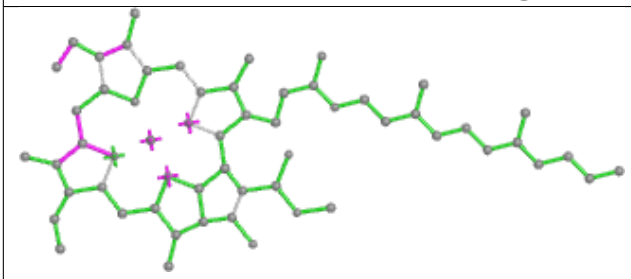


Torsions

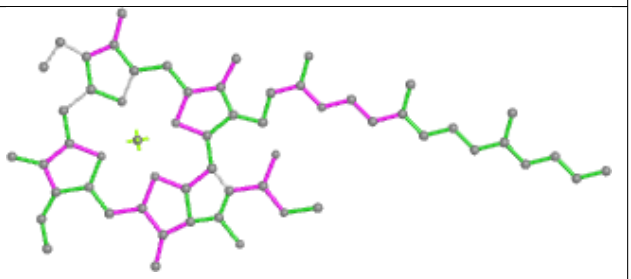


Rings

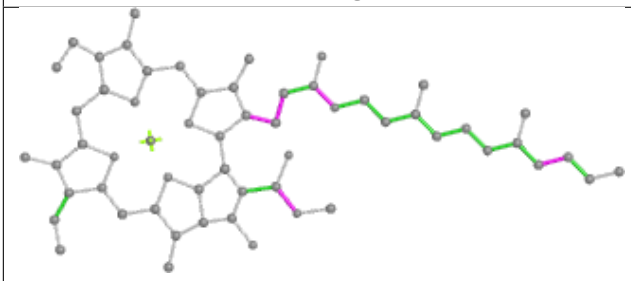
Ligand CLA B 1222



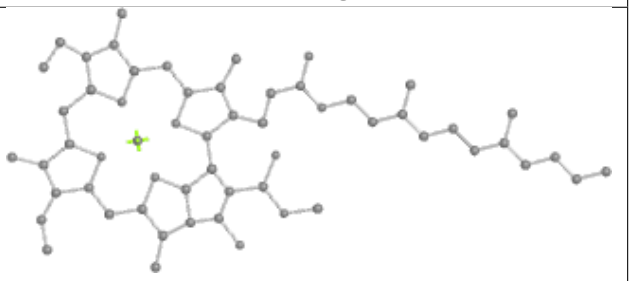
Bond lengths



Bond angles

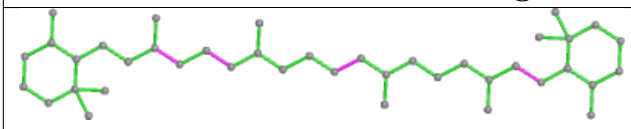


Torsions

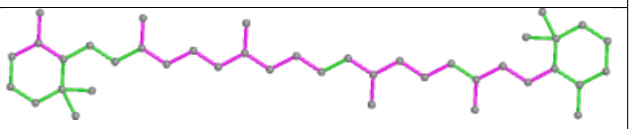


Rings

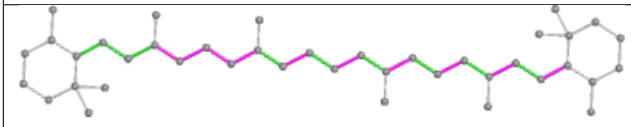
Ligand BCR B 4006



Bond lengths



Bond angles



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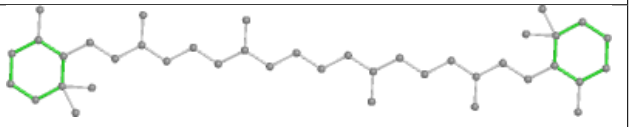
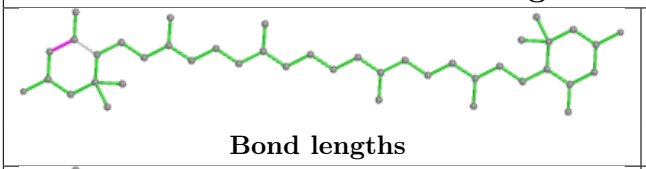
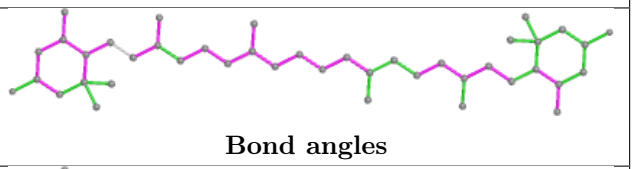


Rings

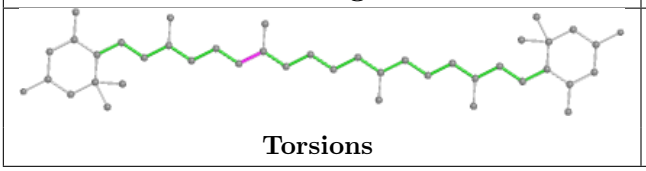
Ligand LUT 2 502



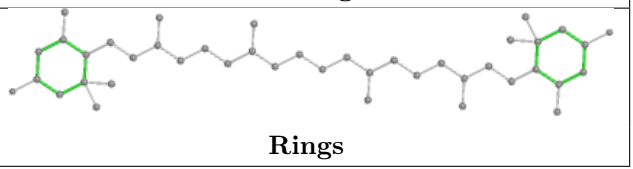
Bond lengths



Bond angles

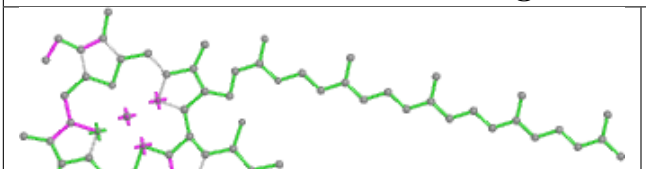


Torsions

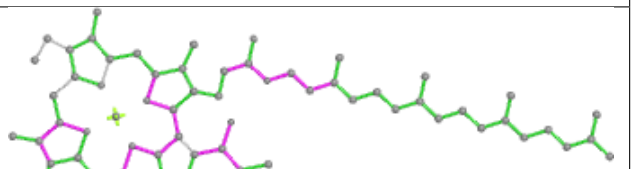


Rings

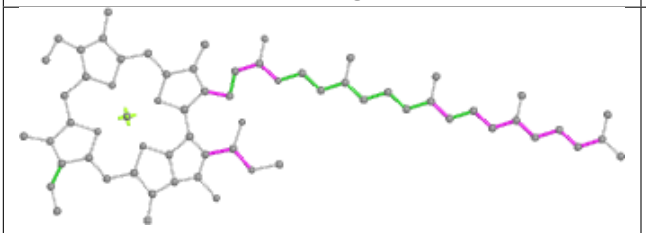
Ligand CLA B 1021



Bond lengths



Bond angles



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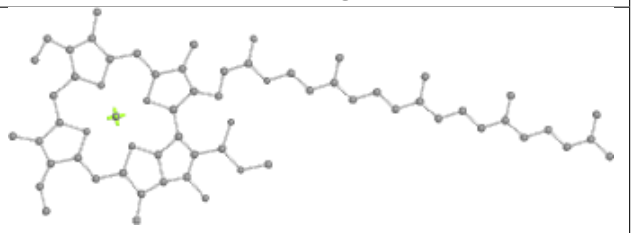
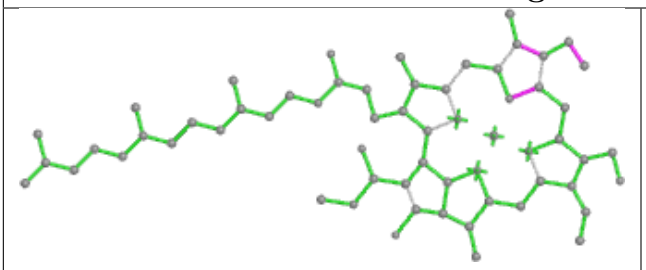
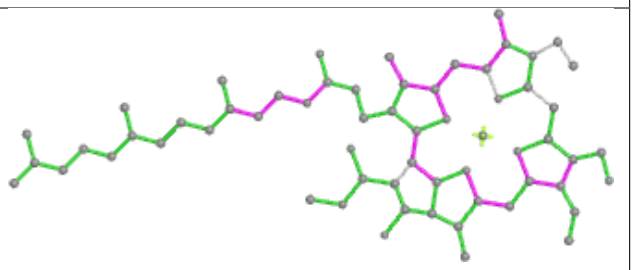


Rings

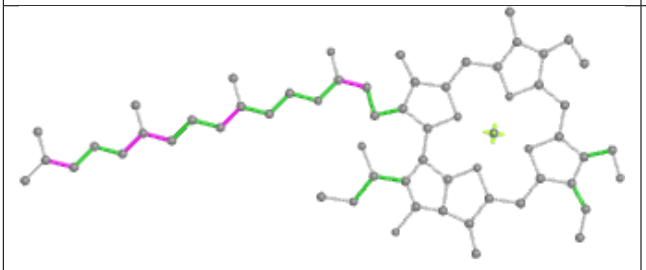
Ligand CHL 3 611



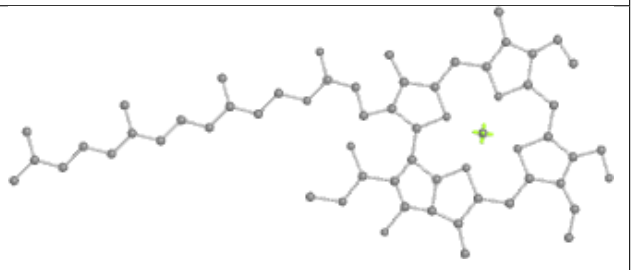
Bond lengths



Bond angles

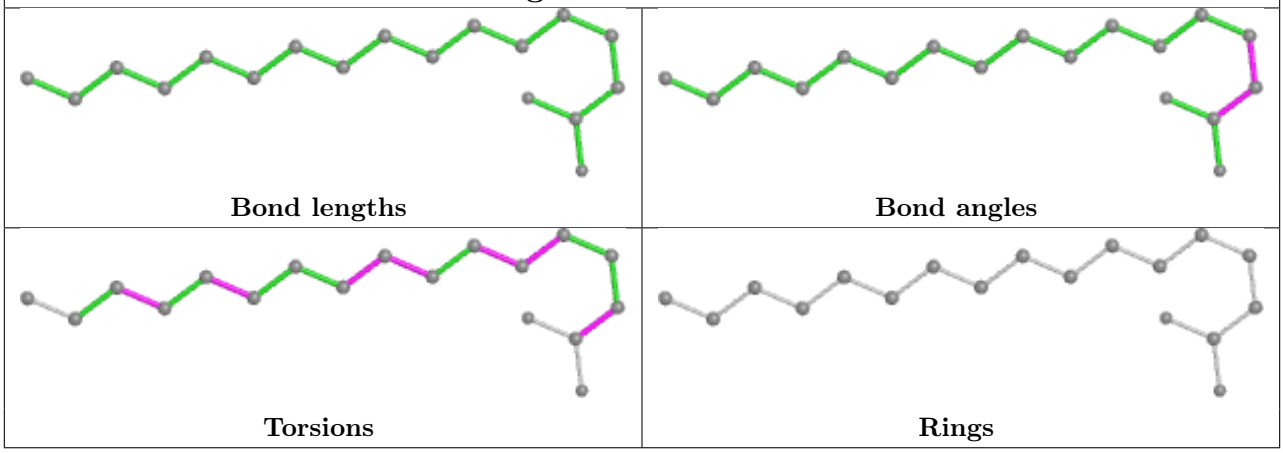


Torsions

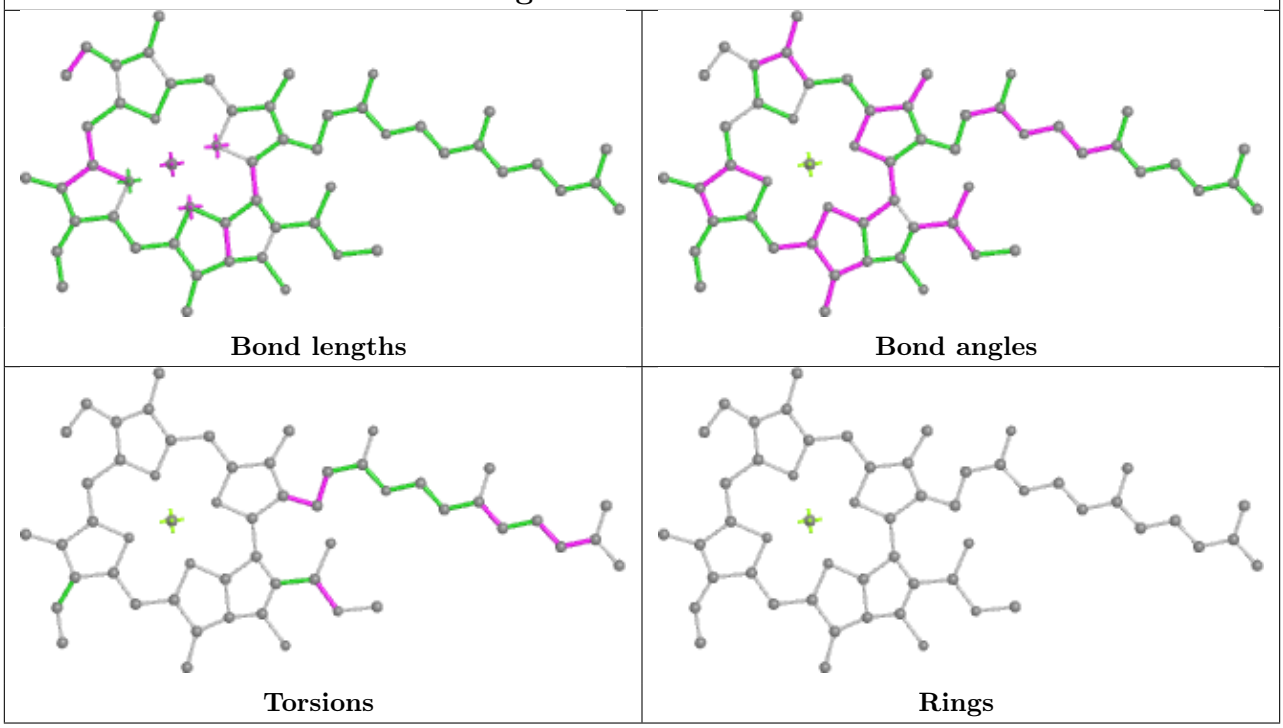


Rings

Ligand PLM 6 804



Ligand CLA A 1107



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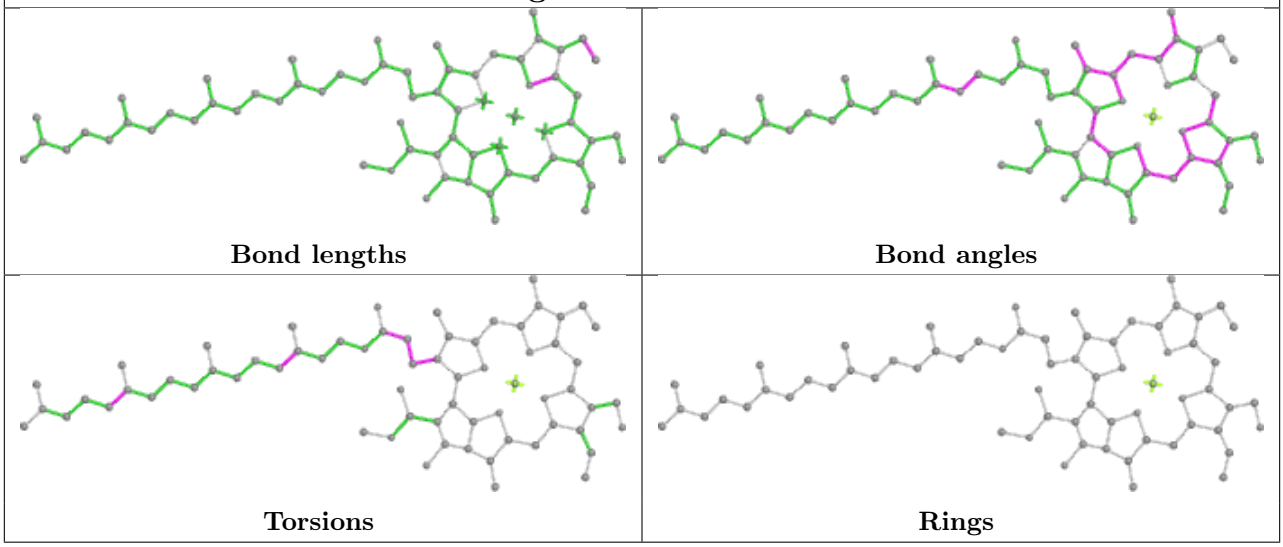

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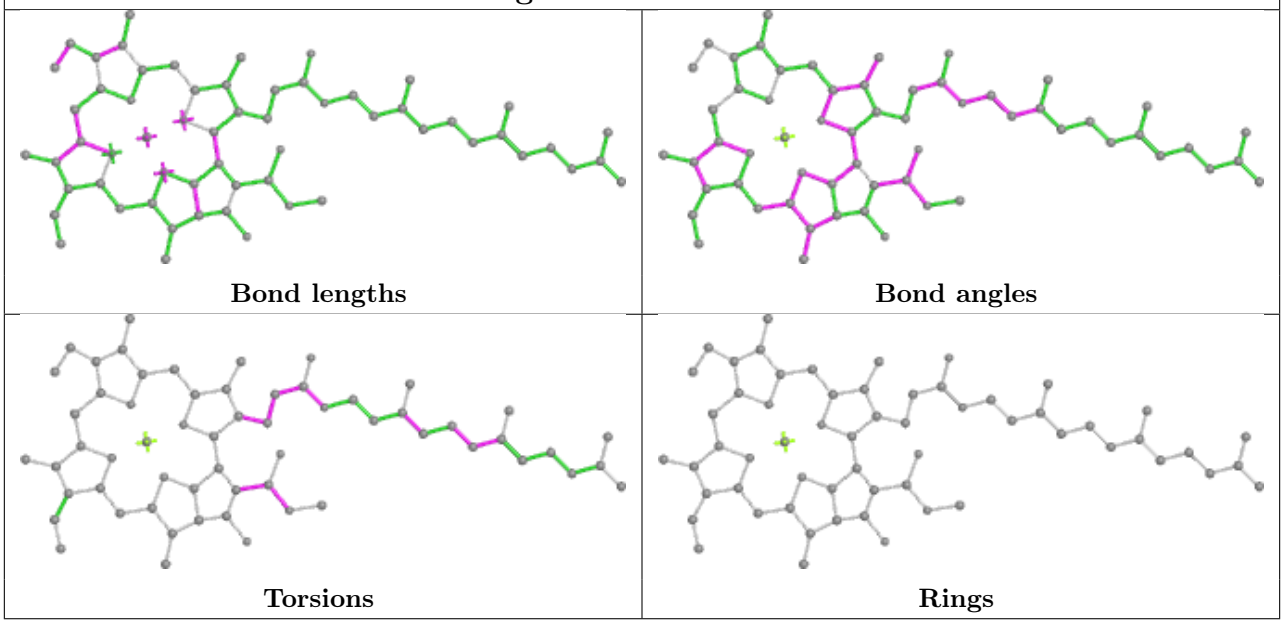
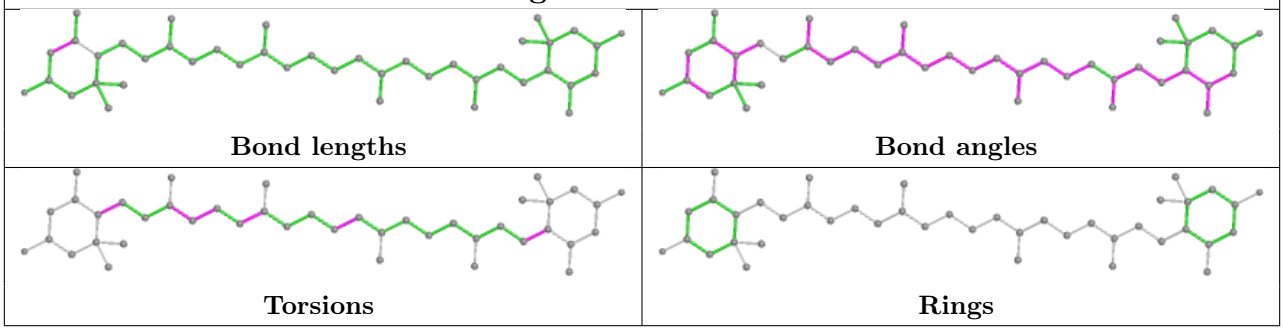


Ligand LUT 1 503



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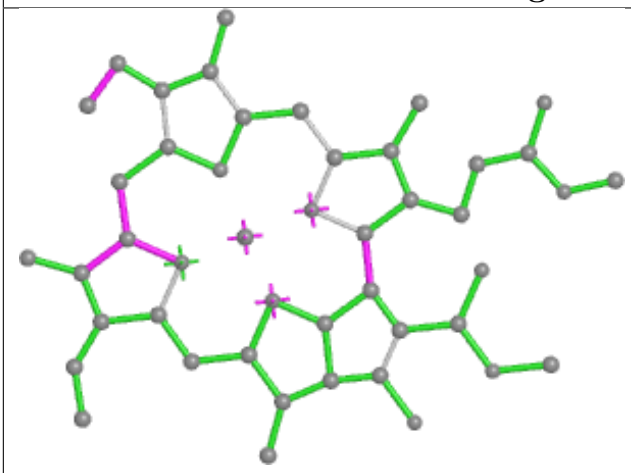
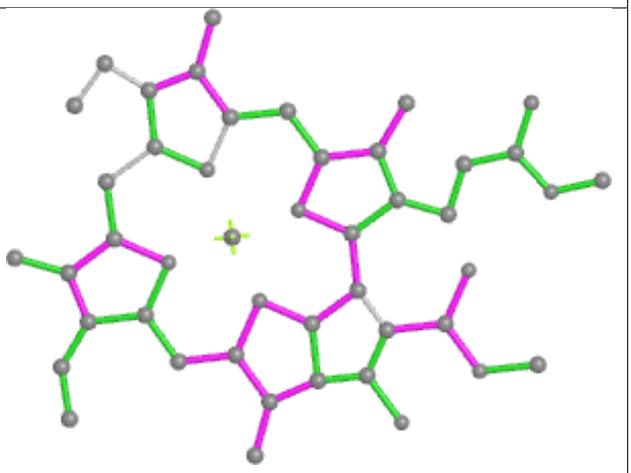
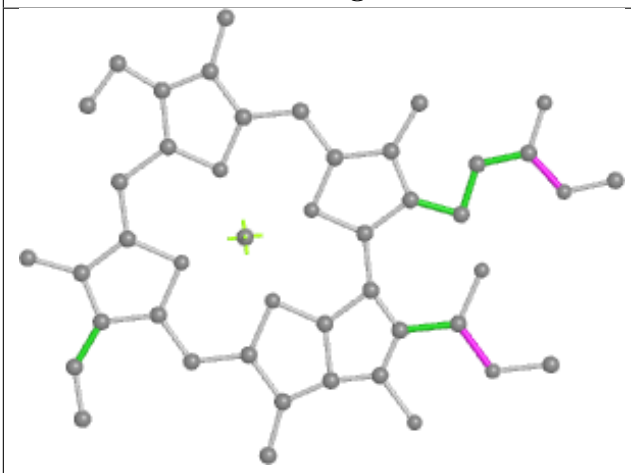


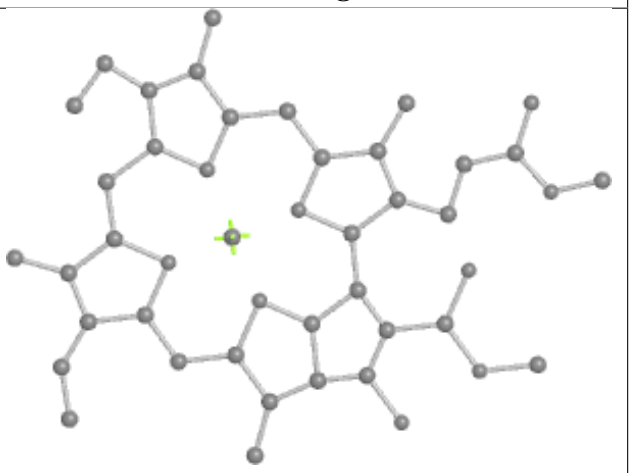
Bond lengths



Bond angles

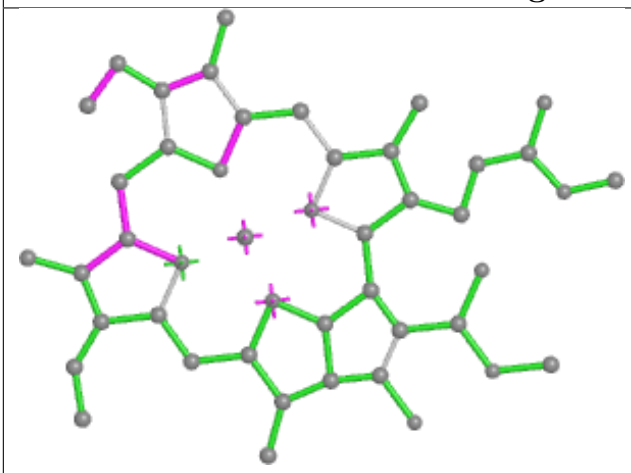


Torsions



Rings

Ligand CLA 6 618



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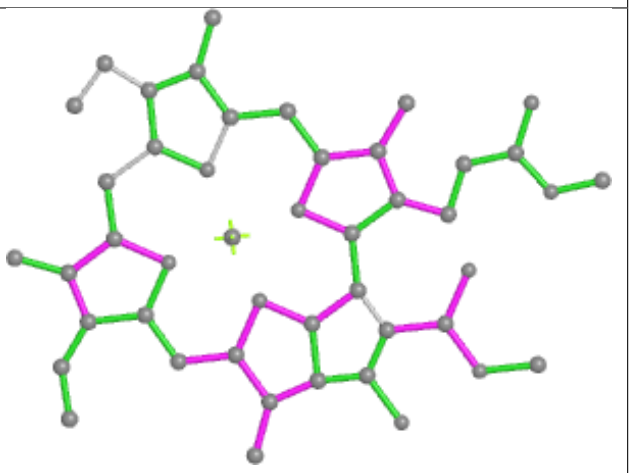
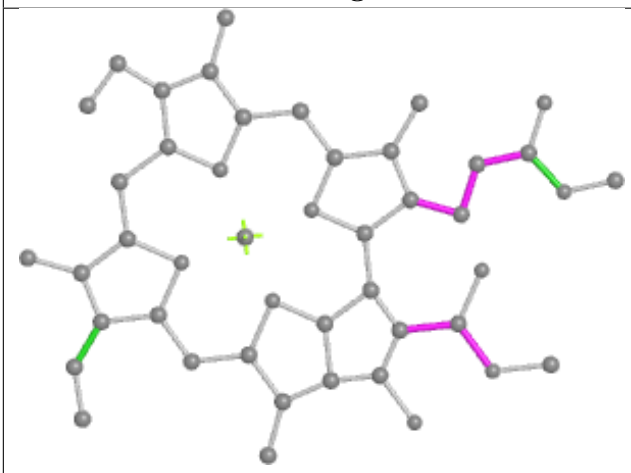
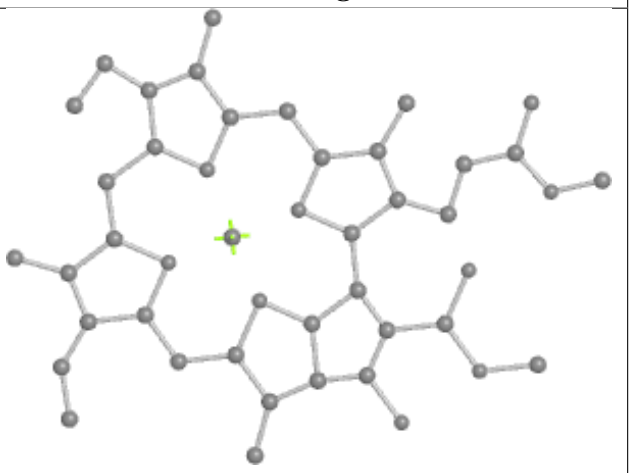


Bond angles

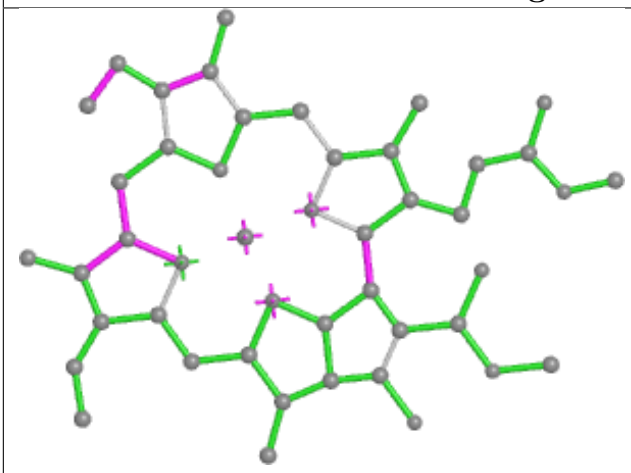


Torsions



Rings

Ligand CLA 3 618



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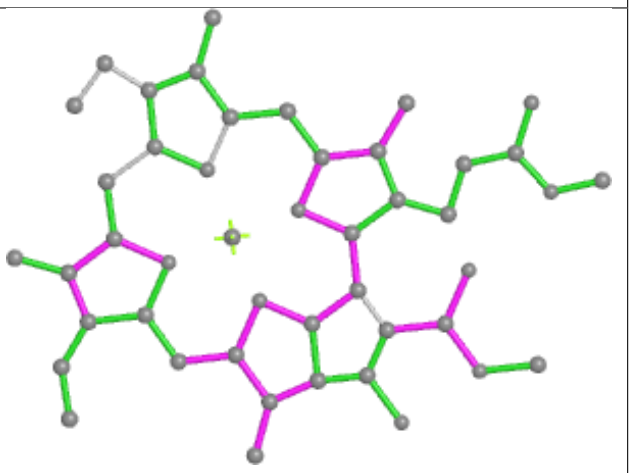
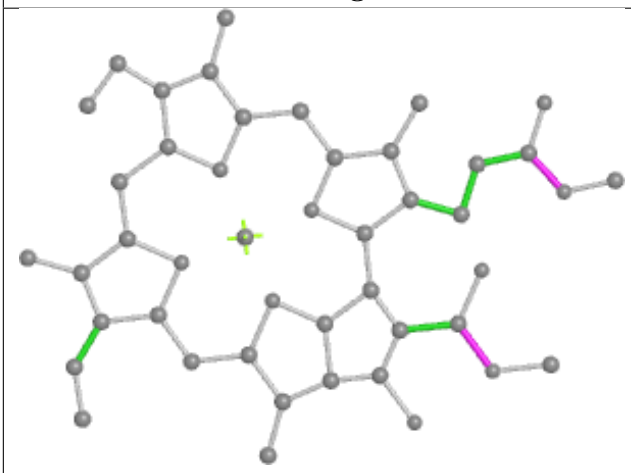
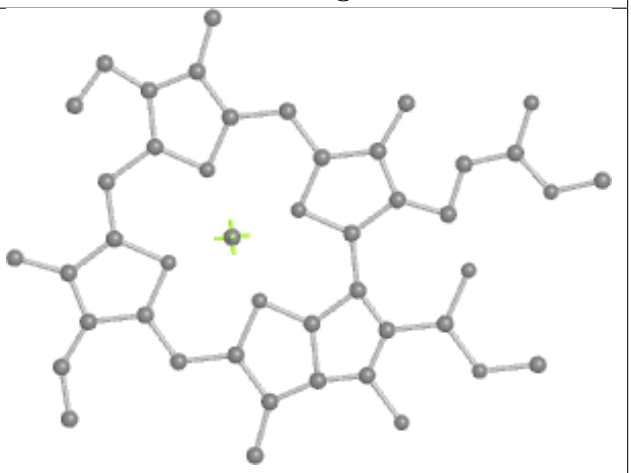


Bond angles

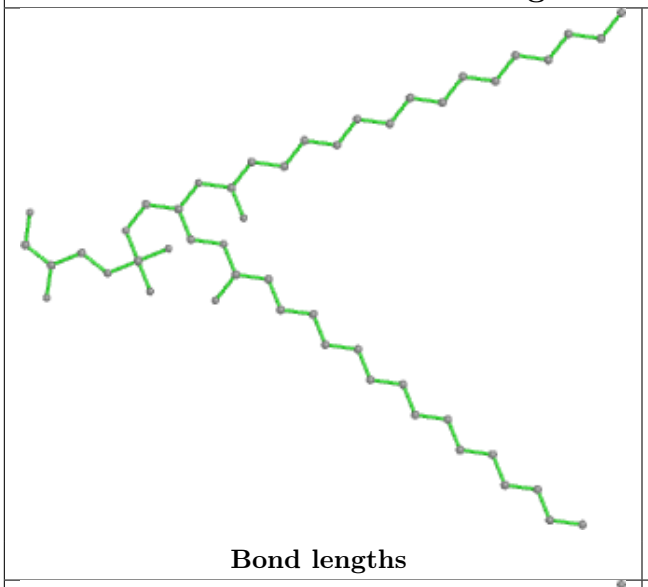


Torsions



Rings

Ligand LHG 2 802



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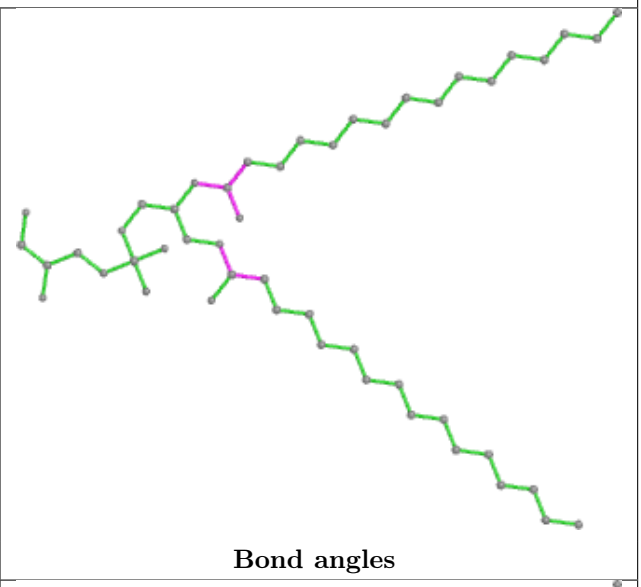
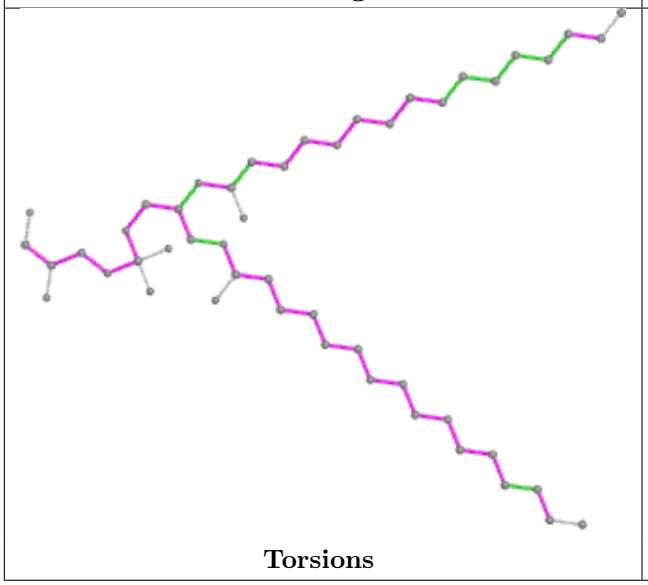


Bond angles



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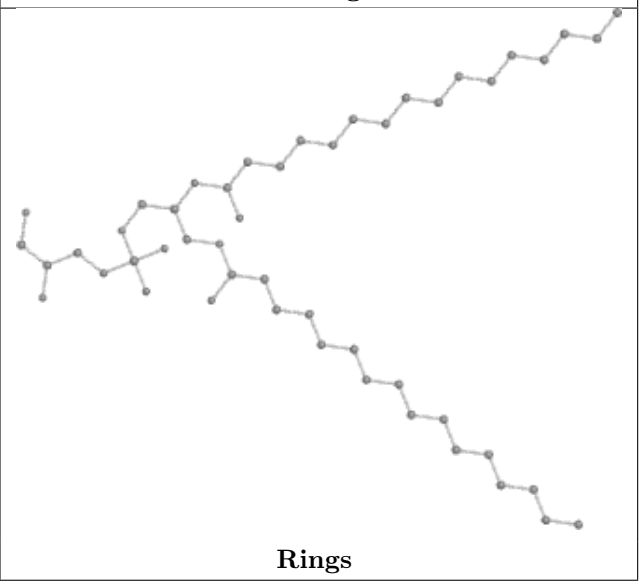
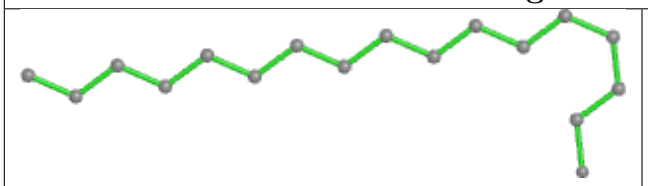


Rings

Ligand PLM 4 803



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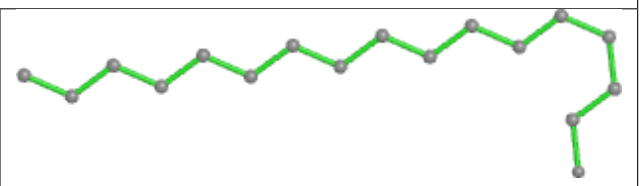
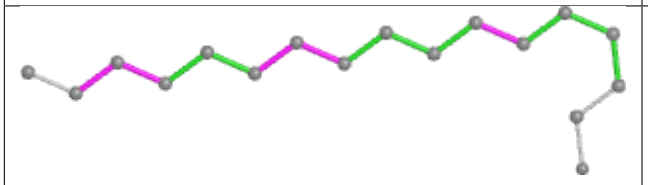
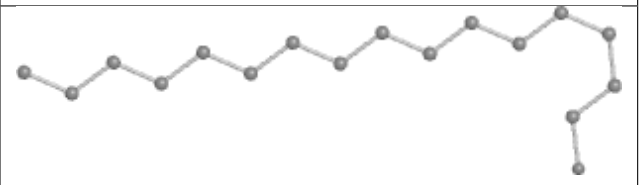


Bond angles

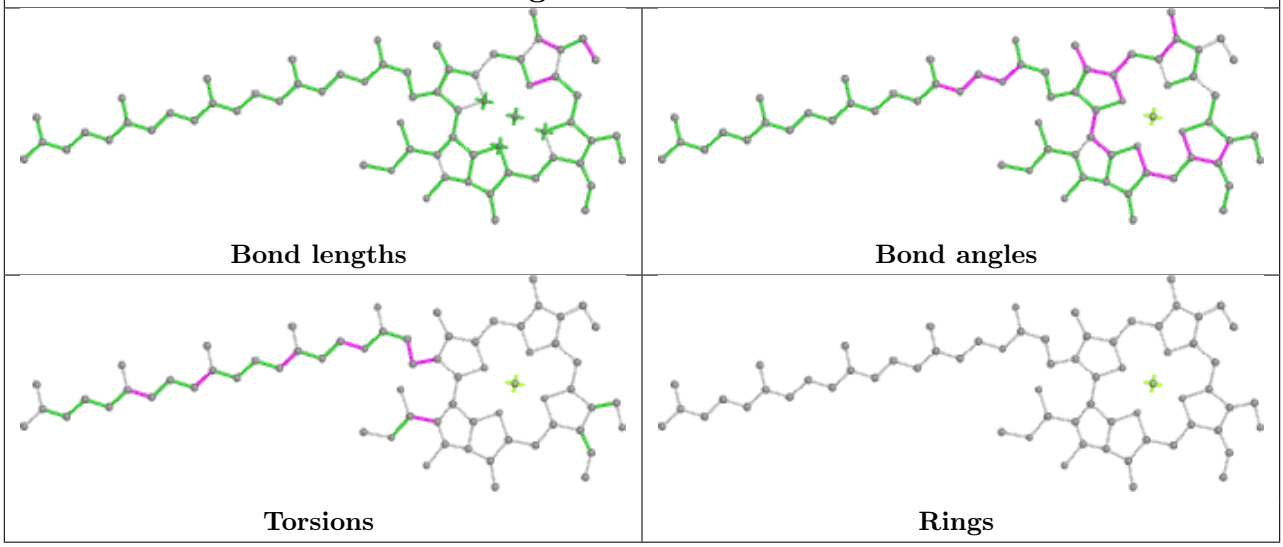


Torsions

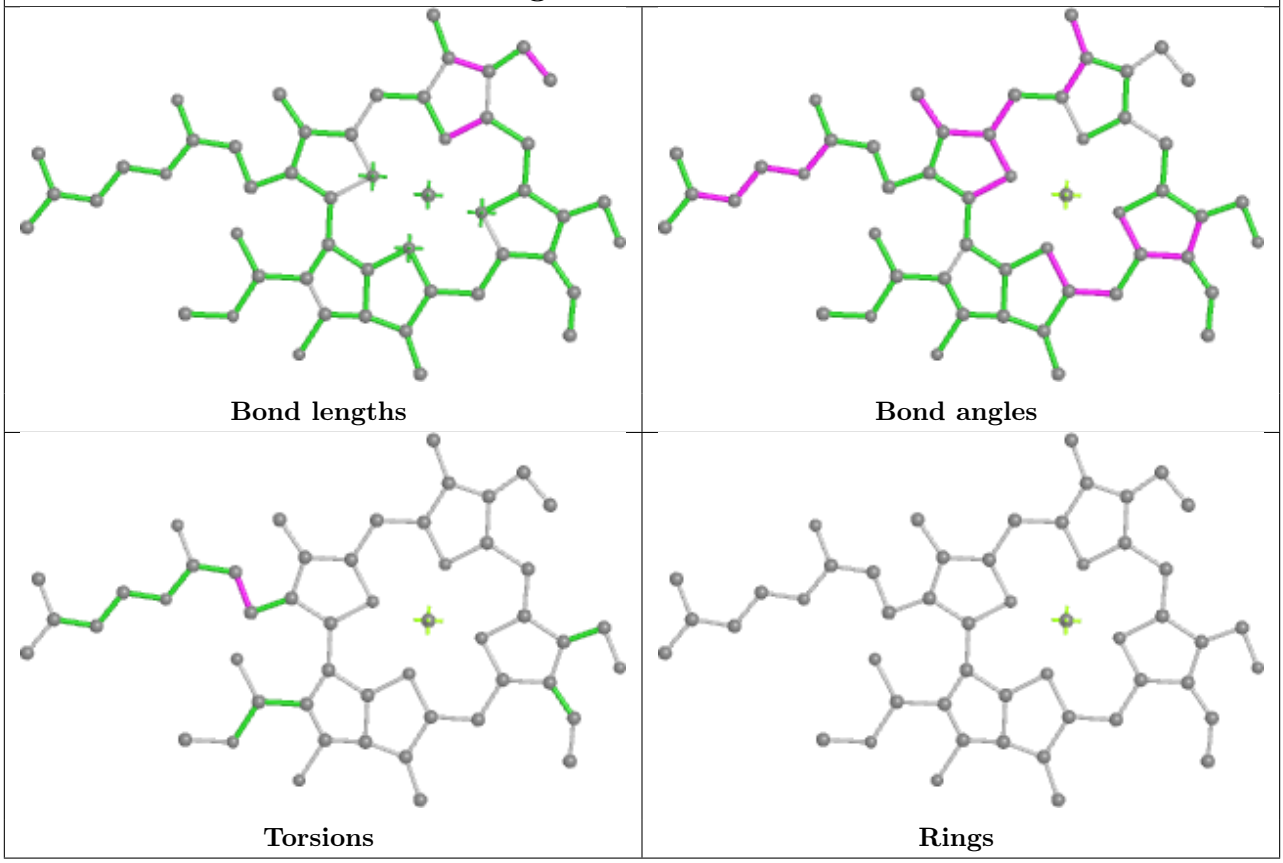


Rings

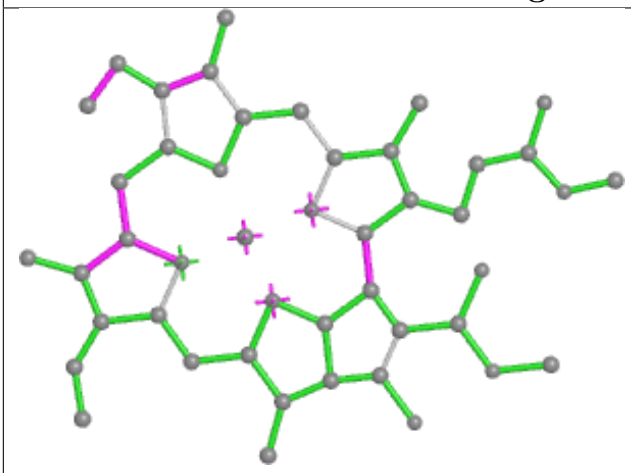
Ligand CHL 7 617



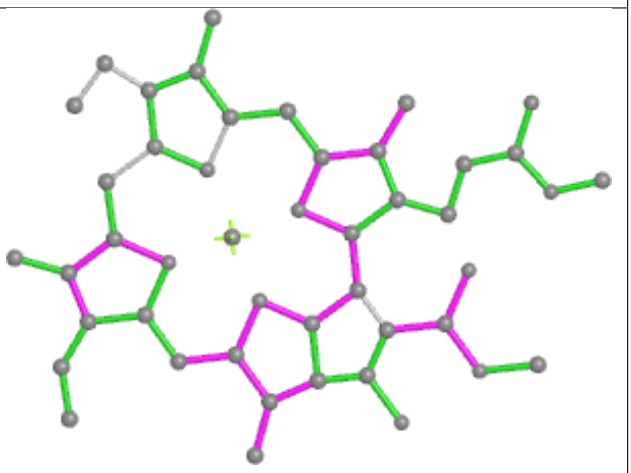
Ligand CHL 2 613



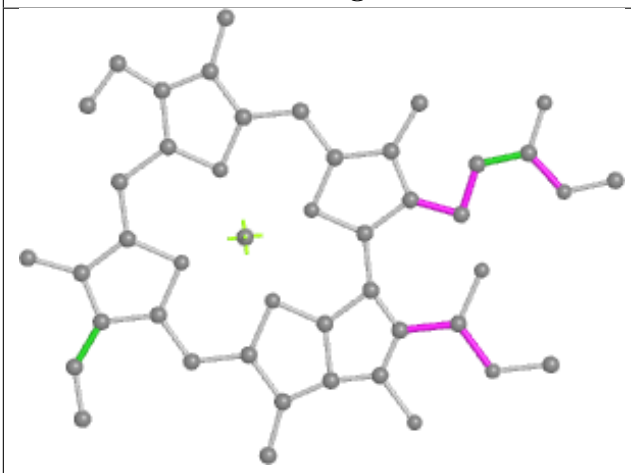
Ligand CLA 5 615



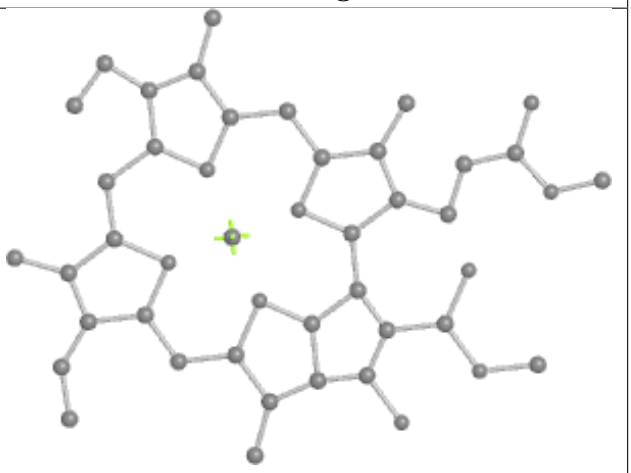
Bond lengths



Bond angles

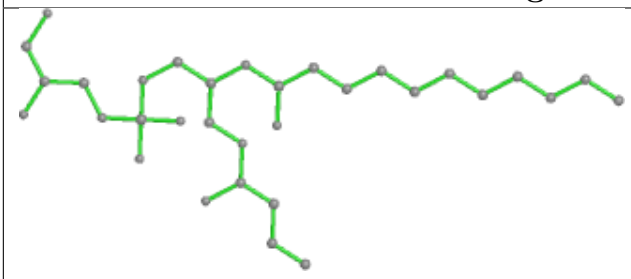


Torsions



Rings

Ligand LHG 4 802



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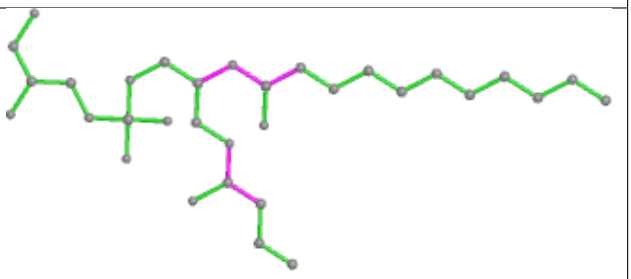
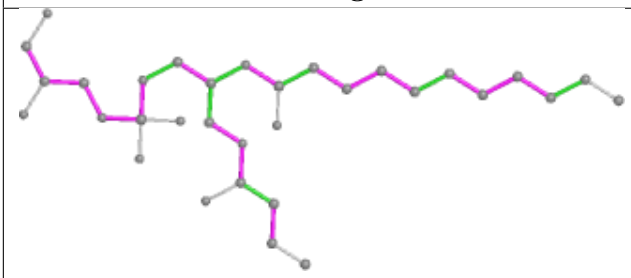
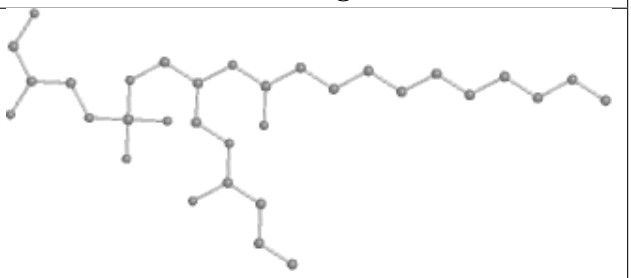


Bond angles

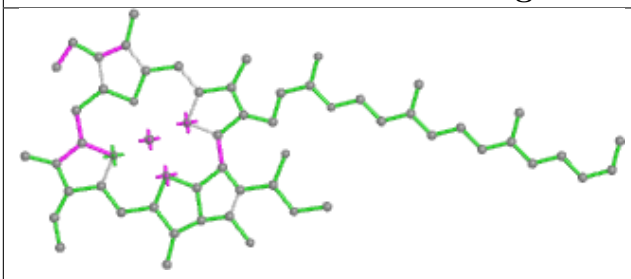


Torsions

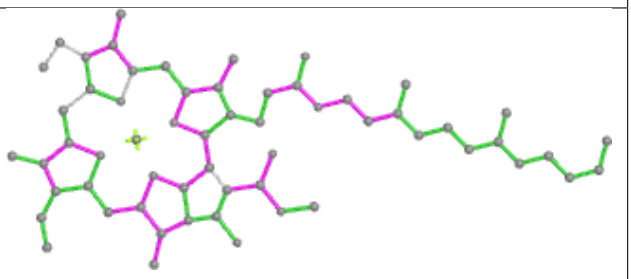


Rings

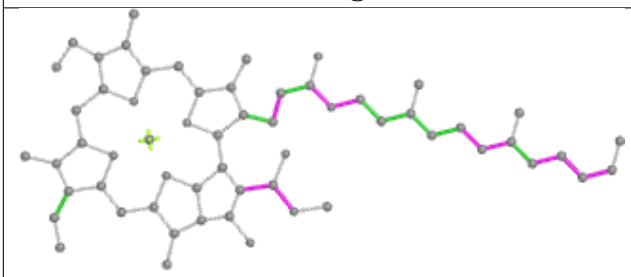
Ligand CLA B 1219



Bond lengths



Bond angles



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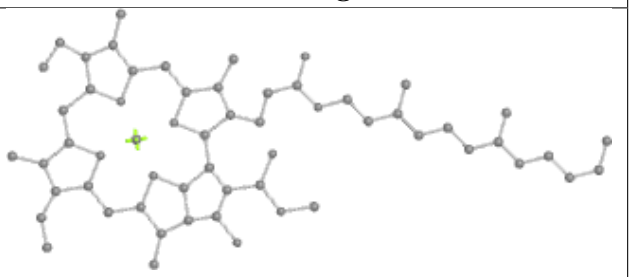
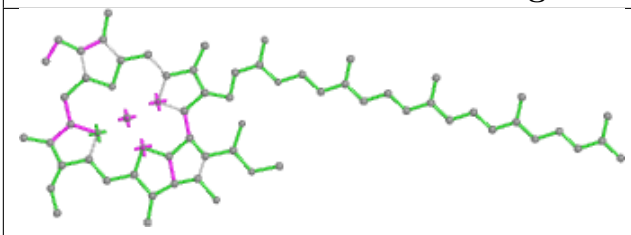


Rings

Ligand CLA 7 603



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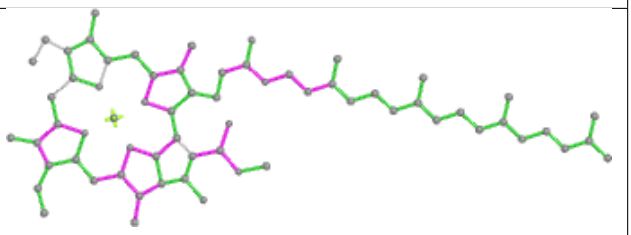
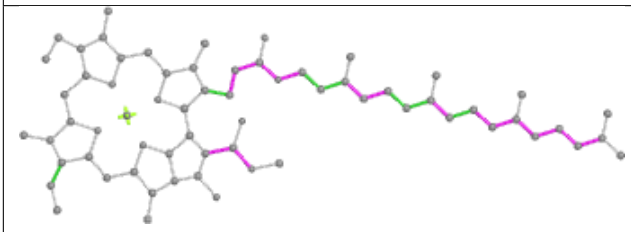
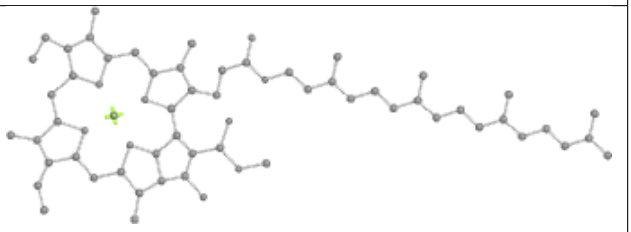


Bond angles

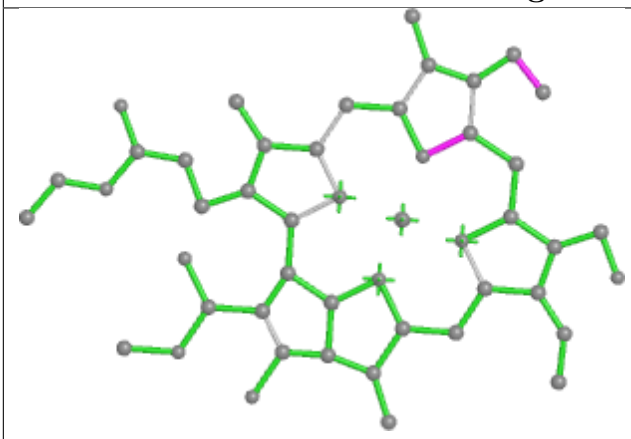


Torsions



Rings

Ligand CHL 1 610



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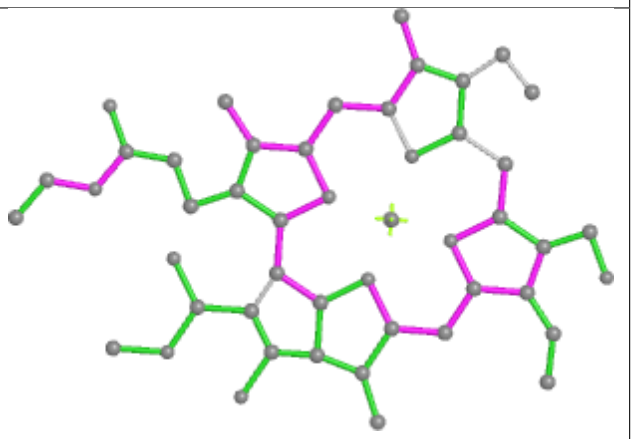
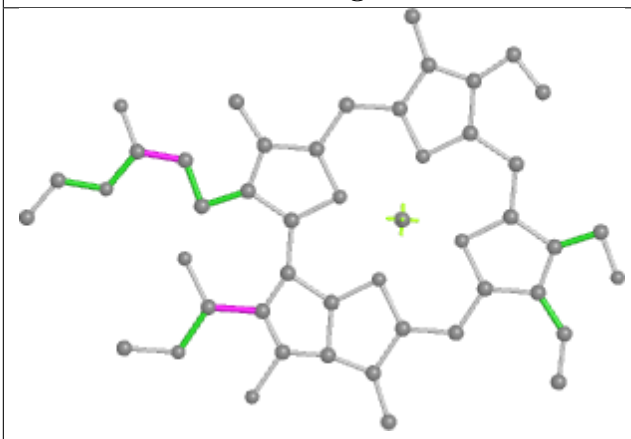
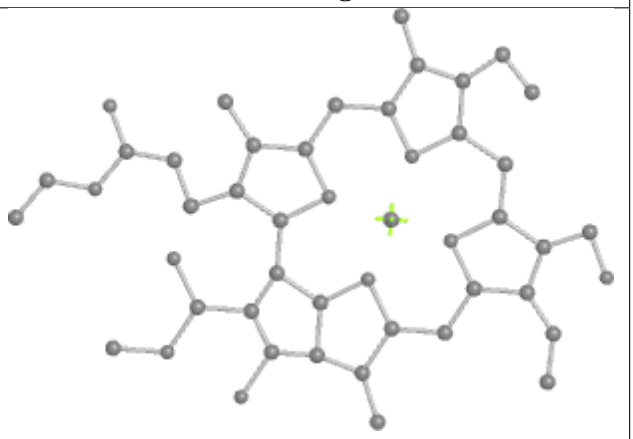


Bond angles

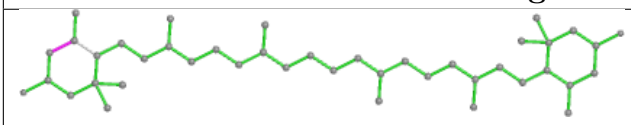


Torsions



Rings

Ligand LUT 6 501



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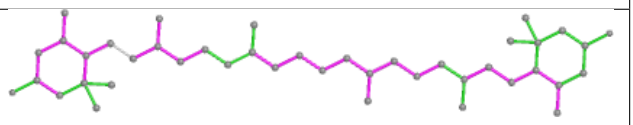
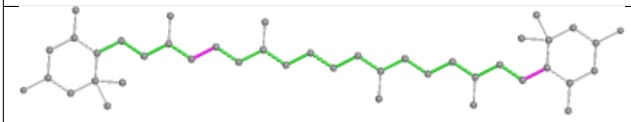


Bond angles



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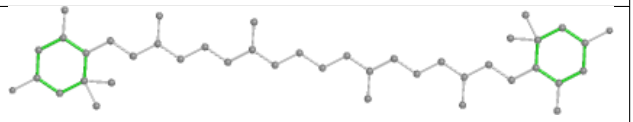
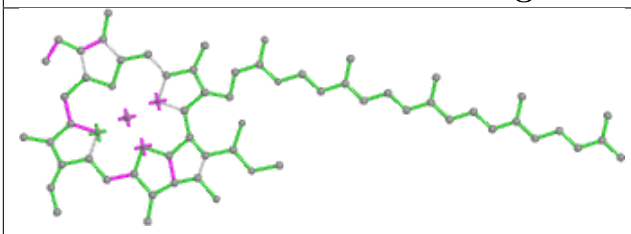


Rings

Ligand CLA B 1226



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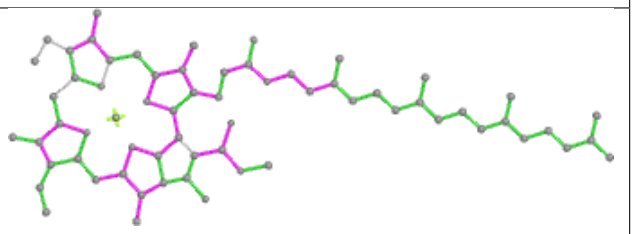
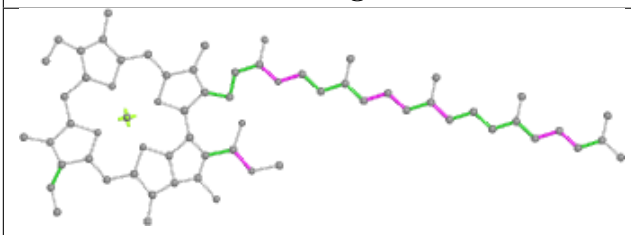


Bond angles



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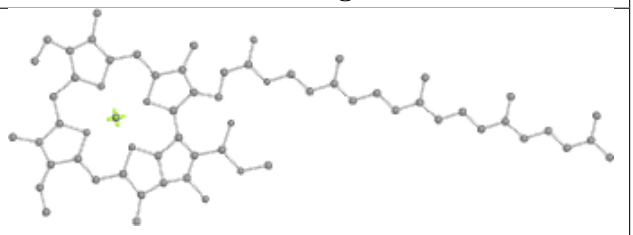
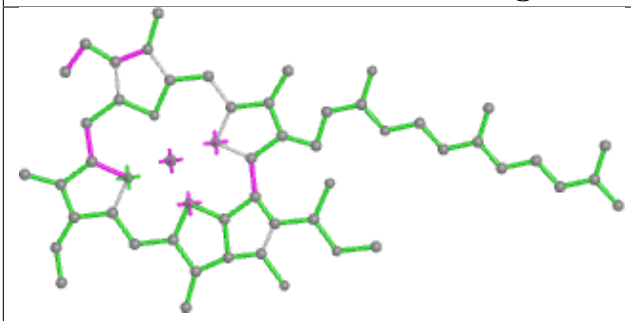


Rings

Ligand CLA H 1701



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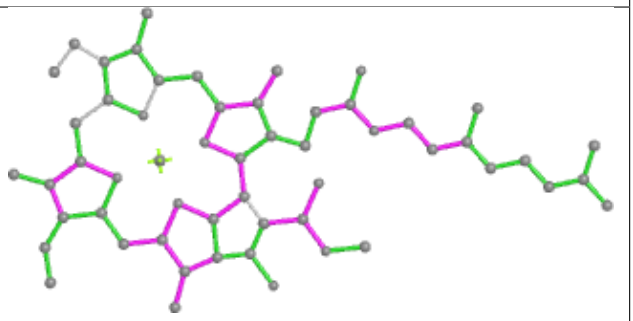
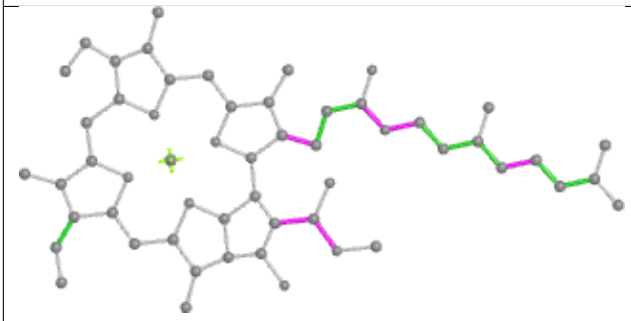


Bond angles



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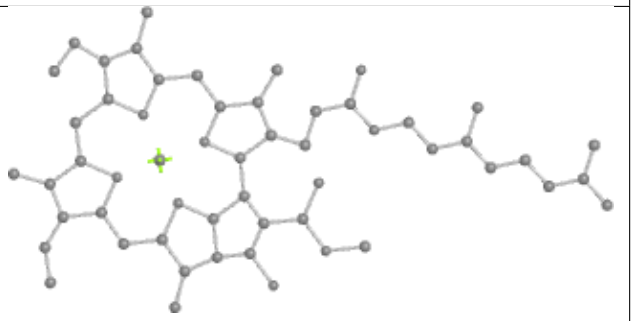
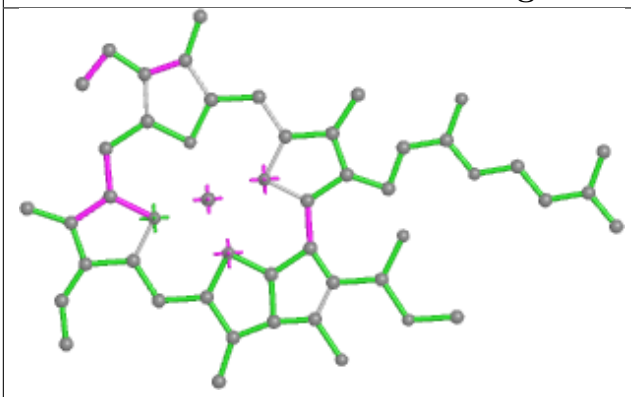


Rings

Ligand CLA L 1501



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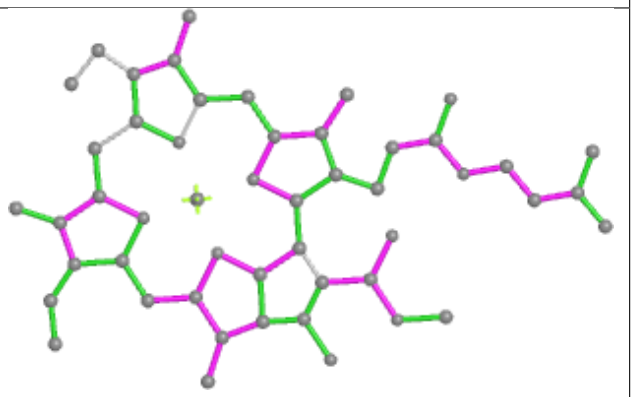
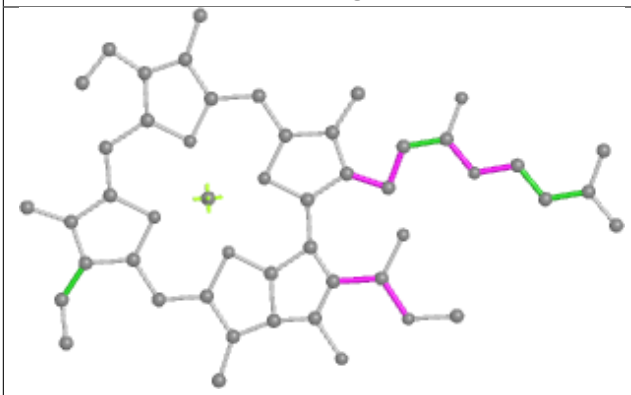


Bond angles



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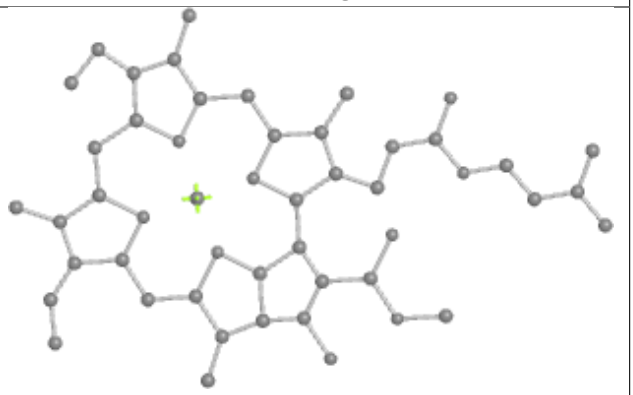
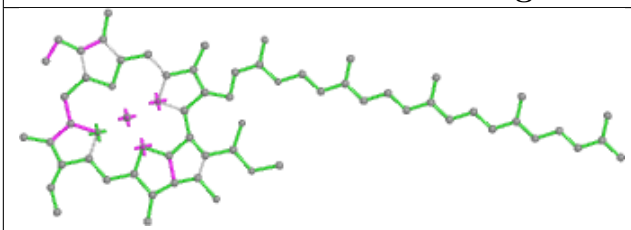


Rings

Ligand CLA B 1209



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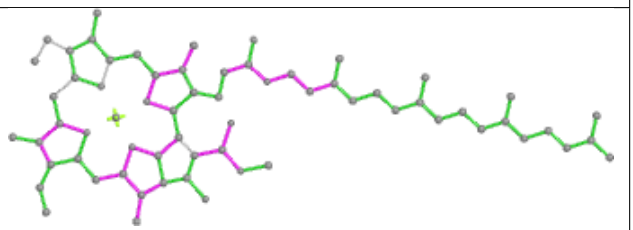
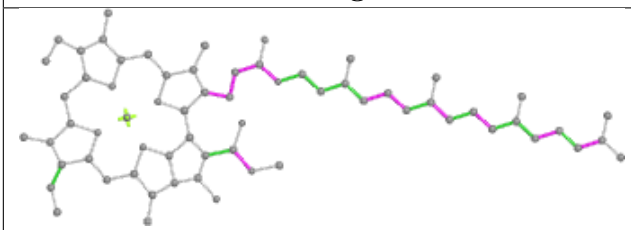


Bond angles



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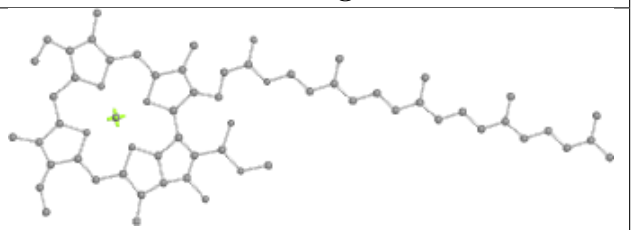
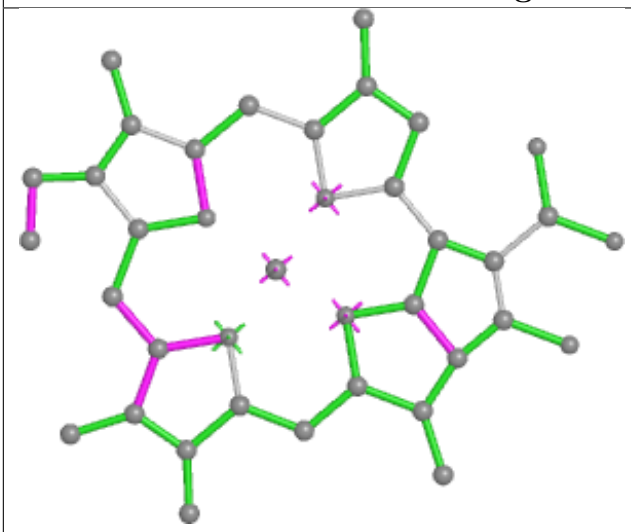


Rings

Ligand CLA O 1801



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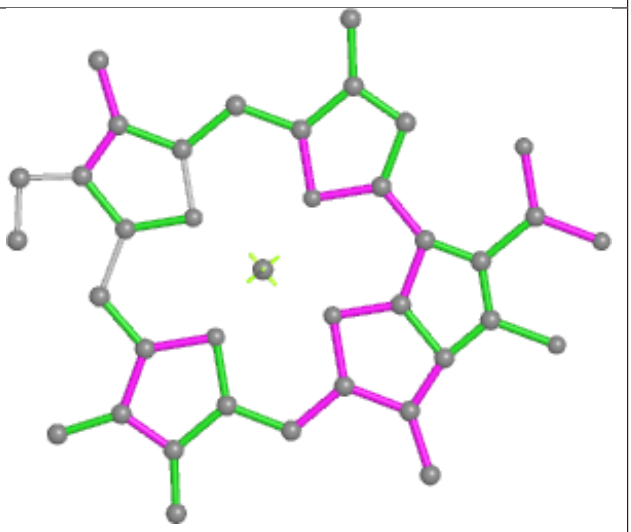
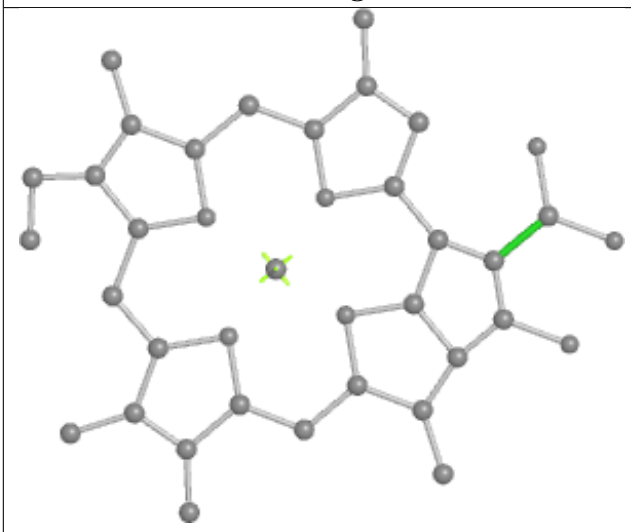


Bond angles



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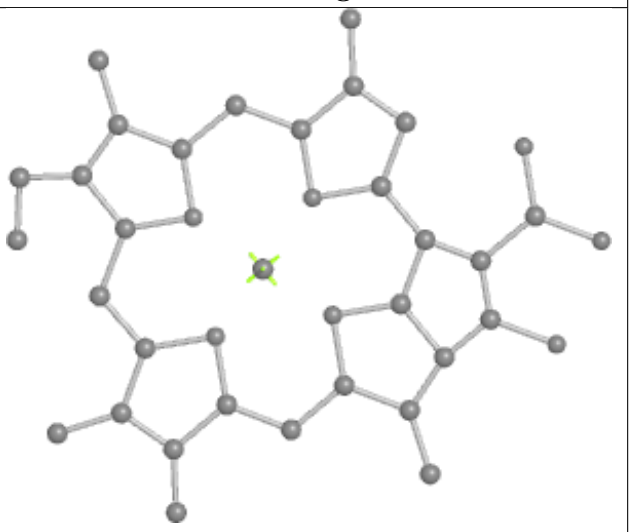
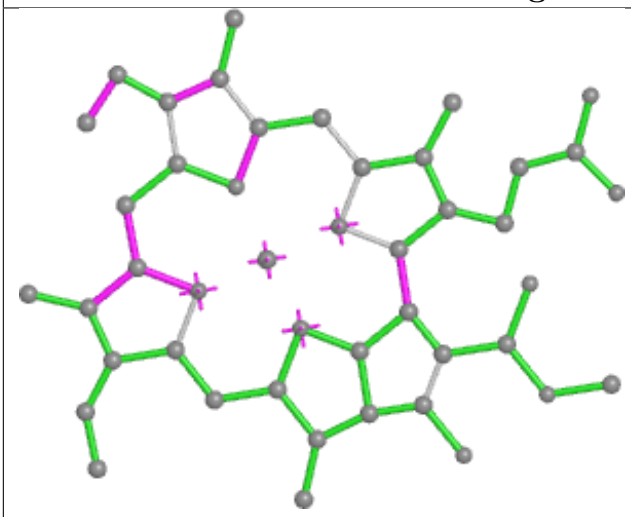


Rings

Ligand CLA 8 620



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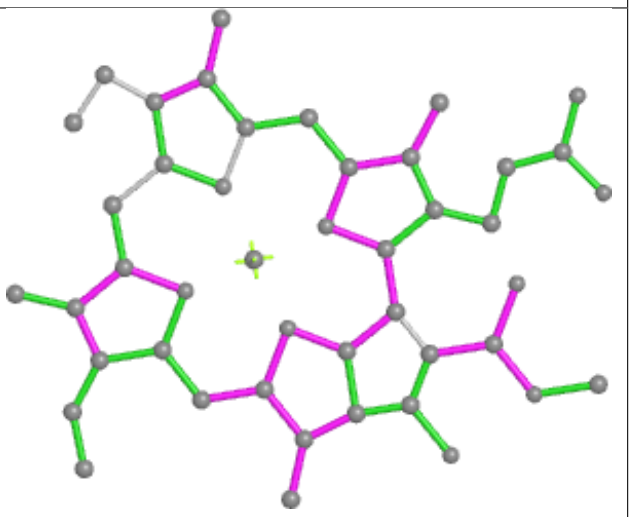
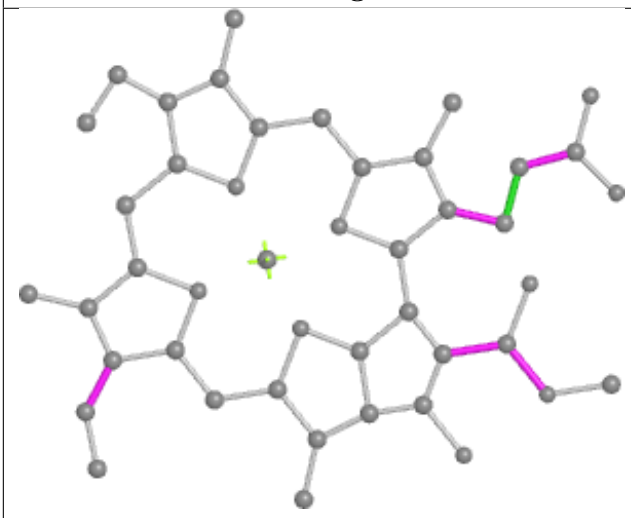


Bond angles



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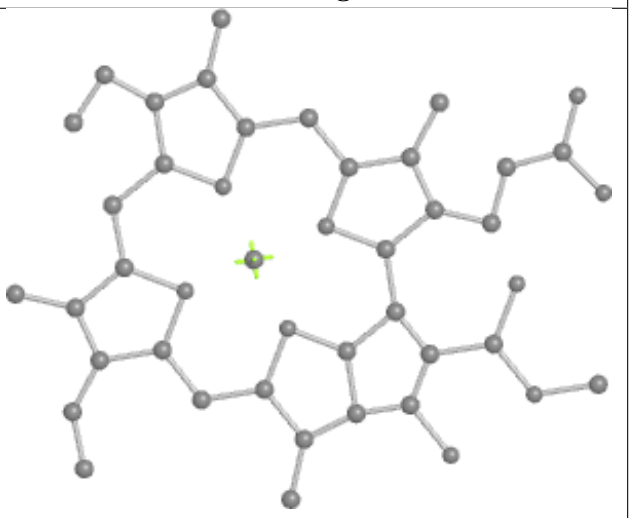
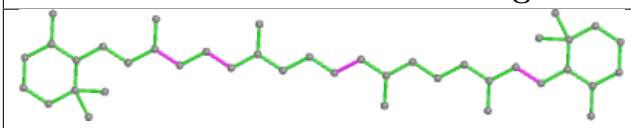


Rings

Ligand BCR A 4004



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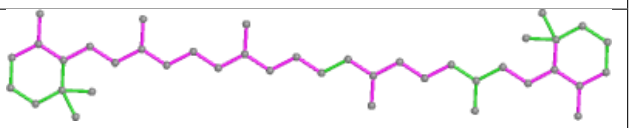
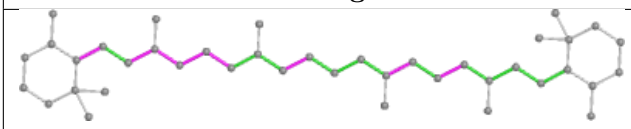


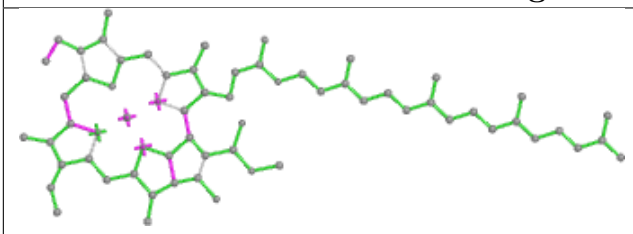
Bond angles



Torsions

Rings

Ligand CLA 3 605



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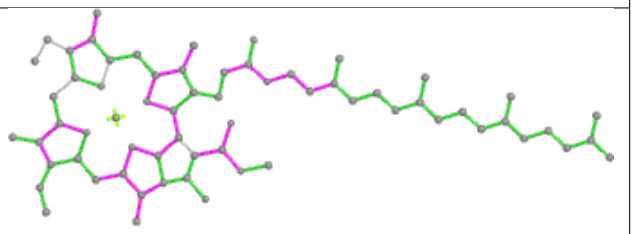
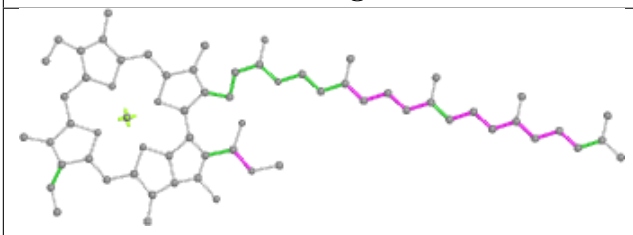


Bond angles



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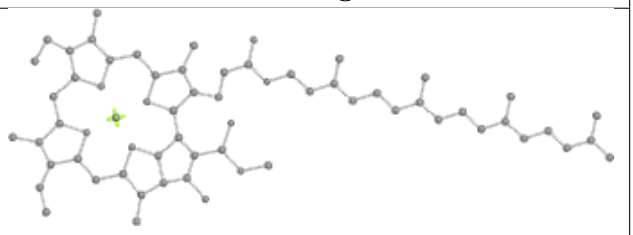
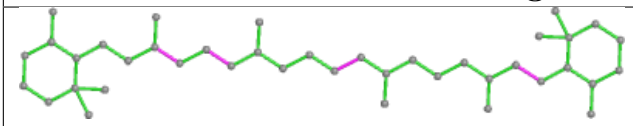
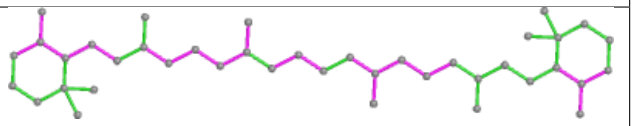


Rings

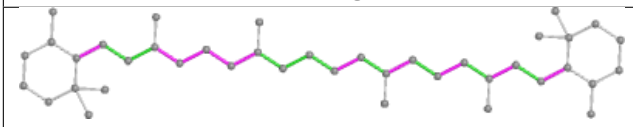
Ligand BCR 6 503



Bond lengths



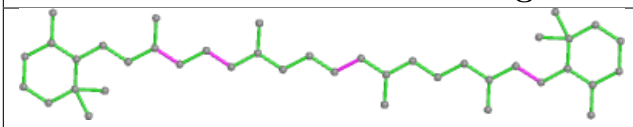
Bond angles



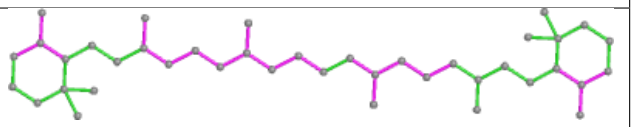
Torsions

Rings

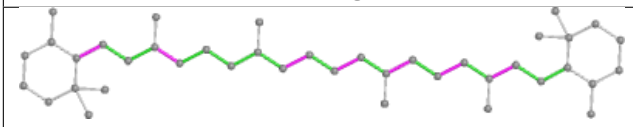
Ligand BCR L 4002



Bond lengths



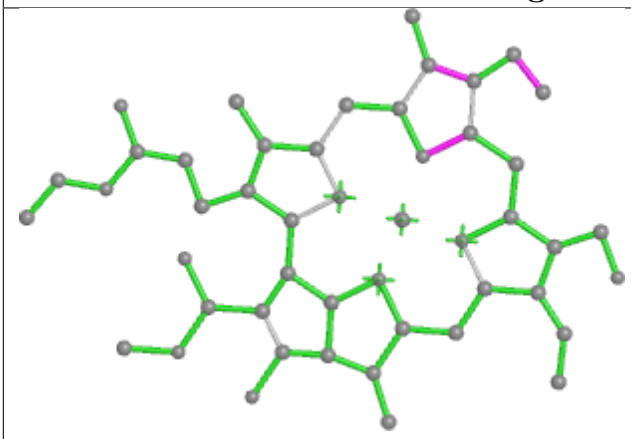
Bond angles



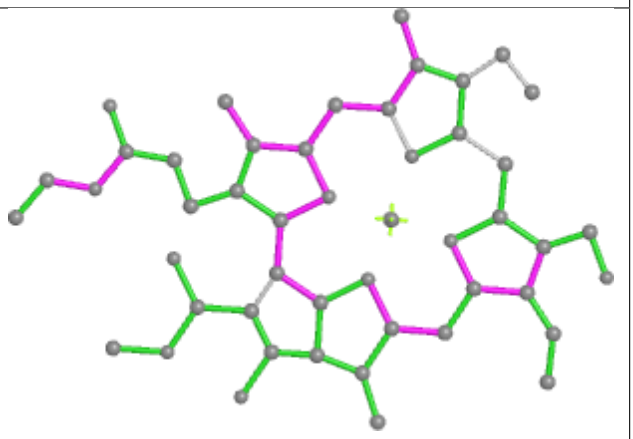
Torsions

Rings

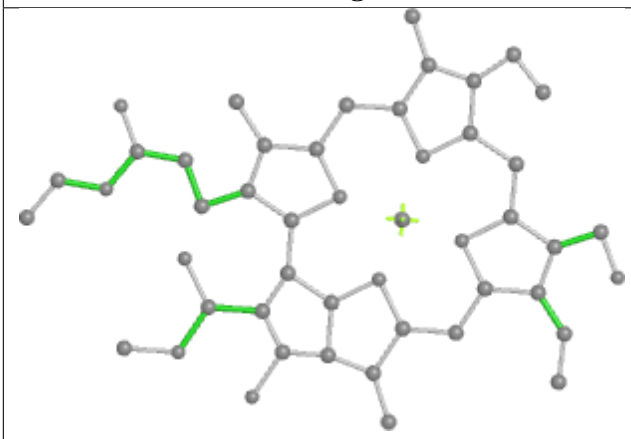
Ligand CHL 2 610



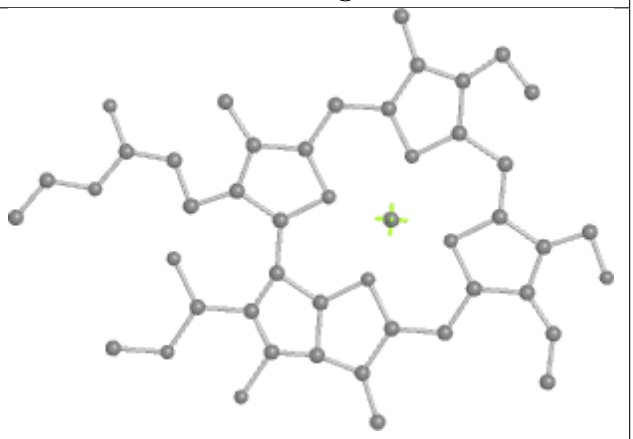
Bond lengths



Bond angles

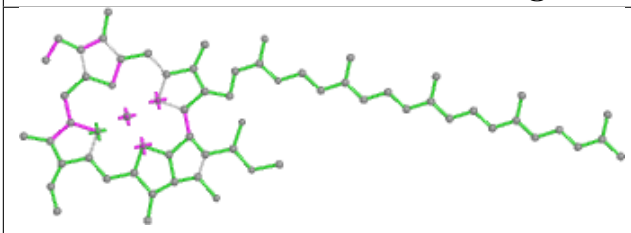


Torsions



Rings

Ligand CLA 6 606



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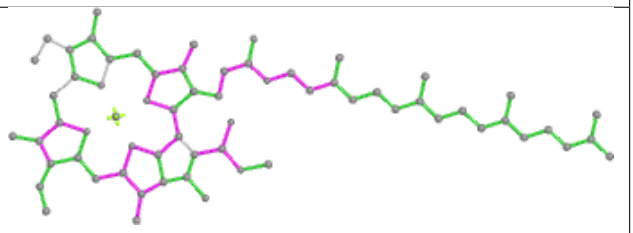
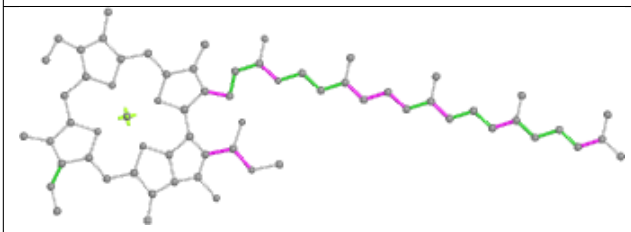


Bond angles



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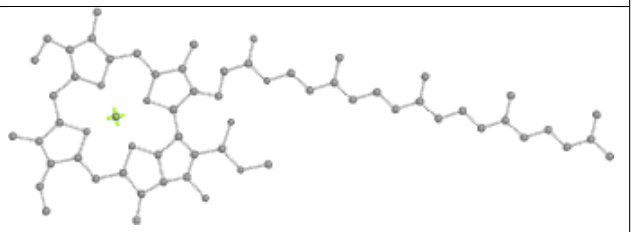
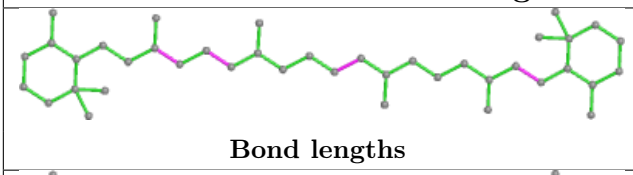


Rings

Ligand BCR A 4003



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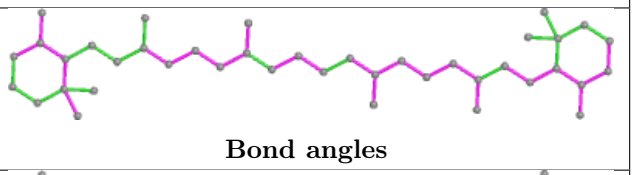
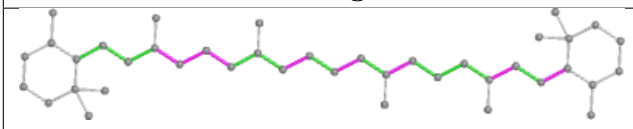
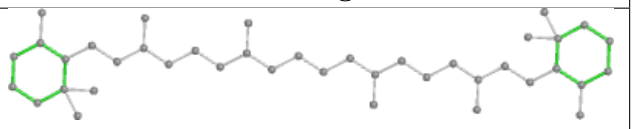


Bond angles

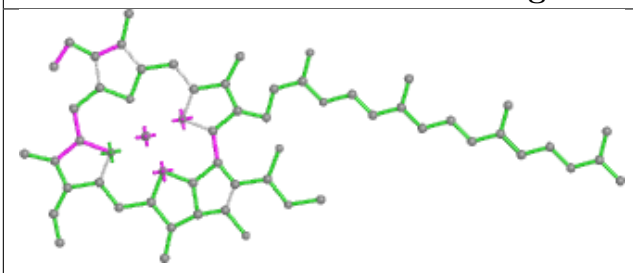


Torsions



Rings

Ligand CLA 6 601



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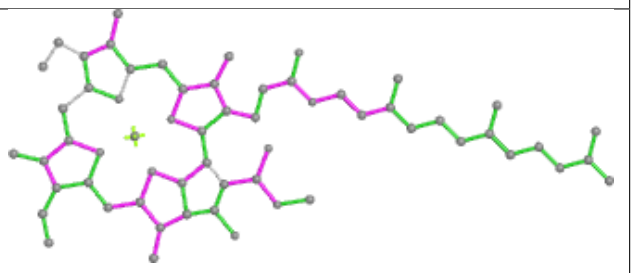
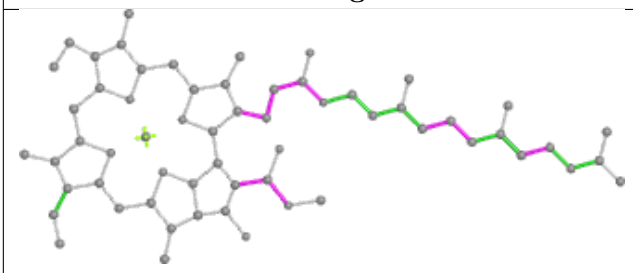
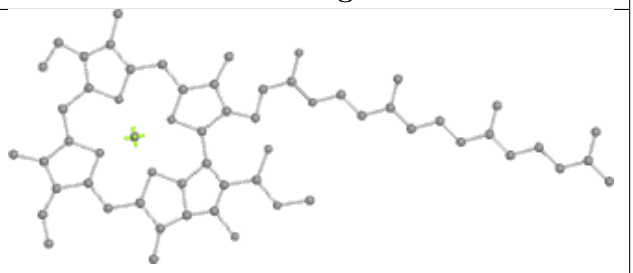


Bond angles

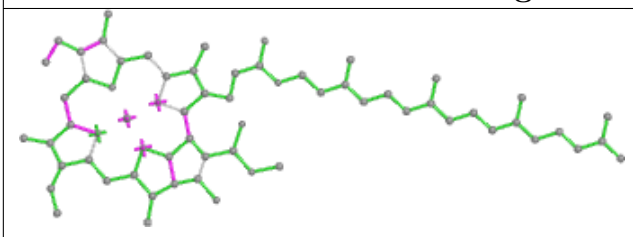


Torsions



Rings

Ligand CLA A 1132



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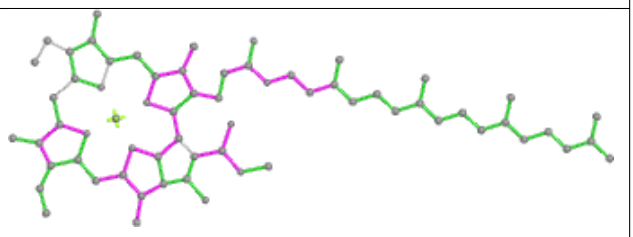
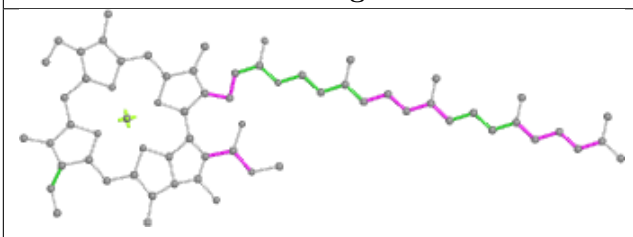


Bond angles



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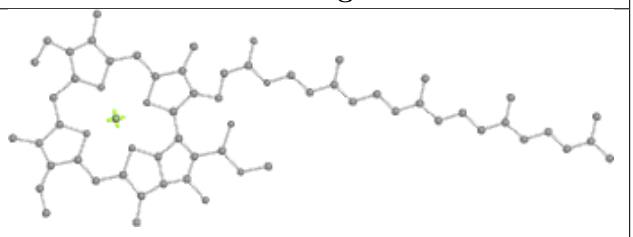
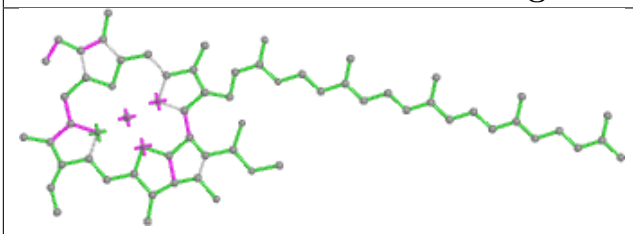


Rings

Ligand CLA 1 605



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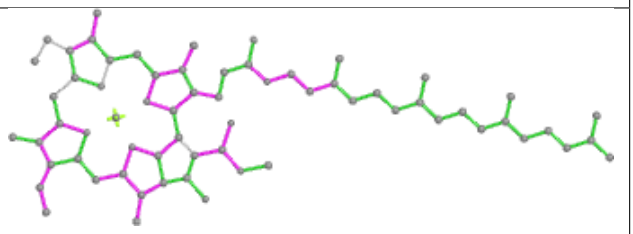
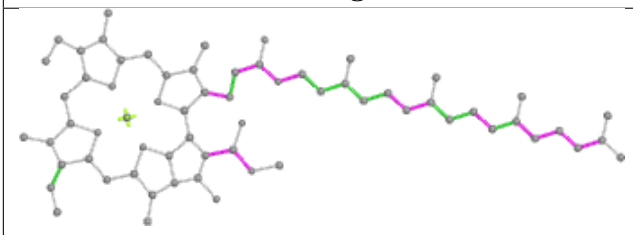


Bond angles



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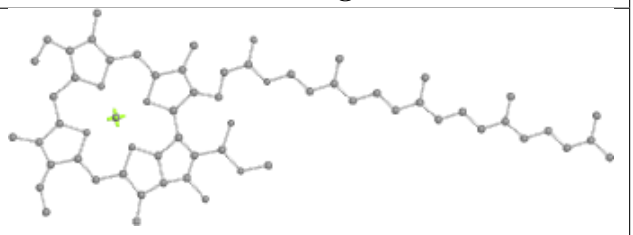
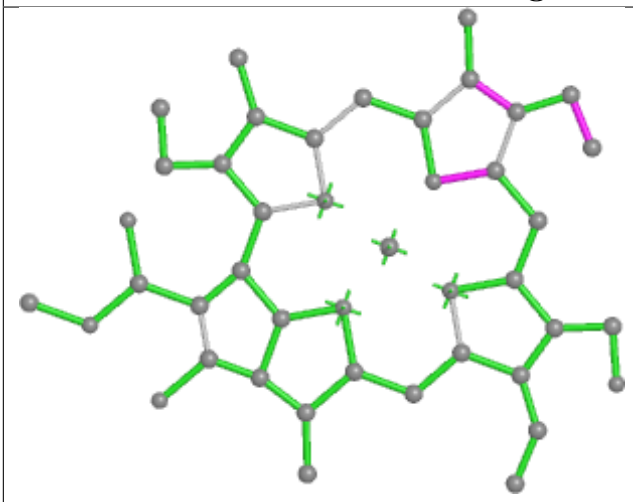


Rings

Ligand CHL 6 617



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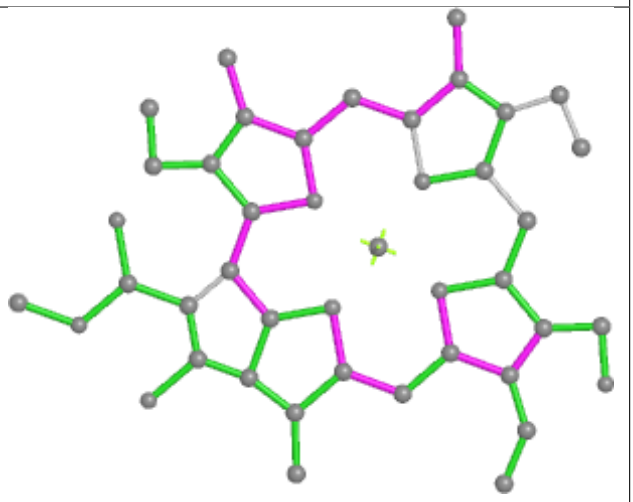
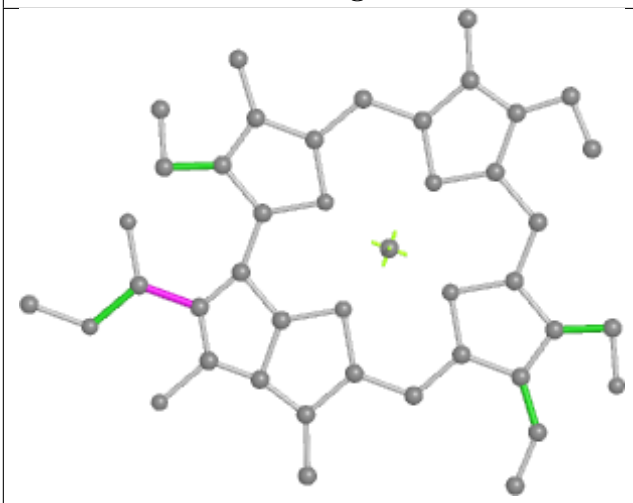


Bond angles



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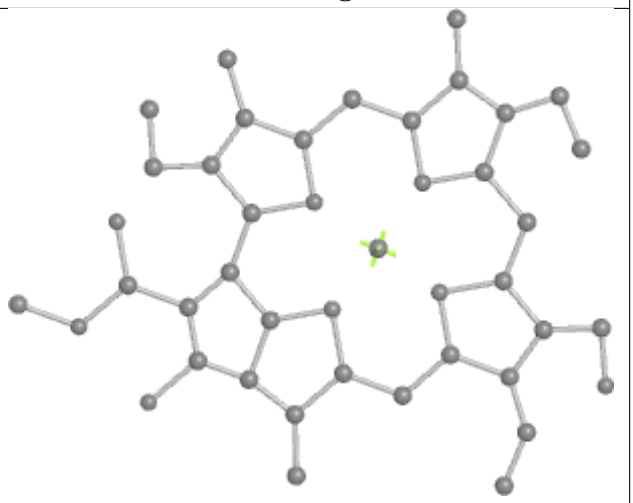
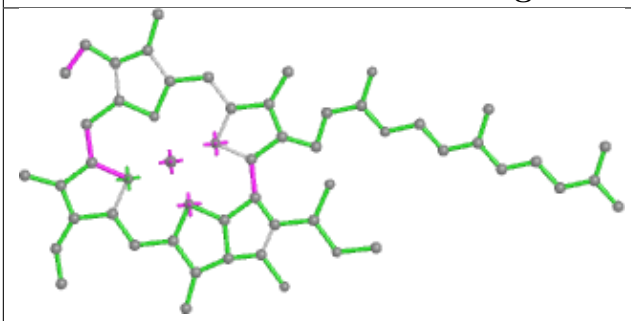


Rings

Ligand CLA A 1102



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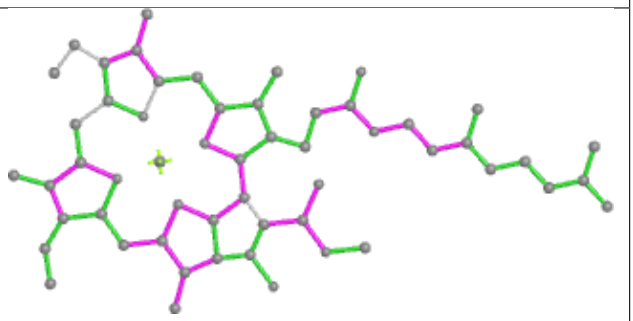

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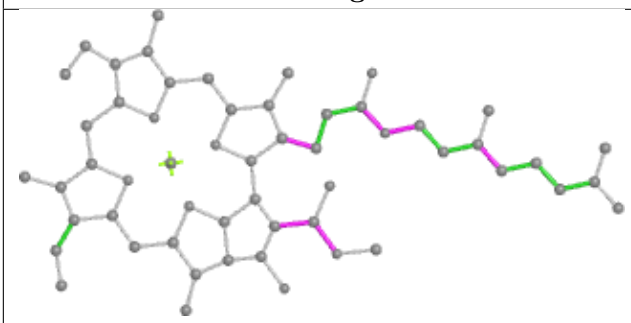

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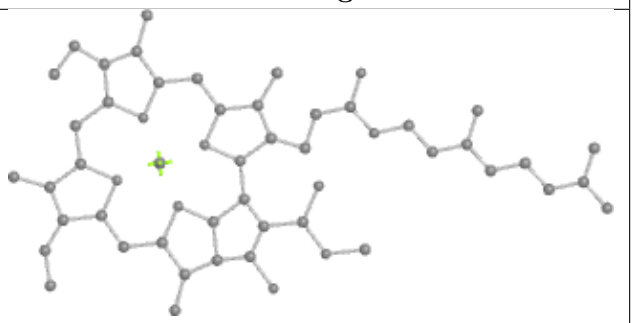
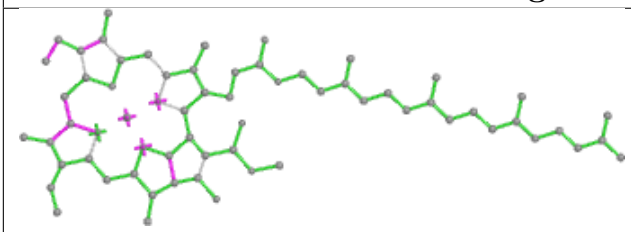


Rings

Ligand CLA 6 604



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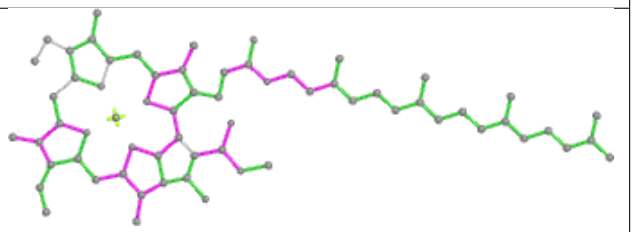
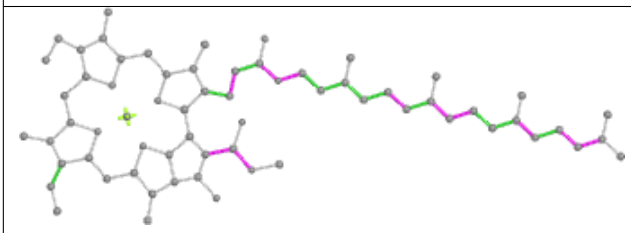


Bond angles



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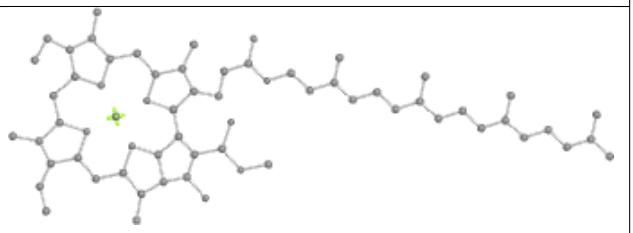
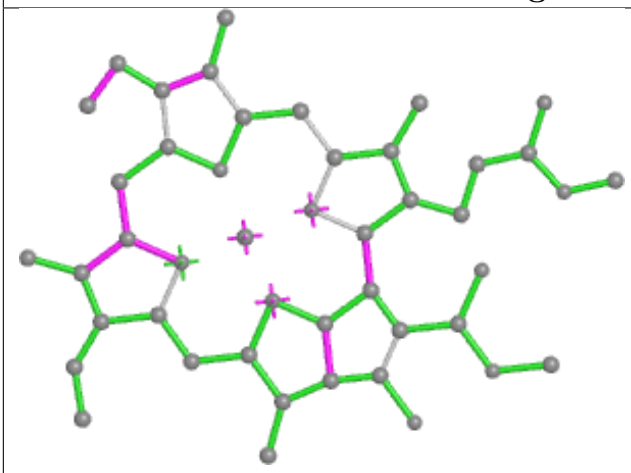


Rings

Ligand CLA 6 605



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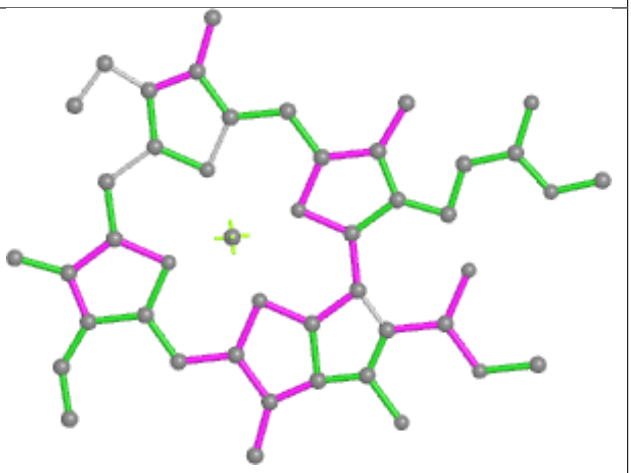
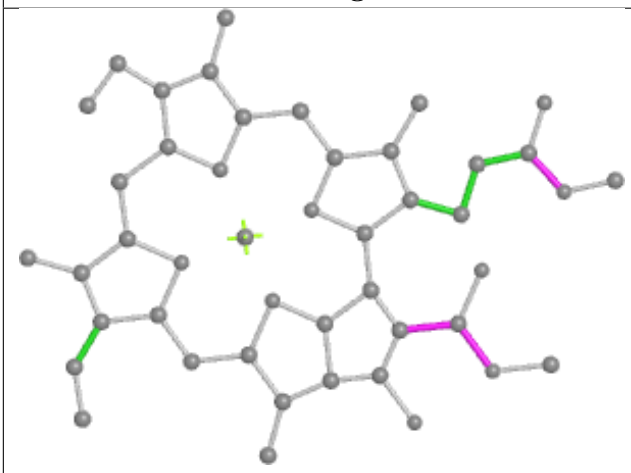


Bond angles



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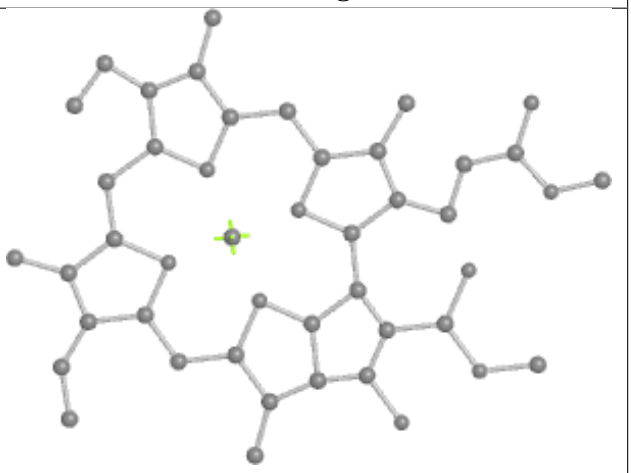
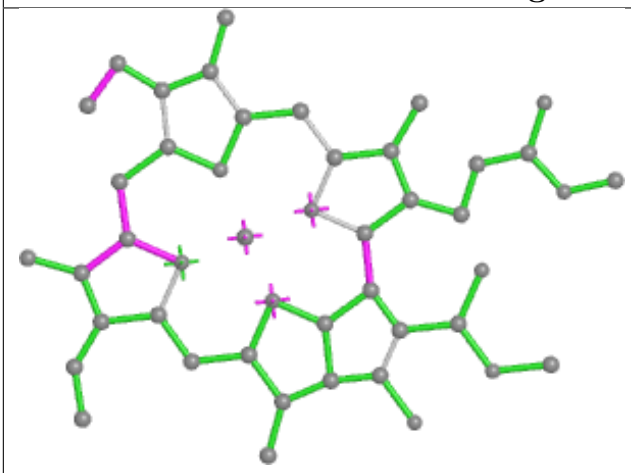


Rings

Ligand CLA 9 609



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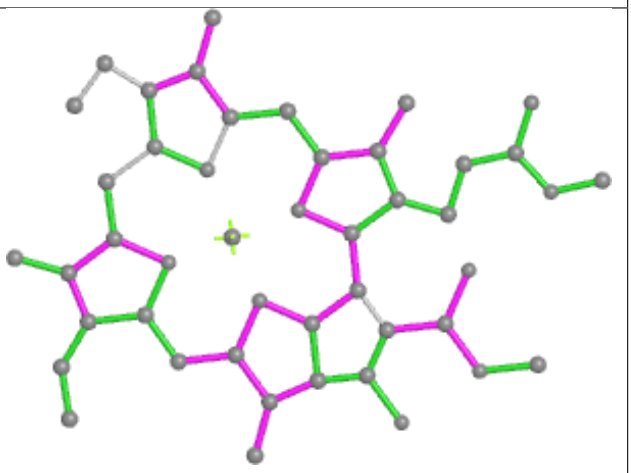
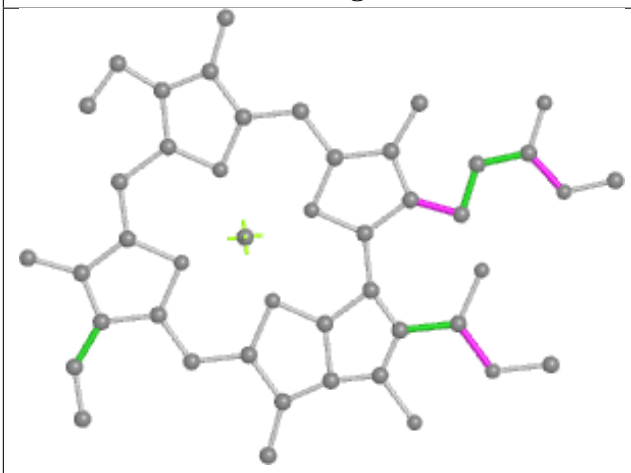


Bond angles



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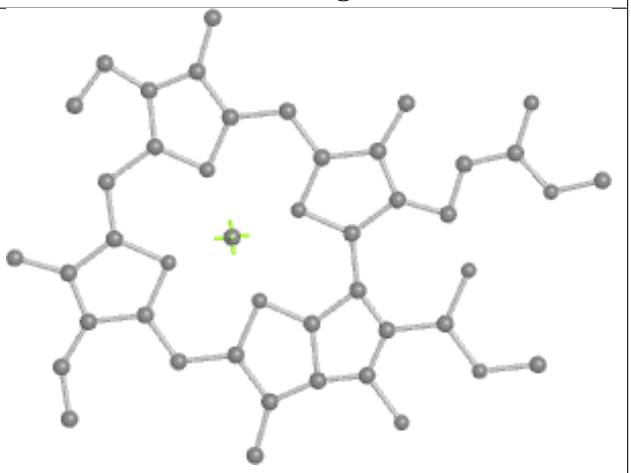
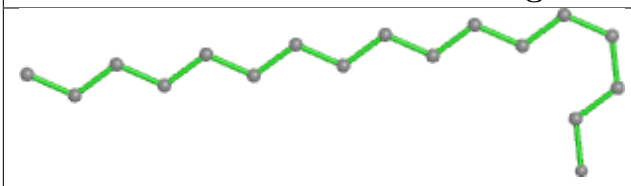


Rings

Ligand PLM a 804



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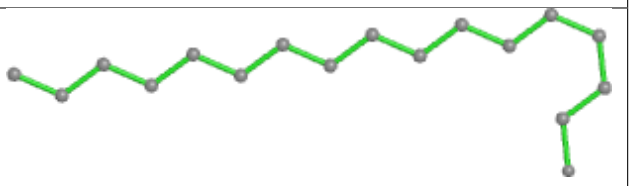
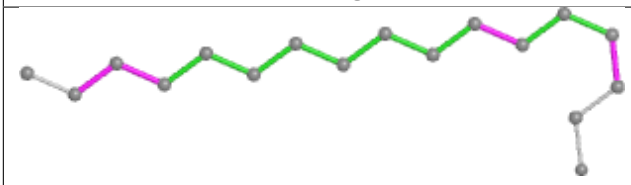
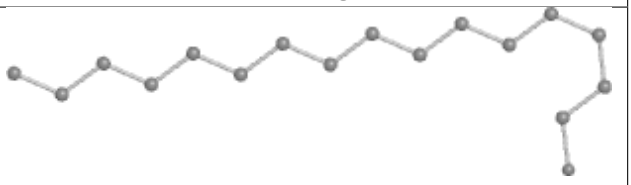


Bond angles

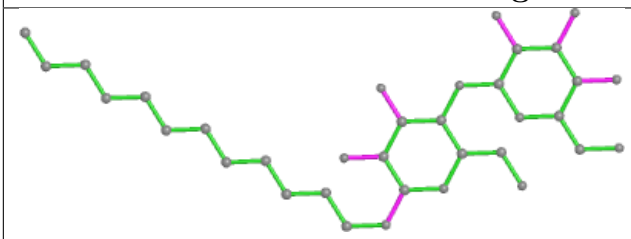


Torsions



Rings

Ligand LMT A 5008



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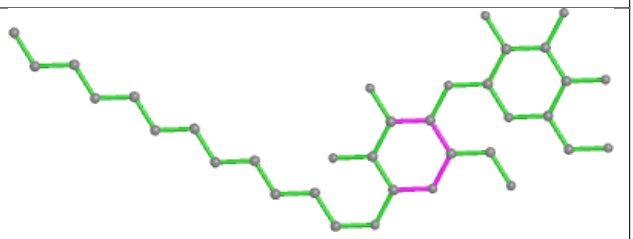
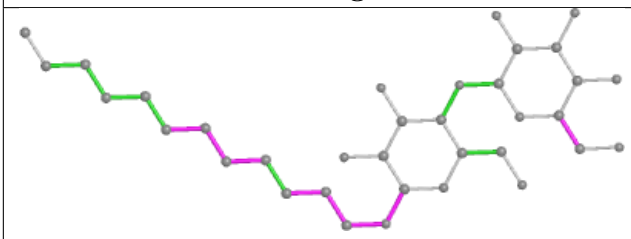
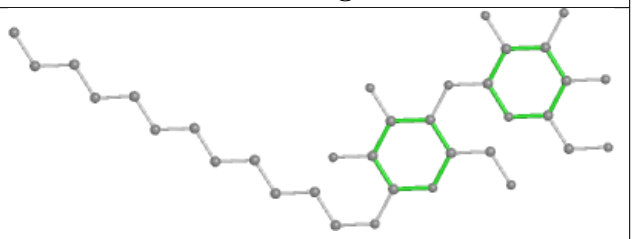


Bond angles

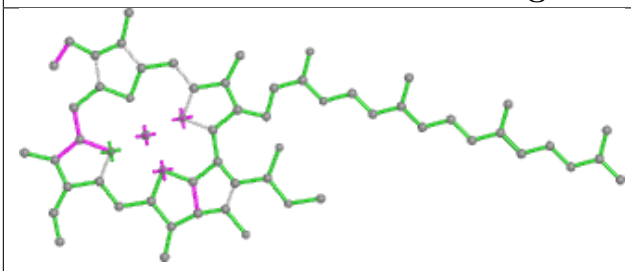


Torsions



Rings

Ligand CLA 9 604



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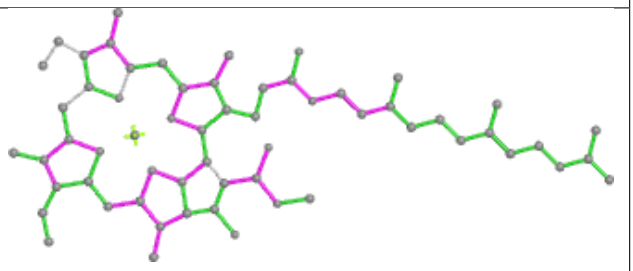
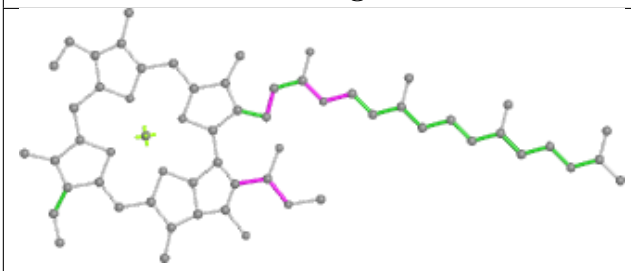
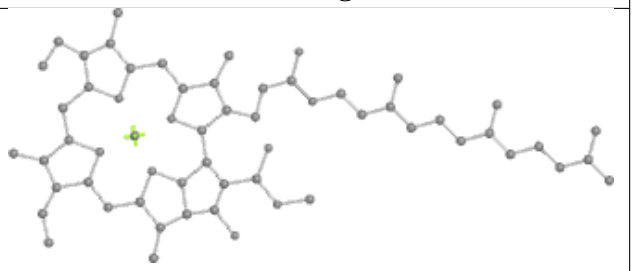


Bond angles

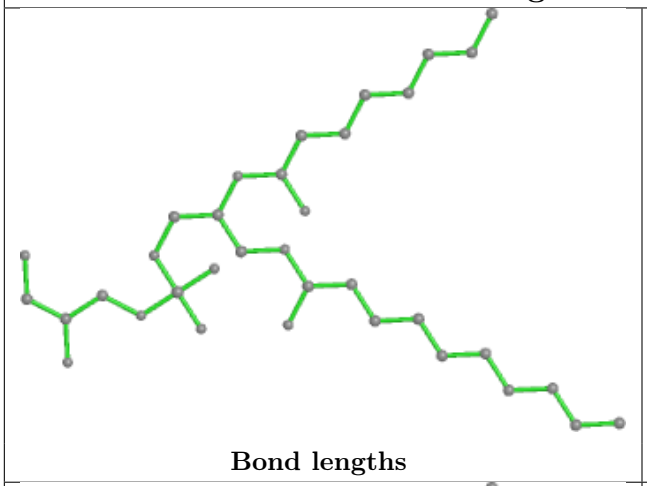


Torsions

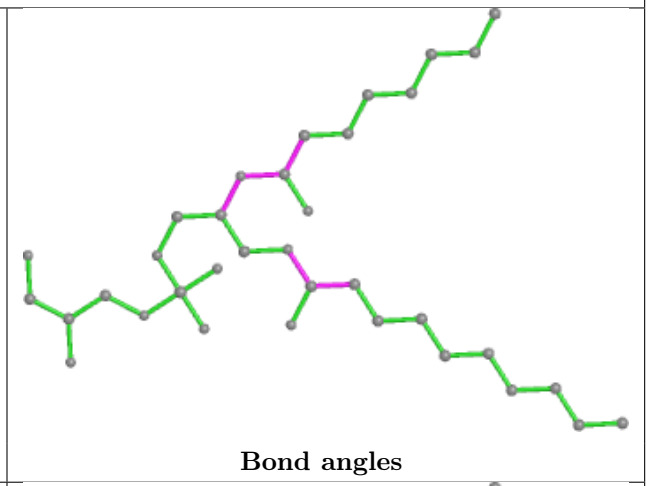


Rings

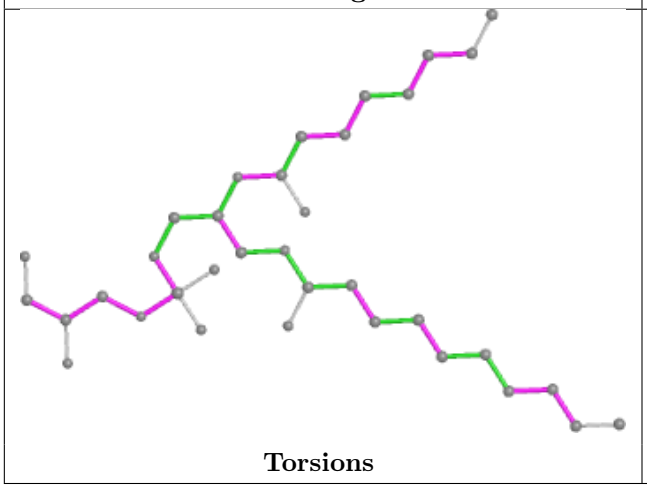
Ligand LHG 7 803



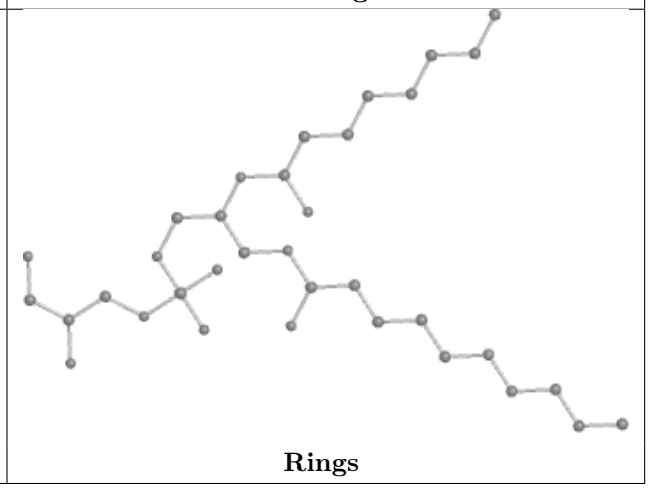
Bond lengths



Bond angles

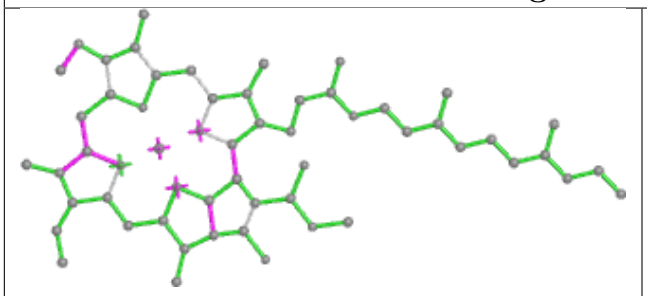


Torsions

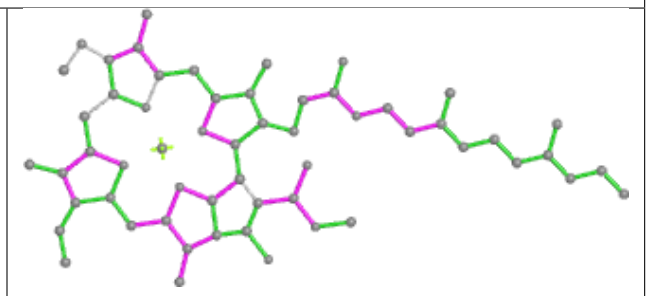


Rings

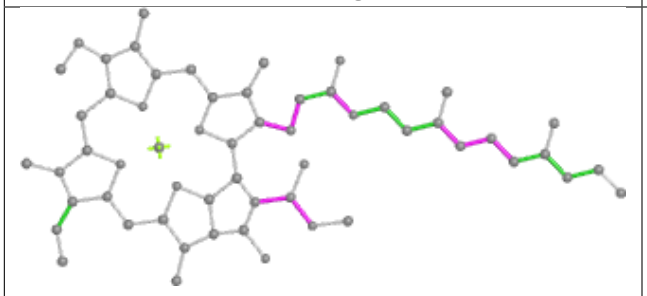
Ligand CLA 1 606



Bond lengths



Bond angles



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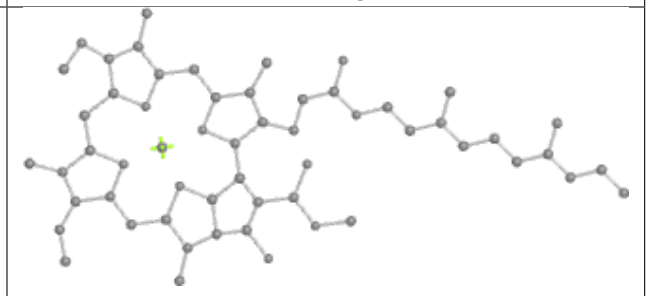
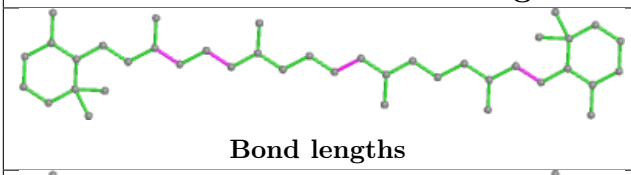


Rings

Ligand BCR B 4003



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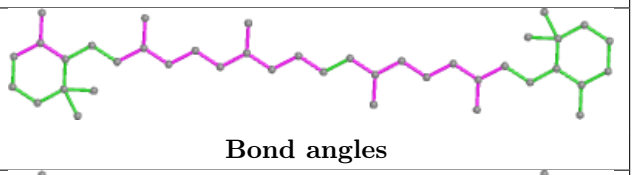

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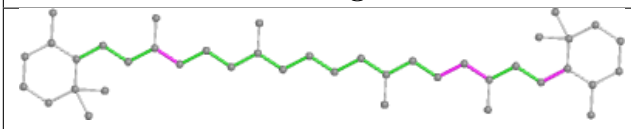

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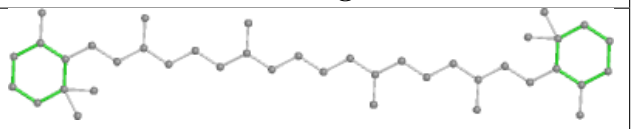
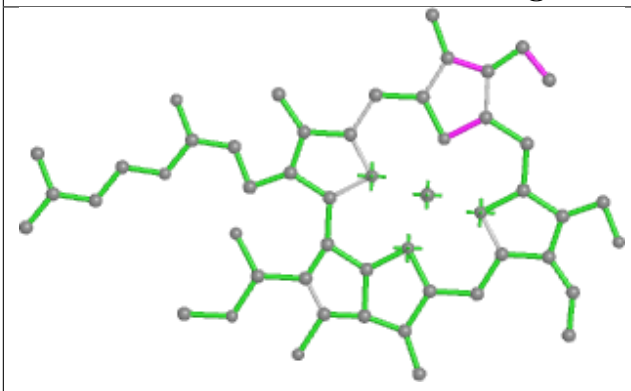


Rings

Ligand CHL 5 618



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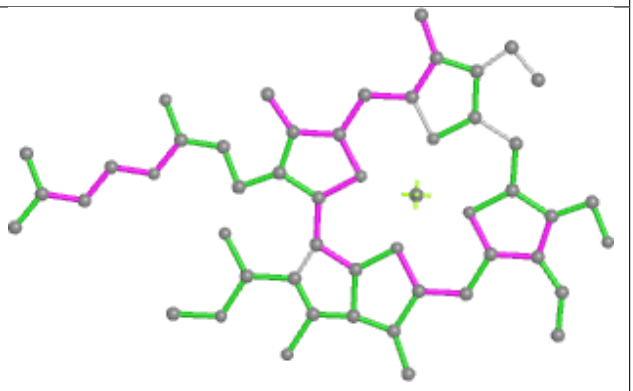
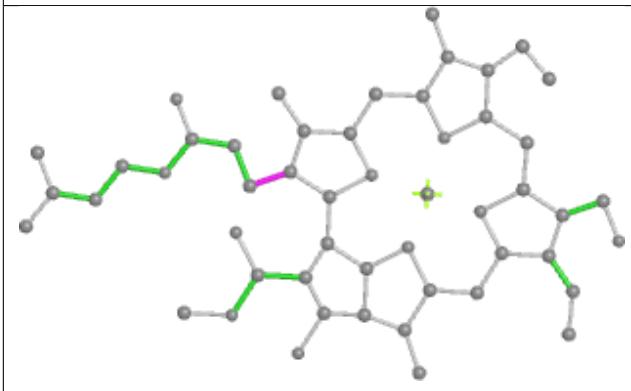


Bond angles



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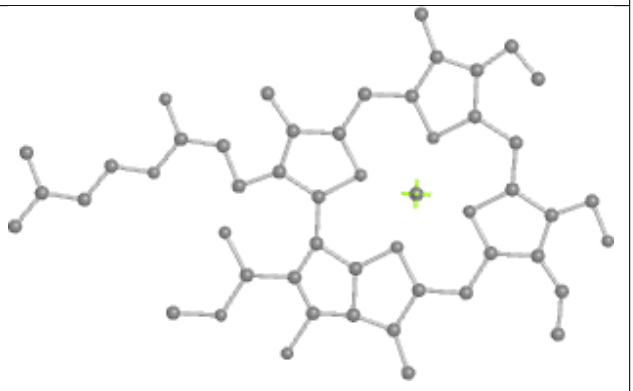
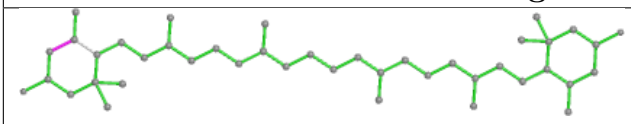


Rings

Ligand LUT 9 501



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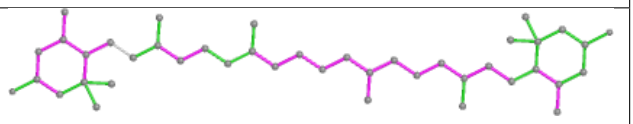

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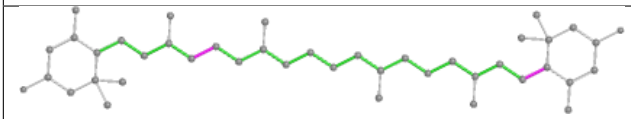

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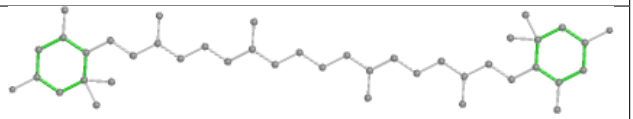
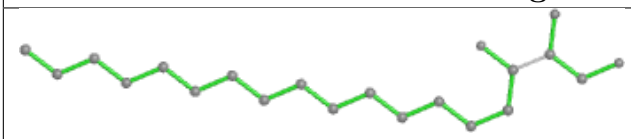


Rings

Ligand SPH 4 805



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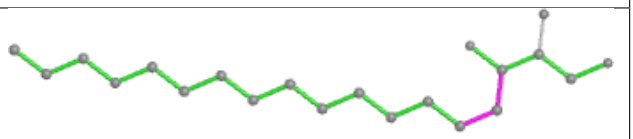

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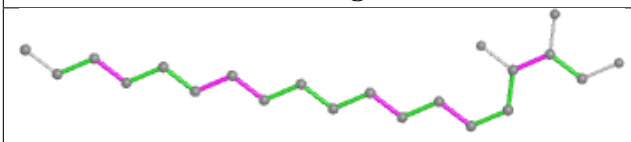

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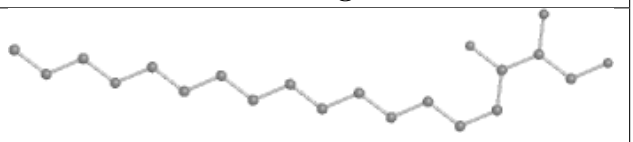
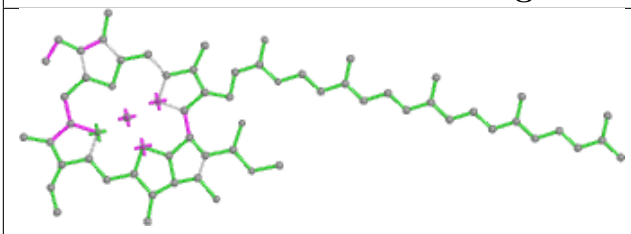


Rings

Ligand CLA B 1224



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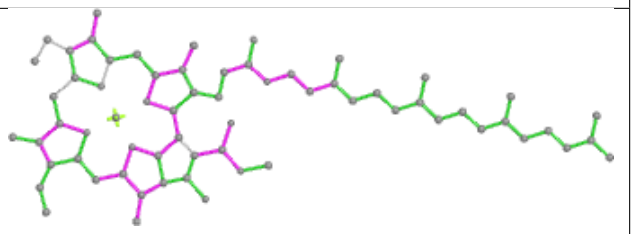
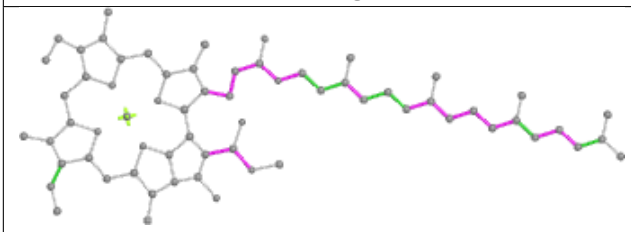


Bond angles



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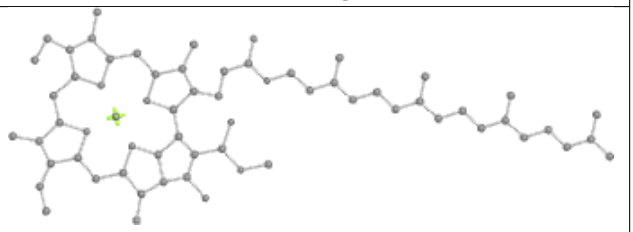
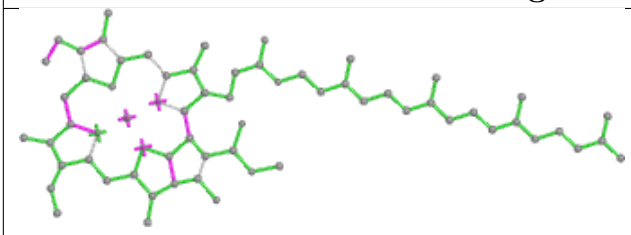


Rings

Ligand CLA 3 607



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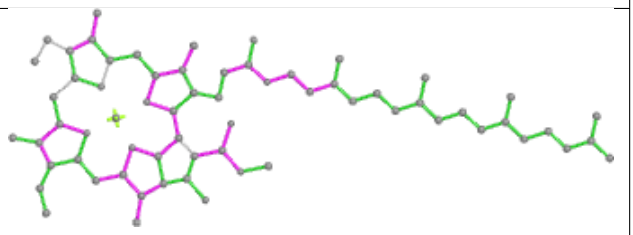

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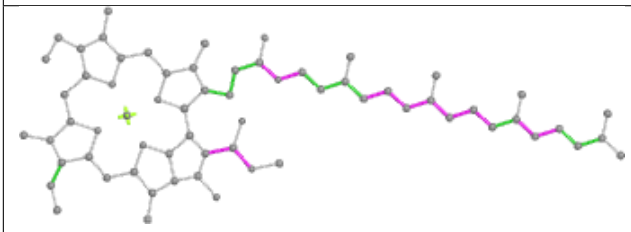

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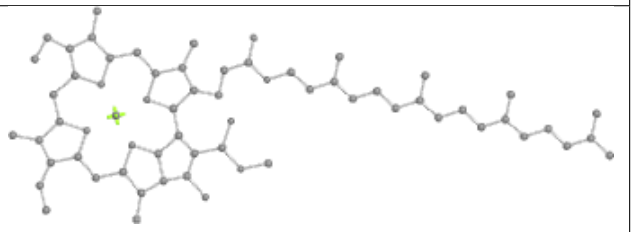
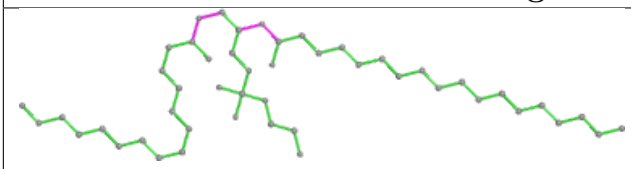


Rings

Ligand PTY 9 803



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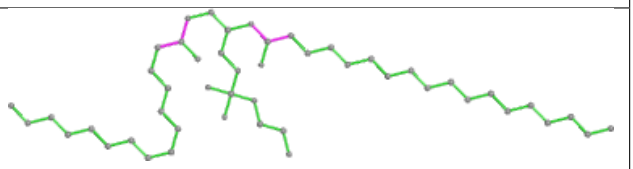

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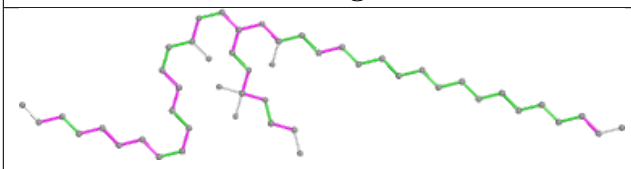

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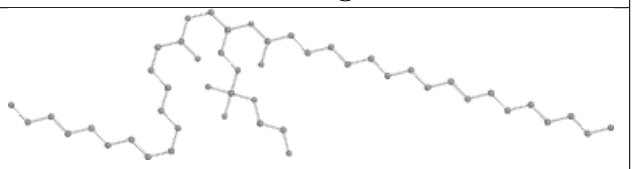
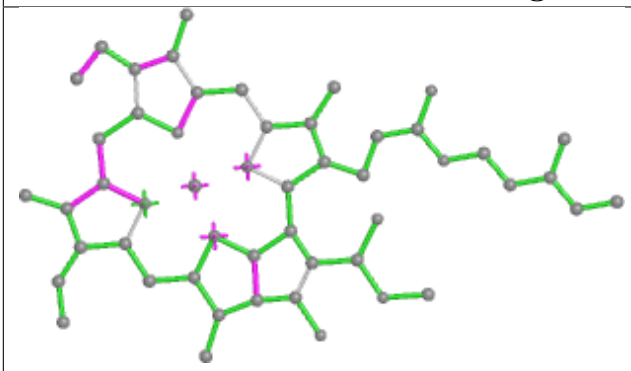


Rings

Ligand CLA 4 608



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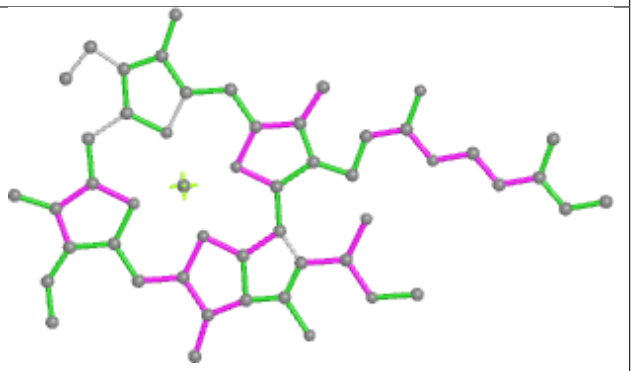
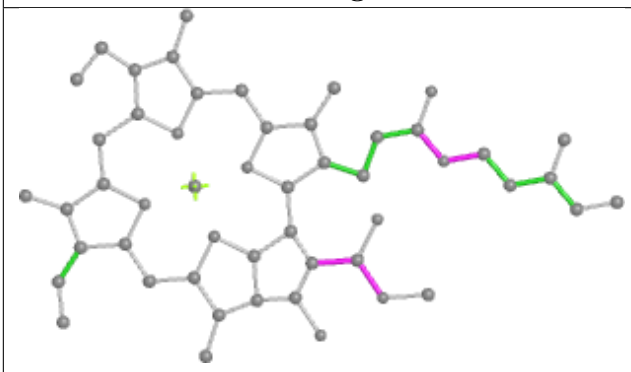


Bond angles



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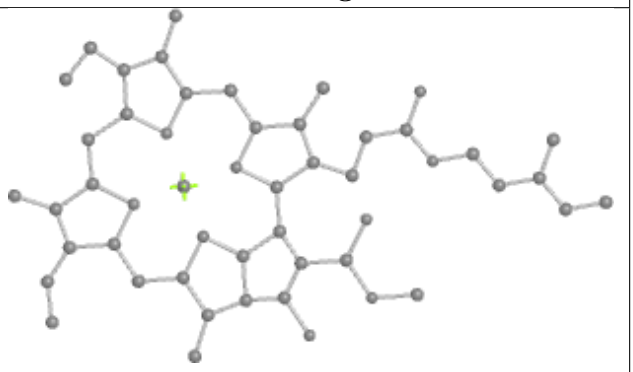
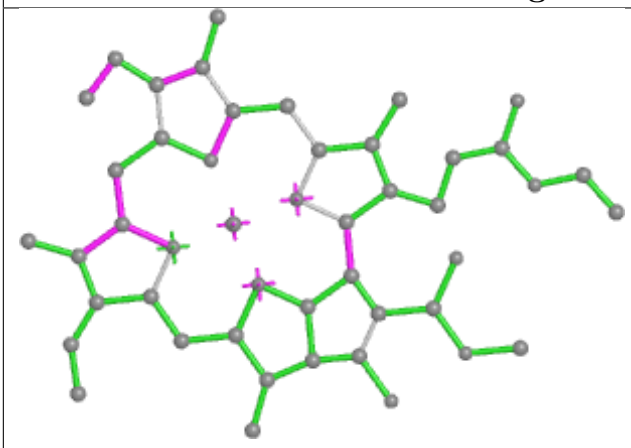


Rings

Ligand CLA 9 607



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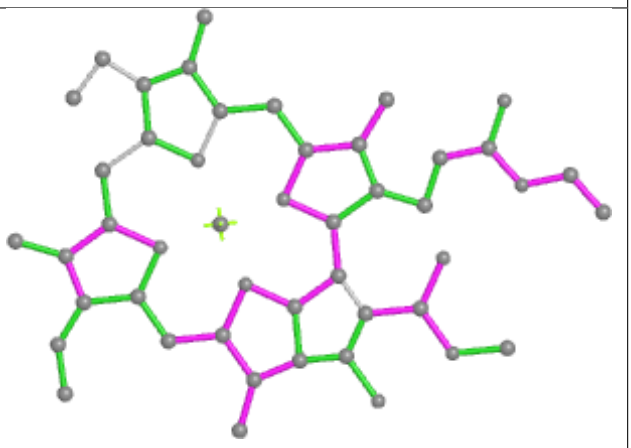

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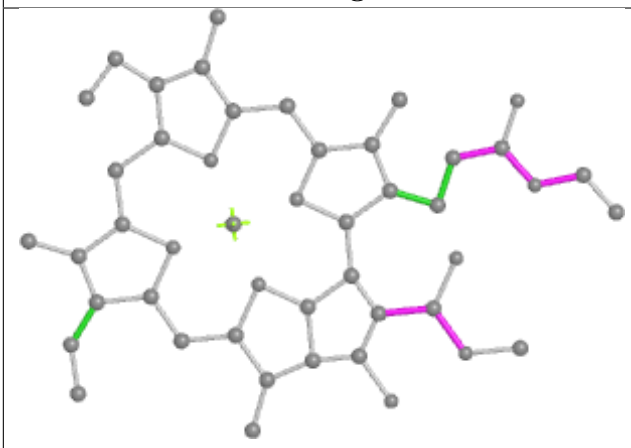

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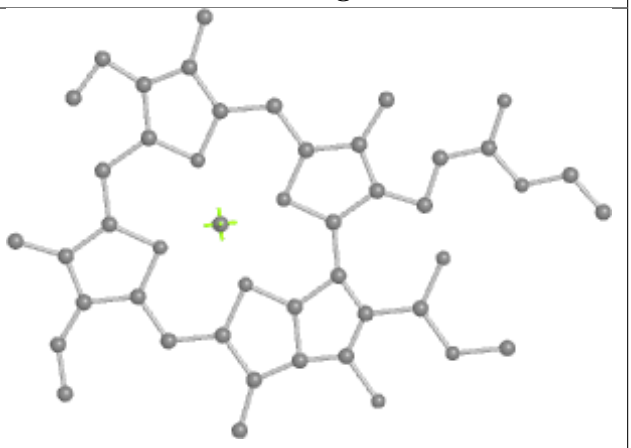
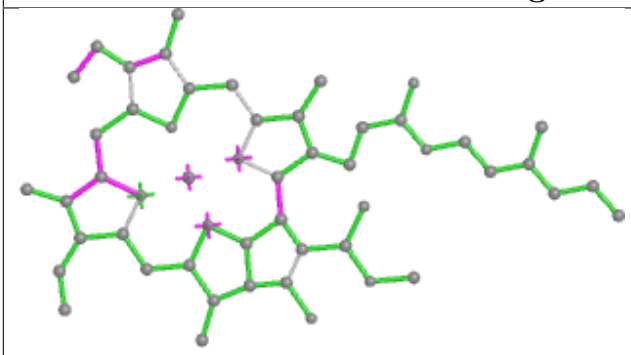


Rings

Ligand CLA 5 602



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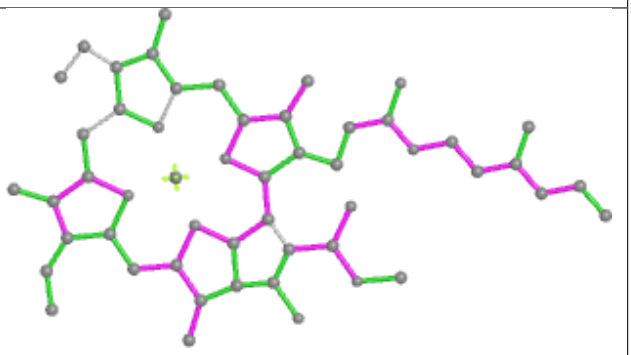

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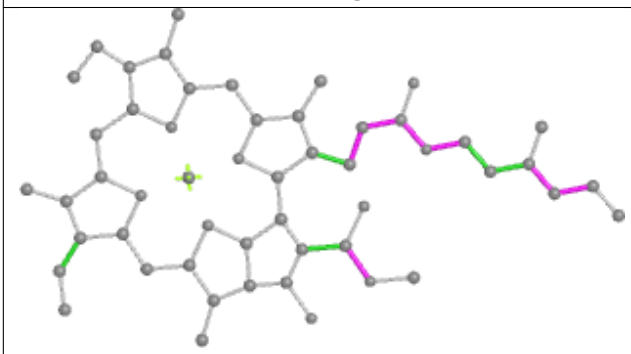

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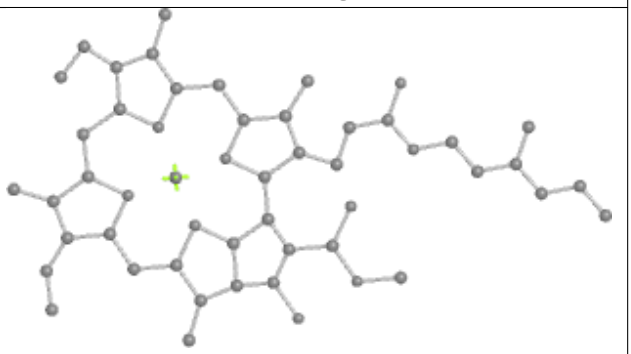
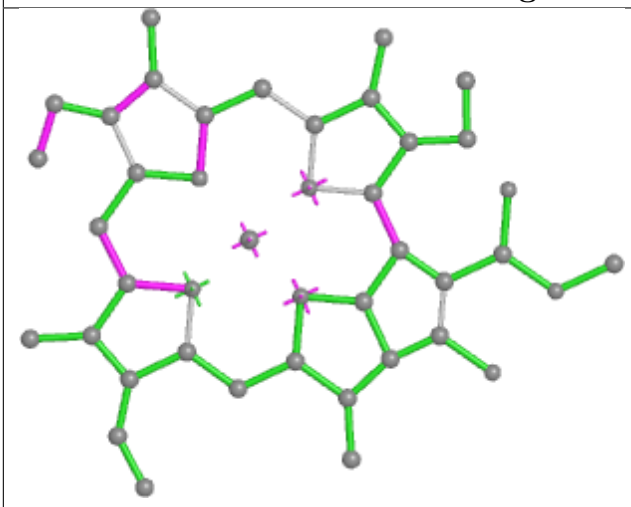


Rings

Ligand CLA J 1901



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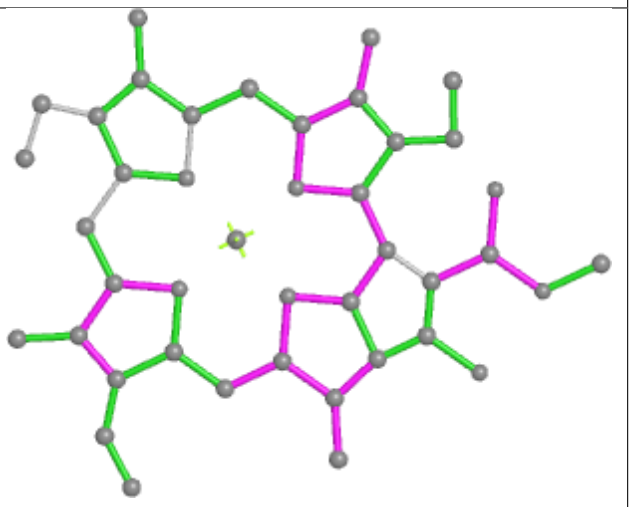
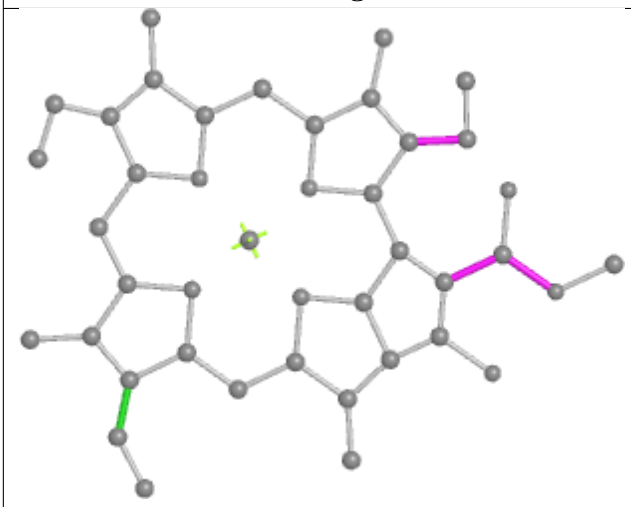


Bond angles



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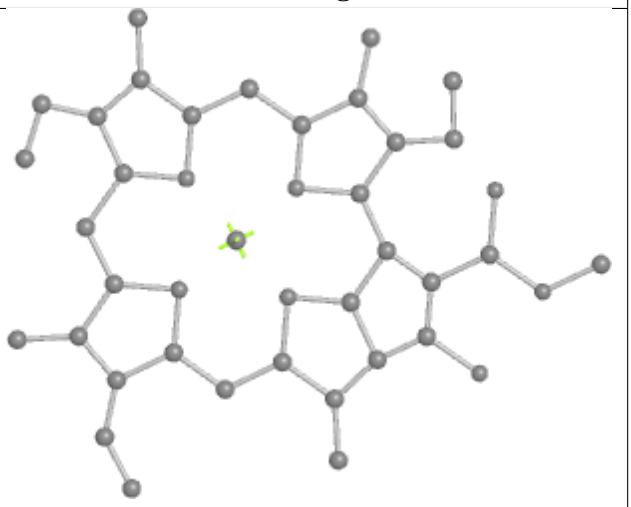
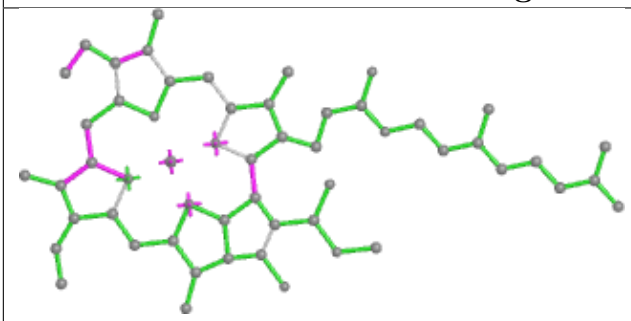


Rings

Ligand CLA A 1140



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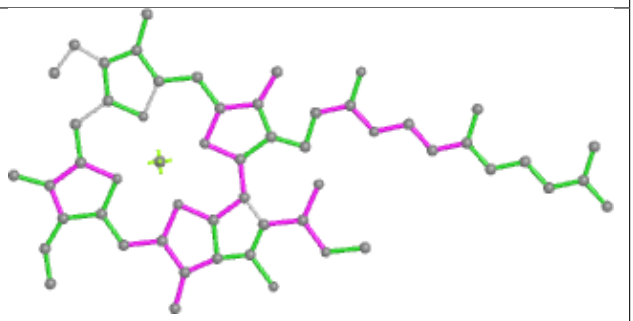
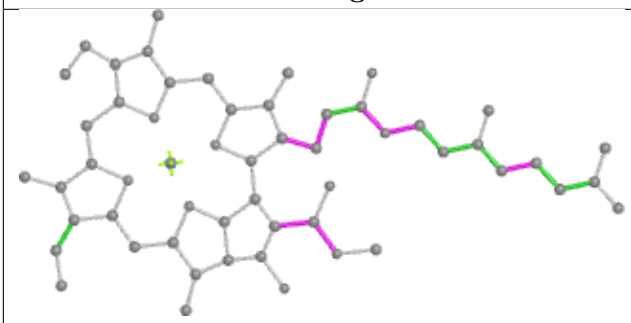


Bond angles



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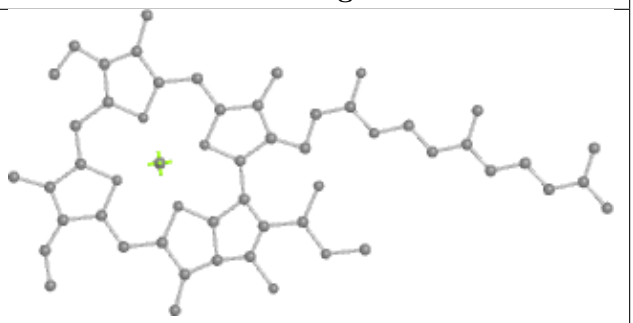
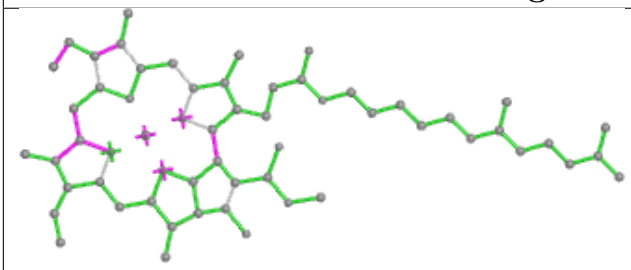


Rings

Ligand CLA 7 607



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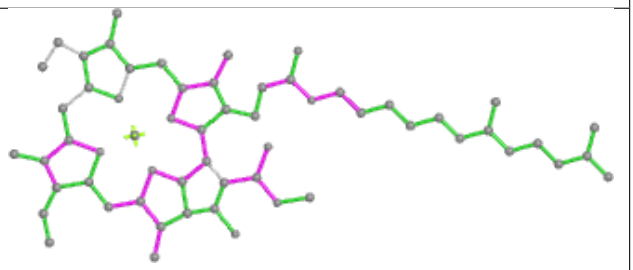
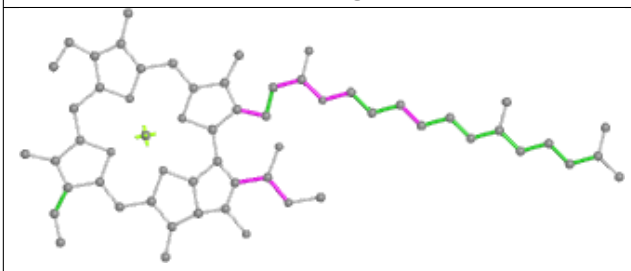


Bond angles



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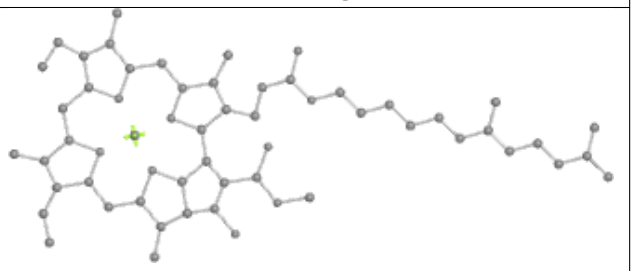
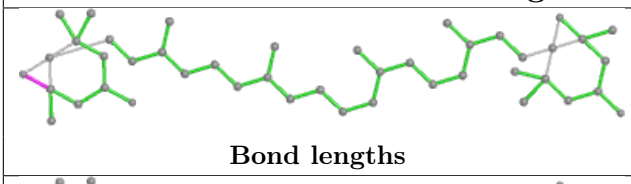
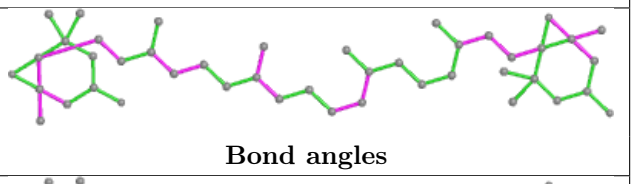


Rings

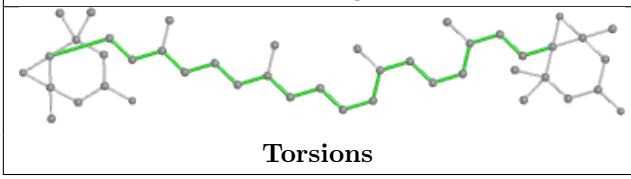
Ligand XAT 7 502



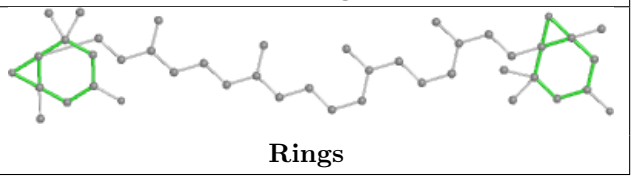
Bond lengths



Bond angles

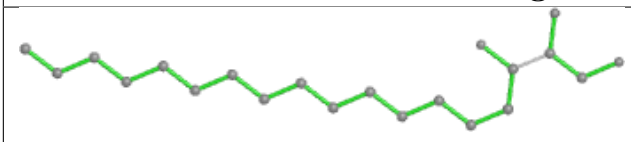


Torsions



Rings

Ligand SPH 6 806



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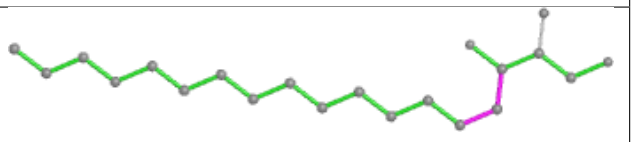

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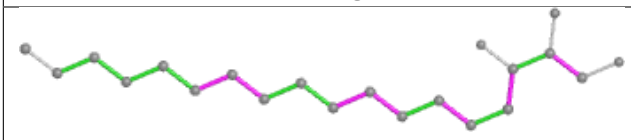

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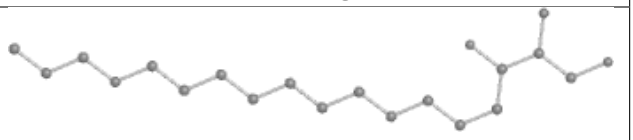
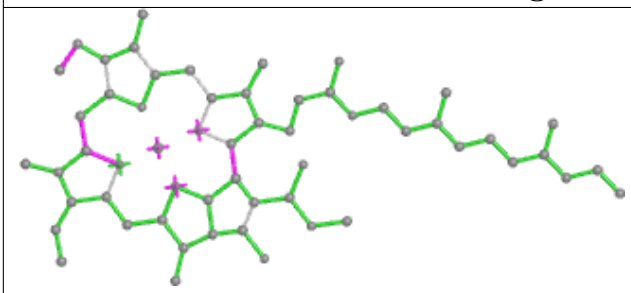


Rings

Ligand CLA 8 606



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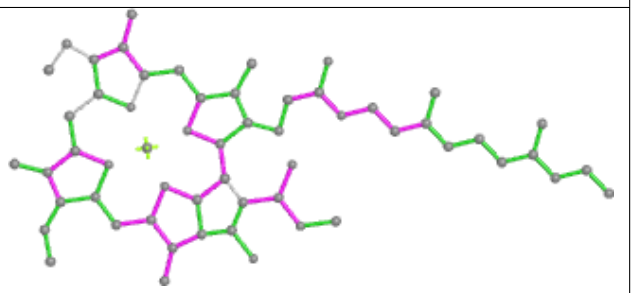

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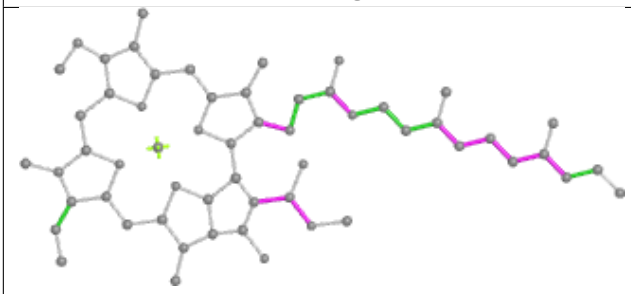
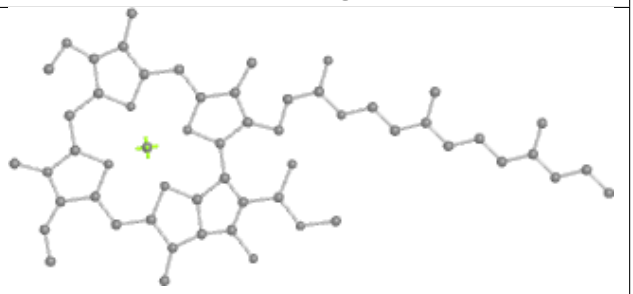
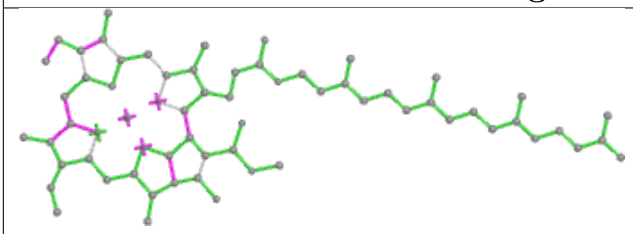


Torsions



Rings

Ligand CLA 2 621



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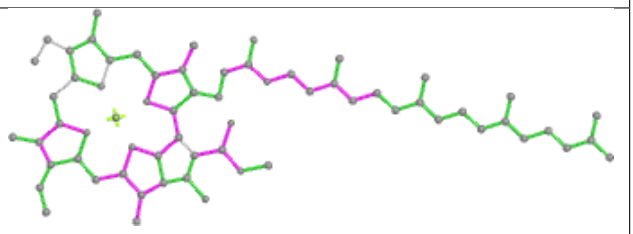
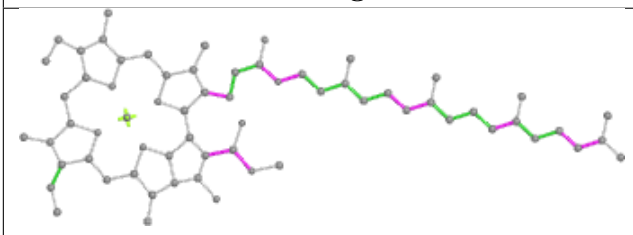
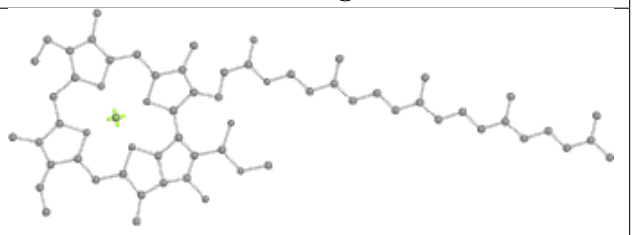


Bond angles

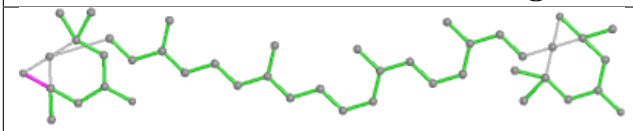


Torsions

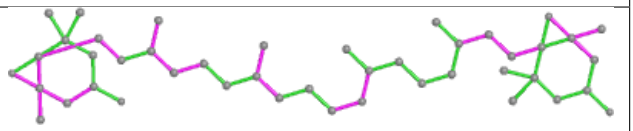


Rings

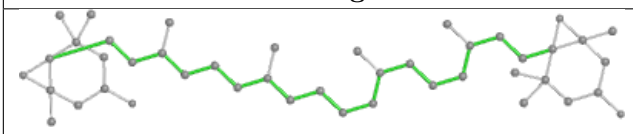
Ligand XAT 2 501



Bond lengths



Bond angles



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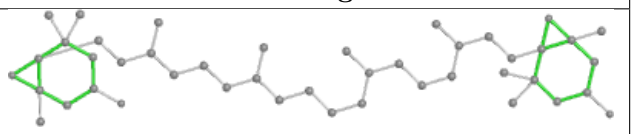
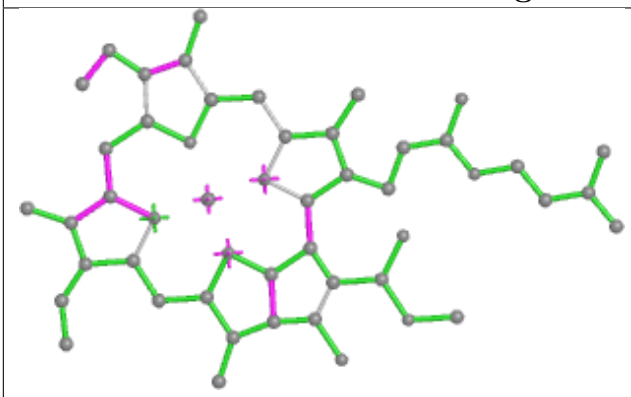


Rings

Ligand CLA A 1129



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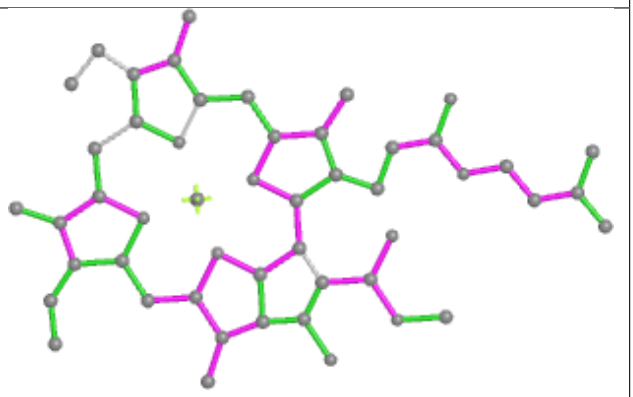
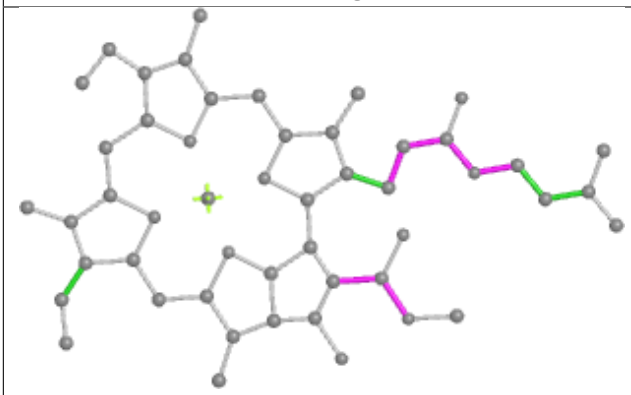


Bond angles



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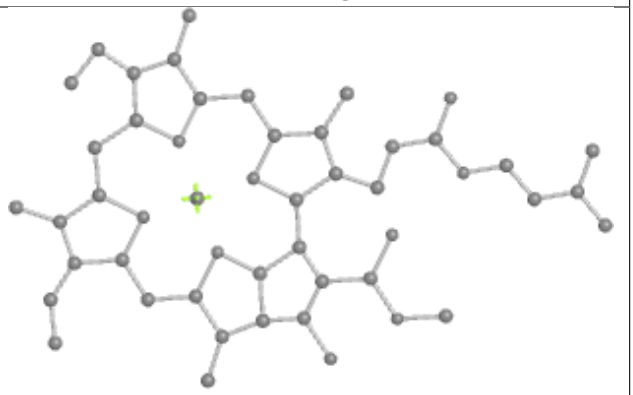
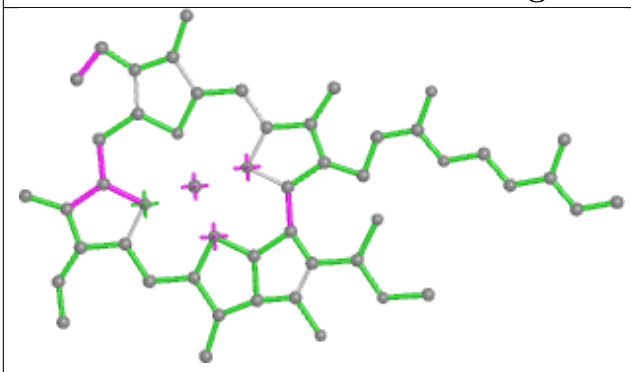


Rings

Ligand CLA 5 609



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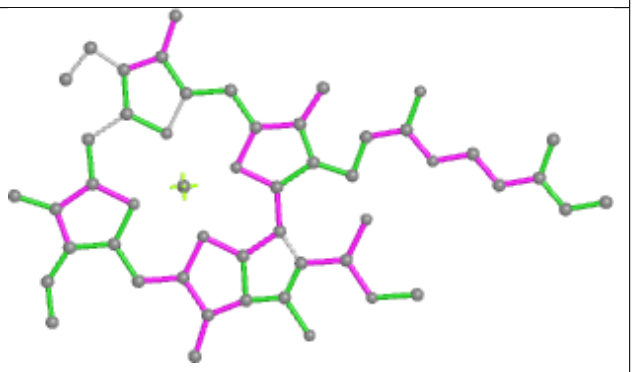
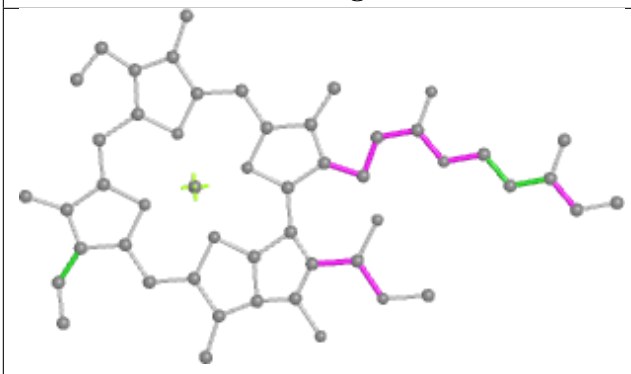


Bond angles



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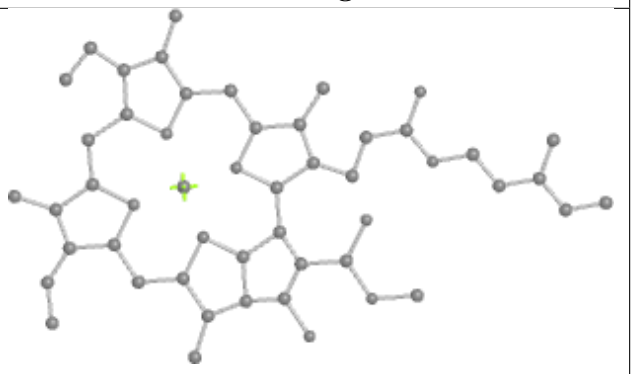
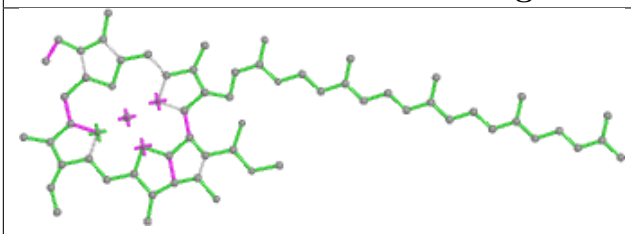


Rings

Ligand CLA B 1228



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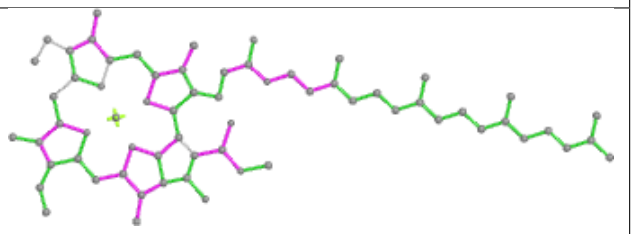
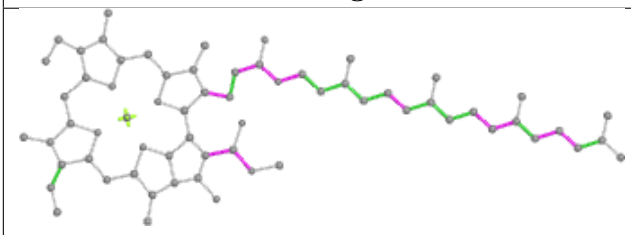


Bond angles



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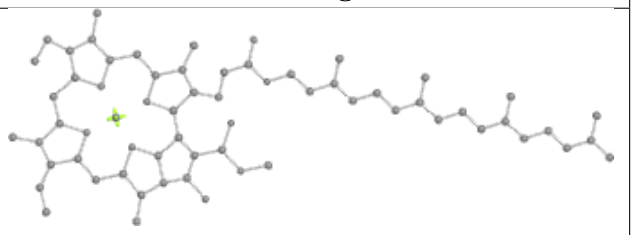
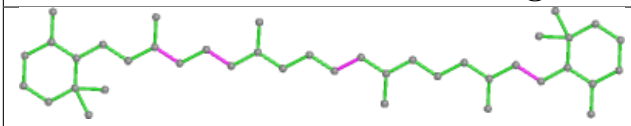


Rings

Ligand BCR 7 503



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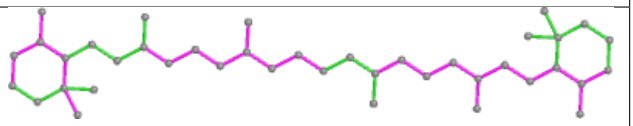
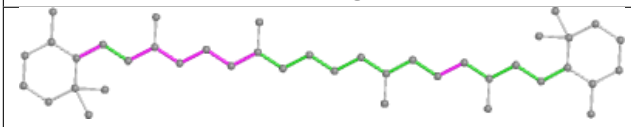


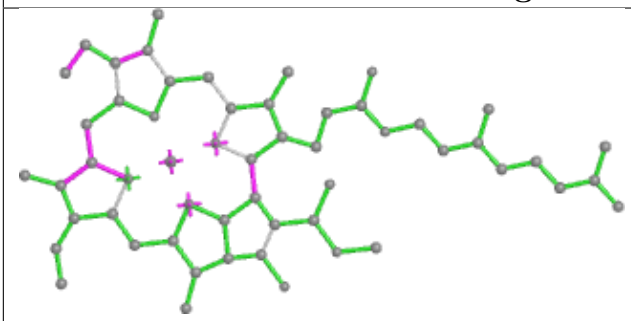
Bond angles



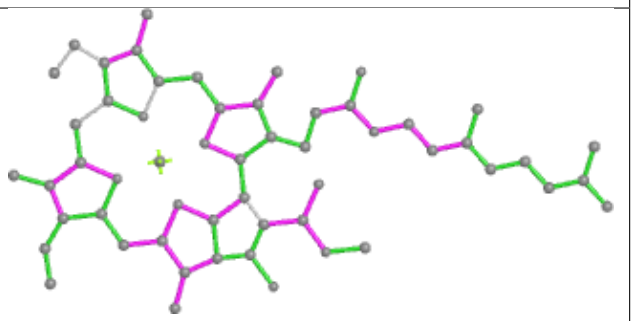
Torsions

Rings

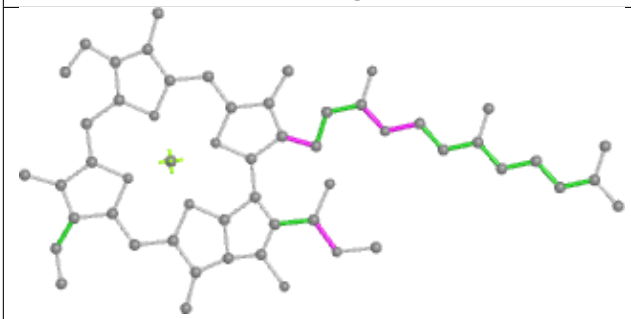
Ligand CLA A 1124



Bond lengths



Bond angles



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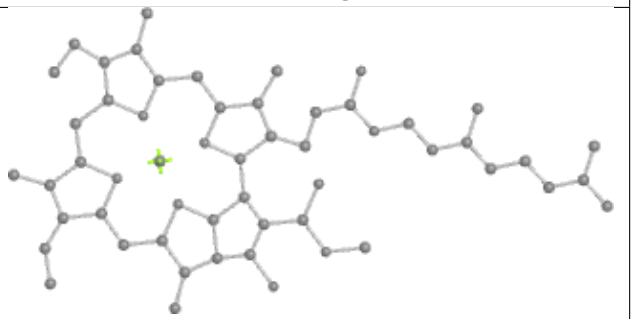
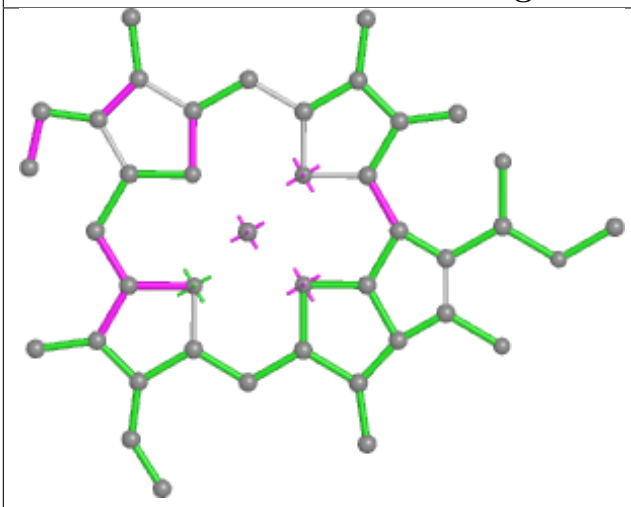


Rings

Ligand CLA O 1803



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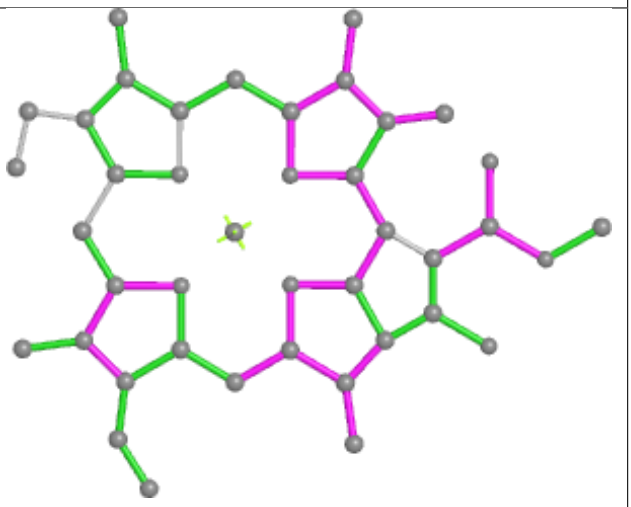
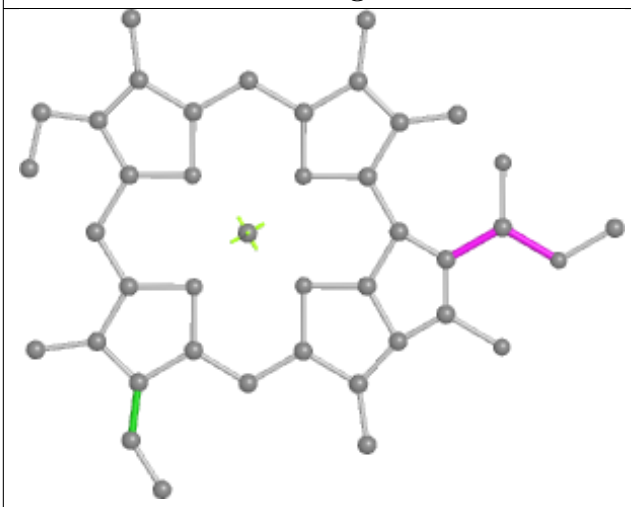


Bond angles



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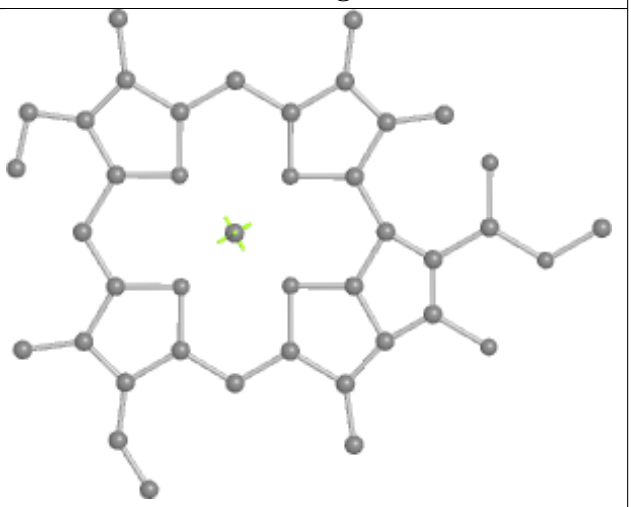
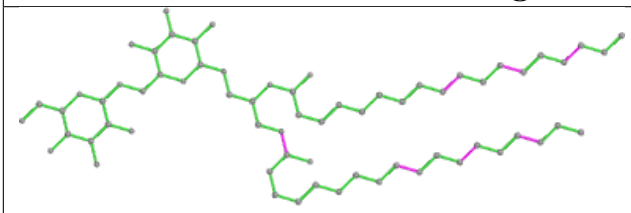
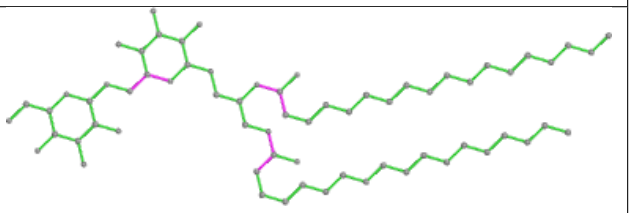


Rings

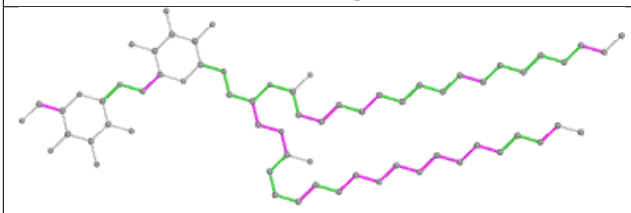
Ligand DGD B 5003



Bond lengths



Bond angles



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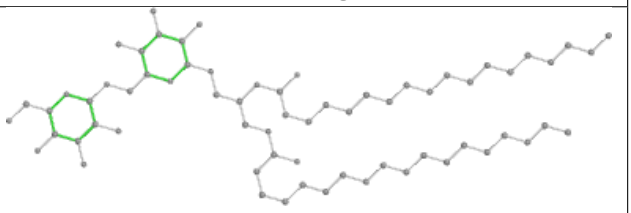
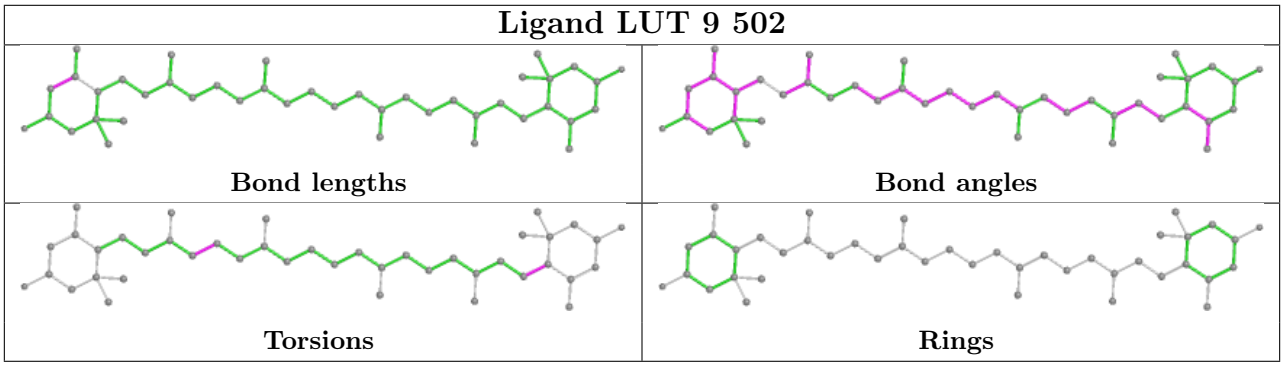


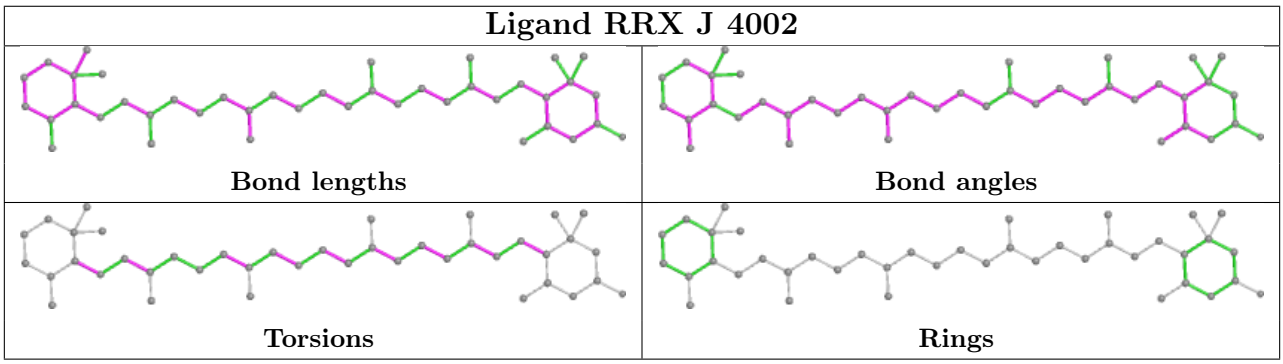
Rings

Ligand LUT 8 502

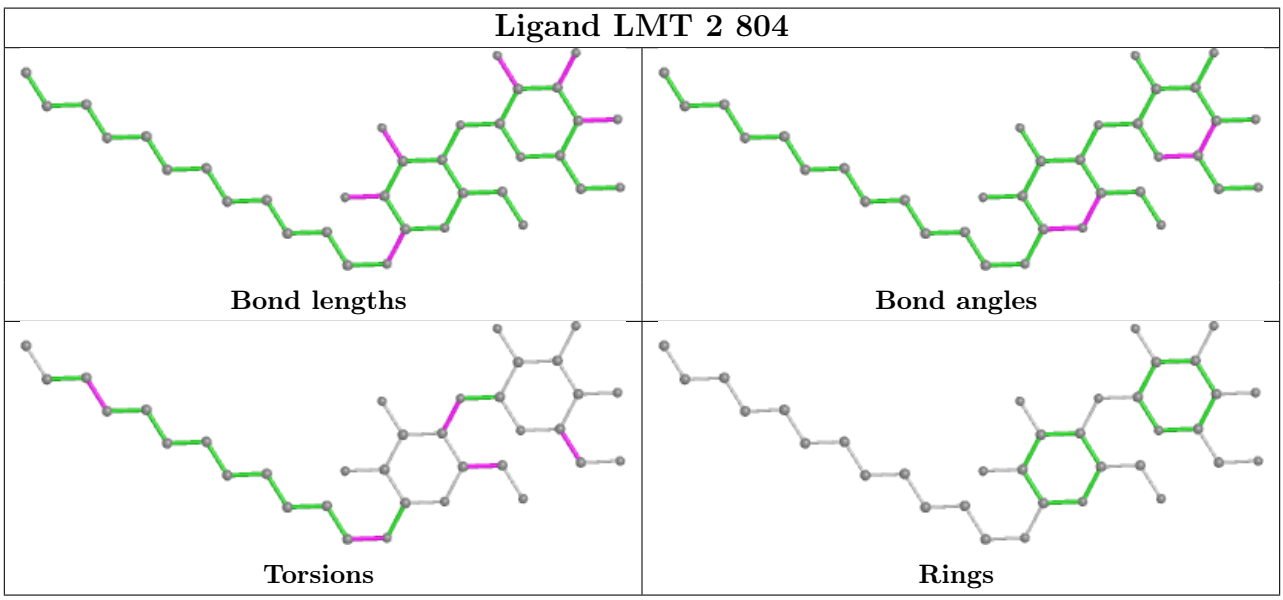
Ligand LUT 9 502



Ligand RRX J 4002



Ligand LMT 2 804



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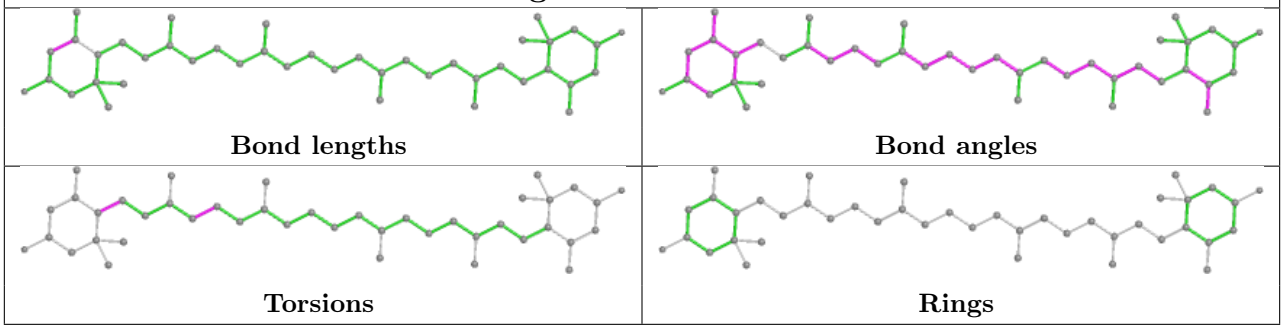
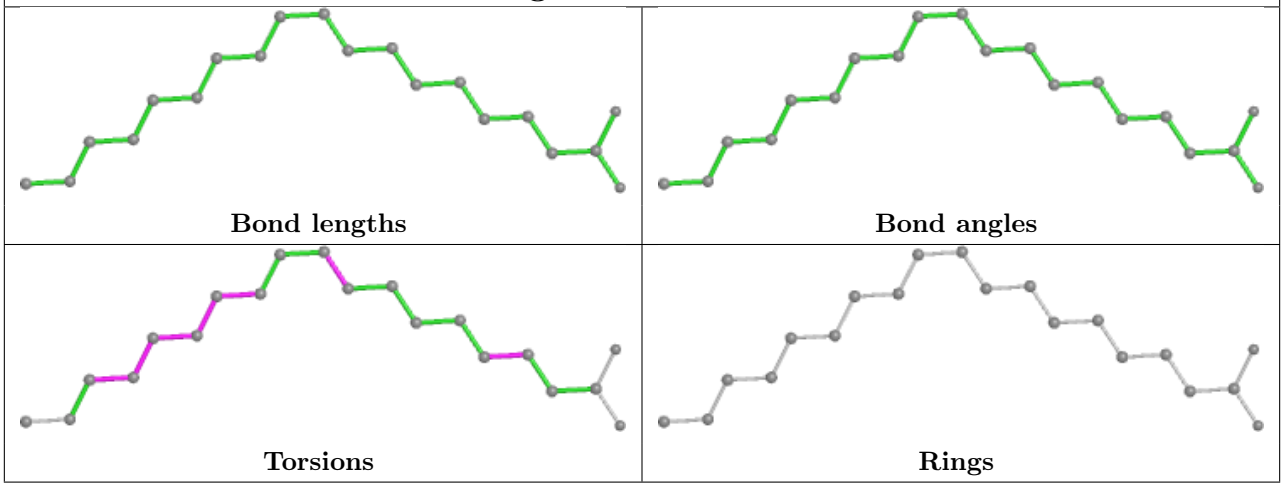
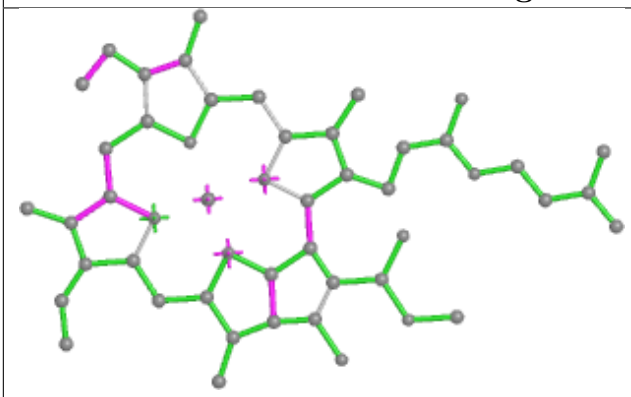


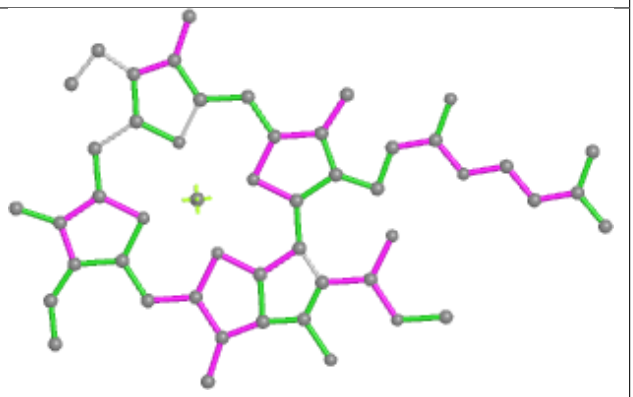
Ligand OLA a 805



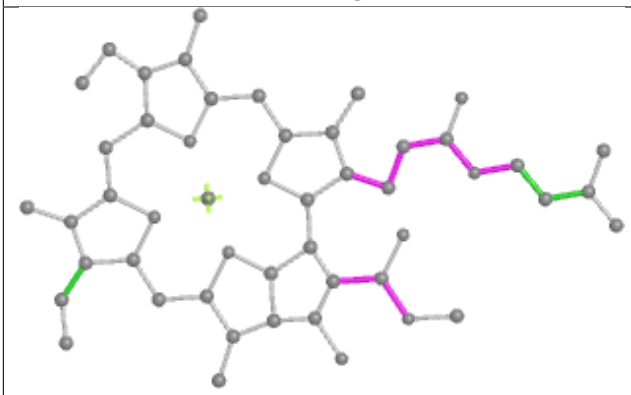
Ligand CLA B 1227



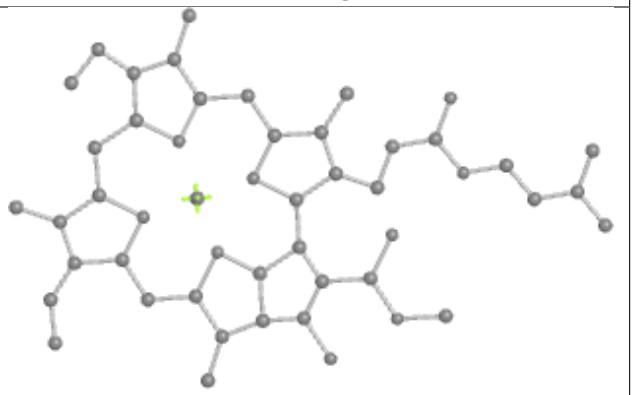
Bond lengths



Bond angles

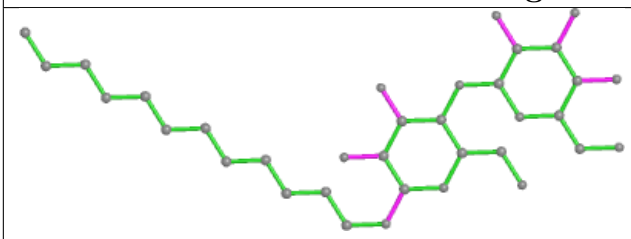


Torsions

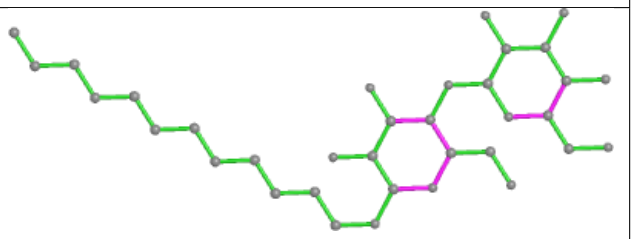


Rings

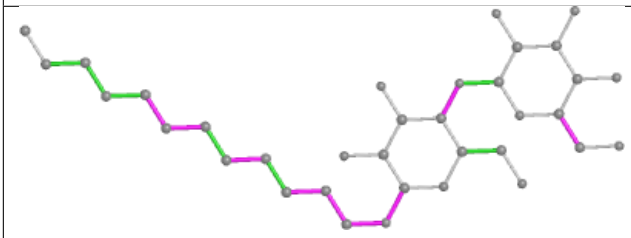
Ligand LMT 1 804



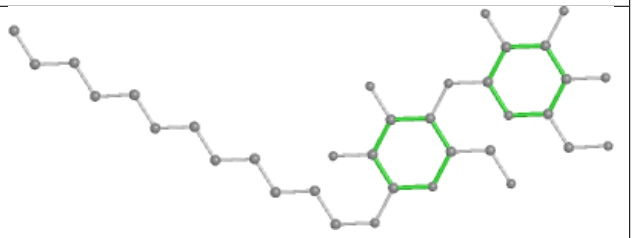
Bond lengths



Bond angles

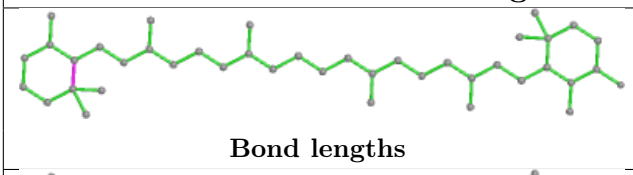


Torsions

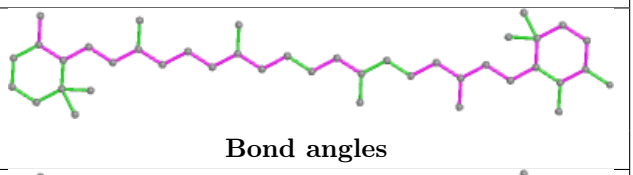


Rings

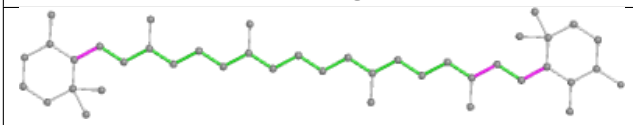
Ligand ECH M 4001



Bond lengths



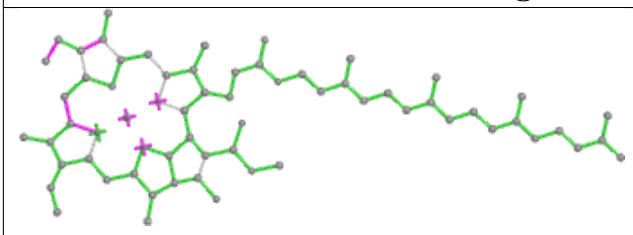
Bond angles



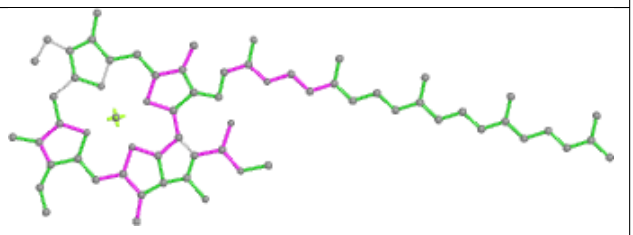
Torsions

Rings

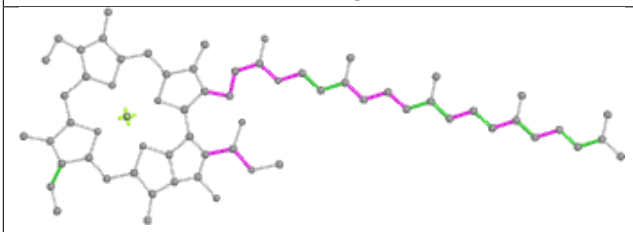
Ligand CLA A 1127



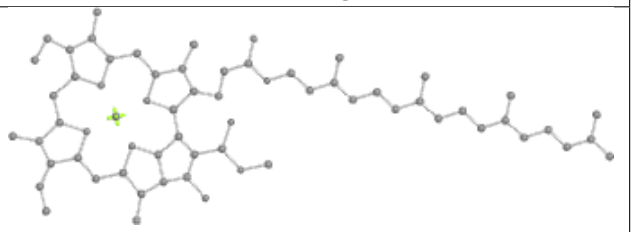
Bond lengths



Bond angles

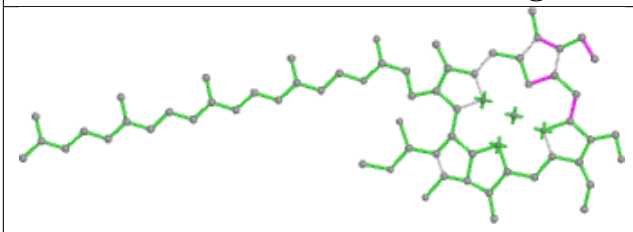


Torsions

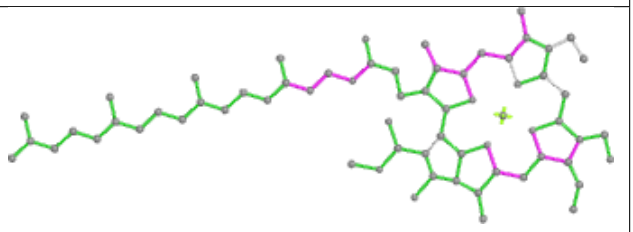


Rings

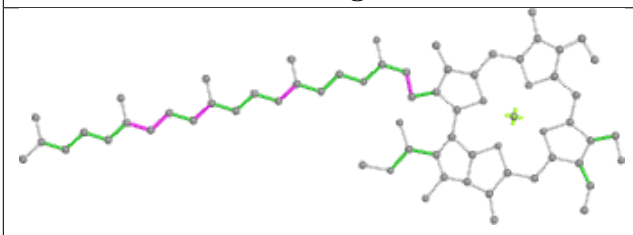
Ligand CHL 8 603



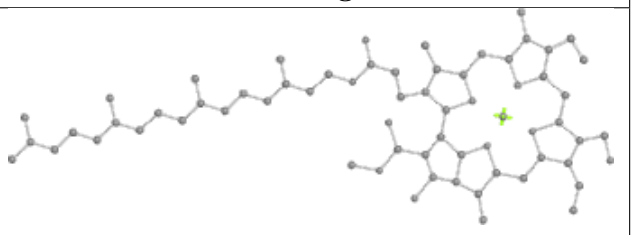
Bond lengths



Bond angles

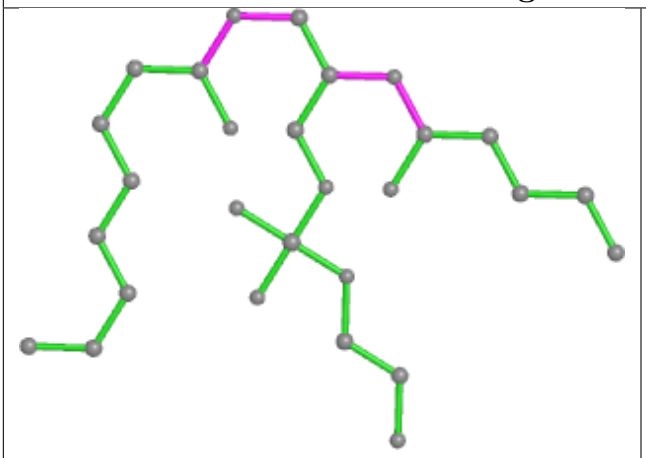


Torsions

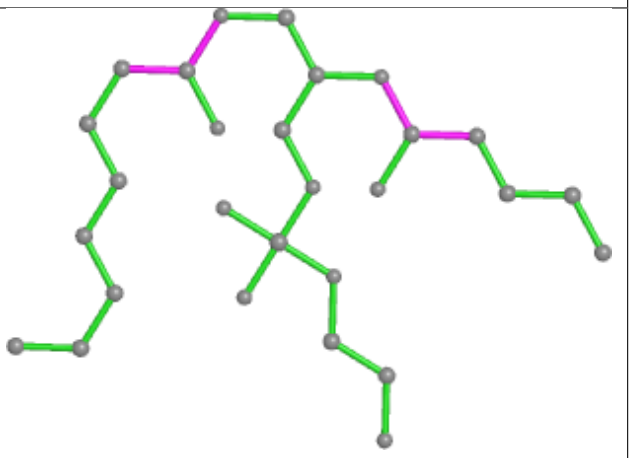


Rings

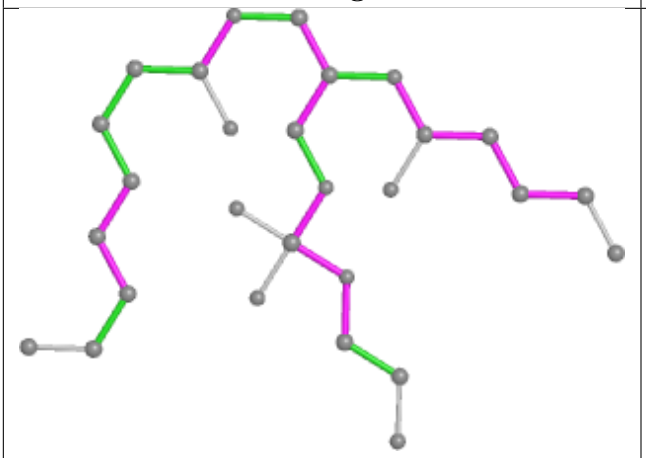
Ligand PTY J 5001



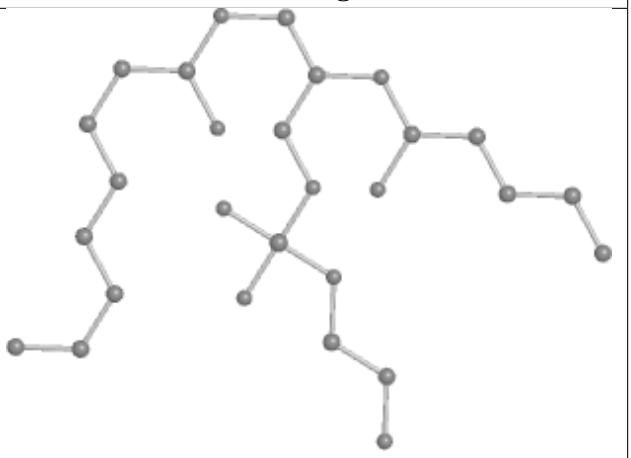
Bond lengths



Bond angles

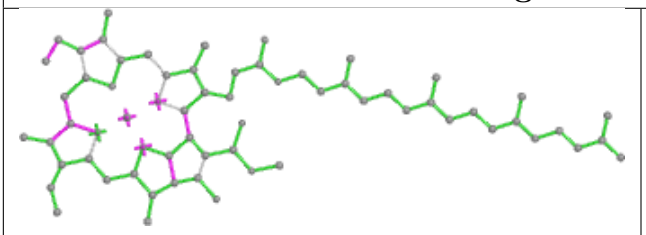


Torsions

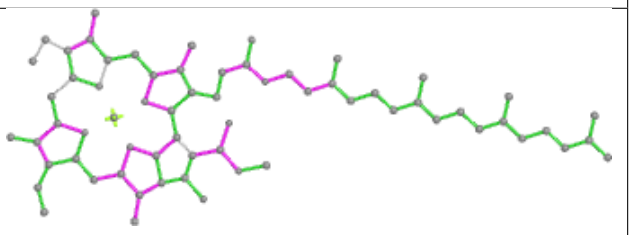


Rings

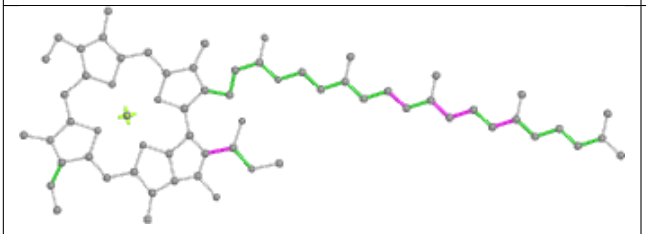
Ligand CLA A 1138



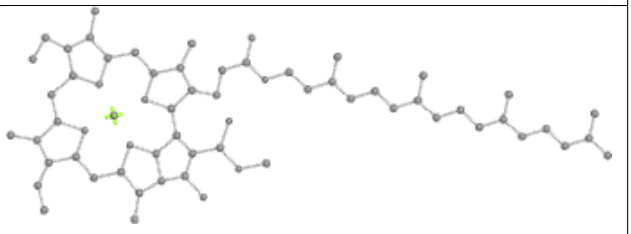
Bond lengths



Bond angles

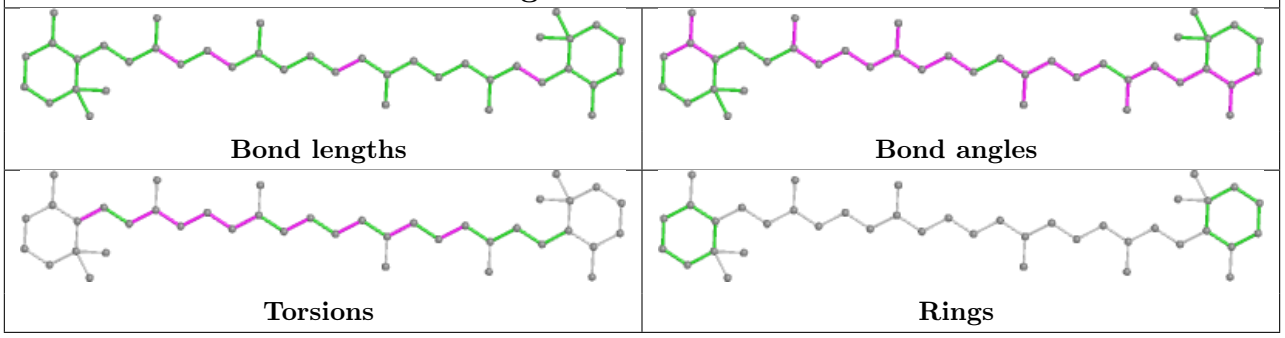


Torsions

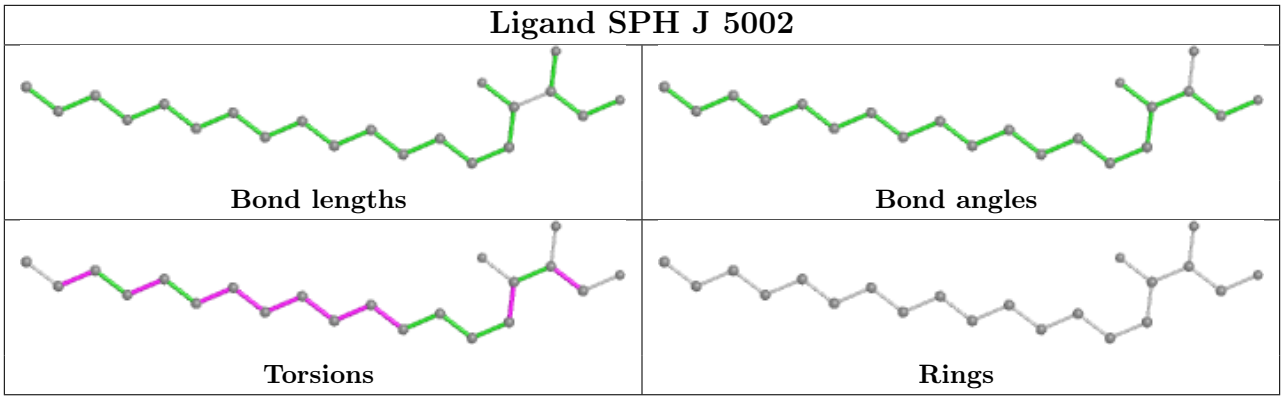


Rings

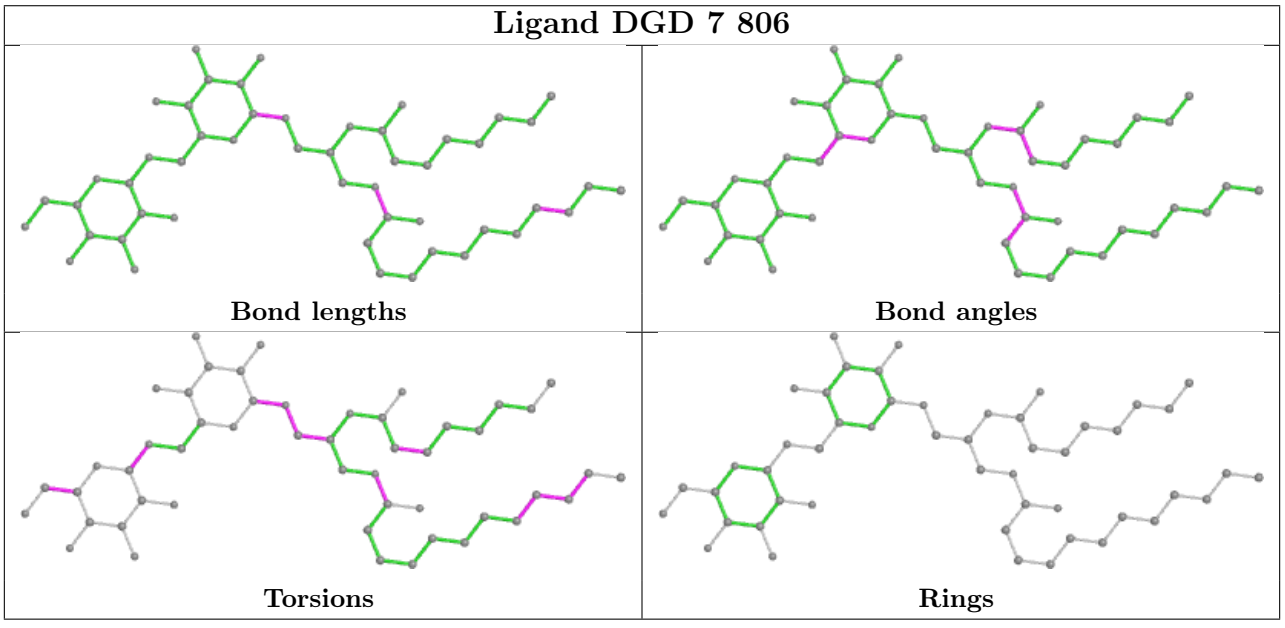
Ligand BCR I 4001



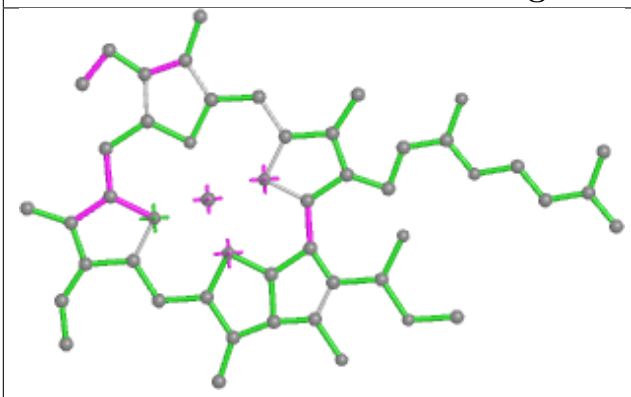
Ligand SPH J 5002



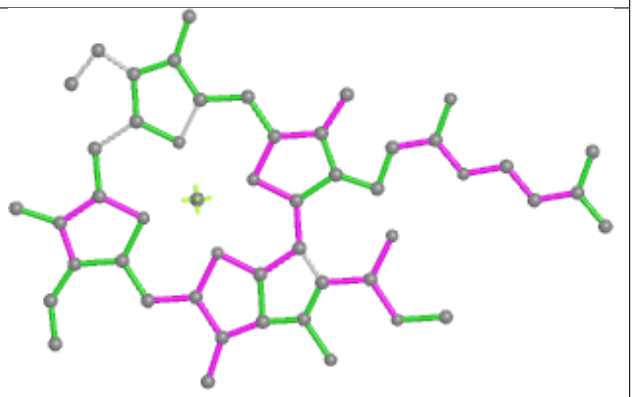
Ligand DGD 7 806



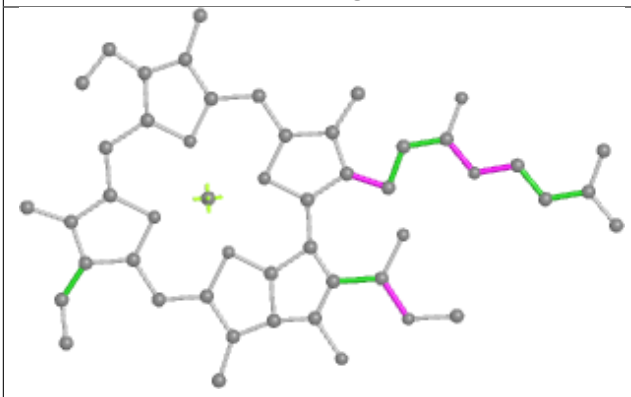
Ligand CLA 4 616



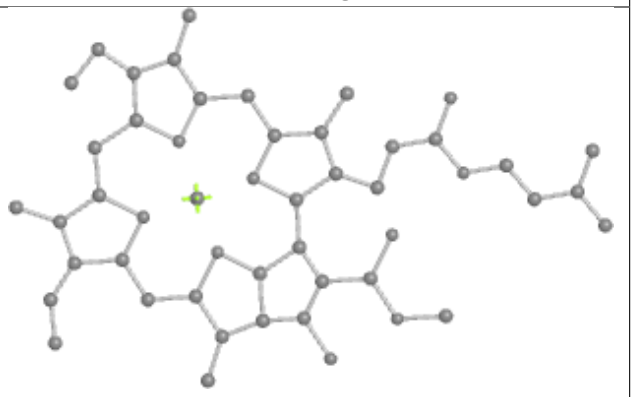
Bond lengths



Bond angles

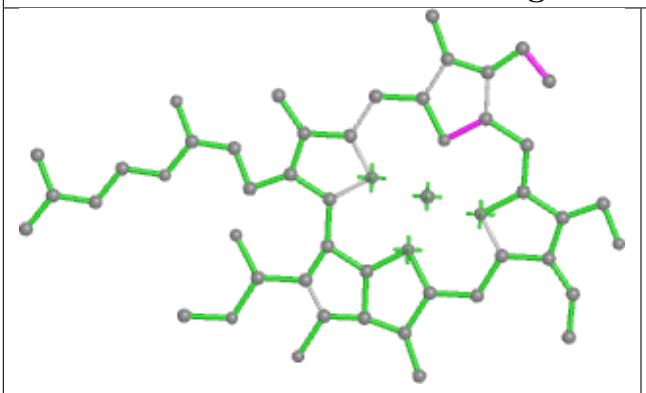


Torsions

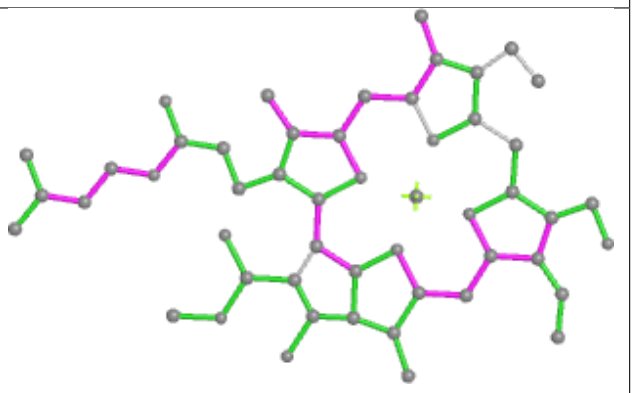


Rings

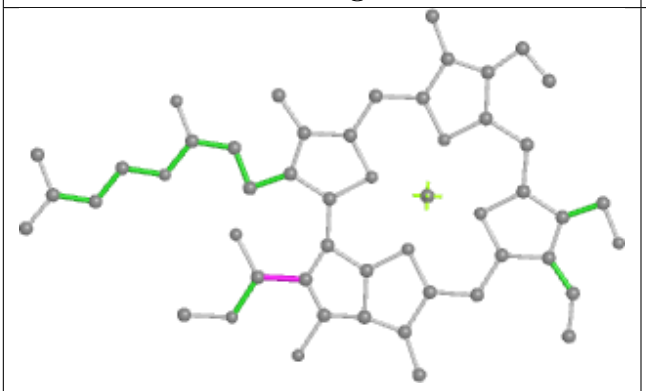
Ligand CHL 6 613



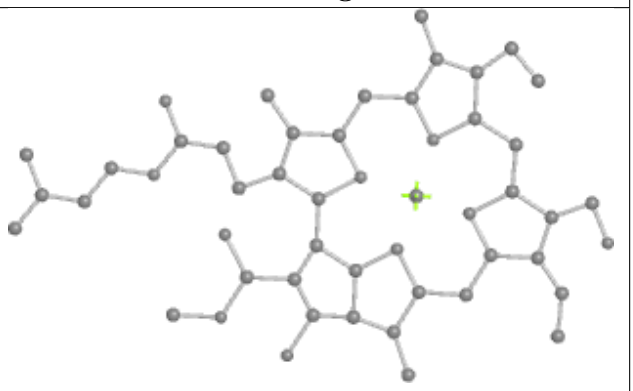
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

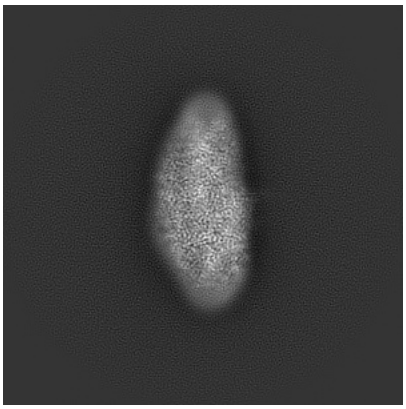
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-11588. These allow visual inspection of the internal detail of the map and identification of artifacts.

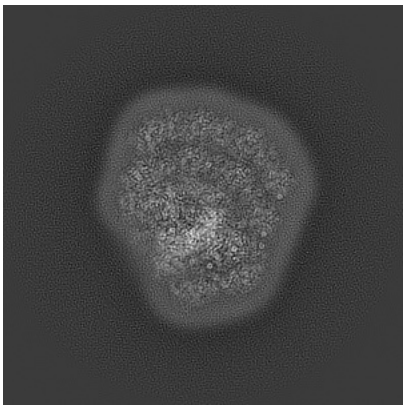
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

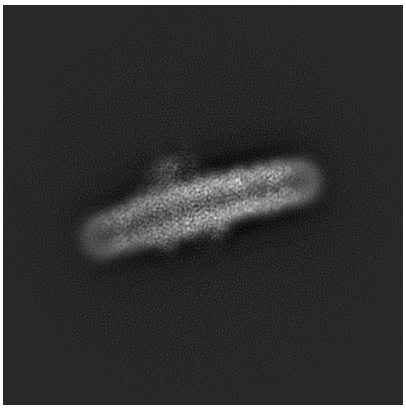
6.1.1 Primary map



X

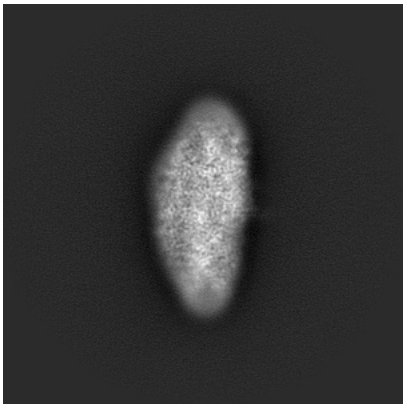


Y

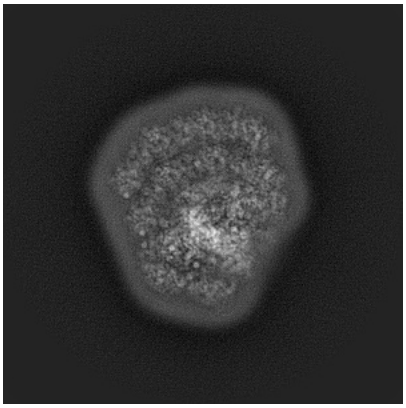


Z

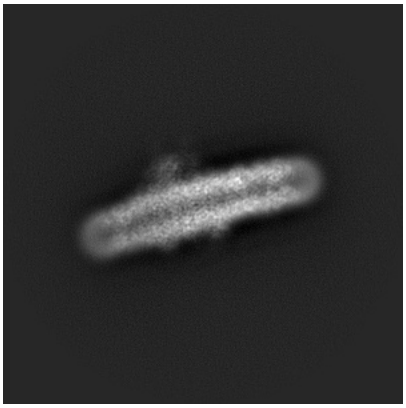
6.1.2 Raw map



X



Y

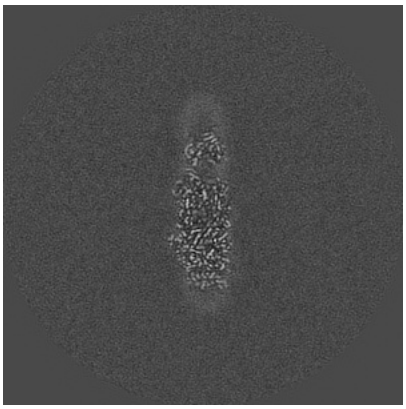


Z

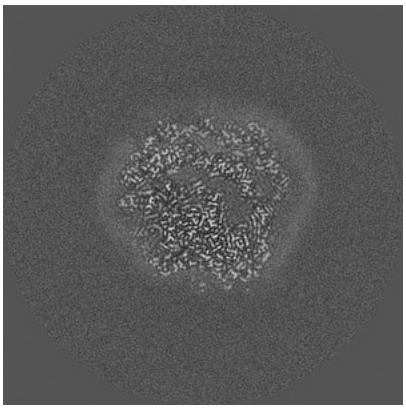
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

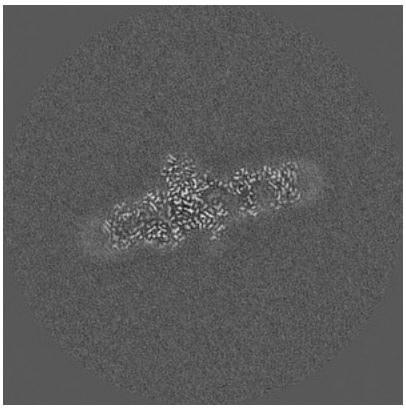
6.2.1 Primary map



X Index: 240

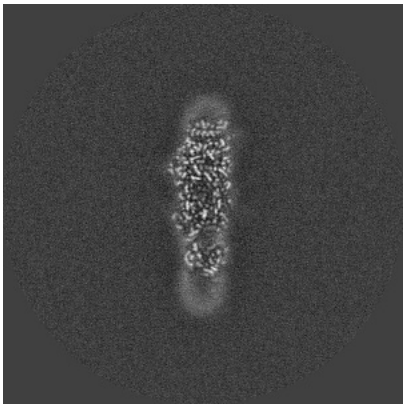


Y Index: 240

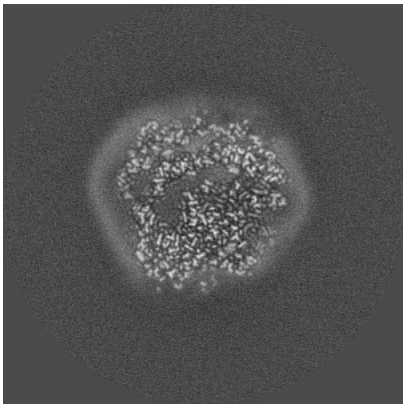


Z Index: 240

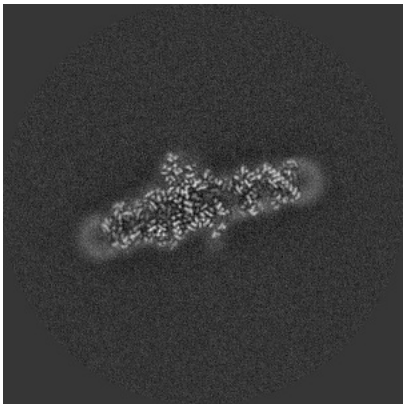
6.2.2 Raw map



X Index: 240



Y Index: 240

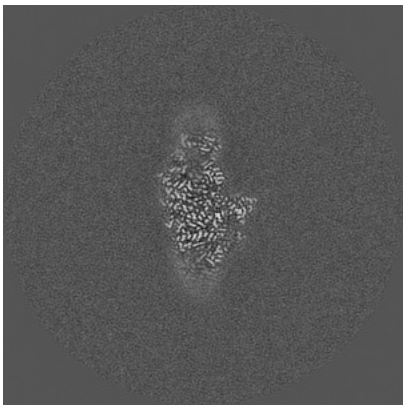


Z Index: 240

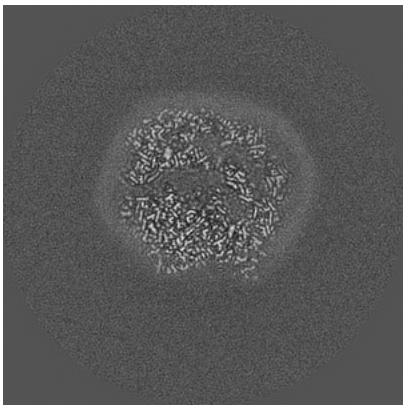
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

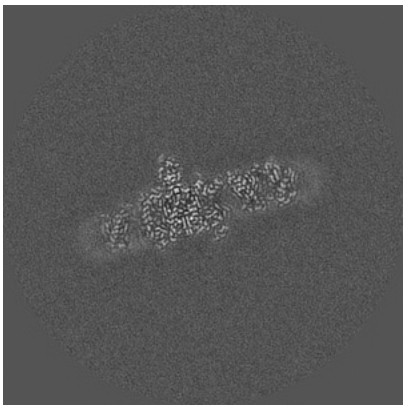
6.3.1 Primary map



X Index: 208

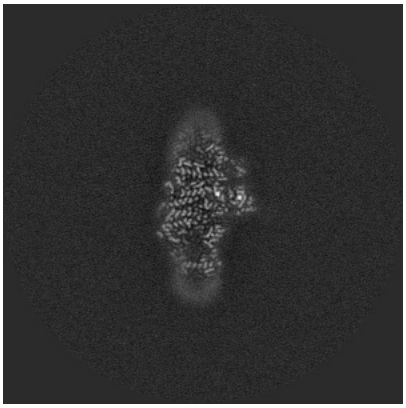


Y Index: 248

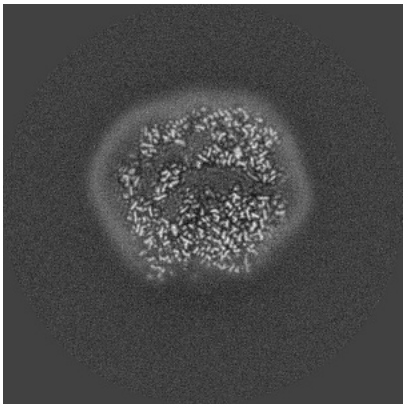


Z Index: 227

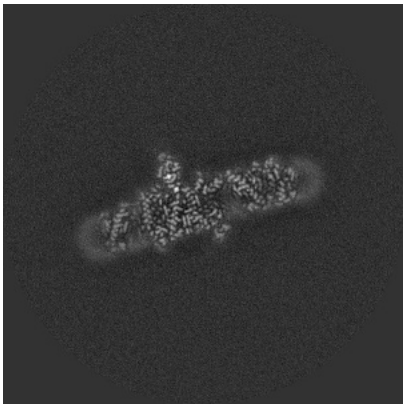
6.3.2 Raw map



X Index: 207



Y Index: 248

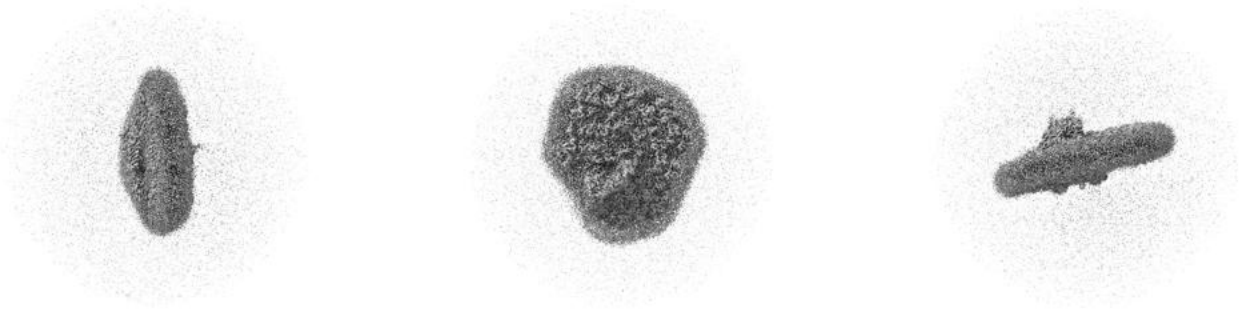


Z Index: 253

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

6.4 Orthogonal surface views (i)

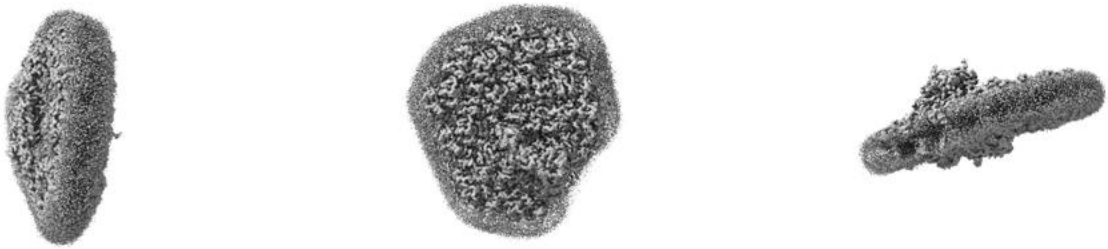
6.4.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.0112. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.4.2 Raw map



X Y Z

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.

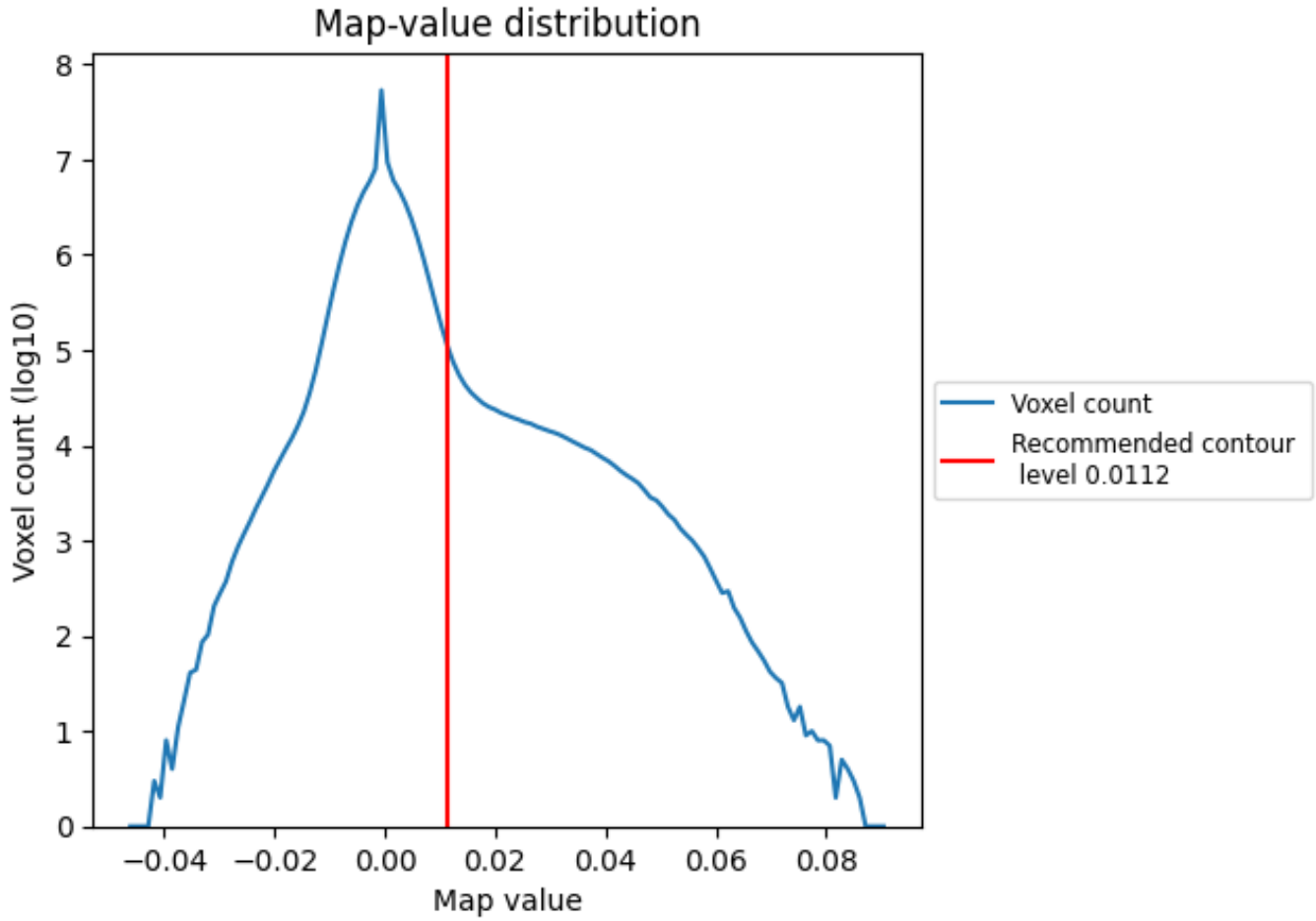
6.5 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis

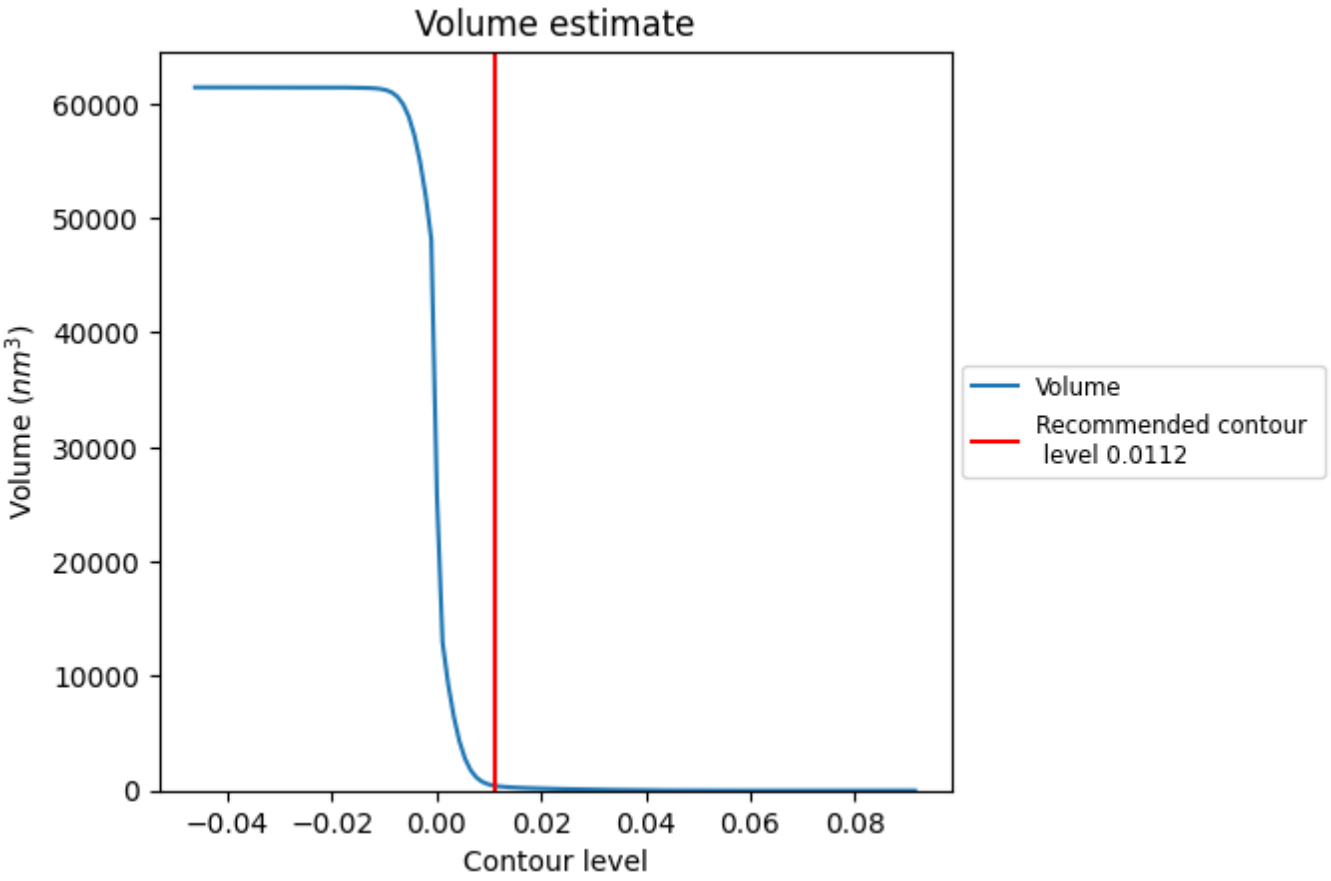
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

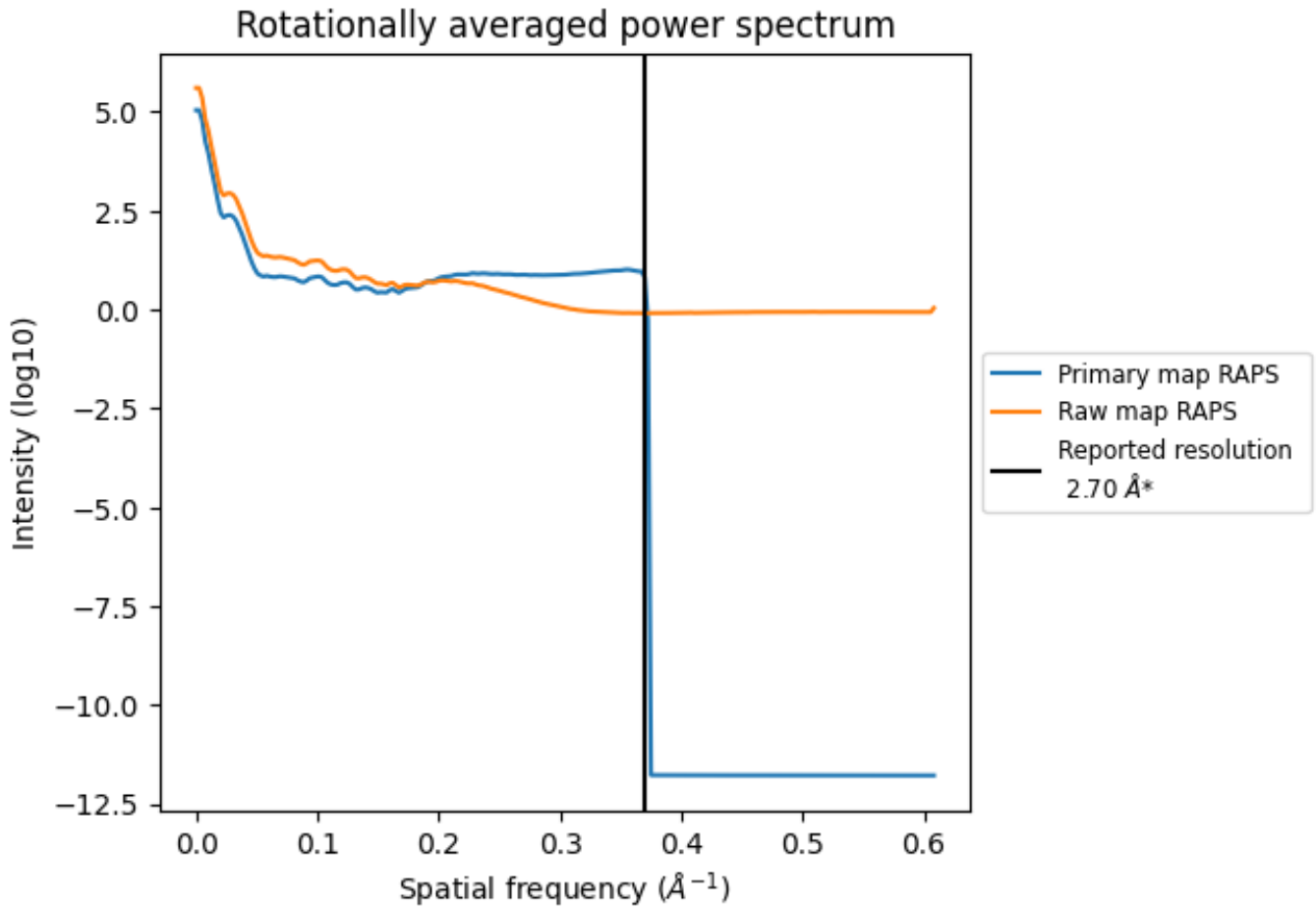
7.2 Volume estimate (i)



The volume at the recommended contour level is 418 nm^3; this corresponds to an approximate mass of 378 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)

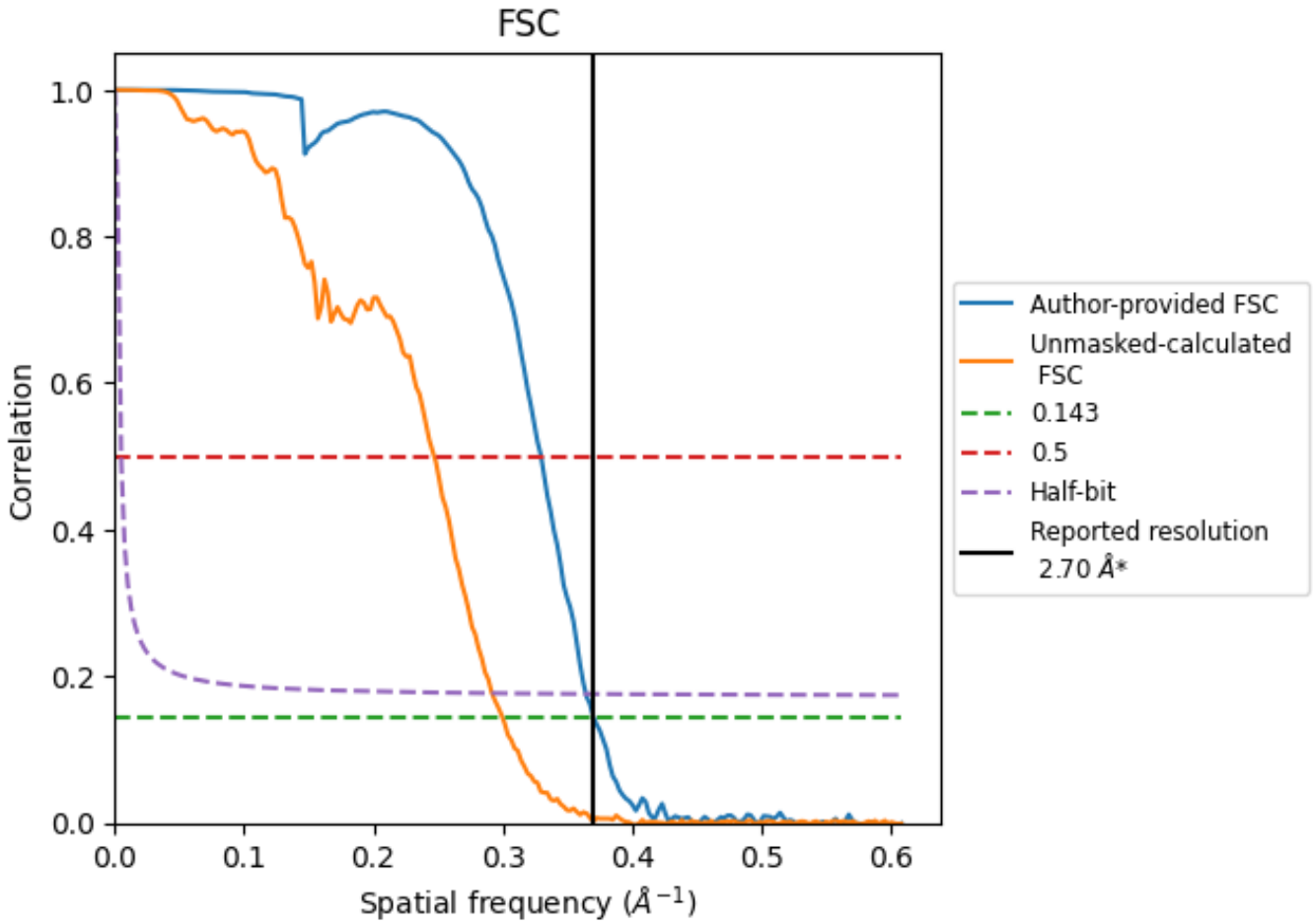


*Reported resolution corresponds to spatial frequency of 0.370 $Å^{-1}$

8 Fourier-Shell correlation

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



*Reported resolution corresponds to spatial frequency of 0.370 Å^{-1}

8.2 Resolution estimates (i)

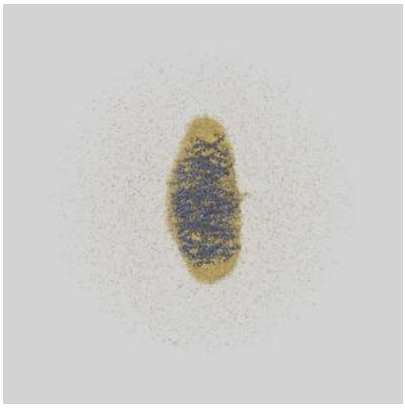
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.70	-	-
Author-provided FSC curve	2.70	3.03	2.74
Unmasked-calculated*	3.33	4.05	3.43

*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 3.33 differs from the reported value 2.7 by more than 10 %

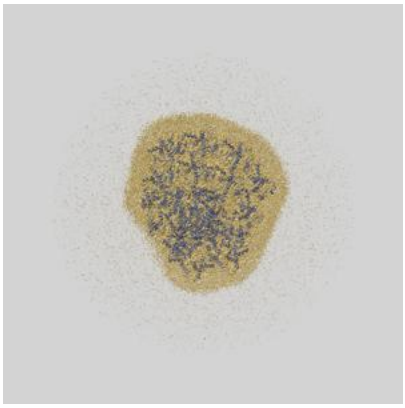
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-11588 and PDB model 6ZZX. Per-residue inclusion information can be found in section 3 on page 55.

9.1 Map-model overlay



X

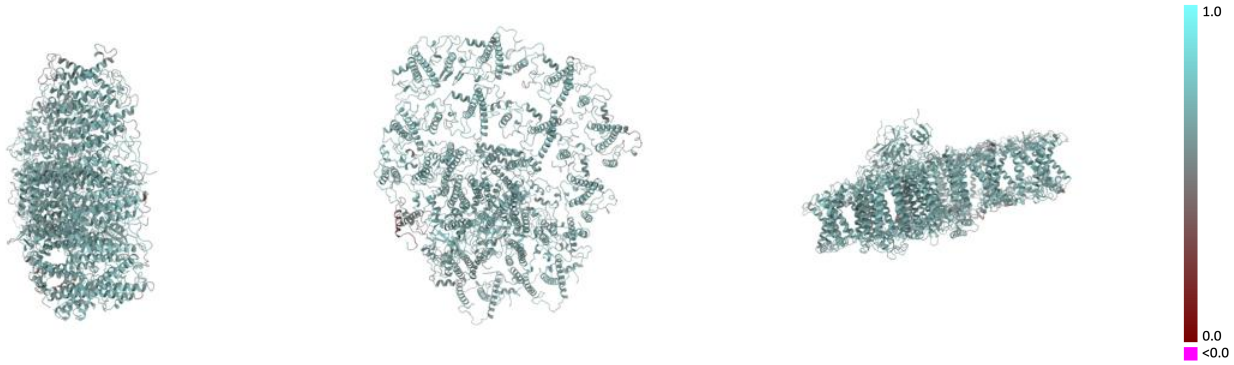


Y

Z

The images above show the 3D surface view of the map at the recommended contour level 0.0112 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.

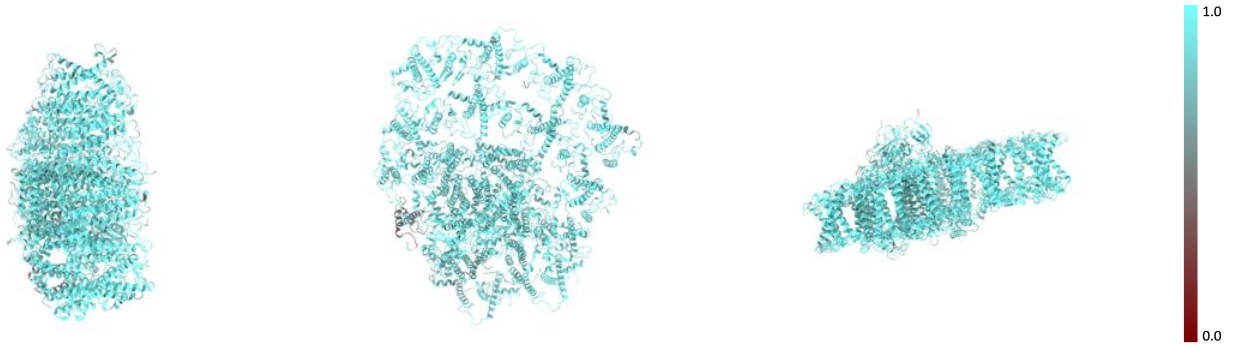
9.2 Q-score mapped to coordinate model



X Y Z

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.

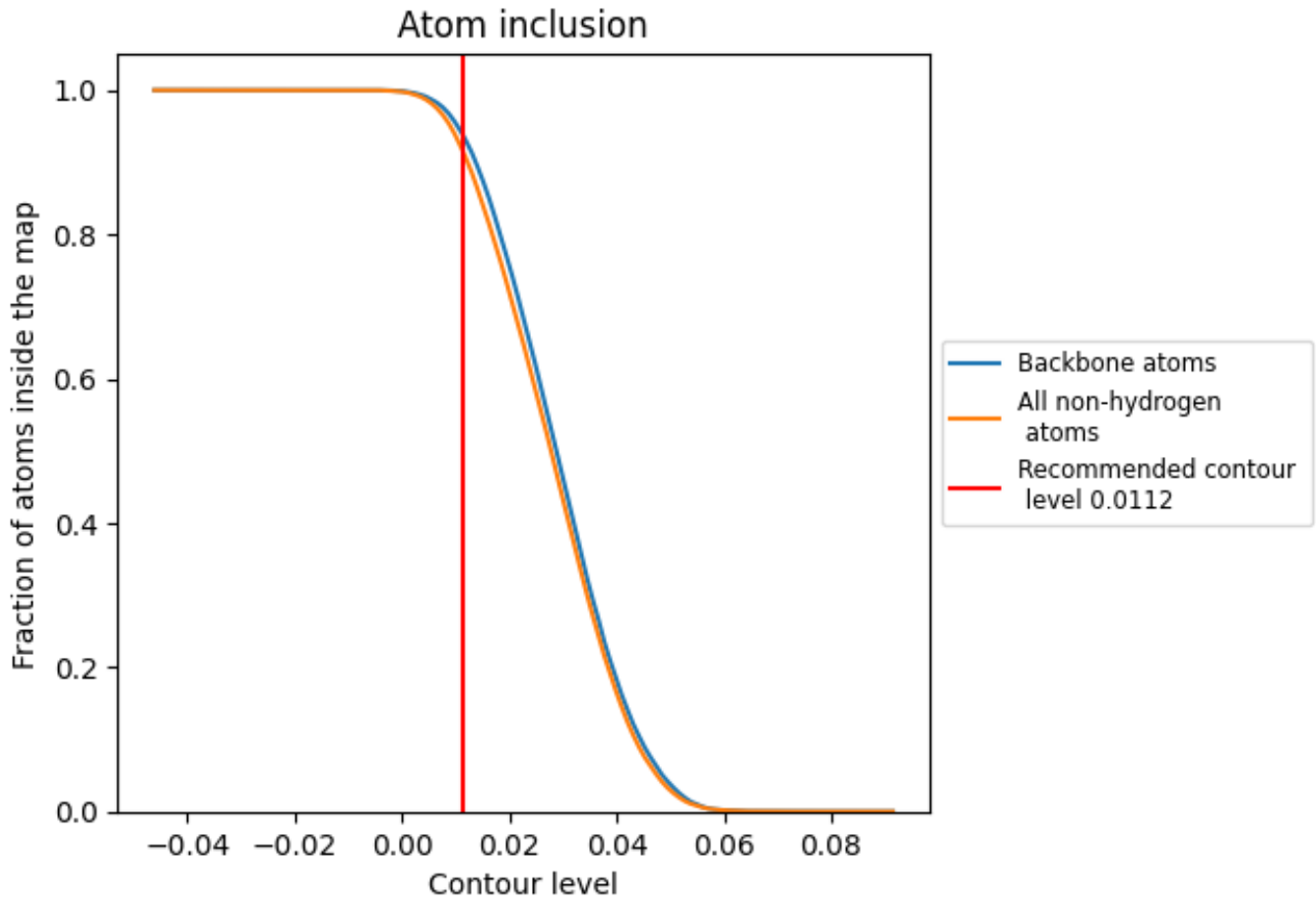
9.3 Atom inclusion mapped to coordinate model



X Y Z

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 (0.0112).

9.4 Atom inclusion (i)



At the recommended contour level, 94% of all backbone atoms, 92% 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 (0.0112) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9178	0.6210
1	0.9057	0.6130
2	0.8860	0.6000
3	0.9372	0.6350
4	0.8972	0.5980
5	0.9342	0.6190
6	0.9202	0.6190
7	0.9087	0.6200
8	0.9053	0.6190
9	0.9165	0.6190
A	0.9562	0.6480
B	0.9600	0.6500
C	0.9784	0.6530
D	0.9321	0.6250
E	0.9309	0.6160
F	0.9121	0.6210
G	0.8992	0.6170
H	0.7476	0.5440
I	0.9008	0.6100
J	0.9023	0.6260
K	0.8957	0.6010
L	0.8824	0.5930
M	0.9638	0.6330
O	0.5450	0.4140
a	0.8547	0.5770