wwPDB EM Validation Summary Report ⓘ

May 22, 2024 – 04:37 PM JST

PDB ID	:	8J6Z
EMDB ID	:	EMD-36021
Title	:	Cryo-EM structure of the Arabidopsis thaliana photosystem I(PSI-LHCII-ST2)
Authors	:	Chen, S.J.B.; Wu, J.H.; Sui, S.F.; Zhang, L.X.
Deposited on	:	2023-04-26
Resolution	:	2.79 Å(reported)

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 ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

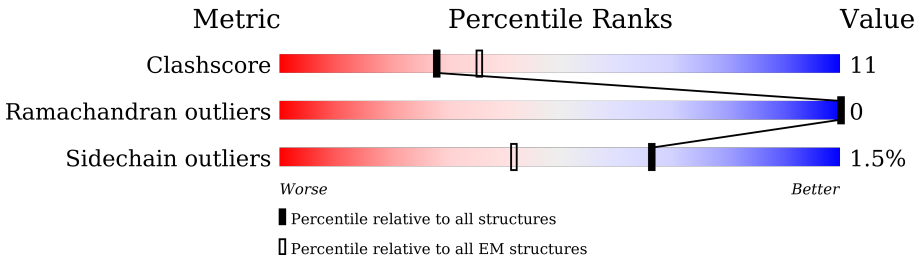
EMDB validation analysis	:	0.0.1.dev92
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36.2

1 Overall quality at a glance

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

The reported resolution of this entry is 2.79 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	1	241	64% 15% • 20%
2	2	257	65% 12% • 22%
3	3	273	69% 11% 20%
4	4	251	71% 7% 22%
5	A	750	• 89% 9% •
6	B	734	90% 10%
7	C	81	90% 7% ••
8	D	204	66% • 30%

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Mol	Chain	Length	Quality of chain
9	E	143	
10	F	221	
11	G	160	
12	H	145	
13	I	37	
14	J	44	
15	K	130	
16	L	219	
17	O	140	
18	x	267	
18	y	267	
19	z	265	

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
20	CHL	1	601	X	-	-	-
20	CHL	1	606	X	-	-	-
20	CHL	2	601	X	-	-	-
20	CHL	2	605	X	-	-	-
20	CHL	2	606	X	-	-	-
20	CHL	2	607	X	-	-	-
20	CHL	2	615	X	-	-	-
20	CHL	3	606	X	-	-	-
20	CHL	4	605	X	-	-	-
20	CHL	4	606	X	-	-	-
20	CHL	4	607	X	-	-	-
20	CHL	4	615	X	-	-	-
20	CHL	x	601	X	-	-	-
20	CHL	x	605	X	-	-	-
20	CHL	x	606	X	-	-	-
20	CHL	x	607	X	-	-	-
20	CHL	x	608	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
20	CHL	x	609	X	-	-	-
20	CHL	y	601	X	-	-	-
20	CHL	y	605	X	-	-	-
20	CHL	y	606	X	-	-	-
20	CHL	y	607	X	-	-	-
20	CHL	y	608	X	-	-	-
20	CHL	y	609	X	-	-	-
20	CHL	z	601	X	-	-	-
20	CHL	z	605	X	-	-	-
20	CHL	z	606	X	-	-	-
20	CHL	z	607	X	-	-	-
20	CHL	z	608	X	-	-	-
20	CHL	z	609	X	-	-	-
21	CLA	1	602	X	-	-	-
21	CLA	1	603	X	-	-	-
21	CLA	1	604	X	-	-	-
21	CLA	1	605	X	-	-	-
21	CLA	1	607	X	-	-	-
21	CLA	1	608	X	-	-	-
21	CLA	1	609	X	-	-	-
21	CLA	1	610	X	-	-	-
21	CLA	1	611	X	-	-	-
21	CLA	1	612	X	-	-	-
21	CLA	1	613	X	-	-	-
21	CLA	2	602	X	-	-	-
21	CLA	2	603	X	-	-	-
21	CLA	2	604	X	-	-	-
21	CLA	2	608	X	-	-	-
21	CLA	2	609	X	-	-	-
21	CLA	2	610	X	-	-	-
21	CLA	2	611	X	-	-	-
21	CLA	2	612	X	-	-	-
21	CLA	2	613	X	-	-	-
21	CLA	3	601	X	-	-	-
21	CLA	3	602	X	-	-	-
21	CLA	3	603	X	-	-	-
21	CLA	3	604	X	-	-	-
21	CLA	3	605	X	-	-	-
21	CLA	3	607	X	-	-	-
21	CLA	3	608	X	-	-	-
21	CLA	3	609	X	-	-	-
21	CLA	3	610	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
21	CLA	3	611	X	-	-	-
21	CLA	3	612	X	-	-	-
21	CLA	4	601	X	-	-	-
21	CLA	4	602	X	-	-	-
21	CLA	4	603	X	-	-	-
21	CLA	4	604	X	-	-	-
21	CLA	4	608	X	-	-	-
21	CLA	4	609	X	-	-	-
21	CLA	4	610	X	-	-	-
21	CLA	4	611	X	-	-	-
21	CLA	4	612	X	-	-	-
21	CLA	4	613	X	-	-	-
21	CLA	4	614	X	-	-	-
21	CLA	A	802	X	-	-	-
21	CLA	A	803	X	-	-	-
21	CLA	A	804	X	-	-	-
21	CLA	A	805	X	-	-	-
21	CLA	A	806	X	-	-	-
21	CLA	A	807	X	-	-	-
21	CLA	A	808	X	-	-	-
21	CLA	A	809	X	-	-	-
21	CLA	A	810	X	-	-	-
21	CLA	A	811	X	-	-	-
21	CLA	A	812	X	-	-	-
21	CLA	A	813	X	-	-	-
21	CLA	A	814	X	-	-	-
21	CLA	A	815	X	-	-	-
21	CLA	A	816	X	-	-	-
21	CLA	A	817	X	-	-	-
21	CLA	A	818	X	-	-	-
21	CLA	A	819	X	-	-	-
21	CLA	A	820	X	-	-	-
21	CLA	A	821	X	-	-	-
21	CLA	A	822	X	-	-	-
21	CLA	A	823	X	-	-	-
21	CLA	A	824	X	-	-	-
21	CLA	A	825	X	-	-	-
21	CLA	A	826	X	-	-	-
21	CLA	A	827	X	-	-	-
21	CLA	A	828	X	-	-	-
21	CLA	A	829	X	-	-	-
21	CLA	A	830	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
21	CLA	A	831	X	-	-	-
21	CLA	A	832	X	-	-	-
21	CLA	A	833	X	-	-	-
21	CLA	A	834	X	-	-	-
21	CLA	A	835	X	-	-	-
21	CLA	A	836	X	-	-	-
21	CLA	A	837	X	-	-	-
21	CLA	A	838	X	-	-	-
21	CLA	A	839	X	-	-	-
21	CLA	A	840	X	-	-	-
21	CLA	A	841	X	-	-	-
21	CLA	A	842	X	-	-	-
21	CLA	A	843	X	-	-	-
21	CLA	A	844	X	-	-	-
21	CLA	A	845	X	-	-	-
21	CLA	B	802	X	-	-	-
21	CLA	B	803	X	-	-	-
21	CLA	B	804	X	-	-	-
21	CLA	B	805	X	-	-	-
21	CLA	B	806	X	-	-	-
21	CLA	B	807	X	-	-	-
21	CLA	B	808	X	-	-	-
21	CLA	B	809	X	-	-	-
21	CLA	B	810	X	-	-	-
21	CLA	B	811	X	-	-	-
21	CLA	B	812	X	-	-	-
21	CLA	B	813	X	-	-	-
21	CLA	B	814	X	-	-	-
21	CLA	B	815	X	-	-	-
21	CLA	B	816	X	-	-	-
21	CLA	B	817	X	-	-	-
21	CLA	B	818	X	-	-	-
21	CLA	B	819	X	-	-	-
21	CLA	B	820	X	-	-	-
21	CLA	B	821	X	-	-	-
21	CLA	B	822	X	-	-	-
21	CLA	B	823	X	-	-	-
21	CLA	B	824	X	-	-	-
21	CLA	B	825	X	-	-	-
21	CLA	B	826	X	-	-	-
21	CLA	B	827	X	-	-	-
21	CLA	B	828	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
21	CLA	B	829	X	-	-	-
21	CLA	B	830	X	-	-	-
21	CLA	B	831	X	-	-	-
21	CLA	B	832	X	-	-	-
21	CLA	B	833	X	-	-	-
21	CLA	B	834	X	-	-	-
21	CLA	B	835	X	-	-	-
21	CLA	B	836	X	-	-	-
21	CLA	B	837	X	-	-	-
21	CLA	B	838	X	-	-	-
21	CLA	B	839	X	-	-	-
21	CLA	B	840	X	-	-	-
21	CLA	B	841	X	-	-	-
21	CLA	F	301	X	-	-	-
21	CLA	F	302	X	-	-	-
21	CLA	F	303	X	-	-	-
21	CLA	G	201	X	-	-	-
21	CLA	G	202	X	-	-	-
21	CLA	G	203	X	-	-	-
21	CLA	H	201	X	-	-	-
21	CLA	J	101	X	-	-	-
21	CLA	K	201	X	-	-	-
21	CLA	K	203	X	-	-	-
21	CLA	K	204	X	-	-	-
21	CLA	K	206	X	-	-	-
21	CLA	L	302	X	-	-	-
21	CLA	L	303	X	-	-	-
21	CLA	L	304	X	-	-	-
21	CLA	O	201	X	-	-	-
21	CLA	O	202	X	-	-	-
21	CLA	O	203	X	-	-	-
21	CLA	x	602	X	-	-	-
21	CLA	x	603	X	-	-	-
21	CLA	x	604	X	-	-	-
21	CLA	x	610	X	-	-	-
21	CLA	x	611	X	-	-	-
21	CLA	x	612	X	-	-	-
21	CLA	x	613	X	-	-	-
21	CLA	x	614	X	-	-	-
21	CLA	y	602	X	-	-	-
21	CLA	y	603	X	-	-	-
21	CLA	y	604	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
21	CLA	y	610	X	-	-	-
21	CLA	y	611	X	-	-	-
21	CLA	y	612	X	-	-	-
21	CLA	y	613	X	-	-	-
21	CLA	y	614	X	-	-	-
21	CLA	z	602	X	-	-	-
21	CLA	z	603	X	-	-	-
21	CLA	z	604	X	-	-	-
21	CLA	z	610	X	-	-	-
21	CLA	z	611	X	-	-	-
21	CLA	z	612	X	-	-	-
21	CLA	z	613	X	-	-	-
21	CLA	z	614	X	-	-	-
27	CL0	A	801	X	-	-	-
28	SF4	A	854	-	-	X	-
28	SF4	C	101	-	-	X	-
28	SF4	C	102	-	-	X	-

2 Entry composition (i)

There are 31 unique types of molecules in this entry. The entry contains 43924 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 Chlorophyll a-b binding protein 6, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	1	193	1496	975	248	268	5	0	0

- Molecule 2 is a protein called Photosystem I chlorophyll a/b-binding protein 2, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	2	201	1566	1024	256	282	4	0	0

- Molecule 3 is a protein called Photosystem I chlorophyll a/b-binding protein 3-1, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	3	218	1666	1088	270	303	5	0	0

- Molecule 4 is a protein called Chlorophyll a-b binding protein 4, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	4	196	1551	1013	253	282	3	0	0

- Molecule 5 is a protein called Photosystem I P700 chlorophyll a apoprotein A1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	A	737	5807	3807	986	996	18	0	0

- Molecule 6 is a protein called Photosystem I P700 chlorophyll a apoprotein A2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	B	732	5854	3842	997	1001	14	0	0

- Molecule 7 is a protein called Photosystem I iron-sulfur center.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	C	80	Total	C	N	O	S	0	0
			616	381	107	117	11		

- Molecule 8 is a protein called Photosystem I reaction center subunit II-2, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	D	143	Total	C	N	O	S	0	0
			1128	723	195	206	4		

- Molecule 9 is a protein called Photosystem I reaction center subunit IV A, chloroplastic.

Mol	Chain	Residues	Atoms				AltConf	Trace
9	E	64	Total	C	N	O	0	0
			517	331	92	94		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
10	F	152	Total	C	N	O	S	0	0
			1208	789	207	209	3		

- Molecule 11 is a protein called Photosystem I reaction center subunit V, chloroplastic.

Mol	Chain	Residues	Atoms				AltConf	Trace
11	G	91	Total	C	N	O	0	0
			708	458	118	132		

- Molecule 12 is a protein called Photosystem I reaction center subunit VI-2, chloroplastic.

Mol	Chain	Residues	Atoms				AltConf	Trace
12	H	90	Total	C	N	O	0	0
			693	451	112	130		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
13	I	31	Total	C	N	O	S	0	0
			239	162	39	37	1		

- Molecule 14 is a protein called Photosystem I reaction center subunit IX.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	J	41	Total	C	N	O	S	0	0
			327	221	50	55	1		

- Molecule 15 is a protein called Photosystem I reaction center subunit psaK, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	K	84	Total	C	N	O	S	0	0
			593	373	104	113	3		

- Molecule 16 is a protein called Photosystem I reaction center subunit XI, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	L	160	Total	C	N	O	S	0	0
			1207	799	191	215	2		

- Molecule 17 is a protein called Photosystem I subunit O.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	O	86	Total	C	N	O	S	0	0
			686	456	114	115	1		

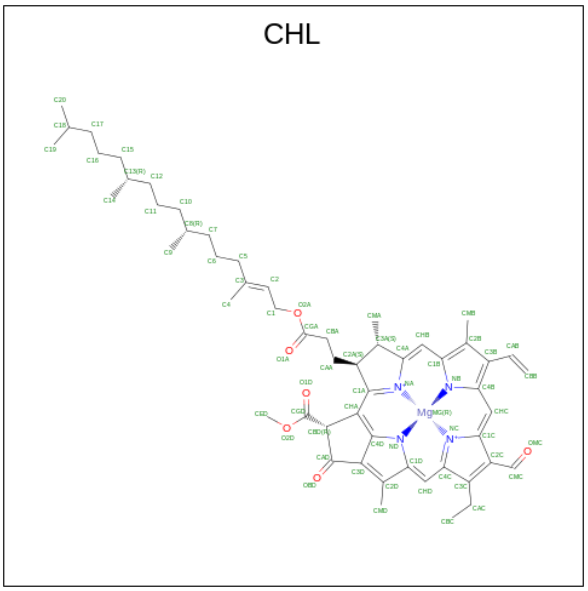
- Molecule 18 is a protein called Chlorophyll a-b binding protein 2, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	x	219	Total	C	N	O	S	0	0
			1666	1078	273	310	5		
18	y	219	Total	C	N	O	S	0	0
			1666	1078	273	310	5		

- Molecule 19 is a protein called Chlorophyll a-b binding protein 2.1, chloroplastic.

Mol	Chain	Residues	Atoms						AltConf	Trace
19	z	227	Total	C	N	O	P	S	0	0
			1759	1140	286	327	1	5		

- Molecule 20 is CHLOROPHYLL B (three-letter code: CHL) (formula: $C_{55}H_{70}MgN_4O_6$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
20	1	1	Total 52	C 41	Mg 1	N 4	O 6	0
20	1	1	Total 41	C 32	Mg 1	N 4	O 4	0
20	2	1	Total 42	C 33	Mg 1	N 4	O 4	0
20	2	1	Total 43	C 34	Mg 1	N 4	O 4	0
20	2	1	Total 47	C 36	Mg 1	N 4	O 6	0
20	2	1	Total 51	C 40	Mg 1	N 4	O 6	0
20	2	1	Total 43	C 34	Mg 1	N 4	O 4	0
20	3	1	Total 45	C 35	Mg 1	N 4	O 5	0
20	4	1	Total 41	C 32	Mg 1	N 4	O 4	0
20	4	1	Total 41	C 33	Mg 1	N 4	O 3	0
20	4	1	Total 41	C 32	Mg 1	N 4	O 4	0
20	4	1	Total 46	C 35	Mg 1	N 4	O 6	0
20	x	1	Total 42	C 33	Mg 1	N 4	O 4	0
20	x	1	Total 46	C 35	Mg 1	N 4	O 6	0

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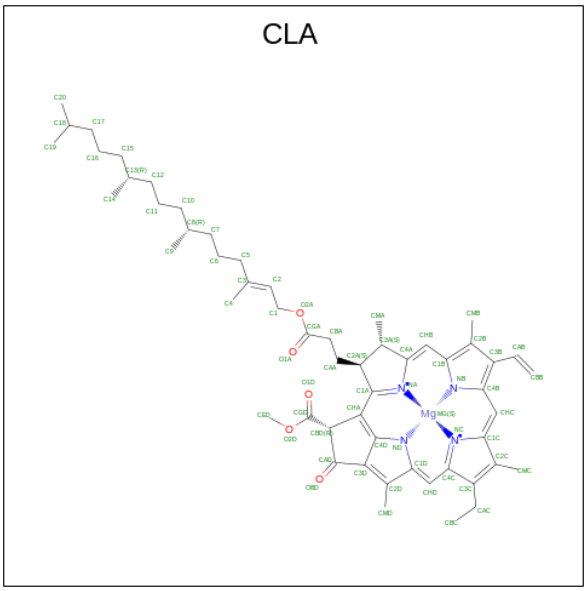
Mol	Chain	Residues	Atoms					AltConf
20	x	1	Total	C	Mg	N	O	0
			53	42	1	4	6	
20	x	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
20	x	1	Total	C	Mg	N	O	0
			53	42	1	4	6	
20	x	1	Total	C	Mg	N	O	0
			53	42	1	4	6	
20	y	1	Total	C	Mg	N	O	0
			53	42	1	4	6	
20	y	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
20	y	1	Total	C	Mg	N	O	0
			53	42	1	4	6	
20	y	1	Total	C	Mg	N	O	0
			42	33	1	4	4	
20	y	1	Total	C	Mg	N	O	0
			49	38	1	4	6	
20	y	1	Total	C	Mg	N	O	0
			53	42	1	4	6	
20	z	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
20	z	1	Total	C	Mg	N	O	0
			53	42	1	4	6	
20	z	1	Total	C	Mg	N	O	0
			49	38	1	4	6	
20	z	1	Total	C	Mg	N	O	0
			53	42	1	4	6	
20	z	1	Total	C	Mg	N	O	0
			42	33	1	4	4	
20	z	1	Total	C	Mg	N	O	0
			52	41	1	4	6	

- Molecule 21 is CHLOROPHYLL A (three-letter code: CLA) (formula: $C_{55}H_{72}MgN_4O_5$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
21	1	1	Total 54	C 44	Mg 1	N 4	O 5	0
21	1	1	Total 54	C 44	Mg 1	N 4	O 5	0
21	1	1	Total 49	C 39	Mg 1	N 4	O 5	0
21	1	1	Total 46	C 36	Mg 1	N 4	O 5	0
21	1	1	Total 44	C 34	Mg 1	N 4	O 5	0
21	1	1	Total 40	C 32	Mg 1	N 4	O 3	0
21	1	1	Total 42	C 34	Mg 1	N 4	O 3	0
21	1	1	Total 38	C 30	Mg 1	N 4	O 3	0
21	1	1	Total 45	C 35	Mg 1	N 4	O 5	0
21	1	1	Total 46	C 36	Mg 1	N 4	O 5	0
21	1	1	Total 38	C 30	Mg 1	N 4	O 3	0
21	2	1	Total 65	C 55	Mg 1	N 4	O 5	0
21	2	1	Total 44	C 34	Mg 1	N 4	O 5	0
21	2	1	Total 43	C 34	Mg 1	N 4	O 4	0

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Mol	Chain	Residues	Atoms					AltConf
21	2	1	Total	C	Mg	N	O	0
			38	30	1	4	3	
21	2	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	2	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
21	2	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	2	1	Total	C	Mg	N	O	0
			47	37	1	4	5	
21	2	1	Total	C	Mg	N	O	0
			43	35	1	4	3	
21	3	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
21	3	1	Total	C	Mg	N	O	0
			36	30	1	4	1	
21	3	1	Total	C	Mg	N	O	0
			41	33	1	4	3	
21	3	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	3	1	Total	C	Mg	N	O	0
			40	32	1	4	3	
21	3	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	3	1	Total	C	Mg	N	O	0
			41	33	1	4	3	
21	3	1	Total	C	Mg	N	O	0
			40	32	1	4	3	
21	3	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
21	3	1	Total	C	Mg	N	O	0
			54	44	1	4	5	
21	3	1	Total	C	Mg	N	O	0
			41	33	1	4	3	
21	4	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	4	1	Total	C	Mg	N	O	0
			54	44	1	4	5	
21	4	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	4	1	Total	C	Mg	N	O	0
			44	34	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
21	4	1	Total	C	Mg	N	O	0
			41	33	1	4	3	
21	4	1	Total	C	Mg	N	O	0
			57	47	1	4	5	
21	4	1	Total	C	Mg	N	O	0
			46	36	1	4	5	
21	4	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
21	4	1	Total	C	Mg	N	O	0
			42	34	1	4	3	
21	4	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
21	4	1	Total	C	Mg	N	O	0
			43	33	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			54	44	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			42	34	1	4	3	
21	A	1	Total	C	Mg	N	O	0
			41	33	1	4	3	
21	A	1	Total	C	Mg	N	O	0
			59	49	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			52	42	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			42	34	1	4	3	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			59	49	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			51	41	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			56	46	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			52	42	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	A	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			41	33	1	4	3	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			59	49	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			56	46	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			43	35	1	4	3	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
21	B	1	Total	C	Mg	N	O	0
			43	35	1	4	3	
21	B	1	Total	C	Mg	N	O	0
			54	44	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			62	52	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			47	37	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			52	42	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			42	34	1	4	3	
21	B	1	Total	C	Mg	N	O	0
			47	37	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			62	52	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			43	35	1	4	3	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
21	B	1	Total	C	Mg	N	O	0
			43	35	1	4	3	
21	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	F	1	Total	C	Mg	N	O	0
			51	41	1	4	5	
21	F	1	Total	C	Mg	N	O	0
			41	33	1	4	3	
21	F	1	Total	C	Mg	N	O	0
			57	47	1	4	5	
21	G	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	G	1	Total	C	Mg	N	O	0
			42	34	1	4	3	
21	G	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	H	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
21	J	1	Total	C	Mg	N	O	0
			51	41	1	4	5	
21	K	1	Total	C	Mg	N	O	0
			37	31	1	4	1	
21	K	1	Total	C	Mg	N	O	0
			46	36	1	4	5	
21	K	1	Total	C	Mg	N	O	0
			39	31	1	4	3	
21	K	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	L	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	L	1	Total	C	Mg	N	O	0
			65	55	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
21	L	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	O	1	Total	C	Mg	N	O	0
			38	30	1	4	3	
21	O	1	Total	C	Mg	N	O	0
			38	30	1	4	3	
21	O	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	x	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	x	1	Total	C	Mg	N	O	0
			52	42	1	4	5	
21	x	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	x	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	x	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	x	1	Total	C	Mg	N	O	0
			59	49	1	4	5	
21	x	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	x	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
21	y	1	Total	C	Mg	N	O	0
			53	43	1	4	5	
21	y	1	Total	C	Mg	N	O	0
			58	48	1	4	5	
21	y	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	y	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	y	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	y	1	Total	C	Mg	N	O	0
			51	41	1	4	5	
21	y	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	y	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	z	1	Total	C	Mg	N	O	0
			65	55	1	4	5	

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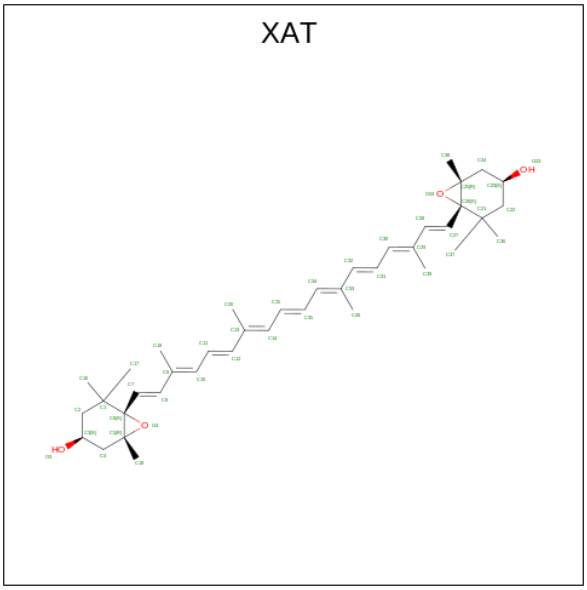
Mol	Chain	Residues	Atoms					AltConf
21	z	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	z	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	z	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
21	z	1	Total	C	Mg	N	O	0
			51	41	1	4	5	
21	z	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	z	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
21	z	1	Total	C	Mg	N	O	0
			57	47	1	4	5	

- Molecule 22 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
22	1	1	Total	C	O	0
			44	40	4	
22	2	1	Total	C	O	0
			44	40	4	
22	4	1	Total	C	O	0
			44	40	4	
22	x	1	Total	C	O	0
			44	40	4	

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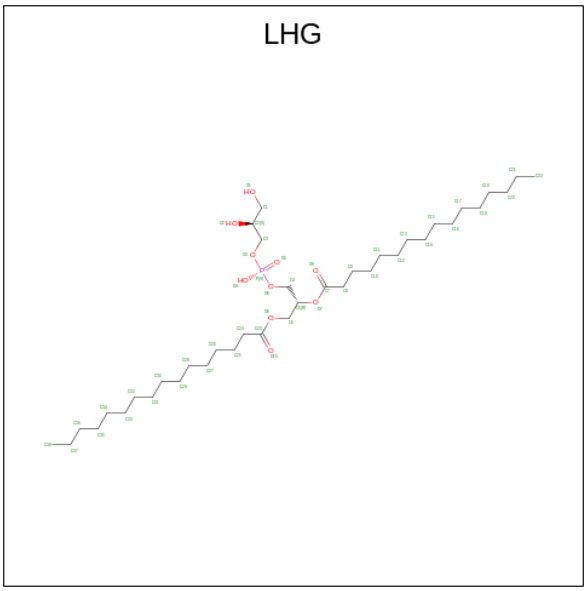
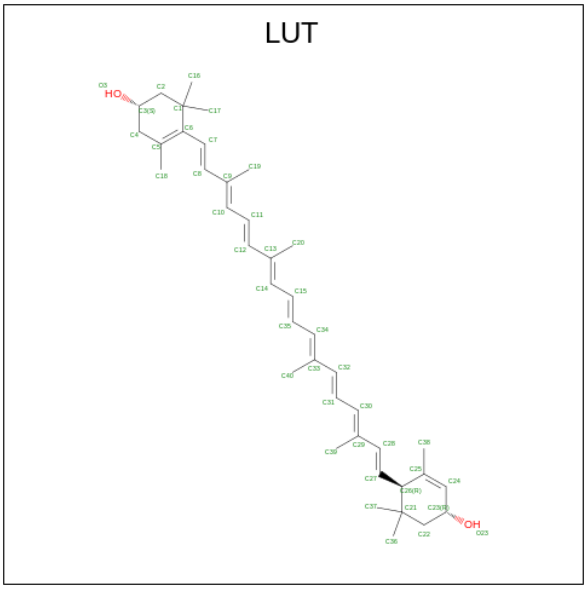
Mol	Chain	Residues	Atoms	AltConf
22	y	1	Total C O 44 40 4	0
22	z	1	Total C O 44 40 4	0

- Molecule 23 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula: $C_{38}H_{75}O_{10}P$).



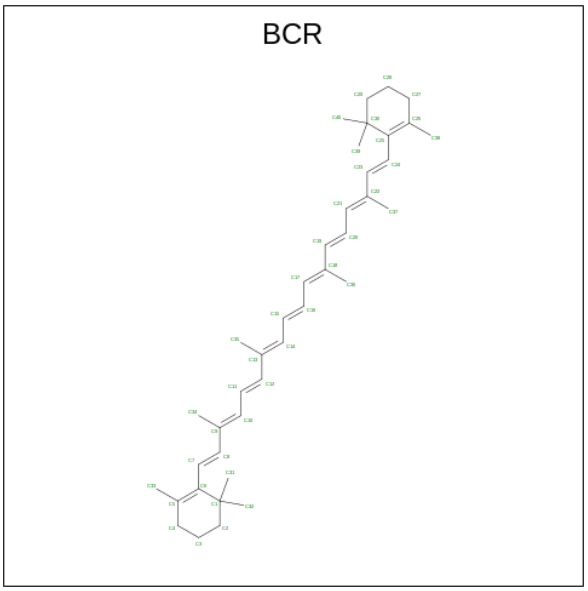
Mol	Chain	Residues	Atoms	AltConf
23	1	1	Total C O P 49 38 10 1	0
23	2	1	Total C O P 37 26 10 1	0
23	A	1	Total C O P 30 19 10 1	0
23	A	1	Total C O P 49 38 10 1	0
23	B	1	Total C O P 38 27 10 1	0
23	B	1	Total C O P 49 38 10 1	0
23	x	1	Total C O P 49 38 10 1	0
23	y	1	Total C O P 49 38 10 1	0
23	z	1	Total C O P 49 38 10 1	0

- Molecule 24 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
24	1	1	Total C O 42 40 2	0
24	2	1	Total C O 42 40 2	0
24	2	1	Total C O 42 40 2	0
24	3	1	Total C O 42 40 2	0
24	4	1	Total C O 42 40 2	0
24	x	1	Total C O 42 40 2	0
24	x	1	Total C O 42 40 2	0
24	y	1	Total C O 42 40 2	0
24	y	1	Total C O 42 40 2	0
24	z	1	Total C O 42 40 2	0
24	z	1	Total C O 42 40 2	0

- Molecule 25 is BETA-CAROTENE (three-letter code: BCR) (formula: $C_{40}H_{56}$).



Mol	Chain	Residues	Atoms	AltConf
25	3	1	Total C 40 40	0
25	4	1	Total C 40 40	0
25	A	1	Total C 40 40	0
25	A	1	Total C 40 40	0
25	A	1	Total C 40 40	0
25	A	1	Total C 40 40	0
25	A	1	Total C 40 40	0
25	A	1	Total C 40 40	0
25	B	1	Total C 40 40	0
25	B	1	Total C 40 40	0
25	B	1	Total C 40 40	0
25	B	1	Total C 40 40	0
25	B	1	Total C 40 40	0
25	B	1	Total C 40 40	0

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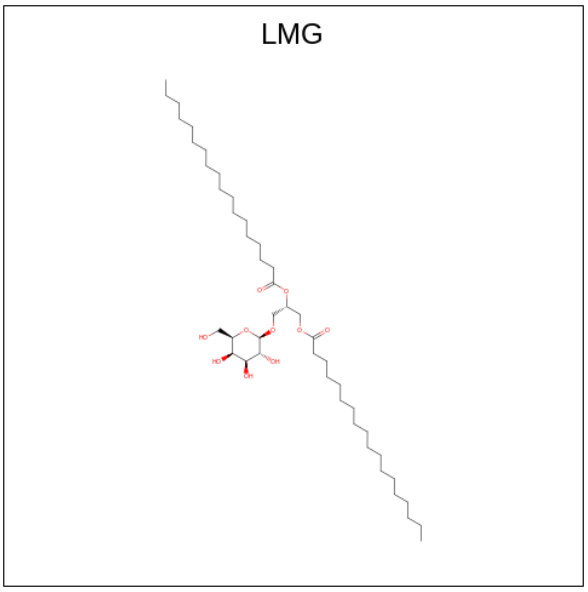
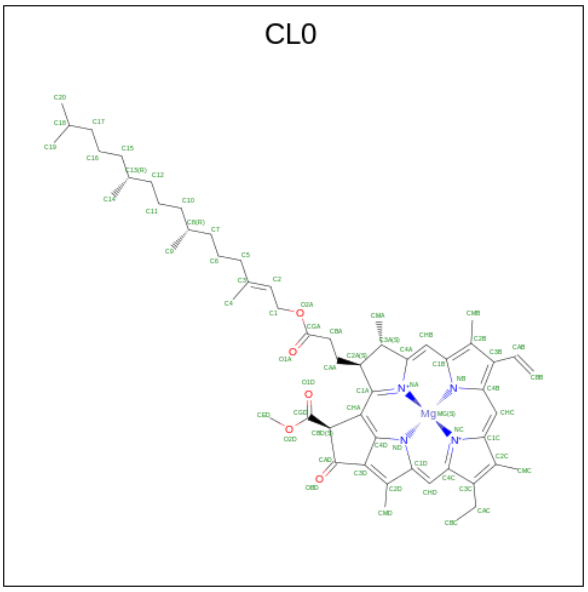
Mol	Chain	Residues	Atoms	AltConf
25	B	1	Total C 40 40	0
25	B	1	Total C 40 40	0
25	F	1	Total C 40 40	0
25	G	1	Total C 40 40	0
25	I	1	Total C 40 40	0
25	J	1	Total C 40 40	0
25	K	1	Total C 40 40	0
25	K	1	Total C 40 40	0
25	L	1	Total C 40 40	0
25	L	1	Total C 40 40	0
25	L	1	Total C 40 40	0
25	O	1	Total C 40 40	0
25	O	1	Total C 40 40	0

- Molecule 26 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: $C_{45}H_{86}O_{10}$).



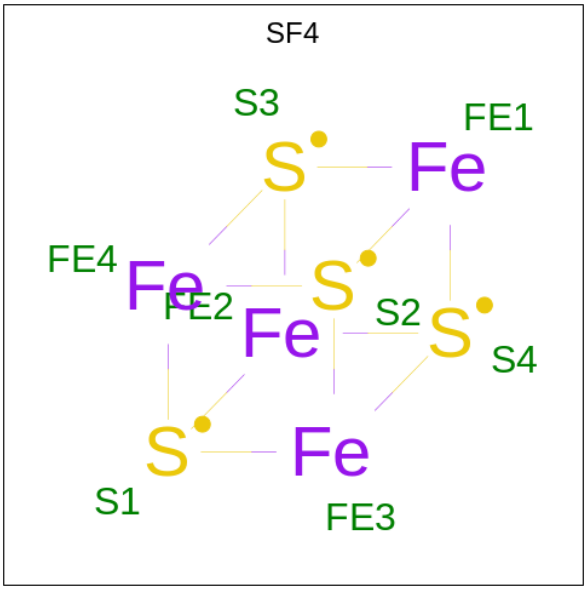
Mol	Chain	Residues	Atoms			AltConf
26	4	1	Total 39	C 29	O 10	0
26	4	1	Total 33	C 23	O 10	0

- Molecule 27 is CHLOROPHYLL A ISOMER (three-letter code: CL0) (formula: $C_{55}H_{72}MgN_4O_5$) (labeled as "Ligand of Interest" by depositor).



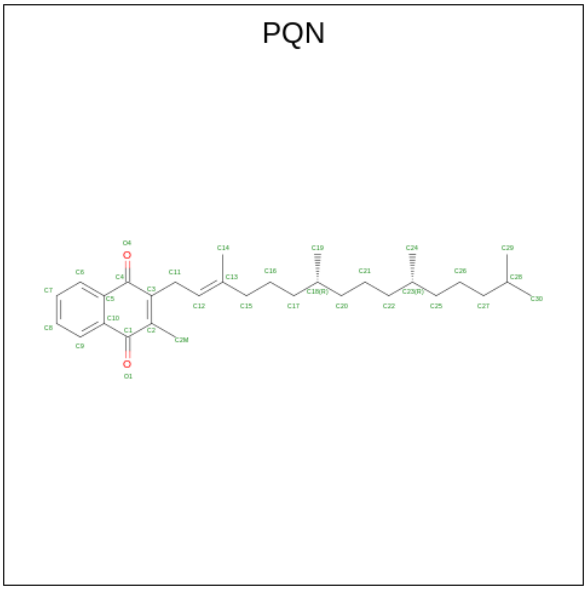
Mol	Chain	Residues	Atoms					AltConf
27	A	1	Total 61	C 53	Mg 1	N 4	O 3	0

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



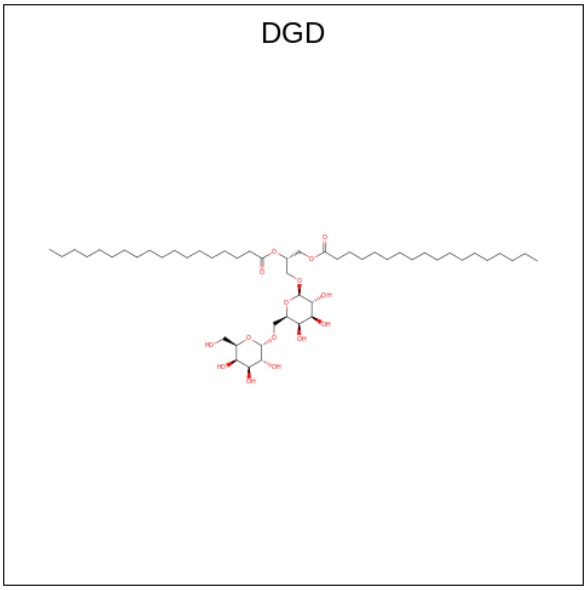
Mol	Chain	Residues	Atoms	AltConf
28	A	1	Total Fe S 8 4 4	0
28	C	1	Total Fe S 8 4 4	0
28	C	1	Total Fe S 8 4 4	0

- Molecule 29 is PHYLLOQUINONE (three-letter code: PQN) (formula: $C_{31}H_{46}O_2$).



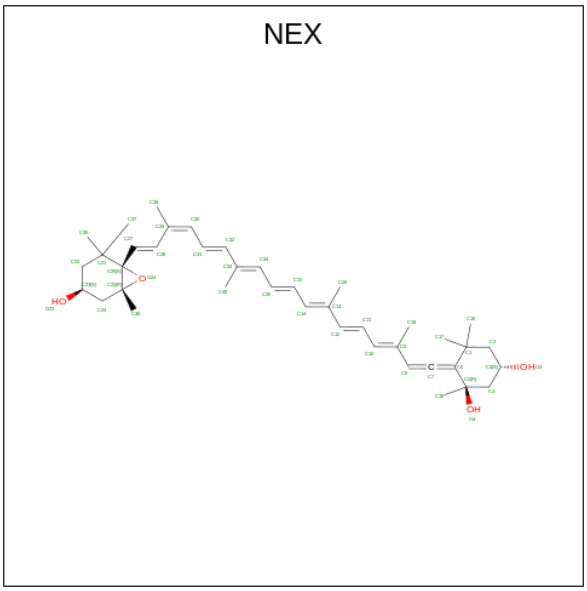
Mol	Chain	Residues	Atoms			AltConf
29	A	1	Total	C	O	0
			33	31	2	
29	B	1	Total	C	O	0
			33	31	2	

- Molecule 30 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula: $C_{51}H_{96}O_{15}$).



Mol	Chain	Residues	Atoms			AltConf
30	B	1	Total	C	O	0
			66	51	15	

- Molecule 31 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: $C_{40}H_{56}O_4$).



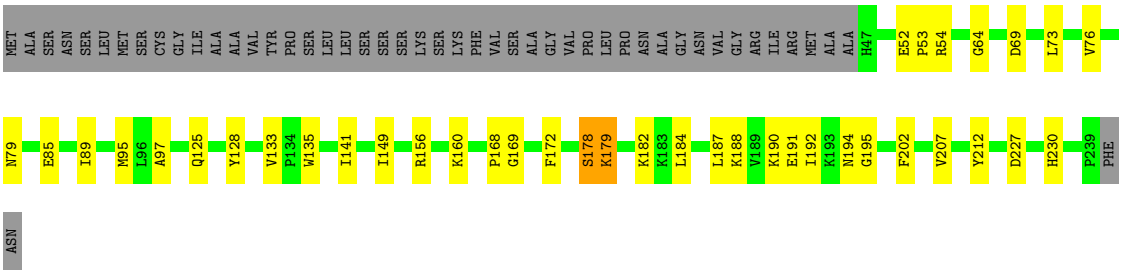
Mol	Chain	Residues	Atoms			AltConf
31	x	1	Total	C	O	0
			44	40	4	
31	y	1	Total	C	O	0
			44	40	4	
31	z	1	Total	C	O	0
			44	40	4	

3 Residue-property plots

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

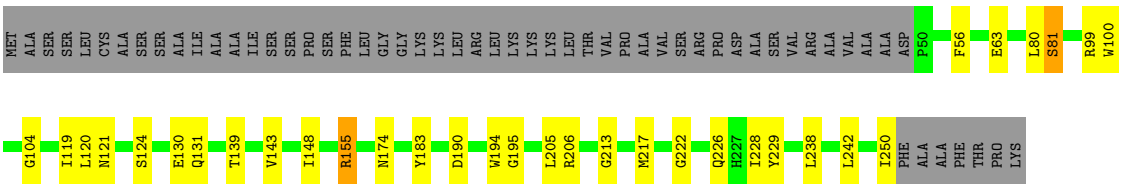
• Molecule 1: Chlorophyll a-b binding protein 6, chloroplastic

Chain 1:



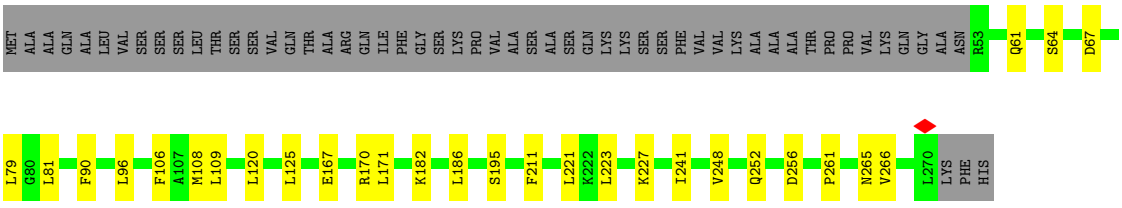
• Molecule 2: Photosystem I chlorophyll a/b-binding protein 2, chloroplastic

Chain 2:



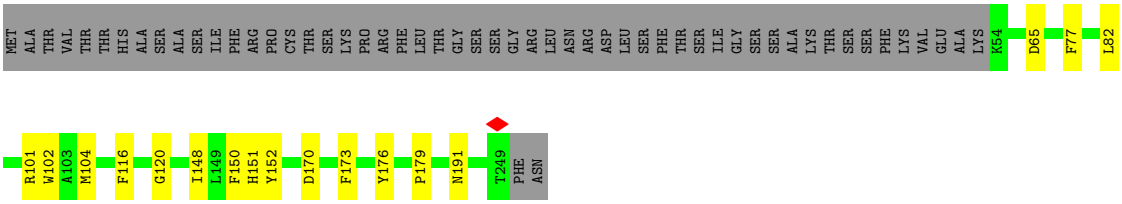
• Molecule 3: Photosystem I chlorophyll a/b-binding protein 3-1, chloroplastic

Chain 3:

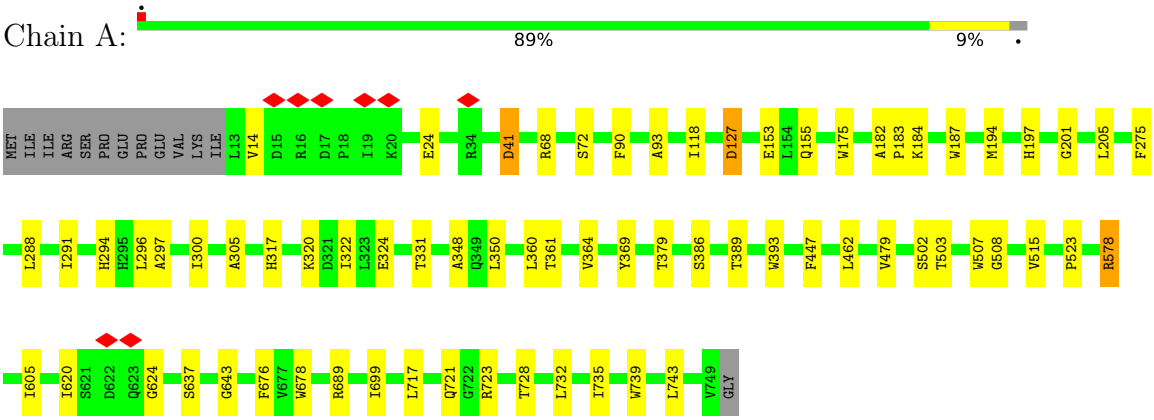


• Molecule 4: Chlorophyll a-b binding protein 4, chloroplastic

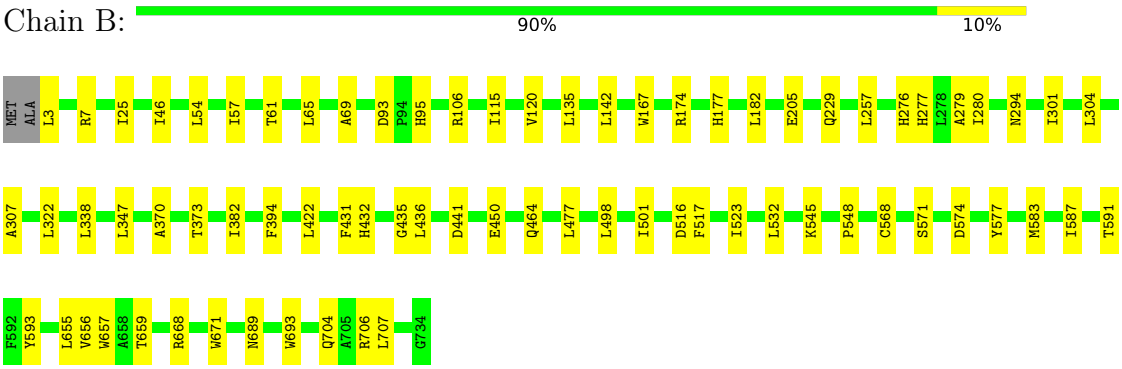
Chain 4:



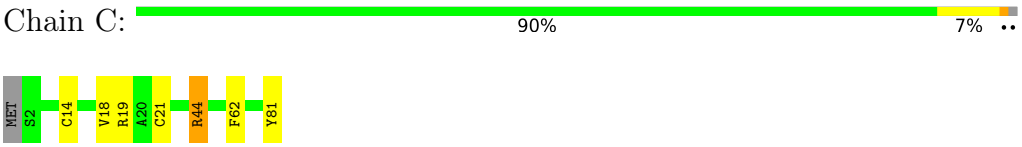
• Molecule 5: Photosystem I P700 chlorophyll a apoprotein A1



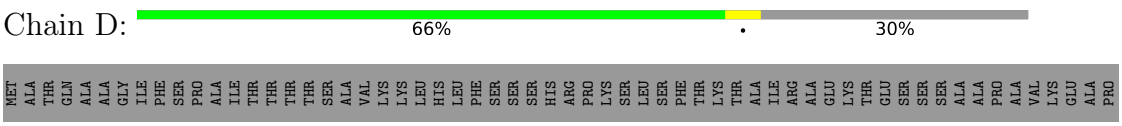
• Molecule 6: Photosystem I P700 chlorophyll a apoprotein A2



• Molecule 7: Photosystem I iron-sulfur center

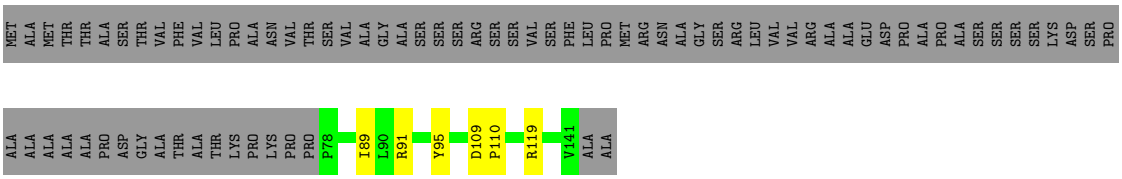


• Molecule 8: Photosystem I reaction center subunit II-2, chloroplastic



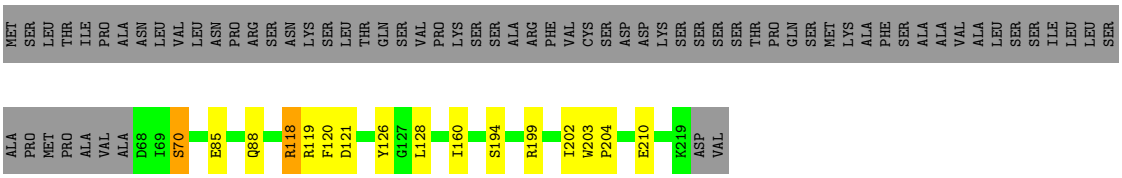
• Molecule 9: Photosystem I reaction center subunit IV A, chloroplastic

Chain E:



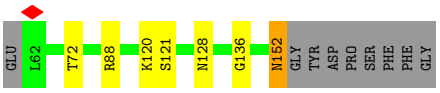
• Molecule 10: Photosystem I reaction center subunit III, chloroplastic

Chain F:



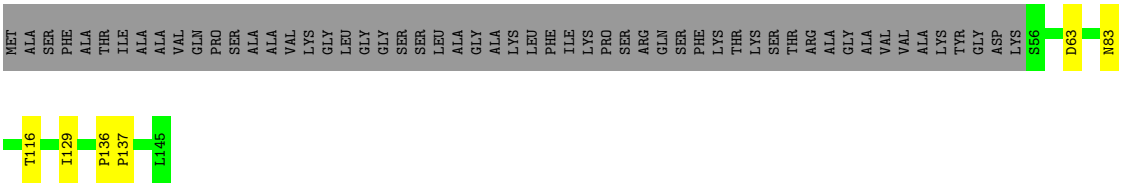
• Molecule 11: Photosystem I reaction center subunit V, chloroplastic

Chain G:



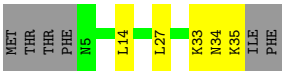
• Molecule 12: Photosystem I reaction center subunit VI-2, chloroplastic

Chain H:



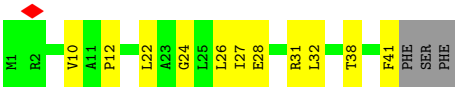
• Molecule 13: Photosystem I reaction center subunit VIII

Chain I:



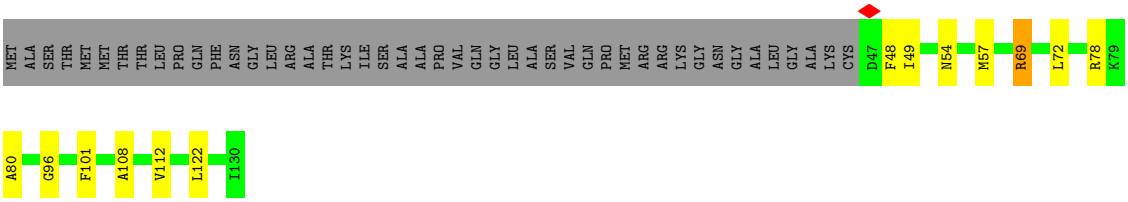
• Molecule 14: Photosystem I reaction center subunit IX

Chain J:



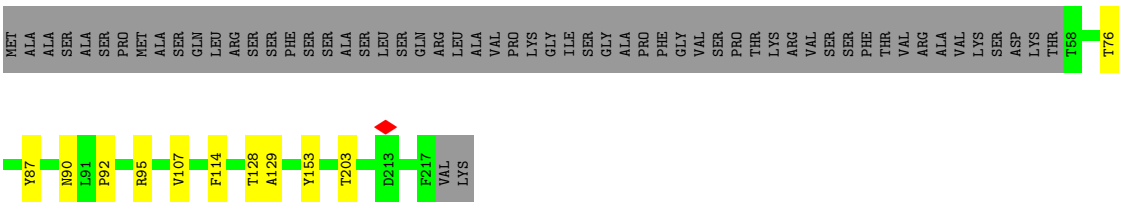
• Molecule 15: Photosystem I reaction center subunit psaK, chloroplastic

Chain K:



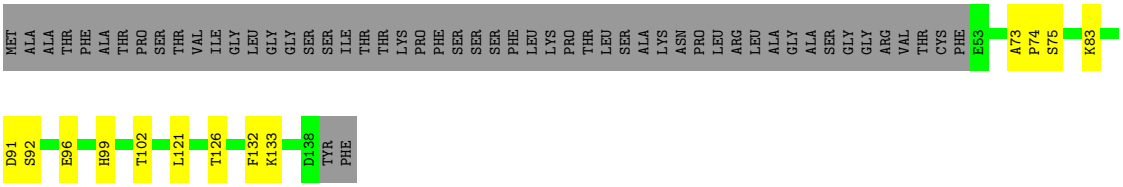
• Molecule 16: Photosystem I reaction center subunit XI, chloroplastic

Chain L:



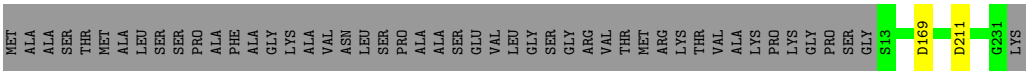
• Molecule 17: Photosystem I subunit O

Chain O:



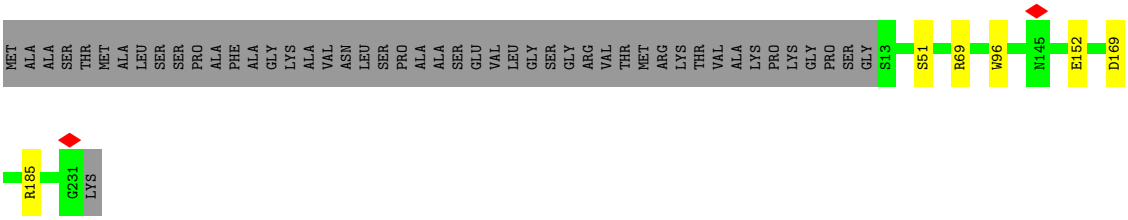
• Molecule 18: Chlorophyll a-b binding protein 2, chloroplastic

Chain x:



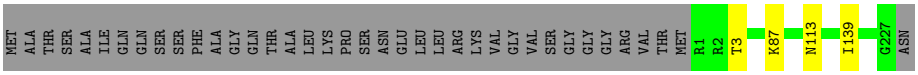
• Molecule 18: Chlorophyll a-b binding protein 2, chloroplastic

Chain y:



• Molecule 19: Chlorophyll a-b binding protein 2.1, chloroplastic

Chain z:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	188490	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	50.5	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	2200	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	38.962	Depositor
Minimum map value	-20.964	Depositor
Average map value	0.022	Depositor
Map value standard deviation	1.157	Depositor
Recommended contour level	3.59	Depositor
Map size (Å)	365.232, 365.232, 365.232	wwPDB
Map dimensions	336, 336, 336	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.087, 1.087, 1.087	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: XAT, BCR, PQN, DGD, LMG, LHG, CHL, TPO, CLA, CL0, LUT, NEX, SF4

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	1	0.29	0/1546	0.44	0/2110
2	2	0.43	0/1622	0.66	3/2219 (0.1%)
3	3	0.31	0/1717	0.49	0/2336
4	4	0.28	0/1599	0.42	0/2178
5	A	0.32	0/6005	0.52	5/8194 (0.1%)
6	B	0.32	0/6065	0.53	2/8279 (0.0%)
7	C	0.47	0/629	1.04	5/852 (0.6%)
8	D	0.49	0/1157	0.77	3/1563 (0.2%)
9	E	0.30	0/528	0.50	0/715
10	F	0.27	0/1238	0.47	0/1670
11	G	0.29	0/724	0.45	0/981
12	H	0.42	0/713	0.56	0/968
13	I	0.27	0/245	0.43	0/333
14	J	0.25	0/336	0.46	0/458
15	K	0.48	0/599	0.82	2/809 (0.2%)
16	L	0.31	0/1244	0.48	0/1700
17	O	0.29	0/710	0.49	0/969
18	x	0.37	0/1716	0.59	1/2336 (0.0%)
18	y	0.47	0/1716	0.73	2/2336 (0.1%)
19	z	0.34	0/1802	0.52	0/2450
All	All	0.35	0/31911	0.56	23/43456 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
5	A	0	1
7	C	0	1
All	All	0	2

There are no bond length outliers.

The worst 5 of 23 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	C	44	ARG	NE-CZ-NH2	10.05	125.33	120.30
7	C	81	TYR	CB-CG-CD2	-9.85	115.09	121.00
15	K	78	ARG	NE-CZ-NH2	8.36	124.48	120.30
5	A	127	ASP	CB-CG-OD1	8.14	125.63	118.30
8	D	150	ARG	NE-CZ-NH2	8.04	124.32	120.30

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
5	A	578	ARG	Sidechain
7	C	44	ARG	Sidechain

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	1	1496	0	1471	38	0
2	2	1566	0	1519	32	0
3	3	1666	0	1627	29	0
4	4	1551	0	1508	18	0
5	A	5807	0	5657	54	0
6	B	5854	0	5645	68	0
7	C	616	0	595	7	0
8	D	1128	0	1134	2	0
9	E	517	0	526	3	0
10	F	1208	0	1243	12	0
11	G	708	0	700	2	0
12	H	693	0	690	4	0
13	I	239	0	258	4	0
14	J	327	0	342	11	0
15	K	593	0	614	19	0
16	L	1207	0	1209	9	0
17	O	686	0	677	6	0
18	x	1666	0	1593	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
18	y	1666	0	1593	0	0
19	z	1759	0	1693	0	0
20	1	93	0	62	7	0
20	2	226	0	150	12	0
20	3	45	0	30	2	0
20	4	169	0	100	5	0
20	x	293	0	212	0	0
20	y	296	0	215	0	0
20	z	295	0	213	0	0
21	1	496	0	354	31	0
21	2	434	0	352	43	0
21	3	498	0	377	35	0
21	4	527	0	412	21	0
21	A	2533	0	2495	134	0
21	B	2284	0	2242	123	0
21	F	149	0	123	9	0
21	G	132	0	97	3	0
21	H	60	0	59	4	0
21	J	51	0	41	1	0
21	K	167	0	116	16	0
21	L	155	0	138	7	0
21	O	141	0	110	3	0
21	x	436	0	403	0	0
21	y	427	0	384	0	0
21	z	438	0	409	0	0
22	1	44	0	56	13	0
22	2	44	0	56	5	0
22	4	44	0	54	6	0
22	x	44	0	56	0	0
22	y	44	0	56	0	0
22	z	44	0	56	0	0
23	1	49	0	74	12	0
23	2	37	0	44	2	0
23	A	79	0	104	8	0
23	B	87	0	120	6	0
23	x	49	0	74	0	0
23	y	49	0	74	0	0
23	z	49	0	74	0	0
24	1	42	0	56	3	0
24	2	84	0	112	11	0
24	3	42	0	56	8	0
24	4	42	0	56	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
24	x	84	0	112	0	0
24	y	84	0	112	0	0
24	z	84	0	112	0	0
25	3	40	0	56	6	0
25	4	40	0	56	6	0
25	A	240	0	336	27	0
25	B	320	0	448	46	0
25	F	40	0	56	2	0
25	G	40	0	56	4	0
25	I	40	0	56	2	0
25	J	40	0	56	5	0
25	K	80	0	112	10	0
25	L	120	0	168	14	0
25	O	80	0	112	3	0
26	4	72	0	84	0	0
27	A	61	0	68	15	0
28	A	8	0	0	2	0
28	C	16	0	0	5	0
29	A	33	0	46	3	0
29	B	33	0	46	3	0
30	B	66	0	96	5	0
31	x	44	0	56	0	0
31	y	44	0	56	0	0
31	z	44	0	56	0	0
All	All	43924	0	42922	712	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 11.

The worst 5 of 712 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)
4:4:77:PHE:HE2	22:4:617:XAT:H383	1.22	1.05
4:4:77:PHE:CE2	22:4:617:XAT:H383	1.91	1.05
21:A:803:CLA:HBA2	6:B:655:LEU:HB2	1.52	0.90
21:B:814:CLA:H3A	25:B:845:BCR:H393	1.53	0.90
2:2:143:VAL:HG22	21:4:613:CLA:HBA2	1.58	0.85

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	1	191/241 (79%)	190 (100%)	1 (0%)	0	100	100
2	2	199/257 (77%)	196 (98%)	3 (2%)	0	100	100
3	3	216/273 (79%)	214 (99%)	2 (1%)	0	100	100
4	4	194/251 (77%)	190 (98%)	4 (2%)	0	100	100
5	A	735/750 (98%)	723 (98%)	12 (2%)	0	100	100
6	B	730/734 (100%)	718 (98%)	12 (2%)	0	100	100
7	C	78/81 (96%)	74 (95%)	4 (5%)	0	100	100
8	D	141/204 (69%)	137 (97%)	4 (3%)	0	100	100
9	E	62/143 (43%)	61 (98%)	1 (2%)	0	100	100
10	F	150/221 (68%)	148 (99%)	2 (1%)	0	100	100
11	G	89/160 (56%)	88 (99%)	1 (1%)	0	100	100
12	H	88/145 (61%)	88 (100%)	0	0	100	100
13	I	29/37 (78%)	29 (100%)	0	0	100	100
14	J	39/44 (89%)	37 (95%)	2 (5%)	0	100	100
15	K	82/130 (63%)	81 (99%)	1 (1%)	0	100	100
16	L	158/219 (72%)	156 (99%)	2 (1%)	0	100	100
17	O	84/140 (60%)	83 (99%)	1 (1%)	0	100	100
18	x	217/267 (81%)	212 (98%)	5 (2%)	0	100	100
18	y	217/267 (81%)	209 (96%)	8 (4%)	0	100	100
19	z	224/265 (84%)	211 (94%)	13 (6%)	0	100	100
All	All	3923/4829 (81%)	3845 (98%)	78 (2%)	0	100	100

There are no Ramachandran outliers to report.

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	1	153/190 (80%)	149 (97%)	4 (3%)	46 79
2	2	163/205 (80%)	159 (98%)	4 (2%)	47 80
3	3	167/211 (79%)	166 (99%)	1 (1%)	86 96
4	4	163/210 (78%)	161 (99%)	2 (1%)	71 92
5	A	598/610 (98%)	592 (99%)	6 (1%)	76 93
6	B	599/600 (100%)	594 (99%)	5 (1%)	81 94
7	C	70/71 (99%)	69 (99%)	1 (1%)	67 90
8	D	121/170 (71%)	119 (98%)	2 (2%)	60 87
9	E	57/114 (50%)	56 (98%)	1 (2%)	59 86
10	F	125/185 (68%)	121 (97%)	4 (3%)	39 73
11	G	77/133 (58%)	72 (94%)	5 (6%)	17 44
12	H	75/113 (66%)	74 (99%)	1 (1%)	69 91
13	I	27/33 (82%)	27 (100%)	0	100 100
14	J	36/39 (92%)	35 (97%)	1 (3%)	43 77
15	K	61/95 (64%)	61 (100%)	0	100 100
16	L	126/174 (72%)	125 (99%)	1 (1%)	81 94
17	O	72/114 (63%)	69 (96%)	3 (4%)	30 63
18	x	167/201 (83%)	166 (99%)	1 (1%)	86 96
18	y	167/201 (83%)	163 (98%)	4 (2%)	49 81
19	z	179/208 (86%)	176 (98%)	3 (2%)	60 87
All	All	3203/3877 (83%)	3154 (98%)	49 (2%)	66 89

5 of 49 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
10	F	194	SER
12	H	63	ASP
10	F	210	GLU

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Mol	Chain	Res	Type
11	G	121	SER
16	L	114	PHE

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

Mol	Chain	Res	Type
2	2	237	ASN
3	3	252	GLN
18	y	102	GLN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

1 non-standard protein/DNA/RNA residue is 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	$\#\|Z\| > 2$
19	TPO	z	3	19	8,10,11	1.07	0	10,14,16	1.92	2 (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
19	TPO	z	3	19	-	2/9/11/13	-

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	z	3	TPO	P-OG1-CB	-5.31	107.17	123.21
19	z	3	TPO	CG2-CB-CA	-2.07	109.09	113.16

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
19	z	3	TPO	O-C-CA-CB
19	z	3	TPO	CB-OG1-P-O2P

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

263 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	$\#\|Z\| > 2$
21	CLA	B	812	-	43,51,73	1.80	7 (16%)	49,86,113	1.59	6 (12%)
21	CLA	B	832	-	65,73,73	1.48	8 (12%)	76,113,113	1.34	6 (7%)
21	CLA	1	608	1	40,48,73	1.87	7 (17%)	50,83,113	1.71	10 (20%)
21	CLA	L	304	-	45,53,73	1.79	6 (13%)	52,89,113	1.55	7 (13%)
21	CLA	G	203	11	45,53,73	1.74	6 (13%)	52,89,113	1.65	7 (13%)
21	CLA	A	802	-	65,73,73	1.44	8 (12%)	76,113,113	1.52	9 (11%)
21	CLA	H	201	12	60,68,73	1.53	6 (10%)	70,107,113	1.38	6 (8%)
21	CLA	z	613	19	65,73,73	1.43	7 (10%)	76,113,113	1.46	7 (9%)
21	CLA	x	612	-	45,53,73	1.74	6 (13%)	52,89,113	1.58	7 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
25	BCR	B	849	-	41,41,41	1.76	8 (19%)	56,56,56	1.92	13 (23%)
21	CLA	B	802	-	65,73,73	1.48	7 (10%)	76,113,113	1.39	9 (11%)
31	NEX	y	618	-	38,46,46	1.60	7 (18%)	50,70,70	1.64	9 (18%)
25	BCR	A	849	-	41,41,41	1.76	8 (19%)	56,56,56	2.00	13 (23%)
21	CLA	3	605	-	41,49,73	1.88	7 (17%)	51,84,113	1.70	9 (17%)
20	CHL	y	601	18	53,61,74	2.24	16 (30%)	57,98,114	2.69	23 (40%)
21	CLA	A	842	-	65,73,73	1.44	6 (9%)	76,113,113	1.55	9 (11%)
21	CLA	O	201	-	65,73,73	1.49	6 (9%)	76,113,113	1.34	7 (9%)
21	CLA	3	607	-	45,53,73	1.80	7 (15%)	52,89,113	1.60	7 (13%)
21	CLA	B	817	-	59,67,73	1.53	6 (10%)	68,105,113	1.46	7 (10%)
20	CHL	2	601	2	47,55,74	2.15	14 (29%)	50,91,114	2.98	22 (44%)
21	CLA	O	203	-	37,46,73	1.96	7 (18%)	46,81,113	1.75	10 (21%)
21	CLA	4	601	4	46,54,73	1.74	7 (15%)	53,90,113	1.54	6 (11%)
25	BCR	4	618	-	41,41,41	1.72	8 (19%)	56,56,56	1.69	11 (19%)
21	CLA	A	828	-	65,73,73	1.45	6 (9%)	76,113,113	1.43	8 (10%)
21	CLA	3	601	-	60,68,73	1.49	7 (11%)	70,107,113	1.48	7 (10%)
21	CLA	A	839	-	55,63,73	1.56	6 (10%)	64,101,113	1.54	7 (10%)
21	CLA	B	837	-	65,73,73	1.45	5 (7%)	76,113,113	1.47	9 (11%)
20	CHL	2	606	-	43,51,74	2.24	15 (34%)	45,86,114	2.91	18 (40%)
21	CLA	B	828	-	65,73,73	1.46	6 (9%)	76,113,113	1.36	7 (9%)
28	SF4	A	854	5,6	0,12,12	-	-	-		
21	CLA	A	825	-	55,63,73	1.59	6 (10%)	64,101,113	1.45	9 (14%)
22	XAT	1	614	-	39,47,47	0.82	1 (2%)	54,74,74	3.18	19 (35%)
21	CLA	x	614	-	45,53,73	1.76	6 (13%)	52,89,113	1.62	7 (13%)
21	CLA	B	814	-	65,73,73	1.42	6 (9%)	76,113,113	1.48	9 (11%)
25	BCR	F	304	-	41,41,41	1.87	8 (19%)	56,56,56	2.16	16 (28%)
21	CLA	1	609	-	42,50,73	1.74	9 (21%)	48,85,113	1.98	9 (18%)
21	CLA	B	825	-	62,70,73	1.48	6 (9%)	72,109,113	1.52	9 (12%)
21	CLA	O	202	-	36,46,73	1.91	7 (19%)	41,80,113	1.72	8 (19%)
23	LHG	B	852	-	48,48,48	0.27	0	51,54,54	0.34	0
20	CHL	z	607	-	52,60,74	2.10	14 (26%)	56,97,114	2.85	22 (39%)
23	LHG	2	618	21	36,36,48	0.32	0	39,42,54	0.50	0
21	CLA	1	604	-	49,57,73	1.69	6 (12%)	55,93,113	1.62	8 (14%)
23	LHG	A	847	21	29,29,48	0.35	0	32,35,54	0.49	0
21	CLA	A	823	-	42,50,73	1.77	5 (11%)	48,85,113	1.67	7 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
21	CLA	1	610	23	37,46,73	1.99	8 (21%)	46,81,113	1.71	9 (19%)
21	CLA	1	602	1	54,62,73	1.60	7 (12%)	62,99,113	1.50	8 (12%)
21	CLA	B	823	-	45,53,73	1.78	7 (15%)	52,89,113	1.53	7 (13%)
23	LHG	1	615	21	48,48,48	0.93	2 (4%)	51,54,54	1.04	3 (5%)
21	CLA	K	204	-	46,54,73	1.77	7 (15%)	53,90,113	1.58	7 (13%)
24	LUT	y	615	-	42,43,43	1.65	7 (16%)	51,60,60	2.14	13 (25%)
29	PQN	A	855	-	34,34,34	0.40	0	42,45,45	0.42	0
21	CLA	A	826	-	65,73,73	1.46	6 (9%)	76,113,113	1.40	6 (7%)
20	CHL	4	606	-	41,49,74	2.21	13 (31%)	51,84,114	2.83	18 (35%)
21	CLA	3	612	-	39,48,73	1.81	7 (17%)	44,83,113	1.79	7 (15%)
21	CLA	x	611	23	45,53,73	1.74	6 (13%)	52,89,113	1.60	8 (15%)
21	CLA	4	608	4	45,53,73	1.77	6 (13%)	52,89,113	1.59	6 (11%)
21	CLA	A	836	-	45,53,73	1.77	6 (13%)	52,89,113	1.62	7 (13%)
21	CLA	B	805	-	65,73,73	1.48	8 (12%)	76,113,113	1.41	9 (11%)
21	CLA	2	612	2	65,73,73	1.45	7 (10%)	76,113,113	1.43	7 (9%)
21	CLA	A	831	-	65,73,73	1.45	6 (9%)	76,113,113	1.44	6 (7%)
20	CHL	z	605	-	42,50,74	2.38	15 (35%)	44,85,114	2.98	21 (47%)
21	CLA	F	301	-	57,65,73	1.60	6 (10%)	66,103,113	1.41	8 (12%)
20	CHL	y	606	-	46,54,74	2.28	14 (30%)	49,90,114	2.90	20 (40%)
28	SF4	C	101	7	0,12,12	-	-	-		
21	CLA	K	201	15	38,45,73	1.90	8 (21%)	43,78,113	1.70	6 (13%)
23	LHG	x	619	21	48,48,48	0.28	0	51,54,54	0.34	0
27	CL0	A	801	-	62,69,73	1.88	14 (22%)	72,107,113	4.08	30 (41%)
21	CLA	A	816	-	42,50,73	1.77	6 (14%)	48,85,113	1.66	6 (12%)
21	CLA	L	303	-	65,73,73	1.45	6 (9%)	76,113,113	1.47	9 (11%)
21	CLA	A	840	-	52,60,73	1.66	7 (13%)	60,97,113	1.50	8 (13%)
20	CHL	x	609	18	46,54,74	2.25	16 (34%)	49,90,114	2.84	20 (40%)
21	CLA	2	608	-	45,53,73	1.74	7 (15%)	52,89,113	1.59	7 (13%)
24	LUT	x	615	-	42,43,43	1.64	8 (19%)	51,60,60	1.58	11 (21%)
25	BCR	O	204	-	41,41,41	1.73	8 (19%)	56,56,56	1.53	9 (16%)
21	CLA	A	844	-	65,73,73	1.50	9 (13%)	76,113,113	1.40	7 (9%)
21	CLA	B	820	-	50,58,73	1.65	7 (14%)	58,95,113	1.61	10 (17%)
20	CHL	z	601	19	53,61,74	2.22	16 (30%)	57,98,114	2.69	24 (42%)
21	CLA	A	843	-	65,73,73	1.43	6 (9%)	76,113,113	1.43	6 (7%)
21	CLA	y	611	-	45,53,73	1.75	6 (13%)	52,89,113	1.61	6 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
24	LUT	z	616	-	42,43,43	1.66	8 (19%)	51,60,60	1.80	11 (21%)
21	CLA	1	613	-	37,46,73	1.98	7 (18%)	46,81,113	1.76	10 (21%)
20	CHL	4	607	-	46,54,74	2.24	15 (32%)	49,90,114	2.87	19 (38%)
25	BCR	G	204	-	41,41,41	1.72	8 (19%)	56,56,56	1.68	10 (17%)
21	CLA	3	609	-	53,62,73	1.63	7 (13%)	61,100,113	1.47	8 (13%)
25	BCR	A	853	-	41,41,41	1.81	8 (19%)	56,56,56	1.78	14 (25%)
21	CLA	y	614	-	65,73,73	1.49	7 (10%)	76,113,113	1.45	7 (9%)
21	CLA	B	808	-	65,73,73	1.44	9 (13%)	76,113,113	1.46	9 (11%)
24	LUT	z	615	-	42,43,43	1.69	8 (19%)	51,60,60	1.76	10 (19%)
21	CLA	z	614	-	65,73,73	1.47	8 (12%)	76,113,113	1.42	7 (9%)
25	BCR	B	846	-	41,41,41	1.76	8 (19%)	56,56,56	1.73	11 (19%)
21	CLA	z	602	-	65,73,73	1.43	8 (12%)	76,113,113	1.48	9 (11%)
21	CLA	z	603	-	57,65,73	1.54	7 (12%)	66,103,113	1.51	7 (10%)
24	LUT	3	613	-	42,43,43	1.68	8 (19%)	51,60,60	2.01	14 (27%)
21	CLA	A	834	-	65,73,73	1.47	6 (9%)	76,113,113	1.38	8 (10%)
24	LUT	4	616	-	42,43,43	1.62	8 (19%)	51,60,60	1.57	10 (19%)
25	BCR	B	801	-	41,41,41	1.79	8 (19%)	56,56,56	1.82	14 (25%)
21	CLA	B	826	-	62,70,73	1.49	7 (11%)	72,109,113	1.45	7 (9%)
21	CLA	B	834	-	60,68,73	1.55	6 (10%)	70,107,113	1.43	8 (11%)
21	CLA	A	822	-	65,73,73	1.46	6 (9%)	76,113,113	1.41	7 (9%)
25	BCR	L	301	-	41,41,41	1.77	8 (19%)	56,56,56	2.30	12 (21%)
21	CLA	B	807	-	52,60,73	1.62	6 (11%)	60,97,113	1.57	8 (13%)
21	CLA	B	836	-	50,58,73	1.68	7 (14%)	58,95,113	3.66	12 (20%)
25	BCR	B	847	-	41,41,41	1.73	8 (19%)	56,56,56	1.55	10 (17%)
21	CLA	2	610	23	38,45,73	2.90	11 (28%)	41,76,113	1.46	7 (17%)
21	CLA	A	845	23	50,58,73	1.69	7 (14%)	58,95,113	1.61	9 (15%)
21	CLA	B	822	-	65,73,73	1.51	7 (10%)	76,113,113	1.53	9 (11%)
25	BCR	A	848	-	41,41,41	1.75	8 (19%)	56,56,56	1.69	12 (21%)
21	CLA	4	603	-	44,52,73	1.83	8 (18%)	55,88,113	1.63	9 (16%)
21	CLA	y	612	-	45,53,73	1.76	7 (15%)	52,89,113	1.57	6 (11%)
31	NEX	x	618	-	38,46,46	1.60	7 (18%)	50,70,70	1.86	13 (26%)
22	XAT	4	617	-	39,47,47	5.32	25 (64%)	54,74,74	5.60	38 (70%)
25	BCR	B	843	-	41,41,41	1.74	8 (19%)	56,56,56	2.05	14 (25%)
20	CHL	z	606	-	46,54,74	2.31	16 (34%)	49,90,114	2.76	16 (32%)
21	CLA	A	815	-	45,53,73	1.73	6 (13%)	52,89,113	1.69	8 (15%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
21	CLA	4	609	4	54,62,73	1.60	9 (16%)	62,99,113	1.47	10 (16%)
21	CLA	2	604	-	43,51,73	1.78	9 (20%)	48,86,113	1.61	6 (12%)
21	CLA	A	810	5	50,58,73	1.68	7 (14%)	58,95,113	1.71	12 (20%)
25	BCR	L	305	-	41,41,41	1.77	8 (19%)	56,56,56	1.79	15 (26%)
21	CLA	B	810	-	65,73,73	1.46	6 (9%)	76,113,113	1.40	10 (13%)
24	LUT	2	619	-	42,43,43	1.67	8 (19%)	51,60,60	1.93	12 (23%)
21	CLA	A	833	-	56,64,73	1.57	7 (12%)	65,102,113	1.51	7 (10%)
26	LMG	4	619	-	39,39,55	0.23	0	47,47,63	0.24	0
21	CLA	A	819	-	59,67,73	1.56	7 (11%)	68,105,113	1.43	8 (11%)
21	CLA	2	609	-	47,55,73	1.68	7 (14%)	54,91,113	1.61	7 (12%)
23	LHG	A	846	-	48,48,48	0.28	0	51,54,54	0.35	0
21	CLA	B	833	-	45,53,73	1.75	6 (13%)	52,89,113	1.72	11 (21%)
21	CLA	A	803	-	65,73,73	1.47	8 (12%)	76,113,113	1.36	7 (9%)
21	CLA	1	607	-	43,52,73	1.80	6 (13%)	49,88,113	1.63	6 (12%)
21	CLA	A	809	5	65,73,73	1.41	6 (9%)	76,113,113	1.48	8 (10%)
21	CLA	B	811	-	54,62,73	1.64	7 (12%)	67,100,113	1.58	8 (11%)
21	CLA	x	602	-	65,73,73	1.43	7 (10%)	76,113,113	1.47	8 (10%)
21	CLA	1	612	-	46,54,73	1.76	7 (15%)	53,90,113	1.70	8 (15%)
21	CLA	B	804	-	41,49,73	1.79	6 (14%)	47,84,113	1.76	9 (19%)
20	CHL	y	607	-	53,61,74	2.10	14 (26%)	57,98,114	2.71	23 (40%)
21	CLA	3	608	-	41,49,73	1.78	7 (17%)	47,84,113	1.88	10 (21%)
21	CLA	B	803	-	65,73,73	1.46	8 (12%)	76,113,113	1.44	8 (10%)
21	CLA	B	809	6	65,73,73	1.44	6 (9%)	76,113,113	1.45	7 (9%)
22	XAT	2	617	-	39,47,47	1.79	8 (20%)	54,74,74	2.18	16 (29%)
21	CLA	J	101	-	51,59,73	1.69	5 (9%)	59,96,113	1.50	7 (11%)
21	CLA	K	206	15	37,47,73	1.92	6 (16%)	42,81,113	1.68	8 (19%)
21	CLA	A	813	-	54,62,73	1.63	8 (14%)	62,99,113	1.51	8 (12%)
21	CLA	4	611	-	40,49,73	1.85	7 (17%)	45,84,113	1.62	6 (13%)
21	CLA	x	613	-	59,67,73	1.54	7 (11%)	68,105,113	1.47	8 (11%)
21	CLA	A	841	-	65,73,73	1.42	6 (9%)	76,113,113	1.45	8 (10%)
21	CLA	B	813	-	65,73,73	1.45	7 (10%)	76,113,113	1.56	9 (11%)
21	CLA	B	824	-	65,73,73	1.46	5 (7%)	76,113,113	1.46	7 (9%)
25	BCR	J	102	-	41,41,41	1.75	8 (19%)	56,56,56	1.76	13 (23%)
21	CLA	B	819	-	55,63,73	1.60	7 (12%)	64,101,113	1.53	9 (14%)
21	CLA	A	835	-	65,73,73	1.46	8 (12%)	76,113,113	1.48	9 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
21	CLA	4	614	-	50,58,73	1.67	6 (12%)	58,95,113	1.59	8 (13%)
21	CLA	B	830	-	43,51,73	1.77	6 (13%)	49,86,113	1.62	7 (14%)
21	CLA	A	837	5	45,53,73	1.76	6 (13%)	52,89,113	1.62	7 (13%)
21	CLA	3	604	-	40,49,73	1.85	7 (17%)	45,84,113	1.61	6 (13%)
21	CLA	4	610	-	42,50,73	1.80	7 (16%)	48,85,113	1.56	6 (12%)
21	CLA	4	602	4	60,68,73	1.49	7 (11%)	70,107,113	1.47	8 (11%)
21	CLA	A	827	-	59,67,73	1.53	6 (10%)	68,105,113	1.48	8 (11%)
25	BCR	A	852	-	41,41,41	1.75	9 (21%)	56,56,56	1.94	14 (25%)
21	CLA	1	605	-	46,54,73	1.75	7 (15%)	53,90,113	1.58	6 (11%)
25	BCR	B	848	-	41,41,41	1.72	8 (19%)	56,56,56	1.56	11 (19%)
21	CLA	2	613	-	43,51,73	1.79	6 (13%)	49,86,113	1.57	7 (14%)
21	CLA	A	821	-	45,53,73	1.79	6 (13%)	52,89,113	1.59	6 (11%)
21	CLA	z	611	-	45,53,73	1.76	9 (20%)	52,89,113	1.59	6 (11%)
21	CLA	L	302	16	45,53,73	1.79	7 (15%)	52,89,113	1.62	8 (15%)
21	CLA	B	821	-	47,55,73	1.70	6 (12%)	54,91,113	1.70	10 (18%)
20	CHL	2	615	2	43,51,74	2.27	15 (34%)	45,86,114	2.89	19 (42%)
25	BCR	O	205	-	41,41,41	1.70	8 (19%)	56,56,56	1.49	9 (16%)
20	CHL	2	605	-	42,50,74	2.24	13 (30%)	45,85,114	2.92	19 (42%)
21	CLA	2	611	-	44,52,73	1.80	7 (15%)	51,88,113	1.64	8 (15%)
21	CLA	B	829	-	56,64,73	1.57	7 (12%)	65,102,113	1.54	8 (12%)
21	CLA	A	808	-	50,58,73	1.67	6 (12%)	58,95,113	1.53	9 (15%)
21	CLA	A	805	21	52,60,73	1.62	6 (11%)	60,97,113	1.57	9 (15%)
25	BCR	B	844	-	41,41,41	1.75	8 (19%)	56,56,56	1.87	13 (23%)
21	CLA	A	806	-	65,73,73	1.46	7 (10%)	76,113,113	1.42	8 (10%)
21	CLA	x	610	-	65,73,73	1.43	7 (10%)	76,113,113	1.37	6 (7%)
20	CHL	x	605	-	53,61,74	2.05	14 (26%)	57,98,114	2.76	22 (38%)
20	CHL	z	609	-	53,61,74	2.31	16 (30%)	57,98,114	2.70	21 (36%)
21	CLA	B	806	6	65,73,73	1.43	6 (9%)	76,113,113	1.39	10 (13%)
21	CLA	B	840	-	65,73,73	1.47	7 (10%)	76,113,113	1.37	7 (9%)
21	CLA	z	612	-	45,53,73	1.77	8 (17%)	52,89,113	1.55	7 (13%)
20	CHL	x	601	18	53,61,74	2.24	16 (30%)	57,98,114	2.64	23 (40%)
20	CHL	1	601	1	51,60,74	2.17	16 (31%)	54,97,114	2.66	22 (40%)
21	CLA	1	603	-	54,62,73	1.59	7 (12%)	62,99,113	1.49	7 (11%)
21	CLA	B	839	-	65,73,73	1.46	6 (9%)	76,113,113	1.37	8 (10%)
21	CLA	y	610	18	58,66,73	1.55	6 (10%)	67,104,113	1.48	7 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
21	CLA	K	203	-	45,53,73	1.74	6 (13%)	52,89,113	1.75	10 (19%)
20	CHL	x	606	-	46,54,74	2.20	14 (30%)	49,90,114	2.87	17 (34%)
21	CLA	3	602	-	55,63,73	1.61	6 (10%)	64,101,113	1.44	7 (10%)
21	CLA	x	604	-	52,60,73	1.64	6 (11%)	60,97,113	1.59	8 (13%)
20	CHL	4	605	-	40,49,74	2.31	13 (32%)	42,84,114	2.87	18 (42%)
20	CHL	x	607	-	53,61,74	2.19	15 (28%)	57,98,114	2.68	23 (40%)
23	LHG	z	619	-	48,48,48	0.29	0	51,54,54	0.38	0
21	CLA	1	611	-	45,53,73	1.79	6 (13%)	52,89,113	1.53	6 (11%)
20	CHL	y	609	18	53,61,74	2.31	16 (30%)	57,98,114	2.72	23 (40%)
21	CLA	3	603	-	45,53,73	1.77	5 (11%)	52,89,113	1.60	7 (13%)
21	CLA	A	818	-	60,68,73	1.51	7 (11%)	70,107,113	5.15	10 (14%)
21	CLA	2	602	2	65,73,73	1.46	7 (10%)	76,113,113	1.40	7 (9%)
21	CLA	A	838	-	51,59,73	1.65	7 (13%)	59,96,113	1.50	7 (11%)
21	CLA	F	303	10	41,49,73	1.83	5 (12%)	47,84,113	1.65	7 (14%)
21	CLA	y	604	-	51,59,73	1.61	6 (11%)	59,96,113	1.62	9 (15%)
21	CLA	z	604	-	51,59,73	1.64	6 (11%)	59,96,113	1.60	7 (11%)
21	CLA	B	818	-	60,68,73	1.48	7 (11%)	70,107,113	1.51	9 (12%)
21	CLA	A	824	-	41,49,73	1.82	7 (17%)	47,84,113	1.69	10 (21%)
21	CLA	2	603	-	43,52,73	1.81	10 (23%)	49,88,113	1.59	7 (14%)
21	CLA	A	811	-	65,73,73	1.45	6 (9%)	76,113,113	1.41	8 (10%)
21	CLA	A	830	-	65,73,73	1.46	7 (10%)	76,113,113	1.58	10 (13%)
21	CLA	G	202	-	42,50,73	1.81	6 (14%)	48,85,113	1.59	6 (12%)
21	CLA	A	804	-	65,73,73	1.45	7 (10%)	76,113,113	1.52	10 (13%)
21	CLA	F	302	-	51,59,73	1.67	7 (13%)	59,96,113	1.60	8 (13%)
21	CLA	4	604	-	43,51,73	1.89	7 (16%)	54,87,113	1.63	8 (14%)
20	CHL	4	615	4	40,49,74	2.20	13 (32%)	45,84,114	2.92	18 (40%)
22	XAT	x	617	-	39,47,47	1.74	8 (20%)	54,74,74	2.05	14 (25%)
25	BCR	B	845	-	41,41,41	1.79	8 (19%)	56,56,56	1.89	13 (23%)
28	SF4	C	102	7	0,12,12	-	-	-		
20	CHL	x	608	18	42,50,74	2.34	15 (35%)	44,85,114	3.00	21 (47%)
22	XAT	y	617	-	39,47,47	1.73	8 (20%)	54,74,74	2.01	14 (25%)
22	XAT	z	617	-	39,47,47	1.66	8 (20%)	54,74,74	1.76	12 (22%)
21	CLA	y	602	18	65,73,73	1.44	7 (10%)	76,113,113	1.41	7 (9%)
21	CLA	B	838	-	47,55,73	1.75	7 (14%)	54,91,113	1.58	8 (14%)
21	CLA	4	613	-	45,53,73	1.76	8 (17%)	52,89,113	1.82	8 (15%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
21	CLA	A	807	-	65,73,73	1.48	8 (12%)	76,113,113	1.33	8 (10%)
21	CLA	z	610	-	45,53,73	1.74	7 (15%)	52,89,113	1.63	8 (15%)
23	LHG	y	619	-	48,48,48	0.29	0	51,54,54	0.35	0
21	CLA	B	816	-	55,63,73	1.58	6 (10%)	64,101,113	1.56	9 (14%)
25	BCR	A	851	-	41,41,41	1.85	9 (21%)	56,56,56	2.71	20 (35%)
30	DGD	B	850	-	67,67,67	0.83	2 (2%)	81,81,81	0.97	3 (3%)
21	CLA	3	611	-	37,44,73	1.95	7 (18%)	42,77,113	1.65	8 (19%)
21	CLA	A	817	-	45,53,73	1.80	6 (13%)	52,89,113	1.57	6 (11%)
29	PQN	B	842	-	34,34,34	0.42	0	42,45,45	0.42	0
25	BCR	K	205	-	41,41,41	1.73	8 (19%)	56,56,56	2.02	16 (28%)
25	BCR	A	850	-	41,41,41	1.82	8 (19%)	56,56,56	1.93	12 (21%)
21	CLA	B	831	-	43,51,73	1.74	5 (11%)	49,86,113	1.69	7 (14%)
20	CHL	2	607	-	51,59,74	2.10	14 (27%)	55,96,114	2.77	22 (40%)
21	CLA	A	829	-	65,73,73	1.47	6 (9%)	76,113,113	1.36	7 (9%)
21	CLA	A	814	-	65,73,73	1.49	8 (12%)	76,113,113	1.35	7 (9%)
25	BCR	K	202	-	41,41,41	1.74	8 (19%)	56,56,56	2.07	15 (26%)
20	CHL	y	605	18	42,50,74	2.39	15 (35%)	44,85,114	2.94	20 (45%)
21	CLA	4	612	-	57,65,73	1.55	7 (12%)	66,103,113	1.54	8 (12%)
31	NEX	z	618	-	38,46,46	1.63	7 (18%)	50,70,70	1.60	9 (18%)
21	CLA	3	610	-	39,48,73	1.90	6 (15%)	44,83,113	1.69	7 (15%)
26	LMG	4	620	-	33,33,55	0.26	0	41,41,63	0.59	1 (2%)
24	LUT	x	616	-	42,43,43	1.65	8 (19%)	51,60,60	1.84	11 (21%)
21	CLA	G	201	-	45,53,73	1.80	5 (11%)	52,89,113	1.60	7 (13%)
24	LUT	1	616	-	42,43,43	1.69	7 (16%)	51,60,60	2.07	13 (25%)
21	CLA	A	820	-	65,73,73	1.45	7 (10%)	76,113,113	1.51	8 (10%)
24	LUT	y	616	-	42,43,43	1.66	8 (19%)	51,60,60	1.72	11 (21%)
20	CHL	y	608	-	49,57,74	2.20	15 (30%)	52,93,114	2.70	17 (32%)
20	CHL	z	608	-	49,57,74	2.14	15 (30%)	52,93,114	2.82	21 (40%)
20	CHL	3	606	-	45,53,74	2.24	15 (33%)	52,89,114	2.64	21 (40%)
21	CLA	B	835	-	42,50,73	1.83	6 (14%)	48,85,113	1.59	7 (14%)
25	BCR	I	101	-	41,41,41	1.72	8 (19%)	56,56,56	1.52	9 (16%)
20	CHL	1	606	-	40,49,74	2.49	16 (40%)	41,84,114	2.86	19 (46%)
21	CLA	x	603	-	60,68,73	1.50	7 (11%)	70,107,113	1.48	8 (11%)
21	CLA	B	841	23	65,73,73	1.46	6 (9%)	76,113,113	1.40	8 (10%)
21	CLA	B	827	-	65,73,73	1.46	7 (10%)	76,113,113	1.40	8 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
24	LUT	2	616	-	42,43,43	1.65	8 (19%)	51,60,60	2.13	13 (25%)
25	BCR	3	614	-	41,41,41	1.73	8 (19%)	56,56,56	1.58	12 (21%)
21	CLA	y	603	-	53,61,73	1.62	8 (15%)	61,98,113	1.51	8 (13%)
21	CLA	B	815	-	43,51,73	1.73	7 (16%)	49,86,113	1.69	6 (12%)
23	LHG	B	851	21	37,37,48	0.31	0	40,43,54	0.51	0
21	CLA	A	812	21	65,73,73	1.49	6 (9%)	76,113,113	1.36	7 (9%)
21	CLA	A	832	-	50,58,73	1.66	6 (12%)	58,95,113	1.59	9 (15%)
21	CLA	y	613	-	45,53,73	1.76	6 (13%)	52,89,113	1.63	7 (13%)
25	BCR	L	306	-	41,41,41	1.77	8 (19%)	56,56,56	2.04	16 (28%)

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
21	CLA	B	812	-	1/1/10/20	0/11/89/115	-
21	CLA	B	832	-	1/1/15/20	16/37/115/115	-
21	CLA	1	608	1	1/1/10/20	3/8/84/115	-
21	CLA	L	304	-	1/1/11/20	1/13/91/115	-
21	CLA	G	203	11	1/1/11/20	3/13/91/115	-
21	CLA	A	802	-	1/1/15/20	19/37/115/115	-
21	CLA	H	201	12	1/1/14/20	14/31/109/115	-
21	CLA	z	613	19	1/1/15/20	15/37/115/115	-
21	CLA	x	612	-	1/1/11/20	6/13/91/115	-
25	BCR	B	849	-	-	7/29/63/63	0/2/2/2
21	CLA	B	802	-	1/1/15/20	16/37/115/115	-
31	NEX	y	618	-	-	2/27/83/83	0/3/3/3
25	BCR	A	849	-	-	6/29/63/63	0/2/2/2
21	CLA	3	605	-	1/1/10/20	6/10/86/115	-
20	CHL	y	601	18	3/3/17/26	10/24/122/137	-
21	CLA	A	842	-	1/1/15/20	12/37/115/115	-
21	CLA	O	201	-	1/1/15/20	15/37/115/115	-
21	CLA	3	607	-	1/1/11/20	4/13/91/115	-
21	CLA	B	817	-	1/1/13/20	11/30/108/115	-
20	CHL	2	601	2	3/3/16/26	6/17/115/137	-
21	CLA	O	203	-	1/1/10/20	0/4/80/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
21	CLA	4	601	4	1/1/11/20	5/15/93/115	-
25	BCR	4	618	-	-	8/29/63/63	0/2/2/2
21	CLA	A	828	-	1/1/15/20	12/37/115/115	-
21	CLA	3	601	-	1/1/14/20	17/31/109/115	-
21	CLA	A	839	-	1/1/13/20	7/25/103/115	-
21	CLA	B	837	-	1/1/15/20	9/37/115/115	-
20	CHL	2	606	-	3/3/15/26	2/12/110/137	-
21	CLA	B	828	-	1/1/15/20	15/37/115/115	-
28	SF4	A	854	5,6	-	-	0/6/5/5
21	CLA	A	825	-	1/1/13/20	12/25/103/115	-
22	XAT	1	614	-	-	9/31/93/93	0/4/4/4
21	CLA	x	614	-	1/1/11/20	7/13/91/115	-
21	CLA	B	814	-	1/1/15/20	17/37/115/115	-
25	BCR	F	304	-	-	13/29/63/63	0/2/2/2
21	CLA	1	609	-	1/1/10/20	5/9/87/115	-
21	CLA	B	825	-	1/1/14/20	13/34/112/115	-
21	CLA	O	202	-	1/1/9/20	0/4/78/115	-
23	LHG	B	852	-	-	17/53/53/53	-
20	CHL	z	607	-	3/3/17/26	7/23/121/137	-
23	LHG	2	618	21	-	10/41/41/53	-
21	CLA	1	604	-	1/1/11/20	8/18/96/115	-
23	LHG	A	847	21	-	3/34/34/53	-
21	CLA	A	823	-	1/1/10/20	5/10/88/115	-
21	CLA	1	610	23	1/1/10/20	0/4/80/115	-
21	CLA	1	602	1	1/1/12/20	7/24/102/115	-
21	CLA	B	823	-	1/1/11/20	5/13/91/115	-
23	LHG	1	615	21	-	30/53/53/53	-
21	CLA	K	204	-	1/1/11/20	8/15/93/115	-
24	LUT	y	615	-	-	5/29/67/67	0/2/2/2
29	PQN	A	855	-	-	1/23/43/43	0/2/2/2
21	CLA	A	826	-	1/1/15/20	10/37/115/115	-
20	CHL	4	606	-	3/3/15/26	2/10/106/137	-
21	CLA	3	612	-	1/1/10/20	1/6/84/115	-
21	CLA	x	611	23	1/1/11/20	2/13/91/115	-
21	CLA	4	608	4	1/1/11/20	4/13/91/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
21	CLA	A	836	-	1/1/11/20	4/13/91/115	-
21	CLA	B	805	-	1/1/15/20	13/37/115/115	-
21	CLA	2	612	2	1/1/15/20	21/37/115/115	-
21	CLA	A	831	-	1/1/15/20	8/37/115/115	-
20	CHL	z	605	-	3/3/15/26	4/10/108/137	-
21	CLA	F	301	-	1/1/13/20	13/28/106/115	-
20	CHL	y	606	-	3/3/16/26	2/15/113/137	-
28	SF4	C	101	7	-	-	0/6/5/5
21	CLA	K	201	15	1/1/8/20	0/2/76/115	-
23	LHG	x	619	21	-	7/53/53/53	-
27	CL0	A	801	-	2/2/18/25	14/31/125/135	-
21	CLA	A	816	-	1/1/10/20	2/10/88/115	-
21	CLA	L	303	-	1/1/15/20	10/37/115/115	-
21	CLA	A	840	-	1/1/12/20	5/22/100/115	-
20	CHL	x	609	18	3/3/16/26	5/15/113/137	-
21	CLA	2	608	-	1/1/11/20	7/13/91/115	-
24	LUT	x	615	-	-	0/29/67/67	0/2/2/2
25	BCR	O	204	-	-	2/29/63/63	0/2/2/2
21	CLA	A	844	-	1/1/15/20	9/37/115/115	-
21	CLA	B	820	-	1/1/12/20	7/19/97/115	-
20	CHL	z	601	19	3/3/17/26	8/24/122/137	-
21	CLA	A	843	-	1/1/15/20	13/37/115/115	-
21	CLA	y	611	-	1/1/11/20	7/13/91/115	-
24	LUT	z	616	-	-	3/29/67/67	0/2/2/2
21	CLA	1	613	-	1/1/10/20	0/4/80/115	-
20	CHL	4	607	-	3/3/16/26	5/15/113/137	-
25	BCR	G	204	-	-	4/29/63/63	0/2/2/2
21	CLA	3	609	-	1/1/13/20	5/23/101/115	-
25	BCR	A	853	-	-	5/29/63/63	0/2/2/2
21	CLA	y	614	-	1/1/15/20	18/37/115/115	-
21	CLA	B	808	-	1/1/15/20	15/37/115/115	-
24	LUT	z	615	-	-	4/29/67/67	0/2/2/2
21	CLA	z	614	-	1/1/15/20	11/37/115/115	-
25	BCR	B	846	-	-	8/29/63/63	0/2/2/2
21	CLA	z	602	-	1/1/15/20	13/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
21	CLA	z	603	-	1/1/13/20	8/28/106/115	-
24	LUT	3	613	-	-	7/29/67/67	0/2/2/2
21	CLA	A	834	-	1/1/15/20	7/37/115/115	-
24	LUT	4	616	-	-	2/29/67/67	0/2/2/2
25	BCR	B	801	-	-	6/29/63/63	0/2/2/2
21	CLA	B	826	-	1/1/14/20	7/34/112/115	-
21	CLA	B	834	-	1/1/14/20	7/31/109/115	-
21	CLA	A	822	-	1/1/15/20	11/37/115/115	-
25	BCR	L	301	-	-	3/29/63/63	0/2/2/2
21	CLA	B	807	-	1/1/12/20	4/22/100/115	-
21	CLA	B	836	-	1/1/12/20	5/19/97/115	-
25	BCR	B	847	-	-	2/29/63/63	0/2/2/2
21	CLA	2	610	23	1/1/7/20	2/10/70/115	-
21	CLA	A	845	23	1/1/12/20	8/19/97/115	-
21	CLA	B	822	-	1/1/15/20	23/37/115/115	-
25	BCR	A	848	-	-	2/29/63/63	0/2/2/2
21	CLA	4	603	-	1/1/11/20	4/13/89/115	-
21	CLA	y	612	-	1/1/11/20	6/13/91/115	-
31	NEX	x	618	-	-	8/27/83/83	0/3/3/3
22	XAT	4	617	-	-	1/31/93/93	0/4/4/4
25	BCR	B	843	-	-	1/29/63/63	0/2/2/2
20	CHL	z	606	-	3/3/16/26	4/15/113/137	-
21	CLA	A	815	-	1/1/11/20	8/13/91/115	-
21	CLA	4	609	4	1/1/12/20	4/24/102/115	-
21	CLA	2	604	-	1/1/10/20	6/9/88/115	-
21	CLA	A	810	5	1/1/12/20	4/19/97/115	-
25	BCR	L	305	-	-	2/29/63/63	0/2/2/2
21	CLA	B	810	-	1/1/15/20	14/37/115/115	-
24	LUT	2	619	-	-	4/29/67/67	0/2/2/2
21	CLA	A	833	-	1/1/13/20	5/27/105/115	-
26	LMG	4	619	-	-	6/34/54/70	0/1/1/1
21	CLA	A	819	-	1/1/13/20	15/30/108/115	-
21	CLA	2	609	-	1/1/11/20	9/16/94/115	-
23	LHG	A	846	-	-	4/53/53/53	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
21	CLA	B	833	-	1/1/11/20	4/13/91/115	-
21	CLA	A	803	-	1/1/15/20	18/37/115/115	-
21	CLA	1	607	-	1/1/11/20	7/11/89/115	-
21	CLA	A	809	5	1/1/15/20	9/37/115/115	-
21	CLA	B	811	-	1/1/13/20	10/25/101/115	-
21	CLA	x	602	-	1/1/15/20	13/37/115/115	-
21	CLA	1	612	-	1/1/11/20	5/15/93/115	-
21	CLA	B	804	-	1/1/10/20	2/8/86/115	-
20	CHL	y	607	-	3/3/17/26	12/24/122/137	-
21	CLA	3	608	-	1/1/10/20	3/8/86/115	-
21	CLA	B	803	-	1/1/15/20	13/37/115/115	-
21	CLA	B	809	6	1/1/15/20	15/37/115/115	-
22	XAT	2	617	-	-	15/31/93/93	0/4/4/4
21	CLA	J	101	-	1/1/12/20	6/21/99/115	-
21	CLA	K	206	15	1/1/9/20	0/6/80/115	-
21	CLA	A	813	-	1/1/12/20	9/24/102/115	-
21	CLA	4	611	-	1/1/10/20	2/8/86/115	-
21	CLA	x	613	-	1/1/13/20	13/30/108/115	-
21	CLA	A	841	-	1/1/15/20	17/37/115/115	-
21	CLA	B	813	-	1/1/15/20	12/37/115/115	-
21	CLA	B	824	-	1/1/15/20	12/37/115/115	-
25	BCR	J	102	-	-	2/29/63/63	0/2/2/2
21	CLA	B	819	-	1/1/13/20	5/25/103/115	-
21	CLA	A	835	-	1/1/15/20	20/37/115/115	-
21	CLA	4	614	-	1/1/12/20	7/19/97/115	-
21	CLA	B	830	-	1/1/10/20	2/11/89/115	-
21	CLA	A	837	5	1/1/11/20	2/13/91/115	-
21	CLA	3	604	-	1/1/10/20	0/8/86/115	-
21	CLA	4	610	-	1/1/10/20	4/10/88/115	-
21	CLA	4	602	4	1/1/14/20	6/31/109/115	-
21	CLA	A	827	-	1/1/13/20	5/30/108/115	-
25	BCR	A	852	-	-	13/29/63/63	0/2/2/2
21	CLA	1	605	-	1/1/11/20	8/15/93/115	-
25	BCR	B	848	-	-	2/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
21	CLA	2	613	-	1/1/10/20	4/11/89/115	-
21	CLA	A	821	-	1/1/11/20	4/13/91/115	-
21	CLA	z	611	-	1/1/11/20	0/13/91/115	-
21	CLA	L	302	16	1/1/11/20	1/13/91/115	-
21	CLA	B	821	-	1/1/11/20	3/16/94/115	-
20	CHL	2	615	2	3/3/15/26	2/12/110/137	-
25	BCR	O	205	-	-	0/29/63/63	0/2/2/2
20	CHL	2	605	-	3/3/15/26	2/10/108/137	-
21	CLA	2	611	-	1/1/11/20	6/11/89/115	-
21	CLA	B	829	-	1/1/13/20	7/27/105/115	-
21	CLA	A	808	-	1/1/12/20	1/19/97/115	-
21	CLA	A	805	21	1/1/12/20	7/22/100/115	-
25	BCR	B	844	-	-	12/29/63/63	0/2/2/2
21	CLA	A	806	-	1/1/15/20	14/37/115/115	-
21	CLA	x	610	-	1/1/15/20	17/37/115/115	-
20	CHL	x	605	-	3/3/17/26	13/24/122/137	-
20	CHL	z	609	-	3/3/17/26	13/24/122/137	-
21	CLA	B	806	6	1/1/15/20	15/37/115/115	-
21	CLA	B	840	-	1/1/15/20	13/37/115/115	-
21	CLA	z	612	-	1/1/11/20	2/13/91/115	-
20	CHL	x	601	18	3/3/17/26	11/24/122/137	-
20	CHL	1	601	1	3/3/17/26	7/22/120/137	-
21	CLA	1	603	-	1/1/12/20	8/24/102/115	-
21	CLA	B	839	-	1/1/15/20	8/37/115/115	-
21	CLA	y	610	18	1/1/13/20	13/29/107/115	-
21	CLA	K	203	-	1/1/11/20	7/13/91/115	-
20	CHL	x	606	-	3/3/16/26	6/15/113/137	-
21	CLA	3	602	-	1/1/13/20	11/25/103/115	-
21	CLA	x	604	-	1/1/12/20	8/22/100/115	-
20	CHL	4	605	-	3/3/15/26	2/8/106/137	-
20	CHL	x	607	-	3/3/17/26	11/24/122/137	-
23	LHG	z	619	-	-	10/53/53/53	-
21	CLA	1	611	-	1/1/11/20	4/13/91/115	-
20	CHL	y	609	18	3/3/17/26	16/24/122/137	-
21	CLA	3	603	-	1/1/11/20	7/13/91/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
21	CLA	A	818	-	1/1/14/20	14/31/109/115	-
21	CLA	2	602	2	1/1/15/20	16/37/115/115	-
21	CLA	A	838	-	1/1/12/20	8/21/99/115	-
21	CLA	F	303	10	1/1/10/20	2/8/86/115	-
21	CLA	y	604	-	1/1/12/20	9/21/99/115	-
21	CLA	z	604	-	1/1/12/20	11/21/99/115	-
21	CLA	B	818	-	1/1/14/20	11/31/109/115	-
21	CLA	A	824	-	1/1/10/20	2/8/86/115	-
21	CLA	2	603	-	1/1/11/20	3/11/89/115	-
21	CLA	A	811	-	1/1/15/20	13/37/115/115	-
21	CLA	A	830	-	1/1/15/20	14/37/115/115	-
21	CLA	G	202	-	1/1/10/20	2/10/88/115	-
21	CLA	A	804	-	1/1/15/20	18/37/115/115	-
21	CLA	F	302	-	1/1/12/20	6/21/99/115	-
21	CLA	4	604	-	1/1/11/20	6/11/87/115	-
20	CHL	4	615	4	3/3/15/26	1/10/106/137	-
22	XAT	x	617	-	-	8/31/93/93	0/4/4/4
25	BCR	B	845	-	-	9/29/63/63	0/2/2/2
28	SF4	C	102	7	-	-	0/6/5/5
20	CHL	x	608	18	3/3/15/26	3/10/108/137	-
22	XAT	y	617	-	-	4/31/93/93	0/4/4/4
22	XAT	z	617	-	-	0/31/93/93	0/4/4/4
21	CLA	y	602	18	1/1/15/20	21/37/115/115	-
21	CLA	B	838	-	1/1/11/20	1/16/94/115	-
21	CLA	4	613	-	1/1/11/20	5/13/91/115	-
21	CLA	A	807	-	1/1/15/20	13/37/115/115	-
21	CLA	z	610	-	1/1/11/20	5/13/91/115	-
23	LHG	y	619	-	-	11/53/53/53	-
21	CLA	B	816	-	1/1/13/20	6/25/103/115	-
25	BCR	A	851	-	-	8/29/63/63	0/2/2/2
30	DGD	B	850	-	-	14/55/95/95	0/2/2/2
21	CLA	3	611	-	1/1/8/20	0/0/74/115	-
21	CLA	A	817	-	1/1/11/20	2/13/91/115	-
29	PQN	B	842	-	-	6/23/43/43	0/2/2/2
25	BCR	K	205	-	-	8/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	BCR	A	850	-	-	4/29/63/63	0/2/2/2
21	CLA	B	831	-	1/1/10/20	2/11/89/115	-
20	CHL	2	607	-	3/3/17/26	7/21/119/137	-
21	CLA	A	829	-	1/1/15/20	15/37/115/115	-
21	CLA	A	814	-	1/1/15/20	14/37/115/115	-
25	BCR	K	202	-	-	2/29/63/63	0/2/2/2
20	CHL	y	605	18	3/3/15/26	2/10/108/137	-
21	CLA	4	612	-	1/1/13/20	12/28/106/115	-
31	NEX	z	618	-	-	2/27/83/83	0/3/3/3
21	CLA	3	610	-	1/1/10/20	0/6/84/115	-
26	LMG	4	620	-	-	8/28/48/70	0/1/1/1
24	LUT	x	616	-	-	2/29/67/67	0/2/2/2
21	CLA	G	201	-	1/1/11/20	7/13/91/115	-
24	LUT	1	616	-	-	2/29/67/67	0/2/2/2
21	CLA	A	820	-	1/1/15/20	16/37/115/115	-
24	LUT	y	616	-	-	6/29/67/67	0/2/2/2
20	CHL	y	608	-	3/3/16/26	8/19/117/137	-
20	CHL	z	608	-	3/3/16/26	4/19/117/137	-
20	CHL	3	606	-	3/3/16/26	5/13/111/137	-
21	CLA	B	835	-	1/1/10/20	4/10/88/115	-
25	BCR	I	101	-	-	0/29/63/63	0/2/2/2
20	CHL	1	606	-	3/3/15/26	0/8/106/137	-
21	CLA	x	603	-	1/1/14/20	10/31/109/115	-
21	CLA	B	841	23	1/1/15/20	23/37/115/115	-
21	CLA	B	827	-	1/1/15/20	16/37/115/115	-
24	LUT	2	616	-	-	7/29/67/67	0/2/2/2
25	BCR	3	614	-	-	5/29/63/63	0/2/2/2
21	CLA	y	603	-	1/1/12/20	5/23/101/115	-
21	CLA	B	815	-	1/1/10/20	2/11/89/115	-
23	LHG	B	851	21	-	5/42/42/53	-
21	CLA	A	812	21	1/1/15/20	20/37/115/115	-
21	CLA	A	832	-	1/1/12/20	4/19/97/115	-
21	CLA	y	613	-	1/1/11/20	5/13/91/115	-
25	BCR	L	306	-	-	5/29/63/63	0/2/2/2

The worst 5 of 1974 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	4	617	XAT	O4-C5	-12.41	1.28	1.46
21	2	610	CLA	C1A-NA	12.18	1.40	1.29
22	4	617	XAT	O24-C25	-10.96	1.30	1.46
22	4	617	XAT	C4-C3	-9.80	1.38	1.52
22	4	617	XAT	C2-C3	-8.85	1.39	1.52

The worst 5 of 2575 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	A	818	CLA	O2D-CGD-CBD	25.89	157.28	111.27
21	A	818	CLA	O2D-CGD-O1D	-25.26	74.45	123.84
22	4	617	XAT	O24-C25-C24	23.78	131.25	113.38
21	A	818	CLA	O1D-CGD-CBD	-20.36	82.83	124.48
27	A	801	CL0	C1D-ND-C4D	-17.19	94.13	106.33

5 of 260 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
20	1	601	CHL	NC
20	1	601	CHL	NA
20	1	601	CHL	ND
20	1	606	CHL	NC
20	1	606	CHL	NA

5 of 1936 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
20	2	605	CHL	C3C-C2C-CMC-OMC
20	2	607	CHL	C1A-C2A-CAA-CBA
20	2	607	CHL	CBD-CGD-O2D-CED
20	3	606	CHL	C2A-CAA-CBA-CGA
20	3	606	CHL	CHA-CBD-CGD-O1D

There are no ring outliers.

184 monomers are involved in 611 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
21	B	832	CLA	5	0
21	1	608	CLA	3	0
21	L	304	CLA	1	0
21	G	203	CLA	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
21	A	802	CLA	7	0
21	H	201	CLA	4	0
25	B	849	BCR	7	0
21	B	802	CLA	12	0
25	A	849	BCR	2	0
21	3	605	CLA	1	0
21	A	842	CLA	7	0
21	O	201	CLA	2	0
21	3	607	CLA	8	0
21	B	817	CLA	3	0
20	2	601	CHL	2	0
21	O	203	CLA	1	0
21	4	601	CLA	2	0
25	4	618	BCR	6	0
21	A	828	CLA	2	0
21	3	601	CLA	5	0
21	A	839	CLA	1	0
21	B	837	CLA	2	0
20	2	606	CHL	1	0
21	B	828	CLA	9	0
28	A	854	SF4	2	0
21	A	825	CLA	2	0
22	1	614	XAT	13	0
21	B	814	CLA	6	0
25	F	304	BCR	2	0
21	1	609	CLA	12	0
21	B	825	CLA	3	0
23	B	852	LHG	3	0
23	2	618	LHG	2	0
21	1	604	CLA	4	0
23	A	847	LHG	1	0
21	A	823	CLA	3	0
21	1	602	CLA	5	0
21	B	823	CLA	2	0
23	1	615	LHG	12	0
21	K	204	CLA	4	0
29	A	855	PQN	3	0
21	A	826	CLA	4	0
21	3	612	CLA	3	0
21	4	608	CLA	3	0
21	B	805	CLA	7	0
21	2	612	CLA	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
21	A	831	CLA	4	0
21	F	301	CLA	2	0
28	C	101	SF4	2	0
21	K	201	CLA	7	0
27	A	801	CL0	15	0
21	L	303	CLA	2	0
21	A	840	CLA	1	0
21	2	608	CLA	5	0
25	O	204	BCR	3	0
21	A	844	CLA	3	0
21	B	820	CLA	1	0
21	A	843	CLA	1	0
20	4	607	CHL	1	0
25	G	204	BCR	4	0
21	3	609	CLA	7	0
25	A	853	BCR	9	0
21	B	808	CLA	4	0
25	B	846	BCR	5	0
24	3	613	LUT	8	0
21	A	834	CLA	2	0
24	4	616	LUT	2	0
25	B	801	BCR	9	0
21	B	826	CLA	3	0
21	B	834	CLA	3	0
21	A	822	CLA	3	0
25	L	301	BCR	3	0
21	B	836	CLA	2	0
25	B	847	BCR	3	0
21	A	845	CLA	3	0
21	B	822	CLA	8	0
25	A	848	BCR	3	0
21	4	603	CLA	2	0
22	4	617	XAT	6	0
25	B	843	BCR	6	0
21	A	815	CLA	1	0
21	4	609	CLA	5	0
21	2	604	CLA	8	0
21	A	810	CLA	2	0
25	L	305	BCR	7	0
21	B	810	CLA	1	0
24	2	619	LUT	6	0
21	A	833	CLA	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
21	A	819	CLA	3	0
21	2	609	CLA	11	0
23	A	846	LHG	7	0
21	B	833	CLA	1	0
21	A	803	CLA	9	0
21	1	607	CLA	2	0
21	A	809	CLA	7	0
21	B	811	CLA	3	0
21	1	612	CLA	2	0
21	B	804	CLA	1	0
21	3	608	CLA	6	0
21	B	803	CLA	5	0
21	B	809	CLA	6	0
22	2	617	XAT	5	0
21	J	101	CLA	1	0
21	K	206	CLA	5	0
21	A	813	CLA	2	0
21	4	611	CLA	1	0
21	A	841	CLA	5	0
21	B	813	CLA	7	0
21	B	824	CLA	11	0
25	J	102	BCR	5	0
21	B	819	CLA	4	0
21	A	835	CLA	4	0
21	4	614	CLA	1	0
21	B	830	CLA	2	0
21	3	604	CLA	1	0
21	4	610	CLA	2	0
21	4	602	CLA	3	0
21	A	827	CLA	1	0
25	A	852	BCR	2	0
21	1	605	CLA	3	0
25	B	848	BCR	1	0
21	2	613	CLA	4	0
21	A	821	CLA	1	0
21	L	302	CLA	4	0
21	B	821	CLA	2	0
20	2	615	CHL	3	0
20	2	605	CHL	5	0
21	2	611	CLA	2	0
21	B	829	CLA	1	0
21	A	808	CLA	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
21	A	805	CLA	2	0
25	B	844	BCR	6	0
21	A	806	CLA	5	0
21	B	806	CLA	4	0
21	B	840	CLA	5	0
20	1	601	CHL	7	0
21	1	603	CLA	1	0
21	B	839	CLA	2	0
21	3	602	CLA	3	0
20	4	605	CHL	2	0
21	1	611	CLA	1	0
21	3	603	CLA	2	0
21	A	818	CLA	7	0
21	2	602	CLA	9	0
21	A	838	CLA	1	0
21	B	818	CLA	5	0
21	A	824	CLA	2	0
21	2	603	CLA	3	0
21	A	811	CLA	6	0
21	A	830	CLA	7	0
21	A	804	CLA	8	0
21	F	302	CLA	7	0
20	4	615	CHL	2	0
25	B	845	BCR	9	0
28	C	102	SF4	3	0
21	B	838	CLA	1	0
21	4	613	CLA	2	0
21	A	807	CLA	2	0
21	B	816	CLA	2	0
25	A	851	BCR	6	0
30	B	850	DGD	5	0
29	B	842	PQN	3	0
25	K	205	BCR	5	0
25	A	850	BCR	5	0
20	2	607	CHL	1	0
21	A	829	CLA	9	0
21	A	814	CLA	2	0
25	K	202	BCR	5	0
21	4	612	CLA	2	0
21	3	610	CLA	2	0
21	G	201	CLA	2	0
24	1	616	LUT	3	0

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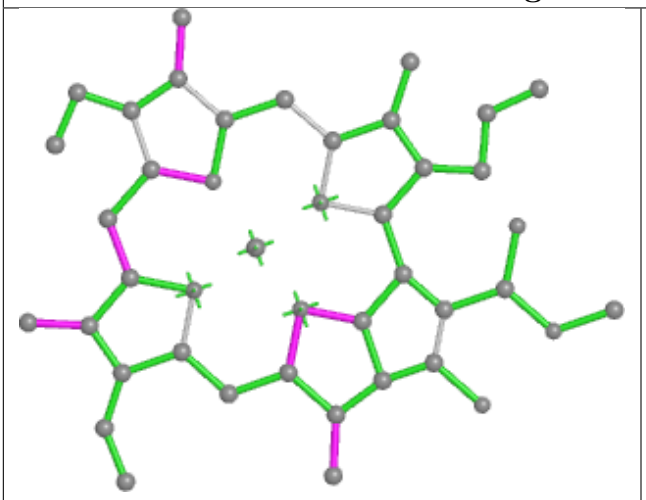
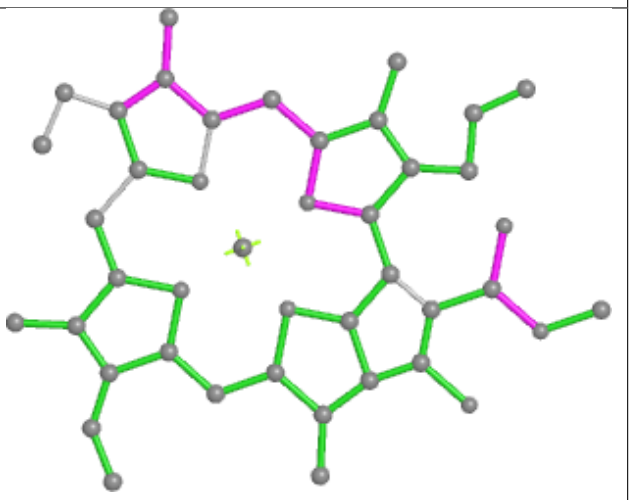
Mol	Chain	Res	Type	Clashes	Symm-Clashes
21	A	820	CLA	7	0
20	3	606	CHL	2	0
21	B	835	CLA	1	0
25	I	101	BCR	2	0
21	B	841	CLA	2	0
21	B	827	CLA	3	0
24	2	616	LUT	5	0
25	3	614	BCR	6	0
23	B	851	LHG	3	0
21	A	812	CLA	9	0
21	A	832	CLA	1	0
25	L	306	BCR	4	0

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.

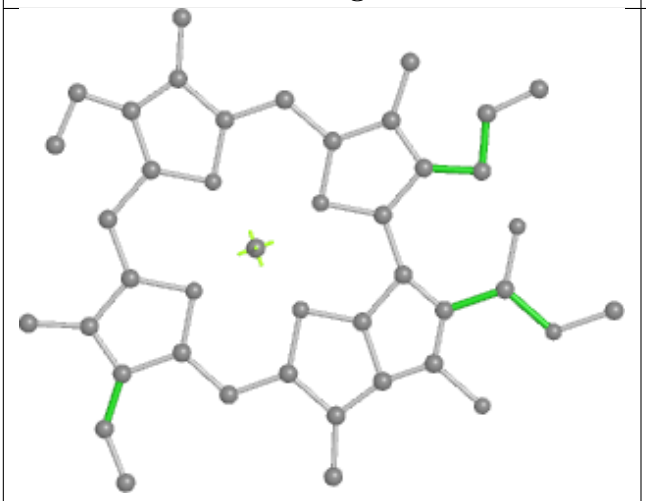
Ligand CLA B 812



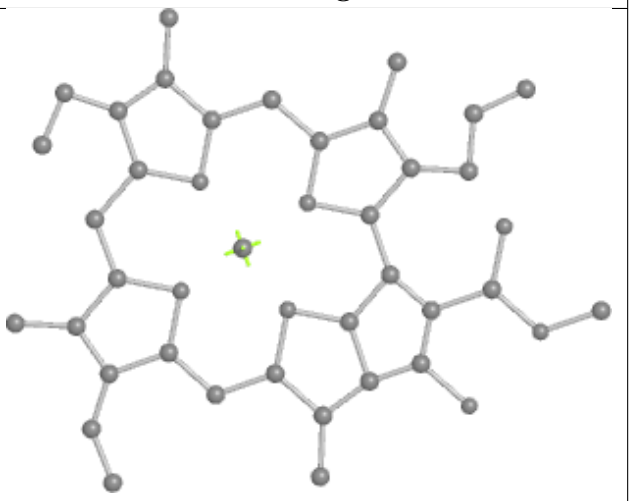
Bond lengths



Bond angles

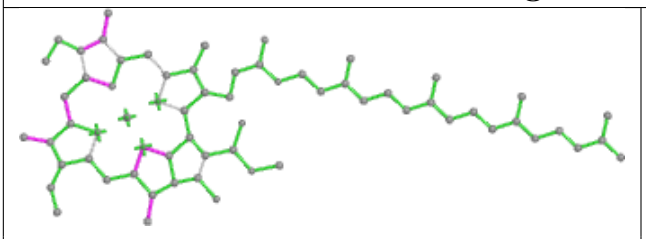


Torsions

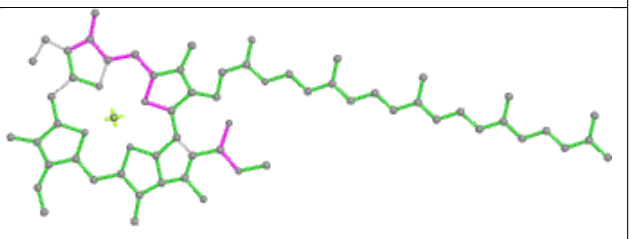


Rings

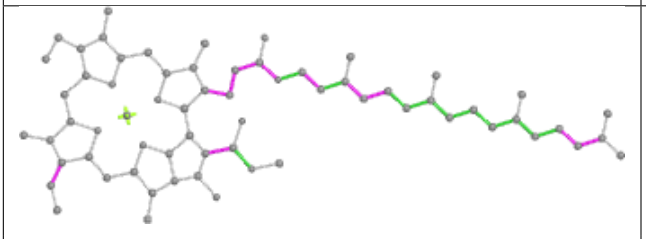
Ligand CLA B 832



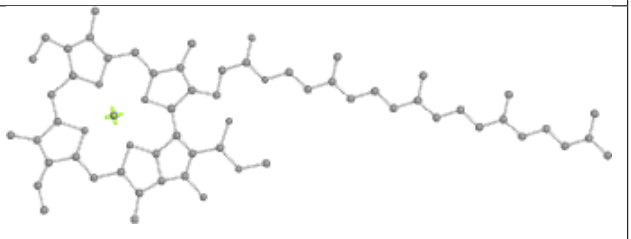
Bond lengths



Bond angles

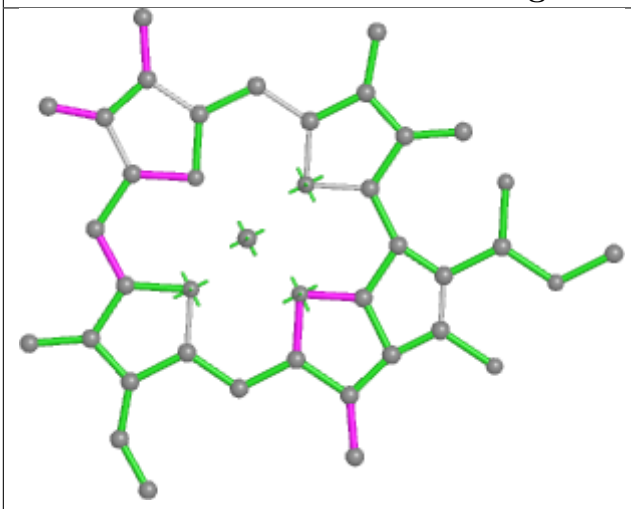


Torsions

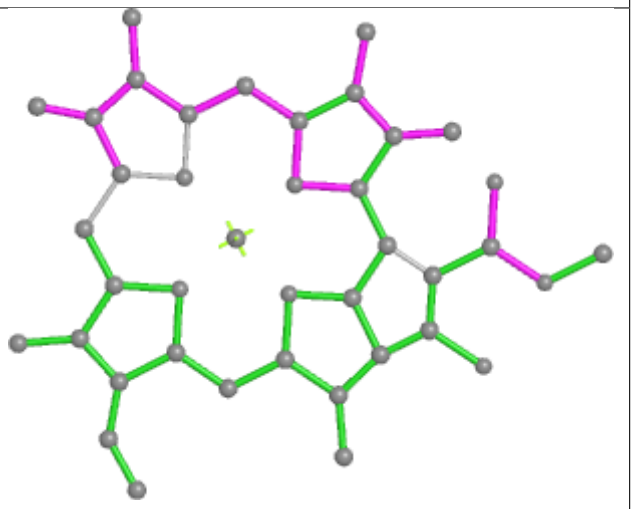


Rings

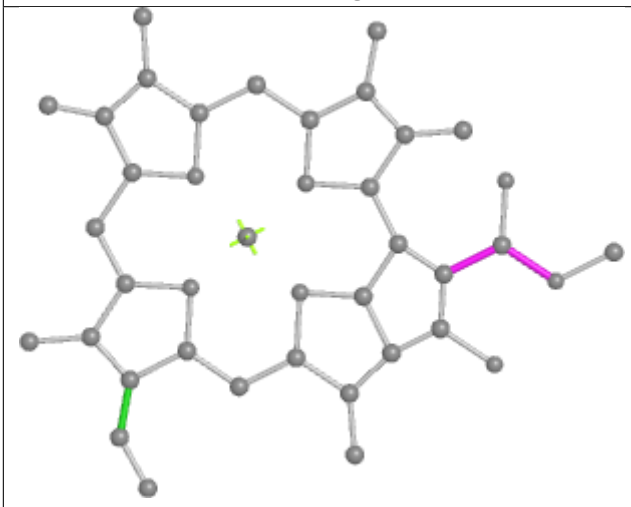
Ligand CLA 1 608



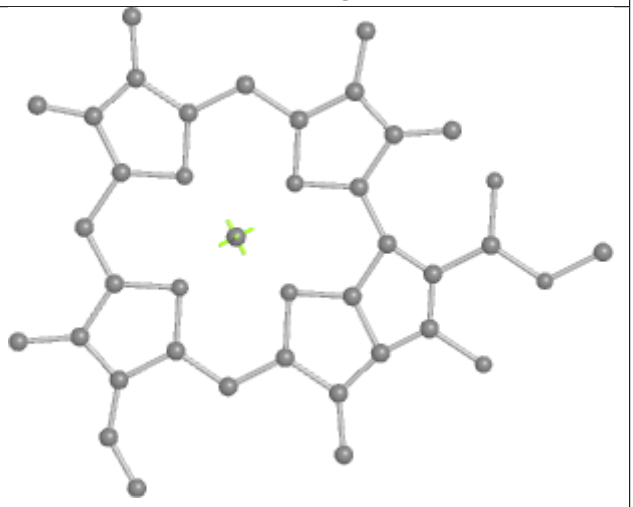
Bond lengths



Bond angles

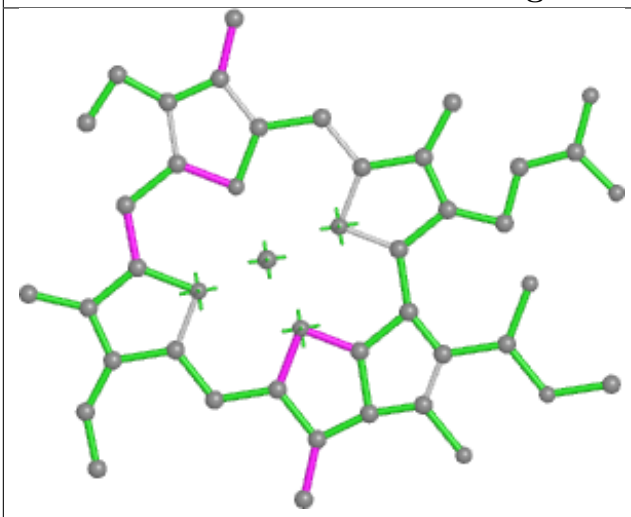


Torsions

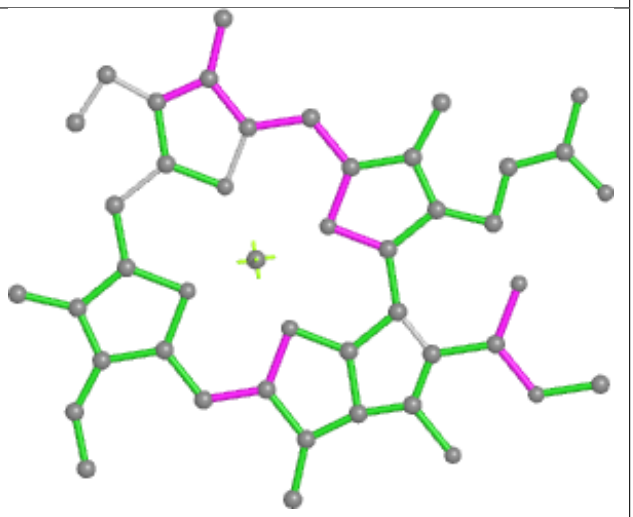


Rings

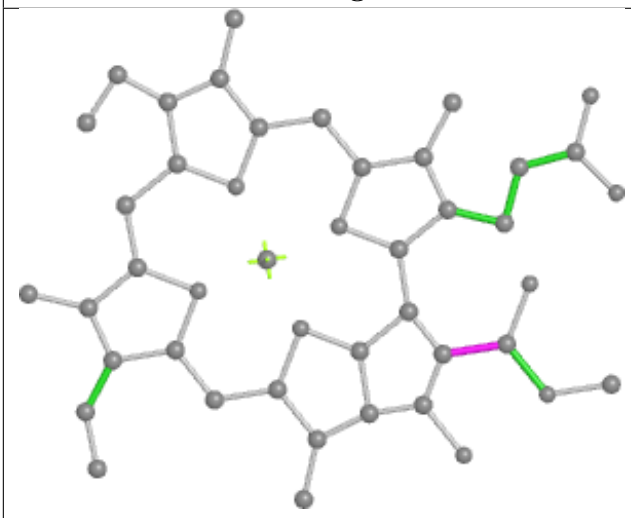
Ligand CLA L 304



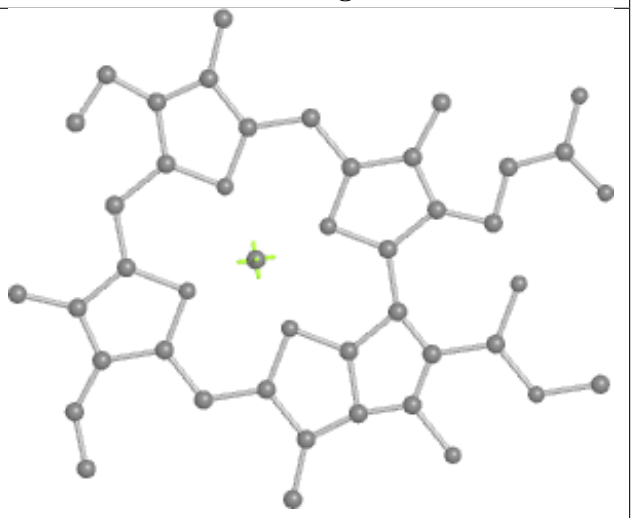
Bond lengths



Bond angles

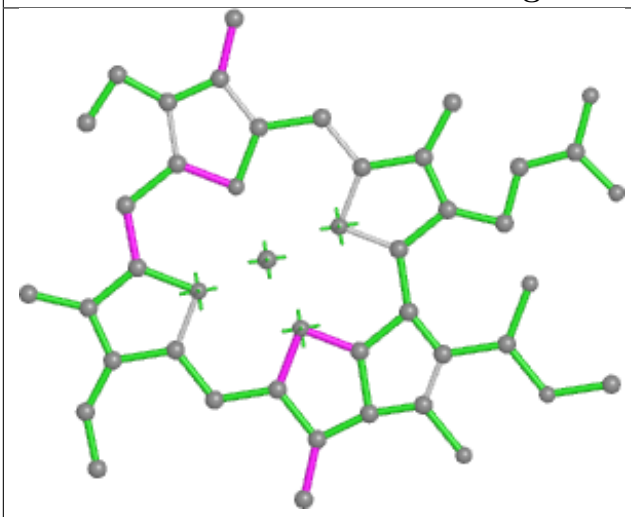


Torsions

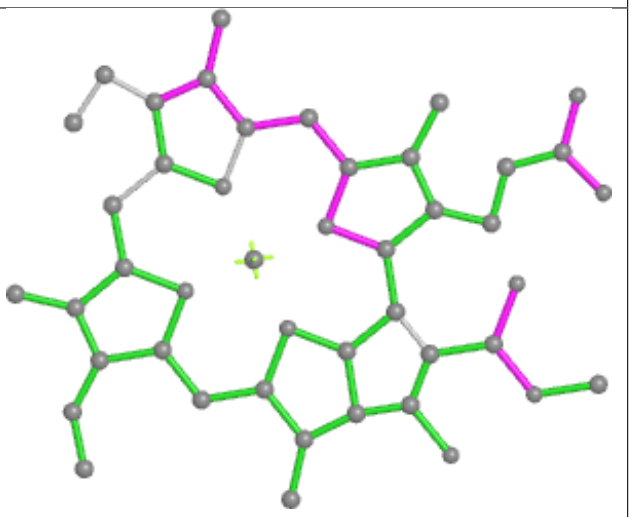


Rings

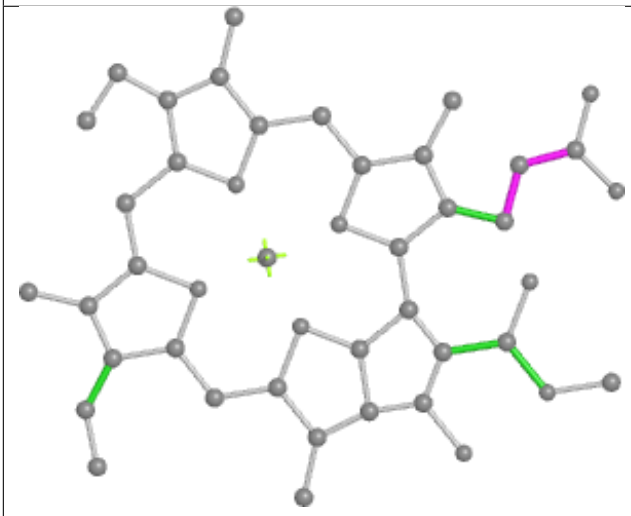
Ligand CLA G 203



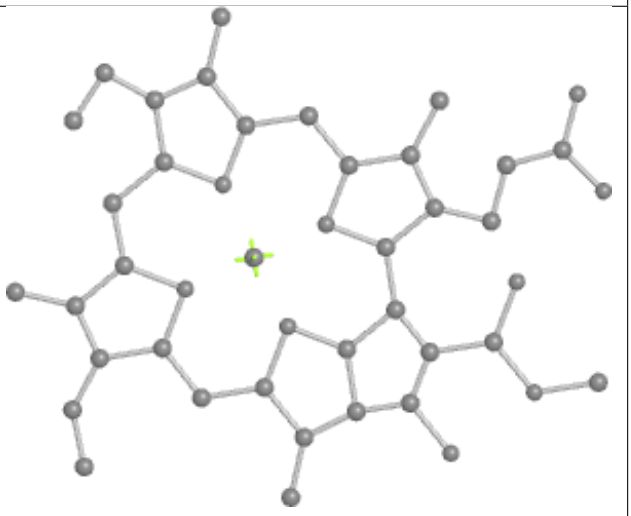
Bond lengths



Bond angles

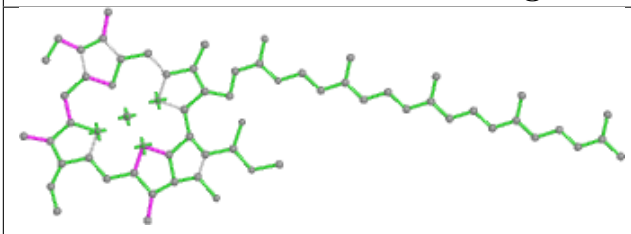


Torsions

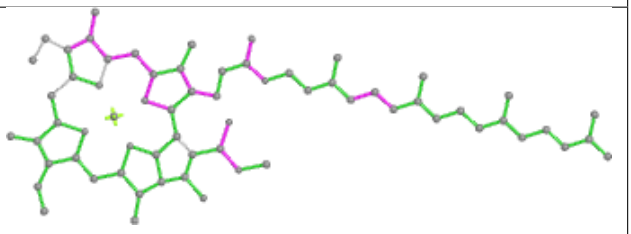


Rings

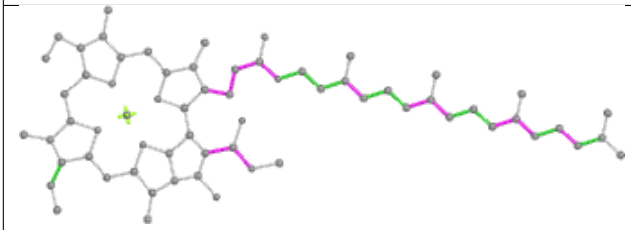
Ligand CLA A 802



Bond lengths



Bond angles



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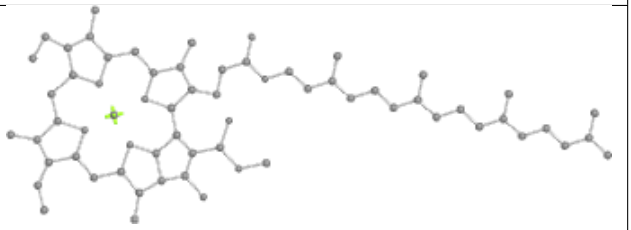
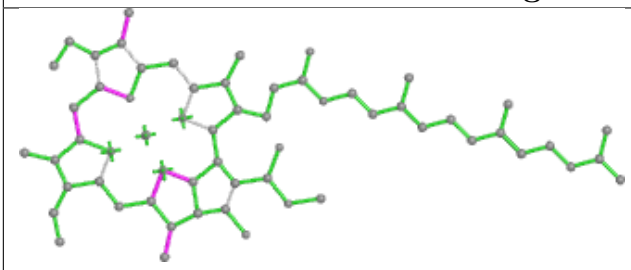
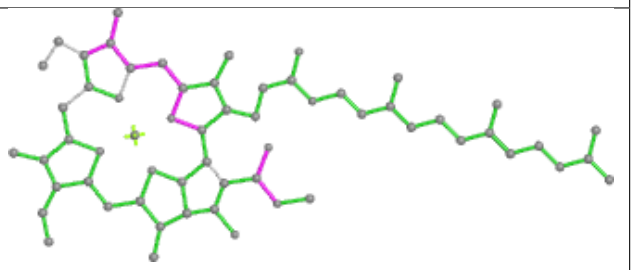


Rings

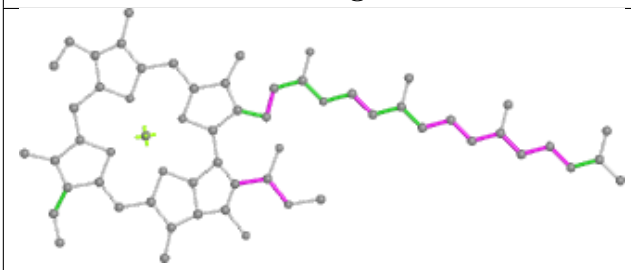
Ligand CLA H 201



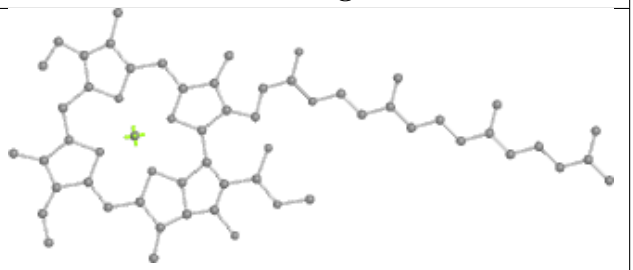
Bond lengths



Bond angles

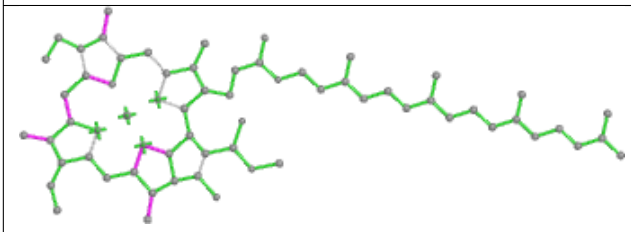


Torsions

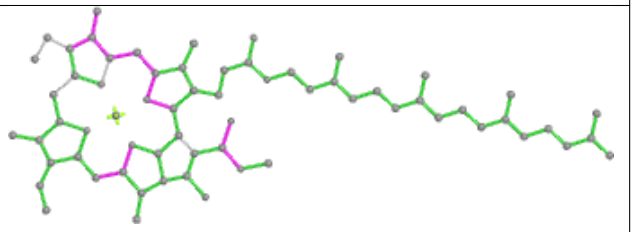


Rings

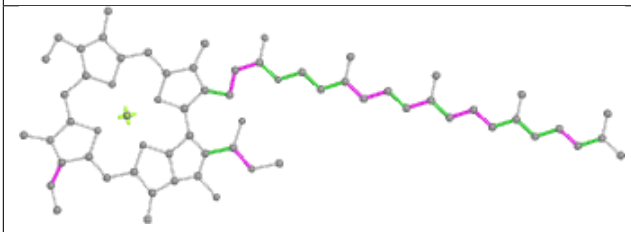
Ligand CLA z 613



Bond lengths



Bond angles



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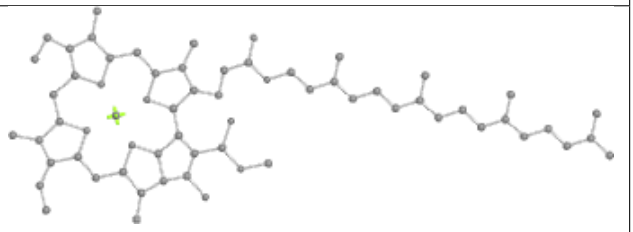
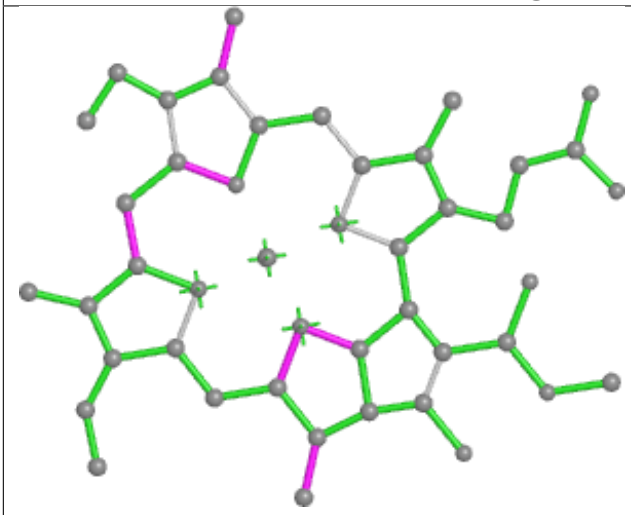
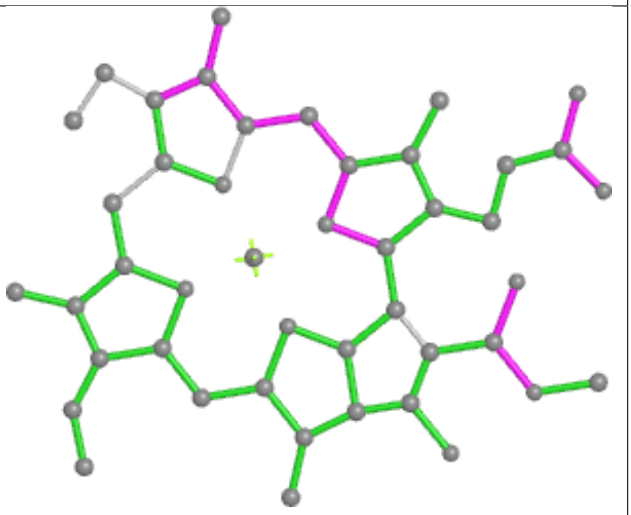


Rings

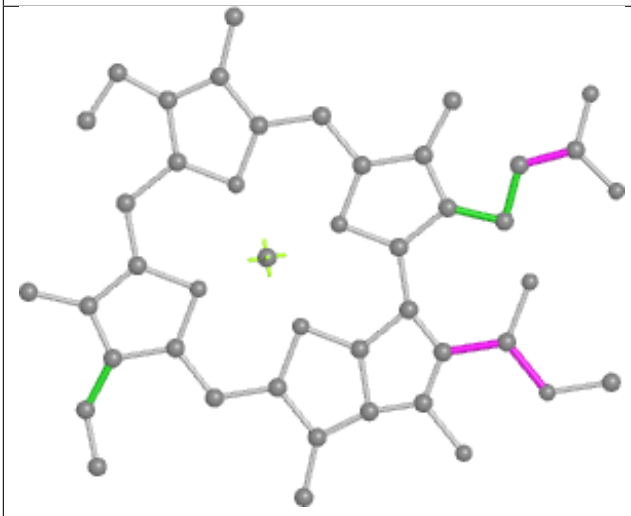
Ligand CLA x 612



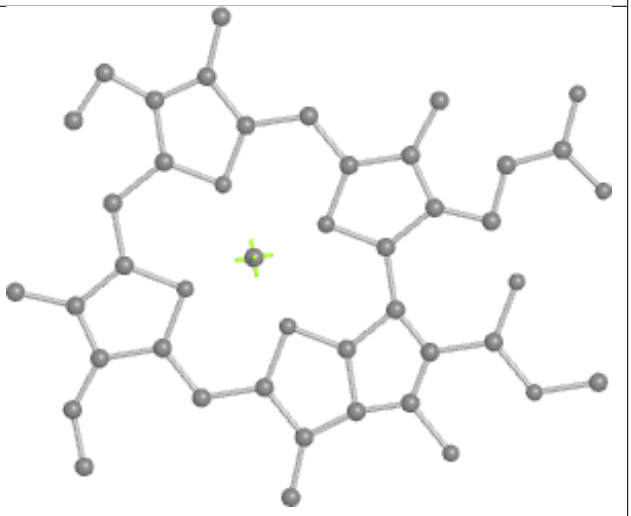
Bond lengths



Bond angles

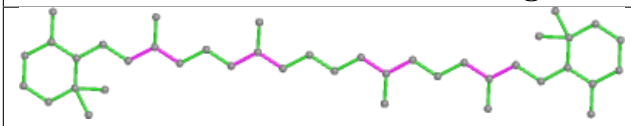


Torsions

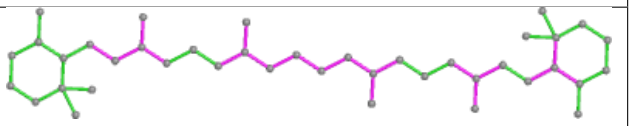


Rings

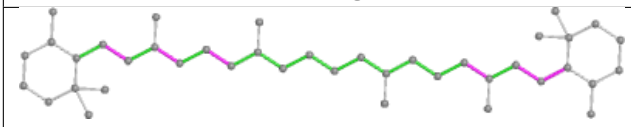
Ligand BCR B 849



Bond lengths



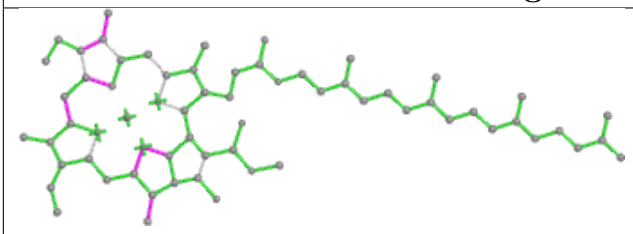
Bond angles



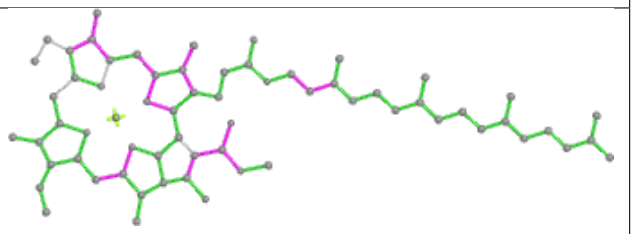
Torsions

Rings

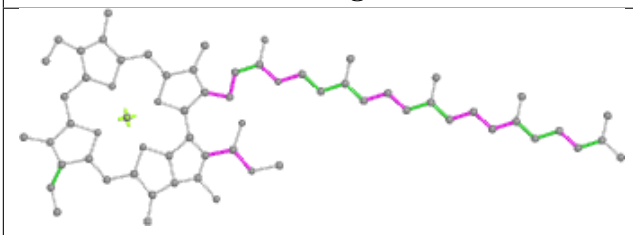
Ligand CLA B 802



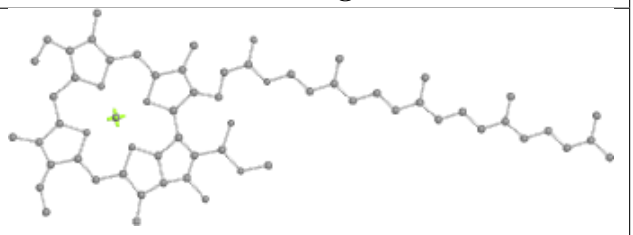
Bond lengths



Bond angles

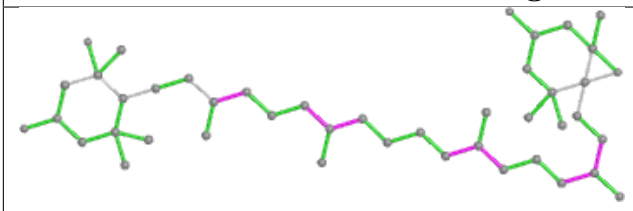


Torsions

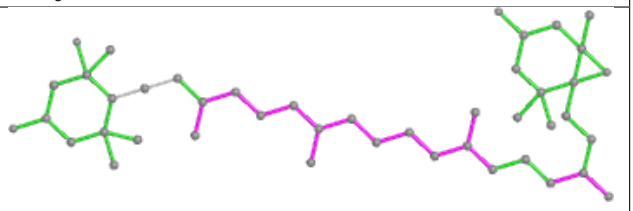


Rings

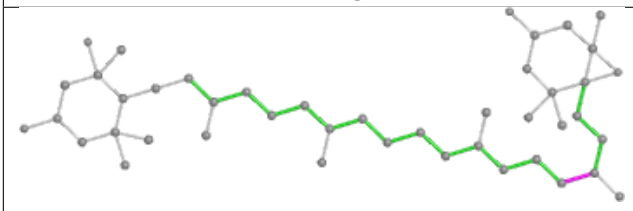
Ligand NEX y 618



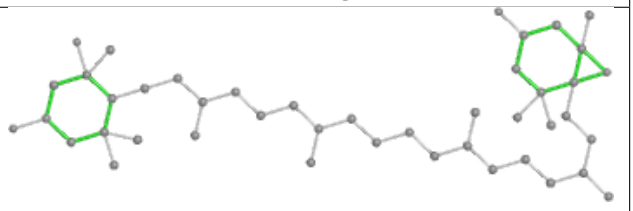
Bond lengths



Bond angles

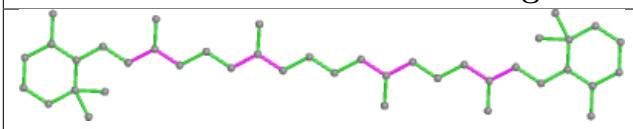


Torsions

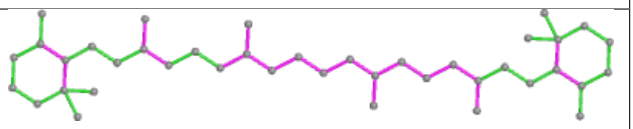


Rings

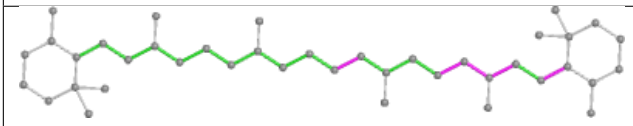
Ligand BCR A 849



Bond lengths



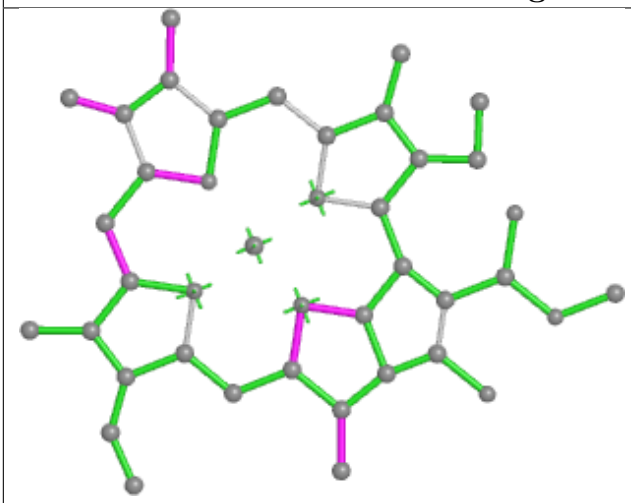
Bond angles



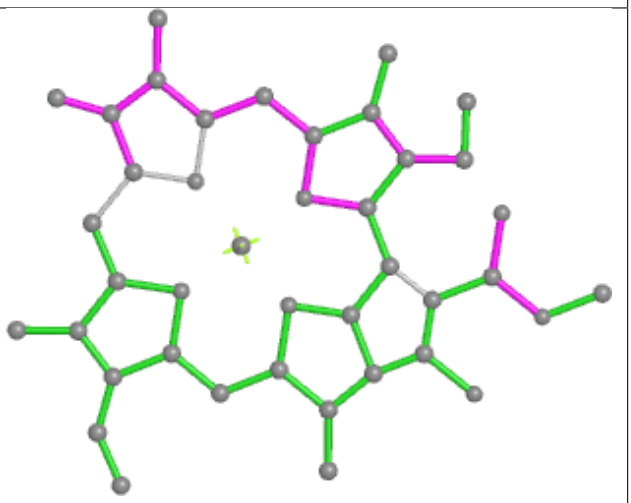
Torsions

Rings

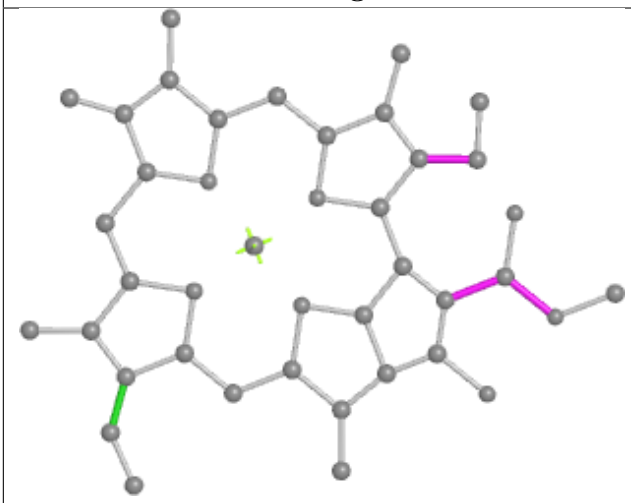
Ligand CLA 3 605



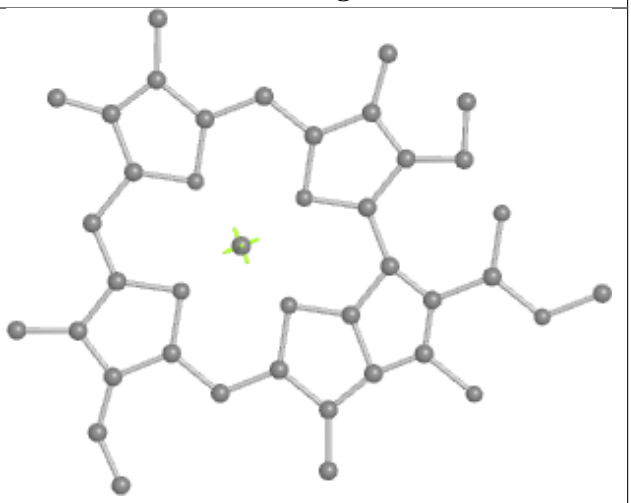
Bond lengths



Bond angles

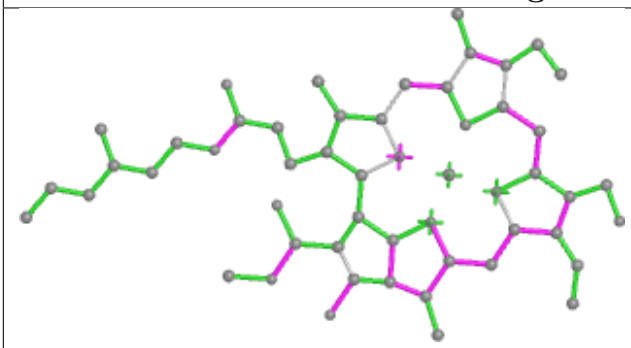


Torsions



Rings

Ligand CHL y 601



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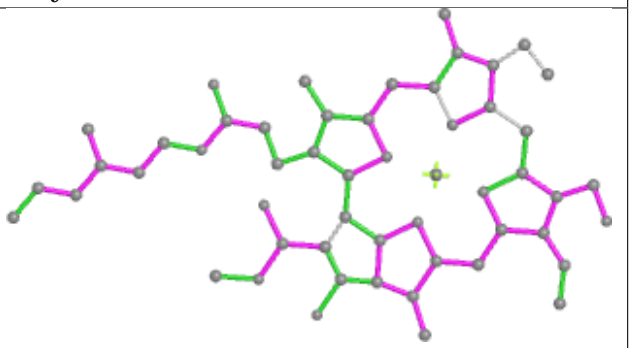
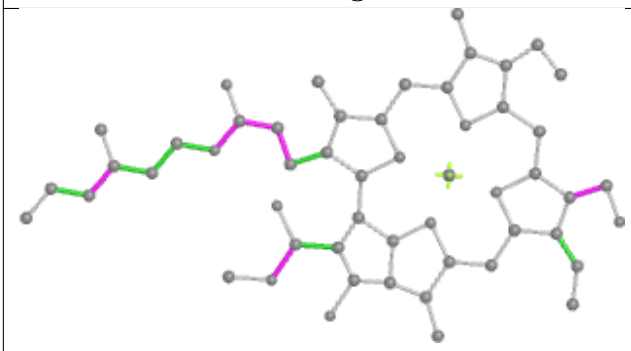
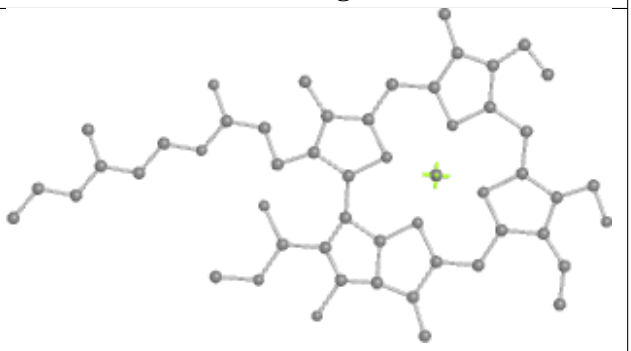


Bond angles

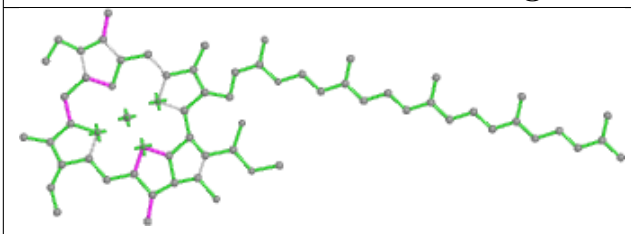


Torsions

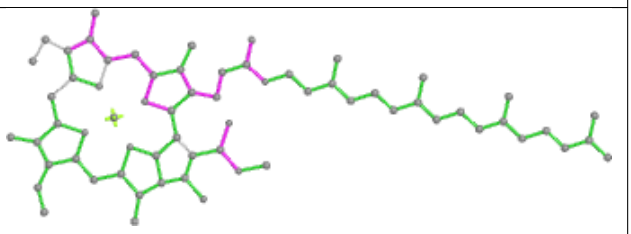


Rings

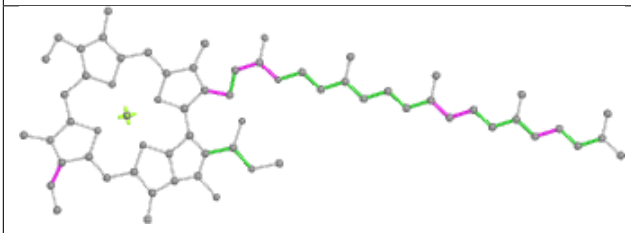
Ligand CLA A 842



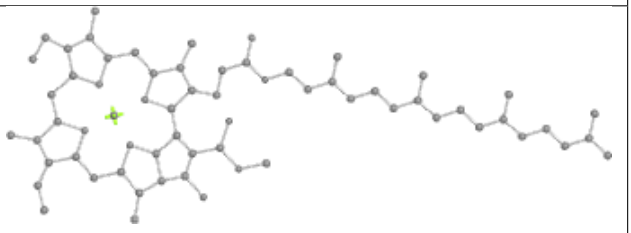
Bond lengths



Bond angles

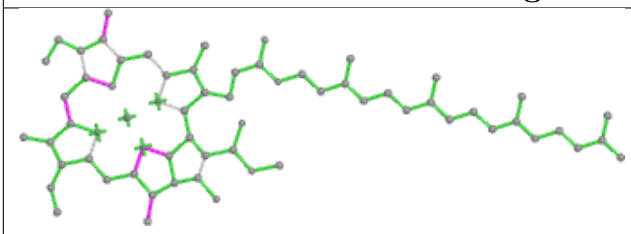


Torsions

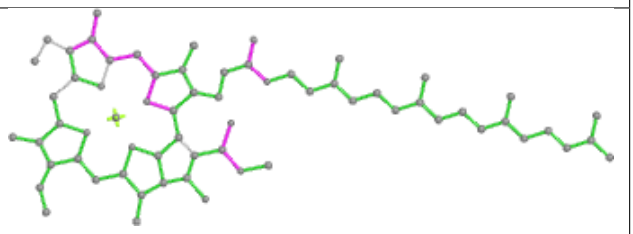


Rings

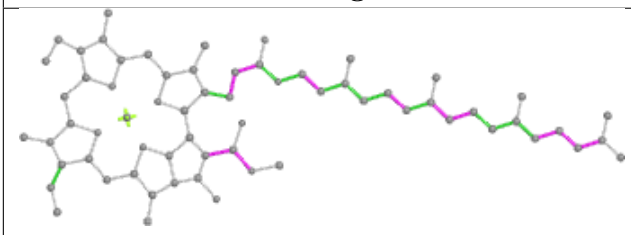
Ligand CLA O 201



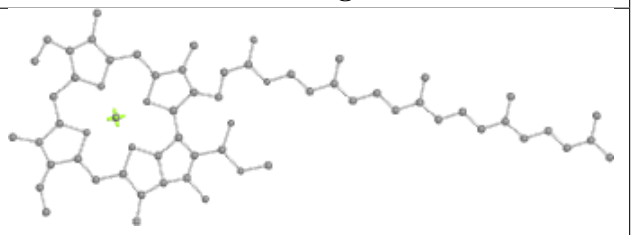
Bond lengths



Bond angles

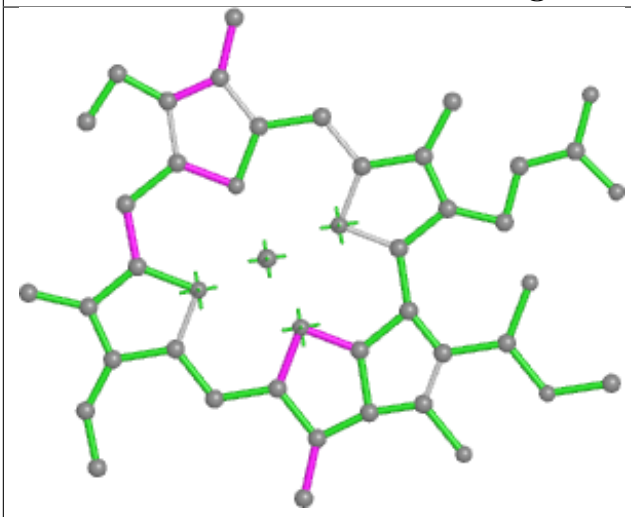


Torsions

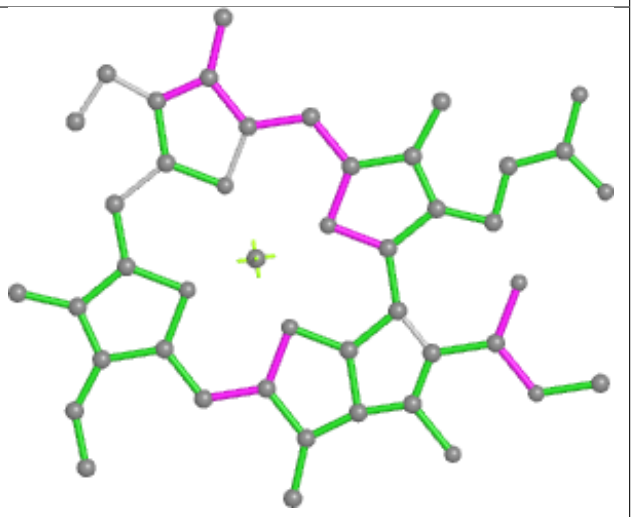


Rings

Ligand CLA 3 607



Bond lengths



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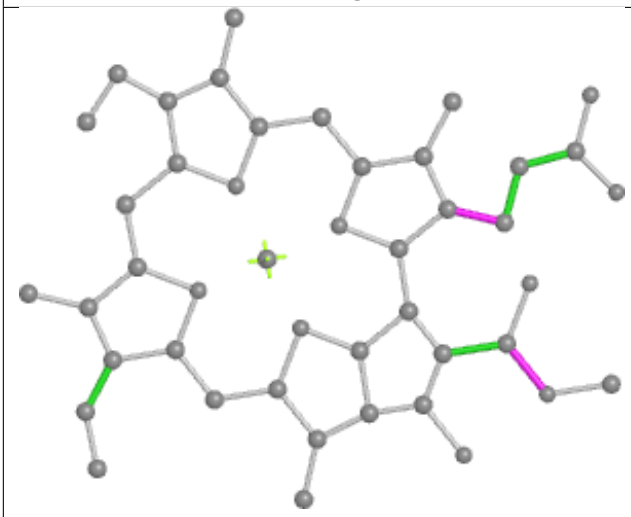
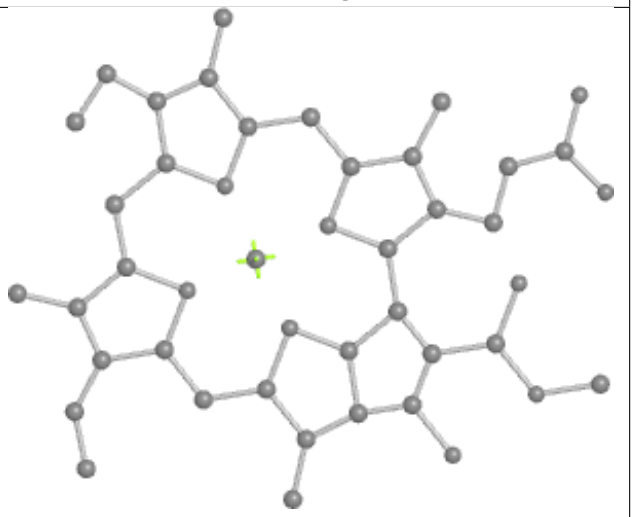
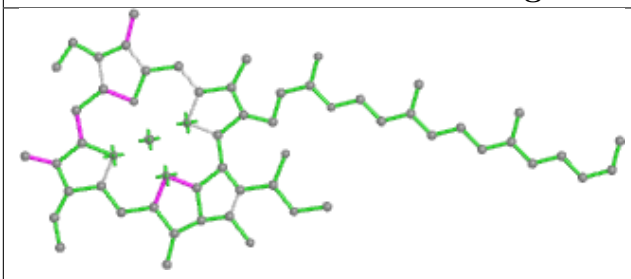


Torsions

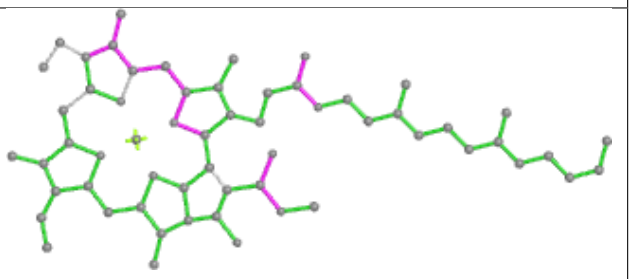


Rings

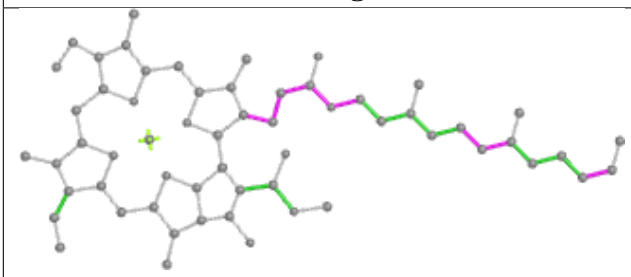
Ligand CLA B 817



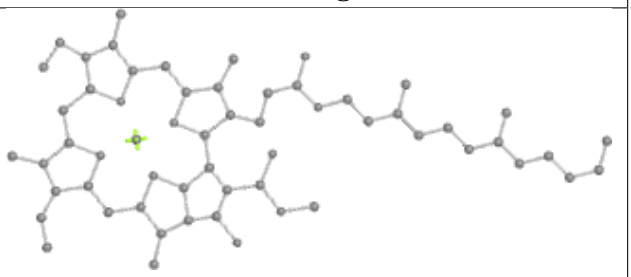
Bond lengths



Bond angles

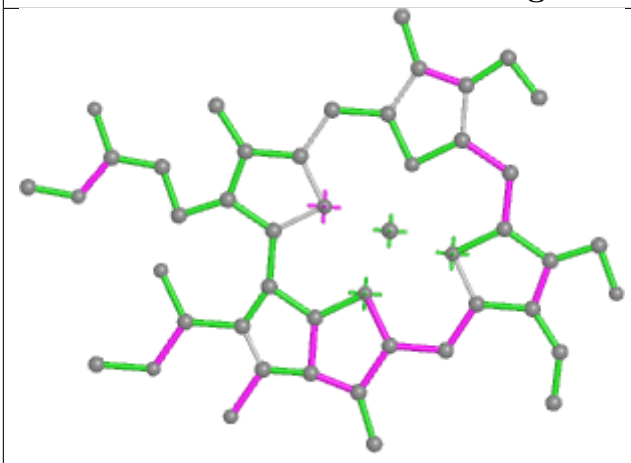


Torsions

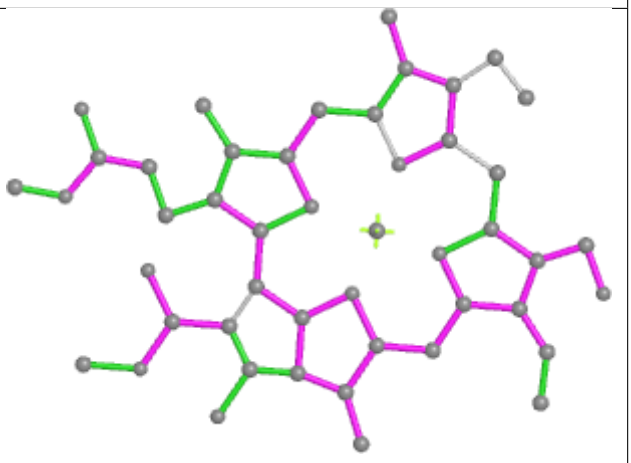


Rings

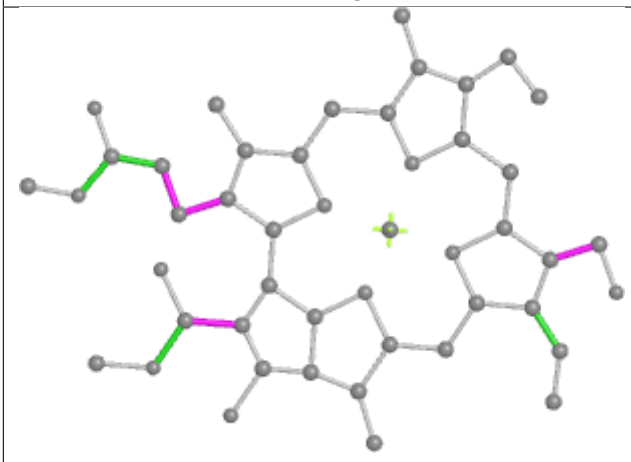
Ligand CHL 2 601



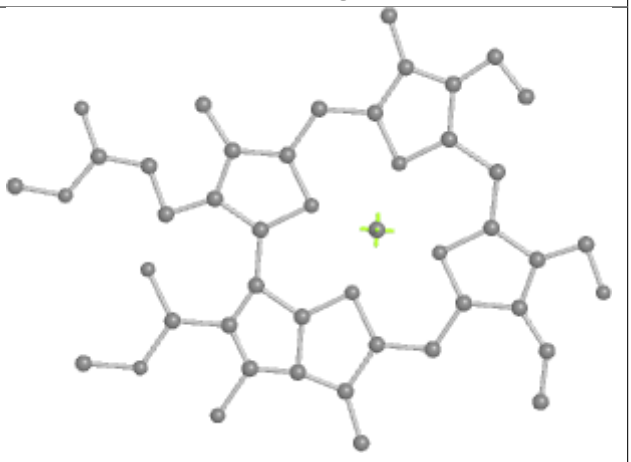
Bond lengths



Bond angles

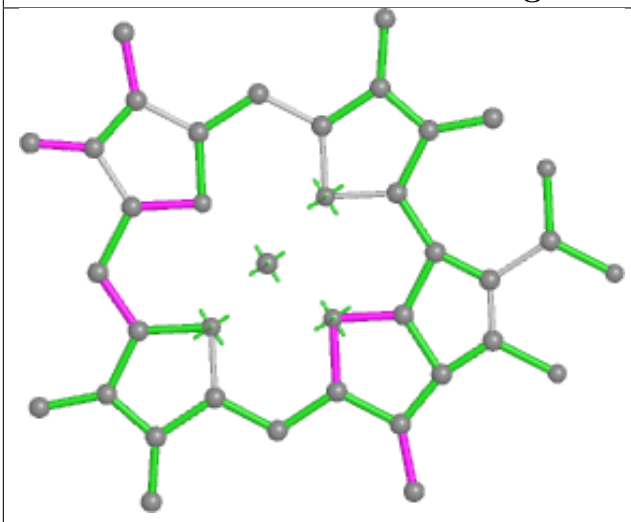


Torsions

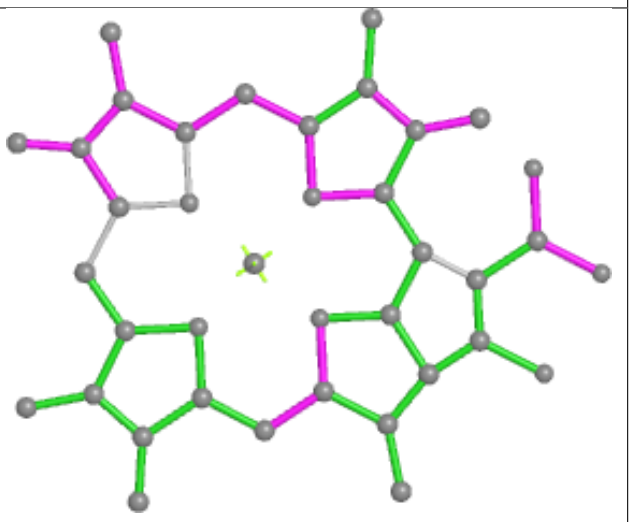


Rings

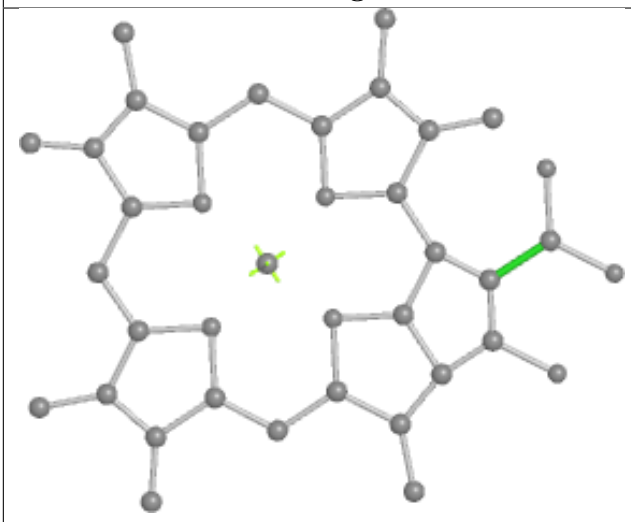
Ligand CLA O 203



Bond lengths



Bond angles



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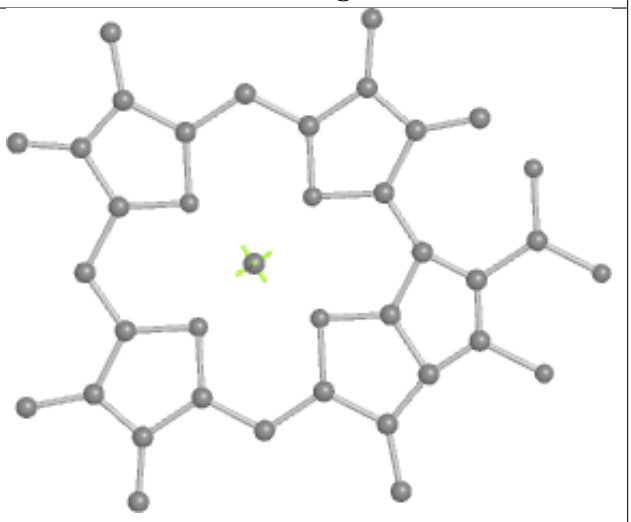
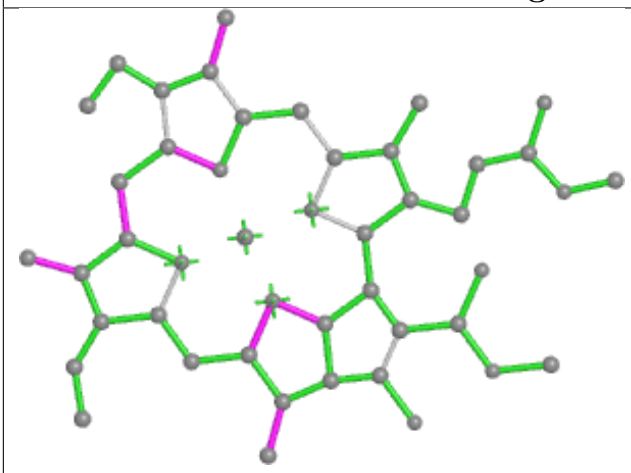
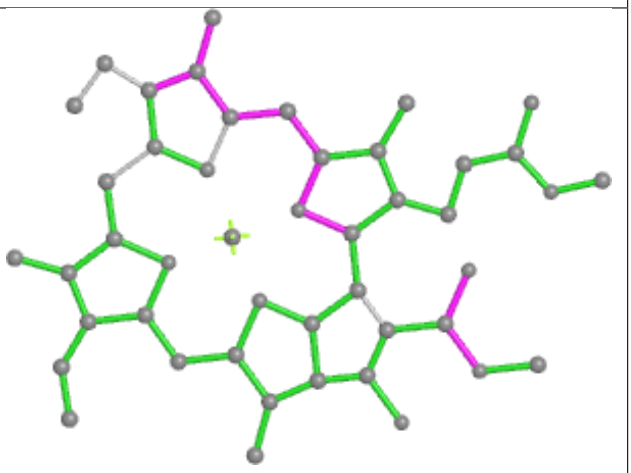


Rings

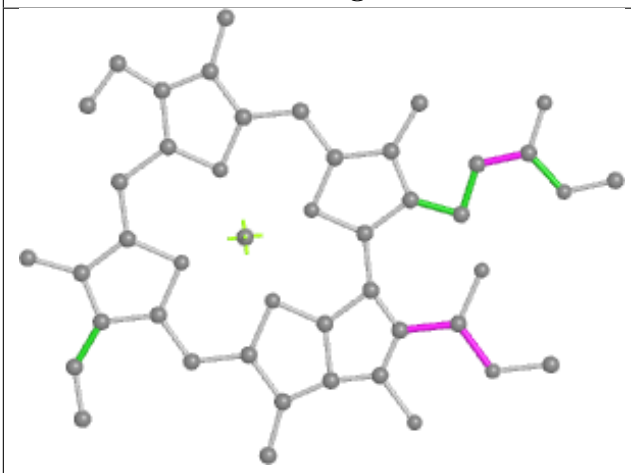
Ligand CLA 4 601



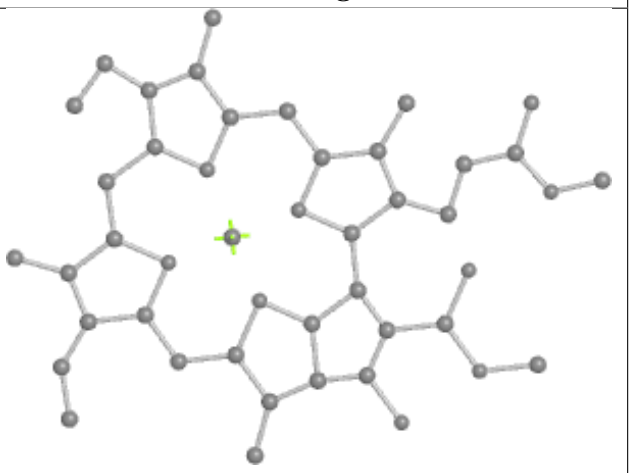
Bond lengths



Bond angles

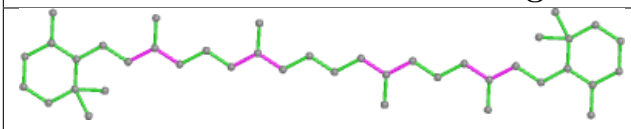


Torsions

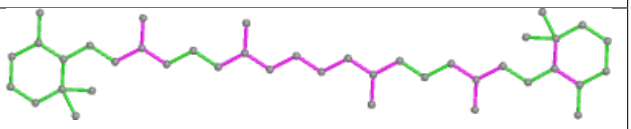


Rings

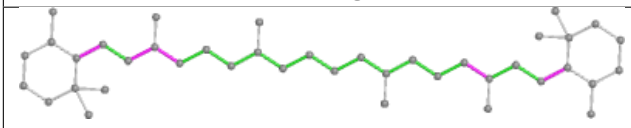
Ligand BCR 4 618



Bond lengths



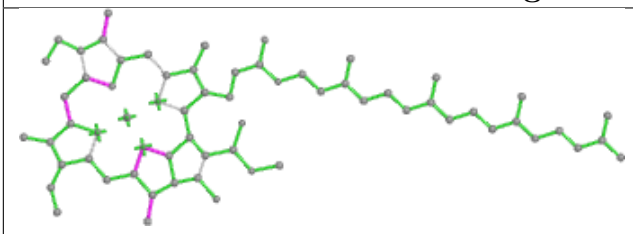
Bond angles



Torsions

Rings

Ligand CLA A 828



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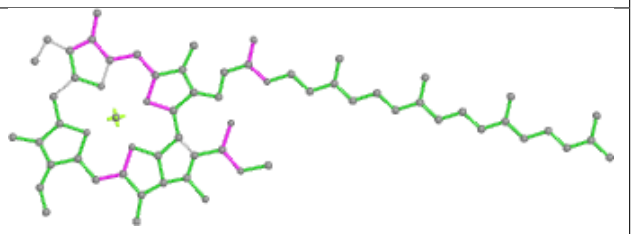
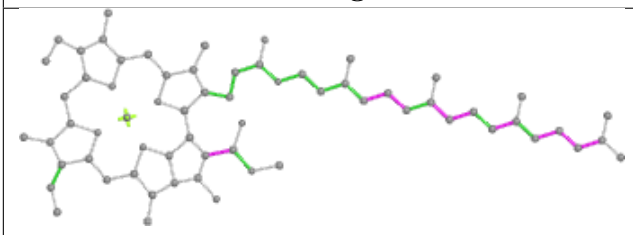


Bond angles



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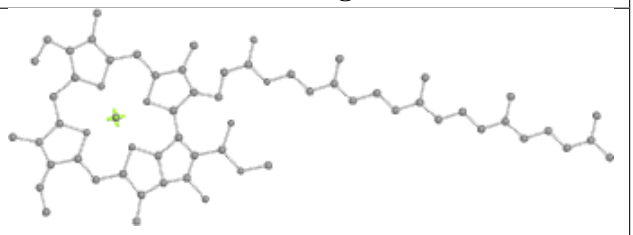
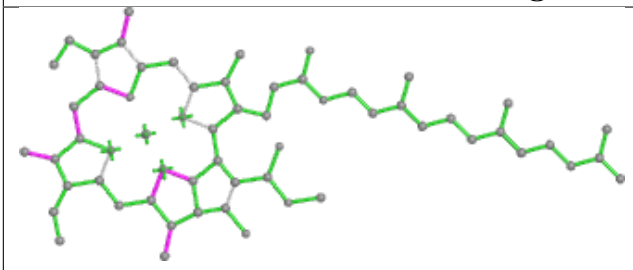
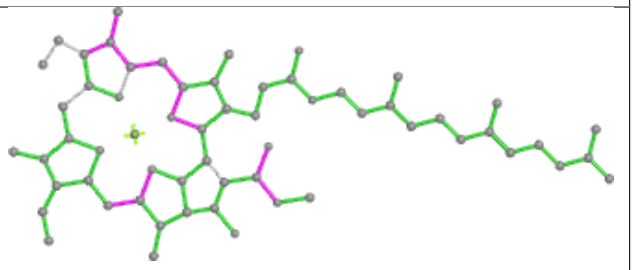


Rings

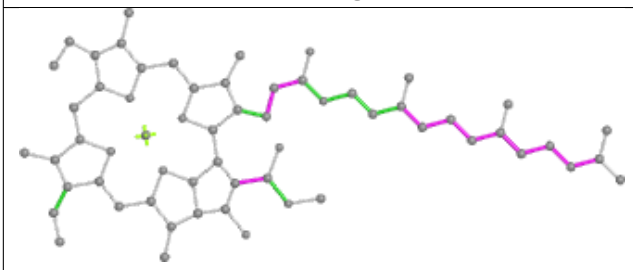
Ligand CLA 3 601



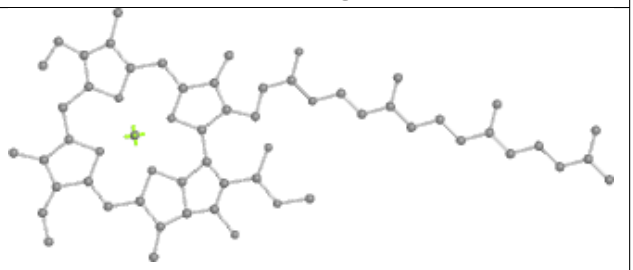
Bond lengths



Bond angles

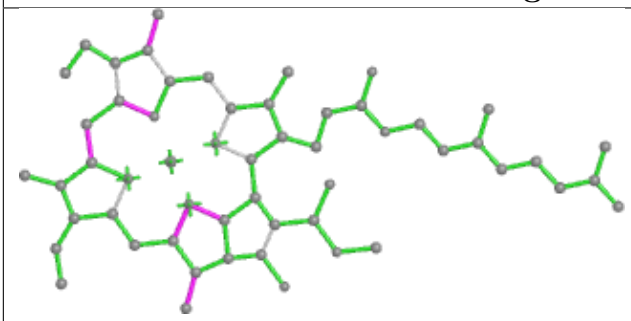


Torsions

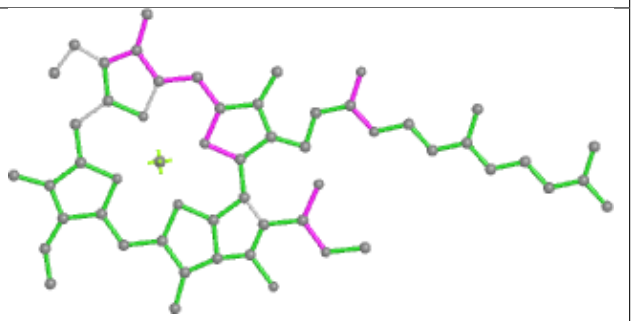


Rings

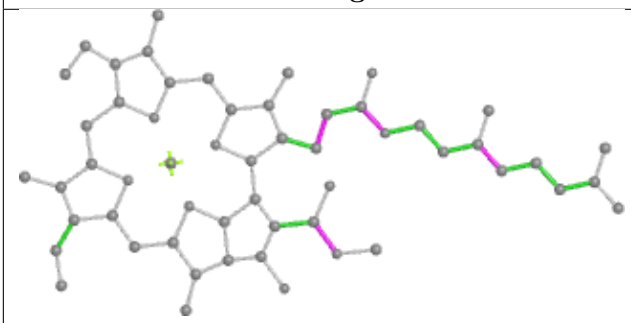
Ligand CLA A 839



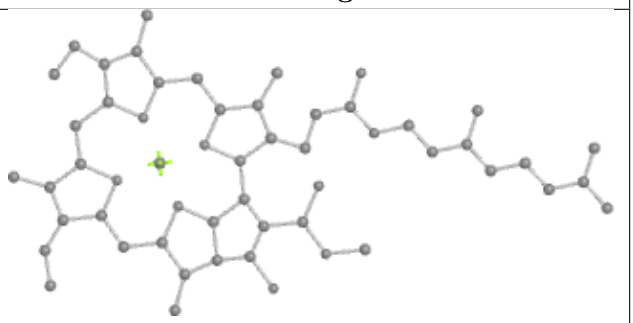
Bond lengths



Bond angles

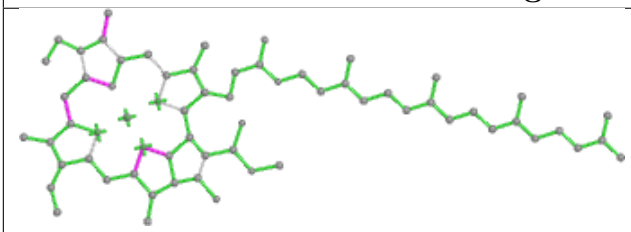


Torsions

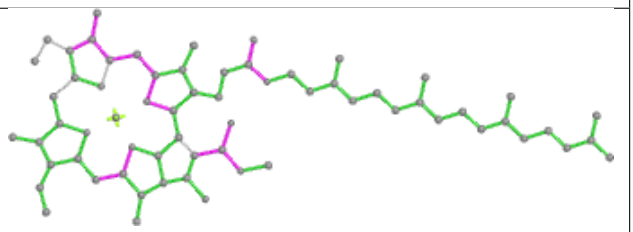


Rings

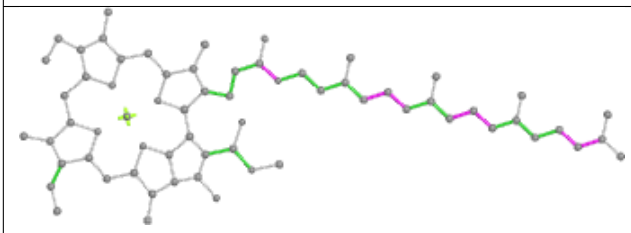
Ligand CLA B 837



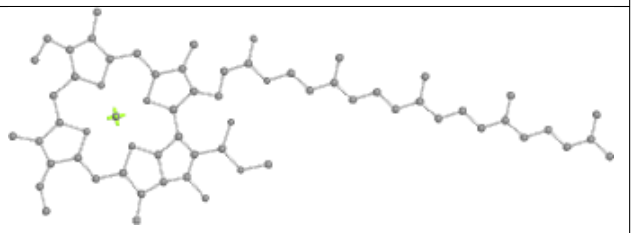
Bond lengths



Bond angles

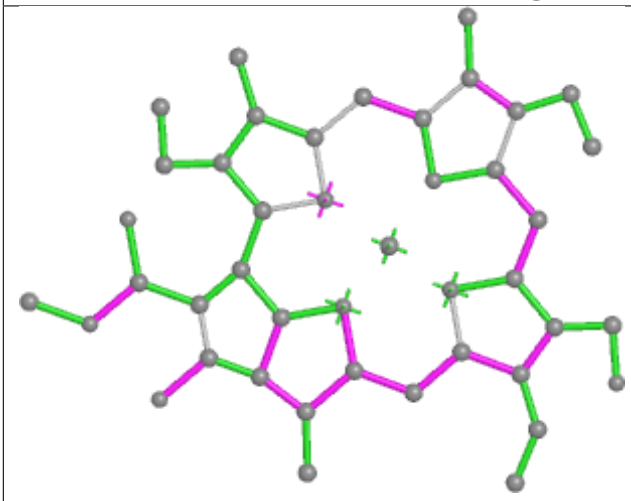


Torsions

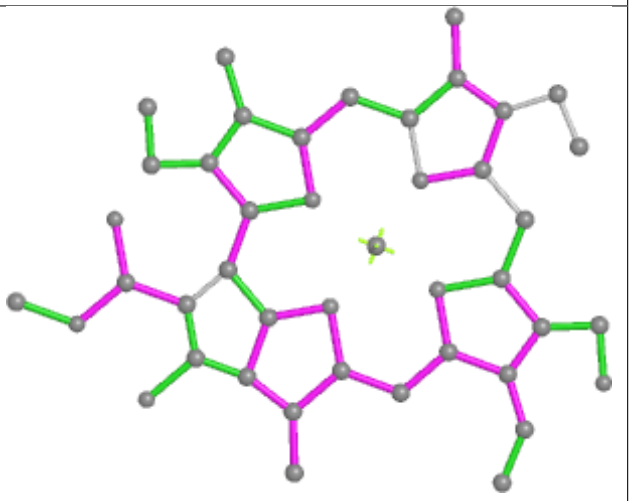


Rings

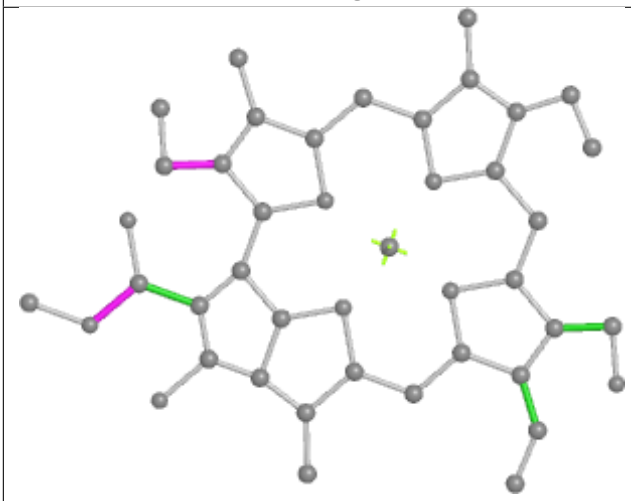
Ligand CHL 2 606



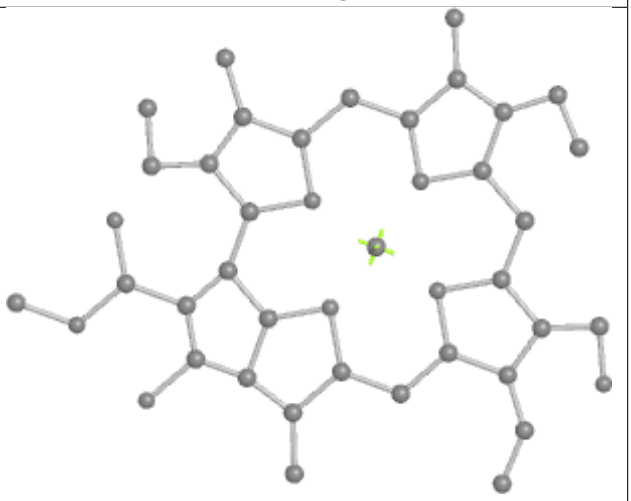
Bond lengths



Bond angles

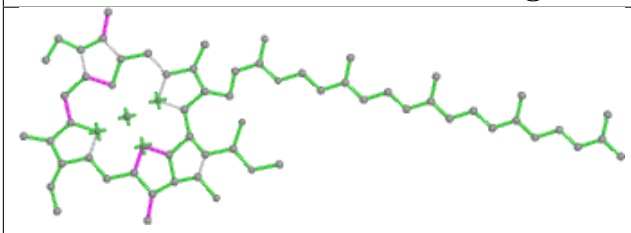


Torsions

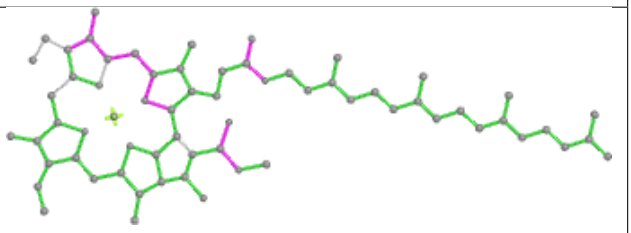


Rings

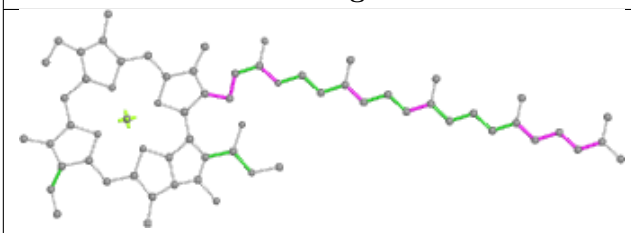
Ligand CLA B 828



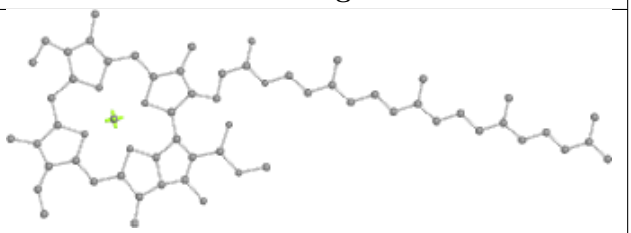
Bond lengths



Bond angles

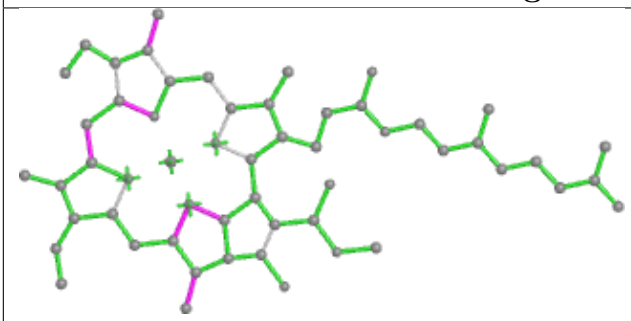


Torsions

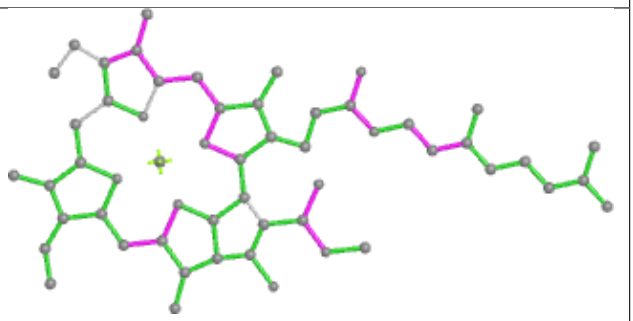


Rings

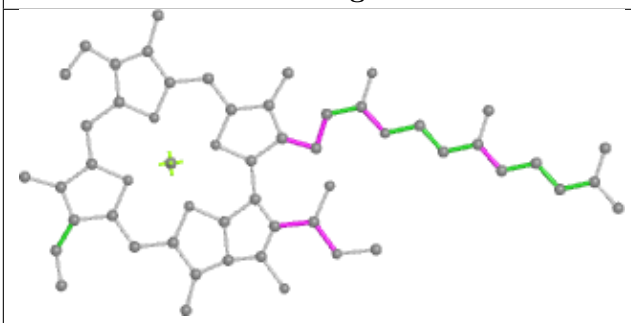
Ligand CLA A 825



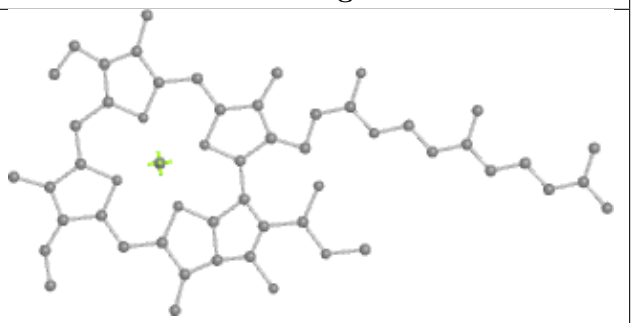
Bond lengths



Bond angles

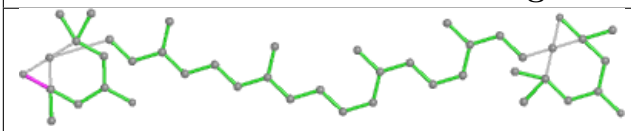


Torsions

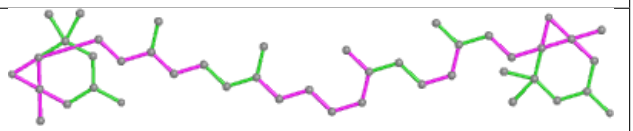


Rings

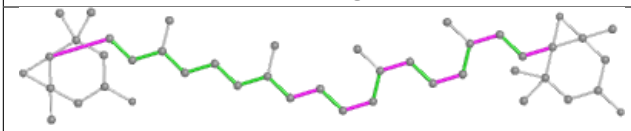
Ligand XAT 1 614



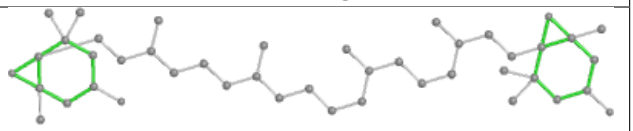
Bond lengths



Bond angles

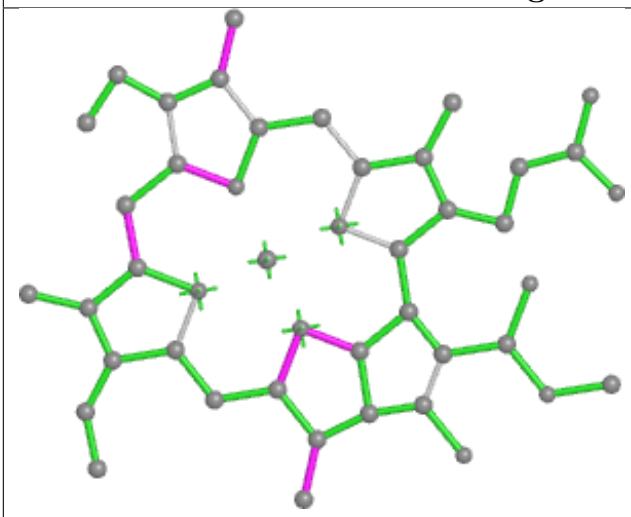


Torsions

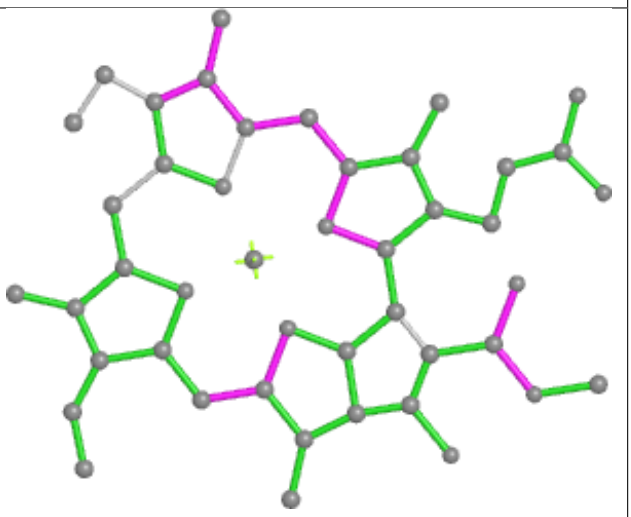


Rings

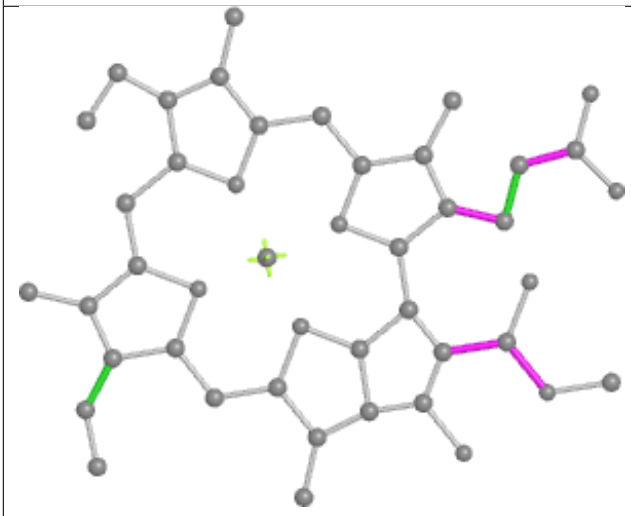
Ligand CLA x 614



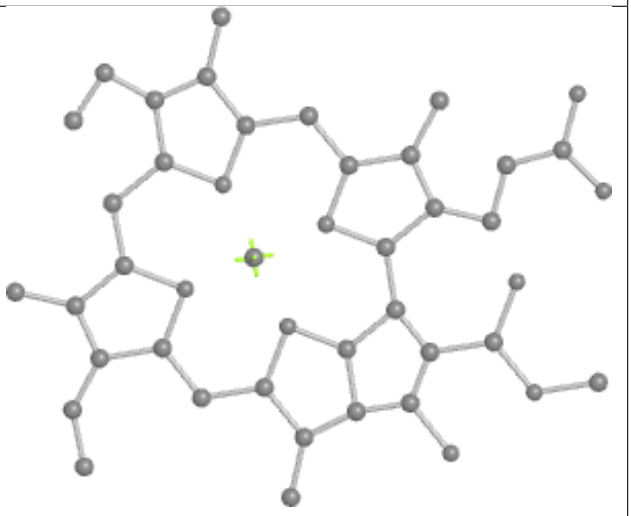
Bond lengths



Bond angles

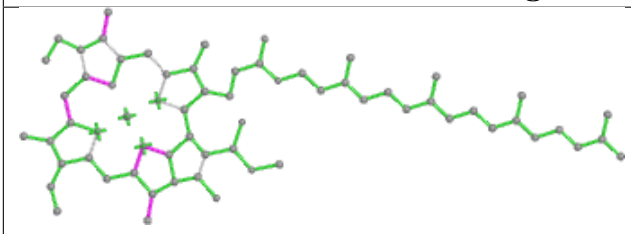


Torsions

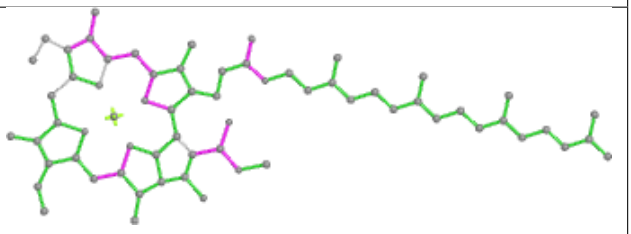


Rings

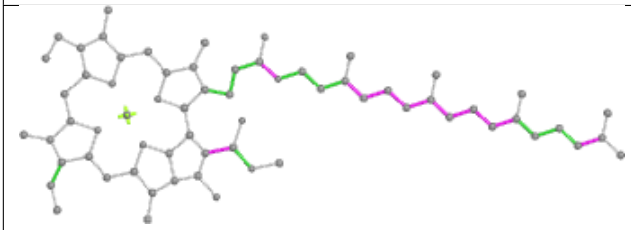
Ligand CLA B 814



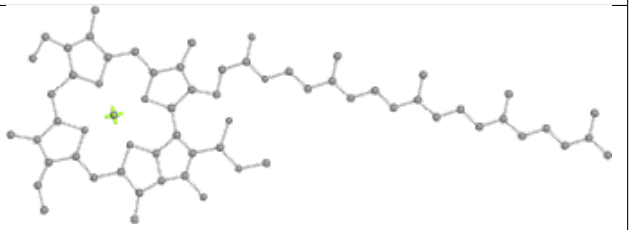
Bond lengths



Bond angles

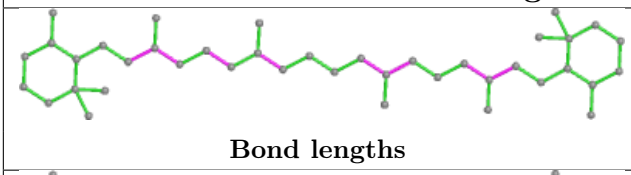


Torsions

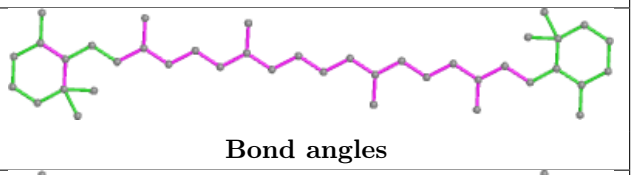


Rings

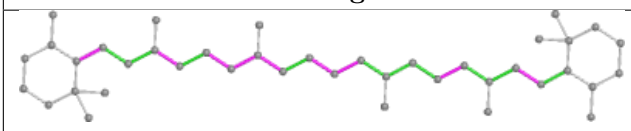
Ligand BCR F 304



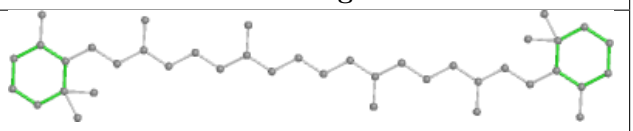
Bond lengths



Bond angles

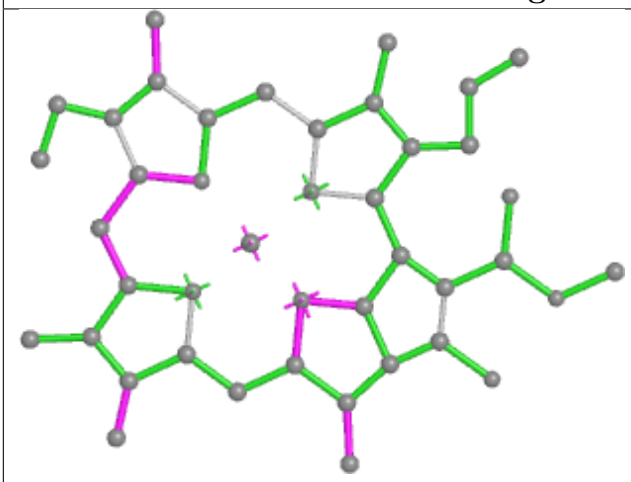


Torsions

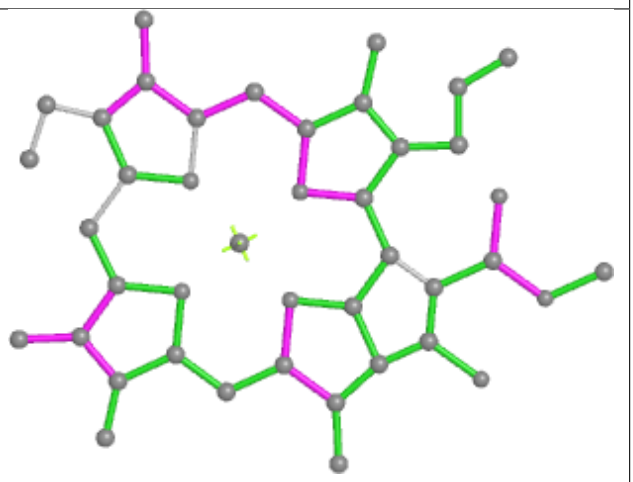


Rings

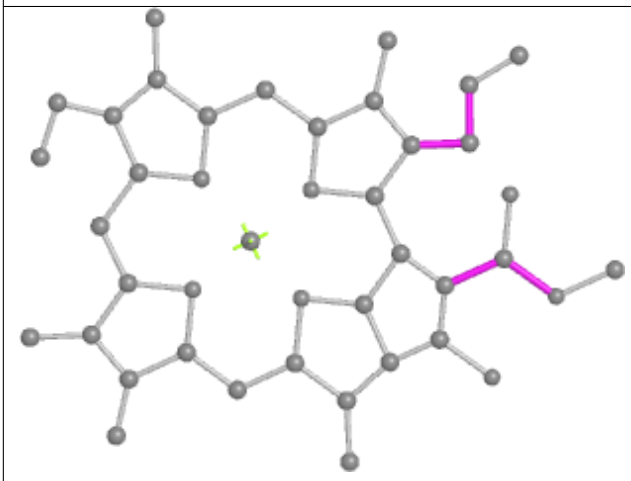
Ligand CLA 1 609



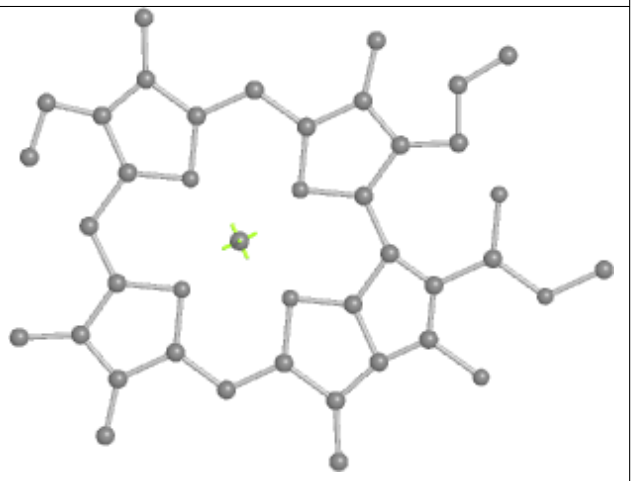
Bond lengths



Bond angles

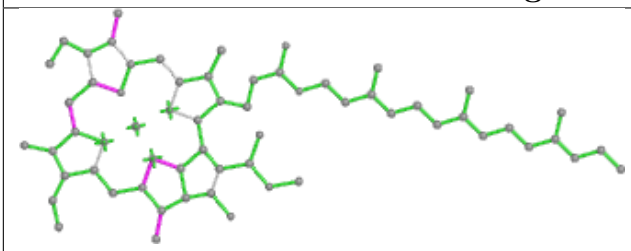


Torsions

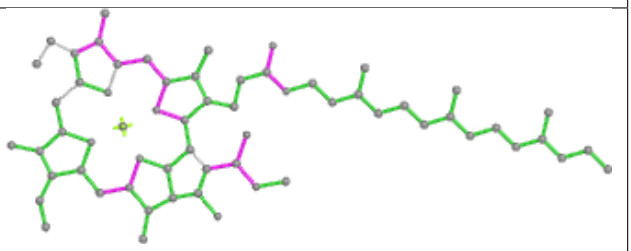


Rings

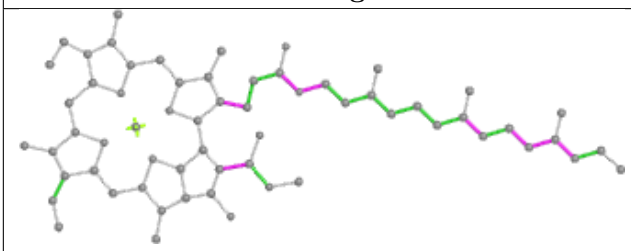
Ligand CLA B 825



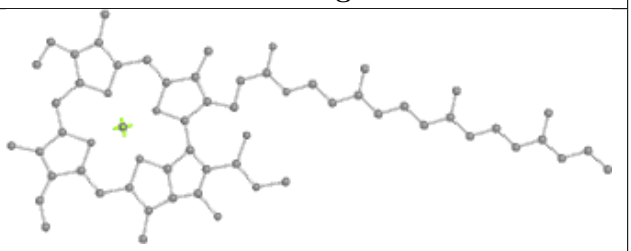
Bond lengths



Bond angles

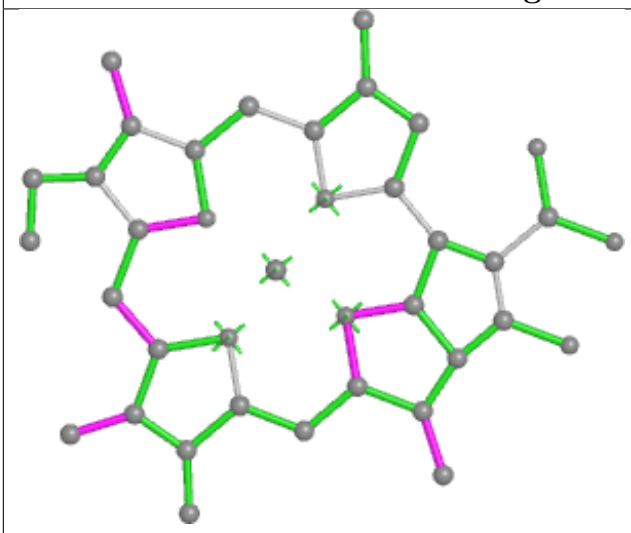


Torsions

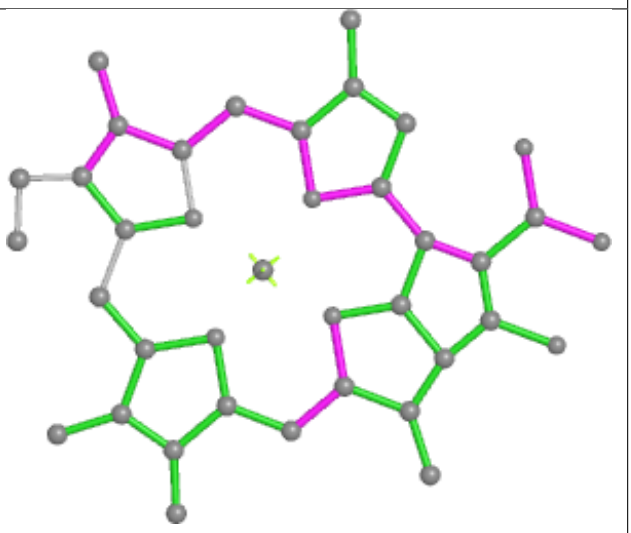


Rings

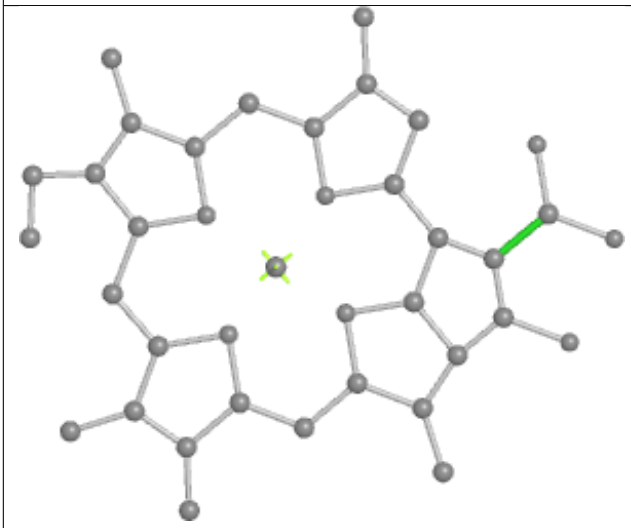
Ligand CLA O 202



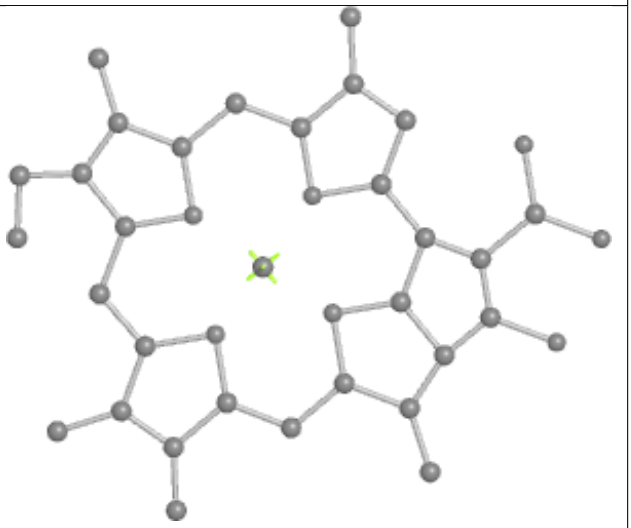
Bond lengths



Bond angles

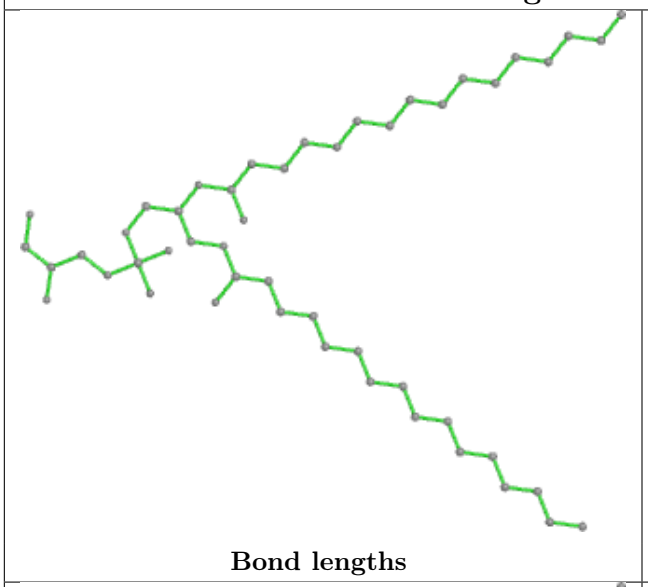


Torsions

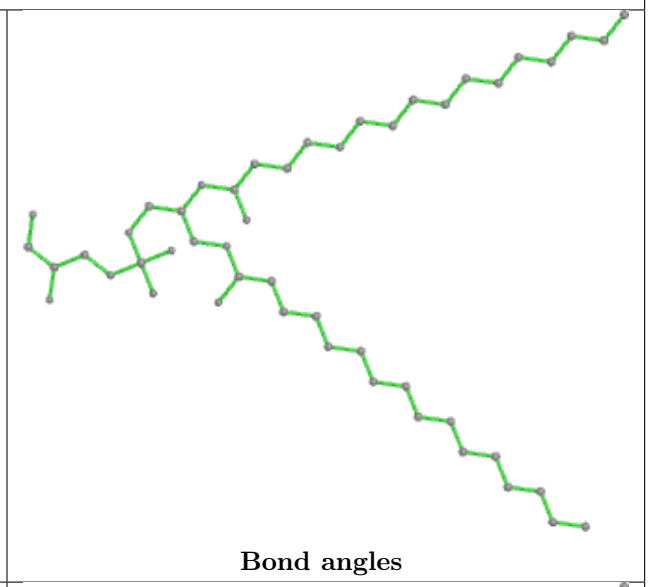


Rings

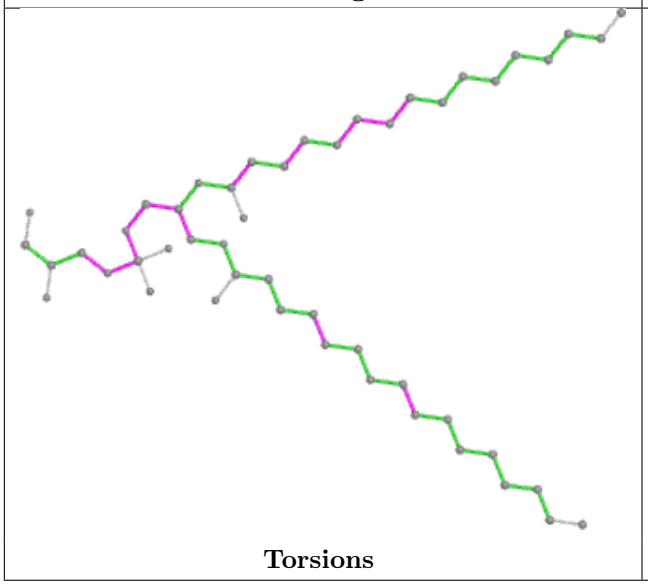
Ligand LHG B 852



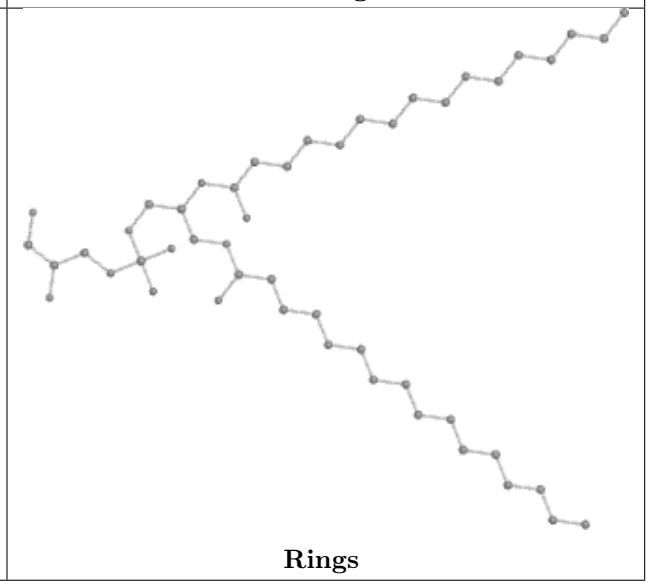
Bond lengths



Bond angles

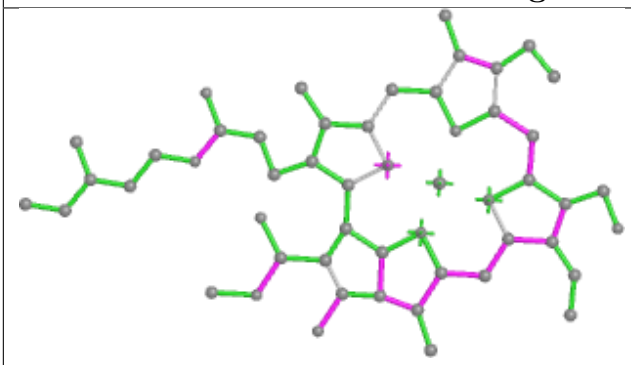


Torsions

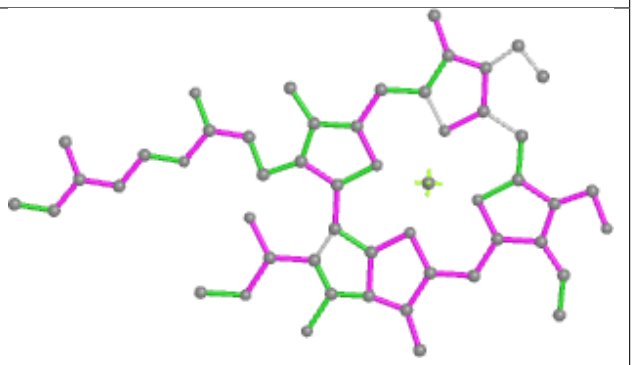


Rings

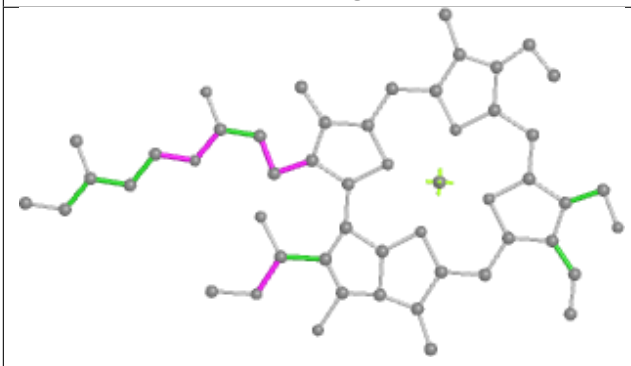
Ligand CHL z 607



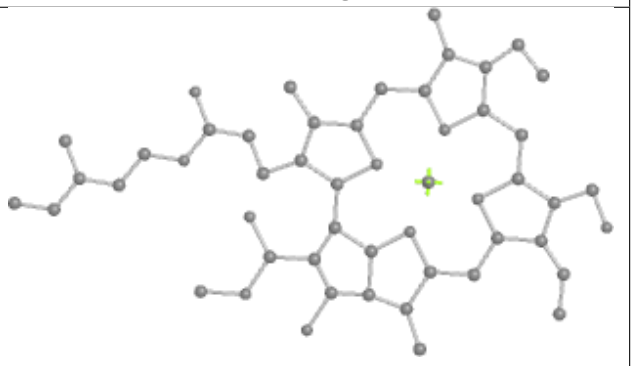
Bond lengths



Bond angles

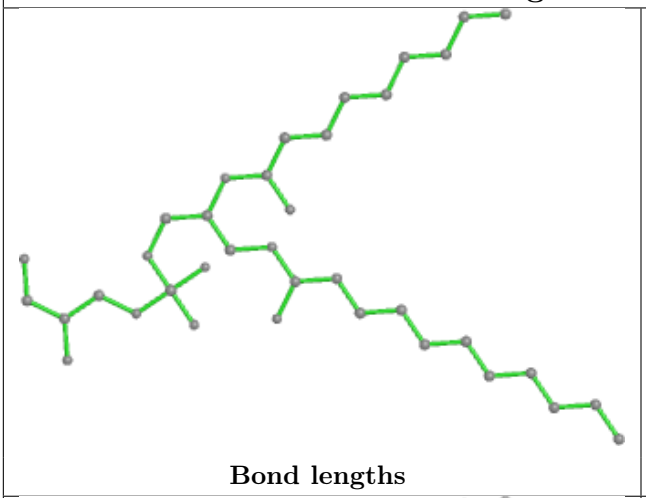


Torsions

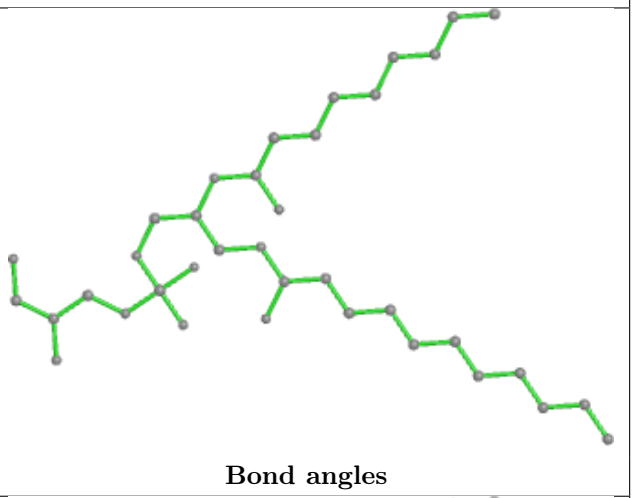


Rings

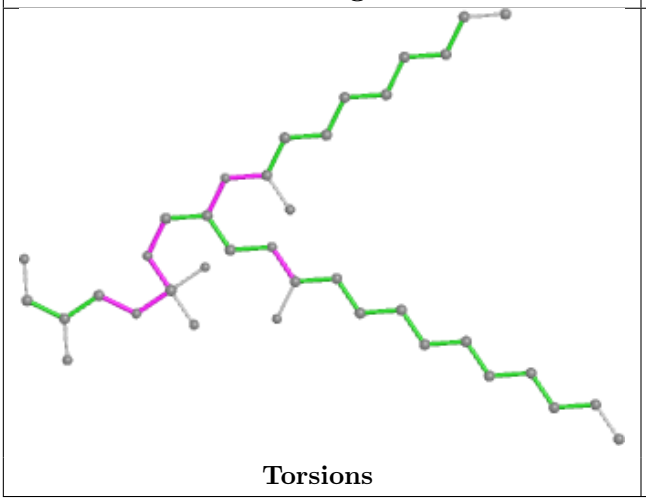
Ligand LHG 2 618



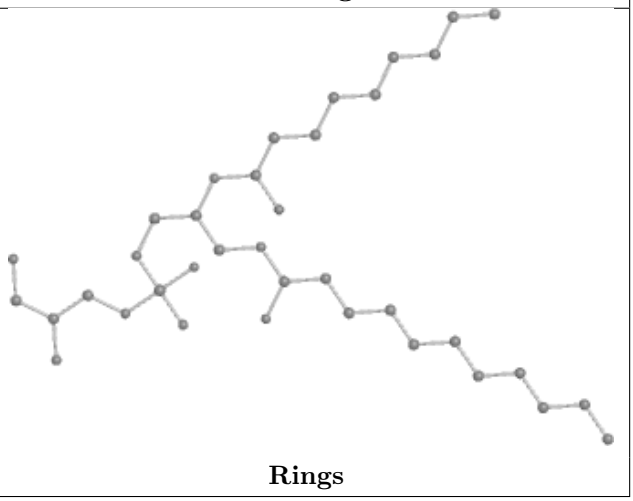
Bond lengths



Bond angles

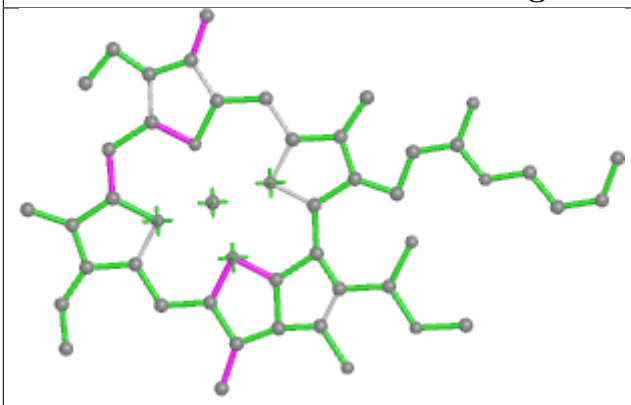


Torsions

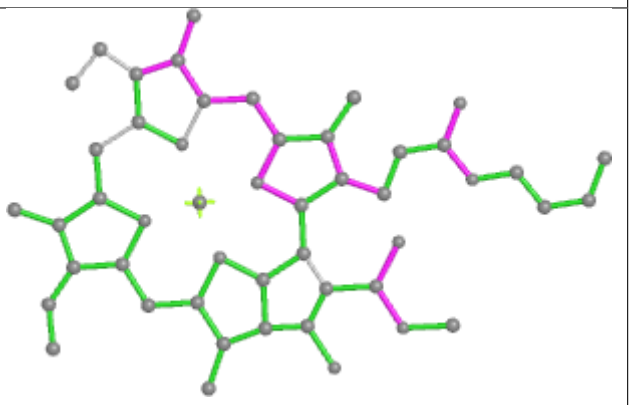


Rings

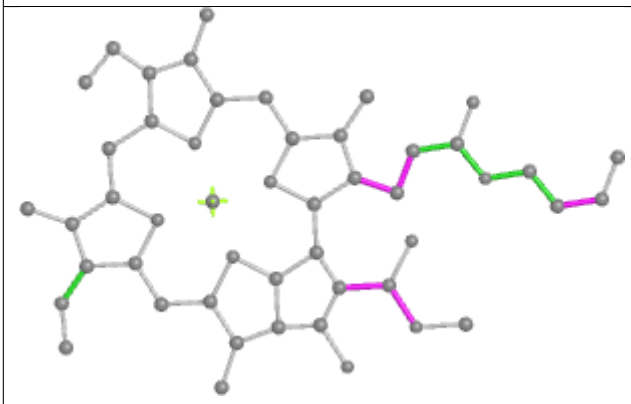
Ligand CLA 1 604



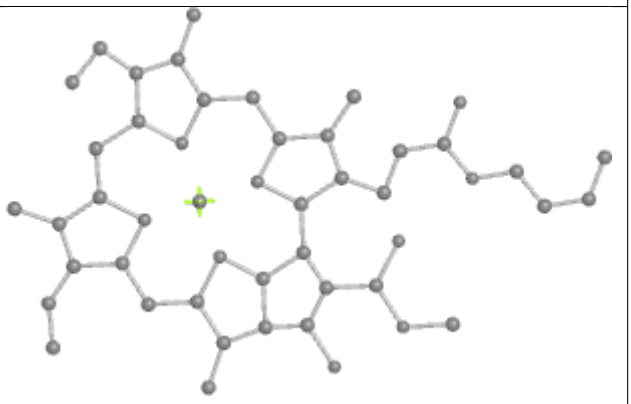
Bond lengths



Bond angles

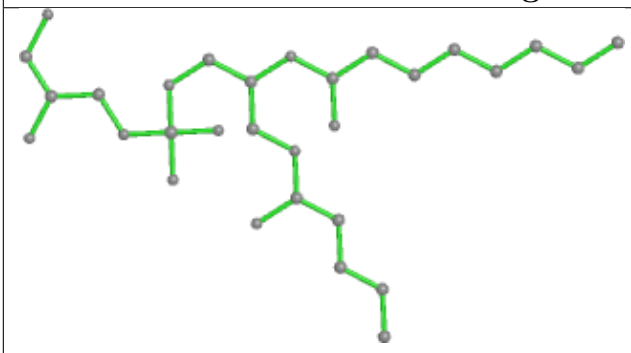


Torsions

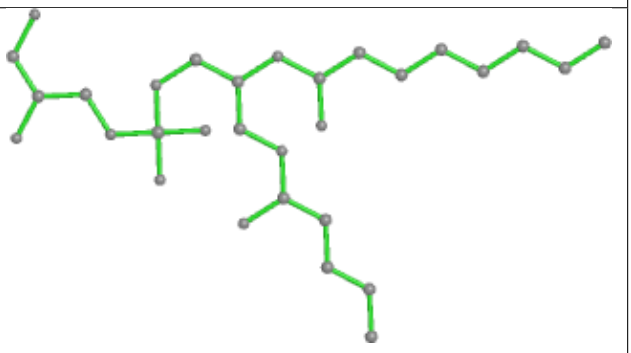


Rings

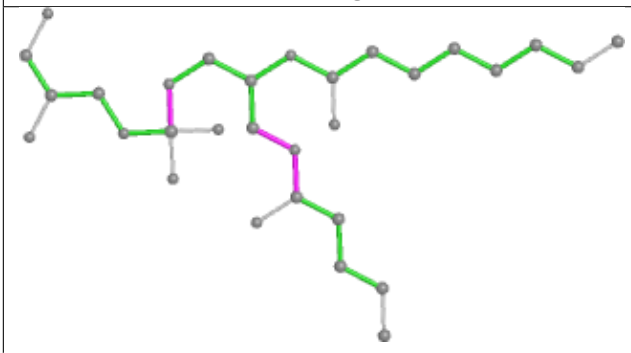
Ligand LHG A 847



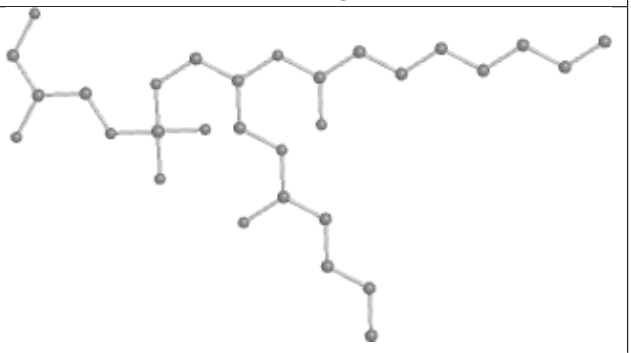
Bond lengths



Bond angles

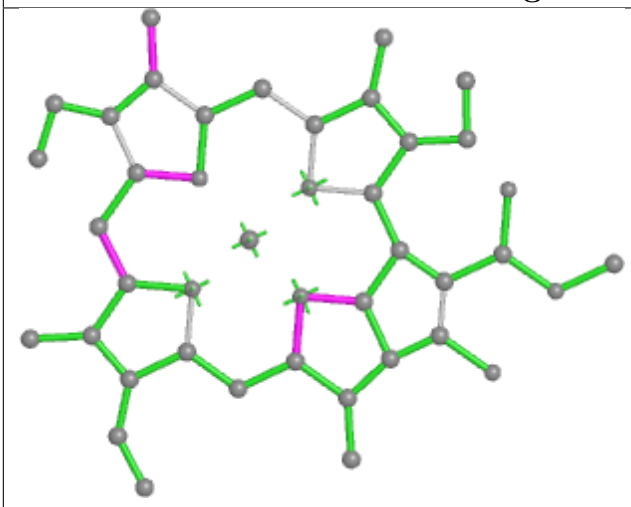


Torsions

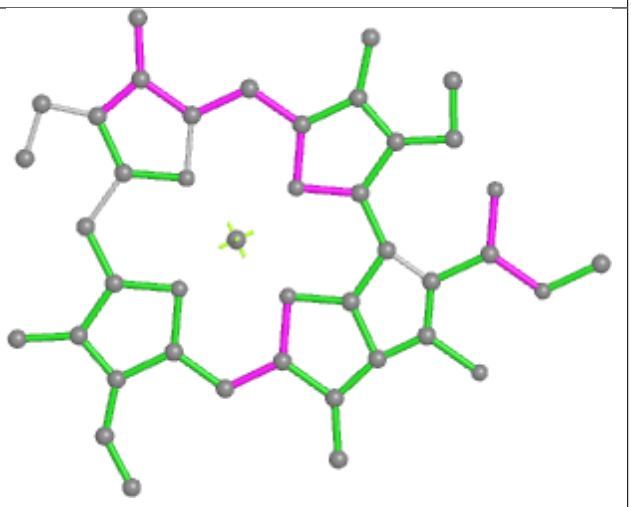


Rings

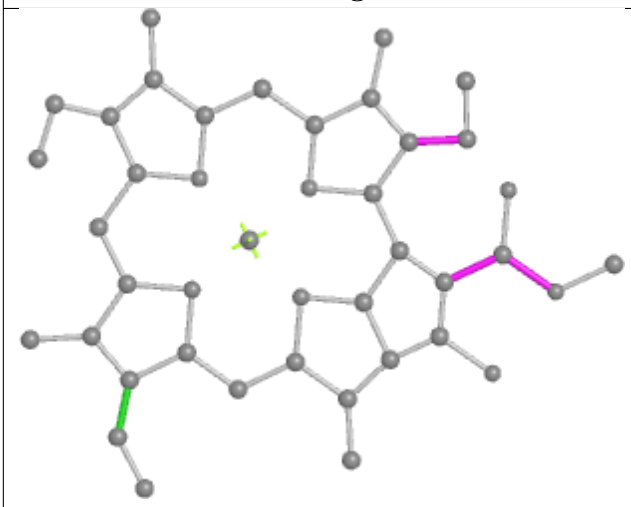
Ligand CLA A 823



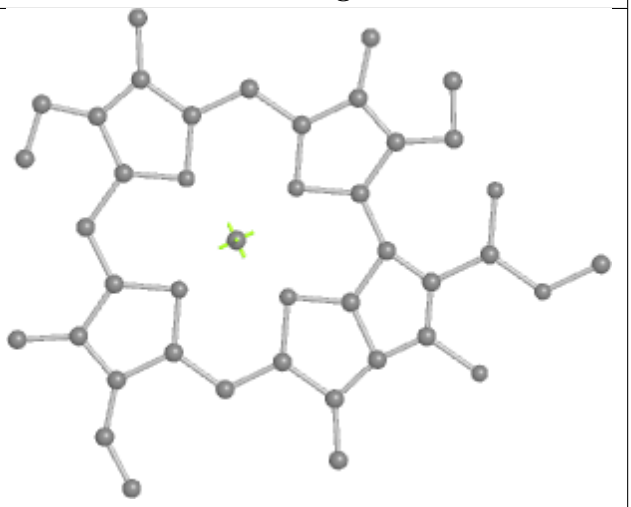
Bond lengths



Bond angles

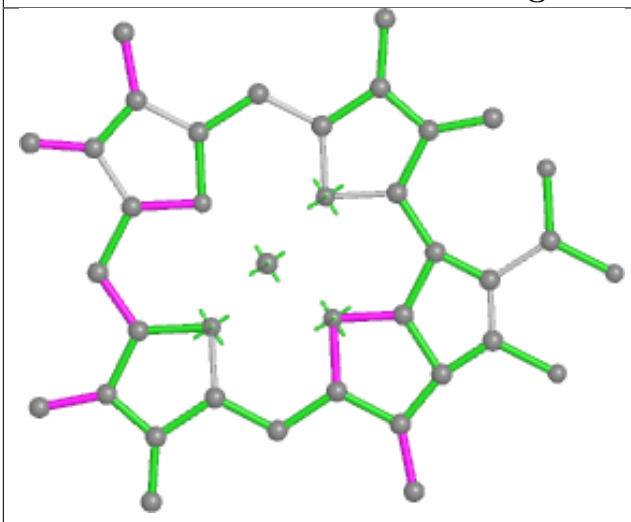


Torsions

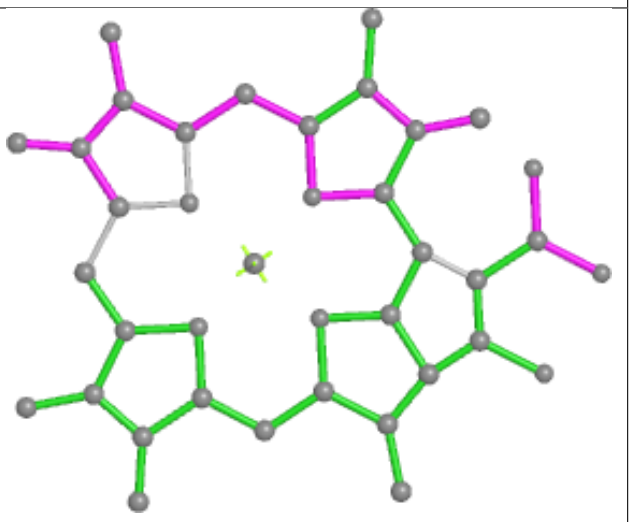


Rings

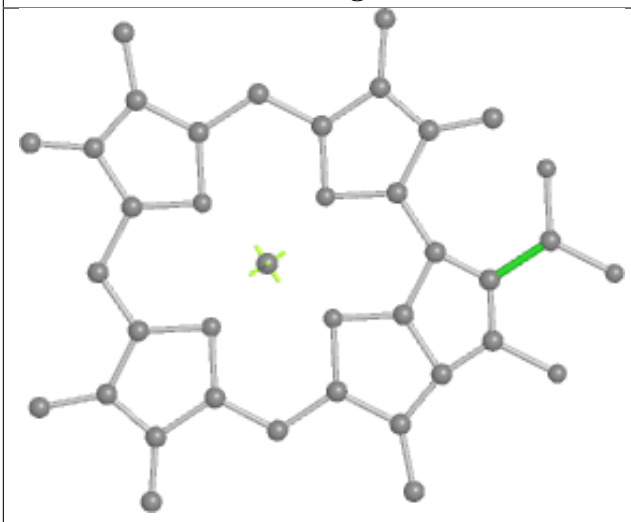
Ligand CLA 1 610



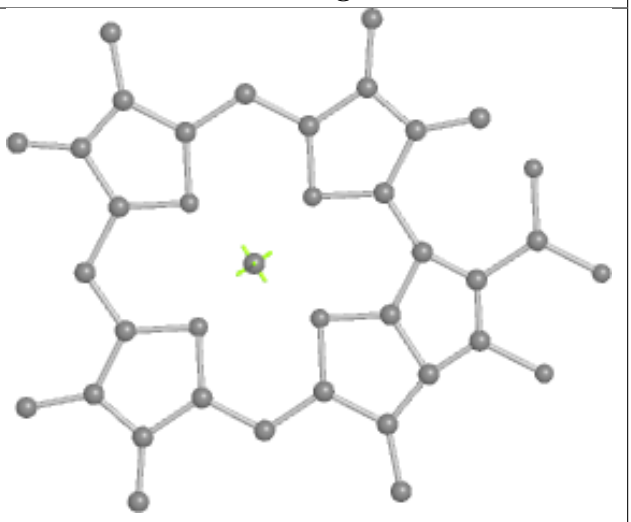
Bond lengths



Bond angles

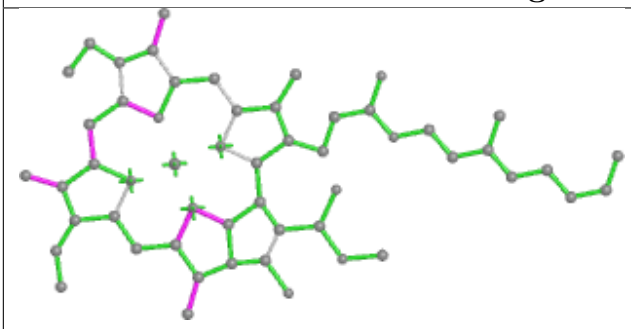


Torsions

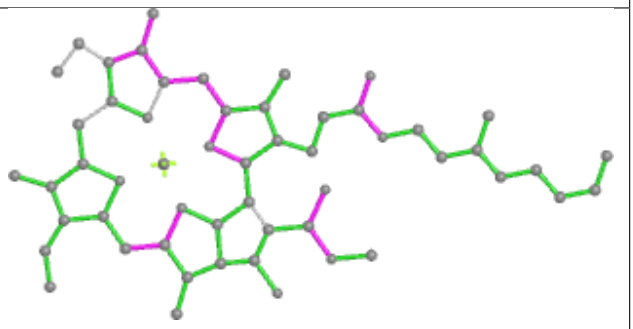


Rings

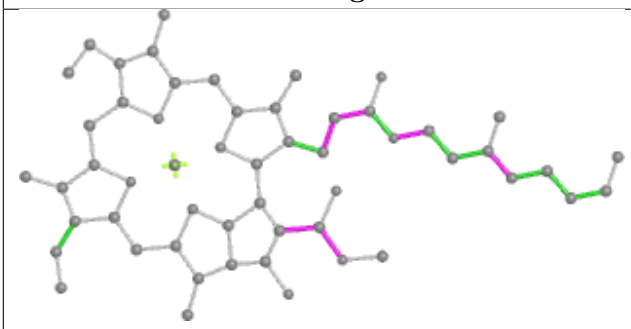
Ligand CLA 1 602



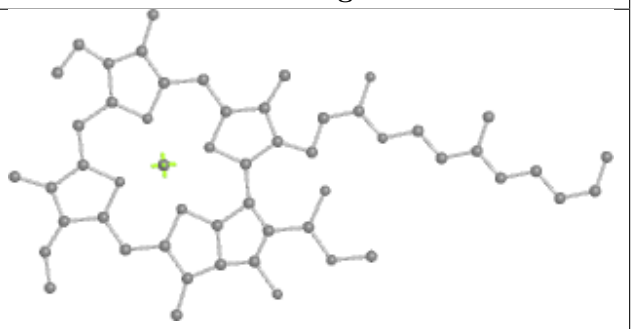
Bond lengths



Bond angles

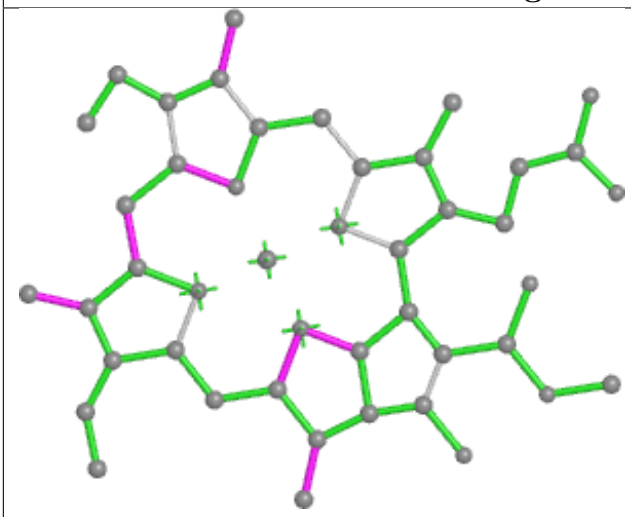


Torsions

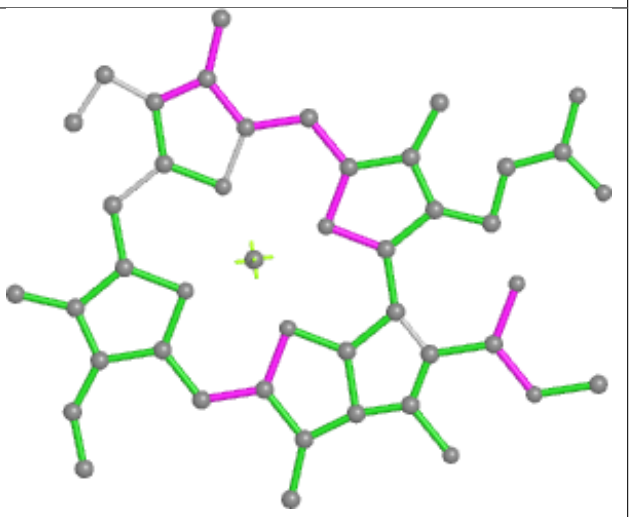


Rings

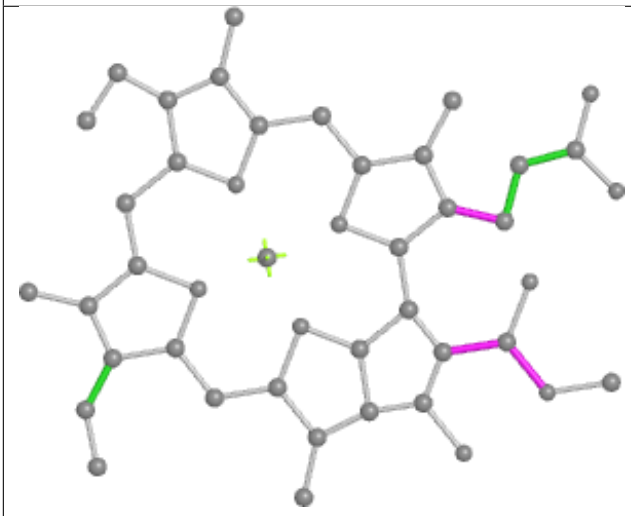
Ligand CLA B 823



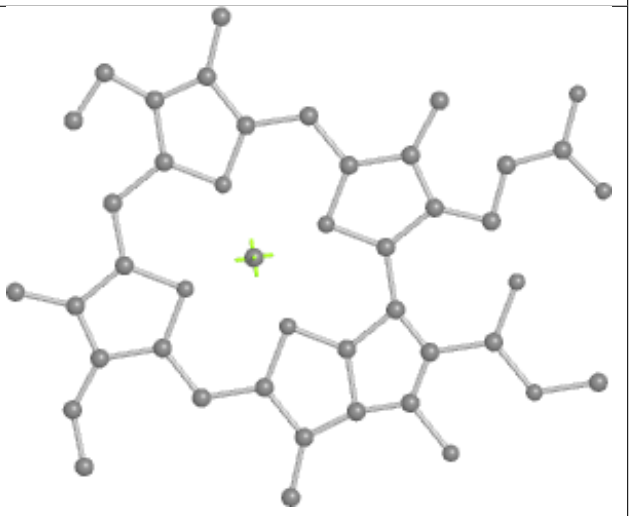
Bond lengths



Bond angles

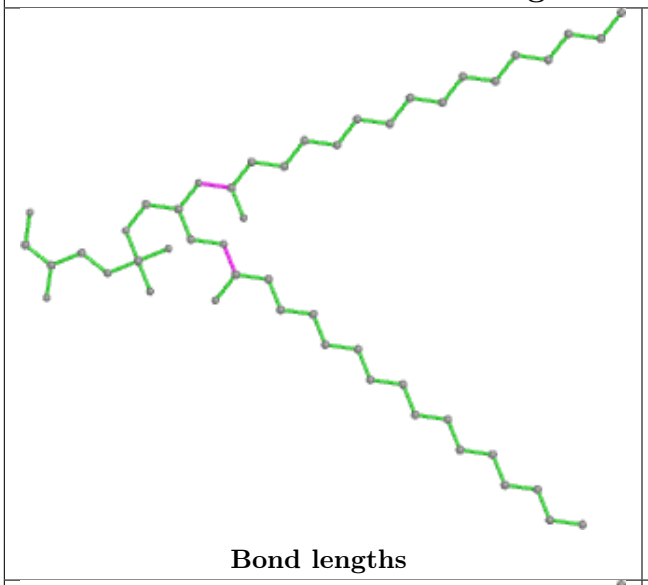


Torsions

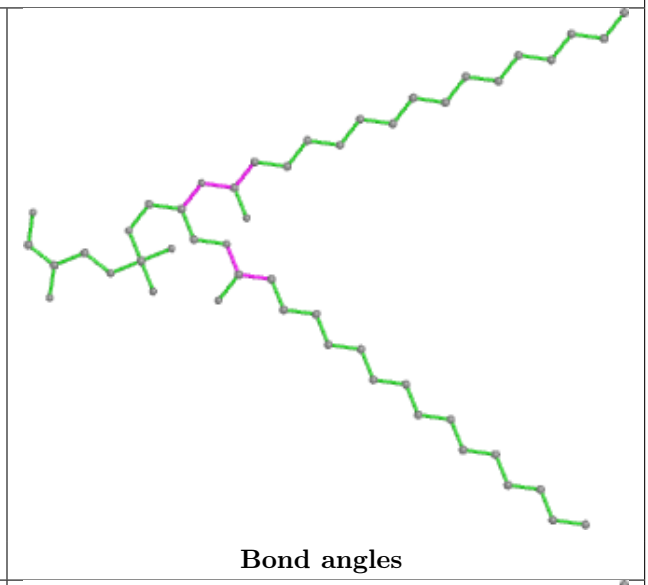


Rings

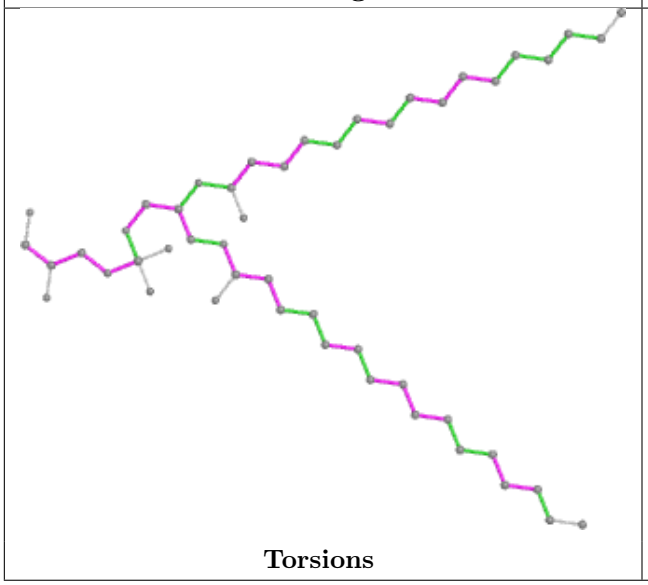
Ligand LHG 1 615



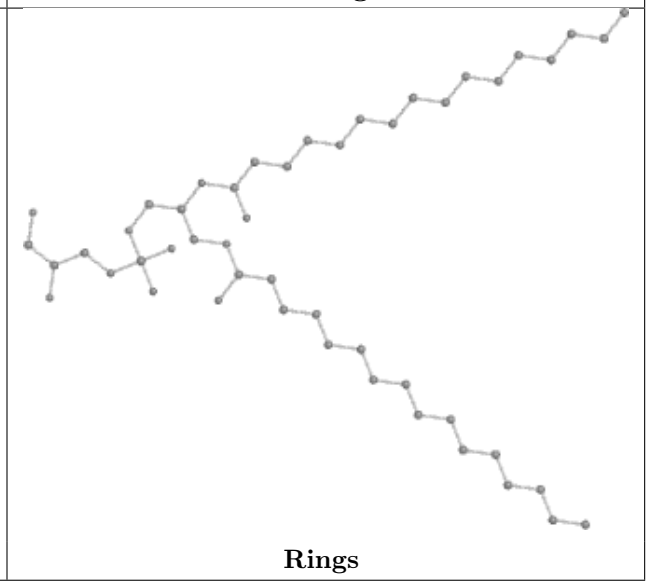
Bond lengths



Bond angles

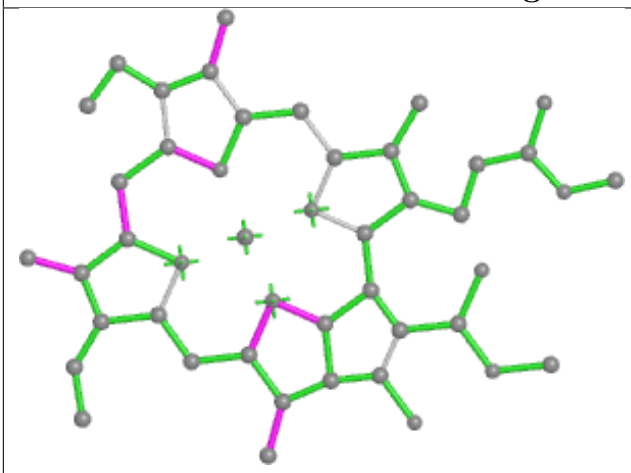


Torsions



Rings

Ligand CLA K 204



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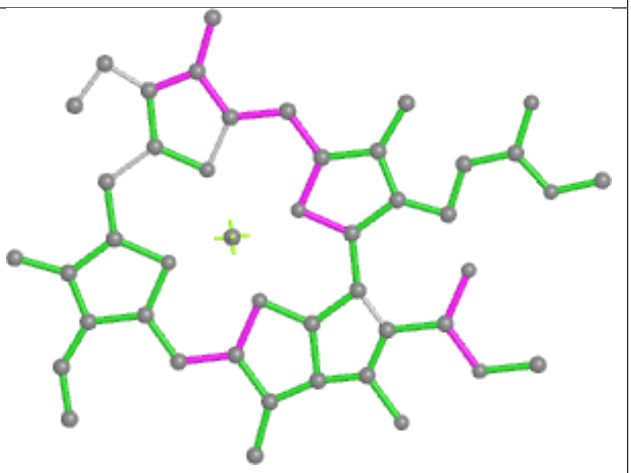
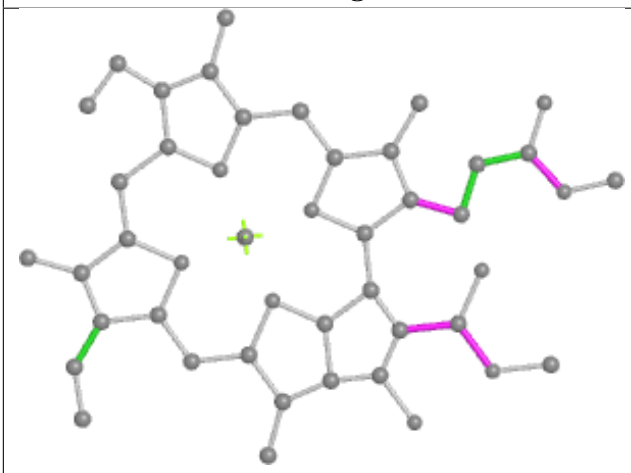


Bond angles



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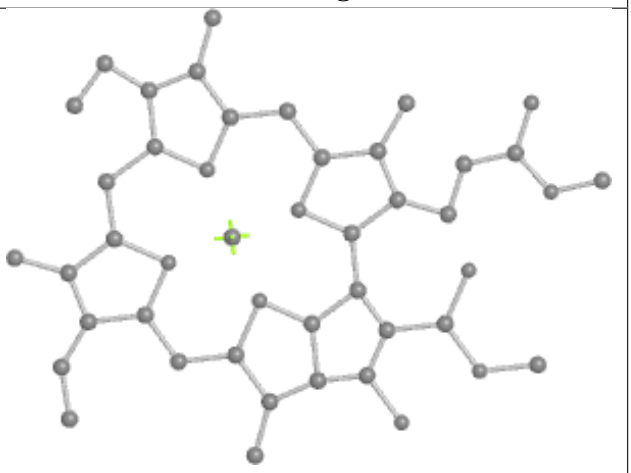
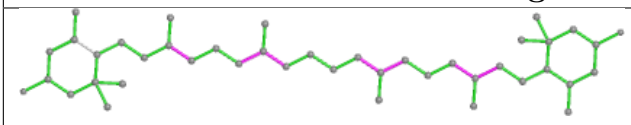


Rings

Ligand LUT y 615



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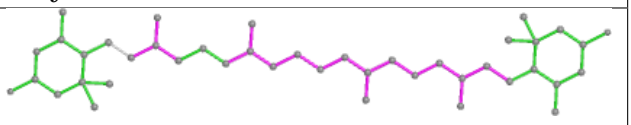

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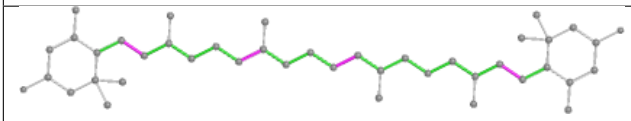
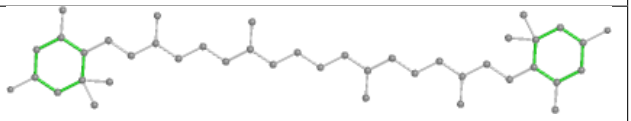
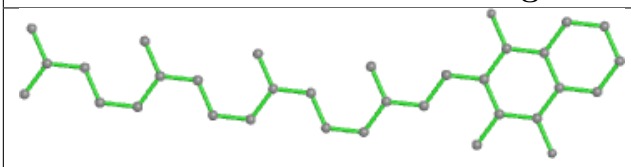


Torsions



Rings

Ligand PQN A 855



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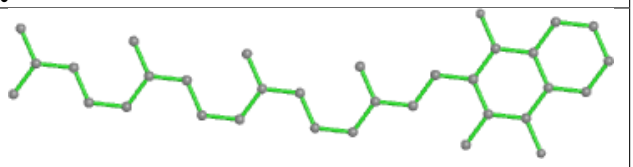
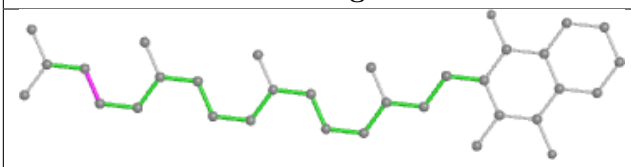
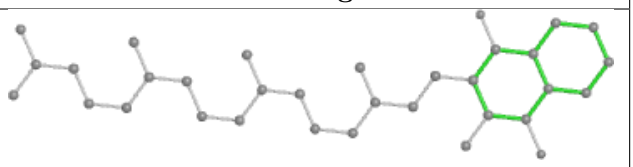


Bond angles

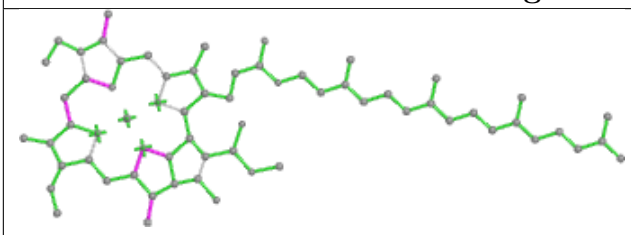


Torsions



Rings

Ligand CLA A 826



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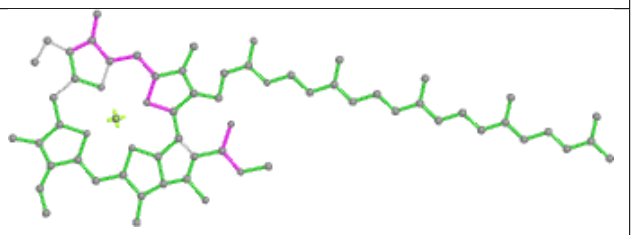
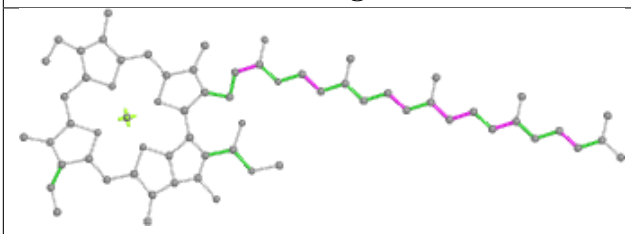


Bond angles



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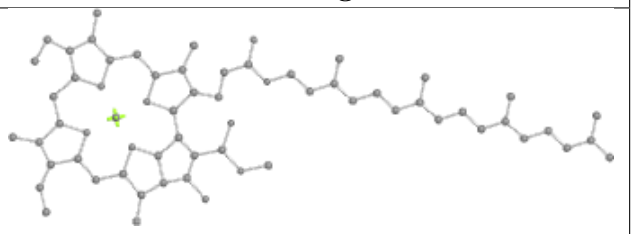
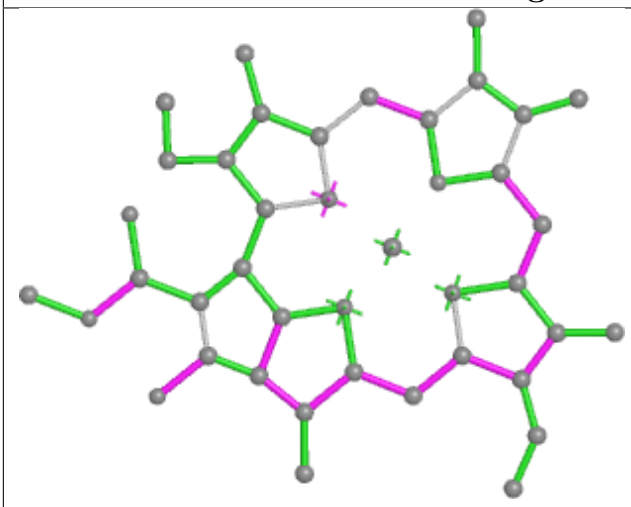


Rings

Ligand CHL 4 606



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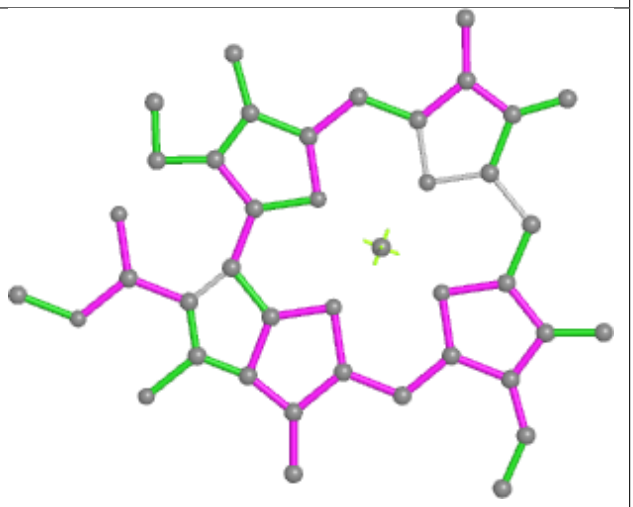
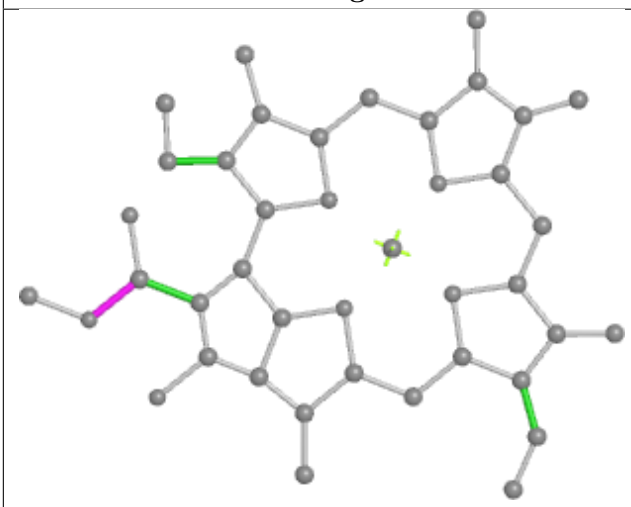


Bond angles



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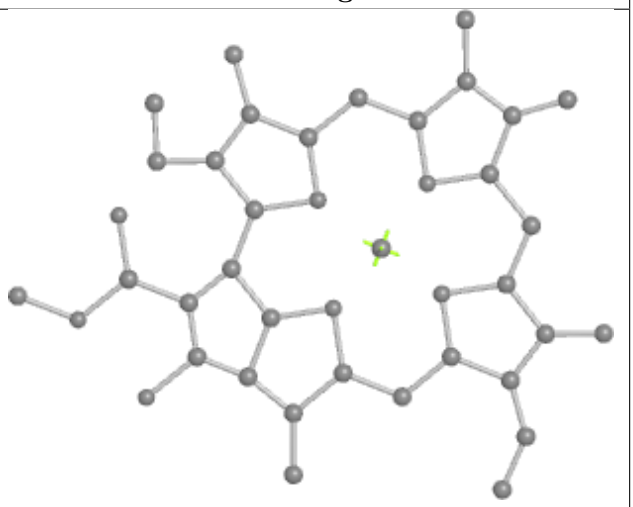
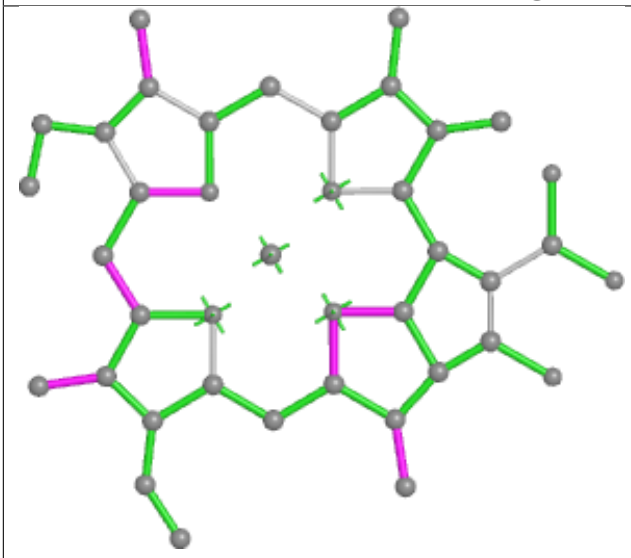


Rings

Ligand CLA 3 612



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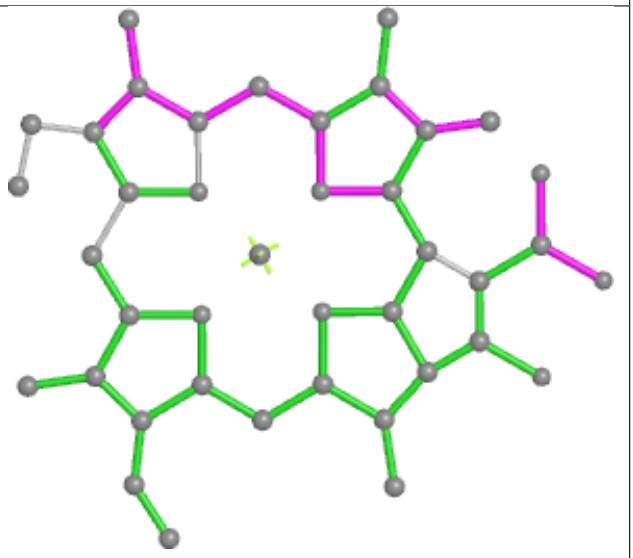
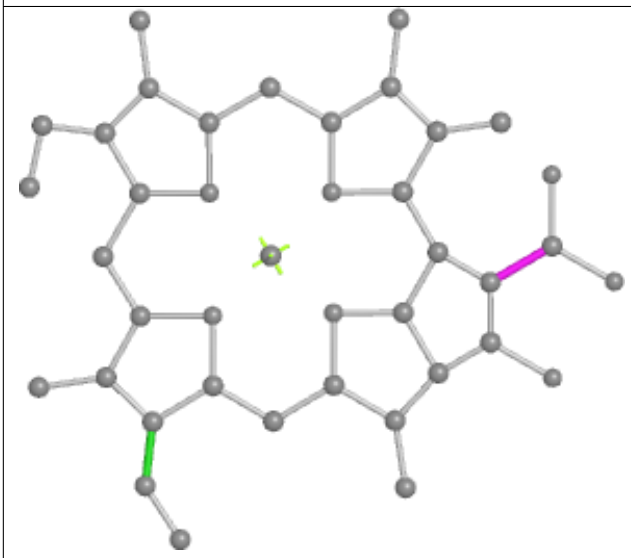


Bond angles



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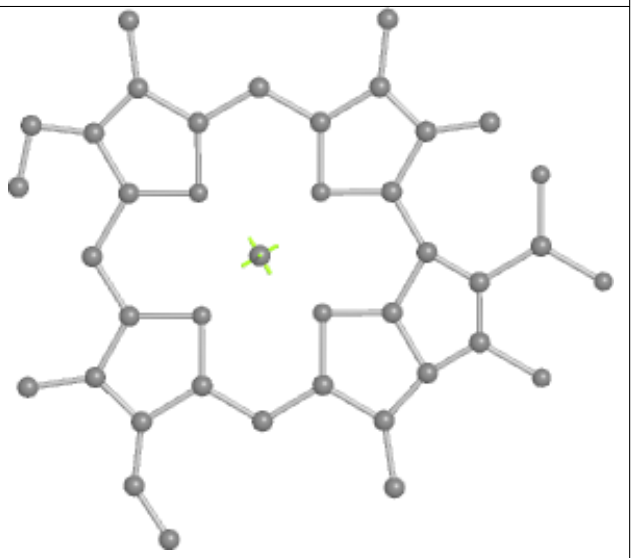
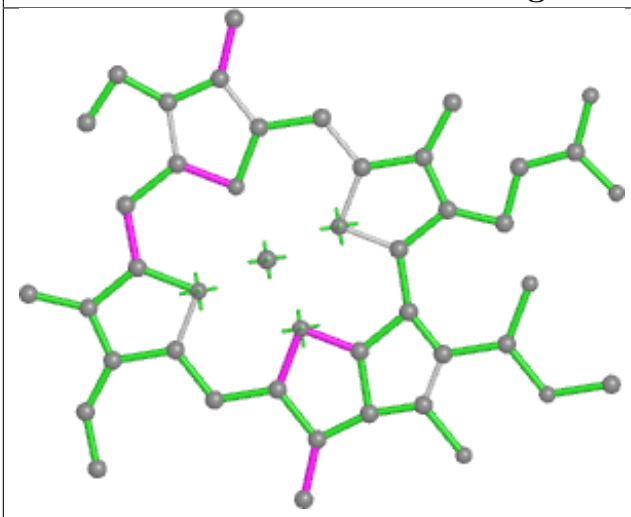


Rings

Ligand CLA x 611



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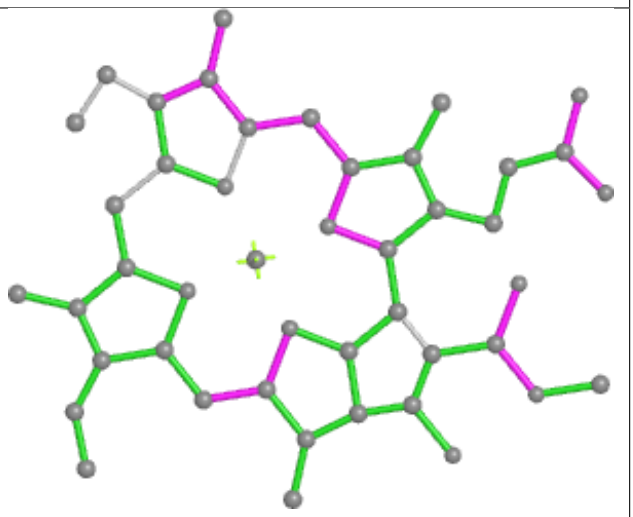
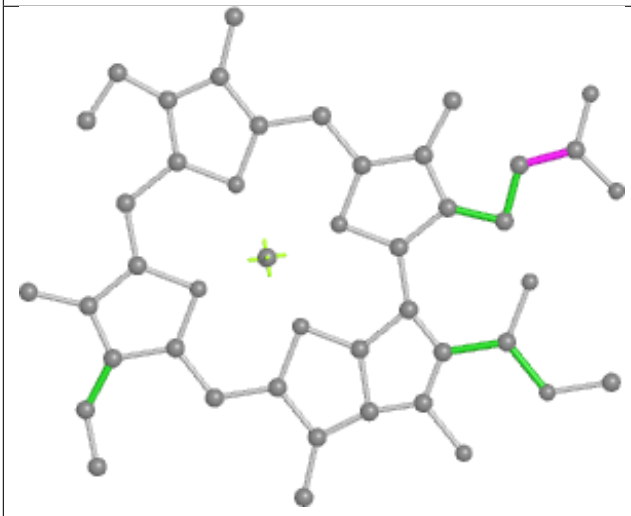


Bond angles



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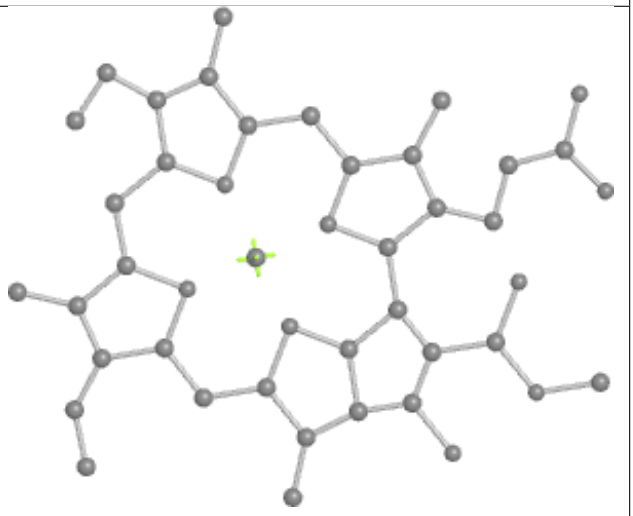
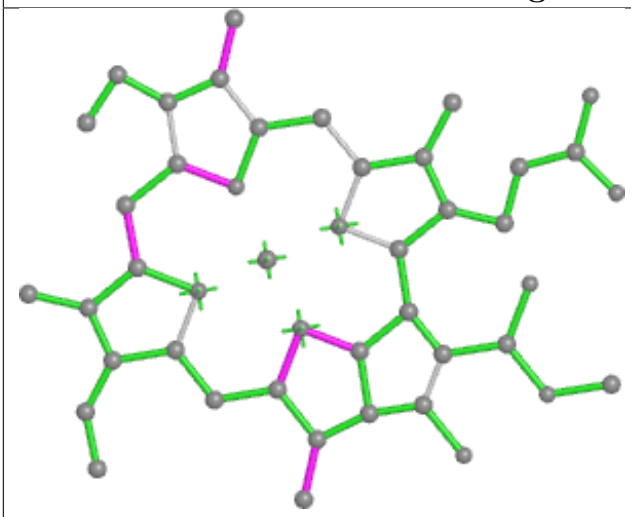


Rings

Ligand CLA 4 608



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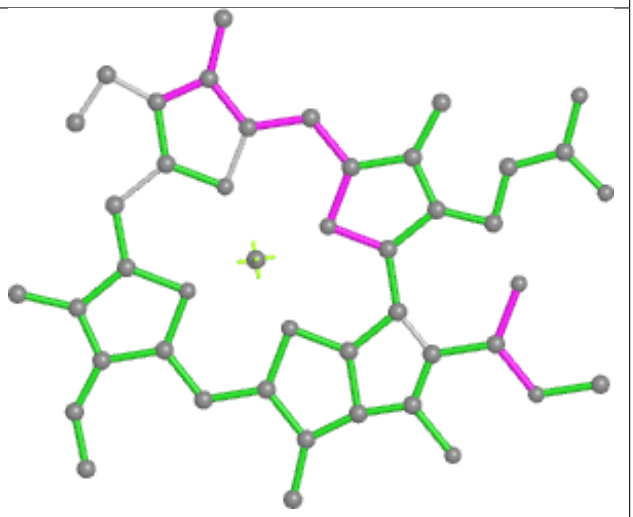
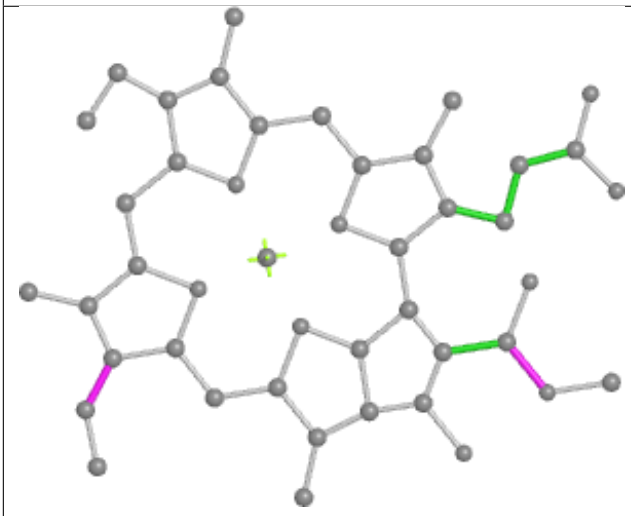


Bond angles



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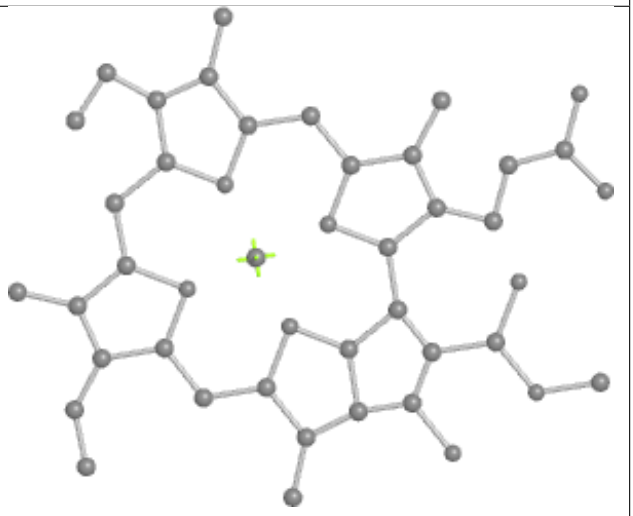
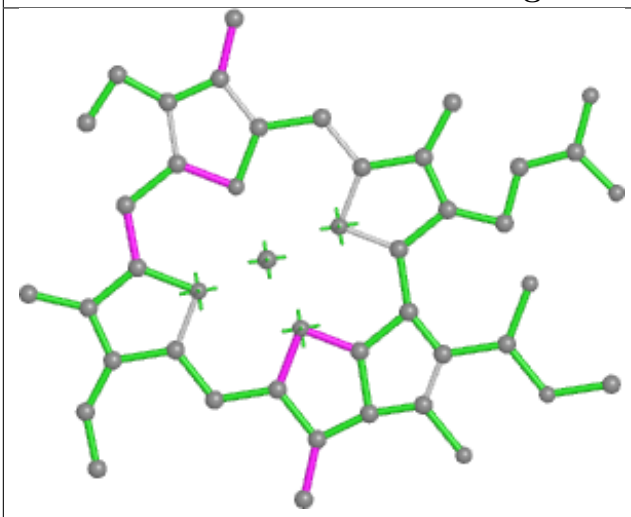


Rings

Ligand CLA A 836



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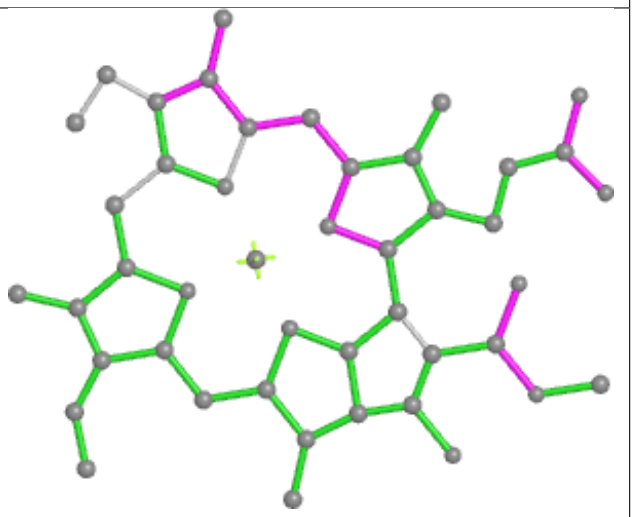
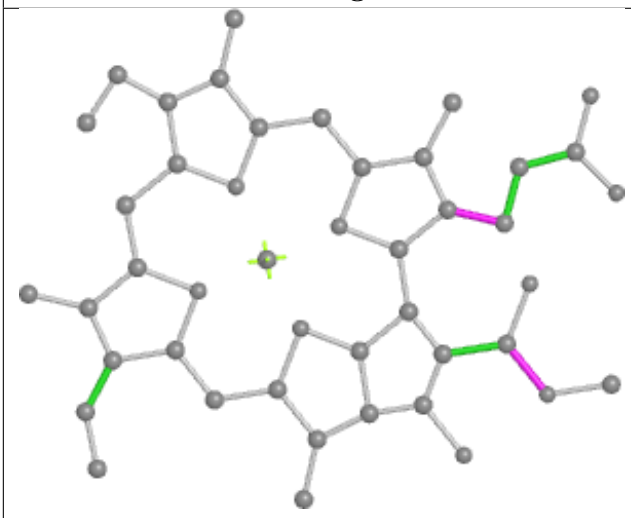
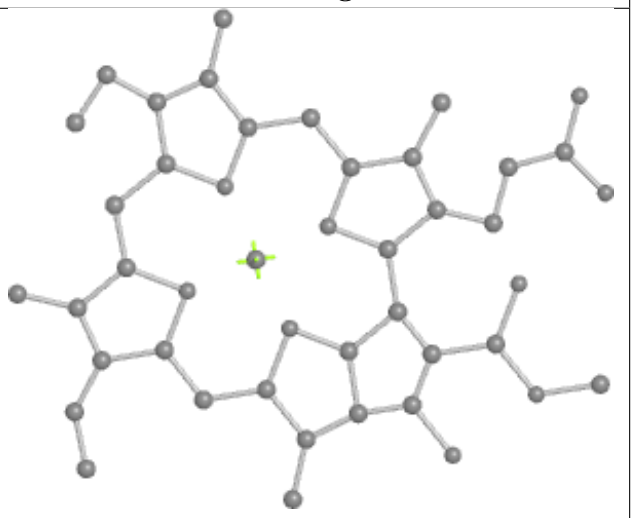


Bond angles

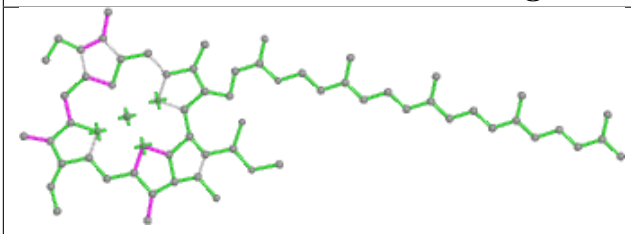


Torsions



Rings

Ligand CLA B 805



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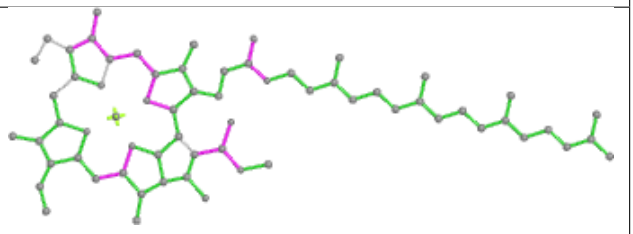
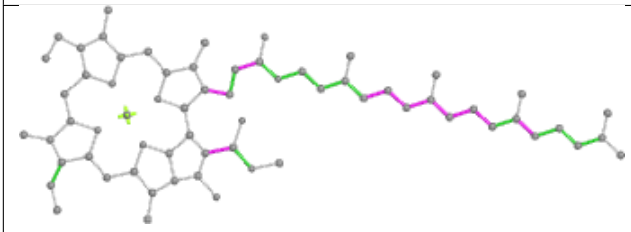


Bond angles



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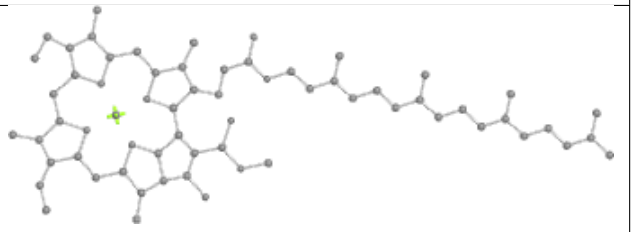
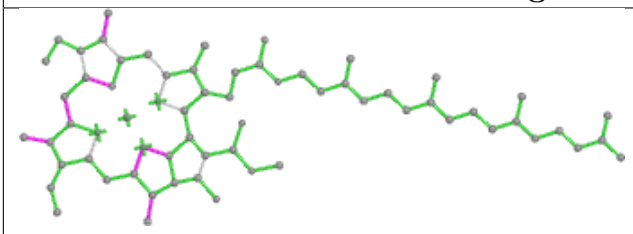


Rings

Ligand CLA 2 612



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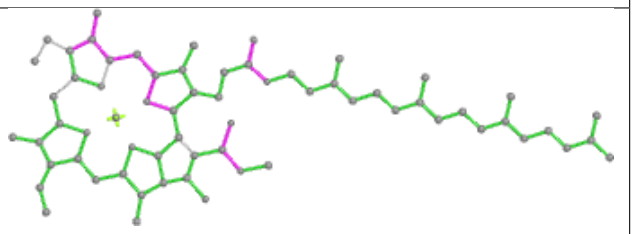
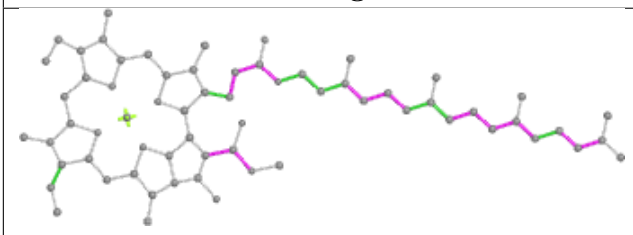


Bond angles



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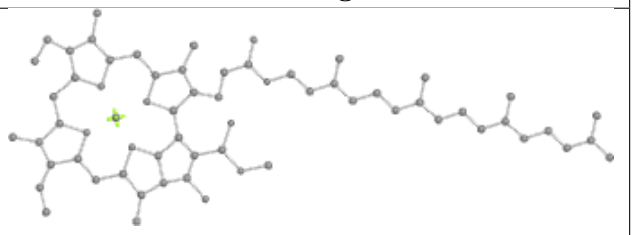
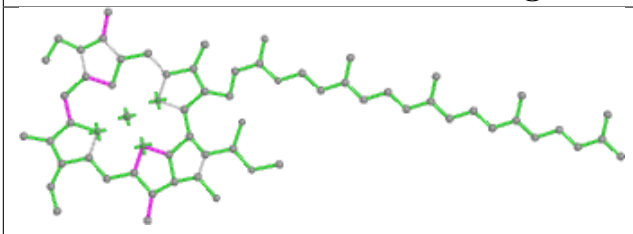


Rings

Ligand CLA A 831



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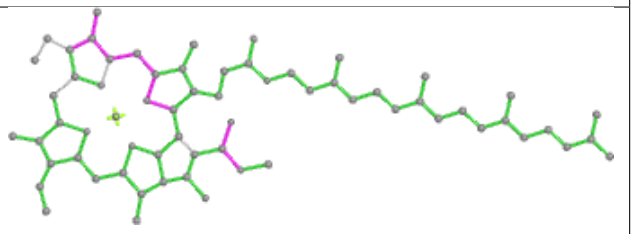
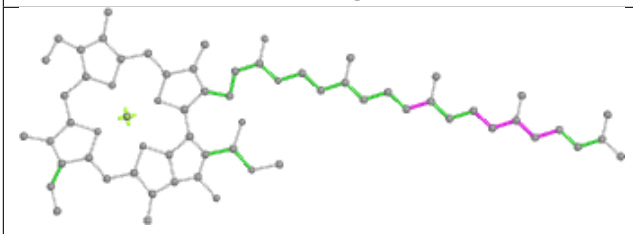
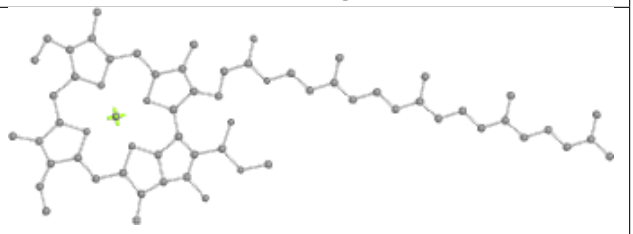


Bond angles

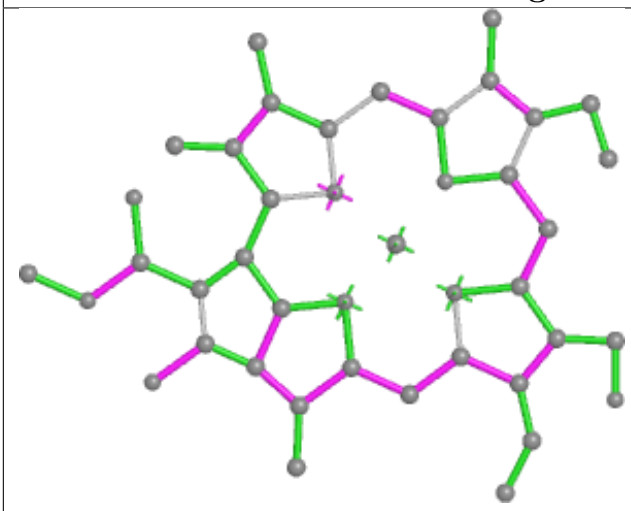


Torsions

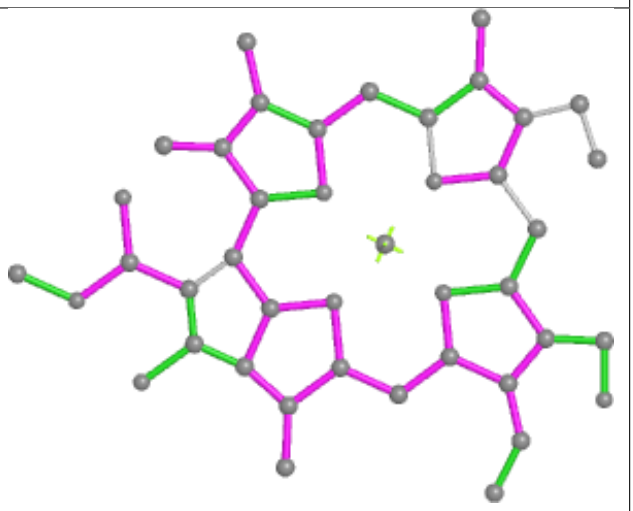


Rings

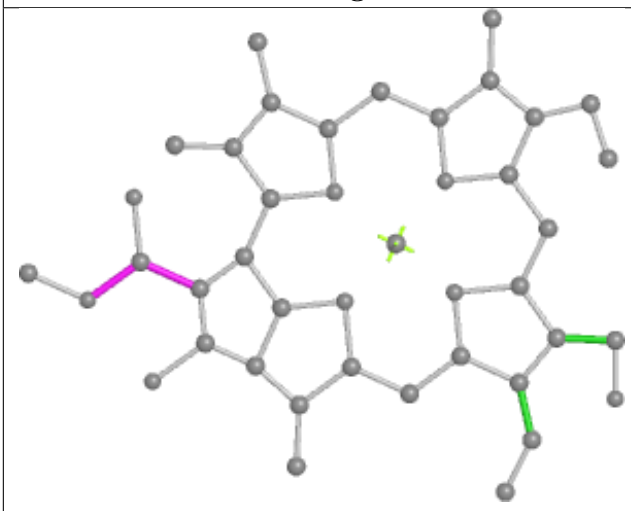
Ligand CHL z 605



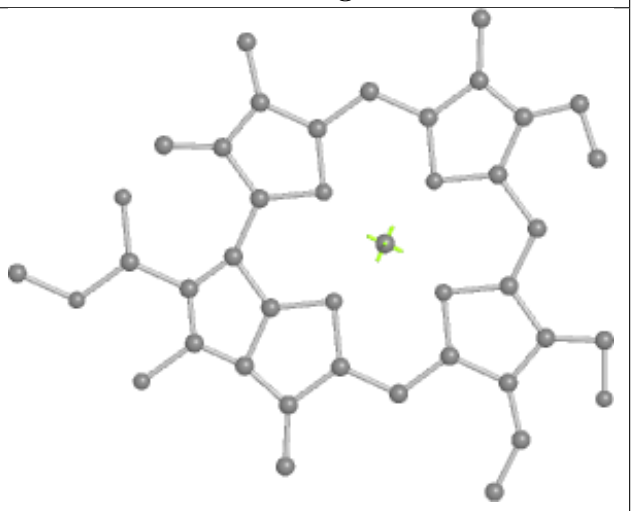
Bond lengths



Bond angles

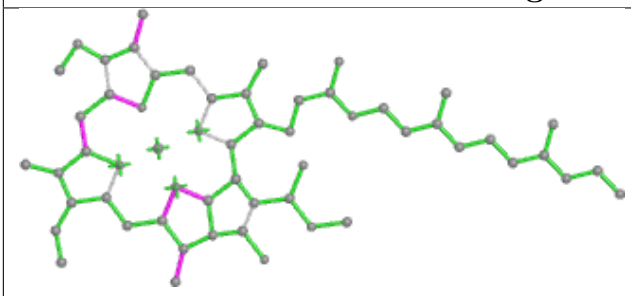


Torsions

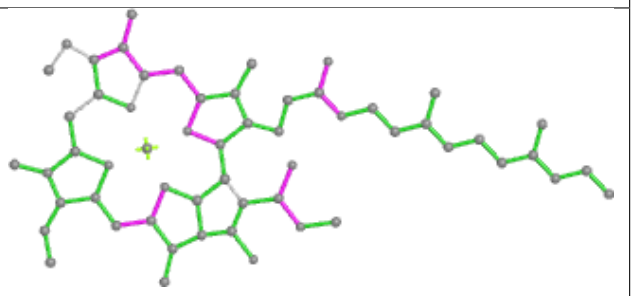


Rings

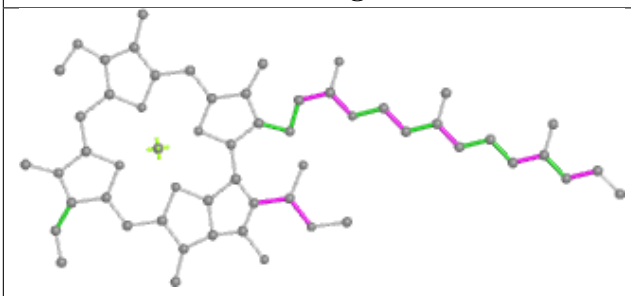
Ligand CLA F 301



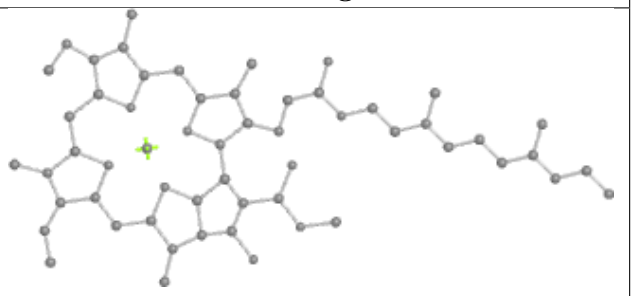
Bond lengths



Bond angles

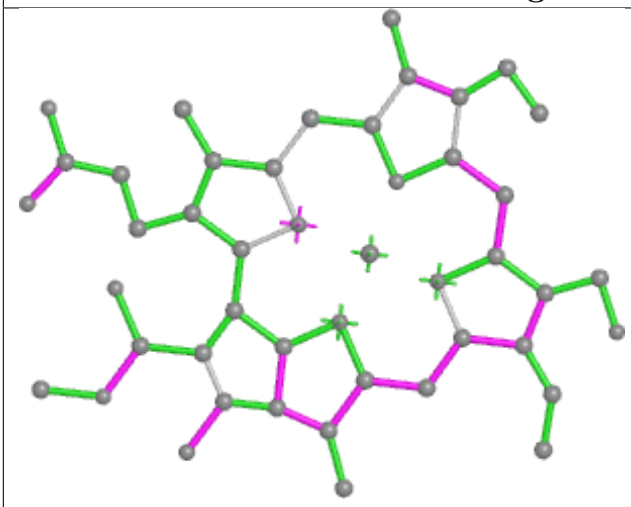


Torsions

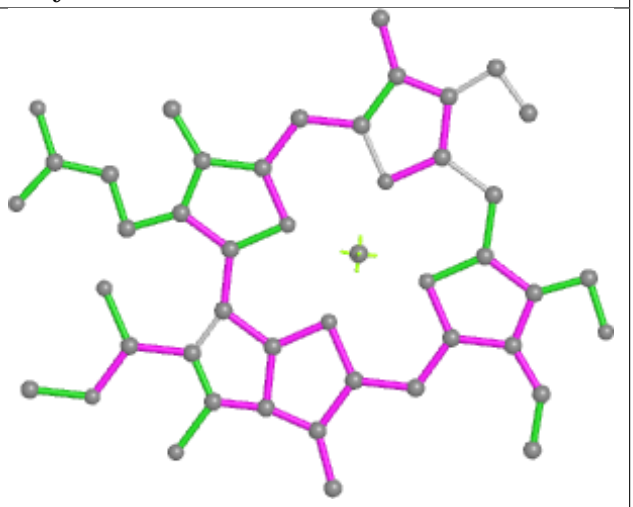


Rings

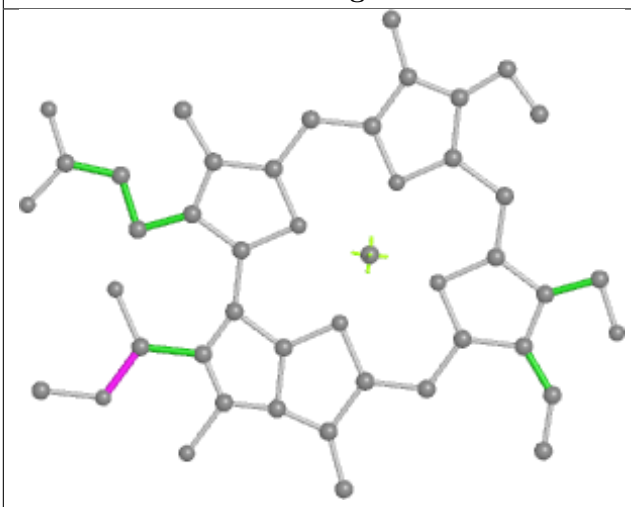
Ligand CHL y 606



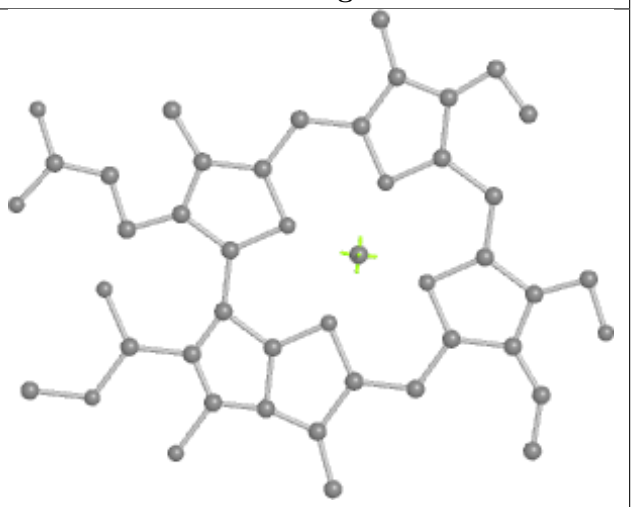
Bond lengths



Bond angles

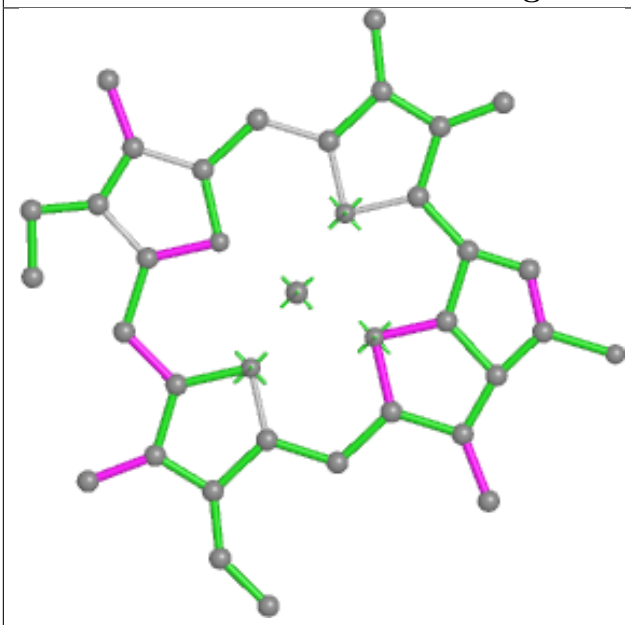


Torsions

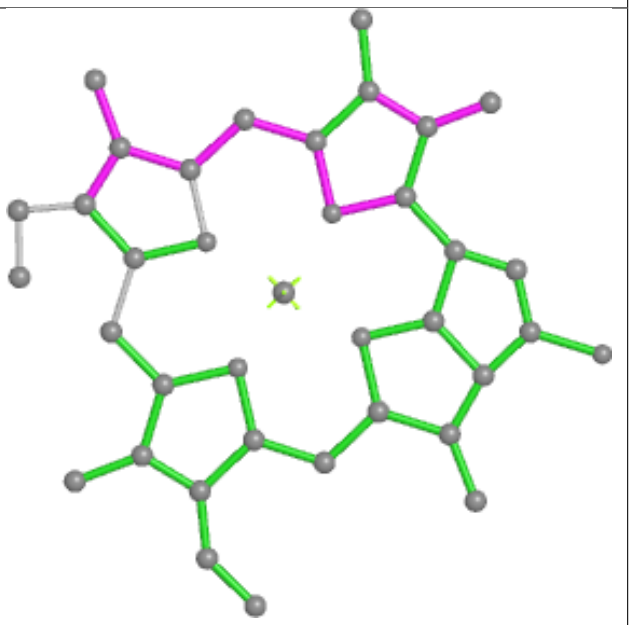


Rings

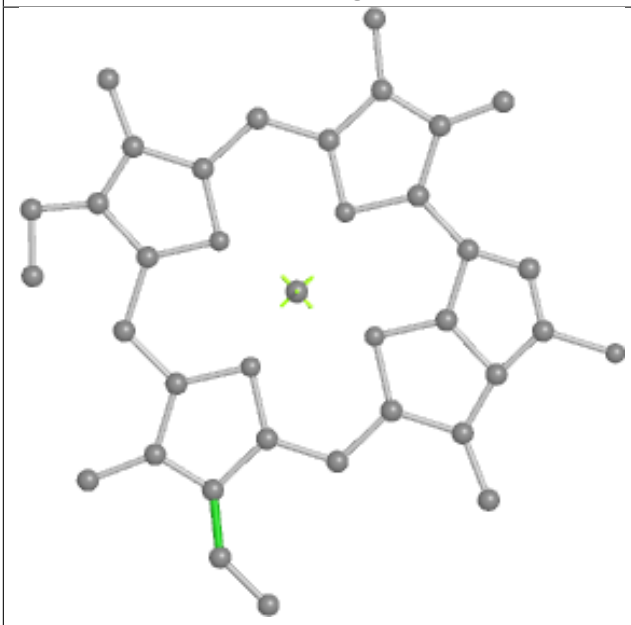
Ligand CLA K 201



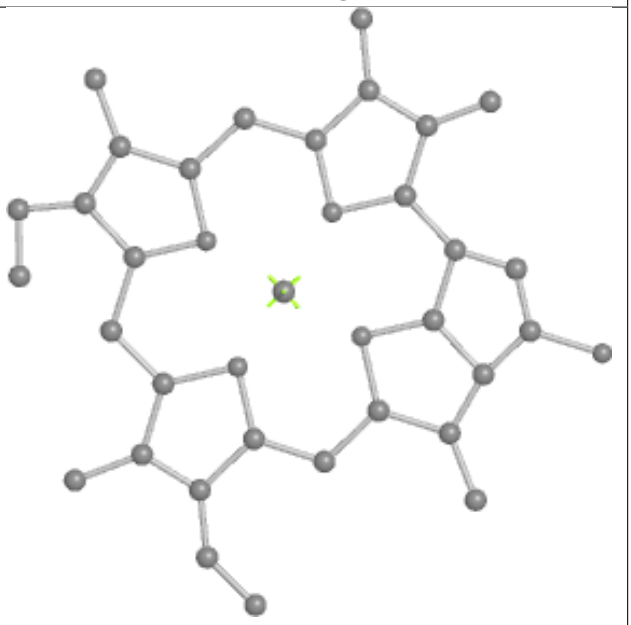
Bond lengths



Bond angles

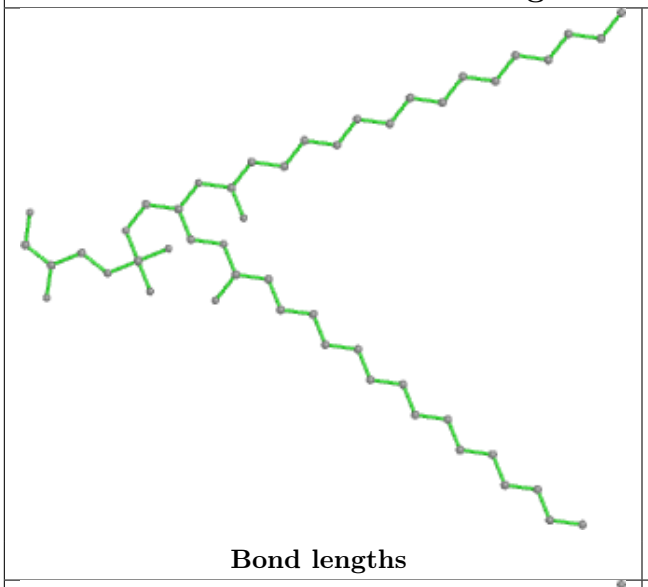


Torsions

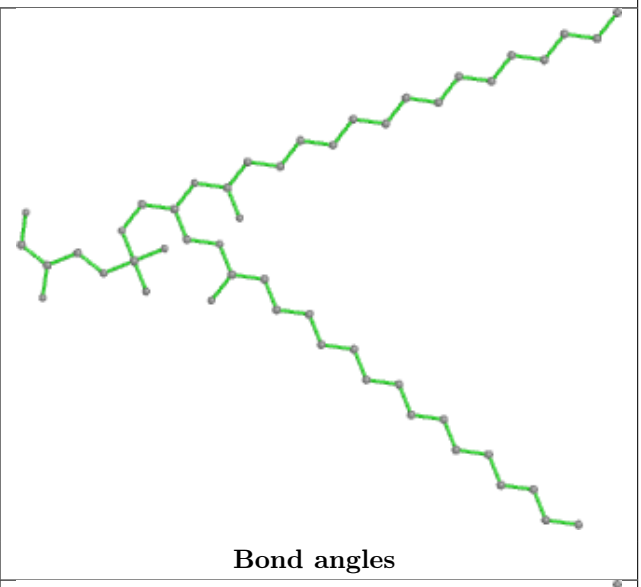


Rings

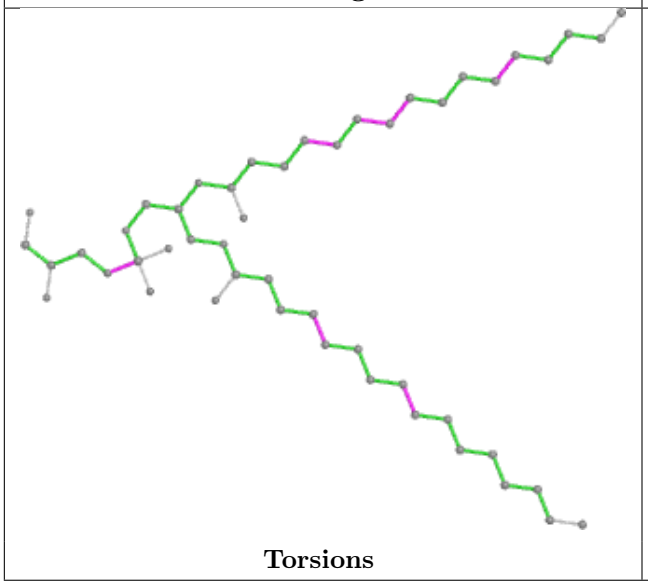
Ligand LHG x 619



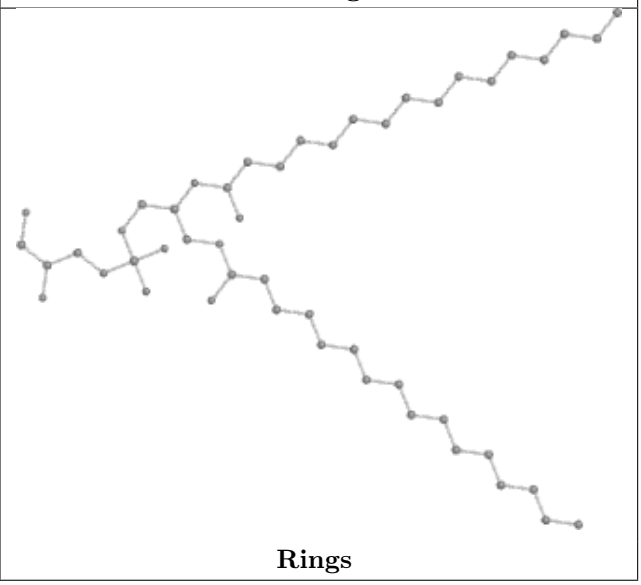
Bond lengths



Bond angles

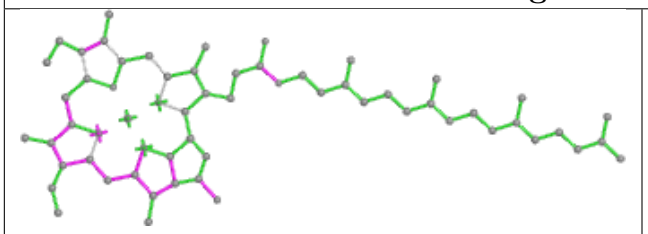


Torsions

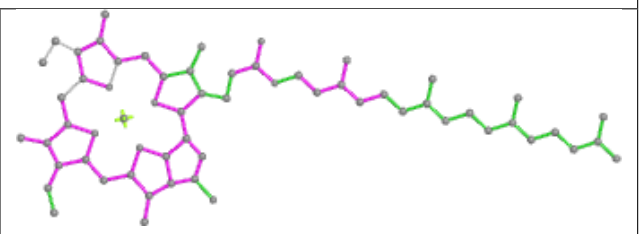


Rings

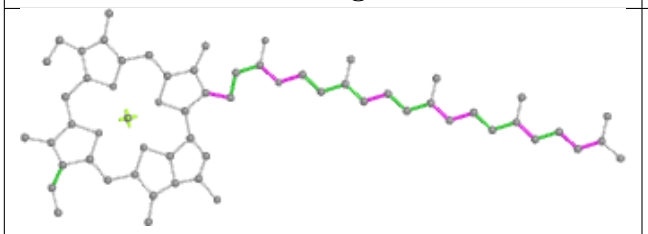
Ligand CL0 A 801



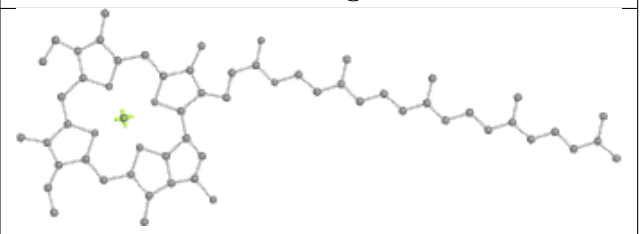
Bond lengths



Bond angles

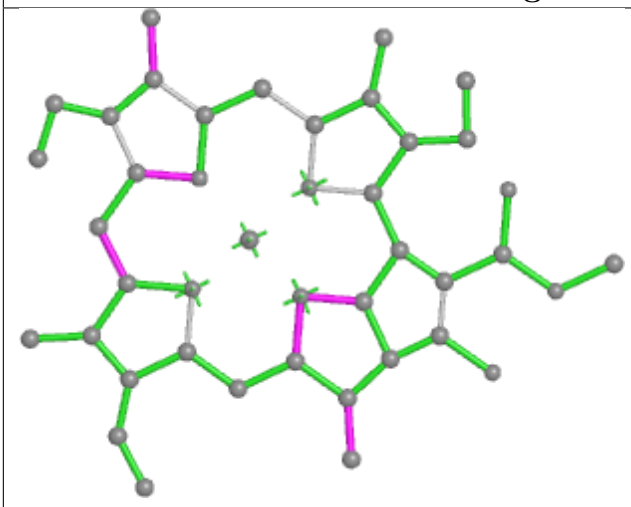


Torsions

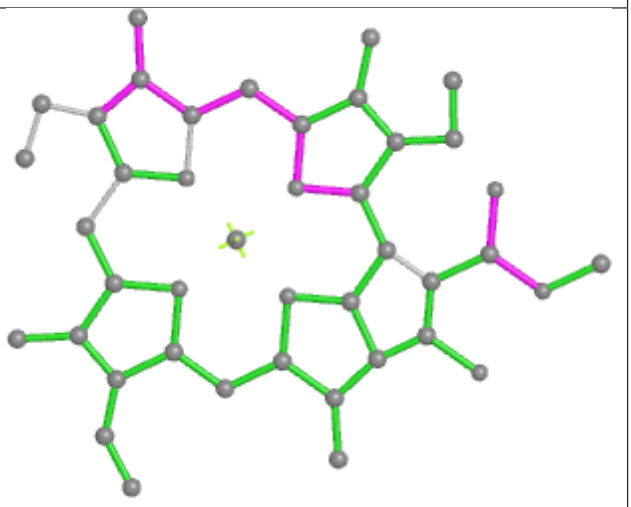


Rings

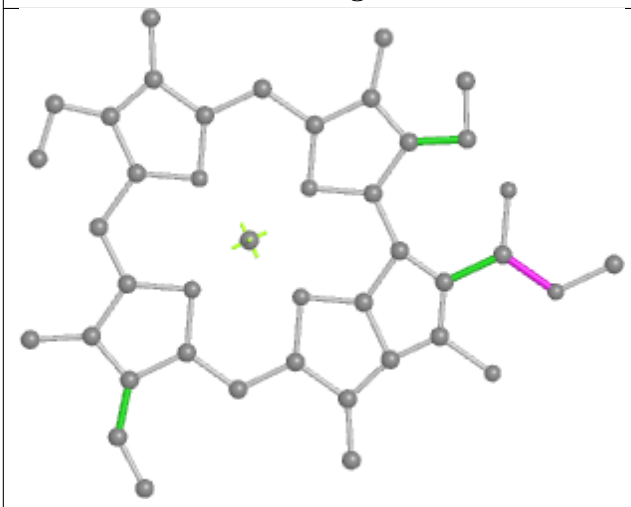
Ligand CLA A 816



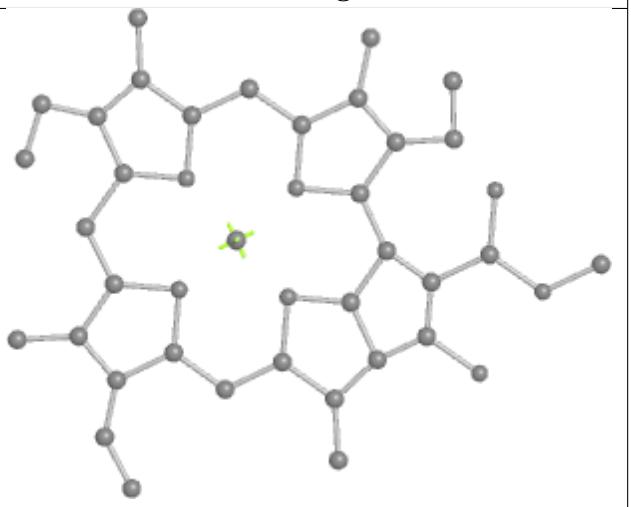
Bond lengths



Bond angles

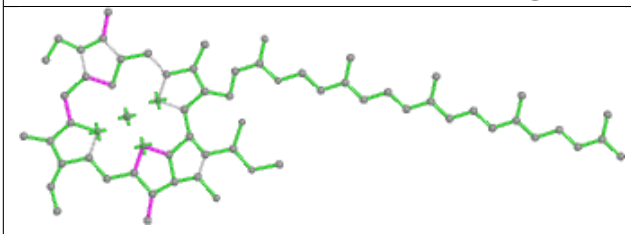


Torsions

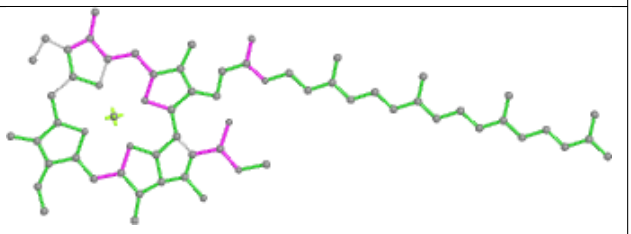


Rings

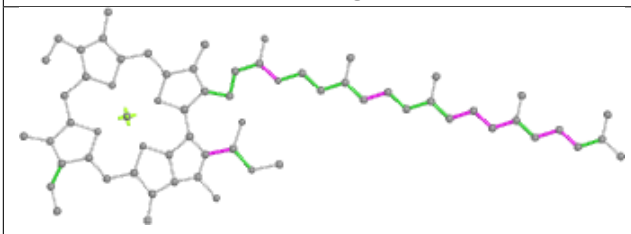
Ligand CLA L 303



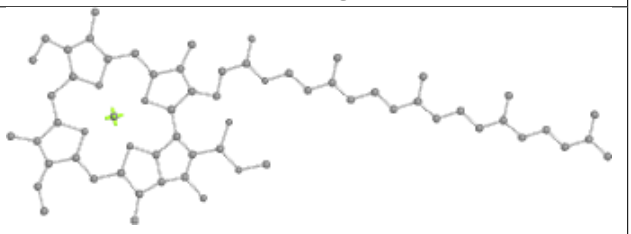
Bond lengths



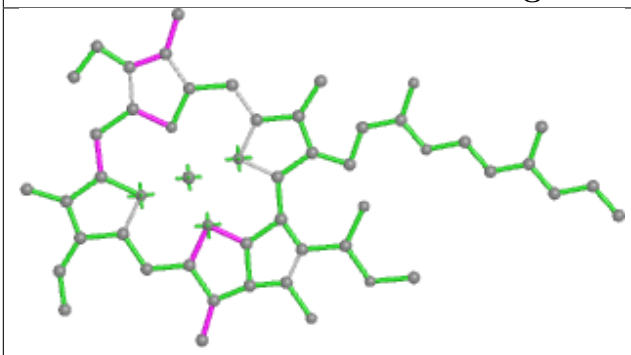
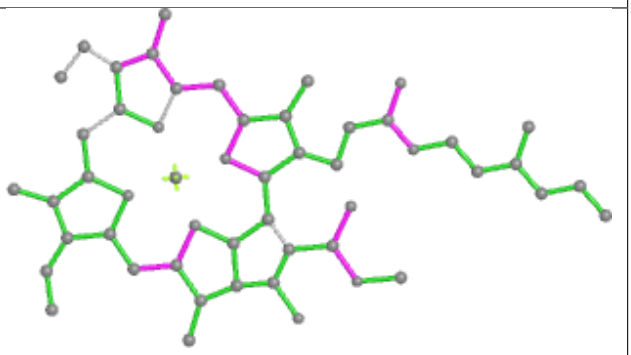
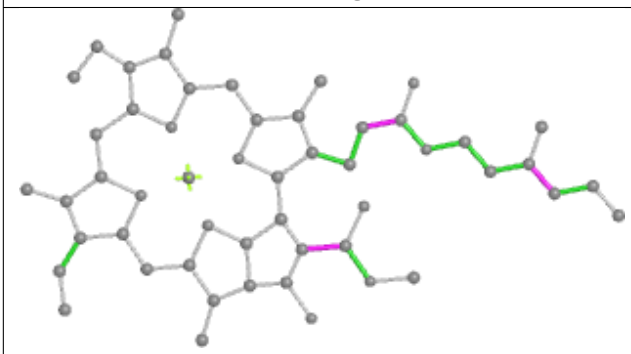
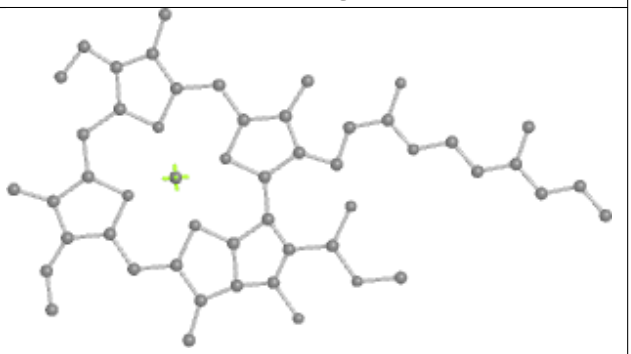
Bond angles



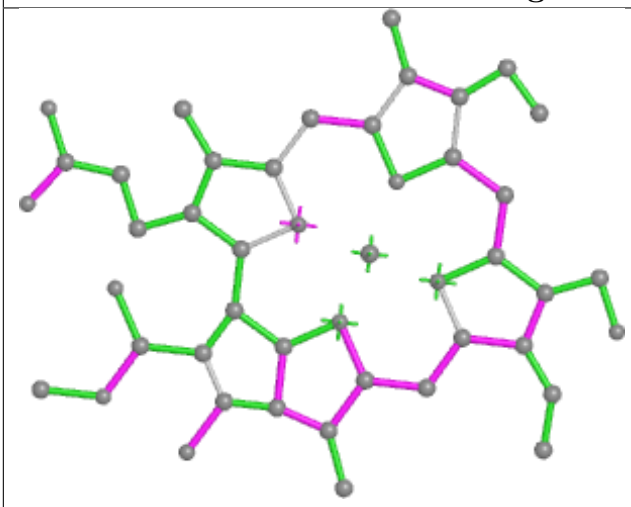
Torsions



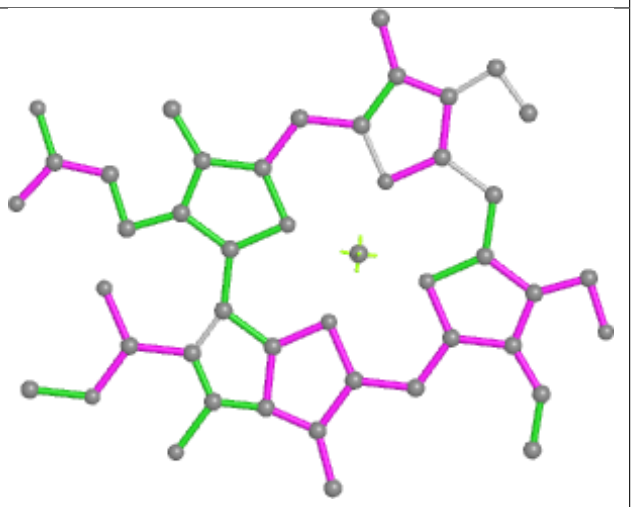
Rings

Ligand CLA A 840	
	
Bond lengths	**Bond angles**
	
Torsions	**Rings**

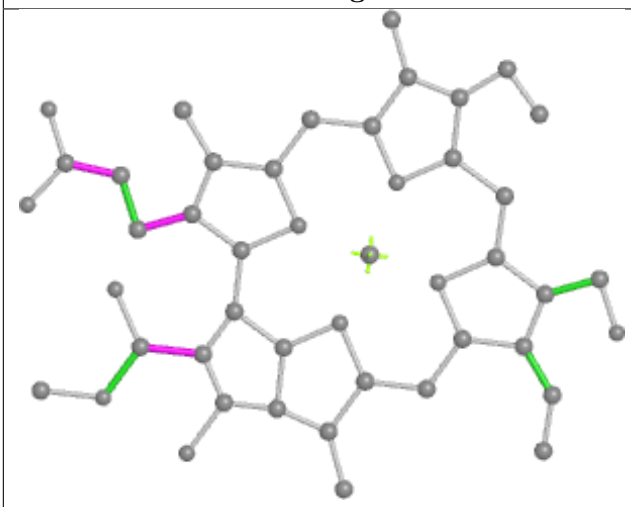
Ligand CHL x 609



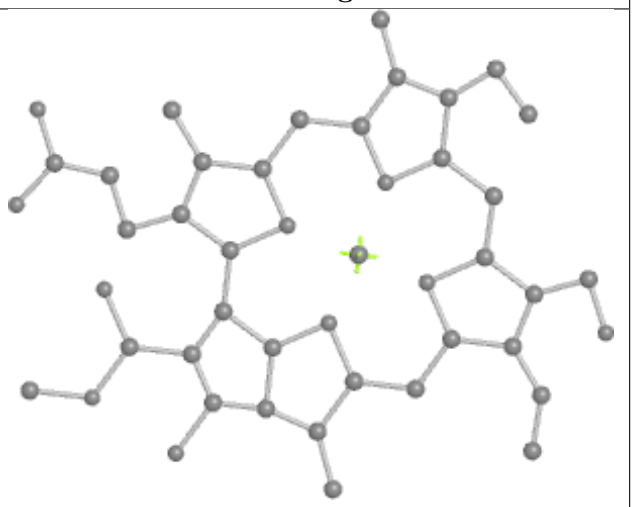
Bond lengths



Bond angles

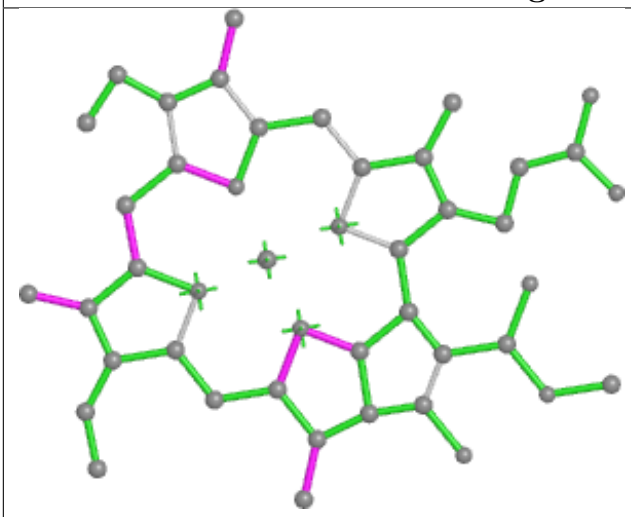


Torsions

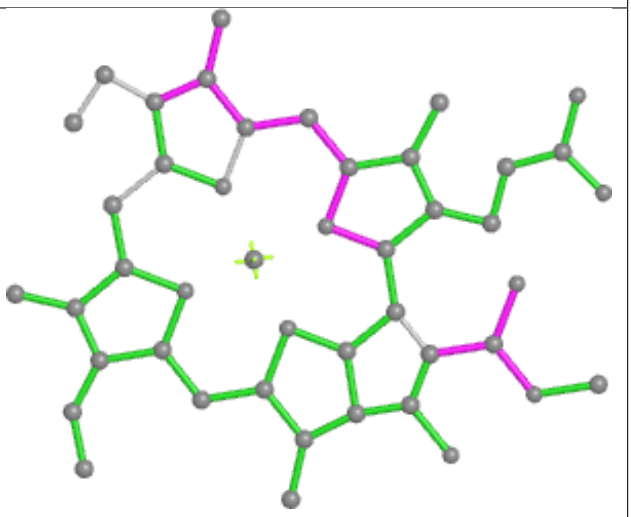


Rings

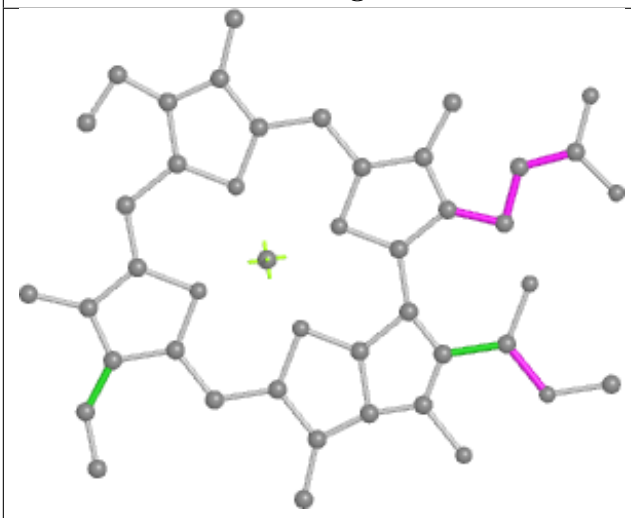
Ligand CLA 2 608



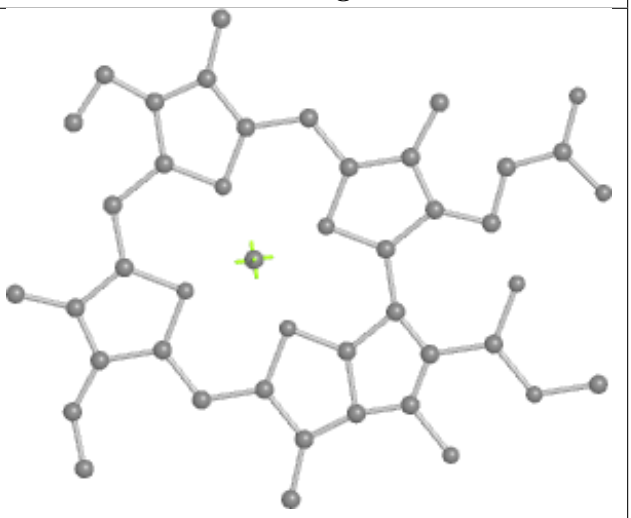
Bond lengths



Bond angles

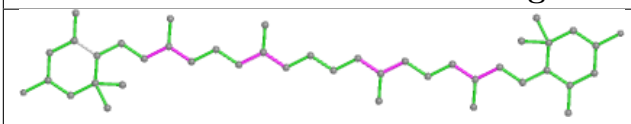


Torsions

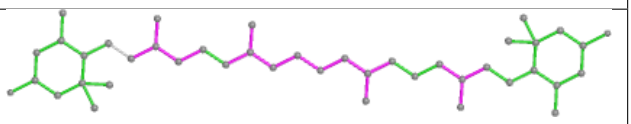


Rings

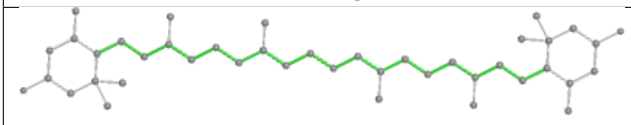
Ligand LUT x 615



Bond lengths



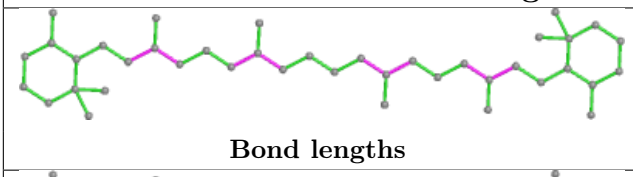
Bond angles



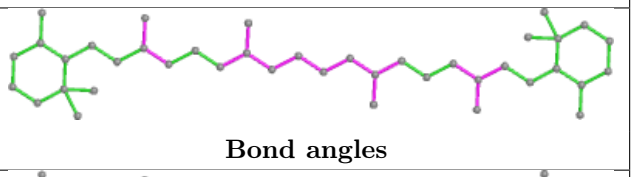
Torsions

Rings

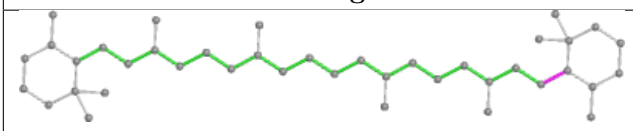
Ligand BCR O 204



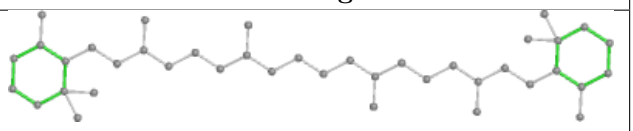
Bond lengths



Bond angles

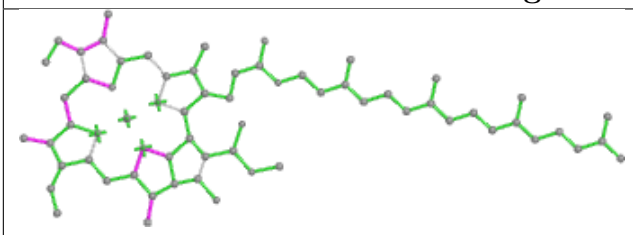


Torsions

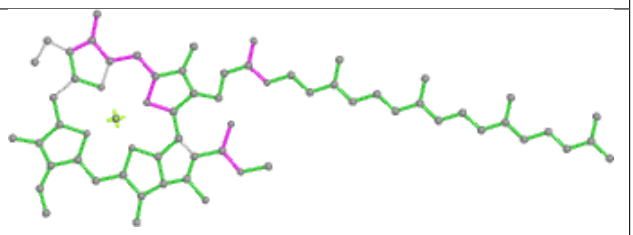


Rings

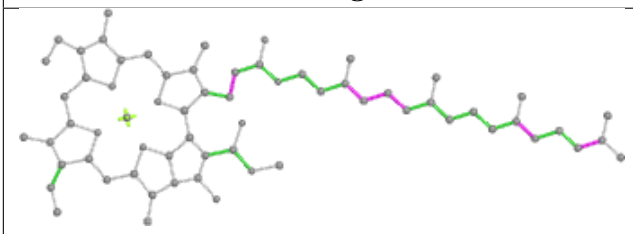
Ligand CLA A 844



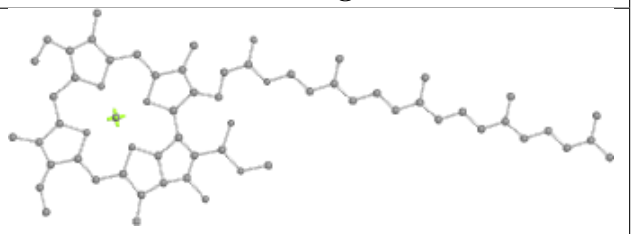
Bond lengths



Bond angles

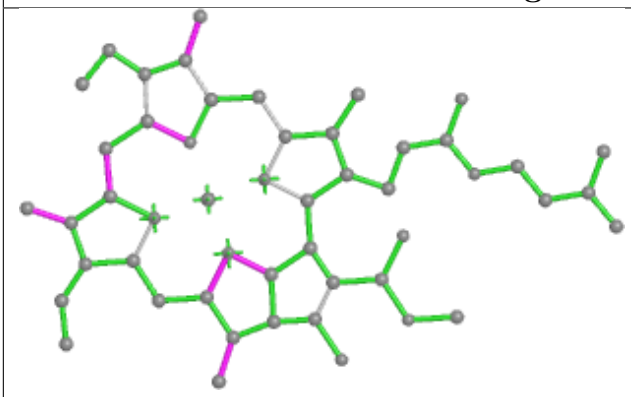


Torsions

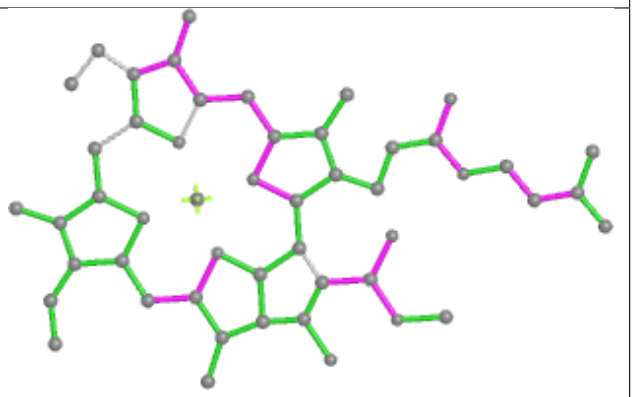


Rings

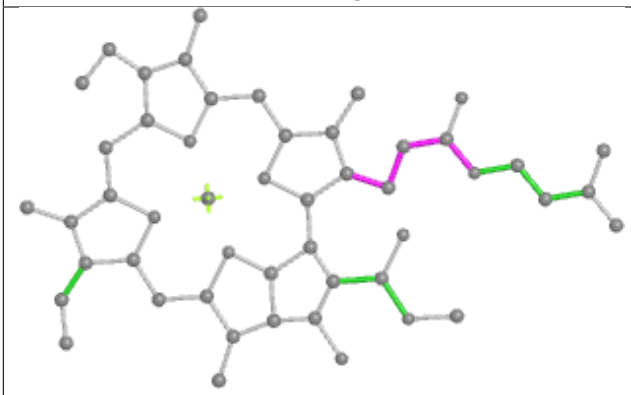
Ligand CLA B 820



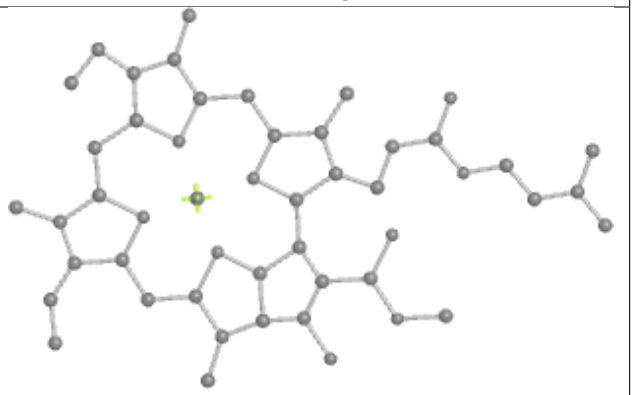
Bond lengths



Bond angles

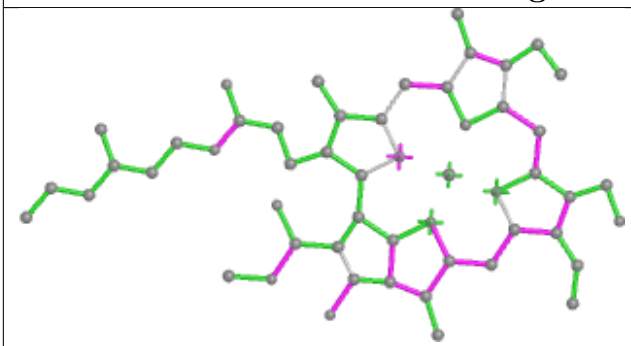


Torsions

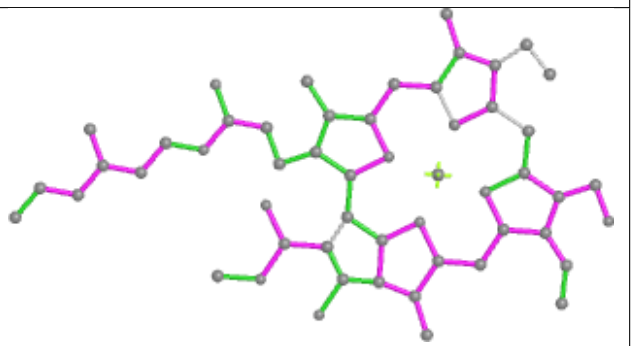


Rings

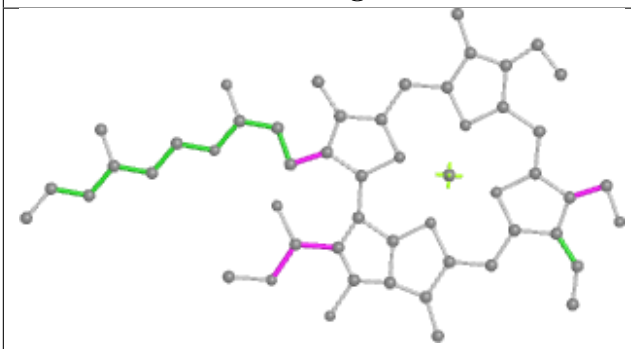
Ligand CHL z 601



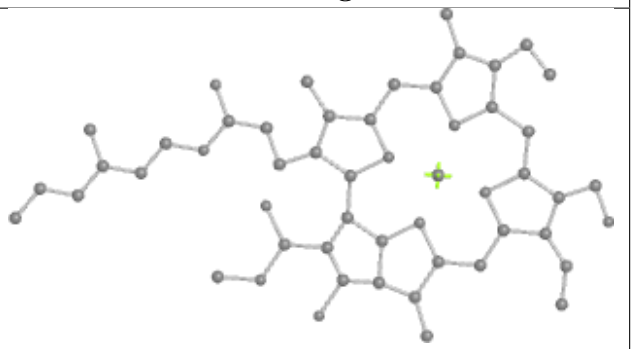
Bond lengths



Bond angles

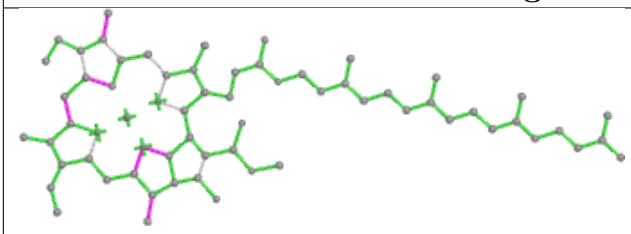


Torsions

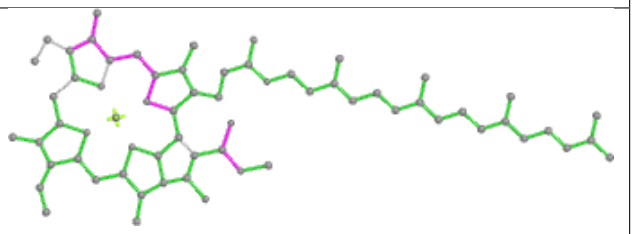


Rings

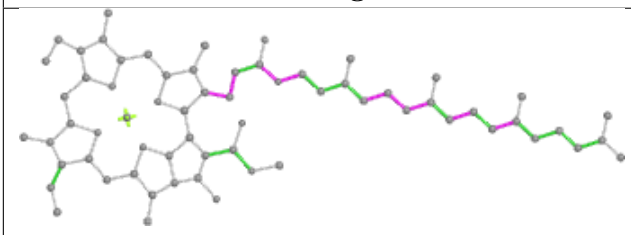
Ligand CLA A 843



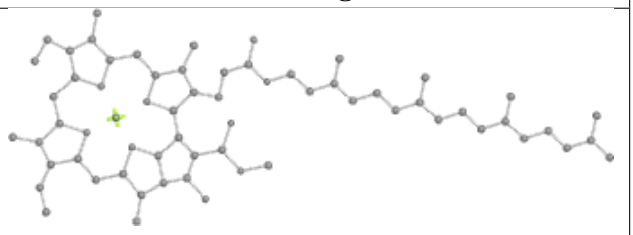
Bond lengths



Bond angles

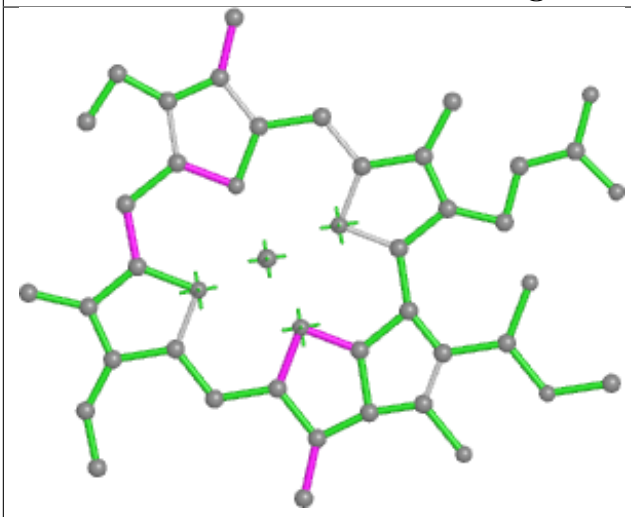


Torsions

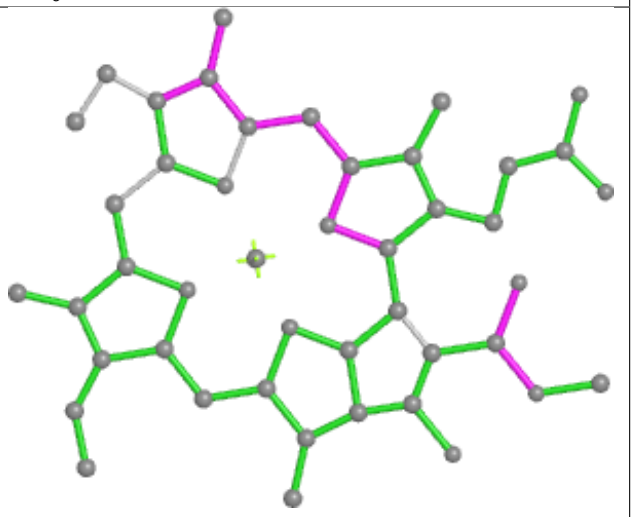


Rings

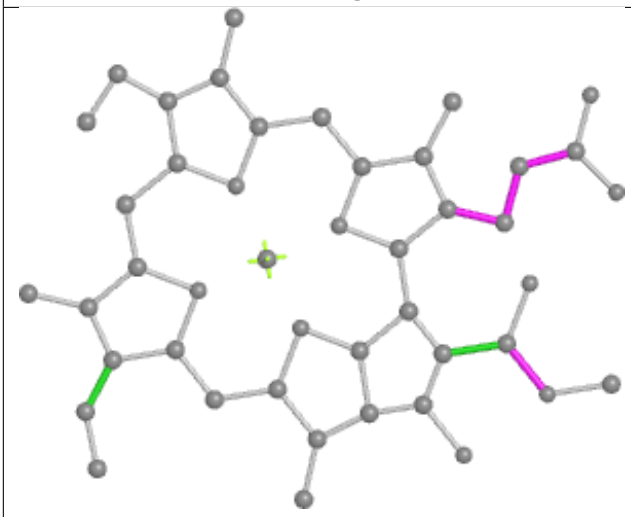
Ligand CLA y 611



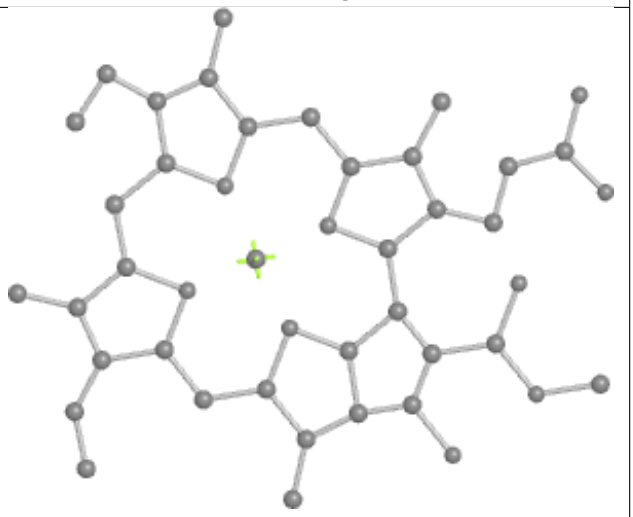
Bond lengths



Bond angles

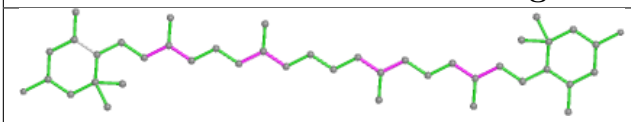


Torsions

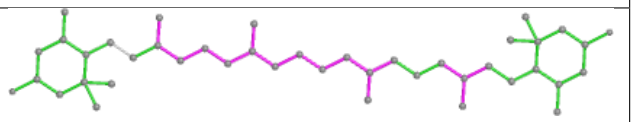


Rings

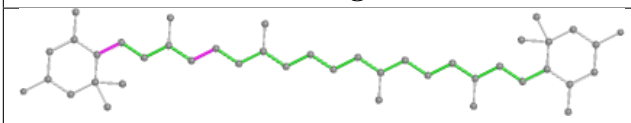
Ligand LUT z 616



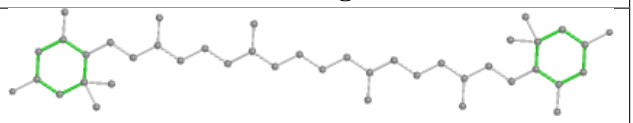
Bond lengths



Bond angles

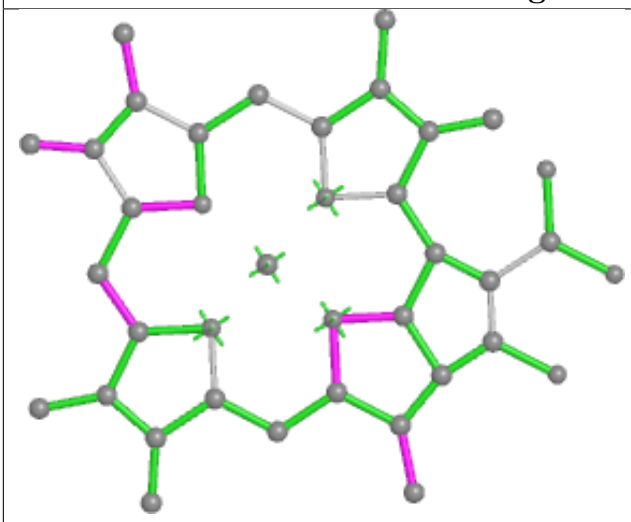


Torsions

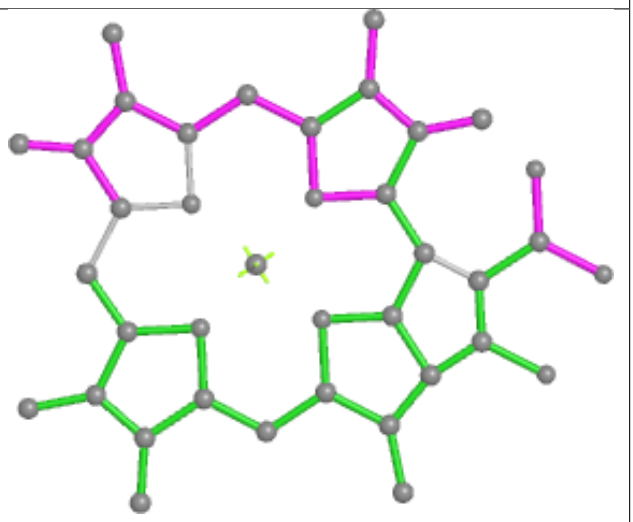


Rings

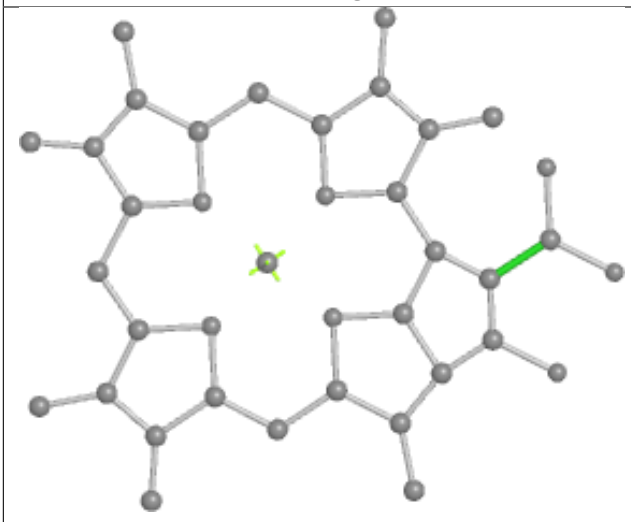
Ligand CLA 1 613



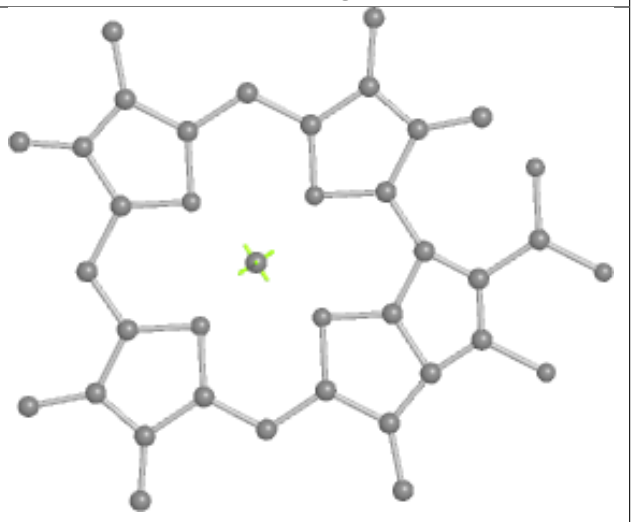
Bond lengths



Bond angles

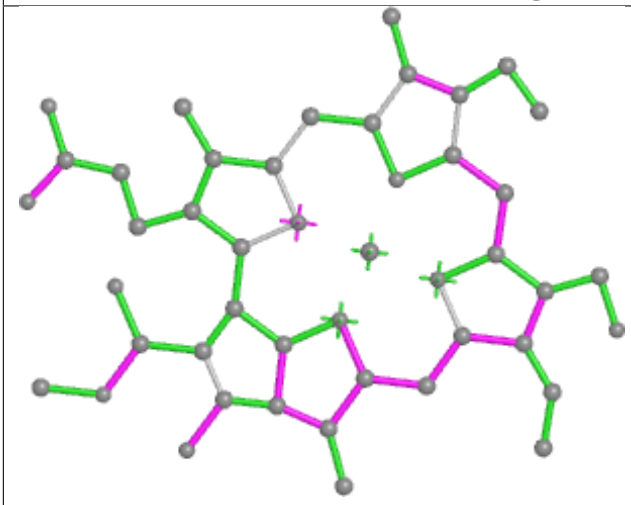


Torsions

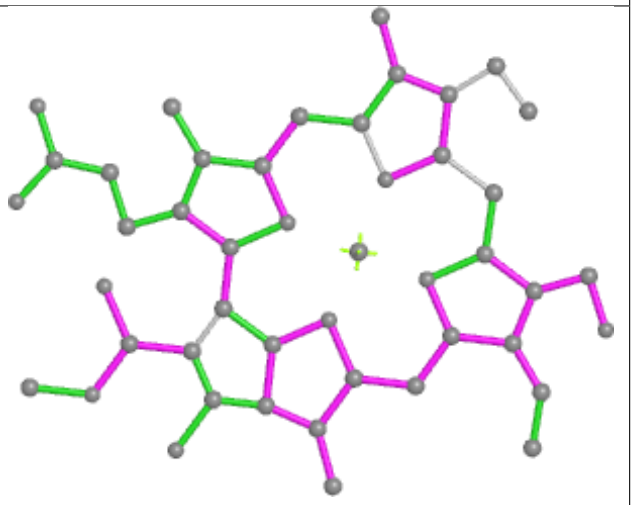


Rings

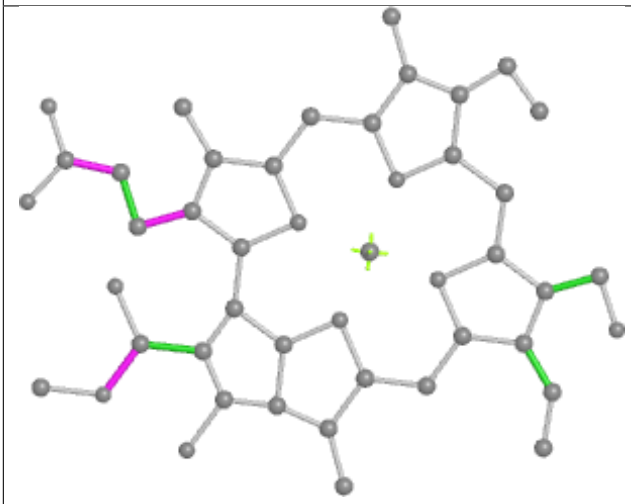
Ligand CHL 4 607



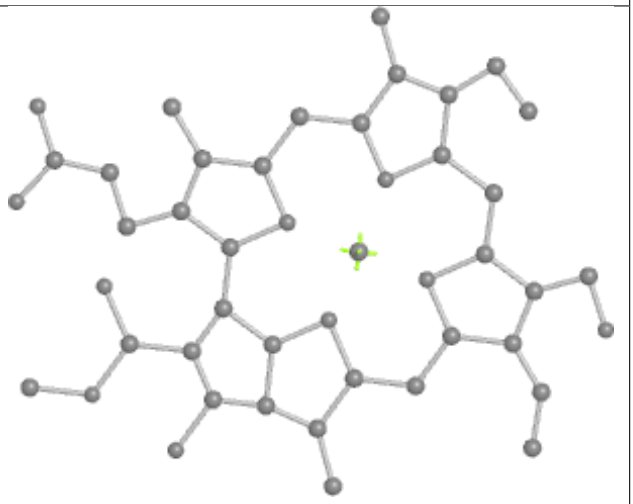
Bond lengths



Bond angles

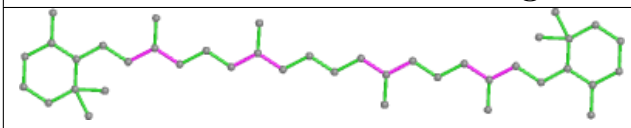


Torsions

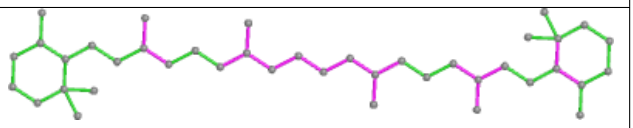


Rings

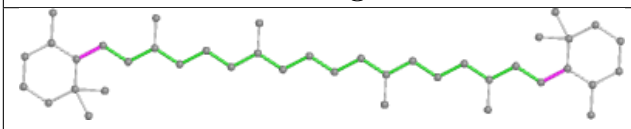
Ligand BCR G 204



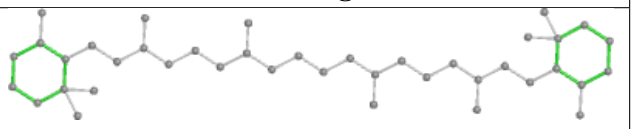
Bond lengths



Bond angles

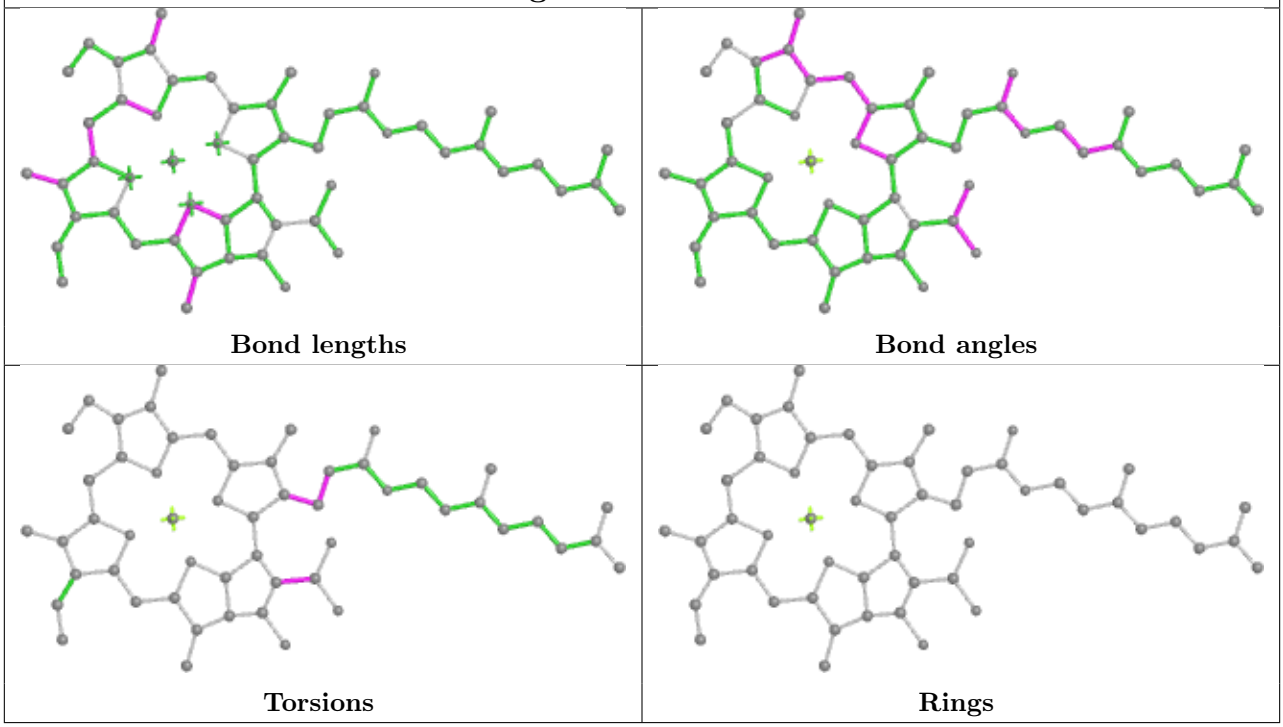


Torsions

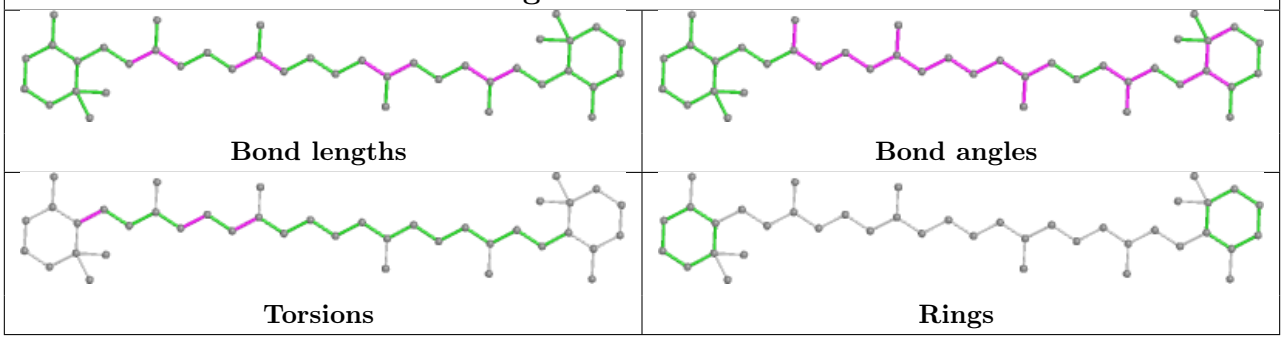


Rings

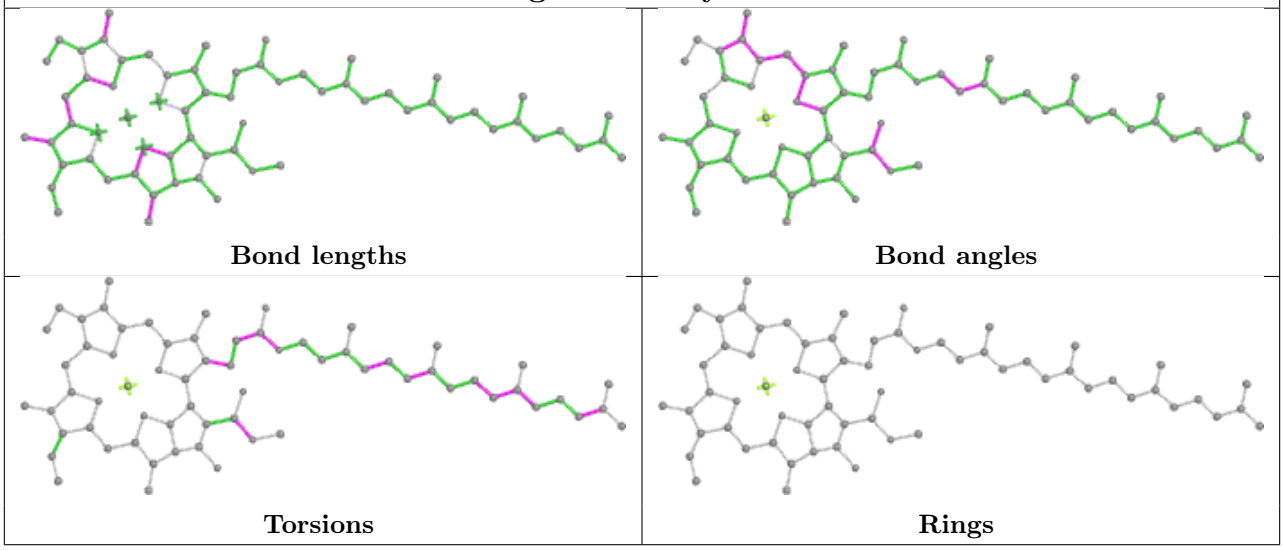
Ligand CLA 3 609



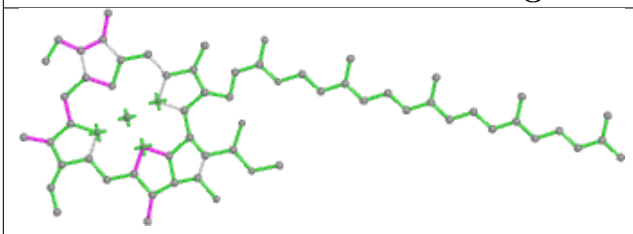
Ligand BCR A 853



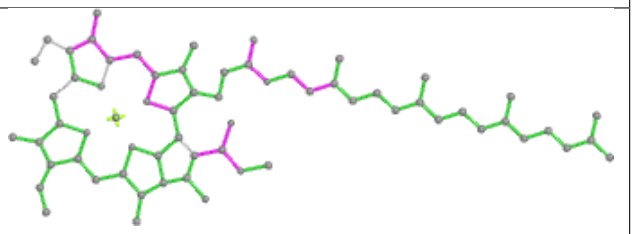
Ligand CLA y 614



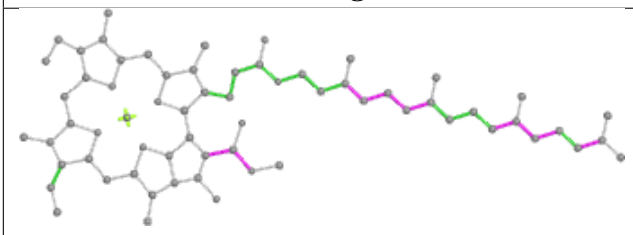
Ligand CLA B 808



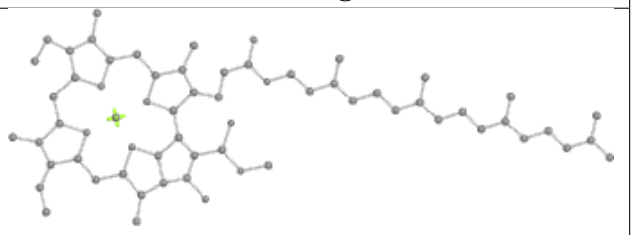
Bond lengths



Bond angles

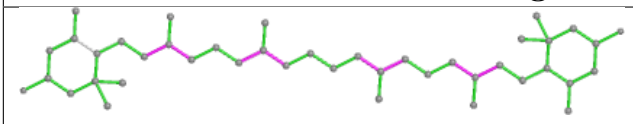


Torsions

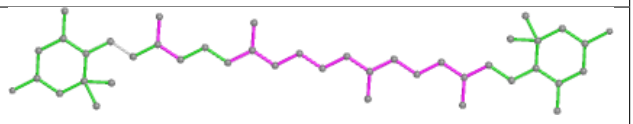


Rings

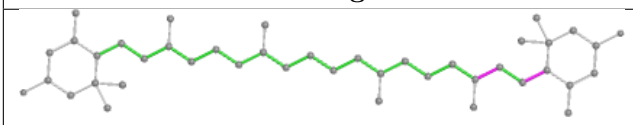
Ligand LUT z 615



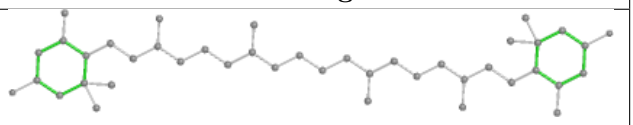
Bond lengths



Bond angles

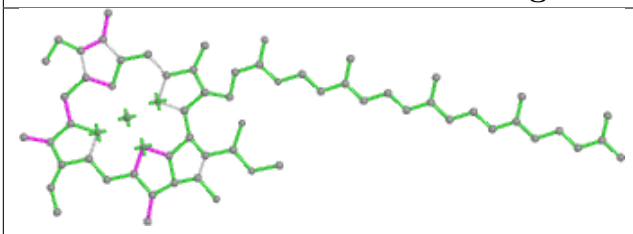


Torsions

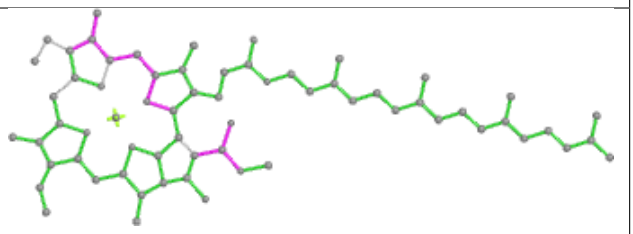


Rings

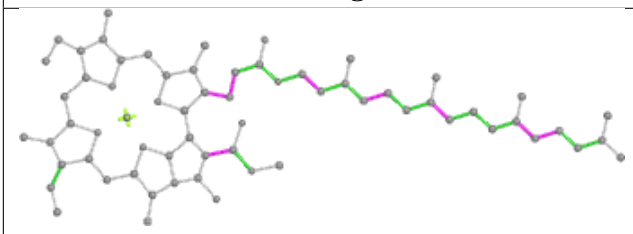
Ligand CLA z 614



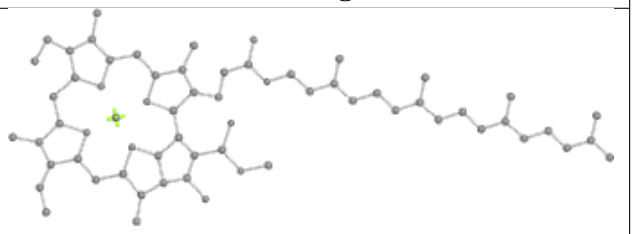
Bond lengths



Bond angles

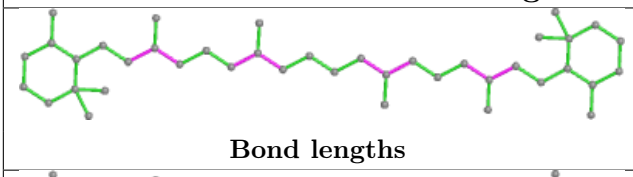


Torsions

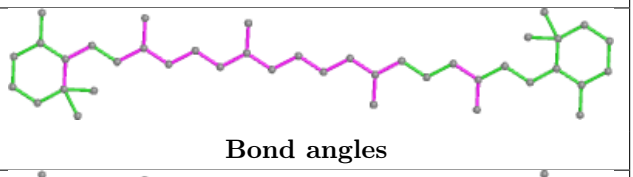


Rings

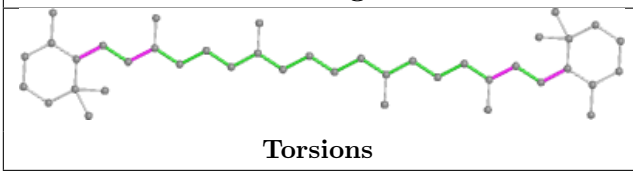
Ligand BCR B 846



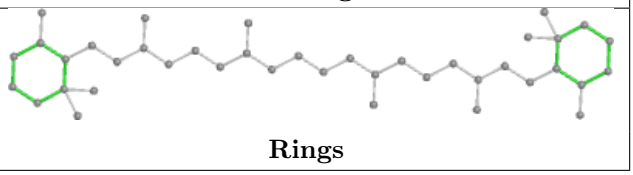
Bond lengths



Bond angles

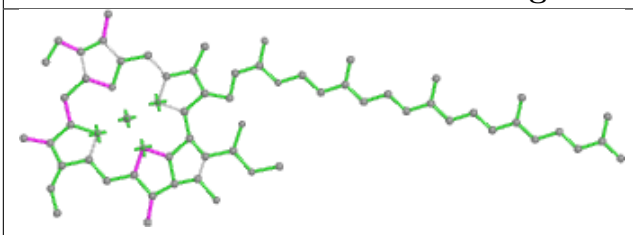


Torsions

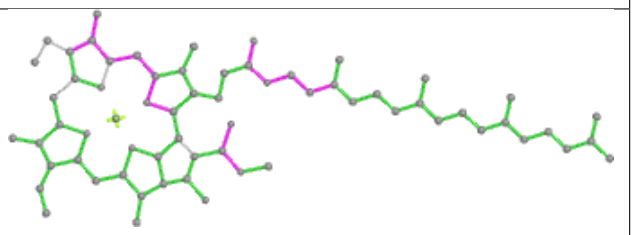


Rings

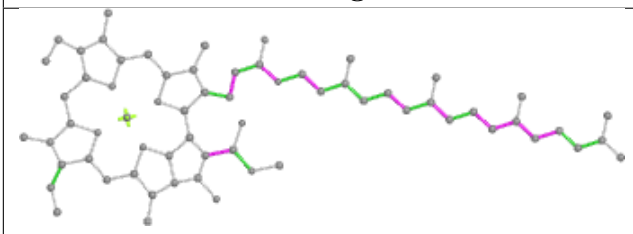
Ligand CLA z 602



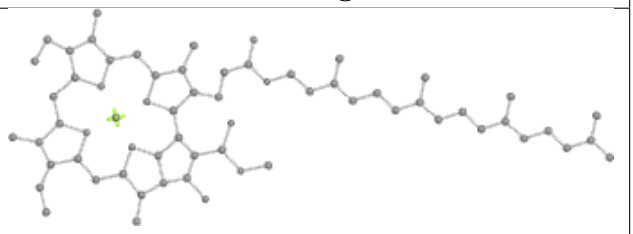
Bond lengths



Bond angles

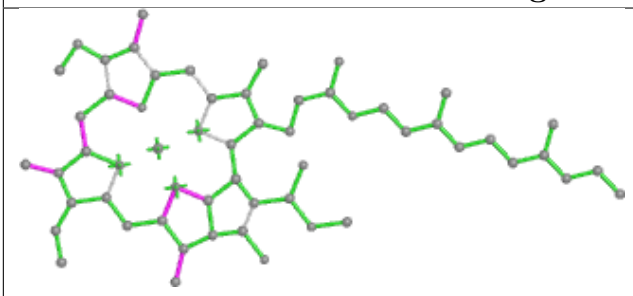


Torsions

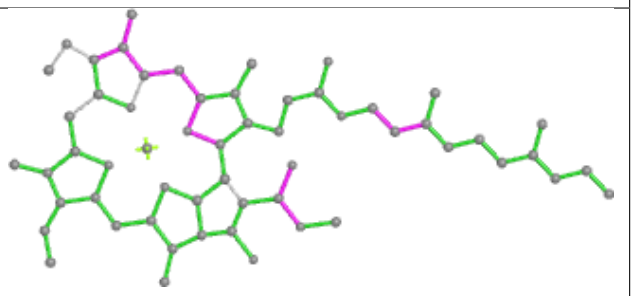


Rings

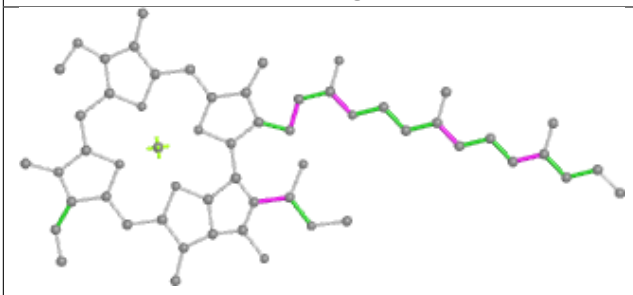
Ligand CLA z 603



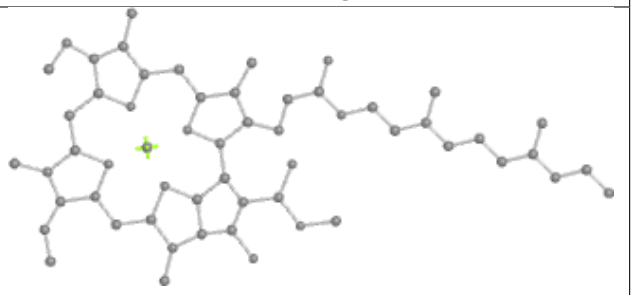
Bond lengths



Bond angles

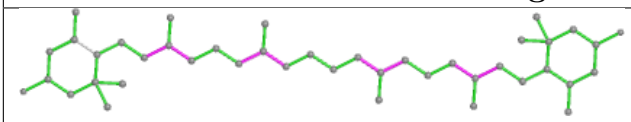


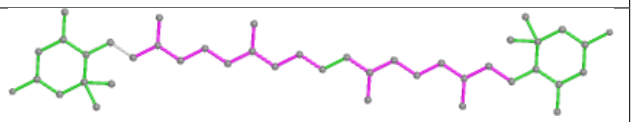
Torsions

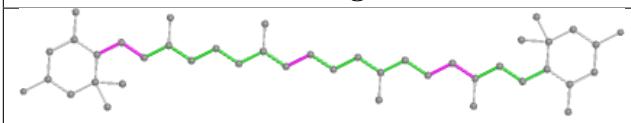


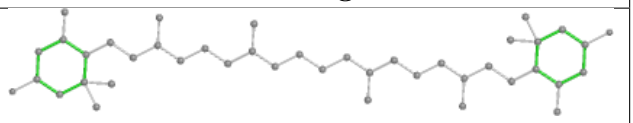
Rings

Ligand LUT 3 613

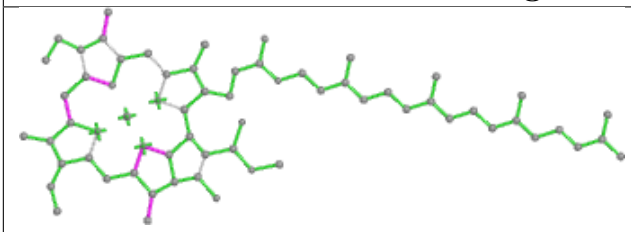

Bond lengths

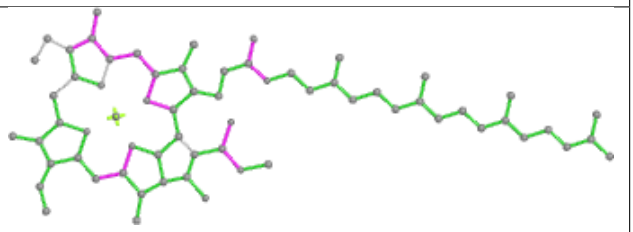

Bond angles

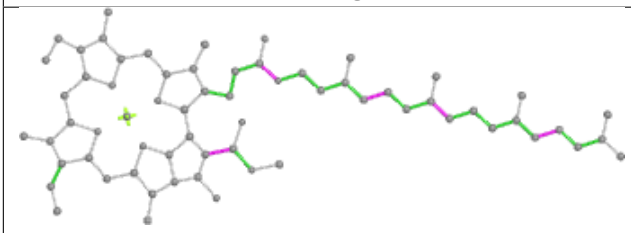

Torsions

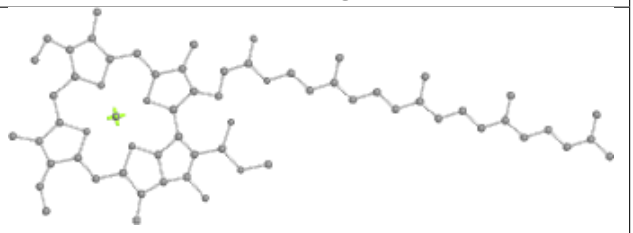

Rings

Ligand CLA A 834

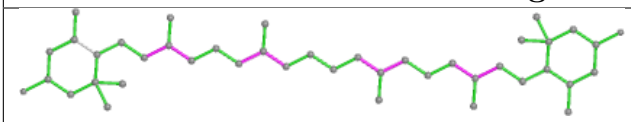

Bond lengths

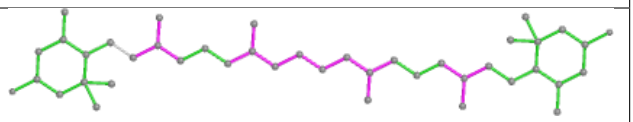

Bond angles

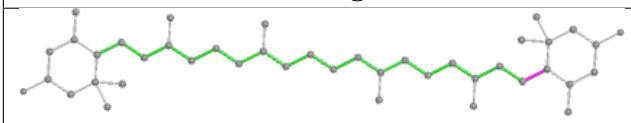

Torsions

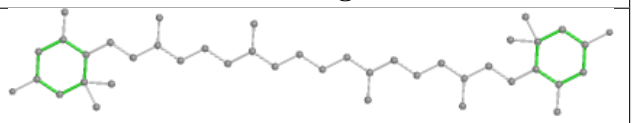

Rings

Ligand LUT 4 616

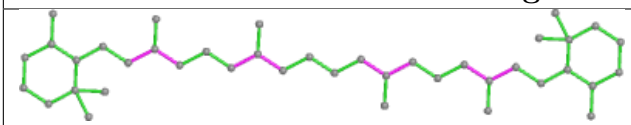

Bond lengths

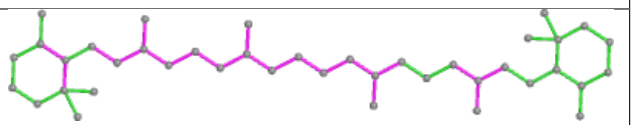

Bond angles

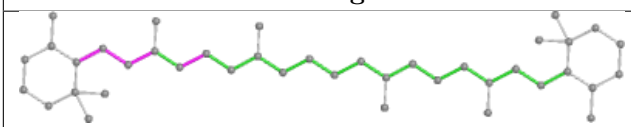

Torsions

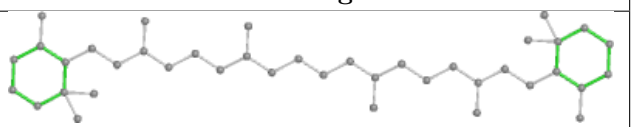

Rings

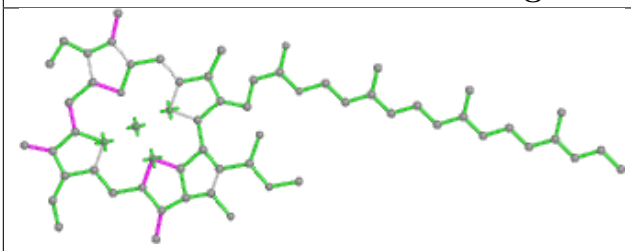
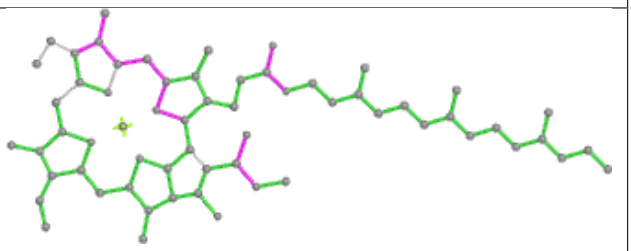
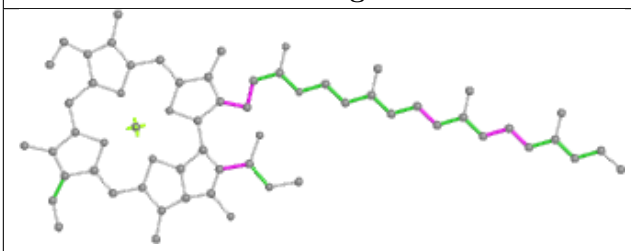
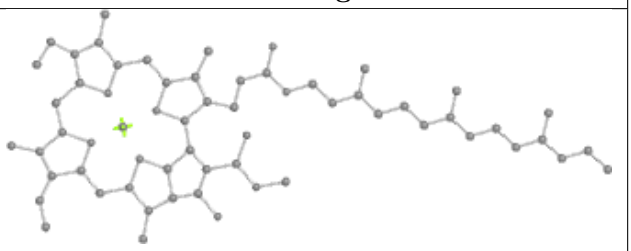
Ligand BCR B 801

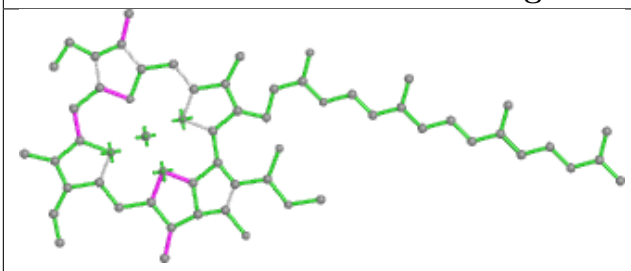
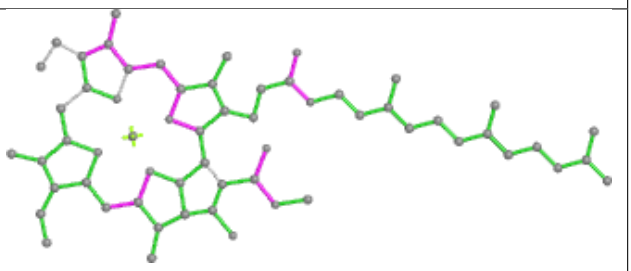
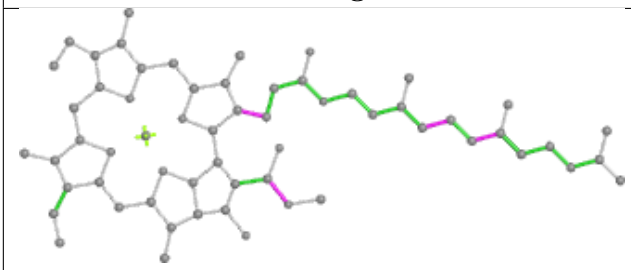
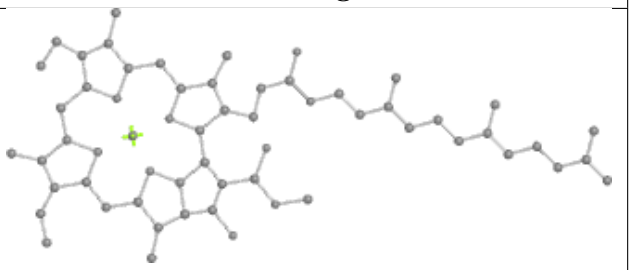

Bond lengths


Bond angles

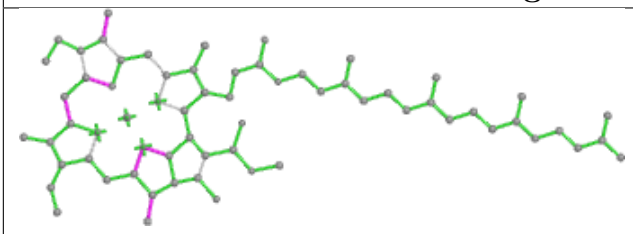

Torsions


Rings

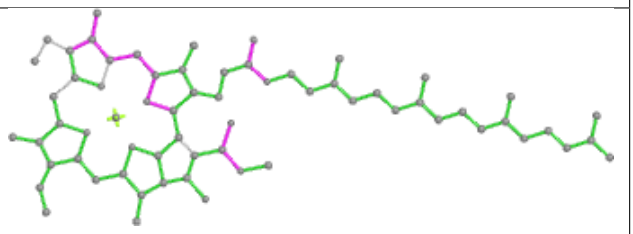
Ligand CLA B 826	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand CLA B 834	
	
Bond lengths	Bond angles
	
Torsions	Rings

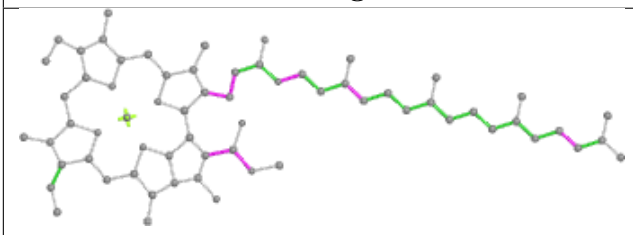
Ligand CLA A 822



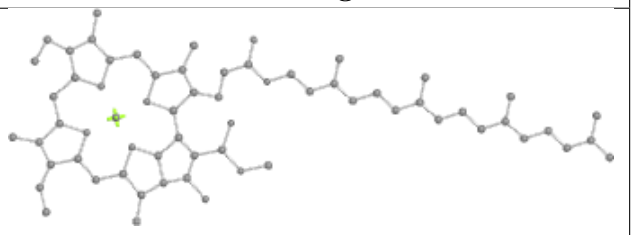
Bond lengths



Bond angles

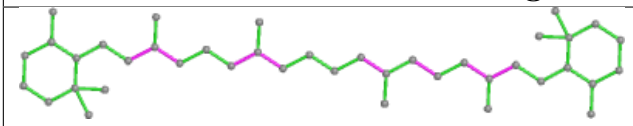


Torsions

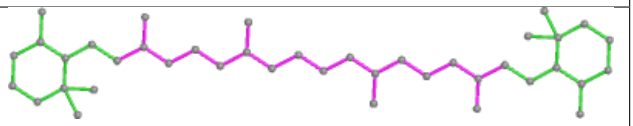


Rings

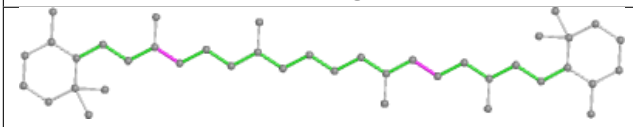
Ligand BCR L 301



Bond lengths



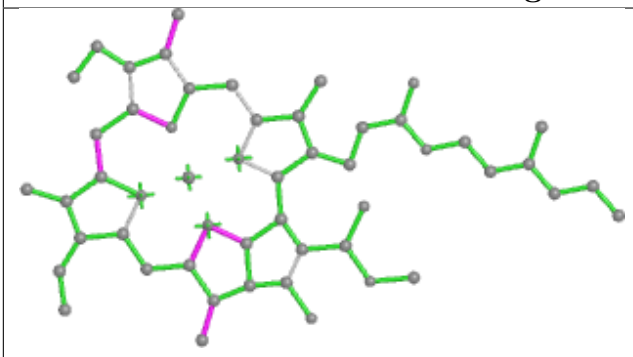
Bond angles



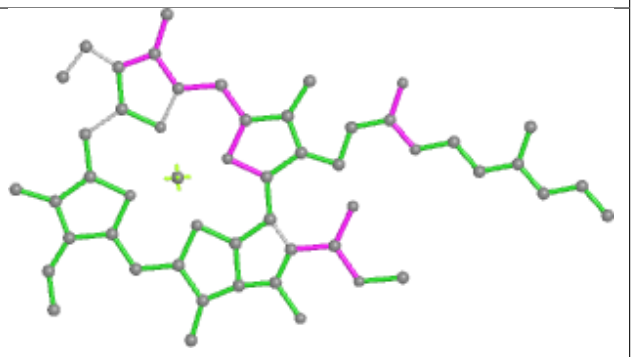
Torsions

Rings

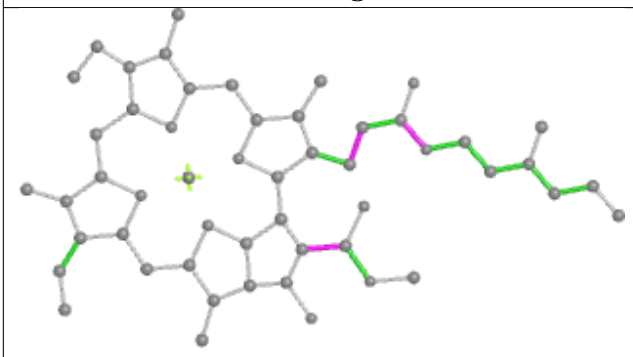
Ligand CLA B 807



Bond lengths



Bond angles



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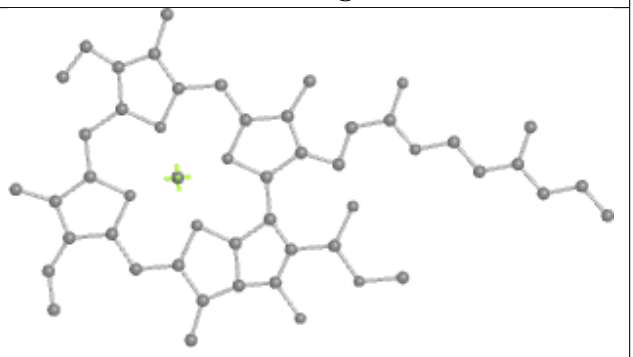
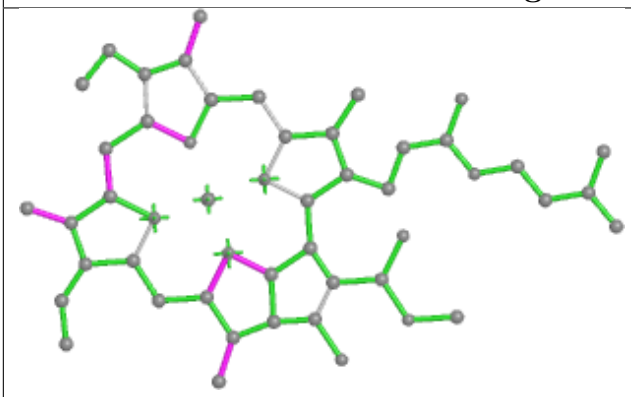
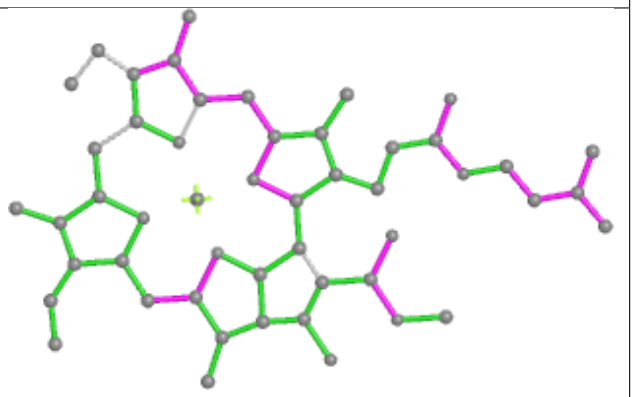


Rings

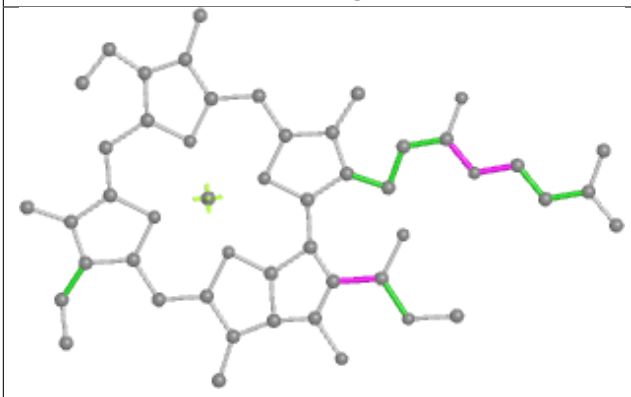
Ligand CLA B 836



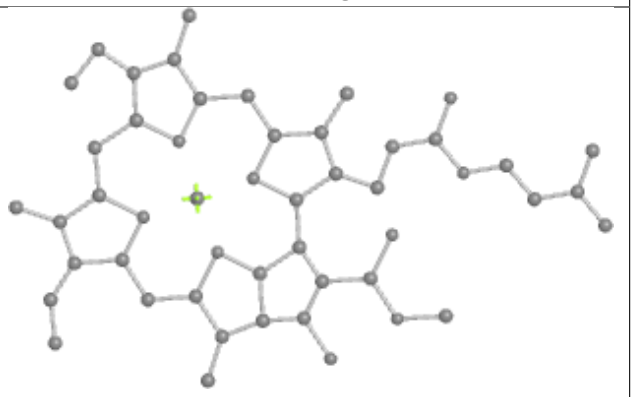
Bond lengths



Bond angles

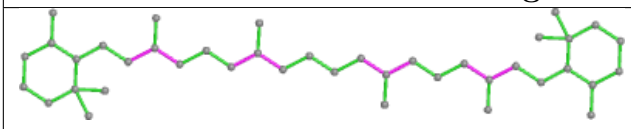


Torsions

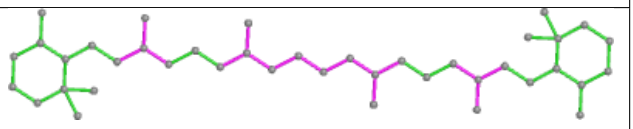


Rings

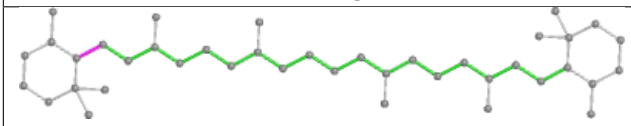
Ligand BCR B 847



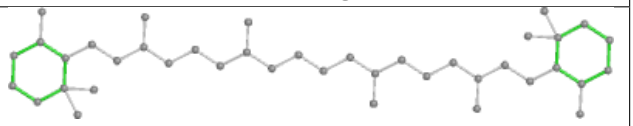
Bond lengths



Bond angles

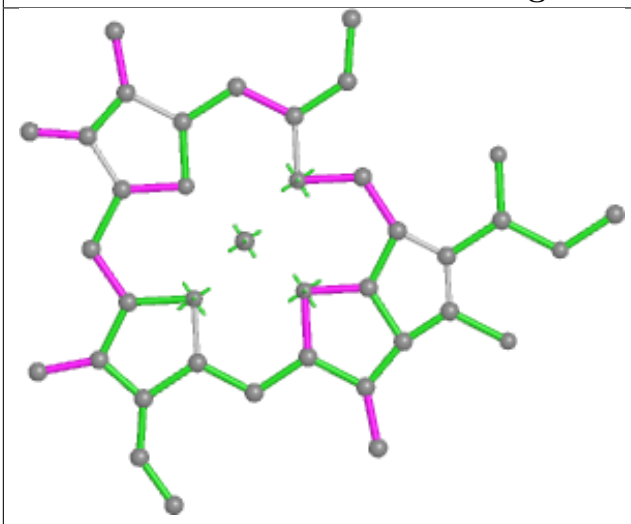


Torsions

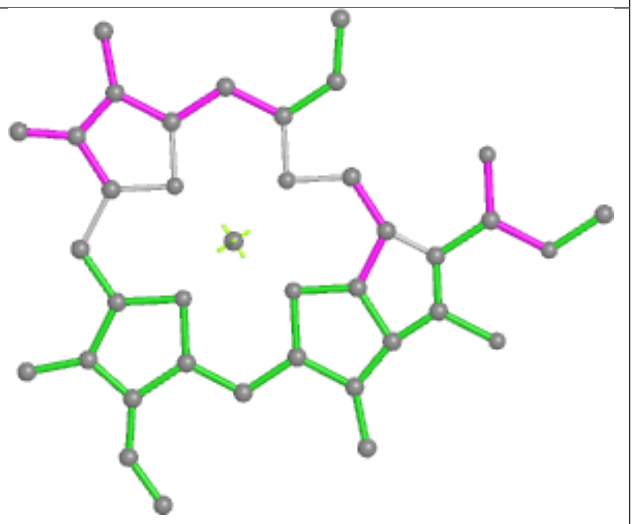


Rings

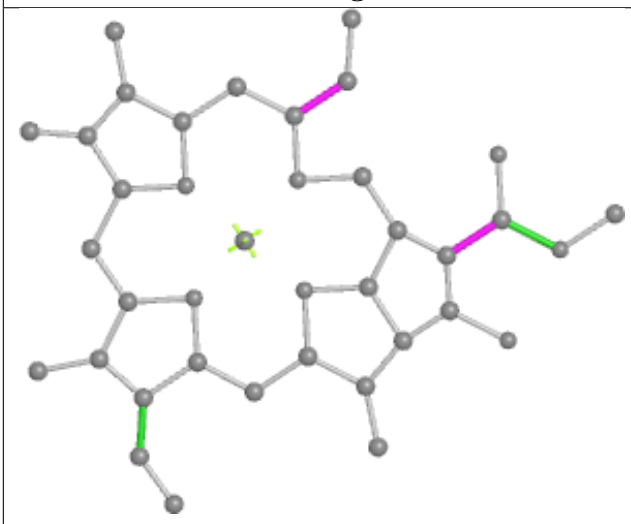
Ligand CLA 2 610



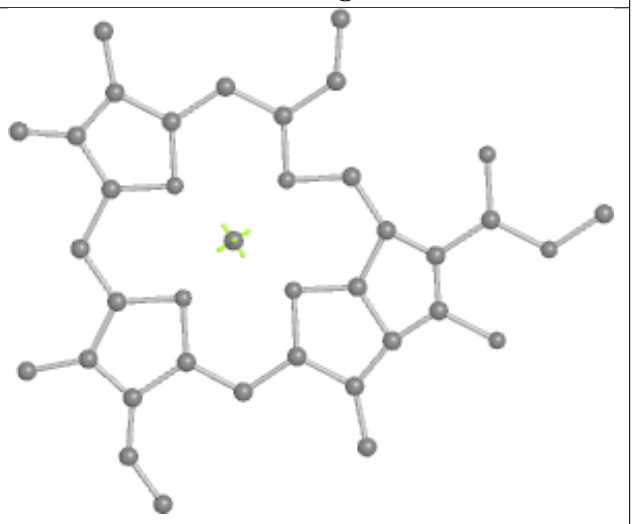
Bond lengths



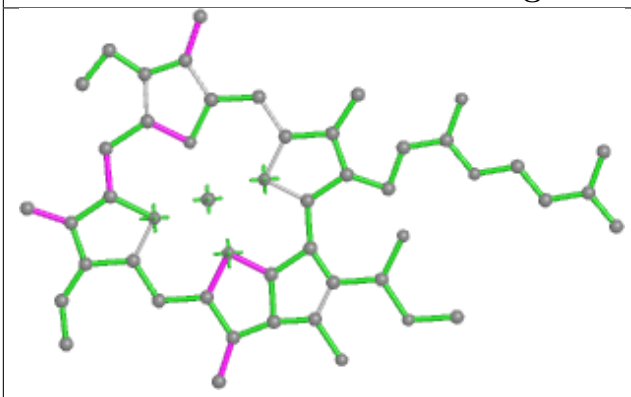
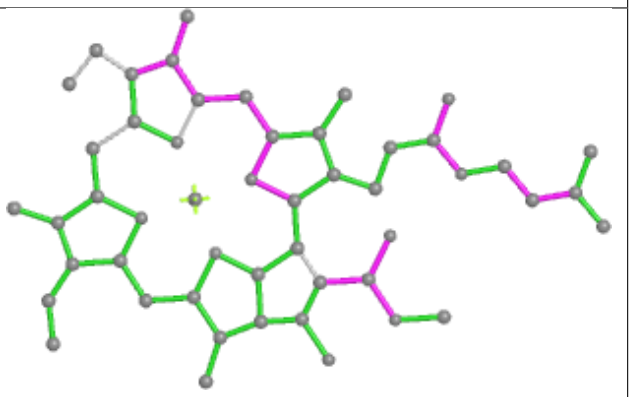
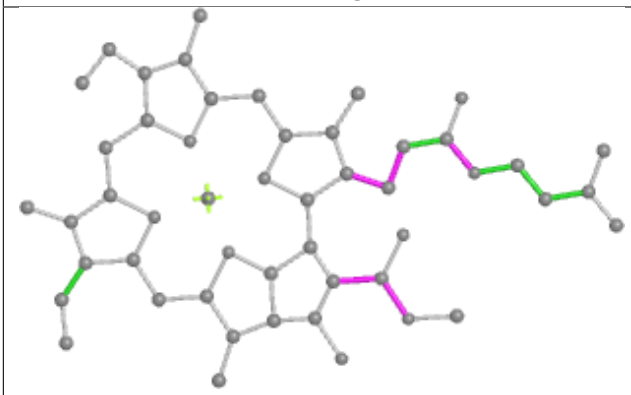
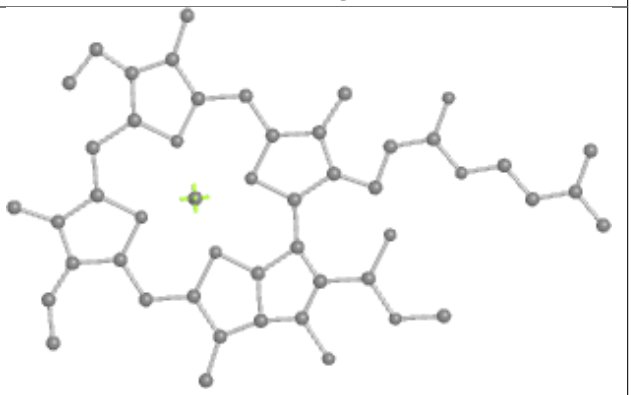
Bond angles

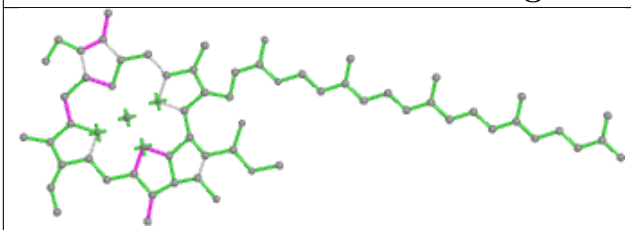
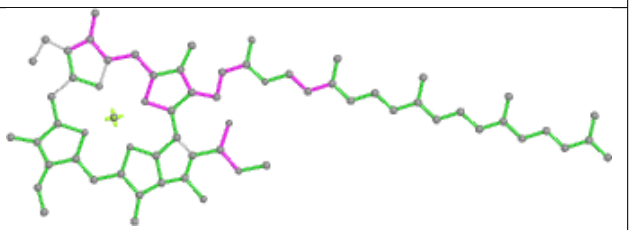
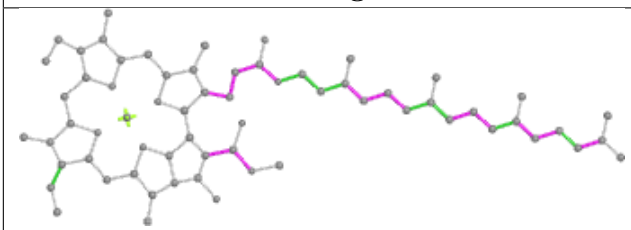
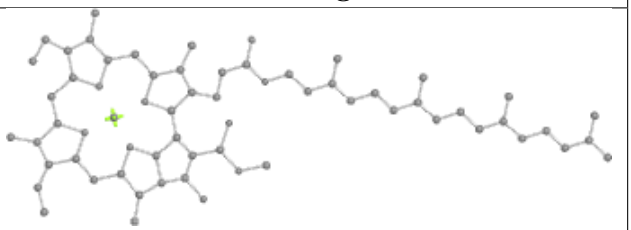


Torsions

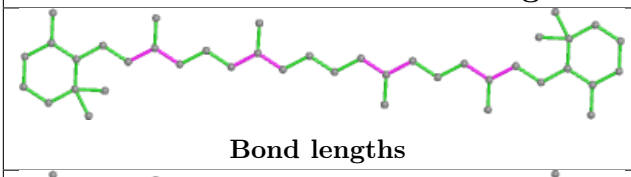


Rings

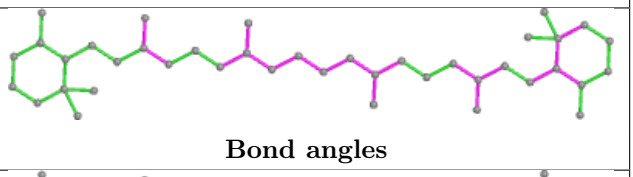
Ligand CLA A 845	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA B 822	
 Bond lengths	 Bond angles
 Torsions	 Rings

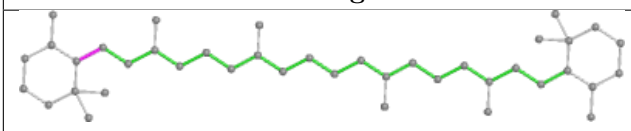
Ligand BCR A 848



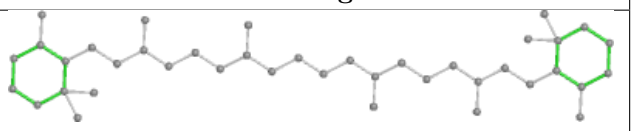
Bond lengths



Bond angles

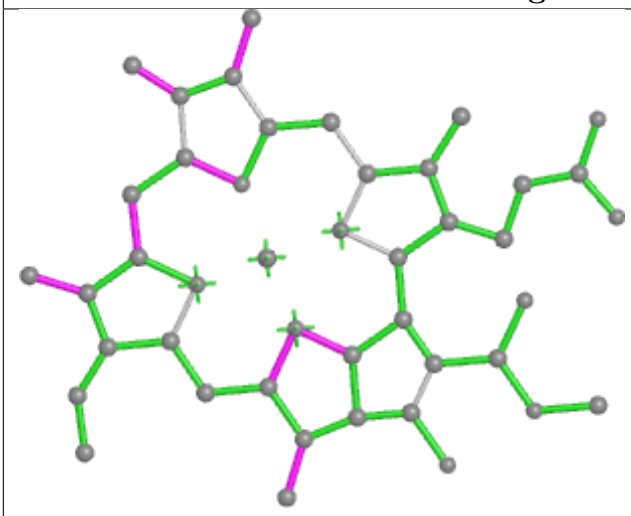


Torsions

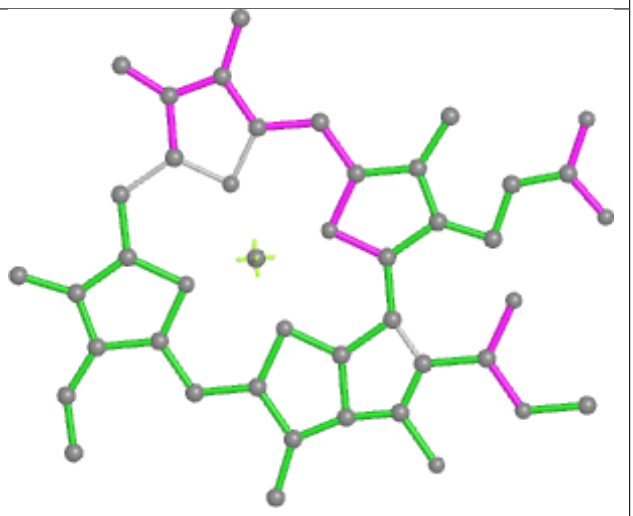


Rings

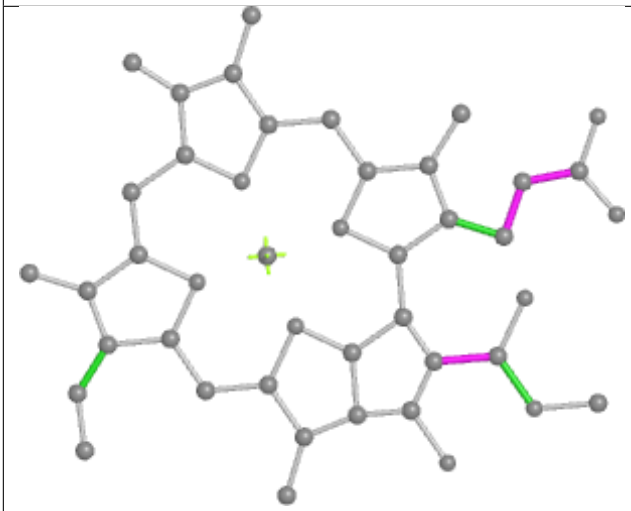
Ligand CLA 4 603



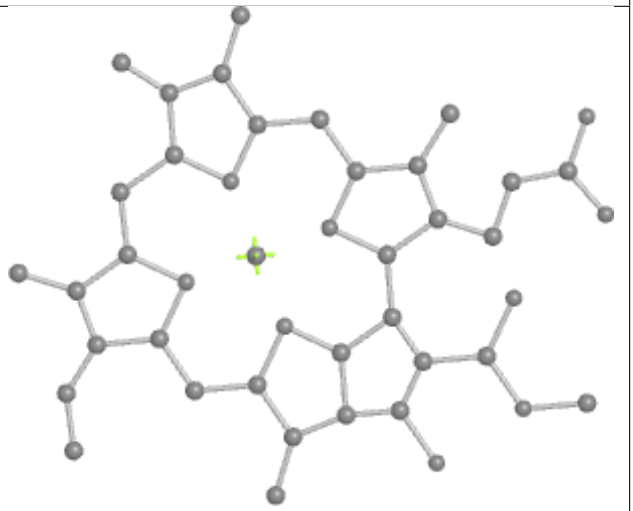
Bond lengths



Bond angles

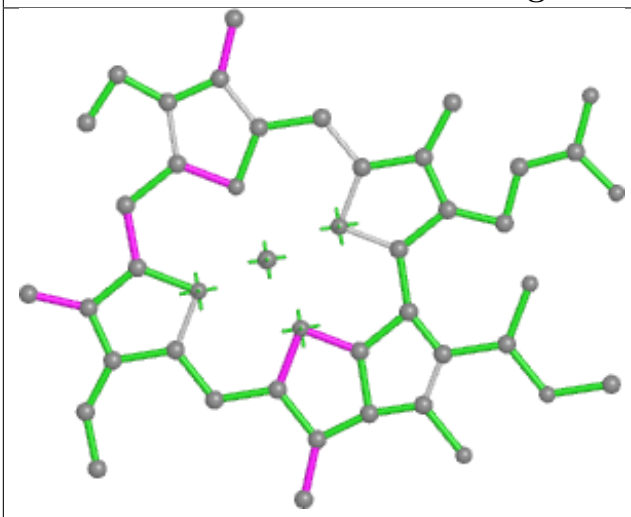


Torsions

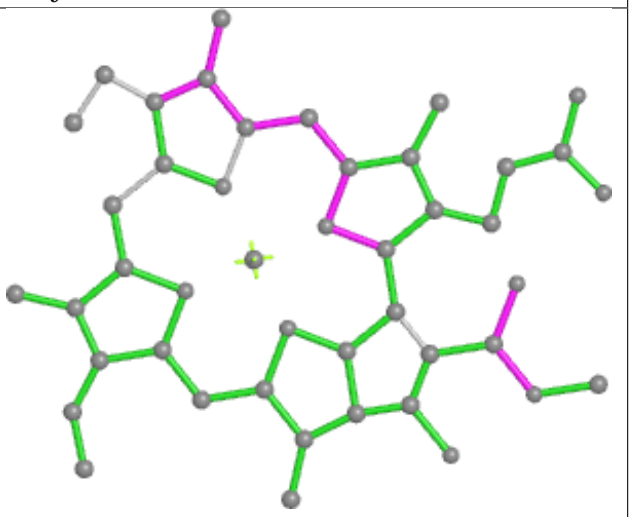


Rings

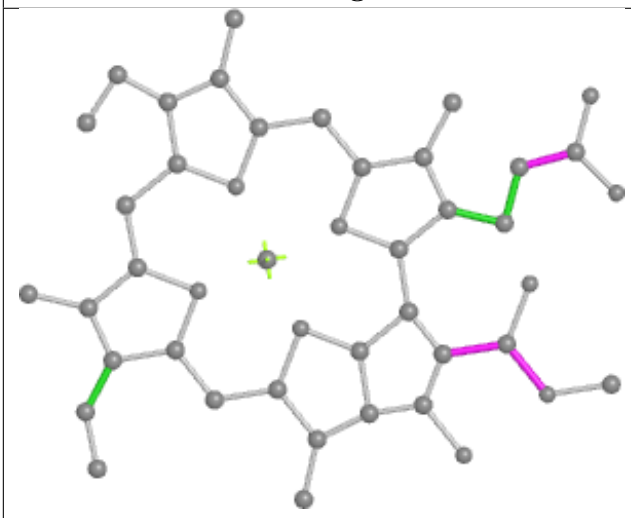
Ligand CLA y 612



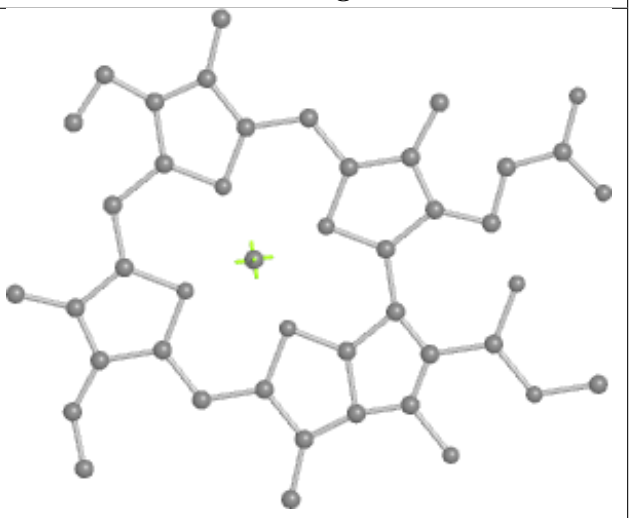
Bond lengths



Bond angles

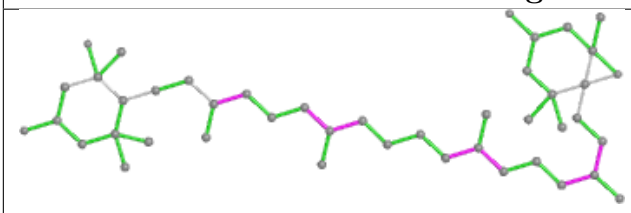


Torsions

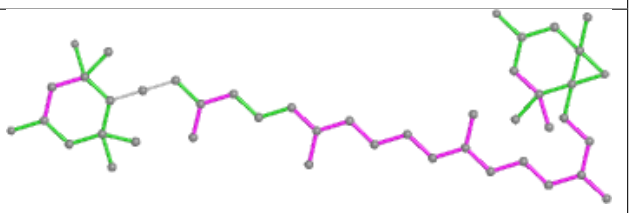


Rings

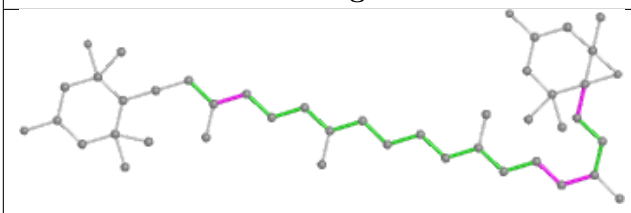
Ligand NEX x 618



Bond lengths



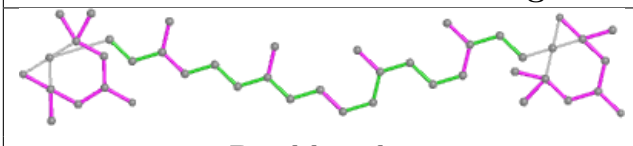
Bond angles



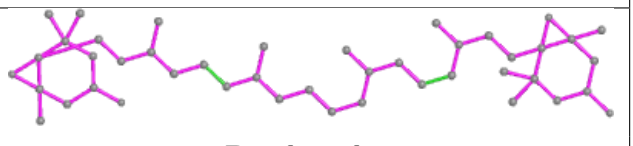
Torsions

Rings

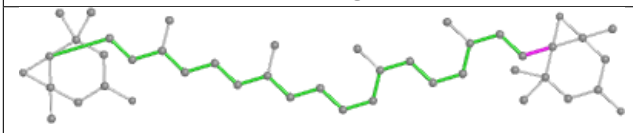
Ligand XAT 4 617



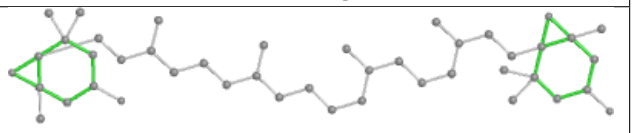
Bond lengths



Bond angles

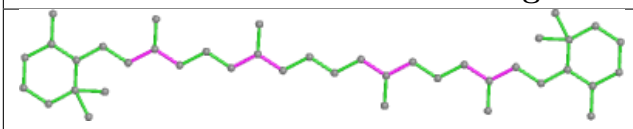


Torsions

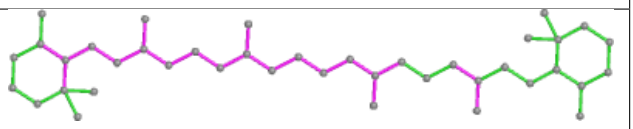


Rings

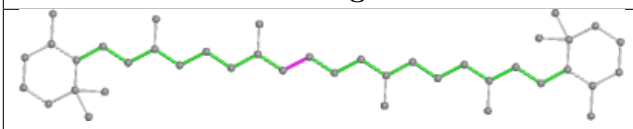
Ligand BCR B 843



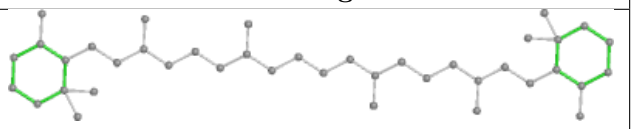
Bond lengths



Bond angles

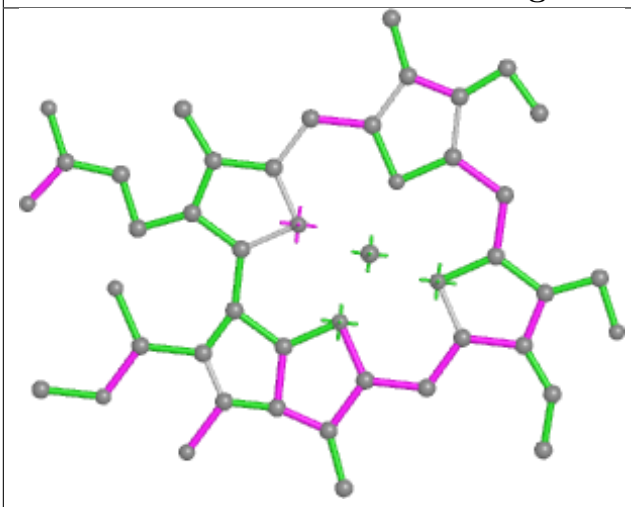


Torsions

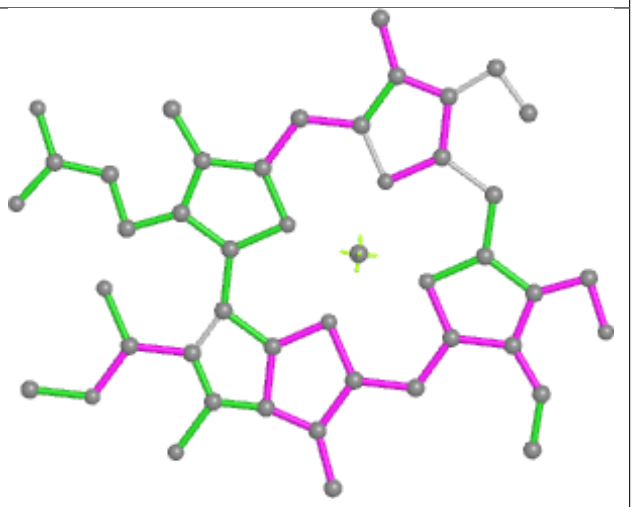


Rings

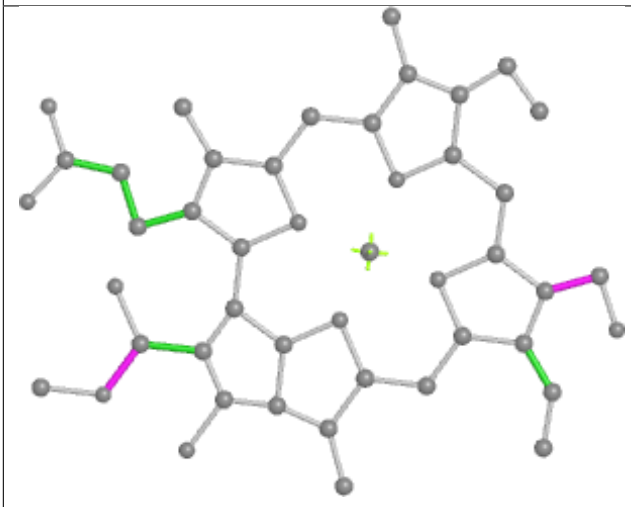
Ligand CHL z 606



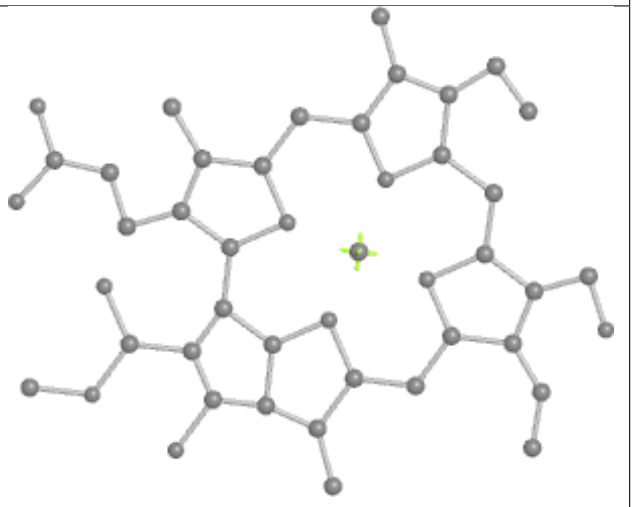
Bond lengths



Bond angles

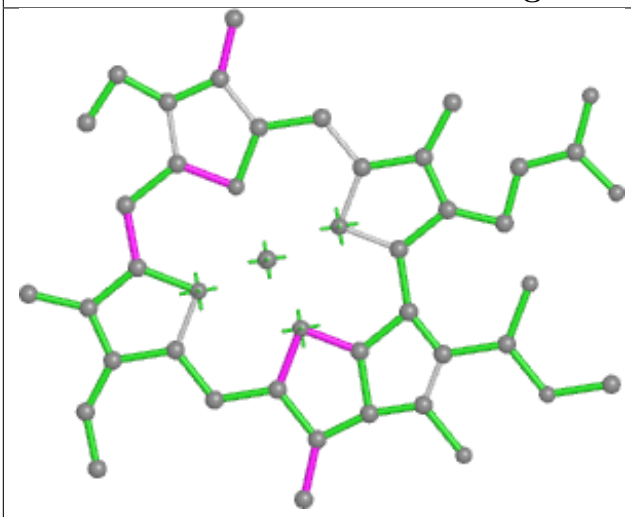


Torsions

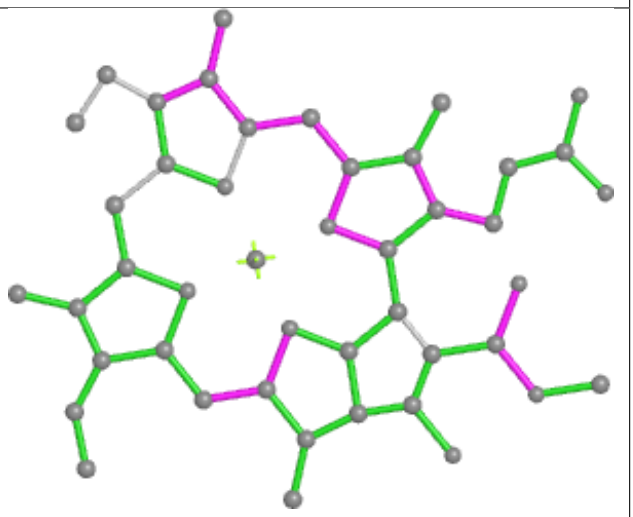


Rings

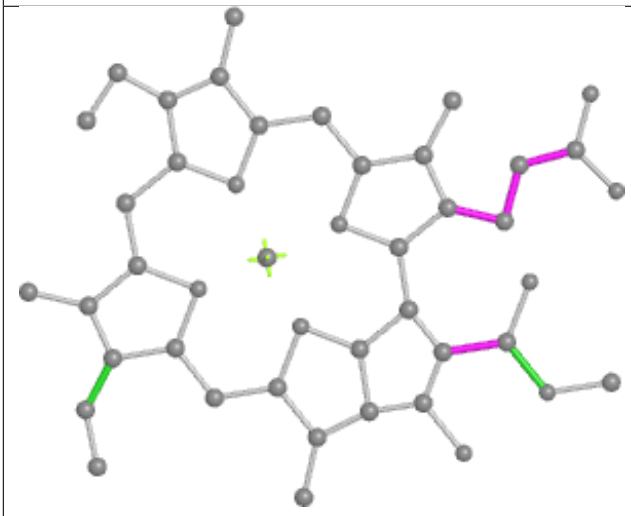
Ligand CLA A 815



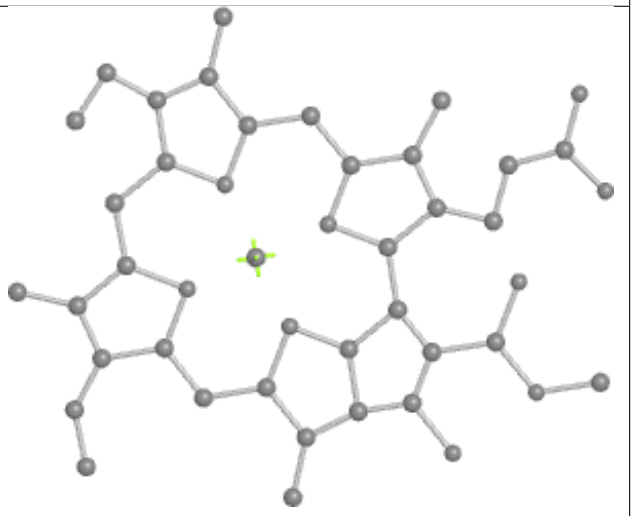
Bond lengths



Bond angles

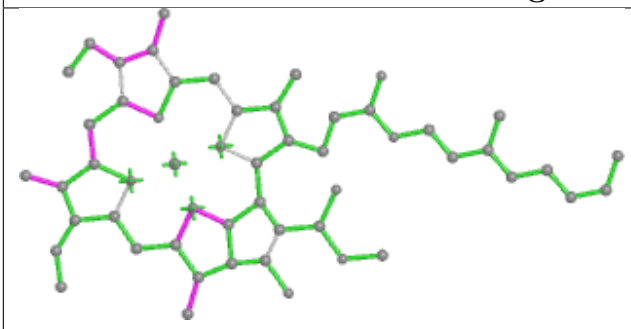


Torsions

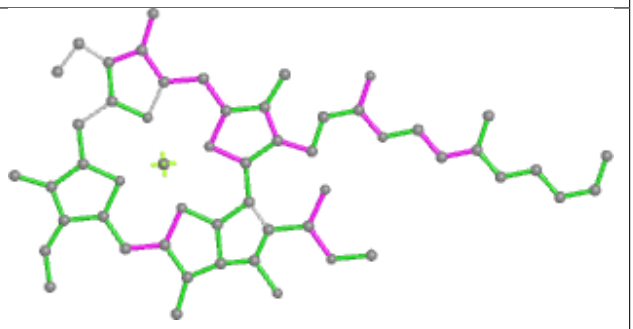


Rings

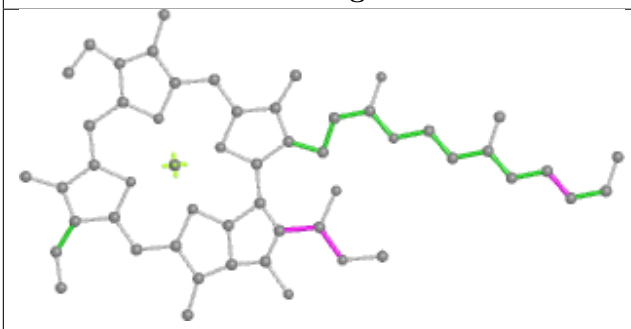
Ligand CLA 4 609



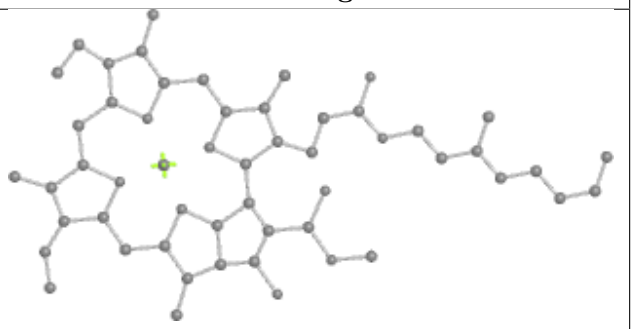
Bond lengths



Bond angles

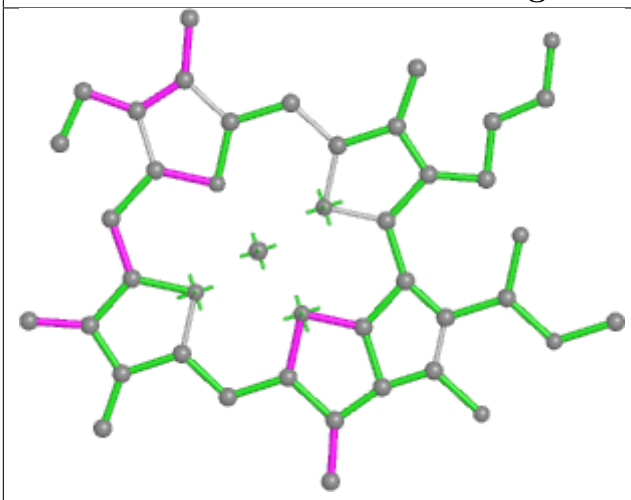


Torsions

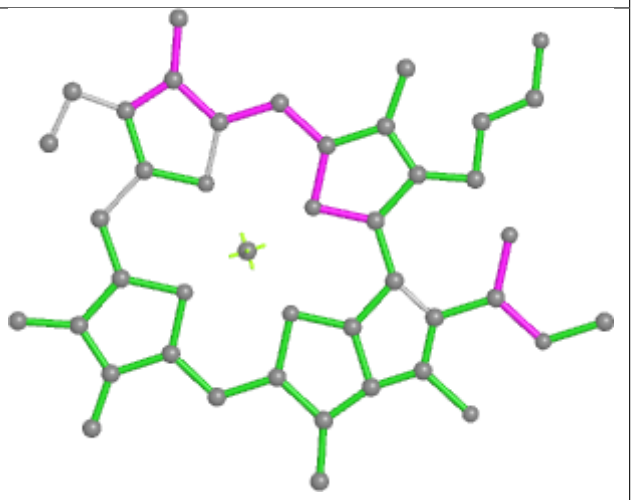


Rings

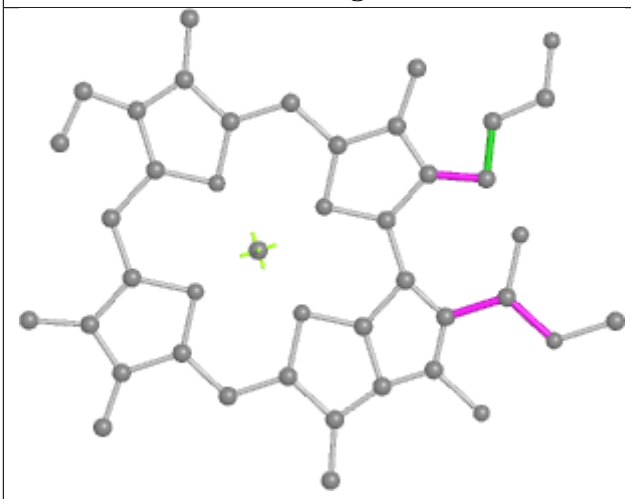
Ligand CLA 2 604



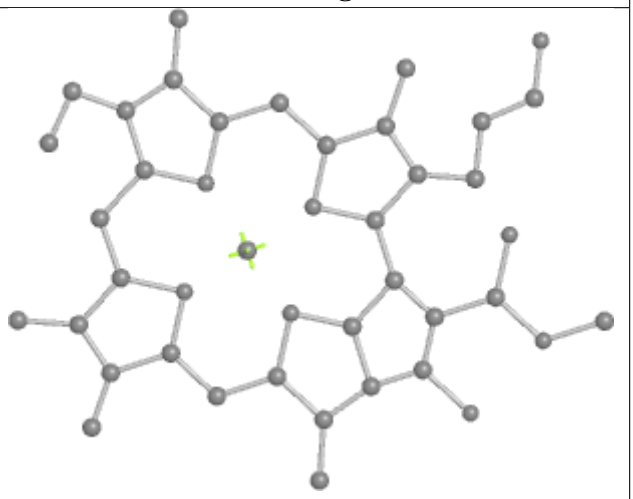
Bond lengths



Bond angles

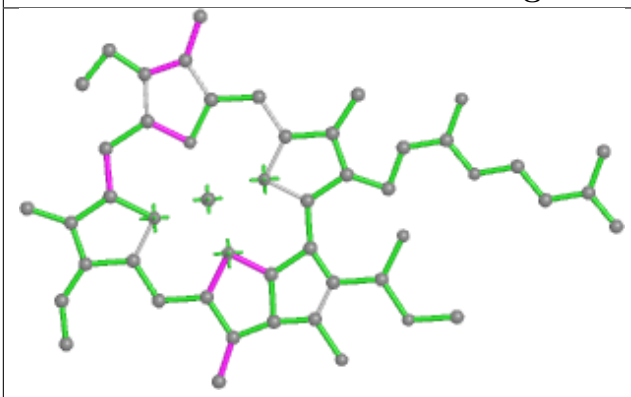


Torsions



Rings

Ligand CLA A 810



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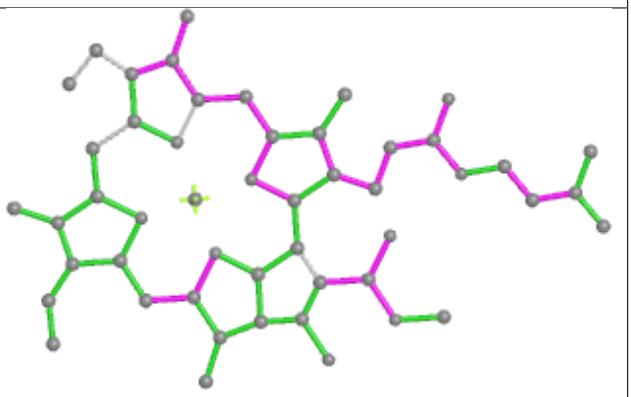
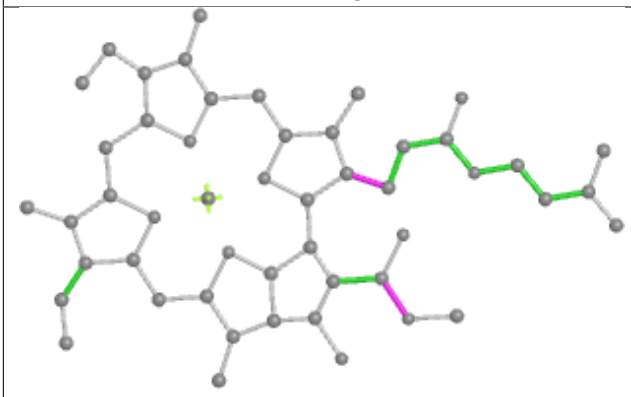
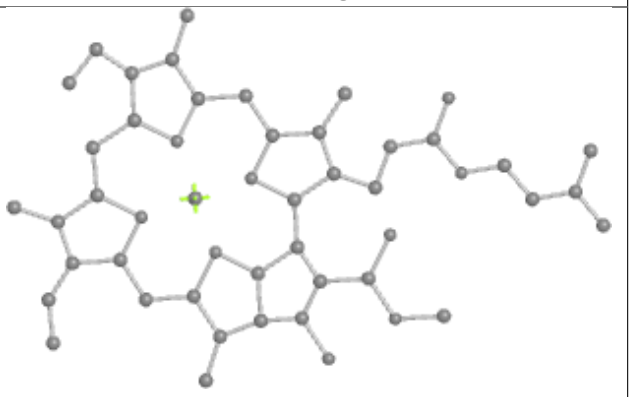


Bond angles

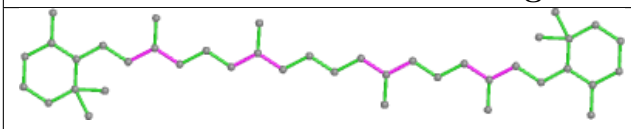


Torsions



Rings

Ligand BCR L 305



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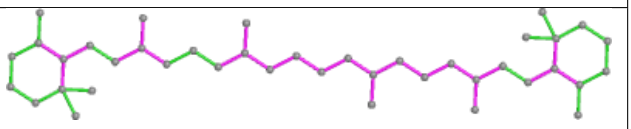
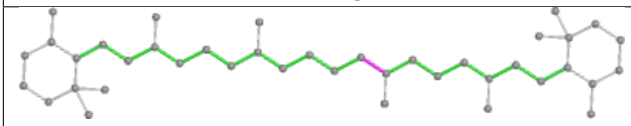


Bond angles



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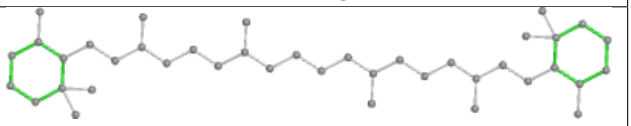
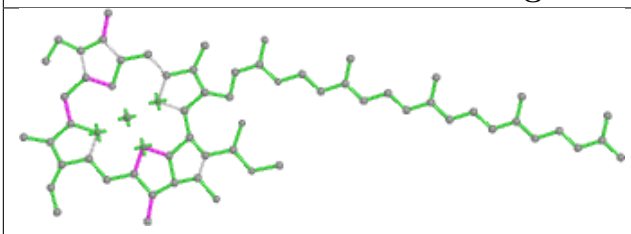


Rings

Ligand CLA B 810



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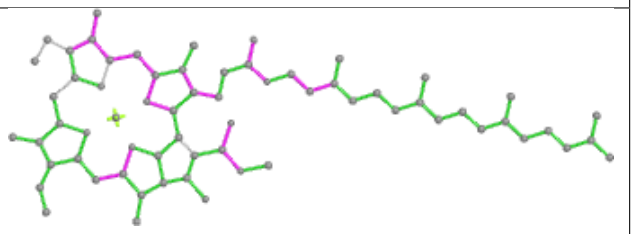
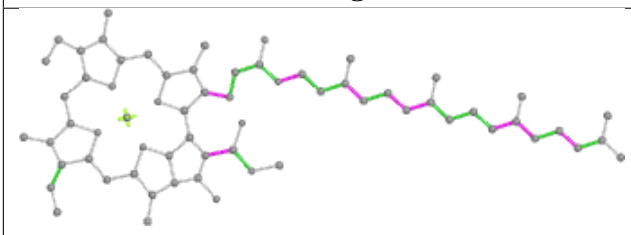
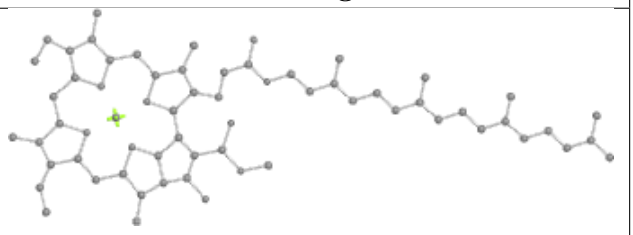


Bond angles

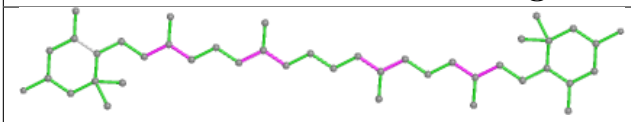


Torsions

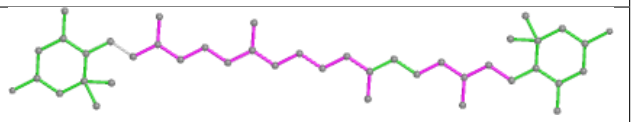


Rings

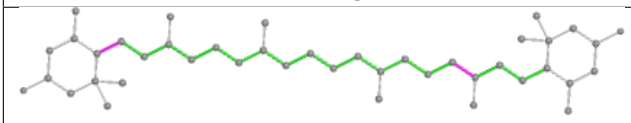
Ligand LUT 2 619



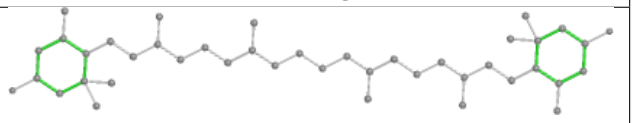
Bond lengths



Bond angles

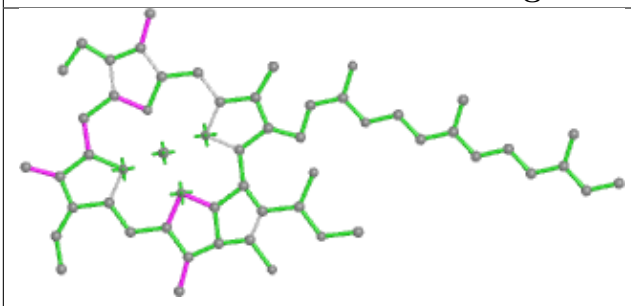


Torsions

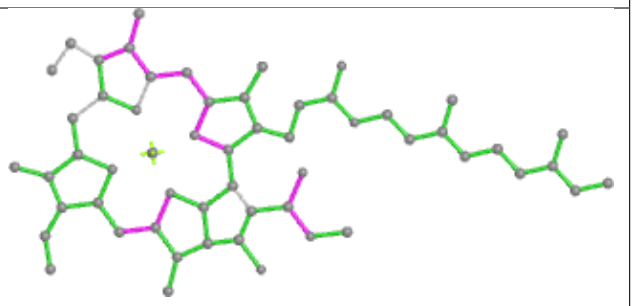


Rings

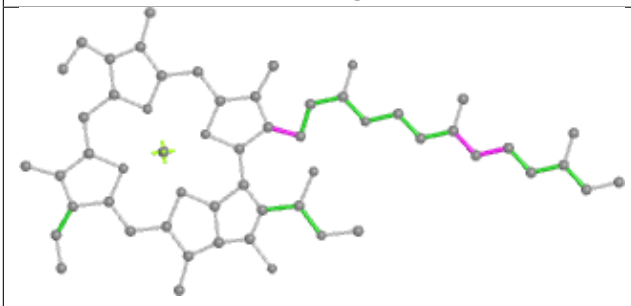
Ligand CLA A 833



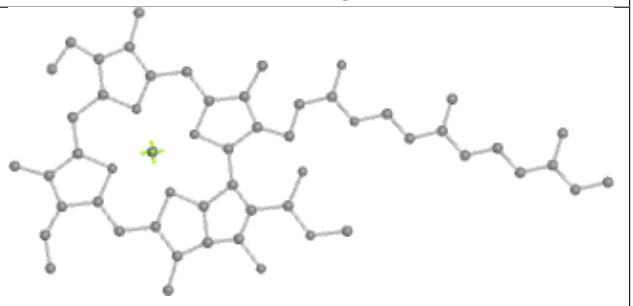
Bond lengths



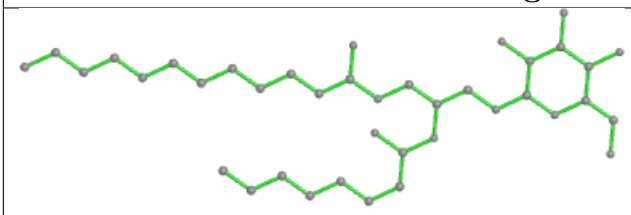
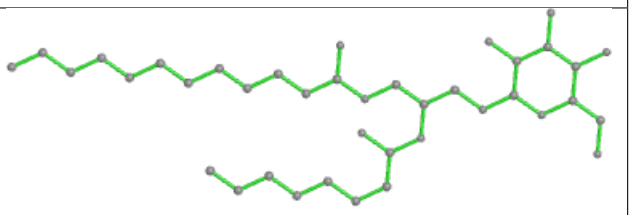
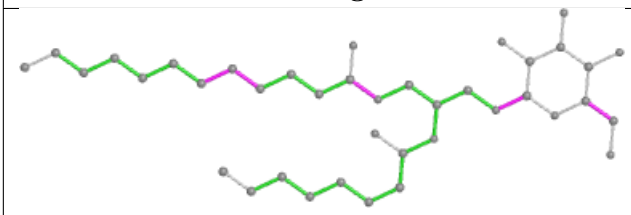
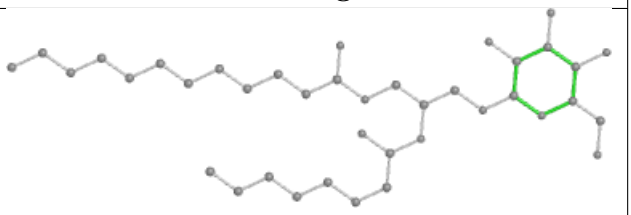
Bond angles

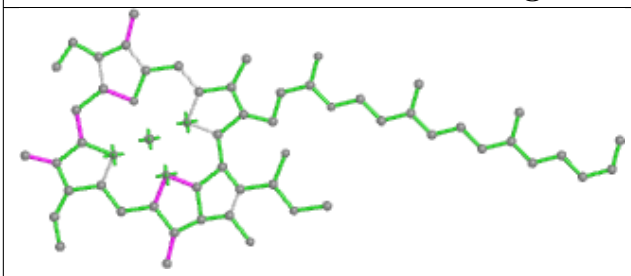
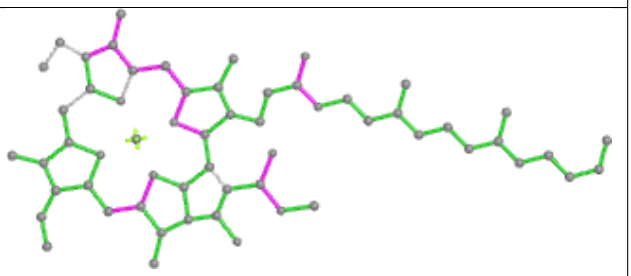
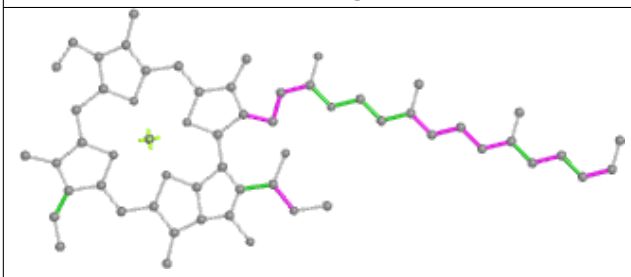
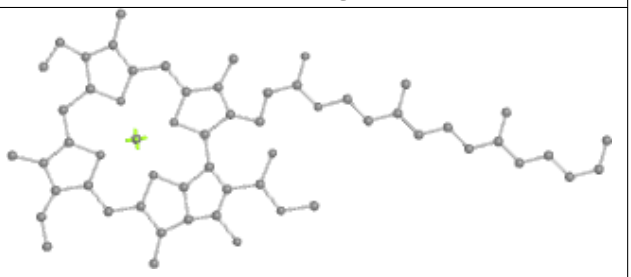


Torsions

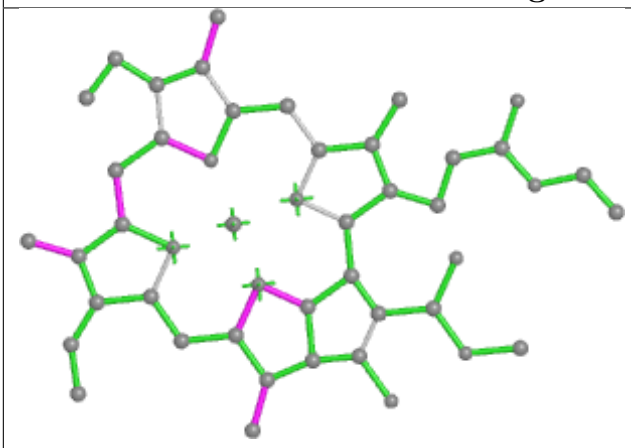


Rings

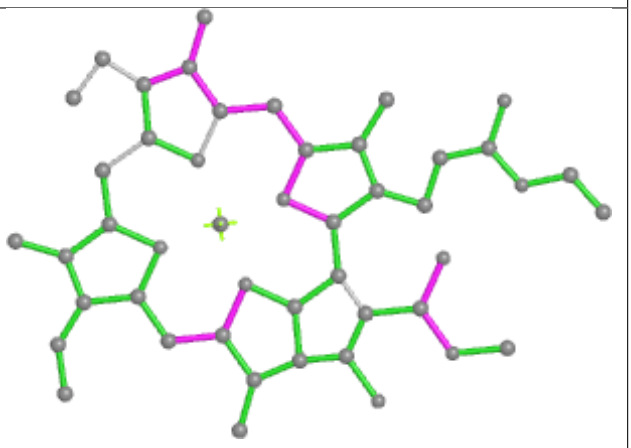
Ligand LMG 4 619	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA A 819	
 Bond lengths	 Bond angles
 Torsions	 Rings

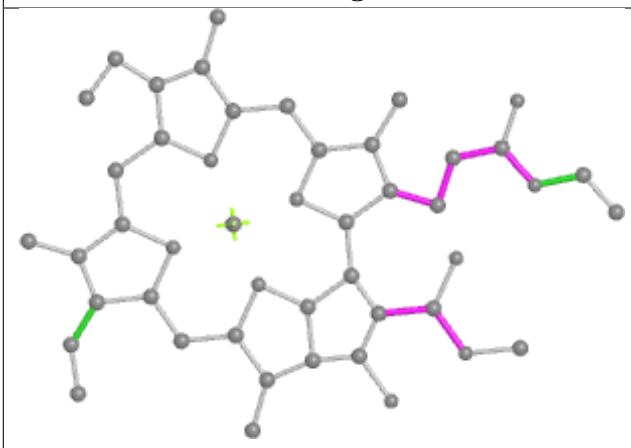
Ligand CLA 2 609



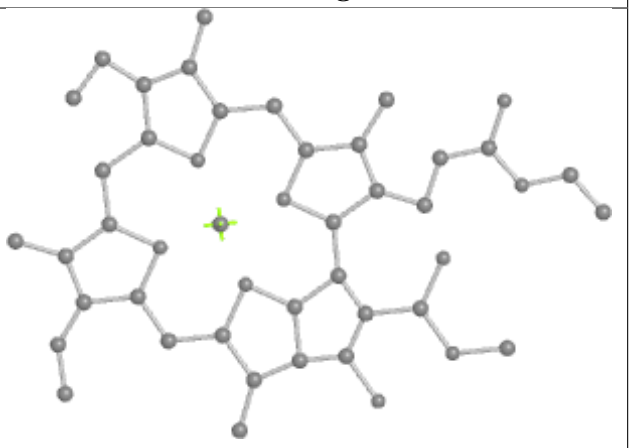
Bond lengths



Bond angles

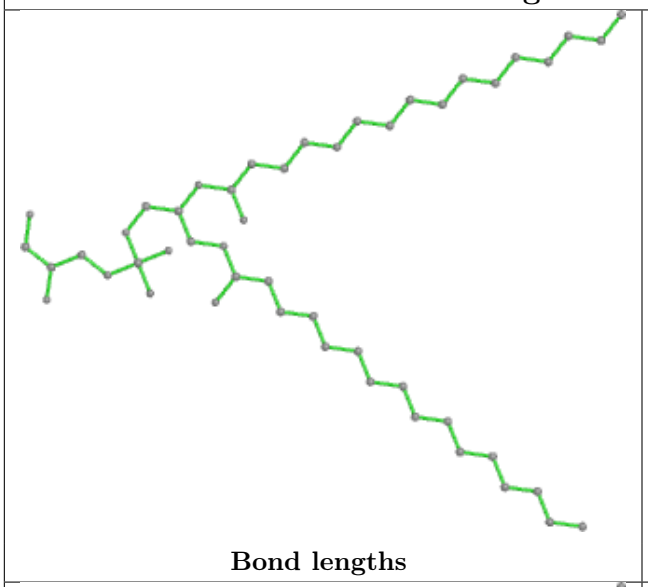


Torsions

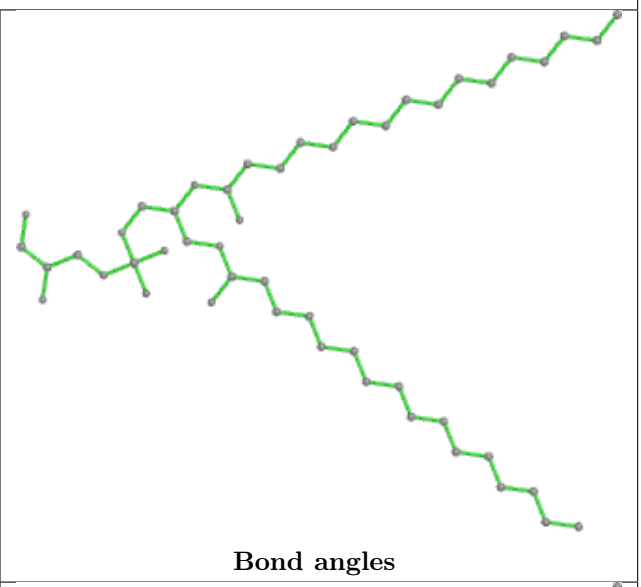


Rings

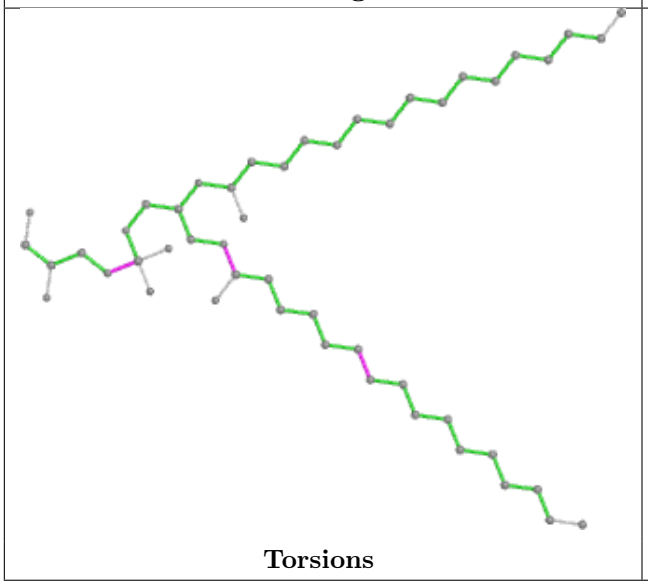
Ligand LHG A 846



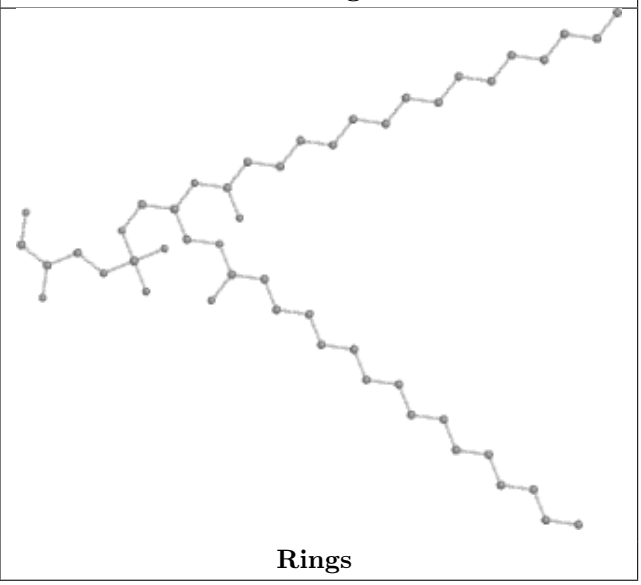
Bond lengths



Bond angles

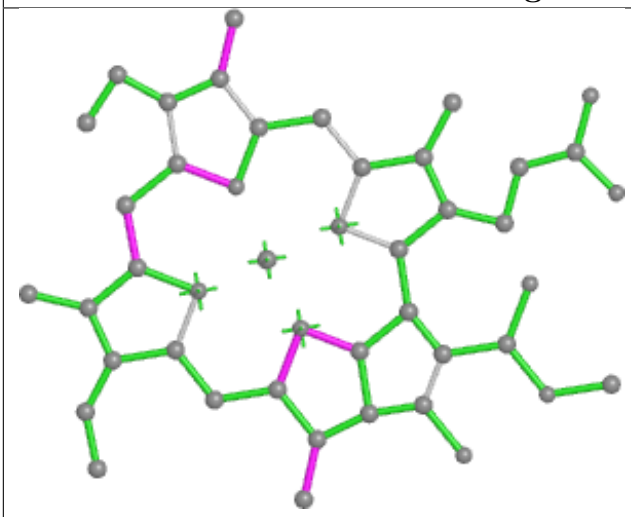


Torsions

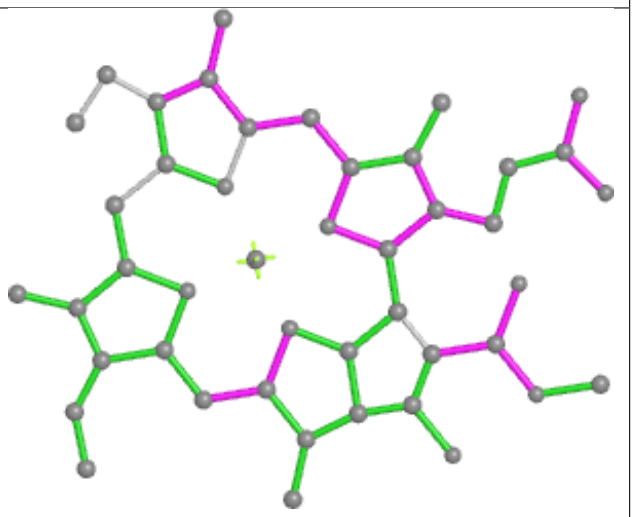


Rings

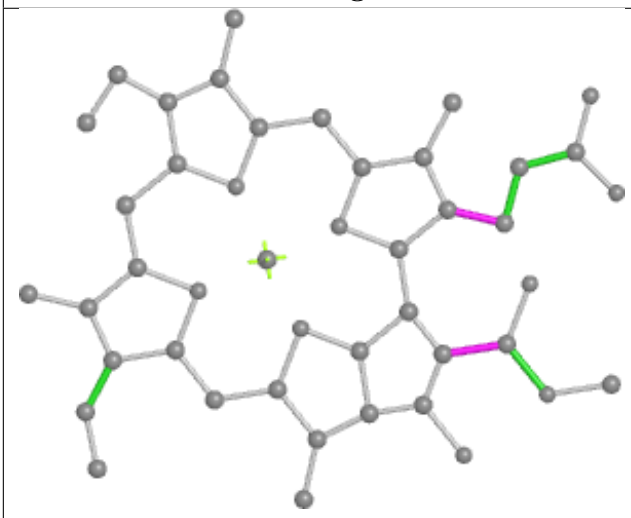
Ligand CLA B 833



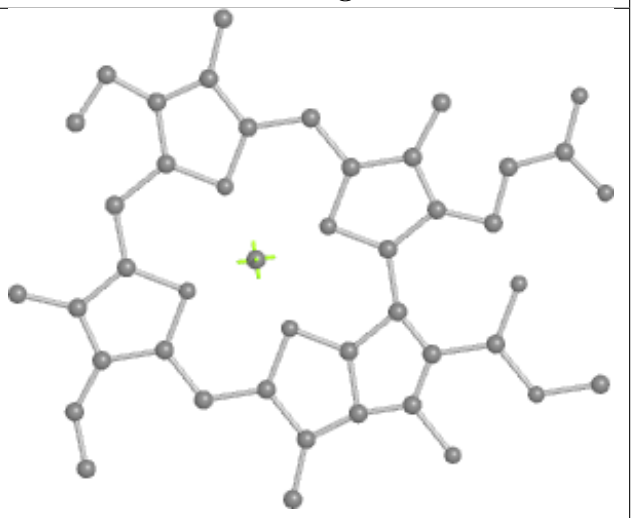
Bond lengths



Bond angles

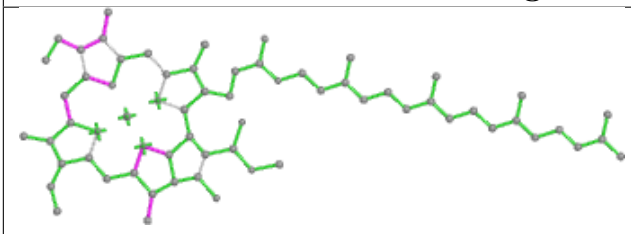


Torsions

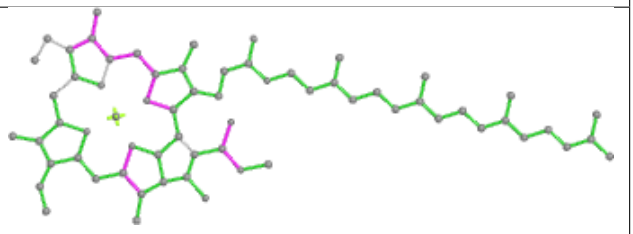


Rings

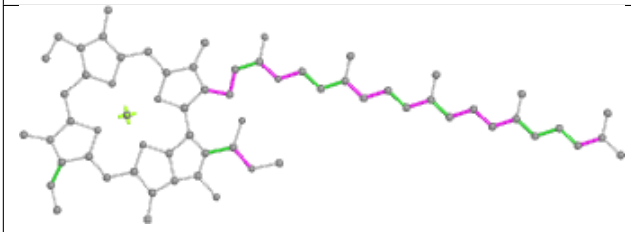
Ligand CLA A 803



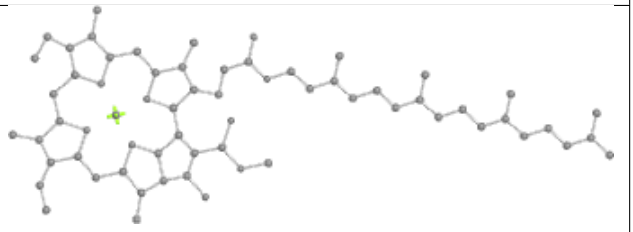
Bond lengths



Bond angles

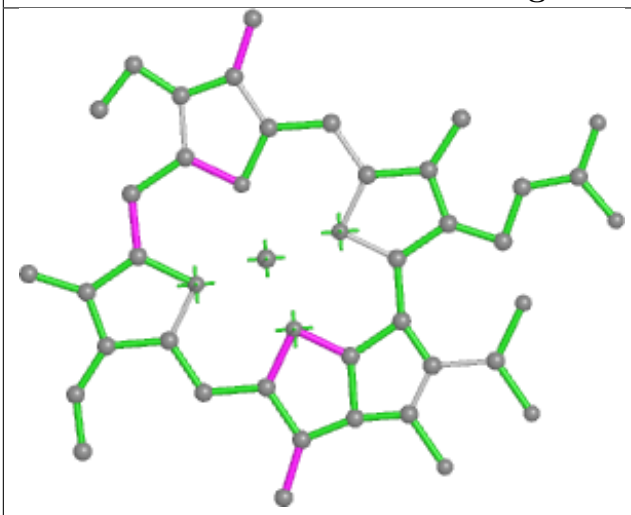


Torsions



Rings

Ligand CLA 1 607



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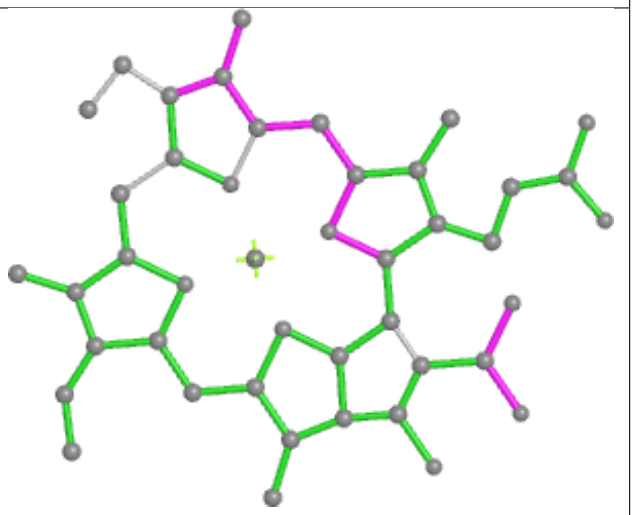
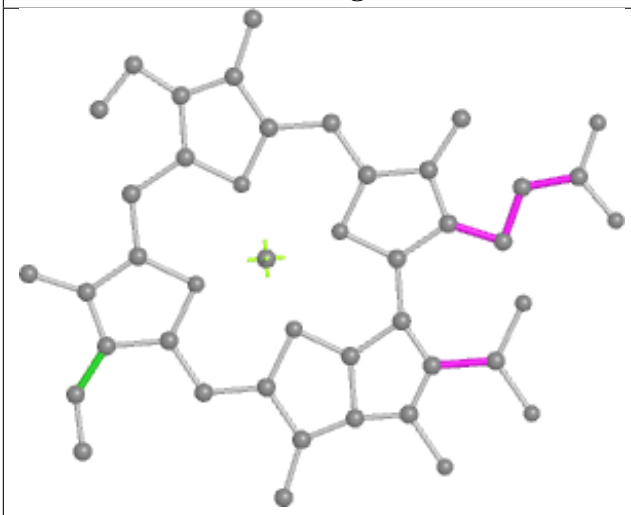
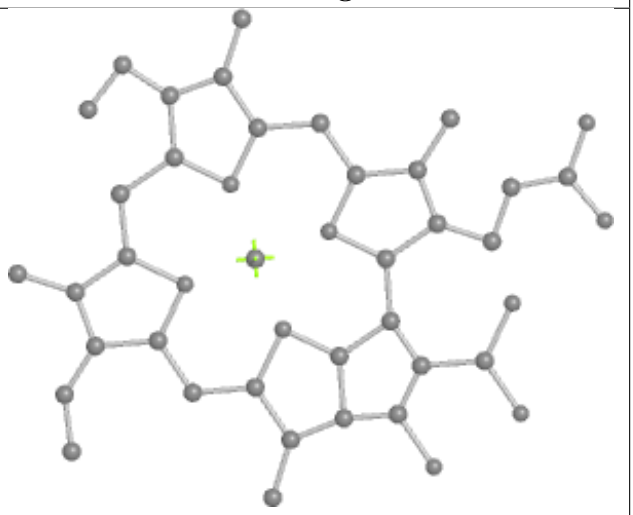


Bond angles

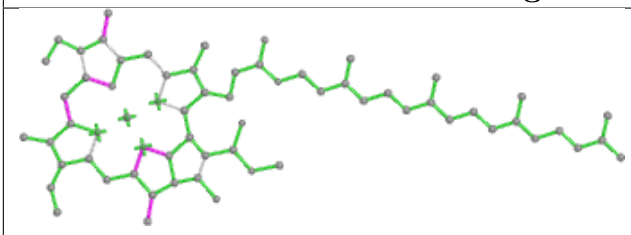


Torsions



Rings

Ligand CLA A 809



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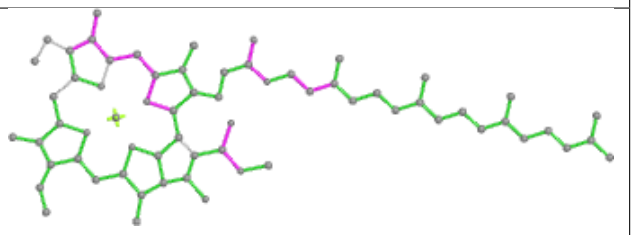
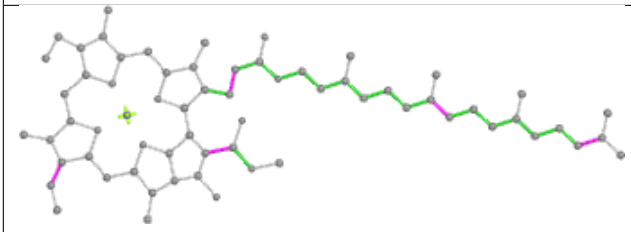
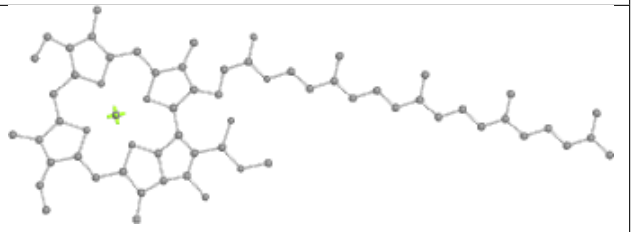


Bond angles

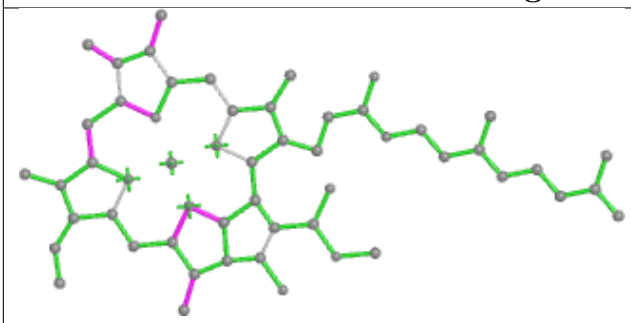


Torsions

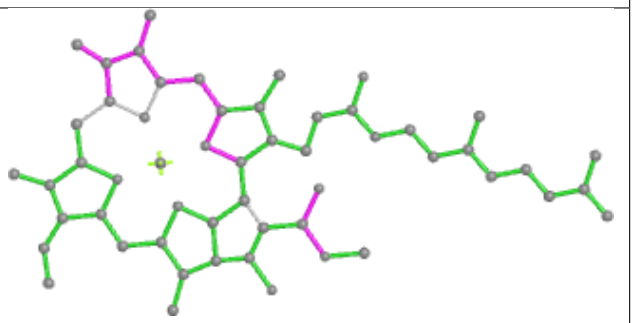


Rings

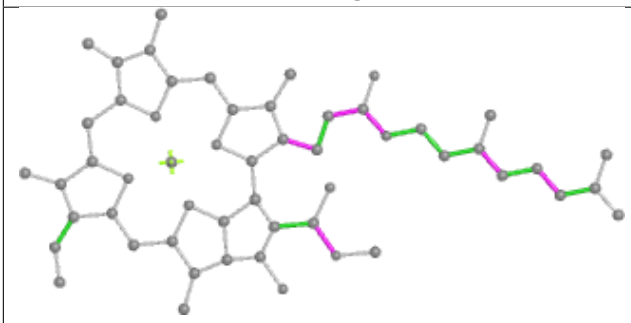
Ligand CLA B 811



Bond lengths



Bond angles



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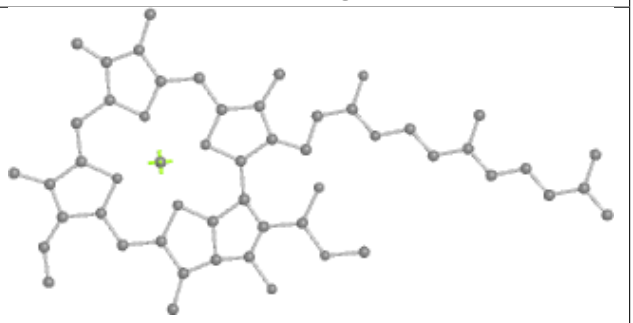
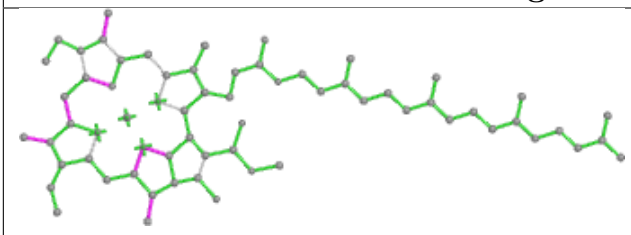


Rings

Ligand CLA x 602



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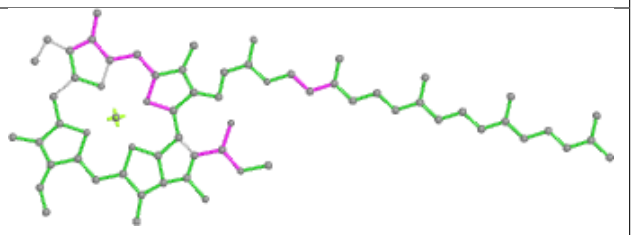
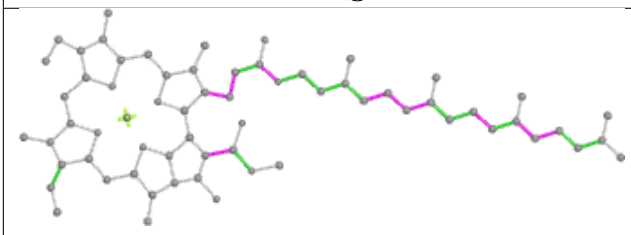


Bond angles



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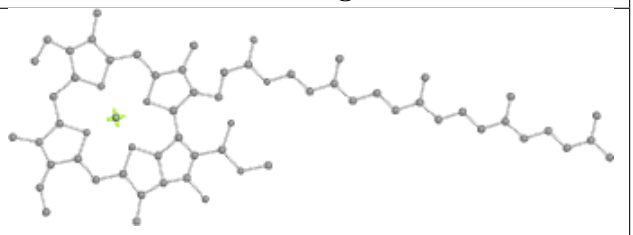
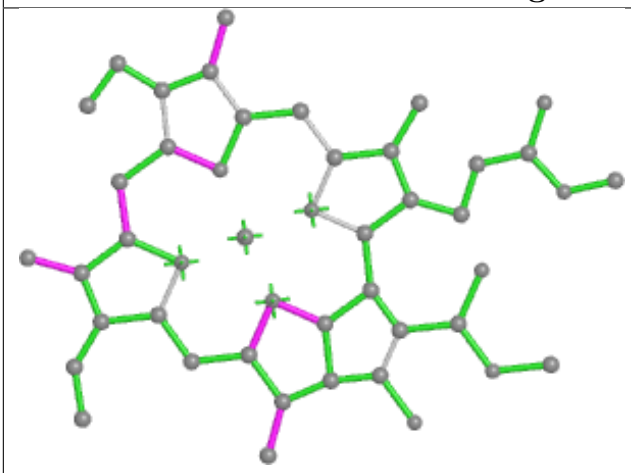
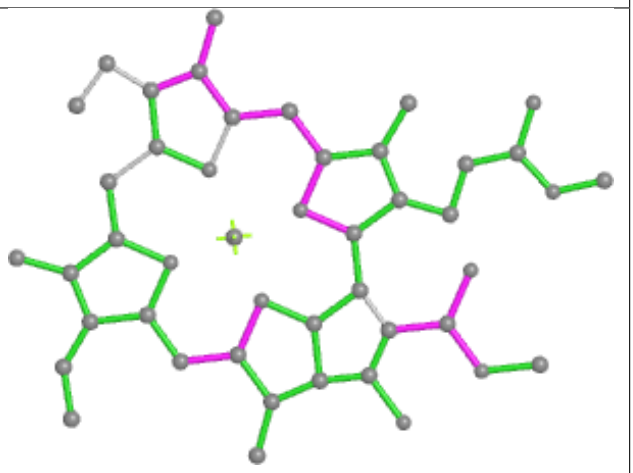


Rings

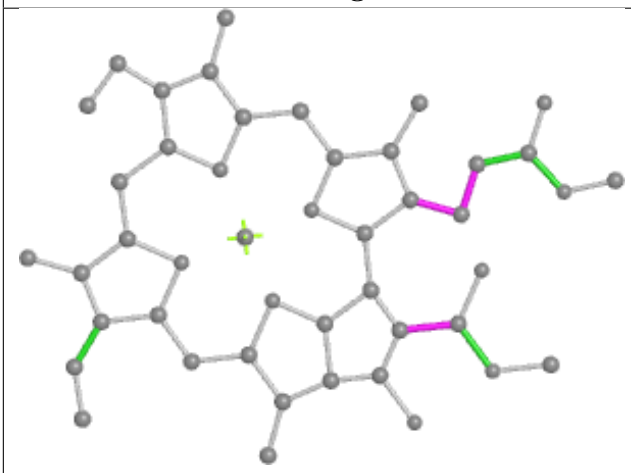
Ligand CLA 1 612



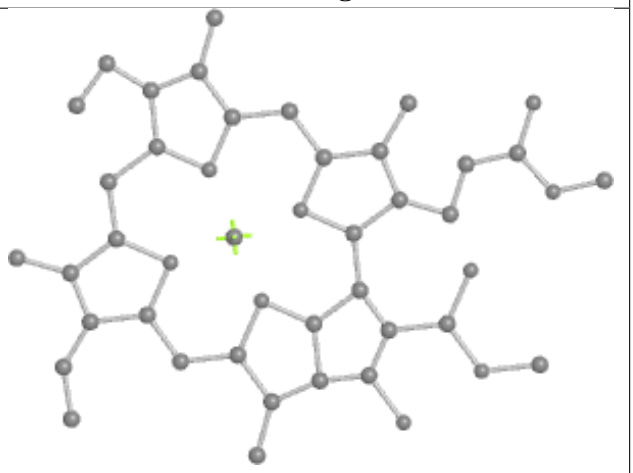
Bond lengths



Bond angles

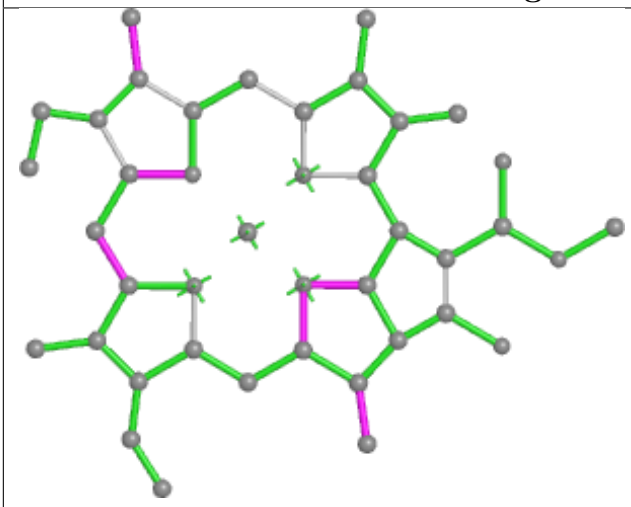


Torsions



Rings

Ligand CLA B 804



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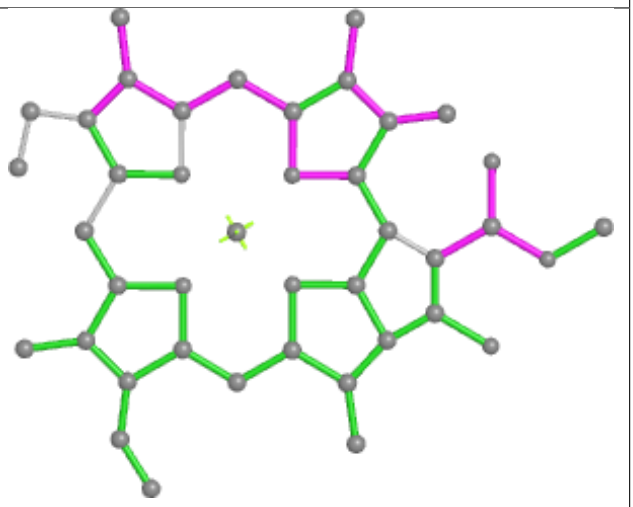
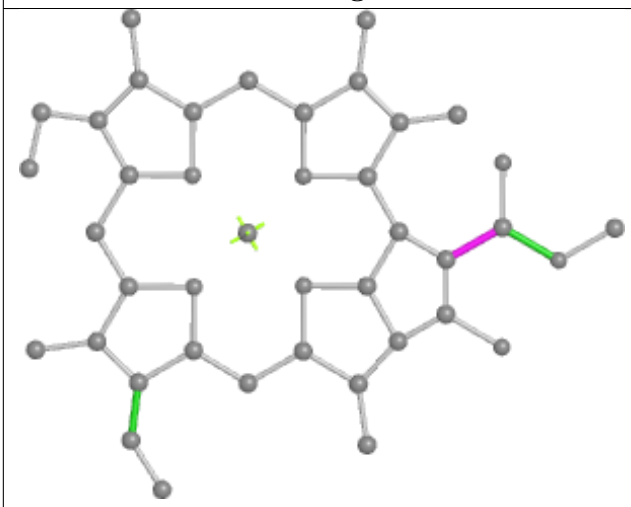


Bond angles



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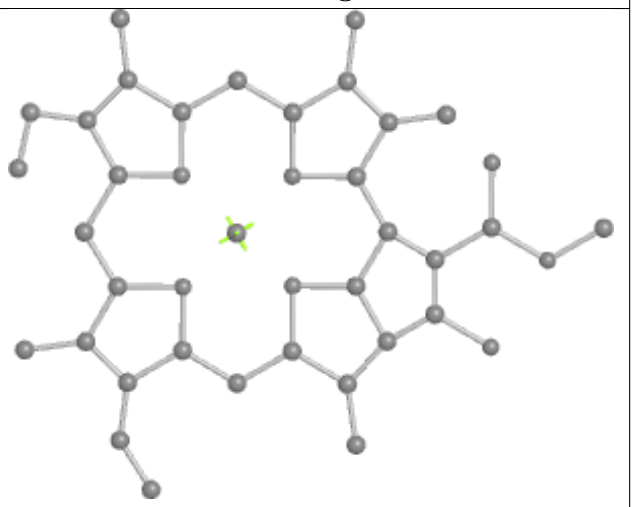
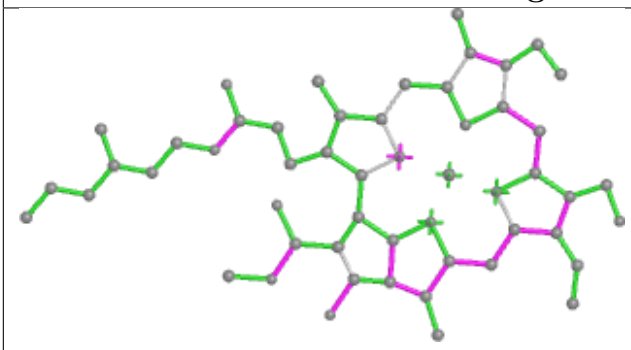
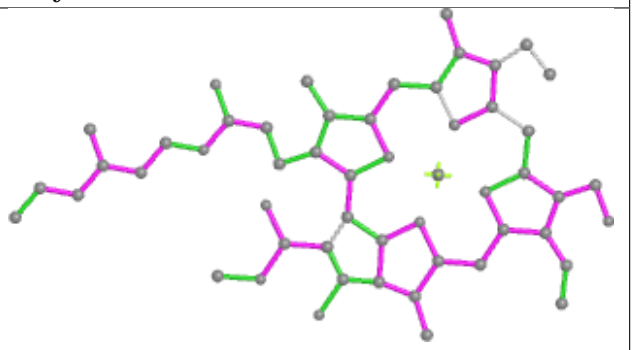


Rings

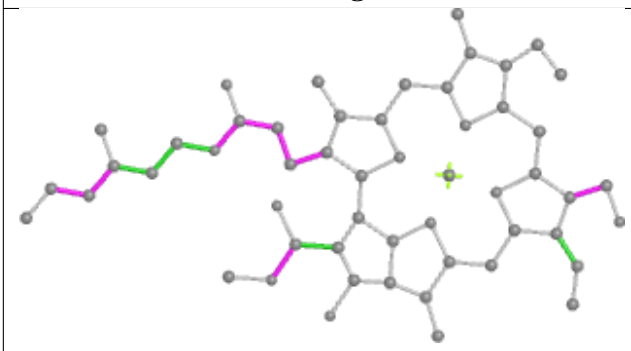
Ligand CHL y 607



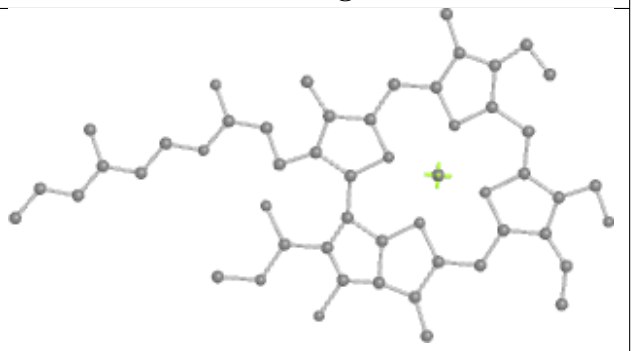
Bond lengths



Bond angles

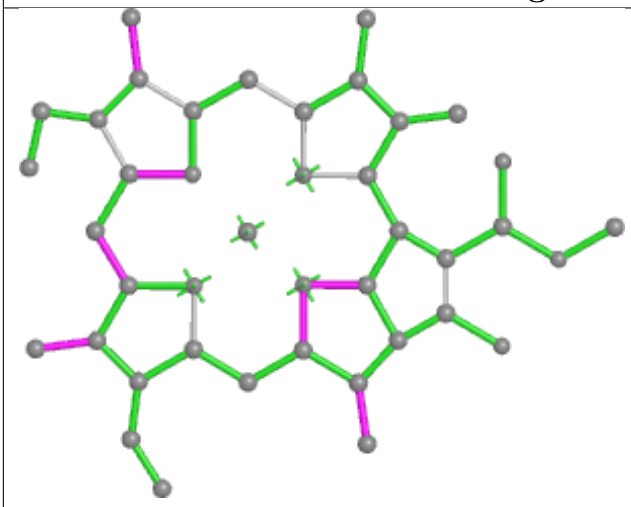


Torsions

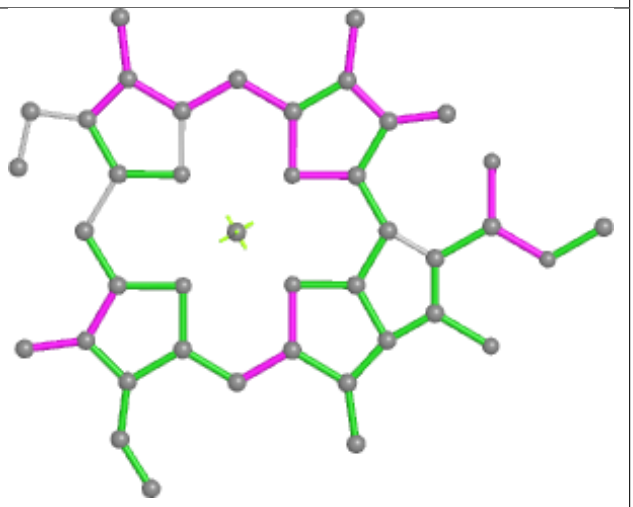


Rings

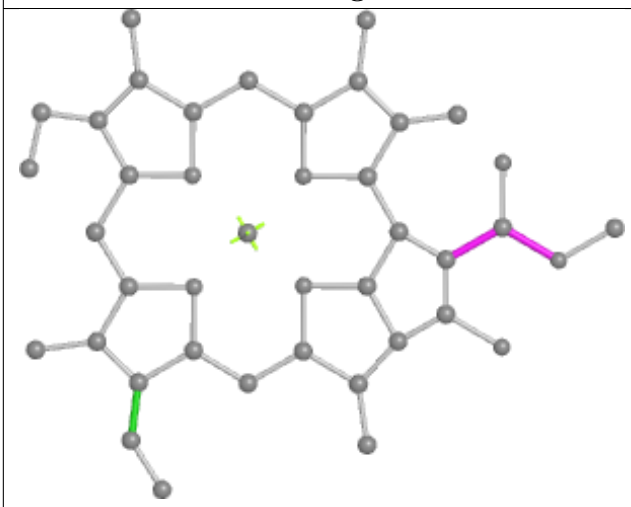
Ligand CLA 3 608



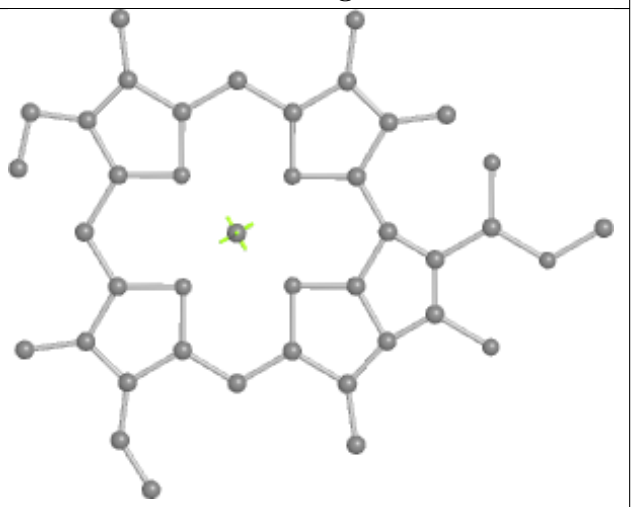
Bond lengths



Bond angles

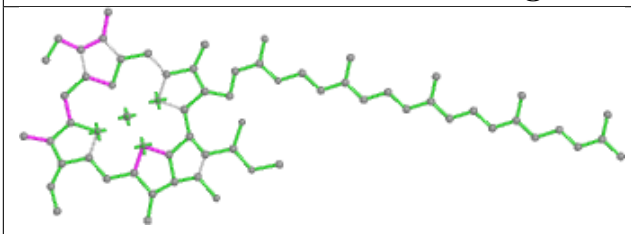


Torsions

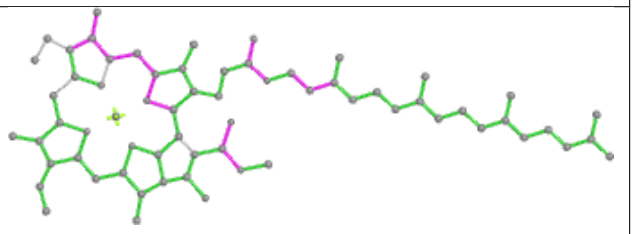


Rings

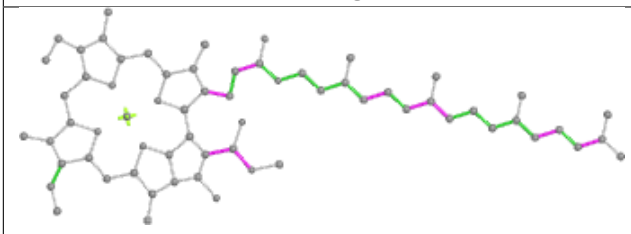
Ligand CLA B 803



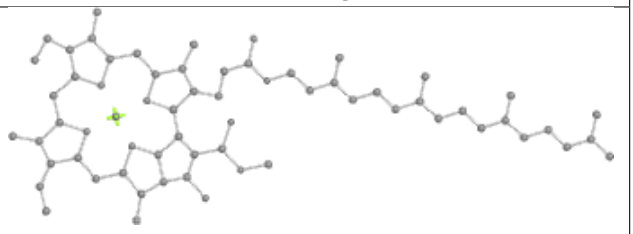
Bond lengths



Bond angles

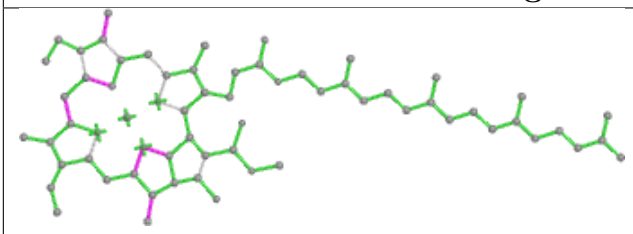


Torsions

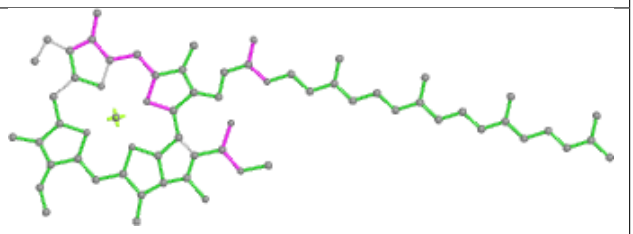


Rings

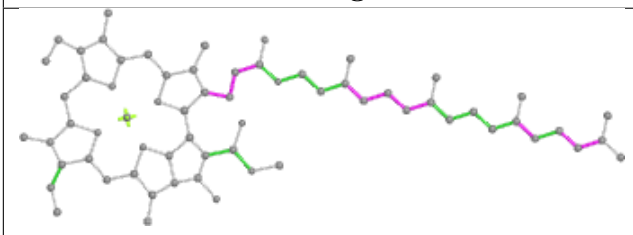
Ligand CLA B 809



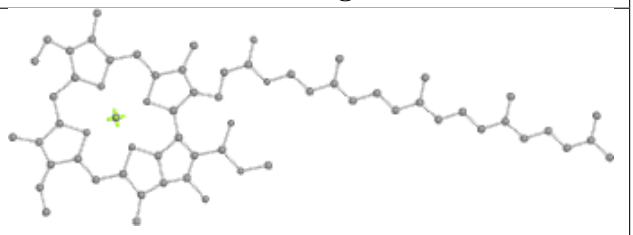
Bond lengths



Bond angles

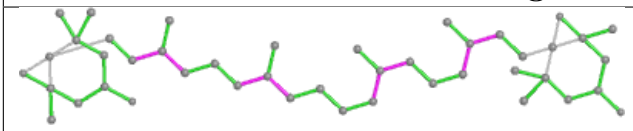


Torsions

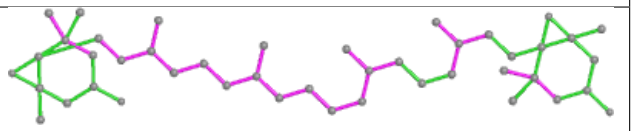


Rings

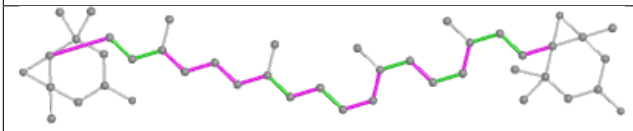
Ligand XAT 2 617



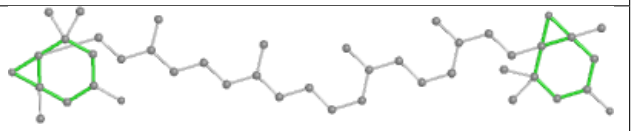
Bond lengths



Bond angles

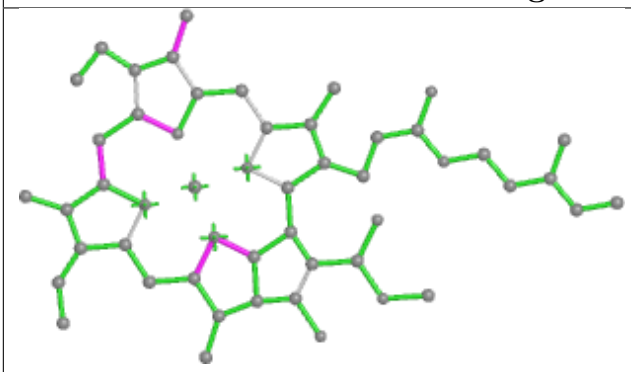


Torsions

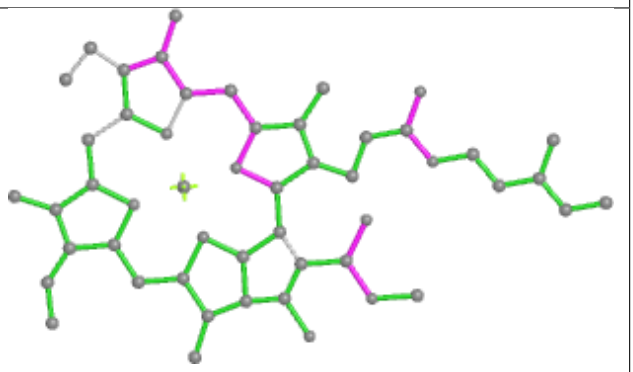


Rings

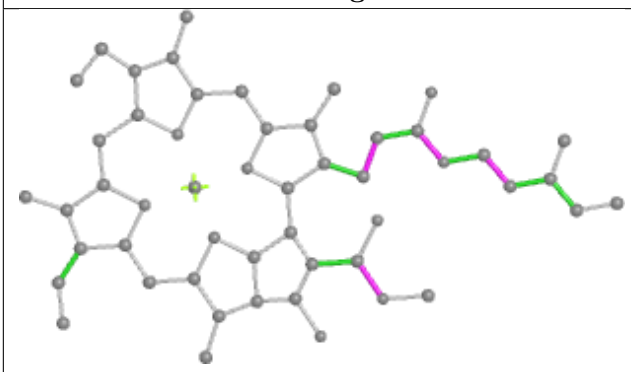
Ligand CLA J 101



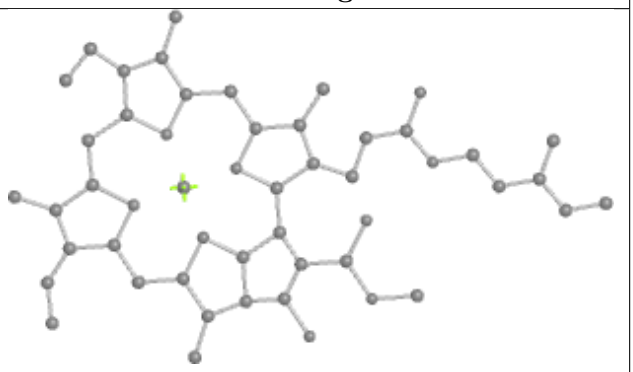
Bond lengths



Bond angles

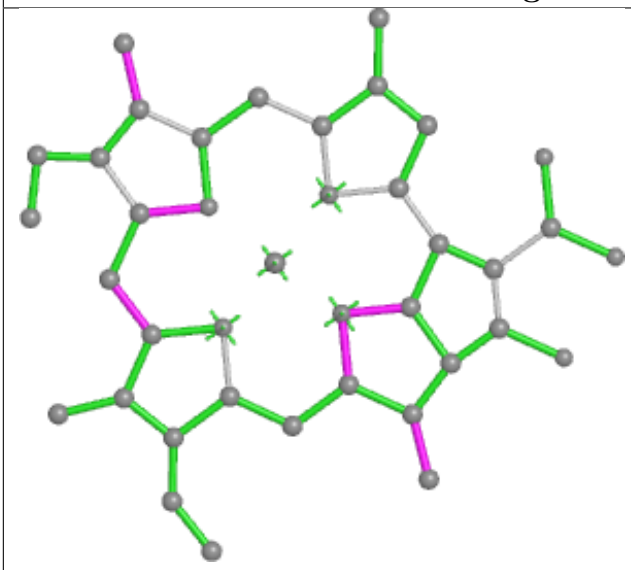


Torsions

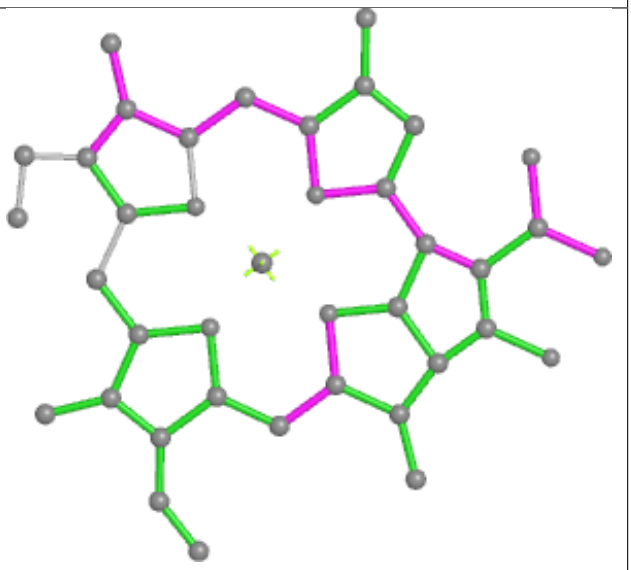


Rings

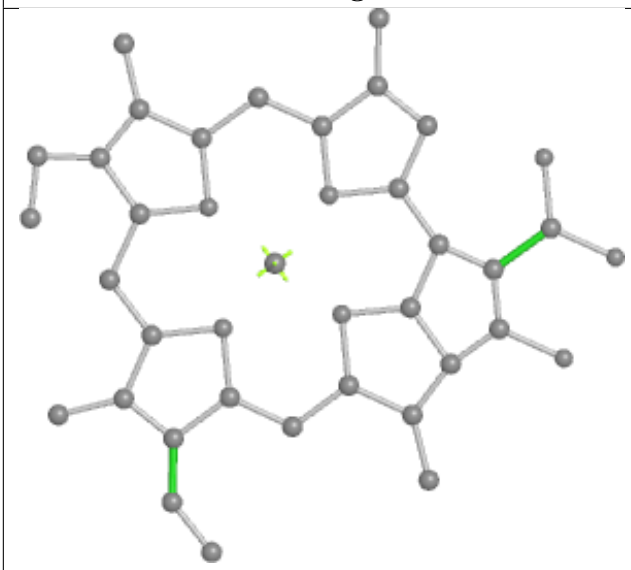
Ligand CLA K 206



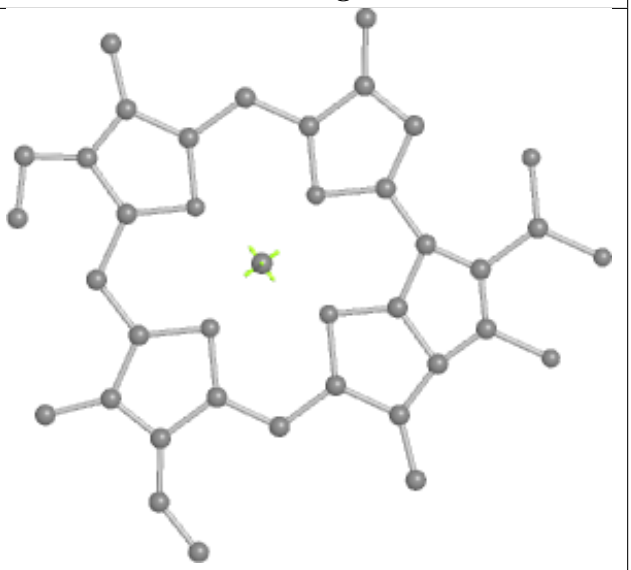
Bond lengths



Bond angles

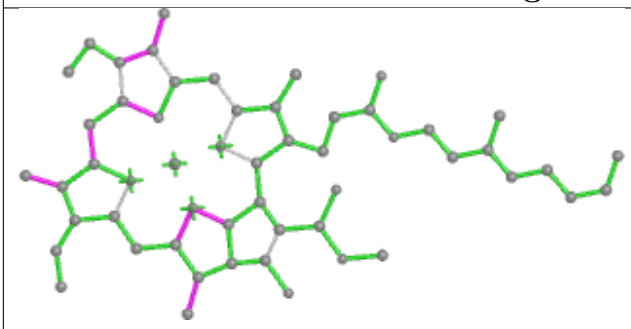


Torsions

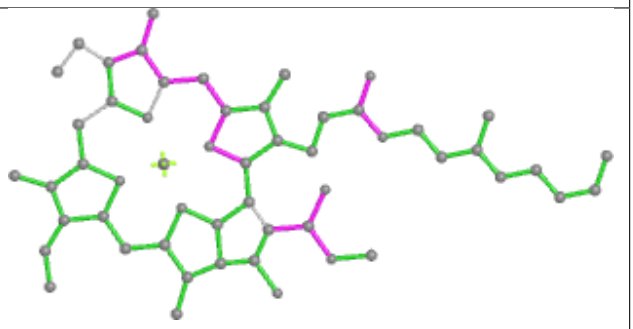


Rings

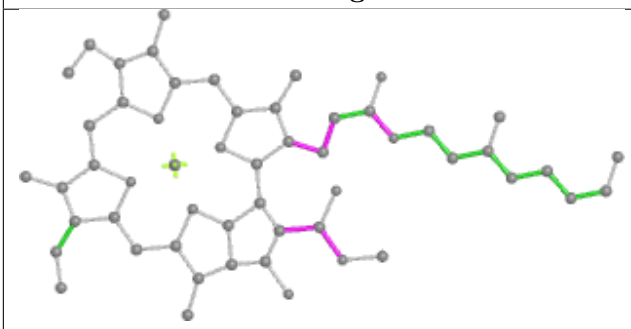
Ligand CLA A 813



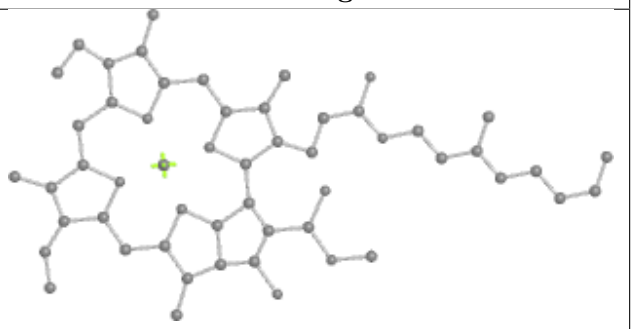
Bond lengths



Bond angles

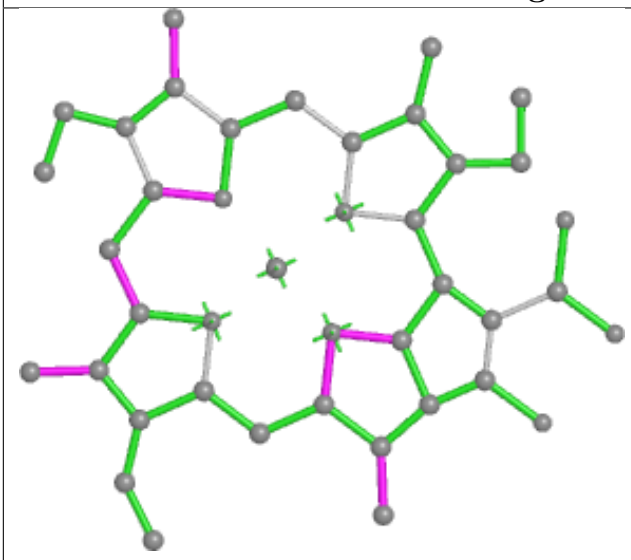


Torsions

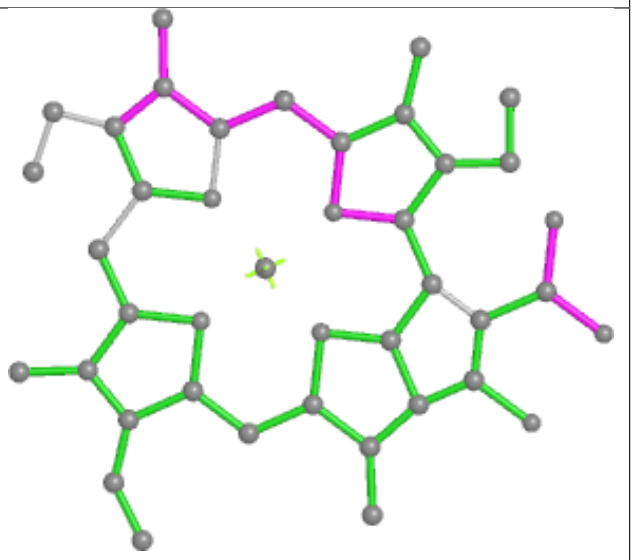


Rings

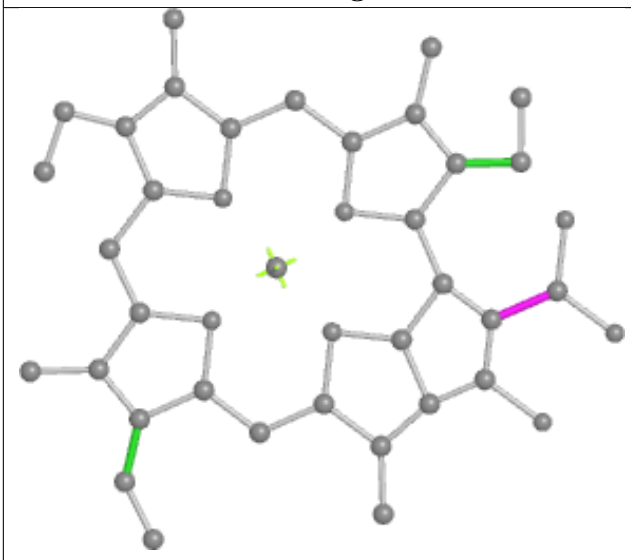
Ligand CLA 4 611



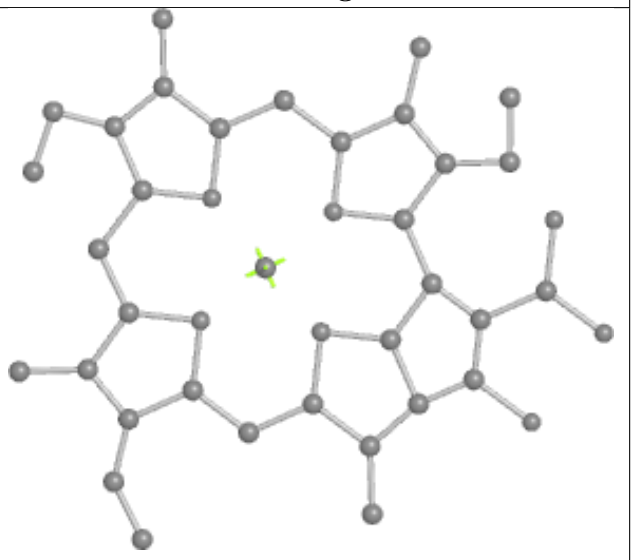
Bond lengths



Bond angles

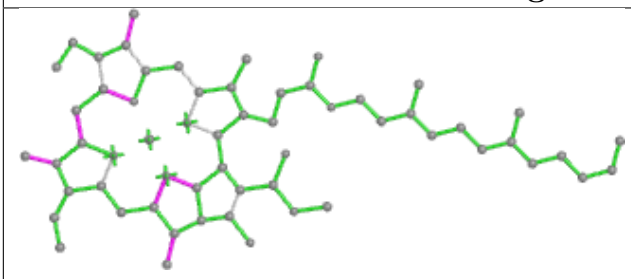


Torsions



Rings

Ligand CLA x 613



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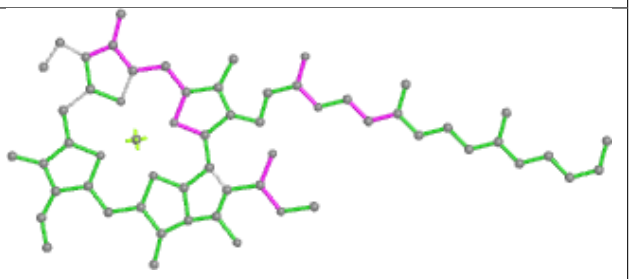
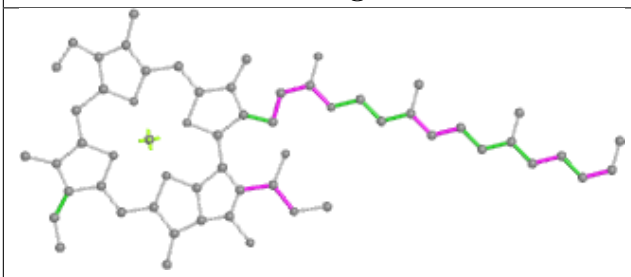
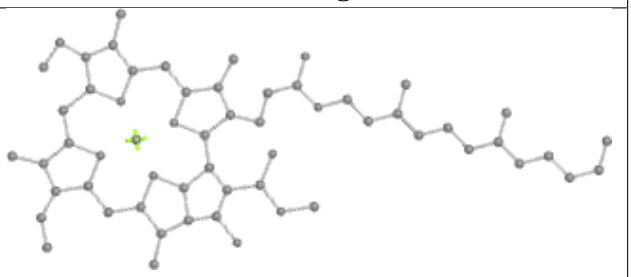


Bond angles

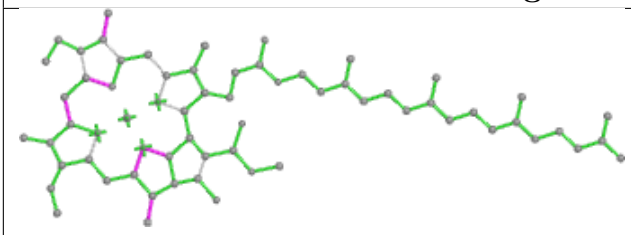


Torsions



Rings

Ligand CLA A 841



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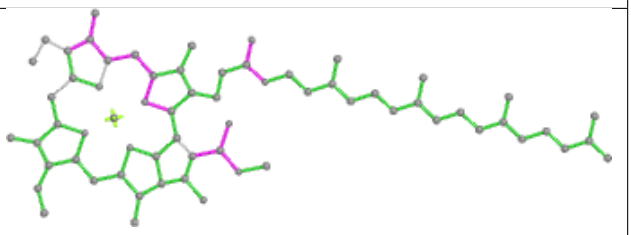
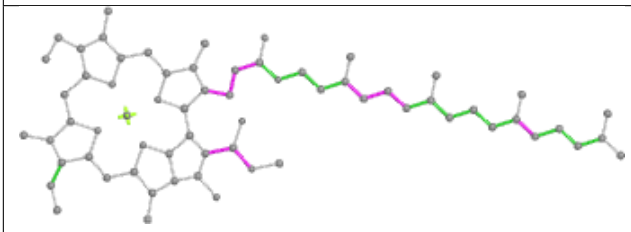
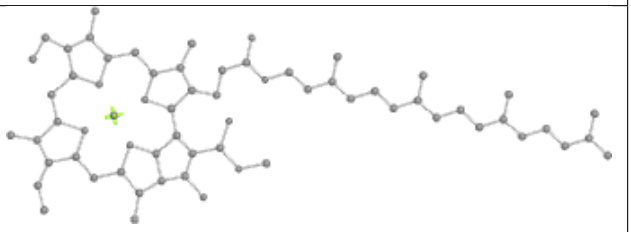


Bond angles

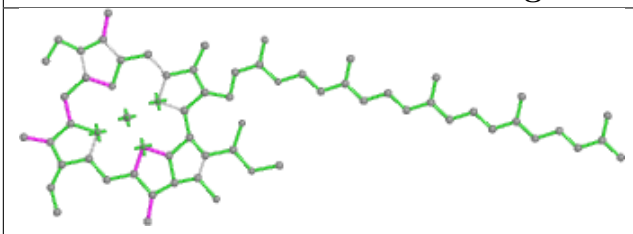


Torsions



Rings

Ligand CLA B 813



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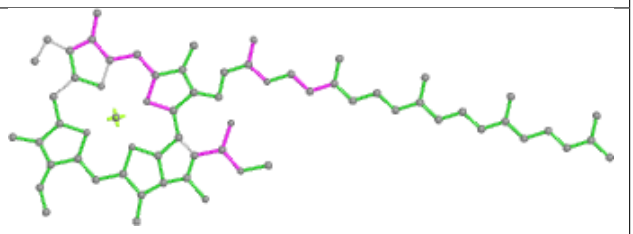

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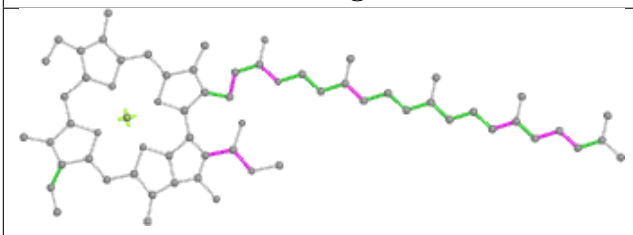

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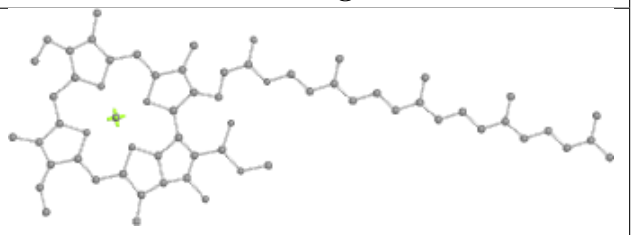
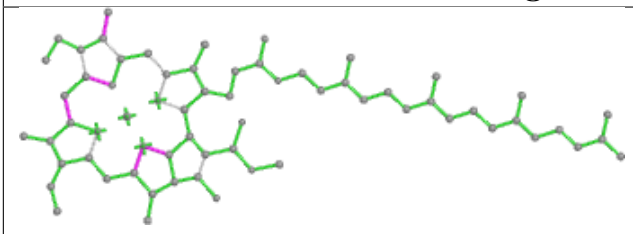


Rings

Ligand CLA B 824



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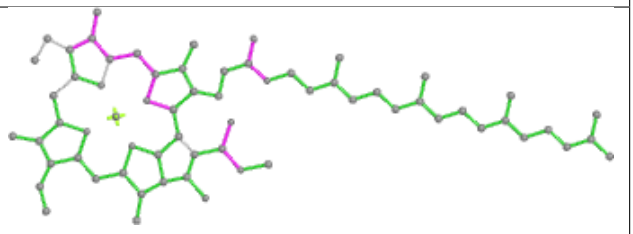
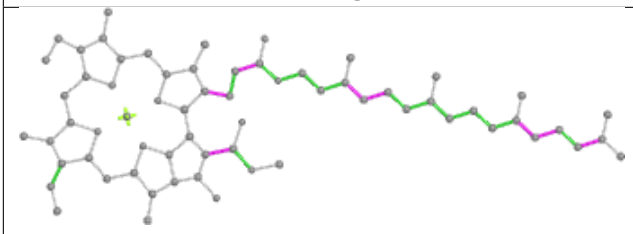


Bond angles



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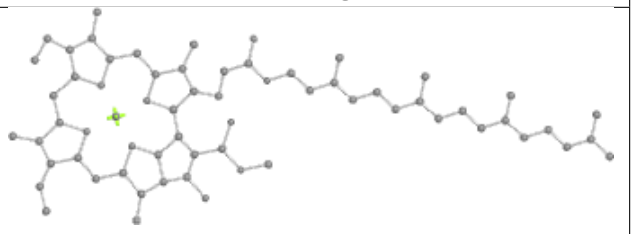
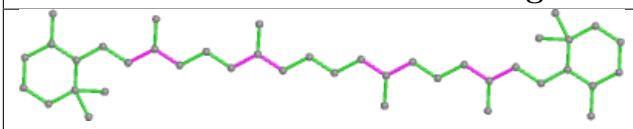


Rings

Ligand BCR J 102



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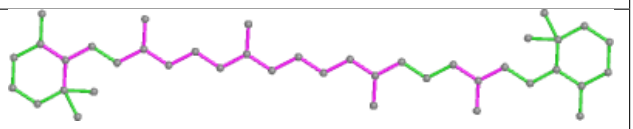
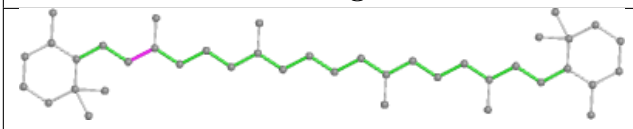


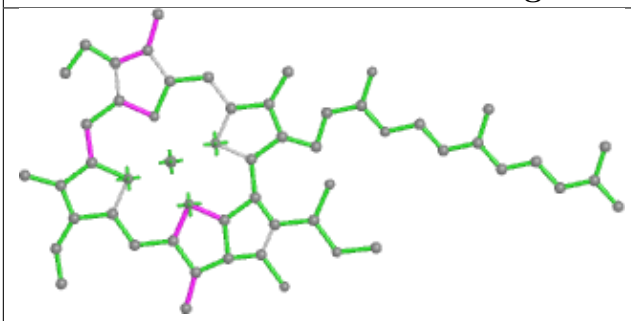
Bond angles



Torsions

Rings

Ligand CLA B 819



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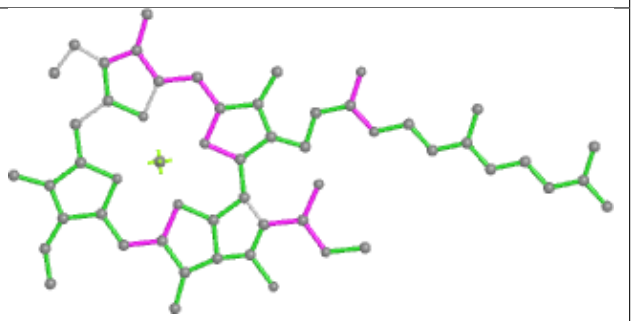
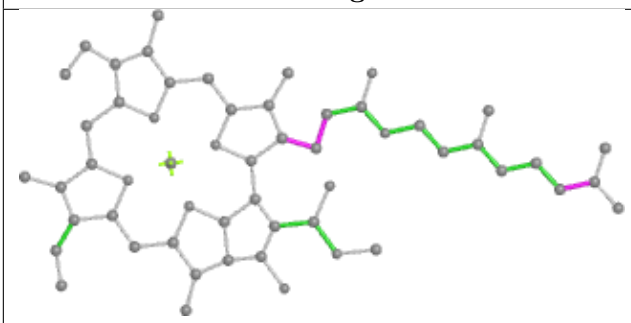


Bond angles



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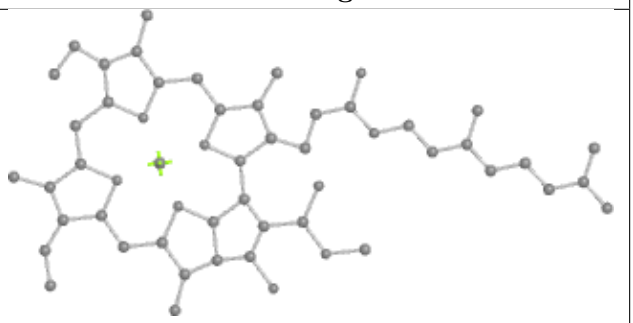
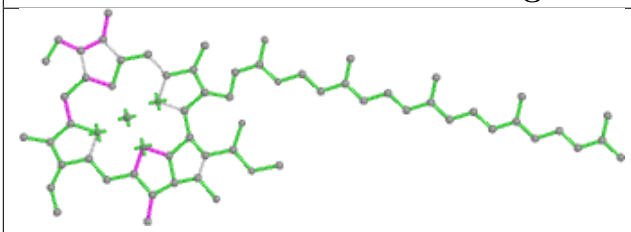


Rings

Ligand CLA A 835



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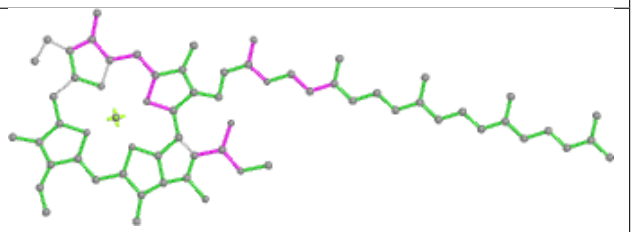
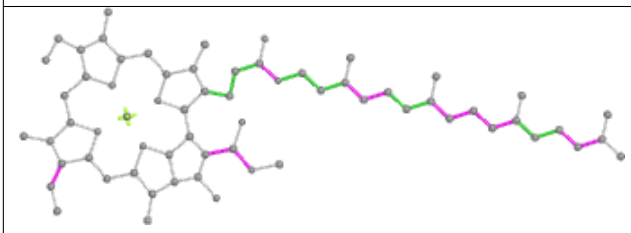
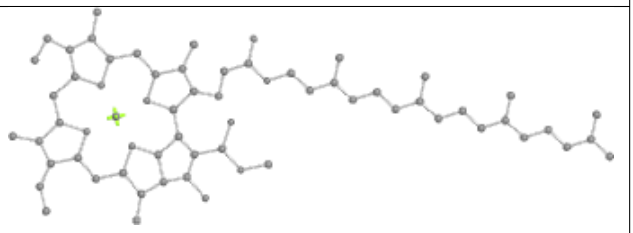


Bond angles

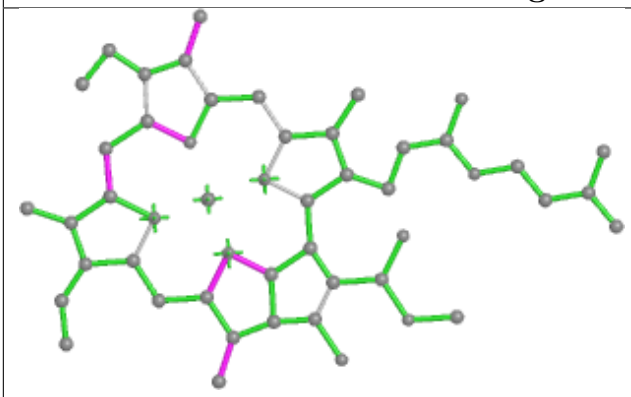


Torsions

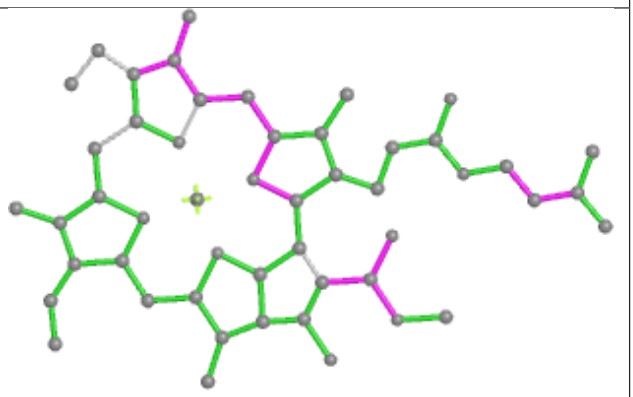


Rings

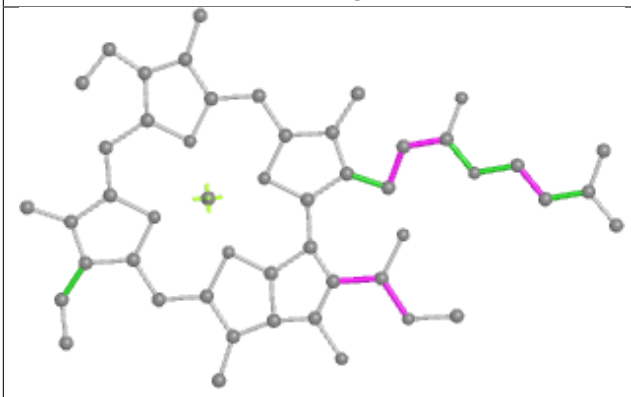
Ligand CLA 4 614



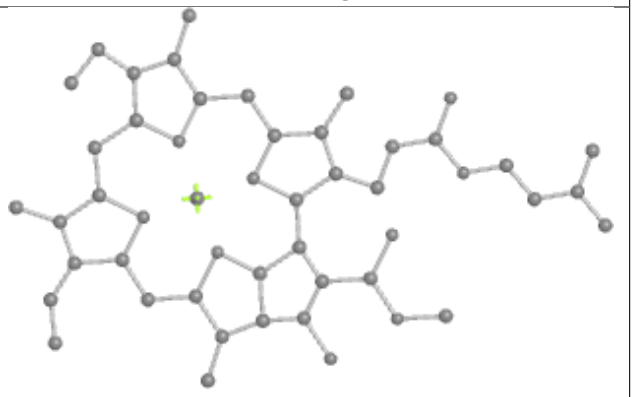
Bond lengths



Bond angles

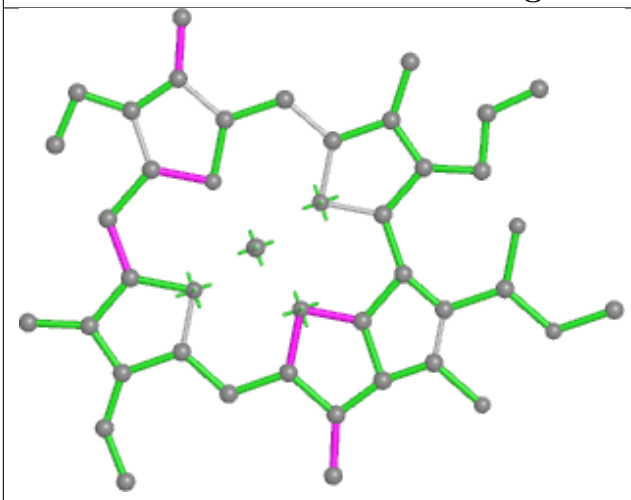


Torsions

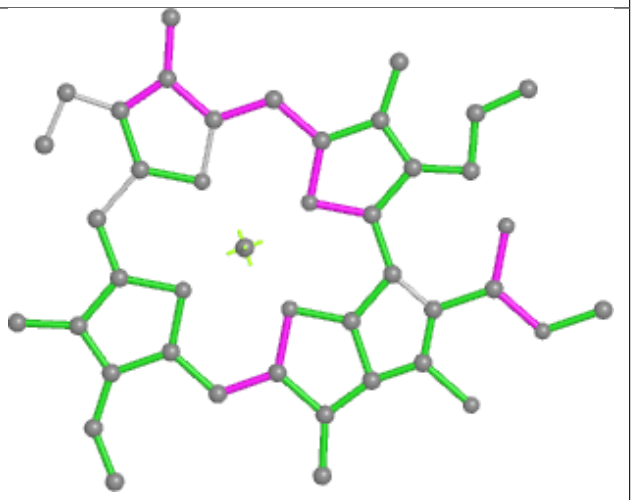


Rings

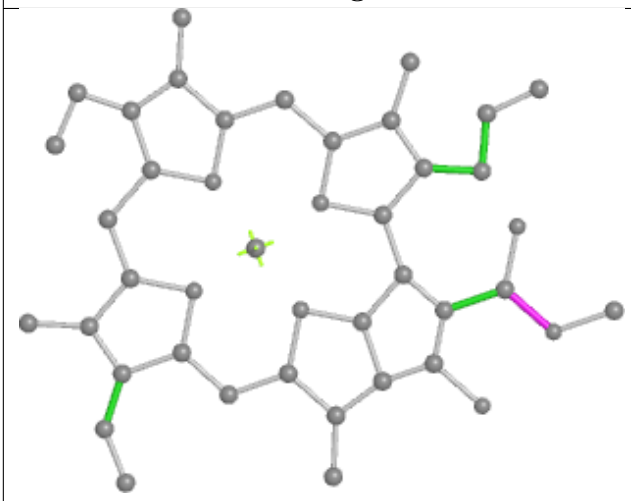
Ligand CLA B 830



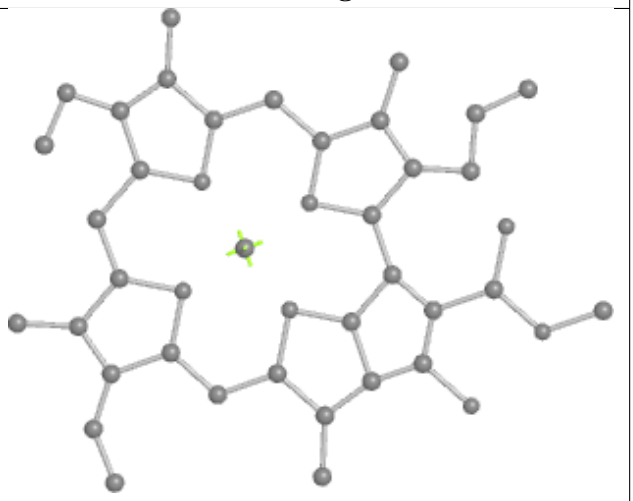
Bond lengths



Bond angles

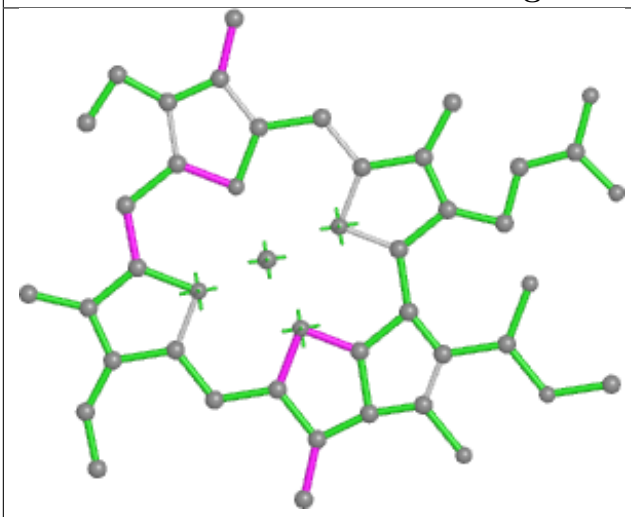


Torsions



Rings

Ligand CLA A 837



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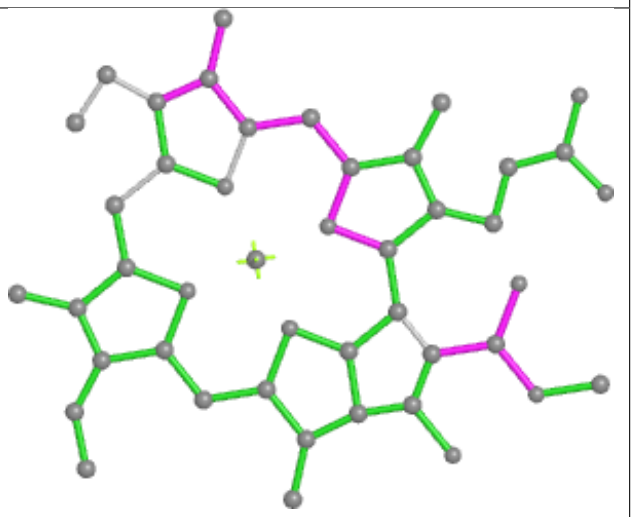
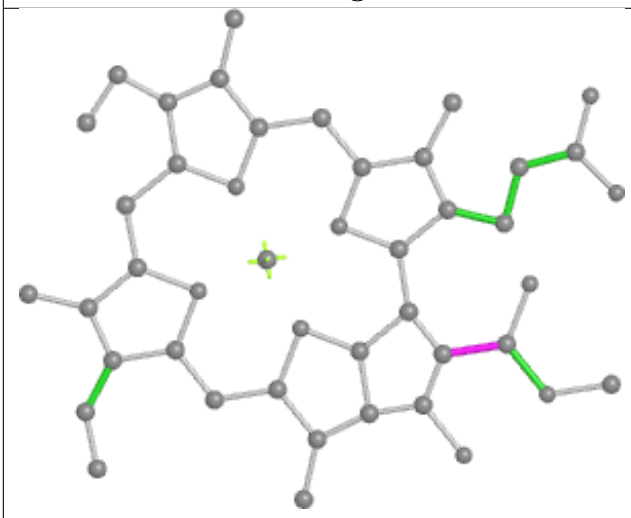
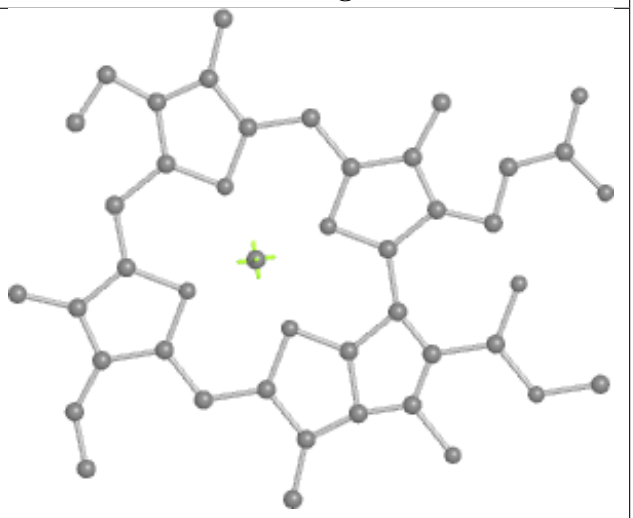


Bond angles

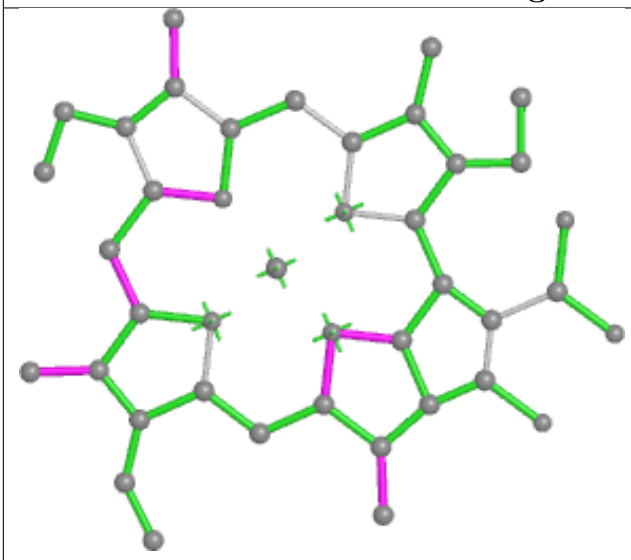


Torsions

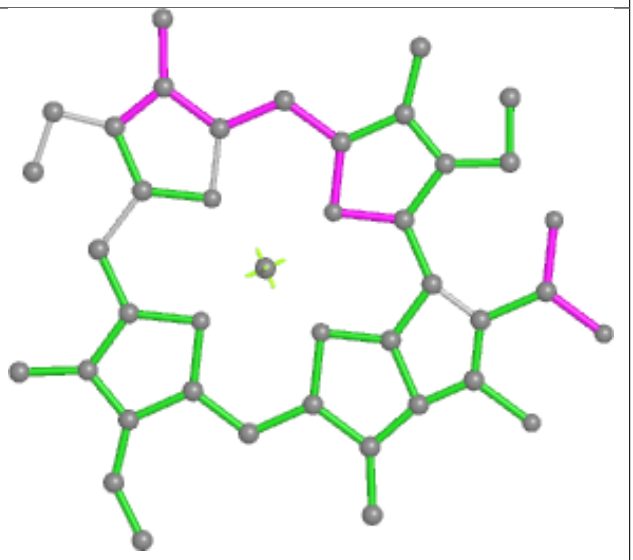


Rings

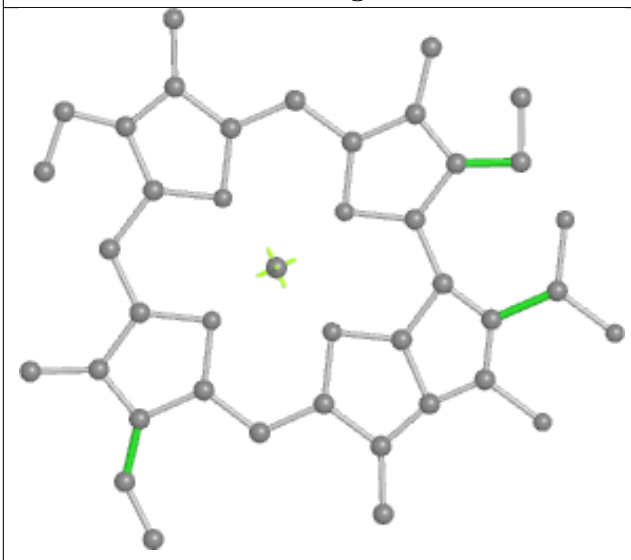
Ligand CLA 3 604



Bond lengths



Bond angles



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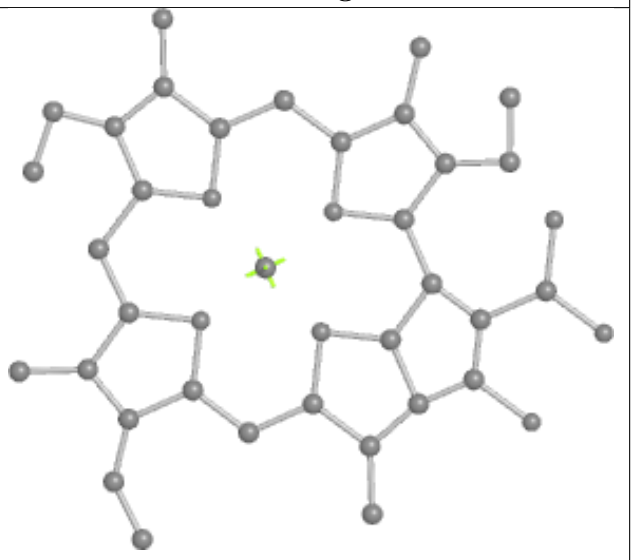
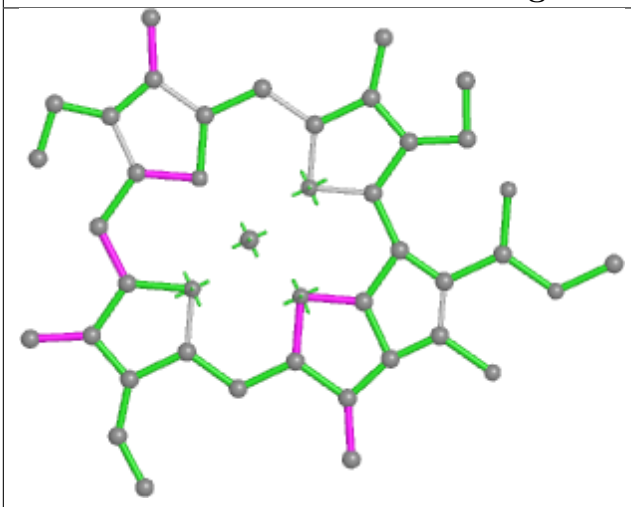
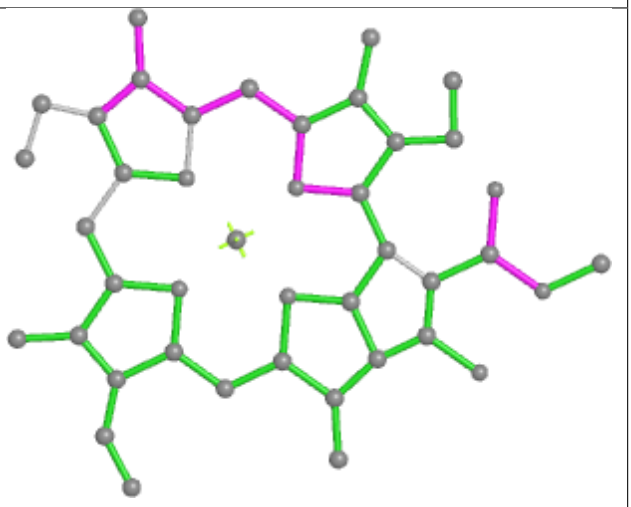


Rings

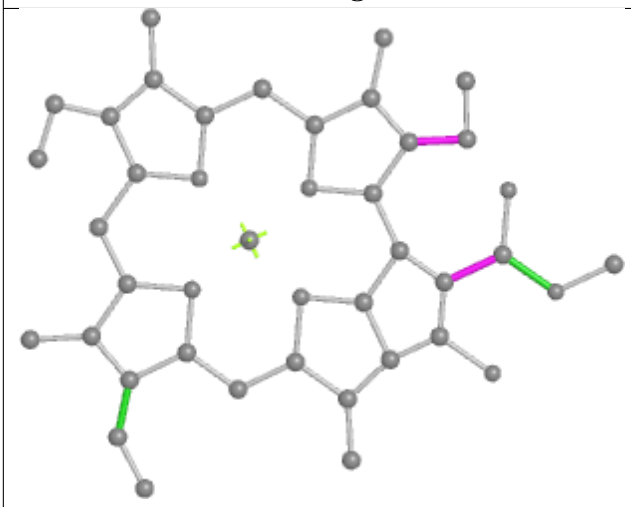
Ligand CLA 4 610



Bond lengths



Bond angles



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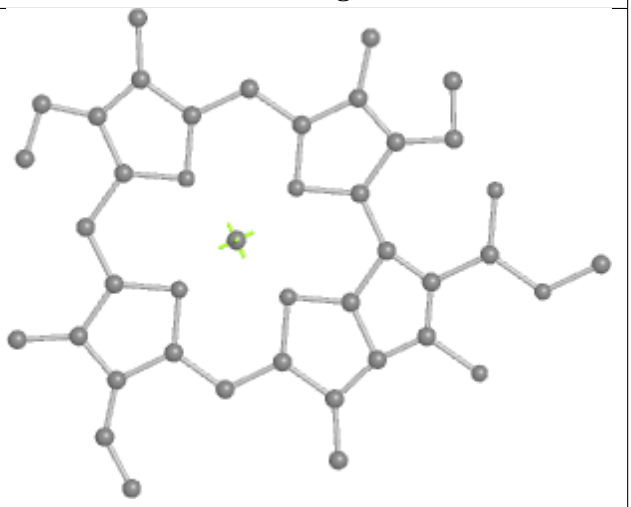
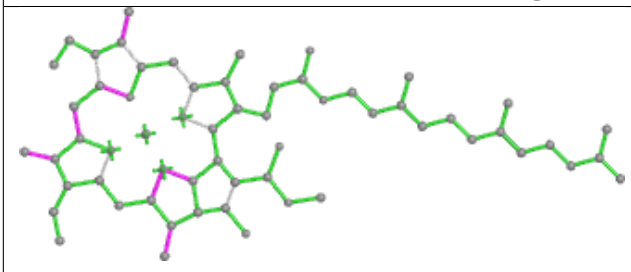
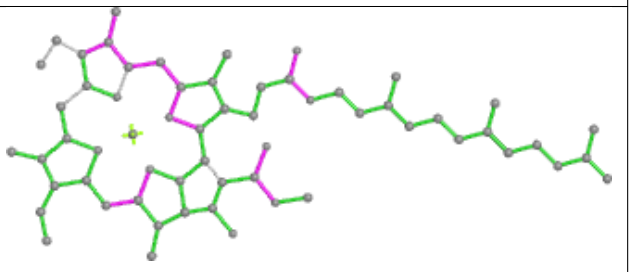


Rings

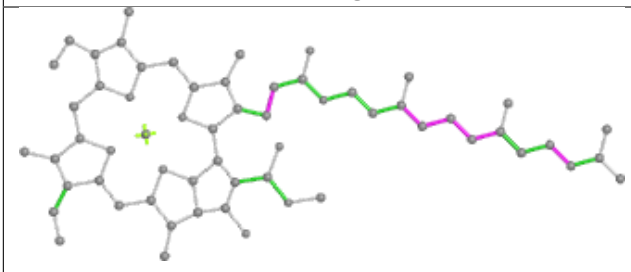
Ligand CLA 4 602



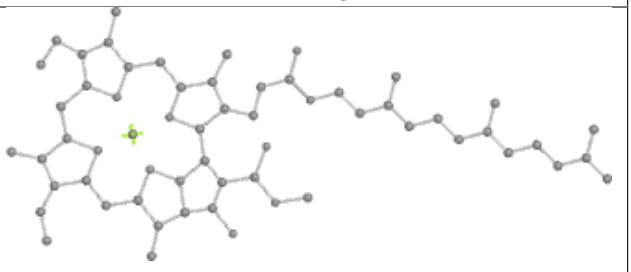
Bond lengths



Bond angles

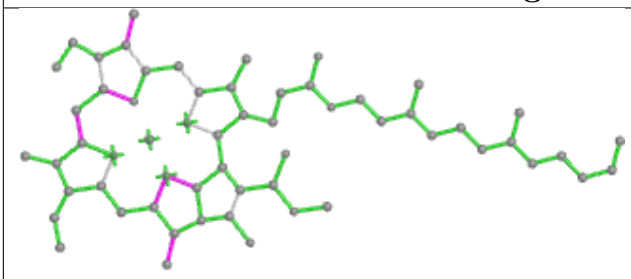


Torsions

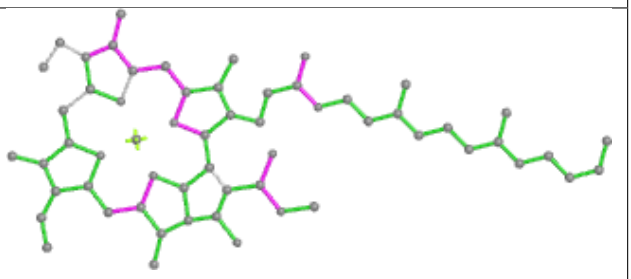


Rings

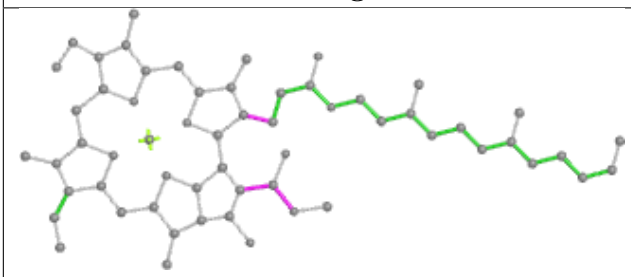
Ligand CLA A 827



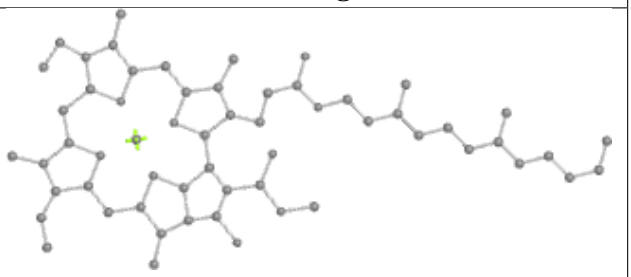
Bond lengths



Bond angles

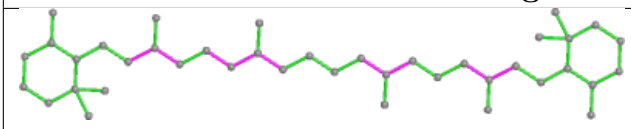


Torsions

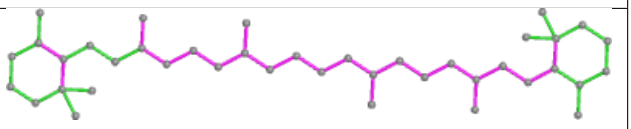


Rings

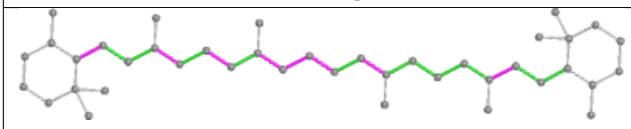
Ligand BCR A 852



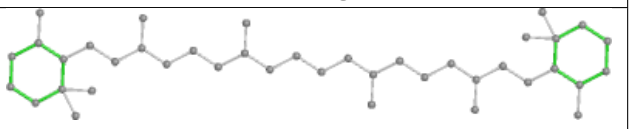
Bond lengths



Bond angles

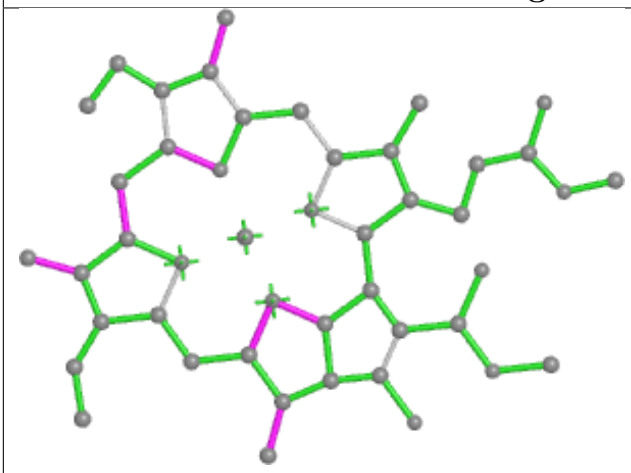


Torsions

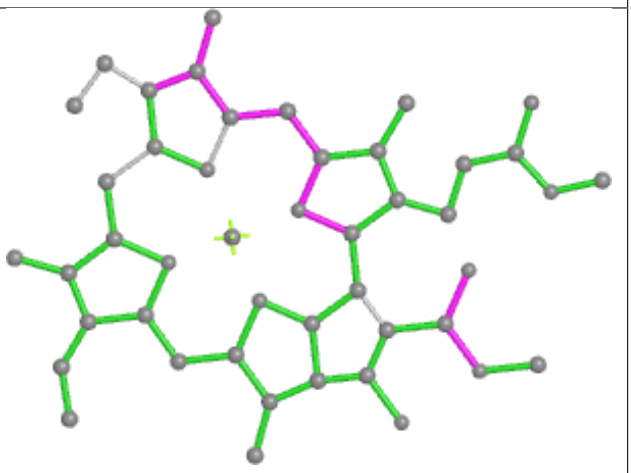


Rings

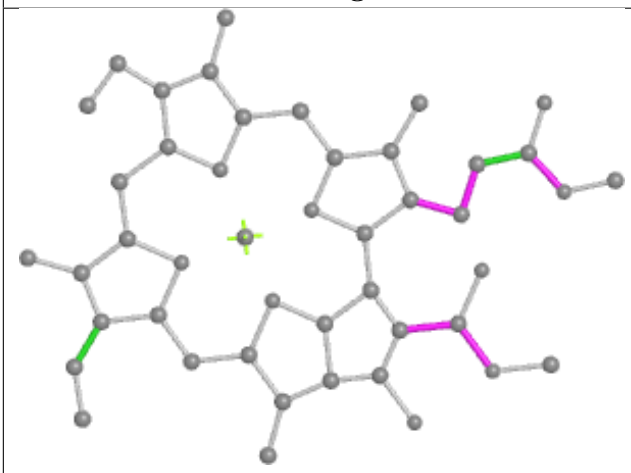
Ligand CLA 1 605



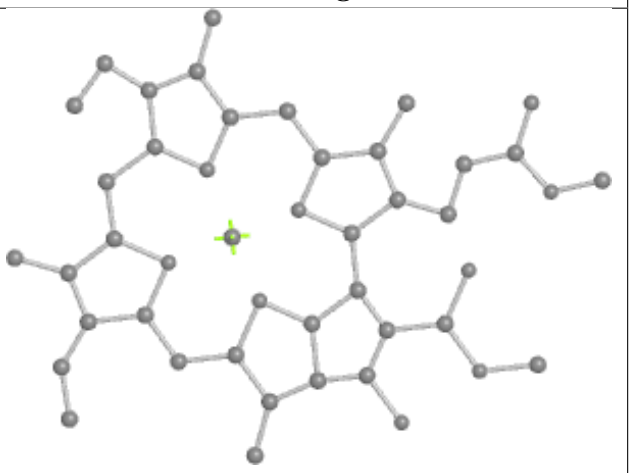
Bond lengths



Bond angles

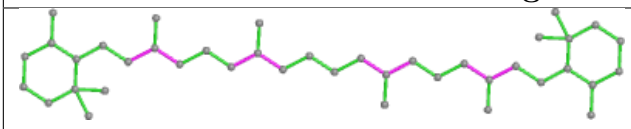


Torsions

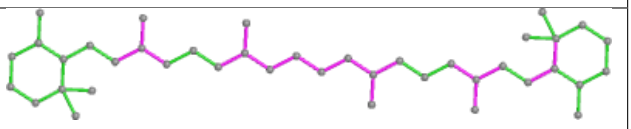


Rings

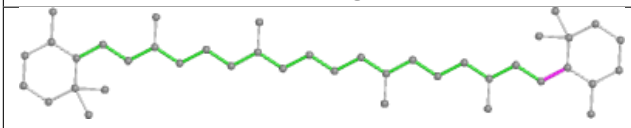
Ligand BCR B 848



Bond lengths



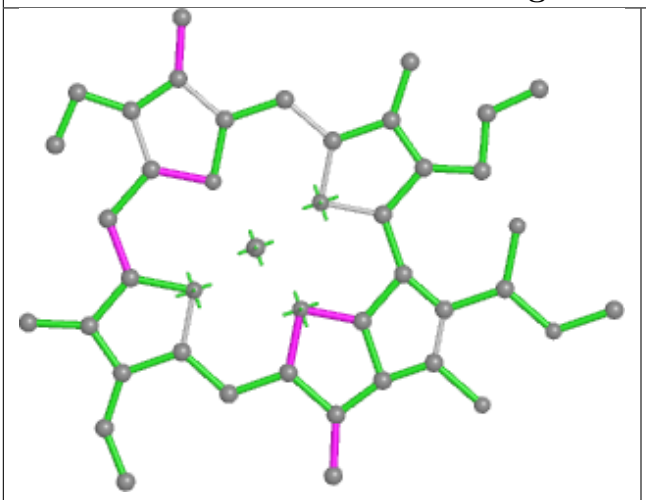
Bond angles



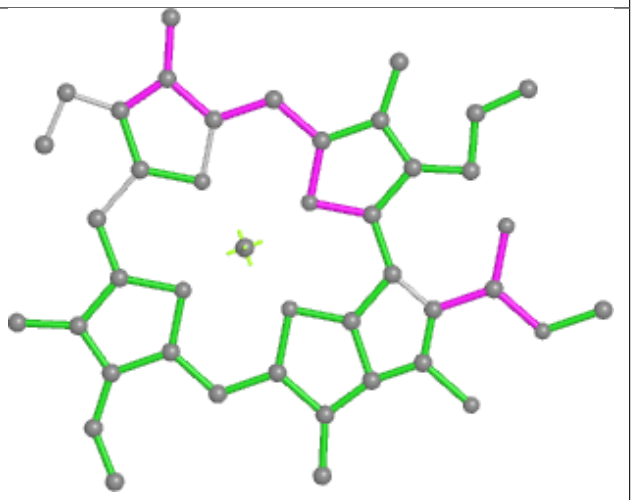
Torsions

Rings

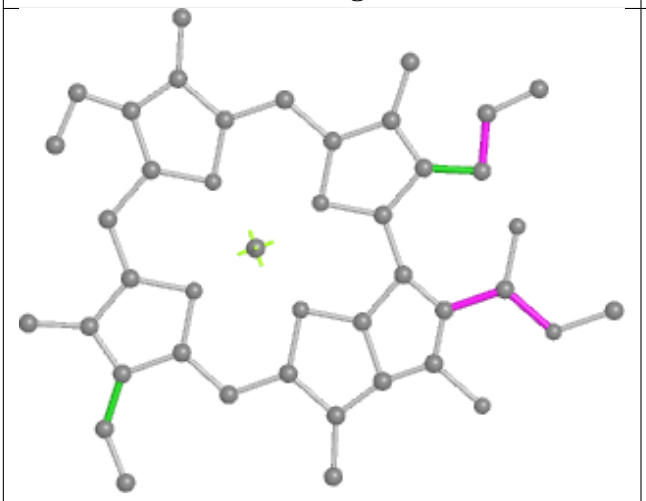
Ligand CLA 2 613



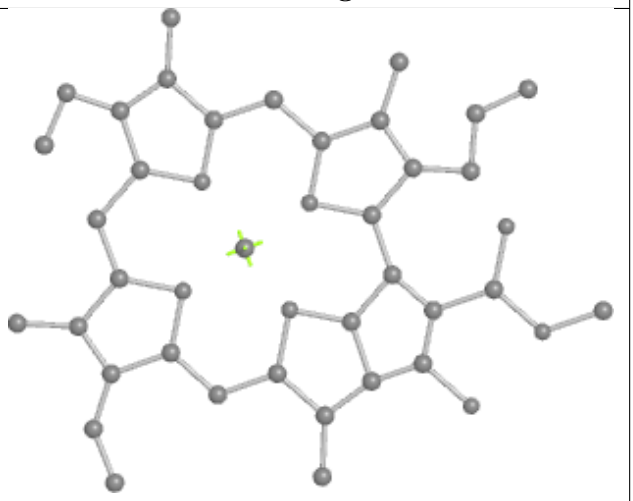
Bond lengths



Bond angles

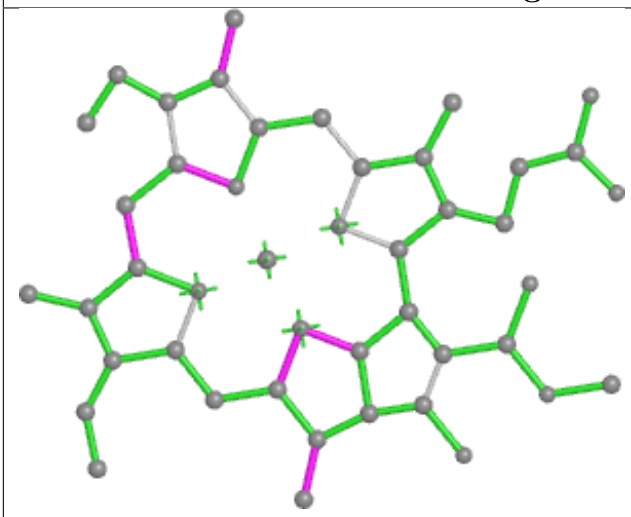


Torsions

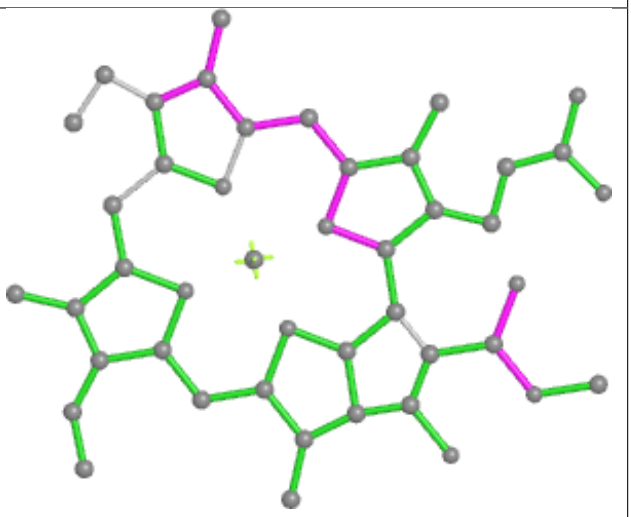


Rings

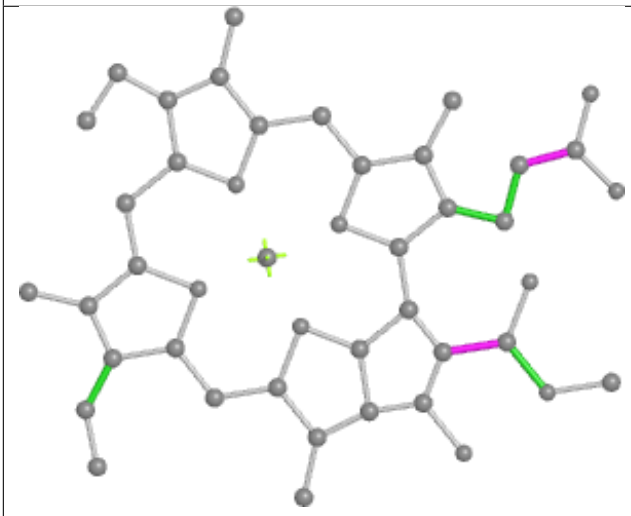
Ligand CLA A 821



Bond lengths



Bond angles



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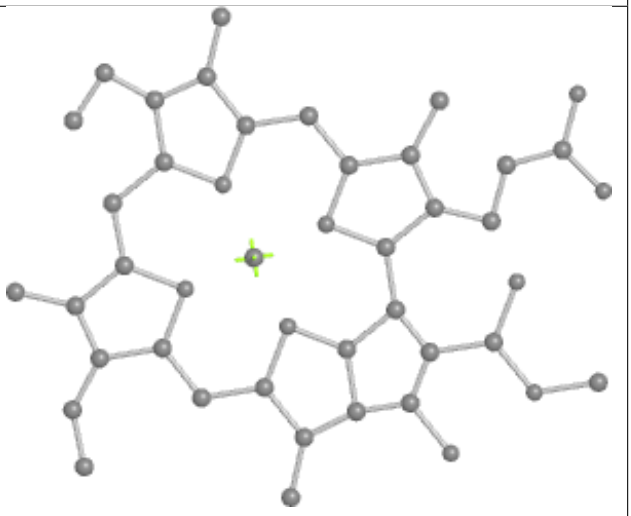
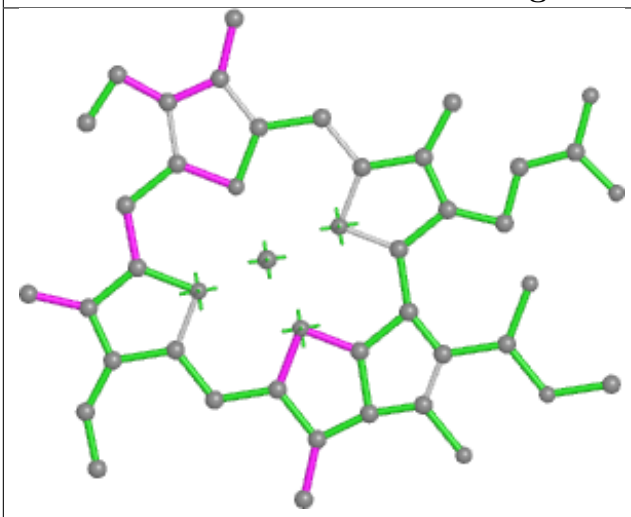
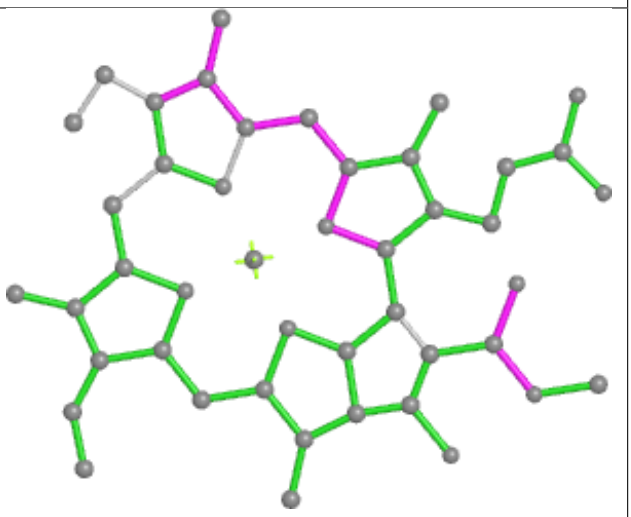


Rings

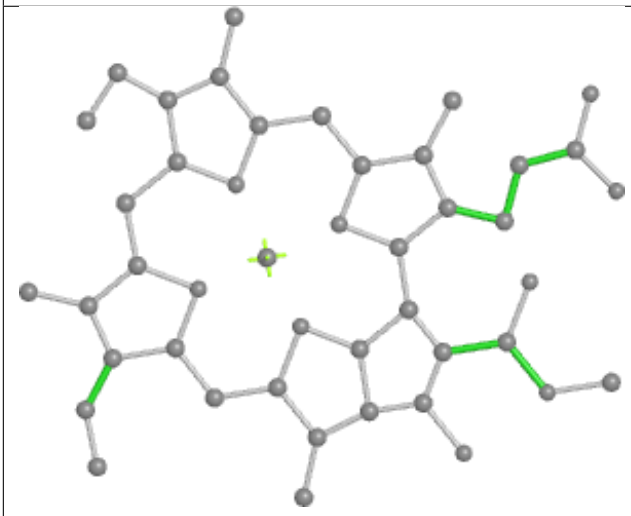
Ligand CLA z 611



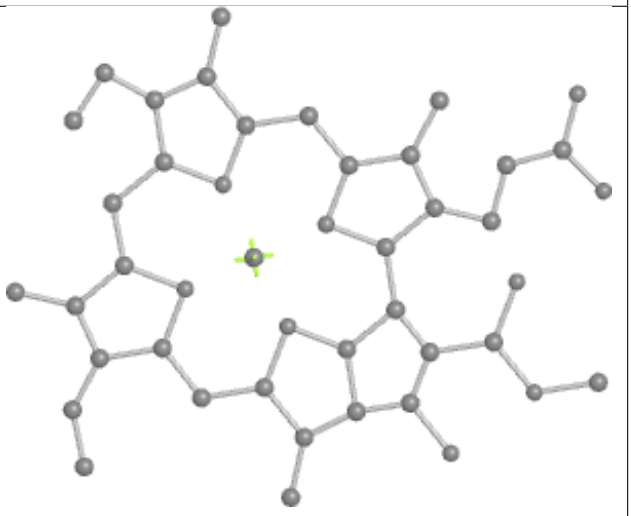
Bond lengths



Bond angles

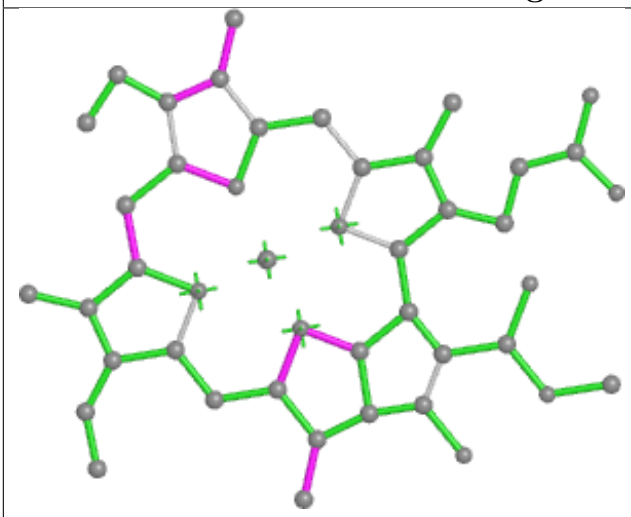


Torsions

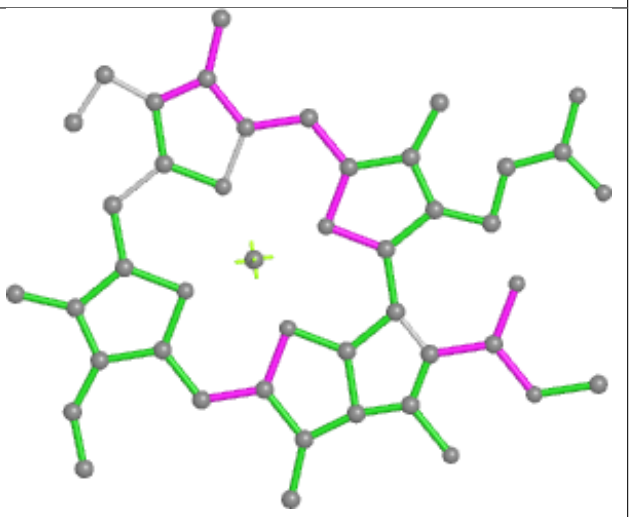


Rings

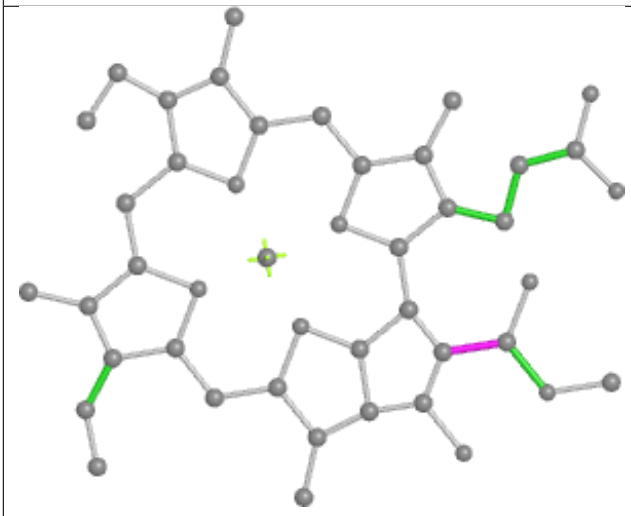
Ligand CLA L 302



Bond lengths



Bond angles



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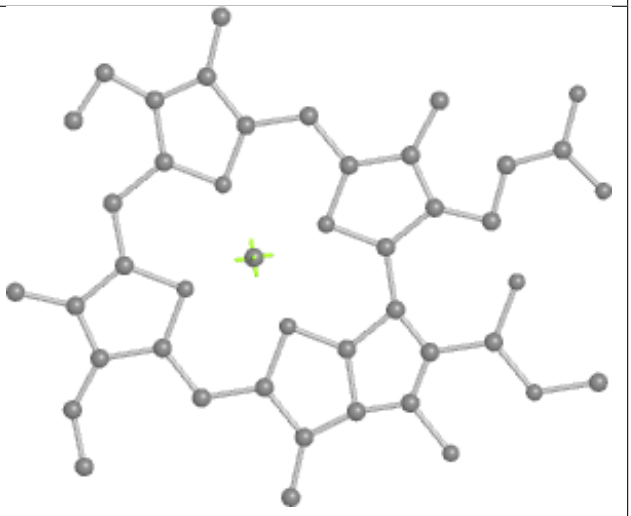
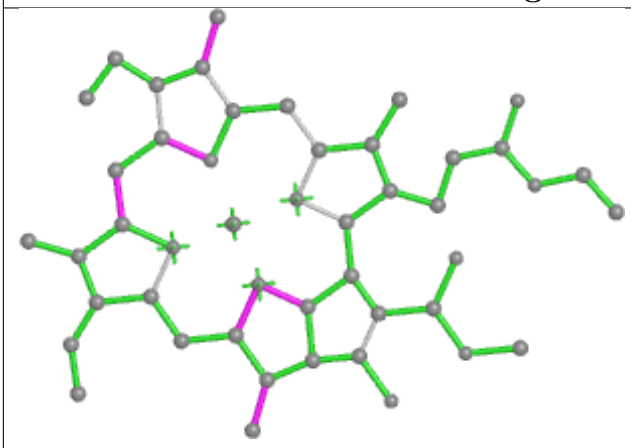
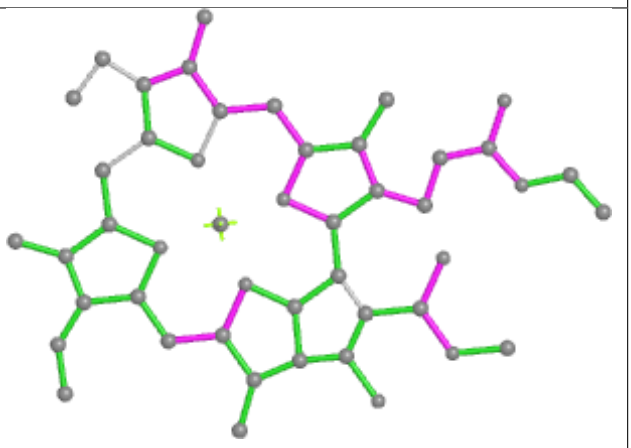


Rings

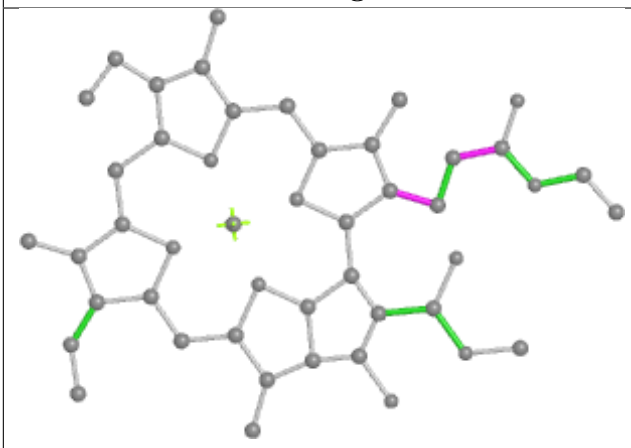
Ligand CLA B 821



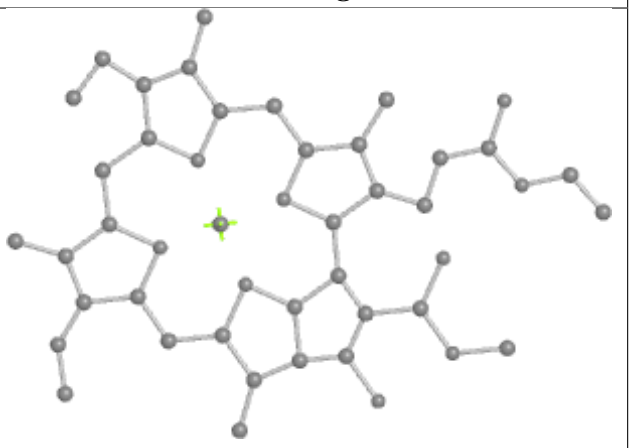
Bond lengths



Bond angles

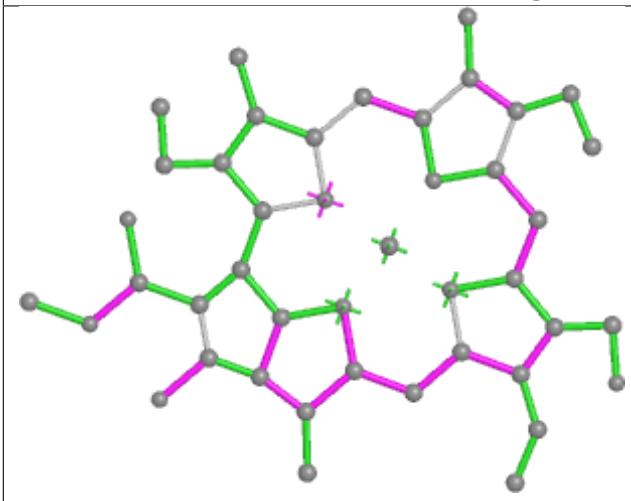


Torsions

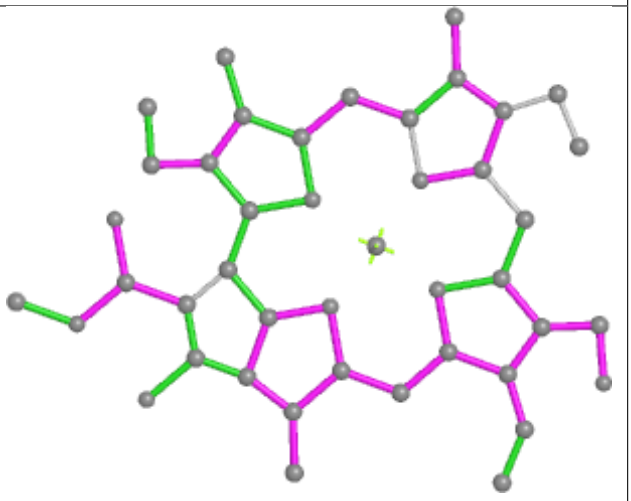


Rings

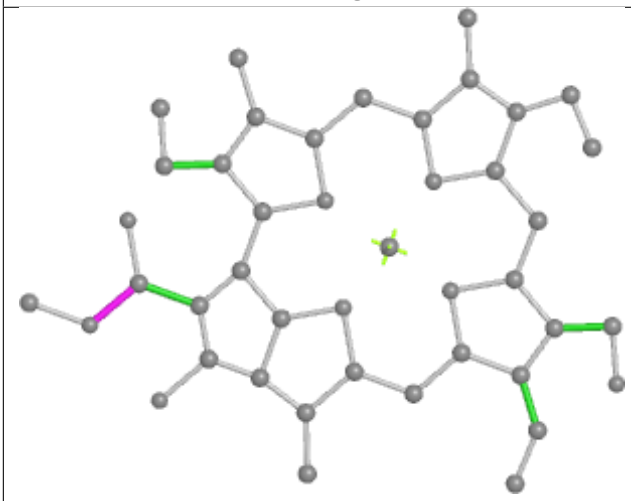
Ligand CHL 2 615



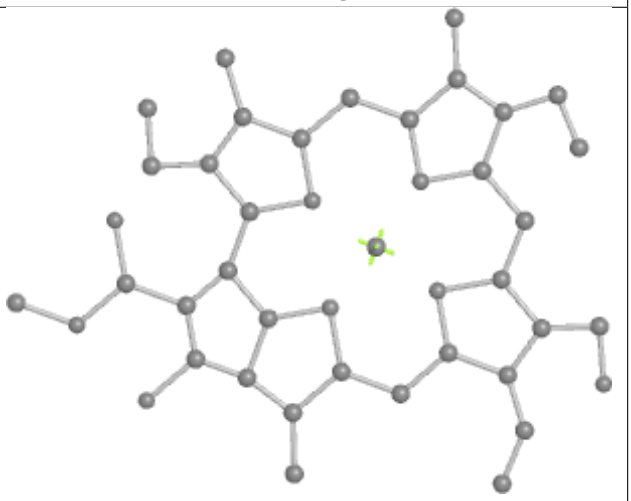
Bond lengths



Bond angles

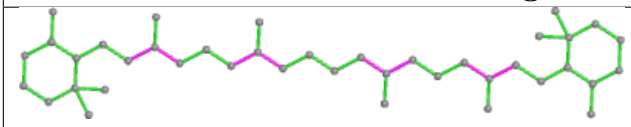


Torsions

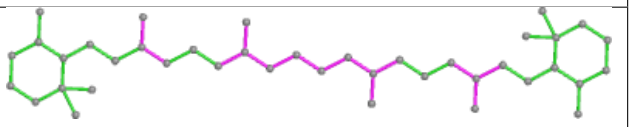


Rings

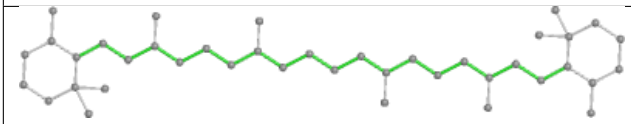
Ligand BCR O 205



Bond lengths



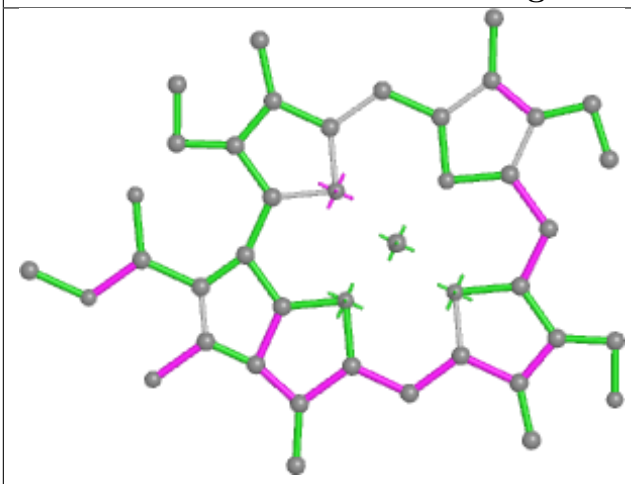
Bond angles



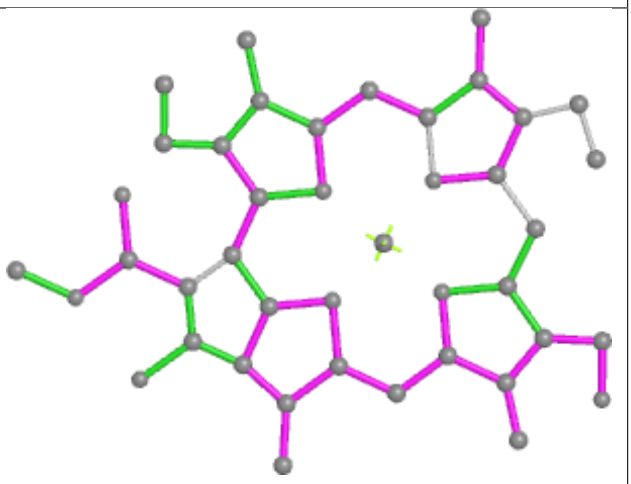
Torsions

Rings

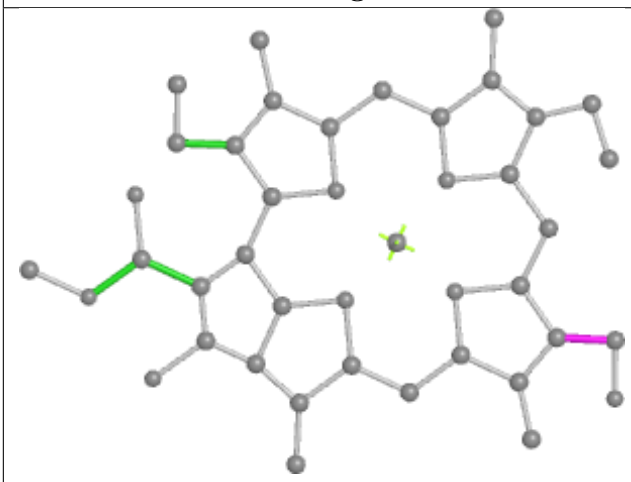
Ligand CHL 2 605



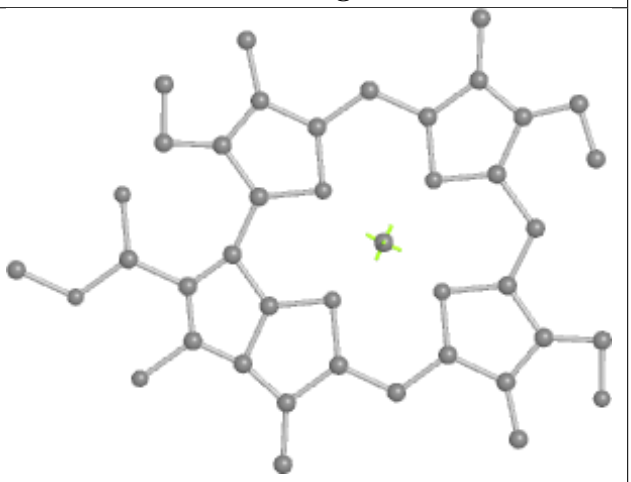
Bond lengths



Bond angles

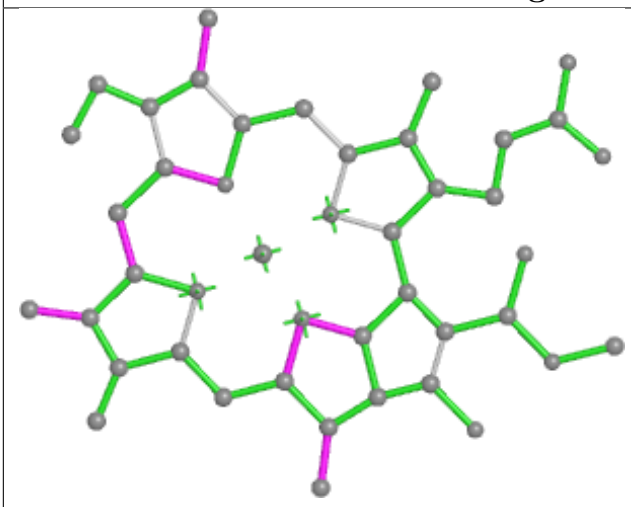


Torsions



Rings

Ligand CLA 2 611



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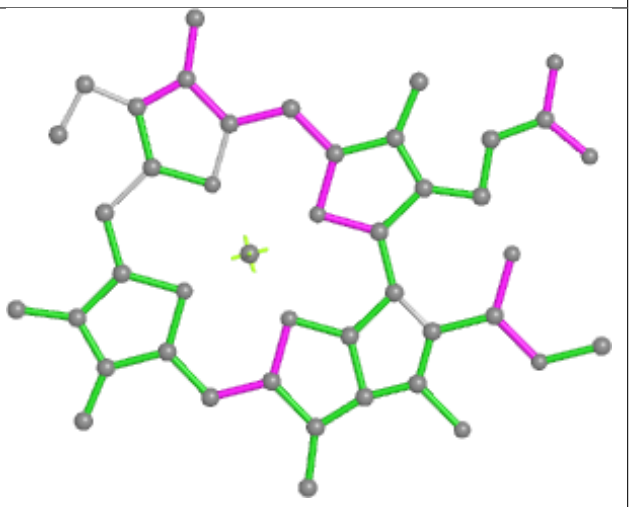
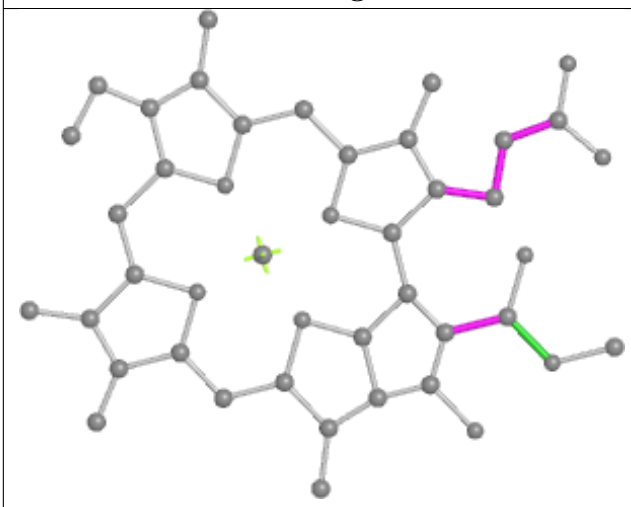
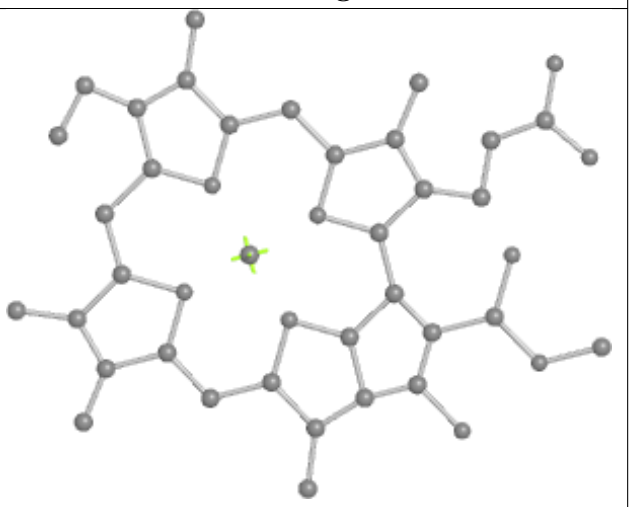


Bond angles

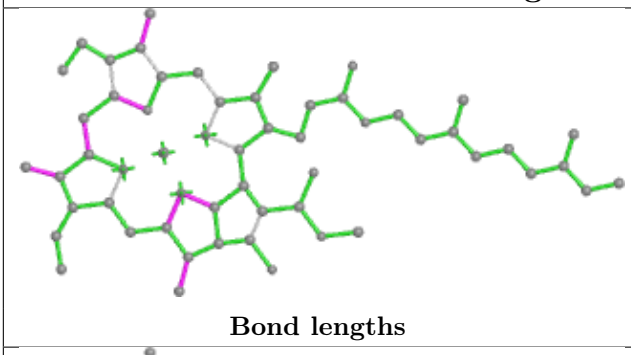


Torsions

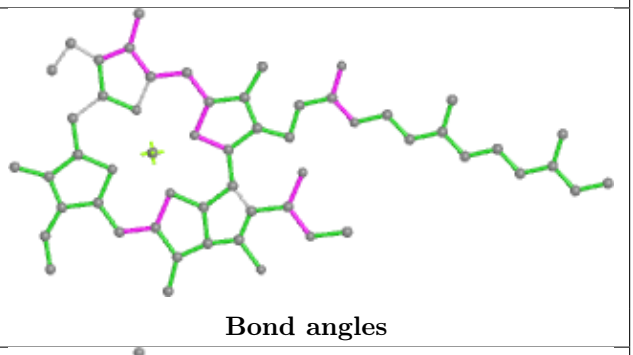


Rings

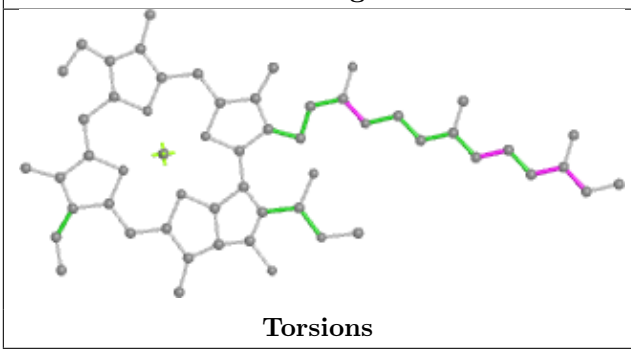
Ligand CLA B 829



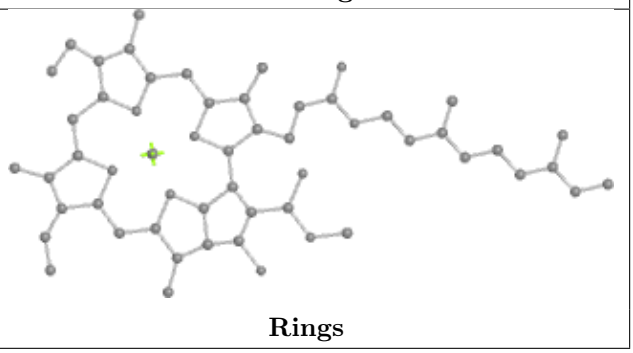
Bond lengths



Bond angles

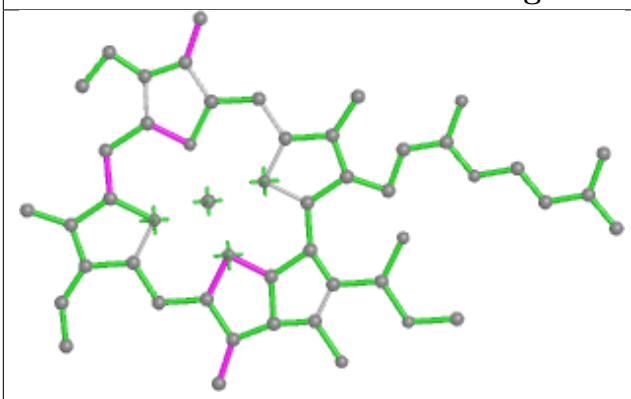


Torsions

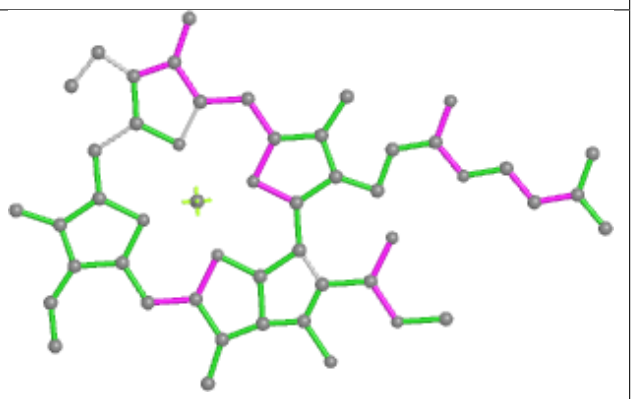


Rings

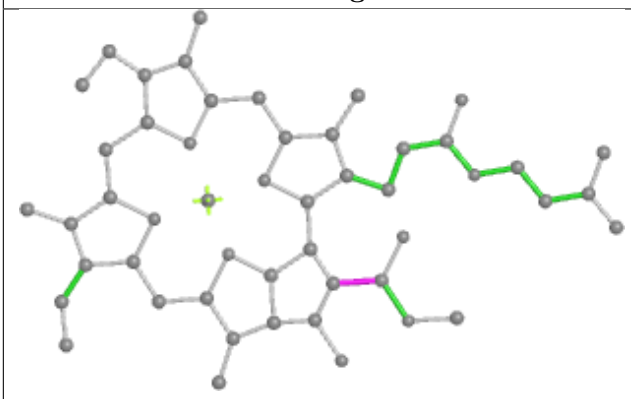
Ligand CLA A 808



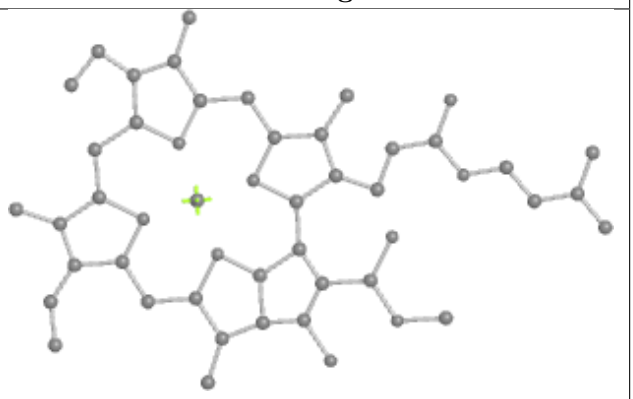
Bond lengths



Bond angles

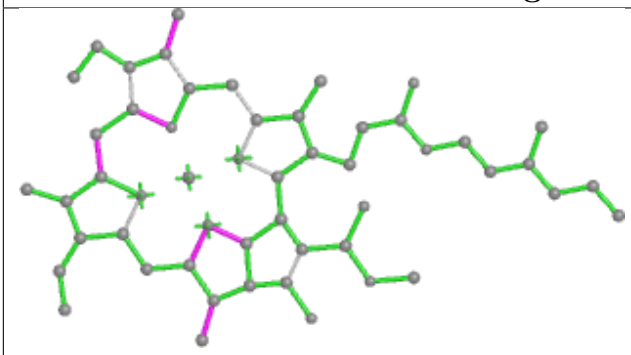


Torsions

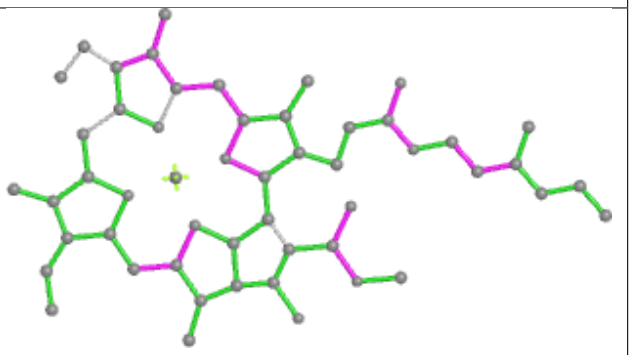


Rings

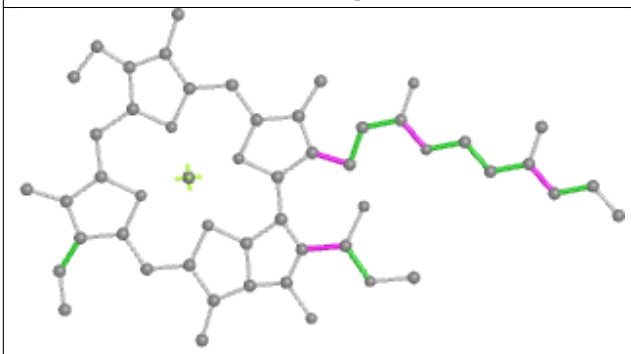
Ligand CLA A 805



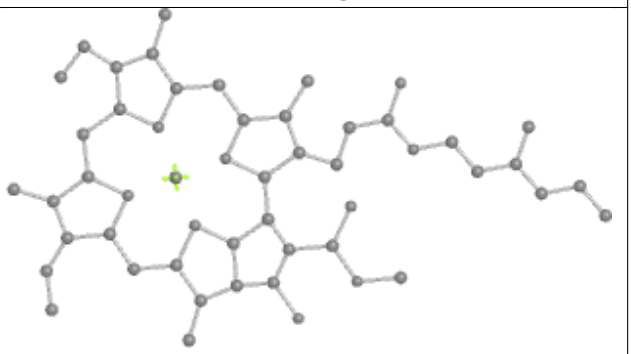
Bond lengths



Bond angles

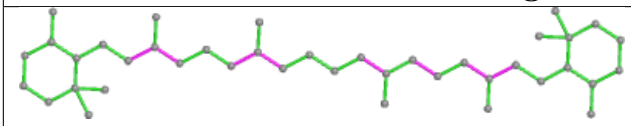


Torsions

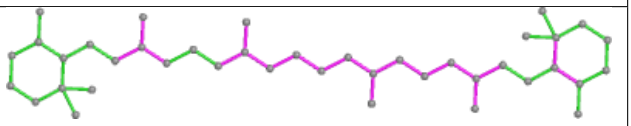


Rings

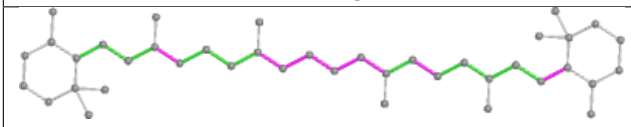
Ligand BCR B 844



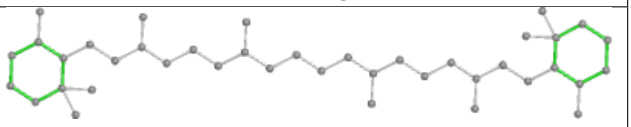
Bond lengths



Bond angles

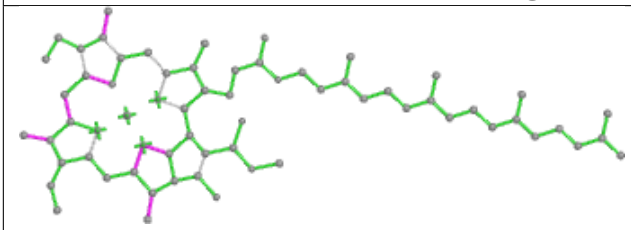


Torsions

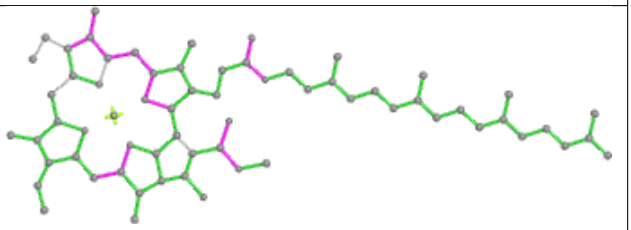


Rings

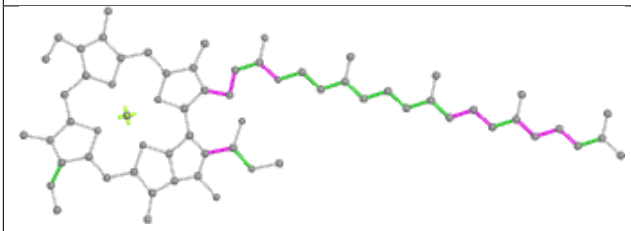
Ligand CLA A 806



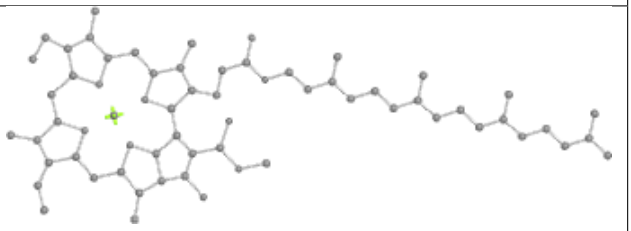
Bond lengths



Bond angles

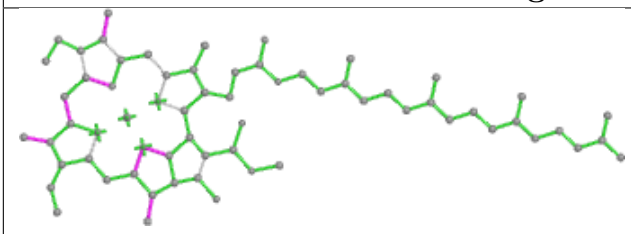


Torsions

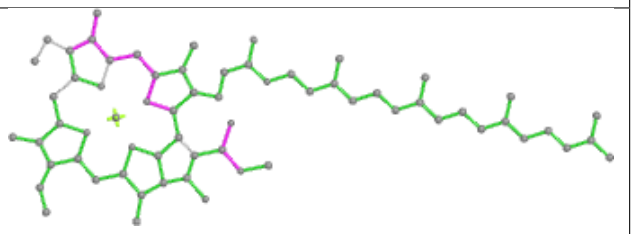


Rings

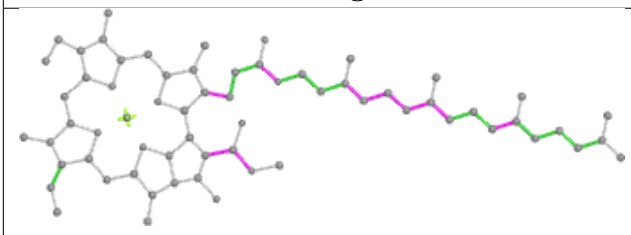
Ligand CLA x 610



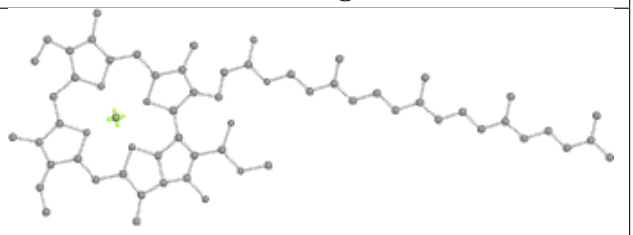
Bond lengths



Bond angles

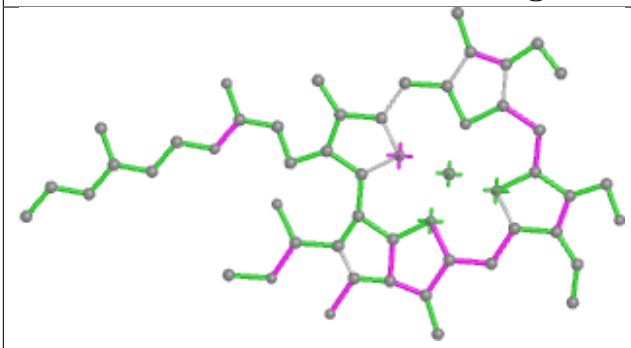


Torsions

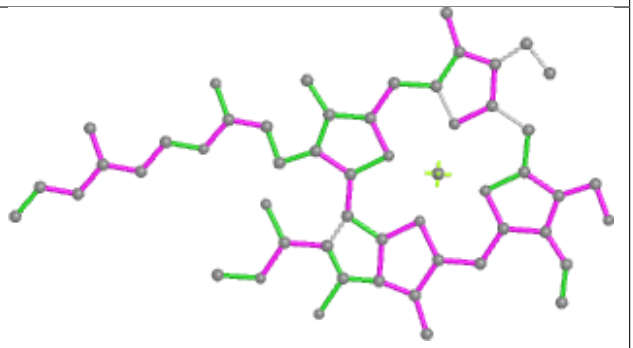


Rings

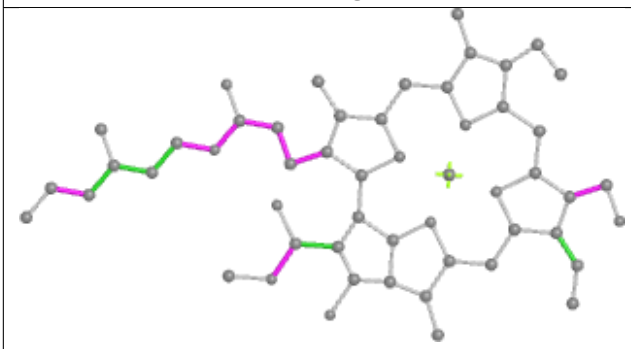
Ligand CHL x 605



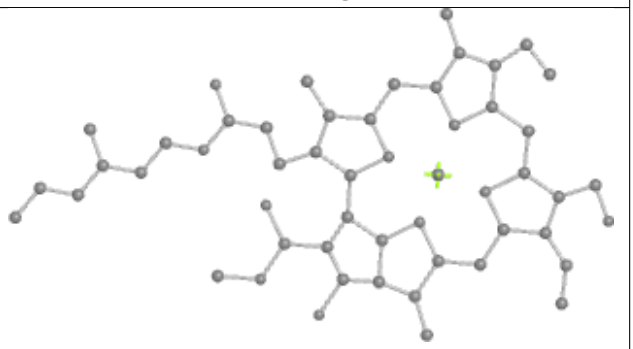
Bond lengths



Bond angles

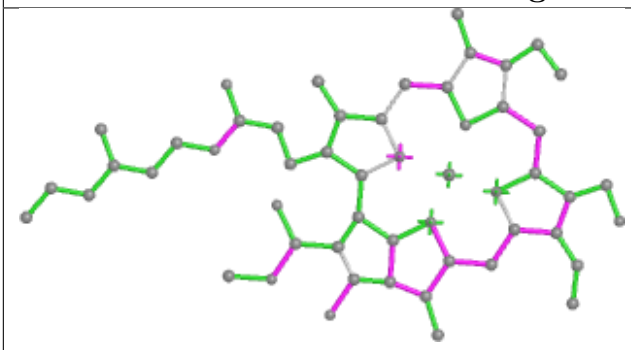


Torsions



Rings

Ligand CHL z 609



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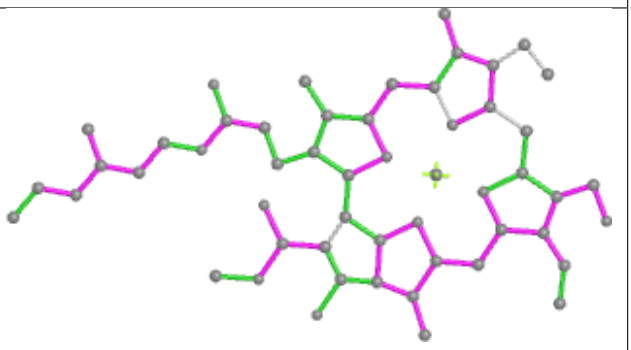
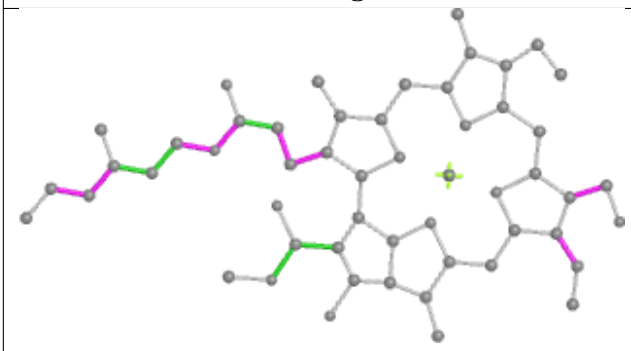
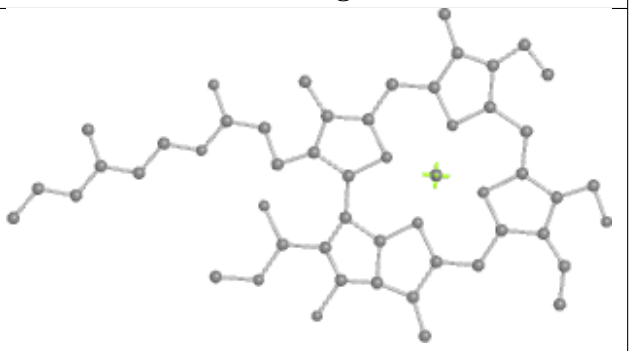


Bond angles

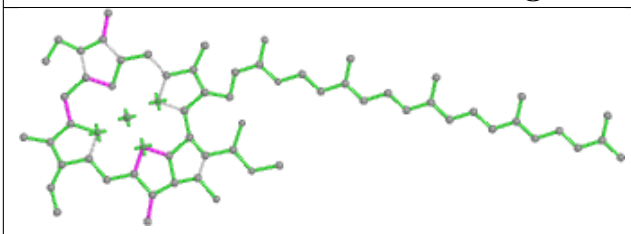


Torsions

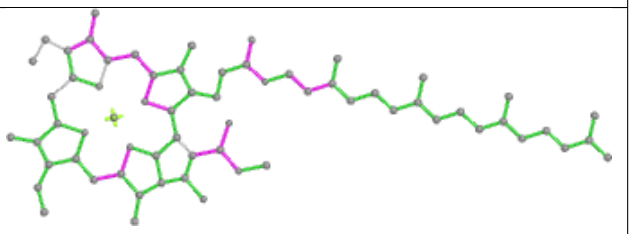


Rings

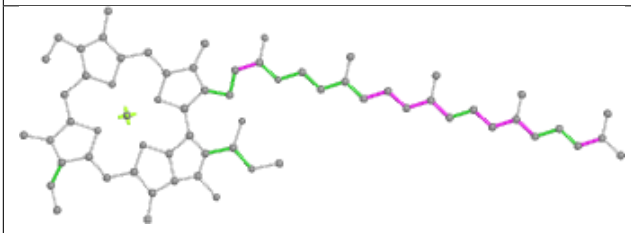
Ligand CLA B 806



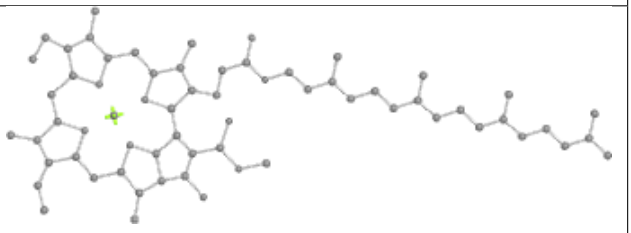
Bond lengths



Bond angles

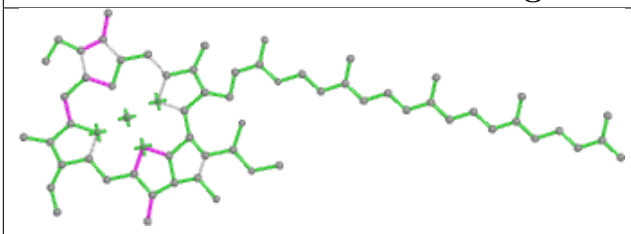


Torsions

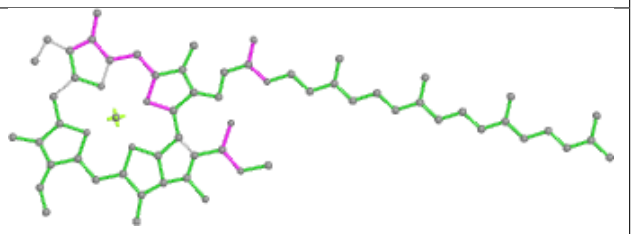


Rings

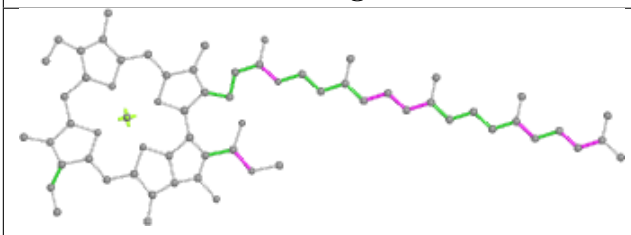
Ligand CLA B 840



Bond lengths



Bond angles



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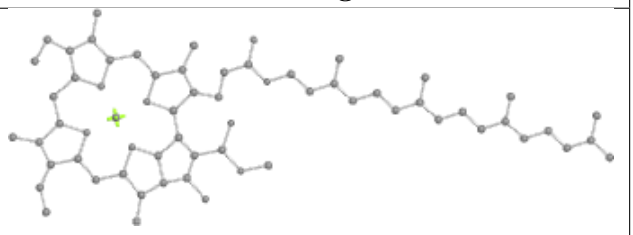
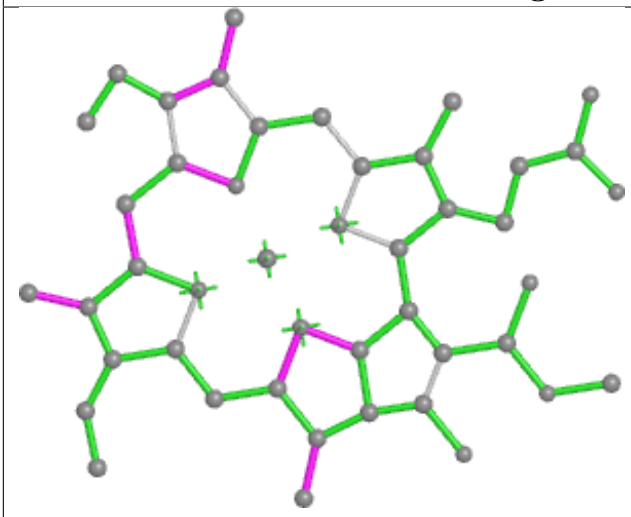
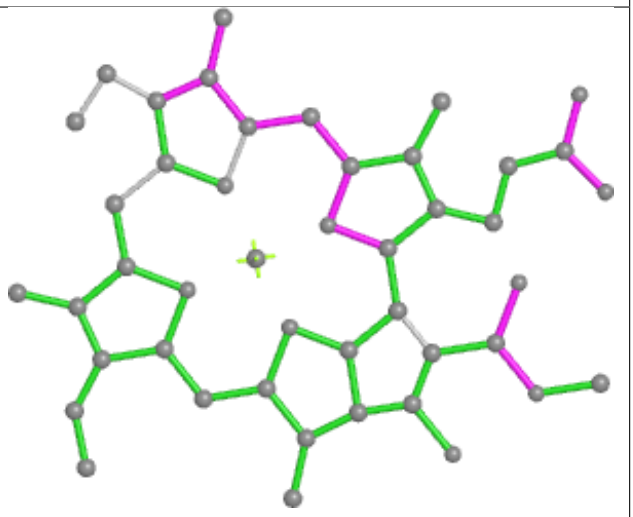


Rings

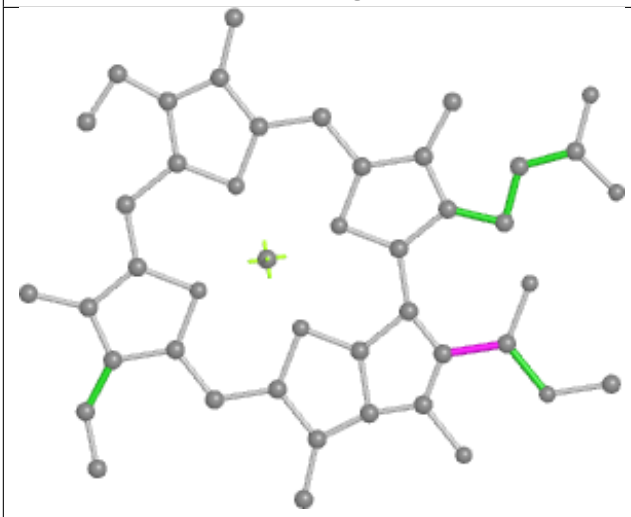
Ligand CLA z 612



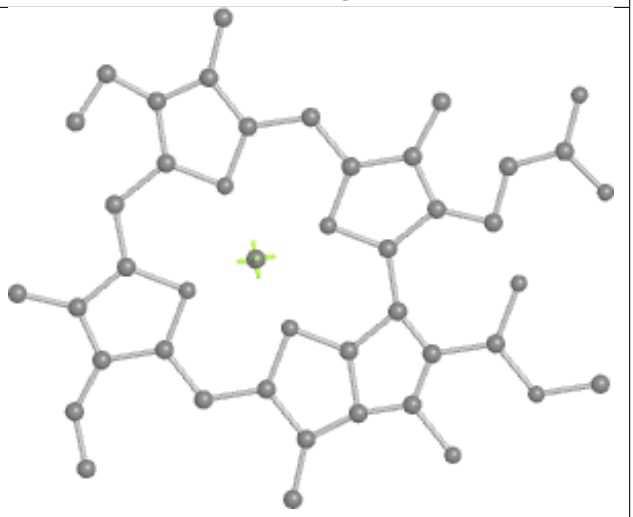
Bond lengths



Bond angles

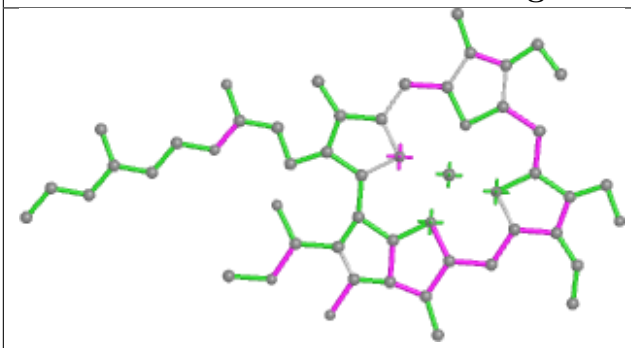


Torsions

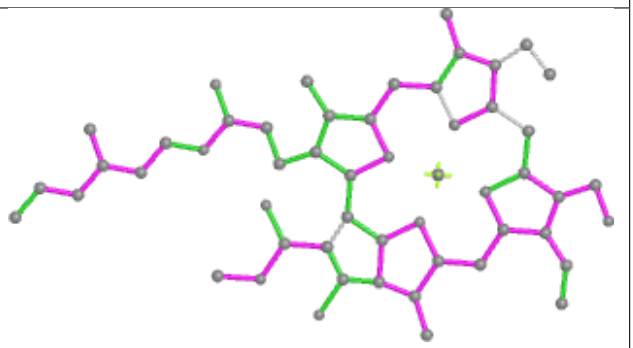


Rings

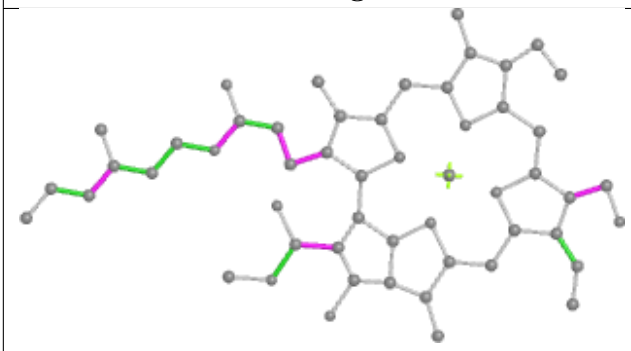
Ligand CHL x 601



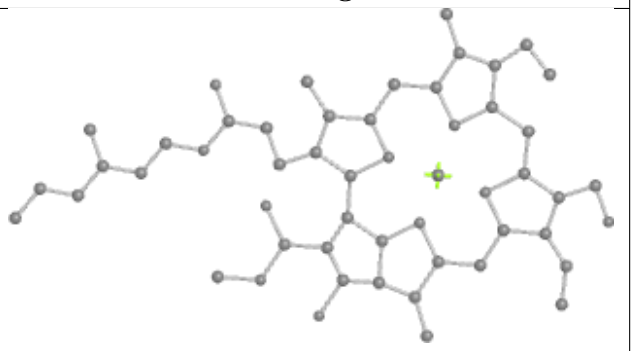
Bond lengths



Bond angles

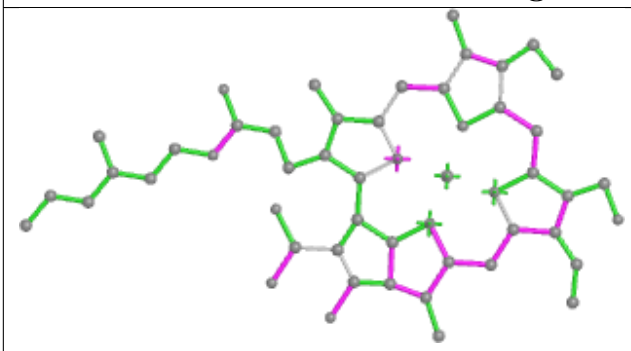


Torsions

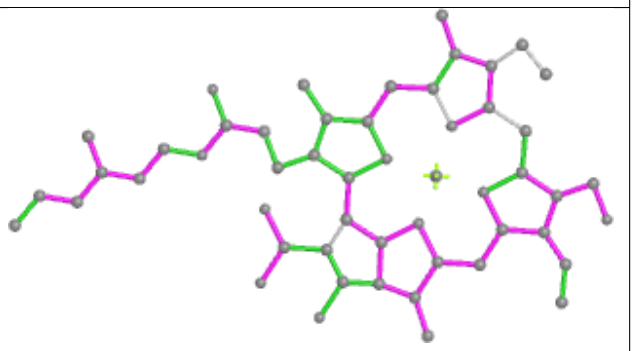


Rings

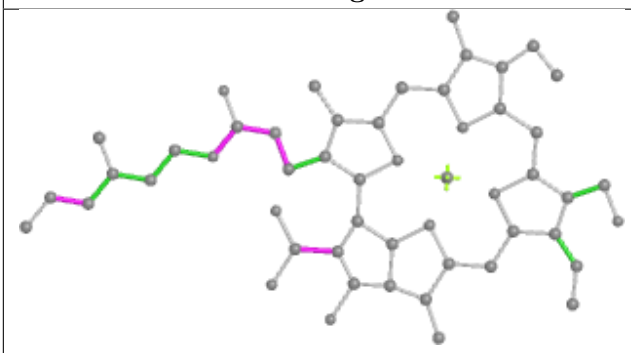
Ligand CHL 1 601



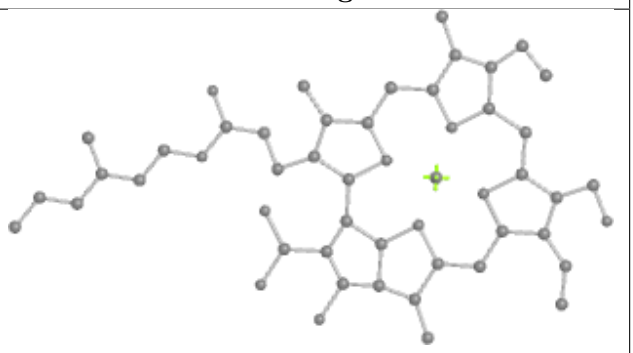
Bond lengths



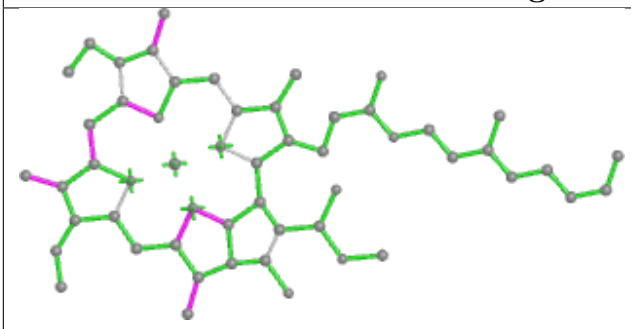
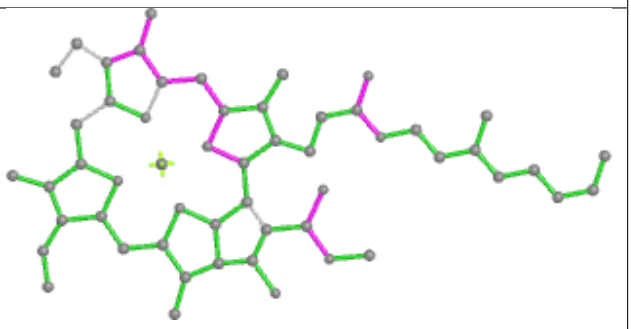
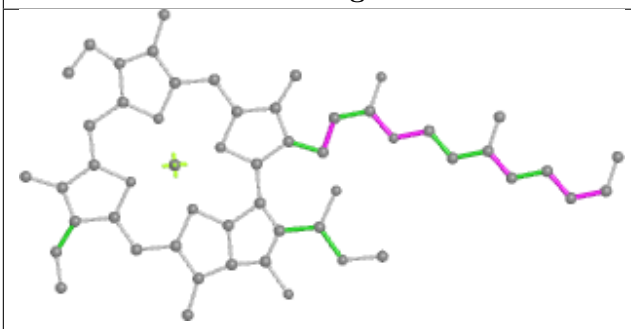
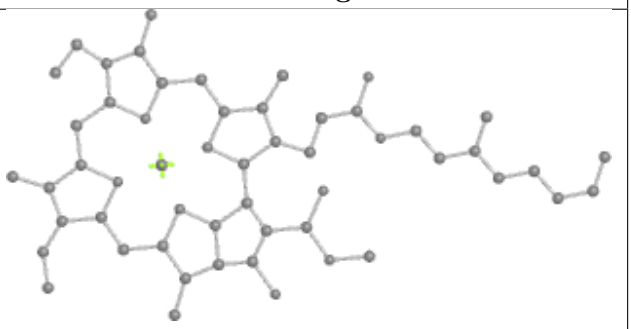
Bond angles

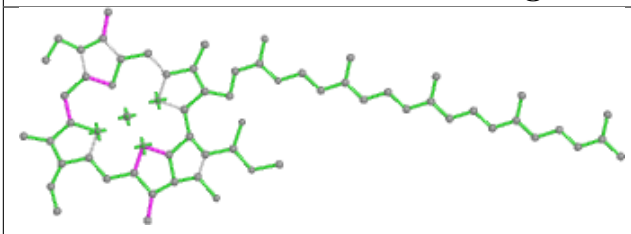
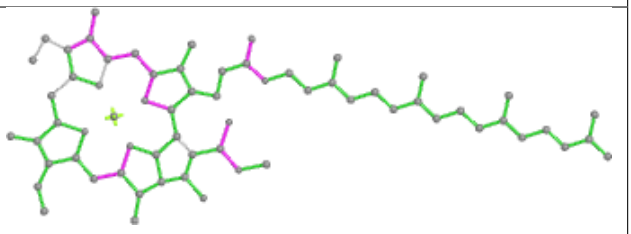
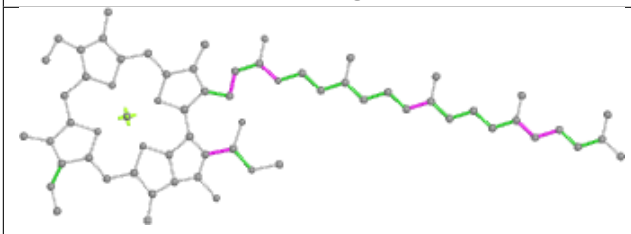
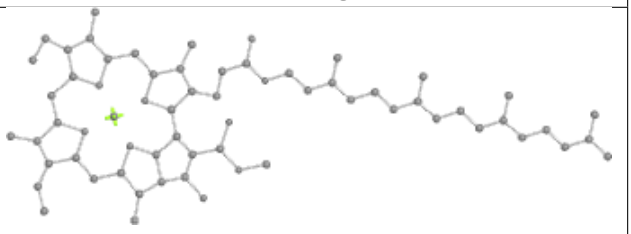


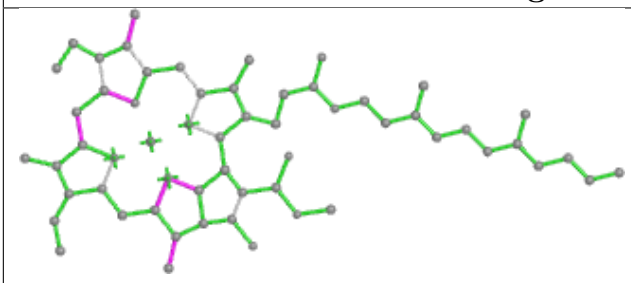
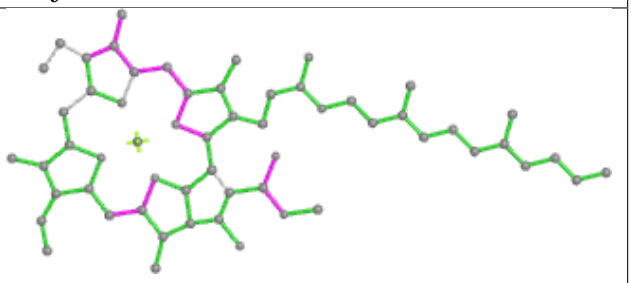
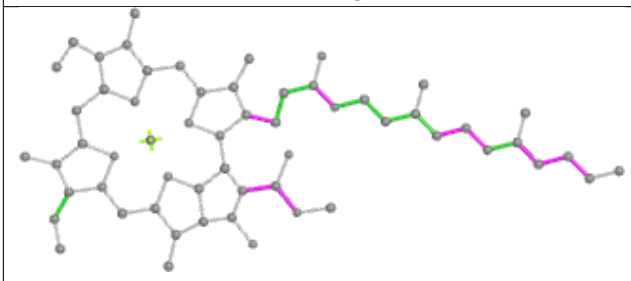
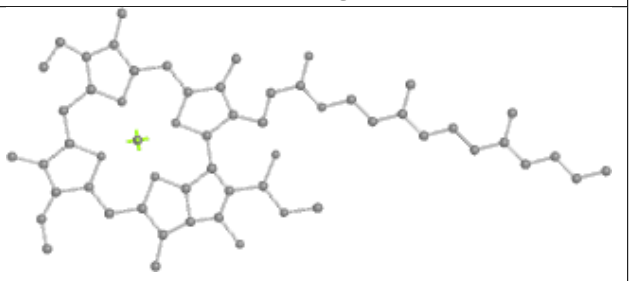
Torsions



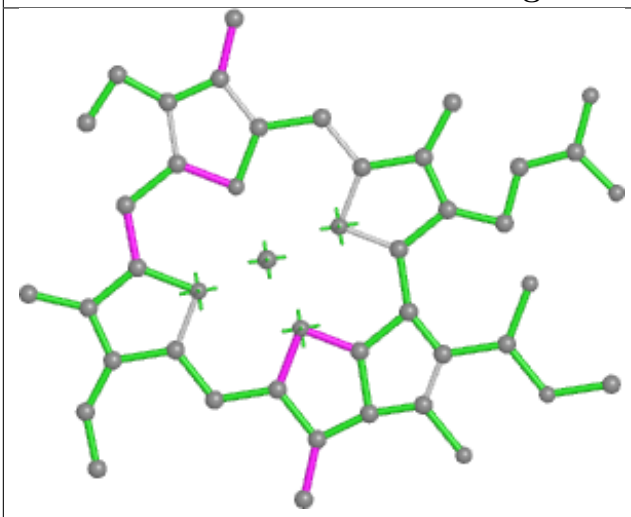
Rings

Ligand CLA 1 603	
	
Bond lengths	Bond angles
	
Torsions	Rings

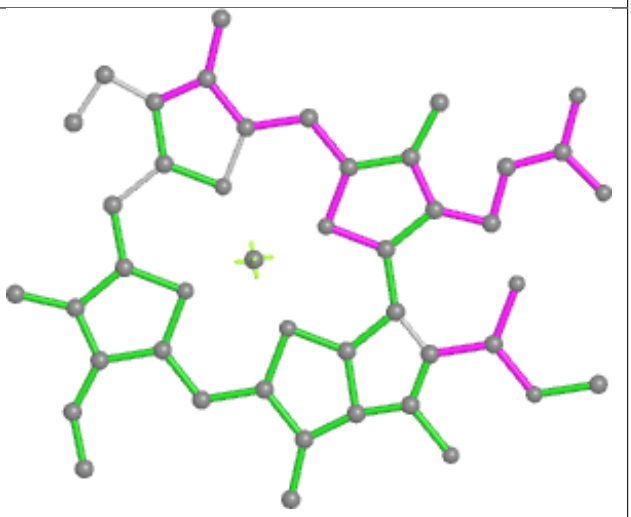
Ligand CLA B 839	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand CLA y 610	
	
Bond lengths	**Bond angles**
	
Torsions	**Rings**

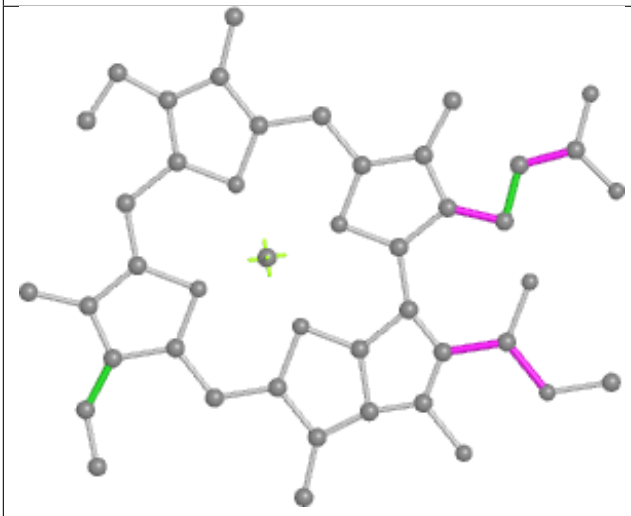
Ligand CLA K 203



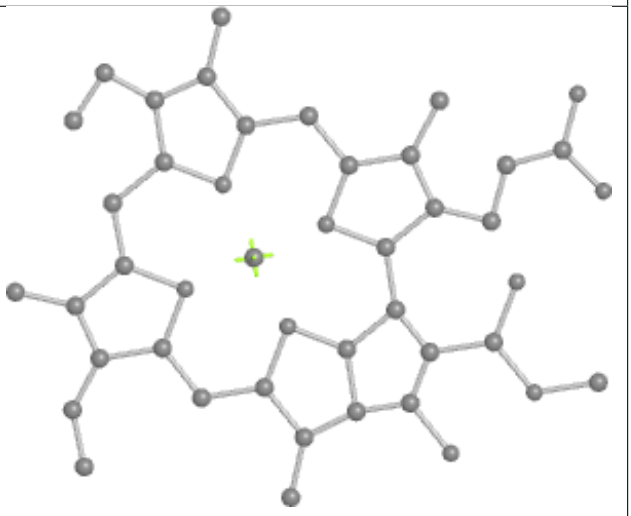
Bond lengths



Bond angles

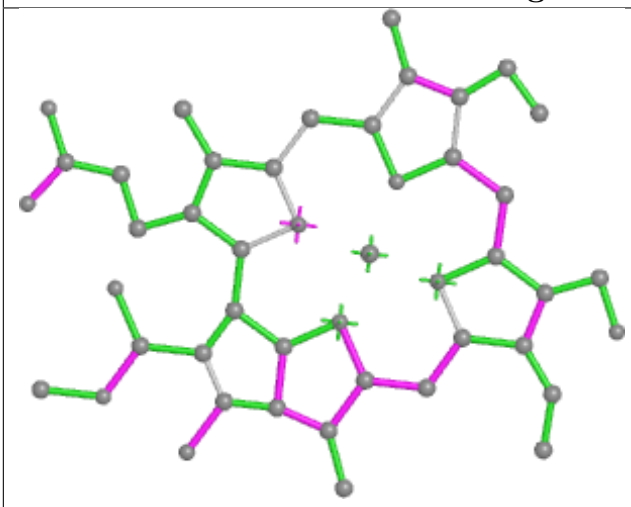


Torsions

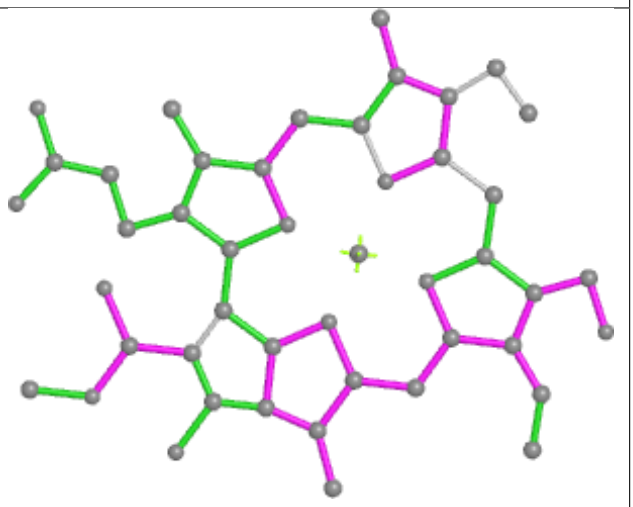


Rings

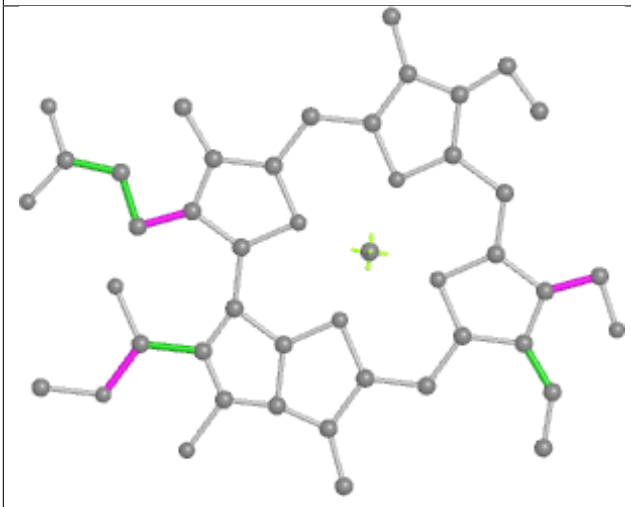
Ligand CHL x 606



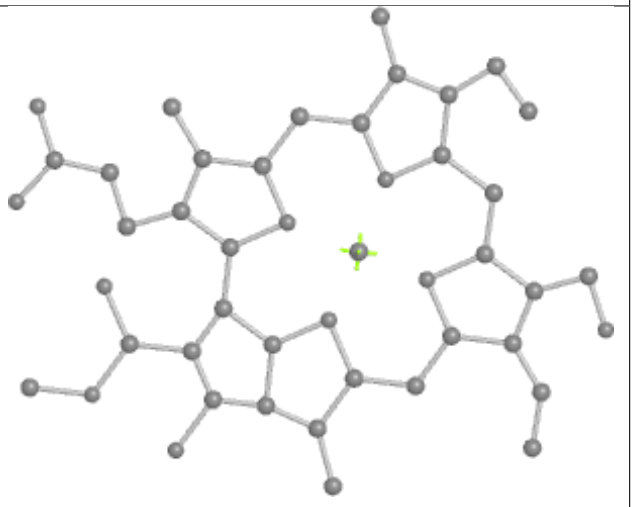
Bond lengths



Bond angles

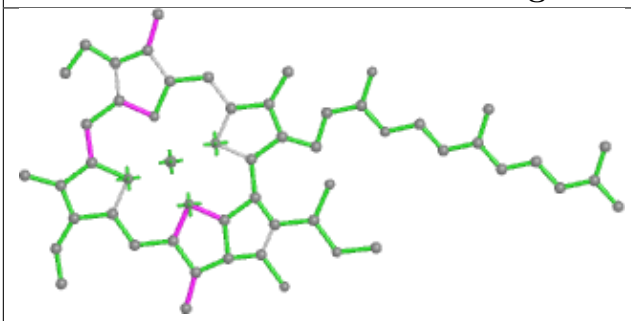


Torsions

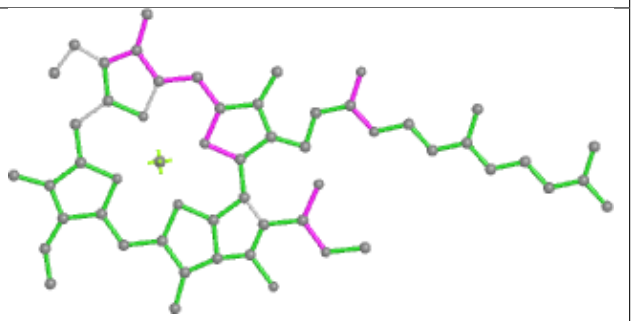


Rings

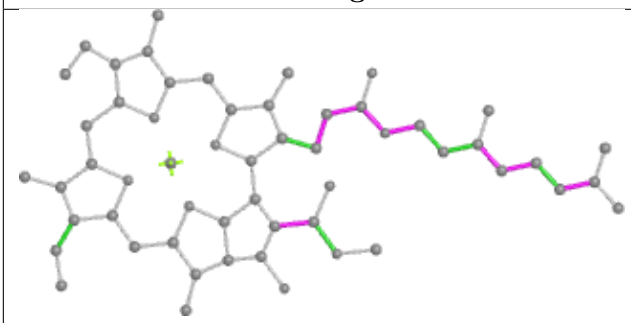
Ligand CLA 3 602



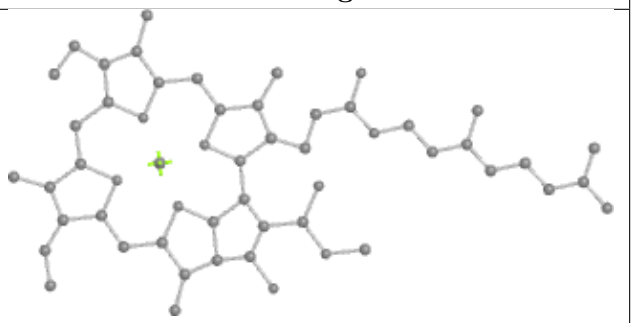
Bond lengths



Bond angles

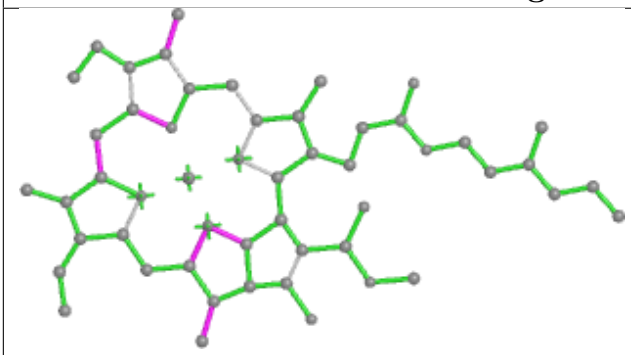


Torsions



Rings

Ligand CLA x 604



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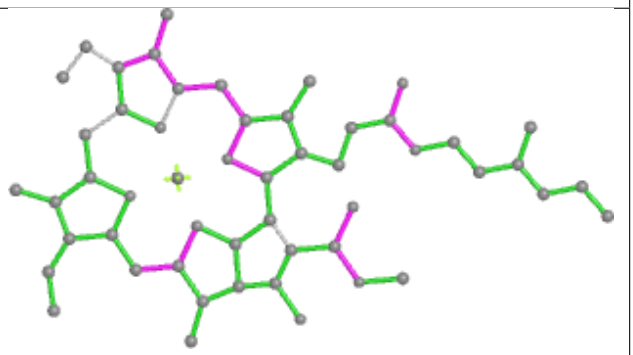
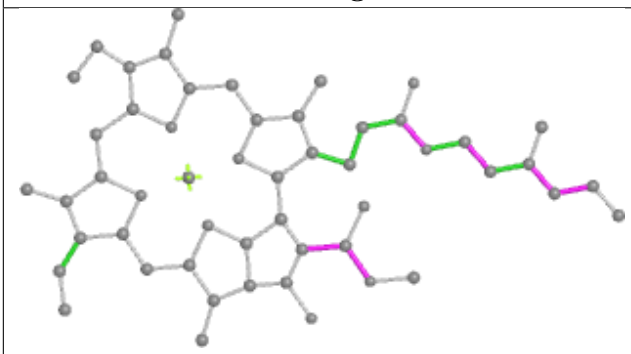
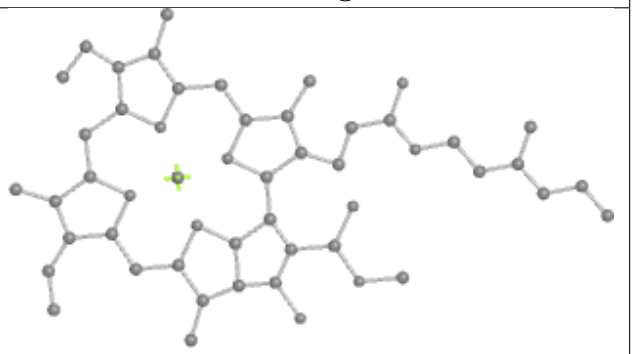


Bond angles

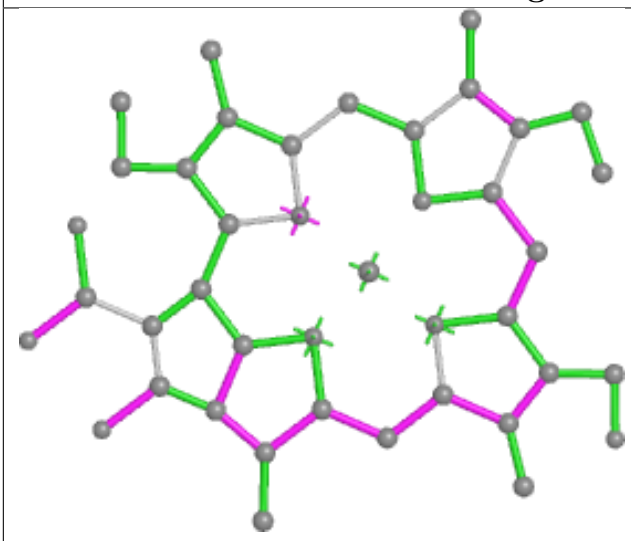


Torsions

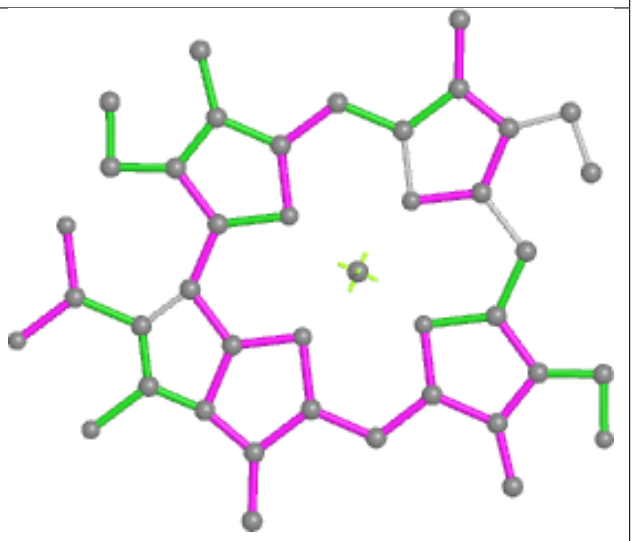


Rings

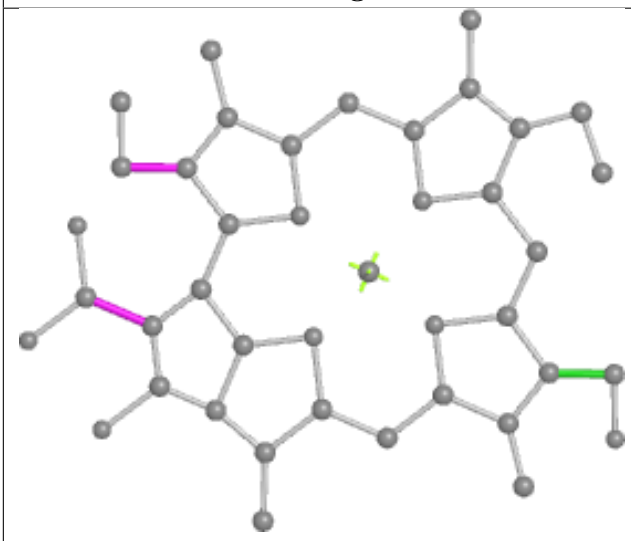
Ligand CHL 4 605



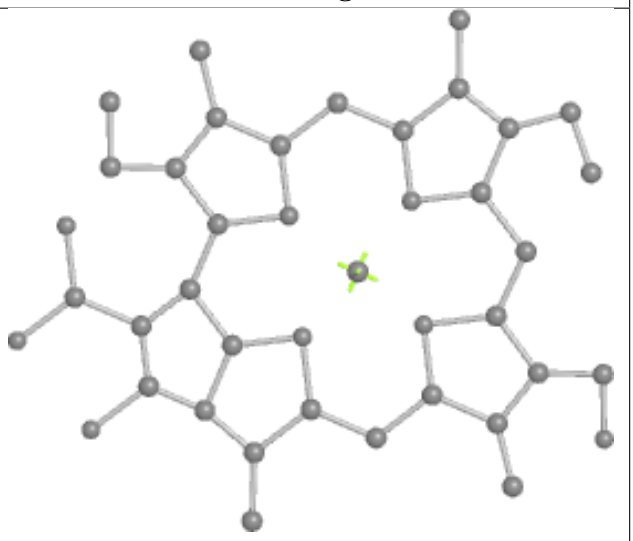
Bond lengths



Bond angles

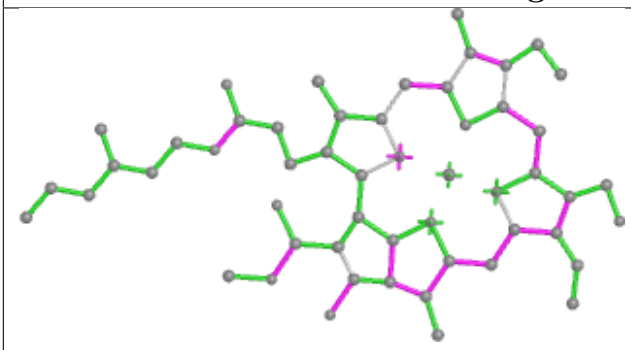


Torsions

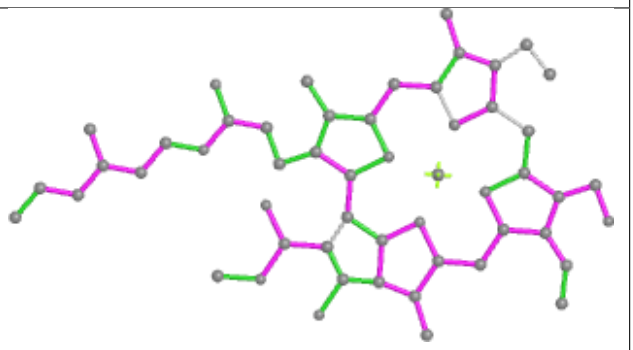


Rings

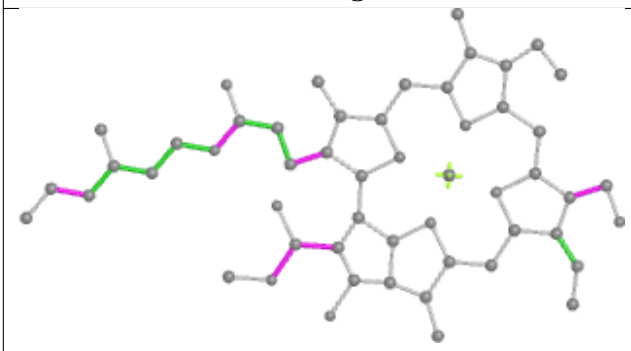
Ligand CHL x 607



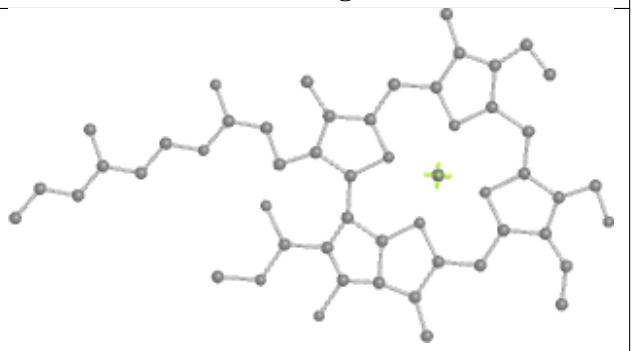
Bond lengths



Bond angles

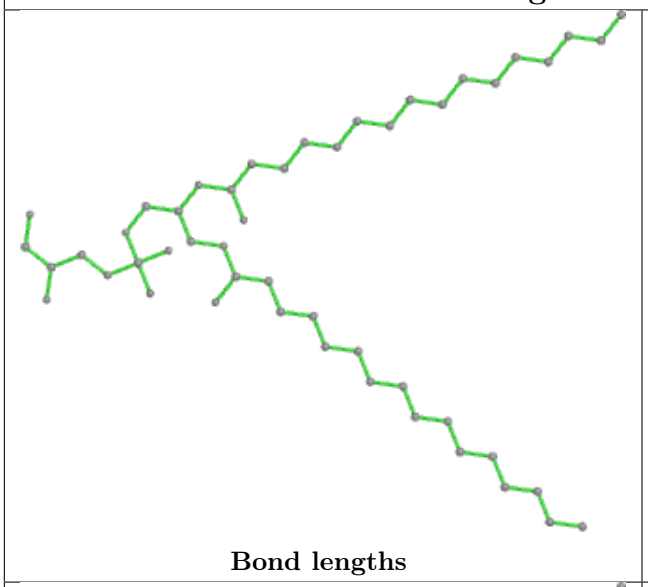


Torsions

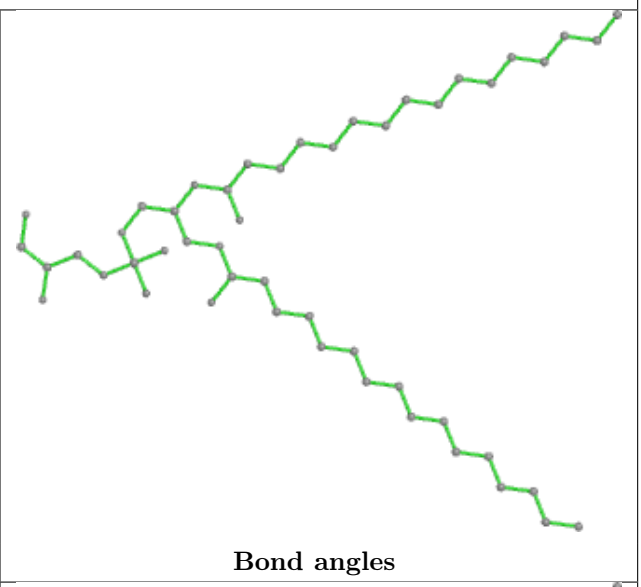


Rings

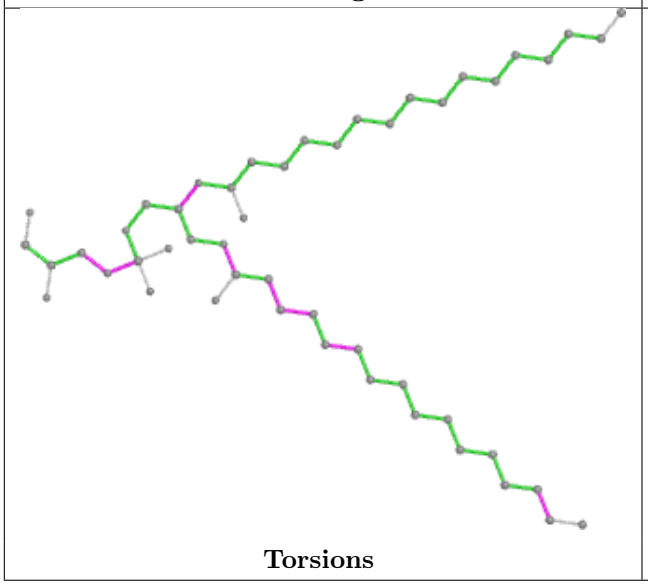
Ligand LHG z 619



Bond lengths



Bond angles



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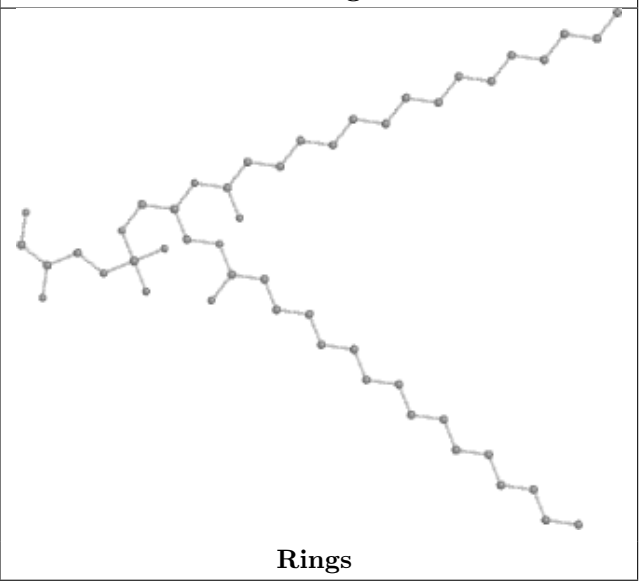
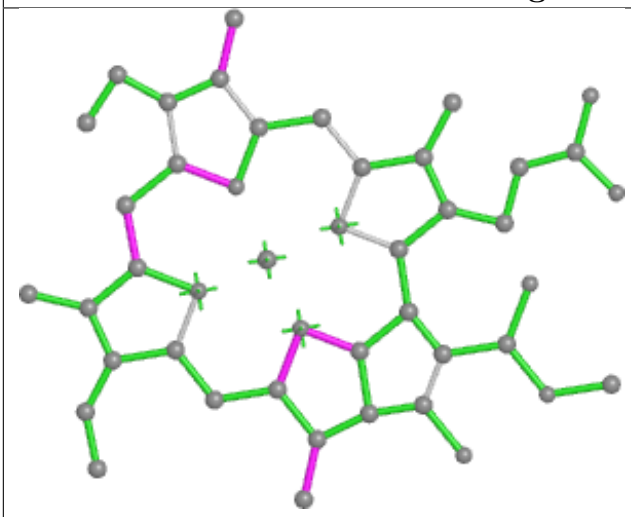
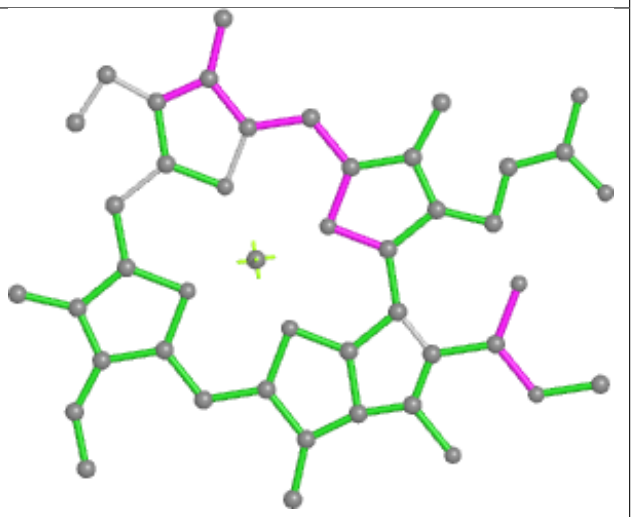


Rings

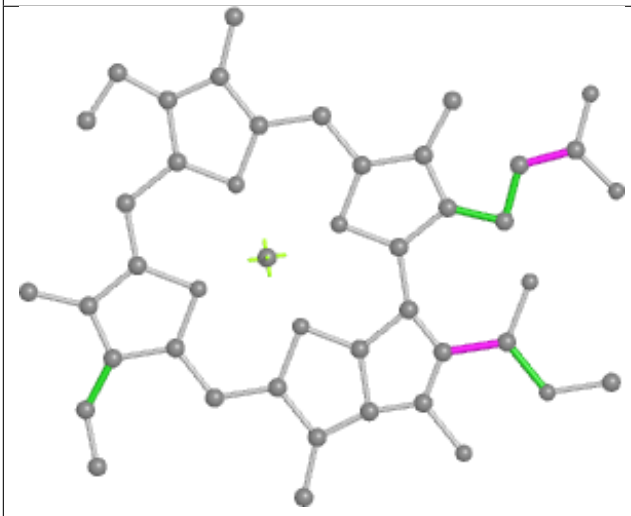
Ligand CLA 1 611



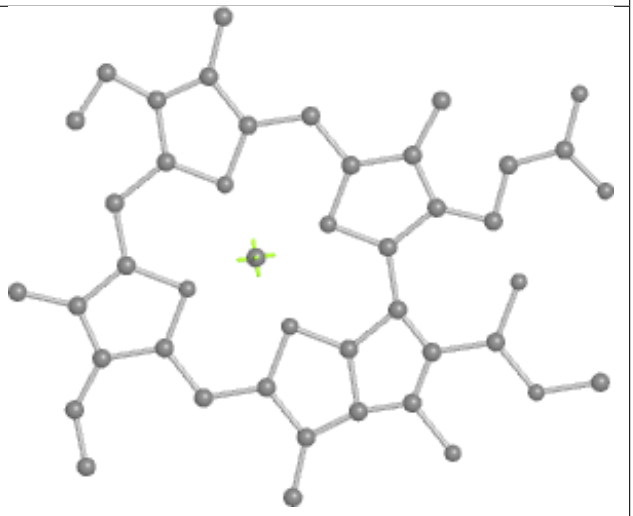
Bond lengths



Bond angles

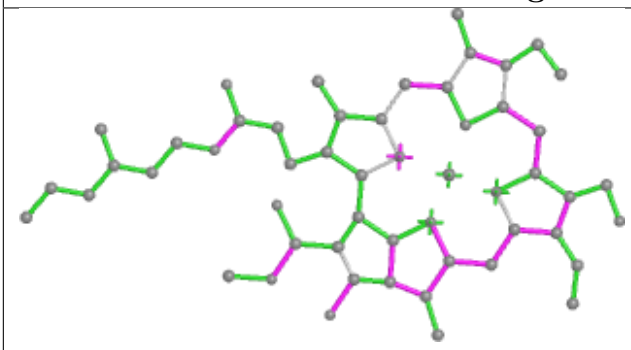


Torsions

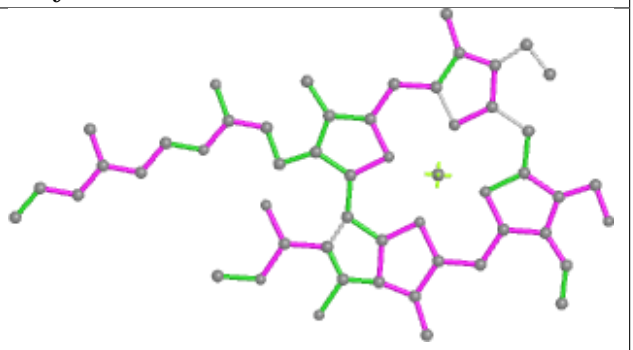


Rings

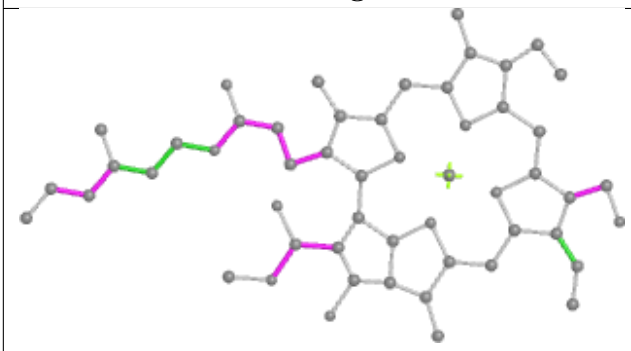
Ligand CHL y 609



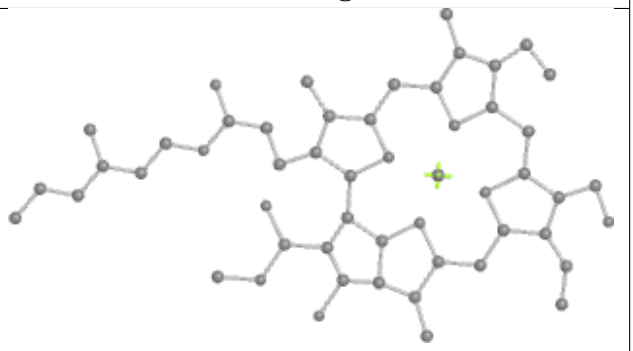
Bond lengths



Bond angles

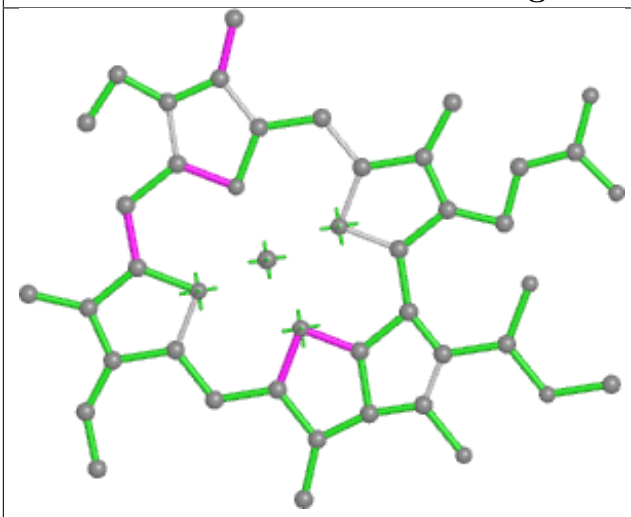


Torsions



Rings

Ligand CLA 3 603



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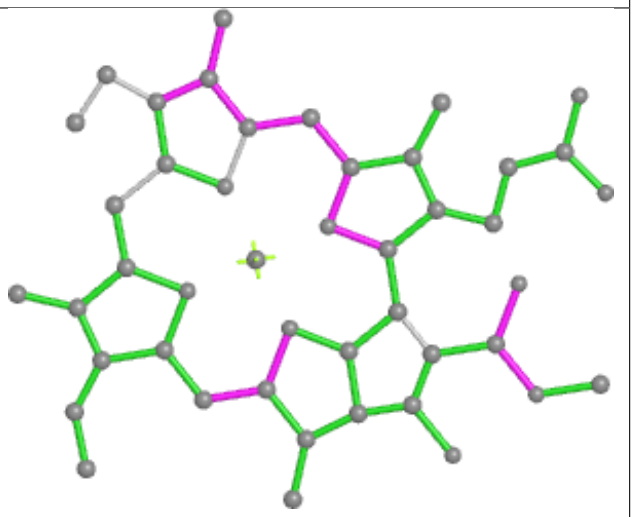
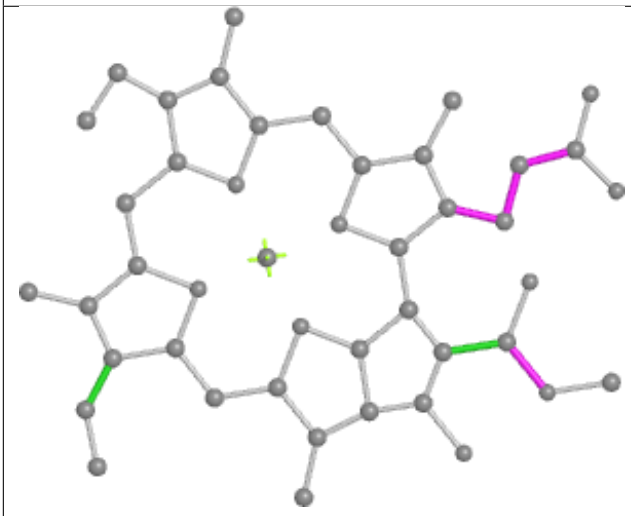
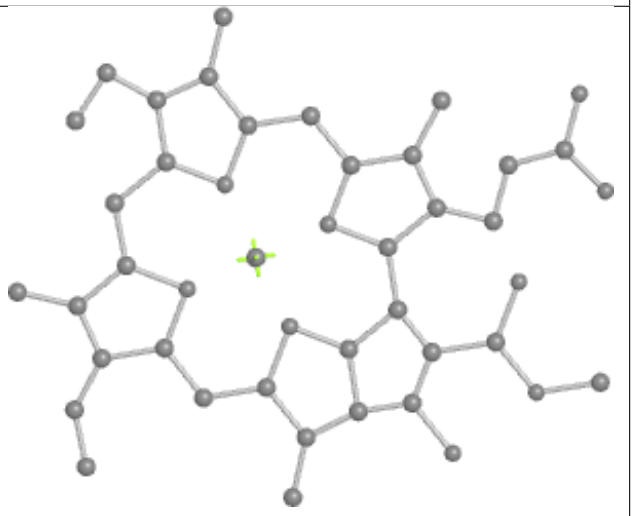


Bond angles

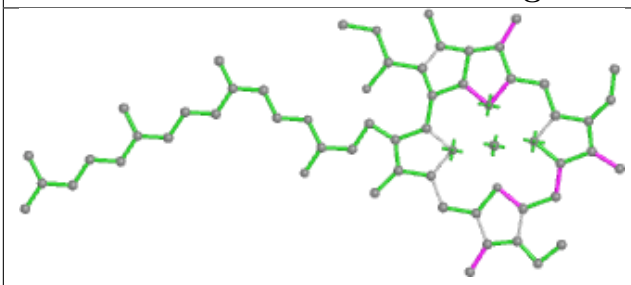


Torsions

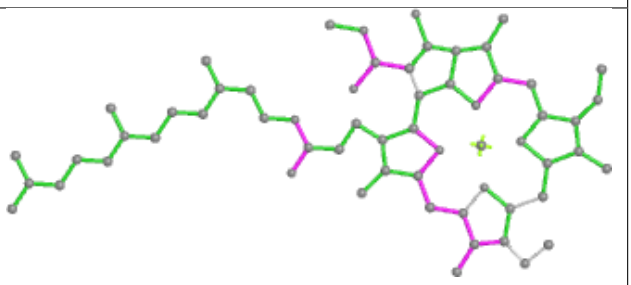


Rings

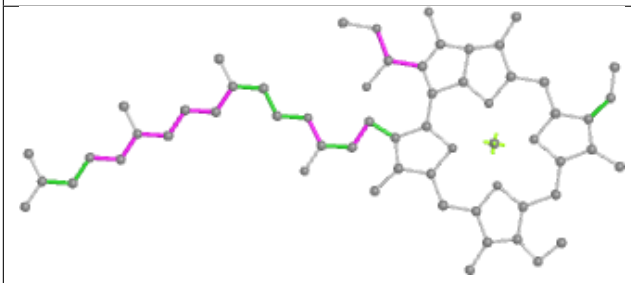
Ligand CLA A 818



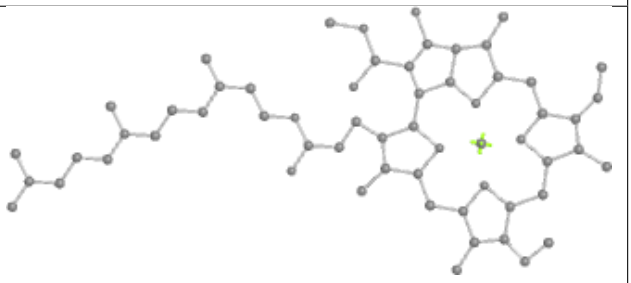
Bond lengths



Bond angles

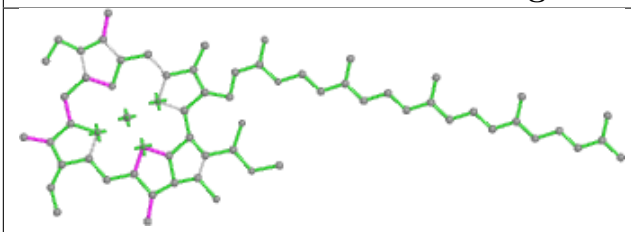


Torsions

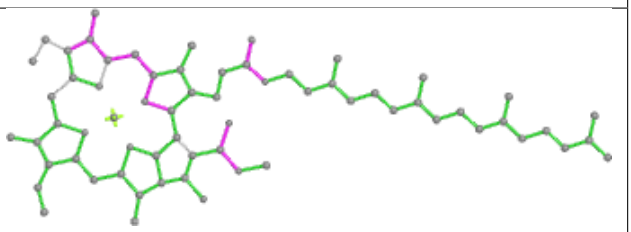


Rings

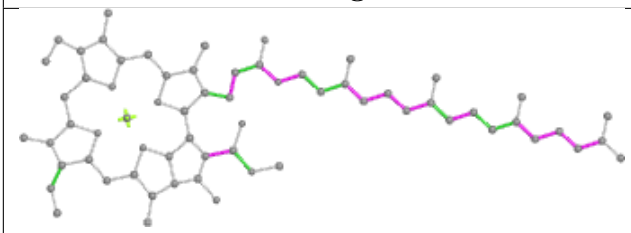
Ligand CLA 2 602



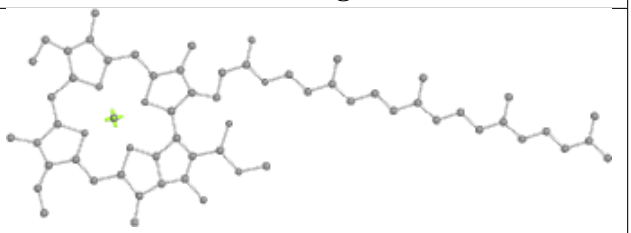
Bond lengths



Bond angles

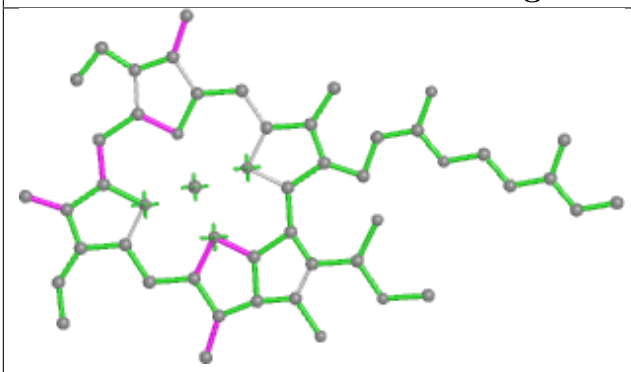


Torsions

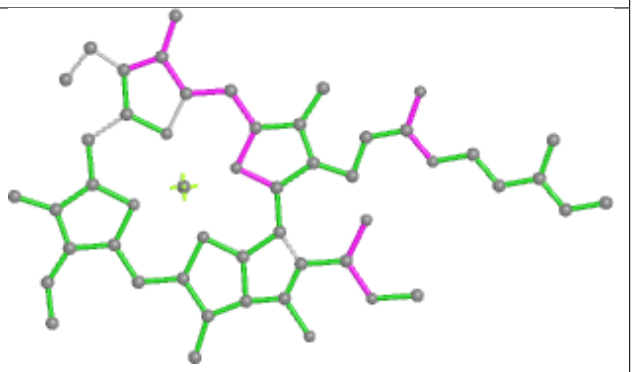


Rings

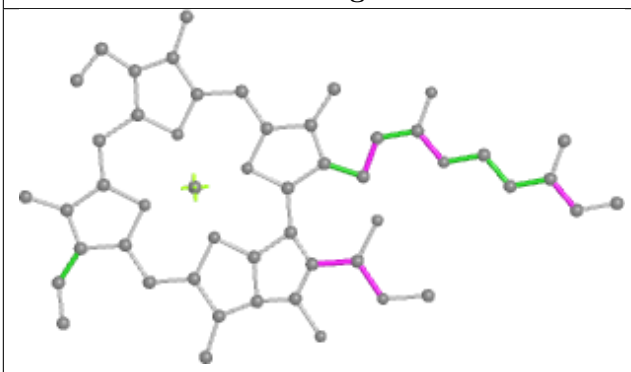
Ligand CLA A 838



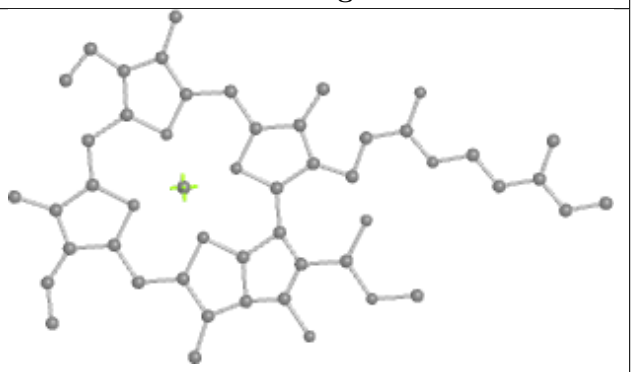
Bond lengths



Bond angles

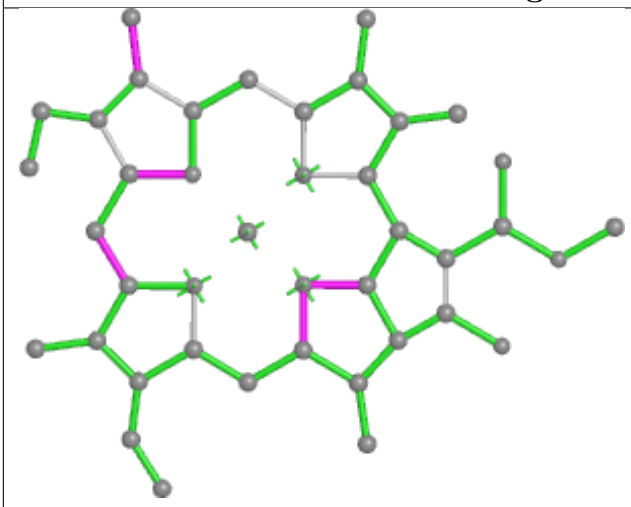


Torsions

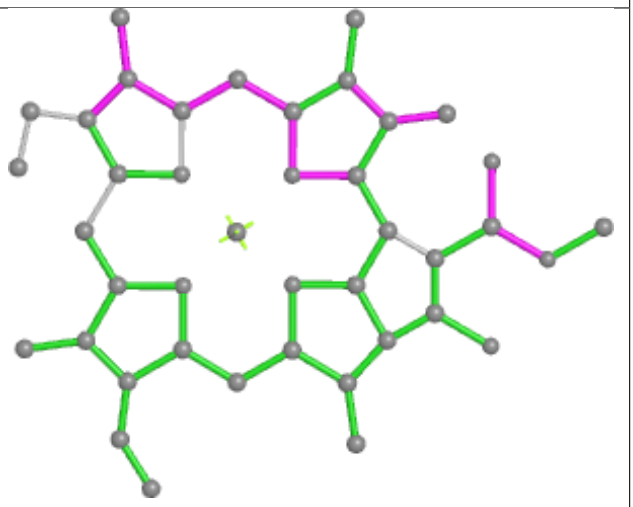


Rings

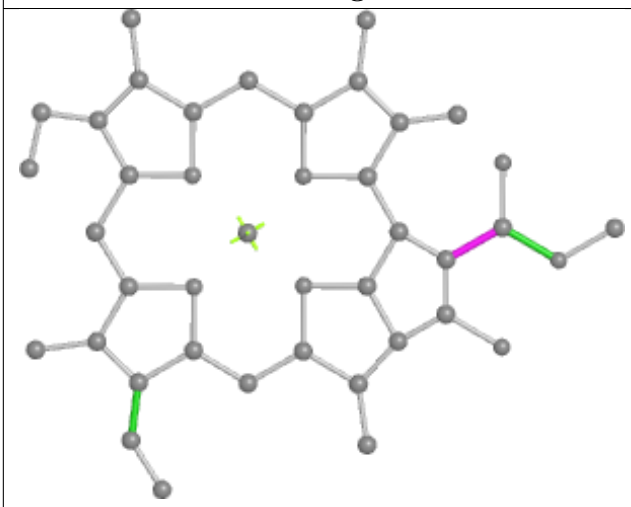
Ligand CLA F 303



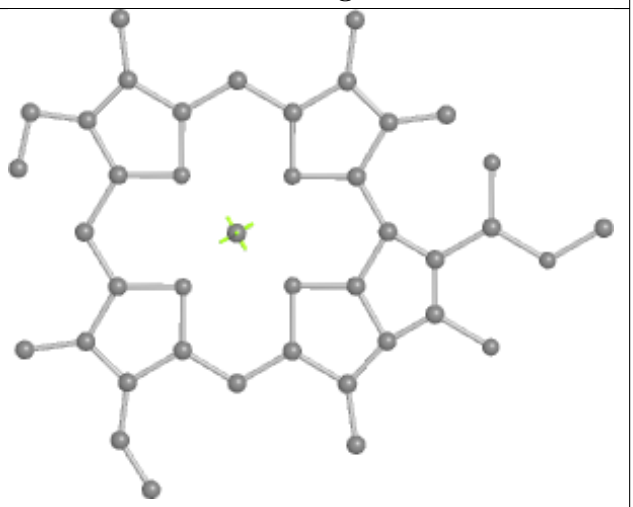
Bond lengths



Bond angles

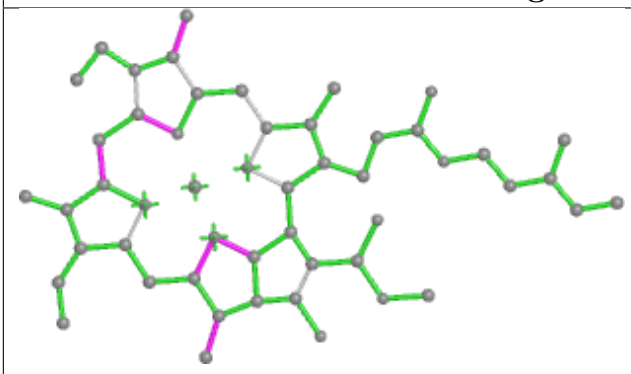


Torsions

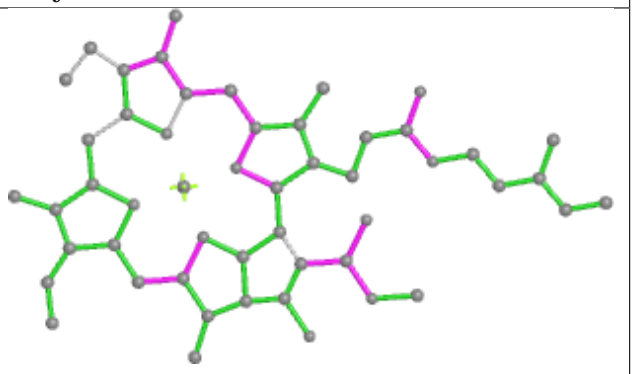


Rings

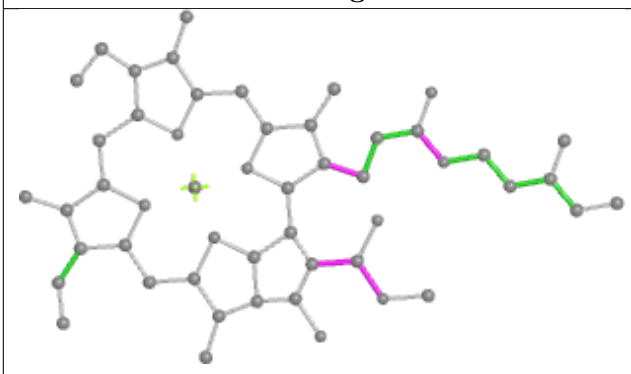
Ligand CLA y 604



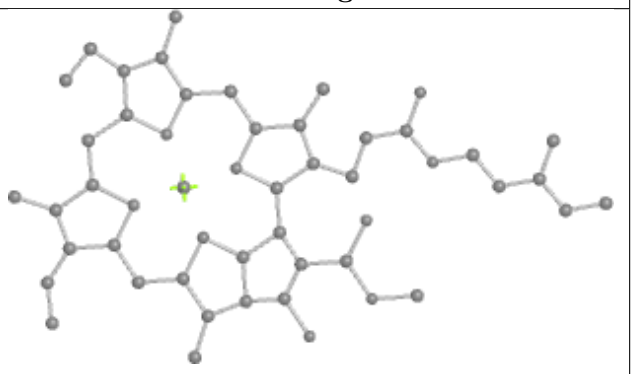
Bond lengths



Bond angles

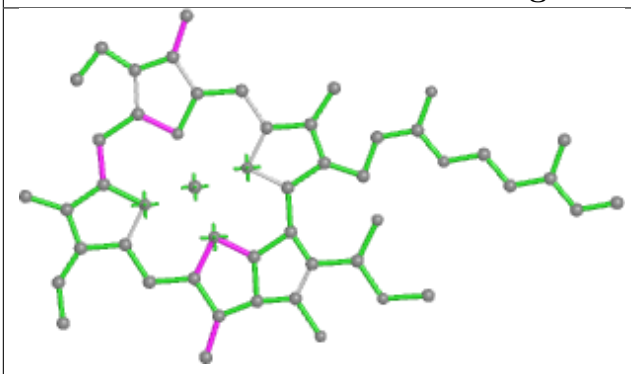


Torsions

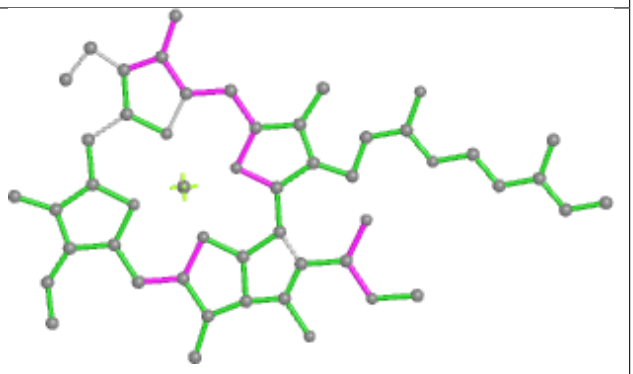


Rings

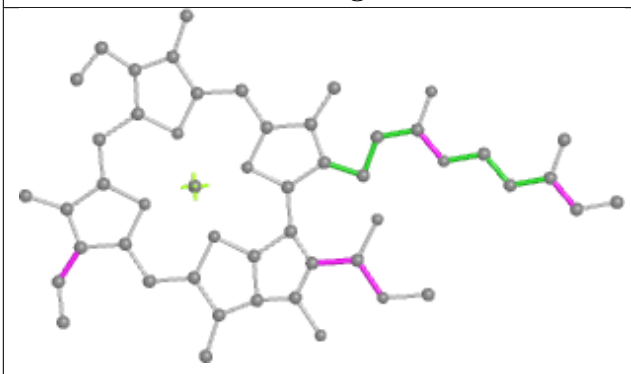
Ligand CLA z 604



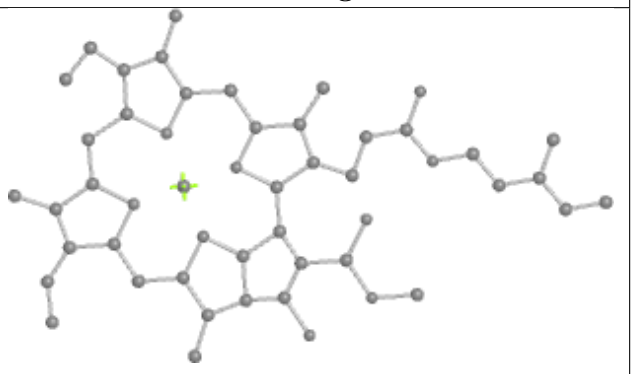
Bond lengths



Bond angles

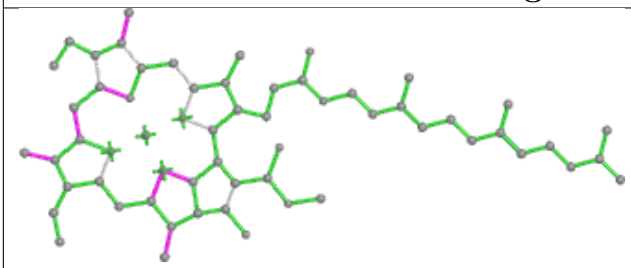


Torsions

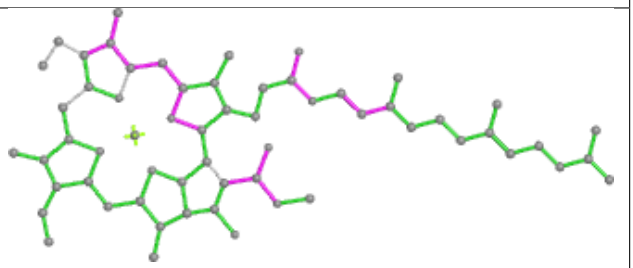


Rings

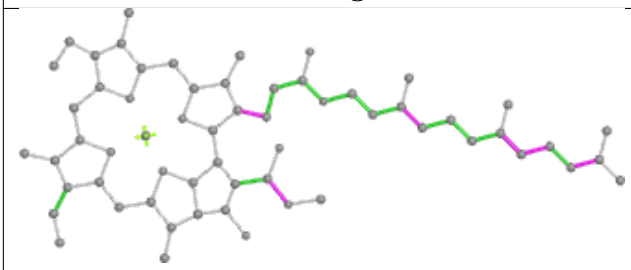
Ligand CLA B 818



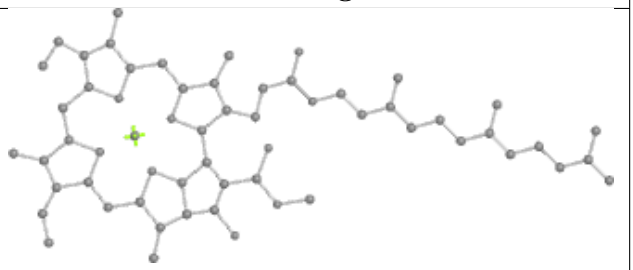
Bond lengths



Bond angles

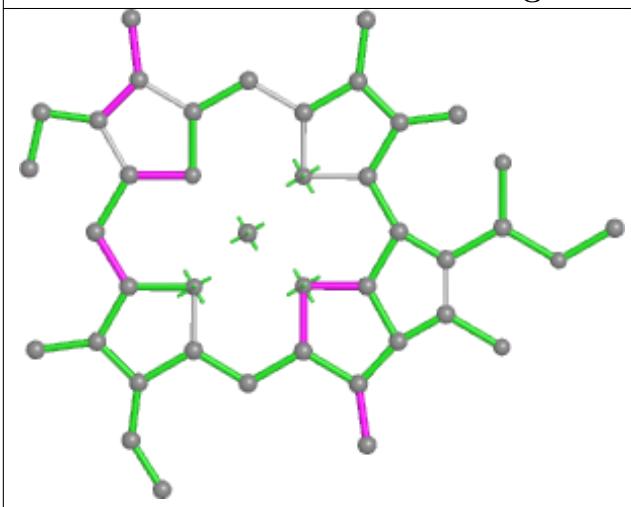


Torsions



Rings

Ligand CLA A 824



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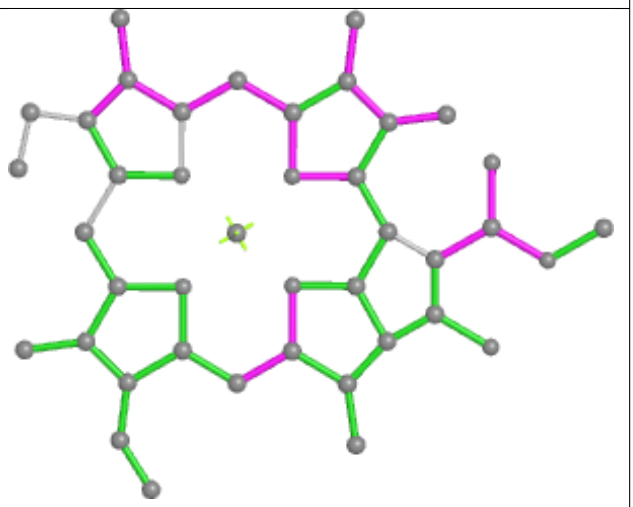
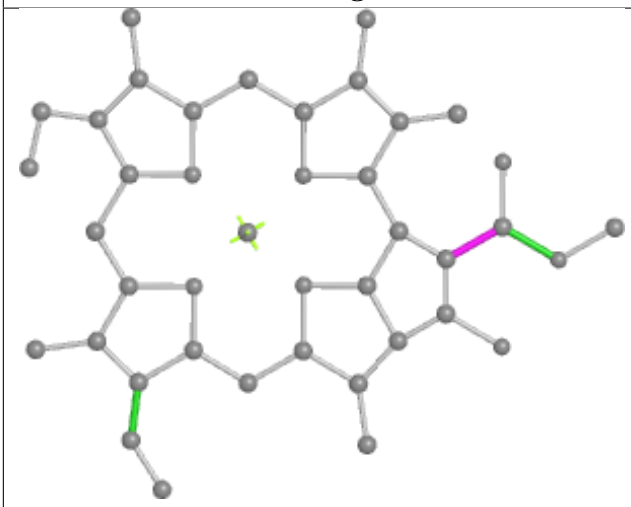


Bond angles



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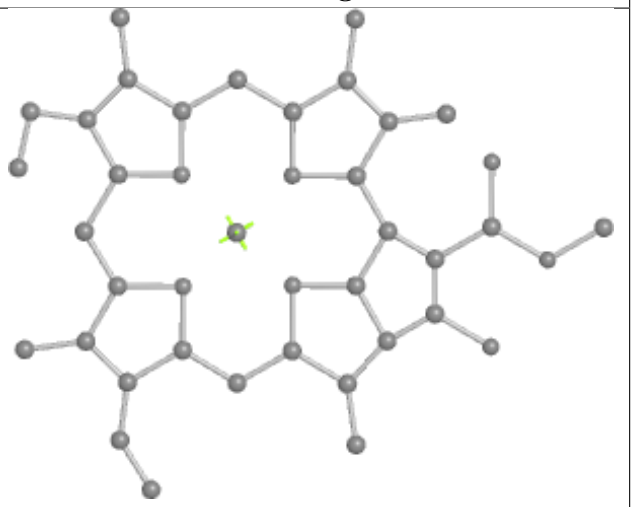
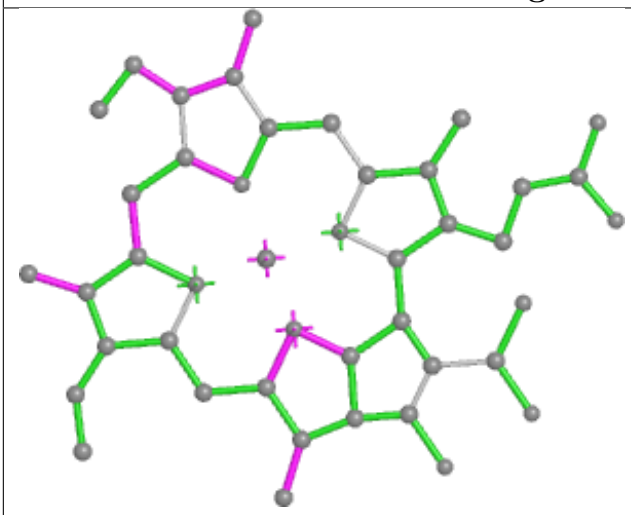


Rings

Ligand CLA 2 603



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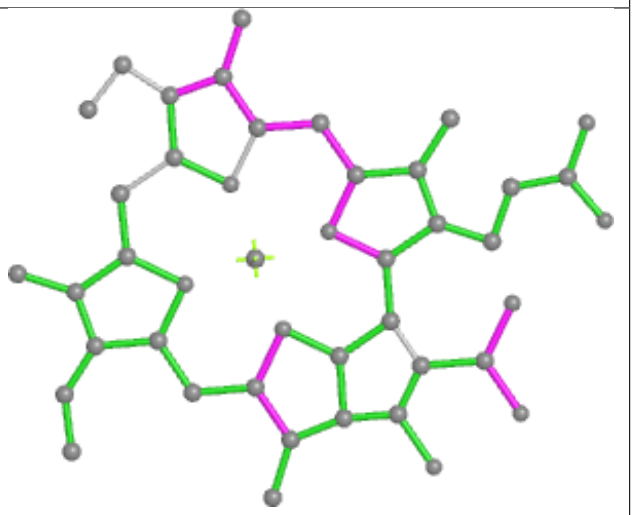
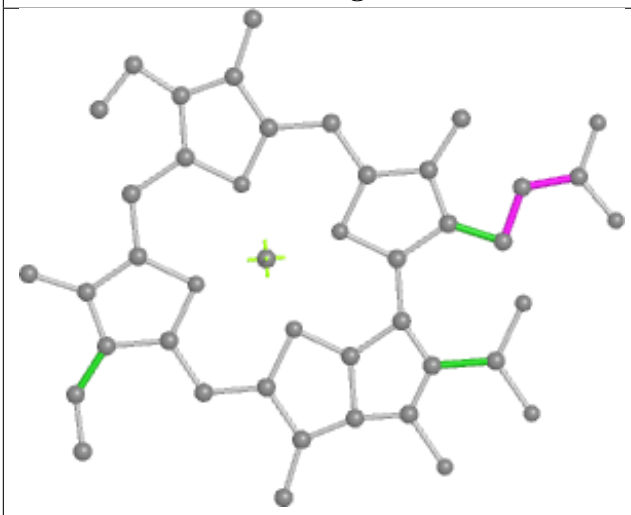
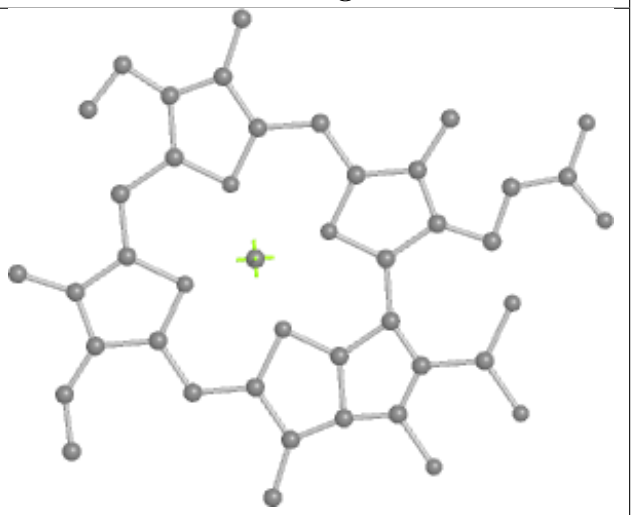


Bond angles

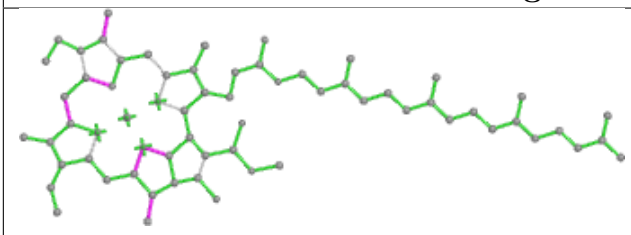


Torsions

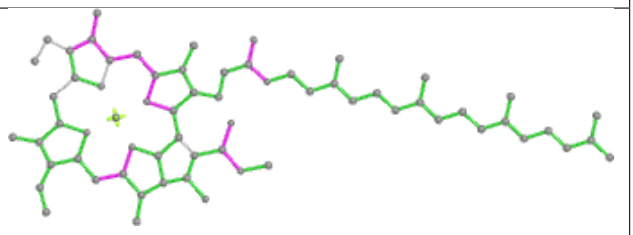


Rings

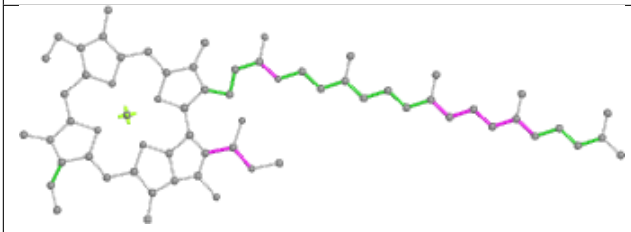
Ligand CLA A 811



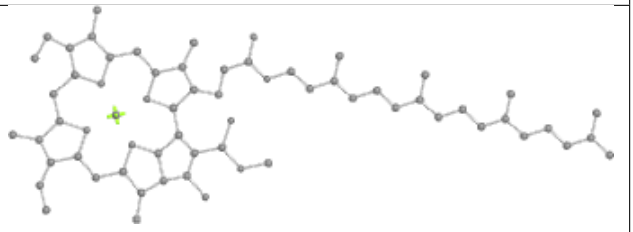
Bond lengths



Bond angles

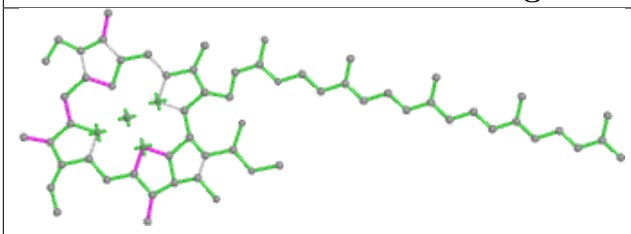


Torsions



Rings

Ligand CLA A 830



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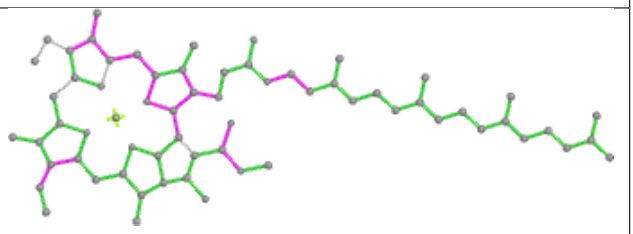
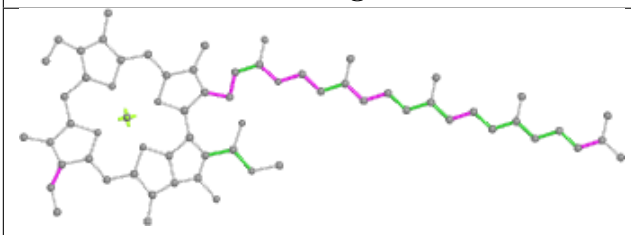


Bond angles



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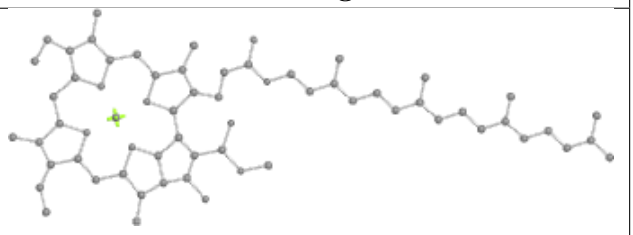
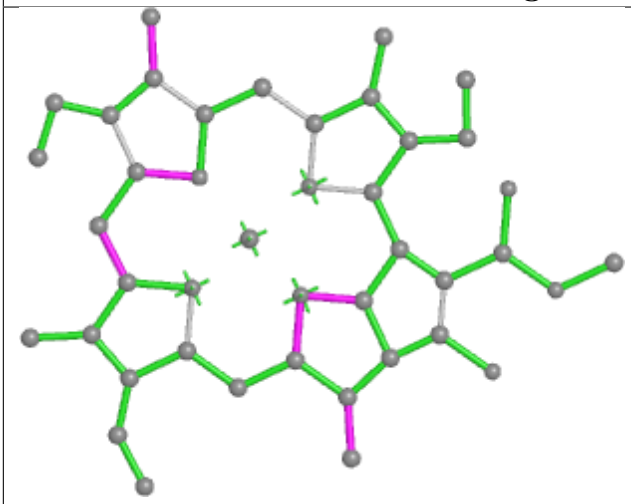


Rings

Ligand CLA G 202



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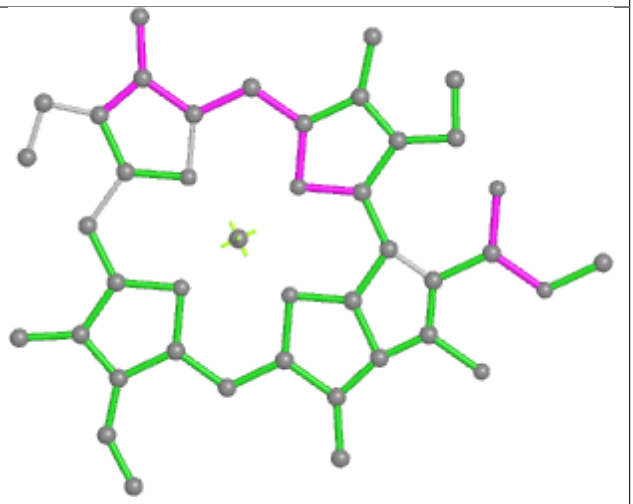
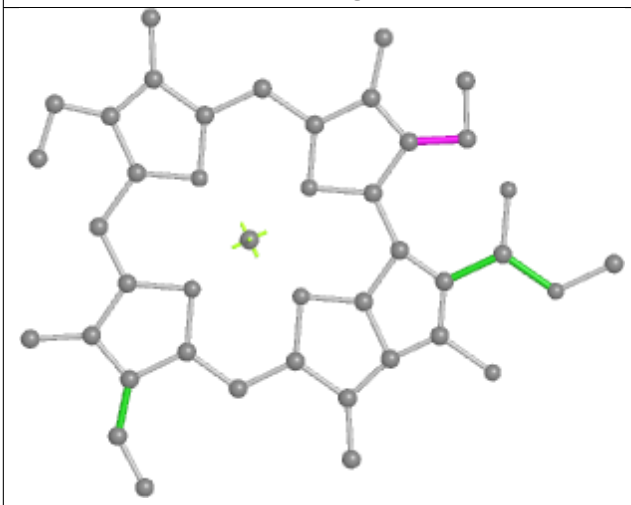


Bond angles



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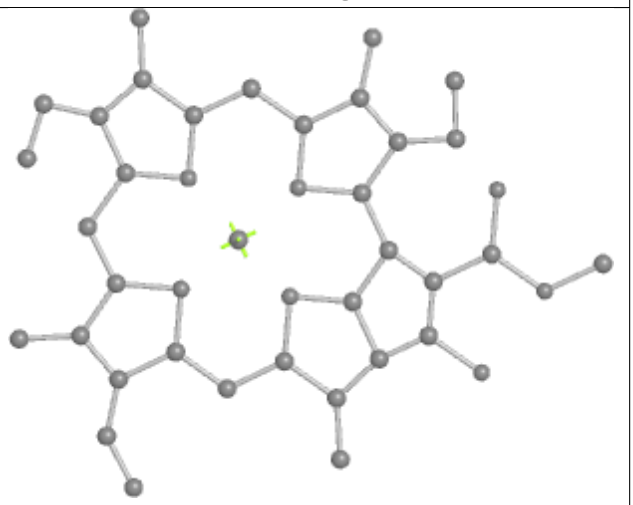
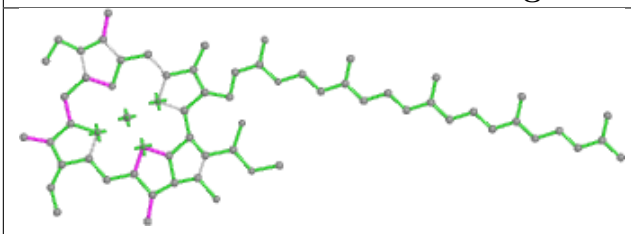


Rings

Ligand CLA A 804



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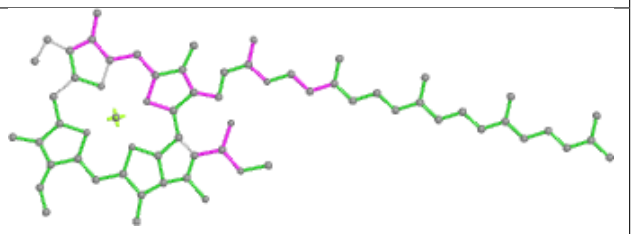
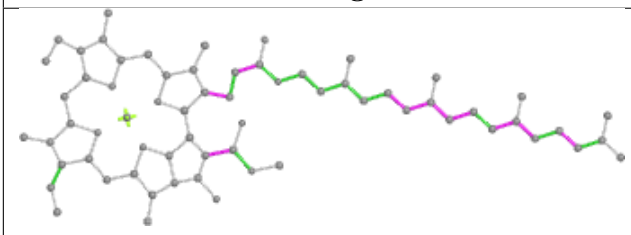


Bond angles



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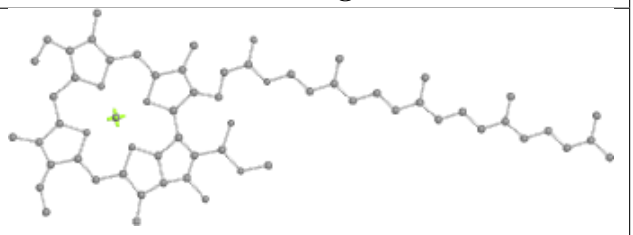
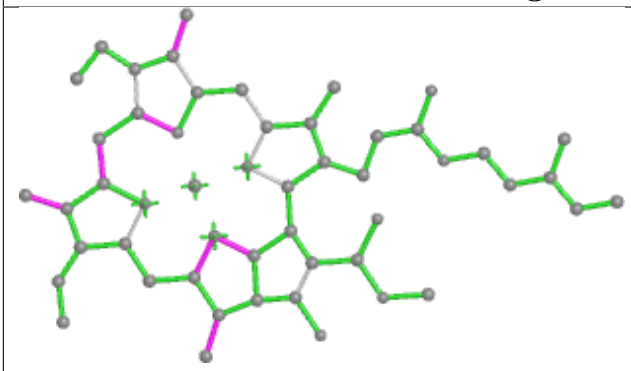


Rings

Ligand CLA F 302



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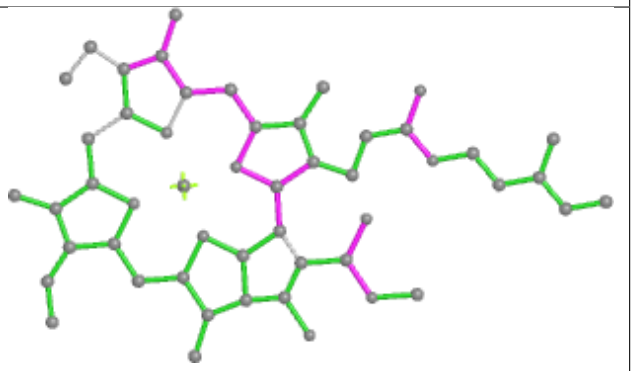

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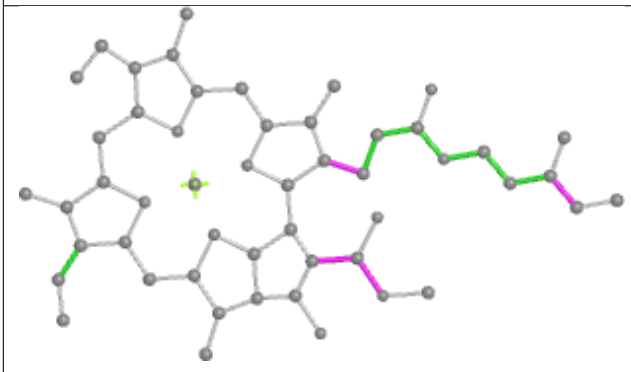

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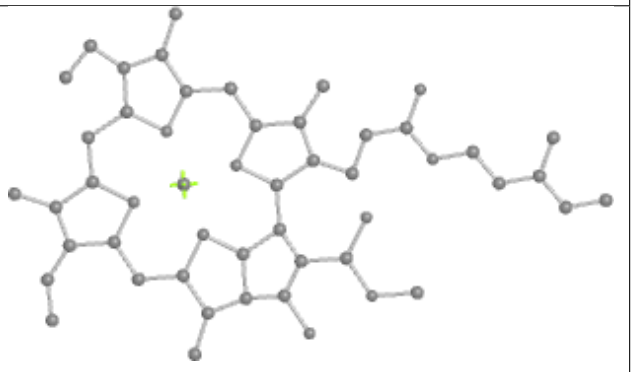
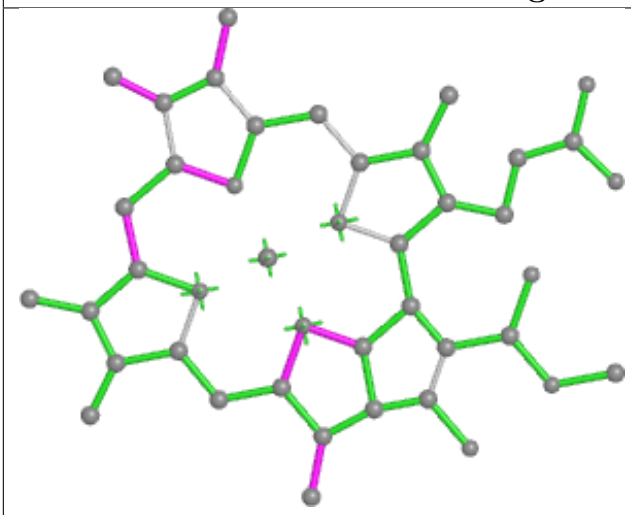
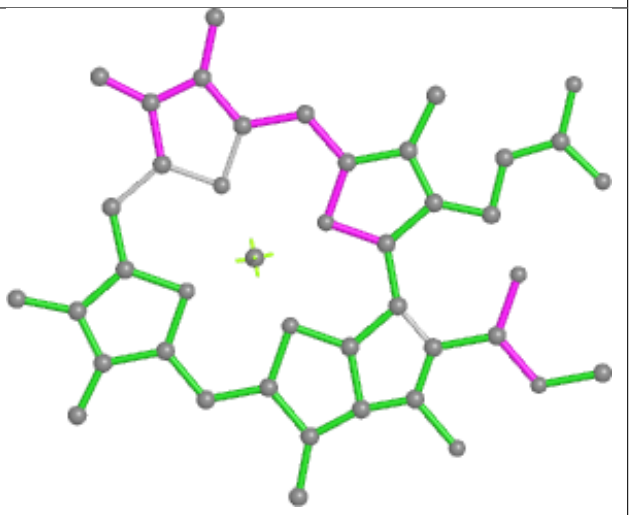


Rings

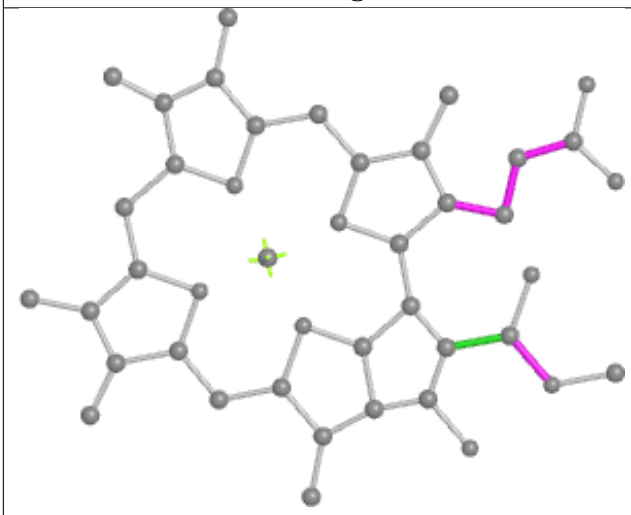
Ligand CLA 4 604



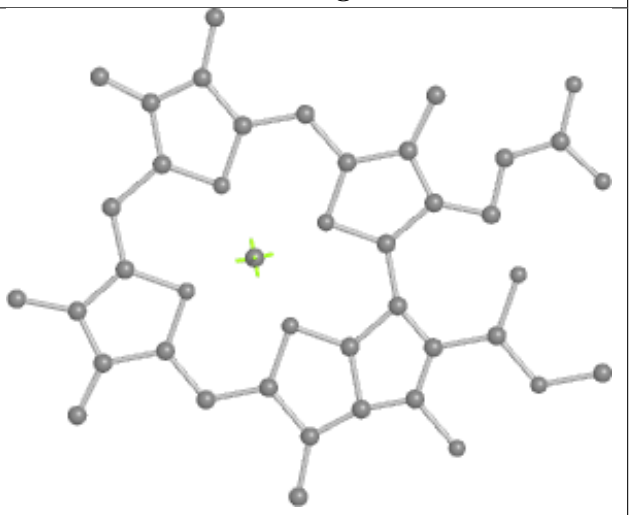
Bond lengths



Bond angles

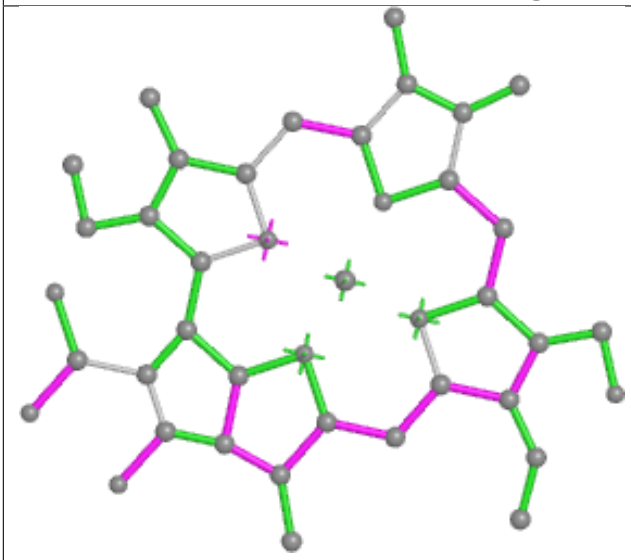


Torsions

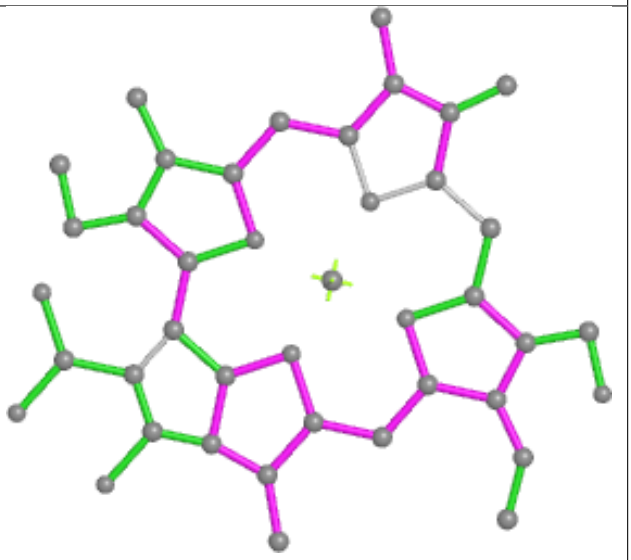


Rings

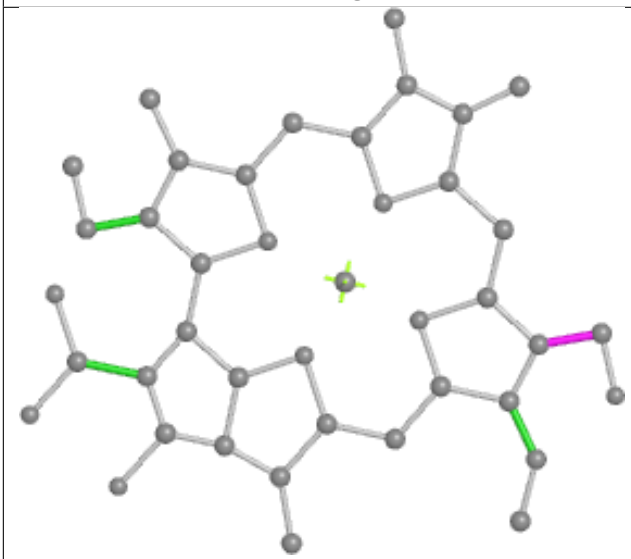
Ligand CHL 4 615



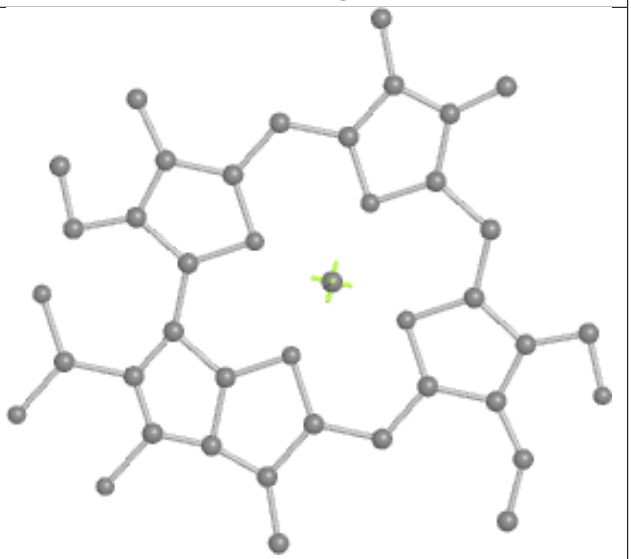
Bond lengths



Bond angles

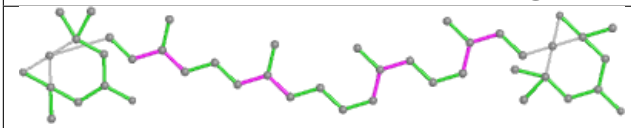


Torsions

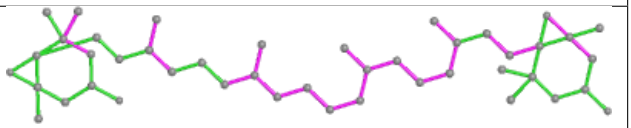


Rings

Ligand XAT x 617



Bond lengths



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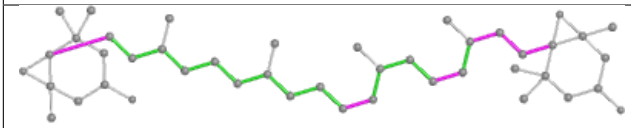

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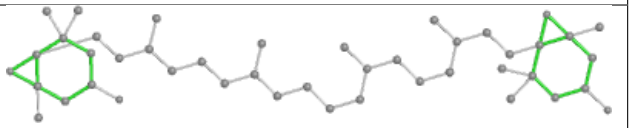
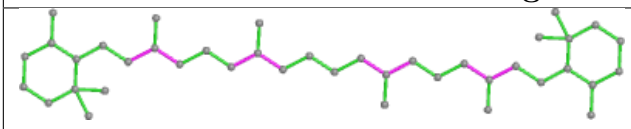
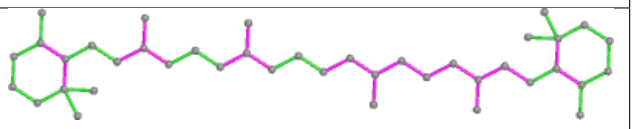
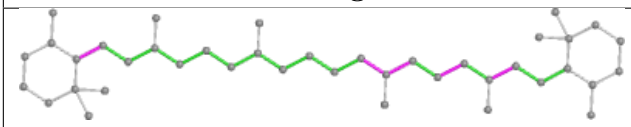
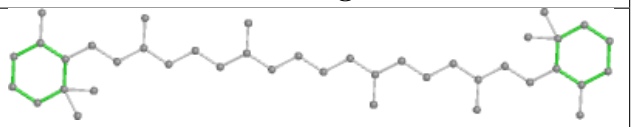
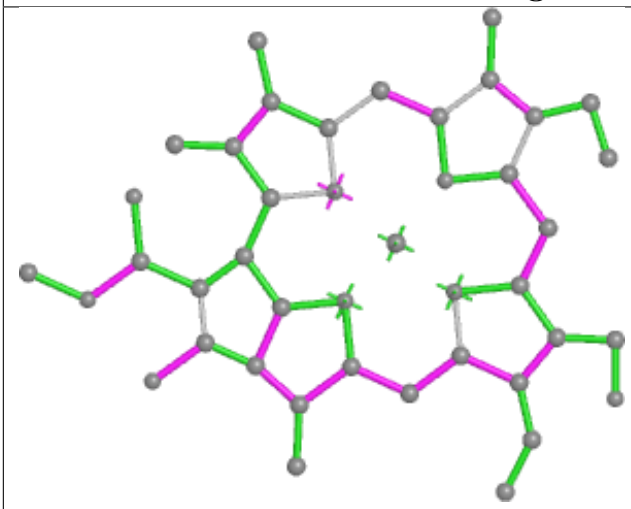
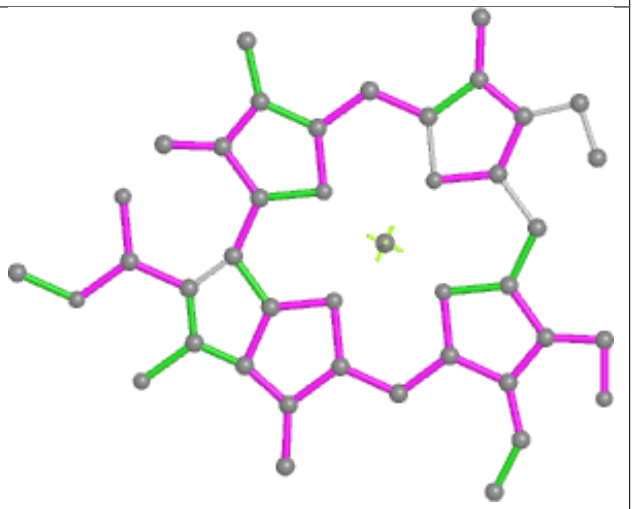
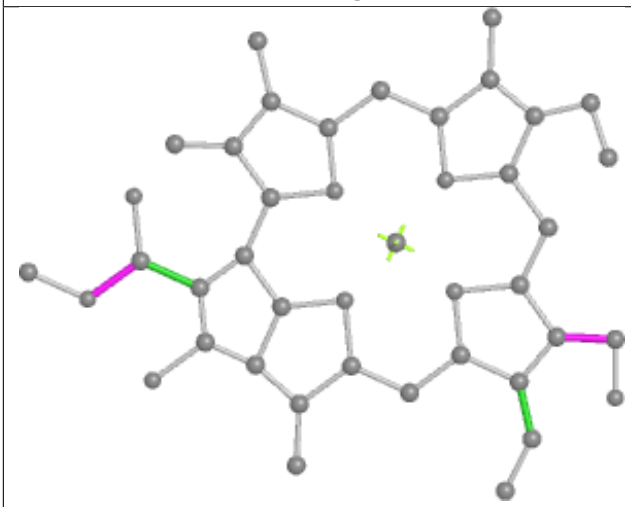
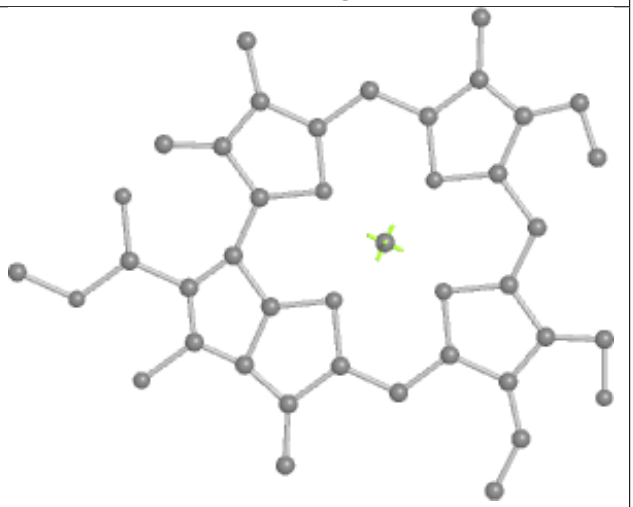
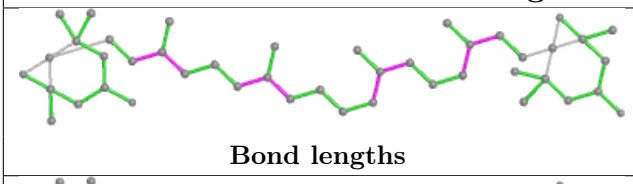


Rings

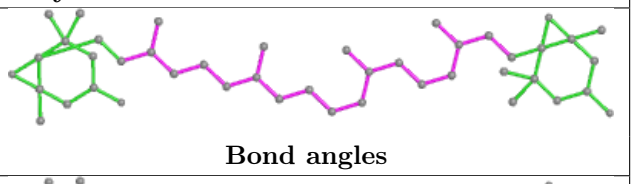
Ligand BCR B 845	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CHL x 608	
 Bond lengths	 Bond angles
 Torsions	 Rings

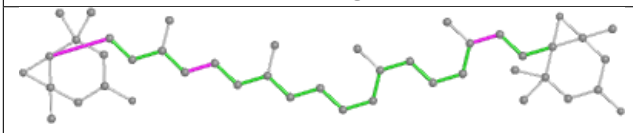
Ligand XAT y 617



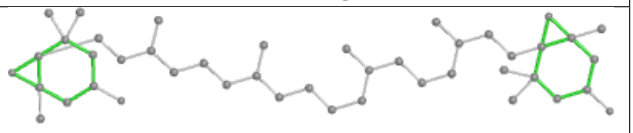
Bond lengths



Bond angles

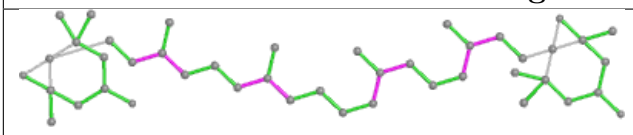


Torsions



Rings

Ligand XAT z 617



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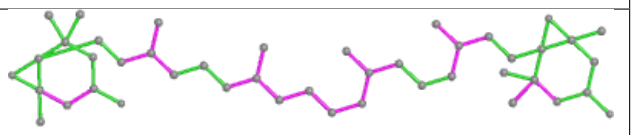
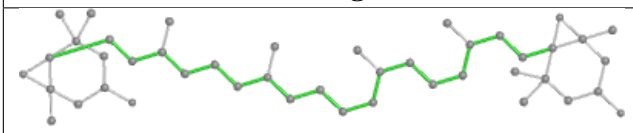
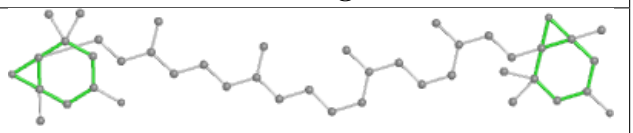


Bond angles

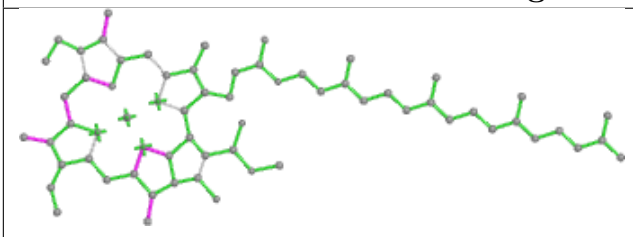


Torsions

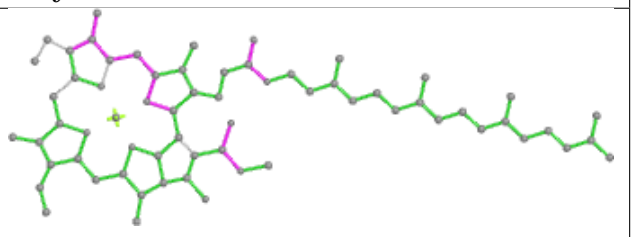


Rings

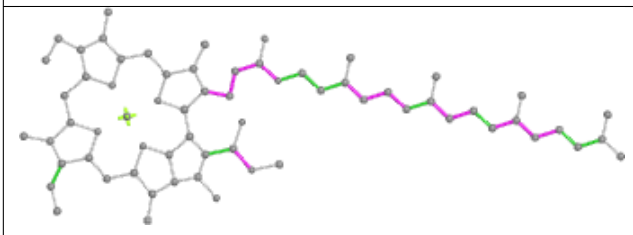
Ligand CLA y 602



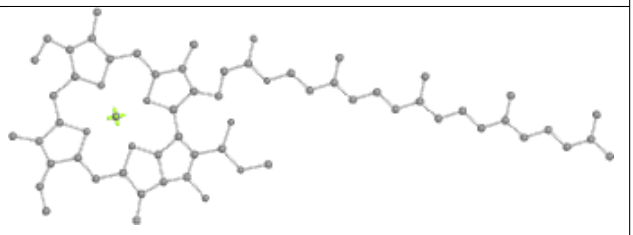
Bond lengths



Bond angles

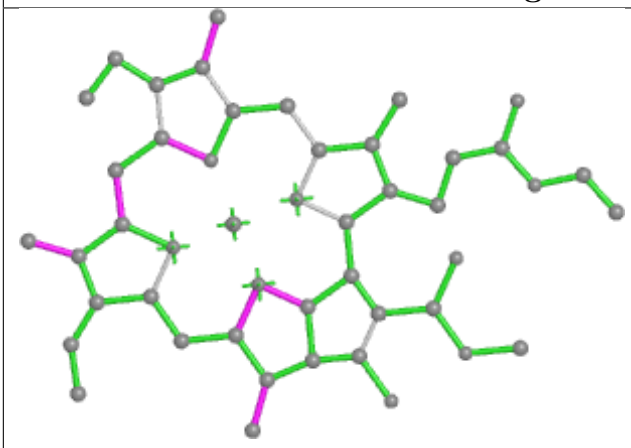


Torsions

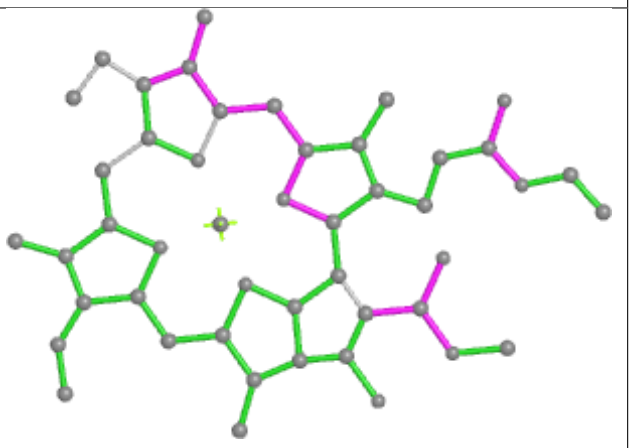


Rings

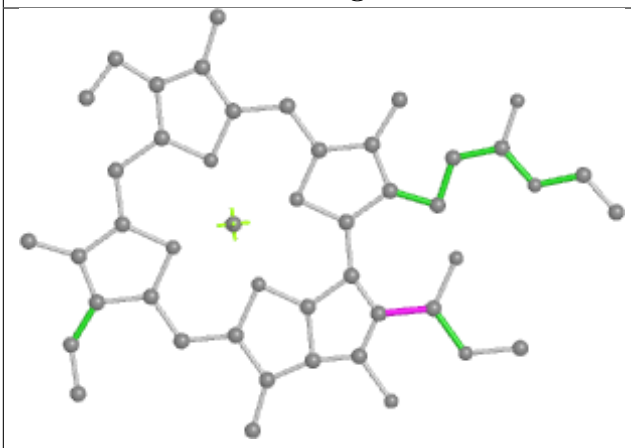
Ligand CLA B 838



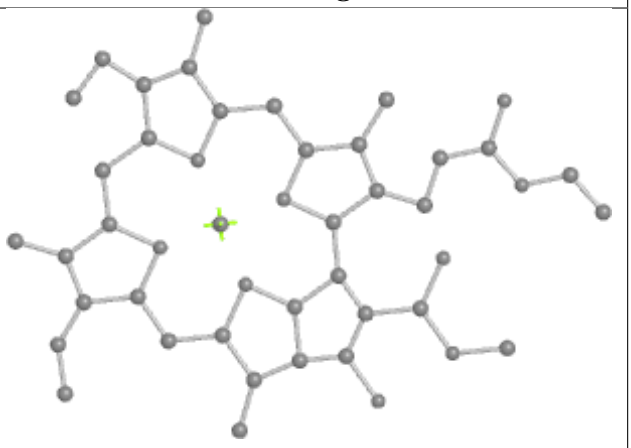
Bond lengths



Bond angles

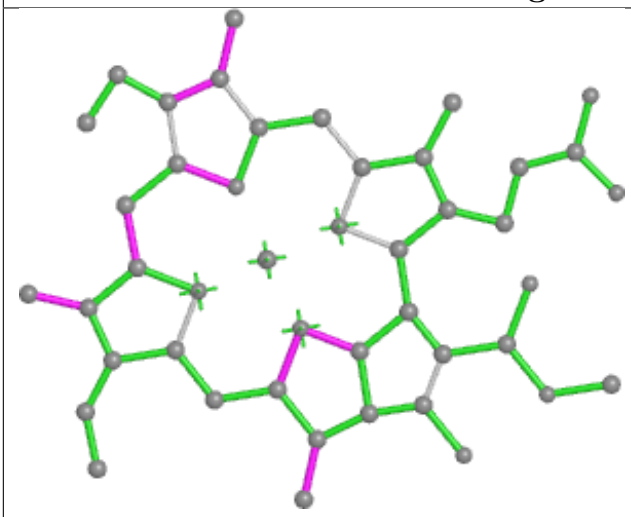


Torsions

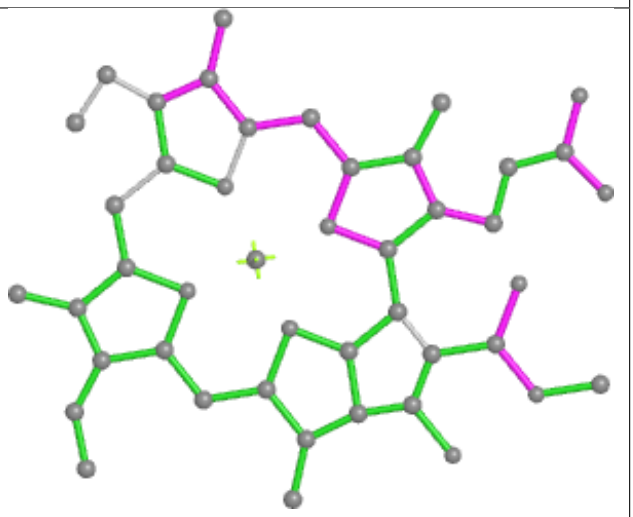


Rings

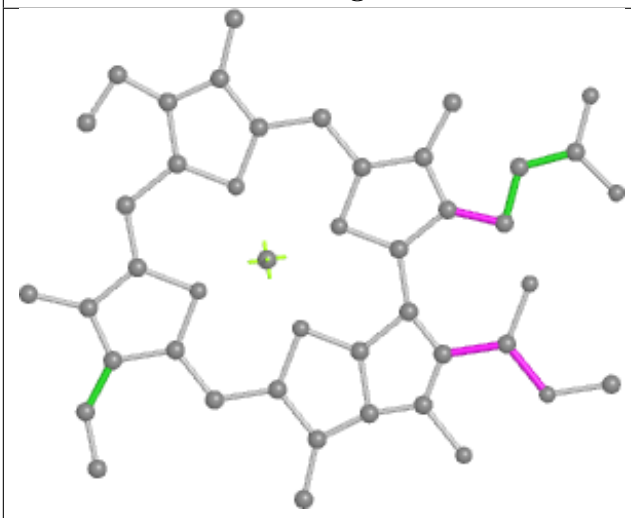
Ligand CLA 4 613



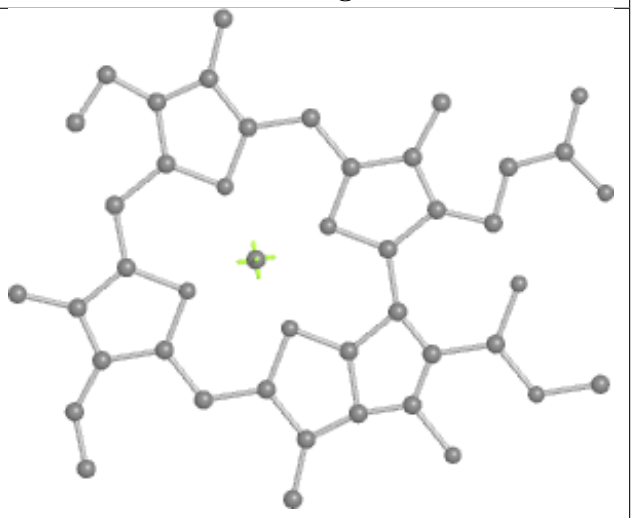
Bond lengths



Bond angles

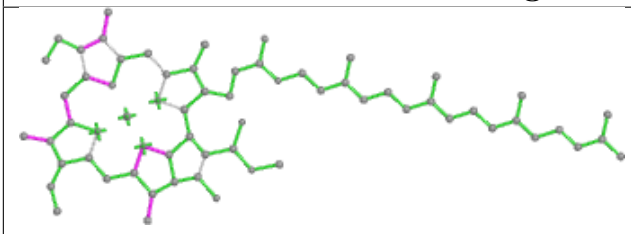


Torsions

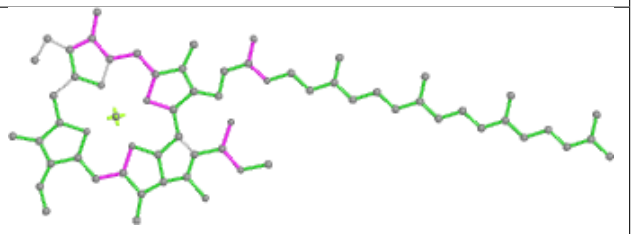


Rings

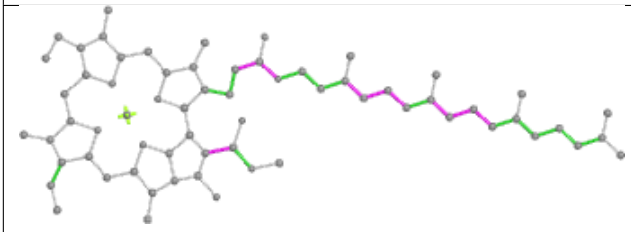
Ligand CLA A 807



Bond lengths



Bond angles



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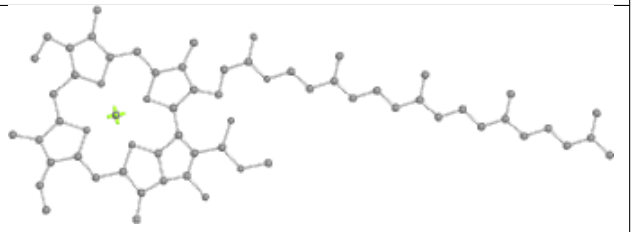
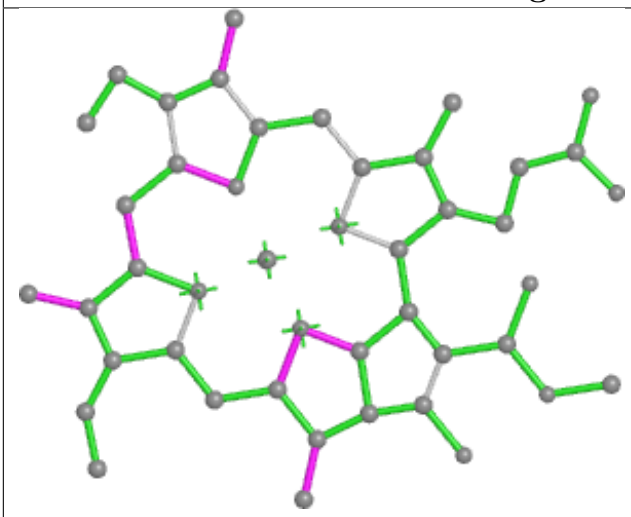
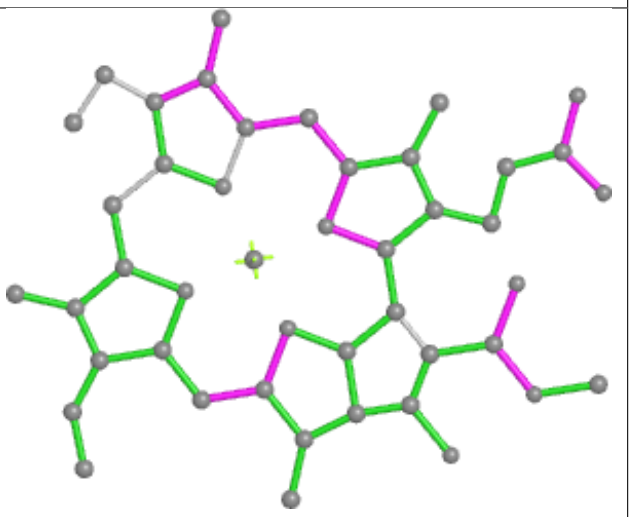


Rings

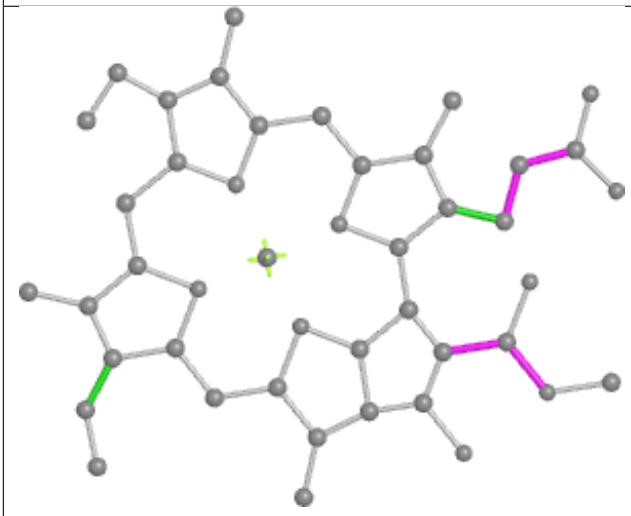
Ligand CLA z 610



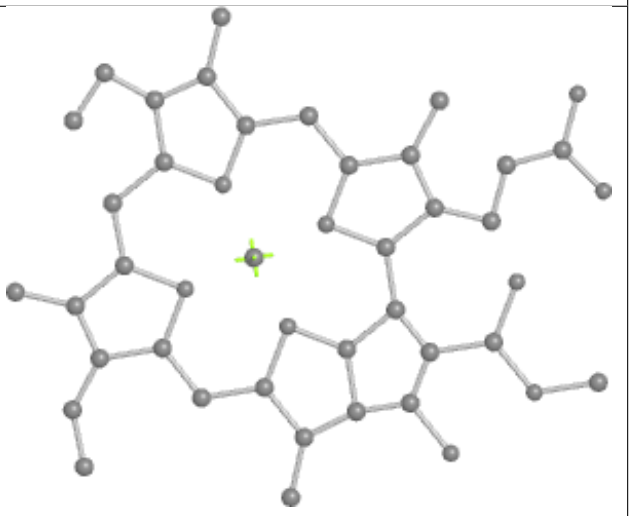
Bond lengths



Bond angles

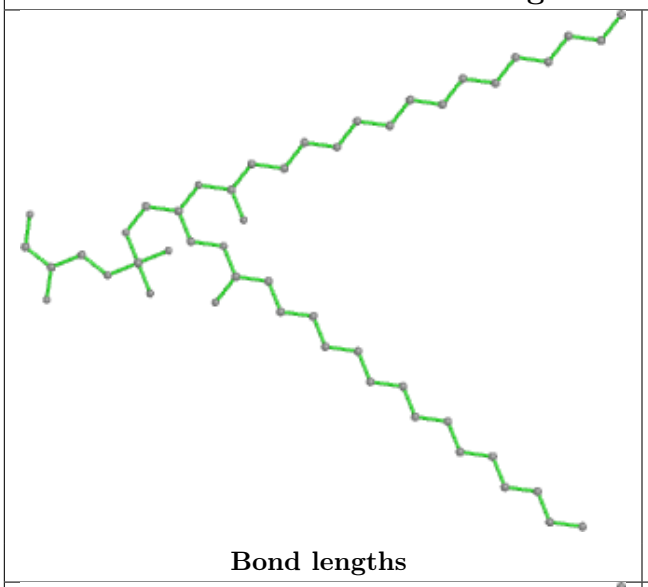


Torsions



Rings

Ligand LHG y 619



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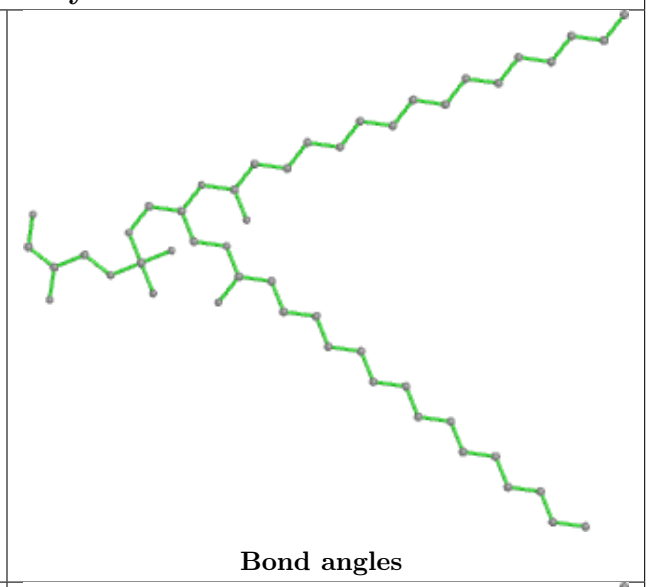
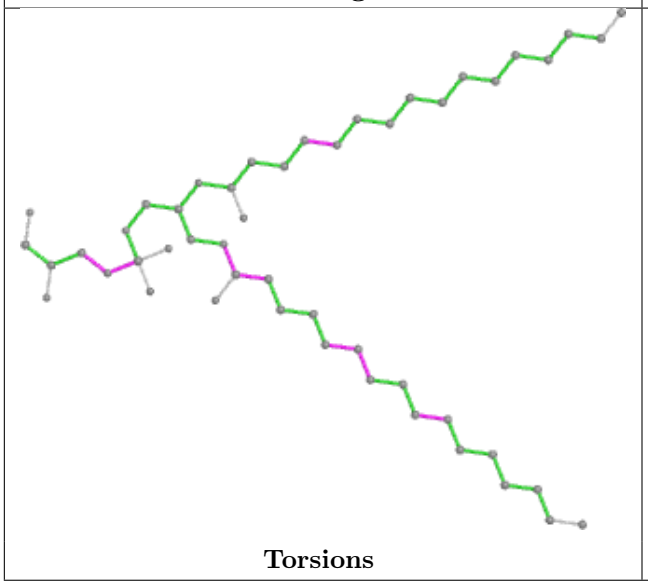


Bond angles



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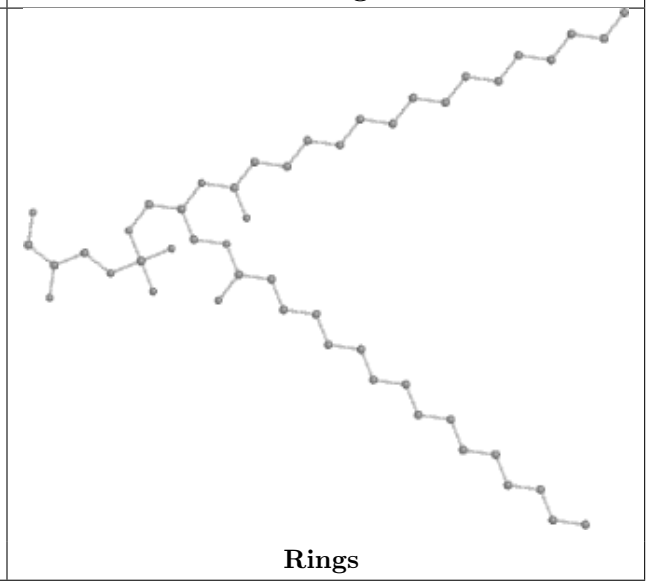
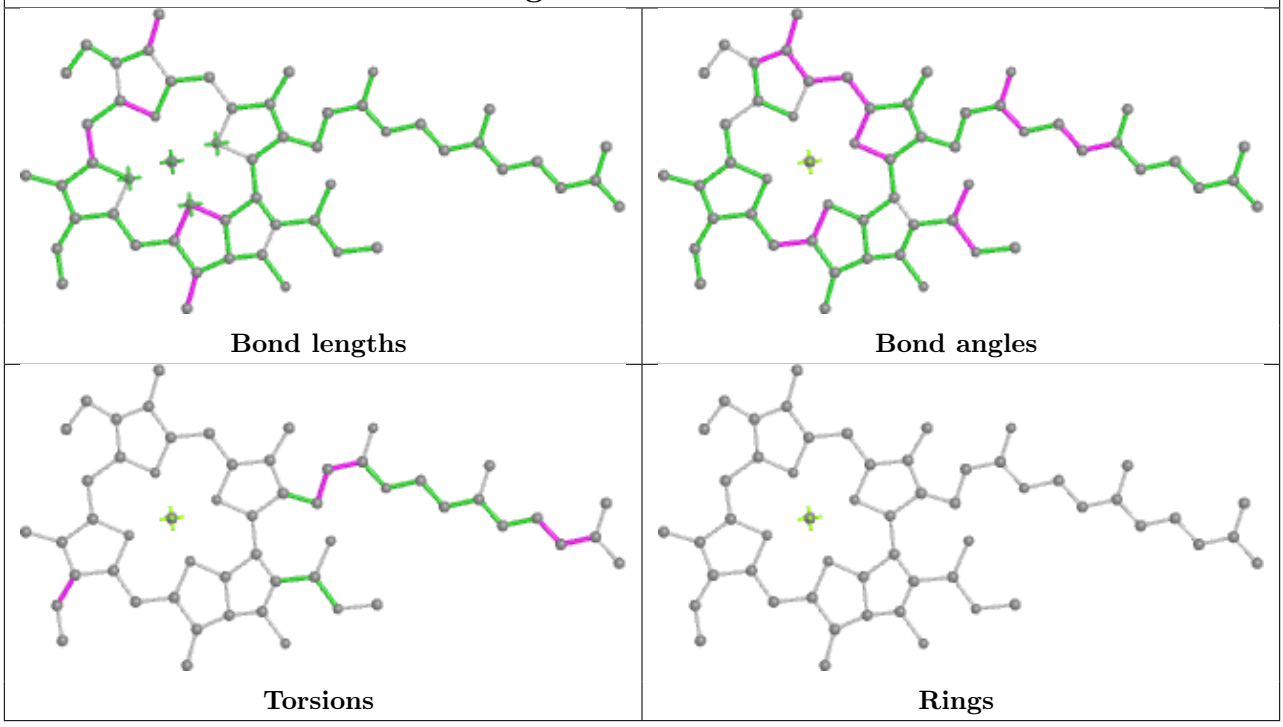
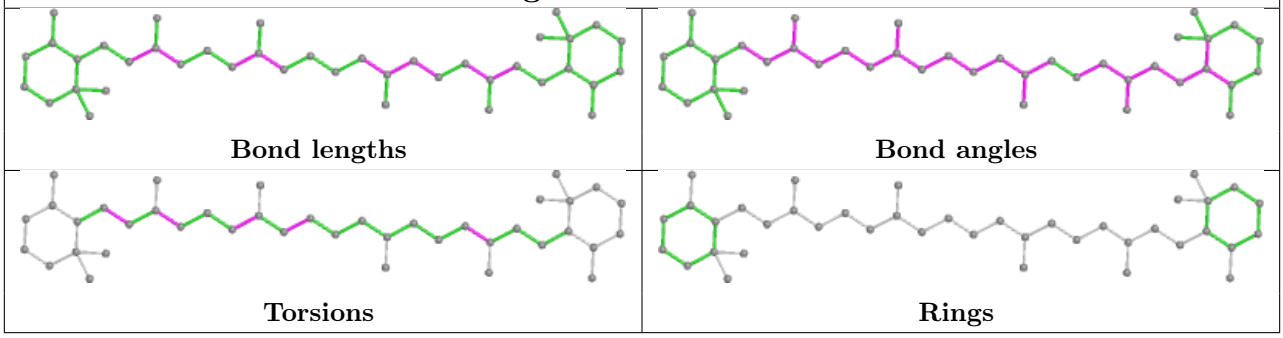


Rings

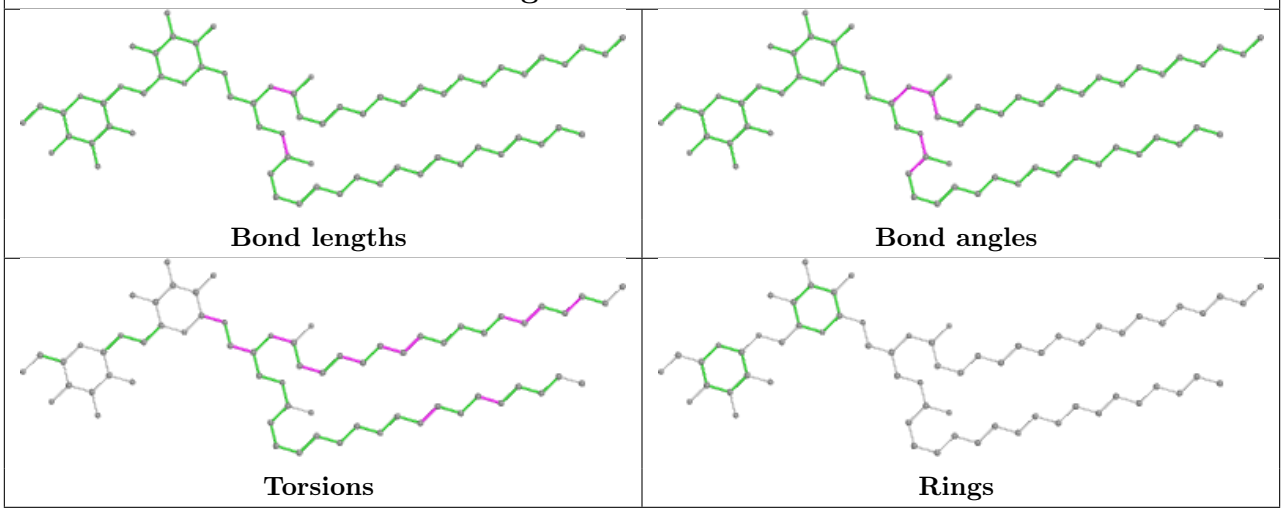
Ligand CLA B 816



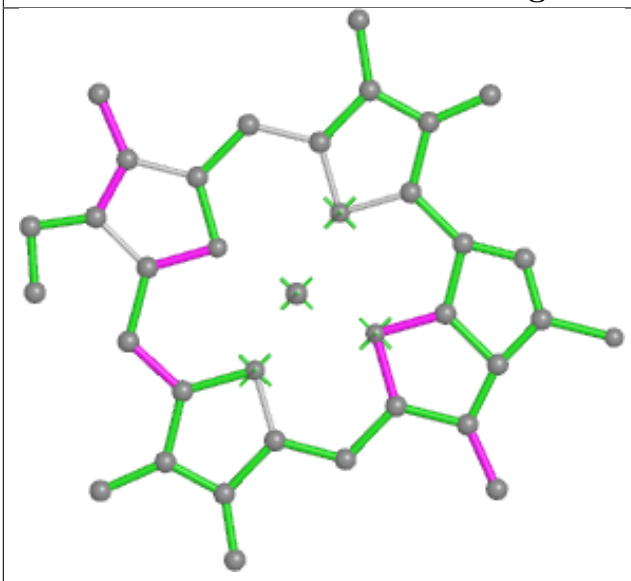
Ligand BCR A 851



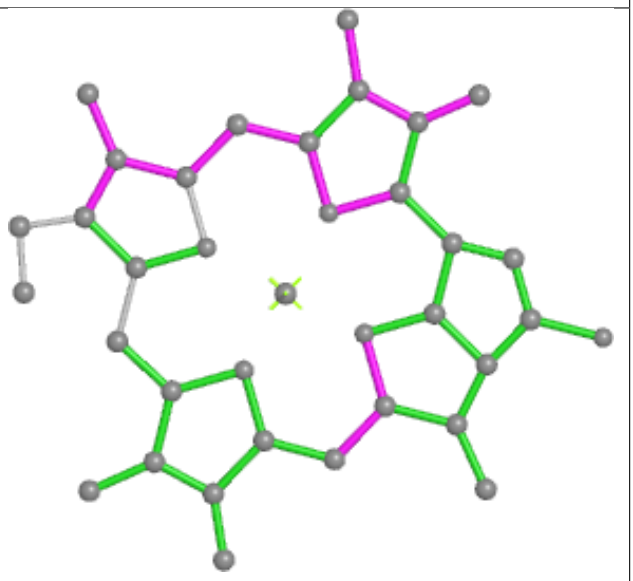
Ligand DGD B 850



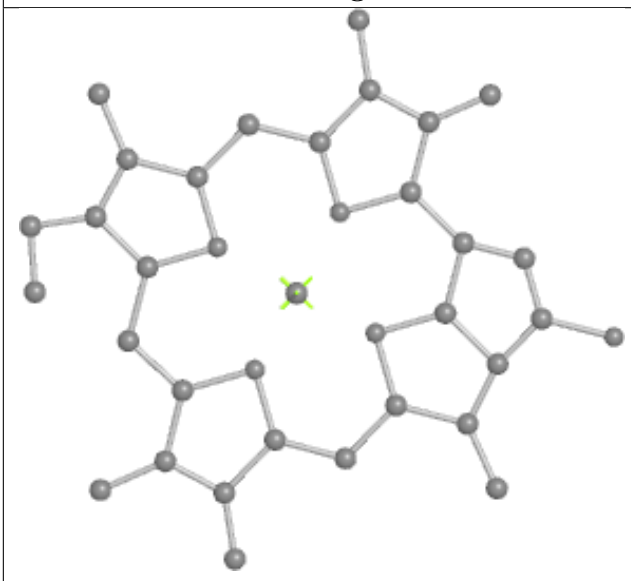
Ligand CLA 3 611



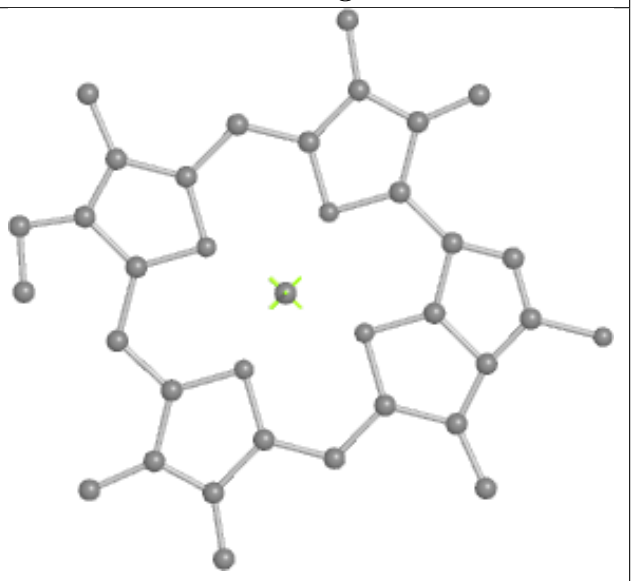
Bond lengths



Bond angles

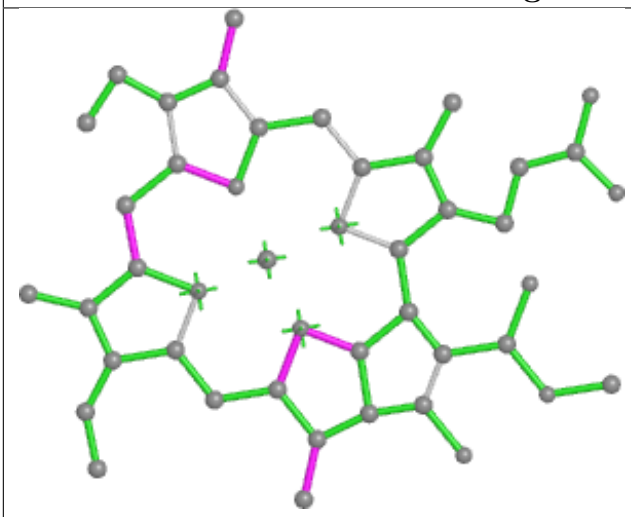


Torsions

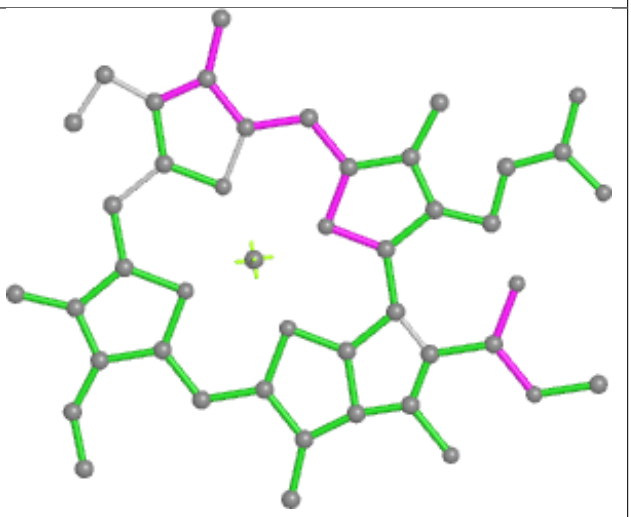


Rings

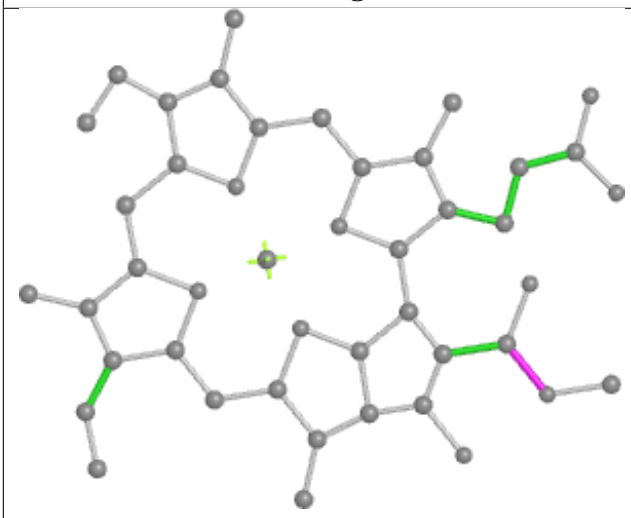
Ligand CLA A 817



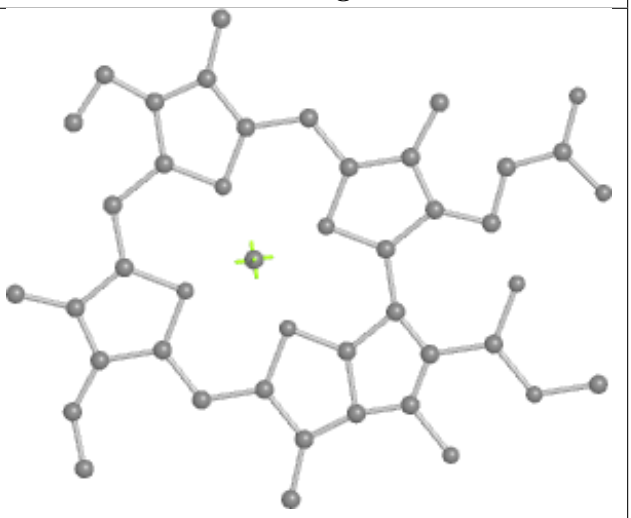
Bond lengths



Bond angles

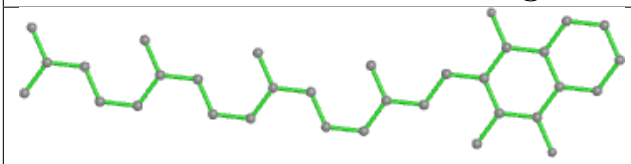


Torsions

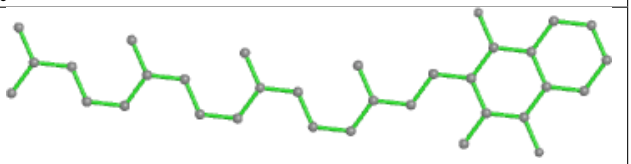


Rings

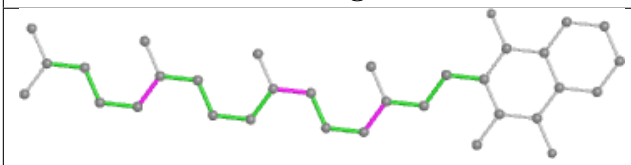
Ligand PQN B 842



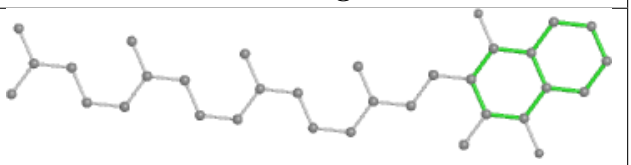
Bond lengths



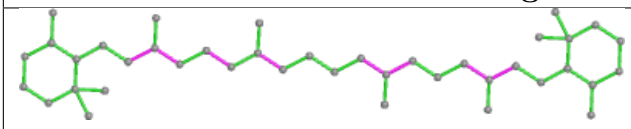
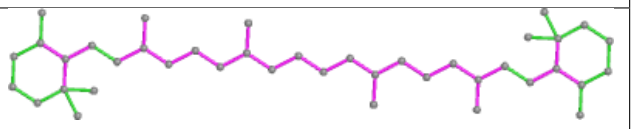
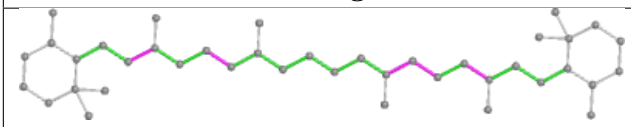
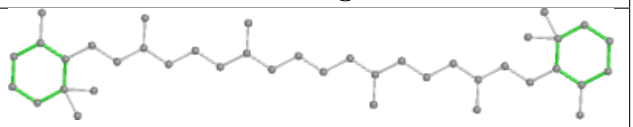
Bond angles

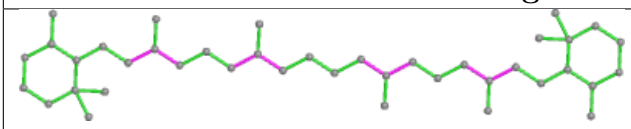
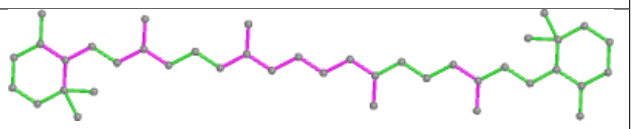
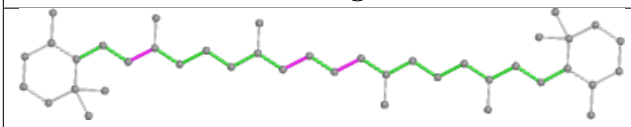
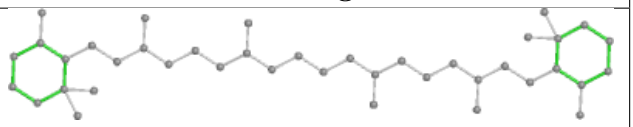


Torsions

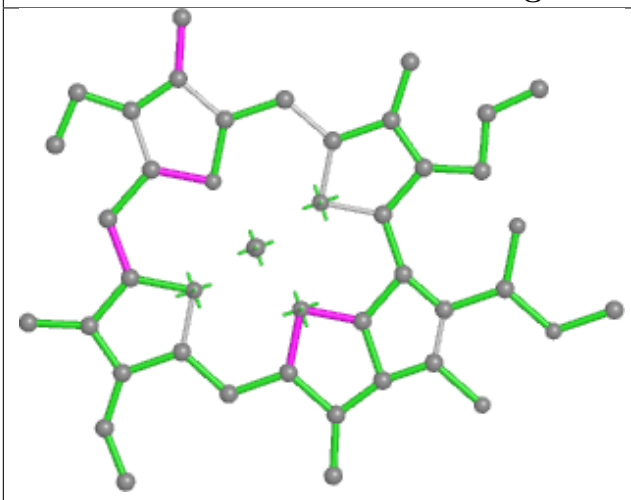


Rings

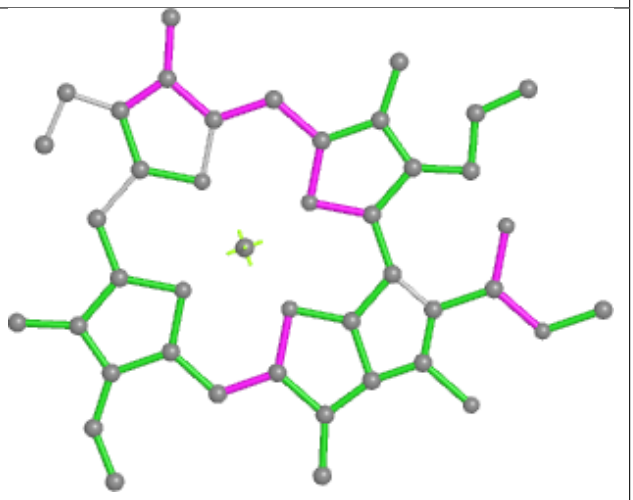
Ligand BCR K 205	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand BCR A 850	
 Bond lengths	 Bond angles
 Torsions	 Rings

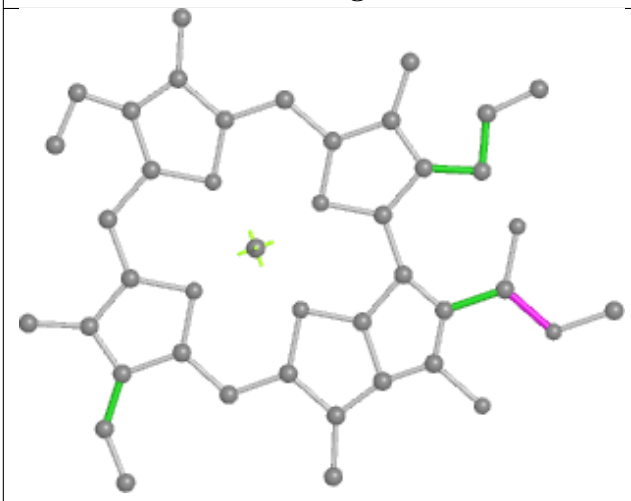
Ligand CLA B 831



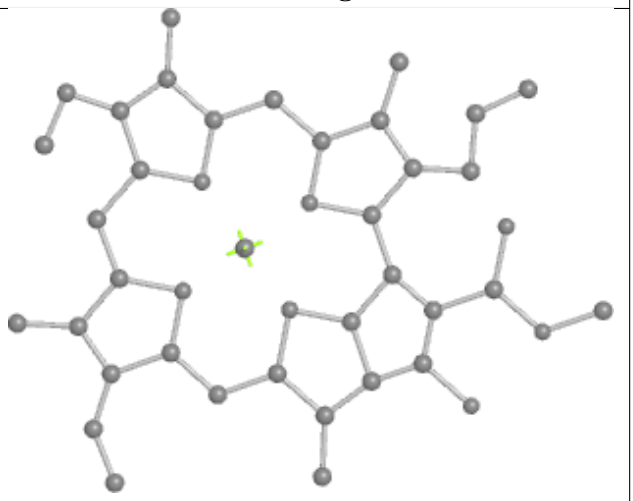
Bond lengths



Bond angles

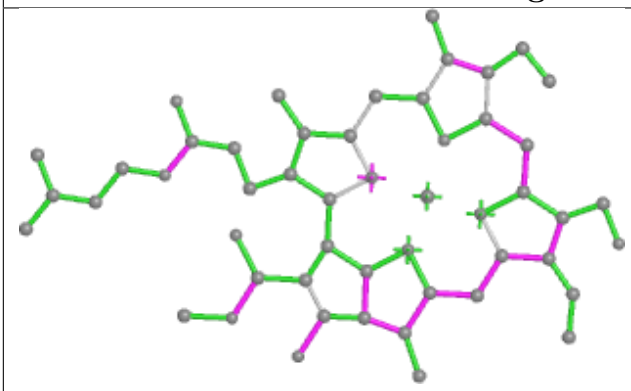


Torsions

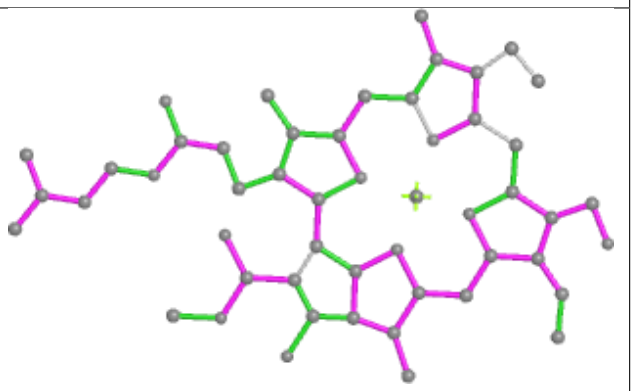


Rings

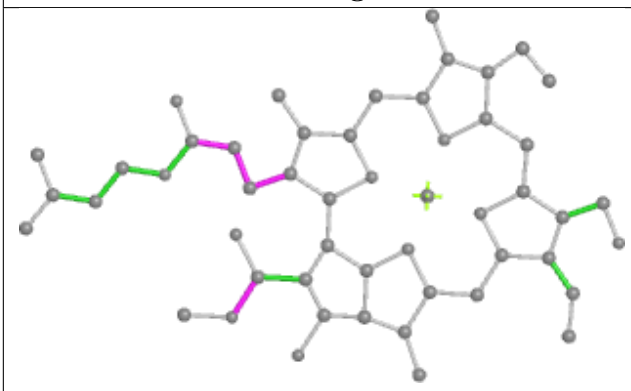
Ligand CHL 2 607



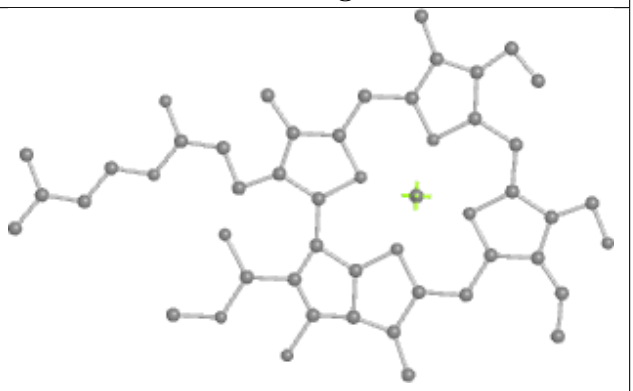
Bond lengths



Bond angles

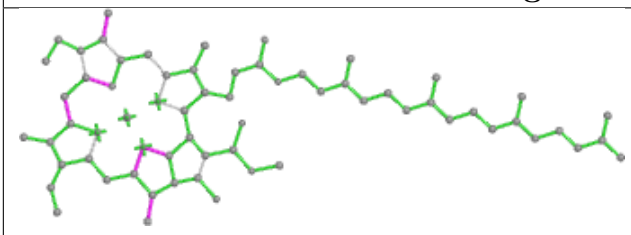


Torsions

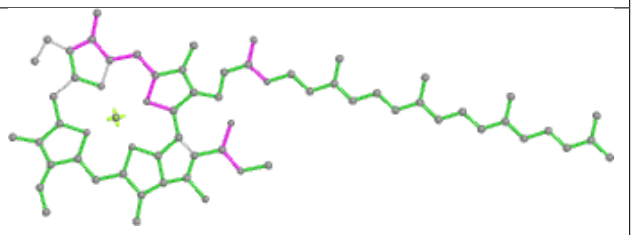


Rings

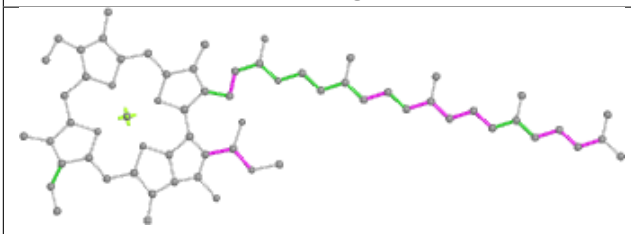
Ligand CLA A 829



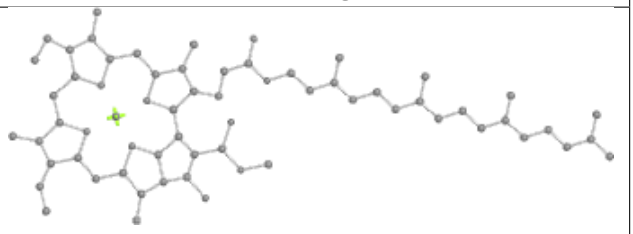
Bond lengths



Bond angles

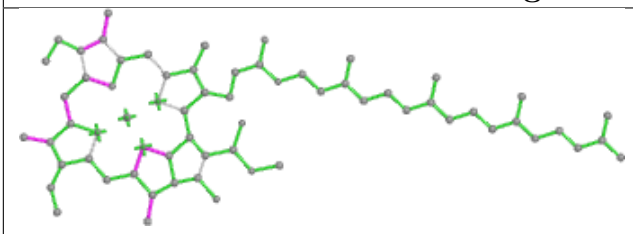


Torsions

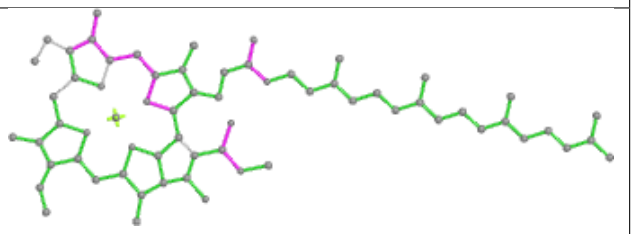


Rings

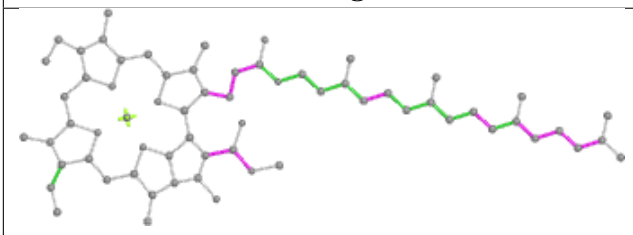
Ligand CLA A 814



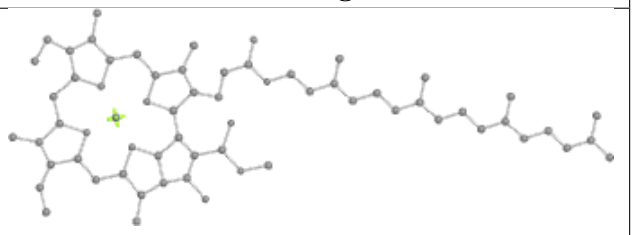
Bond lengths



Bond angles

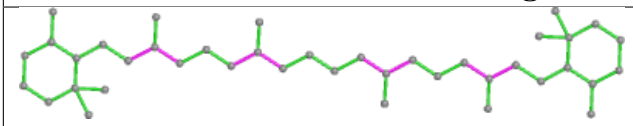


Torsions

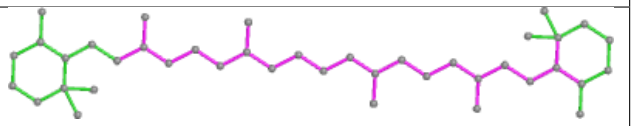


Rings

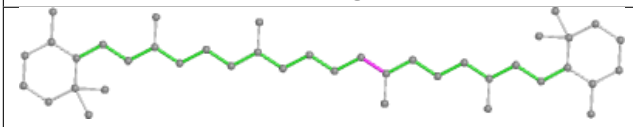
Ligand BCR K 202



Bond lengths



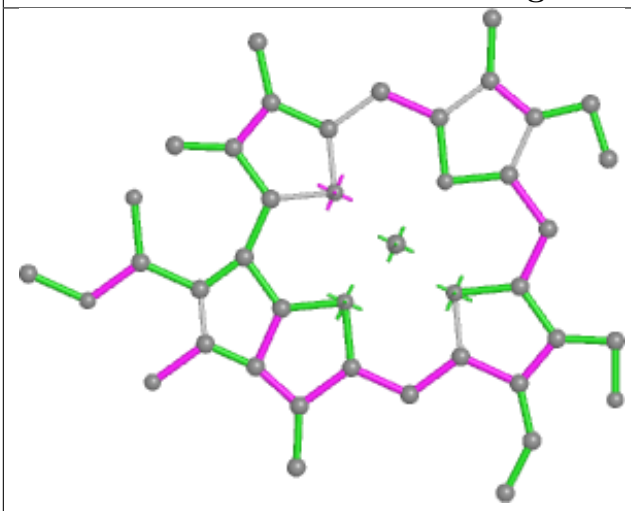
Bond angles



Torsions

Rings

Ligand CHL y 605



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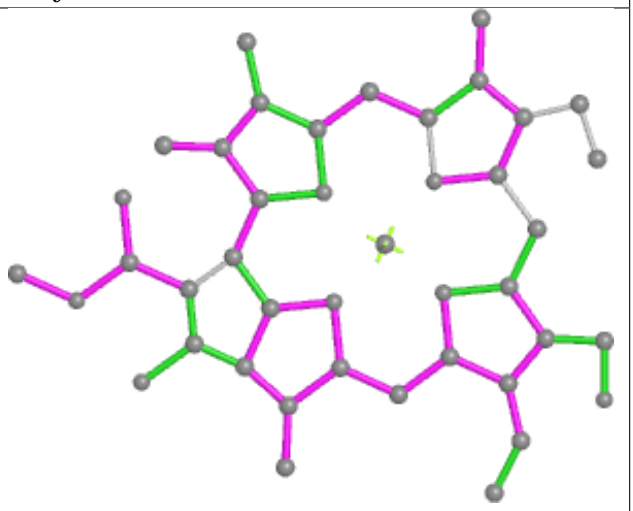
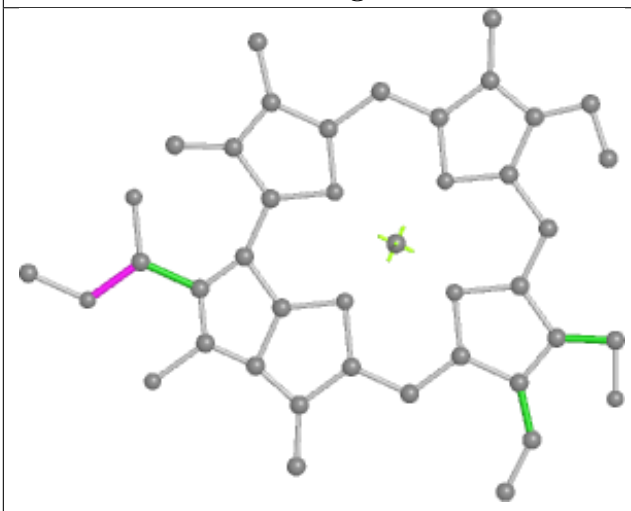
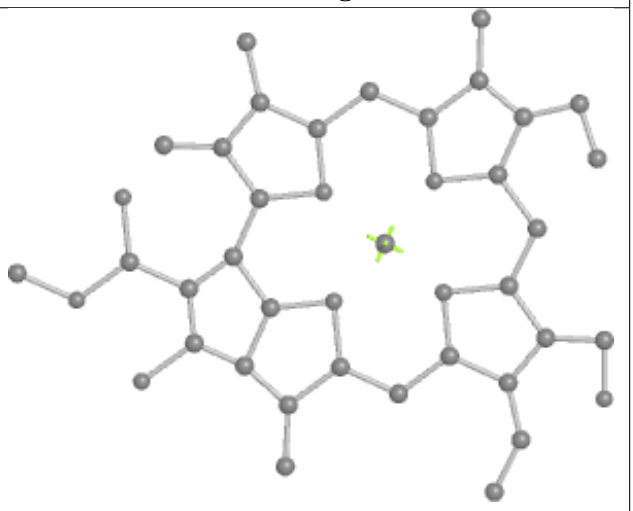


Bond angles

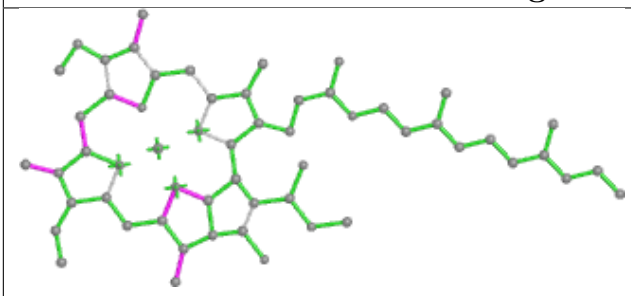


Torsions

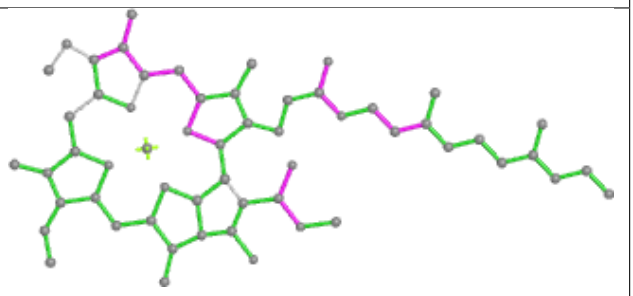


Rings

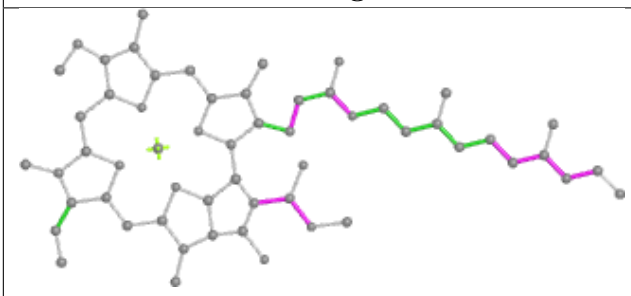
Ligand CLA 4 612



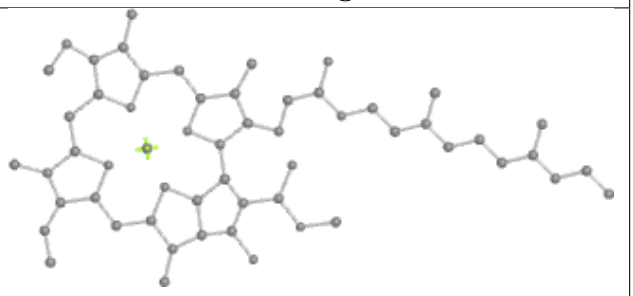
Bond lengths



Bond angles

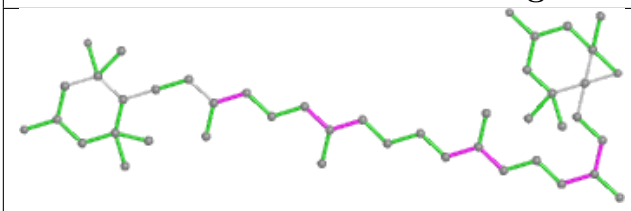


Torsions

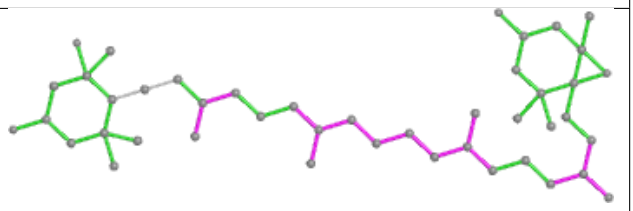


Rings

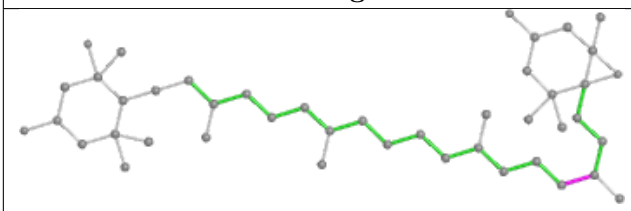
Ligand NEX z 618



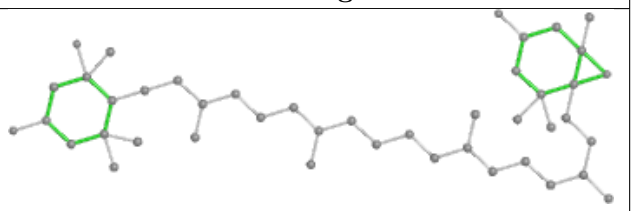
Bond lengths



Bond angles

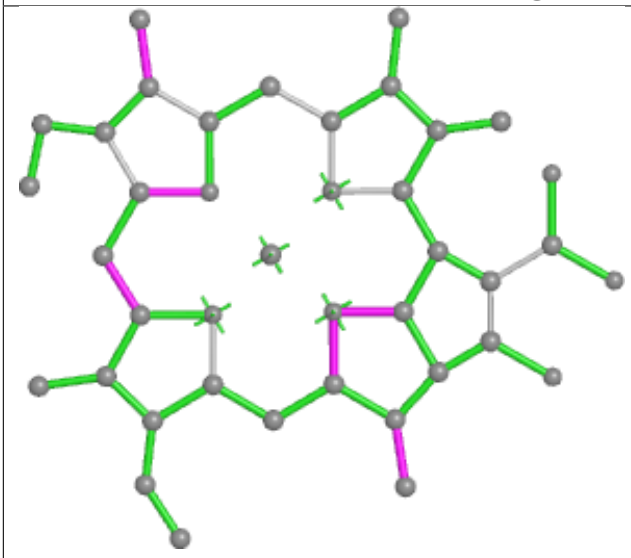


Torsions

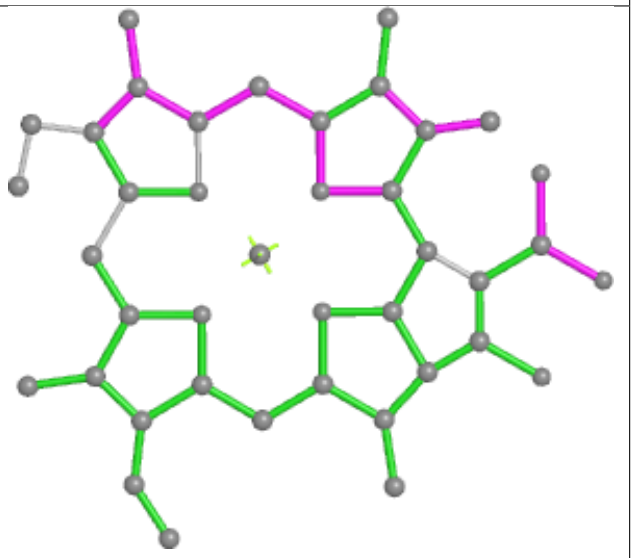


Rings

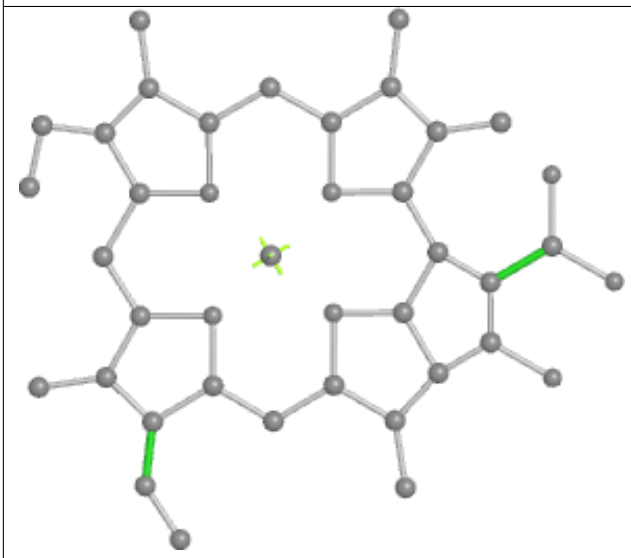
Ligand CLA 3 610



Bond lengths



Bond angles



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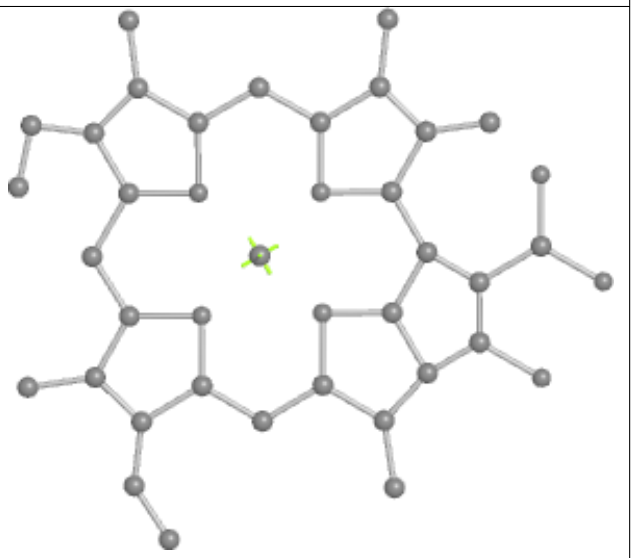
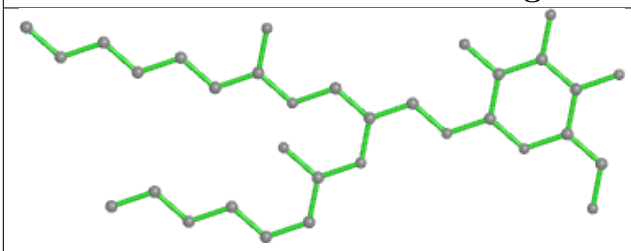
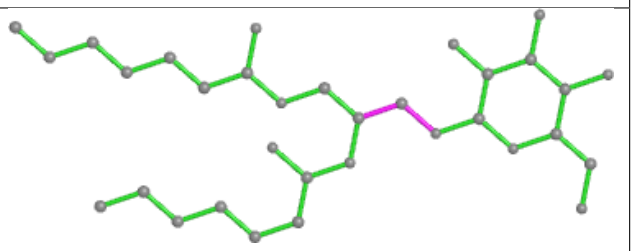


Rings

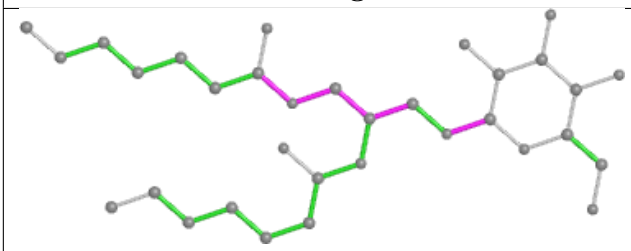
Ligand LMG 4 620



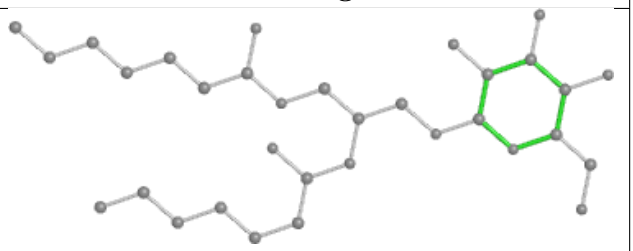
Bond lengths



Bond angles

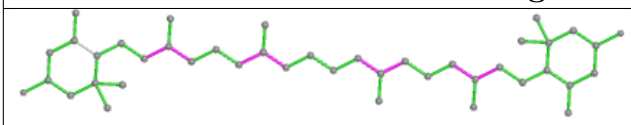


Torsions

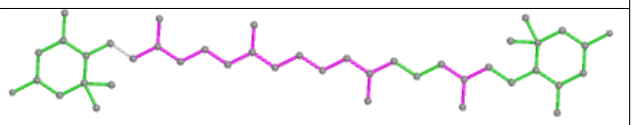


Rings

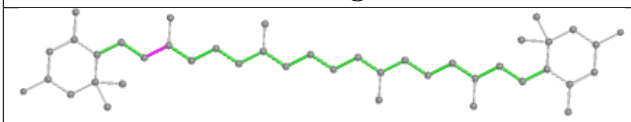
Ligand LUT x 616



Bond lengths



Bond angles



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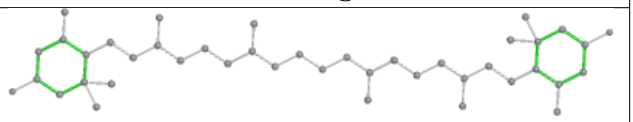
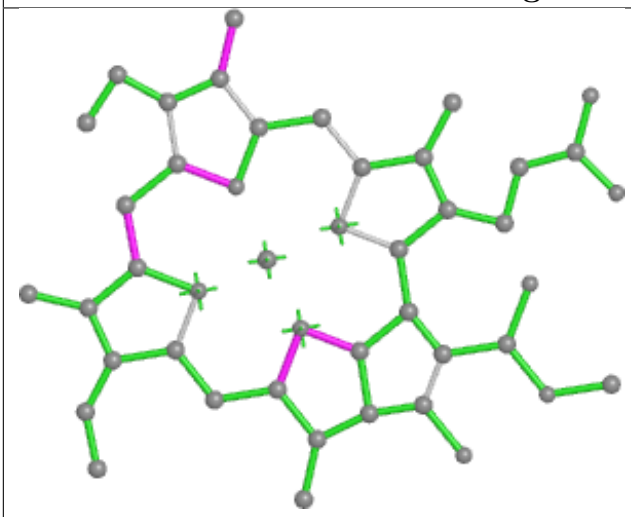
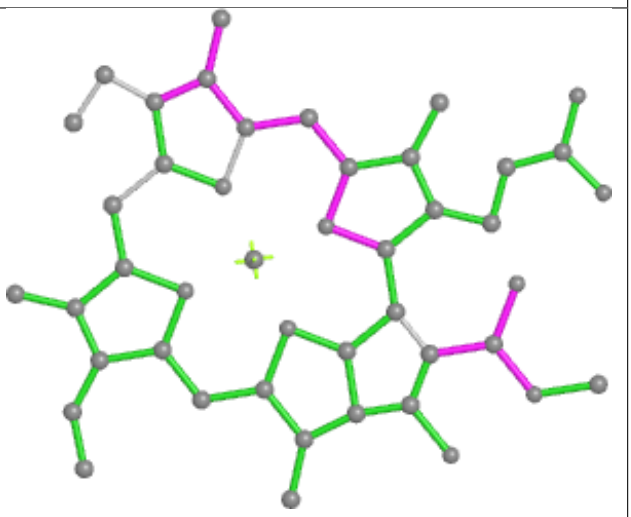


Rings

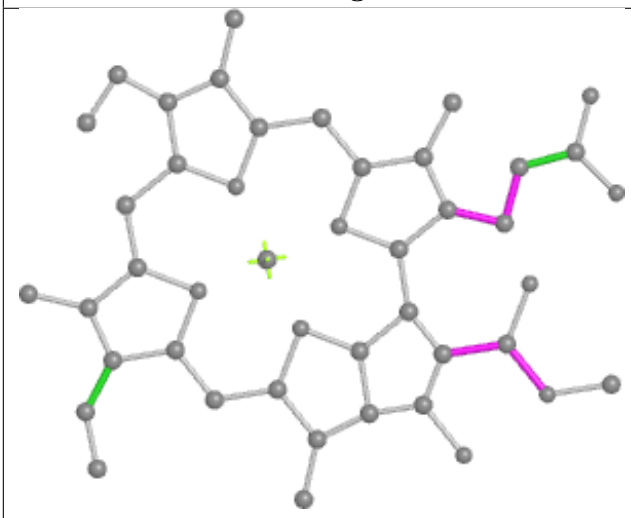
Ligand CLA G 201



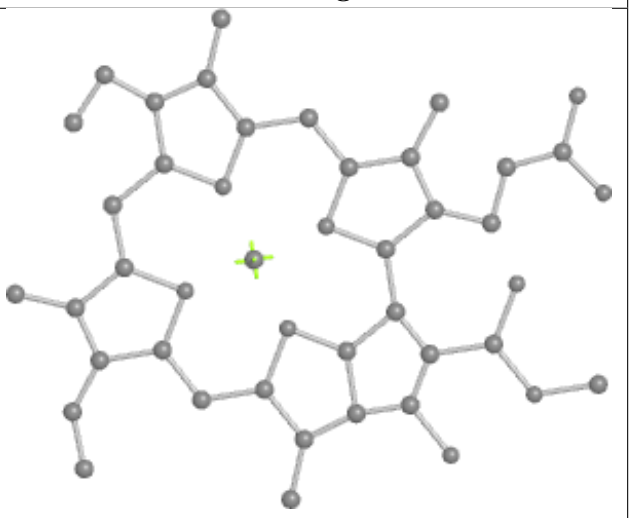
Bond lengths



Bond angles

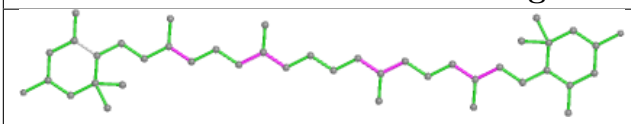


Torsions

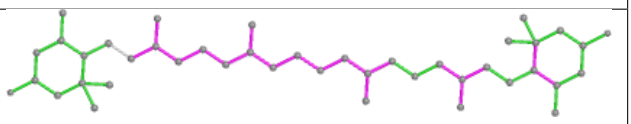


Rings

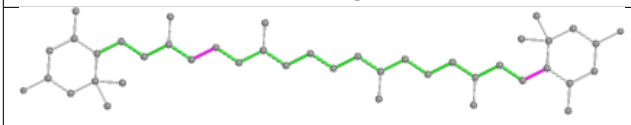
Ligand LUT 1 616



Bond lengths



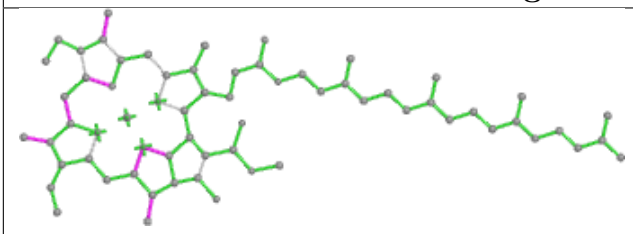
Bond angles



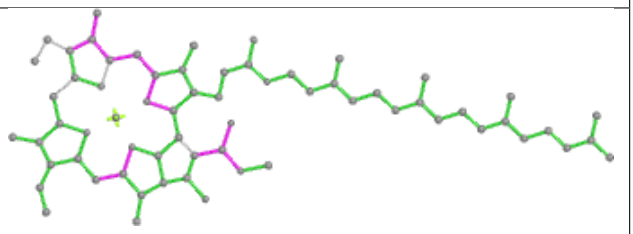
Torsions

Rings

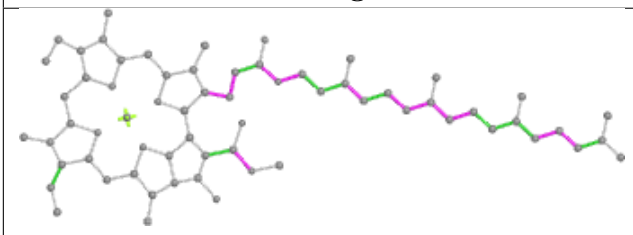
Ligand CLA A 820



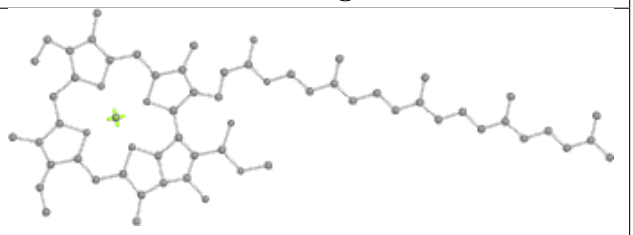
Bond lengths



Bond angles

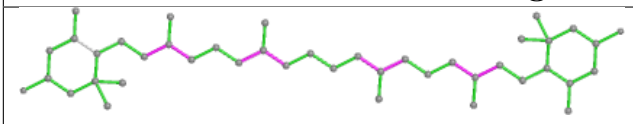


Torsions

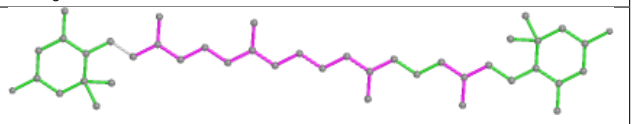


Rings

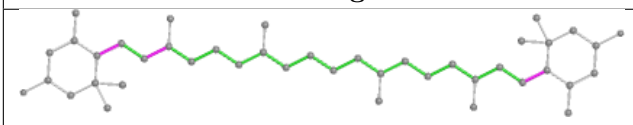
Ligand LUT y 616



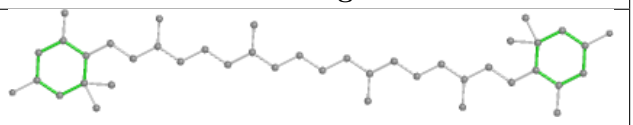
Bond lengths



Bond angles

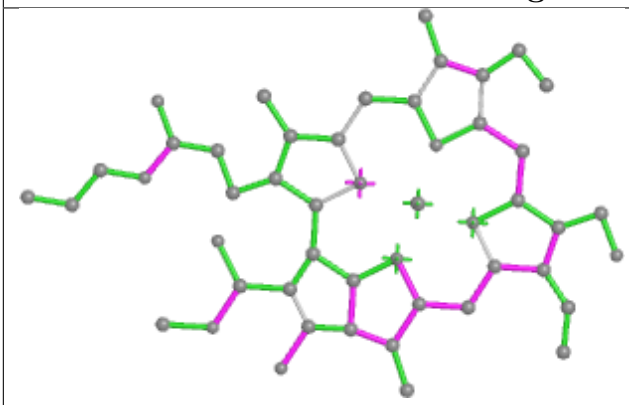


Torsions

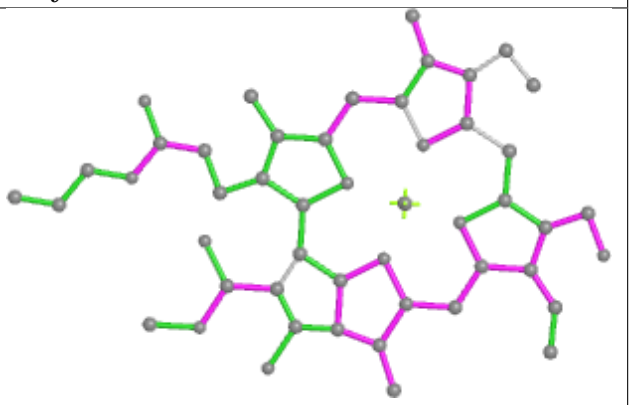


Rings

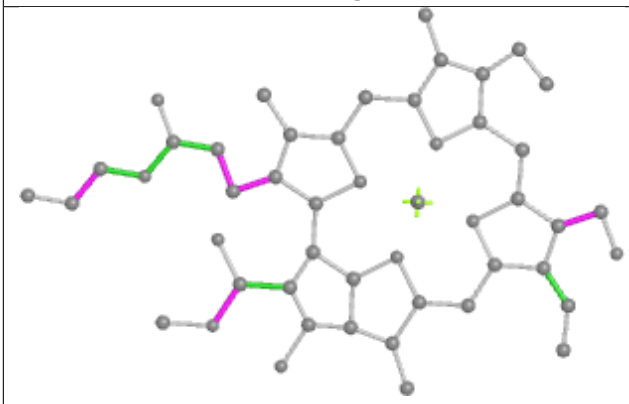
Ligand CHL y 608



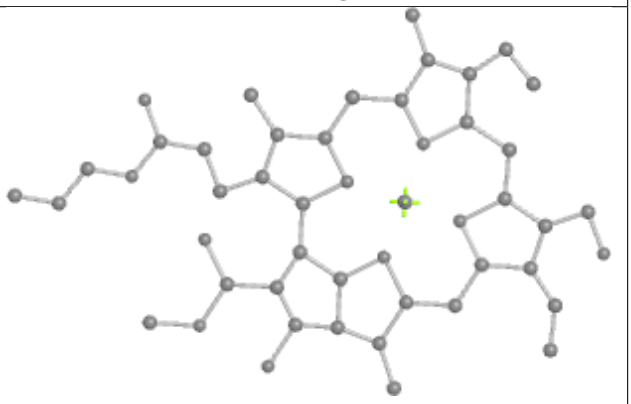
Bond lengths



Bond angles

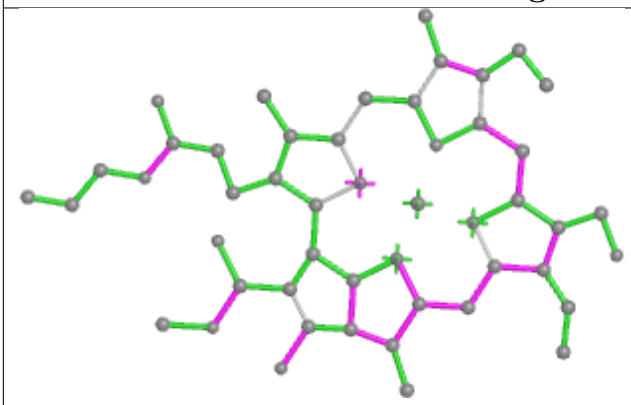


Torsions

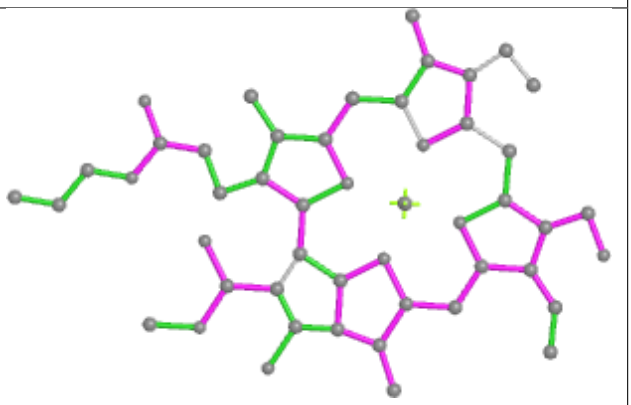


Rings

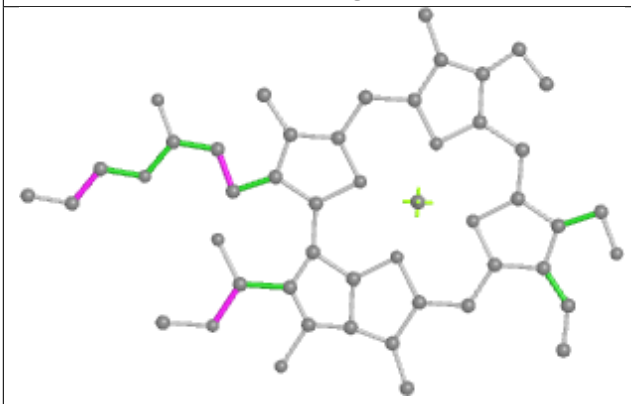
Ligand CHL z 608



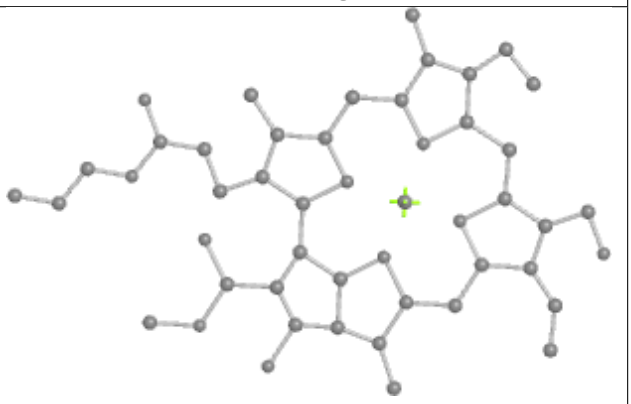
Bond lengths



Bond angles

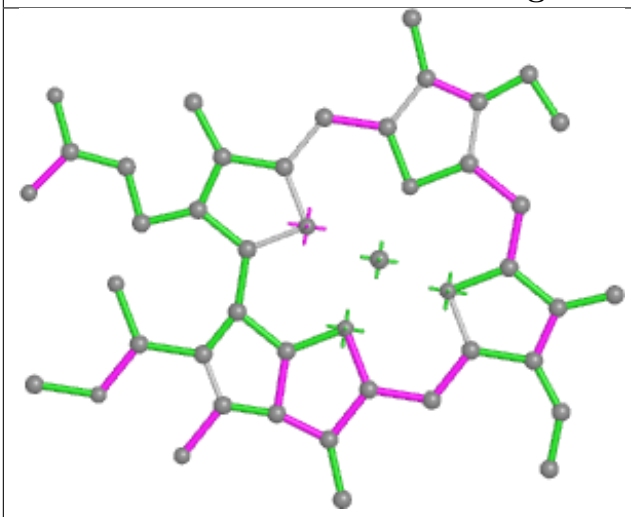


Torsions

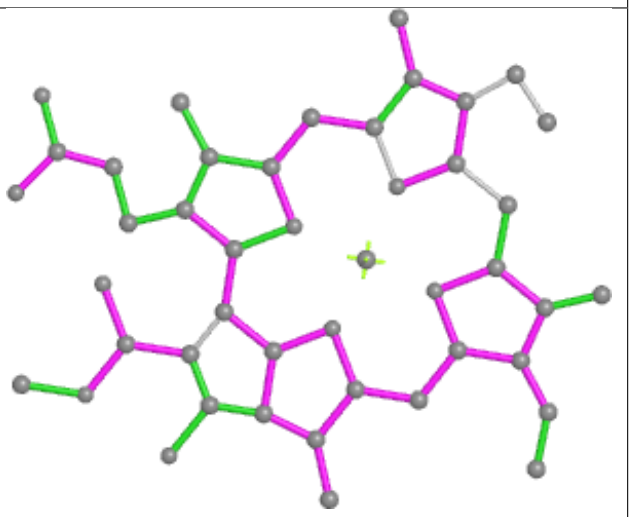


Rings

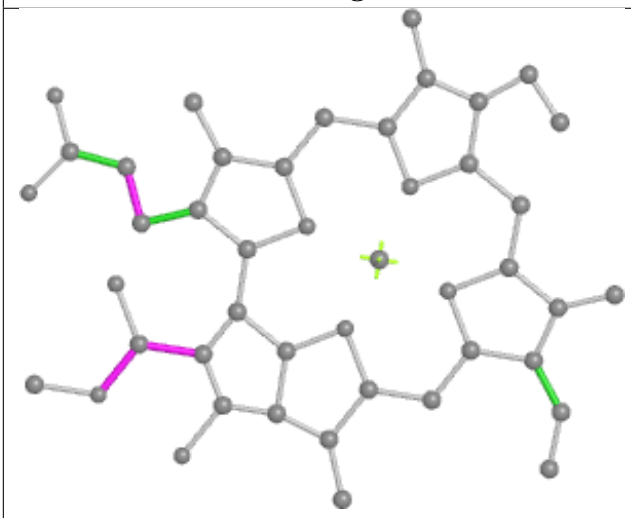
Ligand CHL 3 606



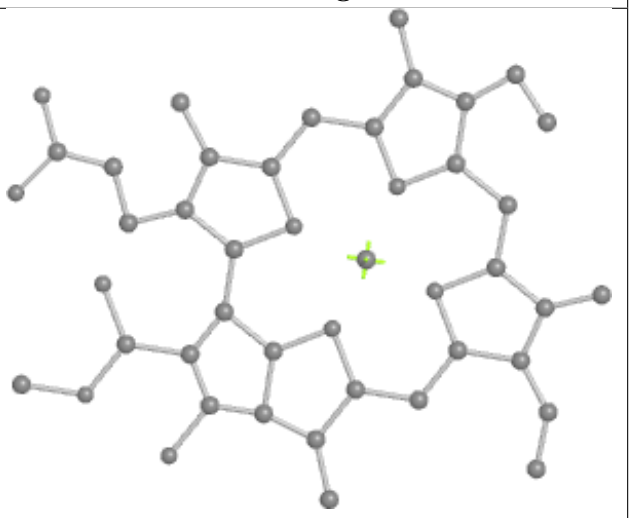
Bond lengths



Bond angles

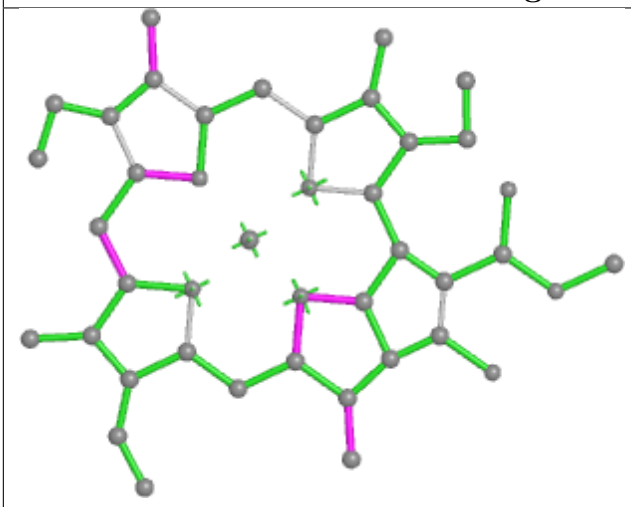


Torsions

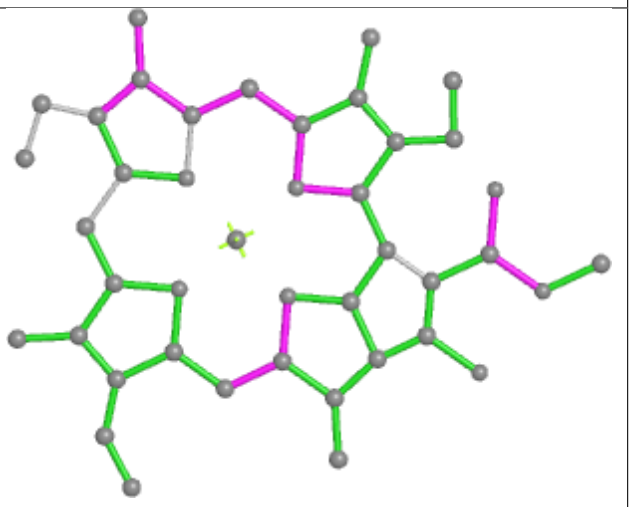


Rings

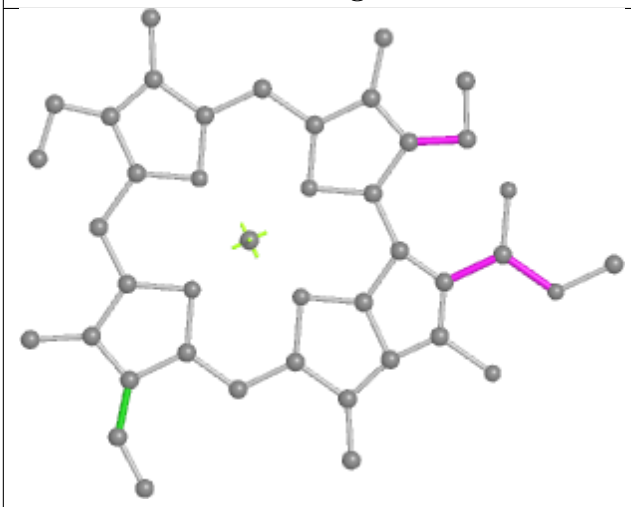
Ligand CLA B 835



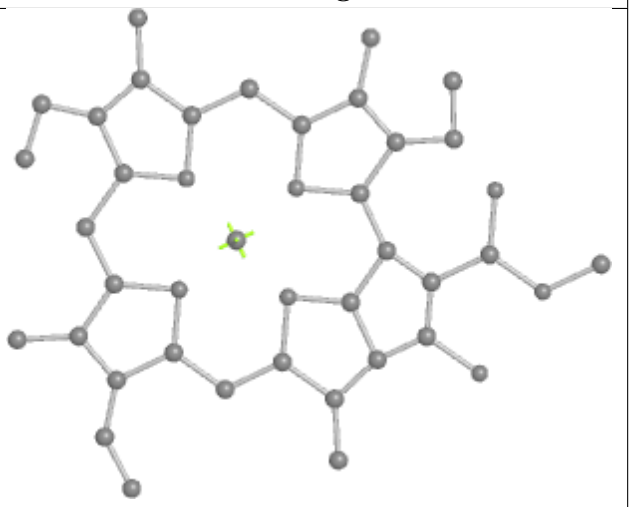
Bond lengths



Bond angles

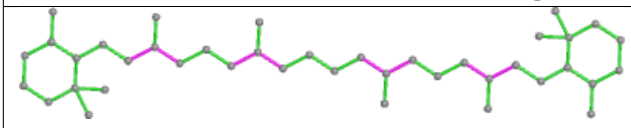


Torsions

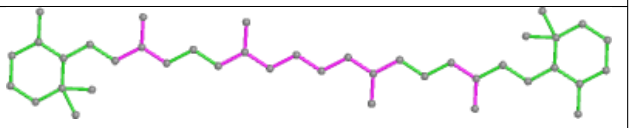


Rings

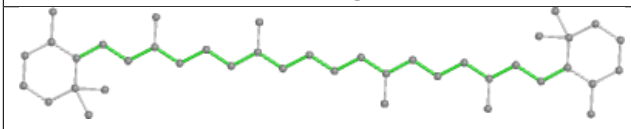
Ligand BCR I 101



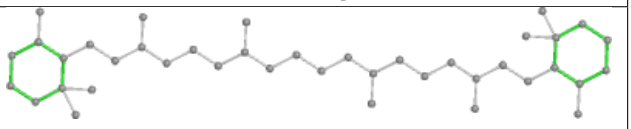
Bond lengths



Bond angles

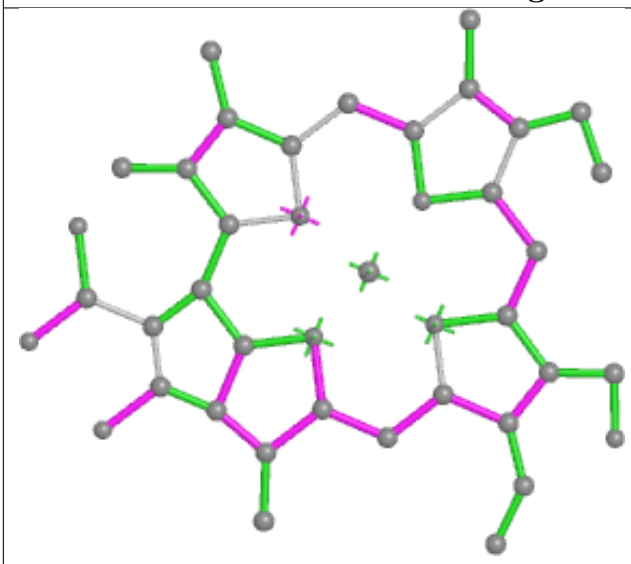


Torsions

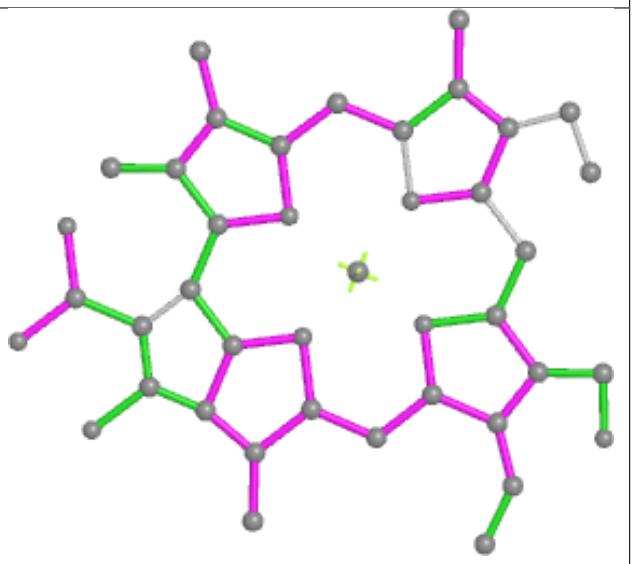


Rings

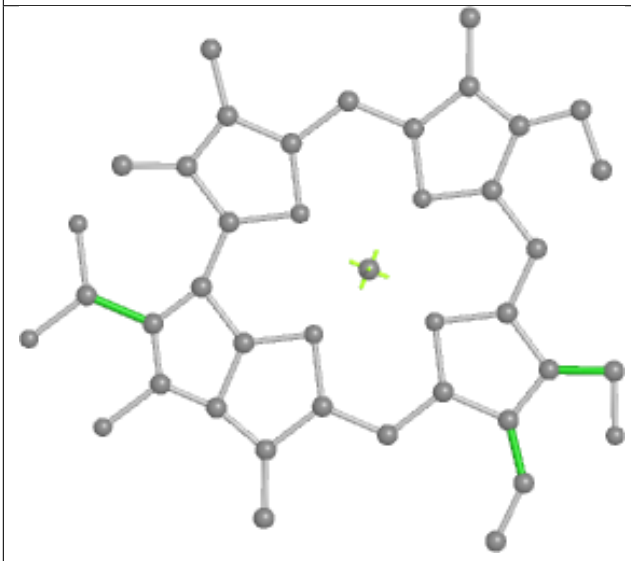
Ligand CHL 1 606



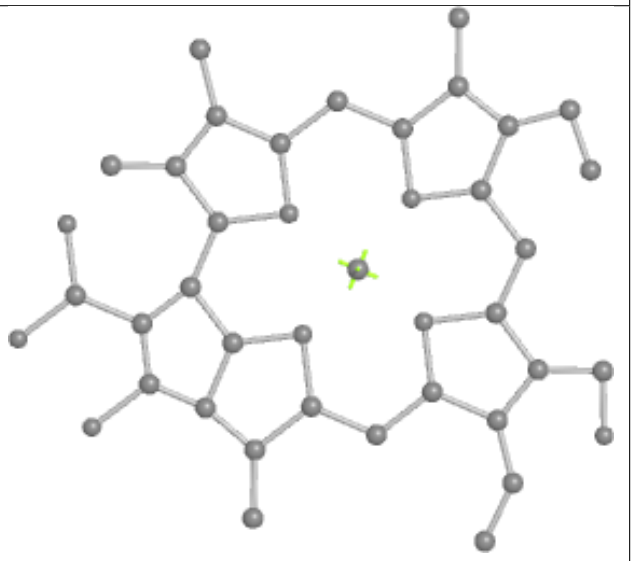
Bond lengths



Bond angles

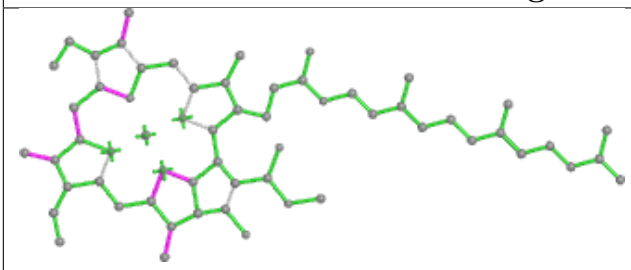


Torsions

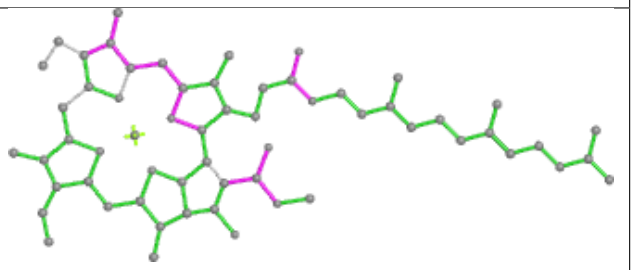


Rings

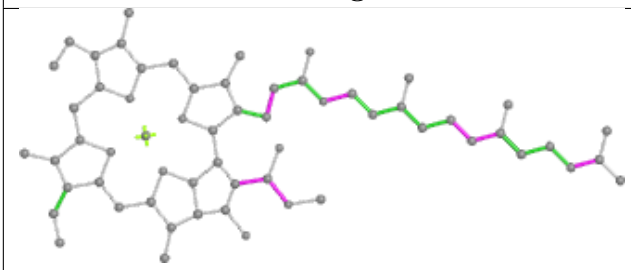
Ligand CLA x 603



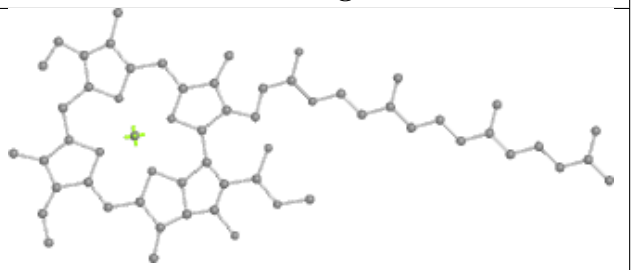
Bond lengths



Bond angles

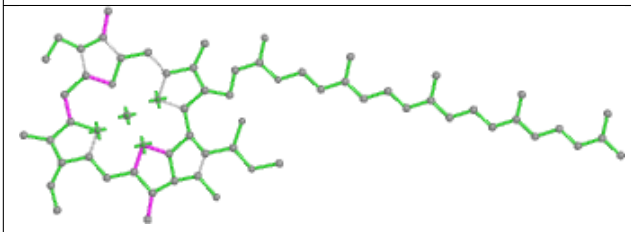


Torsions

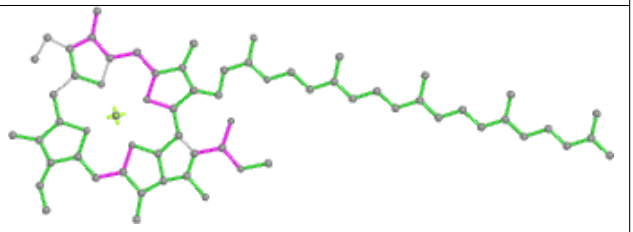


Rings

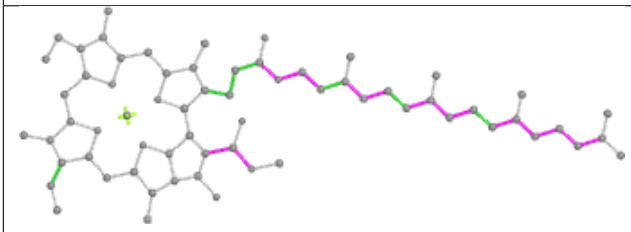
Ligand CLA B 841



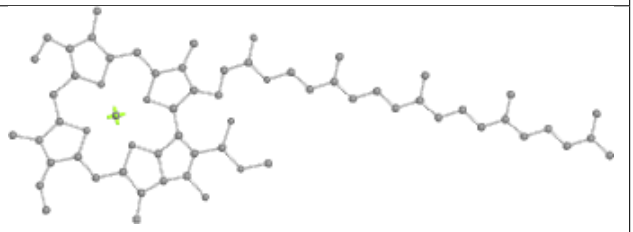
Bond lengths



Bond angles

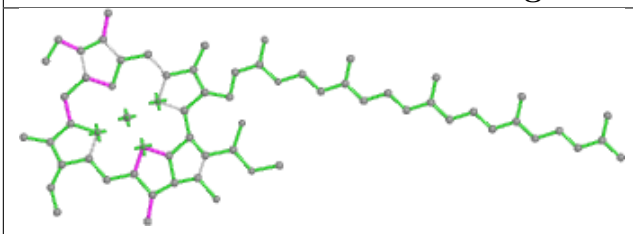


Torsions

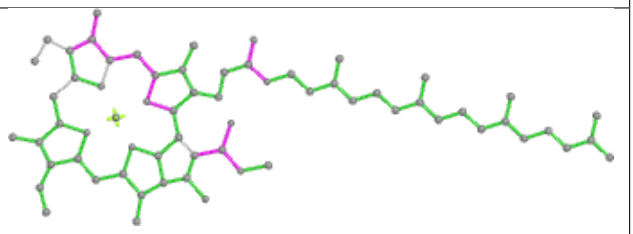


Rings

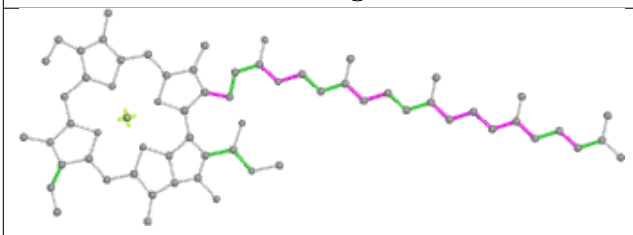
Ligand CLA B 827



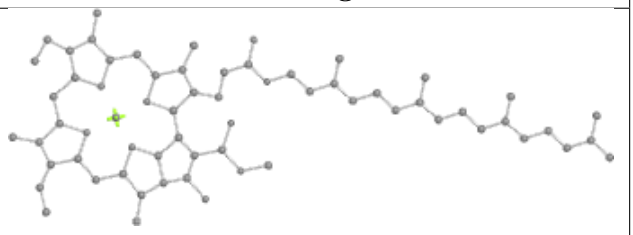
Bond lengths



Bond angles

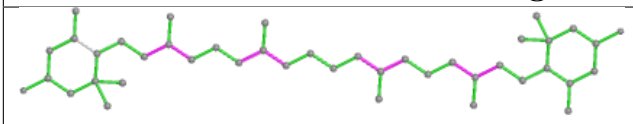


Torsions

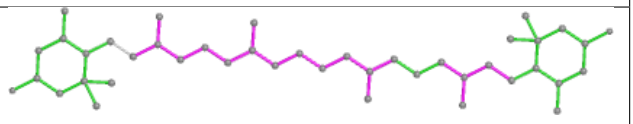


Rings

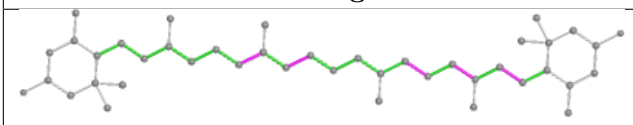
Ligand LUT 2 616



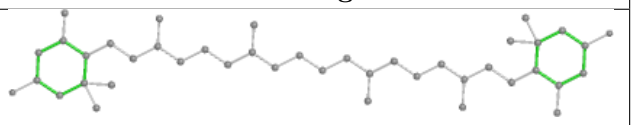
Bond lengths



Bond angles

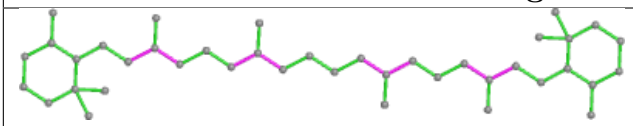


Torsions

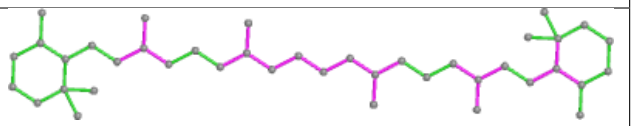


Rings

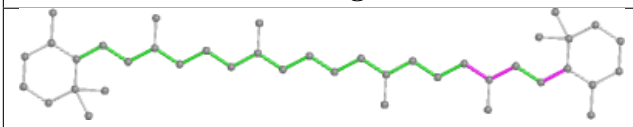
Ligand BCR 3 614



Bond lengths



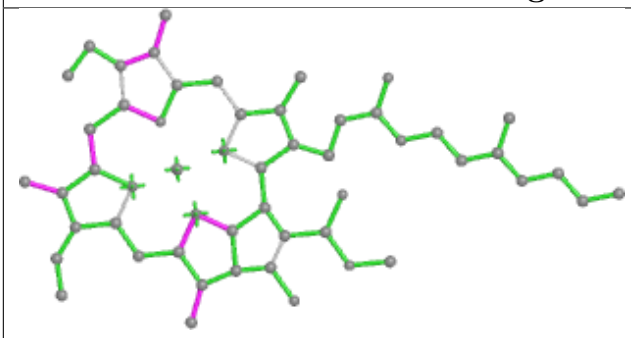
Bond angles



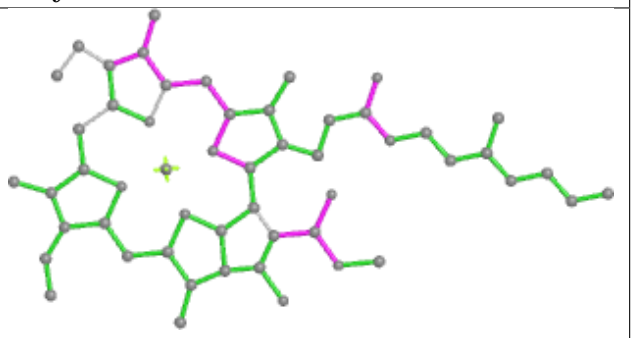
Torsions

Rings

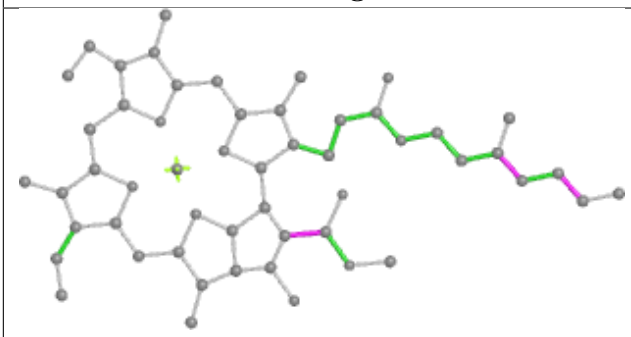
Ligand CLA y 603



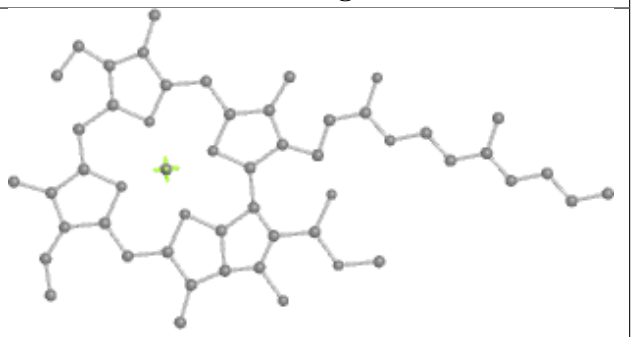
Bond lengths



Bond angles

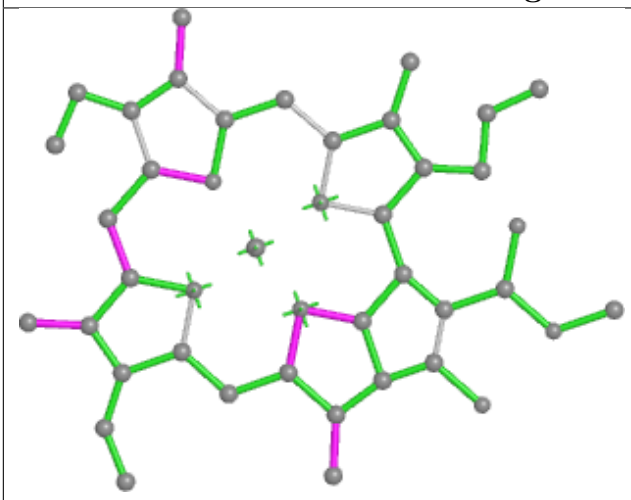


Torsions

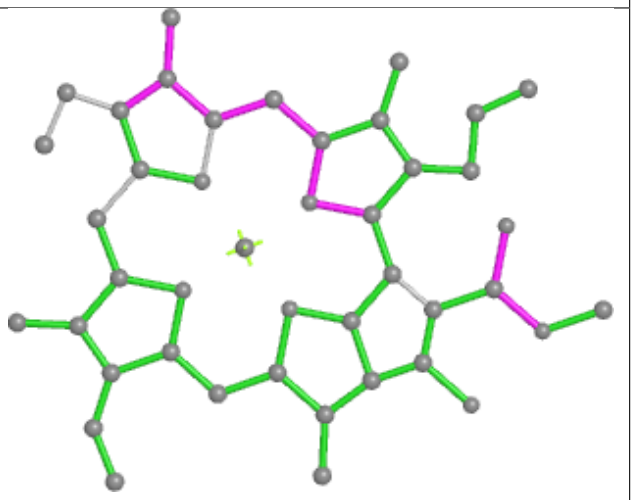


Rings

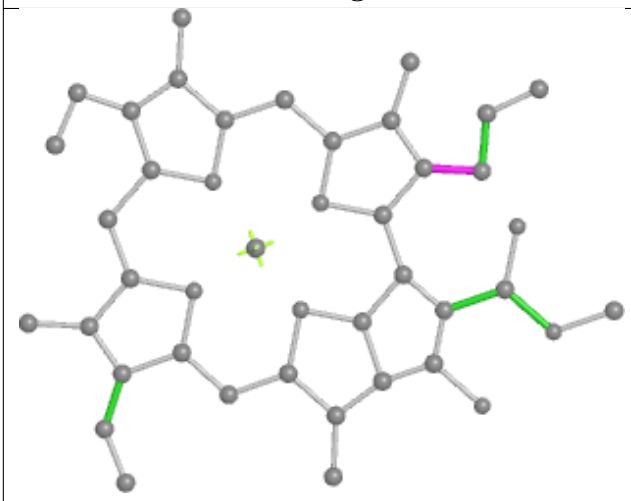
Ligand CLA B 815



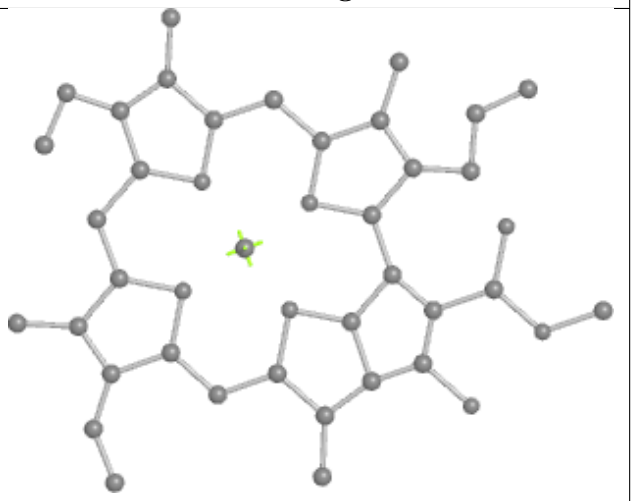
Bond lengths



Bond angles

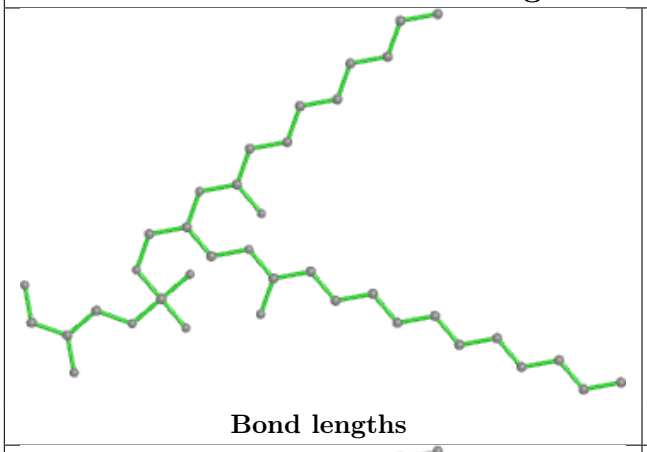


Torsions

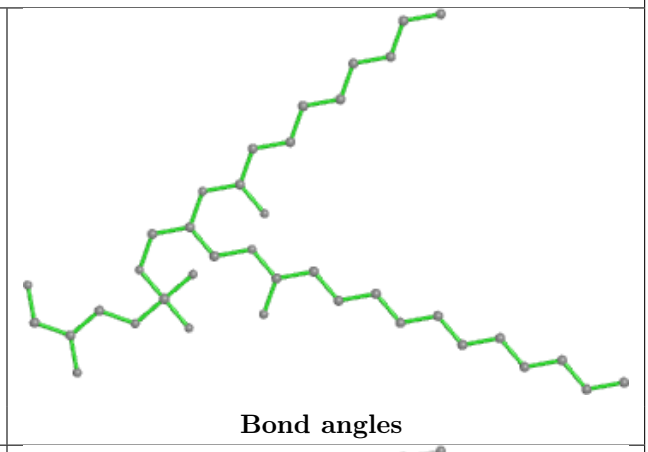


Rings

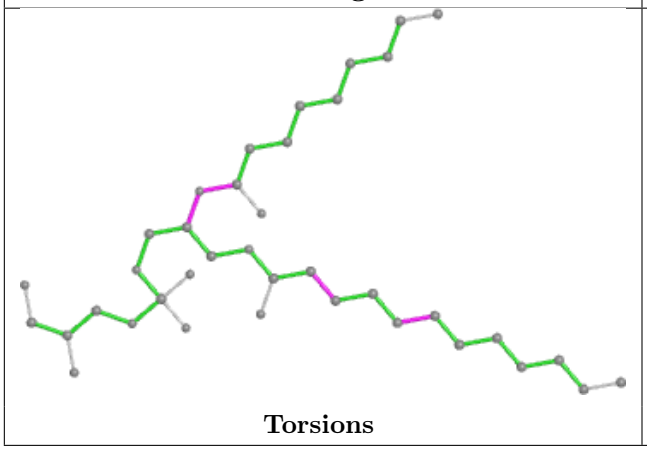
Ligand LHG B 851



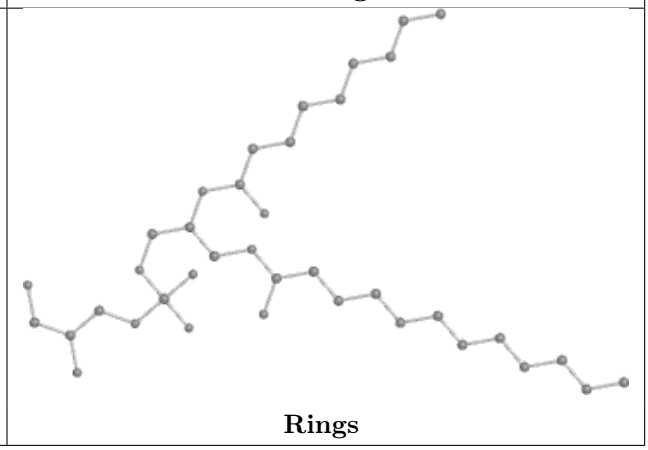
Bond lengths



Bond angles

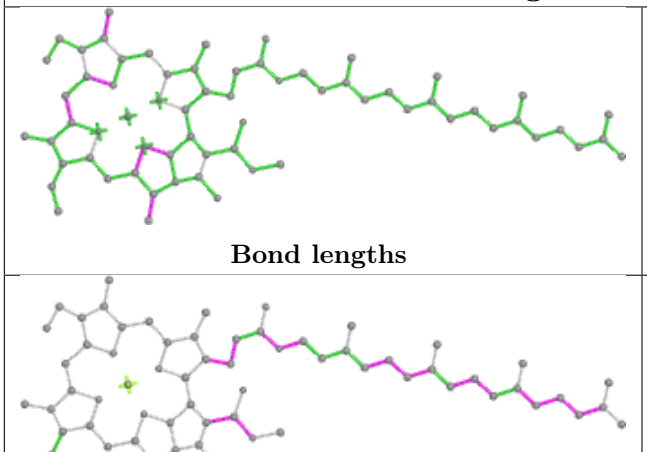


Torsions

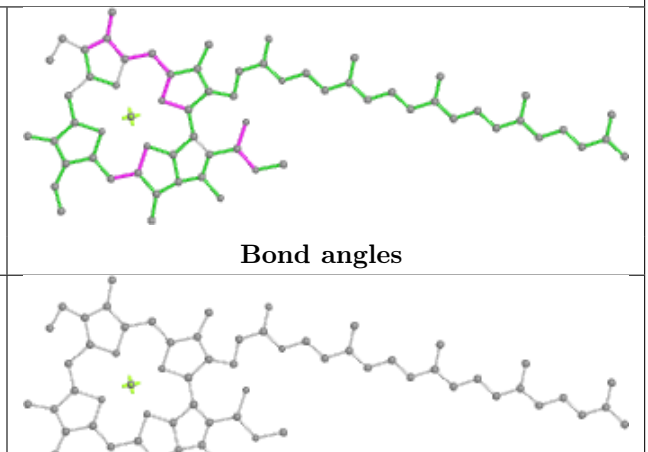


Rings

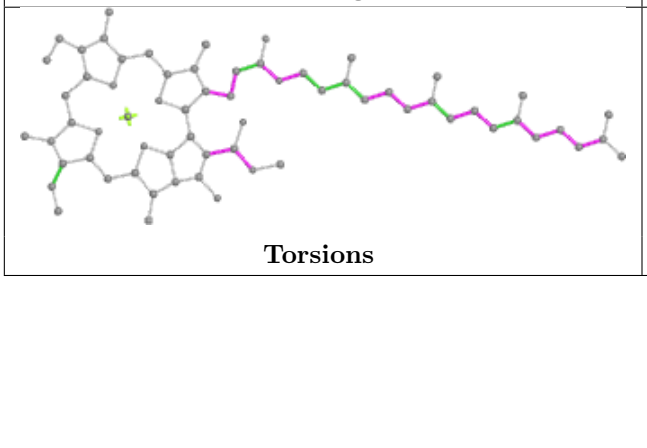
Ligand CLA A 812



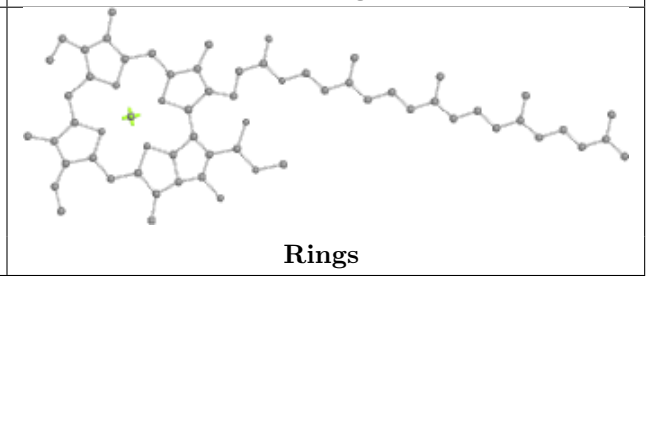
Bond lengths



Bond angles

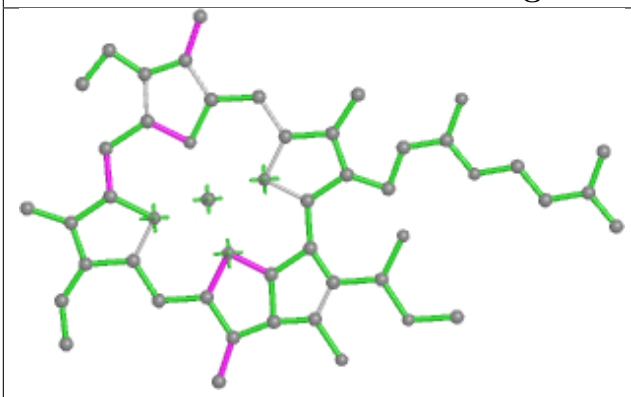


Torsions

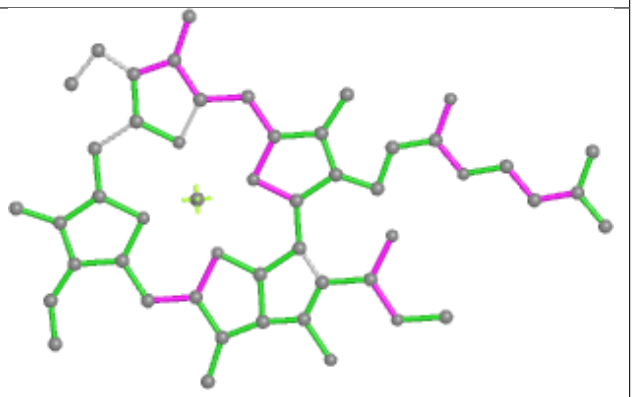


Rings

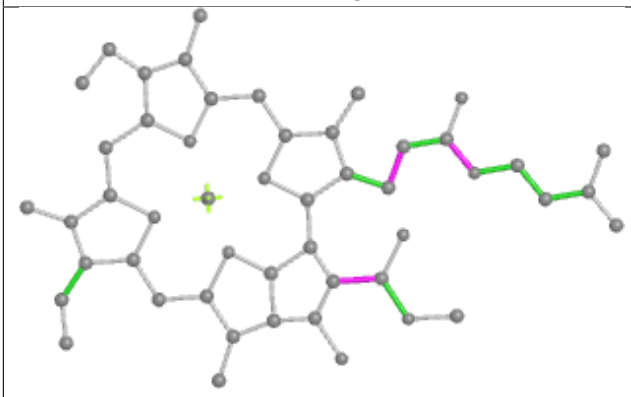
Ligand CLA A 832



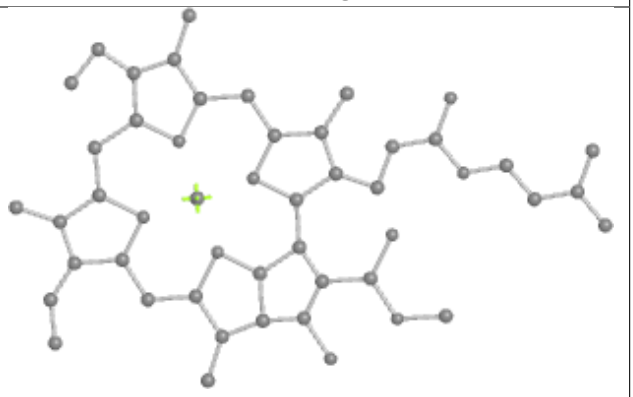
Bond lengths



Bond angles

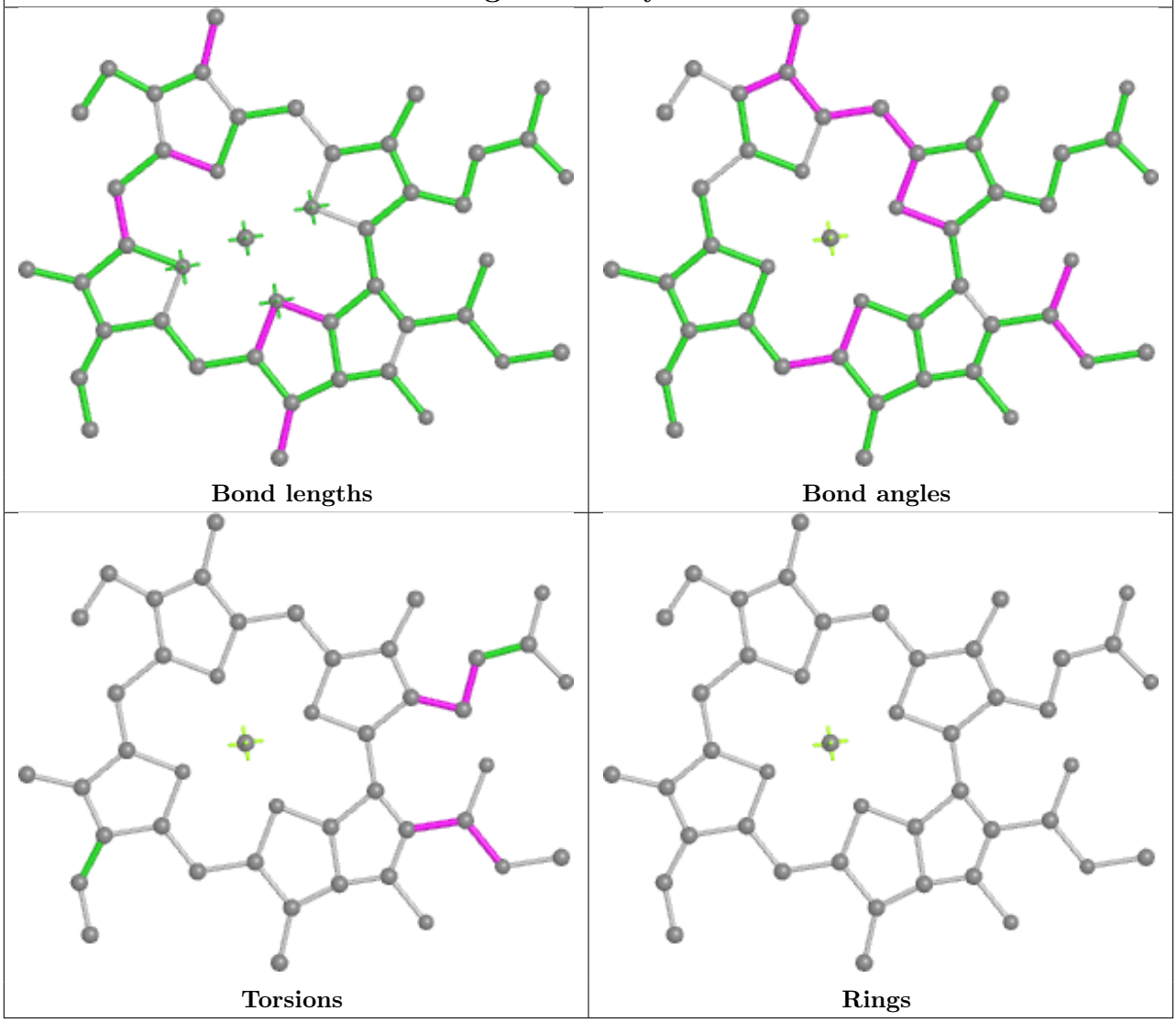


Torsions

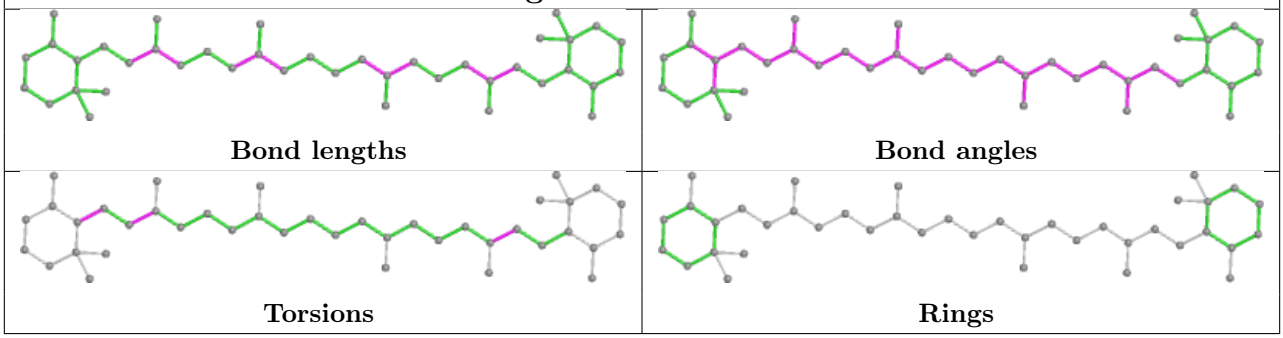


Rings

Ligand CLA y 613



Ligand BCR L 306



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.

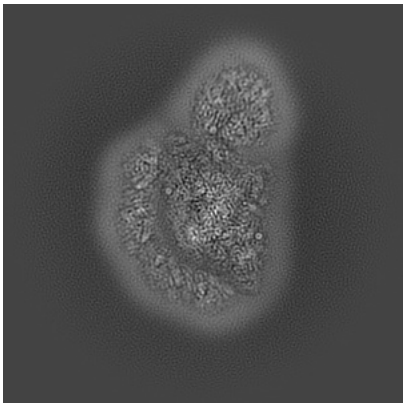
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-36021. These allow visual inspection of the internal detail of the map and identification of artifacts.

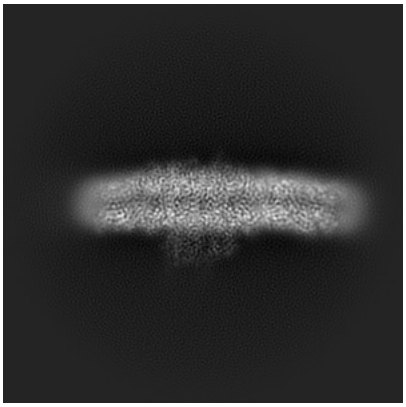
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

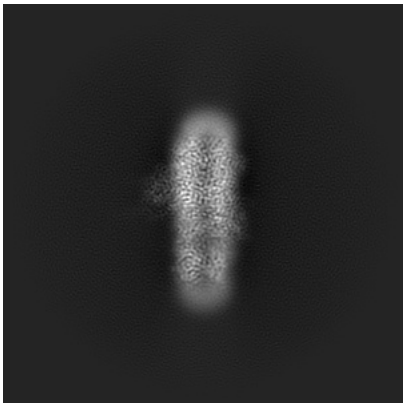
6.1.1 Primary map



X



Y

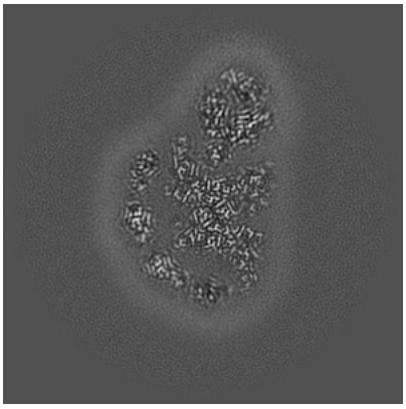


Z

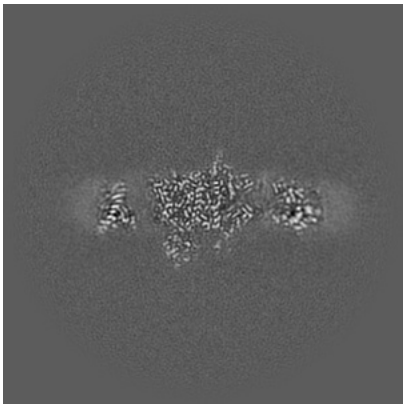
The images above show the map projected in three orthogonal directions.

6.2 Central slices

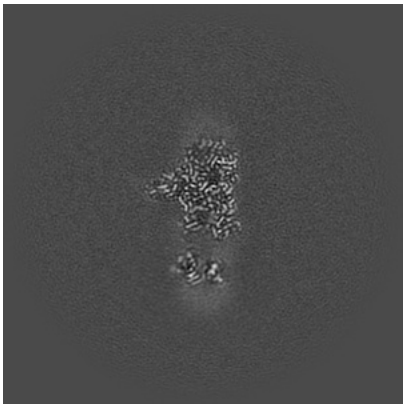
6.2.1 Primary map



X Index: 168



Y Index: 168

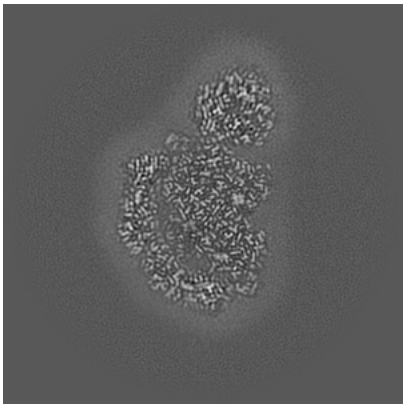


Z Index: 168

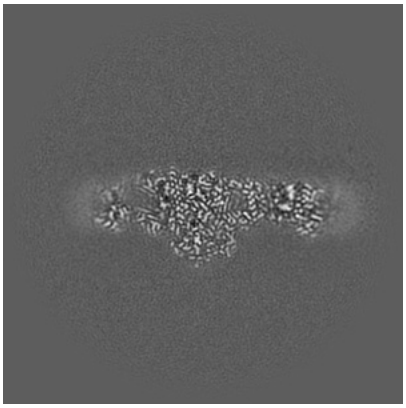
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

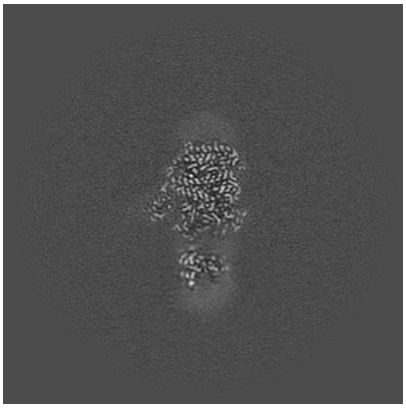
6.3.1 Primary map



X Index: 157



Y Index: 180

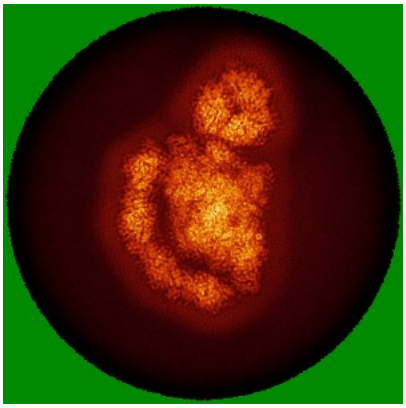


Z Index: 142

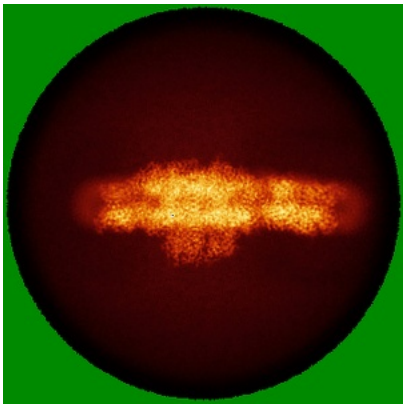
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

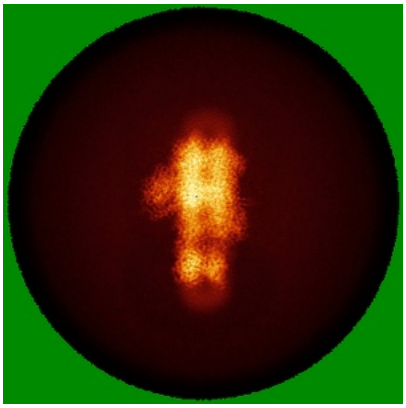
6.4.1 Primary map



X



Y

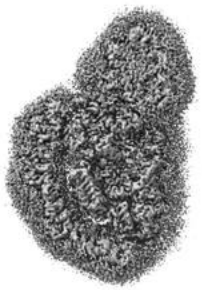


Z

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

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X

Y

Z

The images above show the 3D surface view of the map at the recommended contour level 3.59. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

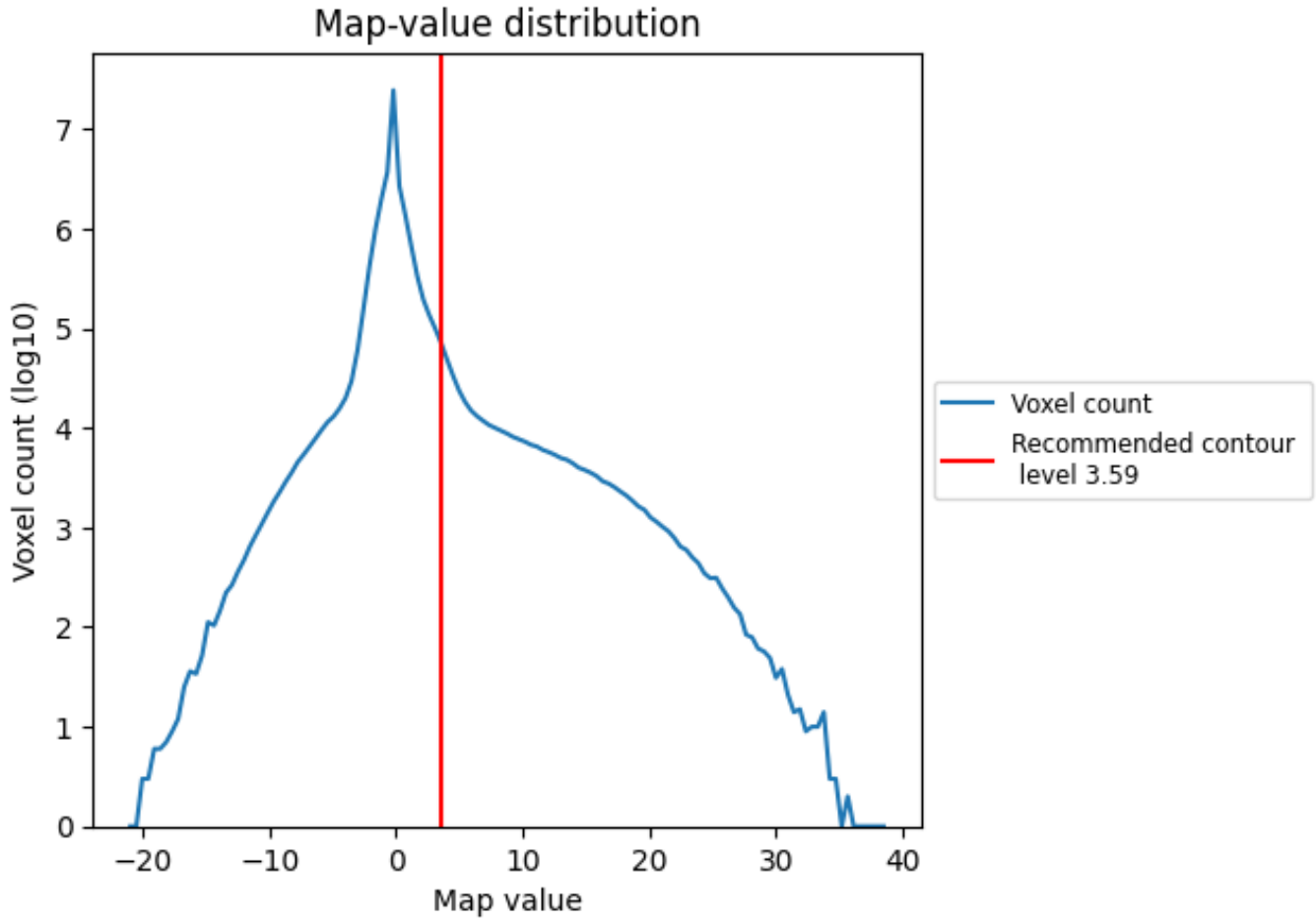
6.6 Mask visualisation (i)

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

7 Map analysis

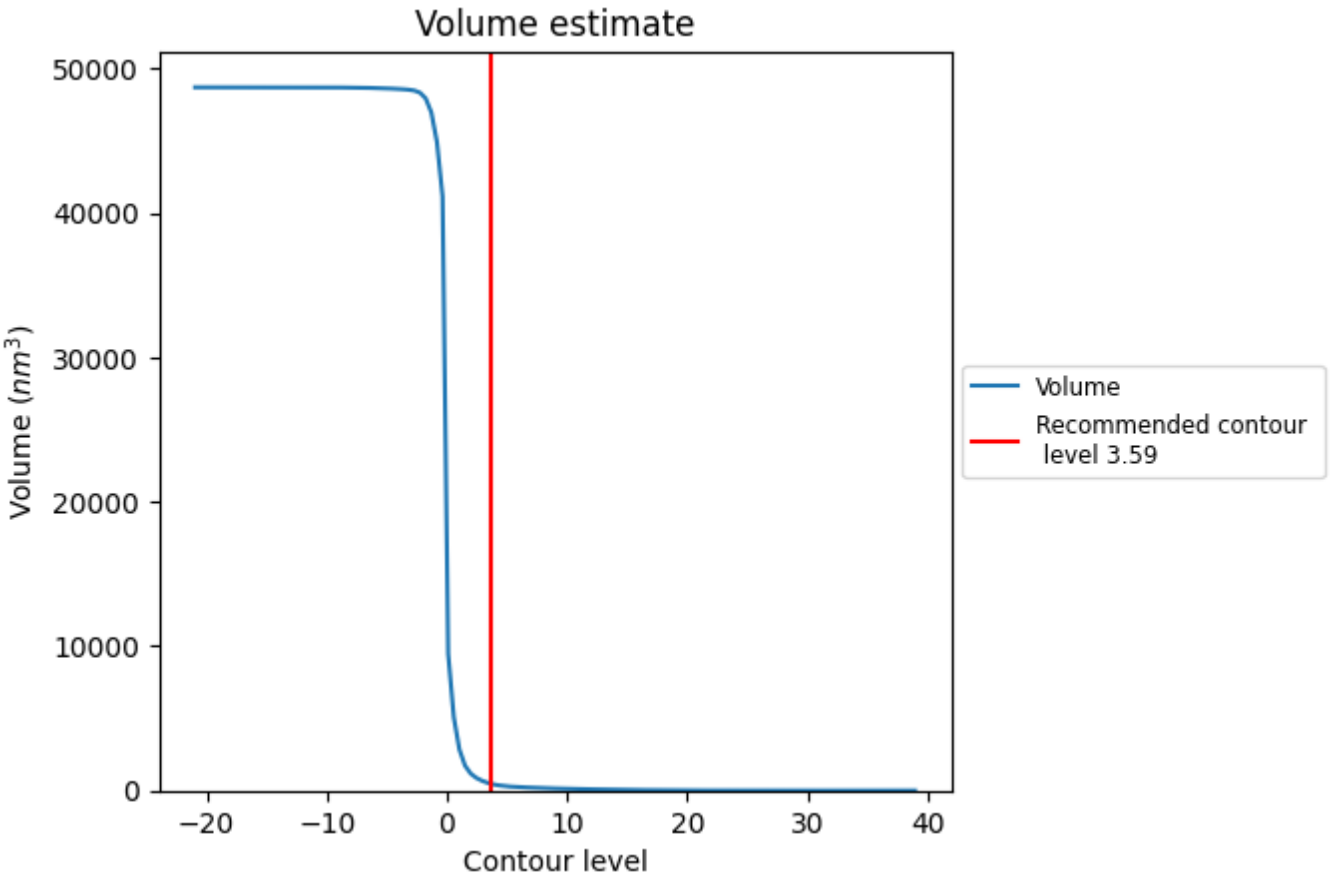
This section contains the results of statistical analysis of the map.

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.

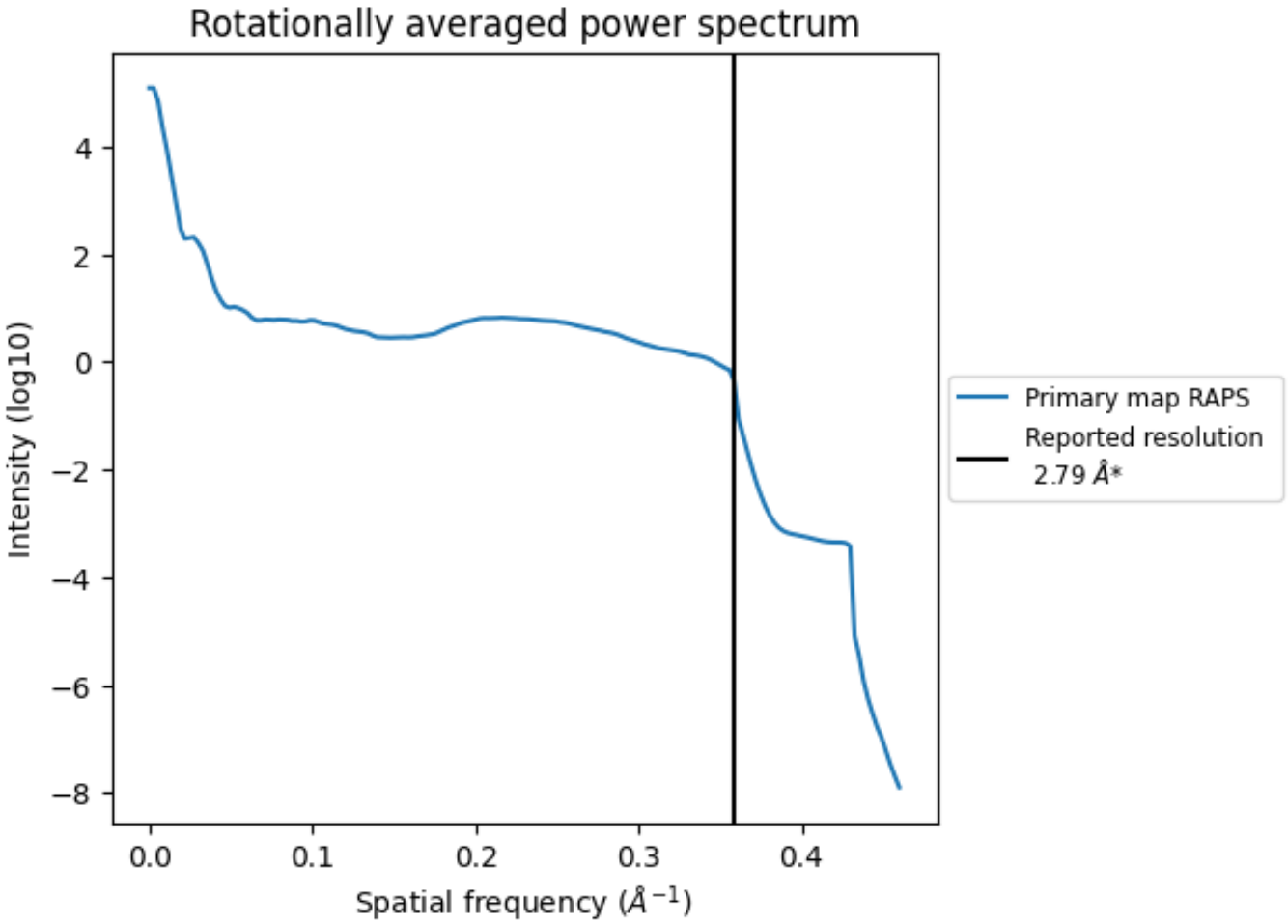
7.2 Volume estimate



The volume at the recommended contour level is 492 nm^3; this corresponds to an approximate mass of 444 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 0.358 Å^{-1}

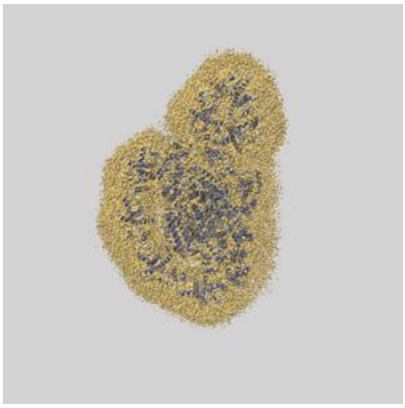
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit

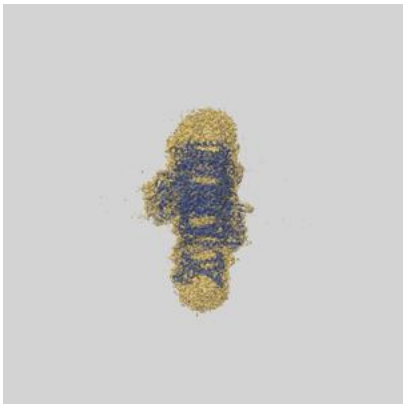
This section contains information regarding the fit between EMDB map EMD-36021 and PDB model 8J6Z. Per-residue inclusion information can be found in section 3 on page 31.

9.1 Map-model overlay



X

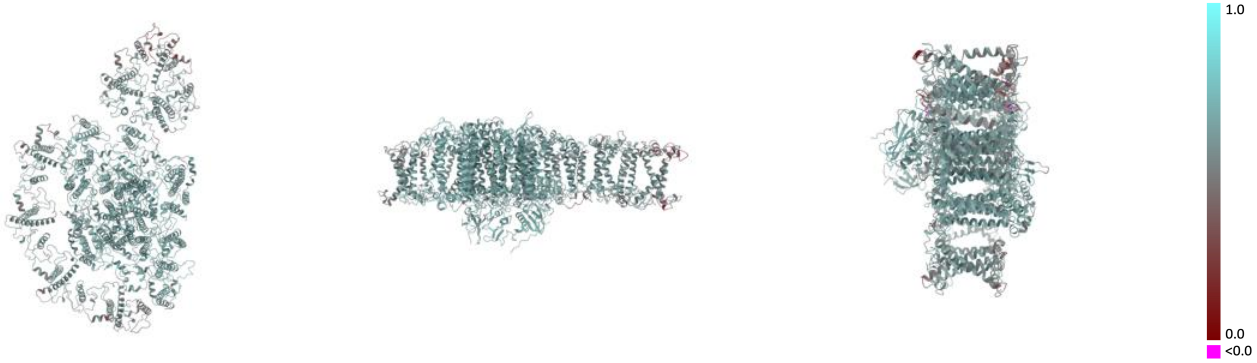
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 3.59 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

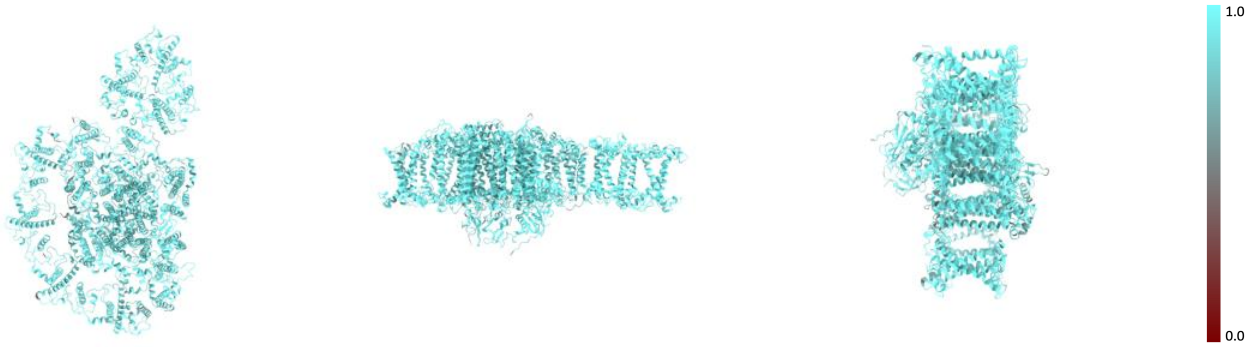
9.2 Q-score mapped to coordinate model (i)



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.

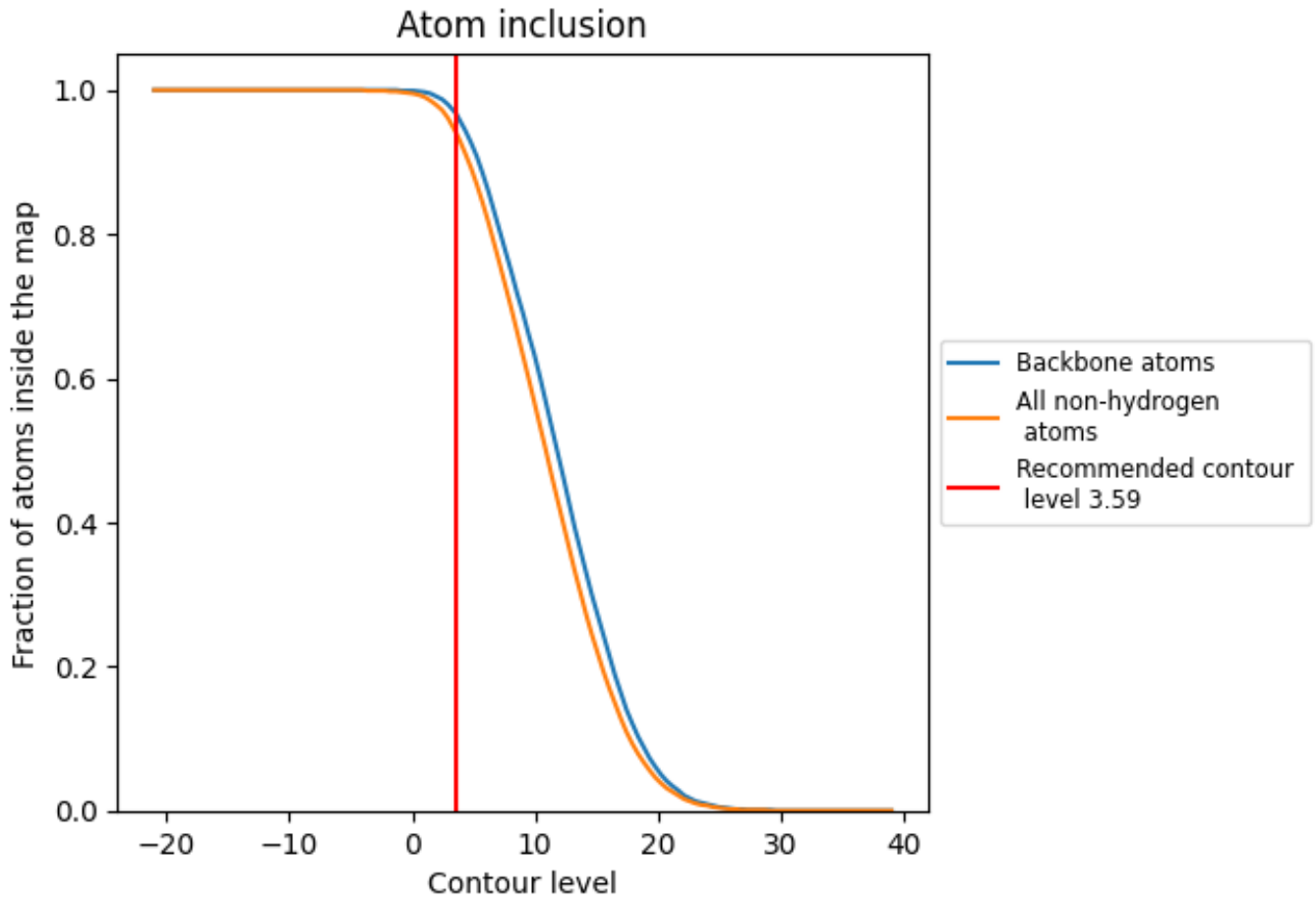
9.3 Atom inclusion mapped to coordinate model (i)



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 (3.59).

9.4 Atom inclusion (i)



At the recommended contour level, 97% of all backbone atoms, 94% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (3.59) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9400	0.5870
1	0.9140	0.5120
2	0.9470	0.5510
3	0.9300	0.5400
4	0.9350	0.5600
A	0.9480	0.6270
B	0.9600	0.6330
C	0.9790	0.6360
D	0.9550	0.6250
E	0.9480	0.6200
F	0.8810	0.5920
G	0.9060	0.5880
H	0.9160	0.5880
I	0.9680	0.6200
J	0.7920	0.5530
K	0.8900	0.5620
L	0.9590	0.6250
O	0.9570	0.5820
x	0.9460	0.5470
y	0.9200	0.4890
z	0.9480	0.5580