wwPDB EM Validation Summary Report ⓘ

Nov 15, 2022 – 05:11 AM JST

PDB ID	:	6KAC
EMDB ID	:	EMD-9955
Title	:	Cryo-EM structure of the C2S2-type PSII-LHCII supercomplex from Chlamydomonas reihardtii
Authors	:	Sheng, X.; Li, A.J.; Song, D.F.; Liu, Z.F.
Deposited on	:	2019-06-21
Resolution	:	2.70 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:

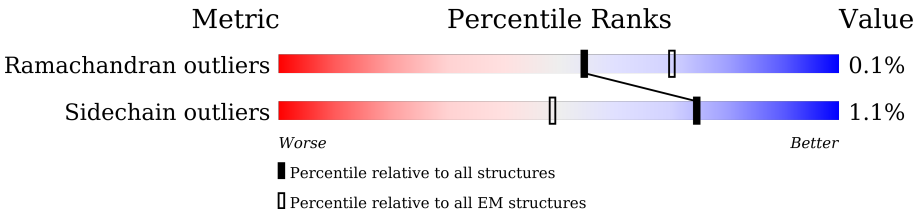
EMDB validation analysis	:	0.0.1.dev43
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.2

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.70 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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

Mol	Chain	Length	Quality of chain
1	A	352	94% • 5%
1	a	352	94% • 5%
2	B	508	95% • •
2	b	508	95% • •
3	V	33	94% • •
3	v	33	94% • •
4	C	461	95% • •
4	c	461	96% • •
5	D	352	98% ••

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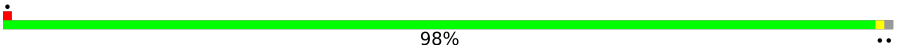
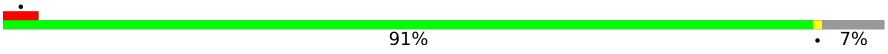
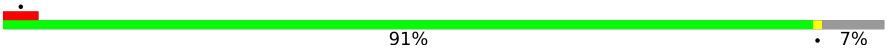
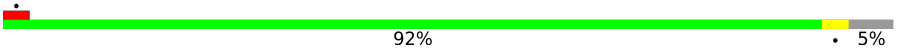
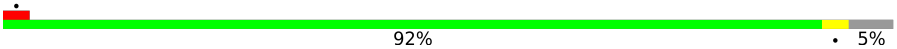
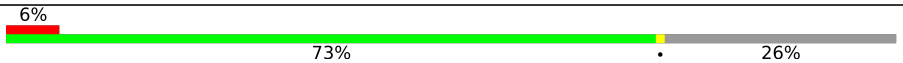
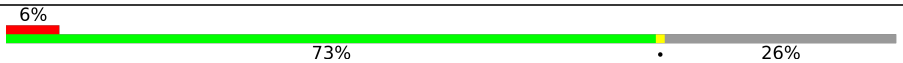
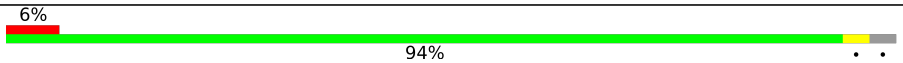
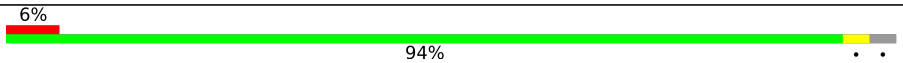
Mol	Chain	Length	Quality of chain
5	d	352	
6	E	82	
6	e	82	
7	F	44	
7	f	44	
8	H	88	
8	h	88	
9	I	37	
9	i	37	
10	J	42	
10	j	42	
11	K	46	
11	k	46	
12	L	38	
12	l	38	
13	M	34	
13	m	34	
14	O	291	
14	o	291	
15	P	245	
15	p	245	
16	Q	199	
16	q	199	
17	T	31	
17	t	31	

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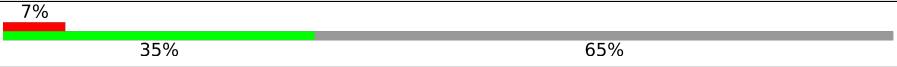
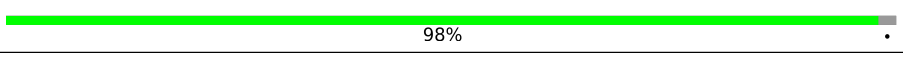
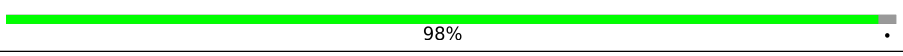
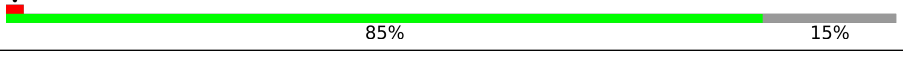
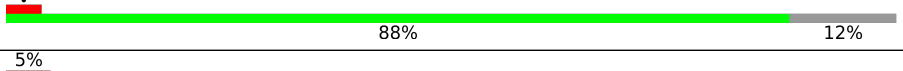
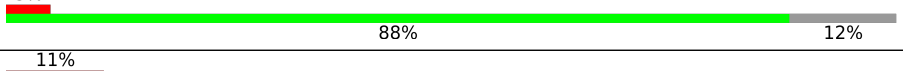
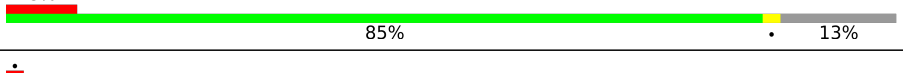
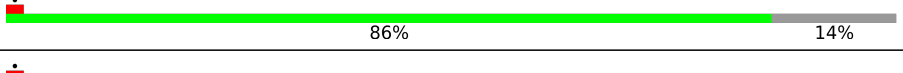
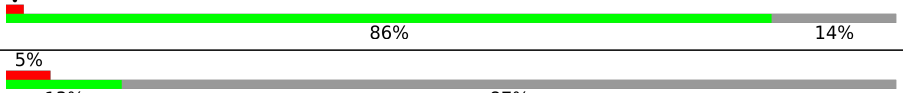
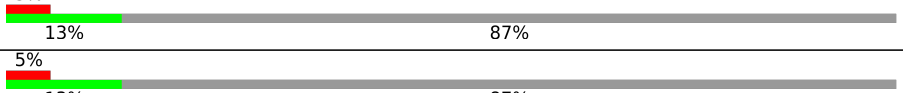
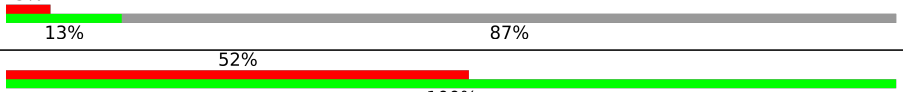
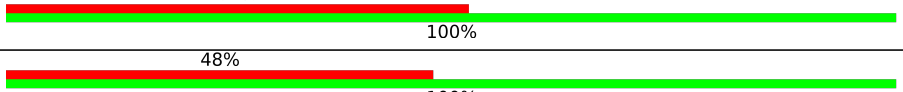
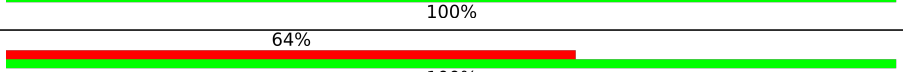
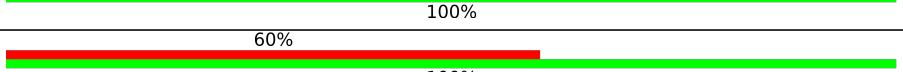
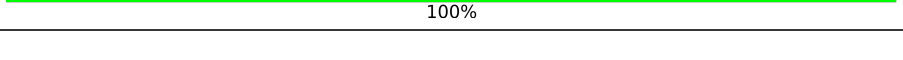
Mol	Chain	Length	Quality of chain
18	W	115	
18	w	115	
19	X	101	
19	x	101	
20	Z	62	
20	z	62	
21	N	257	
21	n	257	
22	G	249	
22	g	249	
23	R	280	
23	r	280	
24	S	289	
24	s	289	
25	Y	256	
25	y	256	
26	U	178	
26	u	178	
27	0	25	
27	1	25	
28	3	25	
28	4	25	

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
32	CLA	A	405	X	-	-	-
32	CLA	A	407	X	-	-	-
32	CLA	B	602	X	-	-	-
32	CLA	B	603	X	-	-	-
32	CLA	B	605	X	-	-	-
32	CLA	B	606	X	-	-	-
32	CLA	B	607	X	-	-	-
32	CLA	B	608	X	-	-	-
32	CLA	B	609	X	-	-	-
32	CLA	B	611	X	-	-	-
32	CLA	B	612	X	-	-	-
32	CLA	B	613	X	-	-	-
32	CLA	B	614	X	-	-	-
32	CLA	B	615	X	-	-	-
32	CLA	B	616	X	-	-	-
32	CLA	B	617	X	-	-	-
32	CLA	C	501	X	-	-	-
32	CLA	C	503	X	-	-	-
32	CLA	C	504	X	-	-	-
32	CLA	C	507	X	-	-	-
32	CLA	C	508	X	-	-	-
32	CLA	C	509	X	-	-	-
32	CLA	C	510	X	-	-	-
32	CLA	C	512	X	-	-	-
32	CLA	C	513	X	-	-	-
32	CLA	D	402	X	-	-	-
32	CLA	G	602	X	-	-	-
32	CLA	G	603	X	-	-	-
32	CLA	G	604	X	-	-	-
32	CLA	G	610	X	-	-	-
32	CLA	G	611	X	-	-	-
32	CLA	G	612	X	-	-	-
32	CLA	G	614	X	-	-	-
32	CLA	N	602	X	-	-	-
32	CLA	N	603	X	-	-	-
32	CLA	N	604	X	-	-	-
32	CLA	N	610	X	-	-	-
32	CLA	N	611	X	-	-	-
32	CLA	N	612	X	-	-	-
32	CLA	N	614	X	-	-	-
32	CLA	R	602	X	-	-	-
32	CLA	R	603	X	-	-	-
32	CLA	R	604	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
32	CLA	R	609	X	-	-	-
32	CLA	R	610	X	-	-	-
32	CLA	S	602	X	-	-	-
32	CLA	S	603	X	-	-	-
32	CLA	S	604	X	-	-	-
32	CLA	S	605	X	-	-	-
32	CLA	S	609	X	-	-	-
32	CLA	S	610	X	-	-	-
32	CLA	S	611	X	-	-	-
32	CLA	S	612	X	-	-	-
32	CLA	S	614	X	-	-	-
32	CLA	Y	602	X	-	-	-
32	CLA	Y	603	X	-	-	-
32	CLA	Y	604	X	-	-	-
32	CLA	Y	610	X	-	-	-
32	CLA	Y	611	X	-	-	-
32	CLA	Y	612	X	-	-	-
32	CLA	Y	614	X	-	-	-
32	CLA	a	405	X	-	-	-
32	CLA	a	407	X	-	-	-
32	CLA	b	602	X	-	-	-
32	CLA	b	603	X	-	-	-
32	CLA	b	605	X	-	-	-
32	CLA	b	606	X	-	-	-
32	CLA	b	607	X	-	-	-
32	CLA	b	608	X	-	-	-
32	CLA	b	609	X	-	-	-
32	CLA	b	611	X	-	-	-
32	CLA	b	612	X	-	-	-
32	CLA	b	613	X	-	-	-
32	CLA	b	614	X	-	-	-
32	CLA	b	615	X	-	-	-
32	CLA	b	616	X	-	-	-
32	CLA	b	617	X	-	-	-
32	CLA	c	501	X	-	-	-
32	CLA	c	503	X	-	-	-
32	CLA	c	504	X	-	-	-
32	CLA	c	507	X	-	-	-
32	CLA	c	508	X	-	-	-
32	CLA	c	509	X	-	-	-
32	CLA	c	510	X	-	-	-
32	CLA	c	512	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
32	CLA	c	513	X	-	-	-
32	CLA	d	402	X	-	-	-
32	CLA	g	602	X	-	-	-
32	CLA	g	603	X	-	-	-
32	CLA	g	604	X	-	-	-
32	CLA	g	610	X	-	-	-
32	CLA	g	611	X	-	-	-
32	CLA	g	612	X	-	-	-
32	CLA	g	614	X	-	-	-
32	CLA	n	602	X	-	-	-
32	CLA	n	603	X	-	-	-
32	CLA	n	604	X	-	-	-
32	CLA	n	610	X	-	-	-
32	CLA	n	611	X	-	-	-
32	CLA	n	612	X	-	-	-
32	CLA	n	614	X	-	-	-
32	CLA	r	602	X	-	-	-
32	CLA	r	603	X	-	-	-
32	CLA	r	604	X	-	-	-
32	CLA	r	609	X	-	-	-
32	CLA	r	610	X	-	-	-
32	CLA	s	602	X	-	-	-
32	CLA	s	603	X	-	-	-
32	CLA	s	604	X	-	-	-
32	CLA	s	605	X	-	-	-
32	CLA	s	609	X	-	-	-
32	CLA	s	610	X	-	-	-
32	CLA	s	611	X	-	-	-
32	CLA	s	612	X	-	-	-
32	CLA	s	614	X	-	-	-
32	CLA	y	602	X	-	-	-
32	CLA	y	603	X	-	-	-
32	CLA	y	604	X	-	-	-
32	CLA	y	610	X	-	-	-
32	CLA	y	611	X	-	-	-
32	CLA	y	612	X	-	-	-
32	CLA	y	614	X	-	-	-
43	CHL	G	601	X	-	-	-
43	CHL	G	605	X	-	-	-
43	CHL	G	606	X	-	-	-
43	CHL	G	607	X	-	-	-
43	CHL	G	608	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
43	CHL	G	609	X	-	-	-
43	CHL	N	601	X	-	-	-
43	CHL	N	605	X	-	-	-
43	CHL	N	606	X	-	-	-
43	CHL	N	607	X	-	-	-
43	CHL	N	608	X	-	-	-
43	CHL	N	609	X	-	-	-
43	CHL	R	606	X	-	-	-
43	CHL	R	607	X	-	-	-
43	CHL	R	608	X	-	-	-
43	CHL	S	601	X	-	-	-
43	CHL	S	606	X	-	-	-
43	CHL	S	607	X	-	-	-
43	CHL	S	608	X	-	-	-
43	CHL	Y	601	X	-	-	-
43	CHL	Y	605	X	-	-	-
43	CHL	Y	606	X	-	-	-
43	CHL	Y	607	X	-	-	-
43	CHL	Y	608	X	-	-	-
43	CHL	Y	609	X	-	-	-
43	CHL	g	601	X	-	-	-
43	CHL	g	605	X	-	-	-
43	CHL	g	606	X	-	-	-
43	CHL	g	607	X	-	-	-
43	CHL	g	608	X	-	-	-
43	CHL	g	609	X	-	-	-
43	CHL	n	601	X	-	-	-
43	CHL	n	605	X	-	-	-
43	CHL	n	606	X	-	-	-
43	CHL	n	607	X	-	-	-
43	CHL	n	608	X	-	-	-
43	CHL	n	609	X	-	-	-
43	CHL	r	606	X	-	-	-
43	CHL	r	607	X	-	-	-
43	CHL	r	608	X	-	-	-
43	CHL	s	601	X	-	-	-
43	CHL	s	606	X	-	-	-
43	CHL	s	607	X	-	-	-
43	CHL	s	608	X	-	-	-
43	CHL	y	601	X	-	-	-
43	CHL	y	605	X	-	-	-
43	CHL	y	606	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
43	CHL	y	607	X	-	-	-
43	CHL	y	608	X	-	-	-
43	CHL	y	609	X	-	-	-

2 Entry composition (i)

There are 47 unique types of molecules in this entry. The entry contains 77947 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Photosystem II protein D1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	336	Total	C	N	O	S	0	0
			2636	1719	434	468	15		
1	a	336	Total	C	N	O	S	0	0
			2636	1719	434	468	15		

- Molecule 2 is a protein called Photosystem II CP47 reaction center protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	490	Total	C	N	O	S	0	0
			3836	2509	642	673	12		
2	b	490	Total	C	N	O	S	0	0
			3836	2509	642	673	12		

- Molecule 3 is a protein called Photosystem II reaction center protein Ycf12.

Mol	Chain	Residues	Atoms				AltConf	Trace
3	V	32	Total	C	N	O	0	0
			224	147	37	40		
3	v	32	Total	C	N	O	0	0
			224	147	37	40		

- Molecule 4 is a protein called Photosystem II CP43 reaction center protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	C	449	Total	C	N	O	S	0	0
			3498	2288	584	609	17		
4	c	449	Total	C	N	O	S	0	0
			3498	2288	584	609	17		

- Molecule 5 is a protein called Photosystem II D2 protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	D	348	Total	C	N	O	S	0	0
			2771	1828	456	475	12		
5	d	348	Total	C	N	O	S	0	0
			2771	1828	456	475	12		

- Molecule 6 is a protein called Cytochrome b559 subunit alpha.

Mol	Chain	Residues	Atoms				AltConf	Trace
6	E	76	Total	C	N	O	0	0
			619	404	102	113		
6	e	76	Total	C	N	O	0	0
			619	404	102	113		

- Molecule 7 is a protein called Cytochrome b559 subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	F	31	Total	C	N	O	S	0	0
			251	171	42	37	1		
7	f	31	Total	C	N	O	S	0	0
			251	171	42	37	1		

- Molecule 8 is a protein called Photosystem II reaction center protein H.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	H	68	Total	C	N	O	S	0	0
			519	347	77	93	2		
8	h	68	Total	C	N	O	S	0	0
			519	347	77	93	2		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
9	I	35	Total	C	N	O	S	0	0
			283	193	43	45	2		
9	i	35	Total	C	N	O	S	0	0
			283	193	43	45	2		

- Molecule 10 is a protein called Photosystem II reaction center protein J.

Mol	Chain	Residues	Atoms				AltConf	Trace
10	J	36	Total	C	N	O	0	0
			262	178	40	44		

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Mol	Chain	Residues	Atoms				AltConf	Trace
10	j	36	Total 262	C 178	N 40	O 44	0	0

- Molecule 11 is a protein called Photosystem II reaction center protein K.

Mol	Chain	Residues	Atoms				AltConf	Trace
11	K	37	Total 297	C 209	N 43	O 45	0	0
11	k	37	Total 297	C 209	N 43	O 45	0	0

- Molecule 12 is a protein called Photosystem II reaction center protein L.

Mol	Chain	Residues	Atoms				AltConf	Trace
12	L	35	Total 290	C 196	N 45	O 49	0	0
12	l	35	Total 290	C 196	N 45	O 49	0	0

- Molecule 13 is a protein called Photosystem II reaction center protein M.

Mol	Chain	Residues	Atoms				AltConf	Trace
13	M	30	Total 230	C 158	N 32	O 40	0	0
13	m	30	Total 230	C 158	N 32	O 40	0	0

- Molecule 14 is a protein called Oxygen-evolving enhancer protein 1, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	O	240	Total 1808	C 1150	N 291	O 363	S 4	0	0
14	o	240	Total 1808	C 1150	N 291	O 363	S 4	0	0

- Molecule 15 is a protein called Oxygen-evolving enhancer protein 2, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	P	188	Total 1444	C 920	N 240	O 283	S 1	0	0
15	p	188	Total 1444	C 920	N 240	O 283	S 1	0	0

- Molecule 16 is a protein called Oxygen-evolving enhancer protein 3, chloroplastic.

Mol	Chain	Residues	Atoms				AltConf	Trace
16	Q	148	Total	C	N	O	0	0
			1192	746	214	232		
16	q	148	Total	C	N	O	0	0
			1192	746	214	232		

- Molecule 17 is a protein called Photosystem II reaction center protein T.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	T	30	Total	C	N	O	S	0	0
			247	171	36	38	2		
17	t	30	Total	C	N	O	S	0	0
			247	171	36	38	2		

- Molecule 18 is a protein called Photosystem II reaction center W protein, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	W	56	Total	C	N	O	S	0	0
			434	281	70	81	2		
18	w	56	Total	C	N	O	S	0	0
			434	281	70	81	2		

- Molecule 19 is a protein called 4.1 kDa photosystem II subunit.

Mol	Chain	Residues	Atoms				AltConf	Trace
19	X	35	Total	C	N	O	0	0
			242	159	39	44		
19	x	35	Total	C	N	O	0	0
			242	159	39	44		

- Molecule 20 is a protein called Photosystem II reaction center protein Z.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	Z	61	Total	C	N	O	S	0	0
			458	314	68	75	1		
20	z	61	Total	C	N	O	S	0	0
			458	314	68	75	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
21	N	219	Total	C	N	O	S	0	0
			1672	1081	272	314	5		
21	n	219	Total	C	N	O	S	0	0
			1672	1081	272	314	5		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
22	G	219	Total	C	N	O	S	0	0
			1667	1082	272	308	5		
22	g	219	Total	C	N	O	S	0	0
			1667	1082	272	308	5		

- Molecule 23 is a protein called Chlorophyll a-b binding protein CP29.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	R	183	Total	C	N	O	S	0	0
			1400	891	239	265	5		
23	r	183	Total	C	N	O	S	0	0
			1400	891	239	265	5		

- Molecule 24 is a protein called Chlorophyll a-b binding protein, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	S	252	Total	C	N	O	S	0	0
			1914	1236	315	359	4		
24	s	252	Total	C	N	O	S	0	0
			1914	1236	315	359	4		

- Molecule 25 is a protein called Chlorophyll a-b binding protein, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	Y	221	Total	C	N	O	S	0	0
			1693	1104	272	312	5		
25	y	221	Total	C	N	O	S	0	0
			1693	1104	272	312	5		

- Molecule 26 is a protein called Predicted protein.

Mol	Chain	Residues	Atoms				AltConf	Trace
26	U	24	Total	C	N	O	0	0
			184	113	32	39		

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Mol	Chain	Residues	Atoms				AltConf	Trace
26	u	24	Total	C	N	O	0	0
			184	113	32	39		

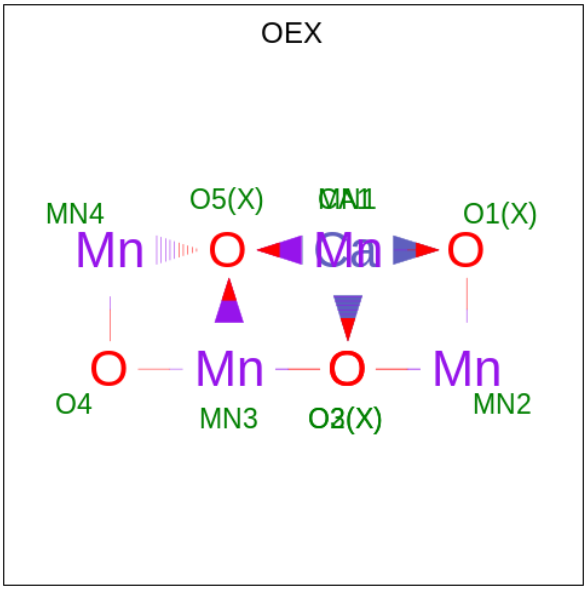
- Molecule 27 is a protein called 10 kDa photosystem II polypeptide PsbR (potential).

Mol	Chain	Residues	Atoms				AltConf	Trace
27	1	25	Total	C	N	O	0	0
			121	71	25	25		
27	0	25	Total	C	N	O	0	0
			121	71	25	25		

- Molecule 28 is a protein called Unindentified Stromal Protein (USP).

Mol	Chain	Residues	Atoms				AltConf	Trace
28	4	25	Total	C	N	O	0	0
			169	109	29	31		
28	3	25	Total	C	N	O	0	0
			169	109	29	31		

- Molecule 29 is CA-MN4-O5 CLUSTER (three-letter code: OEX) (formula: $CaMn_4O_5$).



Mol	Chain	Residues	Atoms				AltConf
29	A	1	Total	Ca	Mn	O	0
			10	1	4	5	
29	a	1	Total	Ca	Mn	O	0
			10	1	4	5	

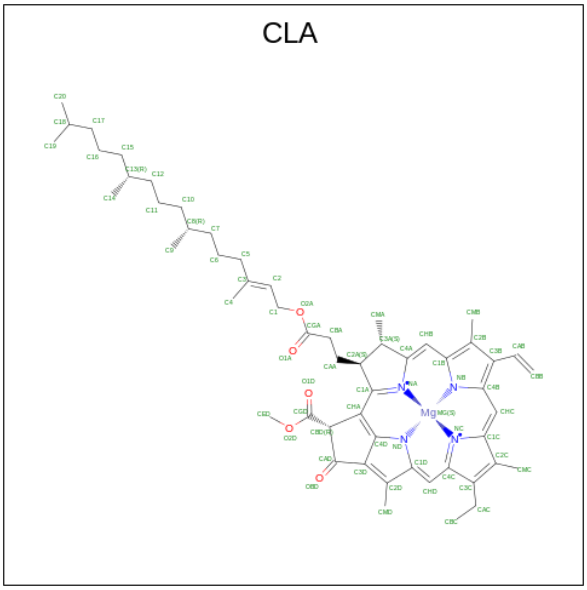
- Molecule 30 is FE (II) ION (three-letter code: FE2) (formula: Fe).

Mol	Chain	Residues	Atoms	AltConf
30	A	1	Total Fe 1 1	0
30	a	1	Total Fe 1 1	0

- Molecule 31 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	AltConf
31	A	2	Total Cl 2 2	0
31	a	2	Total Cl 2 2	0

- Molecule 32 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
32	A	1	Total C Mg N O 239 199 4 16 20	0
32	A	1	Total C Mg N O 239 199 4 16 20	0
32	A	1	Total C Mg N O 239 199 4 16 20	0
32	A	1	Total C Mg N O 239 199 4 16 20	0

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Mol	Chain	Residues	Atoms					AltConf
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	B	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	C	1	Total 845	C 715	Mg 13	N 52	O 65	0
32	C	1	Total 845	C 715	Mg 13	N 52	O 65	0
32	C	1	Total 845	C 715	Mg 13	N 52	O 65	0
32	C	1	Total 845	C 715	Mg 13	N 52	O 65	0
32	C	1	Total 845	C 715	Mg 13	N 52	O 65	0

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Mol	Chain	Residues	Atoms					AltConf
32	C	1	Total 845	C 715	Mg 13	N 52	O 65	0
32	C	1	Total 845	C 715	Mg 13	N 52	O 65	0
32	C	1	Total 845	C 715	Mg 13	N 52	O 65	0
32	C	1	Total 845	C 715	Mg 13	N 52	O 65	0
32	C	1	Total 845	C 715	Mg 13	N 52	O 65	0
32	C	1	Total 845	C 715	Mg 13	N 52	O 65	0
32	C	1	Total 845	C 715	Mg 13	N 52	O 65	0
32	C	1	Total 845	C 715	Mg 13	N 52	O 65	0
32	D	1	Total 130	C 110	Mg 2	N 8	O 10	0
32	D	1	Total 130	C 110	Mg 2	N 8	O 10	0
32	N	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	N	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	N	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	N	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	N	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	N	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	N	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	N	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	G	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	G	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	G	1	Total 446	C 368	Mg 8	N 32	O 38	0

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Mol	Chain	Residues	Atoms					AltConf
32	G	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	G	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	G	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	G	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	G	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	R	1	Total 244	C 196	Mg 5	N 20	O 23	0
32	R	1	Total 244	C 196	Mg 5	N 20	O 23	0
32	R	1	Total 244	C 196	Mg 5	N 20	O 23	0
32	R	1	Total 244	C 196	Mg 5	N 20	O 23	0
32	R	1	Total 244	C 196	Mg 5	N 20	O 23	0
32	S	1	Total 471	C 375	Mg 10	N 40	O 46	0
32	S	1	Total 471	C 375	Mg 10	N 40	O 46	0
32	S	1	Total 471	C 375	Mg 10	N 40	O 46	0
32	S	1	Total 471	C 375	Mg 10	N 40	O 46	0
32	S	1	Total 471	C 375	Mg 10	N 40	O 46	0
32	S	1	Total 471	C 375	Mg 10	N 40	O 46	0
32	S	1	Total 471	C 375	Mg 10	N 40	O 46	0
32	S	1	Total 471	C 375	Mg 10	N 40	O 46	0
32	S	1	Total 471	C 375	Mg 10	N 40	O 46	0
32	S	1	Total 471	C 375	Mg 10	N 40	O 46	0
32	Y	1	Total 509	C 429	Mg 8	N 32	O 40	0

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Mol	Chain	Residues	Atoms					AltConf
32	Y	1	Total 509	C 429	Mg 8	N 32	O 40	0
32	Y	1	Total 509	C 429	Mg 8	N 32	O 40	0
32	Y	1	Total 509	C 429	Mg 8	N 32	O 40	0
32	Y	1	Total 509	C 429	Mg 8	N 32	O 40	0
32	Y	1	Total 509	C 429	Mg 8	N 32	O 40	0
32	Y	1	Total 509	C 429	Mg 8	N 32	O 40	0
32	Y	1	Total 509	C 429	Mg 8	N 32	O 40	0
32	a	1	Total 239	C 199	Mg 4	N 16	O 20	0
32	a	1	Total 239	C 199	Mg 4	N 16	O 20	0
32	a	1	Total 239	C 199	Mg 4	N 16	O 20	0
32	a	1	Total 239	C 199	Mg 4	N 16	O 20	0
32	b	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	b	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	b	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	b	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	b	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	b	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	b	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	b	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	b	1	Total 1040	C 880	Mg 16	N 64	O 80	0
32	b	1	Total 1040	C 880	Mg 16	N 64	O 80	0

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Mol	Chain	Residues	Atoms	AltConf
32	b	1	Total C Mg N O 1040 880 16 64 80	0
32	b	1	Total C Mg N O 1040 880 16 64 80	0
32	b	1	Total C Mg N O 1040 880 16 64 80	0
32	b	1	Total C Mg N O 1040 880 16 64 80	0
32	b	1	Total C Mg N O 1040 880 16 64 80	0
32	b	1	Total C Mg N O 1040 880 16 64 80	0
32	c	1	Total C Mg N O 845 715 13 52 65	0
32	c	1	Total C Mg N O 845 715 13 52 65	0
32	c	1	Total C Mg N O 845 715 13 52 65	0
32	c	1	Total C Mg N O 845 715 13 52 65	0
32	c	1	Total C Mg N O 845 715 13 52 65	0
32	c	1	Total C Mg N O 845 715 13 52 65	0
32	c	1	Total C Mg N O 845 715 13 52 65	0
32	c	1	Total C Mg N O 845 715 13 52 65	0
32	c	1	Total C Mg N O 845 715 13 52 65	0
32	c	1	Total C Mg N O 845 715 13 52 65	0
32	c	1	Total C Mg N O 845 715 13 52 65	0
32	c	1	Total C Mg N O 845 715 13 52 65	0
32	c	1	Total C Mg N O 845 715 13 52 65	0
32	d	1	Total C Mg N O 130 110 2 8 10	0
32	d	1	Total C Mg N O 130 110 2 8 10	0

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Mol	Chain	Residues	Atoms					AltConf
32	n	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	n	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	n	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	n	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	n	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	n	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	n	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	n	1	Total 468	C 388	Mg 8	N 32	O 40	0
32	g	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	g	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	g	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	g	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	g	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	g	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	g	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	g	1	Total 446	C 368	Mg 8	N 32	O 38	0
32	r	1	Total 244	C 196	Mg 5	N 20	O 23	0
32	r	1	Total 244	C 196	Mg 5	N 20	O 23	0
32	r	1	Total 244	C 196	Mg 5	N 20	O 23	0
32	r	1	Total 244	C 196	Mg 5	N 20	O 23	0
32	r	1	Total 244	C 196	Mg 5	N 20	O 23	0

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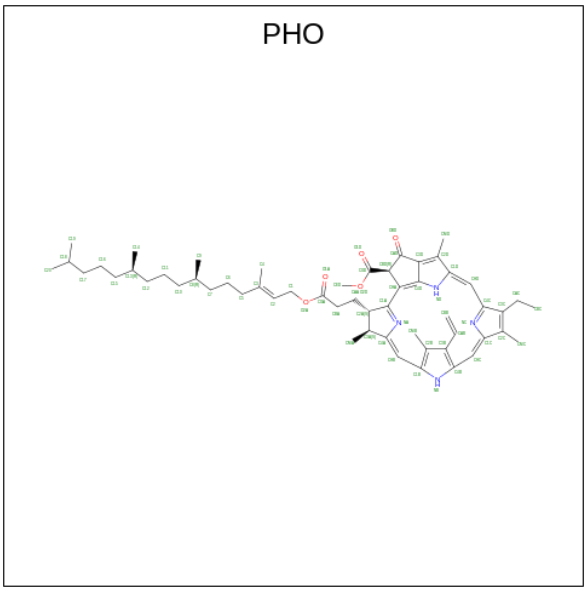
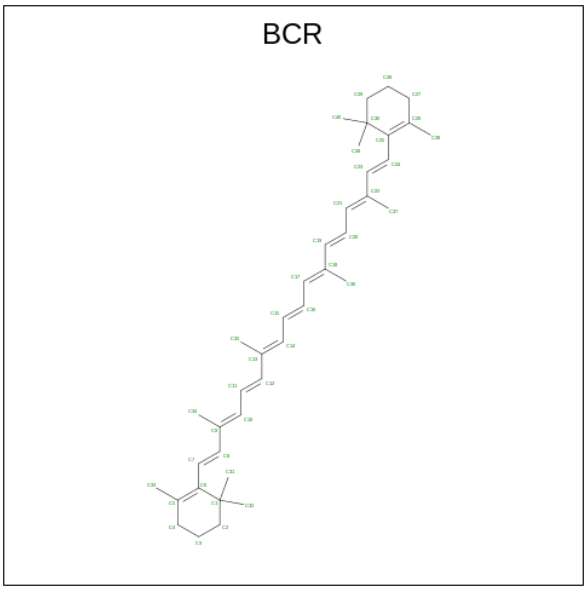
Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
32	s	1	471	375	10	40	46	0
32	s	1	471	375	10	40	46	0
32	s	1	471	375	10	40	46	0
32	s	1	471	375	10	40	46	0
32	s	1	471	375	10	40	46	0
32	s	1	471	375	10	40	46	0
32	s	1	471	375	10	40	46	0
32	s	1	471	375	10	40	46	0
32	s	1	471	375	10	40	46	0
32	s	1	471	375	10	40	46	0
32	y	1	509	429	8	32	40	0
32	y	1	509	429	8	32	40	0
32	y	1	509	429	8	32	40	0
32	y	1	509	429	8	32	40	0
32	y	1	509	429	8	32	40	0
32	y	1	509	429	8	32	40	0
32	y	1	509	429	8	32	40	0
32	y	1	509	429	8	32	40	0

- Molecule 33 is PHEOPHYTIN A (three-letter code: PHO) (formula: $C_{55}H_{74}N_4O_5$).



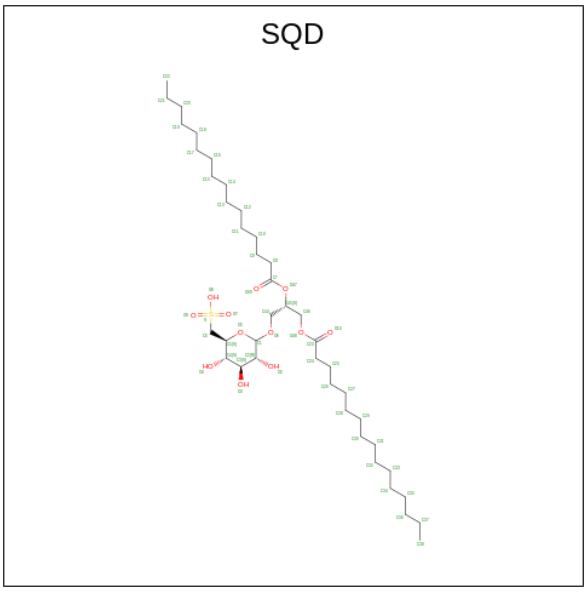
Mol	Chain	Residues	Atoms				AltConf
33	A	1	Total	C	N	O	0
			128	110	8	10	
33	A	1	Total	C	N	O	0
			128	110	8	10	
33	a	1	Total	C	N	O	0
			128	110	8	10	
33	a	1	Total	C	N	O	0
			128	110	8	10	

- Molecule 34 is BETA-CAROTENE (three-letter code: BCR) (formula: $C_{40}H_{56}$).



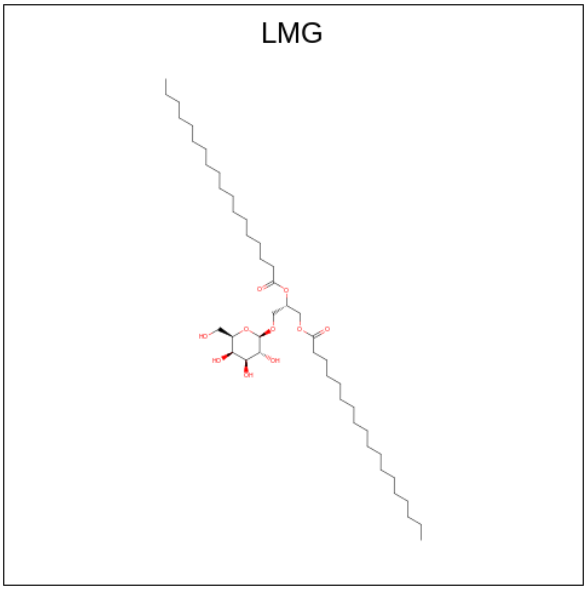
Mol	Chain	Residues	Atoms	AltConf
34	A	1	Total C 40 40	0
34	B	1	Total C 120 120	0
34	B	1	Total C 120 120	0
34	B	1	Total C 120 120	0
34	C	1	Total C 160 160	0
34	C	1	Total C 160 160	0
34	C	1	Total C 160 160	0
34	C	1	Total C 160 160	0
34	D	1	Total C 40 40	0
34	H	1	Total C 40 40	0
34	a	1	Total C 40 40	0
34	b	1	Total C 120 120	0
34	b	1	Total C 120 120	0
34	b	1	Total C 120 120	0
34	c	1	Total C 160 160	0
34	c	1	Total C 160 160	0
34	c	1	Total C 160 160	0
34	c	1	Total C 160 160	0
34	d	1	Total C 40 40	0
34	h	1	Total C 40 40	0

- Molecule 35 is 1,2-DI-O-ACYL-3-O-[6-DEOXY-6-SULFO-ALPHA-D-GLUCOPYRANOSYL]-SN-GLYCEROL (three-letter code: SQD) (formula: $C_{41}H_{78}O_{12}S$).



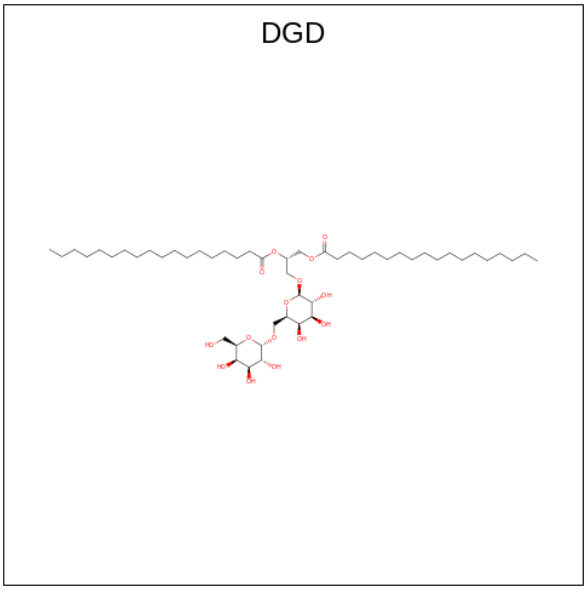
Mol	Chain	Residues	Atoms				AltConf
35	A	1	Total	C	O	S	0
			51	38	12	1	
35	B	1	Total	C	O	S	0
			54	41	12	1	
35	a	1	Total	C	O	S	0
			51	38	12	1	
35	b	1	Total	C	O	S	0
			54	41	12	1	

- Molecule 36 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: $C_{45}H_{86}O_{10}$).



Mol	Chain	Residues	Atoms			AltConf
36	A	1	Total	C	O	0
			48	38	10	
36	B	1	Total	C	O	0
			51	41	10	
36	C	1	Total	C	O	0
			51	41	10	
36	D	1	Total	C	O	0
			46	36	10	
36	H	1	Total	C	O	0
			48	38	10	
36	a	1	Total	C	O	0
			48	38	10	
36	b	1	Total	C	O	0
			51	41	10	
36	c	1	Total	C	O	0
			51	41	10	
36	d	1	Total	C	O	0
			46	36	10	
36	h	1	Total	C	O	0
			48	38	10	

- Molecule 37 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula: $C_{51}H_{96}O_{15}$).



Mol	Chain	Residues	Atoms			AltConf
37	C	1	Total	C	O	0
			308	233	75	

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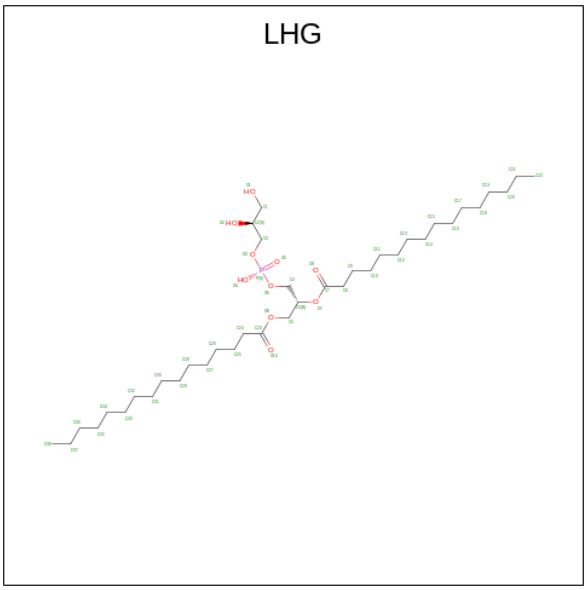
Mol	Chain	Residues	Atoms			AltConf
37	C	1	Total 308	C 233	O 75	0
37	C	1	Total 308	C 233	O 75	0
37	C	1	Total 308	C 233	O 75	0
37	C	1	Total 308	C 233	O 75	0
37	c	1	Total 308	C 233	O 75	0
37	c	1	Total 308	C 233	O 75	0
37	c	1	Total 308	C 233	O 75	0
37	c	1	Total 308	C 233	O 75	0
37	c	1	Total 308	C 233	O 75	0

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



Mol	Chain	Residues	Atoms				AltConf
38	C	1	Total 47	C 36	O 10	P 1	0
38	D	1	Total 132	C 99	O 30	P 3	0

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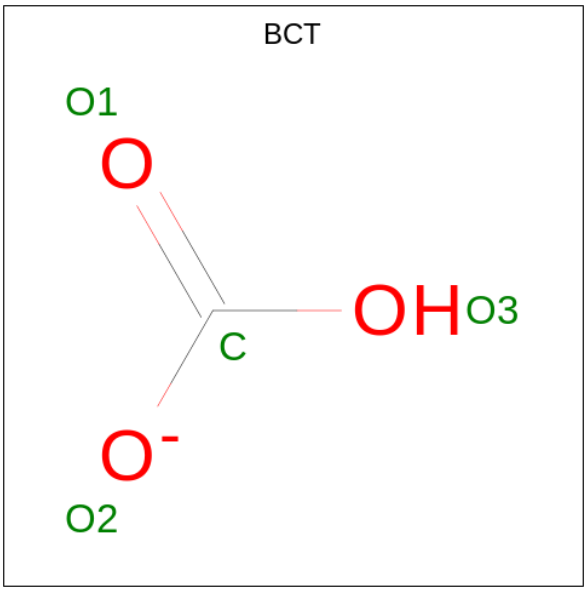
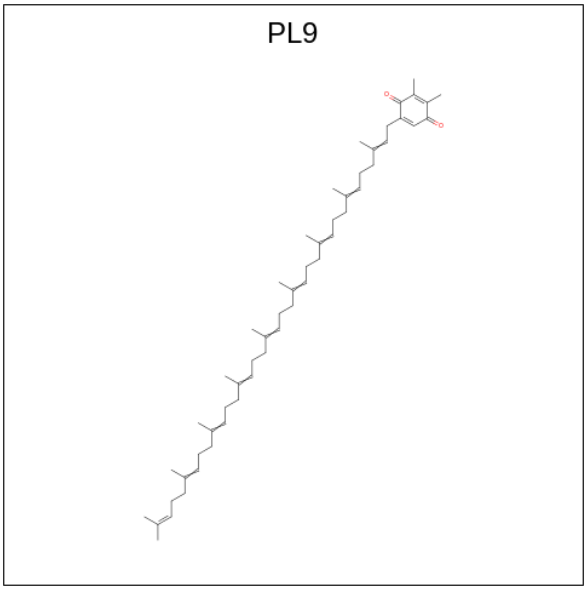
Mol	Chain	Residues	Atoms				AltConf
38	D	1	Total	C	O	P	0
			132	99	30	3	
38	D	1	Total	C	O	P	0
			132	99	30	3	
38	L	1	Total	C	O	P	0
			49	38	10	1	
38	N	1	Total	C	O	P	0
			49	38	10	1	
38	G	1	Total	C	O	P	0
			49	38	10	1	
38	S	1	Total	C	O	P	0
			45	34	10	1	
38	Y	1	Total	C	O	P	0
			49	38	10	1	
38	c	1	Total	C	O	P	0
			47	36	10	1	
38	d	1	Total	C	O	P	0
			132	99	30	3	
38	d	1	Total	C	O	P	0
			132	99	30	3	
38	d	1	Total	C	O	P	0
			132	99	30	3	
38	l	1	Total	C	O	P	0
			49	38	10	1	
38	n	1	Total	C	O	P	0
			49	38	10	1	
38	g	1	Total	C	O	P	0
			49	38	10	1	
38	s	1	Total	C	O	P	0
			45	34	10	1	
38	y	1	Total	C	O	P	0
			49	38	10	1	

- Molecule 39 is BICARBONATE ION (three-letter code: BCT) (formula: CHO_3).



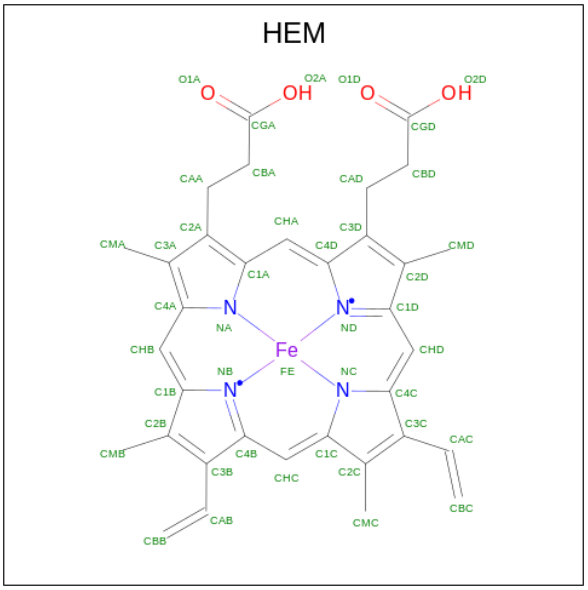
Mol	Chain	Residues	Atoms			AltConf
39	D	1	Total	C	O	0
			4	1	3	
39	d	1	Total	C	O	0
			4	1	3	

- Molecule 40 is 2,3-DIMETHYL-5-(3,7,11,15,19,23,27,31,35-NONAMETHYL-2,6,10,14,18,22,26,30,34-HEXATRIACONTANONAENYL-2,5-CYCLOHEXADIENE-1,4-DIONE-2,3-DIMETHYL-5-SOLANESYL-1,4-BENZOQUINONE (three-letter code: PL9) (formula: $C_{53}H_{80}O_2$).



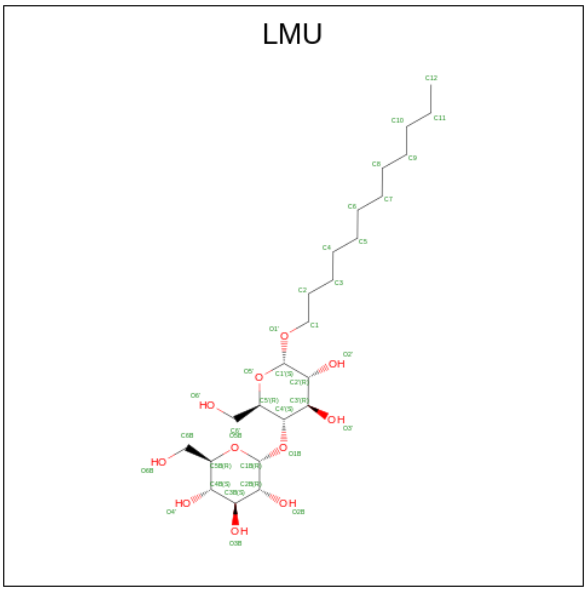
Mol	Chain	Residues	Atoms	AltConf
40	D	1	Total C O 55 53 2	0
40	d	1	Total C O 55 53 2	0

- Molecule 41 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula: $C_{34}H_{32}FeN_4O_4$).



Mol	Chain	Residues	Atoms	AltConf
41	F	1	Total C Fe N O 43 34 1 4 4	0
41	f	1	Total C Fe N O 43 34 1 4 4	0

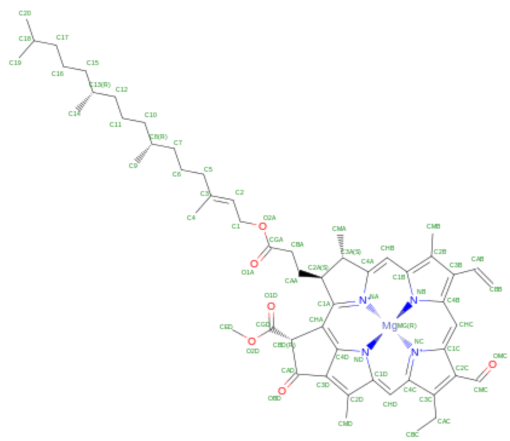
- Molecule 42 is DODECYL-ALPHA-D-MALTOSIDE (three-letter code: LMU) (formula: $C_{24}H_{46}O_{11}$).



Mol	Chain	Residues	Atoms			AltConf
42	Z	1	Total 70	C 48	O 22	0
42	Z	1	Total 70	C 48	O 22	0
42	Y	1	Total 35	C 24	O 11	0
42	z	1	Total 70	C 48	O 22	0
42	z	1	Total 70	C 48	O 22	0
42	y	1	Total 35	C 24	O 11	0

- Molecule 43 is CHLOROPHYLL B (three-letter code: CHL) (formula: $C_{55}H_{70}MgN_4O_6$) (labeled as "Ligand of Interest" by depositor).

CHL



Mol	Chain	Residues	Atoms					AltConf
43	N	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	N	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	N	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	N	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	N	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	N	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	G	1	Total 324	C 260	Mg 6	N 24	O 34	0
43	G	1	Total 324	C 260	Mg 6	N 24	O 34	0
43	G	1	Total 324	C 260	Mg 6	N 24	O 34	0
43	G	1	Total 324	C 260	Mg 6	N 24	O 34	0
43	G	1	Total 324	C 260	Mg 6	N 24	O 34	0
43	G	1	Total 324	C 260	Mg 6	N 24	O 34	0
43	R	1	Total 140	C 109	Mg 3	N 12	O 16	0
43	R	1	Total 140	C 109	Mg 3	N 12	O 16	0

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Mol	Chain	Residues	Atoms					AltConf
43	R	1	Total 140	C 109	Mg 3	N 12	O 16	0
43	S	1	Total 182	C 142	Mg 4	N 16	O 20	0
43	S	1	Total 182	C 142	Mg 4	N 16	O 20	0
43	S	1	Total 182	C 142	Mg 4	N 16	O 20	0
43	S	1	Total 182	C 142	Mg 4	N 16	O 20	0
43	Y	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	Y	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	Y	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	Y	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	Y	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	Y	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	n	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	n	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	n	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	n	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	n	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	n	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	g	1	Total 324	C 260	Mg 6	N 24	O 34	0
43	g	1	Total 324	C 260	Mg 6	N 24	O 34	0
43	g	1	Total 324	C 260	Mg 6	N 24	O 34	0
43	g	1	Total 324	C 260	Mg 6	N 24	O 34	0

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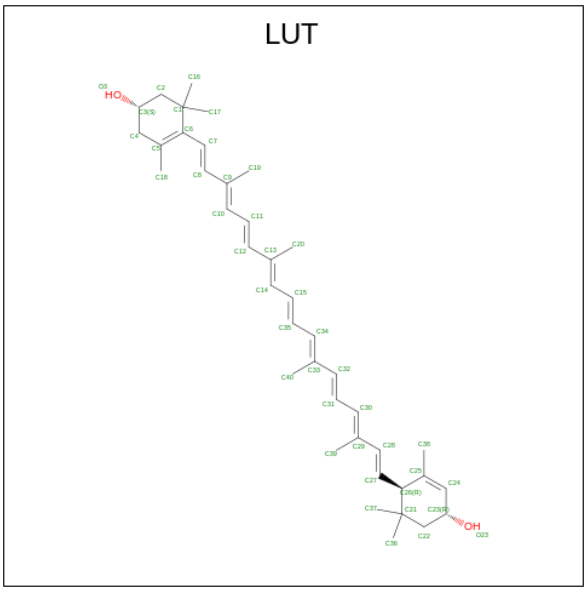
Mol	Chain	Residues	Atoms					AltConf
43	g	1	Total 324	C 260	Mg 6	N 24	O 34	0
43	g	1	Total 324	C 260	Mg 6	N 24	O 34	0
43	r	1	Total 140	C 109	Mg 3	N 12	O 16	0
43	r	1	Total 140	C 109	Mg 3	N 12	O 16	0
43	r	1	Total 140	C 109	Mg 3	N 12	O 16	0
43	s	1	Total 182	C 142	Mg 4	N 16	O 20	0
43	s	1	Total 182	C 142	Mg 4	N 16	O 20	0
43	s	1	Total 182	C 142	Mg 4	N 16	O 20	0
43	s	1	Total 182	C 142	Mg 4	N 16	O 20	0
43	y	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	y	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	y	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	y	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	y	1	Total 360	C 294	Mg 6	N 24	O 36	0
43	y	1	Total 360	C 294	Mg 6	N 24	O 36	0

- Molecule 44 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
44	N	1	Total C O 84 80 4	0
44	N	1	Total C O 84 80 4	0
44	G	1	Total C O 84 80 4	0
44	G	1	Total C O 84 80 4	0
44	S	1	Total C O 84 80 4	0
44	S	1	Total C O 84 80 4	0
44	Y	1	Total C O 84 80 4	0
44	Y	1	Total C O 84 80 4	0
44	n	1	Total C O 84 80 4	0
44	n	1	Total C O 84 80 4	0
44	g	1	Total C O 84 80 4	0
44	g	1	Total C O 84 80 4	0
44	s	1	Total C O 84 80 4	0
44	s	1	Total C O 84 80 4	0

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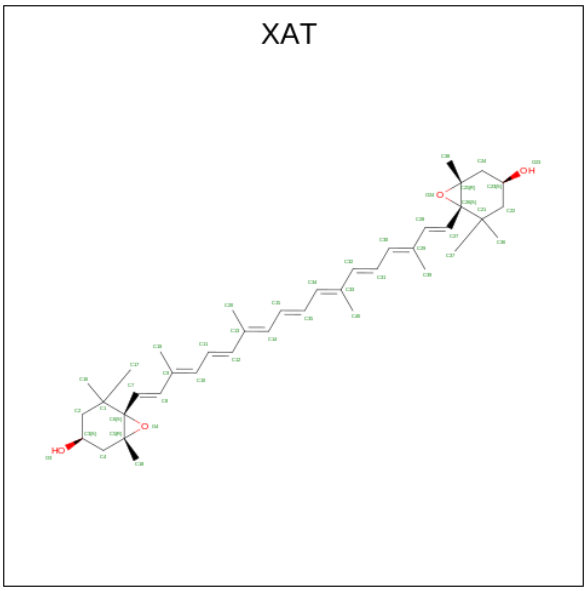
Mol	Chain	Residues	Atoms	AltConf
44	y	1	Total C O 84 80 4	0
44	y	1	Total C O 84 80 4	0

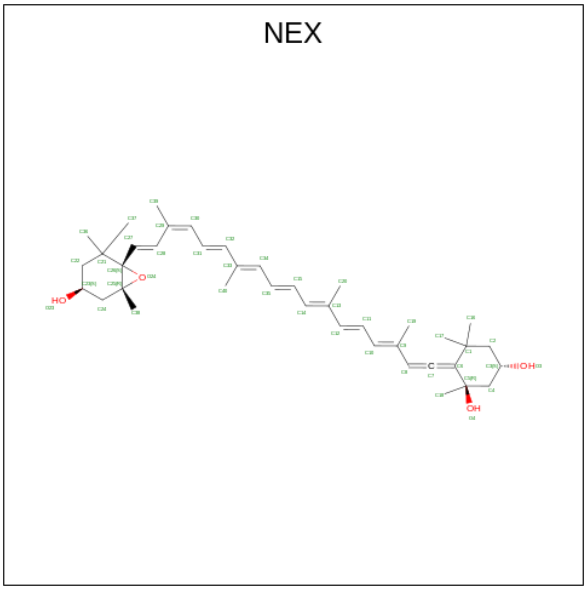
- Molecule 45 is (3S,5R,6S,3'S,5'R,6'S)-5,6,5',6'-DIEPOXY-5,6,5',6'- TETRAHYDRO-BETA ,BETA-CAROTENE-3,3'-DIOL (three-letter code: XAT) (formula: $C_{40}H_{56}O_4$).



Mol	Chain	Residues	Atoms	AltConf
45	N	1	Total C O 44 40 4	0
45	G	1	Total C O 44 40 4	0
45	R	1	Total C O 44 40 4	0
45	Y	1	Total C O 44 40 4	0
45	n	1	Total C O 44 40 4	0
45	g	1	Total C O 44 40 4	0
45	r	1	Total C O 44 40 4	0
45	y	1	Total C O 44 40 4	0

- Molecule 46 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
46	N	1	Total	C	O	0
			44	40	4	
46	G	1	Total	C	O	0
			44	40	4	
46	R	1	Total	C	O	0
			44	40	4	
46	S	1	Total	C	O	0
			44	40	4	
46	Y	1	Total	C	O	0
			44	40	4	
46	n	1	Total	C	O	0
			44	40	4	
46	g	1	Total	C	O	0
			44	40	4	
46	r	1	Total	C	O	0
			44	40	4	
46	s	1	Total	C	O	0
			44	40	4	
46	y	1	Total	C	O	0
			44	40	4	

- Molecule 47 is water.

Mol	Chain	Residues	Atoms	AltConf
47	A	40	Total O 40 40	0
47	B	57	Total O 57 57	0
47	V	6	Total O 6 6	0
47	C	28	Total O 28 28	0
47	D	28	Total O 28 28	0
47	E	6	Total O 6 6	0
47	F	3	Total O 3 3	0
47	H	7	Total O 7 7	0
47	I	5	Total O 5 5	0
47	J	1	Total O 1 1	0
47	L	1	Total O 1 1	0
47	M	3	Total O 3 3	0
47	O	43	Total O 43 43	0
47	P	23	Total O 23 23	0
47	Q	20	Total O 20 20	0
47	T	3	Total O 3 3	0
47	W	3	Total O 3 3	0
47	X	1	Total O 1 1	0
47	Z	3	Total O 3 3	0
47	N	3	Total O 3 3	0
47	G	6	Total O 6 6	0
47	Y	8	Total O 8 8	0

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Mol	Chain	Residues	Atoms	AltConf
47	a	40	Total O 40 40	0
47	b	57	Total O 57 57	0
47	v	6	Total O 6 6	0
47	c	28	Total O 28 28	0
47	d	28	Total O 28 28	0
47	e	6	Total O 6 6	0
47	f	3	Total O 3 3	0
47	h	7	Total O 7 7	0
47	i	5	Total O 5 5	0
47	j	1	Total O 1 1	0
47	l	1	Total O 1 1	0
47	m	2	Total O 2 2	0
47	o	43	Total O 43 43	0
47	p	23	Total O 23 23	0
47	q	20	Total O 20 20	0
47	t	3	Total O 3 3	0
47	w	3	Total O 3 3	0
47	x	1	Total O 1 1	0
47	z	3	Total O 3 3	0
47	n	3	Total O 3 3	0
47	g	6	Total O 6 6	0

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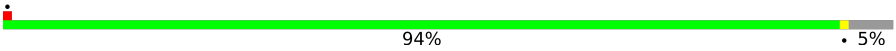
Mol	Chain	Residues	Atoms		AltConf
			Total	O	
47	y	8	8	8	0

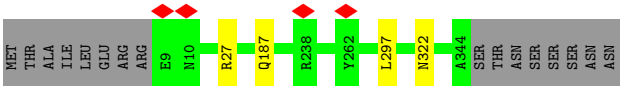
3 Residue-property plots (i)

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

• Molecule 1: Photosystem II protein D1

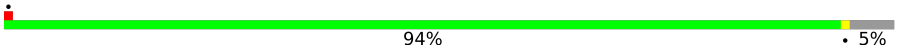
Chain A:

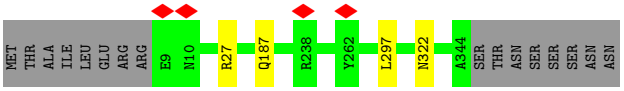




• Molecule 1: Photosystem II protein D1

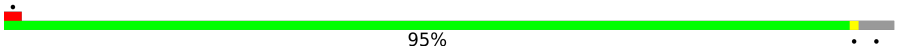
Chain a:

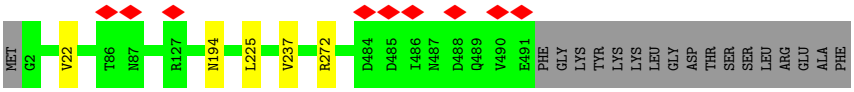




• Molecule 2: Photosystem II CP47 reaction center protein

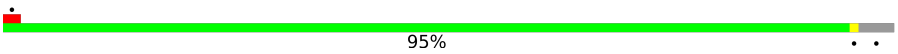
Chain B:

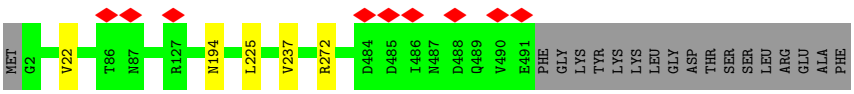




• Molecule 2: Photosystem II CP47 reaction center protein

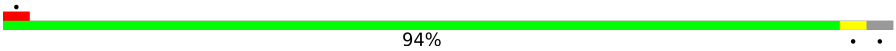
Chain b:

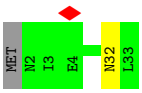




• Molecule 3: Photosystem II reaction center protein Ycf12

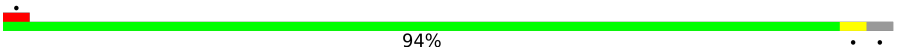
Chain V:

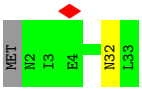




• Molecule 3: Photosystem II reaction center protein Ycf12

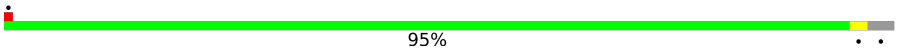
Chain v:

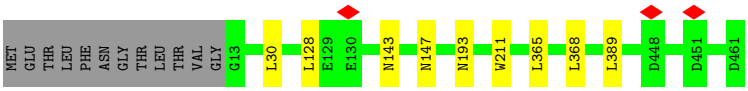




• Molecule 4: Photosystem II CP43 reaction center protein

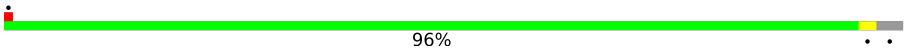
Chain C:

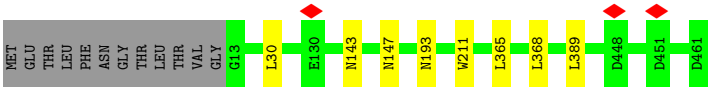




• Molecule 4: Photosystem II CP43 reaction center protein

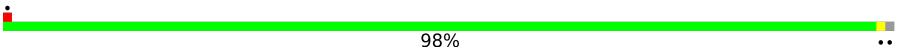
Chain c:

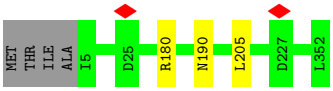




• Molecule 5: Photosystem II D2 protein

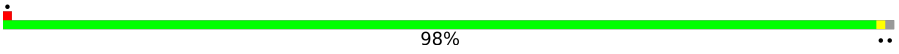
Chain D:

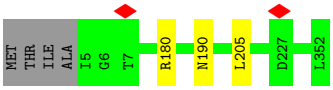




• Molecule 5: Photosystem II D2 protein

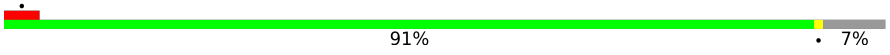
Chain d:

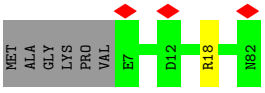




• Molecule 6: Cytochrome b559 subunit alpha

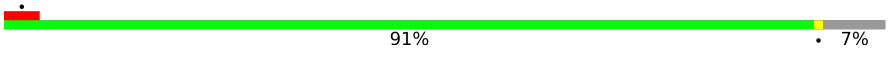
Chain E:

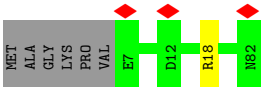




• Molecule 6: Cytochrome b559 subunit alpha

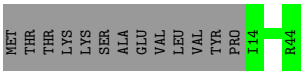
Chain e:





• Molecule 7: Cytochrome b559 subunit beta

Chain F:

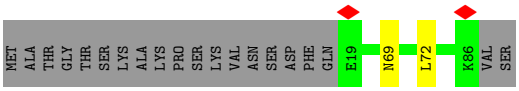


• Molecule 7: Cytochrome b559 subunit beta

Chain f:

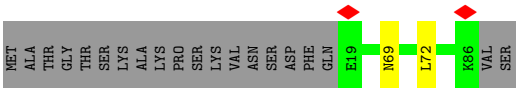
• Molecule 8: Photosystem II reaction center protein H

Chain H:



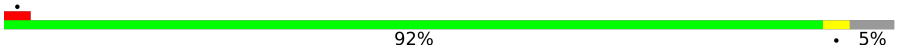
• Molecule 8: Photosystem II reaction center protein H

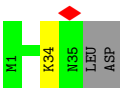
Chain h:



• Molecule 9: Photosystem II reaction center protein I

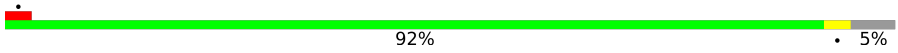
Chain I:

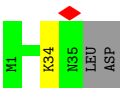




• Molecule 9: Photosystem II reaction center protein I

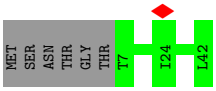
Chain i:





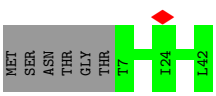
• Molecule 10: Photosystem II reaction center protein J

Chain J:



• Molecule 10: Photosystem II reaction center protein J

Chain j:



• Molecule 11: Photosystem II reaction center protein K

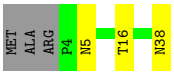
Chain K:

• Molecule 11: Photosystem II reaction center protein K

Chain k:

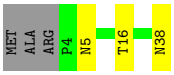
• Molecule 12: Photosystem II reaction center protein L

Chain L:



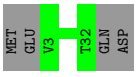
• Molecule 12: Photosystem II reaction center protein L

Chain l:



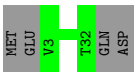
• Molecule 13: Photosystem II reaction center protein M

Chain M:



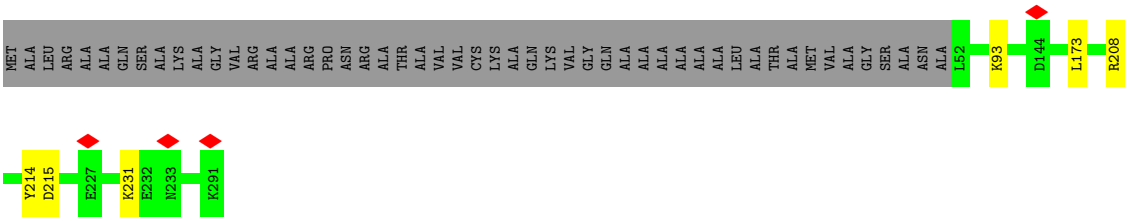
• Molecule 13: Photosystem II reaction center protein M

Chain m:



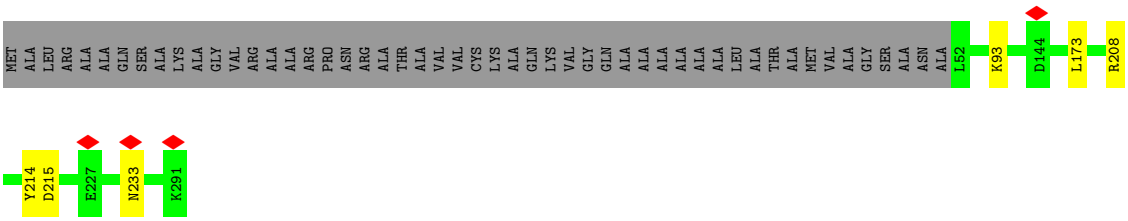
• Molecule 14: Oxygen-evolving enhancer protein 1, chloroplastic

Chain O:



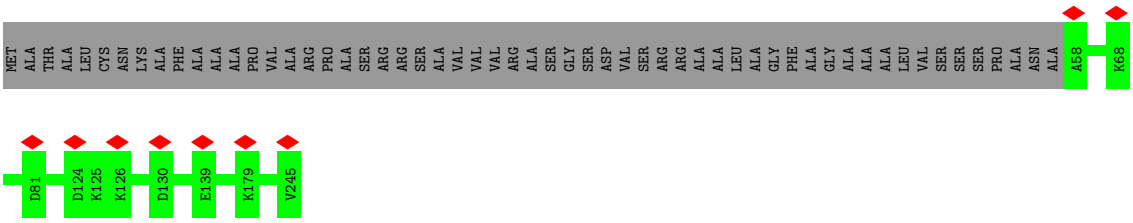
• Molecule 14: Oxygen-evolving enhancer protein 1, chloroplastic

Chain o:



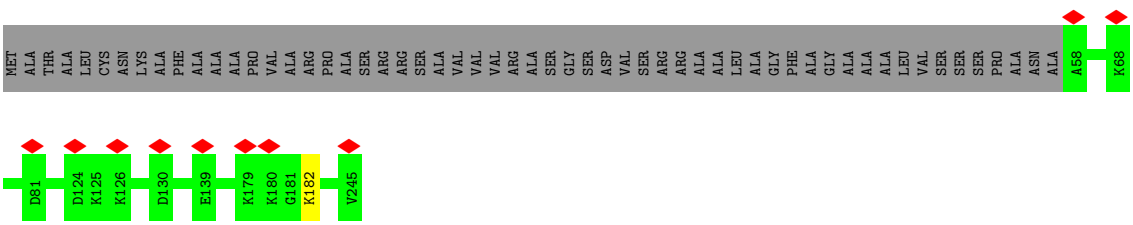
• Molecule 15: Oxygen-evolving enhancer protein 2, chloroplastic

Chain P:



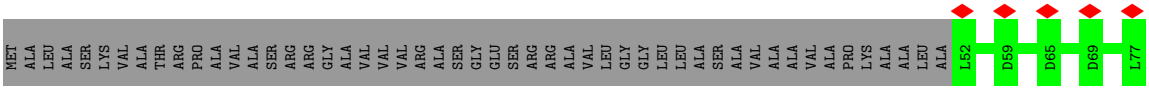
• Molecule 15: Oxygen-evolving enhancer protein 2, chloroplastic

Chain p:



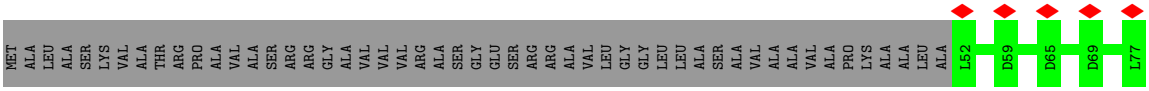
• Molecule 16: Oxygen-evolving enhancer protein 3, chloroplastic

Chain Q:



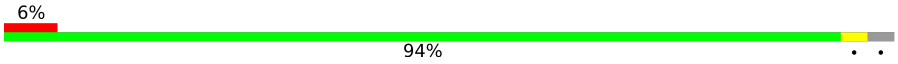
• Molecule 16: Oxygen-evolving enhancer protein 3, chloroplastic

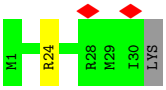
Chain q:



• Molecule 17: Photosystem II reaction center protein T

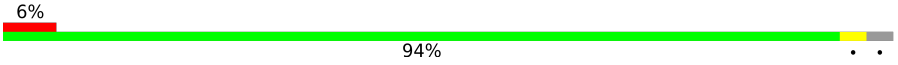
Chain T:

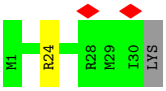




• Molecule 17: Photosystem II reaction center protein T

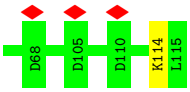
Chain t:





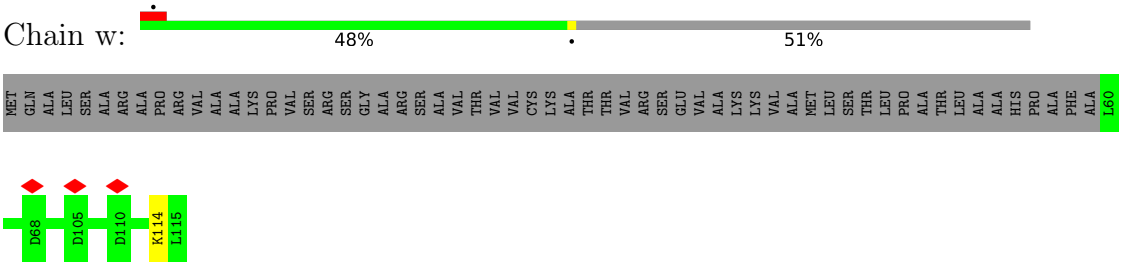
• Molecule 18: Photosystem II reaction center W protein, chloroplastic

Chain W:



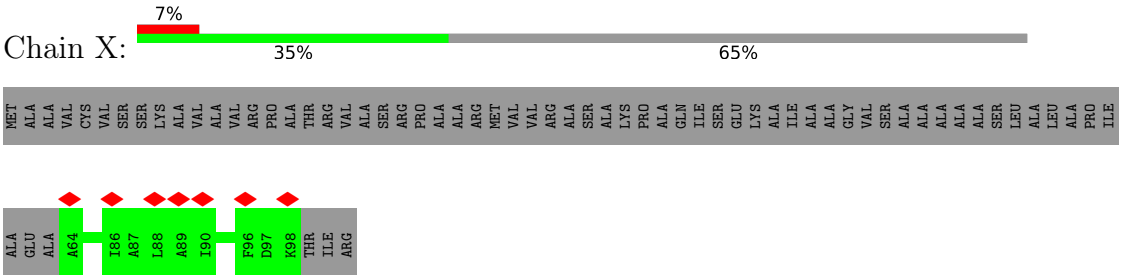
• Molecule 18: Photosystem II reaction center W protein, chloroplastic

Chain w:



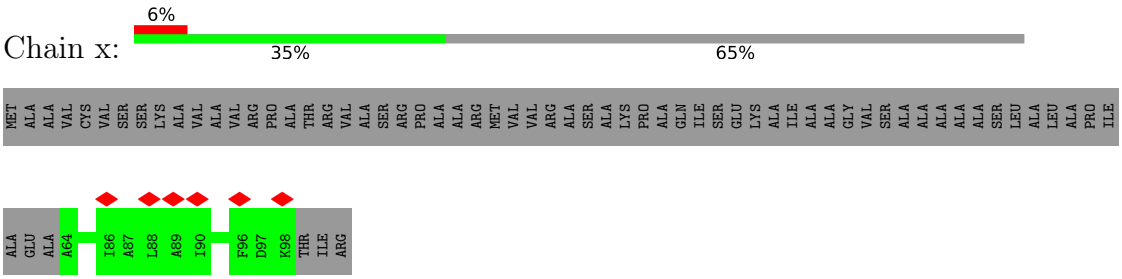
• Molecule 19: 4.1 kDa photosystem II subunit

Chain X:



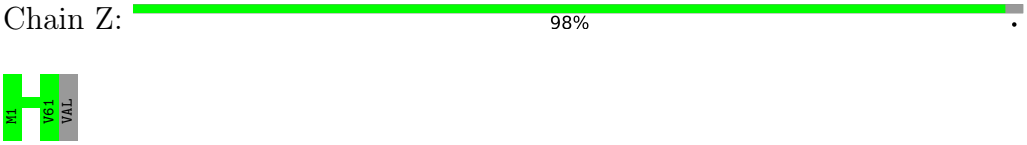
• Molecule 19: 4.1 kDa photosystem II subunit

Chain x:



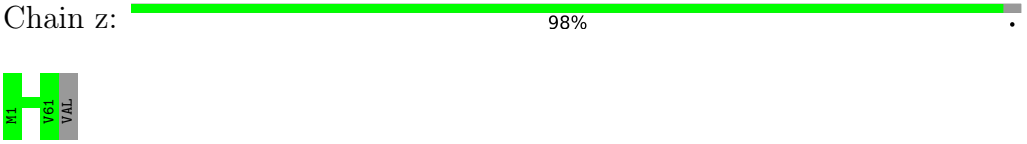
• Molecule 20: Photosystem II reaction center protein Z

Chain Z:



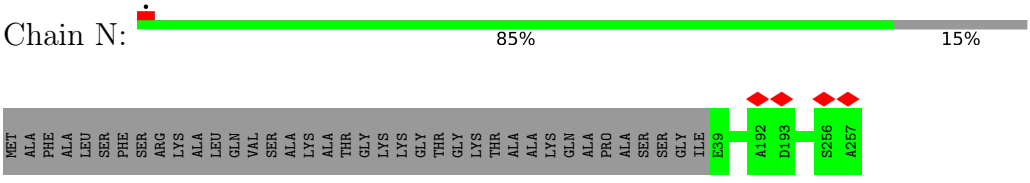
• Molecule 20: Photosystem II reaction center protein Z

Chain z:



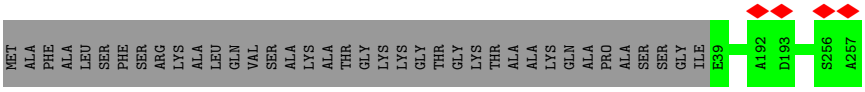
• Molecule 21: Chlorophyll a-b binding protein, chloroplastic

Chain N:



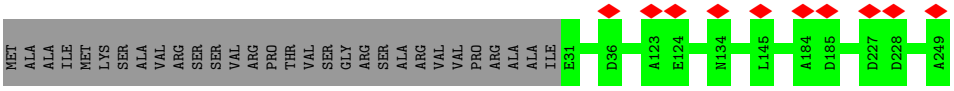
• Molecule 21: Chlorophyll a-b binding protein, chloroplastic

Chain n:



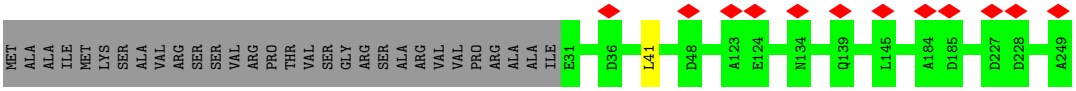
• Molecule 22: Chlorophyll a-b binding protein, chloroplastic

Chain G:



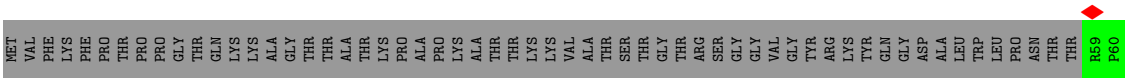
• Molecule 22: Chlorophyll a-b binding protein, chloroplastic

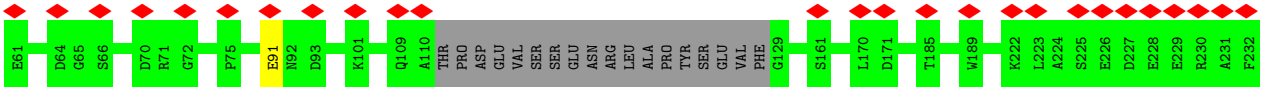
Chain g:

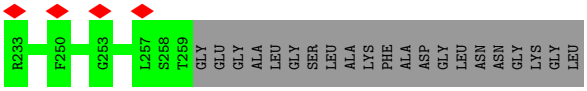


• Molecule 23: Chlorophyll a-b binding protein CP29

Chain R:

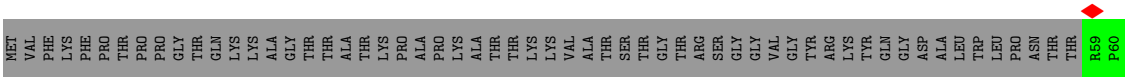


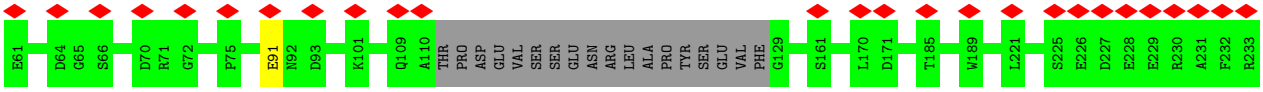


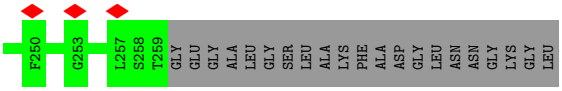


• Molecule 23: Chlorophyll a-b binding protein CP29

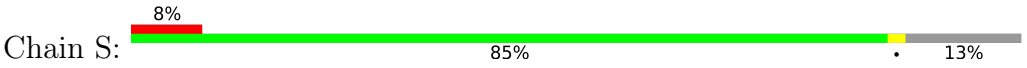
Chain r:

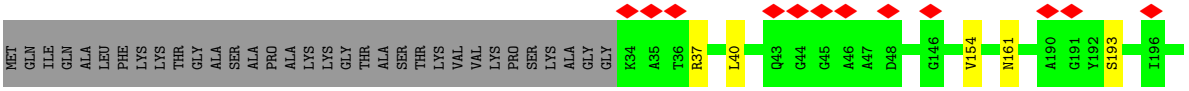


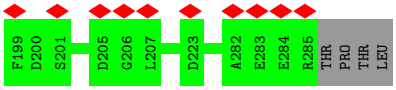




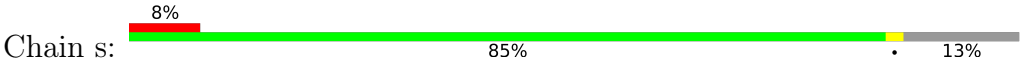
• Molecule 24: Chlorophyll a-b binding protein, chloroplastic

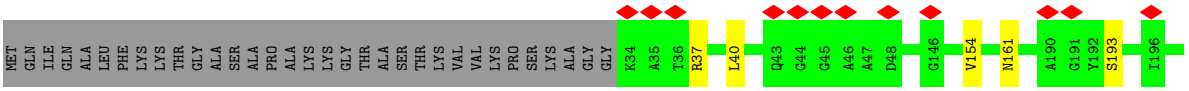


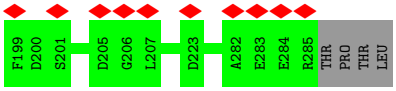




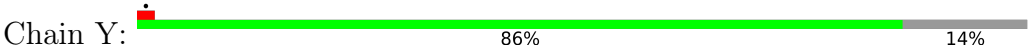
• Molecule 24: Chlorophyll a-b binding protein, chloroplastic

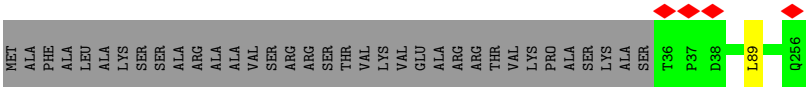




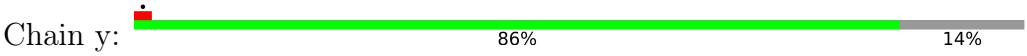


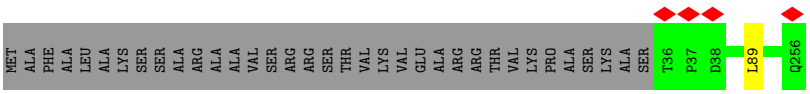
• Molecule 25: Chlorophyll a-b binding protein, chloroplastic



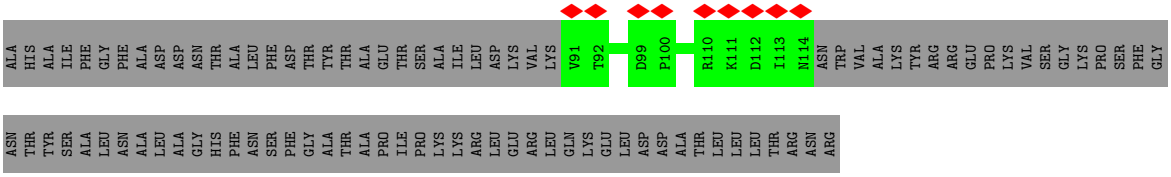


• Molecule 25: Chlorophyll a-b binding protein, chloroplastic

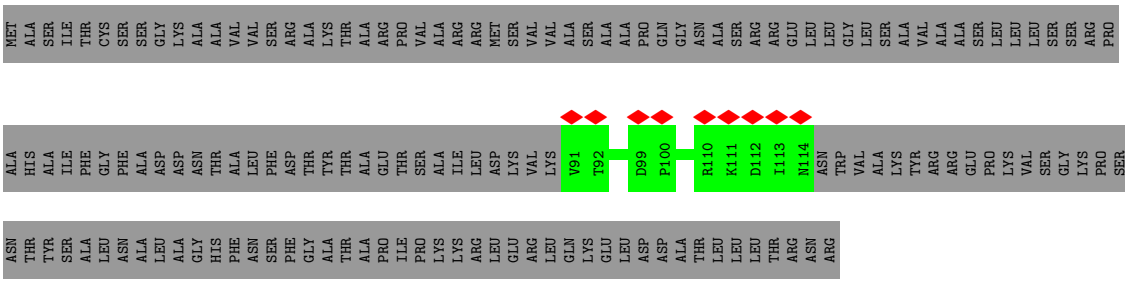




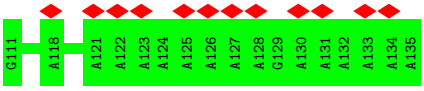
• Molecule 26: Predicted protein



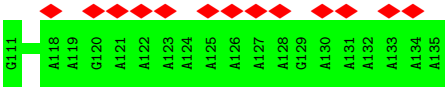
• Molecule 26: Predicted protein



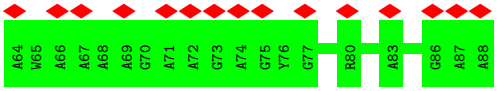
• Molecule 27: 10 kDa photosystem II polypeptide PsbR (potential)



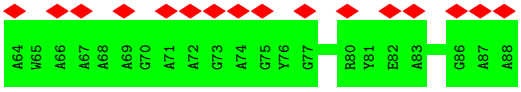
• Molecule 27: 10 kDa photosystem II polypeptide PsbR (potential)



• Molecule 28: Unindentified Stromal Protein (USP)



• Molecule 28: Unindentified Stromal Protein (USP)



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C2	Depositor
Number of particles used	258242	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 ($e^-/Å^2$)	1.875	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.127	Depositor
Minimum map value	-0.054	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.005	Depositor
Recommended contour level	0.015	Depositor
Map size (Å)	399.36, 399.36, 399.36	wwPDB
Map dimensions	384, 384, 384	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.04, 1.04, 1.04	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: HEM, NEX, PHO, CHL, OEX, FE2, SQD, PL9, DGD, CL, LMG, CLA, LHG, BCR, LMU, BCT, XAT, LUT

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.50	0/2718	0.60	0/3706
1	a	0.50	0/2718	0.60	0/3706
2	B	0.44	0/3964	0.57	1/5397 (0.0%)
2	b	0.44	0/3964	0.57	1/5397 (0.0%)
3	V	0.31	0/224	0.65	0/307
3	v	0.30	0/224	0.69	0/307
4	C	0.48	0/3619	0.57	1/4931 (0.0%)
4	c	0.48	0/3619	0.57	1/4931 (0.0%)
5	D	0.50	0/2866	0.62	1/3909 (0.0%)
5	d	0.49	0/2866	0.62	1/3909 (0.0%)
6	E	0.37	0/637	0.53	0/869
6	e	0.37	0/637	0.53	0/869
7	F	0.32	0/258	0.54	0/349
7	f	0.31	0/258	0.55	0/349
8	H	0.36	0/530	0.61	1/725 (0.1%)
8	h	0.36	0/530	0.61	1/725 (0.1%)
9	I	0.47	0/291	0.59	0/394
9	i	0.47	0/291	0.59	0/394
10	J	0.32	0/268	0.60	0/366
10	j	0.33	0/268	0.60	0/366
11	K	0.47	0/309	0.65	0/425
11	k	0.47	0/309	0.65	0/425
12	L	0.42	0/298	0.55	0/405
12	l	0.42	0/298	0.55	0/405
13	M	0.38	0/234	0.54	0/321
13	m	0.38	0/234	0.54	0/321
14	O	0.38	0/1839	0.64	3/2482 (0.1%)
14	o	0.38	0/1839	0.64	3/2482 (0.1%)
15	P	0.33	0/1473	0.57	0/1987
15	p	0.33	0/1473	0.56	0/1987
16	Q	0.30	0/1204	0.52	0/1616

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\|>5$	RMSZ	$\#\|Z\|>5$
16	q	0.30	0/1204	0.52	0/1616
17	T	0.38	0/254	0.54	0/343
17	t	0.38	0/254	0.54	0/343
18	W	0.40	0/445	0.59	0/603
18	w	0.40	0/445	0.59	0/603
19	X	0.27	0/244	0.52	0/330
19	x	0.28	0/244	0.52	0/330
20	Z	0.31	0/469	0.55	0/644
20	z	0.32	0/469	0.55	0/644
21	N	0.35	0/1720	0.53	0/2341
21	n	0.35	0/1720	0.53	0/2341
22	G	0.33	0/1717	0.52	0/2337
22	g	0.33	0/1717	0.52	0/2337
23	R	0.32	0/1429	0.55	0/1934
23	r	0.32	0/1429	0.55	0/1934
24	S	0.36	0/1968	0.57	1/2679 (0.0%)
24	s	0.36	0/1968	0.57	1/2679 (0.0%)
25	Y	0.40	0/1746	0.56	1/2375 (0.0%)
25	y	0.40	0/1746	0.55	1/2375 (0.0%)
26	U	0.30	0/184	0.66	0/246
26	u	0.30	0/184	0.66	0/246
27	0	0.26	0/120	0.35	0/164
27	1	0.26	0/120	0.35	0/164
28	3	0.35	0/174	0.63	0/237
28	4	0.33	0/174	0.63	0/237
All	All	0.41	0/62404	0.57	18/84844 (0.0%)

There are no bond length outliers.

The worst 5 of 18 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	O	215	ASP	CB-CG-OD1	8.52	125.97	118.30
14	o	215	ASP	CB-CG-OD1	8.40	125.86	118.30
25	Y	89	LEU	CA-CB-CG	6.97	131.33	115.30
25	y	89	LEU	CA-CB-CG	6.96	131.30	115.30
4	C	368	LEU	CA-CB-CG	6.46	130.16	115.30

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

Due to software issues we are unable to calculate clashes - this section is therefore empty.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	334/352 (95%)	326 (98%)	8 (2%)	0	100	100
1	a	334/352 (95%)	326 (98%)	8 (2%)	0	100	100
2	B	488/508 (96%)	477 (98%)	11 (2%)	0	100	100
2	b	488/508 (96%)	478 (98%)	10 (2%)	0	100	100
3	V	30/33 (91%)	28 (93%)	2 (7%)	0	100	100
3	v	30/33 (91%)	28 (93%)	2 (7%)	0	100	100
4	C	447/461 (97%)	421 (94%)	25 (6%)	1 (0%)	47	73
4	c	447/461 (97%)	422 (94%)	24 (5%)	1 (0%)	47	73
5	D	346/352 (98%)	334 (96%)	12 (4%)	0	100	100
5	d	346/352 (98%)	332 (96%)	14 (4%)	0	100	100
6	E	74/82 (90%)	68 (92%)	6 (8%)	0	100	100
6	e	74/82 (90%)	68 (92%)	6 (8%)	0	100	100
7	F	29/44 (66%)	28 (97%)	1 (3%)	0	100	100
7	f	29/44 (66%)	28 (97%)	1 (3%)	0	100	100
8	H	66/88 (75%)	63 (96%)	3 (4%)	0	100	100
8	h	66/88 (75%)	63 (96%)	3 (4%)	0	100	100
9	I	33/37 (89%)	32 (97%)	1 (3%)	0	100	100
9	i	33/37 (89%)	32 (97%)	1 (3%)	0	100	100
10	J	34/42 (81%)	34 (100%)	0	0	100	100
10	j	34/42 (81%)	34 (100%)	0	0	100	100
11	K	35/46 (76%)	35 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
11	k	35/46 (76%)	35 (100%)	0	0	100	100
12	L	33/38 (87%)	31 (94%)	2 (6%)	0	100	100
12	l	33/38 (87%)	31 (94%)	2 (6%)	0	100	100
13	M	28/34 (82%)	27 (96%)	1 (4%)	0	100	100
13	m	28/34 (82%)	27 (96%)	1 (4%)	0	100	100
14	O	238/291 (82%)	224 (94%)	14 (6%)	0	100	100
14	o	238/291 (82%)	221 (93%)	17 (7%)	0	100	100
15	P	186/245 (76%)	180 (97%)	6 (3%)	0	100	100
15	p	186/245 (76%)	179 (96%)	7 (4%)	0	100	100
16	Q	146/199 (73%)	139 (95%)	7 (5%)	0	100	100
16	q	146/199 (73%)	138 (94%)	8 (6%)	0	100	100
17	T	28/31 (90%)	27 (96%)	1 (4%)	0	100	100
17	t	28/31 (90%)	27 (96%)	1 (4%)	0	100	100
18	W	54/115 (47%)	50 (93%)	4 (7%)	0	100	100
18	w	54/115 (47%)	50 (93%)	4 (7%)	0	100	100
19	X	33/101 (33%)	31 (94%)	2 (6%)	0	100	100
19	x	33/101 (33%)	32 (97%)	1 (3%)	0	100	100
20	Z	59/62 (95%)	58 (98%)	1 (2%)	0	100	100
20	z	59/62 (95%)	57 (97%)	2 (3%)	0	100	100
21	N	217/257 (84%)	202 (93%)	15 (7%)	0	100	100
21	n	217/257 (84%)	201 (93%)	16 (7%)	0	100	100
22	G	217/249 (87%)	198 (91%)	19 (9%)	0	100	100
22	g	217/249 (87%)	198 (91%)	19 (9%)	0	100	100
23	R	179/280 (64%)	169 (94%)	10 (6%)	0	100	100
23	r	179/280 (64%)	167 (93%)	12 (7%)	0	100	100
24	S	250/289 (86%)	235 (94%)	14 (6%)	1 (0%)	34	60
24	s	250/289 (86%)	235 (94%)	14 (6%)	1 (0%)	34	60
25	Y	219/256 (86%)	206 (94%)	13 (6%)	0	100	100
25	y	219/256 (86%)	206 (94%)	13 (6%)	0	100	100
26	U	22/178 (12%)	19 (86%)	3 (14%)	0	100	100
26	u	22/178 (12%)	19 (86%)	3 (14%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
27	0	23/25 (92%)	23 (100%)	0	0	100	100
27	1	23/25 (92%)	23 (100%)	0	0	100	100
28	3	23/25 (92%)	17 (74%)	6 (26%)	0	100	100
28	4	23/25 (92%)	18 (78%)	5 (22%)	0	100	100
All	All	7742/9440 (82%)	7357 (95%)	381 (5%)	4 (0%)	54	78

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	C	211	TRP
4	c	211	TRP
24	S	193	SER
24	s	193	SER

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	274/289 (95%)	270 (98%)	4 (2%)	65	86
1	a	274/289 (95%)	270 (98%)	4 (2%)	65	86
2	B	392/407 (96%)	388 (99%)	4 (1%)	76	91
2	b	392/407 (96%)	388 (99%)	4 (1%)	76	91
3	V	26/27 (96%)	25 (96%)	1 (4%)	33	62
3	v	26/27 (96%)	25 (96%)	1 (4%)	33	62
4	C	352/362 (97%)	345 (98%)	7 (2%)	55	81
4	c	352/362 (97%)	346 (98%)	6 (2%)	60	84
5	D	278/281 (99%)	276 (99%)	2 (1%)	84	94
5	d	278/281 (99%)	276 (99%)	2 (1%)	84	94
6	E	67/71 (94%)	66 (98%)	1 (2%)	65	86
6	e	67/71 (94%)	66 (98%)	1 (2%)	65	86

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
7	F	25/37 (68%)	25 (100%)	0	100 100
7	f	25/37 (68%)	25 (100%)	0	100 100
8	H	58/75 (77%)	57 (98%)	1 (2%)	60 84
8	h	58/75 (77%)	57 (98%)	1 (2%)	60 84
9	I	32/34 (94%)	31 (97%)	1 (3%)	40 69
9	i	32/34 (94%)	31 (97%)	1 (3%)	40 69
10	J	27/32 (84%)	27 (100%)	0	100 100
10	j	27/32 (84%)	27 (100%)	0	100 100
11	K	31/38 (82%)	31 (100%)	0	100 100
11	k	31/38 (82%)	31 (100%)	0	100 100
12	L	33/35 (94%)	30 (91%)	3 (9%)	9 21
12	l	33/35 (94%)	30 (91%)	3 (9%)	9 21
13	M	26/30 (87%)	26 (100%)	0	100 100
13	m	26/30 (87%)	26 (100%)	0	100 100
14	O	195/222 (88%)	192 (98%)	3 (2%)	65 86
14	o	195/222 (88%)	192 (98%)	3 (2%)	65 86
15	P	150/185 (81%)	150 (100%)	0	100 100
15	p	150/185 (81%)	149 (99%)	1 (1%)	84 94
16	Q	126/157 (80%)	124 (98%)	2 (2%)	62 85
16	q	126/157 (80%)	124 (98%)	2 (2%)	62 85
17	T	27/28 (96%)	26 (96%)	1 (4%)	34 63
17	t	27/28 (96%)	26 (96%)	1 (4%)	34 63
18	W	44/87 (51%)	43 (98%)	1 (2%)	50 78
18	w	44/87 (51%)	43 (98%)	1 (2%)	50 78
19	X	25/67 (37%)	25 (100%)	0	100 100
19	x	25/67 (37%)	25 (100%)	0	100 100
20	Z	51/52 (98%)	51 (100%)	0	100 100
20	z	51/52 (98%)	51 (100%)	0	100 100
21	N	169/194 (87%)	169 (100%)	0	100 100
21	n	169/194 (87%)	169 (100%)	0	100 100
22	G	164/187 (88%)	164 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
22	g	164/187 (88%)	163 (99%)	1 (1%)	86 95
23	R	144/218 (66%)	143 (99%)	1 (1%)	84 94
23	r	144/218 (66%)	143 (99%)	1 (1%)	84 94
24	S	190/217 (88%)	187 (98%)	3 (2%)	62 85
24	s	190/217 (88%)	187 (98%)	3 (2%)	62 85
25	Y	170/196 (87%)	170 (100%)	0	100 100
25	y	170/196 (87%)	170 (100%)	0	100 100
26	U	21/141 (15%)	21 (100%)	0	100 100
26	u	21/141 (15%)	21 (100%)	0	100 100
28	3	8/8 (100%)	8 (100%)	0	100 100
28	4	8/8 (100%)	8 (100%)	0	100 100
All	All	6210/7354 (84%)	6139 (99%)	71 (1%)	74 90

5 of 71 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
12	l	38	ASN
14	o	208	ARG
18	w	114	LYS
14	O	93	LYS
12	L	38	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 77 such sidechains are listed below:

Mol	Chain	Res	Type
5	d	190	ASN
22	g	214	GLN
12	l	5	ASN
15	p	221	GLN
25	y	233	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 318 ligands modelled in this entry, 6 are monoatomic - leaving 312 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
32	CLA	c	503	-	65,73,73	1.51	8 (12%)	76,113,113	1.39	9 (11%)
32	CLA	B	609	-	65,73,73	1.41	7 (10%)	76,113,113	1.47	7 (9%)
43	CHL	Y	608	-	50,58,74	2.10	14 (28%)	52,94,114	3.23	19 (36%)
32	CLA	G	602	22	65,73,73	1.51	7 (10%)	76,113,113	1.31	7 (9%)
32	CLA	C	502	-	65,73,73	1.46	11 (16%)	76,113,113	1.50	6 (7%)
32	CLA	N	610	21	65,73,73	1.44	7 (10%)	76,113,113	1.35	8 (10%)
44	LUT	N	1620	-	42,43,43	0.76	1 (2%)	51,60,60	1.57	10 (19%)
46	NEX	S	1623	-	38,46,46	0.96	1 (2%)	50,70,70	2.38	17 (34%)
32	CLA	B	613	-	65,73,73	1.42	9 (13%)	76,113,113	1.67	9 (11%)
44	LUT	y	1620	-	42,43,43	0.92	3 (7%)	51,60,60	1.90	14 (27%)
32	CLA	y	603	-	65,73,73	1.49	10 (15%)	76,113,113	1.41	10 (13%)
32	CLA	C	506	-	65,73,73	1.48	10 (15%)	76,113,113	1.40	9 (11%)
36	LMG	h	102	-	48,48,55	0.92	2 (4%)	56,56,63	1.10	3 (5%)
36	LMG	H	102	-	48,48,55	0.92	2 (4%)	56,56,63	1.08	3 (5%)
43	CHL	g	608	-	44,52,74	2.18	14 (31%)	46,87,114	3.26	18 (39%)
38	LHG	d	408	-	43,43,48	0.95	2 (4%)	46,49,54	1.02	2 (4%)
44	LUT	Y	1620	-	42,43,43	0.93	3 (7%)	51,60,60	1.90	15 (29%)
37	DGD	C	518	-	56,56,67	0.88	2 (3%)	70,70,81	1.12	5 (7%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
41	HEM	F	101	6,7	41,50,50	1.45	4 (9%)	45,82,82	1.35	6 (13%)
29	OEX	a	401	1,4	0,15,15	-	-	-		
44	LUT	S	1620	-	42,43,43	0.83	1 (2%)	51,60,60	1.71	16 (31%)
34	BCR	B	619	-	41,41,41	0.72	0	56,56,56	1.94	13 (23%)
32	CLA	G	614	-	49,57,73	1.72	7 (14%)	55,93,113	1.39	8 (14%)
32	CLA	B	615	-	65,73,73	1.46	8 (12%)	76,113,113	1.34	7 (9%)
46	NEX	r	625	-	38,46,46	0.99	2 (5%)	50,70,70	2.48	16 (32%)
32	CLA	N	602	21	65,73,73	1.48	7 (10%)	76,113,113	1.31	8 (10%)
32	CLA	b	617	-	65,73,73	1.43	8 (12%)	76,113,113	1.42	9 (11%)
46	NEX	Y	1623	-	38,46,46	0.97	2 (5%)	50,70,70	2.46	17 (34%)
32	CLA	C	505	-	65,73,73	1.43	10 (15%)	76,113,113	1.47	10 (13%)
32	CLA	c	507	47	65,73,73	1.44	9 (13%)	76,113,113	1.54	10 (13%)
32	CLA	R	604	-	49,57,73	1.71	6 (12%)	55,93,113	1.50	7 (12%)
43	CHL	y	607	-	66,74,74	1.81	14 (21%)	73,114,114	2.68	21 (28%)
32	CLA	n	610	21	65,73,73	1.44	7 (10%)	76,113,113	1.34	8 (10%)
32	CLA	c	509	-	65,73,73	1.44	11 (16%)	76,113,113	1.57	10 (13%)
32	CLA	R	602	23	60,68,73	1.61	8 (13%)	70,107,113	1.35	9 (12%)
44	LUT	G	1620	-	42,43,43	0.74	0	51,60,60	1.62	12 (23%)
37	DGD	c	524	-	67,67,67	0.82	2 (2%)	81,81,81	1.00	4 (4%)
34	BCR	c	515	-	41,41,41	0.84	1 (2%)	56,56,56	1.98	18 (32%)
32	CLA	C	510	-	65,73,73	1.42	9 (13%)	76,113,113	1.50	7 (9%)
38	LHG	c	2630	-	46,46,48	0.92	2 (4%)	49,52,54	1.03	3 (6%)
36	LMG	d	411	-	46,46,55	0.95	2 (4%)	54,54,63	1.16	4 (7%)
43	CHL	n	606	-	46,54,74	2.22	14 (30%)	49,90,114	3.14	17 (34%)
32	CLA	N	612	21	45,53,73	1.80	8 (17%)	52,89,113	1.50	10 (19%)
32	CLA	B	608	47	65,73,73	1.45	8 (12%)	76,113,113	1.41	7 (9%)
34	BCR	A	411	-	41,41,41	0.77	0	56,56,56	1.70	13 (23%)
32	CLA	n	602	21	65,73,73	1.48	7 (10%)	76,113,113	1.31	8 (10%)
36	LMG	A	413	-	48,48,55	0.95	2 (4%)	56,56,63	1.07	4 (7%)
42	LMU	z	2634	-	36,36,36	1.20	2 (5%)	47,47,47	1.21	5 (10%)
32	CLA	n	611	38	49,57,73	1.69	8 (16%)	55,93,113	1.45	8 (14%)
32	CLA	N	604	-	65,73,73	1.48	8 (12%)	76,113,113	1.33	7 (9%)
38	LHG	d	409	-	48,48,48	0.89	3 (6%)	51,54,54	0.97	3 (5%)
43	CHL	G	609	22	66,74,74	1.85	13 (19%)	73,114,114	2.73	22 (30%)
32	CLA	g	611	38	45,53,73	1.77	7 (15%)	52,89,113	1.58	8 (15%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
43	CHL	n	608	-	50,58,74	2.08	13 (26%)	52,94,114	3.22	18 (34%)
32	CLA	C	503	-	65,73,73	1.51	8 (12%)	76,113,113	1.40	10 (13%)
32	CLA	R	609	23	45,53,73	1.78	6 (13%)	52,89,113	1.60	9 (17%)
32	CLA	A	407	47	49,57,73	1.63	7 (14%)	55,93,113	1.71	8 (14%)
32	CLA	n	614	-	49,57,73	1.75	7 (14%)	55,93,113	1.41	8 (14%)
36	LMG	c	521	-	51,51,55	0.91	2 (3%)	59,59,63	1.10	5 (8%)
44	LUT	n	1621	-	42,43,43	0.79	0	51,60,60	1.52	7 (13%)
35	SQD	b	621	-	53,54,54	1.18	4 (7%)	62,65,65	1.04	5 (8%)
32	CLA	a	407	47	49,57,73	1.64	7 (14%)	55,93,113	1.70	7 (12%)
32	CLA	g	613	22	65,73,73	1.50	11 (16%)	76,113,113	1.51	6 (7%)
34	BCR	B	618	-	41,41,41	0.75	0	56,56,56	1.84	15 (26%)
32	CLA	r	603	-	49,57,73	1.73	7 (14%)	55,93,113	1.55	10 (18%)
35	SQD	B	621	-	53,54,54	1.18	4 (7%)	62,65,65	1.04	5 (8%)
43	CHL	s	607	-	43,51,74	2.25	13 (30%)	45,86,114	3.23	16 (35%)
34	BCR	c	517	-	41,41,41	0.74	0	56,56,56	1.92	16 (28%)
32	CLA	r	604	-	49,57,73	1.70	7 (14%)	55,93,113	1.50	7 (12%)
44	LUT	n	1620	-	42,43,43	0.76	1 (2%)	51,60,60	1.56	10 (19%)
45	XAT	g	1622	-	39,47,47	0.94	0	54,74,74	2.82	20 (37%)
43	CHL	G	601	22	66,74,74	1.79	12 (18%)	73,114,114	2.70	23 (31%)
32	CLA	C	509	-	65,73,73	1.44	11 (16%)	76,113,113	1.58	10 (13%)
45	XAT	R	624	-	39,47,47	0.88	1 (2%)	54,74,74	2.61	17 (31%)
32	CLA	Y	612	25	65,73,73	1.47	10 (15%)	76,113,113	1.31	8 (10%)
32	CLA	g	602	22	65,73,73	1.51	8 (12%)	76,113,113	1.31	8 (10%)
32	CLA	G	612	22	43,51,73	1.83	8 (18%)	49,86,113	1.59	9 (18%)
32	CLA	b	604	-	65,73,73	1.51	9 (13%)	76,113,113	1.41	11 (14%)
32	CLA	A	406	47	65,73,73	1.46	10 (15%)	76,113,113	1.50	7 (9%)
34	BCR	c	516	-	41,41,41	0.83	0	56,56,56	1.89	18 (32%)
32	CLA	a	406	47	65,73,73	1.46	10 (15%)	76,113,113	1.51	7 (9%)
33	PHO	a	408	-	51,69,69	1.06	5 (9%)	47,99,99	1.32	8 (17%)
39	BCT	D	401	30	2,3,3	1.29	0	2,3,3	4.17	2 (100%)
38	LHG	C	2630	-	46,46,48	0.91	2 (4%)	49,52,54	1.03	3 (6%)
33	PHO	A	408	-	51,69,69	1.06	5 (9%)	47,99,99	1.33	8 (17%)
42	LMU	Z	2634	-	36,36,36	1.20	2 (5%)	47,47,47	1.21	5 (10%)
32	CLA	C	512	-	65,73,73	1.42	10 (15%)	76,113,113	1.47	8 (10%)
43	CHL	G	605	22	48,56,74	2.36	16 (33%)	51,92,114	3.05	19 (37%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	CLA	S	603	-	42,50,73	1.83	9 (21%)	48,85,113	1.70	10 (20%)
29	OEX	A	401	1,4	0,15,15	-	-	-		
34	BCR	b	620	-	41,41,41	0.73	0	56,56,56	1.74	13 (23%)
32	CLA	s	612	24	45,53,73	1.75	10 (22%)	52,89,113	1.57	8 (15%)
43	CHL	S	607	-	43,51,74	2.25	13 (30%)	45,86,114	3.22	16 (35%)
34	BCR	a	411	-	41,41,41	0.76	0	56,56,56	1.70	14 (25%)
32	CLA	s	605	24	50,58,73	1.69	7 (14%)	58,95,113	1.51	11 (18%)
36	LMG	a	413	-	48,48,55	0.96	2 (4%)	56,56,63	1.06	4 (7%)
36	LMG	C	521	-	51,51,55	0.91	2 (3%)	59,59,63	1.10	5 (8%)
43	CHL	y	609	25	66,74,74	1.82	13 (19%)	73,114,114	2.76	22 (30%)
32	CLA	b	605	-	65,73,73	1.43	11 (16%)	76,113,113	1.50	11 (14%)
32	CLA	Y	610	25	65,73,73	1.46	9 (13%)	76,113,113	1.29	7 (9%)
43	CHL	s	608	-	49,57,74	2.18	15 (30%)	52,93,114	3.13	19 (36%)
46	NEX	s	1623	-	38,46,46	1.03	3 (7%)	50,70,70	2.38	17 (34%)
32	CLA	C	508	-	65,73,73	1.41	7 (10%)	76,113,113	1.56	8 (10%)
32	CLA	y	611	38	65,73,73	1.46	9 (13%)	76,113,113	1.41	8 (10%)
37	DGD	c	518	-	56,56,67	0.88	2 (3%)	70,70,81	1.12	6 (8%)
32	CLA	N	613	21	65,73,73	1.53	10 (15%)	76,113,113	1.37	6 (7%)
43	CHL	G	608	-	44,52,74	2.17	13 (29%)	46,87,114	3.26	17 (36%)
32	CLA	y	613	25	65,73,73	1.49	10 (15%)	76,113,113	1.44	9 (11%)
32	CLA	Y	614	-	54,62,73	1.59	8 (14%)	62,99,113	1.36	8 (12%)
32	CLA	Y	603	-	65,73,73	1.48	10 (15%)	76,113,113	1.41	10 (13%)
44	LUT	Y	1621	-	42,43,43	0.88	1 (2%)	51,60,60	1.71	10 (19%)
32	CLA	Y	604	-	65,73,73	1.50	9 (13%)	76,113,113	1.36	7 (9%)
44	LUT	y	1621	-	42,43,43	0.88	1 (2%)	51,60,60	1.71	10 (19%)
45	XAT	N	1622	-	39,47,47	0.97	1 (2%)	54,74,74	2.66	23 (42%)
38	LHG	D	409	-	48,48,48	0.88	3 (6%)	51,54,54	0.97	3 (5%)
43	CHL	r	608	-	46,54,74	2.27	15 (32%)	49,90,114	3.09	19 (38%)
45	XAT	y	1622	-	39,47,47	0.96	2 (5%)	54,74,74	4.35	24 (44%)
43	CHL	N	606	-	46,54,74	2.22	15 (32%)	49,90,114	3.14	17 (34%)
43	CHL	Y	606	-	66,74,74	1.84	15 (22%)	73,114,114	2.65	20 (27%)
32	CLA	n	604	-	65,73,73	1.47	8 (12%)	76,113,113	1.34	7 (9%)
43	CHL	y	606	-	66,74,74	1.84	15 (22%)	73,114,114	2.64	20 (27%)
32	CLA	y	610	25	65,73,73	1.46	9 (13%)	76,113,113	1.29	7 (9%)
43	CHL	y	608	-	50,58,74	2.10	14 (28%)	52,94,114	3.22	19 (36%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
40	PL9	d	405	-	55,55,55	2.02	13 (23%)	68,69,69	1.46	14 (20%)
32	CLA	G	603	-	65,73,73	1.50	9 (13%)	76,113,113	1.40	10 (13%)
34	BCR	h	101	-	41,41,41	0.71	0	56,56,56	2.00	13 (23%)
32	CLA	r	602	23	60,68,73	1.61	8 (13%)	70,107,113	1.35	9 (12%)
37	DGD	C	524	-	67,67,67	0.82	2 (2%)	81,81,81	1.00	4 (4%)
38	LHG	D	410	-	38,38,48	1.00	2 (5%)	41,44,54	1.00	2 (4%)
32	CLA	s	602	24	49,57,73	1.66	7 (14%)	55,93,113	1.47	8 (14%)
32	CLA	S	605	24	50,58,73	1.70	7 (14%)	58,95,113	1.51	11 (18%)
38	LHG	n	2630	32	48,48,48	0.92	2 (4%)	51,54,54	0.98	2 (3%)
32	CLA	g	612	22	43,51,73	1.83	7 (16%)	49,86,113	1.59	9 (18%)
42	LMU	z	2635	-	36,36,36	1.21	2 (5%)	47,47,47	1.14	4 (8%)
37	DGD	c	519	-	63,63,67	0.83	2 (3%)	77,77,81	1.13	6 (7%)
34	BCR	C	516	-	41,41,41	0.83	0	56,56,56	1.89	18 (32%)
32	CLA	y	602	25	65,73,73	1.51	8 (12%)	76,113,113	1.34	9 (11%)
32	CLA	s	611	38	49,57,73	1.63	7 (14%)	55,93,113	1.48	6 (10%)
44	LUT	G	1621	-	42,43,43	0.82	0	51,60,60	1.56	10 (19%)
32	CLA	b	603	-	65,73,73	1.43	7 (10%)	76,113,113	1.32	9 (11%)
32	CLA	B	616	-	65,73,73	1.48	9 (13%)	76,113,113	1.36	10 (13%)
32	CLA	G	610	22	65,73,73	1.44	8 (12%)	76,113,113	1.37	8 (10%)
32	CLA	C	507	47	65,73,73	1.44	9 (13%)	76,113,113	1.54	10 (13%)
32	CLA	r	609	23	45,53,73	1.78	6 (13%)	52,89,113	1.62	9 (17%)
44	LUT	s	1621	-	42,43,43	0.80	0	51,60,60	1.71	13 (25%)
32	CLA	B	611	47	65,73,73	1.48	8 (12%)	76,113,113	1.55	11 (14%)
32	CLA	y	612	25	65,73,73	1.46	9 (13%)	76,113,113	1.31	8 (10%)
32	CLA	A	405	-	65,73,73	1.53	8 (12%)	76,113,113	1.56	10 (13%)
34	BCR	C	517	-	41,41,41	0.74	0	56,56,56	1.93	15 (26%)
37	DGD	C	519	-	63,63,67	0.83	2 (3%)	77,77,81	1.12	6 (7%)
32	CLA	B	614	-	65,73,73	1.42	8 (12%)	76,113,113	1.50	8 (10%)
32	CLA	b	607	-	65,73,73	1.48	8 (12%)	76,113,113	1.38	8 (10%)
32	CLA	B	603	-	65,73,73	1.42	7 (10%)	76,113,113	1.31	9 (11%)
32	CLA	s	610	24	49,57,73	1.81	9 (18%)	55,93,113	1.33	9 (16%)
43	CHL	S	601	24	46,54,74	2.26	14 (30%)	49,90,114	3.16	22 (44%)
32	CLA	n	603	-	65,73,73	1.52	9 (13%)	76,113,113	1.40	8 (10%)
34	BCR	D	404	-	41,41,41	0.72	0	56,56,56	1.92	21 (37%)
38	LHG	D	408	-	43,43,48	0.95	2 (4%)	46,49,54	1.02	2 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	CLA	c	504	47	65,73,73	1.50	10 (15%)	76,113,113	1.41	8 (10%)
43	CHL	G	606	-	50,58,74	2.14	14 (28%)	52,94,114	3.08	19 (36%)
32	CLA	c	506	-	65,73,73	1.46	10 (15%)	76,113,113	1.40	9 (11%)
32	CLA	b	610	-	65,73,73	1.48	8 (12%)	76,113,113	1.39	8 (10%)
43	CHL	g	605	22	48,56,74	2.36	16 (33%)	51,92,114	3.05	19 (37%)
46	NEX	g	1623	-	38,46,46	0.92	1 (2%)	50,70,70	2.38	16 (32%)
32	CLA	Y	602	25	65,73,73	1.50	8 (12%)	76,113,113	1.34	9 (11%)
32	CLA	B	610	-	65,73,73	1.48	8 (12%)	76,113,113	1.39	8 (10%)
32	CLA	b	613	-	65,73,73	1.42	9 (13%)	76,113,113	1.66	9 (11%)
36	LMG	b	622	-	51,51,55	0.90	2 (3%)	59,59,63	1.11	4 (6%)
44	LUT	S	1621	-	42,43,43	0.79	0	51,60,60	1.71	14 (27%)
43	CHL	N	609	21	66,74,74	1.86	13 (19%)	73,114,114	2.67	20 (27%)
44	LUT	g	1620	-	42,43,43	0.74	0	51,60,60	1.62	11 (21%)
32	CLA	c	512	-	65,73,73	1.42	9 (13%)	76,113,113	1.48	8 (10%)
34	BCR	H	101	-	41,41,41	0.70	0	56,56,56	2.00	12 (21%)
32	CLA	b	606	-	65,73,73	1.49	8 (12%)	76,113,113	1.32	7 (9%)
45	XAT	n	1622	-	39,47,47	0.98	1 (2%)	54,74,74	2.66	22 (40%)
38	LHG	Y	2630	32	48,48,48	0.91	2 (4%)	51,54,54	1.19	5 (9%)
43	CHL	S	606	-	44,52,74	2.16	13 (29%)	46,87,114	3.24	19 (41%)
43	CHL	n	607	-	66,74,74	1.83	13 (19%)	73,114,114	2.80	22 (30%)
32	CLA	y	604	-	65,73,73	1.50	8 (12%)	76,113,113	1.36	7 (9%)
34	BCR	d	404	-	41,41,41	0.71	0	56,56,56	1.92	21 (37%)
32	CLA	b	602	47	65,73,73	1.47	8 (12%)	76,113,113	1.39	8 (10%)
37	DGD	c	520	-	60,60,67	0.86	2 (3%)	74,74,81	0.97	2 (2%)
43	CHL	Y	605	25	46,54,74	2.22	15 (32%)	49,90,114	3.18	19 (38%)
43	CHL	g	607	-	50,58,74	2.14	14 (28%)	52,94,114	3.09	22 (42%)
32	CLA	Y	611	38	65,73,73	1.45	8 (12%)	76,113,113	1.42	8 (10%)
32	CLA	c	511	4	65,73,73	1.40	8 (12%)	76,113,113	1.48	8 (10%)
45	XAT	G	1622	-	39,47,47	0.93	0	54,74,74	2.83	20 (37%)
43	CHL	R	607	-	50,58,74	2.17	16 (32%)	52,94,114	3.09	21 (40%)
38	LHG	s	2630	32	44,44,48	0.94	2 (4%)	47,50,54	1.00	2 (4%)
32	CLA	B	604	-	65,73,73	1.51	9 (13%)	76,113,113	1.40	11 (14%)
38	LHG	N	2630	32	48,48,48	0.92	2 (4%)	51,54,54	0.98	2 (3%)
38	LHG	y	2630	32	48,48,48	0.91	2 (4%)	51,54,54	1.19	5 (9%)
41	HEM	f	101	6,7	41,50,50	1.46	4 (9%)	45,82,82	1.35	5 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
43	CHL	N	601	21	66,74,74	1.81	13 (19%)	73,114,114	2.68	20 (27%)
32	CLA	s	603	-	42,50,73	1.82	7 (16%)	48,85,113	1.68	10 (20%)
32	CLA	g	610	22	65,73,73	1.44	8 (12%)	76,113,113	1.37	8 (10%)
32	CLA	A	410	-	60,68,73	1.47	9 (15%)	70,107,113	1.48	9 (12%)
46	NEX	N	1623	-	38,46,46	0.97	1 (2%)	50,70,70	2.37	15 (30%)
32	CLA	b	615	-	65,73,73	1.45	8 (12%)	76,113,113	1.33	7 (9%)
43	CHL	y	601	25	66,74,74	1.80	14 (21%)	73,114,114	2.67	26 (35%)
32	CLA	b	616	-	65,73,73	1.48	9 (13%)	76,113,113	1.37	10 (13%)
43	CHL	N	605	21	66,74,74	1.80	15 (22%)	73,114,114	2.85	24 (32%)
32	CLA	g	614	-	49,57,73	1.72	7 (14%)	55,93,113	1.40	8 (14%)
46	NEX	y	1623	-	38,46,46	0.92	2 (5%)	50,70,70	2.45	17 (34%)
32	CLA	n	613	21	65,73,73	1.53	9 (13%)	76,113,113	1.37	6 (7%)
32	CLA	G	604	-	49,57,73	1.72	8 (16%)	55,93,113	1.52	6 (10%)
32	CLA	B	612	-	65,73,73	1.50	7 (10%)	76,113,113	1.55	9 (11%)
32	CLA	D	403	-	65,73,73	1.46	8 (12%)	76,113,113	1.36	9 (11%)
32	CLA	B	617	-	65,73,73	1.42	8 (12%)	76,113,113	1.41	9 (11%)
32	CLA	S	612	24	45,53,73	1.75	10 (22%)	52,89,113	1.57	8 (15%)
37	DGD	c	523	-	67,67,67	0.81	2 (2%)	81,81,81	0.91	3 (3%)
43	CHL	g	606	-	50,58,74	2.14	14 (28%)	52,94,114	3.08	18 (34%)
32	CLA	C	504	47	65,73,73	1.50	10 (15%)	76,113,113	1.41	8 (10%)
32	CLA	S	613	24	49,57,73	1.80	10 (20%)	55,93,113	1.44	6 (10%)
45	XAT	Y	1622	-	39,47,47	0.95	2 (5%)	54,74,74	4.34	24 (44%)
43	CHL	S	608	-	49,57,74	2.19	15 (30%)	52,93,114	3.15	20 (38%)
45	XAT	r	624	-	39,47,47	0.88	2 (5%)	54,74,74	2.62	18 (33%)
32	CLA	s	604	-	49,57,73	1.70	8 (16%)	55,93,113	1.59	8 (14%)
32	CLA	S	614	-	48,56,73	1.70	8 (16%)	55,92,113	1.38	8 (14%)
37	DGD	C	520	-	60,60,67	0.86	2 (3%)	74,74,81	0.97	2 (2%)
43	CHL	Y	607	-	66,74,74	1.81	14 (21%)	73,114,114	2.67	21 (28%)
34	BCR	C	515	-	41,41,41	0.85	1 (2%)	56,56,56	1.98	19 (33%)
34	BCR	b	619	-	41,41,41	0.72	0	56,56,56	1.95	13 (23%)
32	CLA	C	511	4	65,73,73	1.41	8 (12%)	76,113,113	1.49	8 (10%)
34	BCR	B	620	-	41,41,41	0.73	0	56,56,56	1.75	13 (23%)
44	LUT	g	1621	-	42,43,43	0.81	0	51,60,60	1.56	11 (21%)
38	LHG	g	2630	32	48,48,48	0.92	2 (4%)	51,54,54	0.95	3 (5%)
43	CHL	R	608	-	46,54,74	2.26	15 (32%)	49,90,114	3.10	20 (40%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
35	SQD	a	412	-	50,51,54	1.21	4 (8%)	59,62,65	3.79	9 (15%)
32	CLA	b	612	-	65,73,73	1.50	7 (10%)	76,113,113	1.55	10 (13%)
46	NEX	R	625	-	38,46,46	0.90	1 (2%)	50,70,70	2.45	17 (34%)
43	CHL	N	607	-	66,74,74	1.83	13 (19%)	73,114,114	2.79	22 (30%)
32	CLA	S	604	-	49,57,73	1.70	8 (16%)	55,93,113	1.58	8 (14%)
43	CHL	s	601	24	46,54,74	2.25	14 (30%)	49,90,114	3.17	21 (42%)
43	CHL	n	605	21	66,74,74	1.80	15 (22%)	73,114,114	2.85	24 (32%)
32	CLA	c	501	-	65,73,73	1.49	9 (13%)	76,113,113	1.29	11 (14%)
42	LMU	Y	2632	-	36,36,36	1.13	2 (5%)	47,47,47	1.12	5 (10%)
34	BCR	C	514	-	41,41,41	0.84	0	56,56,56	1.69	10 (17%)
32	CLA	b	611	47	65,73,73	1.48	8 (12%)	76,113,113	1.55	10 (13%)
32	CLA	s	609	24	41,49,73	1.89	7 (17%)	47,84,113	1.52	8 (17%)
32	CLA	B	605	-	65,73,73	1.43	11 (16%)	76,113,113	1.50	11 (14%)
32	CLA	r	610	23	41,49,73	1.86	8 (19%)	47,84,113	1.48	7 (14%)
37	DGD	C	523	-	67,67,67	0.81	2 (2%)	81,81,81	0.91	3 (3%)
32	CLA	Y	613	25	65,73,73	1.48	10 (15%)	76,113,113	1.44	9 (11%)
32	CLA	S	602	24	49,57,73	1.67	7 (14%)	55,93,113	1.47	9 (16%)
39	BCT	d	401	30	2,3,3	1.29	0	2,3,3	4.18	2 (100%)
32	CLA	b	609	-	65,73,73	1.41	7 (10%)	76,113,113	1.48	7 (9%)
32	CLA	D	402	-	65,73,73	1.48	9 (13%)	76,113,113	1.30	7 (9%)
43	CHL	Y	601	25	66,74,74	1.80	14 (21%)	73,114,114	2.67	26 (35%)
40	PL9	D	405	-	55,55,55	2.01	14 (25%)	68,69,69	1.46	15 (22%)
32	CLA	S	611	38	49,57,73	1.64	7 (14%)	55,93,113	1.49	7 (12%)
42	LMU	y	2632	-	36,36,36	1.14	2 (5%)	47,47,47	1.13	5 (10%)
32	CLA	c	505	-	65,73,73	1.43	10 (15%)	76,113,113	1.49	10 (13%)
32	CLA	c	502	-	65,73,73	1.45	11 (16%)	76,113,113	1.50	6 (7%)
43	CHL	n	601	21	66,74,74	1.81	13 (19%)	73,114,114	2.67	20 (27%)
33	PHO	A	409	-	51,69,69	1.04	4 (7%)	47,99,99	1.34	6 (12%)
43	CHL	r	606	-	44,52,74	2.15	13 (29%)	46,87,114	3.28	19 (41%)
43	CHL	g	601	22	66,74,74	1.81	12 (18%)	73,114,114	2.71	23 (31%)
34	BCR	b	618	-	41,41,41	0.76	0	56,56,56	1.84	15 (26%)
43	CHL	Y	609	25	66,74,74	1.82	13 (19%)	73,114,114	2.76	22 (30%)
33	PHO	a	409	-	51,69,69	1.04	4 (7%)	47,99,99	1.33	5 (10%)
32	CLA	B	607	-	65,73,73	1.47	8 (12%)	76,113,113	1.38	8 (10%)
43	CHL	G	607	-	50,58,74	2.14	14 (28%)	52,94,114	3.09	22 (42%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	CLA	S	609	24	41,49,73	1.90	7 (17%)	47,84,113	1.52	8 (17%)
32	CLA	c	508	-	65,73,73	1.42	7 (10%)	76,113,113	1.58	8 (10%)
32	CLA	C	513	-	65,73,73	1.40	9 (13%)	76,113,113	1.45	9 (11%)
32	CLA	n	612	21	45,53,73	1.79	7 (15%)	52,89,113	1.51	10 (19%)
34	BCR	c	514	-	41,41,41	0.84	0	56,56,56	1.69	10 (17%)
43	CHL	n	609	21	66,74,74	1.87	14 (21%)	73,114,114	2.66	20 (27%)
38	LHG	L	101	-	48,48,48	0.94	2 (4%)	51,54,54	1.16	3 (5%)
32	CLA	S	610	24	49,57,73	1.80	9 (18%)	55,93,113	1.32	7 (12%)
32	CLA	R	610	23	41,49,73	1.86	8 (19%)	47,84,113	1.48	7 (14%)
32	CLA	R	603	-	49,57,73	1.72	7 (14%)	55,93,113	1.55	10 (18%)
43	CHL	r	607	-	50,58,74	2.17	16 (32%)	52,94,114	3.09	21 (40%)
32	CLA	a	405	-	65,73,73	1.53	8 (12%)	76,113,113	1.57	10 (13%)
32	CLA	b	608	47	65,73,73	1.45	8 (12%)	76,113,113	1.42	7 (9%)
32	CLA	G	611	38	45,53,73	1.76	7 (15%)	52,89,113	1.59	8 (15%)
32	CLA	d	403	-	65,73,73	1.47	9 (13%)	76,113,113	1.36	9 (11%)
32	CLA	C	501	-	65,73,73	1.49	9 (13%)	76,113,113	1.27	11 (14%)
43	CHL	g	609	22	66,74,74	1.85	14 (21%)	73,114,114	2.74	23 (31%)
36	LMG	B	622	-	51,51,55	0.89	2 (3%)	59,59,63	1.11	4 (6%)
38	LHG	G	2630	32	48,48,48	0.92	2 (4%)	51,54,54	0.96	3 (5%)
38	LHG	d	410	-	38,38,48	1.00	2 (5%)	41,44,54	1.00	2 (4%)
32	CLA	g	603	-	65,73,73	1.50	8 (12%)	76,113,113	1.39	12 (15%)
32	CLA	a	410	-	60,68,73	1.47	8 (13%)	70,107,113	1.46	9 (12%)
36	LMG	D	411	-	46,46,55	0.95	2 (4%)	54,54,63	1.15	4 (7%)
32	CLA	g	604	-	49,57,73	1.72	7 (14%)	55,93,113	1.53	6 (10%)
32	CLA	b	614	-	65,73,73	1.41	8 (12%)	76,113,113	1.51	8 (10%)
46	NEX	G	1623	-	38,46,46	1.01	2 (5%)	50,70,70	2.40	15 (30%)
43	CHL	R	606	-	44,52,74	2.15	13 (29%)	46,87,114	3.27	20 (43%)
44	LUT	s	1620	-	42,43,43	0.83	1 (2%)	51,60,60	1.72	16 (31%)
32	CLA	B	602	47	65,73,73	1.47	8 (12%)	76,113,113	1.38	8 (10%)
32	CLA	G	613	22	65,73,73	1.50	10 (15%)	76,113,113	1.51	6 (7%)
38	LHG	l	101	-	48,48,48	0.94	2 (4%)	51,54,54	1.16	3 (5%)
32	CLA	c	510	-	65,73,73	1.41	8 (12%)	76,113,113	1.51	7 (9%)
43	CHL	s	606	-	44,52,74	2.15	13 (29%)	46,87,114	3.22	19 (41%)
35	SQD	A	412	-	50,51,54	1.21	4 (8%)	59,62,65	3.80	9 (15%)
32	CLA	N	611	38	49,57,73	1.70	8 (16%)	55,93,113	1.44	8 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	CLA	c	513	-	65,73,73	1.40	9 (13%)	76,113,113	1.44	9 (11%)
32	CLA	B	606	-	65,73,73	1.49	8 (12%)	76,113,113	1.32	7 (9%)
32	CLA	N	603	-	65,73,73	1.52	10 (15%)	76,113,113	1.40	8 (10%)
32	CLA	d	402	-	65,73,73	1.48	9 (13%)	76,113,113	1.31	7 (9%)
42	LMU	Z	2635	-	36,36,36	1.21	2 (5%)	47,47,47	1.14	4 (8%)
32	CLA	s	614	-	48,56,73	1.69	8 (16%)	55,92,113	1.39	8 (14%)
43	CHL	y	605	25	46,54,74	2.23	15 (32%)	49,90,114	3.18	19 (38%)
43	CHL	N	608	-	50,58,74	2.08	13 (26%)	52,94,114	3.21	18 (34%)
46	NEX	n	1623	-	38,46,46	0.93	2 (5%)	50,70,70	2.33	15 (30%)
32	CLA	N	614	-	49,57,73	1.74	7 (14%)	55,93,113	1.41	8 (14%)
32	CLA	s	613	24	49,57,73	1.81	10 (20%)	55,93,113	1.45	6 (10%)
44	LUT	N	1621	-	42,43,43	0.79	0	51,60,60	1.52	7 (13%)
38	LHG	S	2630	32	44,44,48	0.94	2 (4%)	47,50,54	1.00	2 (4%)
32	CLA	y	614	-	54,62,73	1.59	8 (14%)	62,99,113	1.36	8 (12%)

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
32	CLA	c	503	-	1/1/15/20	10/37/115/115	-
32	CLA	B	609	-	1/1/15/20	14/37/115/115	-
43	CHL	Y	608	-	3/3/16/26	4/20/118/137	-
32	CLA	G	602	22	1/1/15/20	16/37/115/115	-
32	CLA	C	502	-	-	8/37/115/115	-
32	CLA	N	610	21	1/1/15/20	3/37/115/115	-
44	LUT	N	1620	-	-	2/29/67/67	0/2/2/2
46	NEX	S	1623	-	-	5/27/83/83	0/3/3/3
32	CLA	B	613	-	1/1/15/20	9/37/115/115	-
44	LUT	y	1620	-	-	2/29/67/67	0/2/2/2
32	CLA	y	603	-	1/1/15/20	14/37/115/115	-
32	CLA	C	506	-	-	4/37/115/115	-
36	LMG	h	102	-	-	15/43/63/70	0/1/1/1
36	LMG	H	102	-	-	14/43/63/70	0/1/1/1
43	CHL	g	608	-	3/3/15/26	7/13/111/137	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
38	LHG	d	408	-	-	18/48/48/53	-
44	LUT	Y	1620	-	-	2/29/67/67	0/2/2/2
37	DGD	C	518	-	-	11/44/84/95	0/2/2/2
41	HEM	F	101	6,7	-	2/12/54/54	-
44	LUT	S	1620	-	-	4/29/67/67	0/2/2/2
34	BCR	B	619	-	-	0/29/63/63	0/2/2/2
32	CLA	G	614	-	1/1/11/20	11/18/96/115	-
32	CLA	B	615	-	1/1/15/20	21/37/115/115	-
46	NEX	r	625	-	-	5/27/83/83	0/3/3/3
32	CLA	b	617	-	1/1/15/20	16/37/115/115	-
32	CLA	N	602	21	1/1/15/20	12/37/115/115	-
46	NEX	Y	1623	-	-	8/27/83/83	0/3/3/3
32	CLA	C	505	-	-	14/37/115/115	-
32	CLA	c	507	47	1/1/15/20	11/37/115/115	-
32	CLA	R	604	-	1/1/11/20	7/18/96/115	-
43	CHL	y	607	-	3/3/20/26	22/39/137/137	-
32	CLA	n	610	21	1/1/15/20	3/37/115/115	-
32	CLA	c	509	-	1/1/15/20	10/37/115/115	-
32	CLA	R	602	23	1/1/14/20	5/31/109/115	-
44	LUT	G	1620	-	-	2/29/67/67	0/2/2/2
37	DGD	c	524	-	-	10/55/95/95	0/2/2/2
34	BCR	c	515	-	-	7/29/63/63	0/2/2/2
32	CLA	C	510	-	1/1/15/20	17/37/115/115	-
38	LHG	c	2630	-	-	15/51/51/53	-
36	LMG	d	411	-	-	10/41/61/70	0/1/1/1
43	CHL	n	606	-	3/3/16/26	7/15/113/137	-
32	CLA	N	612	21	1/1/11/20	4/13/91/115	-
32	CLA	B	608	47	1/1/15/20	12/37/115/115	-
34	BCR	A	411	-	-	5/29/63/63	0/2/2/2
32	CLA	n	602	21	1/1/15/20	13/37/115/115	-
36	LMG	A	413	-	-	17/43/63/70	0/1/1/1
42	LMU	z	2634	-	-	9/21/61/61	0/2/2/2
32	CLA	n	611	38	1/1/11/20	12/18/96/115	-
32	CLA	N	604	-	1/1/15/20	12/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
38	LHG	d	409	-	-	19/53/53/53	-
43	CHL	G	609	22	3/3/20/26	21/39/137/137	-
32	CLA	g	611	38	1/1/11/20	3/13/91/115	-
43	CHL	n	608	-	3/3/16/26	5/20/118/137	-
32	CLA	C	503	-	1/1/15/20	9/37/115/115	-
32	CLA	R	609	23	1/1/11/20	8/13/91/115	-
32	CLA	A	407	47	1/1/11/20	2/18/96/115	-
32	CLA	n	614	-	1/1/11/20	8/18/96/115	-
36	LMG	c	521	-	-	5/46/66/70	0/1/1/1
44	LUT	n	1621	-	-	3/29/67/67	0/2/2/2
35	SQD	b	621	-	-	15/49/69/69	0/1/1/1
32	CLA	a	407	47	1/1/11/20	2/18/96/115	-
32	CLA	g	613	22	-	16/37/115/115	-
34	BCR	B	618	-	-	2/29/63/63	0/2/2/2
32	CLA	r	603	-	1/1/11/20	11/18/96/115	-
35	SQD	B	621	-	-	16/49/69/69	0/1/1/1
43	CHL	s	607	-	3/3/15/26	3/12/110/137	-
34	BCR	c	517	-	-	1/29/63/63	0/2/2/2
32	CLA	r	604	-	1/1/11/20	7/18/96/115	-
44	LUT	n	1620	-	-	2/29/67/67	0/2/2/2
45	XAT	g	1622	-	-	1/31/93/93	0/4/4/4
43	CHL	G	601	22	3/3/20/26	14/39/137/137	-
32	CLA	C	509	-	1/1/15/20	10/37/115/115	-
45	XAT	R	624	-	-	1/31/93/93	0/4/4/4
32	CLA	Y	612	25	1/1/15/20	16/37/115/115	-
32	CLA	g	602	22	1/1/15/20	16/37/115/115	-
32	CLA	G	612	22	1/1/10/20	4/11/89/115	-
32	CLA	b	604	-	-	12/37/115/115	-
32	CLA	A	406	47	-	9/37/115/115	-
34	BCR	c	516	-	-	8/29/63/63	0/2/2/2
32	CLA	a	406	47	-	9/37/115/115	-
33	PHO	a	408	-	-	11/37/103/103	0/5/6/6
38	LHG	C	2630	-	-	15/51/51/53	-
33	PHO	A	408	-	-	12/37/103/103	0/5/6/6
42	LMU	Z	2634	-	-	9/21/61/61	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	CLA	C	512	-	1/1/15/20	15/37/115/115	-
43	CHL	G	605	22	3/3/16/26	4/18/116/137	-
32	CLA	S	603	-	1/1/10/20	5/10/88/115	-
34	BCR	b	620	-	-	4/29/63/63	0/2/2/2
32	CLA	s	612	24	1/1/11/20	4/13/91/115	-
43	CHL	S	607	-	3/3/15/26	4/12/110/137	-
34	BCR	a	411	-	-	5/29/63/63	0/2/2/2
32	CLA	s	605	24	1/1/12/20	6/19/97/115	-
36	LMG	a	413	-	-	17/43/63/70	0/1/1/1
36	LMG	C	521	-	-	5/46/66/70	0/1/1/1
43	CHL	y	609	25	3/3/20/26	17/39/137/137	-
32	CLA	b	605	-	1/1/15/20	13/37/115/115	-
32	CLA	Y	610	25	1/1/15/20	5/37/115/115	-
43	CHL	s	608	-	3/3/16/26	10/19/117/137	-
46	NEX	s	1623	-	-	5/27/83/83	0/3/3/3
32	CLA	C	508	-	1/1/15/20	13/37/115/115	-
32	CLA	y	611	38	1/1/15/20	11/37/115/115	-
37	DGD	c	518	-	-	10/44/84/95	0/2/2/2
32	CLA	N	613	21	-	12/37/115/115	-
43	CHL	G	608	-	3/3/15/26	7/13/111/137	-
32	CLA	y	613	25	-	13/37/115/115	-
32	CLA	Y	614	-	1/1/12/20	6/24/102/115	-
32	CLA	Y	603	-	1/1/15/20	14/37/115/115	-
44	LUT	Y	1621	-	-	5/29/67/67	0/2/2/2
32	CLA	Y	604	-	1/1/15/20	14/37/115/115	-
44	LUT	y	1621	-	-	5/29/67/67	0/2/2/2
45	XAT	N	1622	-	-	1/31/93/93	0/4/4/4
38	LHG	D	409	-	-	20/53/53/53	-
43	CHL	r	608	-	3/3/16/26	5/15/113/137	-
45	XAT	y	1622	-	-	4/31/93/93	0/4/4/4
43	CHL	N	606	-	3/3/16/26	7/15/113/137	-
43	CHL	Y	606	-	3/3/20/26	15/39/137/137	-
32	CLA	n	604	-	1/1/15/20	11/37/115/115	-
43	CHL	y	606	-	3/3/20/26	15/39/137/137	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	CLA	y	610	25	1/1/15/20	5/37/115/115	-
43	CHL	y	608	-	3/3/16/26	4/20/118/137	-
40	PL9	d	405	-	-	14/53/73/73	0/1/1/1
32	CLA	G	603	-	1/1/15/20	14/37/115/115	-
34	BCR	h	101	-	-	5/29/63/63	0/2/2/2
32	CLA	r	602	23	1/1/14/20	5/31/109/115	-
37	DGD	C	524	-	-	10/55/95/95	0/2/2/2
38	LHG	D	410	-	-	13/43/43/53	-
32	CLA	s	602	24	1/1/11/20	8/18/96/115	-
32	CLA	S	605	24	1/1/12/20	6/19/97/115	-
38	LHG	n	2630	32	-	12/53/53/53	-
32	CLA	g	612	22	1/1/10/20	4/11/89/115	-
42	LMU	z	2635	-	-	10/21/61/61	0/2/2/2
37	DGD	c	519	-	-	13/51/91/95	0/2/2/2
34	BCR	C	516	-	-	8/29/63/63	0/2/2/2
32	CLA	y	602	25	1/1/15/20	10/37/115/115	-
32	CLA	s	611	38	1/1/11/20	7/18/96/115	-
44	LUT	G	1621	-	-	5/29/67/67	0/2/2/2
32	CLA	b	603	-	1/1/15/20	14/37/115/115	-
32	CLA	B	616	-	1/1/15/20	14/37/115/115	-
32	CLA	G	610	22	1/1/15/20	13/37/115/115	-
32	CLA	C	507	47	1/1/15/20	11/37/115/115	-
32	CLA	r	609	23	1/1/11/20	8/13/91/115	-
44	LUT	s	1621	-	-	3/29/67/67	0/2/2/2
32	CLA	B	611	47	1/1/15/20	7/37/115/115	-
32	CLA	y	612	25	1/1/15/20	16/37/115/115	-
32	CLA	A	405	-	1/1/15/20	15/37/115/115	-
34	BCR	C	517	-	-	1/29/63/63	0/2/2/2
37	DGD	C	519	-	-	11/51/91/95	0/2/2/2
32	CLA	B	614	-	1/1/15/20	10/37/115/115	-
32	CLA	b	607	-	1/1/15/20	11/37/115/115	-
32	CLA	B	603	-	1/1/15/20	14/37/115/115	-
32	CLA	s	610	24	1/1/11/20	6/18/96/115	-
43	CHL	S	601	24	3/3/16/26	8/15/113/137	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	CLA	n	603	-	1/1/15/20	14/37/115/115	-
34	BCR	D	404	-	-	2/29/63/63	0/2/2/2
38	LHG	D	408	-	-	17/48/48/53	-
32	CLA	c	504	47	1/1/15/20	13/37/115/115	-
43	CHL	G	606	-	3/3/16/26	8/20/118/137	-
32	CLA	c	506	-	-	4/37/115/115	-
32	CLA	b	610	-	-	15/37/115/115	-
43	CHL	g	605	22	3/3/16/26	4/18/116/137	-
46	NEX	g	1623	-	-	2/27/83/83	0/3/3/3
32	CLA	Y	602	25	1/1/15/20	10/37/115/115	-
32	CLA	B	610	-	-	15/37/115/115	-
32	CLA	b	613	-	1/1/15/20	9/37/115/115	-
36	LMG	b	622	-	-	4/46/66/70	0/1/1/1
44	LUT	S	1621	-	-	3/29/67/67	0/2/2/2
43	CHL	N	609	21	3/3/20/26	21/39/137/137	-
44	LUT	g	1620	-	-	2/29/67/67	0/2/2/2
32	CLA	c	512	-	1/1/15/20	15/37/115/115	-
34	BCR	H	101	-	-	5/29/63/63	0/2/2/2
32	CLA	b	606	-	1/1/15/20	9/37/115/115	-
45	XAT	n	1622	-	-	1/31/93/93	0/4/4/4
38	LHG	Y	2630	32	-	18/53/53/53	-
43	CHL	S	606	-	3/3/15/26	5/13/111/137	-
43	CHL	n	607	-	3/3/20/26	20/39/137/137	-
32	CLA	y	604	-	1/1/15/20	13/37/115/115	-
34	BCR	d	404	-	-	2/29/63/63	0/2/2/2
32	CLA	b	602	47	1/1/15/20	12/37/115/115	-
43	CHL	Y	605	25	3/3/16/26	9/15/113/137	-
37	DGD	c	520	-	-	14/48/88/95	0/2/2/2
43	CHL	g	607	-	3/3/16/26	8/20/118/137	-
32	CLA	Y	611	38	1/1/15/20	11/37/115/115	-
32	CLA	c	511	4	-	12/37/115/115	-
45	XAT	G	1622	-	-	1/31/93/93	0/4/4/4
43	CHL	R	607	-	3/3/16/26	7/20/118/137	-
38	LHG	s	2630	32	-	9/49/49/53	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	CLA	B	604	-	-	12/37/115/115	-
38	LHG	N	2630	32	-	12/53/53/53	-
38	LHG	y	2630	32	-	18/53/53/53	-
41	HEM	f	101	6,7	-	2/12/54/54	-
43	CHL	N	601	21	3/3/20/26	17/39/137/137	-
32	CLA	s	603	-	1/1/10/20	5/10/88/115	-
32	CLA	g	610	22	1/1/15/20	13/37/115/115	-
32	CLA	A	410	-	-	4/31/109/115	-
46	NEX	N	1623	-	-	4/27/83/83	0/3/3/3
32	CLA	b	615	-	1/1/15/20	21/37/115/115	-
43	CHL	y	601	25	3/3/20/26	19/39/137/137	-
32	CLA	b	616	-	1/1/15/20	13/37/115/115	-
43	CHL	N	605	21	3/3/20/26	17/39/137/137	-
32	CLA	g	614	-	1/1/11/20	11/18/96/115	-
46	NEX	y	1623	-	-	9/27/83/83	0/3/3/3
32	CLA	n	613	21	-	12/37/115/115	-
32	CLA	G	604	-	1/1/11/20	10/18/96/115	-
32	CLA	B	612	-	1/1/15/20	11/37/115/115	-
32	CLA	D	403	-	-	12/37/115/115	-
32	CLA	B	617	-	1/1/15/20	16/37/115/115	-
32	CLA	S	612	24	1/1/11/20	4/13/91/115	-
37	DGD	c	523	-	-	15/55/95/95	0/2/2/2
43	CHL	g	606	-	3/3/16/26	8/20/118/137	-
32	CLA	C	504	47	1/1/15/20	13/37/115/115	-
32	CLA	S	613	24	-	8/18/96/115	-
45	XAT	Y	1622	-	-	4/31/93/93	0/4/4/4
43	CHL	S	608	-	3/3/16/26	10/19/117/137	-
45	XAT	r	624	-	-	1/31/93/93	0/4/4/4
32	CLA	s	604	-	1/1/11/20	7/18/96/115	-
32	CLA	S	614	-	1/1/11/20	4/17/95/115	-
37	DGD	C	520	-	-	14/48/88/95	0/2/2/2
43	CHL	Y	607	-	3/3/20/26	22/39/137/137	-
34	BCR	C	515	-	-	7/29/63/63	0/2/2/2
34	BCR	b	619	-	-	0/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	CLA	C	511	4	-	12/37/115/115	-
34	BCR	B	620	-	-	4/29/63/63	0/2/2/2
44	LUT	g	1621	-	-	5/29/67/67	0/2/2/2
38	LHG	g	2630	32	-	17/53/53/53	-
43	CHL	R	608	-	3/3/16/26	5/15/113/137	-
35	SQD	a	412	-	-	15/46/66/69	0/1/1/1
32	CLA	b	612	-	1/1/15/20	11/37/115/115	-
46	NEX	R	625	-	-	5/27/83/83	0/3/3/3
43	CHL	N	607	-	3/3/20/26	20/39/137/137	-
32	CLA	S	604	-	1/1/11/20	7/18/96/115	-
43	CHL	s	601	24	3/3/16/26	8/15/113/137	-
43	CHL	n	605	21	3/3/20/26	17/39/137/137	-
32	CLA	c	501	-	1/1/15/20	16/37/115/115	-
42	LMU	Y	2632	-	-	9/21/61/61	0/2/2/2
34	BCR	C	514	-	-	2/29/63/63	0/2/2/2
32	CLA	b	611	47	1/1/15/20	7/37/115/115	-
32	CLA	s	609	24	1/1/10/20	2/8/86/115	-
32	CLA	B	605	-	1/1/15/20	13/37/115/115	-
32	CLA	r	610	23	1/1/10/20	3/8/86/115	-
37	DGD	C	523	-	-	15/55/95/95	0/2/2/2
32	CLA	Y	613	25	-	13/37/115/115	-
32	CLA	S	602	24	1/1/11/20	8/18/96/115	-
32	CLA	b	609	-	1/1/15/20	14/37/115/115	-
32	CLA	D	402	-	1/1/15/20	9/37/115/115	-
43	CHL	Y	601	25	3/3/20/26	19/39/137/137	-
40	PL9	D	405	-	-	14/53/73/73	0/1/1/1
32	CLA	S	611	38	1/1/11/20	7/18/96/115	-
42	LMU	y	2632	-	-	9/21/61/61	0/2/2/2
32	CLA	c	505	-	-	14/37/115/115	-
32	CLA	c	502	-	-	8/37/115/115	-
43	CHL	n	601	21	3/3/20/26	17/39/137/137	-
33	PHO	A	409	-	-	1/37/103/103	0/5/6/6
43	CHL	r	606	-	3/3/15/26	5/13/111/137	-
43	CHL	g	601	22	3/3/20/26	14/39/137/137	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
34	BCR	b	618	-	-	2/29/63/63	0/2/2/2
43	CHL	Y	609	25	3/3/20/26	16/39/137/137	-
33	PHO	a	409	-	-	3/37/103/103	0/5/6/6
32	CLA	B	607	-	1/1/15/20	11/37/115/115	-
43	CHL	G	607	-	3/3/16/26	8/20/118/137	-
32	CLA	S	609	24	1/1/10/20	3/8/86/115	-
32	CLA	c	508	-	1/1/15/20	13/37/115/115	-
32	CLA	C	513	-	1/1/15/20	19/37/115/115	-
32	CLA	n	612	21	1/1/11/20	4/13/91/115	-
34	BCR	c	514	-	-	2/29/63/63	0/2/2/2
43	CHL	n	609	21	3/3/20/26	21/39/137/137	-
38	LHG	L	101	-	-	20/53/53/53	-
32	CLA	S	610	24	1/1/11/20	6/18/96/115	-
32	CLA	R	610	23	1/1/10/20	3/8/86/115	-
32	CLA	R	603	-	1/1/11/20	11/18/96/115	-
43	CHL	r	607	-	3/3/16/26	7/20/118/137	-
32	CLA	a	405	-	1/1/15/20	15/37/115/115	-
32	CLA	b	608	47	1/1/15/20	12/37/115/115	-
32	CLA	G	611	38	1/1/11/20	3/13/91/115	-
32	CLA	d	403	-	-	12/37/115/115	-
32	CLA	C	501	-	1/1/15/20	16/37/115/115	-
43	CHL	g	609	22	3/3/20/26	21/39/137/137	-
36	LMG	B	622	-	-	4/46/66/70	0/1/1/1
38	LHG	G	2630	32	-	17/53/53/53	-
38	LHG	d	410	-	-	13/43/43/53	-
32	CLA	g	603	-	1/1/15/20	14/37/115/115	-
32	CLA	a	410	-	-	4/31/109/115	-
36	LMG	D	411	-	-	10/41/61/70	0/1/1/1
32	CLA	g	604	-	1/1/11/20	10/18/96/115	-
32	CLA	b	614	-	1/1/15/20	10/37/115/115	-
46	NEX	G	1623	-	-	3/27/83/83	0/3/3/3
43	CHL	R	606	-	3/3/15/26	5/13/111/137	-
44	LUT	s	1620	-	-	4/29/67/67	0/2/2/2
32	CLA	B	602	47	1/1/15/20	12/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	CLA	G	613	22	-	16/37/115/115	-
38	LHG	l	101	-	-	20/53/53/53	-
32	CLA	c	510	-	1/1/15/20	17/37/115/115	-
43	CHL	s	606	-	3/3/15/26	5/13/111/137	-
35	SQD	A	412	-	-	15/46/66/69	0/1/1/1
32	CLA	N	611	38	1/1/11/20	12/18/96/115	-
32	CLA	c	513	-	1/1/15/20	19/37/115/115	-
32	CLA	B	606	-	1/1/15/20	9/37/115/115	-
32	CLA	N	603	-	1/1/15/20	14/37/115/115	-
32	CLA	d	402	-	1/1/15/20	9/37/115/115	-
42	LMU	Z	2635	-	-	10/21/61/61	0/2/2/2
32	CLA	s	614	-	1/1/11/20	4/17/95/115	-
43	CHL	y	605	25	3/3/16/26	9/15/113/137	-
43	CHL	N	608	-	3/3/16/26	5/20/118/137	-
46	NEX	n	1623	-	-	4/27/83/83	0/3/3/3
32	CLA	N	614	-	1/1/11/20	7/18/96/115	-
32	CLA	s	613	24	-	8/18/96/115	-
44	LUT	N	1621	-	-	3/29/67/67	0/2/2/2
38	LHG	S	2630	32	-	9/49/49/53	-
32	CLA	y	614	-	1/1/12/20	6/24/102/115	-

The worst 5 of 2131 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S	613	CLA	C4B-NB	7.90	1.42	1.35
32	s	613	CLA	C4B-NB	7.89	1.42	1.35
32	r	602	CLA	C4B-NB	7.82	1.42	1.35
32	s	610	CLA	C4B-NB	7.81	1.42	1.35
32	R	602	CLA	C4B-NB	7.80	1.42	1.35

The worst 5 of 3324 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	A	412	SQD	O9-S-C6	-20.28	82.84	106.94
35	a	412	SQD	O9-S-C6	-20.18	82.95	106.94
45	y	1622	XAT	C37-C21-C36	-17.09	82.16	107.37
45	Y	1622	XAT	C37-C21-C36	-17.08	82.17	107.37
45	y	1622	XAT	C37-C21-C22	-15.00	82.91	108.98

5 of 272 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
32	A	405	CLA	ND
32	A	407	CLA	ND
32	B	602	CLA	ND
32	B	603	CLA	ND
32	B	605	CLA	ND

5 of 2937 torsion outliers are listed below:

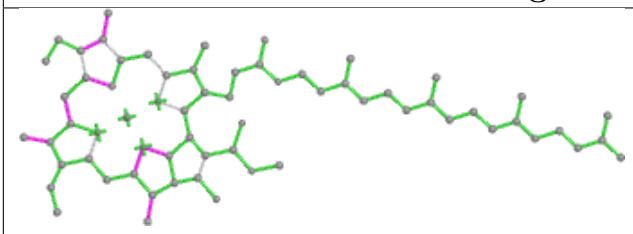
Mol	Chain	Res	Type	Atoms
32	A	406	CLA	CHA-CBD-CGD-O1D
32	A	406	CLA	CHA-CBD-CGD-O2D
32	B	603	CLA	C2-C3-C5-C6
32	B	603	CLA	C4-C3-C5-C6
32	B	604	CLA	C2-C3-C5-C6

There are no ring outliers.

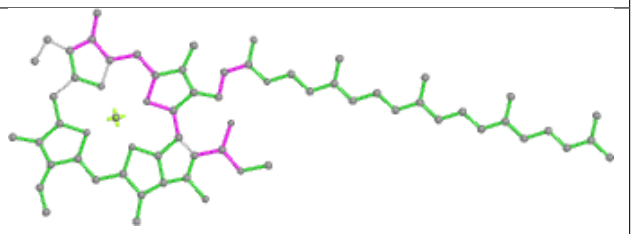
No monomer is involved in short contacts.

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.

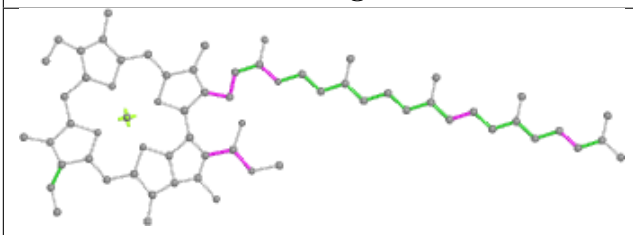
Ligand CLA c 503



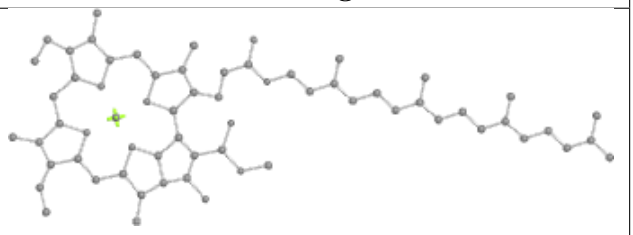
Bond lengths



Bond angles

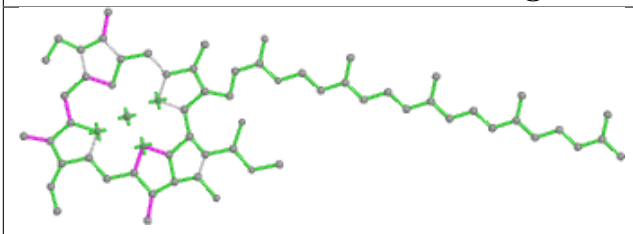


Torsions

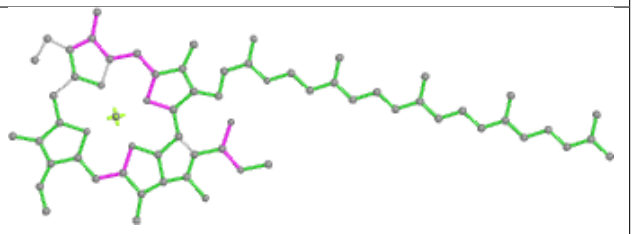


Rings

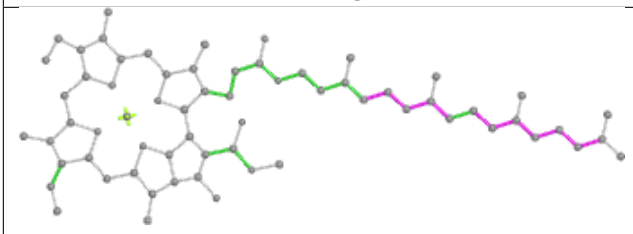
Ligand CLA B 609



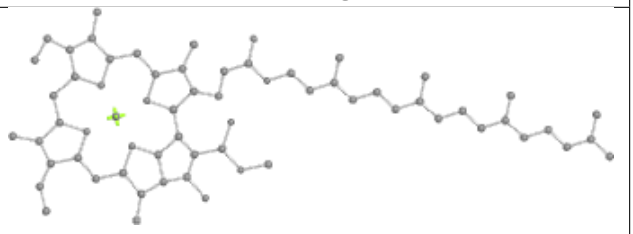
Bond lengths



Bond angles

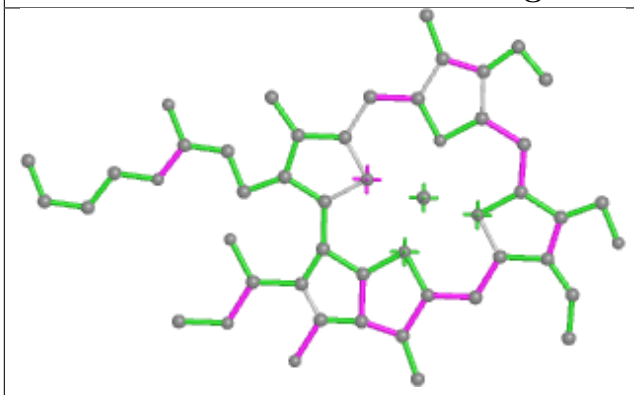


Torsions



Rings

Ligand CHL Y 608



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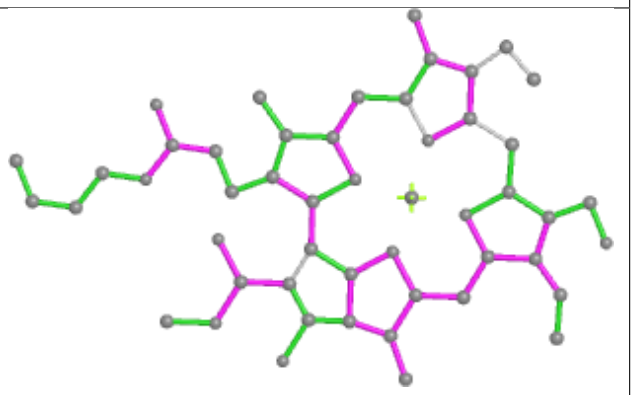
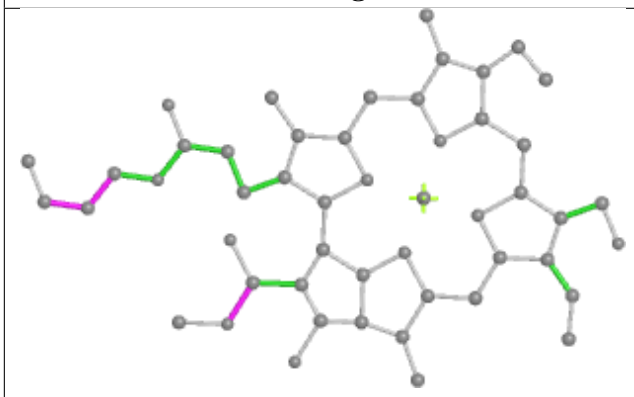


Bond angles



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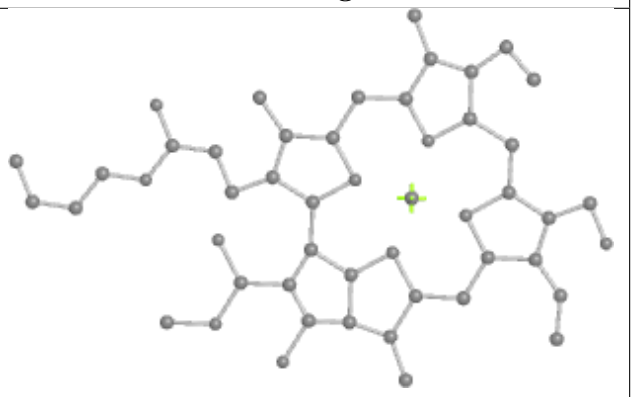
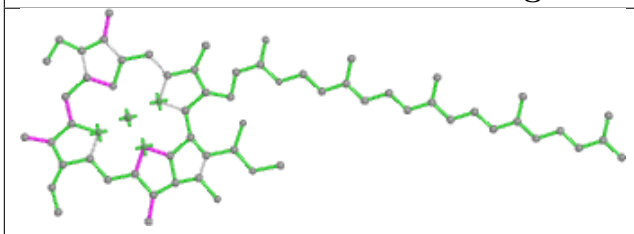


Rings

Ligand CLA G 602



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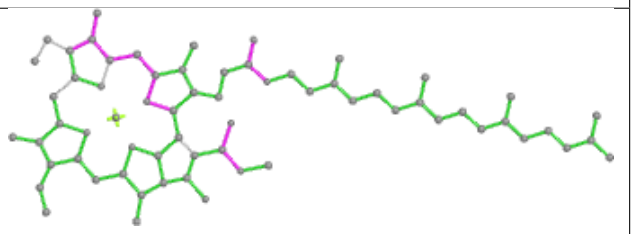
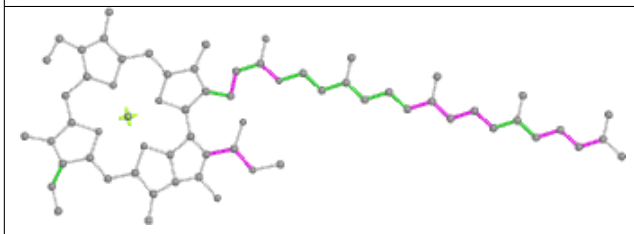


Bond angles



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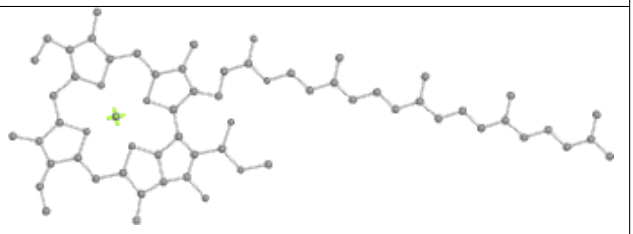
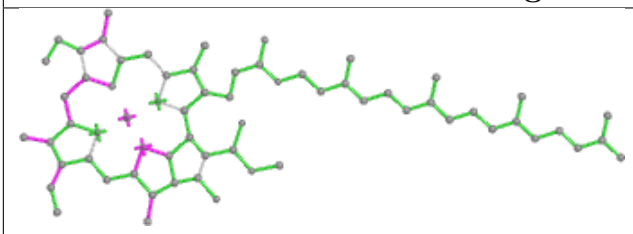


Rings

Ligand CLA C 502



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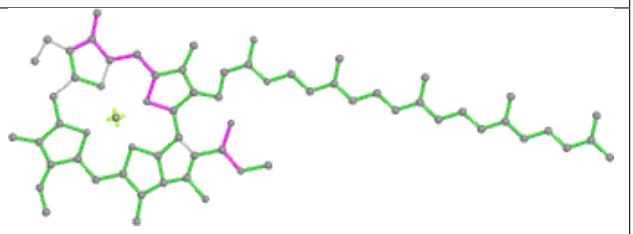
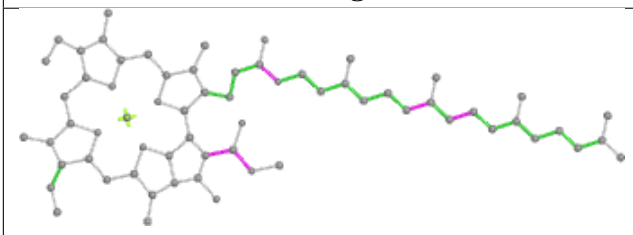


Bond angles



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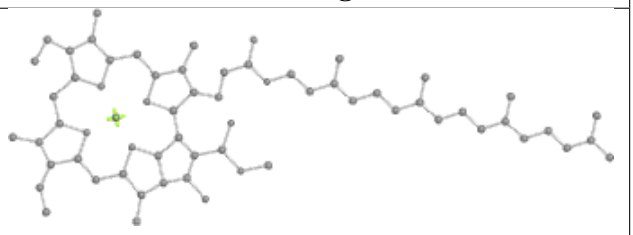
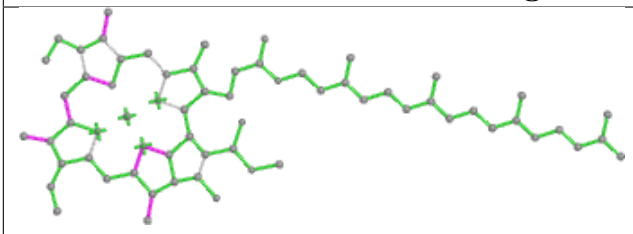


Rings

Ligand CLA N 610



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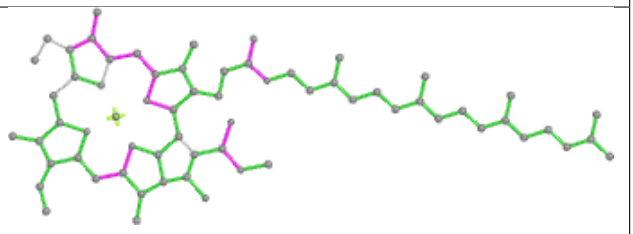
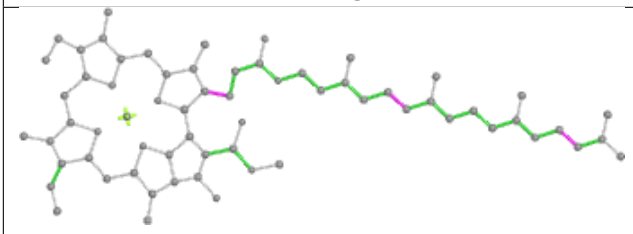


Bond angles



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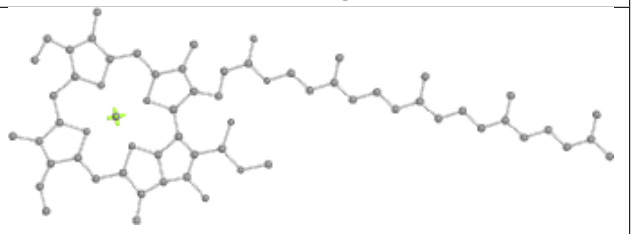
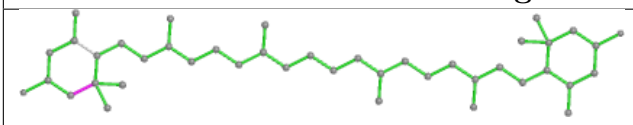


Rings

Ligand LUT N 1620



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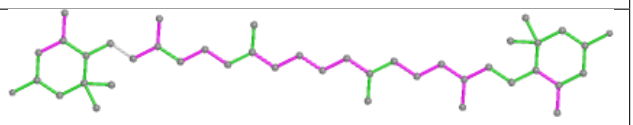
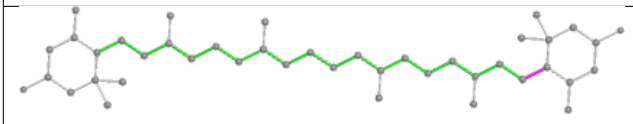
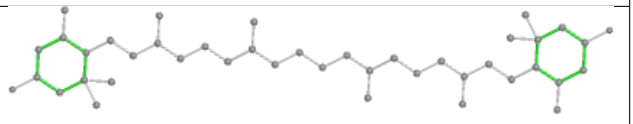


Bond angles

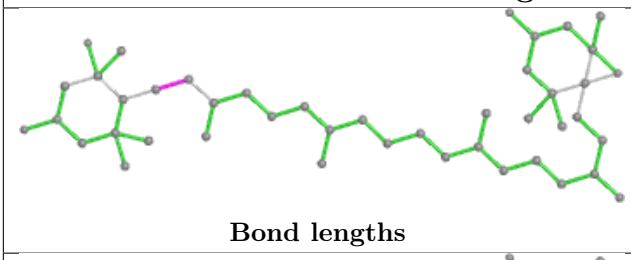


Torsions



Rings

Ligand NEX S 1623



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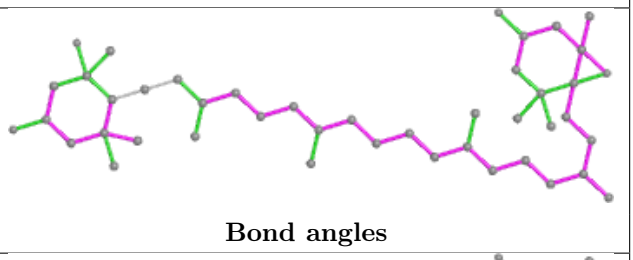

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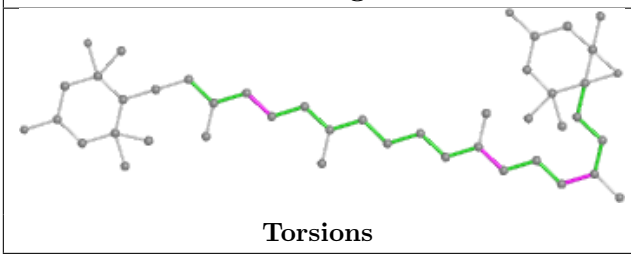

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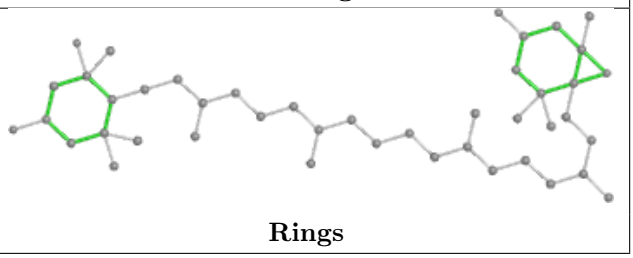
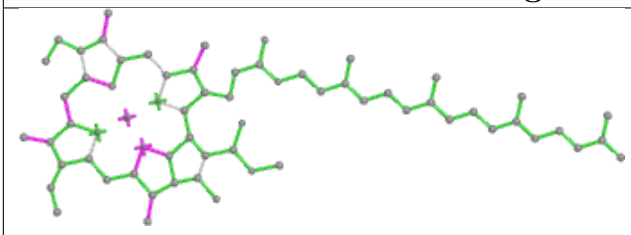


Rings

Ligand CLA B 613



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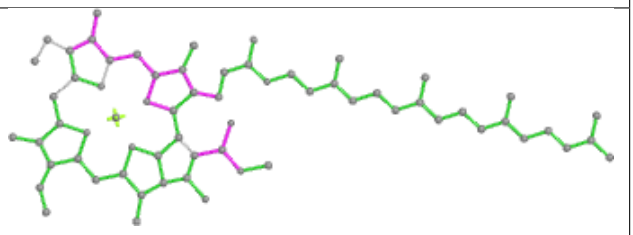
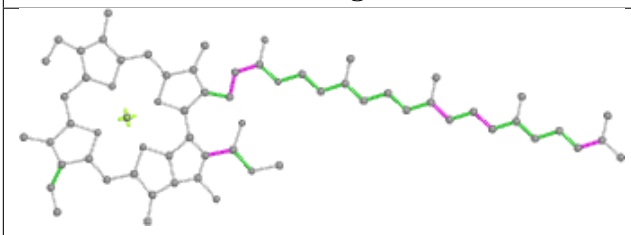


Bond angles



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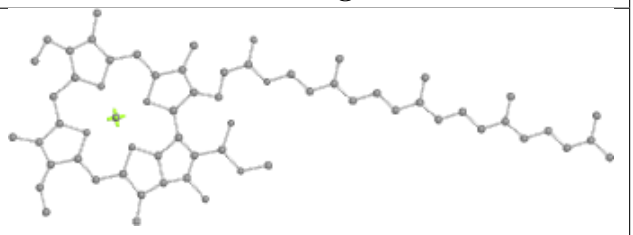
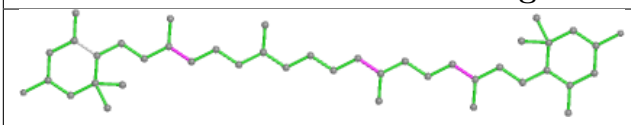


Rings

Ligand LUT y 1620



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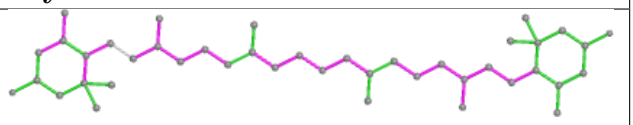
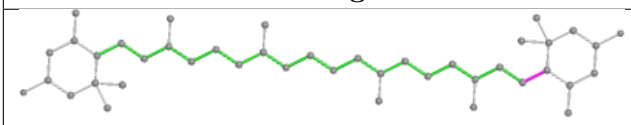


Bond angles



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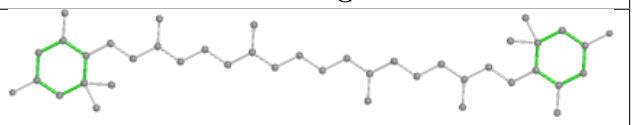
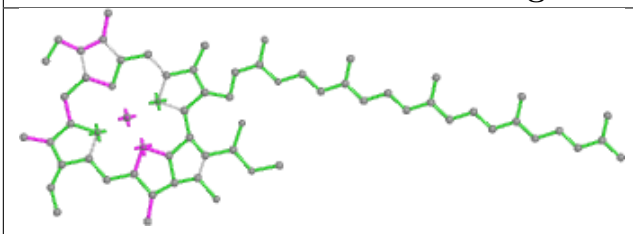


Rings

Ligand CLA y 603



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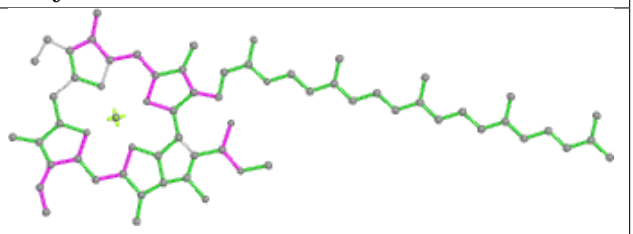
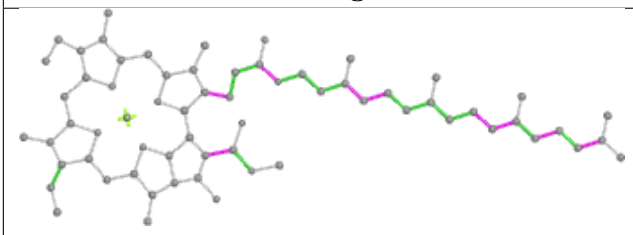
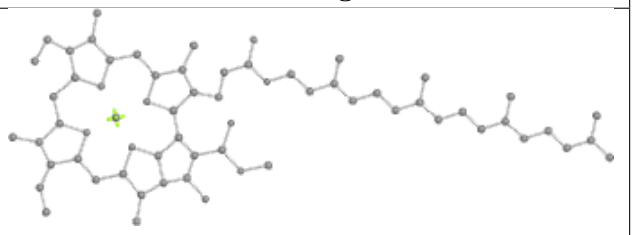


Bond angles

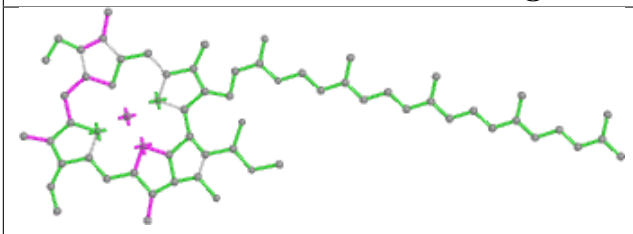


Torsions



Rings

Ligand CLA C 506



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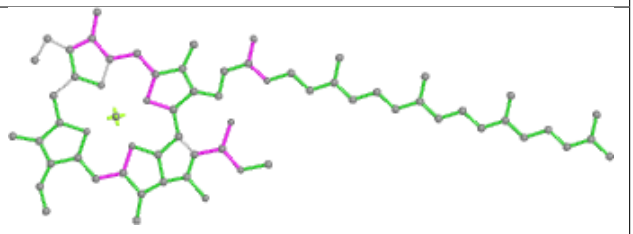
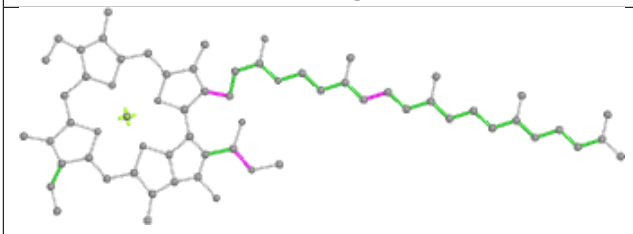


Bond angles



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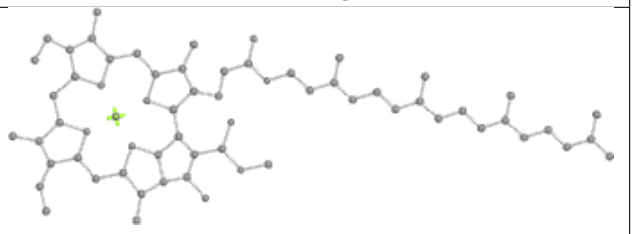
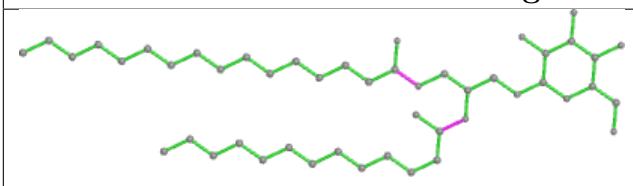


Rings

Ligand LMG h 102



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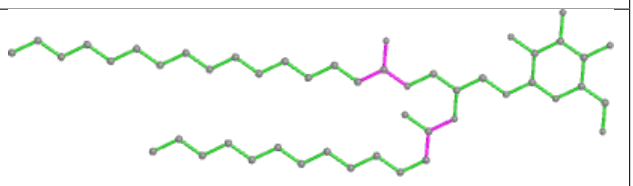
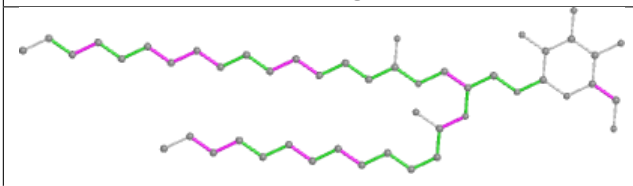
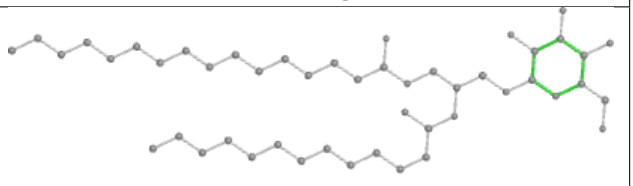


Bond angles

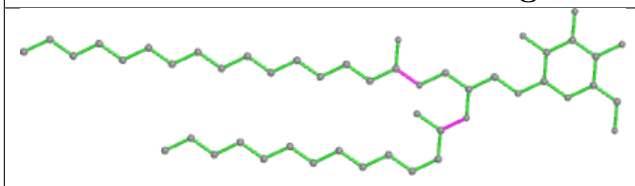


Torsions



Rings

Ligand LMG H 102



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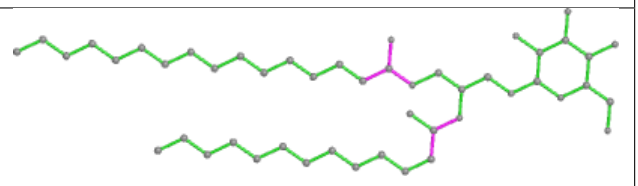
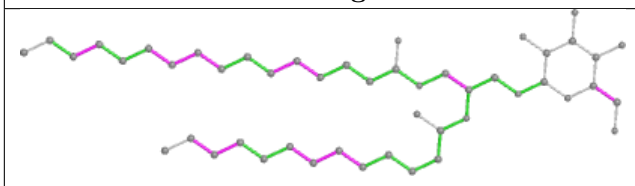


Bond angles



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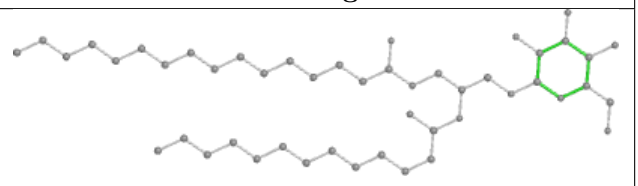
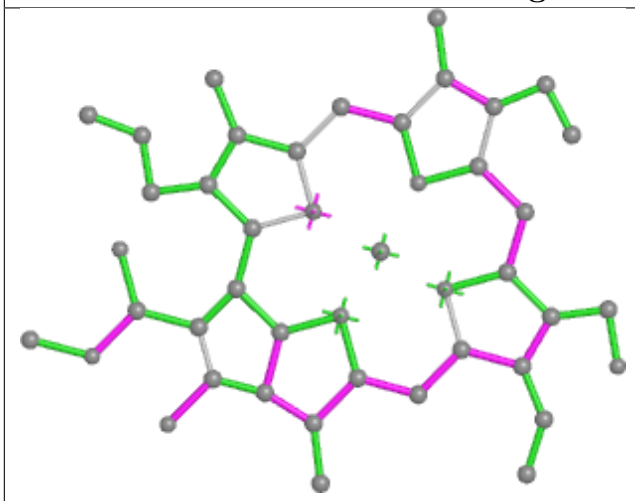
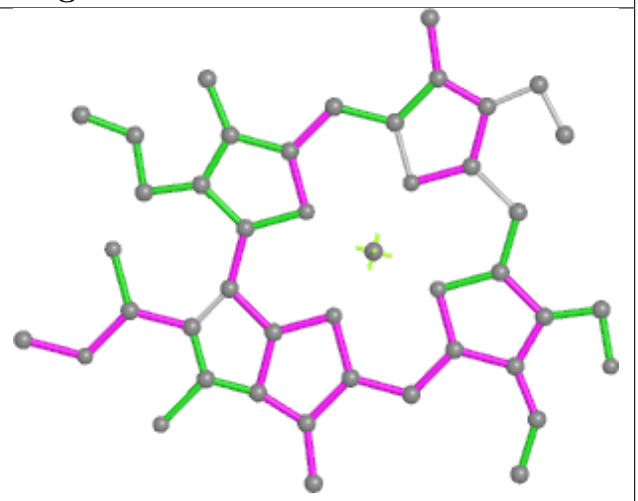


Rings

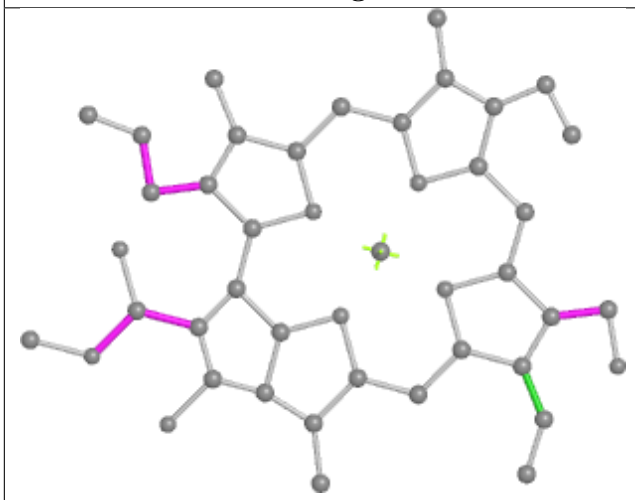
Ligand CHL g 608



Bond lengths



Bond angles



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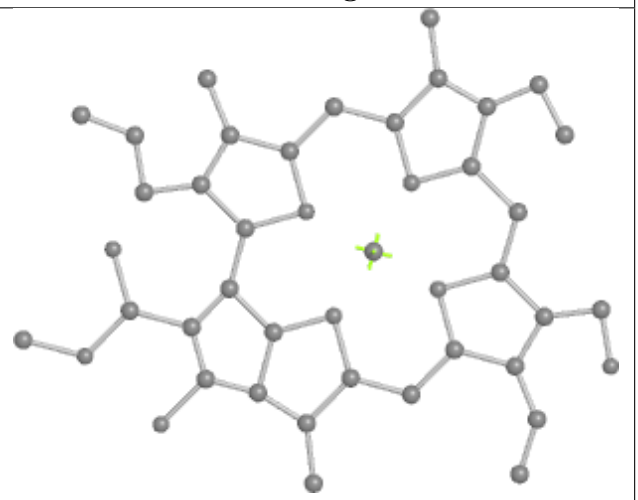
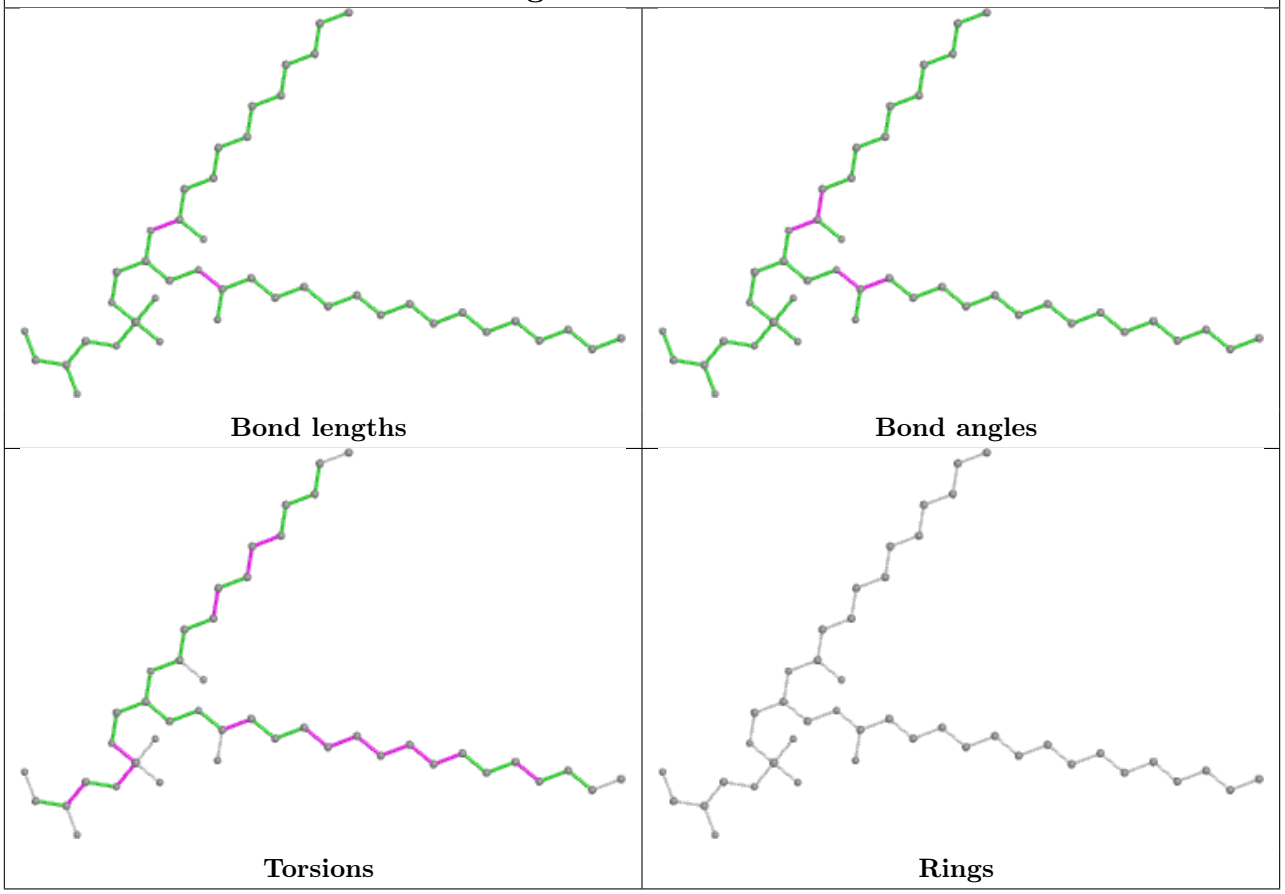
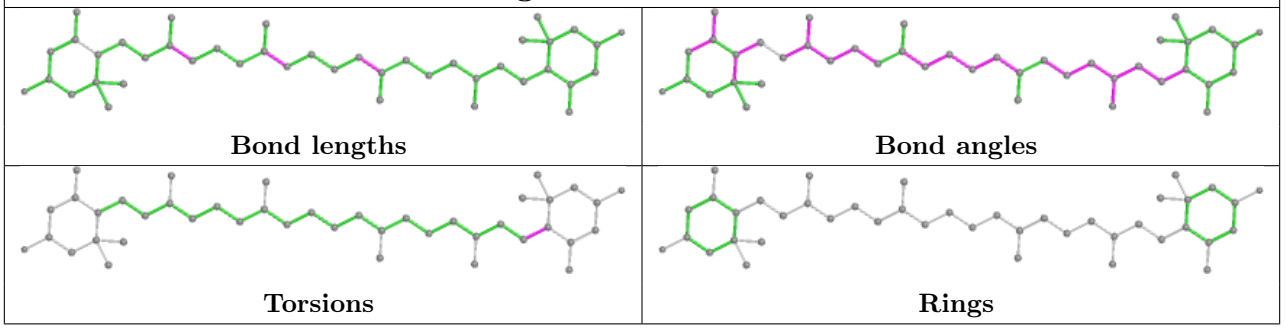


Rings

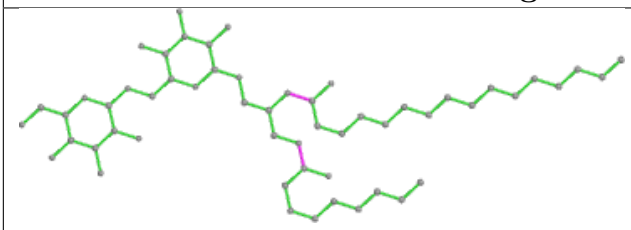
Ligand LHG d 408



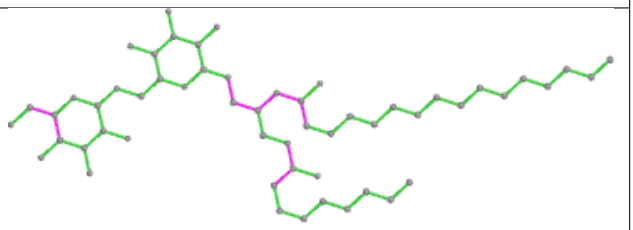
Ligand LUT Y 1620



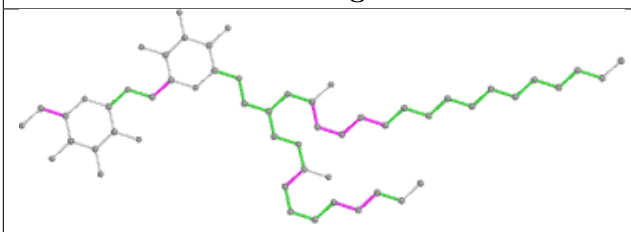
Ligand DGD C 518



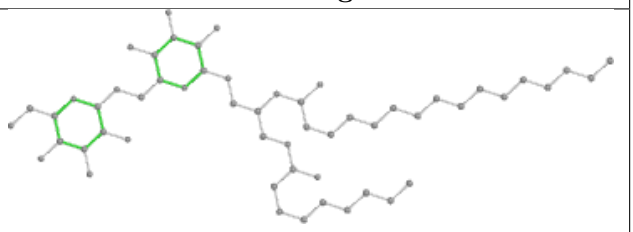
Bond lengths



Bond angles

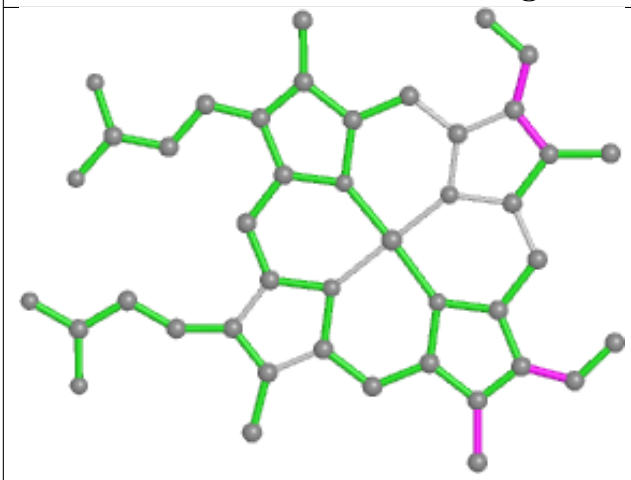


Torsions



Rings

Ligand HEM F 101



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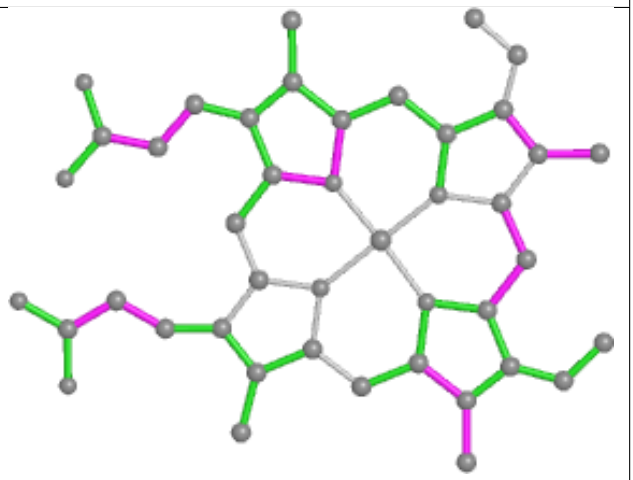

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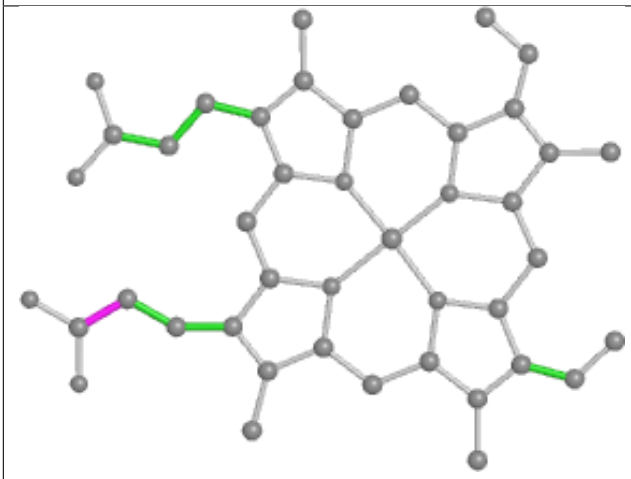

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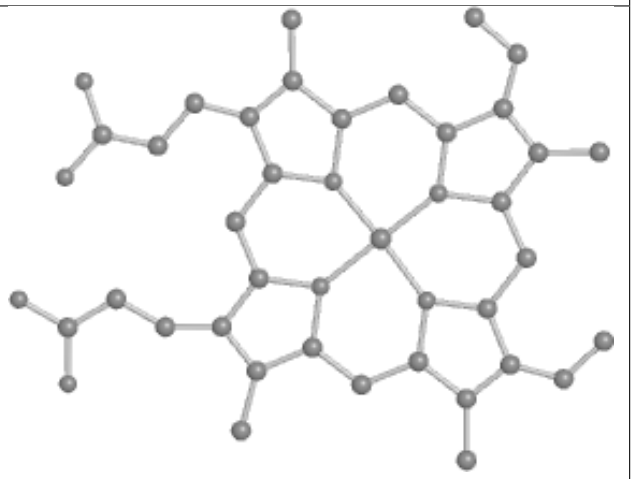
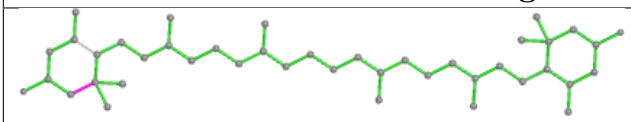


Rings

Ligand LUT S 1620



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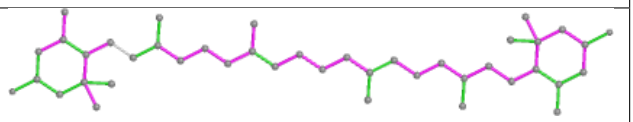

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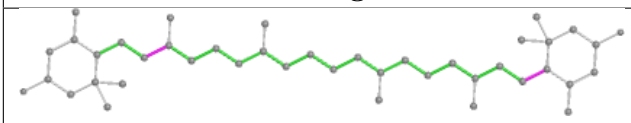

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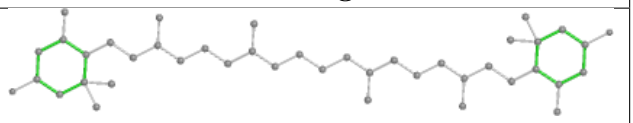
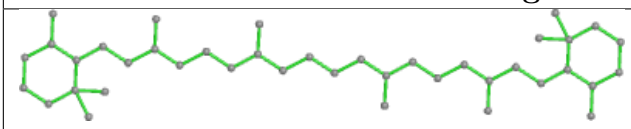


Rings

Ligand BCR B 619



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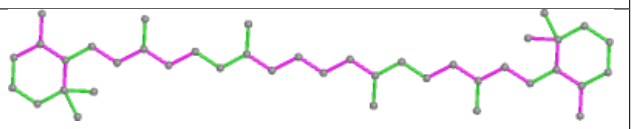

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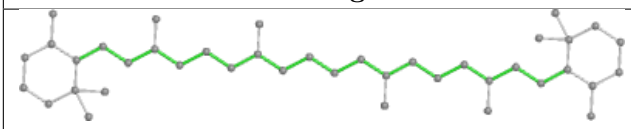

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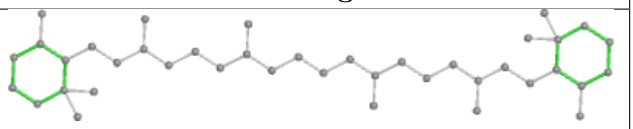
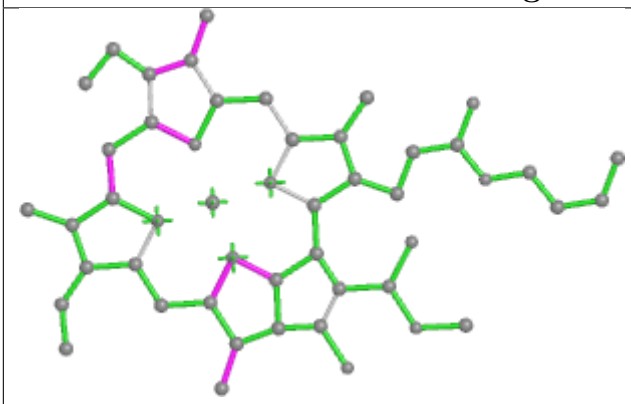


Rings

Ligand CLA G 614



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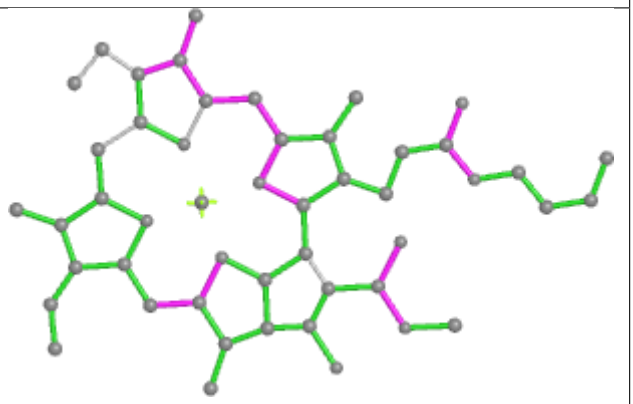
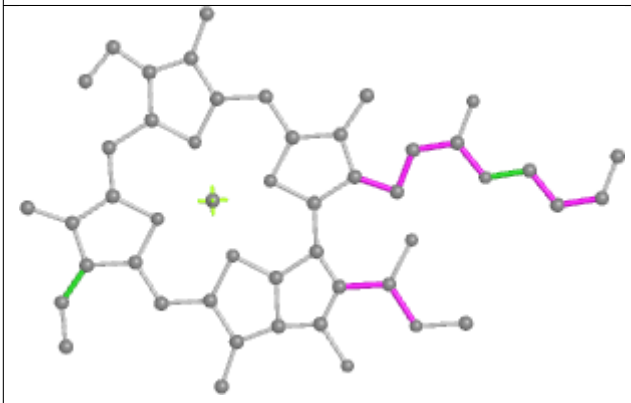


Bond angles



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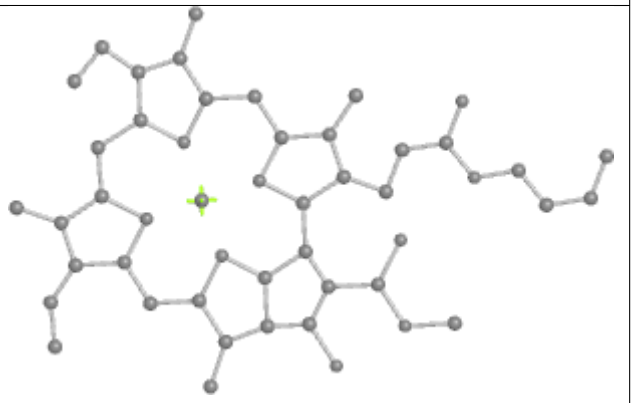
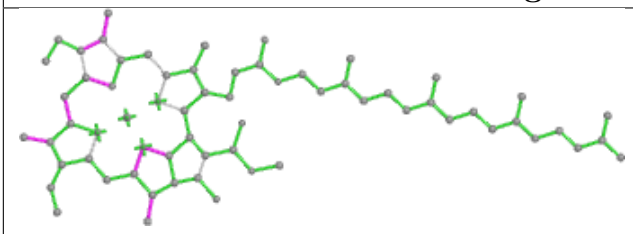


Rings

Ligand CLA B 615



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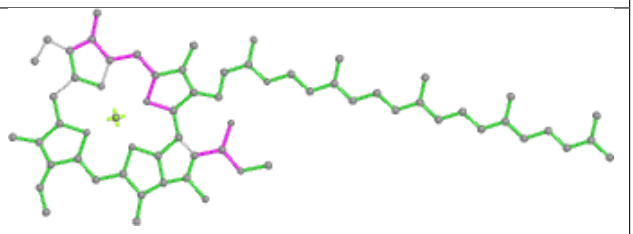

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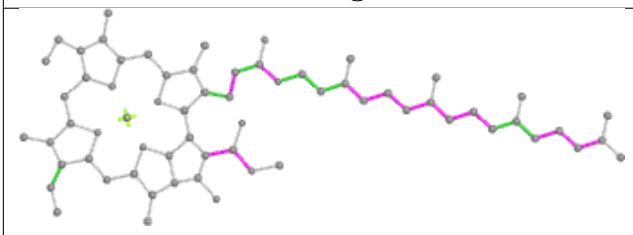

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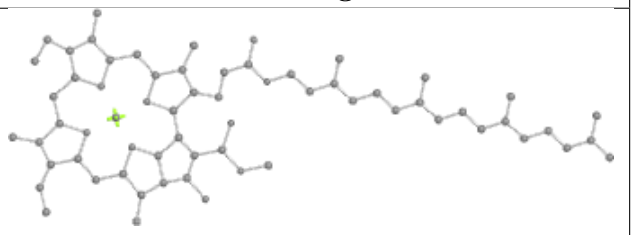
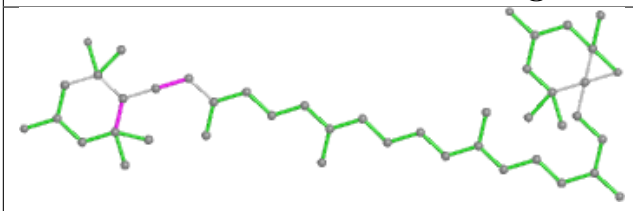


Rings

Ligand NEX r 625



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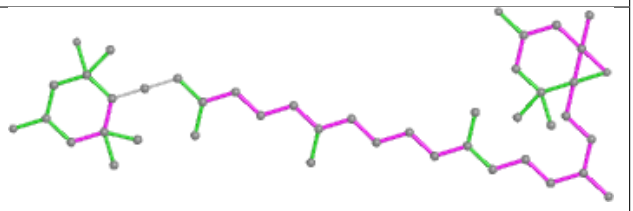
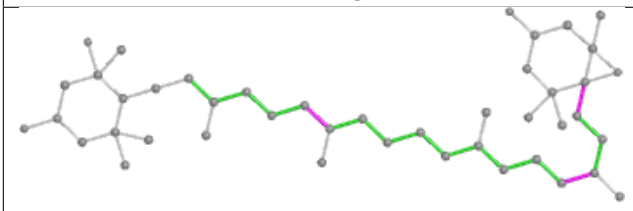


Bond angles



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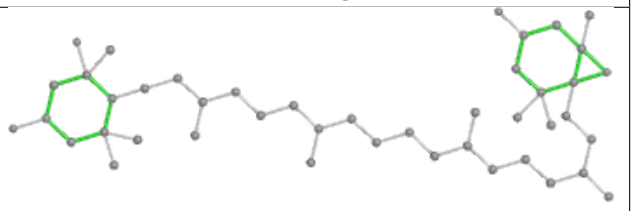
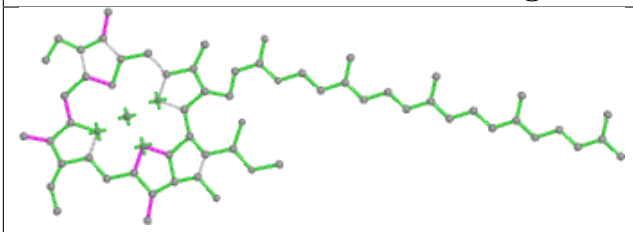


Rings

Ligand CLA N 602



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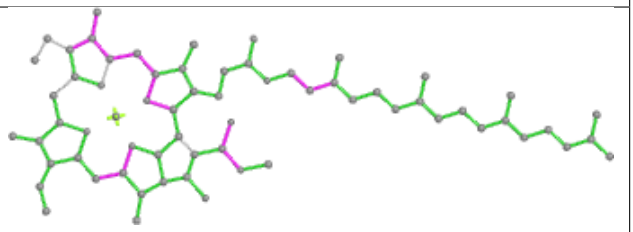

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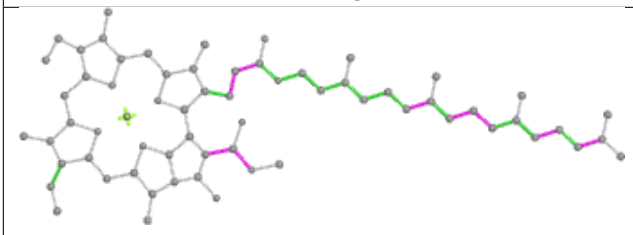

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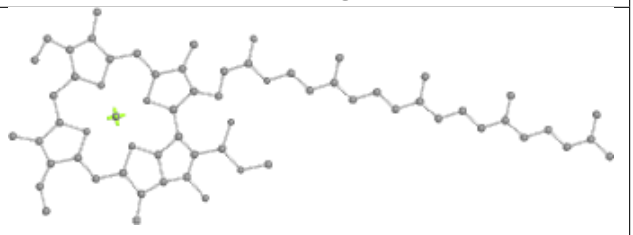
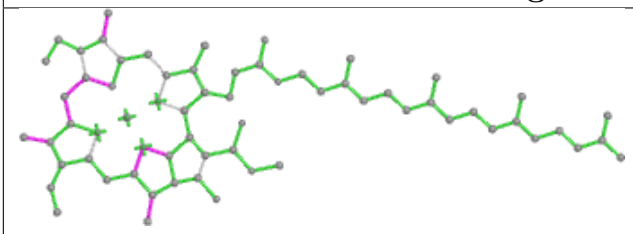


Rings

Ligand CLA b 617



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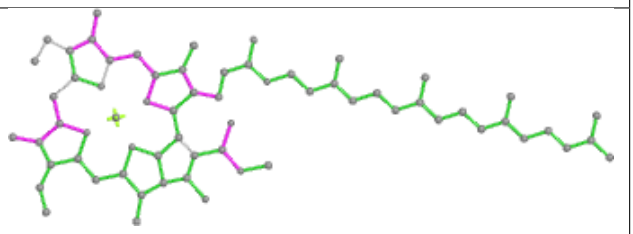
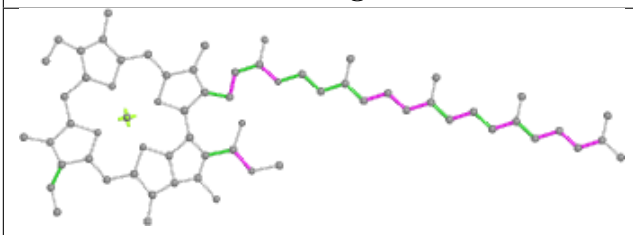


Bond angles



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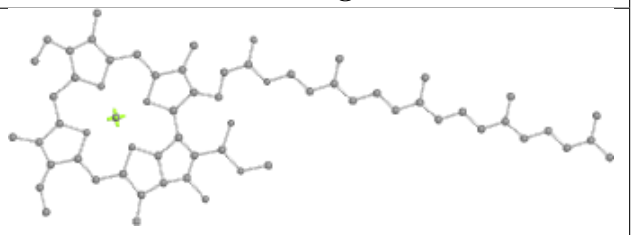
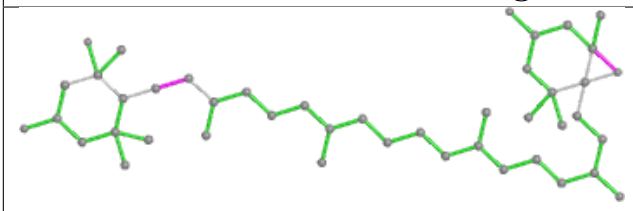


Rings

Ligand NEX Y 1623



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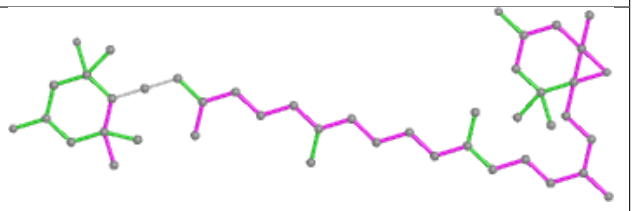

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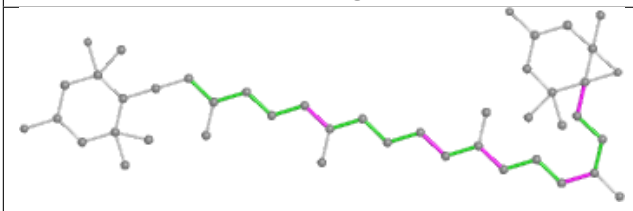

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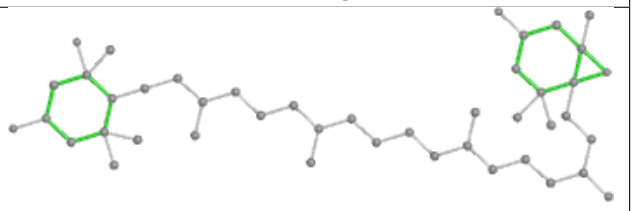
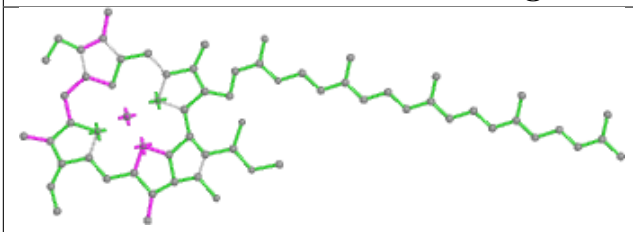


Rings

Ligand CLA C 505



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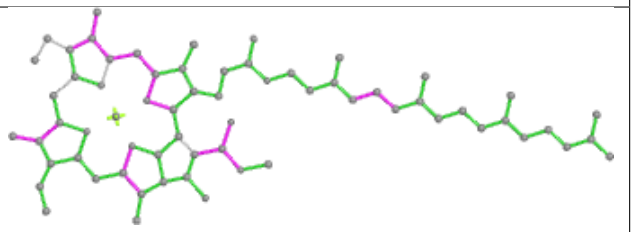
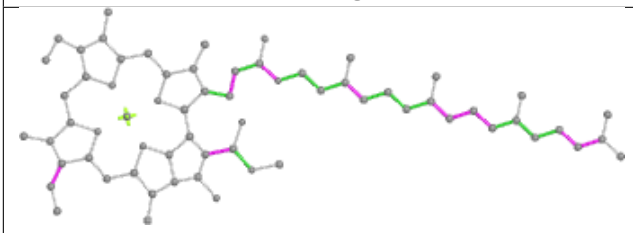


Bond angles



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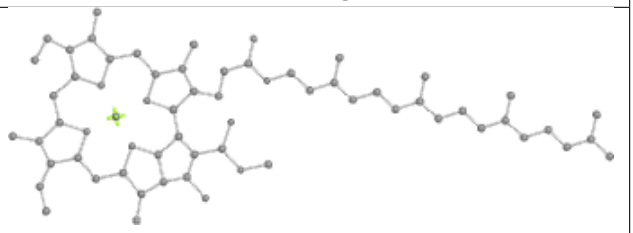
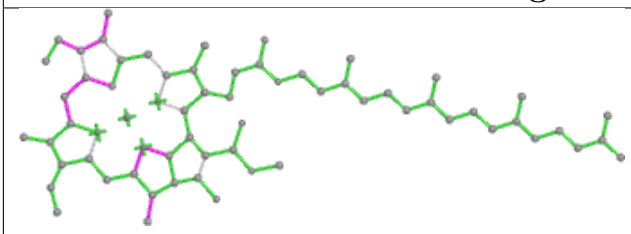


Rings

Ligand CLA c 507



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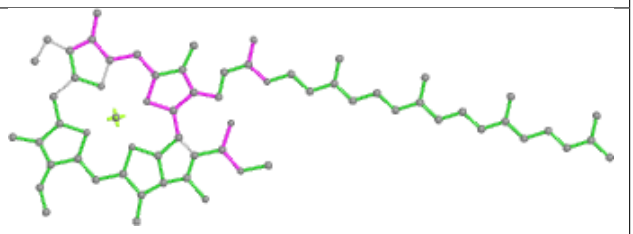
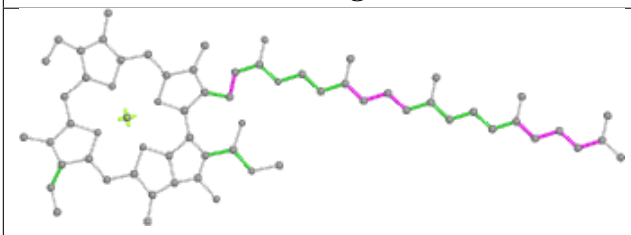


Bond angles



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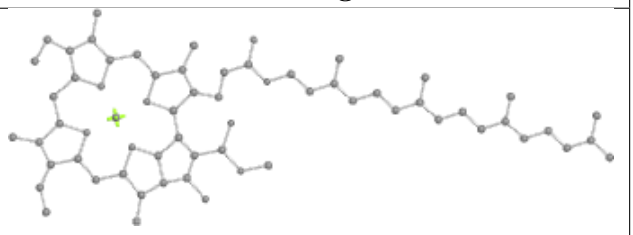
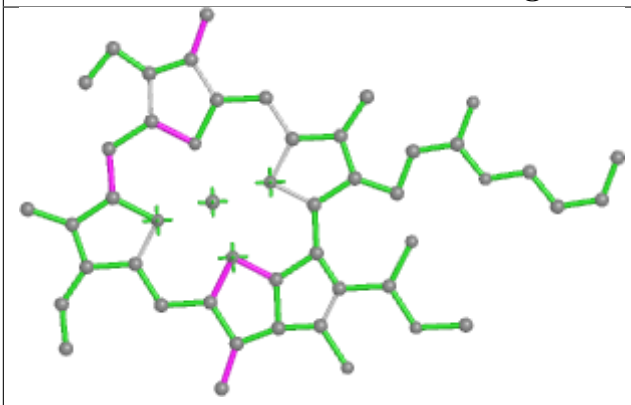


Rings

Ligand CLA R 604



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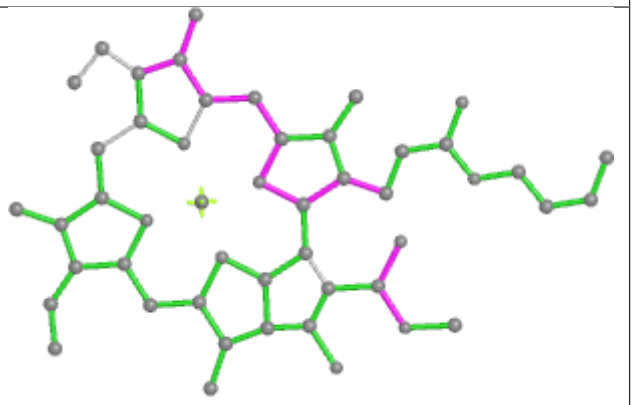
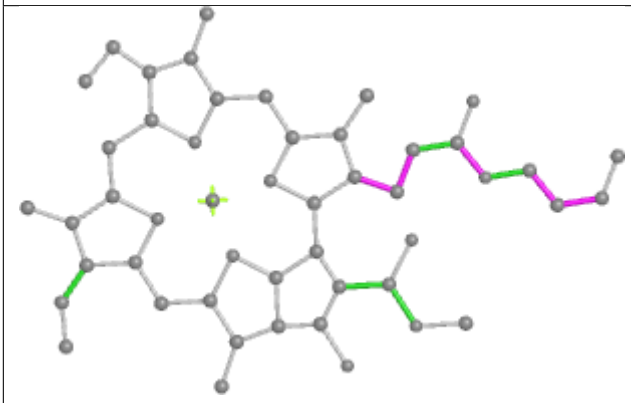


Bond angles



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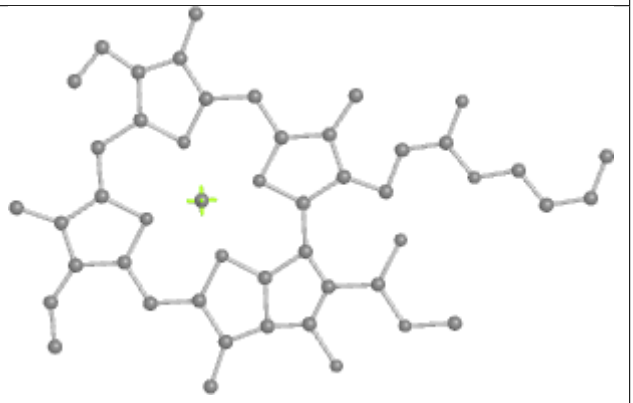
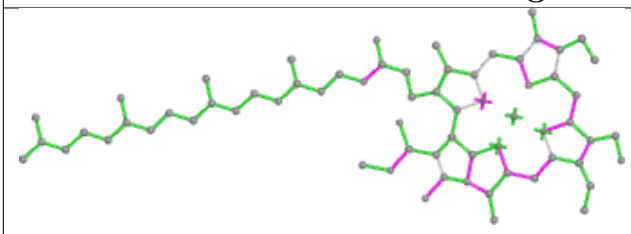
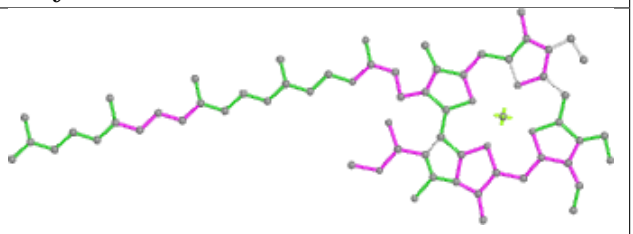


Rings

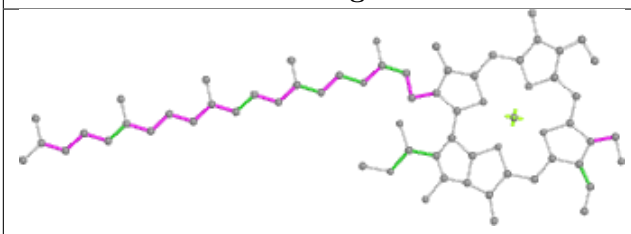
Ligand CHL y 607



Bond lengths



Bond angles



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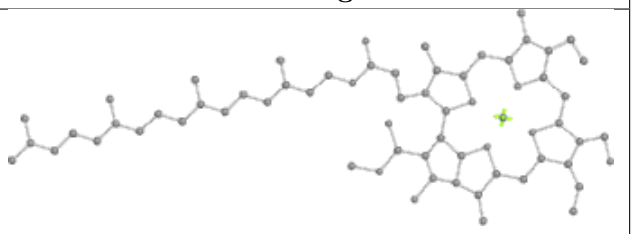
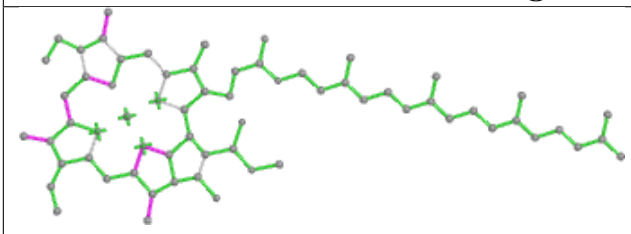
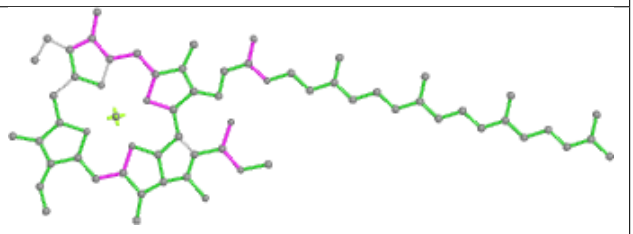


Rings

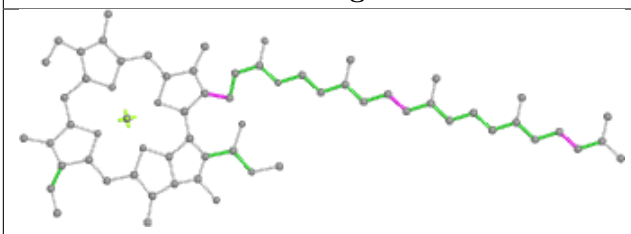
Ligand CLA n 610



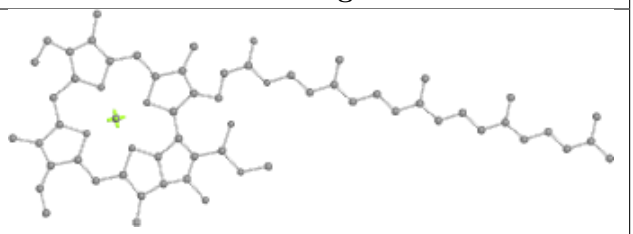
Bond lengths



Bond angles

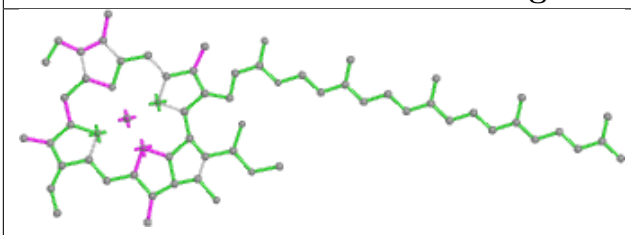


Torsions

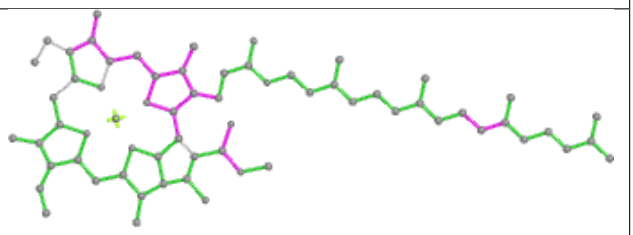


Rings

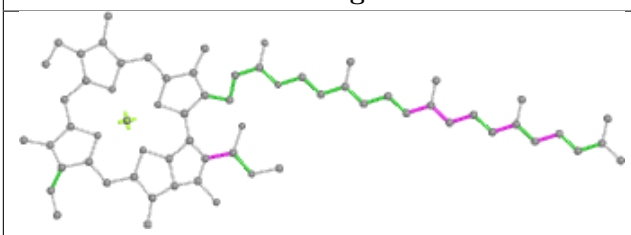
Ligand CLA c 509



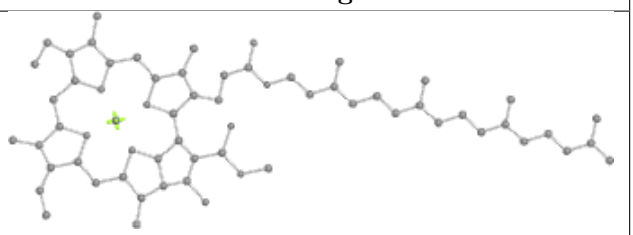
Bond lengths



Bond angles

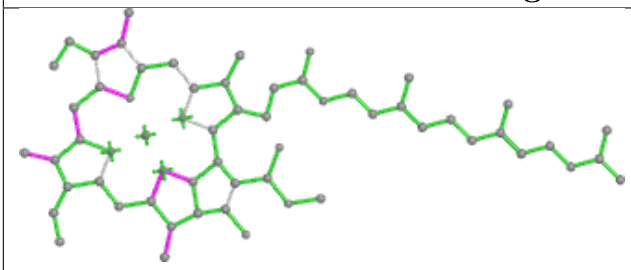


Torsions

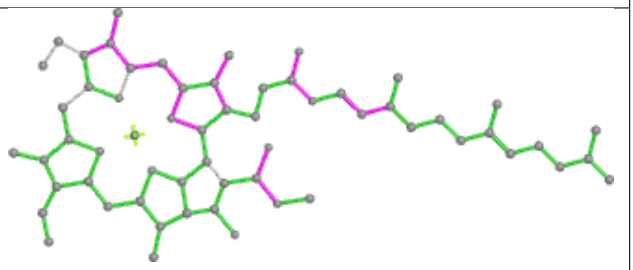


Rings

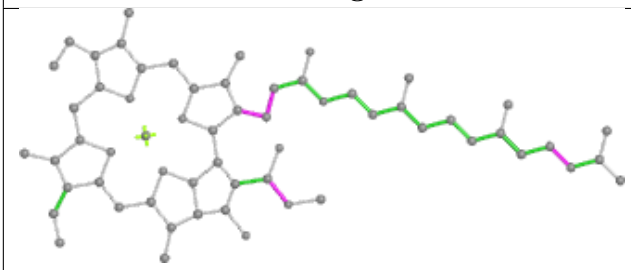
Ligand CLA R 602



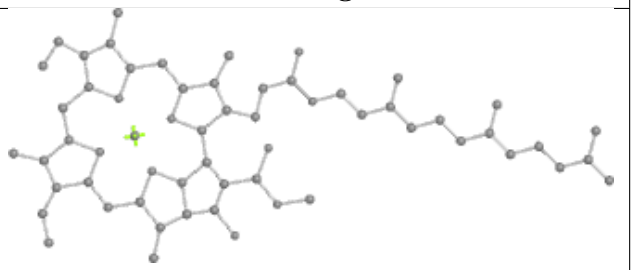
Bond lengths



Bond angles

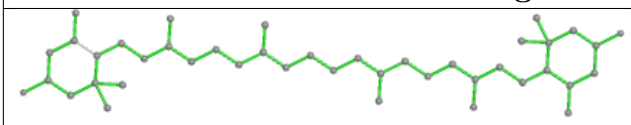


Torsions

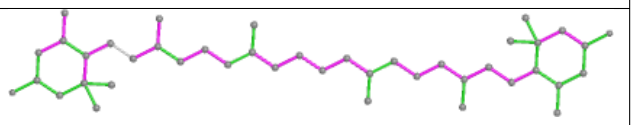


Rings

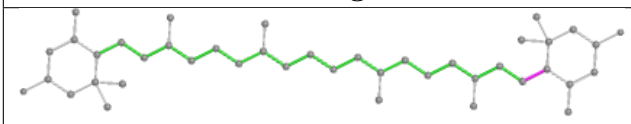
Ligand LUT G 1620



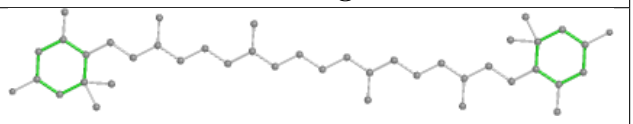
Bond lengths



Bond angles

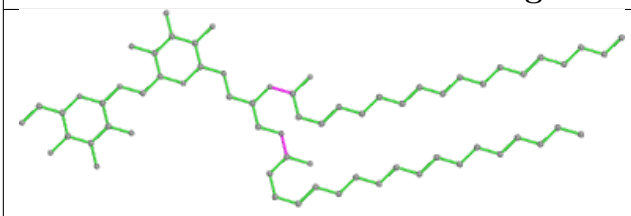


Torsions

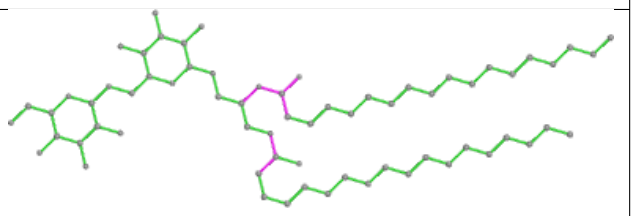


Rings

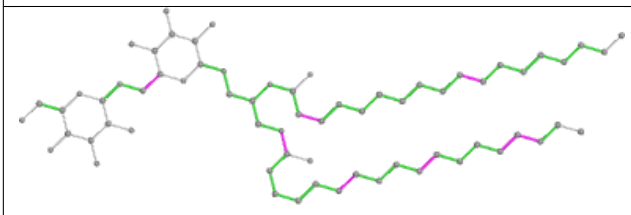
Ligand DGD c 524



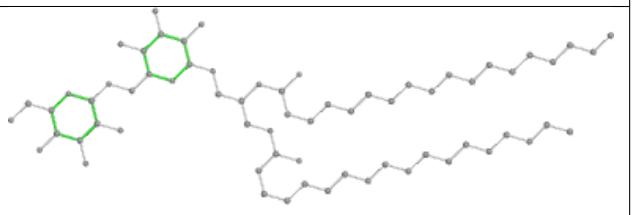
Bond lengths



Bond angles

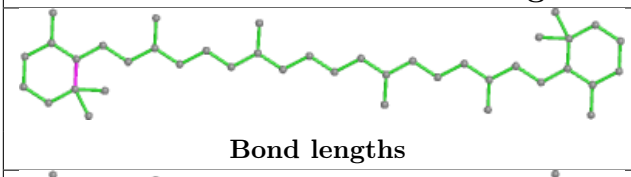


Torsions



Rings

Ligand BCR c 515



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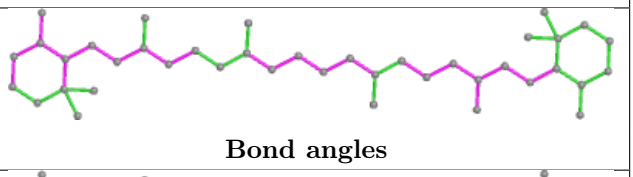
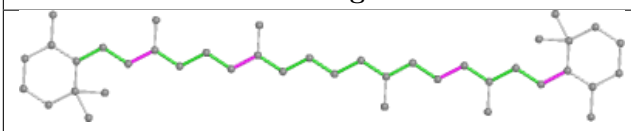
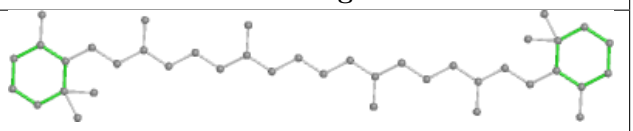


Bond angles

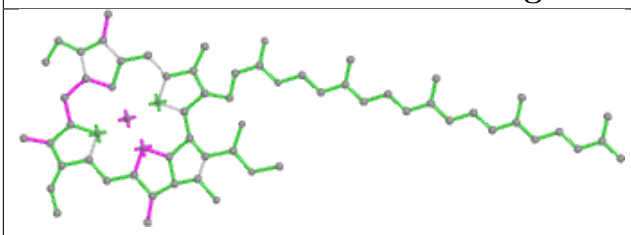


Torsions

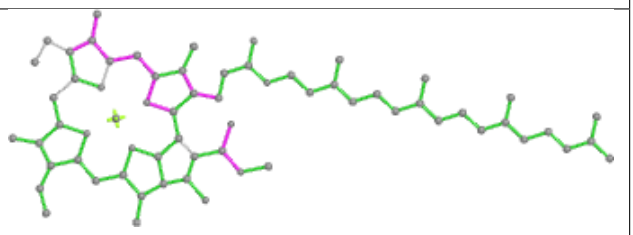


Rings

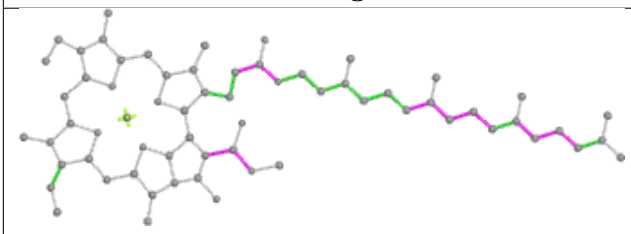
Ligand CLA C 510



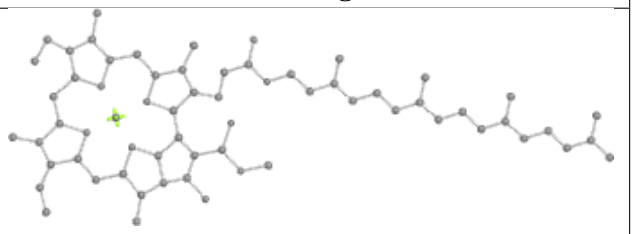
Bond lengths



Bond angles

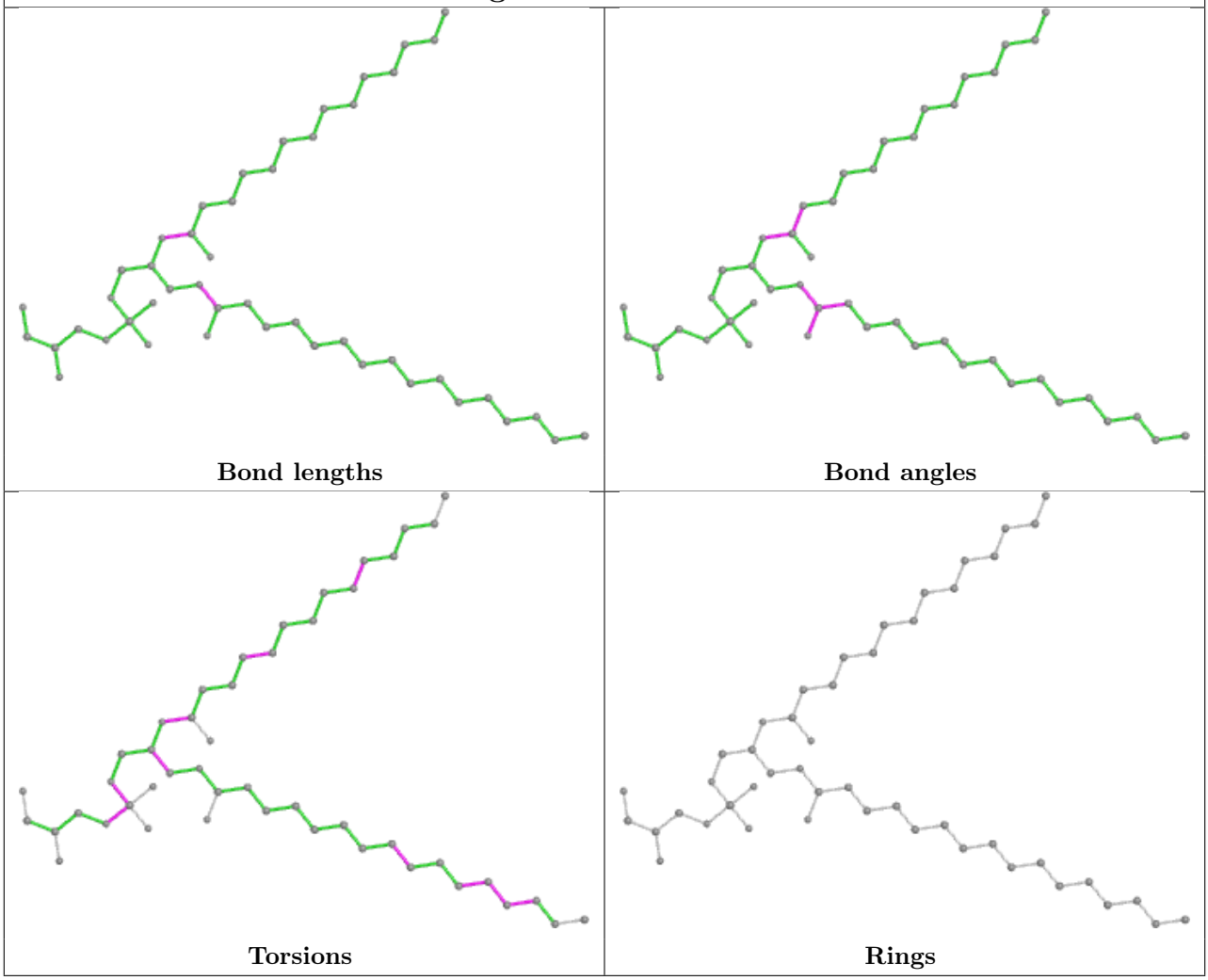


Torsions

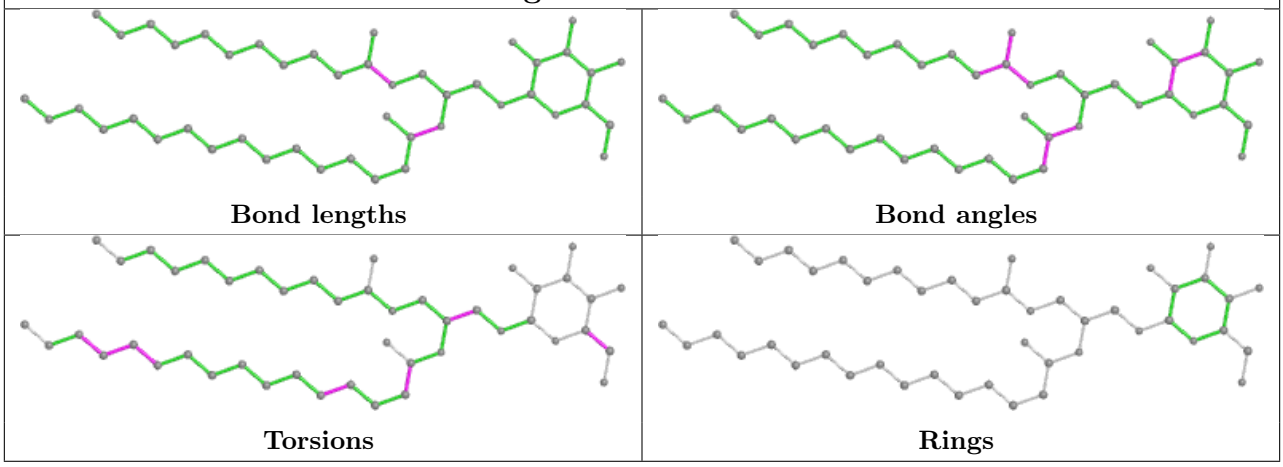


Rings

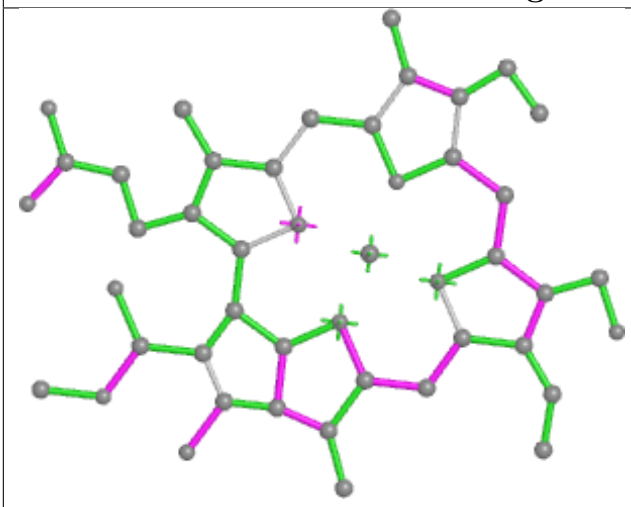
Ligand LHG c 2630



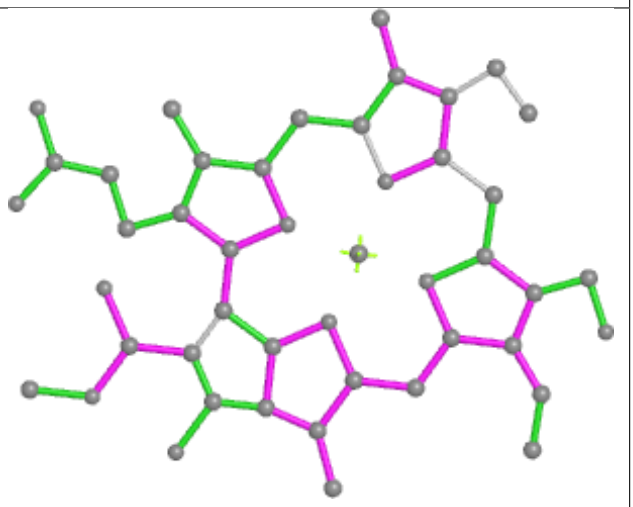
Ligand LMG d 411



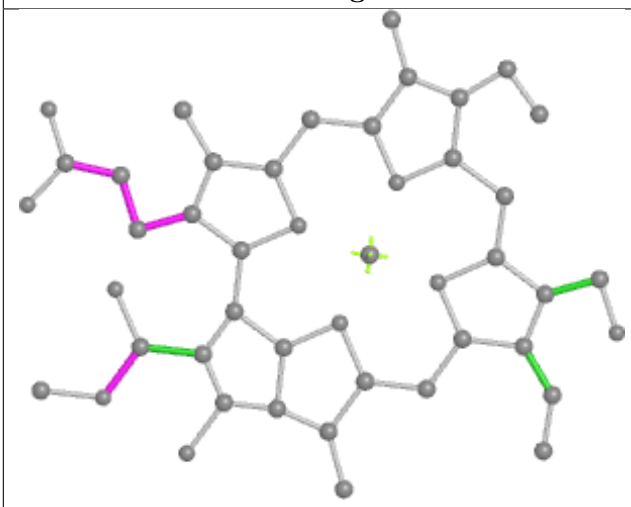
Ligand CHL n 606



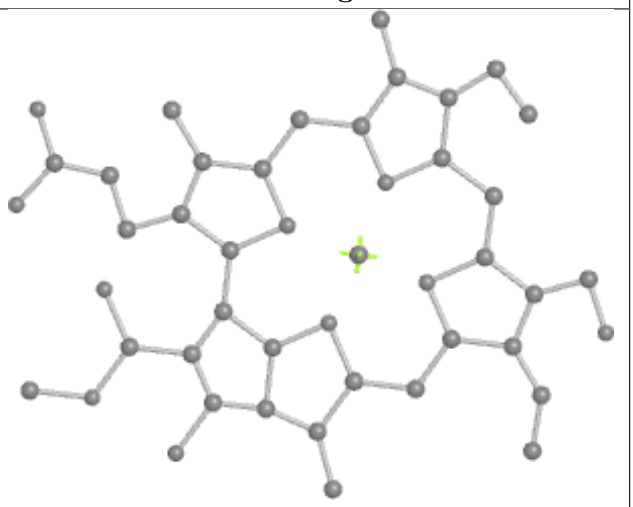
Bond lengths



Bond angles

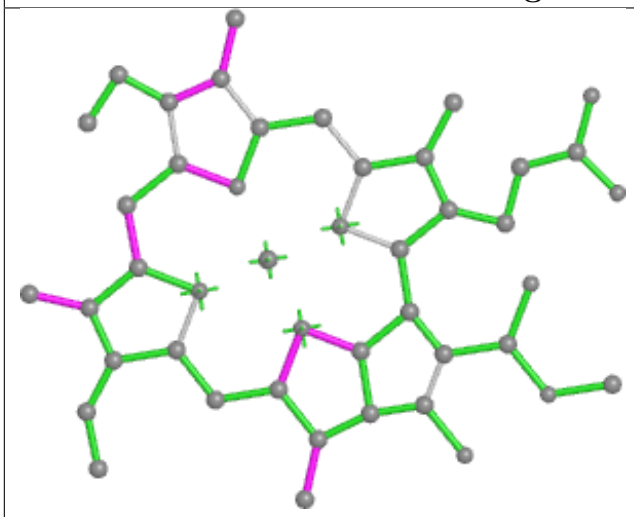


Torsions

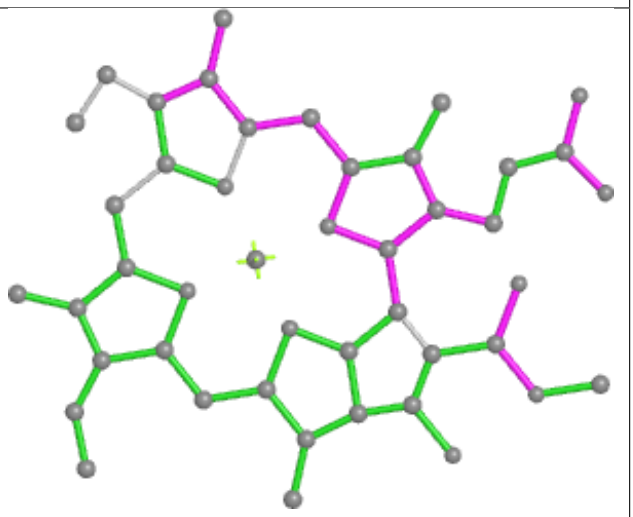


Rings

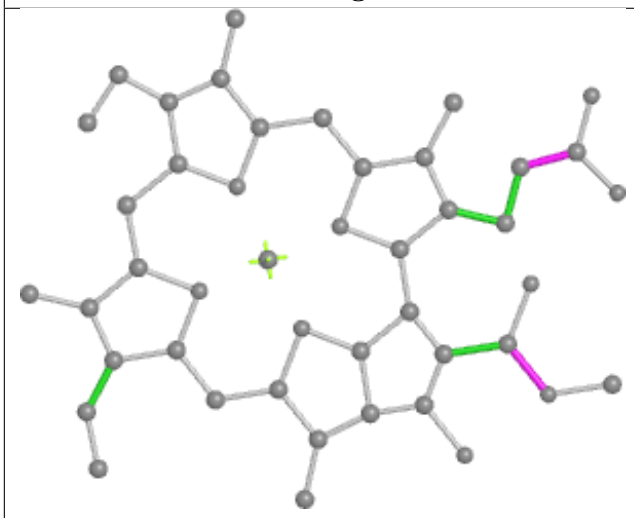
Ligand CLA N 612



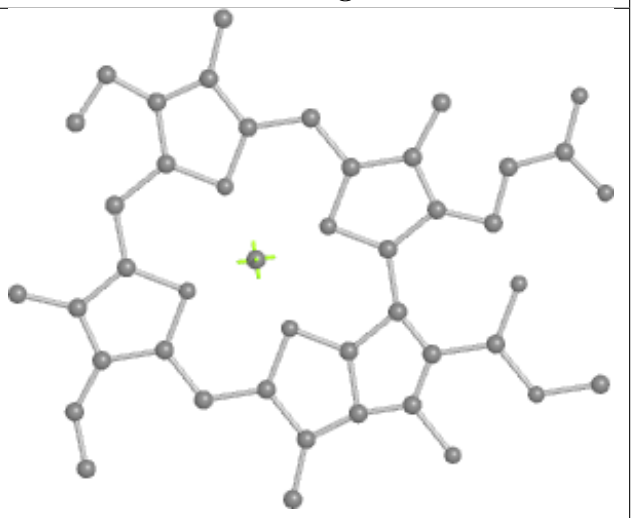
Bond lengths



Bond angles

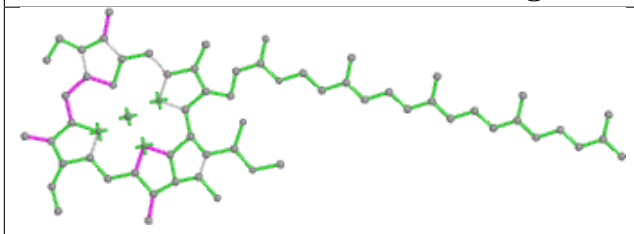


Torsions

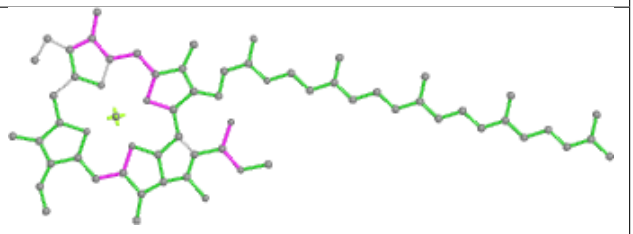


Rings

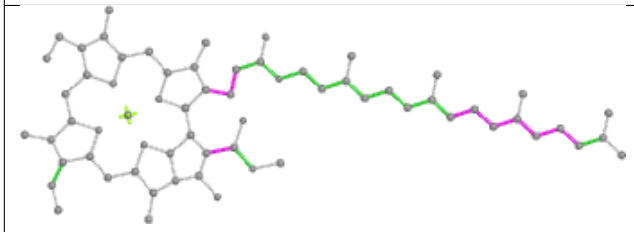
Ligand CLA B 608



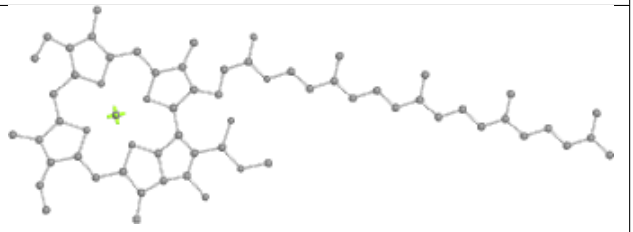
Bond lengths



Bond angles

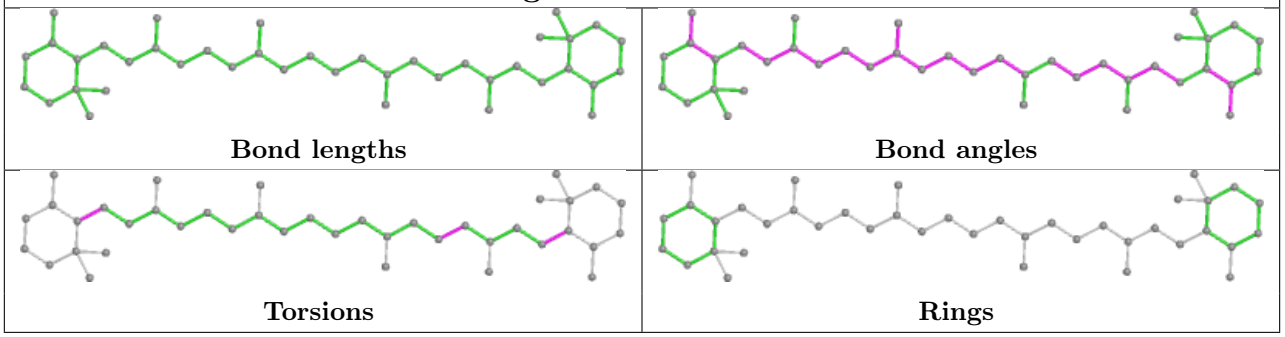


Torsions

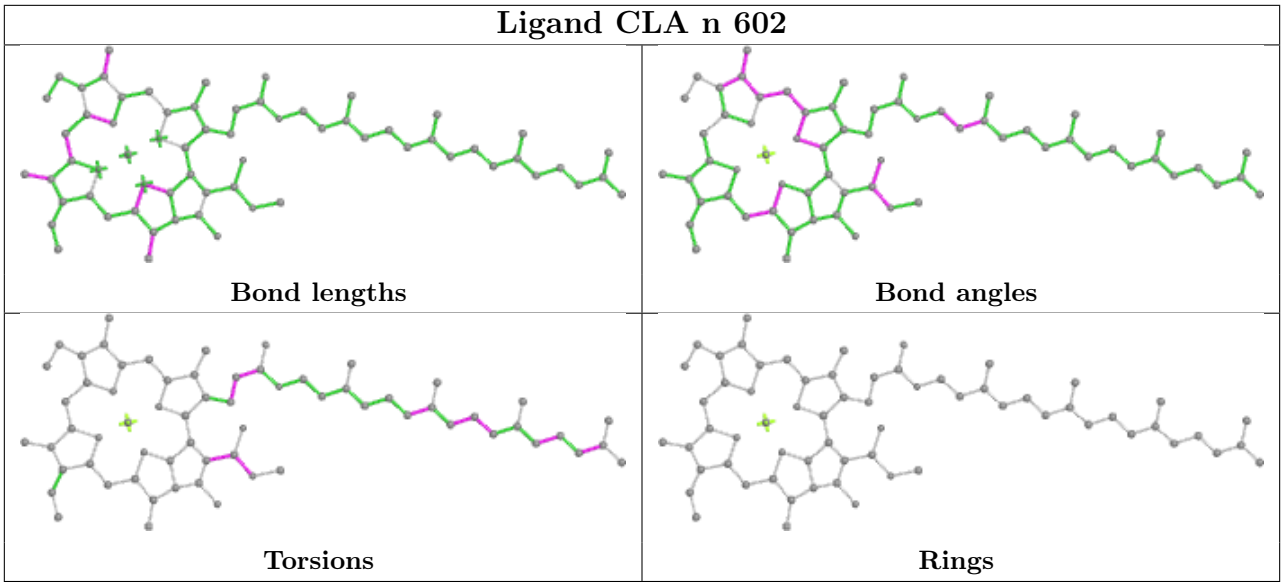


Rings

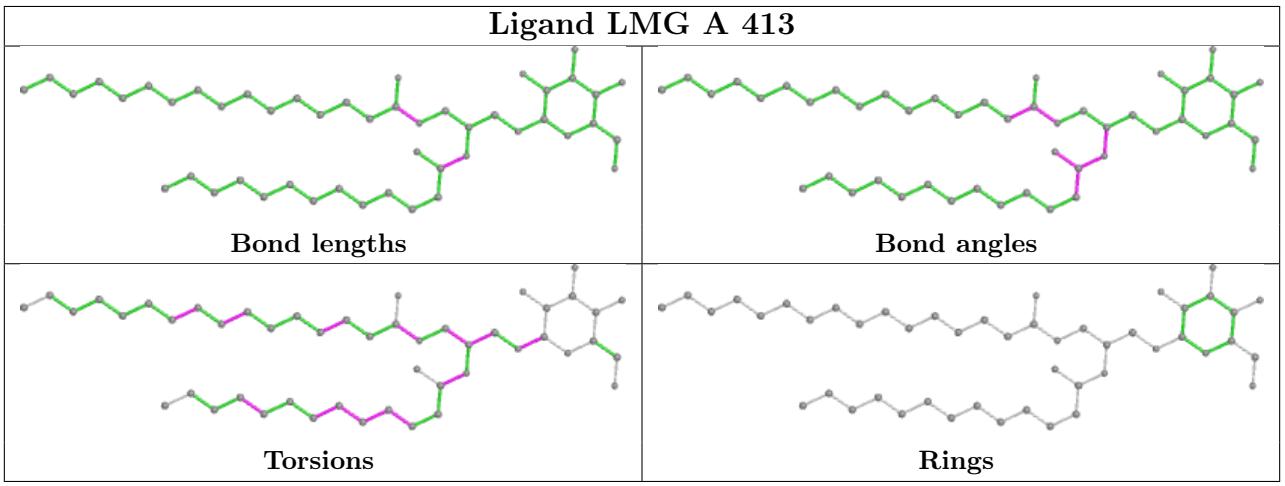
Ligand BCR A 411



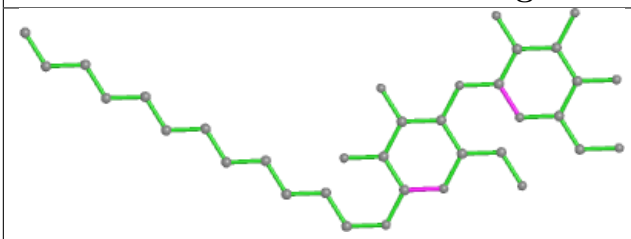
Ligand CLA n 602



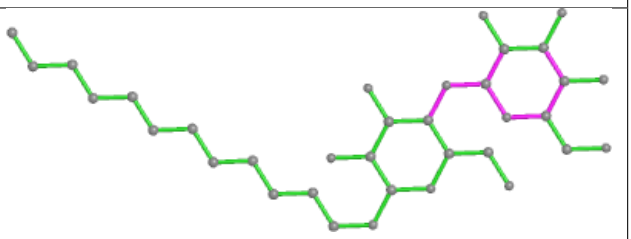
Ligand LMG A 413



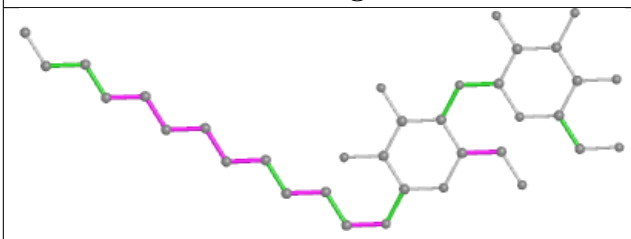
Ligand LMU z 2634



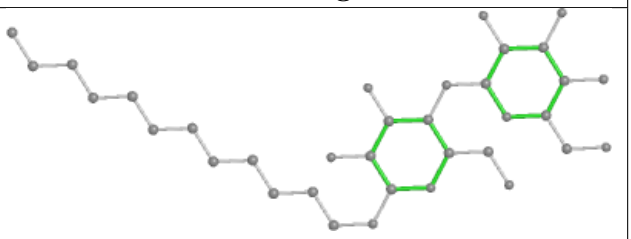
Bond lengths



Bond angles

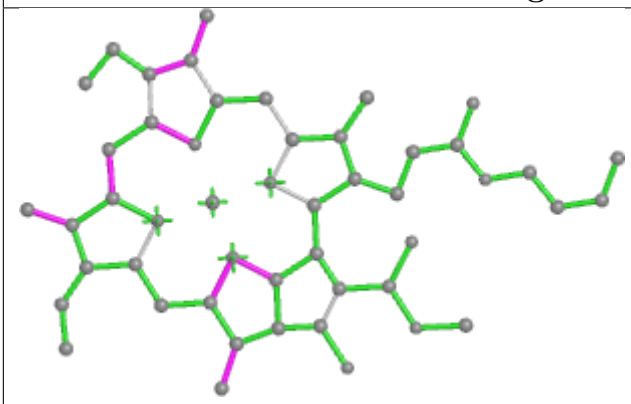


Torsions

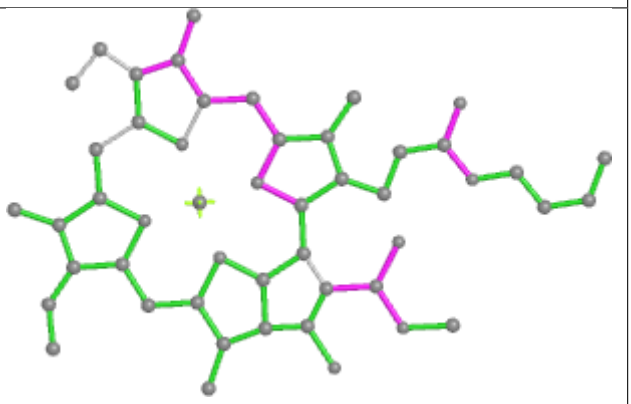


Rings

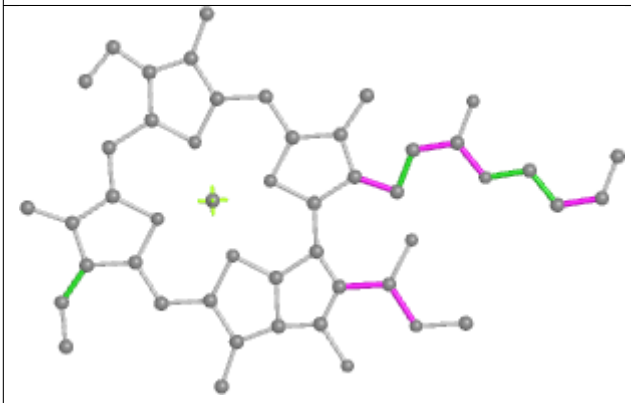
Ligand CLA n 611



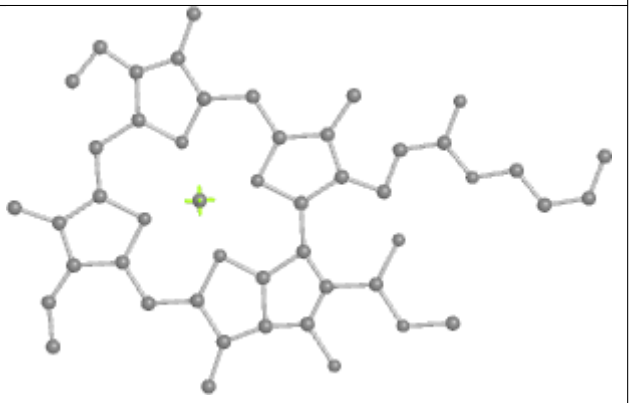
Bond lengths



Bond angles

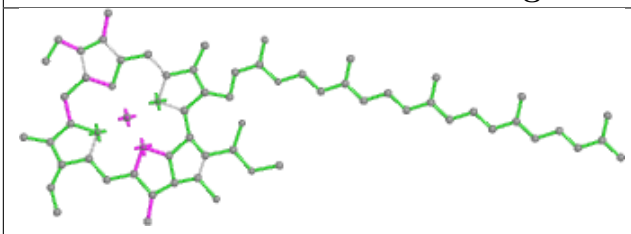


Torsions

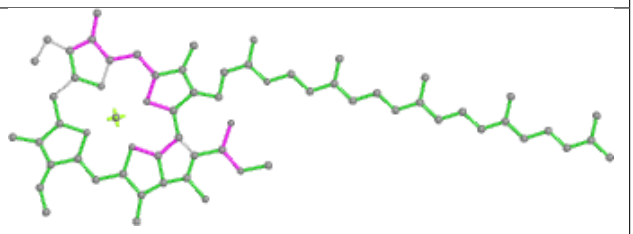


Rings

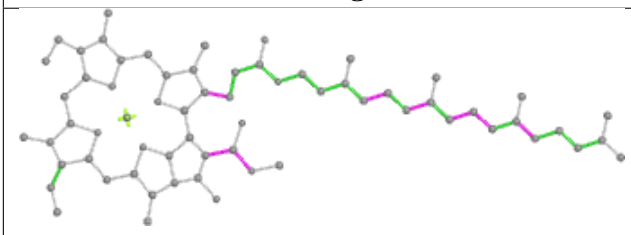
Ligand CLA N 604



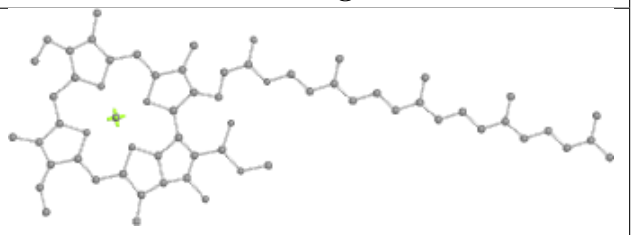
Bond lengths



Bond angles

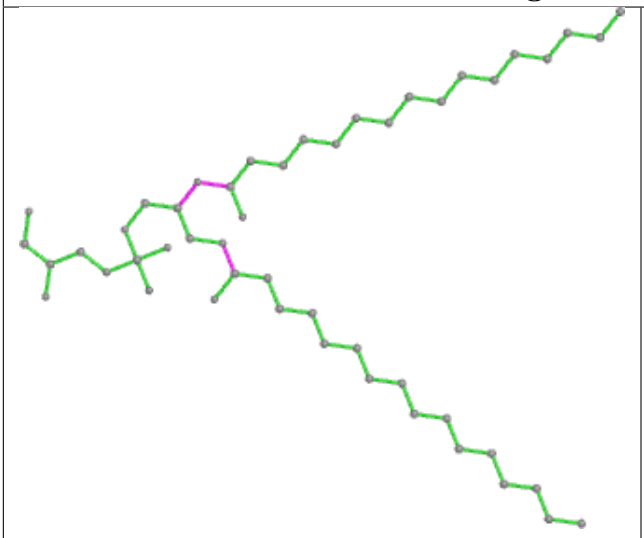


Torsions

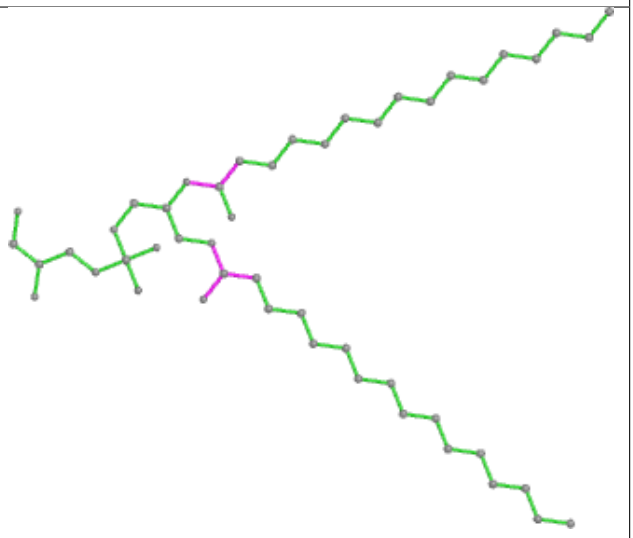


Rings

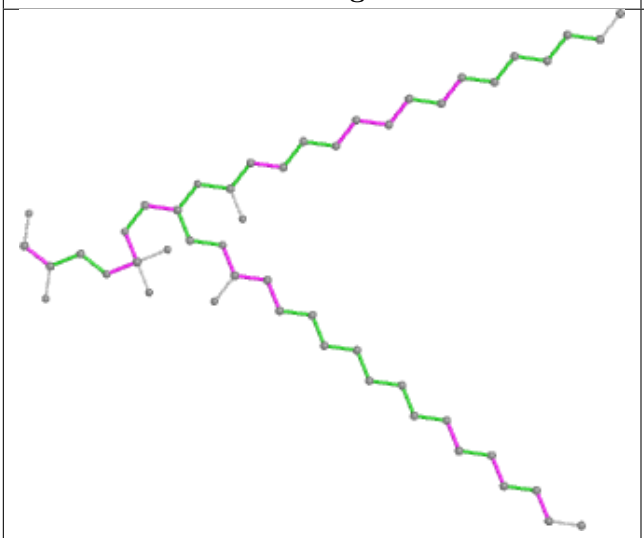
Ligand LHG d 409



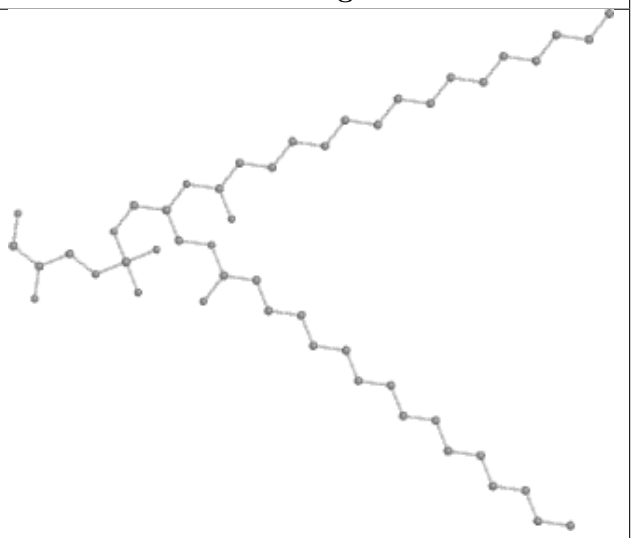
Bond lengths



Bond angles

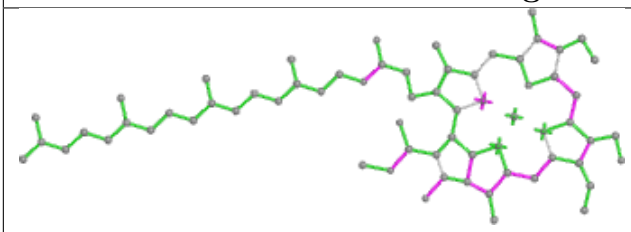


Torsions

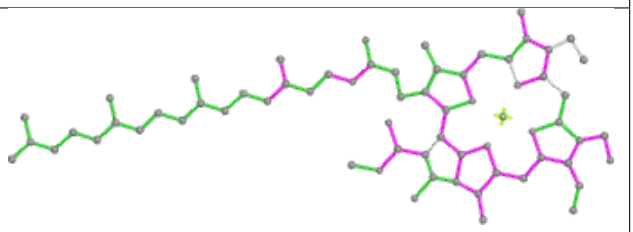


Rings

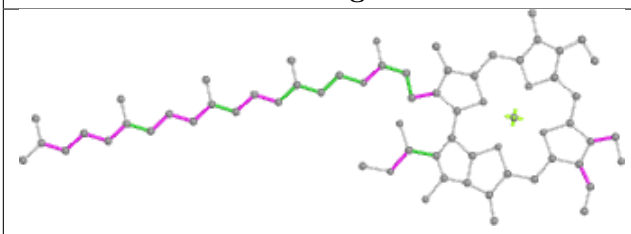
Ligand CHL G 609



Bond lengths



Bond angles



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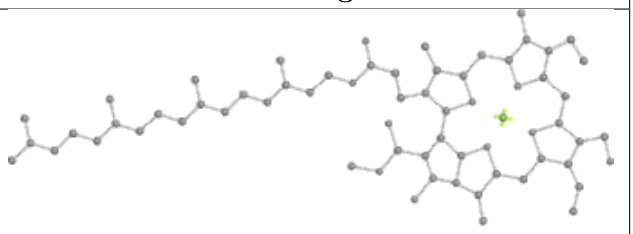
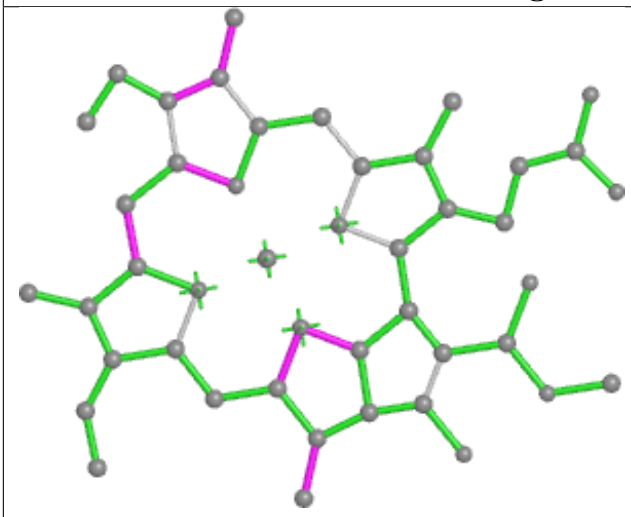


Rings

Ligand CLA g 611



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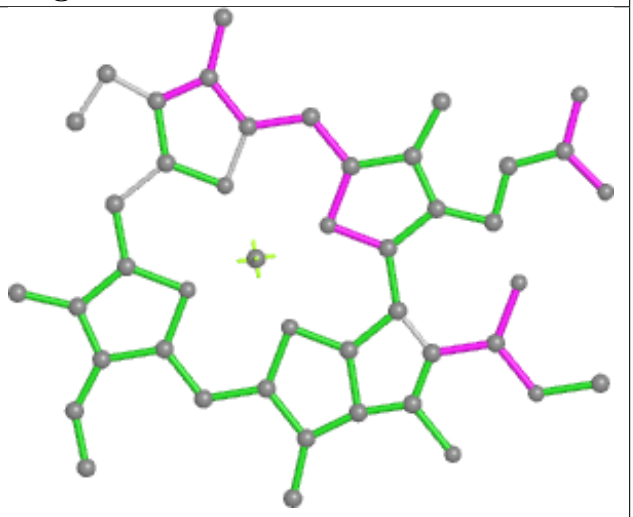
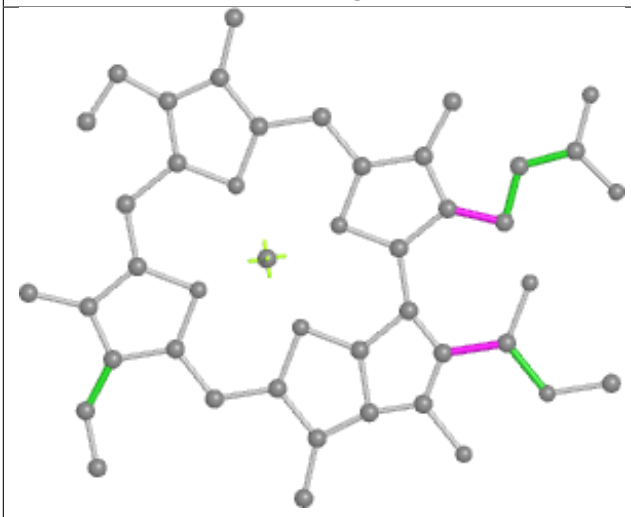


Bond angles



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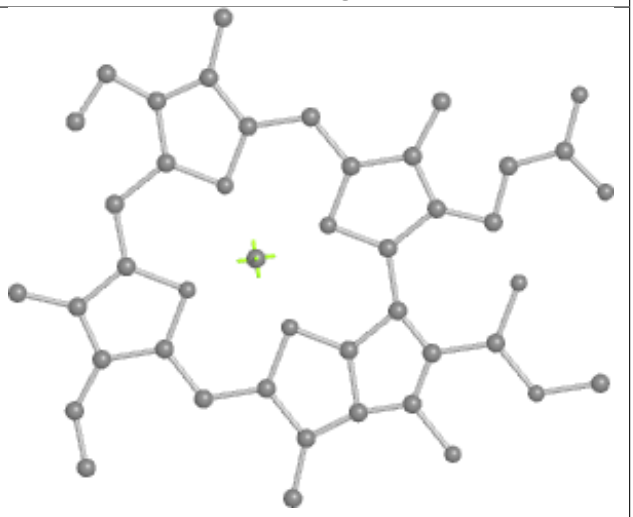
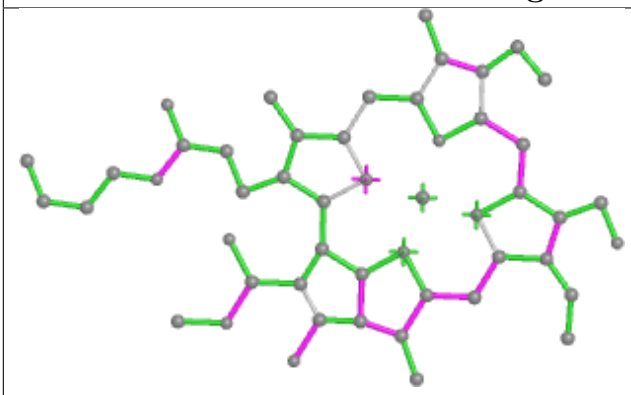


Rings

Ligand CHL n 608



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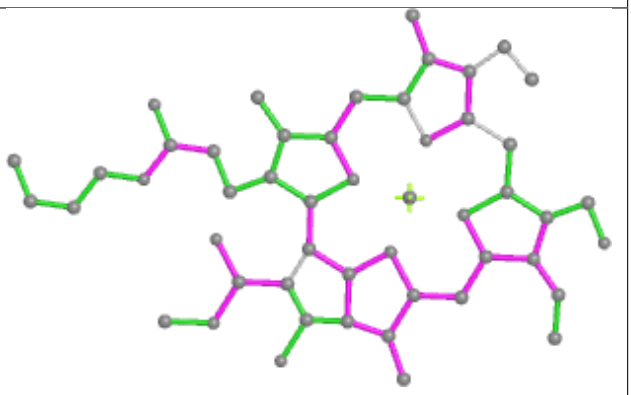

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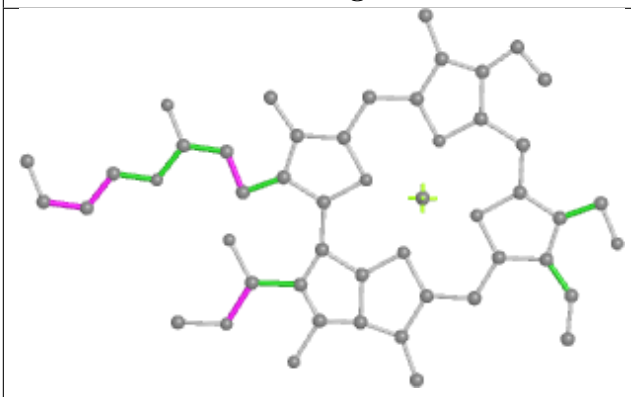

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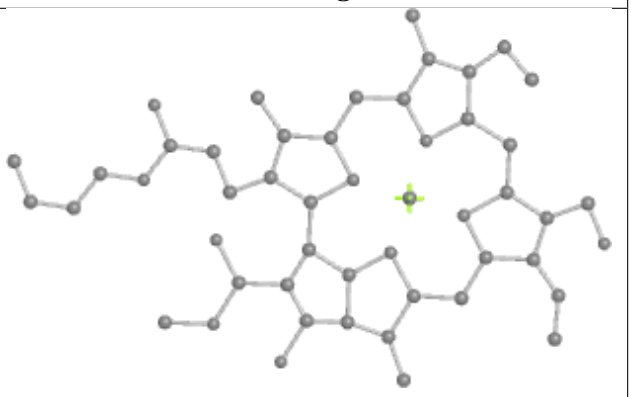
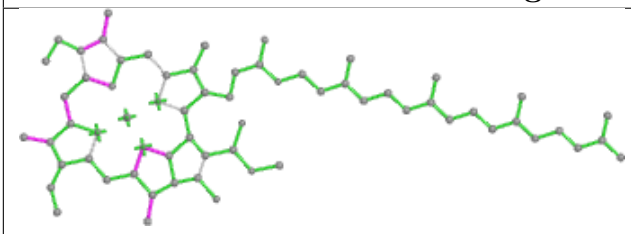


Rings

Ligand CLA C 503



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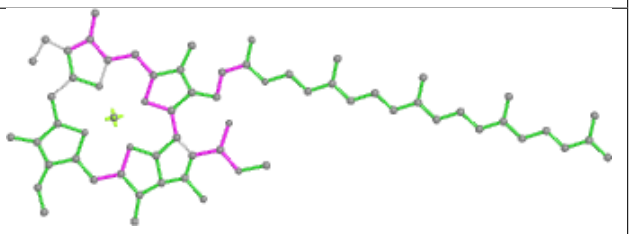
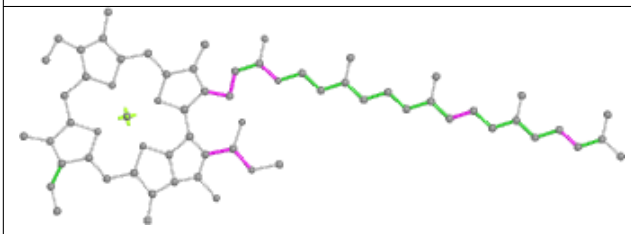


Bond angles



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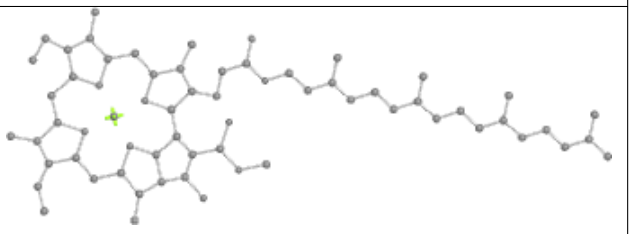
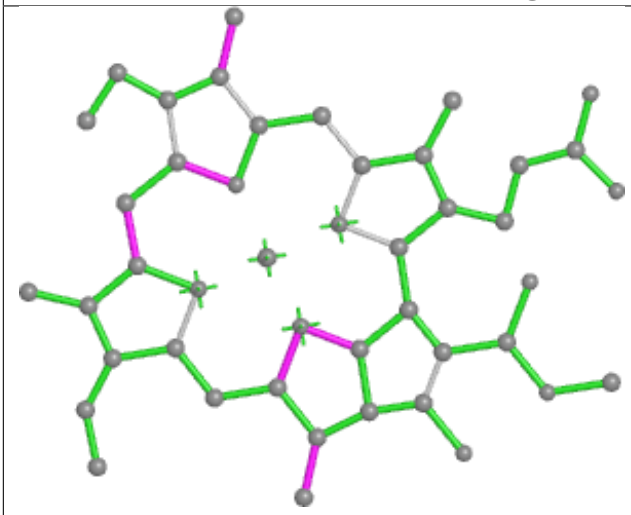


Rings

Ligand CLA R 609



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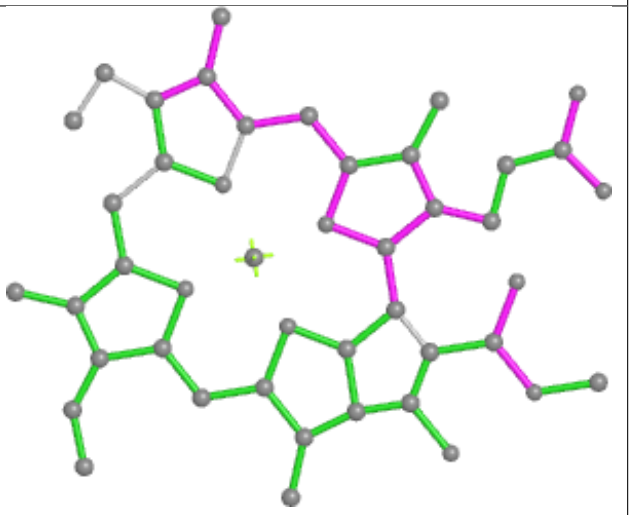
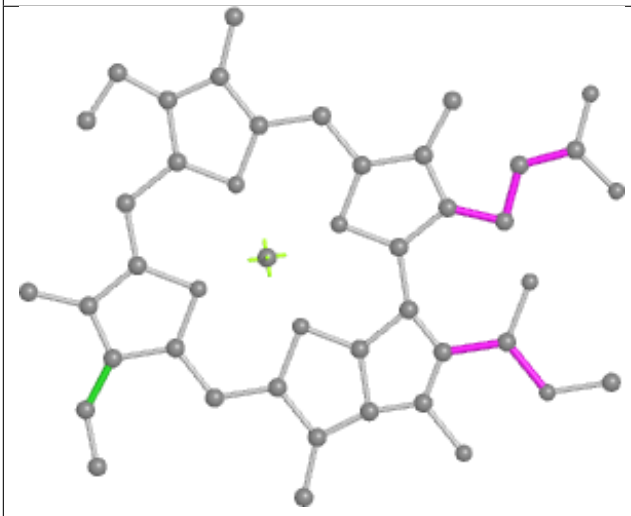


Bond angles



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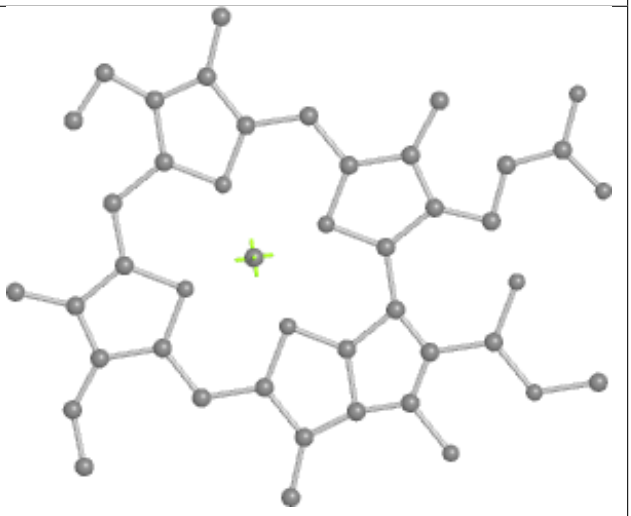
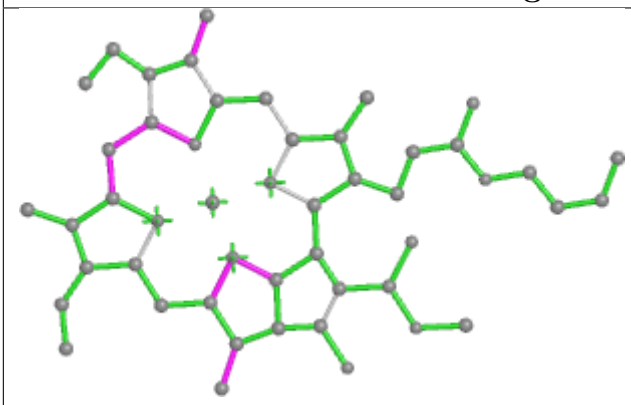
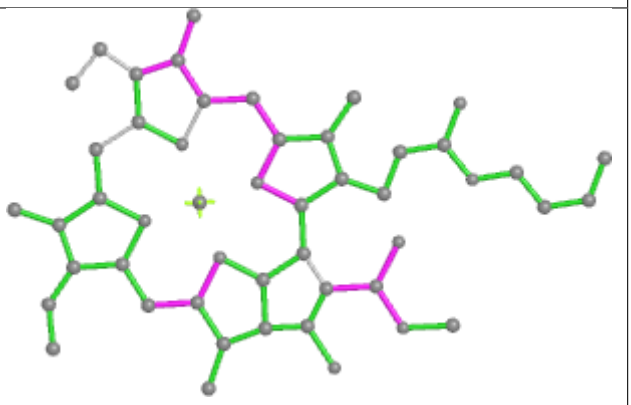
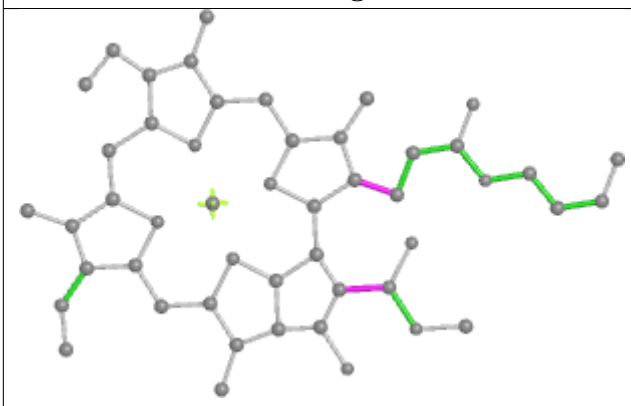
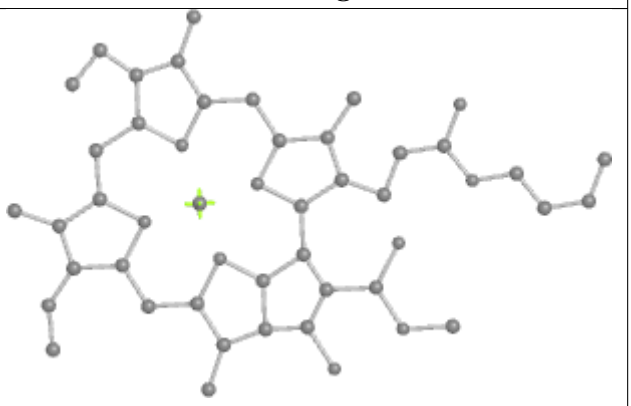
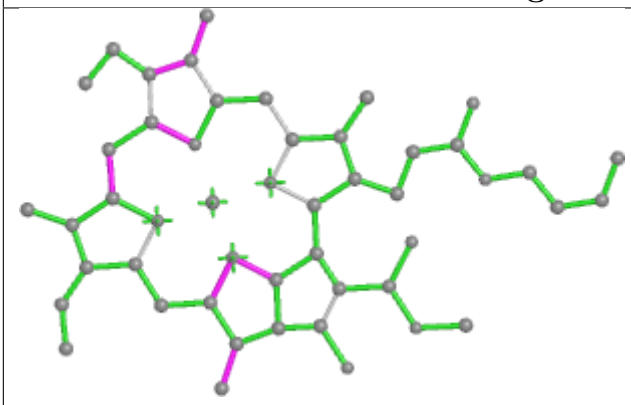


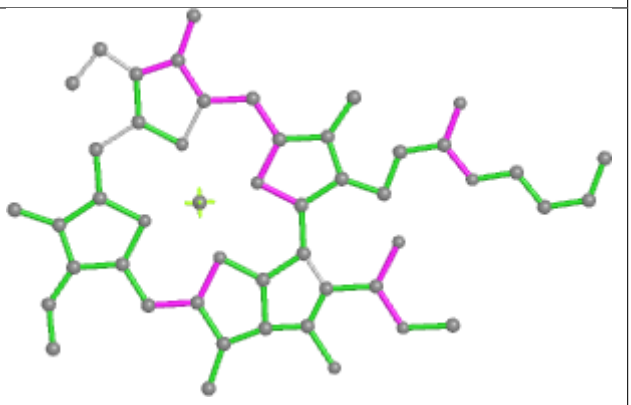
Rings

Ligand CLA A 407	
	
Bond lengths	**Bond angles**
	
Torsions	**Rings**

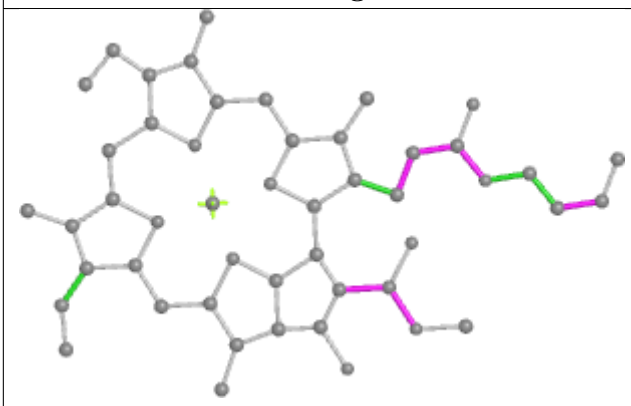
Ligand CLA n 614



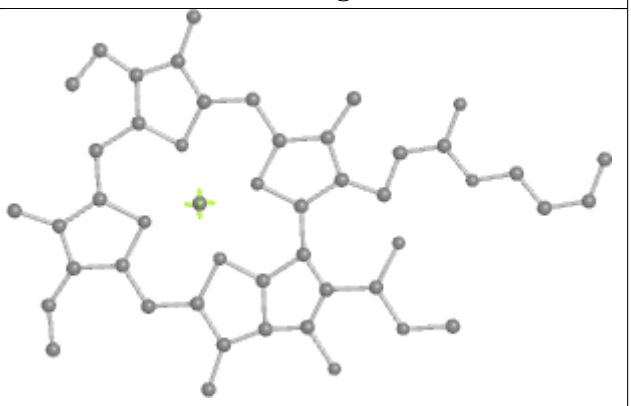
Bond lengths



Bond angles

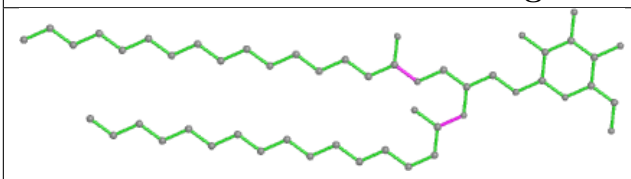


Torsions



Rings

Ligand LMG c 521



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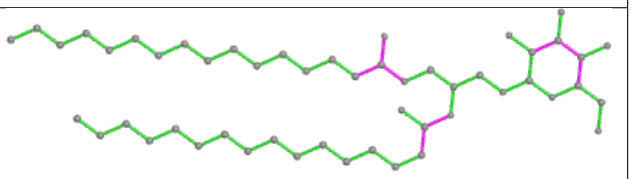
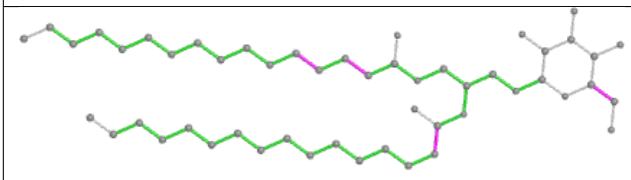


Bond angles



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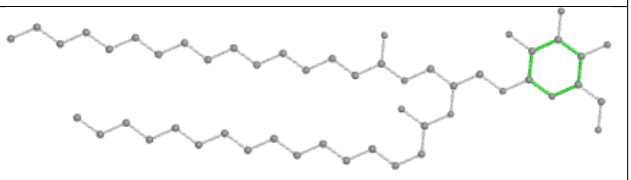
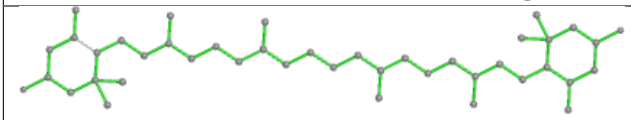


Rings

Ligand LUT n 1621



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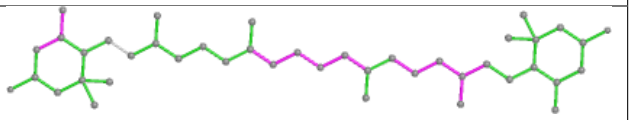
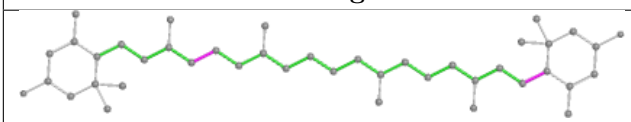


Bond angles



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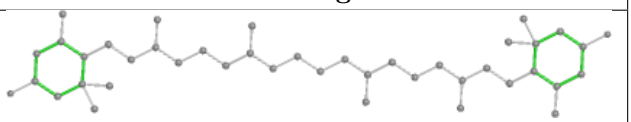
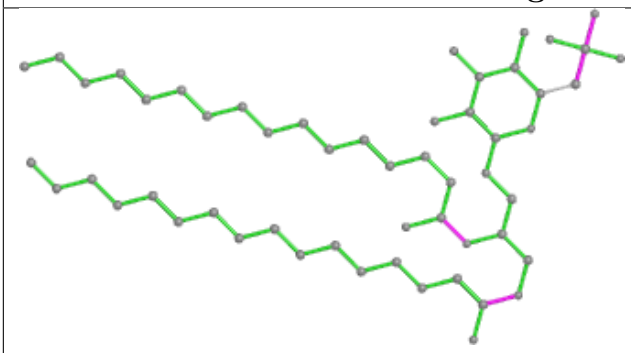


Rings

Ligand SQD b 621



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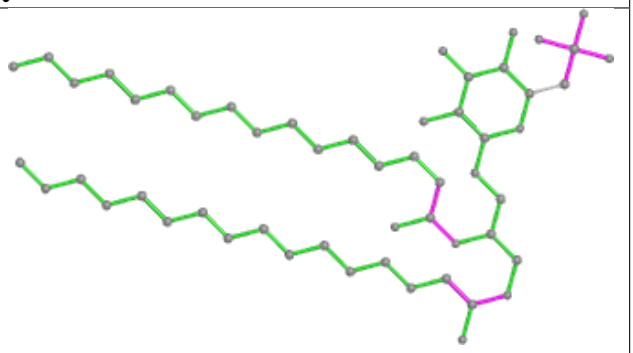
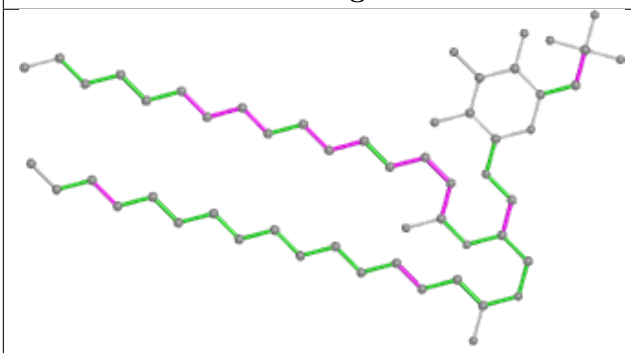


Bond angles



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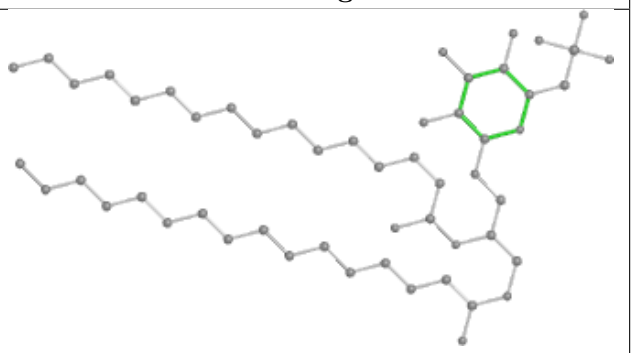
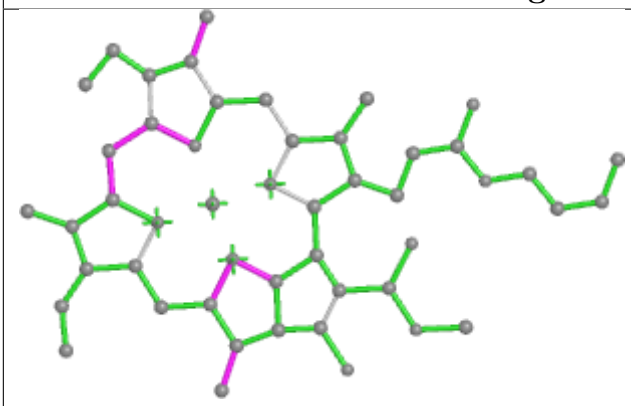


Rings

Ligand CLA a 407



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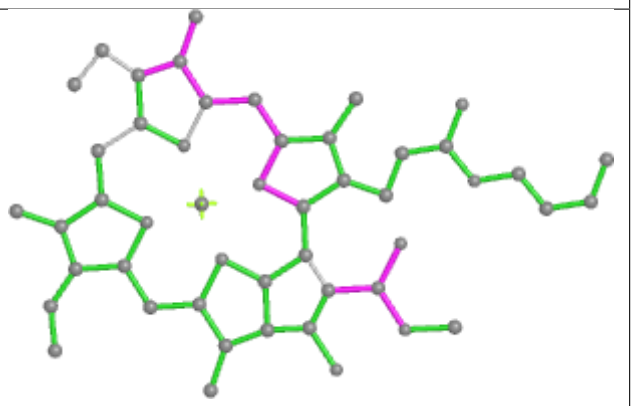
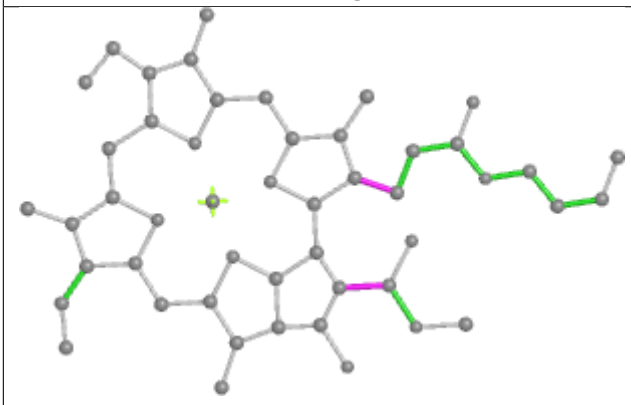
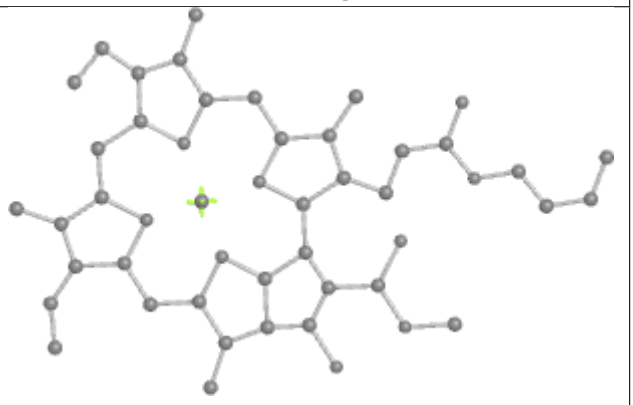


Bond angles

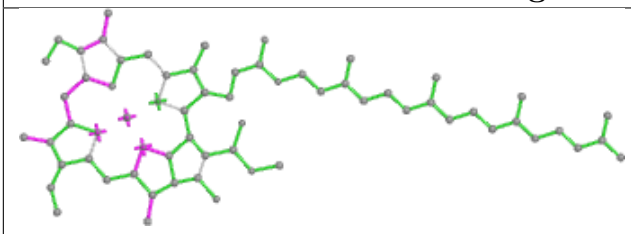


Torsions



Rings

Ligand CLA g 613



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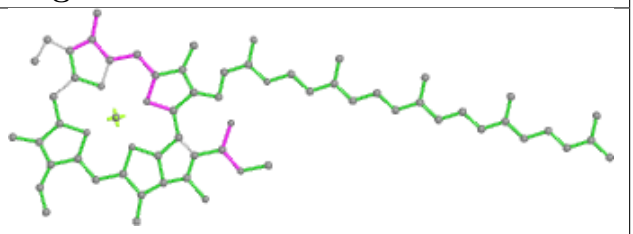
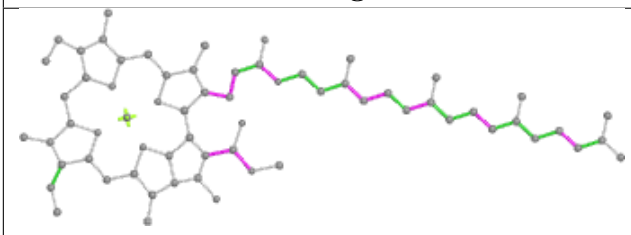


Bond angles



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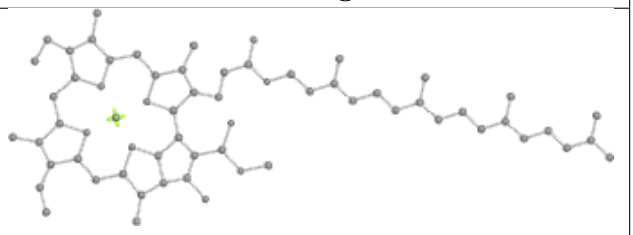
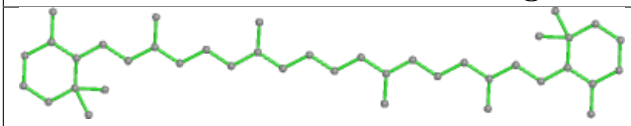


Rings

Ligand BCR B 618



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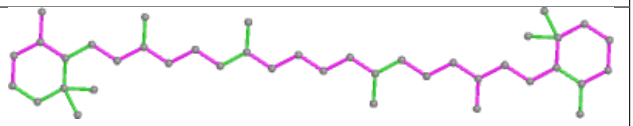
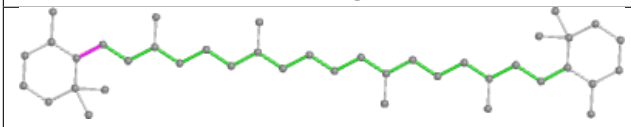


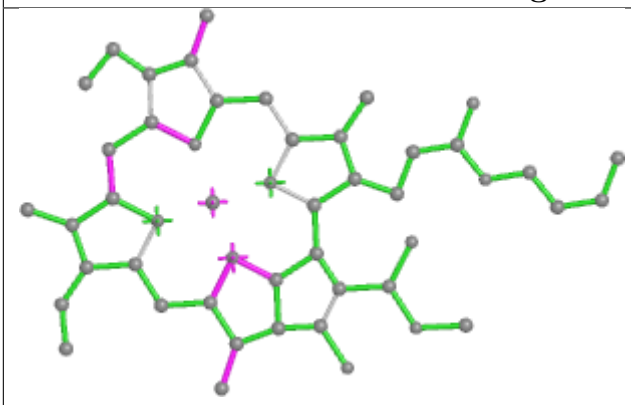
Bond angles



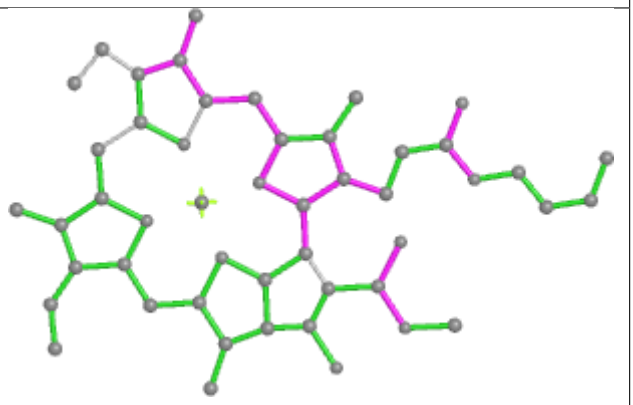
Torsions

Rings

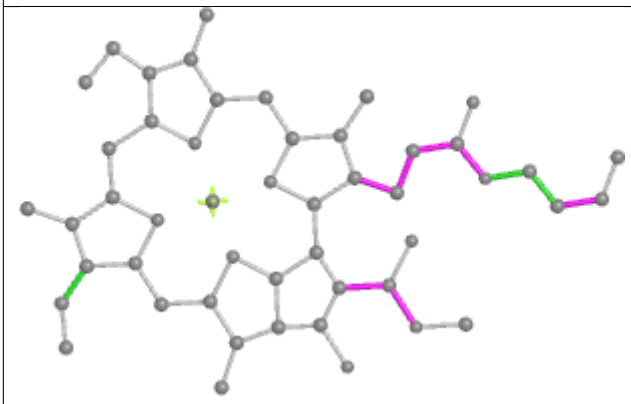
Ligand CLA r 603



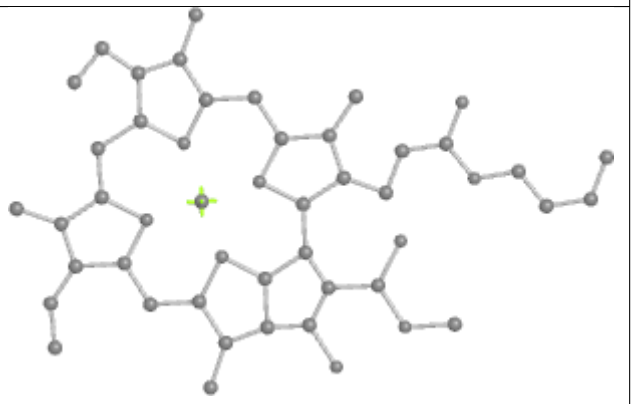
Bond lengths



Bond angles

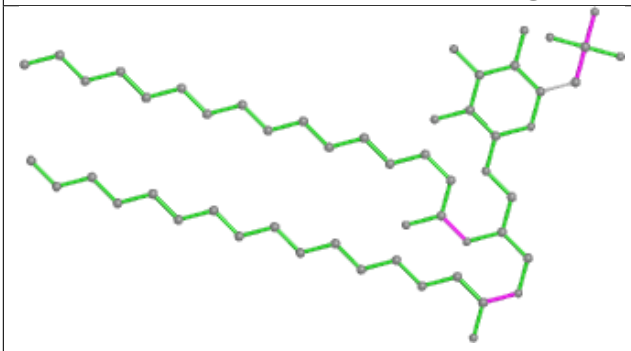


Torsions

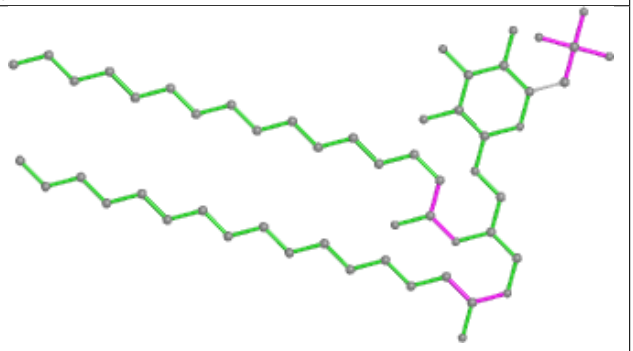


Rings

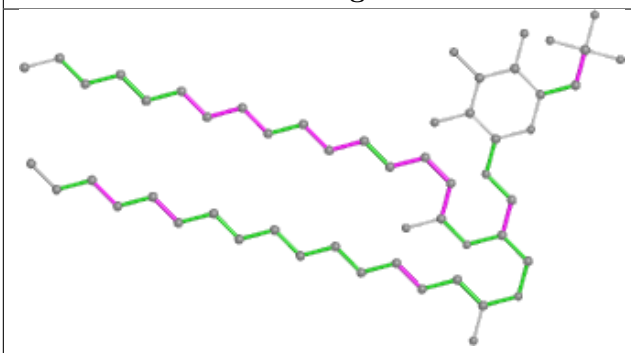
Ligand SQD B 621



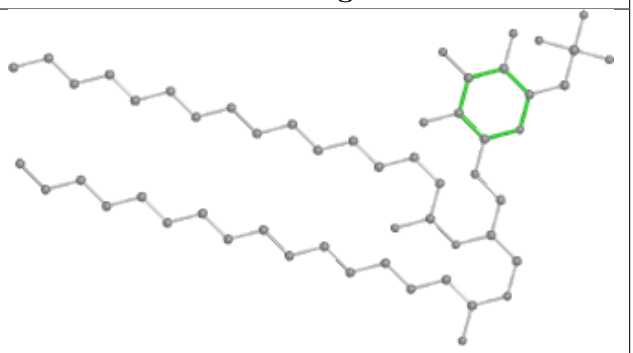
Bond lengths



Bond angles

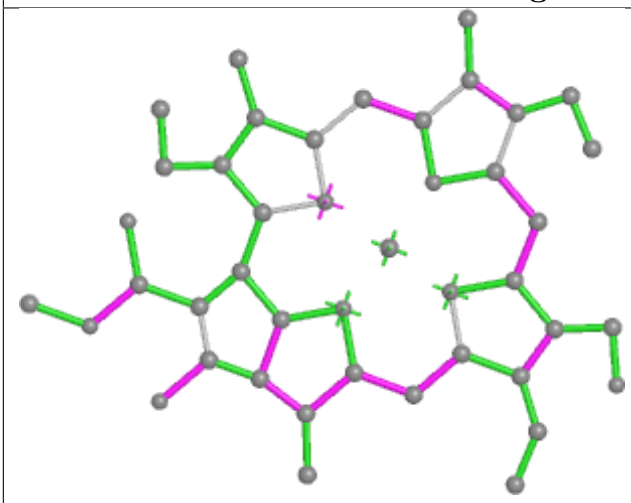


Torsions

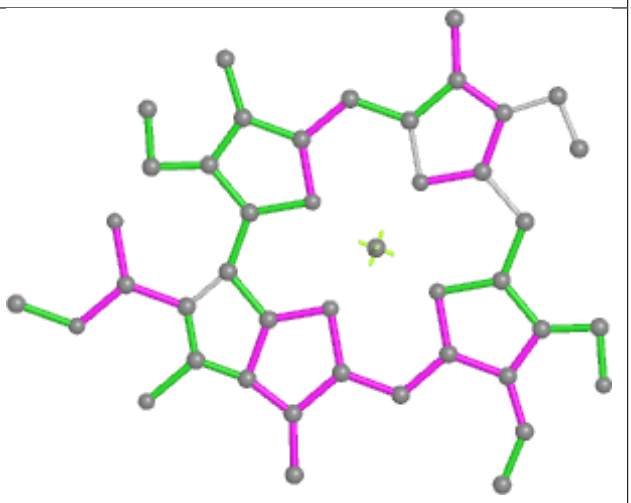


Rings

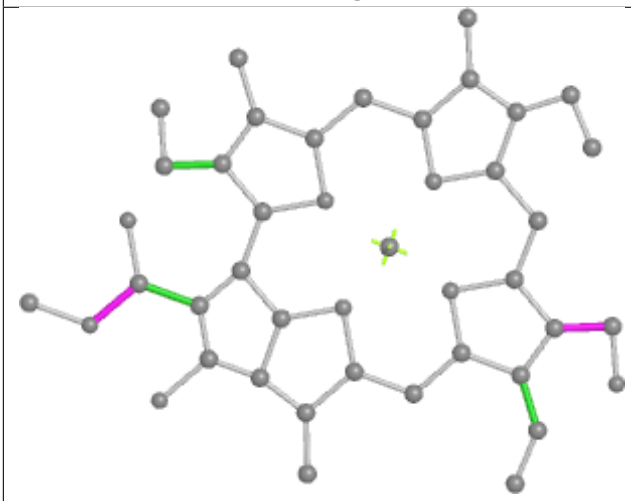
Ligand CHL s 607



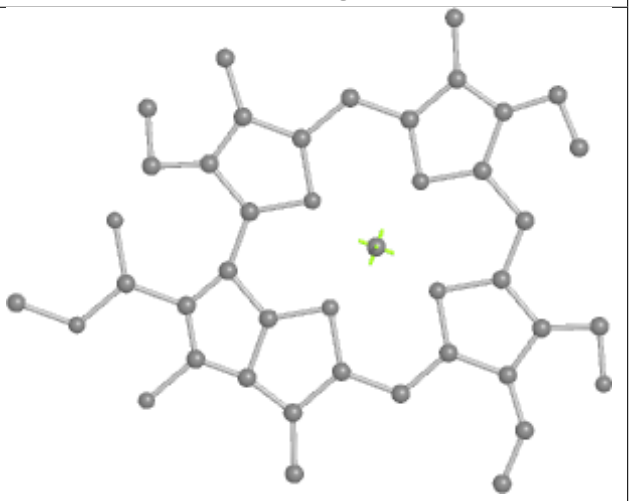
Bond lengths



Bond angles

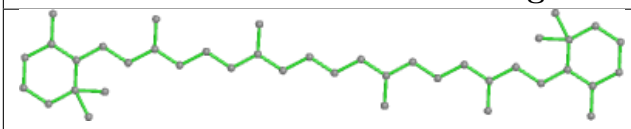


Torsions



Rings

Ligand BCR c 517



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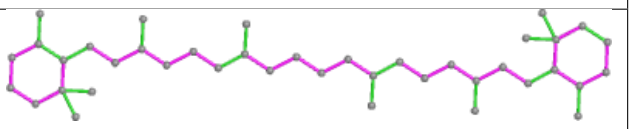
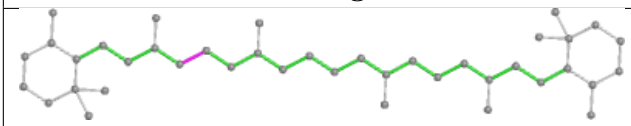


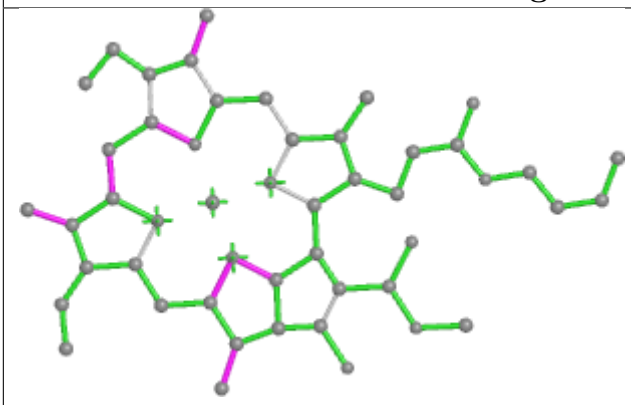
Bond angles



Torsions

Rings

Ligand CLA r 604



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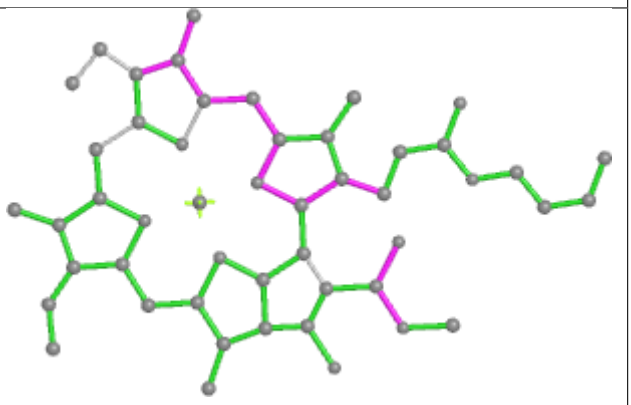
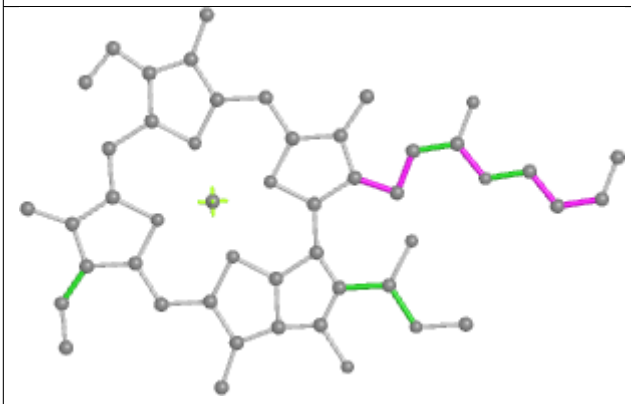
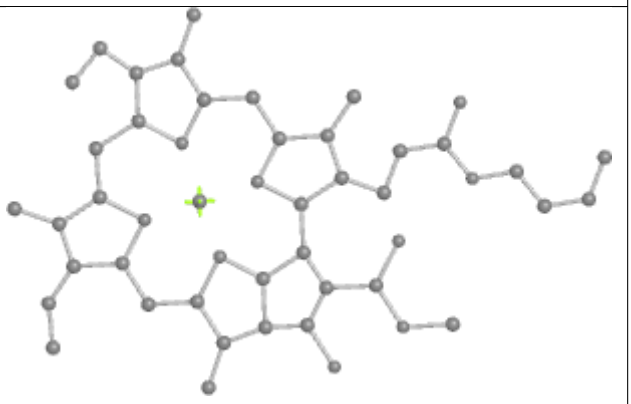


Bond angles

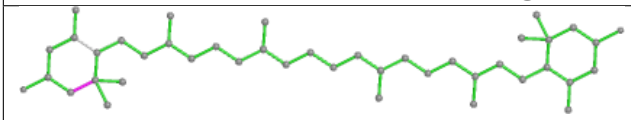


Torsions

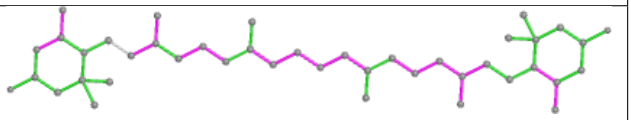


Rings

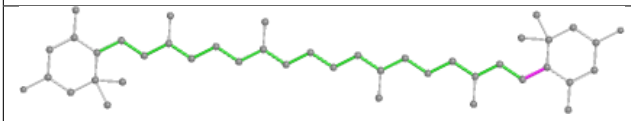
Ligand LUT n 1620



Bond lengths



Bond angles



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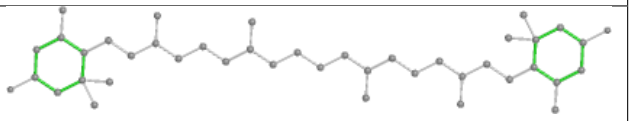
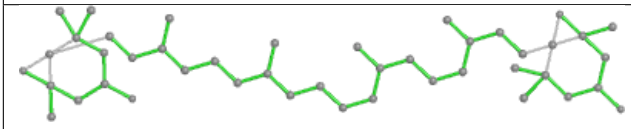


Rings

Ligand XAT g 1622



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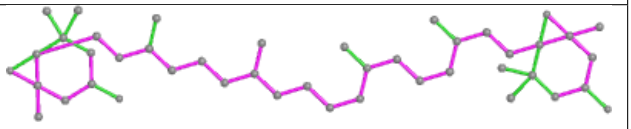
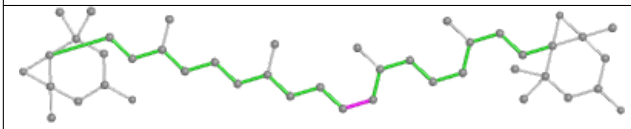
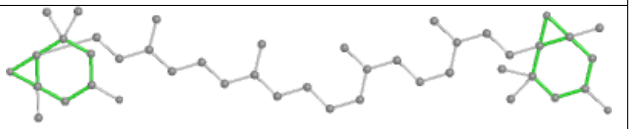


Bond angles

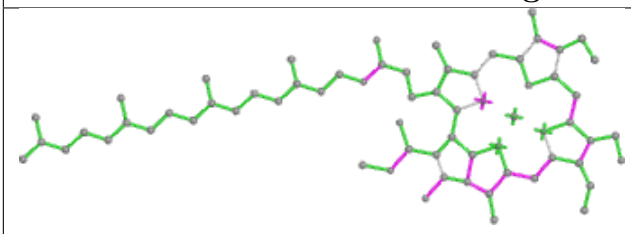


Torsions



Rings

Ligand CHL G 601



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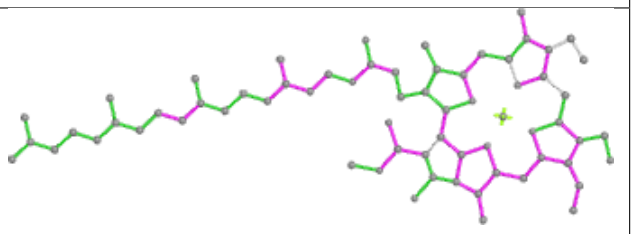
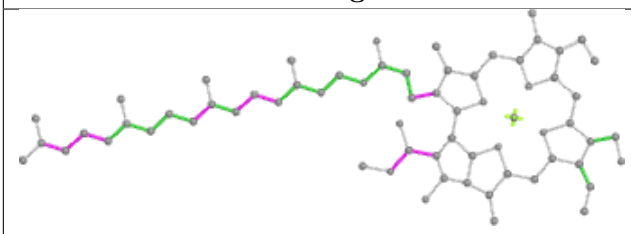


Bond angles



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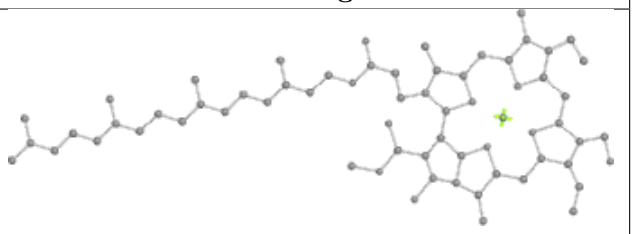
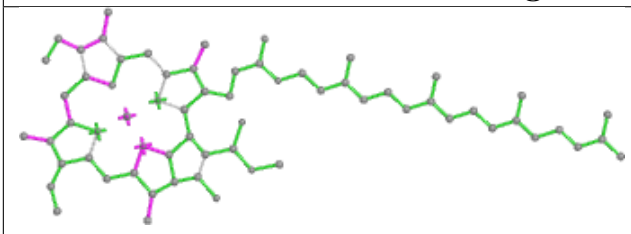


Rings

Ligand CLA C 509



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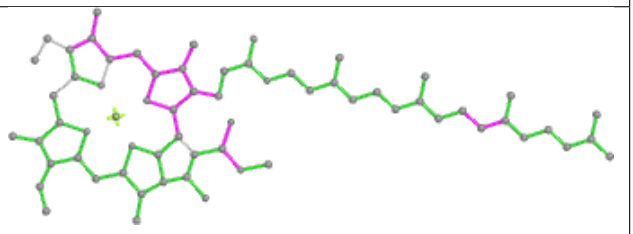
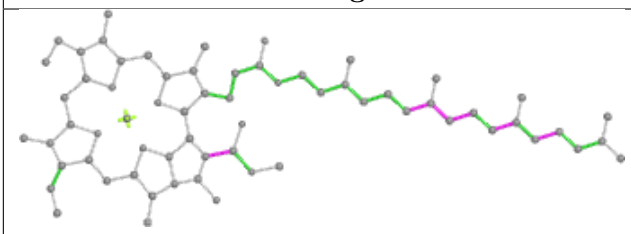
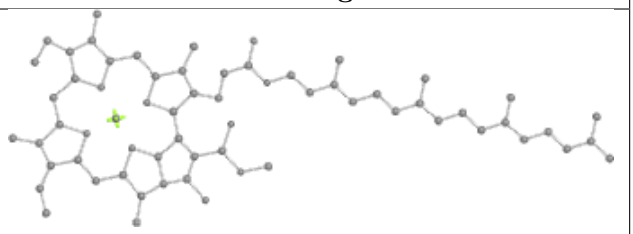


Bond angles

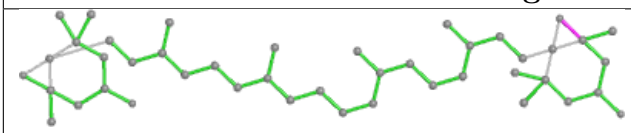


Torsions



Rings

Ligand XAT R 624



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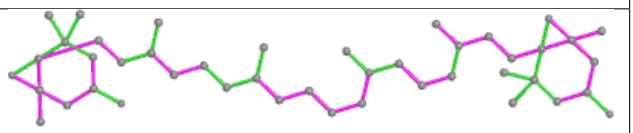
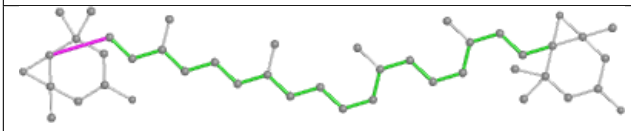
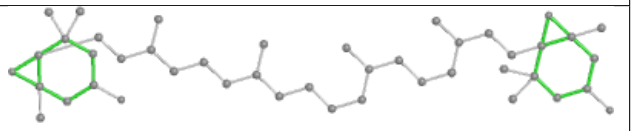


Bond angles

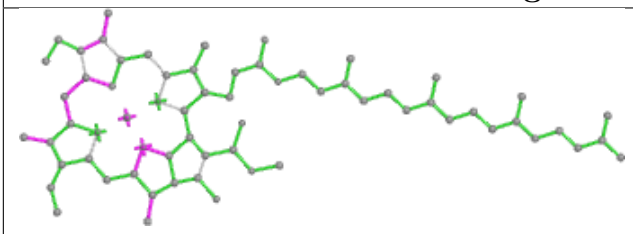


Torsions



Rings

Ligand CLA Y 612



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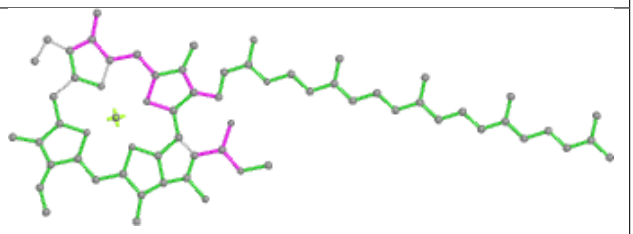
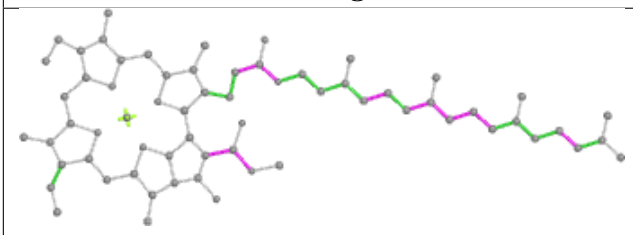


Bond angles



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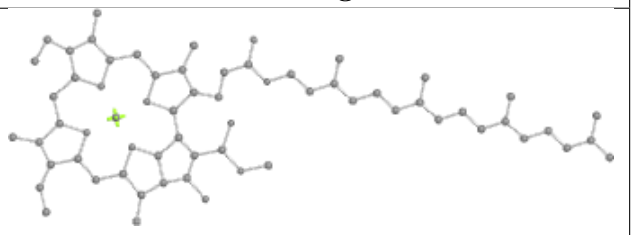
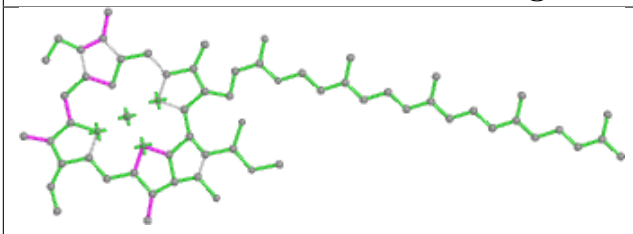


Rings

Ligand CLA g 602



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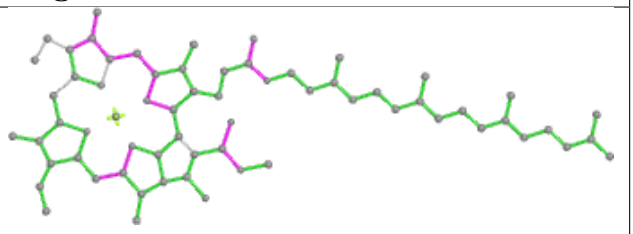
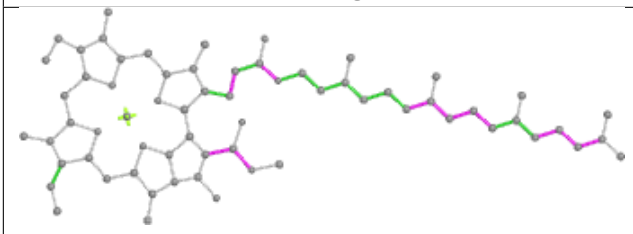


Bond angles



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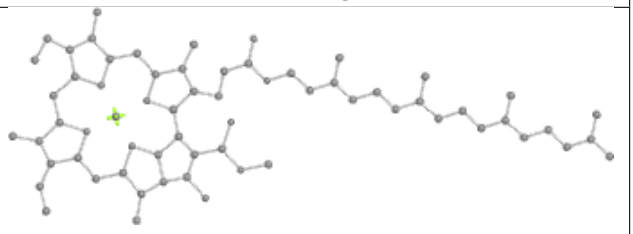
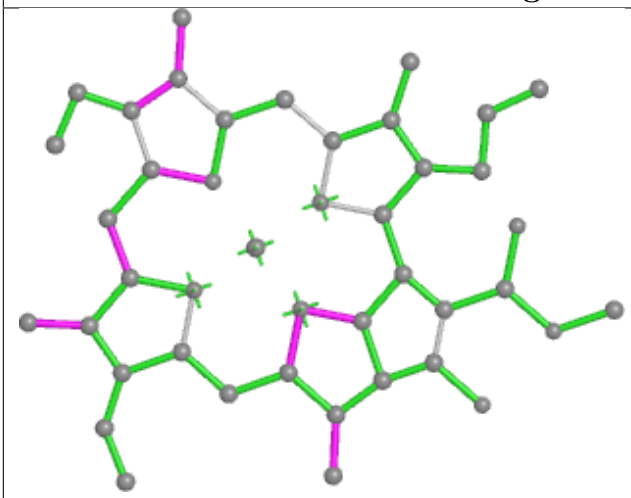


Rings

Ligand CLA G 612



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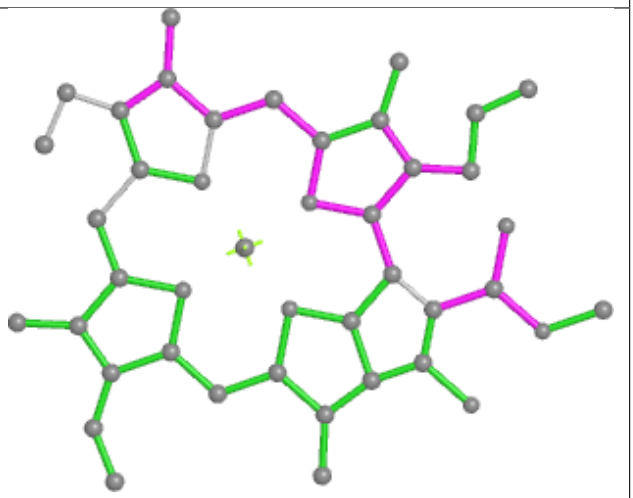
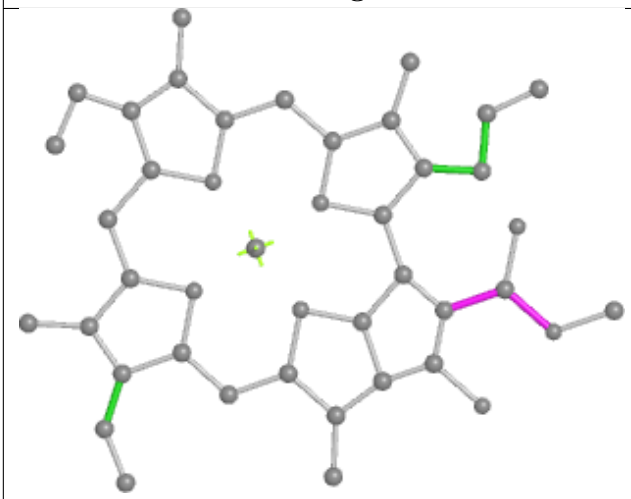


Bond angles



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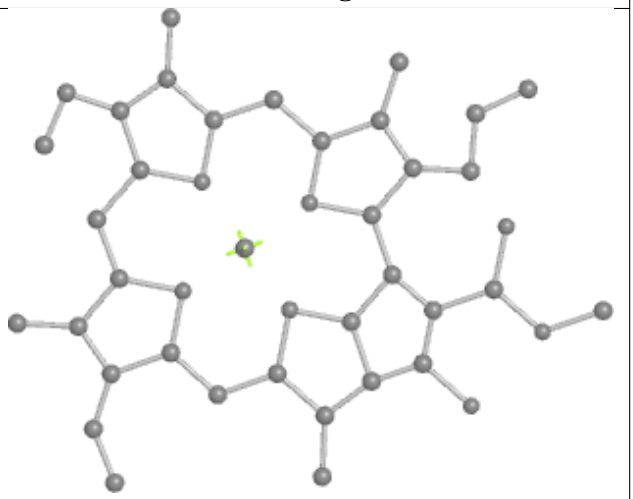
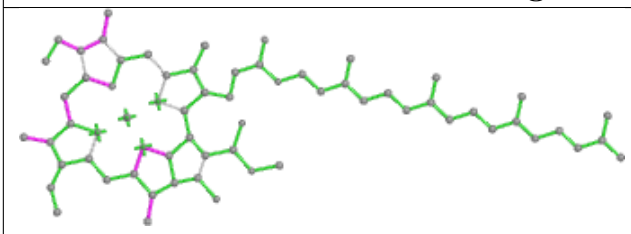
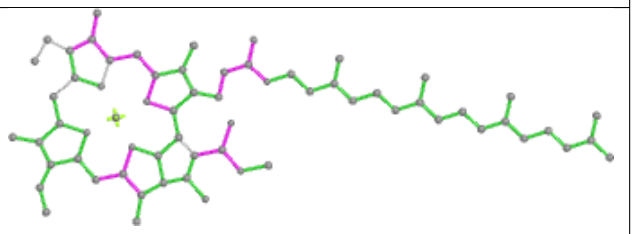


Rings

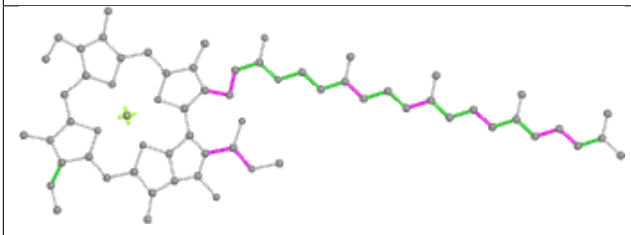
Ligand CLA b 604



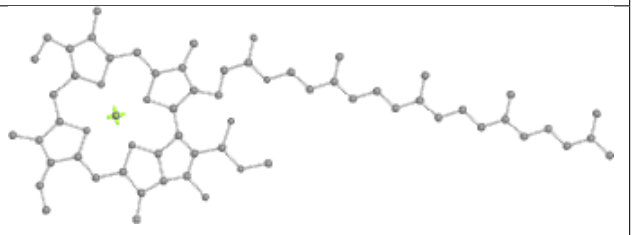
Bond lengths



Bond angles

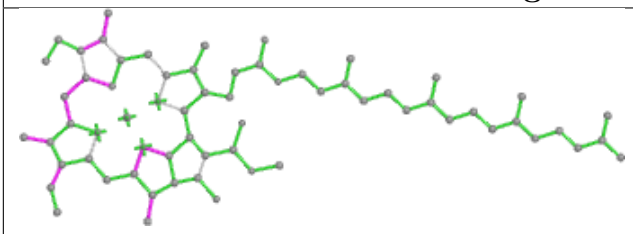


Torsions

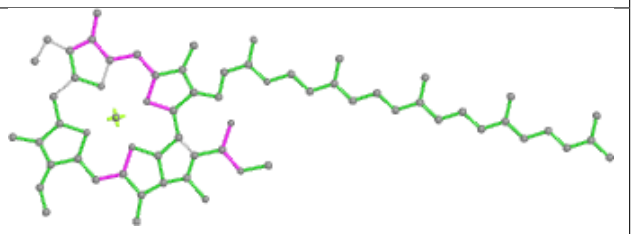


Rings

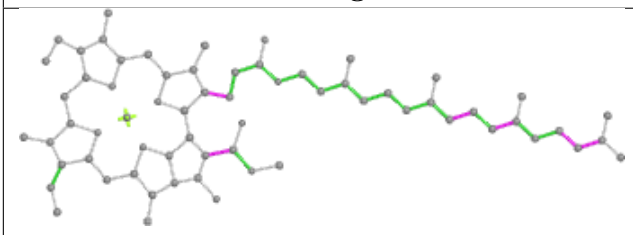
Ligand CLA A 406



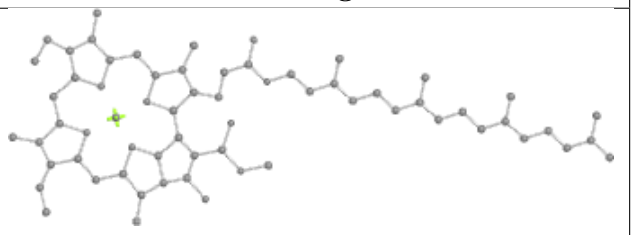
Bond lengths



Bond angles

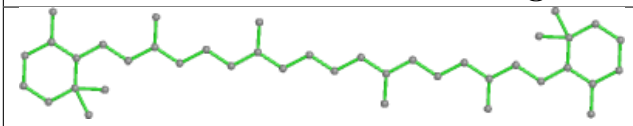


Torsions

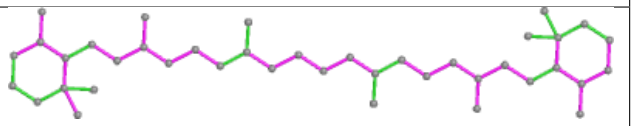


Rings

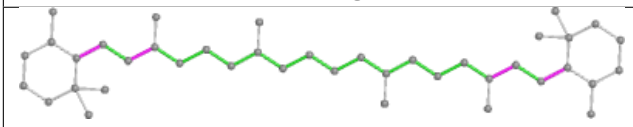
Ligand BCR c 516



Bond lengths



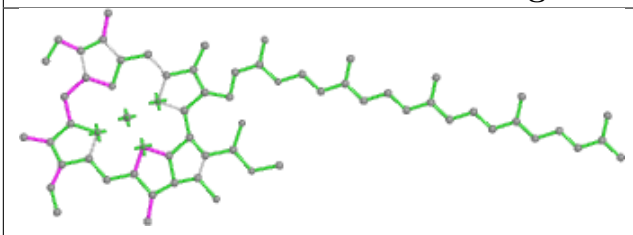
Bond angles



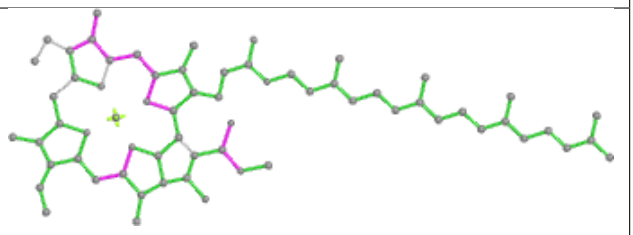
Torsions

Rings

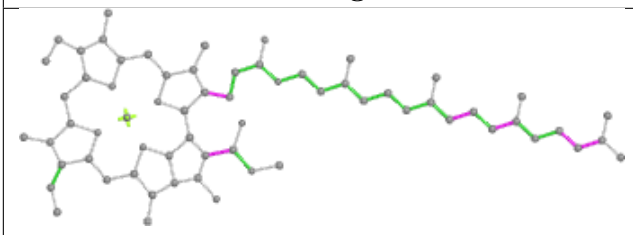
Ligand CLA a 406



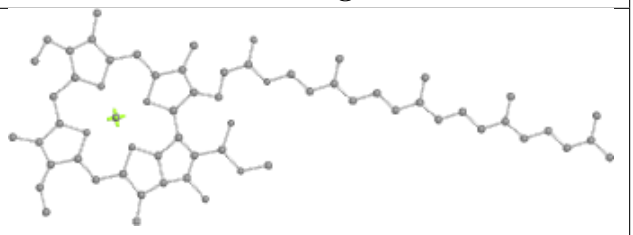
Bond lengths



Bond angles

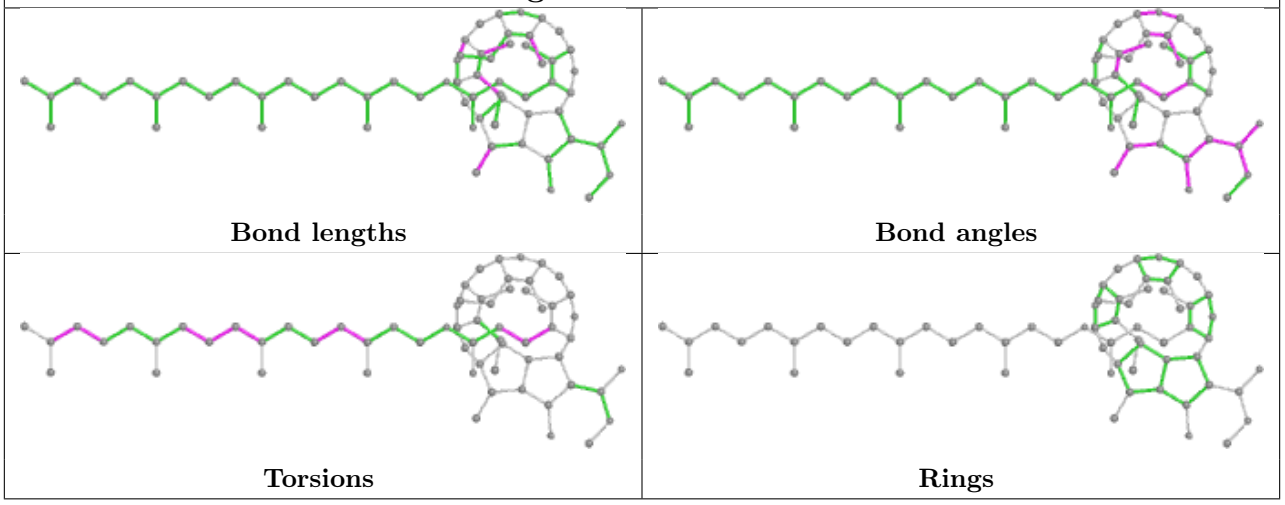


Torsions

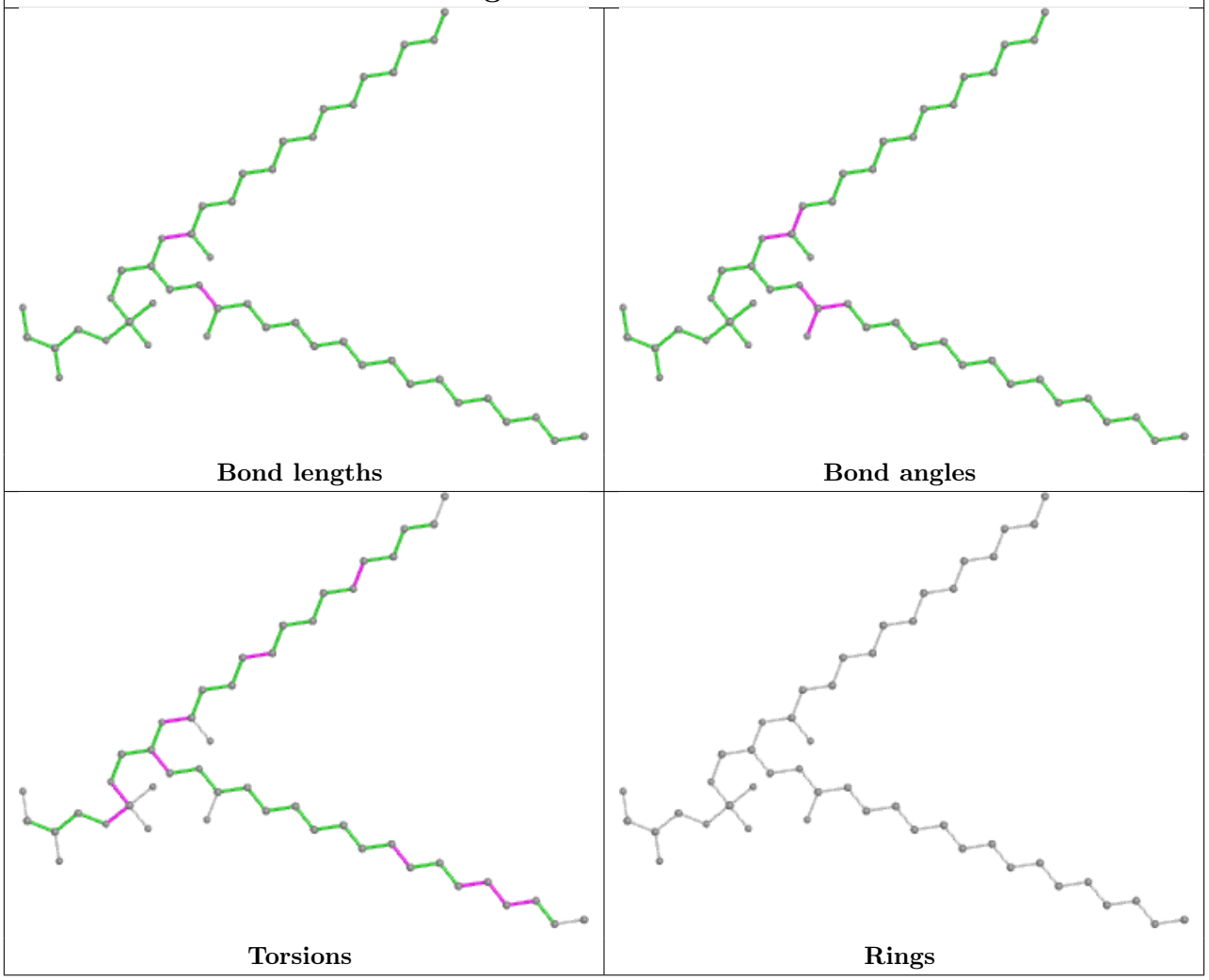


Rings

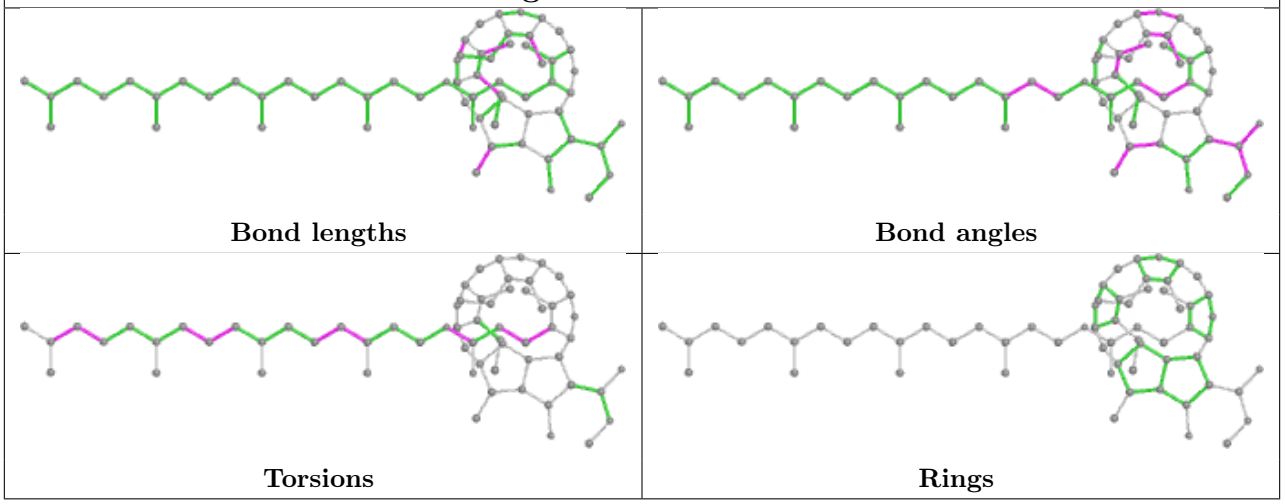
Ligand PHO a 408



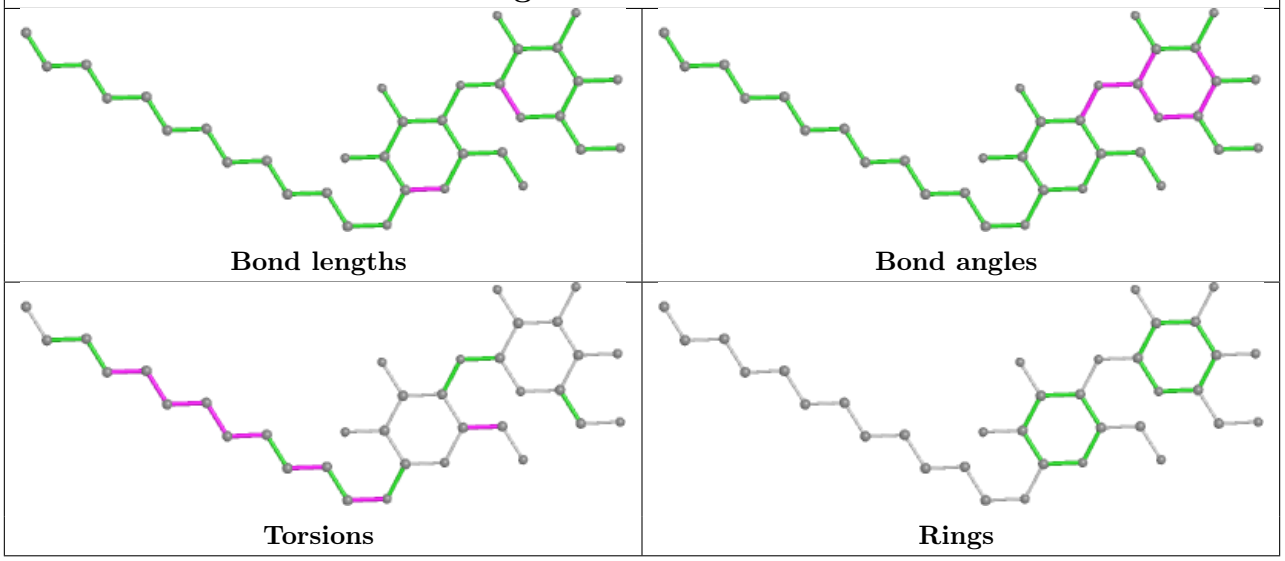
Ligand LHG C 2630



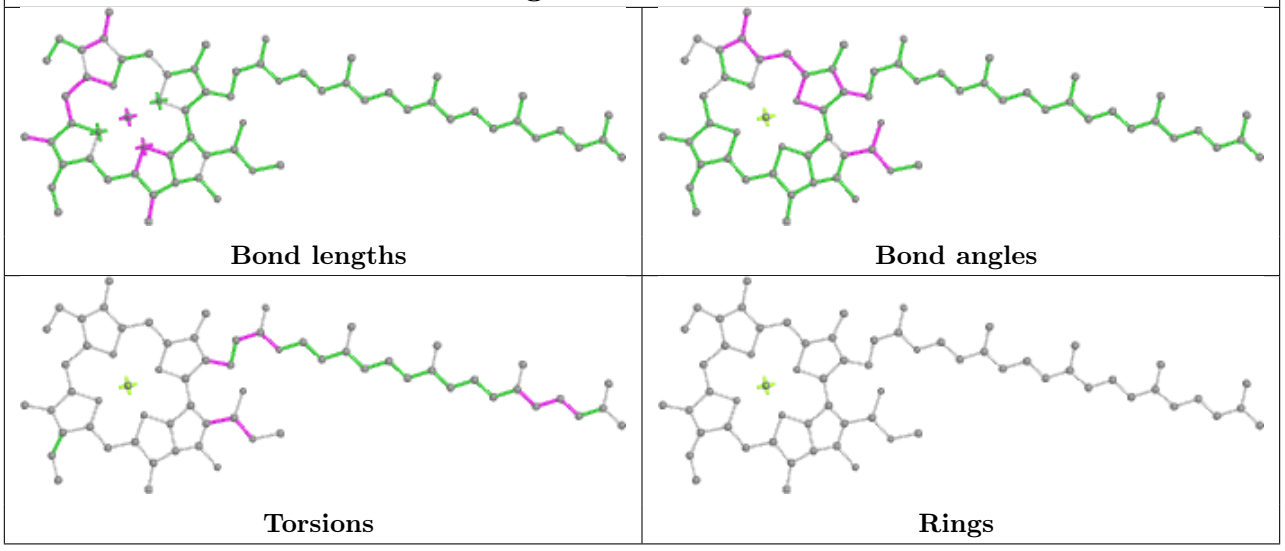
Ligand PHO A 408



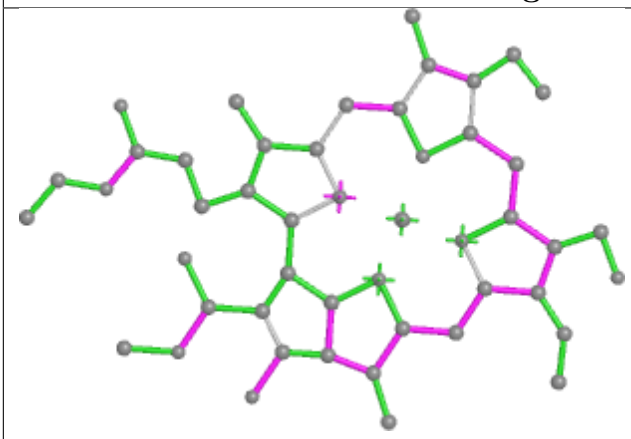
Ligand LMU Z 2634



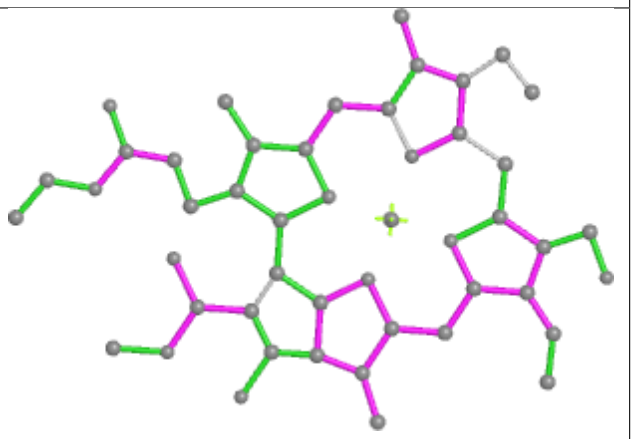
Ligand CLA C 512



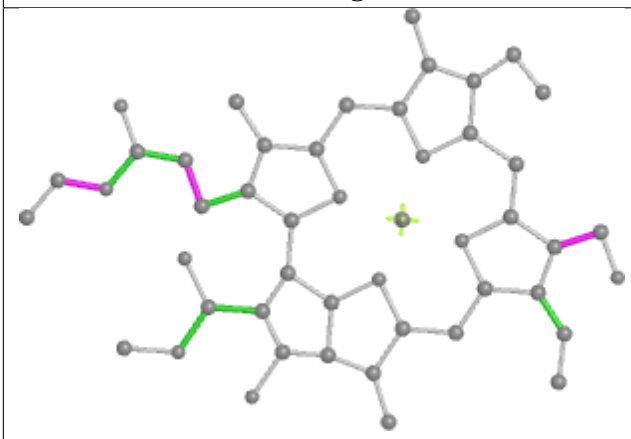
Ligand CHL G 605



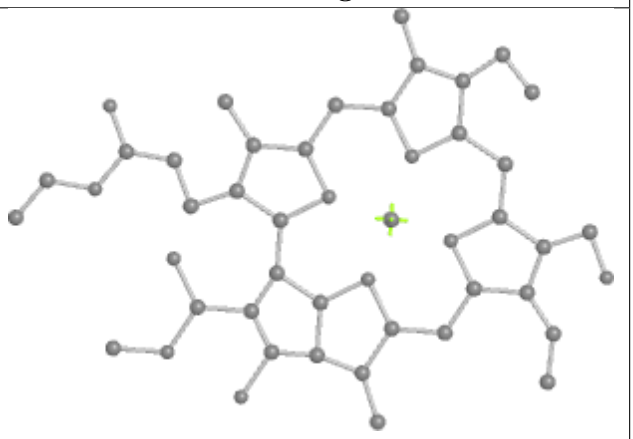
Bond lengths



Bond angles

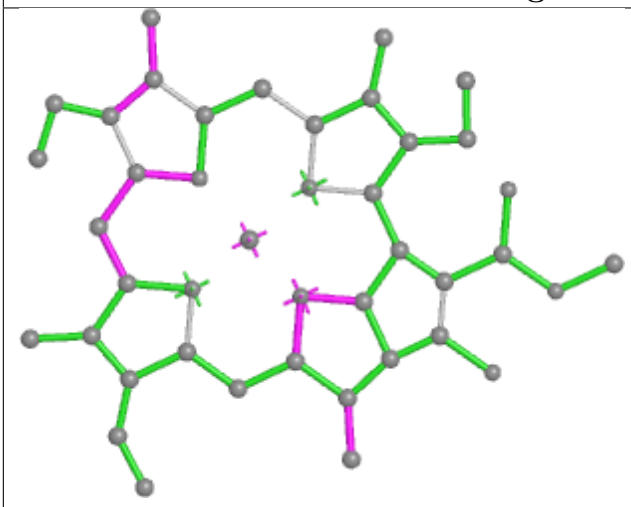


Torsions

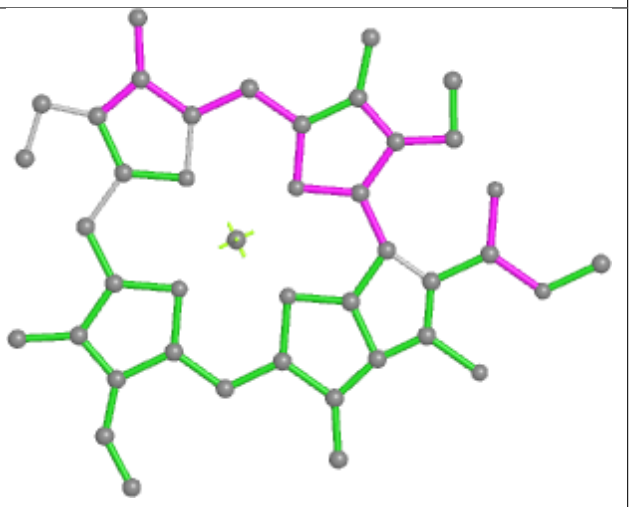


Rings

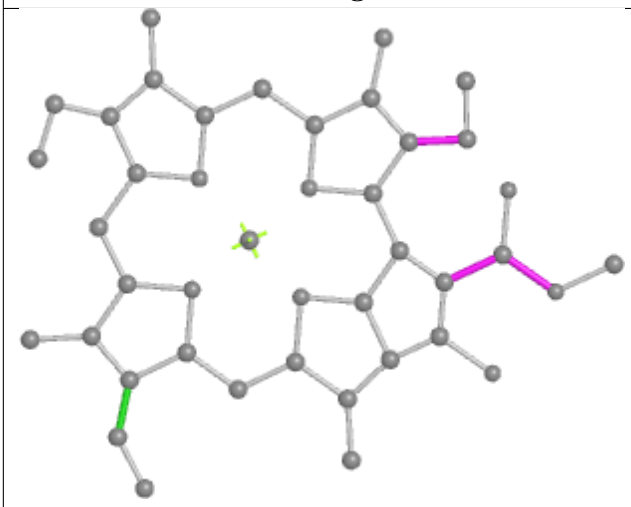
Ligand CLA S 603



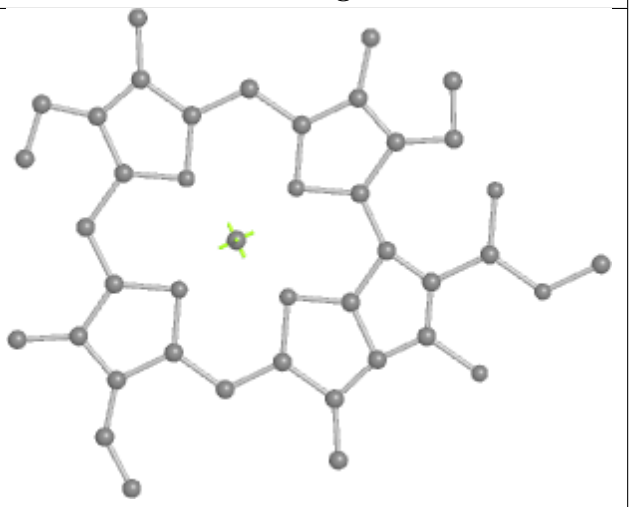
Bond lengths



Bond angles

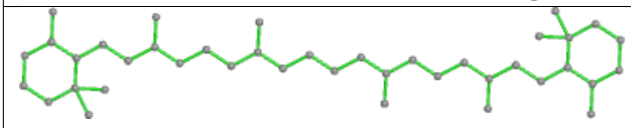


Torsions

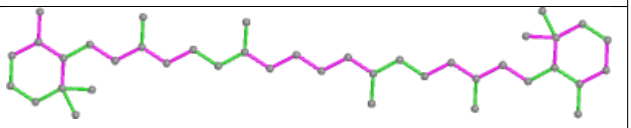


Rings

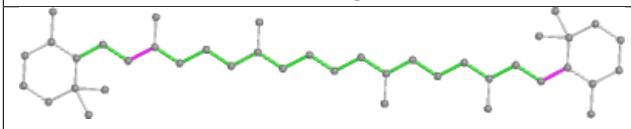
Ligand BCR b 620



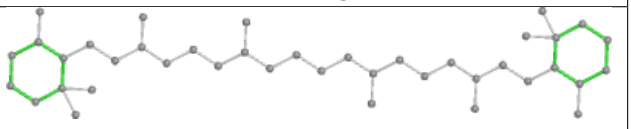
Bond lengths



Bond angles

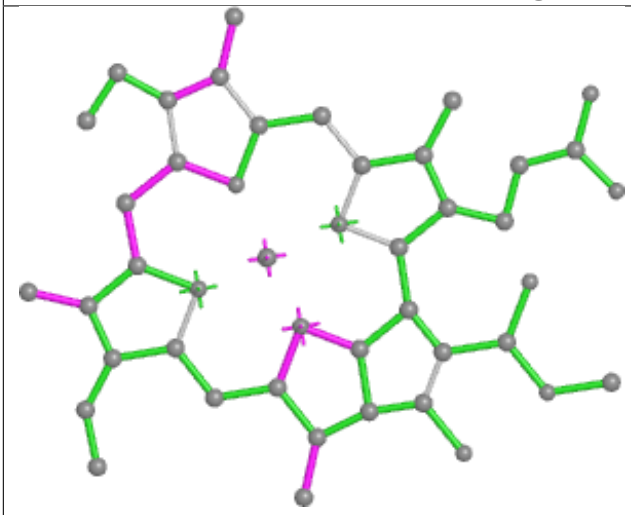


Torsions

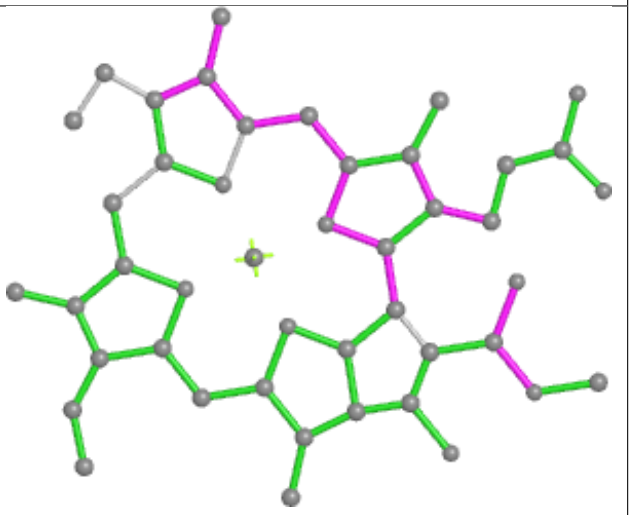


Rings

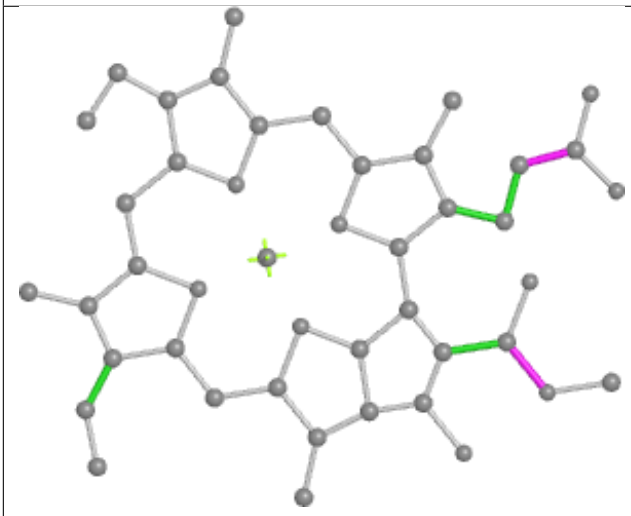
Ligand CLA s 612



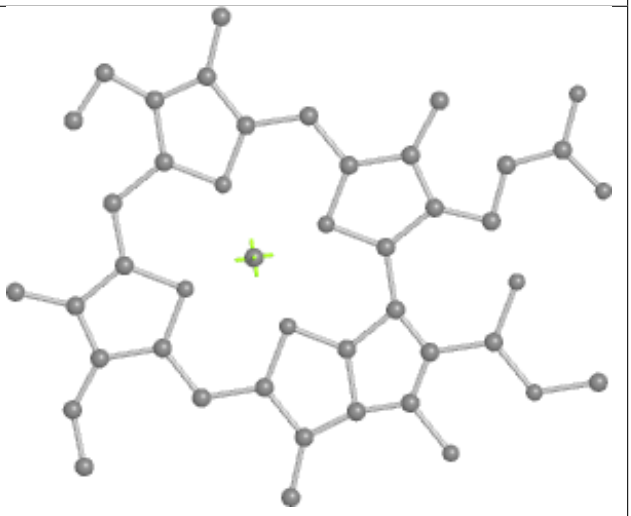
Bond lengths



Bond angles

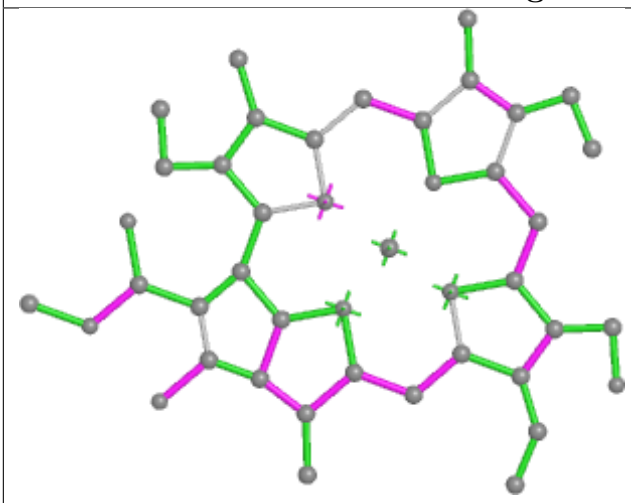


Torsions

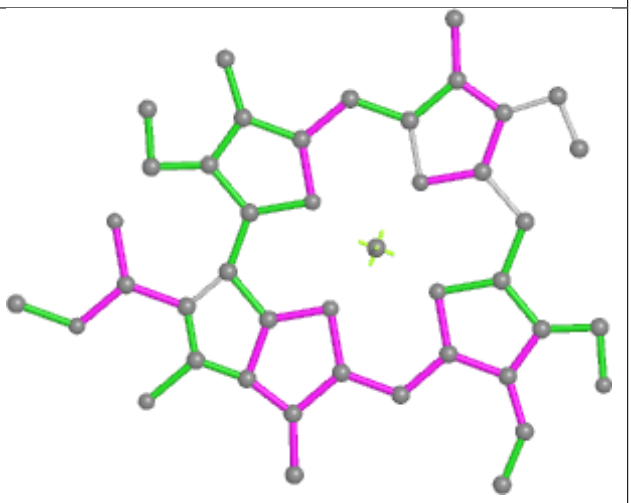


Rings

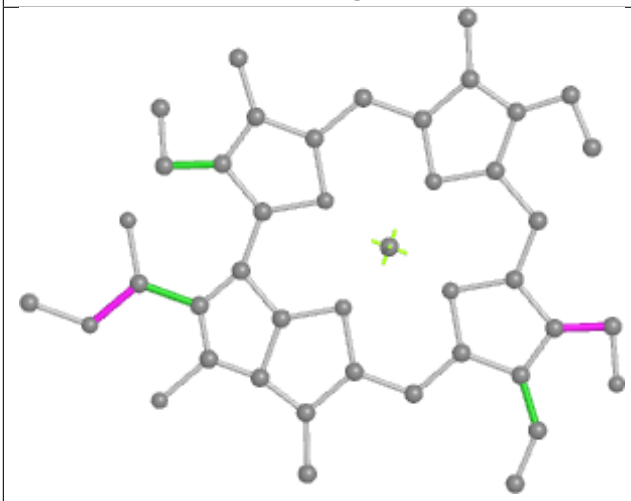
Ligand CHL S 607



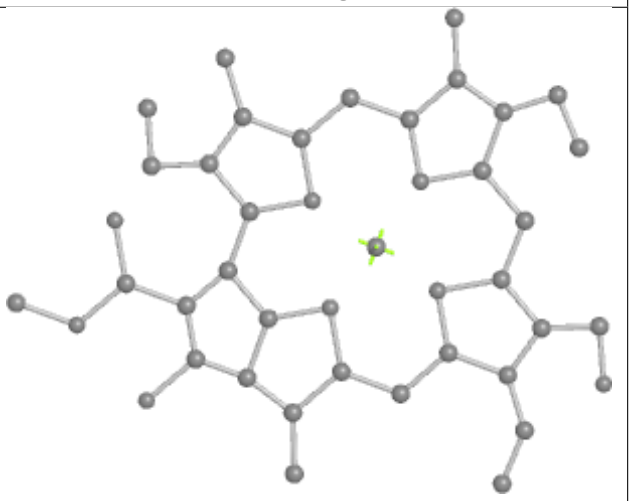
Bond lengths



Bond angles

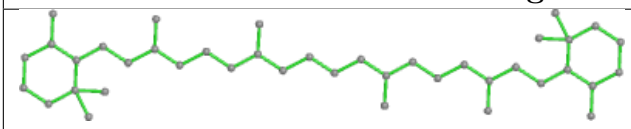


Torsions

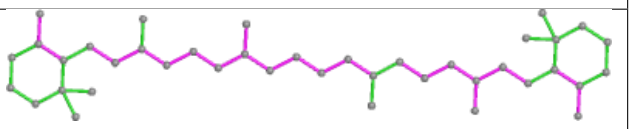


Rings

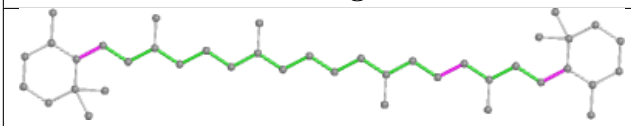
Ligand BCR a 411



Bond lengths



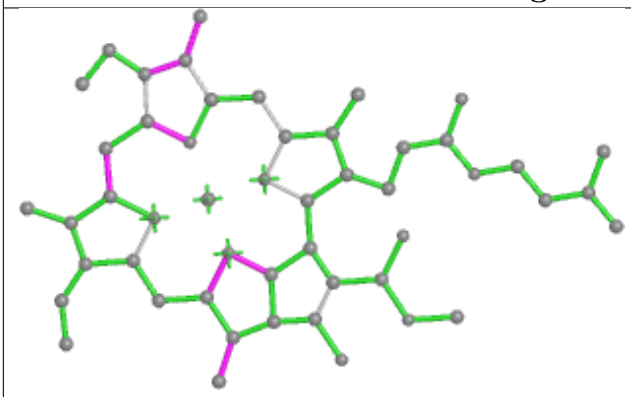
Bond angles



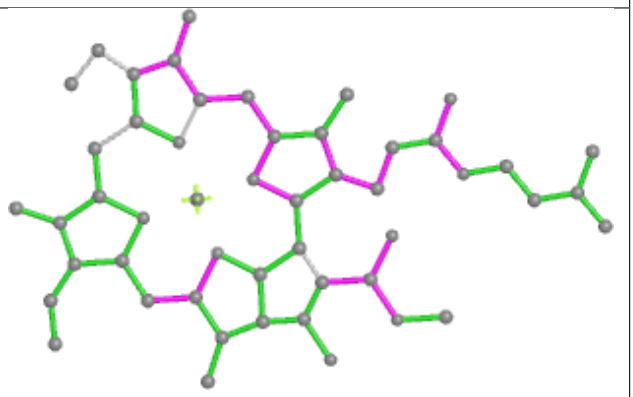
Torsions

Rings

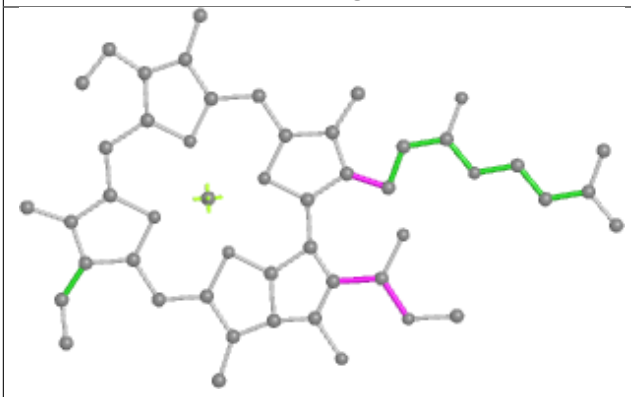
Ligand CLA s 605



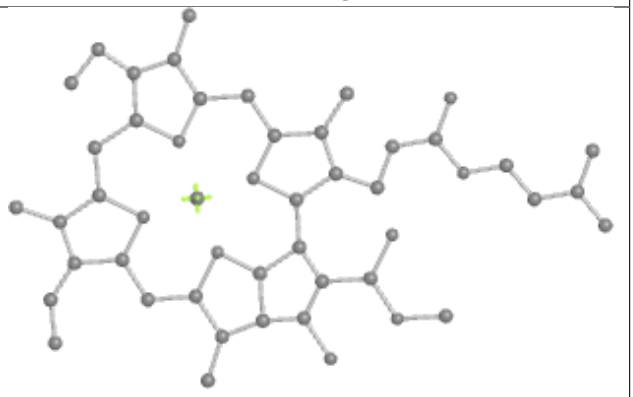
Bond lengths



Bond angles

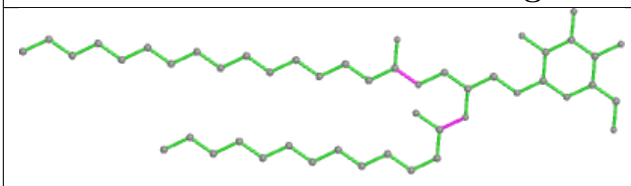


Torsions

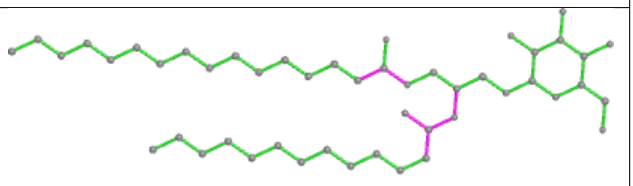


Rings

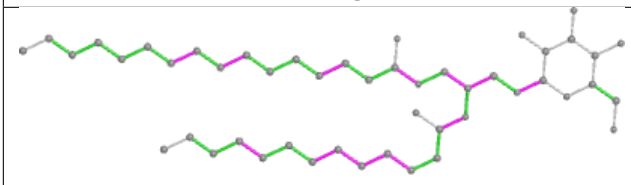
Ligand LMG a 413



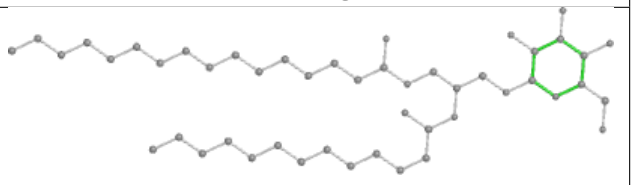
Bond lengths



Bond angles

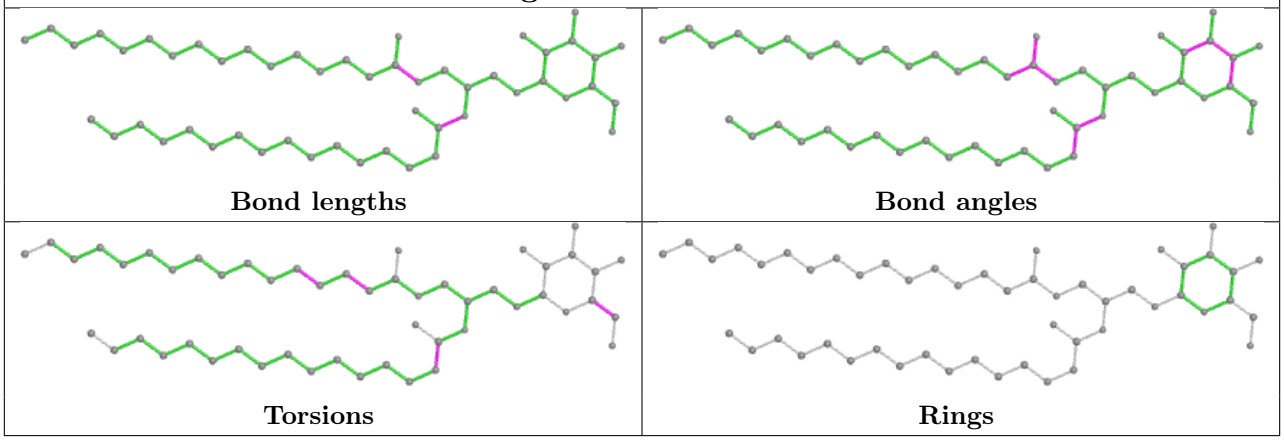


Torsions

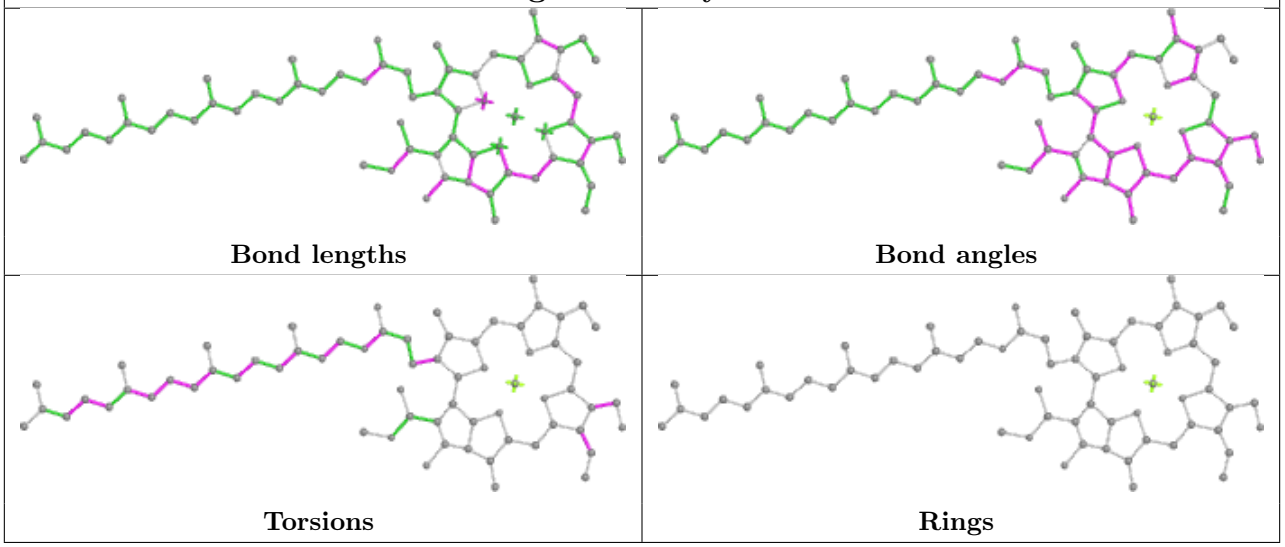


Rings

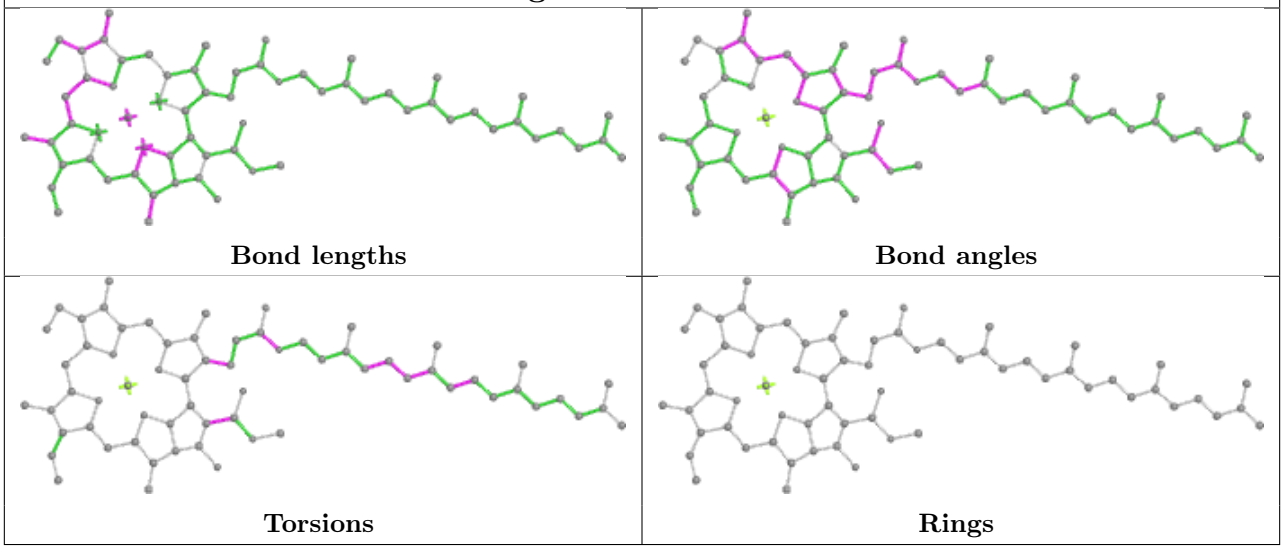
Ligand LMG C 521



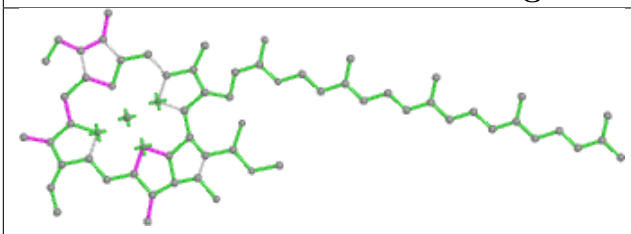
Ligand CHL y 609



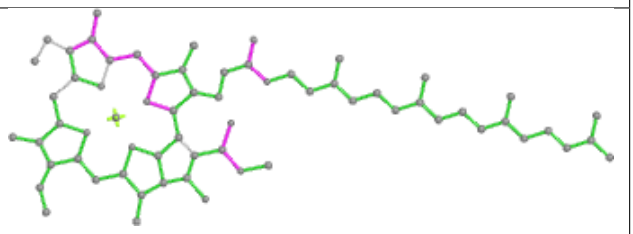
Ligand CLA b 605



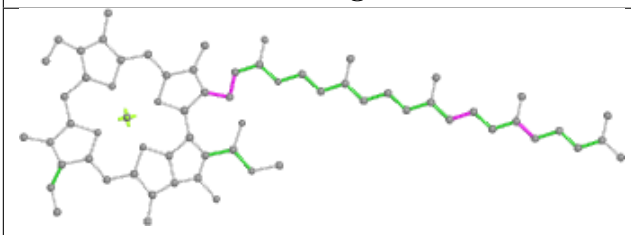
Ligand CLA Y 610



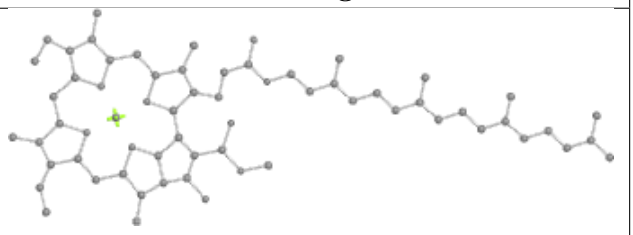
Bond lengths



Bond angles

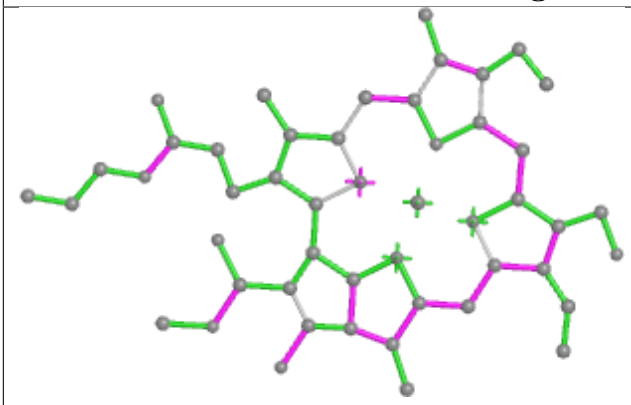


Torsions

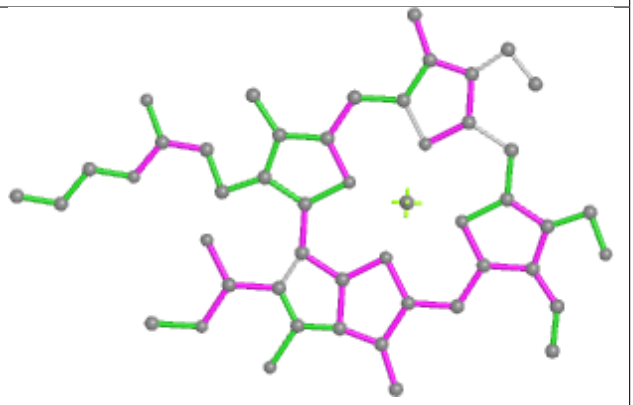


Rings

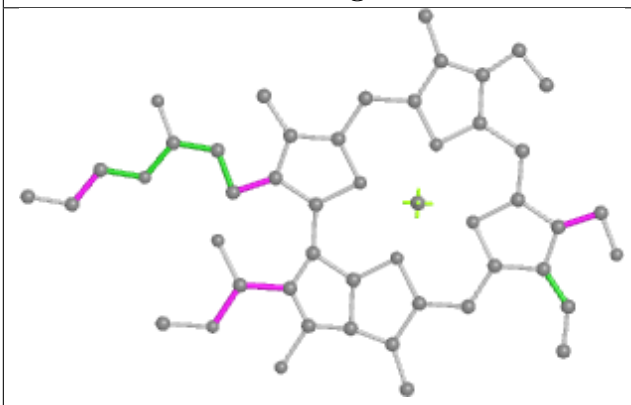
Ligand CHL s 608



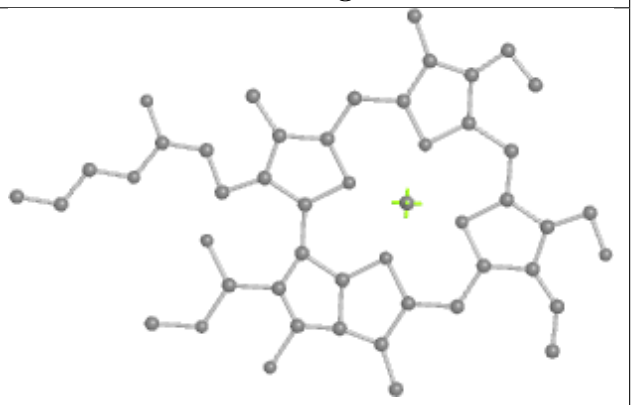
Bond lengths



Bond angles

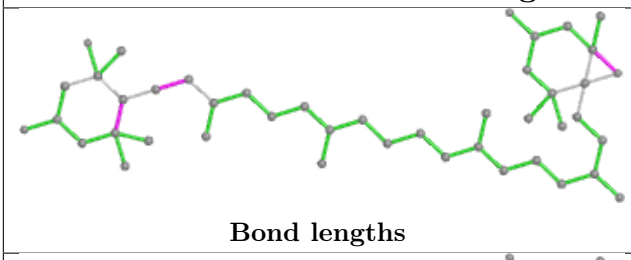


Torsions

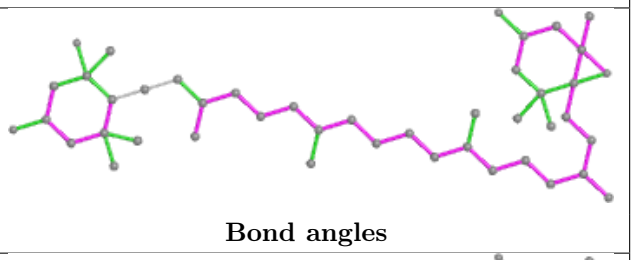


Rings

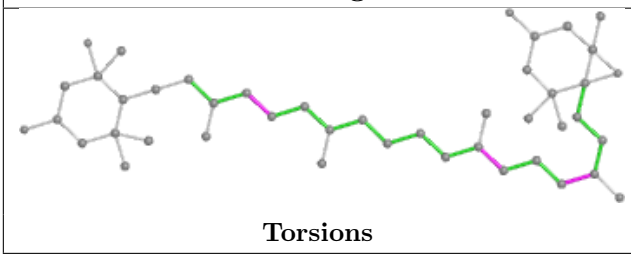
Ligand NEX s 1623



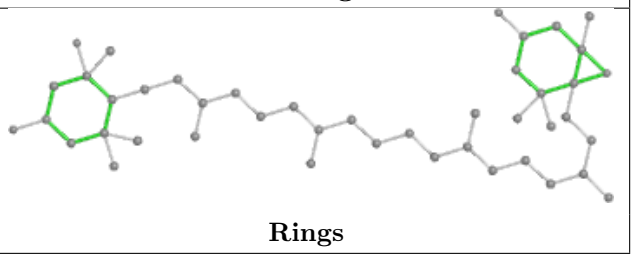
Bond lengths



Bond angles

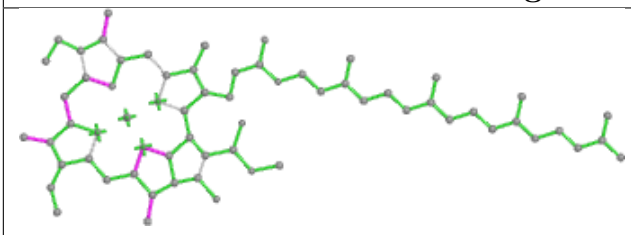


Torsions

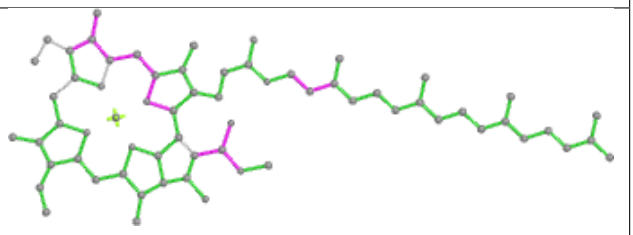


Rings

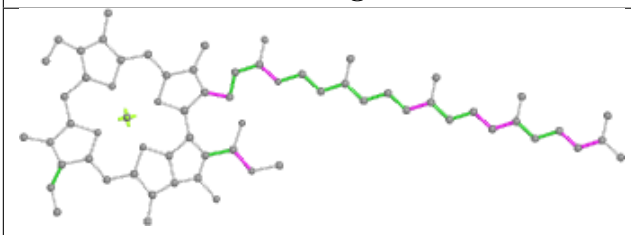
Ligand CLA C 508



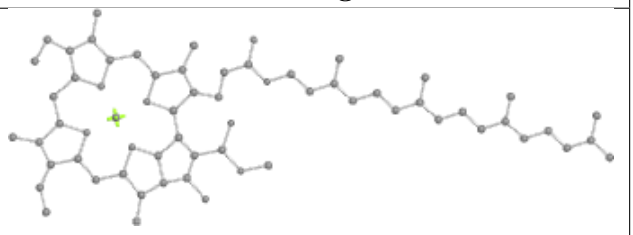
Bond lengths



Bond angles

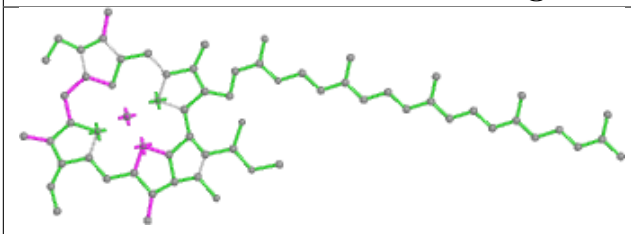


Torsions

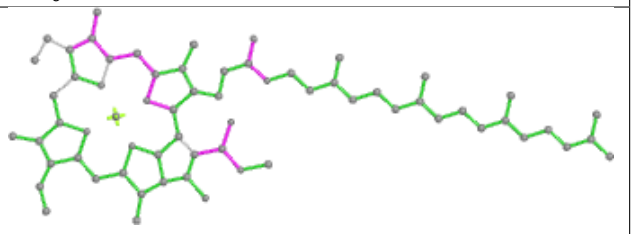


Rings

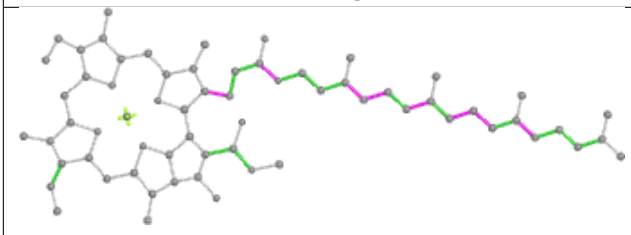
Ligand CLA y 611



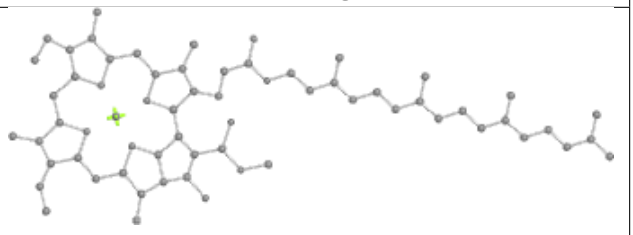
Bond lengths



Bond angles

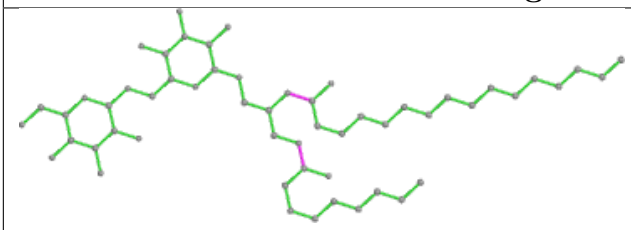


Torsions



Rings

Ligand DGD c 518



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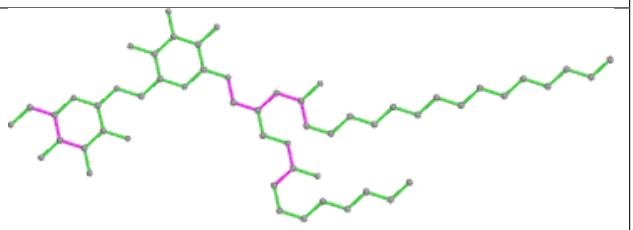

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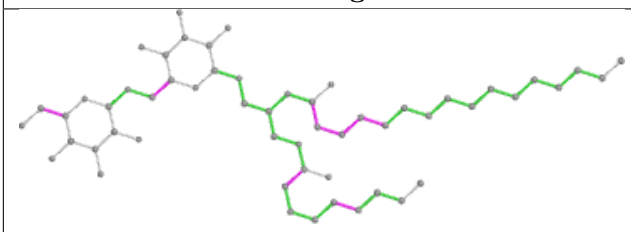
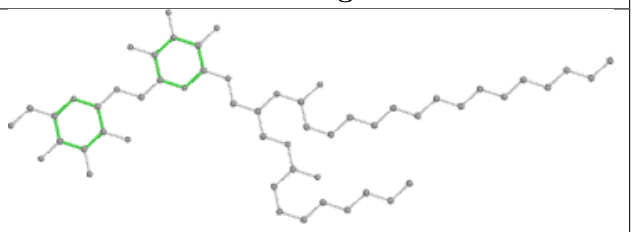
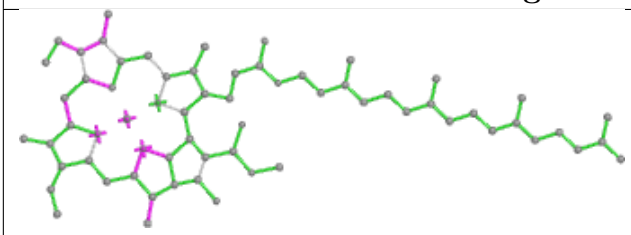


Torsions



Rings

Ligand CLA N 613



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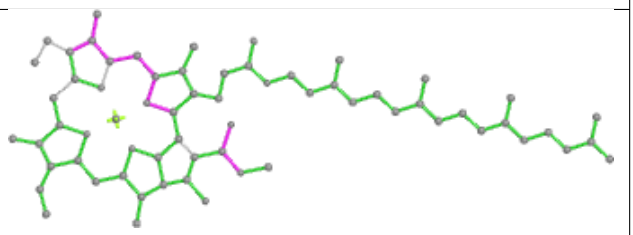
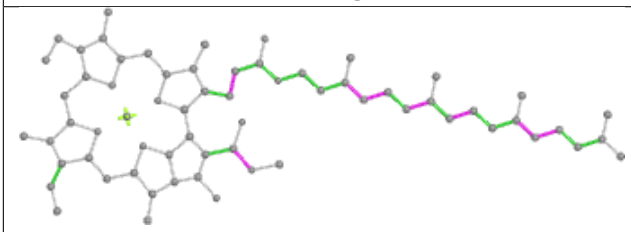


Bond angles



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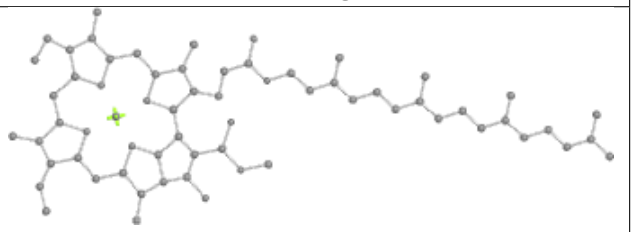
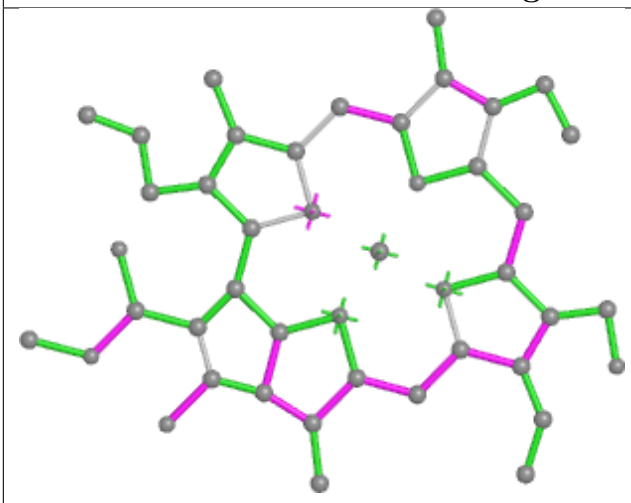


Rings

Ligand CHL G 608



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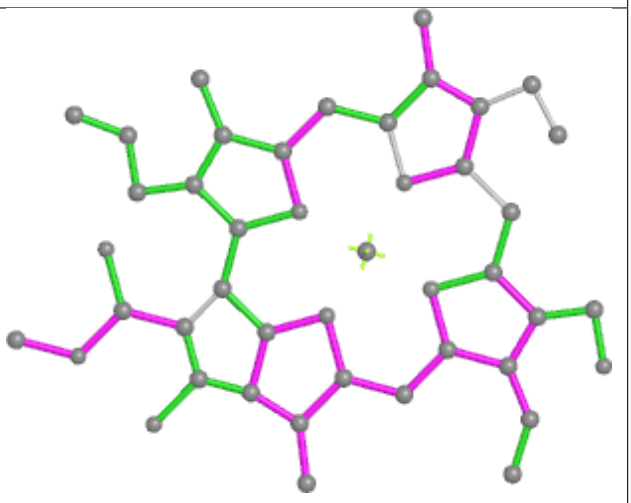
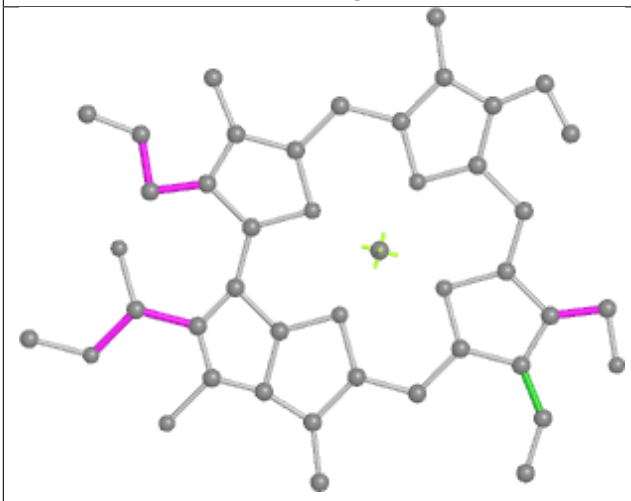


Bond angles



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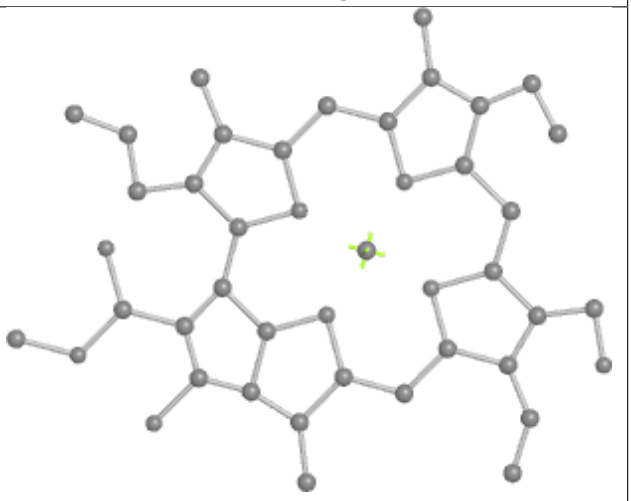
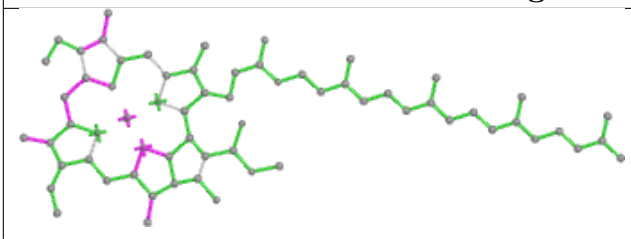


Rings

Ligand CLA y 613



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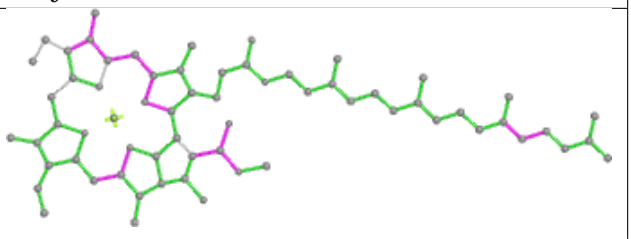
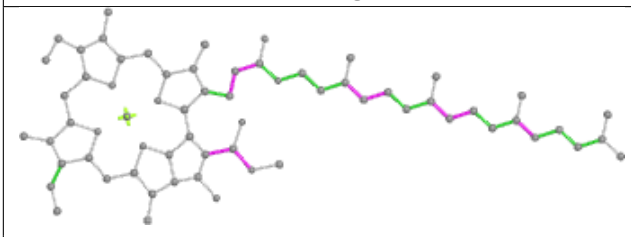


Bond angles



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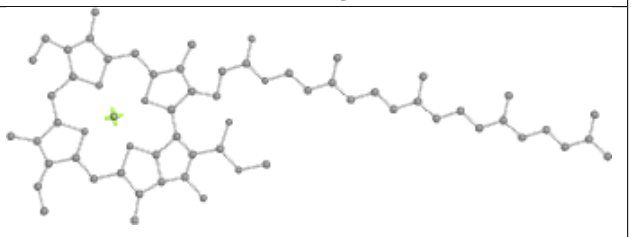

Rings

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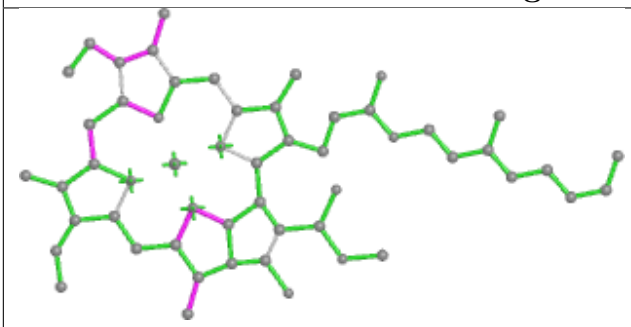

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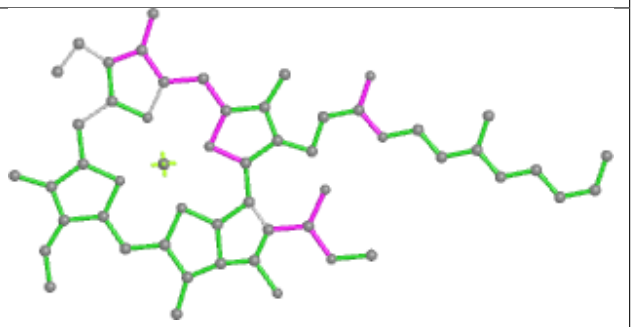
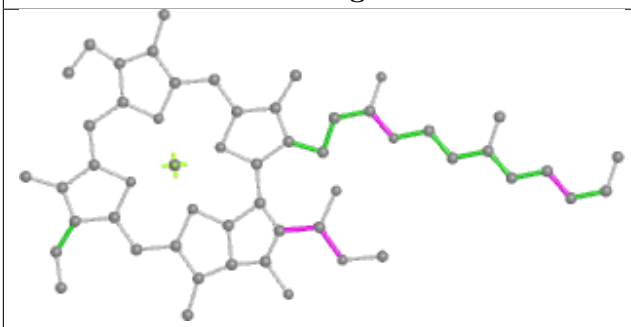


Bond angles



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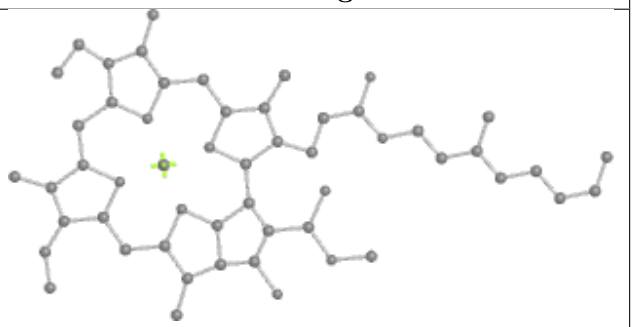
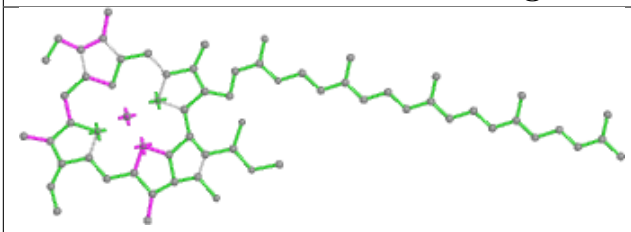


Rings

Ligand CLA Y 603



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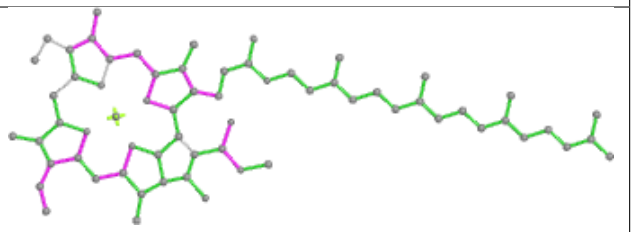

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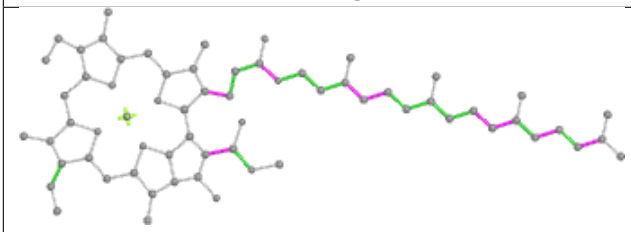

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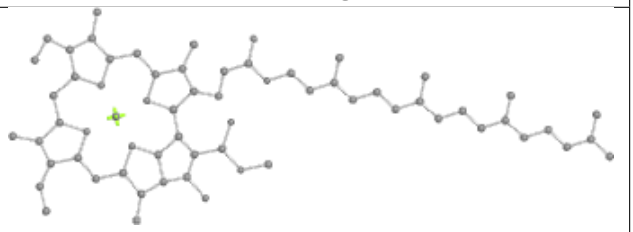
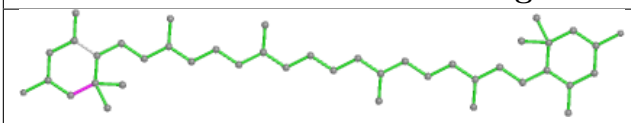


Rings

Ligand LUT Y 1621



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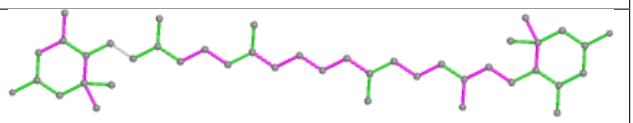
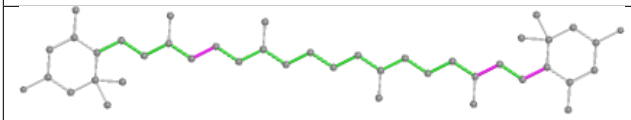


Bond angles



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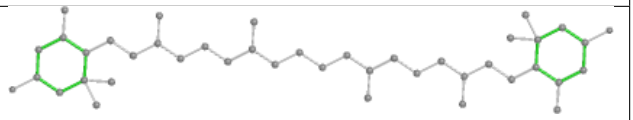
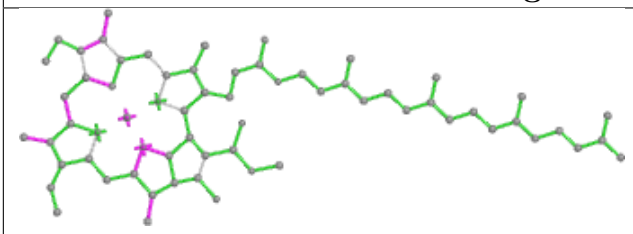


Rings

Ligand CLA Y 604



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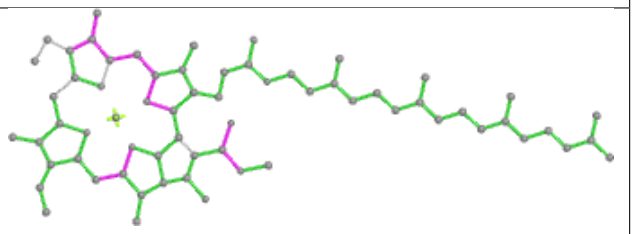
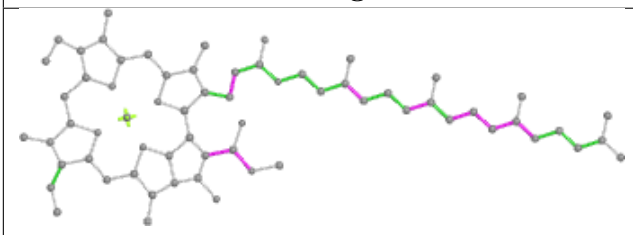


Bond angles



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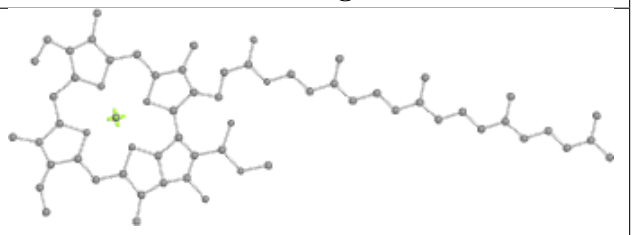
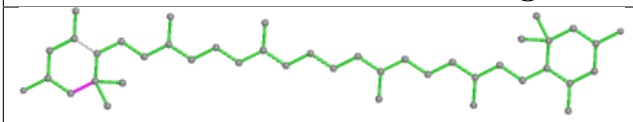


Rings

Ligand LUT y 1621



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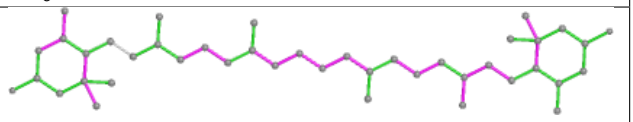
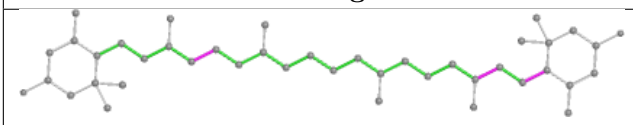


Bond angles



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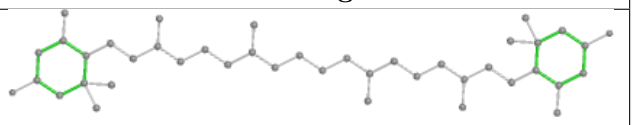
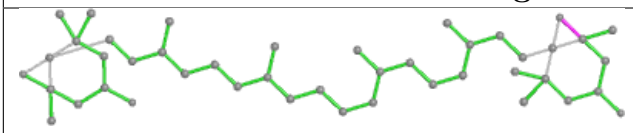


Rings

Ligand XAT N 1622



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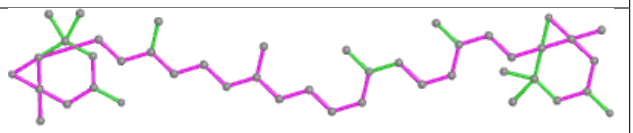
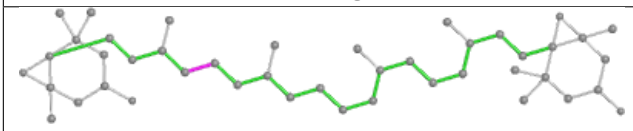


Bond angles



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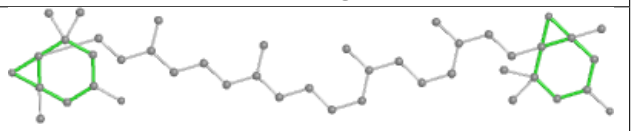
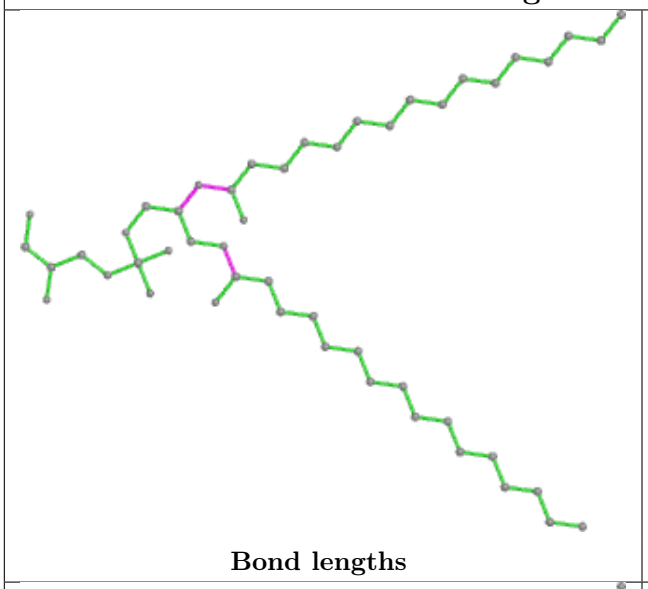


Rings

Ligand LHG D 409



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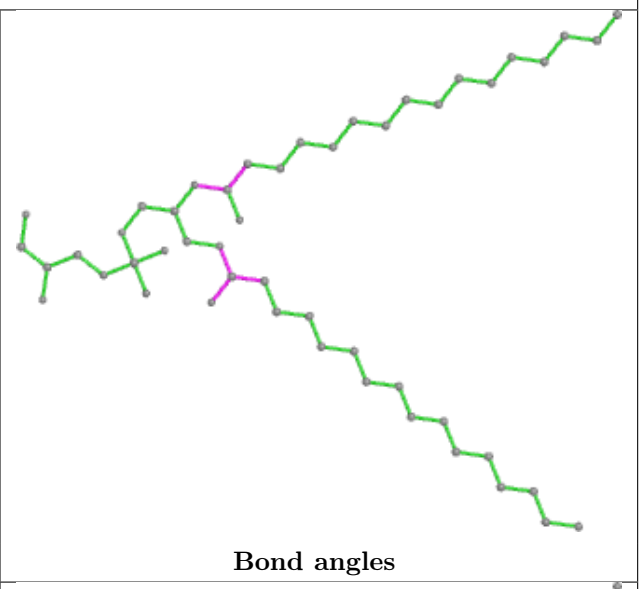
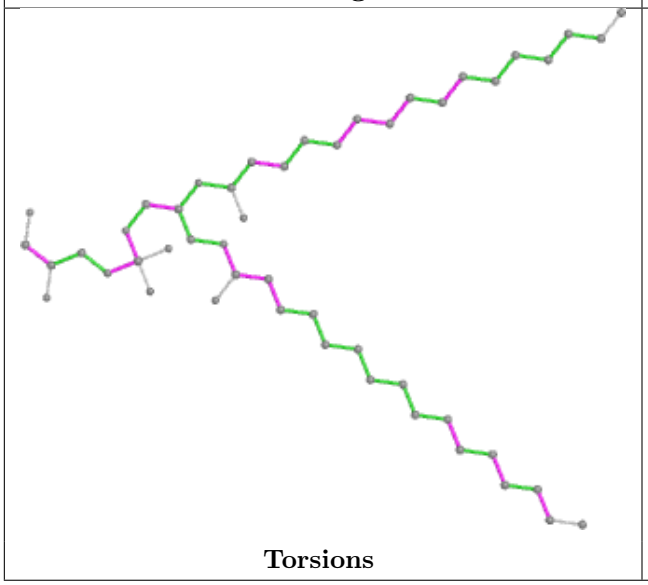


Bond angles



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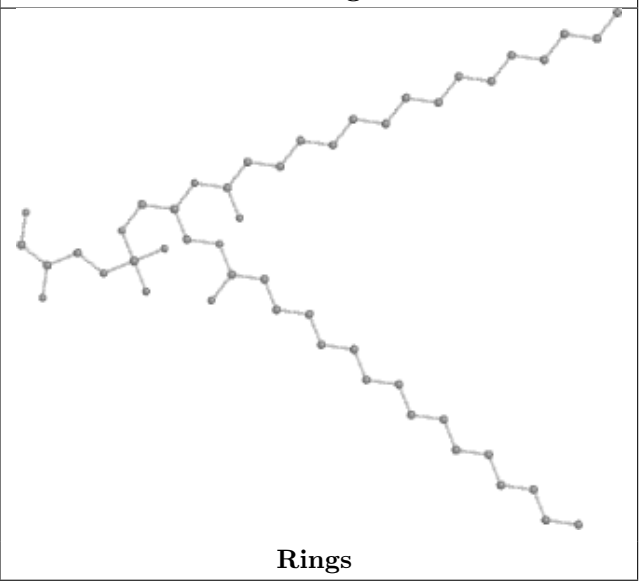
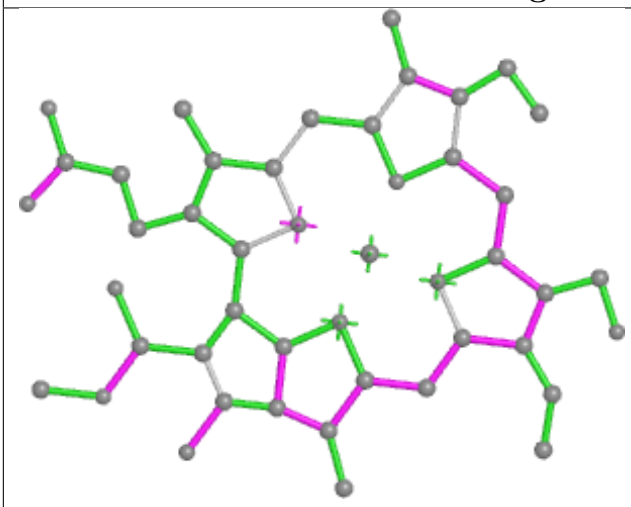


Rings

Ligand CHL r 608



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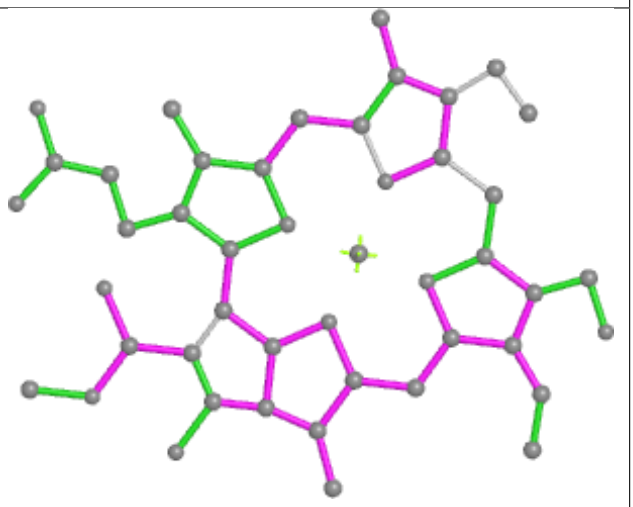
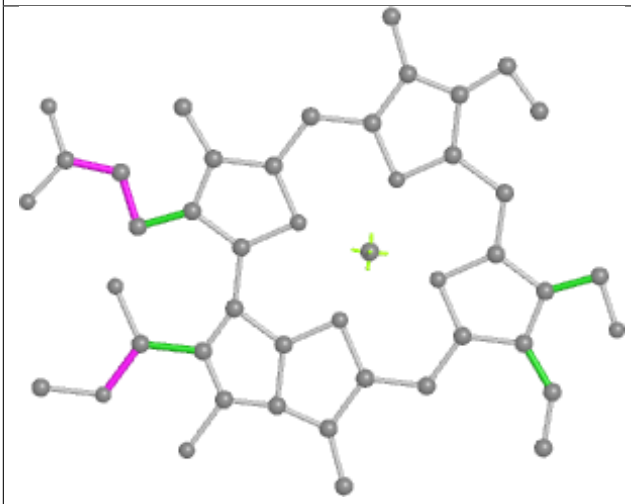


Bond angles



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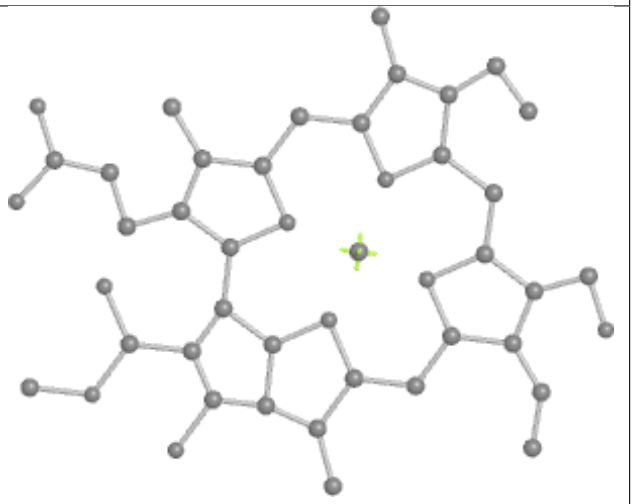
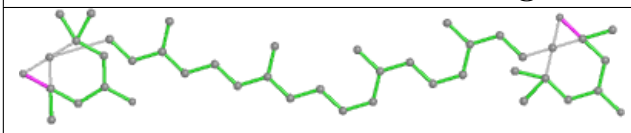


Rings

Ligand XAT y 1622



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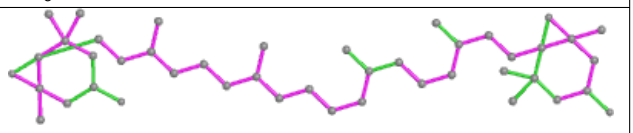
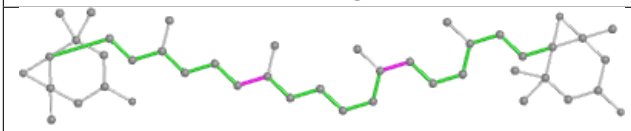
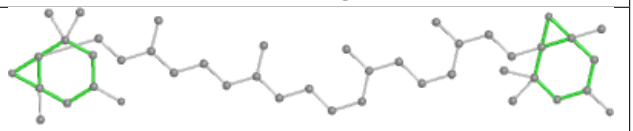


Bond angles

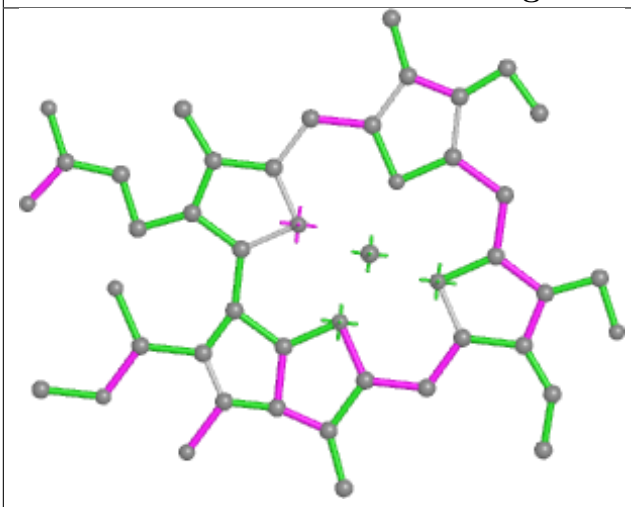


Torsions

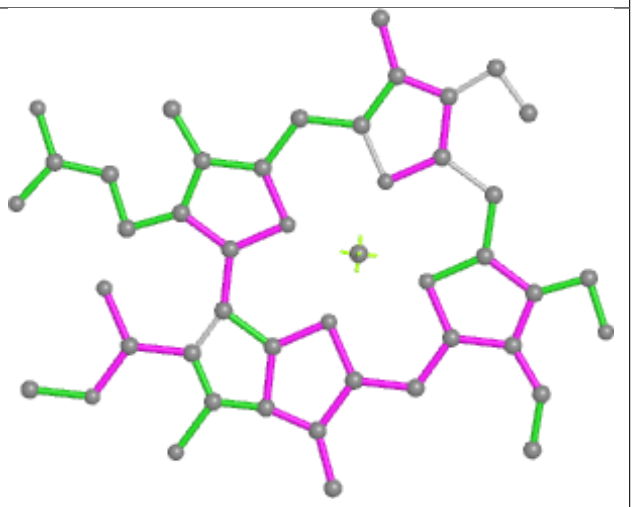


Rings

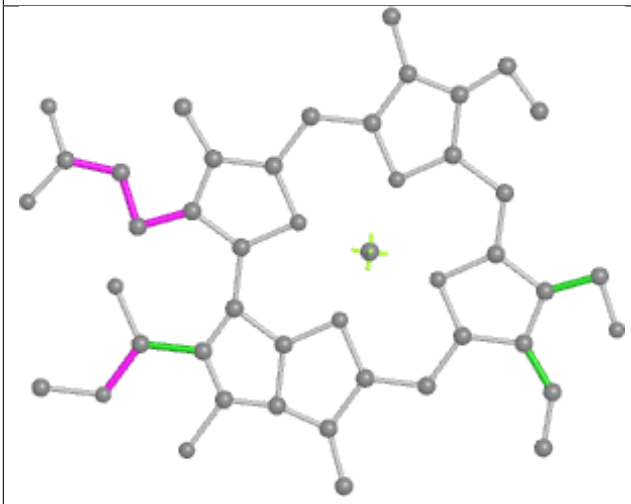
Ligand CHL N 606



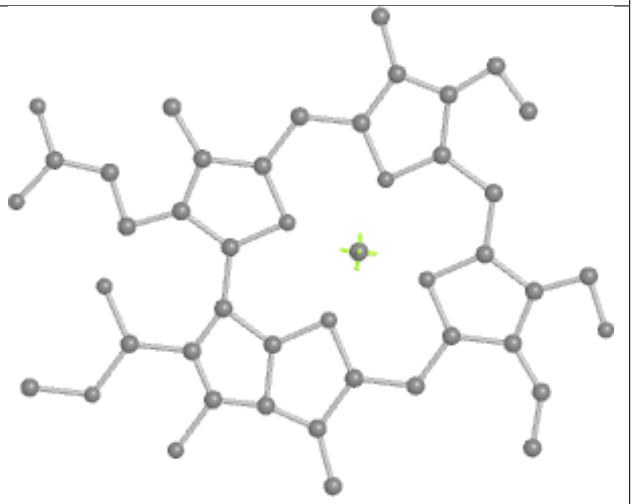
Bond lengths



Bond angles

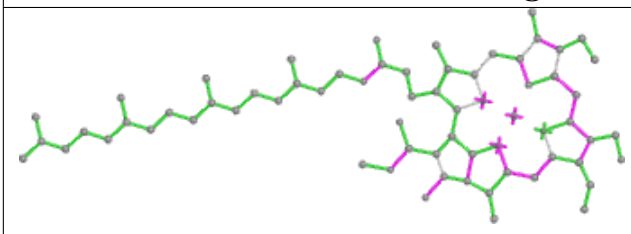


Torsions



Rings

Ligand CHL Y 606



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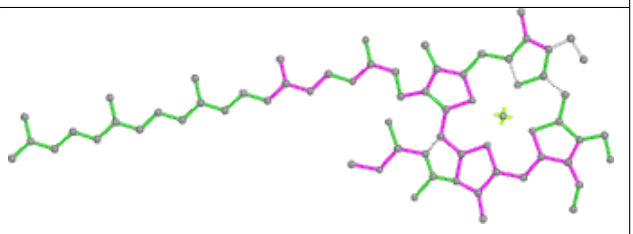

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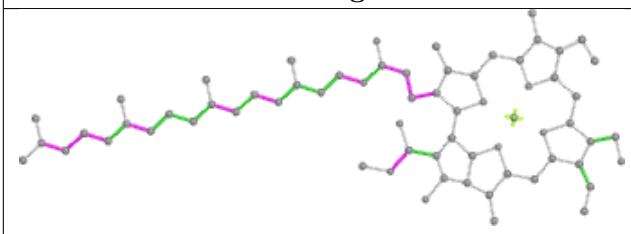

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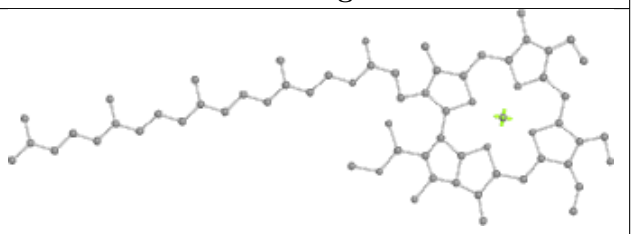
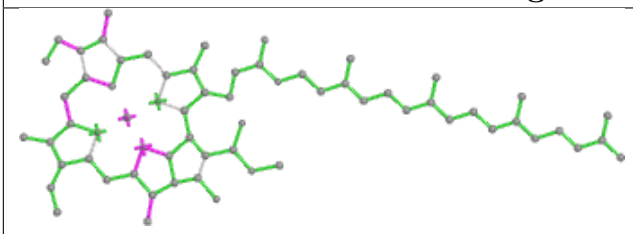


Rings

Ligand CLA n 604



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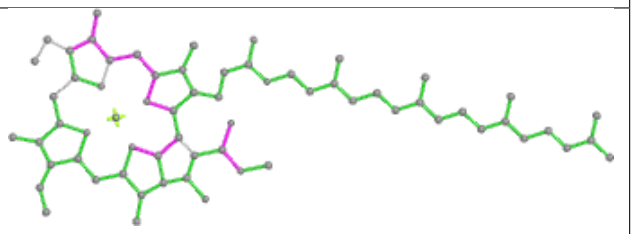

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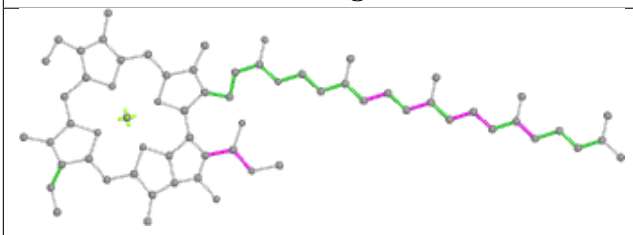

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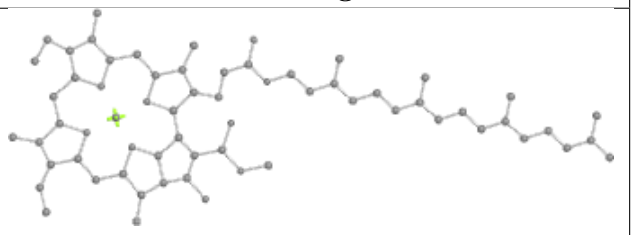
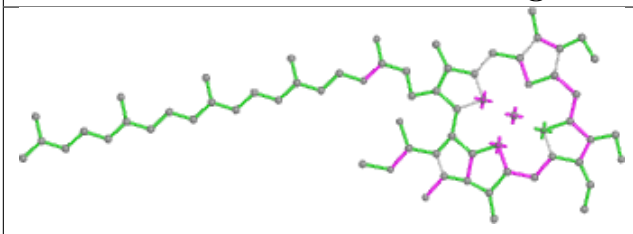


Rings

Ligand CHL y 606



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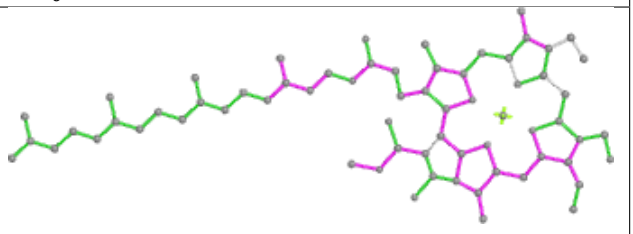

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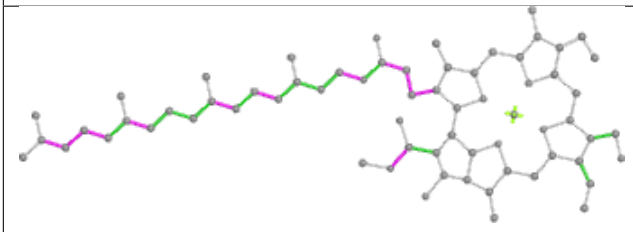

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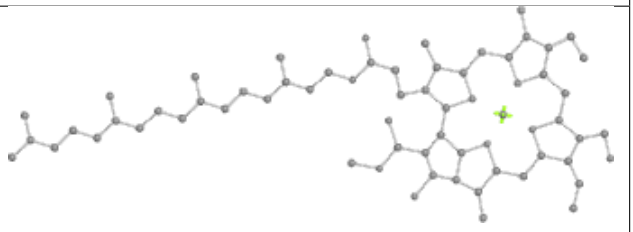
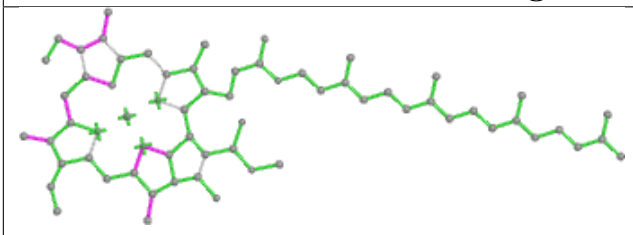


Rings

Ligand CLA y 610



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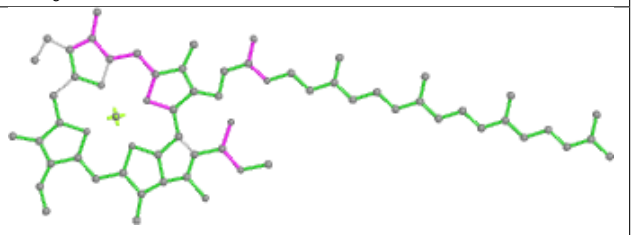
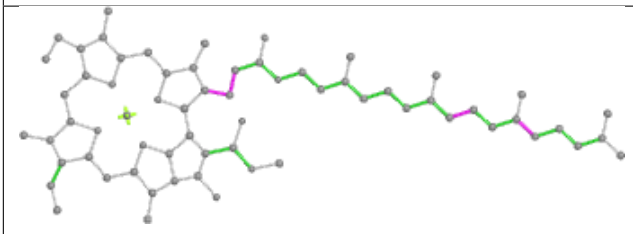


Bond angles



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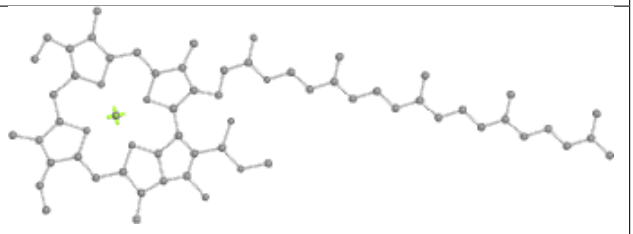

Rings

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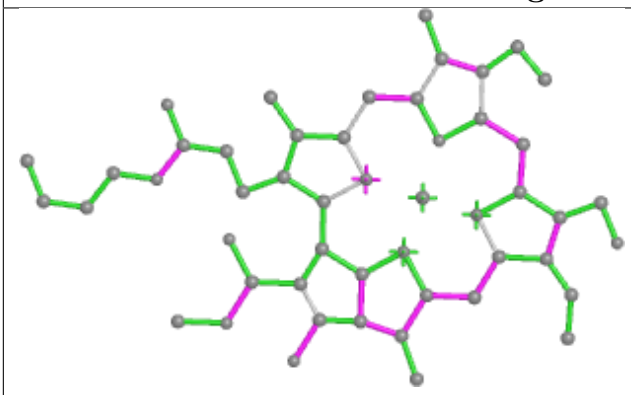

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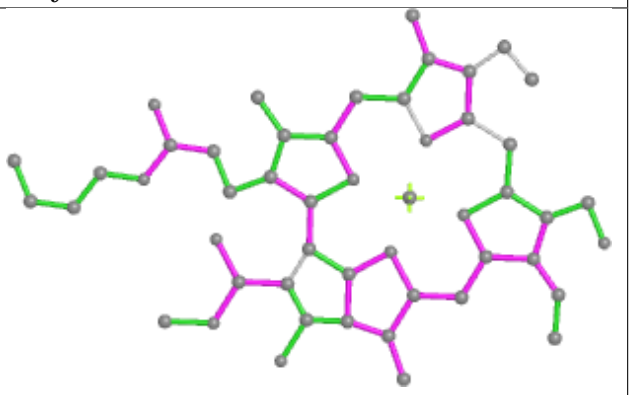
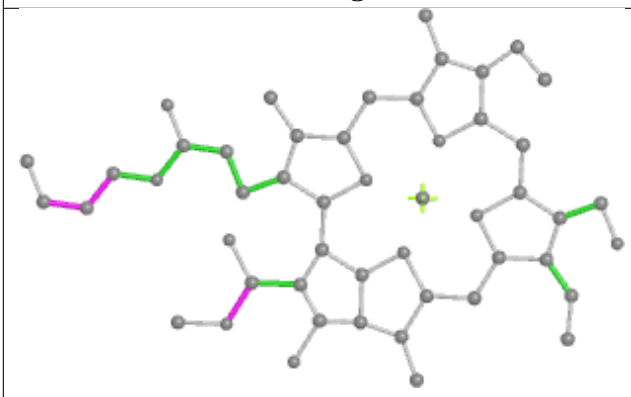


Bond angles



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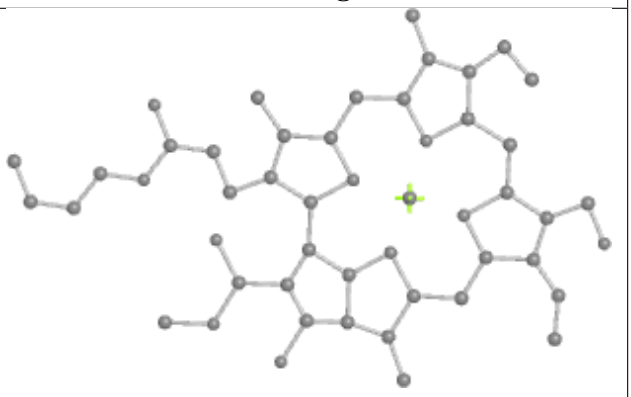
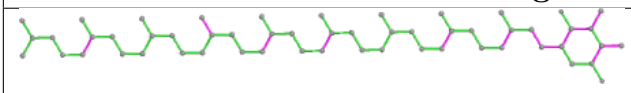


Rings

Ligand PL9 d 405



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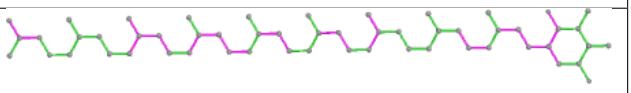

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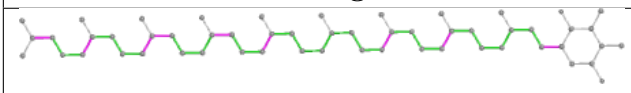

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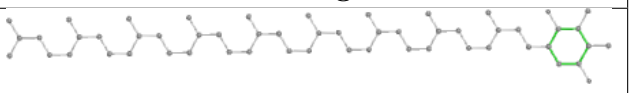
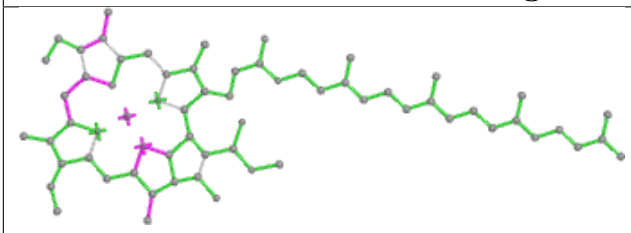


Rings

Ligand CLA G 603



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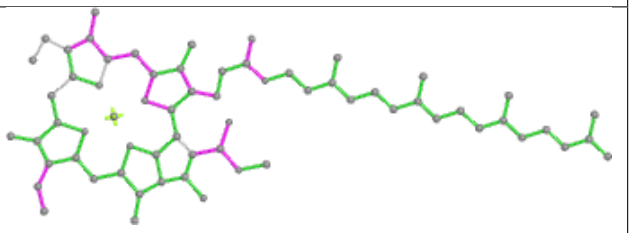
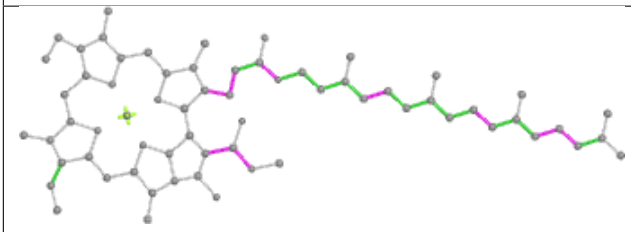


Bond angles



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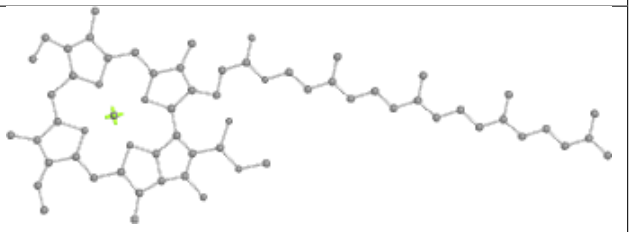
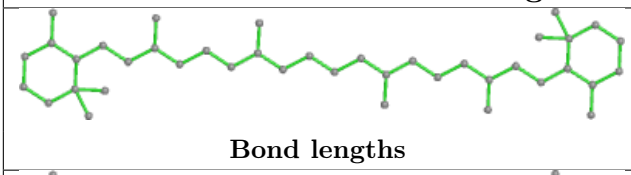


Rings

Ligand BCR h 101



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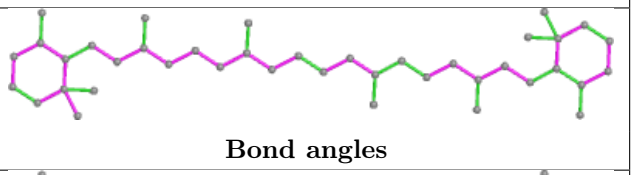
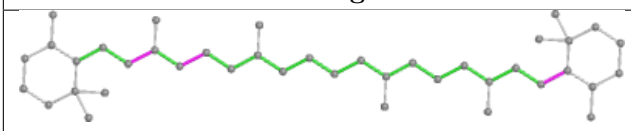


Bond angles



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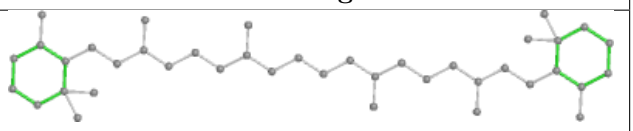
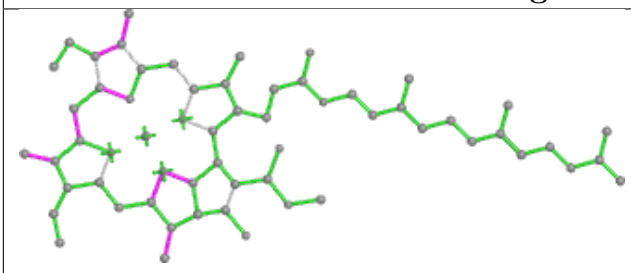


Rings

Ligand CLA r 602



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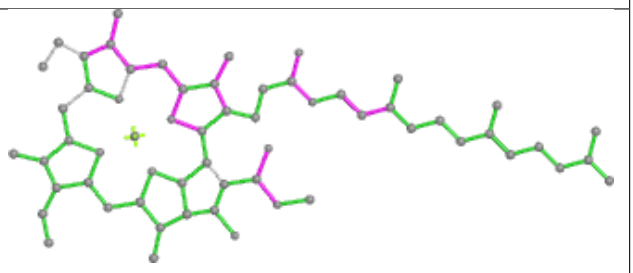
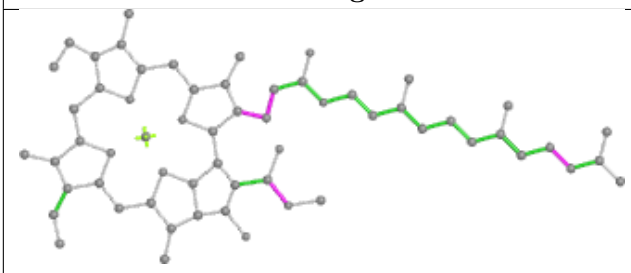


Bond angles



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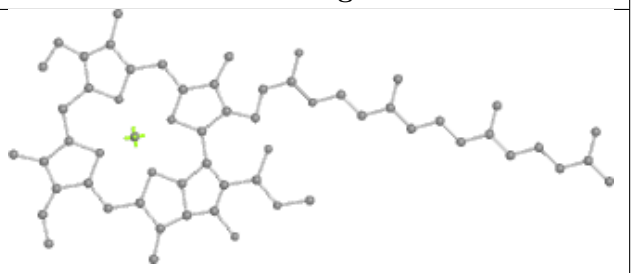
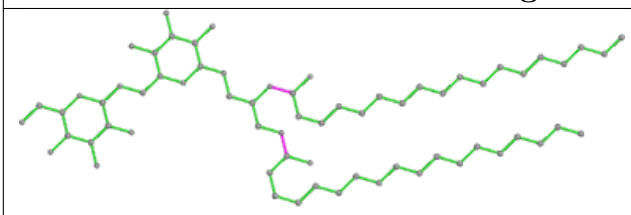


Rings

Ligand DGD C 524



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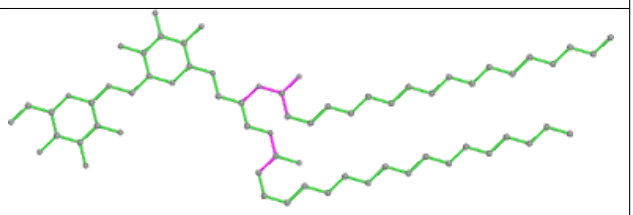

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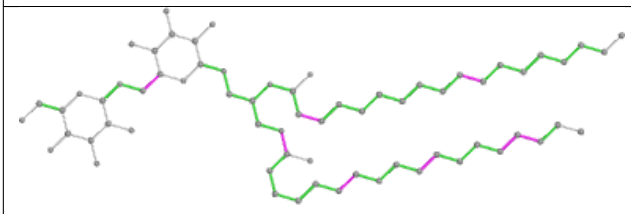

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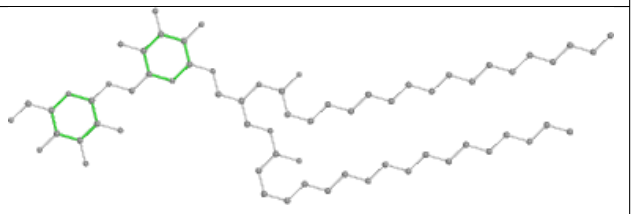
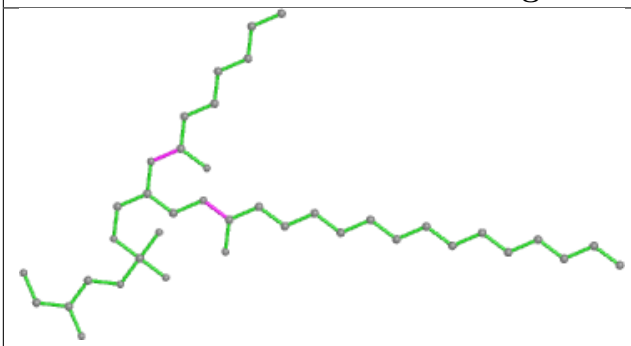


Rings

Ligand LHG D 410



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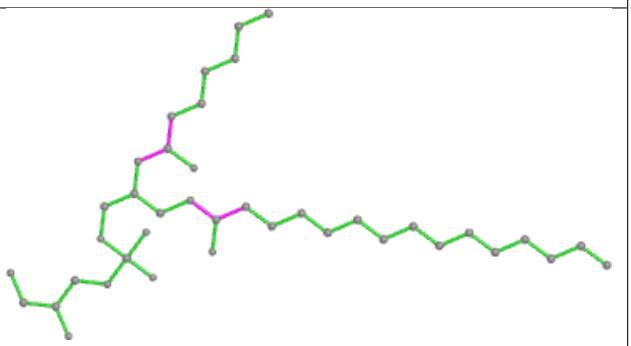
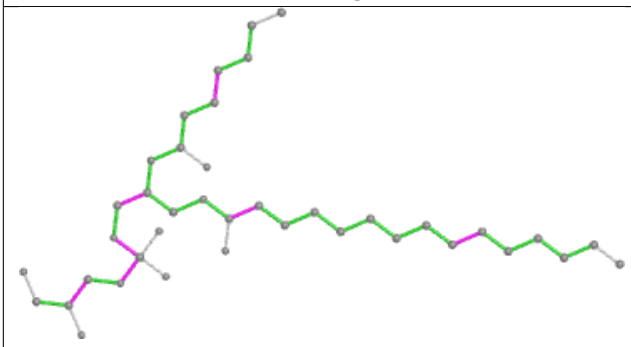


Bond angles



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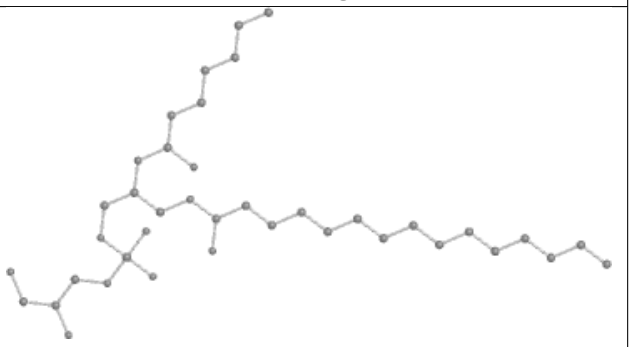
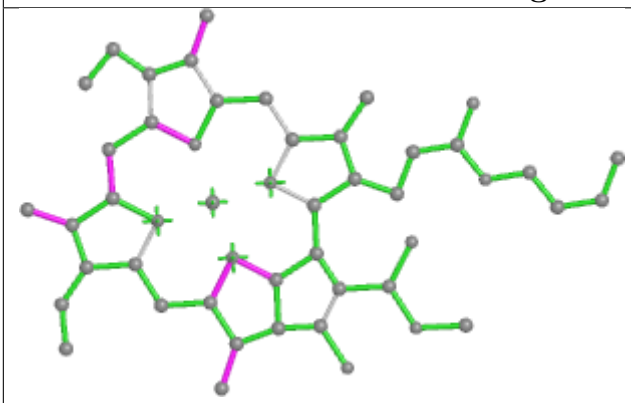


Rings

Ligand CLA s 602



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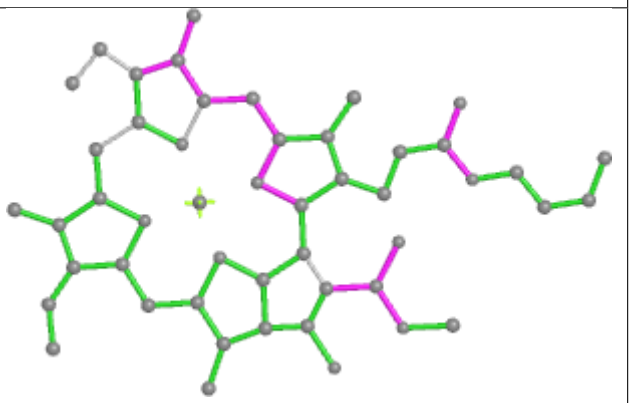
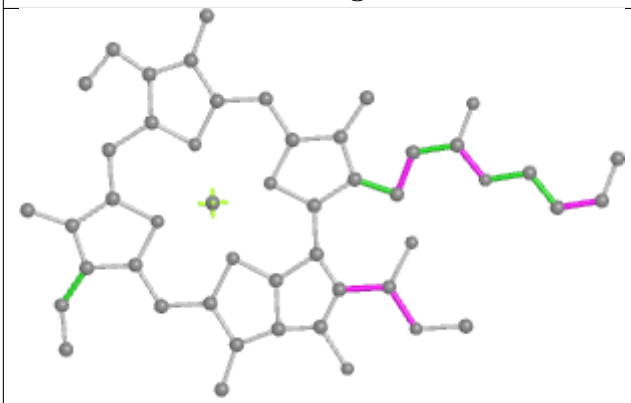


Bond angles



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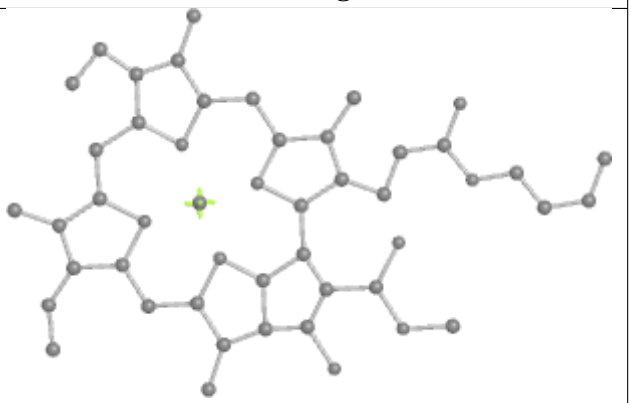
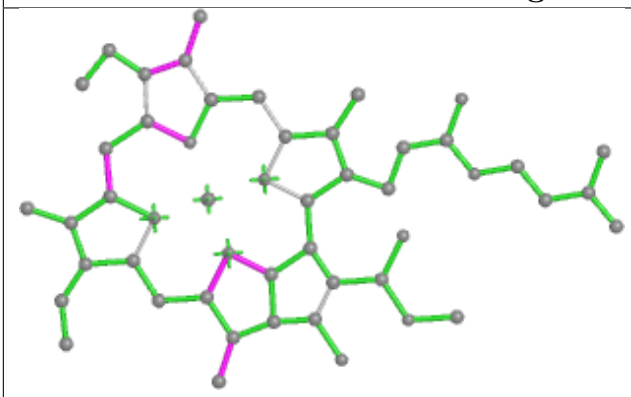


Rings

Ligand CLA S 605



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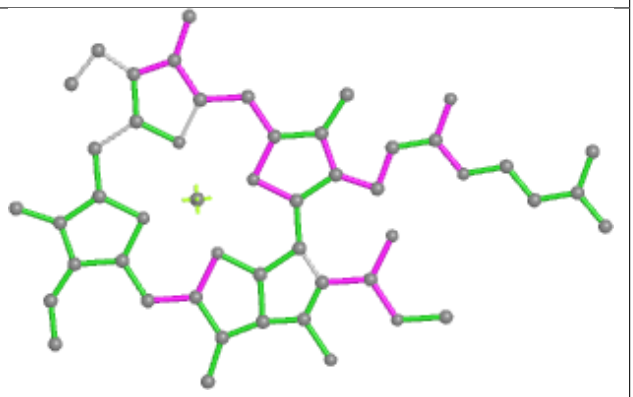
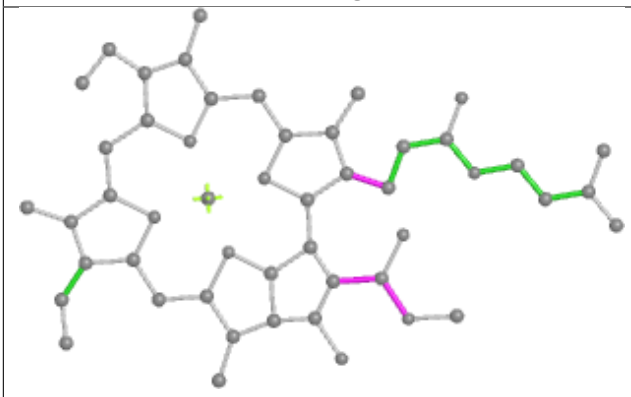


Bond angles



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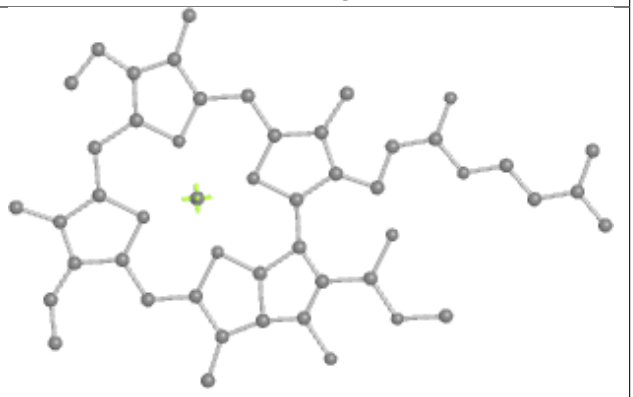
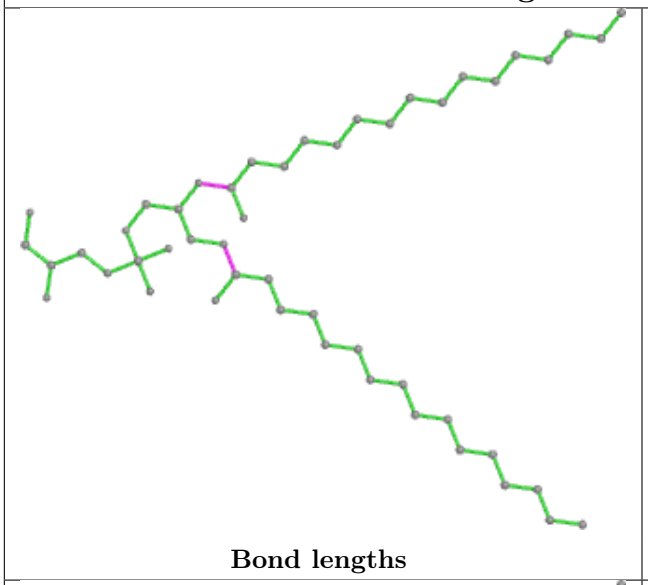
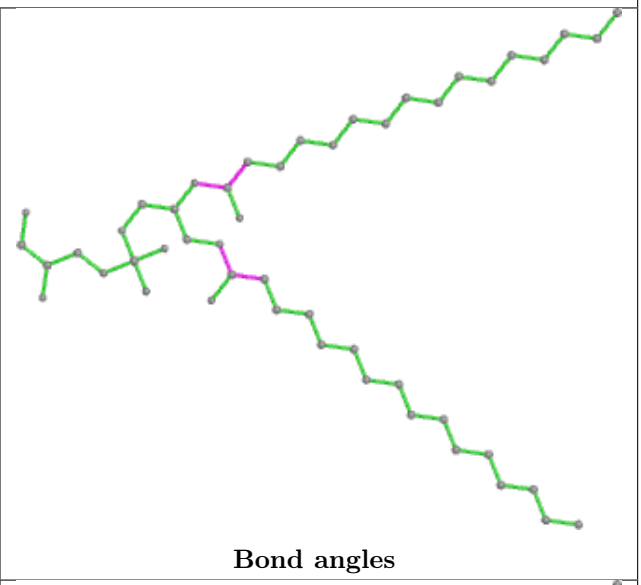


Rings

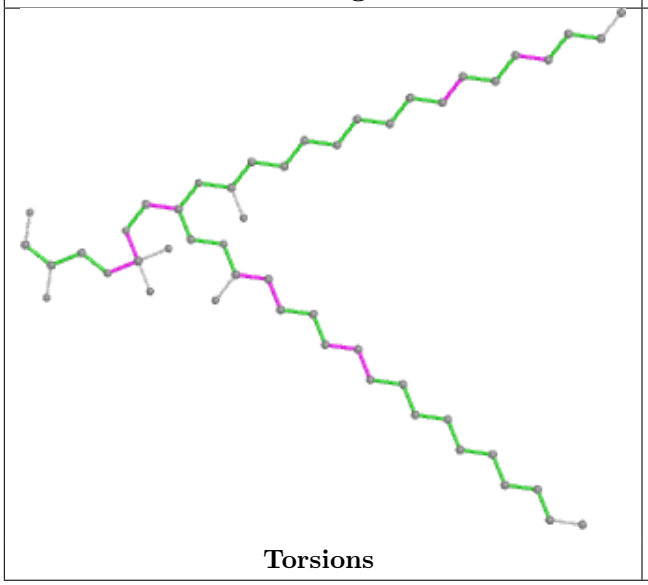
Ligand LHG n 2630



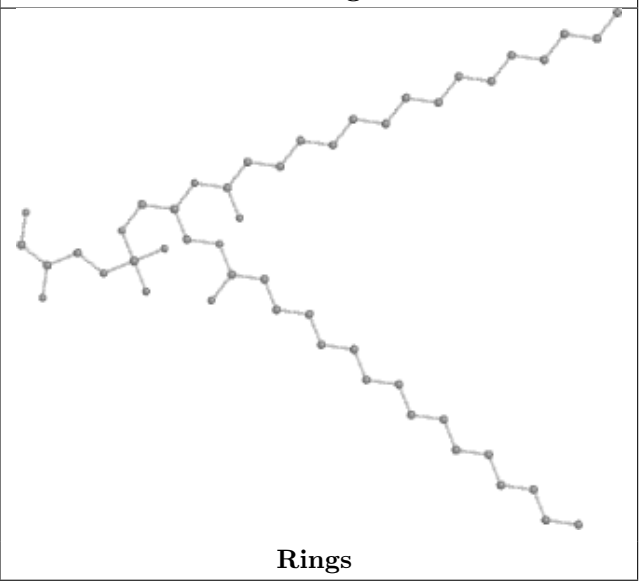
Bond lengths



Bond angles

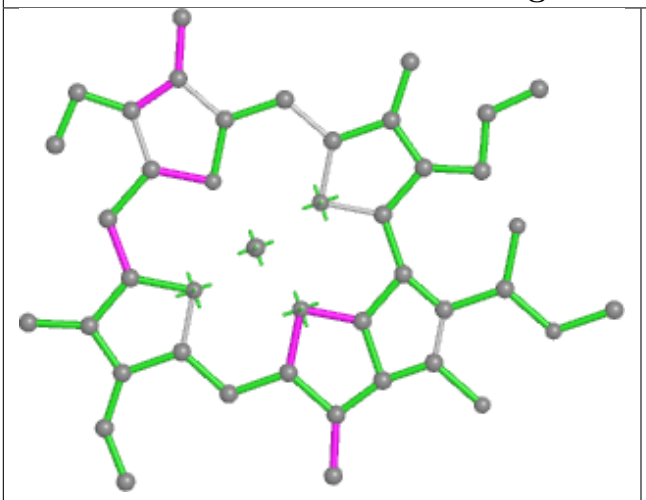


Torsions

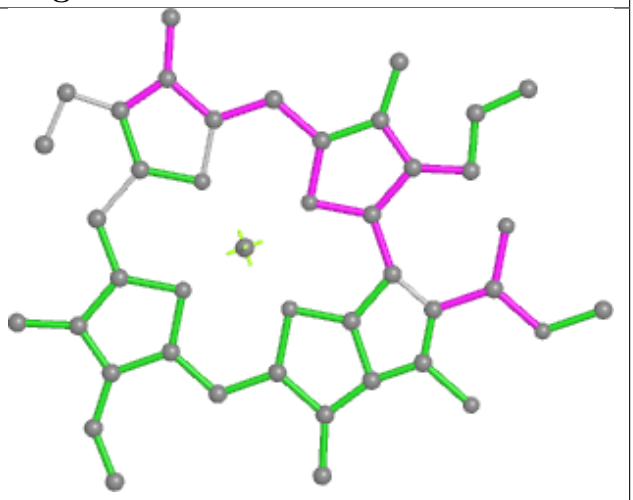


Rings

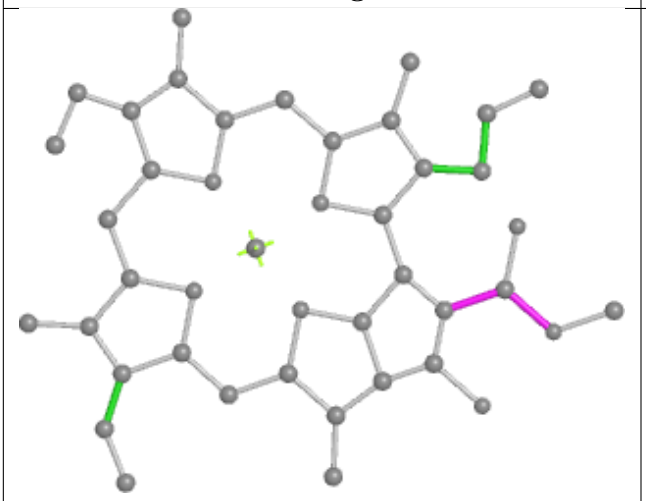
Ligand CLA g 612



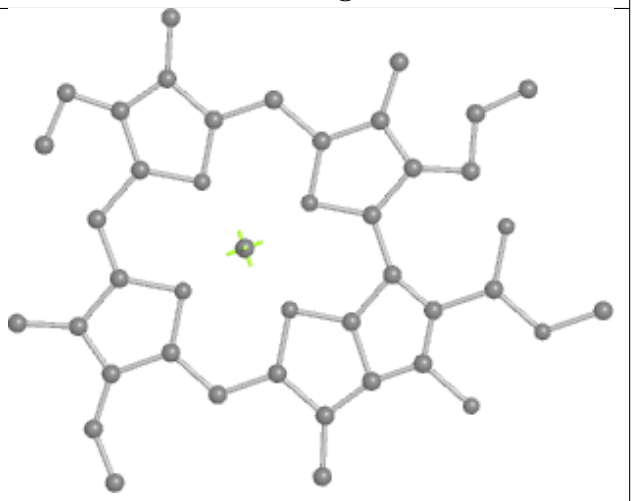
Bond lengths



Bond angles

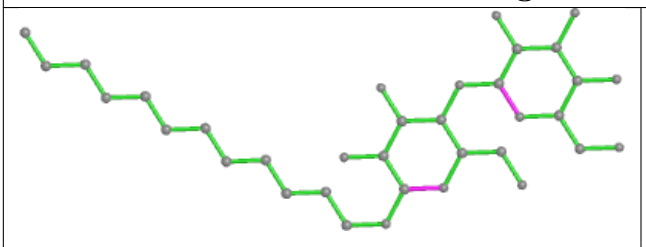


Torsions



Rings

Ligand LMU z 2635



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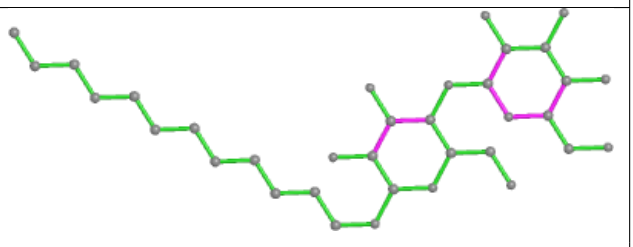
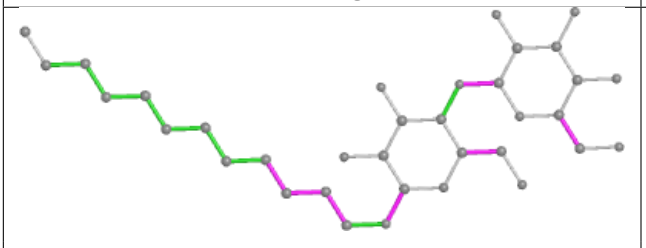
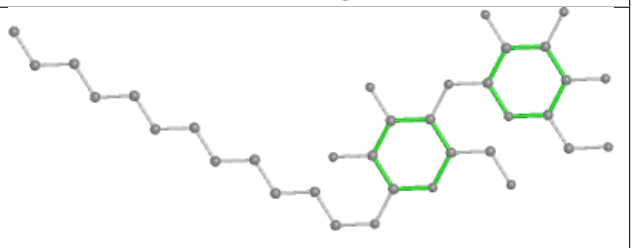


Bond angles

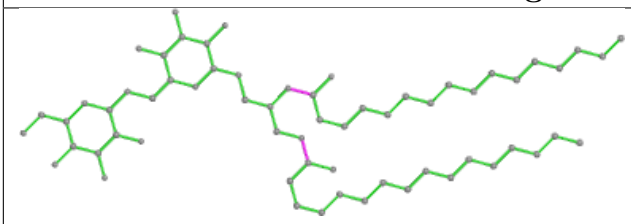


Torsions



Rings

Ligand DGD c 519



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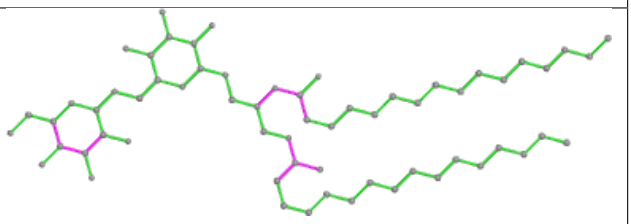
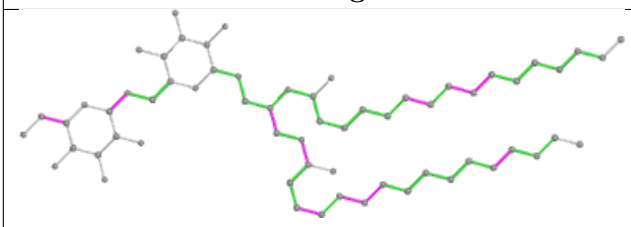
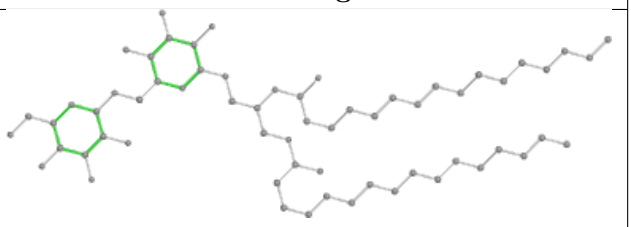


Bond angles

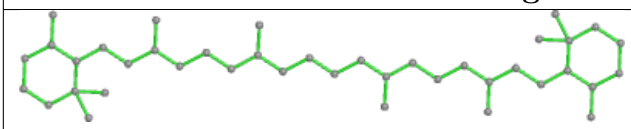


Torsions

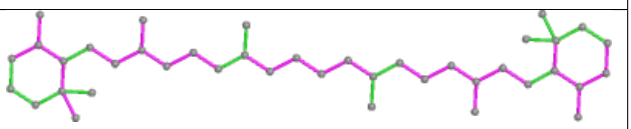


Rings

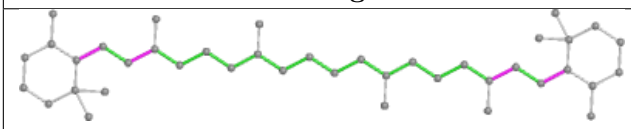
Ligand BCR C 516



Bond lengths



Bond angles



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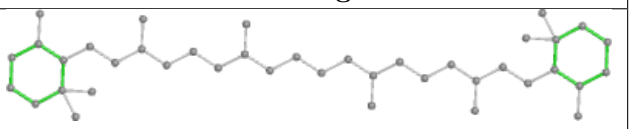
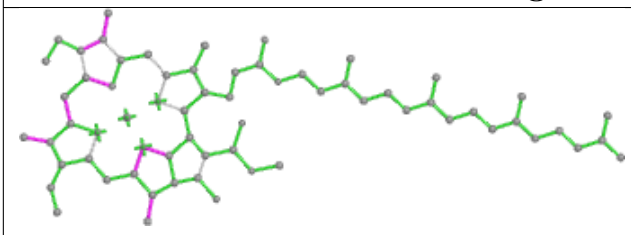
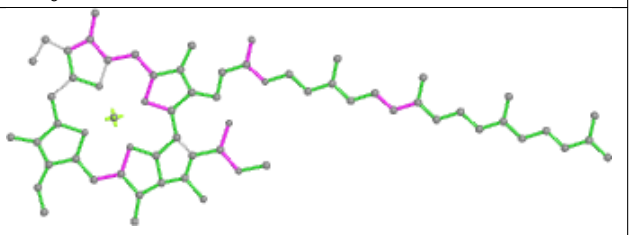


Rings

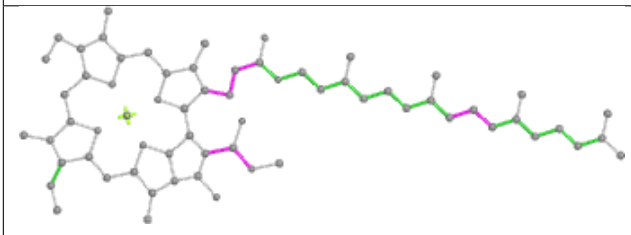
Ligand CLA y 602



Bond lengths



Bond angles



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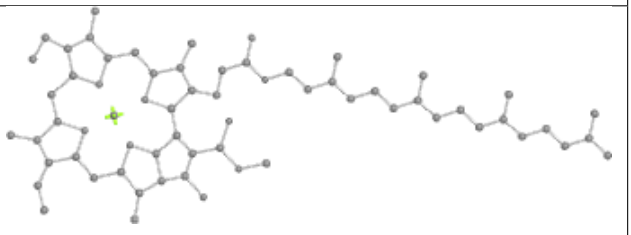
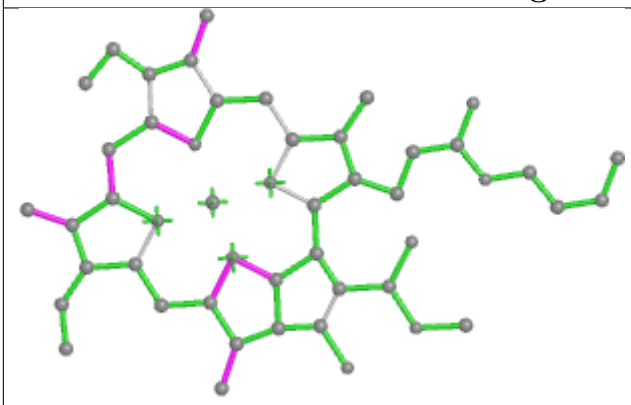
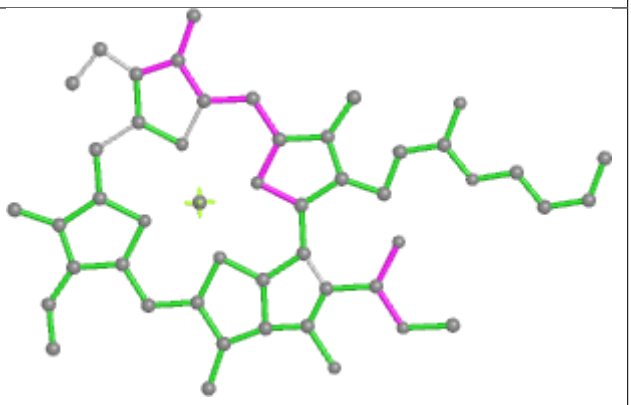
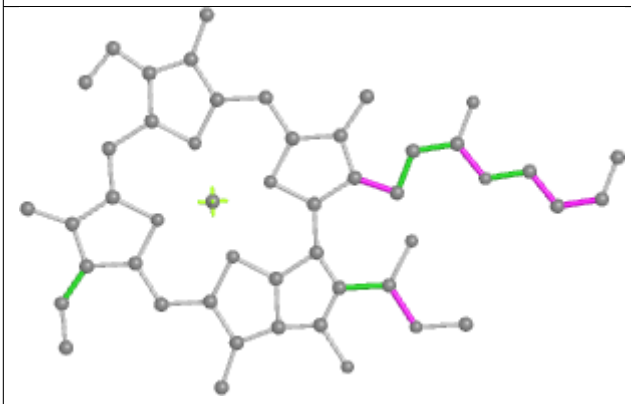
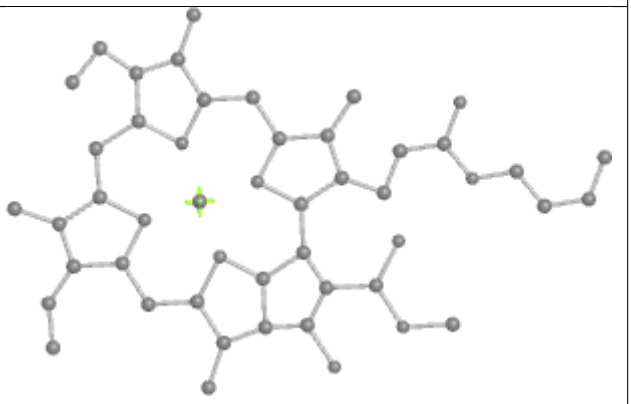
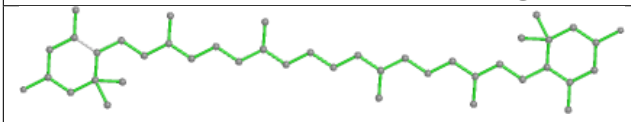
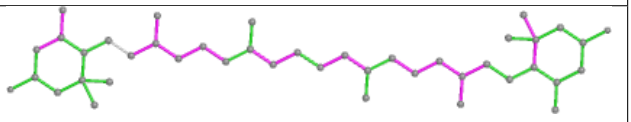
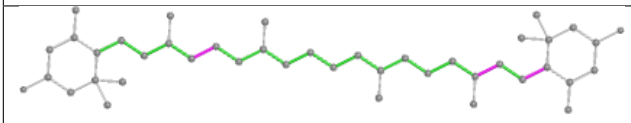
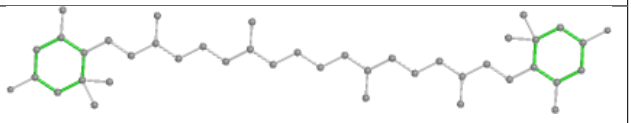
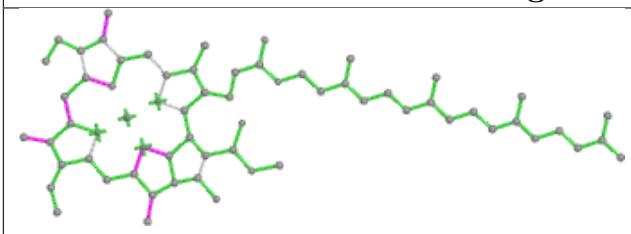


Rings

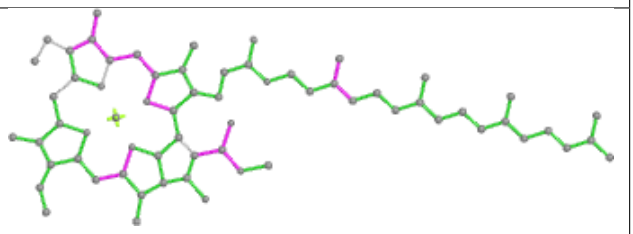
Ligand CLA s 611	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand LUT G 1621	
 Bond lengths	 Bond angles
 Torsions	 Rings

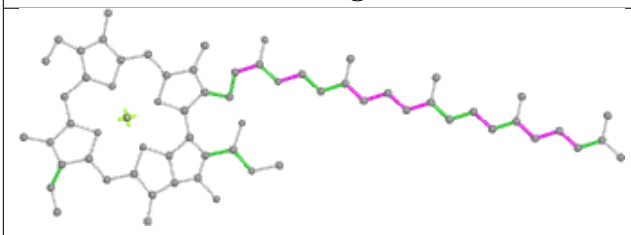
Ligand CLA b 603



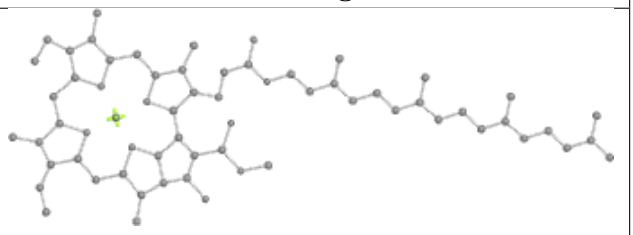
Bond lengths



Bond angles

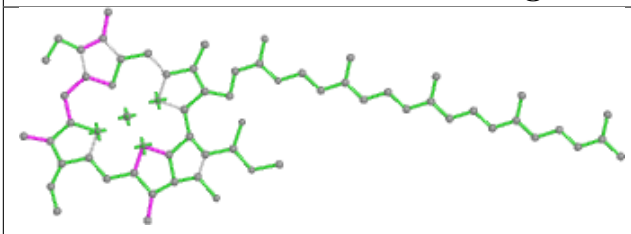


Torsions



Rings

Ligand CLA B 616



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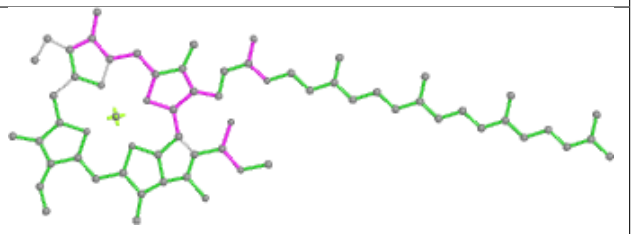
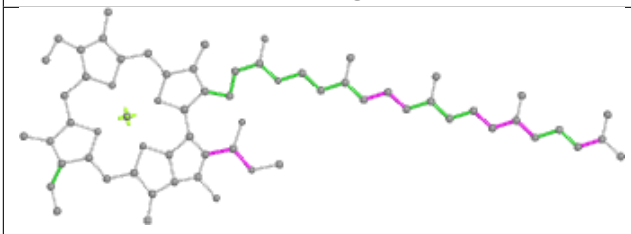
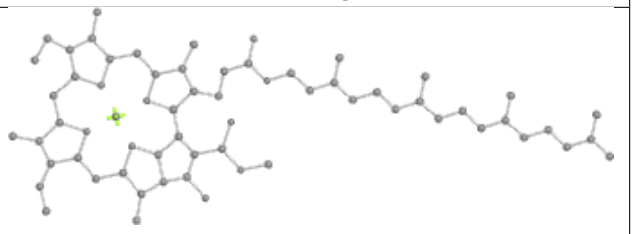


Bond angles

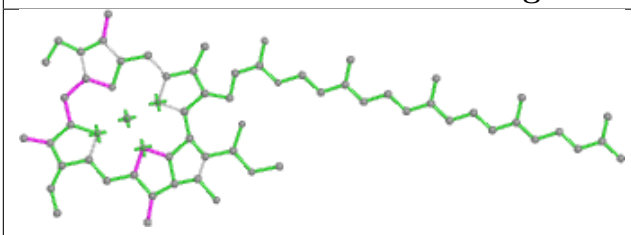


Torsions



Rings

Ligand CLA G 610



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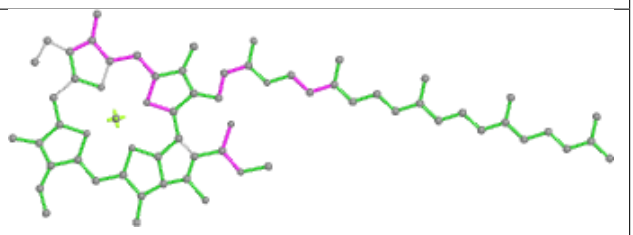
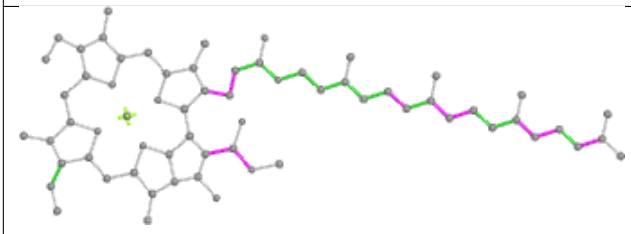
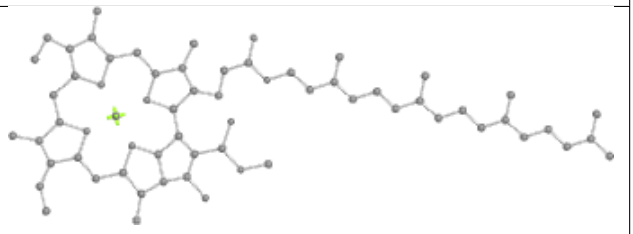


Bond angles

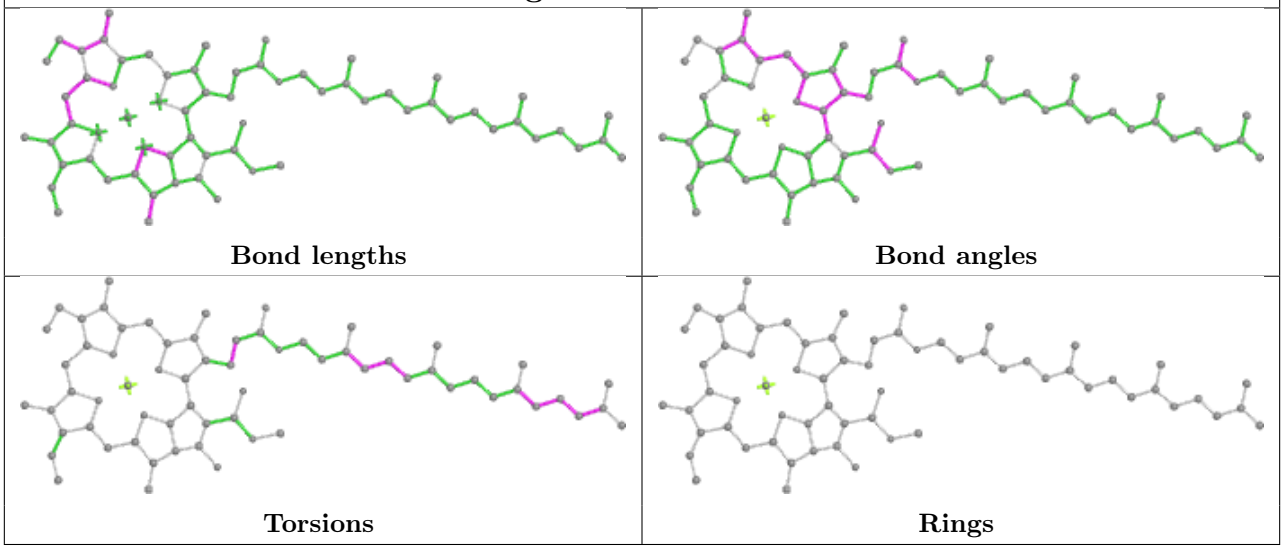


Torsions

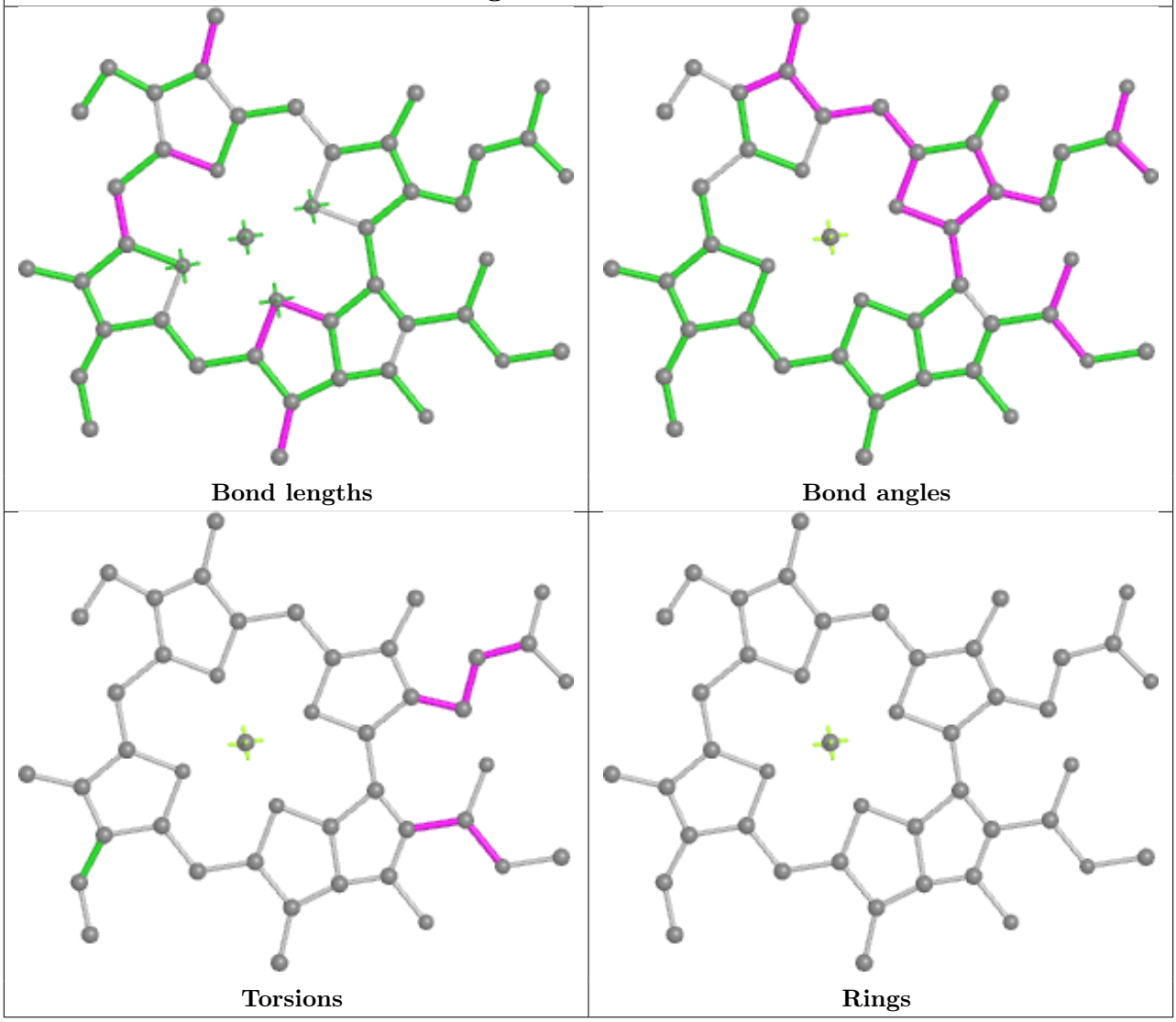


Rings

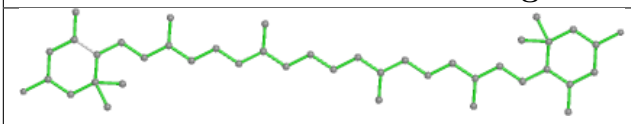
Ligand CLA C 507



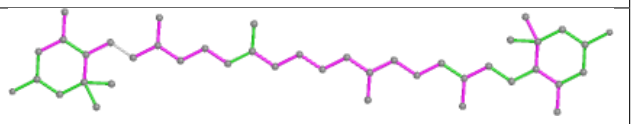
Ligand CLA r 609



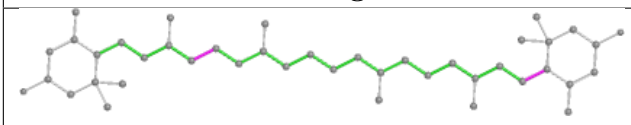
Ligand LUT s 1621



Bond lengths



Bond angles



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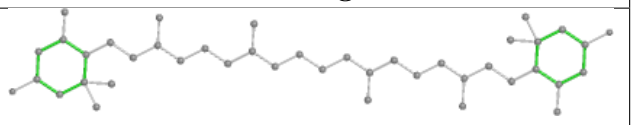
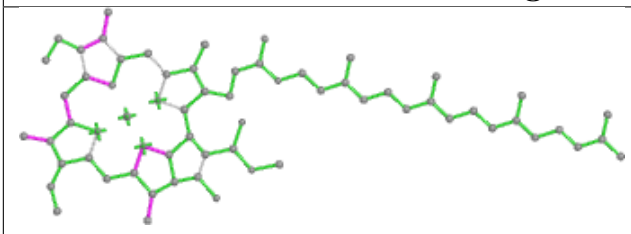
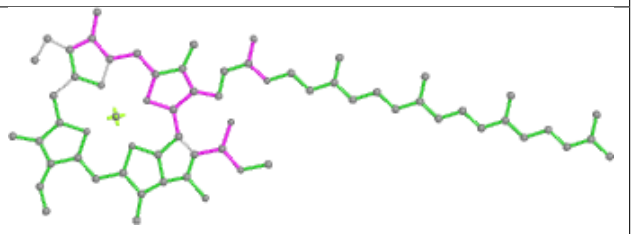


Rings

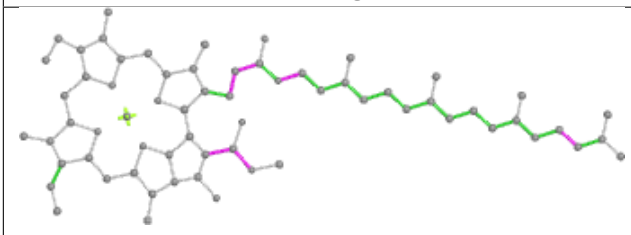
Ligand CLA B 611



Bond lengths



Bond angles



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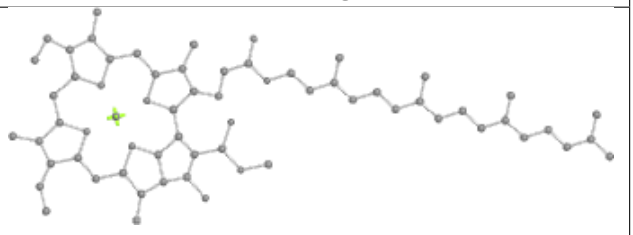
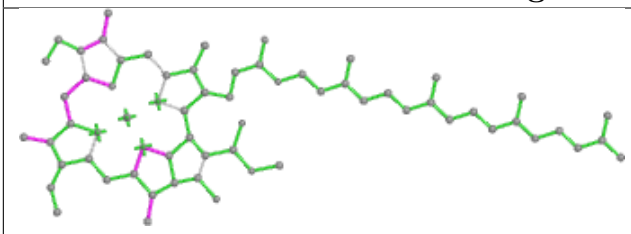
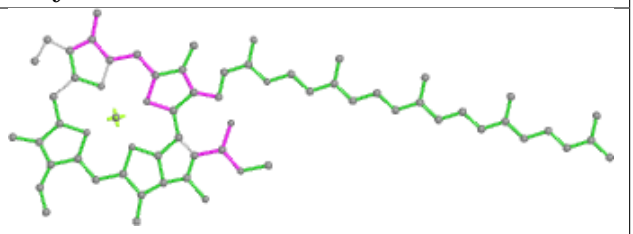


Rings

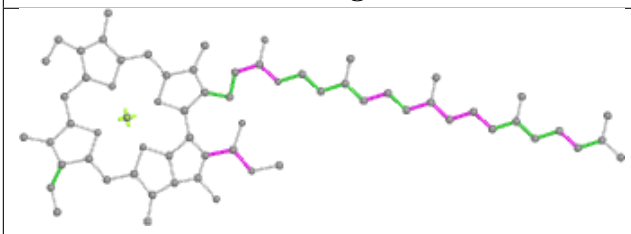
Ligand CLA y 612



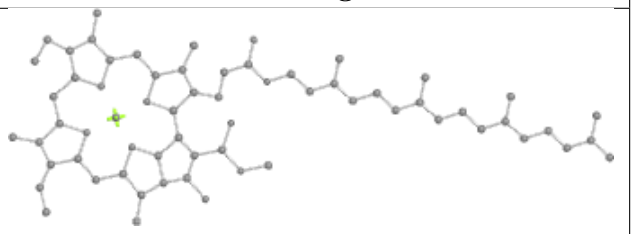
Bond lengths



Bond angles

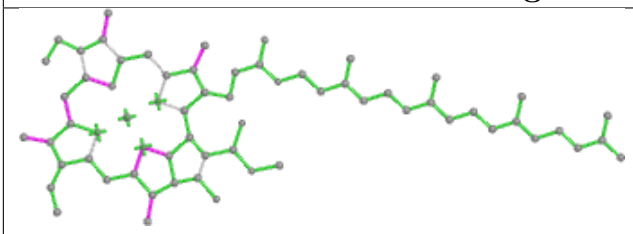


Torsions

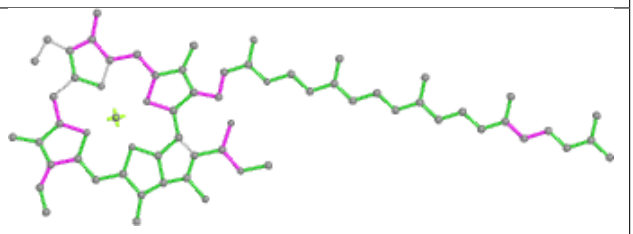


Rings

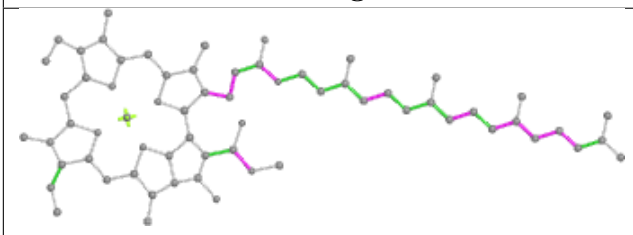
Ligand CLA A 405



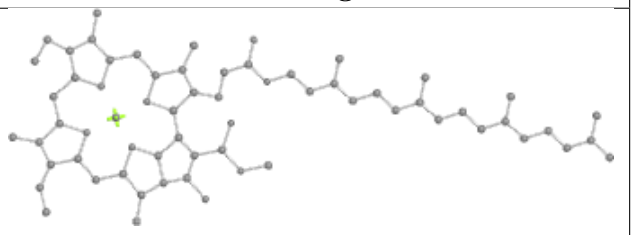
Bond lengths



Bond angles

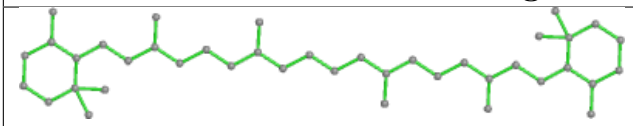


Torsions

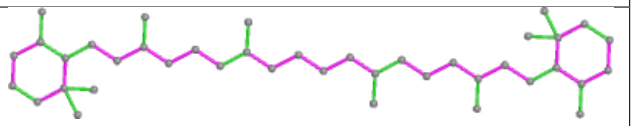


Rings

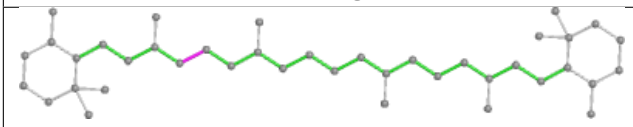
Ligand BCR C 517



Bond lengths



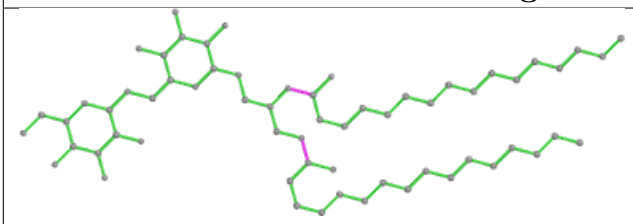
Bond angles



Torsions

Rings

Ligand DGD C 519



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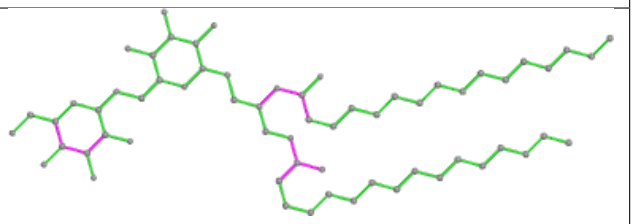
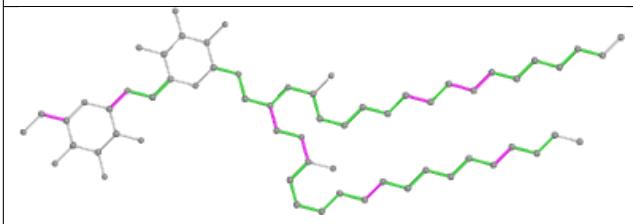


Bond angles



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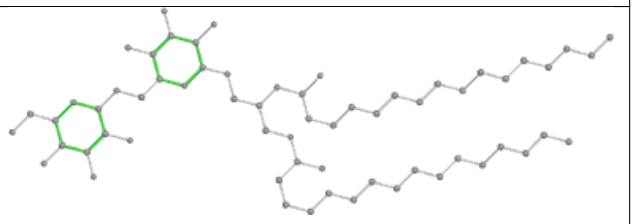
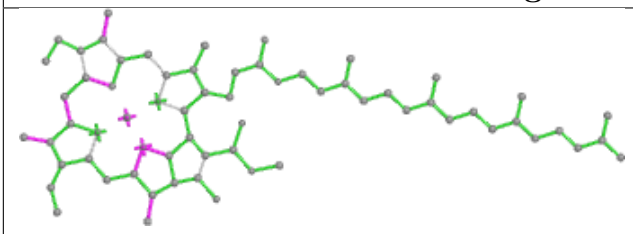


Rings

Ligand CLA B 614



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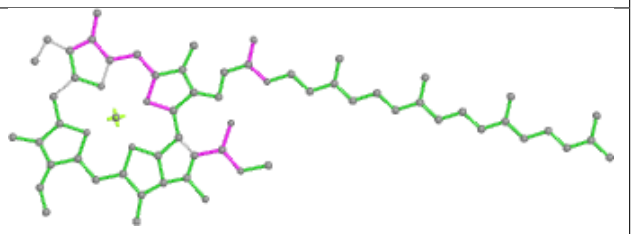
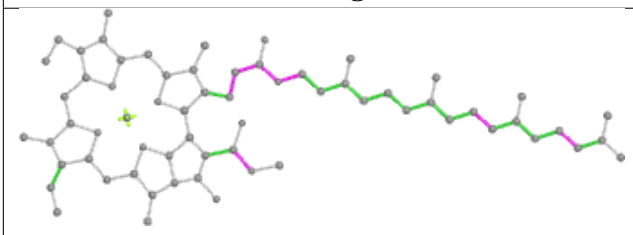
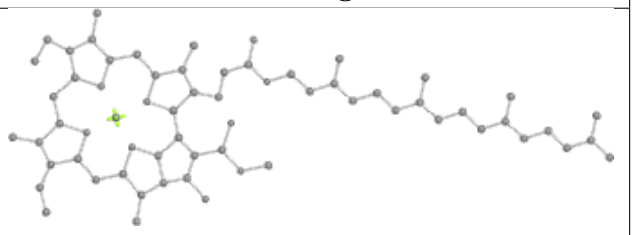


Bond angles

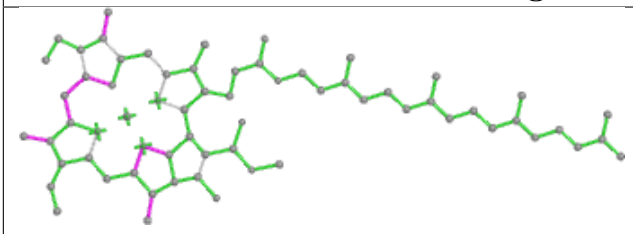


Torsions



Rings

Ligand CLA b 607



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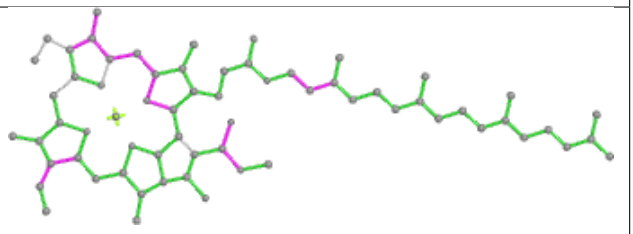
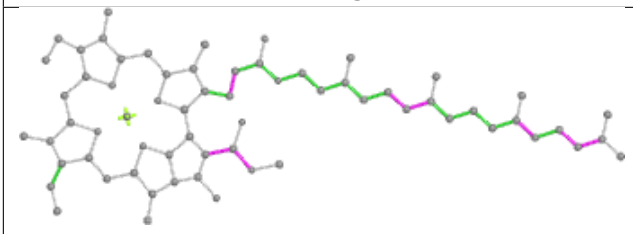
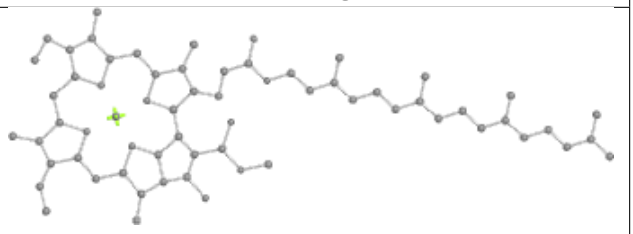


Bond angles

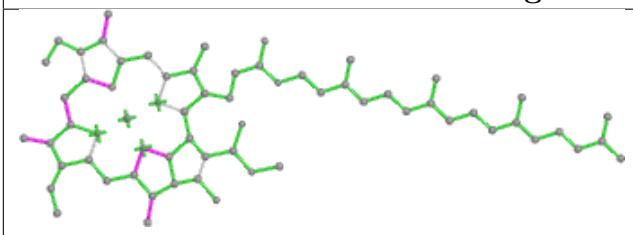


Torsions



Rings

Ligand CLA B 603



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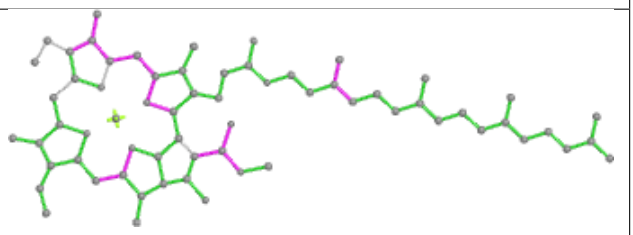
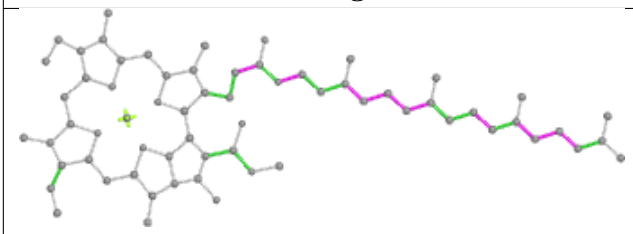


Bond angles



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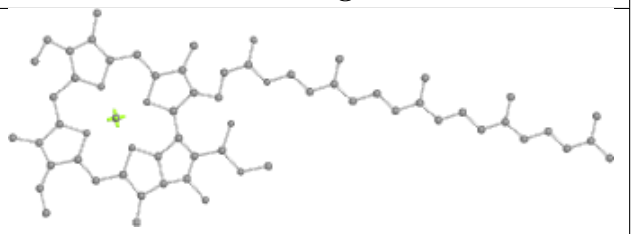
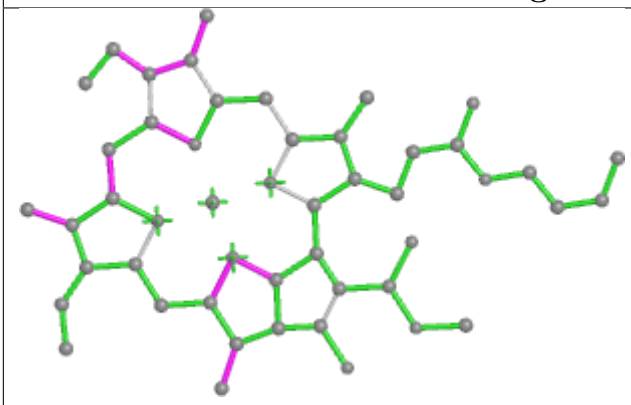


Rings

Ligand CLA s 610



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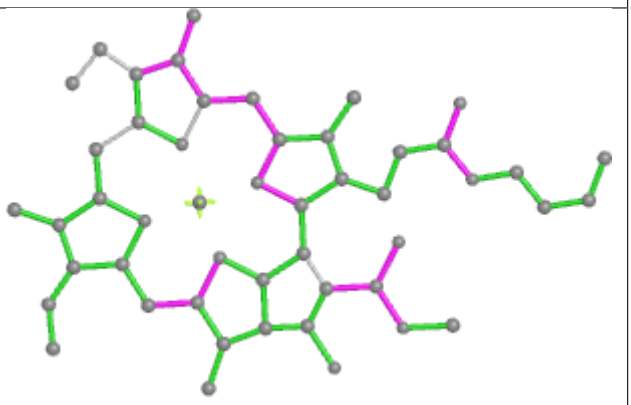
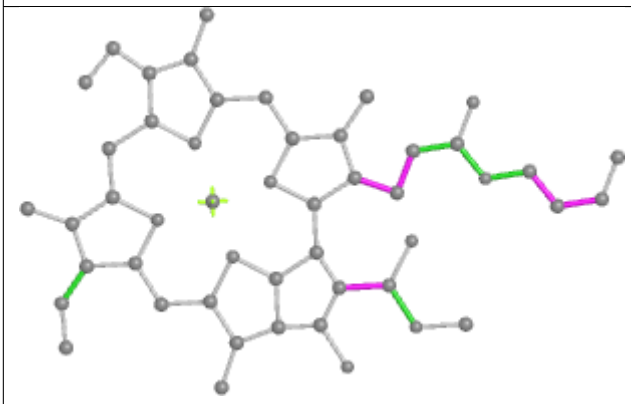


Bond angles



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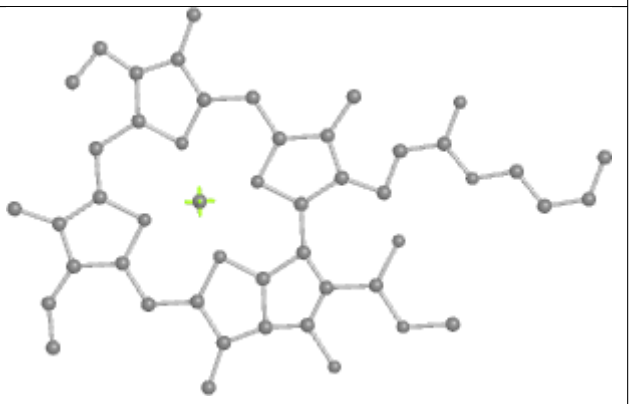
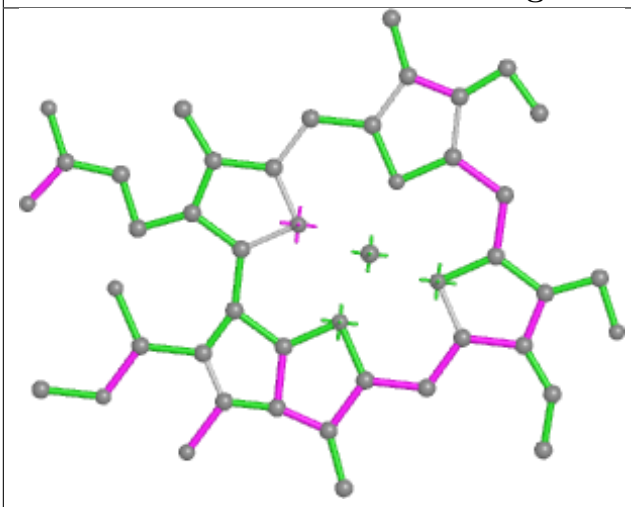


Rings

Ligand CHL S 601



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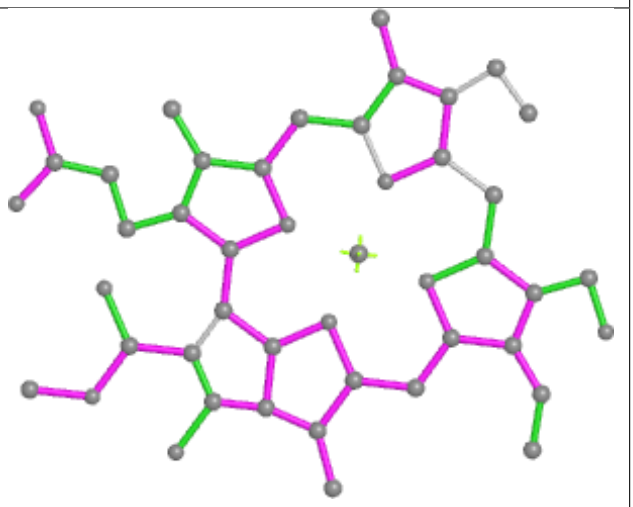
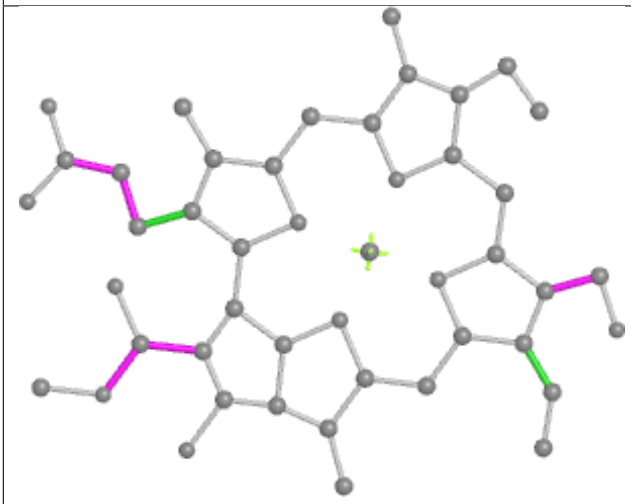
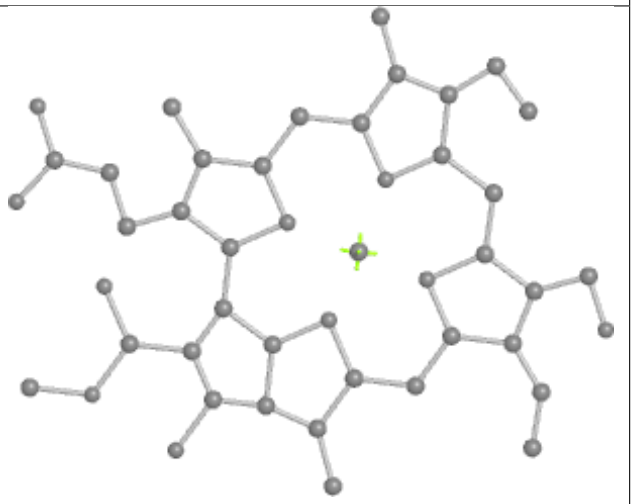


Bond angles

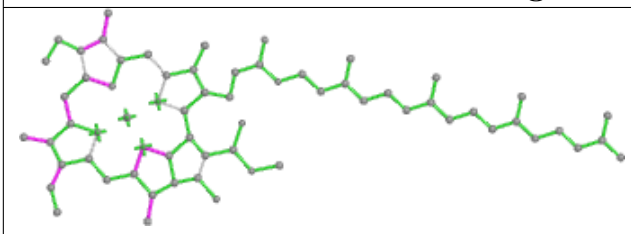


Torsions



Rings

Ligand CLA n 603



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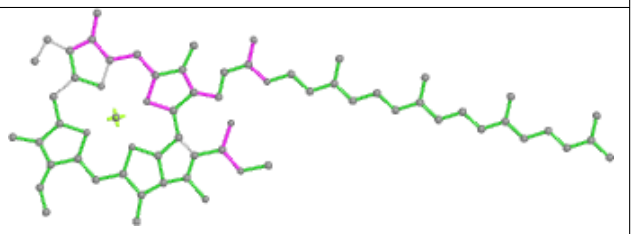
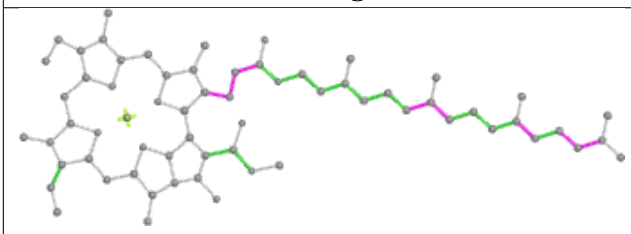


Bond angles



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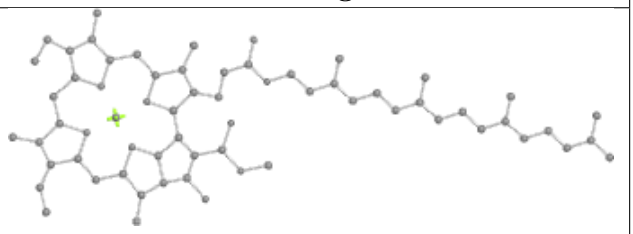
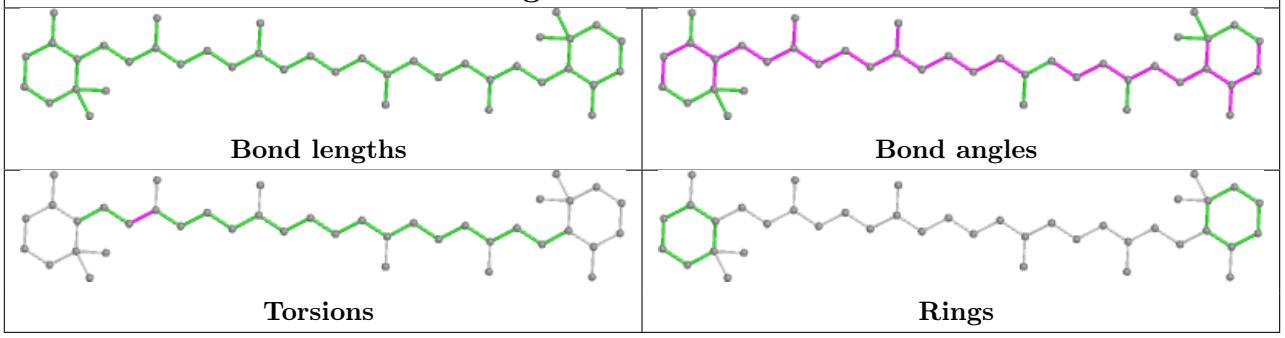
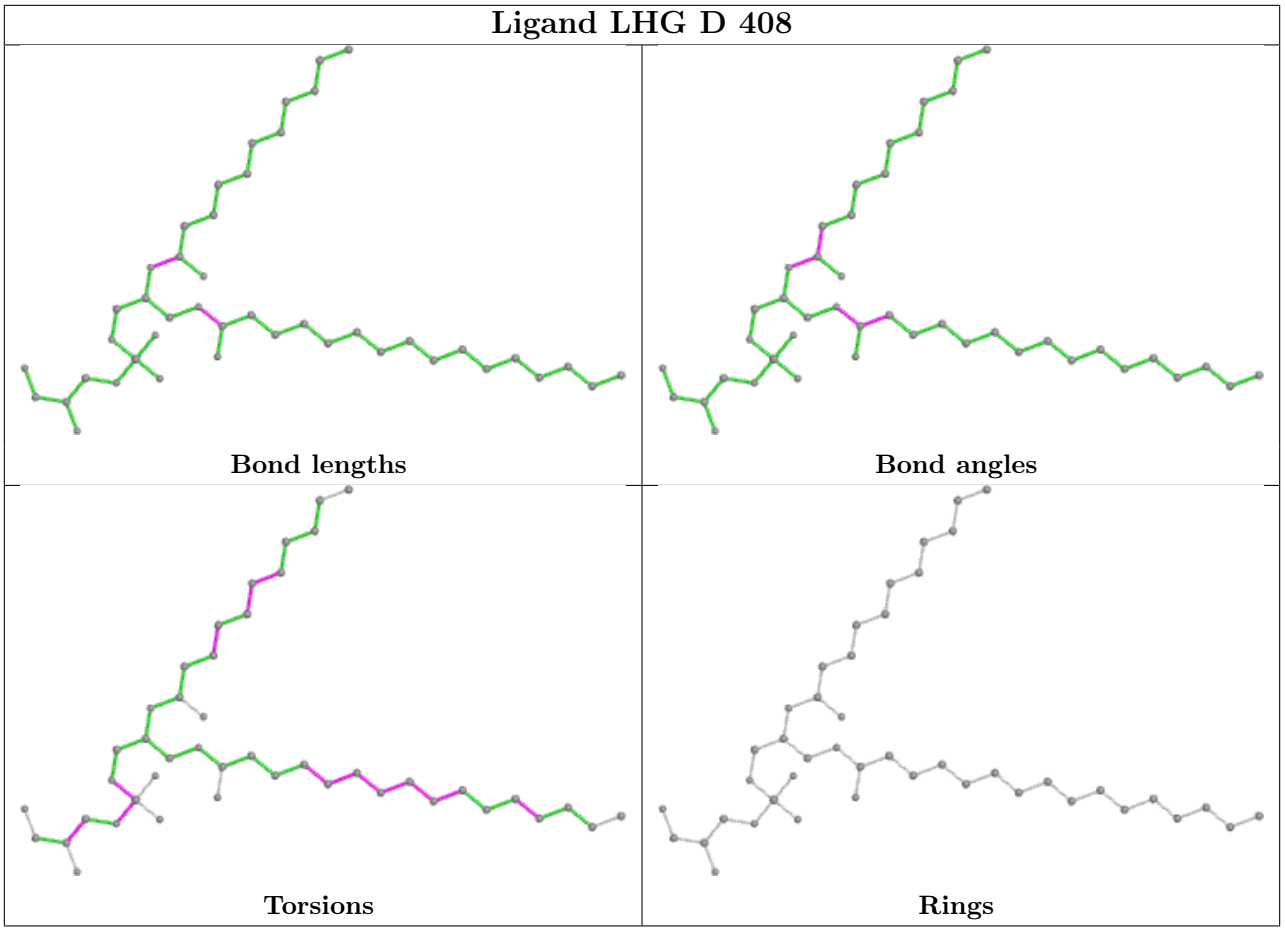


Rings

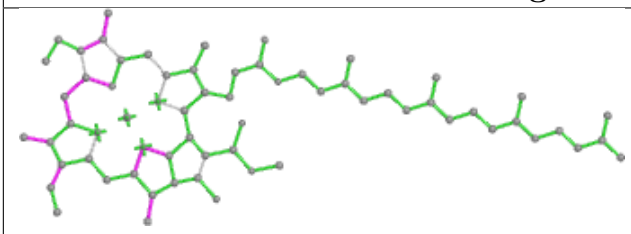
Ligand BCR D 404



Ligand LHG D 408



Ligand CLA c 504



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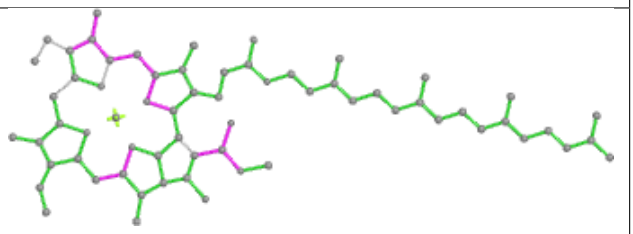
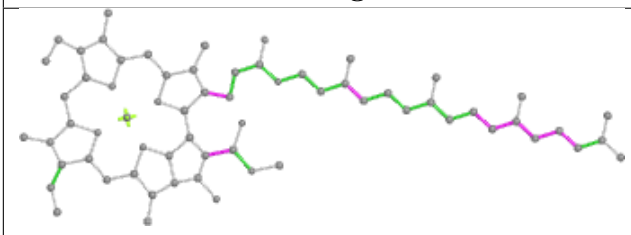


Bond angles



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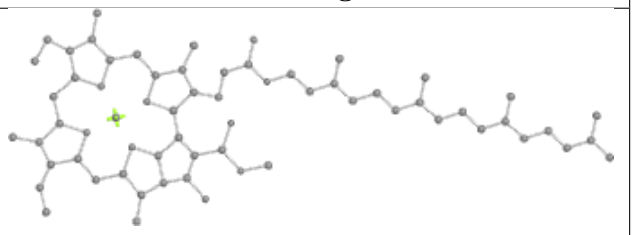
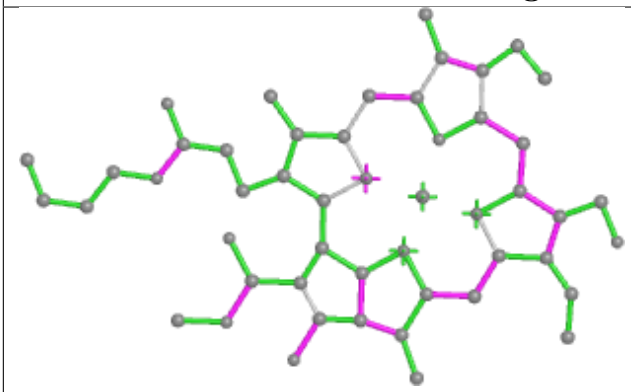
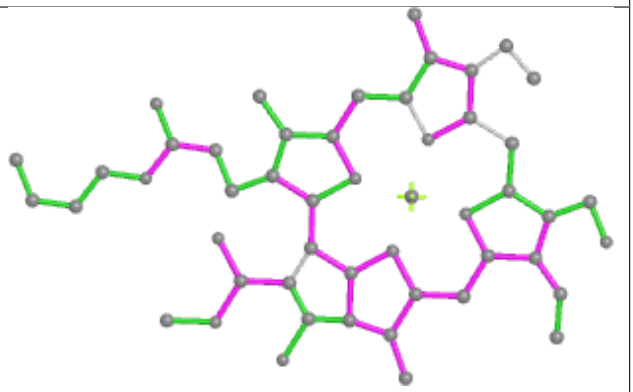


Rings

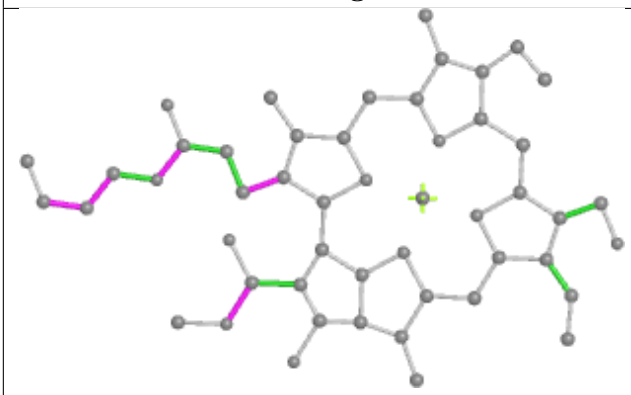
Ligand CHL G 606



Bond lengths



Bond angles



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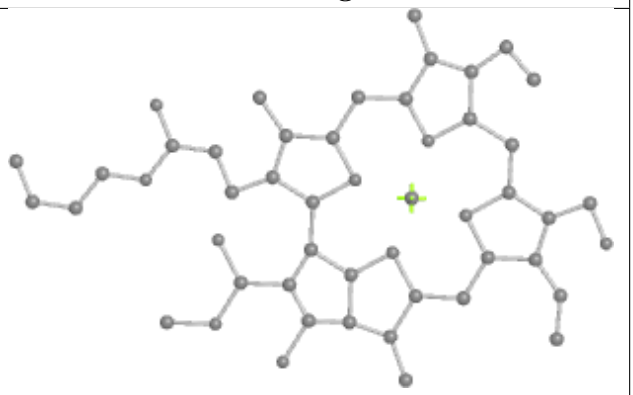
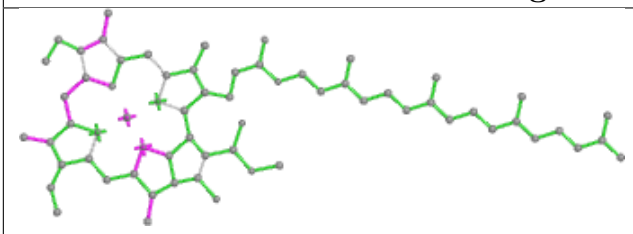


Rings

Ligand CLA c 506



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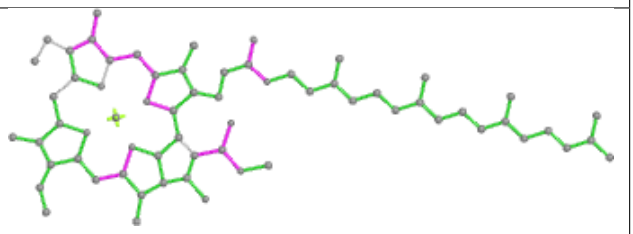
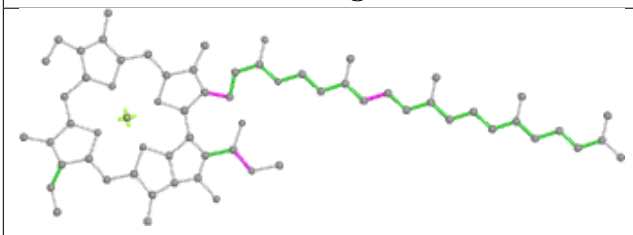


Bond angles



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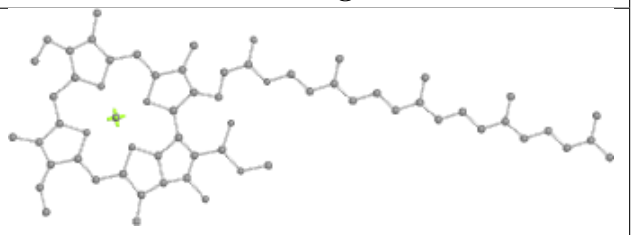
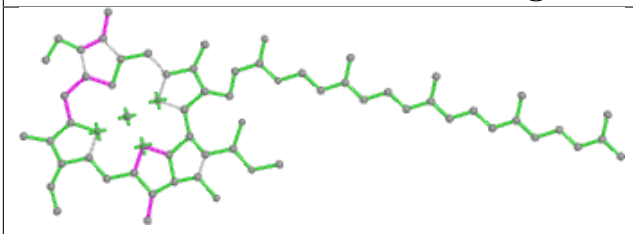


Rings

Ligand CLA b 610



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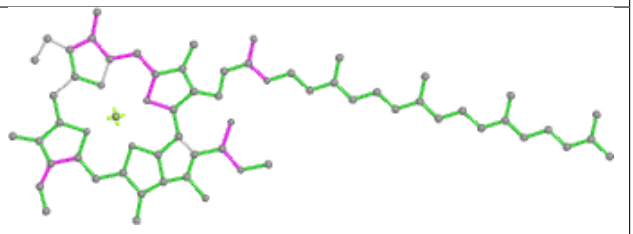
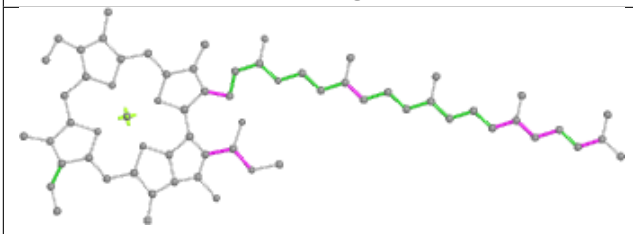


Bond angles



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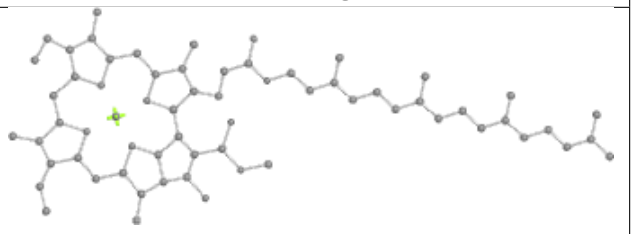
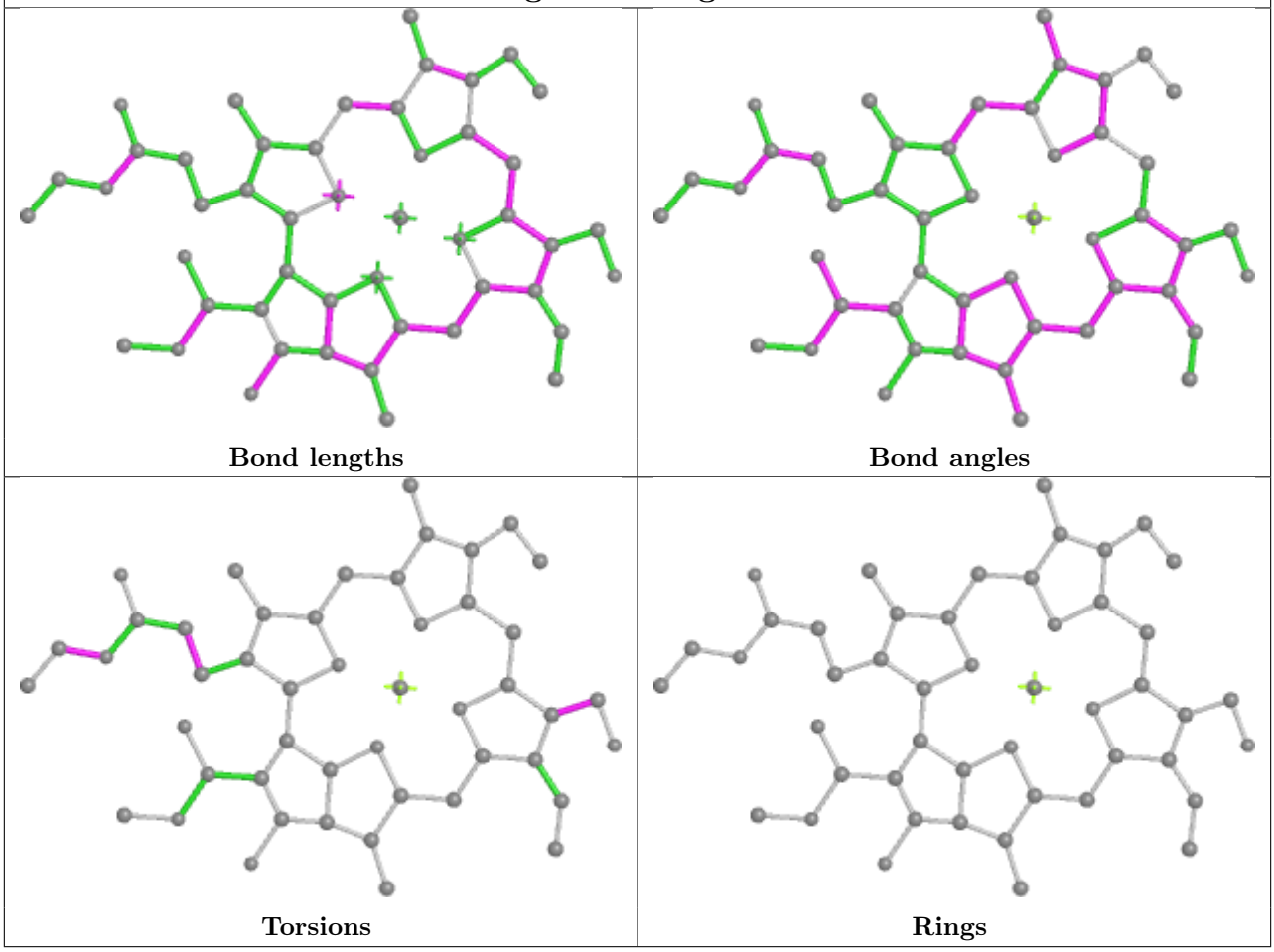
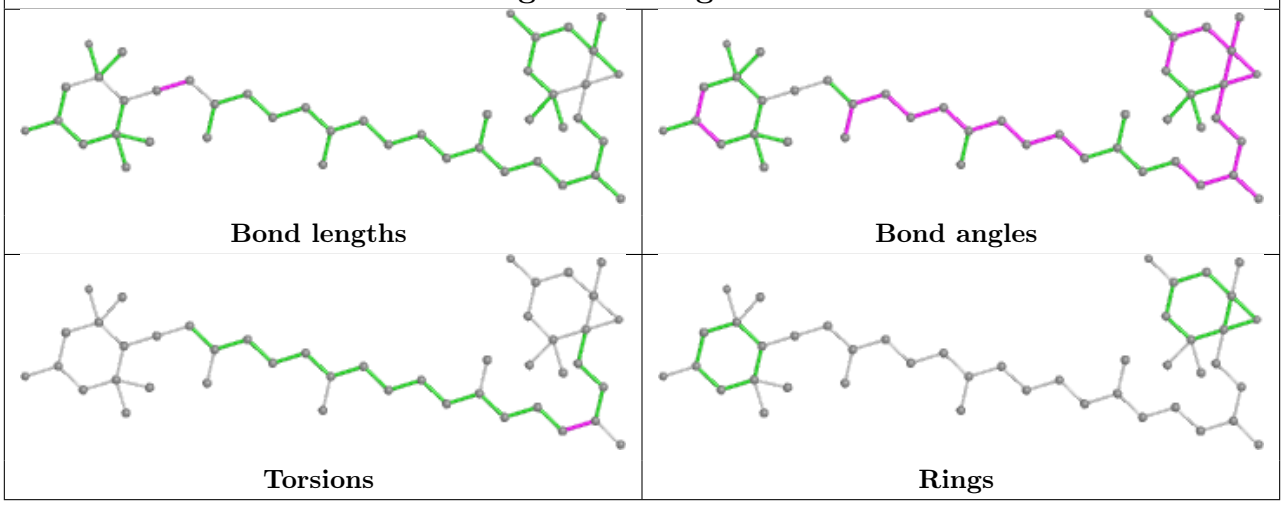


Rings

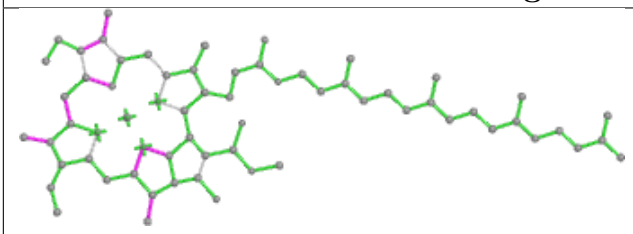
Ligand CHL g 605



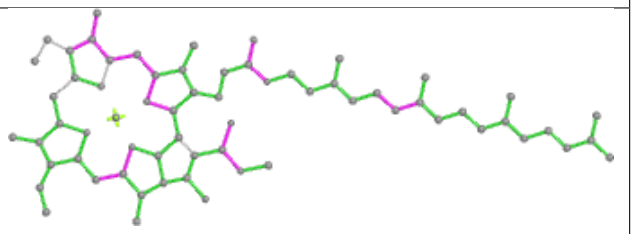
Ligand NEX g 1623



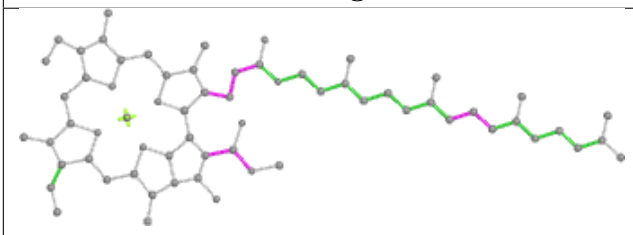
Ligand CLA Y 602



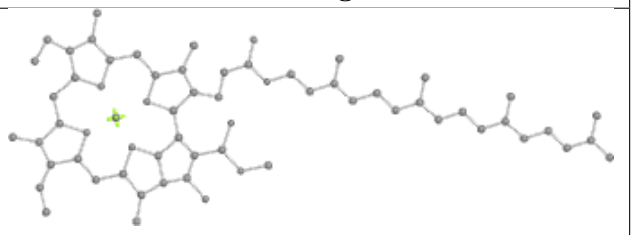
Bond lengths



Bond angles

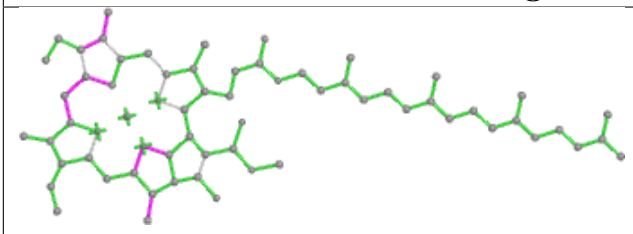


Torsions

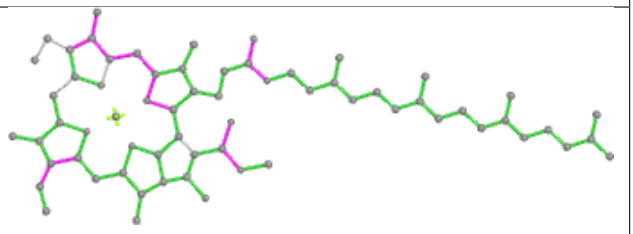


Rings

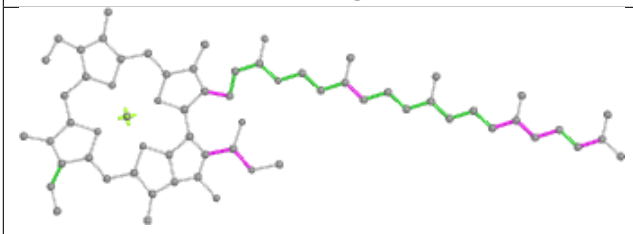
Ligand CLA B 610



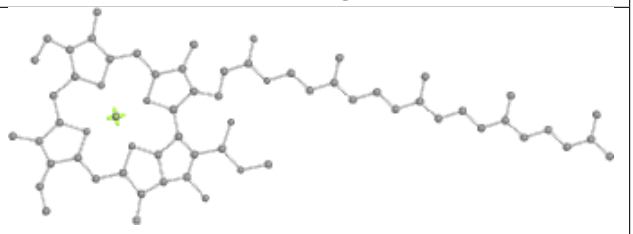
Bond lengths



Bond angles

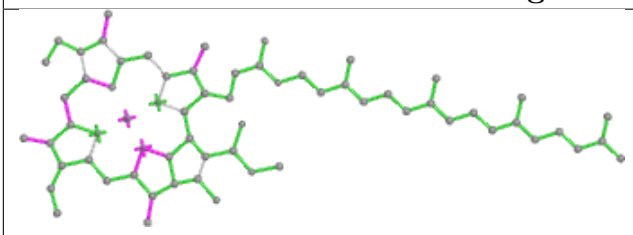


Torsions



Rings

Ligand CLA b 613



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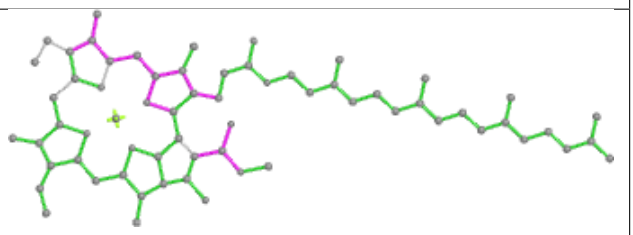

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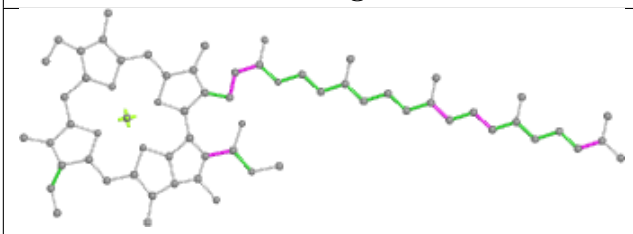
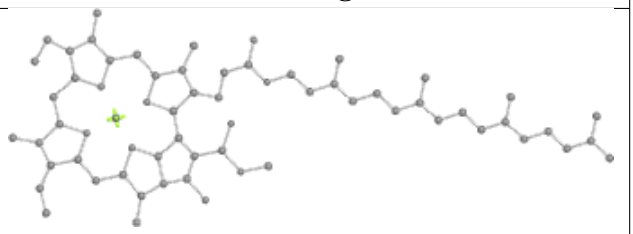
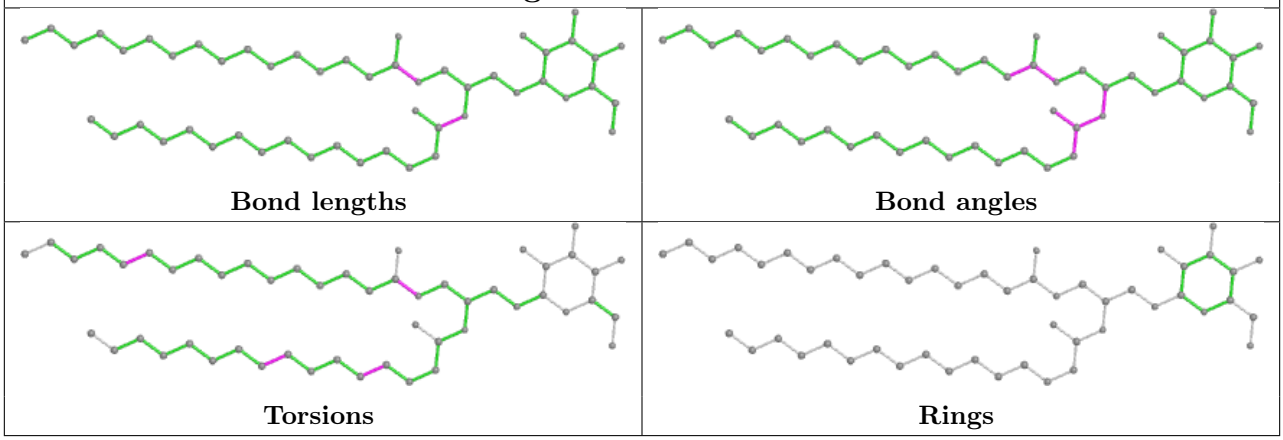


Torsions

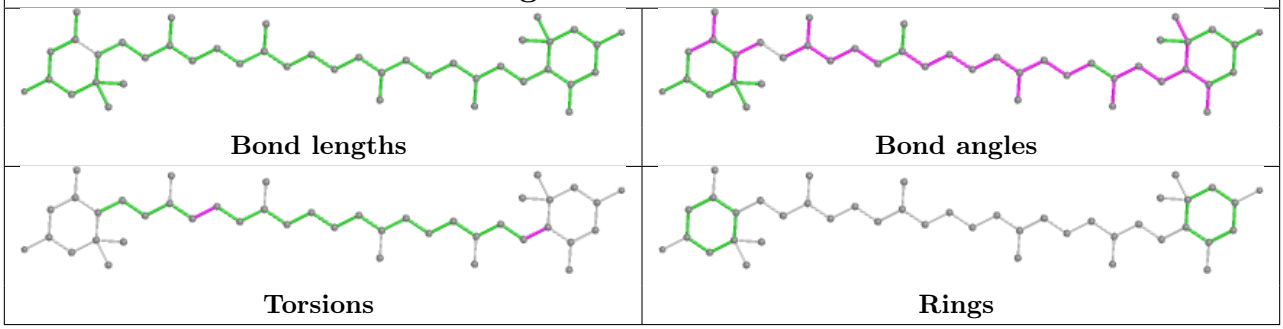


Rings

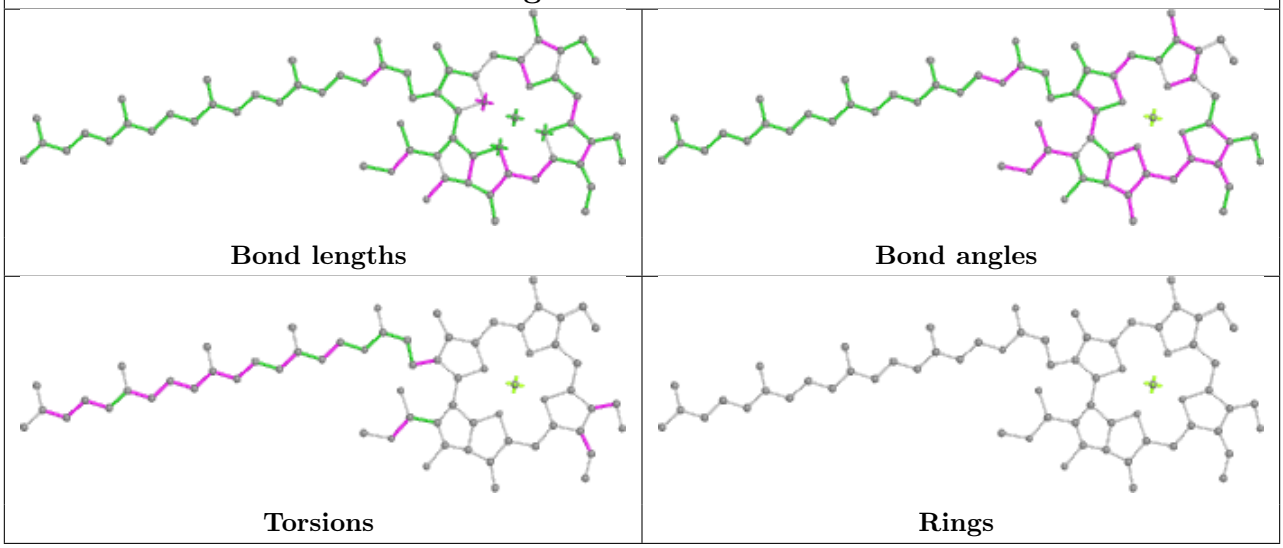
Ligand LMG b 622



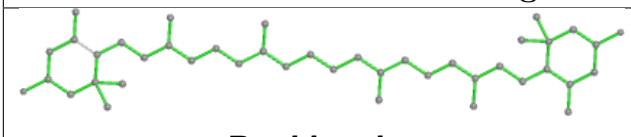
Ligand LUT S 1621



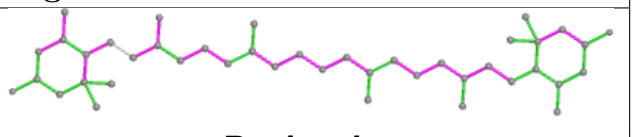
Ligand CHL N 609



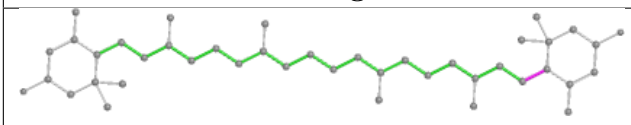
Ligand LUT g 1620



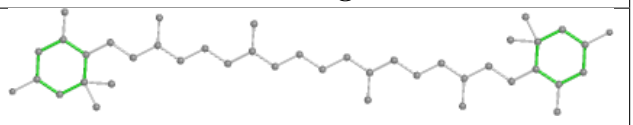
Bond lengths



Bond angles

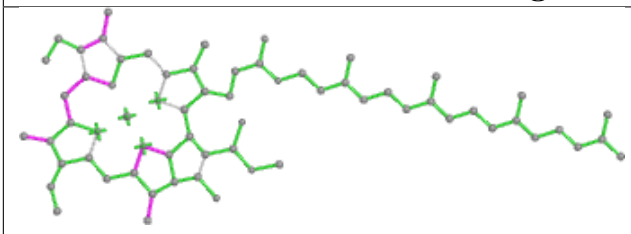


Torsions



Rings

Ligand CLA c 512



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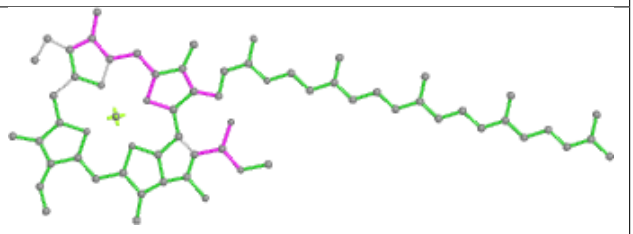
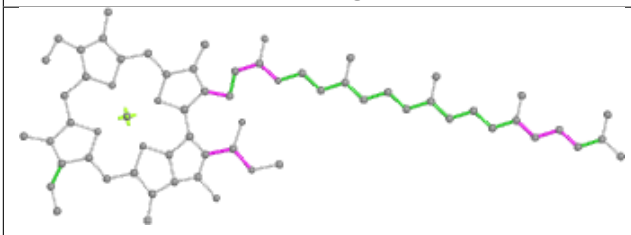


Bond angles



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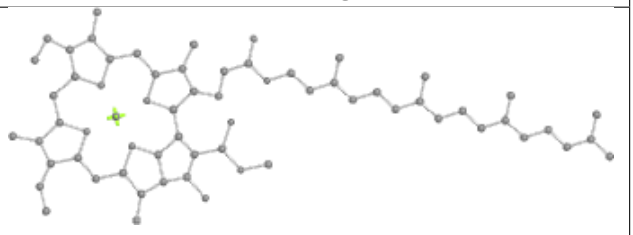
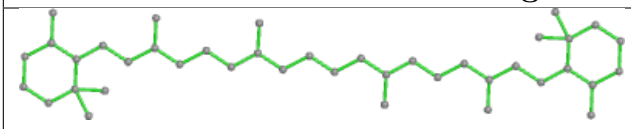


Rings

Ligand BCR H 101



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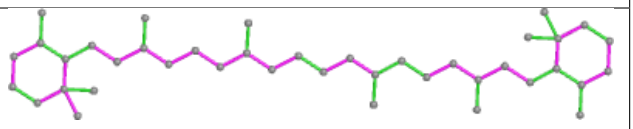
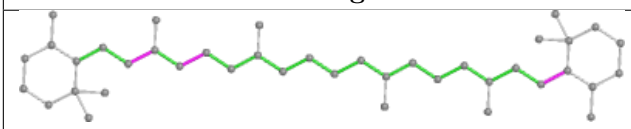


Bond angles



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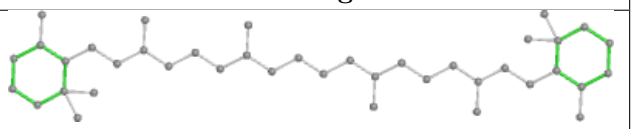
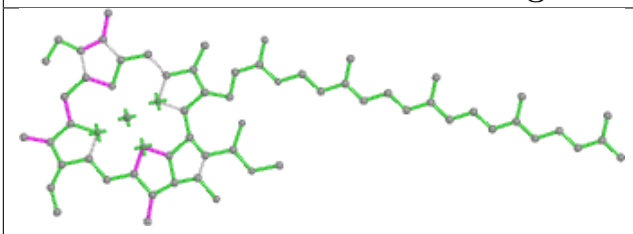


Rings

Ligand CLA b 606



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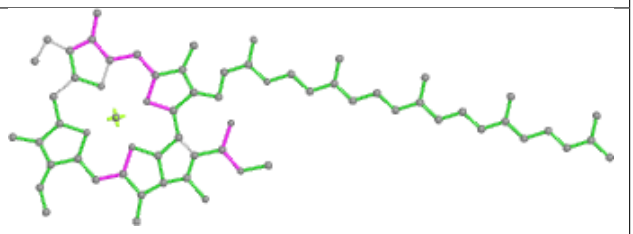
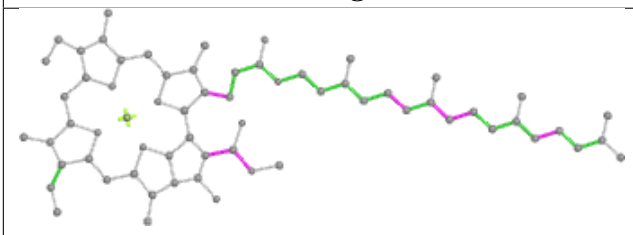
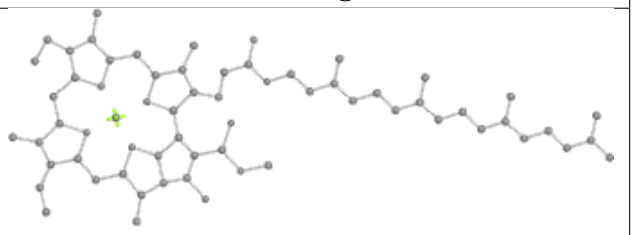


Bond angles

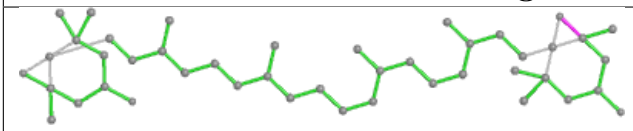


Torsions



Rings

Ligand XAT n 1622



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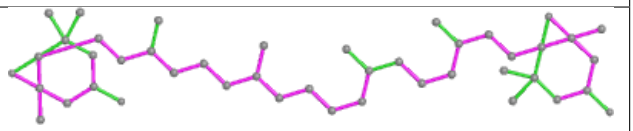
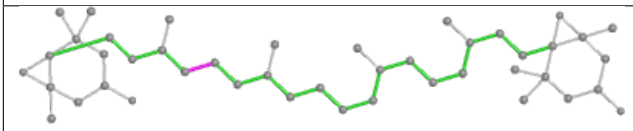
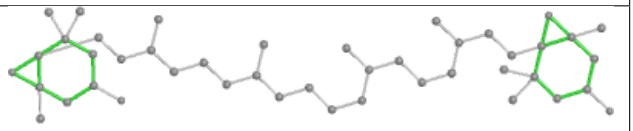


Bond angles

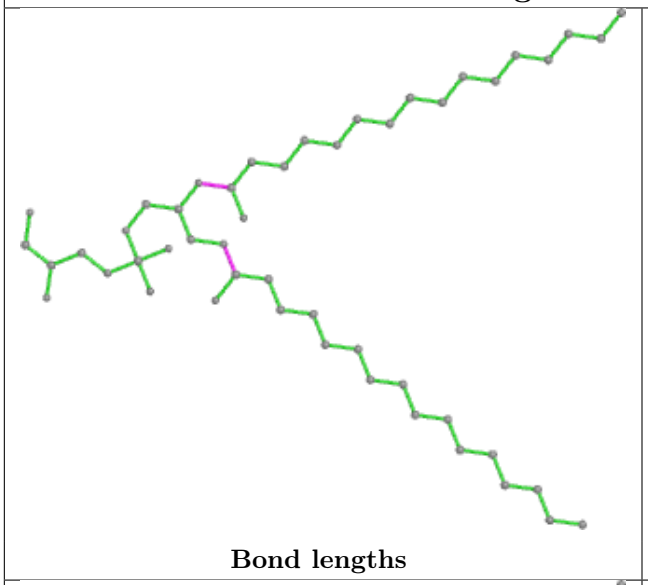


Torsions



Rings

Ligand LHG Y 2630



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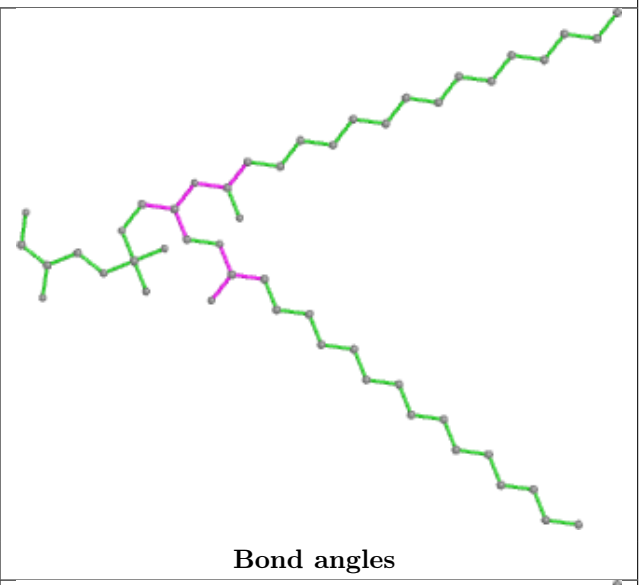
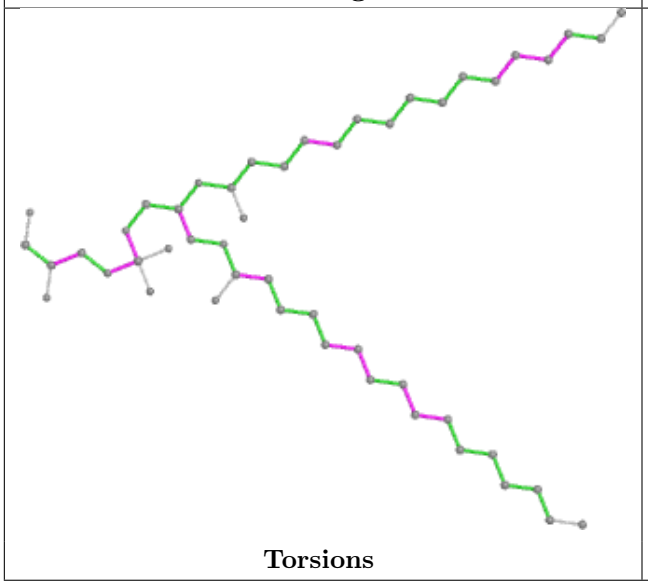
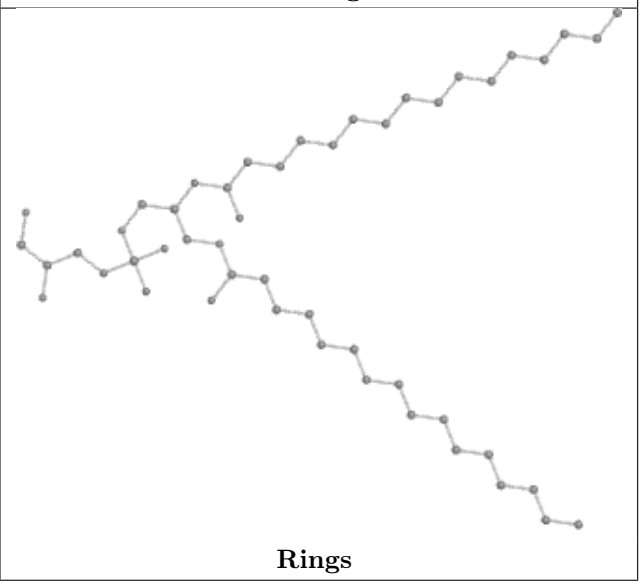


Bond angles

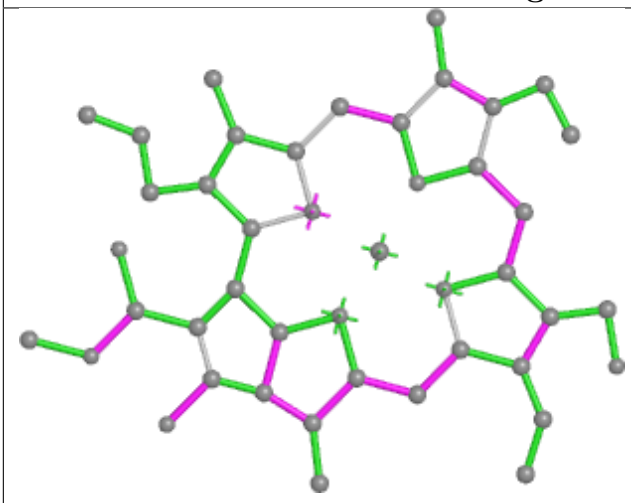


Torsions



Rings

Ligand CHL S 606



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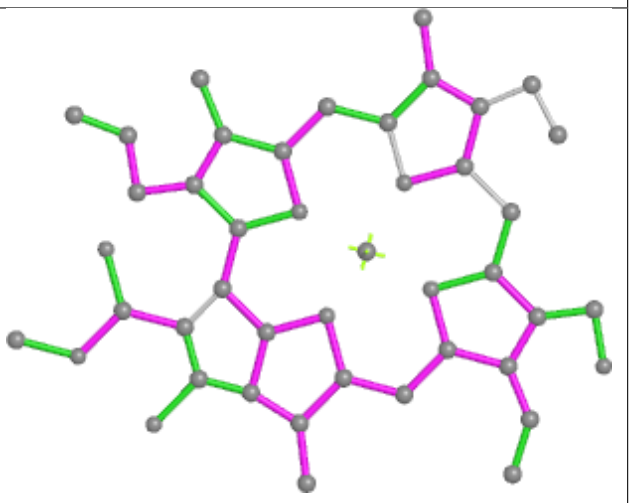
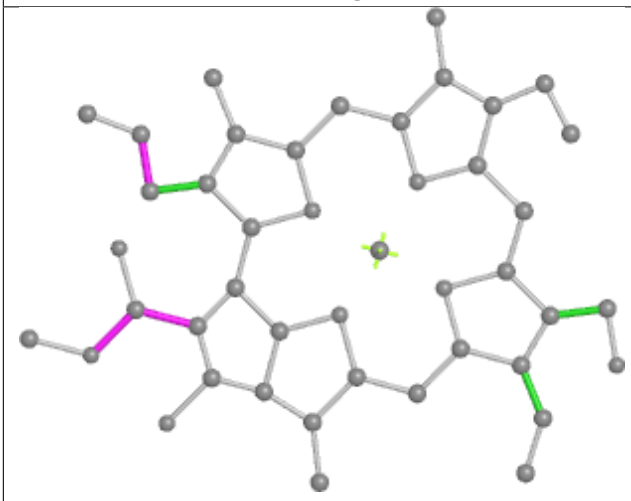


Bond angles



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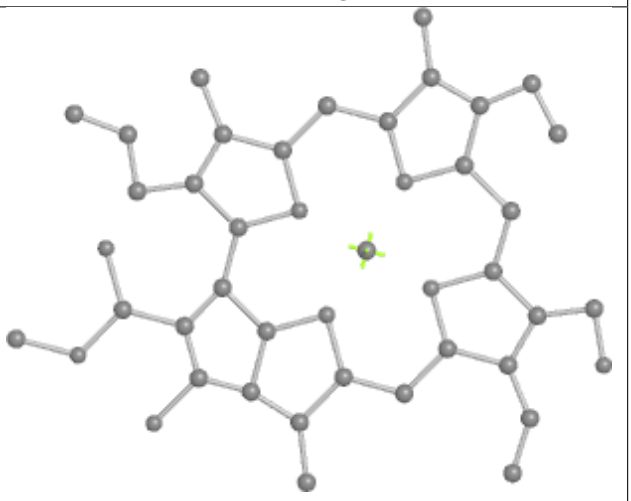
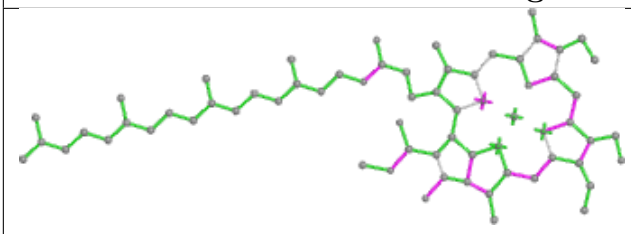


Rings

Ligand CHL n 607



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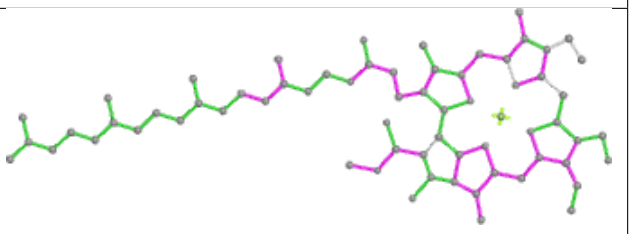
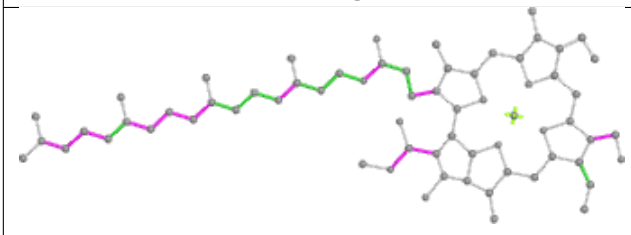


Bond angles



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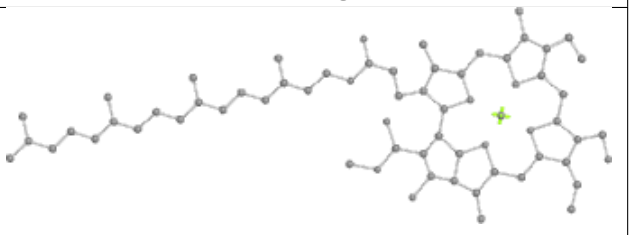
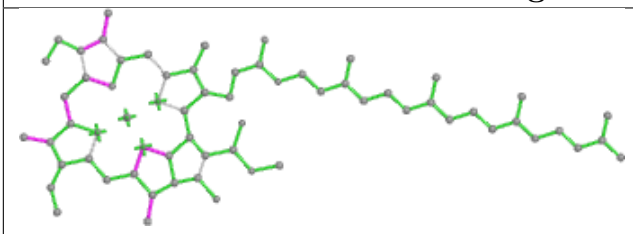


Rings

Ligand CLA y 604



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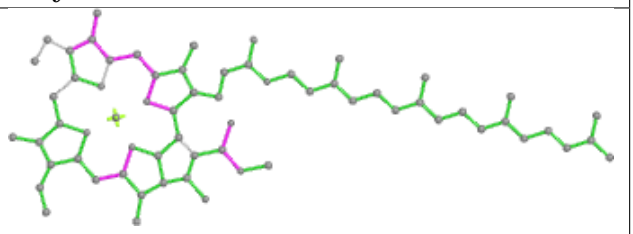
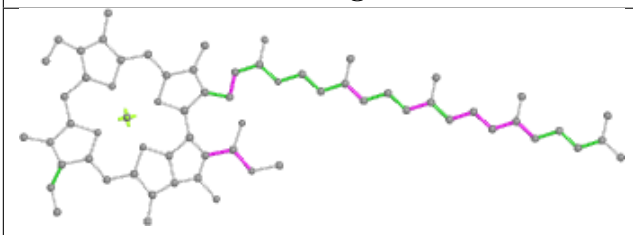


Bond angles



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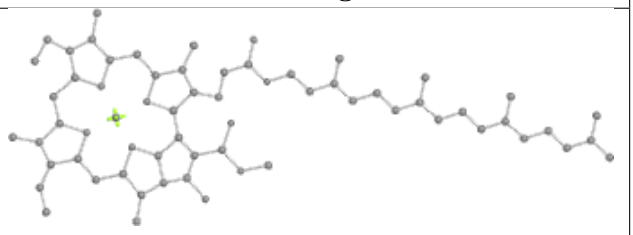
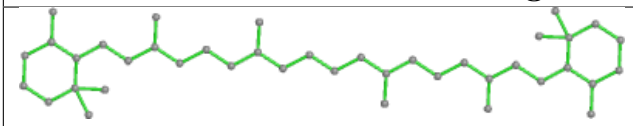


Rings

Ligand BCR d 404



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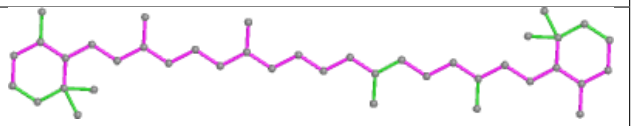
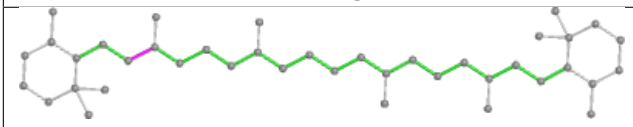


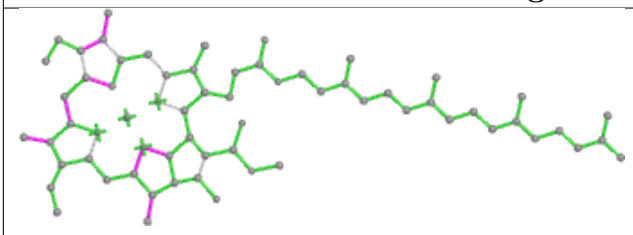
Bond angles



Torsions

Rings

Ligand CLA b 602



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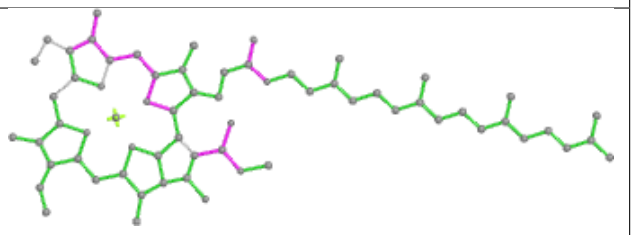
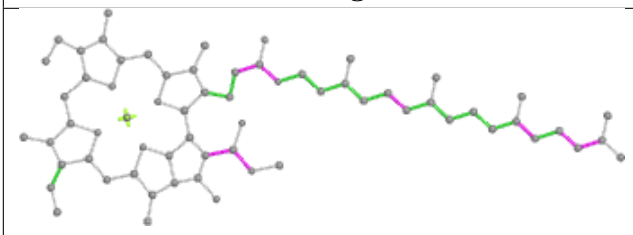
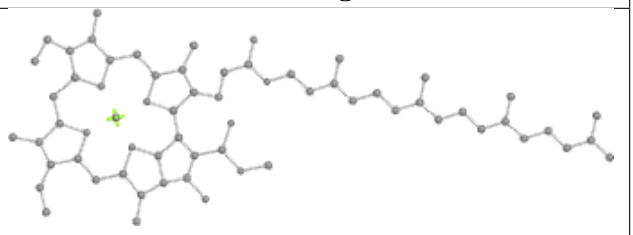


Bond angles

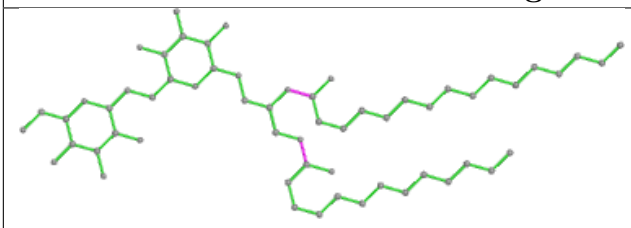


Torsions

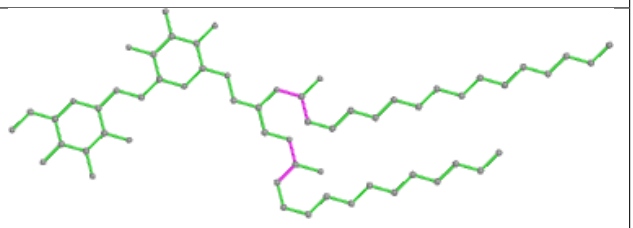


Rings

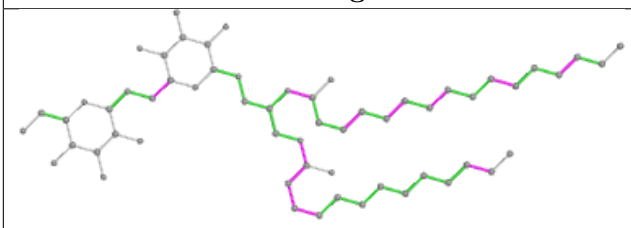
Ligand DGD c 520



Bond lengths



Bond angles



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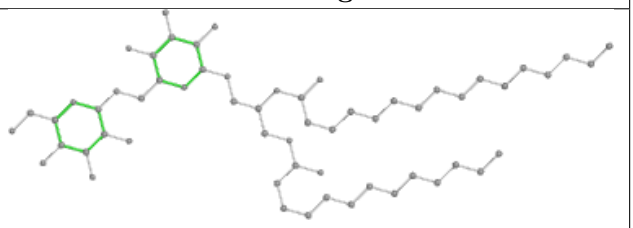
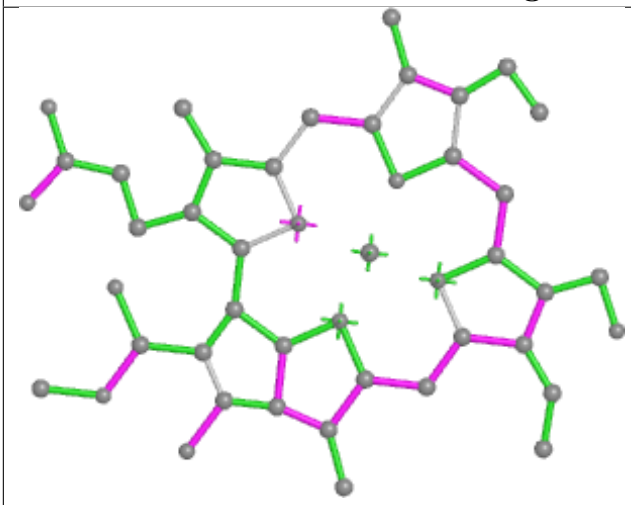
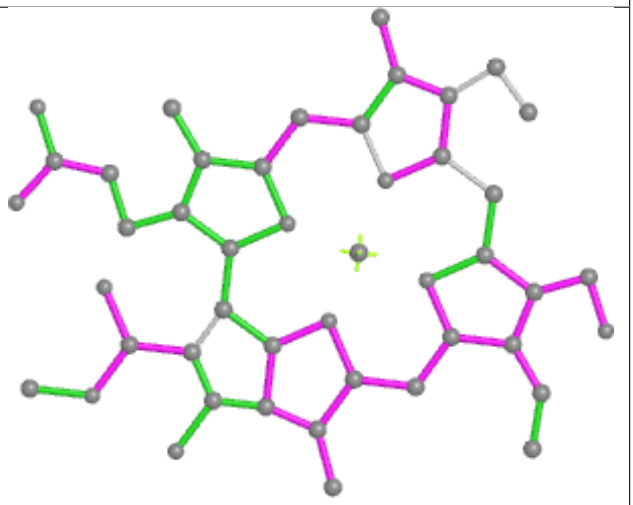


Rings

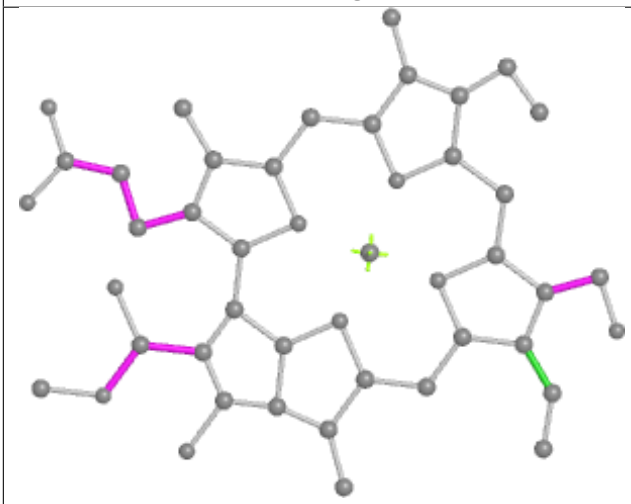
Ligand CHL Y 605



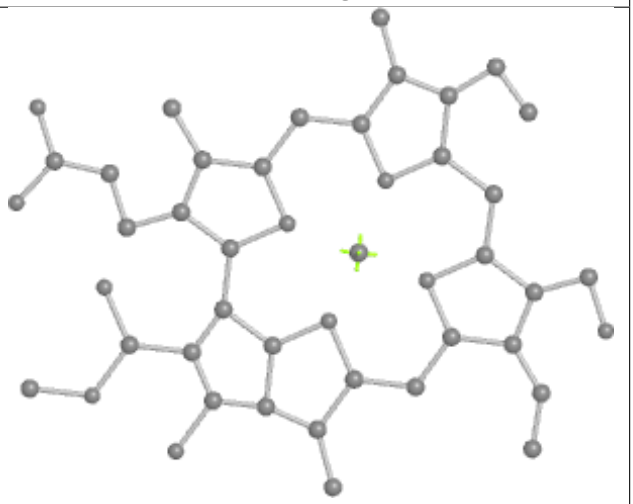
Bond lengths



Bond angles

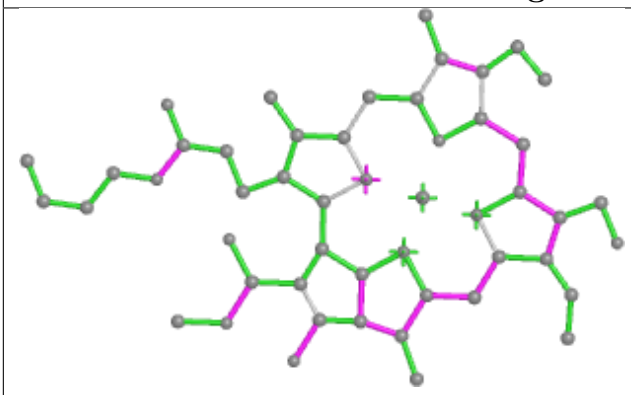


Torsions



Rings

Ligand CHL g 607



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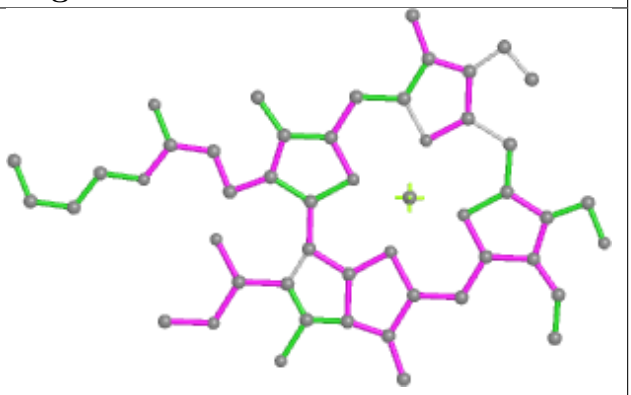

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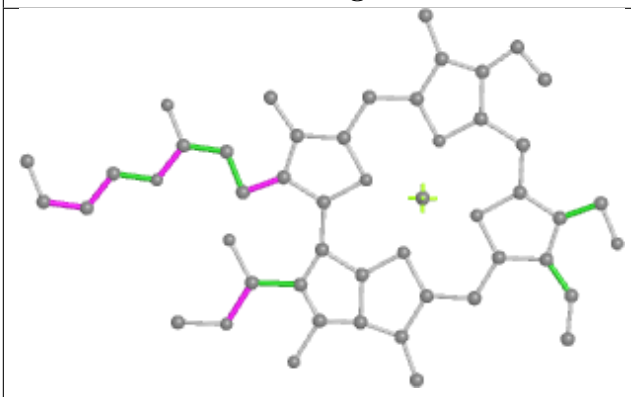

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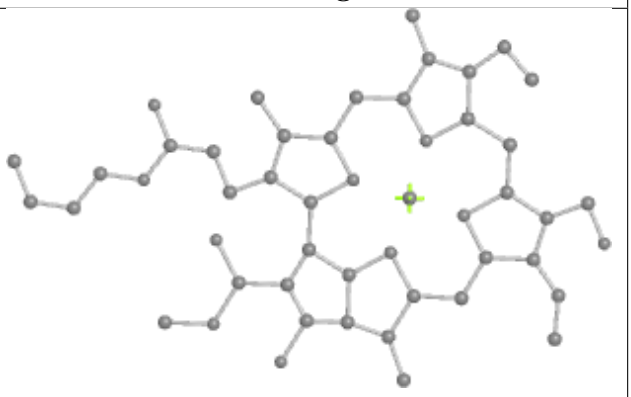
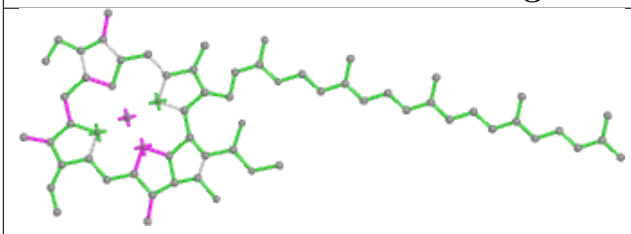


Rings

Ligand CLA Y 611



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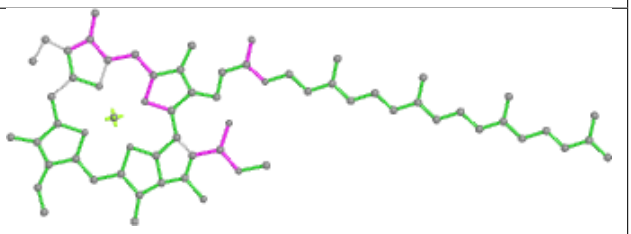

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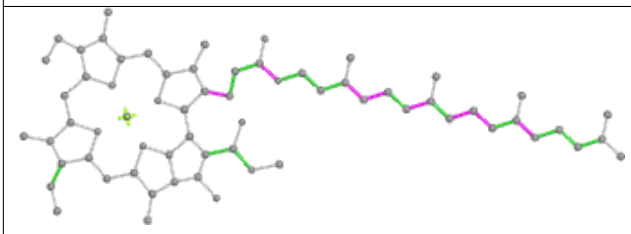

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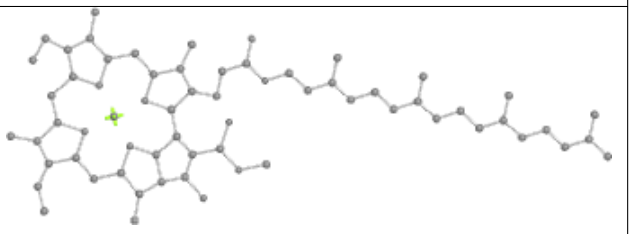
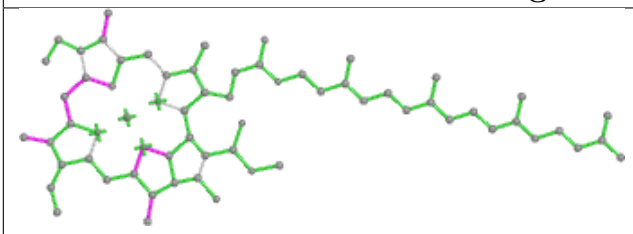


Rings

Ligand CLA c 511



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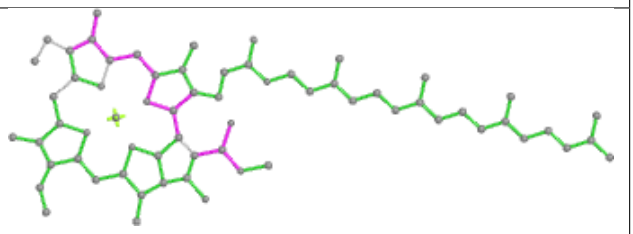
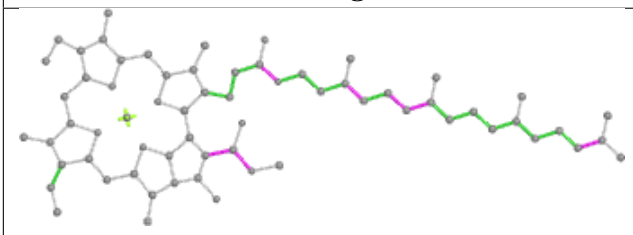


Bond angles



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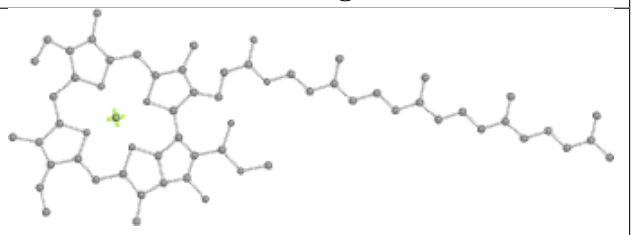
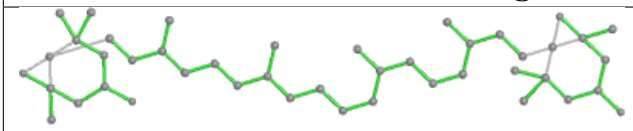


Rings

Ligand XAT G 1622



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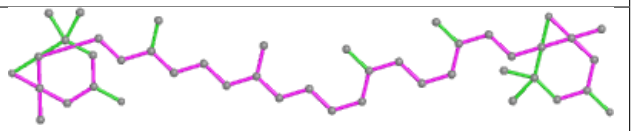

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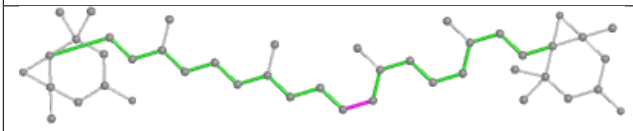

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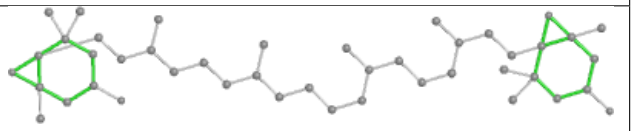
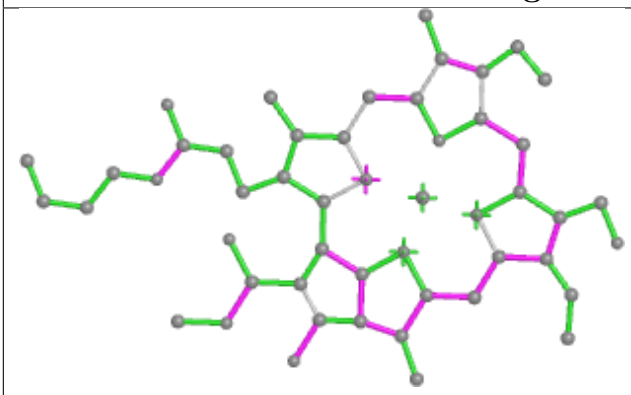


Rings

Ligand CHL R 607



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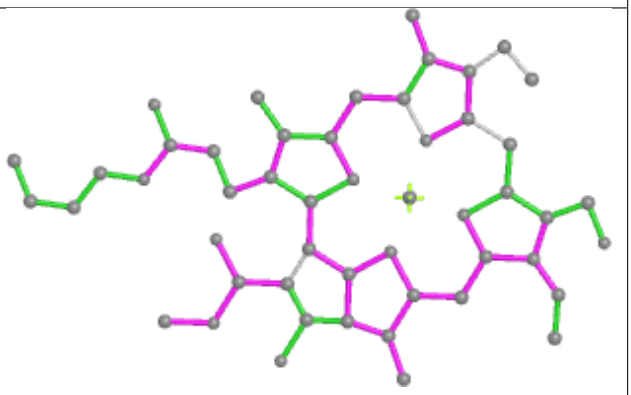
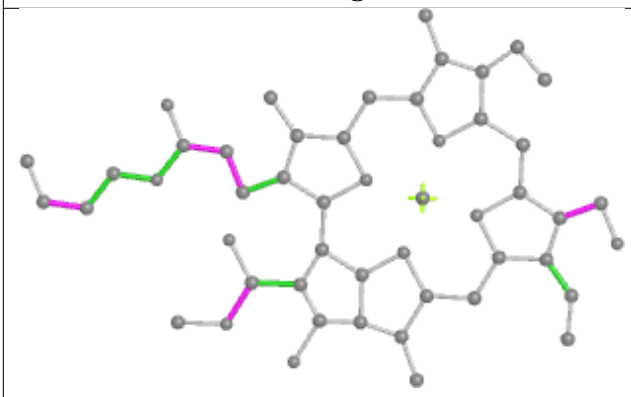


Bond angles



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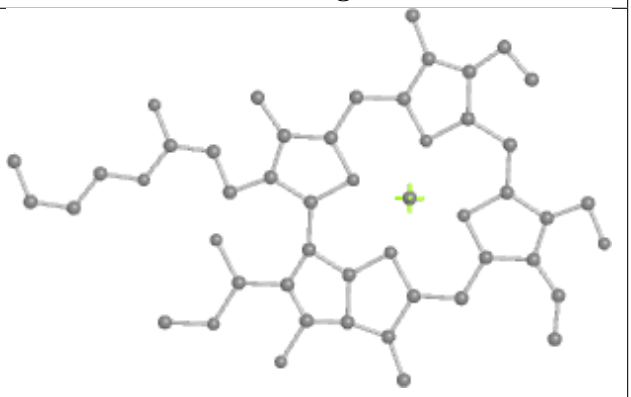
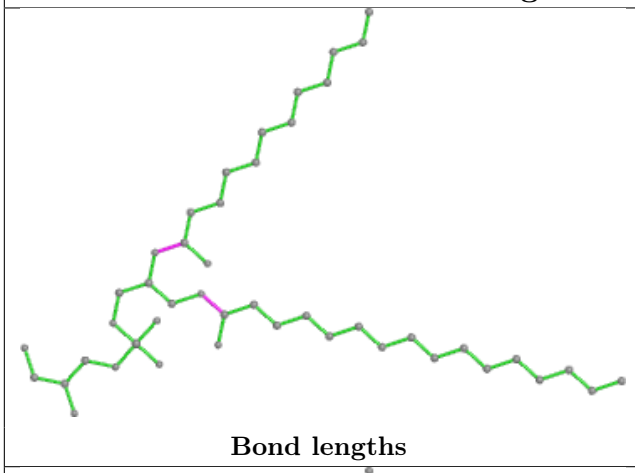


Rings

Ligand LHG s 2630



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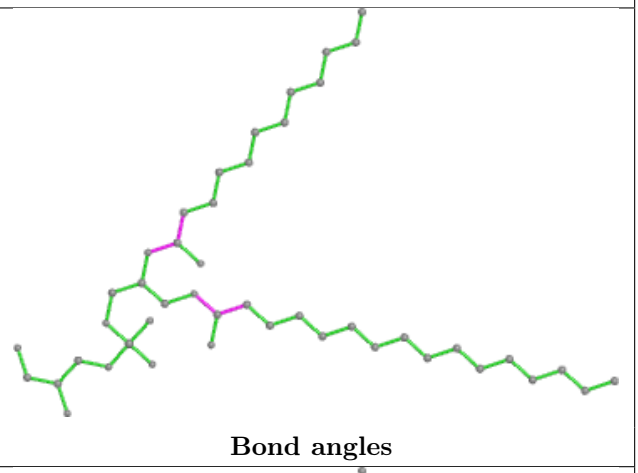
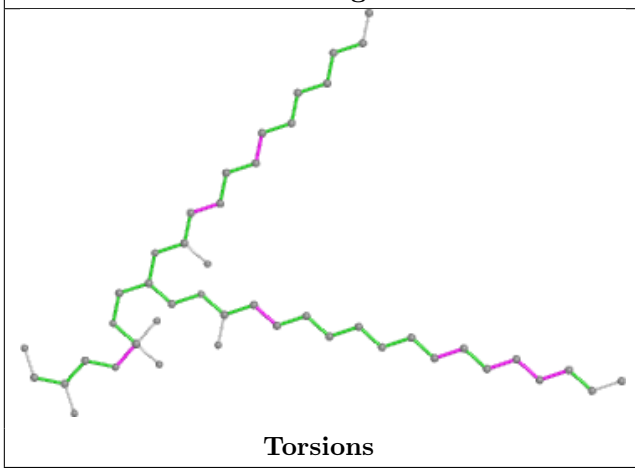


Bond angles



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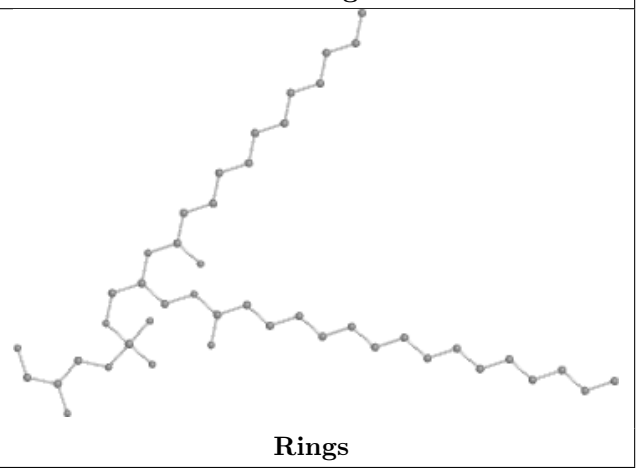
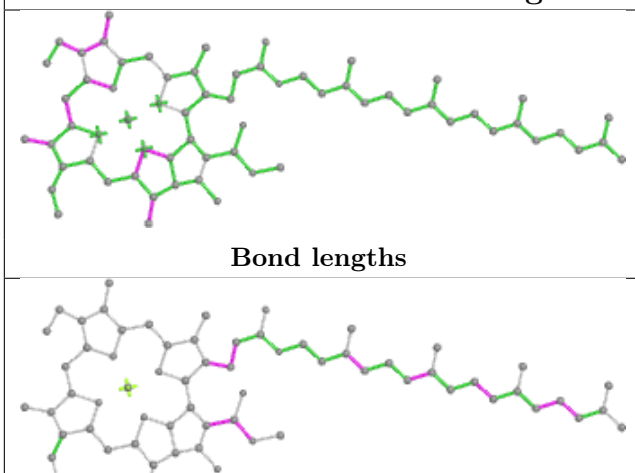


Rings

Ligand CLA B 604



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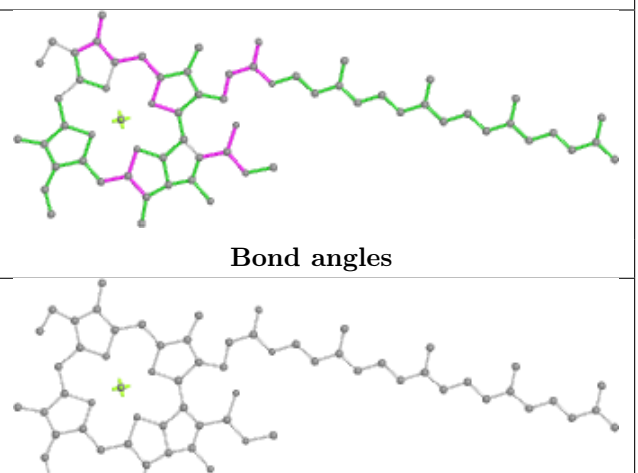
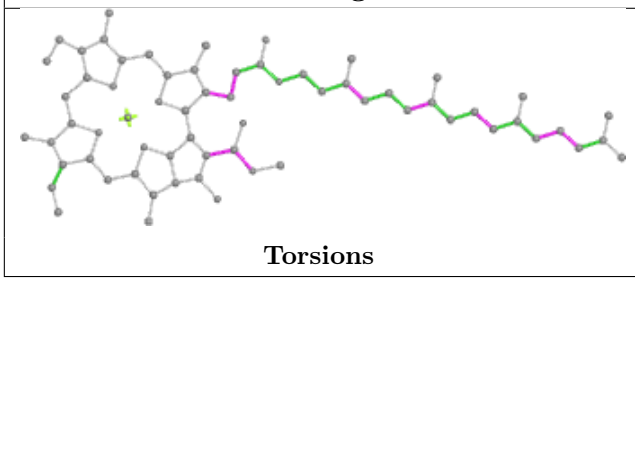


Bond angles



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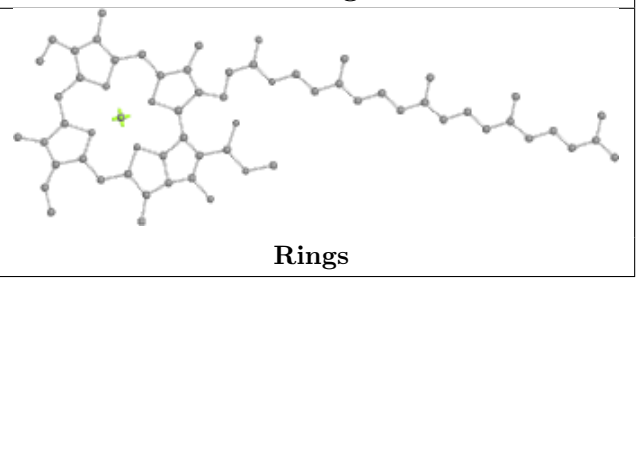
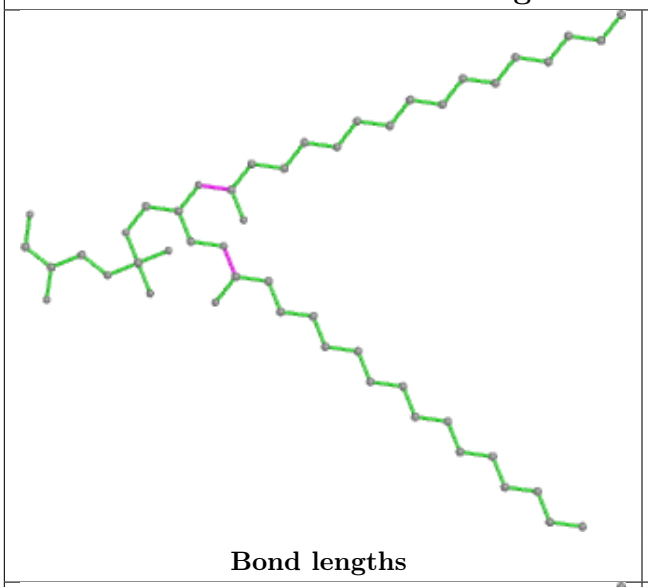


Rings

Ligand LHG N 2630



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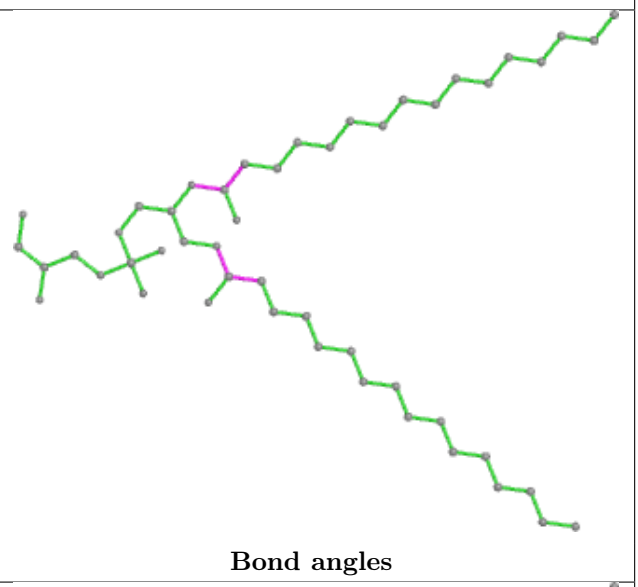
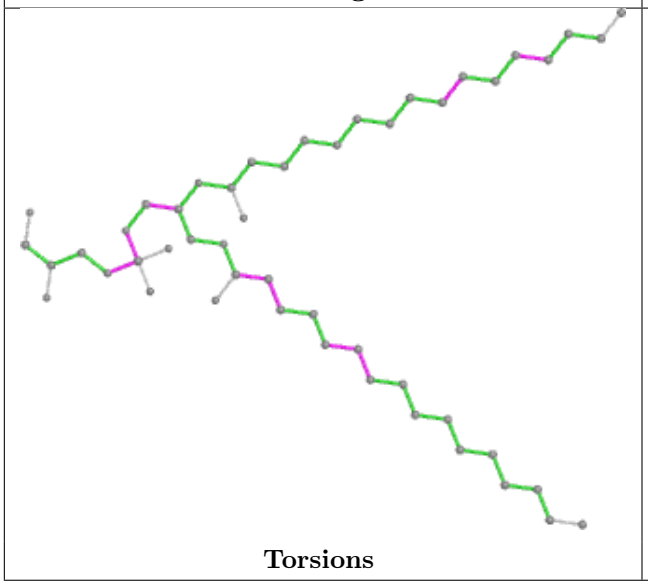


Bond angles



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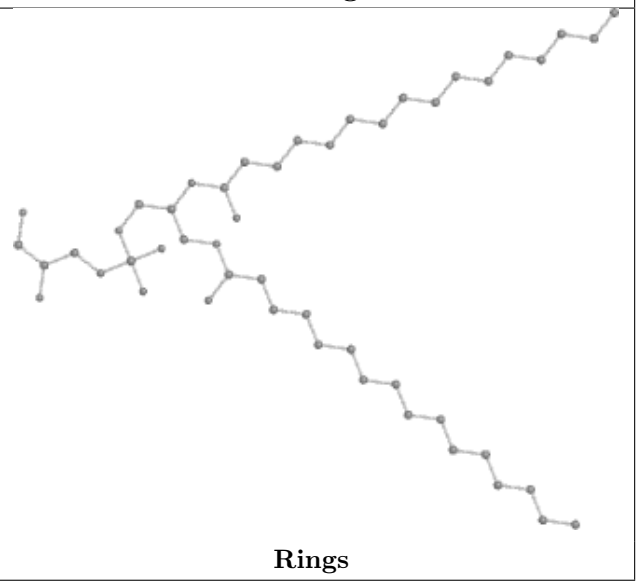
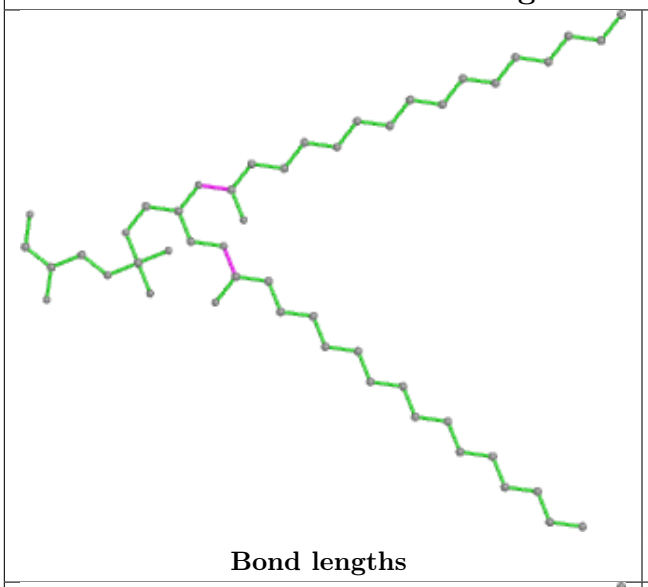


Rings

Ligand LHG y 2630



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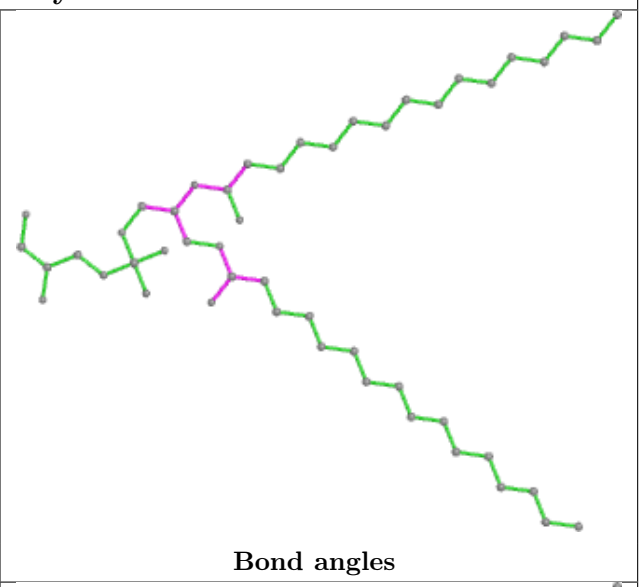

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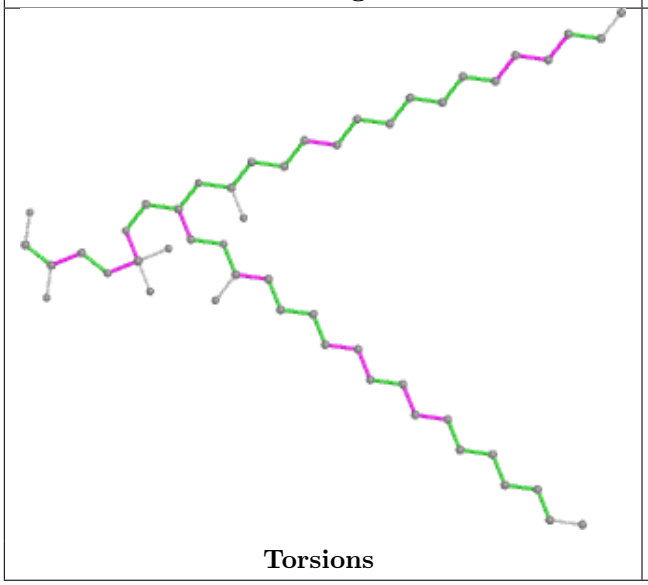

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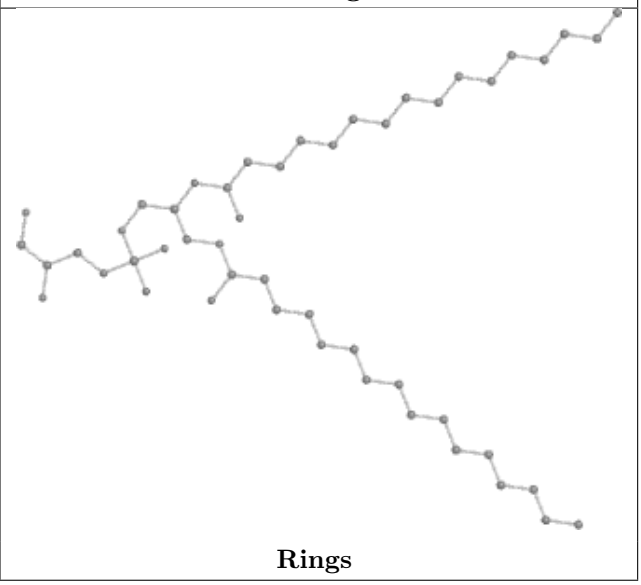
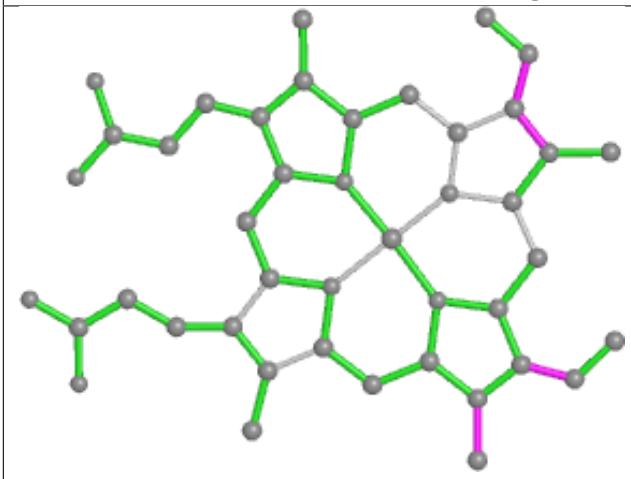


Rings

Ligand HEM f 101



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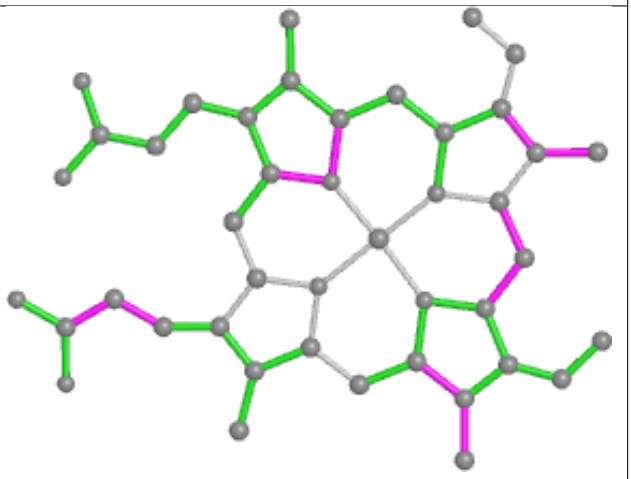
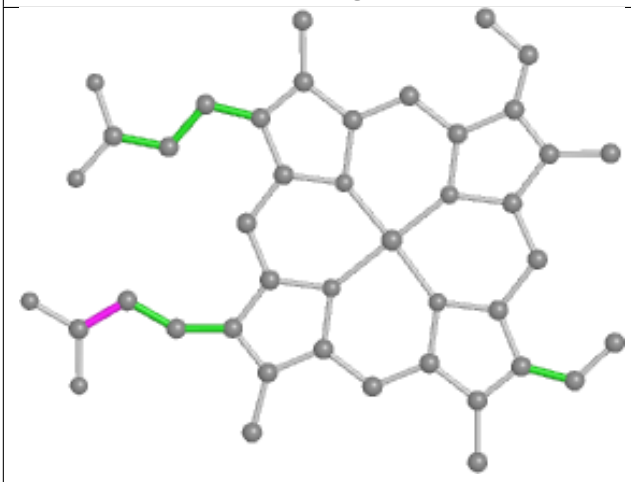


Bond angles



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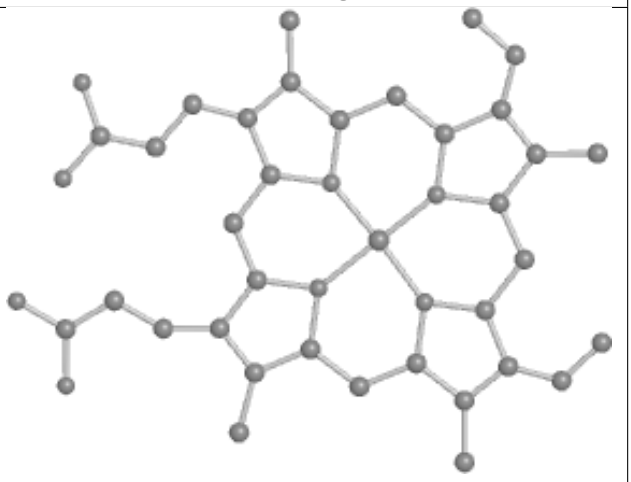
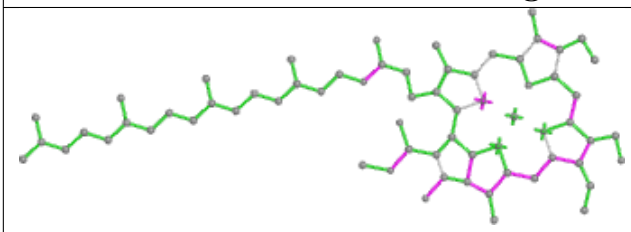


Rings

Ligand CHL N 601



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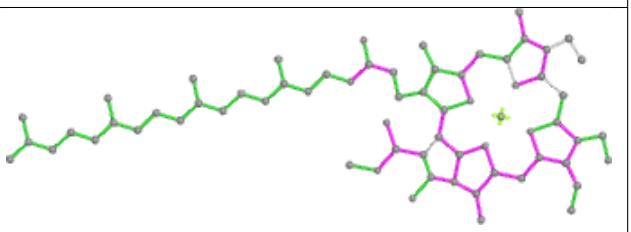
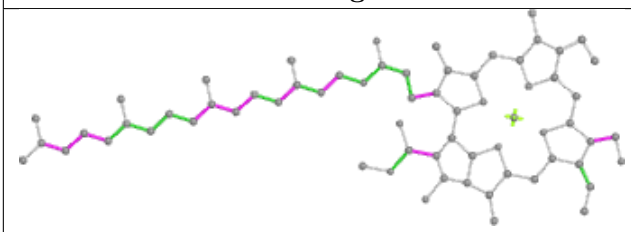


Bond angles



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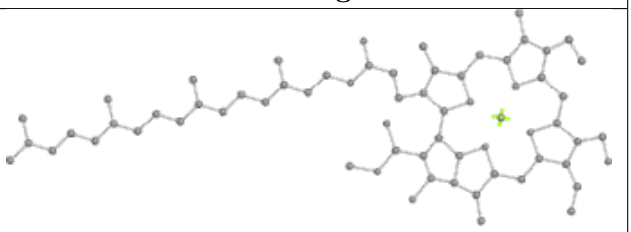
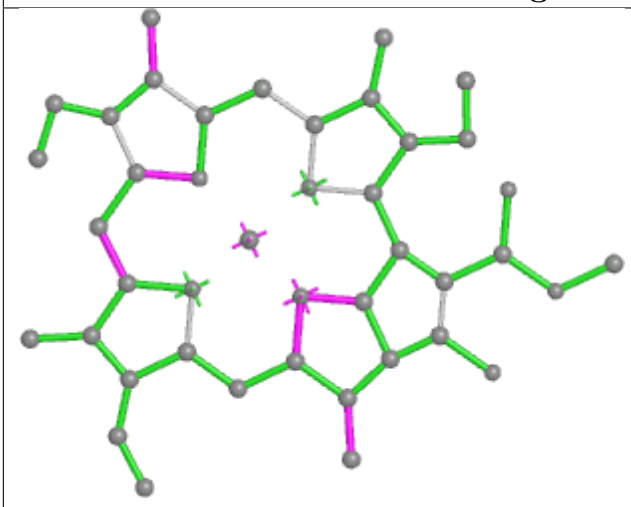


Rings

Ligand CLA s 603



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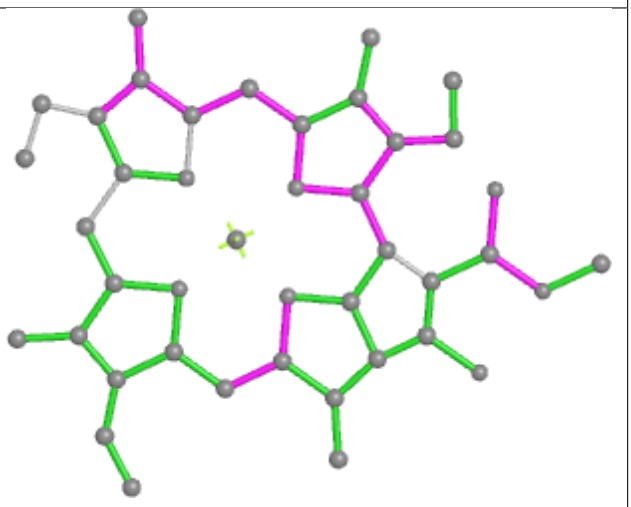
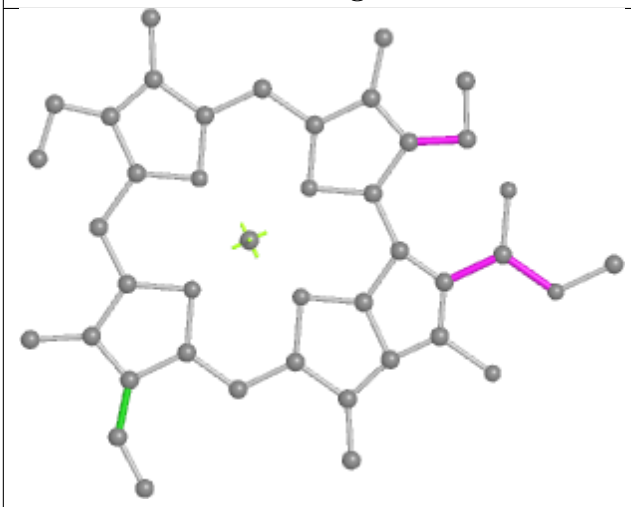


Bond angles



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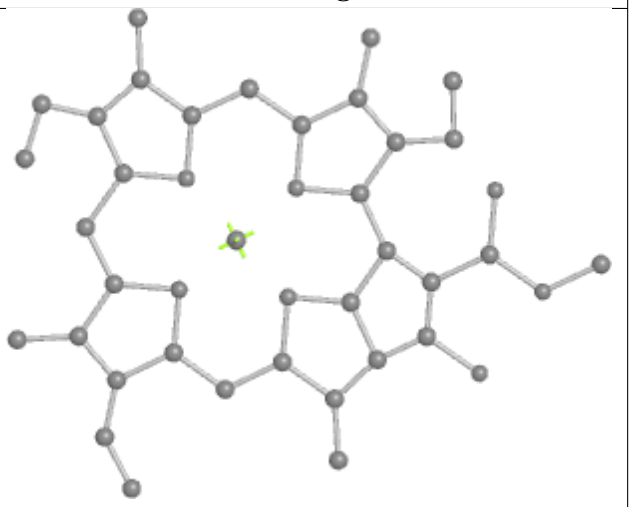
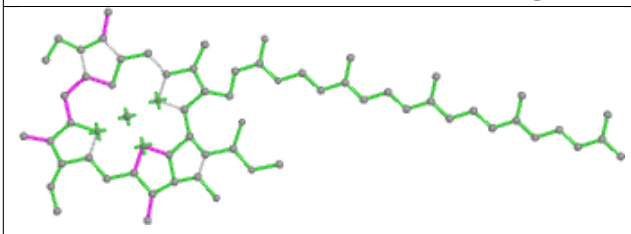
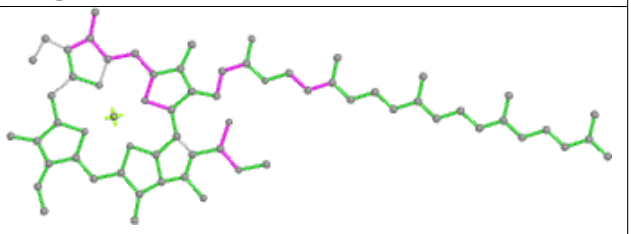


Rings

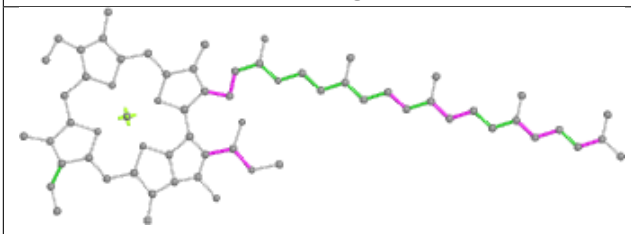
Ligand CLA g 610



Bond lengths



Bond angles



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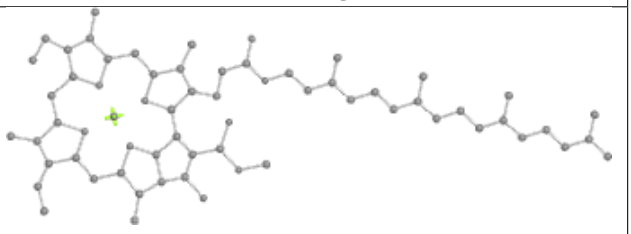
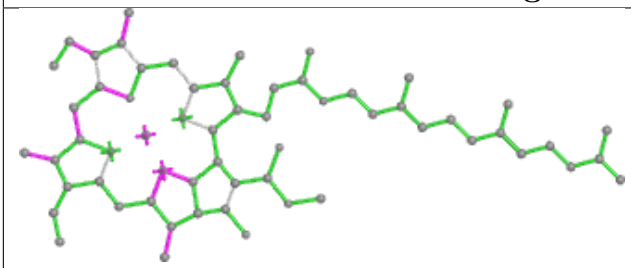
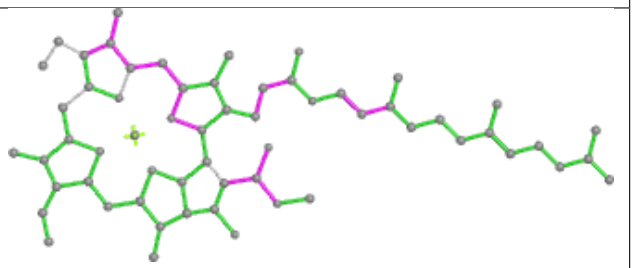


Rings

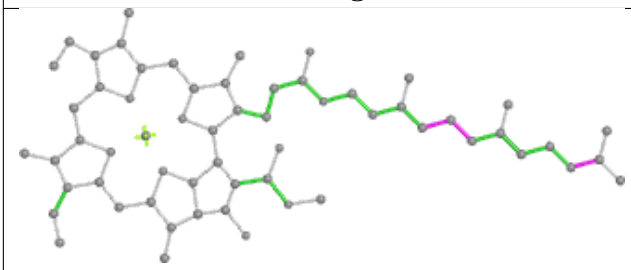
Ligand CLA A 410



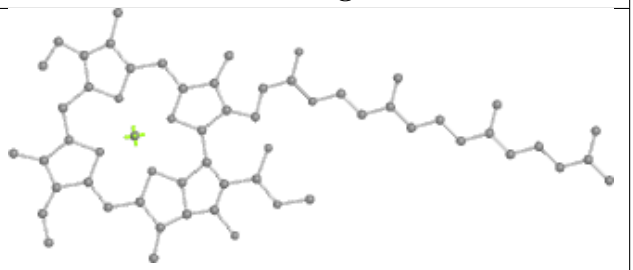
Bond lengths



Bond angles

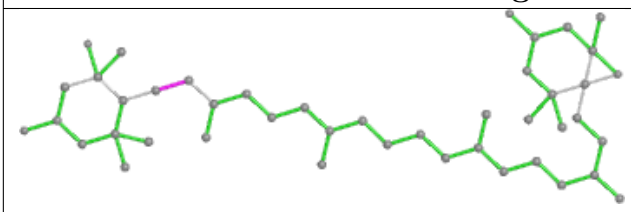


Torsions

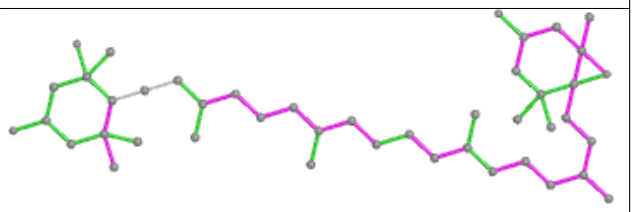


Rings

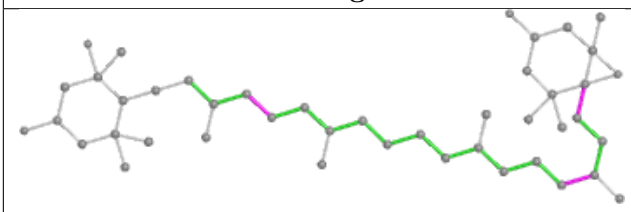
Ligand NEX N 1623



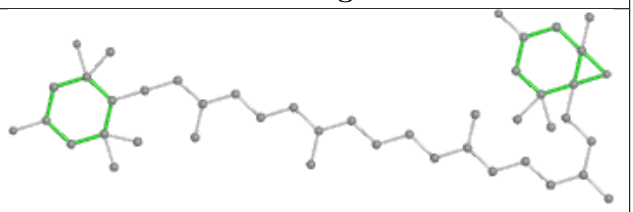
Bond lengths



Bond angles

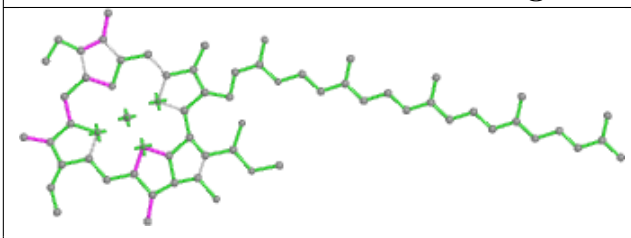


Torsions

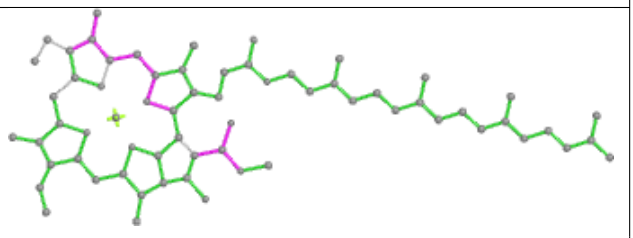


Rings

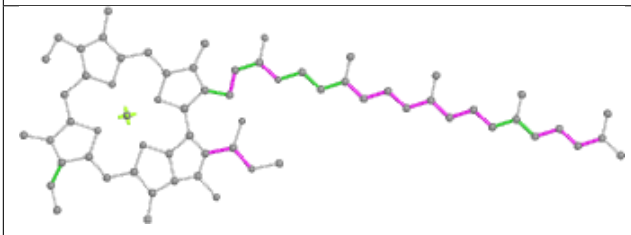
Ligand CLA b 615



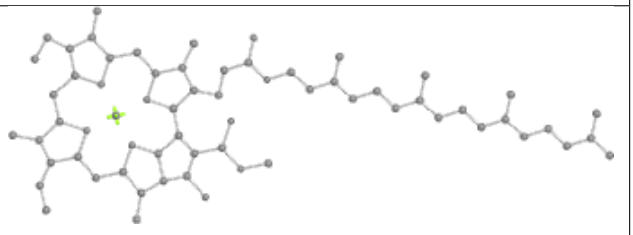
Bond lengths



Bond angles

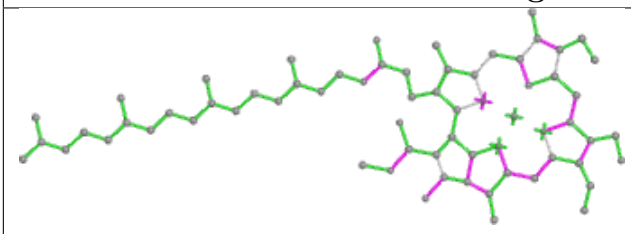


Torsions



Rings

Ligand CHL y 601



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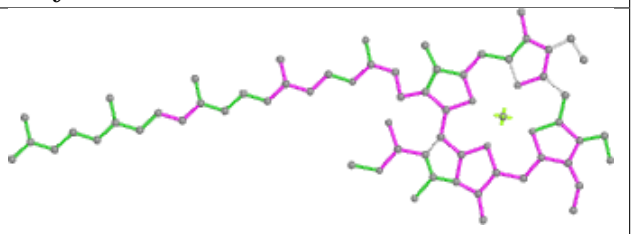
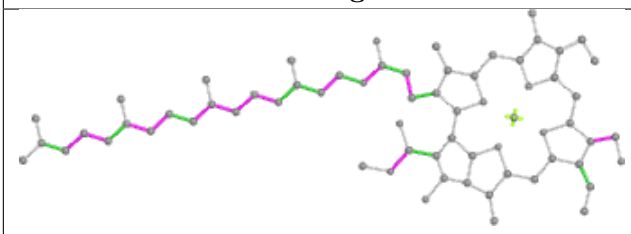


Bond angles



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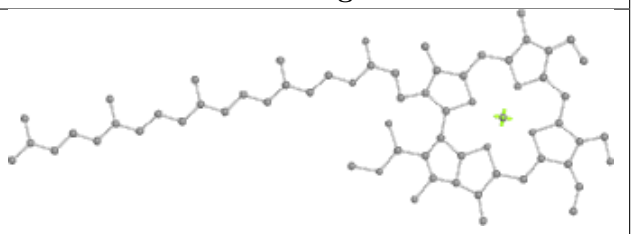
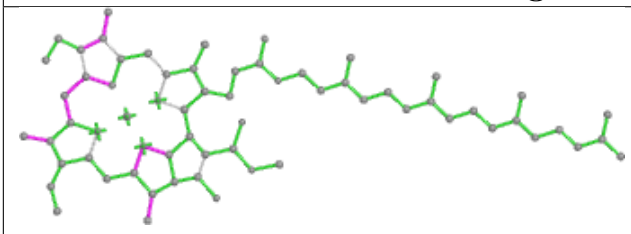


Rings

Ligand CLA b 616



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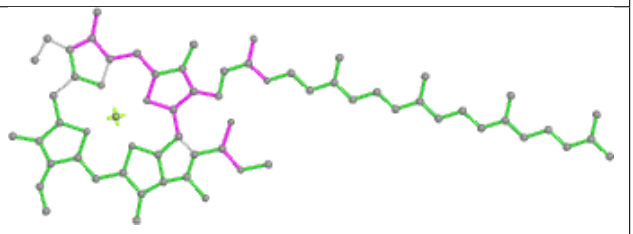
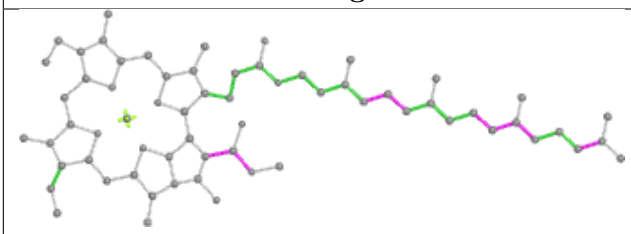


Bond angles



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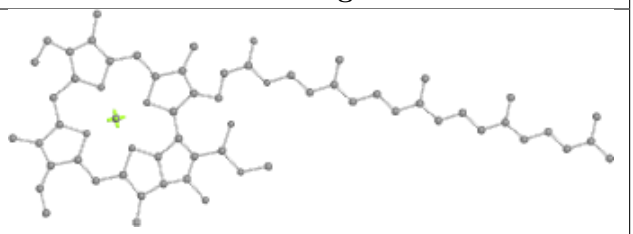
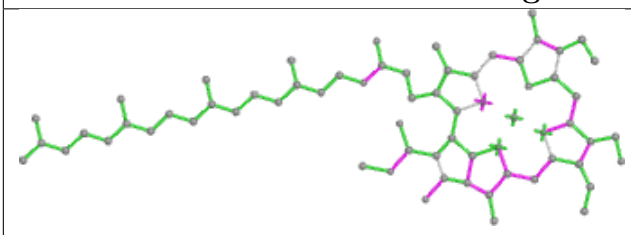


Rings

Ligand CHL N 605



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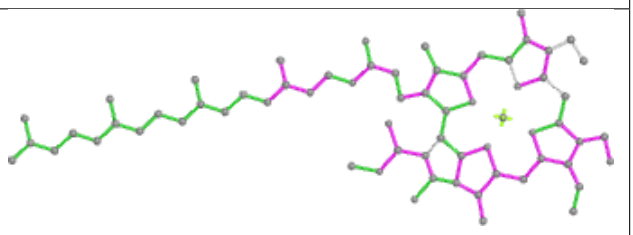
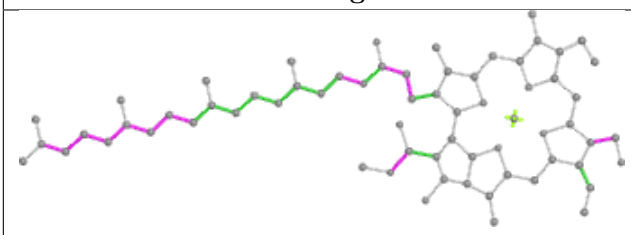


Bond angles



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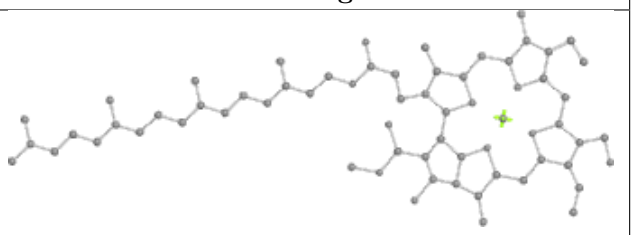
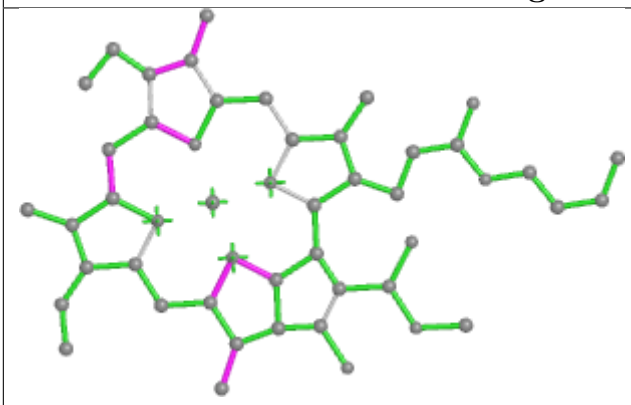


Rings

Ligand CLA g 614



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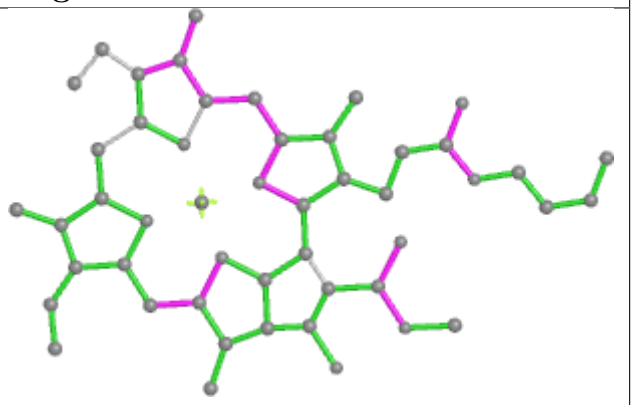
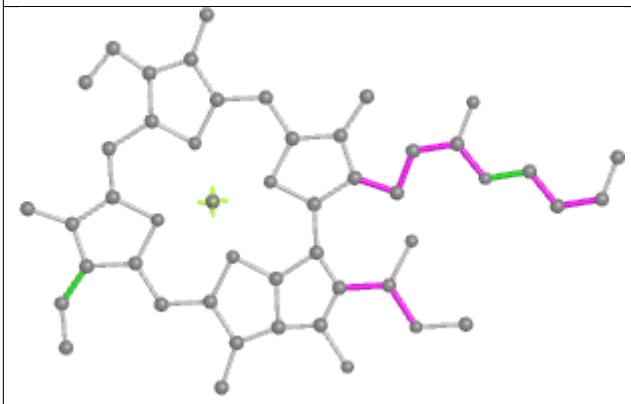


Bond angles



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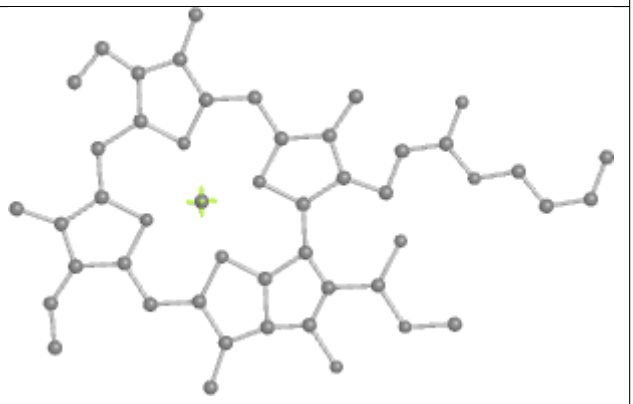
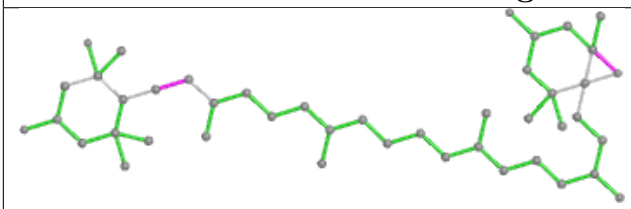


Rings

Ligand NEX y 1623



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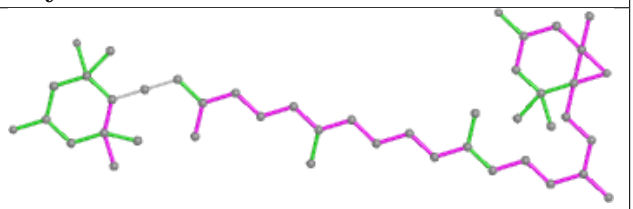
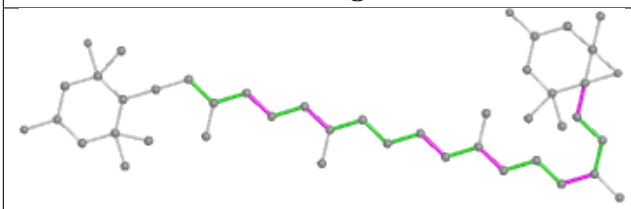


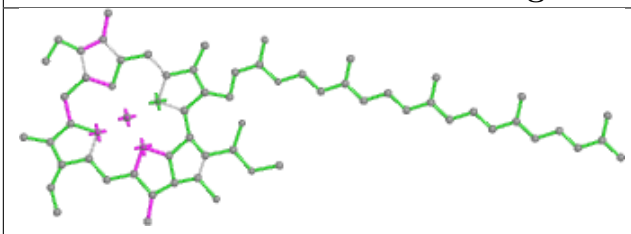
Bond angles



Torsions

Rings

Ligand CLA n 613



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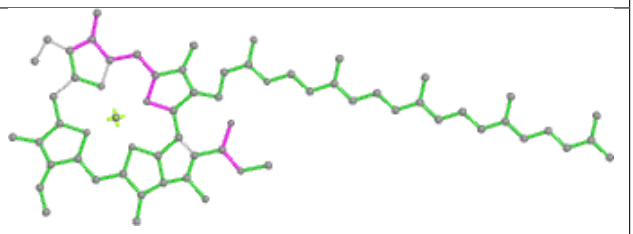
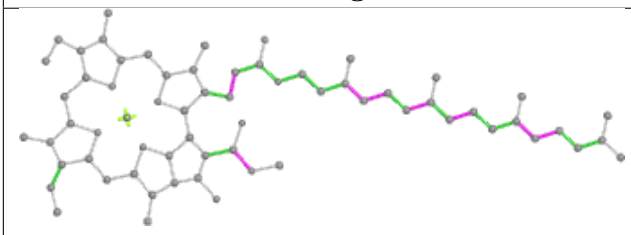
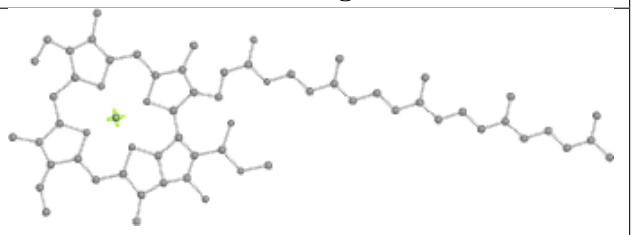


Bond angles

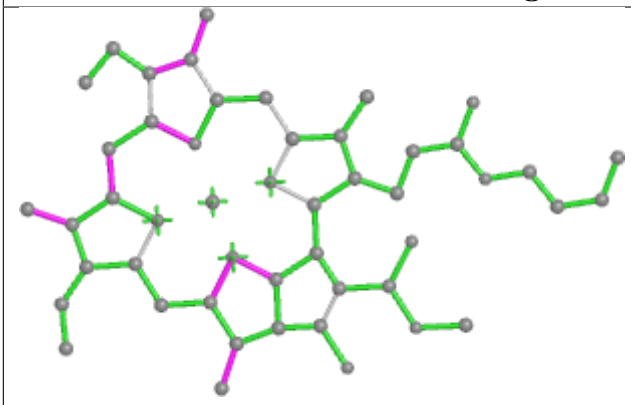


Torsions



Rings

Ligand CLA G 604



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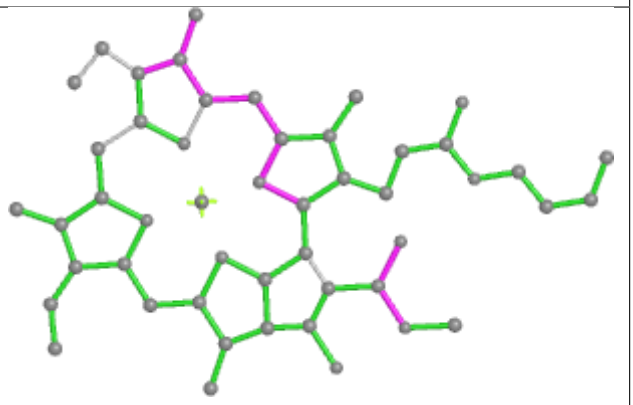
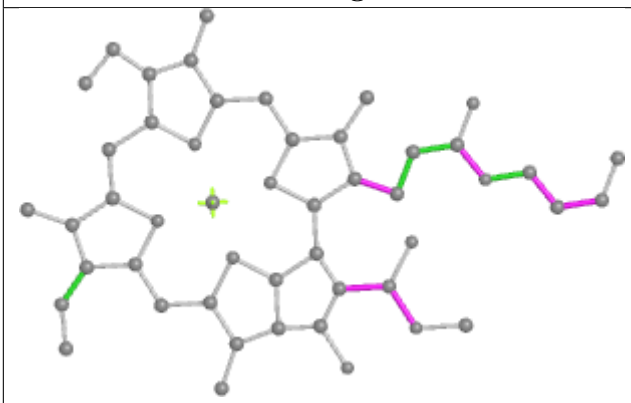
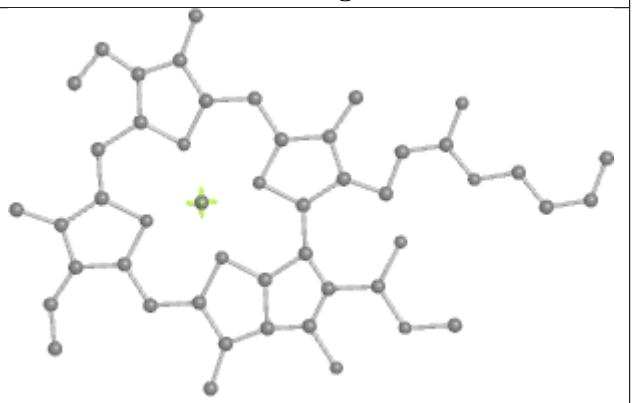


Bond angles

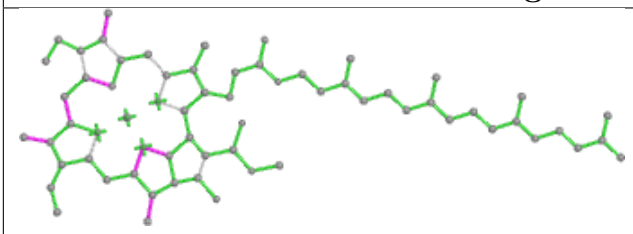


Torsions



Rings

Ligand CLA B 612



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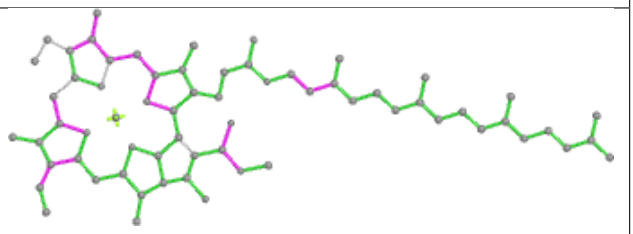
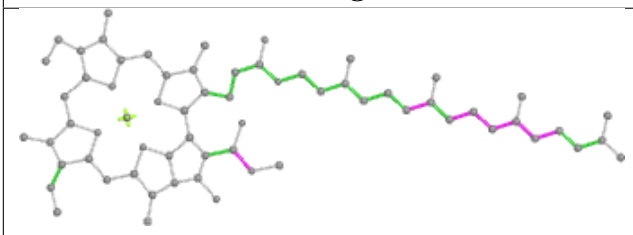


Bond angles



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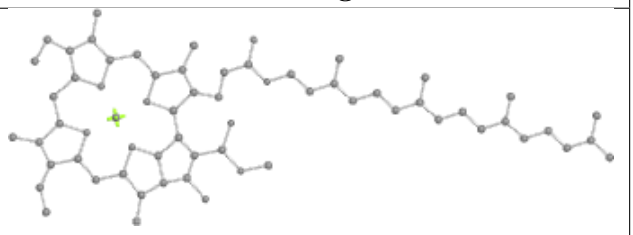
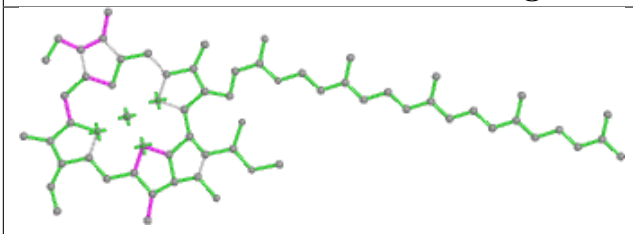


Rings

Ligand CLA D 403



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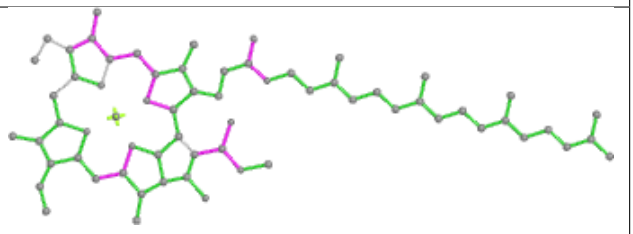
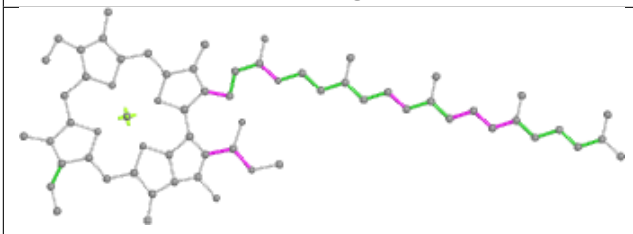


Bond angles



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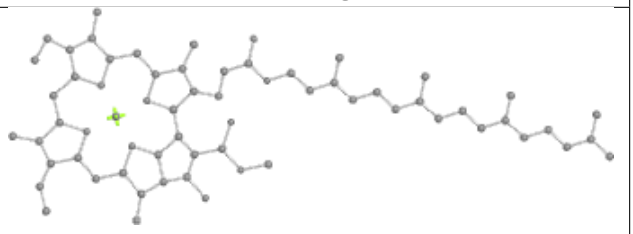
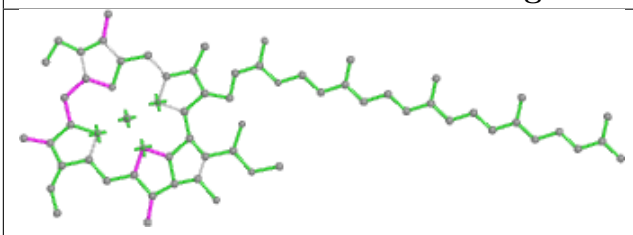
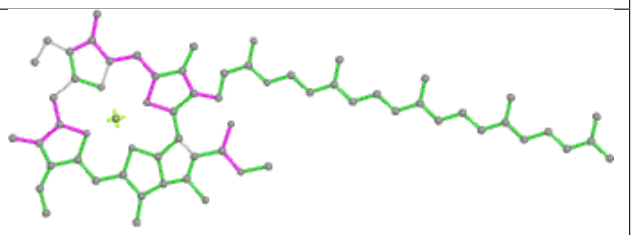


Rings

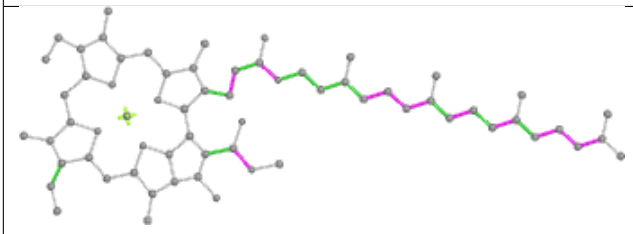
Ligand CLA B 617



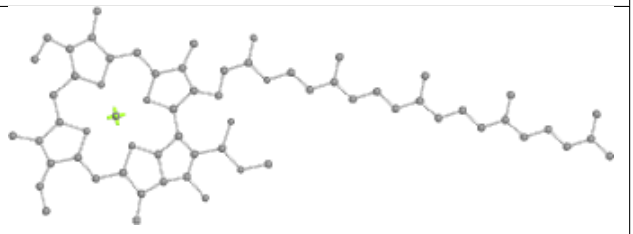
Bond lengths



Bond angles

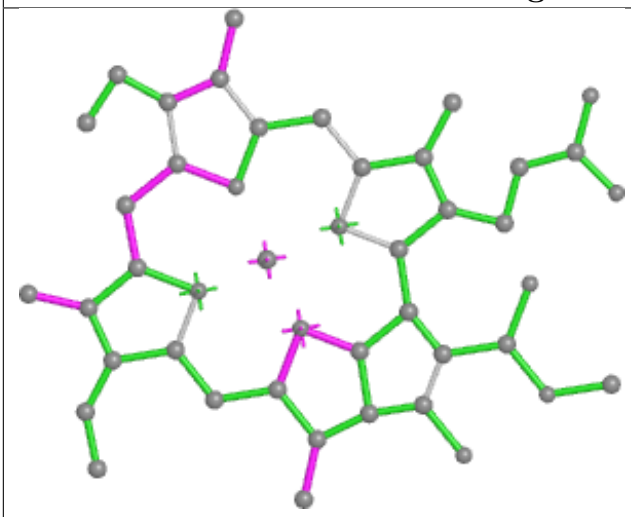


Torsions

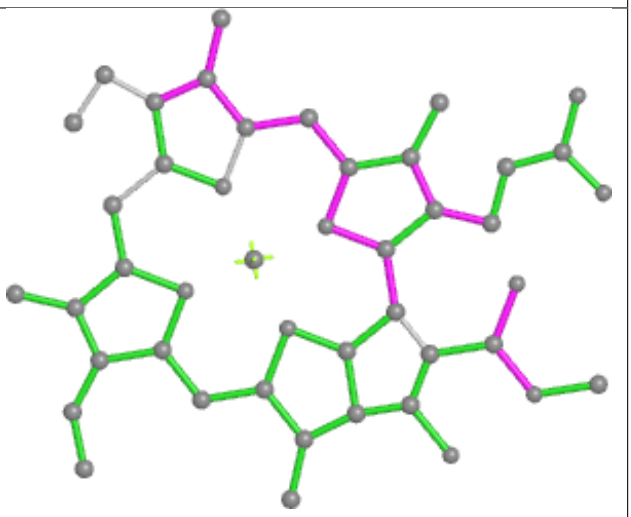


Rings

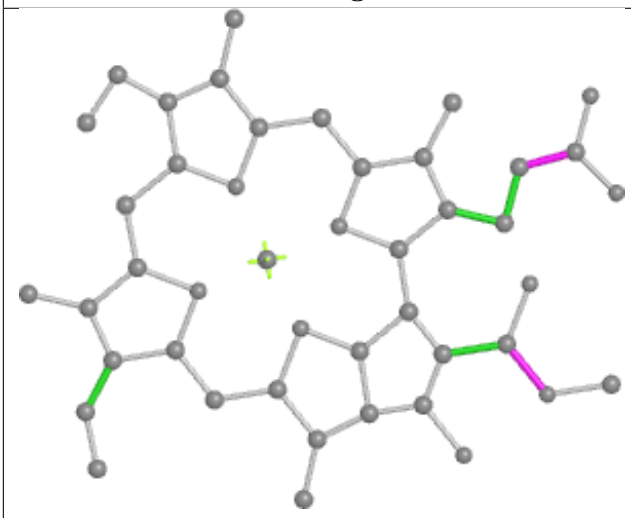
Ligand CLA S 612



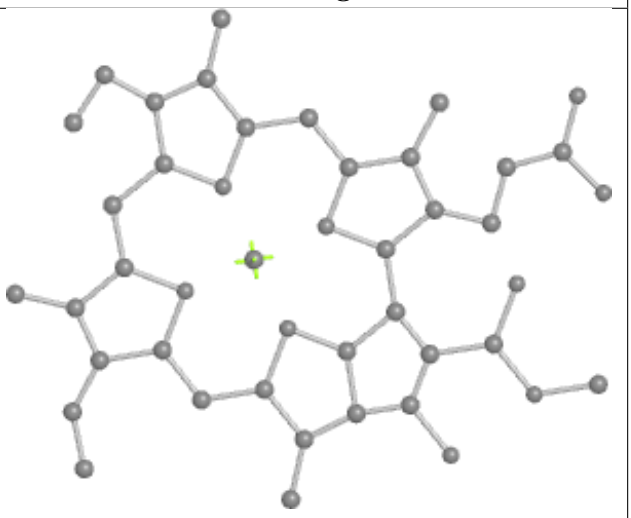
Bond lengths



Bond angles

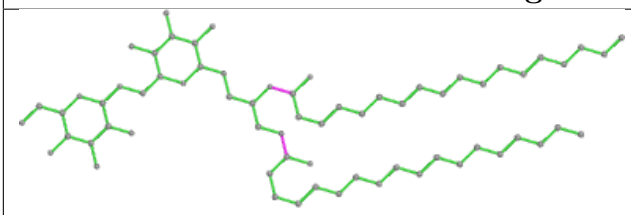


Torsions

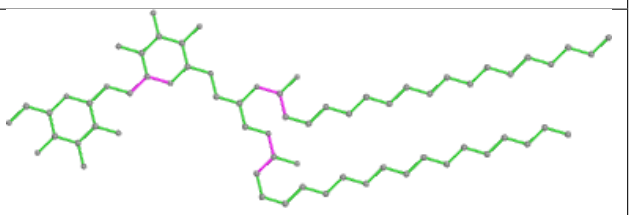


Rings

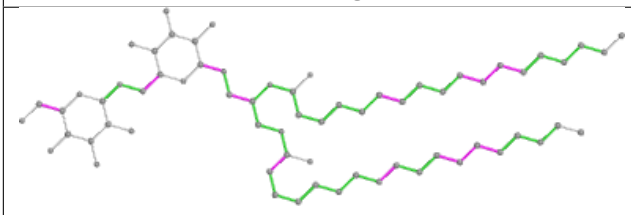
Ligand DGD c 523



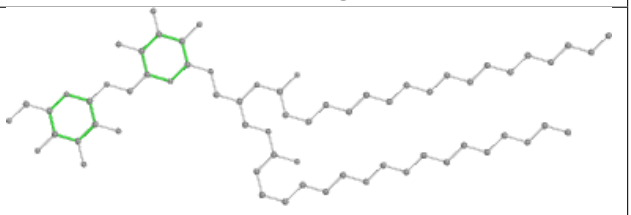
Bond lengths



Bond angles

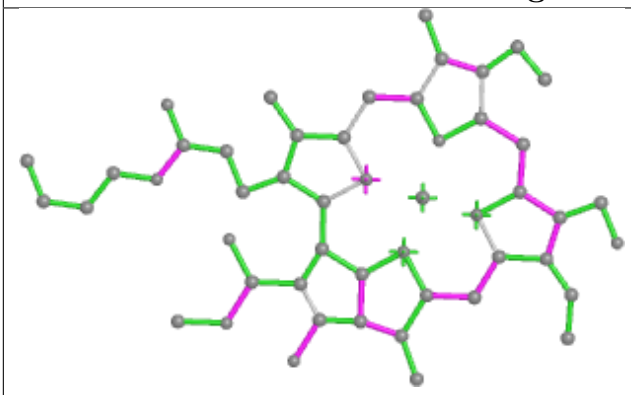


Torsions

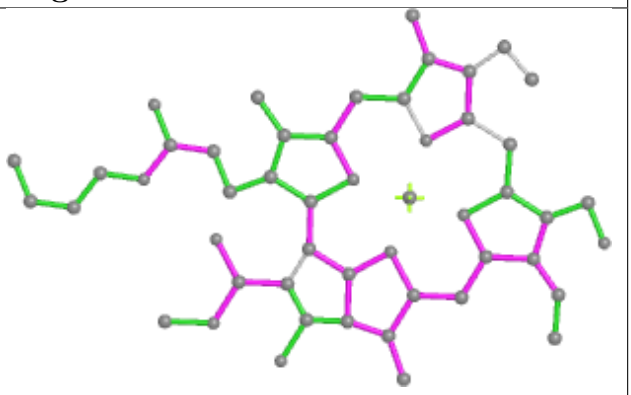


Rings

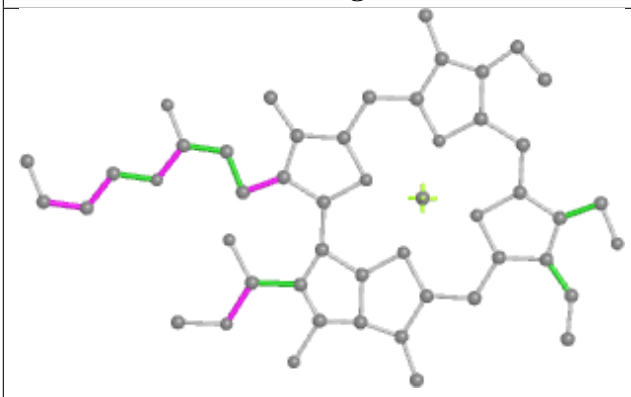
Ligand CHL g 606



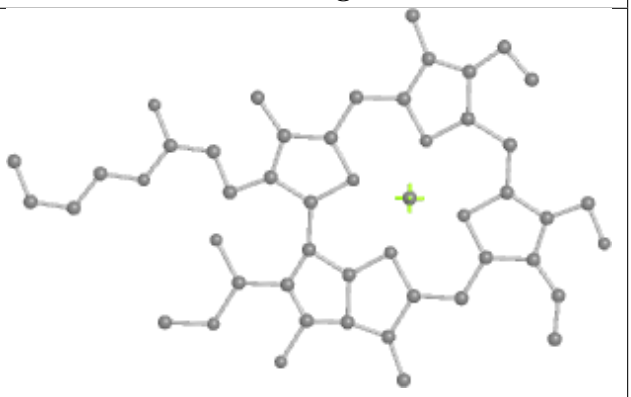
Bond lengths



Bond angles

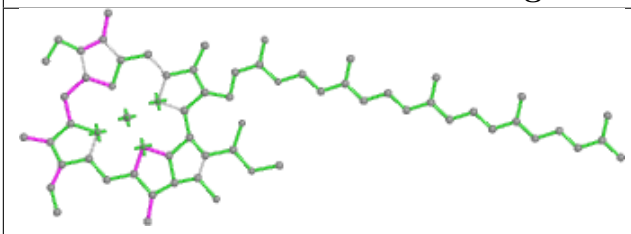


Torsions



Rings

Ligand CLA C 504



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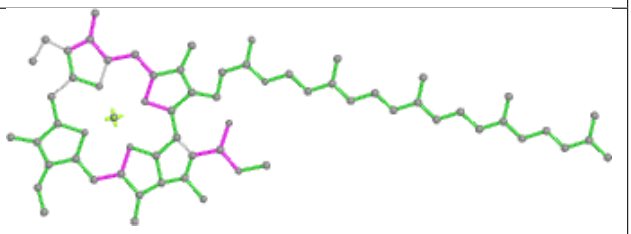
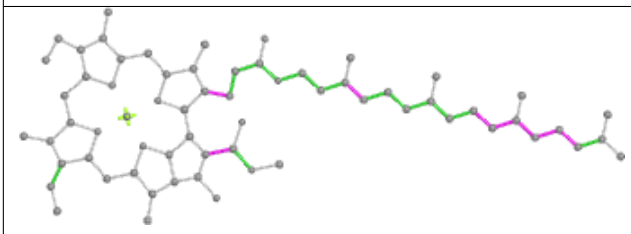


Bond angles



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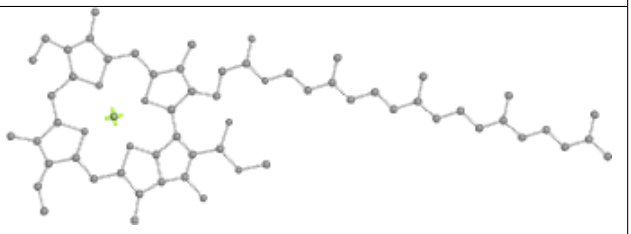
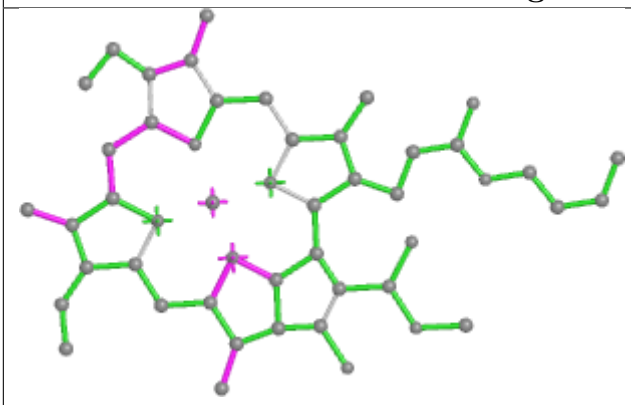


Rings

Ligand CLA S 613



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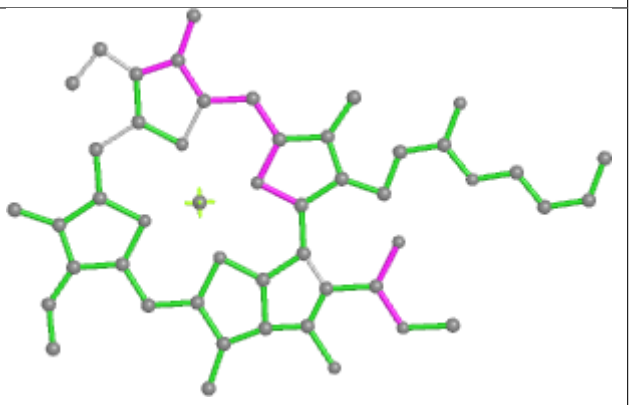
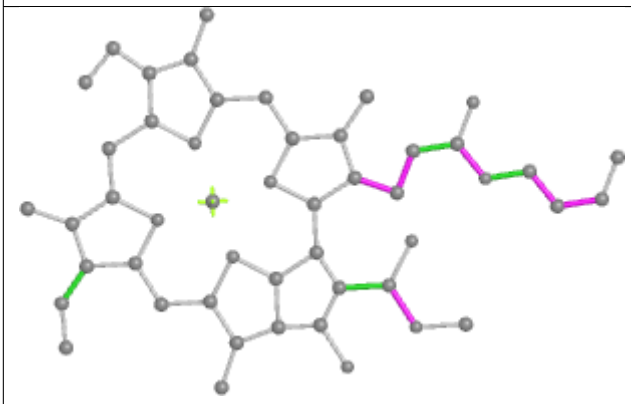
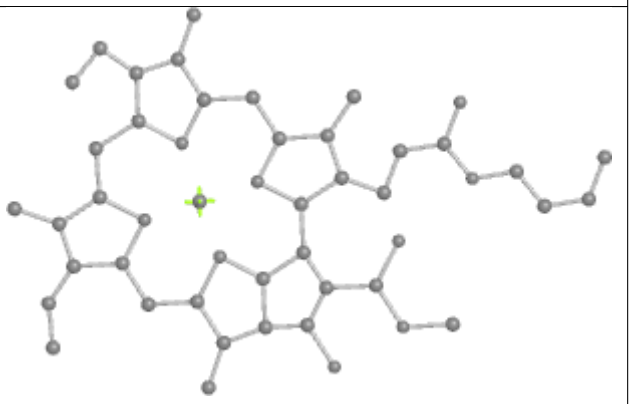


Bond angles

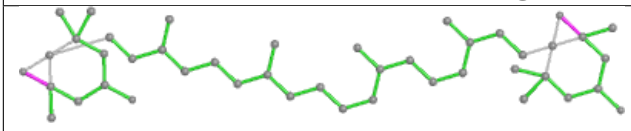


Torsions



Rings

Ligand XAT Y 1622



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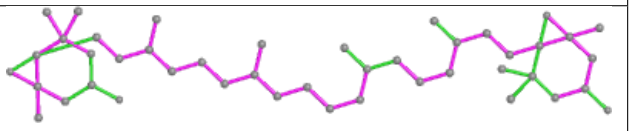
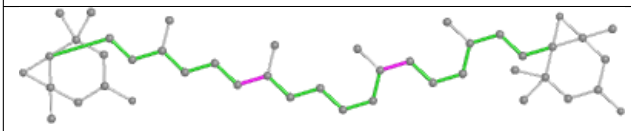


Bond angles



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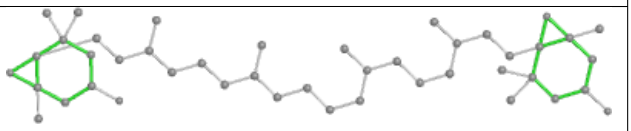
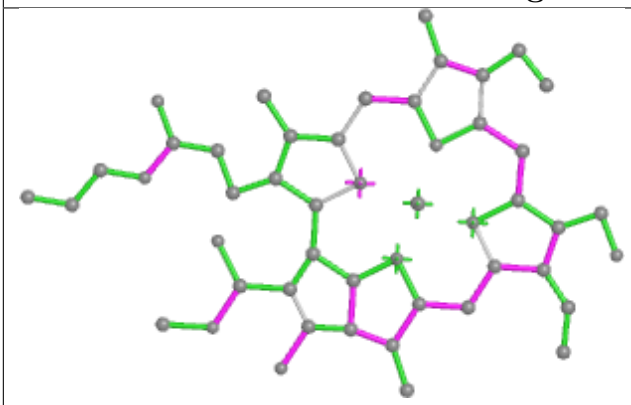


Rings

Ligand CHL S 608



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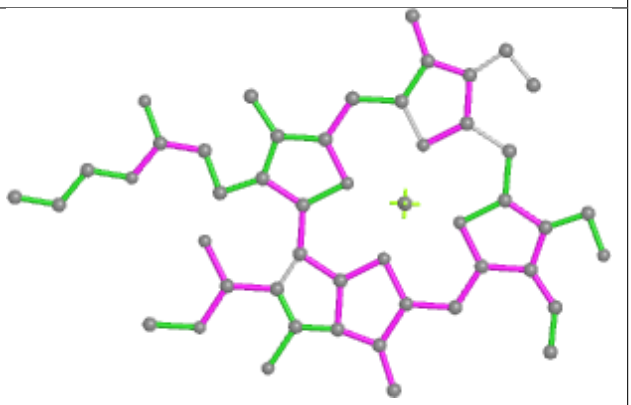
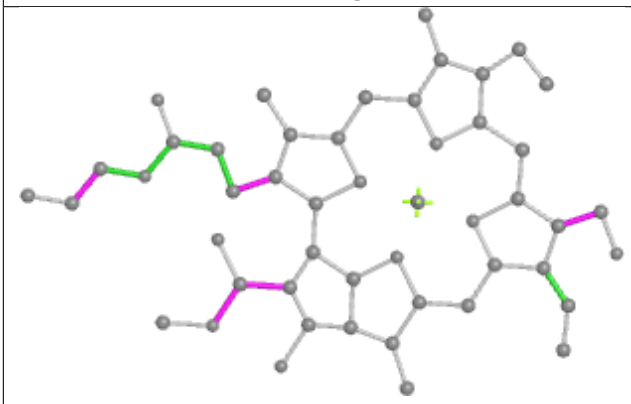


Bond angles



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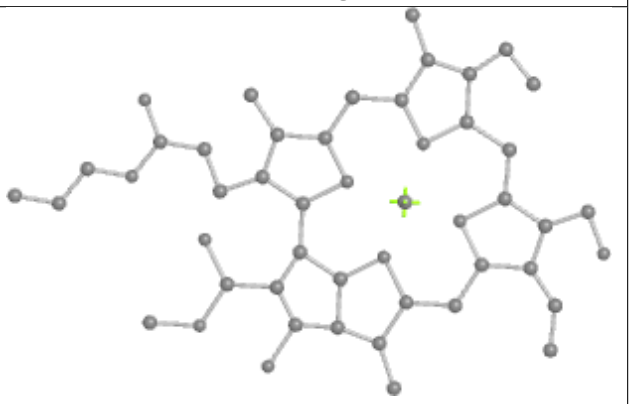
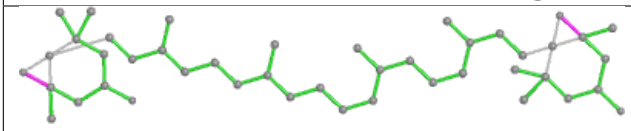


Rings

Ligand XAT r 624



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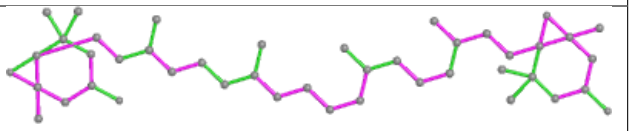
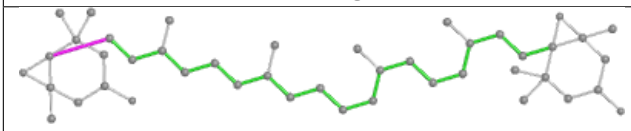


Bond angles



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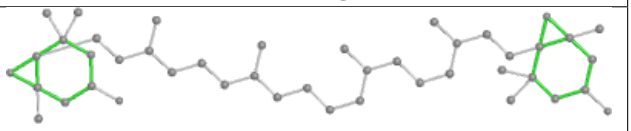
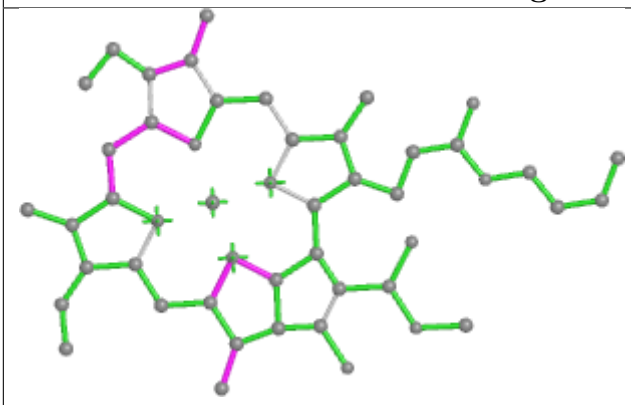


Rings

Ligand CLA s 604



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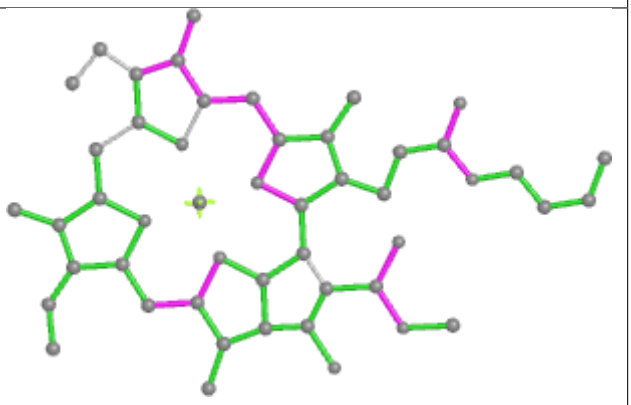
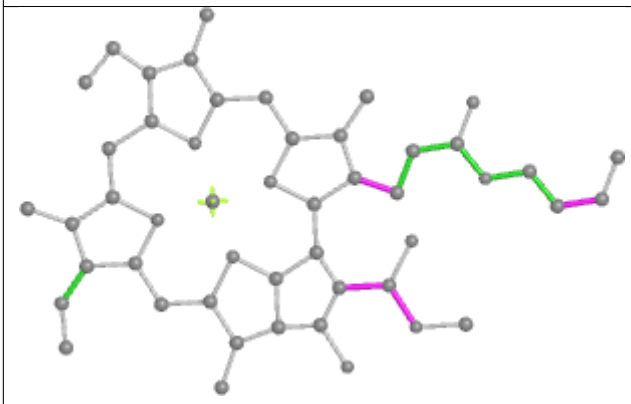


Bond angles



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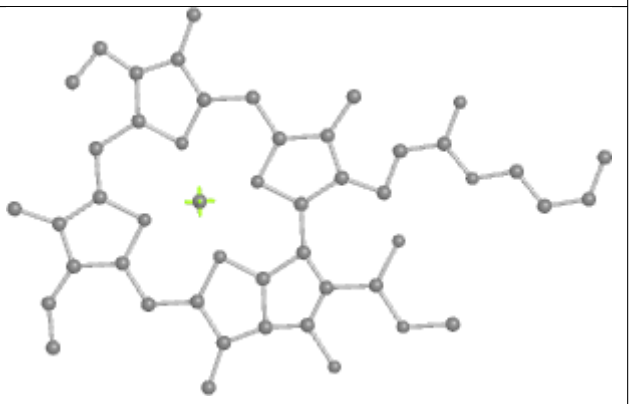
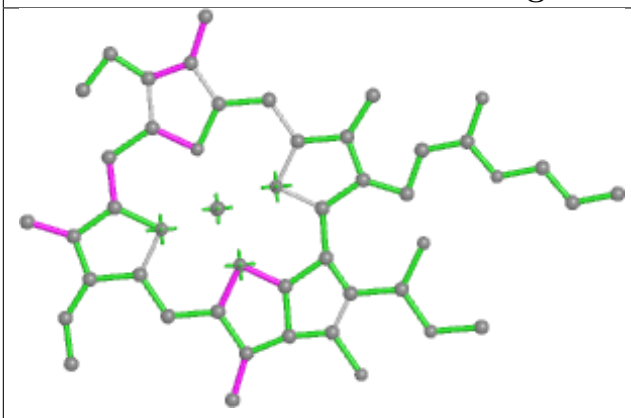


Rings

Ligand CLA S 614



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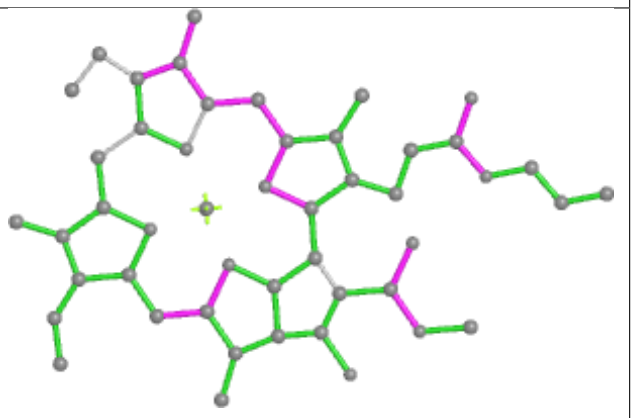
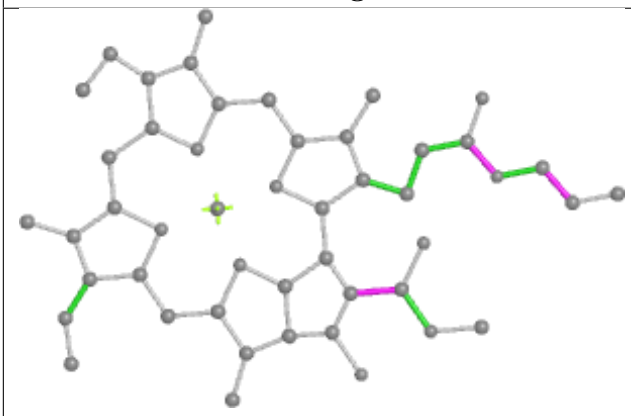
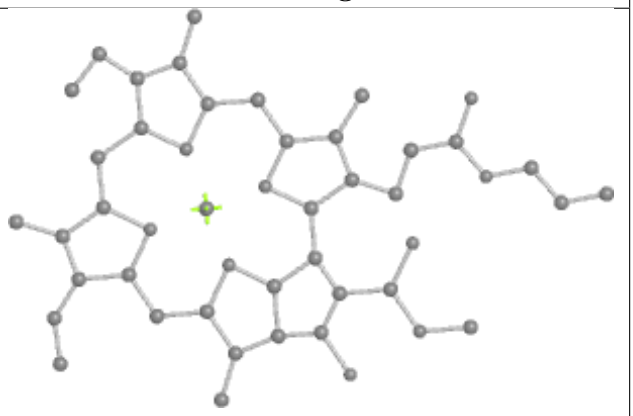


Bond angles

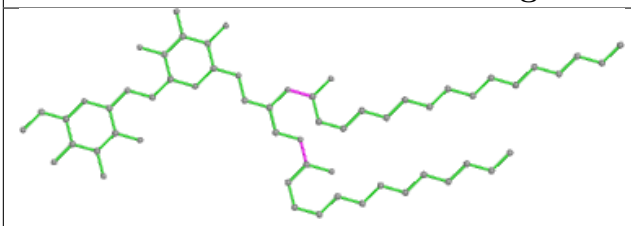


Torsions



Rings

Ligand DGD C 520



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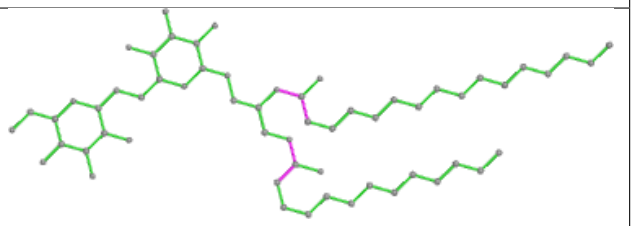
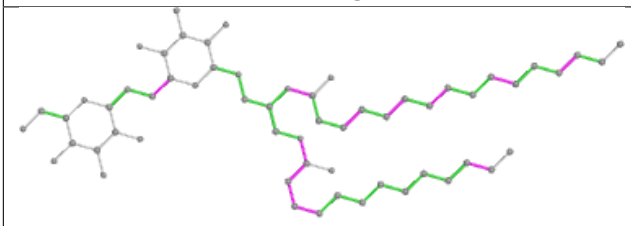


Bond angles



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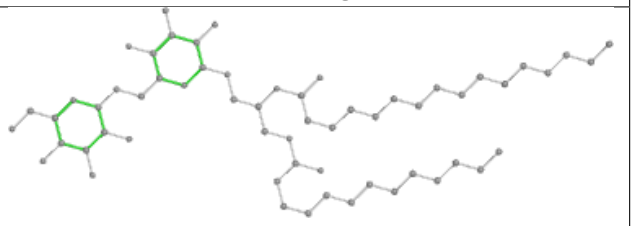
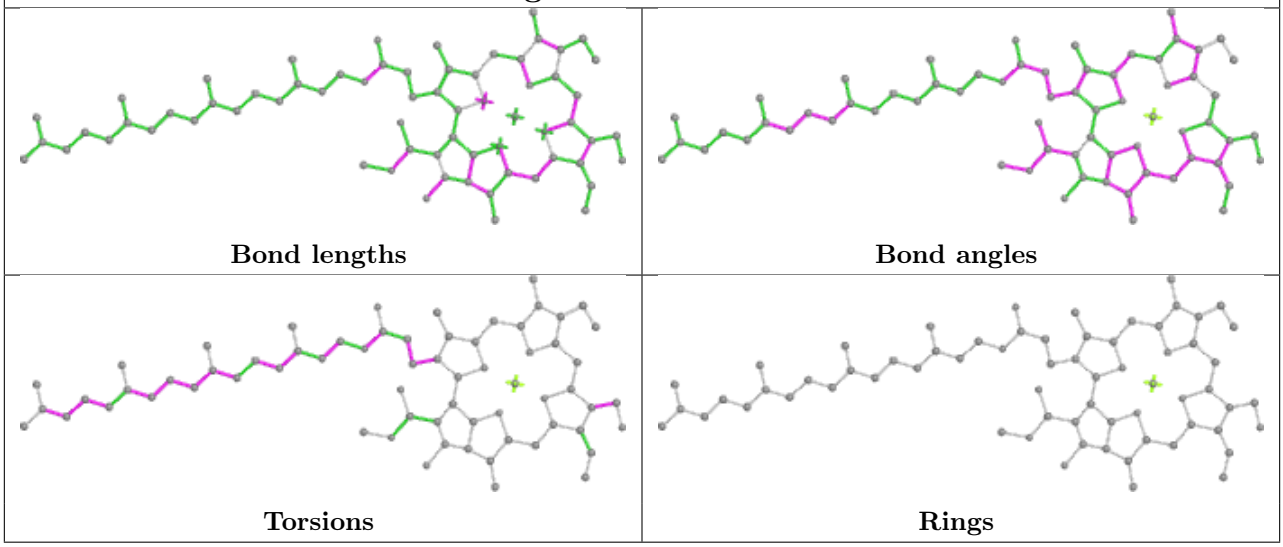
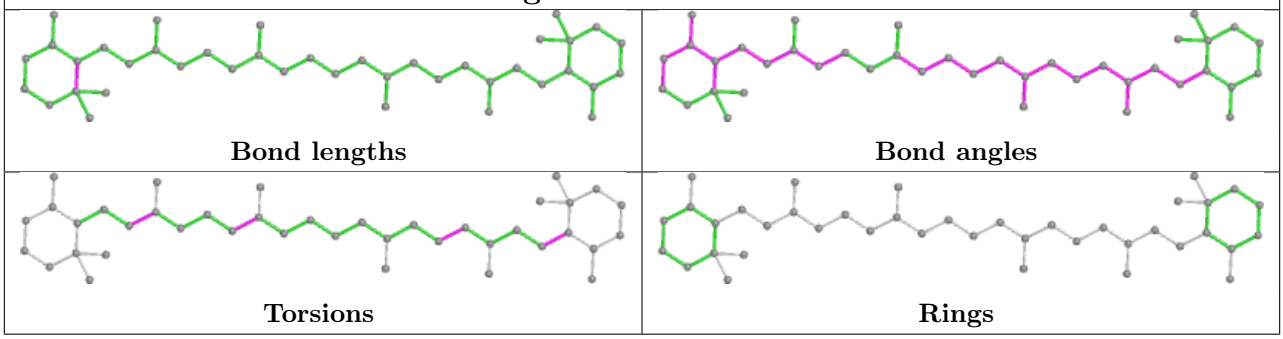


Rings

Ligand CHL Y 607



Ligand BCR C 515



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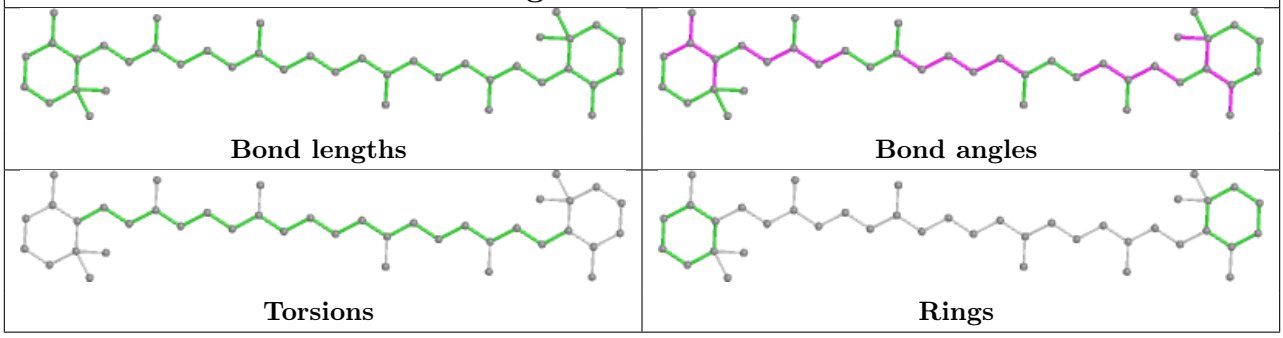
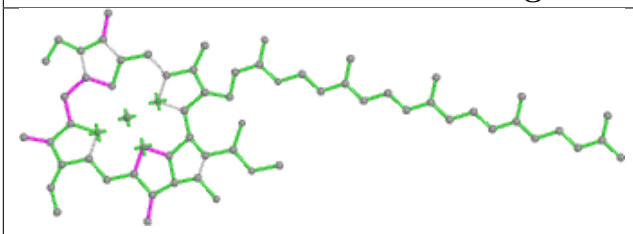
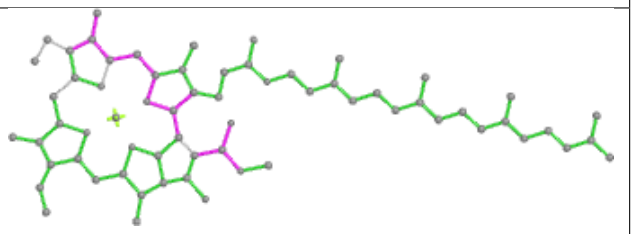


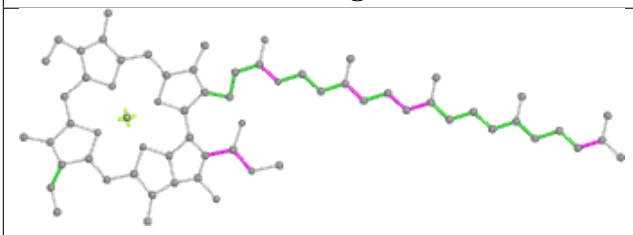
Ligand CLA C 511



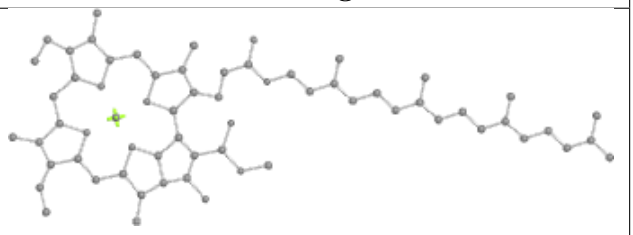
Bond lengths



Bond angles

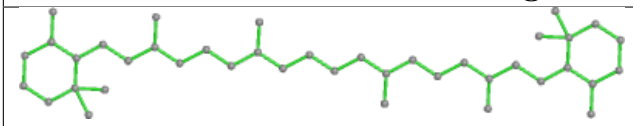


Torsions



Rings

Ligand BCR B 620



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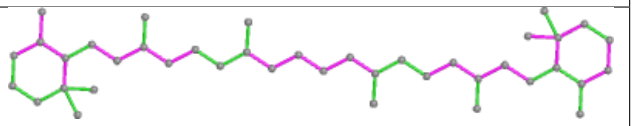
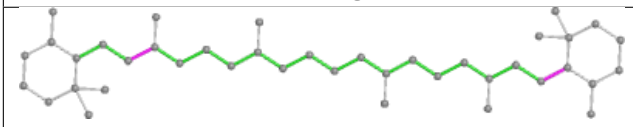


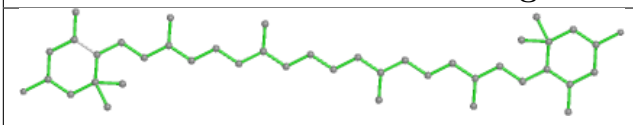
Bond angles



Torsions

Rings

Ligand LUT g 1621



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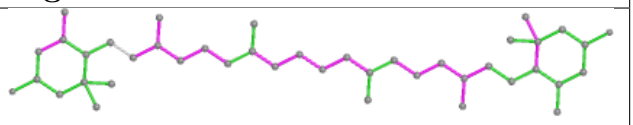
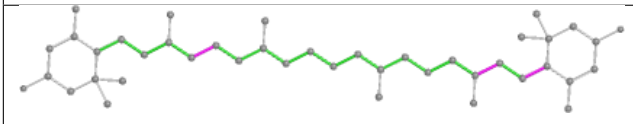
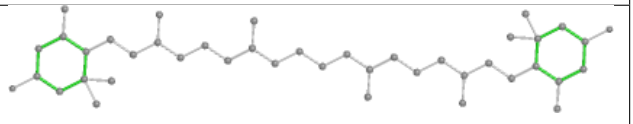


Bond angles

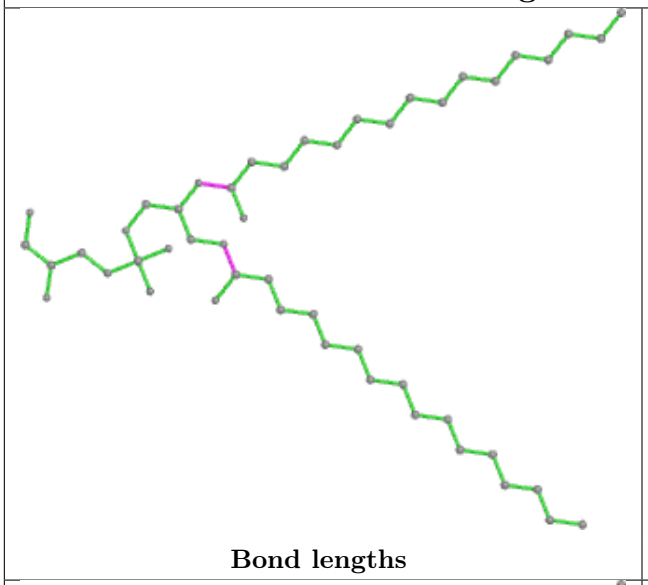


Torsions

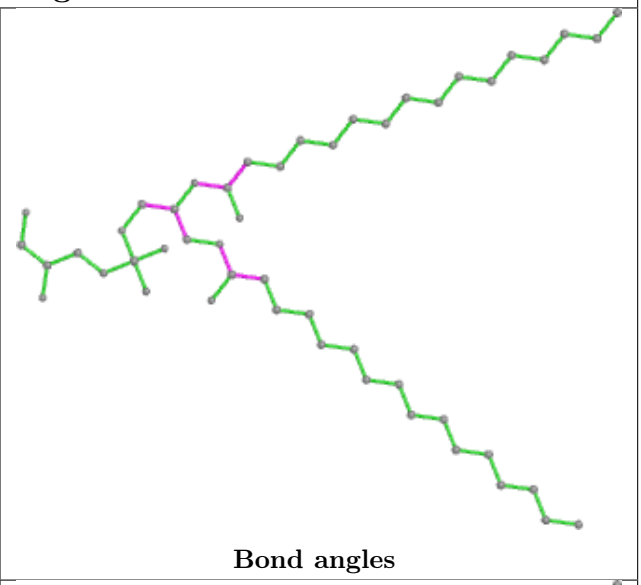


Rings

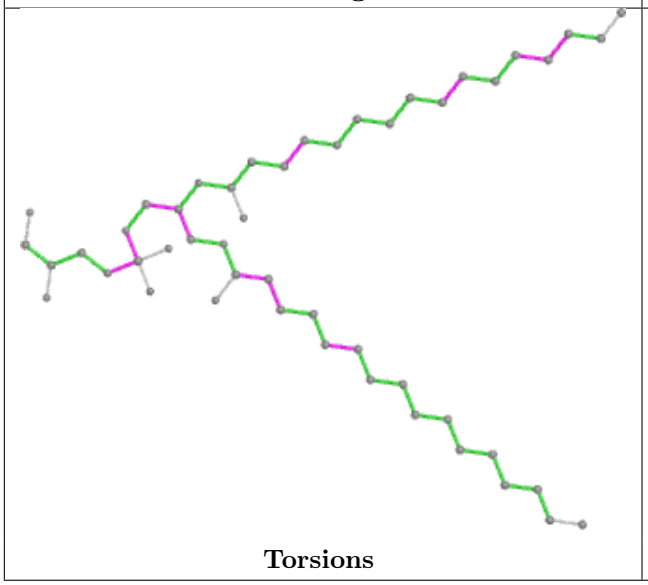
Ligand LHG g 2630



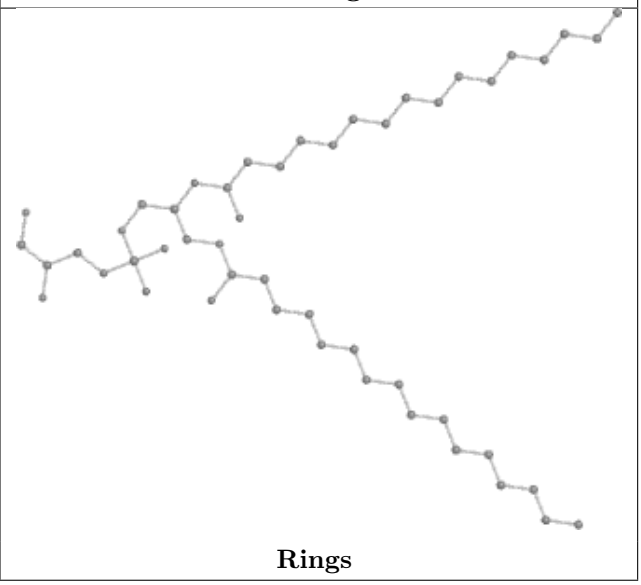
Bond lengths



Bond angles

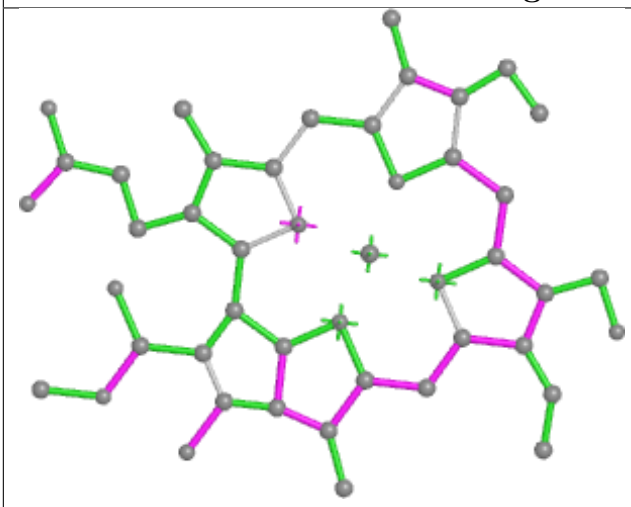


Torsions



Rings

Ligand CHL R 608



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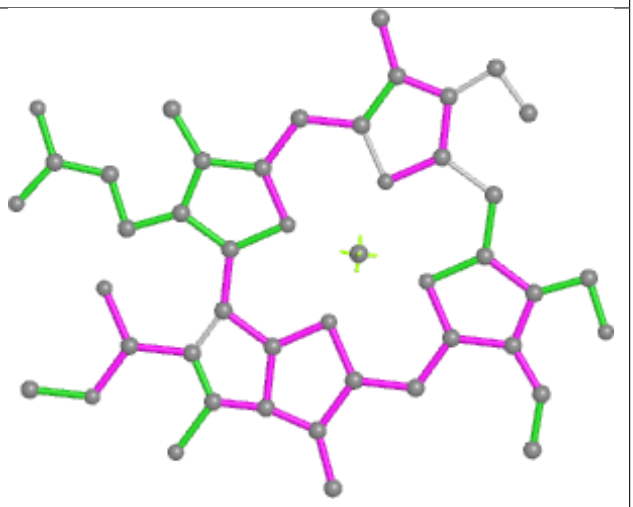
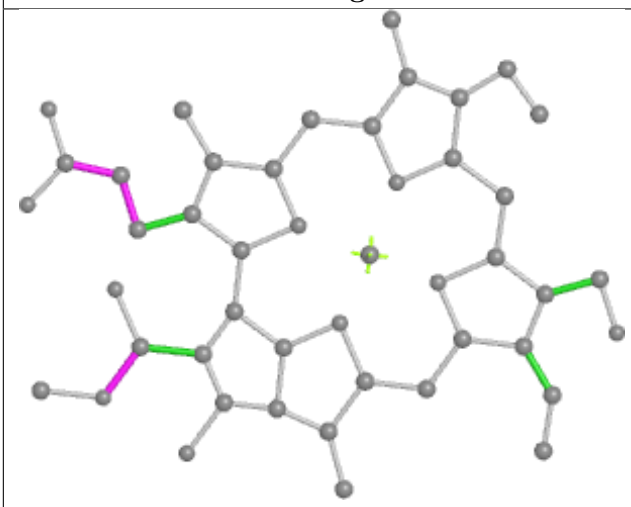
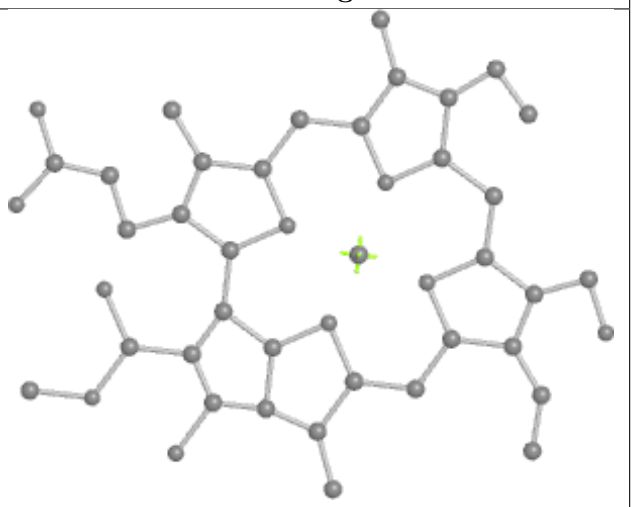


Bond angles

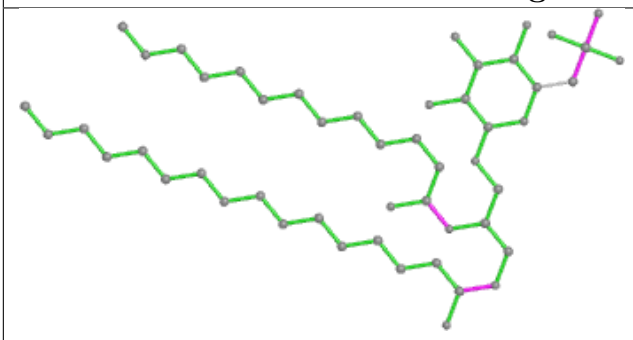


Torsions

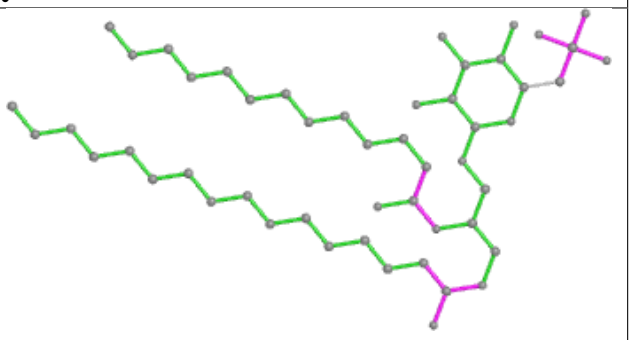


Rings

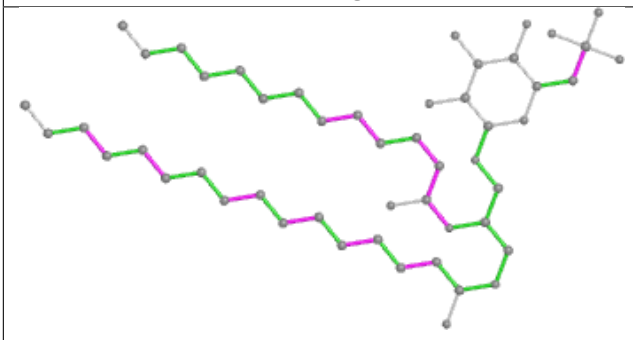
Ligand SQD a 412



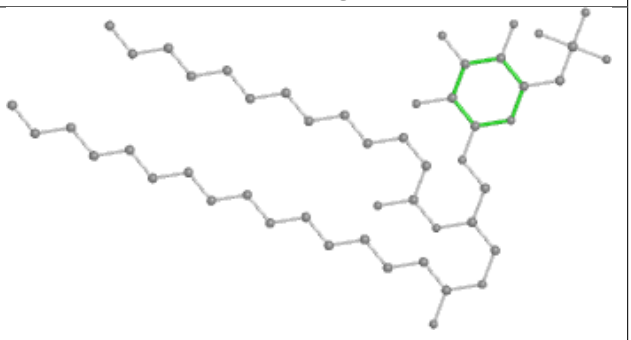
Bond lengths



Bond angles

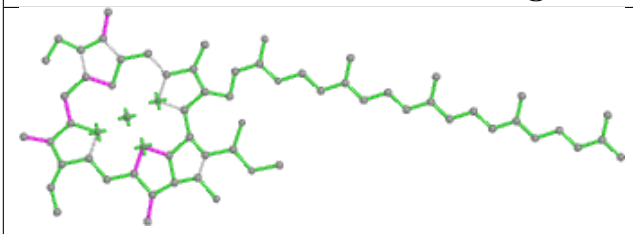


Torsions



Rings

Ligand CLA b 612



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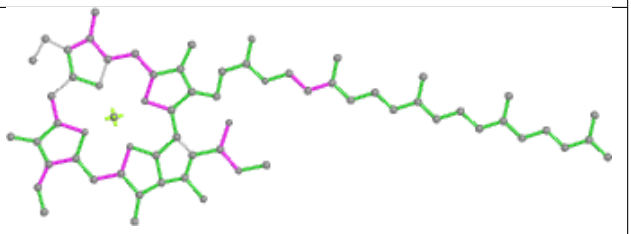

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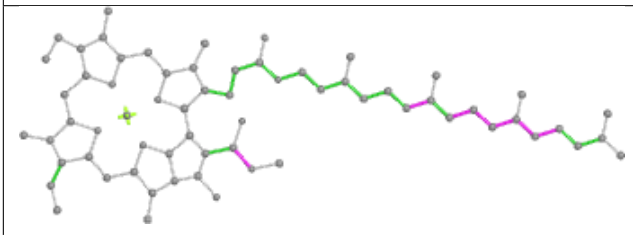

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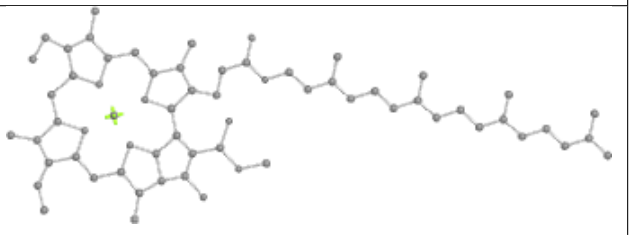
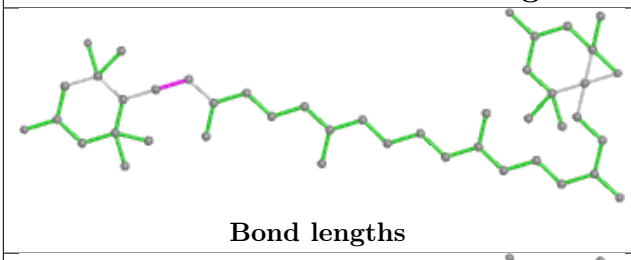


Rings

Ligand NEX R 625



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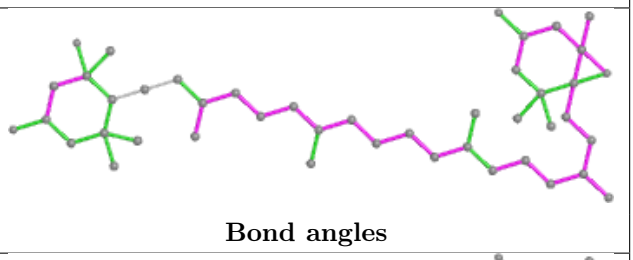
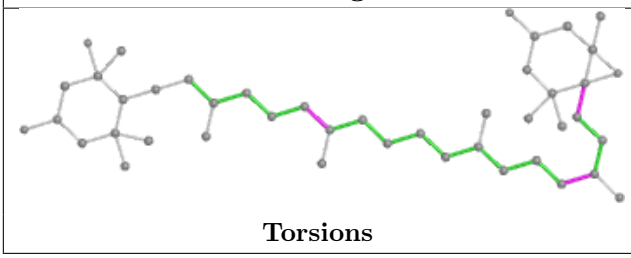


Bond angles



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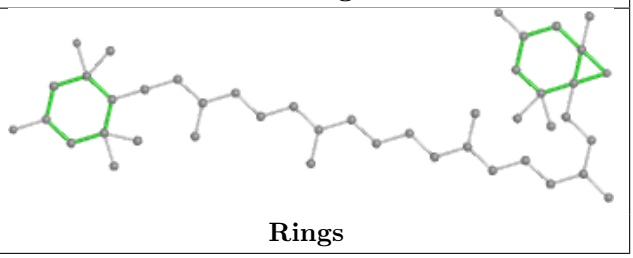
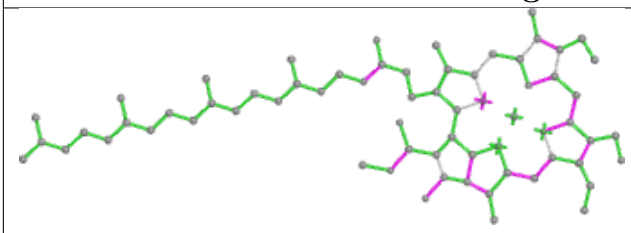


Rings

Ligand CHL N 607



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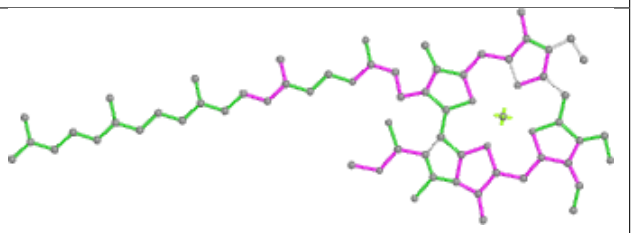

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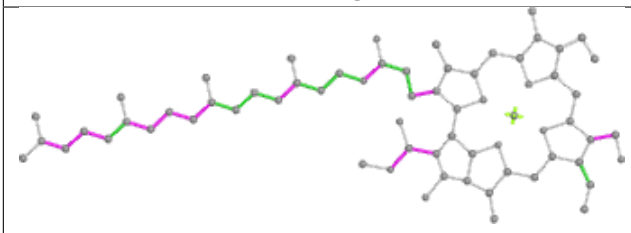

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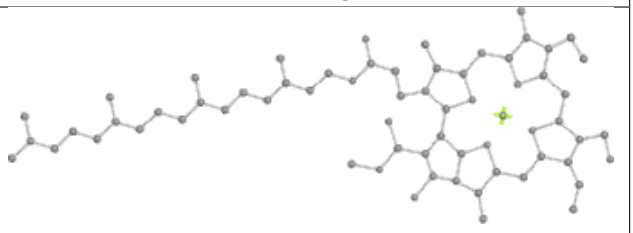
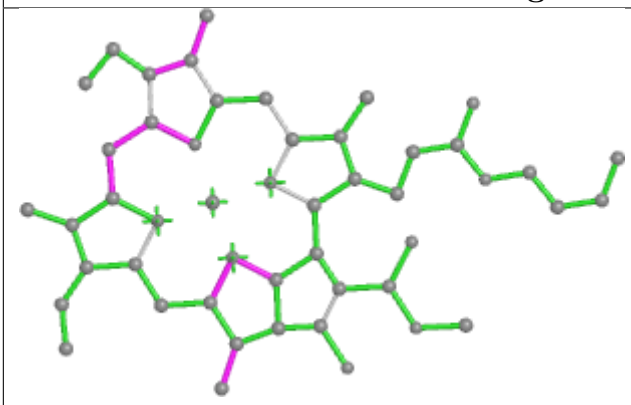


Rings

Ligand CLA S 604



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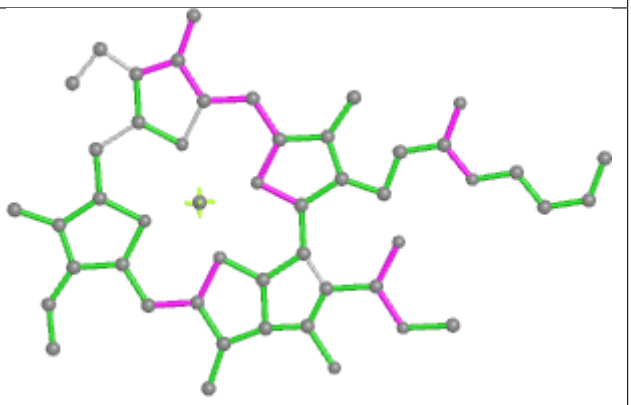
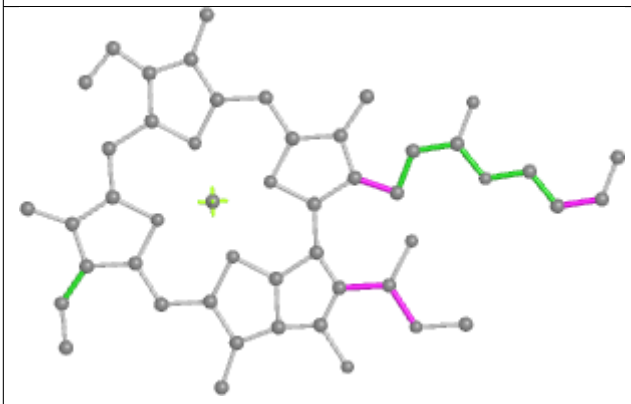


Bond angles



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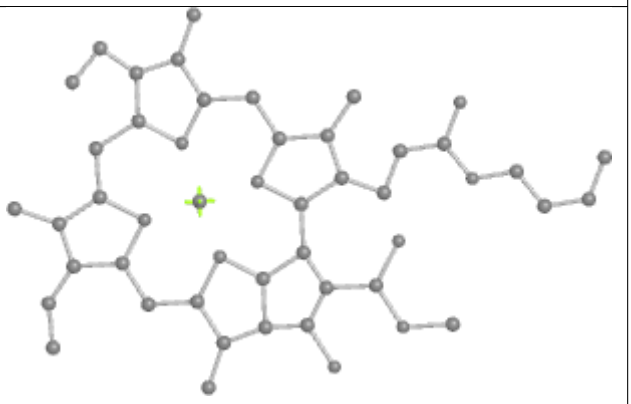
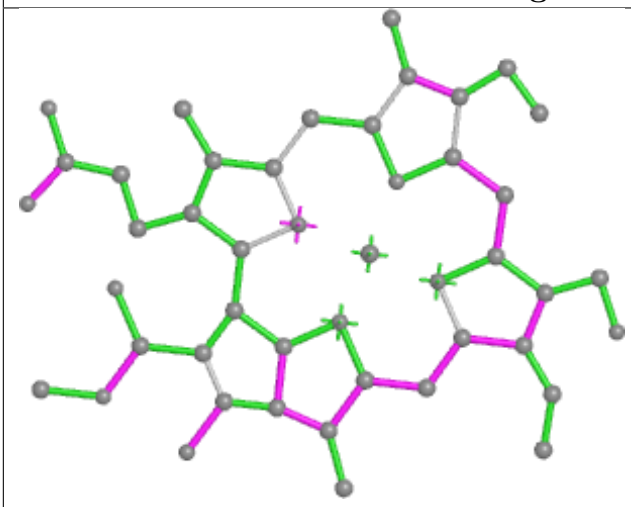


Rings

Ligand CHL s 601



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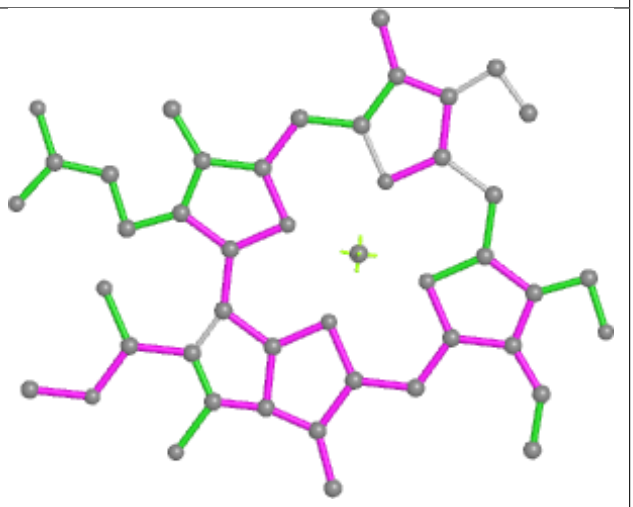
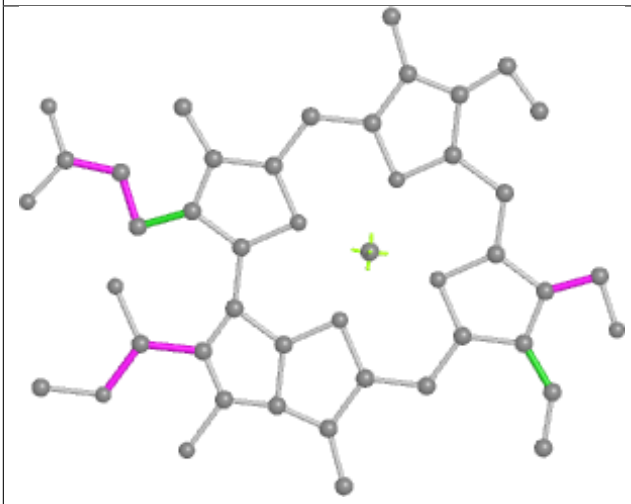


Bond angles



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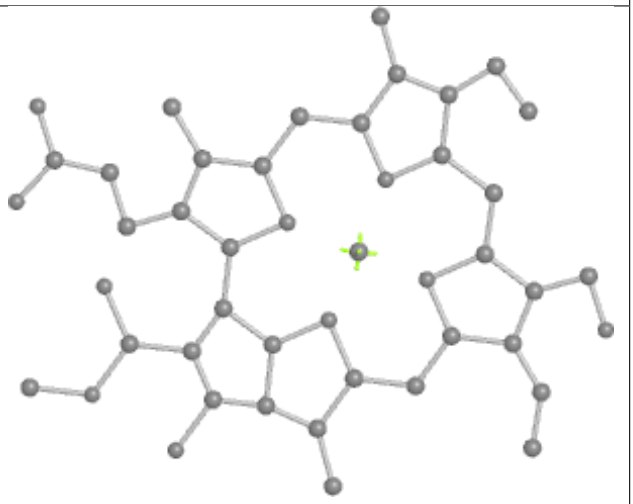
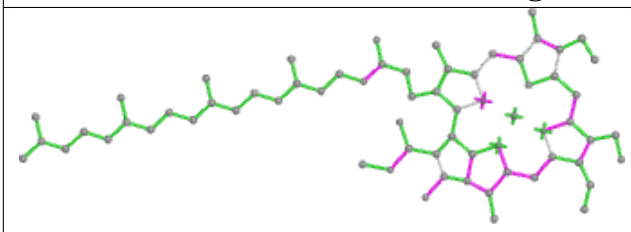


Rings

Ligand CHL n 605



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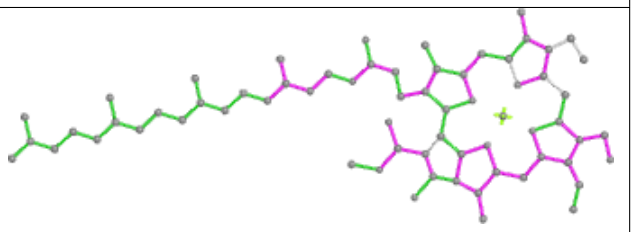

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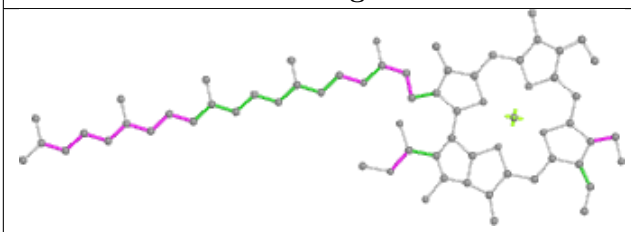

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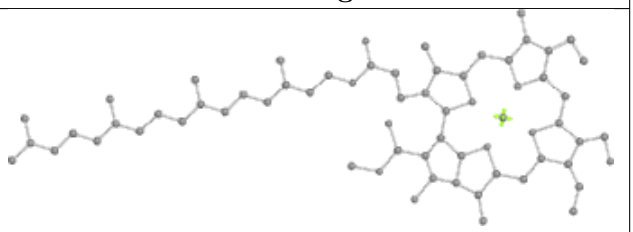
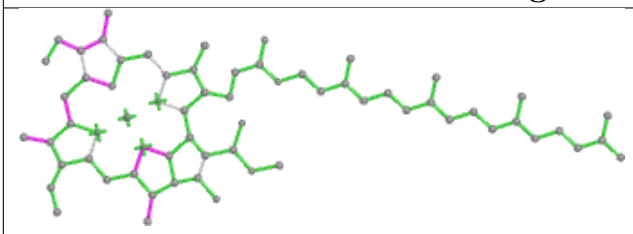


Rings

Ligand CLA c 501



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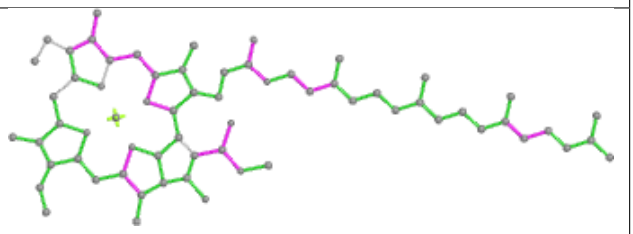
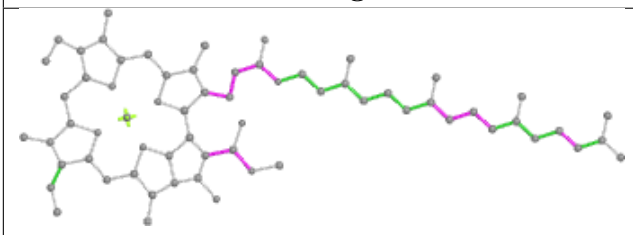


Bond angles



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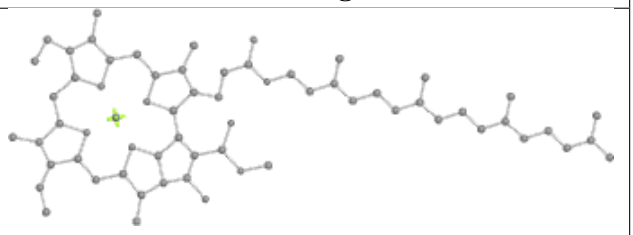
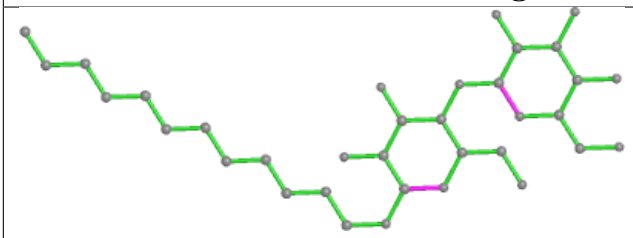


Rings

Ligand LMU Y 2632



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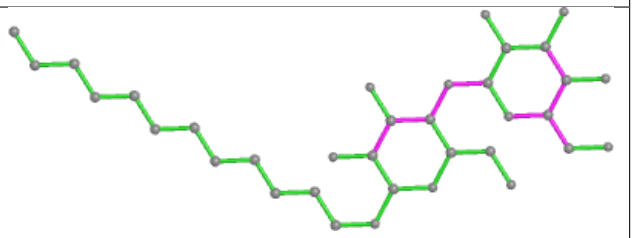
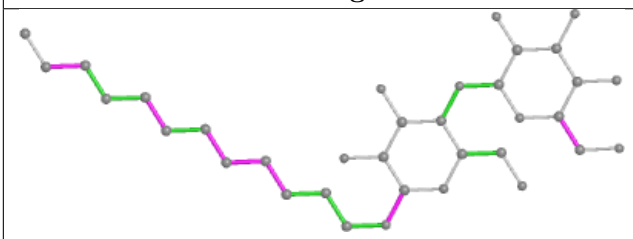


Bond angles



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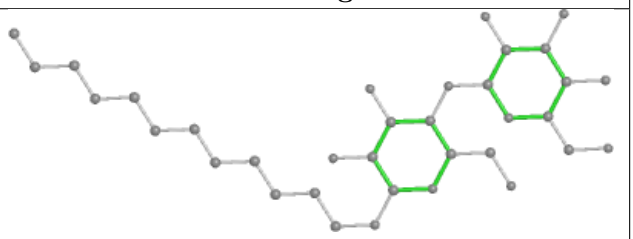
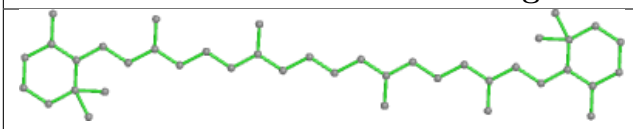


Rings

Ligand BCR C 514



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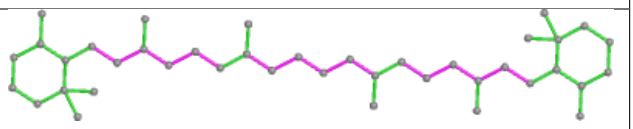

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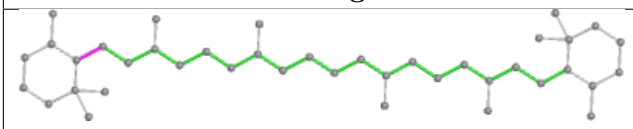

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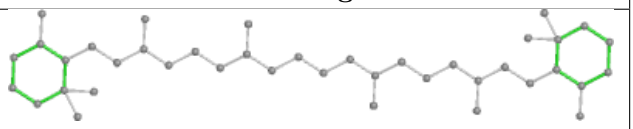
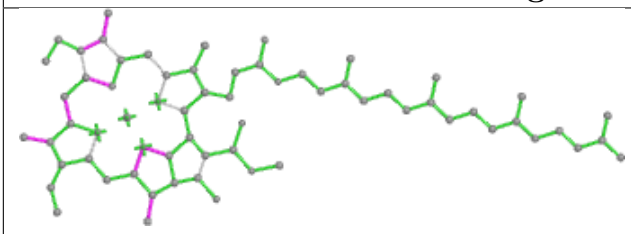


Rings

Ligand CLA b 611



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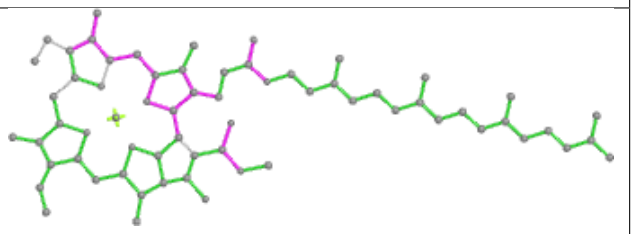

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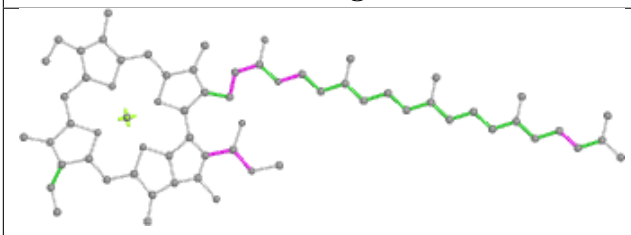

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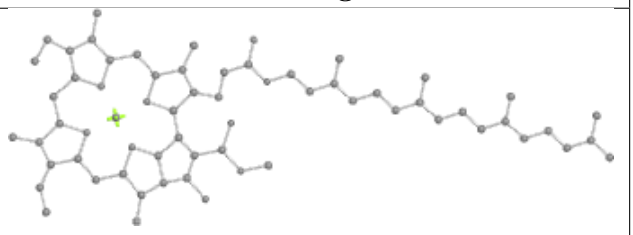
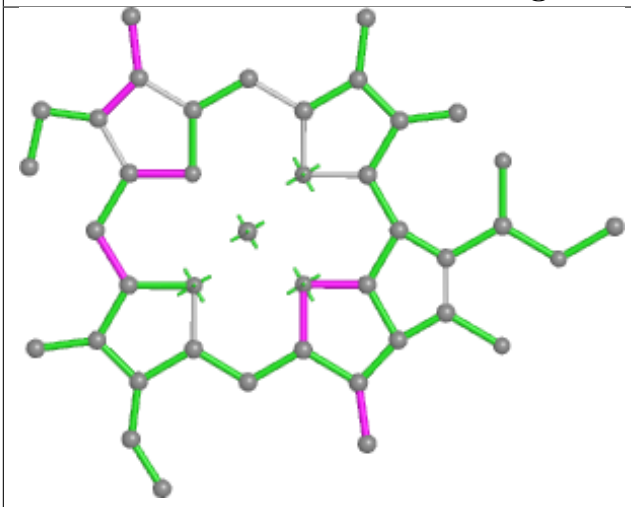


Rings

Ligand CLA s 609



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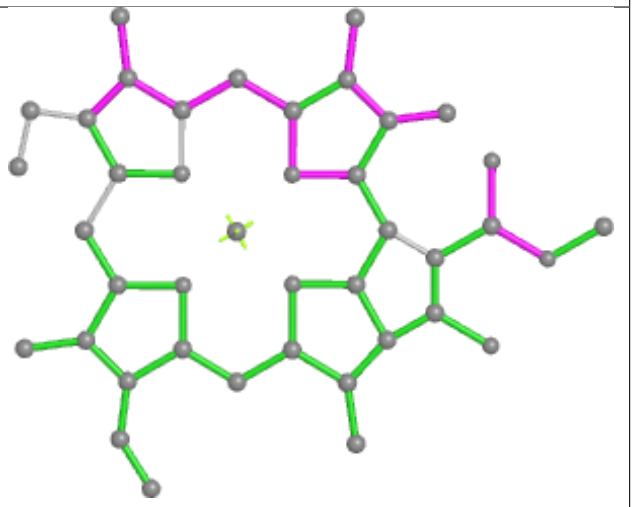
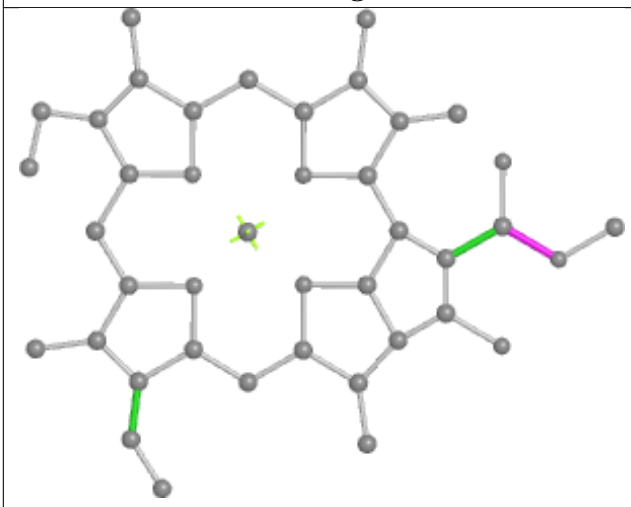


Bond angles



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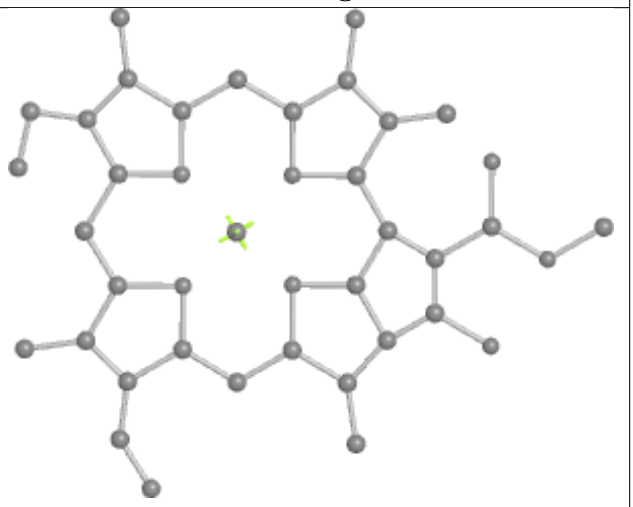
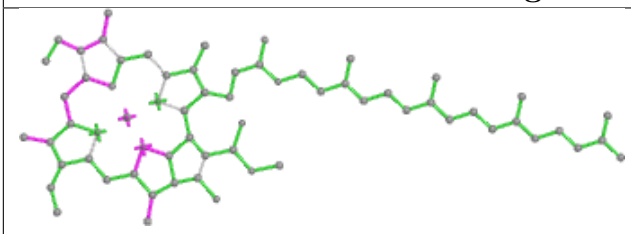


Rings

Ligand CLA B 605



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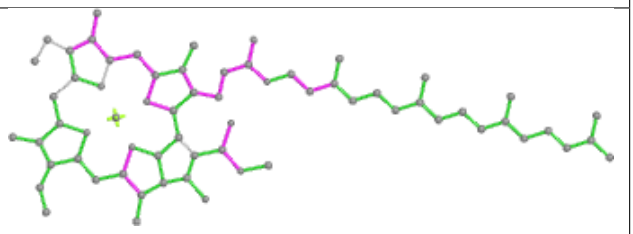
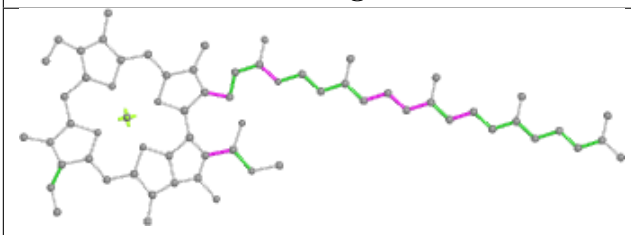


Bond angles



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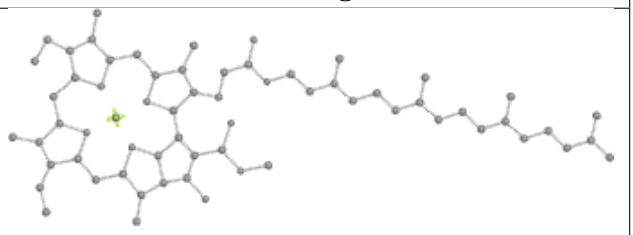
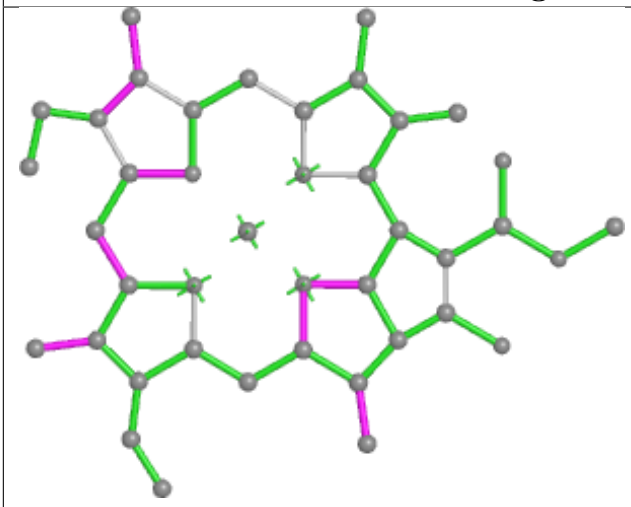
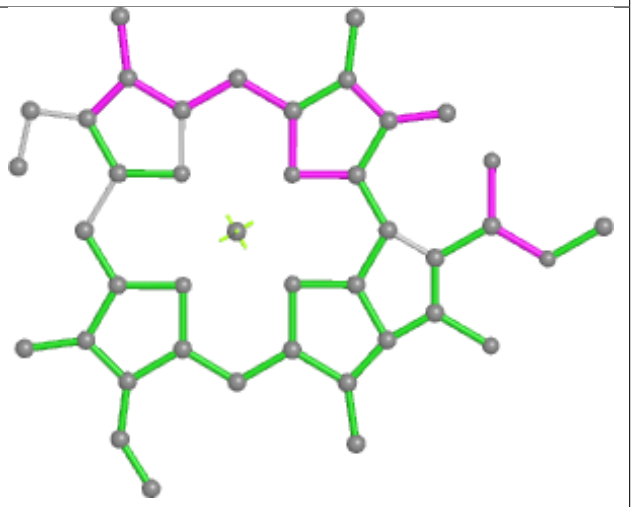


Rings

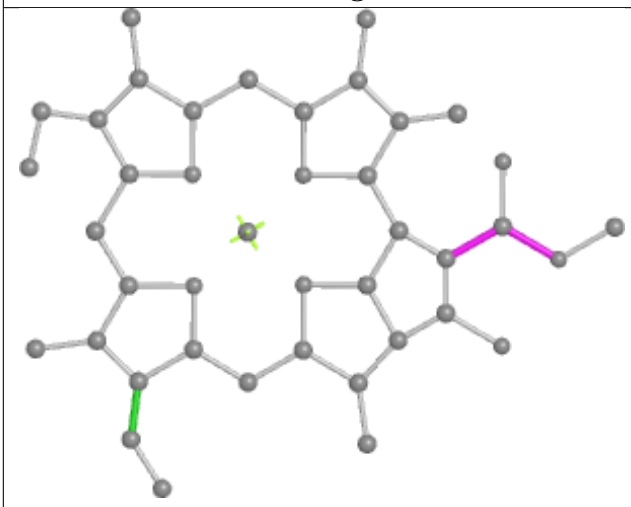
Ligand CLA r 610



Bond lengths



Bond angles



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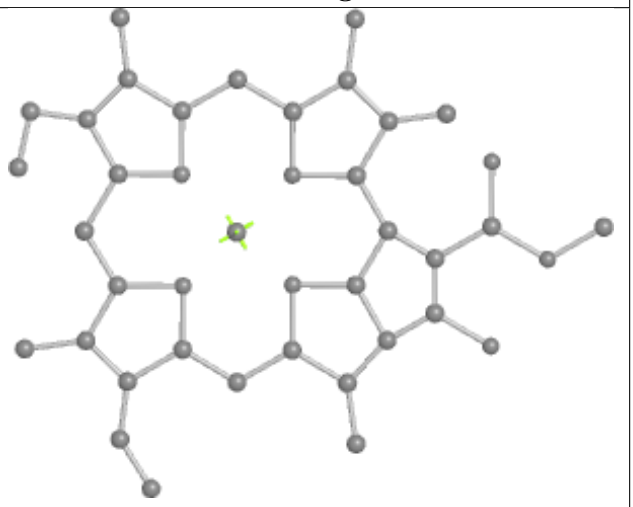
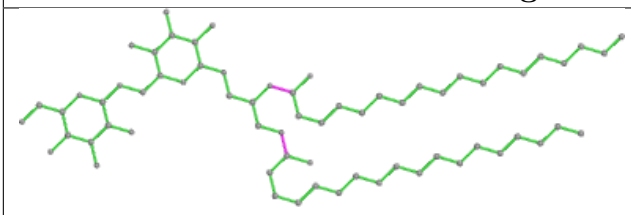
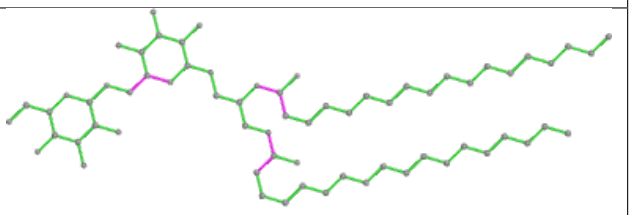
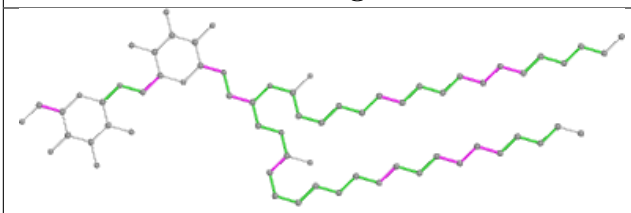
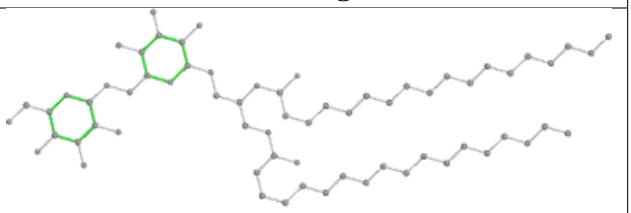
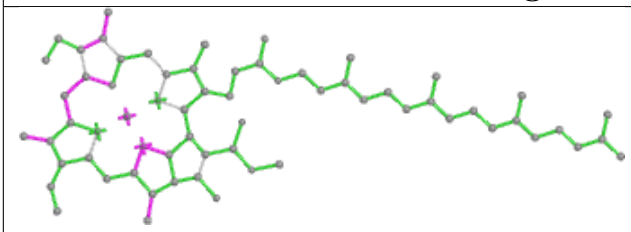
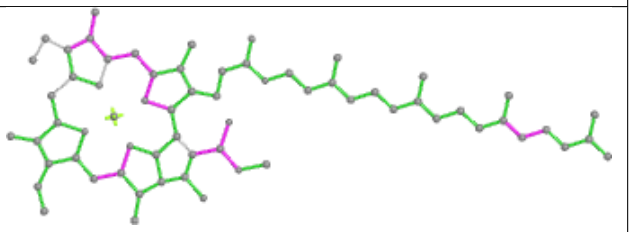
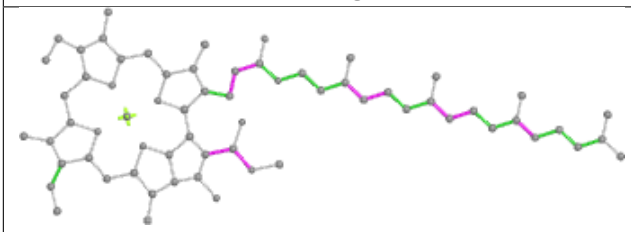
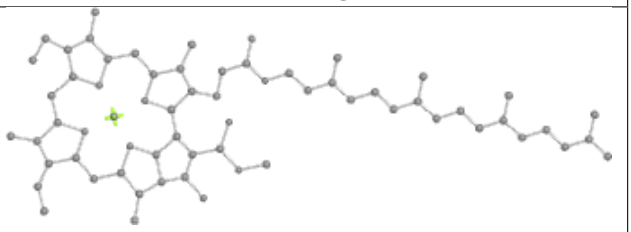
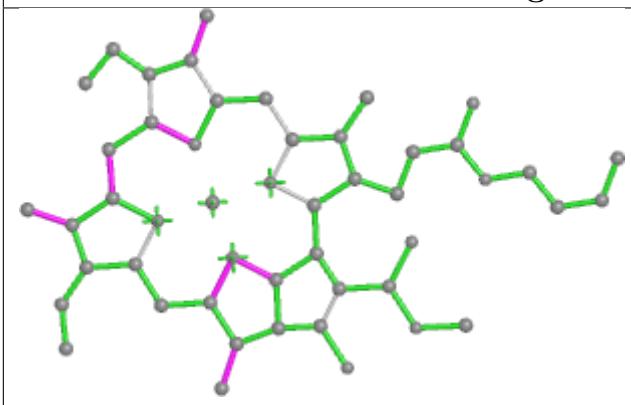


Rings

Ligand DGD C 523	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA Y 613	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA S 602



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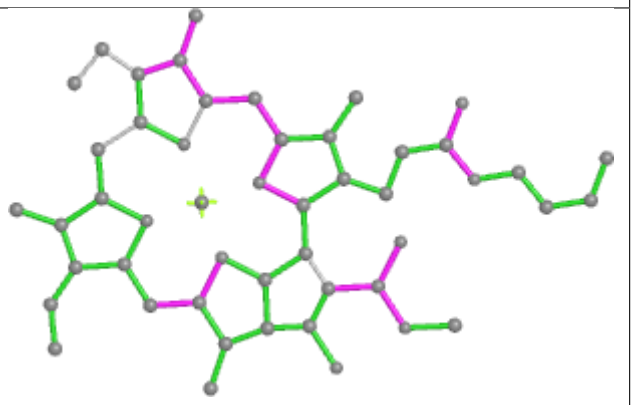

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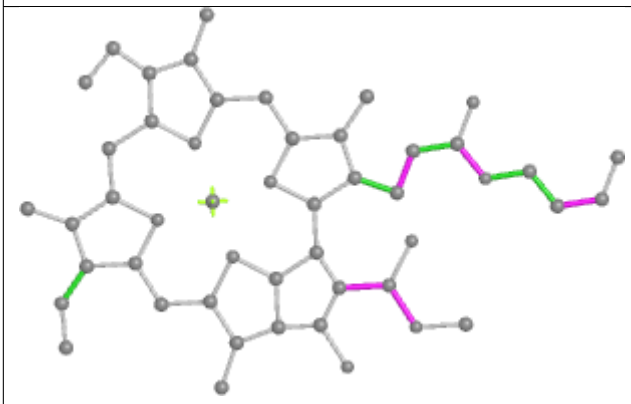

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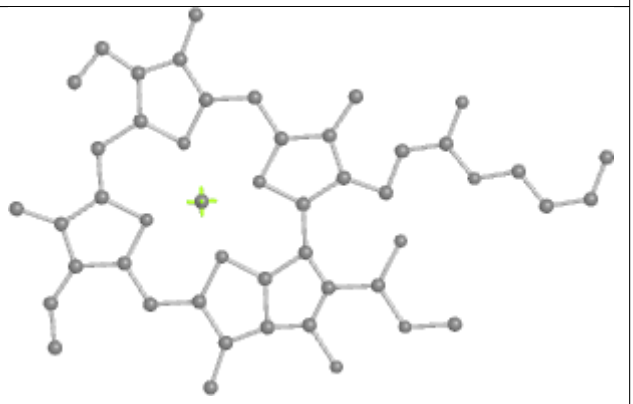
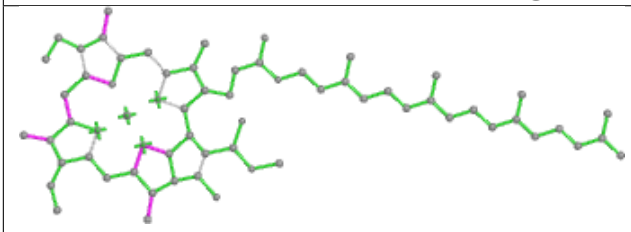


Rings

Ligand CLA b 609



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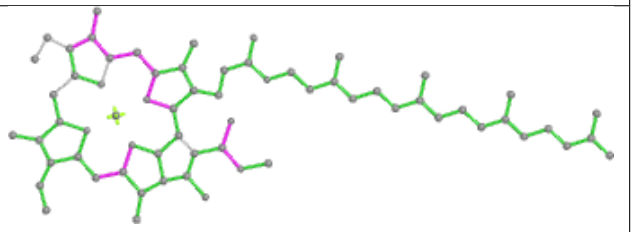

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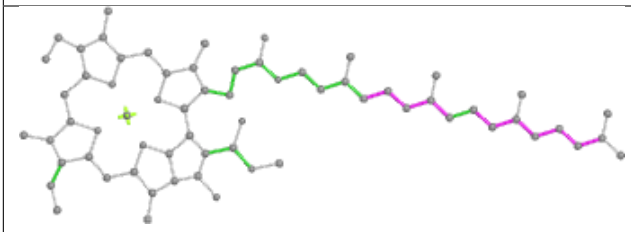

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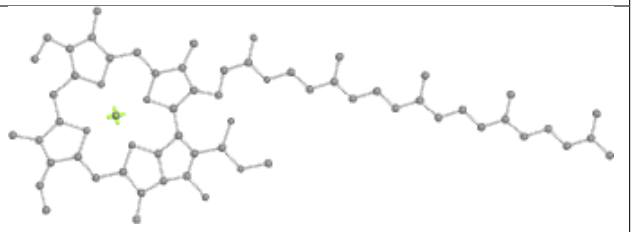
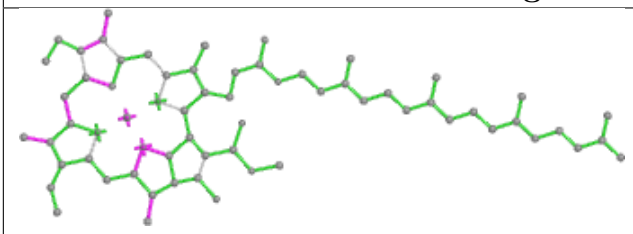


Rings

Ligand CLA D 402



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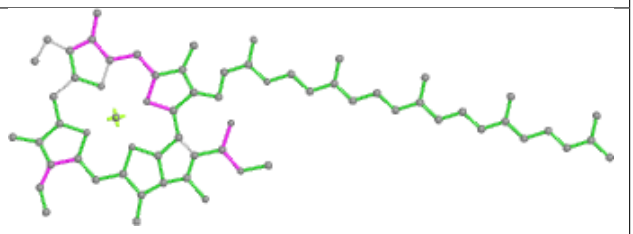

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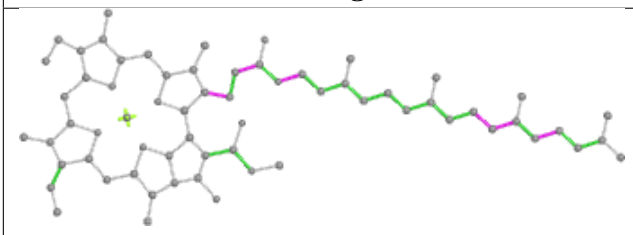

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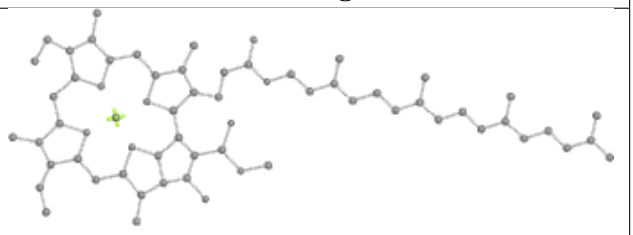
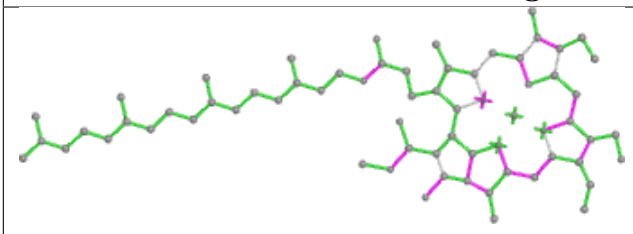


Rings

Ligand CHL Y 601



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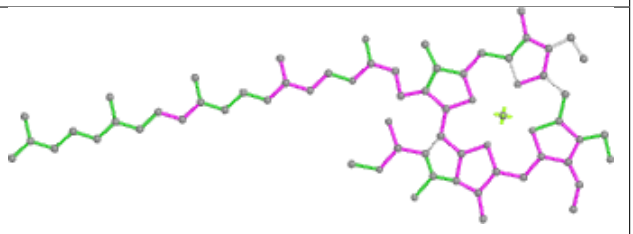

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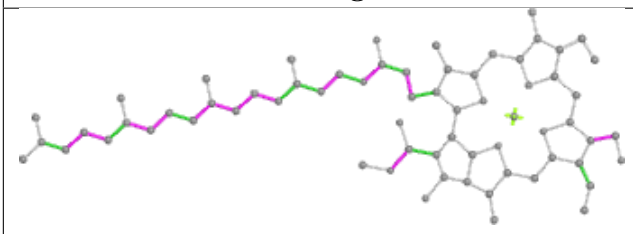

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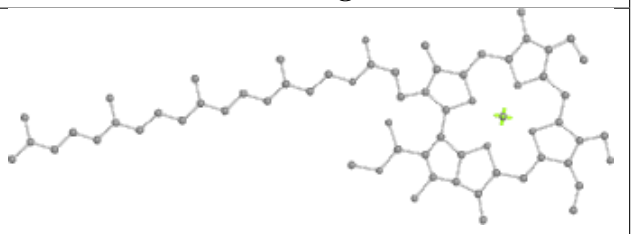
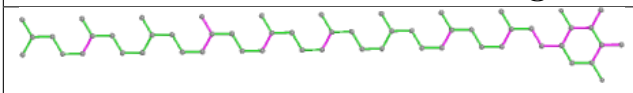


Rings

Ligand PL9 D 405



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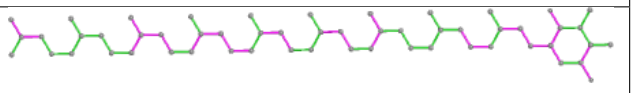

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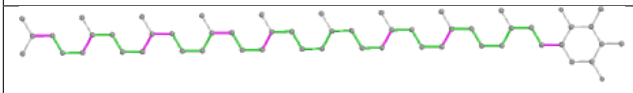

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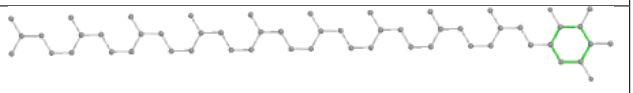
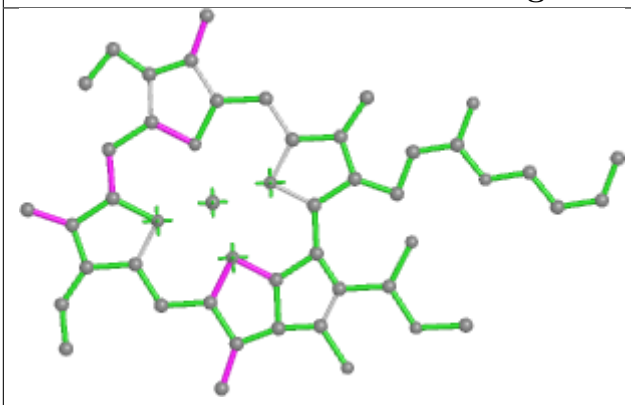


Rings

Ligand CLA S 611



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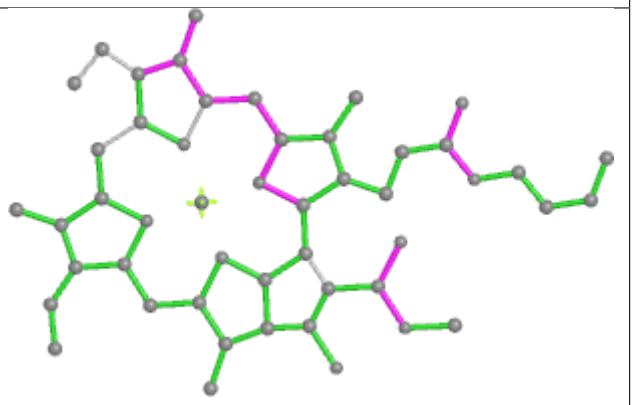

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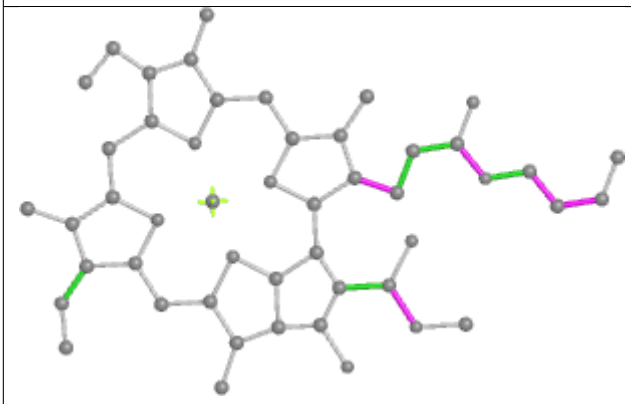

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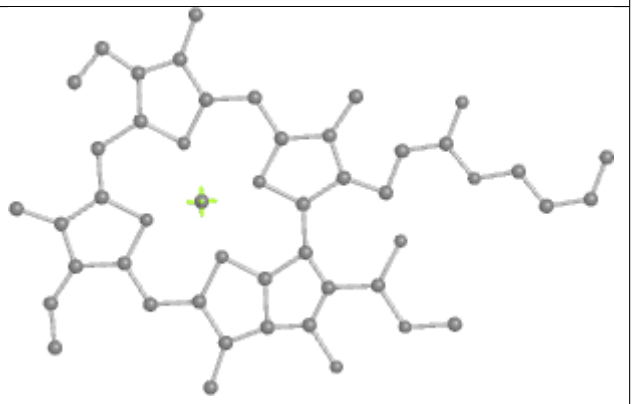
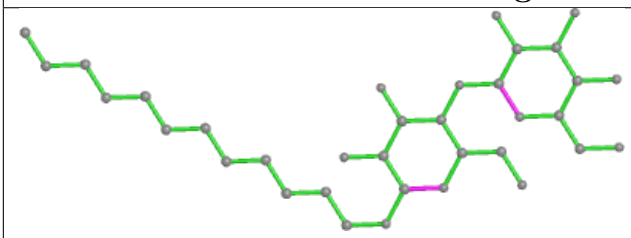


Rings

Ligand LMU y 2632



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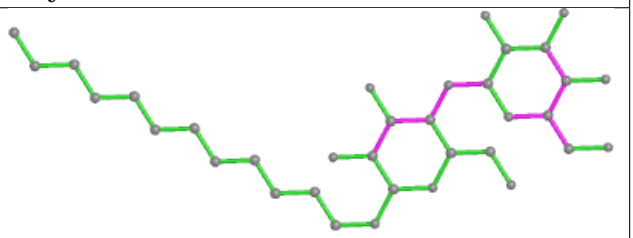

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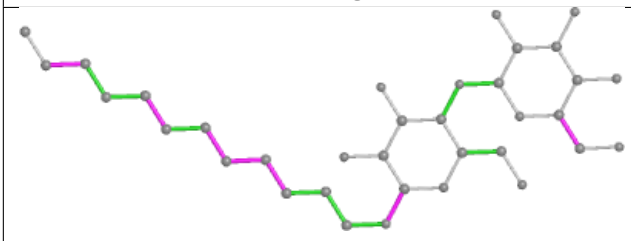

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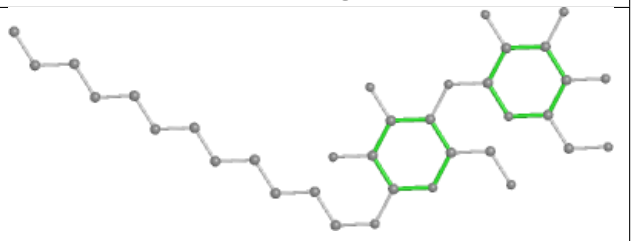
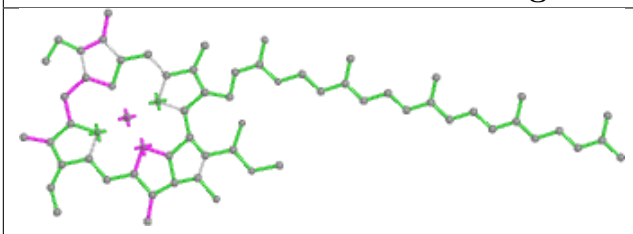


Rings

Ligand CLA c 505



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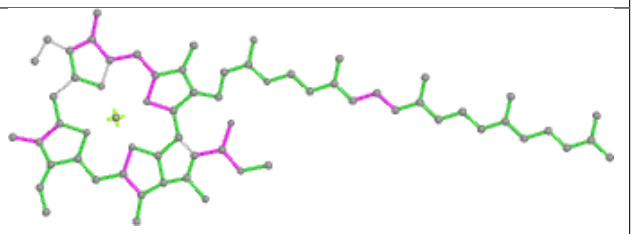

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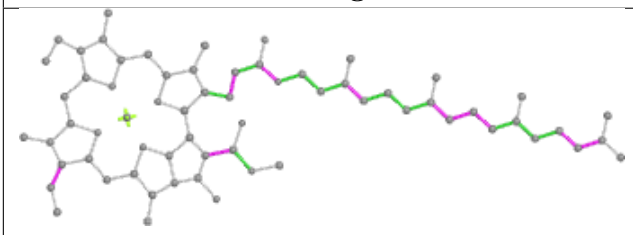

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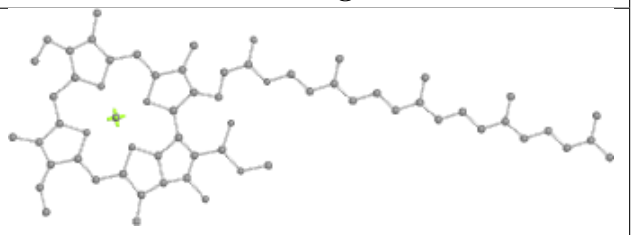

Rings

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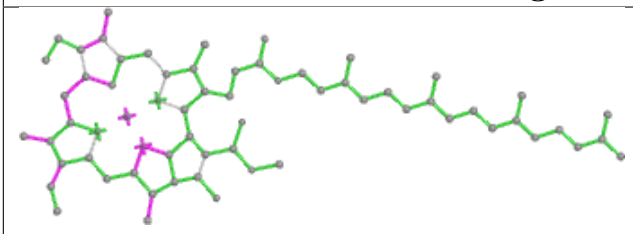

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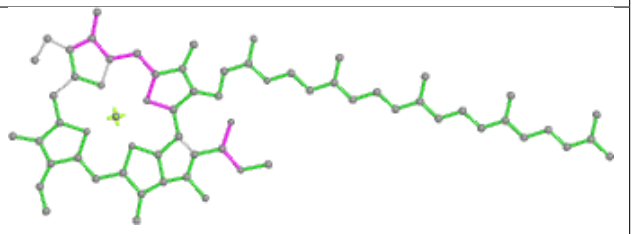
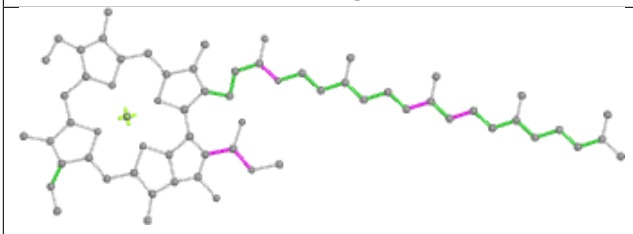


Bond angles



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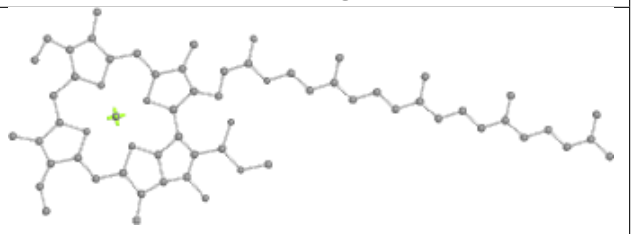
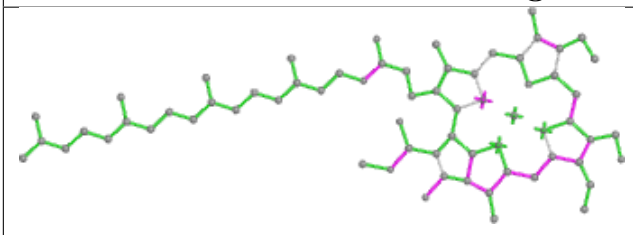


Rings

Ligand CHL n 601



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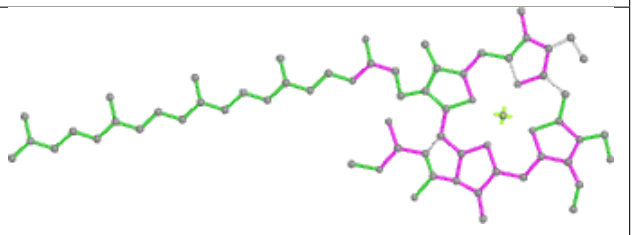
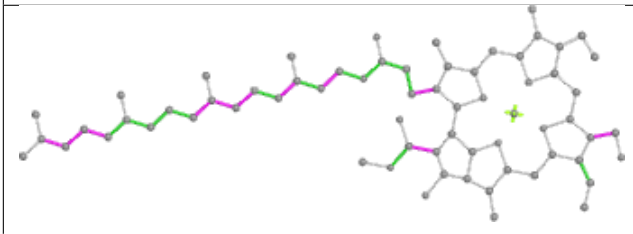


Bond angles



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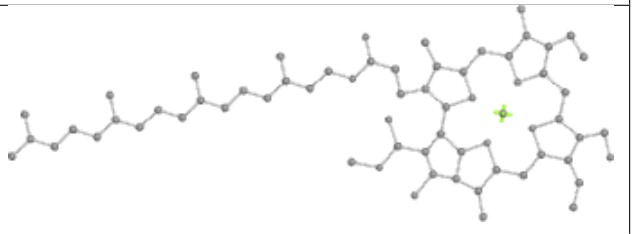
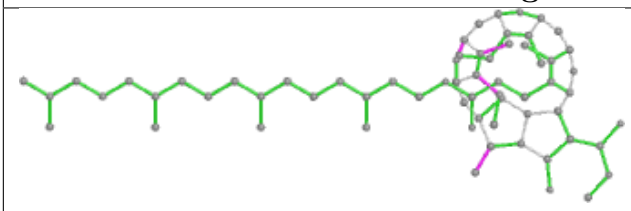


Rings

Ligand PHO A 409



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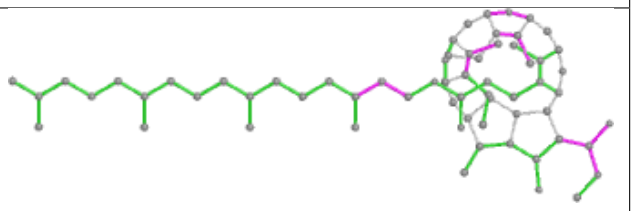
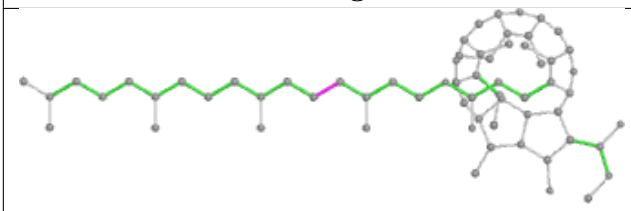


Bond angles



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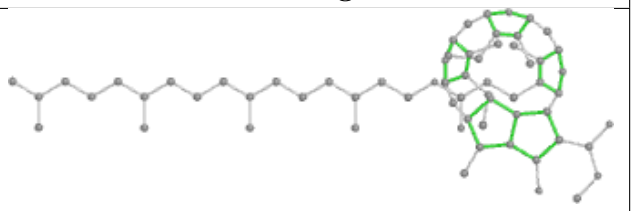
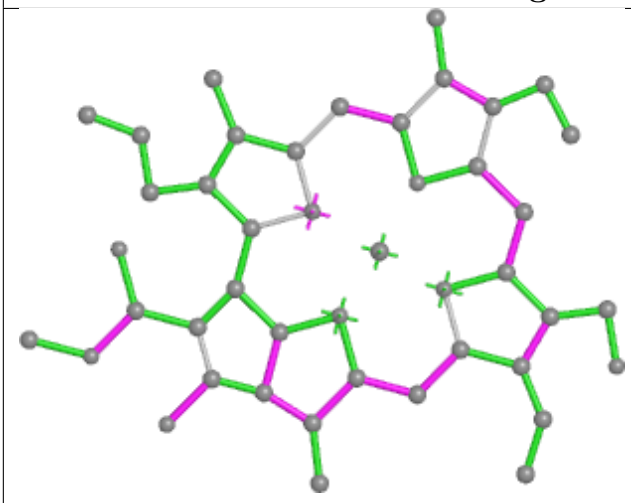


Rings

Ligand CHL r 606



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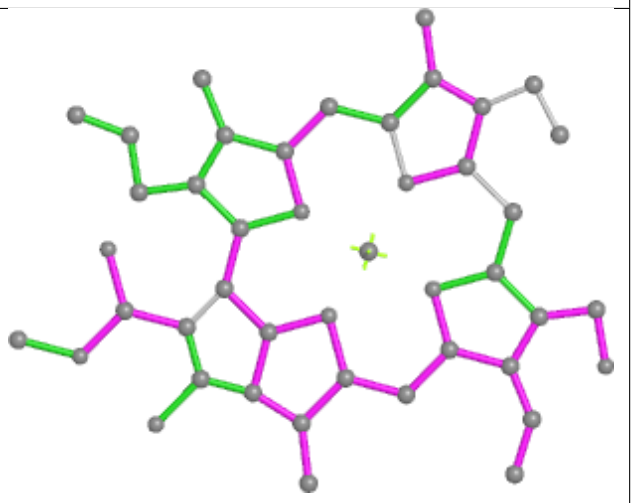

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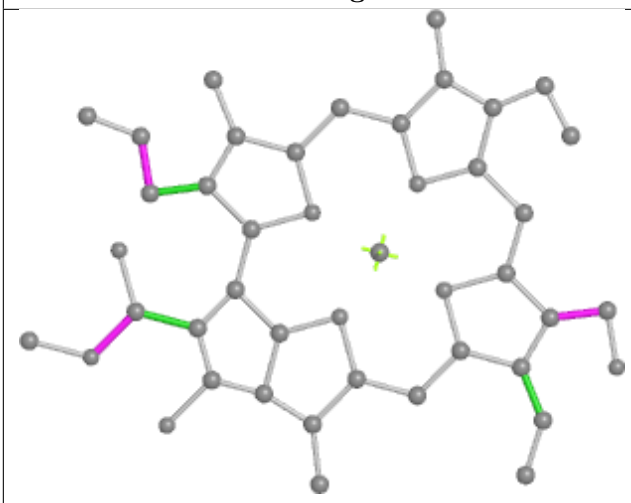

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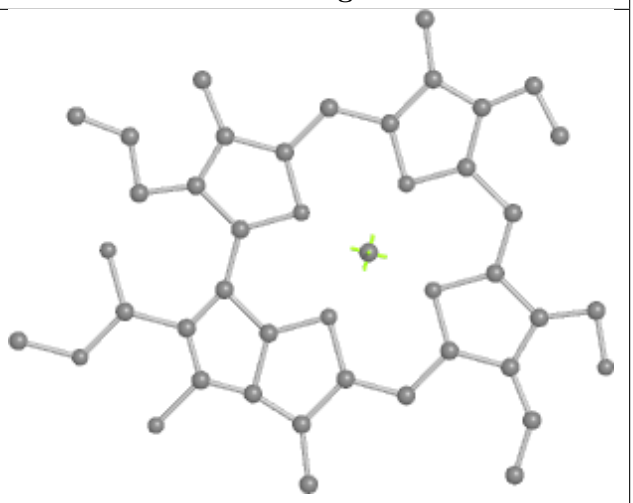
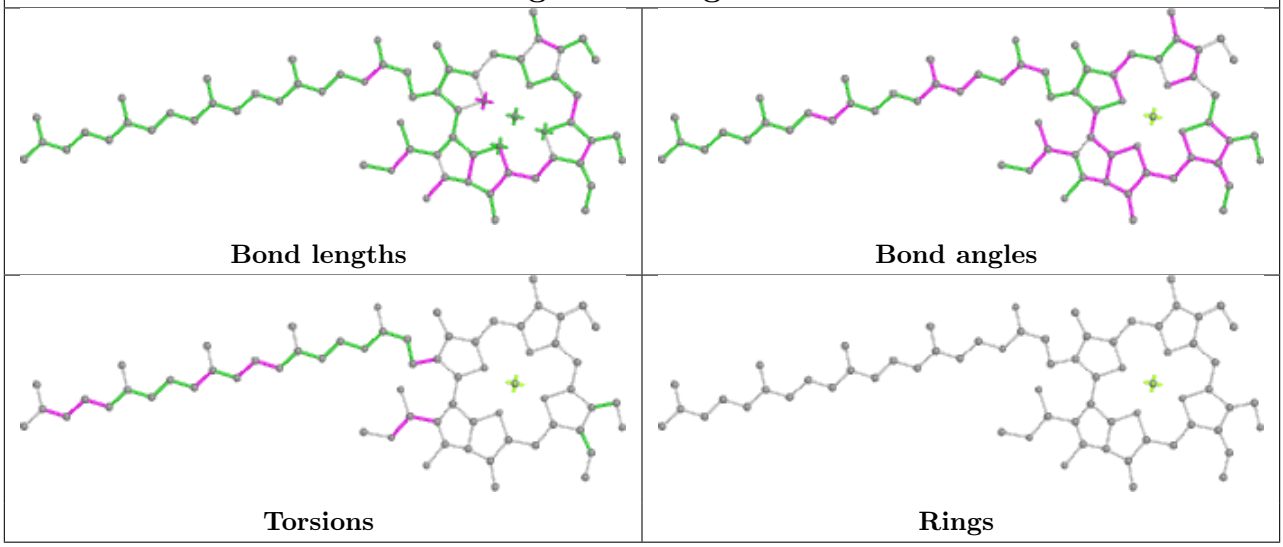
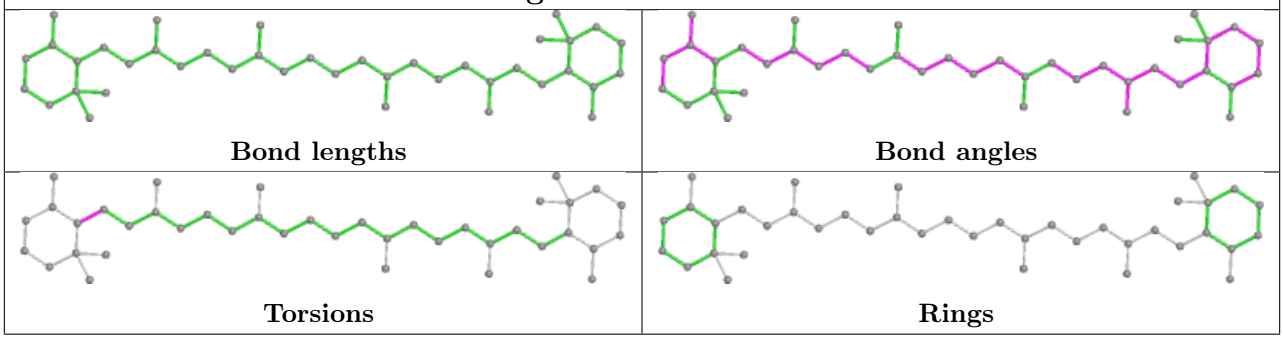


Rings

Ligand CHL g 601



Ligand BCR b 618



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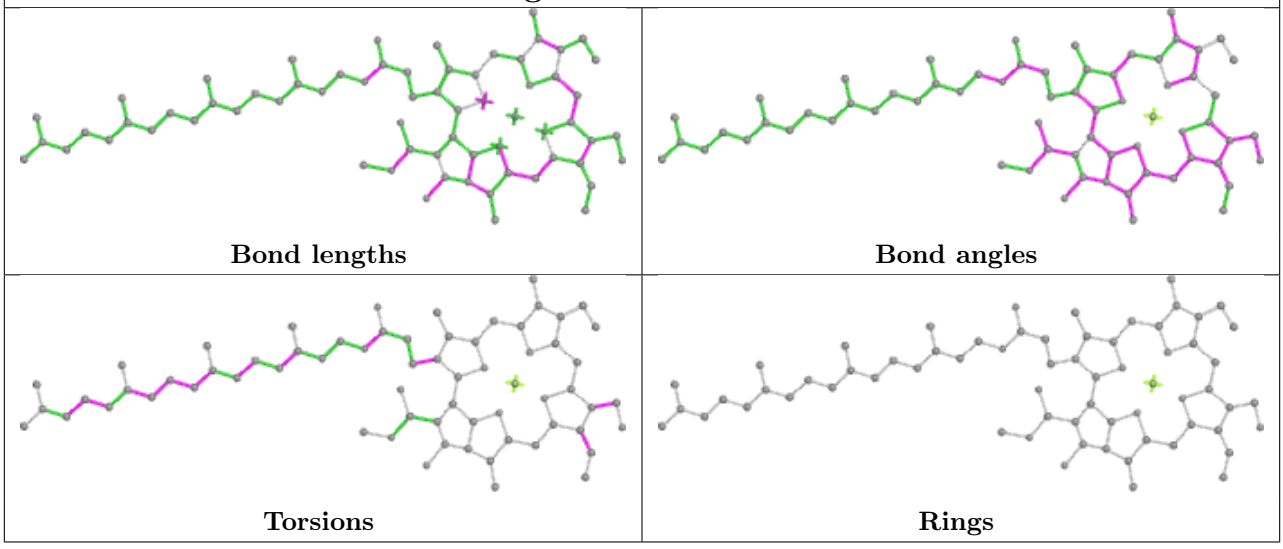
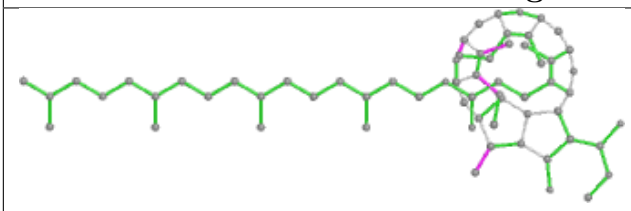
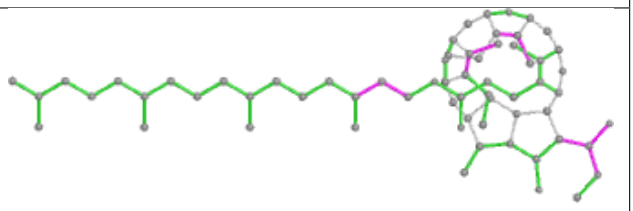


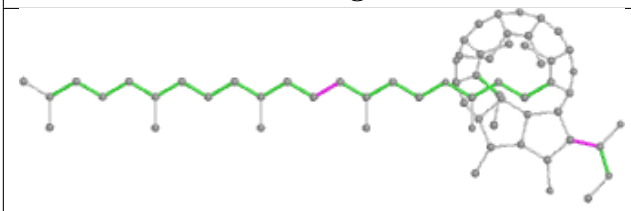
Ligand PHO a 409



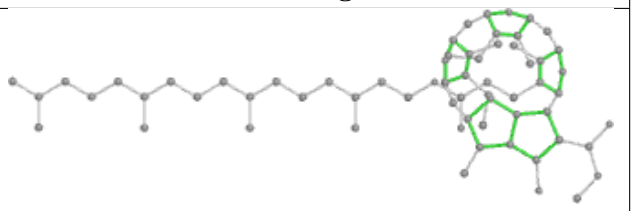
Bond lengths



Bond angles

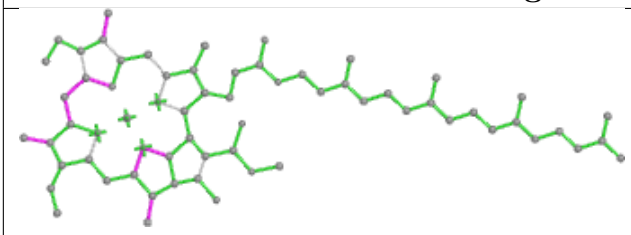


Torsions



Rings

Ligand CLA B 607



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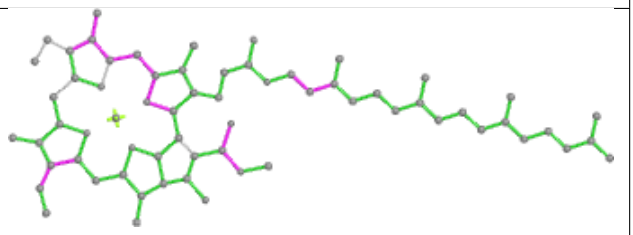
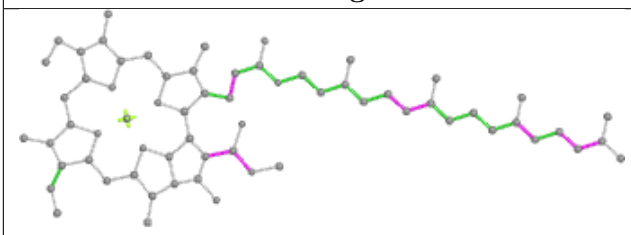


Bond angles



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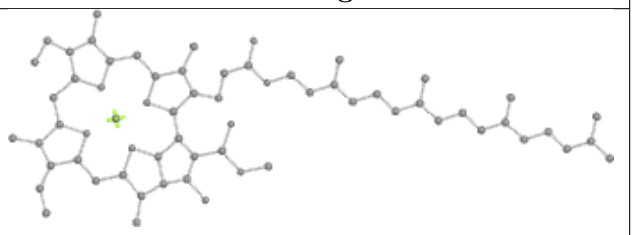
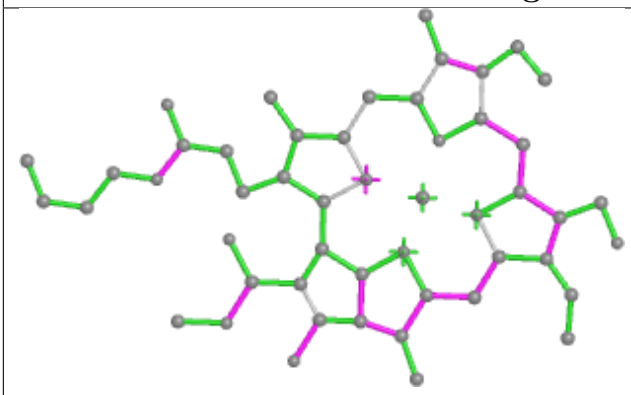


Rings

Ligand CHL G 607



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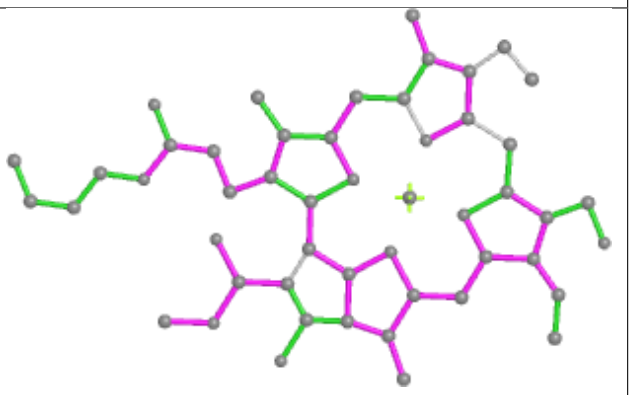
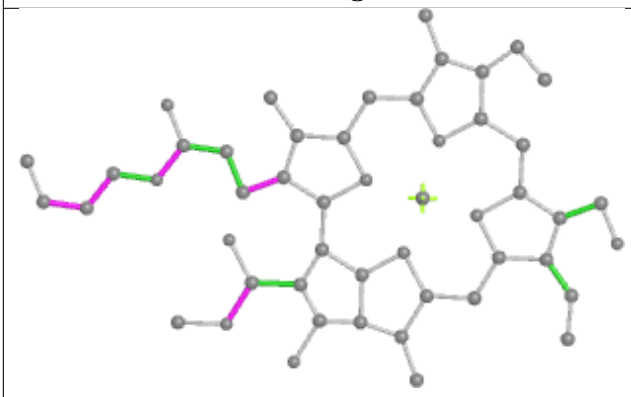


Bond angles



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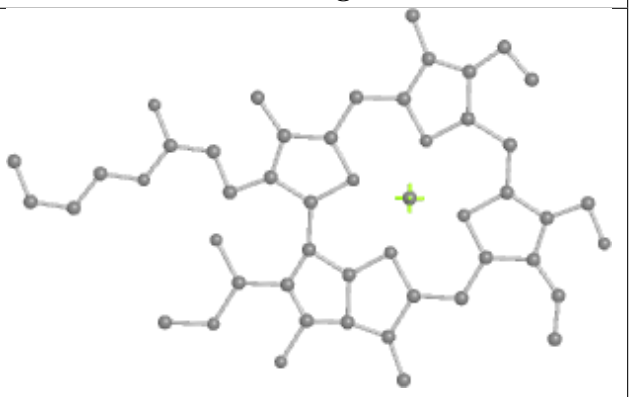
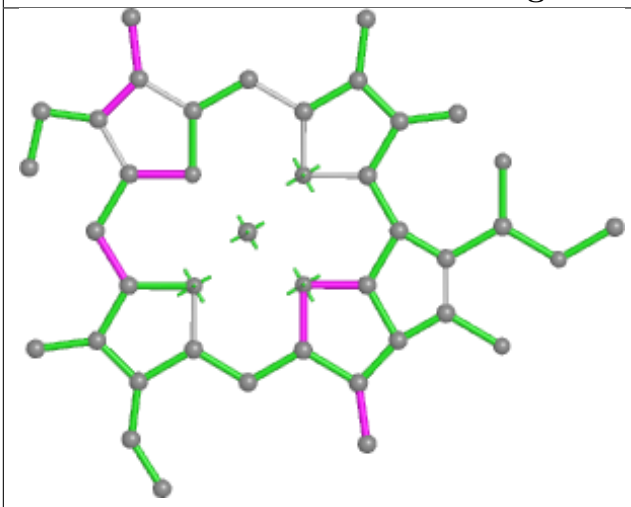


Rings

Ligand CLA S 609



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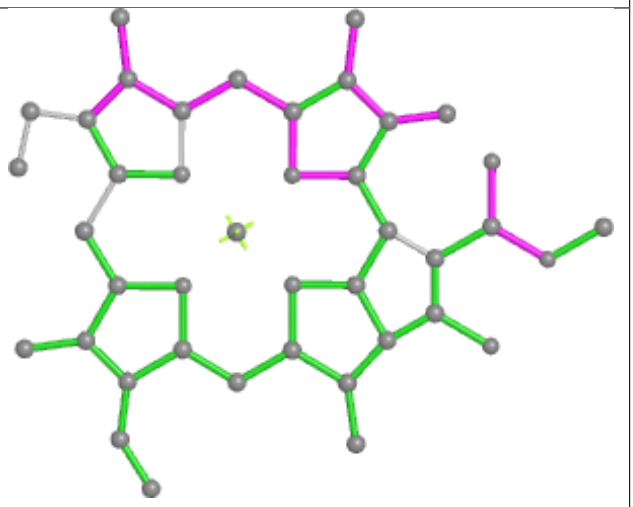
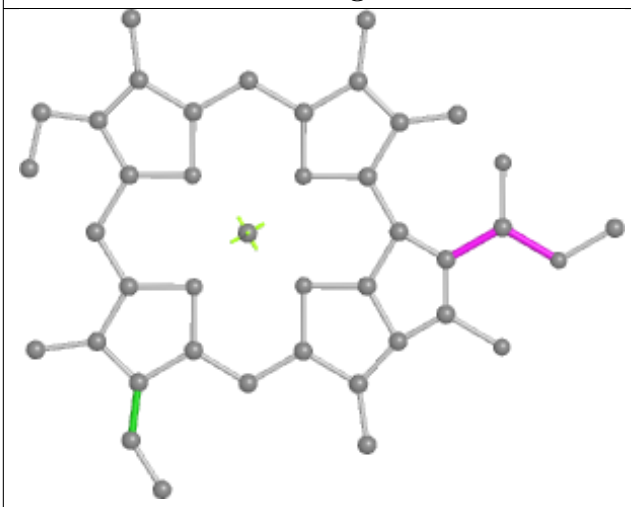


Bond angles



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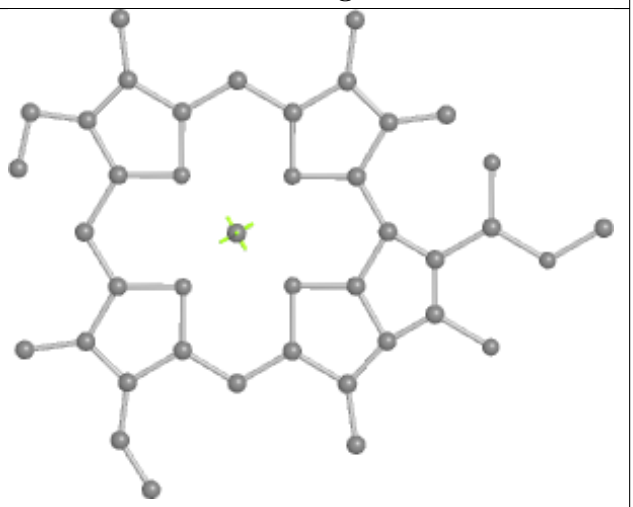
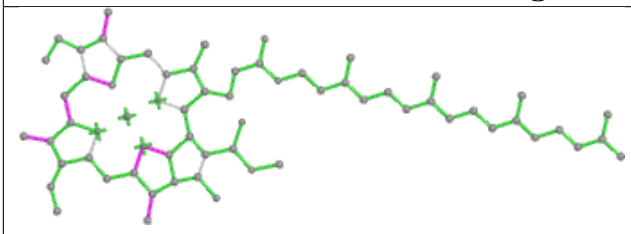


Rings

Ligand CLA c 508



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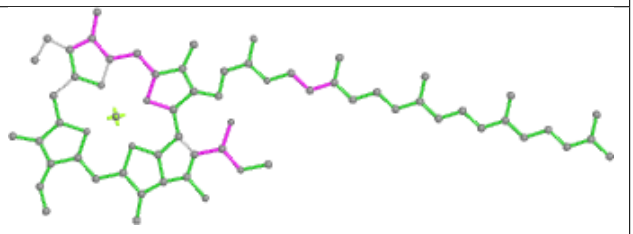
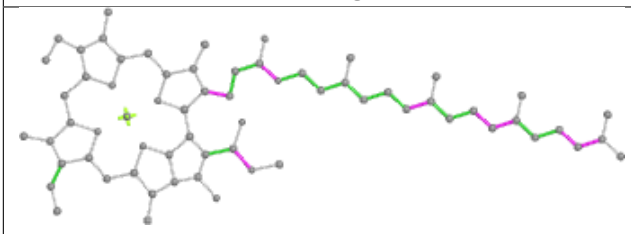


Bond angles



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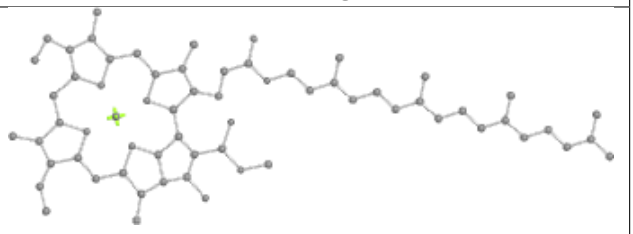
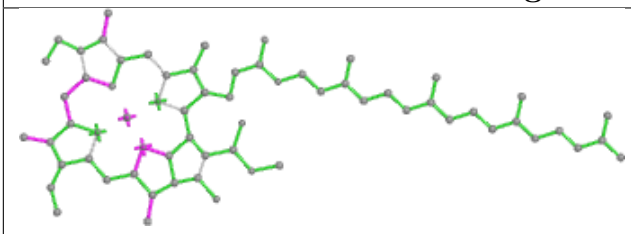
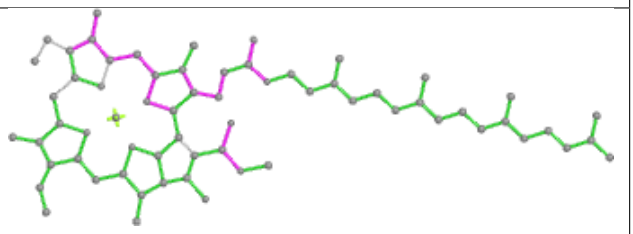


Rings

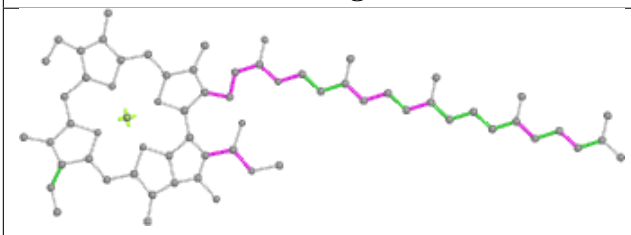
Ligand CLA C 513



Bond lengths



Bond angles



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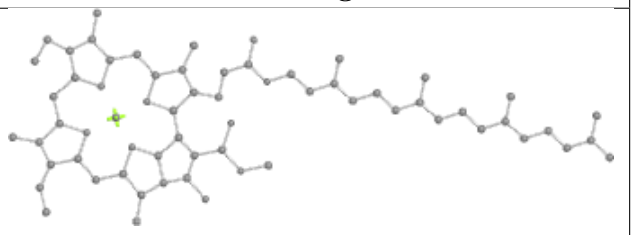
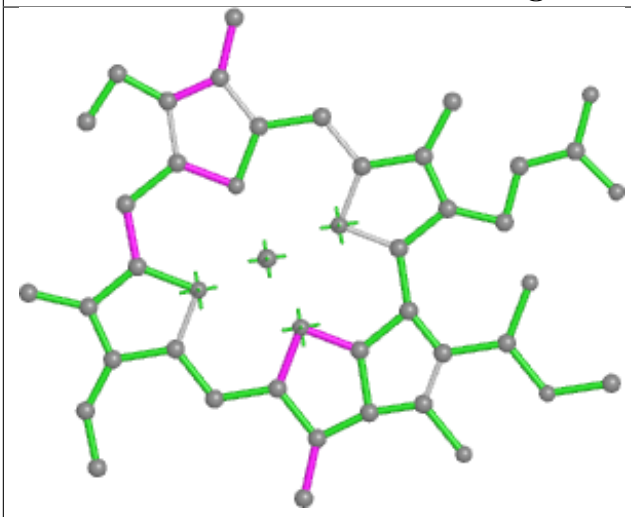


Rings

Ligand CLA n 612



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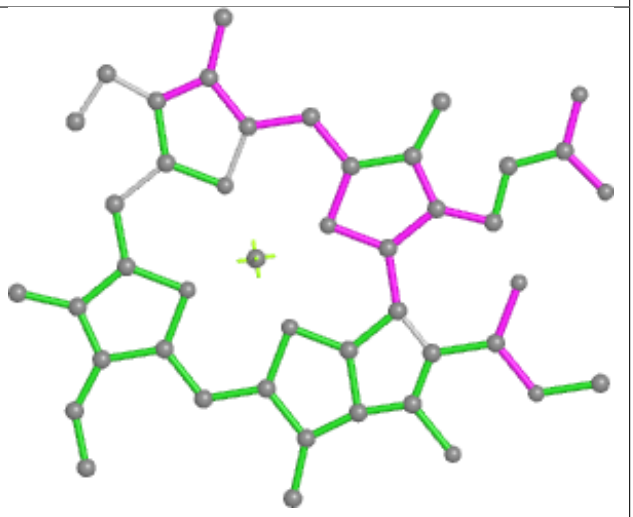
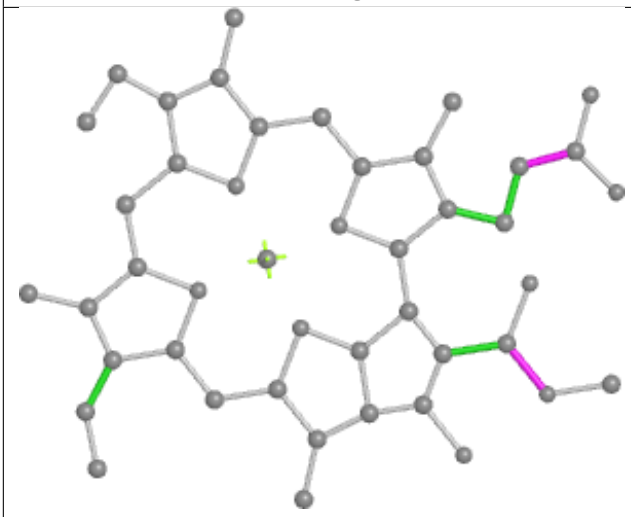
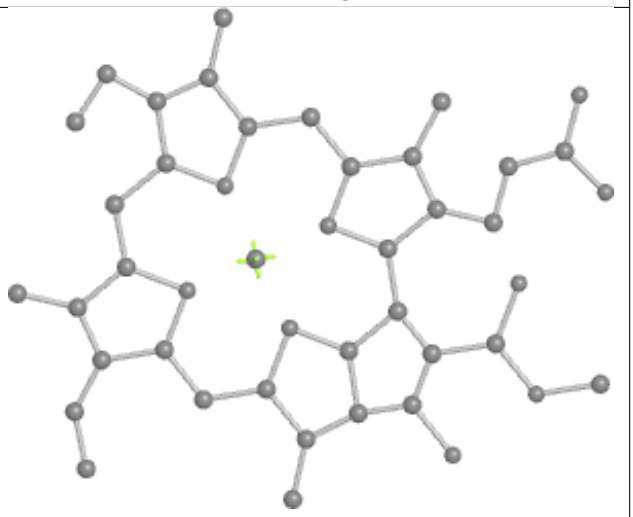


Bond angles

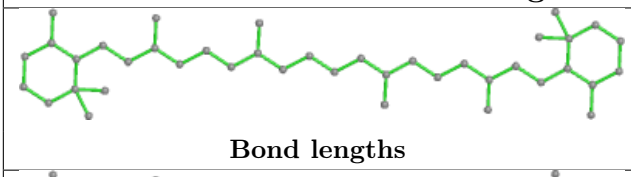


Torsions

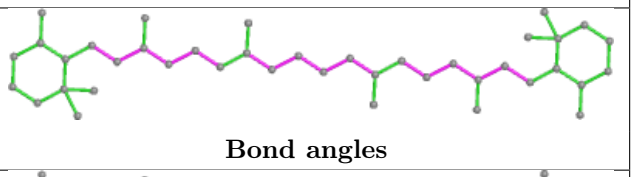


Rings

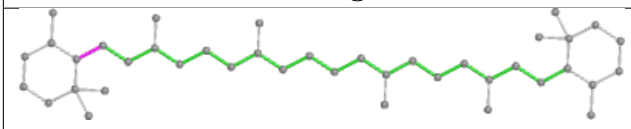
Ligand BCR c 514



Bond lengths



Bond angles



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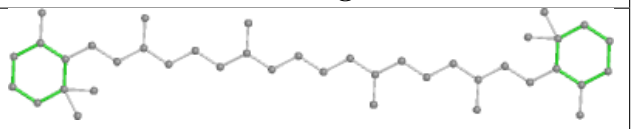
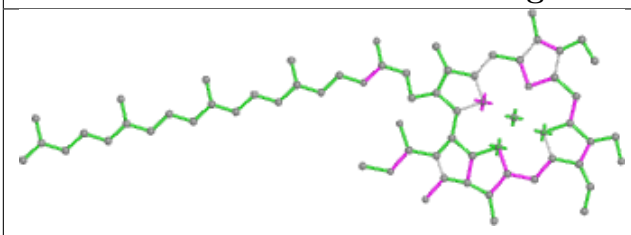
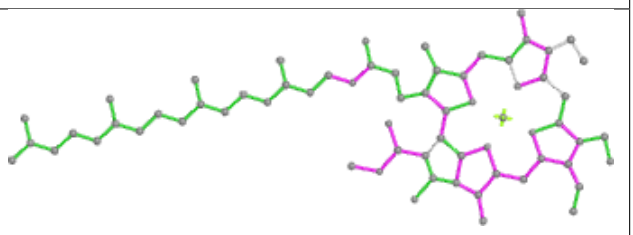


Rings

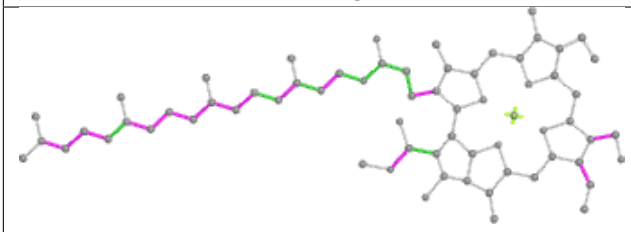
Ligand CHL n 609



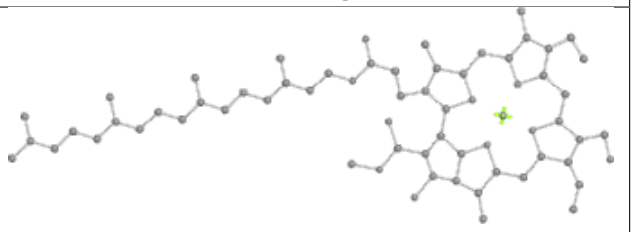
Bond lengths



Bond angles

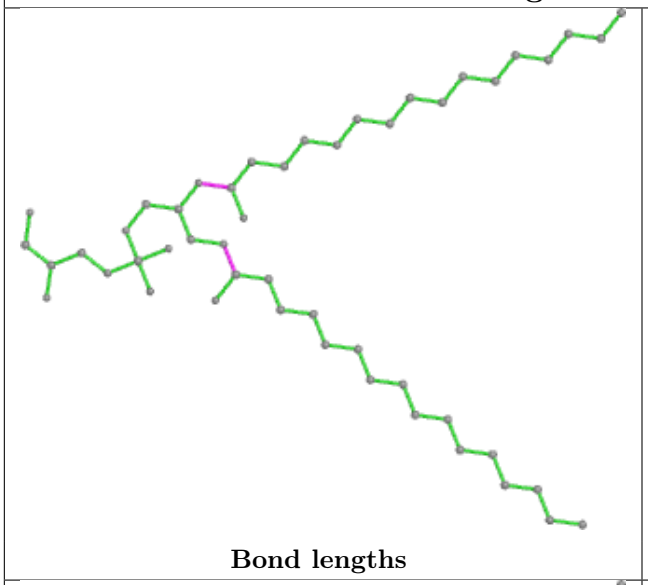


Torsions

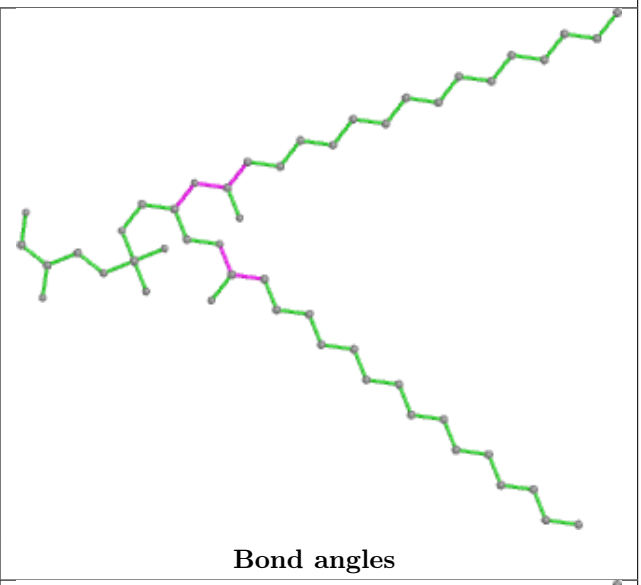


Rings

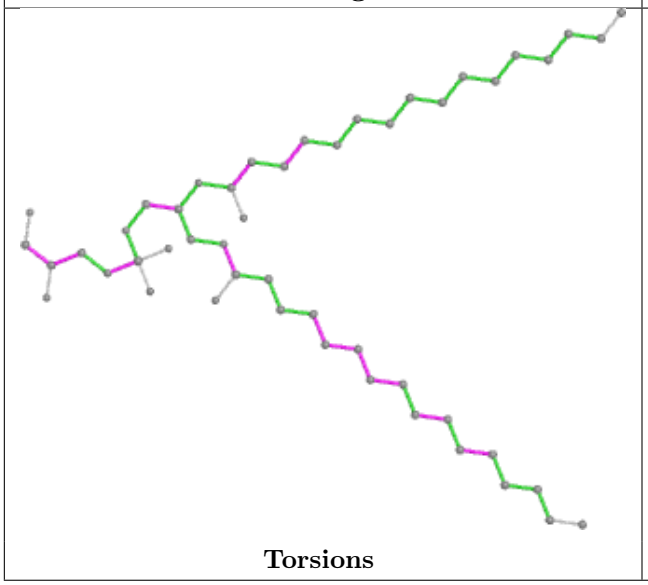
Ligand LHG L 101



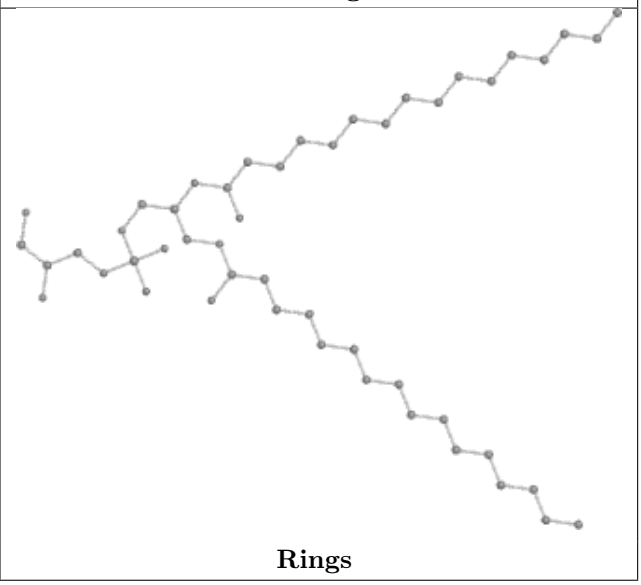
Bond lengths



Bond angles

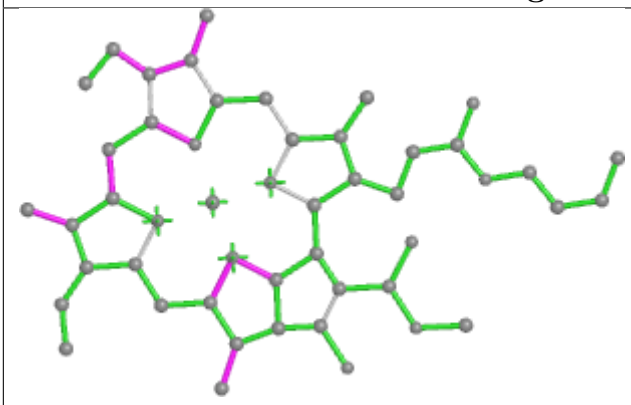


Torsions



Rings

Ligand CLA S 610



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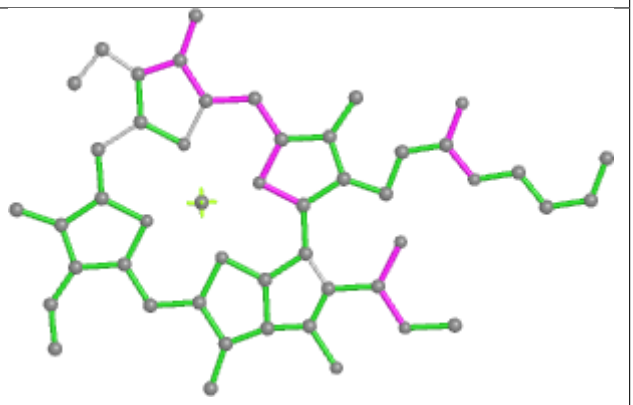
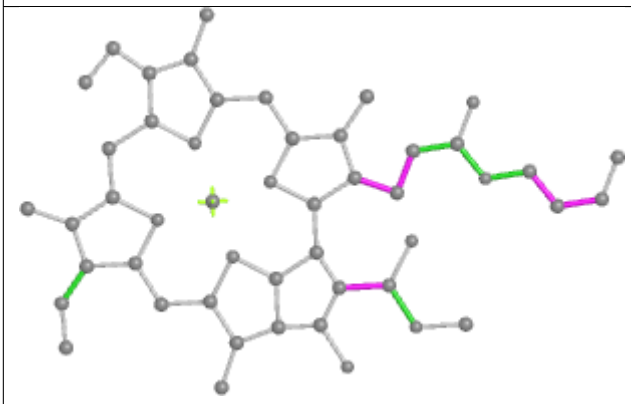


Bond angles



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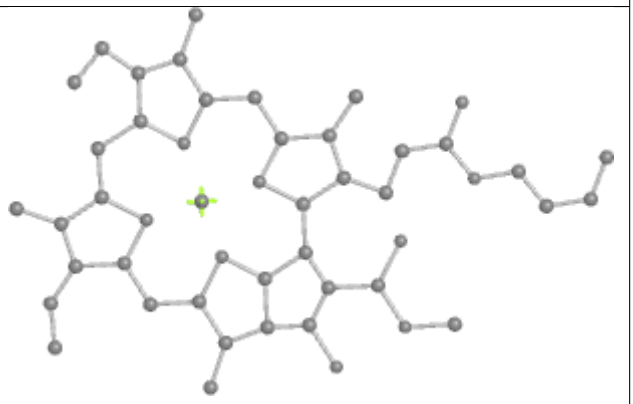
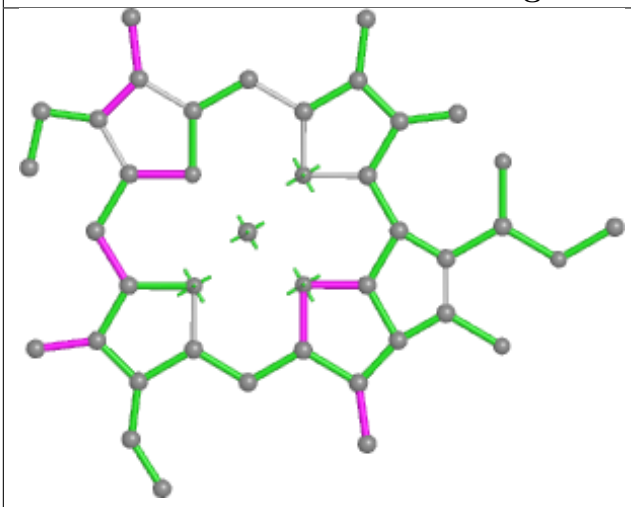


Rings

Ligand CLA R 610



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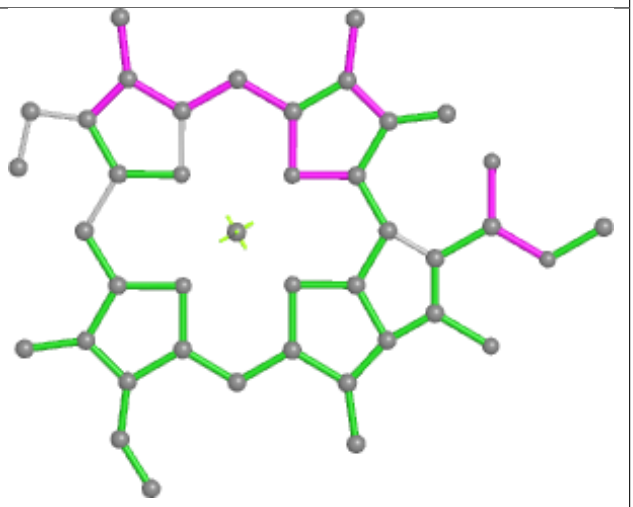
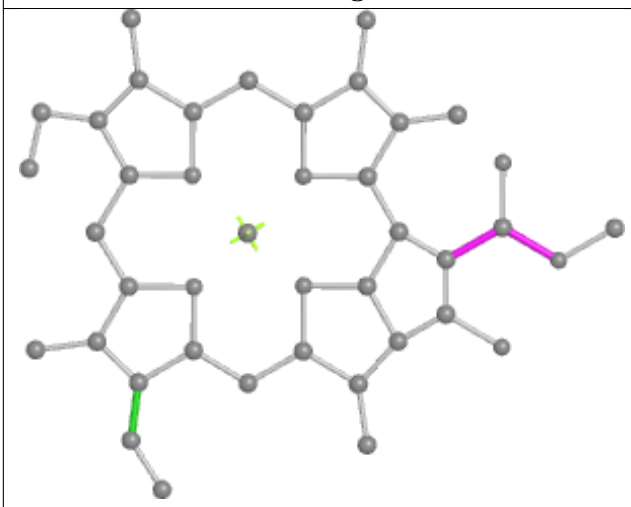
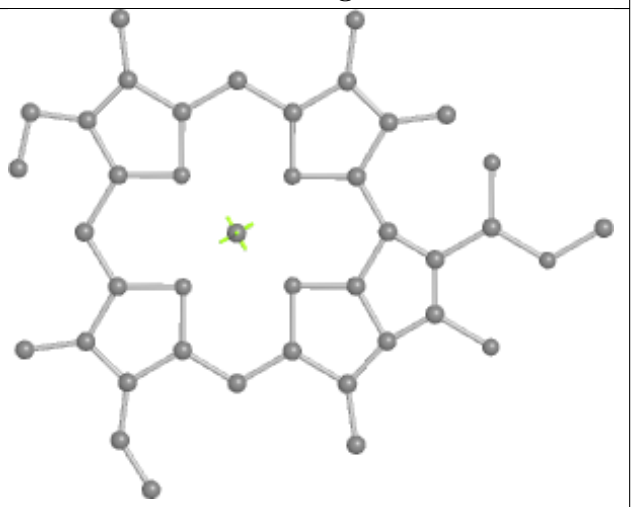


Bond angles

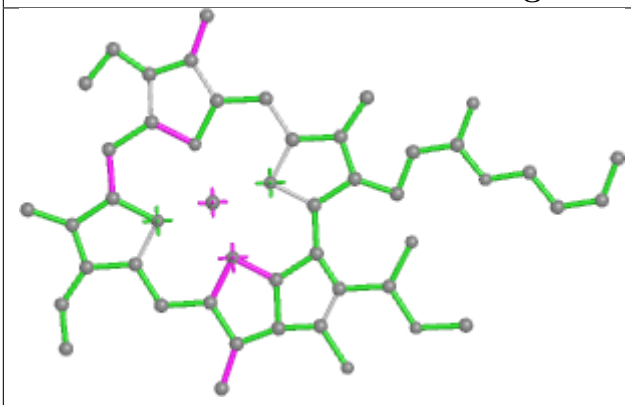


Torsions

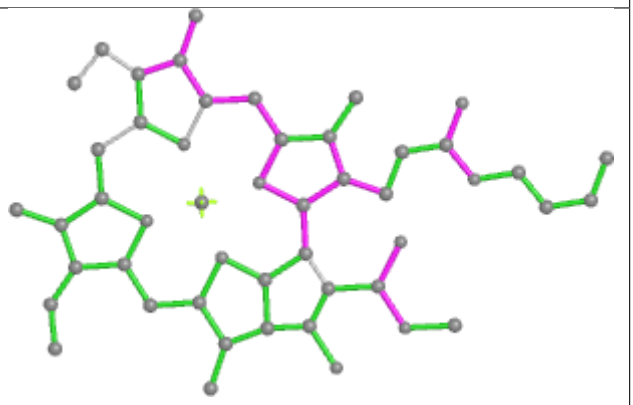


Rings

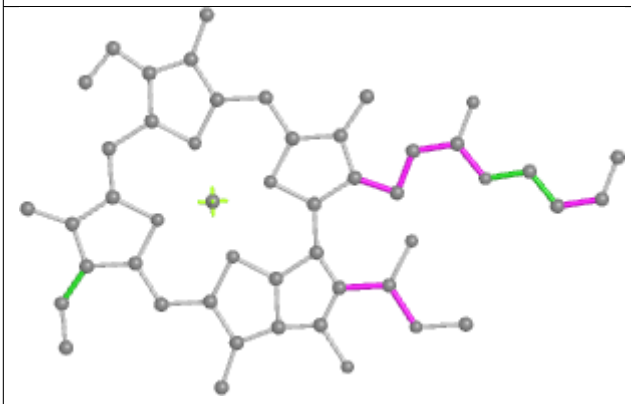
Ligand CLA R 603



Bond lengths



Bond angles



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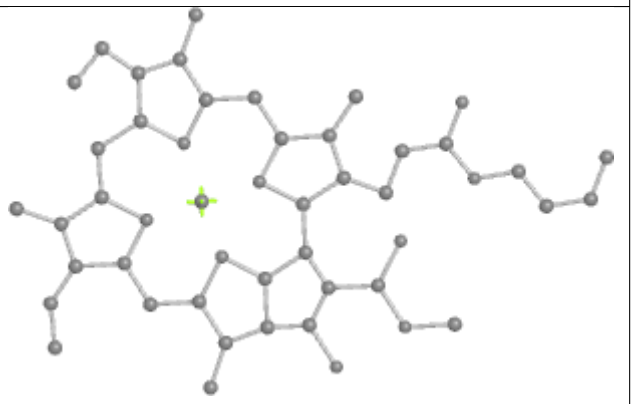
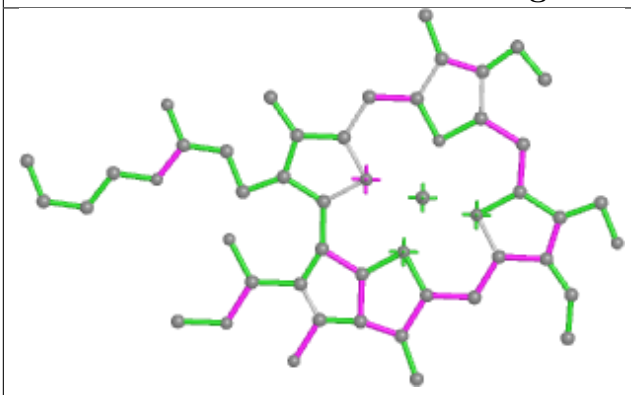
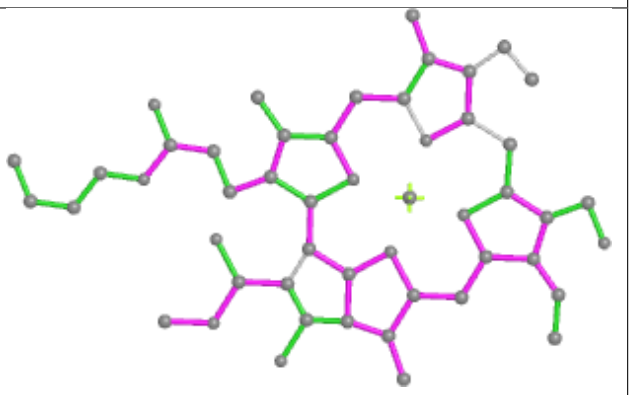


Rings

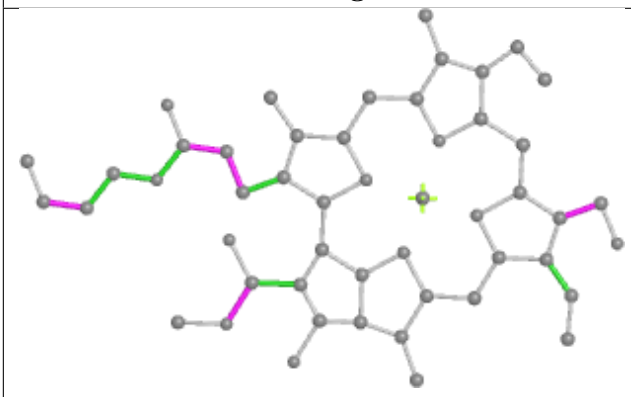
Ligand CHL r 607



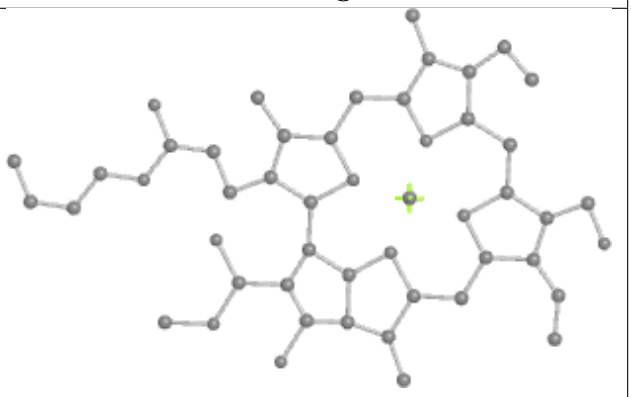
Bond lengths



Bond angles

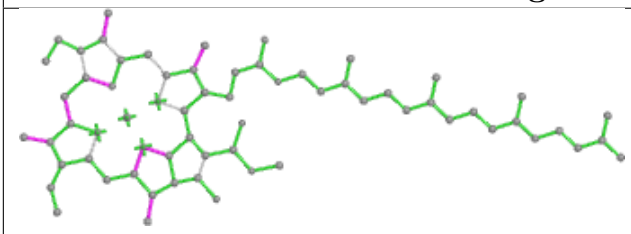


Torsions

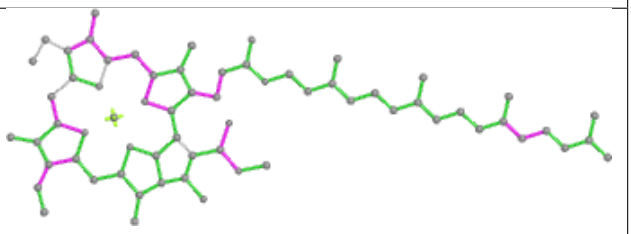


Rings

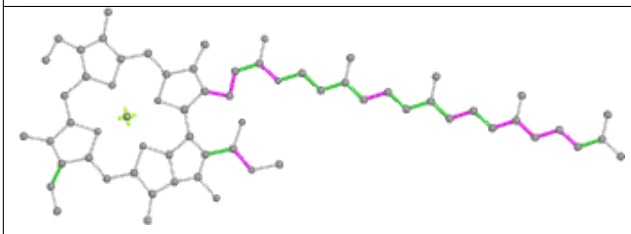
Ligand CLA a 405



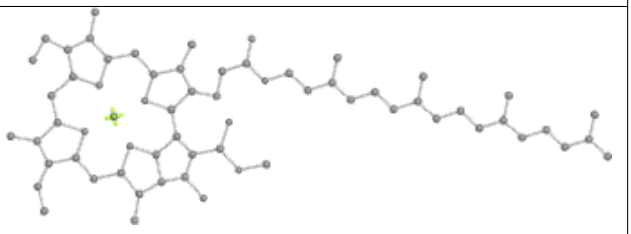
Bond lengths



Bond angles

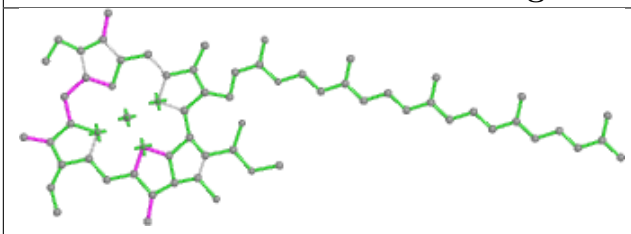


Torsions

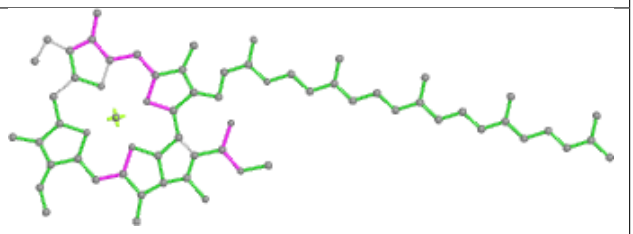


Rings

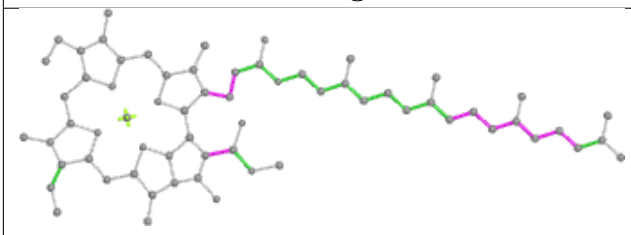
Ligand CLA b 608



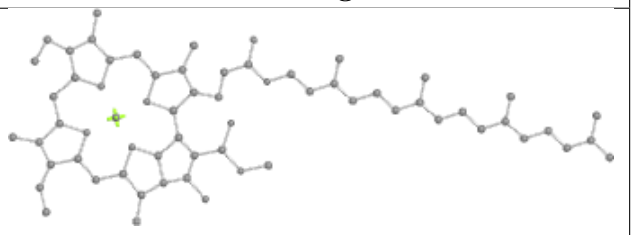
Bond lengths



Bond angles

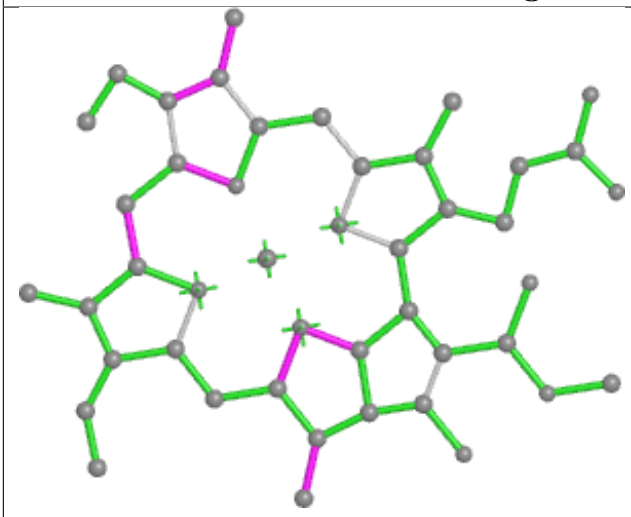


Torsions

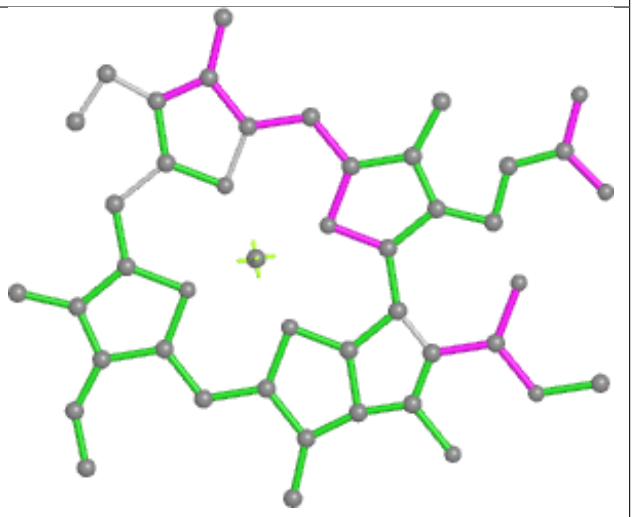


Rings

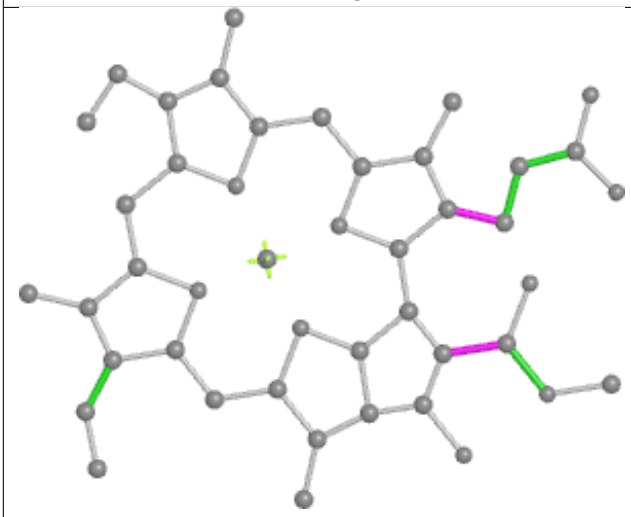
Ligand CLA G 611



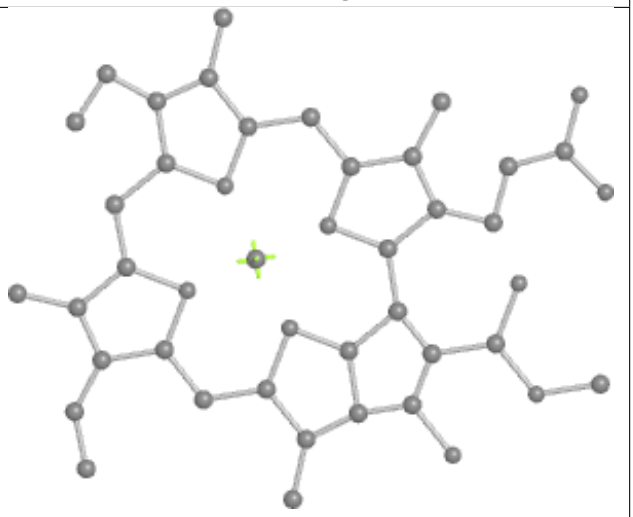
Bond lengths



Bond angles

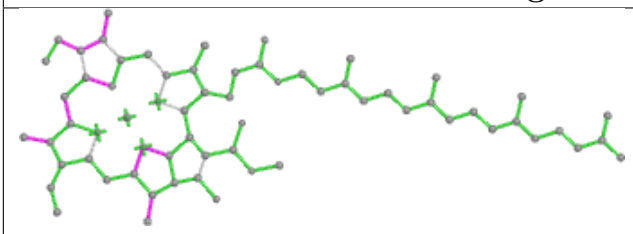


Torsions

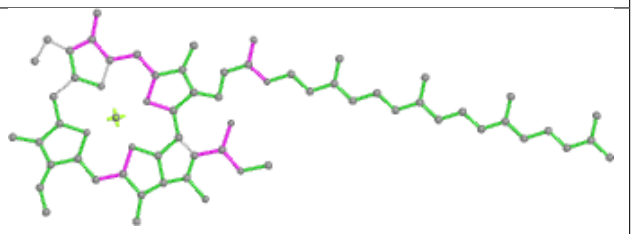


Rings

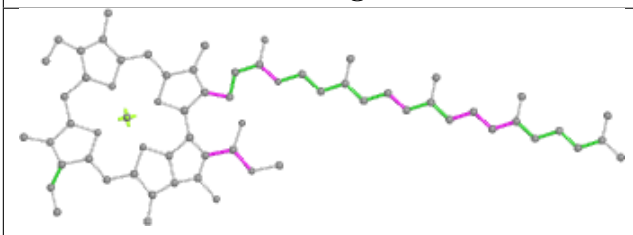
Ligand CLA d 403



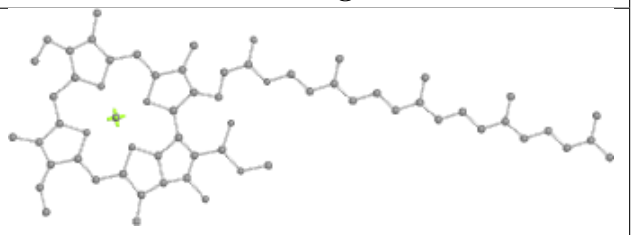
Bond lengths



Bond angles

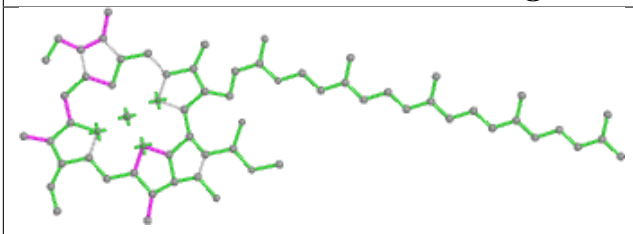


Torsions

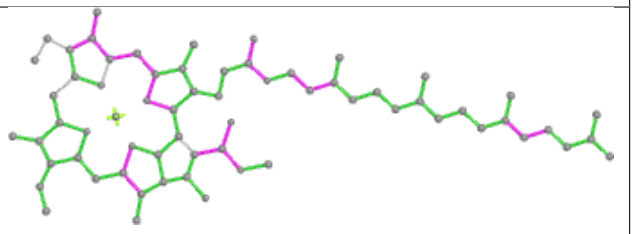


Rings

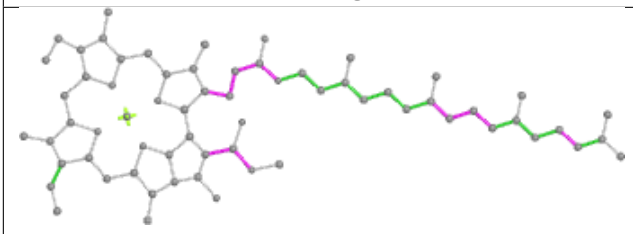
Ligand CLA C 501



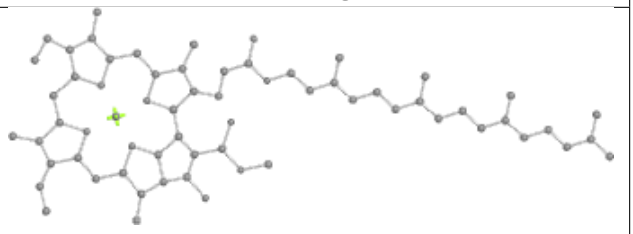
Bond lengths



Bond angles

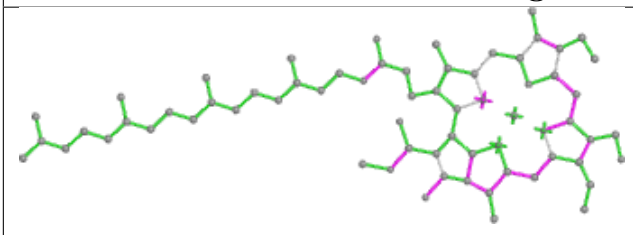


Torsions

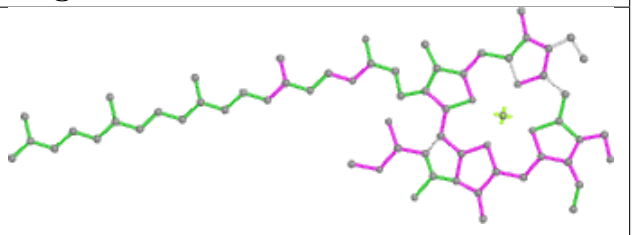


Rings

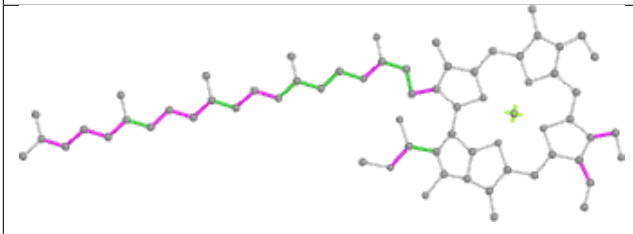
Ligand CHL g 609



Bond lengths



Bond angles



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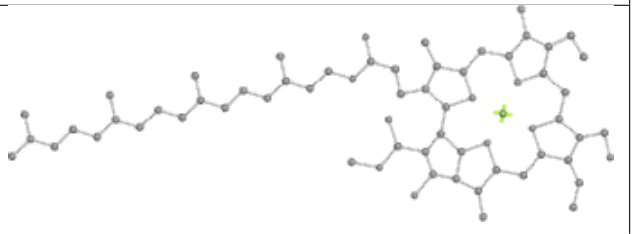
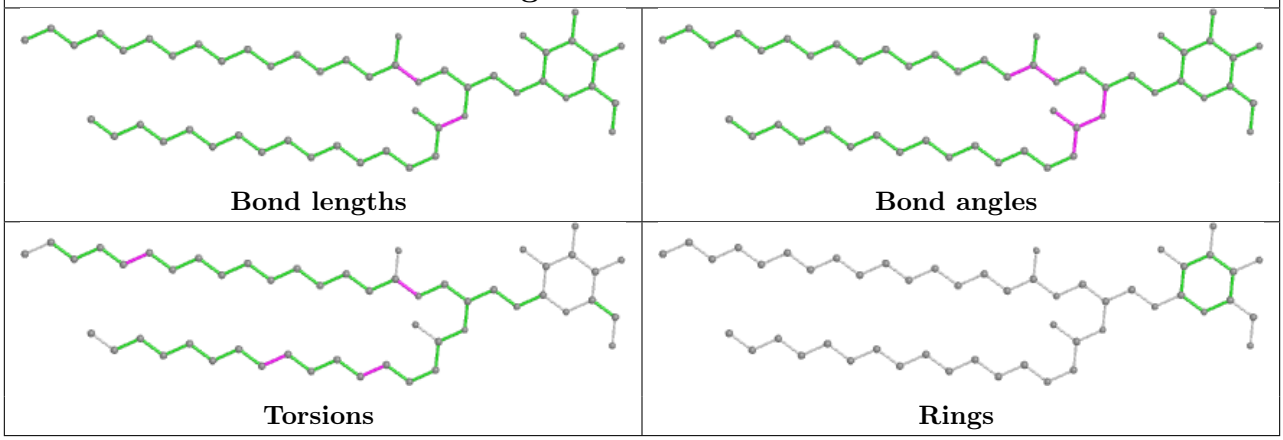
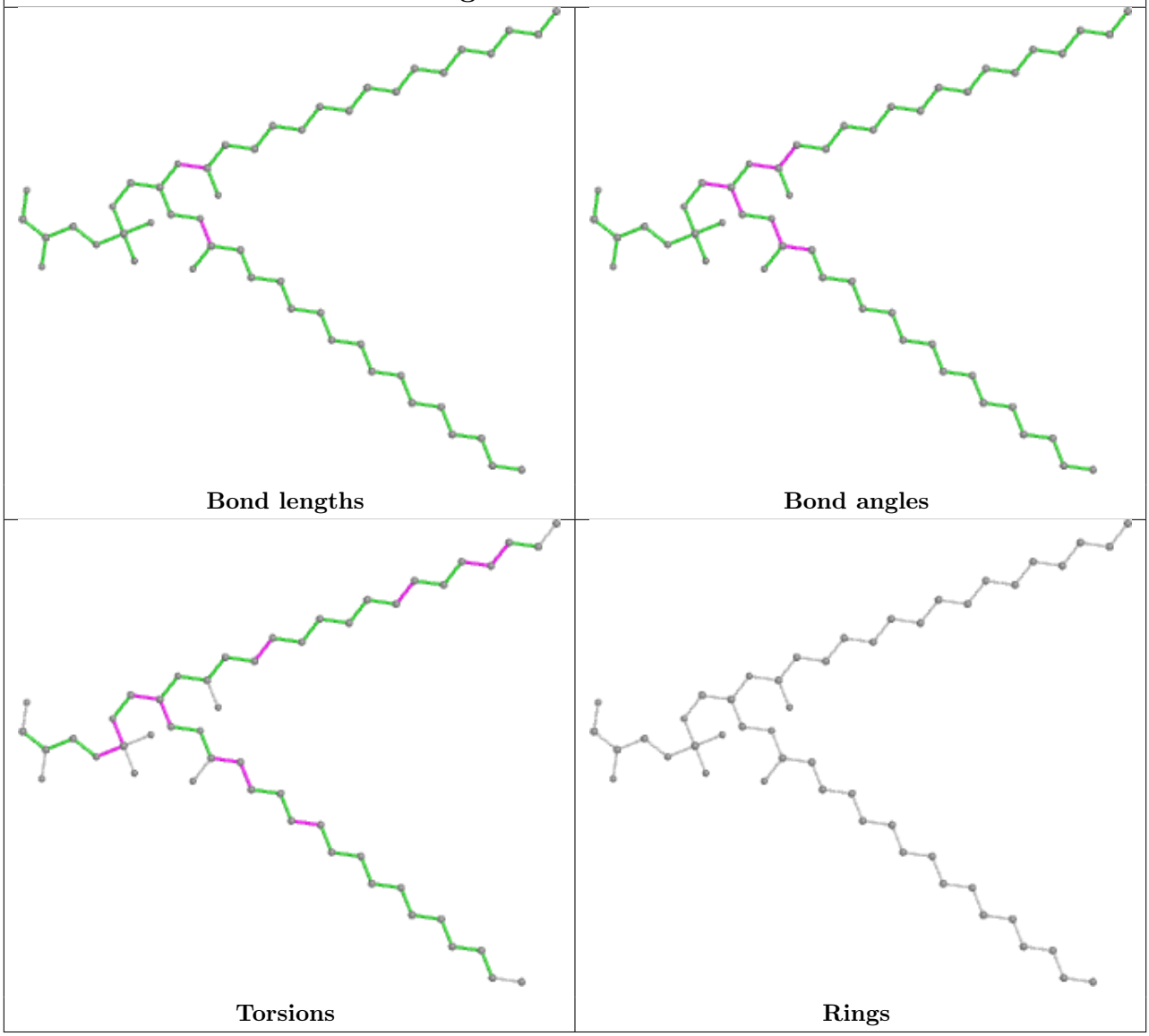


Rings

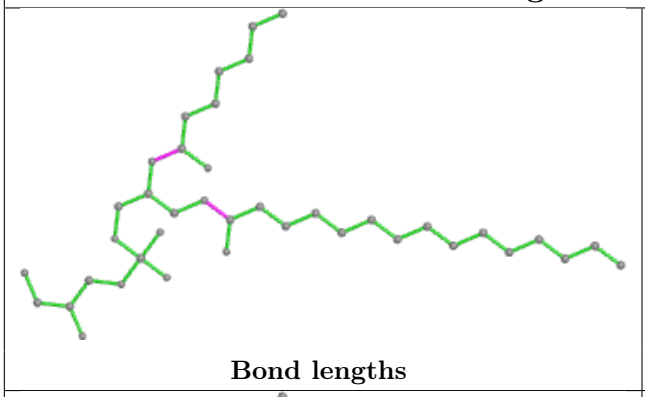
Ligand LMG B 622



Ligand LHG G 2630



Ligand LHG d 410



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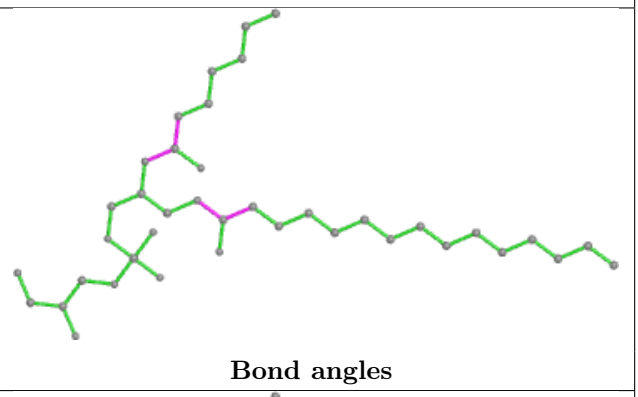
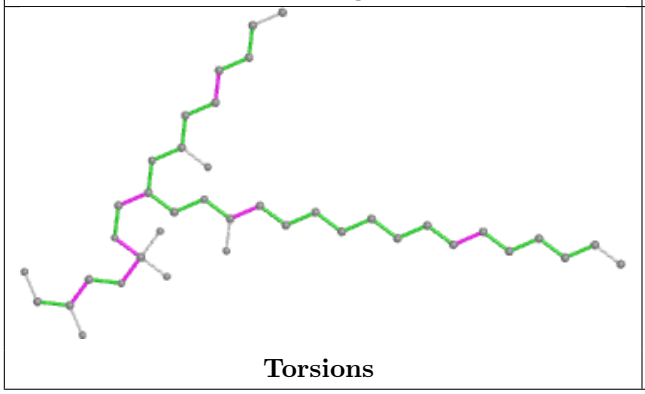


Bond angles



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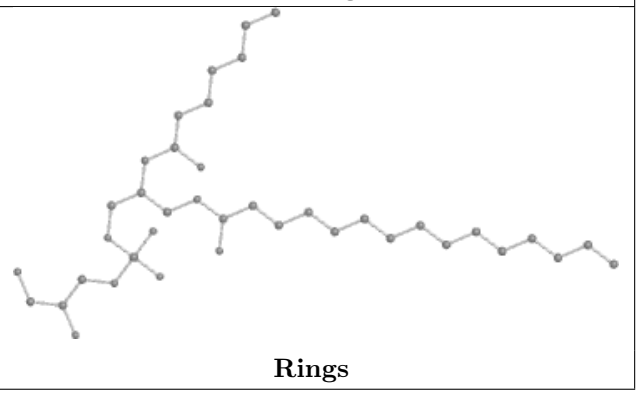
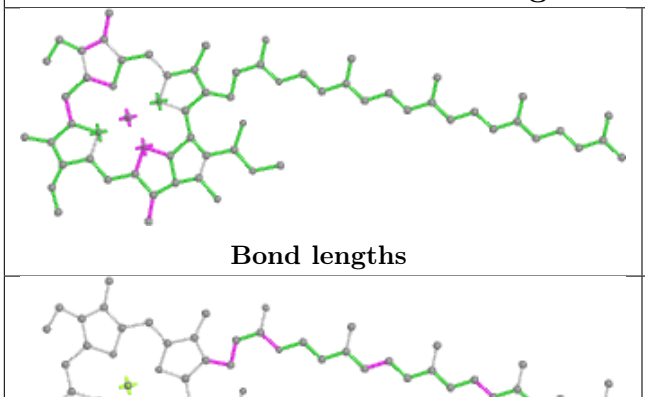


Rings

Ligand CLA g 603



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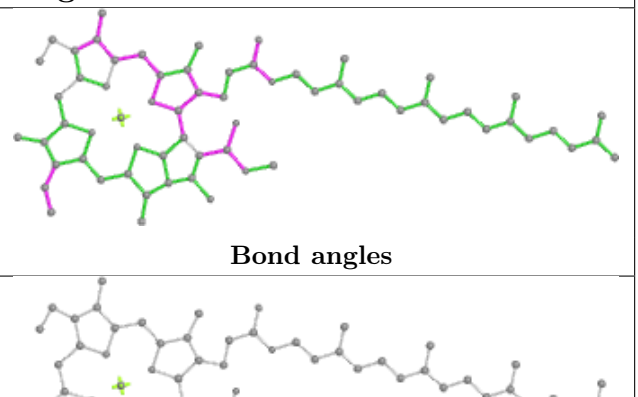
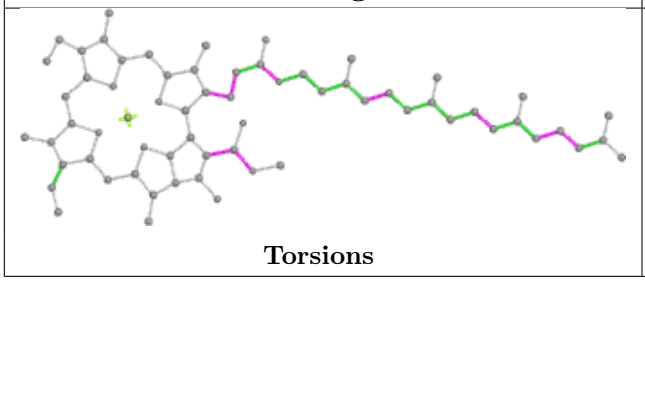


Bond angles



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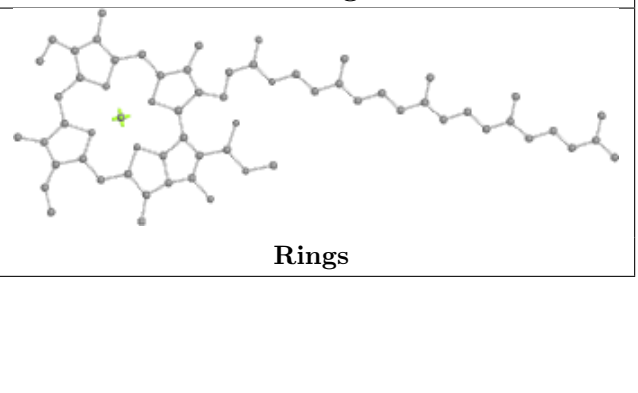
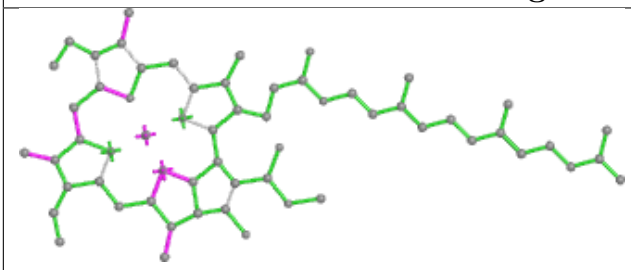


Rings

Ligand CLA a 410



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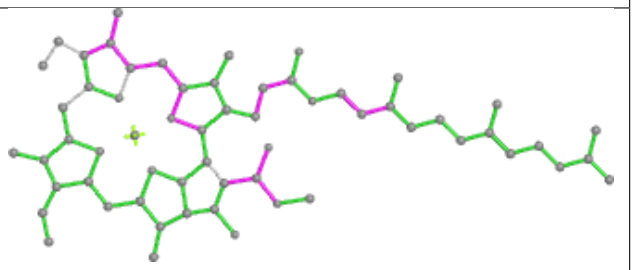
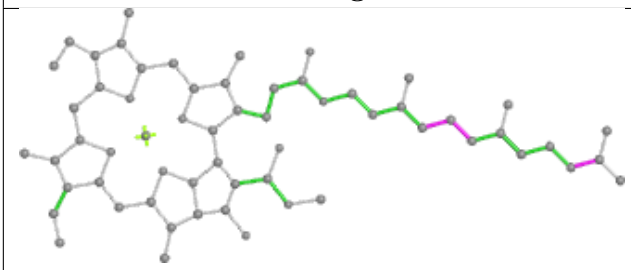
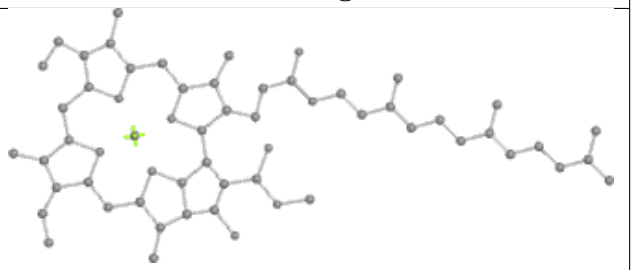


Bond angles

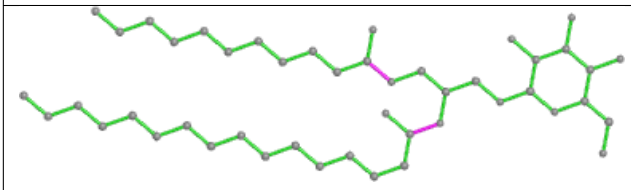


Torsions



Rings

Ligand LMG D 411



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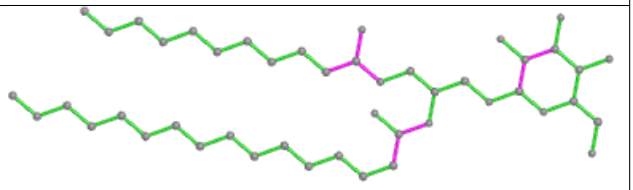
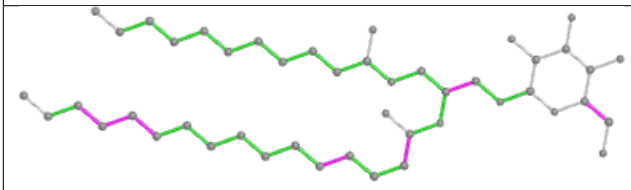
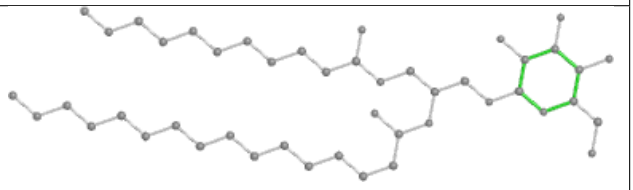


Bond angles

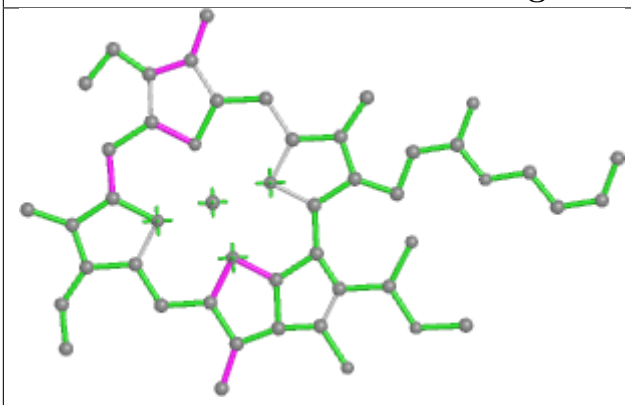


Torsions



Rings

Ligand CLA g 604



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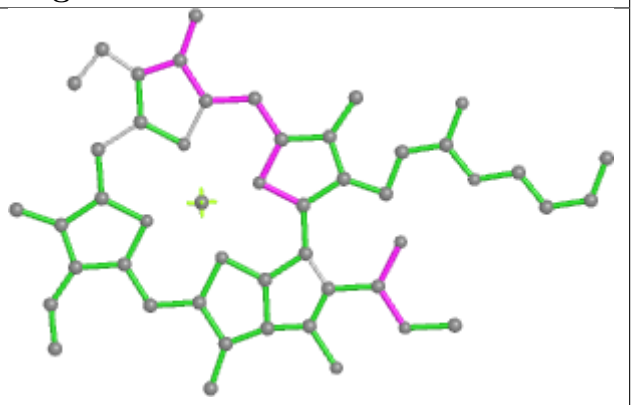
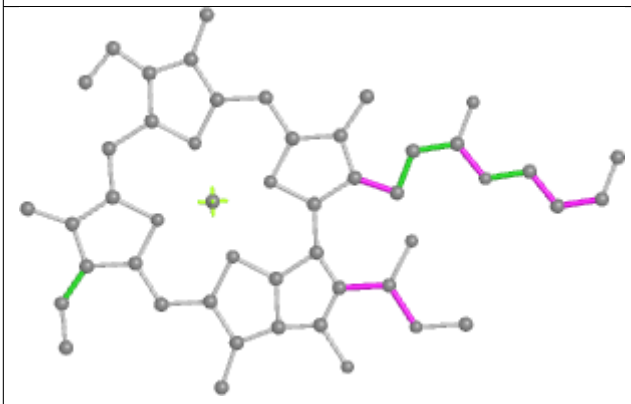
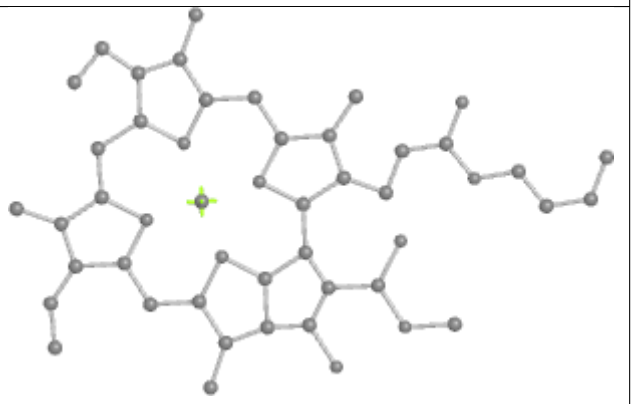


Bond angles

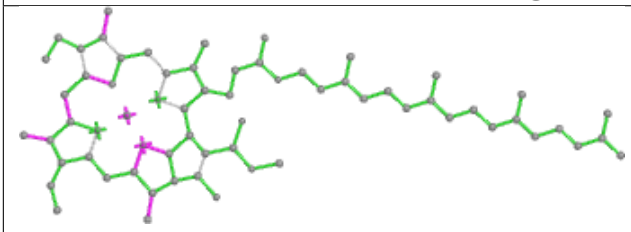


Torsions



Rings

Ligand CLA b 614



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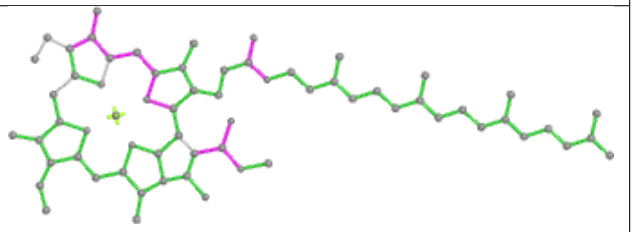
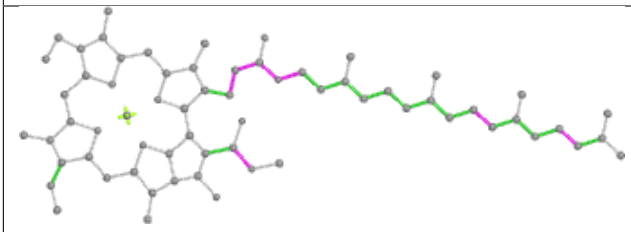
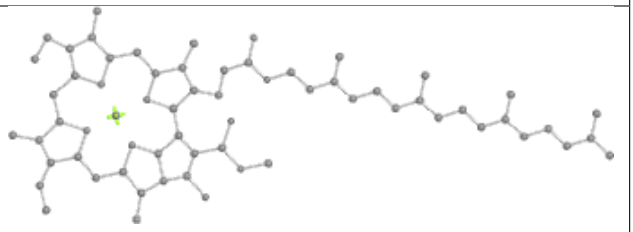


Bond angles

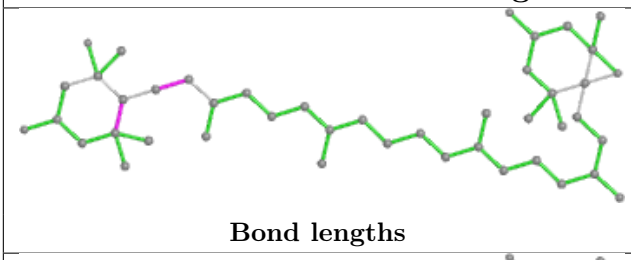


Torsions

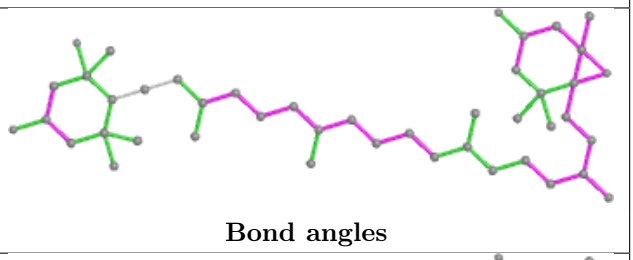


Rings

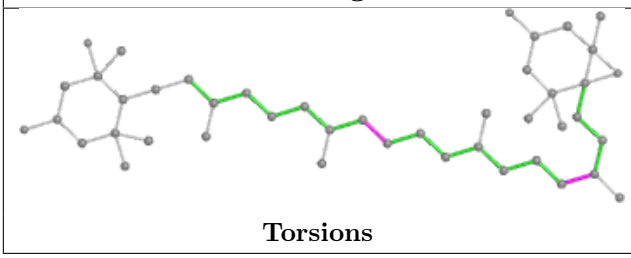
Ligand NEX G 1623



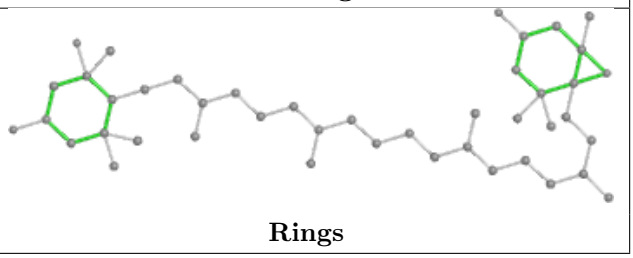
Bond lengths



Bond angles

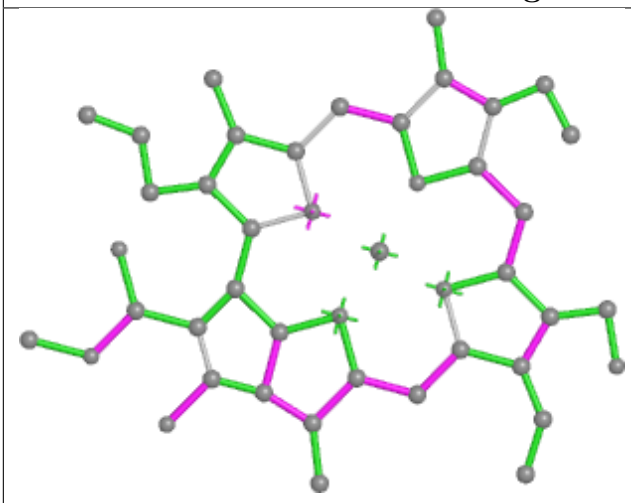


Torsions

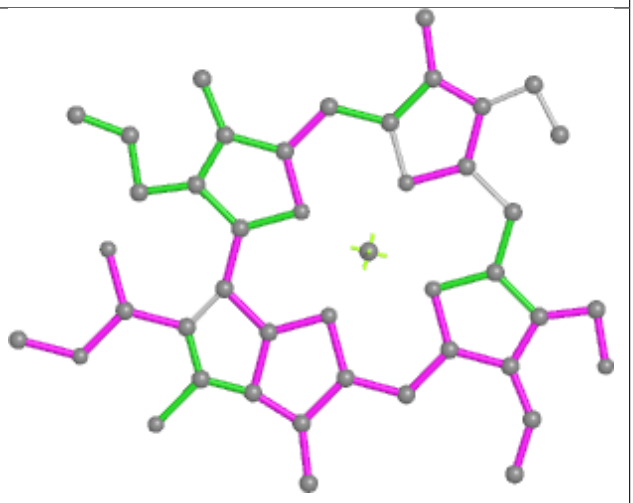


Rings

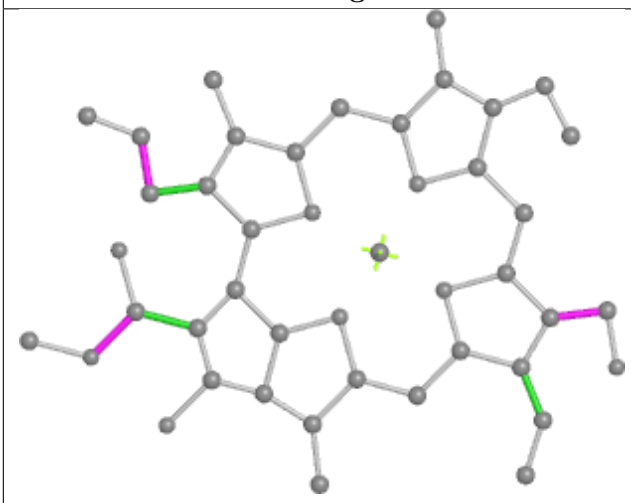
Ligand CHL R 606



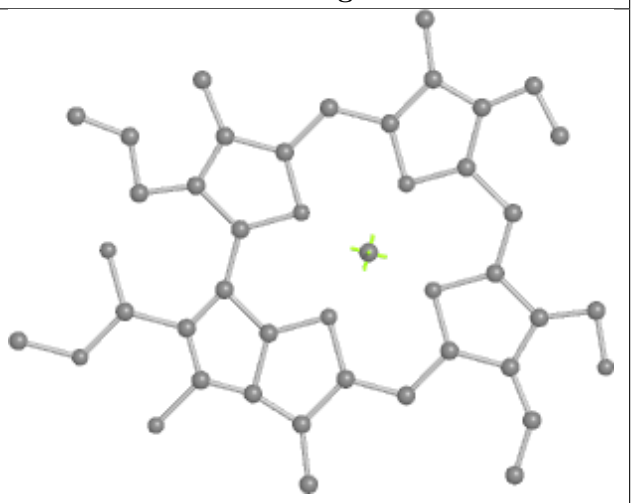
Bond lengths



Bond angles

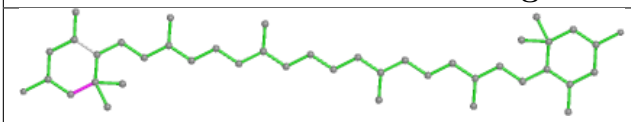


Torsions

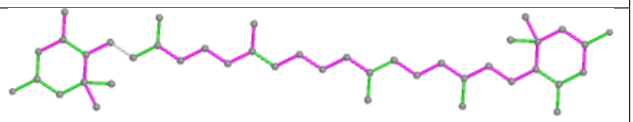


Rings

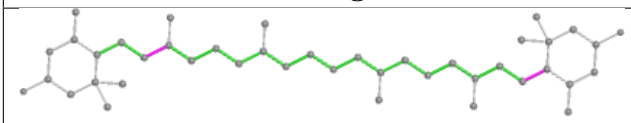
Ligand LUT s 1620



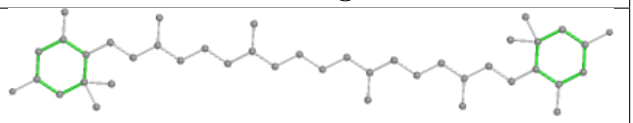
Bond lengths



Bond angles

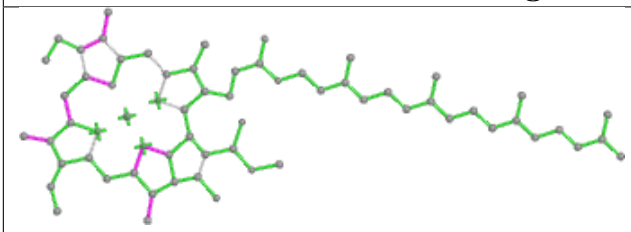


Torsions



Rings

Ligand CLA B 602



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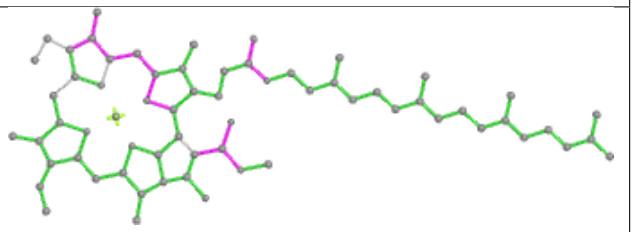

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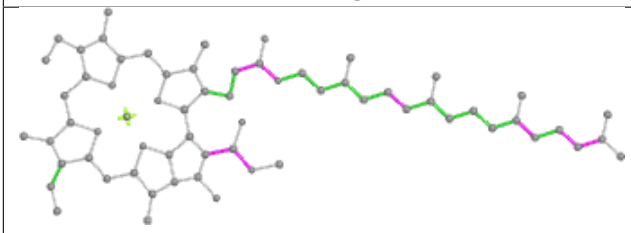

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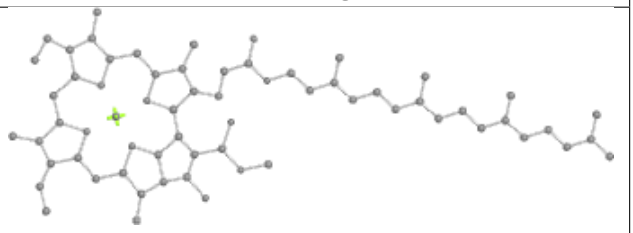
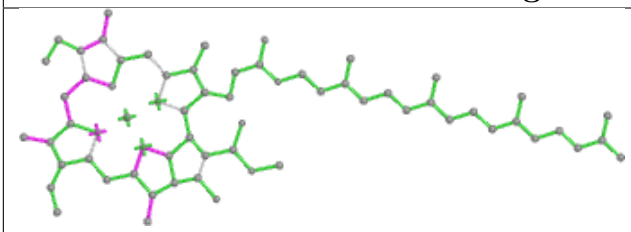
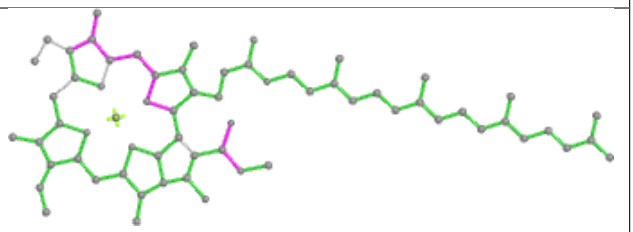


Rings

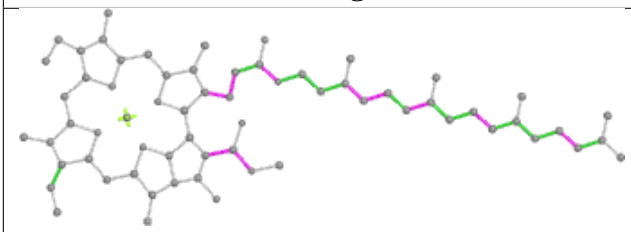
Ligand CLA G 613



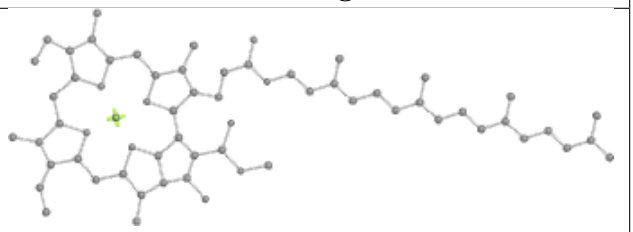
Bond lengths



Bond angles

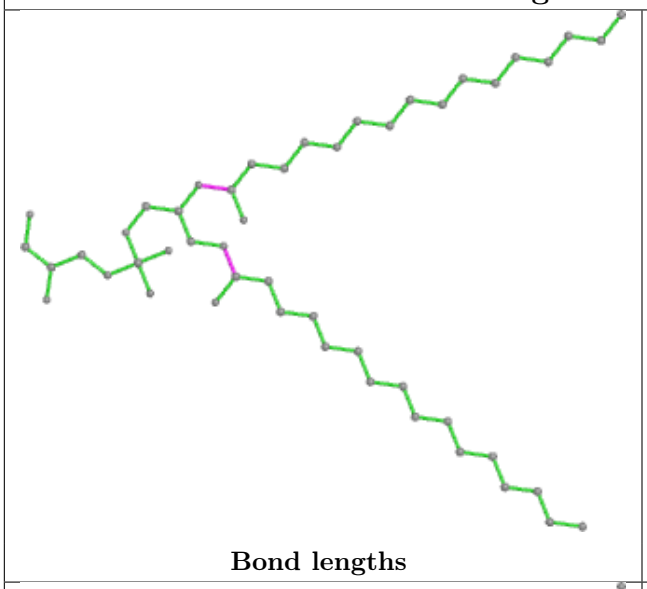


Torsions



Rings

Ligand LHG l 101



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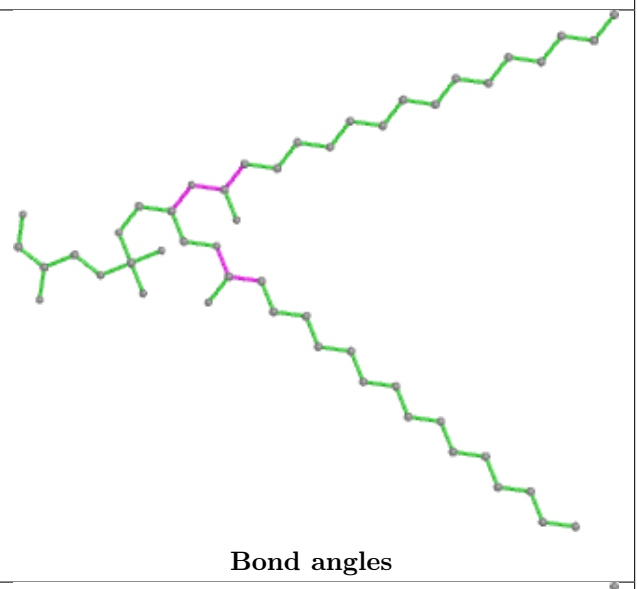
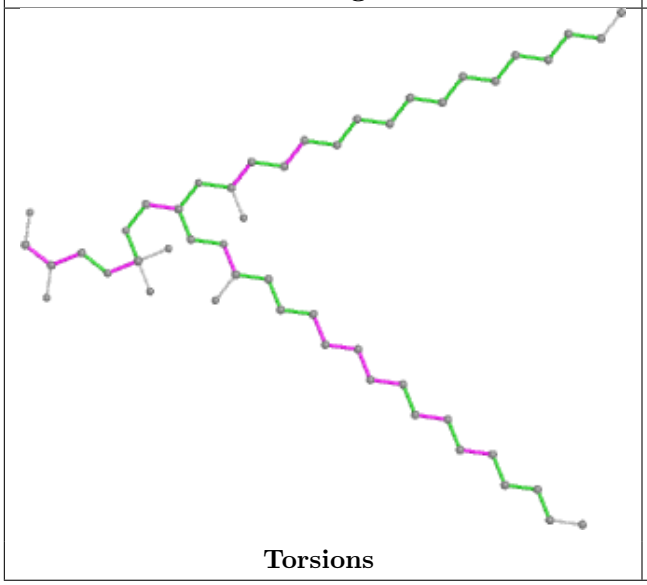
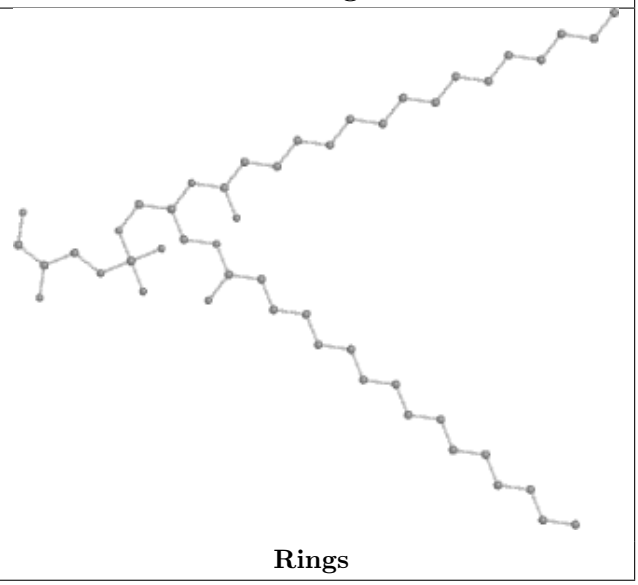


Bond angles

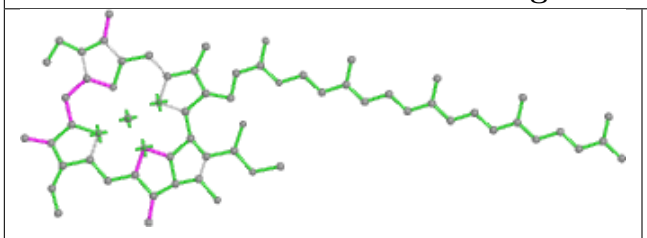


Torsions



Rings

Ligand CLA c 510



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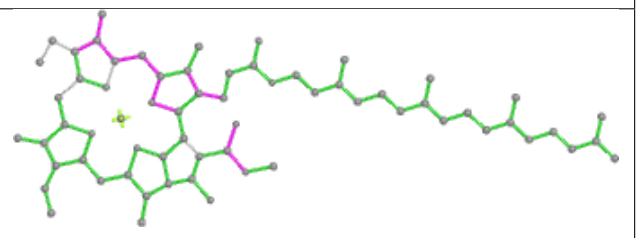
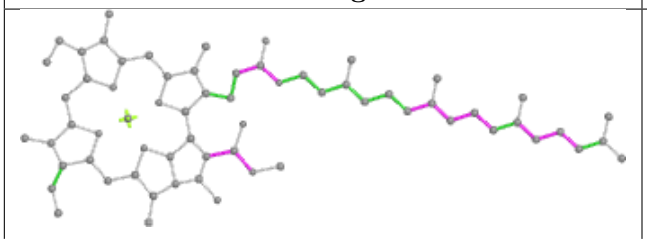


Bond angles



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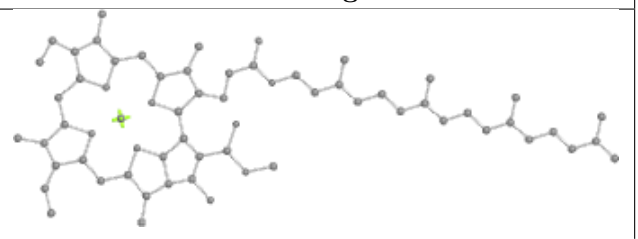
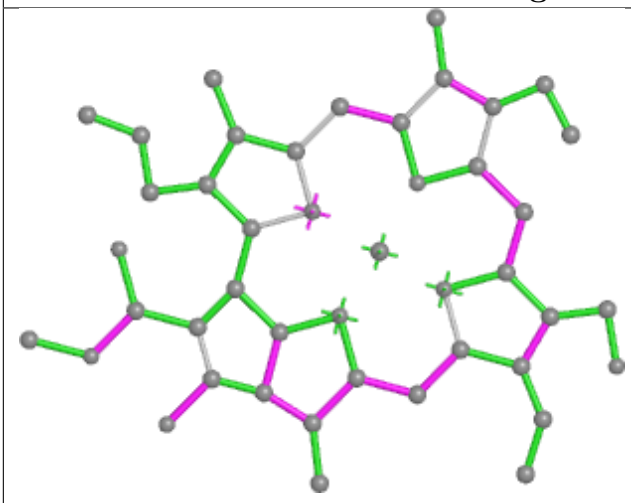


Rings

Ligand CHL s 606



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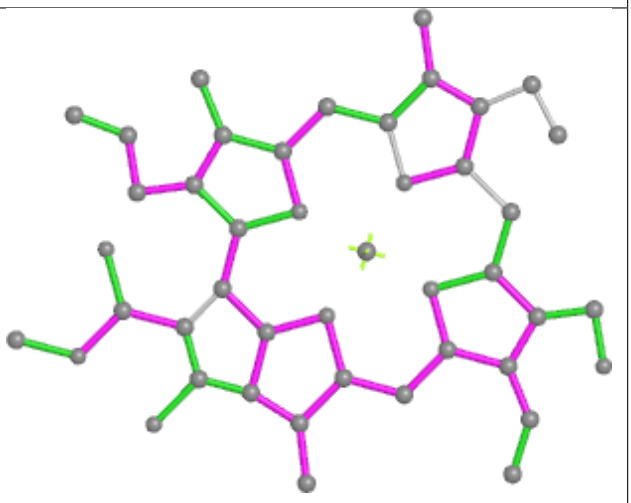
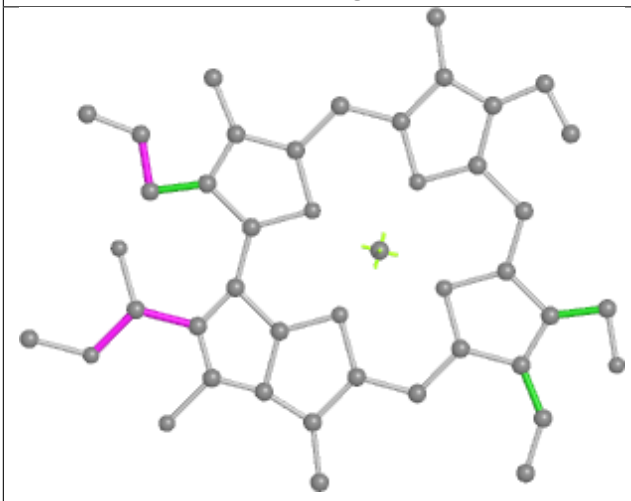


Bond angles



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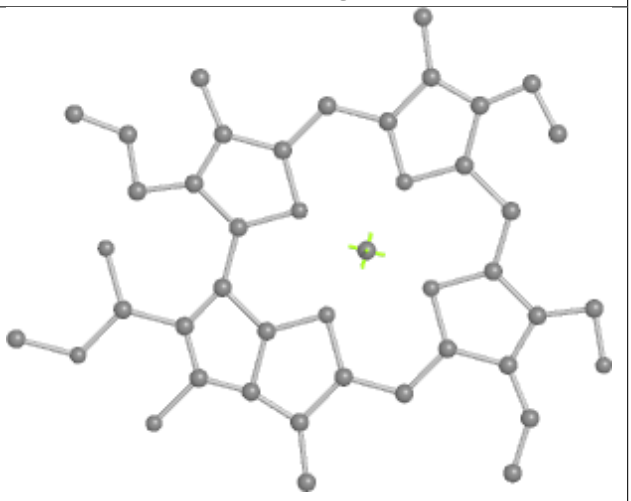
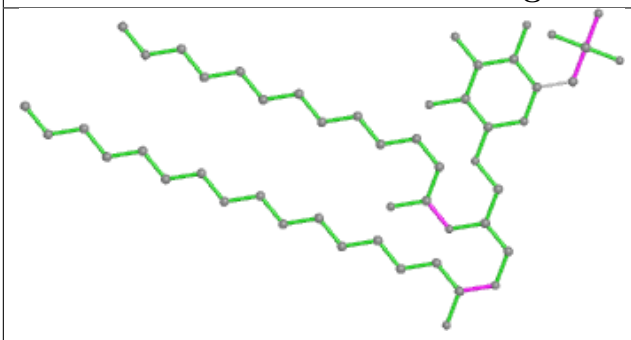


Rings

Ligand SQD A 412



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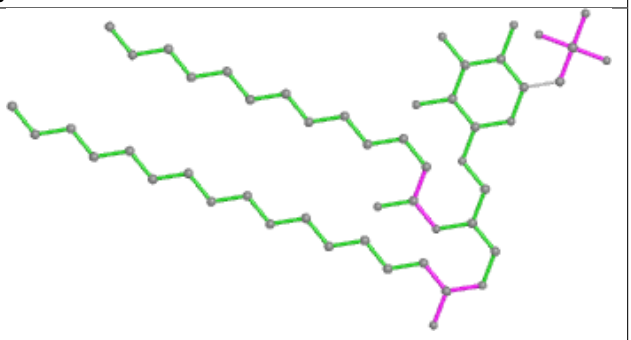
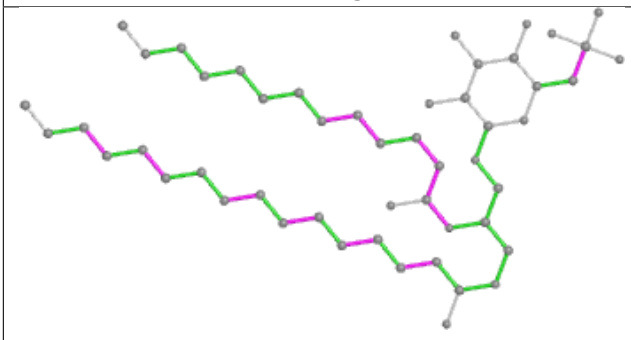


Bond angles



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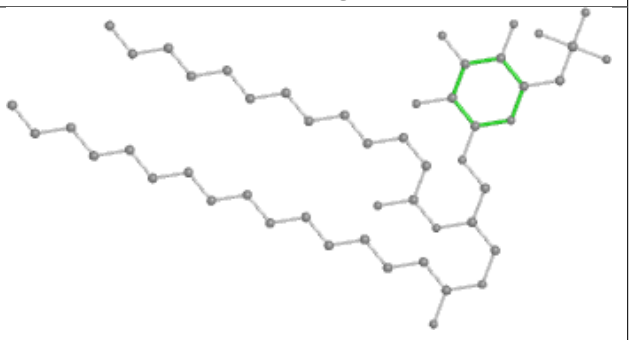
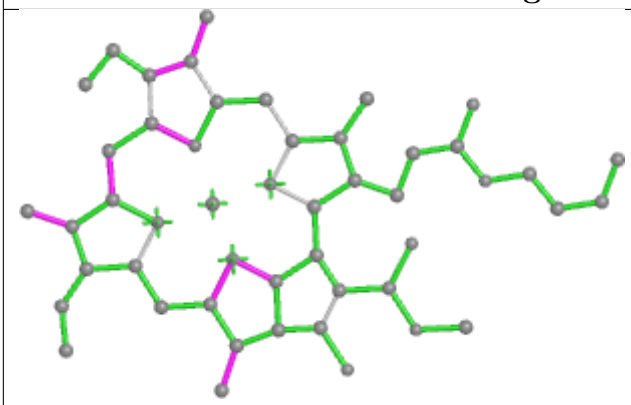


Rings

Ligand CLA N 611



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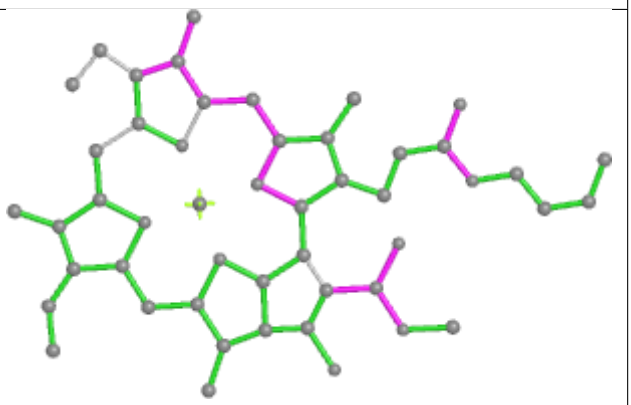
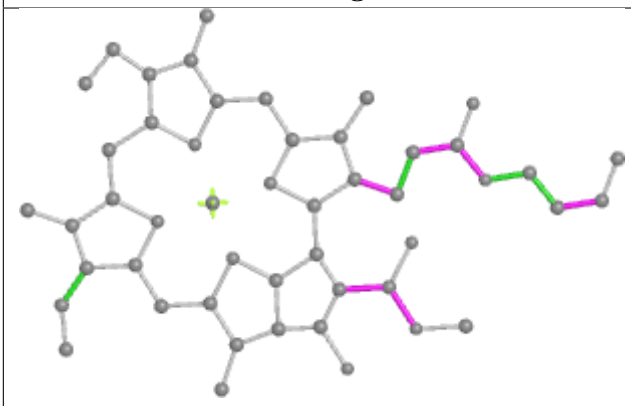


Bond angles



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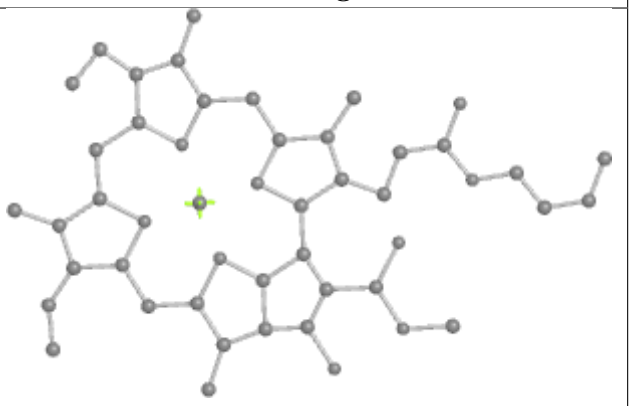
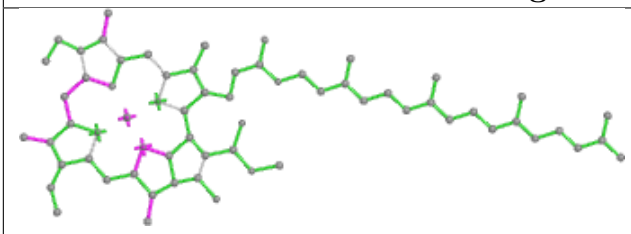


Rings

Ligand CLA c 513



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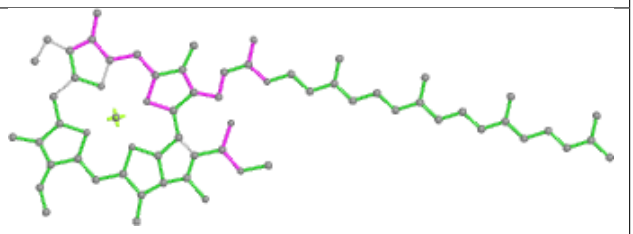
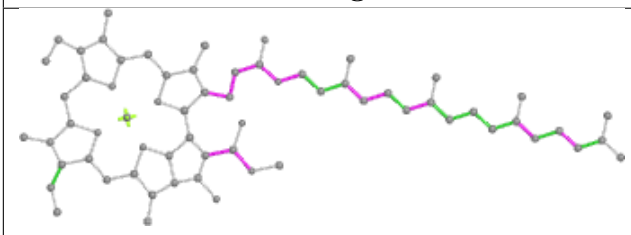


Bond angles



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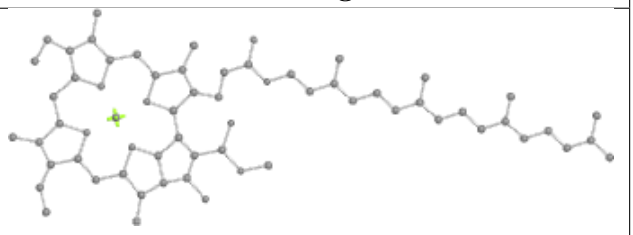
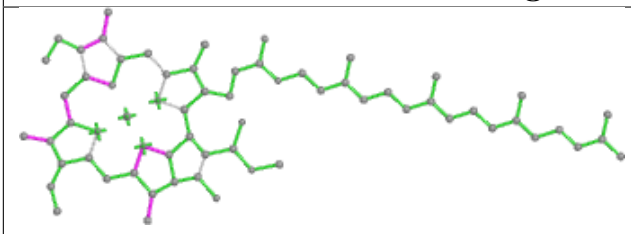
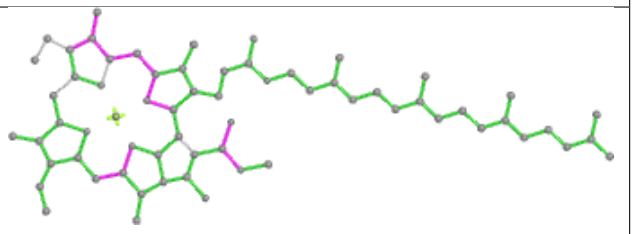


Rings

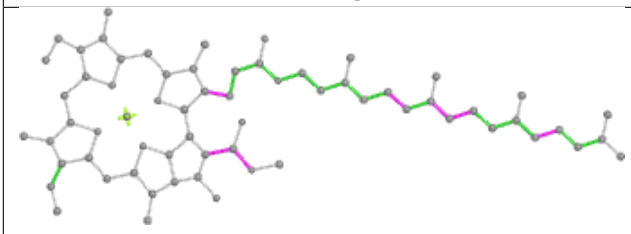
Ligand CLA B 606



Bond lengths



Bond angles



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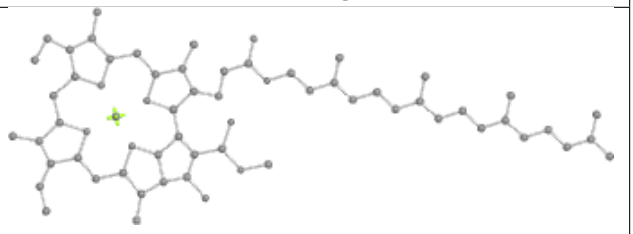
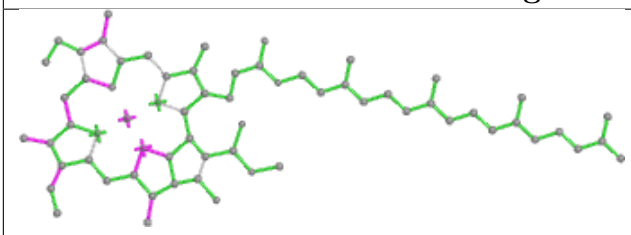


Rings

Ligand CLA N 603



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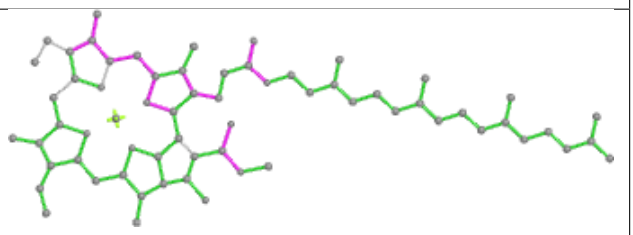
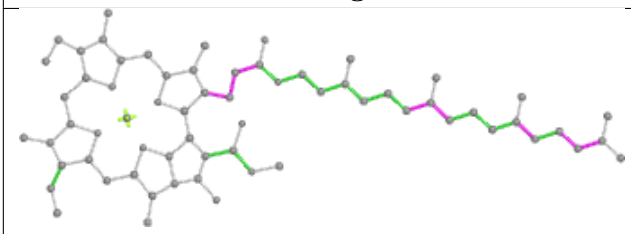
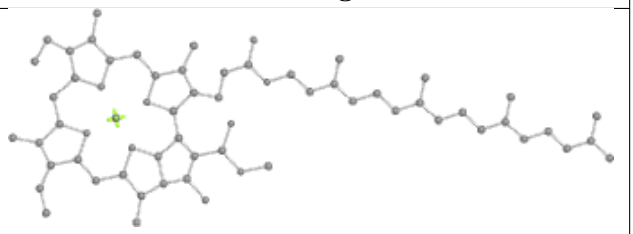


Bond angles

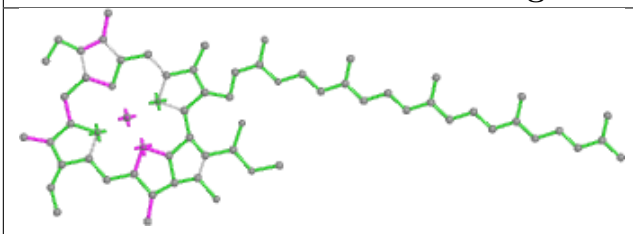


Torsions



Rings

Ligand CLA d 402



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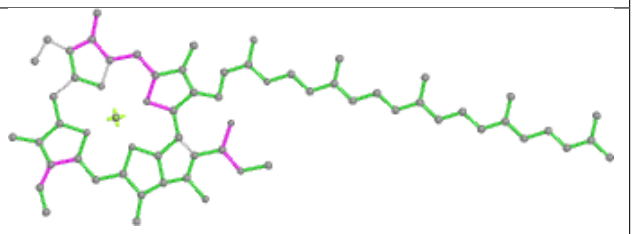
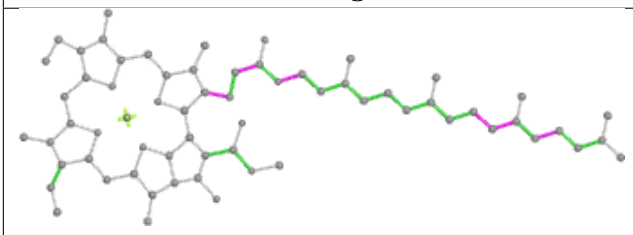


Bond angles



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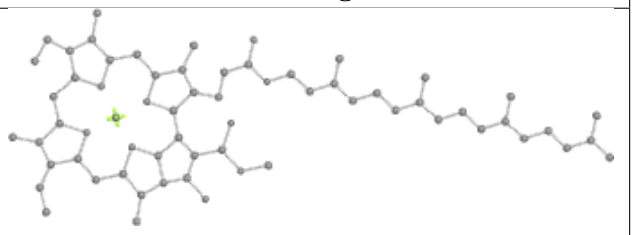
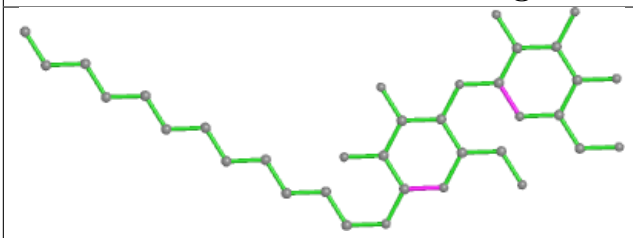
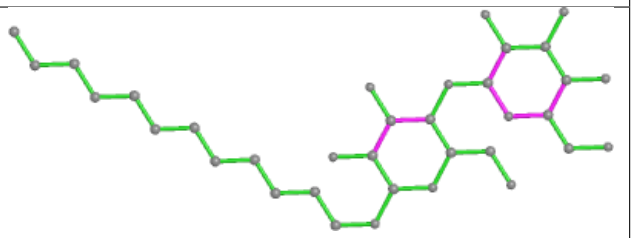


Rings

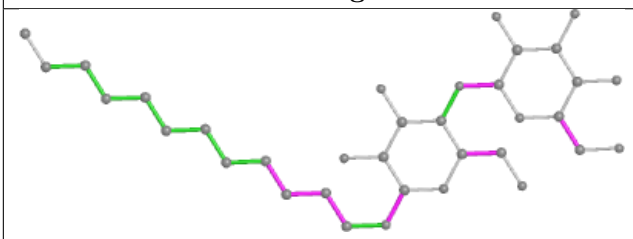
Ligand LMU Z 2635



Bond lengths



Bond angles



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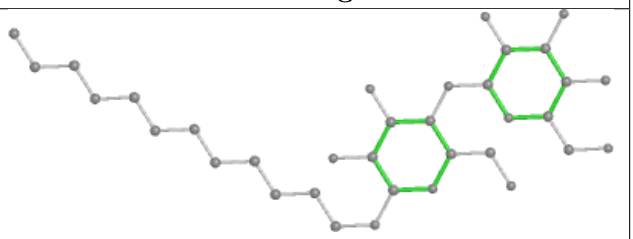
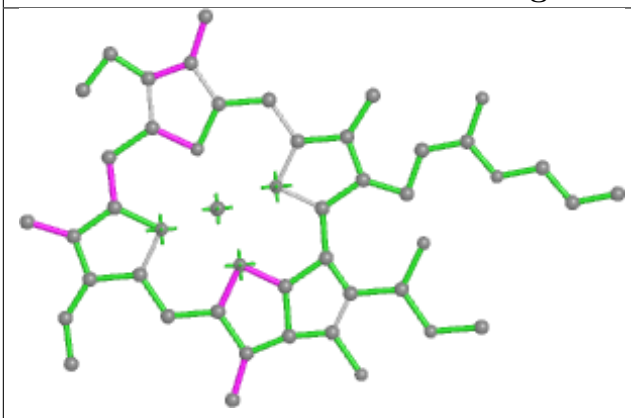
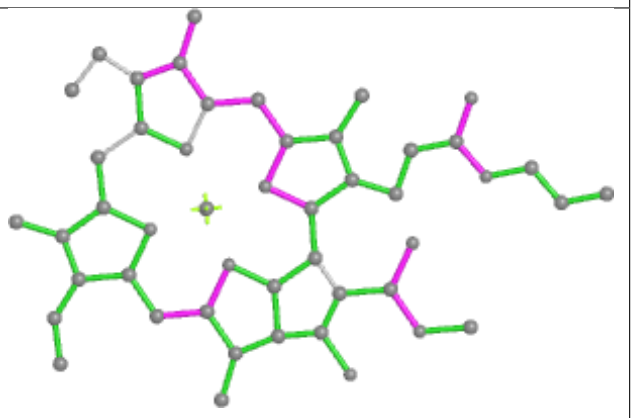


Rings

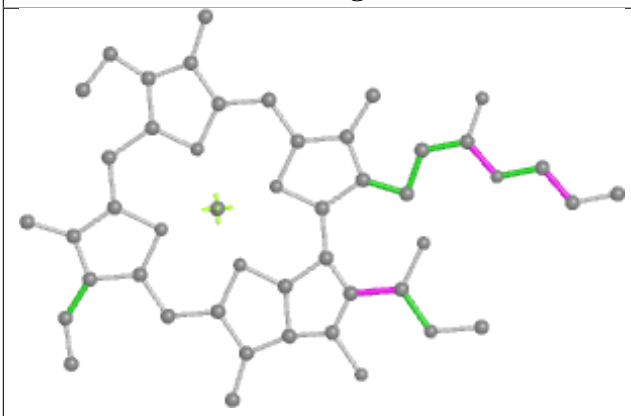
Ligand CLA s 614



Bond lengths



Bond angles



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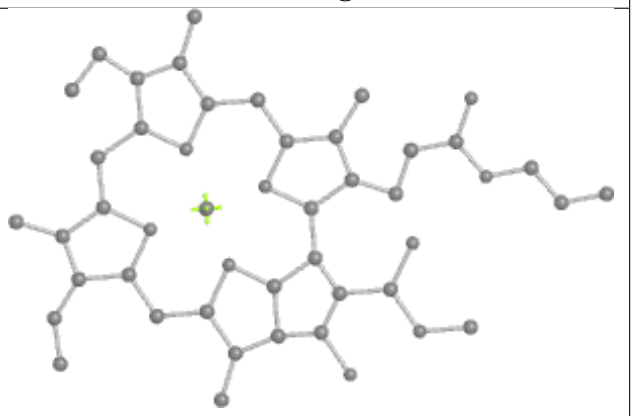
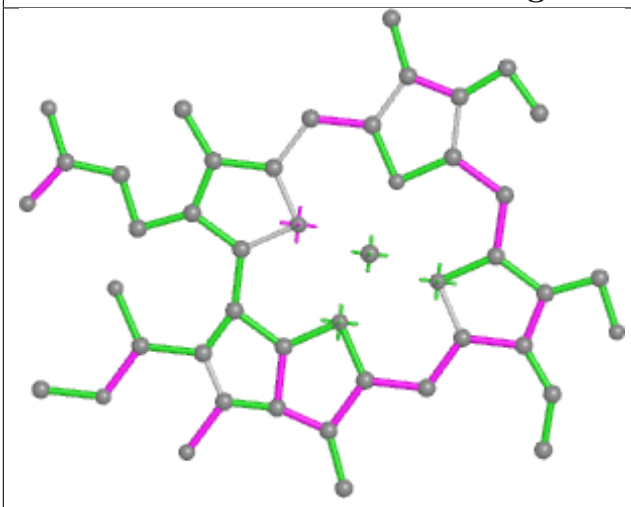
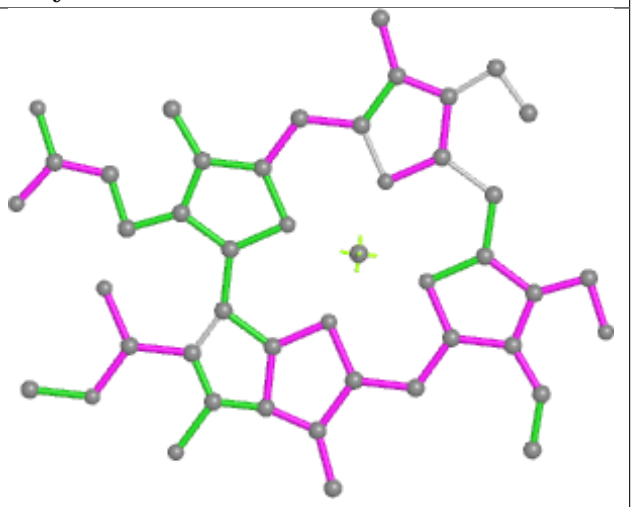


Rings

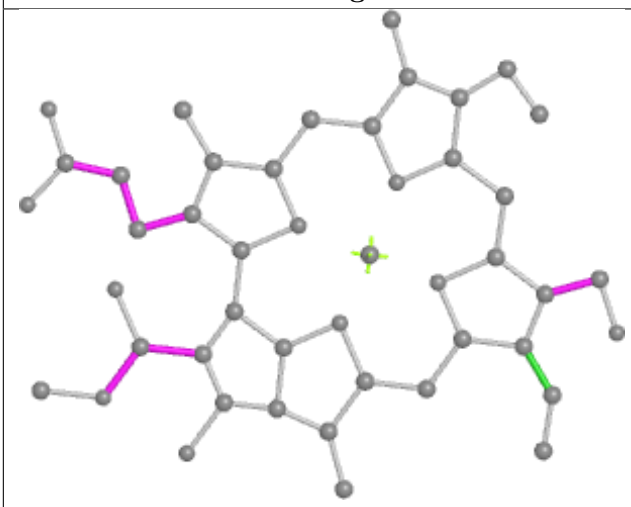
Ligand CHL y 605



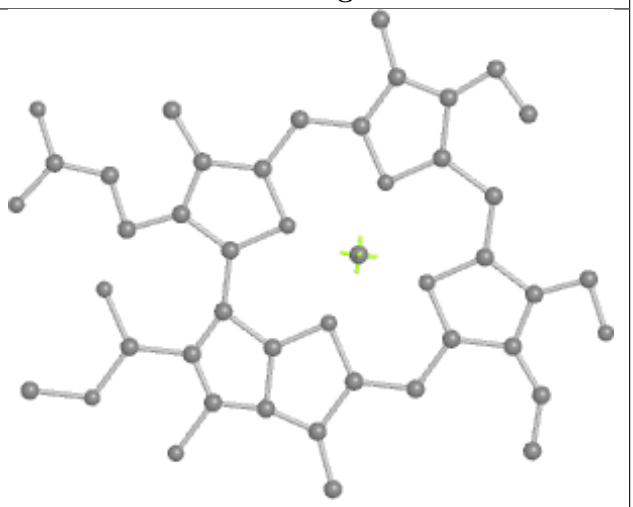
Bond lengths



Bond angles

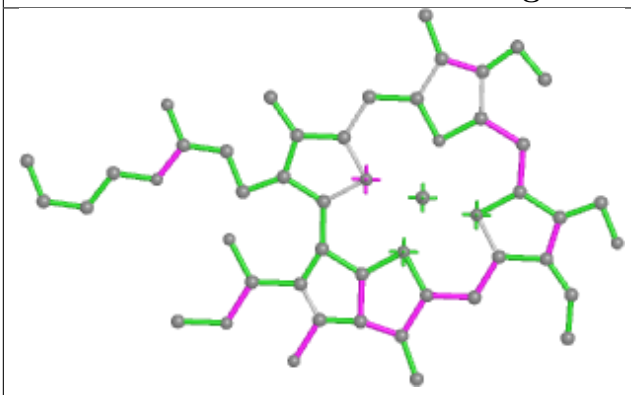


Torsions

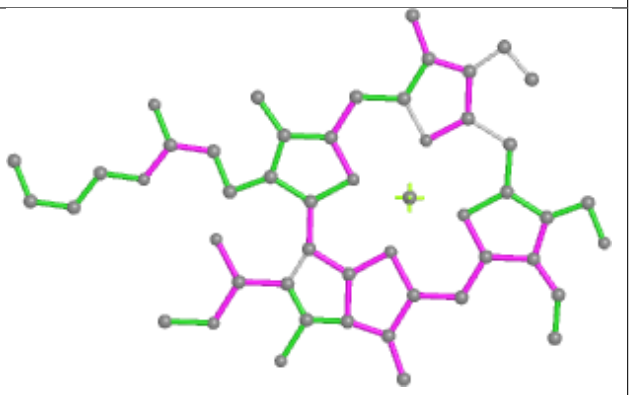


Rings

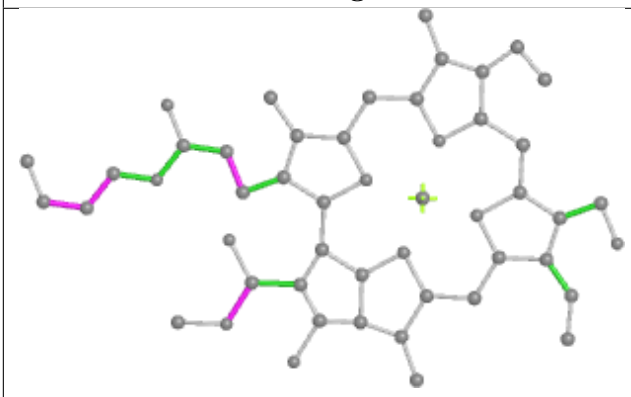
Ligand CHL N 608



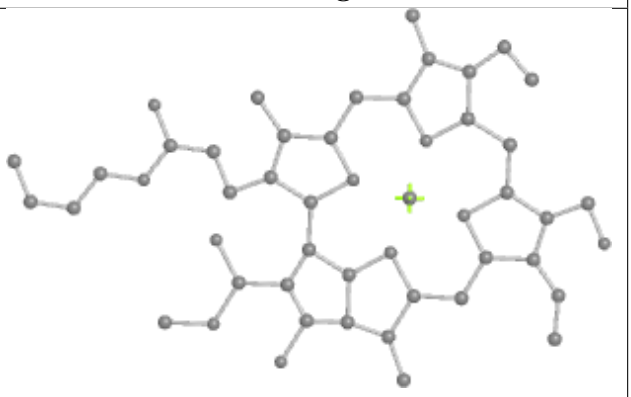
Bond lengths



Bond angles

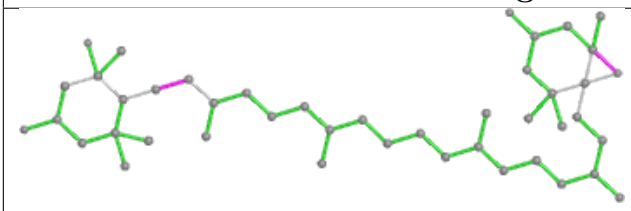


Torsions

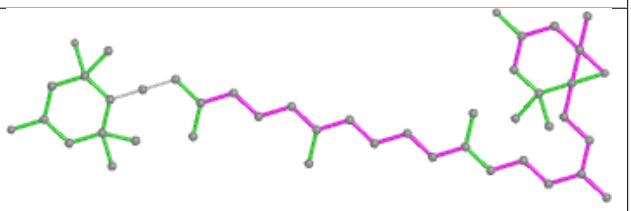


Rings

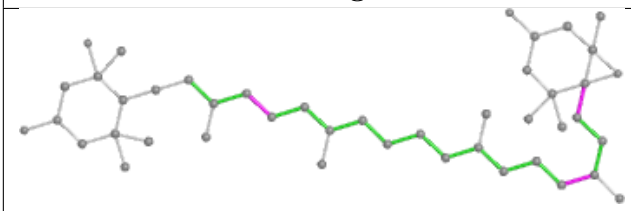
Ligand NEX n 1623



Bond lengths



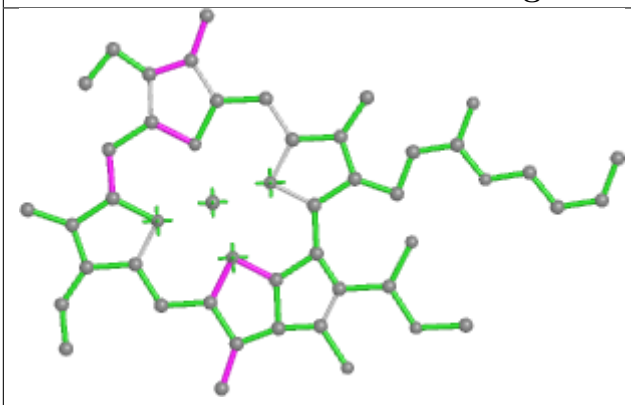
Bond angles



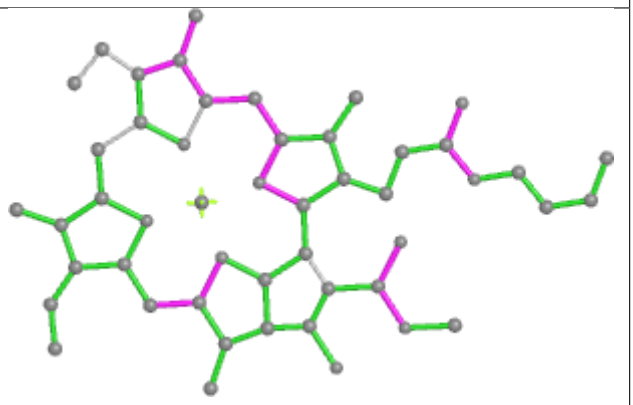
Torsions

Rings

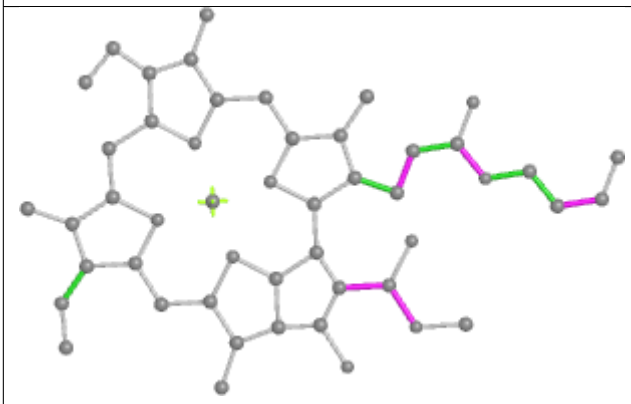
Ligand CLA N 614



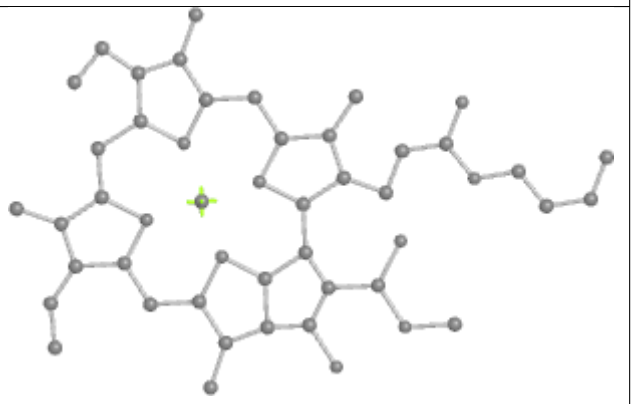
Bond lengths



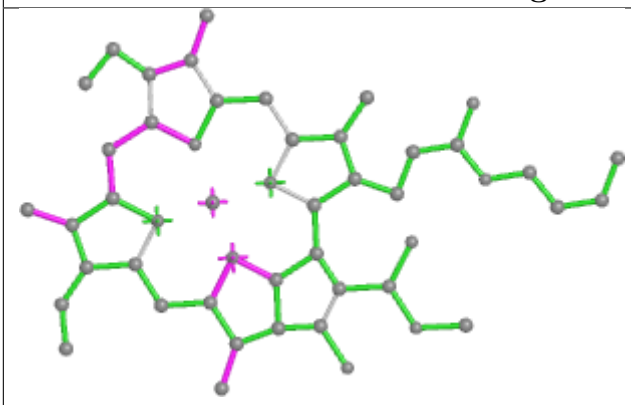
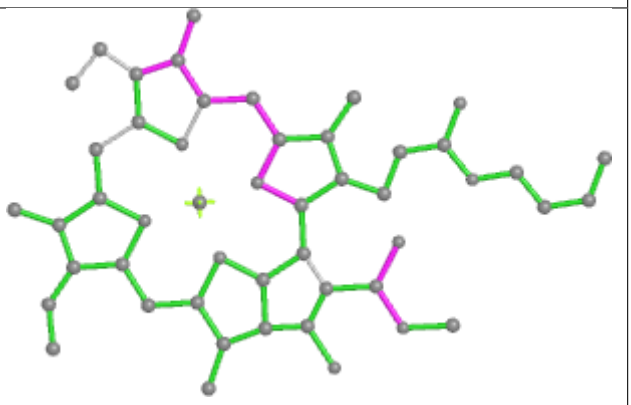
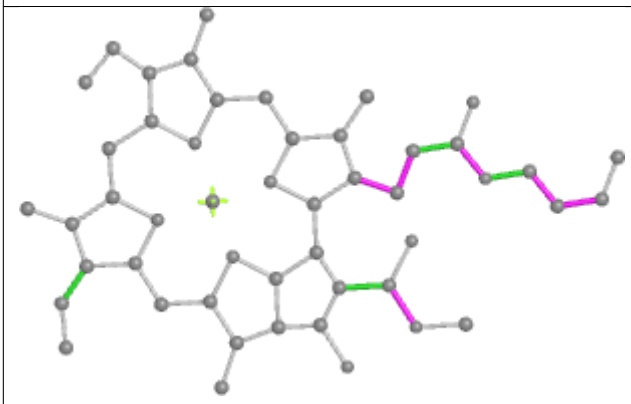
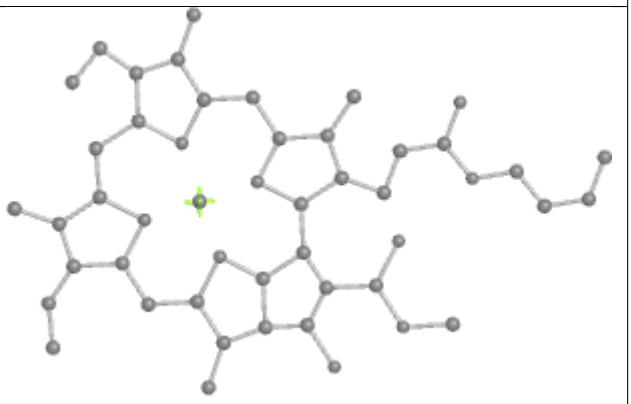
Bond angles

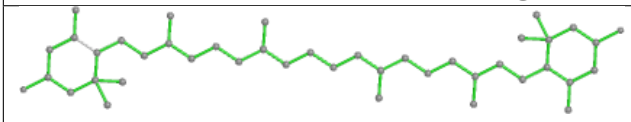
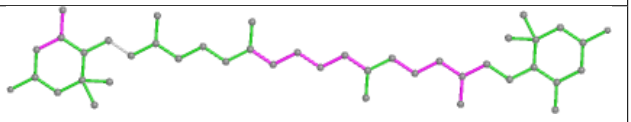
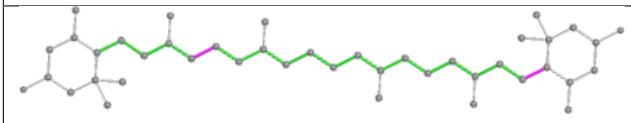
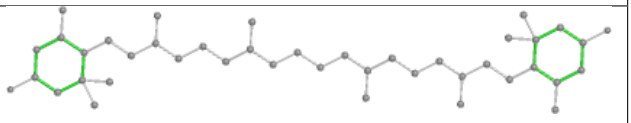


Torsions

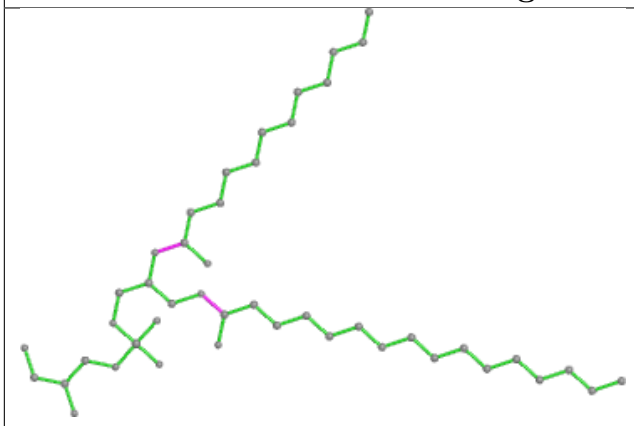


Rings

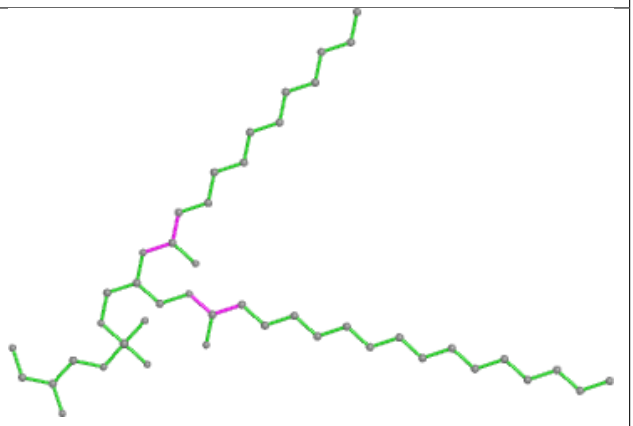
Ligand CLA s 613	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand LUT N 1621	
 Bond lengths	 Bond angles
 Torsions	 Rings

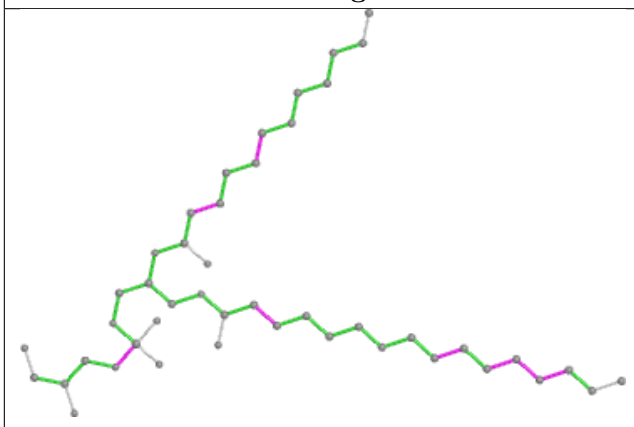
Ligand LHG S 2630



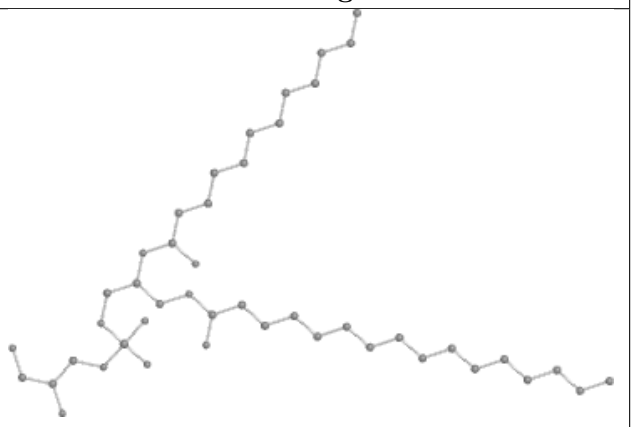
Bond lengths



Bond angles

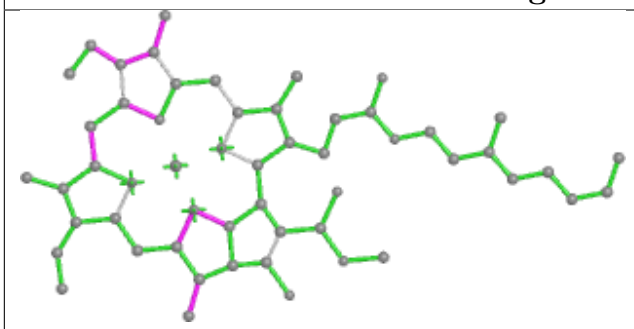


Torsions

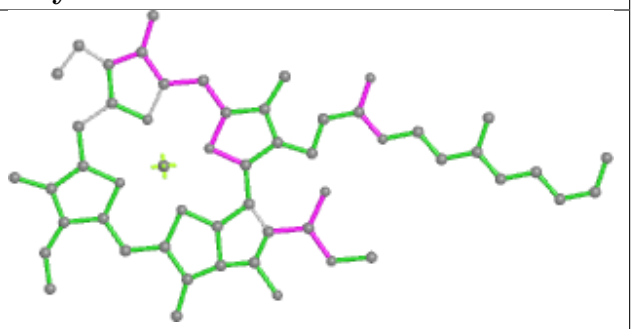


Rings

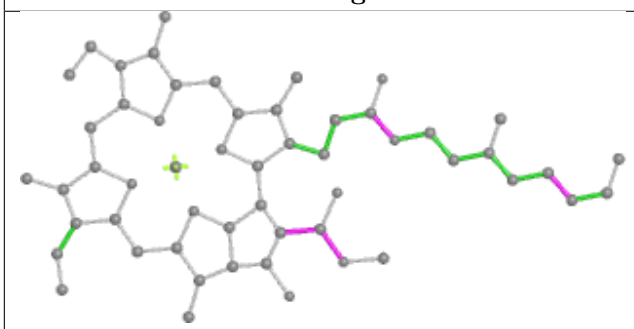
Ligand CLA y 614



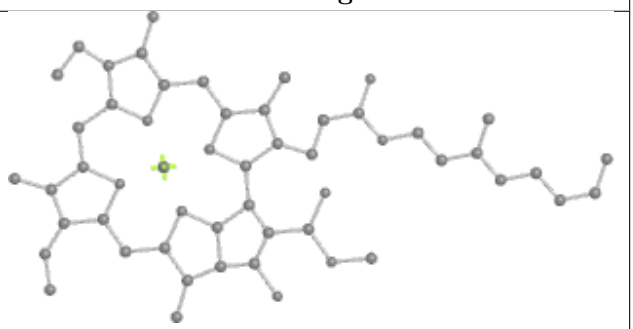
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

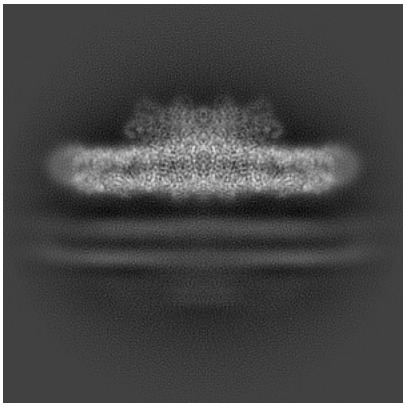
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-9955. These allow visual inspection of the internal detail of the map and identification of artifacts.

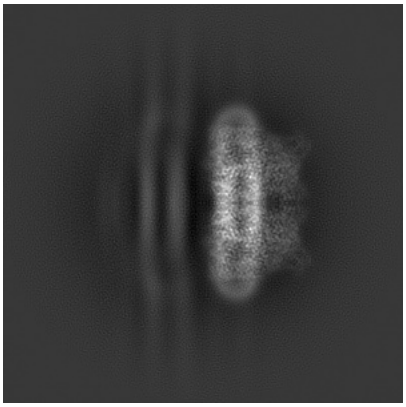
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

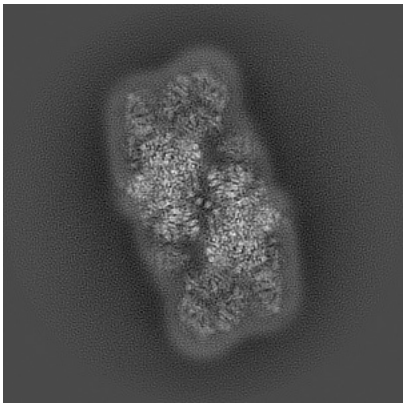
6.1.1 Primary map



X



Y

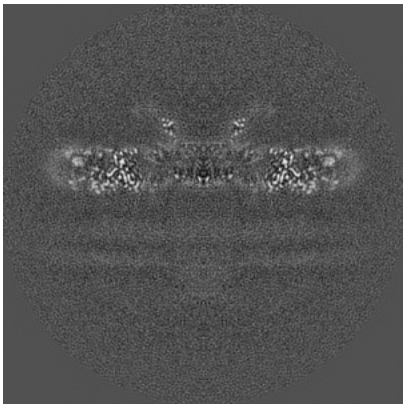


Z

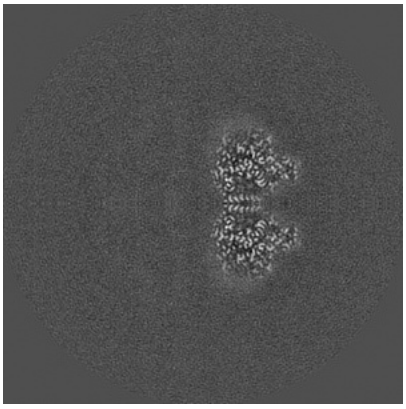
The images above show the map projected in three orthogonal directions.

6.2 Central slices

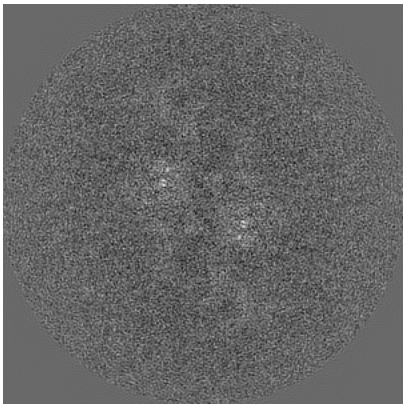
6.2.1 Primary map



X Index: 192



Y Index: 192

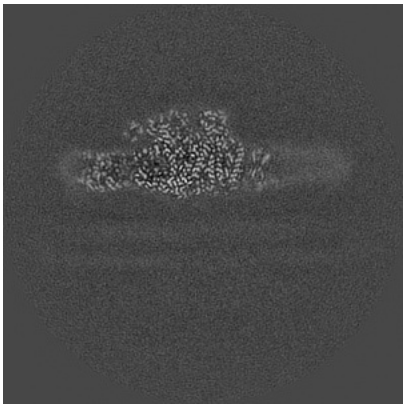


Z Index: 192

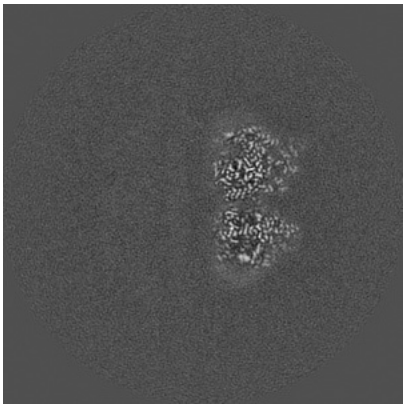
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

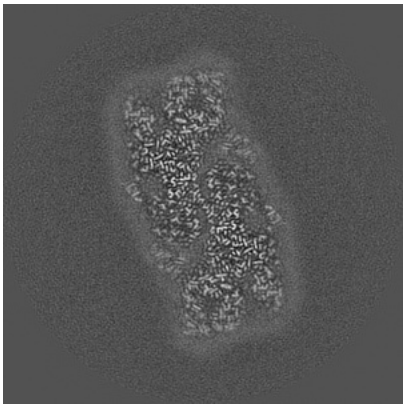
6.3.1 Primary map



X Index: 220



Y Index: 183



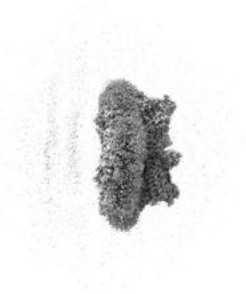
Z Index: 215

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

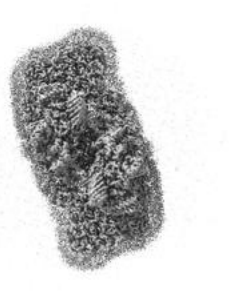
6.4 Orthogonal surface views (i)

6.4.1 Primary map

X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.015. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

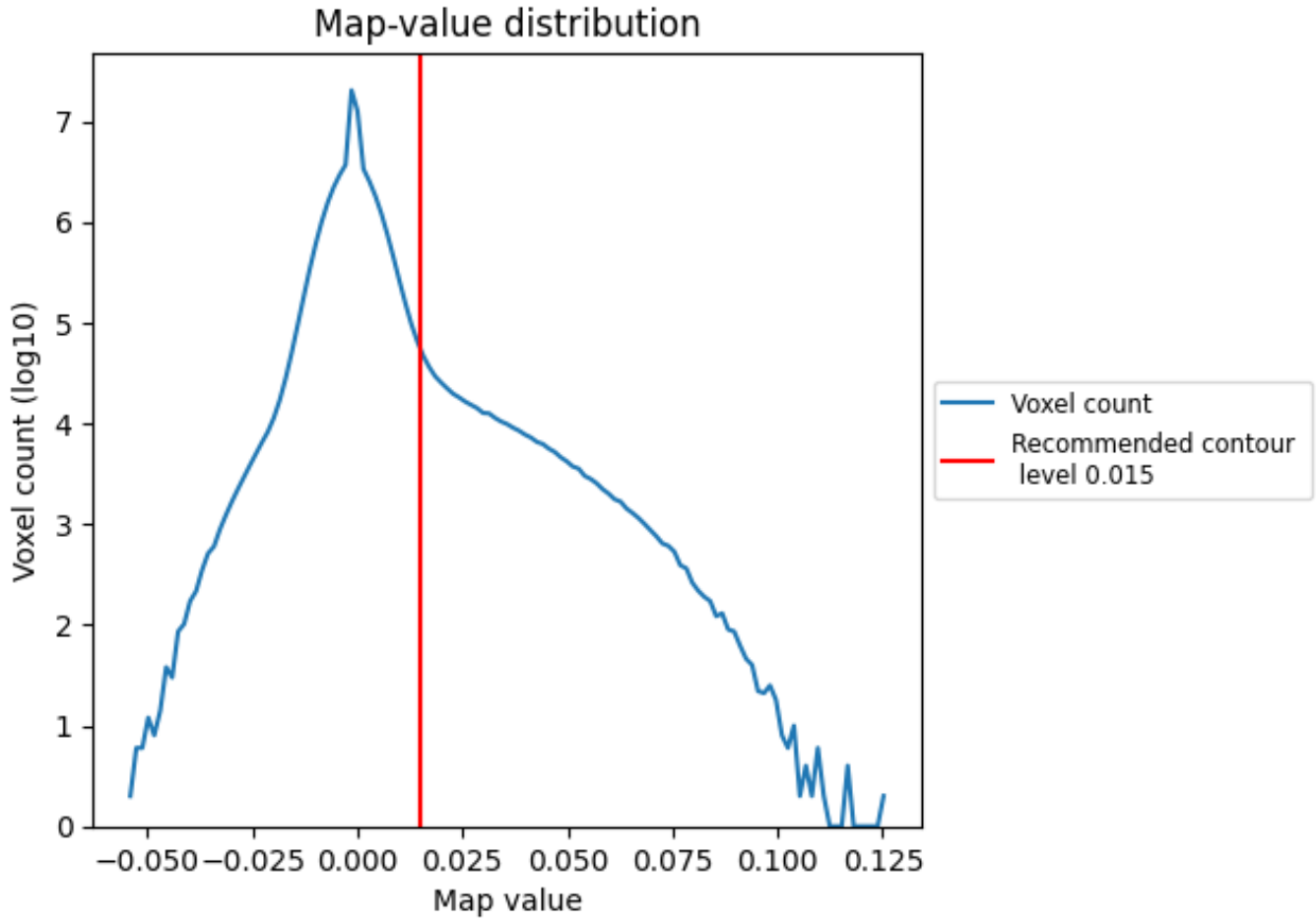
6.5 Mask visualisation (i)

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

7 Map analysis

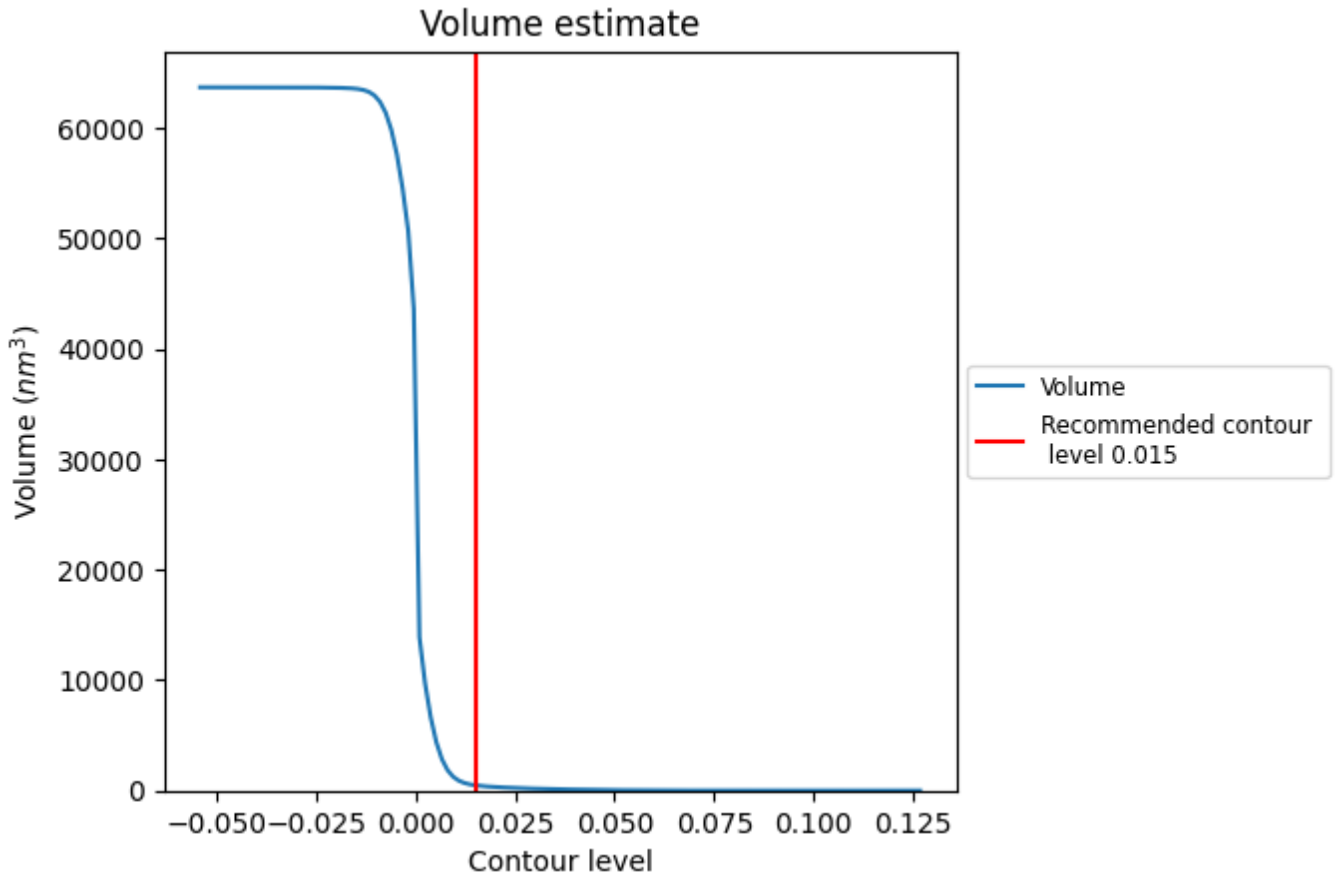
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

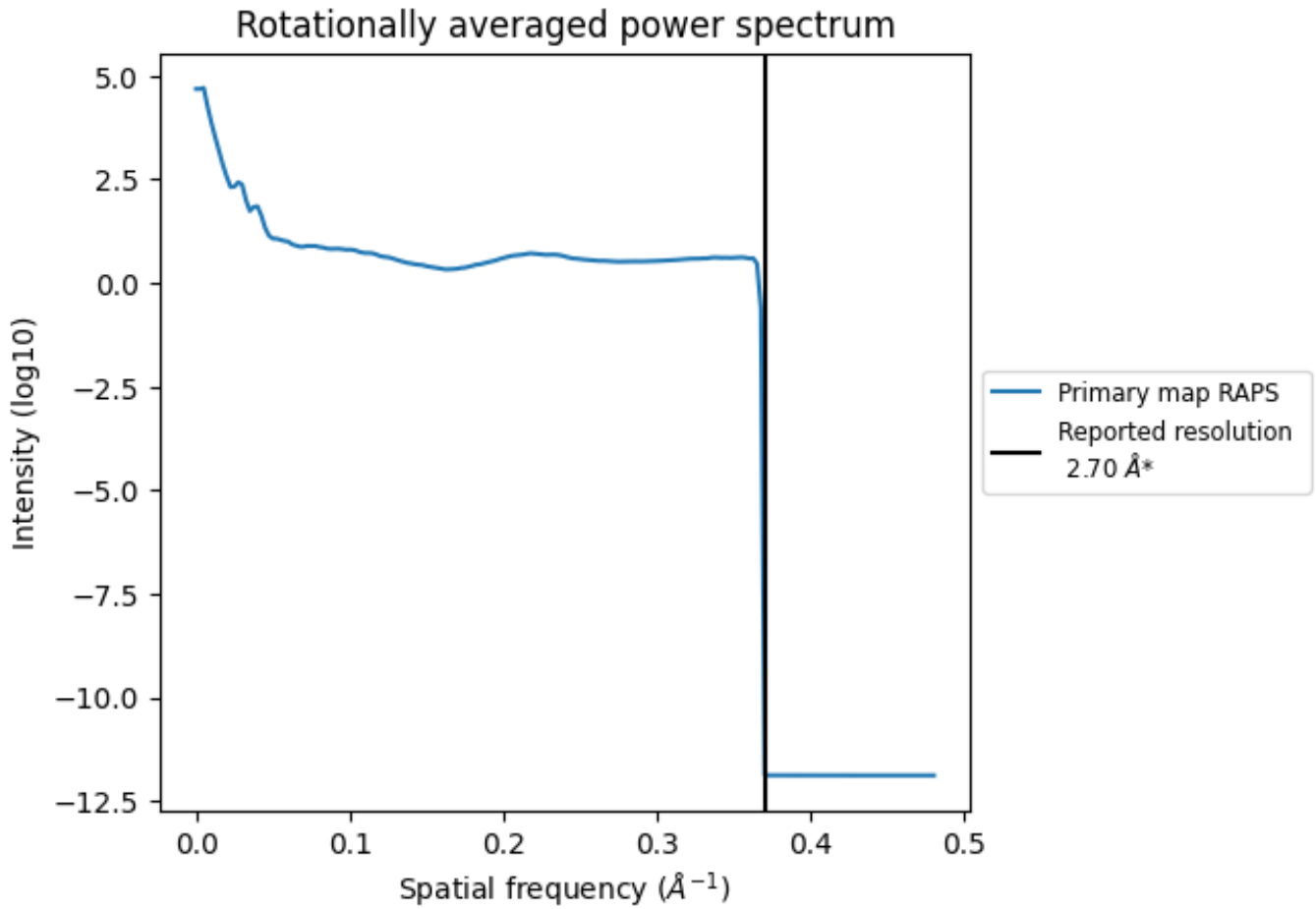
7.2 Volume estimate



The volume at the recommended contour level is 482 nm^3; this corresponds to an approximate mass of 436 kDa.

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

7.3 Rotationally averaged power spectrum (i)

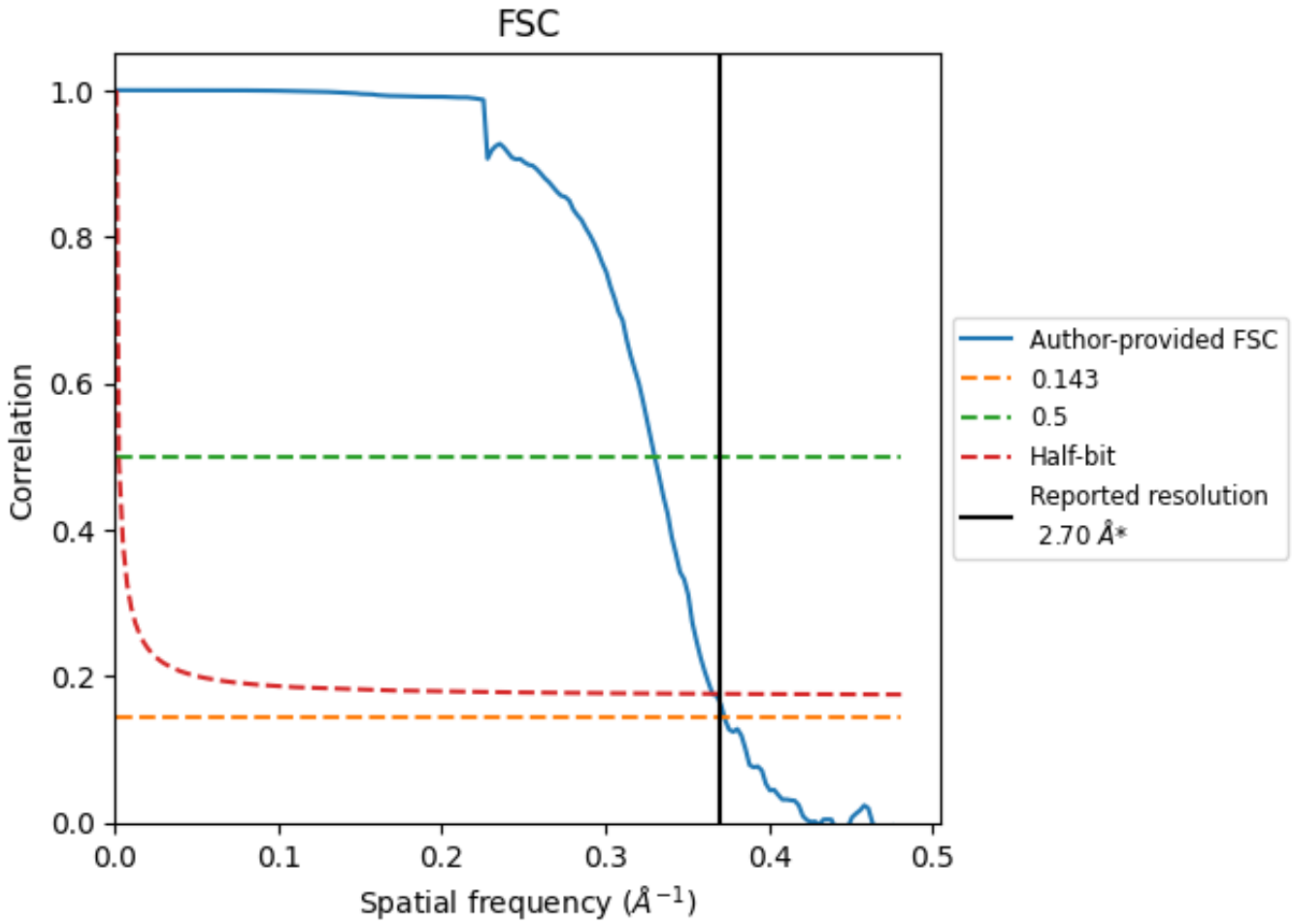


*Reported resolution corresponds to spatial frequency of 0.370 $Å^{-1}$

8 Fourier-Shell correlation

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

8.1 FSC



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

8.2 Resolution estimates (i)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.70	-	-
Author-provided FSC curve	2.68	3.03	2.74
Unmasked-calculated*	-	-	-

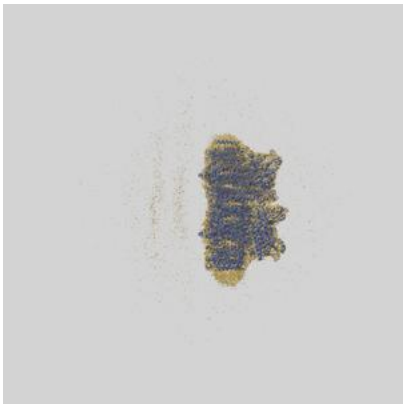
*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

9 Map-model fit

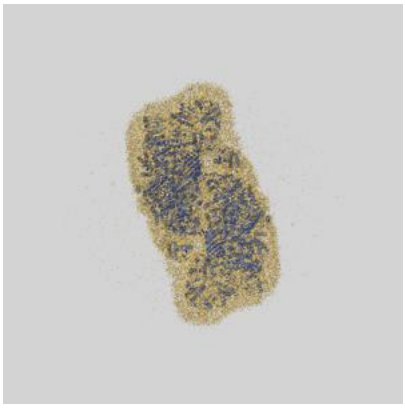
This section contains information regarding the fit between EMDB map EMD-9955 and PDB model 6KAC. Per-residue inclusion information can be found in section 3 on page 42.

9.1 Map-model overlay

X



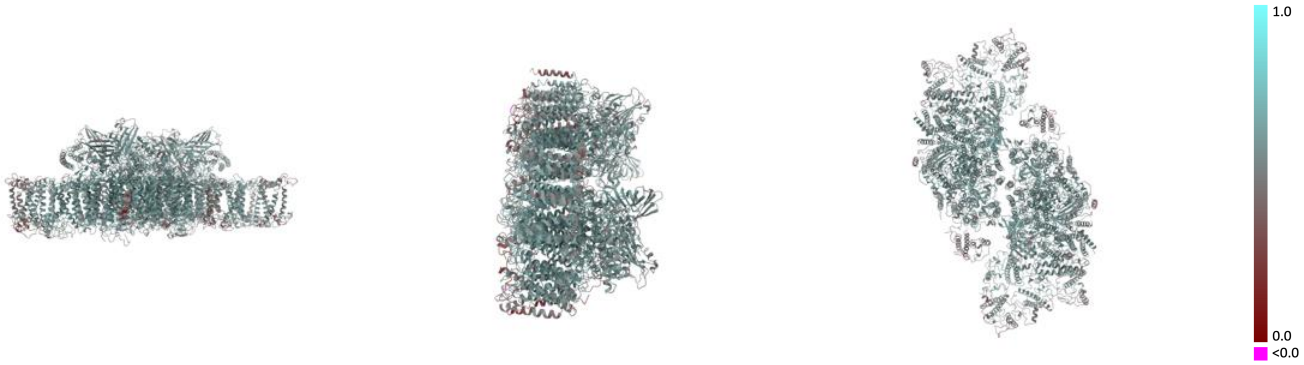
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.015 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.

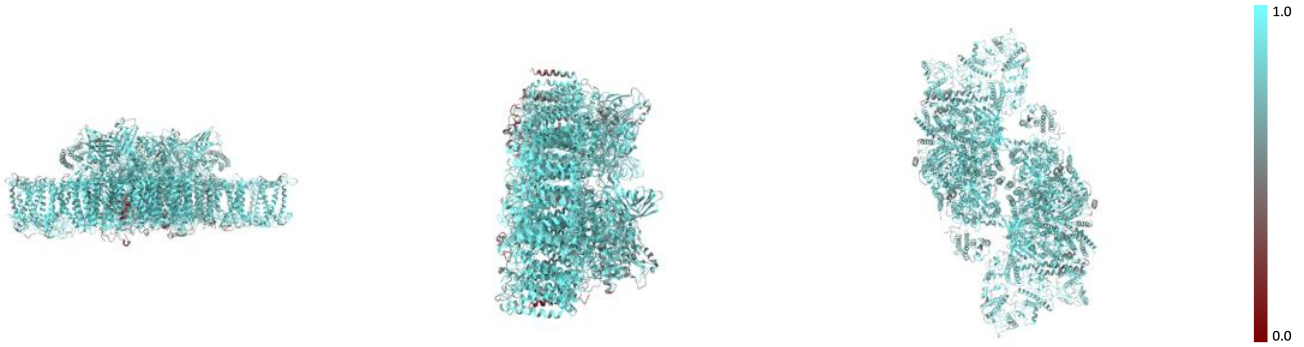
9.2 Q-score mapped to coordinate model (i)



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.

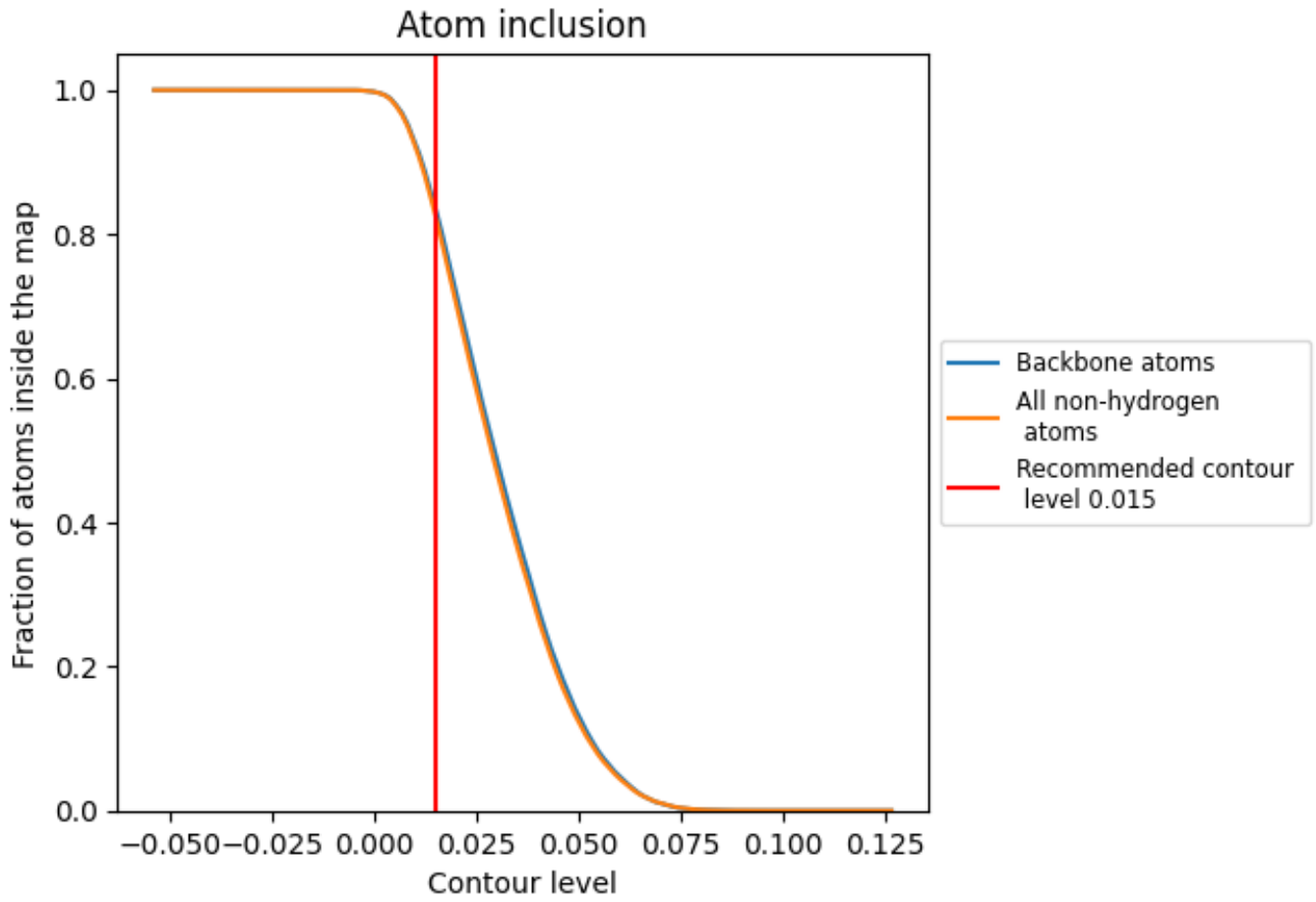
9.3 Atom inclusion mapped to coordinate model (i)



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 (0.015).

9.4 Atom inclusion (i)



At the recommended contour level, 83% of all backbone atoms, 82% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.015) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8239	0.5690
0	0.4215	0.3430
1	0.4380	0.3500
3	0.4383	0.4680
4	0.4198	0.4720
A	0.9182	0.6230
B	0.8711	0.5950
C	0.8958	0.6150
D	0.9047	0.6150
E	0.8212	0.5420
F	0.8386	0.5680
G	0.7530	0.5100
H	0.8056	0.5620
I	0.9321	0.6130
J	0.8054	0.5710
K	0.8874	0.5810
L	0.8683	0.5980
M	0.8289	0.5800
N	0.7989	0.5510
O	0.8168	0.5610
P	0.7765	0.5490
Q	0.6925	0.5330
R	0.6496	0.4630
S	0.7752	0.5110
T	0.8058	0.5920
U	0.4560	0.4770
V	0.7207	0.5200
W	0.8173	0.5660
X	0.6488	0.4910
Y	0.8407	0.5930
Z	0.8004	0.5640
a	0.9166	0.6220
b	0.8705	0.5950
c	0.8958	0.6140
d	0.9021	0.6140

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
e	0.8212	0.5450
f	0.8421	0.5600
g	0.7507	0.5110
h	0.8056	0.5590
i	0.9321	0.6190
j	0.8054	0.5700
k	0.8874	0.5790
l	0.8683	0.6000
m	0.8289	0.5830
n	0.7989	0.5490
o	0.8151	0.5610
p	0.7758	0.5500
q	0.6916	0.5340
r	0.6501	0.4670
s	0.7756	0.5100
t	0.8058	0.5940
u	0.4505	0.4770
v	0.7162	0.5210
w	0.8173	0.5690
x	0.6446	0.4970
y	0.8407	0.5920
z	0.8004	0.5620