Full wwPDB EM Validation Report

Jan 19, 2026 – 02:47 pm GMT

PDB ID	:	9HYU / pdb_00009hyu
EMDB ID	:	EMD-52518
Title	:	Cryo-EM structure of the Chromera velia PSI supercomplex at 1.84 Angstrom resolution
Authors	:	Yuan, X.; Qian, P.; Sobotka, R.; Naschberger, A.
Deposited on	:	2025-01-10
Resolution	:	1.84 Å(reported)
Based on initial model	:	.

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the (i) symbol.

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

The following versions of software and data (see references (1)) were used in the production of this report:

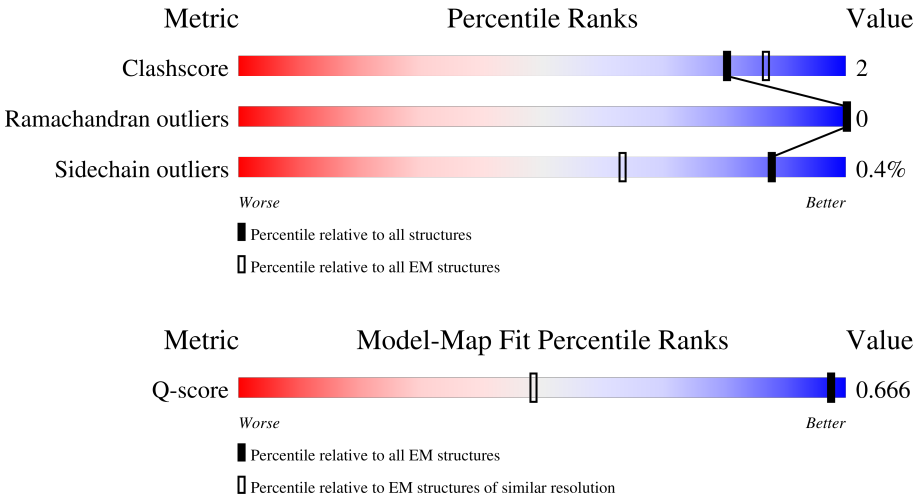
EMDB validation analysis	:	0.0.1.dev129
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4-5-2 with Phenix2.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.47

1 Overall quality at a glance

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

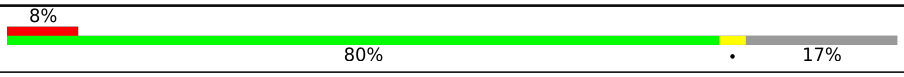
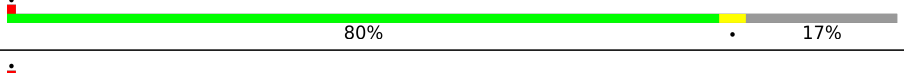
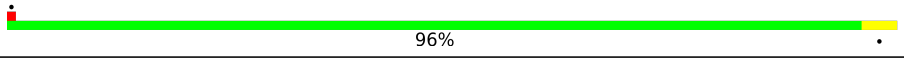
The reported resolution of this entry is 1.84 Å.

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)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	210492	15764	-
Ramachandran outliers	207382	16835	-
Sidechain outliers	206894	16415	-
Q-score	-	25397	919 (1.34 - 2.34)

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

Mol	Chain	Length	Quality of chain
1	1	370	
2	2	267	
3	A	395	
4	C	80	

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Mol	Chain	Length	Quality of chain
5	D	269	83% 5% 13%
6	E	133	49% 50%
7	F	326	66% 31%
8	I	211	29% 42% 5% 53%
9	L	277	10% 79% 19%
10	M	195	15% 57% 41%
11	R	202	9% 74% 5% 20%
12	b	293	5% 82% 15%
13	c	237	5% 77% 6% 17%
14	d	222	7% 79% 18%
15	e	217	10% 78% 19%
16	f	277	5% 85% 5% 10%
17	u	424	33% 66%
18	a	280	26% 76% 7% 16%
19	B	1139	60% 5% 35%
20	G	3	67% 100%
21	H	2	100% 100%

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
23	CLA	A	401	X	-	-	-
23	CLA	A	402	X	-	-	-
23	CLA	A	403	X	-	-	-
23	CLA	A	404	X	-	-	-
23	CLA	A	405	X	-	-	-
23	CLA	A	406	X	-	-	-
23	CLA	A	408	X	-	-	-
23	CLA	A	409	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
23	CLA	A	410	X	-	-	-
23	CLA	A	411	X	-	-	-
23	CLA	A	412	X	-	-	-
23	CLA	A	413	X	-	-	-
23	CLA	A	414	X	-	-	-
23	CLA	A	420	X	-	-	-
23	CLA	A	423	X	-	-	-
23	CLA	B	1201	X	-	-	-
23	CLA	B	1205	X	-	-	-
23	CLA	B	1206	X	-	-	-
23	CLA	B	1207	X	-	-	-
23	CLA	B	1208	X	-	-	-
23	CLA	B	1209	X	-	-	-
23	CLA	B	1210	X	-	-	-
23	CLA	B	1211	X	-	-	-
23	CLA	B	1212	X	-	-	-
23	CLA	B	1213	X	-	-	-
23	CLA	B	1214	X	-	-	-
23	CLA	B	1215	X	-	-	-
23	CLA	B	1216	X	-	-	-
23	CLA	B	1217	X	-	-	-
23	CLA	B	1218	X	-	-	-
23	CLA	B	1219	X	-	-	-
23	CLA	B	1220	X	-	-	-
23	CLA	B	1221	X	-	-	-
23	CLA	B	1222	X	-	-	-
23	CLA	B	1223	X	-	-	-
23	CLA	B	1224	X	-	-	-
23	CLA	B	1225	X	-	-	-
23	CLA	B	1226	X	-	-	-
23	CLA	B	1227	X	-	-	-
23	CLA	B	1228	X	-	-	-
23	CLA	B	1229	X	-	-	-
23	CLA	B	1230	X	-	-	-
23	CLA	B	1231	X	-	-	-
23	CLA	F	402	X	-	-	-
23	CLA	F	403	X	-	-	-
23	CLA	F	404	X	-	-	-
23	CLA	F	405	X	-	-	-
23	CLA	L	303	X	-	-	-
23	CLA	L	304	X	-	-	-
23	CLA	L	305	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
23	CLA	L	313	X	-	-	-
23	CLA	R	301	X	-	-	-
23	CLA	R	302	X	-	-	-
23	CLA	a	401	X	-	-	-
23	CLA	a	403	X	-	-	-
23	CLA	a	405	X	-	-	-
23	CLA	a	406	X	-	-	-
23	CLA	a	407	X	-	-	-
23	CLA	a	408	X	-	-	-
23	CLA	a	411	X	-	-	-
23	CLA	a	412	X	-	-	-
23	CLA	b	302	X	-	-	-
23	CLA	b	303	X	-	-	-
23	CLA	b	304	X	-	-	-
23	CLA	b	305	X	-	-	-
23	CLA	b	306	X	-	-	-
23	CLA	b	307	X	-	-	-
23	CLA	b	308	X	-	-	-
23	CLA	b	309	X	-	-	-
23	CLA	b	310	X	-	-	-
23	CLA	b	311	X	-	-	-
23	CLA	b	312	X	-	-	-
23	CLA	b	328	X	-	-	-
23	CLA	c	301	X	-	-	-
23	CLA	c	302	X	-	-	-
23	CLA	c	303	X	-	-	-
23	CLA	c	304	X	-	-	-
23	CLA	c	305	X	-	-	-
23	CLA	c	306	X	-	-	-
23	CLA	c	307	X	-	-	-
23	CLA	c	308	X	-	-	-
23	CLA	c	309	X	-	-	-
23	CLA	c	310	X	-	-	-
23	CLA	c	311	X	-	-	-
23	CLA	c	312	X	-	-	-
23	CLA	d	302	X	-	-	-
23	CLA	d	303	X	-	-	-
23	CLA	d	304	X	-	-	-
23	CLA	d	305	X	-	-	-
23	CLA	d	306	X	-	-	-
23	CLA	d	307	X	-	-	-
23	CLA	d	308	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
23	CLA	d	309	X	-	-	-
23	CLA	e	301	X	-	-	-
23	CLA	e	302	X	-	-	-
23	CLA	e	303	X	-	-	-
23	CLA	e	304	X	-	-	-
23	CLA	e	305	X	-	-	-
23	CLA	e	306	X	-	-	-
23	CLA	e	307	X	-	-	-
23	CLA	e	308	X	-	-	-
23	CLA	e	309	X	-	-	-
23	CLA	f	306	X	-	-	-
23	CLA	f	307	X	-	-	-
23	CLA	f	308	X	-	-	-
23	CLA	f	309	X	-	-	-
23	CLA	f	310	X	-	-	-
23	CLA	f	311	X	-	-	-
23	CLA	f	312	X	-	-	-
23	CLA	f	313	X	-	-	-
23	CLA	f	314	X	-	-	-
23	CLA	f	315	X	-	-	-
23	CLA	f	316	X	-	-	-
23	CLA	f	317	X	-	-	-
24	CL0	A	407	X	-	-	-
27	XAT	f	322	X	-	-	-
35	A1I05	B	1242	X	-	-	-

2 Entry composition

There are 36 unique types of molecules in this entry. The entry contains 92028 atoms, of which 45749 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 Superoxide dismutase [Fe].

Mol	Chain	Residues	Atoms						AltConf	Trace
			Total	C	H	N	O	S		
1	1	306	4916	1597	2413	428	467	11	0	0

- Molecule 2 is a protein called Superoxide dismutase [Fe].

Mol	Chain	Residues	Atoms						AltConf	Trace
			Total	C	H	N	O	S		
2	2	221	3468	1144	1696	287	332	9	0	0

- Molecule 3 is a protein called photosystem I.

Mol	Chain	Residues	Atoms						AltConf	Trace
			Total	C	H	N	O	S		
3	A	395	6285	2120	3099	522	534	10	0	0

- Molecule 4 is a protein called Photosystem I iron-sulfur center.

Mol	Chain	Residues	Atoms						AltConf	Trace
			Total	C	H	N	O	S		
4	C	80	1196	376	581	104	121	14	0	0

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

Mol	Chain	Residues	Atoms						AltConf	Trace
			Total	C	H	N	O	S		
5	D	235	3822	1205	1916	348	343	10	0	0

- Molecule 6 is a protein called Photosystem I reaction center subunit IV.

Mol	Chain	Residues	Atoms						AltConf	Trace
			Total	C	H	N	O	S		
6	E	66	1054	352	527	79	95	1	0	0

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

Mol	Chain	Residues	Atoms						AltConf	Trace
7	F	225	Total	C	H	N	O	S	0	0
			3589	1174	1802	296	311	6		

- Molecule 8 is a protein called Photosystem I protein (PsaI).

Mol	Chain	Residues	Atoms						AltConf	Trace
8	I	100	Total	C	H	N	O	S	0	0
			1553	504	767	136	143	3		

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

Mol	Chain	Residues	Atoms						AltConf	Trace
9	L	223	Total	C	H	N	O	S	0	0
			3369	1119	1656	274	312	8		

- Molecule 10 is a protein called Photosystem I protein (PsaM).

Mol	Chain	Residues	Atoms						AltConf	Trace
10	M	115	Total	C	H	N	O	S	0	0
			1861	596	919	161	182	3		

- Molecule 11 is a protein called Photosystem I protein (PsaR).

Mol	Chain	Residues	Atoms						AltConf	Trace
11	R	161	Total	C	H	N	O	S	0	0
			2617	840	1327	221	224	5		

- Molecule 12 is a protein called Plastid light harvesting protein.

Mol	Chain	Residues	Atoms						AltConf	Trace
12	b	248	Total	C	H	N	O	S	0	0
			3885	1288	1912	316	364	5		

- Molecule 13 is a protein called Plastid light harvesting protein.

Mol	Chain	Residues	Atoms						AltConf	Trace
13	c	196	Total	C	H	N	O	S	0	0
			3076	994	1538	257	277	10		

- Molecule 14 is a protein called Plastid light harvesting protein.

Mol	Chain	Residues	Atoms						AltConf	Trace
14	d	182	Total	C	H	N	O	S	0	0
			2815	907	1396	247	254	11		

- Molecule 15 is a protein called Plastid light harvesting protein.

Mol	Chain	Residues	Atoms						AltConf	Trace
15	e	175	Total	C	H	N	O	S	0	0
			2809	908	1411	232	251	7		

- Molecule 16 is a protein called Chlorophyll a-b binding protein, chloroplastic.

Mol	Chain	Residues	Atoms						AltConf	Trace
16	f	249	Total	C	H	N	O	S	0	0
			4059	1321	2010	355	364	9		

- Molecule 17 is a protein called Photosystem I protein (PsaV).

Mol	Chain	Residues	Atoms						AltConf	Trace
17	u	146	Total	C	H	N	O	S	0	0
			2389	765	1194	208	215	7		

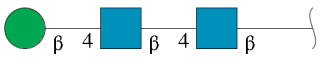
- Molecule 18 is a protein called Photosystem I P700 chlorophyll a apoprotein A1.

Mol	Chain	Residues	Atoms						AltConf	Trace
18	a	234	Total	C	H	N	O	S	0	0
			3568	1135	1817	301	310	5		

- Molecule 19 is a protein called Photosystem I protein (PsaB).

Mol	Chain	Residues	Atoms						AltConf	Trace
19	B	735	Total	C	H	N	O	S	0	0
			11726	3928	5801	965	1016	16		

- Molecule 20 is an oligosaccharide called beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.



Mol	Chain	Residues	Atoms					AltConf	Trace
20	G	3	Total	C	H	N	O	0	0
			73	22	34	2	15		

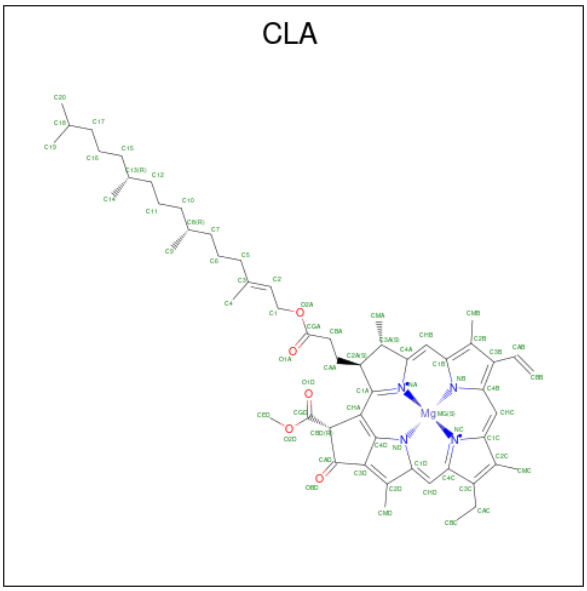
- Molecule 21 is an oligosaccharide called 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	H	2	Total	C	H	N	O	0	0
			53	16	25	2	10		

- Molecule 22 is FE (III) ION (CCD ID: FE) (formula: Fe) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
22	2	1	Total	Fe	0
			1	1	

- Molecule 23 is CHLOROPHYLL A (CCD ID: CLA) (formula: $C_{55}H_{72}MgN_4O_5$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms						AltConf
23	A	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	

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Mol	Chain	Residues	Atoms						AltConf
23	A	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	A	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	A	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	A	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	A	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	A	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	A	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	A	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	A	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	A	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	A	1	Total	C	H	Mg	N	O	0
			107	46	51	1	4	5	
23	A	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	A	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	A	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	F	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	F	1	Total	C	H	Mg	N	O	0
			119	50	59	1	4	5	
23	F	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	F	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	L	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	L	1	Total	C	H	Mg	N	O	0
			119	50	59	1	4	5	
23	L	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	

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Mol	Chain	Residues	Atoms						AltConf
23	L	1	Total 78	C 35	H 33	Mg 1	N 4	O 5	0
23	R	1	Total 78	C 35	H 33	Mg 1	N 4	O 5	0
23	R	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	b	1	Total 113	C 48	H 55	Mg 1	N 4	O 5	0
23	b	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	b	1	Total 78	C 35	H 33	Mg 1	N 4	O 5	0
23	b	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	b	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	b	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	b	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	b	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	b	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	b	1	Total 78	C 35	H 33	Mg 1	N 4	O 5	0
23	b	1	Total 102	C 44	H 48	Mg 1	N 4	O 5	0
23	b	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	c	1	Total 78	C 35	H 33	Mg 1	N 4	O 5	0
23	c	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	c	1	Total 104	C 45	H 49	Mg 1	N 4	O 5	0
23	c	1	Total 104	C 45	H 49	Mg 1	N 4	O 5	0
23	c	1	Total 77	C 35	H 32	Mg 1	N 4	O 5	0
23	c	1	Total 78	C 35	H 33	Mg 1	N 4	O 5	0

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Mol	Chain	Residues	Atoms						AltConf
23	c	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	c	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	c	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	c	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	c	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	c	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	d	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	d	1	Total	C	H	Mg	N	O	0
			107	46	51	1	4	5	
23	d	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	d	1	Total	C	H	Mg	N	O	0
			104	45	49	1	4	5	
23	d	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	d	1	Total	C	H	Mg	N	O	0
			119	50	59	1	4	5	
23	d	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	d	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	e	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	e	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	e	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	e	1	Total	C	H	Mg	N	O	0
			89	40	39	1	4	5	
23	e	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	e	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	e	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	

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Mol	Chain	Residues	Atoms						AltConf
23	e	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	e	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	f	1	Total	C	H	Mg	N	O	0
			119	50	59	1	4	5	
23	f	1	Total	C	H	Mg	N	O	0
			113	48	55	1	4	5	
23	f	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	f	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	f	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	f	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	f	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	f	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	f	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	f	1	Total	C	H	Mg	N	O	0
			104	45	49	1	4	5	
23	f	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	f	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	a	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	a	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	a	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	a	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	a	1	Total	C	H	Mg	N	O	0
			137	55	72	1	4	5	
23	a	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	
23	a	1	Total	C	H	Mg	N	O	0
			78	35	33	1	4	5	

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Mol	Chain	Residues	Atoms						AltConf
23	a	1	Total 98	C 43	H 45	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 119	C 50	H 59	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 78	C 35	H 33	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 78	C 35	H 33	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 98	C 43	H 45	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 119	C 50	H 59	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 78	C 35	H 33	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0

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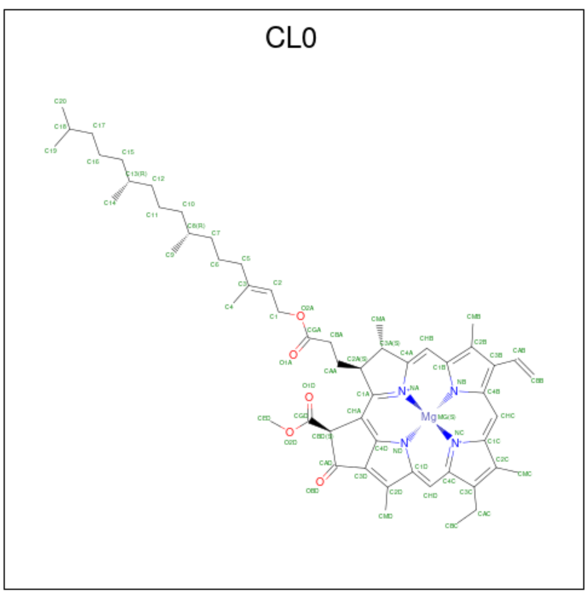
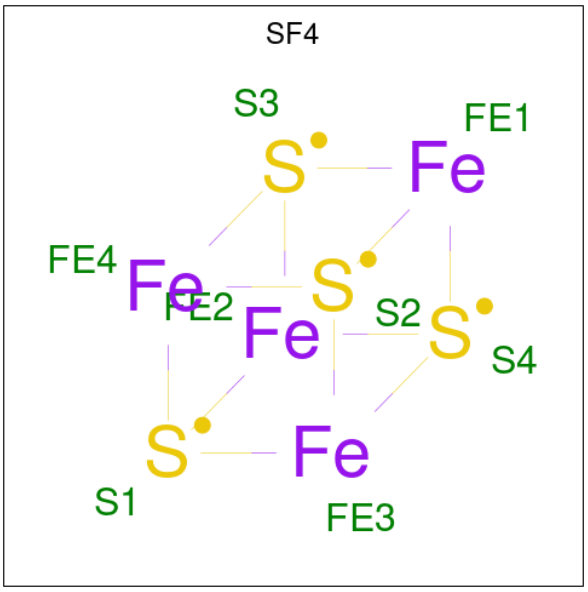
Mol	Chain	Residues	Atoms						AltConf
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0
23	B	1	Total 78	C 35	H 33	Mg 1	N 4	O 5	0

- Molecule 24 is CHLOROPHYLL A ISOMER (CCD ID: CL0) (formula: $C_{55}H_{72}MgN_4O_5$) (labeled as "Ligand of Interest" by depositor).



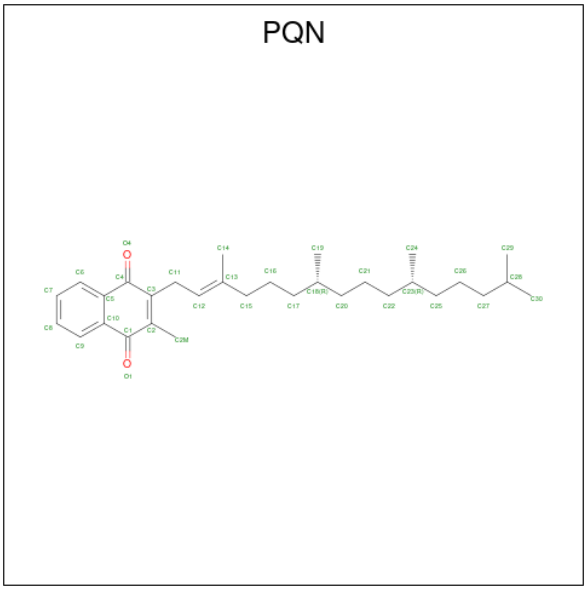
Mol	Chain	Residues	Atoms						AltConf
24	A	1	Total 137	C 55	H 72	Mg 1	N 4	O 5	0

- Molecule 25 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4) (labeled as "Ligand of Interest" by depositor).



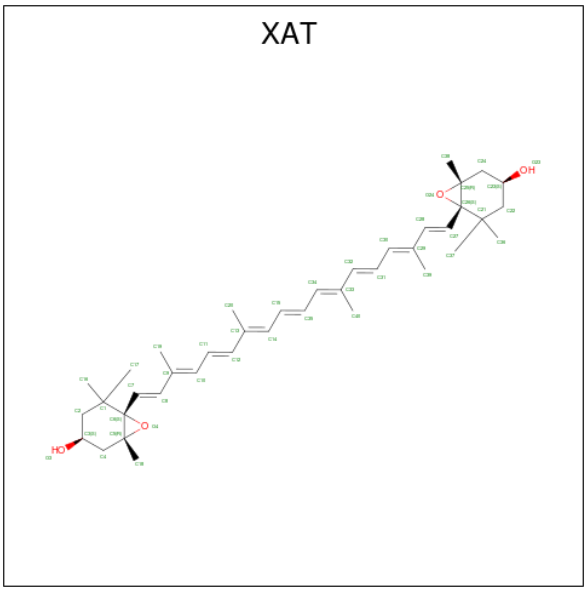
Mol	Chain	Residues	Atoms	AltConf
25	A	1	Total Fe S 8 4 4	0
25	C	1	Total Fe S 8 4 4	0
25	C	1	Total Fe S 8 4 4	0

- Molecule 26 is PHYLLOQUINONE (CCD ID: PQN) (formula: $C_{31}H_{46}O_2$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
26	A	1	Total	C	H	O	0
			79	31	46	2	
26	B	1	Total	C	H	O	0
			79	31	46	2	

- Molecule 27 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 (CCD ID: XAT) (formula: $C_{40}H_{56}O_4$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
27	A	1	Total	C	H	O	0
			100	40	56	4	
27	R	1	Total	C	H	O	0
			100	40	56	4	
27	R	1	Total	C	H	O	0
			100	40	56	4	
27	b	1	Total	C	H	O	0
			100	40	56	4	
27	b	1	Total	C	H	O	0
			100	40	56	4	
27	b	1	Total	C	H	O	0
			100	40	56	4	
27	b	1	Total	C	H	O	0
			100	40	56	4	
27	c	1	Total	C	H	O	0
			100	40	56	4	
27	c	1	Total	C	H	O	0
			100	40	56	4	

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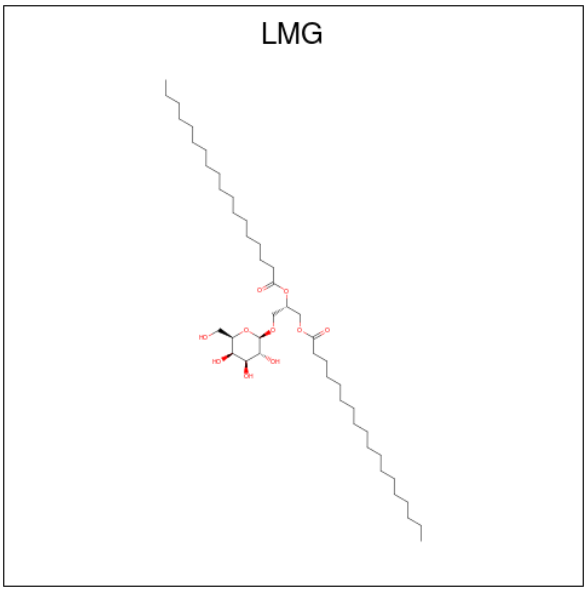
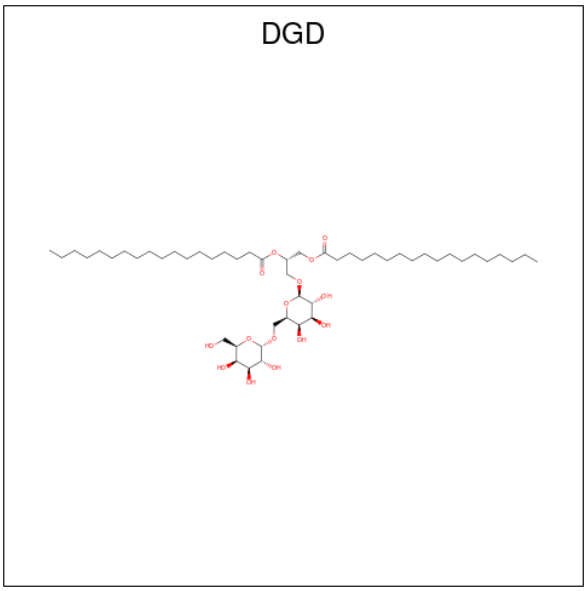
Mol	Chain	Residues	Atoms				AltConf
27	c	1	Total	C	H	O	0
			100	40	56	4	
27	c	1	Total	C	H	O	0
			100	40	56	4	
27	d	1	Total	C	H	O	0
			100	40	56	4	
27	d	1	Total	C	H	O	0
			100	40	56	4	
27	d	1	Total	C	H	O	0
			100	40	56	4	
27	d	1	Total	C	H	O	0
			100	40	56	4	
27	e	1	Total	C	H	O	0
			100	40	56	4	
27	e	1	Total	C	H	O	0
			100	40	56	4	
27	f	1	Total	C	H	O	0
			100	40	56	4	
27	f	1	Total	C	H	O	0
			100	40	56	4	
27	f	1	Total	C	H	O	0
			100	40	56	4	
27	f	1	Total	C	H	O	0
			100	40	56	4	
27	a	1	Total	C	H	O	0
			100	40	56	4	

- Molecule 28 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (CCD ID: LMG) (formula: $C_{45}H_{86}O_{10}$) (labeled as "Ligand of Interest" by depositor).



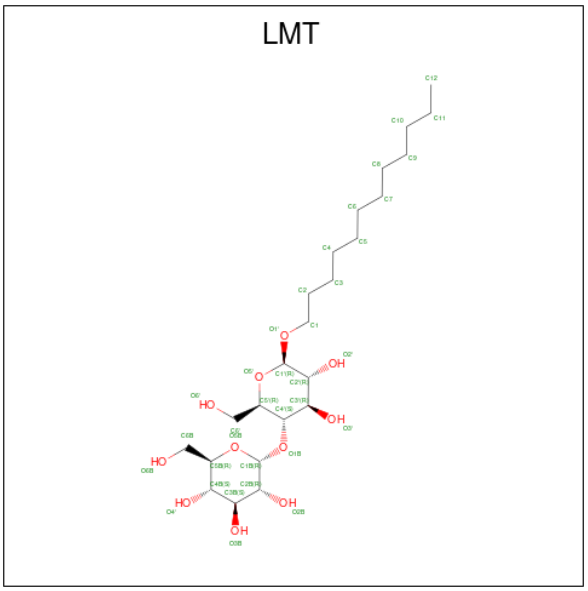
Mol	Chain	Residues	Atoms				AltConf
28	A	1	Total 72	C 26	H 41	O 5	0
28	A	1	Total 69	C 23	H 36	O 10	0
28	F	1	Total 141	C 45	H 86	O 10	0
28	F	1	Total 105	C 35	H 60	O 10	0
28	L	1	Total 55	C 18	H 35	O 2	0
28	L	1	Total 119	C 39	H 75	O 5	0
28	R	1	Total 54	C 18	H 26	O 10	0
28	b	1	Total 81	C 27	H 44	O 10	0
28	b	1	Total 123	C 40	H 73	O 10	0
28	b	1	Total 78	C 26	H 42	O 10	0
28	f	1	Total 141	C 45	H 86	O 10	0

- Molecule 29 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (CCD ID: DGD) (formula: $C_{51}H_{96}O_{15}$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
29	A	1	Total	C	H	O	0
			111	35	61	15	
29	F	1	Total	C	H	O	0
			162	51	96	15	
29	b	1	Total	C	H	O	0
			99	32	52	15	
29	b	1	Total	C	H	O	0
			105	34	56	15	
29	c	1	Total	C	H	O	0
			111	36	60	15	
29	u	1	Total	C	H	O	0
			120	39	66	15	

- Molecule 30 is DODECYL-BETA-D-MALTOSIDE (CCD ID: LMT) (formula: $C_{24}H_{46}O_{11}$).



Mol	Chain	Residues	Atoms				AltConf
30	A	1	Total	C	H	O	0
			38	12	25	1	
30	F	1	Total	C	H	O	0
			38	12	25	1	
30	F	1	Total	C	H	O	0
			59	18	35	6	
30	F	1	Total	C	H	O	0
			38	12	25	1	
30	F	1	Total	C	H	O	0
			38	12	25	1	
30	F	1	Total	C	H	O	0
			38	12	25	1	
30	F	1	Total	C	H	O	0
			81	24	46	11	
30	L	1	Total	C	H	O	0
			38	12	25	1	
30	L	1	Total	C	H	O	0
			38	12	25	1	
30	L	1	Total	C	H	O	0
			38	12	25	1	
30	L	1	Total	C	H	O	0
			38	12	25	1	
30	R	1	Total	C	H	O	0
			38	12	25	1	
30	R	1	Total	C	H	O	0
			38	12	25	1	
30	b	1	Total	C	H	O	0
			59	18	35	6	

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Mol	Chain	Residues	Atoms	AltConf
30	b	1	Total C H O 38 12 25 1	0
30	b	1	Total C H O 38 12 25 1	0
30	b	1	Total C H 23 8 15	0
30	b	1	Total C H O 38 12 25 1	0
30	b	1	Total C H O 47 15 26 6	0
30	c	1	Total C H O 72 22 39 11	0
30	c	1	Total C H O 81 24 46 11	0
30	c	1	Total C H O 81 24 46 11	0
30	c	1	Total C H 20 7 13	0
30	c	1	Total C H O 59 18 35 6	0
30	c	1	Total C H O 38 12 25 1	0
30	c	1	Total C H O 38 12 25 1	0
30	c	1	Total C H O 38 12 25 1	0
30	c	1	Total C H O 38 12 25 1	0
30	c	1	Total C H O 38 12 25 1	0
30	c	1	Total C H O 38 12 25 1	0
30	c	1	Total C H O 38 12 25 1	0
30	c	1	Total C H O 81 24 46 11	0
30	c	1	Total C H O 81 24 46 11	0
30	c	1	Total C H O 38 12 25 1	0
30	c	1	Total C H O 38 12 25 1	0

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Mol	Chain	Residues	Atoms	AltConf
30	d	1	Total C H O 38 12 25 1	0
30	d	1	Total C H O 38 12 25 1	0
30	d	1	Total C H O 81 24 46 11	0
30	d	1	Total C H O 38 12 25 1	0
30	d	1	Total C H O 38 12 25 1	0
30	d	1	Total C H O 38 12 25 1	0
30	d	1	Total C H O 38 12 25 1	0
30	d	1	Total C H O 38 12 25 1	0
30	e	1	Total C H O 38 12 25 1	0
30	e	1	Total C H 20 7 13	0
30	e	1	Total C H O 38 12 25 1	0
30	e	1	Total C H O 38 12 25 1	0
30	e	1	Total C H 26 9 17	0
30	e	1	Total C H O 81 24 46 11	0
30	f	1	Total C H O 38 12 25 1	0
30	f	1	Total C H O 59 18 35 6	0
30	f	1	Total C H O 38 12 25 1	0
30	f	1	Total C H O 38 12 25 1	0
30	f	1	Total C H 32 11 21	0
30	f	1	Total C H O 38 12 25 1	0
30	f	1	Total C H O 81 24 46 11	0

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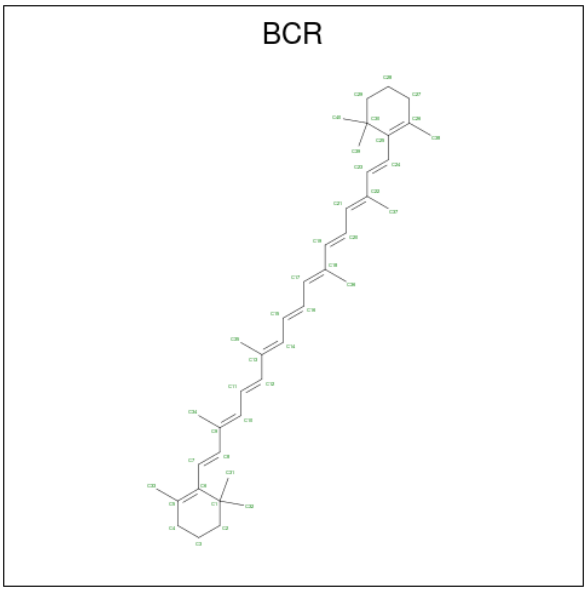
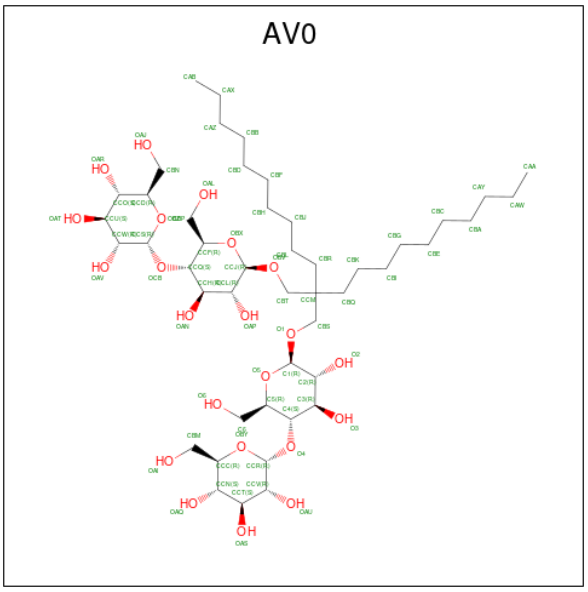
Mol	Chain	Residues	Atoms	AltConf
30	f	1	Total C H O 38 12 25 1	0
30	f	1	Total C H O 59 18 35 6	0
30	a	1	Total C H 23 8 15	0
30	a	1	Total C H O 81 24 46 11	0
30	B	1	Total C H O 38 12 25 1	0
30	B	1	Total C H O 54 16 27 11	0
30	B	1	Total C H O 38 12 25 1	0
30	B	1	Total C H O 38 12 25 1	0
30	B	1	Total C H O 38 12 25 1	0
30	B	1	Total C H O 38 12 25 1	0
30	B	1	Total C H O 59 18 35 6	0
30	B	1	Total C H O 38 12 25 1	0
30	B	1	Total C H O 38 12 25 1	0
30	B	1	Total C H 26 9 17	0
30	B	1	Total C H 32 11 21	0

- Molecule 31 is BETA-CAROTENE (CCD ID: BCR) (formula: $C_{40}H_{56}$) (labeled as "Ligand of Interest" by depositor).



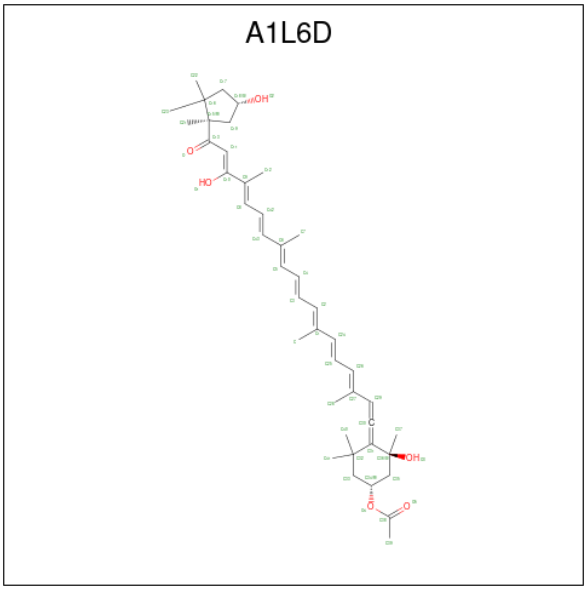
Mol	Chain	Residues	Atoms	AltConf
31	F	1	Total C H 96 40 56	0
31	L	1	Total C H 96 40 56	0
31	L	1	Total C H 96 40 56	0
31	b	1	Total C H 96 40 56	0
31	a	1	Total C H 53 23 30	0
31	B	1	Total C H 96 40 56	0
31	B	1	Total C H 96 40 56	0
31	B	1	Total C H 96 40 56	0

- Molecule 32 is Lauryl Maltose Neopentyl Glycol (CCD ID: AV0) (formula: $C_{47}H_{88}O_{22}$).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	H	O	
32	L	1	113	35	66	12	0

- Molecule 33 is [(1 {R},5 {S})-3,3,5-trimethyl-5-oxidanyl-4-[(3 {E},5 {E},7 {E},9 {E},11 {E},13 {E},15 {E},17 {Z})-3,7,12,16-tetramethyl-17-oxidanyl-19-oxidanylidene-19-[(1 {R},4 {S})-1,2,2-trimethyl-4-oxidanyl-cyclopentyl]nonadeca-1,3,5,7,9,11,13,15,17-nonaenylidene]cyclohexyl] ethanoate (CCD ID: A1L6D) (formula: $C_{42}H_{58}O_6$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	H	O	
33	d	1	106	42	58	6	0

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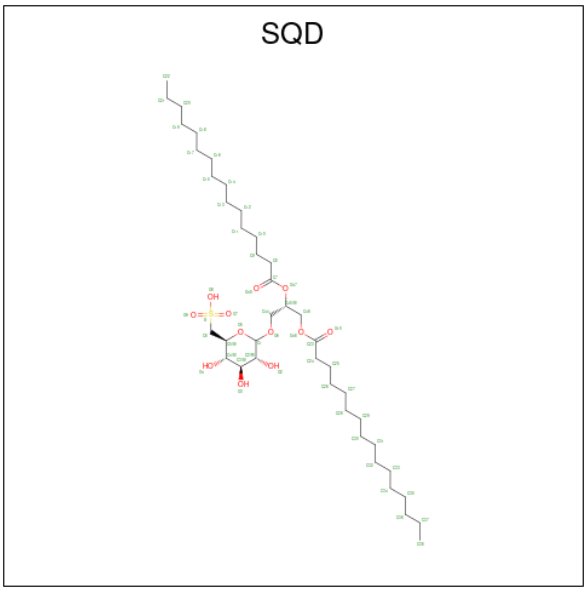
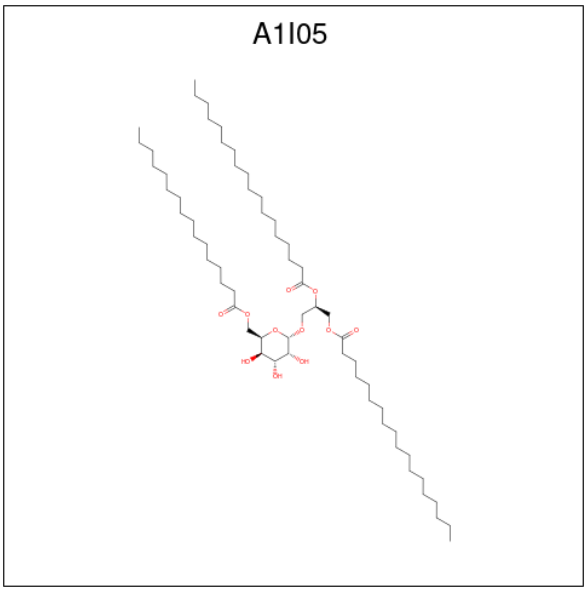
Mol	Chain	Residues	Atoms				AltConf
33	e	1	Total	C	H	O	0
			106	42	58	6	
33	f	1	Total	C	H	O	0
			106	42	58	6	
33	B	1	Total	C	H	O	0
			106	42	58	6	

- Molecule 34 is 1,2-DI-O-ACYL-3-O-[6-DEOXY-6-SULFO-ALPHA-D-GLUCOPYRANOSYL]-SN-GLYCEROL (CCD ID: SQD) (formula: $C_{41}H_{78}O_{12}S$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
34	d	1	Total	C	H	O	S	0
			75	24	38	12	1	

- Molecule 35 is [(2 {R})-3-[(2 {S},3 {R},4 {R},5 {R},6 {R})-6-(hexadecanoyloxymethyl)-3,4,5-tris(oxidanyl)oxan-2-yl]oxy-2-octadecanoyloxy-propyl] octadecanoate (CCD ID: A1I05) (formula: $C_{61}H_{116}O_{11}$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
35	B	1	Total	C	H	O	0
			119	41	67	11	

- Molecule 36 is water.

Mol	Chain	Residues	Atoms		AltConf
36	1	217	Total	O	0
			217	217	
36	2	93	Total	O	0
			93	93	
36	A	143	Total	O	0
			143	143	
36	C	75	Total	O	0
			75	75	
36	D	154	Total	O	0
			154	154	
36	E	45	Total	O	0
			45	45	
36	F	77	Total	O	0
			77	77	
36	I	34	Total	O	0
			34	34	
36	L	62	Total	O	0
			62	62	
36	M	28	Total	O	0
			28	28	
36	R	40	Total	O	0
			40	40	

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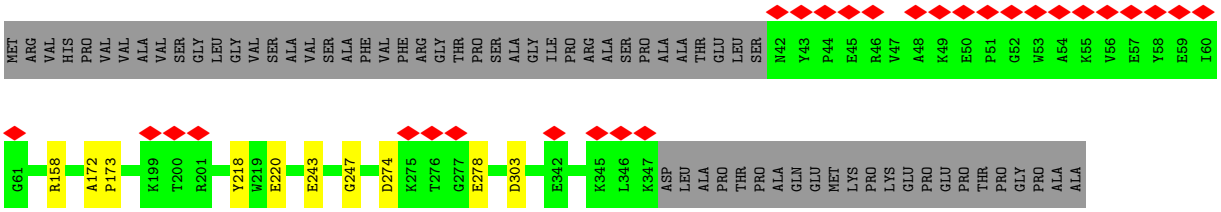
Mol	Chain	Residues	Atoms	AltConf
36	b	89	Total O 89 89	0
36	c	34	Total O 34 34	0
36	d	44	Total O 44 44	0
36	e	16	Total O 16 16	0
36	f	49	Total O 49 49	0
36	u	39	Total O 39 39	0
36	a	57	Total O 57 57	0
36	B	262	Total O 262 262	0

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.

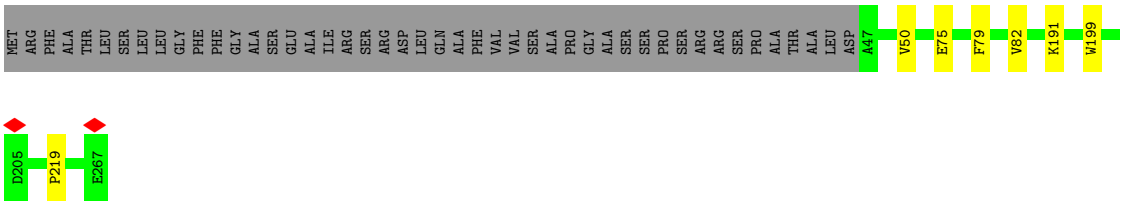
• Molecule 1: Superoxide dismutase [Fe]

Chain 1:



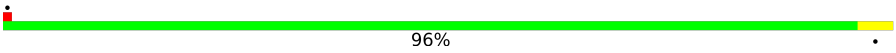
• Molecule 2: Superoxide dismutase [Fe]

Chain 2:



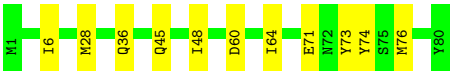
• Molecule 3: photosystem I

Chain A:



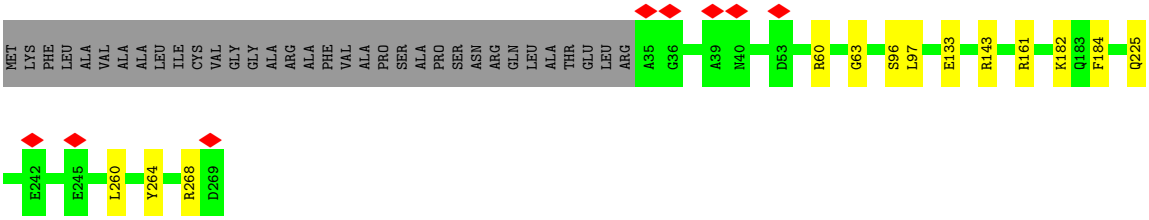
• Molecule 4: Photosystem I iron-sulfur center

Chain C:



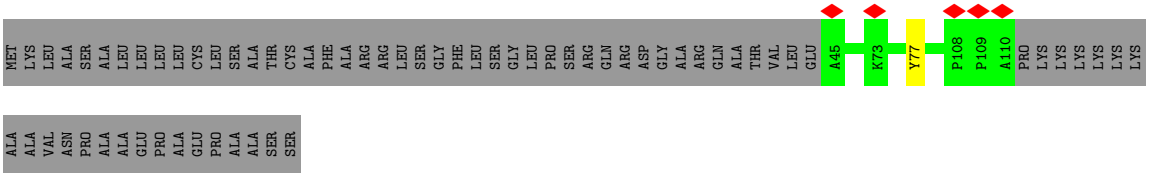
• Molecule 5: Photosystem I reaction center subunit II

Chain D:



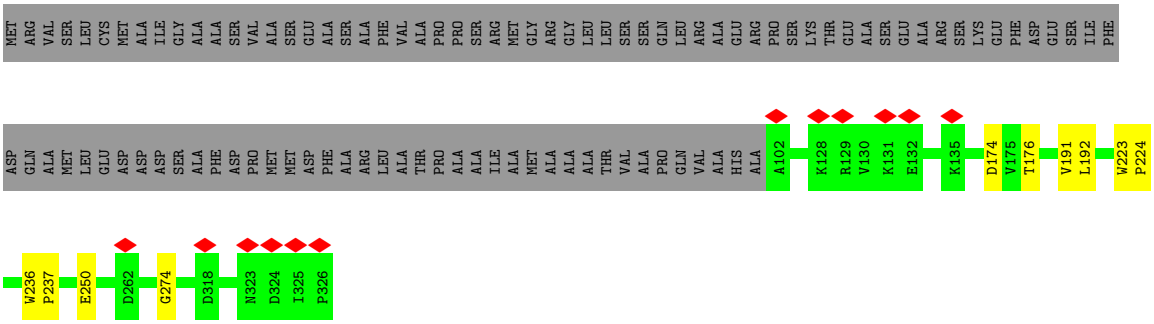
• Molecule 6: Photosystem I reaction center subunit IV

Chain E:



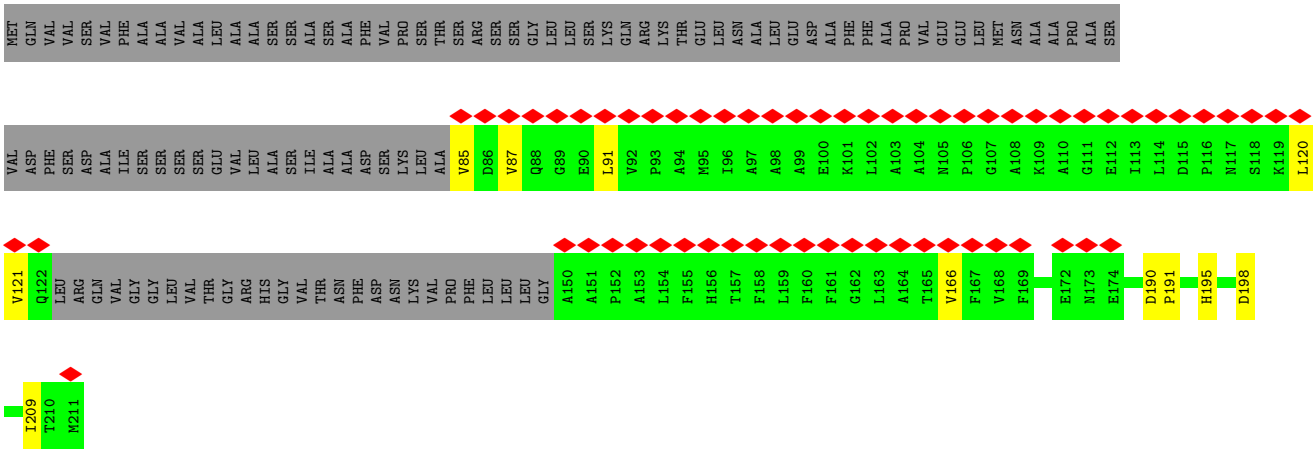
• Molecule 7: Photosystem I reaction center subunit III

Chain F:



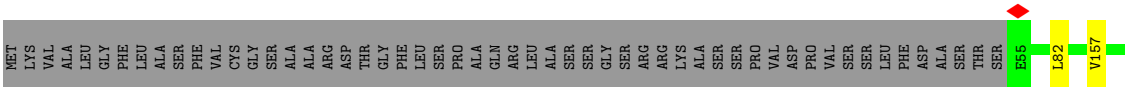
• Molecule 8: Photosystem I protein (PsaI)

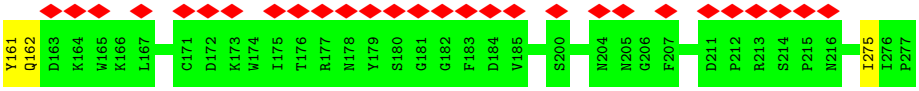
Chain I:



• Molecule 9: Photosystem I reaction center subunit V

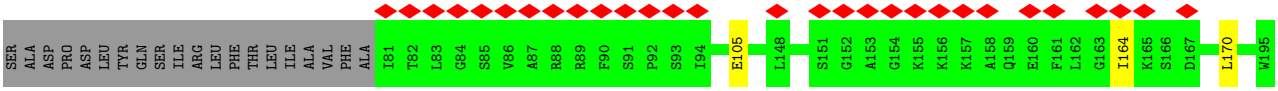
Chain L:





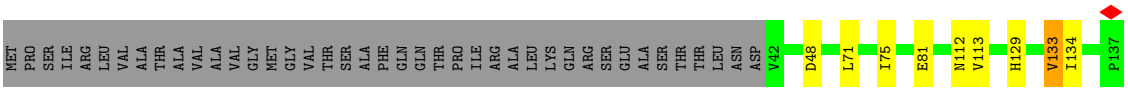
• Molecule 10: Photosystem I protein (PsaM)

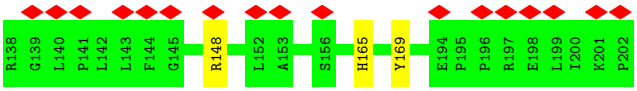
Chain M:



• Molecule 11: Photosystem I protein (PsaR)

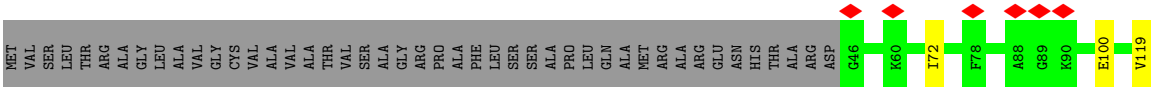
Chain R:

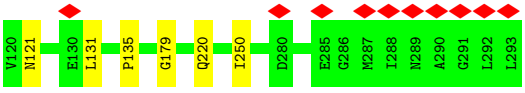




• Molecule 12: Plastid light harvesting protein

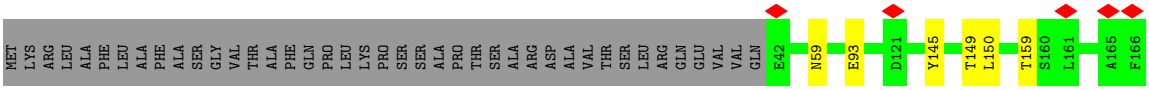
Chain b:

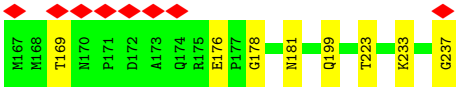




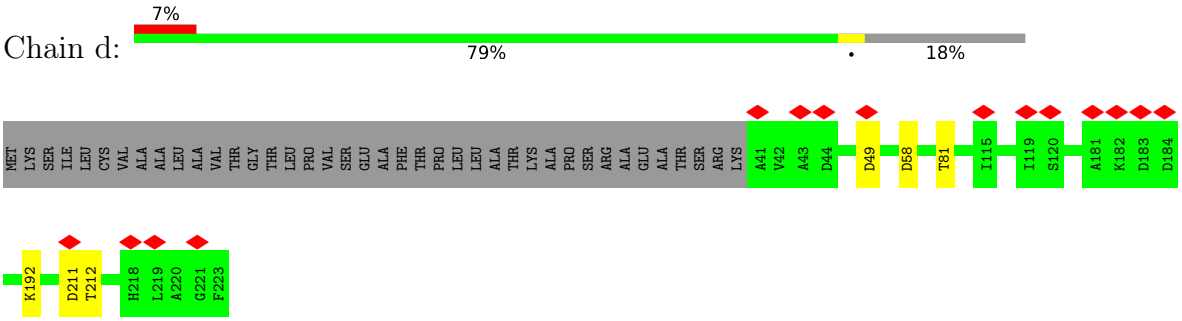
• Molecule 13: Plastid light harvesting protein

Chain c:

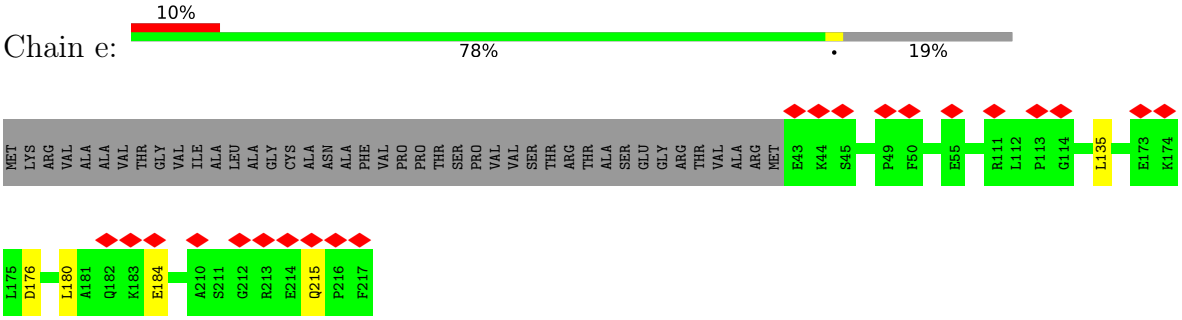




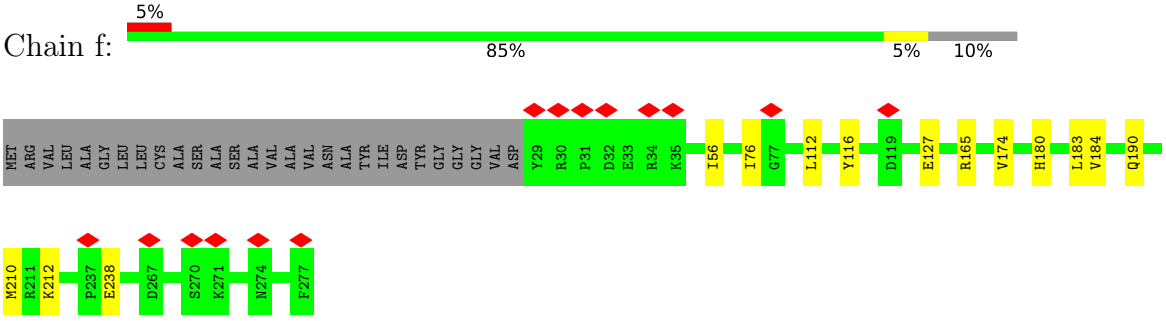
• Molecule 14: Plastid light harvesting protein



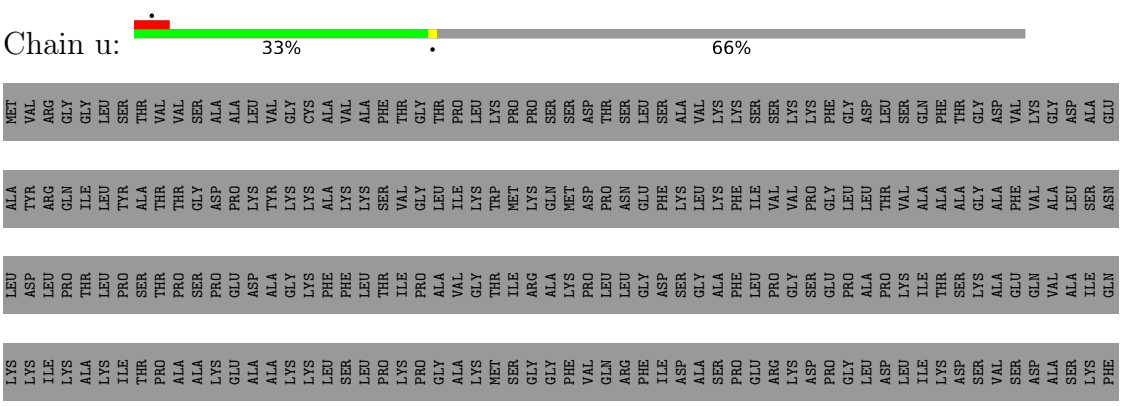
• Molecule 15: Plastid light harvesting protein

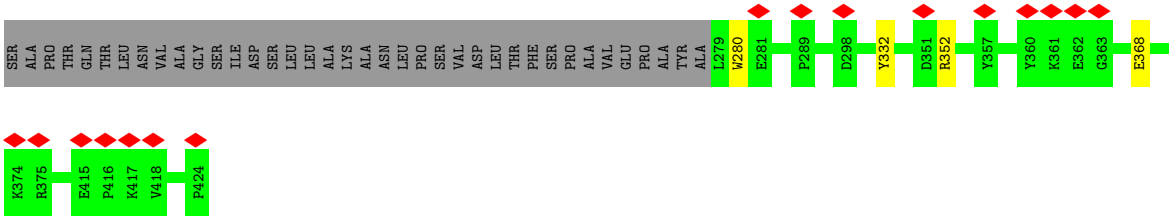


• Molecule 16: Chlorophyll a-b binding protein, chloroplastic



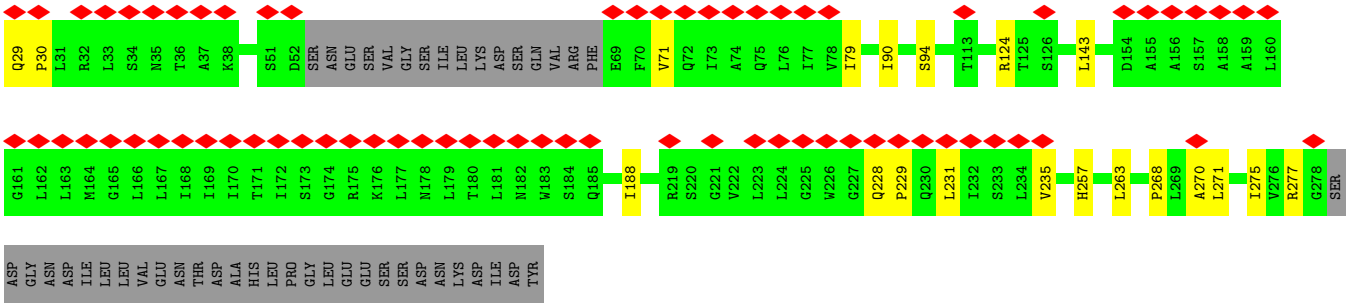
• Molecule 17: Photosystem I protein (PsaV)





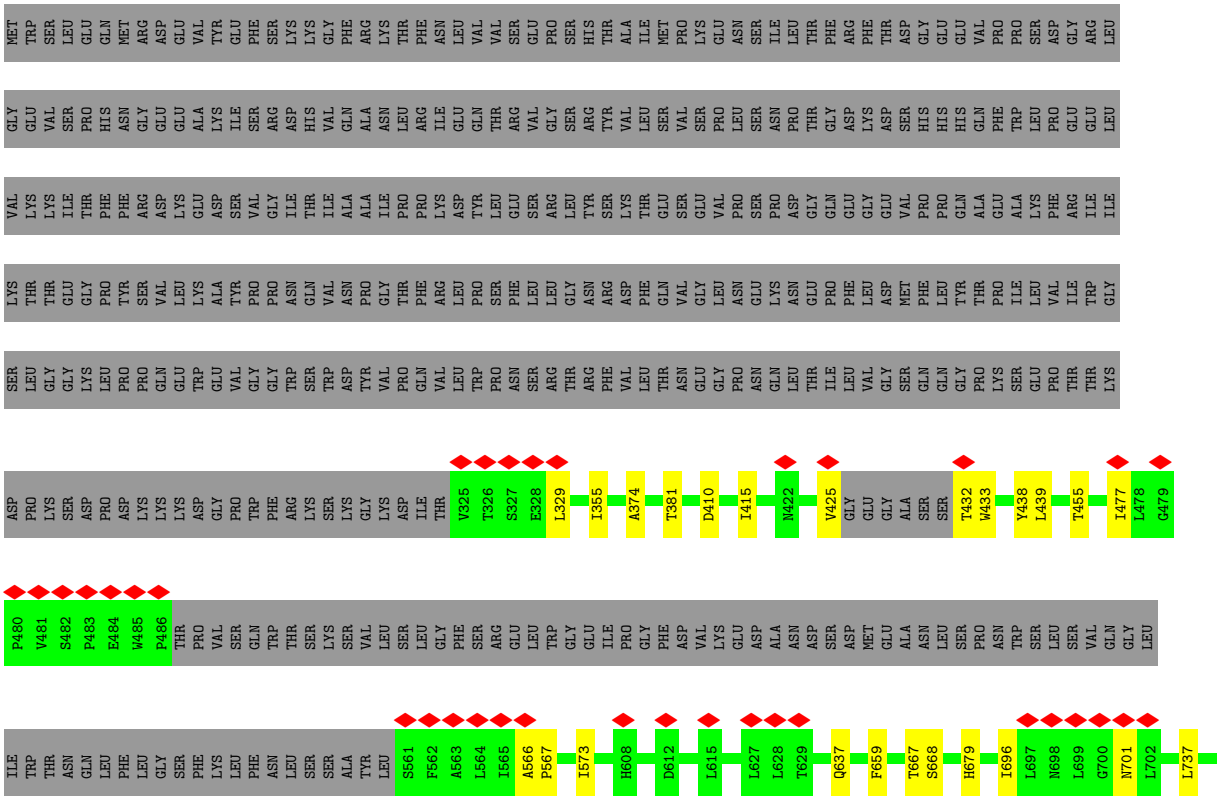
• Molecule 18: Photosystem I P700 chlorophyll a apoprotein A1

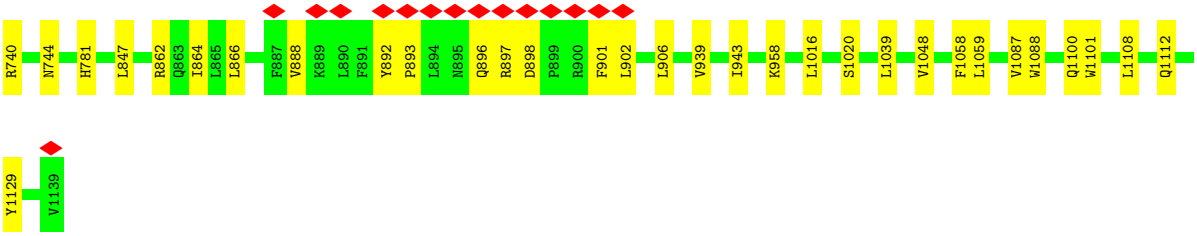
Chain a:



• Molecule 19: Photosystem I protein (PsaB)

Chain B:



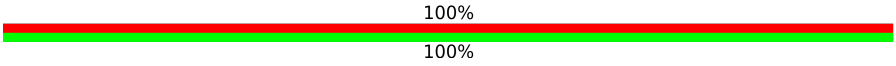


• Molecule 20: beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain G:

• Molecule 21: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain H:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	532822	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION; CTF estimation were performed on the raw data in cryoSPARC's Live session	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	40	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	2100	Depositor
Magnification	165000	Depositor
Image detector	FEI FALCON IV (4k x 4k)	Depositor
Maximum map value	153.803	Depositor
Minimum map value	-48.503	Depositor
Average map value	0.015	Depositor
Map value standard deviation	1.246	Depositor
Recommended contour level	8	Depositor
Map size (Å)	364.5, 364.5, 364.5	wwPDB
Map dimensions	500, 500, 500	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.729, 0.729, 0.729	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: A1I05, DGD, FE, PQN, A1L6D, BMA, AV0, LMT, NAG, CLA, SF4, XAT, LMG, SQD, BCR, CL0

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	1	0.09	0/2574	0.25	0/3489
2	2	0.11	0/1824	0.25	0/2467
3	A	0.13	0/3297	0.29	0/4499
4	C	0.12	0/625	0.32	0/846
5	D	0.10	0/1949	0.26	0/2611
6	E	0.10	0/543	0.26	0/737
7	F	0.10	0/1839	0.24	0/2492
8	I	0.09	0/807	0.23	0/1093
9	L	0.09	0/1773	0.24	0/2418
10	M	0.08	0/961	0.20	0/1285
11	R	0.09	0/1323	0.25	0/1800
12	b	0.09	0/2027	0.23	0/2752
13	c	0.12	0/1577	0.26	0/2134
14	d	0.10	0/1452	0.24	0/1962
15	e	0.10	0/1431	0.24	0/1926
16	f	0.12	0/2104	0.25	0/2839
17	u	0.09	0/1229	0.22	0/1651
18	a	0.10	0/1785	0.26	0/2444
19	B	0.12	0/6125	0.28	0/8373
All	All	0.11	0/35245	0.26	0/47818

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1	2503	2413	2412	6	0
2	2	1772	1696	1701	3	0
3	A	3186	3099	3099	16	0
4	C	615	581	580	8	0
5	D	1906	1916	1916	10	0
6	E	527	527	527	1	0
7	F	1787	1802	1805	9	0
8	I	786	767	767	9	0
9	L	1713	1656	1656	6	0
10	M	942	919	921	2	0
11	R	1290	1327	1327	10	0
12	b	1973	1912	1914	7	0
13	c	1538	1538	1537	14	0
14	d	1419	1396	1396	4	0
15	e	1398	1411	1411	3	0
16	f	2049	2010	2011	12	0
17	u	1195	1194	1194	3	0
18	a	1751	1817	1824	19	0
19	B	5925	5801	5809	37	0
20	G	39	34	34	0	0
21	H	28	25	25	0	0
22	2	1	0	0	0	0
23	A	906	942	942	20	0
23	B	1718	1807	1807	22	0
23	F	235	236	236	1	0
23	L	215	197	197	5	0
23	R	110	105	105	2	0
23	a	448	432	432	2	0
23	b	722	745	745	9	0
23	c	660	622	623	11	0
23	d	456	441	441	2	0
23	e	550	576	576	1	0
23	f	658	616	616	6	0
24	A	65	72	72	0	0
25	A	8	0	0	0	0
25	C	16	0	0	0	0
26	A	33	46	46	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	B	33	46	46	0	0
27	A	44	56	56	0	0
27	R	88	112	112	1	0
27	a	44	56	56	3	0
27	b	176	224	224	3	0
27	c	176	224	224	1	0
27	d	176	224	224	2	0
27	e	88	112	112	3	0
27	f	176	224	224	2	0
28	A	64	77	77	0	0
28	F	100	146	146	1	0
28	L	64	110	110	0	0
28	R	28	26	26	1	0
28	b	123	159	159	1	0
28	f	55	86	86	0	0
29	A	50	61	61	0	0
29	F	66	96	96	0	0
29	b	96	108	108	1	0
29	c	51	60	60	1	0
29	u	54	66	66	0	0
30	A	13	25	25	0	0
30	B	162	275	275	2	0
30	F	111	181	181	2	0
30	L	52	100	100	0	0
30	R	26	50	50	0	0
30	a	43	61	61	2	0
30	b	92	151	151	0	0
30	c	321	496	496	5	0
30	d	126	221	221	0	0
30	e	90	151	151	0	0
30	f	159	262	262	1	0
31	B	120	168	168	3	0
31	F	40	56	56	4	0
31	L	80	112	112	3	0
31	a	23	30	30	2	0
31	b	40	56	56	1	0
32	L	47	66	0	0	0
33	B	48	58	0	0	0
33	d	48	58	0	1	0
33	e	48	58	0	0	0
33	f	48	58	0	0	0
34	d	37	38	38	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
35	B	52	67	0	0	0
36	1	217	0	0	2	0
36	2	93	0	0	0	0
36	A	143	0	0	2	0
36	B	262	0	0	3	0
36	C	75	0	0	1	0
36	D	154	0	0	3	0
36	E	45	0	0	0	0
36	F	77	0	0	2	0
36	I	34	0	0	1	0
36	L	62	0	0	0	0
36	M	28	0	0	1	0
36	R	40	0	0	1	0
36	a	57	0	0	0	0
36	b	89	0	0	0	0
36	c	34	0	0	0	0
36	d	44	0	0	0	0
36	e	16	0	0	0	0
36	f	49	0	0	0	0
36	u	39	0	0	2	0
All	All	46279	45749	45410	222	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 2.

All (222) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:F:174:ASP:OD2	7:F:176:THR:OG1	1.89	0.91
3:A:153:ASN:ND2	36:u:601:HOH:O	2.11	0.84
16:f:116:TYR:OH	16:f:127:GLU:OE2	1.98	0.79
19:B:410:ASP:OD1	36:B:1301:HOH:O	2.02	0.78
17:u:332:TYR:OH	36:u:601:HOH:O	2.02	0.77
3:A:205:ASN:ND2	36:A:501:HOH:O	2.20	0.74
4:C:45:GLN:OE1	36:C:201:HOH:O	2.04	0.74
5:D:264:TYR:O	36:D:301:HOH:O	2.07	0.73
1:1:303:ASP:OD2	36:1:401:HOH:O	2.07	0.73
14:d:81:THR:OG1	33:d:314:A1L6D:O5	2.06	0.73
19:B:439:LEU:O	36:B:1302:HOH:O	2.08	0.71
19:B:892:TYR:O	19:B:896:GLN:N	2.23	0.71
7:F:250:GLU:OE2	36:F:501:HOH:O	2.08	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:191:PRO:O	36:I:301:HOH:O	2.11	0.68
31:F:401:BCR:H23C	31:F:401:BCR:H392	1.75	0.68
4:C:74:TYR:OH	5:D:133:GLU:OE2	2.13	0.67
16:f:238:GLU:OE1	16:f:238:GLU:N	2.27	0.66
19:B:1108:LEU:HD22	19:B:1112:GLN:NE2	2.09	0.66
7:F:250:GLU:OE2	36:F:502:HOH:O	2.12	0.66
13:c:176:GLU:OE2	13:c:199:GLN:NE2	2.27	0.66
18:a:263:LEU:HD12	27:a:410:XAT:H381	1.78	0.65
23:A:414:CLA:H101	23:A:414:CLA:H142	1.78	0.65
11:R:48:ASP:OD1	36:R:401:HOH:O	2.13	0.65
16:f:165:ARG:NH1	16:f:174:VAL:O	2.31	0.64
10:M:105:GLU:OE1	36:M:201:HOH:O	2.14	0.64
23:c:306:CLA:HMB1	23:c:306:CLA:HBB1	1.80	0.63
23:B:1215:CLA:H143	23:B:1215:CLA:H102	1.82	0.61
13:c:149:THR:HG22	23:c:304:CLA:C2	2.32	0.60
11:R:148:ARG:HH22	23:B:1222:CLA:HMD2	1.67	0.60
23:B:1206:CLA:HMB1	23:B:1206:CLA:HBB1	1.85	0.59
11:R:112:ASN:OD1	11:R:113:VAL:N	2.36	0.58
13:c:150:LEU:HD22	23:c:312:CLA:HMA3	1.85	0.58
5:D:60:ARG:NH1	36:D:307:HOH:O	2.38	0.57
14:d:211:ASP:O	14:d:212:THR:HG22	2.03	0.57
19:B:637:GLN:O	36:B:1303:HOH:O	2.17	0.57
23:d:306:CLA:HMC1	27:d:310:XAT:C11	2.36	0.56
14:d:58:ASP:OD1	27:d:311:XAT:O23	2.14	0.56
30:a:409:LMT:H3O2	30:a:409:LMT:H2O1	1.49	0.56
5:D:182:LYS:NZ	8:I:190:ASP:OD2	2.31	0.56
7:F:192:LEU:HD23	28:F:409:LMG:H332	1.87	0.56
31:F:401:BCR:H331	31:F:401:BCR:C8	2.36	0.55
3:A:54:PHE:HB2	23:A:420:CLA:H41	1.89	0.54
16:f:183:LEU:HD11	23:f:308:CLA:HED1	1.90	0.54
30:a:409:LMT:O2B	30:a:409:LMT:O3'	2.24	0.54
3:A:373:LEU:HG	23:A:420:CLA:H143	1.90	0.53
9:L:82:LEU:HD21	23:L:304:CLA:H91	1.91	0.53
15:e:184:GLU:OE1	15:e:184:GLU:N	2.38	0.52
3:A:54:PHE:CB	23:A:420:CLA:H41	2.40	0.52
19:B:355:ILE:CG2	19:B:573:ILE:HG23	2.40	0.52
9:L:82:LEU:HD21	23:L:304:CLA:C9	2.40	0.51
12:b:131:LEU:HD12	23:b:305:CLA:O1D	2.10	0.51
9:L:162:GLN:NE2	19:B:1100:GLN:O	2.43	0.51
13:c:169:THR:HG23	23:c:305:CLA:CBB	2.40	0.51
23:c:312:CLA:H141	30:c:329:LMT:H123	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:a:263:LEU:HD12	27:a:410:XAT:C38	2.40	0.51
12:b:250:ILE:HG13	23:b:311:CLA:HBC3	1.91	0.51
30:c:331:LMT:O6'	30:c:331:LMT:O2B	2.20	0.51
23:e:306:CLA:H43	27:e:310:XAT:H242	1.92	0.51
13:c:150:LEU:CD2	23:c:312:CLA:HMA3	2.41	0.51
3:A:374:ALA:HA	23:A:420:CLA:H142	1.92	0.51
11:R:112:ASN:OD1	11:R:113:VAL:HG23	2.11	0.51
23:A:420:CLA:HED3	18:a:79:ILE:HD11	1.93	0.51
16:f:183:LEU:HD12	23:f:308:CLA:HMA2	1.93	0.51
23:A:420:CLA:O1D	18:a:79:ILE:HD11	2.12	0.50
12:b:72:ILE:HD12	12:b:72:ILE:C	2.36	0.50
2:2:79:PHE:O	2:2:82:VAL:HG22	2.12	0.50
13:c:149:THR:HG22	23:c:304:CLA:H2	1.94	0.50
19:B:1039:LEU:HD21	19:B:1058:PHE:CD1	2.47	0.49
23:A:404:CLA:HMB1	31:L:306:BCR:C36	2.42	0.49
23:A:401:CLA:HMB1	23:A:401:CLA:HBB1	1.94	0.49
10:M:164:ILE:HD13	10:M:170:LEU:HD23	1.94	0.49
19:B:679:HIS:HE1	23:B:1219:CLA:ND	2.10	0.49
19:B:696:ILE:HD12	23:B:1225:CLA:HMB3	1.94	0.49
12:b:220:GLN:OE1	29:b:318:DGD:O2D	2.31	0.48
19:B:744:ASN:ND2	23:B:1209:CLA:OBD	2.39	0.48
4:C:36:GLN:NE2	6:E:77:TYR:OH	2.47	0.48
19:B:415:ILE:HG13	19:B:1048:VAL:HG23	1.95	0.48
30:F:414:LMT:O5B	30:F:414:LMT:O3'	2.16	0.48
1:1:274:ASP:OD1	1:1:278:GLU:N	2.47	0.47
12:b:100:GLU:OE1	12:b:179:GLY:N	2.47	0.47
5:D:260:LEU:C	5:D:260:LEU:HD12	2.39	0.47
19:B:477:ILE:O	19:B:477:ILE:HG22	2.15	0.47
23:b:303:CLA:HMC2	27:b:314:XAT:C31	2.44	0.47
19:B:897:ARG:NH1	19:B:898:ASP:OD2	2.47	0.47
11:R:129:HIS:O	11:R:133:VAL:HG12	2.14	0.47
23:B:1215:CLA:H143	23:B:1215:CLA:C10	2.44	0.47
23:A:402:CLA:HMD2	23:A:409:CLA:HBB2	1.97	0.47
18:a:90:ILE:O	18:a:94:SER:OG	2.25	0.47
19:B:659:PHE:O	19:B:901:PHE:HB2	2.14	0.47
19:B:902:LEU:HD12	23:B:1222:CLA:HED3	1.97	0.47
19:B:1087:VAL:HG13	19:B:1101:TRP:CH2	2.49	0.47
9:L:275:ILE:HD11	28:b:321:LMG:H112	1.97	0.47
9:L:161:TYR:HD2	23:L:313:CLA:HED3	1.78	0.47
1:1:158:ARG:NH1	1:1:218:TYR:OH	2.45	0.47
4:C:28:MET:HE1	5:D:161:ARG:CZ	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B:1224:CLA:H202	31:B:1234:BCR:H342	1.97	0.47
13:c:223:THR:HG22	17:u:280:TRP:CE2	2.50	0.46
19:B:847:LEU:HD22	19:B:864:ILE:HG21	1.97	0.46
1:1:172:ALA:HB3	1:1:173:PRO:HD3	1.98	0.46
11:R:71:LEU:HD12	11:R:75:ILE:HB	1.97	0.46
15:e:176:ASP:OD1	27:e:310:XAT:O23	2.18	0.46
16:f:112:LEU:HD21	16:f:212:LYS:HG2	1.96	0.46
16:f:180:HIS:O	16:f:184:VAL:HG23	2.15	0.46
19:B:667:THR:HG23	19:B:668:SER:N	2.31	0.46
3:A:80:LEU:HD13	3:A:80:LEU:C	2.41	0.46
8:I:121:VAL:HG13	19:B:425:VAL:HG13	1.98	0.46
16:f:190:GLN:OE1	16:f:190:GLN:N	2.44	0.46
3:A:3:LEU:C	3:A:3:LEU:HD23	2.41	0.46
17:u:352:ARG:NH2	17:u:368:GLU:OE2	2.40	0.46
23:L:304:CLA:HED1	23:L:305:CLA:CHC	2.45	0.46
11:R:133:VAL:HG13	11:R:134:ILE:HD12	1.97	0.46
1:1:243:GLU:O	1:1:247:GLY:N	2.49	0.46
8:I:85:VAL:HG11	8:I:120:LEU:HD21	1.97	0.46
18:a:235:VAL:HG13	27:a:410:XAT:H363	1.98	0.46
5:D:63:GLY:O	19:B:1088:TRP:NE1	2.48	0.46
8:I:121:VAL:O	8:I:121:VAL:HG12	2.16	0.45
23:b:312:CLA:H43	23:b:312:CLA:O1A	2.16	0.45
23:A:409:CLA:H141	23:b:302:CLA:C9	2.46	0.45
23:F:402:CLA:H43	23:F:403:CLA:HMB2	1.97	0.45
11:R:133:VAL:HG13	11:R:134:ILE:CD1	2.47	0.45
19:B:566:ALA:HB3	19:B:567:PRO:HD3	1.99	0.45
7:F:236:TRP:N	7:F:237:PRO:CD	2.80	0.45
19:B:432:THR:OG1	19:B:433:TRP:N	2.49	0.45
31:B:1233:BCR:H24C	31:B:1233:BCR:H371	1.87	0.45
23:A:420:CLA:HAC1	18:a:71:VAL:HG13	1.99	0.45
14:d:49:ASP:OD2	14:d:192:LYS:NZ	2.50	0.45
23:A:420:CLA:HED3	18:a:79:ILE:CD1	2.47	0.45
13:c:159:THR:O	30:c:319:LMT:O6'	2.24	0.45
18:a:275:ILE:HD12	18:a:275:ILE:N	2.32	0.45
23:B:1218:CLA:H42	23:B:1218:CLA:O1A	2.17	0.45
3:A:374:ALA:CA	23:A:420:CLA:H142	2.47	0.44
31:b:317:BCR:H321	31:b:317:BCR:HC8	1.99	0.44
23:f:313:CLA:C1C	27:f:318:XAT:H403	2.47	0.44
18:a:228:GLN:N	18:a:229:PRO:CD	2.80	0.44
19:B:892:TYR:HB2	19:B:893:PRO:HD3	2.00	0.44
30:B:1204:LMT:O5B	30:B:1204:LMT:H5'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:166:VAL:CG2	9:L:157:VAL:HG13	2.47	0.44
11:R:81:GLU:OE1	11:R:81:GLU:N	2.47	0.44
19:B:862:ARG:NH2	23:B:1227:CLA:OBD	2.41	0.44
1:1:220:GLU:OE2	36:1:402:HOH:O	2.21	0.44
19:B:1129:TYR:HB2	23:B:1207:CLA:HED2	2.00	0.44
31:B:1234:BCR:C8	31:B:1234:BCR:H331	2.48	0.44
4:C:6:ILE:HD11	4:C:64:ILE:HD12	1.99	0.44
19:B:1039:LEU:HD21	19:B:1058:PHE:CG	2.53	0.44
16:f:76:ILE:O	16:f:76:ILE:HG23	2.18	0.43
19:B:892:TYR:CD1	19:B:906:LEU:HD21	2.52	0.43
3:A:180:HIS:CG	23:A:410:CLA:HED3	2.53	0.43
16:f:112:LEU:HD11	18:a:275:ILE:HD13	1.99	0.43
19:B:1016:LEU:O	19:B:1020:SER:OG	2.28	0.43
3:A:47:HIS:HE1	23:A:408:CLA:ND	2.13	0.43
23:f:308:CLA:C4B	27:f:320:XAT:H202	2.49	0.43
4:C:73:TYR:N	19:B:329:LEU:HD22	2.33	0.43
31:L:307:BCR:H24C	31:L:307:BCR:H371	1.90	0.43
16:f:212:LYS:O	18:a:277:ARG:NH2	2.49	0.43
23:B:1208:CLA:H101	23:B:1208:CLA:H142	2.00	0.43
2:2:50:VAL:HG23	2:2:75:GLU:OE2	2.18	0.43
5:D:184:PHE:CE2	8:I:209:ILE:HG23	2.53	0.43
15:e:180:LEU:HD12	27:e:310:XAT:H241	2.01	0.43
7:F:223:TRP:CG	7:F:224:PRO:HD3	2.53	0.43
13:c:59:ASN:OD1	13:c:59:ASN:N	2.52	0.43
13:c:233:LYS:O	13:c:237:GLY:N	2.52	0.43
23:B:1211:CLA:C1A	23:B:1211:CLA:CGA	2.96	0.43
5:D:96:SER:OG	5:D:97:LEU:N	2.52	0.43
13:c:93:GLU:OE1	13:c:178:GLY:N	2.46	0.43
2:2:199:TRP:CE2	2:2:219:PRO:HD3	2.54	0.43
23:A:401:CLA:OBD	23:B:1207:CLA:HMB2	2.19	0.43
3:A:340:GLU:OE2	19:B:958:LYS:NZ	2.52	0.43
27:c:316:XAT:H392	23:f:315:CLA:O2D	2.18	0.43
18:a:143:LEU:C	18:a:143:LEU:HD23	2.43	0.43
19:B:374:ALA:HB1	30:B:1240:LMT:H32	2.00	0.43
23:A:420:CLA:HED2	31:a:402:BCR:H382	2.01	0.43
7:F:191:VAL:HG11	31:F:401:BCR:H342	2.00	0.42
12:b:121:ASN:ND2	23:b:312:CLA:O1A	2.51	0.42
18:a:29:GLN:N	18:a:30:PRO:HD2	2.34	0.42
36:A:503:HOH:O	18:a:124:ARG:NH2	2.52	0.42
3:A:291:LEU:HD22	19:B:1059:LEU:HD21	2.01	0.42
11:R:169:TYR:HB2	23:R:302:CLA:HED2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:b:119:VAL:HG11	12:b:135:PRO:HA	2.01	0.42
13:c:145:TYR:O	13:c:149:THR:HG23	2.19	0.42
23:d:302:CLA:H61	23:d:302:CLA:H41	1.92	0.42
31:L:306:BCR:H24C	31:L:306:BCR:H371	1.89	0.42
13:c:169:THR:HG23	23:c:305:CLA:CAB	2.50	0.42
23:c:305:CLA:HBD	23:c:305:CLA:HAA2	2.01	0.42
31:a:402:BCR:H403	31:a:402:BCR:C23	2.49	0.42
23:A:409:CLA:H121	23:A:409:CLA:H91	2.02	0.42
18:a:270:ALA:O	18:a:271:LEU:HD12	2.19	0.42
4:C:71:GLU:HB3	4:C:76:MET:HG2	2.02	0.42
19:B:737:LEU:HD23	19:B:740:ARG:NH2	2.35	0.42
23:B:1208:CLA:CGA	23:B:1208:CLA:H3A	2.50	0.42
23:B:1223:CLA:H121	23:B:1223:CLA:H91	2.02	0.42
30:F:414:LMT:H92	23:B:1206:CLA:H143	2.01	0.41
19:B:381:THR:HG23	19:B:455:THR:HB	2.02	0.41
13:c:181:ASN:OD1	30:c:319:LMT:O2'	2.28	0.41
30:c:331:LMT:H2O1	30:c:331:LMT:H6'	1.55	0.41
3:A:223:GLY:HA3	4:C:48:ILE:O	2.21	0.41
27:R:303:XAT:H362	27:R:303:XAT:O23	2.20	0.41
16:f:56:ILE:HD12	16:f:210:MET:HB3	2.01	0.41
19:B:781:HIS:HE1	23:B:1214:CLA:ND	2.14	0.41
5:D:225:GLN:OE1	36:D:302:HOH:O	2.22	0.41
8:I:87:VAL:HG13	8:I:91:LEU:HD23	2.03	0.41
23:c:307:CLA:H62	23:c:307:CLA:H41	1.71	0.41
18:a:268:PRO:O	18:a:271:LEU:HD13	2.20	0.41
23:A:410:CLA:H43	23:A:412:CLA:CAD	2.50	0.41
23:R:302:CLA:HMB3	28:R:304:LMG:O10	2.20	0.41
30:f:327:LMT:H12	30:f:327:LMT:O2'	2.21	0.41
23:B:1230:CLA:C1A	23:B:1230:CLA:CGA	2.98	0.41
3:A:1:MET:N	3:A:2:PRO:HD2	2.35	0.41
3:A:96:ASN:OD1	23:B:1208:CLA:HED2	2.20	0.41
7:F:223:TRP:N	7:F:224:PRO:CD	2.84	0.41
31:F:401:BCR:C23	31:F:401:BCR:H403	2.51	0.41
23:b:307:CLA:H62	23:b:307:CLA:H41	1.90	0.41
19:B:939:VAL:HG12	19:B:943:ILE:HD12	2.03	0.41
8:I:195:HIS:N	8:I:198:ASP:OD2	2.47	0.41
23:b:306:CLA:HAA2	27:b:315:XAT:H393	2.03	0.41
23:f:315:CLA:H43	18:a:231:LEU:HD22	2.02	0.41
23:B:1201:CLA:H3A	23:B:1201:CLA:CGA	2.51	0.41
23:c:308:CLA:HMC1	23:c:310:CLA:H192	2.02	0.40
23:L:303:CLA:H92	27:b:315:XAT:H391	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:c:328:DGD:HG32	29:c:328:DGD:O2D	2.21	0.40
18:a:257:HIS:HE1	23:a:406:CLA:ND	2.16	0.40
23:b:308:CLA:HMB2	23:b:310:CLA:O2A	2.21	0.40
7:F:274:GLY:O	23:a:403:CLA:HED1	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	1	304/370 (82%)	298 (98%)	6 (2%)	0	100	100
2	2	219/267 (82%)	214 (98%)	5 (2%)	0	100	100
3	A	393/395 (100%)	384 (98%)	9 (2%)	0	100	100
4	C	78/80 (98%)	78 (100%)	0	0	100	100
5	D	233/269 (87%)	226 (97%)	7 (3%)	0	100	100
6	E	64/133 (48%)	63 (98%)	1 (2%)	0	100	100
7	F	223/326 (68%)	219 (98%)	4 (2%)	0	100	100
8	I	96/211 (46%)	95 (99%)	1 (1%)	0	100	100
9	L	221/277 (80%)	219 (99%)	2 (1%)	0	100	100
10	M	113/195 (58%)	112 (99%)	1 (1%)	0	100	100
11	R	159/202 (79%)	159 (100%)	0	0	100	100
12	b	246/293 (84%)	245 (100%)	1 (0%)	0	100	100
13	c	194/237 (82%)	193 (100%)	1 (0%)	0	100	100
14	d	179/222 (81%)	176 (98%)	3 (2%)	0	100	100
15	e	173/217 (80%)	172 (99%)	1 (1%)	0	100	100
16	f	247/277 (89%)	246 (100%)	1 (0%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	u	144/424 (34%)	142 (99%)	2 (1%)	0	100	100
18	a	230/280 (82%)	227 (99%)	3 (1%)	0	100	100
19	B	729/1139 (64%)	712 (98%)	17 (2%)	0	100	100
All	All	4245/5814 (73%)	4180 (98%)	65 (2%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	1	264/312 (85%)	264 (100%)	0	100	100
2	2	189/224 (84%)	188 (100%)	1 (0%)	86	83
3	A	331/331 (100%)	331 (100%)	0	100	100
4	C	70/70 (100%)	69 (99%)	1 (1%)	62	50
5	D	197/221 (89%)	195 (99%)	2 (1%)	73	64
6	E	58/108 (54%)	58 (100%)	0	100	100
7	F	189/264 (72%)	189 (100%)	0	100	100
8	I	80/167 (48%)	80 (100%)	0	100	100
9	L	179/221 (81%)	179 (100%)	0	100	100
10	M	98/168 (58%)	98 (100%)	0	100	100
11	R	138/171 (81%)	136 (99%)	2 (1%)	62	50
12	b	204/236 (86%)	204 (100%)	0	100	100
13	c	161/194 (83%)	161 (100%)	0	100	100
14	d	146/177 (82%)	146 (100%)	0	100	100
15	e	145/176 (82%)	143 (99%)	2 (1%)	62	50
16	f	212/230 (92%)	212 (100%)	0	100	100
17	u	126/347 (36%)	126 (100%)	0	100	100
18	a	185/227 (82%)	184 (100%)	1 (0%)	86	83

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
19	B	632/993 (64%)	628 (99%)	4 (1%)	84 79
All	All	3604/4837 (74%)	3591 (100%)	13 (0%)	88 87

All (13) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	2	191	LYS
4	C	60	ASP
5	D	143	ARG
5	D	268	ARG
11	R	133	VAL
11	R	165	HIS
15	e	135	LEU
15	e	215	GLN
18	a	188	ILE
19	B	438	TYR
19	B	701	ASN
19	B	866	LEU
19	B	888	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (33) such sidechains are listed below:

Mol	Chain	Res	Type
1	1	82	GLN
1	1	84	ASN
1	1	90	ASN
1	1	120	GLN
2	2	150	ASN
2	2	192	HIS
3	A	36	GLN
3	A	144	ASN
3	A	205	ASN
3	A	277	ASN
4	C	36	GLN
5	D	112	GLN
5	D	183	GLN
7	F	133	ASN
7	F	323	ASN
8	I	195	HIS
9	L	205	ASN
10	M	95	ASN

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Mol	Chain	Res	Type
10	M	98	GLN
11	R	83	HIS
14	d	164	ASN
18	a	29	GLN
18	a	35	ASN
18	a	102	ASN
18	a	112	ASN
19	B	341	GLN
19	B	357	GLN
19	B	716	GLN
19	B	769	ASN
19	B	807	GLN
19	B	872	GLN
19	B	959	GLN
19	B	1112	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

5 monosaccharides are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
20	NAG	G	1	1,20	14,14,15	0.25	0	17,19,21	0.45	0
20	NAG	G	2	20	14,14,15	0.23	0	17,19,21	0.54	0
20	BMA	G	3	20	11,11,12	0.21	0	15,15,17	0.59	0
21	NAG	H	1	21,1	14,14,15	0.24	0	17,19,21	0.46	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
21	NAG	H	2	21	14,14,15	0.23	0	17,19,21	0.53	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
20	NAG	G	1	1,20	-	0/6/23/26	0/1/1/1
20	NAG	G	2	20	-	0/6/23/26	0/1/1/1
20	BMA	G	3	20	-	0/2/19/22	0/1/1/1
21	NAG	H	1	21,1	-	0/6/23/26	0/1/1/1
21	NAG	H	2	21	-	0/6/23/26	0/1/1/1

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

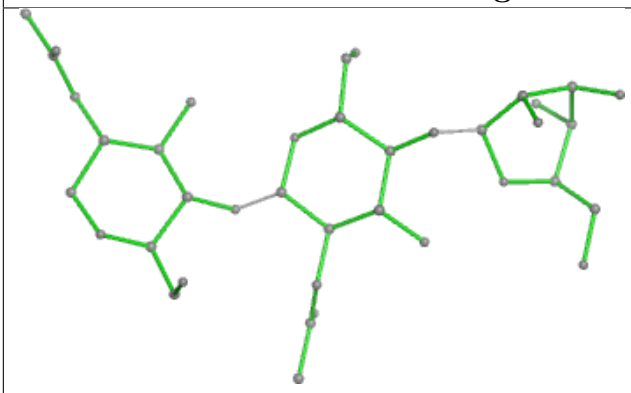
There are no torsion outliers.

There are no ring outliers.

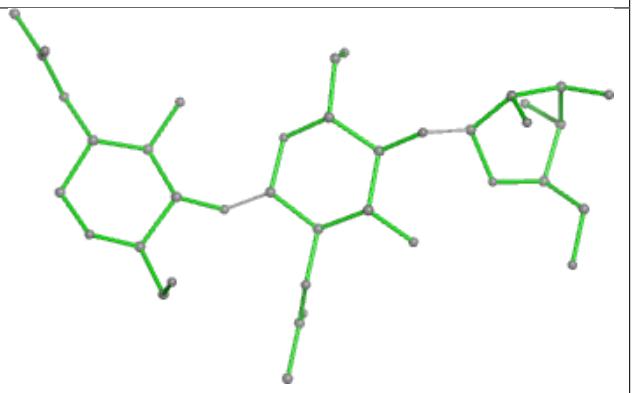
No monomer is involved in short contacts.

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for oligosaccharide.

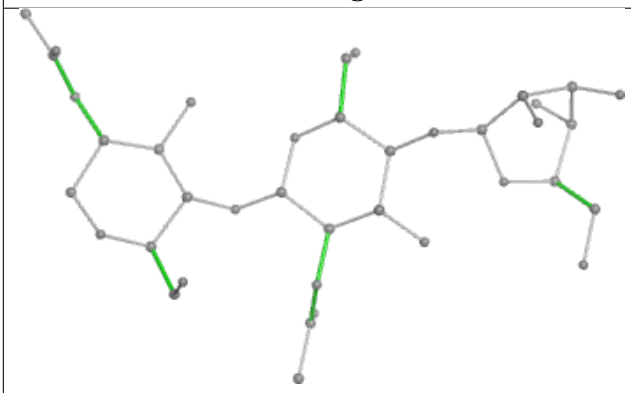
Oligosaccharide Chain G



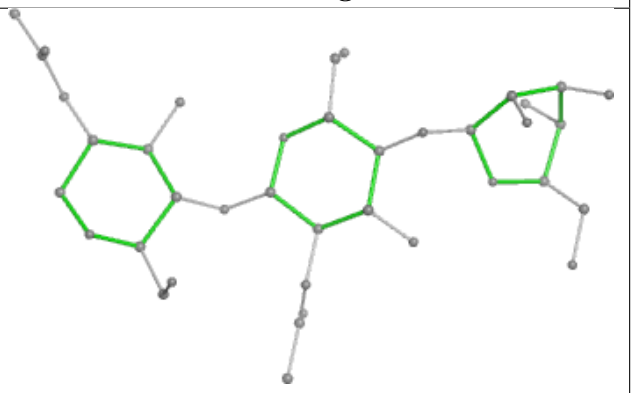
Bond lengths



Bond angles

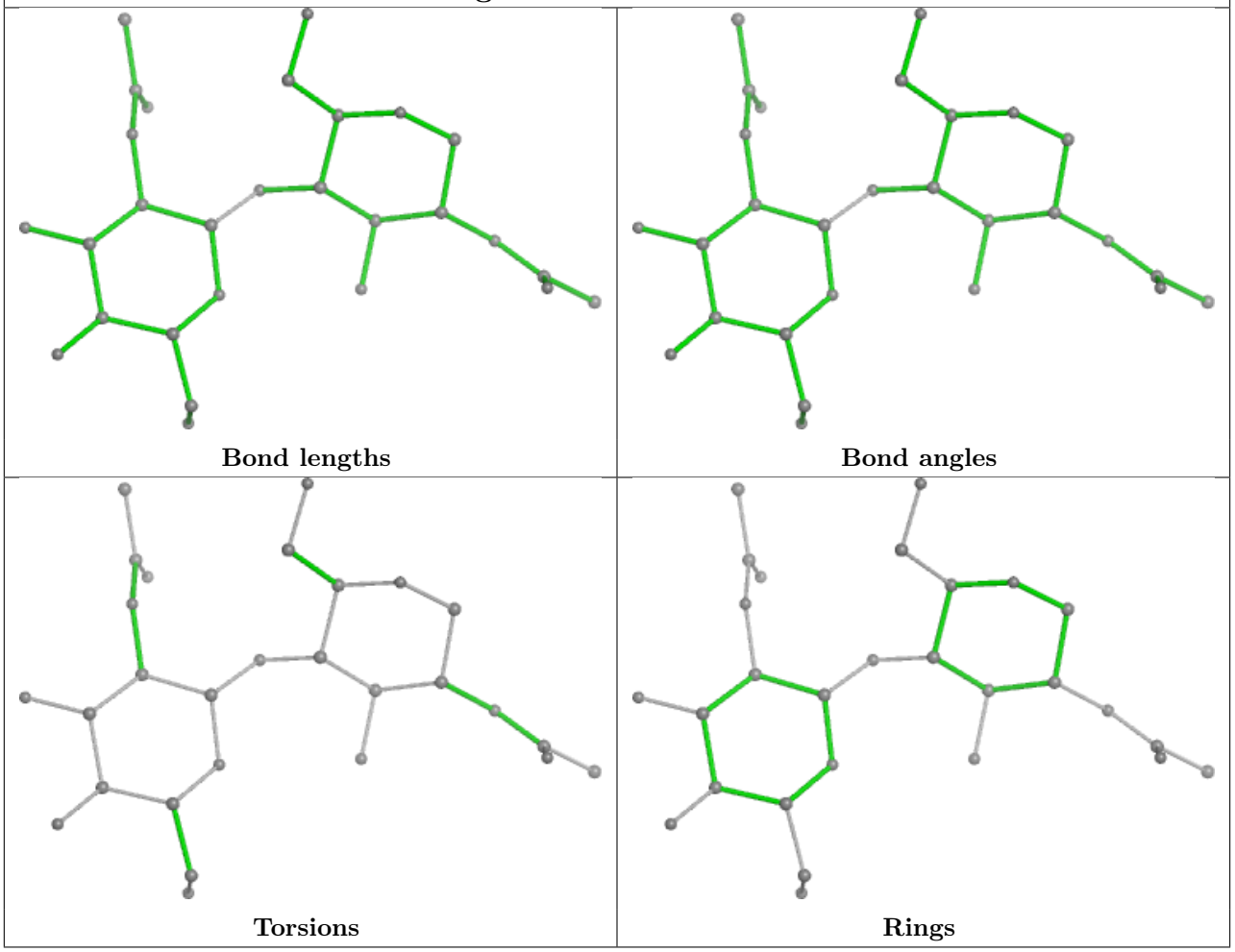


Torsions



Rings

Oligosaccharide Chain H



5.6 Ligand geometry (i)

Of 246 ligands modelled in this entry, 1 is monoatomic - leaving 245 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	$\#\|Z\| > 2$
30	LMT	e	316	-	12,12,36	0.17	0	11,11,47	0.21	0
30	LMT	B	1244	-	8,8,36	0.17	0	7,7,47	0.17	0
30	LMT	f	305	-	10,10,36	0.19	0	9,9,47	0.18	0
23	CLA	B	1224	19	65,73,73	1.02	3 (4%)	76,113,113	0.87	3 (3%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
23	CLA	A	413	3	56,64,73	1.07	3 (5%)	65,102,113	0.91	2 (3%)
28	LMG	b	327	-	36,36,55	0.19	0	44,44,63	0.19	0
30	LMT	b	326	-	21,21,36	0.16	0	26,26,47	0.30	0
26	PQN	A	416	-	34,34,34	0.29	0	42,45,45	0.39	0
30	LMT	B	1239	-	12,12,36	0.17	0	11,11,47	0.21	0
30	LMT	d	316	-	12,12,36	0.16	0	11,11,47	0.20	0
23	CLA	A	409	3	65,73,73	1.02	3 (4%)	76,113,113	0.87	2 (2%)
23	CLA	b	304	12	45,53,73	1.25	3 (6%)	52,89,113	1.08	2 (3%)
27	XAT	c	313	-	39,47,47	0.17	0	54,74,74	0.60	0
28	LMG	b	320	-	37,37,55	0.21	0	45,45,63	0.22	0
23	CLA	d	305	14	55,63,73	1.11	3 (5%)	64,101,113	0.91	2 (3%)
30	LMT	c	318	-	36,36,36	0.13	0	47,47,47	0.14	0
23	CLA	A	402	36	65,73,73	1.02	3 (4%)	76,113,113	0.85	2 (2%)
23	CLA	c	305	-	45,53,73	1.29	3 (6%)	52,89,113	1.01	2 (3%)
23	CLA	c	311	13	45,53,73	1.27	3 (6%)	52,89,113	1.03	2 (3%)
29	DGD	F	408	-	67,67,67	0.16	0	81,81,81	0.19	0
33	A1L6D	d	314	-	43,49,49	0.51	1 (2%)	50,72,72	0.61	2 (4%)
35	A1I05	B	1242	-	52,52,72	0.24	0	61,61,81	0.27	0
23	CLA	c	301	13	45,53,73	1.20	4 (8%)	52,89,113	1.04	2 (3%)
30	LMT	e	317	-	8,8,36	0.20	0	7,7,47	0.12	0
30	LMT	c	322	-	12,12,36	0.17	0	11,11,47	0.18	0
30	LMT	d	321	-	12,12,36	0.17	0	11,11,47	0.18	0
23	CLA	B	1208	-	65,73,73	0.99	3 (4%)	76,113,113	0.89	3 (3%)
23	CLA	e	306	15	65,73,73	1.03	3 (4%)	76,113,113	0.86	2 (2%)
30	LMT	c	321	-	24,24,36	0.15	0	29,29,47	0.33	0
30	LMT	b	325	-	12,12,36	0.18	0	11,11,47	0.18	0
23	CLA	a	412	18	53,61,73	1.12	3 (5%)	61,98,113	0.93	2 (3%)
23	CLA	f	307	16	58,66,73	1.07	3 (5%)	67,104,113	0.85	2 (2%)
25	SF4	A	415	19,3	0,12,12	-	-	-		
27	XAT	c	316	-	39,47,47	0.15	0	54,74,74	0.67	0
30	LMT	B	1243	-	12,12,36	0.17	0	11,11,47	0.20	0
23	CLA	F	405	7	45,53,73	1.24	3 (6%)	52,89,113	1.03	2 (3%)
30	LMT	c	319	-	36,36,36	0.12	0	47,47,47	0.17	0
31	BCR	b	317	-	41,41,41	0.13	0	56,56,56	0.28	0
28	LMG	L	310	-	43,43,55	0.20	0	45,45,63	0.15	0
23	CLA	d	304	36	65,73,73	1.03	3 (4%)	76,113,113	0.86	2 (2%)
30	LMT	f	325	-	36,36,36	0.13	0	47,47,47	0.24	0
23	CLA	B	1222	36	45,53,73	1.24	3 (6%)	52,89,113	1.04	2 (3%)
23	CLA	B	1230	19	65,73,73	1.01	3 (4%)	76,113,113	0.86	3 (3%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
31	BCR	a	402	-	23,23,41	0.40	0	30,30,56	0.48	0
27	XAT	a	410	23	39,47,47	0.17	0	54,74,74	0.53	0
30	LMT	F	413	-	12,12,36	0.18	0	11,11,47	0.18	0
27	XAT	f	322	-	39,47,47	0.12	0	54,74,74	0.58	1 (1%)
30	LMT	R	305	-	12,12,36	0.18	0	11,11,47	0.17	0
30	LMT	b	324	-	7,7,36	0.19	0	6,6,47	0.14	0
30	LMT	d	301	-	12,12,36	0.18	0	11,11,47	0.19	0
29	DGD	c	328	-	52,52,67	0.18	0	66,66,81	0.31	0
30	LMT	d	318	-	12,12,36	0.18	0	11,11,47	0.16	0
30	LMT	f	326	-	12,12,36	0.17	0	11,11,47	0.20	0
30	LMT	B	1236	-	12,12,36	0.17	0	11,11,47	0.20	0
23	CLA	e	309	-	65,73,73	1.07	3 (4%)	76,113,113	0.92	3 (3%)
29	DGD	A	419	-	51,51,67	0.15	0	65,65,81	0.26	0
23	CLA	f	312	16	45,53,73	1.23	3 (6%)	52,89,113	1.06	3 (5%)
23	CLA	L	304	9	60,68,73	1.03	3 (5%)	70,107,113	0.92	3 (4%)
27	XAT	b	316	-	39,47,47	0.10	0	54,74,74	0.44	0
30	LMT	B	1204	-	28,28,36	0.11	0	39,39,47	0.35	0
27	XAT	b	314	-	39,47,47	0.13	0	54,74,74	0.56	0
28	LMG	F	412	-	45,45,55	0.19	0	53,53,63	0.34	0
23	CLA	R	301	11	45,53,73	1.23	3 (6%)	52,89,113	1.02	2 (3%)
23	CLA	B	1209	19	45,53,73	1.25	3 (6%)	52,89,113	1.01	2 (3%)
24	CL0	A	407	3	65,73,73	2.01	8 (12%)	76,113,113	1.11	7 (9%)
23	CLA	c	309	13	65,73,73	1.03	3 (4%)	76,113,113	0.83	2 (2%)
23	CLA	A	414	36	65,73,73	1.02	3 (4%)	76,113,113	0.85	2 (2%)
23	CLA	A	411	3	45,53,73	1.24	3 (6%)	52,89,113	1.01	2 (3%)
30	LMT	L	301	-	12,12,36	0.18	0	11,11,47	0.18	0
27	XAT	e	311	-	39,47,47	0.15	0	54,74,74	0.46	0
31	BCR	B	1202	-	41,41,41	0.13	0	56,56,56	0.46	0
30	LMT	c	317	-	34,34,36	0.12	0	45,45,47	0.16	0
30	LMT	c	326	-	12,12,36	0.17	0	11,11,47	0.19	0
30	LMT	F	406	-	12,12,36	0.17	0	11,11,47	0.18	0
23	CLA	b	310	12	65,73,73	1.03	3 (4%)	76,113,113	0.82	2 (2%)
28	LMG	F	409	-	55,55,55	0.16	0	63,63,63	0.18	0
23	CLA	d	308	14	45,53,73	1.26	3 (6%)	52,89,113	1.02	2 (3%)
30	LMT	d	319	-	12,12,36	0.18	0	11,11,47	0.17	0
30	LMT	b	301	-	24,24,36	0.17	0	29,29,47	0.32	0
23	CLA	c	304	36	55,63,73	1.10	3 (5%)	64,101,113	0.92	2 (3%)
23	CLA	A	405	3	65,73,73	1.00	3 (4%)	76,113,113	0.84	2 (2%)
27	XAT	b	315	-	39,47,47	0.11	0	54,74,74	0.52	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
23	CLA	A	401	36	65,73,73	1.02	3 (4%)	76,113,113	0.88	2 (2%)
23	CLA	L	313	36	45,53,73	1.22	3 (6%)	52,89,113	1.00	2 (3%)
30	LMT	L	309	-	12,12,36	0.16	0	11,11,47	0.21	0
31	BCR	B	1234	-	41,41,41	0.13	0	56,56,56	0.40	0
23	CLA	b	303	12	65,73,73	1.03	3 (4%)	76,113,113	0.88	2 (2%)
28	LMG	f	323	-	55,55,55	0.17	0	63,63,63	0.21	0
30	LMT	f	303	-	12,12,36	0.16	0	11,11,47	0.20	0
23	CLA	b	307	12	65,73,73	1.03	3 (4%)	76,113,113	0.91	3 (3%)
26	PQN	B	1232	-	34,34,34	0.31	0	42,45,45	0.36	0
23	CLA	B	1210	19	65,73,73	1.06	3 (4%)	76,113,113	0.86	2 (2%)
33	A1L6D	B	1235	-	43,49,49	0.49	1 (2%)	50,72,72	0.48	0
30	LMT	f	327	-	24,24,36	0.15	0	29,29,47	0.35	0
27	XAT	d	312	-	39,47,47	0.11	0	54,74,74	0.50	0
23	CLA	B	1219	19	65,73,73	1.02	3 (4%)	76,113,113	0.85	2 (2%)
27	XAT	b	313	-	39,47,47	0.13	0	54,74,74	0.68	1 (1%)
23	CLA	a	407	18	65,73,73	1.02	3 (4%)	76,113,113	0.85	2 (2%)
31	BCR	L	307	-	41,41,41	0.13	0	56,56,56	0.34	0
23	CLA	d	309	14	45,53,73	1.26	3 (6%)	52,89,113	1.02	2 (3%)
23	CLA	f	316	36	45,53,73	1.24	3 (6%)	52,89,113	1.02	2 (3%)
28	LMG	A	422	-	33,33,55	0.21	0	41,41,63	0.24	0
23	CLA	L	305	9	45,53,73	1.23	3 (6%)	52,89,113	1.03	2 (3%)
23	CLA	d	302	14	65,73,73	1.03	3 (4%)	76,113,113	0.86	2 (2%)
23	CLA	A	412	3	65,73,73	1.02	3 (4%)	76,113,113	0.86	2 (2%)
23	CLA	e	304	15	50,58,73	1.17	3 (6%)	58,95,113	0.96	2 (3%)
23	CLA	A	423	-	45,53,73	1.27	3 (6%)	52,89,113	1.01	2 (3%)
23	CLA	F	403	36	60,68,73	1.06	3 (5%)	70,107,113	0.87	2 (2%)
28	LMG	L	308	-	19,19,55	0.25	0	19,19,63	0.30	0
23	CLA	A	406	3	45,53,73	1.21	3 (6%)	52,89,113	1.01	2 (3%)
23	CLA	f	314	16	45,53,73	1.24	3 (6%)	52,89,113	1.01	2 (3%)
30	LMT	F	411	-	12,12,36	0.17	0	11,11,47	0.20	0
30	LMT	e	313	-	12,12,36	0.16	0	11,11,47	0.20	0
30	LMT	f	324	-	12,12,36	0.18	0	11,11,47	0.20	0
34	SQD	d	315	-	36,37,54	0.20	0	45,48,65	0.20	0
23	CLA	c	307	13	65,73,73	1.02	3 (4%)	76,113,113	0.87	2 (2%)
32	AV0	L	312	-	48,48,72	0.16	0	60,62,98	0.55	1 (1%)
27	XAT	f	318	-	39,47,47	0.12	0	54,74,74	0.54	0
30	LMT	c	323	-	12,12,36	0.18	0	11,11,47	0.20	0
29	DGD	b	319	-	50,50,67	0.18	0	64,64,81	0.19	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
30	LMT	c	327	-	12,12,36	0.18	0	11,11,47	0.19	0
30	LMT	e	318	-	36,36,36	0.13	0	47,47,47	0.16	0
23	CLA	c	308	36	45,53,73	1.20	3 (6%)	52,89,113	1.02	2 (3%)
23	CLA	b	305	36	65,73,73	1.01	3 (4%)	76,113,113	0.82	2 (2%)
23	CLA	B	1205	19	65,73,73	1.01	3 (4%)	76,113,113	0.83	2 (2%)
27	XAT	d	311	-	39,47,47	0.14	0	54,74,74	0.60	0
33	A1L6D	f	321	-	43,49,49	0.55	1 (2%)	50,72,72	0.62	1 (2%)
23	CLA	b	312	12	54,62,73	1.12	3 (5%)	62,99,113	0.91	2 (3%)
23	CLA	c	303	13	55,63,73	1.09	4 (7%)	64,101,113	0.93	2 (3%)
23	CLA	c	310	36	65,73,73	1.02	3 (4%)	76,113,113	0.86	2 (2%)
27	XAT	A	417	-	39,47,47	0.12	0	54,74,74	0.53	0
29	DGD	u	501	-	55,55,67	0.18	0	69,69,81	0.23	0
30	LMT	B	1240	-	24,24,36	0.16	0	29,29,47	0.32	0
23	CLA	A	404	3	65,73,73	1.02	3 (4%)	76,113,113	0.85	2 (2%)
28	LMG	R	304	-	28,28,55	0.21	0	36,36,63	0.22	0
23	CLA	a	401	36	65,73,73	1.02	3 (4%)	76,113,113	0.86	2 (2%)
30	LMT	B	1237	-	12,12,36	0.16	0	11,11,47	0.24	0
30	LMT	c	329	-	12,12,36	0.18	0	11,11,47	0.18	0
23	CLA	B	1207	19	65,73,73	1.02	3 (4%)	76,113,113	0.79	2 (2%)
30	LMT	e	315	-	12,12,36	0.17	0	11,11,47	0.19	0
30	LMT	B	1203	-	12,12,36	0.18	0	11,11,47	0.19	0
23	CLA	f	315	16	55,63,73	1.10	3 (5%)	64,101,113	0.93	2 (3%)
23	CLA	f	306	16	60,68,73	1.07	3 (5%)	70,107,113	0.92	3 (4%)
30	LMT	f	302	-	24,24,36	0.16	0	29,29,47	0.31	0
23	CLA	B	1225	36	65,73,73	1.04	3 (4%)	76,113,113	0.82	2 (2%)
23	CLA	f	313	16	45,53,73	1.26	3 (6%)	52,89,113	1.01	2 (3%)
27	XAT	R	307	-	39,47,47	0.10	0	54,74,74	0.57	0
30	LMT	b	323	-	12,12,36	0.17	0	11,11,47	0.19	0
23	CLA	A	408	3	65,73,73	1.03	3 (4%)	76,113,113	0.85	2 (2%)
28	LMG	A	418	-	30,30,55	0.25	0	32,32,63	0.22	0
23	CLA	b	309	36	65,73,73	1.00	3 (4%)	76,113,113	0.84	2 (2%)
23	CLA	b	308	12	65,73,73	1.01	3 (4%)	76,113,113	0.86	2 (2%)
23	CLA	B	1211	19	65,73,73	1.00	3 (4%)	76,113,113	0.86	2 (2%)
23	CLA	f	310	16	65,73,73	1.04	3 (4%)	76,113,113	0.83	2 (2%)
30	LMT	b	322	-	12,12,36	0.16	0	11,11,47	0.20	0
27	XAT	R	303	-	39,47,47	0.12	0	54,74,74	0.62	1 (1%)
23	CLA	a	406	18	65,73,73	1.03	3 (4%)	76,113,113	0.85	2 (2%)
23	CLA	B	1217	19	65,73,73	1.01	3 (4%)	76,113,113	0.85	2 (2%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
23	CLA	f	309	16	45,53,73	1.24	3 (6%)	52,89,113	1.02	2 (3%)
23	CLA	B	1216	19	65,73,73	1.03	3 (4%)	76,113,113	0.83	2 (2%)
33	A1L6D	e	312	-	43,49,49	0.50	1 (2%)	50,72,72	0.48	0
27	XAT	d	313	-	39,47,47	0.14	0	54,74,74	0.63	1 (1%)
31	BCR	F	401	-	41,41,41	0.20	0	56,56,56	0.36	0
27	XAT	c	314	-	39,47,47	0.13	0	54,74,74	0.56	0
23	CLA	B	1221	19	65,73,73	1.03	3 (4%)	76,113,113	0.86	2 (2%)
23	CLA	F	402	36	65,73,73	1.01	3 (4%)	76,113,113	0.85	2 (2%)
23	CLA	f	311	16	65,73,73	1.00	4 (6%)	76,113,113	0.84	2 (2%)
23	CLA	c	306	13	45,53,73	1.22	3 (6%)	52,89,113	1.03	2 (3%)
23	CLA	a	403	18	65,73,73	1.03	3 (4%)	76,113,113	0.85	2 (2%)
30	LMT	c	332	-	12,12,36	0.14	0	11,11,47	0.21	0
23	CLA	e	303	15	65,73,73	1.02	3 (4%)	76,113,113	0.86	3 (3%)
30	LMT	a	404	-	7,7,36	0.19	0	6,6,47	0.13	0
23	CLA	L	303	36	65,73,73	1.02	3 (4%)	76,113,113	0.88	2 (2%)
23	CLA	B	1212	19	45,53,73	1.22	3 (6%)	52,89,113	0.97	2 (3%)
30	LMT	F	414	23	36,36,36	0.13	0	47,47,47	0.23	0
23	CLA	d	303	14	56,64,73	1.11	3 (5%)	65,102,113	0.88	2 (3%)
28	LMG	b	321	-	50,50,55	0.18	0	58,58,63	0.20	0
30	LMT	B	1238	-	12,12,36	0.18	0	11,11,47	0.19	0
31	BCR	B	1233	-	41,41,41	0.12	0	56,56,56	0.48	0
23	CLA	B	1201	-	65,73,73	1.00	3 (4%)	76,113,113	0.80	2 (2%)
23	CLA	b	328	27	65,73,73	1.04	3 (4%)	76,113,113	0.84	2 (2%)
23	CLA	B	1218	19	53,61,73	1.14	3 (5%)	61,98,113	0.92	2 (3%)
30	LMT	f	301	-	12,12,36	0.18	0	11,11,47	0.19	0
27	XAT	f	320	-	39,47,47	0.10	0	54,74,74	0.61	0
23	CLA	B	1223	19	65,73,73	1.01	3 (4%)	76,113,113	0.90	3 (3%)
23	CLA	B	1231	19	45,53,73	1.18	3 (6%)	52,89,113	0.98	2 (3%)
29	DGD	b	318	-	48,48,67	0.18	0	62,62,81	0.30	0
30	LMT	c	325	-	12,12,36	0.16	0	11,11,47	0.20	0
30	LMT	c	333	-	12,12,36	0.17	0	11,11,47	0.22	0
23	CLA	d	307	14	60,68,73	1.07	3 (5%)	70,107,113	0.92	3 (4%)
23	CLA	b	306	12	65,73,73	1.01	3 (4%)	76,113,113	0.89	3 (3%)
23	CLA	A	420	-	65,73,73	1.10	3 (4%)	76,113,113	0.95	4 (5%)
23	CLA	A	410	3	65,73,73	1.01	3 (4%)	76,113,113	0.87	2 (2%)
23	CLA	c	302	13	65,73,73	1.00	3 (4%)	76,113,113	0.85	2 (2%)
23	CLA	e	305	15	65,73,73	0.99	3 (4%)	76,113,113	0.83	2 (2%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
25	SF4	C	101	4	0,12,12	-	-	-		
30	LMT	c	331	-	36,36,36	0.12	0	47,47,47	0.17	0
30	LMT	B	1241	-	12,12,36	0.16	0	11,11,47	0.25	0
30	LMT	B	1245	-	10,10,36	0.18	0	9,9,47	0.16	0
23	CLA	a	405	18	45,53,73	1.23	3 (6%)	52,89,113	1.00	2 (3%)
23	CLA	d	306	14	65,73,73	1.01	4 (6%)	76,113,113	0.87	2 (2%)
25	SF4	C	102	4	0,12,12	-	-	-		
23	CLA	B	1206	36	60,68,73	1.05	3 (5%)	70,107,113	0.85	3 (4%)
27	XAT	e	310	-	39,47,47	0.14	0	54,74,74	0.59	0
30	LMT	A	421	-	12,12,36	0.16	0	11,11,47	0.25	0
30	LMT	L	311	-	12,12,36	0.17	0	11,11,47	0.20	0
31	BCR	L	306	-	41,41,41	0.14	0	56,56,56	0.37	0
23	CLA	a	411	-	45,53,73	1.27	3 (6%)	52,89,113	1.02	2 (3%)
27	XAT	f	319	-	39,47,47	0.12	0	54,74,74	0.51	0
23	CLA	B	1226	36	65,73,73	0.99	3 (4%)	76,113,113	0.87	2 (2%)
30	LMT	d	320	-	12,12,36	0.18	0	11,11,47	0.18	0
23	CLA	B	1215	19	65,73,73	1.01	3 (4%)	76,113,113	0.84	2 (2%)
30	LMT	L	302	-	12,12,36	0.17	0	11,11,47	0.20	0
30	LMT	c	324	-	12,12,36	0.17	0	11,11,47	0.19	0
30	LMT	a	409	-	36,36,36	0.13	0	47,47,47	0.19	0
23	CLA	F	404	36	65,73,73	1.01	3 (4%)	76,113,113	0.85	2 (2%)
23	CLA	f	308	36	65,73,73	1.02	3 (4%)	76,113,113	0.88	3 (3%)
23	CLA	B	1229	36	65,73,73	1.01	3 (4%)	76,113,113	0.88	2 (2%)
27	XAT	c	315	-	39,47,47	0.10	0	54,74,74	0.66	1 (1%)
27	XAT	d	310	-	39,47,47	0.12	0	54,74,74	0.47	0
23	CLA	A	403	3	65,73,73	1.01	3 (4%)	76,113,113	0.83	2 (2%)
23	CLA	B	1227	30,19	65,73,73	1.00	3 (4%)	76,113,113	0.83	2 (2%)
30	LMT	d	322	-	12,12,36	0.17	0	11,11,47	0.20	0
23	CLA	B	1220	19	60,68,73	1.09	3 (5%)	70,107,113	0.87	2 (2%)
30	LMT	d	317	-	36,36,36	0.13	0	47,47,47	0.18	0
23	CLA	f	317	36	65,73,73	1.02	4 (6%)	76,113,113	0.80	2 (2%)
30	LMT	e	314	-	6,6,36	0.19	0	5,5,47	0.14	0
23	CLA	B	1213	19	65,73,73	1.01	3 (4%)	76,113,113	0.86	2 (2%)
23	CLA	e	307	36	65,73,73	1.04	3 (4%)	76,113,113	0.83	2 (2%)
30	LMT	F	410	-	12,12,36	0.17	0	11,11,47	0.20	0
23	CLA	b	311	36	45,53,73	1.23	3 (6%)	52,89,113	1.03	2 (3%)
23	CLA	e	308	-	65,73,73	1.03	3 (4%)	76,113,113	0.83	2 (2%)
23	CLA	e	302	15	65,73,73	1.02	3 (4%)	76,113,113	0.85	2 (2%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
23	CLA	R	302	11	65,73,73	1.03	3 (4%)	76,113,113	0.85	2 (2%)
23	CLA	b	302	36	58,66,73	1.08	3 (5%)	67,104,113	0.91	2 (2%)
30	LMT	c	320	-	6,6,36	0.20	0	5,5,47	0.14	0
30	LMT	c	330	-	36,36,36	0.12	0	47,47,47	0.17	0
23	CLA	c	312	13	65,73,73	1.04	3 (4%)	76,113,113	0.90	2 (2%)
30	LMT	f	304	-	12,12,36	0.18	0	11,11,47	0.18	0
23	CLA	B	1214	19	65,73,73	1.02	3 (4%)	76,113,113	0.84	2 (2%)
23	CLA	e	301	15	45,53,73	1.24	3 (6%)	52,89,113	1.06	2 (3%)
23	CLA	a	408	36	45,53,73	1.24	3 (6%)	52,89,113	1.02	2 (3%)
23	CLA	B	1228	19	65,73,73	1.00	3 (4%)	76,113,113	0.87	2 (2%)
30	LMT	F	407	-	24,24,36	0.16	0	29,29,47	0.32	0
30	LMT	R	306	-	12,12,36	0.16	0	11,11,47	0.20	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
30	LMT	e	316	-	-	0/10/10/61	-
30	LMT	B	1244	-	-	0/6/6/61	-
30	LMT	f	305	-	-	0/8/8/61	-
23	CLA	B	1224	19	1/1/20/20	4/37/115/115	-
23	CLA	A	413	3	1/1/18/20	0/27/105/115	-
28	LMG	b	327	-	-	4/31/51/70	0/1/1/1
30	LMT	b	326	-	-	2/12/32/61	0/1/1/2
26	PQN	A	416	-	-	1/23/43/43	0/2/2/2
30	LMT	B	1239	-	-	0/10/10/61	-
30	LMT	d	316	-	-	0/10/10/61	-
23	CLA	A	409	3	1/1/20/20	6/37/115/115	-
23	CLA	b	304	12	1/1/15/20	5/13/91/115	-
27	XAT	c	313	-	-	0/31/93/93	0/4/4/4
28	LMG	b	320	-	-	6/32/52/70	0/1/1/1
23	CLA	d	305	14	1/1/18/20	0/25/103/115	-
30	LMT	c	318	-	-	2/21/61/61	0/2/2/2
23	CLA	A	402	36	1/1/20/20	2/37/115/115	-
23	CLA	c	305	-	1/1/15/20	2/13/91/115	-
23	CLA	c	311	13	1/1/15/20	2/13/91/115	-
35	A1I05	B	1242	-	2/2/9/9	7/48/68/88	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	DGD	F	408	-	-	7/55/95/95	0/2/2/2
33	A1L6D	d	314	-	-	4/32/83/83	0/2/2/2
23	CLA	c	301	13	1/1/15/20	0/13/91/115	-
30	LMT	e	317	-	-	0/6/6/61	-
30	LMT	c	322	-	-	1/10/10/61	-
30	LMT	d	321	-	-	0/10/10/61	-
23	CLA	B	1208	-	1/1/20/20	4/37/115/115	-
23	CLA	e	306	15	1/1/20/20	5/37/115/115	-
30	LMT	c	321	-	-	1/15/35/61	0/1/1/2
30	LMT	b	325	-	-	1/10/10/61	-
23	CLA	a	412	18	1/1/17/20	0/23/101/115	-
23	CLA	f	307	16	1/1/18/20	3/29/107/115	-
25	SF4	A	415	19,3	-	-	0/6/5/5
27	XAT	c	316	-	-	3/31/93/93	0/4/4/4
30	LMT	B	1243	-	-	0/10/10/61	-
23	CLA	F	405	7	1/1/15/20	0/13/91/115	-
30	LMT	c	319	-	-	8/21/61/61	0/2/2/2
31	BCR	b	317	-	-	4/29/63/63	0/2/2/2
28	LMG	L	310	-	-	5/45/45/70	-
23	CLA	d	304	36	1/1/20/20	7/37/115/115	-
30	LMT	f	325	-	-	5/21/61/61	0/2/2/2
23	CLA	B	1222	36	1/1/15/20	4/13/91/115	-
23	CLA	B	1230	19	1/1/20/20	5/37/115/115	-
31	BCR	a	402	-	-	2/16/33/63	0/1/1/2
27	XAT	a	410	23	-	0/31/93/93	0/4/4/4
30	LMT	F	413	-	-	1/10/10/61	-
27	XAT	f	322	-	1/1/26/26	0/31/93/93	0/4/4/4
30	LMT	R	305	-	-	1/10/10/61	-
30	LMT	b	324	-	-	0/5/5/61	-
30	LMT	d	301	-	-	1/10/10/61	-
29	DGD	c	328	-	-	9/40/80/95	0/2/2/2
30	LMT	d	318	-	-	0/10/10/61	-
30	LMT	f	326	-	-	0/10/10/61	-
30	LMT	B	1236	-	-	1/10/10/61	-
23	CLA	e	309	-	1/1/20/20	3/37/115/115	-
29	DGD	A	419	-	-	11/38/78/95	0/2/2/2
23	CLA	f	312	16	1/1/15/20	2/13/91/115	-
23	CLA	L	304	9	1/1/19/20	3/31/109/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
27	XAT	b	316	-	-	1/31/93/93	0/4/4/4
30	LMT	B	1204	-	-	5/13/53/61	0/2/2/2
27	XAT	b	314	-	-	0/31/93/93	0/4/4/4
28	LMG	F	412	-	-	7/40/60/70	0/1/1/1
23	CLA	R	301	11	1/1/15/20	2/13/91/115	-
23	CLA	B	1209	19	1/1/15/20	3/13/91/115	-
24	CL0	A	407	3	3/3/25/25	3/37/135/135	-
23	CLA	c	309	13	1/1/20/20	6/37/115/115	-
23	CLA	A	414	36	1/1/20/20	3/37/115/115	-
23	CLA	A	411	3	1/1/15/20	3/13/91/115	-
30	LMT	L	301	-	-	0/10/10/61	-
27	XAT	e	311	-	-	0/31/93/93	0/4/4/4
31	BCR	B	1202	-	-	2/29/63/63	0/2/2/2
30	LMT	c	317	-	-	7/19/59/61	0/2/2/2
30	LMT	c	326	-	-	0/10/10/61	-
30	LMT	F	406	-	-	0/10/10/61	-
23	CLA	b	310	12	1/1/20/20	2/37/115/115	-
28	LMG	F	409	-	-	5/50/70/70	0/1/1/1
23	CLA	d	308	14	1/1/15/20	1/13/91/115	-
30	LMT	d	319	-	-	1/10/10/61	-
30	LMT	b	301	-	-	2/15/35/61	0/1/1/2
23	CLA	c	304	36	1/1/18/20	4/25/103/115	-
23	CLA	A	405	3	1/1/20/20	4/37/115/115	-
27	XAT	b	315	-	-	0/31/93/93	0/4/4/4
23	CLA	A	401	36	1/1/20/20	1/37/115/115	-
23	CLA	L	313	36	1/1/15/20	3/13/91/115	-
30	LMT	L	309	-	-	0/10/10/61	-
31	BCR	B	1234	-	-	2/29/63/63	0/2/2/2
23	CLA	b	303	12	1/1/20/20	1/37/115/115	-
28	LMG	f	323	-	-	11/50/70/70	0/1/1/1
30	LMT	f	303	-	-	0/10/10/61	-
23	CLA	b	307	12	1/1/20/20	6/37/115/115	-
26	PQN	B	1232	-	-	1/23/43/43	0/2/2/2
23	CLA	B	1210	19	1/1/20/20	9/37/115/115	-
33	A1L6D	B	1235	-	-	3/32/83/83	0/2/2/2
30	LMT	f	327	-	-	5/15/35/61	0/1/1/2
27	XAT	d	312	-	-	0/31/93/93	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	CLA	B	1219	19	1/1/20/20	6/37/115/115	-
27	XAT	b	313	-	-	0/31/93/93	0/4/4/4
23	CLA	a	407	18	1/1/20/20	4/37/115/115	-
31	BCR	L	307	-	-	2/29/63/63	0/2/2/2
23	CLA	d	309	14	1/1/15/20	5/13/91/115	-
23	CLA	f	316	36	1/1/15/20	0/13/91/115	-
28	LMG	A	422	-	-	4/28/48/70	0/1/1/1
23	CLA	L	305	9	1/1/15/20	5/13/91/115	-
23	CLA	d	302	14	1/1/20/20	3/37/115/115	-
23	CLA	A	412	3	1/1/20/20	4/37/115/115	-
23	CLA	e	304	15	1/1/17/20	3/19/97/115	-
23	CLA	A	423	-	1/1/15/20	6/13/91/115	-
23	CLA	F	403	36	1/1/19/20	2/31/109/115	-
28	LMG	L	308	-	-	4/17/17/70	-
23	CLA	A	406	3	1/1/15/20	2/13/91/115	-
23	CLA	f	314	16	1/1/15/20	5/13/91/115	-
30	LMT	F	411	-	-	0/10/10/61	-
30	LMT	e	313	-	-	0/10/10/61	-
30	LMT	f	324	-	-	0/10/10/61	-
34	SQD	d	315	-	-	5/32/52/69	0/1/1/1
23	CLA	c	307	13	1/1/20/20	8/37/115/115	-
32	AV0	L	312	-	-	4/38/78/130	0/2/2/4
27	XAT	f	318	-	-	0/31/93/93	0/4/4/4
30	LMT	c	323	-	-	1/10/10/61	-
29	DGD	b	319	-	-	8/38/78/95	0/2/2/2
30	LMT	c	327	-	-	0/10/10/61	-
30	LMT	e	318	-	-	8/21/61/61	0/2/2/2
23	CLA	c	308	36	1/1/15/20	2/13/91/115	-
23	CLA	b	305	36	1/1/20/20	4/37/115/115	-
23	CLA	B	1205	19	1/1/20/20	1/37/115/115	-
27	XAT	d	311	-	-	0/31/93/93	0/4/4/4
33	A1L6D	f	321	-	-	4/32/83/83	0/2/2/2
23	CLA	b	312	12	1/1/17/20	1/24/102/115	-
23	CLA	c	303	13	1/1/18/20	4/25/103/115	-
23	CLA	c	310	36	1/1/20/20	0/37/115/115	-
27	XAT	A	417	-	-	0/31/93/93	0/4/4/4
29	DGD	u	501	-	-	7/43/83/95	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
30	LMT	B	1240	-	-	5/15/35/61	0/1/1/2
23	CLA	A	404	3	1/1/20/20	9/37/115/115	-
28	LMG	R	304	-	-	1/23/43/70	0/1/1/1
23	CLA	a	401	36	1/1/20/20	5/37/115/115	-
30	LMT	B	1237	-	-	0/10/10/61	-
30	LMT	c	329	-	-	0/10/10/61	-
23	CLA	B	1207	19	1/1/20/20	3/37/115/115	-
30	LMT	e	315	-	-	1/10/10/61	-
30	LMT	B	1203	-	-	0/10/10/61	-
23	CLA	f	315	16	1/1/18/20	1/25/103/115	-
23	CLA	f	306	16	1/1/19/20	1/31/109/115	-
30	LMT	f	302	-	-	2/15/35/61	0/1/1/2
23	CLA	B	1225	36	1/1/20/20	7/37/115/115	-
23	CLA	f	313	16	1/1/15/20	4/13/91/115	-
27	XAT	R	307	-	-	0/31/93/93	0/4/4/4
30	LMT	b	323	-	-	0/10/10/61	-
23	CLA	A	408	3	1/1/20/20	3/37/115/115	-
28	LMG	A	418	-	-	5/32/32/70	-
23	CLA	b	309	36	1/1/20/20	6/37/115/115	-
23	CLA	b	308	12	1/1/20/20	4/37/115/115	-
23	CLA	B	1211	19	1/1/20/20	6/37/115/115	-
23	CLA	f	310	16	1/1/20/20	2/37/115/115	-
30	LMT	b	322	-	-	0/10/10/61	-
27	XAT	R	303	-	-	1/31/93/93	0/4/4/4
23	CLA	a	406	18	1/1/20/20	5/37/115/115	-
23	CLA	B	1217	19	1/1/20/20	4/37/115/115	-
23	CLA	f	309	16	1/1/15/20	3/13/91/115	-
23	CLA	B	1216	19	1/1/20/20	4/37/115/115	-
33	A1L6D	e	312	-	-	0/32/83/83	0/2/2/2
27	XAT	d	313	-	-	0/31/93/93	0/4/4/4
31	BCR	F	401	-	-	2/29/63/63	0/2/2/2
27	XAT	c	314	-	-	0/31/93/93	0/4/4/4
23	CLA	B	1221	19	1/1/20/20	11/37/115/115	-
23	CLA	F	402	36	1/1/20/20	8/37/115/115	-
23	CLA	f	311	16	1/1/20/20	3/37/115/115	-
23	CLA	c	306	13	1/1/15/20	2/13/91/115	-
23	CLA	a	403	18	1/1/20/20	8/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
30	LMT	c	332	-	-	1/10/10/61	-
23	CLA	e	303	15	1/1/20/20	11/37/115/115	-
30	LMT	a	404	-	-	0/5/5/61	-
23	CLA	L	303	36	1/1/20/20	7/37/115/115	-
23	CLA	B	1212	19	1/1/15/20	2/13/91/115	-
30	LMT	F	414	23	-	10/21/61/61	0/2/2/2
23	CLA	d	303	14	1/1/18/20	0/27/105/115	-
28	LMG	b	321	-	-	7/45/65/70	0/1/1/1
30	LMT	B	1238	-	-	0/10/10/61	-
31	BCR	B	1233	-	-	1/29/63/63	0/2/2/2
23	CLA	B	1201	-	1/1/20/20	2/37/115/115	-
23	CLA	b	328	27	1/1/20/20	3/37/115/115	-
23	CLA	B	1218	19	1/1/17/20	3/23/101/115	-
30	LMT	f	301	-	-	1/10/10/61	-
27	XAT	f	320	-	-	0/31/93/93	0/4/4/4
23	CLA	B	1223	19	1/1/20/20	13/37/115/115	-
23	CLA	B	1231	19	1/1/15/20	0/13/91/115	-
29	DGD	b	318	-	-	8/36/76/95	0/2/2/2
30	LMT	c	325	-	-	0/10/10/61	-
30	LMT	c	333	-	-	1/10/10/61	-
23	CLA	d	307	14	1/1/19/20	4/31/109/115	-
23	CLA	b	306	12	1/1/20/20	4/37/115/115	-
23	CLA	A	420	-	1/1/20/20	14/37/115/115	-
23	CLA	A	410	3	1/1/20/20	2/37/115/115	-
23	CLA	c	302	13	1/1/20/20	3/37/115/115	-
23	CLA	e	305	15	1/1/20/20	2/37/115/115	-
30	LMT	c	331	-	-	6/21/61/61	0/2/2/2
30	LMT	B	1241	-	-	1/10/10/61	-
30	LMT	B	1245	-	-	0/8/8/61	-
25	SF4	C	101	4	-	-	0/6/5/5
23	CLA	a	405	18	1/1/15/20	5/13/91/115	-
23	CLA	d	306	14	1/1/20/20	5/37/115/115	-
25	SF4	C	102	4	-	-	0/6/5/5
23	CLA	B	1206	36	1/1/19/20	1/31/109/115	-
27	XAT	e	310	-	-	0/31/93/93	0/4/4/4
30	LMT	A	421	-	-	0/10/10/61	-
30	LMT	L	311	-	-	0/10/10/61	-
31	BCR	L	306	-	-	4/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	CLA	a	411	-	1/1/15/20	4/13/91/115	-
27	XAT	f	319	-	-	0/31/93/93	0/4/4/4
23	CLA	B	1226	36	1/1/20/20	5/37/115/115	-
30	LMT	d	320	-	-	2/10/10/61	-
23	CLA	B	1215	19	1/1/20/20	0/37/115/115	-
30	LMT	L	302	-	-	1/10/10/61	-
30	LMT	c	324	-	-	0/10/10/61	-
30	LMT	a	409	-	-	5/21/61/61	0/2/2/2
23	CLA	F	404	36	1/1/20/20	6/37/115/115	-
23	CLA	f	308	36	1/1/20/20	7/37/115/115	-
23	CLA	B	1229	36	1/1/20/20	5/37/115/115	-
27	XAT	c	315	-	-	0/31/93/93	0/4/4/4
27	XAT	d	310	-	-	0/31/93/93	0/4/4/4
23	CLA	A	403	3	1/1/20/20	4/37/115/115	-
23	CLA	B	1227	30,19	1/1/20/20	2/37/115/115	-
30	LMT	d	322	-	-	0/10/10/61	-
23	CLA	B	1220	19	1/1/19/20	4/31/109/115	-
30	LMT	d	317	-	-	4/21/61/61	0/2/2/2
23	CLA	f	317	36	1/1/20/20	3/37/115/115	-
30	LMT	e	314	-	-	0/4/4/61	-
23	CLA	B	1213	19	1/1/20/20	0/37/115/115	-
23	CLA	e	307	36	1/1/20/20	4/37/115/115	-
30	LMT	F	410	-	-	0/10/10/61	-
23	CLA	b	311	36	1/1/15/20	0/13/91/115	-
23	CLA	e	308	-	1/1/20/20	1/37/115/115	-
23	CLA	e	302	15	1/1/20/20	2/37/115/115	-
23	CLA	R	302	11	1/1/20/20	4/37/115/115	-
23	CLA	b	302	36	1/1/18/20	3/29/107/115	-
30	LMT	c	320	-	-	0/4/4/61	-
30	LMT	c	330	-	-	1/21/61/61	0/2/2/2
23	CLA	c	312	13	1/1/20/20	7/37/115/115	-
30	LMT	f	304	-	-	1/10/10/61	-
23	CLA	B	1214	19	1/1/20/20	2/37/115/115	-
23	CLA	e	301	15	1/1/15/20	3/13/91/115	-
23	CLA	a	408	36	1/1/15/20	2/13/91/115	-
23	CLA	B	1228	19	1/1/20/20	7/37/115/115	-
30	LMT	F	407	-	-	1/15/35/61	0/1/1/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
30	LMT	R	306	-	-	0/10/10/61	-

All (359) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	A	407	CL0	C4B-NB	10.67	1.44	1.35
24	A	407	CL0	C1B-NB	7.44	1.41	1.35
23	B	1207	CLA	C1D-ND	6.05	1.45	1.37
23	A	420	CLA	MG-ND	-5.98	1.93	2.05
23	A	409	CLA	C1D-ND	5.89	1.45	1.37
23	B	1214	CLA	C1D-ND	5.85	1.45	1.37
23	c	305	CLA	C1D-ND	5.83	1.45	1.37
23	A	408	CLA	C1D-ND	5.78	1.44	1.37
23	B	1220	CLA	C1D-ND	5.71	1.44	1.37
23	B	1210	CLA	C1D-ND	5.68	1.44	1.37
23	B	1216	CLA	C1D-ND	5.68	1.44	1.37
23	a	406	CLA	C1D-ND	5.68	1.44	1.37
23	B	1228	CLA	C1D-ND	5.67	1.44	1.37
23	B	1218	CLA	C1D-ND	5.66	1.44	1.37
23	f	313	CLA	C1D-ND	5.64	1.44	1.37
23	c	311	CLA	C1D-ND	5.64	1.44	1.37
23	A	404	CLA	C1D-ND	5.63	1.44	1.37
23	a	407	CLA	C1D-ND	5.62	1.44	1.37
23	a	411	CLA	C1D-ND	5.61	1.44	1.37
23	B	1213	CLA	C1D-ND	5.61	1.44	1.37
23	L	303	CLA	C1D-ND	5.61	1.44	1.37
23	A	410	CLA	C1D-ND	5.59	1.44	1.37
23	d	303	CLA	C1D-ND	5.58	1.44	1.37
23	b	328	CLA	C1D-ND	5.57	1.44	1.37
23	B	1225	CLA	C1D-ND	5.56	1.44	1.37
23	A	423	CLA	C1D-ND	5.55	1.44	1.37
23	B	1205	CLA	C1D-ND	5.55	1.44	1.37
23	d	308	CLA	C1D-ND	5.54	1.44	1.37
23	b	303	CLA	C1D-ND	5.54	1.44	1.37
23	B	1217	CLA	C1D-ND	5.54	1.44	1.37
23	B	1219	CLA	C1D-ND	5.53	1.44	1.37
23	b	310	CLA	C1D-ND	5.53	1.44	1.37
23	b	307	CLA	C1D-ND	5.52	1.44	1.37
23	R	302	CLA	C1D-ND	5.52	1.44	1.37
23	A	401	CLA	C1D-ND	5.51	1.44	1.37
23	a	408	CLA	C1D-ND	5.51	1.44	1.37
23	d	304	CLA	C1D-ND	5.50	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	B	1230	CLA	C1D-ND	5.50	1.44	1.37
23	B	1224	CLA	C1D-ND	5.50	1.44	1.37
23	B	1229	CLA	C1D-ND	5.49	1.44	1.37
23	f	310	CLA	C1D-ND	5.49	1.44	1.37
23	d	305	CLA	C1D-ND	5.48	1.44	1.37
23	L	305	CLA	C1D-ND	5.48	1.44	1.37
23	b	302	CLA	C1D-ND	5.47	1.44	1.37
23	R	301	CLA	C1D-ND	5.46	1.44	1.37
23	e	301	CLA	C1D-ND	5.45	1.44	1.37
23	b	312	CLA	C1D-ND	5.45	1.44	1.37
23	c	309	CLA	C1D-ND	5.44	1.44	1.37
23	d	309	CLA	C1D-ND	5.44	1.44	1.37
23	F	405	CLA	C1D-ND	5.44	1.44	1.37
23	A	402	CLA	C1D-ND	5.43	1.44	1.37
23	a	412	CLA	C1D-ND	5.43	1.44	1.37
23	B	1223	CLA	C1D-ND	5.42	1.44	1.37
23	B	1215	CLA	C1D-ND	5.41	1.44	1.37
23	b	305	CLA	C1D-ND	5.41	1.44	1.37
23	b	311	CLA	C1D-ND	5.41	1.44	1.37
23	B	1221	CLA	C1D-ND	5.40	1.44	1.37
23	f	314	CLA	C1D-ND	5.40	1.44	1.37
23	B	1212	CLA	C1D-ND	5.40	1.44	1.37
23	A	412	CLA	C1D-ND	5.39	1.44	1.37
23	B	1209	CLA	C1D-ND	5.39	1.44	1.37
23	d	302	CLA	C1D-ND	5.38	1.44	1.37
23	A	405	CLA	C1D-ND	5.38	1.44	1.37
23	F	403	CLA	C1D-ND	5.37	1.44	1.37
23	f	316	CLA	C1D-ND	5.36	1.44	1.37
23	d	307	CLA	C1D-ND	5.35	1.44	1.37
23	A	414	CLA	C1D-ND	5.35	1.44	1.37
23	f	309	CLA	C1D-ND	5.34	1.44	1.37
23	a	401	CLA	C1D-ND	5.34	1.44	1.37
23	e	306	CLA	C1D-ND	5.33	1.44	1.37
23	a	405	CLA	C1D-ND	5.33	1.44	1.37
23	F	404	CLA	C1D-ND	5.33	1.44	1.37
23	e	303	CLA	C1D-ND	5.33	1.44	1.37
23	F	402	CLA	C1D-ND	5.31	1.44	1.37
23	L	313	CLA	C1D-ND	5.29	1.44	1.37
23	e	308	CLA	C1D-ND	5.29	1.44	1.37
23	A	411	CLA	C1D-ND	5.28	1.44	1.37
23	B	1208	CLA	C1D-ND	5.28	1.44	1.37
23	f	315	CLA	C1D-ND	5.27	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	e	307	CLA	C1D-ND	5.26	1.44	1.37
23	b	306	CLA	C1D-ND	5.25	1.44	1.37
23	b	309	CLA	C1D-ND	5.25	1.44	1.37
23	L	304	CLA	C1D-ND	5.25	1.44	1.37
23	f	306	CLA	C1D-ND	5.25	1.44	1.37
23	c	310	CLA	C1D-ND	5.24	1.44	1.37
23	e	302	CLA	C1D-ND	5.24	1.44	1.37
23	e	309	CLA	MG-ND	-5.22	1.95	2.05
23	f	312	CLA	C1D-ND	5.22	1.44	1.37
23	b	304	CLA	C1D-ND	5.22	1.44	1.37
23	c	303	CLA	C1D-ND	5.21	1.44	1.37
23	e	304	CLA	C1D-ND	5.21	1.44	1.37
23	A	403	CLA	C1D-ND	5.19	1.44	1.37
23	A	413	CLA	C1D-ND	5.18	1.44	1.37
23	f	307	CLA	C1D-ND	5.17	1.44	1.37
23	f	308	CLA	C1D-ND	5.17	1.44	1.37
23	B	1211	CLA	C1D-ND	5.16	1.44	1.37
23	f	317	CLA	C1D-ND	5.15	1.44	1.37
23	B	1226	CLA	C1D-ND	5.14	1.44	1.37
23	B	1206	CLA	C1D-ND	5.14	1.44	1.37
23	B	1222	CLA	C1D-ND	5.13	1.44	1.37
23	a	403	CLA	C1D-ND	5.12	1.44	1.37
23	c	312	CLA	C1D-ND	5.10	1.44	1.37
23	c	308	CLA	C1D-ND	5.10	1.44	1.37
23	c	306	CLA	C1D-ND	5.09	1.44	1.37
23	e	305	CLA	C1D-ND	5.08	1.44	1.37
23	B	1231	CLA	C1D-ND	5.06	1.44	1.37
23	d	306	CLA	C1D-ND	5.04	1.44	1.37
23	B	1227	CLA	C1D-ND	5.04	1.44	1.37
23	c	304	CLA	C1D-ND	5.02	1.44	1.37
23	B	1201	CLA	C1D-ND	5.01	1.43	1.37
23	c	302	CLA	C1D-ND	4.99	1.43	1.37
23	c	307	CLA	C1D-ND	4.96	1.43	1.37
23	c	301	CLA	C1D-ND	4.95	1.43	1.37
23	f	311	CLA	C1D-ND	4.94	1.43	1.37
23	A	406	CLA	C1D-ND	4.89	1.43	1.37
23	b	308	CLA	C1D-ND	4.85	1.43	1.37
24	A	407	CL0	C1D-ND	4.69	1.43	1.37
23	c	312	CLA	MG-ND	-4.58	1.96	2.05
23	e	309	CLA	C1D-ND	4.51	1.43	1.37
23	B	1222	CLA	MG-ND	-4.50	1.96	2.05
23	b	304	CLA	MG-ND	-4.43	1.97	2.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	a	403	CLA	MG-ND	-4.36	1.97	2.05
23	c	305	CLA	MG-ND	-4.35	1.97	2.05
23	c	307	CLA	MG-ND	-4.33	1.97	2.05
23	A	420	CLA	C1D-ND	4.32	1.43	1.37
23	e	304	CLA	MG-ND	-4.30	1.97	2.05
23	A	423	CLA	MG-ND	-4.27	1.97	2.05
23	c	301	CLA	MG-ND	-4.26	1.97	2.05
23	e	306	CLA	MG-ND	-4.26	1.97	2.05
23	e	307	CLA	MG-ND	-4.25	1.97	2.05
23	A	406	CLA	MG-ND	-4.25	1.97	2.05
24	A	407	CL0	MG-NA	-4.23	1.96	2.06
23	B	1210	CLA	MG-ND	-4.22	1.97	2.05
23	e	308	CLA	MG-ND	-4.21	1.97	2.05
23	c	310	CLA	MG-ND	-4.21	1.97	2.05
24	A	407	CL0	MG-ND	-4.21	1.97	2.05
23	b	308	CLA	MG-ND	-4.18	1.97	2.05
23	c	304	CLA	MG-ND	-4.18	1.97	2.05
23	f	306	CLA	MG-ND	-4.18	1.97	2.05
23	f	317	CLA	MG-ND	-4.17	1.97	2.05
23	B	1209	CLA	MG-ND	-4.17	1.97	2.05
23	d	306	CLA	MG-ND	-4.16	1.97	2.05
23	e	302	CLA	MG-ND	-4.15	1.97	2.05
23	d	308	CLA	MG-ND	-4.14	1.97	2.05
23	f	316	CLA	MG-ND	-4.13	1.97	2.05
23	f	310	CLA	MG-ND	-4.13	1.97	2.05
23	f	312	CLA	MG-ND	-4.12	1.97	2.05
23	c	306	CLA	MG-ND	-4.11	1.97	2.05
23	e	301	CLA	MG-ND	-4.11	1.97	2.05
23	d	302	CLA	MG-ND	-4.11	1.97	2.05
23	d	309	CLA	MG-ND	-4.11	1.97	2.05
23	c	311	CLA	MG-ND	-4.10	1.97	2.05
23	a	411	CLA	MG-ND	-4.09	1.97	2.05
23	f	314	CLA	MG-ND	-4.09	1.97	2.05
23	f	311	CLA	MG-ND	-4.09	1.97	2.05
23	F	403	CLA	MG-ND	-4.08	1.97	2.05
23	f	308	CLA	MG-ND	-4.07	1.97	2.05
23	f	309	CLA	MG-ND	-4.06	1.97	2.05
23	F	405	CLA	MG-ND	-4.06	1.97	2.05
23	B	1225	CLA	MG-ND	-4.06	1.97	2.05
23	f	313	CLA	MG-ND	-4.04	1.97	2.05
23	b	311	CLA	MG-ND	-4.03	1.97	2.05
23	A	414	CLA	MG-ND	-4.03	1.97	2.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	b	307	CLA	MG-ND	-4.03	1.97	2.05
23	d	307	CLA	MG-ND	-4.02	1.97	2.05
23	F	402	CLA	MG-ND	-4.00	1.97	2.05
23	d	304	CLA	MG-ND	-4.00	1.97	2.05
23	c	308	CLA	MG-ND	-4.00	1.97	2.05
23	d	305	CLA	MG-ND	-3.99	1.97	2.05
23	a	405	CLA	MG-ND	-3.99	1.97	2.05
23	c	309	CLA	MG-ND	-3.99	1.97	2.05
23	R	302	CLA	MG-ND	-3.97	1.97	2.05
23	b	310	CLA	MG-ND	-3.97	1.97	2.05
23	L	305	CLA	MG-ND	-3.97	1.97	2.05
23	B	1201	CLA	MG-ND	-3.96	1.97	2.05
23	b	328	CLA	MG-ND	-3.96	1.97	2.05
23	A	411	CLA	MG-ND	-3.95	1.98	2.05
23	B	1221	CLA	MG-ND	-3.94	1.98	2.05
23	a	401	CLA	MG-ND	-3.94	1.98	2.05
23	A	402	CLA	MG-ND	-3.93	1.98	2.05
23	B	1206	CLA	MG-ND	-3.93	1.98	2.05
23	c	302	CLA	MG-ND	-3.92	1.98	2.05
23	B	1227	CLA	MG-ND	-3.91	1.98	2.05
23	b	312	CLA	MG-ND	-3.90	1.98	2.05
23	b	303	CLA	MG-ND	-3.90	1.98	2.05
23	b	302	CLA	MG-ND	-3.90	1.98	2.05
23	e	303	CLA	MG-ND	-3.89	1.98	2.05
23	f	307	CLA	MG-ND	-3.88	1.98	2.05
23	F	404	CLA	MG-ND	-3.87	1.98	2.05
23	L	313	CLA	MG-ND	-3.87	1.98	2.05
23	A	412	CLA	MG-ND	-3.86	1.98	2.05
23	A	403	CLA	MG-ND	-3.86	1.98	2.05
23	d	303	CLA	MG-ND	-3.85	1.98	2.05
23	e	305	CLA	MG-ND	-3.85	1.98	2.05
23	a	408	CLA	MG-ND	-3.84	1.98	2.05
23	B	1220	CLA	MG-ND	-3.84	1.98	2.05
23	b	306	CLA	MG-ND	-3.83	1.98	2.05
23	R	301	CLA	MG-ND	-3.81	1.98	2.05
23	b	309	CLA	MG-ND	-3.81	1.98	2.05
23	c	303	CLA	MG-ND	-3.80	1.98	2.05
23	f	315	CLA	MG-ND	-3.80	1.98	2.05
23	B	1212	CLA	MG-ND	-3.79	1.98	2.05
23	b	305	CLA	MG-ND	-3.79	1.98	2.05
23	A	413	CLA	MG-ND	-3.78	1.98	2.05
23	B	1229	CLA	MG-ND	-3.77	1.98	2.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	a	412	CLA	MG-ND	-3.75	1.98	2.05
23	B	1224	CLA	MG-ND	-3.72	1.98	2.05
23	B	1211	CLA	MG-ND	-3.70	1.98	2.05
23	L	303	CLA	MG-ND	-3.69	1.98	2.05
23	a	407	CLA	MG-ND	-3.69	1.98	2.05
23	B	1218	CLA	MG-ND	-3.69	1.98	2.05
23	A	401	CLA	MG-ND	-3.65	1.98	2.05
23	a	406	CLA	MG-ND	-3.64	1.98	2.05
23	A	405	CLA	MG-ND	-3.63	1.98	2.05
23	B	1219	CLA	MG-ND	-3.63	1.98	2.05
23	B	1215	CLA	MG-ND	-3.62	1.98	2.05
23	A	404	CLA	MG-ND	-3.61	1.98	2.05
23	B	1226	CLA	MG-ND	-3.58	1.98	2.05
23	L	304	CLA	MG-ND	-3.57	1.98	2.05
23	B	1231	CLA	MG-ND	-3.57	1.98	2.05
23	B	1205	CLA	MG-ND	-3.56	1.98	2.05
23	B	1223	CLA	MG-ND	-3.55	1.98	2.05
23	B	1208	CLA	MG-ND	-3.49	1.98	2.05
33	f	321	A1L6D	C32-C31	-3.47	1.48	1.54
23	A	410	CLA	MG-ND	-3.47	1.98	2.05
23	A	408	CLA	MG-ND	-3.46	1.98	2.05
23	B	1217	CLA	MG-ND	-3.46	1.98	2.05
23	B	1230	CLA	MG-ND	-3.45	1.98	2.05
23	B	1216	CLA	MG-ND	-3.39	1.99	2.05
33	d	314	A1L6D	C32-C31	-3.28	1.49	1.54
23	B	1213	CLA	MG-ND	-3.24	1.99	2.05
23	B	1228	CLA	MG-ND	-3.24	1.99	2.05
33	e	312	A1L6D	C32-C31	-3.18	1.49	1.54
23	B	1214	CLA	MG-ND	-3.12	1.99	2.05
23	A	409	CLA	MG-ND	-3.06	1.99	2.05
33	B	1235	A1L6D	C32-C31	-3.03	1.49	1.54
23	B	1207	CLA	MG-ND	-2.95	1.99	2.05
24	A	407	CL0	MG-NC	-2.79	1.99	2.06
24	A	407	CL0	C1C-C2C	2.65	1.49	1.44
23	B	1207	CLA	C1D-C2D	-2.55	1.40	1.45
23	B	1231	CLA	C1D-C2D	-2.46	1.40	1.45
23	c	309	CLA	C1D-C2D	-2.45	1.40	1.45
23	B	1201	CLA	C1D-C2D	-2.45	1.40	1.45
23	f	307	CLA	C1D-C2D	-2.44	1.40	1.45
23	f	317	CLA	C1D-C2D	-2.44	1.40	1.45
23	f	310	CLA	C1D-C2D	-2.44	1.40	1.45
23	R	302	CLA	C1D-C2D	-2.44	1.40	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	d	308	CLA	C1D-C2D	-2.43	1.40	1.45
23	c	302	CLA	C1D-C2D	-2.43	1.40	1.45
23	c	301	CLA	C1D-C2D	-2.41	1.40	1.45
23	f	306	CLA	C1D-C2D	-2.41	1.40	1.45
23	a	406	CLA	C1D-C2D	-2.41	1.40	1.45
23	A	411	CLA	C1D-C2D	-2.41	1.40	1.45
23	L	313	CLA	C1D-C2D	-2.41	1.40	1.45
23	B	1206	CLA	C1D-C2D	-2.40	1.40	1.45
23	e	302	CLA	C1D-C2D	-2.40	1.40	1.45
23	f	311	CLA	C1D-C2D	-2.40	1.40	1.45
23	f	313	CLA	C1D-C2D	-2.40	1.40	1.45
23	e	305	CLA	C1D-C2D	-2.39	1.40	1.45
23	c	307	CLA	C1D-C2D	-2.39	1.40	1.45
23	B	1214	CLA	C1D-C2D	-2.39	1.40	1.45
23	d	302	CLA	C1D-C2D	-2.39	1.40	1.45
23	B	1205	CLA	C1D-C2D	-2.39	1.40	1.45
23	B	1209	CLA	C1D-C2D	-2.38	1.40	1.45
24	A	407	CL0	C1D-C2D	-2.38	1.40	1.45
23	e	306	CLA	C1D-C2D	-2.38	1.40	1.45
23	b	310	CLA	C1D-C2D	-2.38	1.40	1.45
23	A	423	CLA	C1D-C2D	-2.37	1.40	1.45
23	d	306	CLA	C1D-C2D	-2.37	1.40	1.45
23	b	305	CLA	C1D-C2D	-2.37	1.40	1.45
23	B	1228	CLA	C1D-C2D	-2.37	1.40	1.45
23	f	315	CLA	C1D-C2D	-2.36	1.40	1.45
23	f	314	CLA	C1D-C2D	-2.36	1.40	1.45
23	c	310	CLA	C1D-C2D	-2.36	1.40	1.45
23	A	414	CLA	C1D-C2D	-2.36	1.40	1.45
23	c	304	CLA	C1D-C2D	-2.36	1.40	1.45
23	c	308	CLA	C1D-C2D	-2.36	1.40	1.45
23	a	405	CLA	C1D-C2D	-2.36	1.40	1.45
23	e	303	CLA	C1D-C2D	-2.36	1.40	1.45
23	B	1216	CLA	C1D-C2D	-2.36	1.40	1.45
23	B	1213	CLA	C1D-C2D	-2.35	1.40	1.45
23	B	1223	CLA	C1D-C2D	-2.35	1.40	1.45
23	f	309	CLA	C1D-C2D	-2.35	1.40	1.45
23	B	1212	CLA	C1D-C2D	-2.35	1.40	1.45
23	b	303	CLA	C1D-C2D	-2.35	1.40	1.45
23	B	1220	CLA	C1D-C2D	-2.35	1.40	1.45
23	c	305	CLA	C1D-C2D	-2.35	1.40	1.45
23	a	412	CLA	C1D-C2D	-2.35	1.40	1.45
23	e	308	CLA	C1D-C2D	-2.35	1.40	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	d	303	CLA	C1D-C2D	-2.34	1.40	1.45
23	f	316	CLA	C1D-C2D	-2.34	1.40	1.45
23	A	404	CLA	C1D-C2D	-2.34	1.40	1.45
23	c	311	CLA	C1D-C2D	-2.34	1.40	1.45
23	L	305	CLA	C1D-C2D	-2.34	1.40	1.45
23	b	312	CLA	C1D-C2D	-2.34	1.40	1.45
23	e	307	CLA	C1D-C2D	-2.34	1.40	1.45
23	c	303	CLA	C1D-C2D	-2.34	1.40	1.45
23	B	1218	CLA	C1D-C2D	-2.34	1.40	1.45
23	B	1221	CLA	C1D-C2D	-2.33	1.40	1.45
23	B	1225	CLA	C1D-C2D	-2.33	1.40	1.45
23	e	304	CLA	C1D-C2D	-2.33	1.40	1.45
23	F	403	CLA	C1D-C2D	-2.33	1.40	1.45
23	A	402	CLA	C1D-C2D	-2.33	1.40	1.45
23	R	301	CLA	C1D-C2D	-2.33	1.40	1.45
23	b	307	CLA	C1D-C2D	-2.32	1.40	1.45
23	d	304	CLA	C1D-C2D	-2.32	1.40	1.45
23	B	1227	CLA	C1D-C2D	-2.32	1.40	1.45
23	a	401	CLA	C1D-C2D	-2.31	1.40	1.45
23	A	401	CLA	C1D-C2D	-2.31	1.40	1.45
23	B	1217	CLA	C1D-C2D	-2.31	1.40	1.45
23	A	409	CLA	C1D-C2D	-2.31	1.40	1.45
23	d	305	CLA	C1D-C2D	-2.31	1.40	1.45
23	a	403	CLA	C1D-C2D	-2.31	1.40	1.45
23	b	311	CLA	C1D-C2D	-2.31	1.40	1.45
23	B	1219	CLA	C1D-C2D	-2.31	1.40	1.45
23	B	1222	CLA	C1D-C2D	-2.31	1.40	1.45
23	b	304	CLA	C1D-C2D	-2.31	1.40	1.45
23	f	308	CLA	C1D-C2D	-2.31	1.40	1.45
23	a	408	CLA	C1D-C2D	-2.30	1.40	1.45
23	c	312	CLA	C1D-C2D	-2.29	1.40	1.45
23	A	412	CLA	C1D-C2D	-2.29	1.40	1.45
23	B	1211	CLA	C1D-C2D	-2.29	1.40	1.45
23	B	1210	CLA	C1D-C2D	-2.28	1.40	1.45
23	d	307	CLA	C1D-C2D	-2.28	1.40	1.45
23	a	411	CLA	C1D-C2D	-2.28	1.40	1.45
23	d	309	CLA	C1D-C2D	-2.28	1.40	1.45
23	B	1208	CLA	C1D-C2D	-2.28	1.40	1.45
23	A	403	CLA	C1D-C2D	-2.28	1.40	1.45
23	A	408	CLA	C1D-C2D	-2.28	1.40	1.45
23	L	303	CLA	C1D-C2D	-2.28	1.40	1.45
23	e	301	CLA	C1D-C2D	-2.28	1.40	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	a	407	CLA	C1D-C2D	-2.27	1.40	1.45
23	b	309	CLA	C1D-C2D	-2.27	1.40	1.45
23	B	1215	CLA	C1D-C2D	-2.27	1.40	1.45
23	c	306	CLA	C1D-C2D	-2.27	1.40	1.45
23	F	402	CLA	C1D-C2D	-2.27	1.40	1.45
23	A	406	CLA	C1D-C2D	-2.27	1.40	1.45
23	B	1226	CLA	C1D-C2D	-2.26	1.40	1.45
23	b	302	CLA	C1D-C2D	-2.26	1.40	1.45
23	A	410	CLA	C1D-C2D	-2.26	1.40	1.45
23	F	405	CLA	C1D-C2D	-2.26	1.40	1.45
23	F	404	CLA	C1D-C2D	-2.25	1.40	1.45
23	A	420	CLA	C1D-C2D	-2.25	1.40	1.45
23	b	308	CLA	C1D-C2D	-2.25	1.40	1.45
23	f	312	CLA	C1D-C2D	-2.24	1.40	1.45
23	b	328	CLA	C1D-C2D	-2.24	1.40	1.45
23	e	309	CLA	C1D-C2D	-2.24	1.40	1.45
23	A	413	CLA	C1D-C2D	-2.23	1.40	1.45
23	B	1230	CLA	C1D-C2D	-2.23	1.40	1.45
23	B	1229	CLA	C1D-C2D	-2.23	1.40	1.45
23	B	1224	CLA	C1D-C2D	-2.22	1.40	1.45
23	A	405	CLA	C1D-C2D	-2.21	1.41	1.45
23	L	304	CLA	C1D-C2D	-2.19	1.41	1.45
23	b	306	CLA	C1D-C2D	-2.12	1.41	1.45
23	f	311	CLA	C3D-C4D	-2.05	1.39	1.44
23	c	303	CLA	C3D-C4D	-2.03	1.39	1.44
23	d	306	CLA	C3D-C4D	-2.02	1.39	1.44
23	c	301	CLA	C3D-C4D	-2.01	1.39	1.44
23	f	317	CLA	C3D-C4D	-2.00	1.39	1.44

All (260) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	A	409	CLA	C1D-ND-C4D	-4.52	103.12	106.33
23	B	1216	CLA	C1D-ND-C4D	-4.40	103.21	106.33
23	f	312	CLA	C1D-ND-C4D	-4.36	103.24	106.33
23	B	1224	CLA	C1D-ND-C4D	-4.35	103.25	106.33
23	B	1230	CLA	C1D-ND-C4D	-4.33	103.26	106.33
23	A	410	CLA	C1D-ND-C4D	-4.30	103.28	106.33
23	d	307	CLA	C1D-ND-C4D	-4.30	103.28	106.33
23	R	301	CLA	C1D-ND-C4D	-4.27	103.30	106.33
23	L	303	CLA	C1D-ND-C4D	-4.26	103.31	106.33
23	B	1214	CLA	C1D-ND-C4D	-4.25	103.32	106.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	a	406	CLA	C1D-ND-C4D	-4.25	103.32	106.33
23	B	1217	CLA	C1D-ND-C4D	-4.23	103.33	106.33
23	e	303	CLA	C1D-ND-C4D	-4.22	103.34	106.33
23	B	1228	CLA	C1D-ND-C4D	-4.22	103.34	106.33
23	A	408	CLA	C1D-ND-C4D	-4.21	103.34	106.33
23	B	1219	CLA	C1D-ND-C4D	-4.21	103.34	106.33
23	b	306	CLA	C1D-ND-C4D	-4.20	103.35	106.33
23	B	1215	CLA	C1D-ND-C4D	-4.20	103.35	106.33
23	b	328	CLA	C1D-ND-C4D	-4.19	103.36	106.33
23	c	311	CLA	C1D-ND-C4D	-4.19	103.36	106.33
23	B	1213	CLA	C1D-ND-C4D	-4.19	103.36	106.33
23	f	313	CLA	C1D-ND-C4D	-4.19	103.36	106.33
23	c	303	CLA	C1D-ND-C4D	-4.18	103.37	106.33
23	f	315	CLA	C1D-ND-C4D	-4.17	103.37	106.33
23	L	304	CLA	C1D-ND-C4D	-4.17	103.37	106.33
23	e	301	CLA	C1D-ND-C4D	-4.17	103.37	106.33
23	B	1223	CLA	C1D-ND-C4D	-4.17	103.37	106.33
23	B	1211	CLA	C1D-ND-C4D	-4.17	103.38	106.33
23	d	304	CLA	C1D-ND-C4D	-4.16	103.38	106.33
23	a	407	CLA	C1D-ND-C4D	-4.16	103.38	106.33
23	A	404	CLA	C1D-ND-C4D	-4.15	103.39	106.33
23	b	302	CLA	C1D-ND-C4D	-4.15	103.39	106.33
23	F	405	CLA	C1D-ND-C4D	-4.14	103.39	106.33
23	f	316	CLA	C1D-ND-C4D	-4.14	103.40	106.33
23	b	303	CLA	C1D-ND-C4D	-4.13	103.40	106.33
23	R	302	CLA	C1D-ND-C4D	-4.13	103.40	106.33
23	B	1205	CLA	C1D-ND-C4D	-4.13	103.40	106.33
23	a	408	CLA	C1D-ND-C4D	-4.13	103.40	106.33
23	f	309	CLA	C1D-ND-C4D	-4.12	103.41	106.33
23	B	1226	CLA	C1D-ND-C4D	-4.12	103.41	106.33
23	B	1220	CLA	C1D-ND-C4D	-4.12	103.41	106.33
23	B	1229	CLA	C1D-ND-C4D	-4.11	103.41	106.33
23	b	305	CLA	C1D-ND-C4D	-4.11	103.42	106.33
23	b	311	CLA	C1D-ND-C4D	-4.10	103.42	106.33
23	f	314	CLA	C1D-ND-C4D	-4.10	103.42	106.33
23	d	303	CLA	C1D-ND-C4D	-4.09	103.43	106.33
23	c	304	CLA	C1D-ND-C4D	-4.09	103.43	106.33
23	d	306	CLA	C1D-ND-C4D	-4.09	103.43	106.33
23	c	301	CLA	C1D-ND-C4D	-4.08	103.43	106.33
23	F	402	CLA	C1D-ND-C4D	-4.07	103.44	106.33
23	A	412	CLA	C1D-ND-C4D	-4.06	103.45	106.33
23	b	312	CLA	C1D-ND-C4D	-4.06	103.45	106.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	A	402	CLA	C1D-ND-C4D	-4.06	103.45	106.33
23	b	310	CLA	C1D-ND-C4D	-4.05	103.46	106.33
23	c	309	CLA	C1D-ND-C4D	-4.05	103.46	106.33
23	d	302	CLA	C1D-ND-C4D	-4.04	103.46	106.33
23	b	304	CLA	C1D-ND-C4D	-4.04	103.47	106.33
23	a	411	CLA	C1D-ND-C4D	-4.04	103.47	106.33
23	B	1221	CLA	C1D-ND-C4D	-4.04	103.47	106.33
23	b	309	CLA	C1D-ND-C4D	-4.04	103.47	106.33
23	A	413	CLA	C1D-ND-C4D	-4.03	103.47	106.33
23	A	405	CLA	C1D-ND-C4D	-4.03	103.47	106.33
23	e	302	CLA	C1D-ND-C4D	-4.03	103.47	106.33
23	F	404	CLA	C1D-ND-C4D	-4.03	103.47	106.33
23	A	401	CLA	C1D-ND-C4D	-4.03	103.47	106.33
23	c	310	CLA	C1D-ND-C4D	-4.02	103.48	106.33
23	A	403	CLA	C1D-ND-C4D	-4.02	103.48	106.33
23	c	302	CLA	C1D-ND-C4D	-4.02	103.48	106.33
23	B	1231	CLA	C1D-ND-C4D	-4.02	103.48	106.33
23	f	311	CLA	C1D-ND-C4D	-4.01	103.48	106.33
23	d	309	CLA	C1D-ND-C4D	-4.01	103.49	106.33
23	e	308	CLA	C1D-ND-C4D	-4.01	103.49	106.33
23	c	308	CLA	C1D-ND-C4D	-4.01	103.49	106.33
23	e	306	CLA	C1D-ND-C4D	-4.00	103.49	106.33
23	L	305	CLA	C1D-ND-C4D	-4.00	103.49	106.33
23	a	401	CLA	C1D-ND-C4D	-4.00	103.49	106.33
23	a	412	CLA	C1D-ND-C4D	-4.00	103.50	106.33
23	f	306	CLA	C1D-ND-C4D	-3.99	103.50	106.33
23	e	304	CLA	C1D-ND-C4D	-3.99	103.50	106.33
23	L	313	CLA	C1D-ND-C4D	-3.98	103.51	106.33
23	c	307	CLA	C1D-ND-C4D	-3.97	103.51	106.33
23	e	309	CLA	CHD-C1D-ND	-3.97	120.81	124.45
23	B	1218	CLA	C1D-ND-C4D	-3.97	103.52	106.33
23	f	307	CLA	C1D-ND-C4D	-3.96	103.52	106.33
23	d	305	CLA	C1D-ND-C4D	-3.96	103.52	106.33
23	B	1210	CLA	C1D-ND-C4D	-3.95	103.53	106.33
23	a	405	CLA	C1D-ND-C4D	-3.93	103.55	106.33
23	B	1225	CLA	C1D-ND-C4D	-3.93	103.55	106.33
23	f	308	CLA	C1D-ND-C4D	-3.92	103.55	106.33
23	B	1227	CLA	C1D-ND-C4D	-3.92	103.55	106.33
23	B	1209	CLA	C1D-ND-C4D	-3.91	103.56	106.33
23	c	306	CLA	C1D-ND-C4D	-3.90	103.56	106.33
23	A	411	CLA	C1D-ND-C4D	-3.89	103.57	106.33
23	A	420	CLA	CHD-C1D-ND	-3.89	120.88	124.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	A	414	CLA	C1D-ND-C4D	-3.88	103.58	106.33
23	e	305	CLA	C1D-ND-C4D	-3.88	103.58	106.33
23	B	1208	CLA	CHD-C1D-ND	-3.83	120.93	124.45
23	f	317	CLA	C1D-ND-C4D	-3.81	103.63	106.33
23	d	308	CLA	C1D-ND-C4D	-3.81	103.63	106.33
23	B	1207	CLA	C1D-ND-C4D	-3.80	103.64	106.33
23	A	423	CLA	C1D-ND-C4D	-3.79	103.64	106.33
23	b	307	CLA	C1D-ND-C4D	-3.79	103.64	106.33
23	B	1212	CLA	C1D-ND-C4D	-3.77	103.66	106.33
23	f	310	CLA	C1D-ND-C4D	-3.76	103.66	106.33
23	c	312	CLA	C1D-ND-C4D	-3.75	103.67	106.33
23	b	306	CLA	CHD-C1D-ND	-3.74	121.02	124.45
23	A	406	CLA	C1D-ND-C4D	-3.74	103.68	106.33
23	e	307	CLA	C1D-ND-C4D	-3.73	103.69	106.33
23	F	403	CLA	C1D-ND-C4D	-3.72	103.69	106.33
23	a	403	CLA	C1D-ND-C4D	-3.72	103.69	106.33
23	c	305	CLA	C1D-ND-C4D	-3.70	103.71	106.33
23	L	304	CLA	CHD-C1D-ND	-3.69	121.06	124.45
23	B	1222	CLA	C1D-ND-C4D	-3.69	103.72	106.33
23	A	413	CLA	CHD-C1D-ND	-3.68	121.07	124.45
23	b	308	CLA	C1D-ND-C4D	-3.68	103.72	106.33
23	B	1226	CLA	CHD-C1D-ND	-3.63	121.12	124.45
23	B	1206	CLA	C1D-ND-C4D	-3.62	103.77	106.33
23	b	308	CLA	CHD-C1D-ND	-3.58	121.17	124.45
23	A	401	CLA	CHD-C1D-ND	-3.57	121.17	124.45
23	B	1224	CLA	CHD-C1D-ND	-3.57	121.17	124.45
23	c	303	CLA	CHD-C1D-ND	-3.56	121.19	124.45
23	b	302	CLA	CHD-C1D-ND	-3.52	121.22	124.45
23	c	306	CLA	CHD-C1D-ND	-3.52	121.22	124.45
23	a	412	CLA	CHD-C1D-ND	-3.51	121.23	124.45
23	B	1211	CLA	CHD-C1D-ND	-3.51	121.23	124.45
23	B	1215	CLA	CHD-C1D-ND	-3.50	121.23	124.45
23	e	303	CLA	CHD-C1D-ND	-3.49	121.25	124.45
23	F	404	CLA	CHD-C1D-ND	-3.49	121.25	124.45
23	b	307	CLA	CHD-C1D-ND	-3.48	121.25	124.45
23	f	306	CLA	CHD-C1D-ND	-3.48	121.26	124.45
23	c	302	CLA	CHD-C1D-ND	-3.48	121.26	124.45
23	B	1222	CLA	CHD-C1D-ND	-3.47	121.27	124.45
23	d	307	CLA	CHD-C1D-ND	-3.46	121.27	124.45
23	B	1230	CLA	CHD-C1D-ND	-3.46	121.27	124.45
23	B	1229	CLA	CHD-C1D-ND	-3.46	121.28	124.45
23	B	1201	CLA	C1D-ND-C4D	-3.45	103.88	106.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	a	401	CLA	CHD-C1D-ND	-3.45	121.28	124.45
23	A	406	CLA	CHD-C1D-ND	-3.45	121.29	124.45
23	d	306	CLA	CHD-C1D-ND	-3.43	121.30	124.45
23	b	304	CLA	CHD-C1D-ND	-3.43	121.30	124.45
23	f	312	CLA	CHD-C1D-ND	-3.43	121.30	124.45
23	c	312	CLA	CHD-C1D-ND	-3.43	121.30	124.45
23	B	1208	CLA	C1D-ND-C4D	-3.42	103.90	106.33
23	f	315	CLA	CHD-C1D-ND	-3.41	121.32	124.45
23	A	408	CLA	CHD-C1D-ND	-3.41	121.32	124.45
23	c	304	CLA	CHD-C1D-ND	-3.41	121.32	124.45
23	B	1201	CLA	CHD-C1D-ND	-3.41	121.32	124.45
23	B	1210	CLA	CHD-C1D-ND	-3.39	121.34	124.45
23	a	407	CLA	CHD-C1D-ND	-3.39	121.34	124.45
23	A	412	CLA	CHD-C1D-ND	-3.39	121.34	124.45
23	A	410	CLA	CHD-C1D-ND	-3.39	121.34	124.45
23	c	307	CLA	CHD-C1D-ND	-3.39	121.34	124.45
23	a	403	CLA	CHD-C1D-ND	-3.38	121.34	124.45
24	A	407	CL0	C1D-ND-C4D	-3.38	103.93	106.33
24	A	407	CL0	CHD-C1D-ND	-3.38	121.35	124.45
23	B	1228	CLA	CHD-C1D-ND	-3.36	121.36	124.45
23	b	309	CLA	CHD-C1D-ND	-3.36	121.37	124.45
23	b	303	CLA	CHD-C1D-ND	-3.36	121.37	124.45
23	f	311	CLA	CHD-C1D-ND	-3.35	121.37	124.45
23	b	328	CLA	CHD-C1D-ND	-3.35	121.38	124.45
23	a	408	CLA	CHD-C1D-ND	-3.35	121.38	124.45
23	F	405	CLA	CHD-C1D-ND	-3.35	121.38	124.45
23	e	306	CLA	CHD-C1D-ND	-3.34	121.38	124.45
23	F	402	CLA	CHD-C1D-ND	-3.34	121.39	124.45
23	f	316	CLA	CHD-C1D-ND	-3.34	121.39	124.45
23	d	309	CLA	CHD-C1D-ND	-3.33	121.39	124.45
23	B	1227	CLA	CHD-C1D-ND	-3.33	121.40	124.45
23	f	308	CLA	CHD-C1D-ND	-3.33	121.40	124.45
23	a	411	CLA	CHD-C1D-ND	-3.32	121.40	124.45
23	B	1209	CLA	CHD-C1D-ND	-3.31	121.41	124.45
23	a	406	CLA	CHD-C1D-ND	-3.31	121.41	124.45
23	A	403	CLA	CHD-C1D-ND	-3.31	121.41	124.45
23	A	405	CLA	CHD-C1D-ND	-3.31	121.41	124.45
23	f	309	CLA	CHD-C1D-ND	-3.30	121.42	124.45
23	e	301	CLA	CHD-C1D-ND	-3.30	121.42	124.45
23	A	414	CLA	CHD-C1D-ND	-3.29	121.43	124.45
23	R	301	CLA	CHD-C1D-ND	-3.29	121.43	124.45
23	B	1212	CLA	CHD-C1D-ND	-3.29	121.43	124.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	B	1221	CLA	CHD-C1D-ND	-3.29	121.43	124.45
24	A	407	CL0	CHC-C1C-NC	3.29	129.19	124.20
23	e	309	CLA	C1D-ND-C4D	-3.29	104.00	106.33
23	e	302	CLA	CHD-C1D-ND	-3.27	121.44	124.45
23	L	305	CLA	CHD-C1D-ND	-3.27	121.45	124.45
23	d	302	CLA	CHD-C1D-ND	-3.27	121.45	124.45
23	d	304	CLA	CHD-C1D-ND	-3.26	121.45	124.45
23	L	303	CLA	CHD-C1D-ND	-3.26	121.46	124.45
23	B	1220	CLA	CHD-C1D-ND	-3.26	121.46	124.45
23	e	305	CLA	CHD-C1D-ND	-3.26	121.46	124.45
23	A	404	CLA	CHD-C1D-ND	-3.25	121.47	124.45
23	f	314	CLA	CHD-C1D-ND	-3.24	121.47	124.45
23	d	305	CLA	CHD-C1D-ND	-3.24	121.48	124.45
23	B	1217	CLA	CHD-C1D-ND	-3.24	121.48	124.45
23	c	310	CLA	CHD-C1D-ND	-3.24	121.48	124.45
23	L	313	CLA	CHD-C1D-ND	-3.23	121.48	124.45
23	b	310	CLA	CHD-C1D-ND	-3.23	121.48	124.45
23	A	423	CLA	CHD-C1D-ND	-3.21	121.50	124.45
23	b	305	CLA	CHD-C1D-ND	-3.21	121.50	124.45
23	B	1213	CLA	CHD-C1D-ND	-3.21	121.50	124.45
23	B	1225	CLA	CHD-C1D-ND	-3.21	121.50	124.45
23	b	312	CLA	CHD-C1D-ND	-3.21	121.50	124.45
23	e	308	CLA	CHD-C1D-ND	-3.20	121.52	124.45
23	e	304	CLA	CHD-C1D-ND	-3.19	121.52	124.45
23	B	1219	CLA	CHD-C1D-ND	-3.17	121.54	124.45
23	d	303	CLA	CHD-C1D-ND	-3.17	121.54	124.45
23	c	301	CLA	CHD-C1D-ND	-3.17	121.54	124.45
23	c	308	CLA	CHD-C1D-ND	-3.17	121.55	124.45
23	R	302	CLA	CHD-C1D-ND	-3.16	121.55	124.45
23	f	313	CLA	CHD-C1D-ND	-3.16	121.55	124.45
23	a	405	CLA	CHD-C1D-ND	-3.15	121.56	124.45
23	F	403	CLA	CHD-C1D-ND	-3.14	121.57	124.45
23	b	311	CLA	CHD-C1D-ND	-3.13	121.58	124.45
23	A	402	CLA	CHD-C1D-ND	-3.12	121.58	124.45
23	c	311	CLA	CHD-C1D-ND	-3.10	121.60	124.45
23	e	307	CLA	CHD-C1D-ND	-3.10	121.61	124.45
23	A	411	CLA	CHD-C1D-ND	-3.05	121.65	124.45
23	f	307	CLA	CHD-C1D-ND	-3.05	121.65	124.45
23	c	309	CLA	CHD-C1D-ND	-3.05	121.66	124.45
27	b	313	XAT	C25-C24-C23	3.04	118.76	112.75
23	B	1205	CLA	CHD-C1D-ND	-3.03	121.67	124.45
23	B	1223	CLA	CHD-C1D-ND	-3.03	121.67	124.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	B	1218	CLA	CHD-C1D-ND	-3.03	121.67	124.45
24	A	407	CL0	CHC-C1C-C2C	-3.02	118.37	126.72
23	f	317	CLA	CHD-C1D-ND	-3.02	121.68	124.45
23	B	1214	CLA	CHD-C1D-ND	-3.01	121.69	124.45
23	A	409	CLA	CHD-C1D-ND	-3.01	121.69	124.45
23	f	310	CLA	CHD-C1D-ND	-3.00	121.69	124.45
23	B	1216	CLA	CHD-C1D-ND	-2.98	121.72	124.45
23	B	1207	CLA	CHD-C1D-ND	-2.95	121.75	124.45
23	c	305	CLA	CHD-C1D-ND	-2.89	121.80	124.45
23	B	1206	CLA	CHD-C1D-ND	-2.87	121.82	124.45
23	d	308	CLA	CHD-C1D-ND	-2.85	121.83	124.45
23	A	420	CLA	C1D-ND-C4D	-2.77	104.36	106.33
23	B	1231	CLA	CHD-C1D-ND	-2.62	122.04	124.45
33	f	321	A1L6D	C33-C32-C31	-2.61	106.68	109.21
24	A	407	CL0	C4A-NA-C1A	-2.59	105.54	106.71
33	d	314	A1L6D	C22-C16-C17	-2.58	107.42	110.91
24	A	407	CL0	C2C-C1C-NC	2.53	112.34	109.97
24	A	407	CL0	CHA-C1A-NA	-2.52	120.64	126.40
23	B	1223	CLA	O2A-C1-C2	-2.51	102.03	108.64
23	b	307	CLA	C4A-NA-C1A	2.49	107.83	106.71
23	A	420	CLA	CHA-C1A-NA	-2.38	120.94	126.40
23	e	309	CLA	C4A-NA-C1A	2.36	107.77	106.71
23	A	420	CLA	C4A-NA-C1A	2.33	107.75	106.71
33	d	314	A1L6D	C36-C31-C32	2.32	122.00	119.70
27	c	315	XAT	C7-C8-C9	2.28	129.07	125.53
27	R	303	XAT	C25-C24-C23	2.25	117.20	112.75
23	B	1208	CLA	C4A-NA-C1A	2.24	107.71	106.71
32	L	312	AV0	CBR-CCM-CBS	2.22	114.67	109.40
23	f	312	CLA	C3D-C4D-ND	2.11	113.64	110.24
23	f	308	CLA	CAA-C2A-C1A	-2.08	105.14	111.97
23	f	306	CLA	C4A-NA-C1A	2.08	107.64	106.71
23	L	304	CLA	C3D-C4D-ND	2.08	113.60	110.24
23	B	1230	CLA	C3D-C4D-ND	2.07	113.59	110.24
23	d	307	CLA	C3D-C4D-ND	2.07	113.59	110.24
27	d	313	XAT	C18-C5-C4	2.06	116.60	114.28
23	B	1206	CLA	CGD-CBD-CAD	-2.06	104.07	110.73
23	B	1224	CLA	C3D-C4D-ND	2.04	113.54	110.24
23	b	306	CLA	C3D-C4D-ND	2.03	113.53	110.24
27	f	322	XAT	O4-C5-C4	-2.01	111.87	113.38
23	e	303	CLA	C3D-C4D-ND	2.00	113.47	110.24

All (120) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
23	A	401	CLA	ND
23	A	402	CLA	ND
23	A	403	CLA	ND
23	A	404	CLA	ND
23	A	405	CLA	ND
23	A	406	CLA	ND
23	A	408	CLA	ND
23	A	409	CLA	ND
23	A	410	CLA	ND
23	A	411	CLA	ND
23	A	412	CLA	ND
23	A	413	CLA	ND
23	A	414	CLA	ND
23	A	420	CLA	ND
23	A	423	CLA	ND
23	F	402	CLA	ND
23	F	403	CLA	ND
23	F	404	CLA	ND
23	F	405	CLA	ND
23	L	303	CLA	ND
23	L	304	CLA	ND
23	L	305	CLA	ND
23	L	313	CLA	ND
23	R	301	CLA	ND
23	R	302	CLA	ND
23	b	302	CLA	ND
23	b	303	CLA	ND
23	b	304	CLA	ND
23	b	305	CLA	ND
23	b	306	CLA	ND
23	b	307	CLA	ND
23	b	308	CLA	ND
23	b	309	CLA	ND
23	b	310	CLA	ND
23	b	311	CLA	ND
23	b	312	CLA	ND
23	b	328	CLA	ND
23	c	301	CLA	ND
23	c	302	CLA	ND
23	c	303	CLA	ND
23	c	304	CLA	ND
23	c	305	CLA	ND
23	c	306	CLA	ND

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Mol	Chain	Res	Type	Atom
23	c	307	CLA	ND
23	c	308	CLA	ND
23	c	309	CLA	ND
23	c	310	CLA	ND
23	c	311	CLA	ND
23	c	312	CLA	ND
23	d	302	CLA	ND
23	d	303	CLA	ND
23	d	304	CLA	ND
23	d	305	CLA	ND
23	d	306	CLA	ND
23	d	307	CLA	ND
23	d	308	CLA	ND
23	d	309	CLA	ND
23	e	301	CLA	ND
23	e	302	CLA	ND
23	e	303	CLA	ND
23	e	304	CLA	ND
23	e	305	CLA	ND
23	e	306	CLA	ND
23	e	307	CLA	ND
23	e	308	CLA	ND
23	e	309	CLA	ND
23	f	306	CLA	ND
23	f	307	CLA	ND
23	f	308	CLA	ND
23	f	309	CLA	ND
23	f	310	CLA	ND
23	f	311	CLA	ND
23	f	312	CLA	ND
23	f	313	CLA	ND
23	f	314	CLA	ND
23	f	315	CLA	ND
23	f	316	CLA	ND
23	f	317	CLA	ND
23	a	401	CLA	ND
23	a	403	CLA	ND
23	a	405	CLA	ND
23	a	406	CLA	ND
23	a	407	CLA	ND
23	a	408	CLA	ND
23	a	411	CLA	ND

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Mol	Chain	Res	Type	Atom
23	a	412	CLA	ND
23	B	1201	CLA	ND
23	B	1205	CLA	ND
23	B	1206	CLA	ND
23	B	1207	CLA	ND
23	B	1208	CLA	ND
23	B	1209	CLA	ND
23	B	1210	CLA	ND
23	B	1211	CLA	ND
23	B	1212	CLA	ND
23	B	1213	CLA	ND
23	B	1214	CLA	ND
23	B	1215	CLA	ND
23	B	1216	CLA	ND
23	B	1217	CLA	ND
23	B	1218	CLA	ND
23	B	1219	CLA	ND
23	B	1220	CLA	ND
23	B	1221	CLA	ND
23	B	1222	CLA	ND
23	B	1223	CLA	ND
23	B	1224	CLA	ND
23	B	1225	CLA	ND
23	B	1226	CLA	ND
23	B	1227	CLA	ND
23	B	1228	CLA	ND
23	B	1229	CLA	ND
23	B	1230	CLA	ND
23	B	1231	CLA	ND
24	A	407	CL0	ND
24	A	407	CL0	NA
24	A	407	CL0	NC
27	f	322	XAT	C6
35	B	1242	A1I05	C49
35	B	1242	A1I05	C25

All (686) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
23	A	404	CLA	C1A-C2A-CAA-CBA
23	A	405	CLA	CHA-CBD-CGD-O2D
23	A	411	CLA	C1A-C2A-CAA-CBA

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Mol	Chain	Res	Type	Atoms
23	A	411	CLA	CHA-CBD-CGD-O1D
23	A	411	CLA	CHA-CBD-CGD-O2D
23	A	412	CLA	C1A-C2A-CAA-CBA
23	A	412	CLA	CHA-CBD-CGD-O1D
23	A	412	CLA	CHA-CBD-CGD-O2D
23	A	420	CLA	CHA-CBD-CGD-O1D
23	A	420	CLA	CHA-CBD-CGD-O2D
23	A	423	CLA	CAD-CBD-CGD-O1D
23	A	423	CLA	CAD-CBD-CGD-O2D
23	L	305	CLA	CHA-CBD-CGD-O1D
23	L	305	CLA	CHA-CBD-CGD-O2D
23	R	301	CLA	CHA-CBD-CGD-O1D
23	R	301	CLA	CHA-CBD-CGD-O2D
23	b	307	CLA	C1A-C2A-CAA-CBA
23	b	307	CLA	O2A-C1-C2-C3
23	b	309	CLA	CHA-CBD-CGD-O1D
23	b	309	CLA	CHA-CBD-CGD-O2D
23	b	328	CLA	C2-C3-C5-C6
23	b	328	CLA	C4-C3-C5-C6
23	c	302	CLA	CHA-CBD-CGD-O1D
23	c	302	CLA	CHA-CBD-CGD-O2D
23	c	307	CLA	CHA-CBD-CGD-O1D
23	c	307	CLA	CHA-CBD-CGD-O2D
23	c	307	CLA	C2-C3-C5-C6
23	c	307	CLA	C4-C3-C5-C6
23	d	304	CLA	CHA-CBD-CGD-O1D
23	d	304	CLA	CHA-CBD-CGD-O2D
23	d	304	CLA	CAD-CBD-CGD-O1D
23	e	309	CLA	CHA-CBD-CGD-O2D
23	f	308	CLA	CHA-CBD-CGD-O1D
23	f	308	CLA	CHA-CBD-CGD-O2D
23	f	310	CLA	C2-C3-C5-C6
23	f	310	CLA	C4-C3-C5-C6
23	a	401	CLA	CHA-CBD-CGD-O1D
23	B	1221	CLA	C1A-C2A-CAA-CBA
23	B	1222	CLA	CHA-CBD-CGD-O1D
23	B	1222	CLA	CHA-CBD-CGD-O2D
23	B	1223	CLA	O2A-C1-C2-C3
23	B	1225	CLA	C1A-C2A-CAA-CBA
23	B	1226	CLA	CHA-CBD-CGD-O1D
23	B	1226	CLA	CHA-CBD-CGD-O2D
27	R	303	XAT	O24-C26-C27-C28

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Mol	Chain	Res	Type	Atoms
27	b	316	XAT	O24-C26-C27-C28
27	c	316	XAT	C5-C6-C7-C8
27	c	316	XAT	O4-C6-C7-C8
28	A	422	LMG	C2-C1-O1-C7
28	A	422	LMG	O6-C1-O1-C7
28	b	321	LMG	C2-C1-O1-C7
28	b	321	LMG	O6-C1-O1-C7
28	b	327	LMG	O6-C1-O1-C7
29	A	419	DGD	C2D-C1D-O3G-C3G
29	A	419	DGD	O6D-C1D-O3G-C3G
29	A	419	DGD	O6E-C1E-O5D-C6D
29	b	318	DGD	O6D-C1D-O3G-C3G
29	b	318	DGD	C5D-C6D-O5D-C1E
29	b	319	DGD	O6E-C1E-O5D-C6D
29	c	328	DGD	O6D-C1D-O3G-C3G
29	u	501	DGD	C2E-C1E-O5D-C6D
29	u	501	DGD	O6E-C1E-O5D-C6D
30	F	414	LMT	C2'-C1'-O1'-C1
30	F	414	LMT	O5'-C1'-O1'-C1
30	b	301	LMT	O5'-C1'-O1'-C1
30	b	326	LMT	C2-C1-O1'-C1'
30	c	317	LMT	O5'-C1'-O1'-C1
30	c	317	LMT	C2-C1-O1'-C1'
30	c	321	LMT	C2-C1-O1'-C1'
30	c	331	LMT	O5'-C1'-O1'-C1
30	e	318	LMT	C2'-C1'-O1'-C1
30	e	318	LMT	O5'-C1'-O1'-C1
30	f	325	LMT	C2'-C1'-O1'-C1
30	f	325	LMT	O5'-C1'-O1'-C1
30	f	327	LMT	C2'-C1'-O1'-C1
30	f	327	LMT	O5'-C1'-O1'-C1
30	B	1204	LMT	C2'-C1'-O1'-C1
30	B	1240	LMT	C2'-C1'-O1'-C1
30	B	1240	LMT	O5'-C1'-O1'-C1
30	B	1240	LMT	C2-C1-O1'-C1'
31	L	306	BCR	C1-C6-C7-C8
31	B	1234	BCR	C23-C24-C25-C26
31	B	1234	BCR	C23-C24-C25-C30
32	L	312	AV0	O5-C1-O1-CBS
33	d	314	A1L6D	C42-C8-C9-C10
33	d	314	A1L6D	C42-C8-C9-C12
33	d	314	A1L6D	C8-C42-C43-C6

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Mol	Chain	Res	Type	Atoms
33	f	321	A1L6D	C42-C8-C9-C10
33	f	321	A1L6D	C42-C8-C9-C12
33	f	321	A1L6D	C8-C42-C43-C6
33	B	1235	A1L6D	C42-C8-C9-C10
35	B	1242	A1I05	C17-C18-O20-C21
35	B	1242	A1I05	O19-C18-O20-C21
30	F	414	LMT	O5B-C1B-O1B-C4'
30	c	317	LMT	O5B-C1B-O1B-C4'
30	B	1204	LMT	C5'-C4'-O1B-C1B
30	c	331	LMT	O5B-C1B-O1B-C4'
30	B	1204	LMT	O5B-C1B-O1B-C4'
23	L	305	CLA	C2A-CAA-CBA-CGA
23	B	1221	CLA	C2A-CAA-CBA-CGA
23	B	1225	CLA	C2A-CAA-CBA-CGA
23	b	306	CLA	C3-C5-C6-C7
23	A	404	CLA	C2A-CAA-CBA-CGA
30	d	317	LMT	O5'-C1'-O1'-C1
29	b	318	DGD	O6D-C5D-C6D-O5D
29	b	318	DGD	C4D-C5D-C6D-O5D
28	b	327	LMG	C2-C1-O1-C7
29	b	319	DGD	C2E-C1E-O5D-C6D
29	c	328	DGD	C2D-C1D-O3G-C3G
30	d	317	LMT	C2'-C1'-O1'-C1
32	L	312	AV0	C2-C1-O1-CBS
30	F	414	LMT	C2B-C1B-O1B-C4'
23	R	302	CLA	C14-C13-C15-C16
23	B	1201	CLA	C6-C7-C8-C9
23	B	1210	CLA	C6-C7-C8-C9
23	B	1216	CLA	C14-C13-C15-C16
23	e	306	CLA	C2A-CAA-CBA-CGA
29	c	328	DGD	C4D-C5D-C6D-O5D
23	A	408	CLA	C8-C10-C11-C12
23	d	304	CLA	C10-C11-C12-C13
23	a	401	CLA	C8-C10-C11-C12
30	F	414	LMT	O1'-C1-C2-C3
23	d	302	CLA	C13-C15-C16-C17
23	F	402	CLA	C12-C13-C15-C16
23	B	1230	CLA	C6-C7-C8-C10
29	b	319	DGD	O6D-C1D-O3G-C3G
30	B	1204	LMT	O5'-C1'-O1'-C1
33	B	1235	A1L6D	C8-C42-C43-C6
23	B	1230	CLA	C10-C11-C12-C13

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Mol	Chain	Res	Type	Atoms
26	A	416	PQN	C20-C21-C22-C23
32	L	312	AV0	CBI-CBK-CBQ-CCM
29	c	328	DGD	O6D-C5D-C6D-O5D
23	A	409	CLA	C13-C15-C16-C17
30	c	319	LMT	C3'-C4'-O1B-C1B
23	B	1211	CLA	C3-C5-C6-C7
33	B	1235	A1L6D	C42-C8-C9-C12
23	d	302	CLA	C16-C17-C18-C20
29	u	501	DGD	C3A-C4A-C5A-C6A
29	u	501	DGD	C5A-C6A-C7A-C8A
30	c	332	LMT	C3-C4-C5-C6
29	b	319	DGD	C2D-C1D-O3G-C3G
30	c	317	LMT	C2'-C1'-O1'-C1
30	c	319	LMT	C2'-C1'-O1'-C1
34	d	315	SQD	C2-C1-O6-C44
30	c	319	LMT	C5'-C4'-O1B-C1B
23	A	402	CLA	C4-C3-C5-C6
23	A	404	CLA	C4-C3-C5-C6
23	A	420	CLA	C4-C3-C5-C6
23	R	302	CLA	C4-C3-C5-C6
23	b	302	CLA	C4-C3-C5-C6
23	b	305	CLA	C4-C3-C5-C6
23	B	1210	CLA	C4-C3-C5-C6
30	c	322	LMT	C5-C6-C7-C8
23	A	404	CLA	C2-C3-C5-C6
23	A	405	CLA	C2-C3-C5-C6
23	b	305	CLA	C2-C3-C5-C6
23	d	306	CLA	C11-C10-C8-C9
23	d	307	CLA	C6-C7-C8-C9
23	e	305	CLA	C14-C13-C15-C16
23	B	1221	CLA	C15-C16-C17-C18
23	a	403	CLA	C2A-CAA-CBA-CGA
23	B	1228	CLA	C2A-CAA-CBA-CGA
23	d	302	CLA	C16-C17-C18-C19
30	c	319	LMT	O5'-C1'-O1'-C1
23	c	309	CLA	C8-C10-C11-C12
23	b	304	CLA	C2C-C3C-CAC-CBC
23	A	404	CLA	C3A-C2A-CAA-CBA
23	b	307	CLA	C3A-C2A-CAA-CBA
30	F	407	LMT	C2-C1-O1'-C1'
30	e	318	LMT	C2-C1-O1'-C1'
30	a	409	LMT	C2-C1-O1'-C1'

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Mol	Chain	Res	Type	Atoms
28	L	310	LMG	C31-C32-C33-C34
23	B	1220	CLA	O2A-C1-C2-C3
30	F	414	LMT	C1-C2-C3-C4
23	A	405	CLA	C4-C3-C5-C6
23	A	402	CLA	C2-C3-C5-C6
23	A	420	CLA	C2-C3-C5-C6
23	b	302	CLA	C2-C3-C5-C6
23	B	1210	CLA	C2-C3-C5-C6
23	e	306	CLA	C16-C17-C18-C20
30	e	318	LMT	O5B-C1B-O1B-C4'
29	b	318	DGD	O6E-C5E-C6E-O5E
23	A	420	CLA	C2C-C3C-CAC-CBC
28	f	323	LMG	C36-C37-C38-C39
23	c	312	CLA	C2-C1-O2A-CGA
23	B	1223	CLA	C2-C1-O2A-CGA
28	L	308	LMG	C29-C30-C31-C32
28	b	327	LMG	C10-C11-C12-C13
31	L	306	BCR	C5-C6-C7-C8
31	L	307	BCR	C1-C6-C7-C8
31	L	307	BCR	C5-C6-C7-C8
31	b	317	BCR	C1-C6-C7-C8
31	b	317	BCR	C5-C6-C7-C8
31	b	317	BCR	C23-C24-C25-C26
31	b	317	BCR	C23-C24-C25-C30
31	B	1202	BCR	C1-C6-C7-C8
31	B	1202	BCR	C5-C6-C7-C8
23	B	1214	CLA	C4-C3-C5-C6
23	A	403	CLA	C12-C13-C15-C16
23	L	304	CLA	C2-C3-C5-C6
23	R	302	CLA	C2-C3-C5-C6
23	c	307	CLA	C12-C13-C15-C16
23	d	307	CLA	C6-C7-C8-C10
23	f	311	CLA	C12-C13-C15-C16
23	d	309	CLA	C2A-CAA-CBA-CGA
30	c	331	LMT	C2B-C1B-O1B-C4'
30	d	317	LMT	C5-C6-C7-C8
29	F	408	DGD	CAA-CBA-CCA-CDA
29	b	318	DGD	O6E-C1E-O5D-C6D
34	d	315	SQD	O5-C1-O6-C44
30	F	413	LMT	C4-C5-C6-C7
29	F	408	DGD	C7B-C8B-C9B-CAB
29	A	419	DGD	C2E-C1E-O5D-C6D

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Mol	Chain	Res	Type	Atoms
29	b	318	DGD	C2E-C1E-O5D-C6D
28	f	323	LMG	O6-C5-C6-O5
30	a	409	LMT	O5B-C1B-O1B-C4'
28	b	320	LMG	O6-C5-C6-O5
23	A	410	CLA	C4-C3-C5-C6
23	A	410	CLA	C2-C3-C5-C6
23	B	1211	CLA	C2-C3-C5-C6
23	B	1214	CLA	C2-C3-C5-C6
23	A	403	CLA	C14-C13-C15-C16
23	A	414	CLA	C14-C13-C15-C16
23	F	402	CLA	C14-C13-C15-C16
23	c	307	CLA	C14-C13-C15-C16
23	f	311	CLA	C14-C13-C15-C16
23	B	1230	CLA	C6-C7-C8-C9
30	a	409	LMT	O5B-C5B-C6B-O6B
30	c	319	LMT	C3-C4-C5-C6
30	c	318	LMT	O5'-C5'-C6'-O6'
30	c	319	LMT	O5'-C5'-C6'-O6'
23	e	307	CLA	C8-C10-C11-C12
23	B	1224	CLA	C13-C15-C16-C17
23	B	1227	CLA	C13-C15-C16-C17
23	A	414	CLA	C1A-C2A-CAA-CBA
23	e	303	CLA	C16-C17-C18-C20
23	e	306	CLA	C16-C17-C18-C19
29	A	419	DGD	C4D-C5D-C6D-O5D
23	B	1228	CLA	C10-C11-C12-C13
30	c	331	LMT	O5B-C5B-C6B-O6B
30	a	409	LMT	C2B-C1B-O1B-C4'
23	a	407	CLA	C10-C11-C12-C13
23	B	1211	CLA	C10-C11-C12-C13
30	c	331	LMT	O5'-C5'-C6'-O6'
28	f	323	LMG	C29-C30-C31-C32
30	c	319	LMT	C2-C3-C4-C5
29	u	501	DGD	O6E-C5E-C6E-O5E
30	c	318	LMT	C5-C6-C7-C8
23	L	304	CLA	C4-C3-C5-C6
23	B	1225	CLA	C4-C3-C5-C6
29	F	408	DGD	C3B-C4B-C5B-C6B
28	L	310	LMG	C17-C18-C19-C20
30	b	301	LMT	C5-C6-C7-C8
23	B	1206	CLA	C2A-CAA-CBA-CGA
23	A	420	CLA	C16-C17-C18-C20

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Mol	Chain	Res	Type	Atoms
28	b	327	LMG	O6-C5-C6-O5
28	A	418	LMG	C7-C8-C9-O8
30	B	1204	LMT	O5B-C5B-C6B-O6B
28	F	409	LMG	C8-C7-O1-C1
29	c	328	DGD	C2G-C3G-O3G-C1D
23	B	1217	CLA	C8-C10-C11-C12
34	d	315	SQD	O48-C23-C24-C25
29	A	419	DGD	O6E-C5E-C6E-O5E
30	e	318	LMT	O5'-C5'-C6'-O6'
23	B	1221	CLA	C13-C15-C16-C17
23	A	404	CLA	C8-C10-C11-C12
28	F	412	LMG	O6-C5-C6-O5
30	B	1240	LMT	O5'-C5'-C6'-O6'
23	B	1211	CLA	C4-C3-C5-C6
23	B	1226	CLA	C4-C3-C5-C6
28	F	409	LMG	C11-C12-C13-C14
23	a	403	CLA	C15-C16-C17-C18
23	f	308	CLA	C3-C5-C6-C7
29	u	501	DGD	O2G-C2G-C3G-O3G
30	d	301	LMT	C2-C3-C4-C5
23	e	303	CLA	C4-C3-C5-C6
30	d	319	LMT	C11-C10-C9-C8
23	A	414	CLA	C12-C13-C15-C16
23	L	303	CLA	C6-C7-C8-C10
23	B	1201	CLA	C6-C7-C8-C10
23	B	1216	CLA	C12-C13-C15-C16
23	B	1221	CLA	C6-C7-C8-C10
23	B	1225	CLA	C2-C3-C5-C6
23	B	1226	CLA	C2-C3-C5-C6
23	L	303	CLA	C6-C7-C8-C9
23	c	302	CLA	C14-C13-C15-C16
23	f	308	CLA	C6-C7-C8-C9
23	a	406	CLA	C14-C13-C15-C16
28	L	310	LMG	C12-C13-C14-C15
28	F	409	LMG	C10-C11-C12-C13
23	A	409	CLA	C8-C10-C11-C12
23	c	309	CLA	C15-C16-C17-C18
23	B	1225	CLA	C5-C6-C7-C8
23	B	1226	CLA	C8-C10-C11-C12
23	F	402	CLA	C4-C3-C5-C6
23	B	1223	CLA	C4-C3-C5-C6
23	B	1229	CLA	C4-C3-C5-C6

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Mol	Chain	Res	Type	Atoms
23	e	303	CLA	C2-C3-C5-C6
23	B	1223	CLA	C2-C3-C5-C6
30	b	325	LMT	C6-C7-C8-C9
30	d	320	LMT	C4-C5-C6-C7
30	b	326	LMT	C1-C2-C3-C4
30	F	414	LMT	C2-C1-O1'-C1'
30	c	330	LMT	C2-C1-O1'-C1'
30	f	302	LMT	C2-C1-O1'-C1'
30	f	325	LMT	C2-C1-O1'-C1'
30	f	327	LMT	C2-C1-O1'-C1'
29	b	319	DGD	O6D-C5D-C6D-O5D
23	e	308	CLA	C8-C10-C11-C12
28	F	412	LMG	C7-C8-C9-O8
28	f	323	LMG	C7-C8-C9-O8
29	c	328	DGD	C1G-C2G-C3G-O3G
28	F	409	LMG	C20-C21-C22-C23
23	F	402	CLA	C2-C3-C5-C6
28	F	412	LMG	C11-C12-C13-C14
30	c	317	LMT	C5'-C4'-O1B-C1B
30	c	323	LMT	C3-C4-C5-C6
23	b	304	CLA	C4C-C3C-CAC-CBC
28	A	418	LMG	O7-C8-C9-O8
28	b	320	LMG	O7-C8-C9-O8
28	f	323	LMG	O7-C8-C9-O8
29	A	419	DGD	O2G-C2G-C3G-O3G
23	e	303	CLA	C16-C17-C18-C19
30	f	304	LMT	C7-C8-C9-C10
23	a	407	CLA	C4-C3-C5-C6
23	B	1229	CLA	C2-C3-C5-C6
28	b	321	LMG	C30-C31-C32-C33
23	B	1228	CLA	C8-C10-C11-C12
23	a	401	CLA	C11-C10-C8-C9
23	a	407	CLA	C14-C13-C15-C16
23	B	1221	CLA	C6-C7-C8-C9
23	B	1224	CLA	C11-C10-C8-C9
23	B	1229	CLA	C6-C7-C8-C9
30	f	327	LMT	O1'-C1-C2-C3
23	B	1220	CLA	C10-C11-C12-C13
30	f	325	LMT	O1'-C1-C2-C3
23	F	402	CLA	C6-C7-C8-C10
23	F	404	CLA	C11-C12-C13-C15
23	a	406	CLA	C12-C13-C15-C16

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Mol	Chain	Res	Type	Atoms
23	B	1229	CLA	C6-C7-C8-C10
23	A	420	CLA	C16-C17-C18-C19
30	d	317	LMT	C3-C4-C5-C6
23	B	1223	CLA	C10-C11-C12-C13
30	e	318	LMT	C5'-C4'-O1B-C1B
23	c	303	CLA	C5-C6-C7-C8
30	c	317	LMT	C3'-C4'-O1B-C1B
28	b	321	LMG	C35-C36-C37-C38
23	B	1223	CLA	CBA-CGA-O2A-C1
23	c	309	CLA	C5-C6-C7-C8
23	F	403	CLA	CAD-CBD-CGD-O2D
23	b	302	CLA	CAD-CBD-CGD-O2D
23	c	303	CLA	CAD-CBD-CGD-O2D
23	d	304	CLA	CAD-CBD-CGD-O2D
23	d	306	CLA	CAD-CBD-CGD-O2D
23	d	308	CLA	CAD-CBD-CGD-O2D
23	f	307	CLA	CAD-CBD-CGD-O2D
23	B	1225	CLA	CAD-CBD-CGD-O2D
23	B	1227	CLA	CAD-CBD-CGD-O2D
23	B	1229	CLA	CAD-CBD-CGD-O2D
30	B	1236	LMT	C6-C7-C8-C9
23	B	1218	CLA	C4-C3-C5-C6
23	A	408	CLA	C2-C3-C5-C6
23	a	407	CLA	C2-C3-C5-C6
23	A	420	CLA	C4C-C3C-CAC-CBC
23	A	405	CLA	CHA-CBD-CGD-O1D
23	A	423	CLA	CHA-CBD-CGD-O1D
23	c	304	CLA	CHA-CBD-CGD-O1D
23	e	303	CLA	CHA-CBD-CGD-O1D
23	e	303	CLA	CHA-CBD-CGD-O2D
23	e	309	CLA	CHA-CBD-CGD-O1D
23	f	313	CLA	CHA-CBD-CGD-O1D
23	f	314	CLA	CHA-CBD-CGD-O1D
23	a	401	CLA	CHA-CBD-CGD-O2D
28	A	418	LMG	C8-C7-O1-C1
29	c	328	DGD	O2G-C2G-C3G-O3G
23	A	408	CLA	C4-C3-C5-C6
30	f	327	LMT	C1-C2-C3-C4
23	B	1223	CLA	C8-C10-C11-C12
30	e	318	LMT	C3'-C4'-O1B-C1B
30	a	409	LMT	C7-C8-C9-C10
28	b	321	LMG	C13-C14-C15-C16

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Mol	Chain	Res	Type	Atoms
23	F	404	CLA	C1A-C2A-CAA-CBA
23	b	309	CLA	C1A-C2A-CAA-CBA
23	B	1218	CLA	C1A-C2A-CAA-CBA
23	B	1220	CLA	C2-C1-O2A-CGA
23	c	304	CLA	CAD-CBD-CGD-O1D
23	e	303	CLA	CAD-CBD-CGD-O1D
23	f	314	CLA	CAD-CBD-CGD-O1D
23	a	408	CLA	CAD-CBD-CGD-O1D
23	B	1217	CLA	CAD-CBD-CGD-O1D
28	F	412	LMG	C10-C11-C12-C13
30	e	315	LMT	C2-C3-C4-C5
23	A	403	CLA	C11-C10-C8-C7
23	e	305	CLA	C12-C13-C15-C16
23	B	1224	CLA	C11-C12-C13-C15
28	A	418	LMG	C32-C33-C34-C35
28	b	320	LMG	C7-C8-C9-O8
29	u	501	DGD	C1G-C2G-C3G-O3G
28	F	412	LMG	O7-C8-C9-O8
29	b	319	DGD	C5D-C6D-O5D-C1E
23	c	312	CLA	C4-C3-C5-C6
23	d	304	CLA	C4-C3-C5-C6
23	F	402	CLA	C6-C7-C8-C9
23	B	1223	CLA	C11-C12-C13-C14
28	f	323	LMG	C14-C15-C16-C17
23	e	309	CLA	C10-C11-C12-C13
23	A	420	CLA	C10-C11-C12-C13
30	f	301	LMT	C3-C4-C5-C6
23	A	420	CLA	C15-C16-C17-C18
28	b	320	LMG	C9-C8-O7-C10
23	A	409	CLA	C2-C1-O2A-CGA
23	A	420	CLA	C2-C1-O2A-CGA
23	L	303	CLA	C2-C1-O2A-CGA
23	f	315	CLA	C2-C1-O2A-CGA
23	B	1210	CLA	C2-C1-O2A-CGA
33	f	321	A1L6D	C2-C3-C4-C5
30	F	414	LMT	C4-C5-C6-C7
30	d	320	LMT	C5-C6-C7-C8
23	b	307	CLA	C4-C3-C5-C6
23	B	1219	CLA	C4-C3-C5-C6
28	F	412	LMG	C2-C1-O1-C7
29	A	419	DGD	O1G-C1G-C2G-O2G
29	b	319	DGD	O1G-C1G-C2G-O2G

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Mol	Chain	Res	Type	Atoms
28	A	418	LMG	C17-C18-C19-C20
29	b	318	DGD	C4B-C5B-C6B-C7B
29	A	419	DGD	O1G-C1G-C2G-C3G
23	f	308	CLA	C11-C10-C8-C7
23	B	1210	CLA	C3-C5-C6-C7
26	B	1232	PQN	C13-C15-C16-C17
23	F	404	CLA	C11-C12-C13-C14
23	L	304	CLA	C5-C6-C7-C8
28	L	310	LMG	C13-C14-C15-C16
23	B	1222	CLA	CAA-CBA-CGA-O1A
23	A	401	CLA	C2A-CAA-CBA-CGA
28	F	412	LMG	O6-C1-O1-C7
30	c	317	LMT	C6-C7-C8-C9
30	B	1241	LMT	C7-C8-C9-C10
23	c	305	CLA	CAA-CBA-CGA-O1A
30	c	319	LMT	C9-C10-C11-C12
23	B	1223	CLA	O1A-CGA-O2A-C1
28	F	409	LMG	C16-C17-C18-C19
23	e	304	CLA	C2-C1-O2A-CGA
23	L	313	CLA	CAA-CBA-CGA-O1A
23	e	301	CLA	CAA-CBA-CGA-O1A
23	a	405	CLA	CAA-CBA-CGA-O1A
34	d	315	SQD	O10-C23-C24-C25
23	A	412	CLA	C3A-C2A-CAA-CBA
23	c	312	CLA	C3A-C2A-CAA-CBA
23	B	1225	CLA	C3A-C2A-CAA-CBA
23	b	304	CLA	CAA-CBA-CGA-O1A
23	b	304	CLA	CAA-CBA-CGA-O2A
28	f	323	LMG	C35-C36-C37-C38
23	B	1219	CLA	C2-C3-C5-C6
23	A	403	CLA	C11-C10-C8-C9
23	F	402	CLA	C11-C10-C8-C9
23	a	403	CLA	C11-C12-C13-C14
31	L	306	BCR	C11-C10-C9-C34
23	L	313	CLA	CAA-CBA-CGA-O2A
23	f	313	CLA	CAA-CBA-CGA-O1A
23	f	313	CLA	CAA-CBA-CGA-O2A
23	c	304	CLA	O2A-C1-C2-C3
23	A	423	CLA	CAA-CBA-CGA-O2A
23	c	305	CLA	CAA-CBA-CGA-O2A
23	B	1209	CLA	CAA-CBA-CGA-O1A
28	A	422	LMG	C8-C9-O8-C28

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Mol	Chain	Res	Type	Atoms
23	A	406	CLA	CAA-CBA-CGA-O2A
23	c	308	CLA	CAA-CBA-CGA-O2A
23	b	305	CLA	C1A-C2A-CAA-CBA
23	c	312	CLA	C1A-C2A-CAA-CBA
23	f	312	CLA	C1A-C2A-CAA-CBA
23	a	406	CLA	C1A-C2A-CAA-CBA
23	d	304	CLA	C2-C3-C5-C6
23	d	306	CLA	C11-C10-C8-C7
23	B	1210	CLA	C6-C7-C8-C10
23	B	1218	CLA	C2-C3-C5-C6
23	c	308	CLA	CAA-CBA-CGA-O1A
23	e	301	CLA	CAA-CBA-CGA-O2A
23	B	1209	CLA	CAA-CBA-CGA-O2A
30	c	333	LMT	C2-C3-C4-C5
23	a	405	CLA	CAA-CBA-CGA-O2A
28	b	321	LMG	C12-C13-C14-C15
23	b	307	CLA	C15-C16-C17-C18
23	B	1208	CLA	C10-C11-C12-C13
23	A	406	CLA	CAA-CBA-CGA-O1A
23	A	423	CLA	CAA-CBA-CGA-O1A
23	B	1222	CLA	CAA-CBA-CGA-O2A
28	b	321	LMG	C33-C34-C35-C36
23	e	306	CLA	C4-C3-C5-C6
30	B	1240	LMT	O1'-C1-C2-C3
31	L	306	BCR	C11-C10-C9-C8
29	F	408	DGD	CAB-CBB-CCB-CDB
34	d	315	SQD	O47-C45-C46-O48
23	f	309	CLA	CAA-CBA-CGA-O1A
28	L	308	LMG	O10-C28-C29-C30
23	L	303	CLA	C4-C3-C5-C6
23	b	308	CLA	C2-C3-C5-C6
23	c	306	CLA	CAA-CBA-CGA-O2A
24	A	407	CL0	CAA-CBA-CGA-O2A
23	b	309	CLA	C14-C13-C15-C16
29	A	419	DGD	CAA-CBA-CCA-CDA
28	L	310	LMG	O7-C10-C11-C12
31	F	401	BCR	C23-C24-C25-C30
31	B	1233	BCR	C1-C6-C7-C8
23	c	312	CLA	CAA-CBA-CGA-O2A
23	F	404	CLA	C4-C3-C5-C6
23	a	403	CLA	C4-C3-C5-C6
23	B	1230	CLA	C4-C3-C5-C6

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Mol	Chain	Res	Type	Atoms
23	c	312	CLA	C2-C3-C5-C6
23	d	309	CLA	CAA-CBA-CGA-O2A
28	A	422	LMG	C8-C7-O1-C1
28	R	304	LMG	C8-C7-O1-C1
35	B	1242	A1I05	C22-C23-O24-C25
28	L	308	LMG	O8-C28-C29-C30
23	L	305	CLA	CAA-CBA-CGA-O2A
23	f	309	CLA	CAA-CBA-CGA-O2A
23	B	1223	CLA	C3-C5-C6-C7
23	b	310	CLA	C16-C17-C18-C20
28	L	308	LMG	C30-C31-C32-C33
30	R	305	LMT	C5-C6-C7-C8
23	A	420	CLA	C11-C10-C8-C7
23	F	404	CLA	C2-C3-C5-C6
23	e	306	CLA	C2-C3-C5-C6
23	a	401	CLA	C11-C10-C8-C7
23	a	403	CLA	C2-C3-C5-C6
23	B	1221	CLA	C12-C13-C15-C16
23	B	1223	CLA	C11-C12-C13-C15
23	B	1210	CLA	CAA-CBA-CGA-O2A
23	f	314	CLA	CAA-CBA-CGA-O2A
23	a	411	CLA	CAA-CBA-CGA-O2A
23	F	403	CLA	C4-C3-C5-C6
30	f	325	LMT	O5'-C5'-C6'-O6'
23	A	420	CLA	C6-C7-C8-C9
23	f	308	CLA	C11-C10-C8-C9
30	L	302	LMT	C6-C7-C8-C9
24	A	407	CL0	C5-C6-C7-C8
23	f	312	CLA	C3A-C2A-CAA-CBA
23	A	404	CLA	C15-C16-C17-C18
23	d	307	CLA	CAA-CBA-CGA-O2A
23	B	1219	CLA	CAA-CBA-CGA-O2A
23	c	306	CLA	CAA-CBA-CGA-O1A
23	F	404	CLA	CAD-CBD-CGD-O2D
23	L	313	CLA	CAD-CBD-CGD-O2D
23	R	302	CLA	CAD-CBD-CGD-O2D
23	b	304	CLA	CAD-CBD-CGD-O2D
23	b	312	CLA	CAD-CBD-CGD-O2D
23	c	309	CLA	CAD-CBD-CGD-O2D
23	e	304	CLA	CAD-CBD-CGD-O2D
23	e	307	CLA	CAD-CBD-CGD-O2D
23	f	309	CLA	CAD-CBD-CGD-O2D

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Mol	Chain	Res	Type	Atoms
23	f	317	CLA	CAD-CBD-CGD-O2D
23	a	403	CLA	CAD-CBD-CGD-O2D
23	B	1209	CLA	CAD-CBD-CGD-O2D
23	B	1228	CLA	CAD-CBD-CGD-O2D
29	c	328	DGD	C2A-C3A-C4A-C5A
30	F	414	LMT	C5'-C4'-O1B-C1B
23	f	317	CLA	CAA-CBA-CGA-O2A
23	B	1208	CLA	CAA-CBA-CGA-O2A
35	B	1242	A1I05	C16-C17-C18-O20
23	L	305	CLA	CAA-CBA-CGA-O1A
23	B	1230	CLA	C2-C3-C5-C6
23	c	303	CLA	CAA-CBA-CGA-O2A
27	c	316	XAT	O24-C26-C27-C28
29	A	419	DGD	C1G-C2G-C3G-O3G
29	b	319	DGD	O1G-C1G-C2G-C3G
23	d	309	CLA	CAA-CBA-CGA-O1A
23	A	404	CLA	CAA-CBA-CGA-O2A
23	b	306	CLA	CAA-CBA-CGA-O2A
23	e	303	CLA	CAA-CBA-CGA-O2A
23	b	328	CLA	O2A-C1-C2-C3
23	B	1221	CLA	O2A-C1-C2-C3
23	B	1228	CLA	O2A-C1-C2-C3
23	B	1210	CLA	C13-C15-C16-C17
23	a	403	CLA	CAA-CBA-CGA-O2A
23	A	409	CLA	CHA-CBD-CGD-O2D
23	A	423	CLA	CHA-CBD-CGD-O2D
23	b	305	CLA	CHA-CBD-CGD-O2D
23	b	308	CLA	CHA-CBD-CGD-O2D
23	c	304	CLA	CHA-CBD-CGD-O2D
23	c	311	CLA	CHA-CBD-CGD-O1D
23	c	311	CLA	CHA-CBD-CGD-O2D
23	c	312	CLA	CHA-CBD-CGD-O2D
23	d	309	CLA	CHA-CBD-CGD-O1D
23	d	309	CLA	CHA-CBD-CGD-O2D
23	e	301	CLA	CHA-CBD-CGD-O1D
23	f	311	CLA	CHA-CBD-CGD-O1D
23	f	313	CLA	CHA-CBD-CGD-O2D
23	f	314	CLA	CHA-CBD-CGD-O2D
23	a	405	CLA	CHA-CBD-CGD-O1D
23	a	405	CLA	CHA-CBD-CGD-O2D
23	a	408	CLA	CHA-CBD-CGD-O1D
23	a	411	CLA	CHA-CBD-CGD-O1D

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Mol	Chain	Res	Type	Atoms
23	a	411	CLA	CHA-CBD-CGD-O2D
23	B	1207	CLA	CHA-CBD-CGD-O1D
23	B	1207	CLA	CHA-CBD-CGD-O2D
23	B	1211	CLA	CHA-CBD-CGD-O1D
23	B	1211	CLA	CHA-CBD-CGD-O2D
23	B	1217	CLA	CHA-CBD-CGD-O1D
23	B	1219	CLA	CHA-CBD-CGD-O1D
23	B	1219	CLA	CHA-CBD-CGD-O2D
23	B	1220	CLA	CHA-CBD-CGD-O2D
23	B	1221	CLA	CHA-CBD-CGD-O1D
23	B	1221	CLA	CHA-CBD-CGD-O2D
33	d	314	A1L6D	C43-C42-C8-C9
23	B	1212	CLA	CAA-CBA-CGA-O2A
35	B	1242	A1I05	O29-C30-C32-C33
23	a	411	CLA	CAA-CBA-CGA-O1A
23	f	307	CLA	CAA-CBA-CGA-O2A
23	B	1228	CLA	CAA-CBA-CGA-O2A
30	F	414	LMT	C3'-C4'-O1B-C1B
29	F	408	DGD	O2G-C1B-C2B-C3B
32	L	312	AV0	O1-CBS-CCM-CBR
23	b	307	CLA	C2-C3-C5-C6
28	f	323	LMG	O8-C28-C29-C30
23	f	314	CLA	CAA-CBA-CGA-O1A
23	a	406	CLA	C11-C10-C8-C9
23	B	1224	CLA	C11-C12-C13-C14
23	B	1210	CLA	CAA-CBA-CGA-O1A
23	a	403	CLA	CAA-CBA-CGA-O1A
23	B	1208	CLA	CAA-CBA-CGA-O1A
23	L	303	CLA	C1A-C2A-CAA-CBA
23	e	304	CLA	C1A-C2A-CAA-CBA
23	e	307	CLA	C1A-C2A-CAA-CBA
23	a	405	CLA	C1A-C2A-CAA-CBA
23	B	1223	CLA	C1A-C2A-CAA-CBA
30	f	302	LMT	C11-C10-C9-C8
23	d	307	CLA	C2-C1-O2A-CGA
23	B	1207	CLA	C2-C1-O2A-CGA
35	B	1242	A1I05	C16-C17-C18-O19
29	F	408	DGD	O1B-C1B-C2B-C3B
23	b	306	CLA	CAA-CBA-CGA-O1A
23	c	303	CLA	CAA-CBA-CGA-O1A
23	f	317	CLA	CAA-CBA-CGA-O1A
23	B	1219	CLA	CAA-CBA-CGA-O1A

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Mol	Chain	Res	Type	Atoms
23	B	1228	CLA	CAA-CBA-CGA-O1A
31	F	401	BCR	C23-C24-C25-C26
31	a	402	BCR	C23-C24-C25-C26
31	a	402	BCR	C23-C24-C25-C30
28	f	323	LMG	O10-C28-C29-C30
35	B	1242	A1I05	O31-C30-C32-C33
23	c	309	CLA	CAA-CBA-CGA-O2A
23	A	404	CLA	CAA-CBA-CGA-O1A
23	b	308	CLA	C4-C3-C5-C6
23	L	303	CLA	C2-C3-C5-C6
23	B	1212	CLA	CAA-CBA-CGA-O1A
23	A	409	CLA	CAD-CBD-CGD-O1D
23	F	402	CLA	CAD-CBD-CGD-O1D
23	a	406	CLA	CAD-CBD-CGD-O1D
23	B	1205	CLA	CAD-CBD-CGD-O1D
23	B	1216	CLA	CAD-CBD-CGD-O1D
24	A	407	CL0	CAD-CBD-CGD-O1D
23	e	303	CLA	CAA-CBA-CGA-O1A
23	b	309	CLA	CAA-CBA-CGA-O2A
23	c	307	CLA	C5-C6-C7-C8
23	c	307	CLA	C8-C10-C11-C12
23	A	420	CLA	C14-C13-C15-C16
23	b	310	CLA	C14-C13-C15-C16
23	e	303	CLA	C14-C13-C15-C16
23	f	308	CLA	C11-C12-C13-C14
23	f	307	CLA	CAA-CBA-CGA-O1A
23	d	306	CLA	CAA-CBA-CGA-O2A
23	e	302	CLA	CAA-CBA-CGA-O2A
28	b	320	LMG	O8-C28-C29-C30
23	B	1221	CLA	C4-C3-C5-C6
23	B	1208	CLA	C8-C10-C11-C12
23	A	409	CLA	C12-C13-C15-C16
23	b	308	CLA	C3A-C2A-CAA-CBA
23	e	307	CLA	C3A-C2A-CAA-CBA
23	B	1216	CLA	C6-C7-C8-C10
23	B	1223	CLA	C3A-C2A-CAA-CBA
23	f	306	CLA	CAA-CBA-CGA-O2A
30	e	318	LMT	C2B-C1B-O1B-C4'
23	d	306	CLA	CAA-CBA-CGA-O1A
28	b	320	LMG	O10-C28-C29-C30
29	F	408	DGD	CBA-CCA-CDA-CEA
30	c	331	LMT	C2-C1-O1'-C1'

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Mol	Chain	Res	Type	Atoms
23	b	303	CLA	CAA-CBA-CGA-O2A
28	f	323	LMG	O6-C1-O1-C7
23	b	309	CLA	CAA-CBA-CGA-O1A
23	L	303	CLA	CAA-CBA-CGA-O2A
29	c	328	DGD	O2G-C1B-C2B-C3B
23	B	1217	CLA	C15-C16-C17-C18
23	c	309	CLA	CAA-CBA-CGA-O1A
23	b	306	CLA	C2C-C3C-CAC-CBC
28	f	323	LMG	C20-C21-C22-C23
23	e	302	CLA	CAA-CBA-CGA-O1A
23	e	303	CLA	C10-C11-C12-C13

There are no ring outliers.

87 monomers are involved in 111 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	B	1224	CLA	1	0
23	A	409	CLA	3	0
23	A	402	CLA	1	0
23	c	305	CLA	3	0
33	d	314	A1L6D	1	0
23	B	1208	CLA	3	0
23	e	306	CLA	1	0
27	c	316	XAT	1	0
30	c	319	LMT	2	0
31	b	317	BCR	1	0
23	B	1222	CLA	2	0
23	B	1230	CLA	1	0
31	a	402	BCR	2	0
27	a	410	XAT	3	0
29	c	328	DGD	1	0
23	L	304	CLA	3	0
30	B	1204	LMT	1	0
27	b	314	XAT	1	0
23	B	1209	CLA	1	0
23	A	414	CLA	1	0
23	b	310	CLA	1	0
28	F	409	LMG	1	0
23	c	304	CLA	2	0
27	b	315	XAT	2	0
23	A	401	CLA	2	0
23	L	313	CLA	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
31	B	1234	BCR	2	0
23	b	303	CLA	1	0
23	b	307	CLA	1	0
30	f	327	LMT	1	0
23	B	1219	CLA	1	0
31	L	307	BCR	1	0
23	L	305	CLA	1	0
23	d	302	CLA	1	0
23	A	412	CLA	1	0
23	F	403	CLA	1	0
23	c	307	CLA	1	0
27	f	318	XAT	1	0
23	c	308	CLA	1	0
23	b	305	CLA	1	0
27	d	311	XAT	1	0
23	b	312	CLA	2	0
23	c	310	CLA	1	0
30	B	1240	LMT	1	0
23	A	404	CLA	1	0
28	R	304	LMG	1	0
30	c	329	LMT	1	0
23	B	1207	CLA	2	0
23	f	315	CLA	2	0
23	B	1225	CLA	1	0
23	f	313	CLA	1	0
23	A	408	CLA	1	0
23	b	308	CLA	1	0
23	B	1211	CLA	1	0
27	R	303	XAT	1	0
23	a	406	CLA	1	0
31	F	401	BCR	4	0
23	F	402	CLA	1	0
23	c	306	CLA	1	0
23	a	403	CLA	1	0
23	L	303	CLA	1	0
30	F	414	LMT	2	0
28	b	321	LMG	1	0
31	B	1233	BCR	1	0
23	B	1201	CLA	1	0
23	B	1218	CLA	1	0
27	f	320	XAT	1	0
23	B	1223	CLA	1	0

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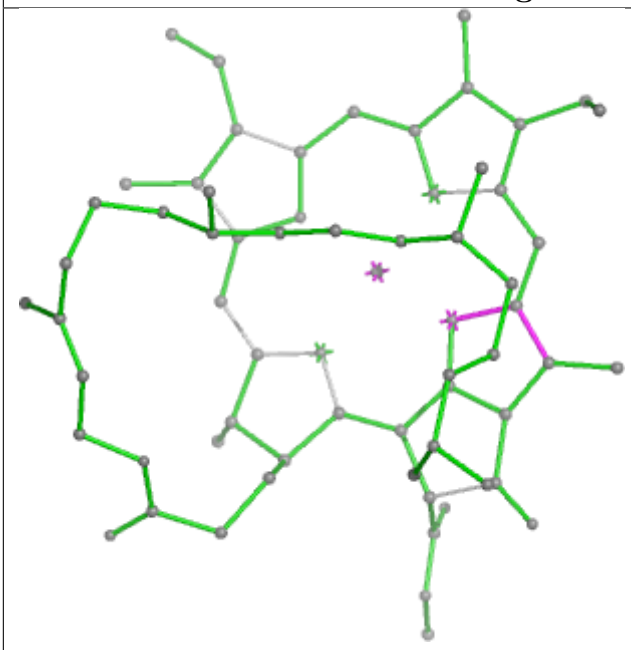
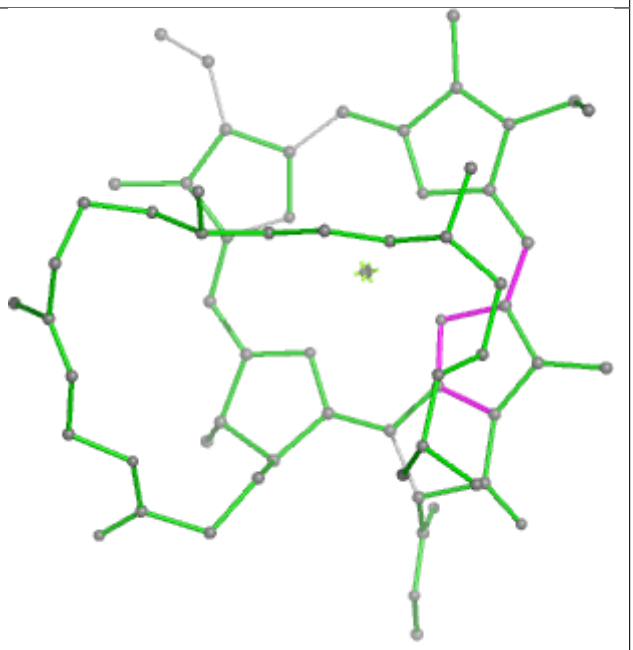
Mol	Chain	Res	Type	Clashes	Symm-Clashes
29	b	318	DGD	1	0
23	b	306	CLA	1	0
23	A	420	CLA	10	0
23	A	410	CLA	2	0
30	c	331	LMT	2	0
23	d	306	CLA	1	0
23	B	1206	CLA	2	0
27	e	310	XAT	3	0
31	L	306	BCR	2	0
23	B	1215	CLA	2	0
30	a	409	LMT	2	0
23	f	308	CLA	3	0
27	d	310	XAT	1	0
23	B	1227	CLA	1	0
23	b	311	CLA	1	0
23	R	302	CLA	2	0
23	b	302	CLA	1	0
23	c	312	CLA	3	0
23	B	1214	CLA	1	0

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

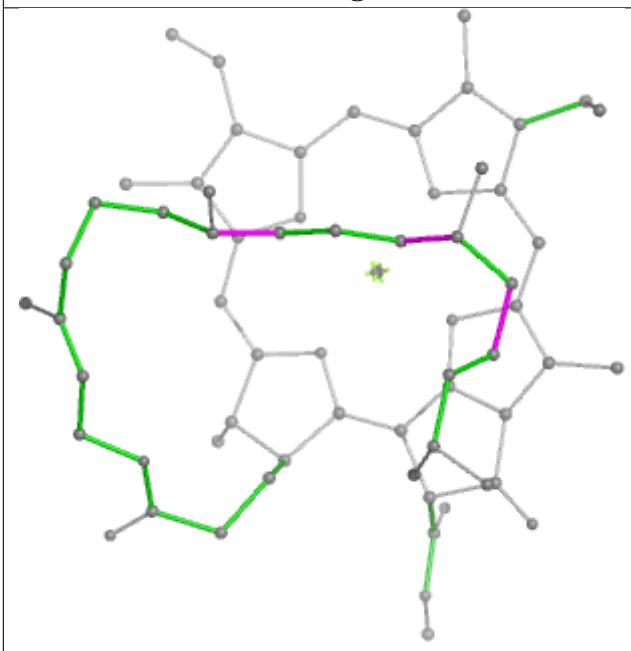
Ligand CLA B 1224



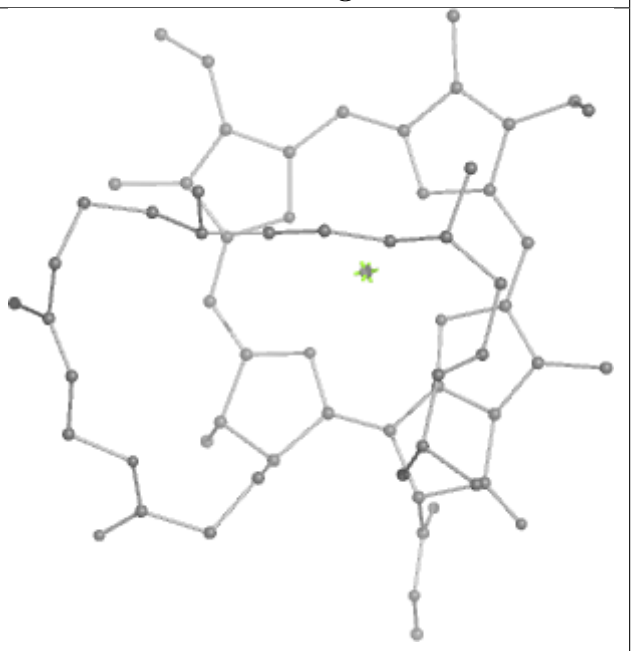
Bond lengths



Bond angles

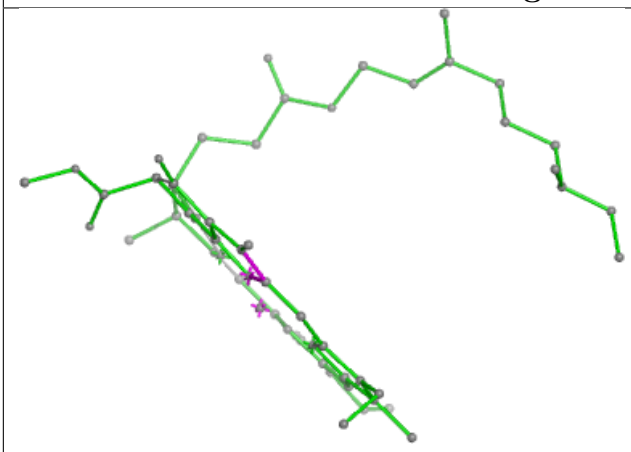


Torsions

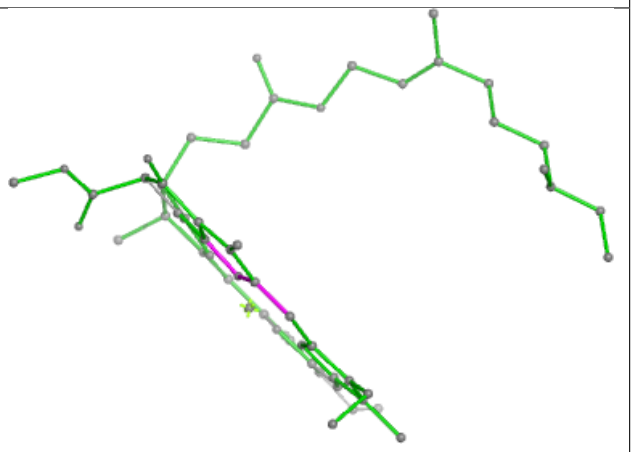


Rings

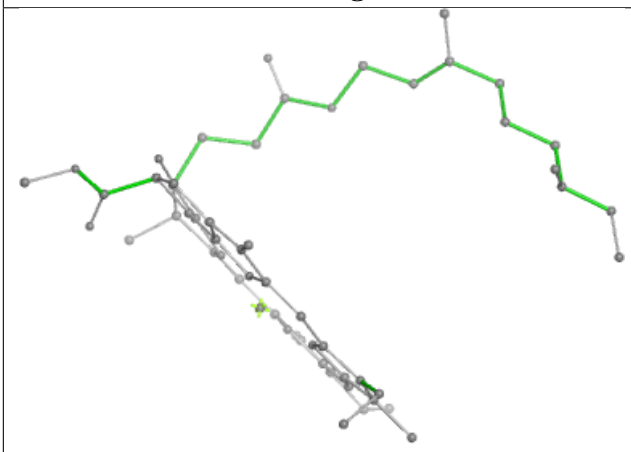
Ligand CLA A 413



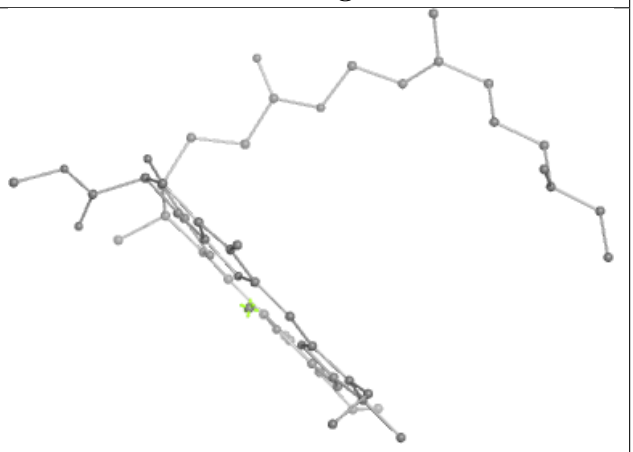
Bond lengths



Bond angles

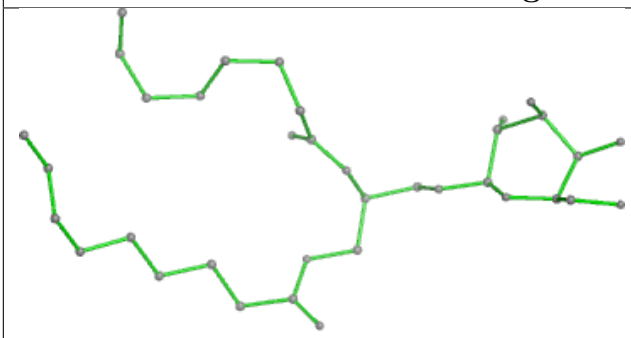


Torsions

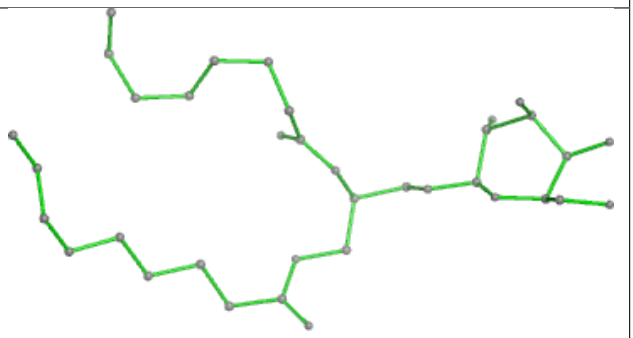


Rings

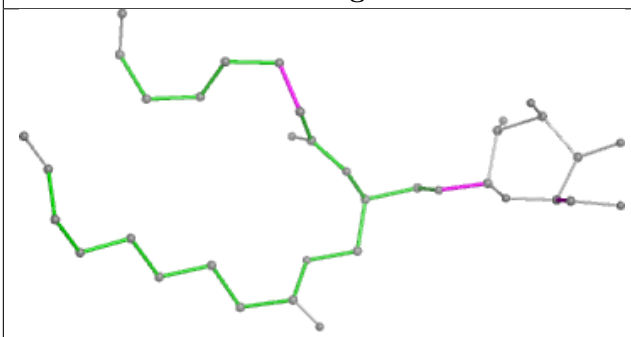
Ligand LMG b 327



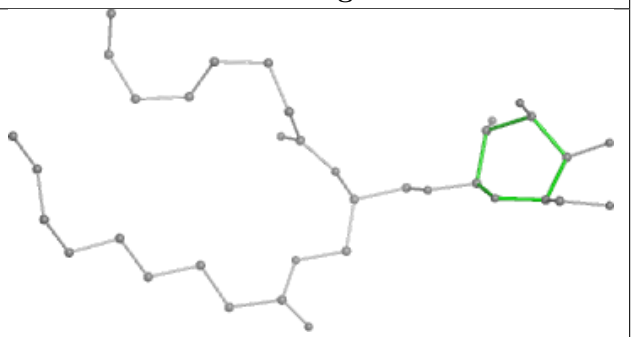
Bond lengths



Bond angles

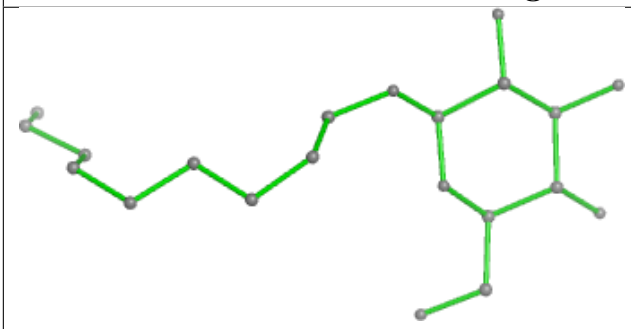


Torsions

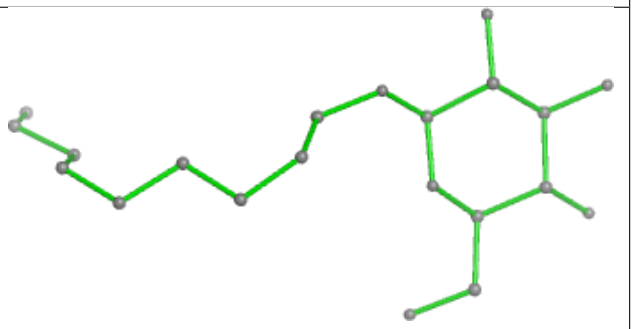


Rings

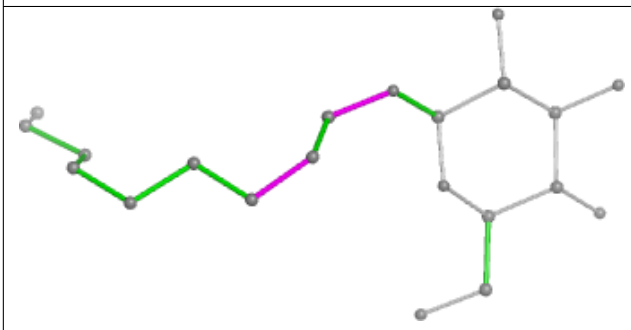
Ligand LMT b 326



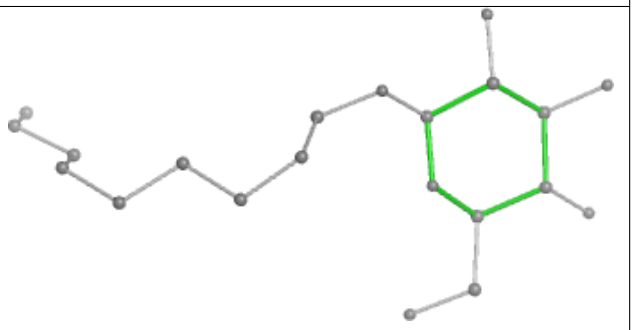
Bond lengths



Bond angles

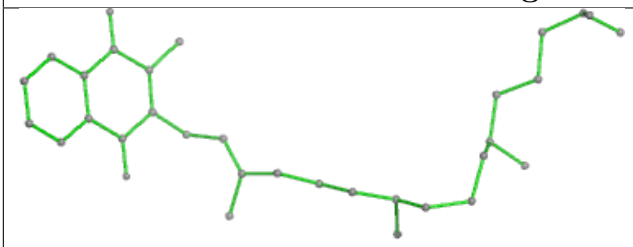


Torsions

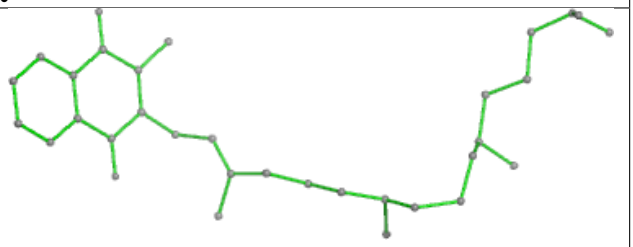


Rings

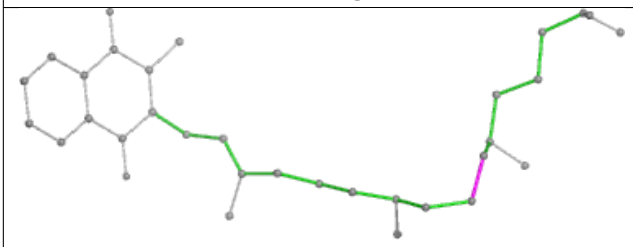
Ligand PQN A 416



Bond lengths



Bond angles



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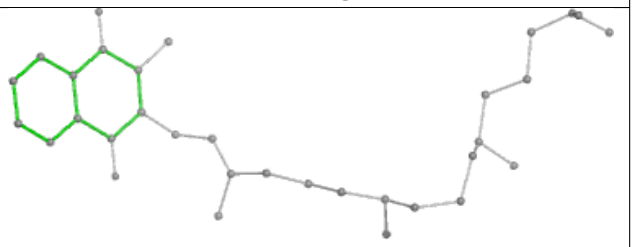
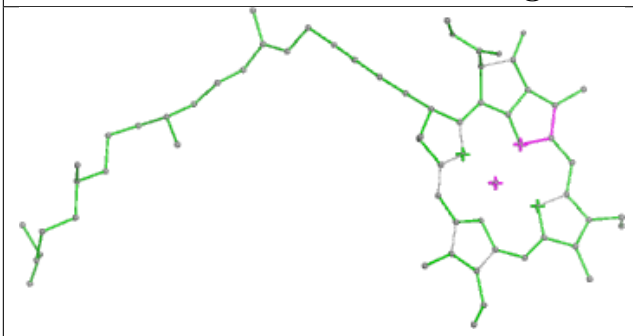


Rings

Ligand CLA A 409



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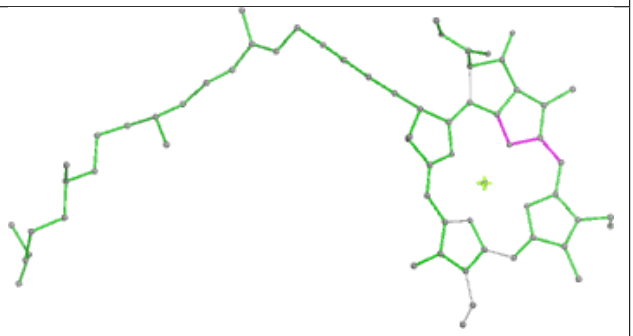
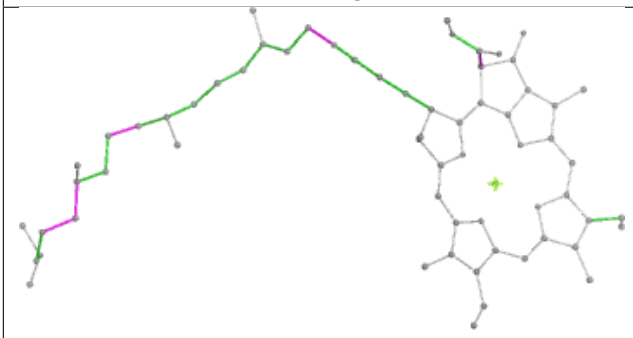


Bond angles



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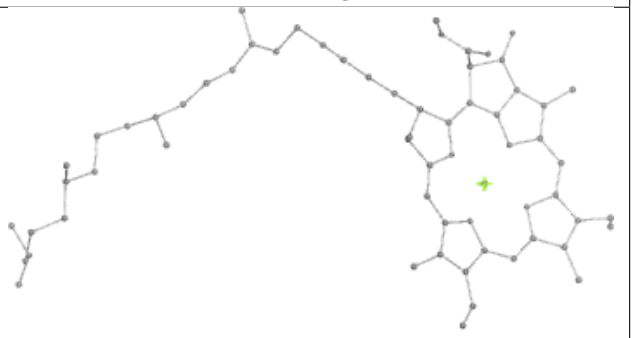
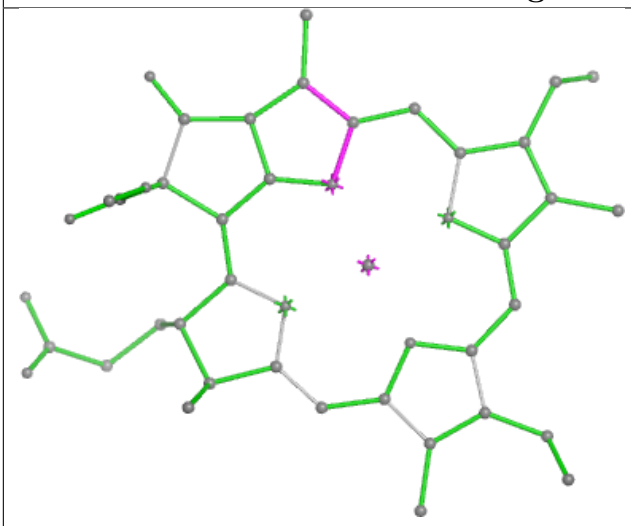


Rings

Ligand CLA b 304



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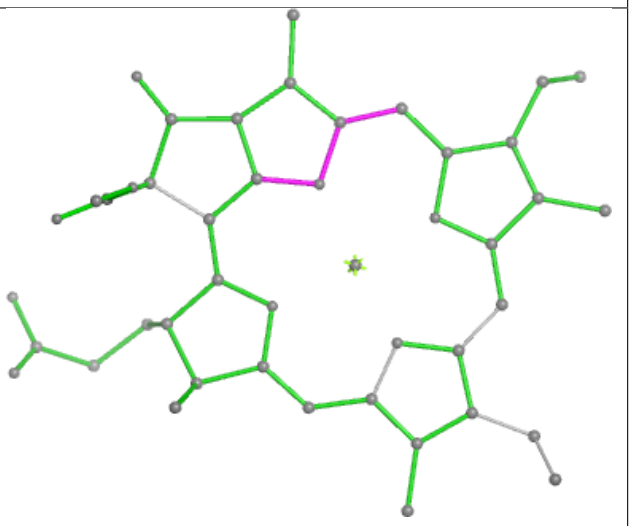

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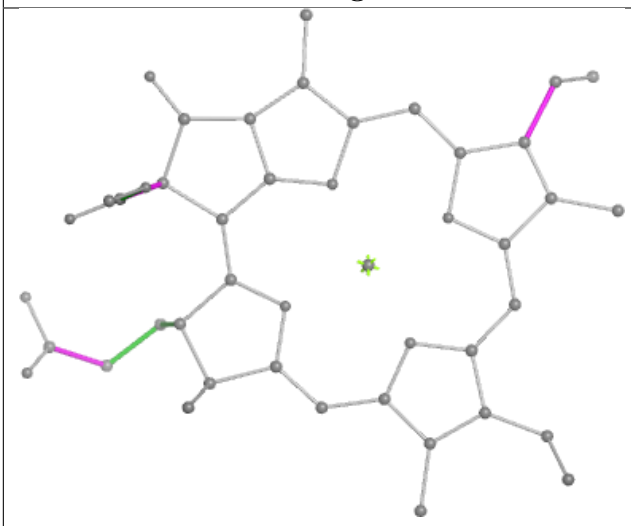

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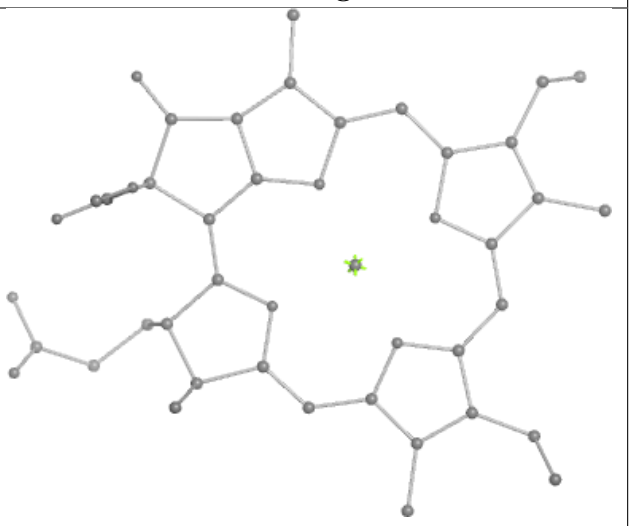
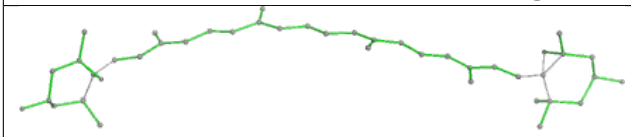


Rings

Ligand XAT c 313



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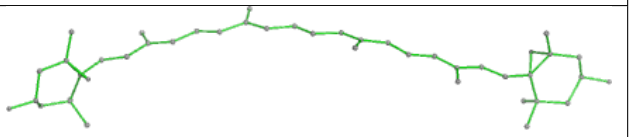
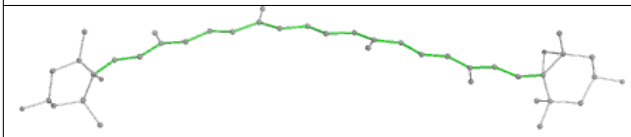
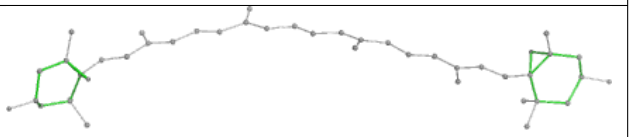


Bond angles

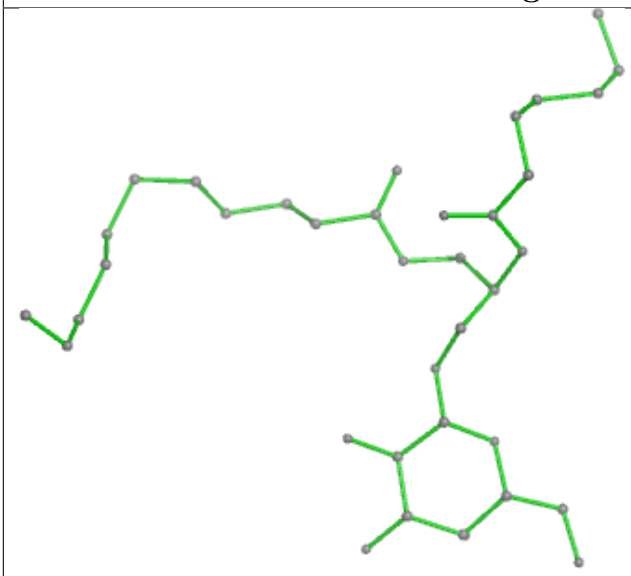


Torsions



Rings

Ligand LMG b 320



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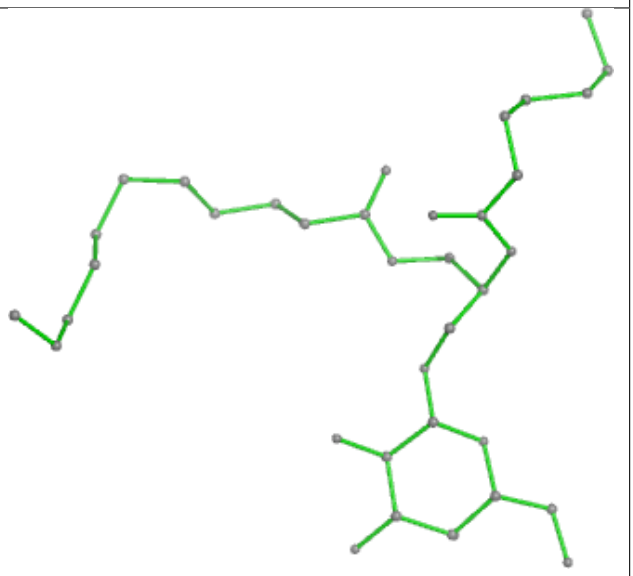
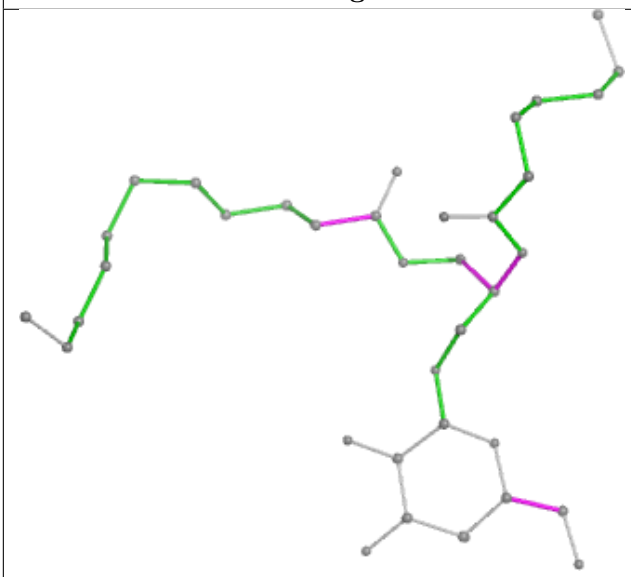


Bond angles



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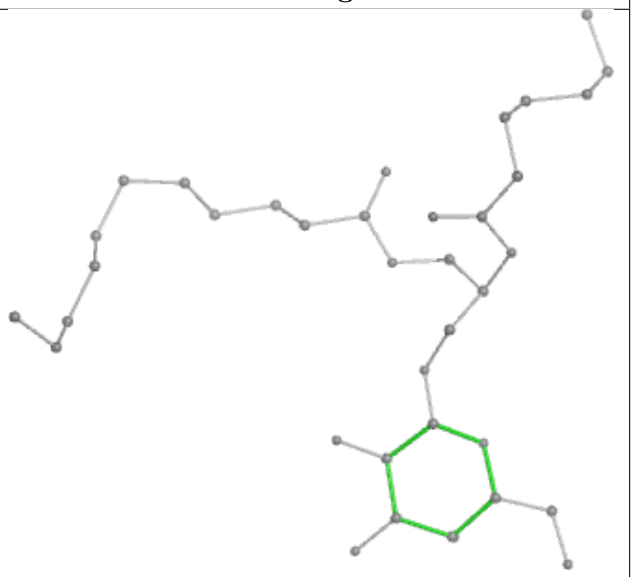
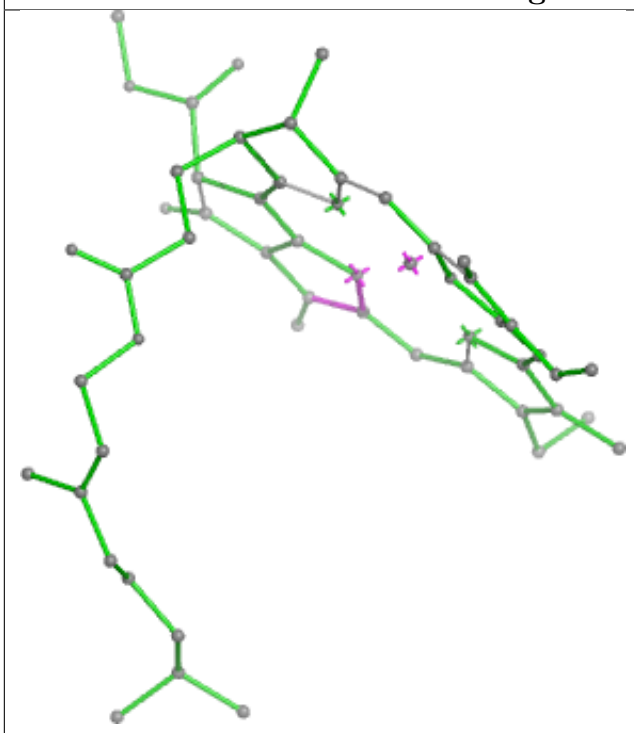


Rings

Ligand CLA d 305



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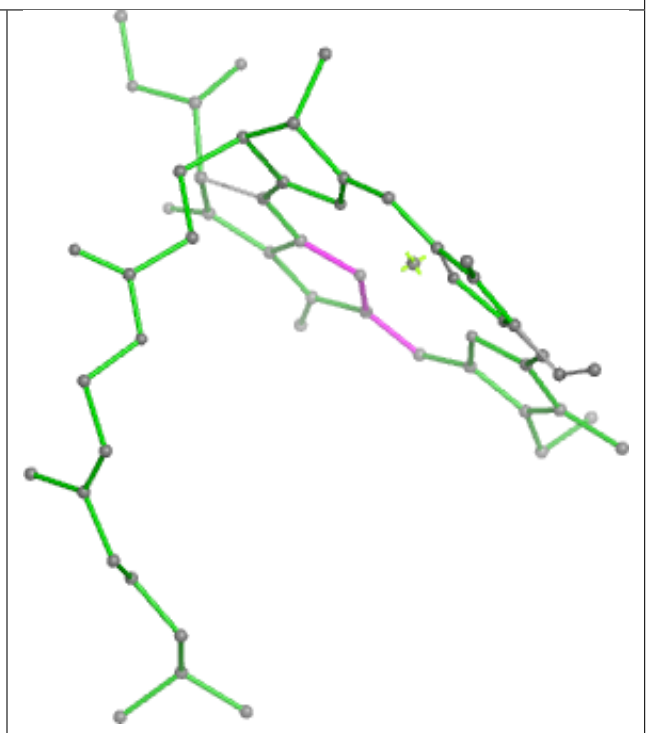

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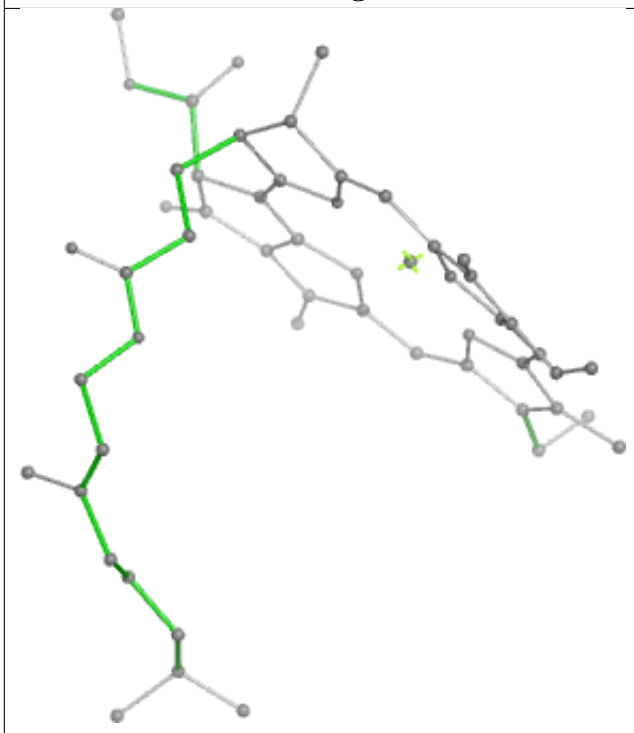

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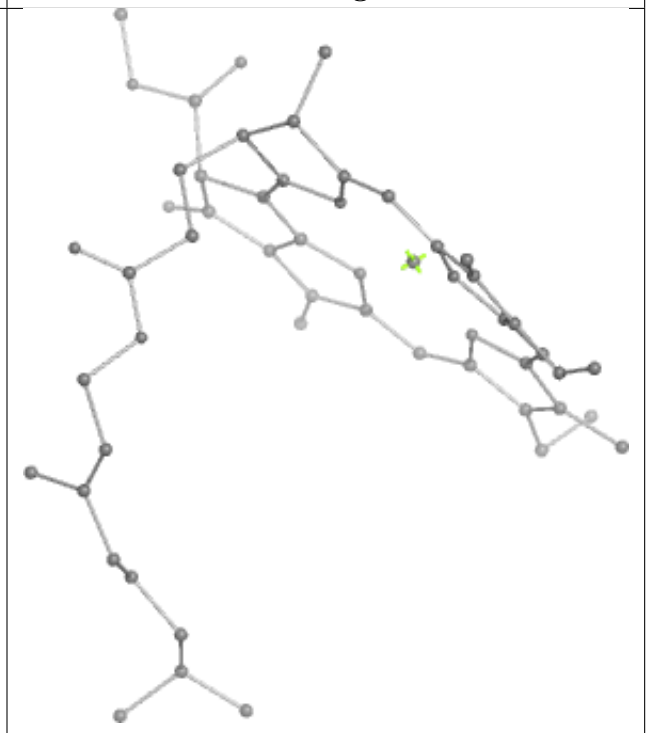
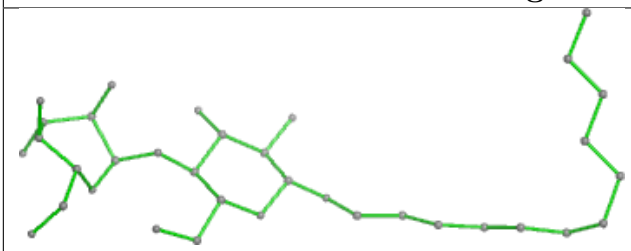


Rings

Ligand LMT c 318



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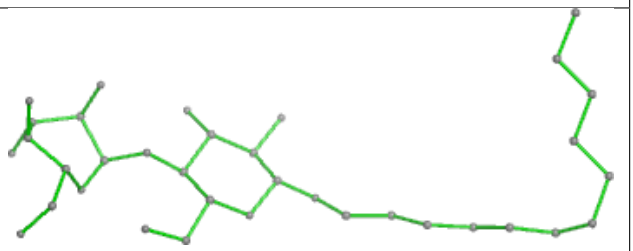
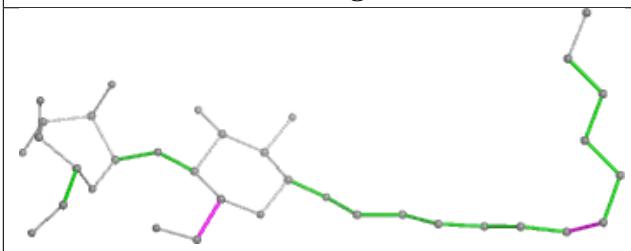


Bond angles



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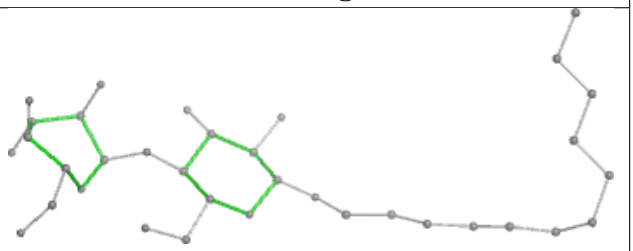
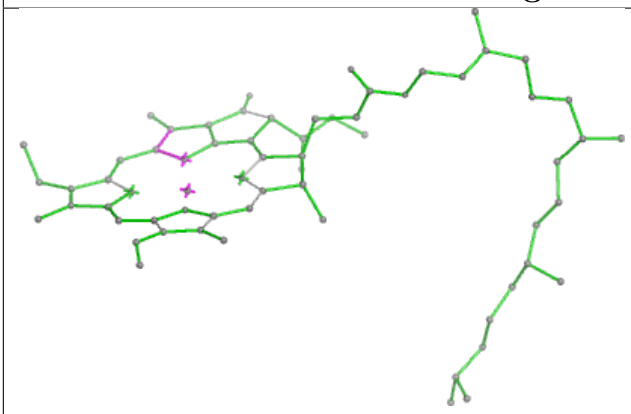


Rings

Ligand CLA A 402



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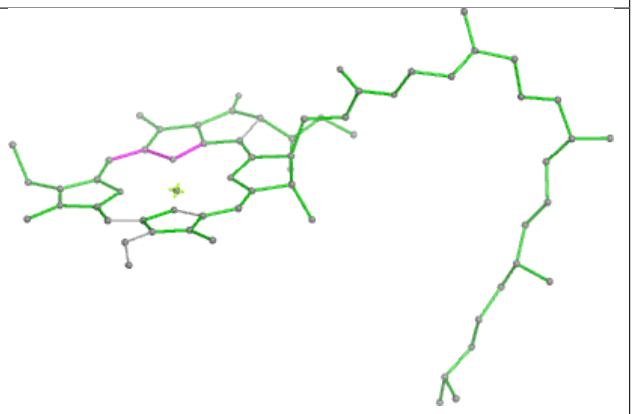
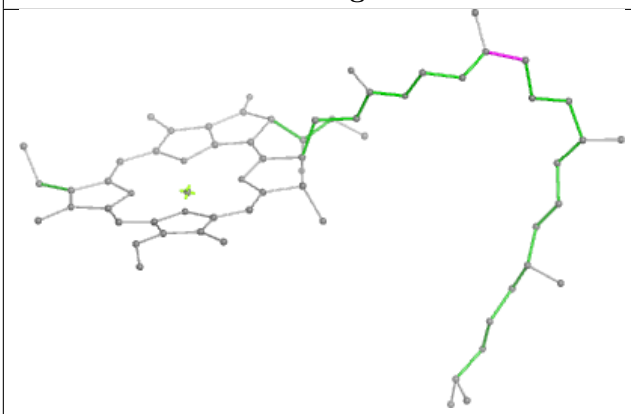


Bond angles



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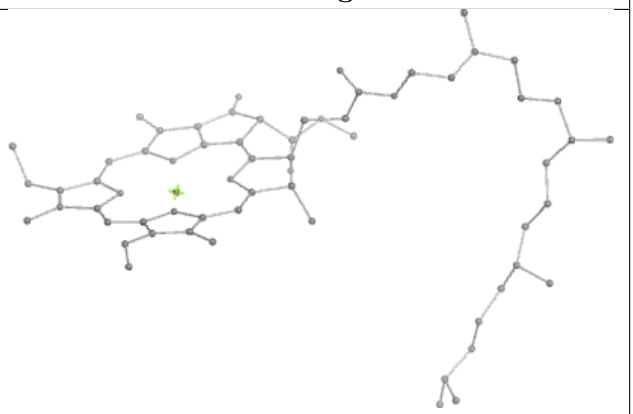
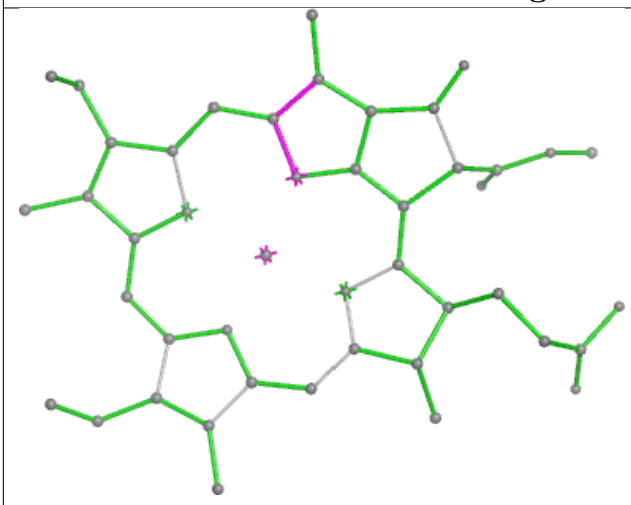


Rings

Ligand CLA c 305



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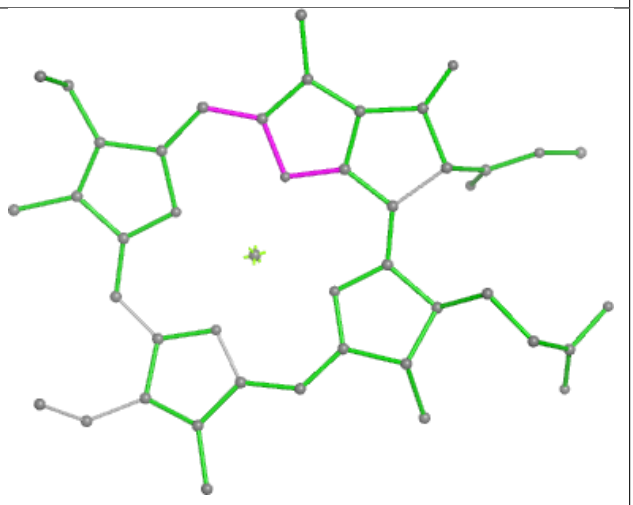
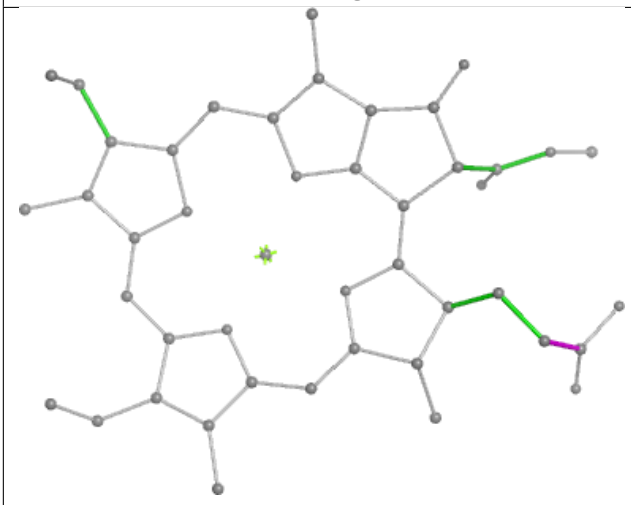
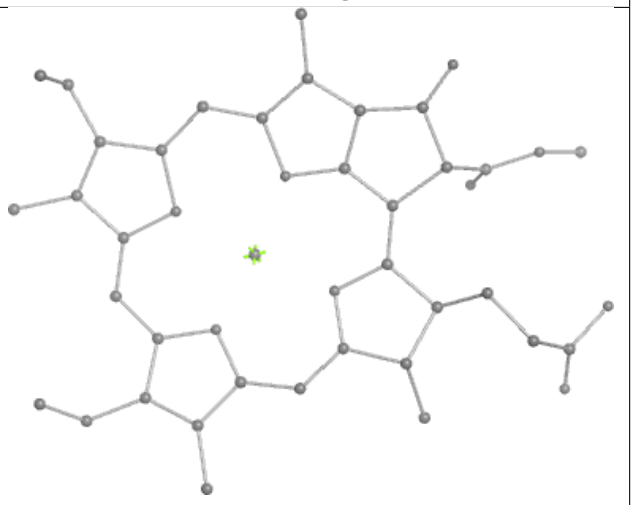


Bond angles

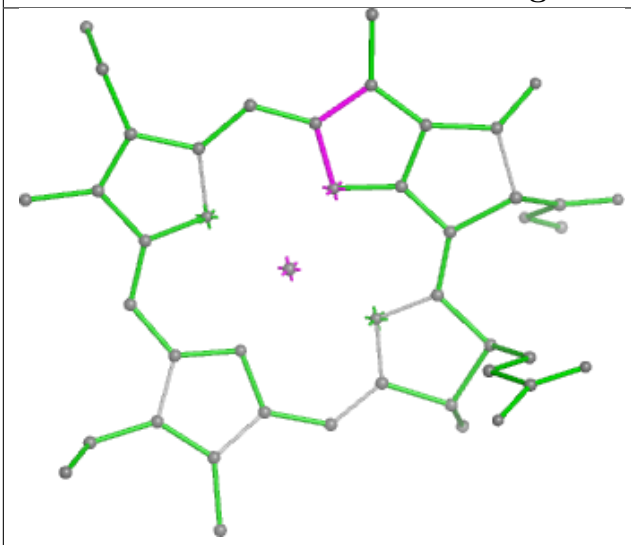


Torsions

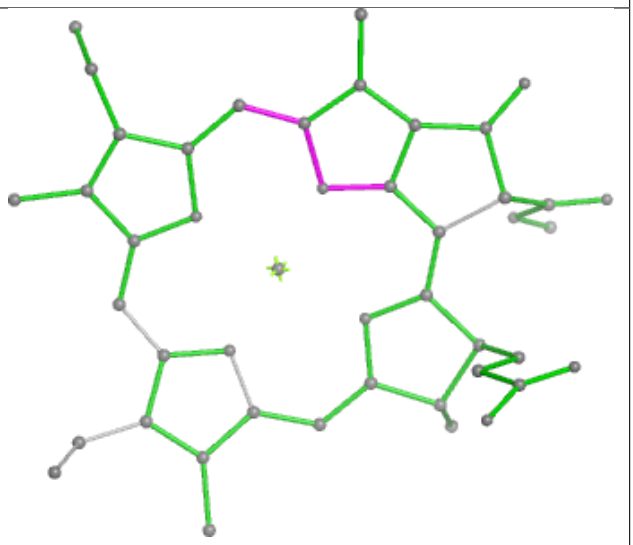


Rings

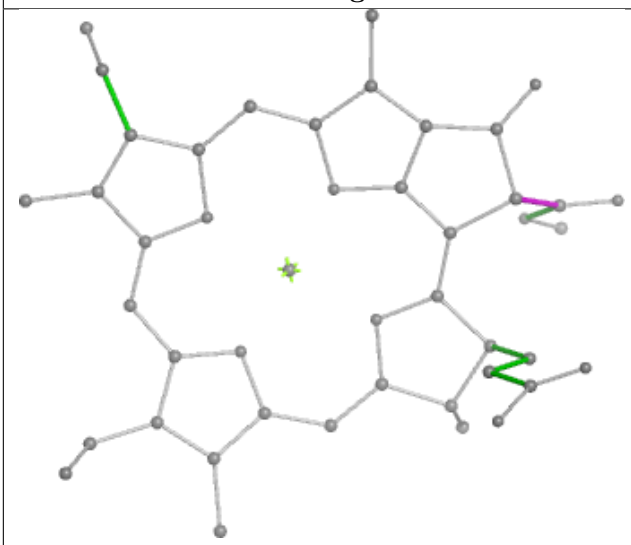
Ligand CLA c 311



Bond lengths



Bond angles



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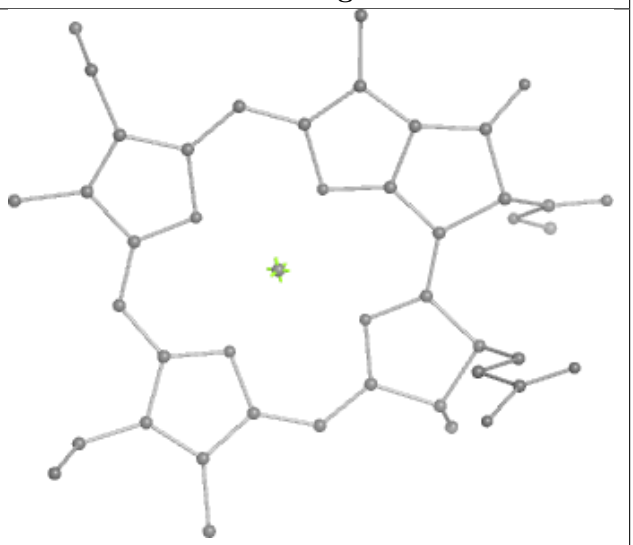
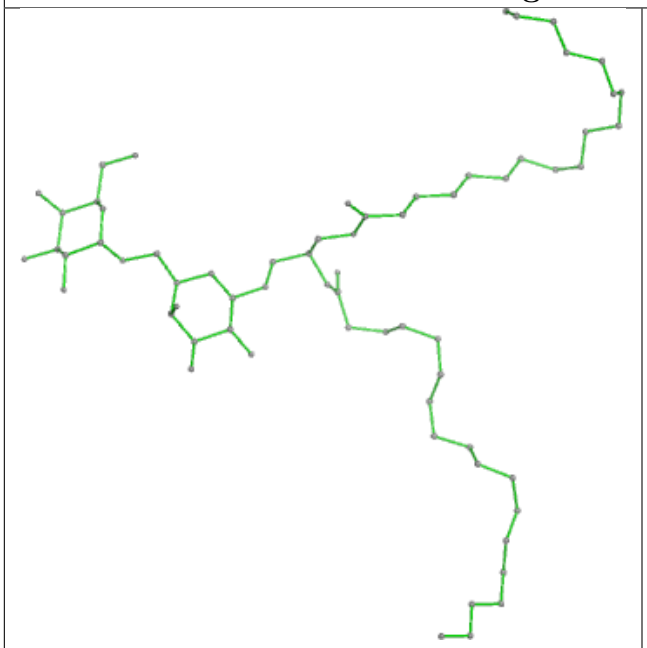
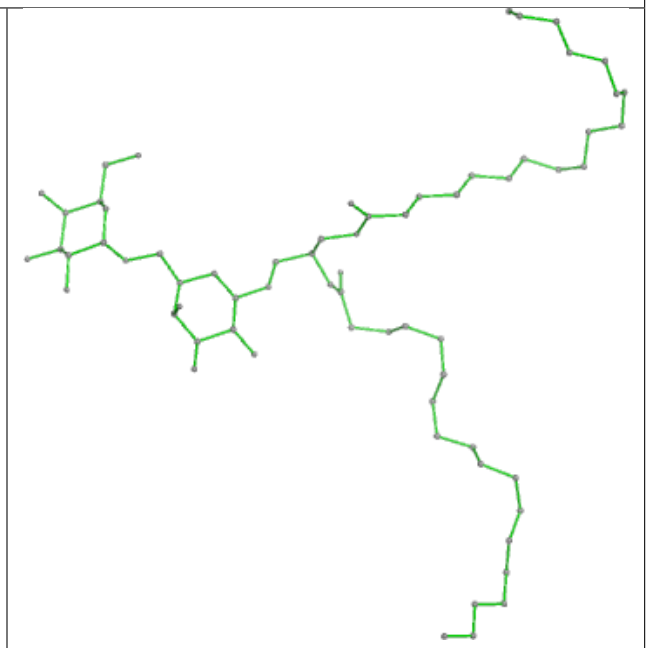


Rings

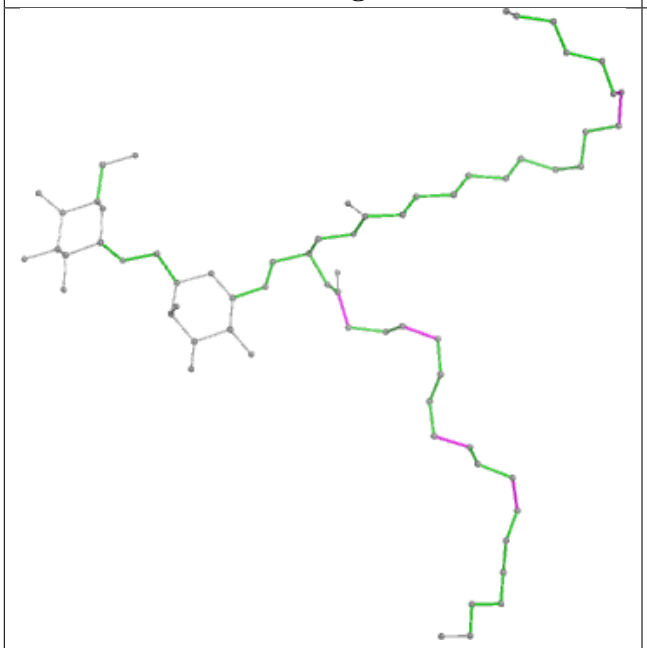
Ligand DGD F 408



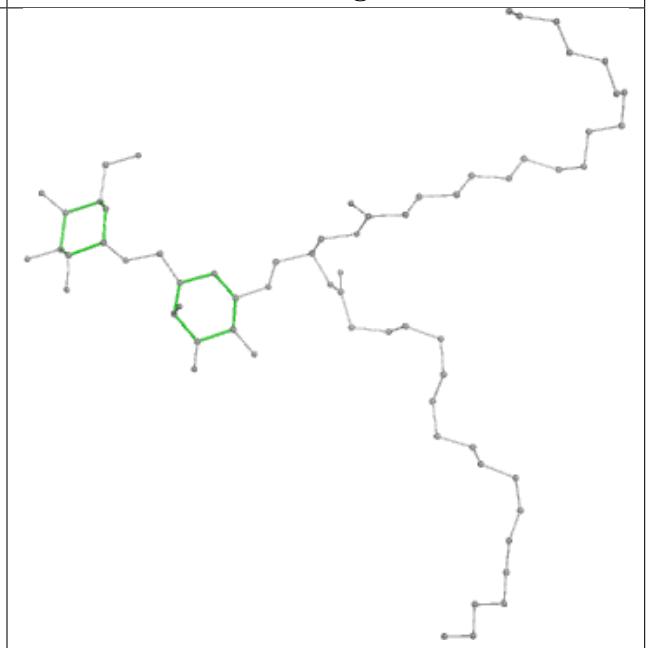
Bond lengths



Bond angles

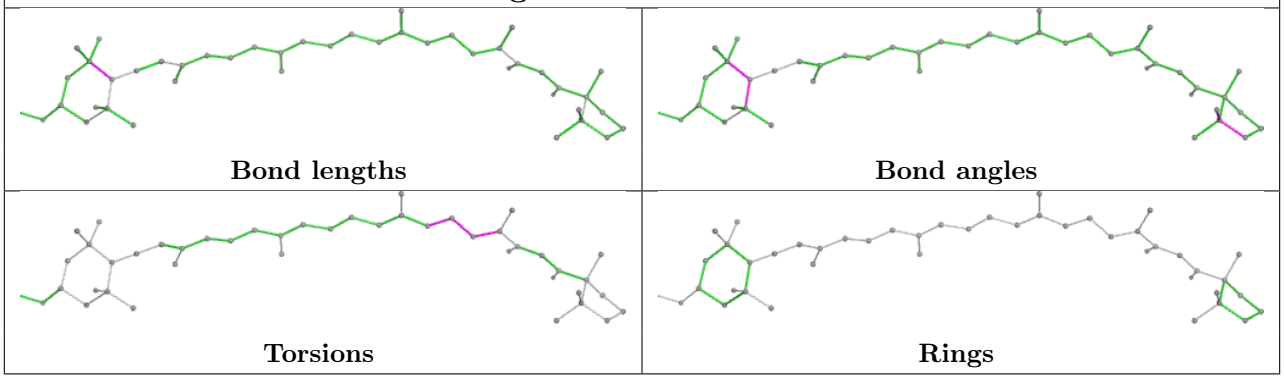


Torsions

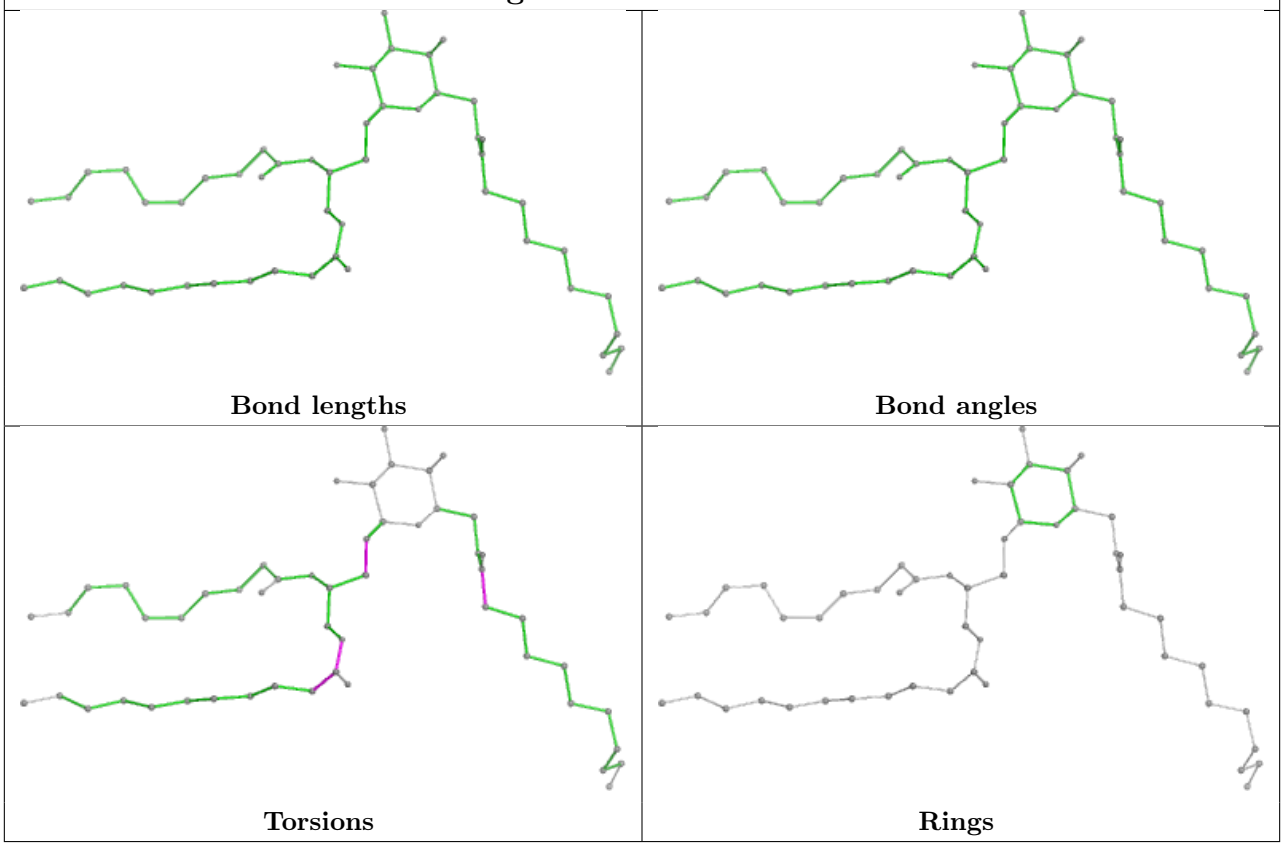


Rings

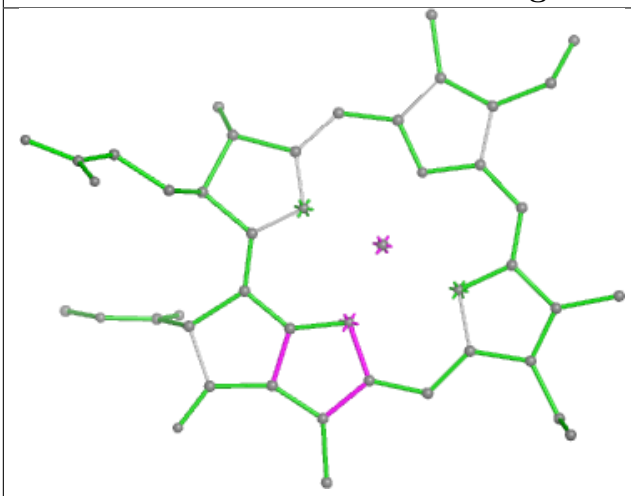
Ligand A1L6D d 314



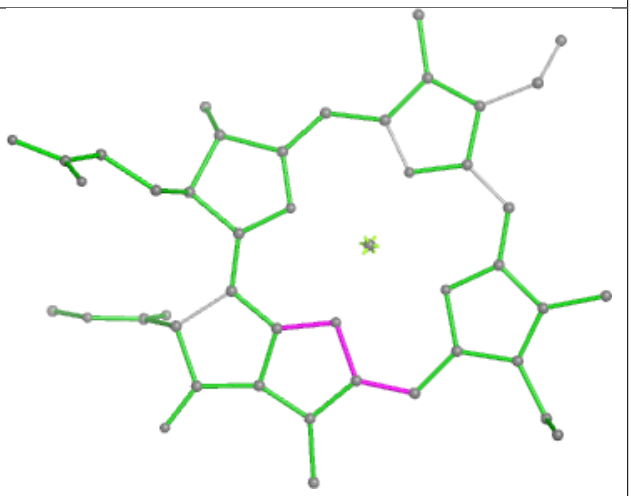
Ligand A1I05 B 1242



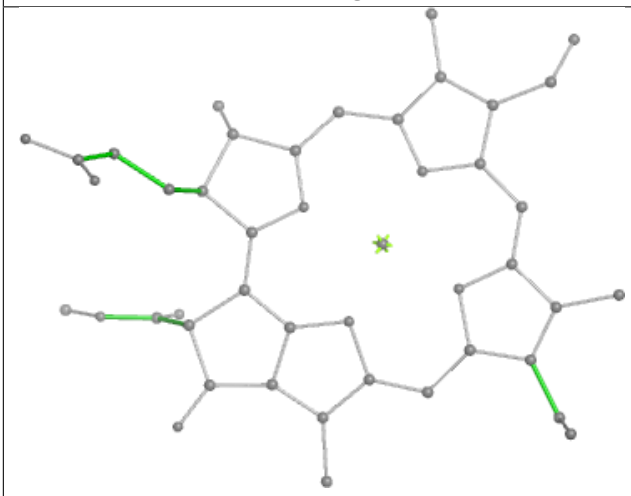
Ligand CLA c 301



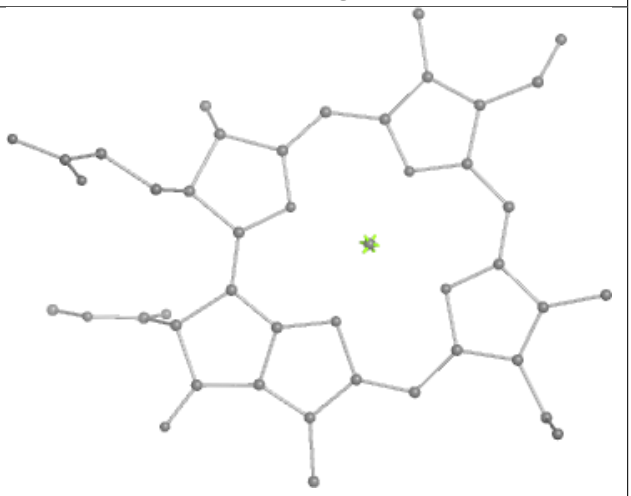
Bond lengths



Bond angles

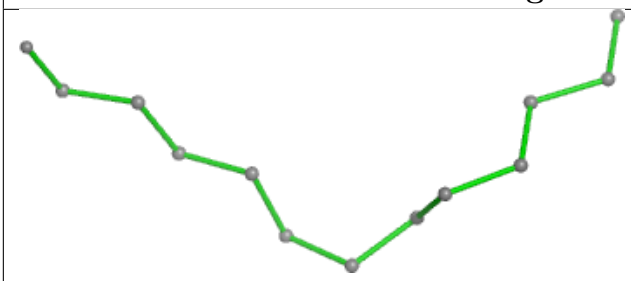


Torsions

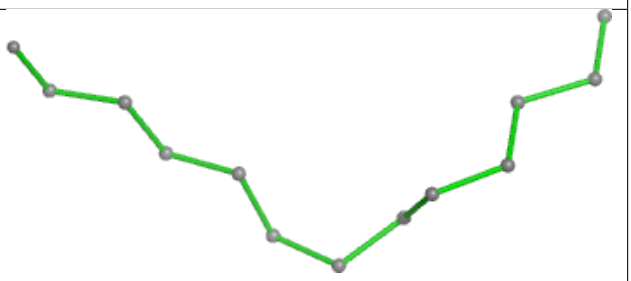


Rings

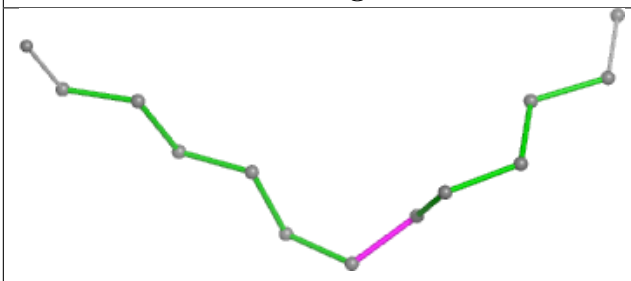
Ligand LMT c 322



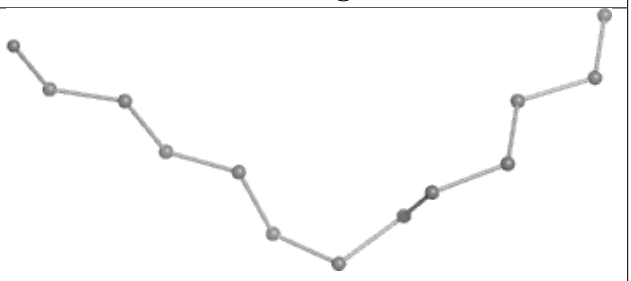
Bond lengths



Bond angles

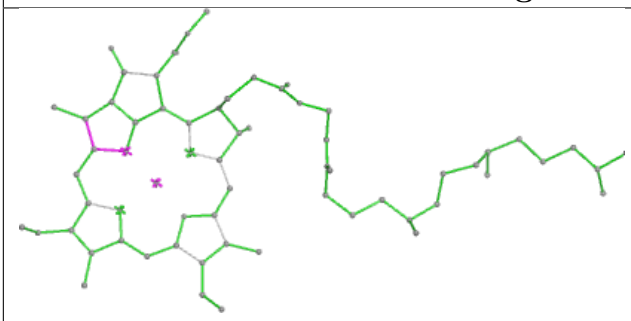


Torsions

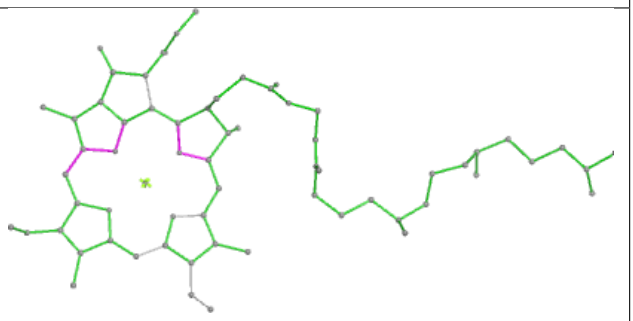


Rings

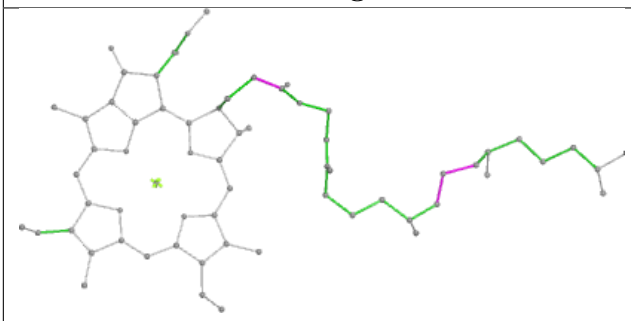
Ligand CLA B 1208



Bond lengths



Bond angles



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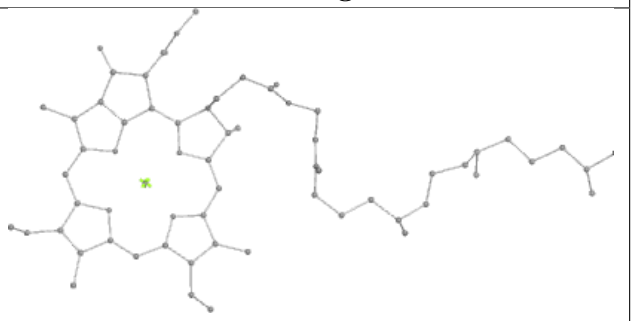
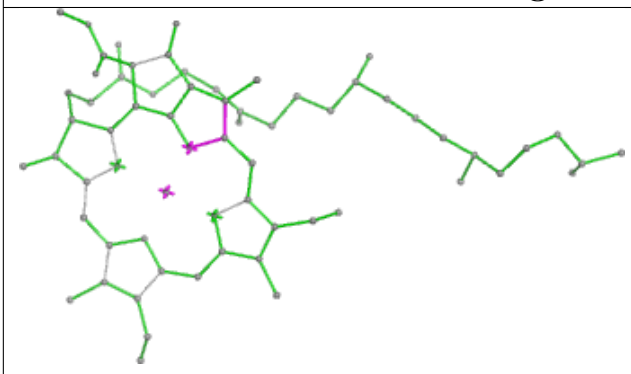


Rings

Ligand CLA e 306



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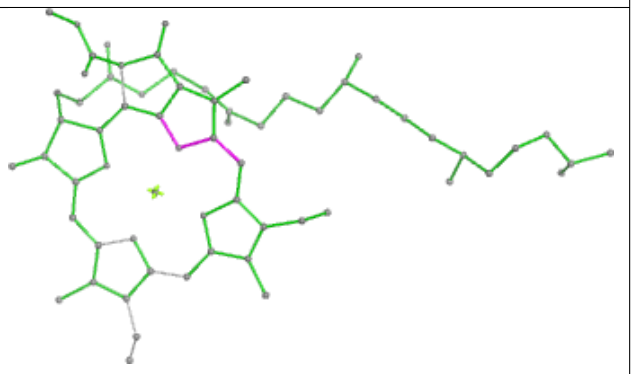
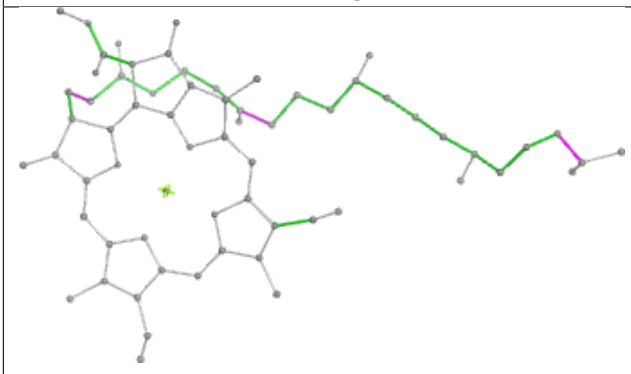
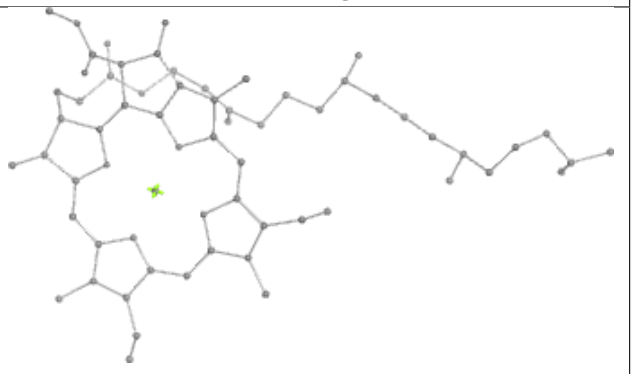


Bond angles

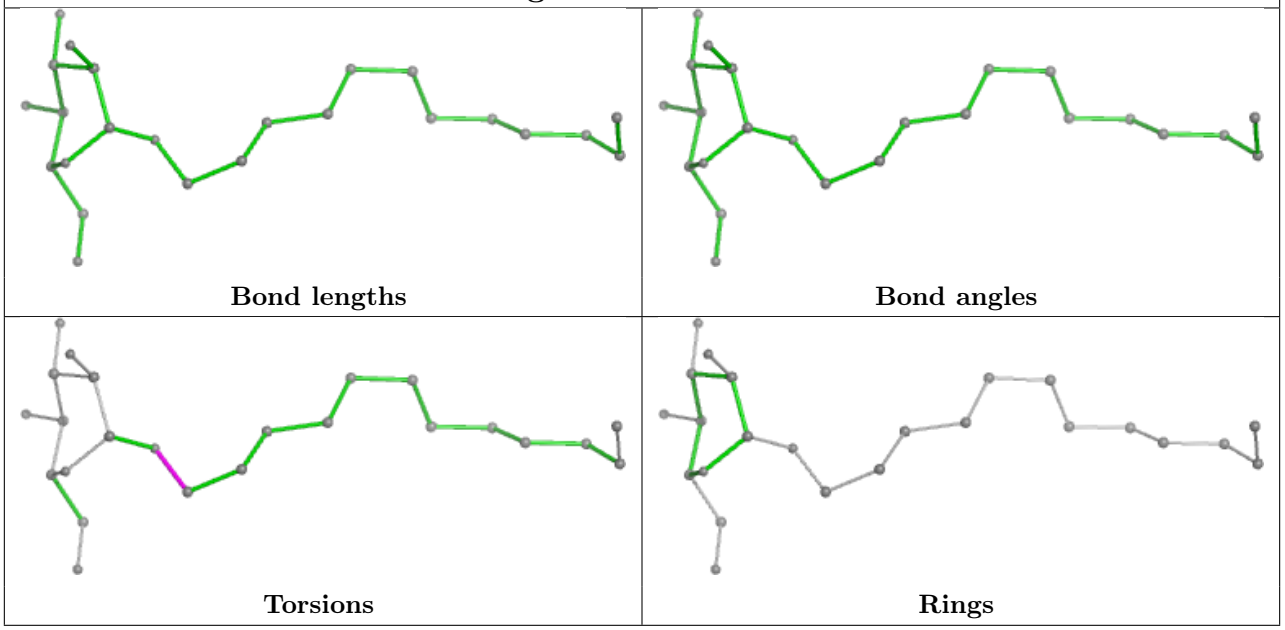


Torsions

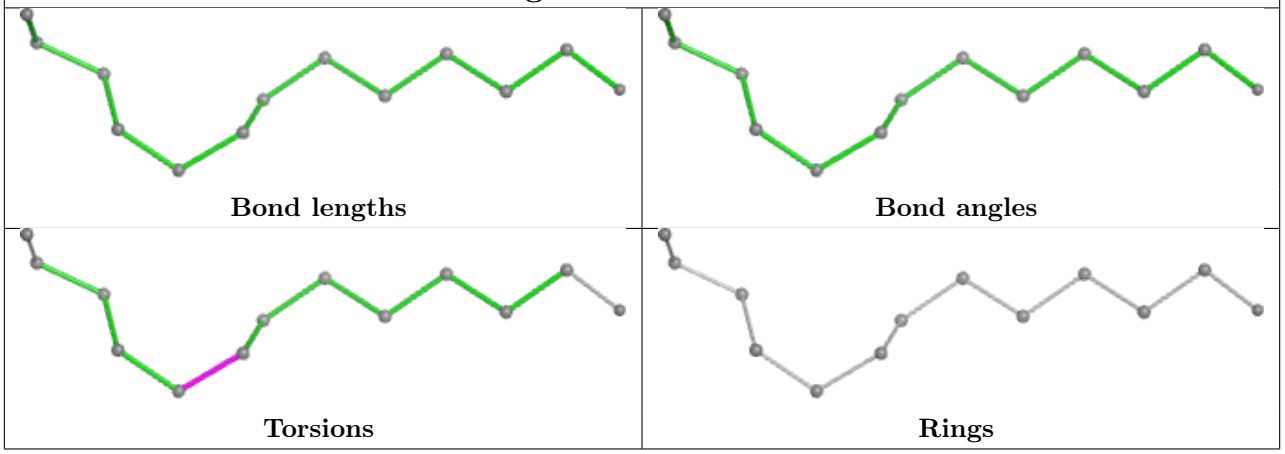


Rings

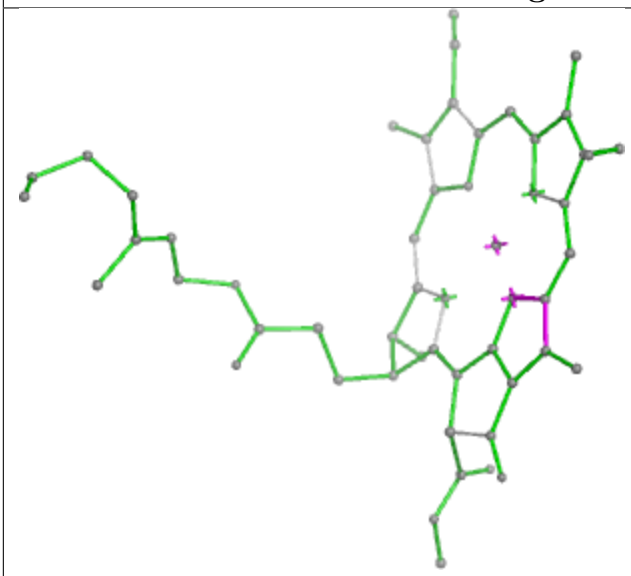
Ligand LMT c 321



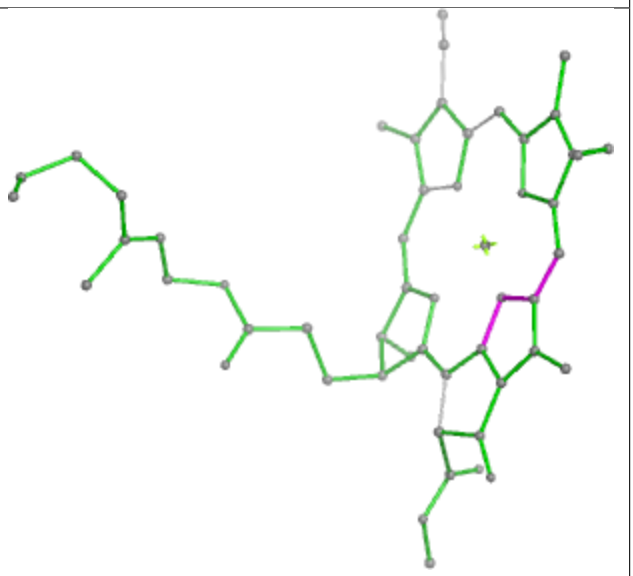
Ligand LMT b 325



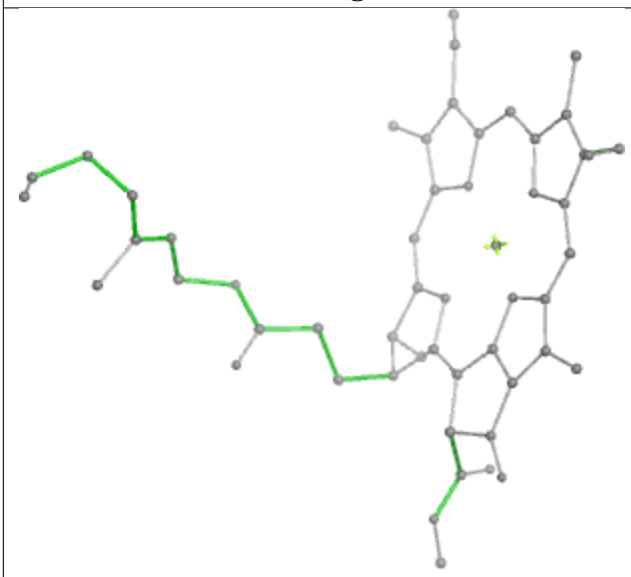
Ligand CLA a 412



Bond lengths



Bond angles



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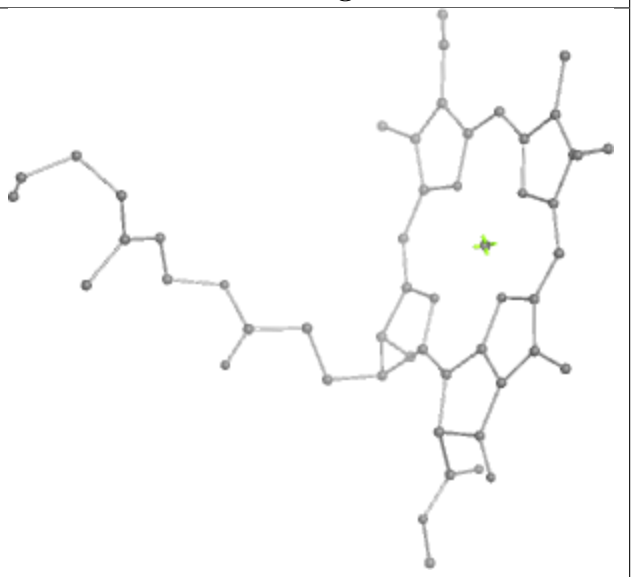
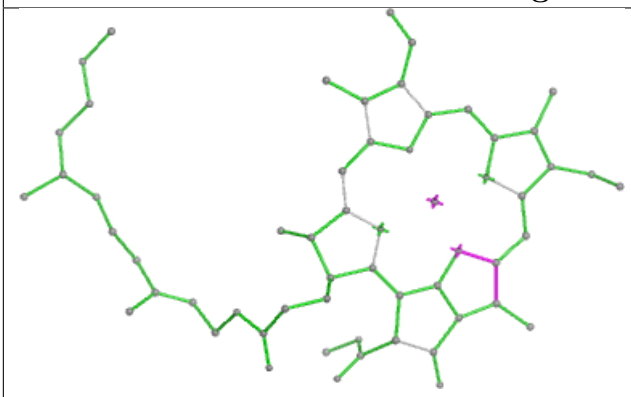


Rings

Ligand CLA f 307



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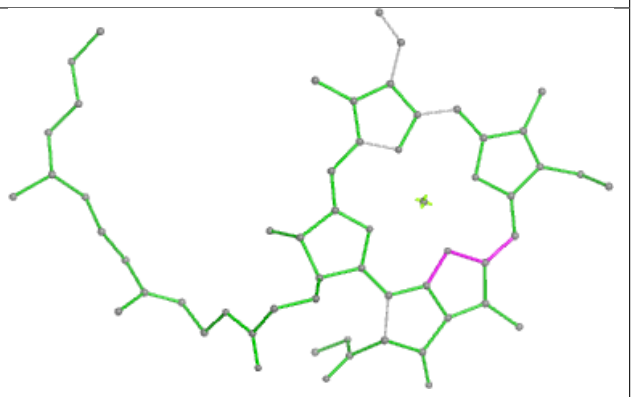
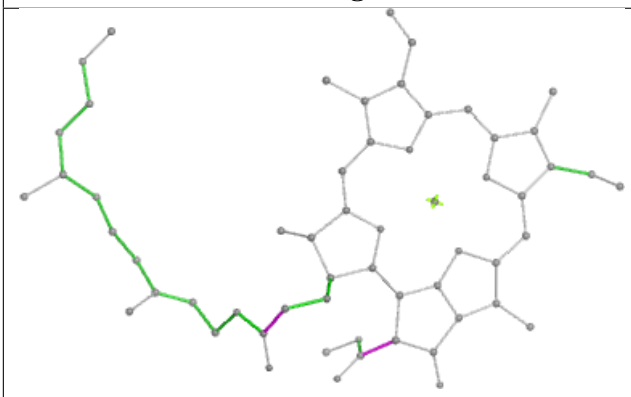


Bond angles



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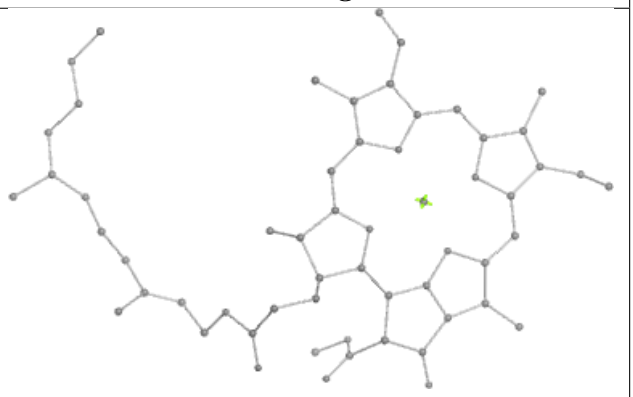
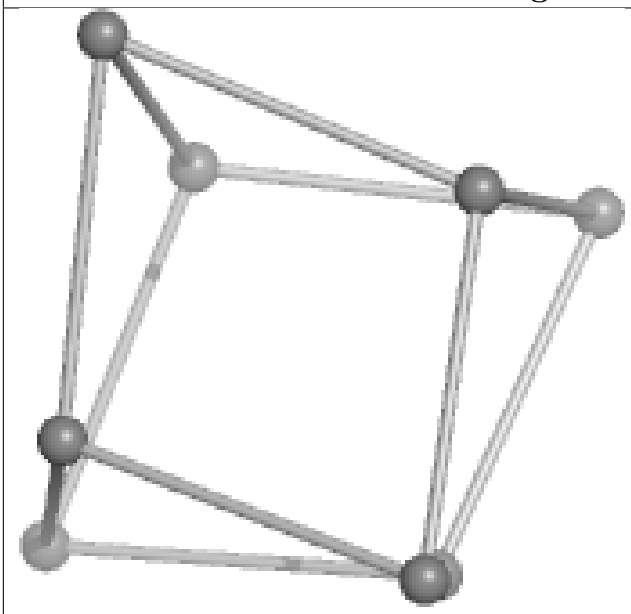
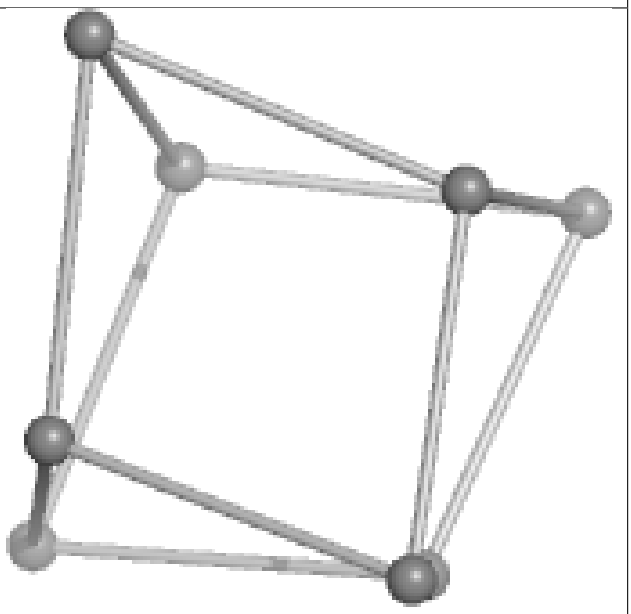


Rings

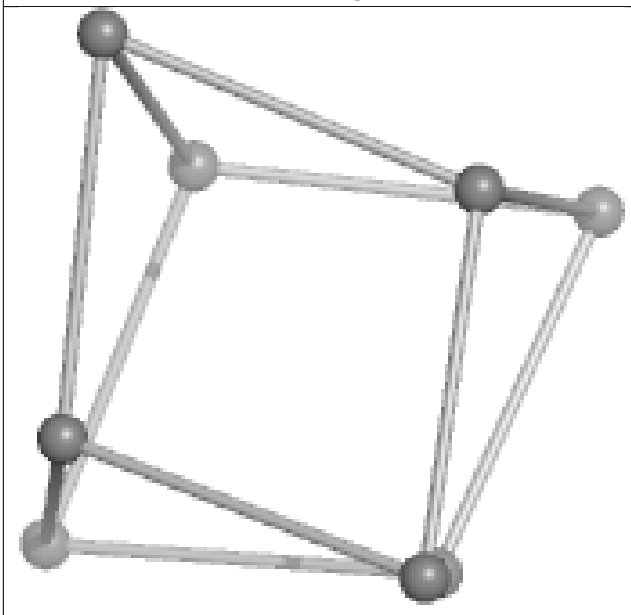
Ligand SF4 A 415



Bond lengths



Bond angles



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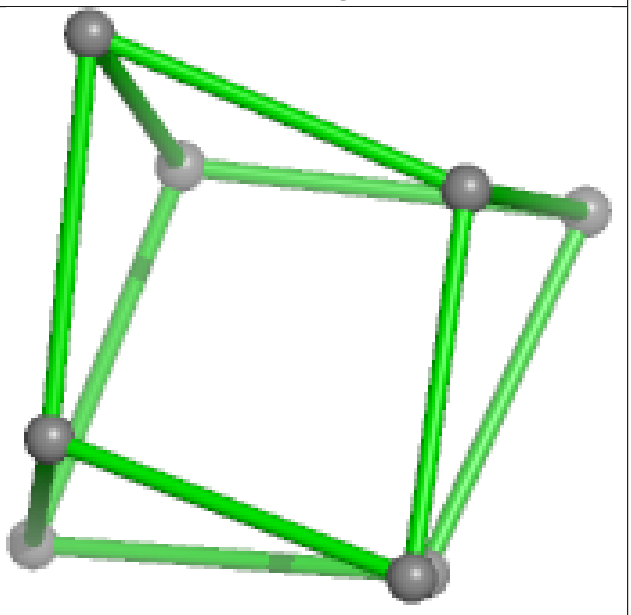
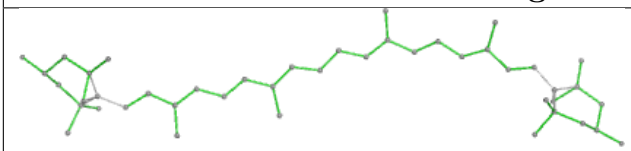


Rings

Ligand XAT c 316



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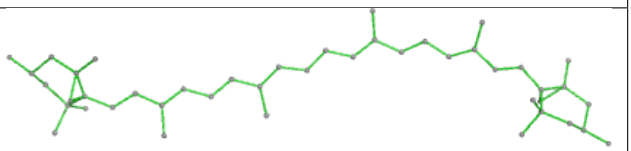
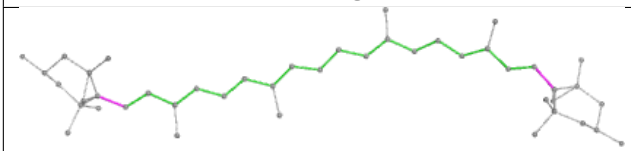
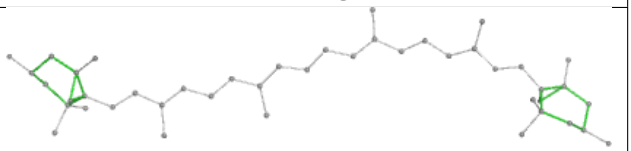


Bond angles

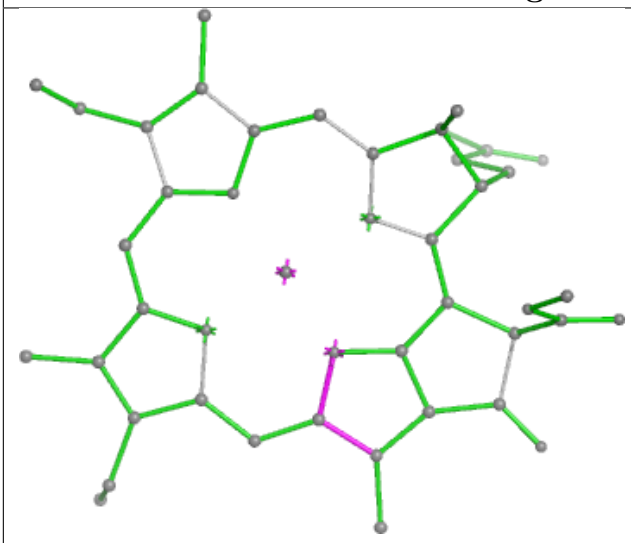


Torsions



Rings

Ligand CLA F 405



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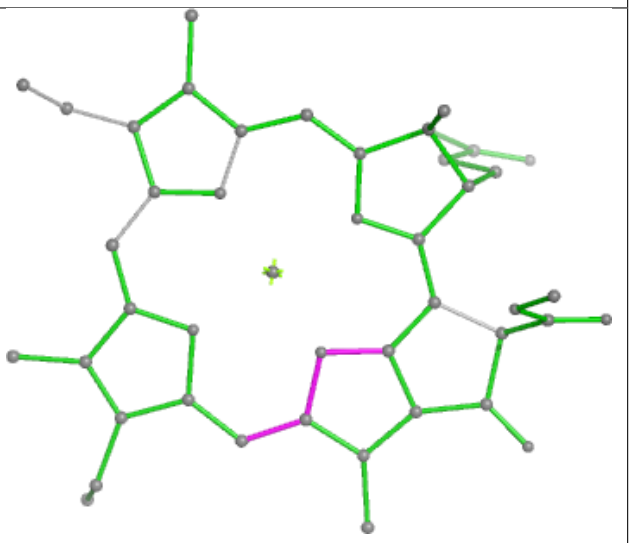
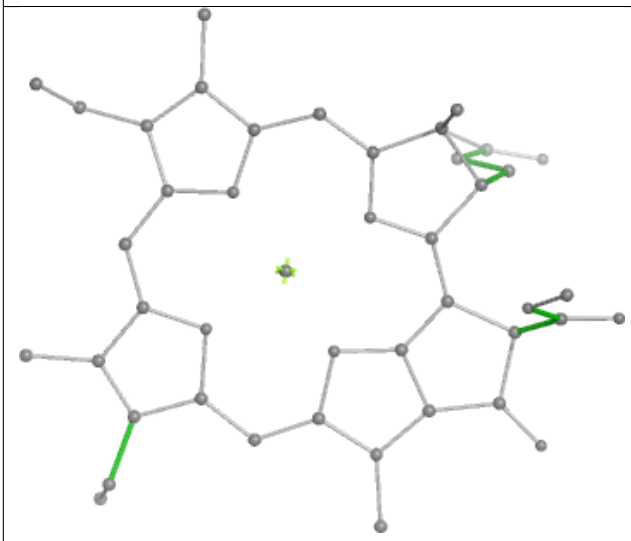
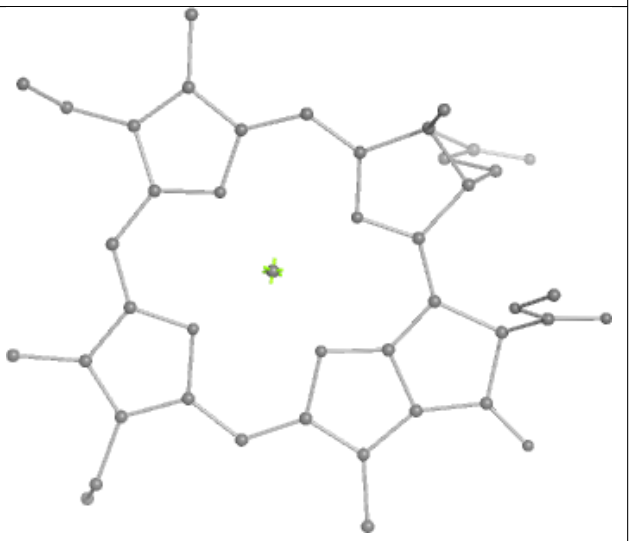


Bond angles

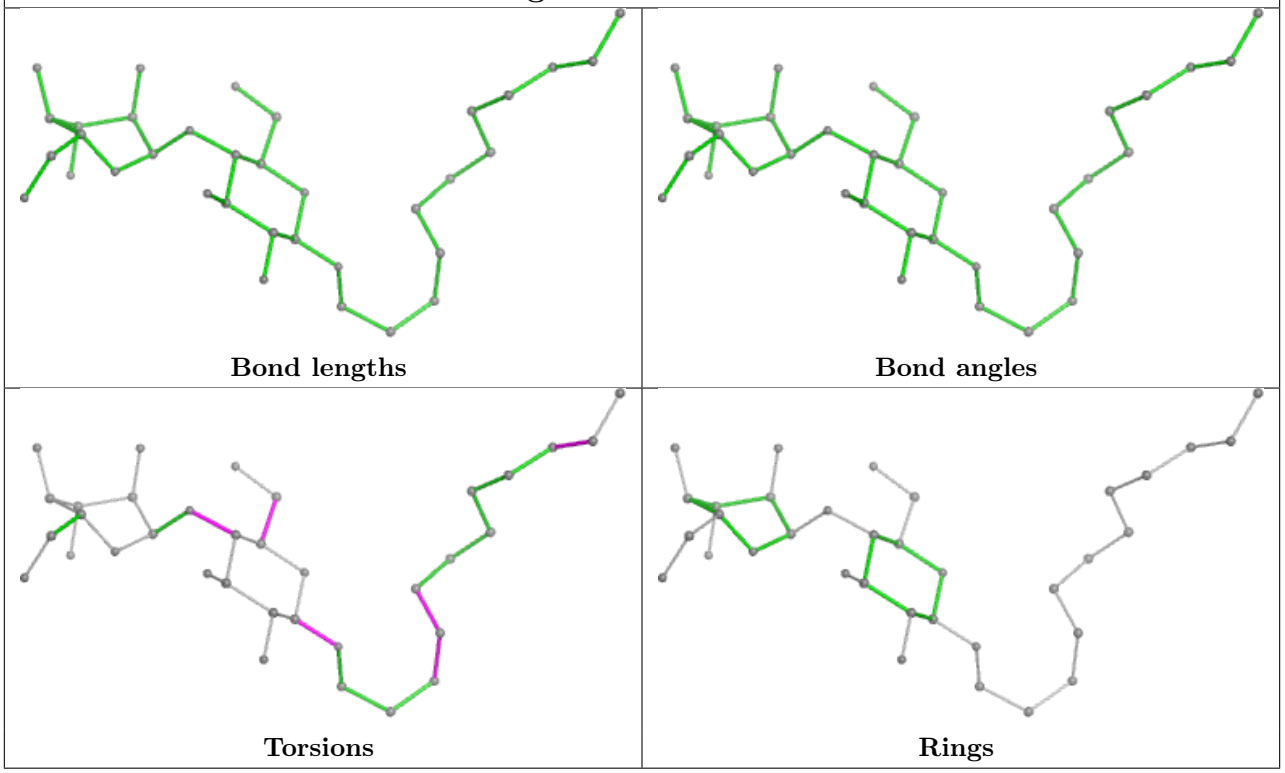


Torsions

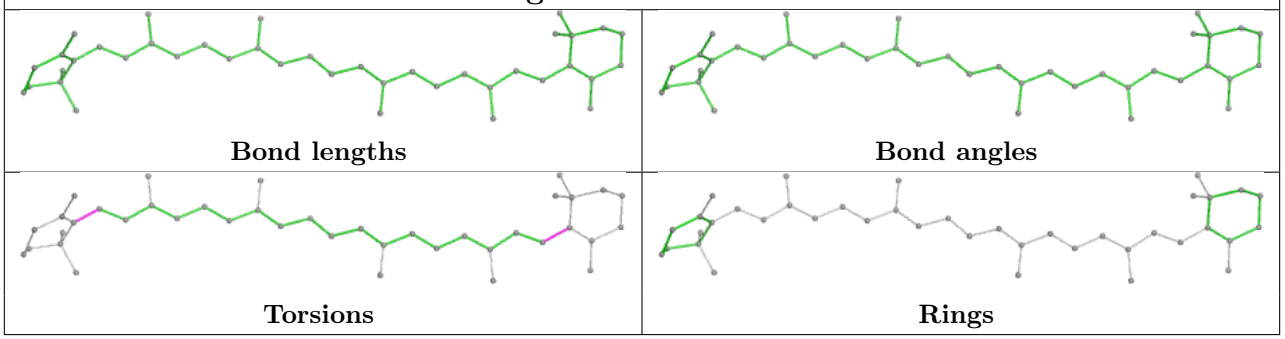


Rings

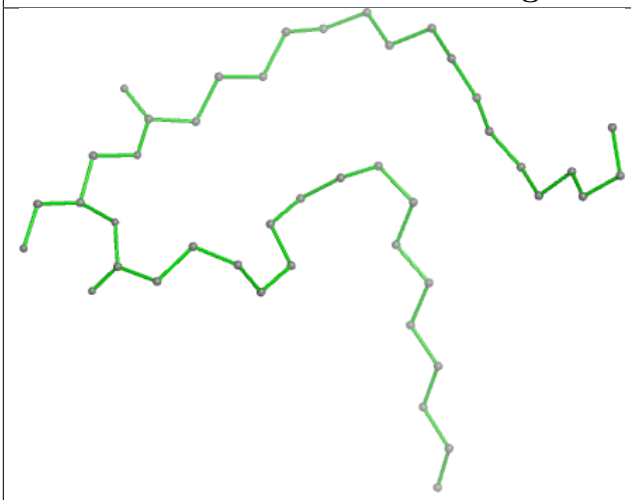
Ligand LMT c 319



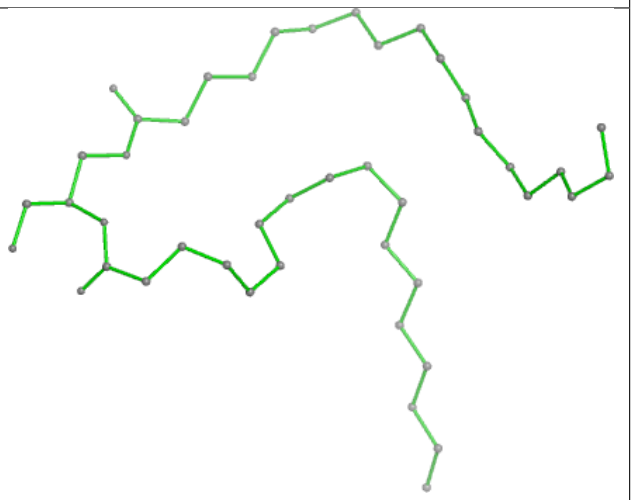
Ligand BCR b 317



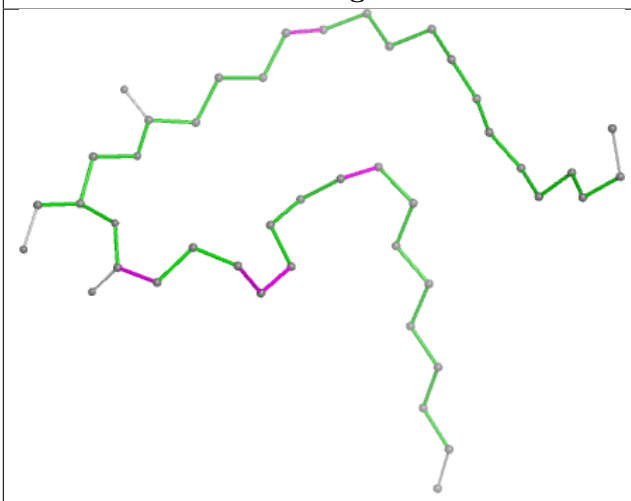
Ligand LMG L 310



Bond lengths



Bond angles



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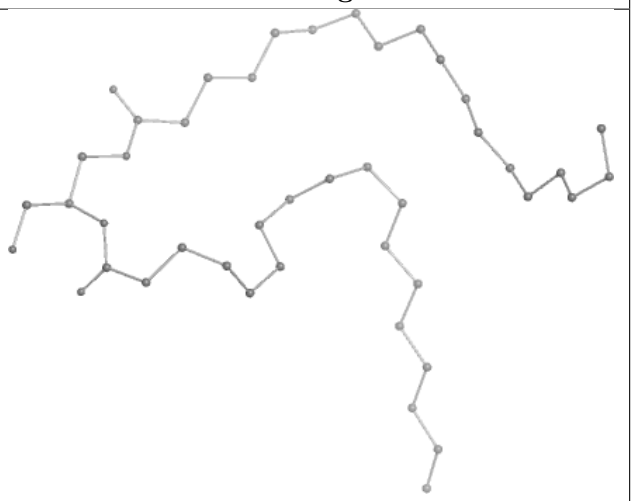
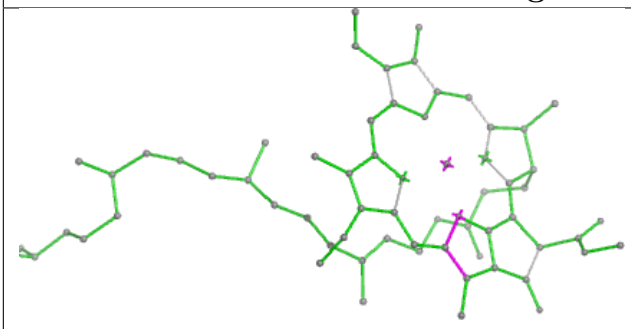
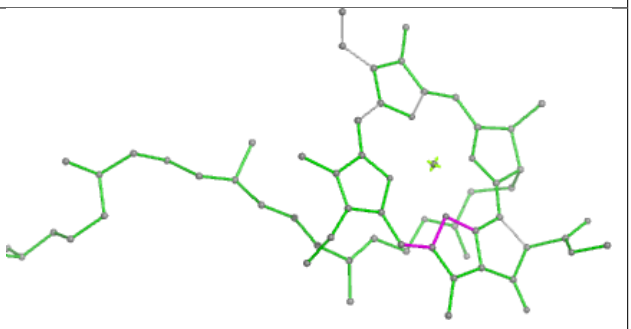


Rings

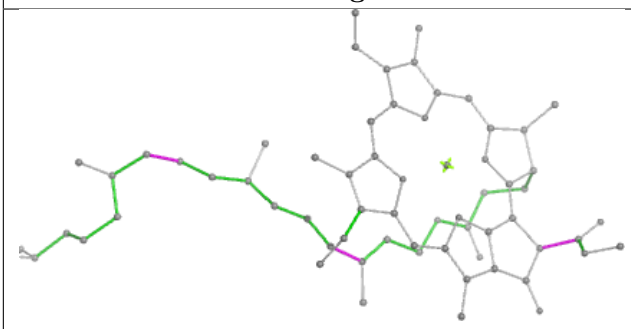
Ligand CLA d 304



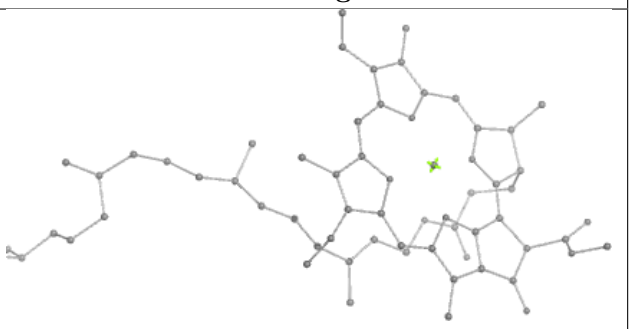
Bond lengths



Bond angles

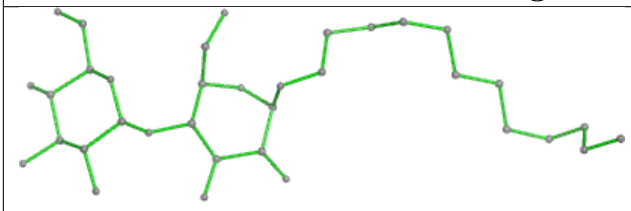


Torsions

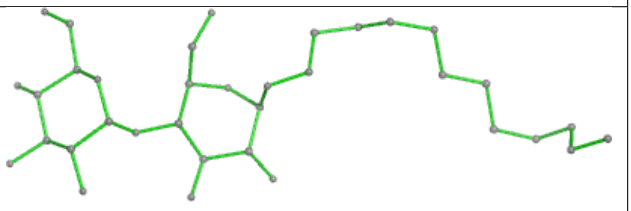


Rings

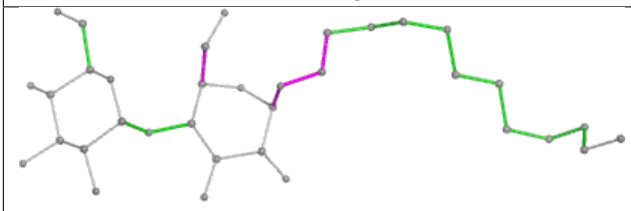
Ligand LMT f 325



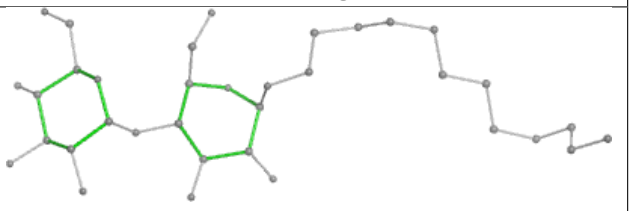
Bond lengths



Bond angles

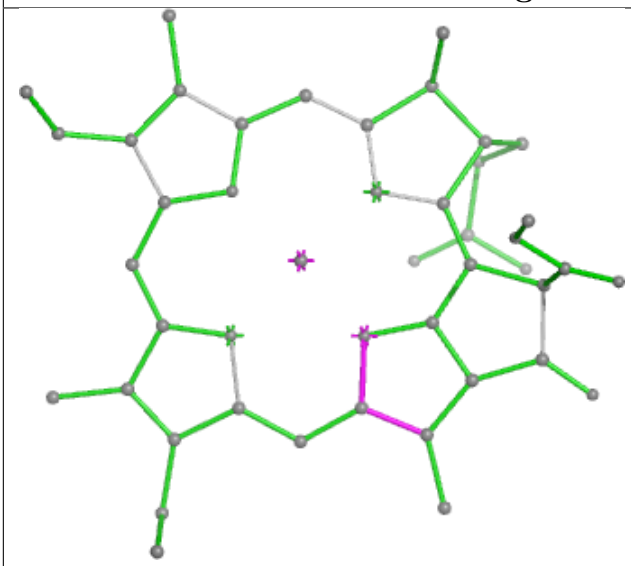


Torsions

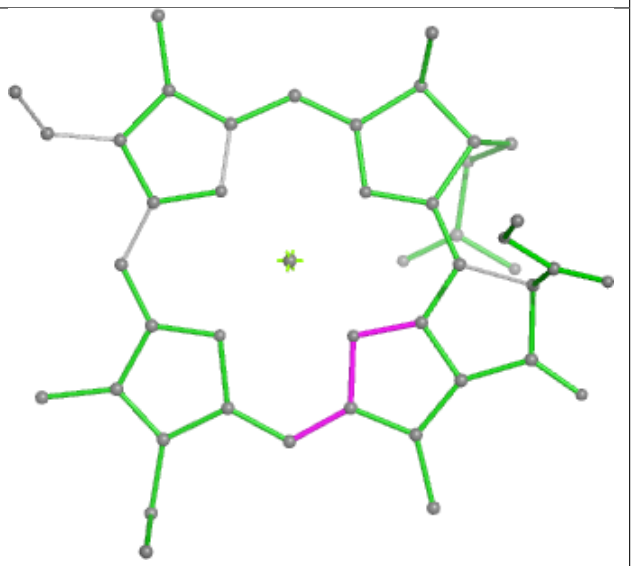


Rings

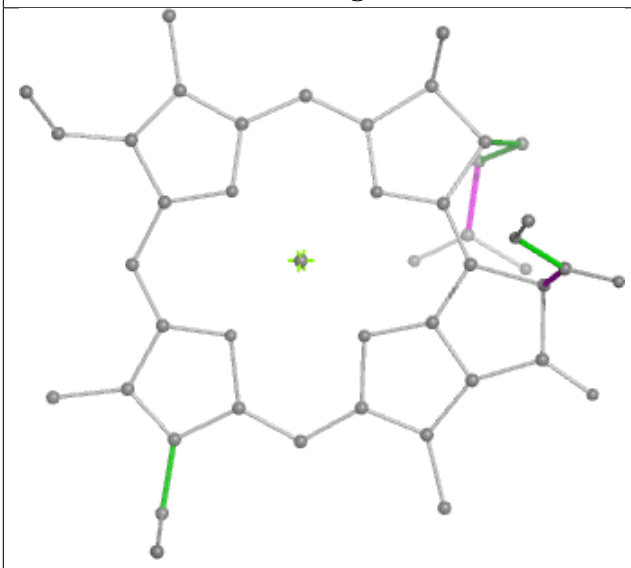
Ligand CLA B 1222



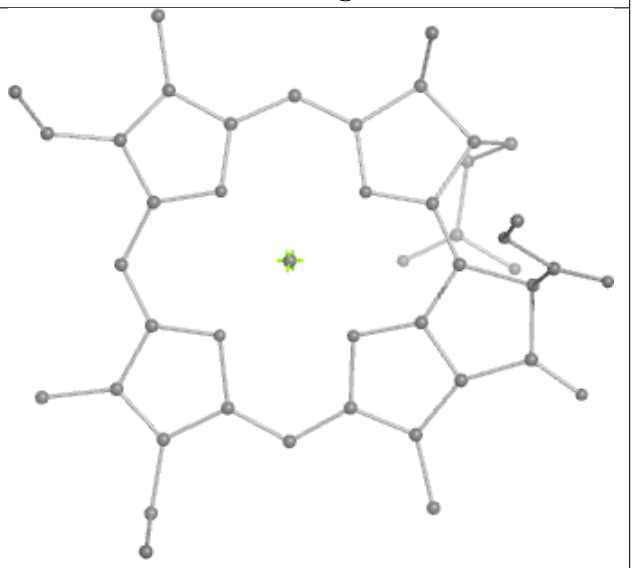
Bond lengths



Bond angles

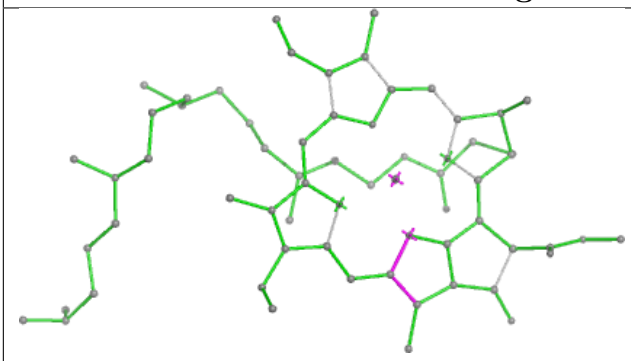


Torsions

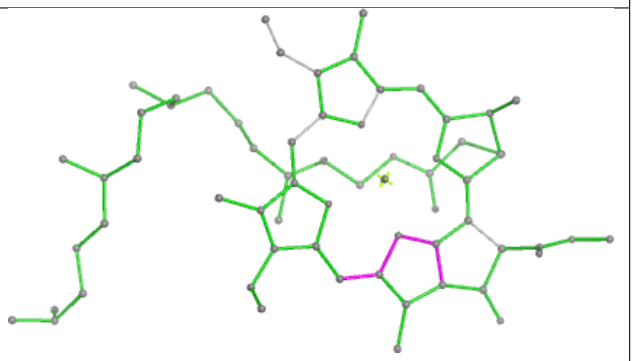


Rings

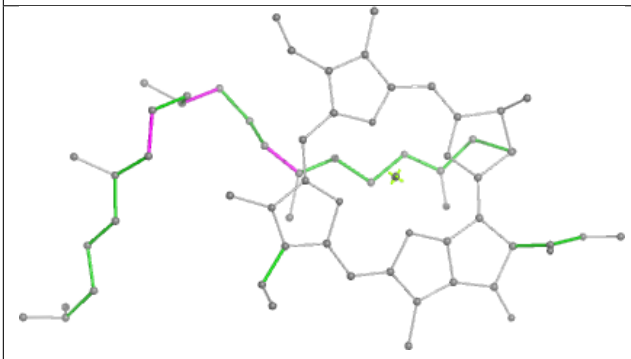
Ligand CLA B 1230



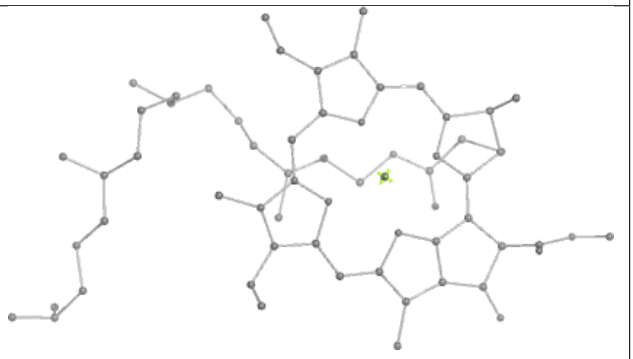
Bond lengths



Bond angles

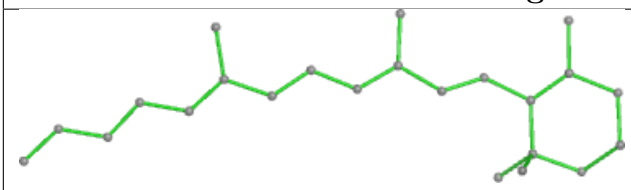


Torsions

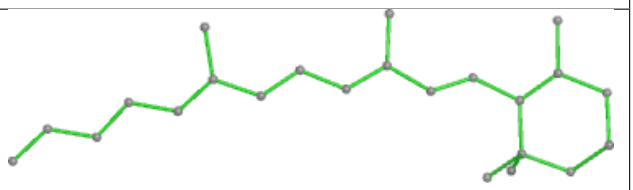


Rings

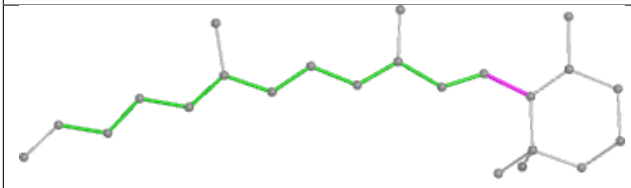
Ligand BCR a 402



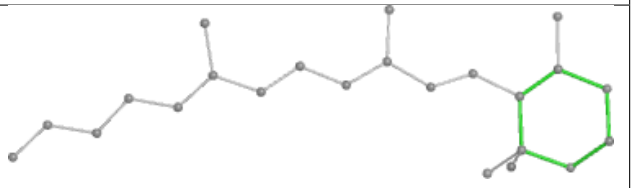
Bond lengths



Bond angles

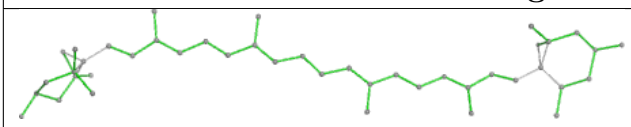


Torsions

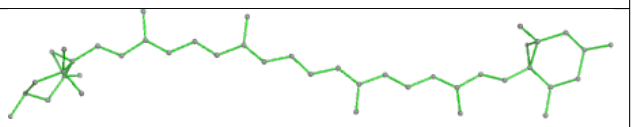


Rings

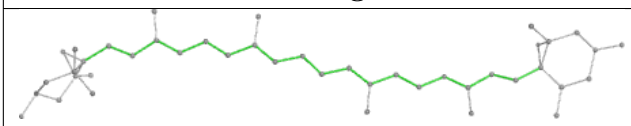
Ligand XAT a 410



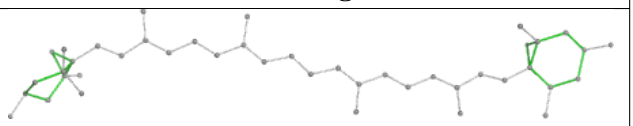
Bond lengths



Bond angles

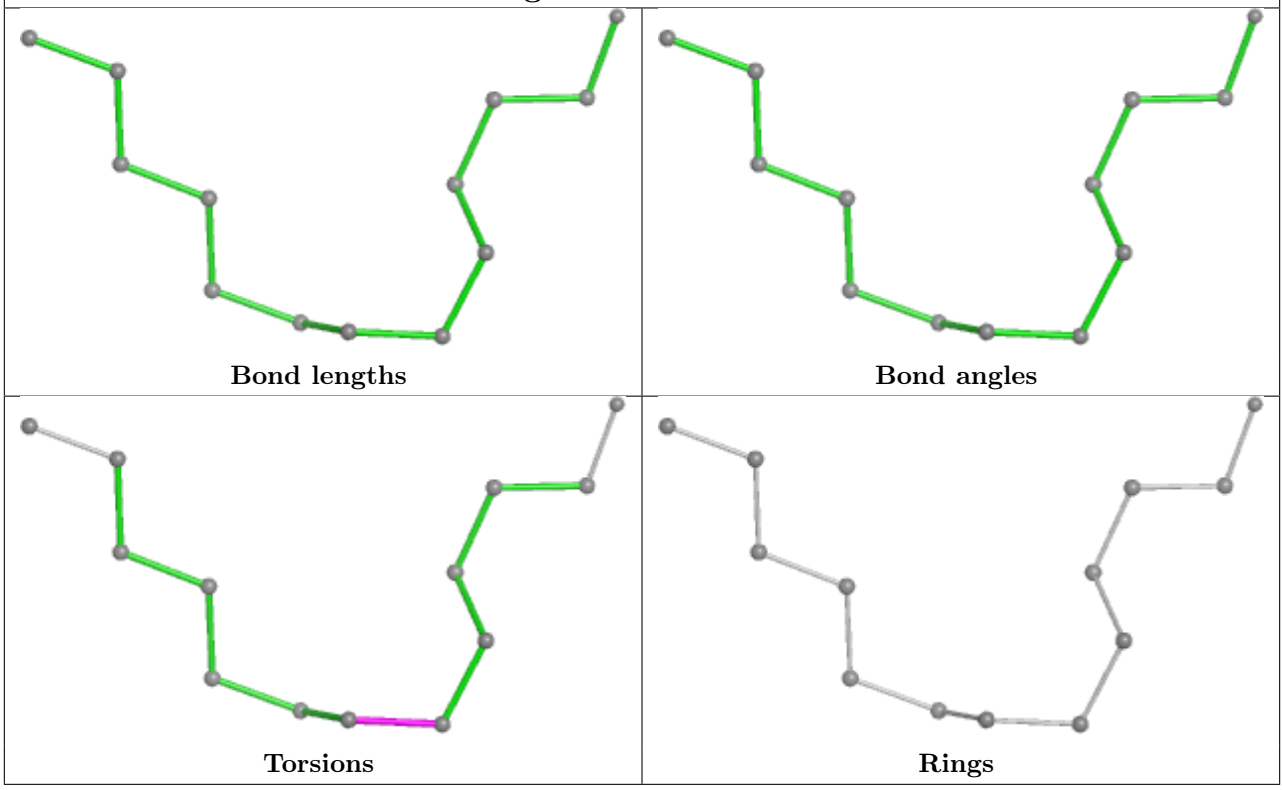


Torsions

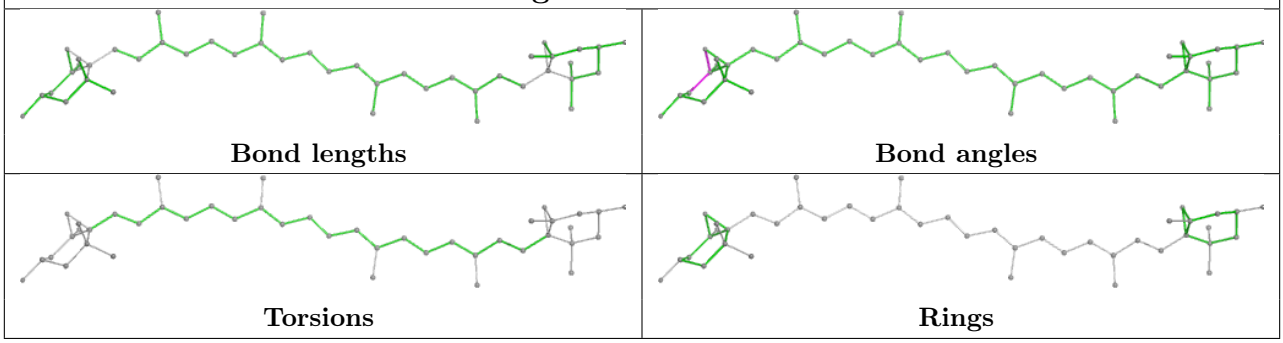


Rings

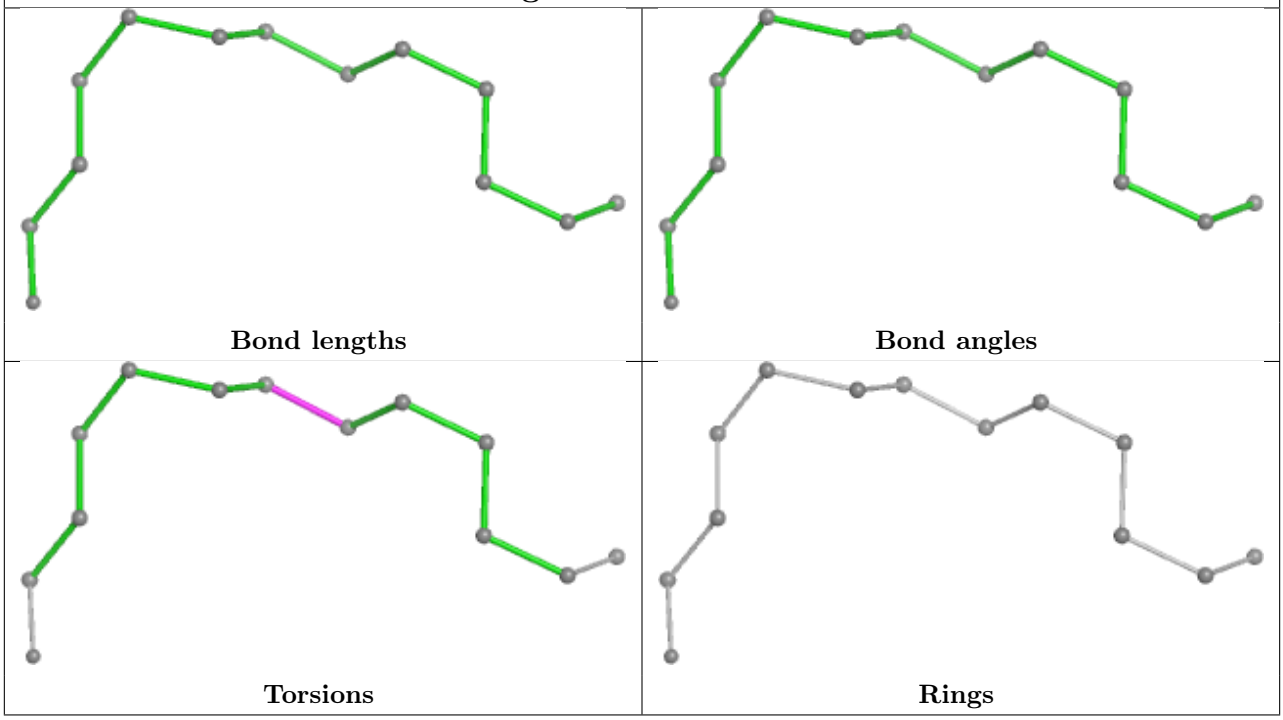
Ligand LMT F 413



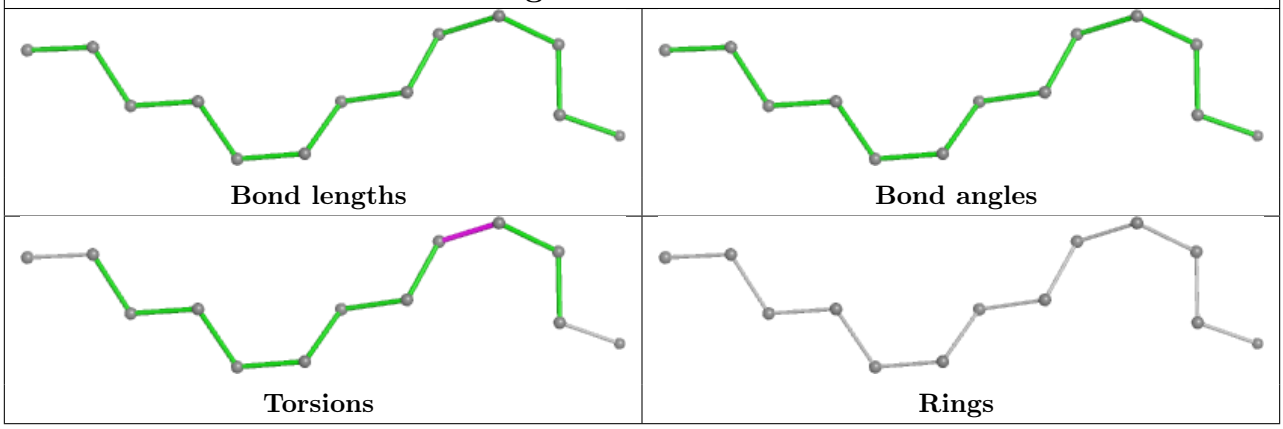
Ligand XAT f 322



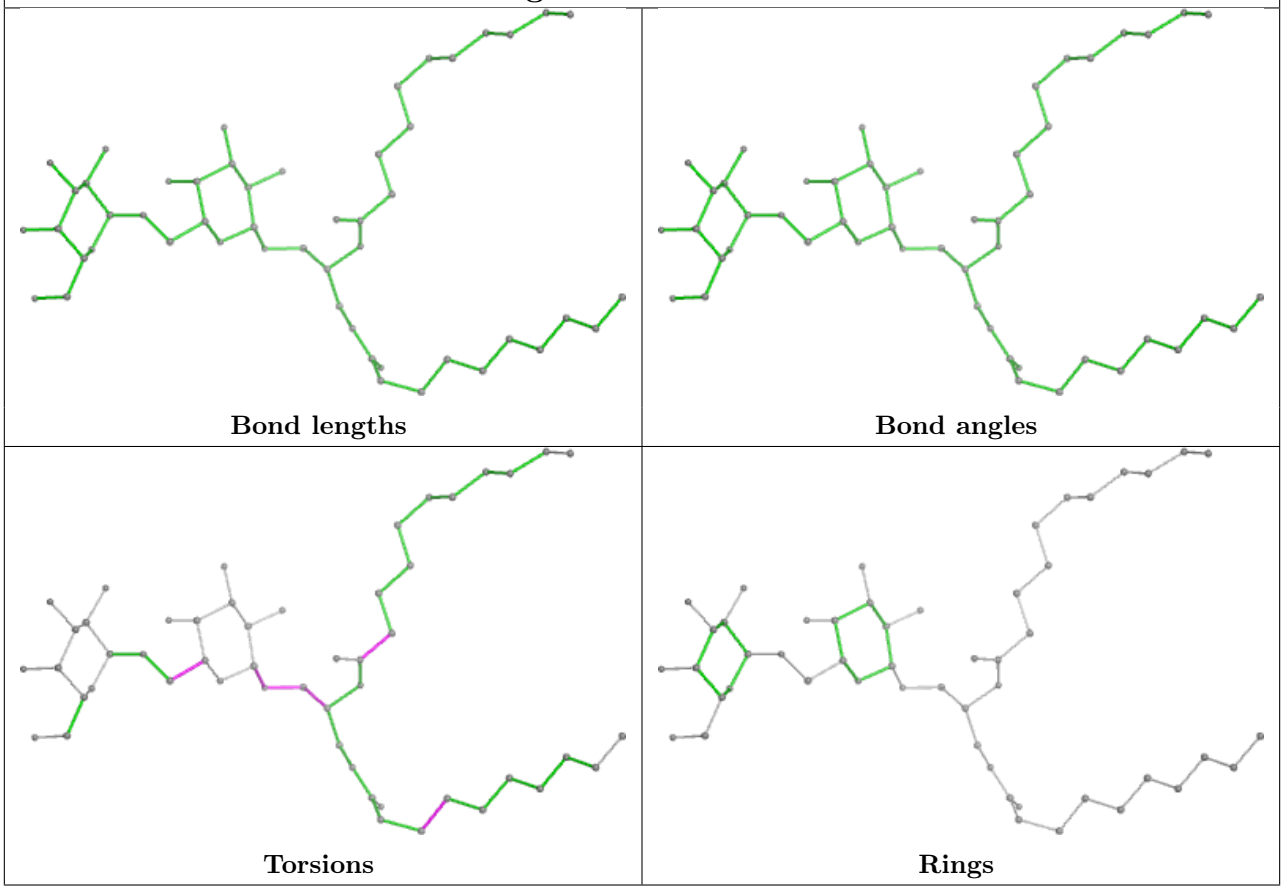
Ligand LMT R 305



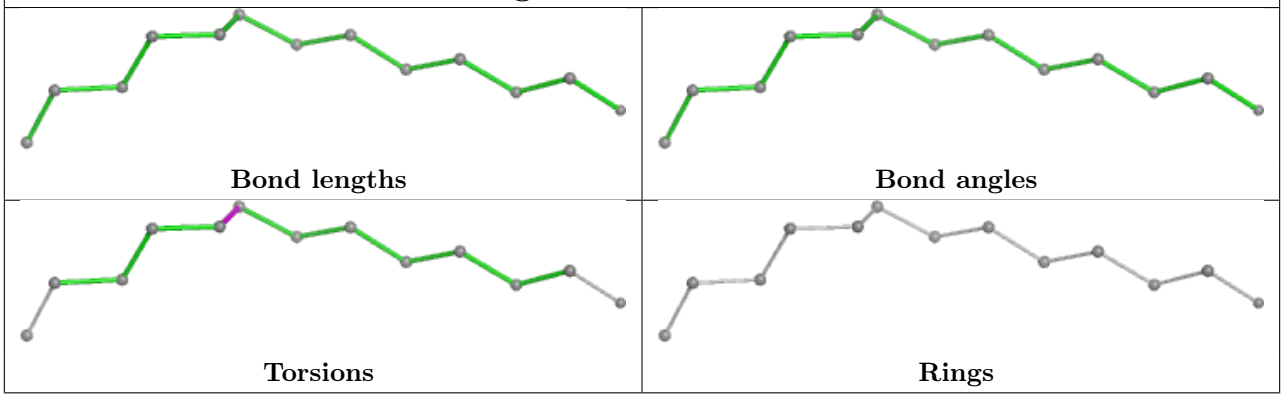
Ligand LMT d 301



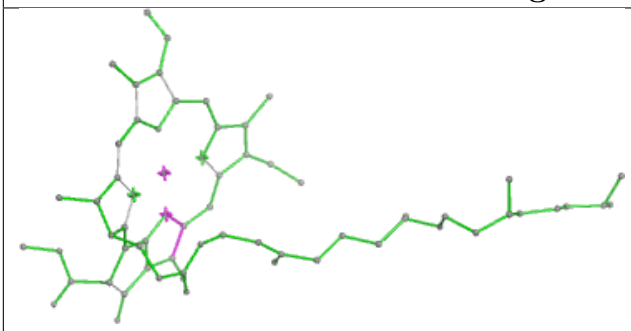
Ligand DGD c 328



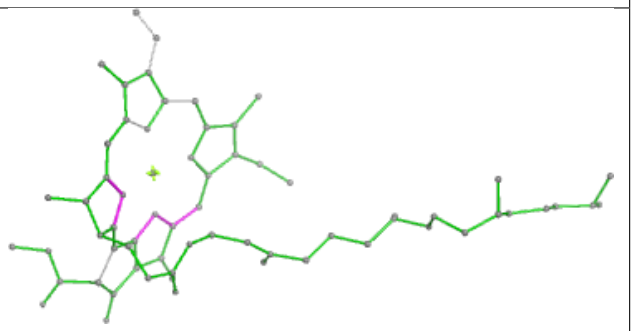
Ligand LMT B 1236



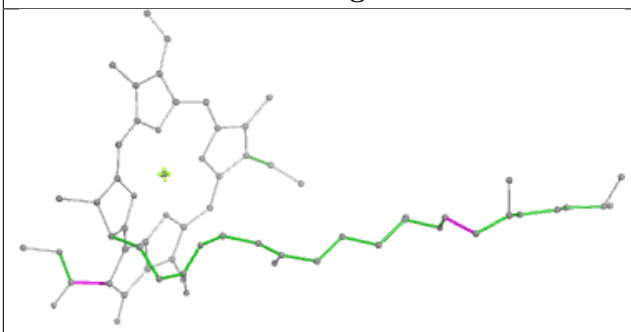
Ligand CLA e 309



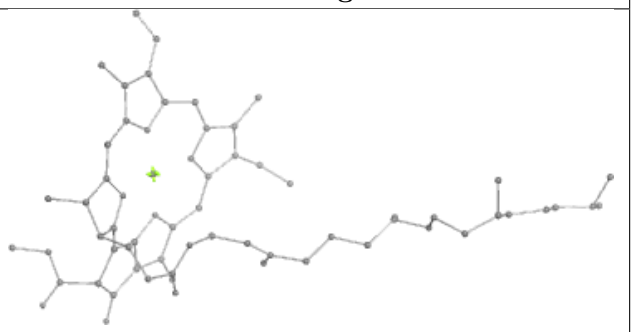
Bond lengths



Bond angles

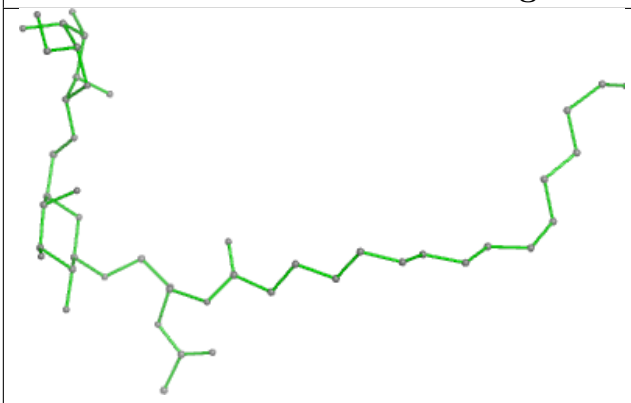


Torsions

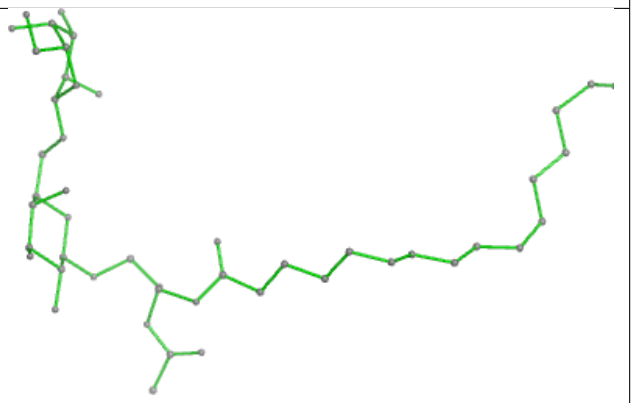


Rings

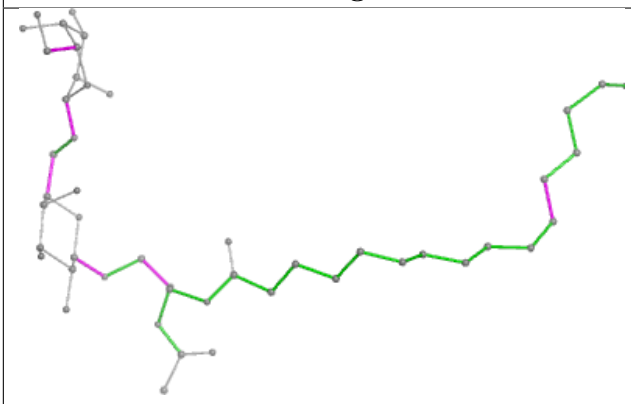
Ligand DGD A 419



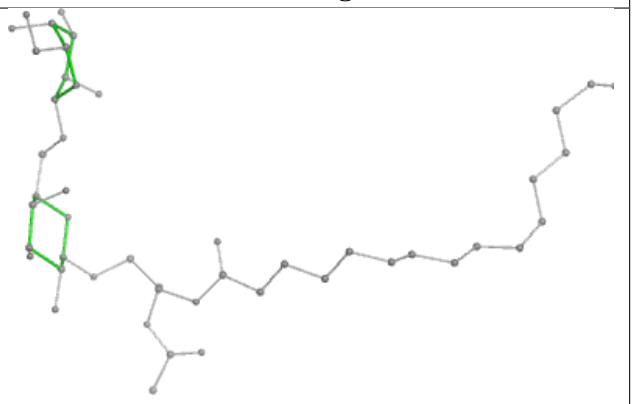
Bond lengths



Bond angles

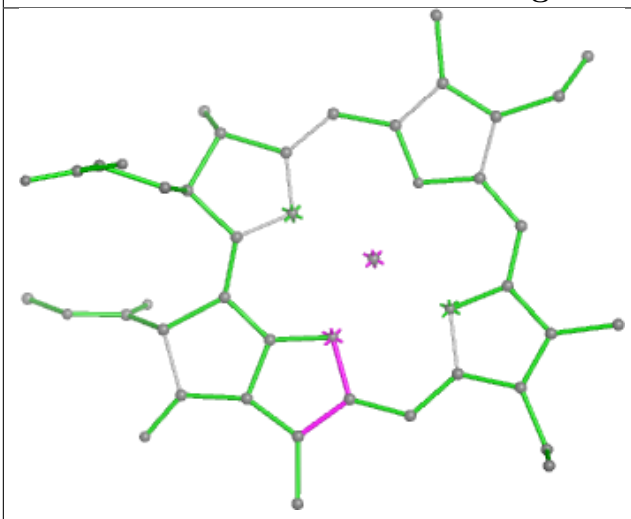


Torsions

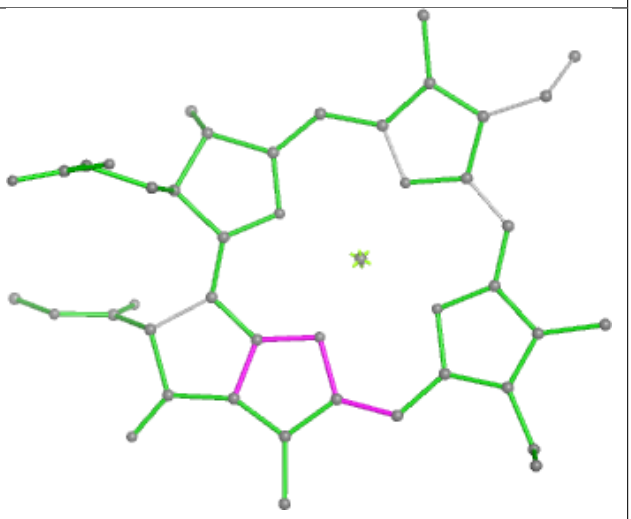


Rings

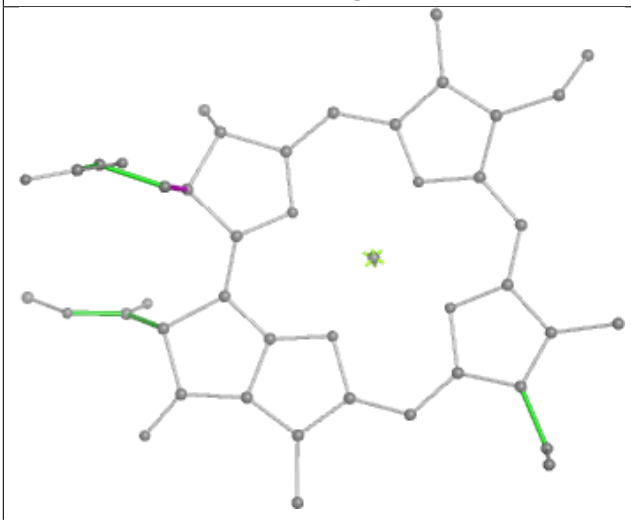
Ligand CLA f 312



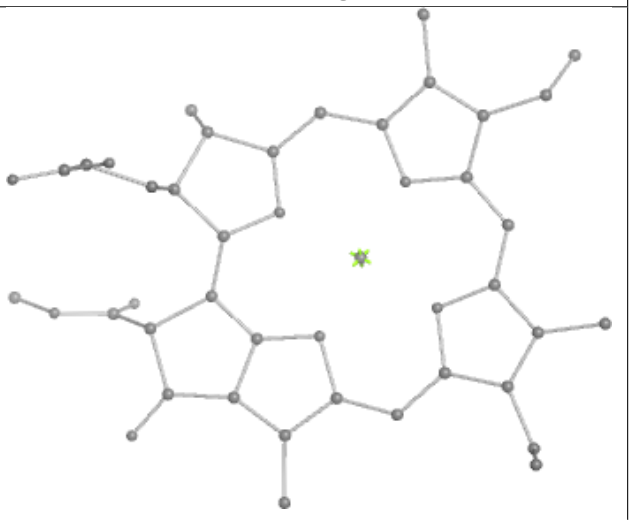
Bond lengths



Bond angles

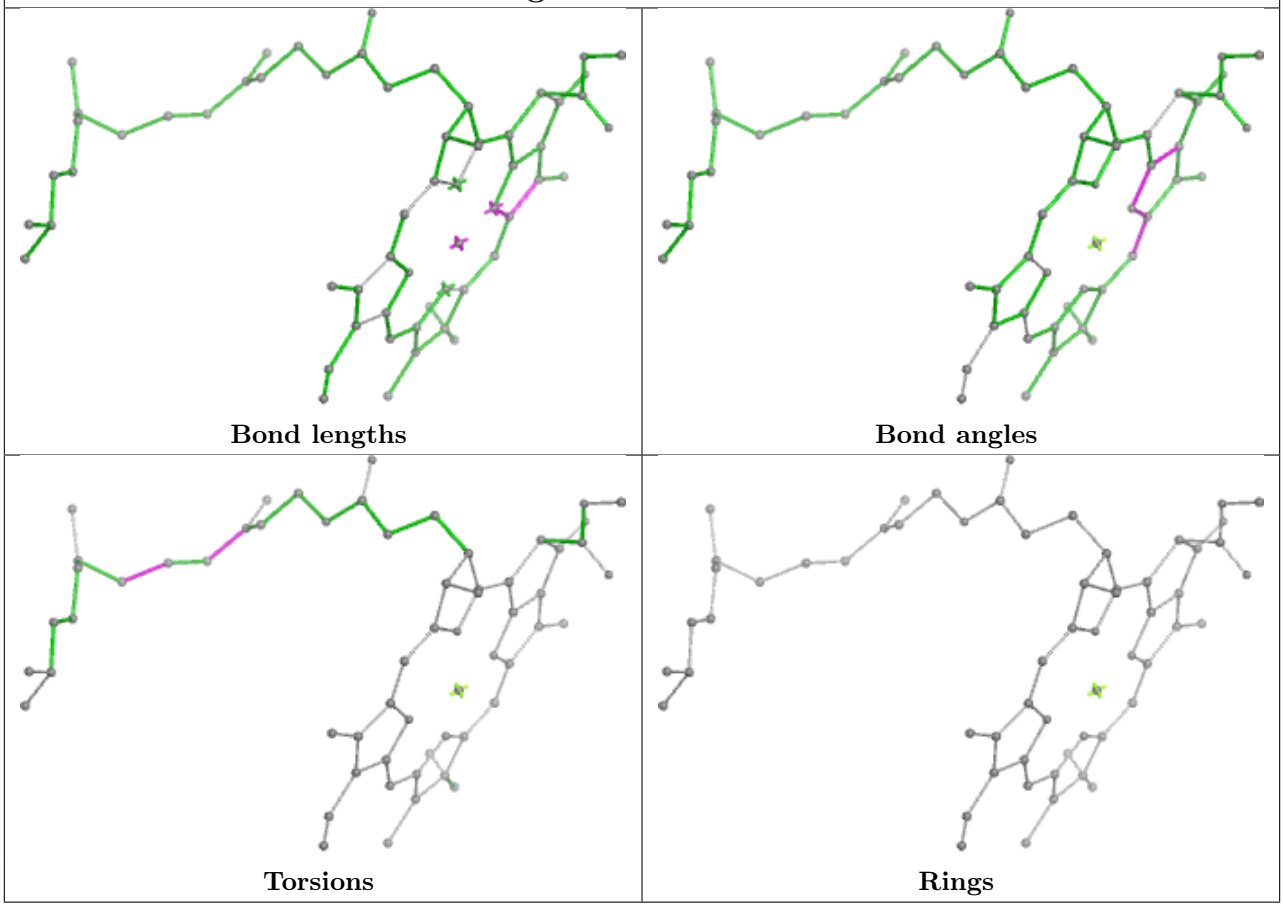


Torsions

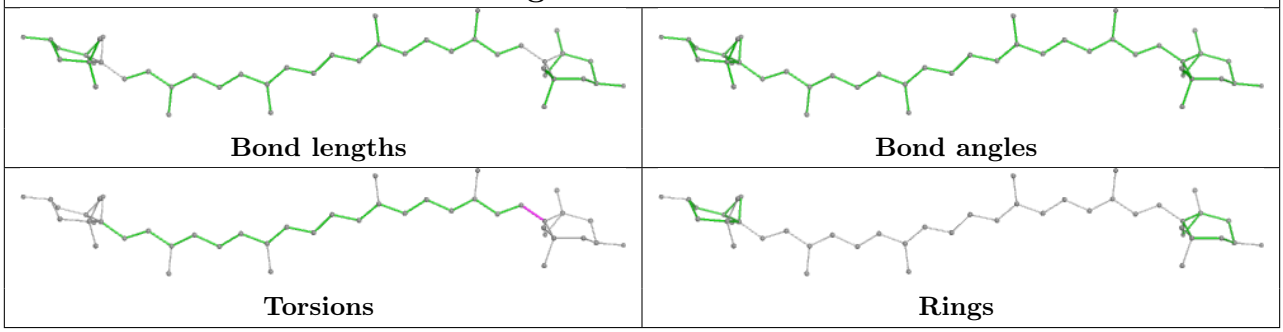


Rings

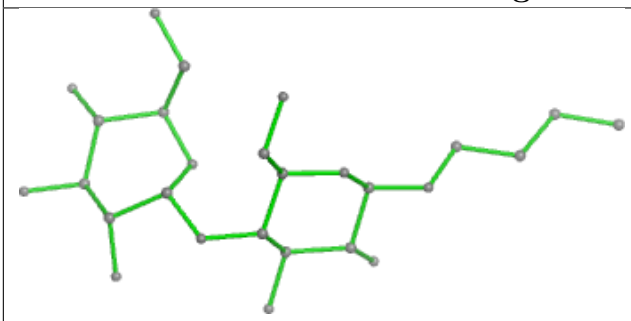
Ligand CLA L 304



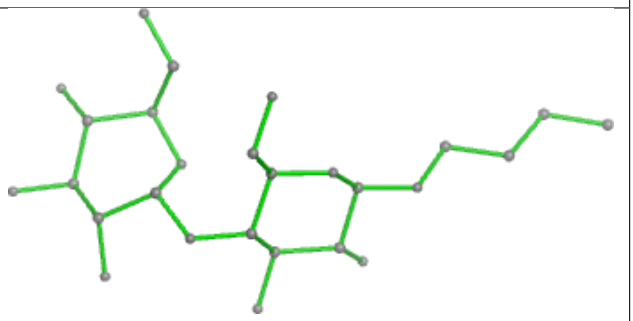
Ligand XAT b 316



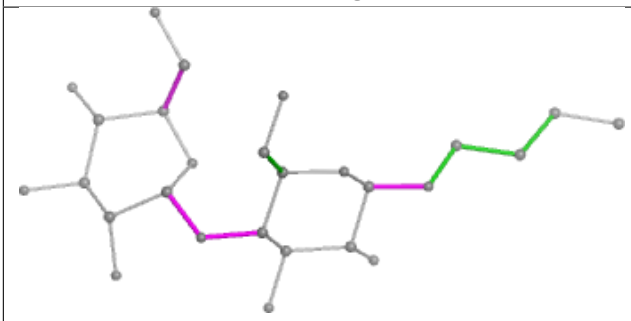
Ligand LMT B 1204



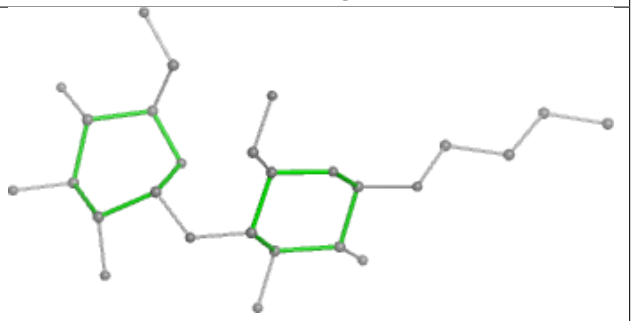
Bond lengths



Bond angles

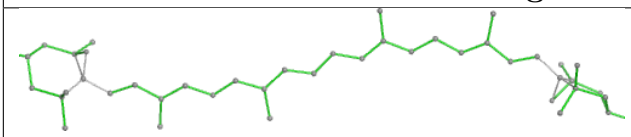


Torsions

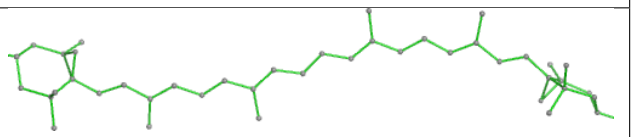


Rings

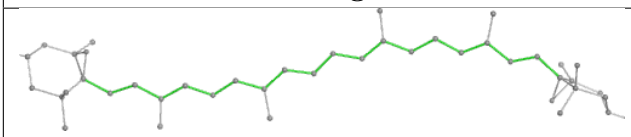
Ligand XAT b 314



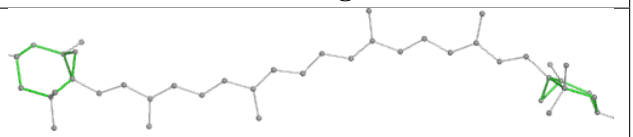
Bond lengths



Bond angles

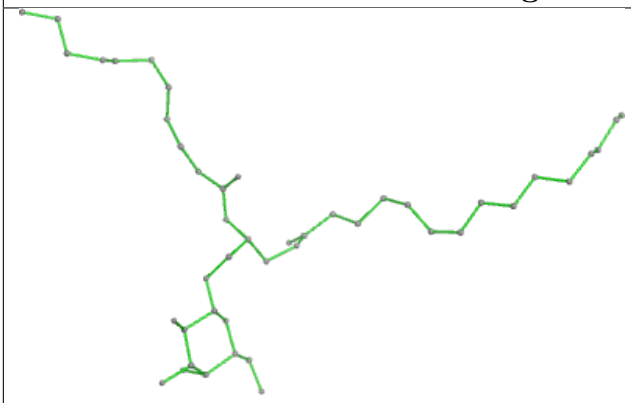


Torsions

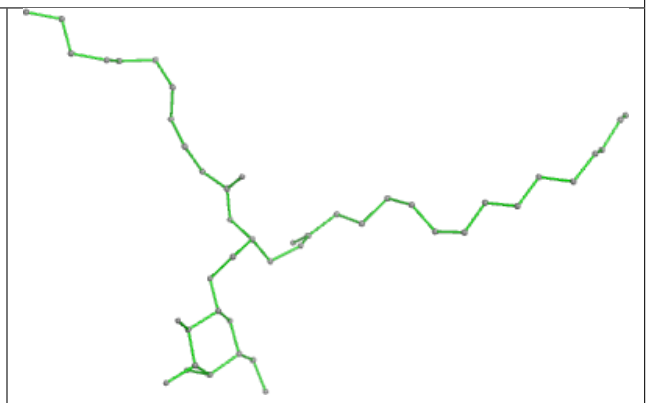


Rings

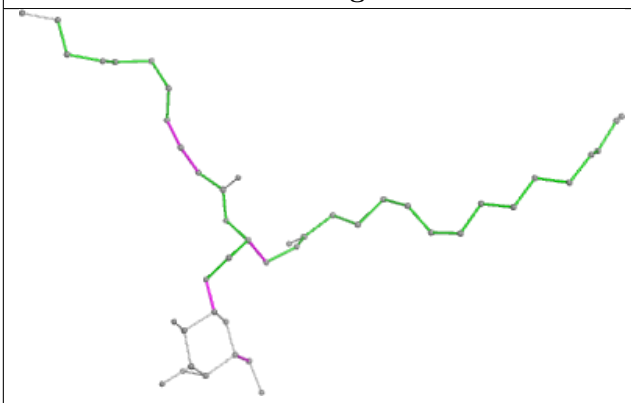
Ligand LMG F 412



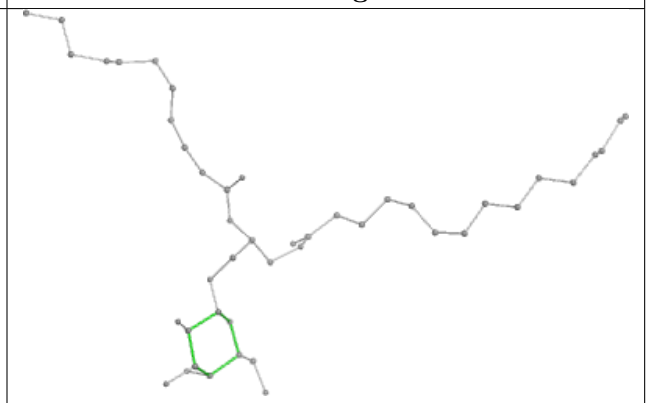
Bond lengths



Bond angles

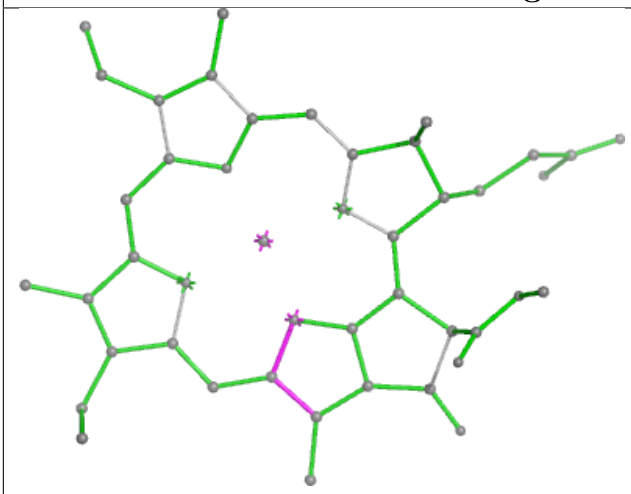


Torsions

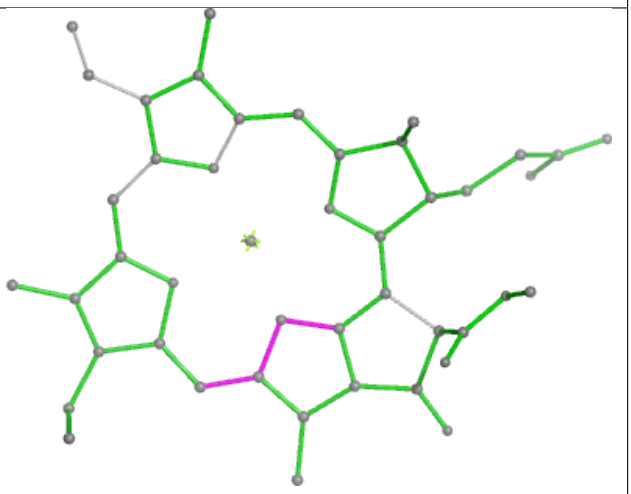


Rings

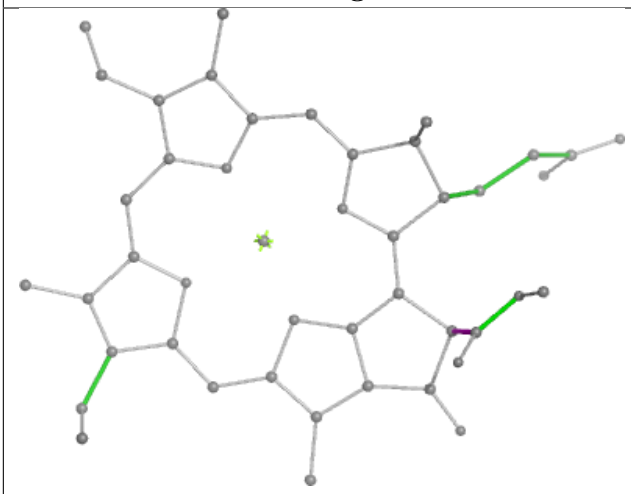
Ligand CLA R 301



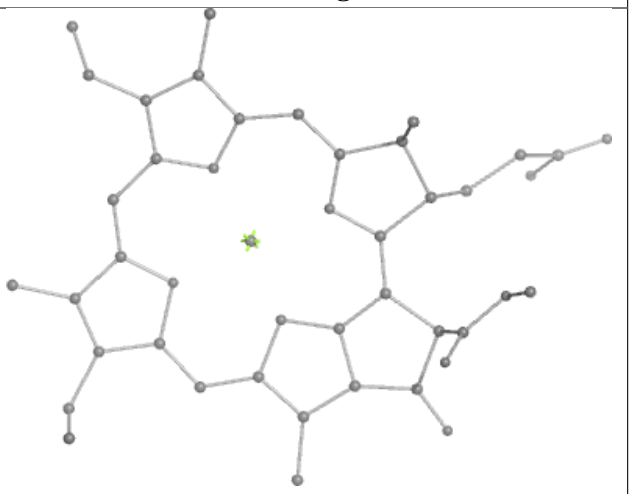
Bond lengths



Bond angles

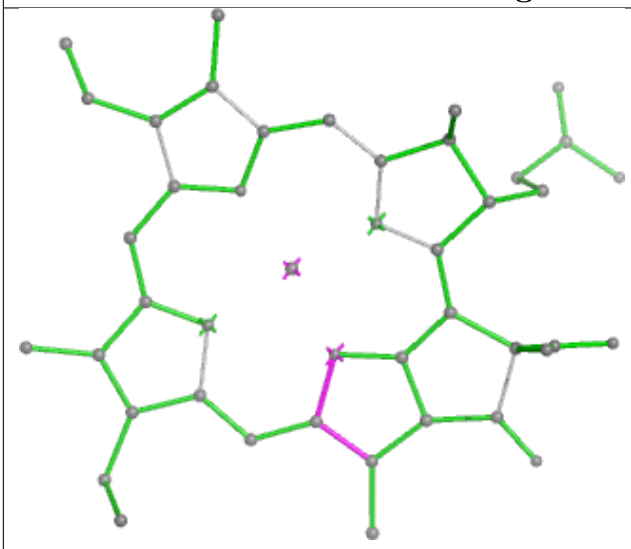


Torsions

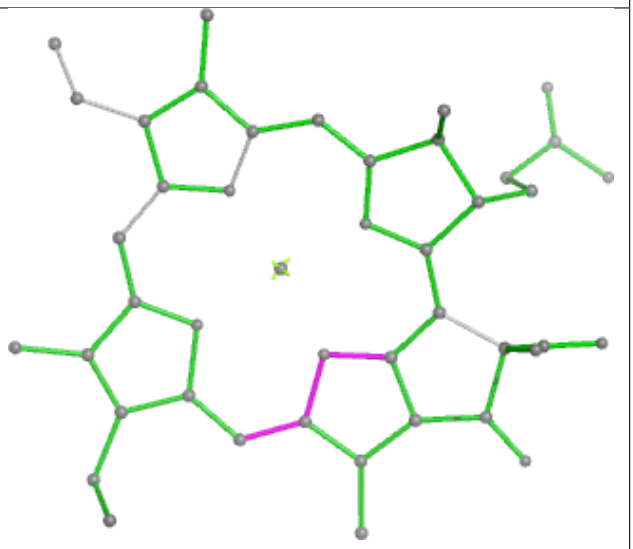


Rings

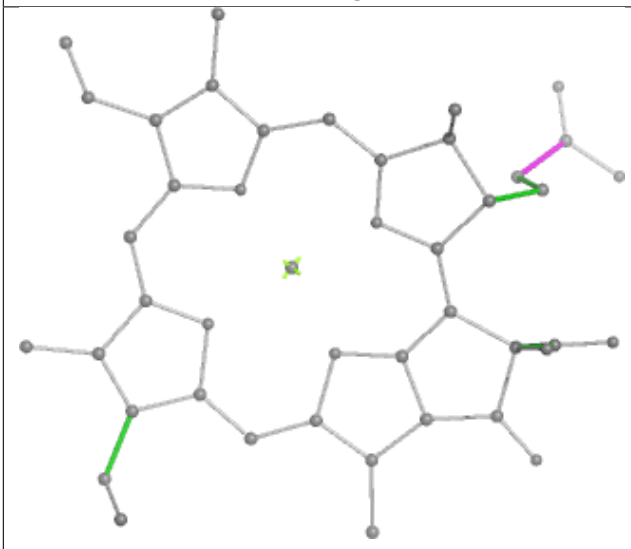
Ligand CLA B 1209



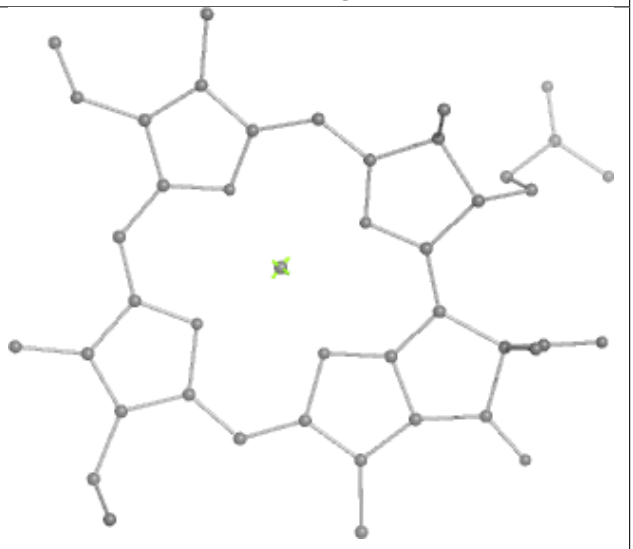
Bond lengths



Bond angles

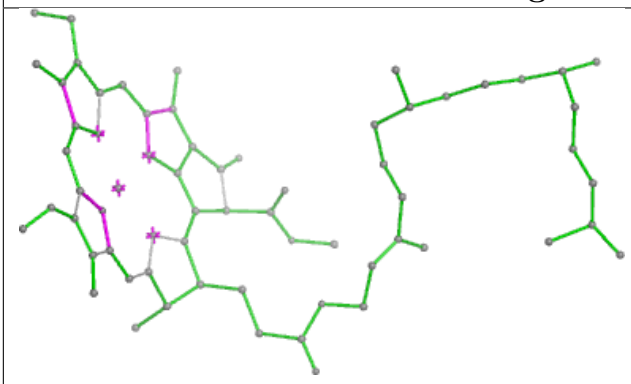


Torsions

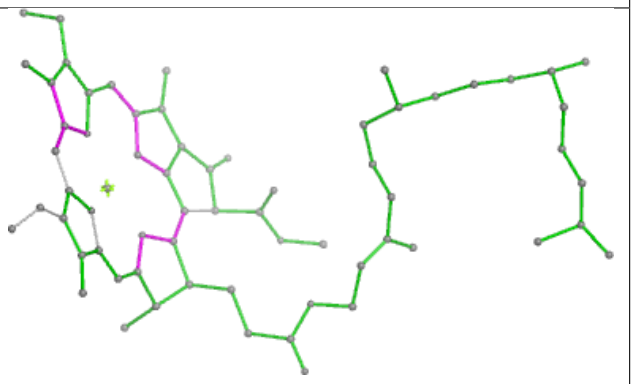


Rings

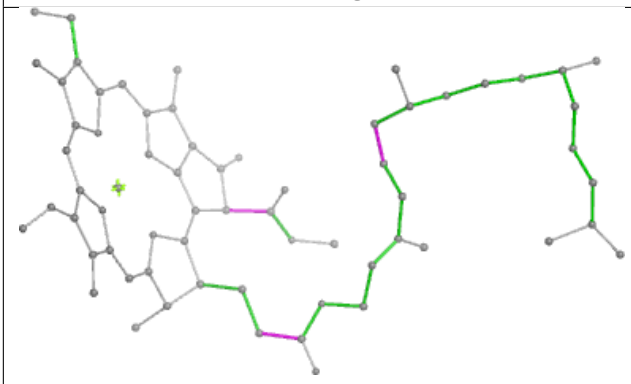
Ligand CL0 A 407



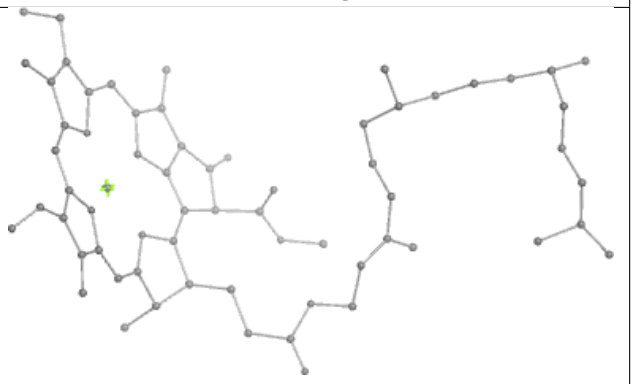
Bond lengths



Bond angles

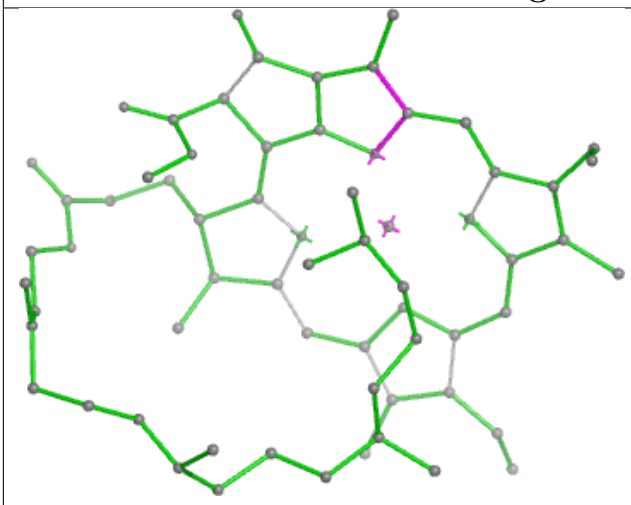


Torsions

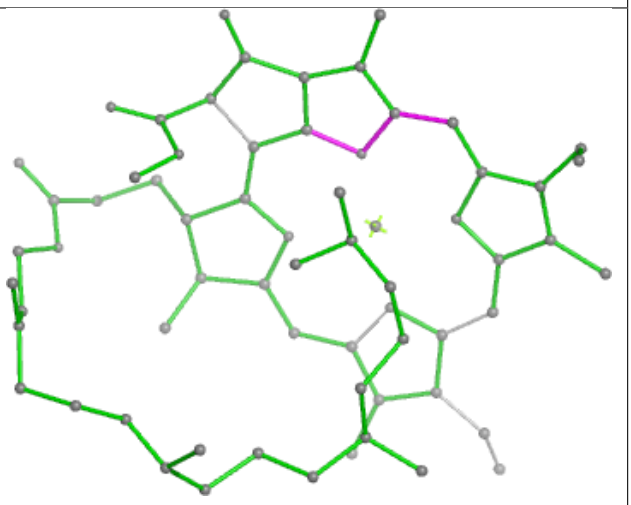


Rings

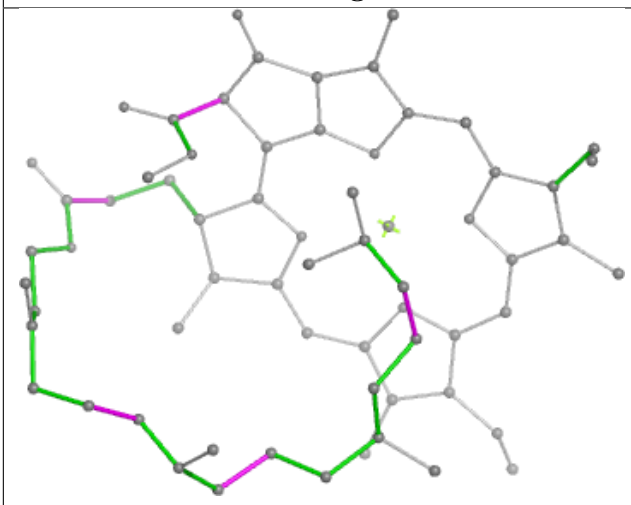
Ligand CLA c 309



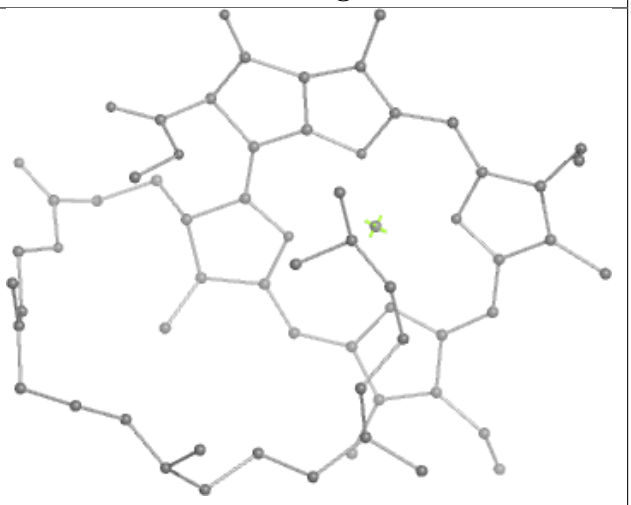
Bond lengths



Bond angles

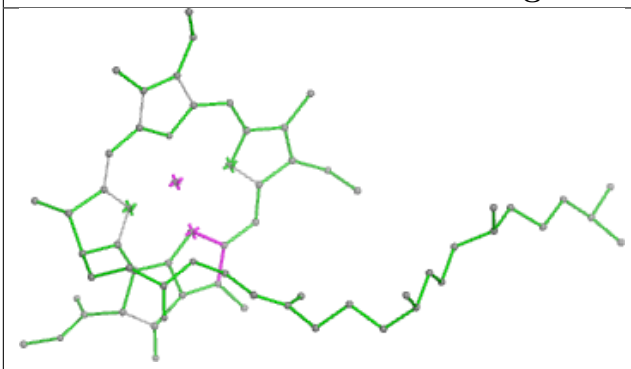


Torsions

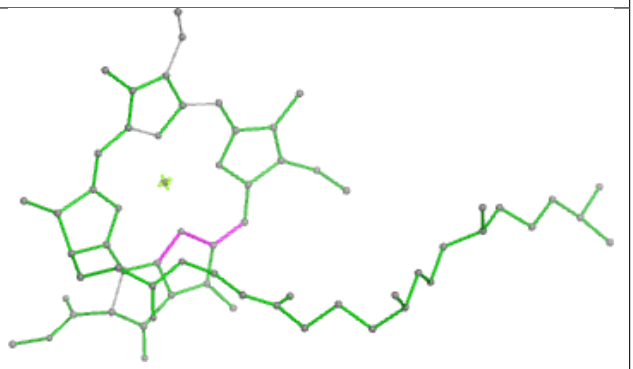


Rings

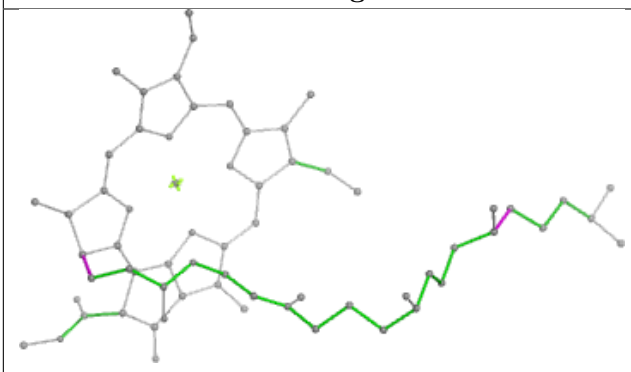
Ligand CLA A 414



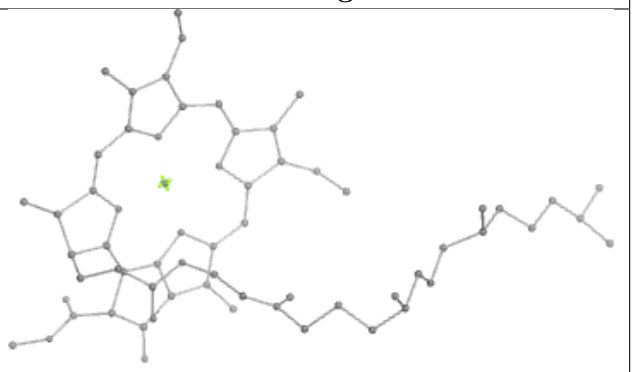
Bond lengths



Bond angles

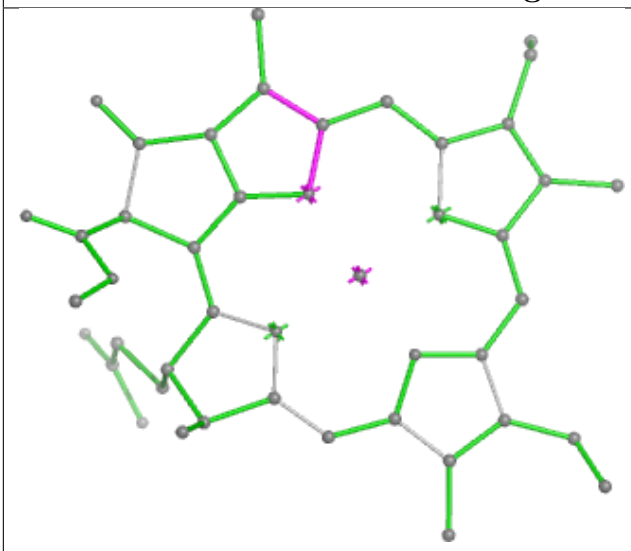


Torsions



Rings

Ligand CLA A 411



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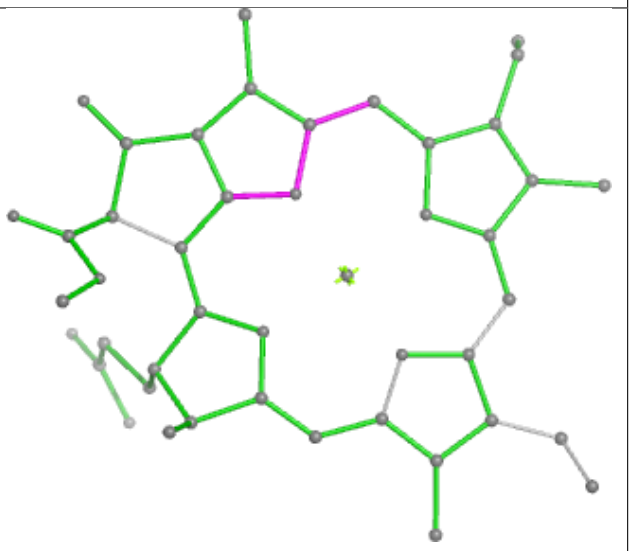
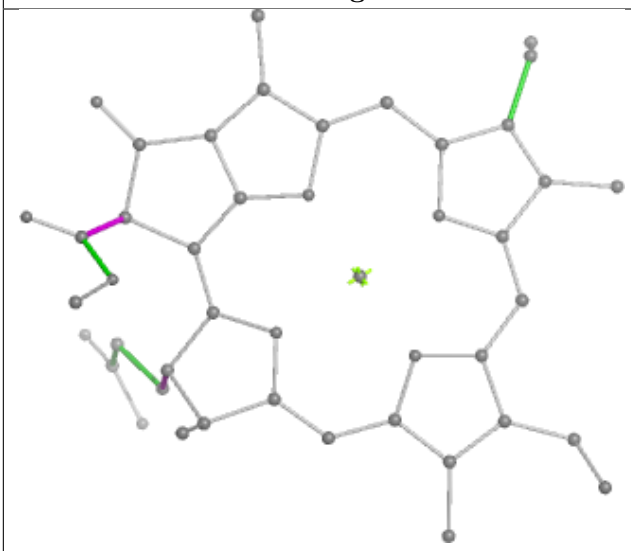
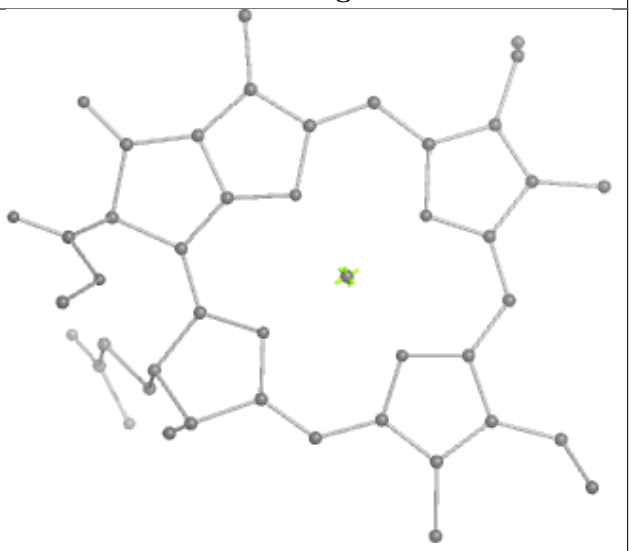


Bond angles

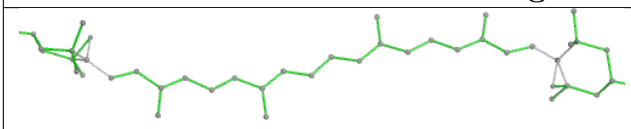


Torsions



Rings

Ligand XAT e 311



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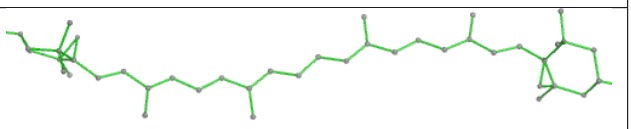
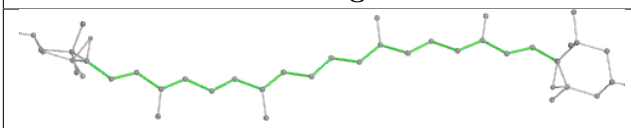


Bond angles



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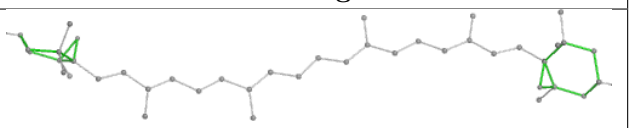
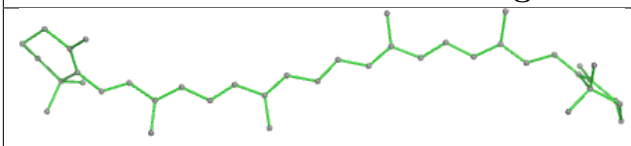


Rings

Ligand BCR B 1202



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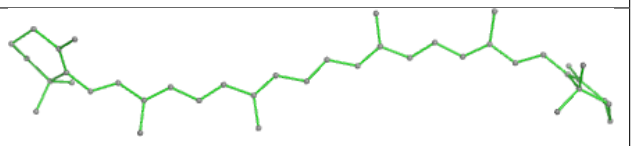
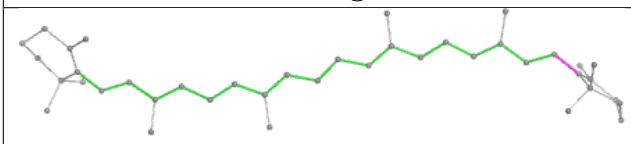


Bond angles



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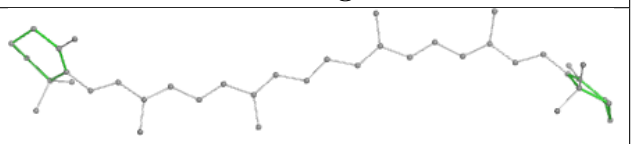
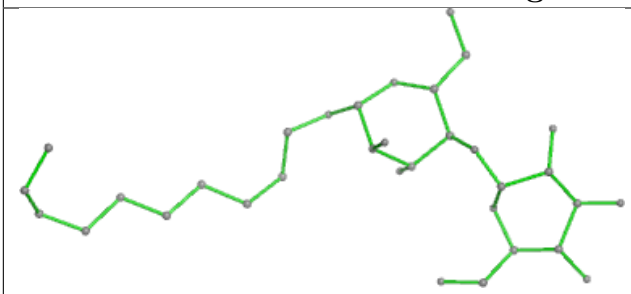


Rings

Ligand LMT c 317



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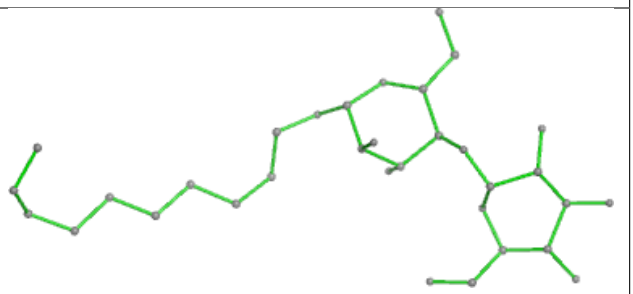
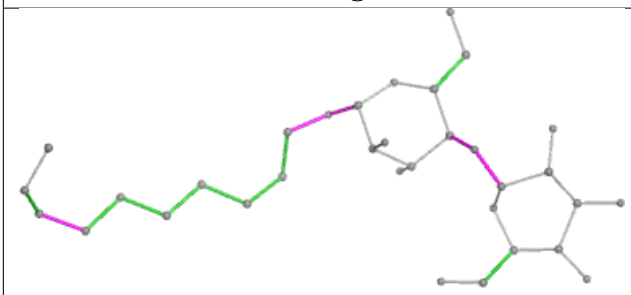


Bond angles



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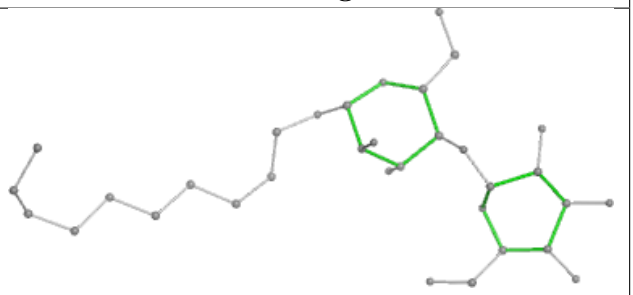
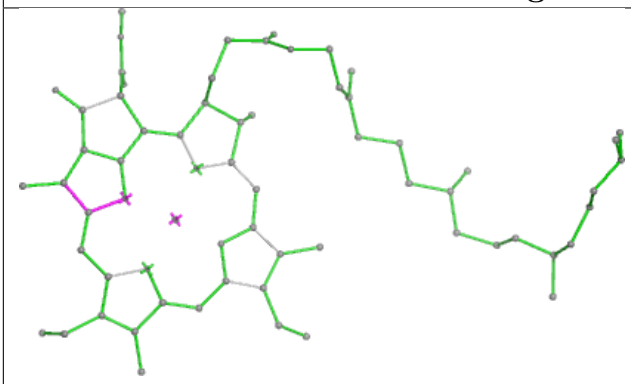


Rings

Ligand CLA b 310



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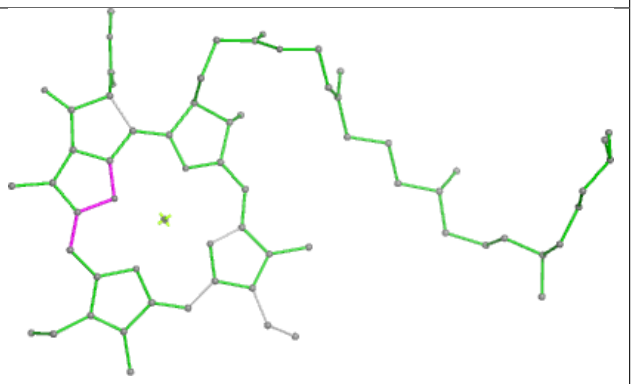
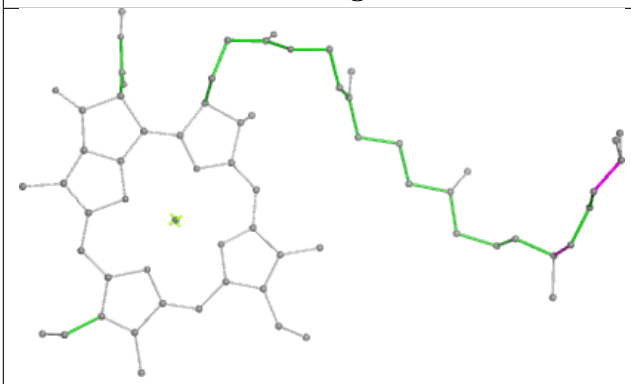


Bond angles



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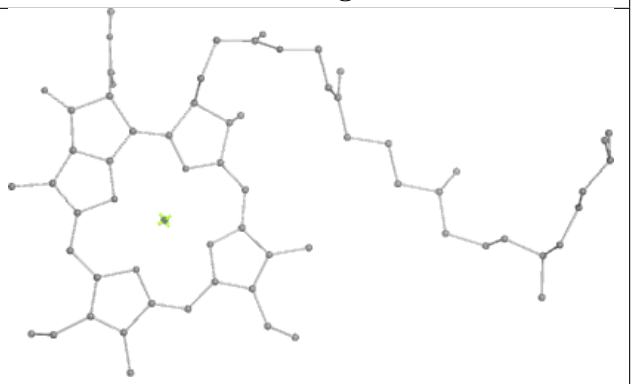
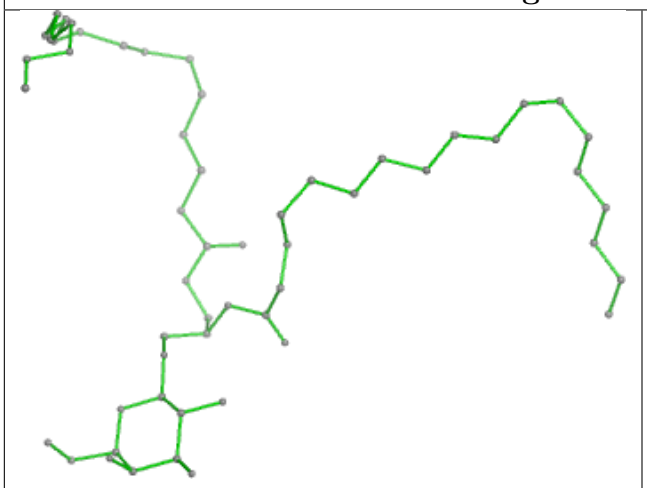


Rings

Ligand LMG F 409



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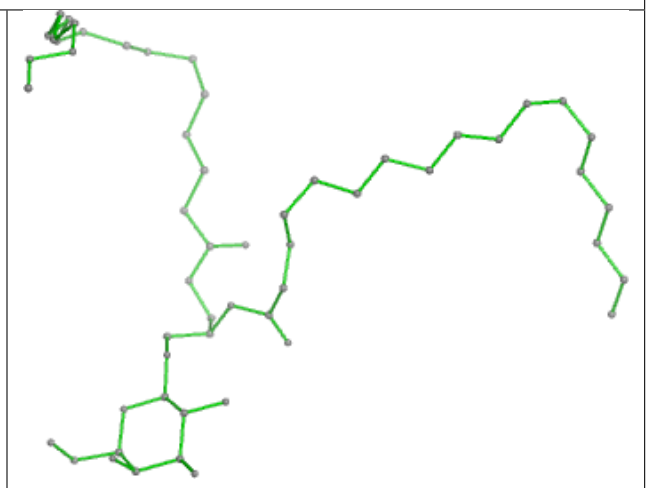
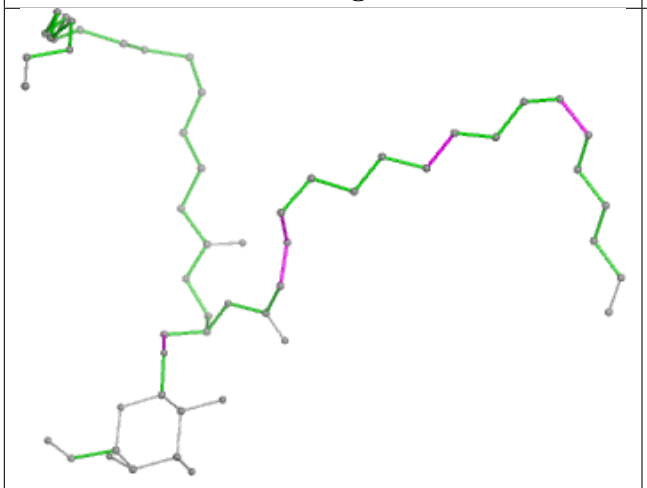


Bond angles



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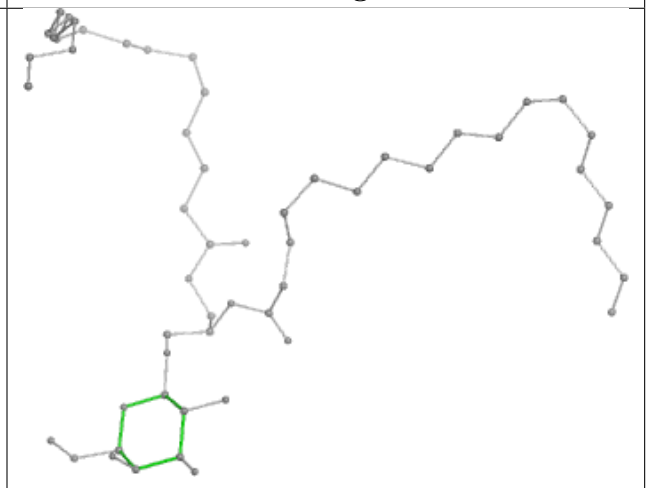
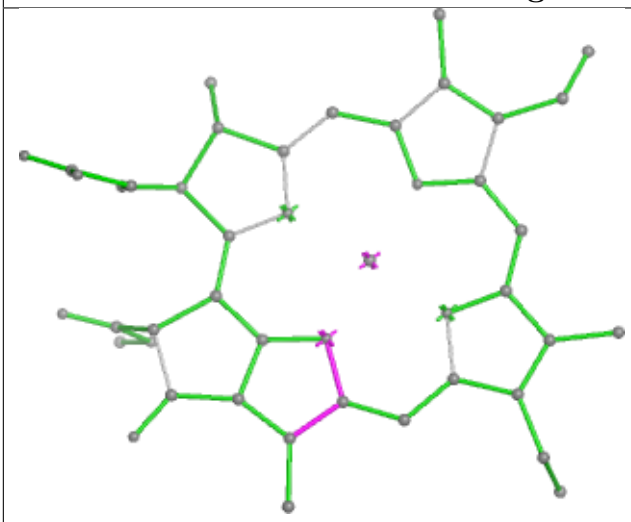
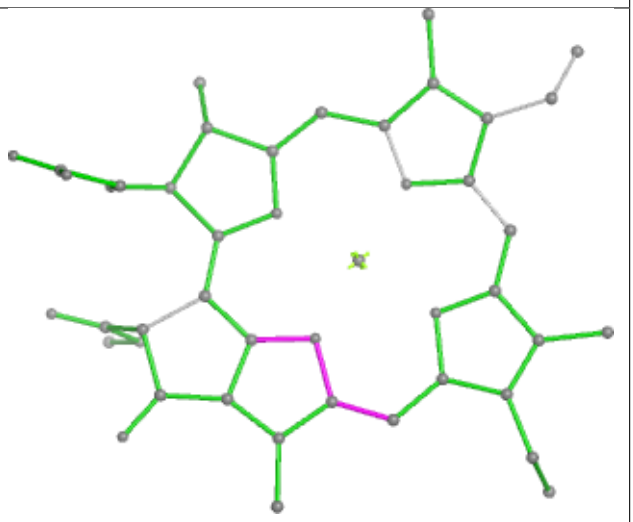


Rings

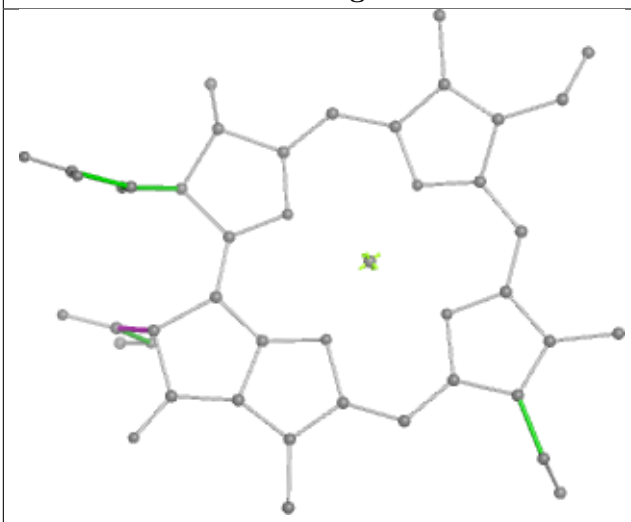
Ligand CLA d 308



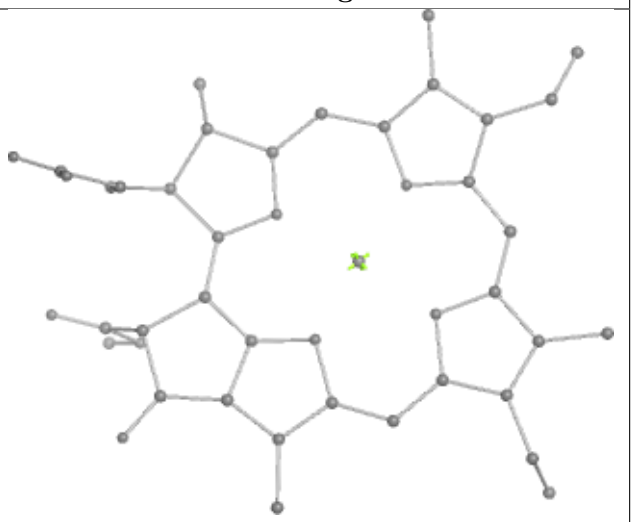
Bond lengths



Bond angles

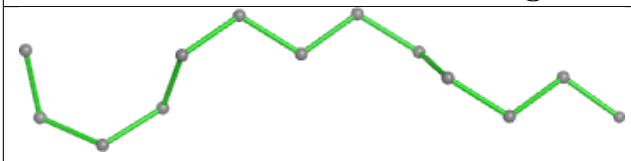


Torsions



Rings

Ligand LMT d 319



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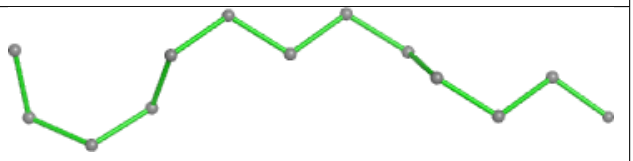
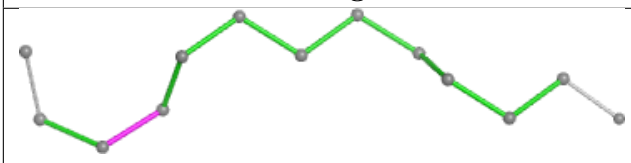


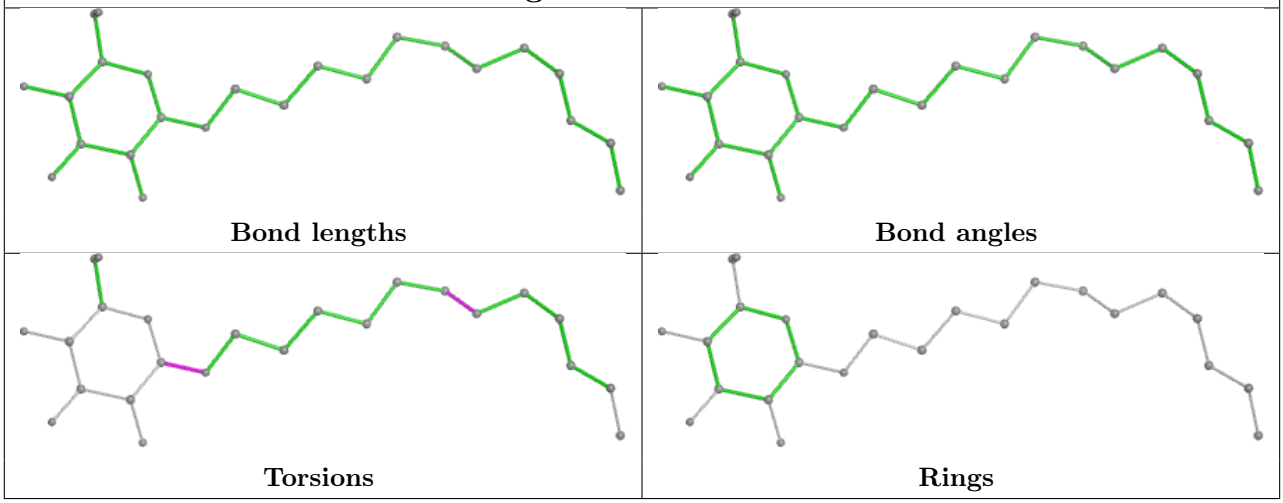
Bond angles



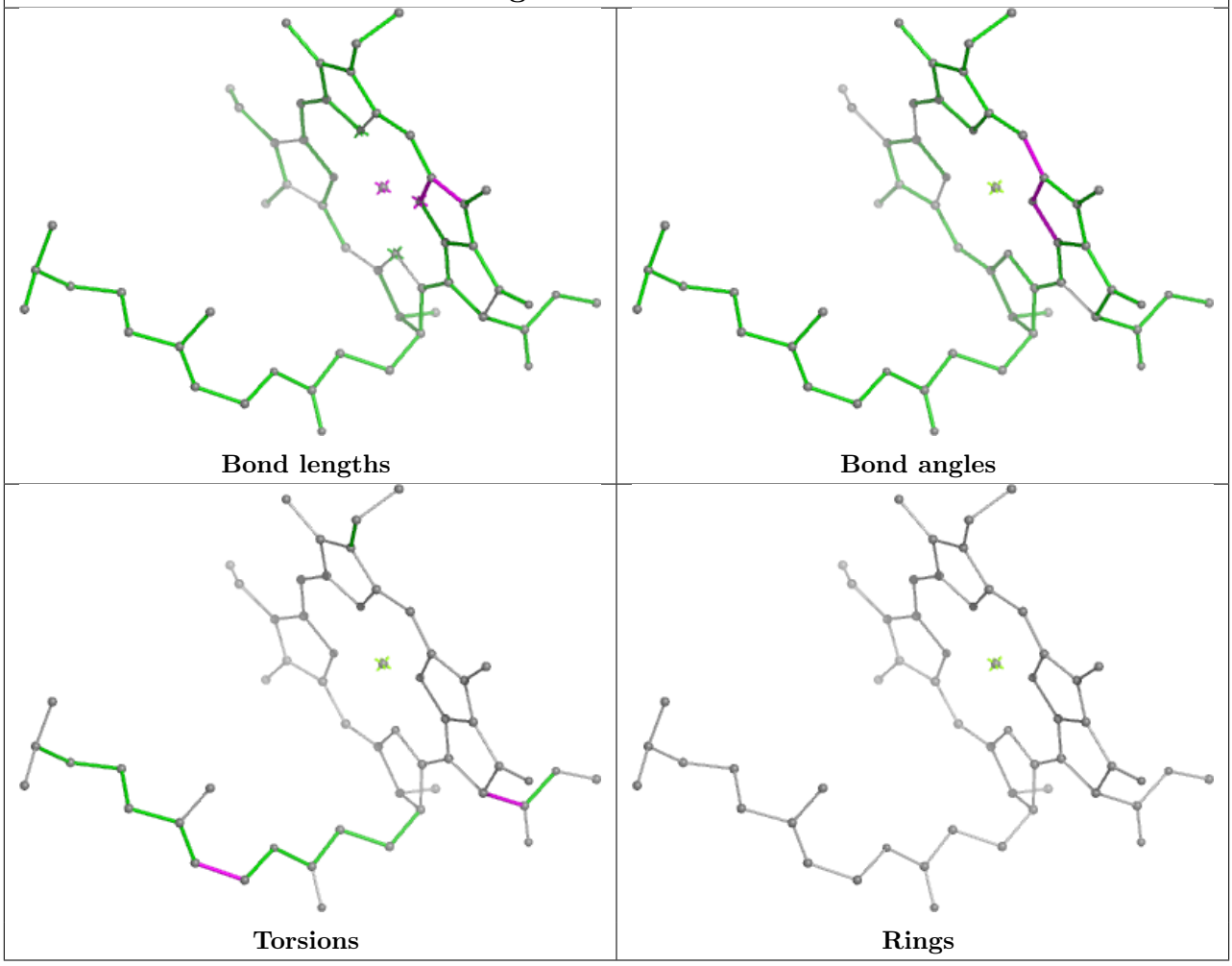
Torsions

Rings

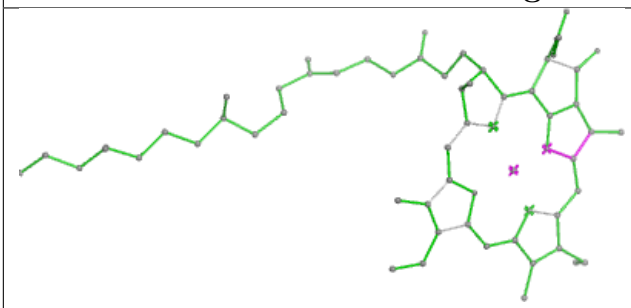
Ligand LMT b 301



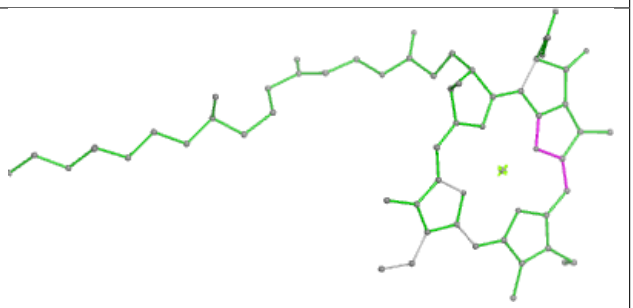
Ligand CLA c 304



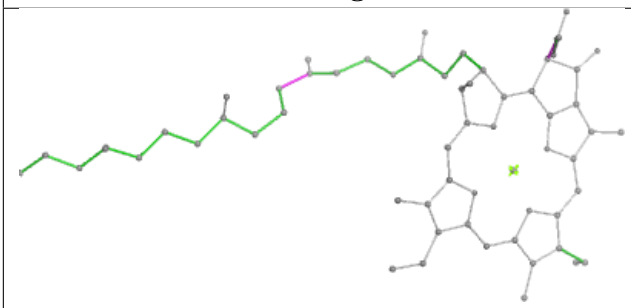
Ligand CLA A 405



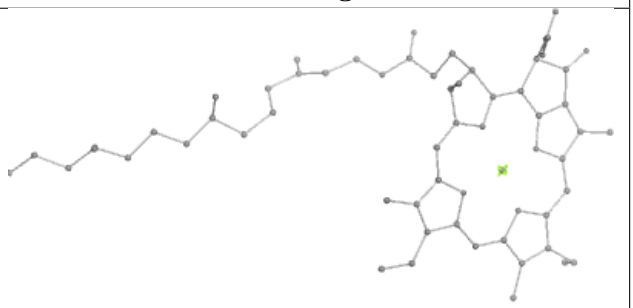
Bond lengths



Bond angles

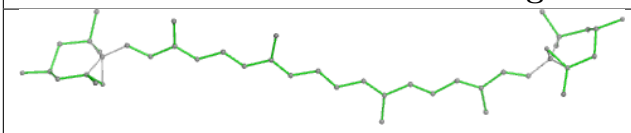


Torsions

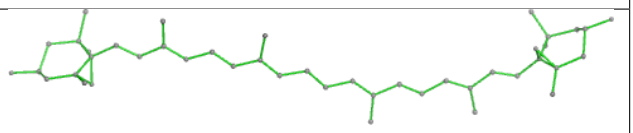


Rings

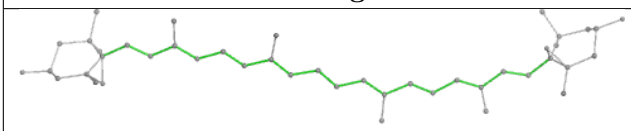
Ligand XAT b 315



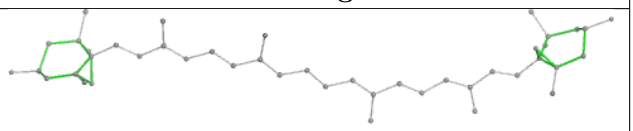
Bond lengths



Bond angles

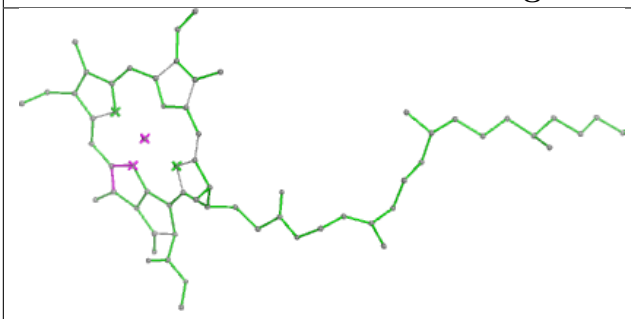


Torsions

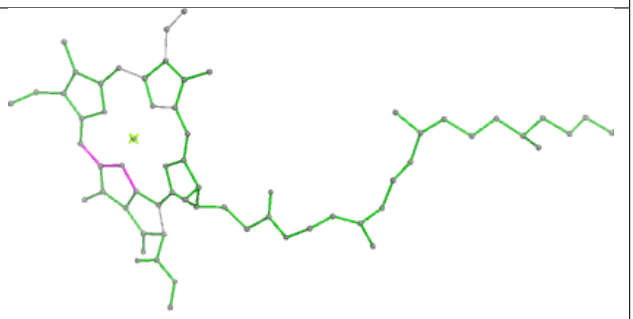


Rings

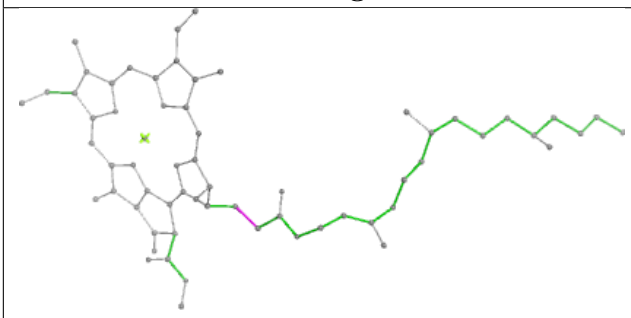
Ligand CLA A 401



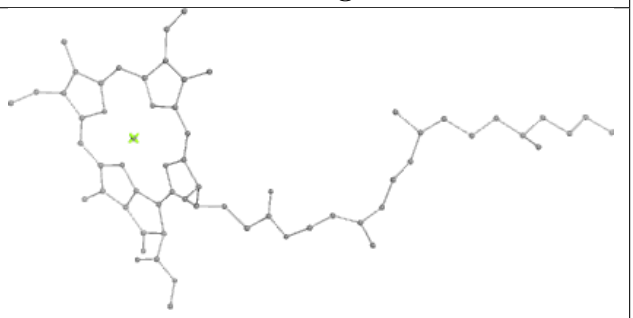
Bond lengths



Bond angles

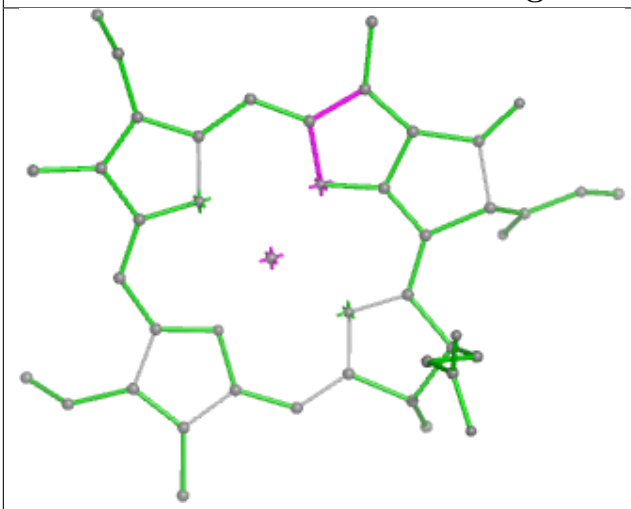


Torsions

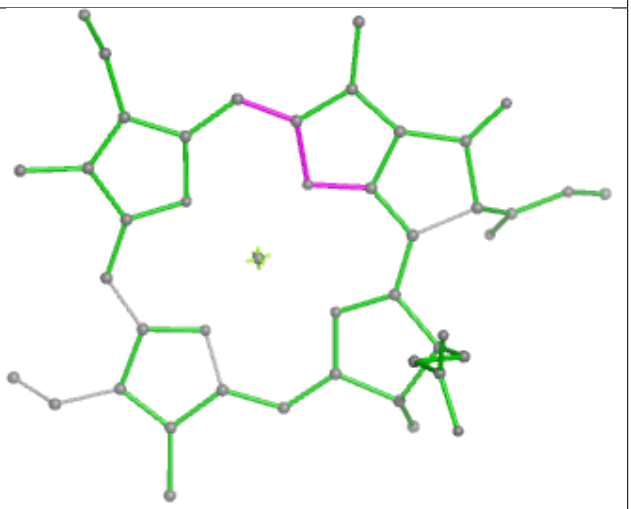


Rings

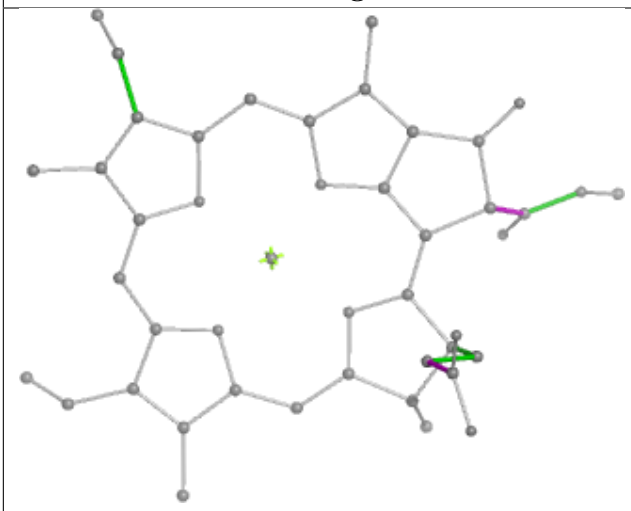
Ligand CLA L 313



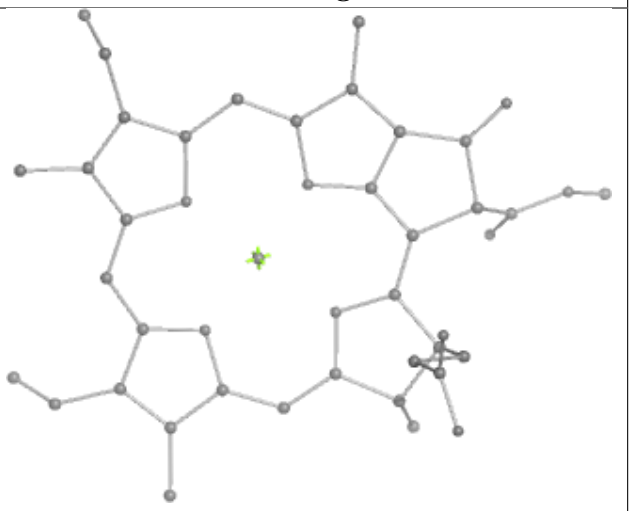
Bond lengths



Bond angles

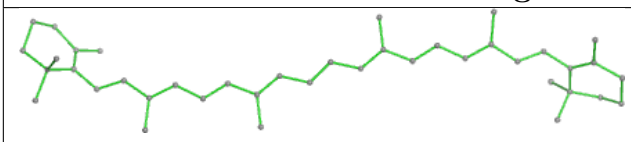


Torsions

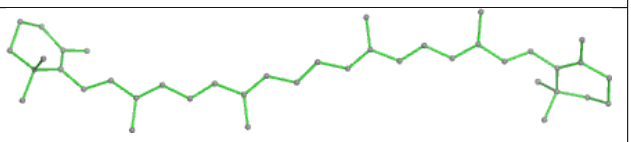


Rings

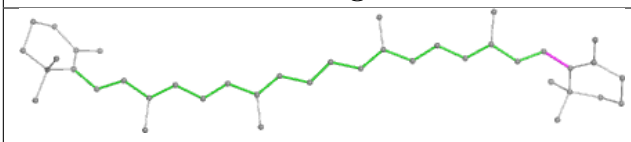
Ligand BCR B 1234



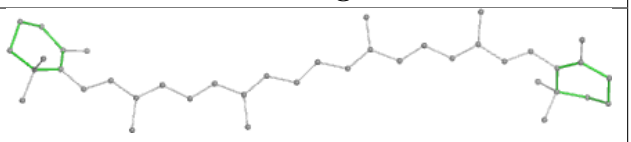
Bond lengths



Bond angles

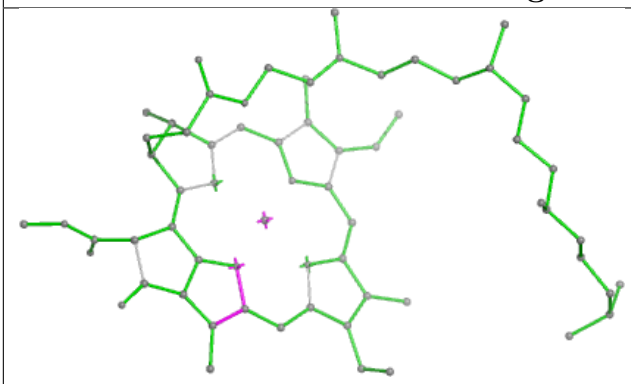


Torsions

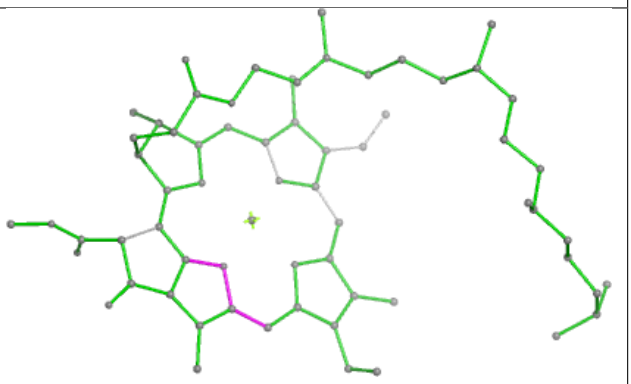


Rings

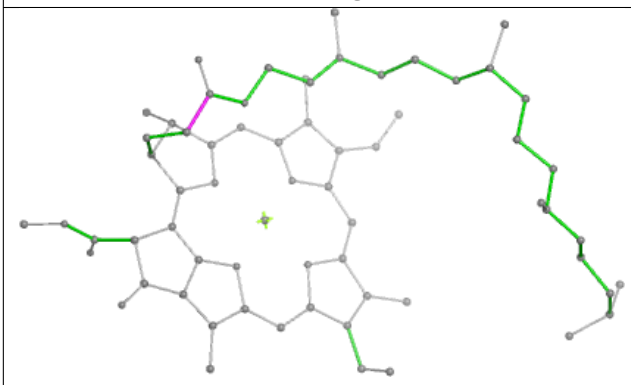
Ligand CLA b 303



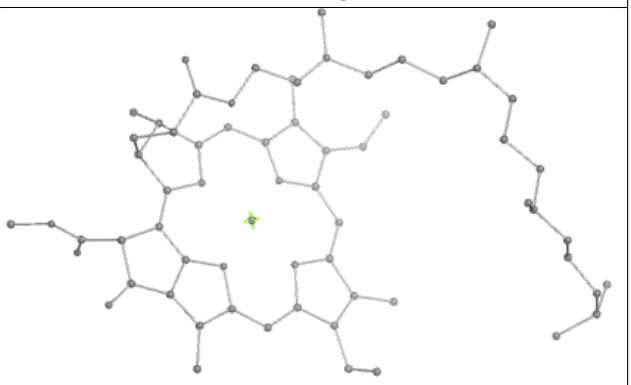
Bond lengths



Bond angles

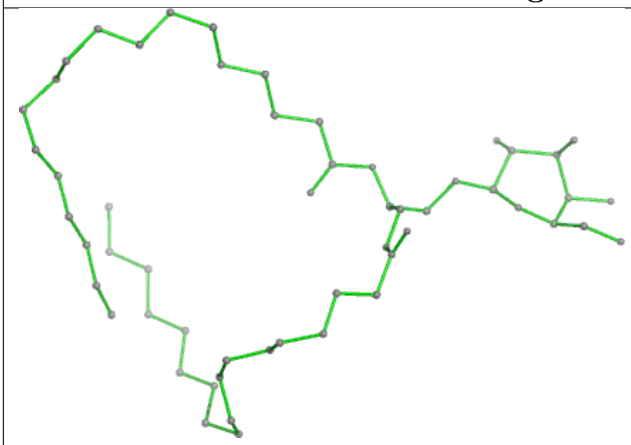


Torsions

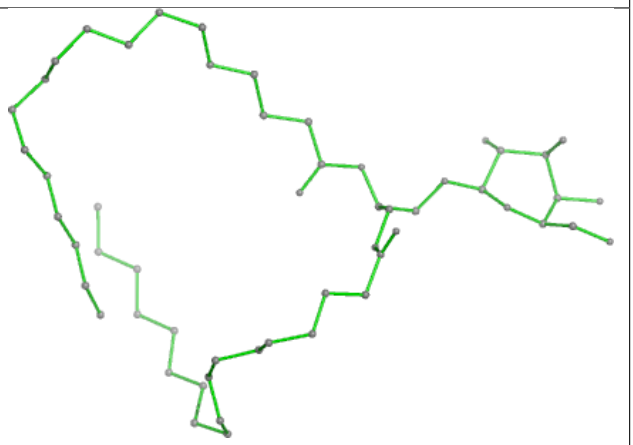


Rings

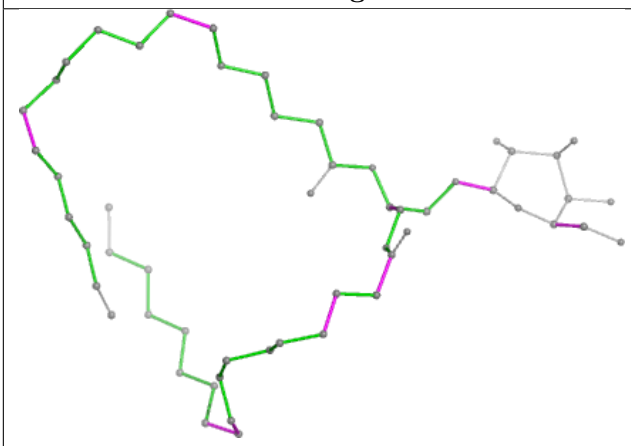
Ligand LMG f 323



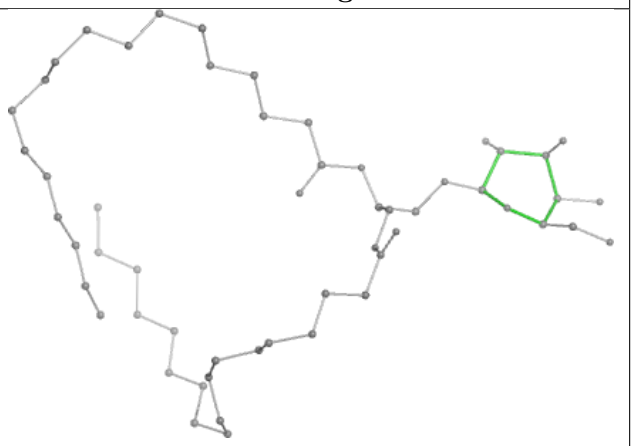
Bond lengths



Bond angles

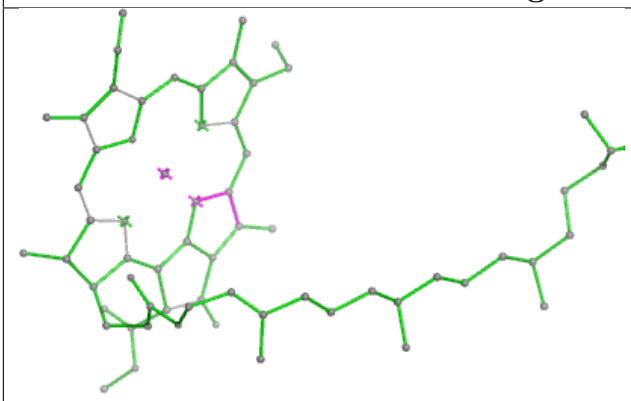


Torsions

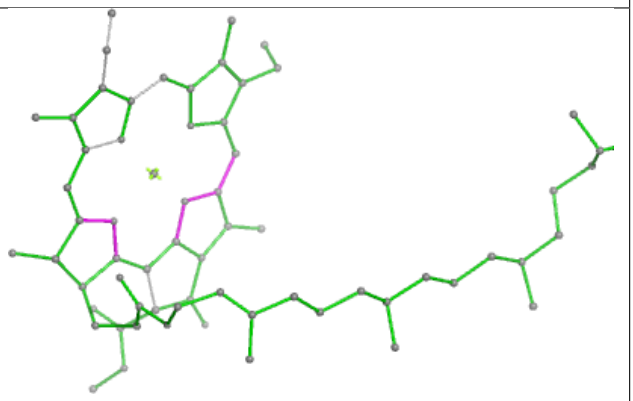


Rings

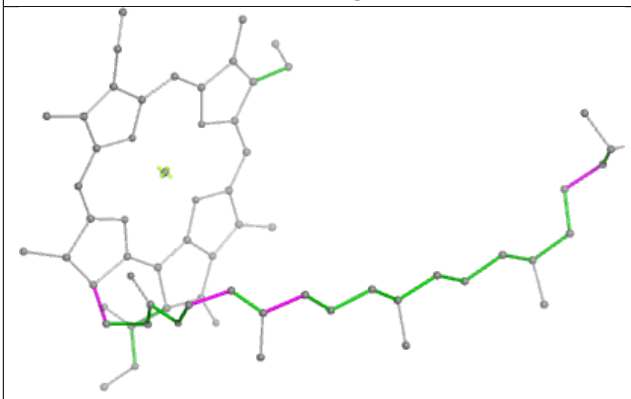
Ligand CLA b 307



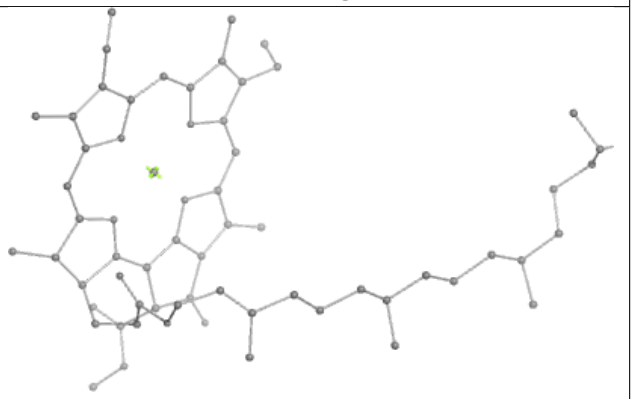
Bond lengths



Bond angles

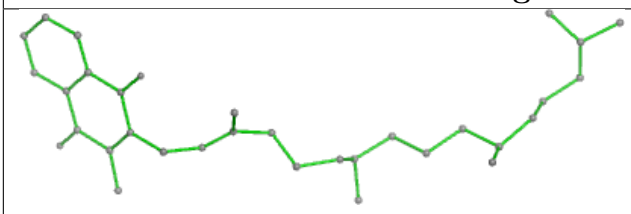


Torsions

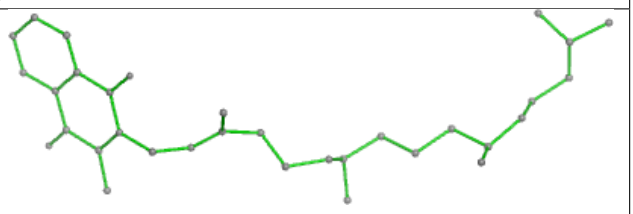


Rings

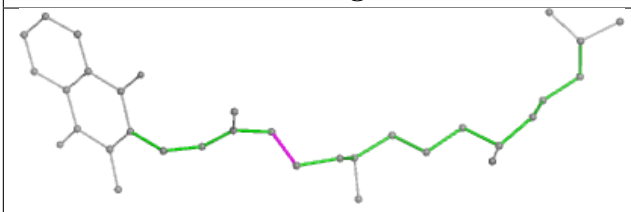
Ligand PQN B 1232



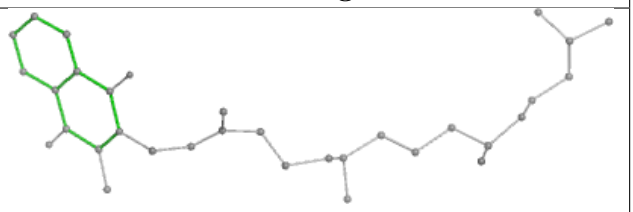
Bond lengths



Bond angles

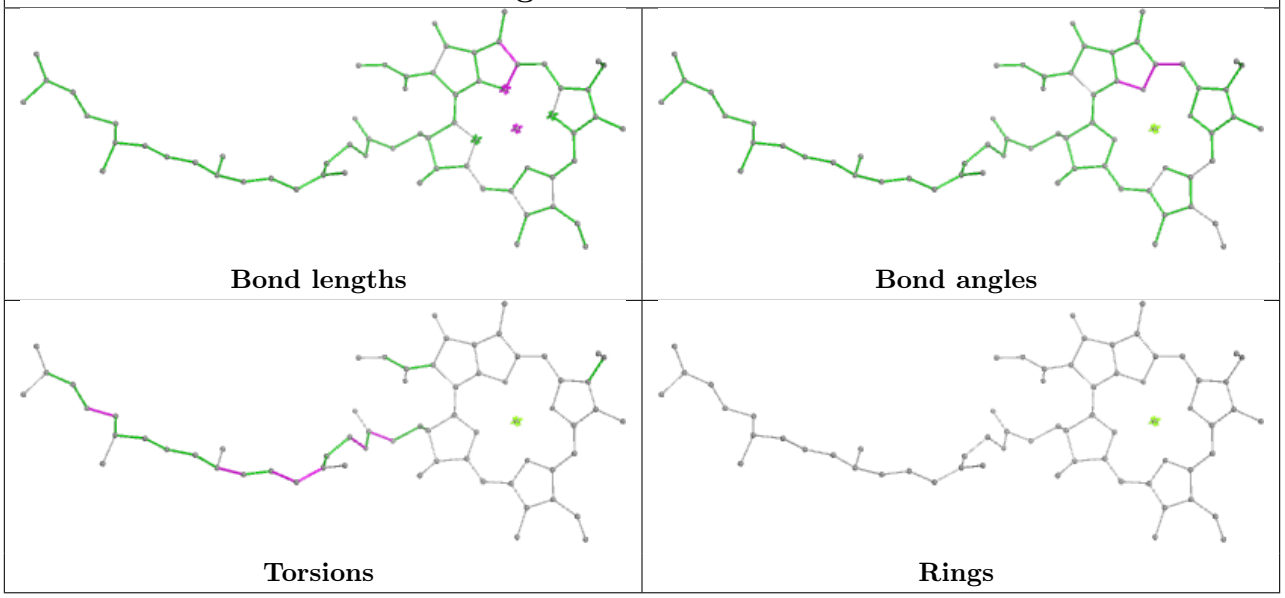


Torsions

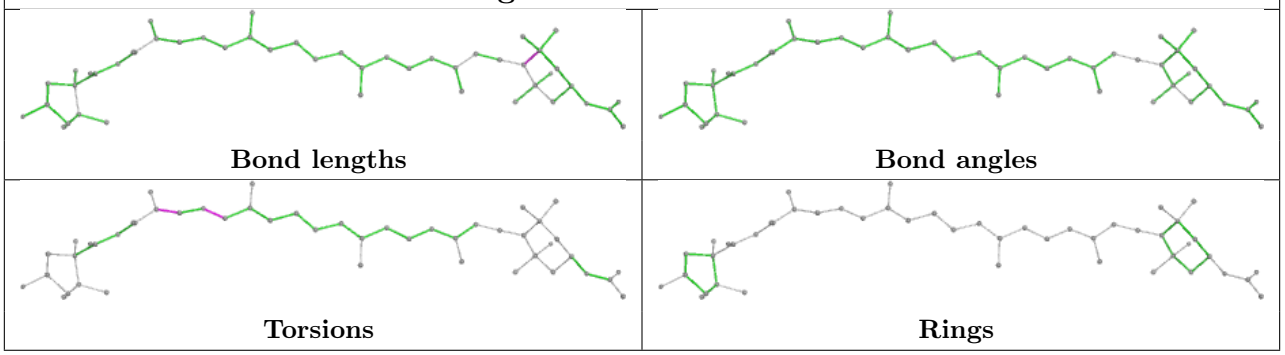


Rings

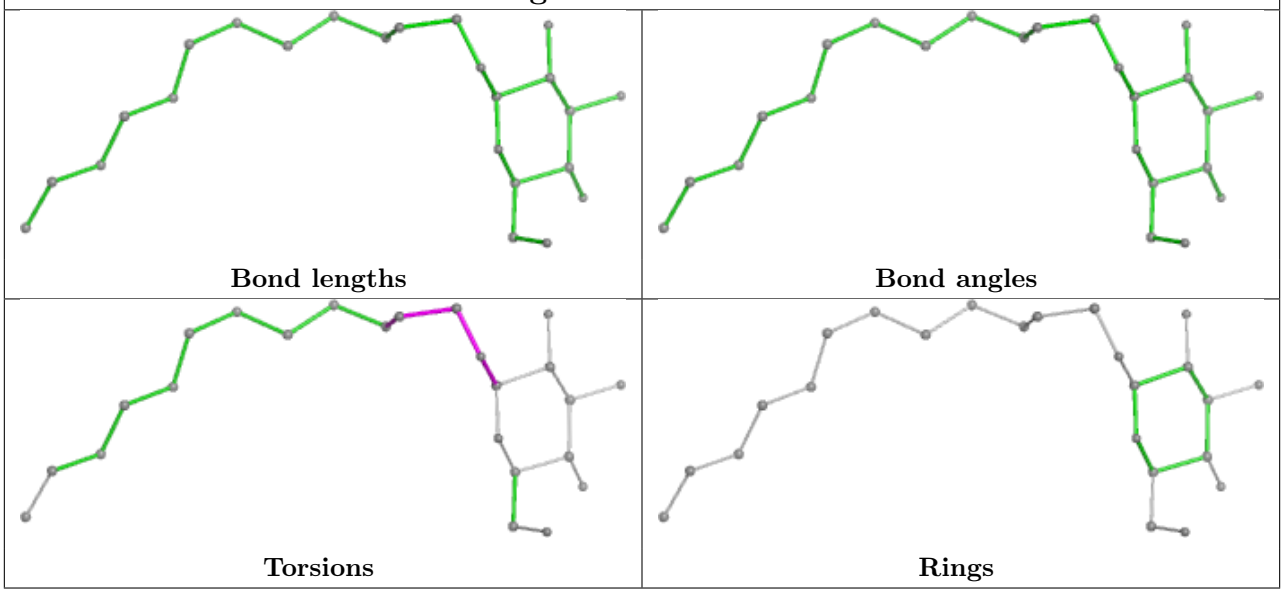
Ligand CLA B 1210



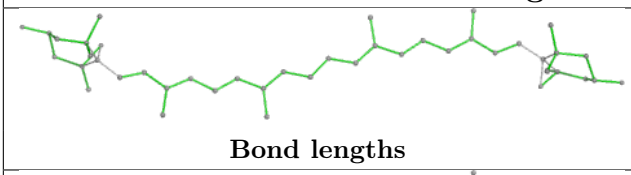
Ligand A1L6D B 1235



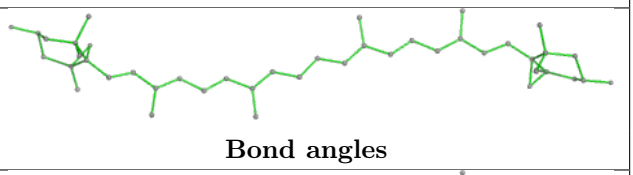
Ligand LMT f 327



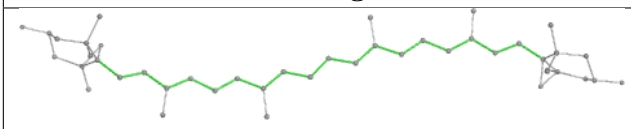
Ligand XAT d 312



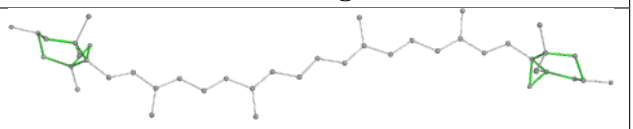
Bond lengths



Bond angles

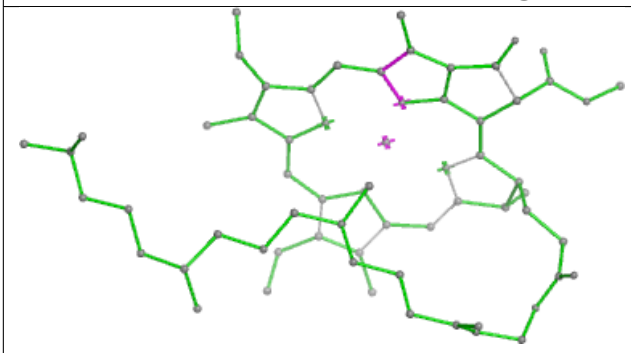


Torsions

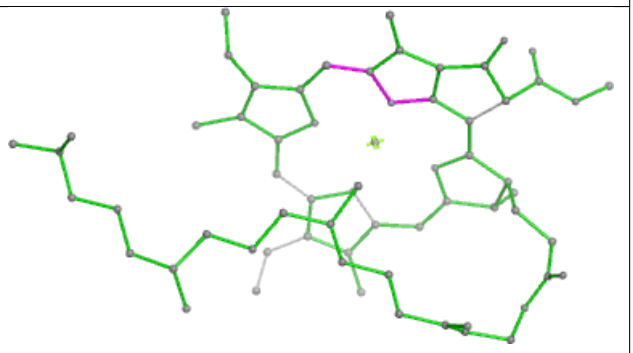


Rings

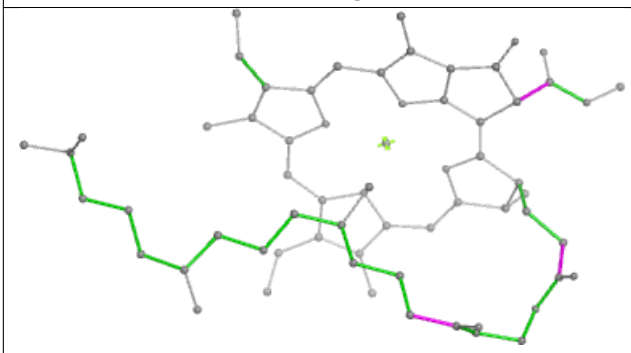
Ligand CLA B 1219



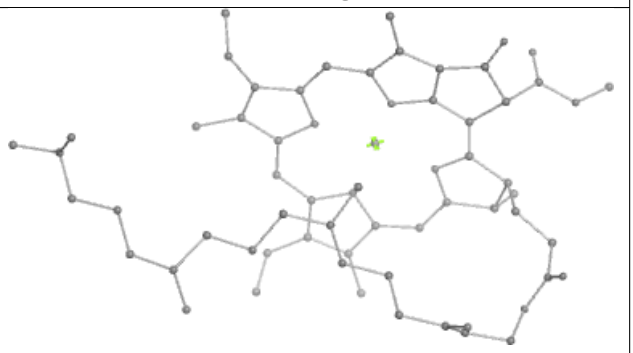
Bond lengths



Bond angles

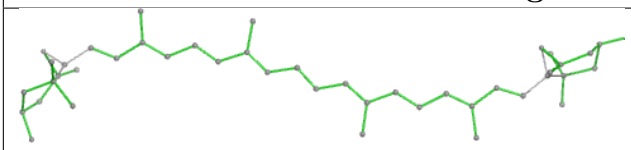


Torsions

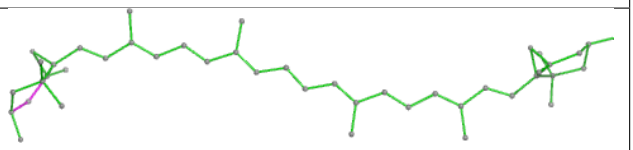


Rings

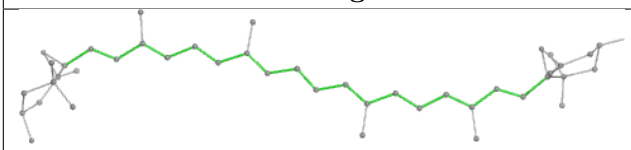
Ligand XAT b 313



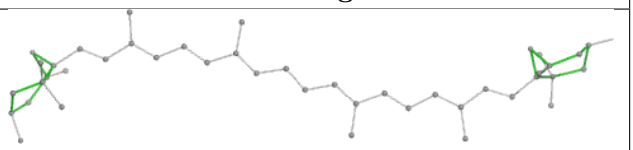
Bond lengths



Bond angles

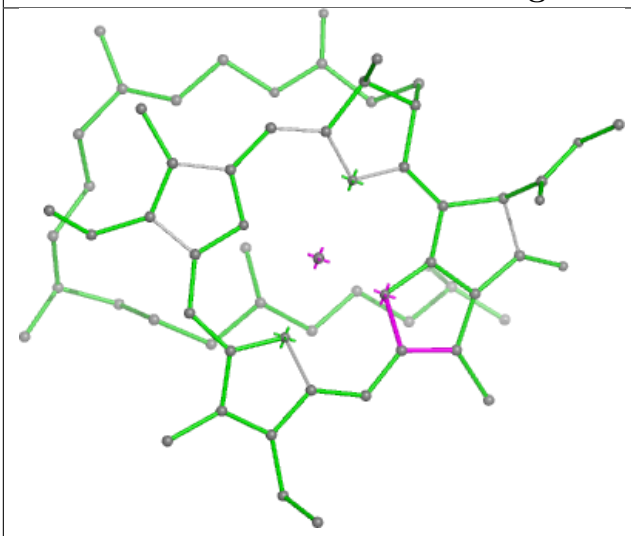


Torsions

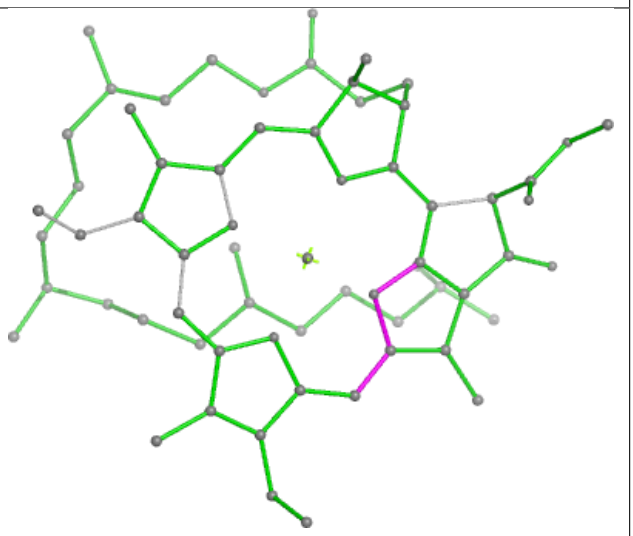


Rings

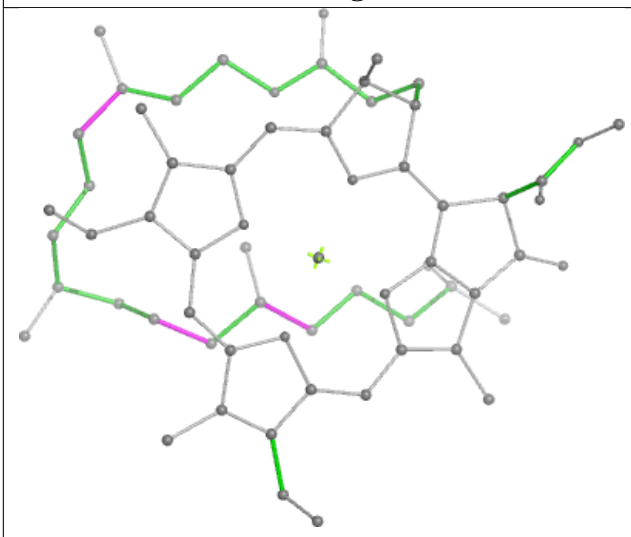
Ligand CLA a 407



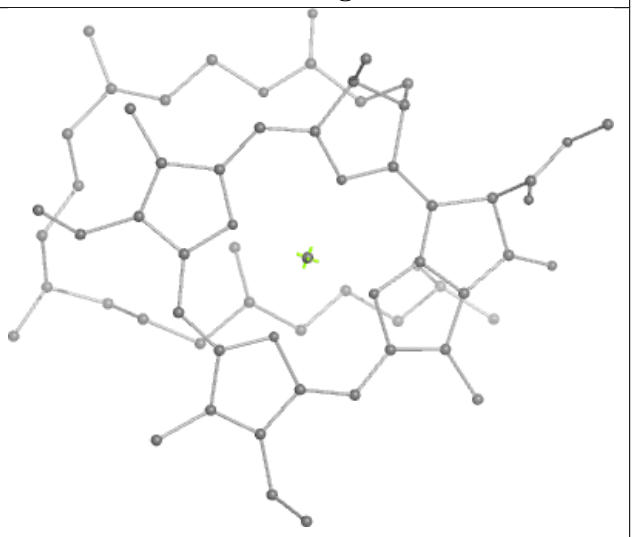
Bond lengths



Bond angles

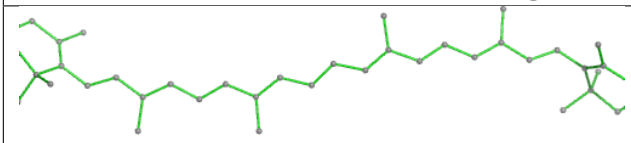


Torsions



Rings

Ligand BCR L 307



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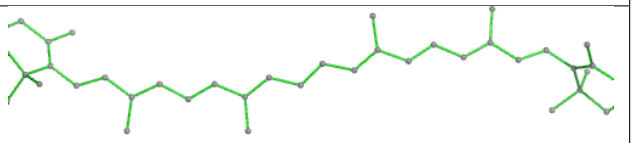
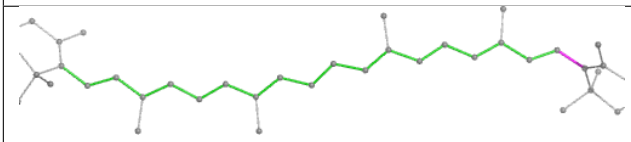
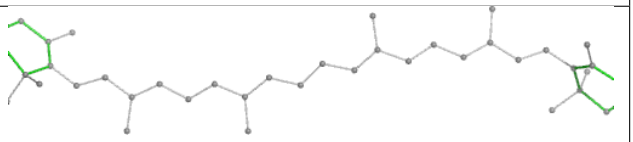


Bond angles

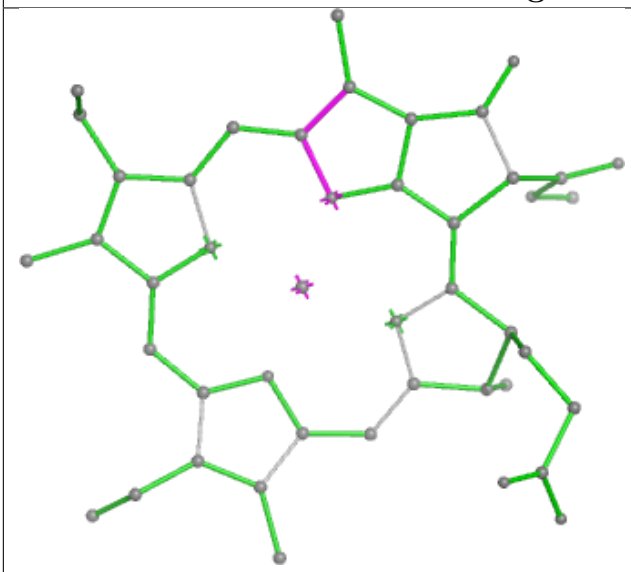


Torsions

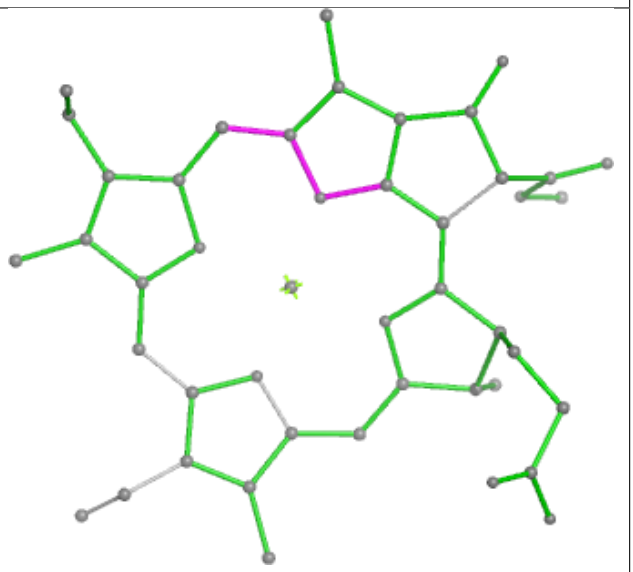


Rings

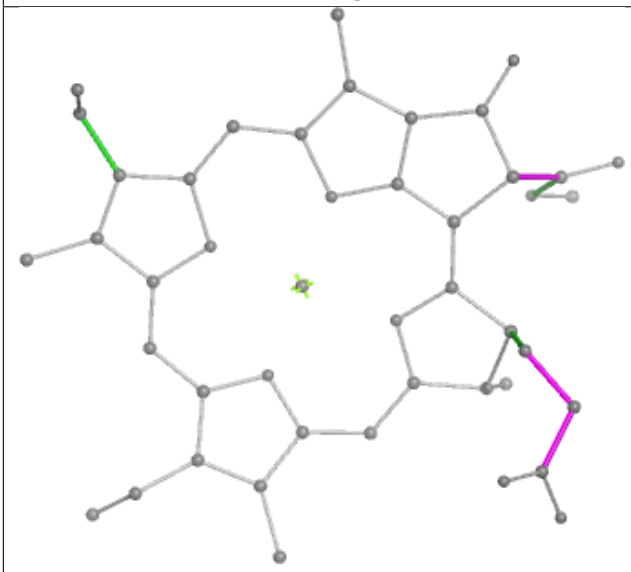
Ligand CLA d 309



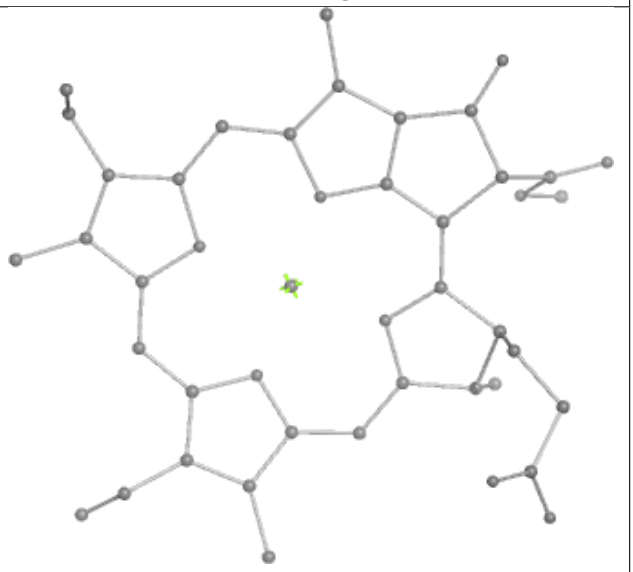
Bond lengths



Bond angles

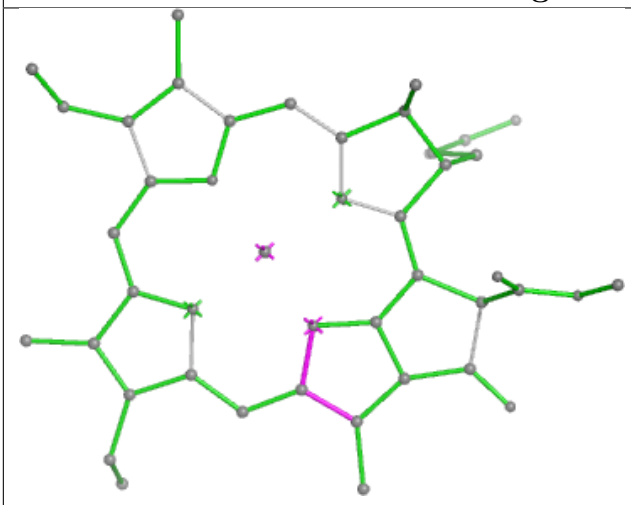


Torsions

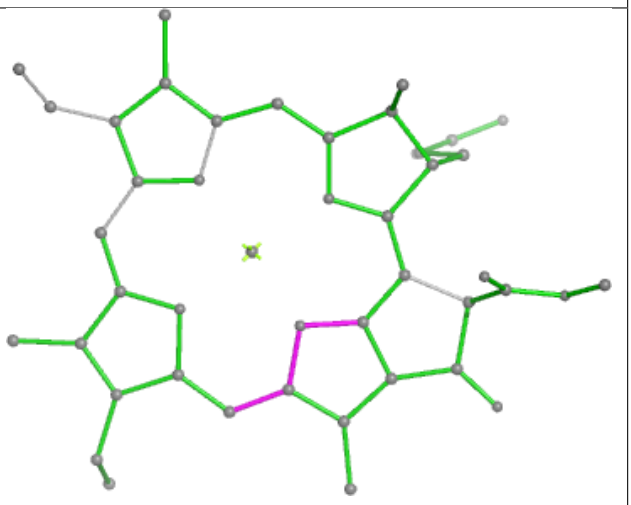


Rings

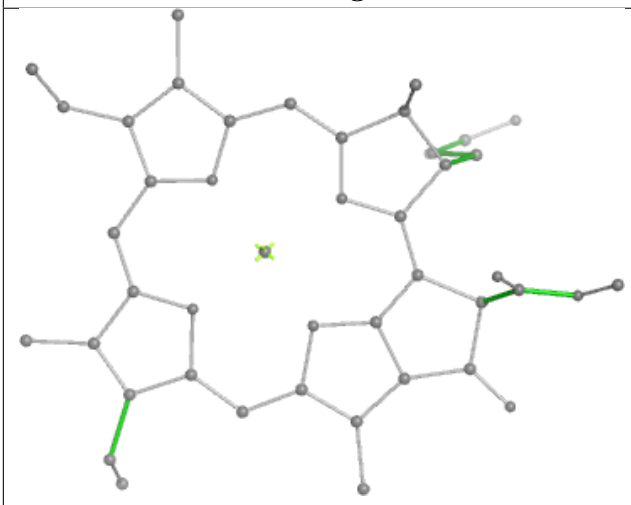
Ligand CLA f 316



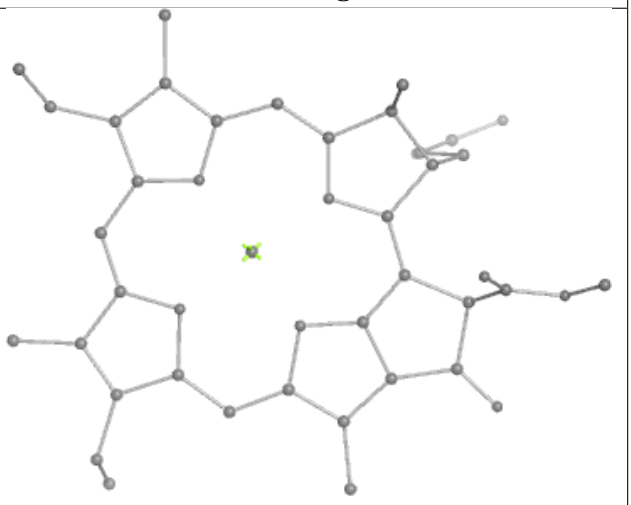
Bond lengths



Bond angles

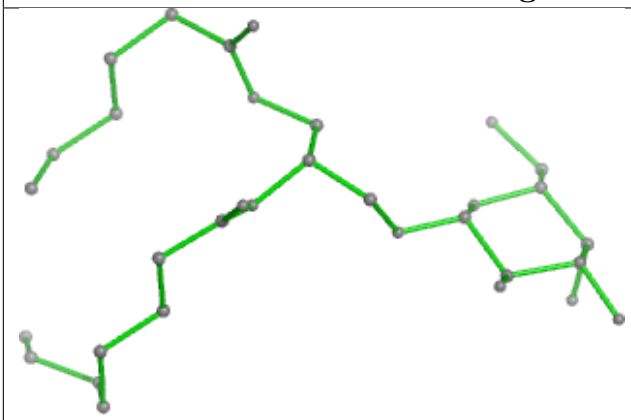


Torsions

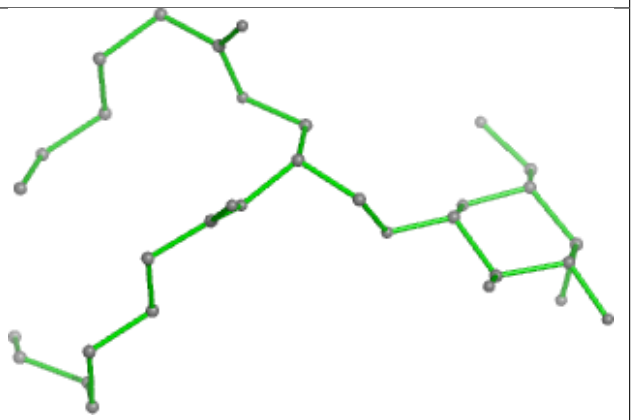


Rings

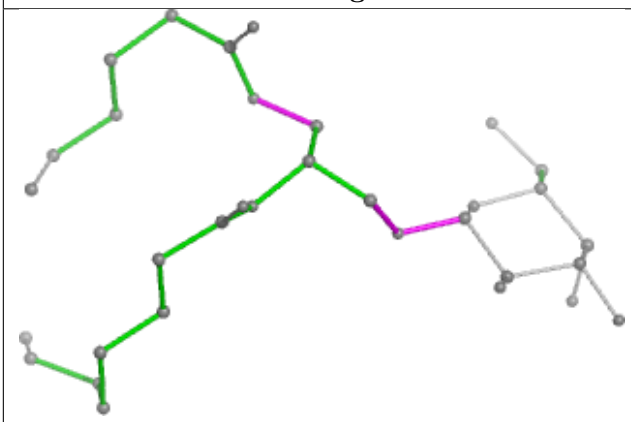
Ligand LMG A 422



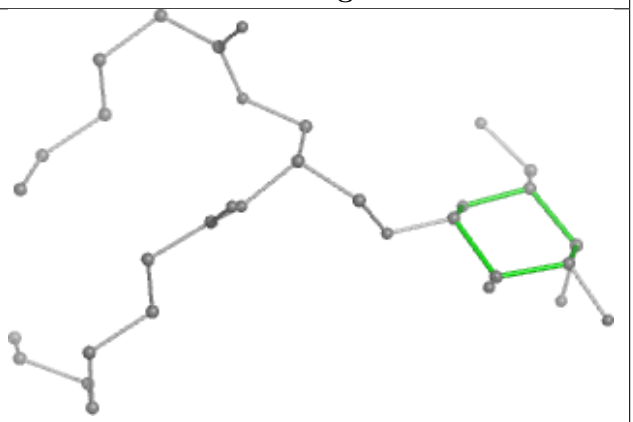
Bond lengths



Bond angles

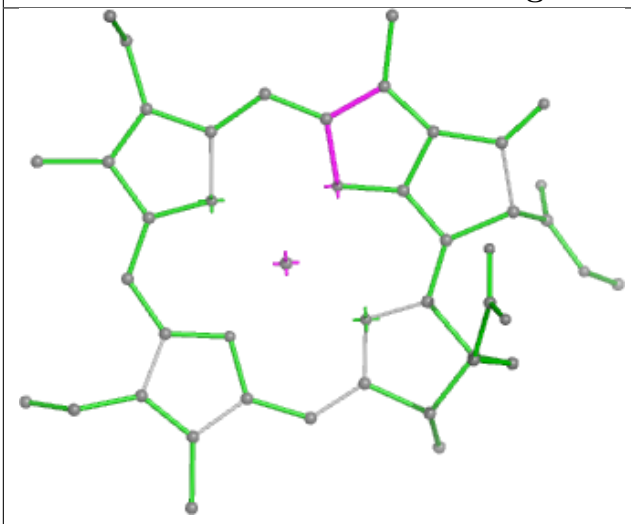


Torsions

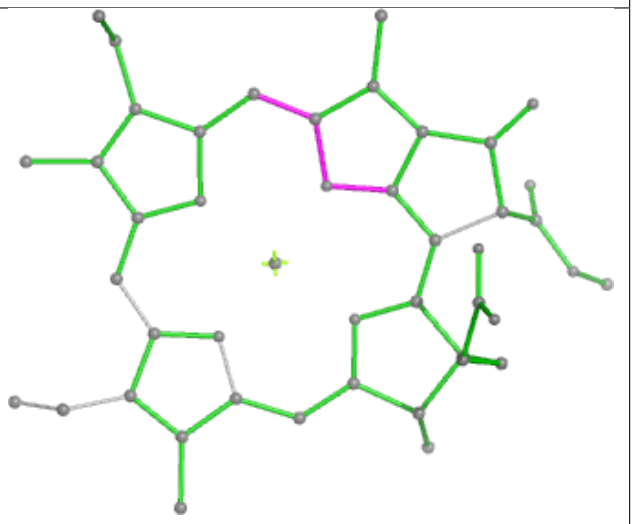


Rings

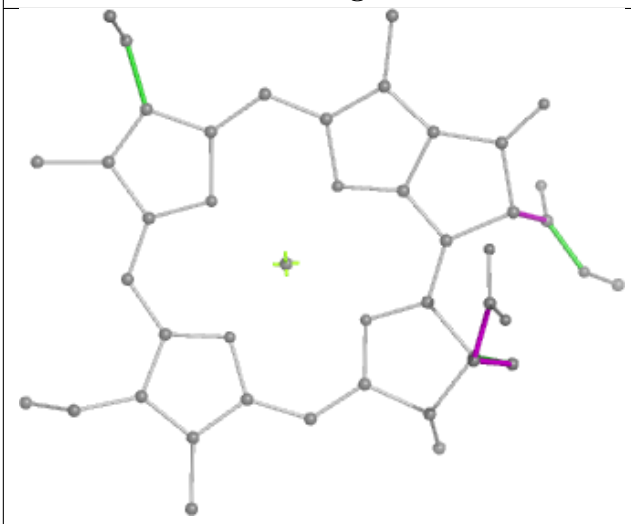
Ligand CLA L 305



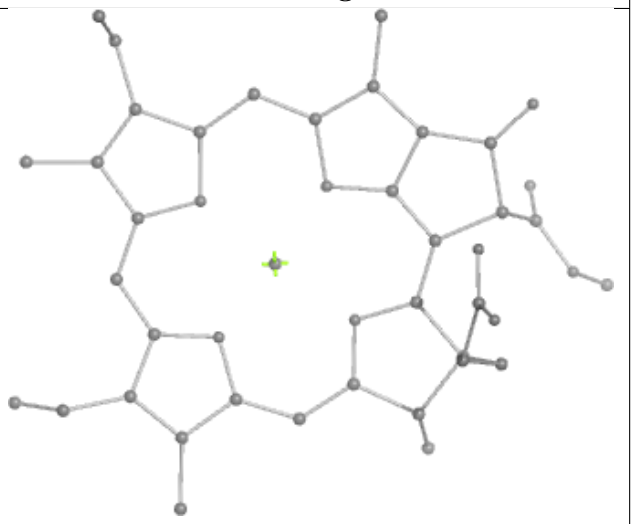
Bond lengths



Bond angles

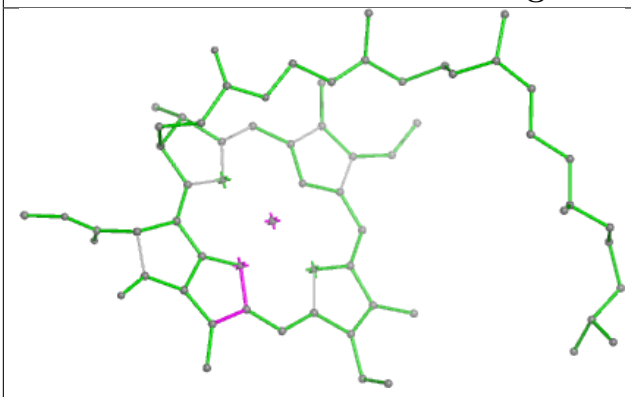


Torsions



Rings

Ligand CLA d 302



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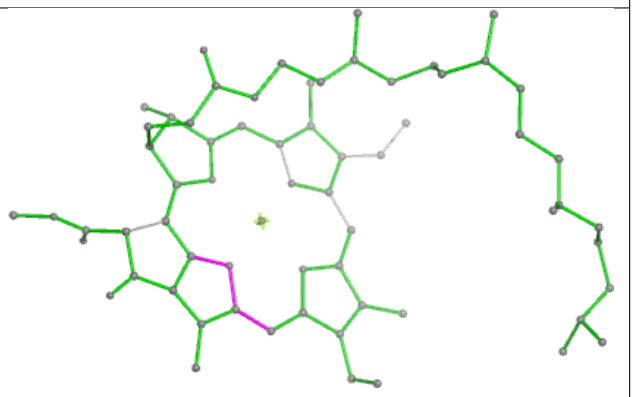
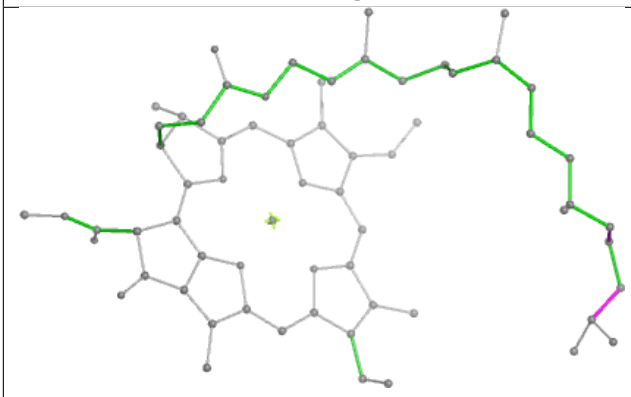
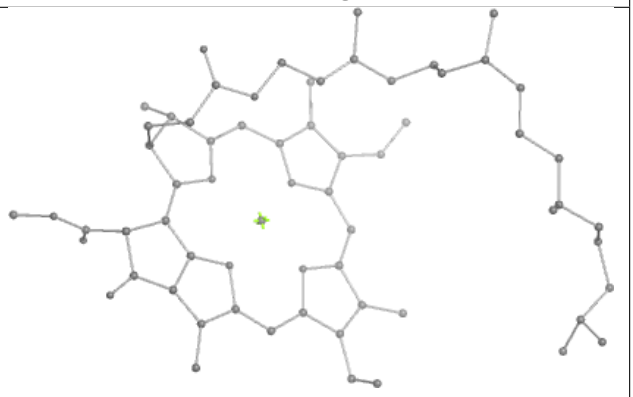


Bond angles

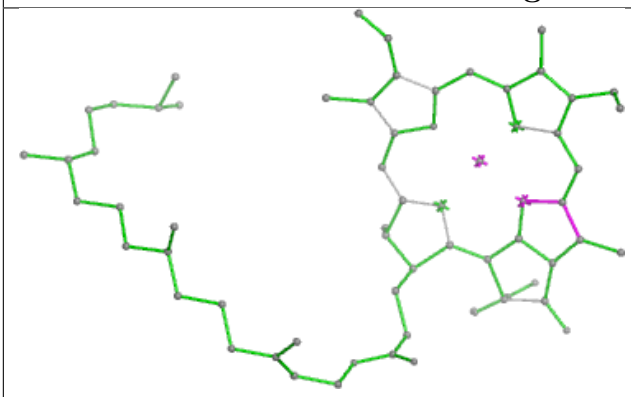


Torsions



Rings

Ligand CLA A 412



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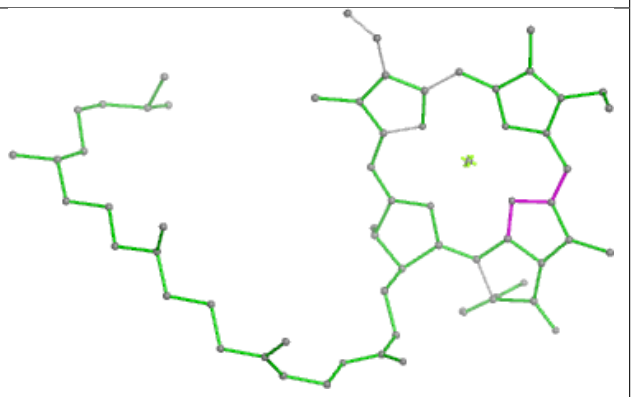
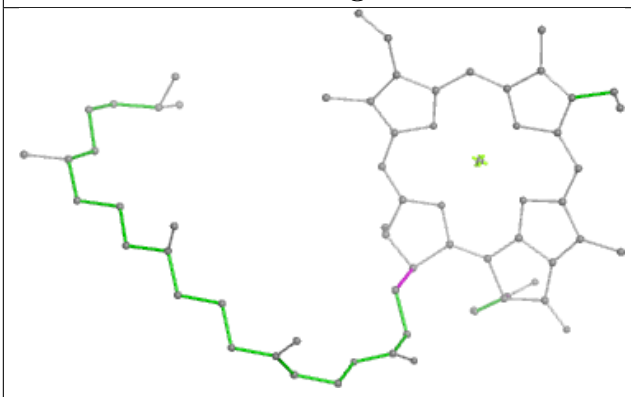


Bond angles



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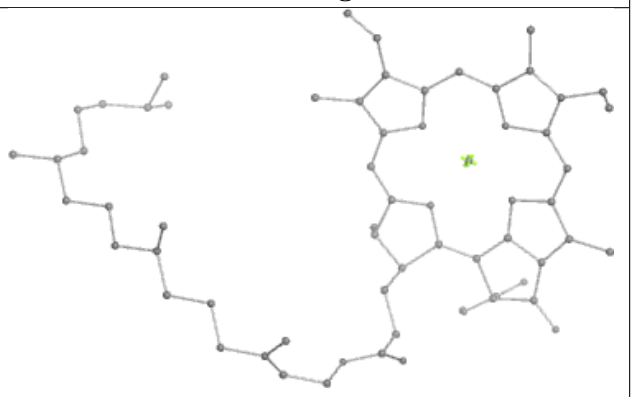
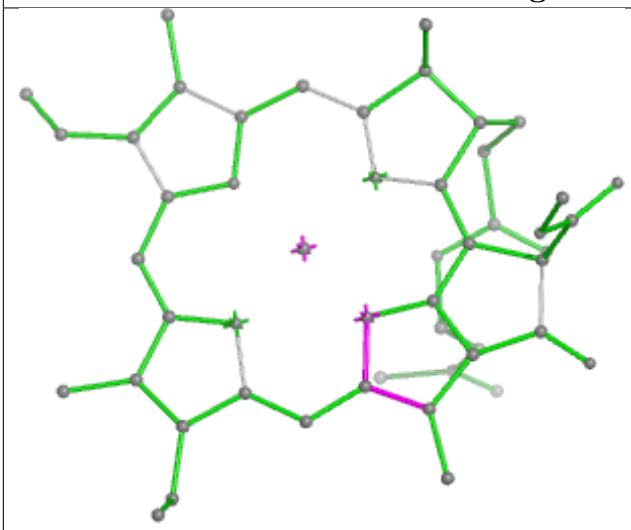


Rings

Ligand CLA e 304



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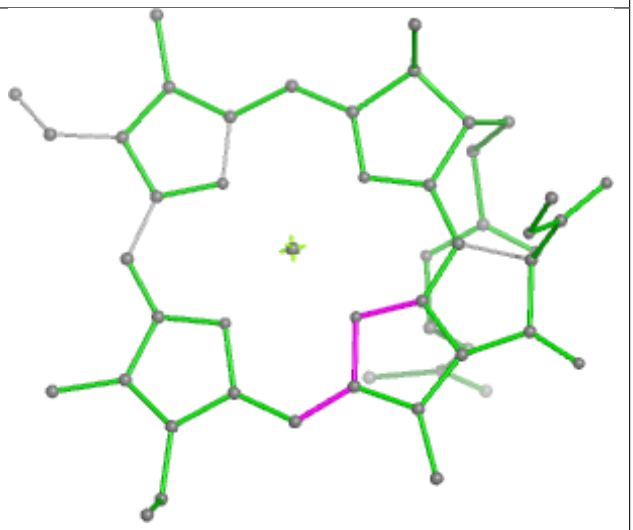
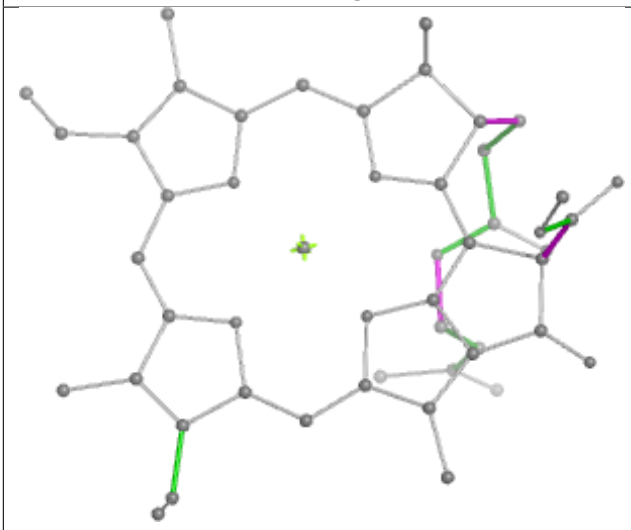


Bond angles



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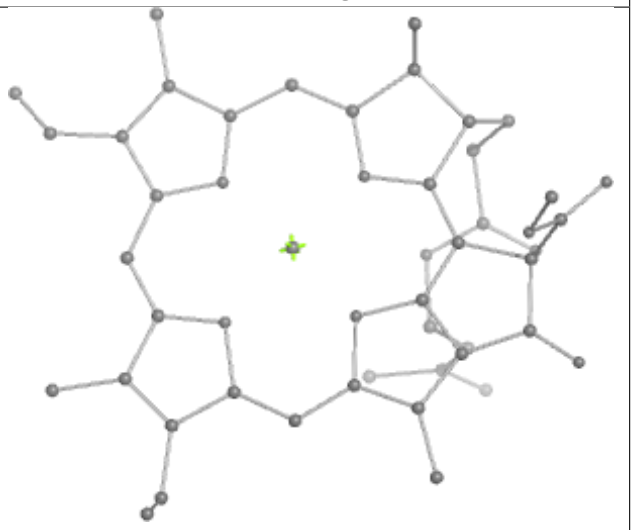
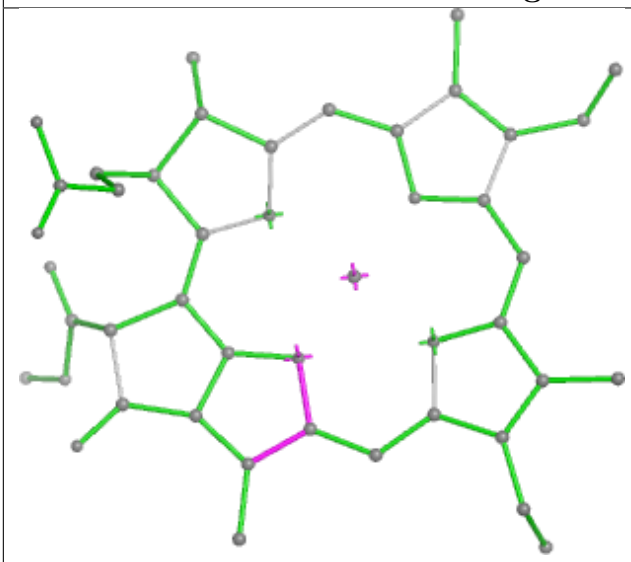


Rings

Ligand CLA A 423



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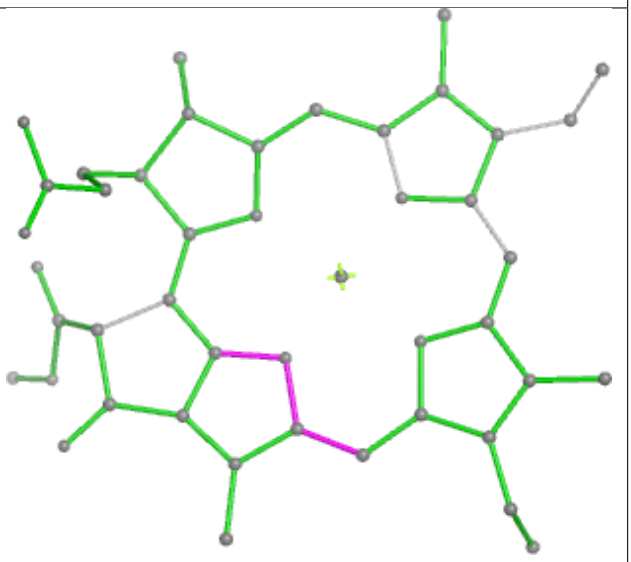
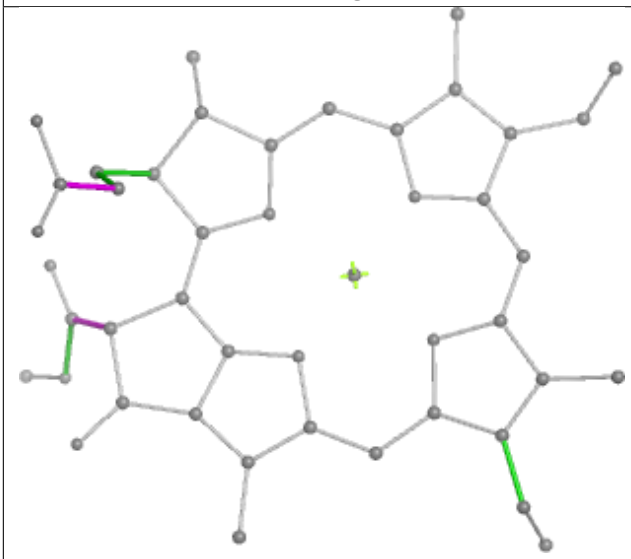


Bond angles



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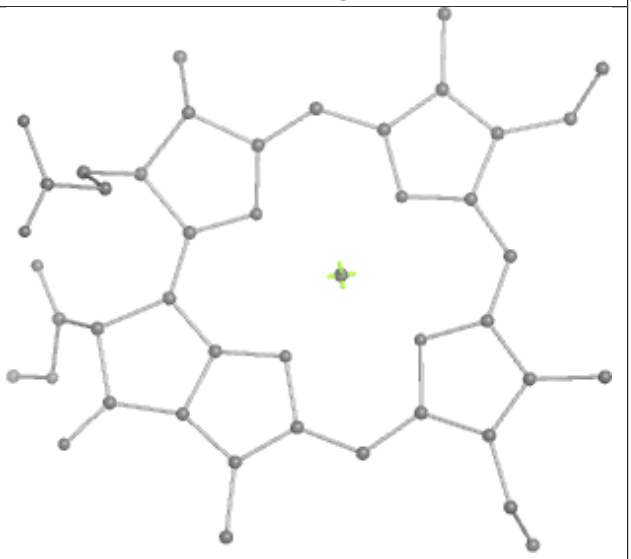
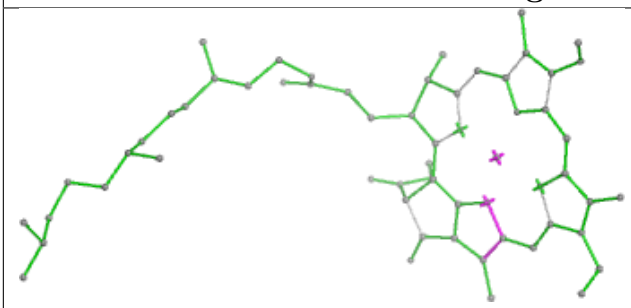


Rings

Ligand CLA F 403



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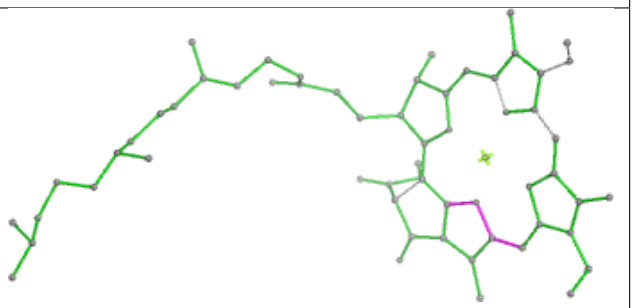
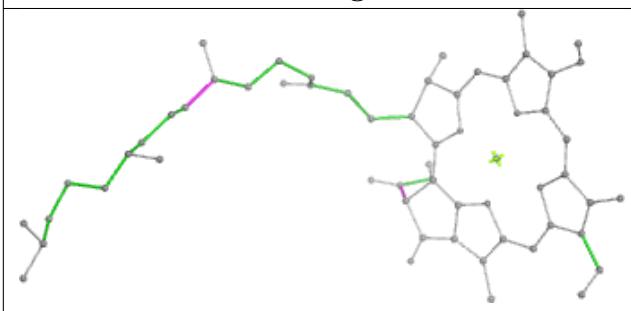


Bond angles



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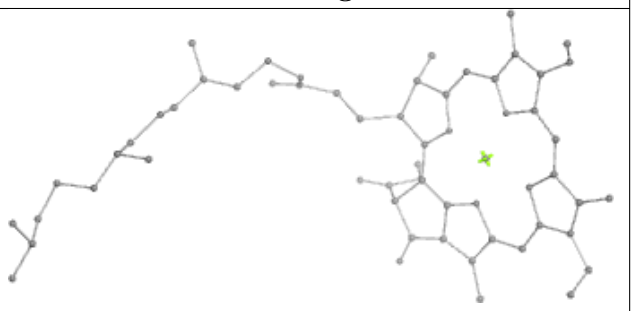
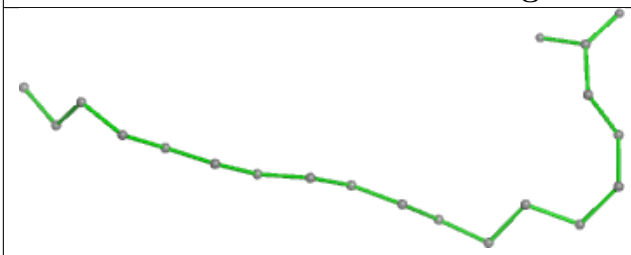
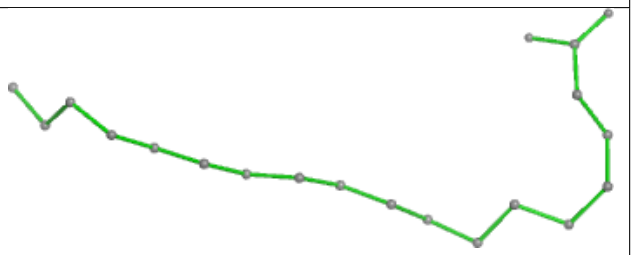


Rings

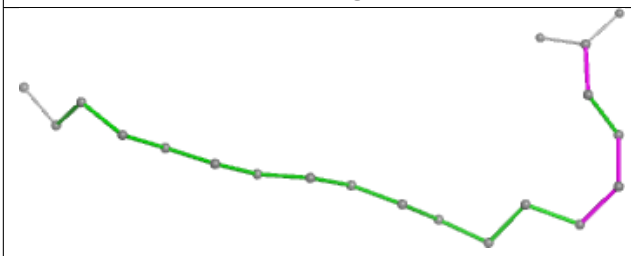
Ligand LMG L 308



Bond lengths



Bond angles



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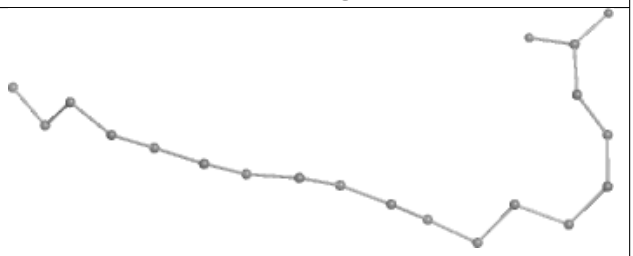
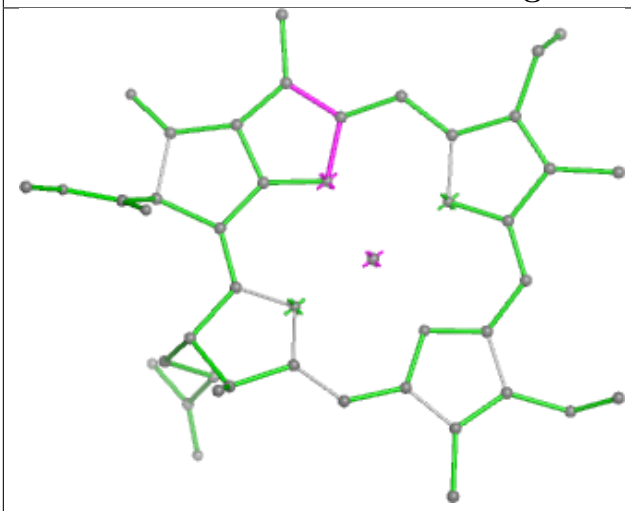


Rings

Ligand CLA A 406



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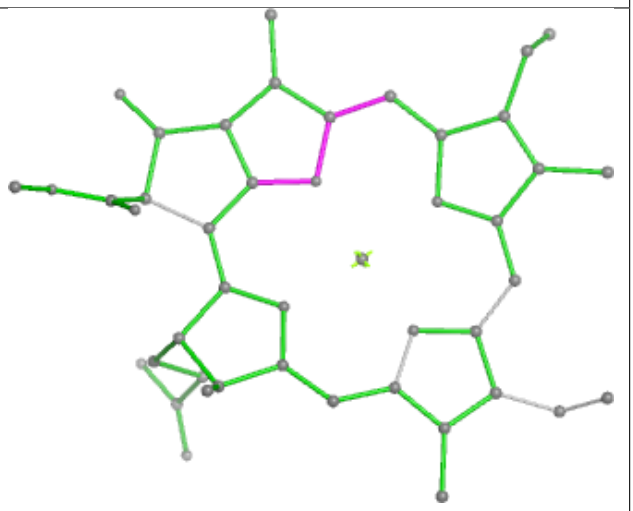
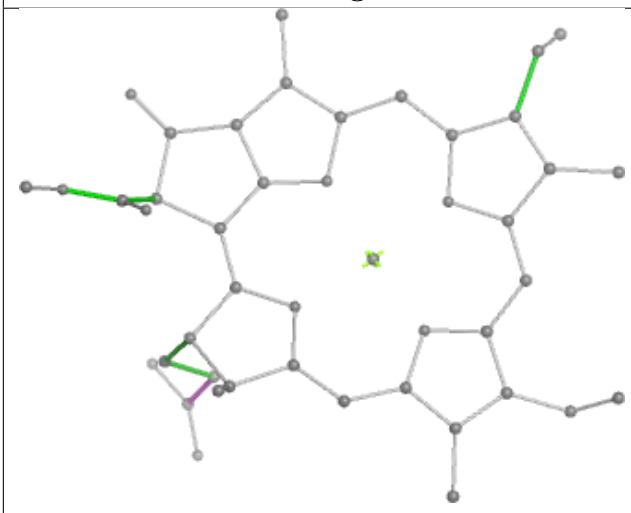


Bond angles



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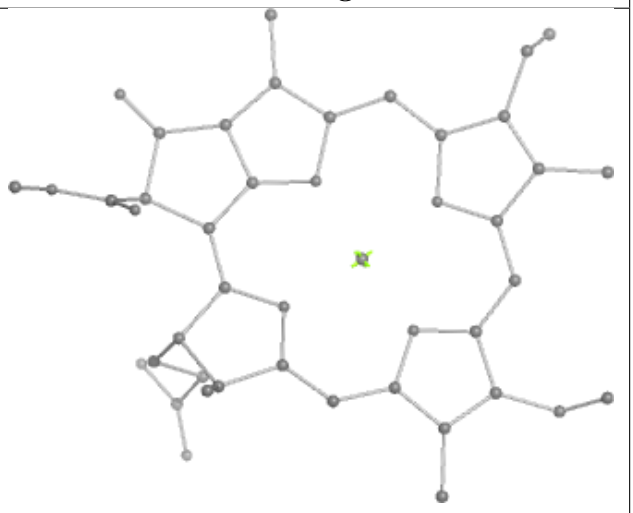
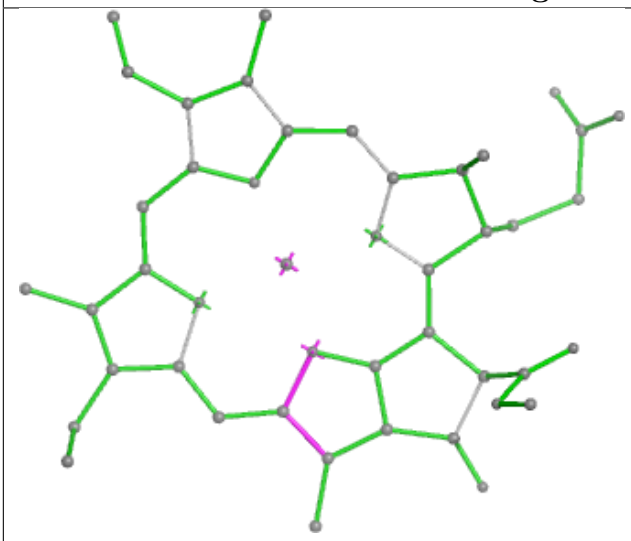


Rings

Ligand CLA f 314



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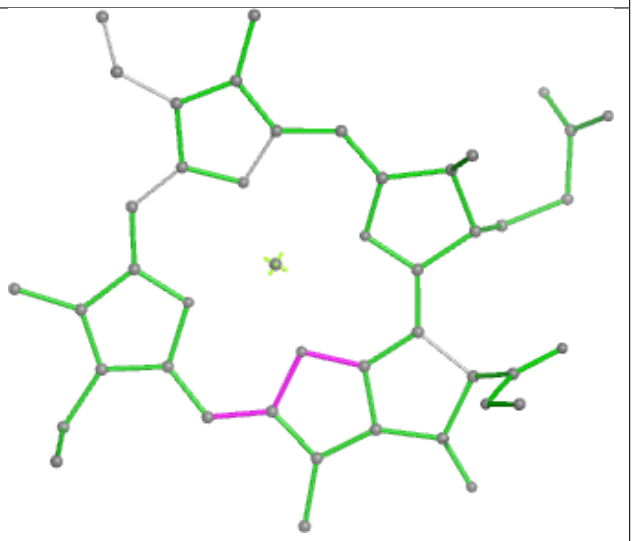
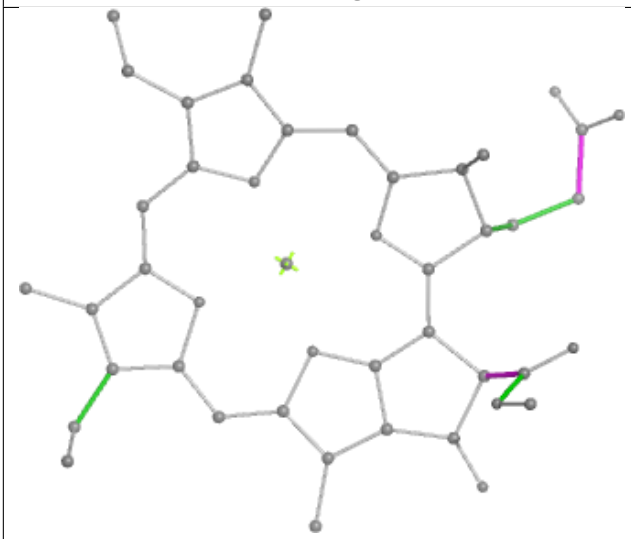


Bond angles



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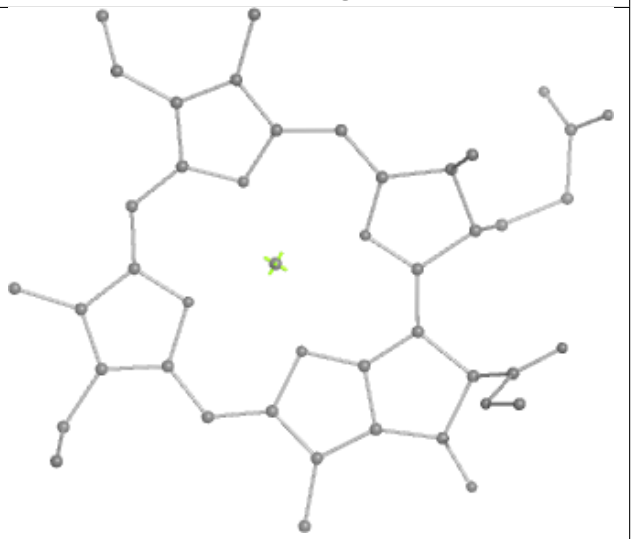
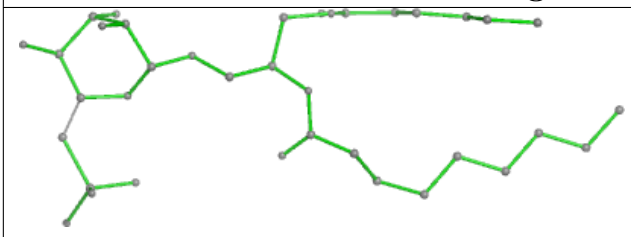


Rings

Ligand SQD d 315



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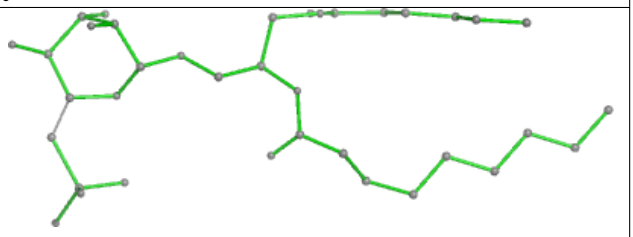
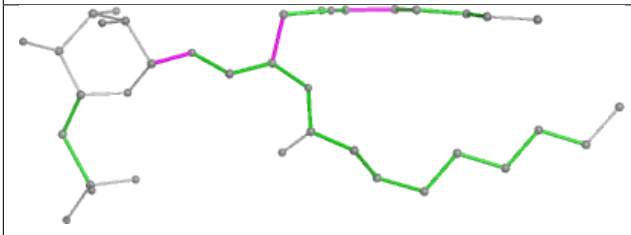


Bond angles



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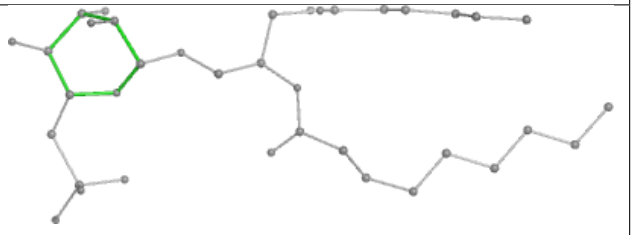
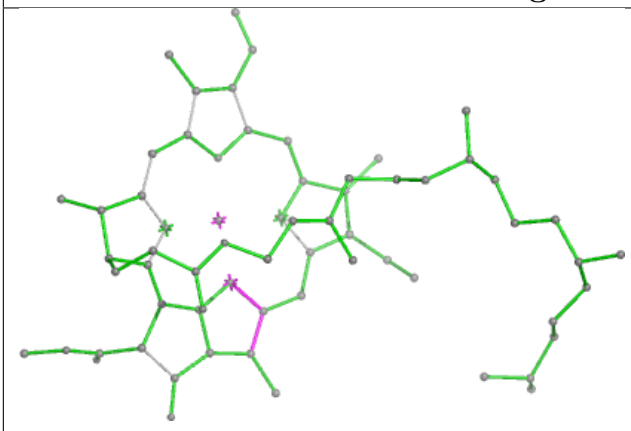


Rings

Ligand CLA c 307



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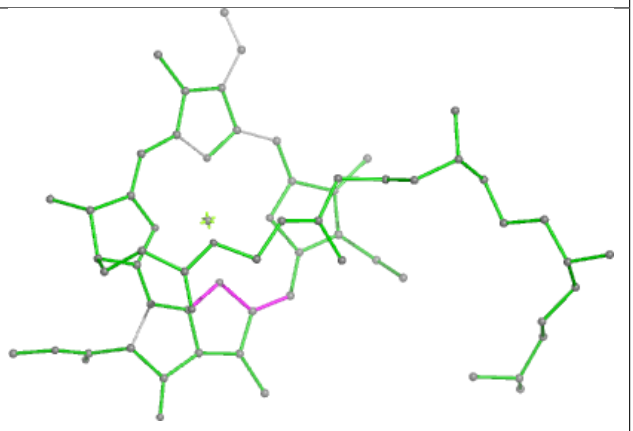
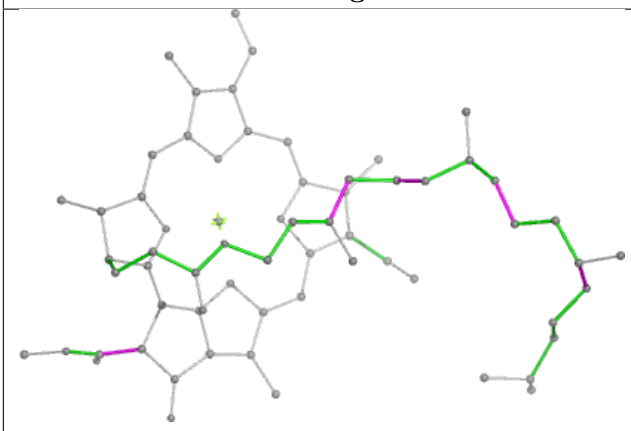


Bond angles



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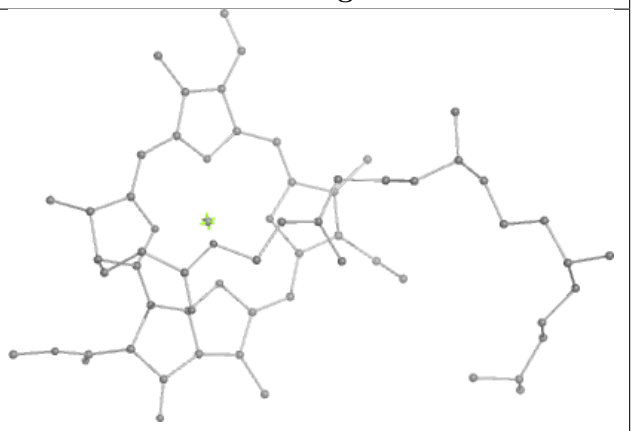
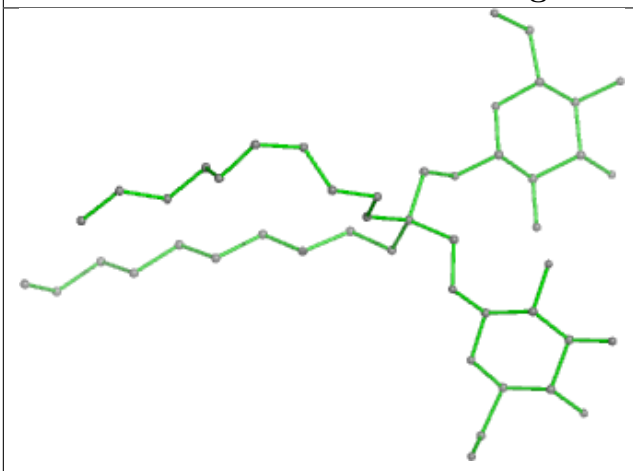


Rings

Ligand AV0 L 312



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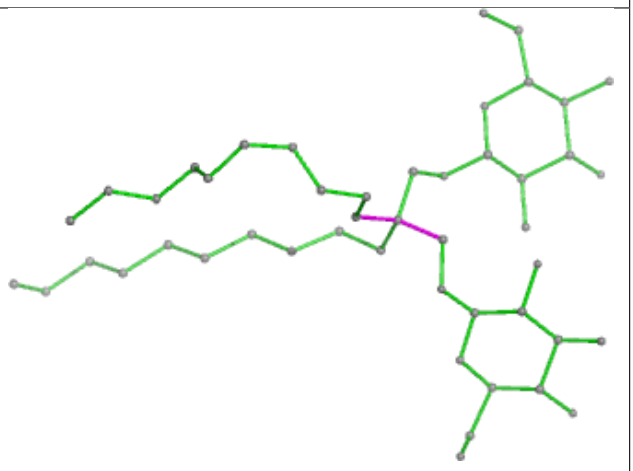
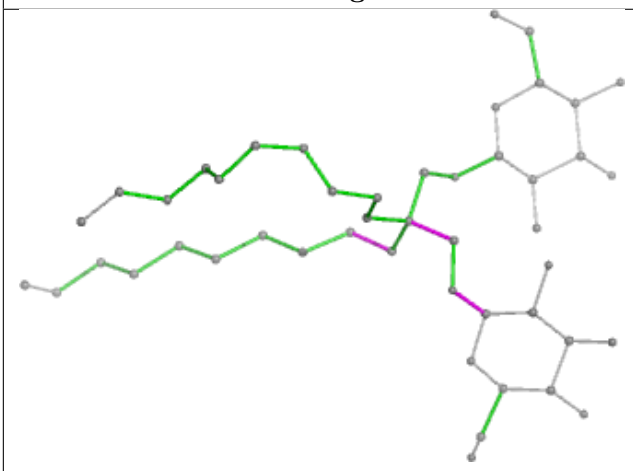
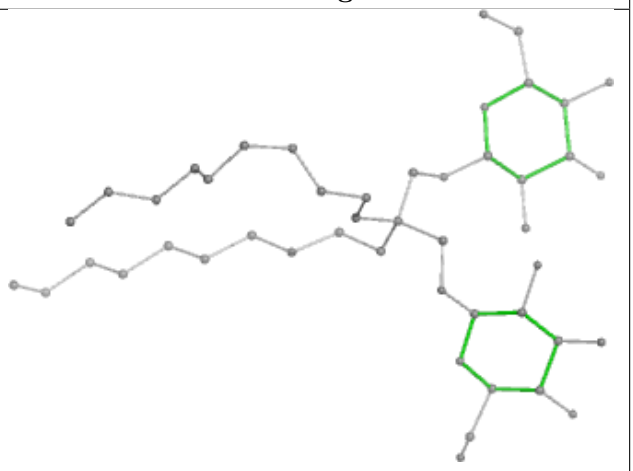


Bond angles

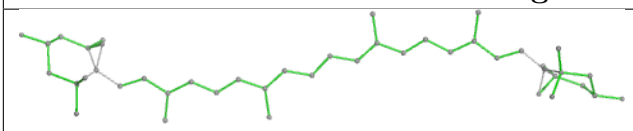


Torsions

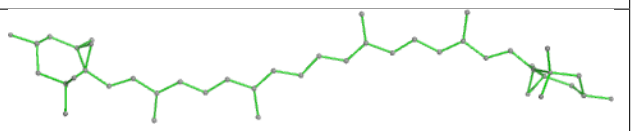


Rings

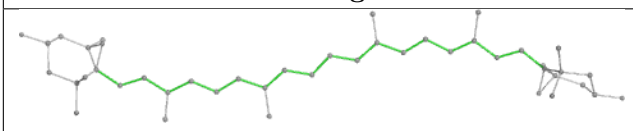
Ligand XAT f 318



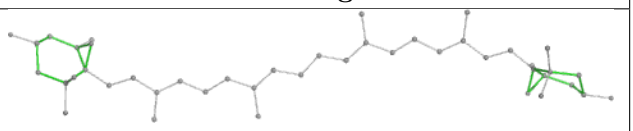
Bond lengths



Bond angles

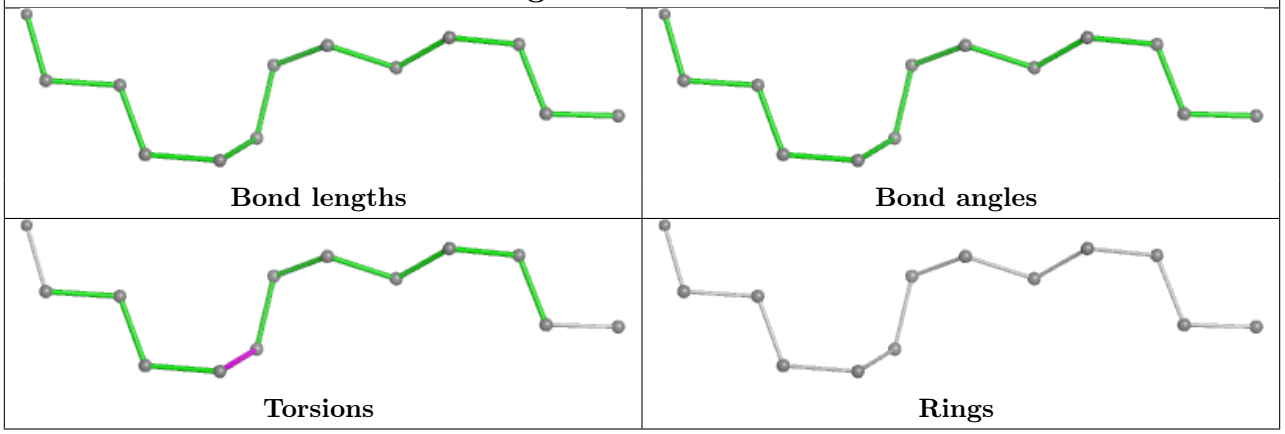


Torsions

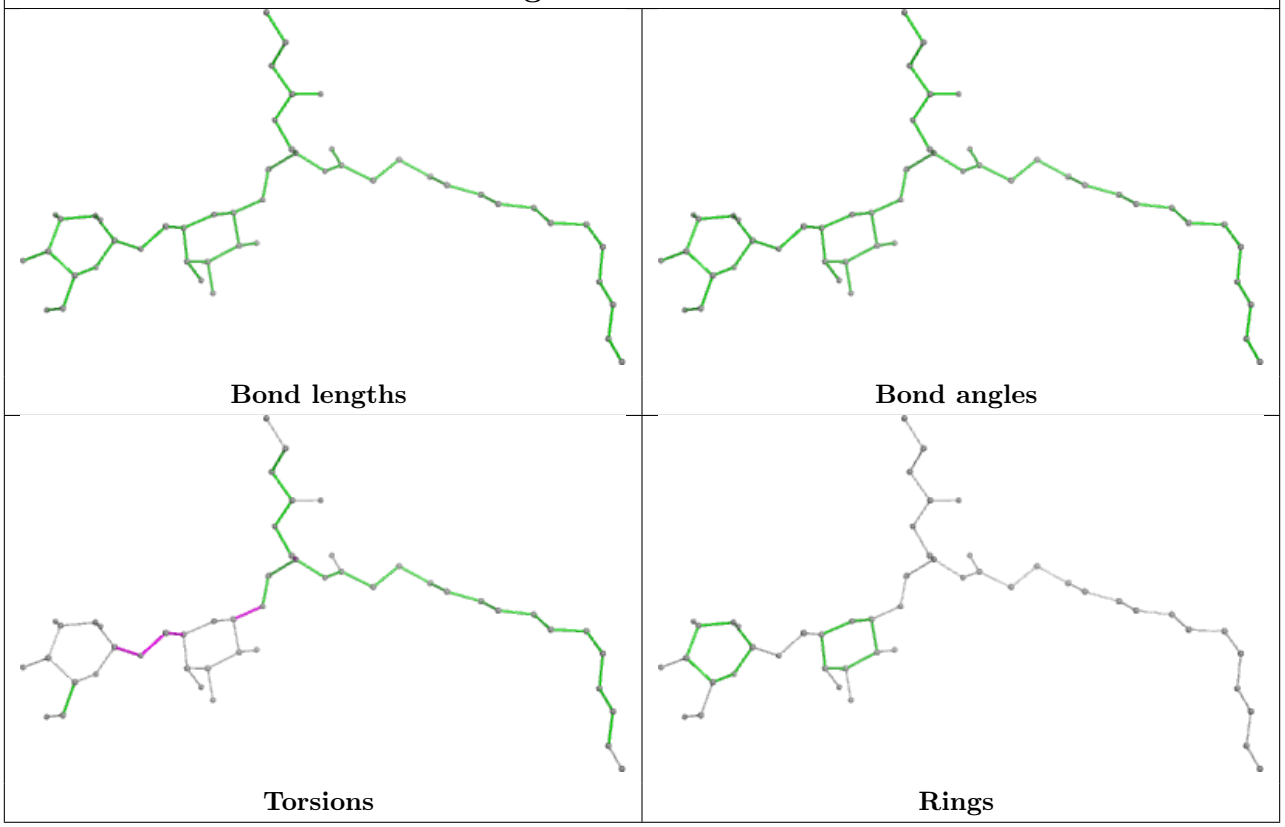


Rings

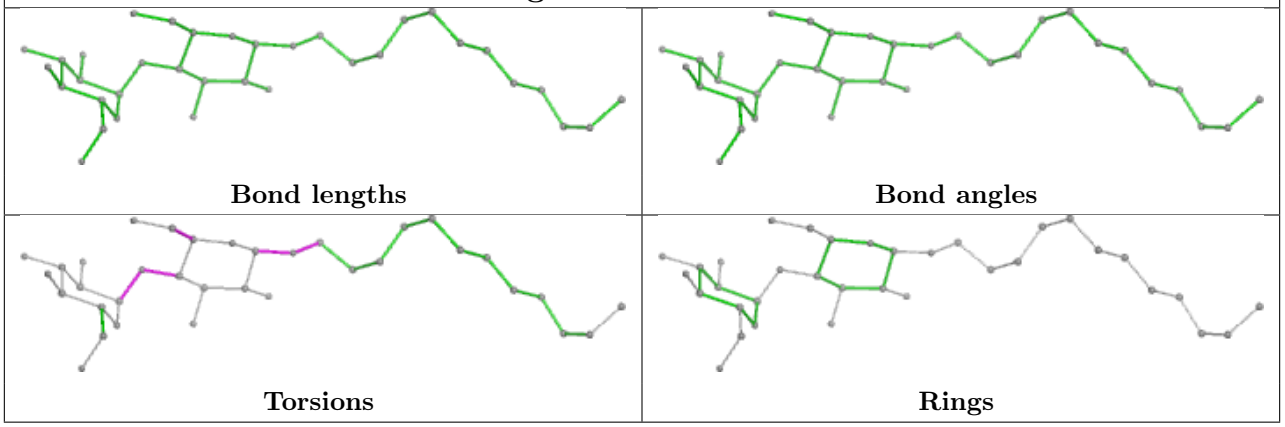
Ligand LMT c 323



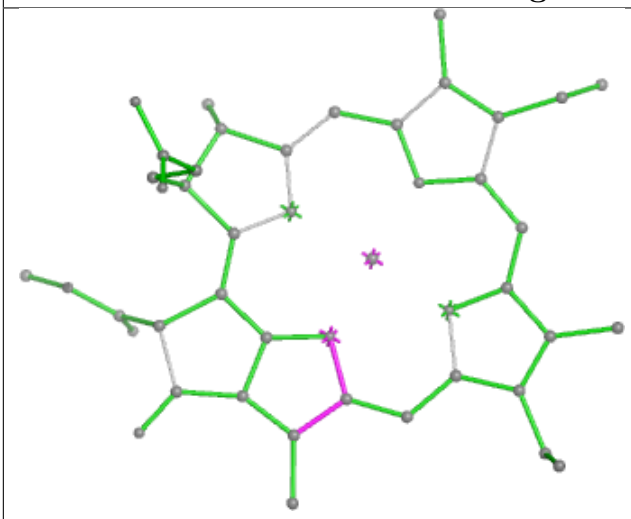
Ligand DGD b 319



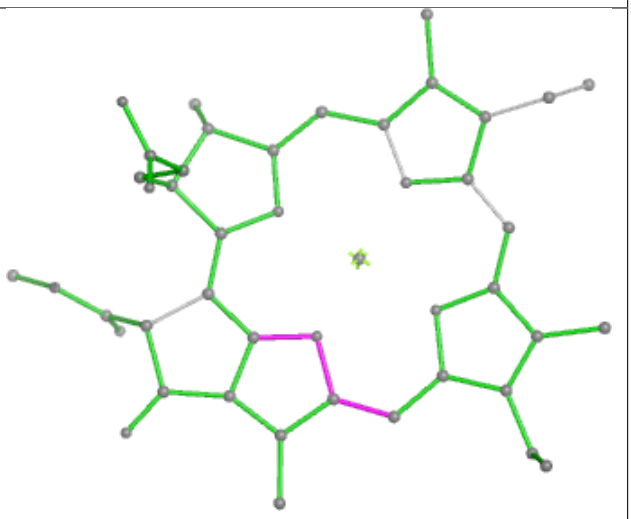
Ligand LMT e 318



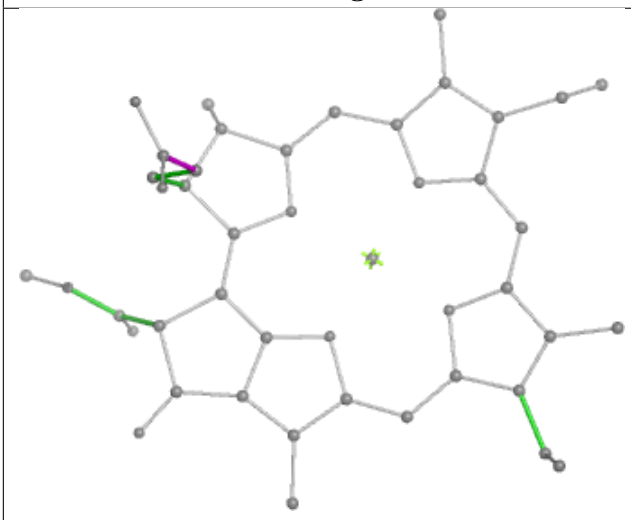
Ligand CLA c 308



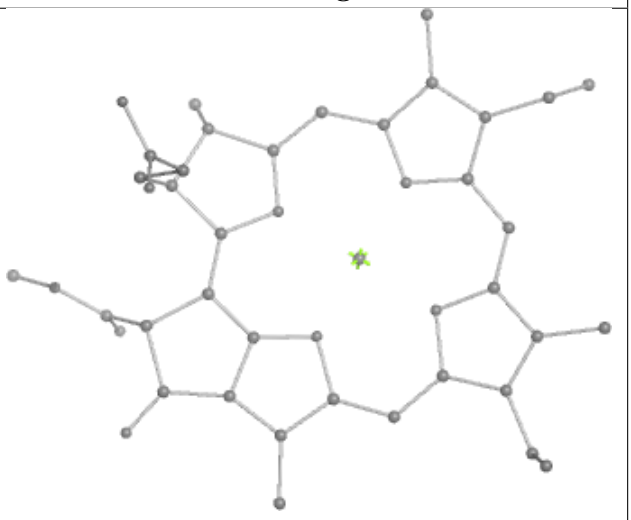
Bond lengths



Bond angles

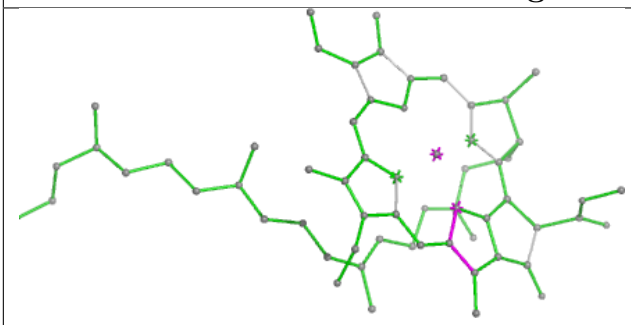


Torsions

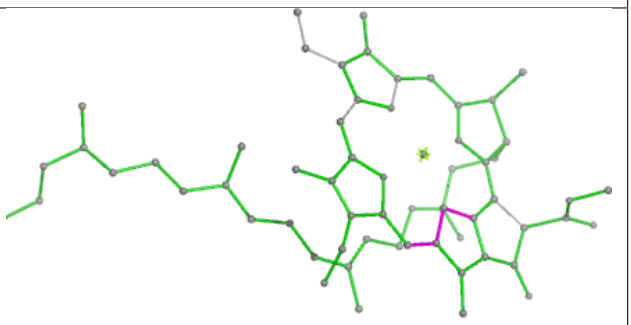


Rings

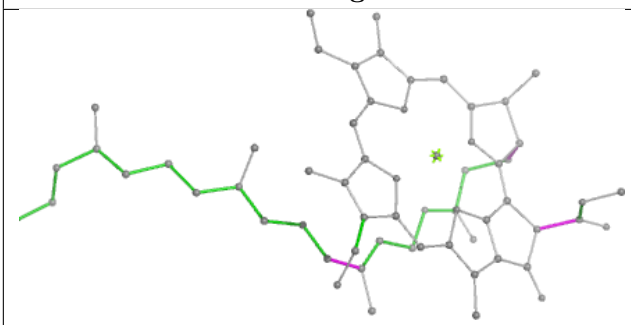
Ligand CLA b 305



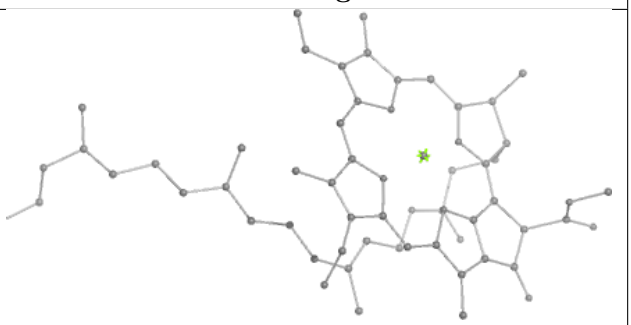
Bond lengths



Bond angles

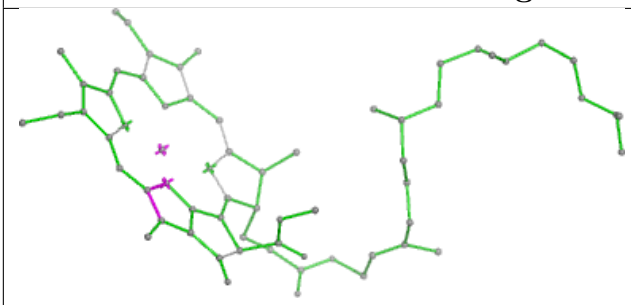


Torsions

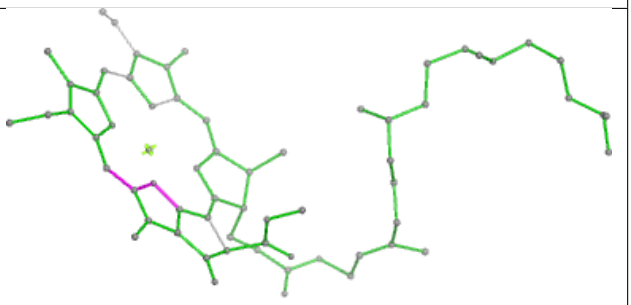


Rings

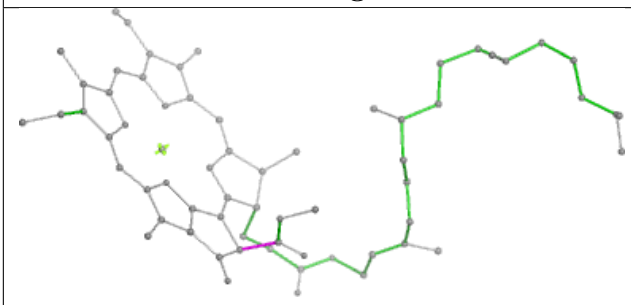
Ligand CLA B 1205



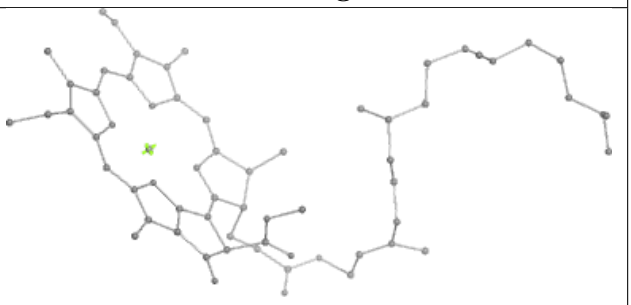
Bond lengths



Bond angles

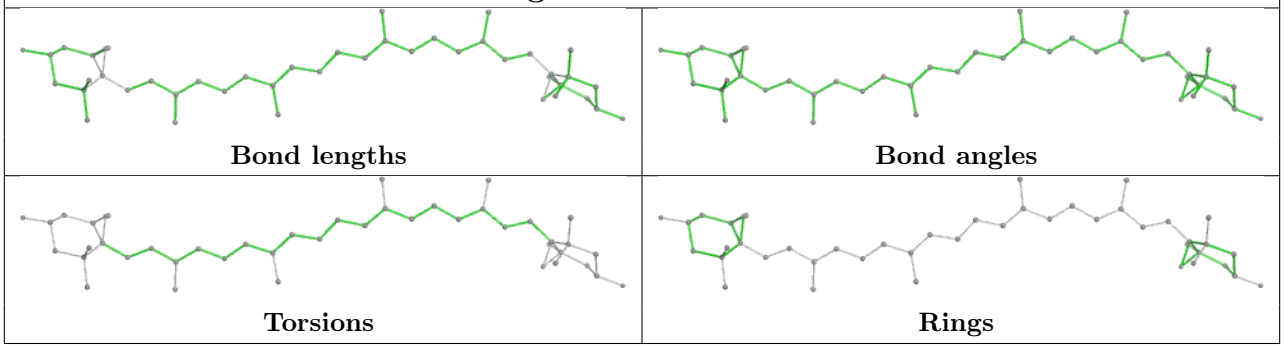


Torsions

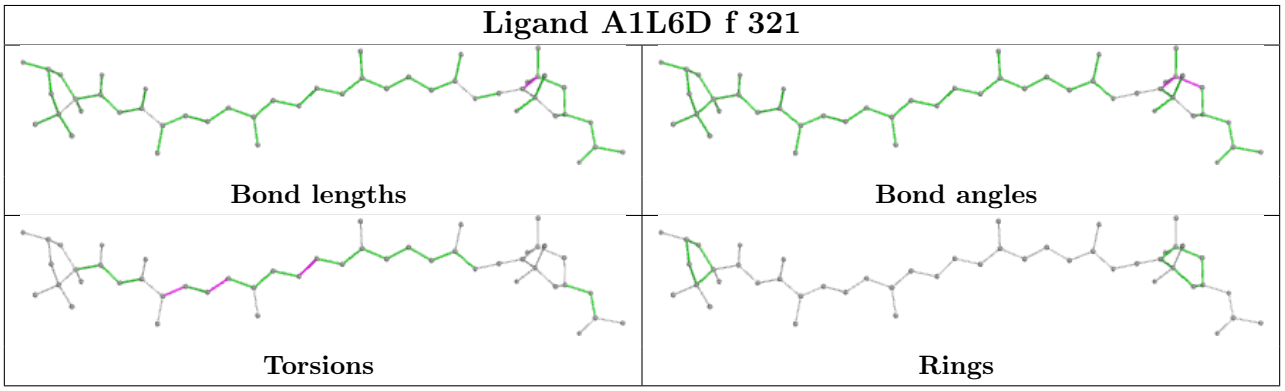


Rings

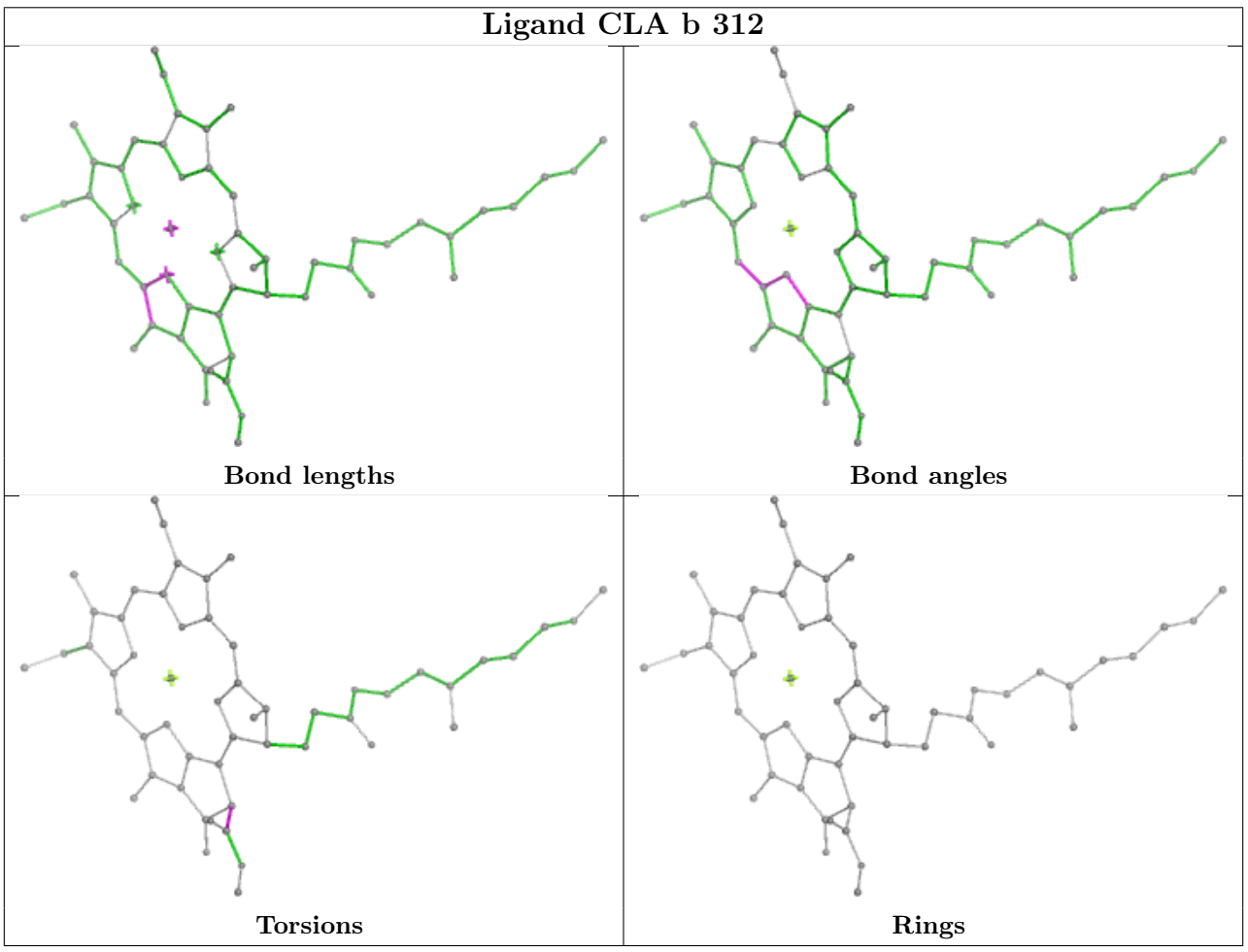
Ligand XAT d 311



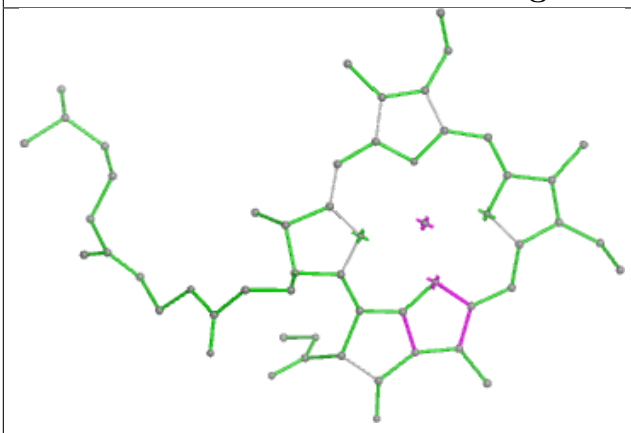
Ligand A1L6D f 321



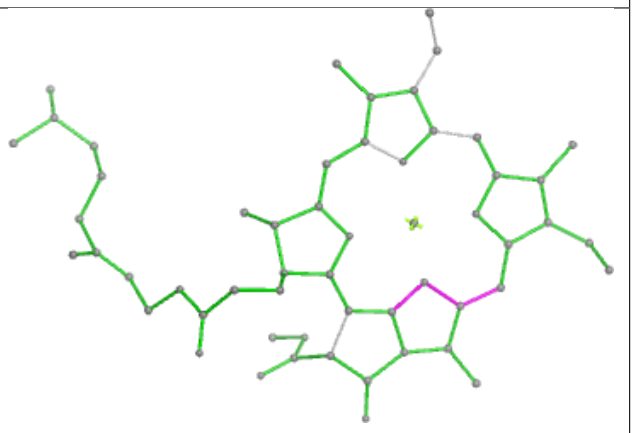
Ligand CLA b 312



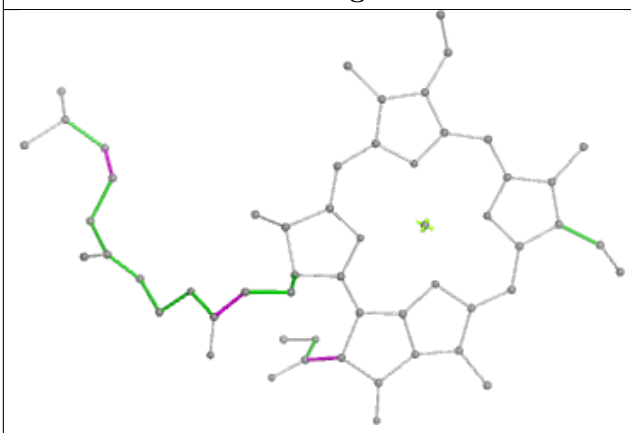
Ligand CLA c 303



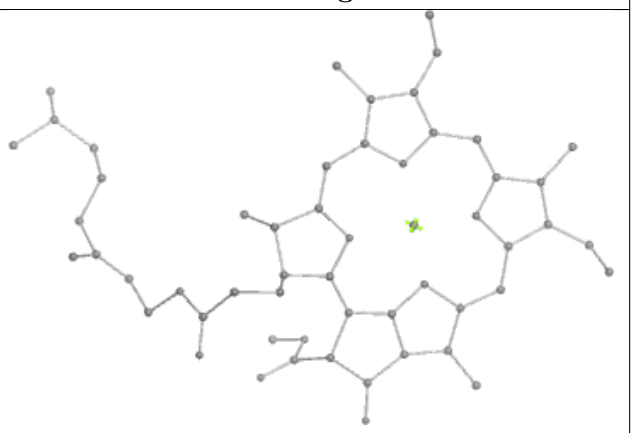
Bond lengths



Bond angles

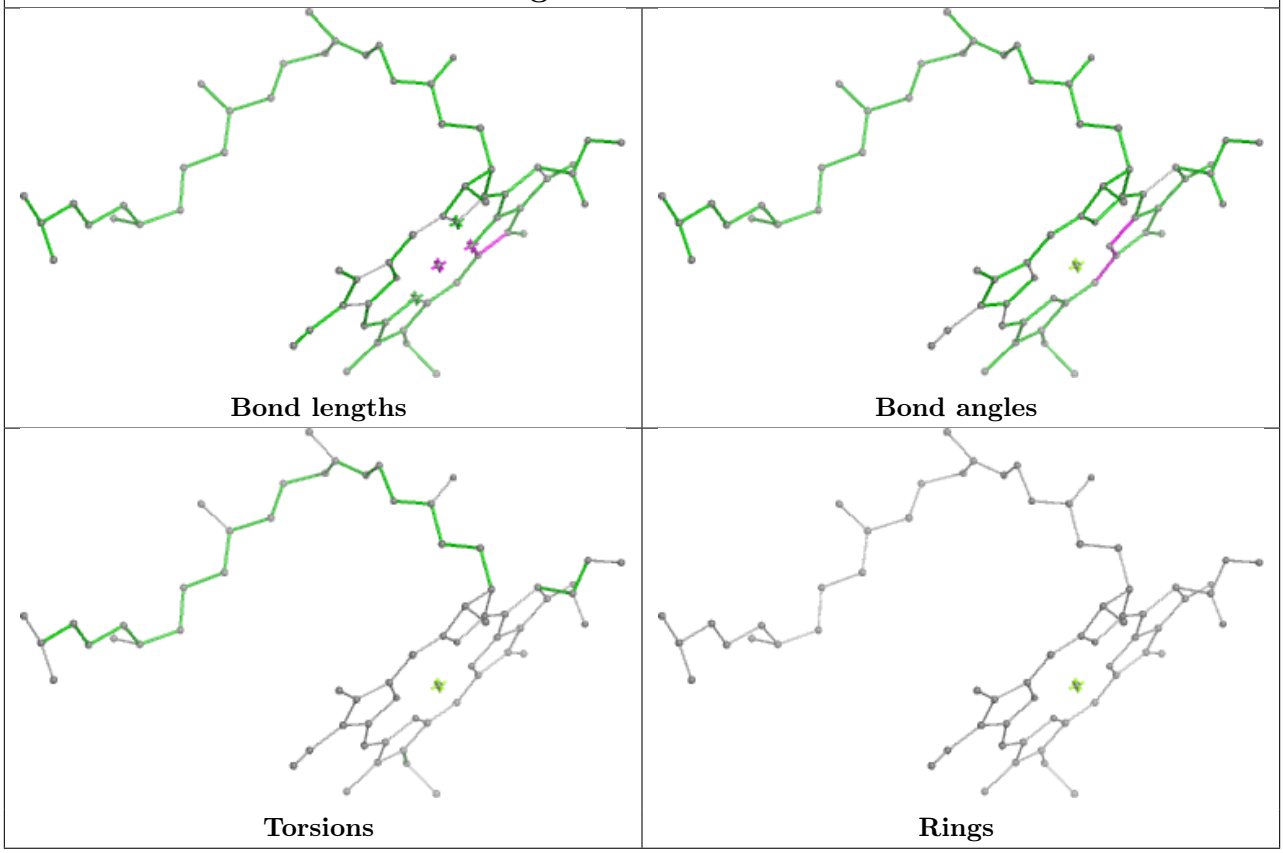


Torsions

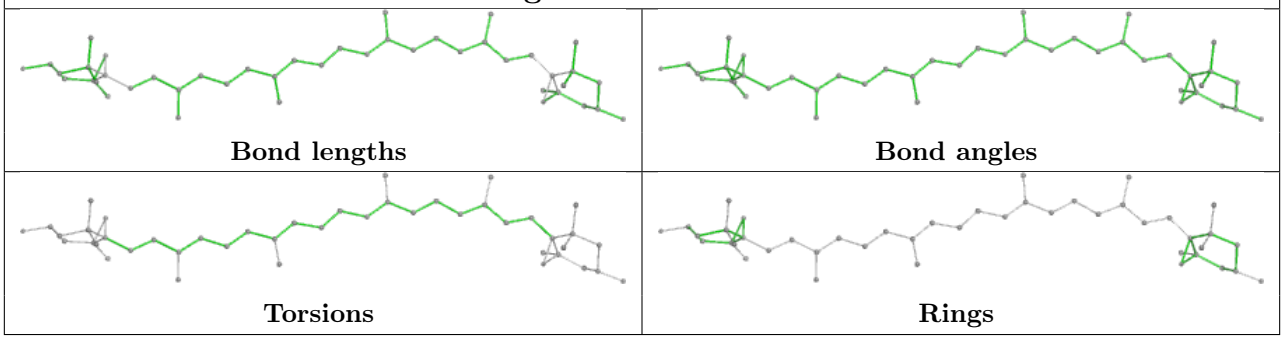


Rings

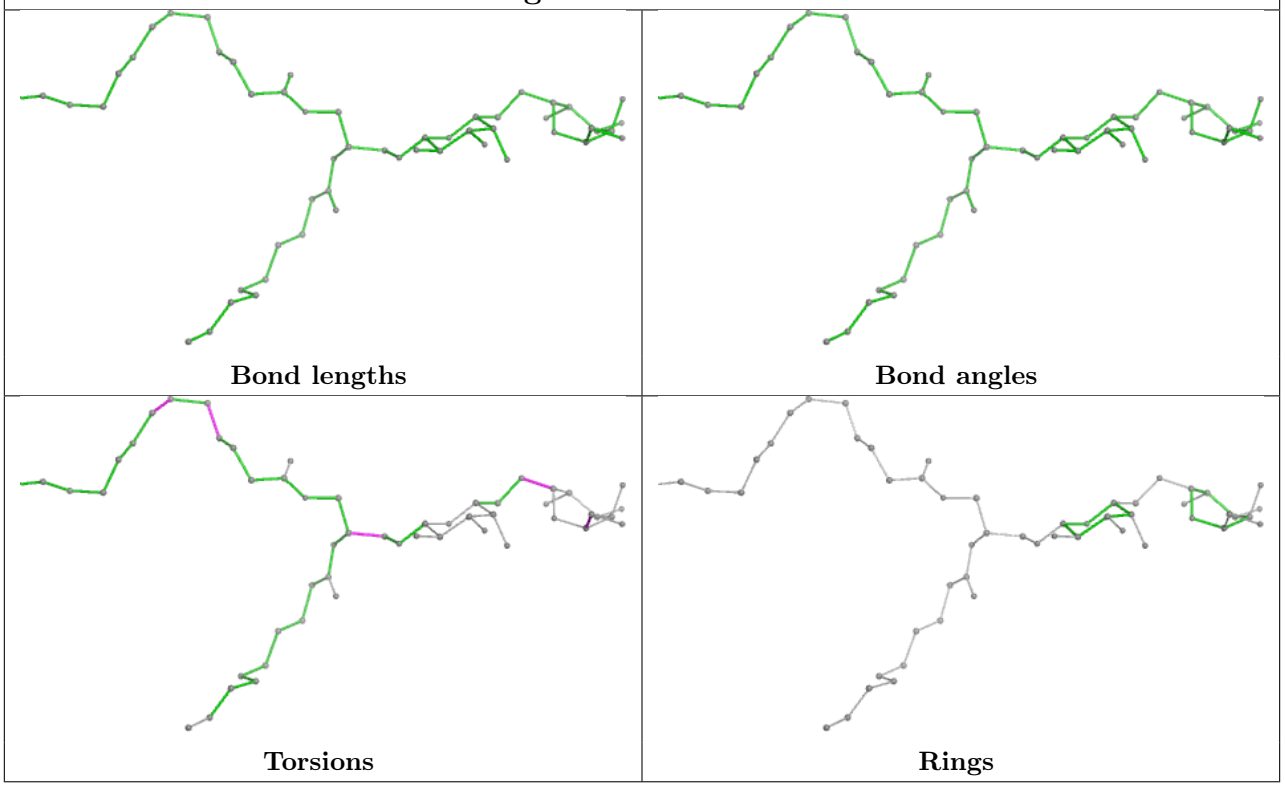
Ligand CLA c 310



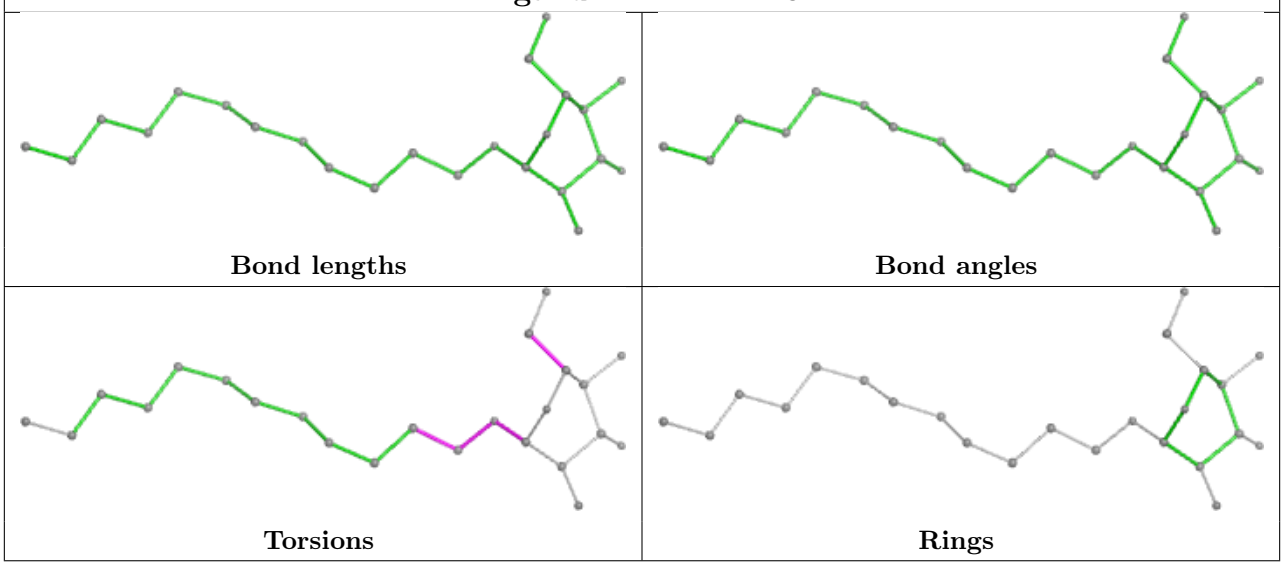
Ligand XAT A 417



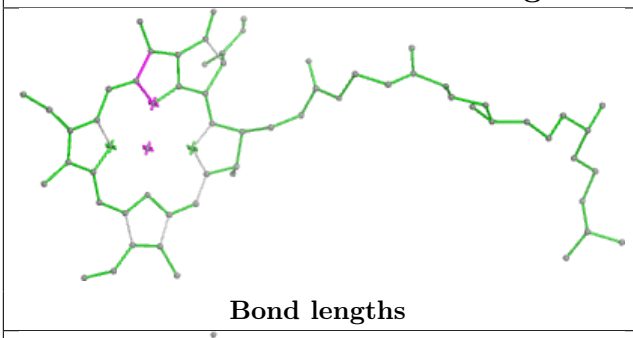
Ligand DGD u 501



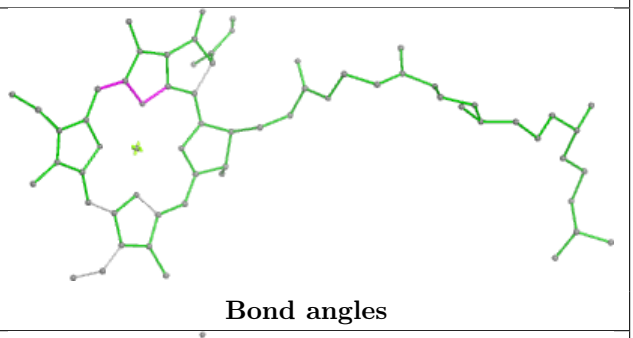
Ligand LMT B 1240



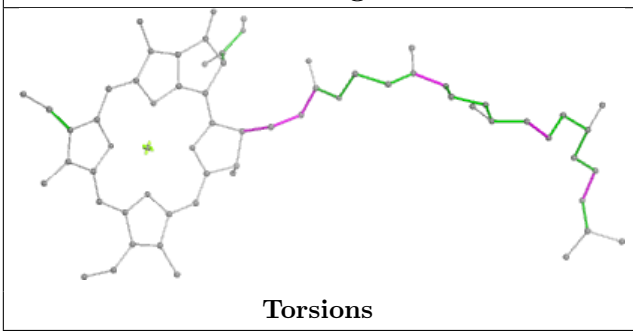
Ligand CLA A 404



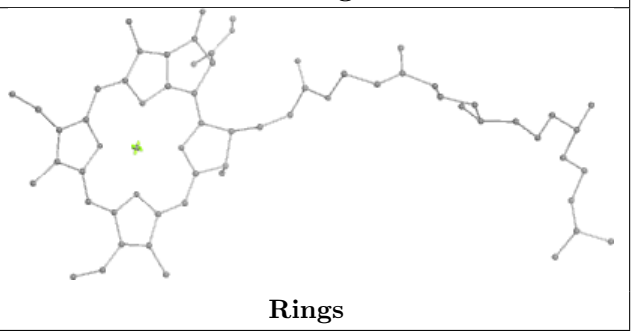
Bond lengths



Bond angles

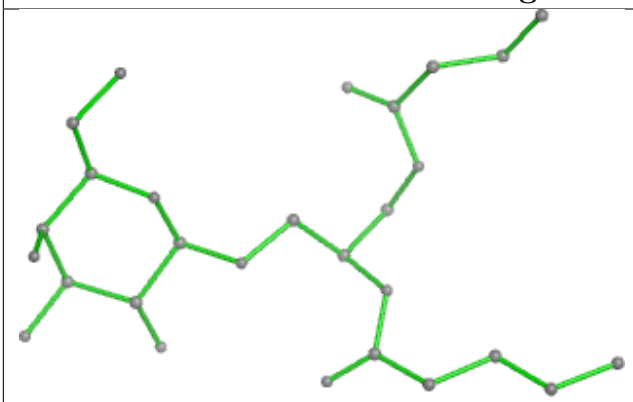


Torsions

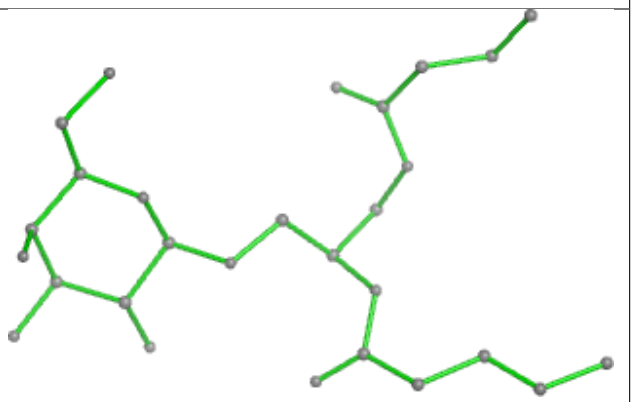


Rings

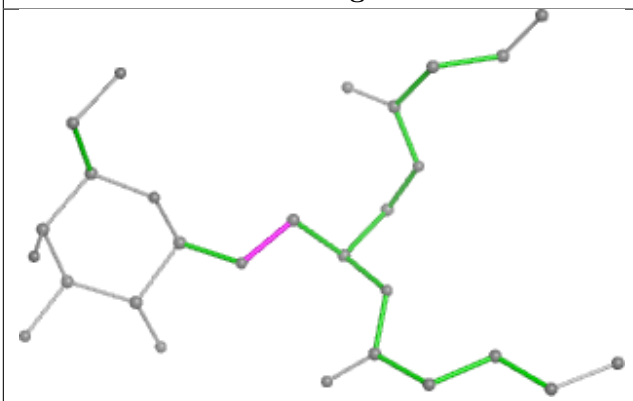
Ligand LMG R 304



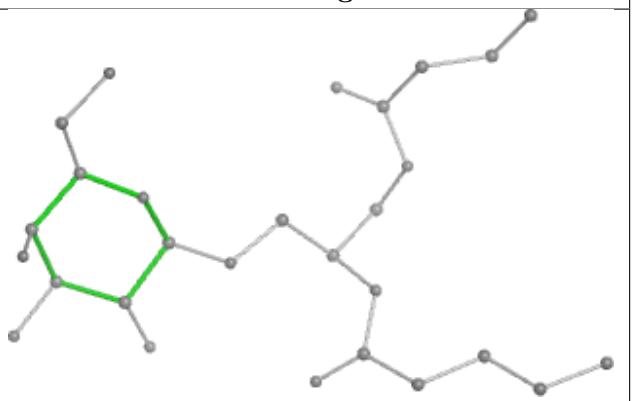
Bond lengths



Bond angles

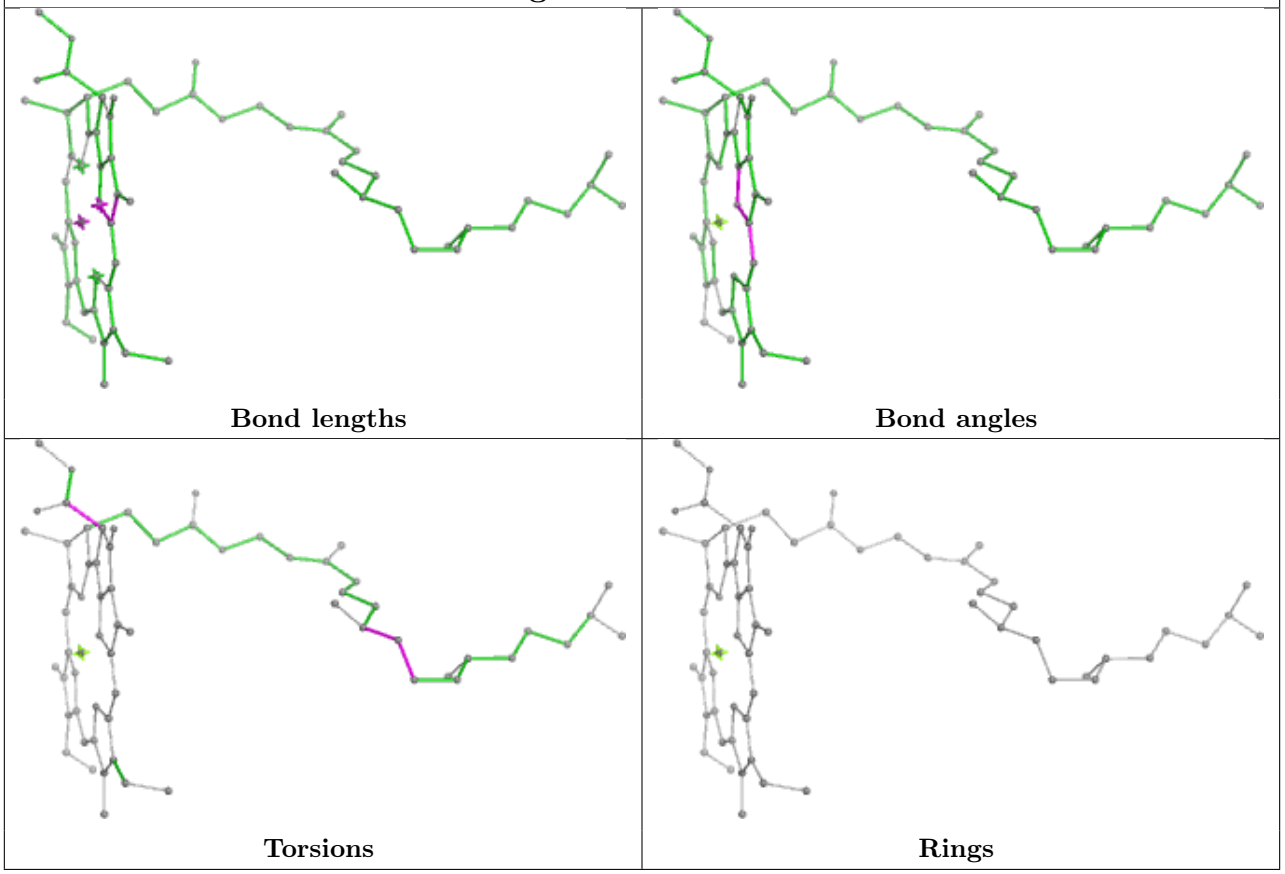


Torsions

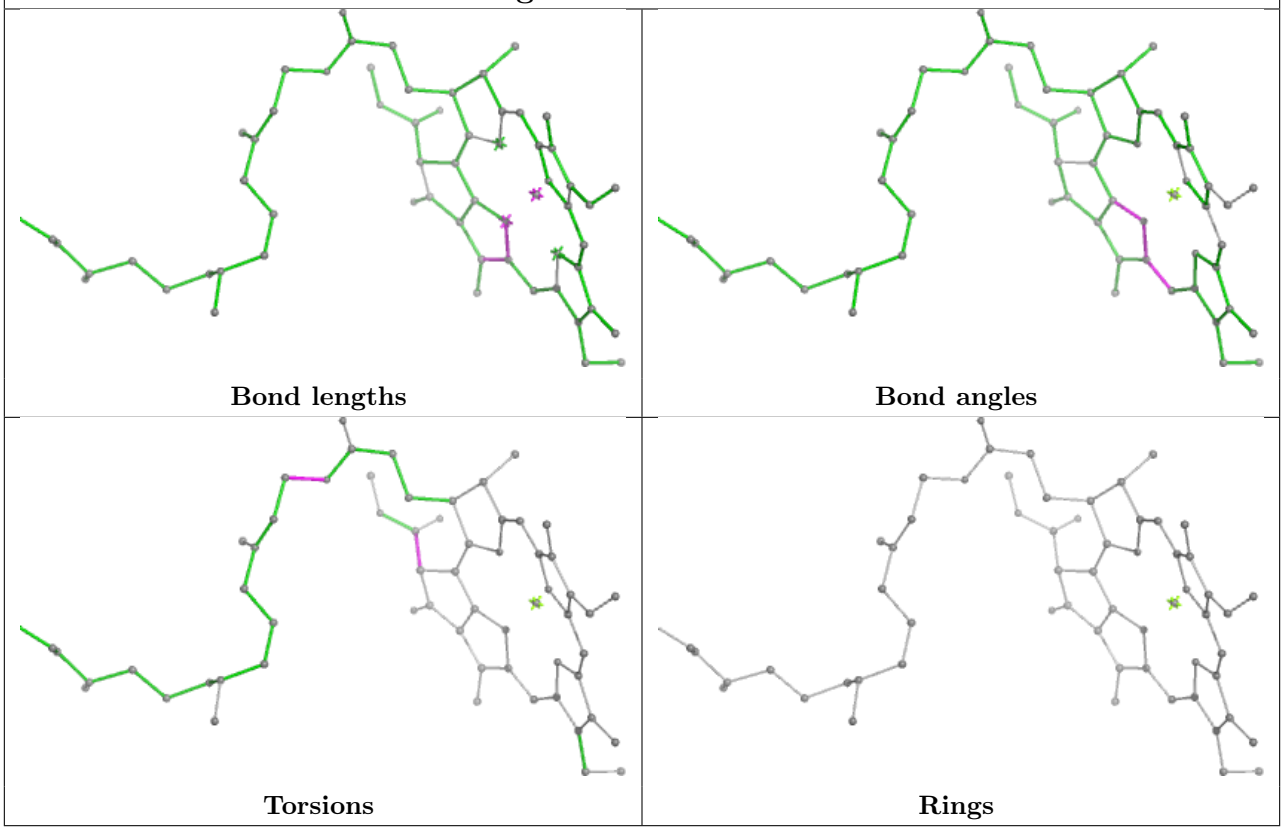


Rings

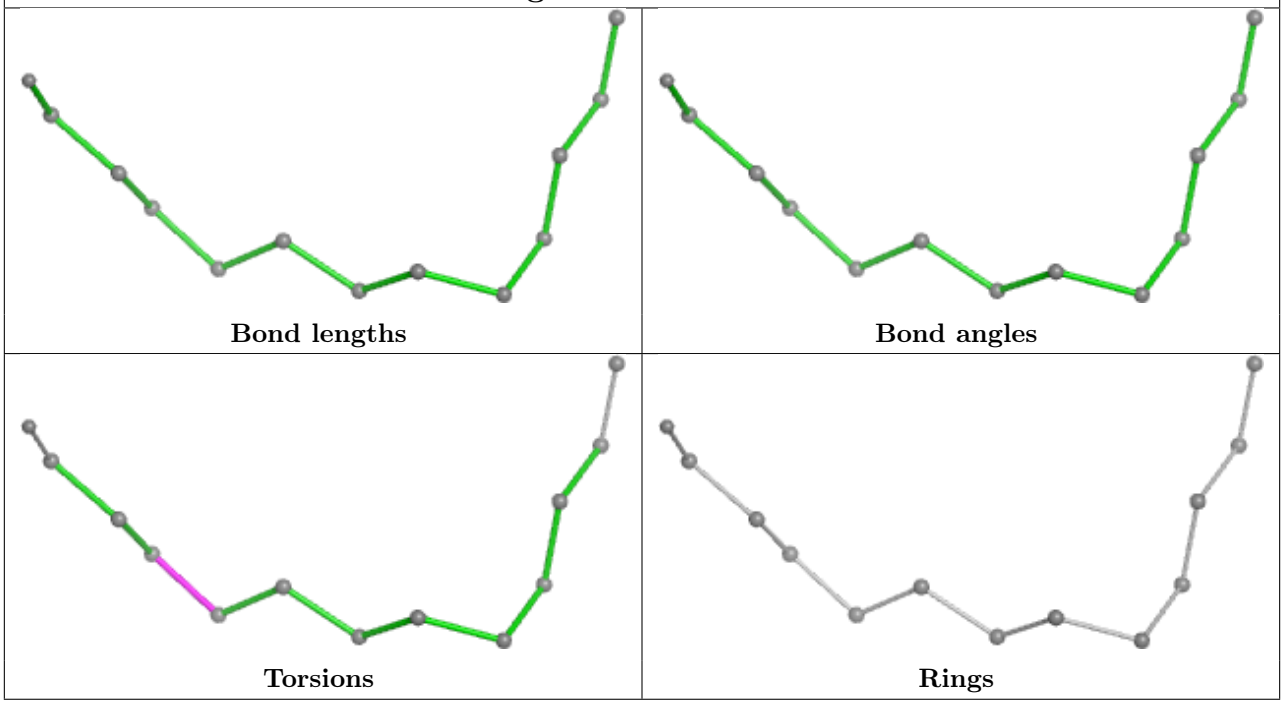
Ligand CLA a 401



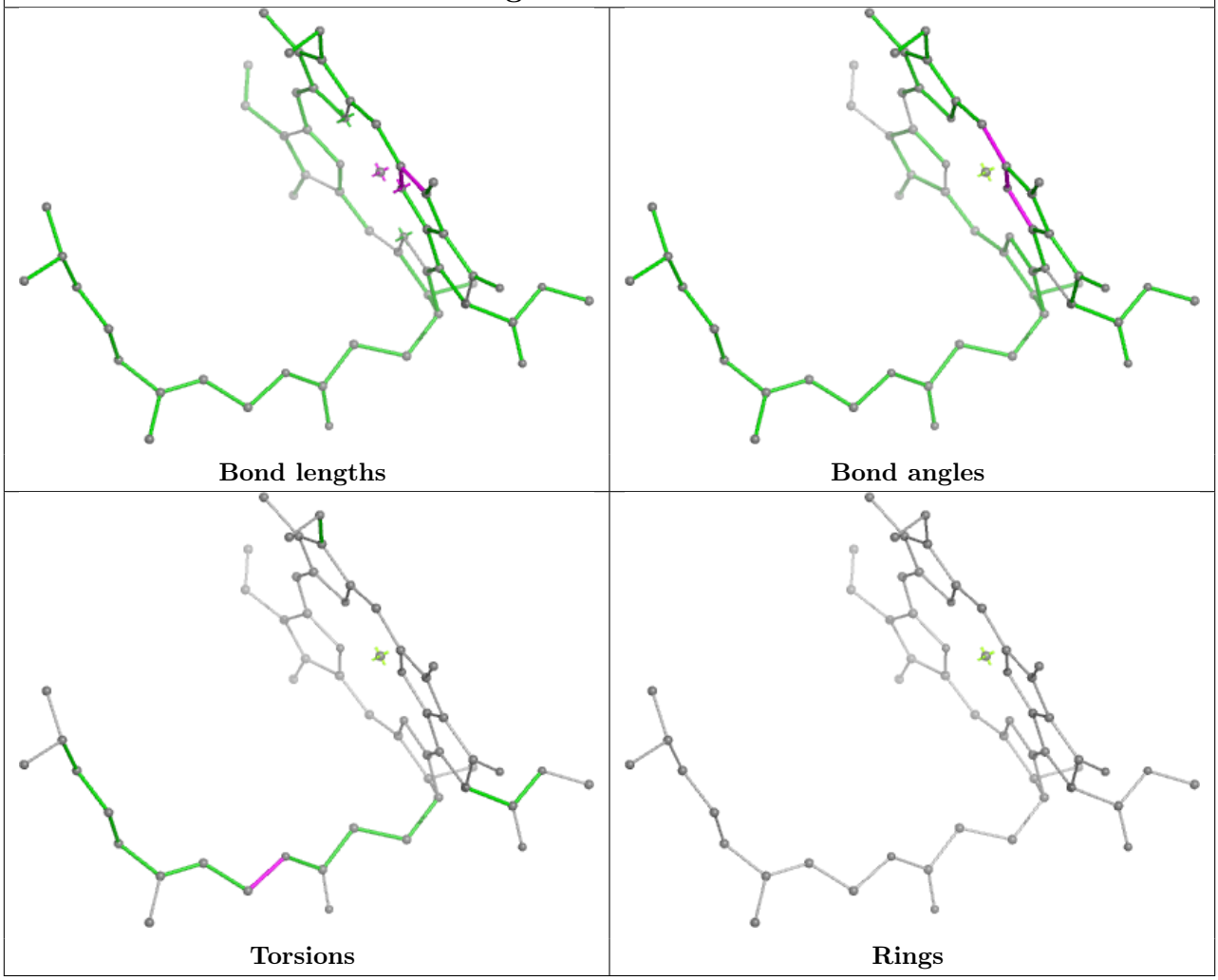
Ligand CLA B 1207



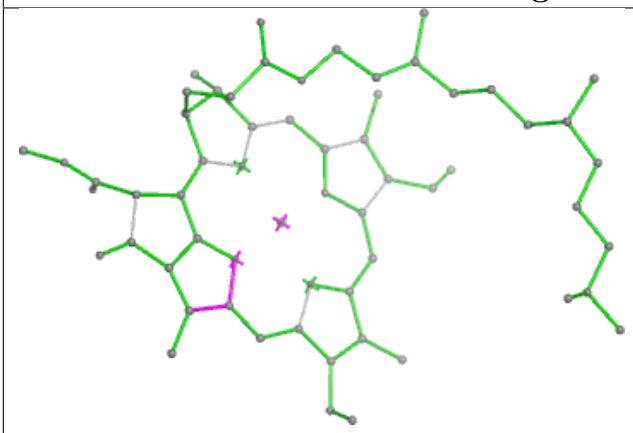
Ligand LMT e 315



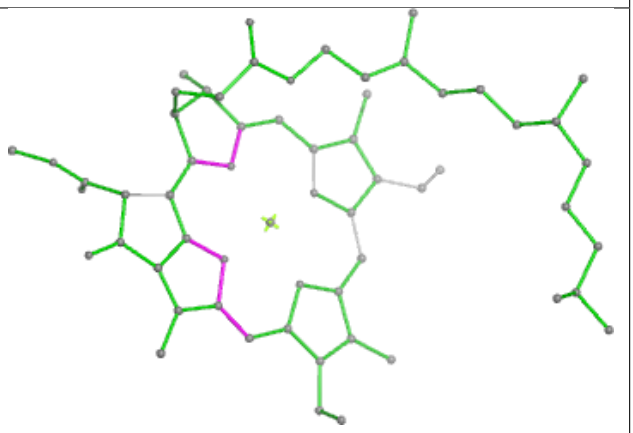
Ligand CLA f 315



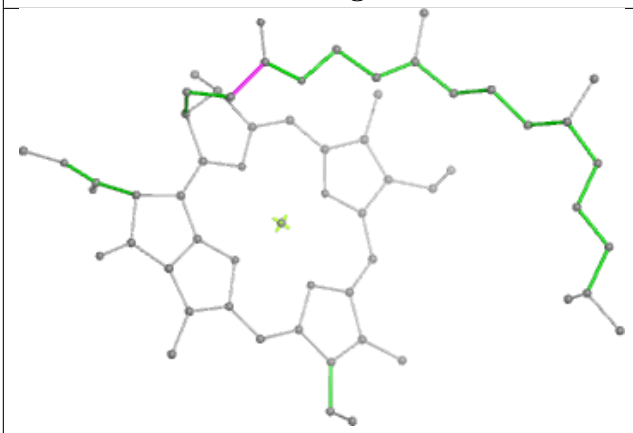
Ligand CLA f 306



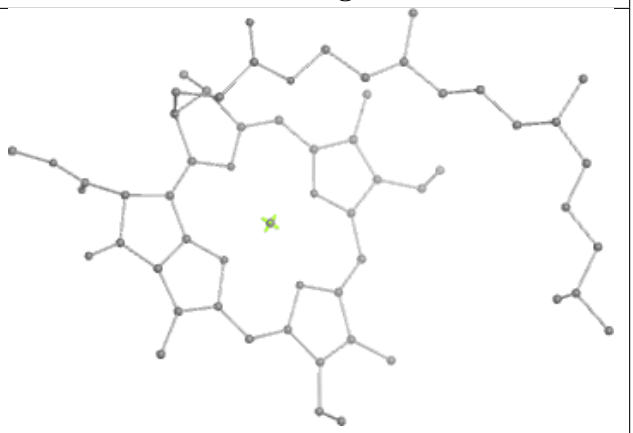
Bond lengths



Bond angles

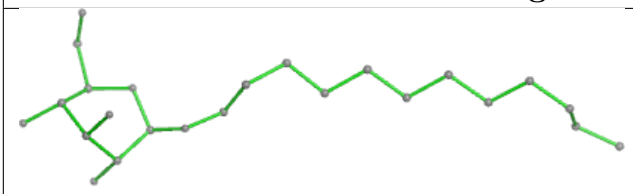


Torsions

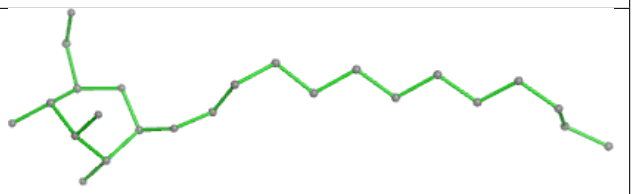


Rings

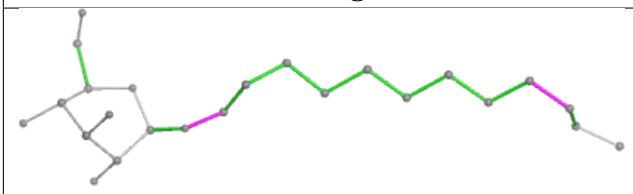
Ligand LMT f 302



Bond lengths



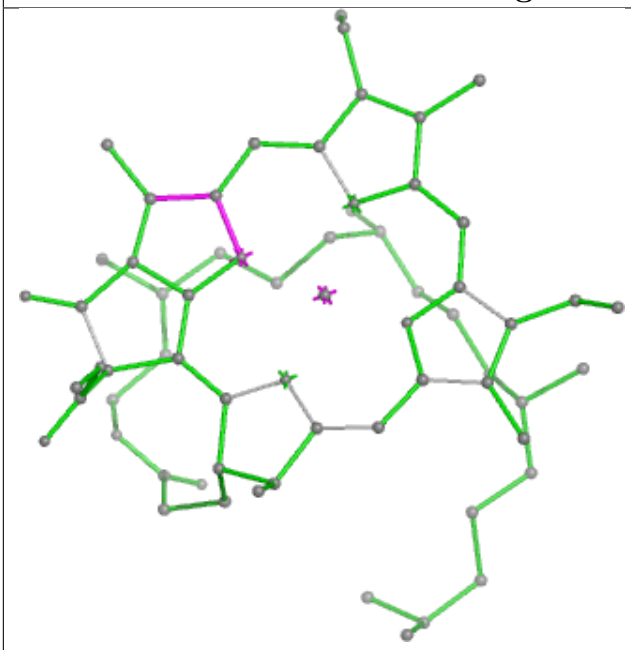
Bond angles



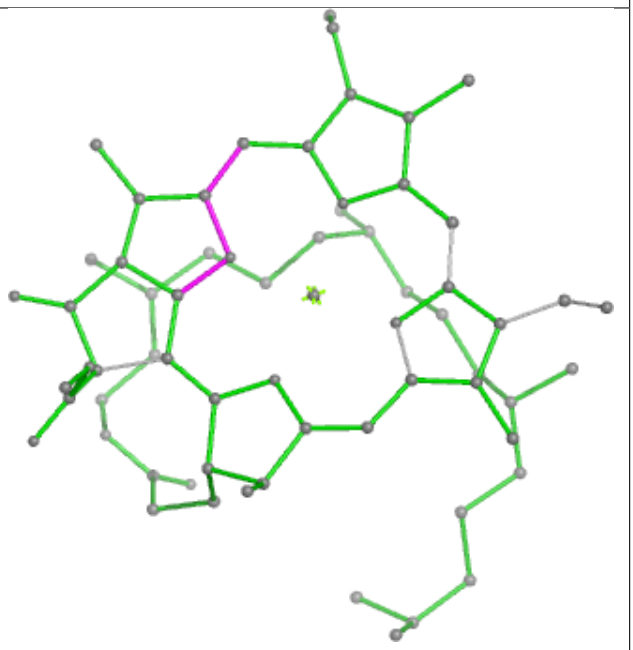
Torsions

Rings

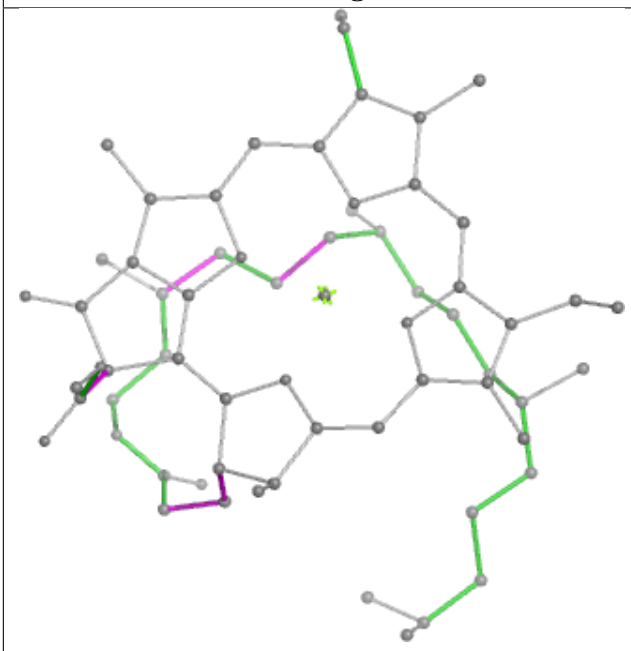
Ligand CLA B 1225



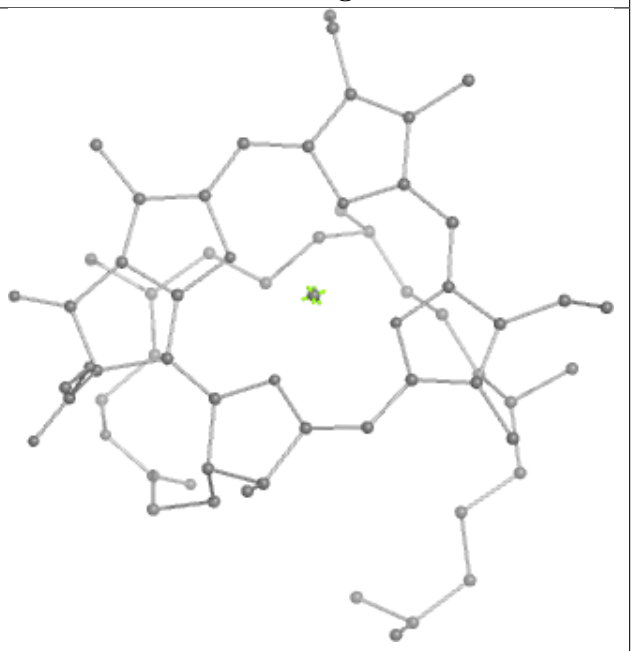
Bond lengths



Bond angles

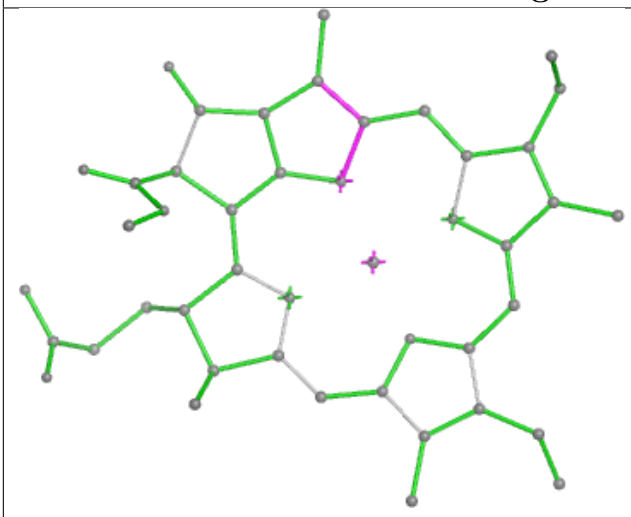


Torsions

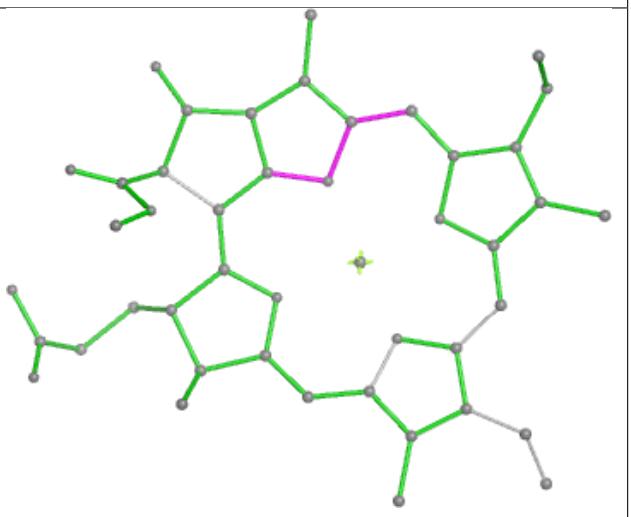


Rings

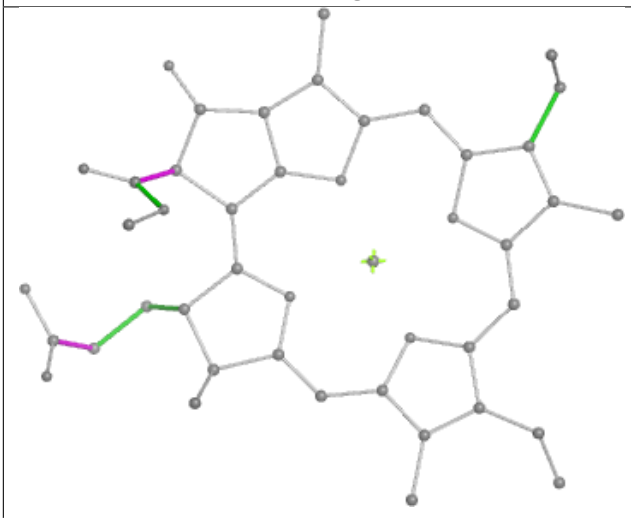
Ligand CLA f 313



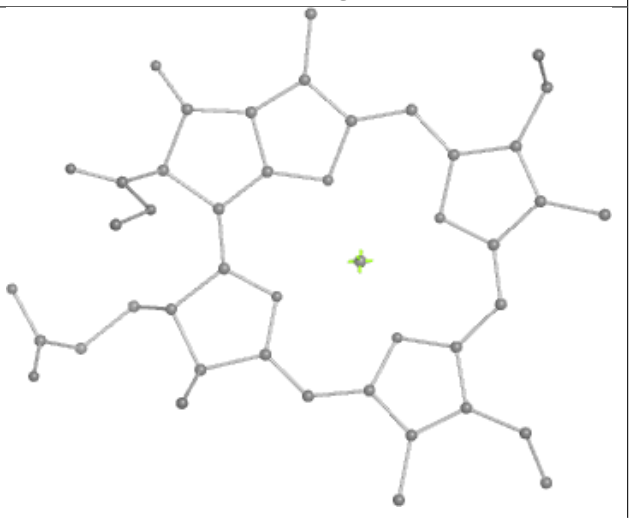
Bond lengths



Bond angles



Torsions

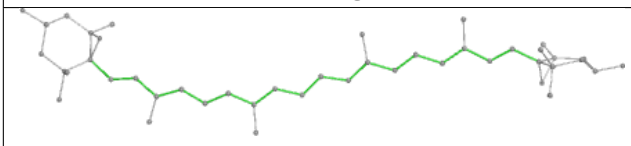


Rings

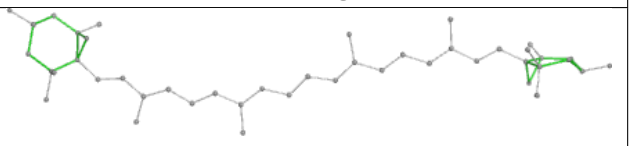
Ligand XAT R 307

Bond lengths

Bond angles

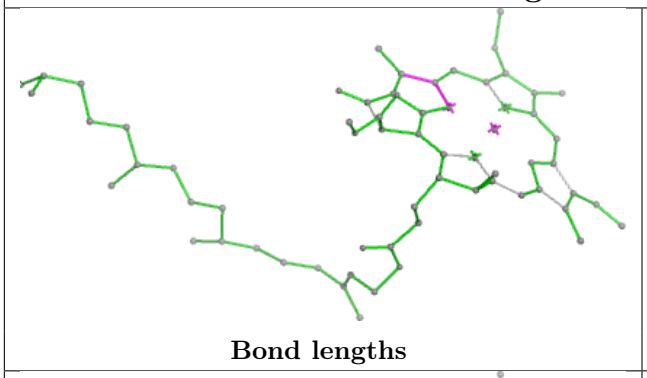


Torsions

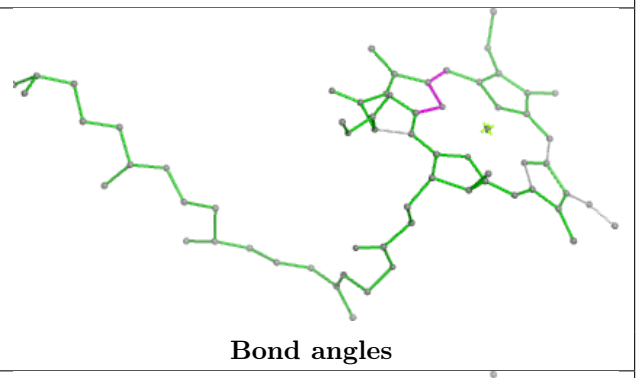


Rings

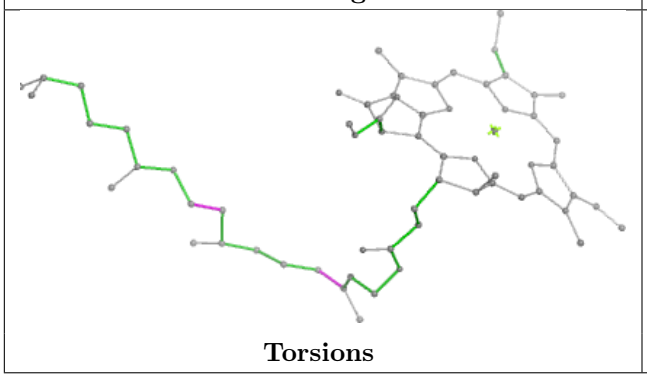
Ligand CLA A 408



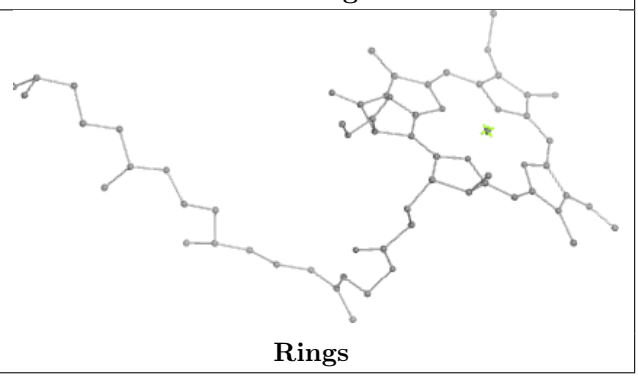
Bond lengths



Bond angles

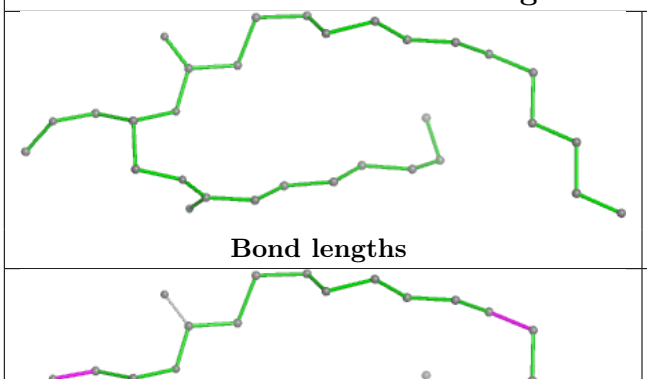


Torsions

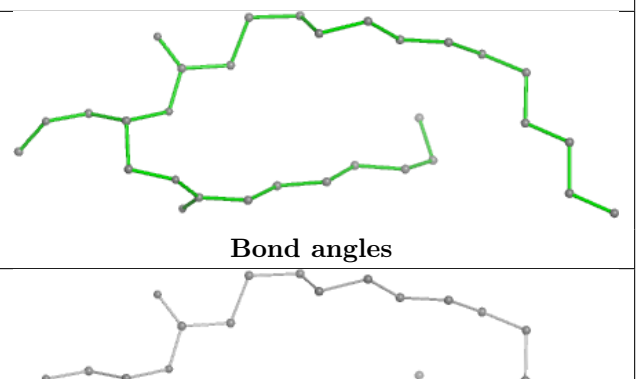


Rings

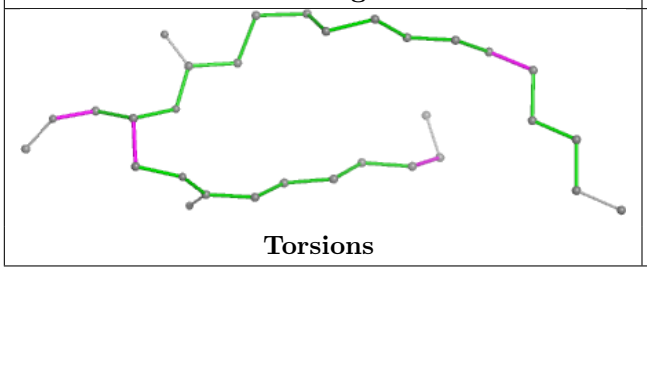
Ligand LMG A 418



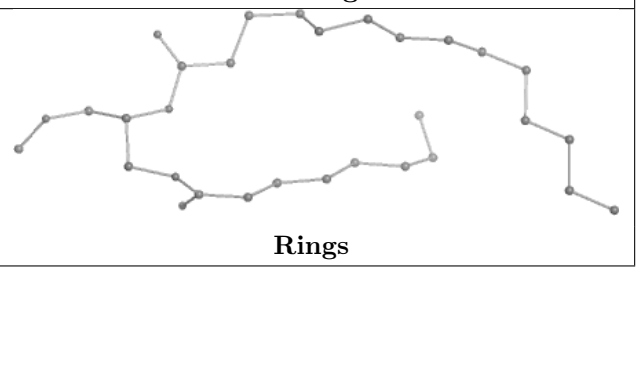
Bond lengths



Bond angles

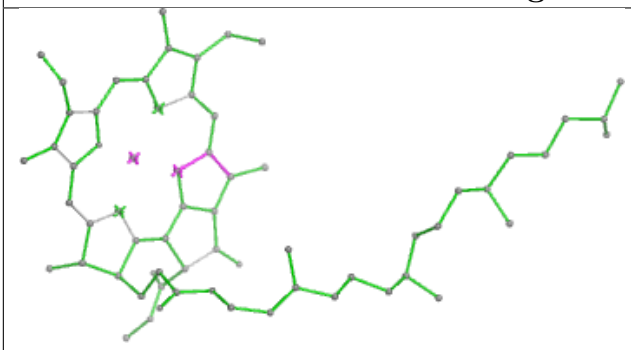


Torsions

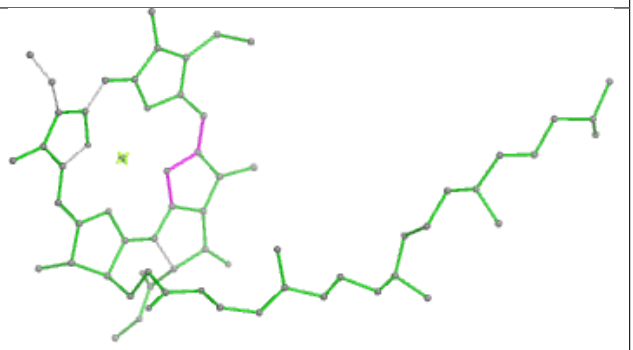


Rings

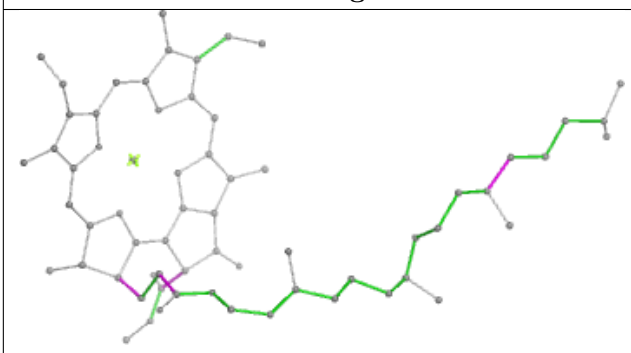
Ligand CLA b 309



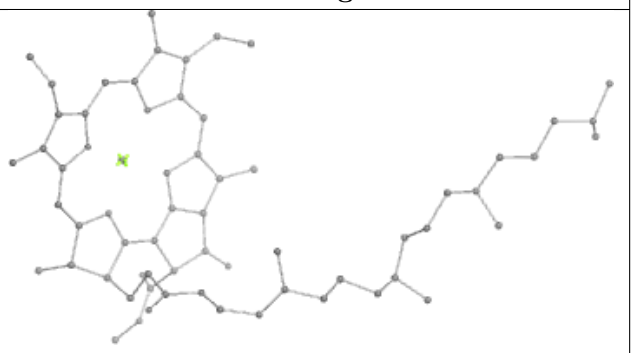
Bond lengths



Bond angles

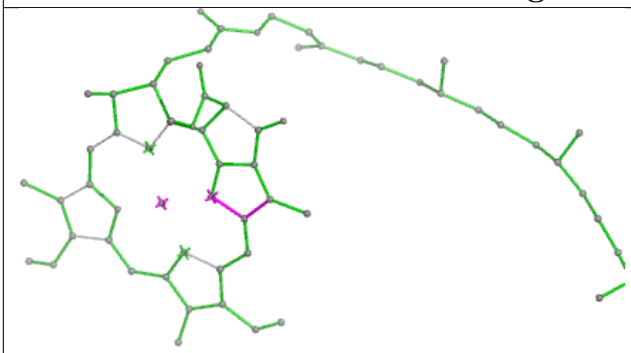


Torsions

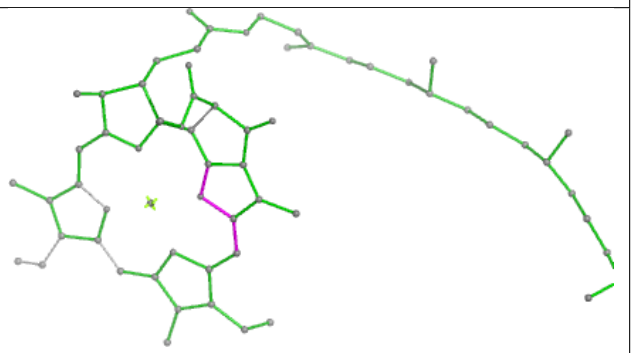


Rings

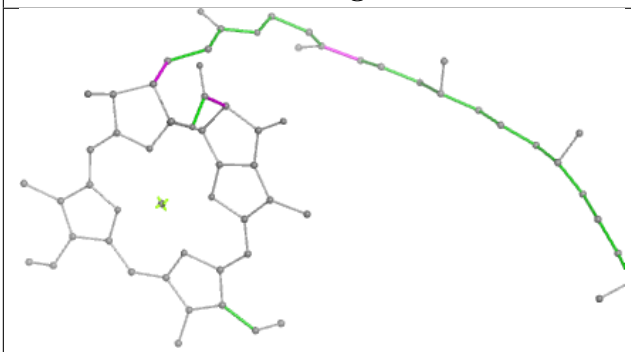
Ligand CLA b 308



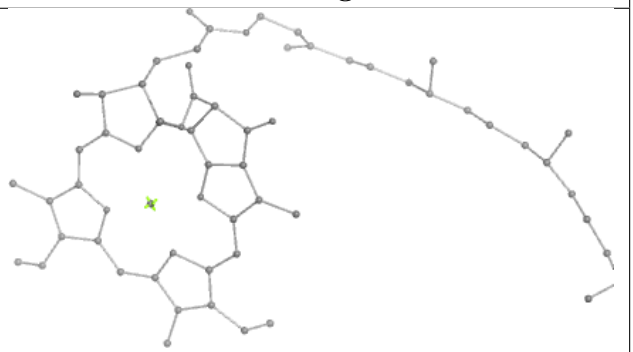
Bond lengths



Bond angles

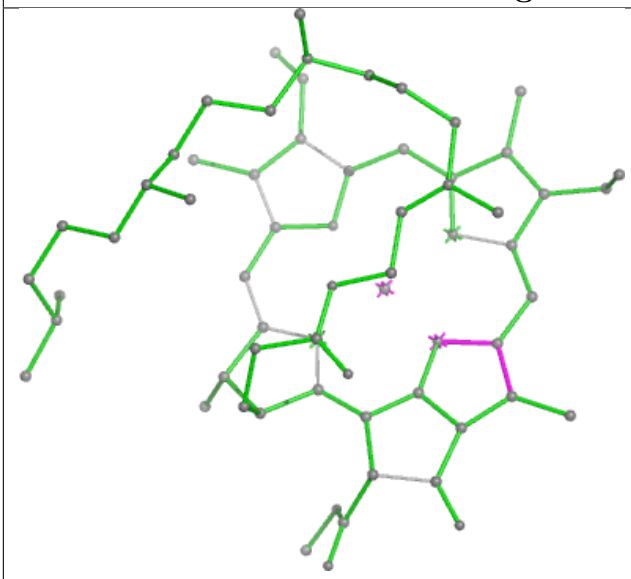


Torsions

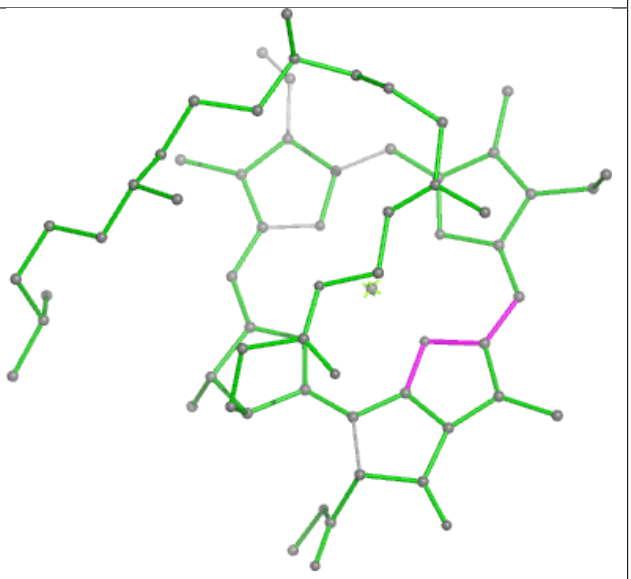


Rings

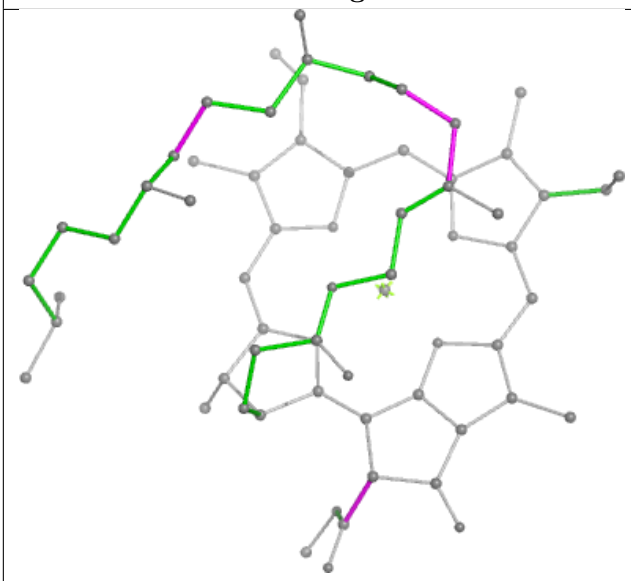
Ligand CLA B 1211



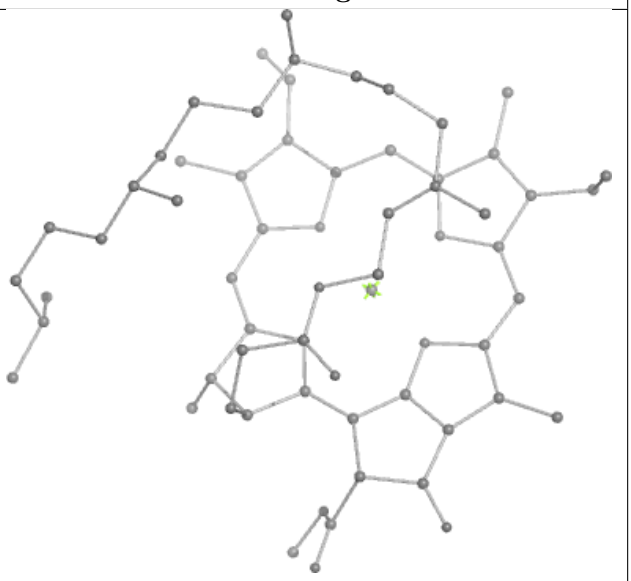
Bond lengths



Bond angles

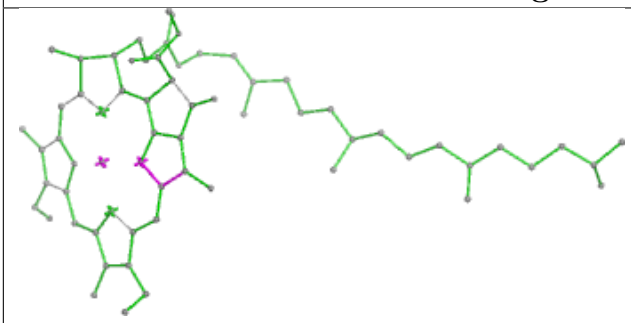


Torsions



Rings

Ligand CLA f 310



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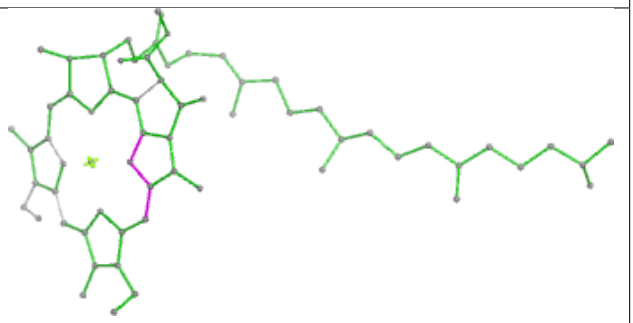
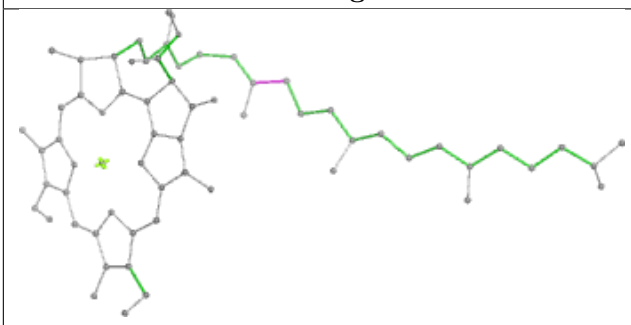
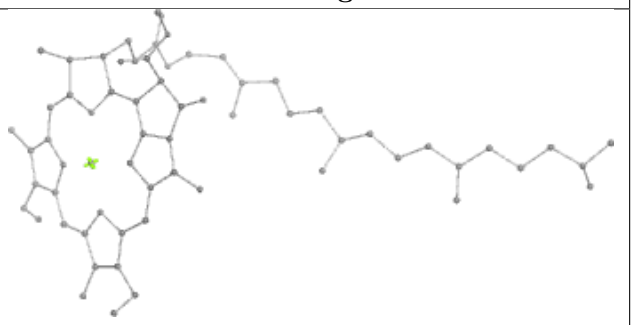


Bond angles



Torsions

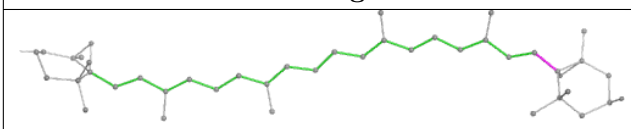


Rings

Ligand XAT R 303

Bond lengths

Bond angles



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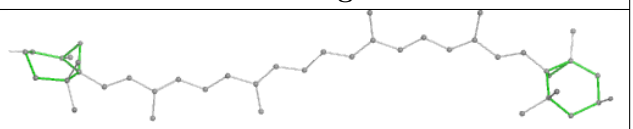
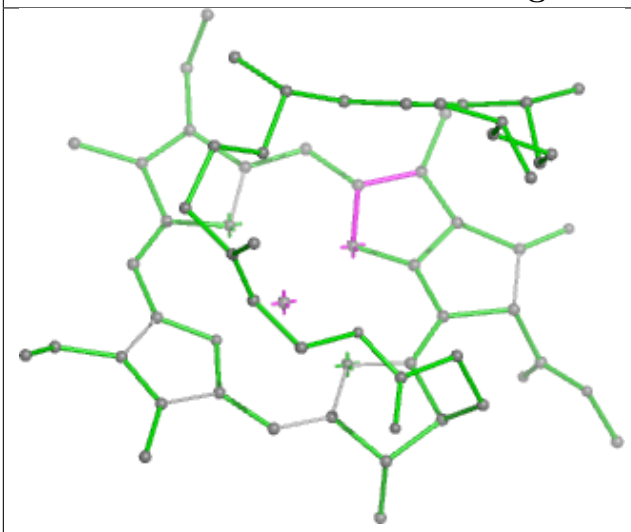
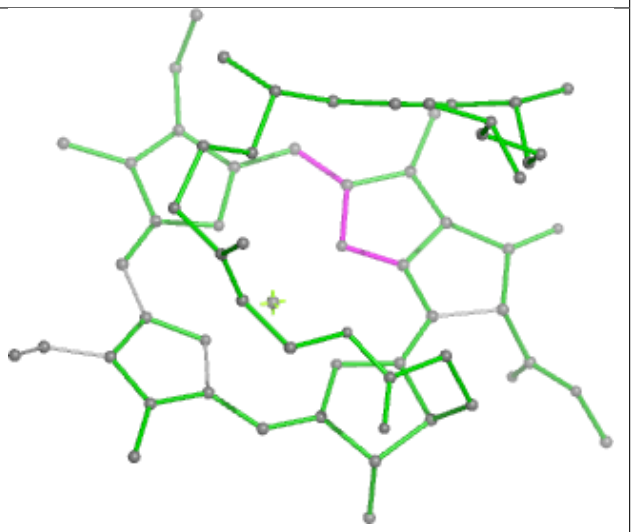


Rings

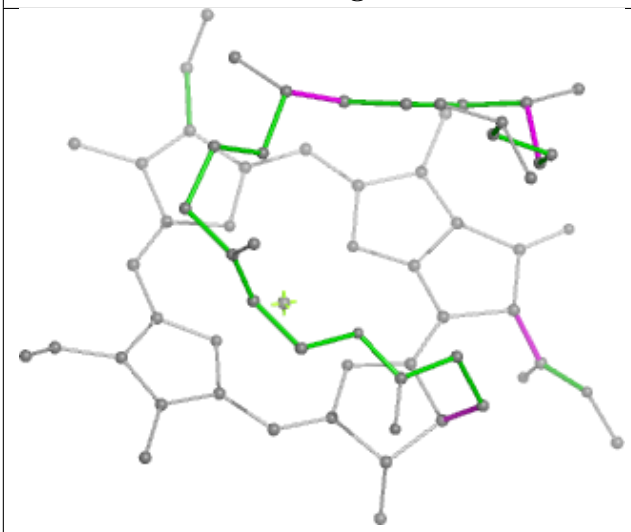
Ligand CLA a 406



Bond lengths



Bond angles



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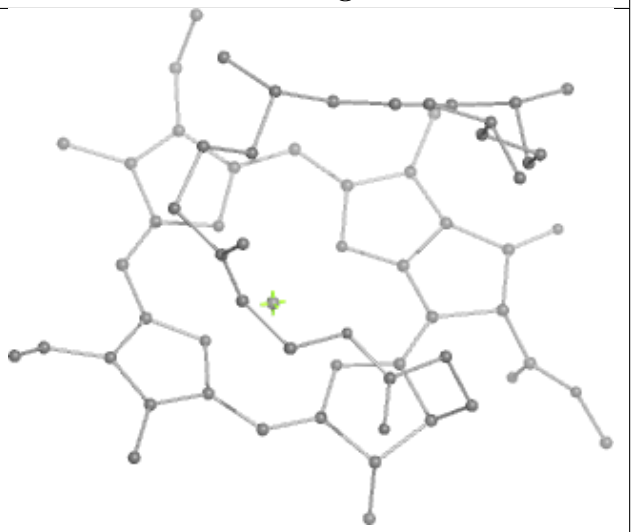
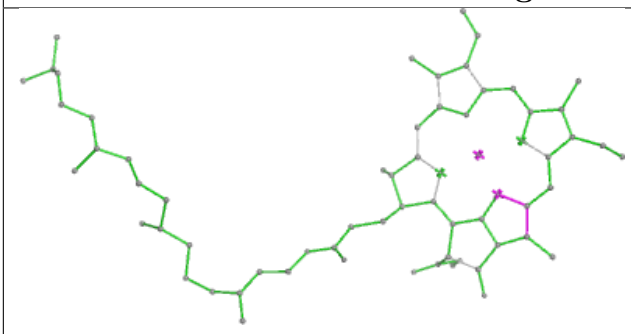
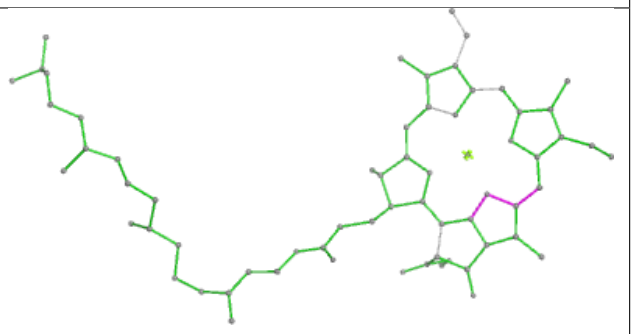


Rings

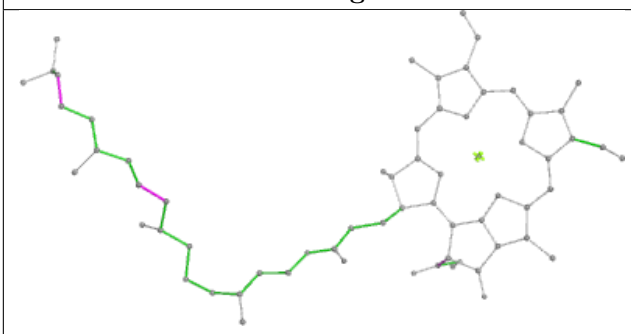
Ligand CLA B 1217



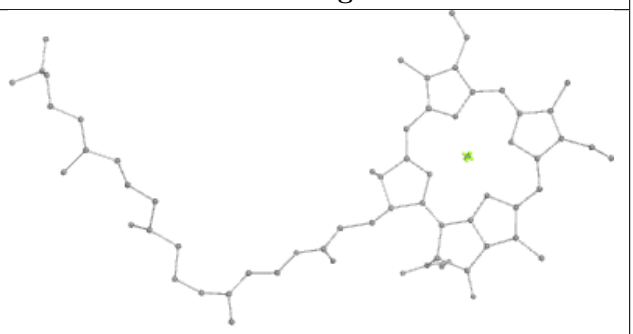
Bond lengths



Bond angles

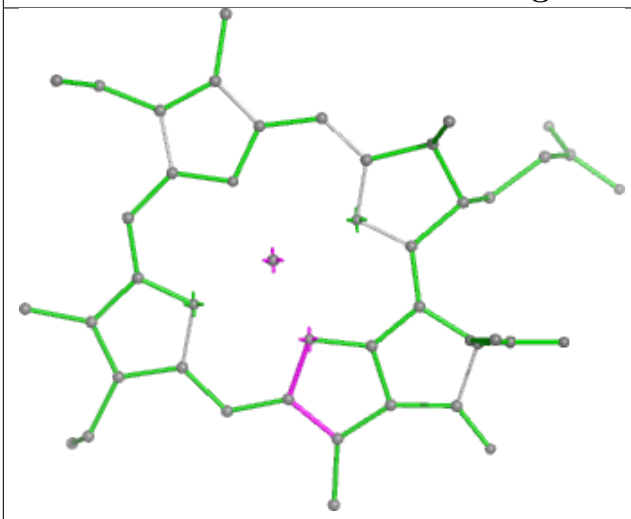


Torsions

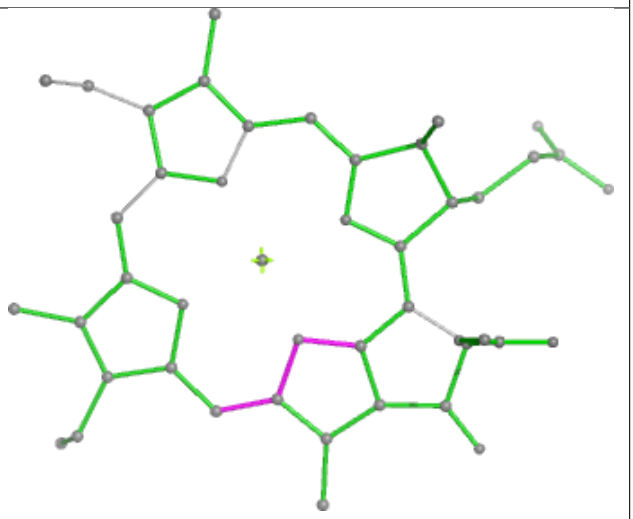


Rings

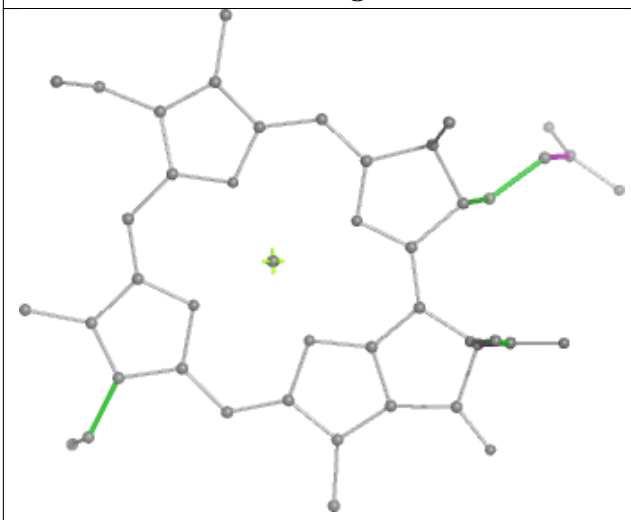
Ligand CLA f 309



Bond lengths



Bond angles



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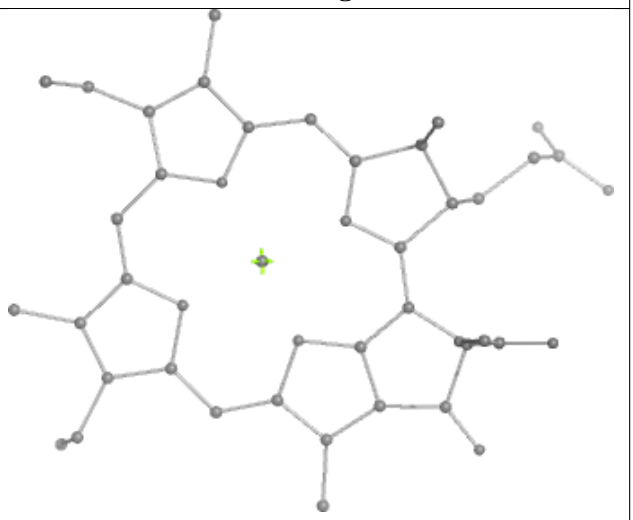
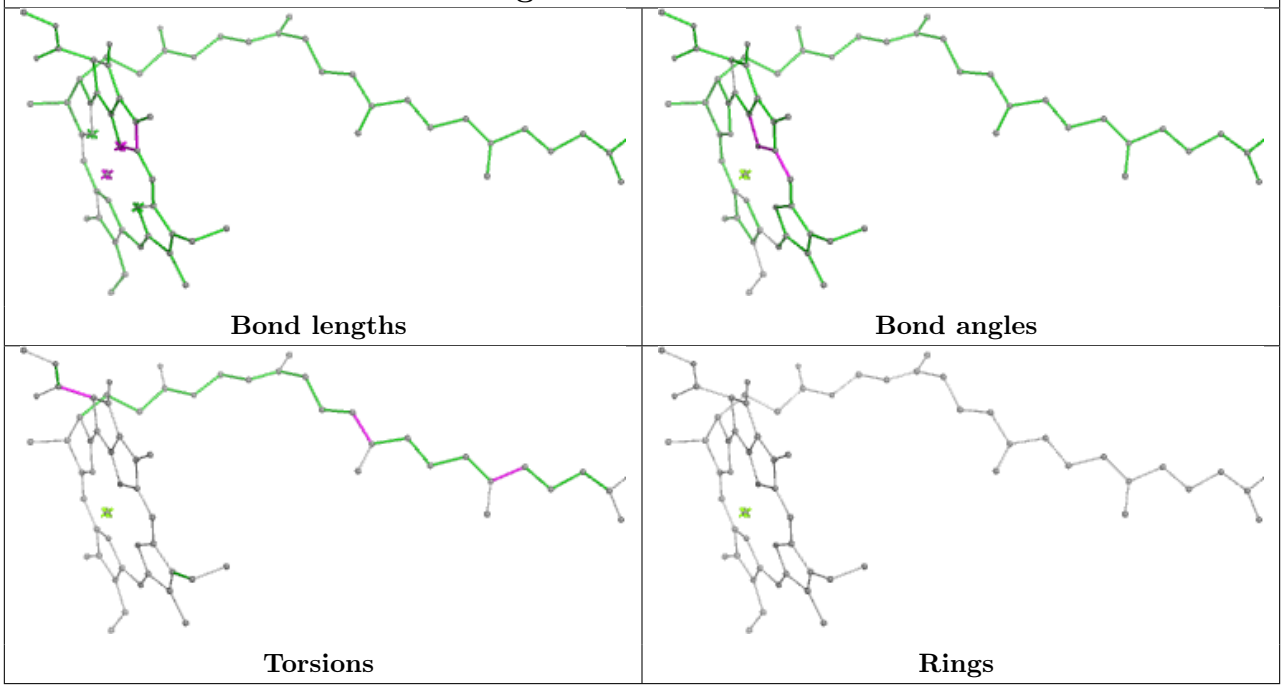
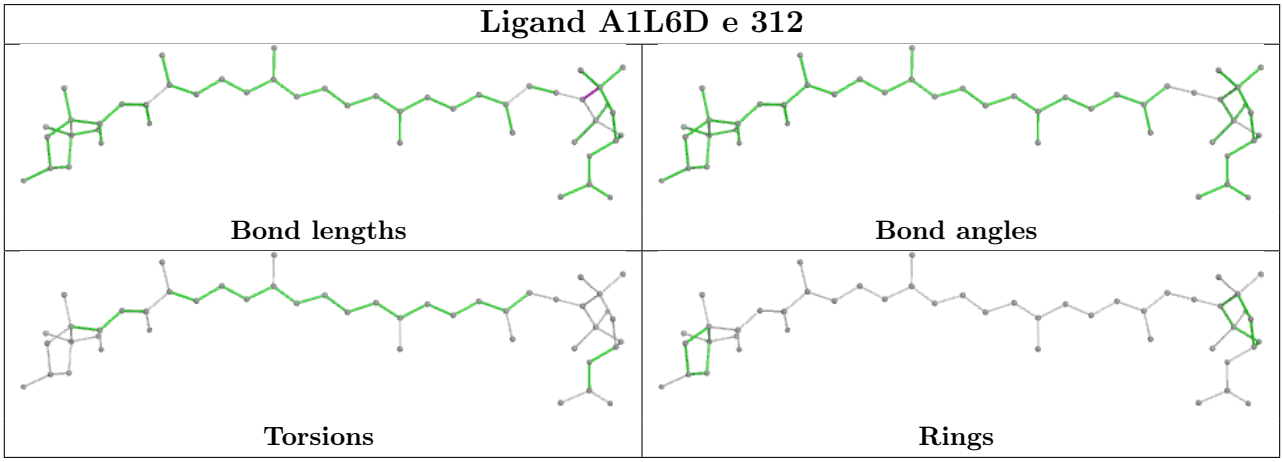


Rings

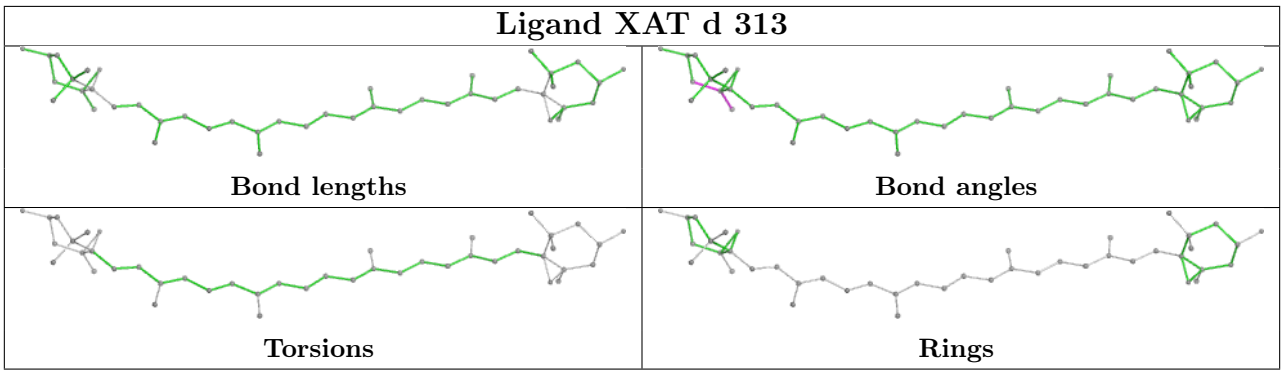
Ligand CLA B 1216



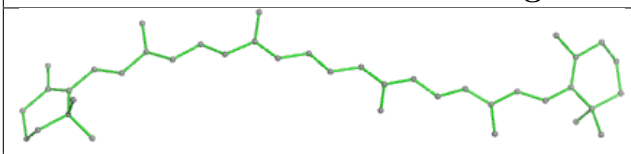
Ligand A1L6D e 312



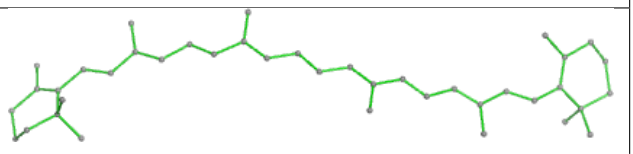
Ligand XAT d 313



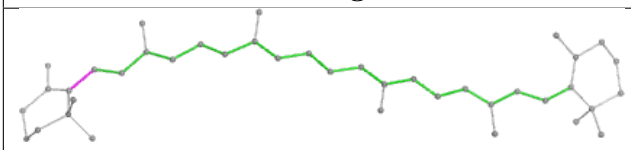
Ligand BCR F 401



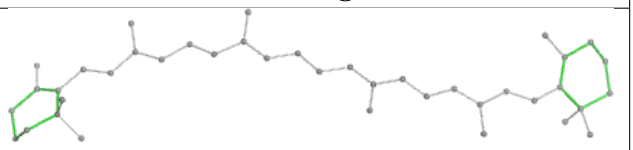
Bond lengths



Bond angles

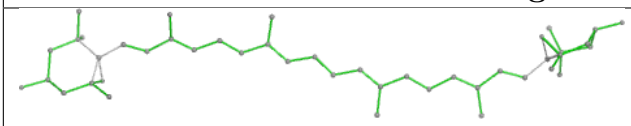


Torsions

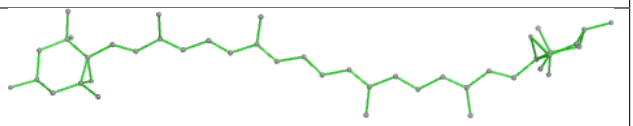


Rings

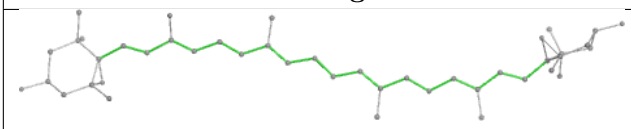
Ligand XAT c 314



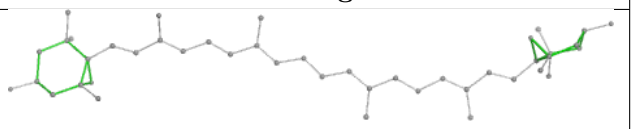
Bond lengths



Bond angles

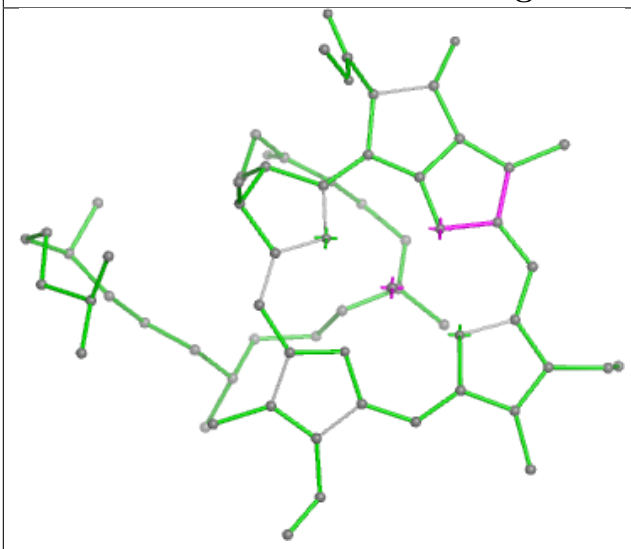


Torsions

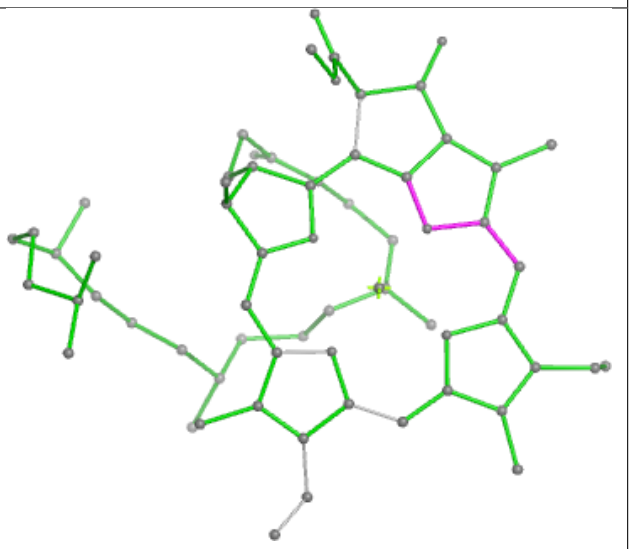


Rings

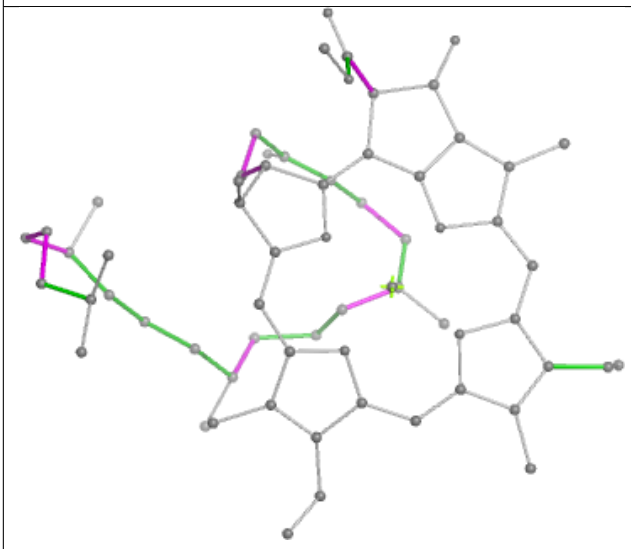
Ligand CLA B 1221



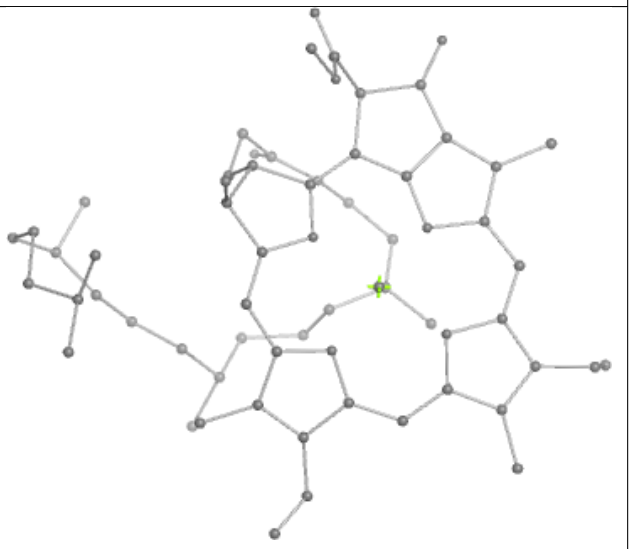
Bond lengths



Bond angles

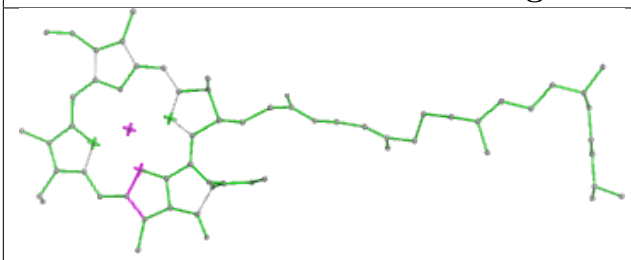


Torsions

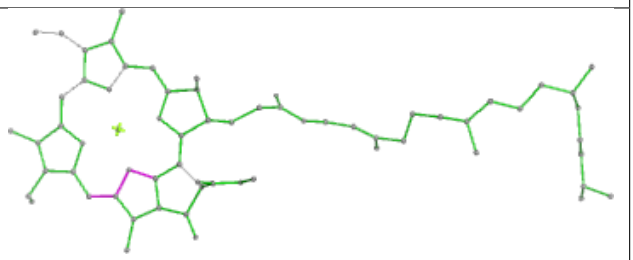


Rings

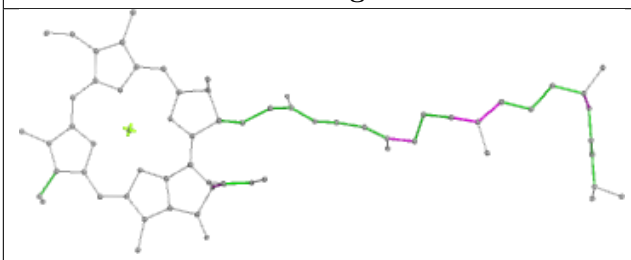
Ligand CLA F 402



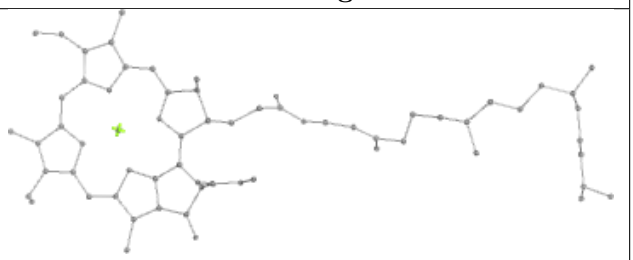
Bond lengths



Bond angles

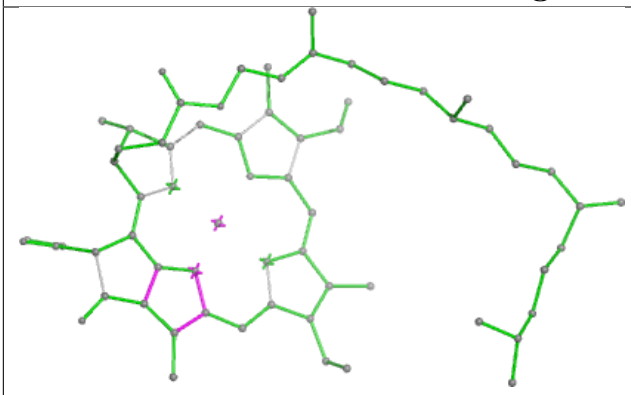


Torsions

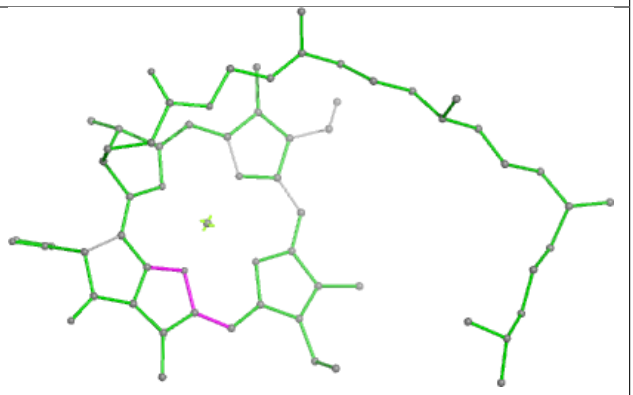


Rings

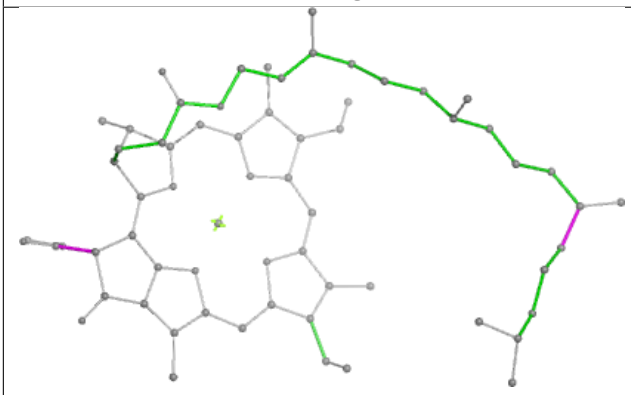
Ligand CLA f 311



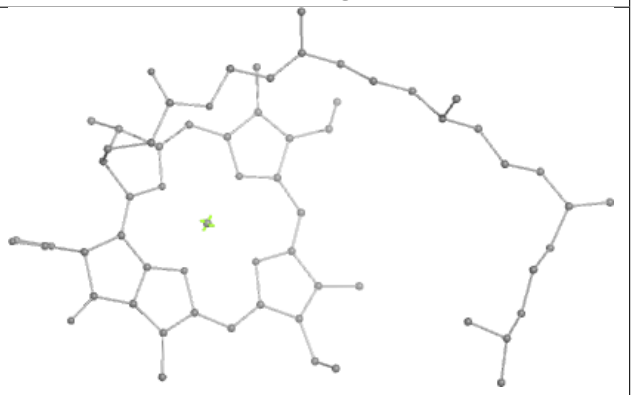
Bond lengths



Bond angles

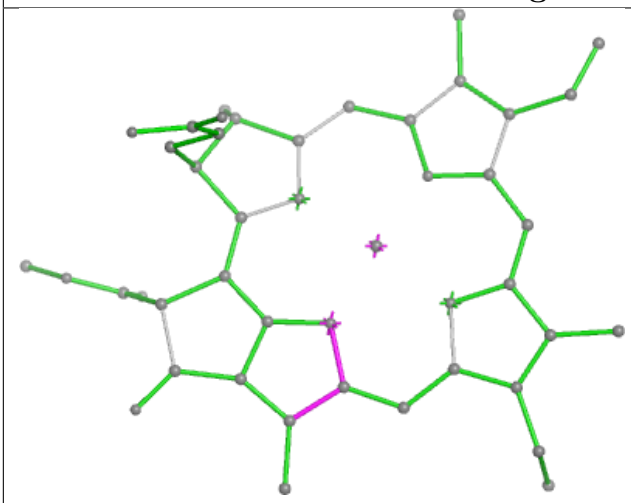


Torsions

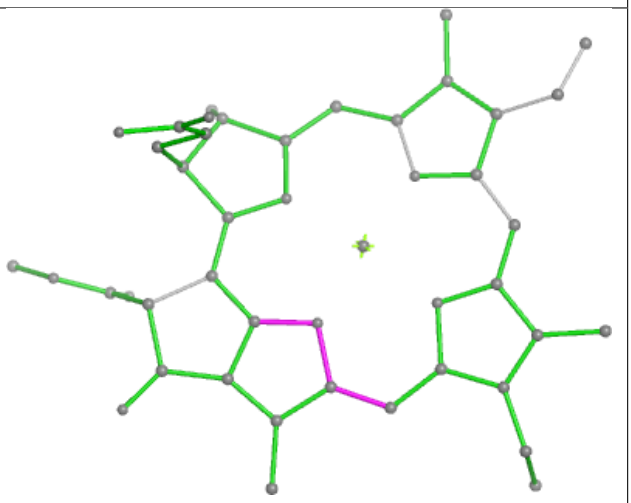


Rings

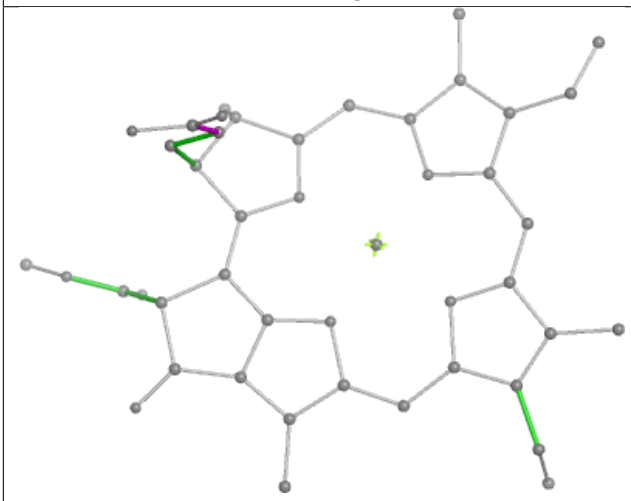
Ligand CLA c 306



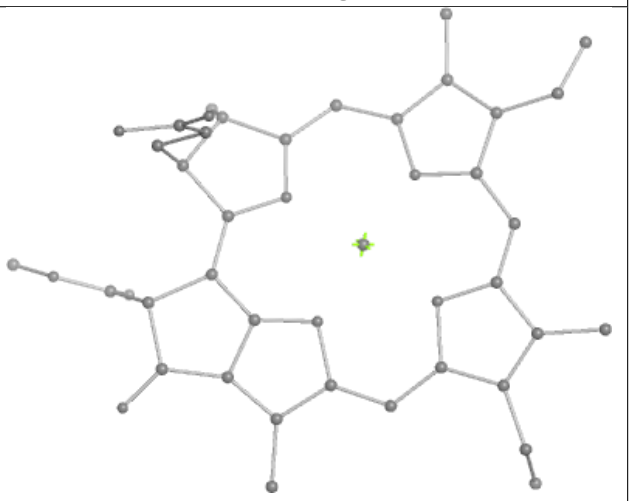
Bond lengths



Bond angles

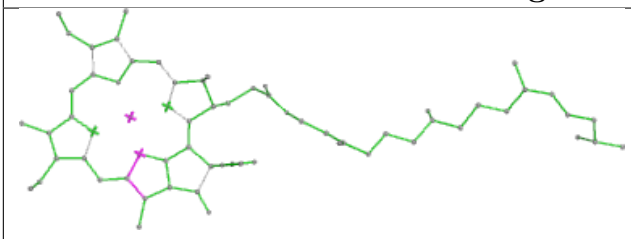


Torsions

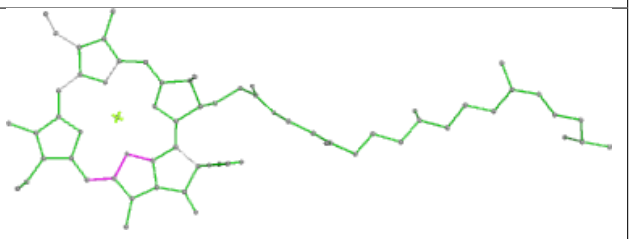


Rings

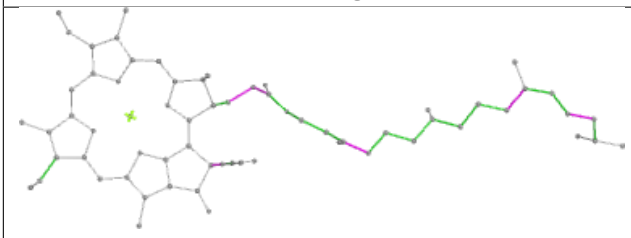
Ligand CLA a 403



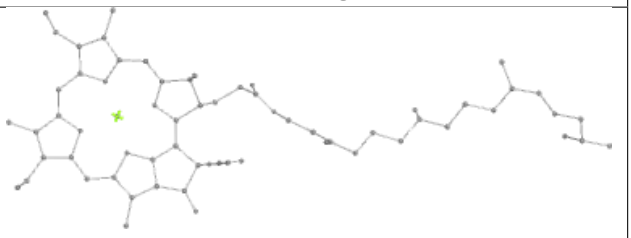
Bond lengths



Bond angles

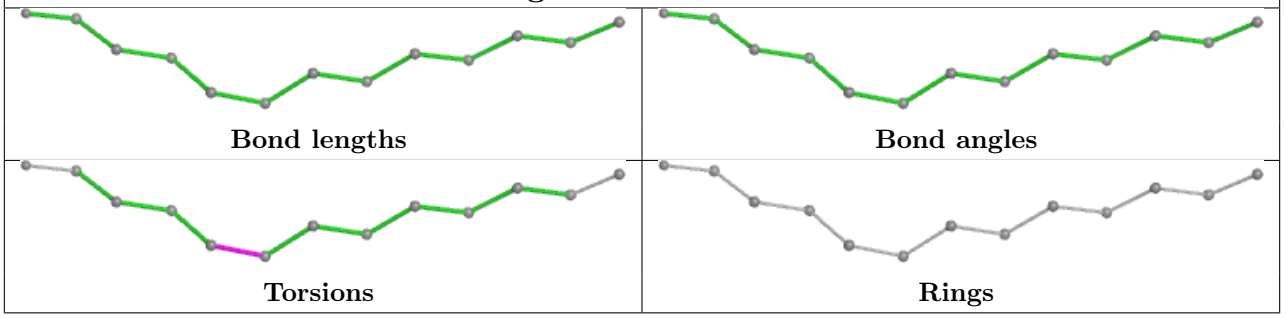


Torsions

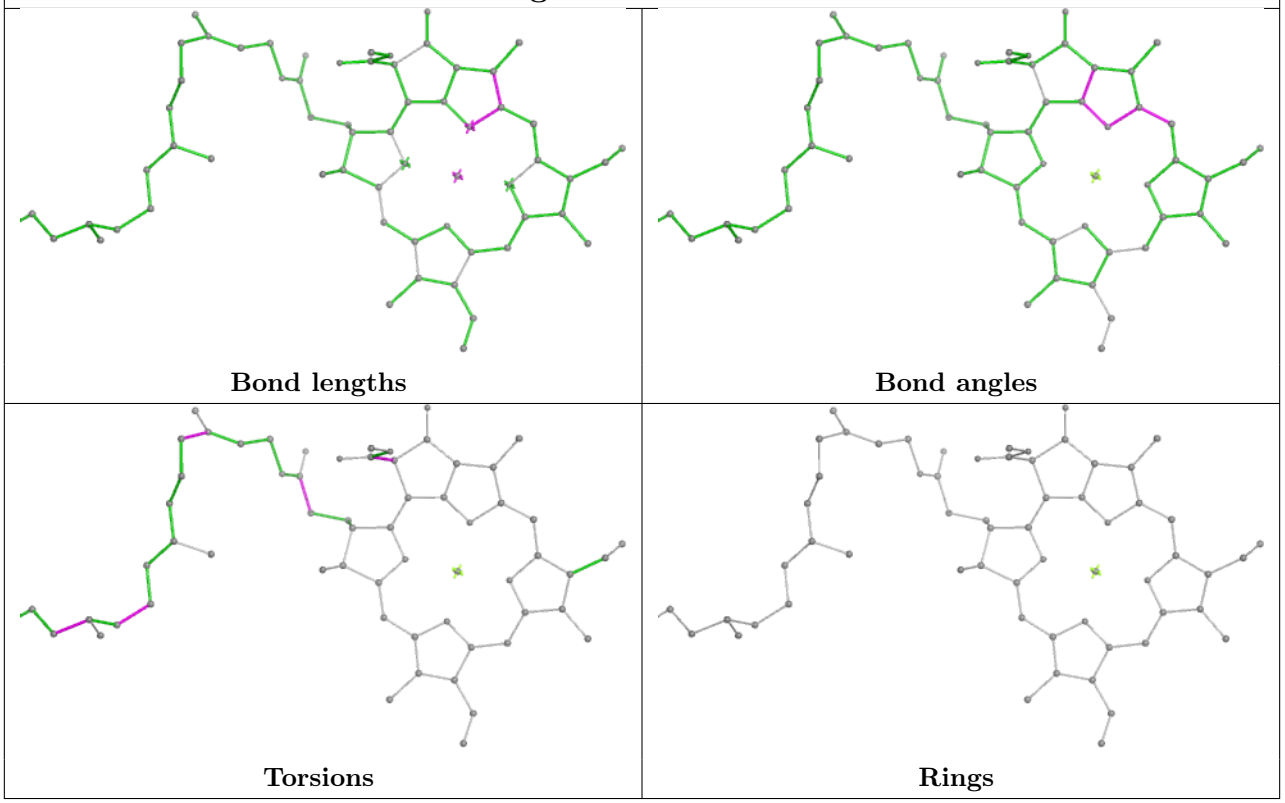


Rings

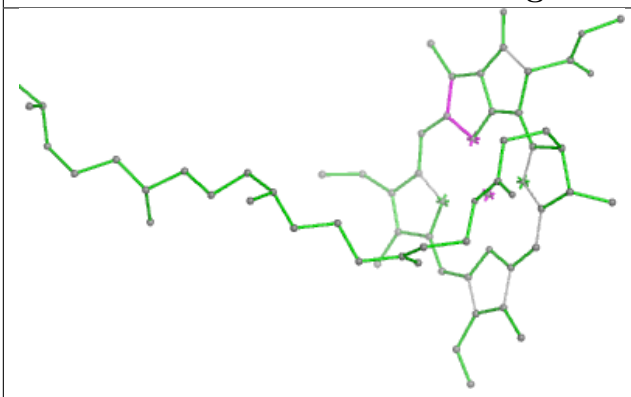
Ligand LMT c 332



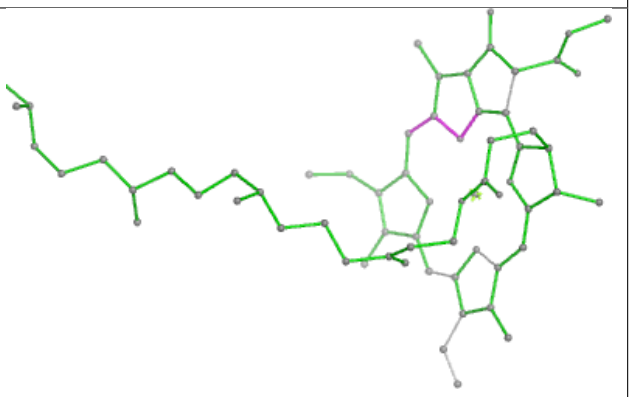
Ligand CLA e 303



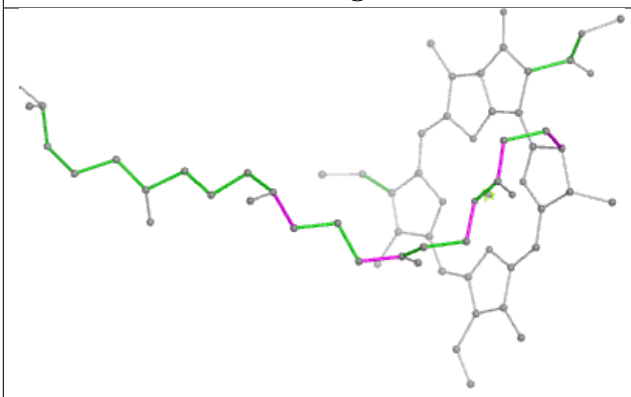
Ligand CLA L 303



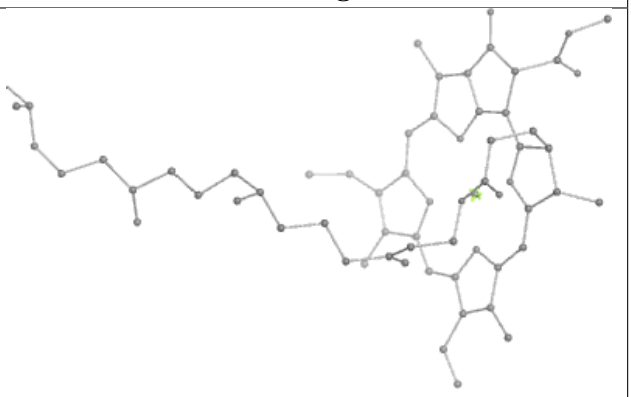
Bond lengths



Bond angles

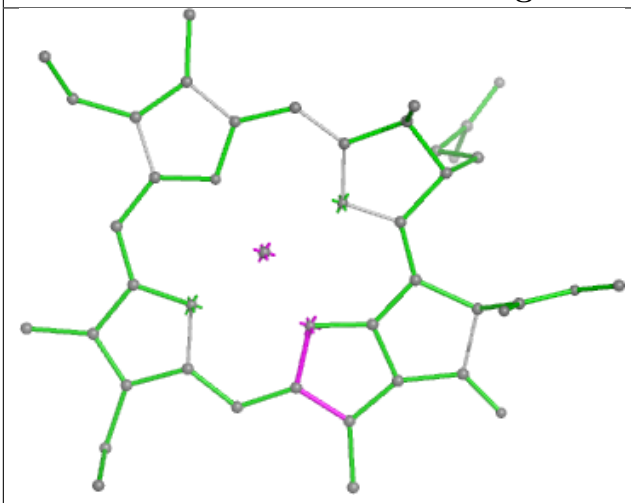


Torsions

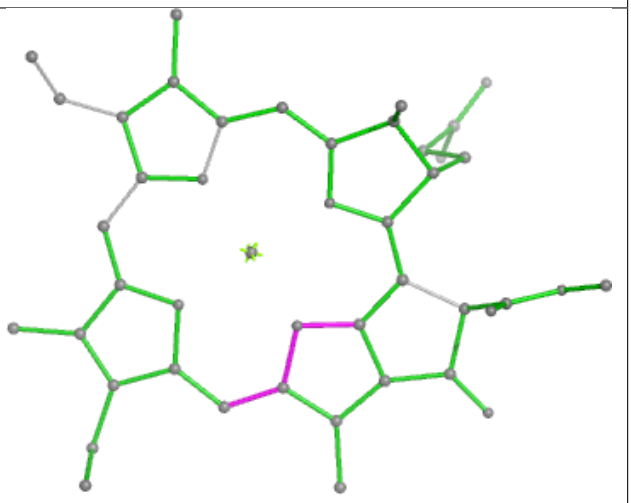


Rings

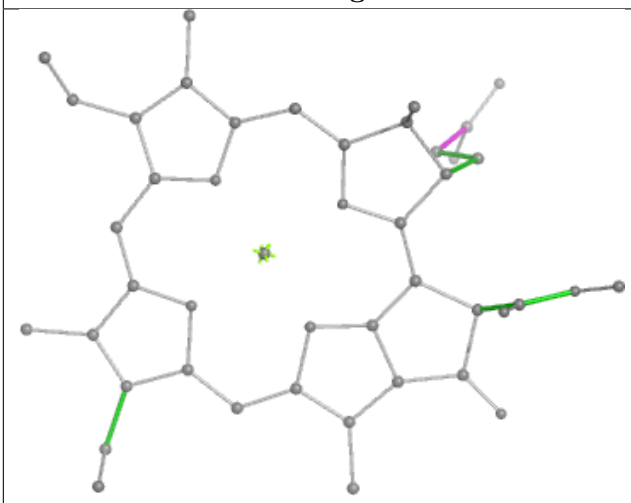
Ligand CLA B 1212



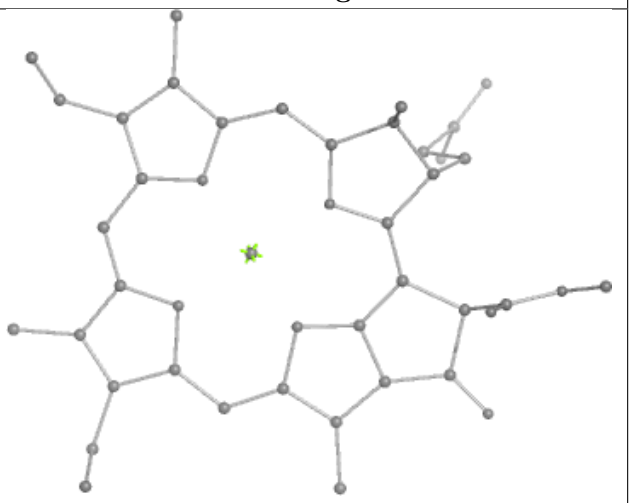
Bond lengths



Bond angles

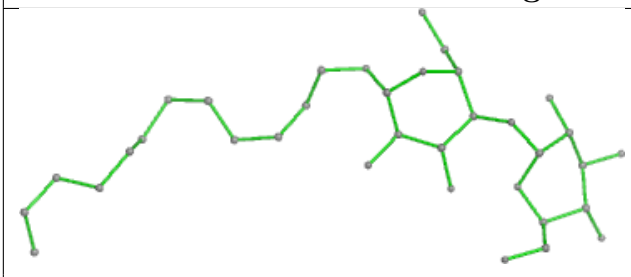


Torsions

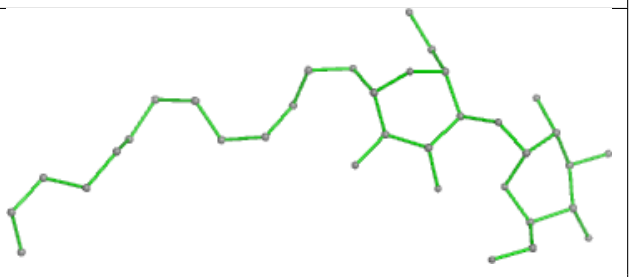


Rings

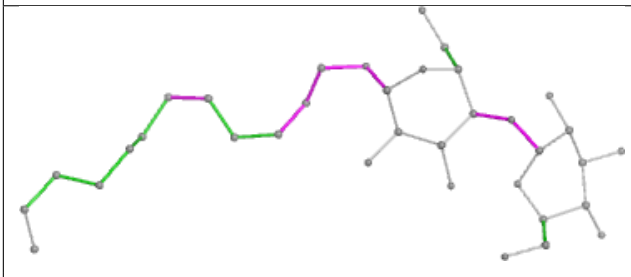
Ligand LMT F 414



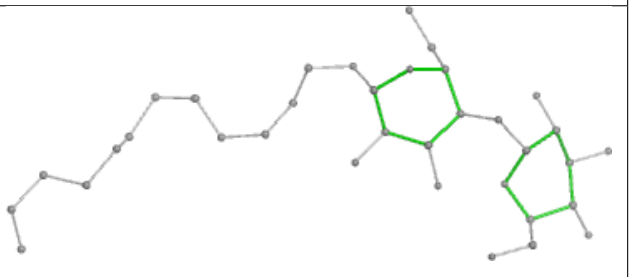
Bond lengths



Bond angles

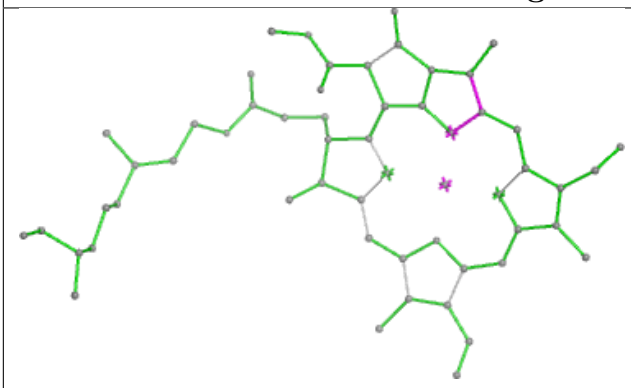


Torsions



Rings

Ligand CLA d 303



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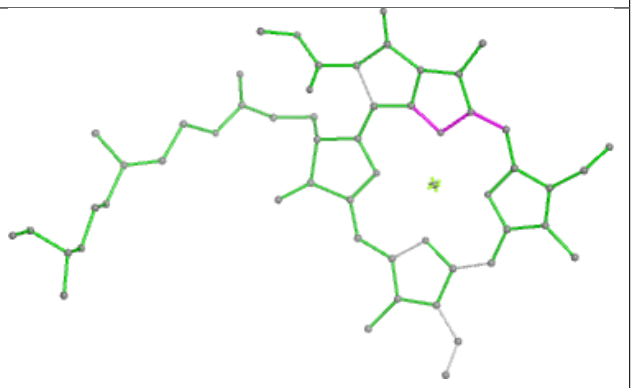
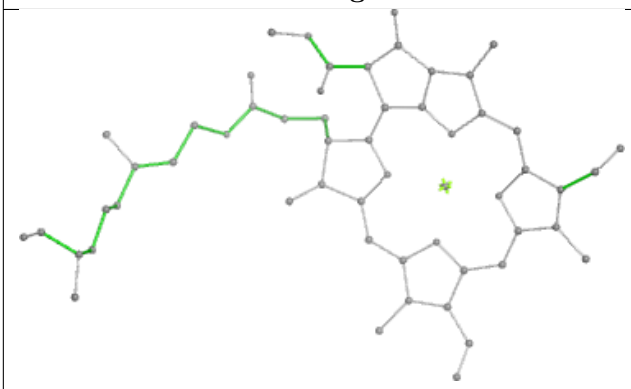
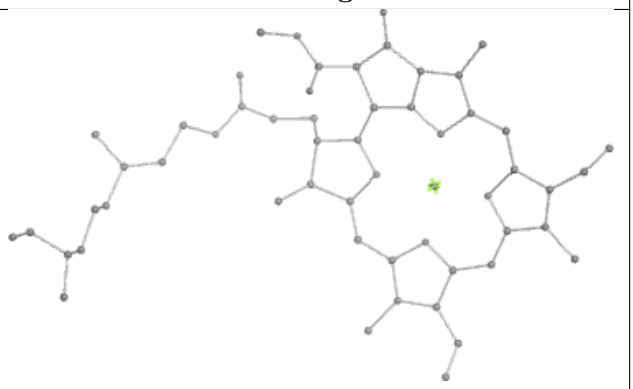


Bond angles

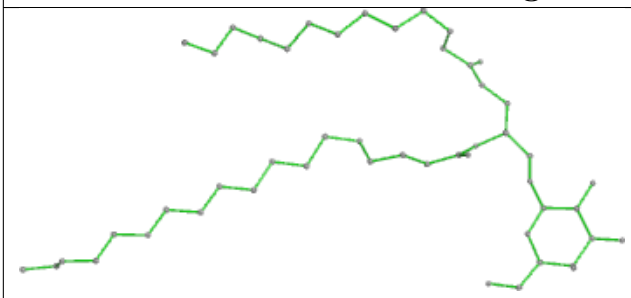


Torsions

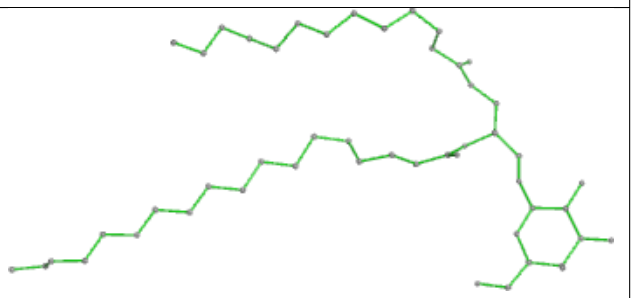


Rings

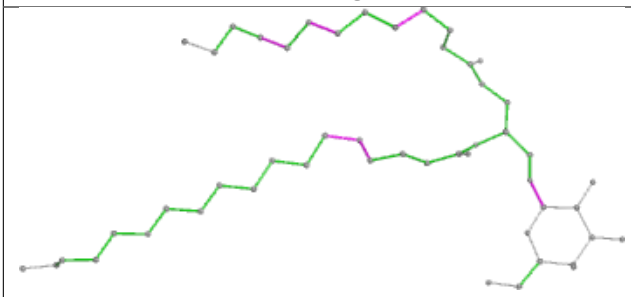
Ligand LMG b 321



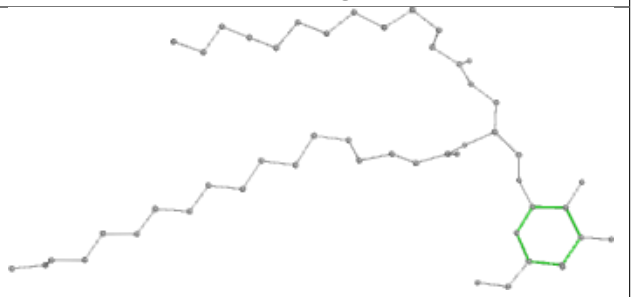
Bond lengths



Bond angles

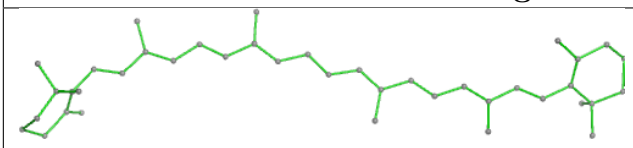


Torsions

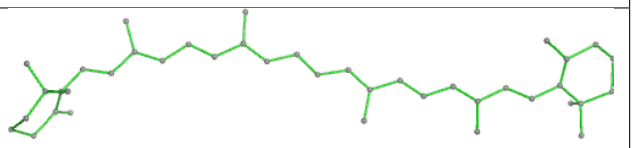


Rings

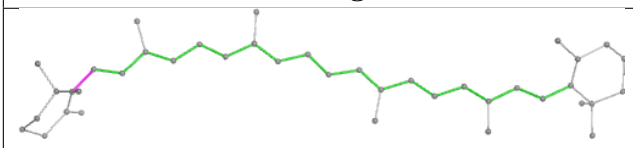
Ligand BCR B 1233



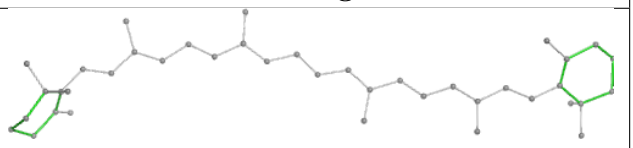
Bond lengths



Bond angles

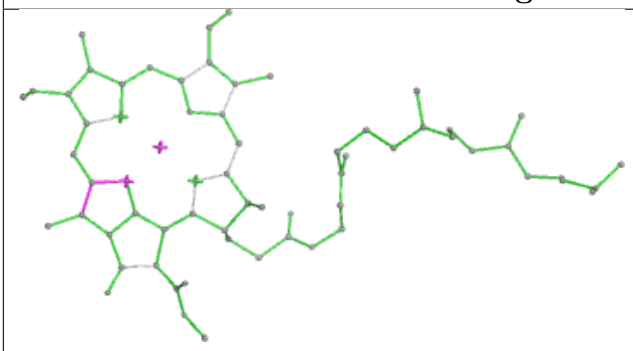


Torsions

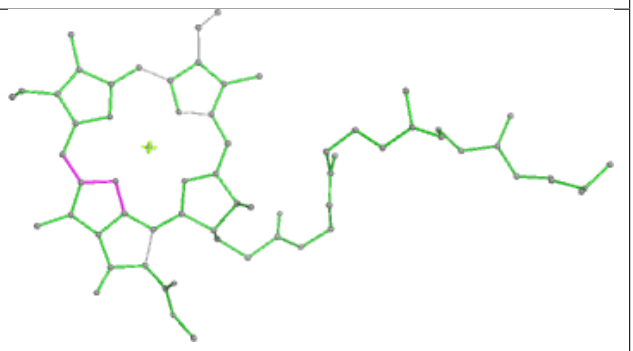


Rings

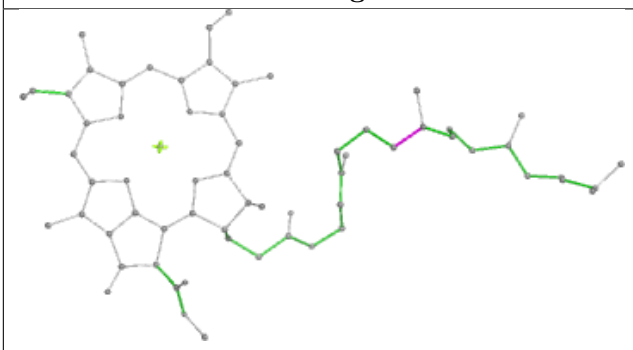
Ligand CLA B 1201



Bond lengths



Bond angles



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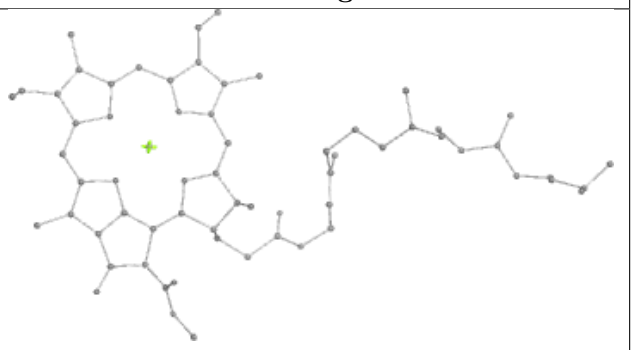
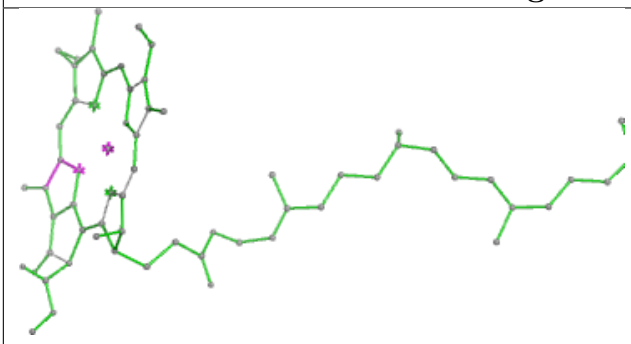


Rings

Ligand CLA b 328



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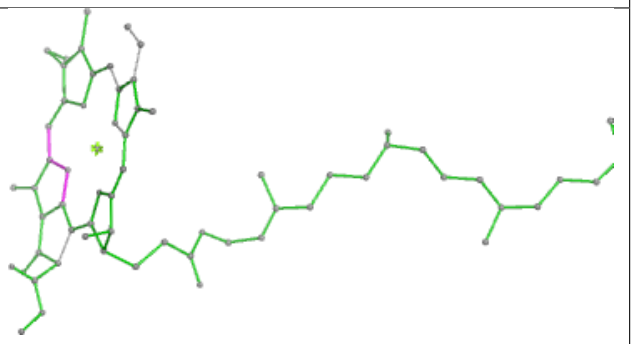
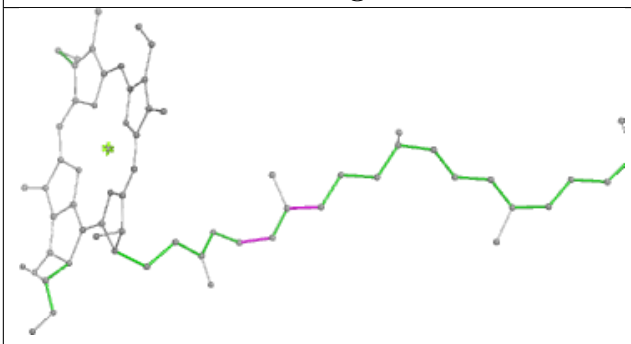
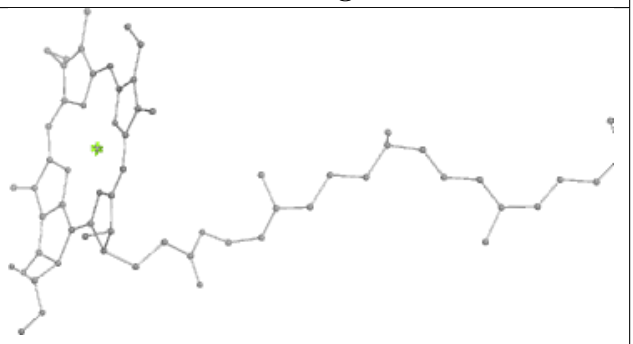


Bond angles

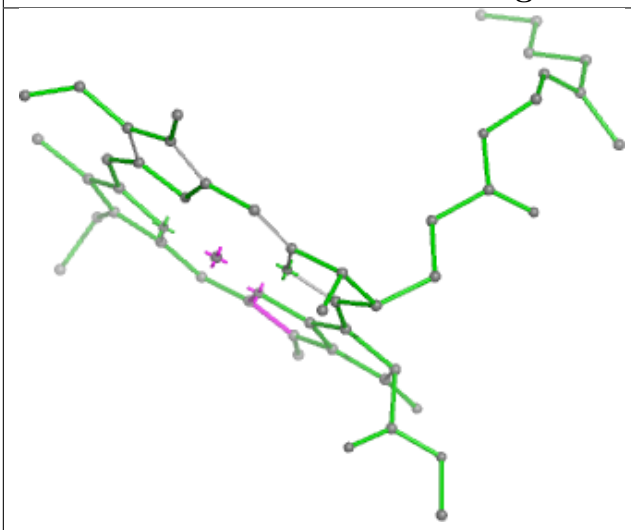


Torsions



Rings

Ligand CLA B 1218



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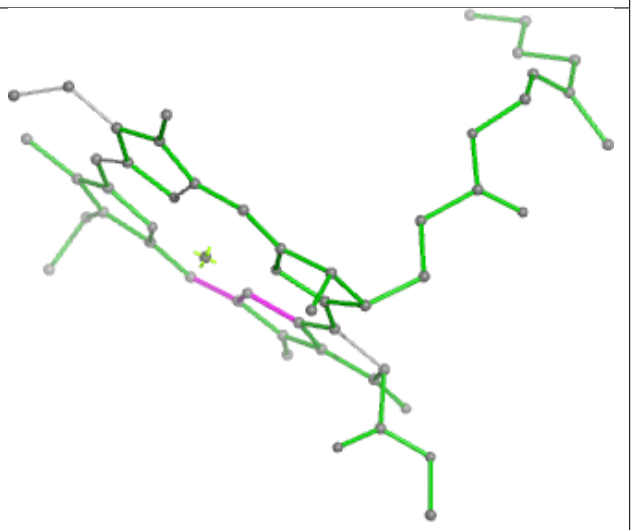
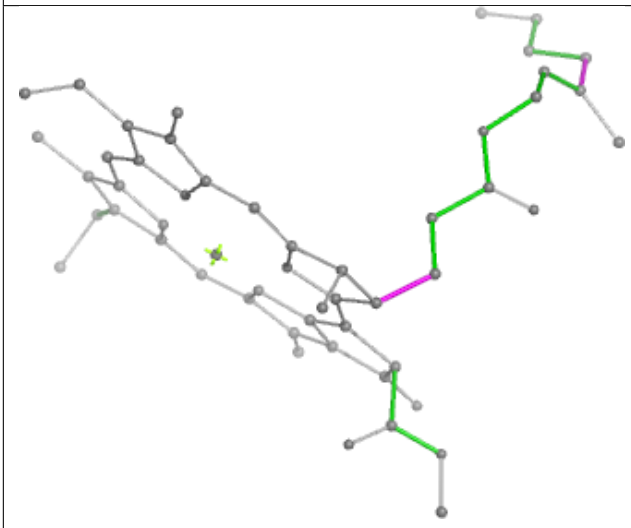


Bond angles



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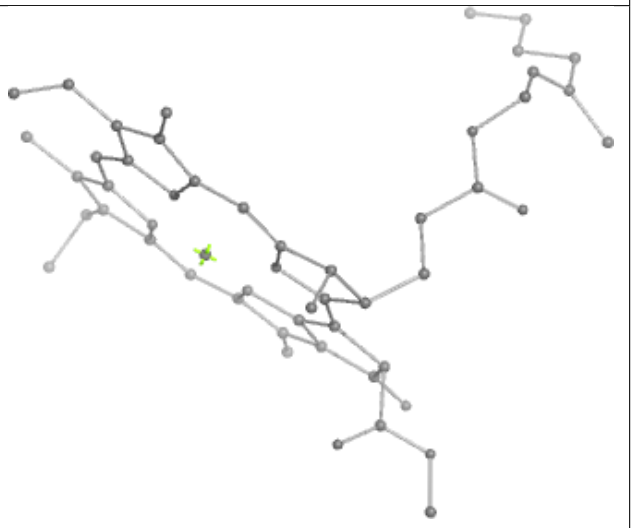
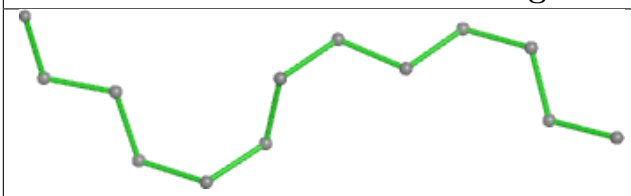


Rings

Ligand LMT f 301



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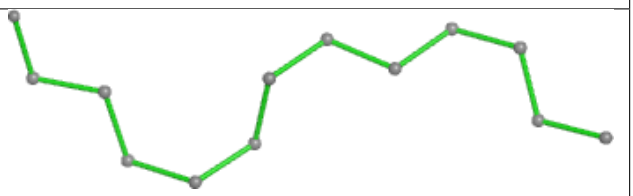
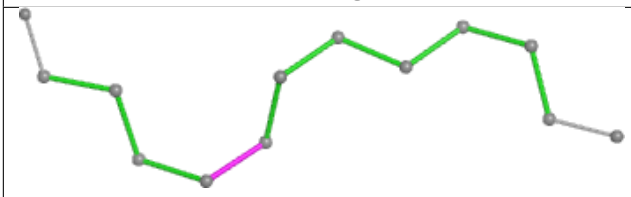


Bond angles



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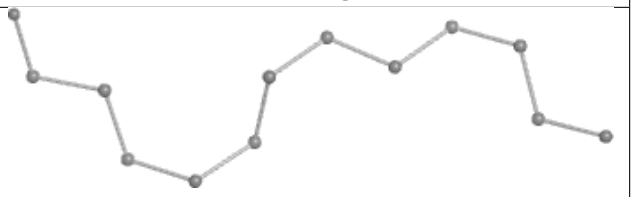
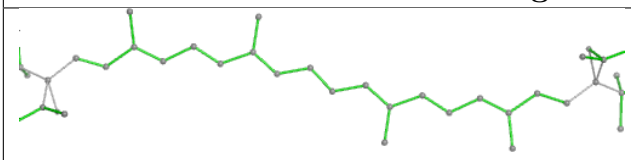
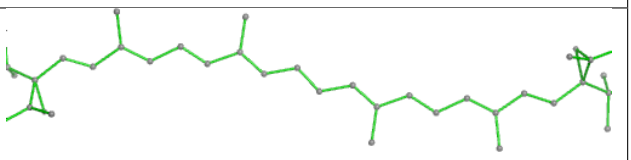


Rings

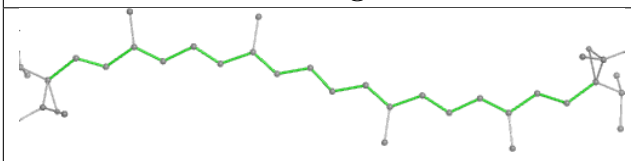
Ligand XAT f 320



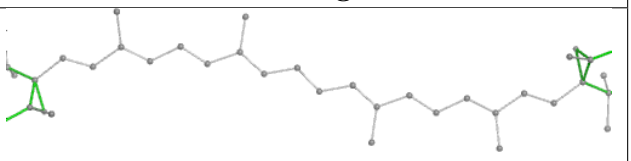
Bond lengths



Bond angles

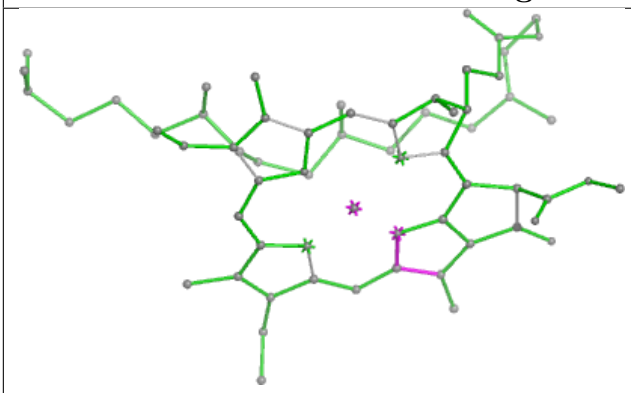


Torsions

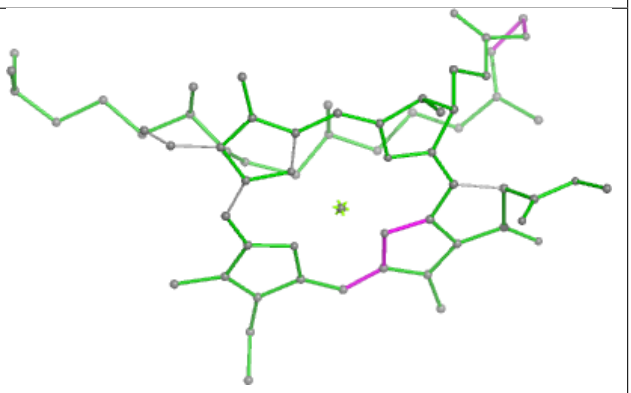


Rings

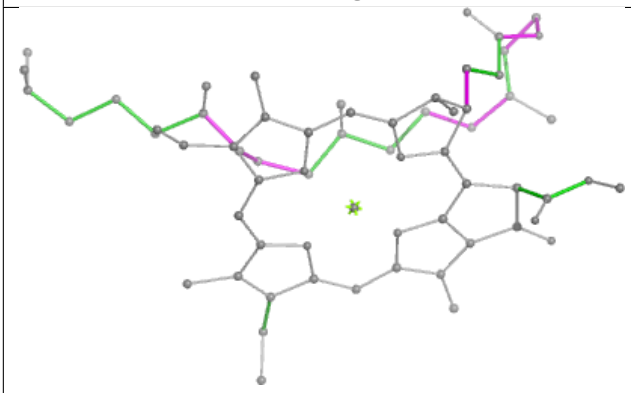
Ligand CLA B 1223



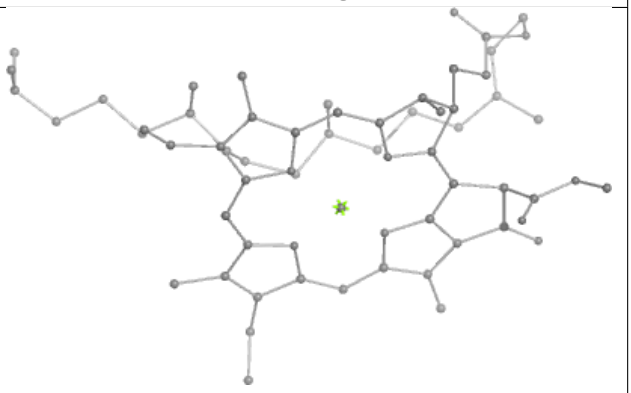
Bond lengths



Bond angles

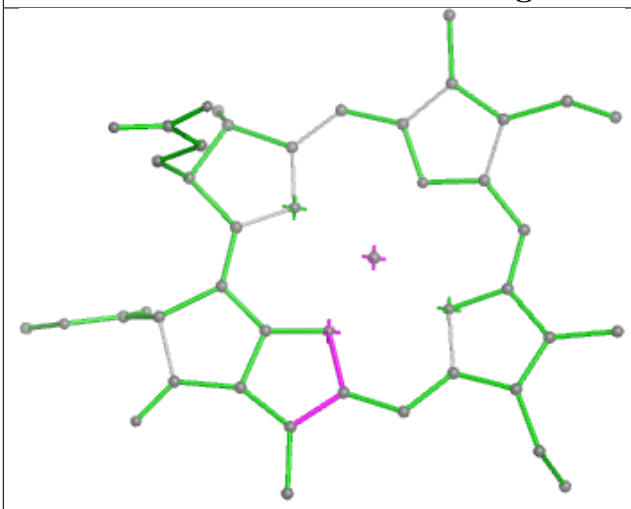


Torsions

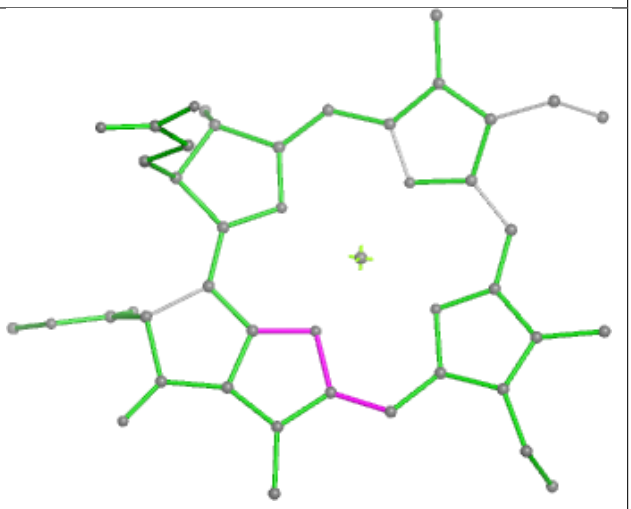


Rings

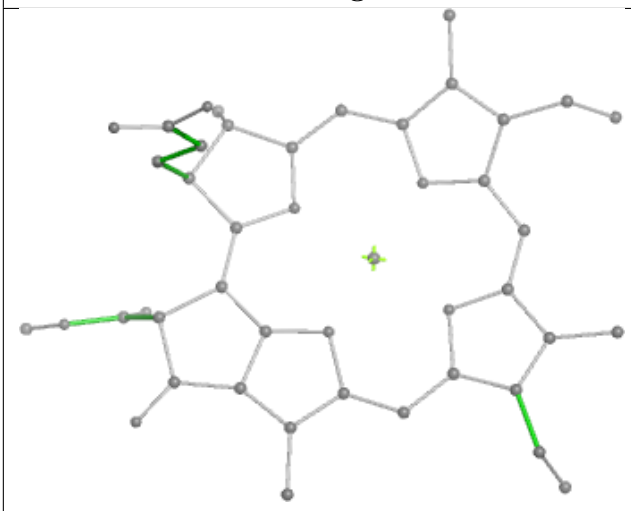
Ligand CLA B 1231



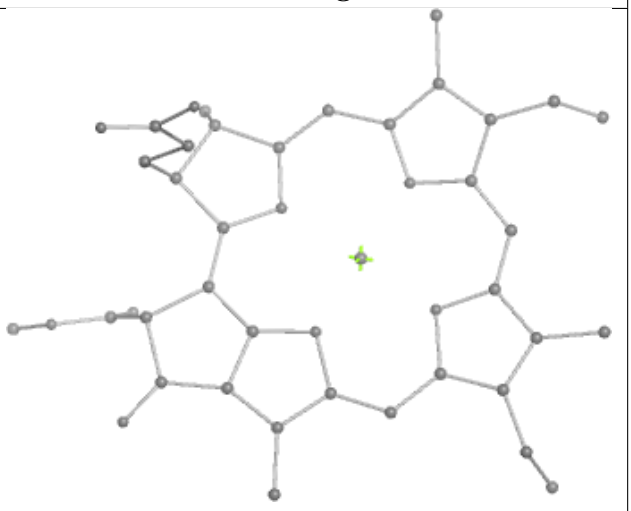
Bond lengths



Bond angles

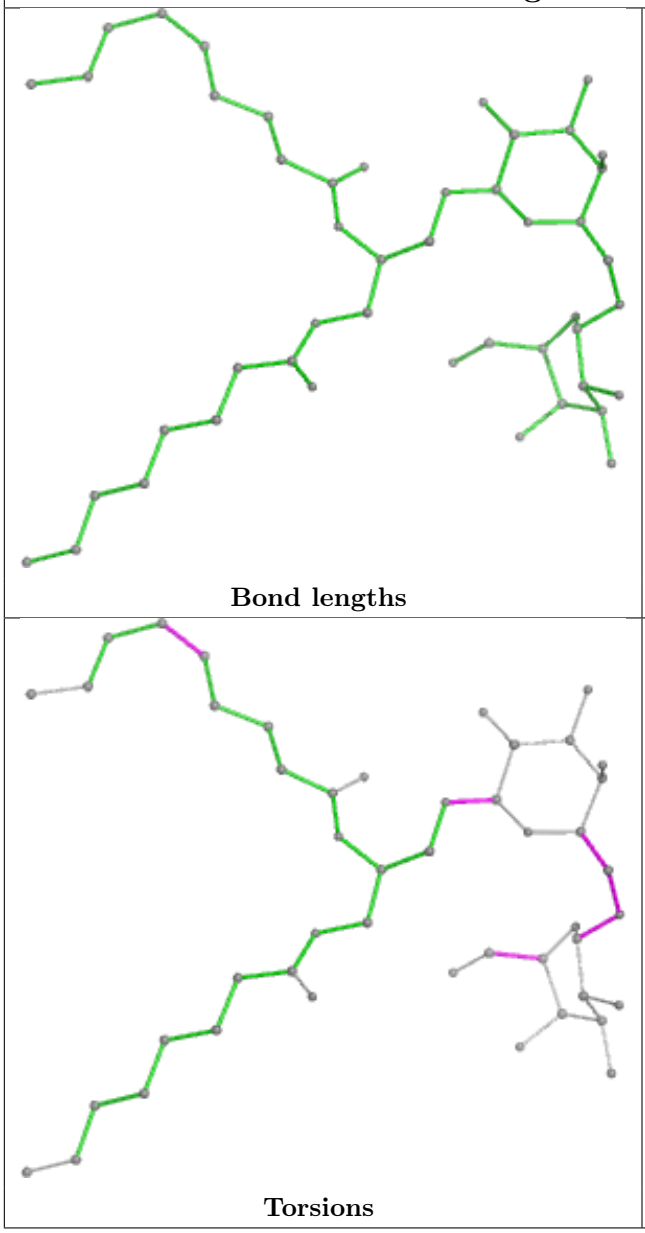


Torsions

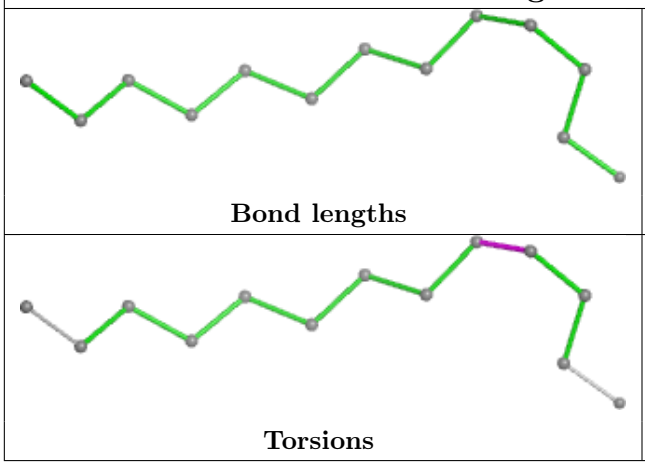


Rings

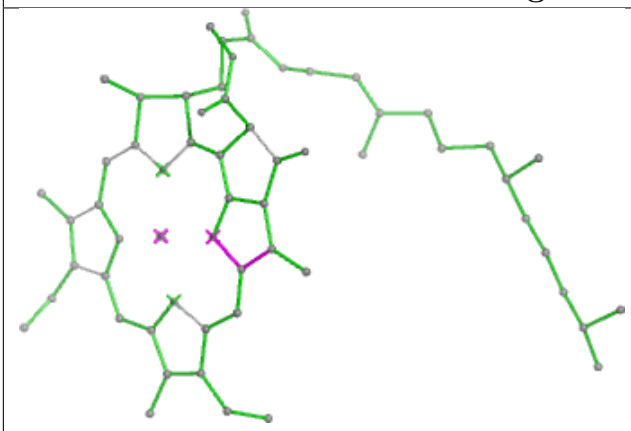
Ligand DGD b 318



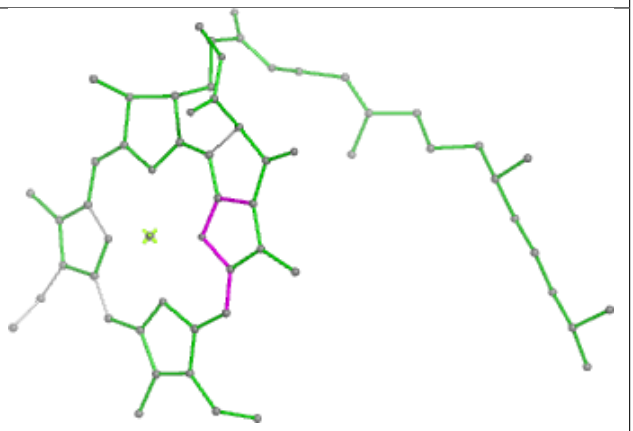
Ligand LMT c 333



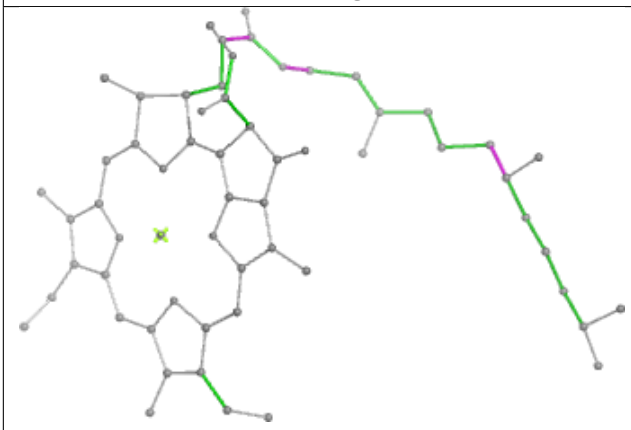
Ligand CLA d 307



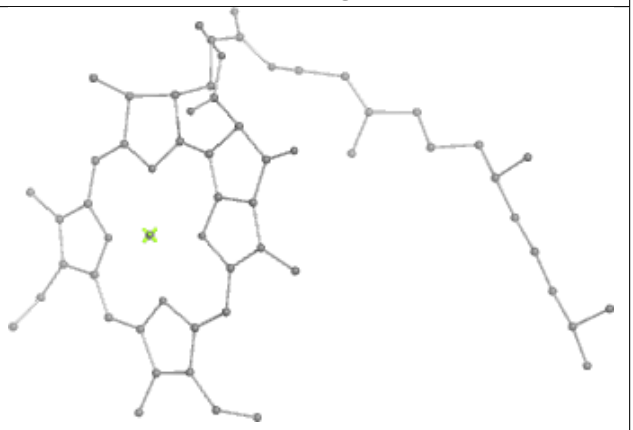
Bond lengths



Bond angles

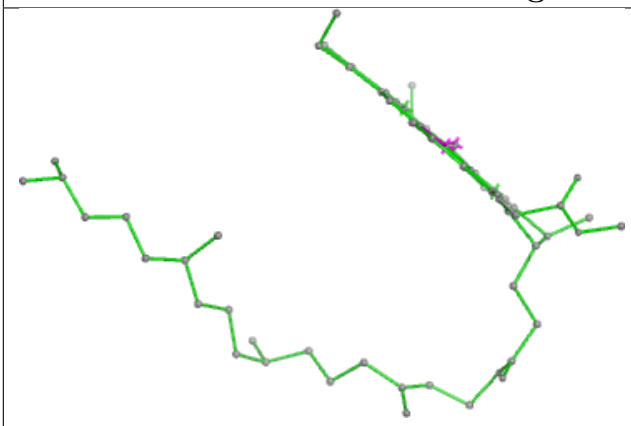


Torsions

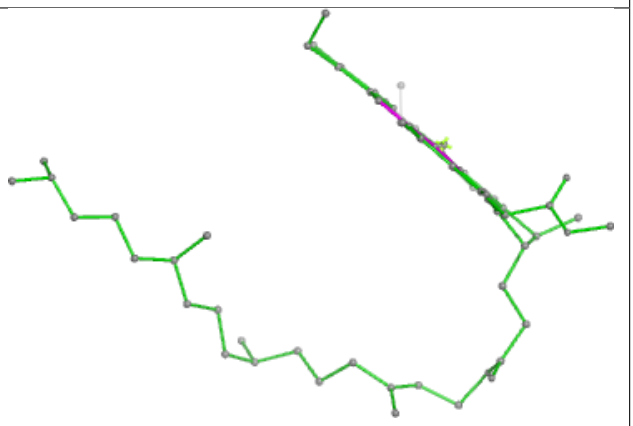


Rings

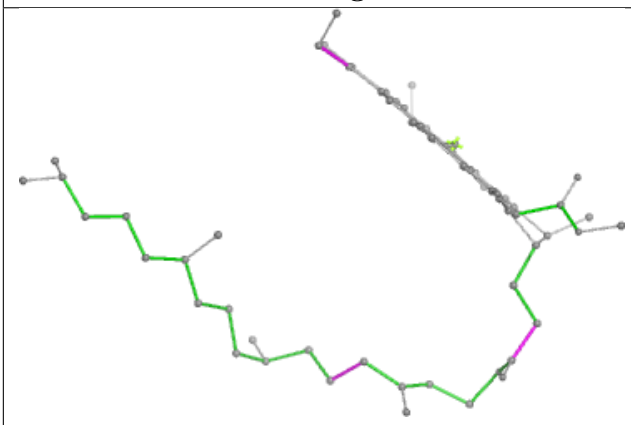
Ligand CLA b 306



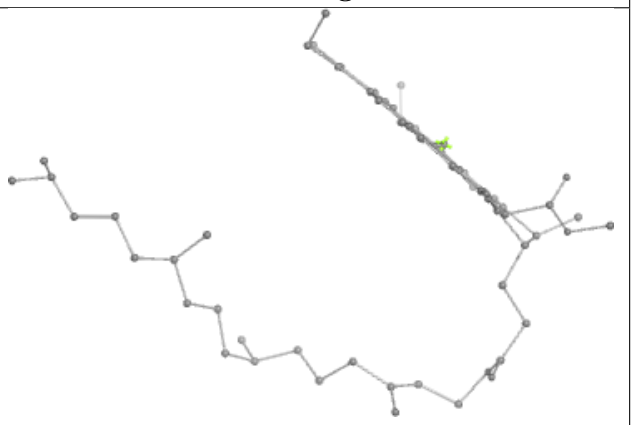
Bond lengths



Bond angles

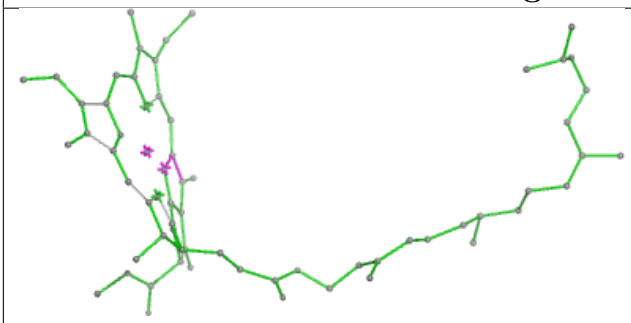


Torsions

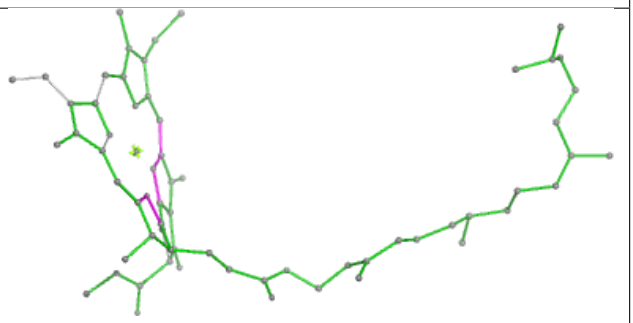


Rings

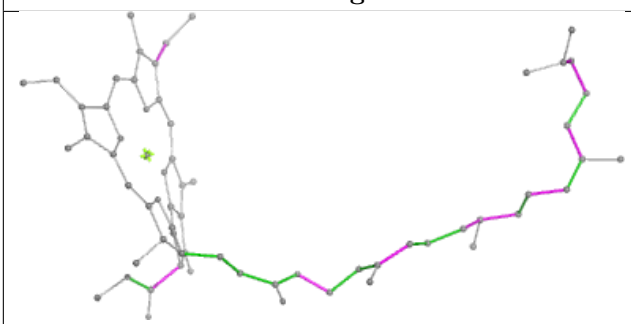
Ligand CLA A 420



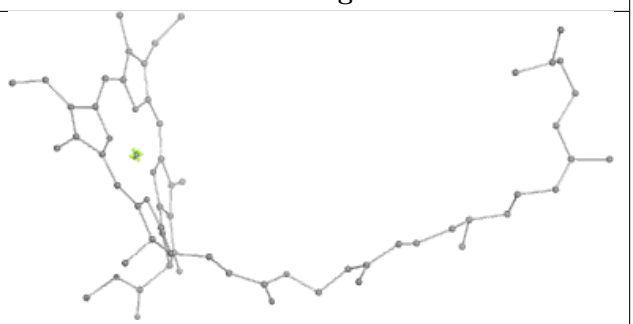
Bond lengths



Bond angles

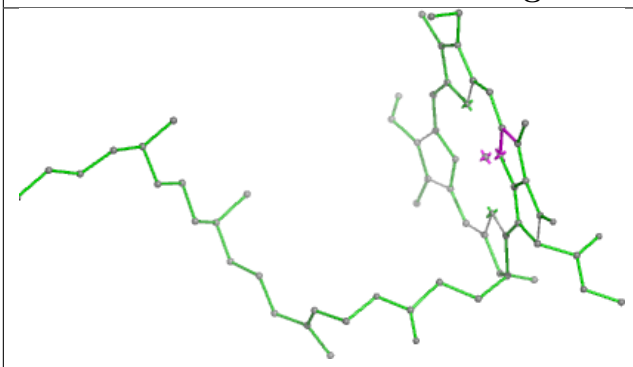


Torsions



Rings

Ligand CLA A 410



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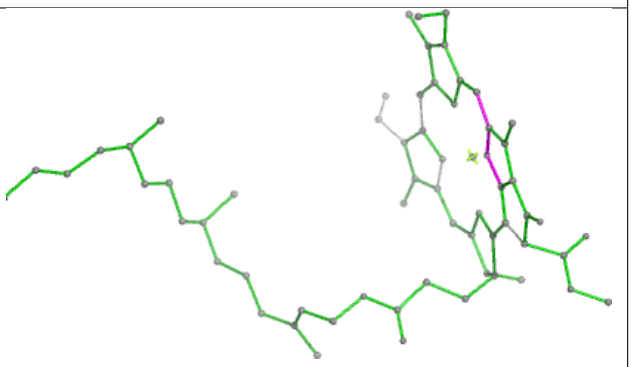
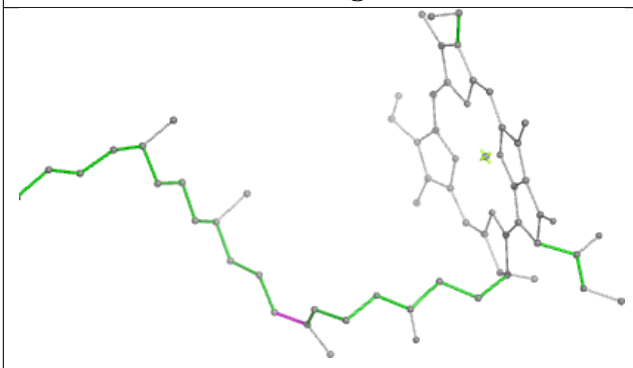
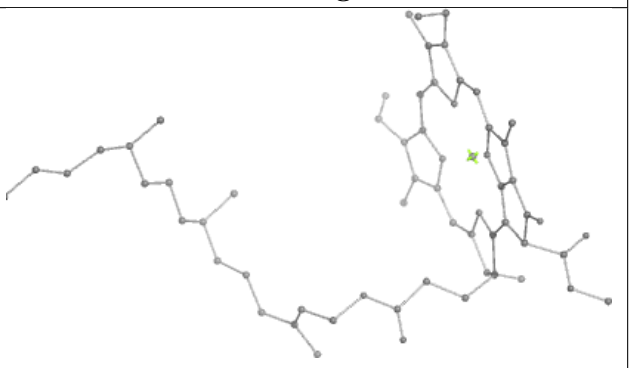


Bond angles

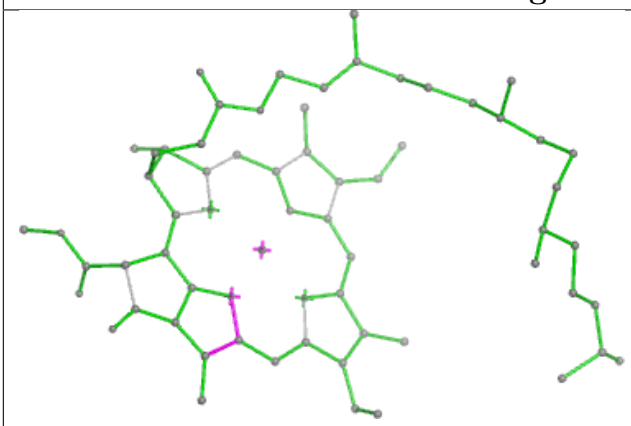


Torsions



Rings

Ligand CLA c 302



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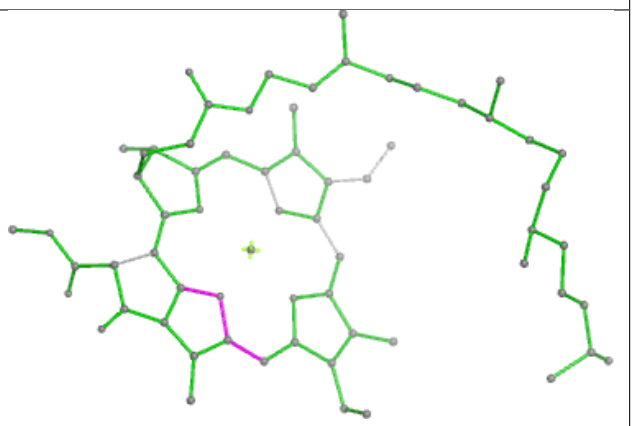
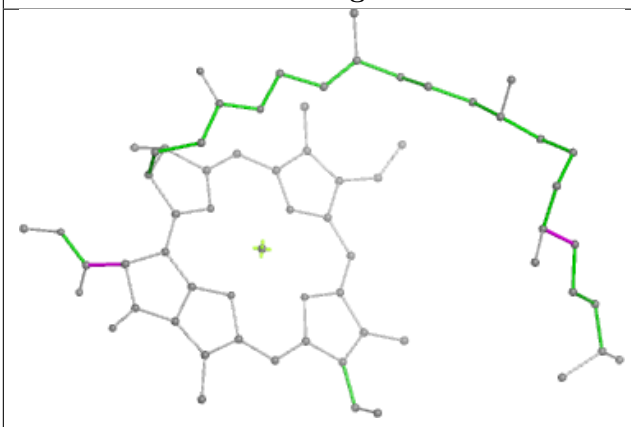


Bond angles



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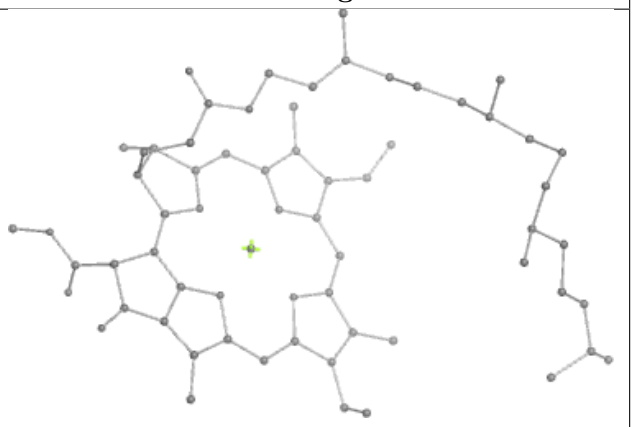
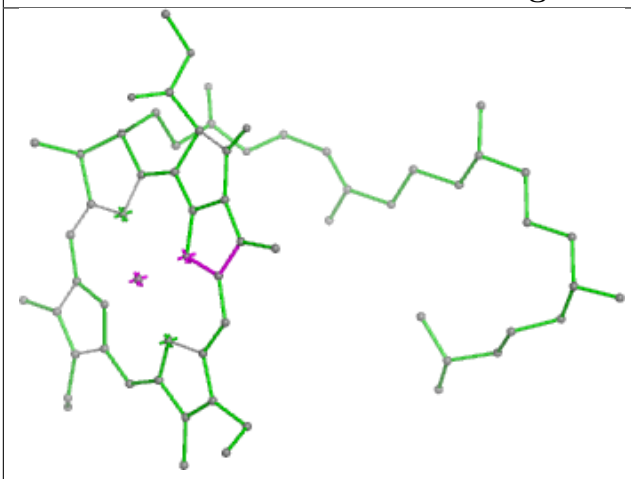


Rings

Ligand CLA e 305



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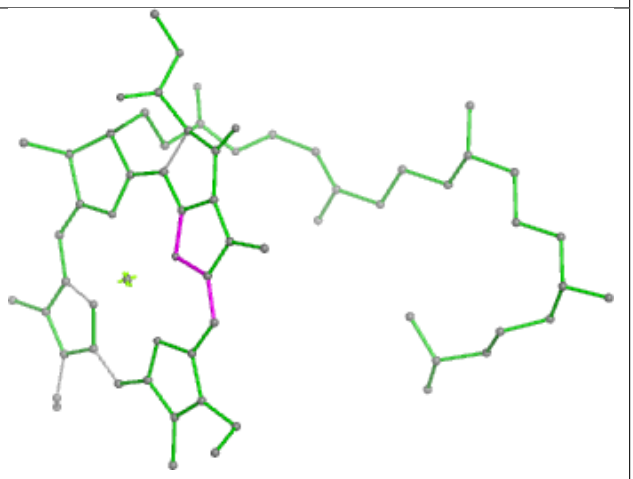
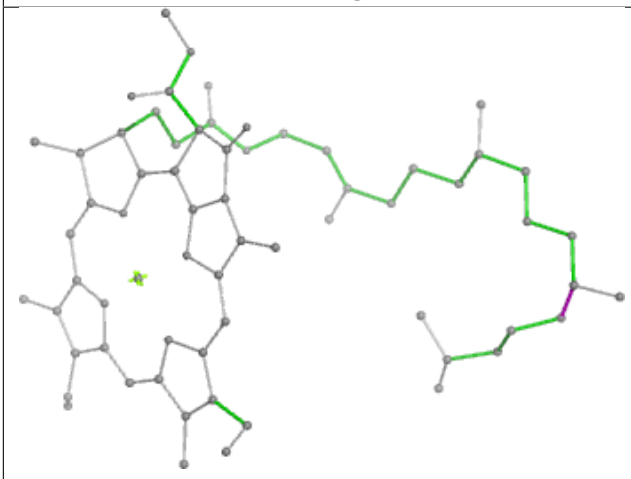


Bond angles



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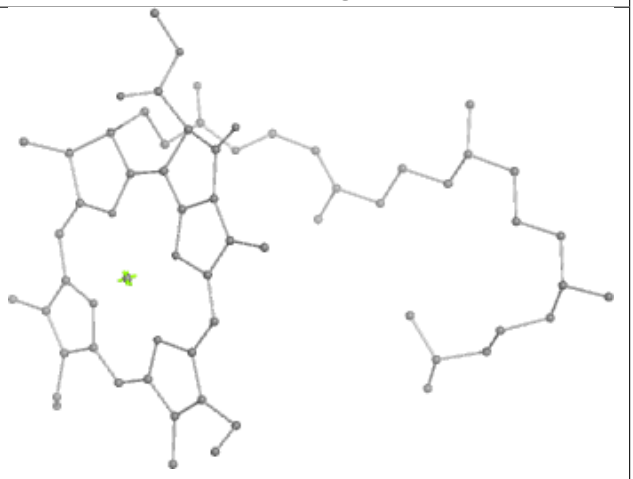
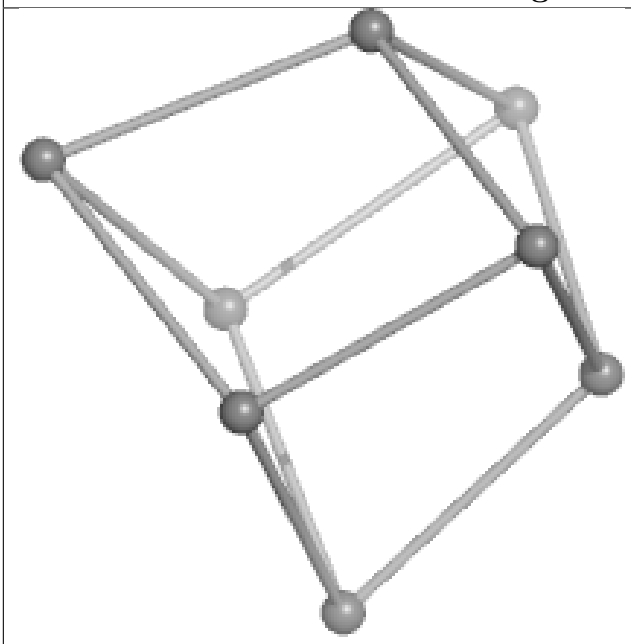


Rings

Ligand SF4 C 101



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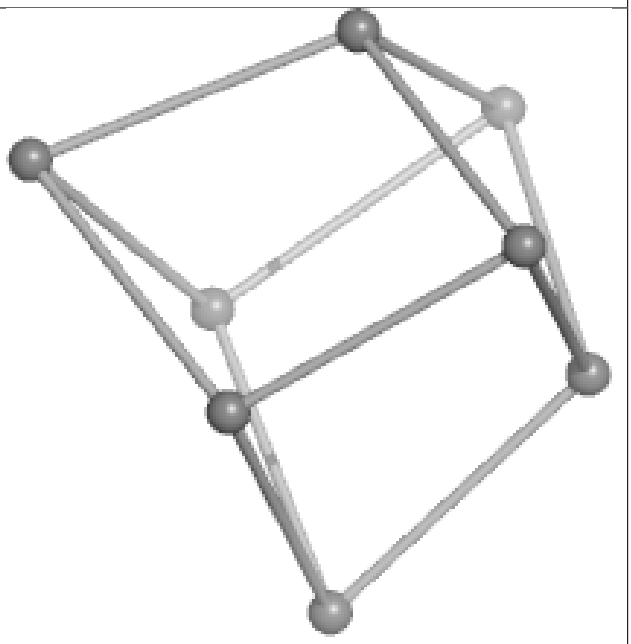
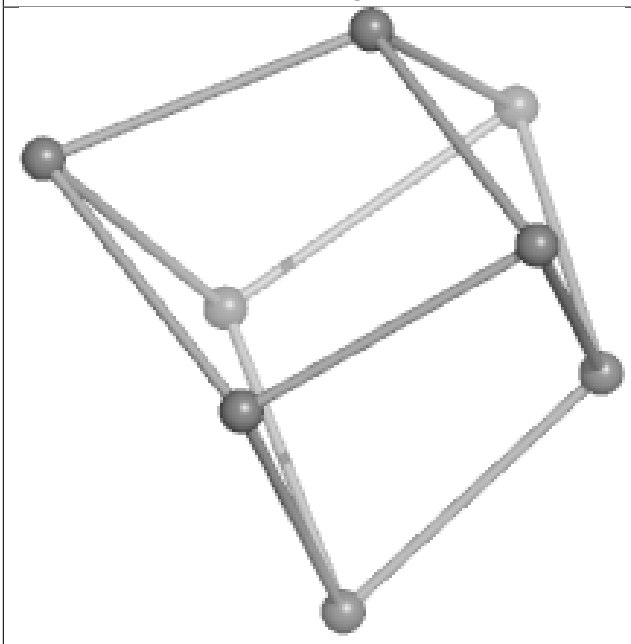
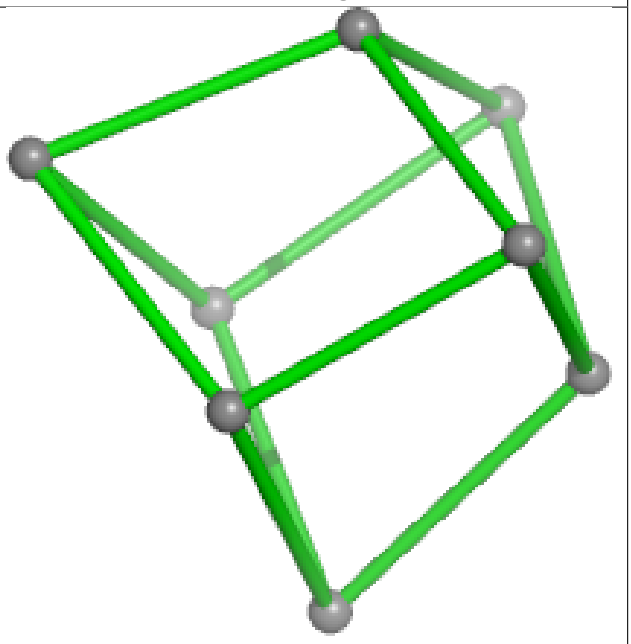


Bond angles

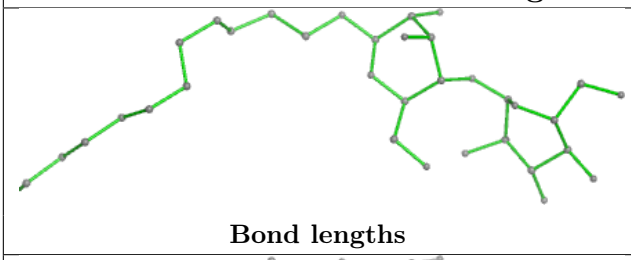


Torsions



Rings

Ligand LMT c 331



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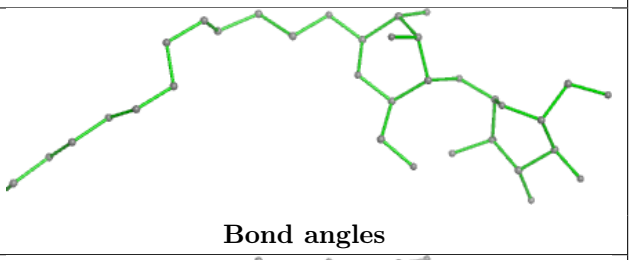
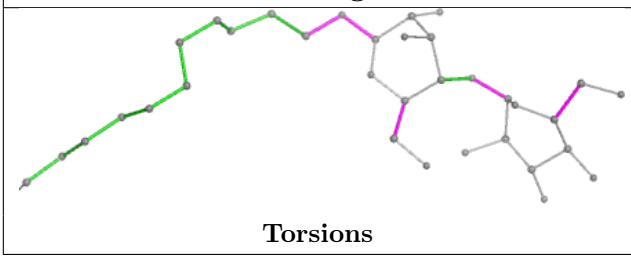


Bond angles



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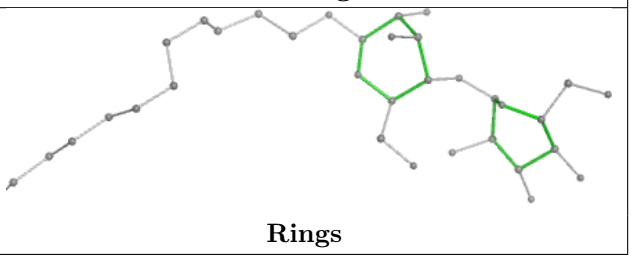
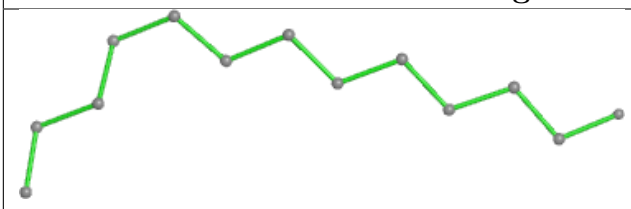
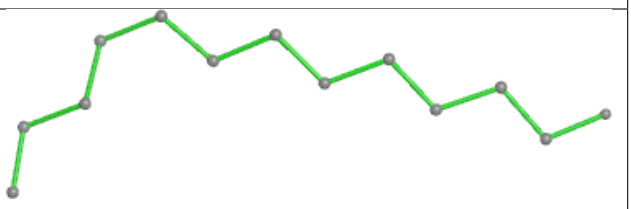


Rings

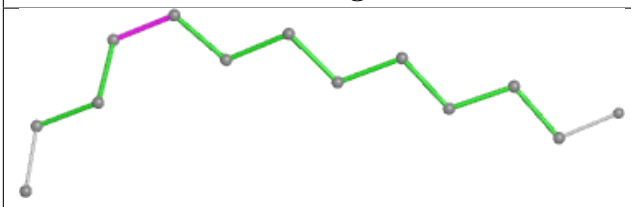
Ligand LMT B 1241



Bond lengths



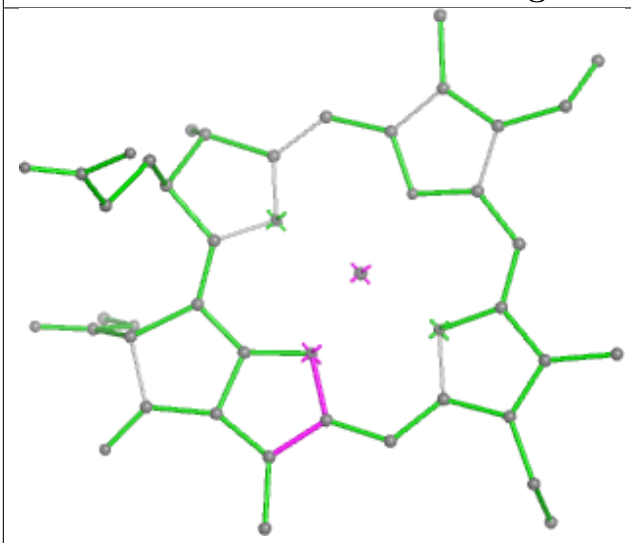
Bond angles



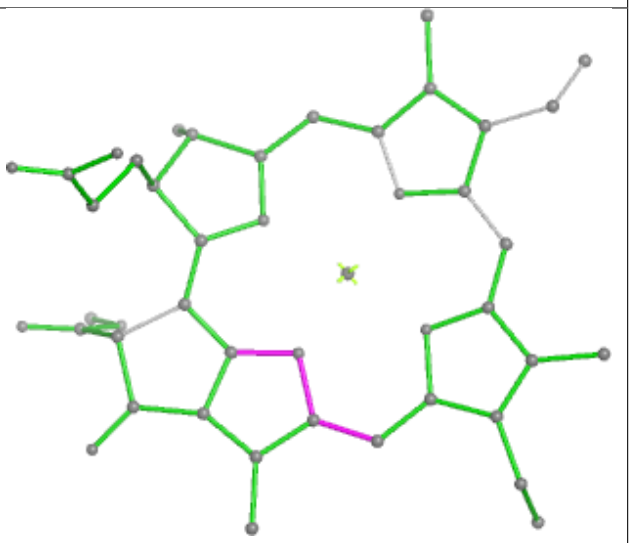
Torsions

Rings

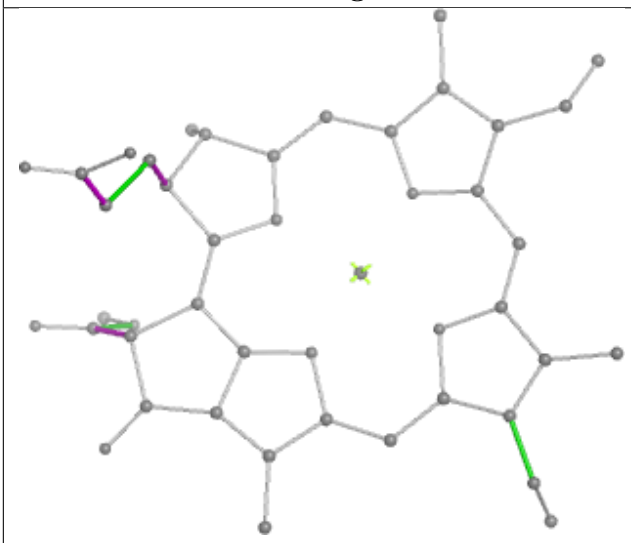
Ligand CLA a 405



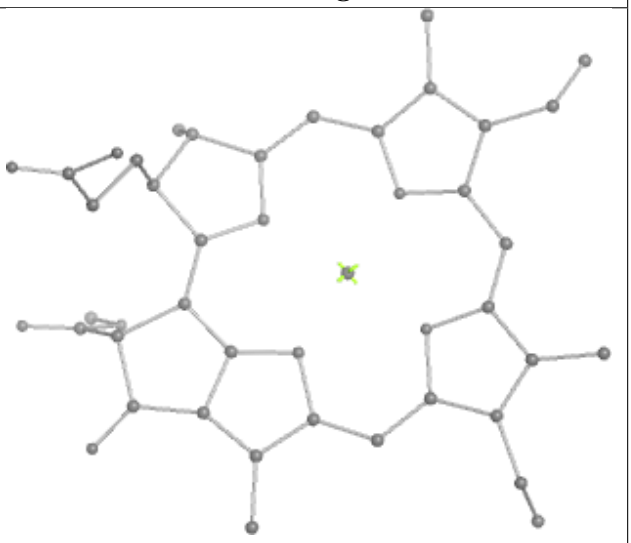
Bond lengths



Bond angles

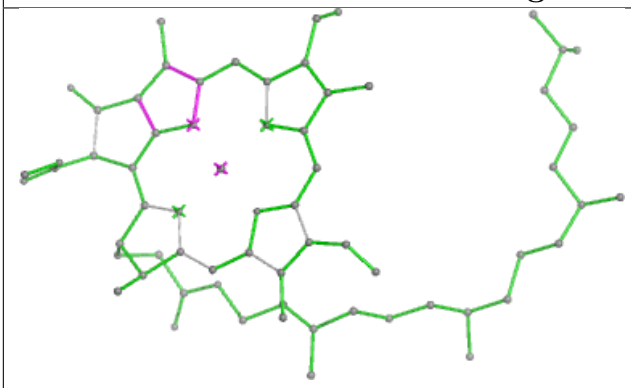


Torsions



Rings

Ligand CLA d 306



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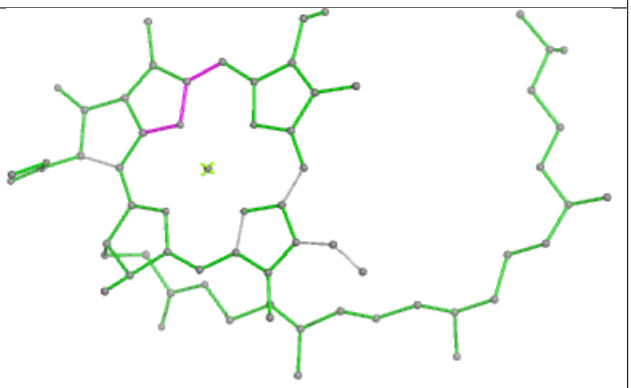
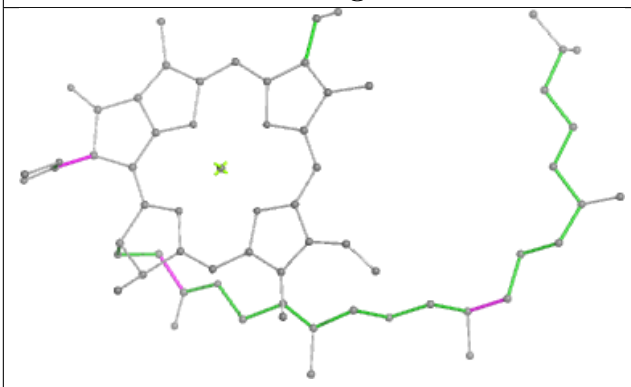


Bond angles



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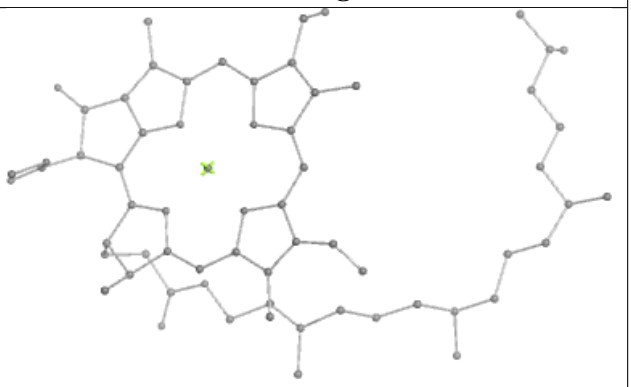
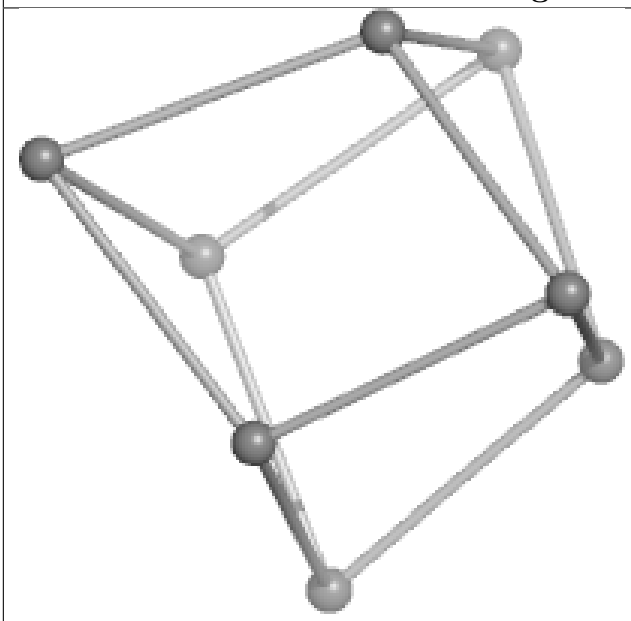


Rings

Ligand SF4 C 102



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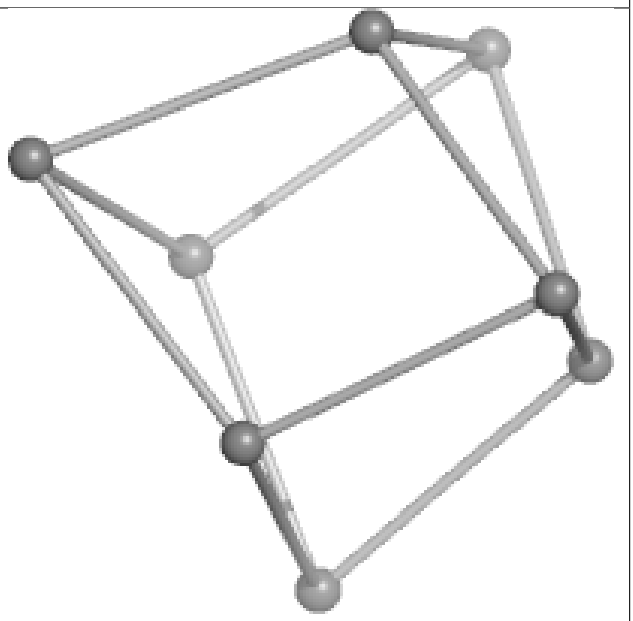
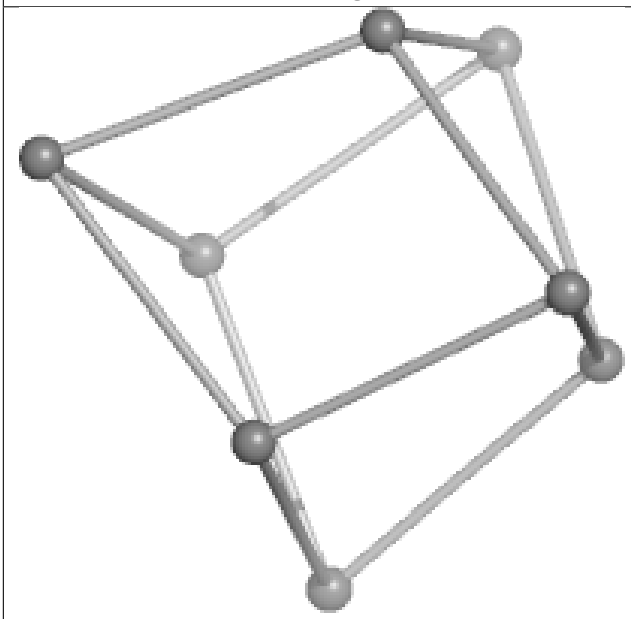


Bond angles



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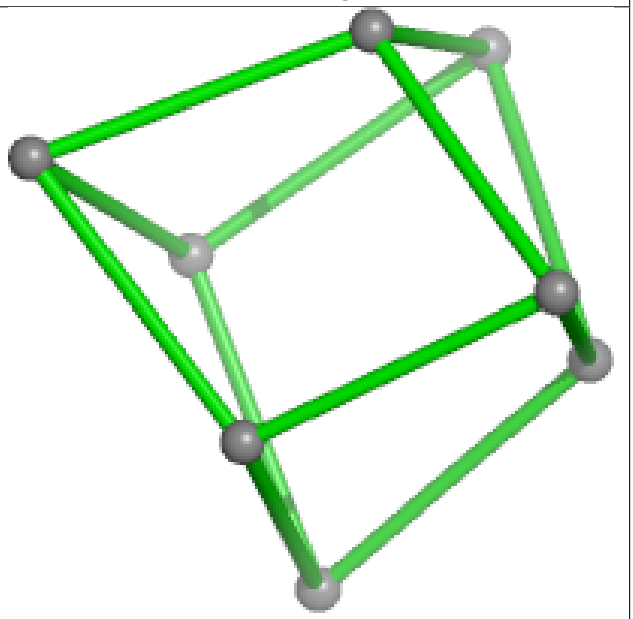
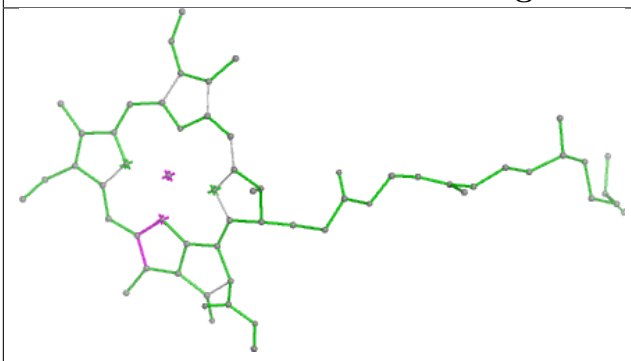


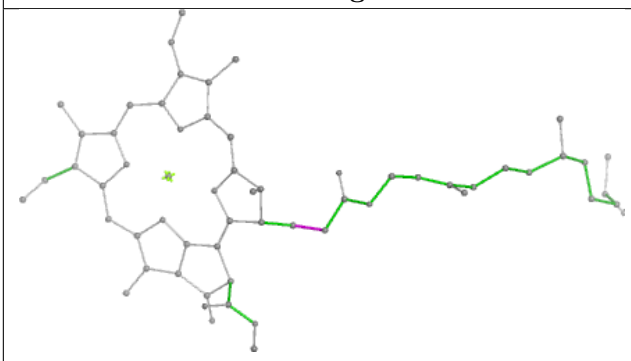
Rings

Ligand CLA B 1206

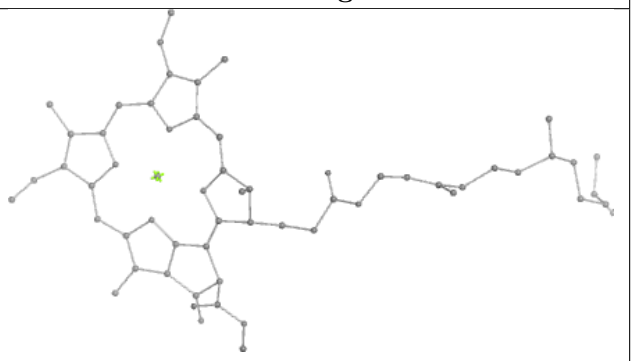


Bond lengths

Bond angles

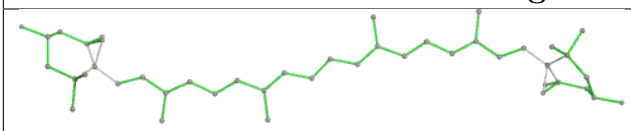


Torsions

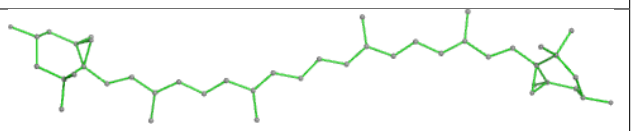


Rings

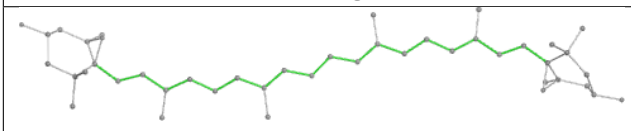
Ligand XAT e 310



Bond lengths



Bond angles



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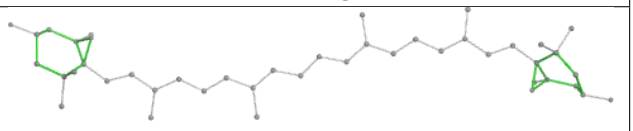
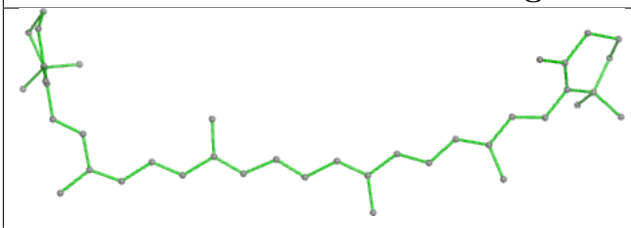
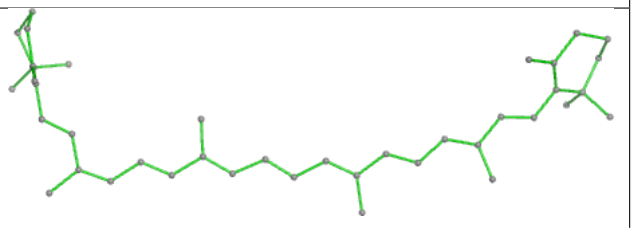


Rings

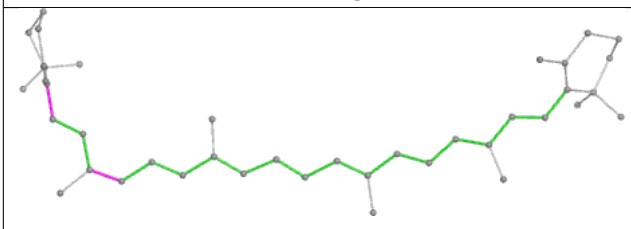
Ligand BCR L 306



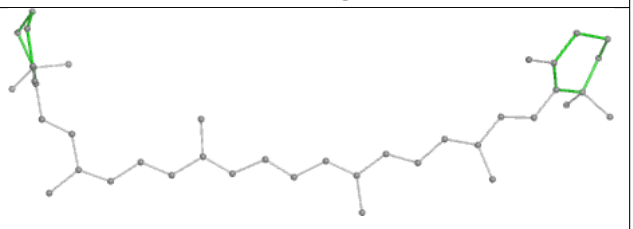
Bond lengths



Bond angles

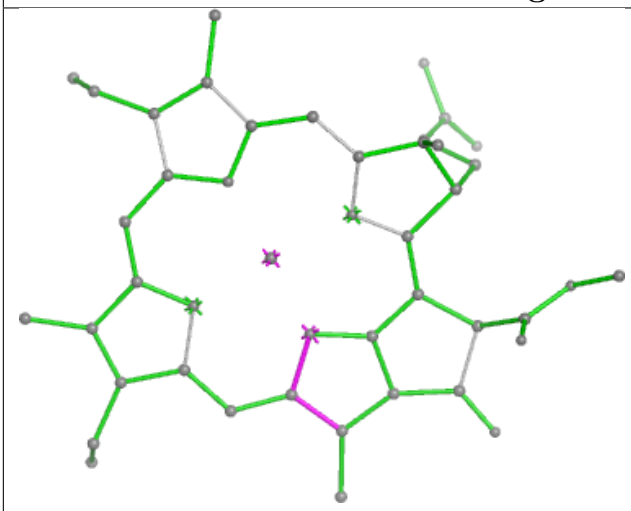


Torsions

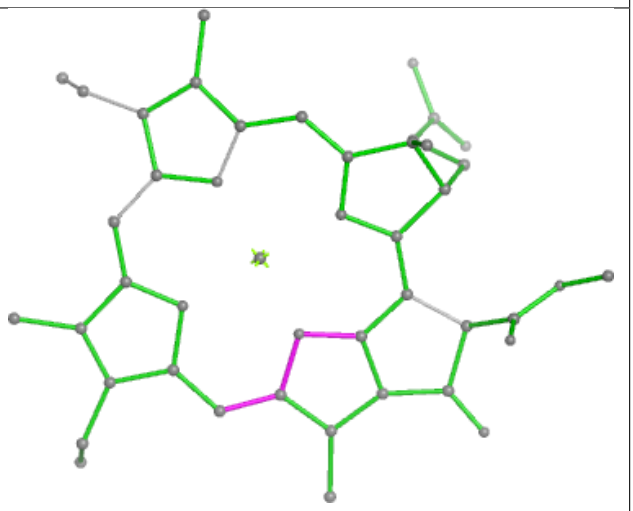


Rings

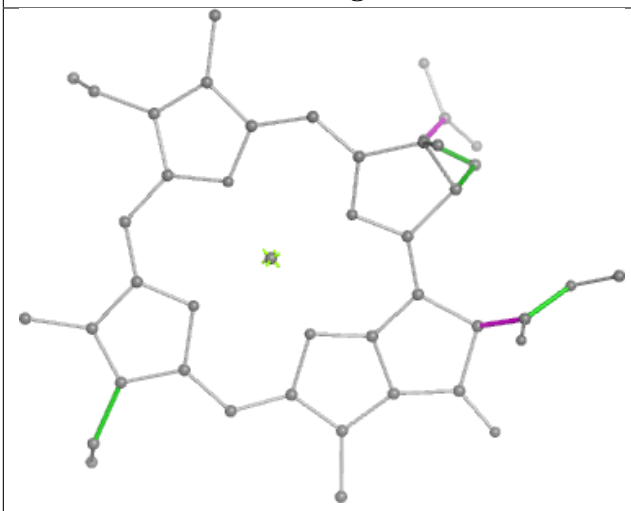
Ligand CLA a 411



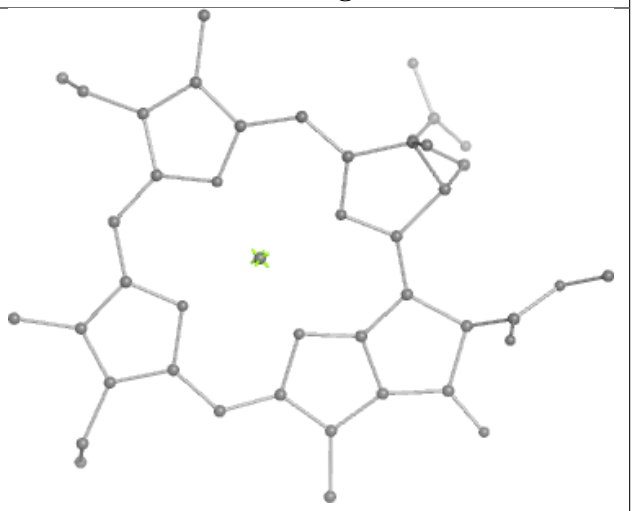
Bond lengths



Bond angles

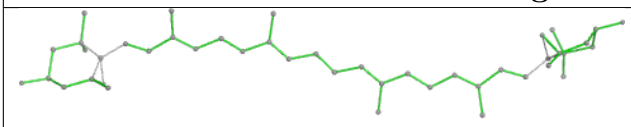


Torsions

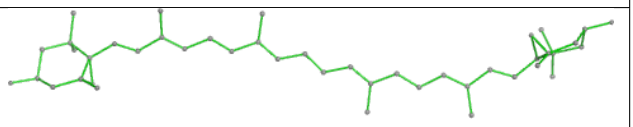


Rings

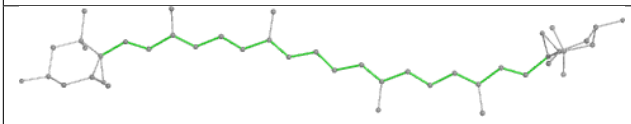
Ligand XAT f 319



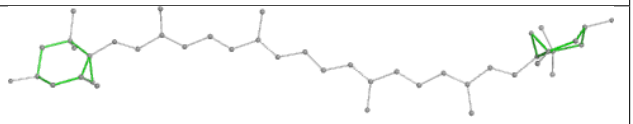
Bond lengths



Bond angles

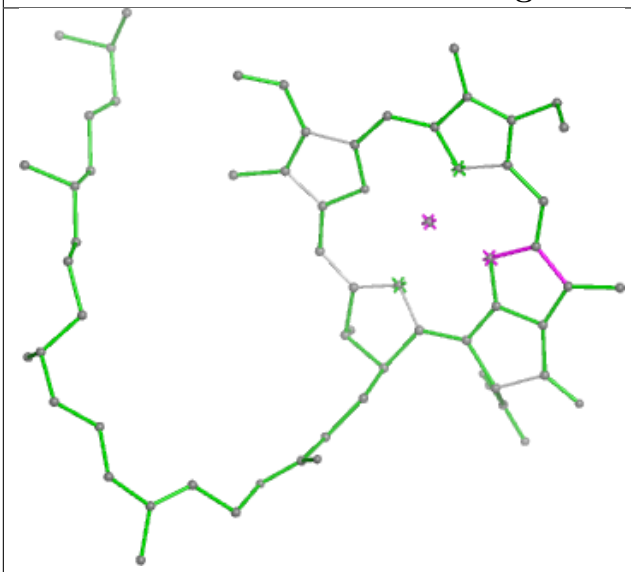


Torsions

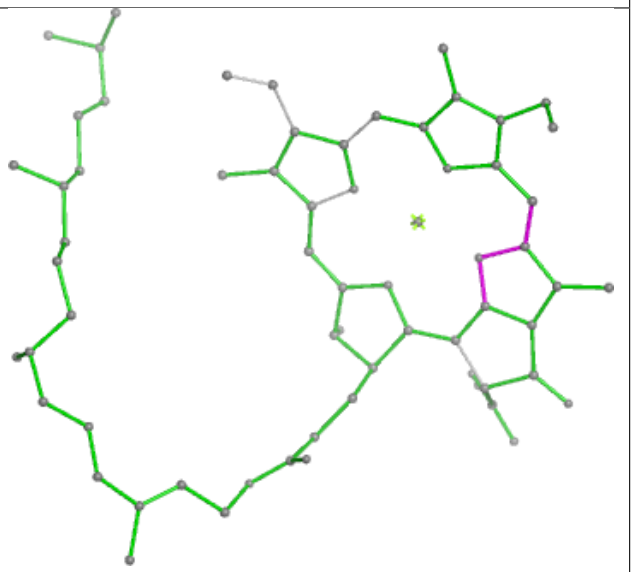


Rings

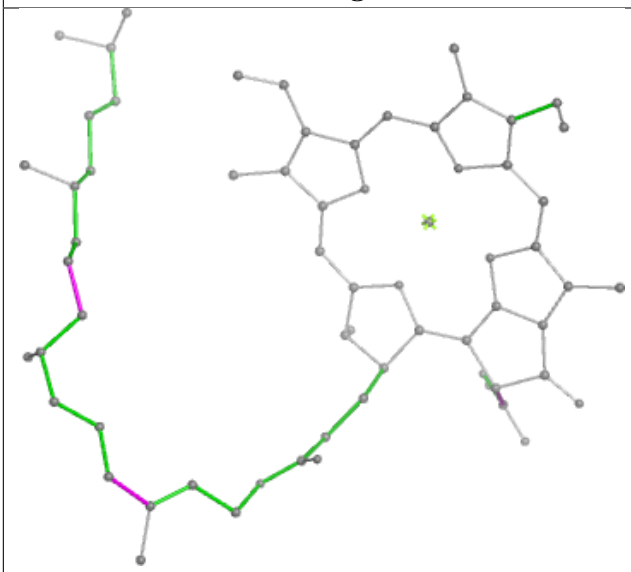
Ligand CLA B 1226



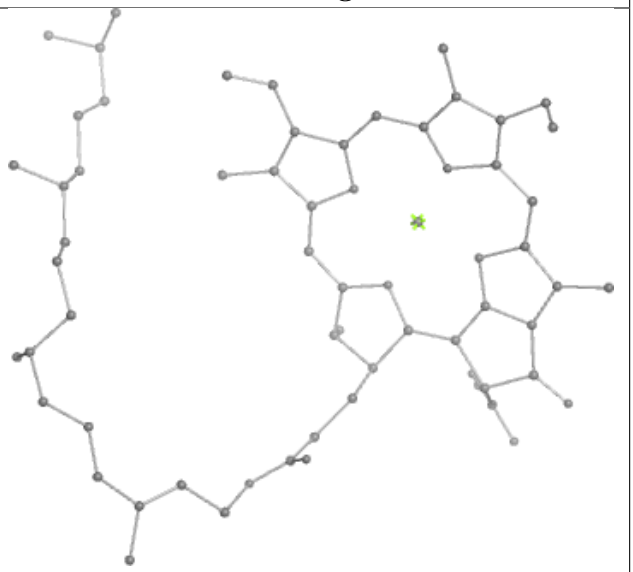
Bond lengths



Bond angles

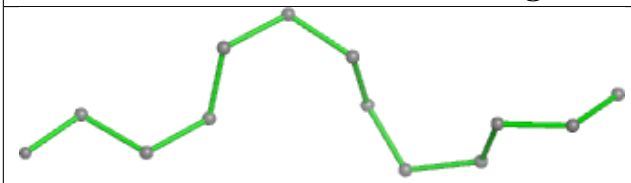


Torsions

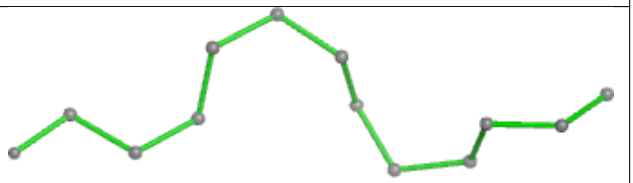


Rings

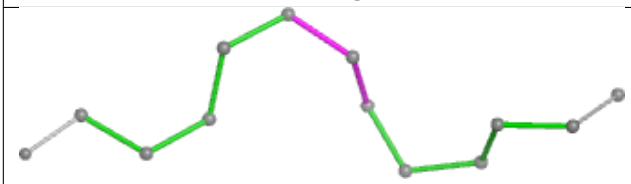
Ligand LMT d 320



Bond lengths



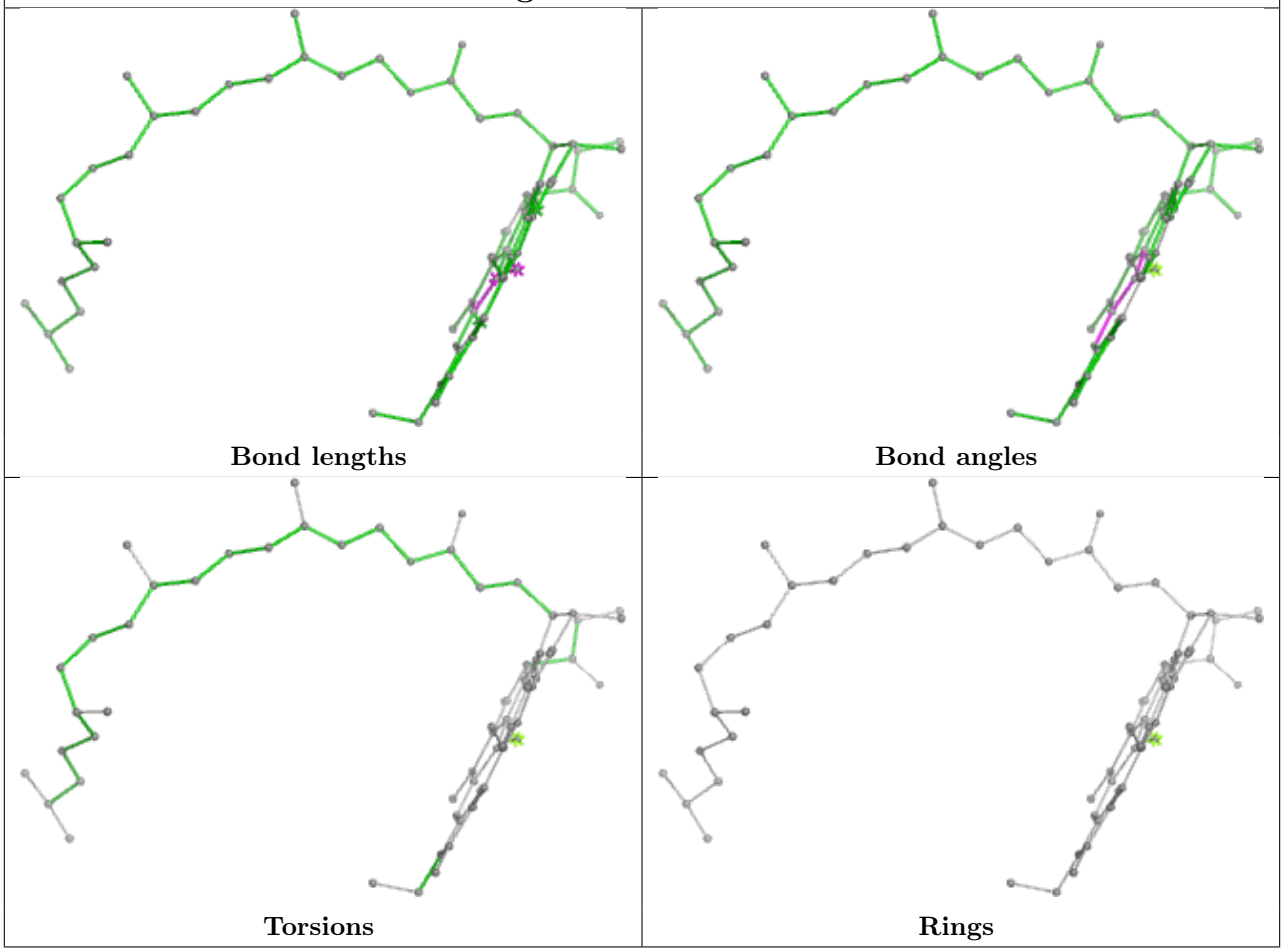
Bond angles



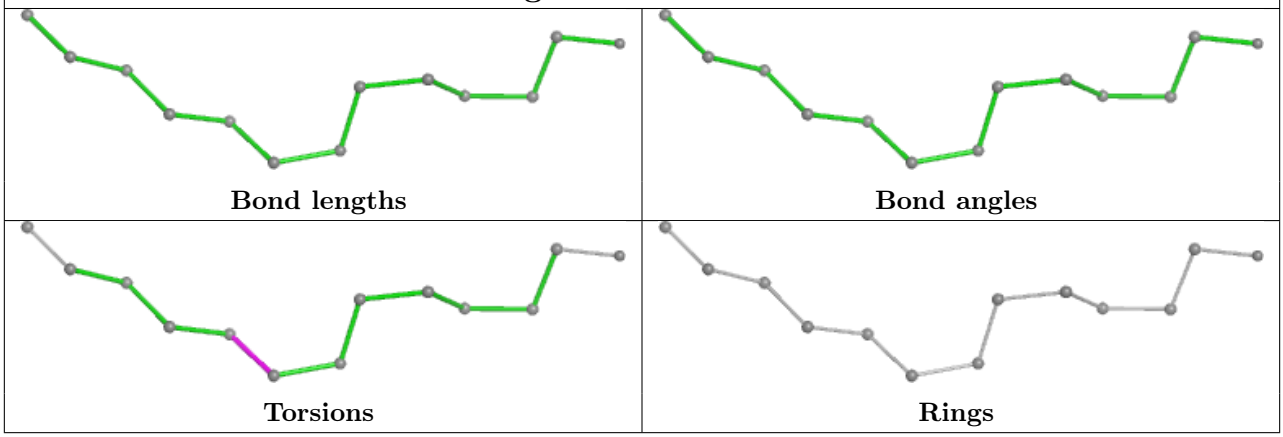
Torsions

Rings

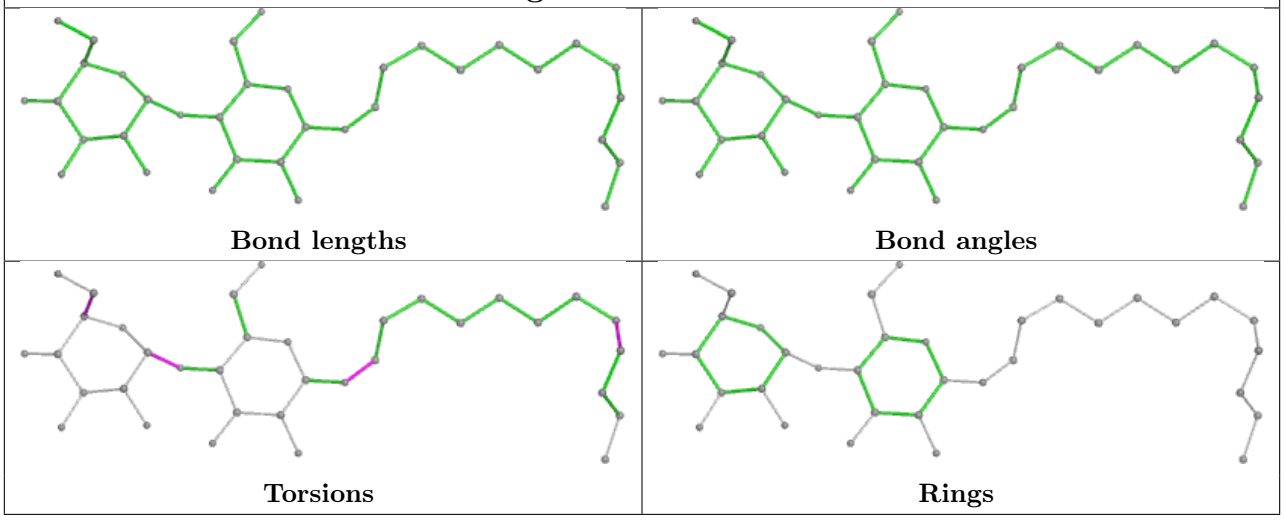
Ligand CLA B 1215



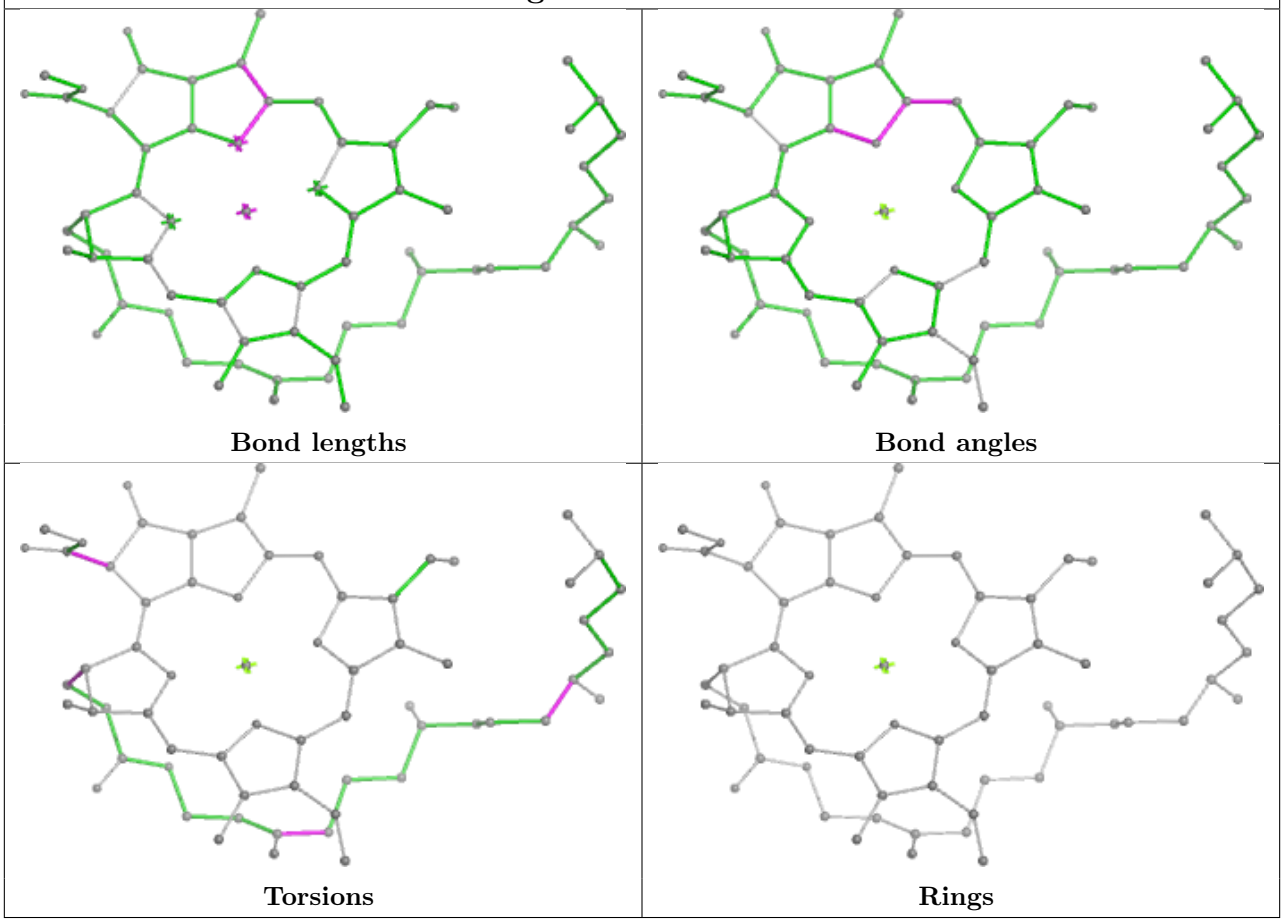
Ligand LMT L 302



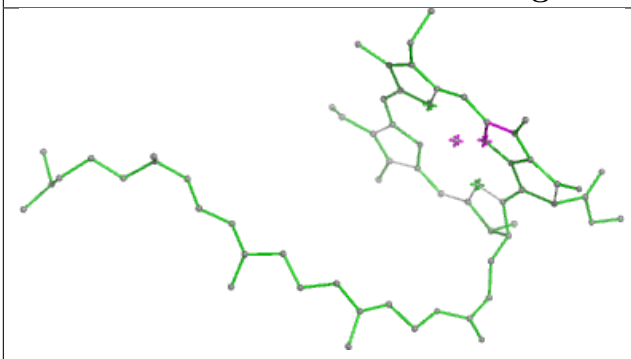
Ligand LMT a 409



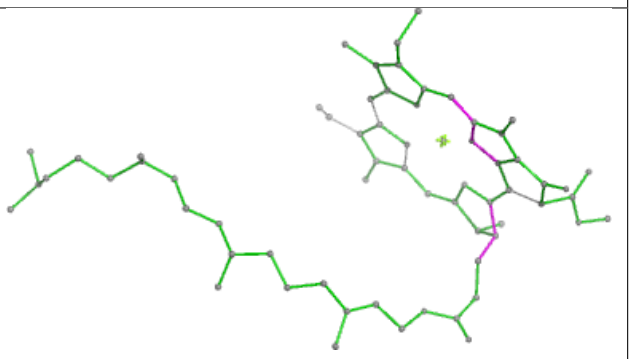
Ligand CLA F 404



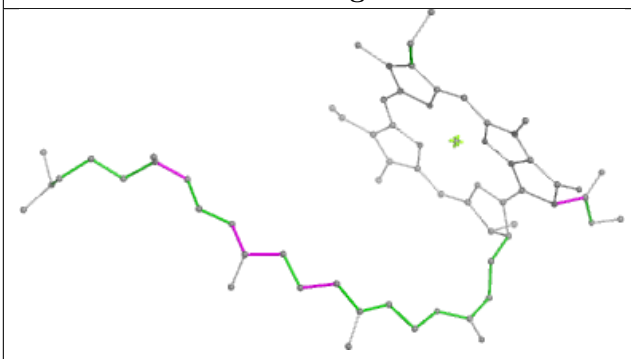
Ligand CLA f 308



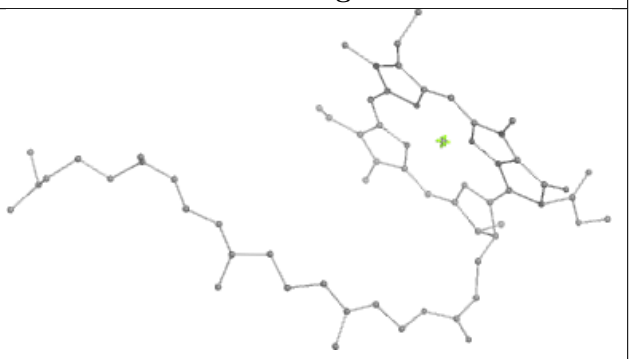
Bond lengths



Bond angles

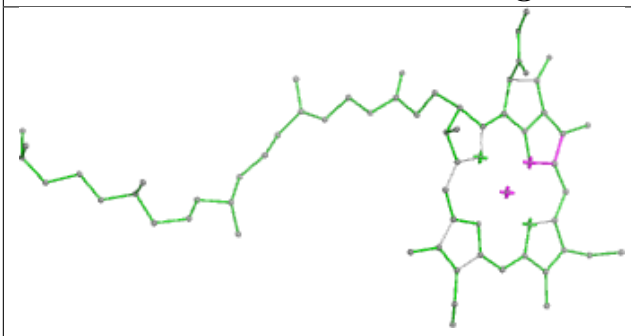


Torsions

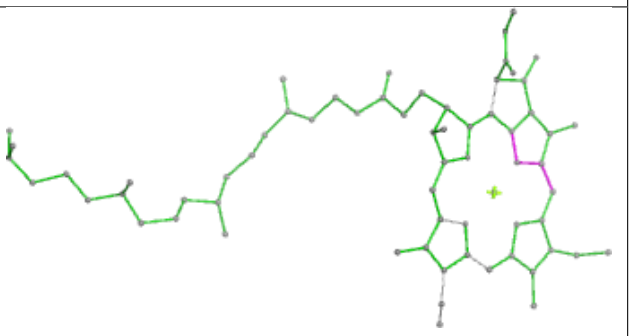


Rings

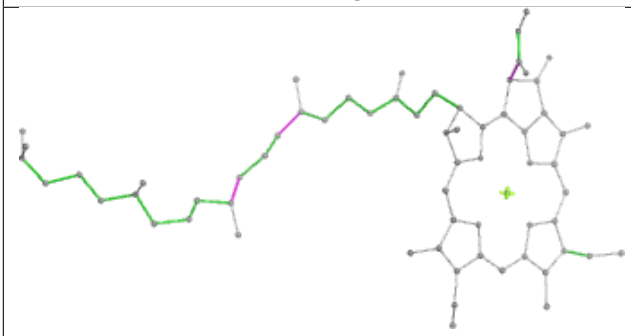
Ligand CLA B 1229



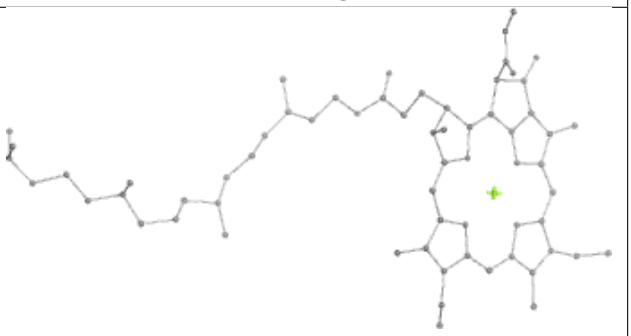
Bond lengths



Bond angles

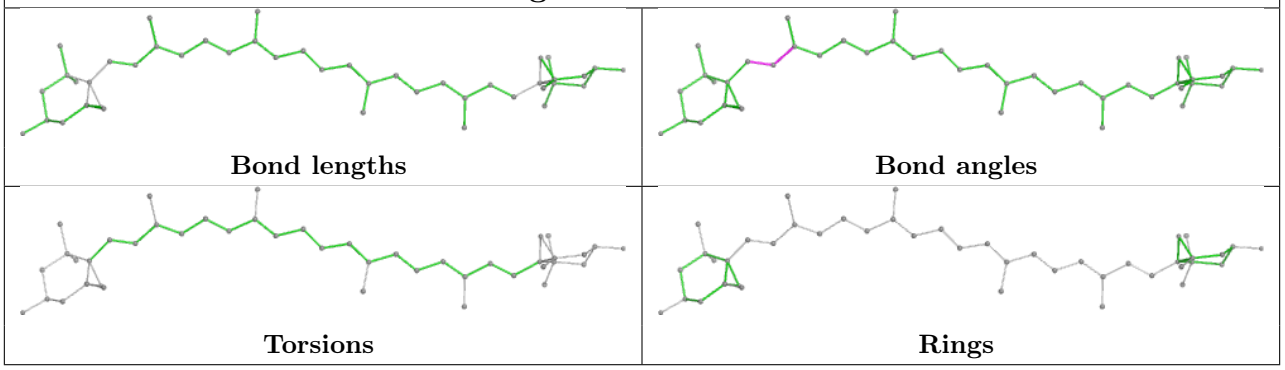


Torsions

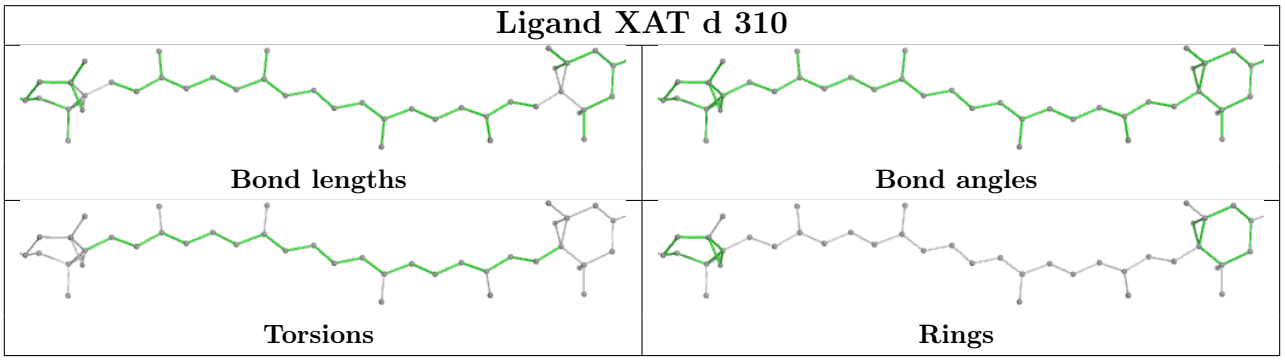


Rings

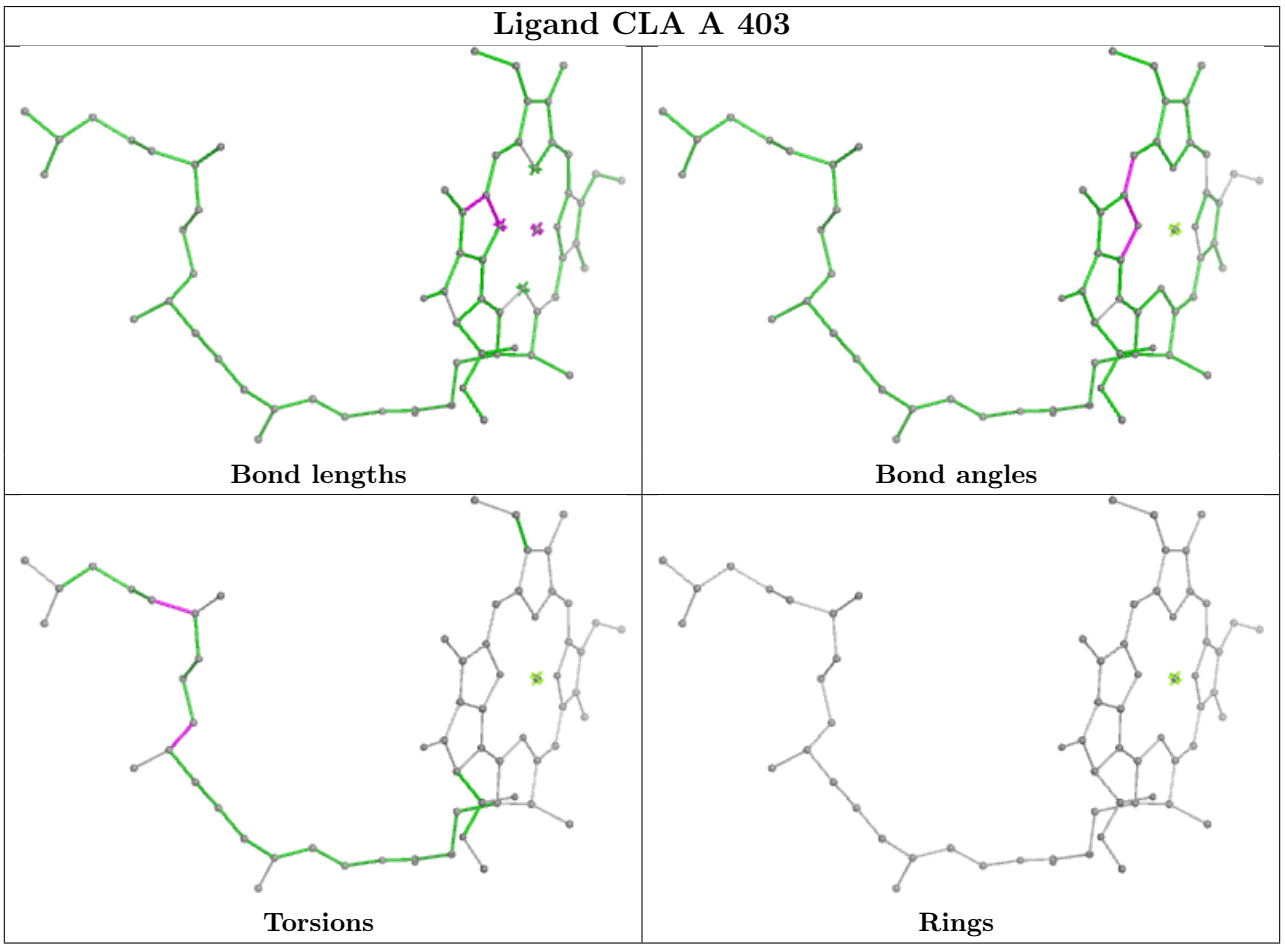
Ligand XAT c 315



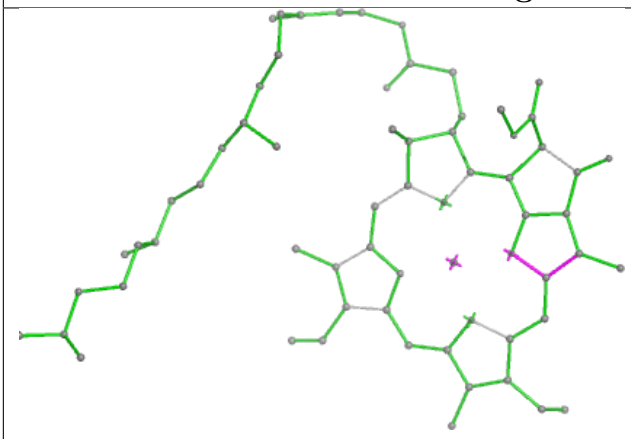
Ligand XAT d 310



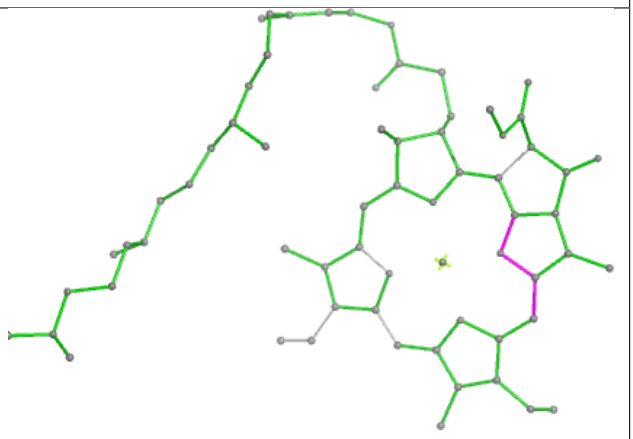
Ligand CLA A 403



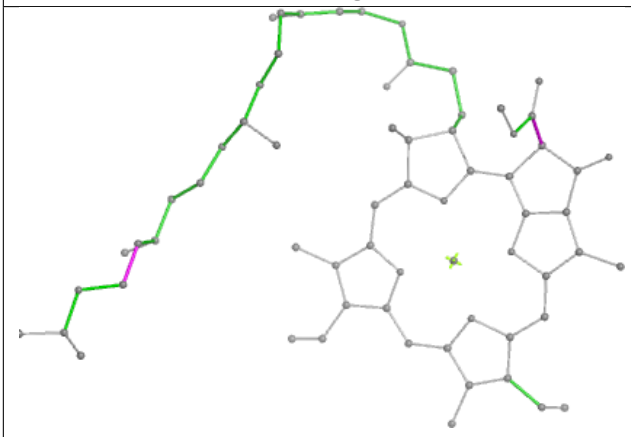
Ligand CLA B 1227



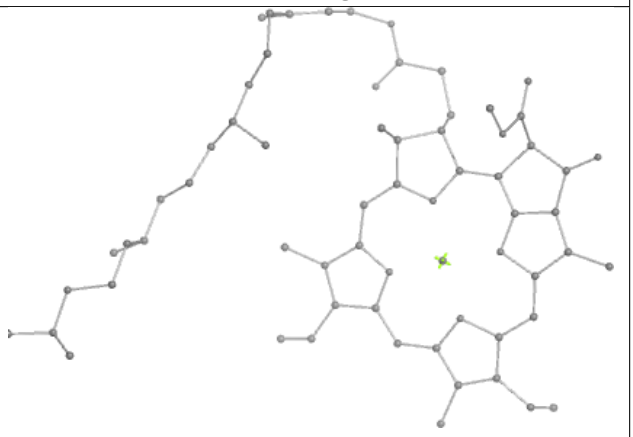
Bond lengths



Bond angles

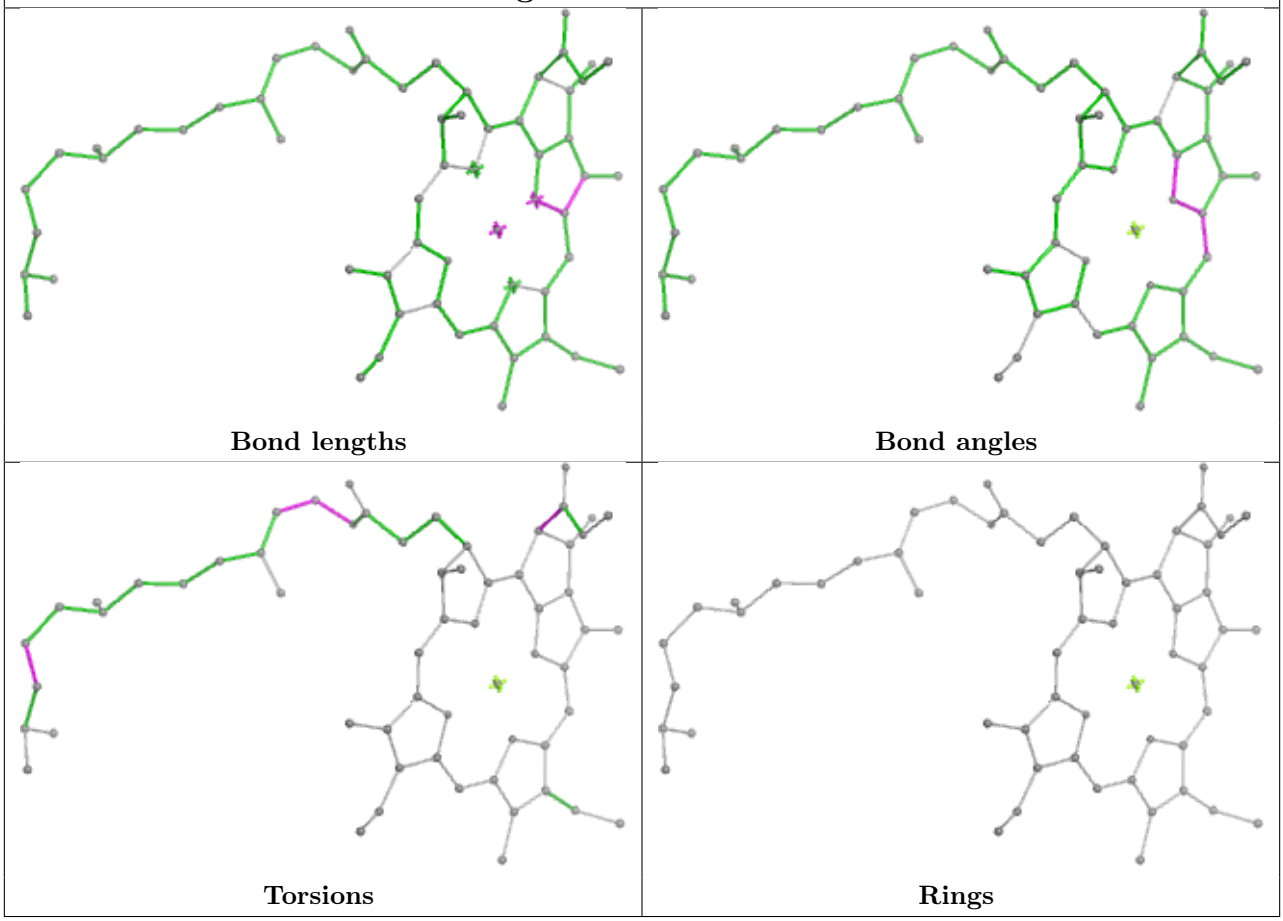


Torsions

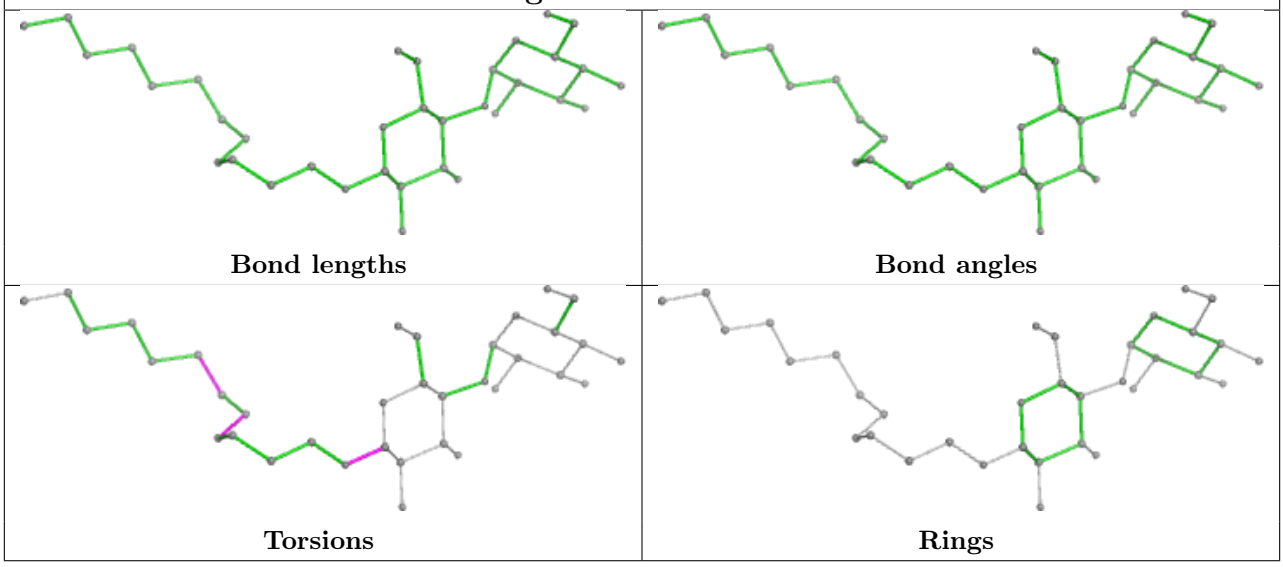


Rings

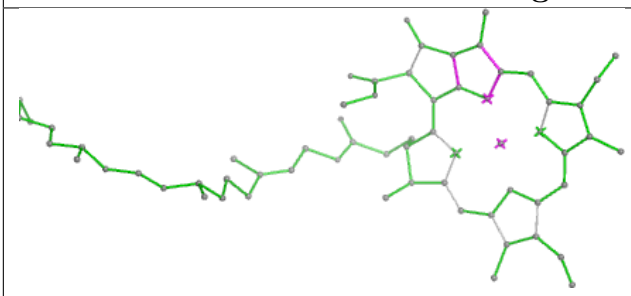
Ligand CLA B 1220



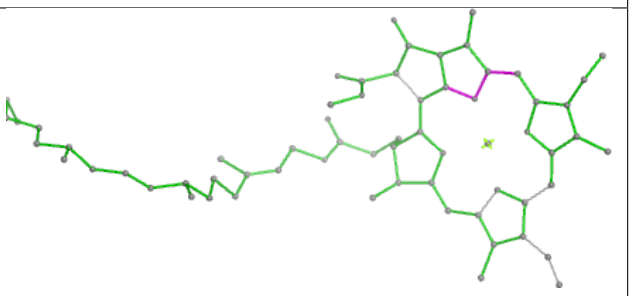
Ligand LMT d 317



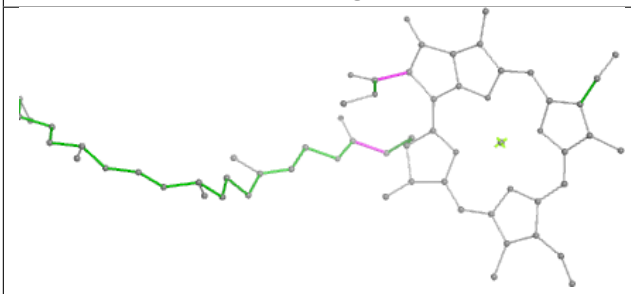
Ligand CLA f 317



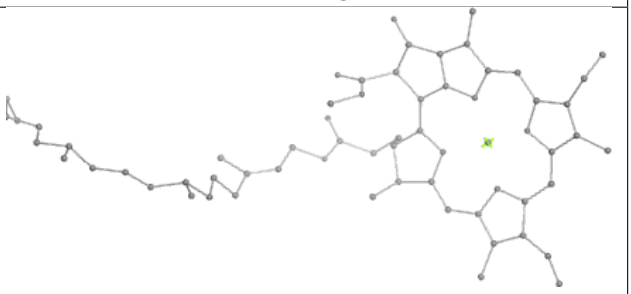
Bond lengths



Bond angles

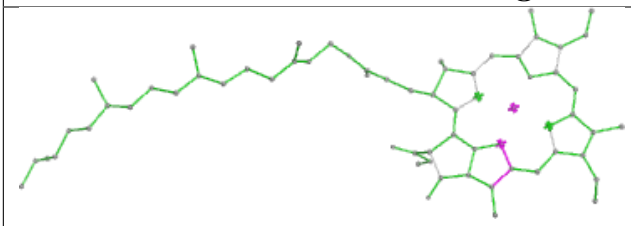


Torsions



Rings

Ligand CLA B 1213



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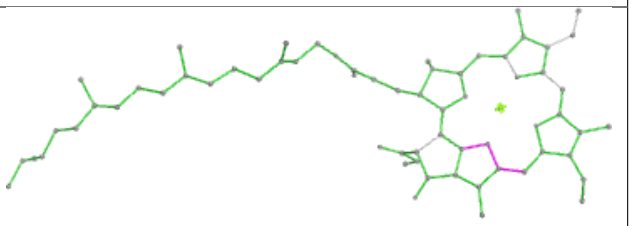
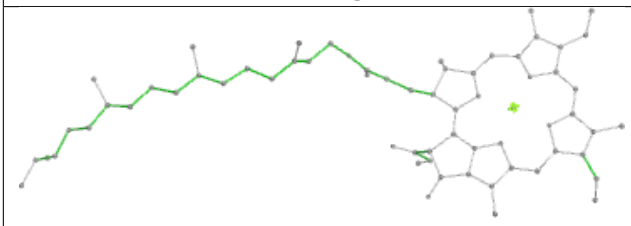
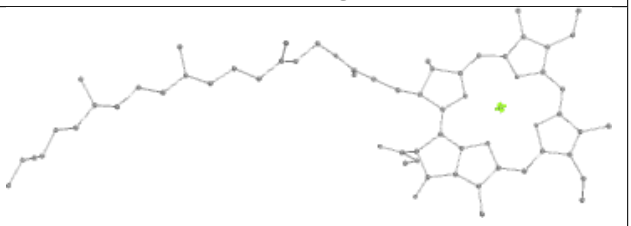


Bond angles

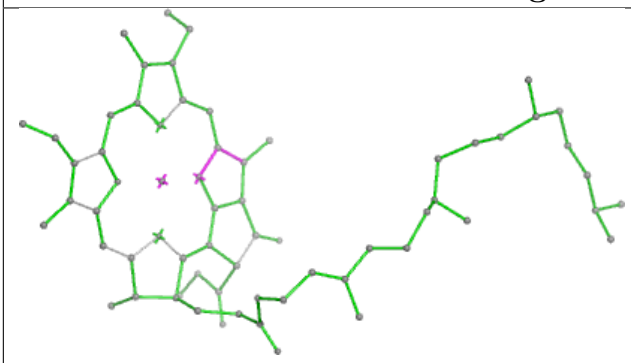


Torsions

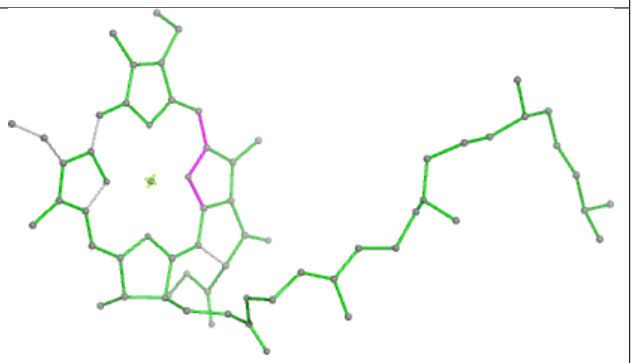


Rings

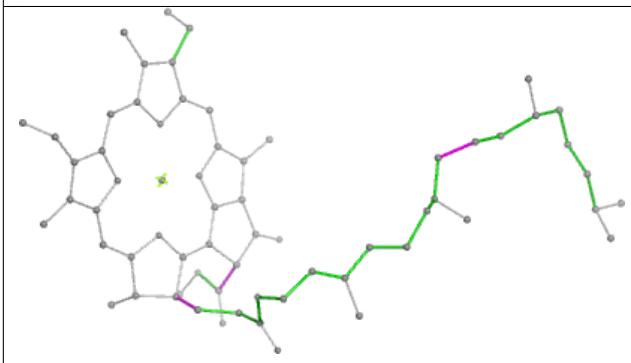
Ligand CLA e 307



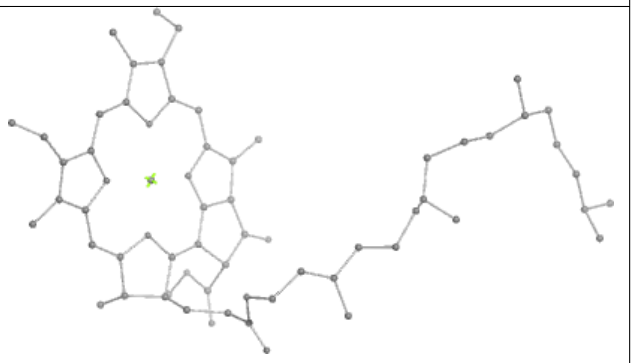
Bond lengths



Bond angles

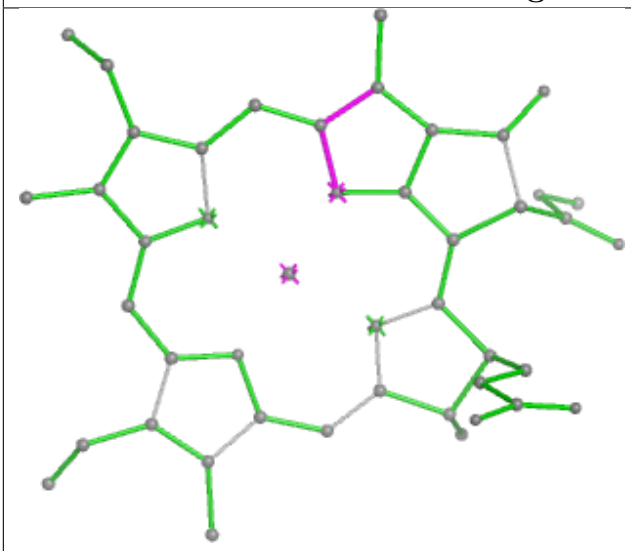


Torsions

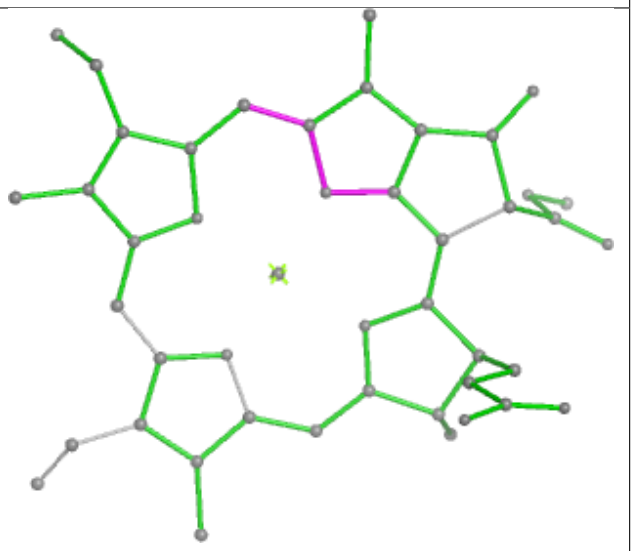


Rings

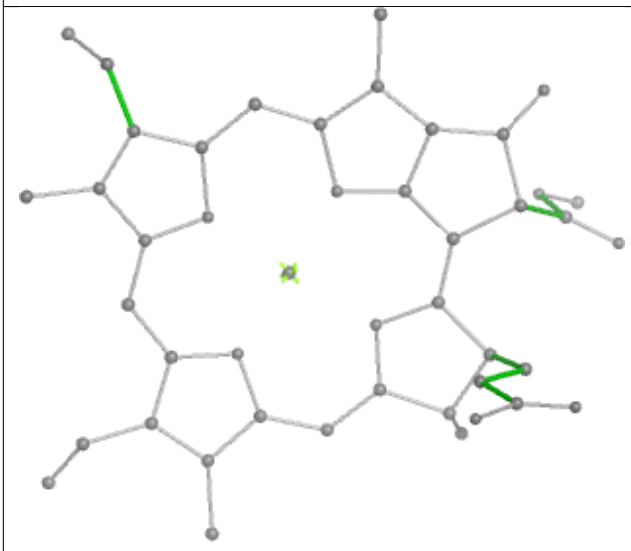
Ligand CLA b 311



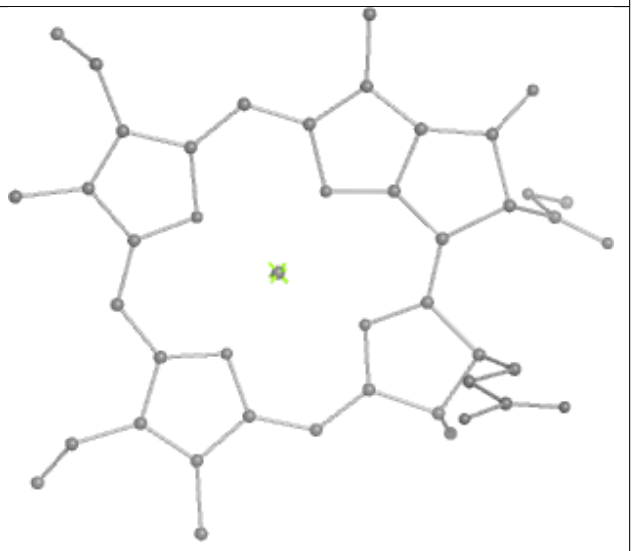
Bond lengths



Bond angles

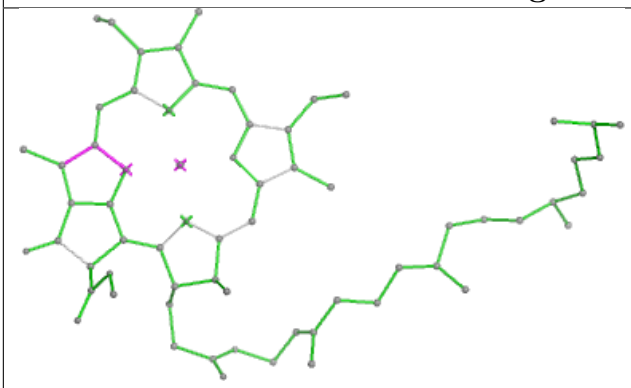


Torsions

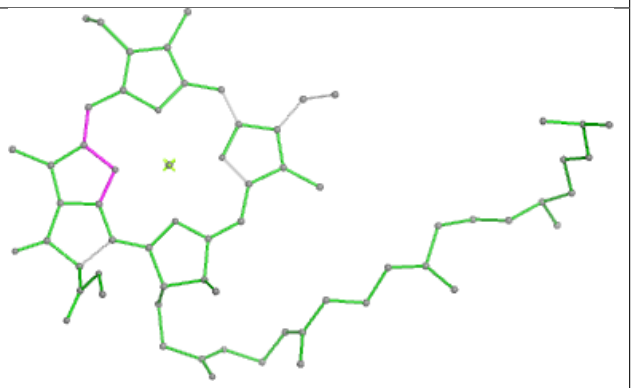


Rings

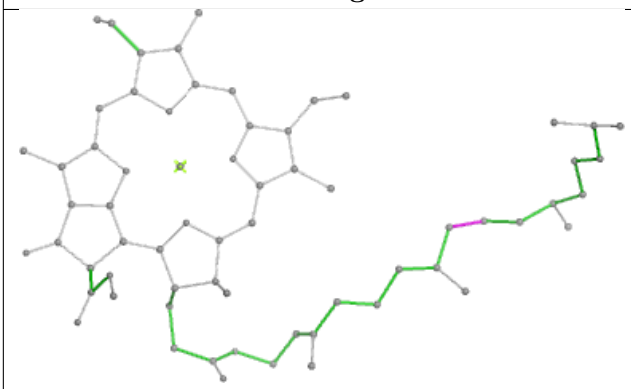
Ligand CLA e 308



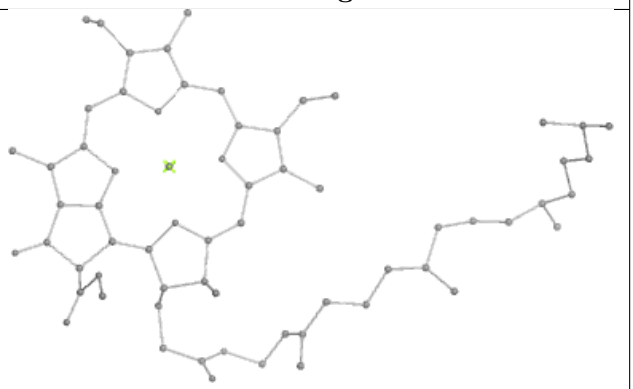
Bond lengths



Bond angles

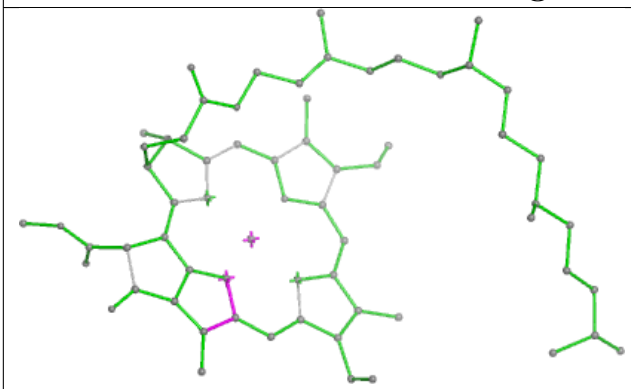


Torsions

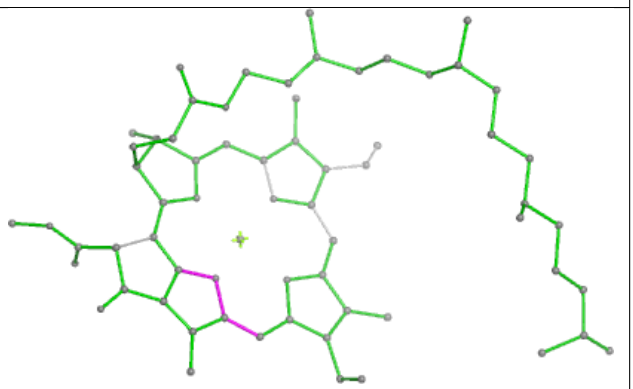


Rings

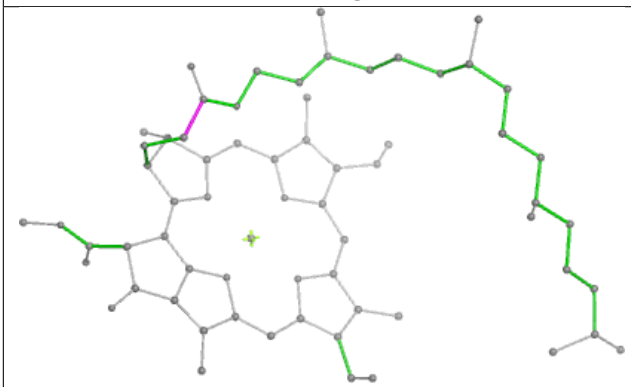
Ligand CLA e 302



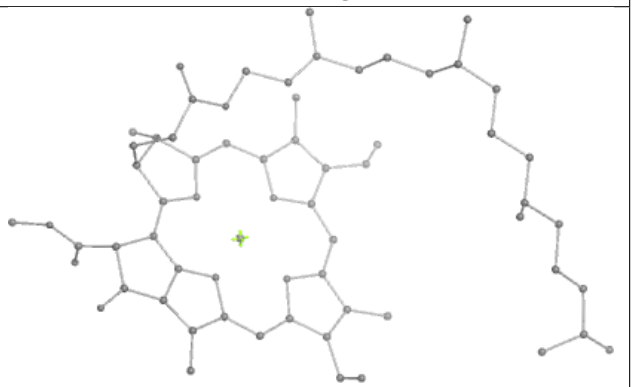
Bond lengths



Bond angles

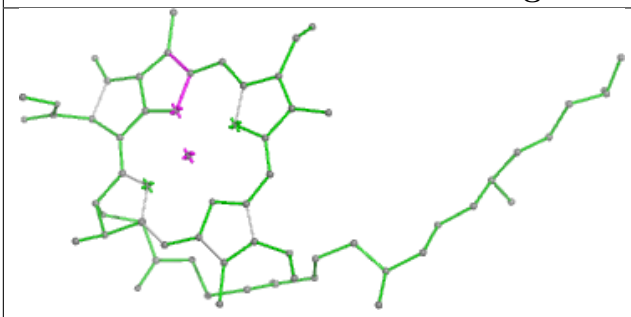


Torsions

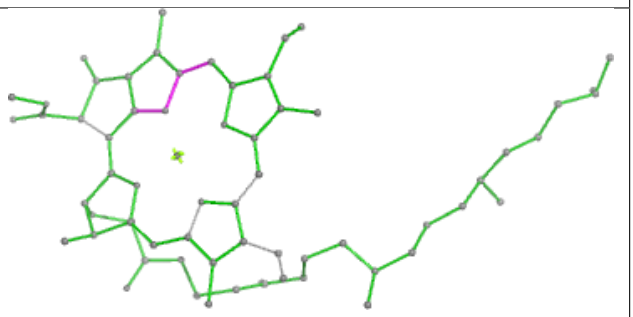


Rings

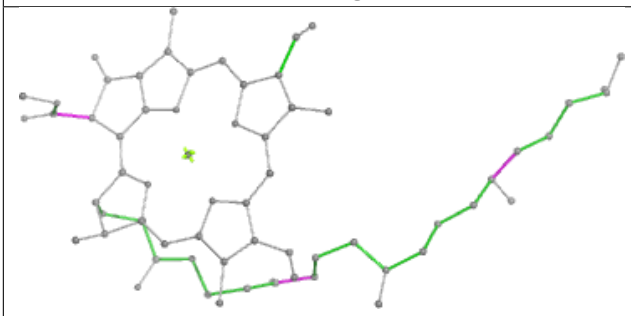
Ligand CLA R 302



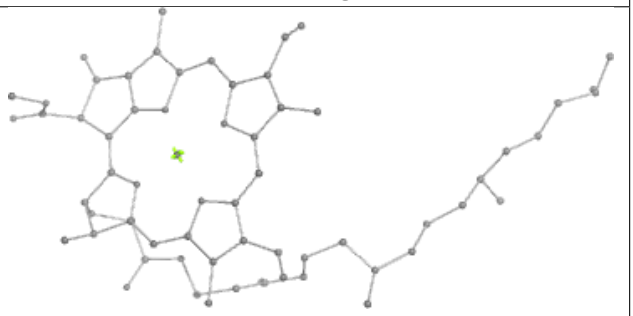
Bond lengths



Bond angles

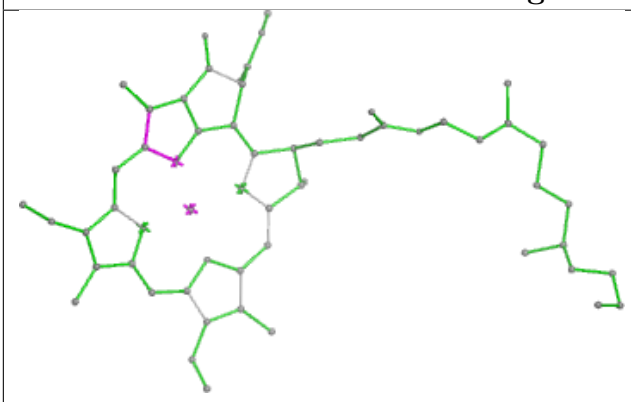


Torsions

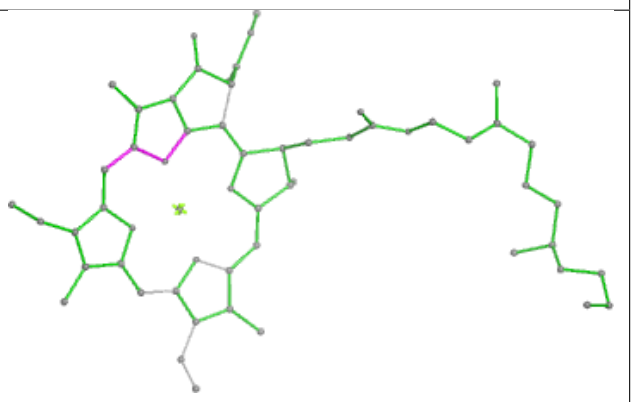


Rings

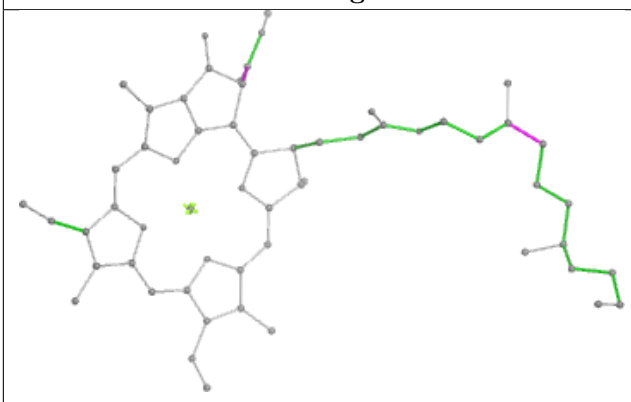
Ligand CLA b 302



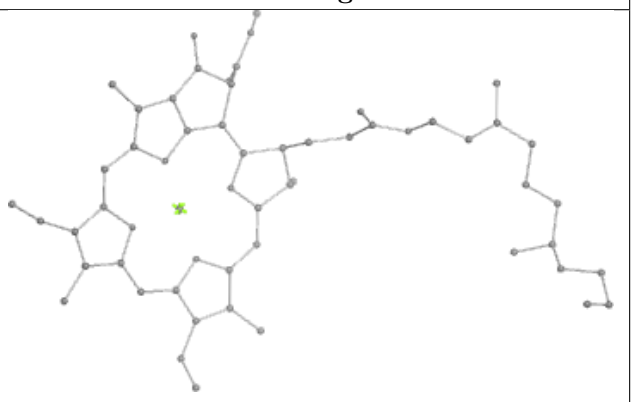
Bond lengths



Bond angles

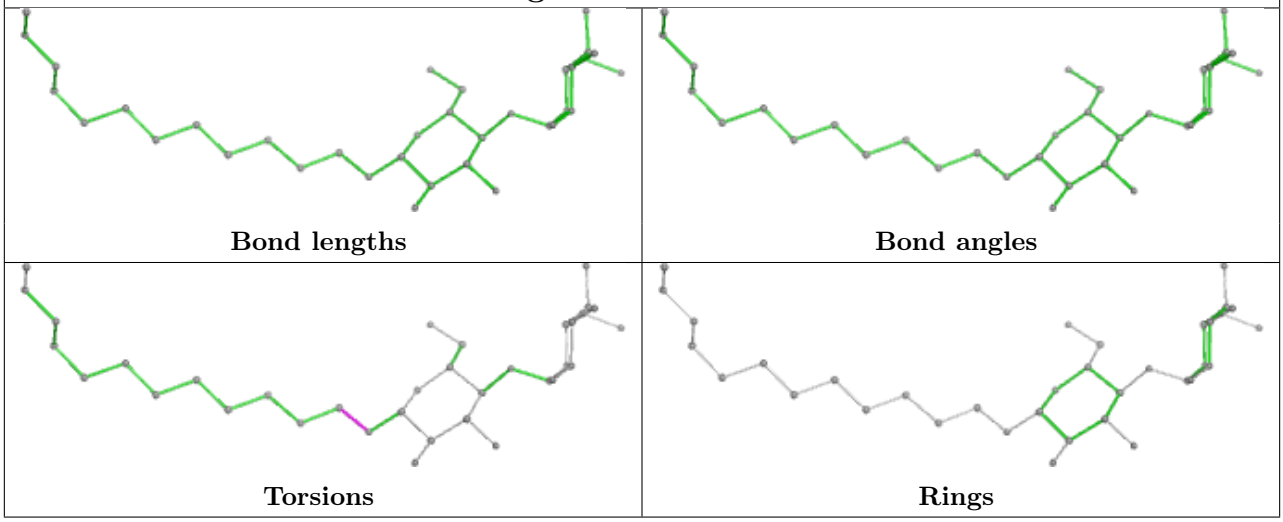


Torsions

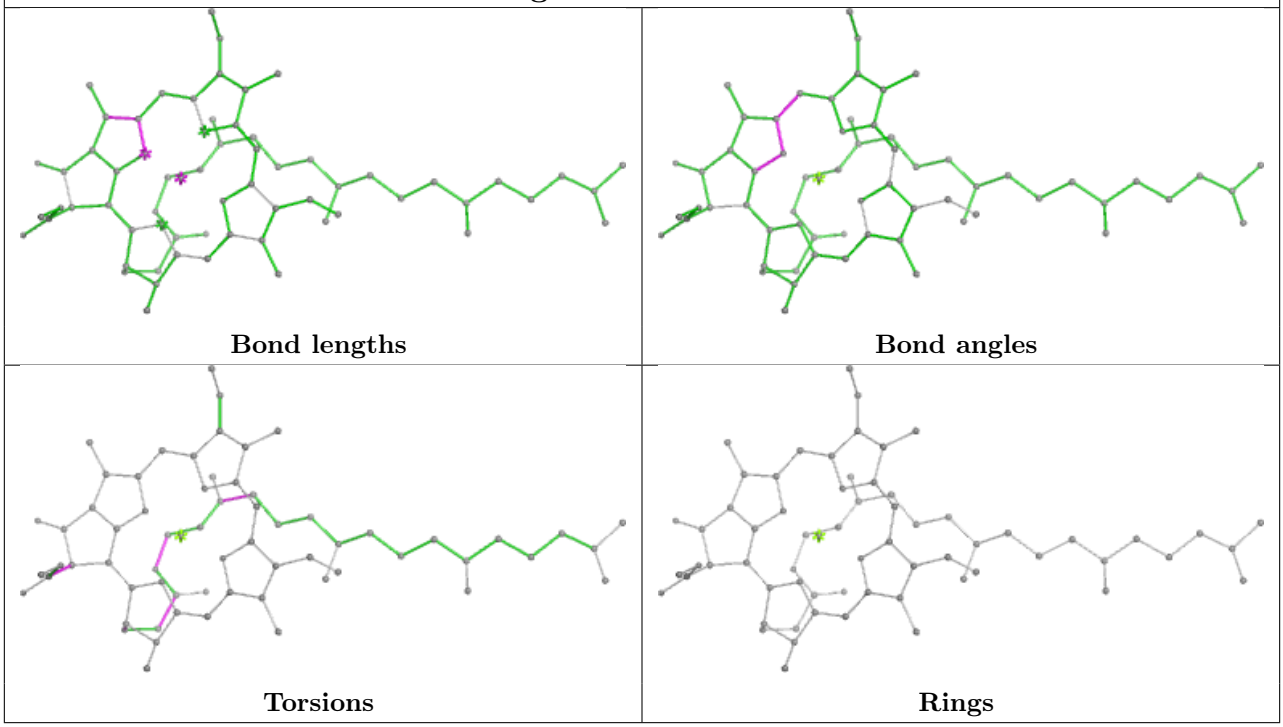


Rings

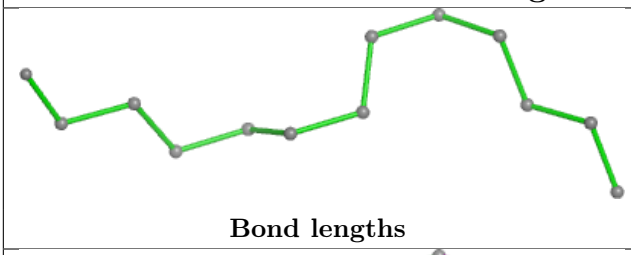
Ligand LMT c 330



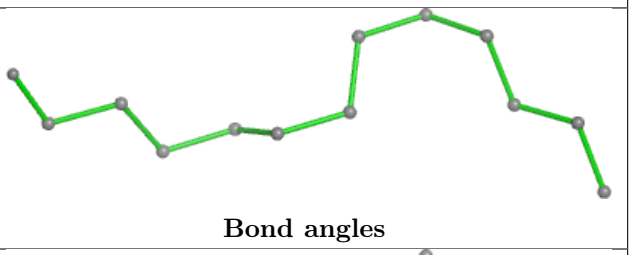
Ligand CLA c 312



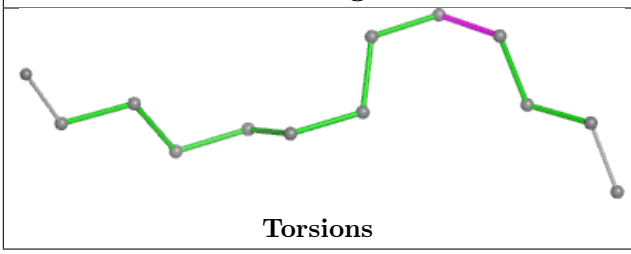
Ligand LMT f 304



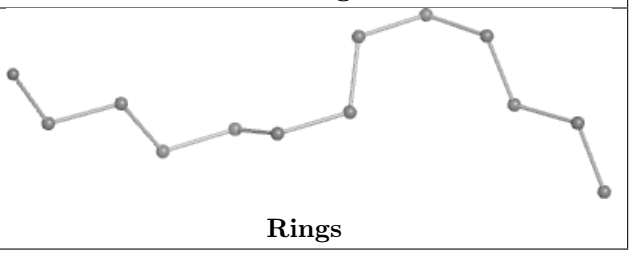
Bond lengths



Bond angles

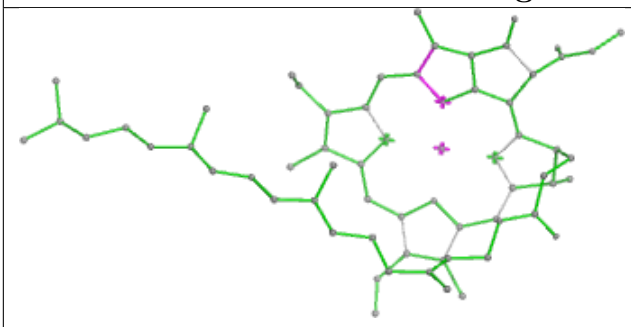


Torsions

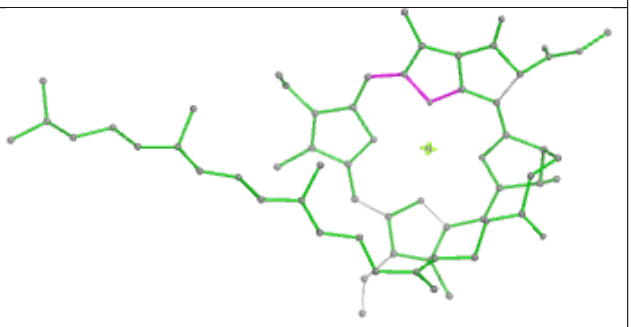


Rings

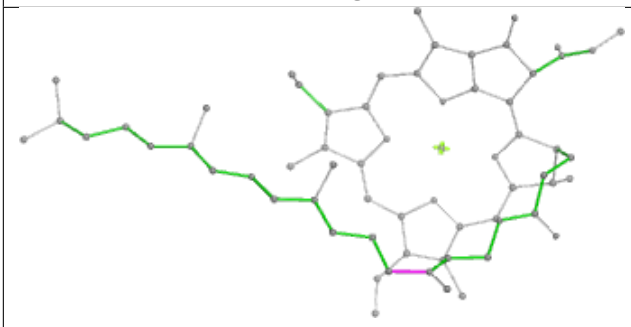
Ligand CLA B 1214



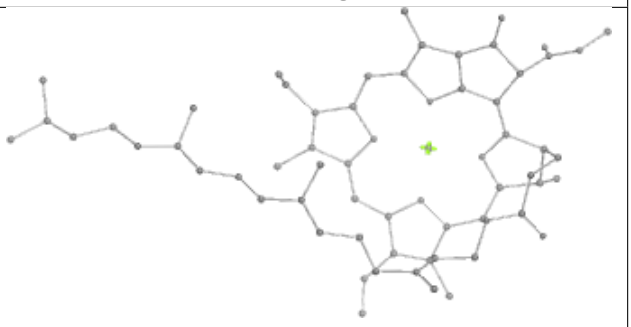
Bond lengths



Bond angles

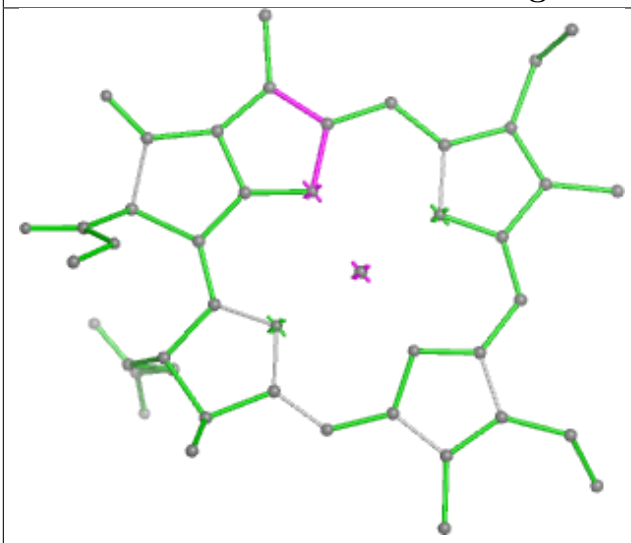


Torsions

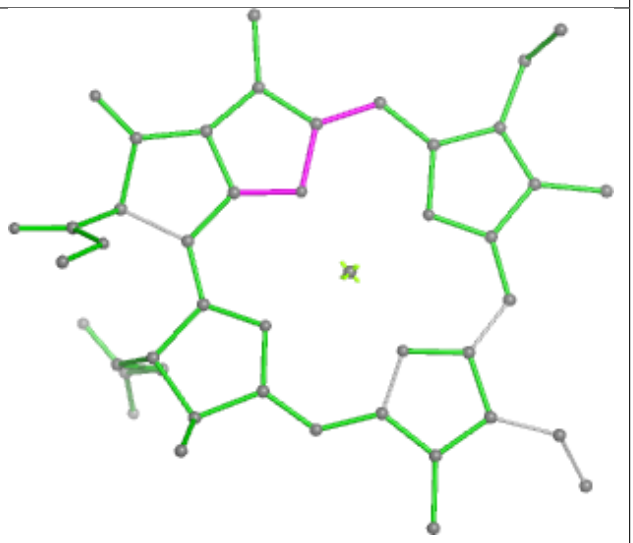


Rings

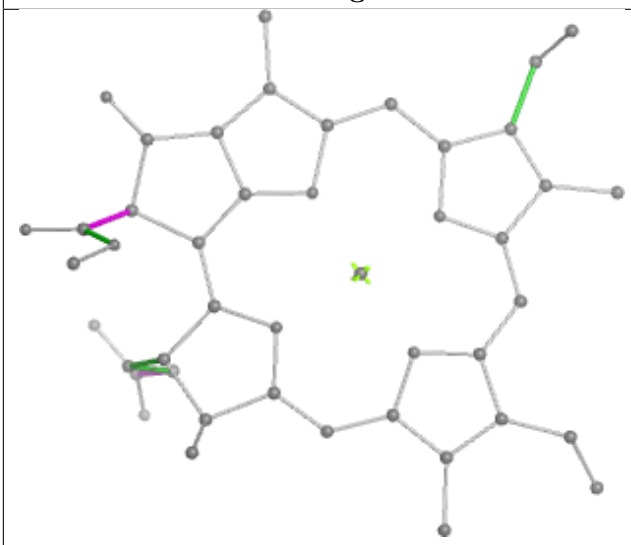
Ligand CLA e 301



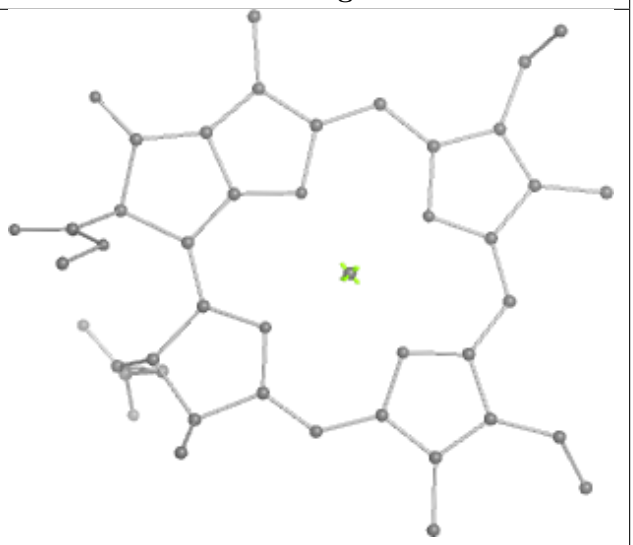
Bond lengths



Bond angles

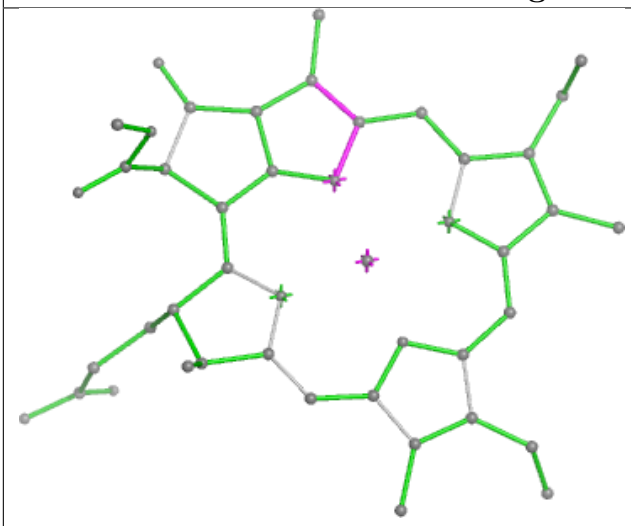


Torsions

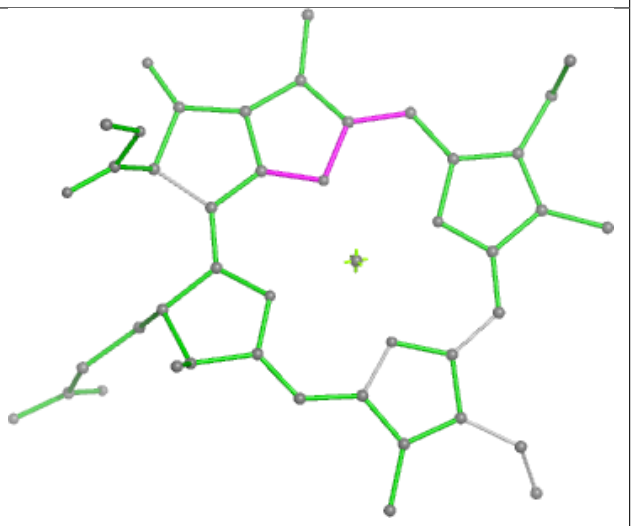


Rings

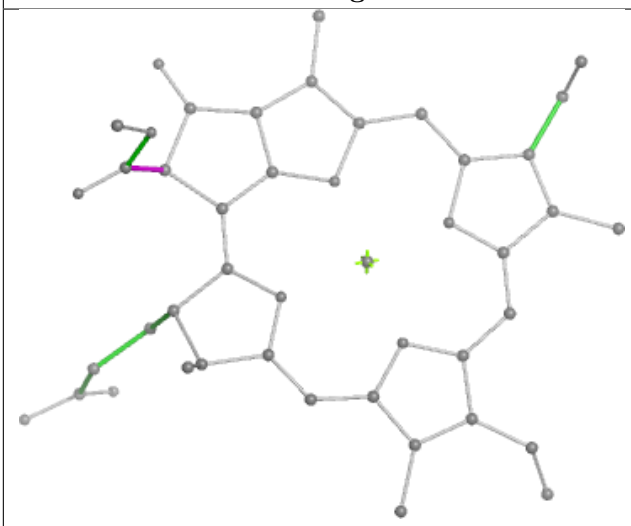
Ligand CLA a 408



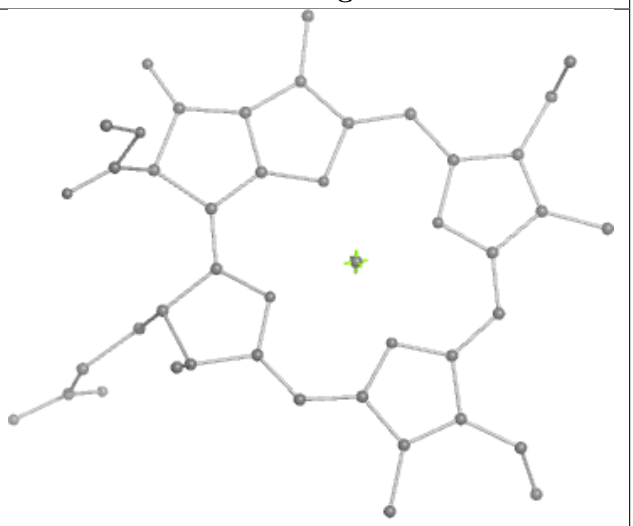
Bond lengths



Bond angles

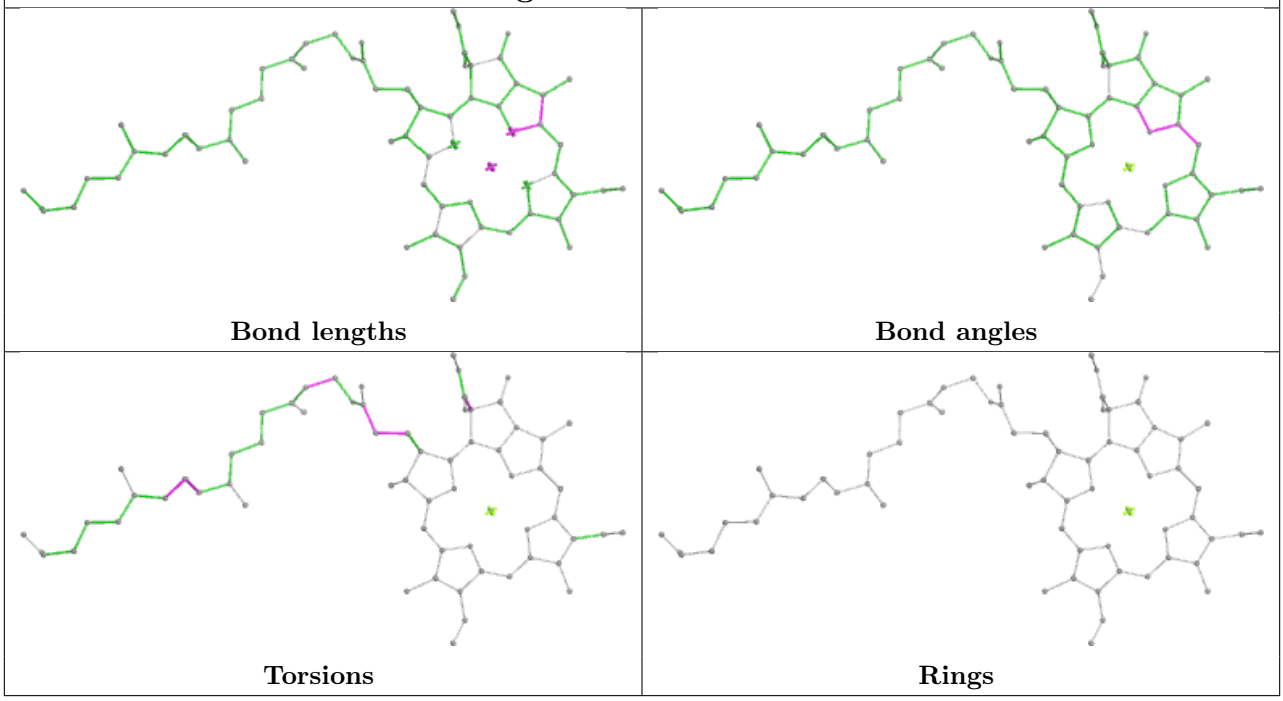


Torsions

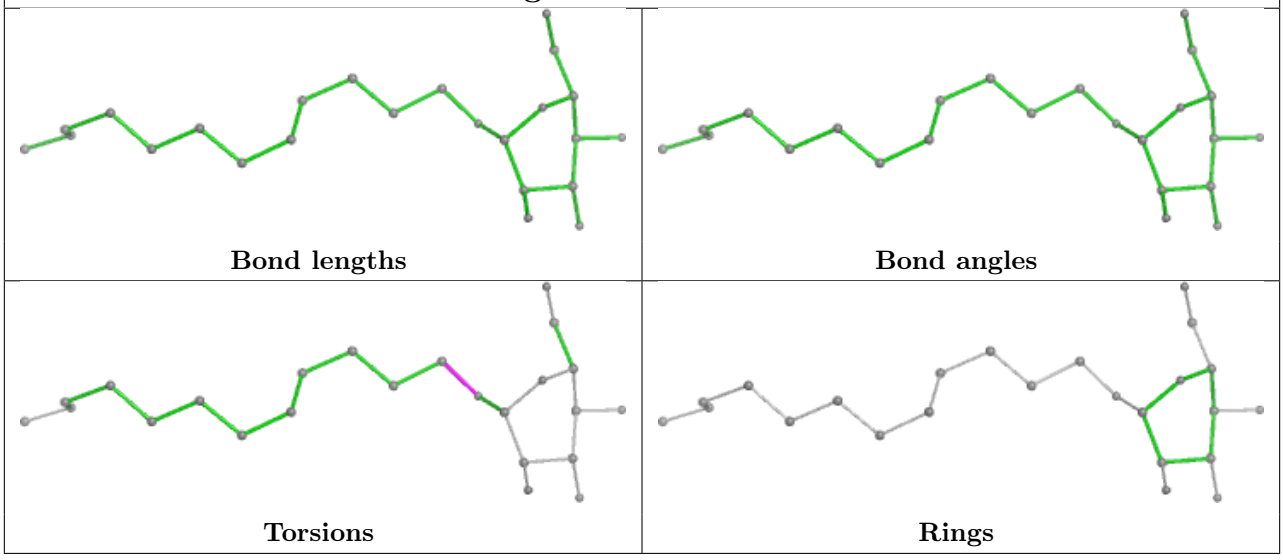


Rings

Ligand CLA B 1228



Ligand LMT F 407



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
14	d	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	d	221:GLY	C	223:PHE	N	3.22

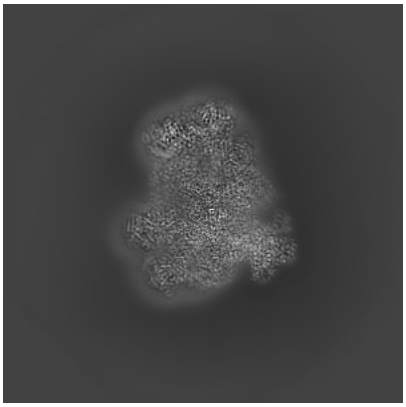
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-52518. These allow visual inspection of the internal detail of the map and identification of artifacts.

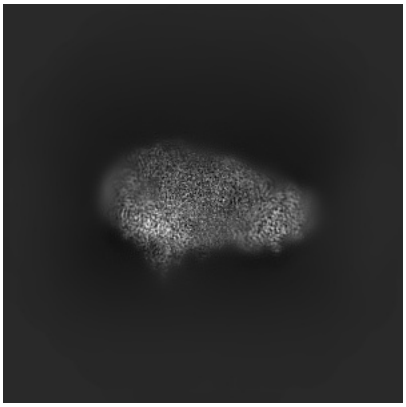
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

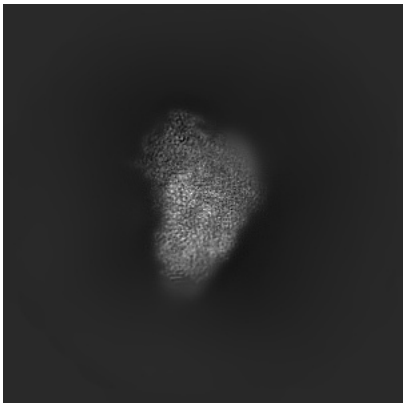
6.1.1 Primary map



X



Y

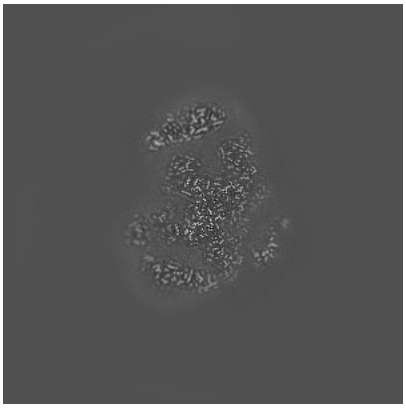


Z

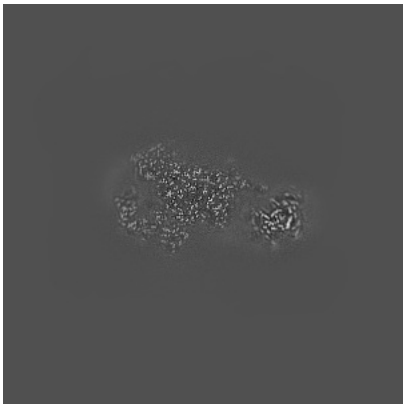
The images above show the map projected in three orthogonal directions.

6.2 Central slices

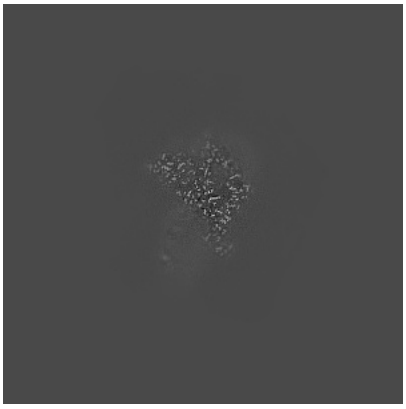
6.2.1 Primary map



X Index: 250



Y Index: 250

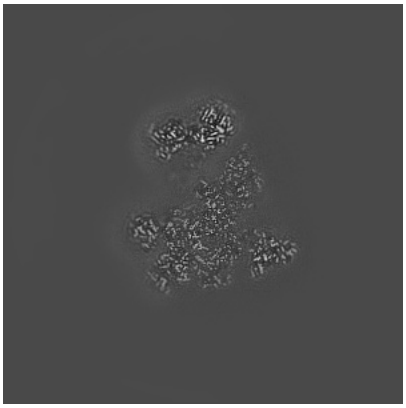


Z Index: 250

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: 227

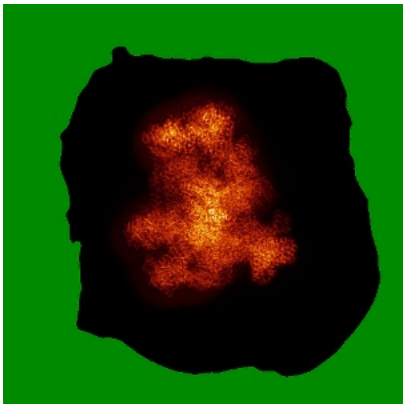
Y Index: 262

Z Index: 219

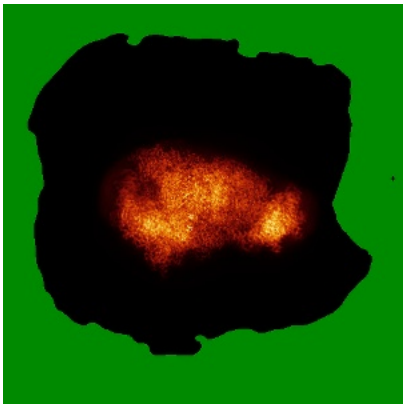
The images above show the largest variance slices of the map in three orthogonal directions.

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

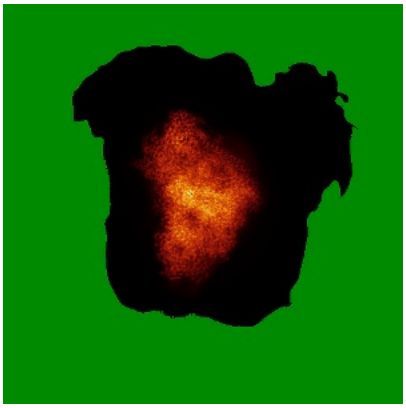
6.4.1 Primary map



X



Y



Z

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

6.5 Orthogonal surface views (i)

6.5.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 8.0. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

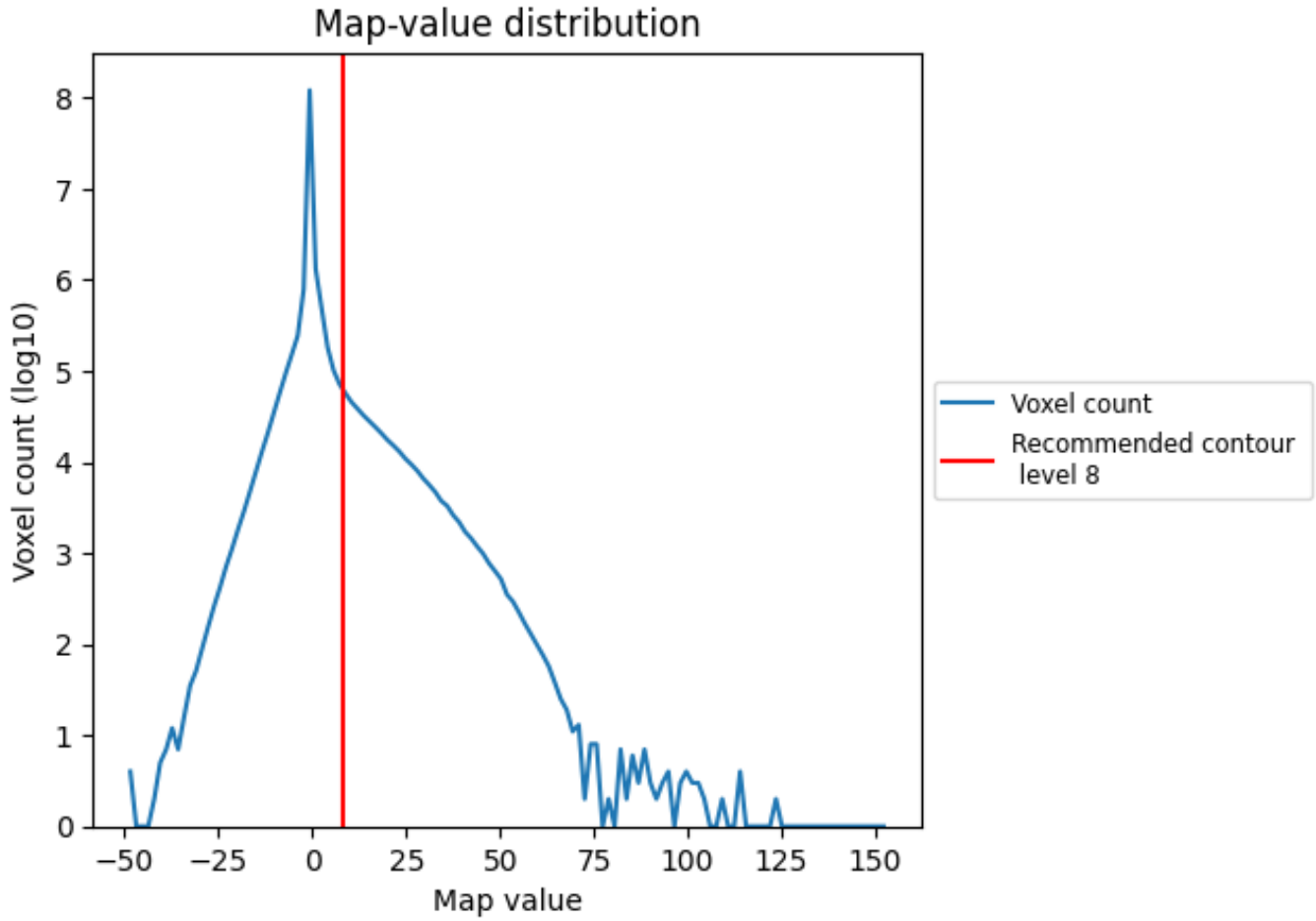
6.6 Mask visualisation (i)

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

7 Map analysis

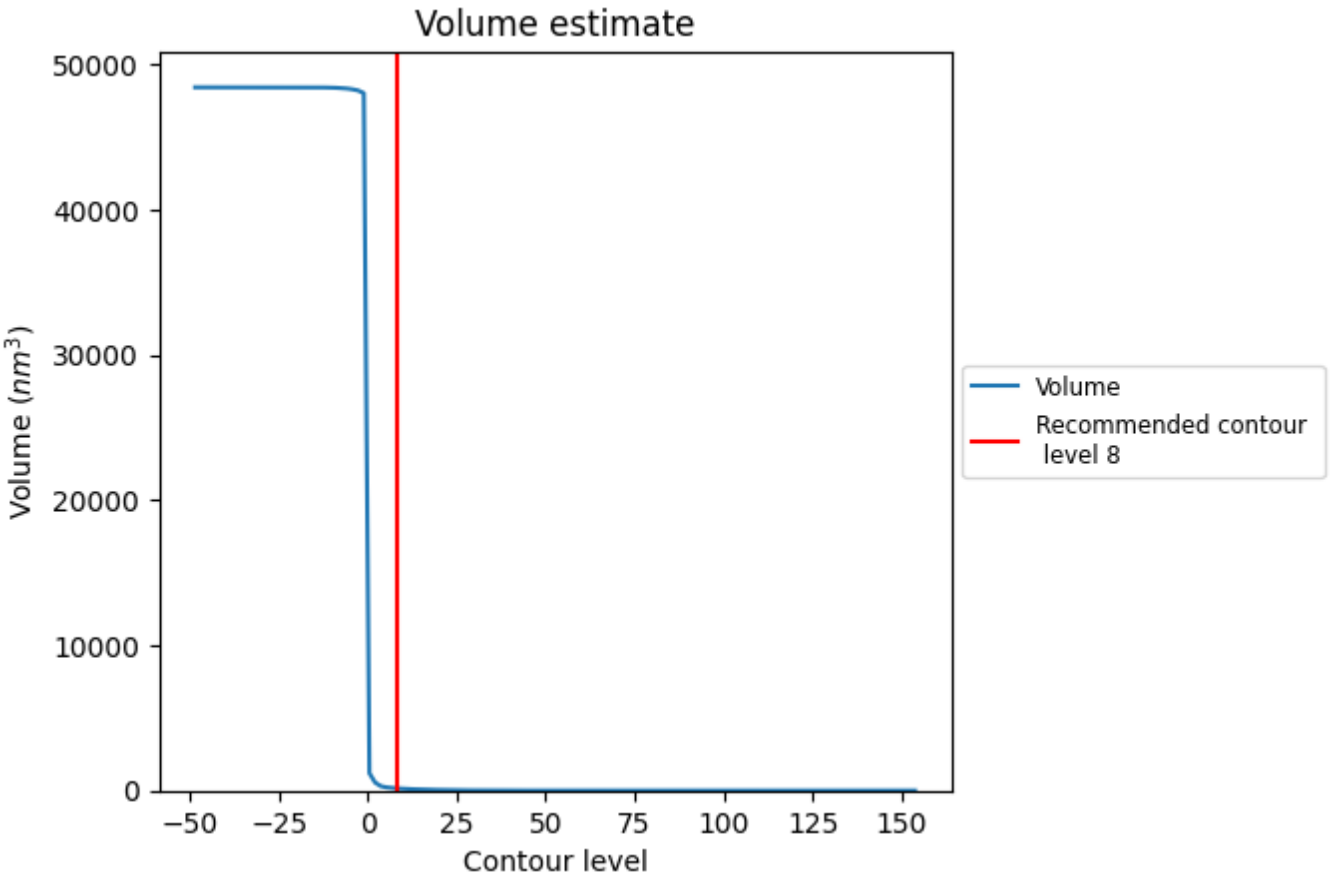
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

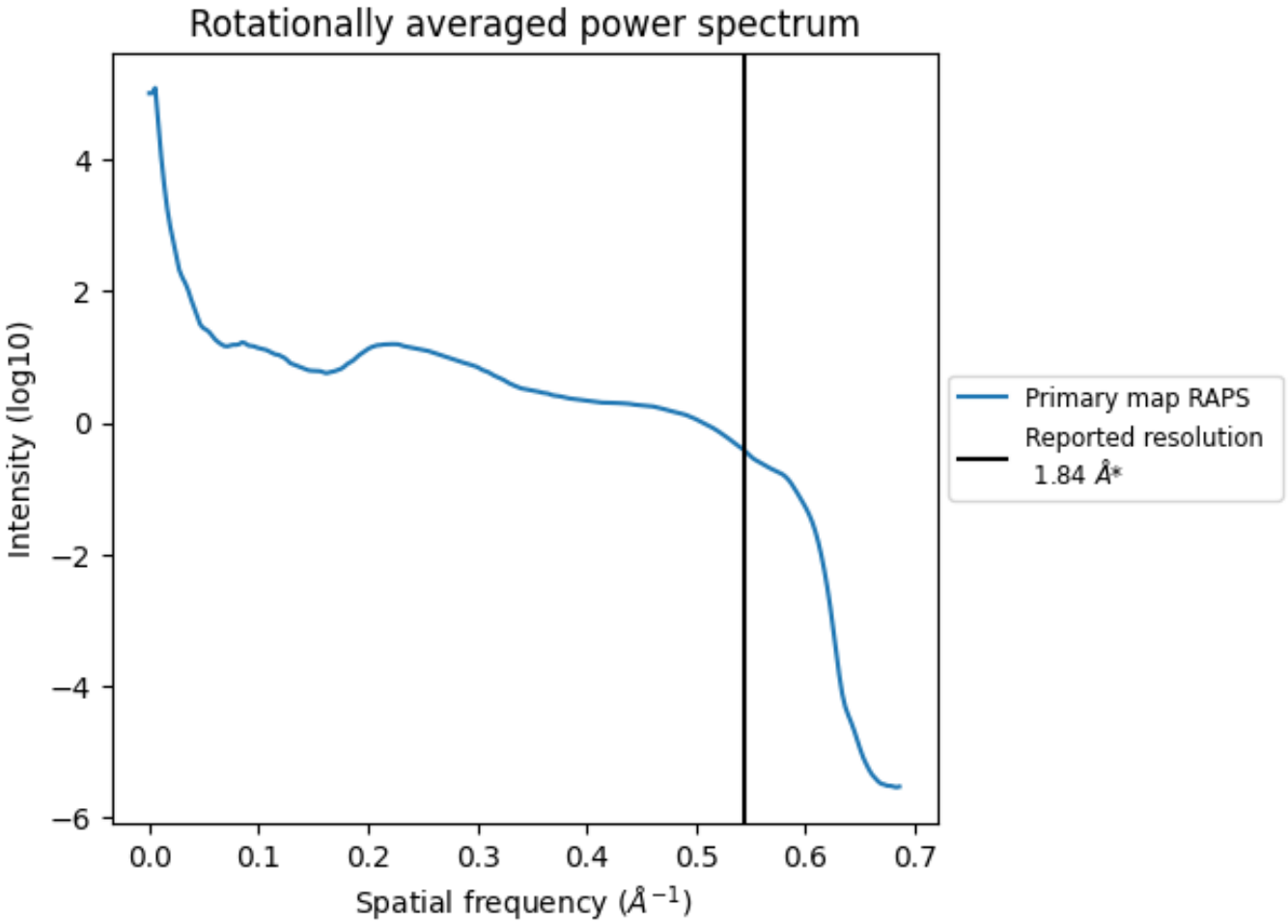
7.2 Volume estimate



The volume at the recommended contour level is 153 nm^3; this corresponds to an approximate mass of 138 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)

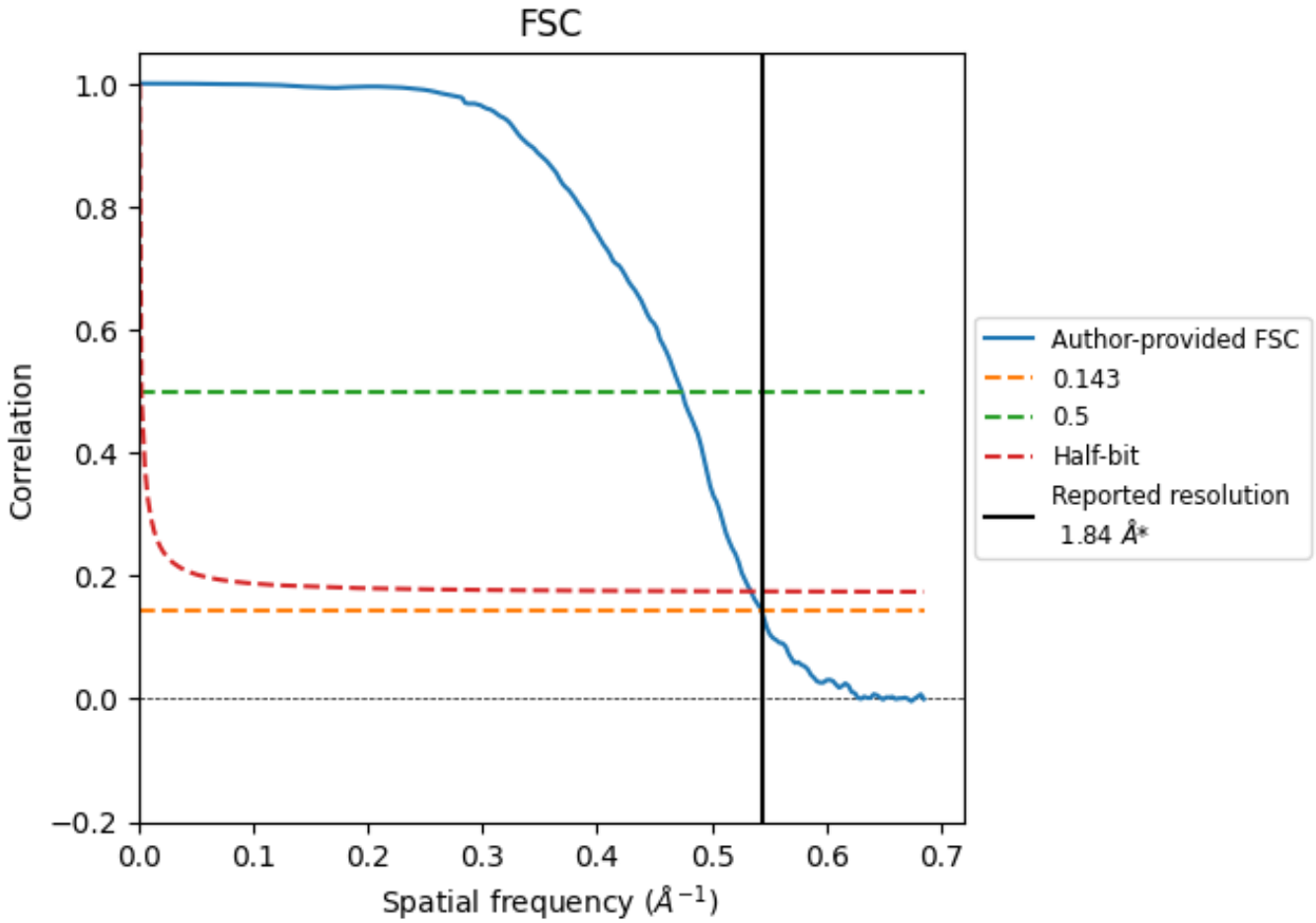


*Reported resolution corresponds to spatial frequency of 0.543 Å^{-1}

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 0.543 $Å^{-1}$

8.2 Resolution estimates (i)

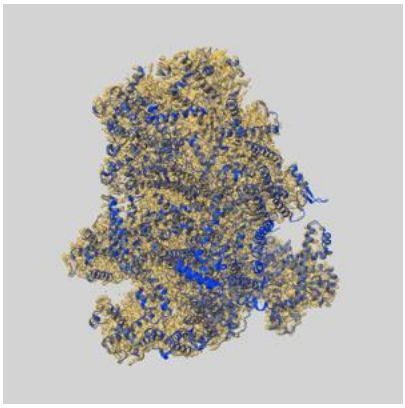
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	1.84	-	-
Author-provided FSC curve	1.84	2.11	1.87
Unmasked-calculated*	-	-	-

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

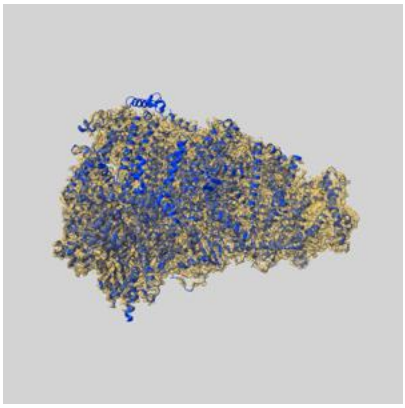
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-52518 and PDB model 9HYU. Per-residue inclusion information can be found in section 3 on page 31.

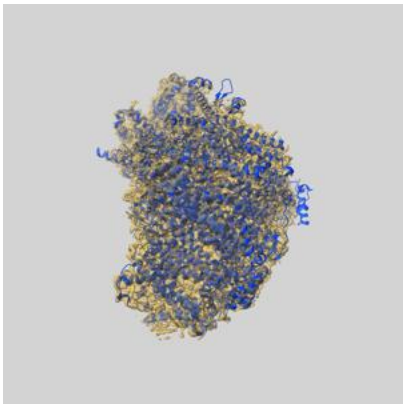
9.1 Map-model overlay



X



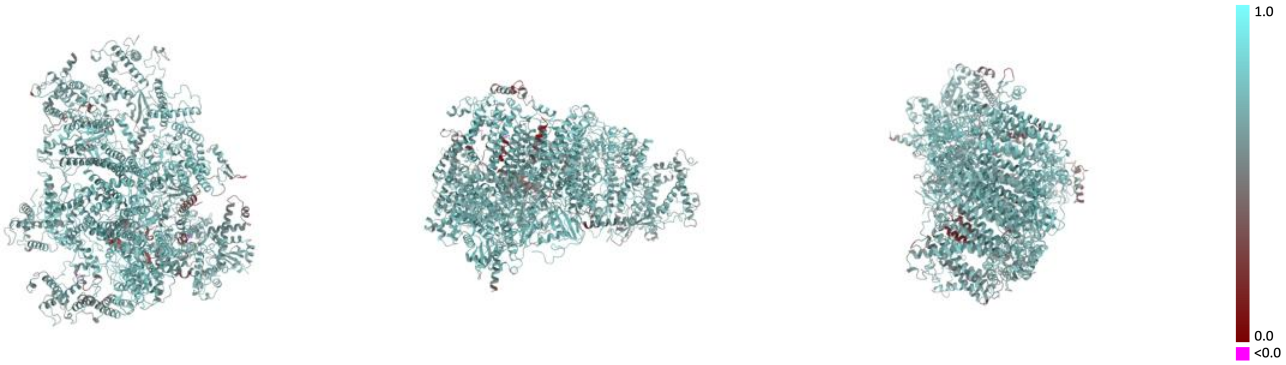
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 8.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

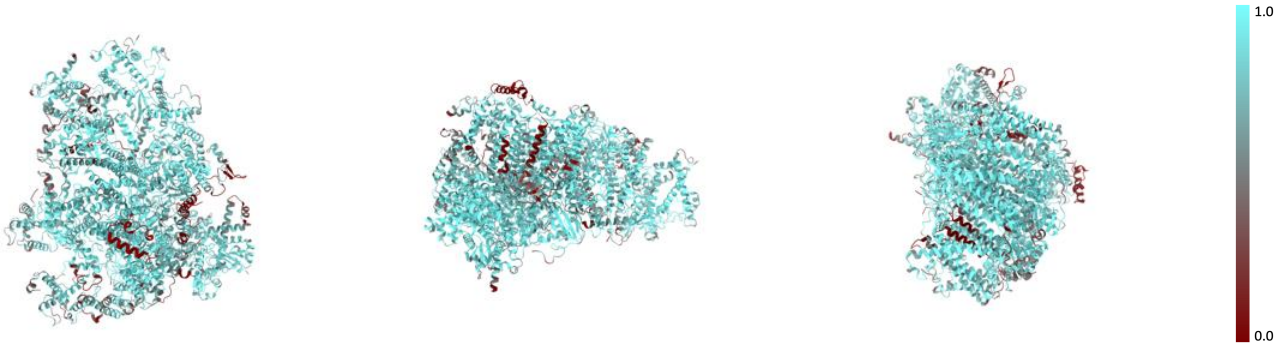
9.2 Q-score mapped to coordinate model



X Y Z

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

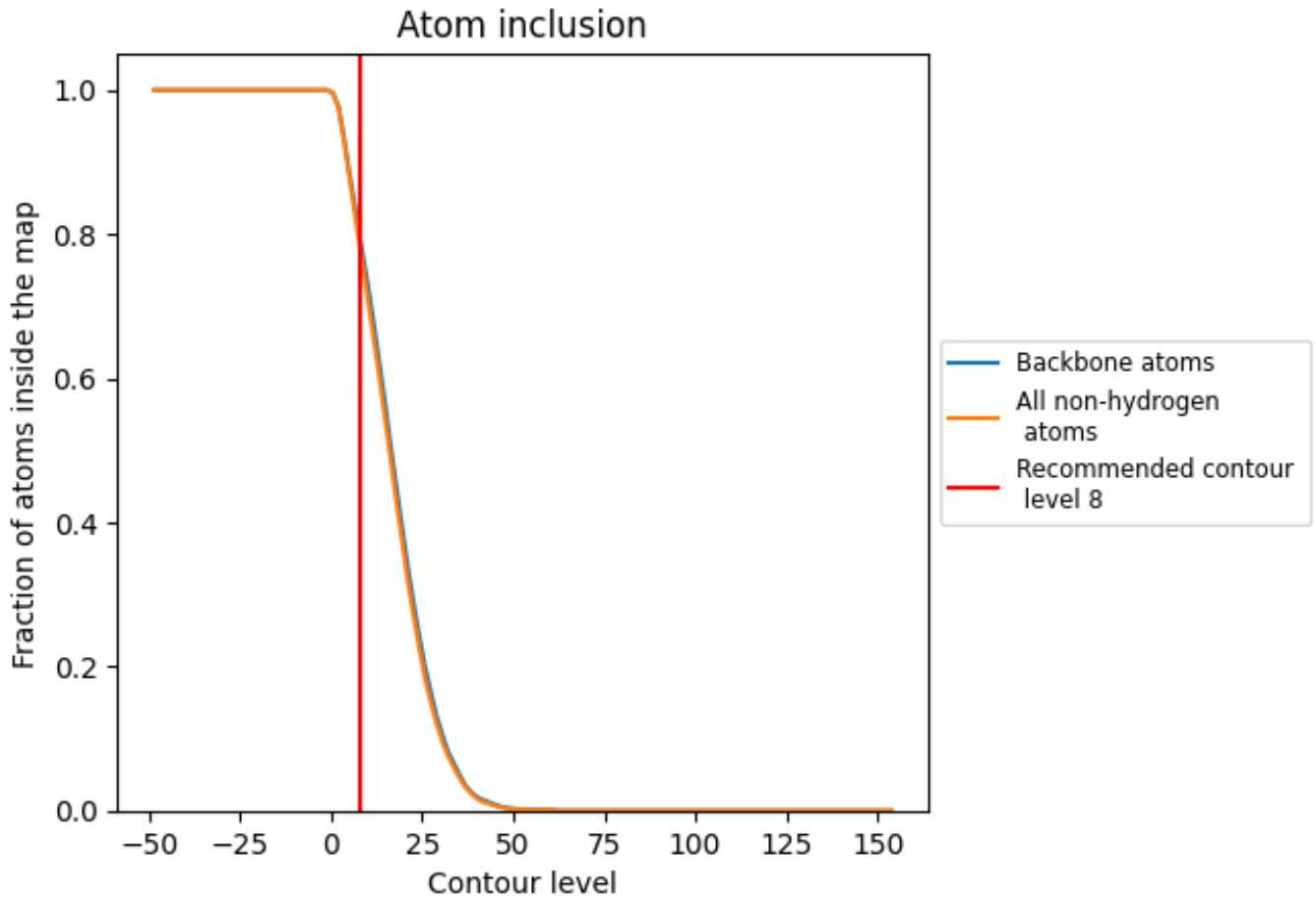
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (8).

9.4 Atom inclusion (i)



At the recommended contour level, 79% of all backbone atoms, 78% 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 (8) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7790	0.6660
1	0.8250	0.6980
2	0.9220	0.6840
A	0.8870	0.7260
B	0.8250	0.7110
C	0.9530	0.7620
D	0.8920	0.7310
E	0.8410	0.7250
F	0.8070	0.6990
G	0.2050	0.5160
H	0.1070	0.5640
I	0.3790	0.5480
L	0.7430	0.6740
M	0.6460	0.5660
R	0.7390	0.6450
a	0.5940	0.5960
b	0.7250	0.6560
c	0.7460	0.5820
d	0.7380	0.6400
e	0.6870	0.6180
f	0.8030	0.6010
u	0.7240	0.6410