wwPDB EM Validation Summary Report

Feb 23, 2023 – 03:29 pm GMT

PDB ID	:	7PIN
EMDB ID	:	EMD-13444
Title	:	Stacked compact Dunaliella PSII
Authors	:	Caspy, I.; Fadeeva, M.; Mazor, Y.; Nelson, N.
Deposited on	:	2021-08-22
Resolution	:	3.60 Å(reported)
Based on initial model	:	6KAC

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

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

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

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

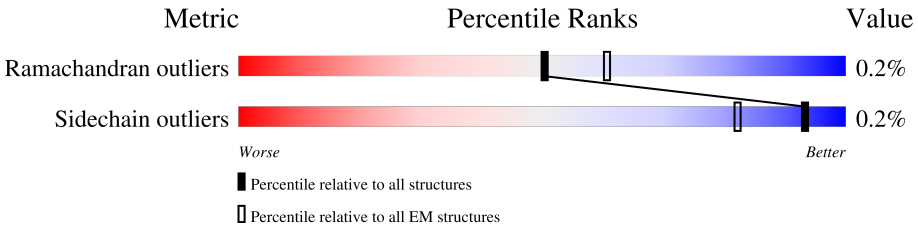
EMDB validation analysis	:	0.0.1.dev43
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.32.1

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.60 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	336	61% 100%
1	A1	336	61% 100%
1	a	336	54% 100%
1	a1	336	70% 100%
2	B	484	74% 100%
2	B1	484	66% 99%
2	b	484	70% 100%
2	b1	484	71% 99%
3	V	32	94% 100%

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Mol	Chain	Length	Quality of chain
3	V1	32	69% 100%
3	v	32	84% 100%
3	v1	32	94% 97%
4	C	449	55% 100%
4	C1	449	42% 100%
4	c	449	55% 100%
4	c1	449	66% 99%
5	D	348	63% 99%
5	D1	348	63% 100%
5	d	348	61% 99%
5	d1	348	75% 99%
6	E	76	92% 100%
6	E1	76	50% 100%
6	e	76	93% 99%
6	e1	76	76% 100%
7	F	31	74% 100%
7	F1	31	58% 100%
7	f	31	90% 100%
7	f1	31	71% 100%
8	H	67	84% 97%
8	H1	67	78% 99%
8	h	67	88% 99%
8	h1	67	84% 100%
9	I	35	57% 100%
9	I1	35	71% 100%

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Mol	Chain	Length	Quality of chain
9	i	35	60% 100%
9	i1	35	74% 100%
10	J	36	89% 100%
10	J1	36	81% 100%
10	j	36	86% 97%
10	j1	36	81% 100%
11	K	37	81% 97%
11	K1	37	41% 100%
11	k	37	76% 100%
11	k1	37	73% 100%
12	L	38	71% 100%
12	L1	38	79% 97%
12	l	38	74% 97%
13	M	31	87% 100%
13	M1	31	84% 100%
13	m	31	84% 100%
13	m1	31	77% 100%
14	O	238	92% 98%
14	O1	238	67% 98%
14	o	238	94% 98%
14	o1	238	72% 97%
15	P	187	100% 99%
15	P1	187	98% 100%
15	p	187	100% 99%
15	p1	187	99% 100%

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Mol	Chain	Length	Quality of chain
16	T	30	83% 97%
16	T1	30	83% 93% 7%
16	t	30	90% 100%
16	t1	30	80% 100%
17	W	44	95% 100%
17	W1	44	75% 100%
17	w	44	86% 100%
17	w1	44	82% 100%
18	X	30	97% 100%
18	X1	30	57% 100%
18	x	30	100% 100%
18	x1	30	83% 100%
19	Z	61	90% 100%
19	Z1	61	52% 98%
19	z	61	87% 100%
19	z1	61	84% 100%
20	N	222	94% 98%
20	N1	222	37% 99%
20	n	222	89% 99%
20	n1	222	55% 98%
21	G	221	99% 100%
21	G1	221	43% 99%
21	g	221	97% 100%
21	g1	221	62% 100%
22	R	196	97% 99%

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Mol	Chain	Length	Quality of chain
22	R1	196	78% 99%
22	r	196	98% 99%
22	r1	196	78% 99%
23	S	243	88% 99%
23	S1	243	42% 99%
23	s	243	90% 98%
23	s1	243	75% 98%
24	Y	222	83% 99%
24	Y1	222	39% 99%
24	y	222	83% 99%
24	y1	222	66% 100%
25	U	27	96% 96%
25	U1	27	81% 100%
25	u	27	100% 96%
25	u1	27	96% 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
29	CLA	A	405	X	-	-	-
29	CLA	A	406	X	-	-	-
29	CLA	A	407	X	-	-	-
29	CLA	A	410	X	-	-	-
29	CLA	A1	405	X	-	-	-
29	CLA	A1	406	X	-	-	-
29	CLA	A1	407	X	-	-	-
29	CLA	A1	410	X	-	-	-
29	CLA	B	602	X	-	-	-
29	CLA	B	603	X	-	-	-
29	CLA	B	604	X	-	-	-
29	CLA	B	605	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
29	CLA	B	606	X	-	-	-
29	CLA	B	607	X	-	-	-
29	CLA	B	608	X	-	-	-
29	CLA	B	609	X	-	-	-
29	CLA	B	610	X	-	-	-
29	CLA	B	611	X	-	-	-
29	CLA	B	612	X	-	-	-
29	CLA	B	613	X	-	-	-
29	CLA	B	614	X	-	-	-
29	CLA	B	615	X	-	-	-
29	CLA	B	616	X	-	-	-
29	CLA	B	617	X	-	-	-
29	CLA	B1	602	X	-	-	-
29	CLA	B1	603	X	-	-	-
29	CLA	B1	604	X	-	-	-
29	CLA	B1	605	X	-	-	-
29	CLA	B1	606	X	-	-	-
29	CLA	B1	607	X	-	-	-
29	CLA	B1	608	X	-	-	-
29	CLA	B1	609	X	-	-	-
29	CLA	B1	610	X	-	-	-
29	CLA	B1	611	X	-	-	-
29	CLA	B1	612	X	-	-	-
29	CLA	B1	613	X	-	-	-
29	CLA	B1	614	X	-	-	-
29	CLA	B1	615	X	-	-	-
29	CLA	B1	616	X	-	-	-
29	CLA	B1	617	X	-	-	-
29	CLA	C	501	X	-	-	-
29	CLA	C	502	X	-	-	-
29	CLA	C	503	X	-	-	-
29	CLA	C	504	X	-	-	-
29	CLA	C	505	X	-	-	-
29	CLA	C	506	X	-	-	-
29	CLA	C	507	X	-	-	-
29	CLA	C	508	X	-	-	-
29	CLA	C	509	X	-	-	-
29	CLA	C	510	X	-	-	-
29	CLA	C	511	X	-	-	-
29	CLA	C	512	X	-	-	-
29	CLA	C	513	X	-	-	-
29	CLA	C1	501	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
29	CLA	C1	502	X	-	-	-
29	CLA	C1	503	X	-	-	-
29	CLA	C1	504	X	-	-	-
29	CLA	C1	505	X	-	-	-
29	CLA	C1	506	X	-	-	-
29	CLA	C1	507	X	-	-	-
29	CLA	C1	508	X	-	-	-
29	CLA	C1	509	X	-	-	-
29	CLA	C1	510	X	-	-	-
29	CLA	C1	511	X	-	-	-
29	CLA	C1	512	X	-	-	-
29	CLA	C1	513	X	-	-	-
29	CLA	D	402	X	-	-	-
29	CLA	D	403	X	-	-	-
29	CLA	D1	402	X	-	-	-
29	CLA	D1	403	X	-	-	-
29	CLA	G	602	X	-	-	-
29	CLA	G	603	X	-	-	-
29	CLA	G	604	X	-	-	-
29	CLA	G	610	X	-	-	-
29	CLA	G	611	X	-	-	-
29	CLA	G	612	X	-	-	-
29	CLA	G	613	X	-	-	-
29	CLA	G	614	X	-	-	-
29	CLA	G1	602	X	-	-	-
29	CLA	G1	603	X	-	-	-
29	CLA	G1	604	X	-	-	-
29	CLA	G1	610	X	-	-	-
29	CLA	G1	611	X	-	-	-
29	CLA	G1	612	X	-	-	-
29	CLA	G1	613	X	-	-	-
29	CLA	G1	614	X	-	-	-
29	CLA	N	602	X	-	-	-
29	CLA	N	603	X	-	-	-
29	CLA	N	604	X	-	-	-
29	CLA	N	610	X	-	-	-
29	CLA	N	611	X	-	-	-
29	CLA	N	612	X	-	-	-
29	CLA	N	613	X	-	-	-
29	CLA	N	614	X	-	-	-
29	CLA	N1	602	X	-	-	-
29	CLA	N1	603	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
29	CLA	N1	604	X	-	-	-
29	CLA	N1	610	X	-	-	-
29	CLA	N1	611	X	-	-	-
29	CLA	N1	612	X	-	-	-
29	CLA	N1	613	X	-	-	-
29	CLA	N1	614	X	-	-	-
29	CLA	R	602	X	-	-	-
29	CLA	R	603	X	-	-	-
29	CLA	R	604	X	-	-	-
29	CLA	R	608	X	-	-	-
29	CLA	R	609	X	-	-	-
29	CLA	R	610	X	-	-	-
29	CLA	R	612	X	-	-	-
29	CLA	R1	602	X	-	-	-
29	CLA	R1	603	X	-	-	-
29	CLA	R1	604	X	-	-	-
29	CLA	R1	608	X	-	-	-
29	CLA	R1	609	X	-	-	-
29	CLA	R1	610	X	-	-	-
29	CLA	R1	612	X	-	-	-
29	CLA	S	602	X	-	-	-
29	CLA	S	603	X	-	-	-
29	CLA	S	604	X	-	-	-
29	CLA	S	605	X	-	-	-
29	CLA	S	609	X	-	-	-
29	CLA	S	610	X	-	-	-
29	CLA	S	611	X	-	-	-
29	CLA	S	612	X	-	-	-
29	CLA	S	613	X	-	-	-
29	CLA	S	614	X	-	-	-
29	CLA	S	617	X	-	-	-
29	CLA	S1	602	X	-	-	-
29	CLA	S1	603	X	-	-	-
29	CLA	S1	604	X	-	-	-
29	CLA	S1	605	X	-	-	-
29	CLA	S1	609	X	-	-	-
29	CLA	S1	610	X	-	-	-
29	CLA	S1	611	X	-	-	-
29	CLA	S1	612	X	-	-	-
29	CLA	S1	613	X	-	-	-
29	CLA	S1	614	X	-	-	-
29	CLA	S1	617	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
29	CLA	Y	602	X	-	-	-
29	CLA	Y	603	X	-	-	-
29	CLA	Y	604	X	-	-	-
29	CLA	Y	608	X	-	-	-
29	CLA	Y	610	X	-	-	-
29	CLA	Y	611	X	-	-	-
29	CLA	Y	612	X	-	-	-
29	CLA	Y	613	X	-	-	-
29	CLA	Y	614	X	-	-	-
29	CLA	Y1	602	X	-	-	-
29	CLA	Y1	603	X	-	-	-
29	CLA	Y1	604	X	-	-	-
29	CLA	Y1	608	X	-	-	-
29	CLA	Y1	610	X	-	-	-
29	CLA	Y1	611	X	-	-	-
29	CLA	Y1	612	X	-	-	-
29	CLA	Y1	613	X	-	-	-
29	CLA	Y1	614	X	-	-	-
29	CLA	a	405	X	-	-	-
29	CLA	a	406	X	-	-	-
29	CLA	a	407	X	-	-	-
29	CLA	a	410	X	-	-	-
29	CLA	a1	405	X	-	-	-
29	CLA	a1	406	X	-	-	-
29	CLA	a1	407	X	-	-	-
29	CLA	a1	410	X	-	-	-
29	CLA	b	602	X	-	-	-
29	CLA	b	603	X	-	-	-
29	CLA	b	604	X	-	-	-
29	CLA	b	605	X	-	-	-
29	CLA	b	606	X	-	-	-
29	CLA	b	607	X	-	-	-
29	CLA	b	608	X	-	-	-
29	CLA	b	609	X	-	-	-
29	CLA	b	610	X	-	-	-
29	CLA	b	611	X	-	-	-
29	CLA	b	612	X	-	-	-
29	CLA	b	613	X	-	-	-
29	CLA	b	614	X	-	-	-
29	CLA	b	615	X	-	-	-
29	CLA	b	616	X	-	-	-
29	CLA	b	617	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
29	CLA	b1	602	X	-	-	-
29	CLA	b1	603	X	-	-	-
29	CLA	b1	604	X	-	-	-
29	CLA	b1	605	X	-	-	-
29	CLA	b1	606	X	-	-	-
29	CLA	b1	607	X	-	-	-
29	CLA	b1	608	X	-	-	-
29	CLA	b1	609	X	-	-	-
29	CLA	b1	610	X	-	-	-
29	CLA	b1	611	X	-	-	-
29	CLA	b1	612	X	-	-	-
29	CLA	b1	613	X	-	-	-
29	CLA	b1	614	X	-	-	-
29	CLA	b1	615	X	-	-	-
29	CLA	b1	616	X	-	-	-
29	CLA	b1	617	X	-	-	-
29	CLA	c	501	X	-	-	-
29	CLA	c	502	X	-	-	-
29	CLA	c	503	X	-	-	-
29	CLA	c	504	X	-	-	-
29	CLA	c	505	X	-	-	-
29	CLA	c	506	X	-	-	-
29	CLA	c	507	X	-	-	-
29	CLA	c	508	X	-	-	-
29	CLA	c	509	X	-	-	-
29	CLA	c	510	X	-	-	-
29	CLA	c	511	X	-	-	-
29	CLA	c	512	X	-	-	-
29	CLA	c	513	X	-	-	-
29	CLA	c1	501	X	-	-	-
29	CLA	c1	502	X	-	-	-
29	CLA	c1	503	X	-	-	-
29	CLA	c1	504	X	-	-	-
29	CLA	c1	505	X	-	-	-
29	CLA	c1	506	X	-	-	-
29	CLA	c1	507	X	-	-	-
29	CLA	c1	508	X	-	-	-
29	CLA	c1	509	X	-	-	-
29	CLA	c1	510	X	-	-	-
29	CLA	c1	511	X	-	-	-
29	CLA	c1	512	X	-	-	-
29	CLA	c1	513	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
29	CLA	d	402	X	-	-	-
29	CLA	d	403	X	-	-	-
29	CLA	d1	402	X	-	-	-
29	CLA	d1	403	X	-	-	-
29	CLA	g	602	X	-	-	-
29	CLA	g	603	X	-	-	-
29	CLA	g	604	X	-	-	-
29	CLA	g	610	X	-	-	-
29	CLA	g	611	X	-	-	-
29	CLA	g	612	X	-	-	-
29	CLA	g	613	X	-	-	-
29	CLA	g	614	X	-	-	-
29	CLA	g1	602	X	-	-	-
29	CLA	g1	603	X	-	-	-
29	CLA	g1	604	X	-	-	-
29	CLA	g1	610	X	-	-	-
29	CLA	g1	611	X	-	-	-
29	CLA	g1	612	X	-	-	-
29	CLA	g1	613	X	-	-	-
29	CLA	g1	614	X	-	-	-
29	CLA	n	602	X	-	-	-
29	CLA	n	603	X	-	-	-
29	CLA	n	604	X	-	-	-
29	CLA	n	610	X	-	-	-
29	CLA	n	611	X	-	-	-
29	CLA	n	612	X	-	-	-
29	CLA	n	613	X	-	-	-
29	CLA	n	614	X	-	-	-
29	CLA	n1	602	X	-	-	-
29	CLA	n1	603	X	-	-	-
29	CLA	n1	604	X	-	-	-
29	CLA	n1	610	X	-	-	-
29	CLA	n1	611	X	-	-	-
29	CLA	n1	612	X	-	-	-
29	CLA	n1	613	X	-	-	-
29	CLA	n1	614	X	-	-	-
29	CLA	r	602	X	-	-	-
29	CLA	r	603	X	-	-	-
29	CLA	r	604	X	-	-	-
29	CLA	r	608	X	-	-	-
29	CLA	r	609	X	-	-	-
29	CLA	r	610	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
29	CLA	r	612	X	-	-	-
29	CLA	r1	602	X	-	-	-
29	CLA	r1	603	X	-	-	-
29	CLA	r1	604	X	-	-	-
29	CLA	r1	608	X	-	-	-
29	CLA	r1	609	X	-	-	-
29	CLA	r1	610	X	-	-	-
29	CLA	r1	612	X	-	-	-
29	CLA	s	602	X	-	-	-
29	CLA	s	603	X	-	-	-
29	CLA	s	604	X	-	-	-
29	CLA	s	605	X	-	-	-
29	CLA	s	609	X	-	-	-
29	CLA	s	610	X	-	-	-
29	CLA	s	611	X	-	-	-
29	CLA	s	612	X	-	-	-
29	CLA	s	613	X	-	-	-
29	CLA	s	614	X	-	-	-
29	CLA	s	617	X	-	-	-
29	CLA	s1	602	X	-	-	-
29	CLA	s1	603	X	-	-	-
29	CLA	s1	604	X	-	-	-
29	CLA	s1	605	X	-	-	-
29	CLA	s1	609	X	-	-	-
29	CLA	s1	610	X	-	-	-
29	CLA	s1	611	X	-	-	-
29	CLA	s1	612	X	-	-	-
29	CLA	s1	613	X	-	-	-
29	CLA	s1	614	X	-	-	-
29	CLA	s1	617	X	-	-	-
29	CLA	y	602	X	-	-	-
29	CLA	y	603	X	-	-	-
29	CLA	y	604	X	-	-	-
29	CLA	y	608	X	-	-	-
29	CLA	y	610	X	-	-	-
29	CLA	y	611	X	-	-	-
29	CLA	y	612	X	-	-	-
29	CLA	y	613	X	-	-	-
29	CLA	y	614	X	-	-	-
29	CLA	y1	602	X	-	-	-
29	CLA	y1	603	X	-	-	-
29	CLA	y1	604	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
29	CLA	y1	608	X	-	-	-
29	CLA	y1	610	X	-	-	-
29	CLA	y1	611	X	-	-	-
29	CLA	y1	612	X	-	-	-
29	CLA	y1	613	X	-	-	-
29	CLA	y1	614	X	-	-	-
36	C7Z	B	620	X	-	-	-
36	C7Z	B1	620	X	-	-	-
36	C7Z	b	620	X	-	-	-
36	C7Z	b1	620	X	-	-	-
41	LMK	C	527	X	-	-	-
41	LMK	C1	527	X	-	-	-
41	LMK	c	527	X	-	-	-
41	LMK	c1	527	X	-	-	-
45	RRX	H	101	X	-	-	-
45	RRX	H1	101	X	-	-	-
45	RRX	h	101	X	-	-	-
45	RRX	h1	101	X	-	-	-
48	CHL	G	601	X	-	-	-
48	CHL	G	605	X	-	-	-
48	CHL	G	606	X	-	-	-
48	CHL	G	607	X	-	-	-
48	CHL	G	608	X	-	-	-
48	CHL	G	609	X	-	-	-
48	CHL	G1	601	X	-	-	-
48	CHL	G1	605	X	-	-	-
48	CHL	G1	606	X	-	-	-
48	CHL	G1	607	X	-	-	-
48	CHL	G1	608	X	-	-	-
48	CHL	G1	609	X	-	-	-
48	CHL	N	601	X	-	-	-
48	CHL	N	605	X	-	-	-
48	CHL	N	606	X	-	-	-
48	CHL	N	607	X	-	-	-
48	CHL	N	608	X	-	-	-
48	CHL	N	609	X	-	-	-
48	CHL	N1	601	X	-	-	-
48	CHL	N1	605	X	-	-	-
48	CHL	N1	606	X	-	-	-
48	CHL	N1	607	X	-	-	-
48	CHL	N1	608	X	-	-	-
48	CHL	N1	609	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
48	CHL	R	606	X	-	-	-
48	CHL	R	607	X	-	-	-
48	CHL	R1	606	X	-	-	-
48	CHL	R1	607	X	-	-	-
48	CHL	S	601	X	-	-	-
48	CHL	S	606	X	-	-	-
48	CHL	S	607	X	-	-	-
48	CHL	S	608	X	-	-	-
48	CHL	S1	601	X	-	-	-
48	CHL	S1	606	X	-	-	-
48	CHL	S1	607	X	-	-	-
48	CHL	S1	608	X	-	-	-
48	CHL	Y	601	X	-	-	-
48	CHL	Y	605	X	-	-	-
48	CHL	Y	606	X	-	-	-
48	CHL	Y	607	X	-	-	-
48	CHL	Y	609	X	-	-	-
48	CHL	Y1	601	X	-	-	-
48	CHL	Y1	605	X	-	-	-
48	CHL	Y1	606	X	-	-	-
48	CHL	Y1	607	X	-	-	-
48	CHL	Y1	609	X	-	-	-
48	CHL	g	601	X	-	-	-
48	CHL	g	605	X	-	-	-
48	CHL	g	606	X	-	-	-
48	CHL	g	607	X	-	-	-
48	CHL	g	608	X	-	-	-
48	CHL	g	609	X	-	-	-
48	CHL	g1	601	X	-	-	-
48	CHL	g1	605	X	-	-	-
48	CHL	g1	606	X	-	-	-
48	CHL	g1	607	X	-	-	-
48	CHL	g1	608	X	-	-	-
48	CHL	g1	609	X	-	-	-
48	CHL	n	601	X	-	-	-
48	CHL	n	605	X	-	-	-
48	CHL	n	606	X	-	-	-
48	CHL	n	607	X	-	-	-
48	CHL	n	608	X	-	-	-
48	CHL	n	609	X	-	-	-
48	CHL	n1	601	X	-	-	-
48	CHL	n1	605	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
48	CHL	n1	606	X	-	-	-
48	CHL	n1	607	X	-	-	-
48	CHL	n1	608	X	-	-	-
48	CHL	n1	609	X	-	-	-
48	CHL	r	606	X	-	-	-
48	CHL	r	607	X	-	-	-
48	CHL	r1	606	X	-	-	-
48	CHL	r1	607	X	-	-	-
48	CHL	s	601	X	-	-	-
48	CHL	s	606	X	-	-	-
48	CHL	s	607	X	-	-	-
48	CHL	s	608	X	-	-	-
48	CHL	s1	601	X	-	-	-
48	CHL	s1	606	X	-	-	-
48	CHL	s1	607	X	-	-	-
48	CHL	s1	608	X	-	-	-
48	CHL	y	601	X	-	-	-
48	CHL	y	605	X	-	-	-
48	CHL	y	606	X	-	-	-
48	CHL	y	607	X	-	-	-
48	CHL	y	609	X	-	-	-
48	CHL	y1	601	X	-	-	-
48	CHL	y1	605	X	-	-	-
48	CHL	y1	606	X	-	-	-
48	CHL	y1	607	X	-	-	-
48	CHL	y1	609	X	-	-	-
49	LUT	G	621	X	-	-	-
49	LUT	R	620	X	-	-	-
49	LUT	n1	621	X	-	-	-
50	XAT	G	622	X	-	-	-
50	XAT	G1	622	X	-	-	-
50	XAT	N	622	X	-	-	-
50	XAT	N1	622	X	-	-	-
50	XAT	Y1	622	X	-	-	-
50	XAT	g	622	X	-	-	-
50	XAT	g1	622	X	-	-	-
50	XAT	n	622	X	-	-	-
50	XAT	r	621	X	-	-	-
50	XAT	r1	621	X	-	-	-
51	NEX	g	623	X	-	-	-
51	NEX	g1	623	X	-	-	-
53	ERG	R	626	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
53	ERG	R1	626	X	-	-	-
53	ERG	r	626	X	-	-	-
53	ERG	r1	626	X	-	-	-

2 Entry composition (i)

There are 55 unique types of molecules in this entry. The entry contains 152240 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	336	Total	C	N	O	S	1	0
			2638	1721	432	468	17		
1	a	336	Total	C	N	O	S	1	0
			2638	1721	432	468	17		
1	A1	336	Total	C	N	O	S	1	0
			2638	1721	432	468	17		
1	a1	336	Total	C	N	O	S	1	0
			2638	1721	432	468	17		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	484	Total	C	N	O	S	0	0
			3783	2480	630	663	10		
2	b	484	Total	C	N	O	S	0	0
			3783	2480	630	663	10		
2	B1	484	Total	C	N	O	S	0	0
			3783	2480	630	663	10		
2	b1	484	Total	C	N	O	S	0	0
			3783	2480	630	663	10		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
3	V	32	Total	C	N	O	0	0
			227	152	37	38		
3	v	32	Total	C	N	O	0	0
			227	152	37	38		
3	V1	32	Total	C	N	O	0	0
			227	152	37	38		
3	v1	32	Total	C	N	O	0	0
			227	152	37	38		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
4	C	449	Total	C	N	O	S	0	0
			3483	2282	581	607	13		
4	c	449	Total	C	N	O	S	0	0
			3483	2282	581	607	13		
4	C1	449	Total	C	N	O	S	0	0
			3483	2282	581	607	13		
4	c1	449	Total	C	N	O	S	0	0
			3483	2282	581	607	13		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
5	D	348	Total	C	N	O	S	0	0
			2766	1824	454	477	11		
5	d	348	Total	C	N	O	S	0	0
			2766	1824	454	477	11		
5	D1	348	Total	C	N	O	S	0	0
			2766	1824	454	477	11		
5	d1	348	Total	C	N	O	S	0	0
			2766	1824	454	477	11		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
6	E	76	Total	C	N	O	0	0
			621	404	102	115		
6	e	76	Total	C	N	O	0	0
			621	404	102	115		
6	E1	76	Total	C	N	O	0	0
			621	404	102	115		
6	e1	76	Total	C	N	O	0	0
			621	404	102	115		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
7	F	31	Total	C	N	O	S	0	0
			252	172	42	37	1		
7	f	31	Total	C	N	O	S	0	0
			252	172	42	37	1		
7	F1	31	Total	C	N	O	S	0	0
			252	172	42	37	1		

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Mol	Chain	Residues	Atoms					AltConf	Trace
7	f1	31	Total	C	N	O	S	0	0
			252	172	42	37	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
8	H	67	Total	C	N	O	S	0	0
			503	334	76	92	1		
8	h	67	Total	C	N	O	S	0	0
			503	334	76	92	1		
8	H1	67	Total	C	N	O	S	0	0
			503	334	76	92	1		
8	h1	67	Total	C	N	O	S	0	0
			503	334	76	92	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
9	I	35	Total	C	N	O	S	0	0
			279	190	42	46	1		
9	i	35	Total	C	N	O	S	0	0
			279	190	42	46	1		
9	I1	35	Total	C	N	O	S	0	0
			279	190	42	46	1		
9	i1	35	Total	C	N	O	S	0	0
			279	190	42	46	1		

- Molecule 10 is a protein called PsbJ.

Mol	Chain	Residues	Atoms				AltConf	Trace
10	J	36	Total	C	N	O	0	0
			266	183	40	43		
10	j	36	Total	C	N	O	0	0
			266	183	40	43		
10	J1	36	Total	C	N	O	0	0
			266	183	40	43		
10	j1	36	Total	C	N	O	0	0
			266	183	40	43		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
11	K	37	Total	C	N	O	0	0
			297	207	43	47		
11	k	37	Total	C	N	O	0	0
			297	207	43	47		
11	K1	37	Total	C	N	O	0	0
			297	207	43	47		
11	k1	37	Total	C	N	O	0	0
			297	207	43	47		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
12	L	38	Total	C	N	O	S	0	0
			313	209	51	52	1		
12	l	38	Total	C	N	O	S	0	0
			313	209	51	52	1		
12	L1	38	Total	C	N	O	S	0	0
			313	209	51	52	1		

- Molecule 13 is a protein called PsbM.

Mol	Chain	Residues	Atoms				AltConf	Trace
13	M	31	Total	C	N	O	0	0
			234	159	33	42		
13	m	31	Total	C	N	O	0	0
			234	159	33	42		
13	M1	31	Total	C	N	O	0	0
			234	159	33	42		
13	m1	31	Total	C	N	O	0	0
			234	159	33	42		

- Molecule 14 is a protein called PsbO.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	O	238	Total	C	N	O	S	0	0
			1820	1149	295	370	6		
14	o	238	Total	C	N	O	S	0	0
			1820	1149	295	370	6		
14	O1	238	Total	C	N	O	S	0	0
			1820	1149	295	370	6		
14	o1	238	Total	C	N	O	S	0	0
			1820	1149	295	370	6		

- Molecule 15 is a protein called PsbP.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	P	187	Total	C	N	O	S	0	0
			1444	916	242	285	1		
15	p	187	Total	C	N	O	S	0	0
			1444	916	242	285	1		
15	P1	187	Total	C	N	O	S	0	0
			1444	916	242	285	1		
15	p1	187	Total	C	N	O	S	0	0
			1444	916	242	285	1		

- Molecule 16 is a protein called Photosystem II reaction center protein T.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	T	30	Total	C	N	O	S	0	0
			247	171	36	39	1		
16	t	30	Total	C	N	O	S	0	0
			247	171	36	39	1		
16	T1	30	Total	C	N	O	S	0	0
			247	171	36	39	1		
16	t1	30	Total	C	N	O	S	0	0
			247	171	36	39	1		

- Molecule 17 is a protein called PsbW.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	W	44	Total	C	N	O	S	0	0
			332	215	53	63	1		
17	w	44	Total	C	N	O	S	0	0
			332	215	53	63	1		
17	W1	44	Total	C	N	O	S	0	0
			332	215	53	63	1		
17	w1	44	Total	C	N	O	S	0	0
			332	215	53	63	1		

- Molecule 18 is a protein called PsbX.

Mol	Chain	Residues	Atoms				AltConf	Trace
18	X	30	Total	C	N	O	0	0
			201	132	32	37		
18	x	30	Total	C	N	O	0	0
			201	132	32	37		
18	X1	30	Total	C	N	O	0	0
			201	132	32	37		

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Mol	Chain	Residues	Atoms				AltConf	Trace
18	x1	30	Total 201	C 132	N 32	O 37	0	0

- Molecule 19 is a protein called Photosystem II reaction center protein Z.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	Z	61	Total 457	C 312	N 68	O 76	S 1	0	0
19	z	61	Total 457	C 312	N 68	O 76	S 1	0	0
19	Z1	61	Total 457	C 312	N 68	O 76	S 1	0	0
19	z1	61	Total 457	C 312	N 68	O 76	S 1	0	0

- Molecule 20 is a protein called LHCII M3.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	N	222	Total 1703	C 1100	N 277	O 321	S 5	0	0
20	n	222	Total 1703	C 1100	N 277	O 321	S 5	0	0
20	N1	222	Total 1703	C 1100	N 277	O 321	S 5	0	0
20	n1	222	Total 1703	C 1100	N 277	O 321	S 5	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
21	G	221	Total 1680	C 1085	N 271	O 321	S 3	0	0
21	g	221	Total 1680	C 1085	N 271	O 321	S 3	0	0
21	G1	221	Total 1680	C 1085	N 271	O 321	S 3	0	0
21	g1	221	Total 1680	C 1085	N 271	O 321	S 3	0	0

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
G	180	ALA	PRO	conflict	UNP A1XKU7
g	180	ALA	PRO	conflict	UNP A1XKU7
G1	180	ALA	PRO	conflict	UNP A1XKU7
g1	180	ALA	PRO	conflict	UNP A1XKU7

- Molecule 22 is a protein called CP29.

Mol	Chain	Residues	Atoms						AltConf	Trace
22	R	196	Total	C	N	O	P	S	0	0
			1490	943	251	292	1	3		
22	r	196	Total	C	N	O	P	S	0	0
			1490	943	251	292	1	3		
22	R1	196	Total	C	N	O	P	S	0	0
			1490	943	251	292	1	3		
22	r1	196	Total	C	N	O	P	S	0	0
			1490	943	251	292	1	3		

- Molecule 23 is a protein called CP26.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	S	243	Total	C	N	O	S	0	0
			1856	1200	298	355	3		
23	s	243	Total	C	N	O	S	0	0
			1856	1200	298	355	3		
23	S1	243	Total	C	N	O	S	0	0
			1856	1200	298	355	3		
23	s1	243	Total	C	N	O	S	0	0
			1856	1200	298	355	3		

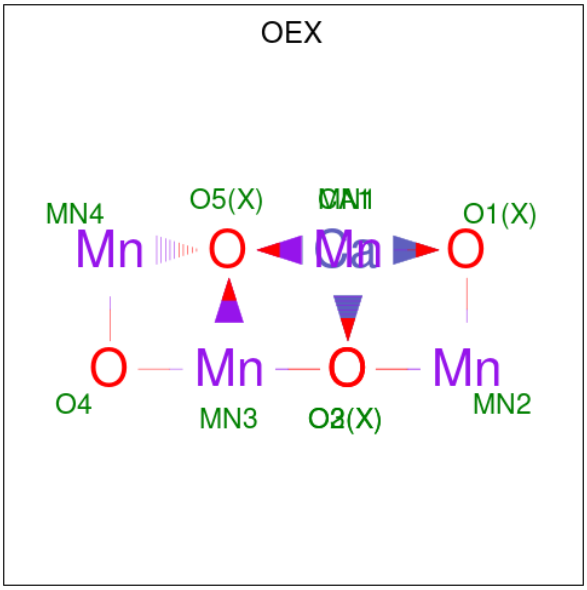
- Molecule 24 is a protein called LHCII M1.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	Y	222	Total	C	N	O	S	0	0
			1667	1080	272	312	3		
24	y	222	Total	C	N	O	S	0	0
			1667	1080	272	312	3		
24	Y1	222	Total	C	N	O	S	0	0
			1667	1080	272	312	3		
24	y1	222	Total	C	N	O	S	0	0
			1667	1080	272	312	3		

- Molecule 25 is a protein called PsbU.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	U	27	Total 224	C 134	N 42	O 47	S 1	0	0
25	u	27	Total 224	C 134	N 42	O 47	S 1	0	0
25	U1	27	Total 224	C 134	N 42	O 47	S 1	0	0
25	u1	27	Total 224	C 134	N 42	O 47	S 1	0	0

- Molecule 26 is CA-MN4-O5 CLUSTER (three-letter code: OEX) (formula: $CaMn_4O_5$).



Mol	Chain	Residues	Atoms				AltConf
26	A	1	Total 10	Ca 1	Mn 4	O 5	0
26	a	1	Total 10	Ca 1	Mn 4	O 5	0
26	A1	1	Total 10	Ca 1	Mn 4	O 5	0
26	a1	1	Total 10	Ca 1	Mn 4	O 5	0

- Molecule 27 is FE (II) ION (three-letter code: FE2) (formula: Fe).

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

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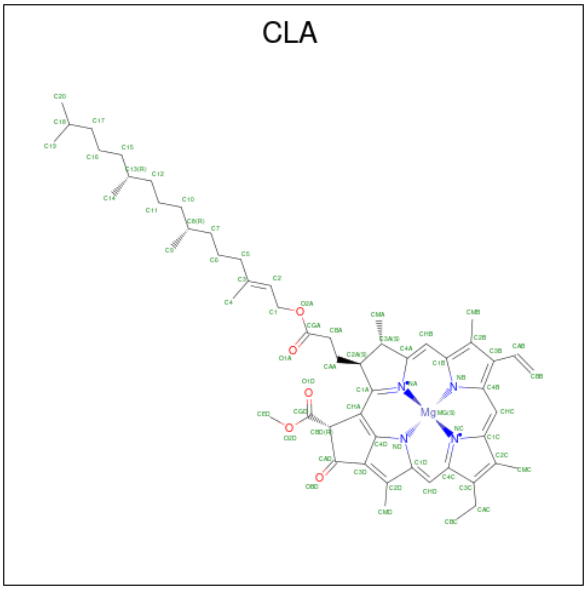
Mol	Chain	Residues	Atoms	AltConf
27	A1	1	Total Fe 1 1	0
27	a1	1	Total Fe 1 1	0

- Molecule 28 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	AltConf
28	A	2	Total Cl 2 2	0
28	a	2	Total Cl 2 2	0
28	A1	2	Total Cl 2 2	0
28	a1	2	Total Cl 2 2	0

- Molecule 29 is CHLOROPHYLL A (three-letter code: CLA) (formula: $C_{55}H_{72}MgN_4O_5$).



Mol	Chain	Residues	Atoms	AltConf
29	A	1	Total C Mg N O 65 55 1 4 5	0
29	A	1	Total C Mg N O 65 55 1 4 5	0
29	A	1	Total C Mg N O 50 40 1 4 5	0

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Mol	Chain	Residues	Atoms	AltConf
29	A	1	Total C Mg N O 60 50 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	B	1	Total C Mg N O 65 55 1 4 5	0
29	C	1	Total C Mg N O 65 55 1 4 5	0
29	C	1	Total C Mg N O 65 55 1 4 5	0
29	C	1	Total C Mg N O 65 55 1 4 5	0
29	C	1	Total C Mg N O 65 55 1 4 5	0

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Mol	Chain	Residues	Atoms					AltConf
29	C	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	D	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	D	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	N	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	N	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	N	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	N	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	N	1	Total 49	C 39	Mg 1	N 4	O 5	0
29	N	1	Total 45	C 35	Mg 1	N 4	O 5	0
29	N	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	N	1	Total 49	C 39	Mg 1	N 4	O 5	0
29	G	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	G	1	Total 65	C 55	Mg 1	N 4	O 5	0

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Mol	Chain	Residues	Atoms					AltConf
29	G	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	G	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	G	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	G	1	Total	C	Mg	N	O	0
			43	35	1	4	3	
29	G	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	G	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	R	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	R	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	R	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	R	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	R	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	R	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	R	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	S	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	S	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	S	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
29	S	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
29	S	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	S	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	S	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	S	1	Total	C	Mg	N	O	0
			45	35	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
29	S	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
29	S	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
29	S	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
29	Y	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	Y	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	Y	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	Y	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
29	Y	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	Y	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	Y	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	Y	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	Y	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	a	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	a	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	a	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	a	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	b	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	b	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	b	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	b	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	b	1	Total	C	Mg	N	O	0
			65	55	1	4	5	

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Mol	Chain	Residues	Atoms	AltConf
29	b	1	Total C Mg N O 65 55 1 4 5	0
29	b	1	Total C Mg N O 65 55 1 4 5	0
29	b	1	Total C Mg N O 65 55 1 4 5	0
29	b	1	Total C Mg N O 65 55 1 4 5	0
29	b	1	Total C Mg N O 65 55 1 4 5	0
29	b	1	Total C Mg N O 65 55 1 4 5	0
29	b	1	Total C Mg N O 65 55 1 4 5	0
29	b	1	Total C Mg N O 65 55 1 4 5	0
29	b	1	Total C Mg N O 65 55 1 4 5	0
29	b	1	Total C Mg N O 65 55 1 4 5	0
29	b	1	Total C Mg N O 65 55 1 4 5	0
29	c	1	Total C Mg N O 65 55 1 4 5	0
29	c	1	Total C Mg N O 65 55 1 4 5	0
29	c	1	Total C Mg N O 65 55 1 4 5	0
29	c	1	Total C Mg N O 65 55 1 4 5	0
29	c	1	Total C Mg N O 65 55 1 4 5	0
29	c	1	Total C Mg N O 65 55 1 4 5	0
29	c	1	Total C Mg N O 65 55 1 4 5	0
29	c	1	Total C Mg N O 65 55 1 4 5	0
29	c	1	Total C Mg N O 65 55 1 4 5	0
29	c	1	Total C Mg N O 65 55 1 4 5	0

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Mol	Chain	Residues	Atoms					AltConf
29	c	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	c	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	c	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	d	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	d	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	n	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	n	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	n	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	n	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	n	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	n	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
29	n	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	n	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	g	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	g	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	g	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	g	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	g	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	g	1	Total	C	Mg	N	O	0
			43	35	1	4	3	
29	g	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	g	1	Total	C	Mg	N	O	0
			49	39	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
29	r	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	r	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	r	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	r	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	r	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	r	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	r	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	s	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	s	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	s	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
29	s	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
29	s	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	s	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	s	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	s	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
29	s	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
29	s	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
29	s	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
29	y	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	y	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	y	1	Total	C	Mg	N	O	0
			65	55	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
29	y	1	Total 50	C 40	Mg 1	N 4	O 5	0
29	y	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	y	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	y	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	y	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	y	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	A1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	A1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	A1	1	Total 50	C 40	Mg 1	N 4	O 5	0
29	A1	1	Total 60	C 50	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0

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Mol	Chain	Residues	Atoms					AltConf
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	B1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	C1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	D1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	D1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	N1	1	Total 65	C 55	Mg 1	N 4	O 5	0

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Mol	Chain	Residues	Atoms					AltConf
29	N1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	N1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	N1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	N1	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	N1	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
29	N1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	N1	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	G1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	G1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	G1	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	G1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	G1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	G1	1	Total	C	Mg	N	O	0
			43	35	1	4	3	
29	G1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	G1	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	R1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	R1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	R1	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	R1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	R1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	R1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
29	R1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	S1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	S1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	S1	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
29	S1	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
29	S1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	S1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	S1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	S1	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
29	S1	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
29	S1	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
29	S1	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
29	Y1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	Y1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	Y1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	Y1	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
29	Y1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	Y1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	Y1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	Y1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
29	a1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	a1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	a1	1	Total 49	C 39	Mg 1	N 4	O 5	0
29	a1	1	Total 60	C 50	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	b1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	c1	1	Total 65	C 55	Mg 1	N 4	O 5	0

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Mol	Chain	Residues	Atoms	AltConf
29	c1	1	Total C Mg N O 65 55 1 4 5	0
29	c1	1	Total C Mg N O 65 55 1 4 5	0
29	c1	1	Total C Mg N O 65 55 1 4 5	0
29	c1	1	Total C Mg N O 65 55 1 4 5	0
29	c1	1	Total C Mg N O 65 55 1 4 5	0
29	c1	1	Total C Mg N O 65 55 1 4 5	0
29	c1	1	Total C Mg N O 65 55 1 4 5	0
29	c1	1	Total C Mg N O 65 55 1 4 5	0
29	c1	1	Total C Mg N O 65 55 1 4 5	0
29	c1	1	Total C Mg N O 65 55 1 4 5	0
29	c1	1	Total C Mg N O 65 55 1 4 5	0
29	c1	1	Total C Mg N O 65 55 1 4 5	0
29	d1	1	Total C Mg N O 65 55 1 4 5	0
29	d1	1	Total C Mg N O 65 55 1 4 5	0
29	n1	1	Total C Mg N O 65 55 1 4 5	0
29	n1	1	Total C Mg N O 65 55 1 4 5	0
29	n1	1	Total C Mg N O 65 55 1 4 5	0
29	n1	1	Total C Mg N O 65 55 1 4 5	0
29	n1	1	Total C Mg N O 49 39 1 4 5	0
29	n1	1	Total C Mg N O 45 35 1 4 5	0
29	n1	1	Total C Mg N O 65 55 1 4 5	0

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Mol	Chain	Residues	Atoms					AltConf
29	n1	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	g1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	g1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	g1	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	g1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	g1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	g1	1	Total	C	Mg	N	O	0
			43	35	1	4	3	
29	g1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	g1	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	r1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	r1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	r1	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
29	r1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	r1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	r1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	r1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	s1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
29	s1	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
29	s1	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
29	s1	1	Total	C	Mg	N	O	0
			50	40	1	4	5	
29	s1	1	Total	C	Mg	N	O	0
			60	50	1	4	5	

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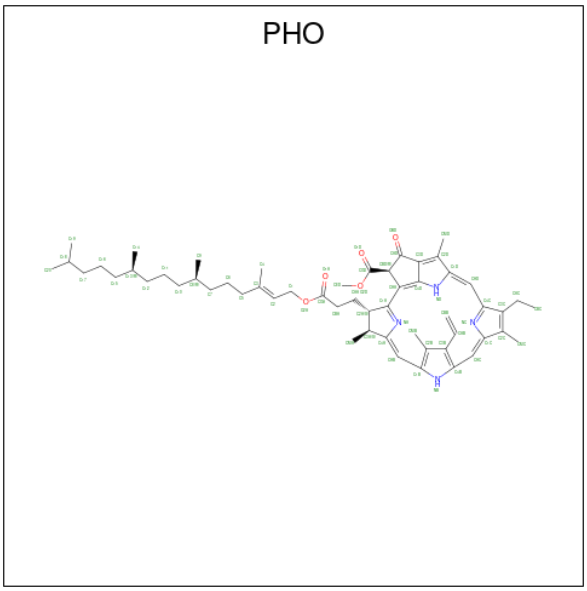
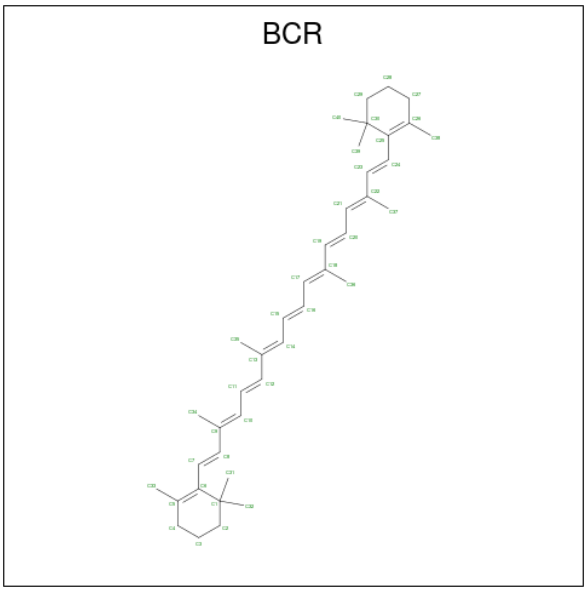
Mol	Chain	Residues	Atoms					AltConf
29	s1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	s1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	s1	1	Total 45	C 35	Mg 1	N 4	O 5	0
29	s1	1	Total 55	C 45	Mg 1	N 4	O 5	0
29	s1	1	Total 55	C 45	Mg 1	N 4	O 5	0
29	s1	1	Total 50	C 40	Mg 1	N 4	O 5	0
29	y1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	y1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	y1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	y1	1	Total 50	C 40	Mg 1	N 4	O 5	0
29	y1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	y1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	y1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	y1	1	Total 65	C 55	Mg 1	N 4	O 5	0
29	y1	1	Total 65	C 55	Mg 1	N 4	O 5	0

- Molecule 30 is PHEOPHYTIN A (three-letter code: PHO) (formula: $C_{55}H_{74}N_4O_5$).



Mol	Chain	Residues	Atoms				AltConf
30	A	1	Total	C	N	O	0
			64	55	4	5	
30	A	1	Total	C	N	O	0
			64	55	4	5	
30	a	1	Total	C	N	O	0
			64	55	4	5	
30	a	1	Total	C	N	O	0
			64	55	4	5	
30	A1	1	Total	C	N	O	0
			64	55	4	5	
30	A1	1	Total	C	N	O	0
			64	55	4	5	
30	a1	1	Total	C	N	O	0
			64	55	4	5	
30	a1	1	Total	C	N	O	0
			64	55	4	5	

- Molecule 31 is BETA-CAROTENE (three-letter code: BCR) (formula: $C_{40}H_{56}$).



Mol	Chain	Residues	Atoms	AltConf
31	A	1	Total C 40 40	0
31	B	1	Total C 40 40	0
31	B	1	Total C 40 40	0
31	C	1	Total C 40 40	0
31	C	1	Total C 40 40	0
31	C	1	Total C 40 40	0
31	C	1	Total C 40 40	0
31	D	1	Total C 40 40	0
31	a	1	Total C 40 40	0
31	b	1	Total C 40 40	0
31	b	1	Total C 40 40	0
31	c	1	Total C 40 40	0
31	c	1	Total C 40 40	0
31	c	1	Total C 40 40	0

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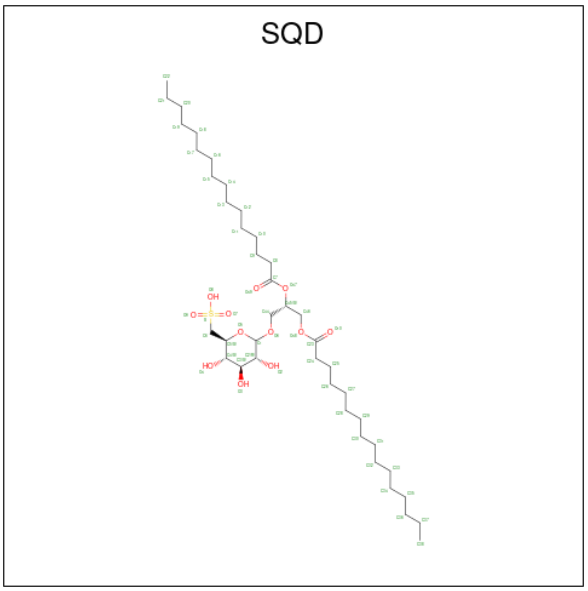
Mol	Chain	Residues	Atoms	AltConf
31	c	1	Total C 40 40	0
31	d	1	Total C 40 40	0
31	A1	1	Total C 40 40	0
31	B1	1	Total C 40 40	0
31	B1	1	Total C 40 40	0
31	C1	1	Total C 40 40	0
31	C1	1	Total C 40 40	0
31	C1	1	Total C 40 40	0
31	C1	1	Total C 40 40	0
31	D1	1	Total C 40 40	0
31	a1	1	Total C 40 40	0
31	b1	1	Total C 40 40	0
31	b1	1	Total C 40 40	0
31	c1	1	Total C 40 40	0
31	c1	1	Total C 40 40	0
31	c1	1	Total C 40 40	0
31	c1	1	Total C 40 40	0
31	d1	1	Total C 40 40	0

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



Mol	Chain	Residues	Atoms				AltConf
32	A	1	Total	C	O	S	0
			51	38	12	1	
32	B	1	Total	C	O	S	0
			42	29	12	1	
32	B	1	Total	C	O	S	0
			54	41	12	1	
32	C	1	Total	C	O	S	0
			54	41	12	1	
32	M	1	Total	C	O	S	0
			42	29	12	1	
32	a	1	Total	C	O	S	0
			51	38	12	1	
32	b	1	Total	C	O	S	0
			42	29	12	1	
32	b	1	Total	C	O	S	0
			54	41	12	1	
32	c	1	Total	C	O	S	0
			54	41	12	1	
32	m	1	Total	C	O	S	0
			42	29	12	1	
32	A1	1	Total	C	O	S	0
			51	38	12	1	
32	B1	1	Total	C	O	S	0
			42	29	12	1	
32	B1	1	Total	C	O	S	0
			54	41	12	1	
32	C1	1	Total	C	O	S	0
			54	41	12	1	

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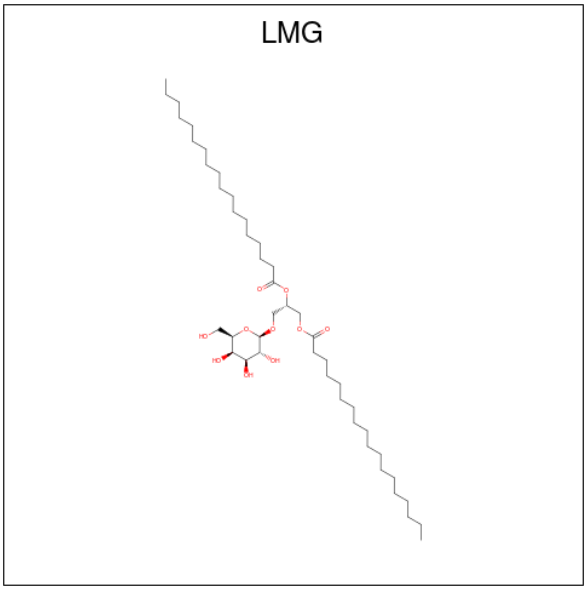
Mol	Chain	Residues	Atoms				AltConf
32	M1	1	Total	C	O	S	0
			42	29	12	1	
32	a1	1	Total	C	O	S	0
			51	38	12	1	
32	b1	1	Total	C	O	S	0
			42	29	12	1	
32	b1	1	Total	C	O	S	0
			54	41	12	1	
32	c1	1	Total	C	O	S	0
			54	41	12	1	
32	m1	1	Total	C	O	S	0
			42	29	12	1	

- Molecule 33 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: $C_{45}H_{86}O_{10}$).



Mol	Chain	Residues	Atoms			AltConf
33	A	1	Total	C	O	0
			48	38	10	
33	B	1	Total	C	O	0
			44	34	10	
33	C	1	Total	C	O	0
			51	41	10	
33	C	1	Total	C	O	0
			55	45	10	
33	D	1	Total	C	O	0
			46	36	10	

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Mol	Chain	Residues	Atoms	AltConf
33	H	1	Total C O 48 38 10	0
33	W	1	Total C O 39 29 10	0
33	a	1	Total C O 48 38 10	0
33	b	1	Total C O 44 34 10	0
33	c	1	Total C O 51 41 10	0
33	c	1	Total C O 55 45 10	0
33	d	1	Total C O 46 36 10	0
33	h	1	Total C O 48 38 10	0
33	w	1	Total C O 39 29 10	0
33	A1	1	Total C O 48 38 10	0
33	B1	1	Total C O 44 34 10	0
33	C1	1	Total C O 51 41 10	0
33	C1	1	Total C O 55 45 10	0
33	D1	1	Total C O 46 36 10	0
33	H1	1	Total C O 48 38 10	0
33	W1	1	Total C O 39 29 10	0
33	a1	1	Total C O 48 38 10	0
33	b1	1	Total C O 44 34 10	0
33	c1	1	Total C O 51 41 10	0
33	c1	1	Total C O 55 45 10	0
33	d1	1	Total C O 46 36 10	0

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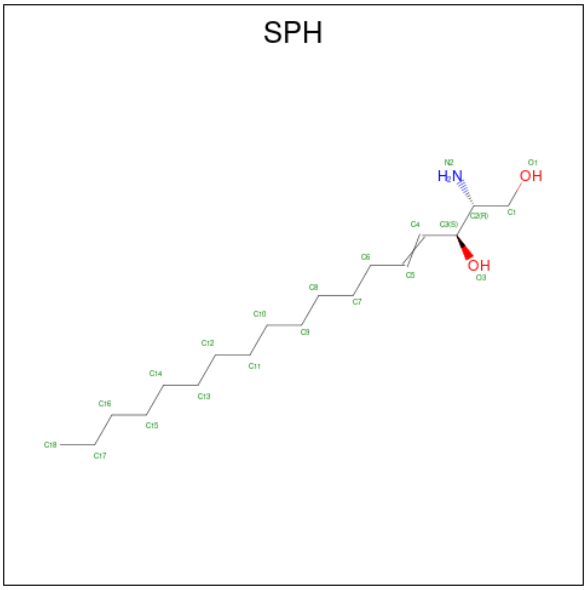
Mol	Chain	Residues	Atoms	AltConf
33	h1	1	Total C O 48 38 10	0
33	w1	1	Total C O 39 29 10	0

- Molecule 34 is SPHINGOSINE (three-letter code: SPH) (formula: $C_{18}H_{37}NO_2$).

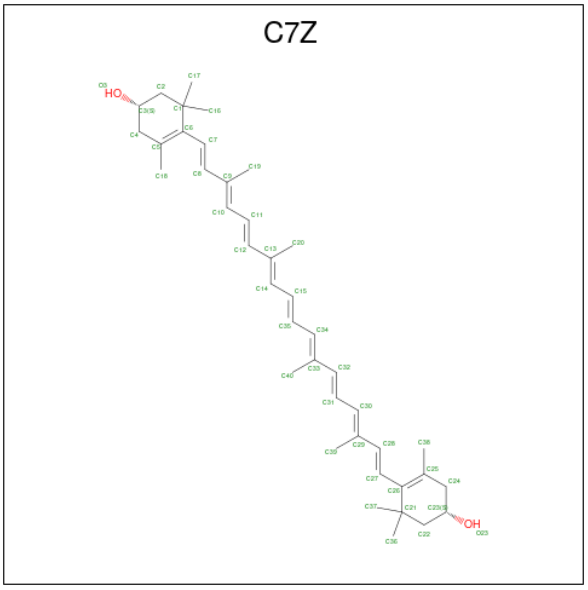


Mol	Chain	Residues	Atoms	AltConf
34	A	1	Total C N O 21 18 1 2	0
34	Y	1	Total C N O 21 18 1 2	0
34	a	1	Total C N O 21 18 1 2	0
34	y	1	Total C N O 21 18 1 2	0
34	A1	1	Total C N O 21 18 1 2	0
34	Y1	1	Total C N O 21 18 1 2	0
34	a1	1	Total C N O 21 18 1 2	0
34	y1	1	Total C N O 21 18 1 2	0

- Molecule 35 is SODIUM ION (three-letter code: NA) (formula: Na).

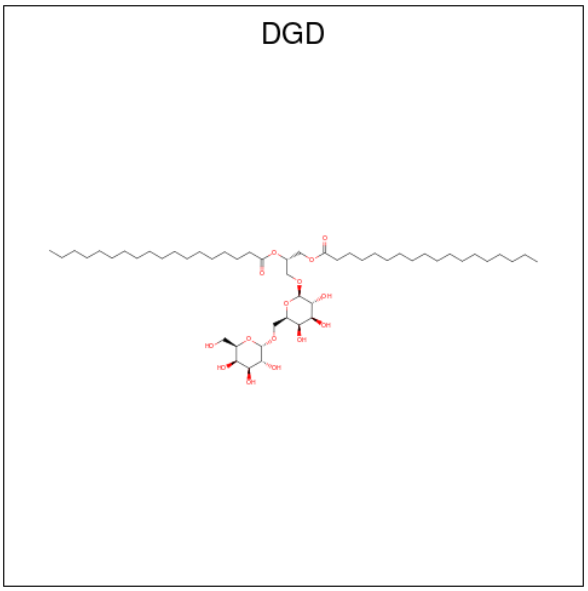
Mol	Chain	Residues	Atoms	AltConf
35	A	1	Total Na 1 1	0
35	a	1	Total Na 1 1	0
35	A1	1	Total Na 1 1	0
35	a1	1	Total Na 1 1	0

- Molecule 36 is (1 {S})-3,5,5-trimethyl-4-[(1 {E},3 {E},5 {E},7 {E},9 {E},11 {E},13 {E},15 {E},17 {E})-3,7,12,16-tetramethyl-18-[(4 {S})-2,6,6-trimethyl-4-oxidanyl-cyclohexen-1-yl]octadeca-1,3,5,7,9,11,13,15,17-nonaenyl]cyclohex-3-en-1-ol (three-letter code: C7Z) (formula: $C_{40}H_{56}O_2$).



Mol	Chain	Residues	Atoms	AltConf
36	B	1	Total C O 42 40 2	0
36	b	1	Total C O 42 40 2	0
36	B1	1	Total C O 42 40 2	0
36	b1	1	Total C O 42 40 2	0

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



Mol	Chain	Residues	Atoms	AltConf
37	B	1	Total C O 43 28 15	0
37	C	1	Total C O 55 40 15	0
37	C	1	Total C O 62 47 15	0
37	C	1	Total C O 59 44 15	0
37	b	1	Total C O 43 28 15	0
37	c	1	Total C O 55 40 15	0
37	c	1	Total C O 62 47 15	0
37	c	1	Total C O 59 44 15	0
37	B1	1	Total C O 43 28 15	0
37	C1	1	Total C O 55 40 15	0
37	C1	1	Total C O 62 47 15	0
37	C1	1	Total C O 59 44 15	0
37	b1	1	Total C O 43 28 15	0
37	c1	1	Total C O 55 40 15	0

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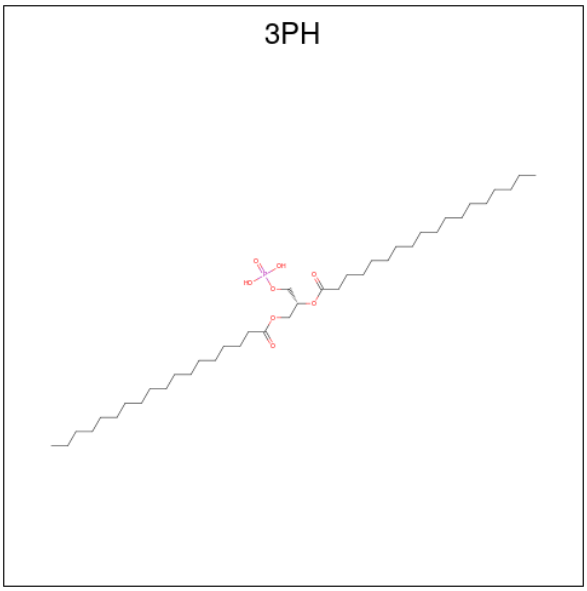
Mol	Chain	Residues	Atoms	AltConf
37	c1	1	Total C O 62 47 15	0
37	c1	1	Total C O 59 44 15	0

- Molecule 38 is 1,2-DIACYL-GLYCEROL-3-SN-PHOSPHATE (three-letter code: 3PH) (formula: $C_{39}H_{77}O_8P$).



Mol	Chain	Residues	Atoms	AltConf
38	B	1	Total C O P 48 39 8 1	0
38	T	1	Total C O P 48 39 8 1	0
38	S	1	Total C O P 48 39 8 1	0
38	b	1	Total C O P 48 39 8 1	0
38	t	1	Total C O P 48 39 8 1	0
38	s	1	Total C O P 48 39 8 1	0
38	B1	1	Total C O P 48 39 8 1	0
38	T1	1	Total C O P 48 39 8 1	0
38	S1	1	Total C O P 48 39 8 1	0

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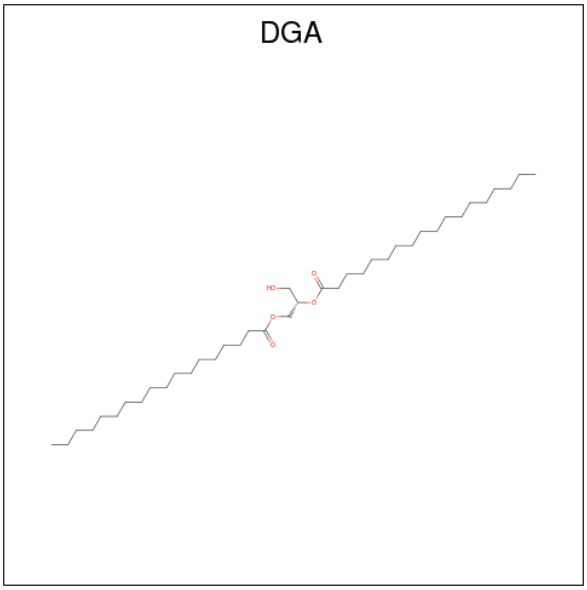
Mol	Chain	Residues	Atoms				AltConf
38	b1	1	Total	C	O	P	0
			48	39	8	1	
38	t1	1	Total	C	O	P	0
			48	39	8	1	
38	s1	1	Total	C	O	P	0
			48	39	8	1	

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



Mol	Chain	Residues	Atoms			AltConf
39	B	1	Total	C	O	0
			44	39	5	
39	C	1	Total	C	O	0
			44	39	5	
39	J	1	Total	C	O	0
			29	24	5	
39	b	1	Total	C	O	0
			44	39	5	
39	c	1	Total	C	O	0
			44	39	5	
39	j	1	Total	C	O	0
			29	24	5	
39	B1	1	Total	C	O	0
			44	39	5	
39	C1	1	Total	C	O	0
			44	39	5	

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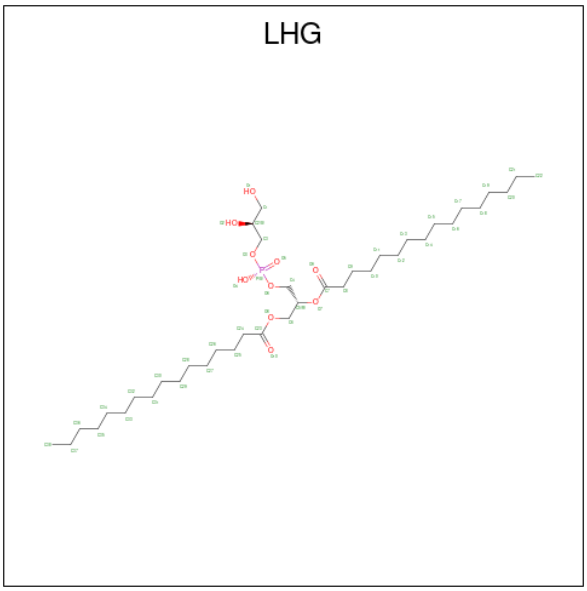
Mol	Chain	Residues	Atoms	AltConf
39	J1	1	Total C O 29 24 5	0
39	b1	1	Total C O 44 39 5	0
39	c1	1	Total C O 44 39 5	0
39	j1	1	Total C O 29 24 5	0

- Molecule 40 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula: $C_{38}H_{75}O_{10}P$).



Mol	Chain	Residues	Atoms	AltConf
40	C	1	Total C O P 47 36 10 1	0
40	D	1	Total C O P 44 33 10 1	0
40	D	1	Total C O P 49 38 10 1	0
40	D	1	Total C O P 39 28 10 1	0
40	L	1	Total C O P 49 38 10 1	0
40	N	1	Total C O P 49 38 10 1	0
40	G	1	Total C O P 49 38 10 1	0

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Mol	Chain	Residues	Atoms				AltConf
40	S	1	Total	C	O	P	0
			45	34	10	1	
40	Y	1	Total	C	O	P	0
			49	38	10	1	
40	c	1	Total	C	O	P	0
			47	36	10	1	
40	d	1	Total	C	O	P	0
			44	33	10	1	
40	d	1	Total	C	O	P	0
			49	38	10	1	
40	d	1	Total	C	O	P	0
			39	28	10	1	
40	l	1	Total	C	O	P	0
			49	38	10	1	
40	n	1	Total	C	O	P	0
			49	38	10	1	
40	g	1	Total	C	O	P	0
			49	38	10	1	
40	s	1	Total	C	O	P	0
			45	34	10	1	
40	y	1	Total	C	O	P	0
			49	38	10	1	
40	C1	1	Total	C	O	P	0
			47	36	10	1	
40	D1	1	Total	C	O	P	0
			44	33	10	1	
40	D1	1	Total	C	O	P	0
			49	38	10	1	
40	D1	1	Total	C	O	P	0
			39	28	10	1	
40	L1	1	Total	C	O	P	0
			49	38	10	1	
40	N1	1	Total	C	O	P	0
			49	38	10	1	
40	G1	1	Total	C	O	P	0
			49	38	10	1	
40	S1	1	Total	C	O	P	0
			45	34	10	1	
40	Y1	1	Total	C	O	P	0
			49	38	10	1	
40	c1	1	Total	C	O	P	0
			47	36	10	1	

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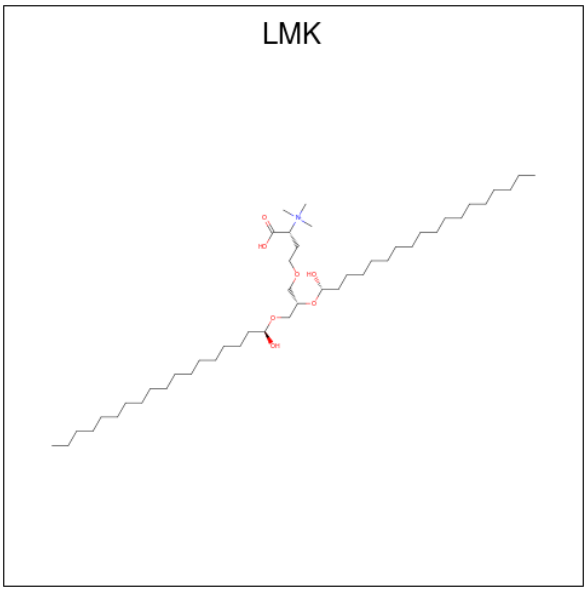
Mol	Chain	Residues	Atoms				AltConf
40	d1	1	Total	C	O	P	0
			44	33	10	1	
40	d1	1	Total	C	O	P	0
			49	38	10	1	
40	d1	1	Total	C	O	P	0
			39	28	10	1	
40	n1	1	Total	C	O	P	0
			49	38	10	1	
40	g1	1	Total	C	O	P	0
			49	38	10	1	
40	s1	1	Total	C	O	P	0
			45	34	10	1	
40	y1	1	Total	C	O	P	0
			49	38	10	1	

- Molecule 41 is trimethyl-[(2 {R})-1-oxidanyl-1-oxidanylidene-4-[(2 {S})-2-[(1 {S})-1-oxidanyloctadecoxy]-3-[(1 {R})-1-oxidanyloctadecoxy]propoxy]butan-2-yl]azanium (three-letter code: LMK) (formula: $C_{46}H_{94}NO_7$).



Mol	Chain	Residues	Atoms				AltConf
41	C	1	Total	C	N	O	0
			40	32	1	7	
41	c	1	Total	C	N	O	0
			40	32	1	7	
41	C1	1	Total	C	N	O	0
			40	32	1	7	

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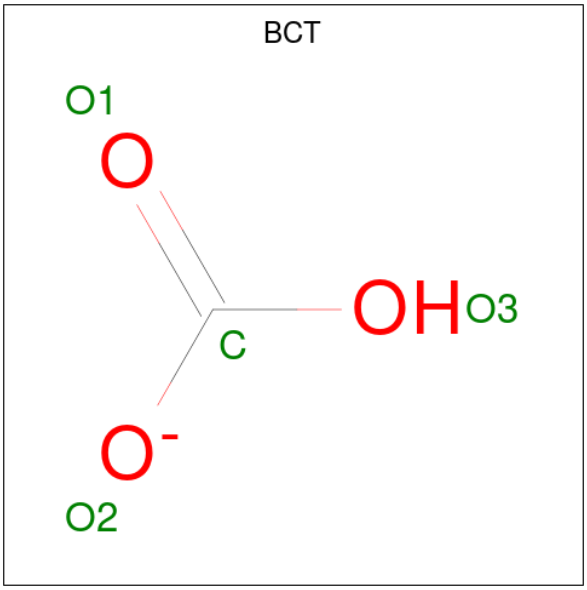
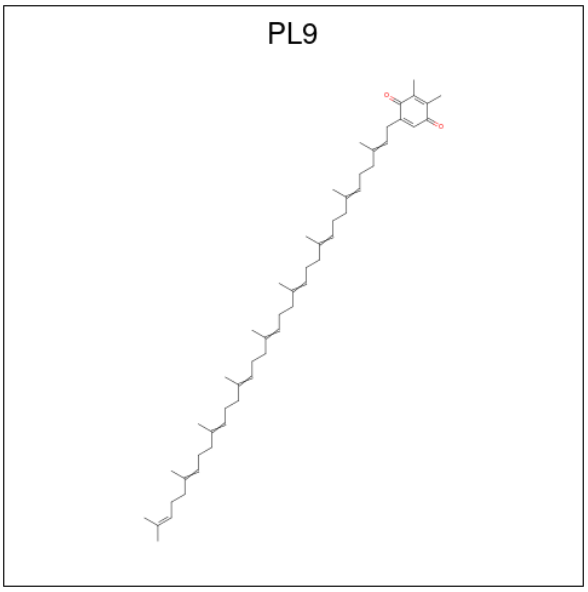
Mol	Chain	Residues	Atoms				AltConf
41	c1	1	Total	C	N	O	0
			40	32	1	7	

- Molecule 42 is BICARBONATE ION (three-letter code: BCT) (formula: CHO_3).



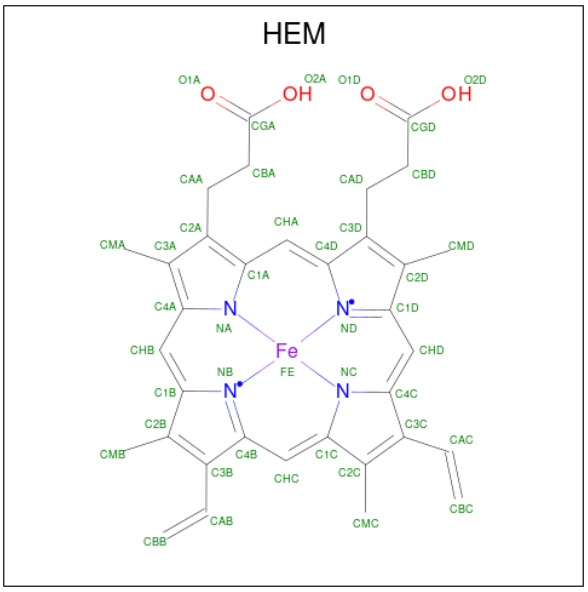
Mol	Chain	Residues	Atoms			AltConf
42	D	1	Total	C	O	0
			4	1	3	
42	d	1	Total	C	O	0
			4	1	3	
42	D1	1	Total	C	O	0
			4	1	3	
42	d1	1	Total	C	O	0
			4	1	3	

- Molecule 43 is 2,3-DIMETHYL-5-(3,7,11,15,19,23,27,31,35-NONAMETHYL-2,6,10,14,18,22,26,30,34-HEXATRIACONTANONAENYL-2,5-CYCLOHEXADIENE-1,4-DIONE-2,3-DIMETHYL-5-SOLANESYL-1,4-BENZOQUINONE (three-letter code: PL9) (formula: $C_{53}H_{80}O_2$).



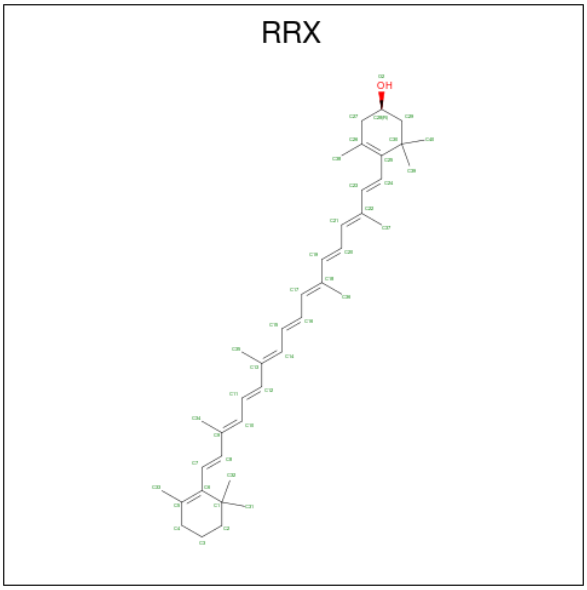
Mol	Chain	Residues	Atoms	AltConf
43	D	1	Total C O 55 53 2	0
43	d	1	Total C O 55 53 2	0
43	D1	1	Total C O 55 53 2	0
43	d1	1	Total C O 55 53 2	0

- Molecule 44 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula: $C_{34}H_{32}FeN_4O_4$).



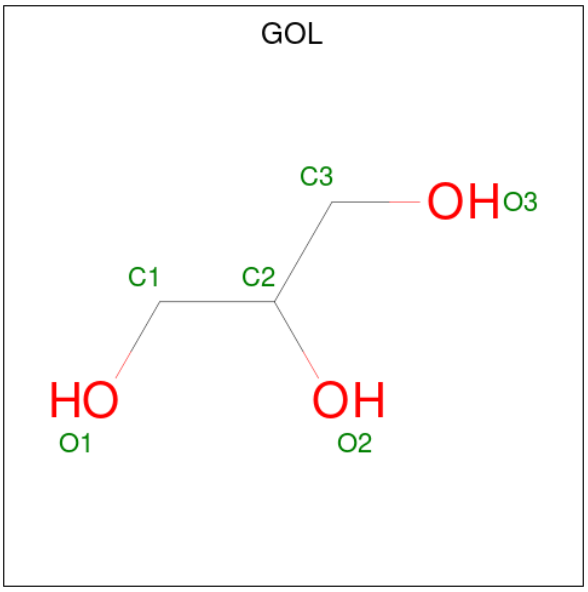
Mol	Chain	Residues	Atoms					AltConf
44	F	1	Total	C	Fe	N	O	0
			43	34	1	4	4	
44	f	1	Total	C	Fe	N	O	0
			43	34	1	4	4	
44	F1	1	Total	C	Fe	N	O	0
			43	34	1	4	4	
44	f1	1	Total	C	Fe	N	O	0
			43	34	1	4	4	

- Molecule 45 is (3R)-beta,beta-caroten-3-ol (three-letter code: RRX) (formula: $C_{40}H_{56}O$).



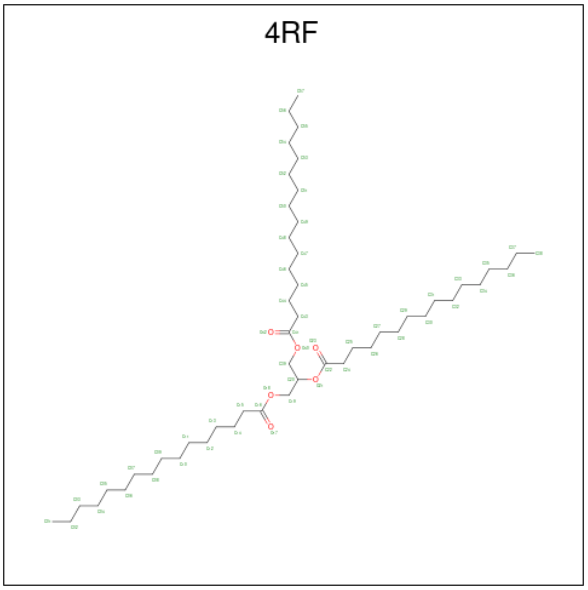
Mol	Chain	Residues	Atoms			AltConf
45	H	1	Total	C	O	0
			41	40	1	
45	h	1	Total	C	O	0
			41	40	1	
45	H1	1	Total	C	O	0
			41	40	1	
45	h1	1	Total	C	O	0
			41	40	1	

- Molecule 46 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).



Mol	Chain	Residues	Atoms			AltConf
46	I	1	Total	C	O	0
			6	3	3	
46	I1	1	Total	C	O	0
			6	3	3	

- Molecule 47 is Tripalmitoylglycerol (three-letter code: 4RF) (formula: $C_{51}H_{98}O_6$).



Mol	Chain	Residues	Atoms			AltConf
47	I	1	Total	C	O	0
			57	51	6	
47	K	1	Total	C	O	0
			57	51	6	

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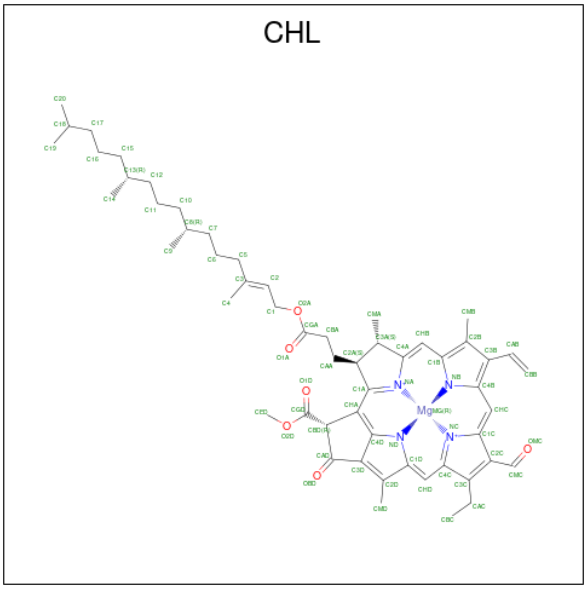
Mol	Chain	Residues	Atoms	AltConf
47	i	1	Total C O 57 51 6	0
47	k	1	Total C O 57 51 6	0
47	I1	1	Total C O 57 51 6	0
47	K1	1	Total C O 57 51 6	0
47	i1	1	Total C O 57 51 6	0
47	k1	1	Total C O 57 51 6	0

- Molecule 48 is CHLOROPHYLL B (three-letter code: CHL) (formula: $C_{55}H_{70}MgN_4O_6$).



Mol	Chain	Residues	Atoms	AltConf
48	N	1	Total C Mg N O 66 55 1 4 6	0
48	N	1	Total C Mg N O 66 55 1 4 6	0
48	N	1	Total C Mg N O 66 55 1 4 6	0
48	N	1	Total C Mg N O 66 55 1 4 6	0
48	N	1	Total C Mg N O 50 39 1 4 6	0

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Mol	Chain	Residues	Atoms					AltConf
48	N	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	G	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	G	1	Total	C	Mg	N	O	0
			48	37	1	4	6	
48	G	1	Total	C	Mg	N	O	0
			50	39	1	4	6	
48	G	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	G	1	Total	C	Mg	N	O	0
			44	35	1	4	4	
48	G	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	R	1	Total	C	Mg	N	O	0
			44	35	1	4	4	
48	R	1	Total	C	Mg	N	O	0
			50	39	1	4	6	
48	S	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
48	S	1	Total	C	Mg	N	O	0
			44	35	1	4	4	
48	S	1	Total	C	Mg	N	O	0
			43	34	1	4	4	
48	S	1	Total	C	Mg	N	O	0
			61	50	1	4	6	
48	Y	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	Y	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
48	Y	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	Y	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	Y	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	n	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	n	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	n	1	Total	C	Mg	N	O	0
			66	55	1	4	6	

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Mol	Chain	Residues	Atoms					AltConf
48	n	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	n	1	Total	C	Mg	N	O	0
			50	39	1	4	6	
48	n	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	g	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	g	1	Total	C	Mg	N	O	0
			48	37	1	4	6	
48	g	1	Total	C	Mg	N	O	0
			50	39	1	4	6	
48	g	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	g	1	Total	C	Mg	N	O	0
			44	35	1	4	4	
48	g	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	r	1	Total	C	Mg	N	O	0
			44	35	1	4	4	
48	r	1	Total	C	Mg	N	O	0
			50	39	1	4	6	
48	s	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
48	s	1	Total	C	Mg	N	O	0
			44	35	1	4	4	
48	s	1	Total	C	Mg	N	O	0
			43	34	1	4	4	
48	s	1	Total	C	Mg	N	O	0
			61	50	1	4	6	
48	y	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	y	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
48	y	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	y	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	y	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	N1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	

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Mol	Chain	Residues	Atoms					AltConf
48	N1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	N1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	N1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	N1	1	Total	C	Mg	N	O	0
			50	39	1	4	6	
48	N1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	G1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	G1	1	Total	C	Mg	N	O	0
			48	37	1	4	6	
48	G1	1	Total	C	Mg	N	O	0
			50	39	1	4	6	
48	G1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	G1	1	Total	C	Mg	N	O	0
			44	35	1	4	4	
48	G1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	R1	1	Total	C	Mg	N	O	0
			44	35	1	4	4	
48	R1	1	Total	C	Mg	N	O	0
			50	39	1	4	6	
48	S1	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
48	S1	1	Total	C	Mg	N	O	0
			44	35	1	4	4	
48	S1	1	Total	C	Mg	N	O	0
			43	34	1	4	4	
48	S1	1	Total	C	Mg	N	O	0
			61	50	1	4	6	
48	Y1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	Y1	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
48	Y1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	Y1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	

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Mol	Chain	Residues	Atoms					AltConf
48	Y1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	n1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	n1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	n1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	n1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	n1	1	Total	C	Mg	N	O	0
			50	39	1	4	6	
48	n1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	g1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	g1	1	Total	C	Mg	N	O	0
			48	37	1	4	6	
48	g1	1	Total	C	Mg	N	O	0
			50	39	1	4	6	
48	g1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	g1	1	Total	C	Mg	N	O	0
			44	35	1	4	4	
48	g1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	r1	1	Total	C	Mg	N	O	0
			44	35	1	4	4	
48	r1	1	Total	C	Mg	N	O	0
			50	39	1	4	6	
48	s1	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
48	s1	1	Total	C	Mg	N	O	0
			44	35	1	4	4	
48	s1	1	Total	C	Mg	N	O	0
			43	34	1	4	4	
48	s1	1	Total	C	Mg	N	O	0
			61	50	1	4	6	
48	y1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	y1	1	Total	C	Mg	N	O	0
			46	35	1	4	6	

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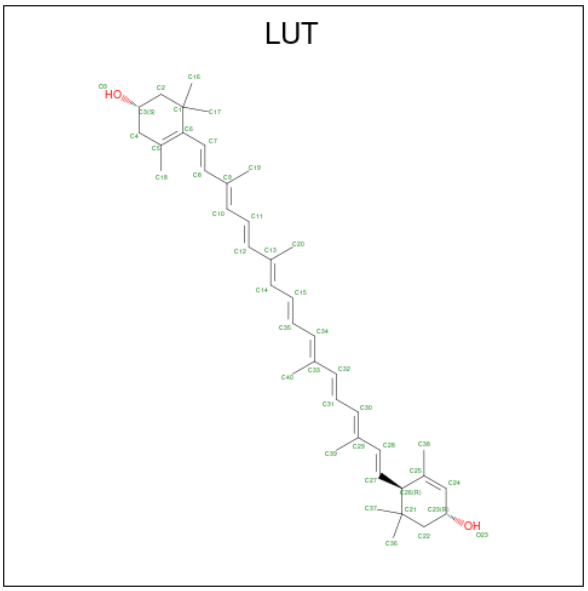
Mol	Chain	Residues	Atoms					AltConf
48	y1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	y1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
48	y1	1	Total	C	Mg	N	O	0
			66	55	1	4	6	

- Molecule 49 is (3R,3'R,6S)-4,5-DIDEHYDRO-5,6-DIHYDRO-BETA,BETA-CAROTENE-3 ,3'-DIOL (three-letter code: LUT) (formula: $C_{40}H_{56}O_2$).



Mol	Chain	Residues	Atoms			AltConf
49	N	1	Total	C	O	0
			42	40	2	
49	N	1	Total	C	O	0
			42	40	2	
49	G	1	Total	C	O	0
			42	40	2	
49	G	1	Total	C	O	0
			42	40	2	
49	R	1	Total	C	O	0
			42	40	2	
49	S	1	Total	C	O	0
			42	40	2	
49	S	1	Total	C	O	0
			42	40	2	
49	Y	1	Total	C	O	0
			42	40	2	

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Mol	Chain	Residues	Atoms			AltConf
49	Y	1	Total	C	O	0
			42	40	2	
49	n	1	Total	C	O	0
			42	40	2	
49	n	1	Total	C	O	0
			42	40	2	
49	g	1	Total	C	O	0
			42	40	2	
49	g	1	Total	C	O	0
			42	40	2	
49	r	1	Total	C	O	0
			42	40	2	
49	s	1	Total	C	O	0
			42	40	2	
49	s	1	Total	C	O	0
			42	40	2	
49	y	1	Total	C	O	0
			42	40	2	
49	y	1	Total	C	O	0
			42	40	2	
49	N1	1	Total	C	O	0
			42	40	2	
49	N1	1	Total	C	O	0
			42	40	2	
49	G1	1	Total	C	O	0
			42	40	2	
49	G1	1	Total	C	O	0
			42	40	2	
49	R1	1	Total	C	O	0
			42	40	2	
49	S1	1	Total	C	O	0
			42	40	2	
49	S1	1	Total	C	O	0
			42	40	2	
49	Y1	1	Total	C	O	0
			42	40	2	
49	Y1	1	Total	C	O	0
			42	40	2	
49	n1	1	Total	C	O	0
			42	40	2	
49	n1	1	Total	C	O	0
			42	40	2	

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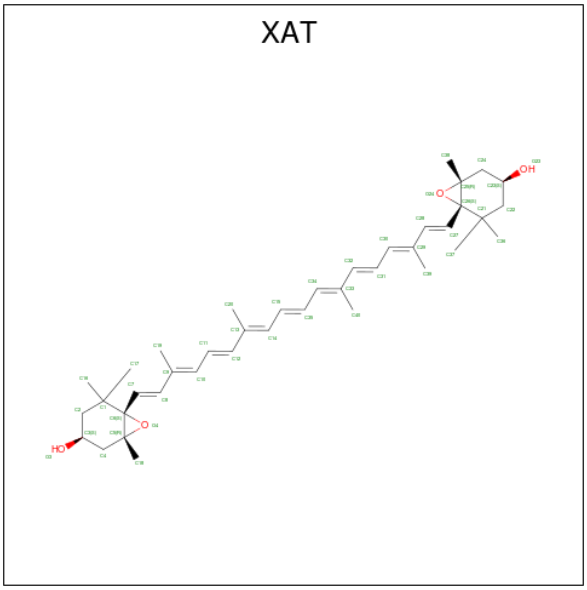
Mol	Chain	Residues	Atoms	AltConf
49	g1	1	Total C O 42 40 2	0
49	g1	1	Total C O 42 40 2	0
49	r1	1	Total C O 42 40 2	0
49	s1	1	Total C O 42 40 2	0
49	s1	1	Total C O 42 40 2	0
49	y1	1	Total C O 42 40 2	0
49	y1	1	Total C O 42 40 2	0

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



Mol	Chain	Residues	Atoms	AltConf
50	N	1	Total C O 44 40 4	0
50	G	1	Total C O 44 40 4	0
50	R	1	Total C O 44 40 4	0
50	Y	1	Total C O 44 40 4	0

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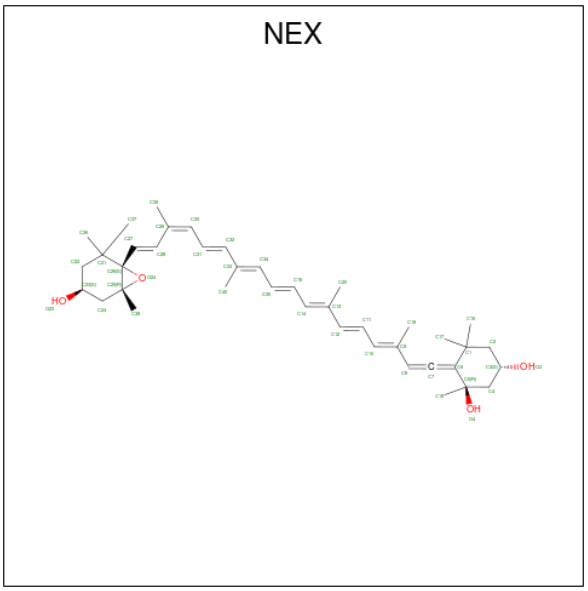
Mol	Chain	Residues	Atoms	AltConf
50	n	1	Total C O 44 40 4	0
50	g	1	Total C O 44 40 4	0
50	r	1	Total C O 44 40 4	0
50	y	1	Total C O 44 40 4	0
50	N1	1	Total C O 44 40 4	0
50	G1	1	Total C O 44 40 4	0
50	R1	1	Total C O 44 40 4	0
50	Y1	1	Total C O 44 40 4	0
50	n1	1	Total C O 44 40 4	0
50	g1	1	Total C O 44 40 4	0
50	r1	1	Total C O 44 40 4	0
50	y1	1	Total C O 44 40 4	0

- Molecule 51 is (1R,3R)-6-{(3E,5E,7E,9E,11E,13E,15E,17E)-18-[(1S,4R,6R)-4-HYDROXY-2,2,6-TRIMETHYL-7-OXABICYCLO[4.1.0]HEPT-1-YL]-3,7,12,16-TETRAMETHYLOCTADECA-1,3,5,7,9,11,13,15,17-NONAENYLIDENE}-1,5,5-TRIMETHYLCYCLOHEXANE-1,3-DIOL (three-letter code: NEX) (formula: $C_{40}H_{56}O_4$).



Mol	Chain	Residues	Atoms	AltConf
51	N	1	Total C O 44 40 4	0
51	G	1	Total C O 44 40 4	0
51	R	1	Total C O 44 40 4	0
51	S	1	Total C O 44 40 4	0
51	Y	1	Total C O 44 40 4	0
51	n	1	Total C O 44 40 4	0
51	g	1	Total C O 44 40 4	0
51	r	1	Total C O 44 40 4	0
51	s	1	Total C O 44 40 4	0
51	y	1	Total C O 44 40 4	0
51	N1	1	Total C O 44 40 4	0
51	G1	1	Total C O 44 40 4	0
51	R1	1	Total C O 44 40 4	0
51	S1	1	Total C O 44 40 4	0

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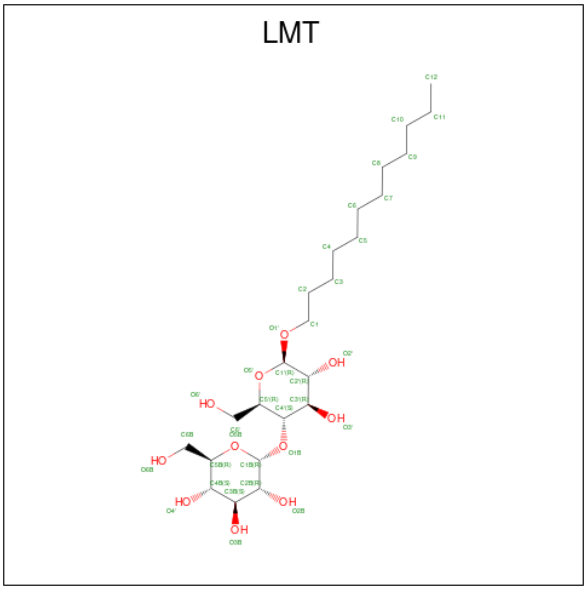
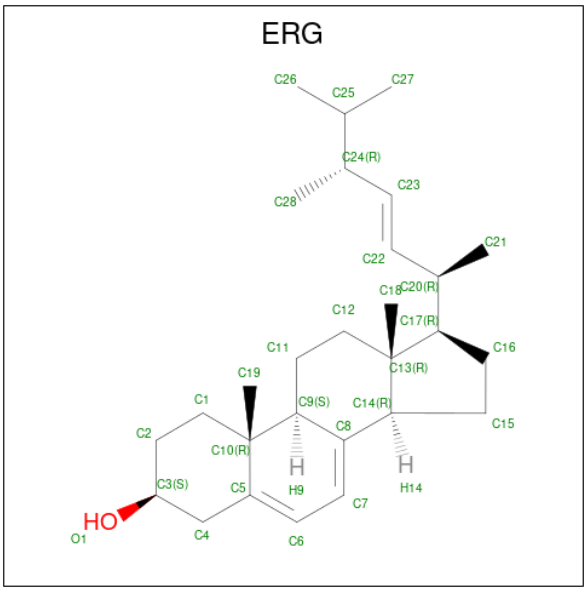
Mol	Chain	Residues	Atoms	AltConf
51	Y1	1	Total C O 44 40 4	0
51	n1	1	Total C O 44 40 4	0
51	g1	1	Total C O 44 40 4	0
51	r1	1	Total C O 44 40 4	0
51	s1	1	Total C O 44 40 4	0
51	y1	1	Total C O 44 40 4	0

- Molecule 52 is DODECYL-BETA-D-MALTOSIDE (three-letter code: LMT) (formula: $C_{24}H_{46}O_{11}$).



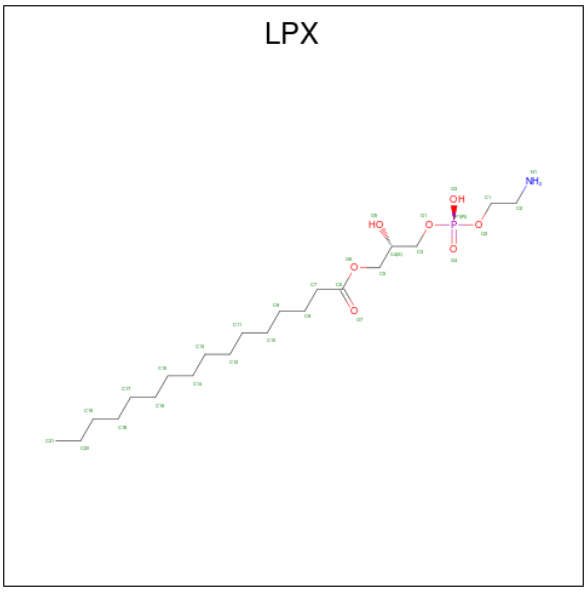
Mol	Chain	Residues	Atoms	AltConf
52	R	1	Total C O 35 24 11	0
52	r	1	Total C O 35 24 11	0
52	R1	1	Total C O 35 24 11	0
52	r1	1	Total C O 35 24 11	0

- Molecule 53 is ERGOSTEROL (three-letter code: ERG) (formula: $C_{28}H_{44}O$).



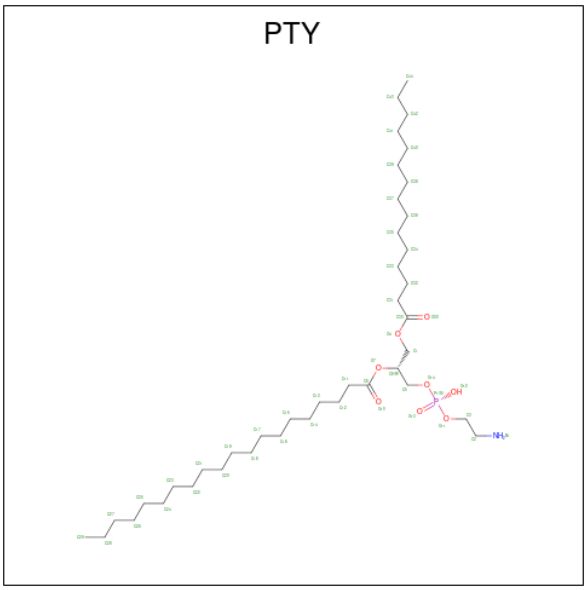
Mol	Chain	Residues	Atoms	AltConf
53	R	1	Total C O 29 28 1	0
53	r	1	Total C O 29 28 1	0
53	R1	1	Total C O 29 28 1	0
53	r1	1	Total C O 29 28 1	0

- Molecule 54 is (2S)-3-{[(R)-(2-aminoethoxy)(hydroxy)phosphoryl]oxy}-2-hydroxypropyl hexadecanoate (three-letter code: LPX) (formula: $C_{21}H_{44}NO_7P$).



Mol	Chain	Residues	Atoms					AltConf
54	S	1	Total	C	N	O	P	0
			30	21	1	7	1	
54	s	1	Total	C	N	O	P	0
			30	21	1	7	1	
54	S1	1	Total	C	N	O	P	0
			30	21	1	7	1	
54	s1	1	Total	C	N	O	P	0
			30	21	1	7	1	

- Molecule 55 is PHOSPHATIDYLETHANOLAMINE (three-letter code: PTY) (formula: $C_{40}H_{80}NO_8P$).



Mol	Chain	Residues	Atoms					AltConf
55	Y	1	Total	C	N	O	P	0
			50	40	1	8	1	
55	Y	1	Total	C	N	O	P	0
			19	9	1	8	1	
55	y	1	Total	C	N	O	P	0
			50	40	1	8	1	
55	y	1	Total	C	N	O	P	0
			19	9	1	8	1	
55	Y1	1	Total	C	N	O	P	0
			50	40	1	8	1	
55	Y1	1	Total	C	N	O	P	0
			19	9	1	8	1	
55	y1	1	Total	C	N	O	P	0
			50	40	1	8	1	

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Mol	Chain	Residues	Atoms					AltConf
55	y1	1	Total	C	N	O	P	0
			19	9	1	8	1	

3 Residue-property plots (i)

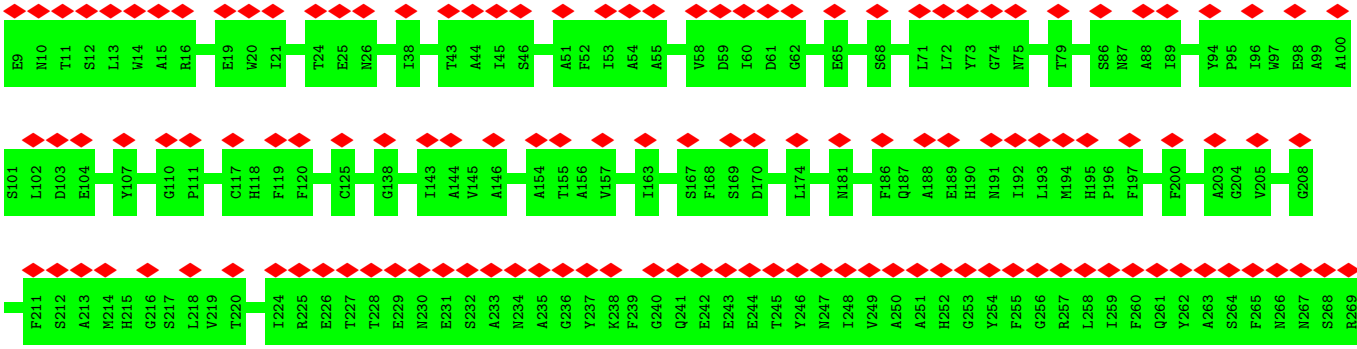
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

• Molecule 1: Photosystem II protein D1

Chain A:

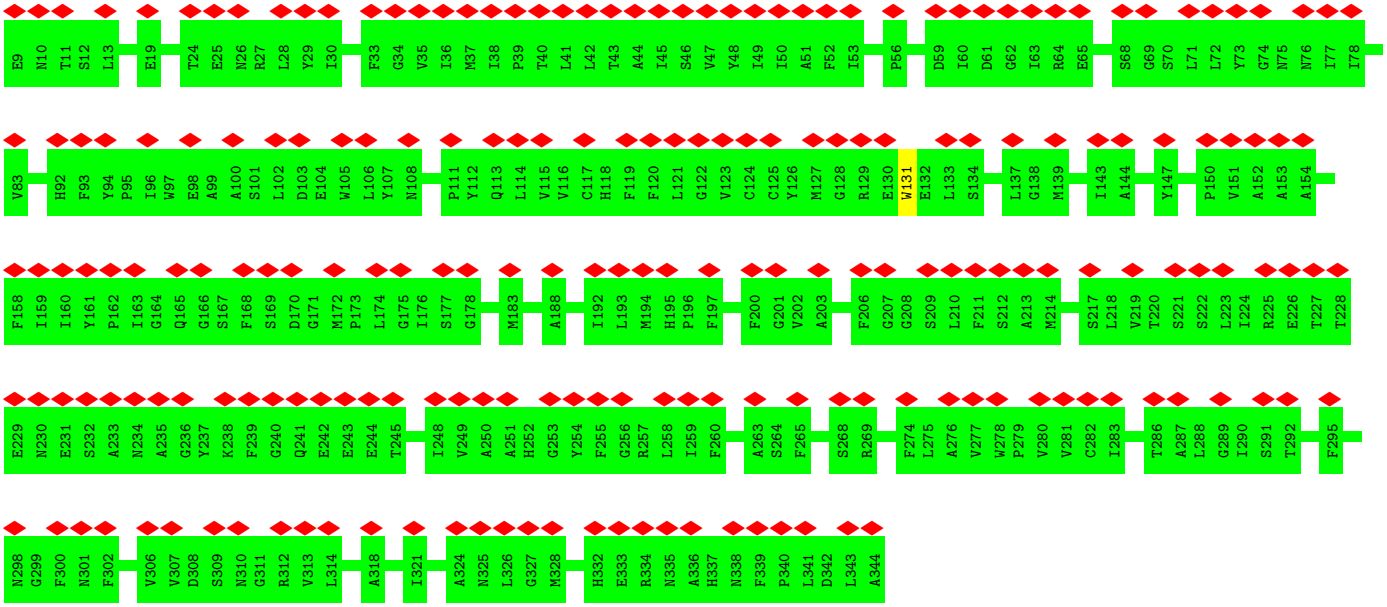
• Molecule 1: Photosystem II protein D1

Chain a:



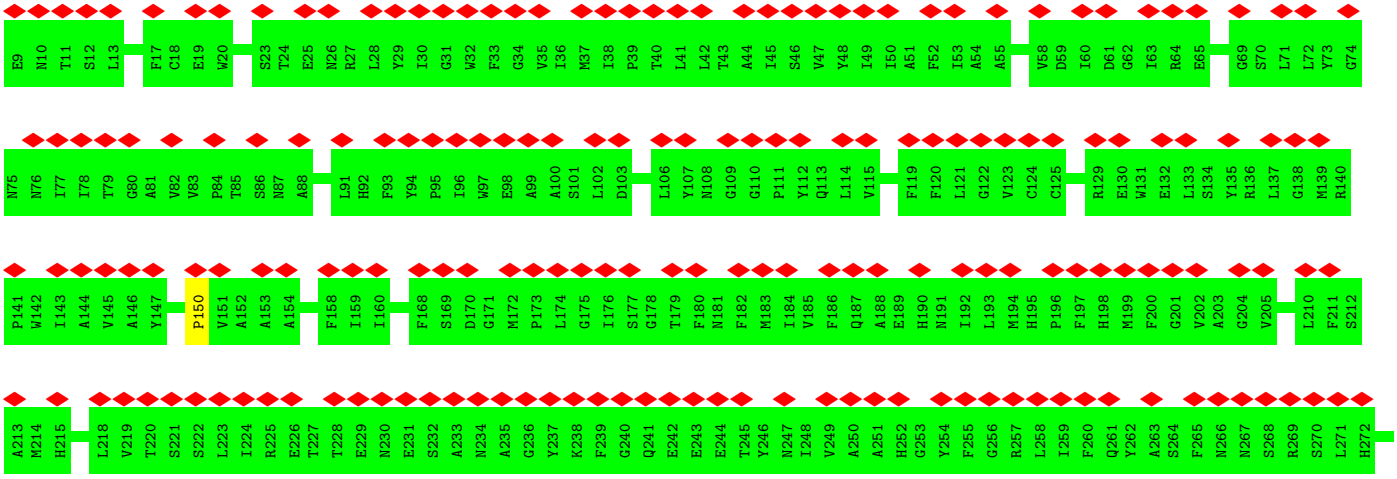
• Molecule 1: Photosystem II protein D1

Chain A1:



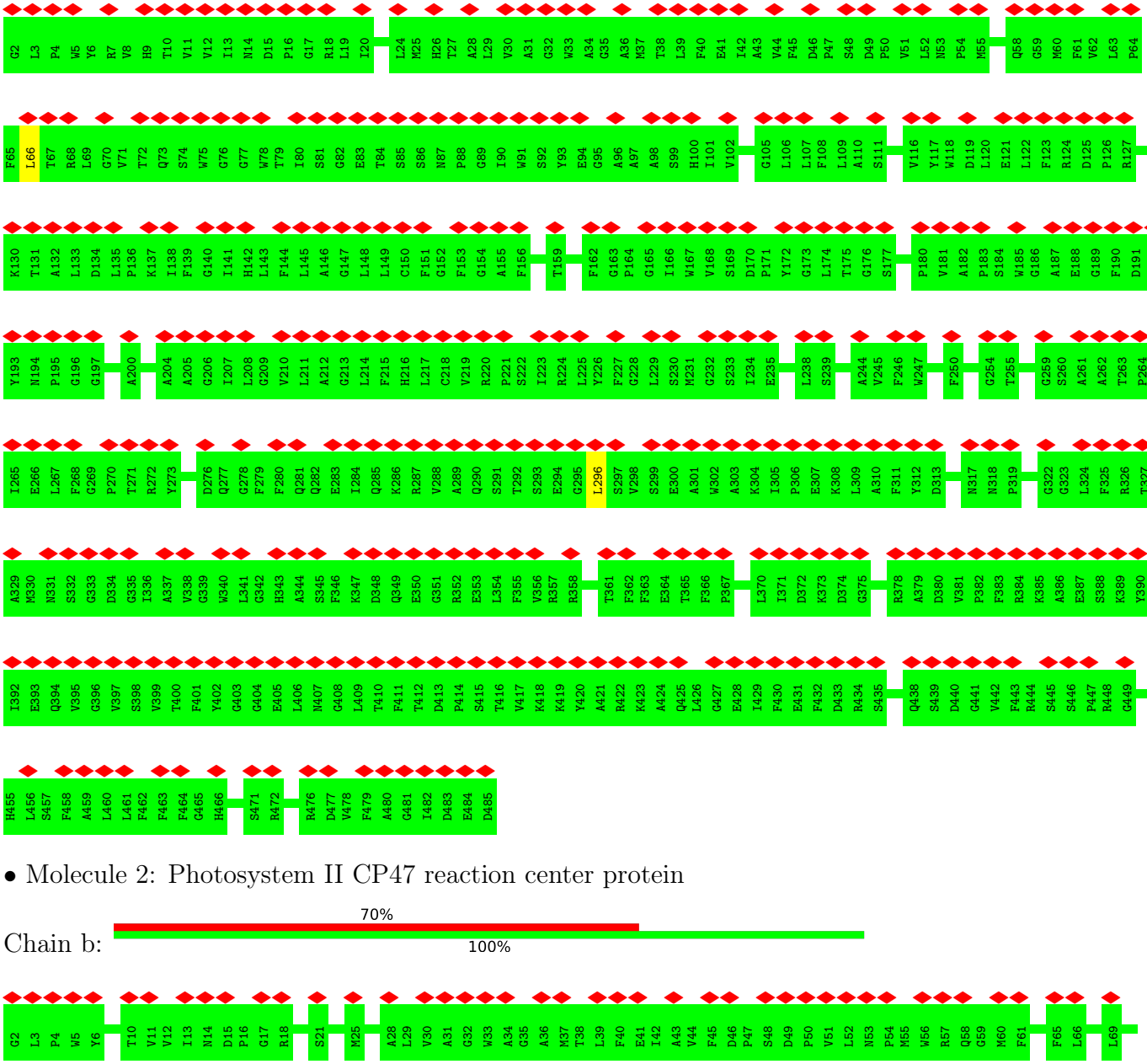
• Molecule 1: Photosystem II protein D1

Chain a1:



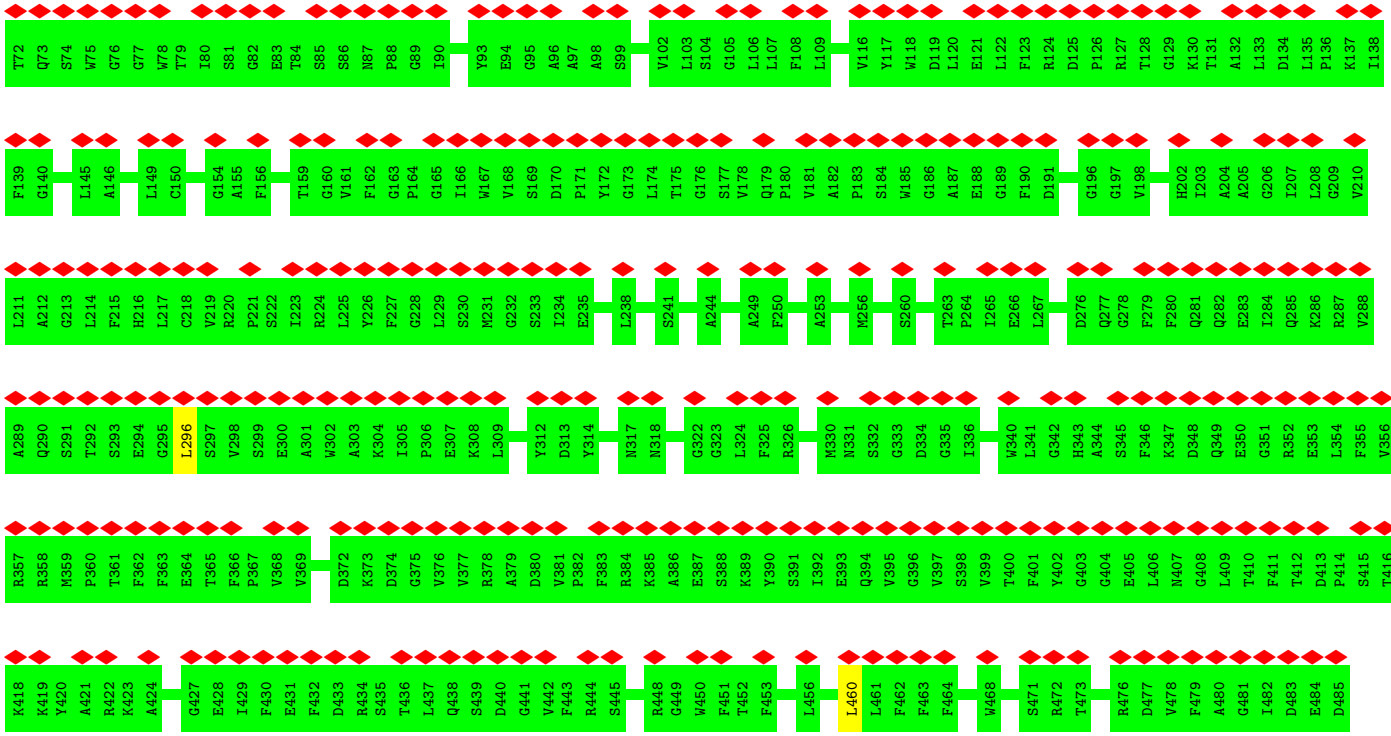
• Molecule 2: Photosystem II CP47 reaction center protein

Chain B:



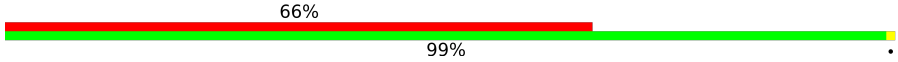
• Molecule 2: Photosystem II CP47 reaction center protein

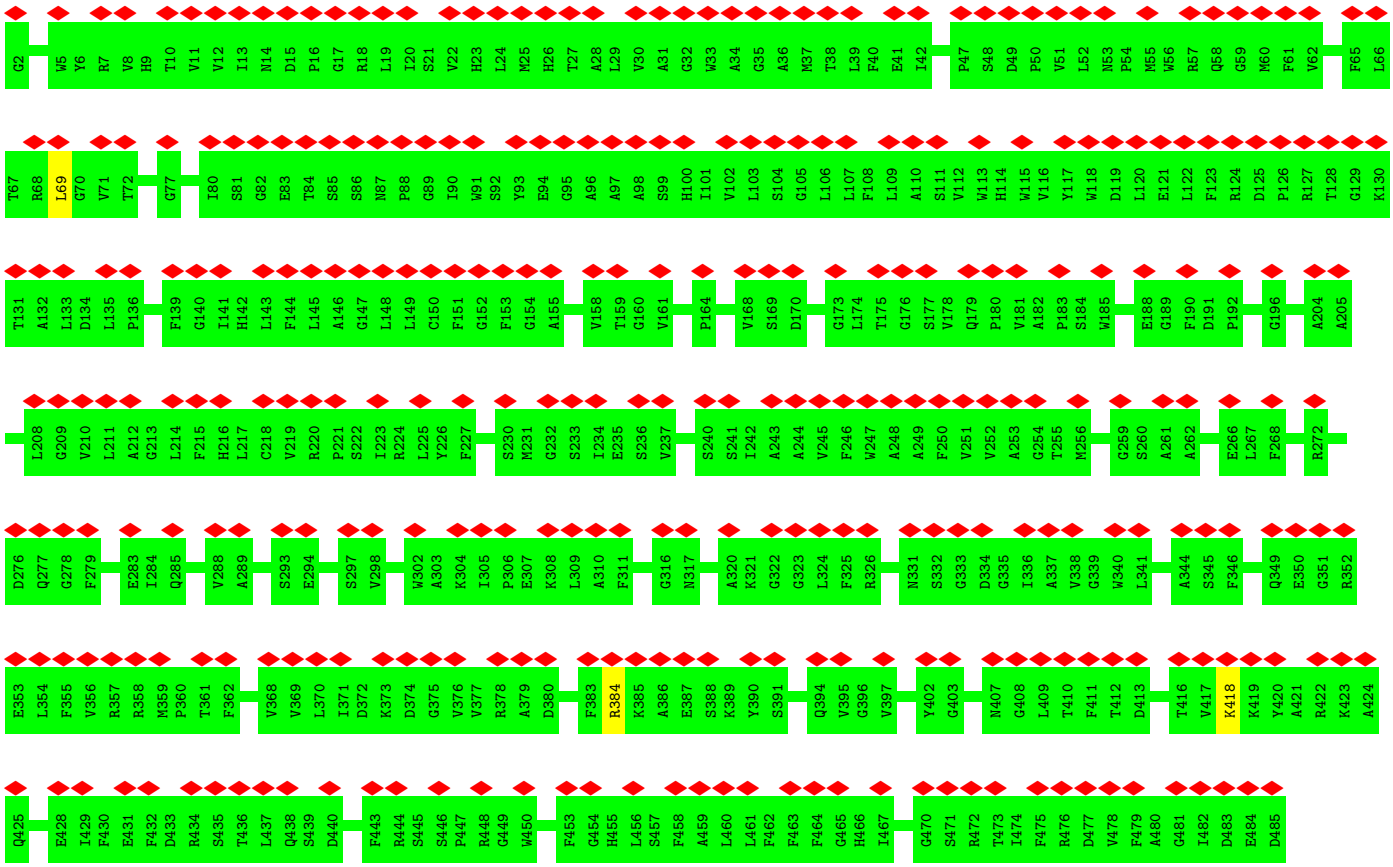
Chain b:



• Molecule 2: Photosystem II CP47 reaction center protein

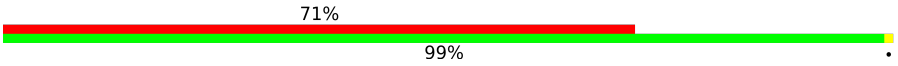
Chain B1:

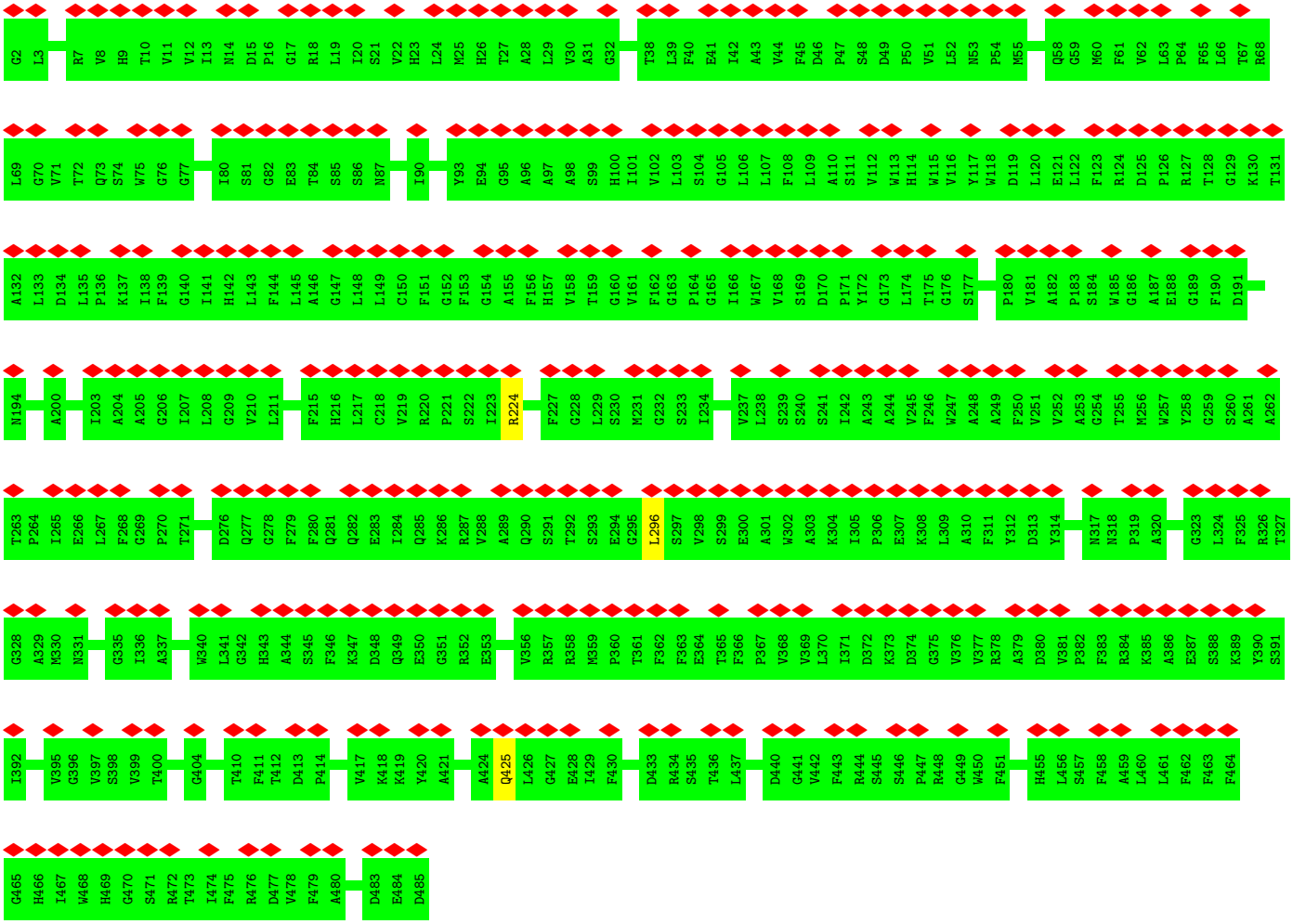




• Molecule 2: Photosystem II CP47 reaction center protein

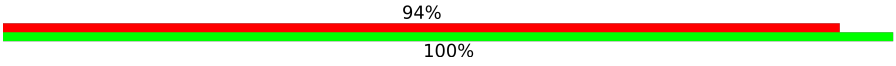
Chain b1:

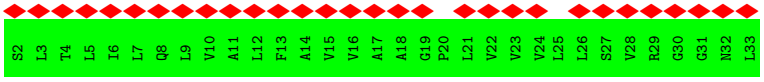




• Molecule 3: Photosystem II reaction center protein Ycf12

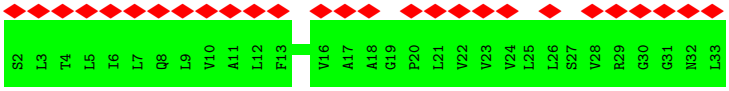
Chain V:





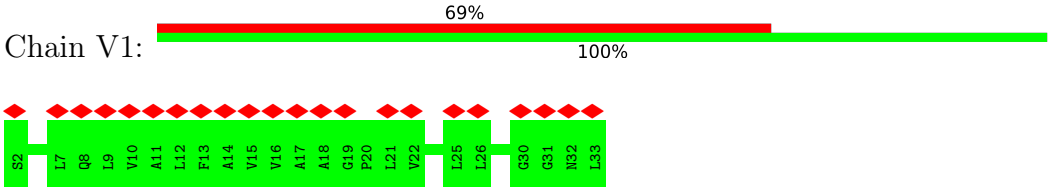
• Molecule 3: Photosystem II reaction center protein Ycf12

Chain v:



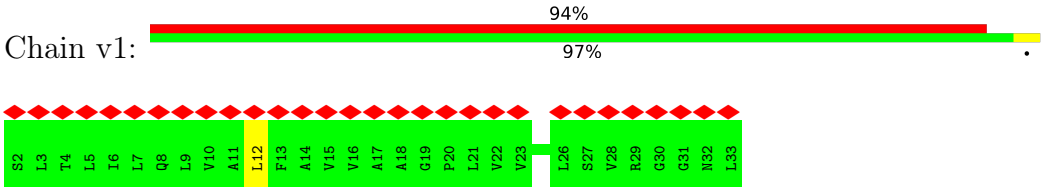
• Molecule 3: Photosystem II reaction center protein Ycf12

Chain V1:



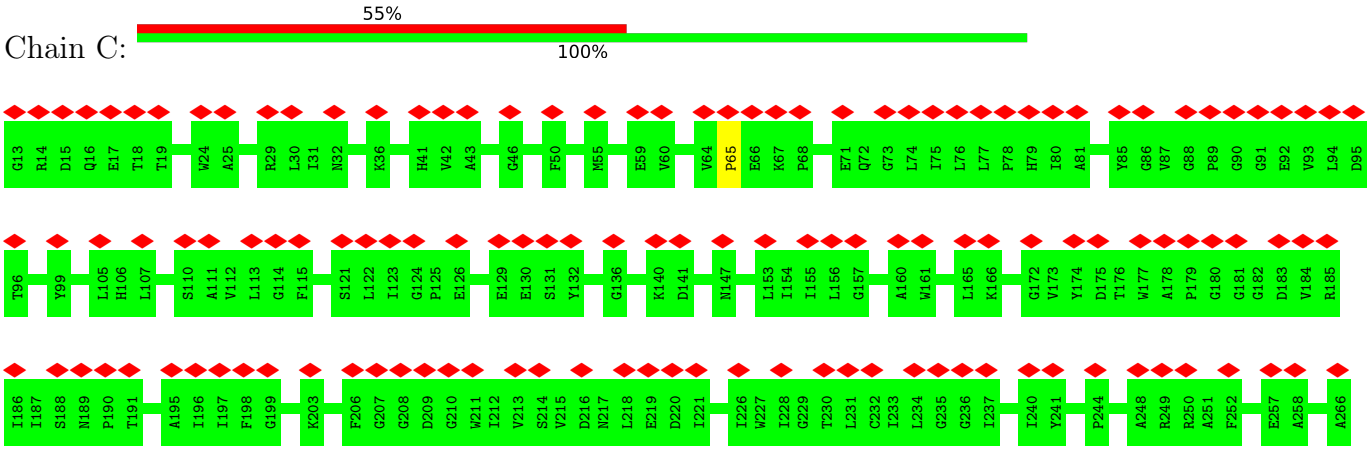
• Molecule 3: Photosystem II reaction center protein Ycf12

Chain v1:



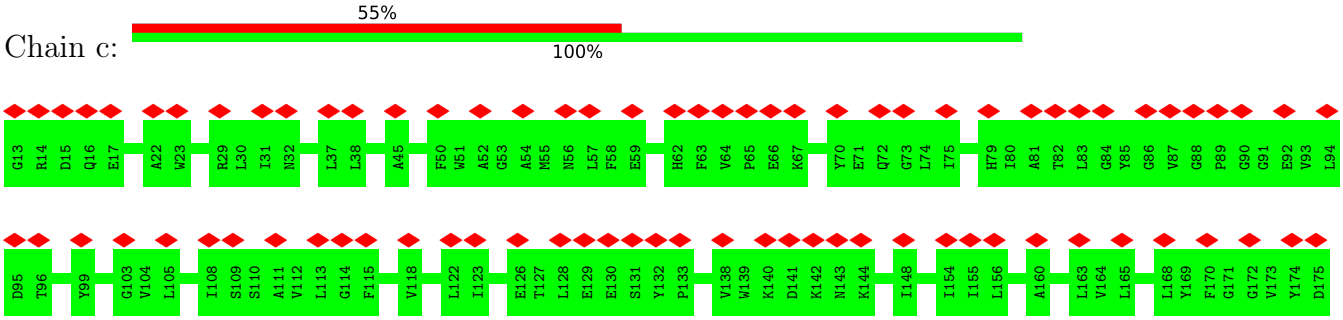
• Molecule 4: Photosystem II CP43 reaction center protein

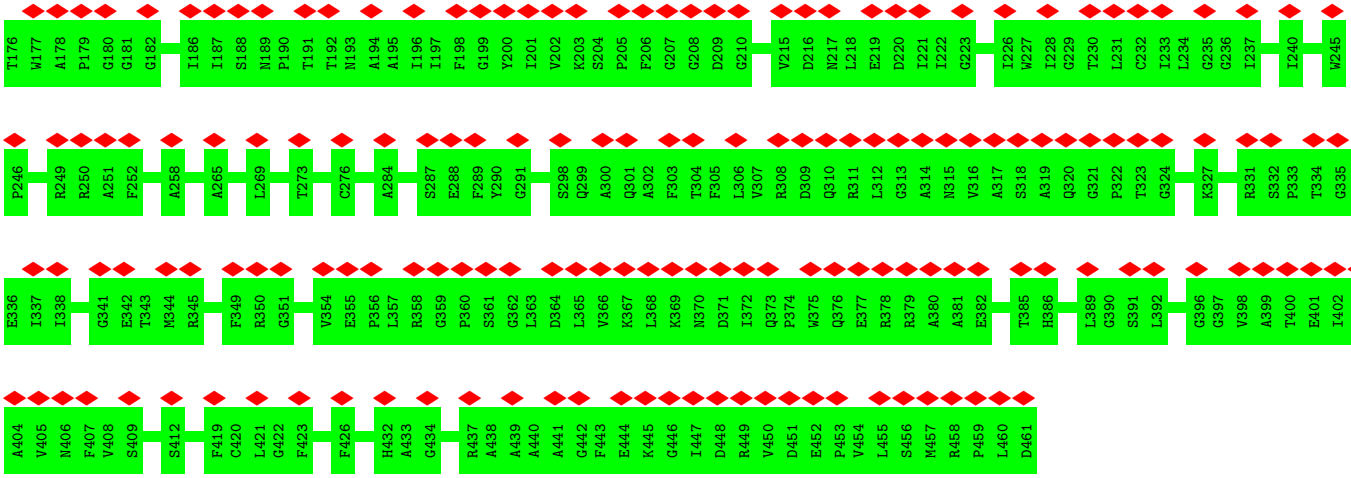
Chain C:



• Molecule 4: Photosystem II CP43 reaction center protein

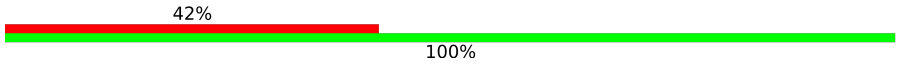
Chain c:

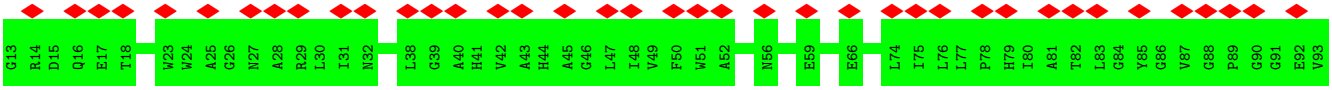




• Molecule 4: Photosystem II CP43 reaction center protein

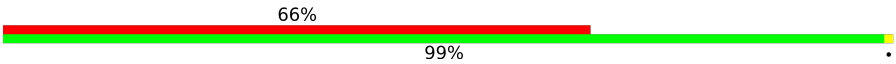
Chain C1:

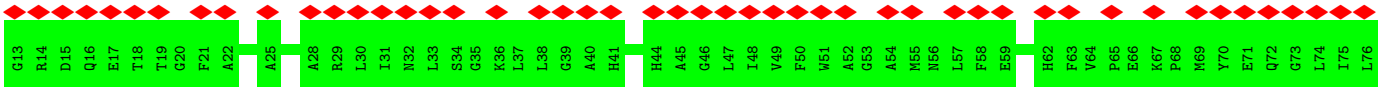




• Molecule 4: Photosystem II CP43 reaction center protein

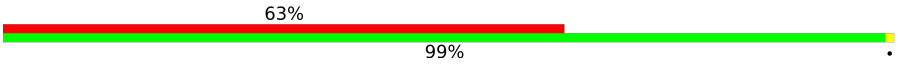
Chain c1:

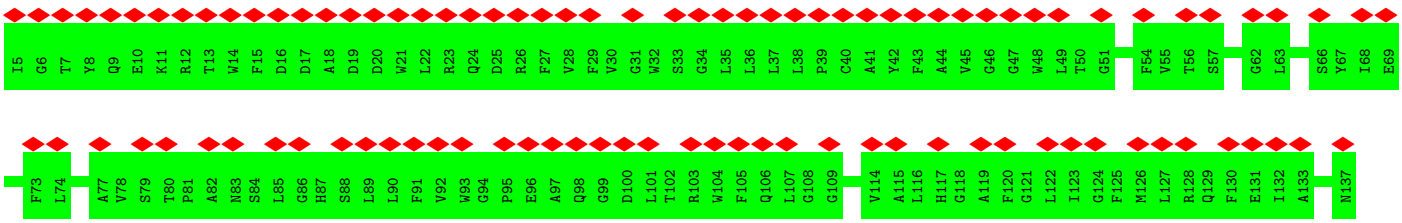




• Molecule 5: Photosystem II D2 protein

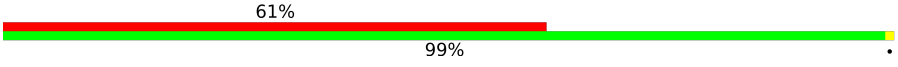
Chain D:

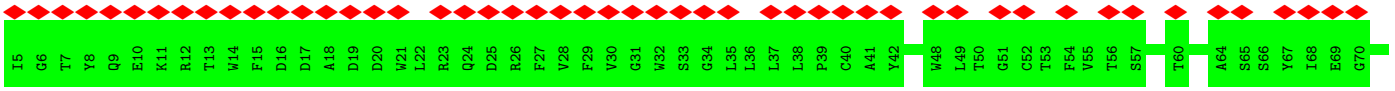


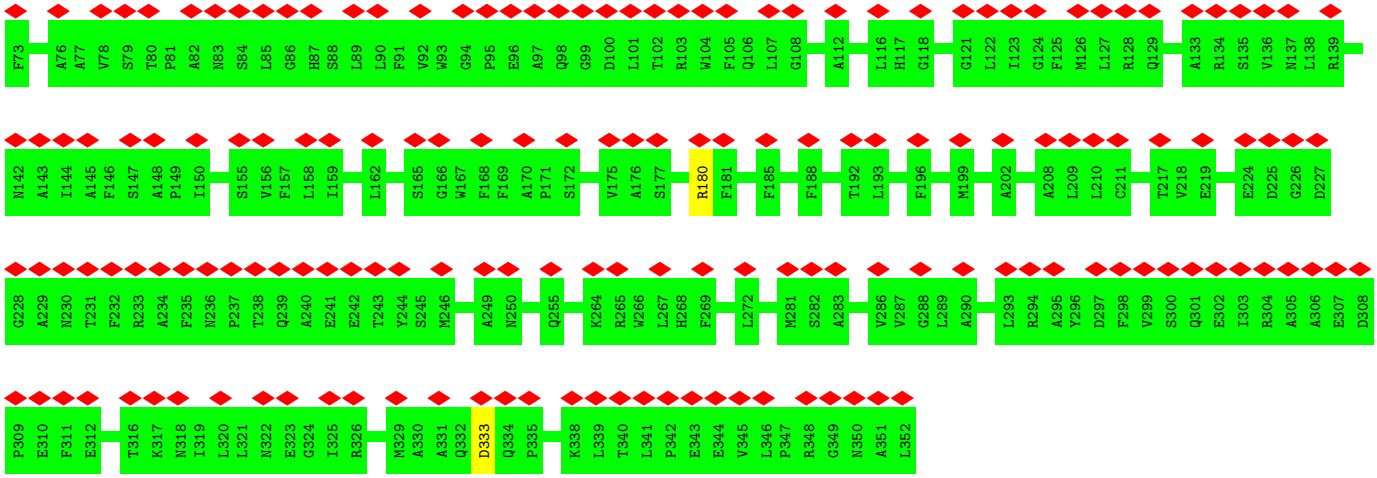


• Molecule 5: Photosystem II D2 protein

Chain d:

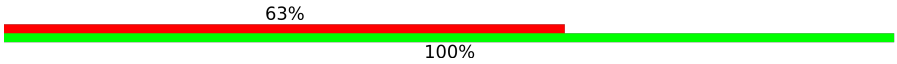


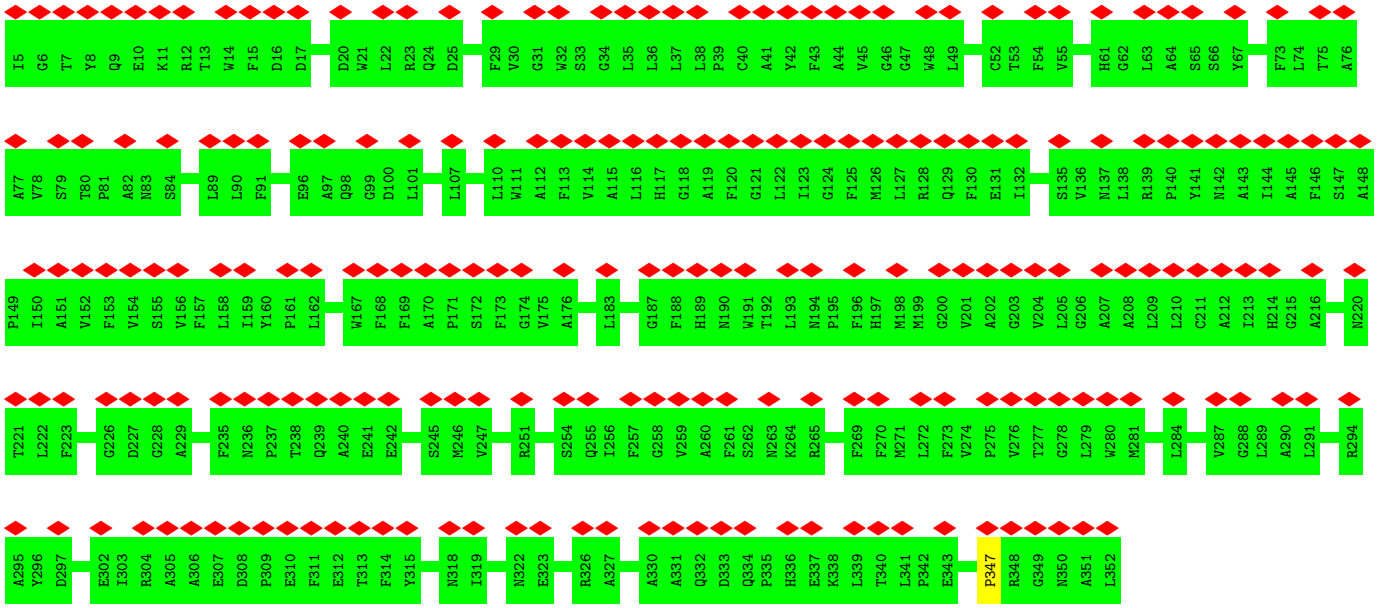




• Molecule 5: Photosystem II D2 protein

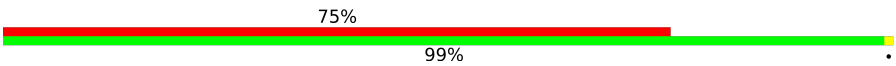
Chain D1:

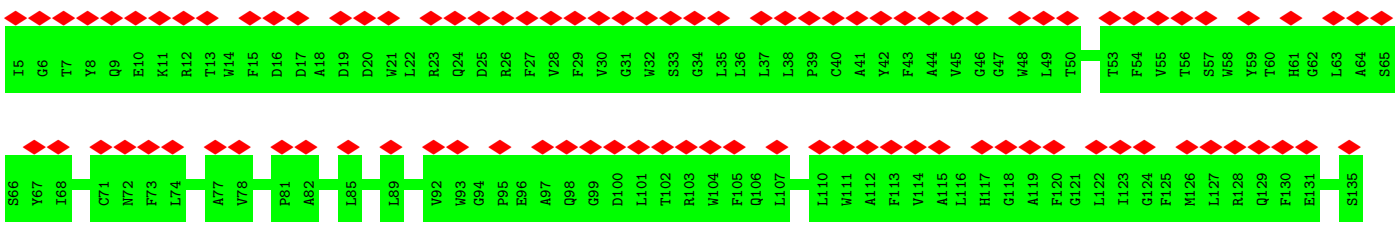


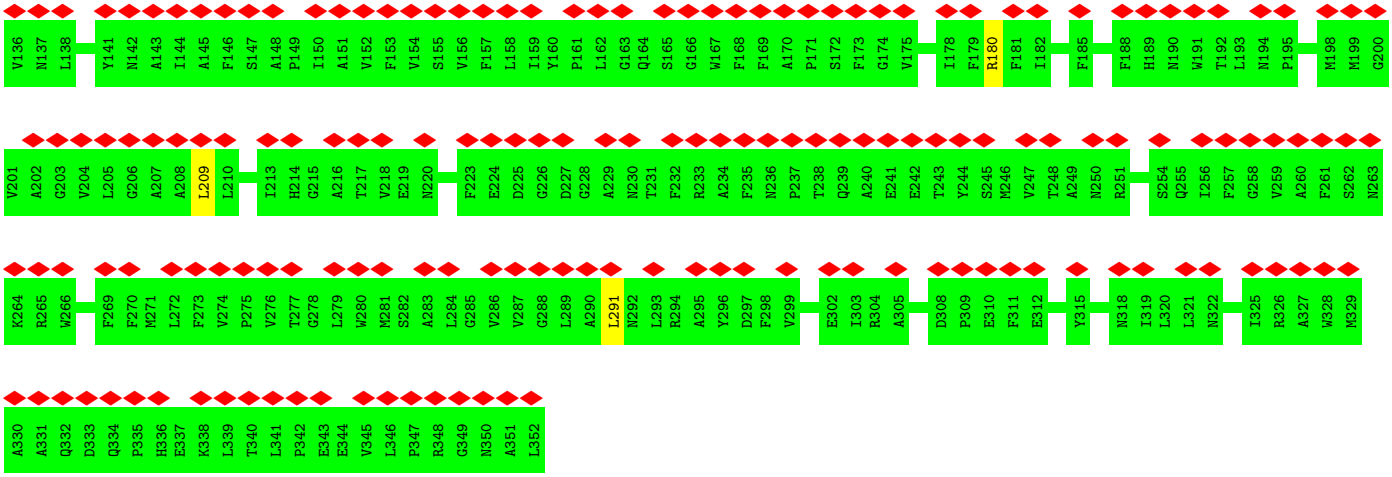


• Molecule 5: Photosystem II D2 protein

Chain d1:

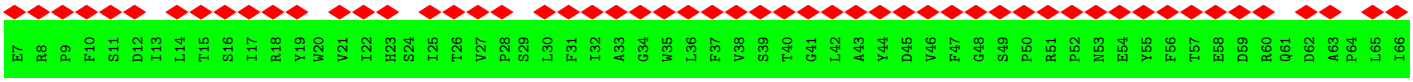


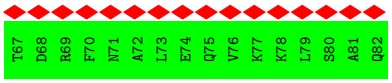




• Molecule 6: Cytochrome b559 subunit alpha

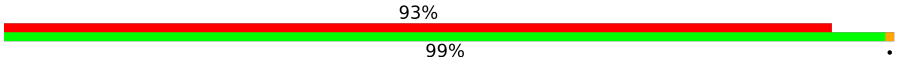
Chain E:

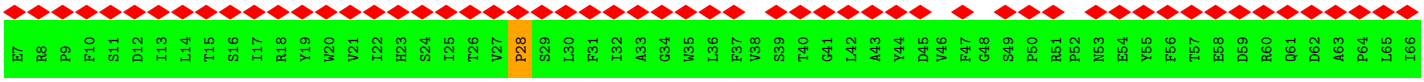


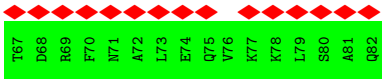


• Molecule 6: Cytochrome b559 subunit alpha

Chain e:

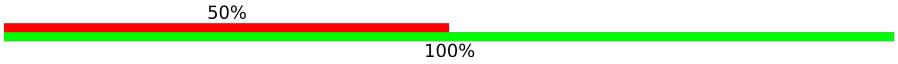


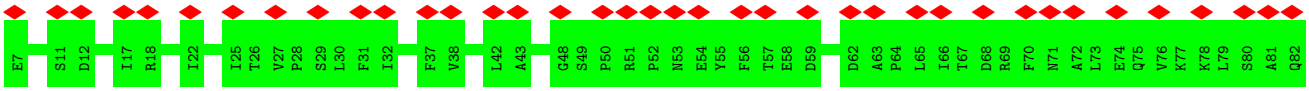




• Molecule 6: Cytochrome b559 subunit alpha

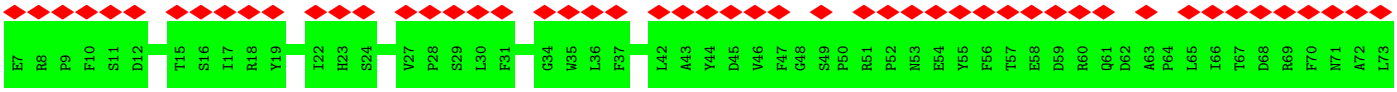
Chain E1:

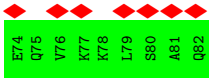




• Molecule 6: Cytochrome b559 subunit alpha

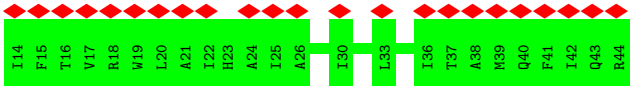
Chain e1:





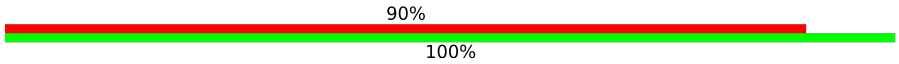
• Molecule 7: Cytochrome b559 subunit beta

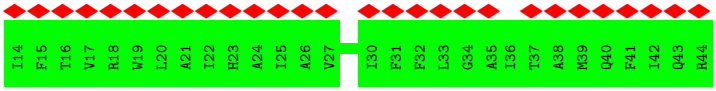
Chain F:



• Molecule 7: Cytochrome b559 subunit beta

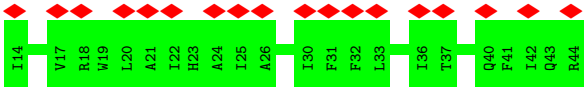
Chain f:





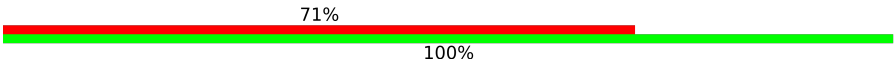
• Molecule 7: Cytochrome b559 subunit beta

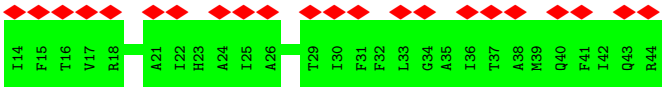
Chain F1:



• Molecule 7: Cytochrome b559 subunit beta

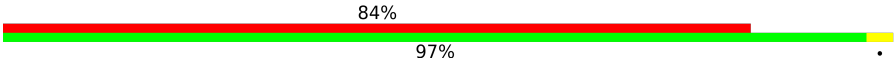
Chain f1:

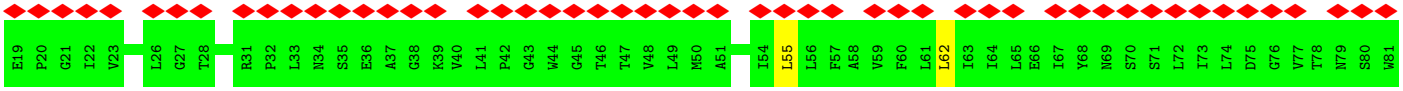


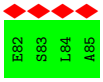


• Molecule 8: Photosystem II reaction center protein H

Chain H:

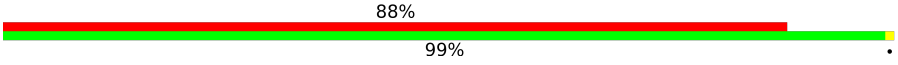






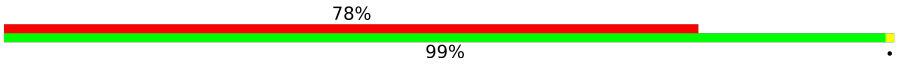
• Molecule 8: Photosystem II reaction center protein H

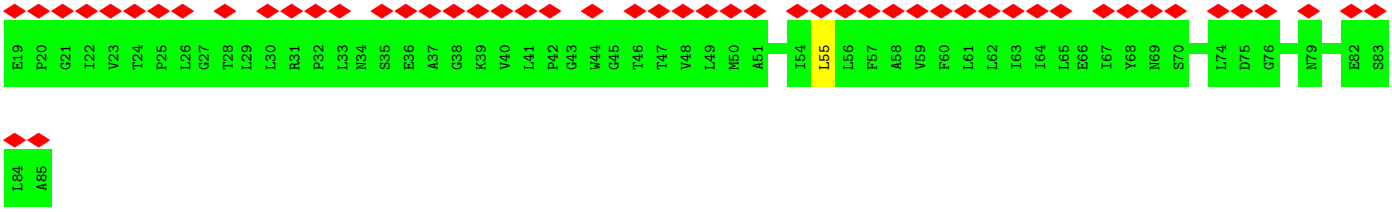
Chain h:



• Molecule 8: Photosystem II reaction center protein H

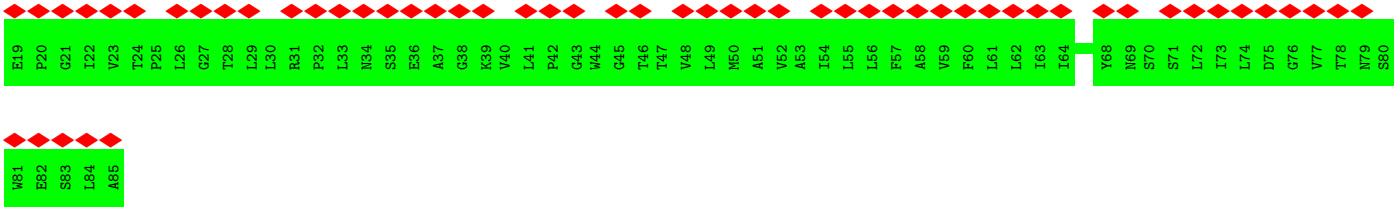
Chain H1:





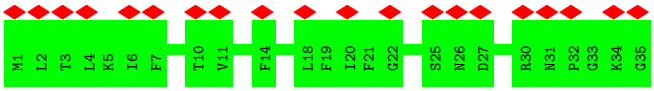
• Molecule 8: Photosystem II reaction center protein H

Chain h1:



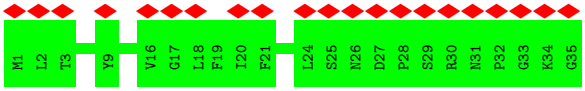
• Molecule 9: Photosystem II reaction center protein I

Chain I:



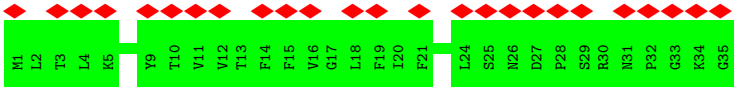
• Molecule 9: Photosystem II reaction center protein I

Chain i:

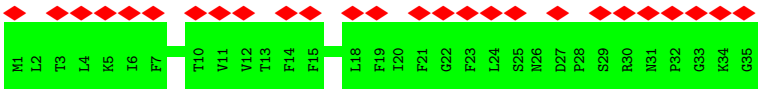


• Molecule 9: Photosystem II reaction center protein I

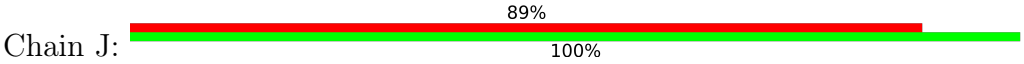
Chain I1:

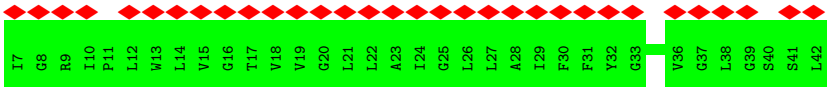


• Molecule 9: Photosystem II reaction center protein I

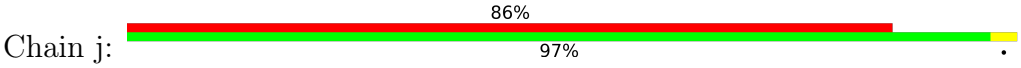


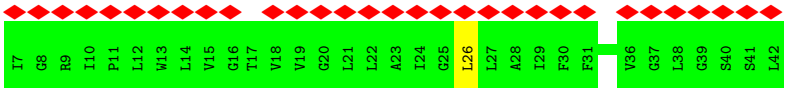
• Molecule 10: PsbJ



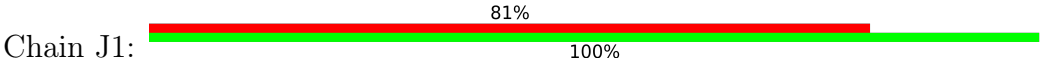


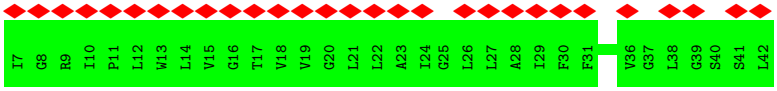
• Molecule 10: PsbJ



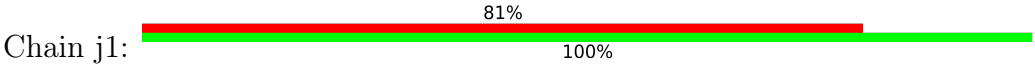


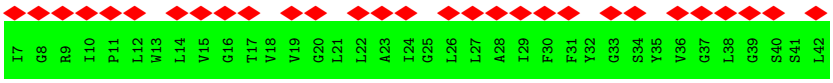
• Molecule 10: PsbJ



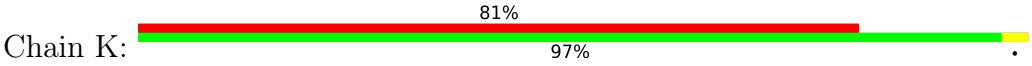


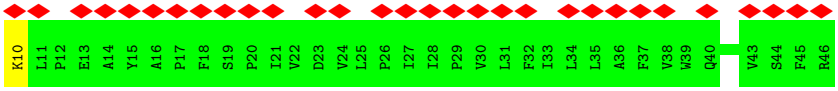
• Molecule 10: PsbJ





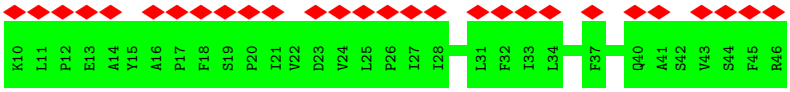
• Molecule 11: Photosystem II reaction center protein K





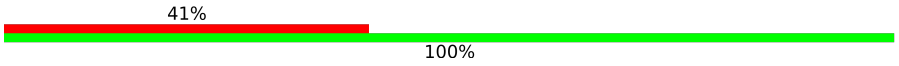
• Molecule 11: Photosystem II reaction center protein K

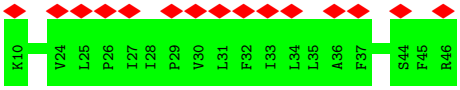
Chain k:



• Molecule 11: Photosystem II reaction center protein K

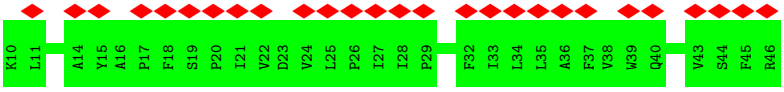
Chain K1:





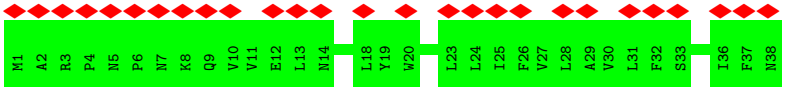
• Molecule 11: Photosystem II reaction center protein K

Chain k1:



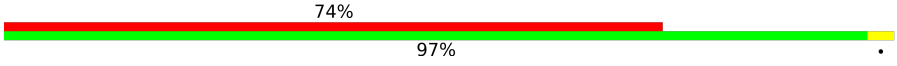
• Molecule 12: Photosystem II reaction center protein L

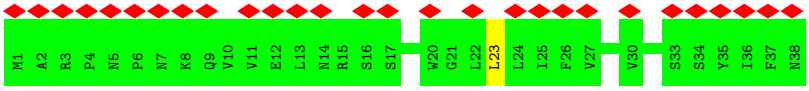
Chain L:



• Molecule 12: Photosystem II reaction center protein L

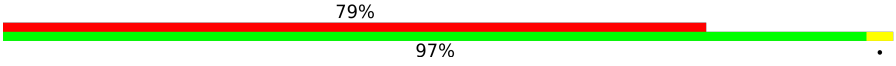
Chain l:

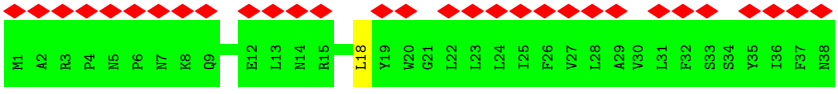




• Molecule 12: Photosystem II reaction center protein L

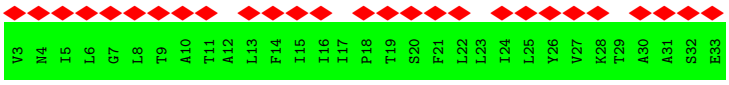
Chain L1:





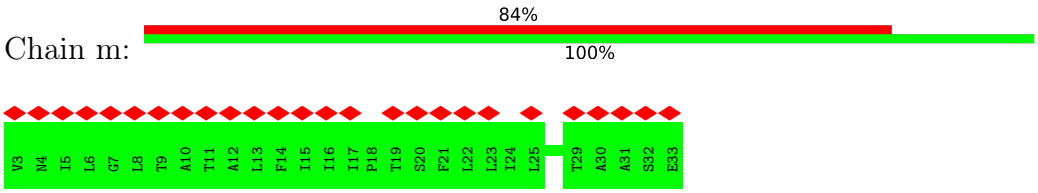
• Molecule 13: PsbM

Chain M:



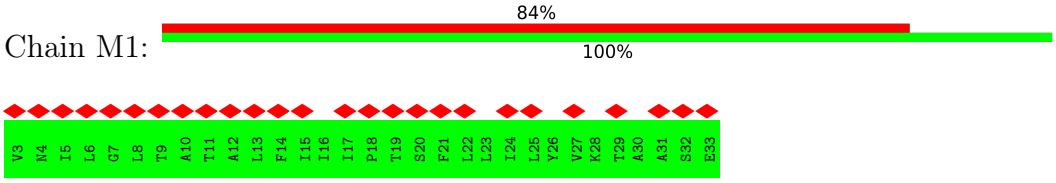
• Molecule 13: PsbM

Chain m:



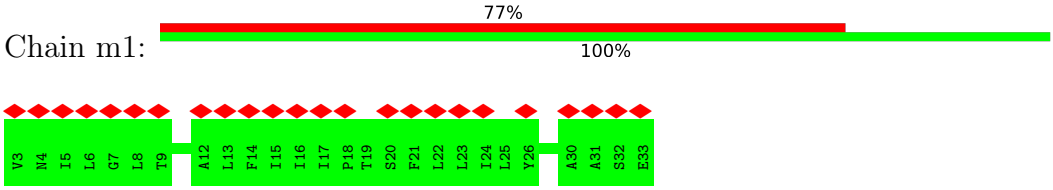
• Molecule 13: PsbM

Chain M1:



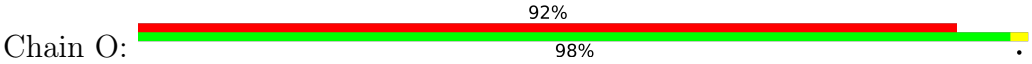
• Molecule 13: PsbM

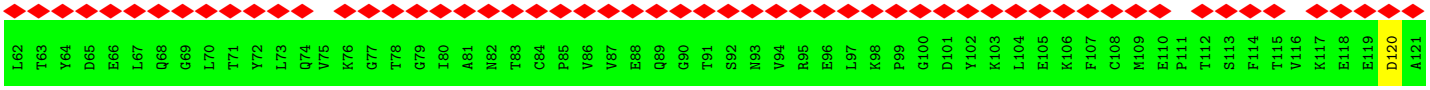
Chain m1:

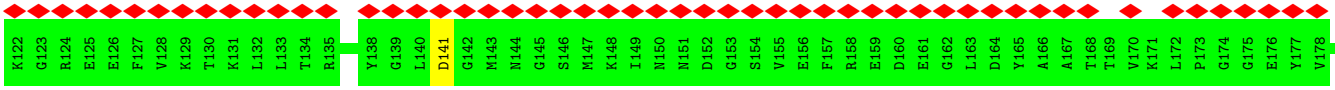


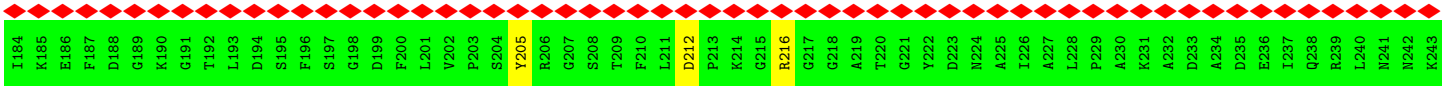
• Molecule 14: PsbO

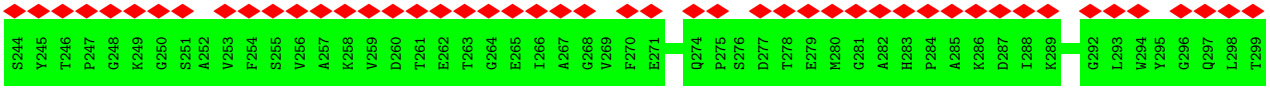
Chain O:





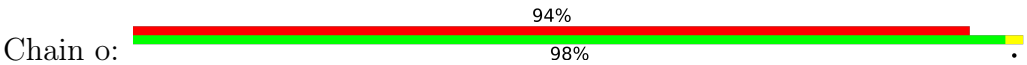


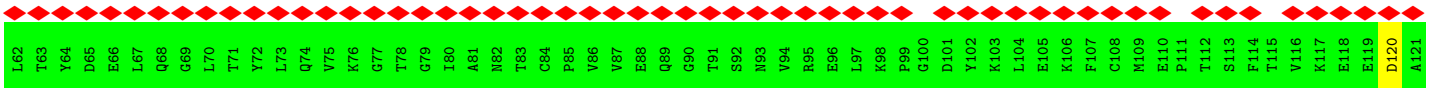


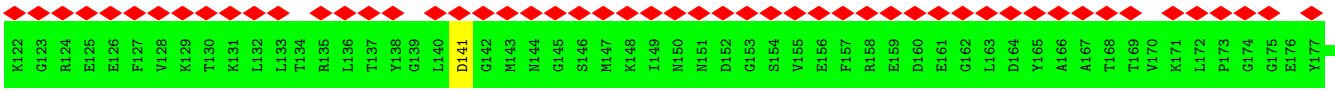


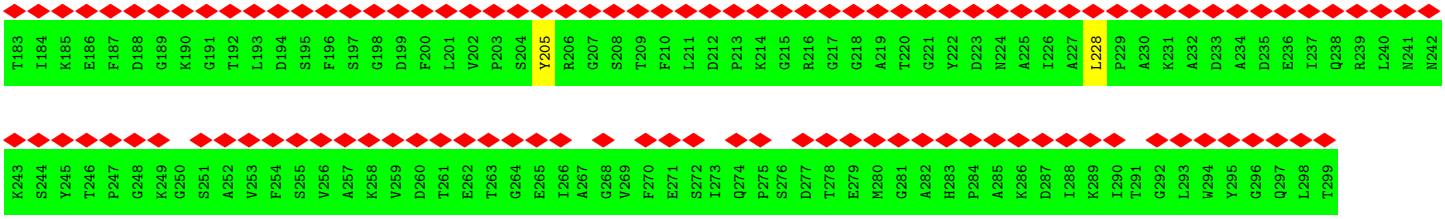
• Molecule 14: PsbO

Chain o:



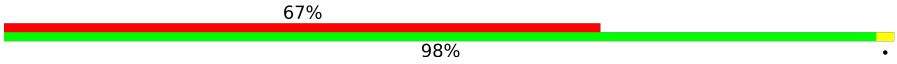


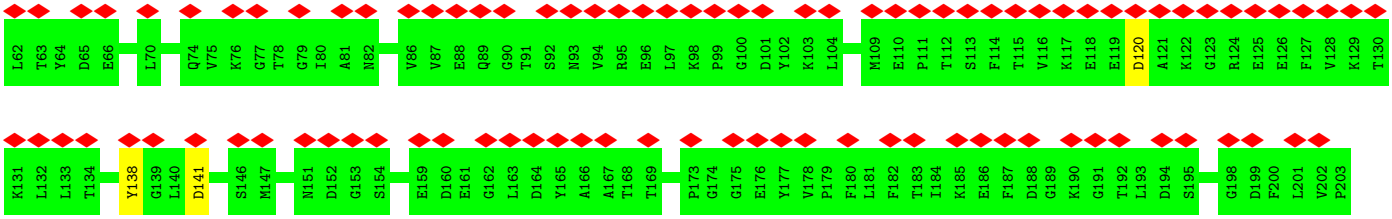




• Molecule 14: PsbO

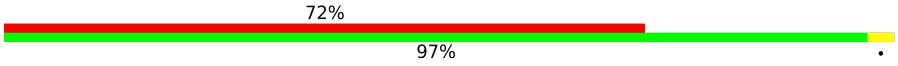
Chain O1:

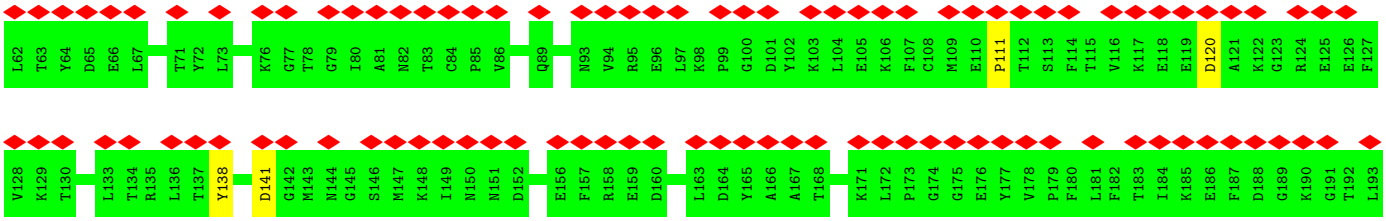


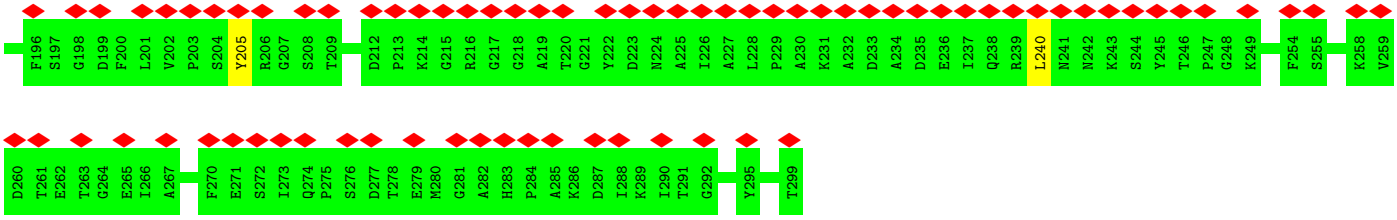


• Molecule 14: PsbO

Chain o1:

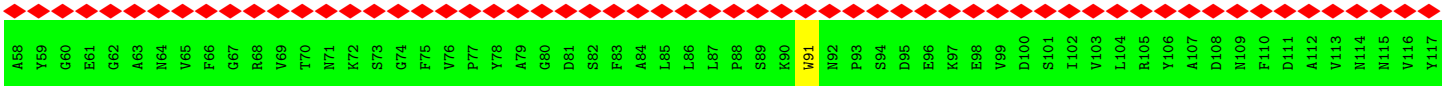






• Molecule 15: PsbP

Chain P:



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D178 K179 K180 G181 K182 T183 Y184 Y185 K186 F187 E188 I189 L190 S191 R192 T193 A194 D195 G196 N197 E198 G199 G200 R201 H202 Q203 L204 V205 K206 A207 T208 V209 S210 N211 G212 K213 L214 Y215 L216 L217 K218 V219 Q220 A221 G222 D223 K224 R225 W226 F227 K228 G229 T230 D231 K232 E233 C234 L235 G236 V237

L238 D239 S240 F241 T242 V243 V244

• Molecule 15: PsbP

Chain p:

A58 Y59 G60 E61 G62 A63 N64 V65 F66 G67 R68 V69 T70 N71 K72 S73 G74 F75 V76 P77 Y78 A79 G80 D81 S82 F83 A84 L85 L86 L87 P88 S89 K90 W91 N92 P93 S94 D95 E96 K97 E98 V99 D100 S101 I102 V103 L104 R105 Y106 A107 D108 N109 F110 D111 A112 V113 N114 N115 V116 Y117

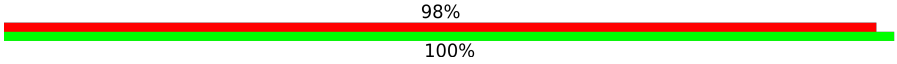
V118 I119 A120 Q121 D122 T123 D124 K125 S126 S127 I128 Q129 D130 Y131 G132 S133 P134 E135 E136 F137 I138 S139 Q140 F141 G142 Y143 L144 L145 G146 R147 Q148 A149 W150 A151 G152 Q153 T154 V155 S156 E157 G158 G159 F160 D161 A162 N163 K164 V165 S166 S167 A168 A169 L170 L171 G172 V173 A174 T175 E176 K177

D178 K179 K180 G181 K182 T183 Y184 Y185 K186 F187 E188 I189 L190 S191 R192 T193 A194 D195 G196 N197 E198 G199 G200 R201 H202 Q203 L204 V205 K206 A207 T208 V209 S210 N211 G212 K213 L214 Y215 L216 L217 K218 V219 Q220 A221 G222 D223 K224 R225 W226 F227 K228 G229 T230 D231 K232 E233 C234 L235 G236 V237

L238 D239 S240 F241 T242 V243 V244

• Molecule 15: PsbP

Chain P1:



A58 Y59 G60 E61 G62 A63 N64 V65 F66 G67 R68 V69 T70 N71 K72 S73 G74 F75 V76 P77 Y78 A79 G80 D81 S82 F83 A84 L85 L86 L87 P88 S89 K90 W91 N92 P93 S94 D95 E96 K97 E98 V99 D100 S101 I102 V103 L104 R105 Y106 A107 D108 N109 F110 D111 A112 V113 N114 N115 V116 Y117

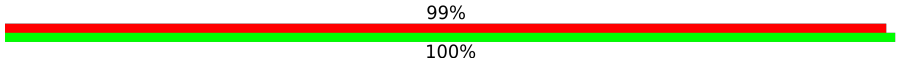
V118 I119 A120 Q121 D122 T123 D124 K125 S126 S127 I128 Q129 D130 Y131 G132 S133 P134 E135 E136 F137 I138 S139 Q140 F141 G142 Y143 L144 L145 G146 R147 Q148 A149 W150 A151 G152 Q153 T154 V155 S156 E157 G158 G159 F160 D161 A162 N163 K164 V165 S166 S167 A168 A169 L170 L171 G172 V173 A174 T175 E176 K177

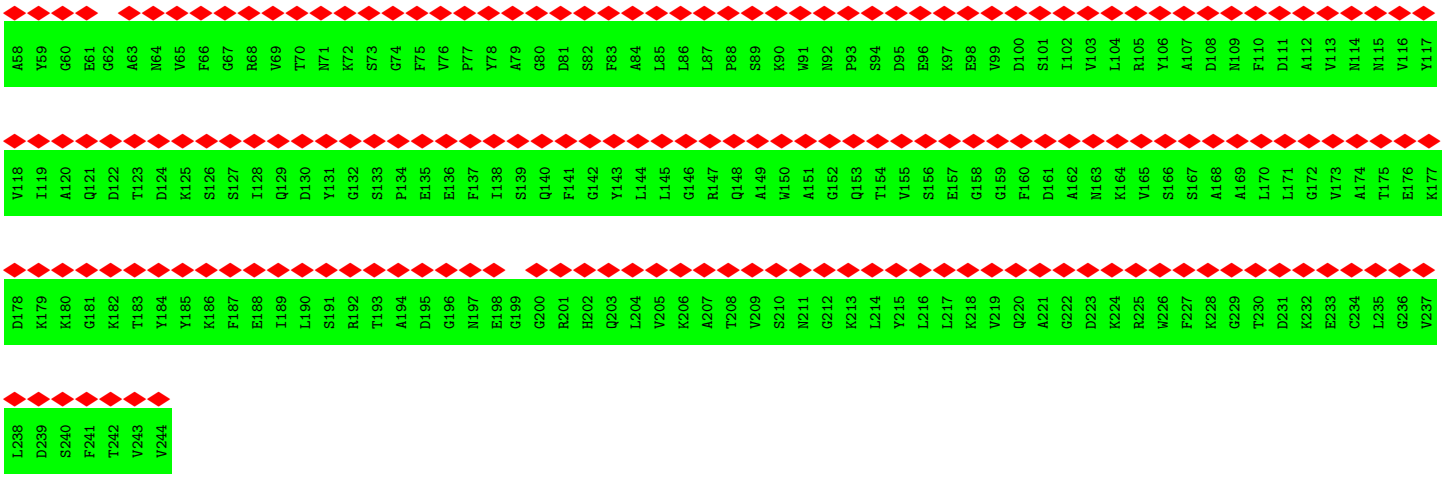
D178 K179 K180 G181 K182 T183 Y184 Y185 K186 F187 E188 I189 L190 S191 R192 T193 A194 D195 G196 N197 E198 G199 G200 R201 H202 Q203 L204 V205 K206 A207 T208 V209 S210 N211 G212 K213 L214 Y215 L216 L217 K218 V219 Q220 A221 G222 D223 K224 R225 W226 F227 K228 G229 T230 D231 K232 E233 C234 L235 G236 V237

L238 D239 S240 F241 T242 V243 V244

• Molecule 15: PsbP

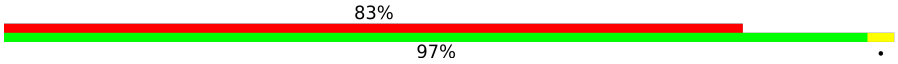
Chain p1:

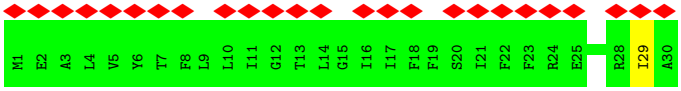




• Molecule 16: Photosystem II reaction center protein T

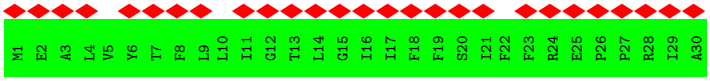
Chain T:





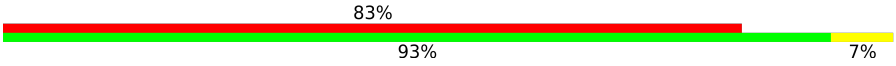
• Molecule 16: Photosystem II reaction center protein T

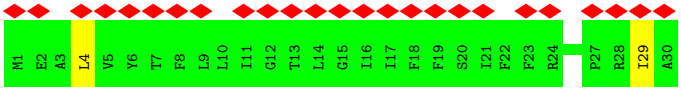
Chain t:



• Molecule 16: Photosystem II reaction center protein T

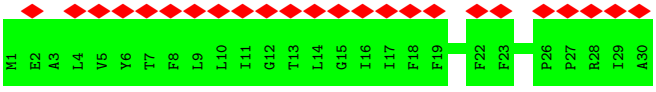
Chain T1:





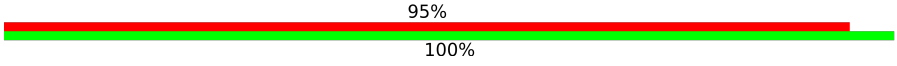
• Molecule 16: Photosystem II reaction center protein T

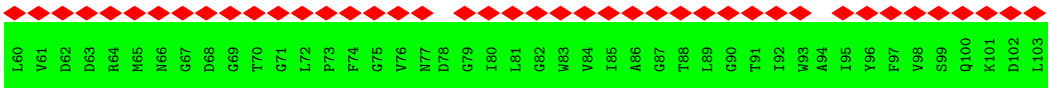
Chain t1:



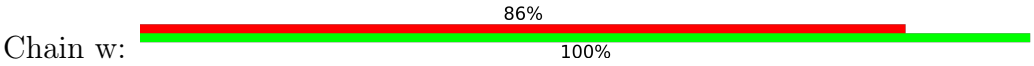
• Molecule 17: PsbW

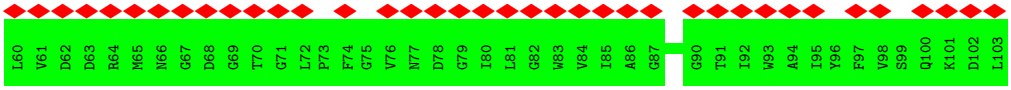
Chain W:





• Molecule 17: PsbW





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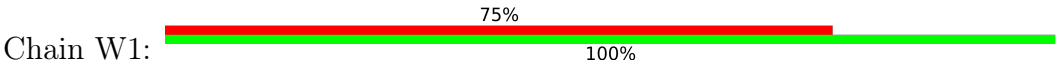
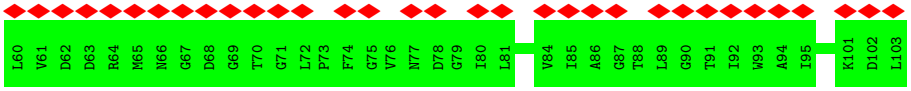
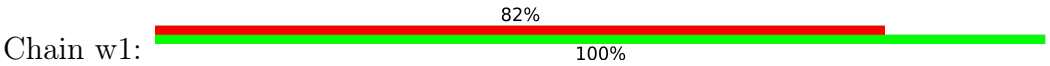
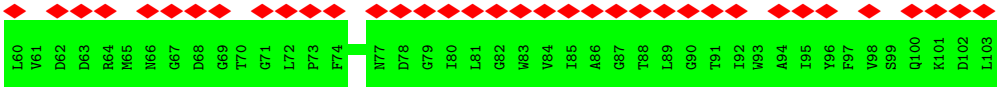


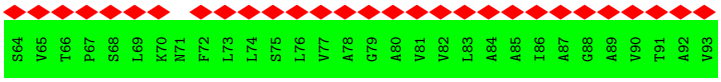


• Molecule 17: PsbW





• Molecule 18: PsbX



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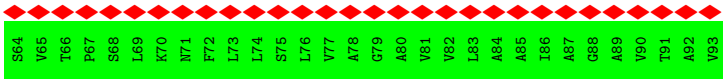

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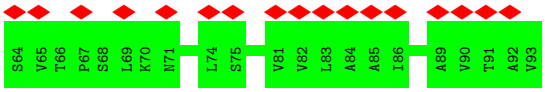
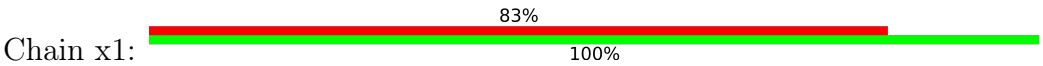
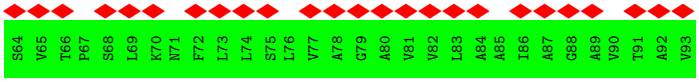
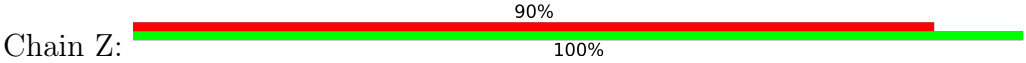


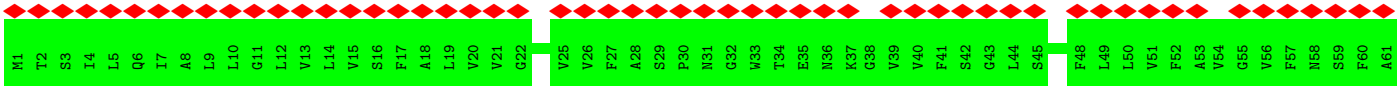
• Molecule 18: PsbX



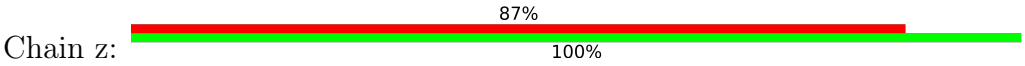


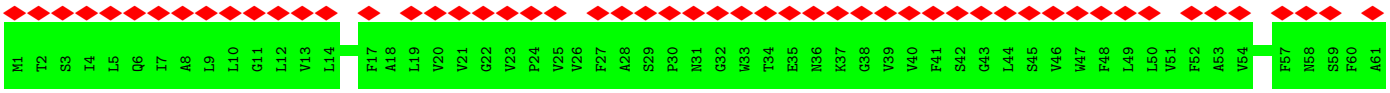
• Molecule 19: Photosystem II reaction center protein Z



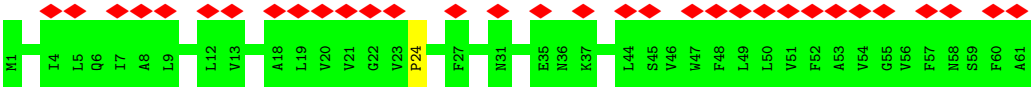


• Molecule 19: Photosystem II reaction center protein Z

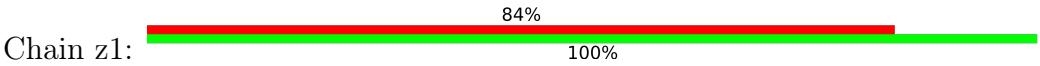


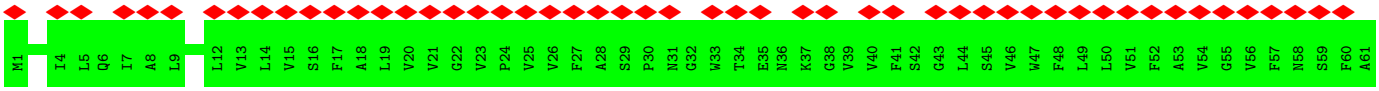


• Molecule 19: Photosystem II reaction center protein Z

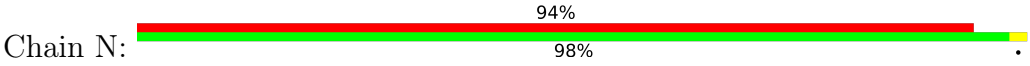


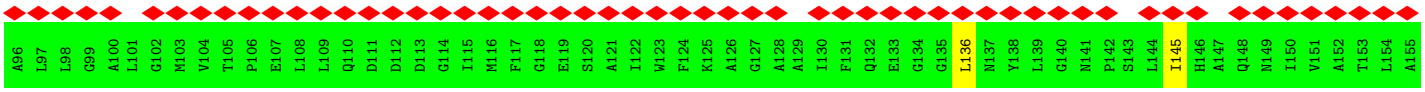
• Molecule 19: Photosystem II reaction center protein Z

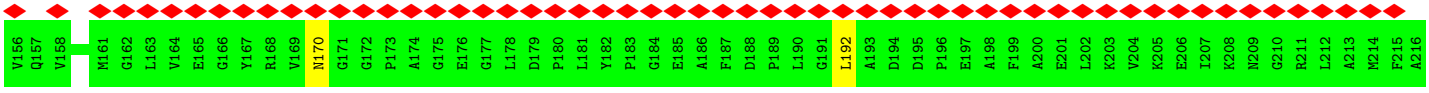


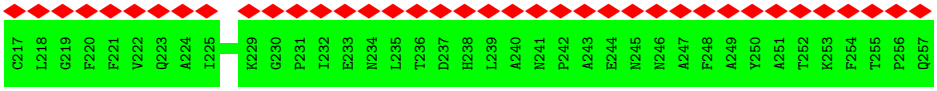


• Molecule 20: LHCII M3



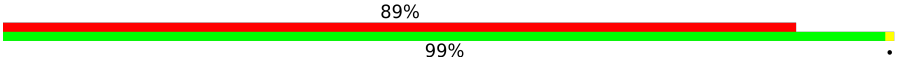


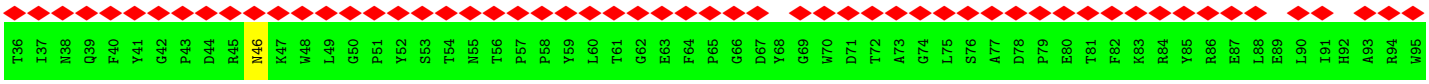


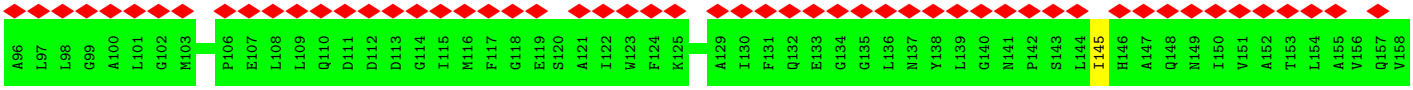


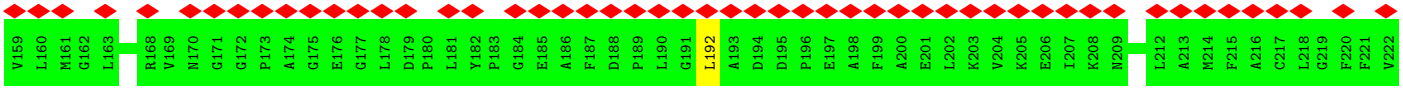
• Molecule 20: LHCII M3

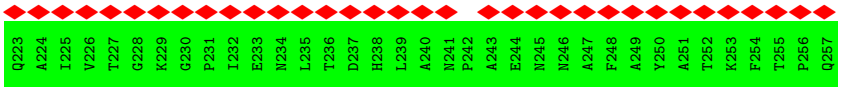
Chain n:





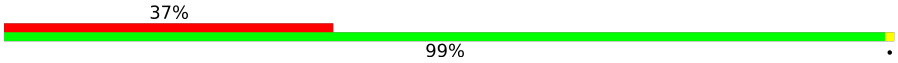


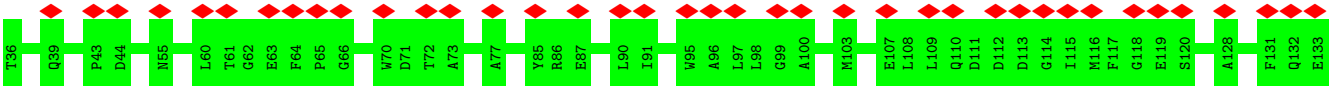


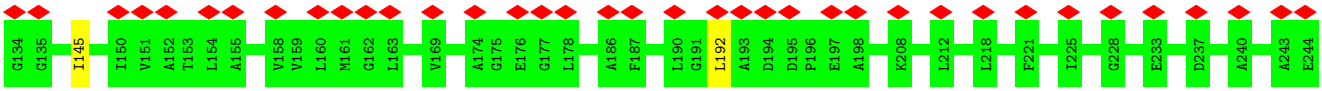


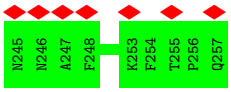
• Molecule 20: LHCII M3

Chain N1:



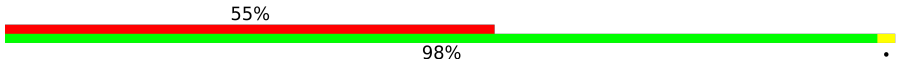


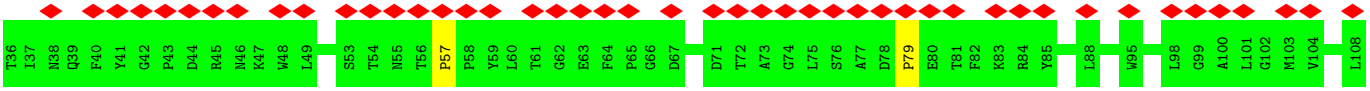


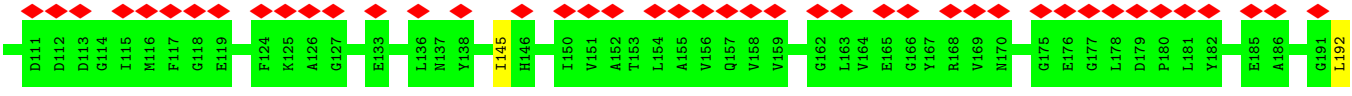


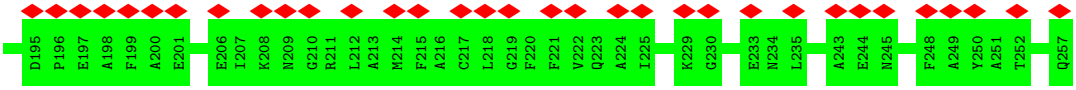
• Molecule 20: LHCII M3

Chain n1:



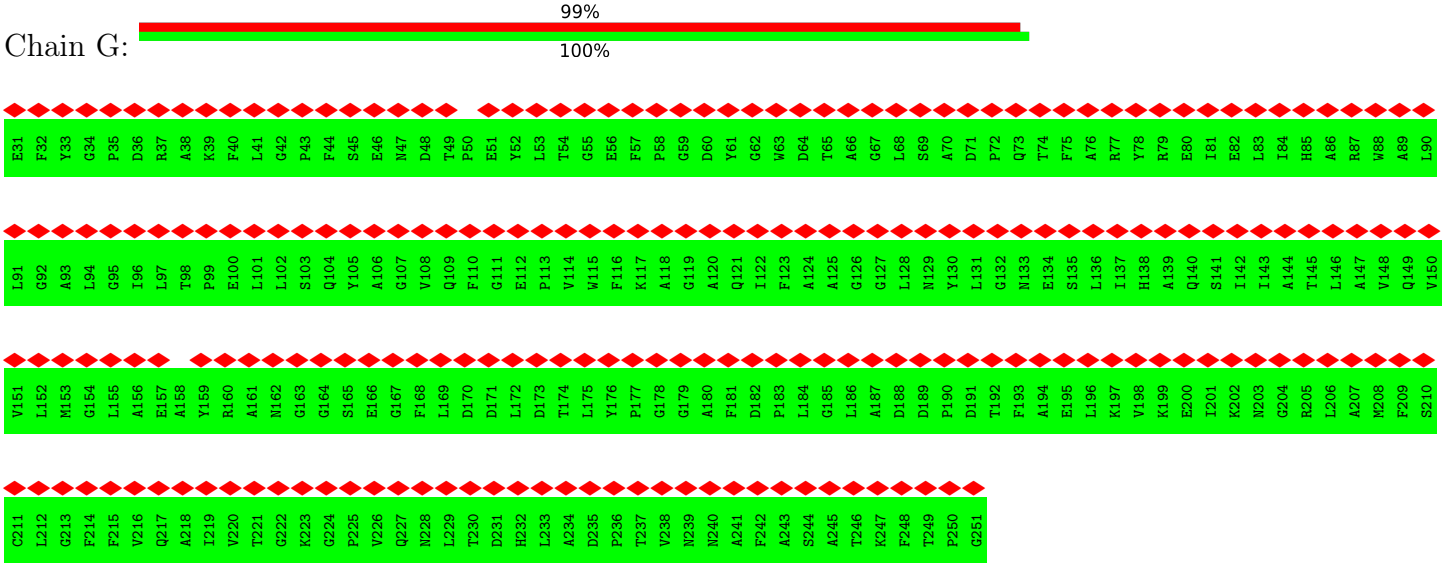






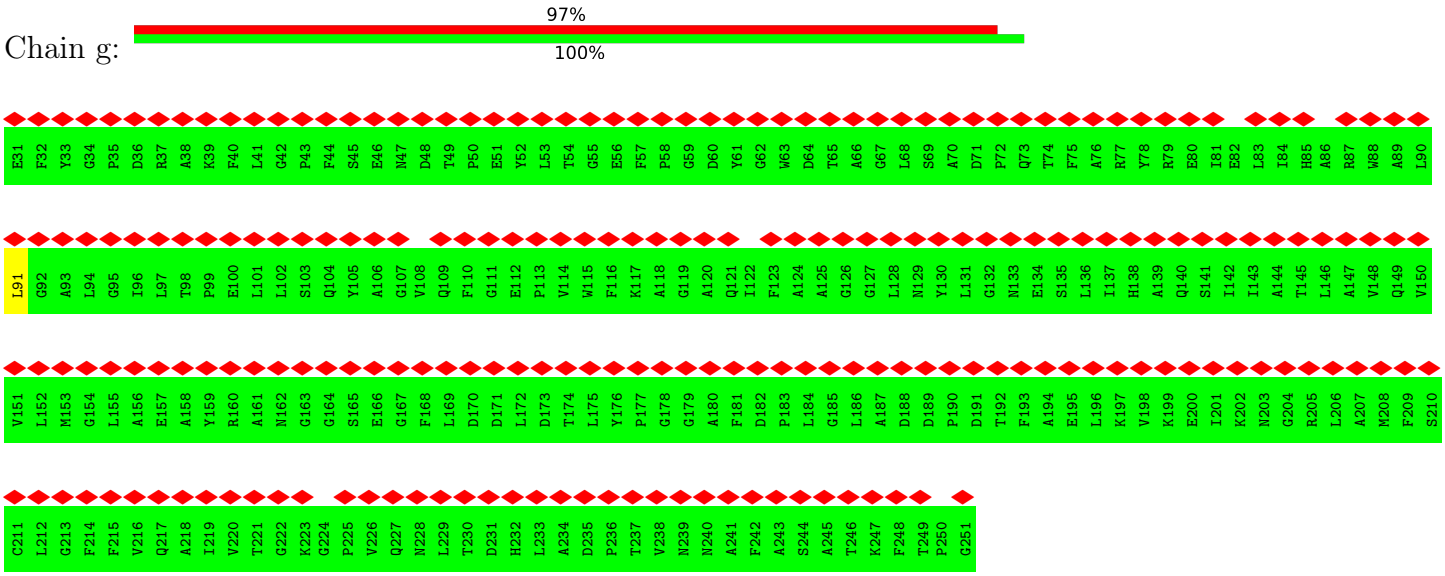
• Molecule 21: Chlorophyll a-b binding protein, chloroplastic

Chain G:



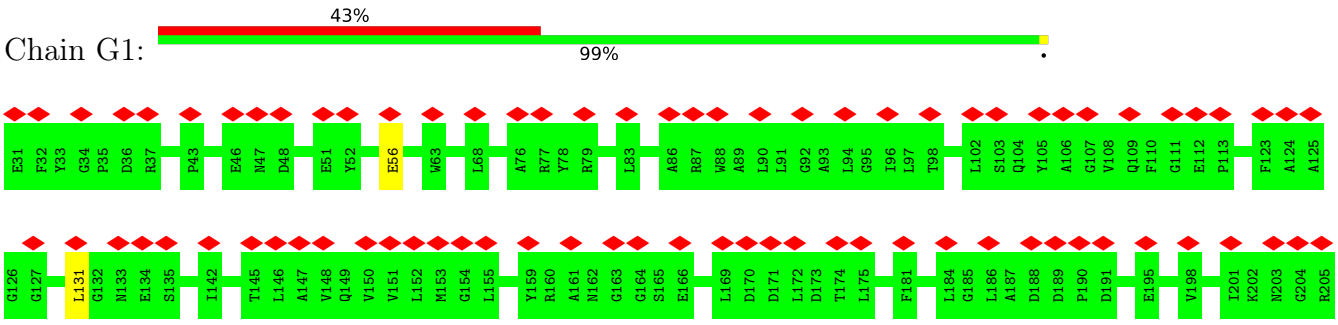
• Molecule 21: Chlorophyll a-b binding protein, chloroplastic

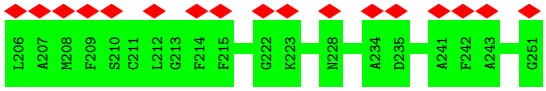
Chain g:



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

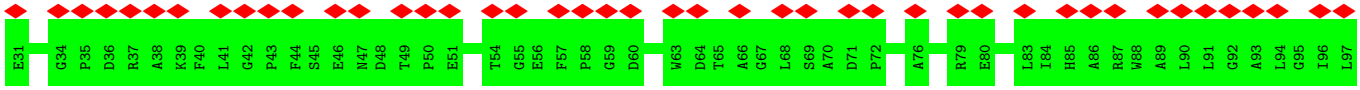
Chain G1:

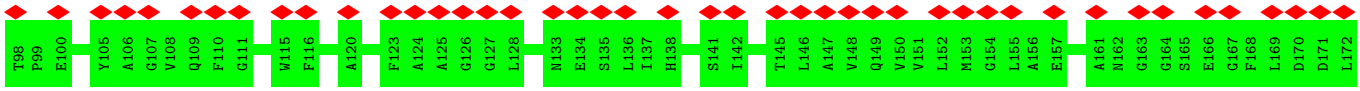


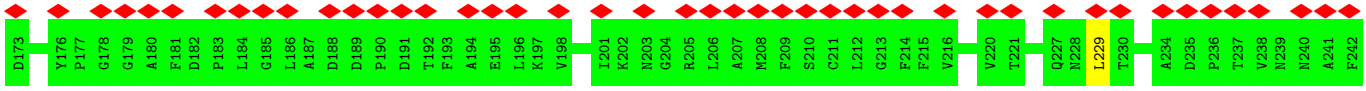


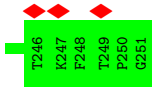
• Molecule 21: Chlorophyll a-b binding protein, chloroplastic

Chain g1:



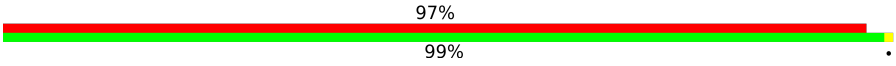


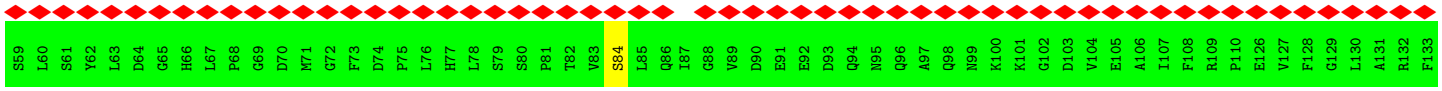


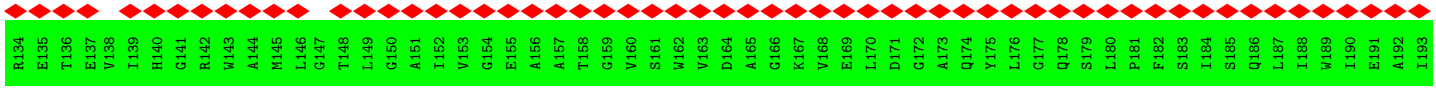


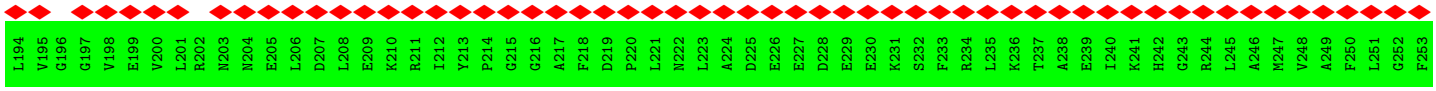
• Molecule 22: CP29

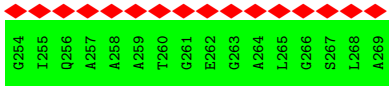
Chain R:





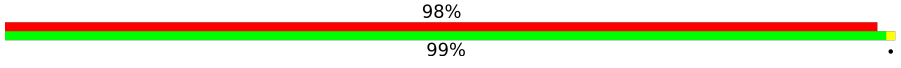


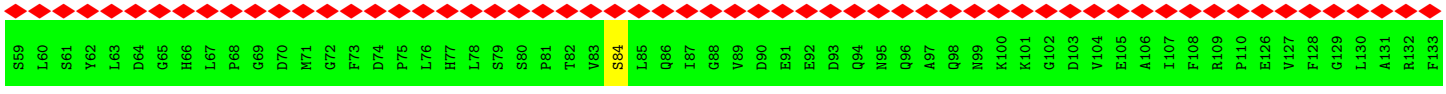


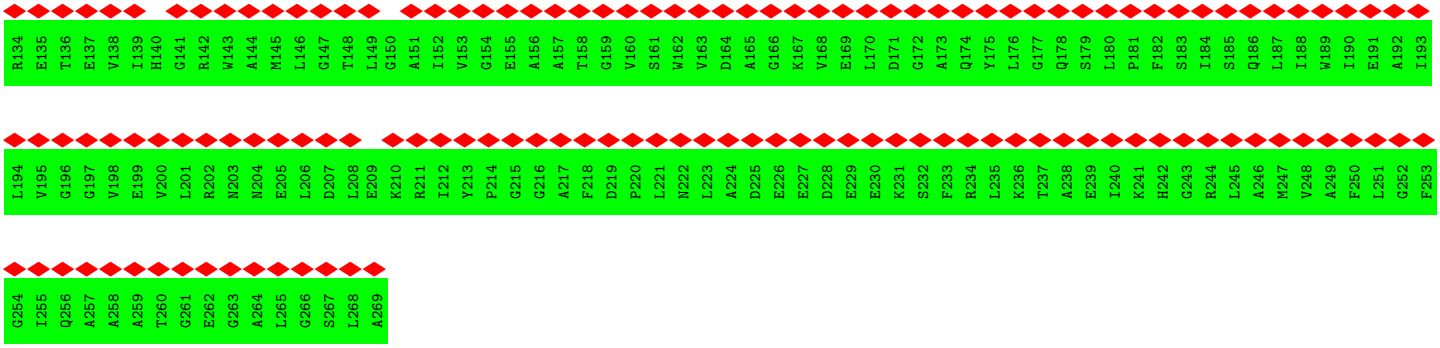


• Molecule 22: CP29

Chain r:

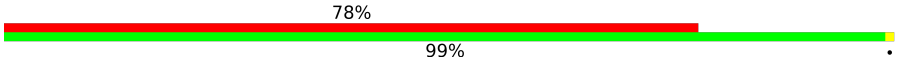


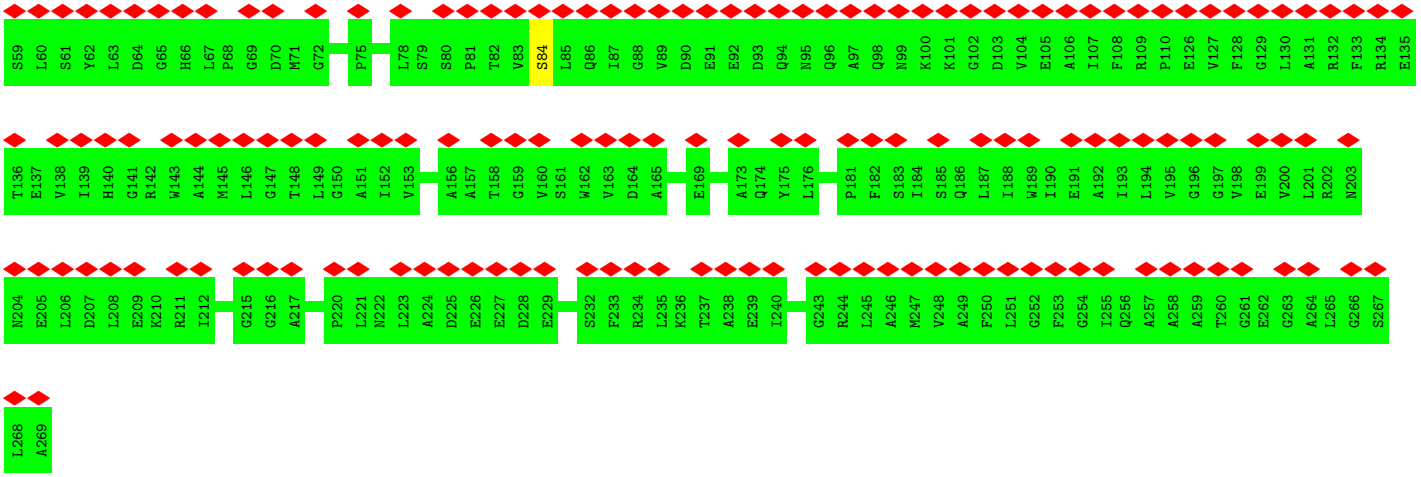




• Molecule 22: CP29

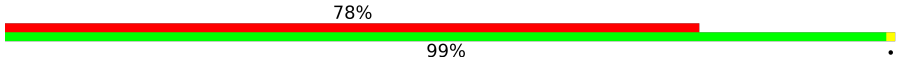
Chain R1:

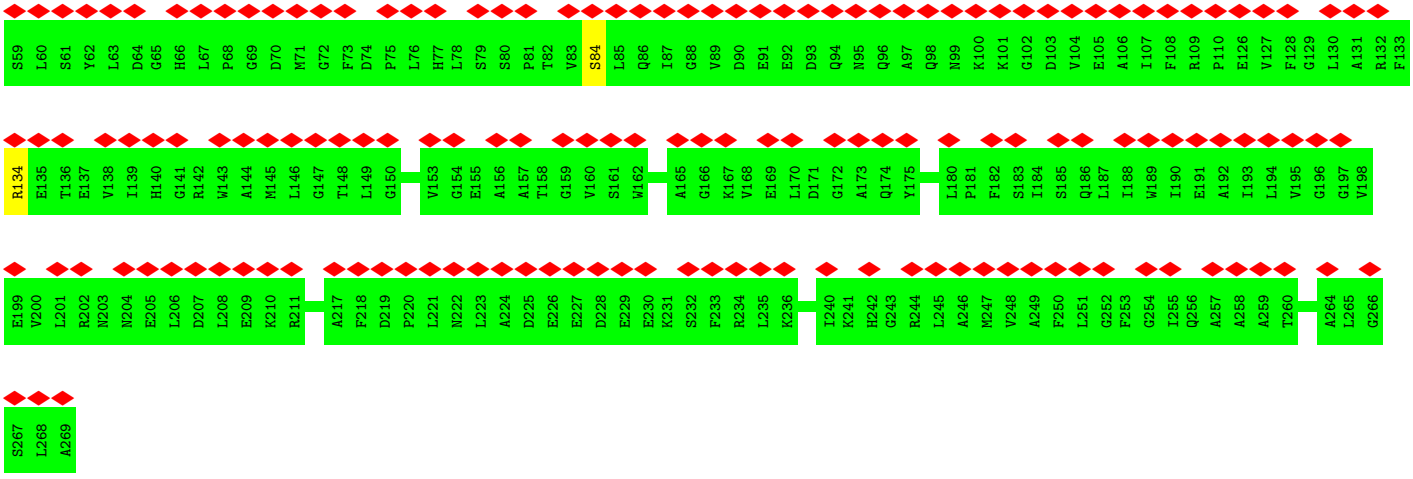




• Molecule 22: CP29

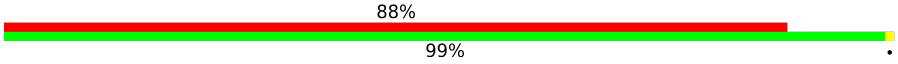
Chain r1:

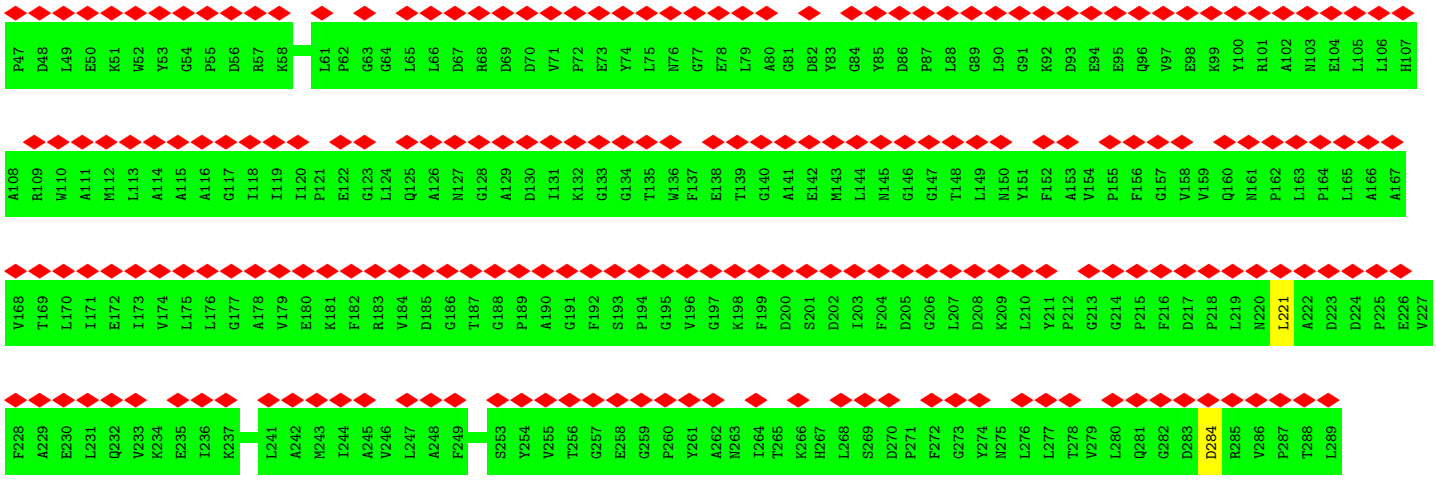




• Molecule 23: CP26

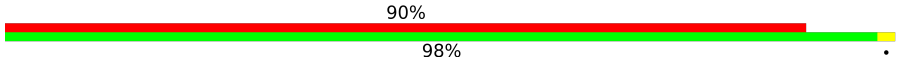
Chain S:

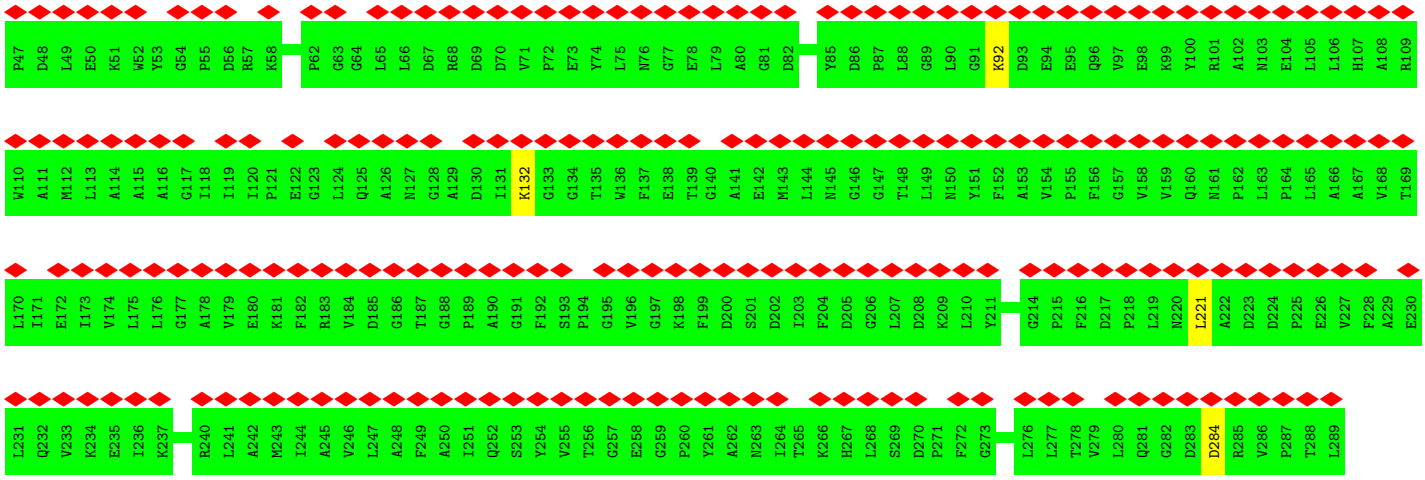




• Molecule 23: CP26

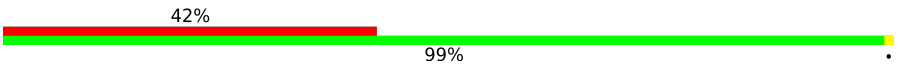
Chain s:

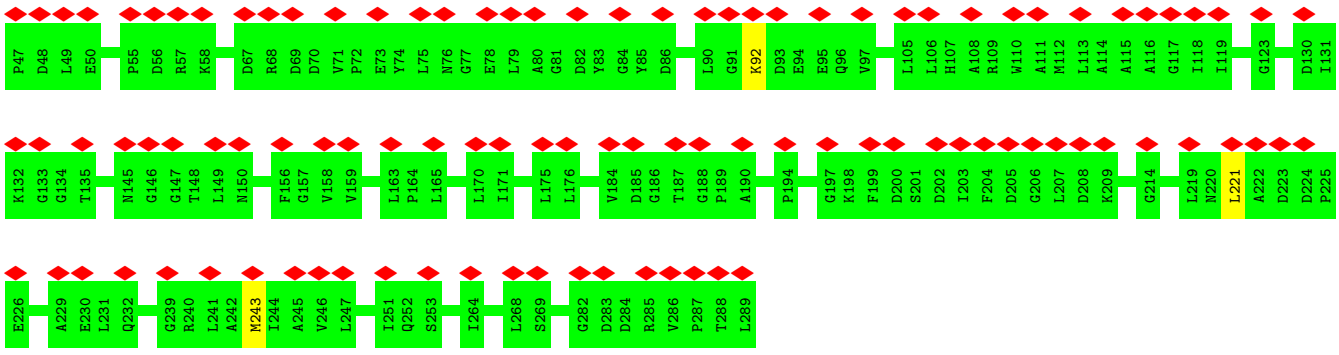




• Molecule 23: CP26

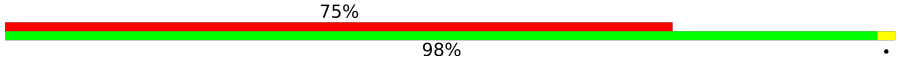
Chain S1:

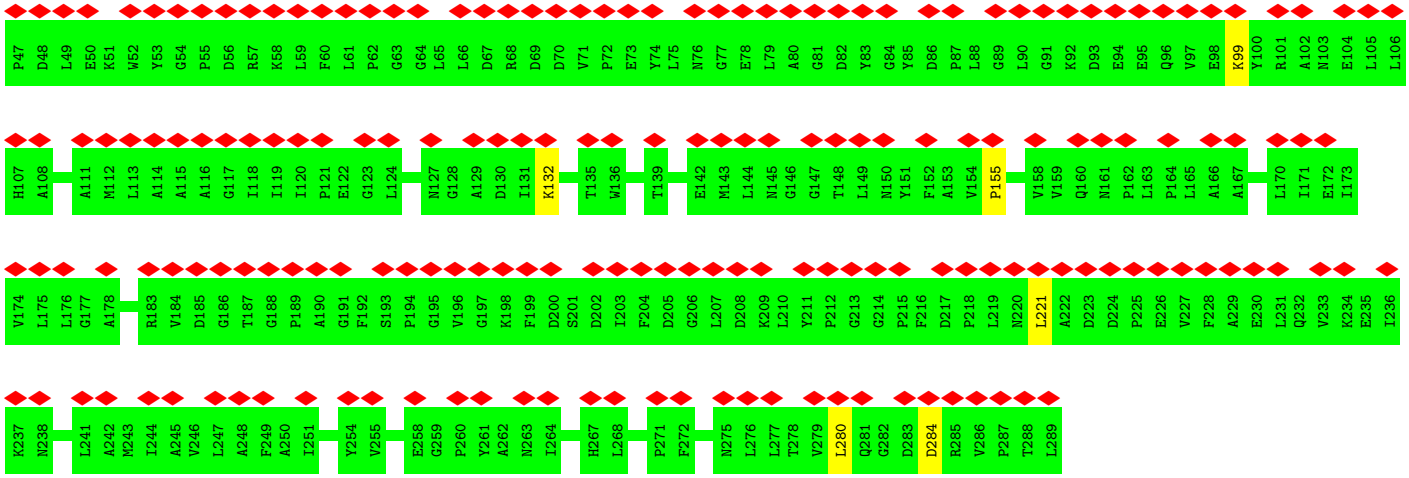




• Molecule 23: CP26

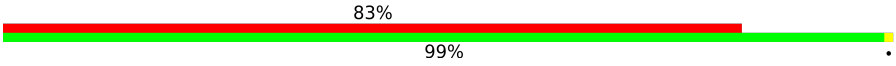
Chain s1:

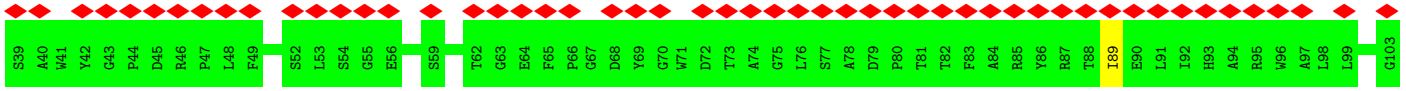




• Molecule 24: LHCII M1

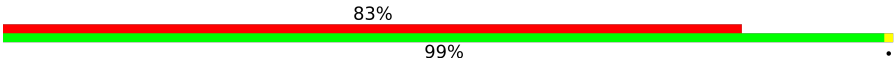
Chain Y:

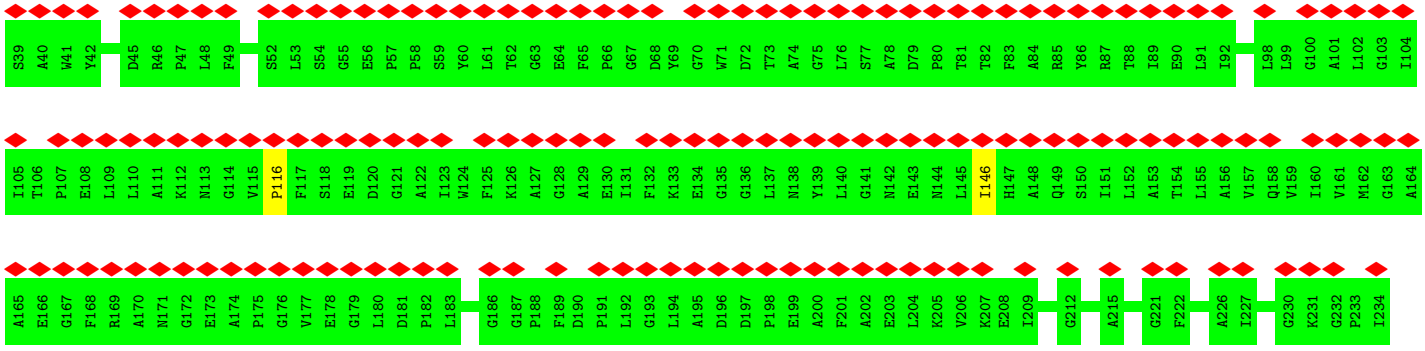


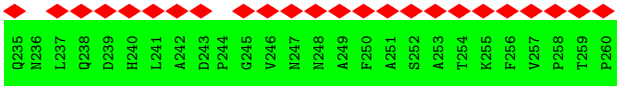


• Molecule 24: LHCII M1

Chain y:

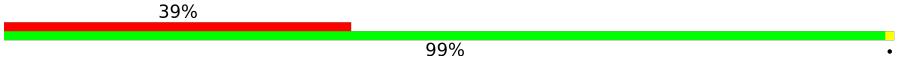


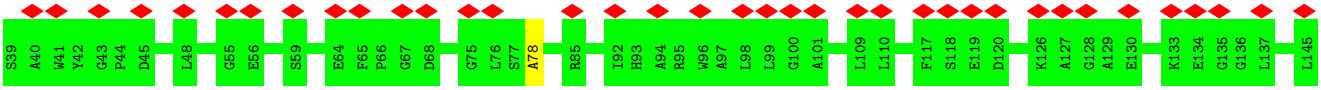


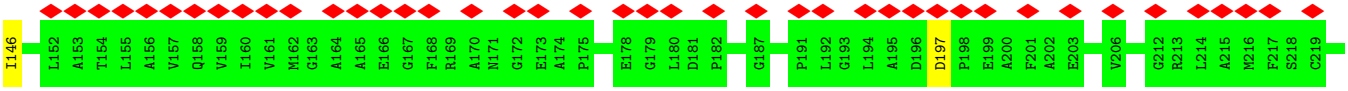


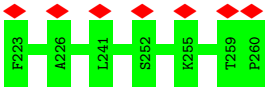
• Molecule 24: LHCII M1

Chain Y1:



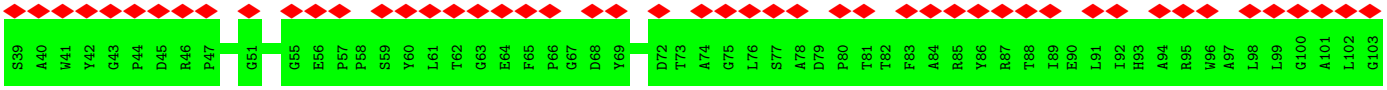


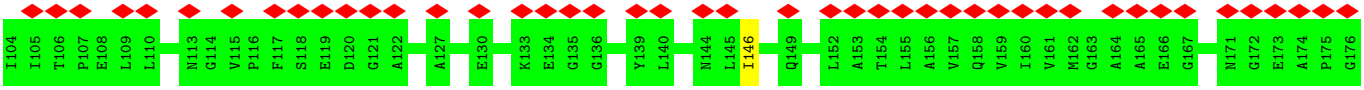


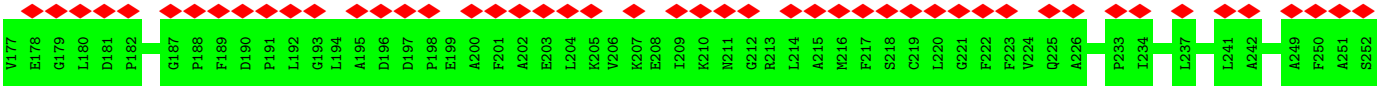


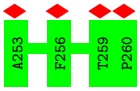
• Molecule 24: LHCII M1

Chain y1:



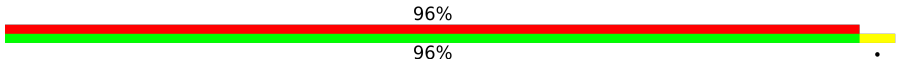


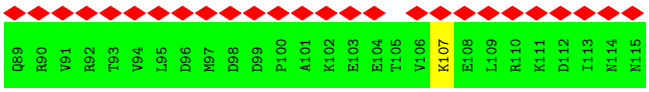




• Molecule 25: PsbU

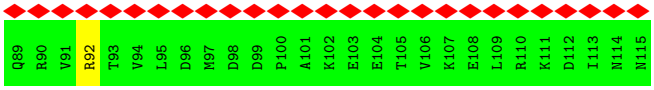
Chain U:



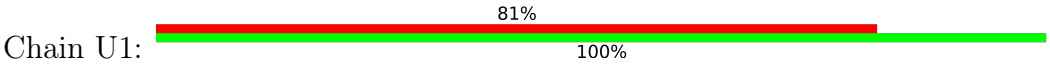


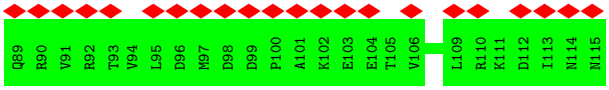
• Molecule 25: PsbU

Chain u:

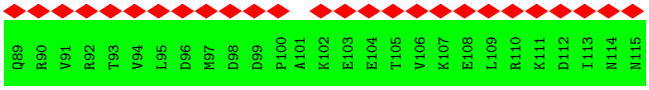


- Molecule 25: PsbU





- Molecule 25: PsbU



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	9567	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	51.81	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.102	Depositor
Minimum map value	-0.072	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.008	Depositor
Recommended contour level	0.036	Depositor
Map size (Å)	460.8, 460.8, 460.8	wwPDB
Map dimensions	480, 480, 480	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.96, 0.96, 0.96	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: DGA, GOL, SEP, CLA, FE2, ERG, CL, LHG, LMK, SQD, C7Z, OEX, NA, PHO, LPX, DGD, NEX, PTY, LMT, 3PH, RRX, SPH, LUT, XAT, CHL, BCT, PL9, HEM, 4RF, BCR, LMG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.41	0/2723	0.60	0/3715
1	A1	0.36	0/2723	0.61	0/3715
1	a	0.41	0/2723	0.61	0/3715
1	a1	0.36	0/2723	0.65	2/3715 (0.1%)
2	B	0.40	0/3912	0.63	2/5327 (0.0%)
2	B1	0.35	0/3912	0.61	1/5327 (0.0%)
2	b	0.39	0/3912	0.61	2/5327 (0.0%)
2	b1	0.33	0/3912	0.60	1/5327 (0.0%)
3	V	0.34	0/228	0.67	0/311
3	V1	0.26	0/228	0.54	0/311
3	v	0.30	0/228	0.66	0/311
3	v1	0.29	0/228	0.76	1/311 (0.3%)
4	C	0.46	2/3602 (0.1%)	0.70	4/4913 (0.1%)
4	C1	0.34	0/3602	0.59	0/4913
4	c	0.39	0/3602	0.59	0/4913
4	c1	0.40	2/3602 (0.1%)	0.67	4/4913 (0.1%)
5	D	0.45	1/2860 (0.0%)	0.64	2/3899 (0.1%)
5	D1	0.36	0/2860	0.62	2/3899 (0.1%)
5	d	0.41	0/2860	0.61	1/3899 (0.0%)
5	d1	0.36	0/2860	0.65	2/3899 (0.1%)
6	E	0.34	0/639	0.59	0/870
6	E1	0.33	0/639	0.63	0/870
6	e	0.55	1/639 (0.2%)	0.85	3/870 (0.3%)
6	e1	0.30	0/639	0.59	0/870
7	F	0.33	0/259	0.56	0/351
7	F1	0.31	0/259	0.58	0/351
7	f	0.38	0/259	0.68	0/351
7	f1	0.33	0/259	0.64	0/351
8	H	0.37	0/513	0.77	2/703 (0.3%)
8	H1	0.31	0/513	0.65	1/703 (0.1%)
8	h	0.36	0/513	0.68	1/703 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
8	h1	0.31	0/513	0.62	0/703
9	I	0.44	0/287	0.57	0/386
9	I1	0.34	0/287	0.60	0/386
9	i	0.38	0/287	0.55	0/386
9	i1	0.36	0/287	0.59	0/386
10	J	0.29	0/272	0.54	0/369
10	J1	0.31	0/272	0.58	0/369
10	j	0.35	0/272	0.69	1/369 (0.3%)
10	j1	0.29	0/272	0.61	0/369
11	K	0.40	0/308	0.64	0/423
11	K1	0.33	0/308	0.63	0/423
11	k	0.43	0/308	0.61	0/423
11	k1	0.36	0/308	0.66	0/423
12	L	0.37	0/321	0.53	0/435
12	L1	0.37	0/321	0.74	1/435 (0.2%)
12	l	0.43	0/321	0.71	1/435 (0.2%)
13	M	0.33	0/237	0.54	0/323
13	M1	0.29	0/237	0.54	0/323
13	m	0.36	0/237	0.66	0/323
13	m1	0.35	0/237	0.60	0/323
14	O	0.36	0/1855	0.70	3/2505 (0.1%)
14	O1	0.34	0/1855	0.68	2/2505 (0.1%)
14	o	0.36	0/1855	0.68	3/2505 (0.1%)
14	o1	0.48	1/1855 (0.1%)	0.82	7/2505 (0.3%)
15	P	0.28	0/1473	0.57	1/1988 (0.1%)
15	P1	0.30	0/1473	0.57	0/1988
15	p	0.31	0/1473	0.57	0/1988
15	p1	0.32	0/1473	0.58	0/1988
16	T	0.33	0/254	0.62	0/342
16	T1	0.39	0/254	0.72	1/342 (0.3%)
16	t	0.36	0/254	0.55	0/342
16	t1	0.32	0/254	0.60	0/342
17	W	0.32	0/339	0.63	0/460
17	W1	0.31	0/339	0.59	0/460
17	w	0.32	0/339	0.57	0/460
17	w1	0.29	0/339	0.60	0/460
18	X	0.32	0/202	0.55	0/276
18	X1	0.31	0/202	0.53	0/276
18	x	0.35	0/202	0.69	0/276
18	x1	0.27	0/202	0.58	0/276
19	Z	0.31	0/469	0.52	0/641
19	Z1	0.31	0/469	0.59	1/641 (0.2%)
19	z	0.33	0/469	0.53	0/641

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
19	z1	0.28	0/469	0.52	0/641
20	N	0.36	0/1751	0.59	1/2386 (0.0%)
20	N1	0.35	0/1751	0.58	0/2386
20	n	0.37	0/1750	0.58	0/2382
20	n1	0.44	2/1750 (0.1%)	0.71	5/2382 (0.2%)
21	G	0.34	0/1725	0.59	0/2348
21	G1	0.38	1/1725 (0.1%)	0.64	2/2348 (0.1%)
21	g	0.34	0/1725	0.60	1/2348 (0.0%)
21	g1	0.33	0/1725	0.58	1/2348 (0.0%)
22	R	0.34	0/1506	0.61	0/2035
22	R1	0.30	0/1506	0.55	0/2035
22	r	0.31	0/1506	0.60	0/2035
22	r1	0.33	0/1506	0.62	0/2035
23	S	0.35	0/1903	0.64	1/2590 (0.0%)
23	S1	0.32	0/1903	0.63	2/2590 (0.1%)
23	s	0.34	0/1903	0.68	1/2590 (0.0%)
23	s1	0.37	1/1903 (0.1%)	0.73	4/2590 (0.2%)
24	Y	0.35	0/1715	0.58	1/2338 (0.0%)
24	Y1	0.35	0/1715	0.65	2/2338 (0.1%)
24	y	0.37	0/1715	0.55	1/2338 (0.0%)
24	y1	0.32	0/1715	0.57	0/2338
25	U	0.37	0/224	0.69	0/298
25	U1	0.36	0/224	0.67	0/298
25	u	0.38	0/224	0.76	0/298
25	u1	0.36	0/224	0.67	0/298
All	All	0.37	11/117985 (0.0%)	0.63	74/160485 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	A1	0	1
2	B1	0	1
All	All	0	3

The worst 5 of 11 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	o1	111	PRO	CG-CD	-14.28	1.03	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	C	65	PRO	CG-CD	-13.03	1.07	1.50
6	e	28	PRO	CG-CD	-10.62	1.15	1.50
4	c1	352	PRO	CG-CD	-9.09	1.20	1.50
20	n1	57	PRO	CG-CD	-8.65	1.22	1.50

The worst 5 of 74 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	C	65	PRO	N-CD-CG	-18.59	75.32	103.20
14	o1	111	PRO	N-CD-CG	-18.29	75.77	103.20
6	e	28	PRO	N-CD-CG	-12.50	84.44	103.20
20	n1	57	PRO	N-CD-CG	-12.30	84.74	103.20
4	C	65	PRO	CA-CB-CG	-11.58	82.00	104.00

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	312	ARG	Sidechain
1	A1	131	TRP	Peptide
2	B1	384	ARG	Sidechain

5.2 Too-close contacts (i)

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

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	335/336 (100%)	321 (96%)	14 (4%)	0	100	100
1	A1	335/336 (100%)	313 (93%)	22 (7%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	a	335/336 (100%)	318 (95%)	17 (5%)	0	100	100
1	a1	335/336 (100%)	314 (94%)	21 (6%)	0	100	100
2	B	482/484 (100%)	464 (96%)	18 (4%)	0	100	100
2	B1	482/484 (100%)	447 (93%)	35 (7%)	0	100	100
2	b	482/484 (100%)	464 (96%)	18 (4%)	0	100	100
2	b1	482/484 (100%)	454 (94%)	28 (6%)	0	100	100
3	V	30/32 (94%)	28 (93%)	2 (7%)	0	100	100
3	V1	30/32 (94%)	28 (93%)	2 (7%)	0	100	100
3	v	30/32 (94%)	30 (100%)	0	0	100	100
3	v1	30/32 (94%)	29 (97%)	1 (3%)	0	100	100
4	C	447/449 (100%)	430 (96%)	17 (4%)	0	100	100
4	C1	447/449 (100%)	421 (94%)	26 (6%)	0	100	100
4	c	447/449 (100%)	431 (96%)	16 (4%)	0	100	100
4	c1	447/449 (100%)	421 (94%)	25 (6%)	1 (0%)	47	79
5	D	346/348 (99%)	330 (95%)	16 (5%)	0	100	100
5	D1	346/348 (99%)	324 (94%)	22 (6%)	0	100	100
5	d	346/348 (99%)	331 (96%)	15 (4%)	0	100	100
5	d1	346/348 (99%)	324 (94%)	22 (6%)	0	100	100
6	E	74/76 (97%)	68 (92%)	6 (8%)	0	100	100
6	E1	74/76 (97%)	68 (92%)	6 (8%)	0	100	100
6	e	74/76 (97%)	71 (96%)	3 (4%)	0	100	100
6	e1	74/76 (97%)	69 (93%)	5 (7%)	0	100	100
7	F	29/31 (94%)	29 (100%)	0	0	100	100
7	F1	29/31 (94%)	28 (97%)	1 (3%)	0	100	100
7	f	29/31 (94%)	29 (100%)	0	0	100	100
7	f1	29/31 (94%)	29 (100%)	0	0	100	100
8	H	65/67 (97%)	62 (95%)	3 (5%)	0	100	100
8	H1	65/67 (97%)	63 (97%)	2 (3%)	0	100	100
8	h	65/67 (97%)	62 (95%)	3 (5%)	0	100	100
8	h1	65/67 (97%)	62 (95%)	3 (5%)	0	100	100
9	I	33/35 (94%)	33 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	I1	33/35 (94%)	32 (97%)	1 (3%)	0	100	100
9	i	33/35 (94%)	29 (88%)	4 (12%)	0	100	100
9	i1	33/35 (94%)	31 (94%)	2 (6%)	0	100	100
10	J	34/36 (94%)	33 (97%)	1 (3%)	0	100	100
10	J1	34/36 (94%)	34 (100%)	0	0	100	100
10	j	34/36 (94%)	34 (100%)	0	0	100	100
10	j1	34/36 (94%)	33 (97%)	1 (3%)	0	100	100
11	K	35/37 (95%)	33 (94%)	2 (6%)	0	100	100
11	K1	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
11	k	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
11	k1	35/37 (95%)	35 (100%)	0	0	100	100
12	L	36/38 (95%)	36 (100%)	0	0	100	100
12	L1	36/38 (95%)	35 (97%)	1 (3%)	0	100	100
12	l	36/38 (95%)	36 (100%)	0	0	100	100
13	M	29/31 (94%)	29 (100%)	0	0	100	100
13	M1	29/31 (94%)	27 (93%)	2 (7%)	0	100	100
13	m	29/31 (94%)	28 (97%)	1 (3%)	0	100	100
13	m1	29/31 (94%)	28 (97%)	1 (3%)	0	100	100
14	O	236/238 (99%)	215 (91%)	19 (8%)	2 (1%)	19	59
14	O1	236/238 (99%)	212 (90%)	23 (10%)	1 (0%)	34	71
14	o	236/238 (99%)	218 (92%)	17 (7%)	1 (0%)	34	71
14	o1	236/238 (99%)	210 (89%)	25 (11%)	1 (0%)	34	71
15	P	185/187 (99%)	176 (95%)	9 (5%)	0	100	100
15	P1	185/187 (99%)	175 (95%)	10 (5%)	0	100	100
15	p	185/187 (99%)	170 (92%)	15 (8%)	0	100	100
15	p1	185/187 (99%)	169 (91%)	16 (9%)	0	100	100
16	T	28/30 (93%)	27 (96%)	0	1 (4%)	3	29
16	T1	28/30 (93%)	25 (89%)	2 (7%)	1 (4%)	3	29
16	t	28/30 (93%)	27 (96%)	1 (4%)	0	100	100
16	t1	28/30 (93%)	27 (96%)	1 (4%)	0	100	100
17	W	42/44 (96%)	38 (90%)	4 (10%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	W1	42/44 (96%)	39 (93%)	3 (7%)	0	100	100
17	w	42/44 (96%)	39 (93%)	3 (7%)	0	100	100
17	w1	42/44 (96%)	39 (93%)	3 (7%)	0	100	100
18	X	28/30 (93%)	27 (96%)	1 (4%)	0	100	100
18	X1	28/30 (93%)	28 (100%)	0	0	100	100
18	x	28/30 (93%)	28 (100%)	0	0	100	100
18	x1	28/30 (93%)	28 (100%)	0	0	100	100
19	Z	59/61 (97%)	57 (97%)	2 (3%)	0	100	100
19	Z1	59/61 (97%)	55 (93%)	4 (7%)	0	100	100
19	z	59/61 (97%)	59 (100%)	0	0	100	100
19	z1	59/61 (97%)	57 (97%)	2 (3%)	0	100	100
20	N	220/222 (99%)	202 (92%)	16 (7%)	2 (1%)	17	57
20	N1	220/222 (99%)	202 (92%)	16 (7%)	2 (1%)	17	57
20	n	218/222 (98%)	199 (91%)	17 (8%)	2 (1%)	17	57
20	n1	218/222 (98%)	202 (93%)	14 (6%)	2 (1%)	17	57
21	G	219/221 (99%)	196 (90%)	23 (10%)	0	100	100
21	G1	219/221 (99%)	195 (89%)	24 (11%)	0	100	100
21	g	219/221 (99%)	197 (90%)	22 (10%)	0	100	100
21	g1	219/221 (99%)	195 (89%)	24 (11%)	0	100	100
22	R	191/196 (97%)	177 (93%)	14 (7%)	0	100	100
22	R1	191/196 (97%)	176 (92%)	15 (8%)	0	100	100
22	r	191/196 (97%)	177 (93%)	14 (7%)	0	100	100
22	r1	191/196 (97%)	176 (92%)	15 (8%)	0	100	100
23	S	241/243 (99%)	219 (91%)	21 (9%)	1 (0%)	34	71
23	S1	241/243 (99%)	208 (86%)	32 (13%)	1 (0%)	34	71
23	s	241/243 (99%)	219 (91%)	20 (8%)	2 (1%)	19	59
23	s1	241/243 (99%)	214 (89%)	26 (11%)	1 (0%)	34	71
24	Y	220/222 (99%)	212 (96%)	7 (3%)	1 (0%)	29	68
24	Y1	220/222 (99%)	205 (93%)	14 (6%)	1 (0%)	29	68
24	y	220/222 (99%)	204 (93%)	15 (7%)	1 (0%)	29	68
24	y1	220/222 (99%)	204 (93%)	15 (7%)	1 (0%)	29	68

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
25	U	25/27 (93%)	23 (92%)	2 (8%)	0	100	100
25	U1	25/27 (93%)	24 (96%)	1 (4%)	0	100	100
25	u	25/27 (93%)	24 (96%)	1 (4%)	0	100	100
25	u1	25/27 (93%)	25 (100%)	0	0	100	100
All	All	14636/14846 (99%)	13696 (94%)	915 (6%)	25 (0%)	50	79

5 of 25 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
14	O	205	TYR
20	N	192	LEU
14	o	205	TYR
20	n	192	LEU
23	s	284	ASP

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	276/275 (100%)	276 (100%)	0	100	100
1	A1	276/275 (100%)	276 (100%)	0	100	100
1	a	276/275 (100%)	275 (100%)	1 (0%)	91	97
1	a1	276/275 (100%)	276 (100%)	0	100	100
2	B	388/388 (100%)	388 (100%)	0	100	100
2	B1	388/388 (100%)	387 (100%)	1 (0%)	92	97
2	b	388/388 (100%)	388 (100%)	0	100	100
2	b1	388/388 (100%)	386 (100%)	2 (0%)	88	95
3	V	25/25 (100%)	25 (100%)	0	100	100
3	V1	25/25 (100%)	25 (100%)	0	100	100
3	v	25/25 (100%)	25 (100%)	0	100	100
3	v1	25/25 (100%)	25 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	C	350/350 (100%)	350 (100%)	0	100	100
4	C1	350/350 (100%)	350 (100%)	0	100	100
4	c	350/350 (100%)	350 (100%)	0	100	100
4	c1	350/350 (100%)	349 (100%)	1 (0%)	92	97
5	D	279/279 (100%)	279 (100%)	0	100	100
5	D1	279/279 (100%)	279 (100%)	0	100	100
5	d	279/279 (100%)	278 (100%)	1 (0%)	91	97
5	d1	279/279 (100%)	278 (100%)	1 (0%)	91	97
6	E	68/68 (100%)	68 (100%)	0	100	100
6	E1	68/68 (100%)	68 (100%)	0	100	100
6	e	68/68 (100%)	67 (98%)	1 (2%)	65	84
6	e1	68/68 (100%)	68 (100%)	0	100	100
7	F	25/25 (100%)	25 (100%)	0	100	100
7	F1	25/25 (100%)	25 (100%)	0	100	100
7	f	25/25 (100%)	25 (100%)	0	100	100
7	f1	25/25 (100%)	25 (100%)	0	100	100
8	H	56/56 (100%)	56 (100%)	0	100	100
8	H1	56/56 (100%)	56 (100%)	0	100	100
8	h	56/56 (100%)	56 (100%)	0	100	100
8	h1	56/56 (100%)	56 (100%)	0	100	100
9	I	31/31 (100%)	31 (100%)	0	100	100
9	I1	31/31 (100%)	31 (100%)	0	100	100
9	i	31/31 (100%)	31 (100%)	0	100	100
9	i1	31/31 (100%)	31 (100%)	0	100	100
10	J	27/27 (100%)	27 (100%)	0	100	100
10	J1	27/27 (100%)	27 (100%)	0	100	100
10	j	27/27 (100%)	27 (100%)	0	100	100
10	j1	27/27 (100%)	27 (100%)	0	100	100
11	K	33/33 (100%)	32 (97%)	1 (3%)	41	71
11	K1	33/33 (100%)	33 (100%)	0	100	100
11	k	33/33 (100%)	33 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
11	k1	33/33 (100%)	33 (100%)	0	100	100
12	L	35/35 (100%)	35 (100%)	0	100	100
12	L1	35/35 (100%)	35 (100%)	0	100	100
12	l	35/35 (100%)	35 (100%)	0	100	100
13	M	26/26 (100%)	26 (100%)	0	100	100
13	M1	26/26 (100%)	26 (100%)	0	100	100
13	m	26/26 (100%)	26 (100%)	0	100	100
13	m1	26/26 (100%)	26 (100%)	0	100	100
14	O	195/195 (100%)	195 (100%)	0	100	100
14	O1	195/195 (100%)	194 (100%)	1 (0%)	88	95
14	o	195/195 (100%)	195 (100%)	0	100	100
14	o1	195/195 (100%)	194 (100%)	1 (0%)	88	95
15	P	151/151 (100%)	151 (100%)	0	100	100
15	P1	151/151 (100%)	151 (100%)	0	100	100
15	p	151/151 (100%)	150 (99%)	1 (1%)	84	93
15	p1	151/151 (100%)	151 (100%)	0	100	100
16	T	26/26 (100%)	26 (100%)	0	100	100
16	T1	26/26 (100%)	26 (100%)	0	100	100
16	t	26/26 (100%)	26 (100%)	0	100	100
16	t1	26/26 (100%)	26 (100%)	0	100	100
17	W	34/34 (100%)	34 (100%)	0	100	100
17	W1	34/34 (100%)	34 (100%)	0	100	100
17	w	34/34 (100%)	34 (100%)	0	100	100
17	w1	34/34 (100%)	34 (100%)	0	100	100
18	X	21/21 (100%)	21 (100%)	0	100	100
18	X1	21/21 (100%)	21 (100%)	0	100	100
18	x	21/21 (100%)	21 (100%)	0	100	100
18	x1	21/21 (100%)	21 (100%)	0	100	100
19	Z	50/50 (100%)	50 (100%)	0	100	100
19	Z1	50/50 (100%)	50 (100%)	0	100	100
19	z	50/50 (100%)	50 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
19	z1	50/50 (100%)	50 (100%)	0	100 100
20	N	171/171 (100%)	170 (99%)	1 (1%)	86 94
20	N1	171/171 (100%)	171 (100%)	0	100 100
20	n	171/171 (100%)	170 (99%)	1 (1%)	86 94
20	n1	171/171 (100%)	171 (100%)	0	100 100
21	G	168/168 (100%)	168 (100%)	0	100 100
21	G1	168/168 (100%)	168 (100%)	0	100 100
21	g	168/168 (100%)	168 (100%)	0	100 100
21	g1	168/168 (100%)	168 (100%)	0	100 100
22	R	151/151 (100%)	151 (100%)	0	100 100
22	R1	151/151 (100%)	151 (100%)	0	100 100
22	r	151/151 (100%)	151 (100%)	0	100 100
22	r1	151/151 (100%)	150 (99%)	1 (1%)	84 93
23	S	190/190 (100%)	190 (100%)	0	100 100
23	S1	190/190 (100%)	190 (100%)	0	100 100
23	s	190/190 (100%)	189 (100%)	1 (0%)	88 95
23	s1	190/190 (100%)	188 (99%)	2 (1%)	73 88
24	Y	167/167 (100%)	167 (100%)	0	100 100
24	Y1	167/167 (100%)	167 (100%)	0	100 100
24	y	167/167 (100%)	167 (100%)	0	100 100
24	y1	167/167 (100%)	167 (100%)	0	100 100
25	U	26/26 (100%)	25 (96%)	1 (4%)	33 66
25	U1	26/26 (100%)	26 (100%)	0	100 100
25	u	26/26 (100%)	25 (96%)	1 (4%)	33 66
25	u1	26/26 (100%)	26 (100%)	0	100 100
All	All	11841/11837 (100%)	11821 (100%)	20 (0%)	93 98

5 of 20 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	c1	301	GLN
22	r1	134	ARG
23	s1	132	LYS

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Mol	Chain	Res	Type
23	s1	99	LYS
15	p	197	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 50 such sidechains are listed below:

Mol	Chain	Res	Type
5	D1	117	HIS
22	R1	174	GLN
24	y1	236	ASN
5	D1	230	ASN
14	O1	82	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
22	SEP	R1	84	22	8,9,10	1.52	1 (12%)	8,12,14	1.71	2 (25%)
22	SEP	r1	84	22	8,9,10	1.53	1 (12%)	8,12,14	1.69	2 (25%)
22	SEP	r	84	22	8,9,10	1.51	1 (12%)	8,12,14	1.39	2 (25%)
22	SEP	R	84	22	8,9,10	1.58	1 (12%)	8,12,14	1.40	2 (25%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	SEP	R1	84	22	-	4/5/8/10	-
22	SEP	r1	84	22	-	5/5/8/10	-
22	SEP	r	84	22	-	2/5/8/10	-
22	SEP	R	84	22	-	2/5/8/10	-

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	R	84	SEP	P-O1P	3.37	1.61	1.50
22	r1	84	SEP	P-O1P	3.30	1.61	1.50
22	R1	84	SEP	P-O1P	3.29	1.61	1.50
22	r	84	SEP	P-O1P	3.22	1.60	1.50

The worst 5 of 8 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	r1	84	SEP	P-OG-CB	-3.36	109.03	118.30
22	R1	84	SEP	OG-CB-CA	3.23	111.29	108.14
22	R1	84	SEP	P-OG-CB	-3.07	109.85	118.30
22	r1	84	SEP	OG-CB-CA	2.79	110.86	108.14
22	r	84	SEP	P-OG-CB	-2.56	111.25	118.30

There are no chirality outliers.

5 of 13 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	R	84	SEP	N-CA-CB-OG
22	R1	84	SEP	N-CA-CB-OG
22	R1	84	SEP	CB-OG-P-O2P
22	R1	84	SEP	CB-OG-P-O3P
22	r1	84	SEP	N-CA-CB-OG

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 721 ligands modelled in this entry, 16 are monoatomic - leaving 705 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	$\#\|Z\| > 2$
29	CLA	D1	403	-	65,73,73	1.36	9 (13%)	76,113,113	2.05	22 (28%)
29	CLA	N1	604	-	65,73,73	1.36	8 (12%)	76,113,113	2.15	17 (22%)
29	CLA	B	604	-	65,73,73	1.38	7 (10%)	76,113,113	1.94	14 (18%)
29	CLA	C1	507	-	65,73,73	1.38	8 (12%)	76,113,113	1.92	17 (22%)
29	CLA	y1	603	-	65,73,73	1.36	8 (12%)	76,113,113	1.93	16 (21%)
45	RRX	H	101	-	42,42,42	4.84	24 (57%)	57,58,58	2.85	22 (38%)
48	CHL	g1	607	-	66,74,74	0.81	2 (3%)	73,114,114	1.23	9 (12%)
29	CLA	R	604	-	49,57,73	1.54	8 (16%)	55,93,113	2.35	17 (30%)
49	LUT	n	621	-	42,43,43	2.39	1 (2%)	51,60,60	1.78	12 (23%)
29	CLA	y	612	-	65,73,73	1.37	8 (12%)	76,113,113	1.99	16 (21%)
29	CLA	C1	503	-	65,73,73	1.38	9 (13%)	76,113,113	2.01	21 (27%)
38	3PH	B1	624	-	47,47,47	0.86	3 (6%)	51,52,52	1.11	2 (3%)
49	LUT	S1	620	-	42,43,43	2.32	1 (2%)	51,60,60	1.76	9 (17%)
30	PHO	A	409	-	51,69,69	1.02	4 (7%)	47,99,99	1.33	6 (12%)
29	CLA	s1	610	-	65,73,73	1.38	7 (10%)	76,113,113	2.01	19 (25%)
29	CLA	b1	617	-	65,73,73	1.36	6 (9%)	76,113,113	1.97	18 (23%)
49	LUT	y1	621	-	42,43,43	2.37	1 (2%)	51,60,60	2.41	16 (31%)
29	CLA	d	403	-	65,73,73	1.36	8 (12%)	76,113,113	2.03	17 (22%)
29	CLA	n1	603	-	65,73,73	1.34	7 (10%)	76,113,113	2.02	16 (21%)
29	CLA	r	610	-	60,68,73	1.41	9 (15%)	70,107,113	2.20	20 (28%)
50	XAT	R	621	-	39,47,47	0.73	1 (2%)	54,74,74	2.02	18 (33%)
50	XAT	N1	622	-	39,47,47	0.72	1 (2%)	54,74,74	2.10	15 (27%)
38	3PH	T	101	-	47,47,47	0.85	3 (6%)	51,52,52	1.19	2 (3%)
49	LUT	s	621	-	42,43,43	2.30	1 (2%)	51,60,60	1.98	16 (31%)
30	PHO	A1	409	-	51,69,69	0.99	3 (5%)	47,99,99	1.31	6 (12%)
29	CLA	a1	407	-	49,57,73	1.55	7 (14%)	55,93,113	2.44	18 (32%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
38	3PH	t1	101	-	47,47,47	0.87	3 (6%)	51,52,52	1.05	2 (3%)
48	CHL	N	608	-	50,58,74	0.97	3 (6%)	52,94,114	1.35	9 (17%)
29	CLA	B1	614	-	65,73,73	1.38	9 (13%)	76,113,113	1.98	14 (18%)
48	CHL	N1	605	20	66,74,74	0.90	3 (4%)	73,114,114	1.31	13 (17%)
48	CHL	G1	605	21	48,56,74	0.96	3 (6%)	51,92,114	1.38	9 (17%)
29	CLA	n1	604	-	65,73,73	1.34	7 (10%)	76,113,113	1.99	16 (21%)
29	CLA	S	612	-	45,53,73	1.62	8 (17%)	52,89,113	2.23	14 (26%)
29	CLA	B1	608	-	65,73,73	1.38	8 (12%)	76,113,113	1.97	16 (21%)
29	CLA	C	513	-	65,73,73	1.36	7 (10%)	76,113,113	1.97	17 (22%)
32	SQD	b1	621	-	41,42,54	0.89	0	50,53,65	0.98	3 (6%)
49	LUT	G	620	-	42,43,43	2.25	1 (2%)	51,60,60	1.99	17 (33%)
29	CLA	d	402	-	65,73,73	1.38	8 (12%)	76,113,113	1.94	16 (21%)
29	CLA	s1	609	-	60,68,73	1.40	9 (15%)	70,107,113	2.18	15 (21%)
29	CLA	g	612	-	43,51,73	1.70	7 (16%)	49,86,113	2.18	13 (26%)
29	CLA	b	614	-	65,73,73	1.34	8 (12%)	76,113,113	2.14	16 (21%)
51	NEX	y1	623	-	38,46,46	3.26	10 (26%)	50,70,70	2.03	18 (36%)
48	CHL	N	607	-	66,74,74	0.82	2 (3%)	73,114,114	1.23	12 (16%)
49	LUT	n	620	-	42,43,43	2.35	1 (2%)	51,60,60	2.09	17 (33%)
49	LUT	y	621	-	42,43,43	2.36	1 (2%)	51,60,60	1.98	14 (27%)
29	CLA	c1	504	-	65,73,73	1.38	8 (12%)	76,113,113	2.10	14 (18%)
29	CLA	Y	602	-	65,73,73	1.38	9 (13%)	76,113,113	2.06	19 (25%)
29	CLA	N1	610	-	65,73,73	1.31	7 (10%)	76,113,113	1.99	18 (23%)
31	BCR	C1	517	-	41,41,41	1.87	4 (9%)	56,56,56	4.45	16 (28%)
29	CLA	Y1	604	-	65,73,73	1.39	6 (9%)	76,113,113	1.95	15 (19%)
32	SQD	B	621	-	41,42,54	0.88	0	50,53,65	1.01	3 (6%)
29	CLA	Y1	612	-	65,73,73	1.38	8 (12%)	76,113,113	1.96	18 (23%)
31	BCR	a1	411	-	41,41,41	1.92	5 (12%)	56,56,56	4.06	15 (26%)
32	SQD	B1	621	-	41,42,54	0.89	0	50,53,65	0.96	2 (4%)
51	NEX	r	622	-	38,46,46	3.31	9 (23%)	50,70,70	1.78	11 (22%)
32	SQD	b	626	-	53,54,54	0.82	0	62,65,65	0.91	3 (4%)
51	NEX	N1	623	-	38,46,46	3.26	10 (26%)	50,70,70	1.68	10 (20%)
29	CLA	B1	616	-	65,73,73	1.35	8 (12%)	76,113,113	2.00	15 (19%)
29	CLA	g1	602	-	65,73,73	1.36	8 (12%)	76,113,113	1.97	19 (25%)
29	CLA	a	406	-	65,73,73	1.34	8 (12%)	76,113,113	2.25	20 (26%)
48	CHL	g	601	21	66,74,74	0.88	4 (6%)	73,114,114	1.25	10 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
29	CLA	g1	613	-	65,73,73	1.38	8 (12%)	76,113,113	2.03	16 (21%)
29	CLA	g	603	-	65,73,73	1.37	9 (13%)	76,113,113	2.03	17 (22%)
29	CLA	S1	610	-	65,73,73	1.35	7 (10%)	76,113,113	2.02	18 (23%)
29	CLA	b1	614	-	65,73,73	1.38	10 (15%)	76,113,113	1.89	17 (22%)
29	CLA	A	410	-	60,68,73	1.43	9 (15%)	70,107,113	2.17	18 (25%)
48	CHL	y	601	24	66,74,74	0.86	3 (4%)	73,114,114	1.32	12 (16%)
29	CLA	b	616	-	65,73,73	1.35	8 (12%)	76,113,113	1.87	15 (19%)
49	LUT	N1	620	-	42,43,43	2.37	1 (2%)	51,60,60	1.99	14 (27%)
44	HEM	F	101	6,7	41,50,50	1.44	4 (9%)	45,82,82	1.30	3 (6%)
26	OEX	A1	401	1,4	0,15,15	-	-	-		
29	CLA	n	611	-	49,57,73	1.58	7 (14%)	55,93,113	2.30	17 (30%)
29	CLA	y	613	-	65,73,73	1.36	7 (10%)	76,113,113	2.04	18 (23%)
43	PL9	d	405	-	55,55,55	1.75	10 (18%)	68,69,69	1.54	11 (16%)
49	LUT	y1	620	-	42,43,43	2.35	1 (2%)	51,60,60	1.97	10 (19%)
48	CHL	n	605	20	66,74,74	0.93	5 (7%)	73,114,114	1.24	8 (10%)
33	LMG	c	523	-	55,55,55	1.13	6 (10%)	63,63,63	1.12	3 (4%)
29	CLA	r1	612	-	60,68,73	1.42	7 (11%)	70,107,113	2.05	19 (27%)
40	LHG	S	624	29	44,44,48	0.43	0	47,50,54	1.05	3 (6%)
48	CHL	Y1	601	-	66,74,74	0.91	3 (4%)	73,114,114	1.23	10 (13%)
29	CLA	Y1	603	-	65,73,73	1.39	10 (15%)	76,113,113	1.95	16 (21%)
29	CLA	b1	610	-	65,73,73	1.36	9 (13%)	76,113,113	1.93	17 (22%)
29	CLA	a	407	-	49,57,73	1.55	7 (14%)	55,93,113	2.52	18 (32%)
29	CLA	C	503	-	65,73,73	1.35	8 (12%)	76,113,113	1.99	17 (22%)
29	CLA	B	605	-	65,73,73	1.40	8 (12%)	76,113,113	2.06	18 (23%)
42	BCT	D1	401	27	2,3,3	1.29	0	2,3,3	3.02	2 (100%)
49	LUT	R1	620	-	42,43,43	2.36	1 (2%)	51,60,60	1.94	10 (19%)
29	CLA	b1	612	-	65,73,73	1.35	8 (12%)	76,113,113	2.17	19 (25%)
32	SQD	A	412	-	50,51,54	0.81	0	59,62,65	0.94	3 (5%)
40	LHG	N1	624	-	48,48,48	0.39	0	51,54,54	1.07	3 (5%)
48	CHL	n	607	-	66,74,74	0.81	2 (3%)	73,114,114	1.27	12 (16%)
31	BCR	C1	514	-	41,41,41	1.84	5 (12%)	56,56,56	4.05	13 (23%)
48	CHL	R1	606	-	44,52,74	1.07	3 (6%)	46,87,114	1.30	8 (17%)
42	BCT	d1	401	-	2,3,3	1.18	0	2,3,3	4.36	2 (100%)
32	SQD	c1	526	-	53,54,54	0.80	0	62,65,65	0.93	2 (3%)
37	DGD	C1	520	-	60,60,67	1.08	5 (8%)	74,74,81	0.95	2 (2%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
49	LUT	s1	621	-	42,43,43	2.25	1 (2%)	51,60,60	2.37	13 (25%)
49	LUT	N1	621	-	42,43,43	2.33	2 (4%)	51,60,60	2.10	13 (25%)
29	CLA	C	512	-	65,73,73	1.34	6 (9%)	76,113,113	2.01	18 (23%)
29	CLA	G1	610	-	65,73,73	1.36	9 (13%)	76,113,113	2.06	20 (26%)
51	NEX	R1	622	-	38,46,46	3.31	9 (23%)	50,70,70	1.93	14 (28%)
49	LUT	S	620	-	42,43,43	2.29	1 (2%)	51,60,60	2.12	18 (35%)
29	CLA	a1	406	-	65,73,73	1.36	8 (12%)	76,113,113	2.09	21 (27%)
38	3PH	b1	624	-	47,47,47	0.86	4 (8%)	51,52,52	1.15	2 (3%)
44	HEM	F1	101	7	41,50,50	1.48	3 (7%)	45,82,82	1.47	9 (20%)
48	CHL	s	608	-	61,69,74	0.91	3 (4%)	67,108,114	1.30	11 (16%)
29	CLA	r1	604	-	49,57,73	1.56	7 (14%)	55,93,113	2.28	16 (29%)
40	LHG	g1	624	-	48,48,48	0.41	0	51,54,54	1.11	3 (5%)
40	LHG	c	525	-	46,46,48	0.40	0	49,52,54	1.12	3 (6%)
31	BCR	b	618	-	41,41,41	1.89	5 (12%)	56,56,56	4.48	20 (35%)
32	SQD	m	101	-	41,42,54	0.91	0	50,53,65	0.99	3 (6%)
38	3PH	S1	626	-	47,47,47	0.87	4 (8%)	51,52,52	4.40	4 (7%)
49	LUT	S	621	-	42,43,43	2.25	1 (2%)	51,60,60	2.10	19 (37%)
50	XAT	N	622	-	39,47,47	0.70	1 (2%)	54,74,74	2.21	13 (24%)
29	CLA	r1	602	-	60,68,73	1.40	7 (11%)	70,107,113	2.09	19 (27%)
29	CLA	s1	602	-	60,68,73	1.40	7 (11%)	70,107,113	2.30	21 (30%)
29	CLA	c1	508	-	65,73,73	1.36	7 (10%)	76,113,113	1.97	19 (25%)
29	CLA	S	603	-	65,73,73	1.38	9 (13%)	76,113,113	1.85	17 (22%)
40	LHG	N	624	-	48,48,48	0.40	0	51,54,54	1.08	3 (5%)
29	CLA	s	612	-	45,53,73	1.60	8 (17%)	52,89,113	2.21	15 (28%)
29	CLA	g1	612	21	43,51,73	1.67	10 (23%)	49,86,113	2.28	13 (26%)
29	CLA	c	505	-	65,73,73	1.40	8 (12%)	76,113,113	2.00	16 (21%)
29	CLA	r	602	22	60,68,73	1.44	8 (13%)	70,107,113	2.03	19 (27%)
29	CLA	b1	605	-	65,73,73	1.30	7 (10%)	76,113,113	2.11	19 (25%)
49	LUT	N	621	-	42,43,43	2.39	1 (2%)	51,60,60	1.97	12 (23%)
55	PTY	Y1	627	-	18,18,49	1.28	2 (11%)	21,23,54	1.41	2 (9%)
51	NEX	s1	623	-	38,46,46	3.40	12 (31%)	50,70,70	2.71	15 (30%)
29	CLA	b	615	-	65,73,73	1.34	7 (10%)	76,113,113	2.08	18 (23%)
40	LHG	D1	410	-	38,38,48	0.43	0	41,44,54	1.09	3 (7%)
29	CLA	R	612	-	60,68,73	1.44	10 (16%)	70,107,113	2.14	18 (25%)
48	CHL	N	609	-	66,74,74	0.79	3 (4%)	73,114,114	1.22	11 (15%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
49	LUT	S1	621	-	42,43,43	2.39	2 (4%)	51,60,60	1.99	19 (37%)
29	CLA	G	613	-	65,73,73	1.35	8 (12%)	76,113,113	2.04	20 (26%)
29	CLA	A1	407	-	50,58,73	1.56	8 (16%)	58,95,113	2.22	18 (31%)
40	LHG	L1	101	-	48,48,48	0.37	0	51,54,54	1.11	3 (5%)
29	CLA	G	611	40	65,73,73	1.37	7 (10%)	76,113,113	2.01	17 (22%)
42	BCT	D	401	27	2,3,3	1.26	0	2,3,3	2.71	2 (100%)
44	HEM	f1	101	7	41,50,50	1.52	7 (17%)	45,82,82	1.19	4 (8%)
46	GOL	I1	101	-	5,5,5	0.56	0	5,5,5	0.31	0
29	CLA	s	603	-	65,73,73	1.38	8 (12%)	76,113,113	2.02	17 (22%)
29	CLA	g1	603	-	65,73,73	1.38	8 (12%)	76,113,113	1.88	16 (21%)
34	SPH	Y1	625	-	19,20,20	0.64	0	18,21,21	1.03	1 (5%)
49	LUT	s1	620	-	42,43,43	2.39	1 (2%)	51,60,60	2.02	16 (31%)
50	XAT	r	621	-	39,47,47	0.73	1 (2%)	54,74,74	2.02	13 (24%)
29	CLA	R	603	-	60,68,73	1.48	9 (15%)	70,107,113	2.00	17 (24%)
29	CLA	B1	607	-	65,73,73	1.36	8 (12%)	76,113,113	2.08	19 (25%)
43	PL9	d1	405	-	55,55,55	1.13	3 (5%)	68,69,69	1.57	14 (20%)
48	CHL	n1	608	-	50,58,74	0.92	2 (4%)	52,94,114	1.38	10 (19%)
29	CLA	g1	604	-	49,57,73	1.52	7 (14%)	55,93,113	2.31	18 (32%)
47	4RF	I1	102	-	56,56,56	1.06	4 (7%)	59,59,59	0.98	3 (5%)
29	CLA	N1	612	-	45,53,73	1.64	8 (17%)	52,89,113	2.16	12 (23%)
29	CLA	G1	614	-	49,57,73	1.53	7 (14%)	55,93,113	2.37	17 (30%)
29	CLA	G	614	-	49,57,73	1.55	7 (14%)	55,93,113	2.35	20 (36%)
29	CLA	s	613	-	55,63,73	1.45	7 (12%)	64,101,113	2.25	18 (28%)
39	DGA	j1	101	-	28,28,43	1.32	3 (10%)	30,30,45	1.26	2 (6%)
31	BCR	c	514	-	41,41,41	1.84	4 (9%)	56,56,56	4.25	14 (25%)
48	CHL	Y	607	-	66,74,74	0.77	2 (3%)	73,114,114	1.28	9 (12%)
29	CLA	r1	610	-	60,68,73	1.44	8 (13%)	70,107,113	1.96	16 (22%)
48	CHL	G1	609	-	66,74,74	0.90	3 (4%)	73,114,114	1.20	11 (15%)
33	LMG	B1	622	-	44,44,55	0.88	3 (6%)	52,52,63	1.08	4 (7%)
29	CLA	B1	609	-	65,73,73	1.38	8 (12%)	76,113,113	1.99	17 (22%)
29	CLA	n	604	-	65,73,73	1.35	8 (12%)	76,113,113	2.01	17 (22%)
48	CHL	N1	601	-	66,74,74	0.87	3 (4%)	73,114,114	1.42	12 (16%)
48	CHL	g1	601	-	66,74,74	0.82	2 (3%)	73,114,114	1.29	11 (15%)
39	DGA	J1	101	-	28,28,43	1.27	2 (7%)	30,30,45	1.34	2 (6%)
49	LUT	s	620	-	42,43,43	2.37	1 (2%)	51,60,60	1.91	15 (29%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
29	CLA	n	612	-	45,53,73	1.63	7 (15%)	52,89,113	2.07	13 (25%)
30	PHO	A	408	-	51,69,69	1.01	4 (7%)	47,99,99	1.20	5 (10%)
29	CLA	y	611	40	65,73,73	1.35	7 (10%)	76,113,113	1.88	15 (19%)
33	LMG	H	102	-	48,48,55	1.01	5 (10%)	56,56,63	1.10	2 (3%)
48	CHL	y	605	24	46,54,74	0.99	2 (4%)	49,90,114	1.48	10 (20%)
29	CLA	B	614	-	65,73,73	1.32	8 (12%)	76,113,113	2.06	18 (23%)
29	CLA	Y	603	-	65,73,73	1.38	8 (12%)	76,113,113	2.01	18 (23%)
54	LPX	s1	625	-	29,29,29	1.01	2 (6%)	31,33,33	1.05	2 (6%)
31	BCR	c	515	-	41,41,41	1.88	5 (12%)	56,56,56	4.18	16 (28%)
29	CLA	B1	602	-	65,73,73	1.39	9 (13%)	76,113,113	2.02	17 (22%)
29	CLA	R	602	-	60,68,73	1.44	9 (15%)	70,107,113	1.99	19 (27%)
29	CLA	g1	610	-	65,73,73	1.30	6 (9%)	76,113,113	2.29	20 (26%)
41	LMK	c	527	-	38,39,53	1.50	2 (5%)	41,46,60	1.25	2 (4%)
29	CLA	B	608	-	65,73,73	1.34	7 (10%)	76,113,113	2.02	16 (21%)
48	CHL	R	607	-	50,58,74	1.00	3 (6%)	52,94,114	1.44	9 (17%)
29	CLA	B1	603	-	65,73,73	1.39	9 (13%)	76,113,113	2.13	20 (26%)
34	SPH	Y	625	-	19,20,20	0.63	0	18,21,21	1.00	0
42	BCT	d	401	-	2,3,3	1.27	0	2,3,3	2.80	2 (100%)
29	CLA	y	610	24	65,73,73	1.33	7 (10%)	76,113,113	2.03	17 (22%)
30	PHO	A1	408	-	51,69,69	1.06	4 (7%)	47,99,99	1.15	4 (8%)
29	CLA	s1	603	-	65,73,73	1.37	8 (12%)	76,113,113	2.05	17 (22%)
39	DGA	b	625	-	43,43,43	1.11	2 (4%)	45,45,45	1.45	3 (6%)
48	CHL	n	601	20	66,74,74	0.91	3 (4%)	73,114,114	1.26	9 (12%)
48	CHL	N1	609	-	66,74,74	0.77	2 (3%)	73,114,114	1.44	13 (17%)
29	CLA	C1	510	-	65,73,73	1.35	9 (13%)	76,113,113	1.94	15 (19%)
48	CHL	g	605	21	48,56,74	0.98	3 (6%)	51,92,114	1.62	12 (23%)
29	CLA	n1	613	-	65,73,73	1.36	9 (13%)	76,113,113	2.16	17 (22%)
29	CLA	R1	603	-	60,68,73	1.45	8 (13%)	70,107,113	1.89	14 (20%)
48	CHL	y	609	-	66,74,74	0.87	4 (6%)	73,114,114	1.24	10 (13%)
33	LMG	D1	411	-	46,46,55	0.91	4 (8%)	54,54,63	1.12	3 (5%)
29	CLA	c	501	-	65,73,73	1.36	8 (12%)	76,113,113	2.06	16 (21%)
33	LMG	A	413	-	48,48,55	1.01	5 (10%)	56,56,63	1.20	4 (7%)
29	CLA	c1	505	-	65,73,73	1.35	10 (15%)	76,113,113	2.07	17 (22%)
50	XAT	G1	622	-	39,47,47	0.76	1 (2%)	54,74,74	1.88	17 (31%)
37	DGD	C	520	-	60,60,67	1.06	6 (10%)	74,74,81	1.07	3 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
29	CLA	s1	611	40	65,73,73	1.40	8 (12%)	76,113,113	2.00	18 (23%)
48	CHL	y1	601	24	66,74,74	0.79	2 (3%)	73,114,114	1.28	9 (12%)
48	CHL	y1	606	-	66,74,74	0.83	2 (3%)	73,114,114	1.16	10 (13%)
29	CLA	Y1	602	-	65,73,73	1.38	9 (13%)	76,113,113	2.07	17 (22%)
36	C7Z	b1	620	-	43,43,43	5.40	26 (60%)	58,60,60	2.51	22 (37%)
33	LMG	H1	102	-	48,48,55	1.02	5 (10%)	56,56,63	1.16	3 (5%)
29	CLA	S1	609	-	60,68,73	1.39	8 (13%)	70,107,113	2.09	17 (24%)
40	LHG	n	624	-	48,48,48	0.38	0	51,54,54	1.08	2 (3%)
48	CHL	Y	606	-	66,74,74	0.90	4 (6%)	73,114,114	1.14	8 (10%)
48	CHL	g	606	-	50,58,74	0.99	2 (4%)	52,94,114	1.55	9 (17%)
29	CLA	C	511	-	65,73,73	1.34	8 (12%)	76,113,113	1.98	18 (23%)
32	SQD	b	621	-	41,42,54	0.87	0	50,53,65	1.02	3 (6%)
48	CHL	s1	601	23	46,54,74	1.07	3 (6%)	49,90,114	1.46	12 (24%)
40	LHG	D	410	-	38,38,48	0.42	0	41,44,54	1.16	4 (9%)
29	CLA	B	615	-	65,73,73	1.35	8 (12%)	76,113,113	2.03	19 (25%)
31	BCR	C	516	-	41,41,41	1.84	4 (9%)	56,56,56	4.25	16 (28%)
29	CLA	C	501	-	65,73,73	1.36	8 (12%)	76,113,113	2.03	18 (23%)
29	CLA	a	405	-	65,73,73	1.34	6 (9%)	76,113,113	2.08	18 (23%)
33	LMG	d	411	-	46,46,55	0.93	3 (6%)	54,54,63	1.19	4 (7%)
29	CLA	r	609	-	60,68,73	1.42	7 (11%)	70,107,113	2.05	17 (24%)
29	CLA	S	613	-	55,63,73	1.47	7 (12%)	64,101,113	2.18	16 (25%)
55	PTY	Y	627	-	18,18,49	1.31	3 (16%)	21,23,54	1.40	2 (9%)
38	3PH	b	624	-	47,47,47	0.86	4 (8%)	51,52,52	1.18	3 (5%)
29	CLA	c1	506	-	65,73,73	1.30	6 (9%)	76,113,113	2.09	20 (26%)
48	CHL	y	607	-	66,74,74	0.82	3 (4%)	73,114,114	1.31	12 (16%)
29	CLA	B	617	-	65,73,73	1.37	8 (12%)	76,113,113	2.04	15 (19%)
31	BCR	c	517	-	41,41,41	1.84	4 (9%)	56,56,56	4.29	17 (30%)
29	CLA	N	613	-	65,73,73	1.38	7 (10%)	76,113,113	2.01	13 (17%)
51	NEX	r1	622	-	38,46,46	3.37	9 (23%)	50,70,70	1.83	12 (24%)
29	CLA	B	609	-	65,73,73	1.34	8 (12%)	76,113,113	2.24	18 (23%)
48	CHL	Y1	609	-	66,74,74	0.84	2 (3%)	73,114,114	1.28	10 (13%)
37	DGD	b1	623	-	44,44,67	0.92	2 (4%)	58,58,81	1.32	5 (8%)
33	LMG	C1	521	-	51,51,55	1.07	5 (9%)	59,59,63	1.14	2 (3%)
29	CLA	r	612	-	60,68,73	1.43	8 (13%)	70,107,113	2.03	16 (22%)
40	LHG	D1	409	-	48,48,48	0.41	0	51,54,54	1.07	3 (5%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
29	CLA	R1	608	-	60,68,73	1.42	8 (13%)	70,107,113	2.08	16 (22%)
29	CLA	y1	604	-	65,73,73	1.35	8 (12%)	76,113,113	2.07	17 (22%)
29	CLA	y1	612	-	65,73,73	1.34	8 (12%)	76,113,113	2.05	20 (26%)
33	LMG	c1	521	-	51,51,55	1.06	5 (9%)	59,59,63	1.10	3 (5%)
32	SQD	a	412	-	50,51,54	0.81	0	59,62,65	0.92	2 (3%)
32	SQD	B1	626	-	53,54,54	0.80	0	62,65,65	0.92	2 (3%)
29	CLA	c	509	-	65,73,73	1.35	6 (9%)	76,113,113	1.94	16 (21%)
40	LHG	D	408	-	43,43,48	0.41	0	46,49,54	1.10	2 (4%)
29	CLA	B	616	-	65,73,73	1.36	9 (13%)	76,113,113	1.95	19 (25%)
48	CHL	S1	601	23	46,54,74	1.08	5 (10%)	49,90,114	1.41	9 (18%)
29	CLA	s1	604	-	55,63,73	1.46	5 (9%)	64,101,113	2.22	18 (28%)
48	CHL	g1	608	-	44,52,74	1.01	3 (6%)	46,87,114	1.40	6 (13%)
37	DGD	c1	518	-	56,56,67	1.02	5 (8%)	70,70,81	1.11	4 (5%)
29	CLA	s1	612	-	45,53,73	1.66	10 (22%)	52,89,113	2.01	11 (21%)
30	PHO	a1	409	-	51,69,69	1.03	3 (5%)	47,99,99	1.21	6 (12%)
29	CLA	N	614	-	49,57,73	1.57	7 (14%)	55,93,113	2.34	15 (27%)
29	CLA	G	603	-	65,73,73	1.33	8 (12%)	76,113,113	2.03	20 (26%)
29	CLA	b1	602	-	65,73,73	1.39	10 (15%)	76,113,113	1.93	18 (23%)
31	BCR	a	411	-	41,41,41	1.83	4 (9%)	56,56,56	4.25	14 (25%)
39	DGA	b1	625	-	43,43,43	1.13	2 (4%)	45,45,45	1.50	3 (6%)
36	C7Z	B	620	-	43,43,43	5.27	26 (60%)	58,60,60	2.44	22 (37%)
29	CLA	C1	501	-	65,73,73	1.35	8 (12%)	76,113,113	2.15	19 (25%)
40	LHG	d	409	-	48,48,48	0.41	0	51,54,54	1.06	3 (5%)
49	LUT	n1	620	-	42,43,43	2.36	1 (2%)	51,60,60	1.77	10 (19%)
29	CLA	c	510	-	65,73,73	1.37	7 (10%)	76,113,113	2.05	17 (22%)
29	CLA	B	611	-	65,73,73	1.37	8 (12%)	76,113,113	2.01	19 (25%)
46	GOL	I	101	-	5,5,5	0.54	0	5,5,5	0.39	0
51	NEX	S1	623	-	38,46,46	3.20	9 (23%)	50,70,70	1.79	10 (20%)
29	CLA	B1	611	-	65,73,73	1.37	7 (10%)	76,113,113	2.09	16 (21%)
31	BCR	B1	619	-	41,41,41	1.82	4 (9%)	56,56,56	4.44	18 (32%)
29	CLA	c1	510	-	65,73,73	1.39	8 (12%)	76,113,113	1.92	16 (21%)
29	CLA	c1	502	-	65,73,73	1.43	8 (12%)	76,113,113	1.84	13 (17%)
29	CLA	y	604	-	65,73,73	1.33	7 (10%)	76,113,113	2.09	19 (25%)
33	LMG	c	521	-	51,51,55	1.06	5 (9%)	59,59,63	1.16	4 (6%)
29	CLA	S	617	23	50,58,73	1.52	8 (16%)	58,95,113	2.29	17 (29%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
40	LHG	Y	624	-	48,48,48	0.39	0	51,54,54	1.06	3 (5%)
29	CLA	R1	612	-	60,68,73	1.44	7 (11%)	70,107,113	2.07	17 (24%)
34	SPH	A	414	-	19,20,20	0.66	0	18,21,21	1.13	2 (11%)
29	CLA	S	604	-	55,63,73	1.45	8 (14%)	64,101,113	2.22	17 (26%)
29	CLA	s	610	-	65,73,73	1.42	9 (13%)	76,113,113	1.96	17 (22%)
34	SPH	A1	414	-	19,20,20	0.67	1 (5%)	18,21,21	1.17	1 (5%)
31	BCR	b	619	-	41,41,41	1.83	5 (12%)	56,56,56	4.15	16 (28%)
48	CHL	n	608	-	50,58,74	1.01	3 (6%)	52,94,114	1.28	10 (19%)
49	LUT	Y	621	-	42,43,43	2.32	1 (2%)	51,60,60	2.00	15 (29%)
48	CHL	G	601	21	66,74,74	0.87	3 (4%)	73,114,114	1.24	11 (15%)
32	SQD	a1	412	-	50,51,54	0.82	0	59,62,65	0.95	2 (3%)
40	LHG	D	409	-	48,48,48	0.40	0	51,54,54	1.06	3 (5%)
29	CLA	c1	513	-	65,73,73	1.39	9 (13%)	76,113,113	2.04	18 (23%)
29	CLA	y1	602	-	65,73,73	1.33	9 (13%)	76,113,113	2.03	21 (27%)
29	CLA	b	609	-	65,73,73	1.39	10 (15%)	76,113,113	2.04	19 (25%)
29	CLA	b1	603	-	65,73,73	1.38	7 (10%)	76,113,113	2.00	19 (25%)
50	XAT	g1	622	-	39,47,47	0.75	1 (2%)	54,74,74	1.88	16 (29%)
29	CLA	R	610	-	60,68,73	1.49	10 (16%)	70,107,113	2.14	21 (30%)
40	LHG	d1	409	-	48,48,48	0.40	0	51,54,54	1.03	2 (3%)
29	CLA	c	508	-	65,73,73	1.37	8 (12%)	76,113,113	1.98	17 (22%)
39	DGA	J	101	-	28,28,43	1.31	3 (10%)	30,30,45	1.27	2 (6%)
48	CHL	g1	609	-	66,74,74	0.88	3 (4%)	73,114,114	1.25	9 (12%)
29	CLA	s	602	-	60,68,73	1.41	8 (13%)	70,107,113	2.10	21 (30%)
29	CLA	R1	604	-	49,57,73	1.56	8 (16%)	55,93,113	2.34	15 (27%)
51	NEX	G	623	-	38,46,46	3.37	11 (28%)	50,70,70	1.92	12 (24%)
51	NEX	G1	623	-	38,46,46	3.38	10 (26%)	50,70,70	1.77	11 (22%)
29	CLA	Y1	613	-	65,73,73	1.33	8 (12%)	76,113,113	2.12	17 (22%)
29	CLA	s1	613	-	55,63,73	1.51	10 (18%)	64,101,113	2.12	17 (26%)
51	NEX	Y	623	-	38,46,46	3.34	9 (23%)	50,70,70	1.85	12 (24%)
29	CLA	A	405	-	65,73,73	1.35	6 (9%)	76,113,113	2.09	17 (22%)
47	4RF	k1	101	-	56,56,56	1.04	3 (5%)	59,59,59	0.88	3 (5%)
40	LHG	L	101	-	48,48,48	0.38	0	51,54,54	4.46	5 (9%)
29	CLA	c	513	-	65,73,73	1.37	8 (12%)	76,113,113	2.12	18 (23%)
29	CLA	b1	611	-	65,73,73	1.42	6 (9%)	76,113,113	2.02	18 (23%)
29	CLA	n1	610	-	65,73,73	1.35	6 (9%)	76,113,113	1.98	16 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
29	CLA	N1	602	-	65,73,73	1.36	7 (10%)	76,113,113	1.98	18 (23%)
49	LUT	Y	620	-	42,43,43	2.31	1 (2%)	51,60,60	1.81	13 (25%)
29	CLA	S1	605	-	50,58,73	1.57	9 (18%)	58,95,113	2.22	17 (29%)
40	LHG	c1	525	-	46,46,48	0.39	0	49,52,54	1.01	2 (4%)
29	CLA	C1	513	-	65,73,73	1.35	7 (10%)	76,113,113	1.96	20 (26%)
45	RRX	h	101	-	42,42,42	4.74	24 (57%)	57,58,58	3.10	25 (43%)
29	CLA	C	507	-	65,73,73	1.38	8 (12%)	76,113,113	2.04	17 (22%)
29	CLA	N	604	-	65,73,73	1.36	7 (10%)	76,113,113	2.08	19 (25%)
33	LMG	b	622	-	44,44,55	0.87	3 (6%)	52,52,63	1.15	2 (3%)
37	DGD	c	519	-	63,63,67	1.12	5 (7%)	77,77,81	1.01	2 (2%)
31	BCR	c1	516	-	41,41,41	1.91	4 (9%)	56,56,56	4.43	13 (23%)
40	LHG	C	525	-	46,46,48	0.42	0	49,52,54	1.04	2 (4%)
48	CHL	S1	606	-	44,52,74	1.05	3 (6%)	46,87,114	1.46	8 (17%)
29	CLA	C	508	-	65,73,73	1.42	7 (10%)	76,113,113	2.06	19 (25%)
40	LHG	s1	624	29	44,44,48	0.43	0	47,50,54	1.08	4 (8%)
29	CLA	Y	611	-	65,73,73	1.34	9 (13%)	76,113,113	1.91	13 (17%)
29	CLA	N	611	-	49,57,73	1.57	7 (14%)	55,93,113	2.24	15 (27%)
32	SQD	C1	526	-	53,54,54	0.81	0	62,65,65	0.88	2 (3%)
29	CLA	G	612	-	43,51,73	1.66	6 (13%)	49,86,113	2.20	14 (28%)
48	CHL	r	606	-	44,52,74	1.05	3 (6%)	46,87,114	1.34	7 (15%)
29	CLA	g	602	-	65,73,73	1.35	8 (12%)	76,113,113	2.04	22 (28%)
29	CLA	S	610	-	65,73,73	1.37	9 (13%)	76,113,113	1.92	21 (27%)
29	CLA	S1	611	40	65,73,73	1.41	9 (13%)	76,113,113	1.94	14 (18%)
40	LHG	l	101	-	48,48,48	0.38	0	51,54,54	4.45	4 (7%)
38	3PH	T1	101	-	47,47,47	0.85	4 (8%)	51,52,52	1.09	2 (3%)
31	BCR	d	404	-	41,41,41	1.84	4 (9%)	56,56,56	4.25	16 (28%)
40	LHG	y	624	29	48,48,48	0.40	0	51,54,54	1.06	3 (5%)
29	CLA	s	617	-	50,58,73	1.54	7 (14%)	58,95,113	2.35	18 (31%)
52	LMT	R1	625	-	36,36,36	1.27	8 (22%)	47,47,47	1.15	4 (8%)
31	BCR	b1	619	-	41,41,41	1.91	4 (9%)	56,56,56	4.36	15 (26%)
29	CLA	b	617	-	65,73,73	1.35	8 (12%)	76,113,113	2.02	16 (21%)
29	CLA	G1	602	-	65,73,73	1.40	8 (12%)	76,113,113	2.08	21 (27%)
32	SQD	B	626	-	53,54,54	0.79	0	62,65,65	0.91	2 (3%)
29	CLA	s	604	-	55,63,73	1.48	7 (12%)	64,101,113	2.10	16 (25%)
29	CLA	Y	614	-	65,73,73	1.38	10 (15%)	76,113,113	2.01	18 (23%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
33	LMG	W1	201	-	39,39,55	0.87	2 (5%)	47,47,63	1.37	6 (12%)
41	LMK	C1	527	-	38,39,53	1.50	2 (5%)	41,46,60	1.47	2 (4%)
29	CLA	r1	609	-	60,68,73	1.41	8 (13%)	70,107,113	2.05	18 (25%)
29	CLA	c1	503	-	65,73,73	1.37	9 (13%)	76,113,113	2.06	19 (25%)
29	CLA	S1	614	-	55,63,73	1.49	7 (12%)	64,101,113	2.12	17 (26%)
29	CLA	d1	403	-	65,73,73	1.34	7 (10%)	76,113,113	2.04	19 (25%)
47	4RF	K1	101	-	56,56,56	1.07	3 (5%)	59,59,59	0.84	3 (5%)
31	BCR	D1	404	-	41,41,41	1.85	4 (9%)	56,56,56	4.33	16 (28%)
36	C7Z	b	620	-	43,43,43	5.32	27 (62%)	58,60,60	2.48	19 (32%)
50	XAT	r1	621	-	39,47,47	0.73	1 (2%)	54,74,74	2.16	18 (33%)
34	SPH	y1	625	-	19,20,20	0.62	0	18,21,21	1.27	2 (11%)
29	CLA	n1	614	-	49,57,73	1.56	8 (16%)	55,93,113	2.40	15 (27%)
29	CLA	r1	603	-	60,68,73	1.41	8 (13%)	70,107,113	2.11	17 (24%)
29	CLA	C1	512	-	65,73,73	1.35	7 (10%)	76,113,113	2.09	21 (27%)
29	CLA	y	602	24	65,73,73	1.40	8 (12%)	76,113,113	1.90	14 (18%)
41	LMK	C	527	-	38,39,53	1.47	2 (5%)	41,46,60	1.56	4 (9%)
29	CLA	Y	613	24	65,73,73	1.38	8 (12%)	76,113,113	2.14	21 (27%)
29	CLA	r	608	-	60,68,73	1.40	9 (15%)	70,107,113	2.00	18 (25%)
48	CHL	n1	609	-	66,74,74	0.78	2 (3%)	73,114,114	1.32	12 (16%)
45	RRX	h1	101	-	42,42,42	4.84	24 (57%)	57,58,58	2.65	25 (43%)
29	CLA	c1	512	-	65,73,73	1.38	7 (10%)	76,113,113	2.03	19 (25%)
29	CLA	g	611	-	65,73,73	1.34	7 (10%)	76,113,113	2.10	17 (22%)
37	DGD	c	518	-	56,56,67	0.98	4 (7%)	70,70,81	1.14	4 (5%)
39	DGA	c	524	-	43,43,43	1.10	3 (6%)	45,45,45	1.55	3 (6%)
29	CLA	b	602	-	65,73,73	1.38	8 (12%)	76,113,113	1.98	18 (23%)
31	BCR	C	514	-	41,41,41	1.87	5 (12%)	56,56,56	4.28	14 (25%)
55	PTY	y	627	-	18,18,49	1.29	3 (16%)	21,23,54	1.50	2 (9%)
33	LMG	C1	523	-	55,55,55	1.12	6 (10%)	63,63,63	1.15	6 (9%)
40	LHG	D1	408	-	43,43,48	0.41	0	46,49,54	1.03	2 (4%)
29	CLA	b	605	-	65,73,73	1.40	7 (10%)	76,113,113	2.17	21 (27%)
29	CLA	c	507	-	65,73,73	1.39	9 (13%)	76,113,113	2.02	16 (21%)
29	CLA	n	610	-	65,73,73	1.38	9 (13%)	76,113,113	2.12	20 (26%)
29	CLA	b1	616	-	65,73,73	1.38	7 (10%)	76,113,113	1.94	14 (18%)
48	CHL	G1	606	-	50,58,74	0.99	2 (4%)	52,94,114	1.39	11 (21%)
29	CLA	Y1	611	-	65,73,73	1.36	8 (12%)	76,113,113	1.95	17 (22%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
29	CLA	B1	606	-	65,73,73	1.38	9 (13%)	76,113,113	2.03	18 (23%)
48	CHL	n	609	-	66,74,74	0.77	2 (3%)	73,114,114	1.40	12 (16%)
29	CLA	S1	613	-	55,63,73	1.45	7 (12%)	64,101,113	2.15	15 (23%)
38	3PH	s1	626	-	47,47,47	0.86	3 (6%)	51,52,52	4.37	4 (7%)
40	LHG	d	410	-	38,38,48	0.43	0	41,44,54	1.11	3 (7%)
48	CHL	s	601	-	46,54,74	1.15	4 (8%)	49,90,114	1.43	8 (16%)
48	CHL	g1	605	-	48,56,74	0.95	2 (4%)	51,92,114	1.50	10 (19%)
51	NEX	R	622	-	38,46,46	3.42	11 (28%)	50,70,70	1.98	12 (24%)
29	CLA	g	614	-	49,57,73	1.57	9 (18%)	55,93,113	2.23	15 (27%)
29	CLA	b1	604	-	65,73,73	1.38	9 (13%)	76,113,113	2.03	17 (22%)
29	CLA	B	613	-	65,73,73	1.37	8 (12%)	76,113,113	2.04	16 (21%)
55	PTY	y1	627	-	18,18,49	1.27	2 (11%)	21,23,54	1.45	2 (9%)
29	CLA	c	506	-	65,73,73	1.38	9 (13%)	76,113,113	2.07	19 (25%)
48	CHL	s	607	-	43,51,74	1.09	3 (6%)	45,86,114	1.49	8 (17%)
33	LMG	w	201	-	39,39,55	0.89	2 (5%)	47,47,63	1.29	4 (8%)
40	LHG	d	408	-	43,43,48	0.40	0	46,49,54	1.04	3 (6%)
29	CLA	Y1	610	-	65,73,73	1.35	7 (10%)	76,113,113	2.05	19 (25%)
48	CHL	n1	607	-	66,74,74	0.77	2 (3%)	73,114,114	1.29	10 (13%)
29	CLA	Y1	614	-	65,73,73	1.37	7 (10%)	76,113,113	2.02	17 (22%)
31	BCR	b1	618	-	41,41,41	2.03	4 (9%)	56,56,56	4.25	19 (33%)
29	CLA	y1	613	-	65,73,73	1.33	7 (10%)	76,113,113	2.06	17 (22%)
29	CLA	B1	604	-	65,73,73	1.37	7 (10%)	76,113,113	1.86	16 (21%)
29	CLA	a1	410	-	60,68,73	1.43	9 (15%)	70,107,113	2.17	19 (27%)
48	CHL	r	607	-	50,58,74	1.02	3 (6%)	52,94,114	1.45	9 (17%)
29	CLA	B1	612	-	65,73,73	1.35	6 (9%)	76,113,113	2.12	21 (27%)
29	CLA	Y1	608	-	50,58,73	1.57	8 (16%)	58,95,113	2.24	16 (27%)
51	NEX	g1	623	-	38,46,46	3.26	10 (26%)	50,70,70	1.91	15 (30%)
31	BCR	C	517	-	41,41,41	1.87	5 (12%)	56,56,56	4.32	18 (32%)
48	CHL	y1	609	-	66,74,74	0.82	2 (3%)	73,114,114	1.29	10 (13%)
29	CLA	b	604	-	65,73,73	1.39	8 (12%)	76,113,113	1.87	15 (19%)
31	BCR	C	515	-	41,41,41	1.83	6 (14%)	56,56,56	4.20	16 (28%)
51	NEX	y	623	-	38,46,46	3.41	9 (23%)	50,70,70	1.96	15 (30%)
29	CLA	c	504	-	65,73,73	1.33	8 (12%)	76,113,113	2.05	16 (21%)
48	CHL	G	607	-	66,74,74	0.88	2 (3%)	73,114,114	1.21	10 (13%)
50	XAT	n	622	-	39,47,47	0.78	1 (2%)	54,74,74	2.09	13 (24%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
31	BCR	B1	618	-	41,41,41	1.88	4 (9%)	56,56,56	4.43	19 (33%)
29	CLA	S	611	40	65,73,73	1.38	7 (10%)	76,113,113	1.94	16 (21%)
48	CHL	y1	607	-	66,74,74	0.77	2 (3%)	73,114,114	1.29	10 (13%)
29	CLA	b1	607	-	65,73,73	1.38	8 (12%)	76,113,113	1.97	17 (22%)
48	CHL	N	601	20	66,74,74	0.87	3 (4%)	73,114,114	1.34	9 (12%)
37	DGD	c1	520	-	60,60,67	1.09	6 (10%)	74,74,81	1.00	3 (4%)
29	CLA	b1	606	-	65,73,73	1.35	7 (10%)	76,113,113	2.05	18 (23%)
49	LUT	r	620	-	42,43,43	2.34	1 (2%)	51,60,60	2.12	14 (27%)
39	DGA	c1	524	-	43,43,43	1.14	3 (6%)	45,45,45	1.51	3 (6%)
32	SQD	C	526	-	53,54,54	0.81	1 (1%)	62,65,65	0.94	3 (4%)
29	CLA	d1	402	-	65,73,73	1.39	9 (13%)	76,113,113	1.95	17 (22%)
29	CLA	C	509	-	65,73,73	1.36	8 (12%)	76,113,113	2.07	19 (25%)
29	CLA	b1	613	-	65,73,73	1.36	8 (12%)	76,113,113	2.06	16 (21%)
40	LHG	d1	410	-	38,38,48	0.44	0	41,44,54	1.04	2 (4%)
48	CHL	S	607	-	43,51,74	1.07	3 (6%)	45,86,114	1.46	7 (15%)
48	CHL	g	607	-	66,74,74	0.85	2 (3%)	73,114,114	1.27	11 (15%)
48	CHL	N1	608	-	50,58,74	0.96	2 (4%)	52,94,114	1.51	8 (15%)
29	CLA	c	502	-	65,73,73	1.37	7 (10%)	76,113,113	2.06	16 (21%)
29	CLA	C1	508	-	65,73,73	1.37	9 (13%)	76,113,113	1.92	14 (18%)
33	LMG	a	413	-	48,48,55	0.99	5 (10%)	56,56,63	1.19	4 (7%)
49	LUT	G1	621	-	42,43,43	2.23	1 (2%)	51,60,60	2.08	10 (19%)
29	CLA	A1	405	-	65,73,73	1.34	8 (12%)	76,113,113	2.00	17 (22%)
51	NEX	g	623	-	38,46,46	3.48	11 (28%)	50,70,70	1.86	15 (30%)
26	OEX	A	401	1,4	0,15,15	-	-	-		
31	BCR	A1	411	-	41,41,41	1.88	4 (9%)	56,56,56	4.17	15 (26%)
47	4RF	k	101	-	56,56,56	1.06	5 (8%)	59,59,59	0.83	3 (5%)
55	PTY	y	626	-	49,49,49	0.88	3 (6%)	52,54,54	1.12	3 (5%)
33	LMG	B	622	-	44,44,55	0.86	3 (6%)	52,52,63	1.24	2 (3%)
48	CHL	S	608	-	61,69,74	0.89	3 (4%)	67,108,114	1.27	11 (16%)
48	CHL	s1	607	-	43,51,74	1.02	3 (6%)	45,86,114	1.45	8 (17%)
33	LMG	c1	523	-	55,55,55	1.13	6 (10%)	63,63,63	1.13	3 (4%)
34	SPH	a1	414	-	19,20,20	0.73	1 (5%)	18,21,21	0.98	1 (5%)
51	NEX	Y1	623	-	38,46,46	3.15	10 (26%)	50,70,70	1.99	13 (26%)
48	CHL	G	605	21	48,56,74	0.96	3 (6%)	51,92,114	1.32	8 (15%)
29	CLA	C1	506	-	65,73,73	1.36	7 (10%)	76,113,113	2.01	17 (22%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
29	CLA	B1	613	-	65,73,73	1.37	8 (12%)	76,113,113	1.97	14 (18%)
48	CHL	G1	608	-	44,52,74	1.10	3 (6%)	46,87,114	1.43	7 (15%)
33	LMG	h1	102	-	48,48,55	1.00	4 (8%)	56,56,63	1.23	4 (7%)
29	CLA	Y	604	-	65,73,73	1.33	6 (9%)	76,113,113	2.02	18 (23%)
29	CLA	b	613	-	65,73,73	1.37	8 (12%)	76,113,113	1.95	11 (14%)
29	CLA	D	402	-	65,73,73	1.38	8 (12%)	76,113,113	1.90	13 (17%)
29	CLA	g	604	-	49,57,73	1.57	9 (18%)	55,93,113	2.21	17 (30%)
30	PHO	a1	408	-	51,69,69	1.04	4 (7%)	47,99,99	1.17	6 (12%)
29	CLA	B	612	-	65,73,73	1.38	7 (10%)	76,113,113	1.98	16 (21%)
31	BCR	c1	514	-	41,41,41	1.85	4 (9%)	56,56,56	4.49	17 (30%)
33	LMG	a1	413	-	48,48,55	0.99	5 (10%)	56,56,63	1.31	4 (7%)
29	CLA	C1	511	-	65,73,73	1.37	8 (12%)	76,113,113	2.13	19 (25%)
31	BCR	A	411	-	41,41,41	1.86	4 (9%)	56,56,56	4.22	14 (25%)
29	CLA	A	407	-	50,58,73	1.54	9 (18%)	58,95,113	2.32	18 (31%)
33	LMG	C	523	-	55,55,55	1.13	6 (10%)	63,63,63	1.13	2 (3%)
40	LHG	S1	624	29	44,44,48	0.44	0	47,50,54	1.12	4 (8%)
45	RRX	H1	101	-	42,42,42	4.95	24 (57%)	57,58,58	2.34	19 (33%)
48	CHL	n1	605	-	66,74,74	0.90	3 (4%)	73,114,114	1.29	11 (15%)
48	CHL	s1	608	-	61,69,74	1.04	5 (8%)	67,108,114	1.38	11 (16%)
30	PHO	a	408	-	51,69,69	1.08	6 (11%)	47,99,99	1.23	5 (10%)
51	NEX	N	623	-	38,46,46	3.40	9 (23%)	50,70,70	1.64	11 (22%)
32	SQD	A1	412	-	50,51,54	0.81	0	59,62,65	0.98	4 (6%)
48	CHL	n1	601	-	66,74,74	0.82	2 (3%)	73,114,114	1.29	9 (12%)
29	CLA	r	603	-	60,68,73	1.45	8 (13%)	70,107,113	1.95	16 (22%)
29	CLA	C1	504	-	65,73,73	1.37	7 (10%)	76,113,113	2.02	17 (22%)
26	OEX	a1	401	1	0,15,15	-	-	-		
39	DGA	j	101	-	28,28,43	1.28	3 (10%)	30,30,45	1.28	2 (6%)
29	CLA	Y	612	-	65,73,73	1.36	8 (12%)	76,113,113	1.99	17 (22%)
33	LMG	D	411	-	46,46,55	0.91	4 (8%)	54,54,63	0.99	2 (3%)
29	CLA	A1	406	-	65,73,73	1.38	9 (13%)	76,113,113	2.04	20 (26%)
38	3PH	B	624	-	47,47,47	0.86	4 (8%)	51,52,52	1.12	2 (3%)
32	SQD	c	526	-	53,54,54	0.79	0	62,65,65	0.92	2 (3%)
48	CHL	Y1	607	-	66,74,74	0.86	3 (4%)	73,114,114	1.19	9 (12%)
29	CLA	b1	609	-	65,73,73	1.36	8 (12%)	76,113,113	2.05	15 (19%)
33	LMG	b1	622	-	44,44,55	0.86	2 (4%)	52,52,63	1.17	3 (5%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
29	CLA	Y	608	-	50,58,73	1.54	9 (18%)	58,95,113	2.29	17 (29%)
29	CLA	S1	602	23	60,68,73	1.39	9 (15%)	70,107,113	2.13	17 (24%)
29	CLA	B	603	-	65,73,73	1.36	9 (13%)	76,113,113	1.96	17 (22%)
37	DGD	C1	518	-	56,56,67	0.98	4 (7%)	70,70,81	1.07	6 (8%)
40	LHG	y1	624	29	48,48,48	0.41	0	51,54,54	0.98	2 (3%)
41	LMK	c1	527	-	38,39,53	1.51	3 (7%)	41,46,60	1.24	2 (4%)
29	CLA	c1	501	-	65,73,73	1.38	8 (12%)	76,113,113	2.05	18 (23%)
50	XAT	Y	622	-	39,47,47	0.70	1 (2%)	54,74,74	3.77	16 (29%)
50	XAT	y1	622	-	39,47,47	0.74	1 (2%)	54,74,74	3.88	20 (37%)
51	NEX	n1	623	-	38,46,46	3.26	9 (23%)	50,70,70	1.71	11 (22%)
29	CLA	N1	614	-	49,57,73	1.54	7 (14%)	55,93,113	2.33	17 (30%)
29	CLA	g1	614	-	49,57,73	1.61	10 (20%)	55,93,113	2.31	17 (30%)
48	CHL	S1	607	-	43,51,74	1.01	2 (4%)	45,86,114	1.53	9 (20%)
37	DGD	c	520	-	60,60,67	1.05	4 (6%)	74,74,81	1.03	3 (4%)
29	CLA	Y	610	-	65,73,73	1.36	9 (13%)	76,113,113	2.14	18 (23%)
29	CLA	N1	603	-	65,73,73	1.37	7 (10%)	76,113,113	2.10	22 (28%)
40	LHG	s	624	29	44,44,48	0.43	0	47,50,54	1.13	3 (6%)
40	LHG	G	624	29	48,48,48	0.37	0	51,54,54	1.06	3 (5%)
48	CHL	Y1	606	-	66,74,74	0.90	4 (6%)	73,114,114	1.25	10 (13%)
48	CHL	r1	607	-	50,58,74	0.99	3 (6%)	52,94,114	1.64	12 (23%)
48	CHL	r1	606	-	44,52,74	1.10	3 (6%)	46,87,114	1.12	4 (8%)
37	DGD	C1	519	-	63,63,67	1.10	7 (11%)	77,77,81	1.05	3 (3%)
50	XAT	n1	622	-	39,47,47	0.71	1 (2%)	54,74,74	2.04	14 (25%)
29	CLA	S1	603	-	65,73,73	1.38	8 (12%)	76,113,113	2.01	16 (21%)
49	LUT	n1	621	-	42,43,43	2.34	1 (2%)	51,60,60	2.13	18 (35%)
29	CLA	n	602	-	65,73,73	1.43	8 (12%)	76,113,113	1.92	19 (25%)
29	CLA	S	609	-	60,68,73	1.43	8 (13%)	70,107,113	1.98	16 (22%)
29	CLA	G	602	-	65,73,73	1.34	7 (10%)	76,113,113	2.10	21 (27%)
50	XAT	y	622	-	39,47,47	0.73	1 (2%)	54,74,74	3.68	19 (35%)
48	CHL	g	608	-	44,52,74	1.07	3 (6%)	46,87,114	1.47	12 (26%)
29	CLA	G1	604	-	49,57,73	1.57	7 (14%)	55,93,113	2.34	18 (32%)
29	CLA	y1	610	24	65,73,73	1.39	9 (13%)	76,113,113	2.02	21 (27%)
43	PL9	D1	405	-	55,55,55	1.18	5 (9%)	68,69,69	1.72	15 (22%)
29	CLA	G1	612	-	43,51,73	1.71	9 (20%)	49,86,113	2.15	12 (24%)
31	BCR	C1	516	-	41,41,41	1.89	4 (9%)	56,56,56	4.66	17 (30%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
49	LUT	R	620	-	42,43,43	2.33	1 (2%)	51,60,60	2.03	17 (33%)
53	ERG	r	626	-	31,32,32	7.80	18 (58%)	47,50,50	3.01	16 (34%)
47	4RF	i	101	-	56,56,56	1.07	3 (5%)	59,59,59	0.93	3 (5%)
29	CLA	y	603	-	65,73,73	1.39	10 (15%)	76,113,113	2.10	16 (21%)
38	3PH	S	626	-	47,47,47	0.87	2 (4%)	51,52,52	4.41	4 (7%)
51	NEX	S	623	-	38,46,46	3.42	10 (26%)	50,70,70	1.71	12 (24%)
29	CLA	y1	608	-	50,58,73	1.55	10 (20%)	58,95,113	2.21	17 (29%)
49	LUT	g1	621	-	42,43,43	2.36	1 (2%)	51,60,60	2.33	14 (27%)
29	CLA	D	403	-	65,73,73	1.35	9 (13%)	76,113,113	2.08	19 (25%)
31	BCR	C1	515	-	41,41,41	1.93	4 (9%)	56,56,56	3.77	16 (28%)
29	CLA	n1	612	-	45,53,73	1.67	9 (20%)	52,89,113	2.05	13 (25%)
49	LUT	N	620	-	42,43,43	2.34	1 (2%)	51,60,60	1.92	15 (29%)
48	CHL	N	606	-	66,74,74	0.96	3 (4%)	73,114,114	1.21	13 (17%)
48	CHL	N1	607	-	66,74,74	0.81	2 (3%)	73,114,114	1.28	11 (15%)
29	CLA	G1	603	-	65,73,73	1.34	7 (10%)	76,113,113	2.05	17 (22%)
31	BCR	c1	517	-	41,41,41	1.91	5 (12%)	56,56,56	4.37	19 (33%)
36	C7Z	B1	620	-	43,43,43	5.38	26 (60%)	58,60,60	2.39	22 (37%)
33	LMG	w1	201	-	39,39,55	0.85	2 (5%)	47,47,63	1.17	3 (6%)
54	LPX	s	625	-	29,29,29	1.02	2 (6%)	31,33,33	0.94	1 (3%)
31	BCR	c1	515	-	41,41,41	1.91	4 (9%)	56,56,56	4.38	13 (23%)
40	LHG	g	624	-	48,48,48	0.39	0	51,54,54	0.97	2 (3%)
29	CLA	s	605	-	50,58,73	1.57	8 (16%)	58,95,113	2.30	16 (27%)
50	XAT	g	622	-	39,47,47	0.80	1 (2%)	54,74,74	2.22	16 (29%)
49	LUT	g	621	-	42,43,43	2.37	2 (4%)	51,60,60	1.91	12 (23%)
29	CLA	r1	608	-	60,68,73	1.45	7 (11%)	70,107,113	2.03	16 (22%)
38	3PH	s	626	-	47,47,47	0.87	3 (6%)	51,52,52	4.40	4 (7%)
50	XAT	R1	621	-	39,47,47	0.68	1 (2%)	54,74,74	1.91	18 (33%)
55	PTY	y1	626	-	49,49,49	0.87	4 (8%)	52,54,54	1.08	2 (3%)
31	BCR	B	619	-	41,41,41	1.85	4 (9%)	56,56,56	3.81	21 (37%)
55	PTY	Y	626	-	49,49,49	0.88	3 (6%)	52,54,54	1.02	2 (3%)
29	CLA	A1	410	-	60,68,73	1.40	7 (11%)	70,107,113	2.13	20 (28%)
40	LHG	G1	624	-	48,48,48	0.40	0	51,54,54	1.03	3 (5%)
33	LMG	h	102	-	48,48,55	1.01	5 (10%)	56,56,63	1.22	4 (7%)
32	SQD	M	101	-	41,42,54	0.90	0	50,53,65	0.98	3 (6%)
50	XAT	Y1	622	-	39,47,47	0.69	1 (2%)	54,74,74	3.83	20 (37%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
29	CLA	B	610	-	65,73,73	1.35	8 (12%)	76,113,113	1.98	17 (22%)
30	PHO	a	409	-	51,69,69	0.97	3 (5%)	47,99,99	1.38	8 (17%)
49	LUT	Y1	621	-	42,43,43	2.32	1 (2%)	51,60,60	2.33	13 (25%)
29	CLA	c1	509	-	65,73,73	1.37	8 (12%)	76,113,113	1.82	16 (21%)
48	CHL	S	601	23	46,54,74	1.21	5 (10%)	49,90,114	1.37	9 (18%)
52	LMT	r1	625	-	36,36,36	1.18	4 (11%)	47,47,47	1.08	4 (8%)
48	CHL	N	605	20	66,74,74	0.92	4 (6%)	73,114,114	1.24	11 (15%)
29	CLA	B1	605	-	65,73,73	1.34	8 (12%)	76,113,113	2.06	18 (23%)
29	CLA	C1	502	-	65,73,73	1.37	7 (10%)	76,113,113	1.98	17 (22%)
29	CLA	C1	505	-	65,73,73	1.34	7 (10%)	76,113,113	2.01	17 (22%)
29	CLA	R1	610	-	60,68,73	1.43	9 (15%)	70,107,113	2.28	18 (25%)
29	CLA	n1	611	-	49,57,73	1.57	7 (14%)	55,93,113	2.29	15 (27%)
29	CLA	b	611	-	65,73,73	1.36	7 (10%)	76,113,113	2.01	18 (23%)
53	ERG	R1	626	-	31,32,32	7.67	19 (61%)	47,50,50	2.83	19 (40%)
49	LUT	G1	620	-	42,43,43	2.26	1 (2%)	51,60,60	1.86	13 (25%)
48	CHL	G1	601	21	66,74,74	0.89	3 (4%)	73,114,114	1.33	13 (17%)
37	DGD	C	519	-	63,63,67	1.13	7 (11%)	77,77,81	1.01	2 (2%)
43	PL9	D	405	-	55,55,55	1.56	5 (9%)	68,69,69	1.47	12 (17%)
48	CHL	G1	607	-	66,74,74	0.87	2 (3%)	73,114,114	1.16	8 (10%)
29	CLA	B1	610	-	65,73,73	1.36	8 (12%)	76,113,113	1.91	14 (18%)
31	BCR	d1	404	-	41,41,41	1.88	4 (9%)	56,56,56	4.27	22 (39%)
29	CLA	g	613	-	65,73,73	1.33	7 (10%)	76,113,113	2.04	18 (23%)
39	DGA	C1	524	-	43,43,43	1.17	3 (6%)	45,45,45	1.54	4 (8%)
29	CLA	S	602	-	60,68,73	1.45	8 (13%)	70,107,113	2.17	18 (25%)
52	LMT	R	625	-	36,36,36	1.22	6 (16%)	47,47,47	1.14	3 (6%)
49	LUT	g	620	-	42,43,43	2.32	1 (2%)	51,60,60	2.16	16 (31%)
47	4RF	K	101	-	56,56,56	1.08	3 (5%)	59,59,59	0.91	3 (5%)
29	CLA	A	406	-	65,73,73	1.32	7 (10%)	76,113,113	2.12	17 (22%)
29	CLA	b	607	-	65,73,73	1.36	8 (12%)	76,113,113	2.02	20 (26%)
29	CLA	G	610	21	65,73,73	1.35	8 (12%)	76,113,113	2.04	18 (23%)
29	CLA	b	610	-	65,73,73	1.32	7 (10%)	76,113,113	2.03	17 (22%)
29	CLA	b	606	-	65,73,73	1.33	8 (12%)	76,113,113	2.11	17 (22%)
29	CLA	s1	617	-	50,58,73	1.51	8 (16%)	58,95,113	2.27	19 (32%)
34	SPH	y	625	-	19,20,20	0.61	0	18,21,21	1.21	2 (11%)
33	LMG	d1	411	-	46,46,55	0.93	3 (6%)	54,54,63	1.11	3 (5%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
37	DGD	B1	623	-	44,44,67	0.86	1 (2%)	58,58,81	1.21	6 (10%)
29	CLA	c	511	4	65,73,73	1.36	8 (12%)	76,113,113	2.01	19 (25%)
31	BCR	D	404	-	41,41,41	1.86	4 (9%)	56,56,56	4.18	16 (28%)
29	CLA	s	609	-	60,68,73	1.42	9 (15%)	70,107,113	2.03	15 (21%)
29	CLA	C1	509	-	65,73,73	1.34	8 (12%)	76,113,113	2.07	17 (22%)
29	CLA	b	608	-	65,73,73	1.32	7 (10%)	76,113,113	2.02	17 (22%)
29	CLA	b	603	-	65,73,73	1.38	8 (12%)	76,113,113	2.04	18 (23%)
39	DGA	B1	625	-	43,43,43	1.14	3 (6%)	45,45,45	1.46	3 (6%)
31	BCR	c	516	-	41,41,41	1.87	4 (9%)	56,56,56	4.24	12 (21%)
37	DGD	C	518	-	56,56,67	0.98	4 (7%)	70,70,81	0.95	2 (2%)
29	CLA	r	604	-	49,57,73	1.56	8 (16%)	55,93,113	2.37	13 (23%)
32	SQD	m1	101	-	41,42,54	0.88	0	50,53,65	0.99	3 (6%)
29	CLA	R	609	-	60,68,73	1.45	8 (13%)	70,107,113	4.48	18 (25%)
32	SQD	b1	626	-	53,54,54	0.80	0	62,65,65	0.93	2 (3%)
29	CLA	G	604	-	49,57,73	1.58	8 (16%)	55,93,113	2.28	18 (32%)
29	CLA	a	410	-	60,68,73	1.39	9 (15%)	70,107,113	2.17	18 (25%)
49	LUT	Y1	620	-	42,43,43	2.39	1 (2%)	51,60,60	1.87	14 (27%)
29	CLA	n	614	-	49,57,73	1.56	9 (18%)	55,93,113	2.36	20 (36%)
54	LPX	S	625	-	29,29,29	1.02	2 (6%)	31,33,33	0.94	1 (3%)
29	CLA	G1	611	-	65,73,73	1.35	7 (10%)	76,113,113	2.01	15 (19%)
49	LUT	r1	620	-	42,43,43	2.36	2 (4%)	51,60,60	2.32	15 (29%)
29	CLA	y1	611	40	65,73,73	1.34	8 (12%)	76,113,113	2.05	17 (22%)
48	CHL	n	606	-	66,74,74	0.92	4 (6%)	73,114,114	1.25	12 (16%)
48	CHL	Y1	605	-	46,54,74	0.97	2 (4%)	49,90,114	1.40	7 (14%)
29	CLA	C	506	-	65,73,73	1.43	8 (12%)	76,113,113	2.05	18 (23%)
29	CLA	S	614	-	55,63,73	1.48	7 (12%)	64,101,113	2.14	16 (25%)
29	CLA	N	602	-	65,73,73	1.34	8 (12%)	76,113,113	2.01	21 (27%)
29	CLA	b	612	-	65,73,73	1.37	8 (12%)	76,113,113	2.10	17 (22%)
29	CLA	S	605	23	50,58,73	1.59	9 (18%)	58,95,113	2.42	16 (27%)
29	CLA	c	503	-	65,73,73	1.35	8 (12%)	76,113,113	1.98	21 (27%)
48	CHL	Y	601	24	66,74,74	0.91	3 (4%)	73,114,114	1.21	9 (12%)
29	CLA	S1	617	23	50,58,73	1.54	8 (16%)	58,95,113	2.32	19 (32%)
29	CLA	C	502	-	65,73,73	1.37	8 (12%)	76,113,113	2.00	15 (19%)
29	CLA	c1	507	-	65,73,73	1.35	7 (10%)	76,113,113	2.06	20 (26%)
29	CLA	y1	614	-	65,73,73	1.40	9 (13%)	76,113,113	1.90	19 (25%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
48	CHL	S1	608	-	61,69,74	0.84	2 (3%)	67,108,114	1.33	13 (19%)
50	XAT	G	622	-	39,47,47	0.71	1 (2%)	54,74,74	2.11	15 (27%)
29	CLA	N1	611	-	49,57,73	1.59	8 (16%)	55,93,113	2.29	16 (29%)
29	CLA	a1	405	-	65,73,73	1.30	6 (9%)	76,113,113	2.12	19 (25%)
44	HEM	f	101	6,7	41,50,50	1.45	4 (9%)	45,82,82	1.35	6 (13%)
29	CLA	N	610	-	65,73,73	1.36	7 (10%)	76,113,113	2.07	18 (23%)
29	CLA	B	606	-	65,73,73	1.33	8 (12%)	76,113,113	2.14	17 (22%)
33	LMG	A1	413	-	48,48,55	1.00	5 (10%)	56,56,63	1.20	5 (8%)
39	DGA	C	524	-	43,43,43	1.13	3 (6%)	45,45,45	1.50	3 (6%)
51	NEX	s	623	-	38,46,46	3.52	11 (28%)	50,70,70	2.12	14 (28%)
29	CLA	C	504	-	65,73,73	1.34	8 (12%)	76,113,113	1.96	13 (17%)
29	CLA	R1	609	-	60,68,73	1.40	9 (15%)	70,107,113	4.53	19 (27%)
48	CHL	Y	609	-	66,74,74	0.91	4 (6%)	73,114,114	1.43	14 (19%)
54	LPX	S1	625	-	29,29,29	1.02	2 (6%)	31,33,33	0.93	1 (3%)
39	DGA	B	625	-	43,43,43	1.09	2 (4%)	45,45,45	1.52	3 (6%)
29	CLA	B	602	-	65,73,73	1.34	7 (10%)	76,113,113	1.96	15 (19%)
29	CLA	B1	617	-	65,73,73	1.37	8 (12%)	76,113,113	1.98	16 (21%)
48	CHL	g	609	-	66,74,74	0.91	3 (4%)	73,114,114	1.25	8 (10%)
48	CHL	n1	606	-	66,74,74	0.86	4 (6%)	73,114,114	1.23	11 (15%)
33	LMG	W	201	-	39,39,55	0.85	2 (5%)	47,47,63	1.21	4 (8%)
29	CLA	y	614	-	65,73,73	1.35	7 (10%)	76,113,113	2.00	18 (23%)
29	CLA	D1	402	-	65,73,73	1.37	7 (10%)	76,113,113	2.04	18 (23%)
34	SPH	a	414	-	19,20,20	0.70	1 (5%)	18,21,21	1.10	1 (5%)
40	LHG	d1	408	-	43,43,48	0.40	0	46,49,54	1.05	2 (4%)
48	CHL	G	609	21	66,74,74	0.90	3 (4%)	73,114,114	1.18	12 (16%)
48	CHL	G	608	-	44,52,74	1.08	3 (6%)	46,87,114	1.41	7 (15%)
49	LUT	g1	620	-	42,43,43	2.33	1 (2%)	51,60,60	1.93	11 (21%)
29	CLA	N1	613	-	65,73,73	1.35	8 (12%)	76,113,113	2.02	17 (22%)
29	CLA	C	510	-	65,73,73	1.37	7 (10%)	76,113,113	1.97	18 (23%)
31	BCR	B	618	-	41,41,41	1.88	5 (12%)	56,56,56	4.32	18 (32%)
40	LHG	Y1	624	-	48,48,48	0.40	0	51,54,54	1.11	4 (7%)
47	4RF	i1	101	-	56,56,56	1.06	3 (5%)	59,59,59	0.92	3 (5%)
38	3PH	t	101	-	47,47,47	0.85	4 (8%)	51,52,52	1.19	2 (3%)
48	CHL	G	606	-	50,58,74	1.08	3 (6%)	52,94,114	1.45	11 (21%)
29	CLA	R	608	-	60,68,73	1.46	10 (16%)	70,107,113	2.07	16 (22%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
29	CLA	s	611	40	65,73,73	1.37	8 (12%)	76,113,113	1.91	13 (17%)
37	DGD	B	623	-	44,44,67	0.89	1 (2%)	58,58,81	1.36	6 (10%)
29	CLA	N	612	-	45,53,73	1.66	9 (20%)	52,89,113	2.05	12 (23%)
48	CHL	S	606	-	44,52,74	1.10	3 (6%)	46,87,114	1.48	10 (21%)
29	CLA	B1	615	-	65,73,73	1.34	7 (10%)	76,113,113	1.99	19 (25%)
33	LMG	C	521	-	51,51,55	1.06	5 (9%)	59,59,63	1.19	3 (5%)
29	CLA	C	505	-	65,73,73	1.40	8 (12%)	76,113,113	2.00	16 (21%)
26	OEX	a	401	1,4	0,15,15	-	-	-		
29	CLA	S1	604	-	55,63,73	1.49	9 (16%)	64,101,113	2.20	18 (28%)
29	CLA	S1	612	-	45,53,73	1.59	6 (13%)	52,89,113	2.18	15 (28%)
48	CHL	N1	606	-	66,74,74	0.94	4 (6%)	73,114,114	1.11	8 (10%)
53	ERG	R	626	-	31,32,32	7.79	18 (58%)	47,50,50	3.10	19 (40%)
52	LMT	r	625	-	36,36,36	1.22	5 (13%)	47,47,47	1.16	3 (6%)
47	4RF	I	102	-	56,56,56	1.05	4 (7%)	59,59,59	0.97	3 (5%)
29	CLA	g	610	-	65,73,73	1.33	8 (12%)	76,113,113	2.12	20 (26%)
29	CLA	s	614	-	55,63,73	1.48	7 (12%)	64,101,113	2.12	15 (23%)
29	CLA	n	613	-	65,73,73	1.36	6 (9%)	76,113,113	2.12	18 (23%)
29	CLA	s1	614	-	55,63,73	1.49	10 (18%)	64,101,113	2.16	16 (25%)
29	CLA	N	603	-	65,73,73	1.33	8 (12%)	76,113,113	2.07	18 (23%)
29	CLA	b1	608	-	65,73,73	1.36	8 (12%)	76,113,113	2.04	19 (25%)
29	CLA	s1	605	-	50,58,73	1.60	11 (22%)	58,95,113	2.28	18 (31%)
29	CLA	g1	611	-	65,73,73	1.37	8 (12%)	76,113,113	1.88	16 (21%)
48	CHL	R1	607	-	50,58,74	0.94	2 (4%)	52,94,114	1.37	9 (17%)
48	CHL	y1	605	24	46,54,74	1.03	3 (6%)	49,90,114	1.31	8 (16%)
32	SQD	M1	101	-	41,42,54	0.90	0	50,53,65	0.97	2 (4%)
29	CLA	G1	613	-	65,73,73	1.32	7 (10%)	76,113,113	2.19	21 (27%)
37	DGD	b	623	-	44,44,67	0.89	2 (4%)	58,58,81	1.26	6 (10%)
48	CHL	s1	606	-	44,52,74	0.95	2 (4%)	46,87,114	1.40	8 (17%)
48	CHL	s	606	-	44,52,74	1.04	3 (6%)	46,87,114	1.46	7 (15%)
48	CHL	g1	606	-	50,58,74	1.06	4 (8%)	52,94,114	1.28	9 (17%)
37	DGD	c1	519	-	63,63,67	1.14	6 (9%)	77,77,81	1.04	3 (3%)
49	LUT	y	620	-	42,43,43	2.33	1 (2%)	51,60,60	1.92	15 (29%)
53	ERG	r1	626	-	31,32,32	7.77	19 (61%)	47,50,50	2.72	18 (38%)
29	CLA	R1	602	-	60,68,73	1.45	9 (15%)	70,107,113	2.05	17 (24%)
40	LHG	C1	525	-	46,46,48	0.39	0	49,52,54	1.04	3 (6%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
29	CLA	n	603	-	65,73,73	1.36	8 (12%)	76,113,113	2.03	20 (26%)
29	CLA	y	608	-	50,58,73	1.57	9 (18%)	58,95,113	2.25	17 (29%)
48	CHL	R	606	-	44,52,74	1.20	4 (9%)	46,87,114	1.30	7 (15%)
40	LHG	n1	624	-	48,48,48	0.41	0	51,54,54	1.07	3 (5%)
29	CLA	B	607	-	65,73,73	1.36	8 (12%)	76,113,113	2.00	17 (22%)
29	CLA	c1	511	-	65,73,73	1.36	7 (10%)	76,113,113	2.06	17 (22%)
48	CHL	y	606	-	66,74,74	0.91	4 (6%)	73,114,114	1.21	10 (13%)
29	CLA	b1	615	-	65,73,73	1.34	8 (12%)	76,113,113	2.05	16 (21%)
48	CHL	Y	605	24	46,54,74	1.07	3 (6%)	49,90,114	1.51	10 (20%)
51	NEX	n	623	-	38,46,46	3.48	11 (28%)	50,70,70	1.66	11 (22%)
49	LUT	G	621	-	42,43,43	2.36	1 (2%)	51,60,60	1.94	12 (23%)
55	PTY	Y1	626	-	49,49,49	0.89	4 (8%)	52,54,54	1.04	2 (3%)
29	CLA	c	512	-	65,73,73	1.39	9 (13%)	76,113,113	2.00	19 (25%)
29	CLA	n1	602	20	65,73,73	1.31	8 (12%)	76,113,113	2.04	20 (26%)

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
29	CLA	D1	403	-	1/1/15/20	17/37/115/115	-
29	CLA	N1	604	-	1/1/15/20	18/37/115/115	-
29	CLA	B	604	-	1/1/15/20	16/37/115/115	-
29	CLA	C1	507	-	1/1/15/20	14/37/115/115	-
29	CLA	y1	603	-	1/1/15/20	18/37/115/115	-
45	RRX	H	101	-	1/1/11/25	7/29/65/65	0/2/2/2
48	CHL	g1	607	-	4/4/20/26	7/39/137/137	-
29	CLA	R	604	-	1/1/11/20	10/18/96/115	-
49	LUT	n	621	-	-	2/29/67/67	0/2/2/2
29	CLA	y	612	-	1/1/15/20	17/37/115/115	-
29	CLA	C1	503	-	1/1/15/20	19/37/115/115	-
38	3PH	B1	624	-	-	27/49/49/49	-
49	LUT	S1	620	-	-	4/29/67/67	0/2/2/2
30	PHO	A	409	-	-	14/37/103/103	0/5/6/6
29	CLA	s1	610	-	1/1/15/20	18/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	CLA	b1	617	-	1/1/15/20	14/37/115/115	-
49	LUT	y1	621	-	-	4/29/67/67	0/2/2/2
29	CLA	d	403	-	1/1/15/20	16/37/115/115	-
29	CLA	n1	603	-	1/1/15/20	14/37/115/115	-
29	CLA	r	610	-	1/1/14/20	11/31/109/115	-
50	XAT	R	621	-	-	2/31/93/93	0/4/4/4
50	XAT	N1	622	-	1/1/12/26	1/31/93/93	0/4/4/4
38	3PH	T	101	-	-	26/49/49/49	-
49	LUT	s	621	-	-	3/29/67/67	0/2/2/2
30	PHO	A1	409	-	-	11/37/103/103	0/5/6/6
29	CLA	a1	407	-	1/1/11/20	7/18/96/115	-
48	CHL	N	608	-	3/3/16/26	3/20/118/137	-
38	3PH	t1	101	-	-	30/49/49/49	-
29	CLA	B1	614	-	1/1/15/20	14/37/115/115	-
48	CHL	N1	605	20	4/4/20/26	9/39/137/137	-
48	CHL	G1	605	21	4/4/16/26	4/18/116/137	-
29	CLA	n1	604	-	1/1/15/20	14/37/115/115	-
29	CLA	S	612	-	1/1/11/20	6/13/91/115	-
29	CLA	B1	608	-	1/1/15/20	26/37/115/115	-
29	CLA	C	513	-	1/1/15/20	20/37/115/115	-
32	SQD	b1	621	-	-	17/37/57/69	0/1/1/1
49	LUT	G	620	-	-	3/29/67/67	0/2/2/2
29	CLA	d	402	-	1/1/15/20	13/37/115/115	-
29	CLA	s1	609	-	1/1/14/20	17/31/109/115	-
29	CLA	g	612	-	1/1/10/20	6/11/89/115	-
29	CLA	b	614	-	1/1/15/20	13/37/115/115	-
51	NEX	y1	623	-	-	10/27/83/83	0/3/3/3
48	CHL	N	607	-	4/4/20/26	7/39/137/137	-
49	LUT	n	620	-	-	3/29/67/67	0/2/2/2
49	LUT	y	621	-	-	2/29/67/67	0/2/2/2
29	CLA	c1	504	-	1/1/15/20	19/37/115/115	-
29	CLA	Y	602	-	1/1/15/20	18/37/115/115	-
29	CLA	N1	610	-	1/1/15/20	21/37/115/115	-
31	BCR	C1	517	-	-	11/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	CLA	Y1	604	-	1/1/15/20	13/37/115/115	-
32	SQD	B	621	-	-	20/37/57/69	0/1/1/1
29	CLA	Y1	612	-	1/1/15/20	18/37/115/115	-
31	BCR	a1	411	-	-	6/29/63/63	0/2/2/2
32	SQD	B1	621	-	-	11/37/57/69	0/1/1/1
51	NEX	r	622	-	-	9/27/83/83	0/3/3/3
32	SQD	b	626	-	-	17/49/69/69	0/1/1/1
51	NEX	N1	623	-	-	6/27/83/83	0/3/3/3
29	CLA	B1	616	-	1/1/15/20	18/37/115/115	-
29	CLA	g1	602	-	1/1/15/20	19/37/115/115	-
29	CLA	a	406	-	1/1/15/20	17/37/115/115	-
48	CHL	g	601	21	4/4/20/26	16/39/137/137	-
29	CLA	g1	613	-	1/1/15/20	22/37/115/115	-
29	CLA	g	603	-	1/1/15/20	21/37/115/115	-
29	CLA	S1	610	-	1/1/15/20	22/37/115/115	-
29	CLA	b1	614	-	1/1/15/20	10/37/115/115	-
29	CLA	A	410	-	1/1/14/20	14/31/109/115	-
48	CHL	y	601	24	4/4/20/26	9/39/137/137	-
29	CLA	b	616	-	1/1/15/20	15/37/115/115	-
49	LUT	N1	620	-	-	8/29/67/67	0/2/2/2
44	HEM	F	101	6,7	-	1/12/54/54	-
29	CLA	n	611	-	1/1/11/20	8/18/96/115	-
29	CLA	y	613	-	1/1/15/20	24/37/115/115	-
43	PL9	d	405	-	-	9/53/73/73	0/1/1/1
49	LUT	y1	620	-	-	3/29/67/67	0/2/2/2
48	CHL	n	605	20	4/4/20/26	8/39/137/137	-
33	LMG	c	523	-	-	21/50/70/70	0/1/1/1
29	CLA	r1	612	-	1/1/14/20	16/31/109/115	-
40	LHG	S	624	29	-	27/49/49/53	-
48	CHL	Y1	601	-	4/4/20/26	7/39/137/137	-
29	CLA	Y1	603	-	1/1/15/20	14/37/115/115	-
29	CLA	b1	610	-	1/1/15/20	19/37/115/115	-
29	CLA	a	407	-	1/1/11/20	7/18/96/115	-
29	CLA	C	503	-	1/1/15/20	18/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	CLA	B	605	-	1/1/15/20	19/37/115/115	-
49	LUT	R1	620	-	-	9/29/67/67	0/2/2/2
29	CLA	b1	612	-	1/1/15/20	18/37/115/115	-
32	SQD	A	412	-	-	24/46/66/69	0/1/1/1
40	LHG	N1	624	-	-	34/53/53/53	-
48	CHL	n	607	-	4/4/20/26	8/39/137/137	-
48	CHL	R1	606	-	3/3/15/26	4/13/111/137	-
31	BCR	C1	514	-	-	12/29/63/63	0/2/2/2
32	SQD	c1	526	-	-	22/49/69/69	0/1/1/1
37	DGD	C1	520	-	-	16/48/88/95	0/2/2/2
49	LUT	s1	621	-	-	5/29/67/67	0/2/2/2
49	LUT	N1	621	-	-	4/29/67/67	0/2/2/2
29	CLA	C	512	-	1/1/15/20	15/37/115/115	-
29	CLA	G1	610	-	1/1/15/20	15/37/115/115	-
51	NEX	R1	622	-	-	14/27/83/83	0/3/3/3
49	LUT	S	620	-	-	3/29/67/67	0/2/2/2
29	CLA	a1	406	-	1/1/15/20	16/37/115/115	-
38	3PH	b1	624	-	-	24/49/49/49	-
44	HEM	F1	101	7	-	1/12/54/54	-
48	CHL	s	608	-	4/4/19/26	5/33/131/137	-
29	CLA	r1	604	-	1/1/11/20	10/18/96/115	-
40	LHG	g1	624	-	-	35/53/53/53	-
40	LHG	c	525	-	-	30/51/51/53	-
31	BCR	b	618	-	-	9/29/63/63	0/2/2/2
32	SQD	m	101	-	-	20/37/57/69	0/1/1/1
38	3PH	S1	626	-	-	30/49/49/49	-
49	LUT	S	621	-	-	4/29/67/67	0/2/2/2
50	XAT	N	622	-	1/1/12/26	2/31/93/93	0/4/4/4
29	CLA	r1	602	-	1/1/14/20	11/31/109/115	-
29	CLA	s1	602	-	1/1/14/20	13/31/109/115	-
29	CLA	c1	508	-	1/1/15/20	12/37/115/115	-
29	CLA	S	603	-	1/1/15/20	17/37/115/115	-
40	LHG	N	624	-	-	31/53/53/53	-
29	CLA	s	612	-	1/1/11/20	5/13/91/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	CLA	g1	612	21	1/1/10/20	4/11/89/115	-
29	CLA	c	505	-	1/1/15/20	19/37/115/115	-
29	CLA	r	602	22	1/1/14/20	14/31/109/115	-
29	CLA	b1	605	-	1/1/15/20	18/37/115/115	-
49	LUT	N	621	-	-	4/29/67/67	0/2/2/2
55	PTY	Y1	627	-	-	12/20/20/53	-
51	NEX	s1	623	-	-	3/27/83/83	0/3/3/3
29	CLA	b	615	-	1/1/15/20	19/37/115/115	-
40	LHG	D1	410	-	-	25/43/43/53	-
29	CLA	R	612	-	1/1/14/20	10/31/109/115	-
48	CHL	N	609	-	4/4/20/26	11/39/137/137	-
49	LUT	S1	621	-	-	7/29/67/67	0/2/2/2
29	CLA	G	613	-	1/1/15/20	19/37/115/115	-
29	CLA	A1	407	-	1/1/12/20	9/19/97/115	-
40	LHG	L1	101	-	-	36/53/53/53	-
29	CLA	G	611	40	1/1/15/20	17/37/115/115	-
44	HEM	f1	101	7	-	2/12/54/54	-
46	GOL	I1	101	-	-	2/4/4/4	-
49	LUT	s1	620	-	-	6/29/67/67	0/2/2/2
29	CLA	s	603	-	1/1/15/20	15/37/115/115	-
29	CLA	g1	603	-	1/1/15/20	18/37/115/115	-
34	SPH	Y1	625	-	-	9/21/21/21	-
50	XAT	r	621	-	2/2/12/26	2/31/93/93	0/4/4/4
29	CLA	R	603	-	1/1/14/20	16/31/109/115	-
29	CLA	B1	607	-	1/1/15/20	14/37/115/115	-
48	CHL	n1	608	-	3/3/16/26	8/20/118/137	-
43	PL9	d1	405	-	-	20/53/73/73	0/1/1/1
29	CLA	g1	604	-	1/1/11/20	9/18/96/115	-
47	4RF	I1	102	-	-	24/59/59/59	-
29	CLA	N1	612	-	1/1/11/20	4/13/91/115	-
29	CLA	G1	614	-	1/1/11/20	8/18/96/115	-
29	CLA	G	614	-	1/1/11/20	10/18/96/115	-
29	CLA	s	613	-	1/1/13/20	9/25/103/115	-
39	DGA	j1	101	-	-	20/30/30/45	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
31	BCR	c	514	-	-	14/29/63/63	0/2/2/2
48	CHL	Y	607	-	4/4/20/26	6/39/137/137	-
29	CLA	r1	610	-	1/1/14/20	13/31/109/115	-
48	CHL	G1	609	-	4/4/20/26	10/39/137/137	-
33	LMG	B1	622	-	-	19/39/59/70	0/1/1/1
29	CLA	B1	609	-	1/1/15/20	15/37/115/115	-
29	CLA	n	604	-	1/1/15/20	13/37/115/115	-
48	CHL	N1	601	-	4/4/20/26	9/39/137/137	-
48	CHL	g1	601	-	4/4/20/26	12/39/137/137	-
39	DGA	J1	101	-	-	15/30/30/45	-
49	LUT	s	620	-	-	1/29/67/67	0/2/2/2
29	CLA	n	612	-	1/1/11/20	5/13/91/115	-
30	PHO	A	408	-	-	8/37/103/103	0/5/6/6
29	CLA	y	611	40	1/1/15/20	16/37/115/115	-
33	LMG	H	102	-	-	14/43/63/70	0/1/1/1
48	CHL	y	605	24	3/3/16/26	3/15/113/137	-
29	CLA	B	614	-	1/1/15/20	14/37/115/115	-
29	CLA	Y	603	-	1/1/15/20	17/37/115/115	-
54	LPX	s1	625	-	-	18/31/31/31	-
31	BCR	c	515	-	-	10/29/63/63	0/2/2/2
29	CLA	B1	602	-	1/1/15/20	24/37/115/115	-
29	CLA	R	602	-	1/1/14/20	11/31/109/115	-
29	CLA	g1	610	-	1/1/15/20	18/37/115/115	-
41	LMK	c	527	-	2/2/6/6	13/46/46/60	-
29	CLA	B	608	-	1/1/15/20	27/37/115/115	-
48	CHL	R	607	-	3/3/16/26	7/20/118/137	-
29	CLA	B1	603	-	1/1/15/20	21/37/115/115	-
34	SPH	Y	625	-	-	10/21/21/21	-
29	CLA	y	610	24	1/1/15/20	13/37/115/115	-
48	CHL	N1	609	-	4/4/20/26	10/39/137/137	-
29	CLA	s1	603	-	1/1/15/20	15/37/115/115	-
30	PHO	A1	408	-	-	6/37/103/103	0/5/6/6
48	CHL	n	601	20	4/4/20/26	4/39/137/137	-
39	DGA	b	625	-	-	26/45/45/45	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	CLA	C1	510	-	1/1/15/20	17/37/115/115	-
48	CHL	g	605	21	4/4/16/26	5/18/116/137	-
29	CLA	n1	613	-	1/1/15/20	20/37/115/115	-
29	CLA	R1	603	-	1/1/14/20	17/31/109/115	-
48	CHL	y	609	-	4/4/20/26	6/39/137/137	-
33	LMG	D1	411	-	-	10/41/61/70	0/1/1/1
29	CLA	c	501	-	1/1/15/20	19/37/115/115	-
33	LMG	A	413	-	-	15/43/63/70	0/1/1/1
29	CLA	c1	505	-	1/1/15/20	16/37/115/115	-
50	XAT	G1	622	-	1/1/12/26	2/31/93/93	0/4/4/4
48	CHL	y1	601	24	4/4/20/26	5/39/137/137	-
29	CLA	s1	611	40	1/1/15/20	20/37/115/115	-
37	DGD	C	520	-	-	14/48/88/95	0/2/2/2
48	CHL	y1	606	-	4/4/20/26	6/39/137/137	-
29	CLA	Y1	602	-	1/1/15/20	20/37/115/115	-
36	C7Z	b1	620	-	1/1/12/26	11/29/67/67	0/2/2/2
33	LMG	H1	102	-	-	17/43/63/70	0/1/1/1
29	CLA	S1	609	-	1/1/14/20	10/31/109/115	-
48	CHL	Y	606	-	4/4/20/26	7/39/137/137	-
40	LHG	n	624	-	-	35/53/53/53	-
48	CHL	g	606	-	3/3/16/26	4/20/118/137	-
29	CLA	C	511	-	1/1/15/20	14/37/115/115	-
32	SQD	b	621	-	-	19/37/57/69	0/1/1/1
48	CHL	s1	601	23	3/3/16/26	4/15/113/137	-
40	LHG	D	410	-	-	26/43/43/53	-
29	CLA	B	615	-	1/1/15/20	15/37/115/115	-
31	BCR	C	516	-	-	13/29/63/63	0/2/2/2
29	CLA	C	501	-	1/1/15/20	18/37/115/115	-
29	CLA	a	405	-	1/1/15/20	15/37/115/115	-
33	LMG	d	411	-	-	19/41/61/70	0/1/1/1
29	CLA	r	609	-	1/1/14/20	12/31/109/115	-
29	CLA	S	613	-	1/1/13/20	12/25/103/115	-
55	PTY	Y	627	-	-	15/20/20/53	-
48	CHL	y	607	-	4/4/20/26	9/39/137/137	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	CLA	c1	506	-	1/1/15/20	16/37/115/115	-
38	3PH	b	624	-	-	23/49/49/49	-
29	CLA	B	617	-	1/1/15/20	17/37/115/115	-
31	BCR	c	517	-	-	10/29/63/63	0/2/2/2
29	CLA	N	613	-	1/1/15/20	17/37/115/115	-
51	NEX	r1	622	-	-	8/27/83/83	0/3/3/3
29	CLA	B	609	-	1/1/15/20	12/37/115/115	-
48	CHL	Y1	609	-	4/4/20/26	8/39/137/137	-
37	DGD	b1	623	-	-	14/32/72/95	0/2/2/2
33	LMG	C1	521	-	-	12/46/66/70	0/1/1/1
29	CLA	r	612	-	1/1/14/20	14/31/109/115	-
40	LHG	D1	409	-	-	31/53/53/53	-
29	CLA	R1	608	-	1/1/14/20	11/31/109/115	-
29	CLA	y1	604	-	1/1/15/20	13/37/115/115	-
29	CLA	y1	612	-	1/1/15/20	17/37/115/115	-
33	LMG	c1	521	-	-	14/46/66/70	0/1/1/1
32	SQD	a	412	-	-	14/46/66/69	0/1/1/1
32	SQD	B1	626	-	-	17/49/69/69	0/1/1/1
29	CLA	c	509	-	1/1/15/20	16/37/115/115	-
48	CHL	S1	601	23	3/3/16/26	3/15/113/137	-
29	CLA	B	616	-	1/1/15/20	7/37/115/115	-
40	LHG	D	408	-	-	23/48/48/53	-
29	CLA	s1	604	-	1/1/13/20	8/25/103/115	-
48	CHL	g1	608	-	3/3/15/26	1/13/111/137	-
37	DGD	c1	518	-	-	14/44/84/95	0/2/2/2
29	CLA	s1	612	-	1/1/11/20	6/13/91/115	-
30	PHO	a1	409	-	-	12/37/103/103	0/5/6/6
29	CLA	N	614	-	1/1/11/20	5/18/96/115	-
29	CLA	G	603	-	1/1/15/20	14/37/115/115	-
29	CLA	b1	602	-	1/1/15/20	22/37/115/115	-
31	BCR	a	411	-	-	11/29/63/63	0/2/2/2
39	DGA	b1	625	-	-	22/45/45/45	-
36	C7Z	B	620	-	1/1/12/26	9/29/67/67	0/2/2/2
29	CLA	C1	501	-	1/1/15/20	15/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
40	LHG	d	409	-	-	26/53/53/53	-
49	LUT	n1	620	-	-	5/29/67/67	0/2/2/2
29	CLA	c	510	-	1/1/15/20	14/37/115/115	-
29	CLA	B	611	-	1/1/15/20	13/37/115/115	-
46	GOL	I	101	-	-	2/4/4/4	-
51	NEX	S1	623	-	-	4/27/83/83	0/3/3/3
29	CLA	B1	611	-	1/1/15/20	13/37/115/115	-
31	BCR	B1	619	-	-	6/29/63/63	0/2/2/2
29	CLA	c1	510	-	1/1/15/20	12/37/115/115	-
29	CLA	c1	502	-	1/1/15/20	16/37/115/115	-
29	CLA	y	604	-	1/1/15/20	15/37/115/115	-
33	LMG	c	521	-	-	14/46/66/70	0/1/1/1
29	CLA	S	617	23	1/1/12/20	7/19/97/115	-
40	LHG	Y	624	-	-	29/53/53/53	-
29	CLA	R1	612	-	1/1/14/20	19/31/109/115	-
34	SPH	A	414	-	-	12/21/21/21	-
29	CLA	S	604	-	1/1/13/20	9/25/103/115	-
29	CLA	s	610	-	1/1/15/20	18/37/115/115	-
34	SPH	A1	414	-	-	16/21/21/21	-
31	BCR	b	619	-	-	6/29/63/63	0/2/2/2
48	CHL	n	608	-	3/3/16/26	6/20/118/137	-
49	LUT	Y	621	-	-	4/29/67/67	0/2/2/2
48	CHL	G	601	21	4/4/20/26	11/39/137/137	-
32	SQD	a1	412	-	-	19/46/66/69	0/1/1/1
40	LHG	D	409	-	-	25/53/53/53	-
29	CLA	c1	513	-	1/1/15/20	23/37/115/115	-
29	CLA	y1	602	-	1/1/15/20	15/37/115/115	-
29	CLA	b	609	-	1/1/15/20	13/37/115/115	-
29	CLA	b1	603	-	1/1/15/20	19/37/115/115	-
50	XAT	g1	622	-	1/1/12/26	7/31/93/93	0/4/4/4
29	CLA	R	610	-	1/1/14/20	14/31/109/115	-
40	LHG	d1	409	-	-	30/53/53/53	-
29	CLA	c	508	-	1/1/15/20	12/37/115/115	-
39	DGA	J	101	-	-	12/30/30/45	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
48	CHL	g1	609	-	4/4/20/26	7/39/137/137	-
29	CLA	s	602	-	1/1/14/20	16/31/109/115	-
29	CLA	R1	604	-	1/1/11/20	10/18/96/115	-
51	NEX	G	623	-	-	5/27/83/83	0/3/3/3
51	NEX	G1	623	-	-	12/27/83/83	0/3/3/3
29	CLA	Y1	613	-	1/1/15/20	19/37/115/115	-
29	CLA	s1	613	-	1/1/13/20	11/25/103/115	-
51	NEX	Y	623	-	-	7/27/83/83	0/3/3/3
29	CLA	A	405	-	1/1/15/20	14/37/115/115	-
47	4RF	k1	101	-	-	37/59/59/59	-
40	LHG	L	101	-	-	38/53/53/53	-
29	CLA	c	513	-	1/1/15/20	23/37/115/115	-
29	CLA	b1	611	-	1/1/15/20	10/37/115/115	-
29	CLA	n1	610	-	1/1/15/20	20/37/115/115	-
29	CLA	N1	602	-	1/1/15/20	17/37/115/115	-
49	LUT	Y	620	-	-	5/29/67/67	0/2/2/2
29	CLA	S1	605	-	1/1/12/20	8/19/97/115	-
40	LHG	c1	525	-	-	33/51/51/53	-
29	CLA	C1	513	-	1/1/15/20	16/37/115/115	-
45	RRX	h	101	-	1/1/11/25	4/29/65/65	0/2/2/2
29	CLA	C	507	-	1/1/15/20	14/37/115/115	-
29	CLA	N	604	-	1/1/15/20	19/37/115/115	-
33	LMG	b	622	-	-	17/39/59/70	0/1/1/1
37	DGD	c	519	-	-	23/51/91/95	0/2/2/2
31	BCR	c1	516	-	-	12/29/63/63	0/2/2/2
40	LHG	C	525	-	-	32/51/51/53	-
48	CHL	S1	606	-	3/3/15/26	2/13/111/137	-
29	CLA	C	508	-	1/1/15/20	12/37/115/115	-
40	LHG	s1	624	29	-	27/49/49/53	-
29	CLA	Y	611	-	1/1/15/20	12/37/115/115	-
29	CLA	N	611	-	1/1/11/20	7/18/96/115	-
32	SQD	C1	526	-	-	25/49/69/69	0/1/1/1
29	CLA	G	612	-	1/1/10/20	5/11/89/115	-
48	CHL	r	606	-	3/3/15/26	3/13/111/137	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	CLA	g	602	-	1/1/15/20	22/37/115/115	-
29	CLA	S	610	-	1/1/15/20	20/37/115/115	-
29	CLA	S1	611	40	1/1/15/20	16/37/115/115	-
40	LHG	l	101	-	-	38/53/53/53	-
38	3PH	T1	101	-	-	29/49/49/49	-
31	BCR	d	404	-	-	13/29/63/63	0/2/2/2
40	LHG	y	624	29	-	30/53/53/53	-
29	CLA	s	617	-	1/1/12/20	8/19/97/115	-
52	LMT	R1	625	-	-	10/21/61/61	0/2/2/2
31	BCR	b1	619	-	-	9/29/63/63	0/2/2/2
29	CLA	b	617	-	1/1/15/20	13/37/115/115	-
29	CLA	G1	602	-	1/1/15/20	21/37/115/115	-
32	SQD	B	626	-	-	23/49/69/69	0/1/1/1
29	CLA	s	604	-	1/1/13/20	11/25/103/115	-
29	CLA	Y	614	-	1/1/15/20	17/37/115/115	-
33	LMG	W1	201	-	-	16/34/54/70	0/1/1/1
41	LMK	C1	527	-	2/2/6/6	19/46/46/60	-
29	CLA	r1	609	-	1/1/14/20	17/31/109/115	-
29	CLA	c1	503	-	1/1/15/20	18/37/115/115	-
29	CLA	S1	614	-	1/1/13/20	8/25/103/115	-
29	CLA	d1	403	-	1/1/15/20	12/37/115/115	-
47	4RF	K1	101	-	-	32/59/59/59	-
31	BCR	D1	404	-	-	14/29/63/63	0/2/2/2
36	C7Z	b	620	-	1/1/12/26	13/29/67/67	0/2/2/2
50	XAT	r1	621	-	1/1/12/26	2/31/93/93	0/4/4/4
34	SPH	y1	625	-	-	12/21/21/21	-
29	CLA	n1	614	-	1/1/11/20	9/18/96/115	-
29	CLA	r1	603	-	1/1/14/20	20/31/109/115	-
29	CLA	C1	512	-	1/1/15/20	16/37/115/115	-
29	CLA	y	602	24	1/1/15/20	15/37/115/115	-
41	LMK	C	527	-	2/2/6/6	21/46/46/60	-
29	CLA	Y	613	24	1/1/15/20	22/37/115/115	-
29	CLA	r	608	-	1/1/14/20	17/31/109/115	-
48	CHL	n1	609	-	4/4/20/26	5/39/137/137	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
45	RRX	h1	101	-	1/1/11/25	10/29/65/65	0/2/2/2
29	CLA	c1	512	-	1/1/15/20	17/37/115/115	-
29	CLA	g	611	-	1/1/15/20	15/37/115/115	-
37	DGD	c	518	-	-	9/44/84/95	0/2/2/2
39	DGA	c	524	-	-	31/45/45/45	-
29	CLA	b	602	-	1/1/15/20	21/37/115/115	-
31	BCR	C	514	-	-	17/29/63/63	0/2/2/2
55	PTY	y	627	-	-	15/20/20/53	-
33	LMG	C1	523	-	-	19/50/70/70	0/1/1/1
40	LHG	D1	408	-	-	26/48/48/53	-
29	CLA	b	605	-	1/1/15/20	19/37/115/115	-
29	CLA	c	507	-	1/1/15/20	15/37/115/115	-
29	CLA	n	610	-	1/1/15/20	18/37/115/115	-
29	CLA	b1	616	-	1/1/15/20	9/37/115/115	-
48	CHL	G1	606	-	3/3/16/26	4/20/118/137	-
29	CLA	Y1	611	-	1/1/15/20	16/37/115/115	-
29	CLA	B1	606	-	1/1/15/20	18/37/115/115	-
48	CHL	n	609	-	4/4/20/26	5/39/137/137	-
29	CLA	S1	613	-	1/1/13/20	9/25/103/115	-
48	CHL	g1	605	-	4/4/16/26	7/18/116/137	-
48	CHL	s	601	-	3/3/16/26	4/15/113/137	-
38	3PH	s1	626	-	-	27/49/49/49	-
40	LHG	d	410	-	-	20/43/43/53	-
51	NEX	R	622	-	-	8/27/83/83	0/3/3/3
29	CLA	g	614	-	1/1/11/20	11/18/96/115	-
29	CLA	b1	604	-	1/1/15/20	18/37/115/115	-
29	CLA	B	613	-	1/1/15/20	18/37/115/115	-
55	PTY	y1	627	-	-	11/20/20/53	-
29	CLA	c	506	-	1/1/15/20	17/37/115/115	-
48	CHL	s	607	-	3/3/15/26	0/12/110/137	-
33	LMG	w	201	-	-	17/34/54/70	0/1/1/1
40	LHG	d	408	-	-	26/48/48/53	-
29	CLA	Y1	610	-	1/1/15/20	12/37/115/115	-
48	CHL	n1	607	-	4/4/20/26	7/39/137/137	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	CLA	Y1	614	-	1/1/15/20	14/37/115/115	-
31	BCR	b1	618	-	-	11/29/63/63	0/2/2/2
29	CLA	y1	613	-	1/1/15/20	18/37/115/115	-
29	CLA	B1	604	-	1/1/15/20	14/37/115/115	-
29	CLA	a1	410	-	1/1/14/20	13/31/109/115	-
48	CHL	r	607	-	3/3/16/26	4/20/118/137	-
29	CLA	B1	612	-	1/1/15/20	15/37/115/115	-
29	CLA	Y1	608	-	1/1/12/20	7/19/97/115	-
51	NEX	g1	623	-	1/1/12/25	7/27/83/83	0/3/3/3
48	CHL	y1	609	-	4/4/20/26	8/39/137/137	-
31	BCR	C	517	-	-	13/29/63/63	0/2/2/2
29	CLA	b	604	-	1/1/15/20	14/37/115/115	-
31	BCR	C	515	-	-	9/29/63/63	0/2/2/2
51	NEX	y	623	-	-	6/27/83/83	0/3/3/3
29	CLA	c	504	-	1/1/15/20	18/37/115/115	-
48	CHL	G	607	-	4/4/20/26	11/39/137/137	-
50	XAT	n	622	-	1/1/12/26	4/31/93/93	0/4/4/4
31	BCR	B1	618	-	-	15/29/63/63	0/2/2/2
29	CLA	S	611	40	1/1/15/20	16/37/115/115	-
48	CHL	y1	607	-	4/4/20/26	4/39/137/137	-
29	CLA	b1	607	-	1/1/15/20	12/37/115/115	-
48	CHL	N	601	20	4/4/20/26	5/39/137/137	-
37	DGD	c1	520	-	-	11/48/88/95	0/2/2/2
29	CLA	b1	606	-	1/1/15/20	13/37/115/115	-
49	LUT	r	620	-	-	6/29/67/67	0/2/2/2
39	DGA	c1	524	-	-	28/45/45/45	-
32	SQD	C	526	-	-	23/49/69/69	0/1/1/1
29	CLA	d1	402	-	1/1/15/20	10/37/115/115	-
29	CLA	C	509	-	1/1/15/20	20/37/115/115	-
29	CLA	b1	613	-	1/1/15/20	16/37/115/115	-
48	CHL	S	607	-	3/3/15/26	1/12/110/137	-
40	LHG	d1	410	-	-	33/43/43/53	-
48	CHL	g	607	-	4/4/20/26	10/39/137/137	-
48	CHL	N1	608	-	3/3/16/26	5/20/118/137	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	CLA	c	502	-	1/1/15/20	12/37/115/115	-
29	CLA	C1	508	-	1/1/15/20	13/37/115/115	-
33	LMG	a	413	-	-	20/43/63/70	0/1/1/1
49	LUT	G1	621	-	-	3/29/67/67	0/2/2/2
29	CLA	A1	405	-	1/1/15/20	12/37/115/115	-
51	NEX	g	623	-	1/1/12/25	9/27/83/83	0/3/3/3
31	BCR	A1	411	-	-	9/29/63/63	0/2/2/2
47	4RF	k	101	-	-	31/59/59/59	-
55	PTY	y	626	-	-	27/53/53/53	-
48	CHL	S	608	-	4/4/19/26	7/33/131/137	-
48	CHL	s1	607	-	3/3/15/26	0/12/110/137	-
33	LMG	B	622	-	-	20/39/59/70	0/1/1/1
33	LMG	c1	523	-	-	18/50/70/70	0/1/1/1
34	SPH	a1	414	-	-	10/21/21/21	-
51	NEX	Y1	623	-	-	8/27/83/83	0/3/3/3
48	CHL	G	605	21	4/4/16/26	6/18/116/137	-
29	CLA	C1	506	-	1/1/15/20	19/37/115/115	-
29	CLA	B1	613	-	1/1/15/20	19/37/115/115	-
48	CHL	G1	608	-	2/2/15/26	1/13/111/137	-
33	LMG	h1	102	-	-	22/43/63/70	0/1/1/1
29	CLA	Y	604	-	1/1/15/20	17/37/115/115	-
29	CLA	b	613	-	1/1/15/20	19/37/115/115	-
29	CLA	D	402	-	1/1/15/20	19/37/115/115	-
29	CLA	g	604	-	1/1/11/20	7/18/96/115	-
30	PHO	a1	408	-	-	17/37/103/103	0/5/6/6
29	CLA	B	612	-	1/1/15/20	16/37/115/115	-
31	BCR	c1	514	-	-	12/29/63/63	0/2/2/2
33	LMG	a1	413	-	-	20/43/63/70	0/1/1/1
29	CLA	C1	511	-	1/1/15/20	10/37/115/115	-
45	RRX	H1	101	-	1/1/11/25	9/29/65/65	0/2/2/2
29	CLA	A	407	-	1/1/12/20	9/19/97/115	-
31	BCR	A	411	-	-	12/29/63/63	0/2/2/2
48	CHL	n1	605	-	4/4/20/26	7/39/137/137	-
48	CHL	s1	608	-	4/4/19/26	5/33/131/137	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
33	LMG	C	523	-	-	21/50/70/70	0/1/1/1
40	LHG	S1	624	29	-	32/49/49/53	-
30	PHO	a	408	-	-	12/37/103/103	0/5/6/6
51	NEX	N	623	-	-	4/27/83/83	1/3/3/3
32	SQD	A1	412	-	-	15/46/66/69	0/1/1/1
48	CHL	n1	601	-	4/4/20/26	11/39/137/137	-
29	CLA	r	603	-	1/1/14/20	17/31/109/115	-
29	CLA	C1	504	-	1/1/15/20	18/37/115/115	-
39	DGA	j	101	-	-	20/30/30/45	-
29	CLA	Y	612	-	1/1/15/20	13/37/115/115	-
33	LMG	D	411	-	-	11/41/61/70	0/1/1/1
29	CLA	A1	406	-	1/1/15/20	21/37/115/115	-
38	3PH	B	624	-	-	34/49/49/49	-
32	SQD	c	526	-	-	20/49/69/69	0/1/1/1
48	CHL	Y1	607	-	4/4/20/26	11/39/137/137	-
29	CLA	b1	609	-	1/1/15/20	16/37/115/115	-
33	LMG	b1	622	-	-	19/39/59/70	0/1/1/1
29	CLA	Y	608	-	1/1/12/20	7/19/97/115	-
29	CLA	S1	602	23	1/1/14/20	17/31/109/115	-
29	CLA	B	603	-	1/1/15/20	21/37/115/115	-
37	DGD	C1	518	-	-	12/44/84/95	0/2/2/2
40	LHG	y1	624	29	-	25/53/53/53	-
41	LMK	c1	527	-	2/2/6/6	14/46/46/60	-
29	CLA	c1	501	-	1/1/15/20	17/37/115/115	-
50	XAT	Y	622	-	-	7/31/93/93	0/4/4/4
50	XAT	y1	622	-	-	7/31/93/93	0/4/4/4
51	NEX	n1	623	-	-	5/27/83/83	0/3/3/3
29	CLA	N1	614	-	1/1/11/20	7/18/96/115	-
29	CLA	g1	614	-	1/1/11/20	11/18/96/115	-
48	CHL	S1	607	-	3/3/15/26	1/12/110/137	-
37	DGD	c	520	-	-	9/48/88/95	0/2/2/2
29	CLA	Y	610	-	1/1/15/20	12/37/115/115	-
29	CLA	N1	603	-	1/1/15/20	15/37/115/115	-
40	LHG	s	624	29	-	26/49/49/53	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
40	LHG	G	624	29	-	33/53/53/53	-
48	CHL	Y1	606	-	4/4/20/26	7/39/137/137	-
48	CHL	r1	607	-	3/3/16/26	4/20/118/137	-
48	CHL	r1	606	-	3/3/15/26	4/13/111/137	-
37	DGD	C1	519	-	-	22/51/91/95	0/2/2/2
50	XAT	n1	622	-	-	4/31/93/93	0/4/4/4
29	CLA	S1	603	-	1/1/15/20	12/37/115/115	-
49	LUT	n1	621	-	1/1/12/27	5/29/67/67	0/2/2/2
29	CLA	n	602	-	1/1/15/20	14/37/115/115	-
29	CLA	S	609	-	1/1/14/20	10/31/109/115	-
29	CLA	G	602	-	1/1/15/20	17/37/115/115	-
50	XAT	y	622	-	-	8/31/93/93	0/4/4/4
48	CHL	g	608	-	3/3/15/26	3/13/111/137	-
29	CLA	G1	604	-	1/1/11/20	8/18/96/115	-
29	CLA	y1	610	24	1/1/15/20	13/37/115/115	-
43	PL9	D1	405	-	-	18/53/73/73	0/1/1/1
29	CLA	G1	612	-	1/1/10/20	7/11/89/115	-
31	BCR	C1	516	-	-	15/29/63/63	0/2/2/2
49	LUT	R	620	-	1/1/12/27	2/29/67/67	0/2/2/2
53	ERG	r	626	-	5/5/11/15	8/13/71/71	0/4/4/4
47	4RF	i	101	-	-	31/59/59/59	-
29	CLA	y	603	-	1/1/15/20	18/37/115/115	-
38	3PH	S	626	-	-	24/49/49/49	-
51	NEX	S	623	-	-	8/27/83/83	0/3/3/3
29	CLA	y1	608	-	1/1/12/20	9/19/97/115	-
49	LUT	g1	621	-	-	6/29/67/67	0/2/2/2
29	CLA	D	403	-	1/1/15/20	16/37/115/115	-
31	BCR	C1	515	-	-	12/29/63/63	0/2/2/2
29	CLA	n1	612	-	1/1/11/20	5/13/91/115	-
49	LUT	N	620	-	-	2/29/67/67	0/2/2/2
48	CHL	N	606	-	4/4/20/26	10/39/137/137	-
48	CHL	N1	607	-	4/4/20/26	10/39/137/137	-
29	CLA	G1	603	-	1/1/15/20	23/37/115/115	-
36	C7Z	B1	620	-	1/1/12/26	7/29/67/67	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
31	BCR	c1	517	-	-	9/29/63/63	0/2/2/2
33	LMG	w1	201	-	-	17/34/54/70	0/1/1/1
54	LPX	s	625	-	-	15/31/31/31	-
31	BCR	c1	515	-	-	11/29/63/63	0/2/2/2
40	LHG	g	624	-	-	27/53/53/53	-
29	CLA	s	605	-	1/1/12/20	11/19/97/115	-
50	XAT	g	622	-	2/2/12/26	3/31/93/93	0/4/4/4
49	LUT	g	621	-	-	4/29/67/67	0/2/2/2
29	CLA	r1	608	-	1/1/14/20	16/31/109/115	-
38	3PH	s	626	-	-	22/49/49/49	-
50	XAT	R1	621	-	-	4/31/93/93	0/4/4/4
55	PTY	y1	626	-	-	33/53/53/53	-
31	BCR	B	619	-	-	8/29/63/63	0/2/2/2
55	PTY	Y	626	-	-	31/53/53/53	-
29	CLA	A1	410	-	1/1/14/20	12/31/109/115	-
40	LHG	G1	624	-	-	29/53/53/53	-
33	LMG	h	102	-	-	11/43/63/70	0/1/1/1
32	SQD	M	101	-	-	24/37/57/69	0/1/1/1
50	XAT	Y1	622	-	1/1/12/26	4/31/93/93	0/4/4/4
29	CLA	B	610	-	1/1/15/20	21/37/115/115	-
30	PHO	a	409	-	-	11/37/103/103	0/5/6/6
49	LUT	Y1	621	-	-	6/29/67/67	0/2/2/2
29	CLA	c1	509	-	1/1/15/20	20/37/115/115	-
48	CHL	S	601	23	3/3/16/26	3/15/113/137	-
52	LMT	r1	625	-	-	10/21/61/61	0/2/2/2
48	CHL	N	605	20	4/4/20/26	9/39/137/137	-
29	CLA	B1	605	-	1/1/15/20	15/37/115/115	-
29	CLA	C1	502	-	1/1/15/20	12/37/115/115	-
29	CLA	C1	505	-	1/1/15/20	19/37/115/115	-
29	CLA	R1	610	-	1/1/14/20	17/31/109/115	-
29	CLA	n1	611	-	1/1/11/20	9/18/96/115	-
29	CLA	b	611	-	1/1/15/20	7/37/115/115	-
53	ERG	R1	626	-	5/5/11/15	9/13/71/71	0/4/4/4
49	LUT	G1	620	-	-	5/29/67/67	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
48	CHL	G1	601	21	4/4/20/26	13/39/137/137	-
37	DGD	C	519	-	-	26/51/91/95	0/2/2/2
43	PL9	D	405	-	-	9/53/73/73	0/1/1/1
48	CHL	G1	607	-	4/4/20/26	11/39/137/137	-
29	CLA	B1	610	-	1/1/15/20	23/37/115/115	-
31	BCR	d1	404	-	-	12/29/63/63	0/2/2/2
29	CLA	g	613	-	1/1/15/20	19/37/115/115	-
39	DGA	C1	524	-	-	23/45/45/45	-
29	CLA	S	602	-	1/1/14/20	16/31/109/115	-
52	LMT	R	625	-	-	9/21/61/61	0/2/2/2
49	LUT	g	620	-	-	4/29/67/67	0/2/2/2
47	4RF	K	101	-	-	32/59/59/59	-
29	CLA	A	406	-	1/1/15/20	14/37/115/115	-
29	CLA	b	607	-	1/1/15/20	16/37/115/115	-
29	CLA	G	610	21	1/1/15/20	16/37/115/115	-
29	CLA	b	610	-	1/1/15/20	15/37/115/115	-
29	CLA	b	606	-	1/1/15/20	15/37/115/115	-
29	CLA	s1	617	-	1/1/12/20	11/19/97/115	-
34	SPH	y	625	-	-	8/21/21/21	-
33	LMG	d1	411	-	-	19/41/61/70	0/1/1/1
37	DGD	B1	623	-	-	11/32/72/95	0/2/2/2
29	CLA	c	511	4	1/1/15/20	9/37/115/115	-
31	BCR	D	404	-	-	13/29/63/63	0/2/2/2
29	CLA	s	609	-	1/1/14/20	16/31/109/115	-
29	CLA	C1	509	-	1/1/15/20	10/37/115/115	-
29	CLA	b	608	-	1/1/15/20	28/37/115/115	-
29	CLA	b	603	-	1/1/15/20	21/37/115/115	-
39	DGA	B1	625	-	-	26/45/45/45	-
31	BCR	c	516	-	-	15/29/63/63	0/2/2/2
37	DGD	C	518	-	-	18/44/84/95	0/2/2/2
29	CLA	r	604	-	1/1/11/20	9/18/96/115	-
32	SQD	m1	101	-	-	22/37/57/69	0/1/1/1
29	CLA	R	609	-	1/1/14/20	13/31/109/115	-
32	SQD	b1	626	-	-	26/49/69/69	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	CLA	G	604	-	1/1/11/20	8/18/96/115	-
29	CLA	a	410	-	1/1/14/20	15/31/109/115	-
49	LUT	Y1	620	-	-	8/29/67/67	0/2/2/2
29	CLA	n	614	-	1/1/11/20	4/18/96/115	-
54	LPX	S	625	-	-	14/31/31/31	-
29	CLA	G1	611	-	1/1/15/20	19/37/115/115	-
49	LUT	r1	620	-	-	4/29/67/67	0/2/2/2
29	CLA	y1	611	40	1/1/15/20	19/37/115/115	-
48	CHL	n	606	-	4/4/20/26	7/39/137/137	-
48	CHL	Y1	605	-	3/3/16/26	3/15/113/137	-
29	CLA	C	506	-	1/1/15/20	13/37/115/115	-
29	CLA	S	614	-	1/1/13/20	8/25/103/115	-
29	CLA	N	602	-	1/1/15/20	15/37/115/115	-
29	CLA	b	612	-	1/1/15/20	16/37/115/115	-
29	CLA	S	605	23	1/1/12/20	9/19/97/115	-
29	CLA	c	503	-	1/1/15/20	20/37/115/115	-
48	CHL	Y	601	24	4/4/20/26	7/39/137/137	-
29	CLA	S1	617	23	1/1/12/20	7/19/97/115	-
29	CLA	C	502	-	1/1/15/20	13/37/115/115	-
29	CLA	c1	507	-	1/1/15/20	16/37/115/115	-
29	CLA	y1	614	-	1/1/15/20	16/37/115/115	-
48	CHL	S1	608	-	4/4/19/26	10/33/131/137	-
50	XAT	G	622	-	1/1/12/26	2/31/93/93	0/4/4/4
29	CLA	N1	611	-	1/1/11/20	10/18/96/115	-
29	CLA	a1	405	-	1/1/15/20	17/37/115/115	-
44	HEM	f	101	6,7	-	1/12/54/54	-
29	CLA	N	610	-	1/1/15/20	19/37/115/115	-
29	CLA	B	606	-	1/1/15/20	20/37/115/115	-
33	LMG	A1	413	-	-	18/43/63/70	0/1/1/1
39	DGA	C	524	-	-	18/45/45/45	-
51	NEX	s	623	-	-	4/27/83/83	0/3/3/3
29	CLA	C	504	-	1/1/15/20	16/37/115/115	-
29	CLA	R1	609	-	1/1/14/20	14/31/109/115	-
48	CHL	Y	609	-	4/4/20/26	6/39/137/137	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
54	LPX	S1	625	-	-	15/31/31/31	-
48	CHL	g	609	-	4/4/20/26	10/39/137/137	-
29	CLA	B	602	-	1/1/15/20	20/37/115/115	-
29	CLA	B1	617	-	1/1/15/20	16/37/115/115	-
48	CHL	n1	606	-	4/4/20/26	7/39/137/137	-
39	DGA	B	625	-	-	23/45/45/45	-
33	LMG	W	201	-	-	14/34/54/70	0/1/1/1
29	CLA	y	614	-	1/1/15/20	15/37/115/115	-
29	CLA	D1	402	-	1/1/15/20	13/37/115/115	-
34	SPH	a	414	-	-	11/21/21/21	-
40	LHG	d1	408	-	-	30/48/48/53	-
48	CHL	G	609	21	4/4/20/26	10/39/137/137	-
48	CHL	G	608	-	3/3/15/26	1/13/111/137	-
49	LUT	g1	620	-	-	6/29/67/67	0/2/2/2
29	CLA	N1	613	-	1/1/15/20	14/37/115/115	-
29	CLA	C	510	-	1/1/15/20	13/37/115/115	-
31	BCR	B	618	-	-	11/29/63/63	0/2/2/2
40	LHG	Y1	624	-	-	18/53/53/53	-
47	4RF	i1	101	-	-	30/59/59/59	-
38	3PH	t	101	-	-	27/49/49/49	-
48	CHL	G	606	-	3/3/16/26	5/20/118/137	-
29	CLA	R	608	-	1/1/14/20	19/31/109/115	-
29	CLA	s	611	40	1/1/15/20	15/37/115/115	-
37	DGD	B	623	-	-	15/32/72/95	0/2/2/2
29	CLA	N	612	-	1/1/11/20	4/13/91/115	-
48	CHL	S	606	-	3/3/15/26	2/13/111/137	-
29	CLA	B1	615	-	1/1/15/20	14/37/115/115	-
33	LMG	C	521	-	-	16/46/66/70	0/1/1/1
29	CLA	C	505	-	1/1/15/20	16/37/115/115	-
29	CLA	S1	604	-	1/1/13/20	10/25/103/115	-
29	CLA	S1	612	-	1/1/11/20	6/13/91/115	-
48	CHL	N1	606	-	4/4/20/26	12/39/137/137	-
53	ERG	R	626	-	5/5/11/15	6/13/71/71	0/4/4/4
52	LMT	r	625	-	-	13/21/61/61	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
47	4RF	I	102	-	-	30/59/59/59	-
29	CLA	g	610	-	1/1/15/20	19/37/115/115	-
29	CLA	s	614	-	1/1/13/20	4/25/103/115	-
29	CLA	n	613	-	1/1/15/20	18/37/115/115	-
29	CLA	s1	614	-	1/1/13/20	15/25/103/115	-
29	CLA	N	603	-	1/1/15/20	17/37/115/115	-
29	CLA	b1	608	-	1/1/15/20	25/37/115/115	-
29	CLA	s1	605	-	1/1/12/20	9/19/97/115	-
29	CLA	g1	611	-	1/1/15/20	18/37/115/115	-
48	CHL	R1	607	-	3/3/16/26	4/20/118/137	-
48	CHL	y1	605	24	3/3/16/26	4/15/113/137	-
32	SQD	M1	101	-	-	17/37/57/69	0/1/1/1
29	CLA	G1	613	-	1/1/15/20	15/37/115/115	-
37	DGD	b	623	-	-	13/32/72/95	0/2/2/2
48	CHL	s1	606	-	3/3/15/26	0/13/111/137	-
48	CHL	s	606	-	3/3/15/26	2/13/111/137	-
48	CHL	g1	606	-	3/3/16/26	3/20/118/137	-
37	DGD	c1	519	-	-	24/51/91/95	0/2/2/2
49	LUT	y	620	-	-	4/29/67/67	0/2/2/2
53	ERG	r1	626	-	5/5/11/15	8/13/71/71	0/4/4/4
29	CLA	R1	602	-	1/1/14/20	12/31/109/115	-
40	LHG	C1	525	-	-	30/51/51/53	-
29	CLA	n	603	-	1/1/15/20	23/37/115/115	-
29	CLA	y	608	-	1/1/12/20	10/19/97/115	-
48	CHL	R	606	-	3/3/15/26	1/13/111/137	-
40	LHG	n1	624	-	-	29/53/53/53	-
29	CLA	B	607	-	1/1/15/20	18/37/115/115	-
29	CLA	c1	511	-	1/1/15/20	18/37/115/115	-
48	CHL	y	606	-	4/4/20/26	12/39/137/137	-
29	CLA	b1	615	-	1/1/15/20	17/37/115/115	-
48	CHL	Y	605	24	3/3/16/26	3/15/113/137	-
51	NEX	n	623	-	-	5/27/83/83	1/3/3/3
49	LUT	G	621	-	1/1/12/27	4/29/67/67	0/2/2/2
55	PTY	Y1	626	-	-	26/53/53/53	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	CLA	c	512	-	1/1/15/20	18/37/115/115	-
29	CLA	n1	602	20	1/1/15/20	17/37/115/115	-

The worst 5 of 3829 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	R	626	ERG	C1-C10	-23.16	1.10	1.54
53	r	626	ERG	C1-C10	-22.96	1.10	1.54
53	R1	626	ERG	C1-C10	-22.89	1.10	1.54
53	r1	626	ERG	C1-C10	-22.73	1.11	1.54
53	r	626	ERG	C10-C9	-20.15	1.28	1.55

The worst 5 of 8657 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	L	101	LHG	O7-C7-C8	22.97	161.00	111.50
40	l	101	LHG	O7-C7-C8	22.96	160.99	111.50
29	R	609	CLA	C4-C3-C5	-22.39	77.60	115.27
38	S	626	3PH	O21-C21-C22	22.18	159.31	111.50
38	S1	626	3PH	O21-C21-C22	22.13	159.19	111.50

5 of 696 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
29	A	405	CLA	ND
29	A	406	CLA	ND
29	A	407	CLA	ND
29	A	410	CLA	ND
29	B	602	CLA	ND

5 of 9527 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
29	A	405	CLA	O2A-C1-C2-C3
29	A	406	CLA	C1A-C2A-CAA-CBA
29	A	406	CLA	C3A-C2A-CAA-CBA
29	A	406	CLA	C2-C1-O2A-CGA
29	A	407	CLA	C2-C1-O2A-CGA

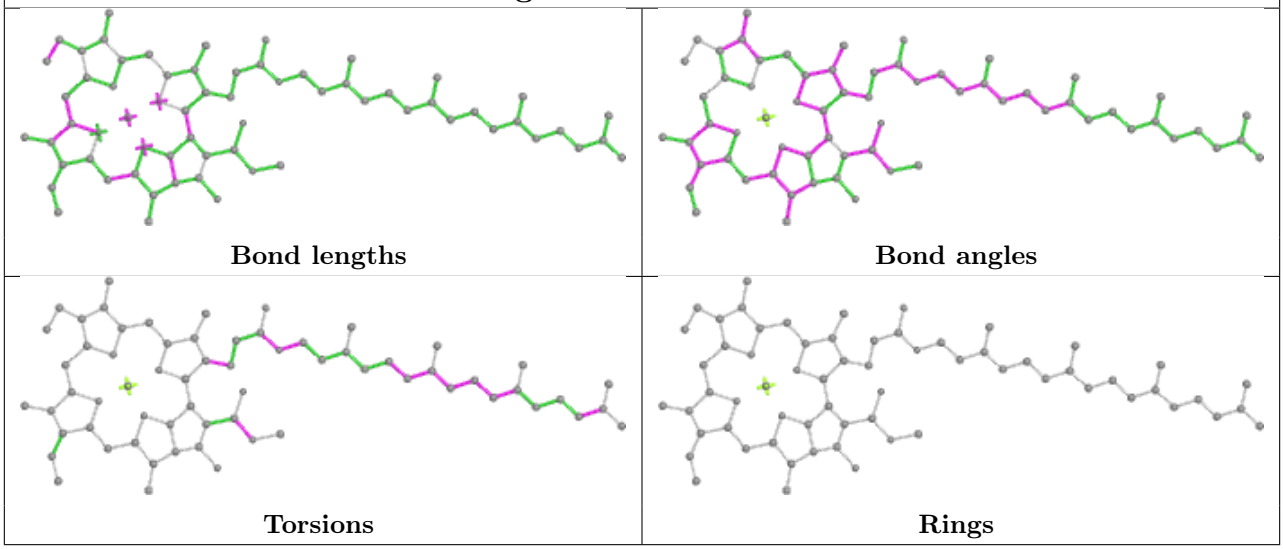
All (2) ring outliers are listed below:

Mol	Chain	Res	Type	Atoms
51	N	623	NEX	C1-C2-C3-C4-C5-C6
51	n	623	NEX	C1-C2-C3-C4-C5-C6

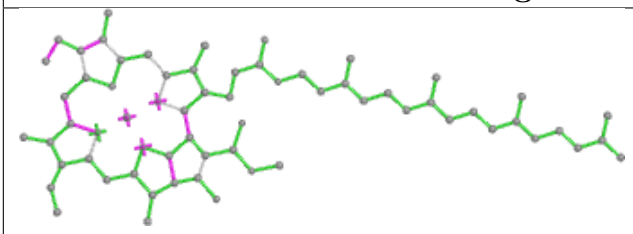
No monomer is involved in short contacts.

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

Ligand CLA D1 403



Ligand CLA N1 604



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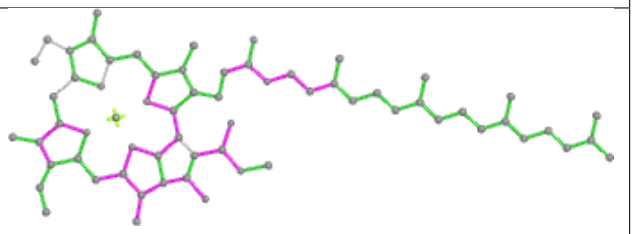
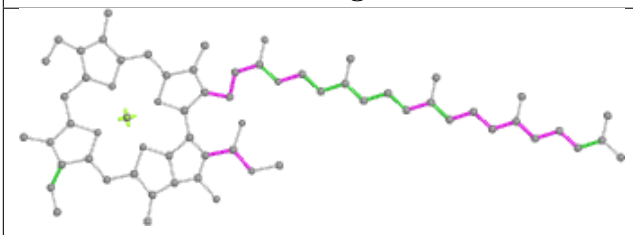
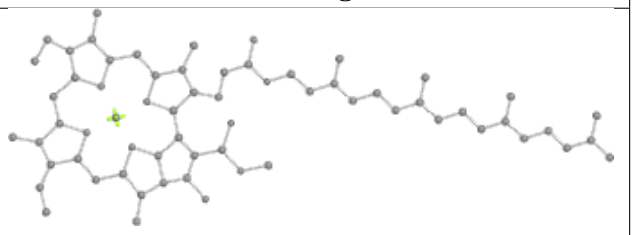


Bond angles

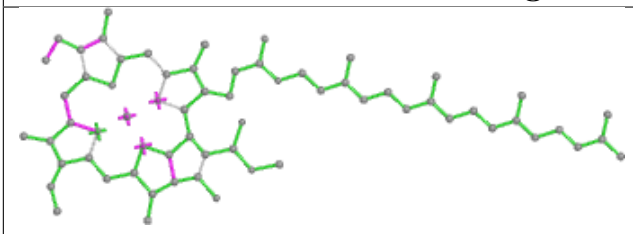


Torsions

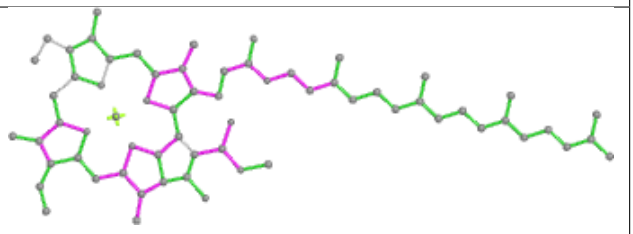


Rings

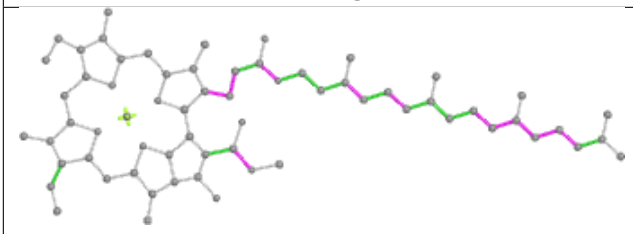
Ligand CLA B 604



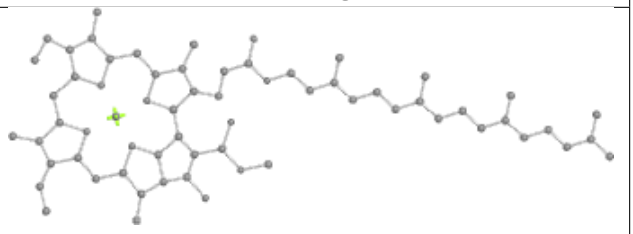
Bond lengths



Bond angles

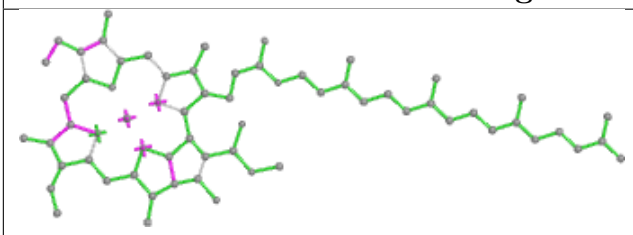


Torsions

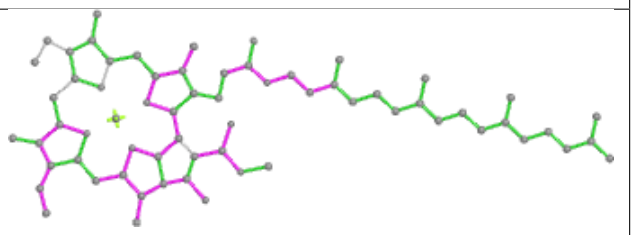


Rings

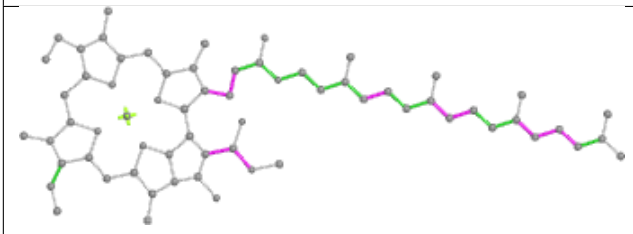
Ligand CLA C1 507



Bond lengths



Bond angles



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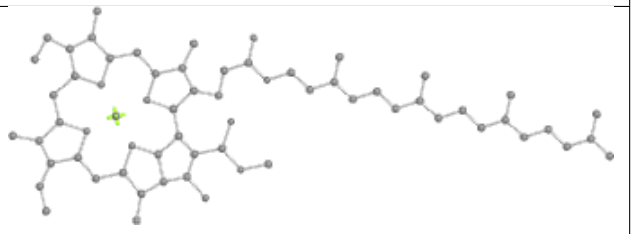
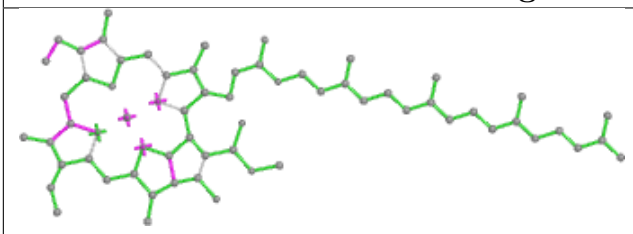
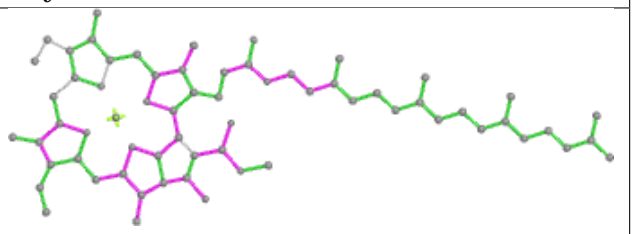


Rings

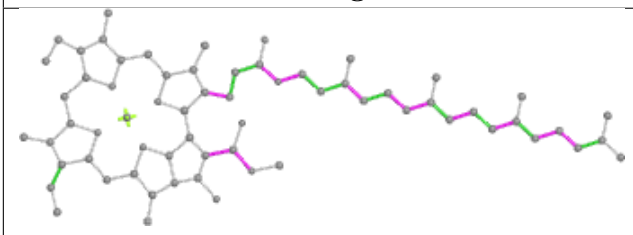
Ligand CLA y1 603



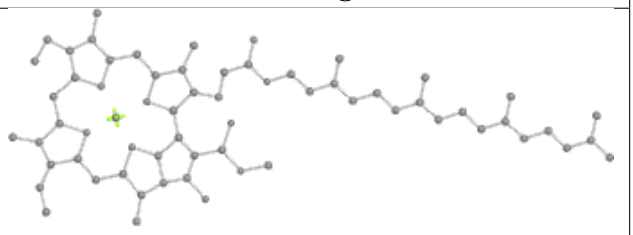
Bond lengths



Bond angles

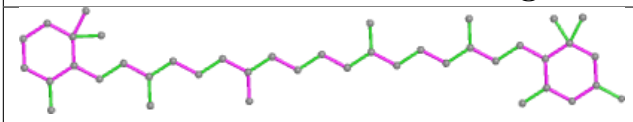


Torsions



Rings

Ligand RRX H 101



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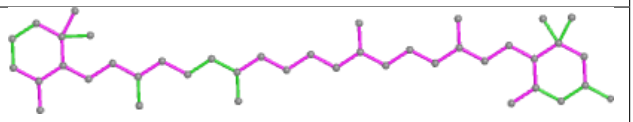

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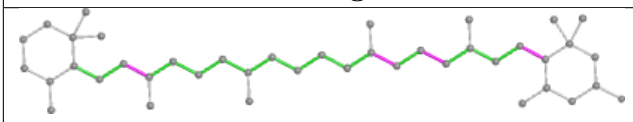

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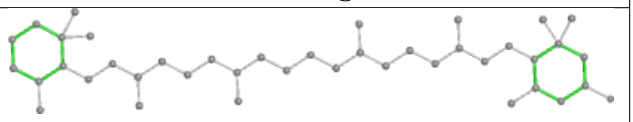
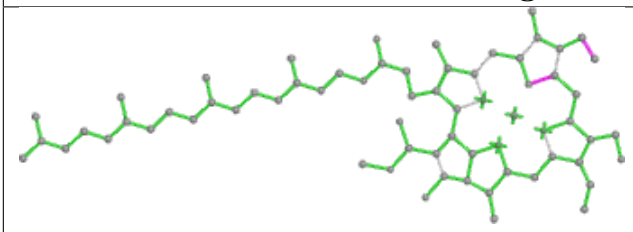
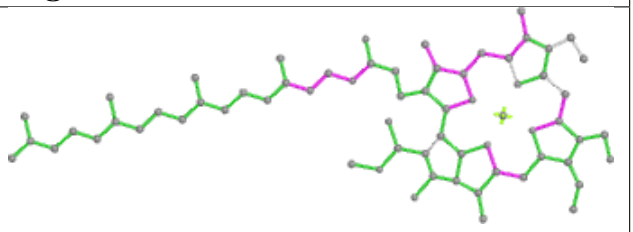


Rings

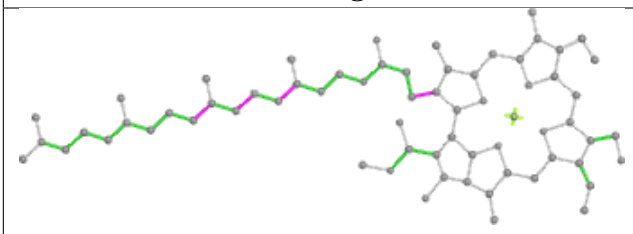
Ligand CHL g1 607



Bond lengths



Bond angles



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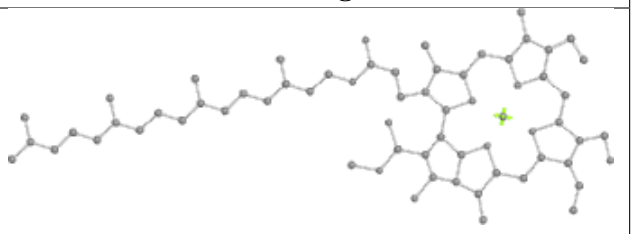
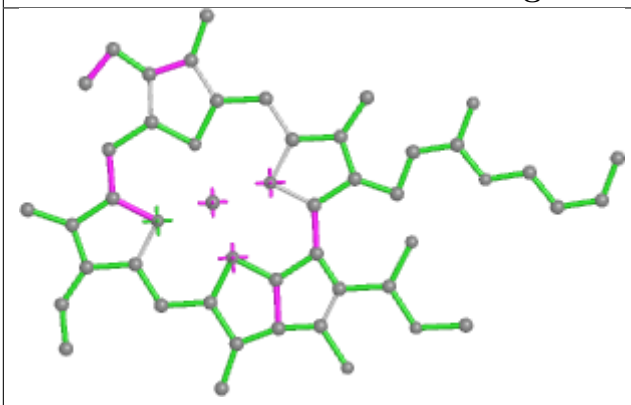


Rings

Ligand CLA R 604



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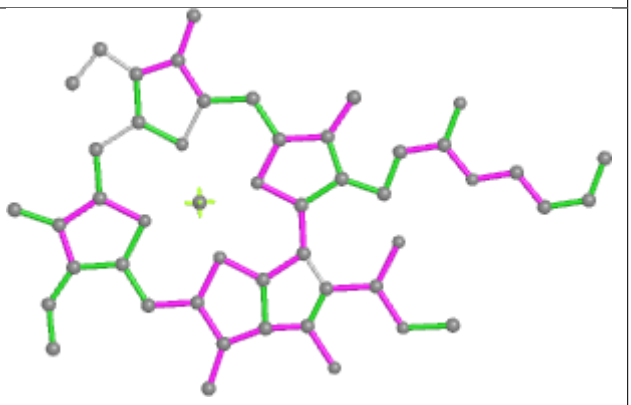
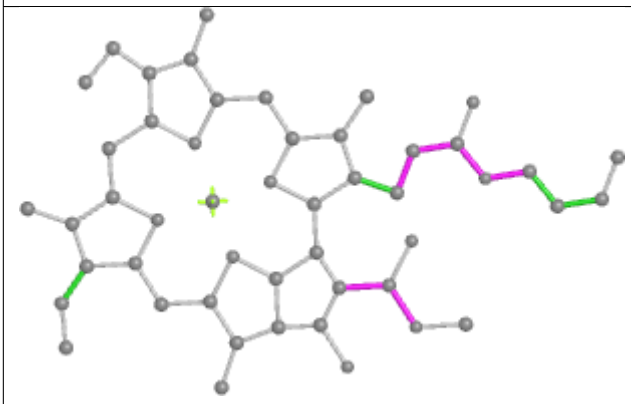


Bond angles



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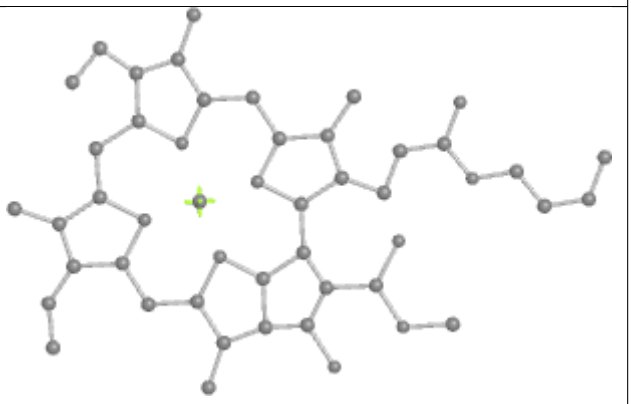
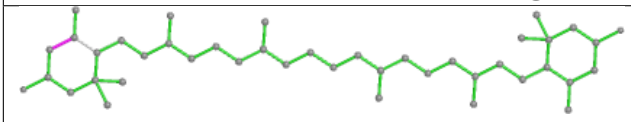


Rings

Ligand LUT n 621



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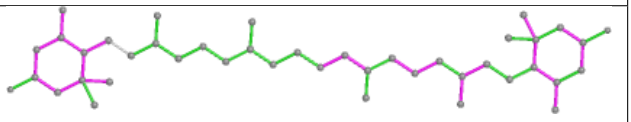
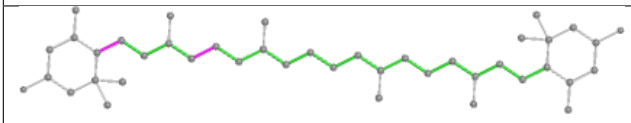


Bond angles



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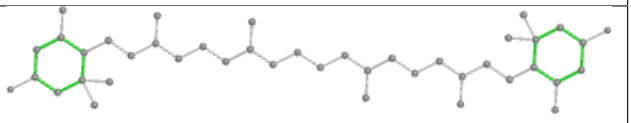
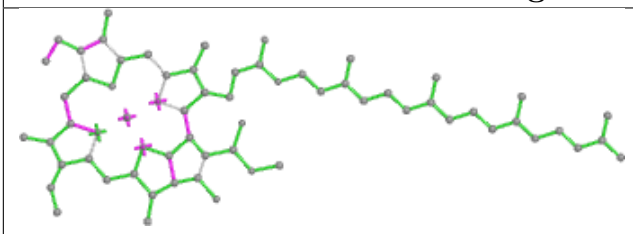
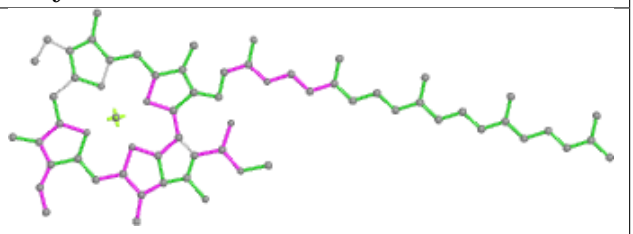


Rings

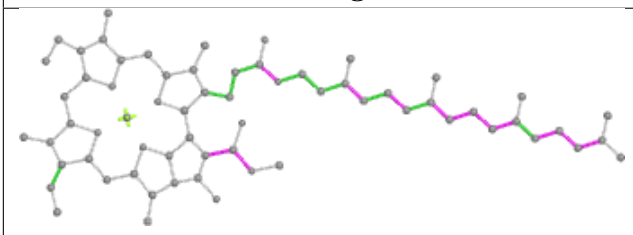
Ligand CLA y 612



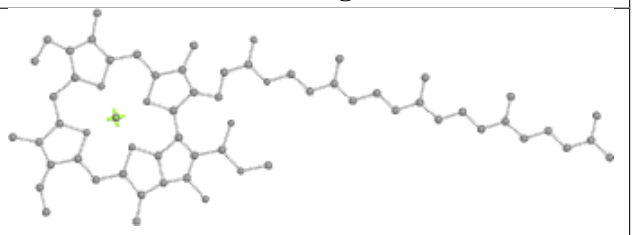
Bond lengths



Bond angles

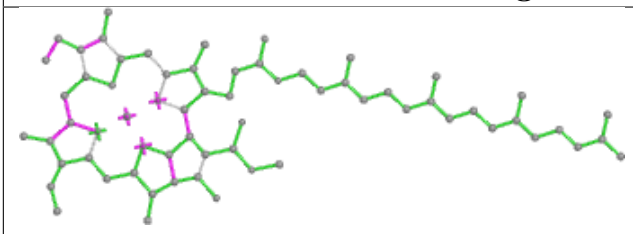


Torsions

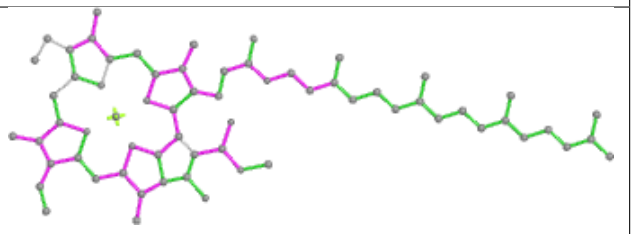


Rings

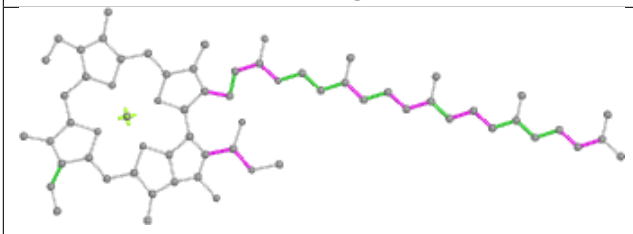
Ligand CLA C1 503



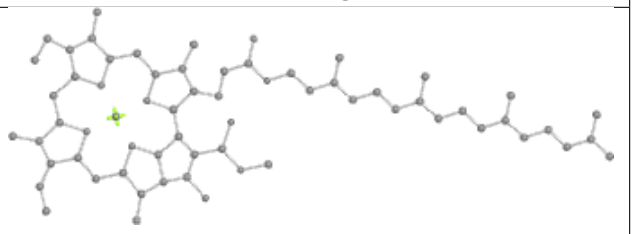
Bond lengths



Bond angles

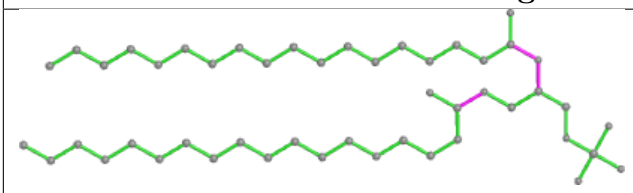


Torsions



Rings

Ligand 3PH B1 624



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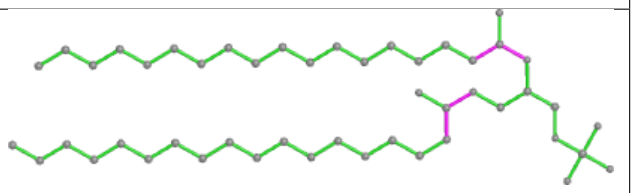
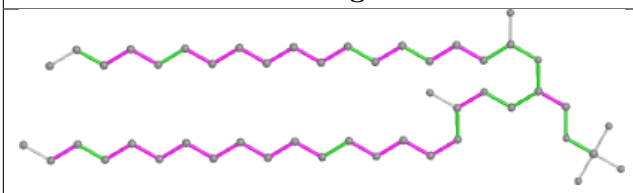


Bond angles



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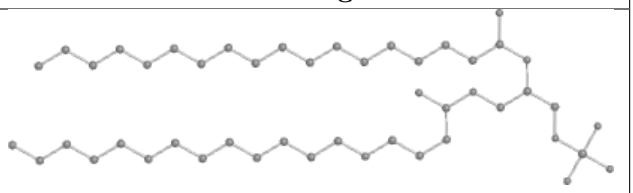
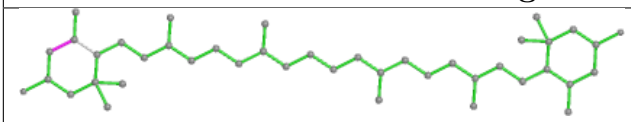


Rings

Ligand LUT S1 620



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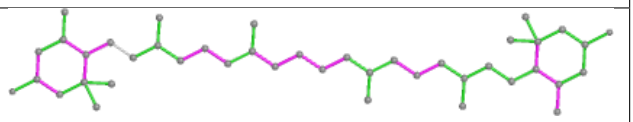

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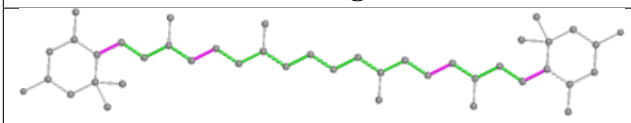

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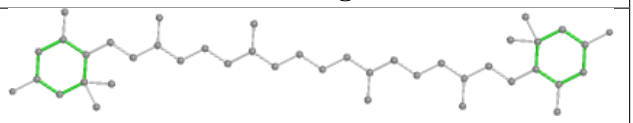
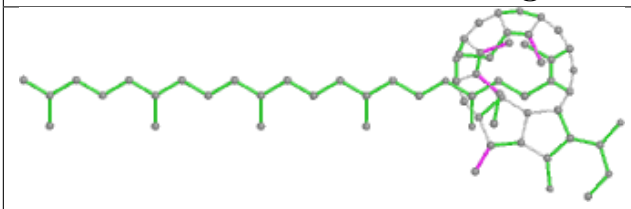


Rings

Ligand PHO A 409



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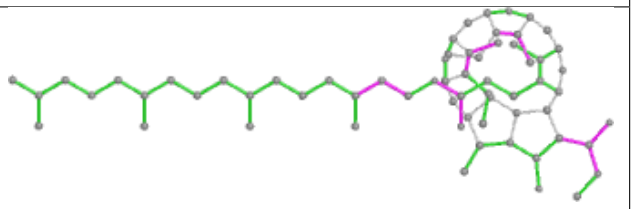

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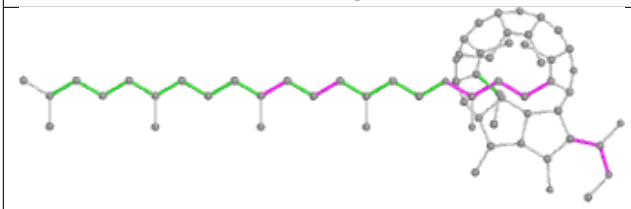

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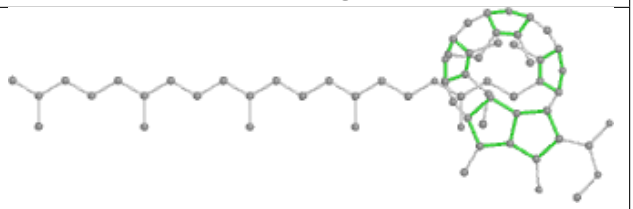
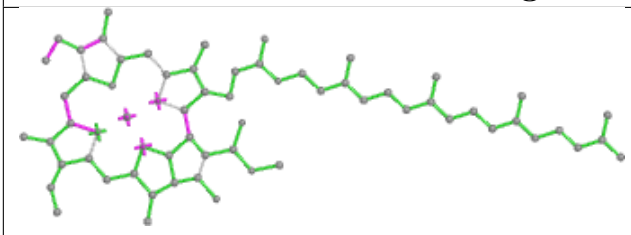


Rings

Ligand CLA s1 610



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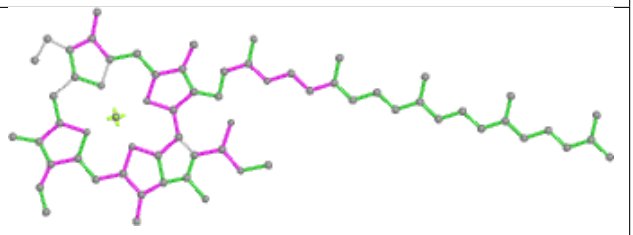

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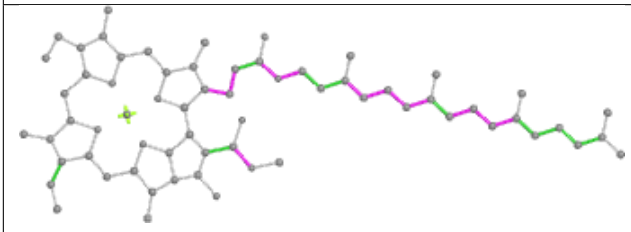

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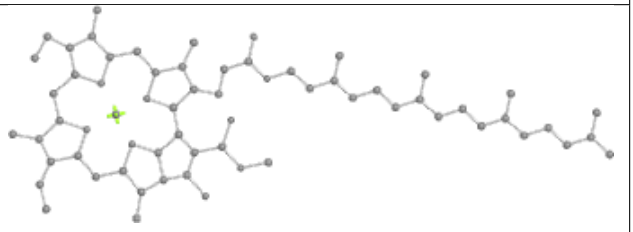
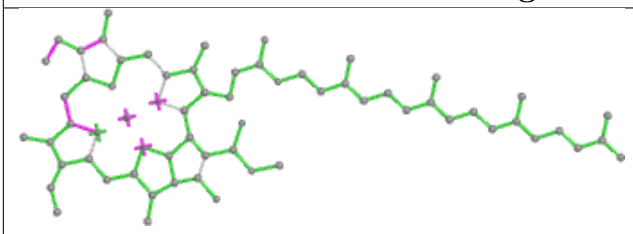


Rings

Ligand CLA b1 617



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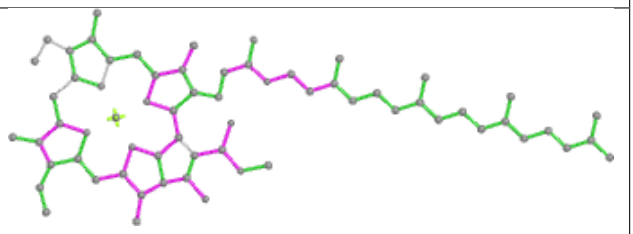

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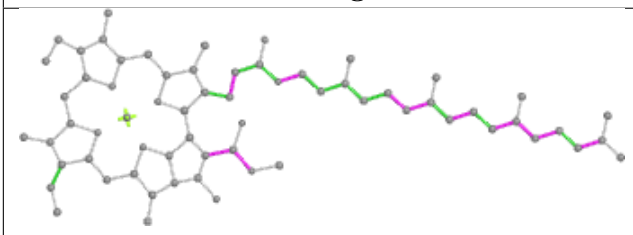

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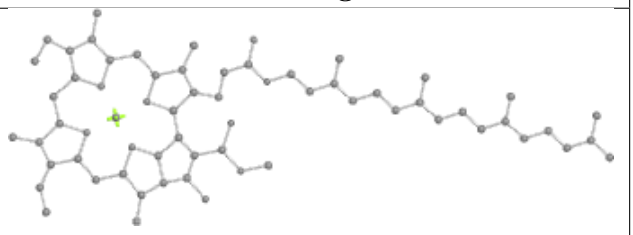
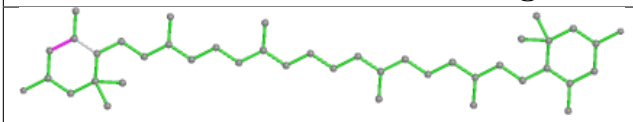


Rings

Ligand LUT y1 621



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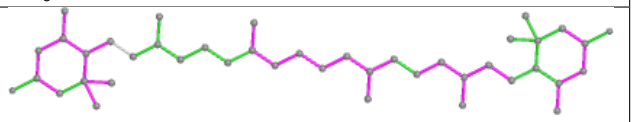
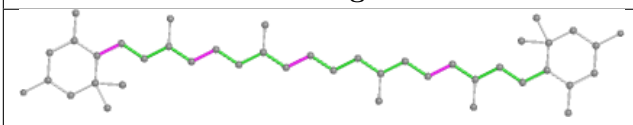


Bond angles



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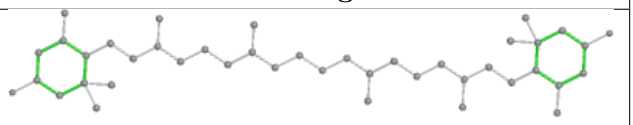
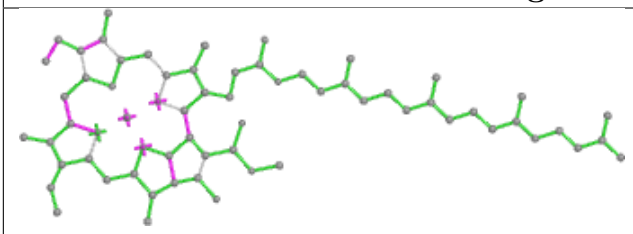


Rings

Ligand CLA d 403



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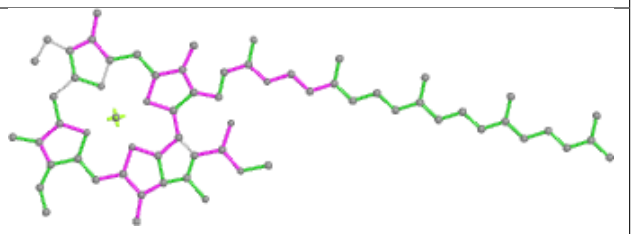
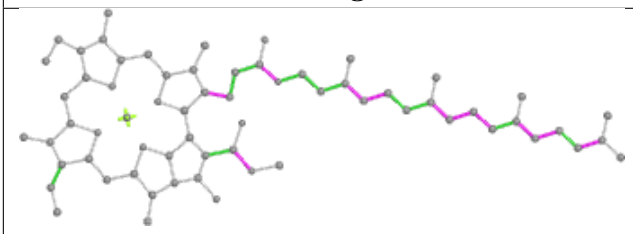


Bond angles



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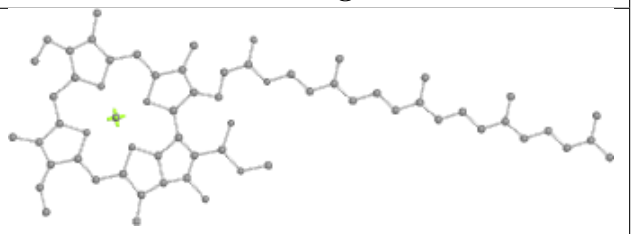
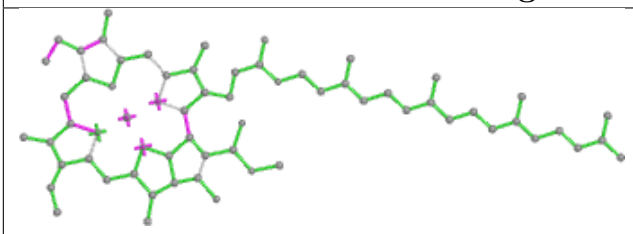


Rings

Ligand CLA n1 603



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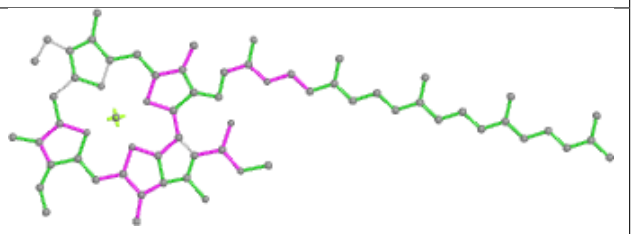
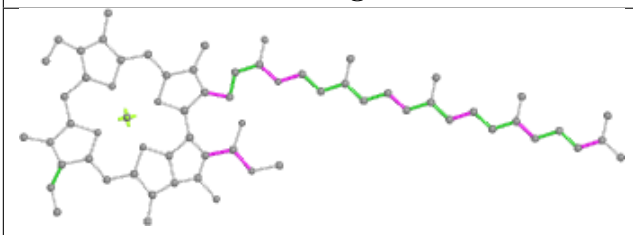


Bond angles



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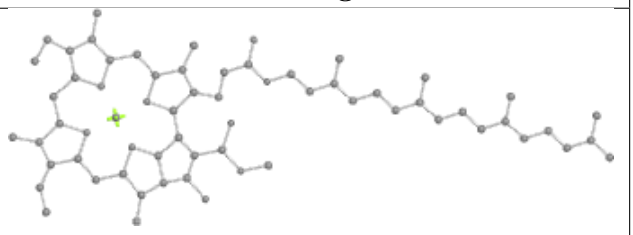
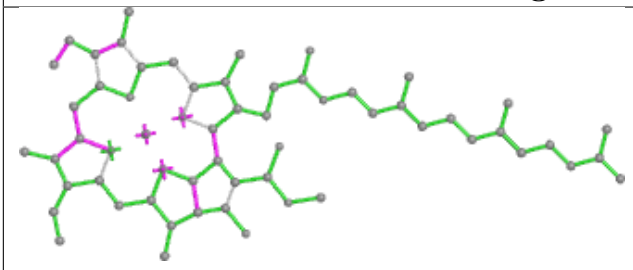


Rings

Ligand CLA r 610



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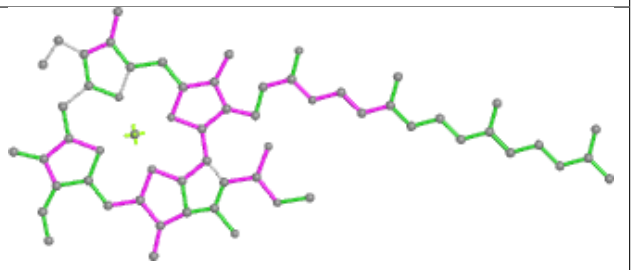
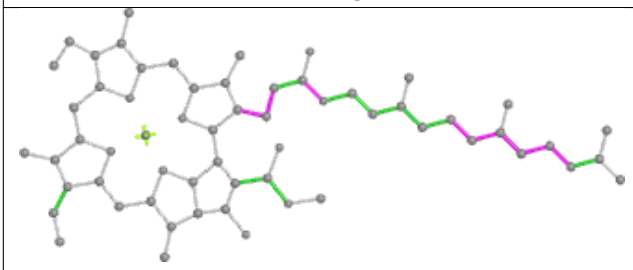


Bond angles



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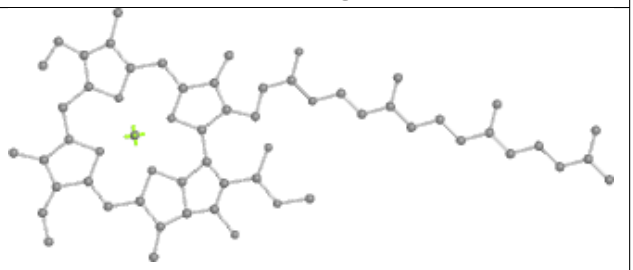
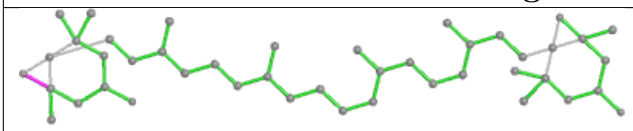


Rings

Ligand XAT R 621



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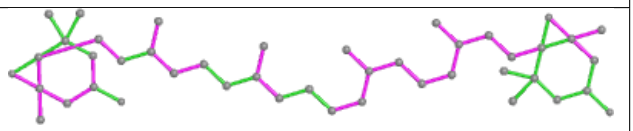
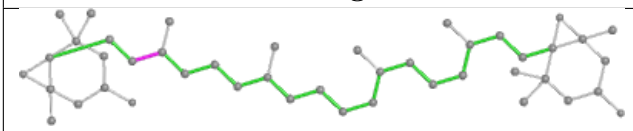


Bond angles



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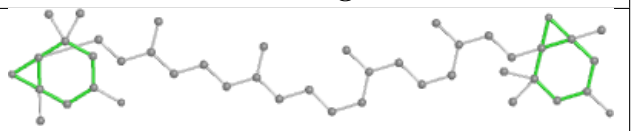
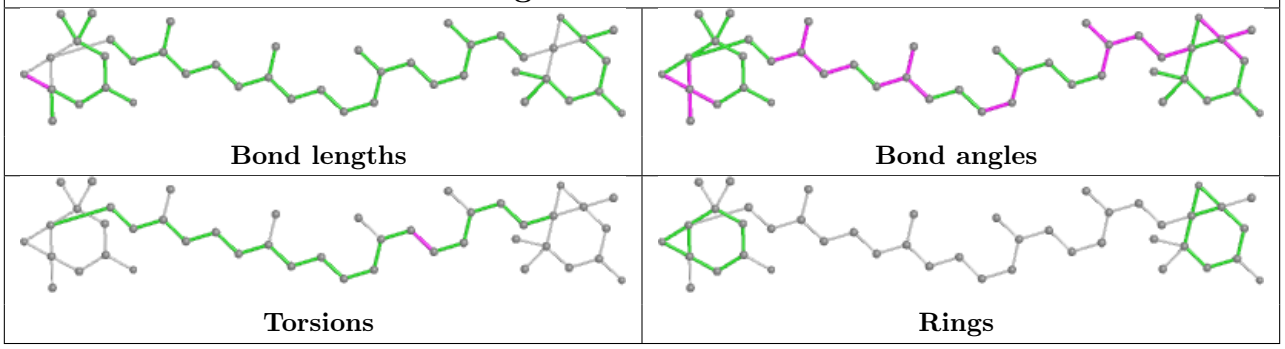
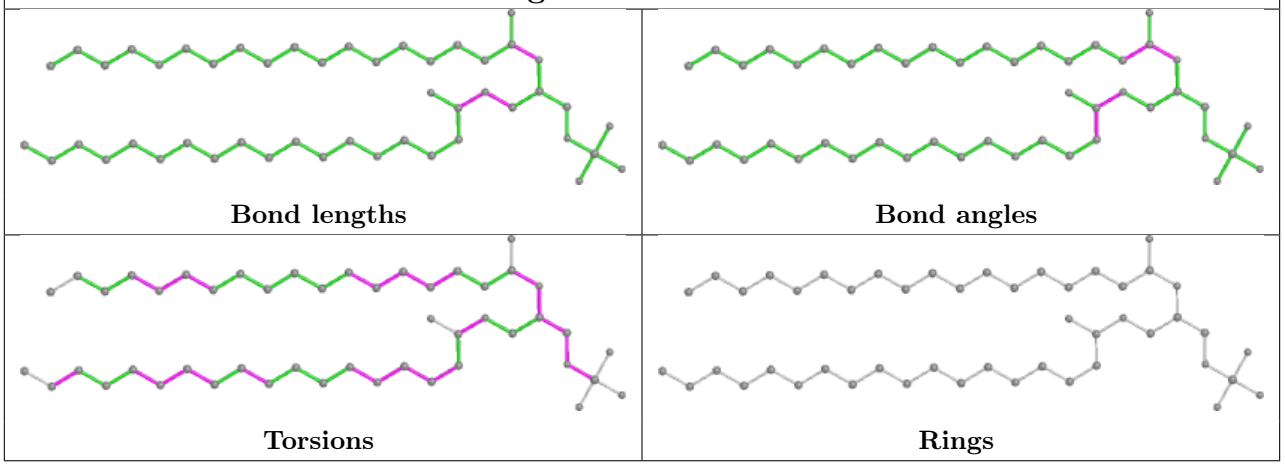


Rings

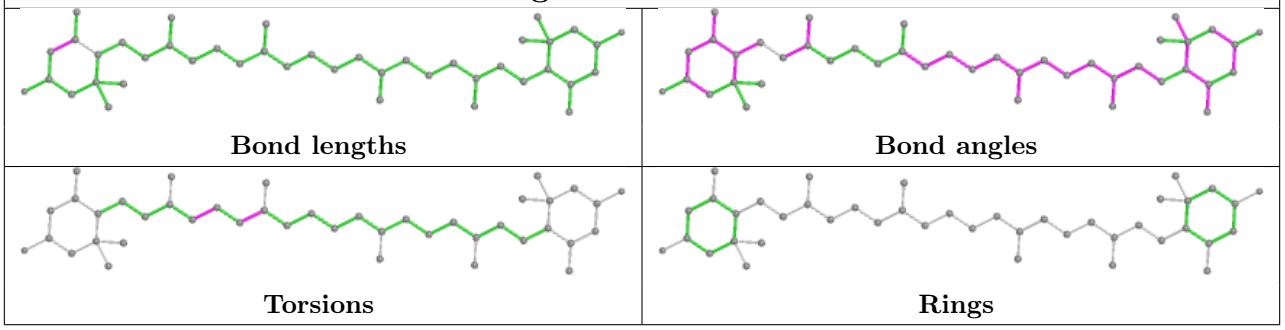
Ligand XAT N1 622



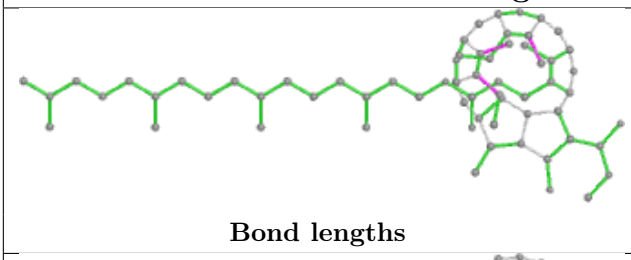
Ligand 3PH T 101



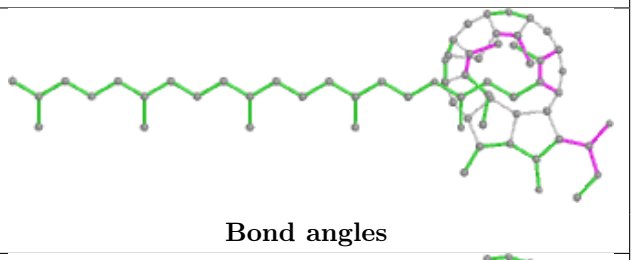
Ligand LUT s 621



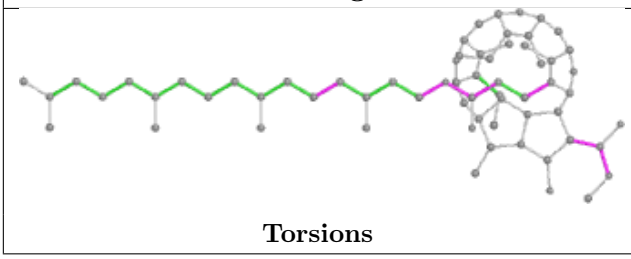
Ligand PHO A1 409



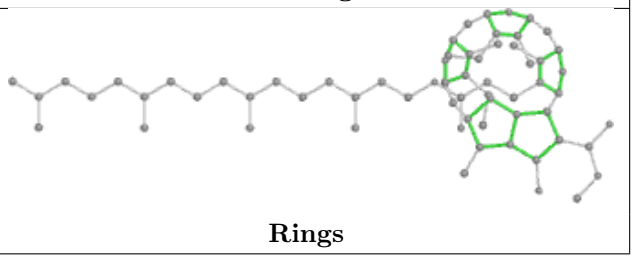
Bond lengths



Bond angles

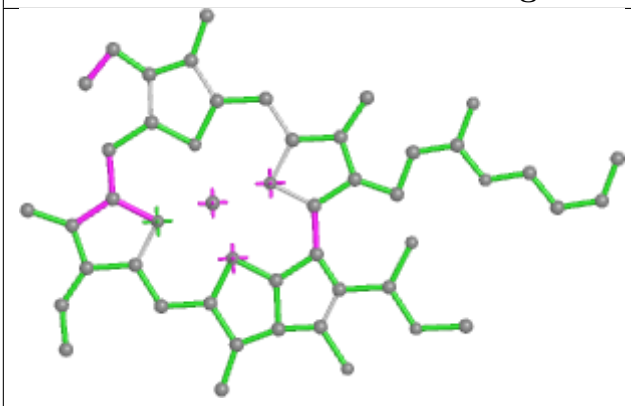


Torsions



Rings

Ligand CLA a1 407



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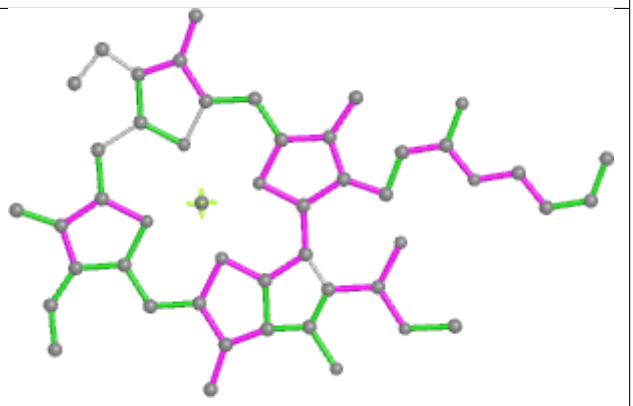
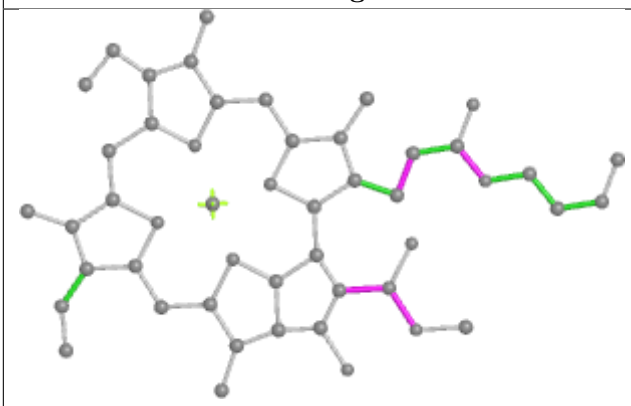


Bond angles



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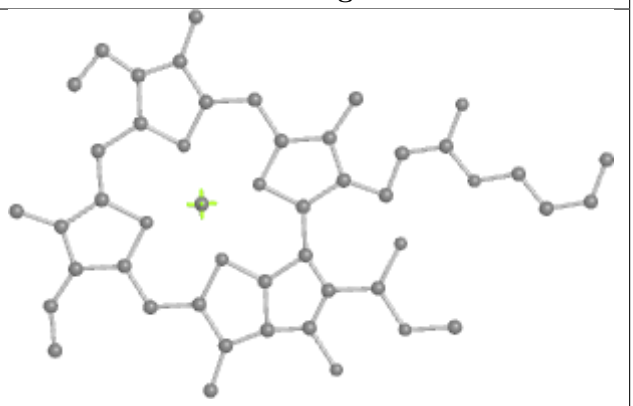
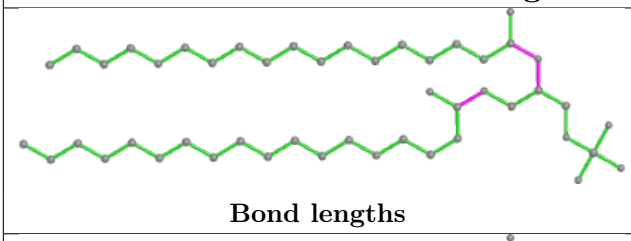
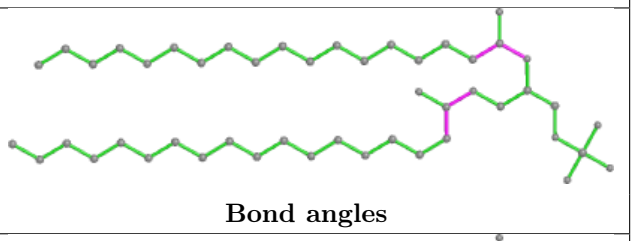


Rings

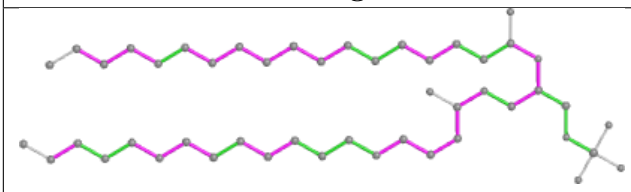
Ligand 3PH t1 101



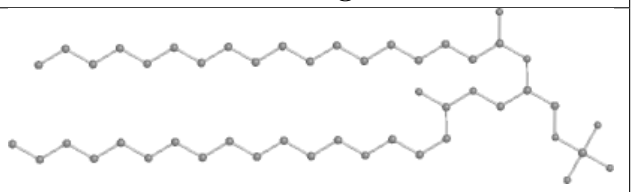
Bond lengths



Bond angles

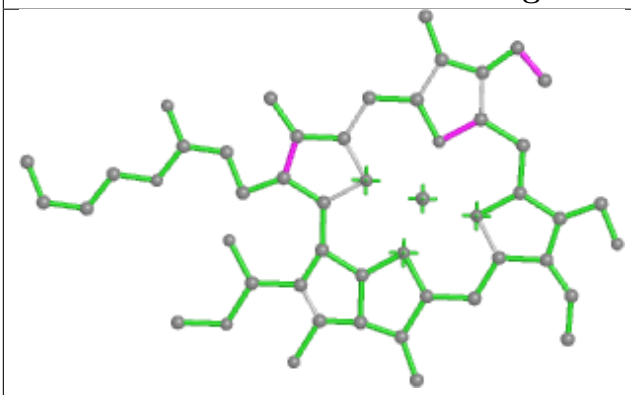


Torsions

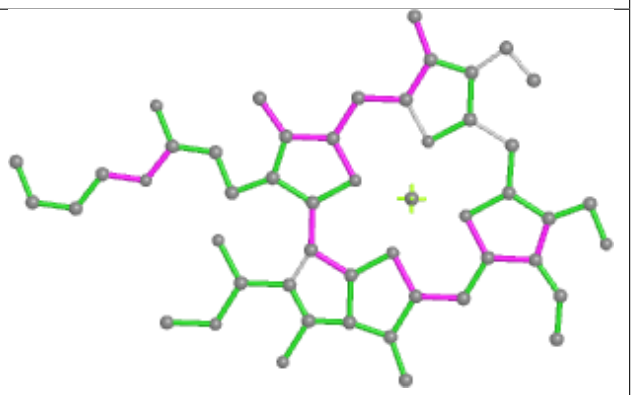


Rings

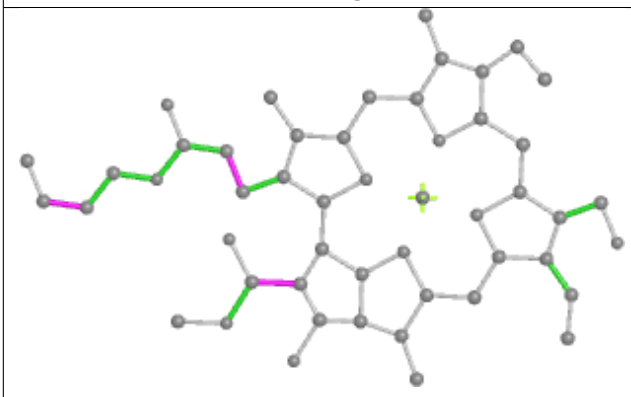
Ligand CHL N 608



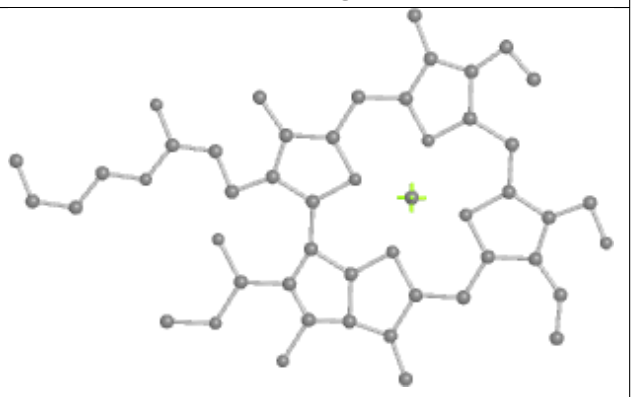
Bond lengths



Bond angles

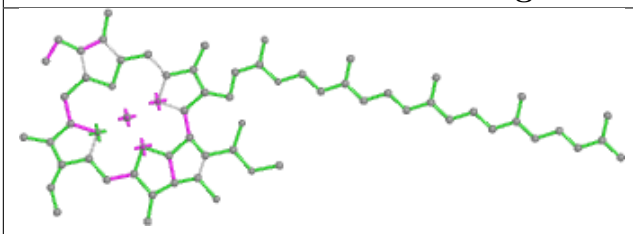


Torsions



Rings

Ligand CLA B1 614



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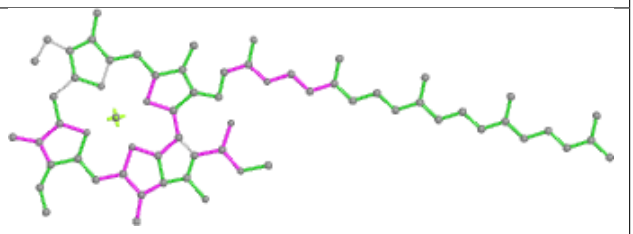
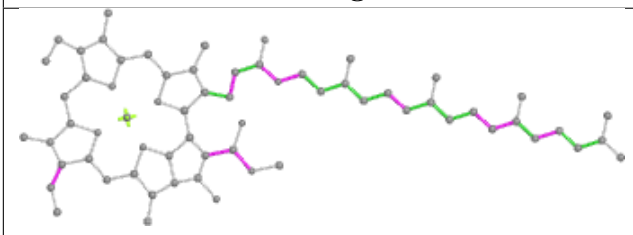


Bond angles



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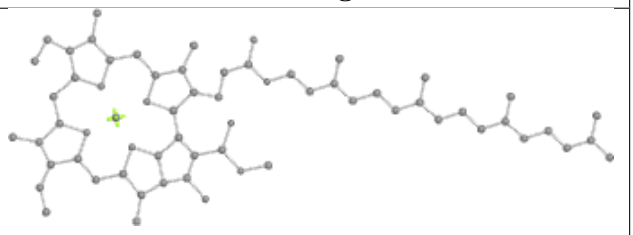
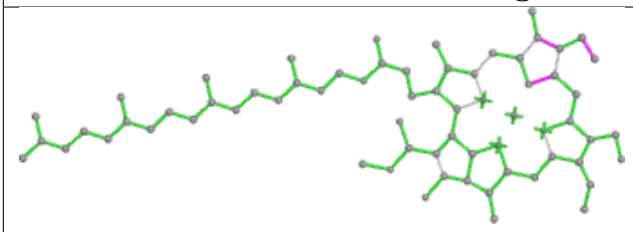


Rings

Ligand CHL N1 605



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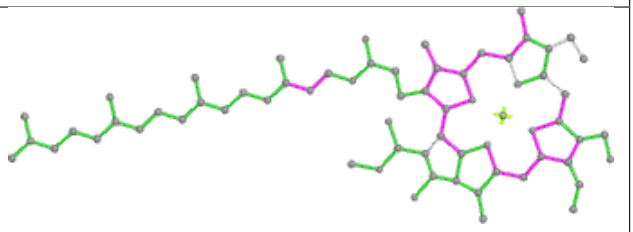

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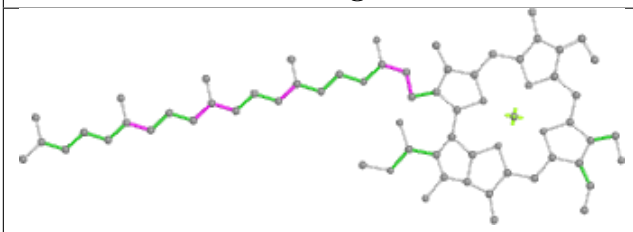
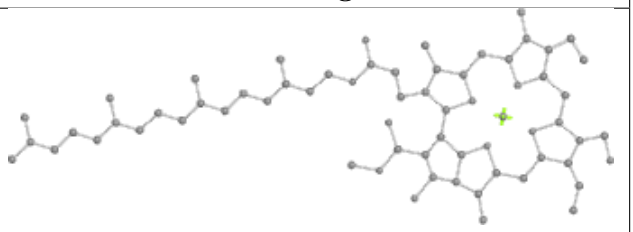
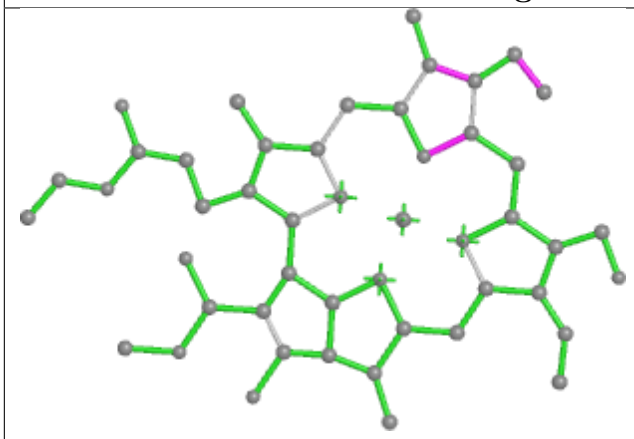


Torsions



Rings

Ligand CHL G1 605



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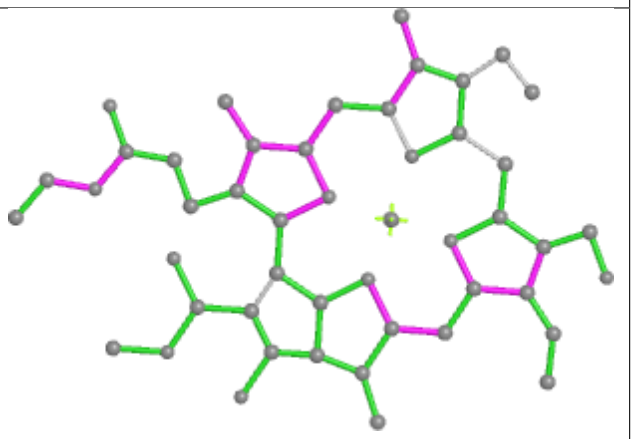
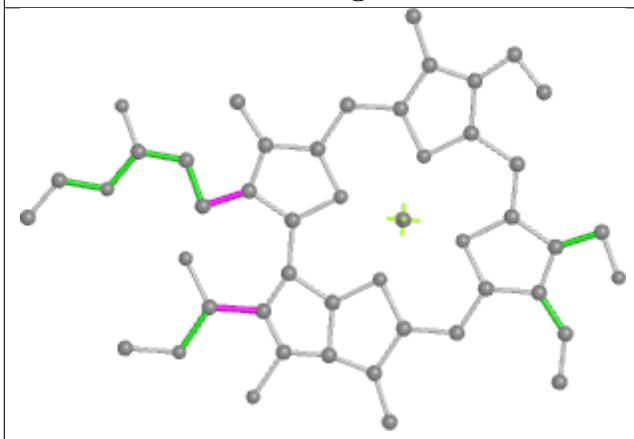
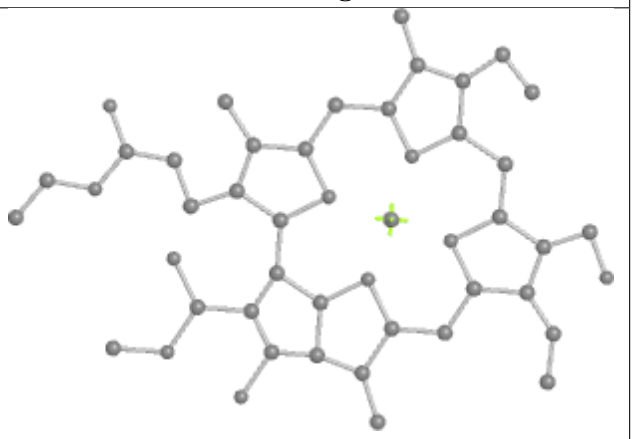


Bond angles

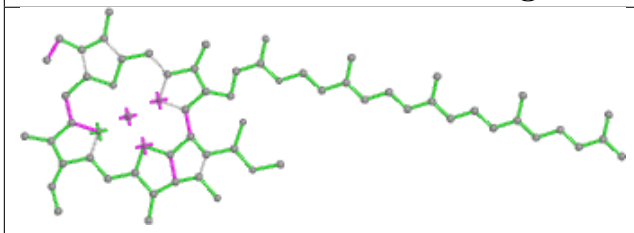


Torsions



Rings

Ligand CLA n1 604



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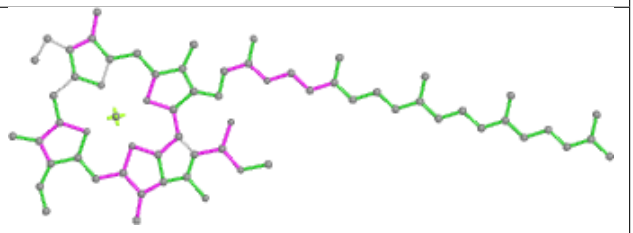
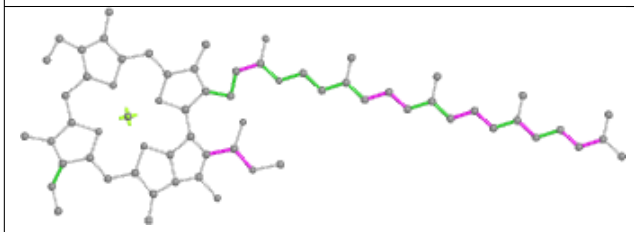


Bond angles



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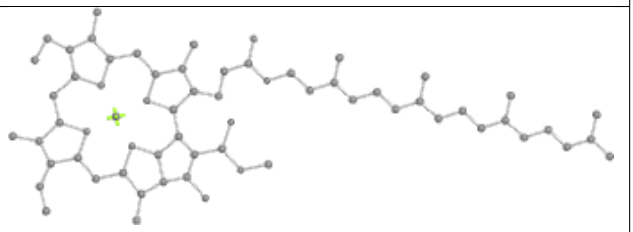
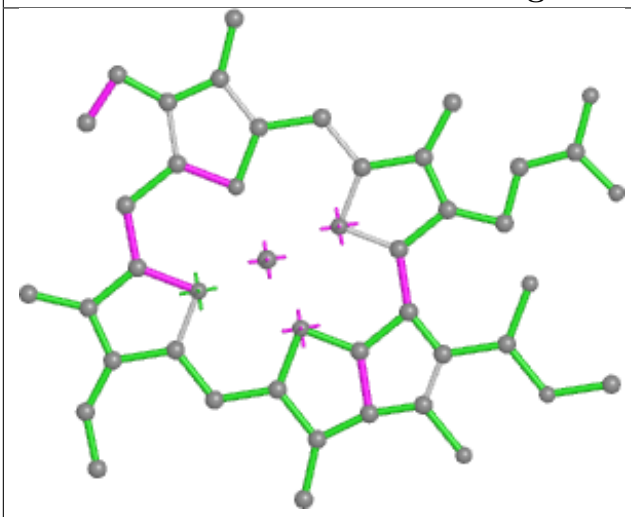


Rings

Ligand CLA S 612



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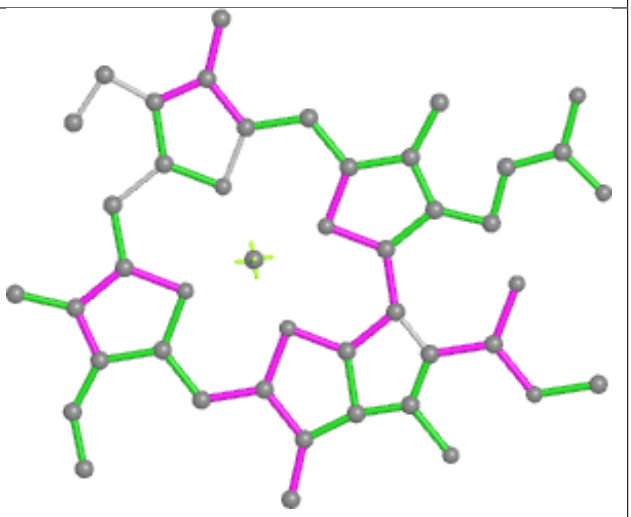
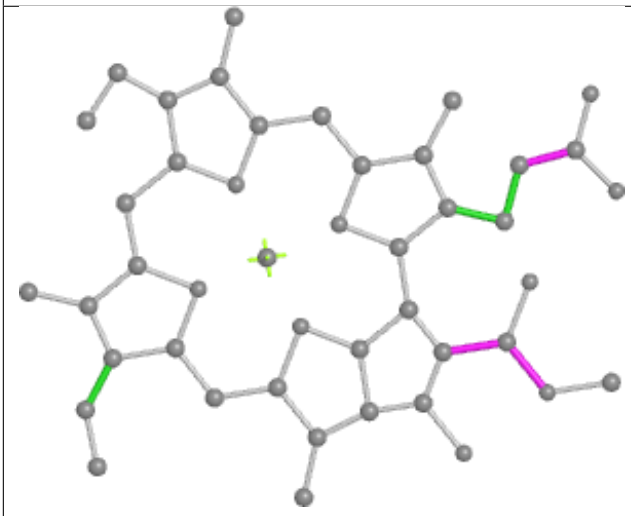


Bond angles



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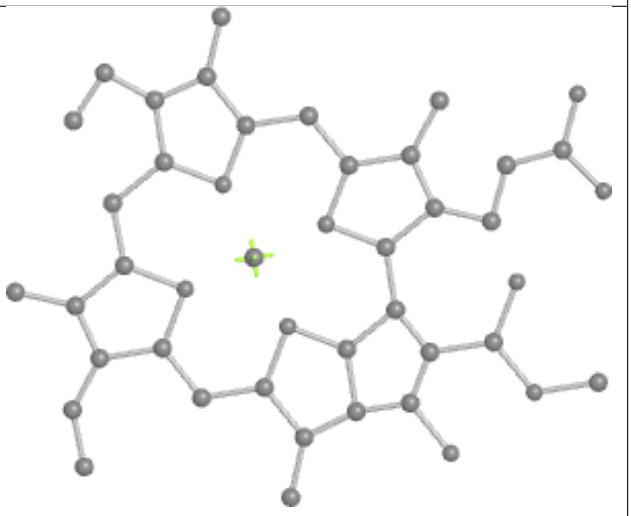
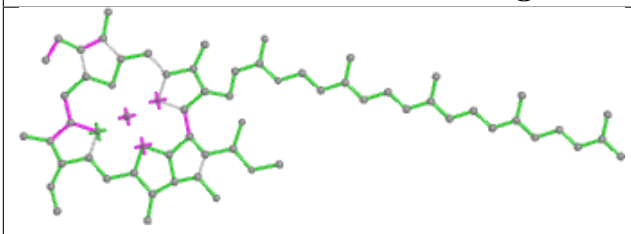


Rings

Ligand CLA B1 608



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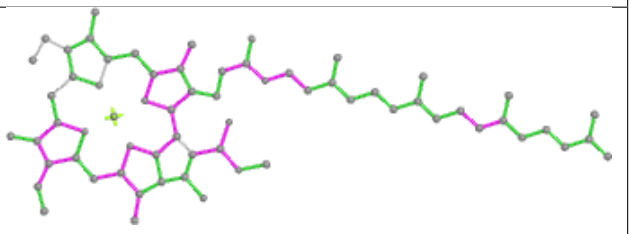
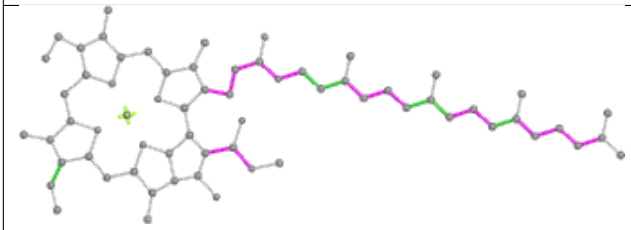


Bond angles



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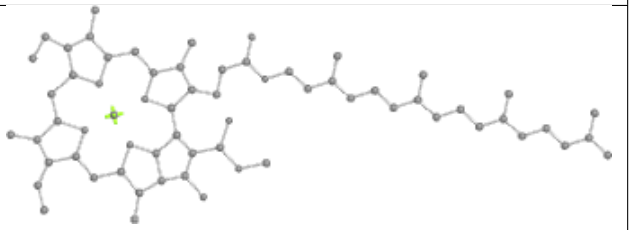
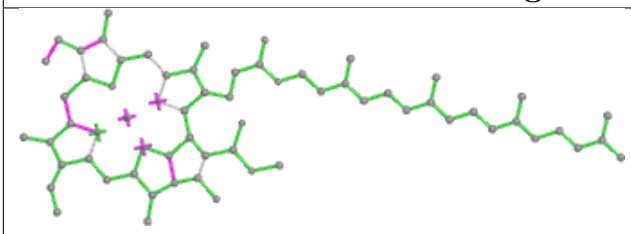


Rings

Ligand CLA C 513



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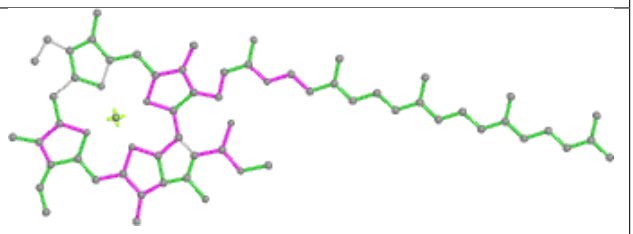
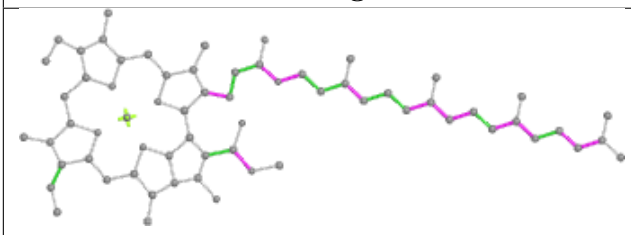


Bond angles



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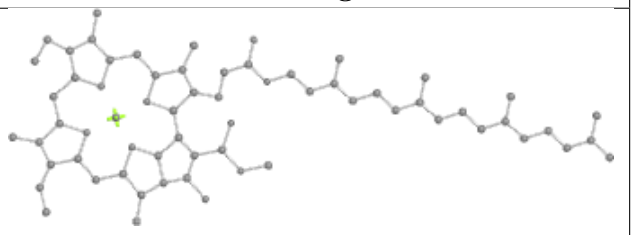
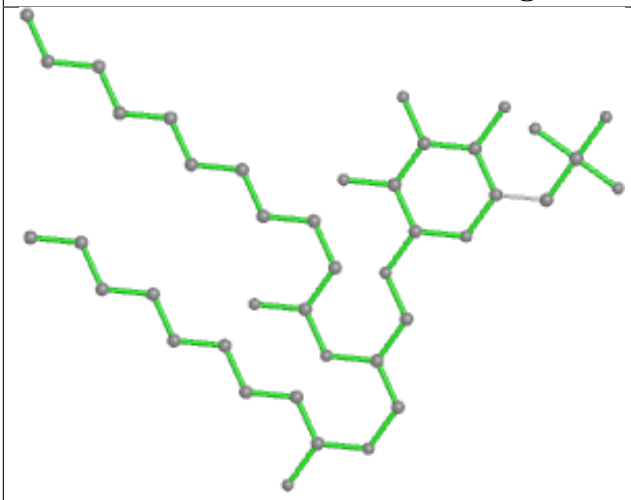


Rings

Ligand SQD b1 621



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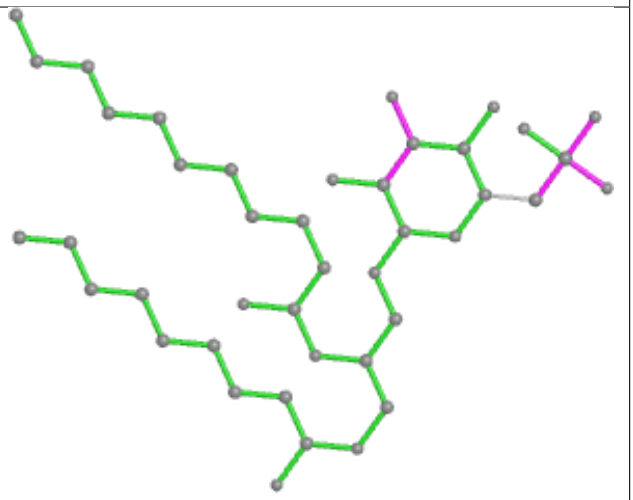
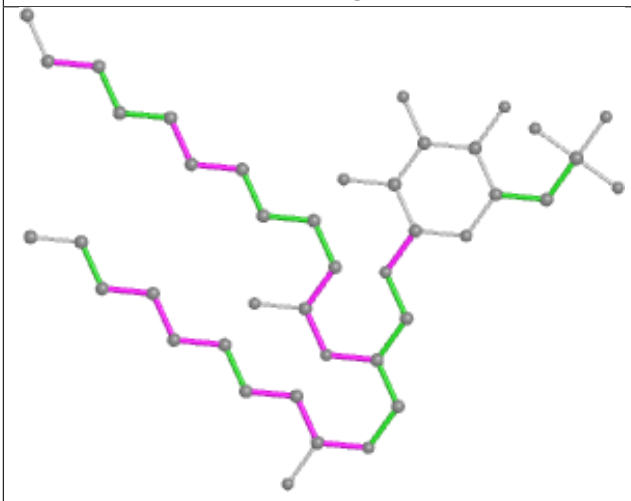
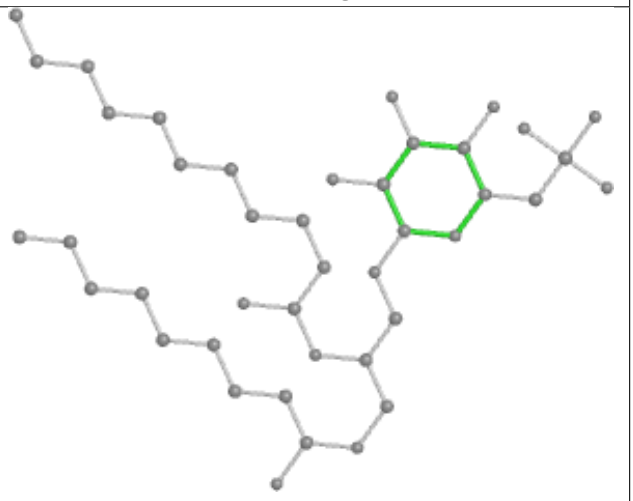


Bond angles

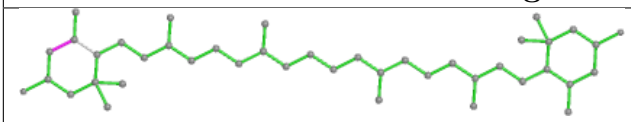


Torsions



Rings

Ligand LUT G 620



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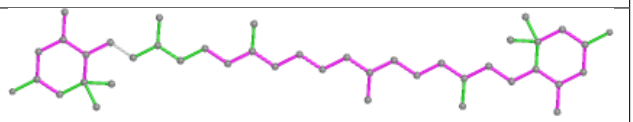
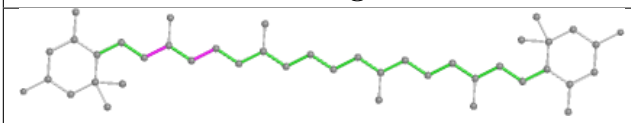


Bond angles



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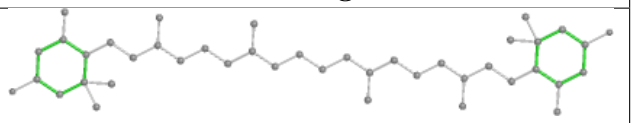
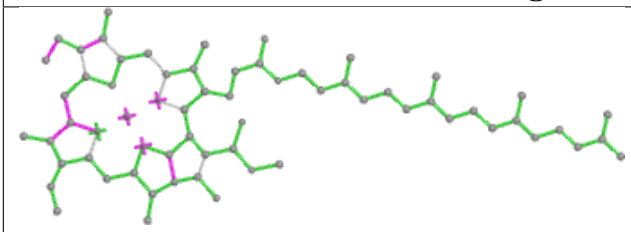


Rings

Ligand CLA d 402



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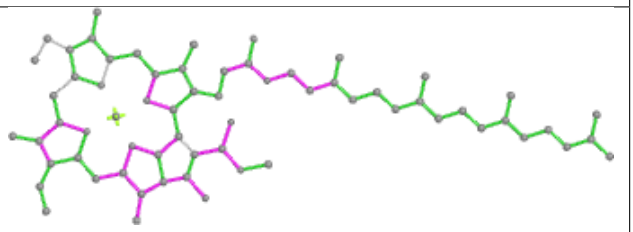
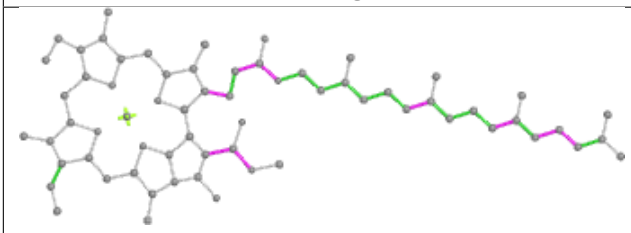


Bond angles



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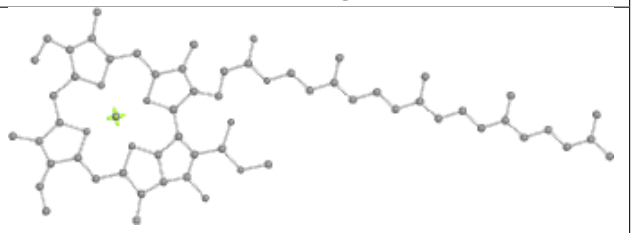
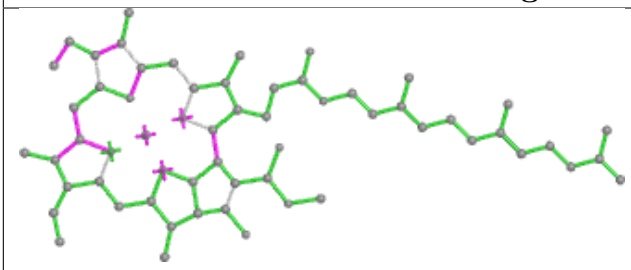


Rings

Ligand CLA s1 609



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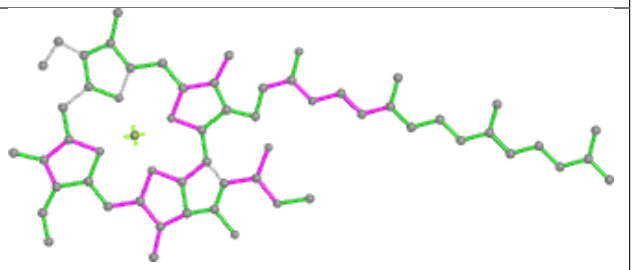
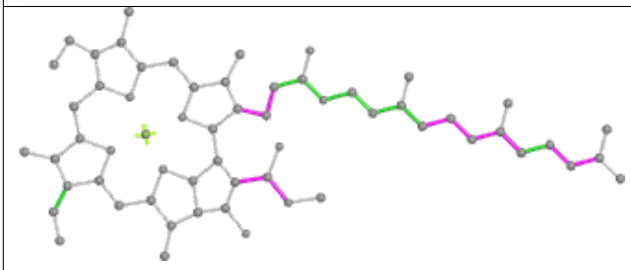


Bond angles



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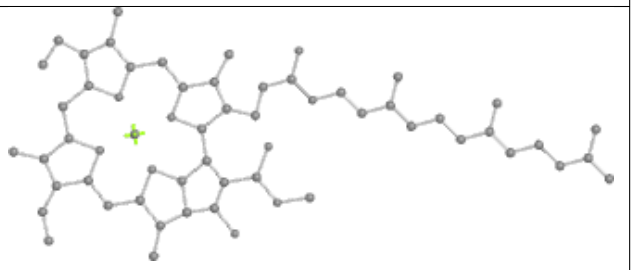
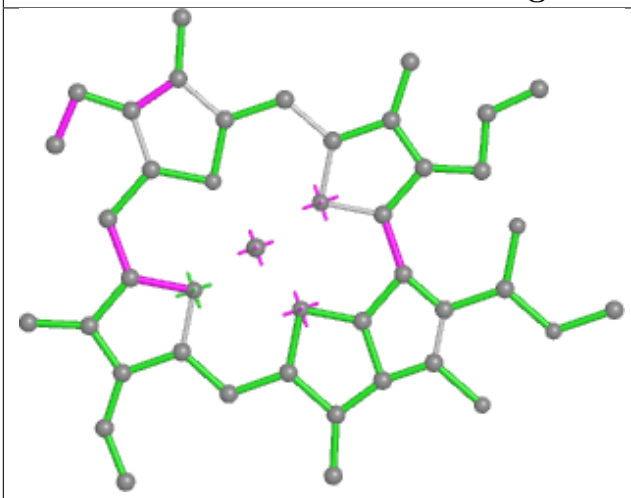


Rings

Ligand CLA g 612



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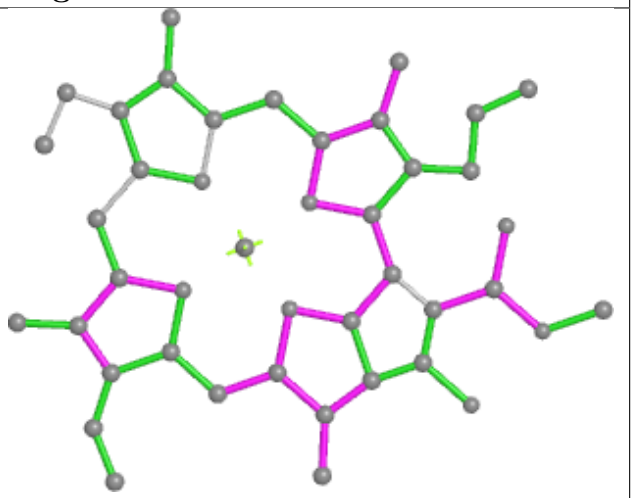
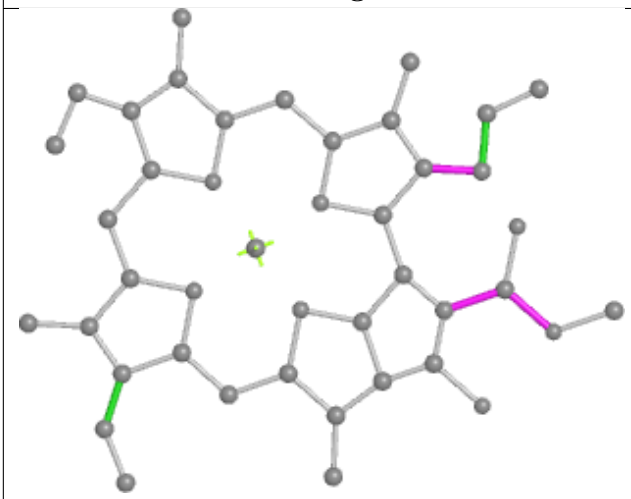
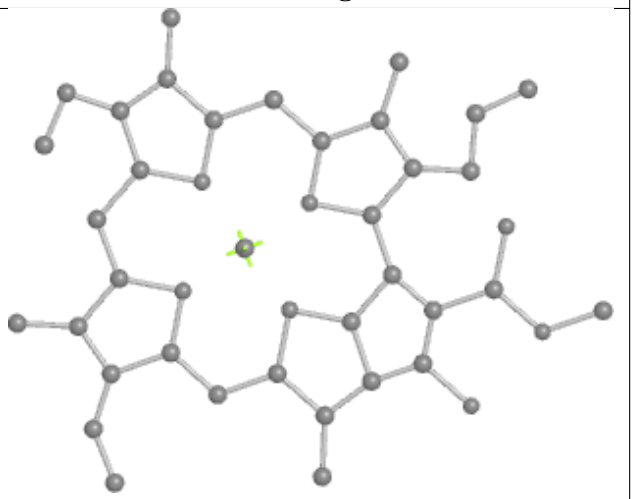


Bond angles

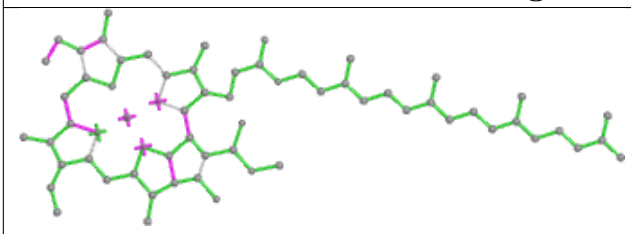


Torsions



Rings

Ligand CLA b 614



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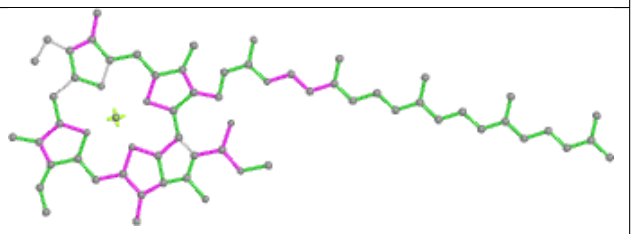
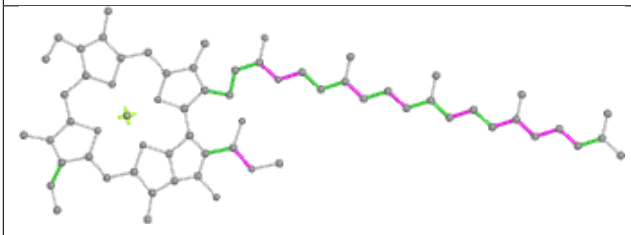


Bond angles



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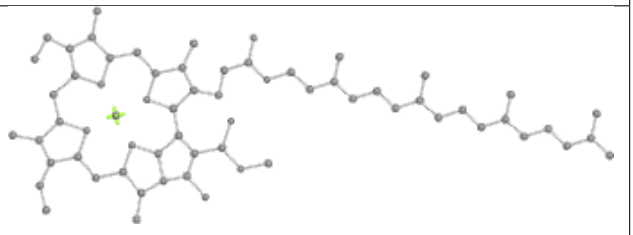
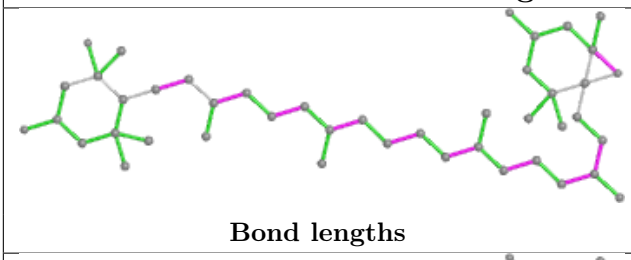
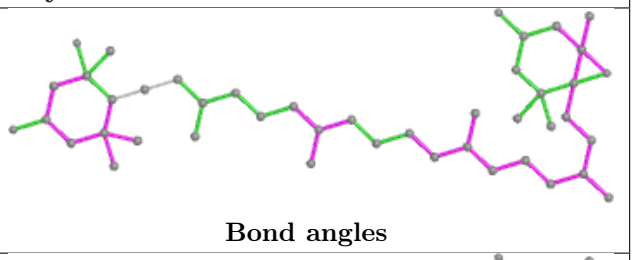


Rings

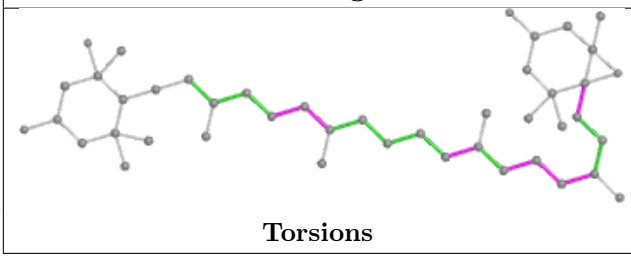
Ligand NEX y1 623



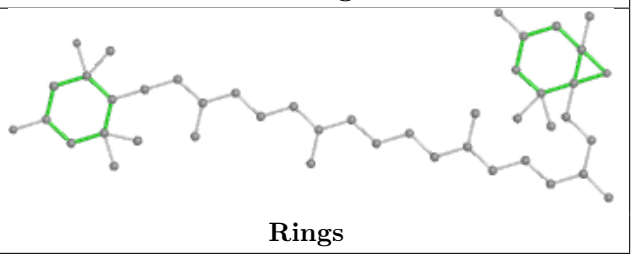
Bond lengths



Bond angles

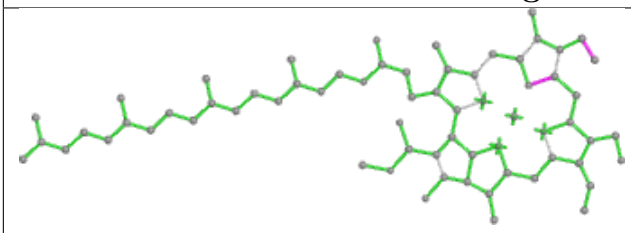


Torsions

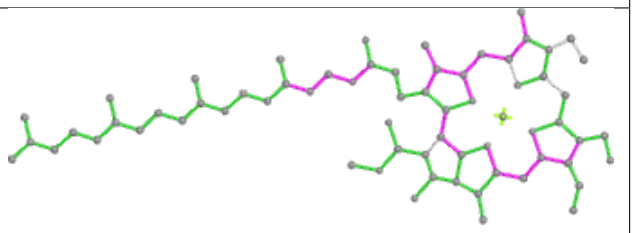


Rings

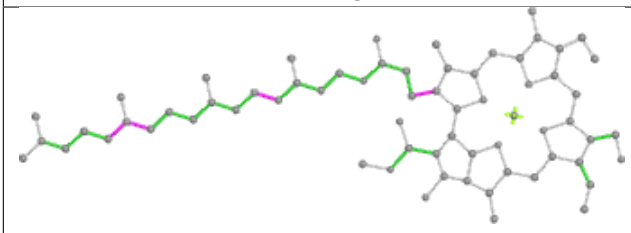
Ligand CHL N 607



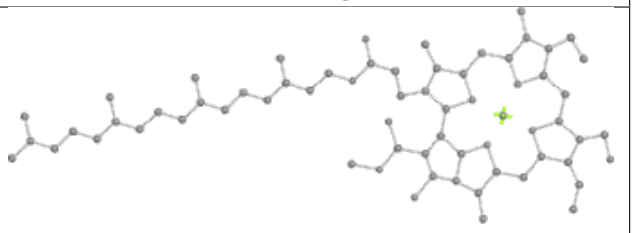
Bond lengths



Bond angles

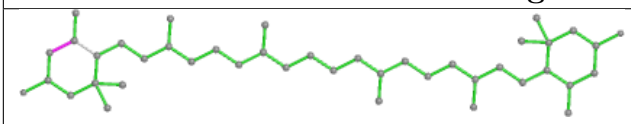


Torsions

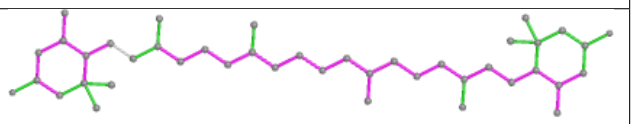


Rings

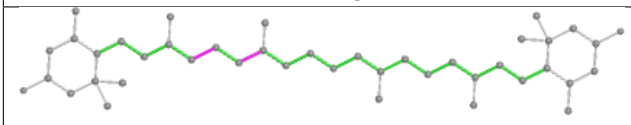
Ligand LUT n 620



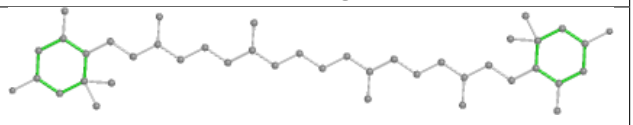
Bond lengths



Bond angles

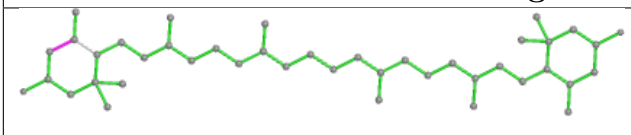


Torsions



Rings

Ligand LUT y 621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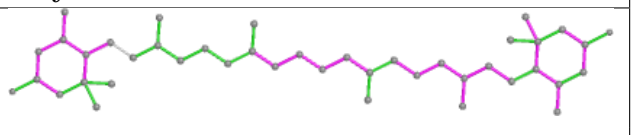
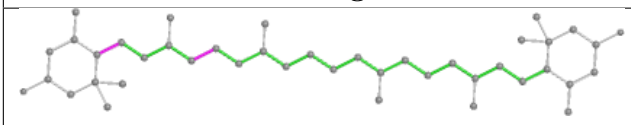
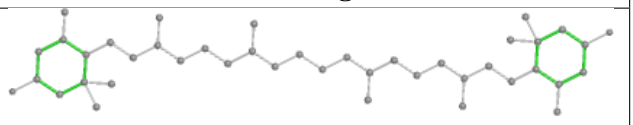
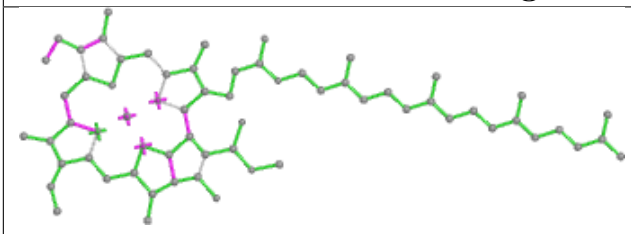

Bond angles


Torsions


Rings

Ligand CLA c1 504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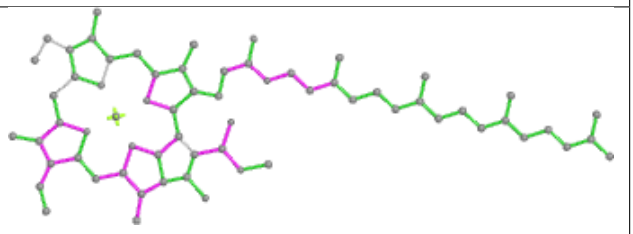
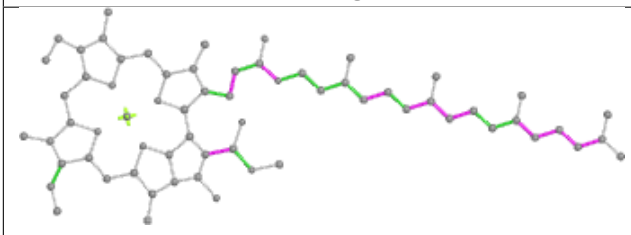

Bond angles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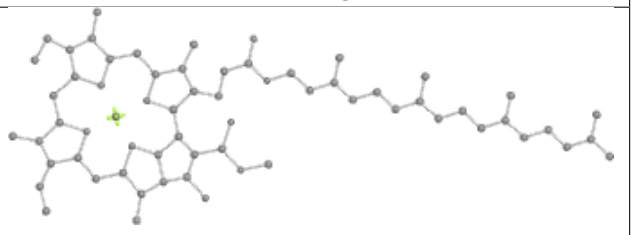
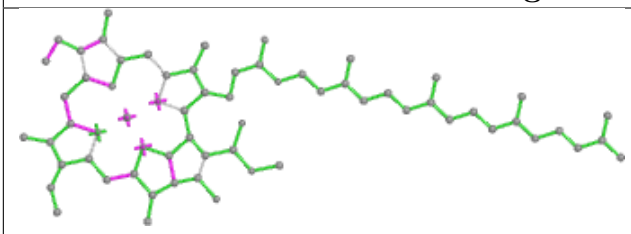
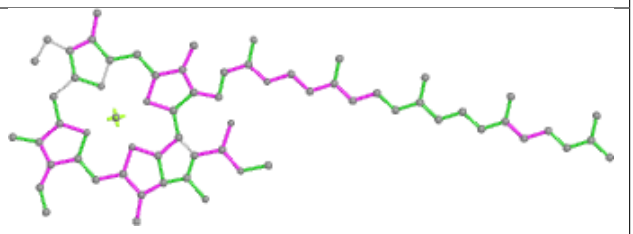
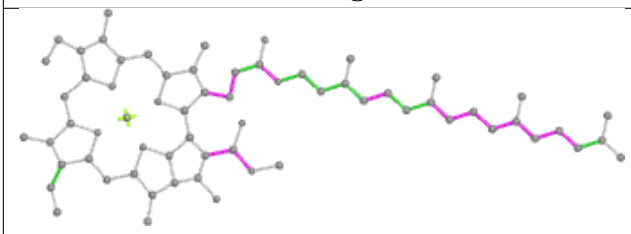

Rings

Ligand CLA Y 602


Bond lengths


Bond angles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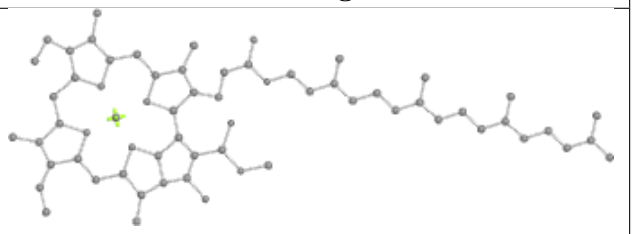
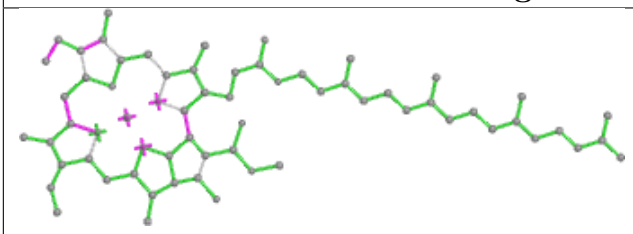

Rings

Ligand CLA N1 610



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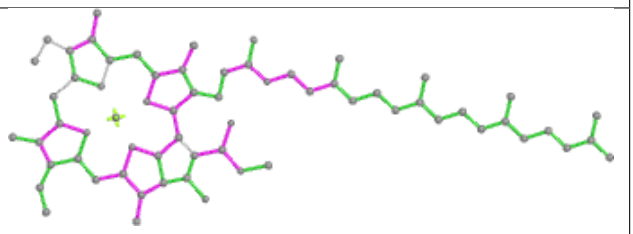
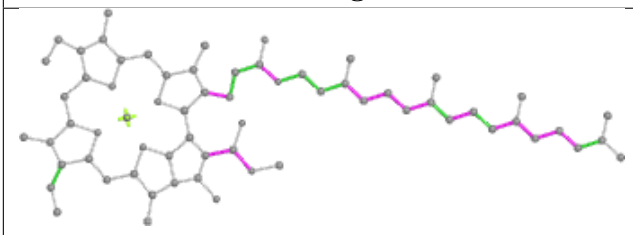


Bond angles



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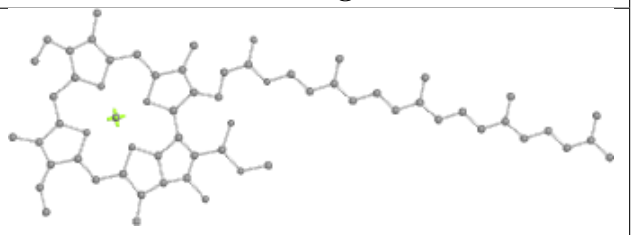
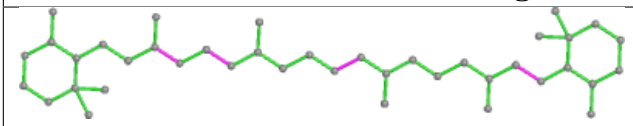


Rings

Ligand BCR C1 517



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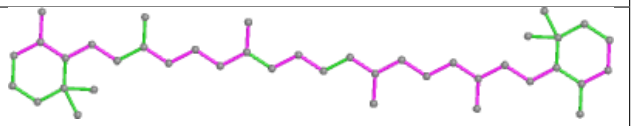
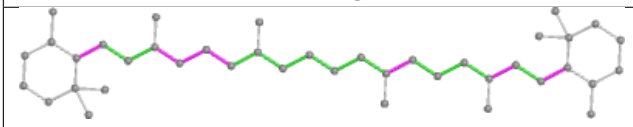


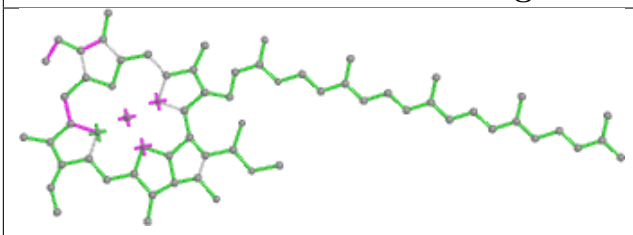
Bond angles



Torsions

Rings

Ligand CLA Y1 604



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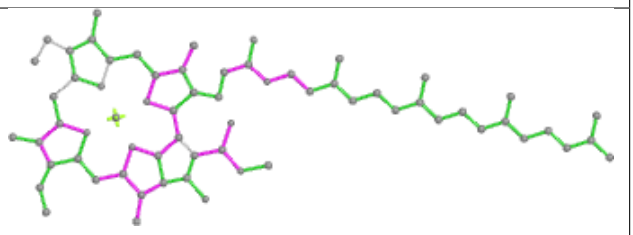
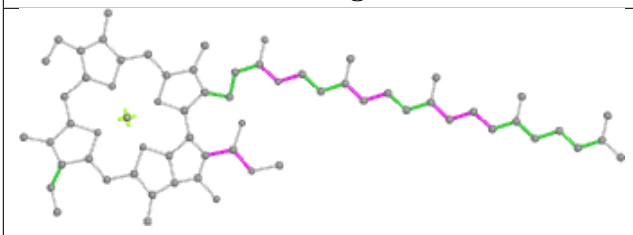
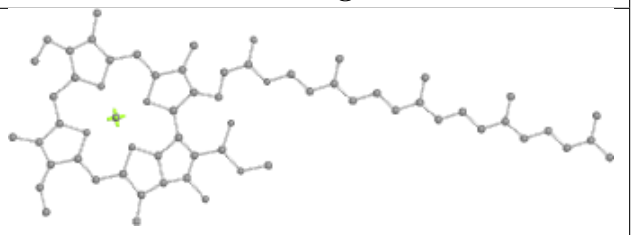


Bond angles

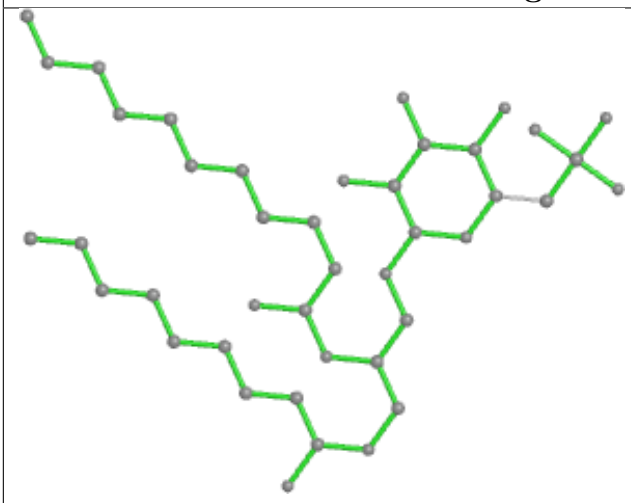


Torsions



Rings

Ligand SQD B 621



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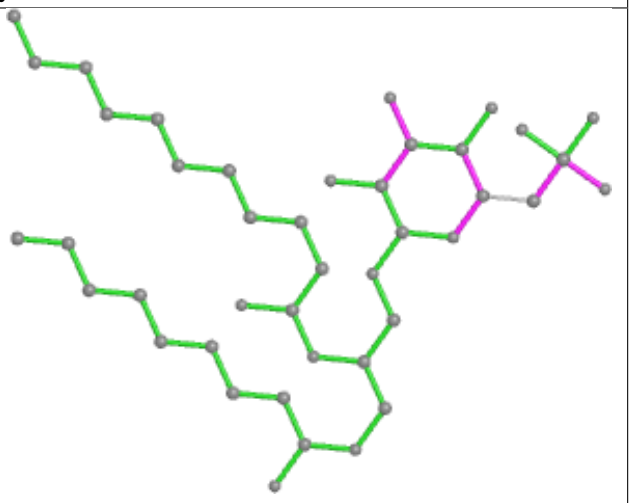
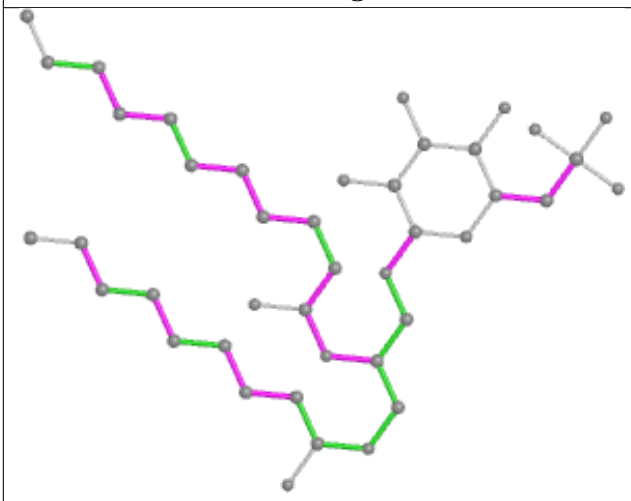


Bond angles



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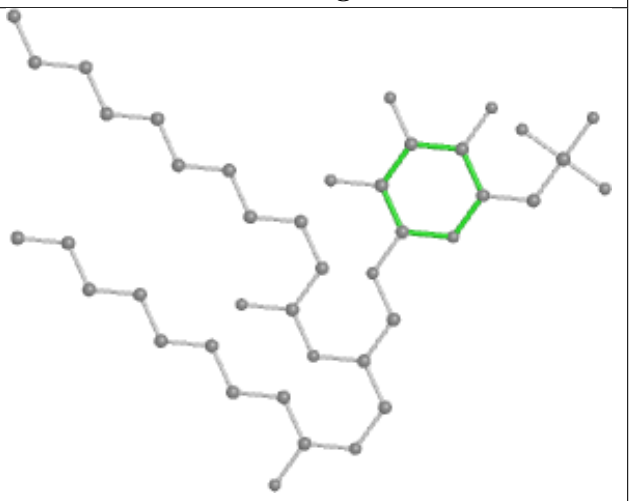
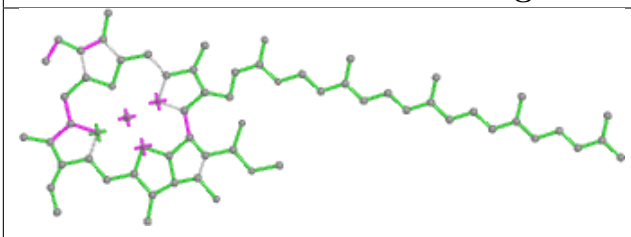


Rings

Ligand CLA Y1 612



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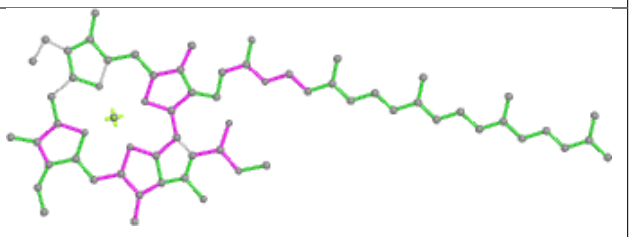
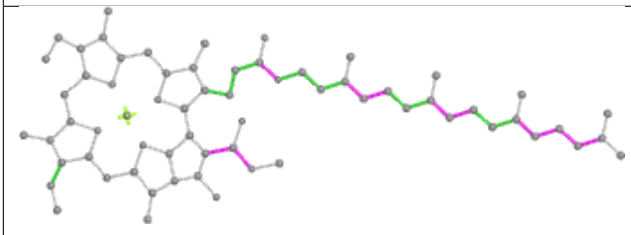


Bond angles



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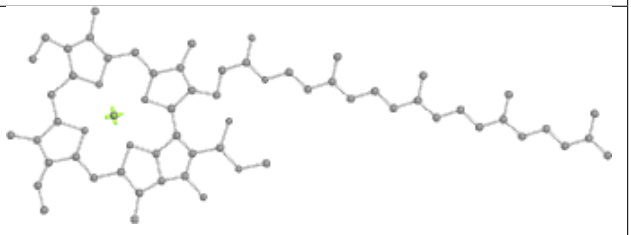
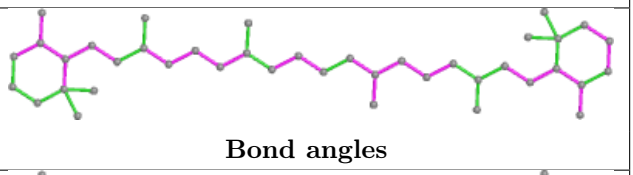


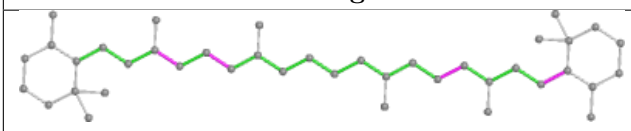
Rings

Ligand BCR a1 411

Bond lengths



Bond angles



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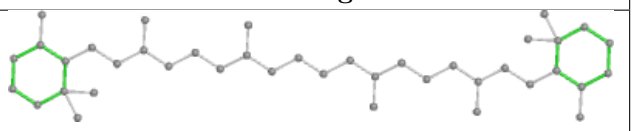
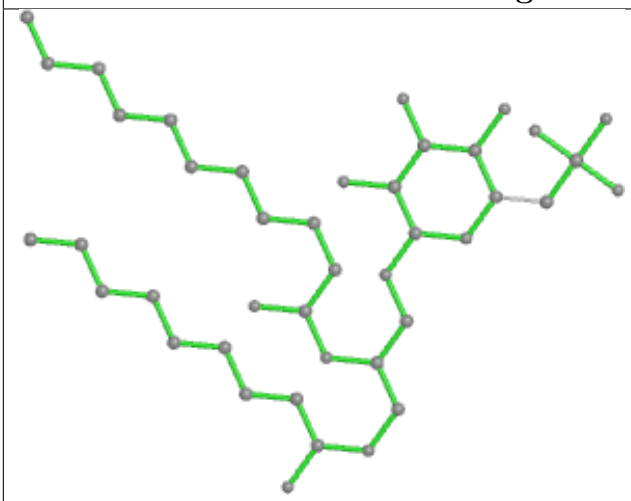


Rings

Ligand SQD B1 621



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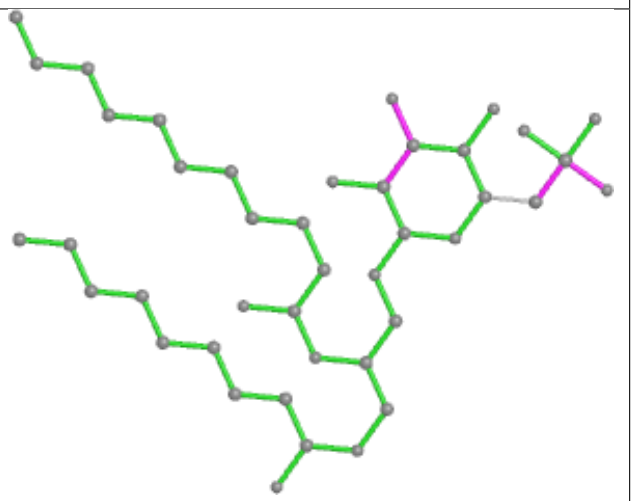
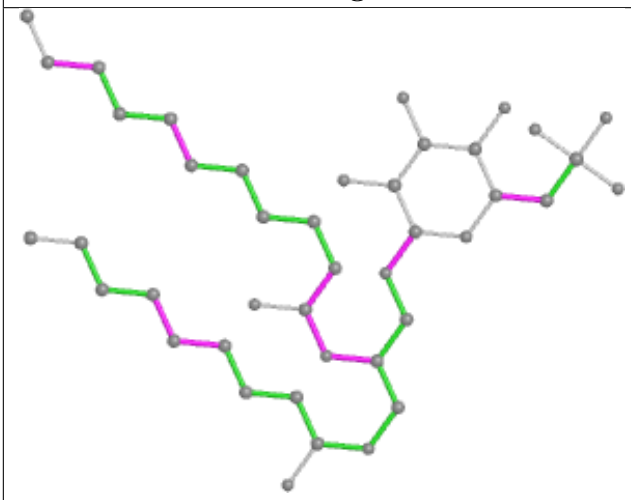


Bond angles



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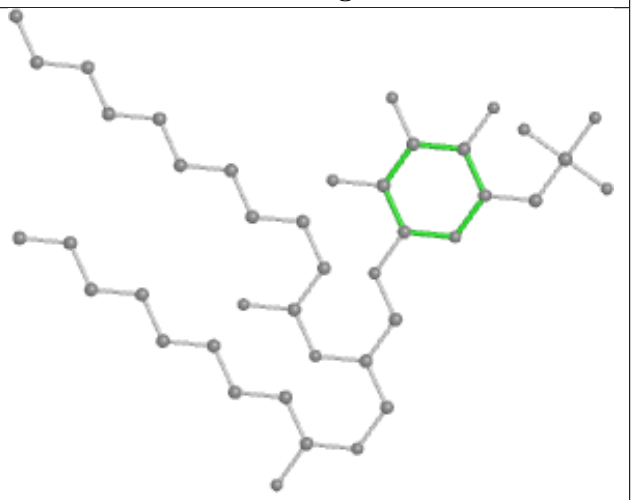
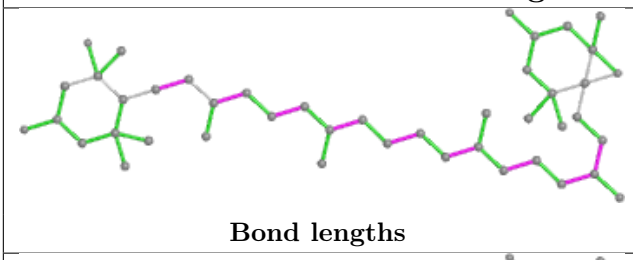


Rings

Ligand NEX r 622



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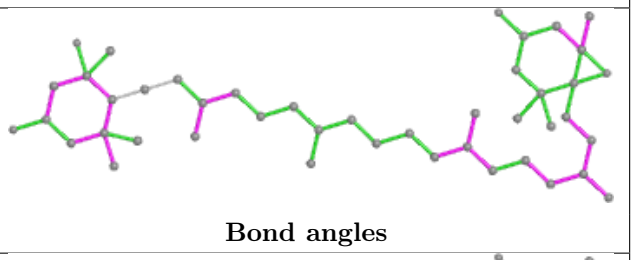
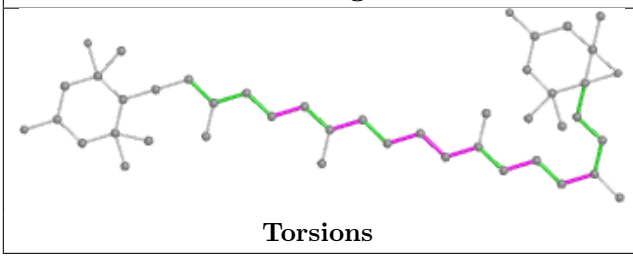


Bond angles



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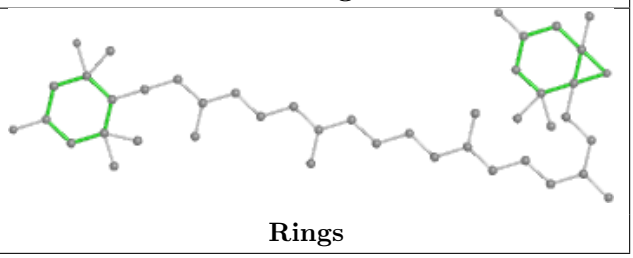
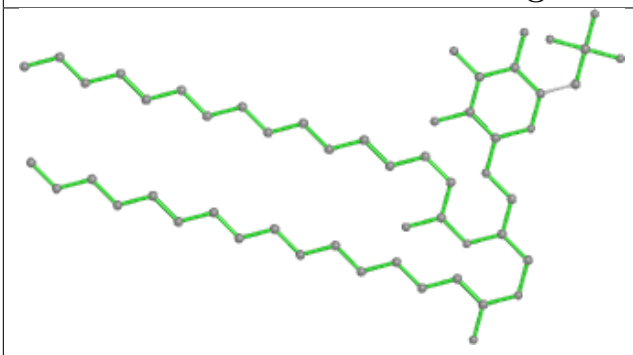


Rings

Ligand SQD b 626



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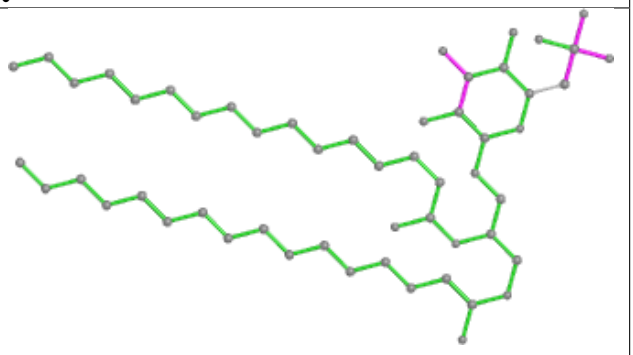
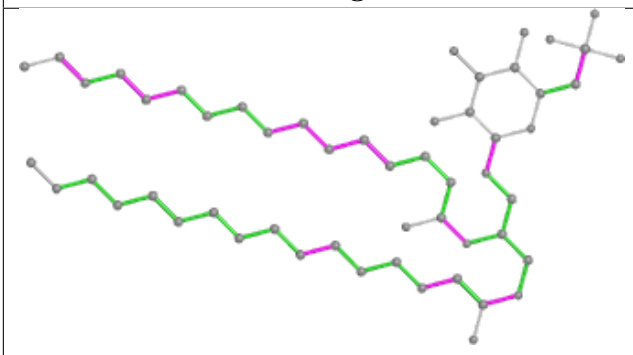


Bond angles



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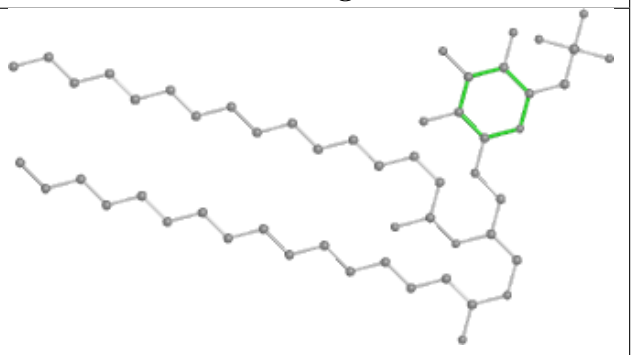
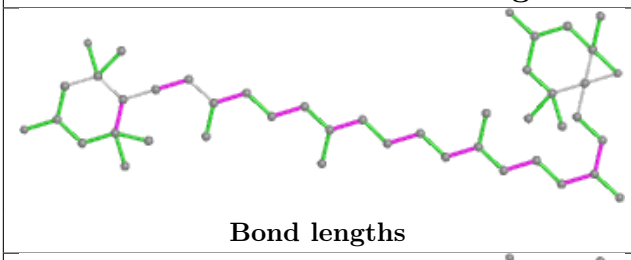
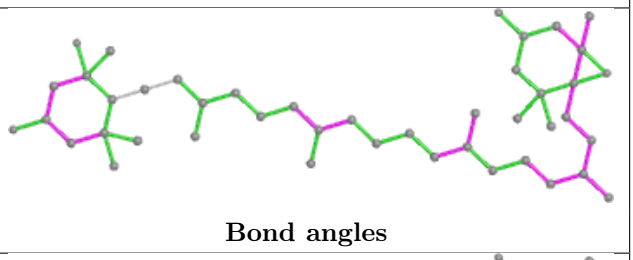


Rings

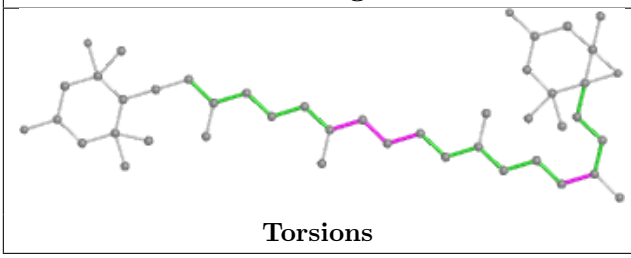
Ligand NEX N1 623



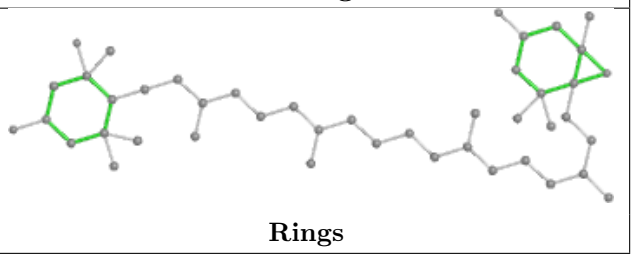
Bond lengths



Bond angles

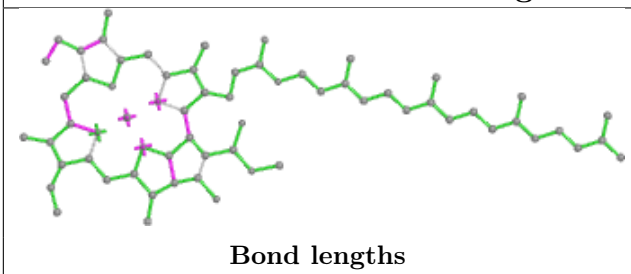


Torsions

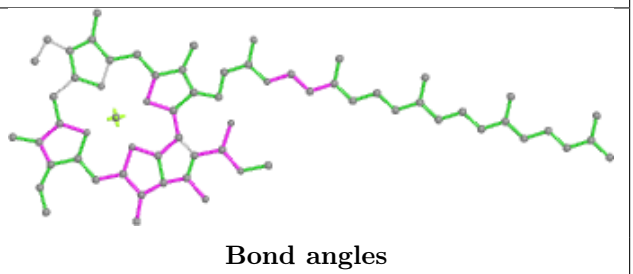


Rings

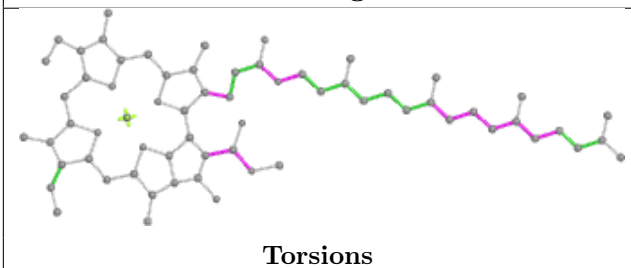
Ligand CLA B1 616



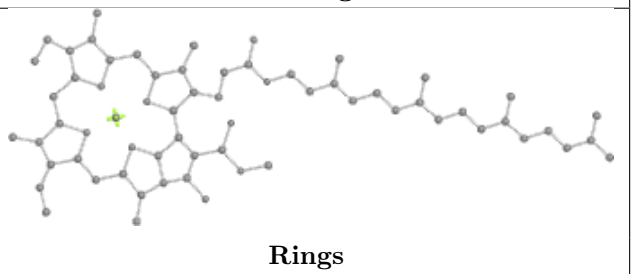
Bond lengths



Bond angles

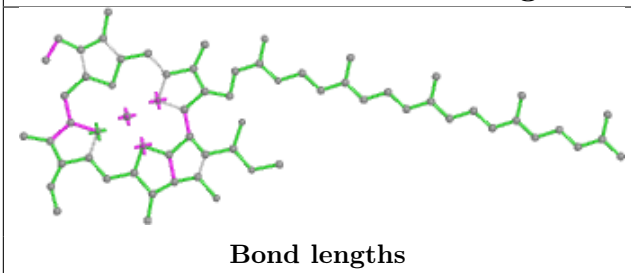


Torsions



Rings

Ligand CLA g1 602



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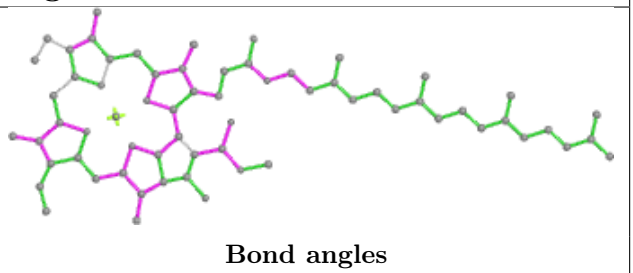

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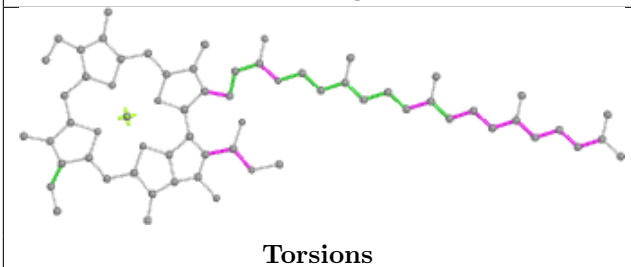
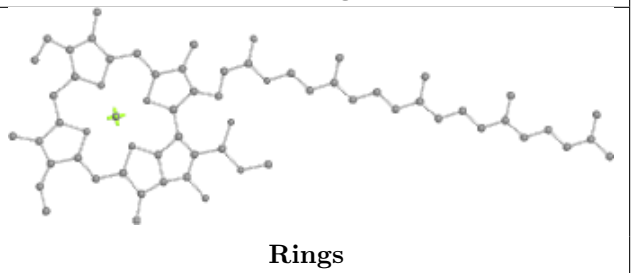
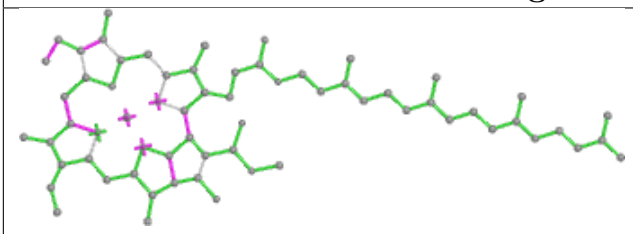


Torsions



Rings

Ligand CLA a 406



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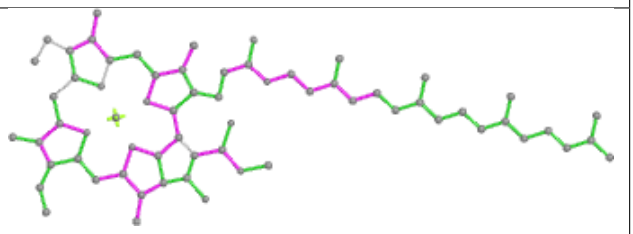

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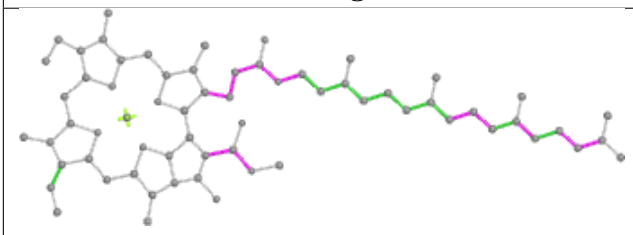
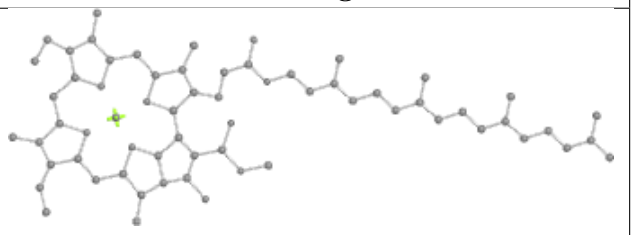
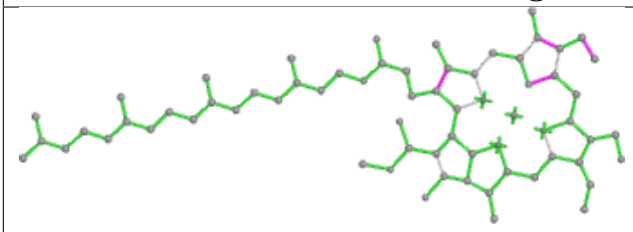


Torsions



Rings

Ligand CHL g 601



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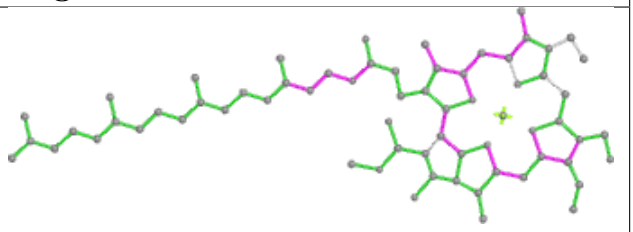
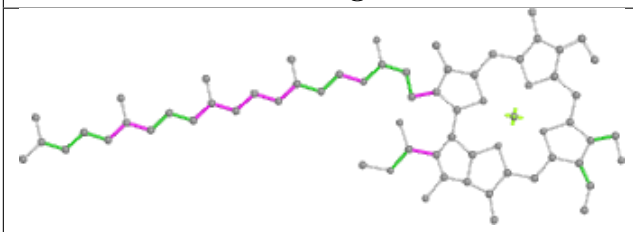


Bond angles



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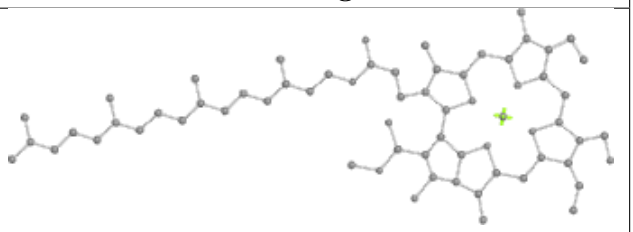
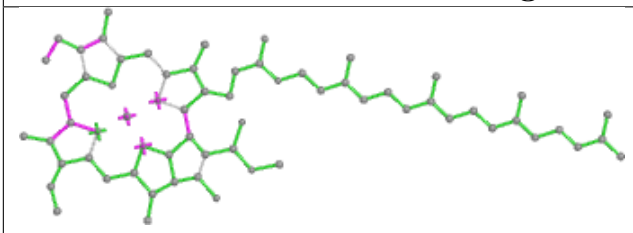


Rings

Ligand CLA g1 613



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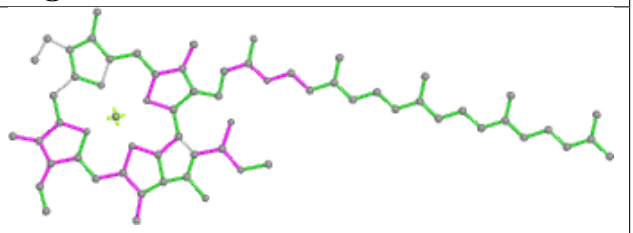
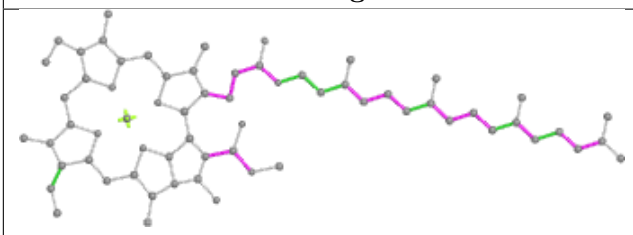


Bond angles



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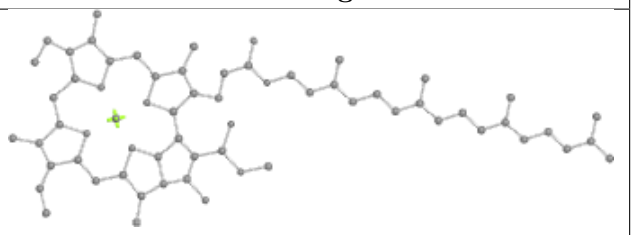
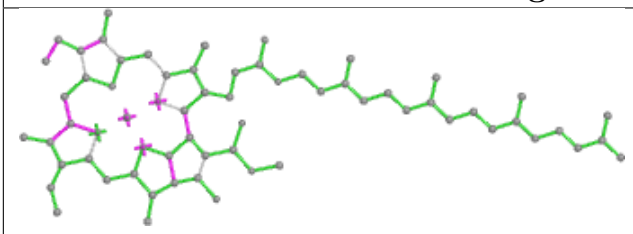


Rings

Ligand CLA g 603



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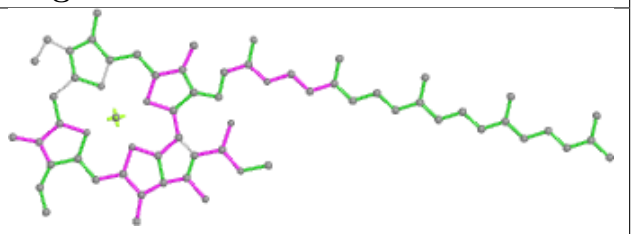
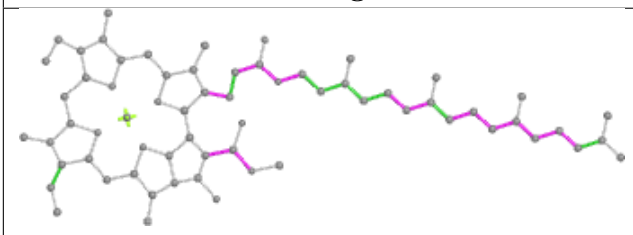


Bond angles



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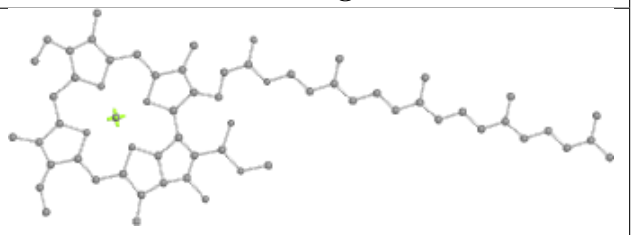
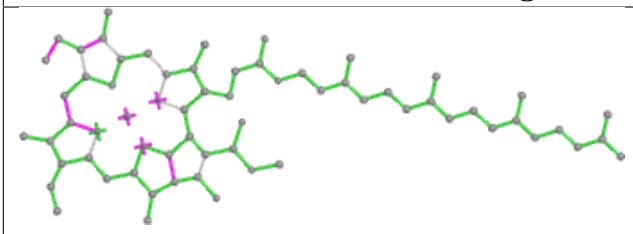


Rings

Ligand CLA S1 610



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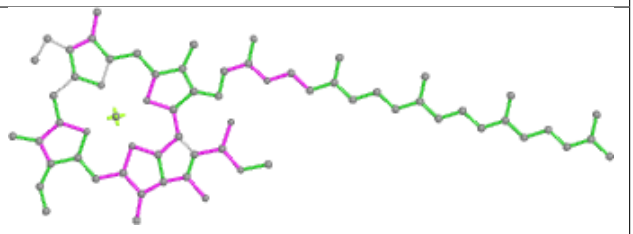
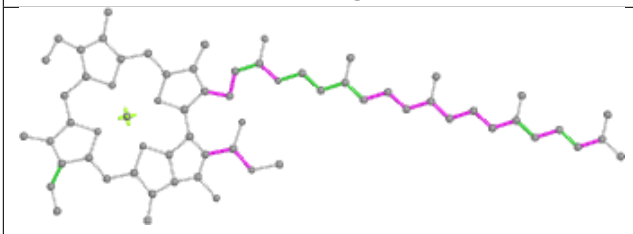


Bond angles



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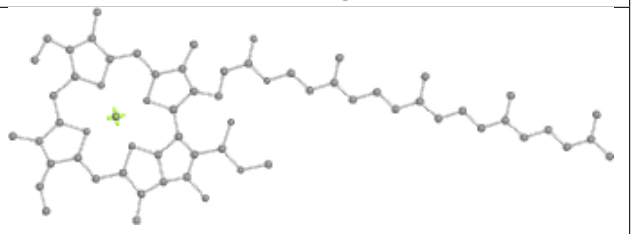
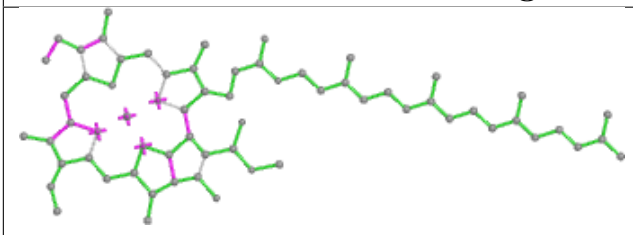


Rings

Ligand CLA b1 614



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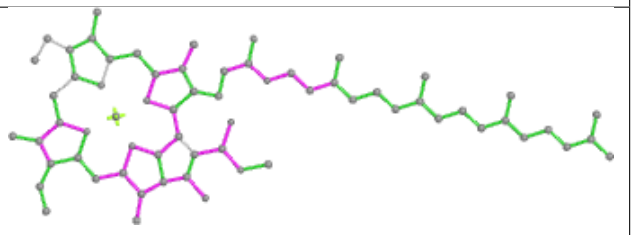
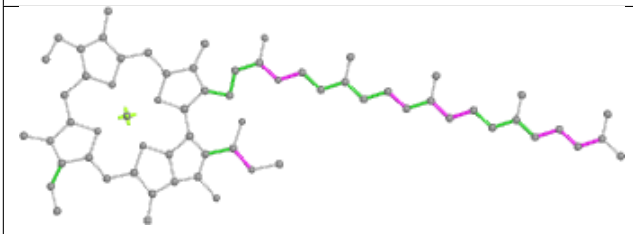


Bond angles



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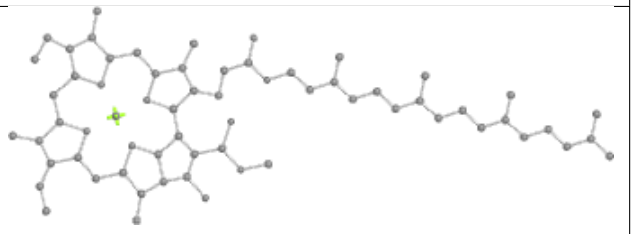
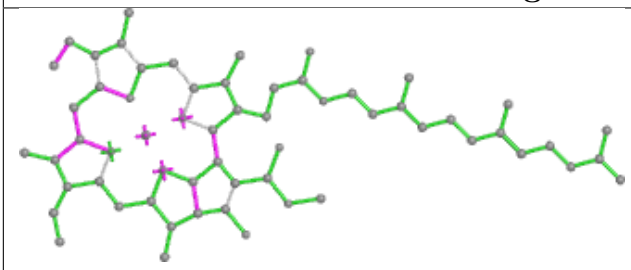


Rings

Ligand CLA A 410



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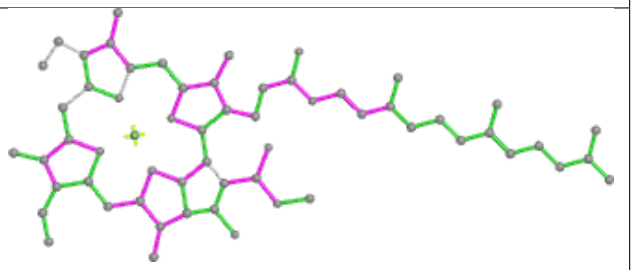
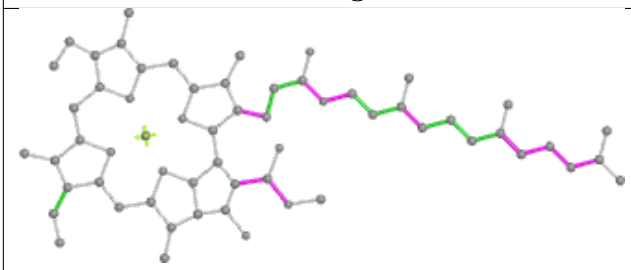


Bond angles



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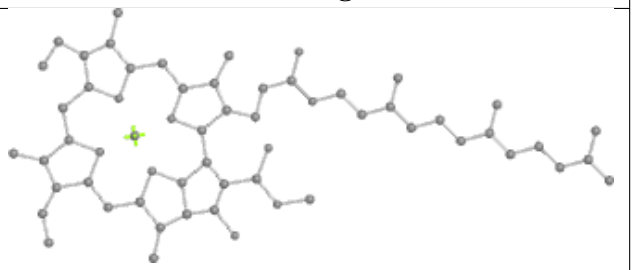
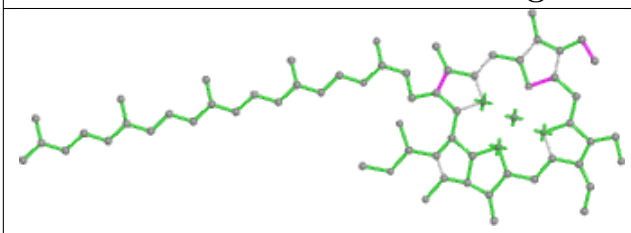


Rings

Ligand CHL y 601



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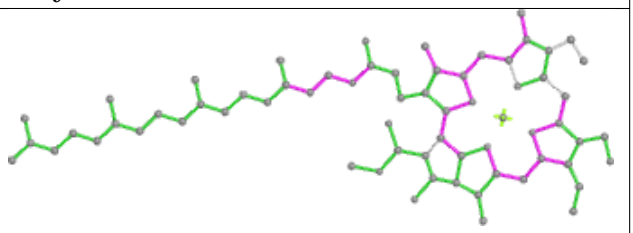
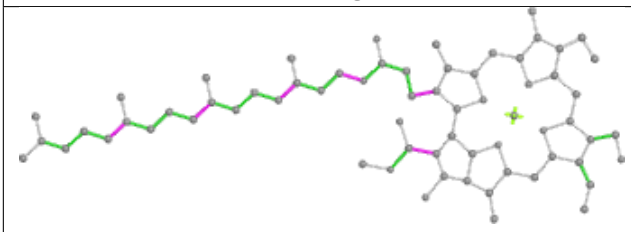


Bond angles



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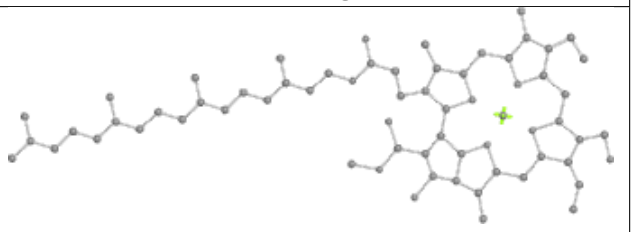
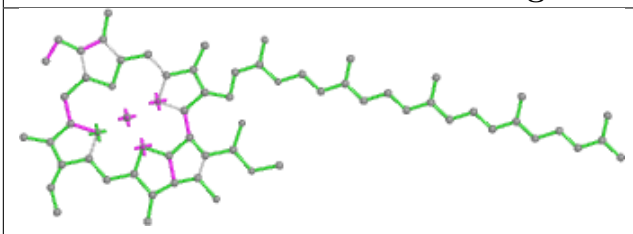


Rings

Ligand CLA b 616



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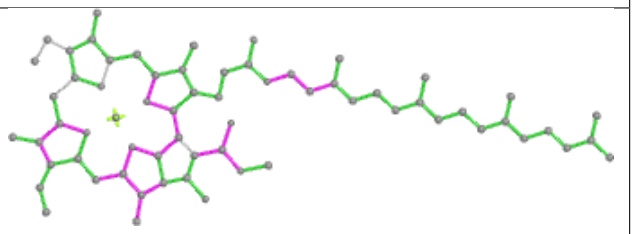

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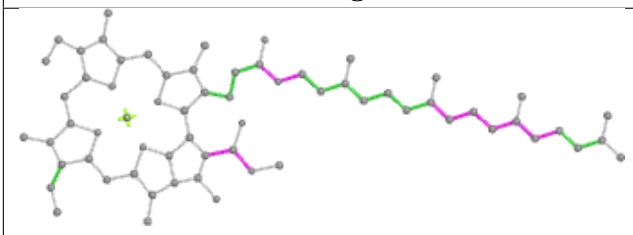

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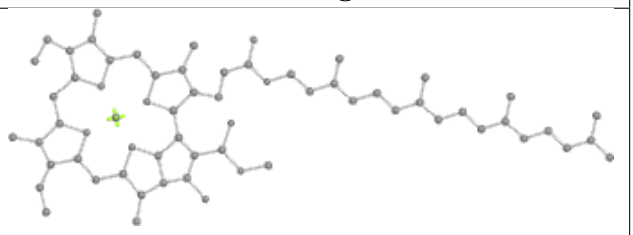
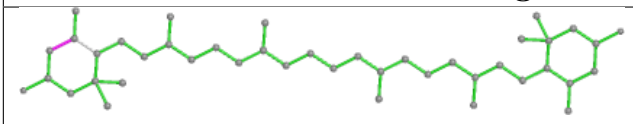


Rings

Ligand LUT N1 620



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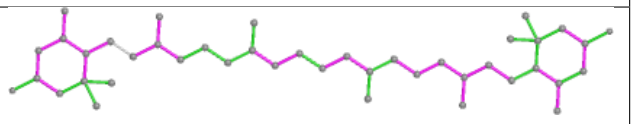
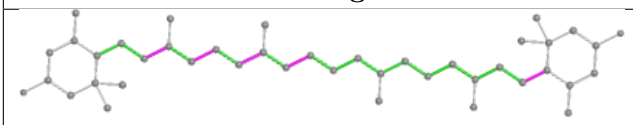
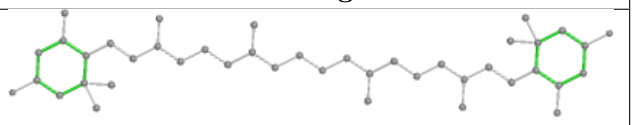


Bond angles

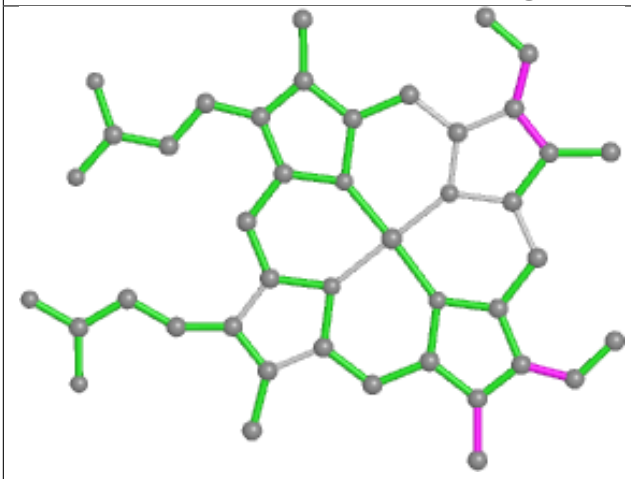


Torsions

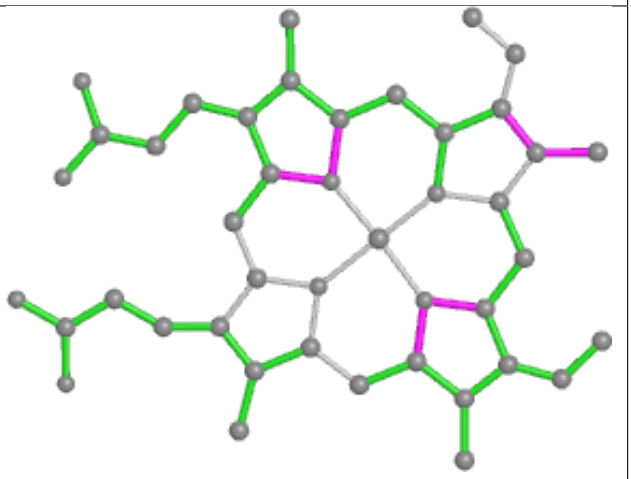


Rings

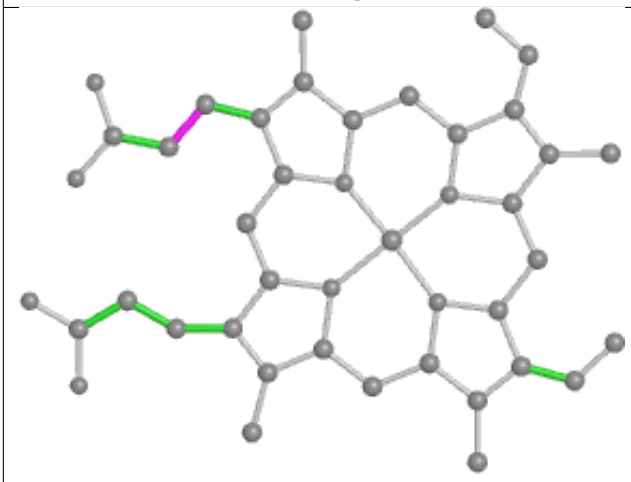
Ligand HEM F 101



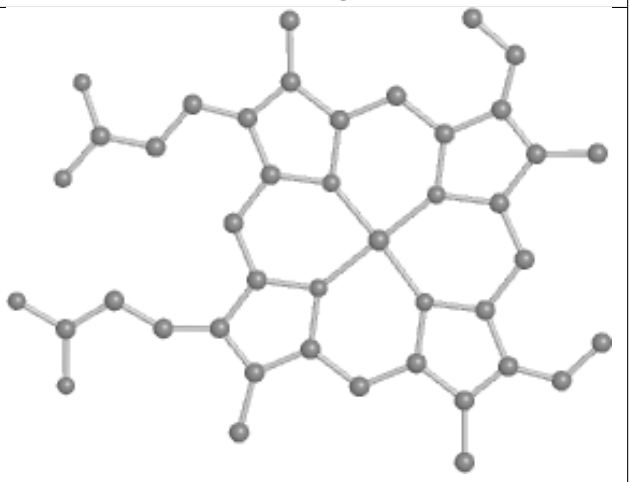
Bond lengths



Bond angles

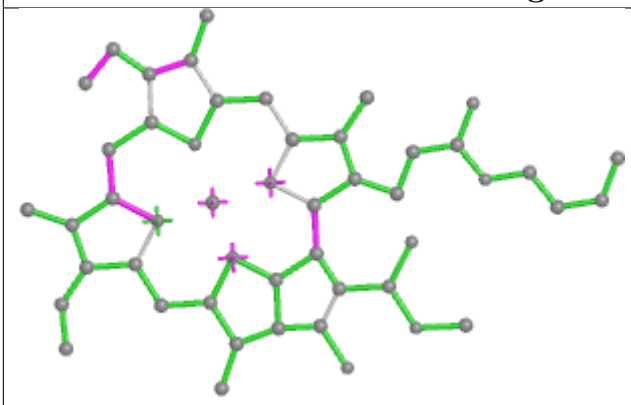


Torsions

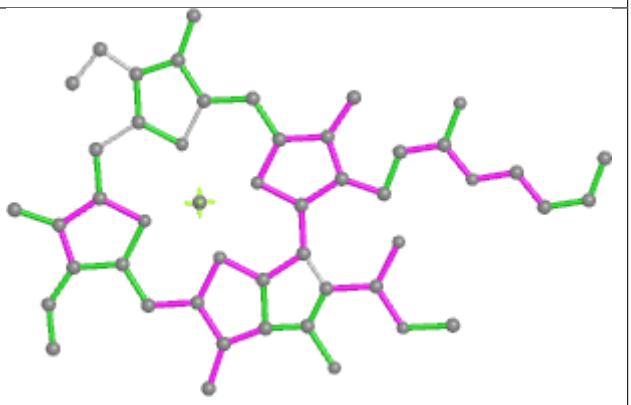


Rings

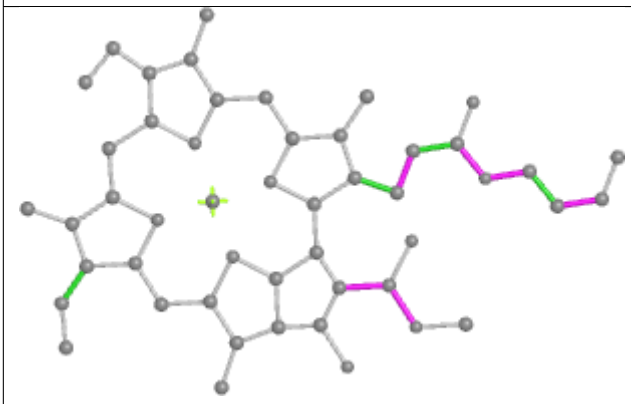
Ligand CLA n 611



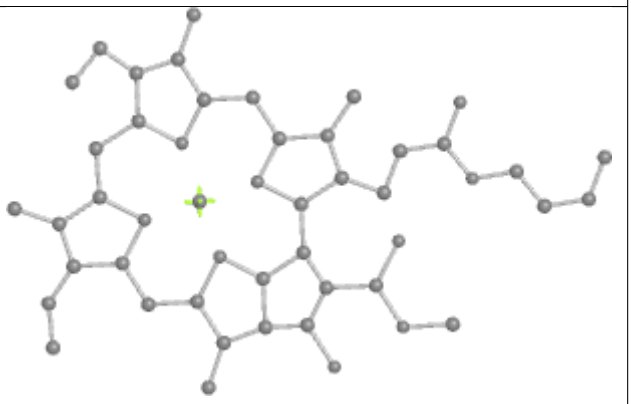
Bond lengths



Bond angles

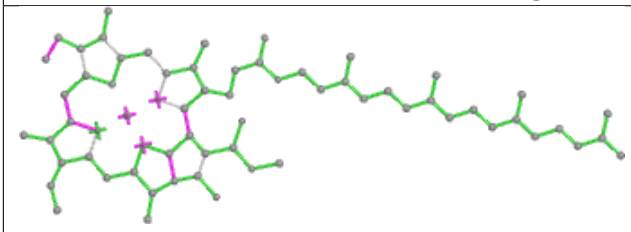


Torsions

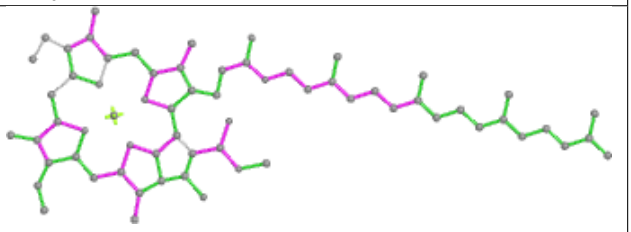


Rings

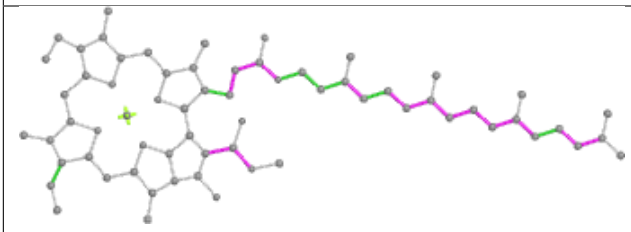
Ligand CLA y 613



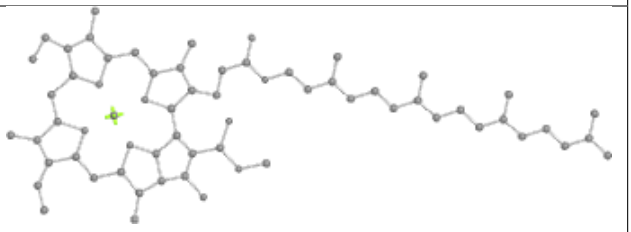
Bond lengths



Bond angles

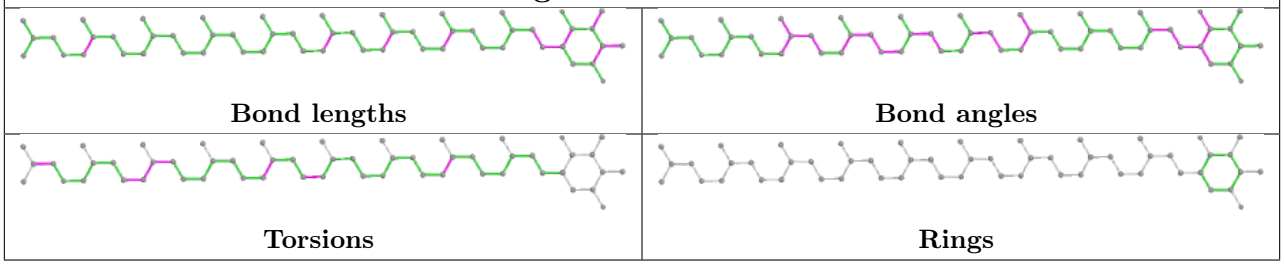


Torsions

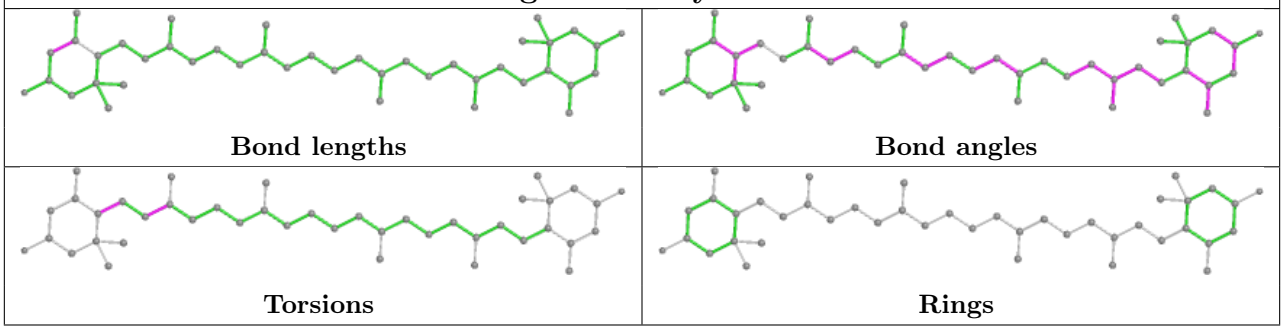


Rings

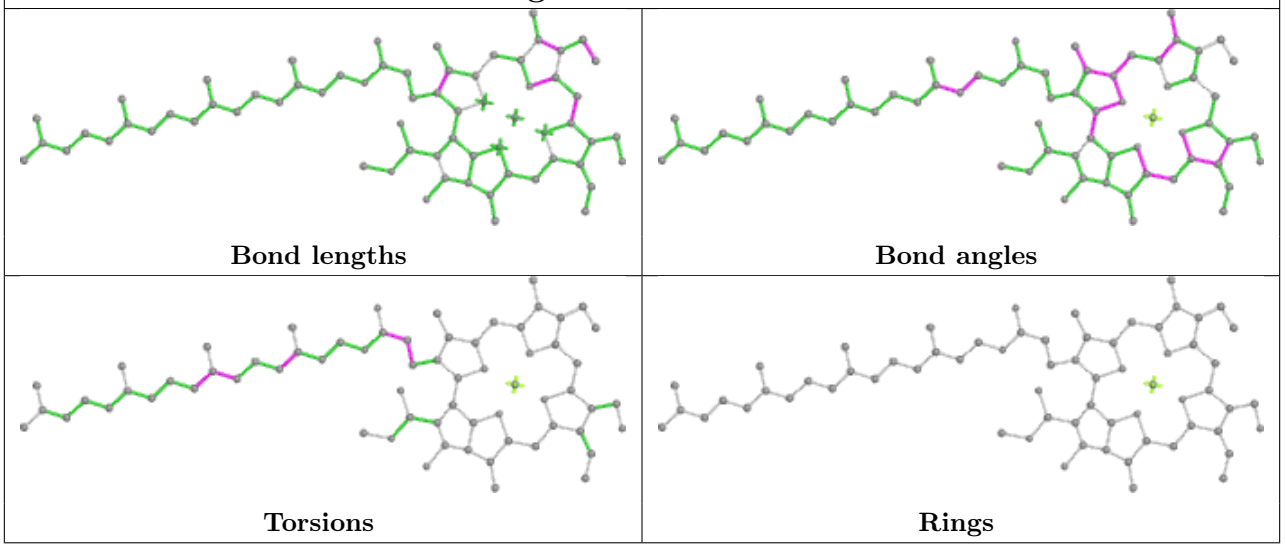
Ligand PL9 d 405



Ligand LUT y1 620



Ligand CHL n 605



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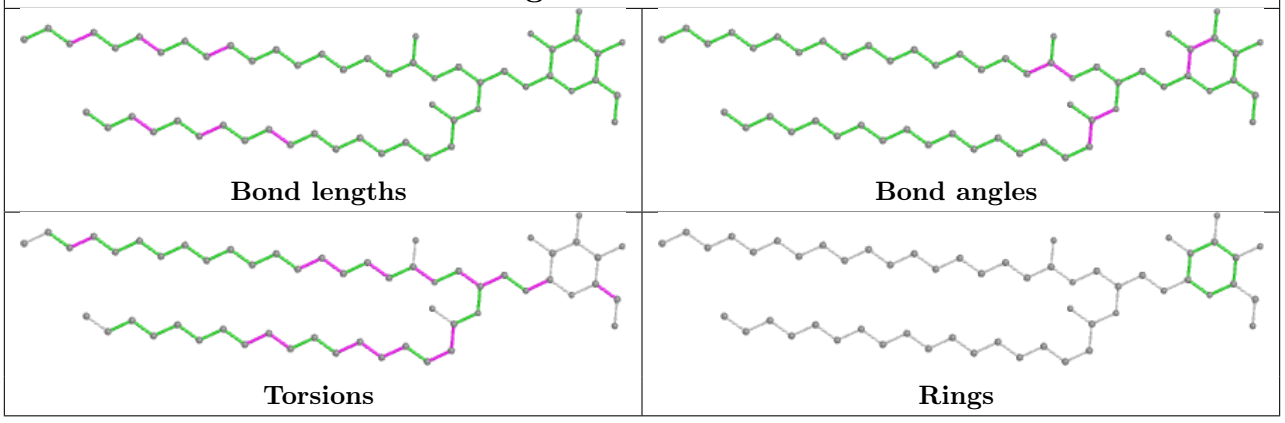
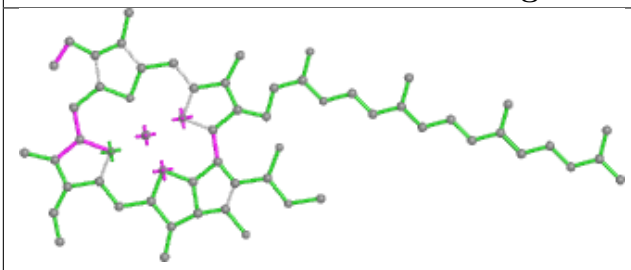
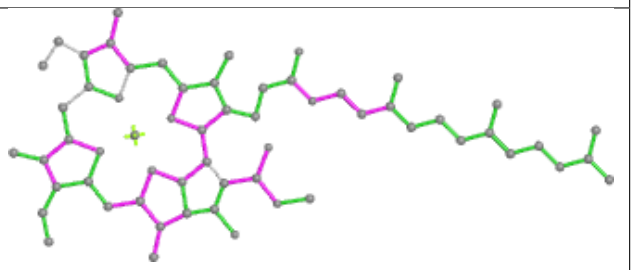


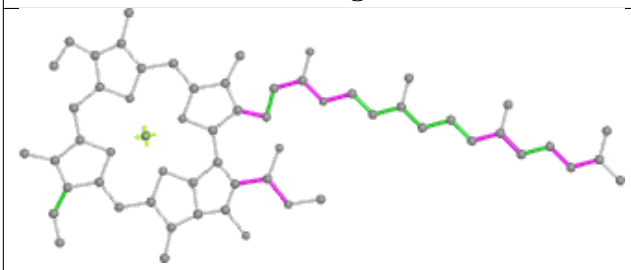
Ligand CLA r1 612



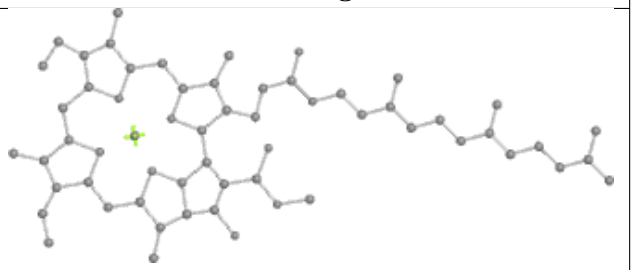
Bond lengths



Bond angles

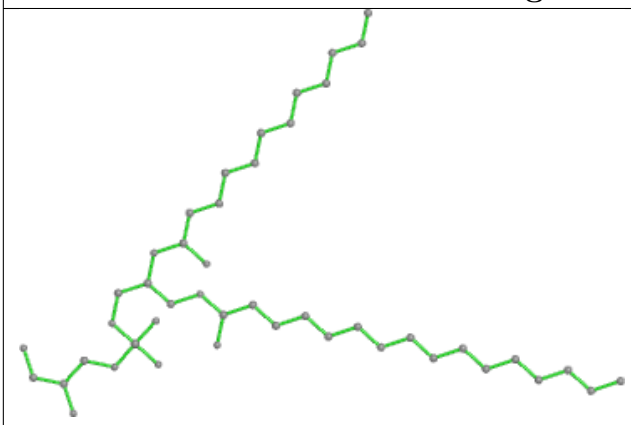


Torsions



Rings

Ligand LHG S 624



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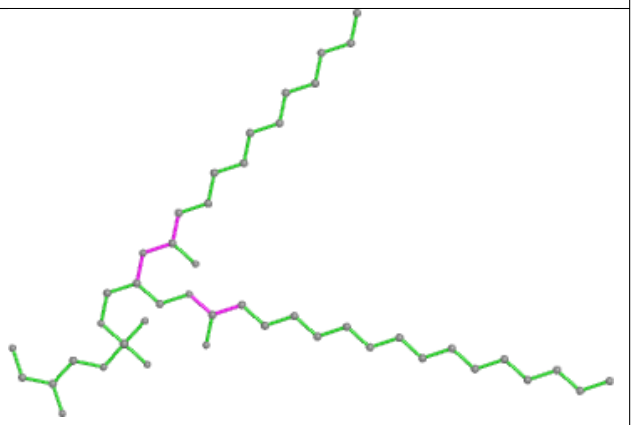
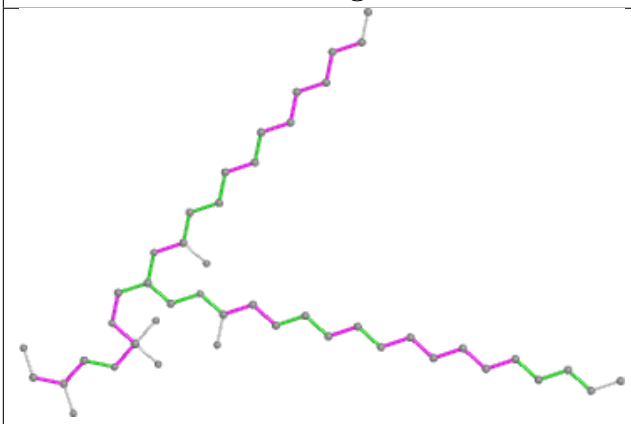
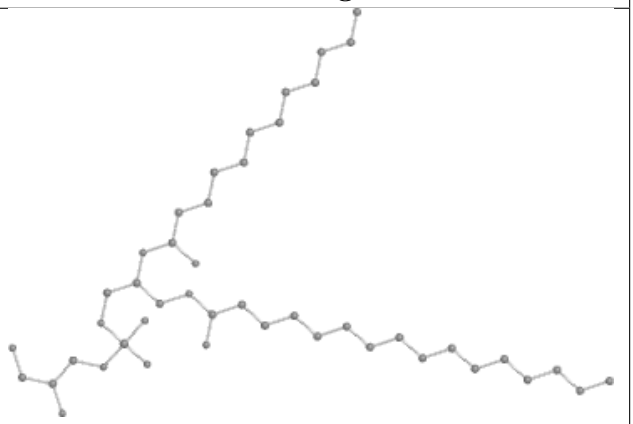


Bond angles

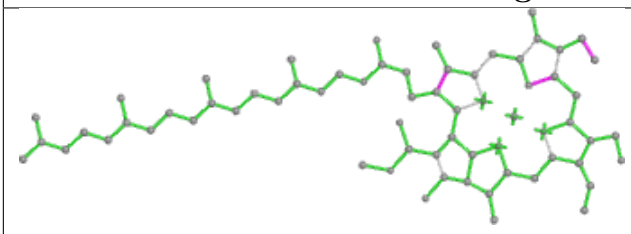


Torsions



Rings

Ligand CHL Y1 601



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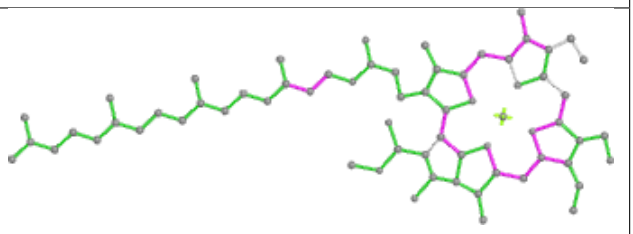

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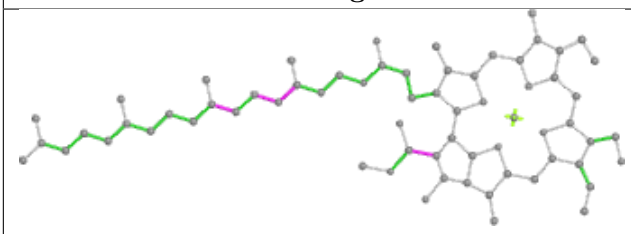

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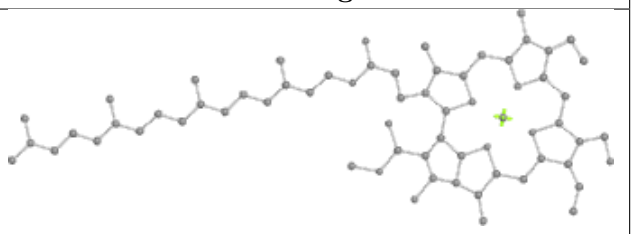
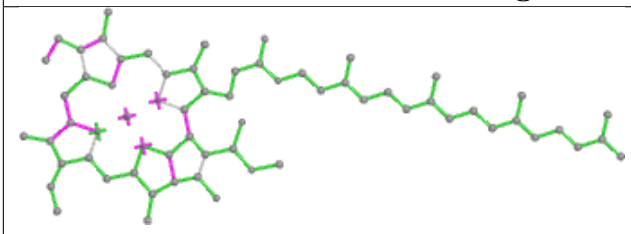


Rings

Ligand CLA Y1 603



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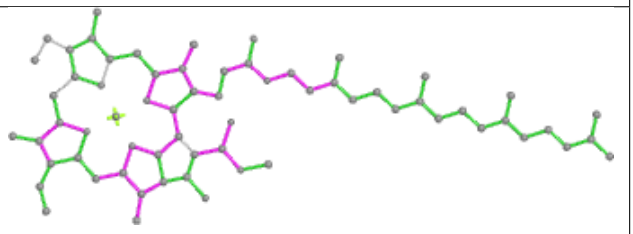
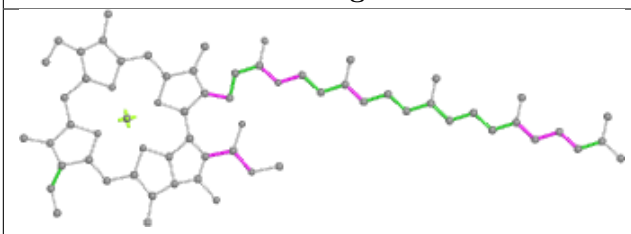


Bond angles



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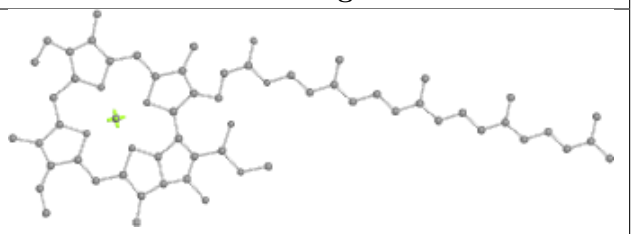
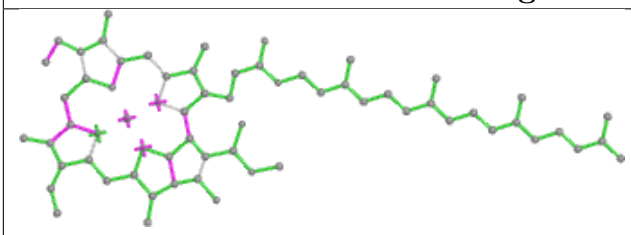


Rings

Ligand CLA b1 610



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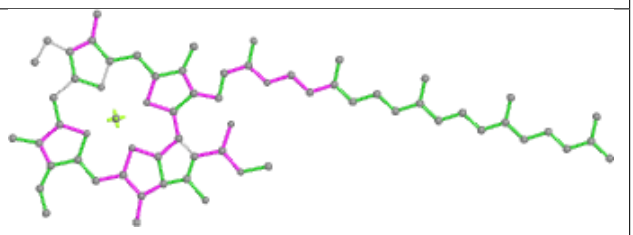
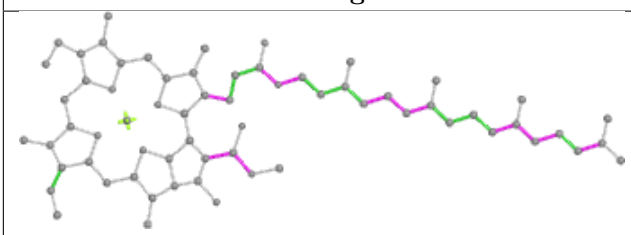
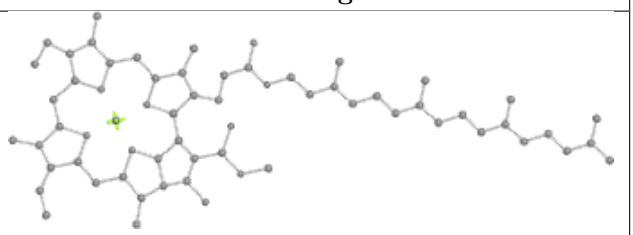


Bond angles

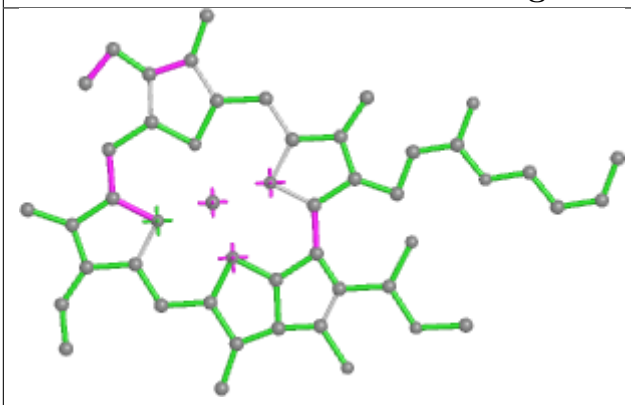


Torsions



Rings

Ligand CLA a 407



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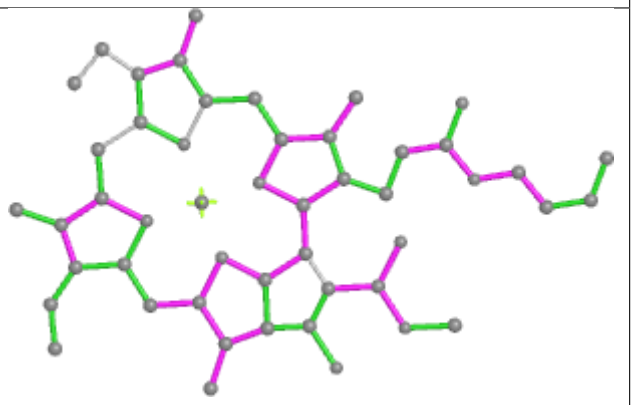
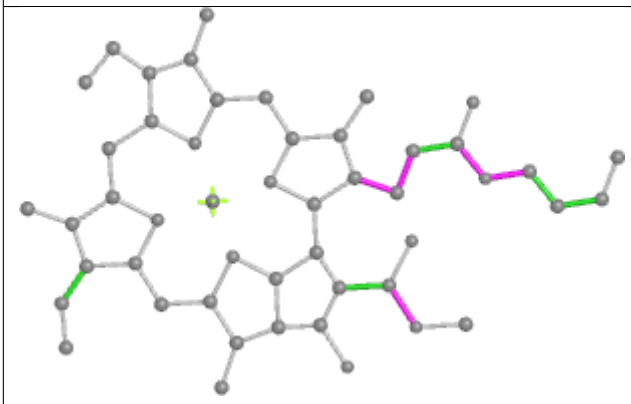


Bond angles



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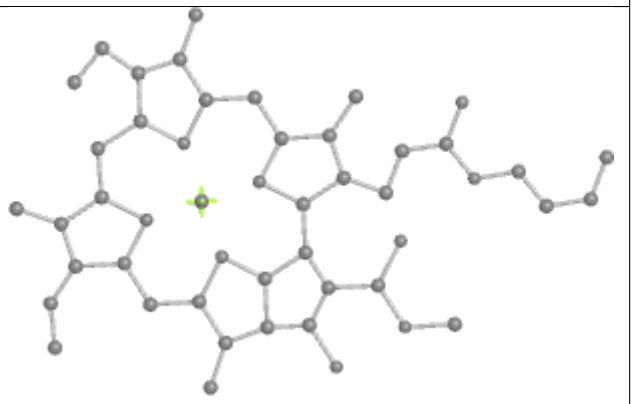
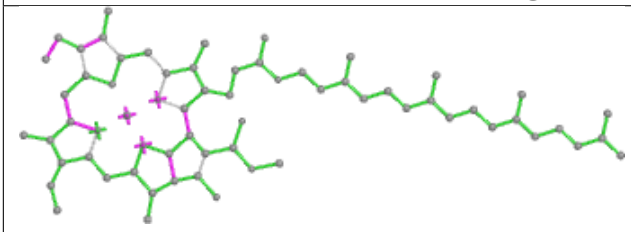


Rings

Ligand CLA C 503



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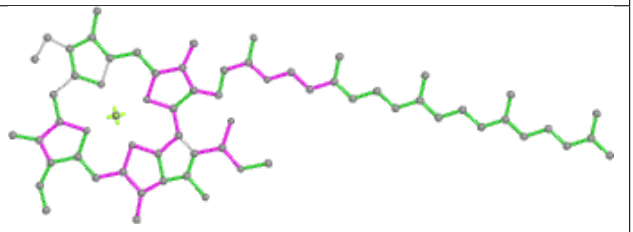
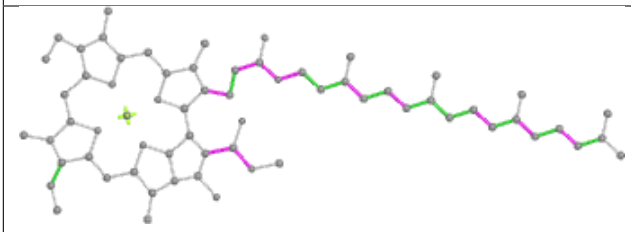


Bond angles



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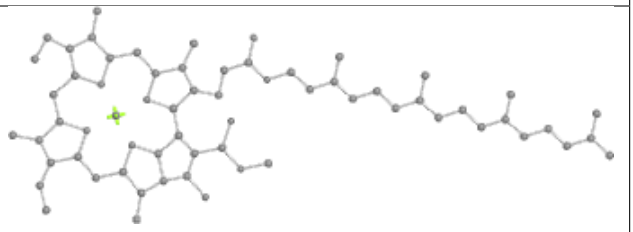
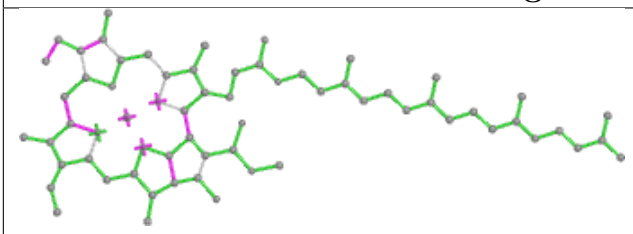
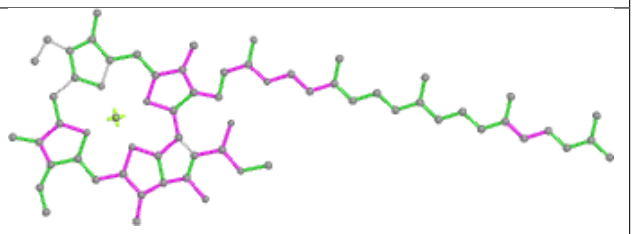


Rings

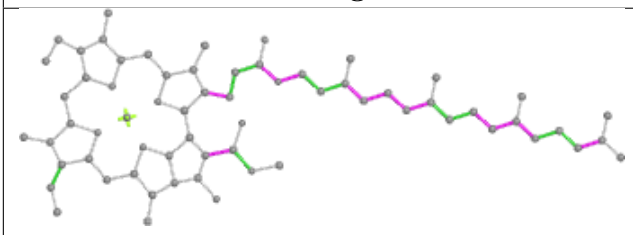
Ligand CLA B 605



Bond lengths



Bond angles



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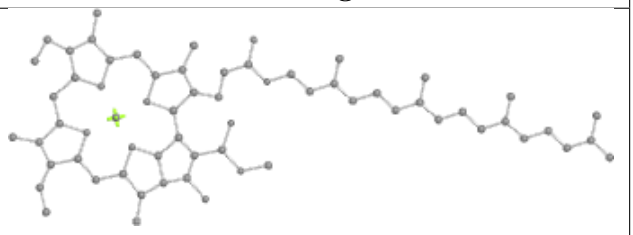
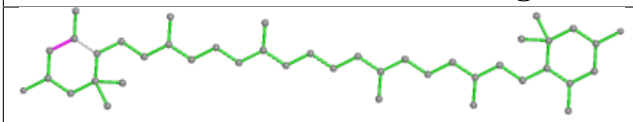


Rings

Ligand LUT R1 620



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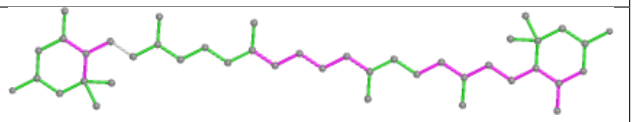
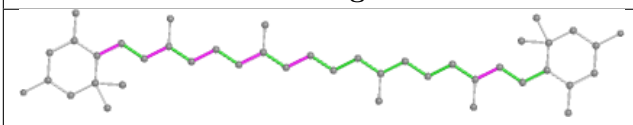


Bond angles



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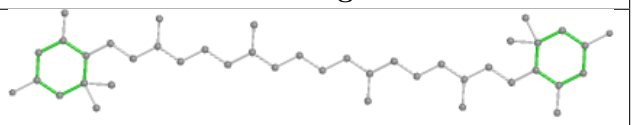
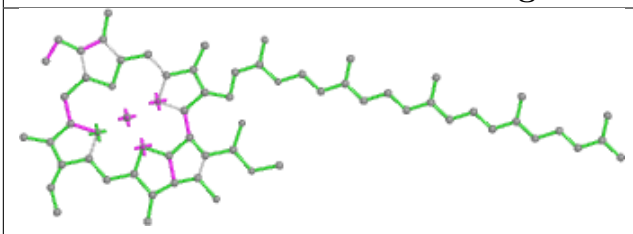


Rings

Ligand CLA b1 612



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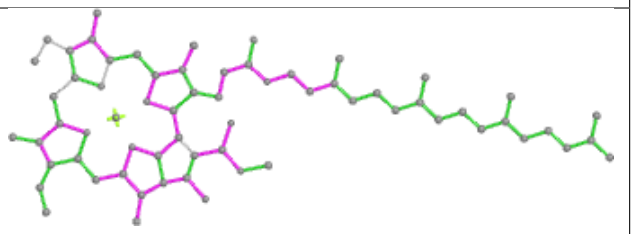
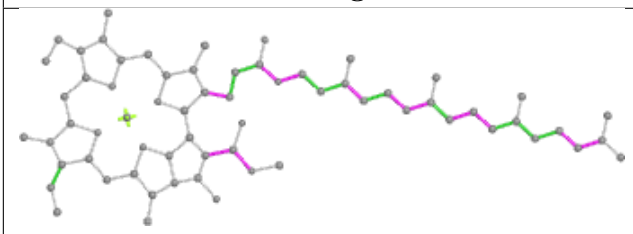


Bond angles



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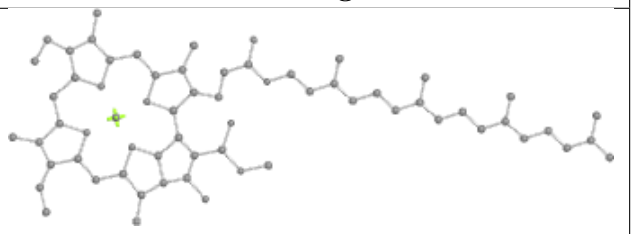
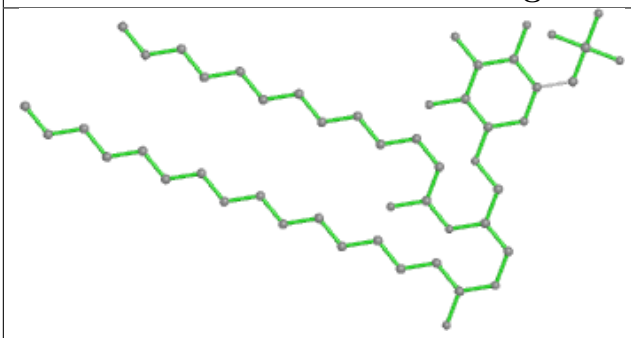


Rings

Ligand SQD A 412



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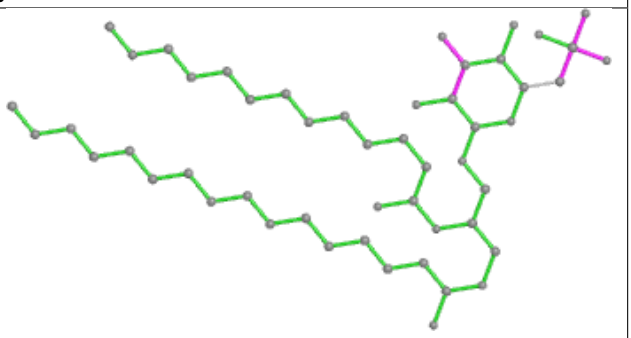
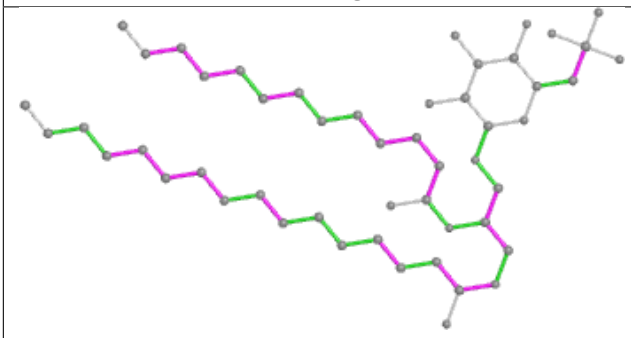
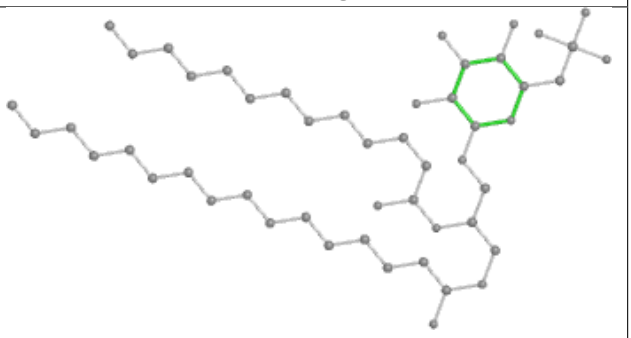


Bond angles

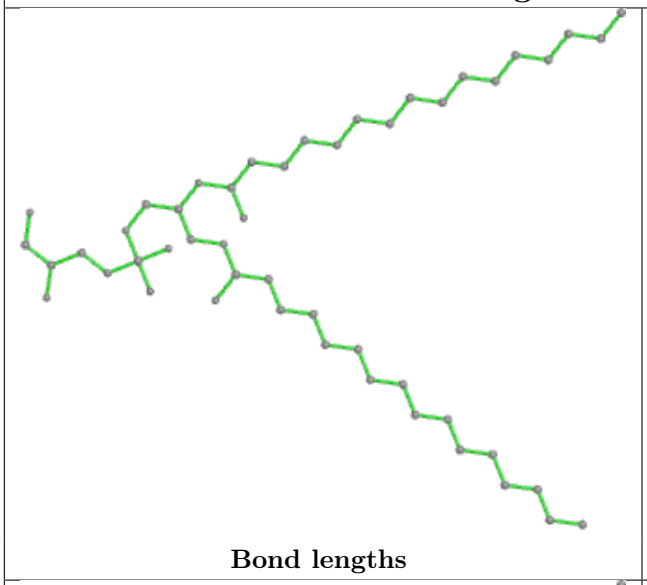


Torsions



Rings

Ligand LHG N1 624



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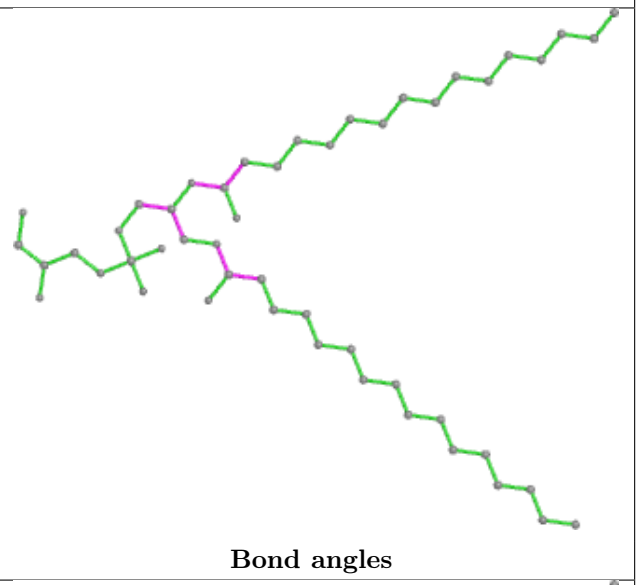
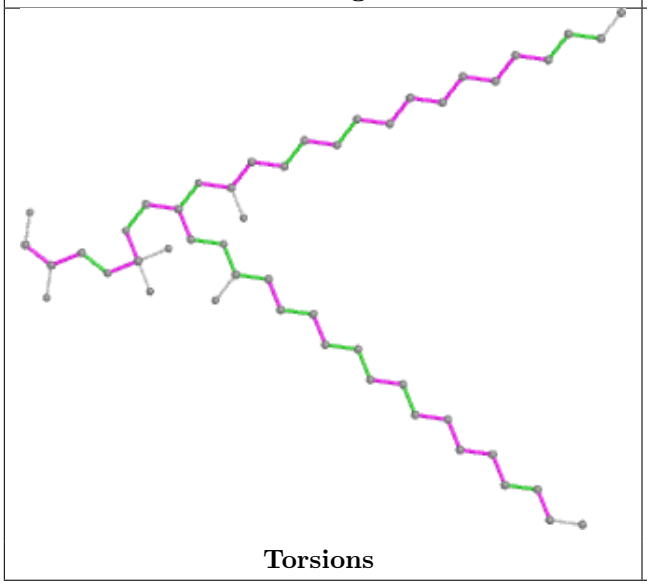


Bond angles



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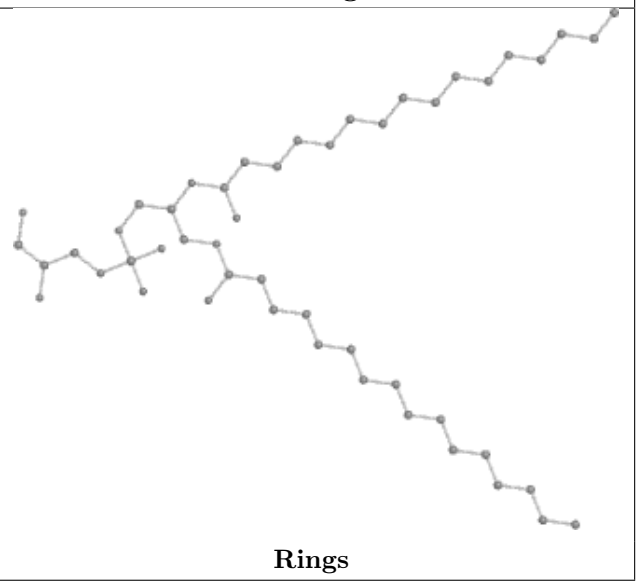
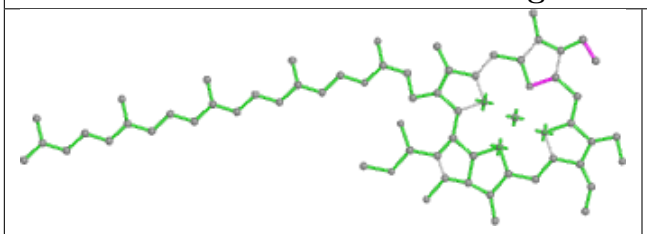
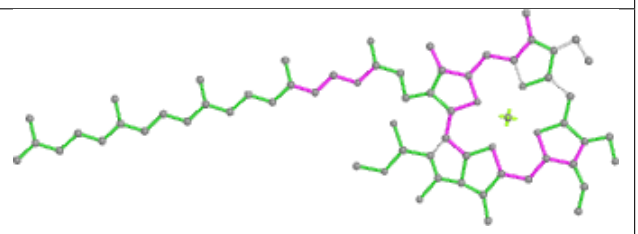


Rings

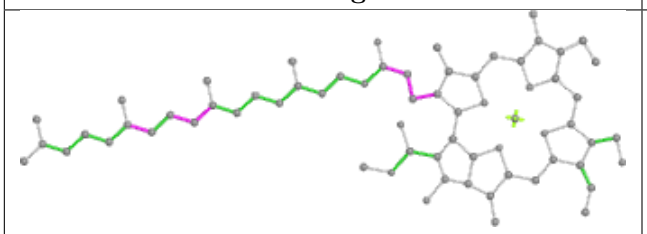
Ligand CHL n 607



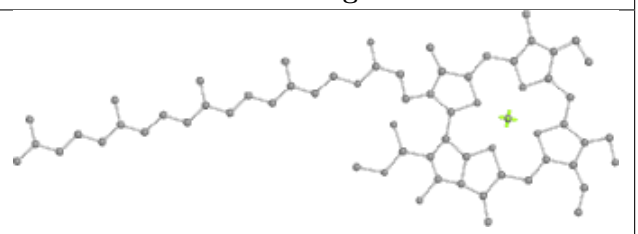
Bond lengths



Bond angles



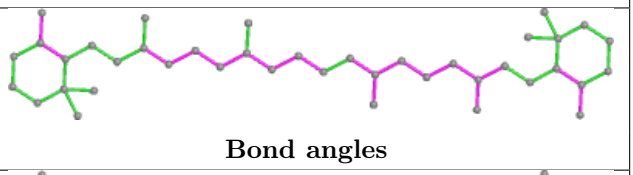
Torsions



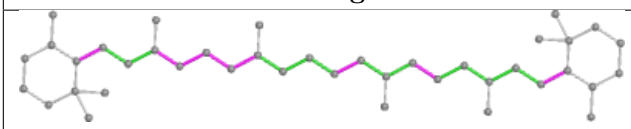
Rings

Ligand BCR C1 514

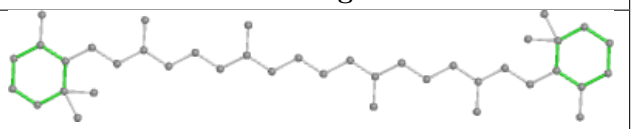
Bond lengths



Bond angles

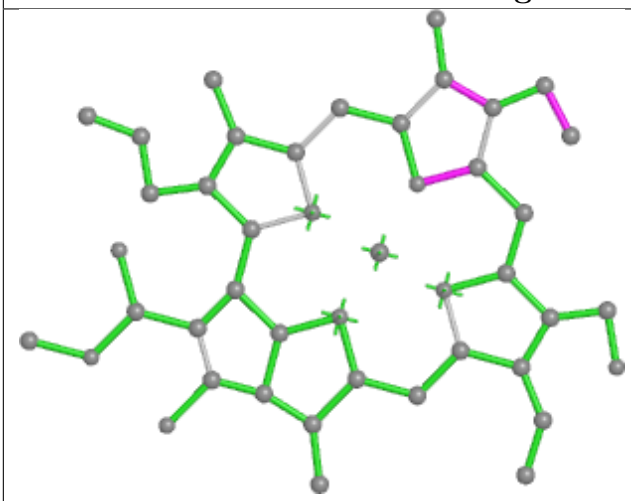


Torsions



Rings

Ligand CHL R1 606



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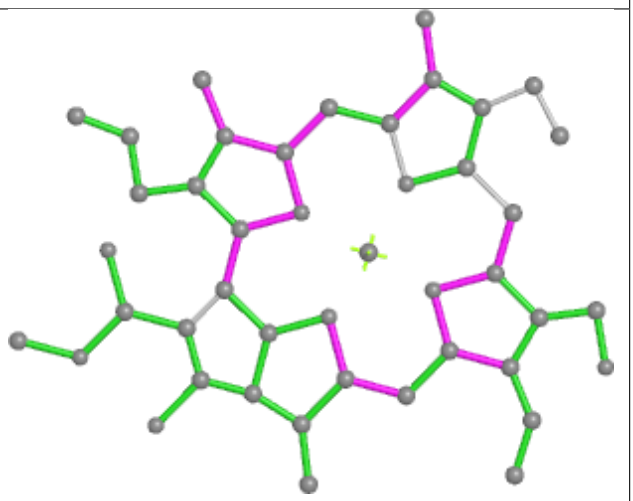
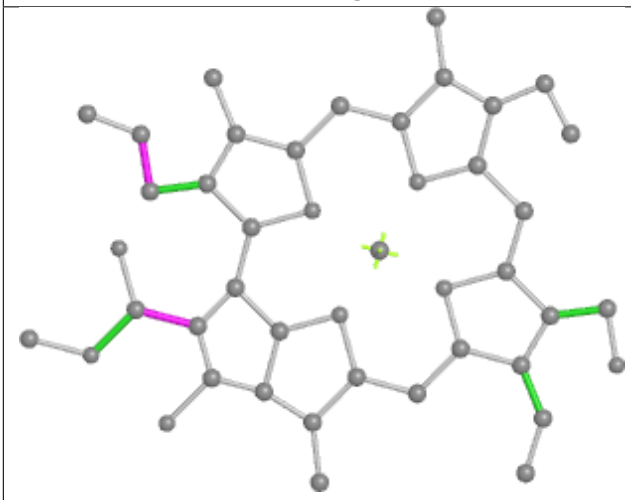


Bond angles



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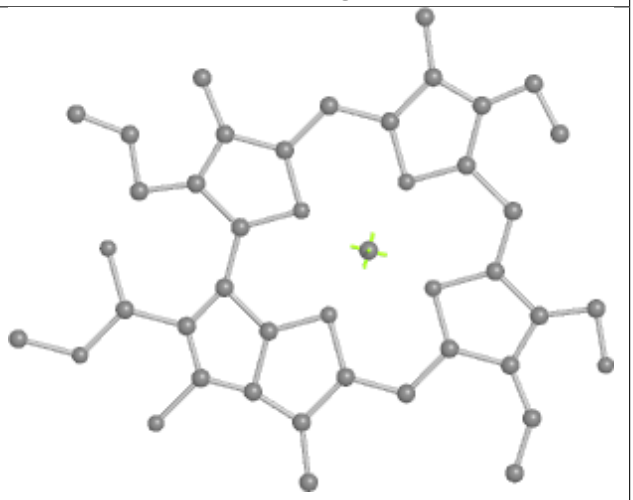
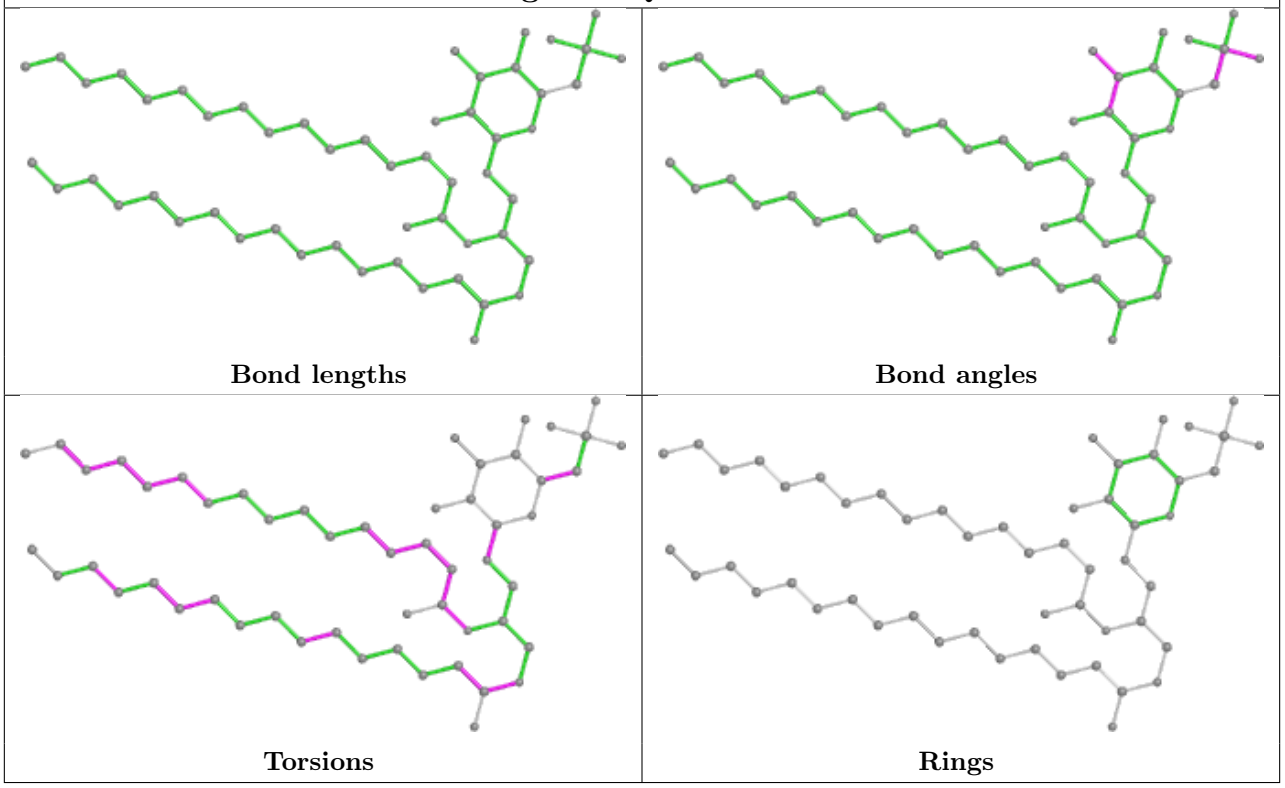
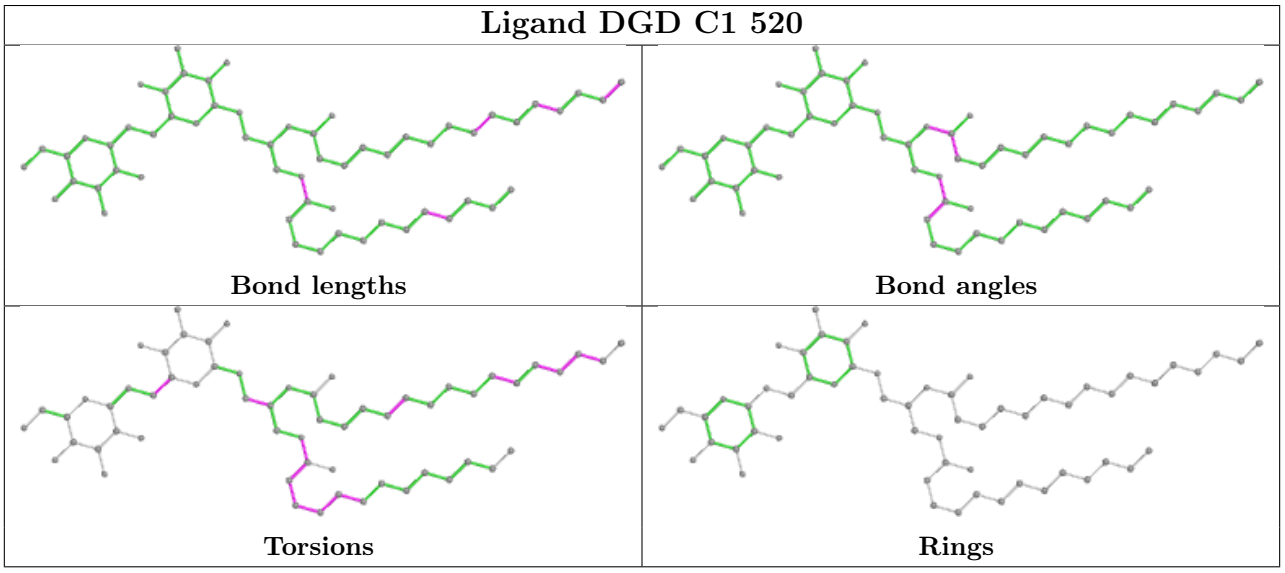


Rings

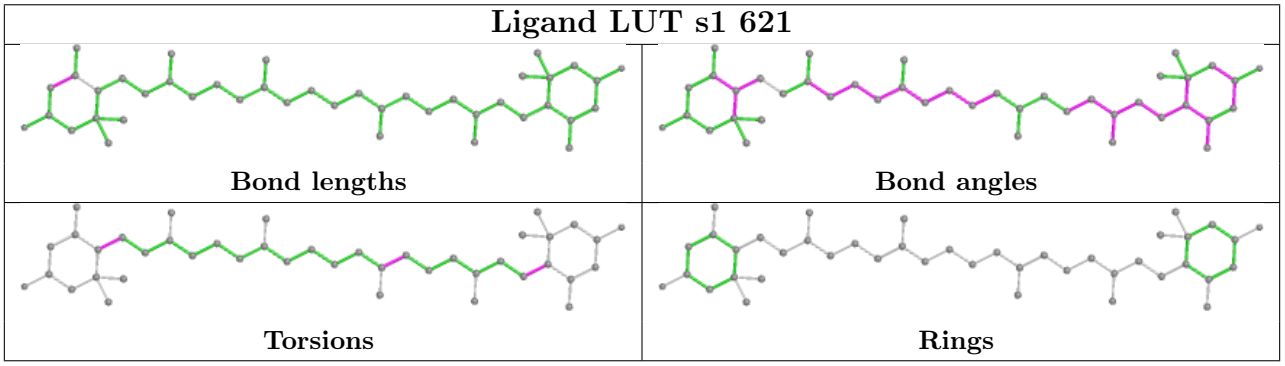
Ligand SQD c1 526



Ligand DGD C1 520



Ligand LUT s1 621



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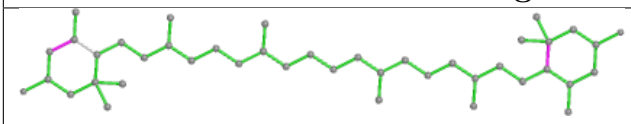
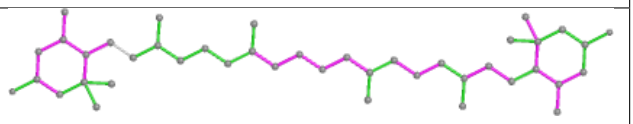
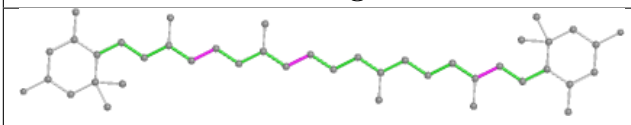


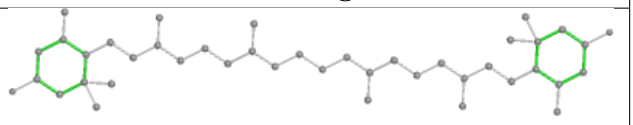
Bond lengths



Bond angles

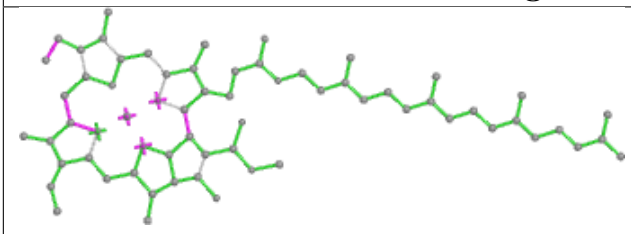


Torsions



Rings

Ligand CLA C 512



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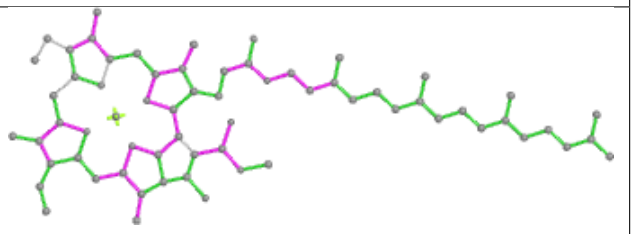
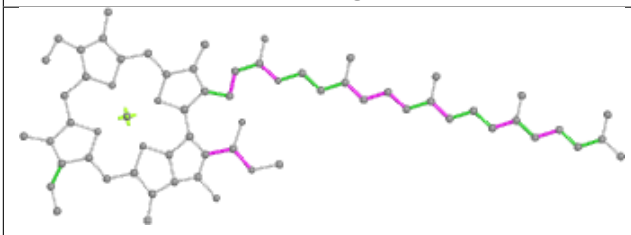


Bond angles



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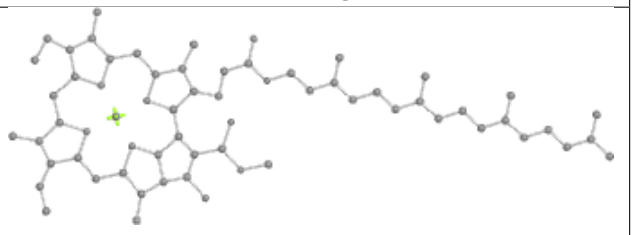
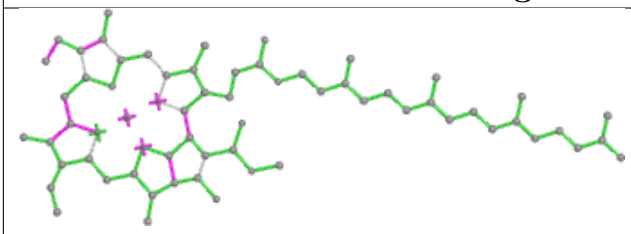


Rings

Ligand CLA G1 610



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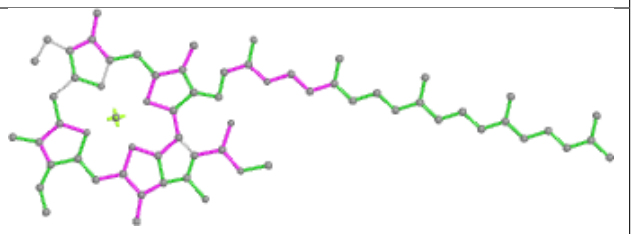
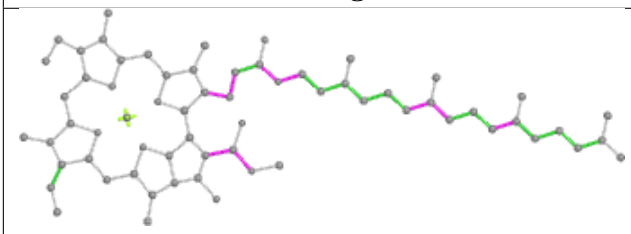


Bond angles



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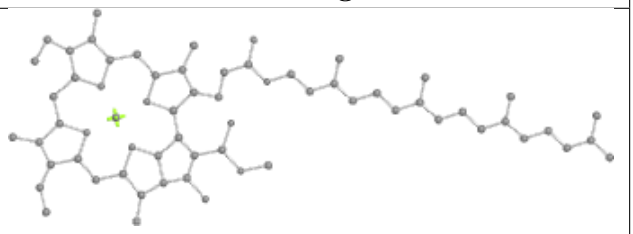
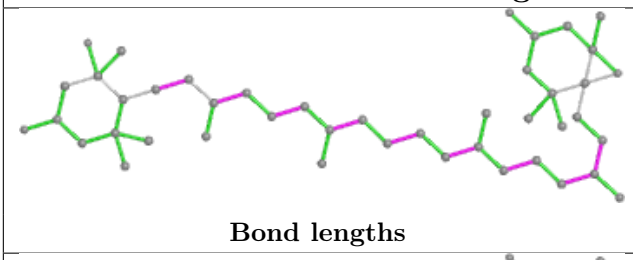


Rings

Ligand NEX R1 622



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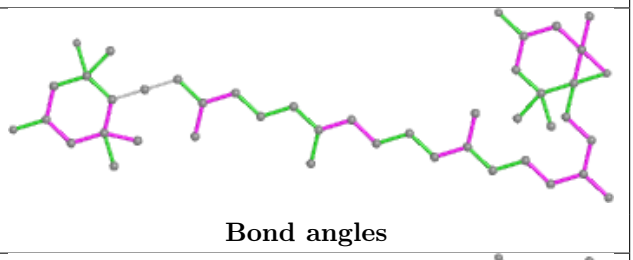
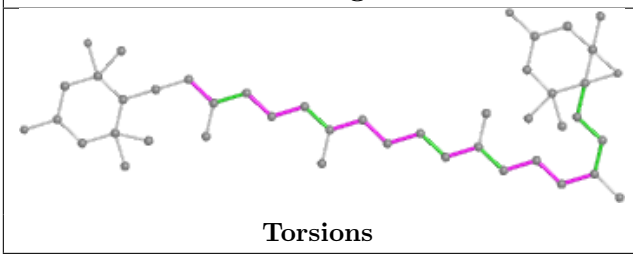


Bond angles



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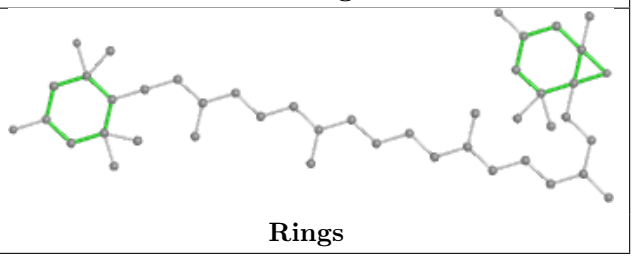
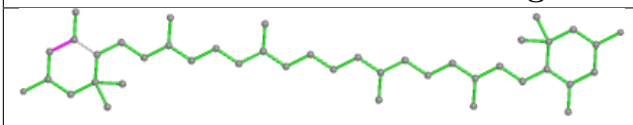


Rings

Ligand LUT S 620



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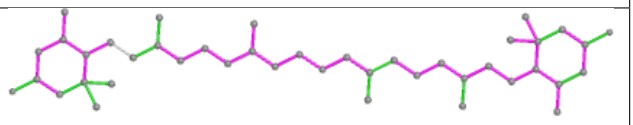
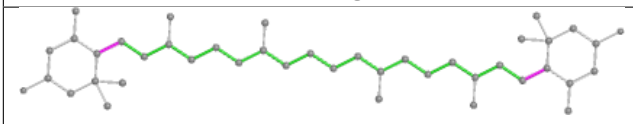


Bond angles



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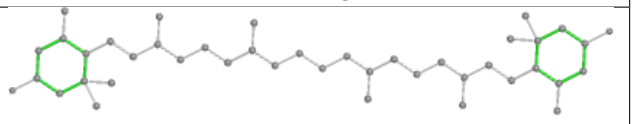
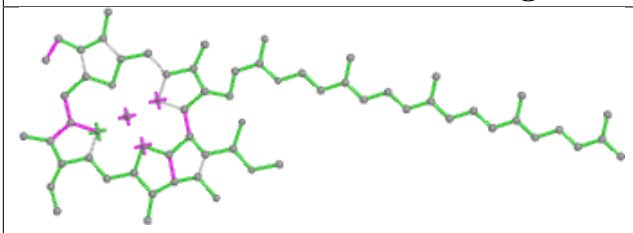


Rings

Ligand CLA a1 406



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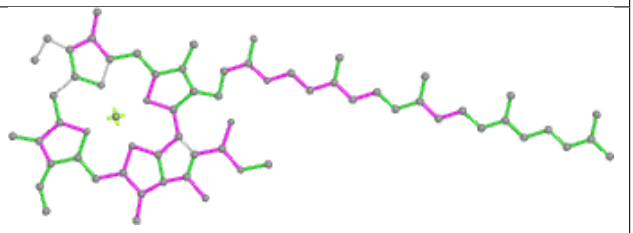
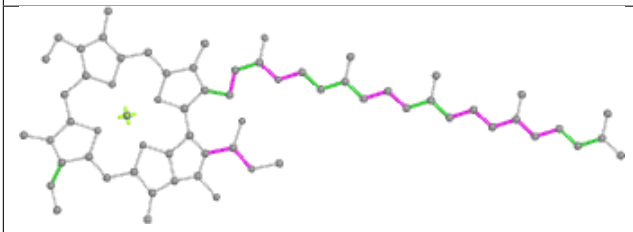


Bond angles



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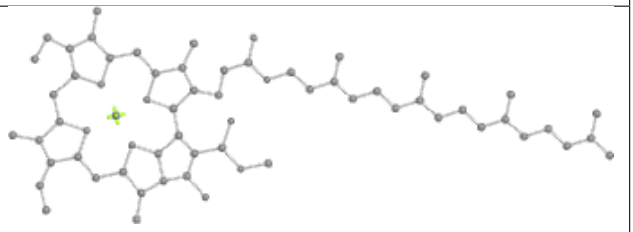
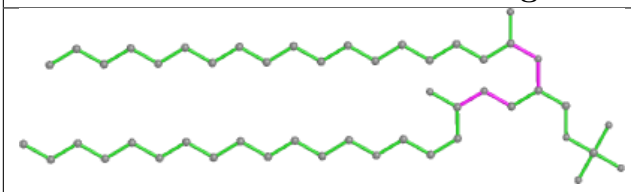


Rings

Ligand 3PH b1 624



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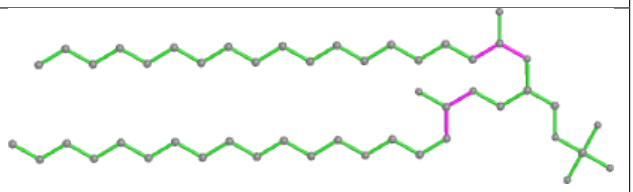
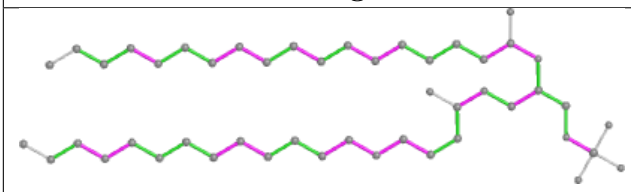


Bond angles



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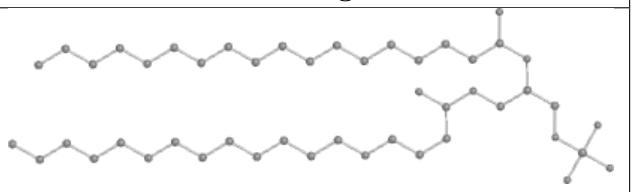
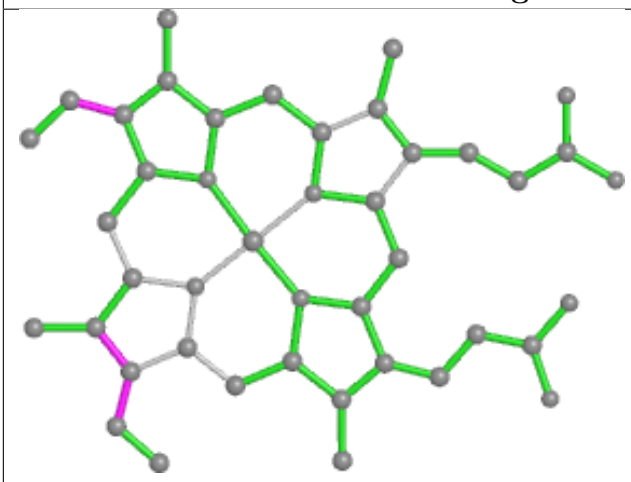


Rings

Ligand HEM F1 101



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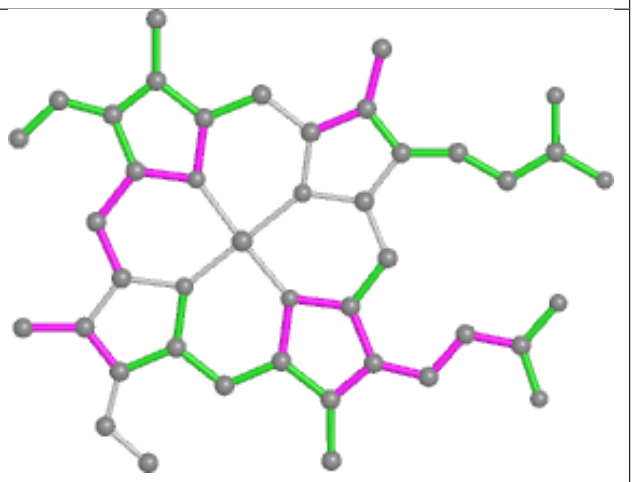
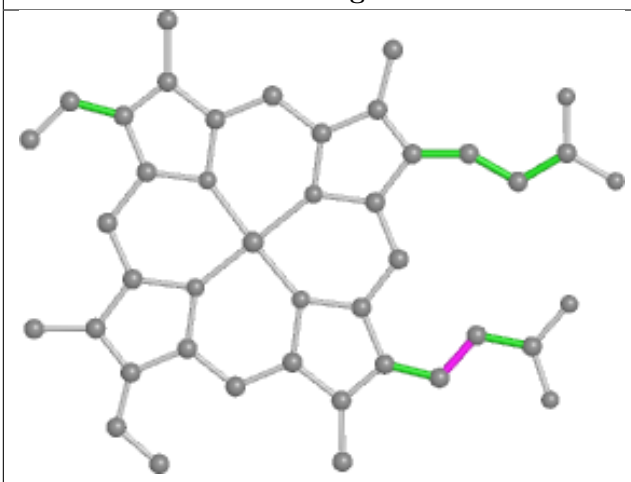


Bond angles



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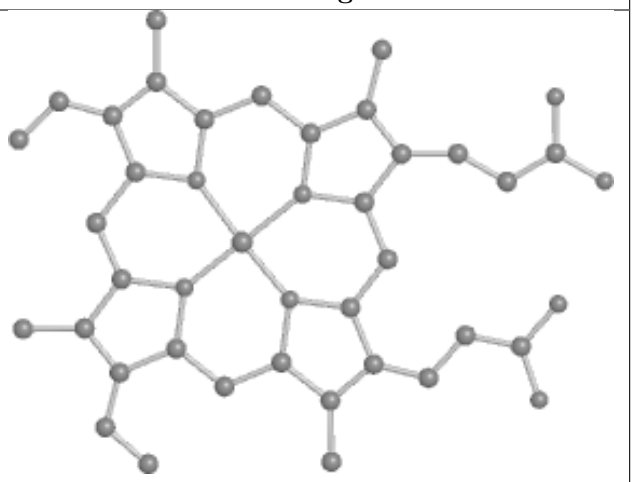
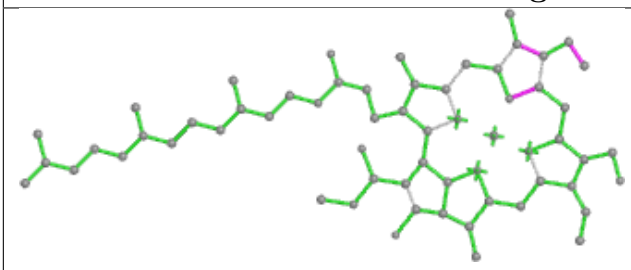


Rings

Ligand CHL s 608



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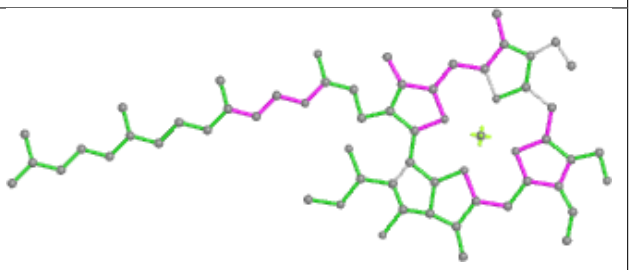

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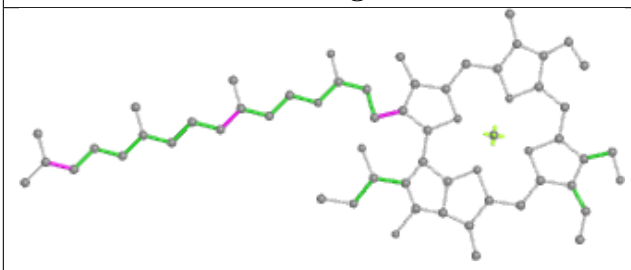

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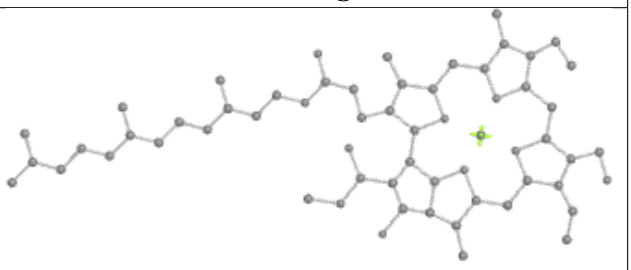
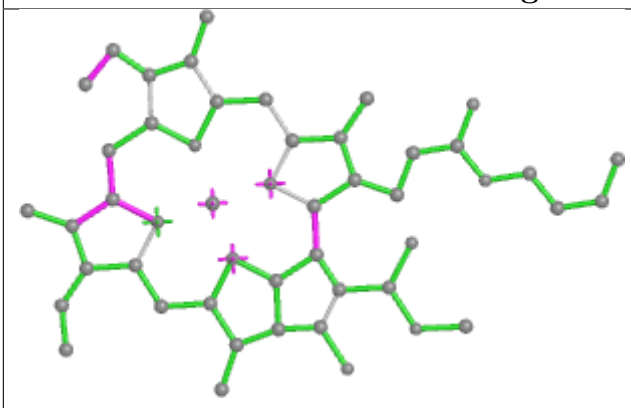


Rings

Ligand CLA r1 604



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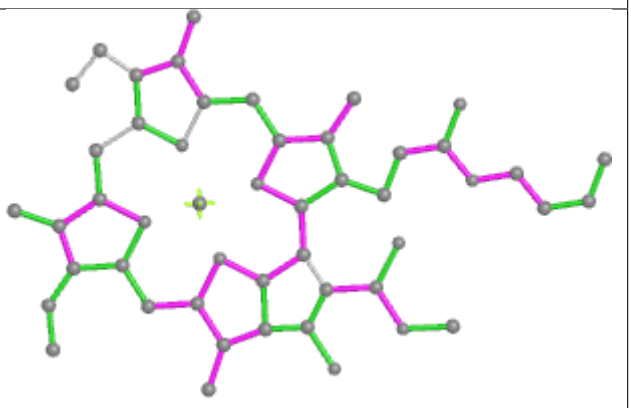
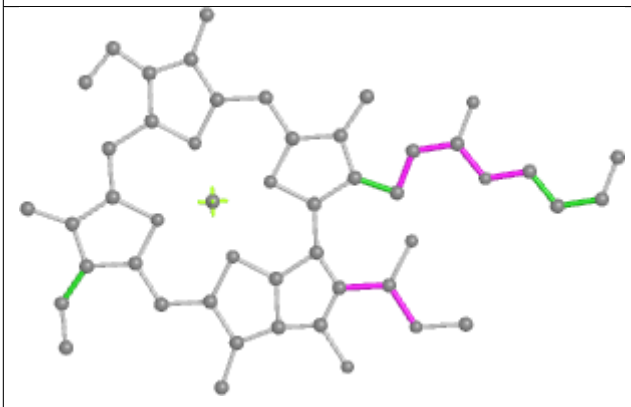
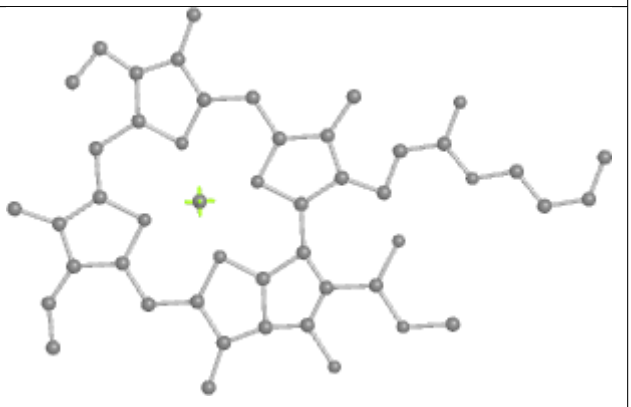


Bond angles

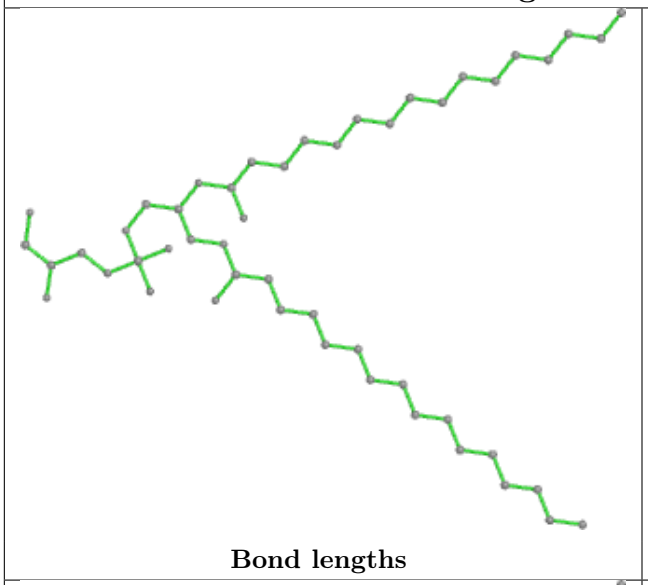


Torsions



Rings

Ligand LHG g1 624



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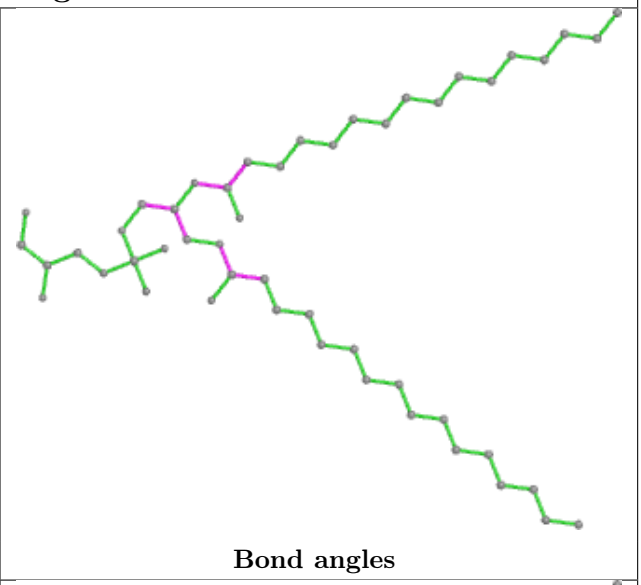
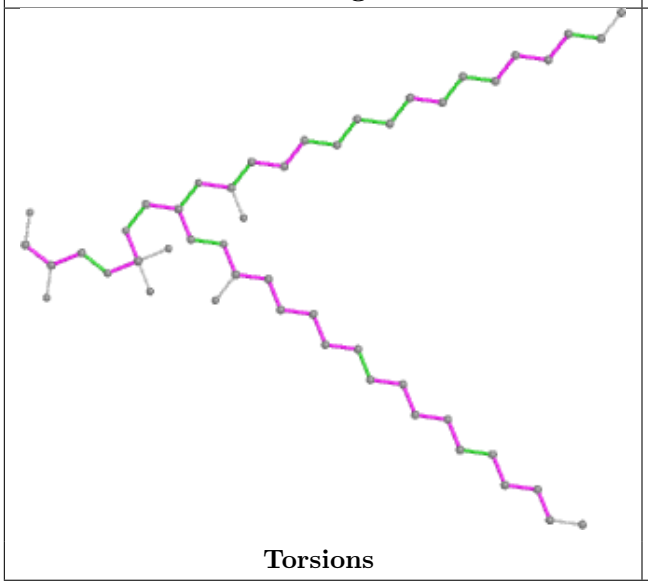
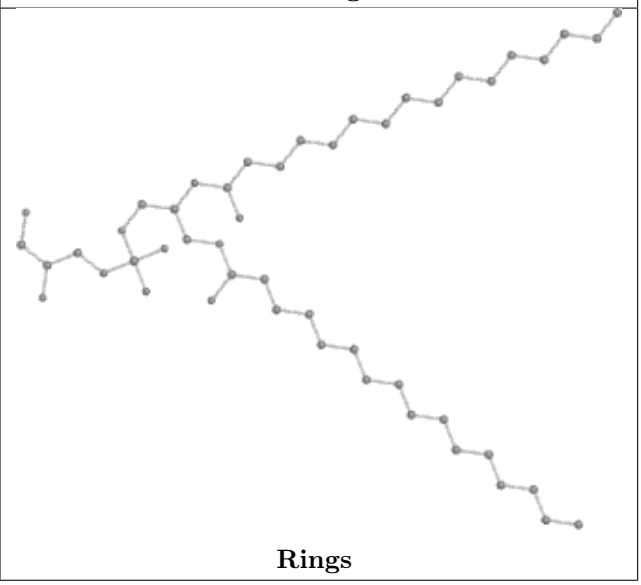


Bond angles

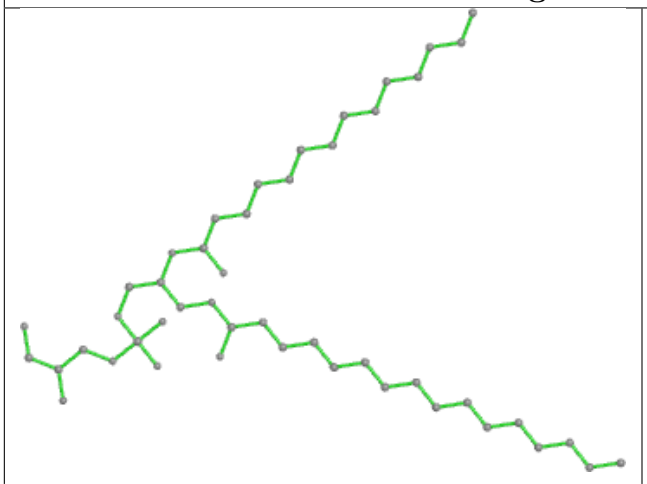


Torsions

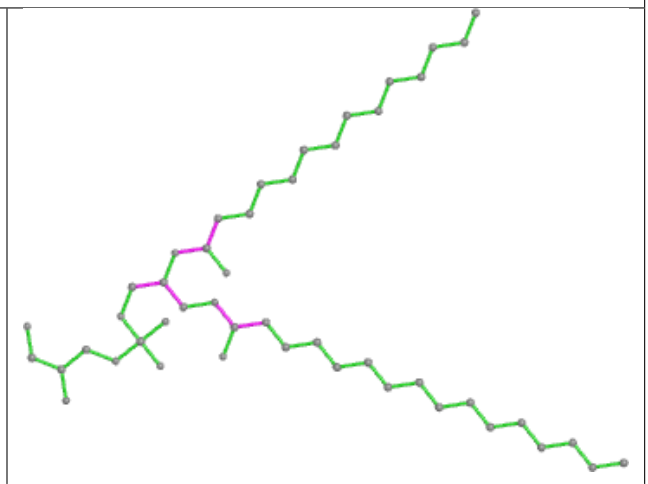


Rings

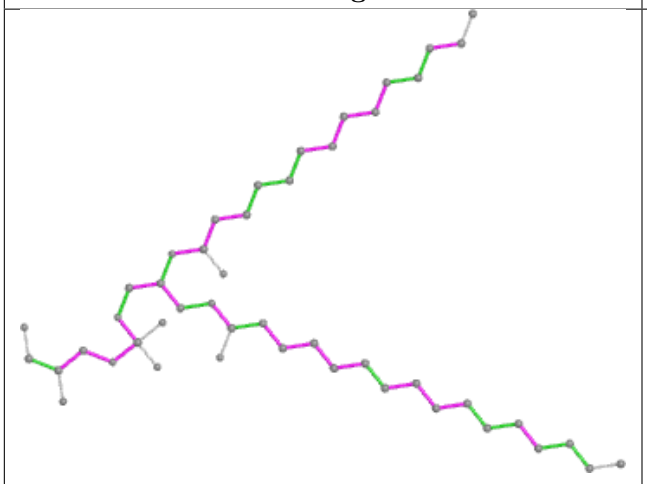
Ligand LHG c 525



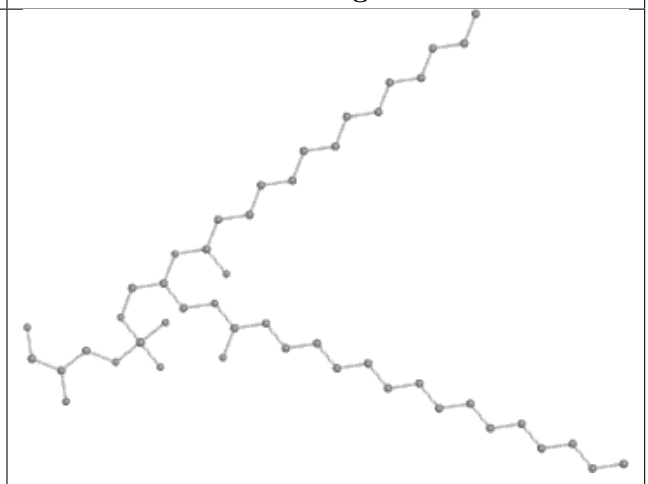
Bond lengths



Bond angles

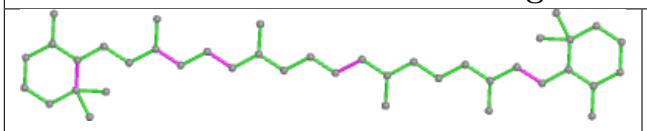


Torsions

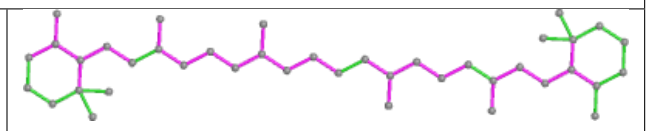


Rings

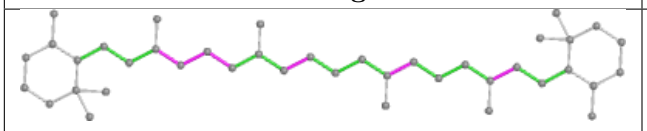
Ligand BCR b 618



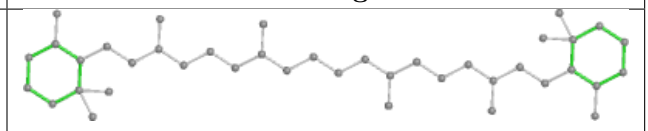
Bond lengths



Bond angles

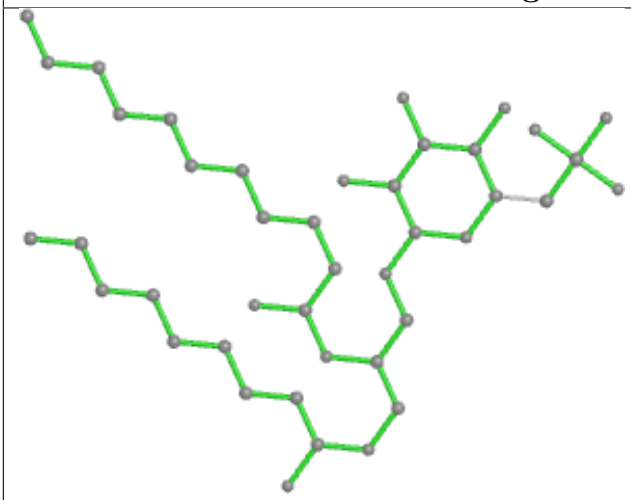


Torsions



Rings

Ligand SQD m 101



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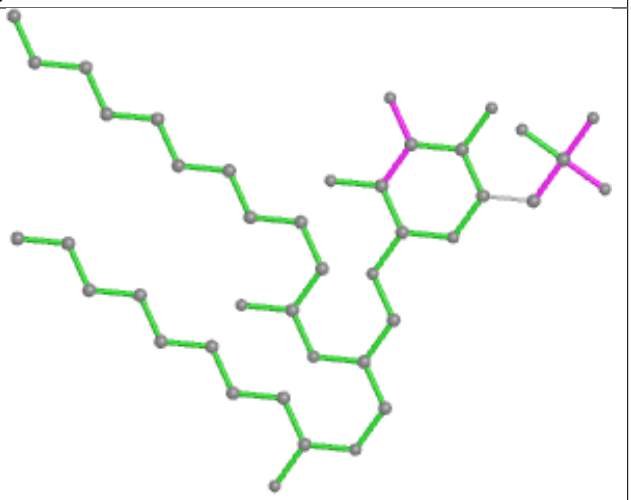
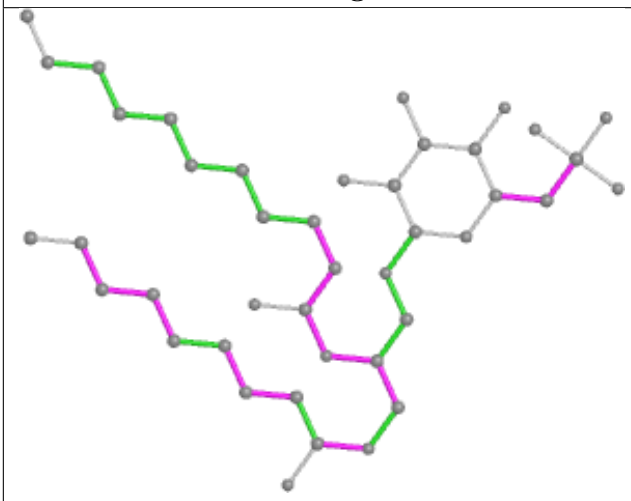
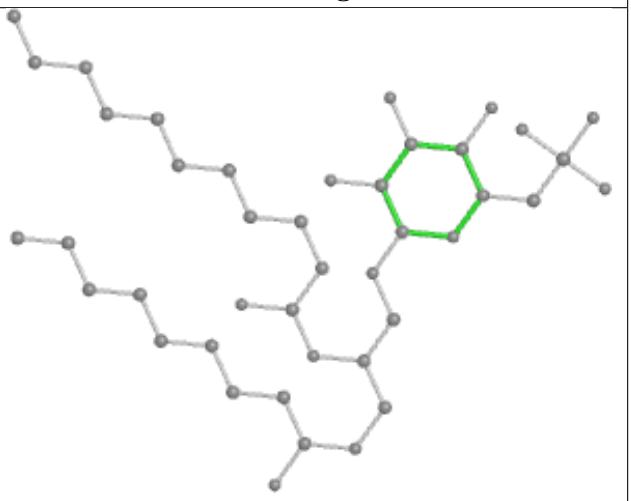


Bond angles

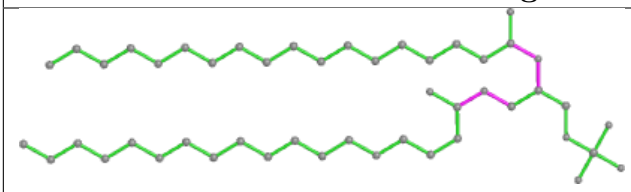


Torsions



Rings

Ligand 3PH S1 626



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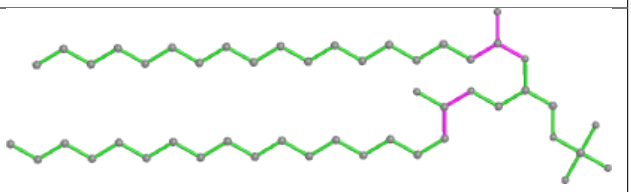
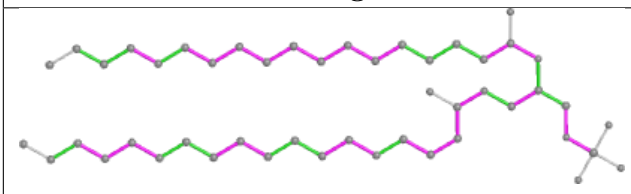
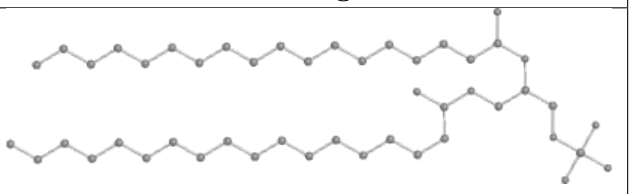


Bond angles

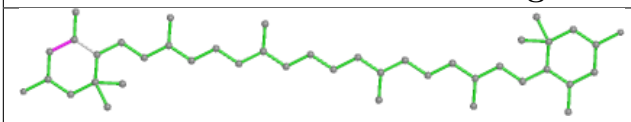


Torsions



Rings

Ligand LUT S 621



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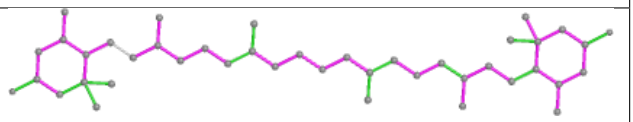
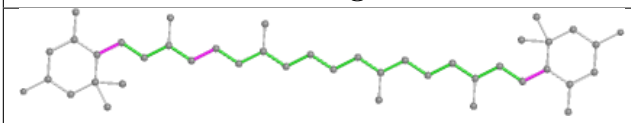
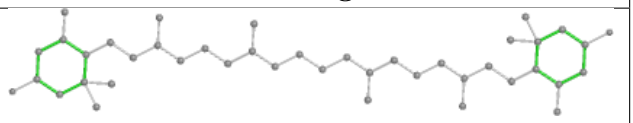


Bond angles

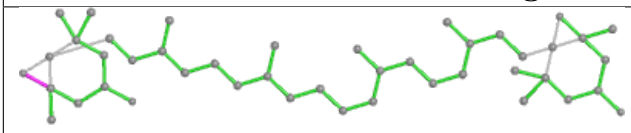


Torsions



Rings

Ligand XAT N 622



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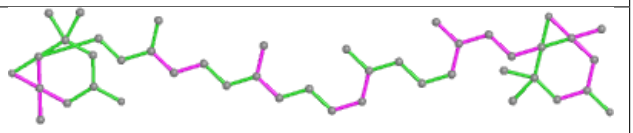
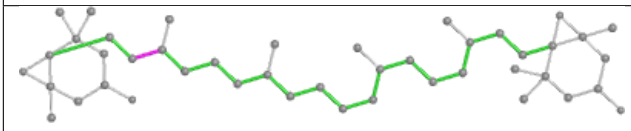


Bond angles



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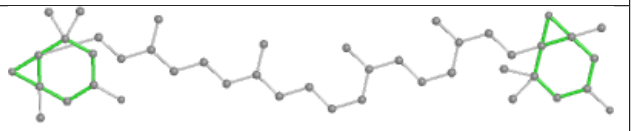
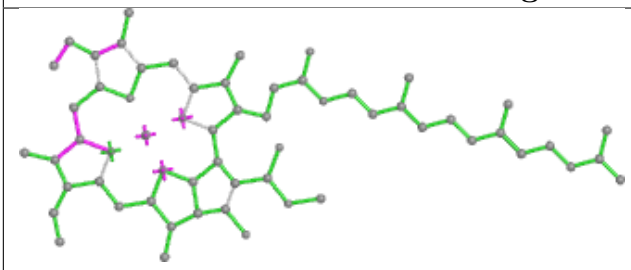


Rings

Ligand CLA r1 602



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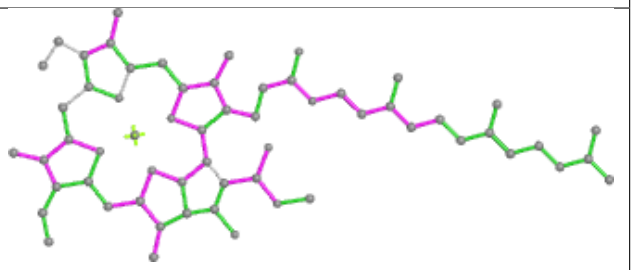
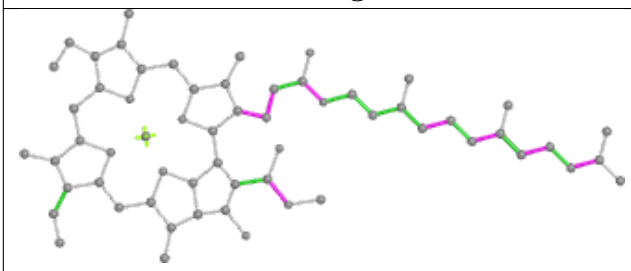
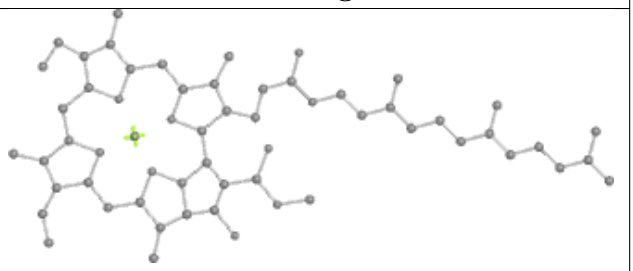


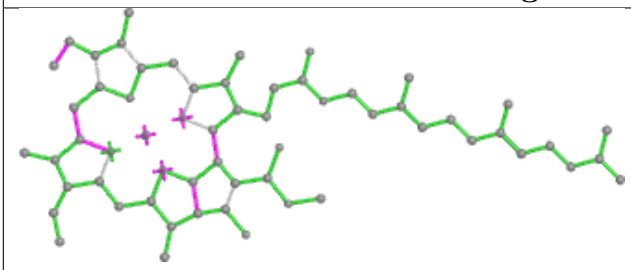
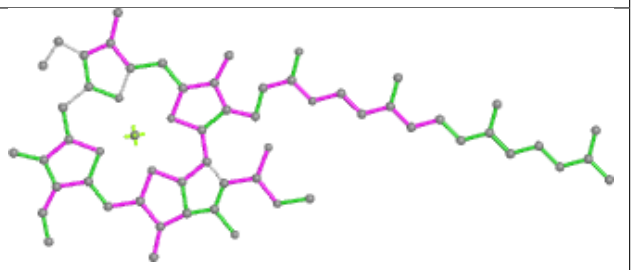
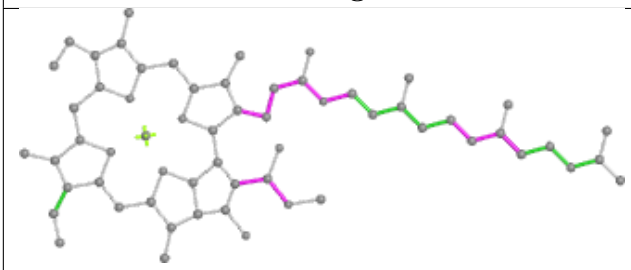
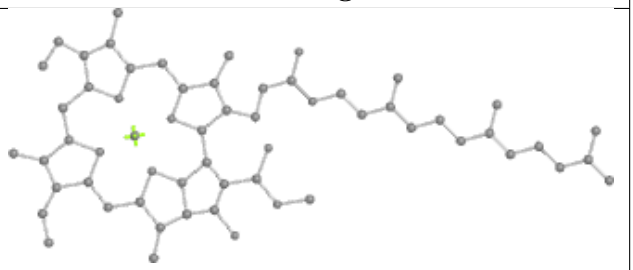
Bond angles

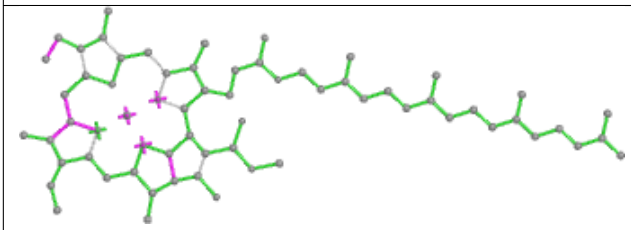
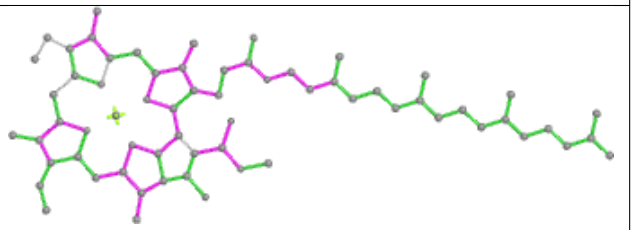
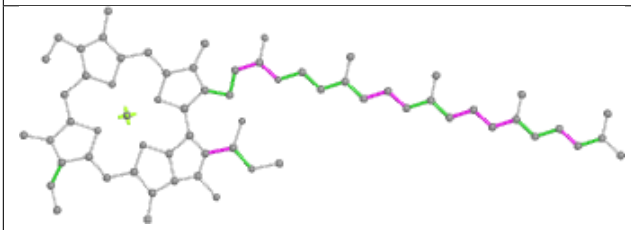
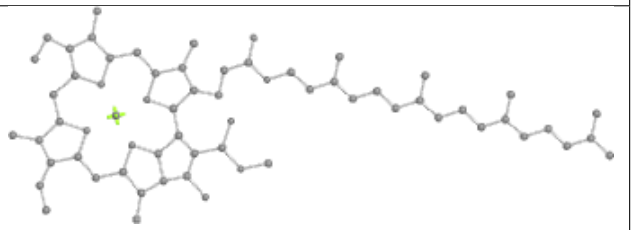


Torsions

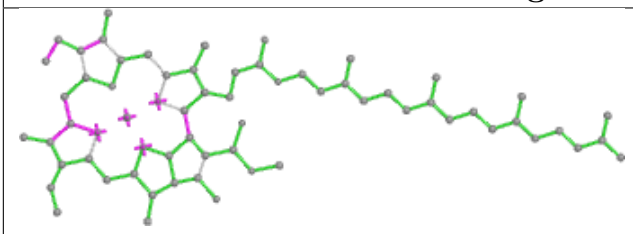


Rings

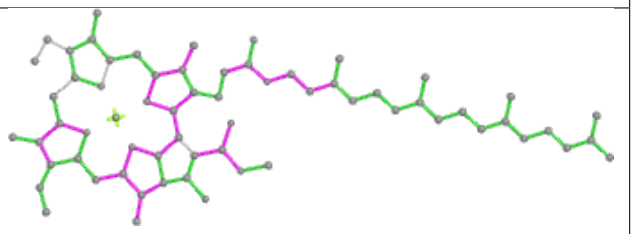
Ligand CLA s1 602	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand CLA c1 508	
	
Bond lengths	Bond angles
	
Torsions	Rings

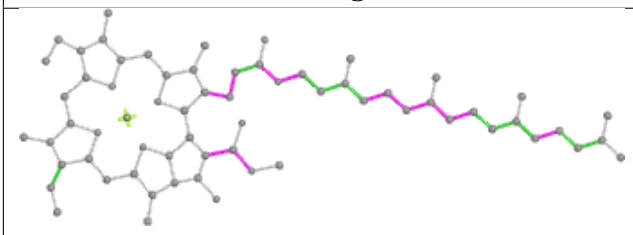
Ligand CLA S 603



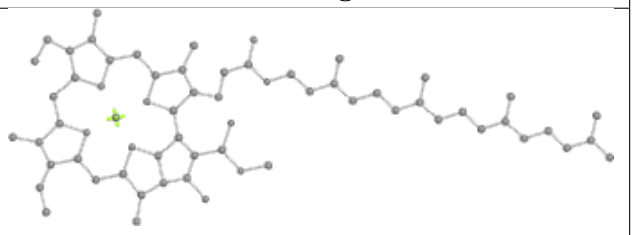
Bond lengths



Bond angles

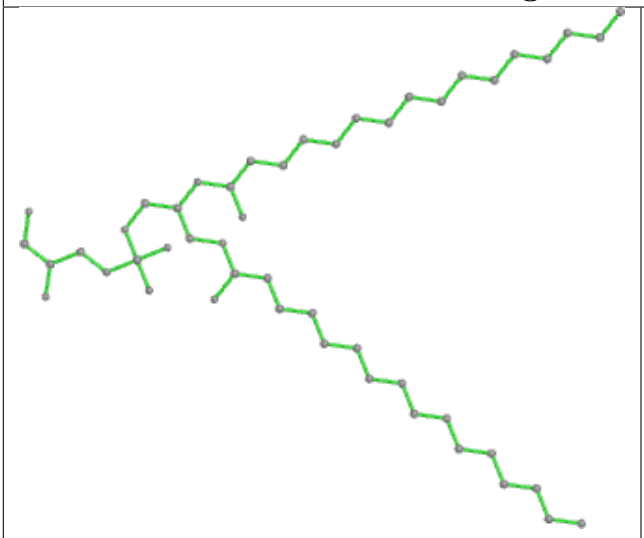


Torsions



Rings

Ligand LHG N 624



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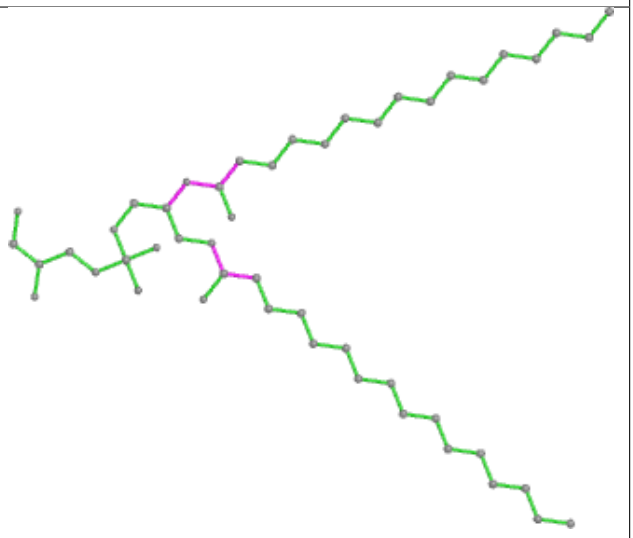
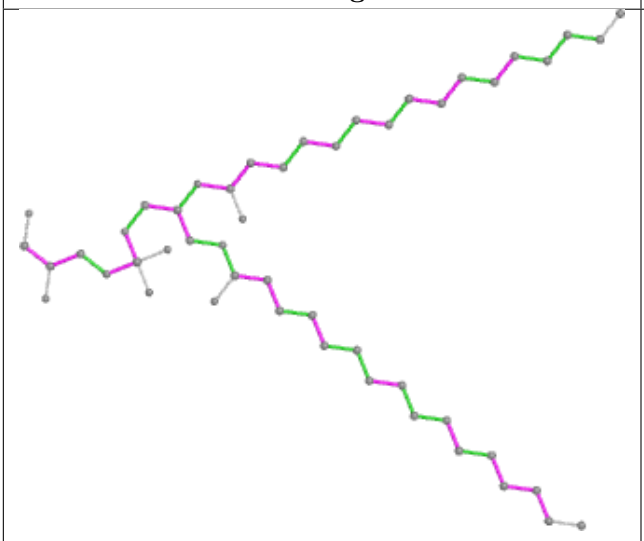


Bond angles



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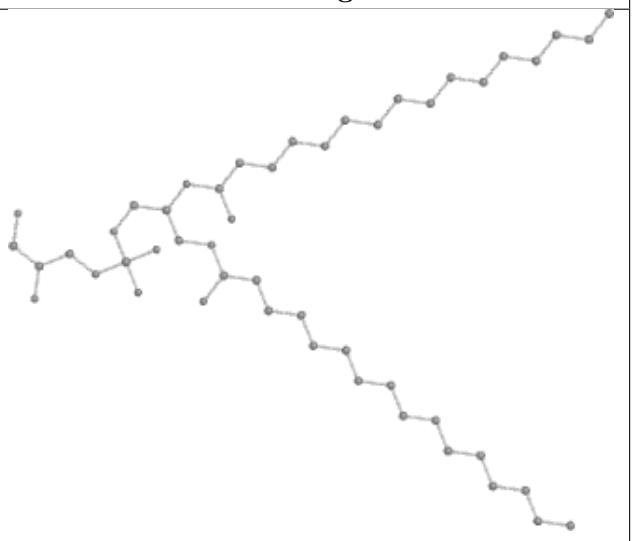
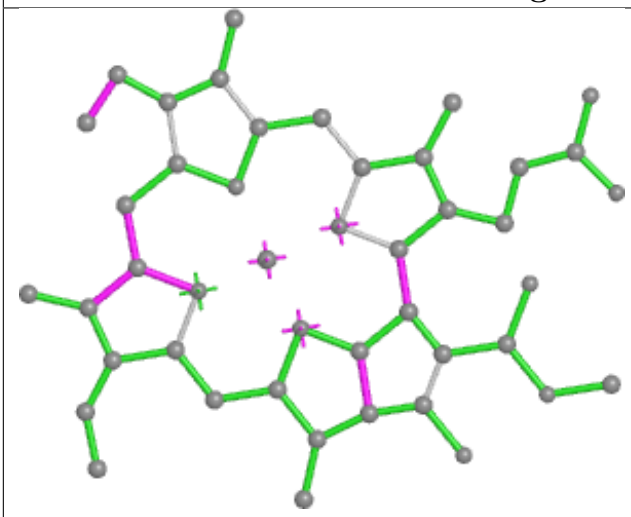


Rings

Ligand CLA s 612



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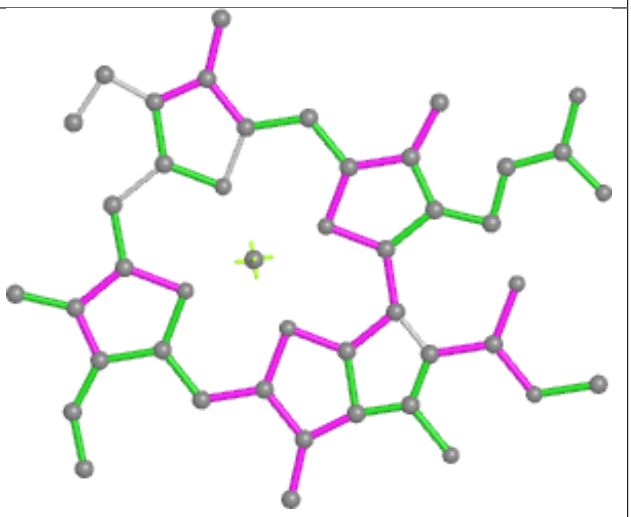
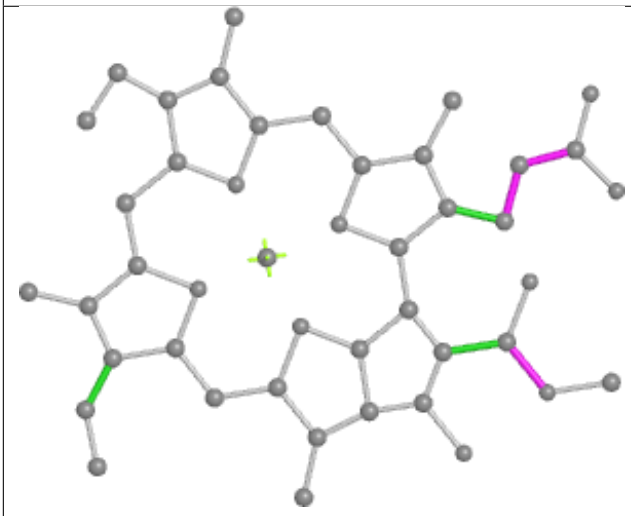
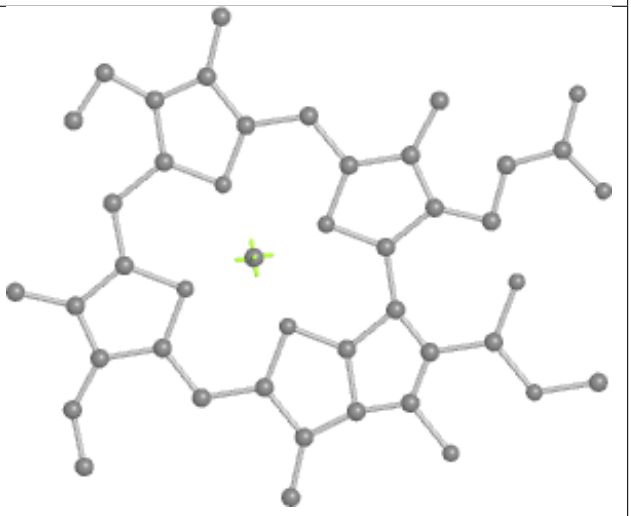


Bond angles

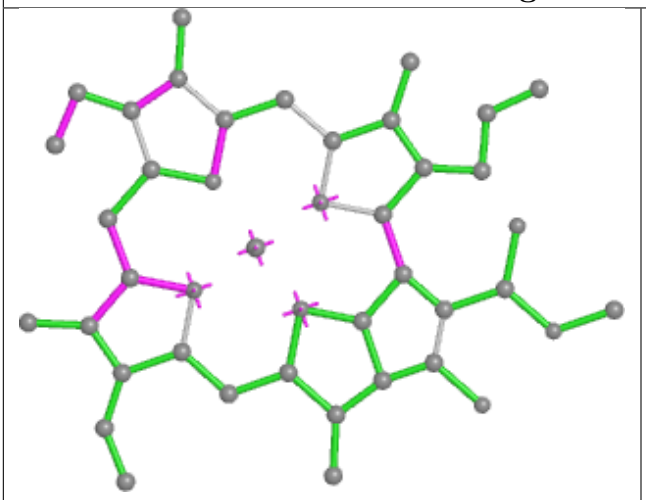


Torsions

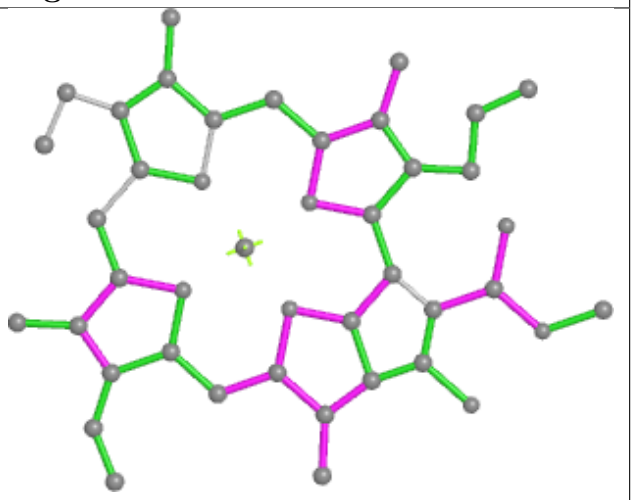


Rings

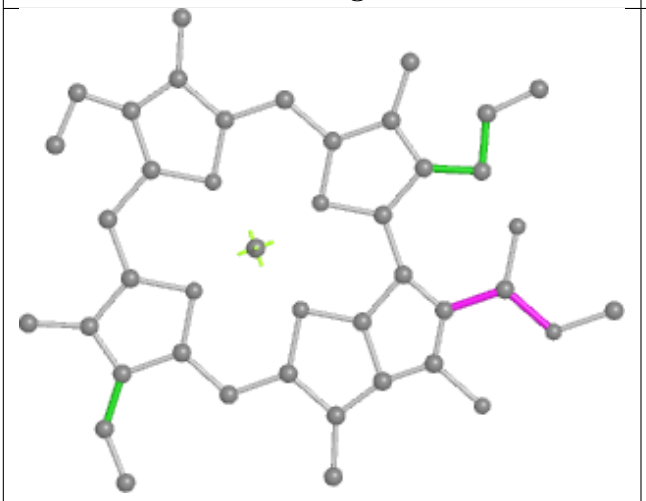
Ligand CLA g1 612



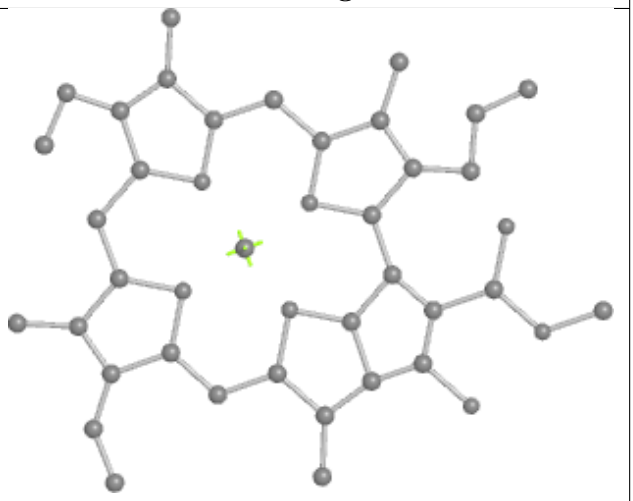
Bond lengths



Bond angles

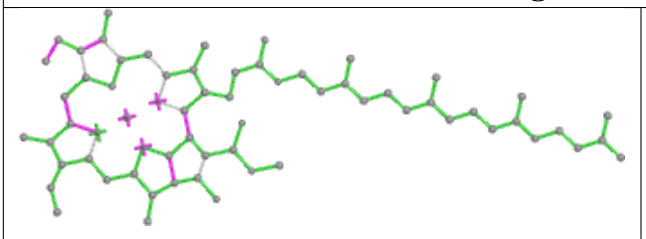


Torsions



Rings

Ligand CLA c 505



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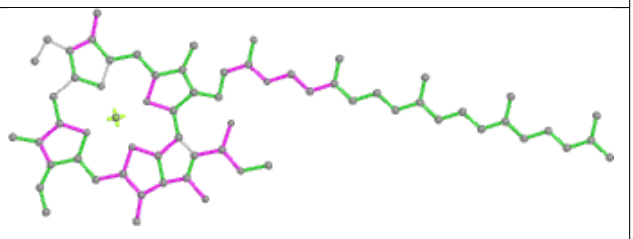
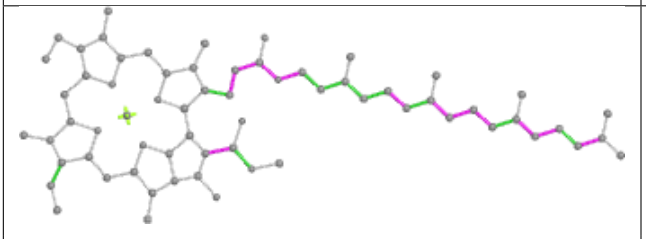
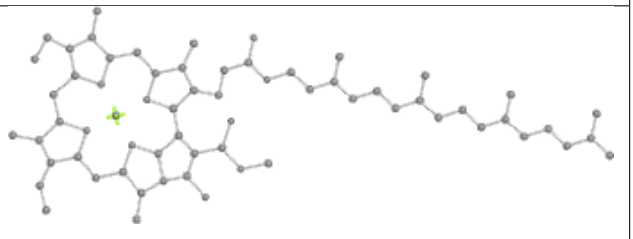


Bond angles

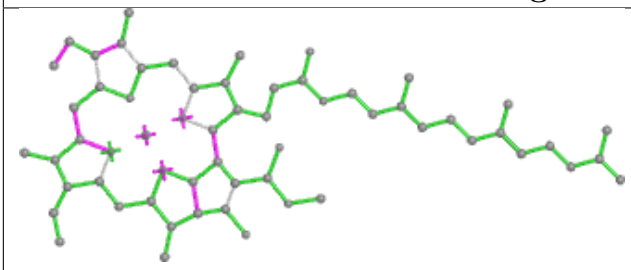


Torsions

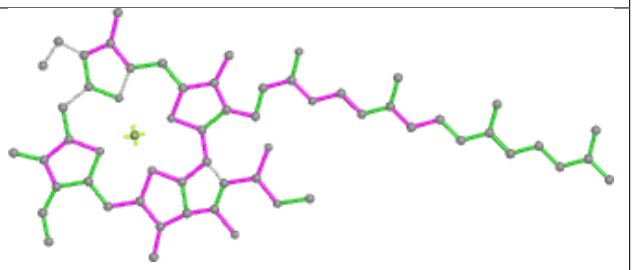


Rings

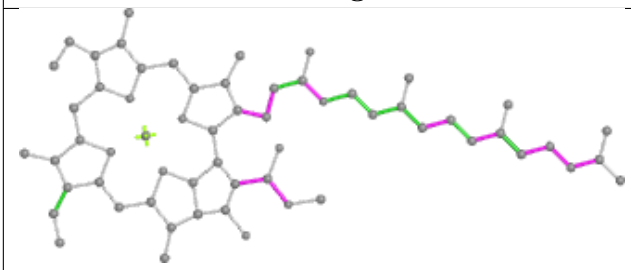
Ligand CLA r 602



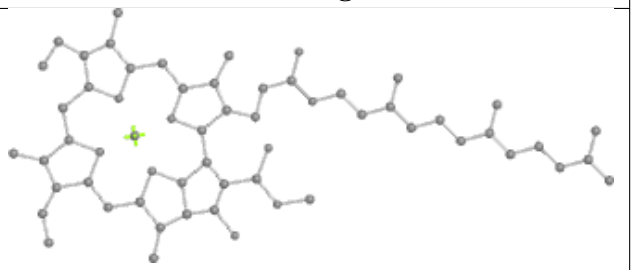
Bond lengths



Bond angles

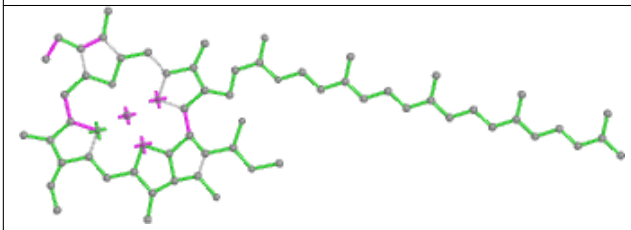


Torsions

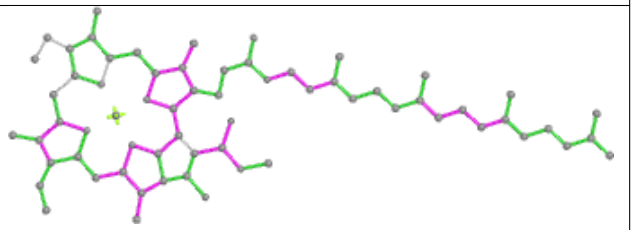


Rings

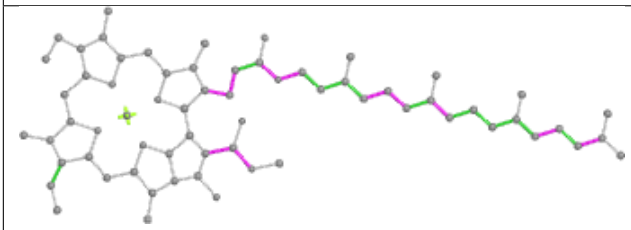
Ligand CLA b1 605



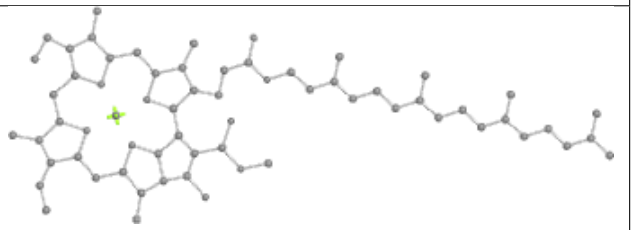
Bond lengths



Bond angles

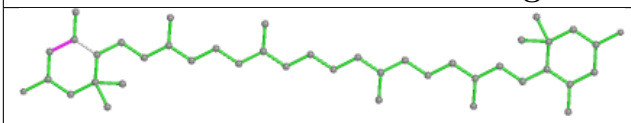


Torsions



Rings

Ligand LUT N 621



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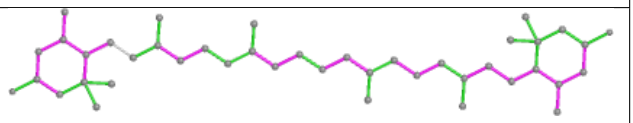
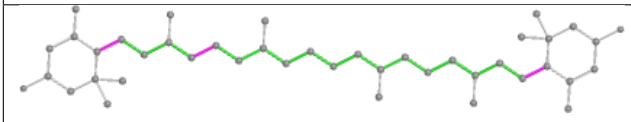
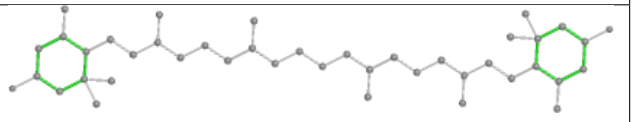


Bond angles

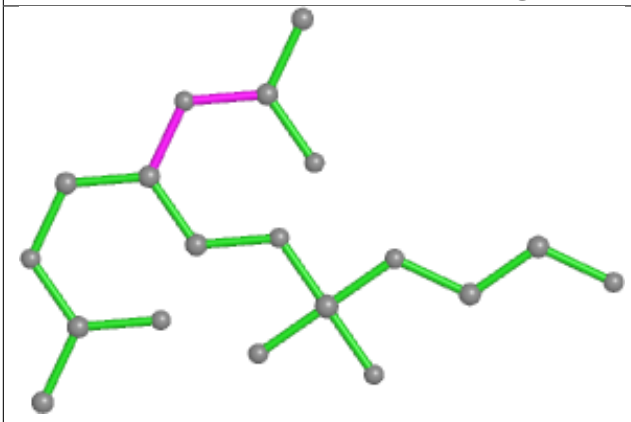


Torsions

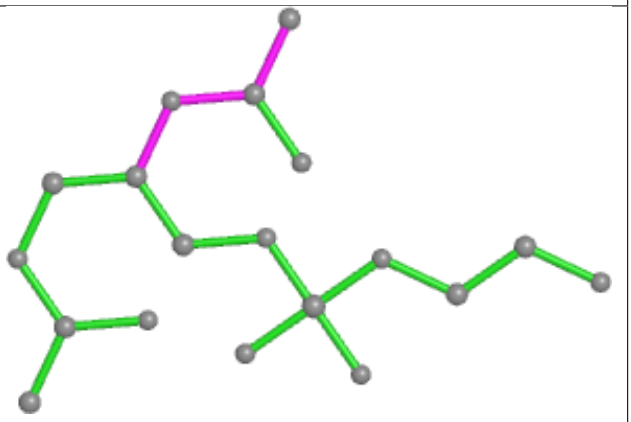


Rings

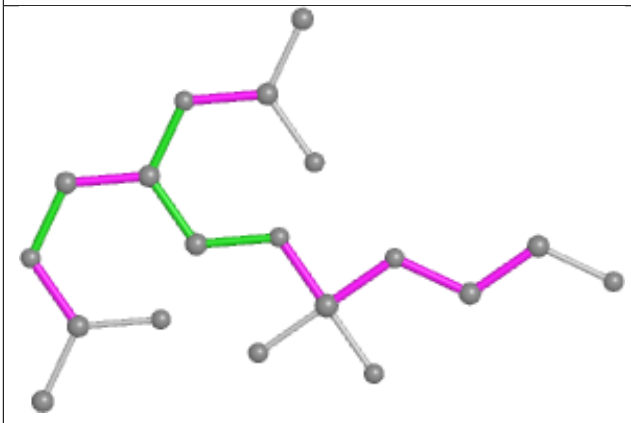
Ligand PTY Y1 627



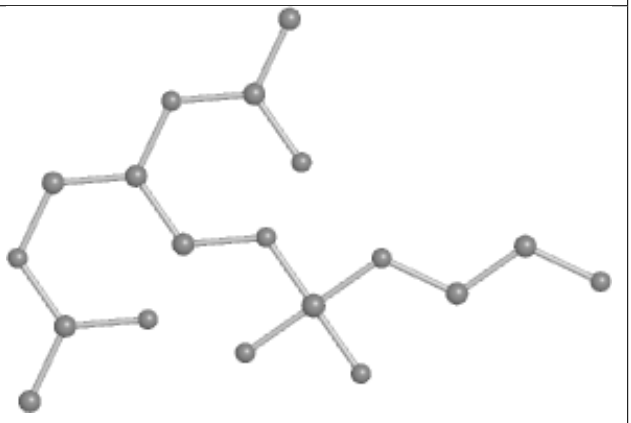
Bond lengths



Bond angles

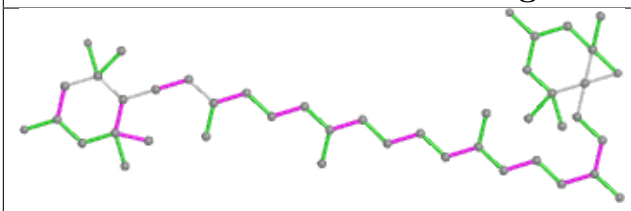


Torsions



Rings

Ligand NEX s1 623



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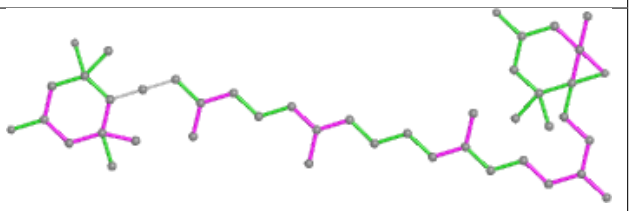
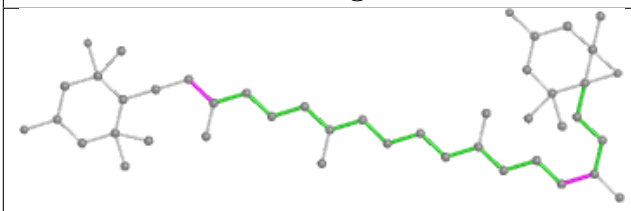


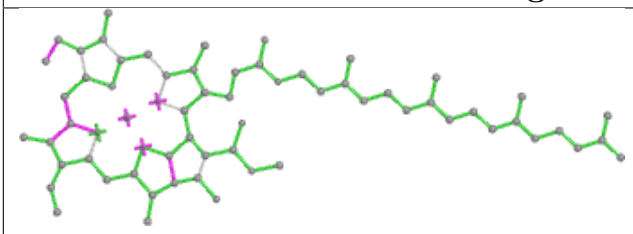
Bond angles



Torsions

Rings

Ligand CLA b 615



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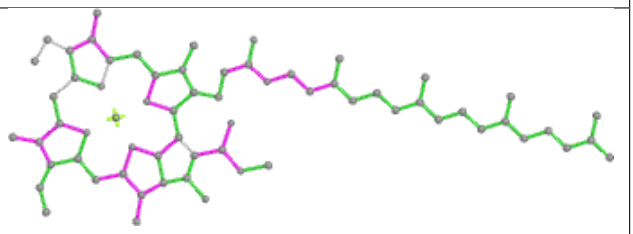
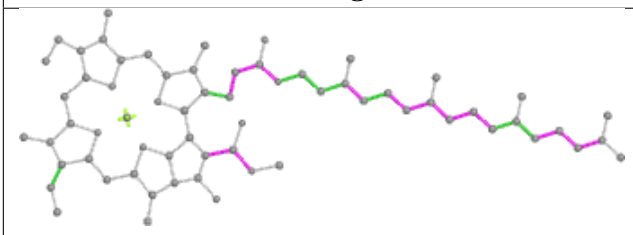
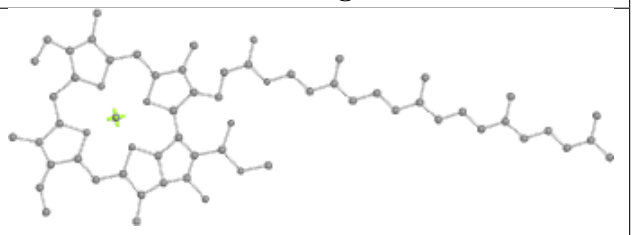


Bond angles

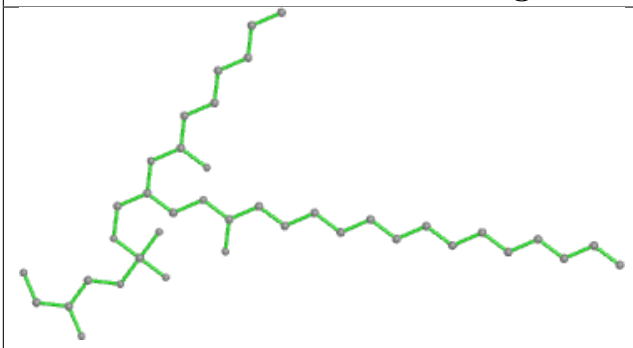


Torsions



Rings

Ligand LHG D1 410



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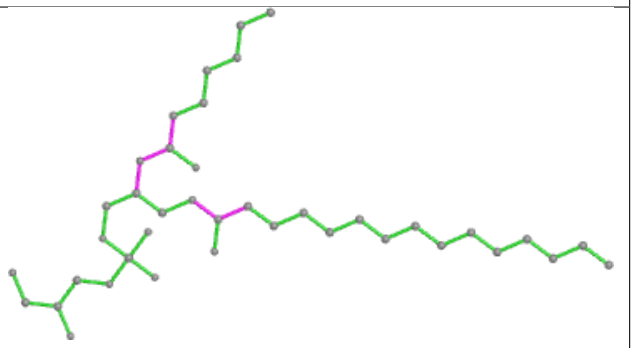
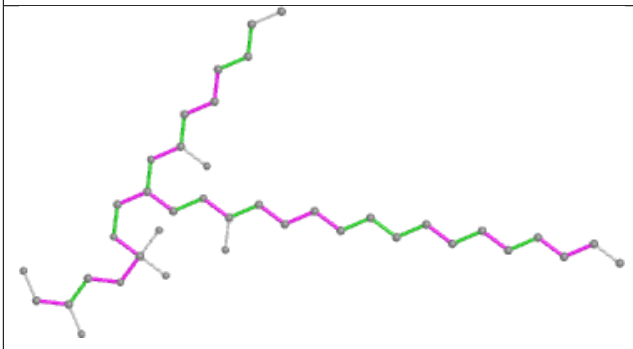


Bond angles



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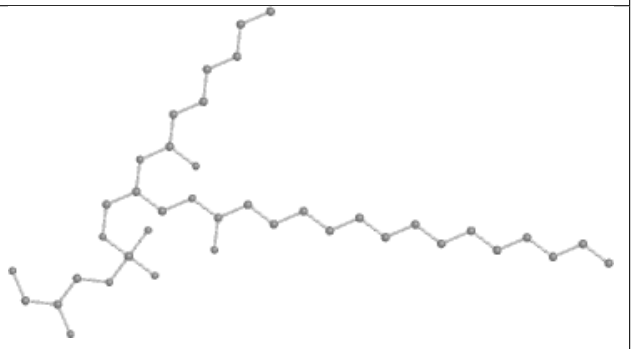
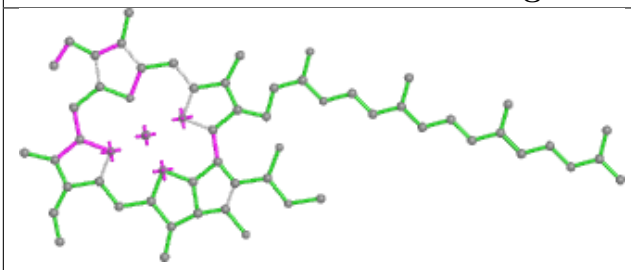


Rings

Ligand CLA R 612



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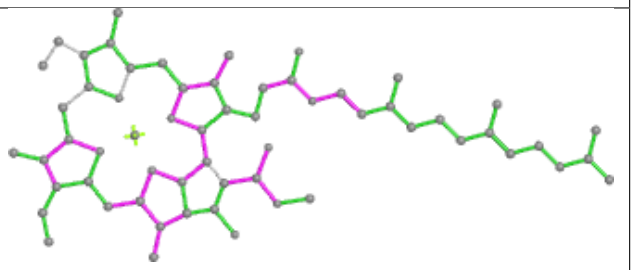
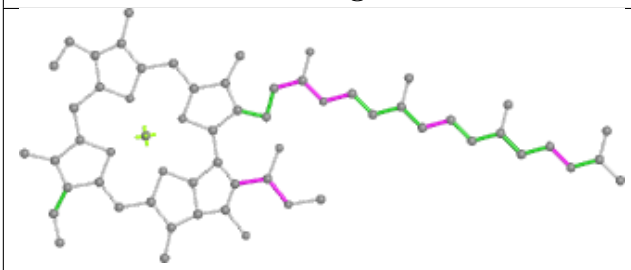


Bond angles



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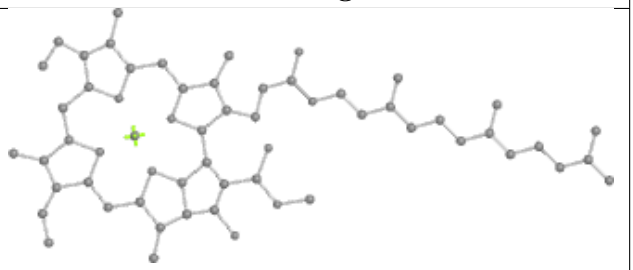
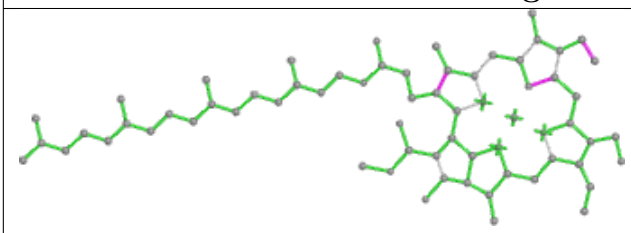


Rings

Ligand CHL N 609



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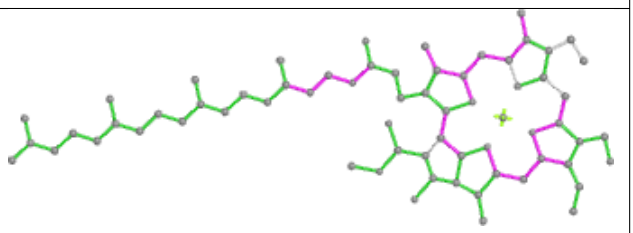
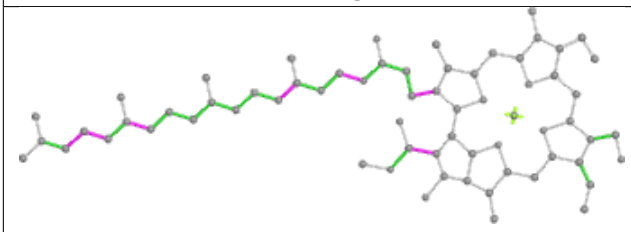


Bond angles



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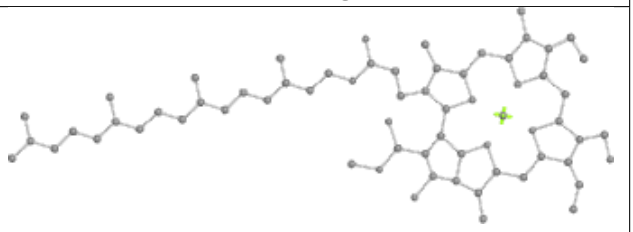
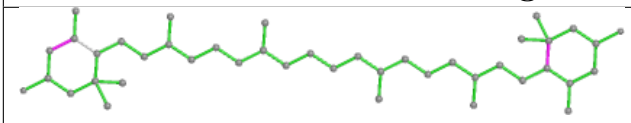


Rings

Ligand LUT S1 621



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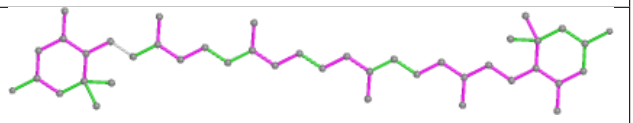
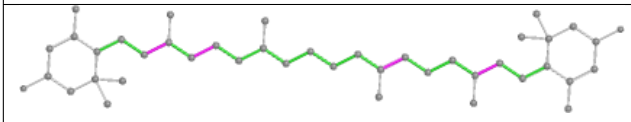
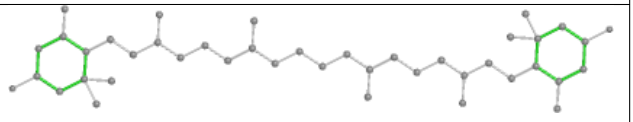


Bond angles

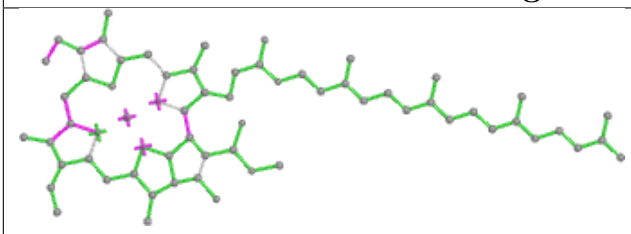


Torsions



Rings

Ligand CLA G 613



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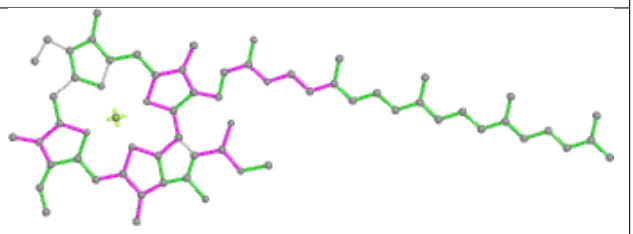
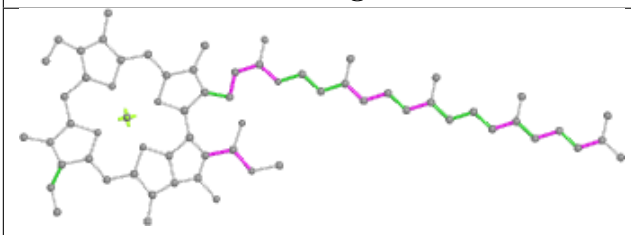
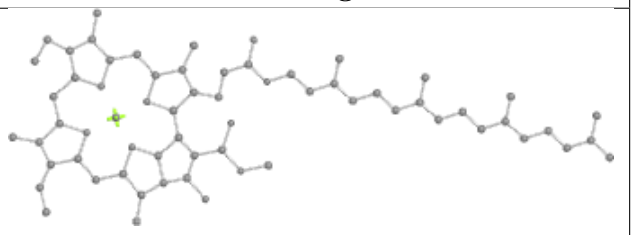


Bond angles

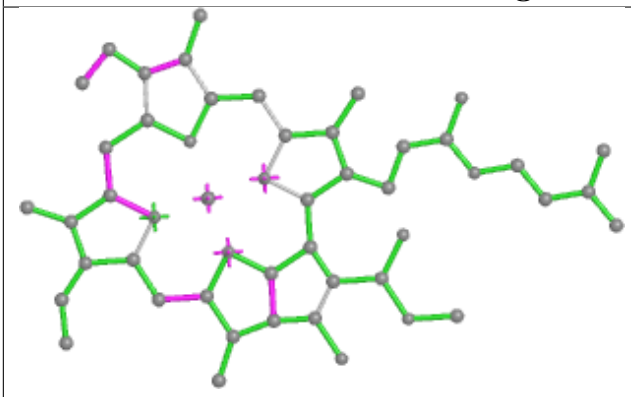


Torsions



Rings

Ligand CLA A1 407



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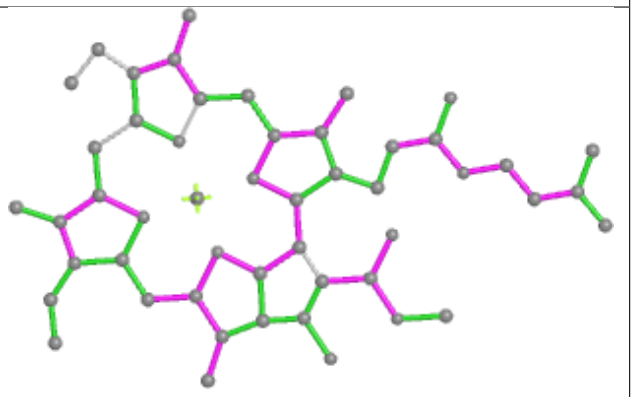
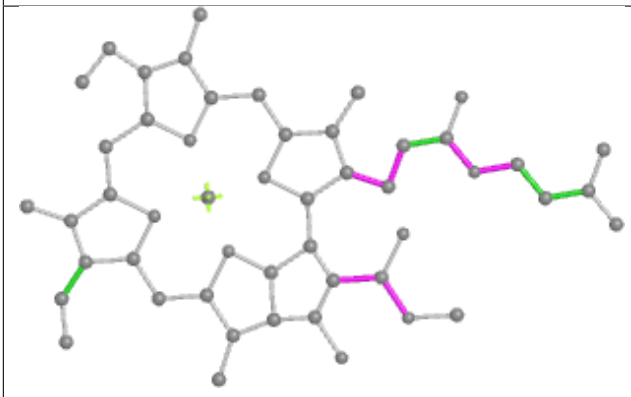
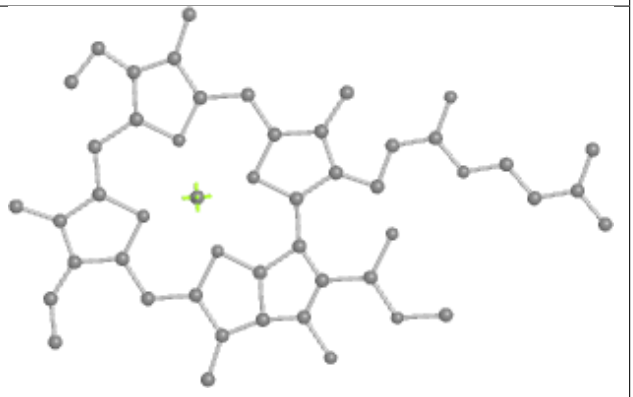


Bond angles

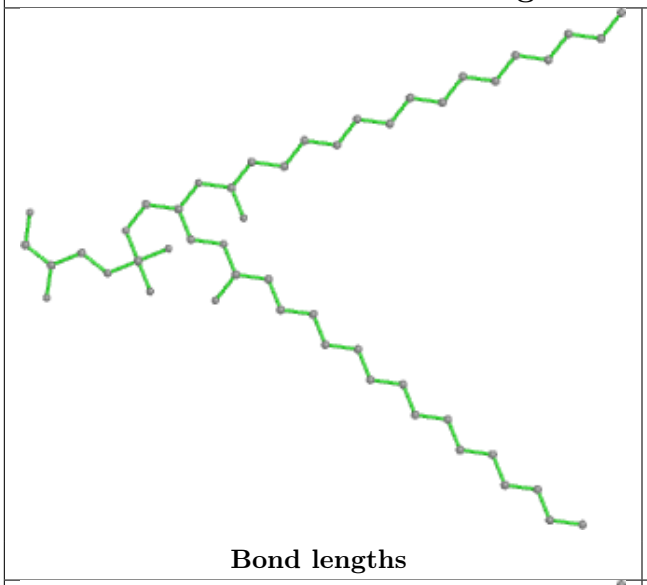


Torsions



Rings

Ligand LHG L1 101



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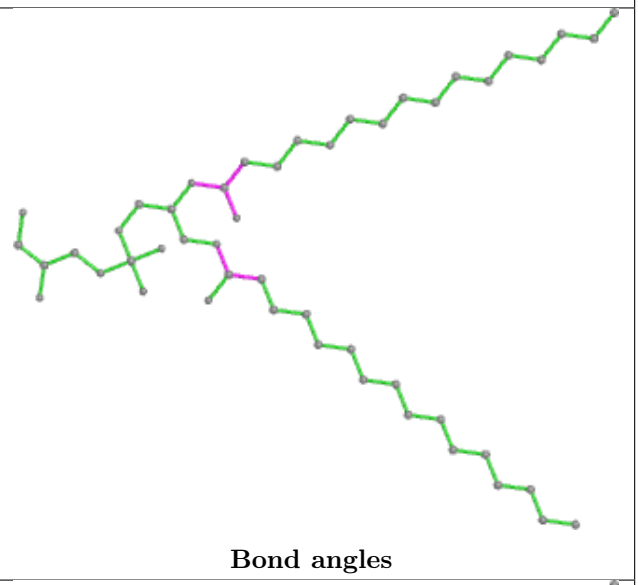
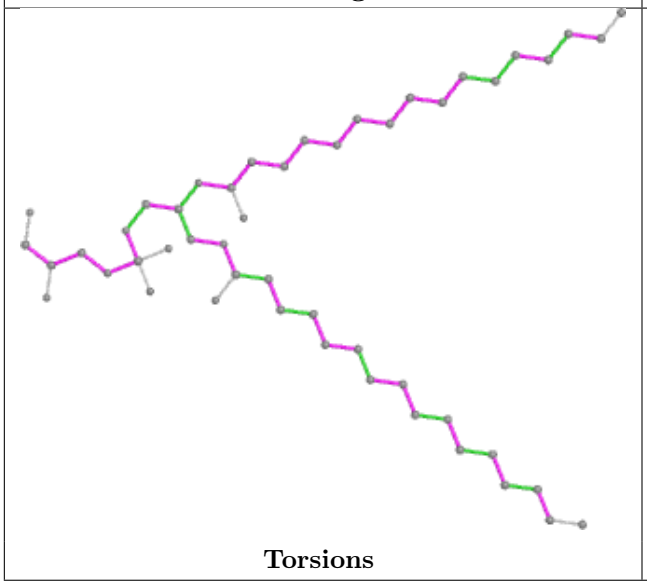


Bond angles



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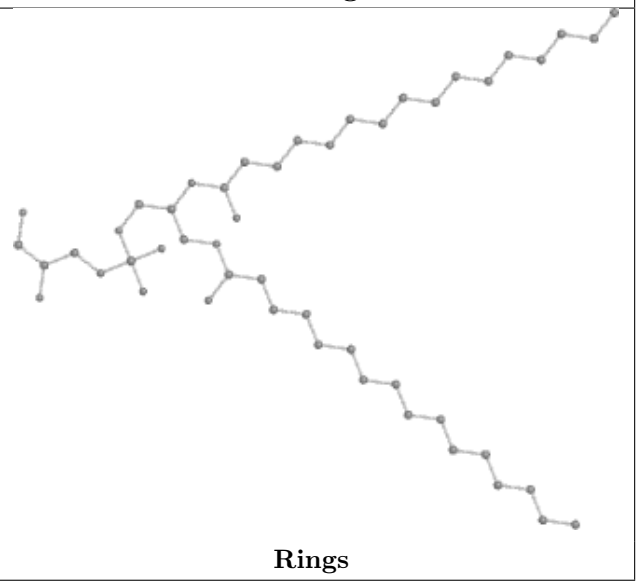
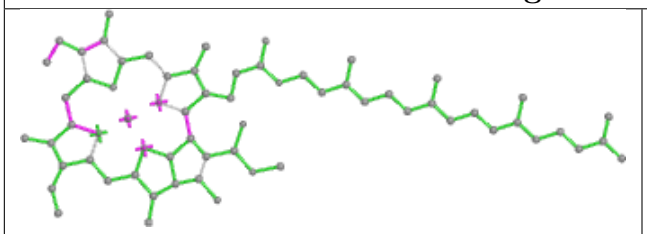
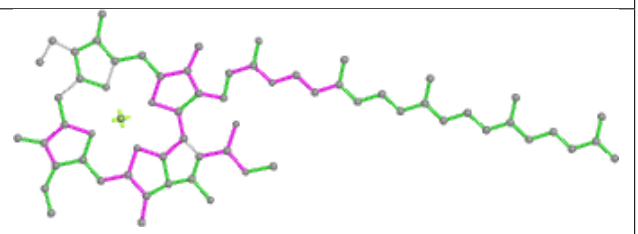


Rings

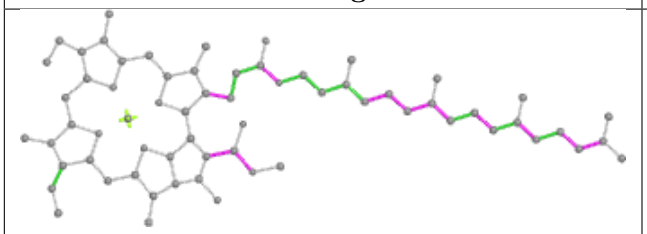
Ligand CLA G 611



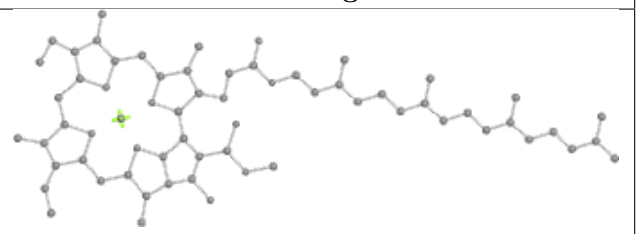
Bond lengths



Bond angles

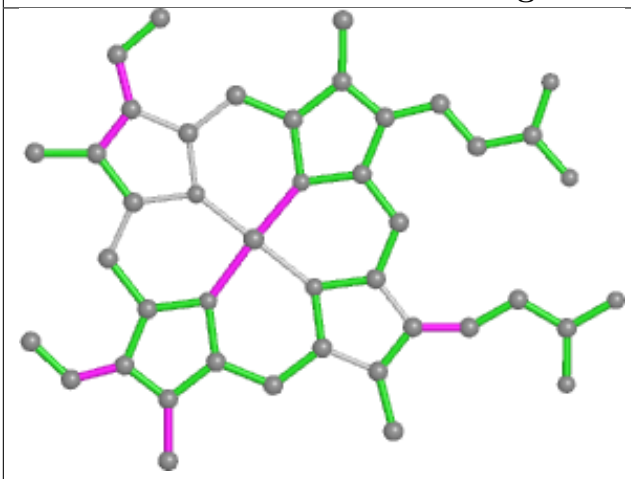


Torsions

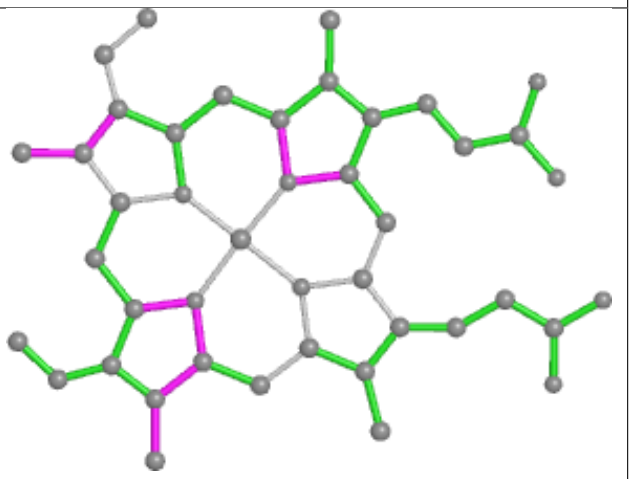


Rings

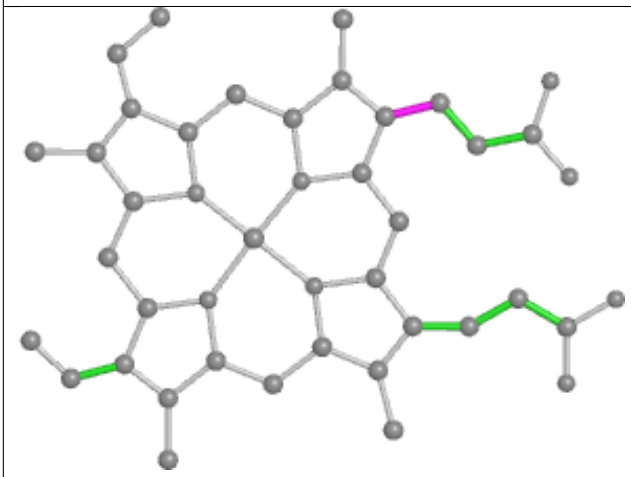
Ligand HEM f1 101



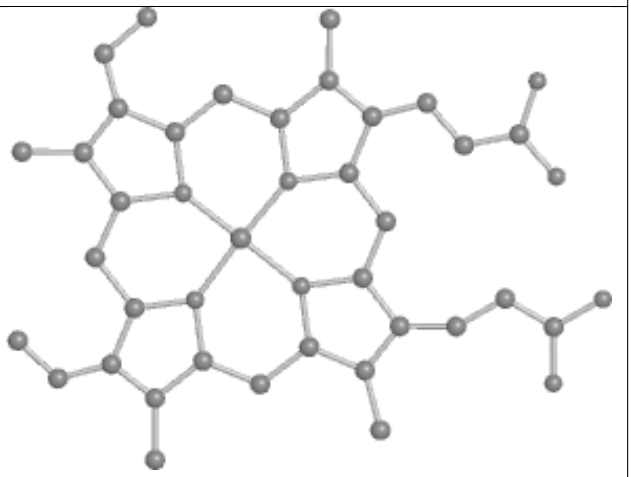
Bond lengths



Bond angles

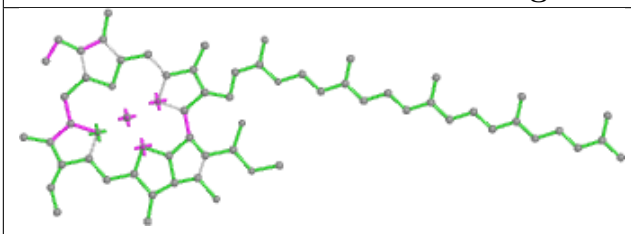


Torsions

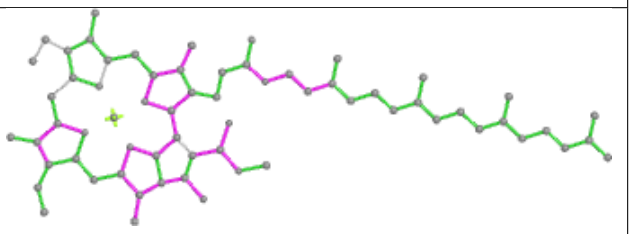


Rings

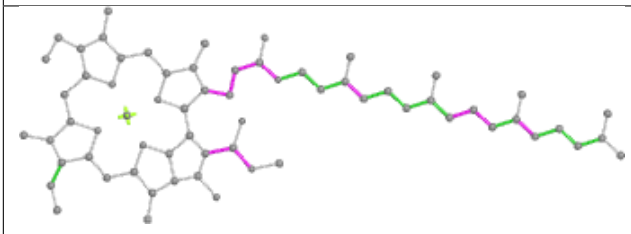
Ligand CLA s 603



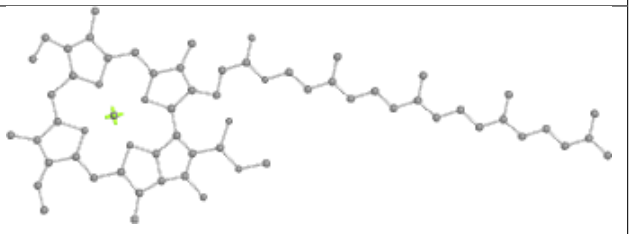
Bond lengths



Bond angles

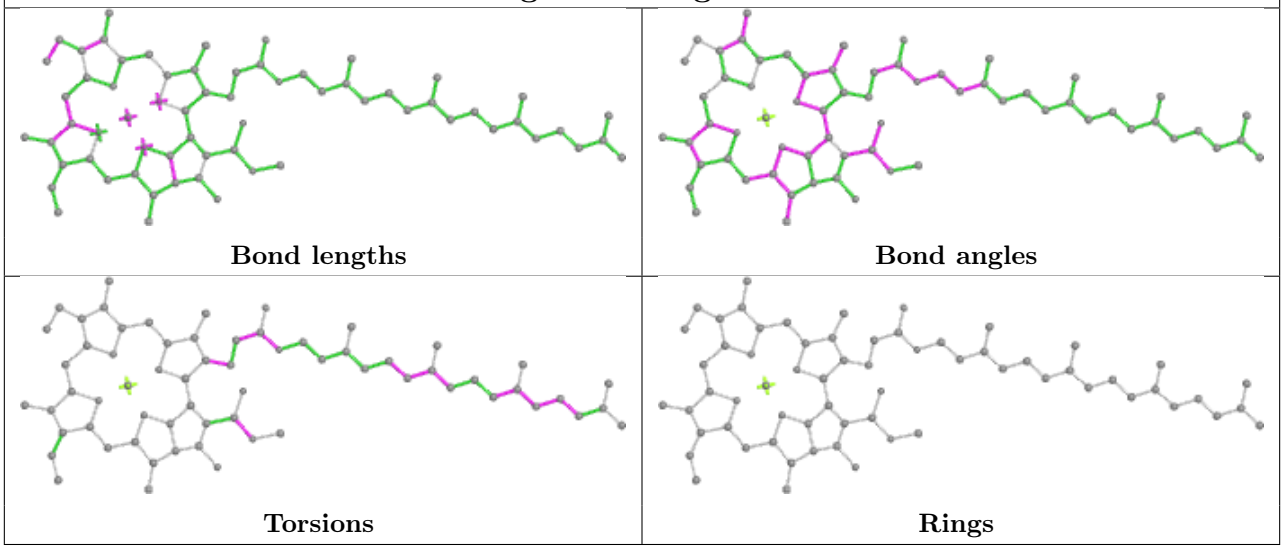


Torsions

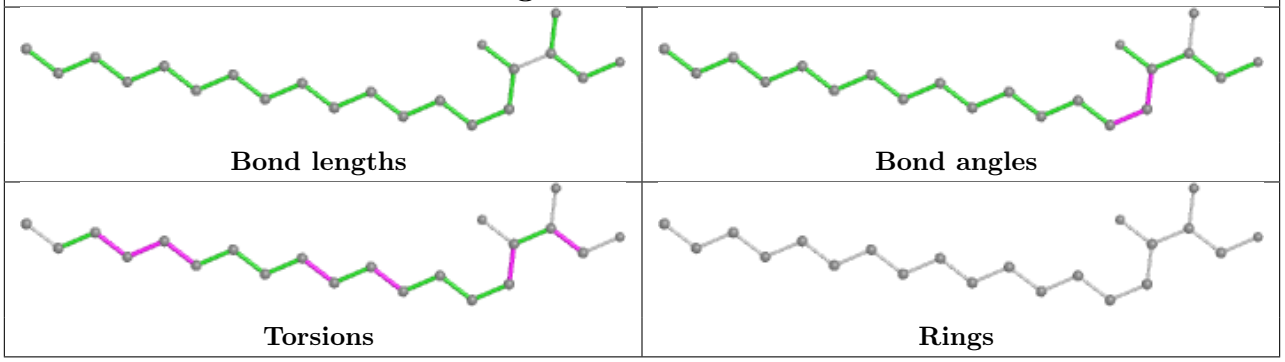


Rings

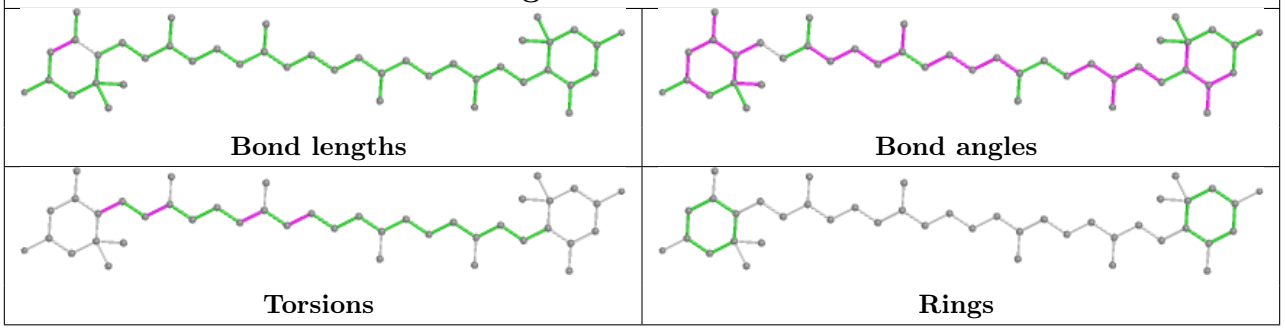
Ligand CLA g1 603



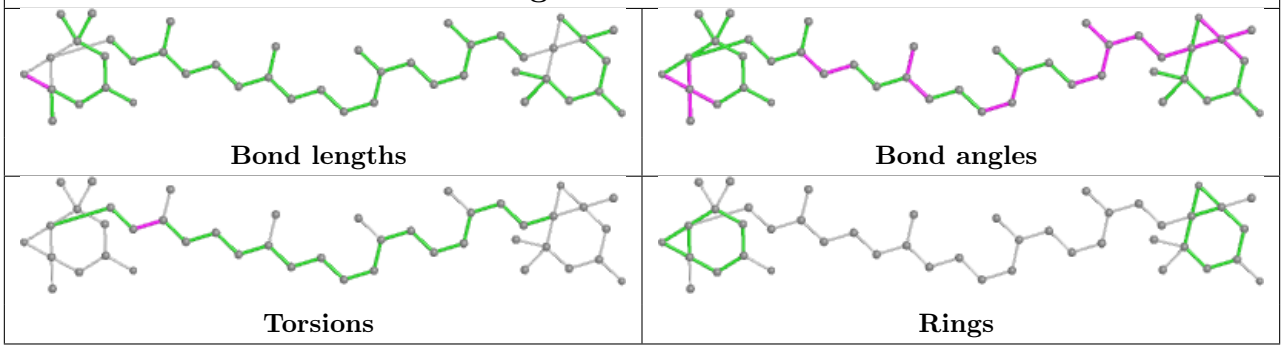
Ligand SPH Y1 625



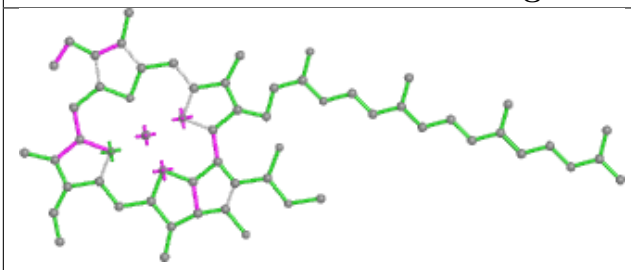
Ligand LUT s1 620



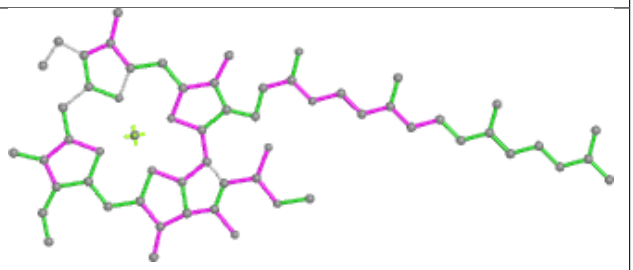
Ligand XAT r 621



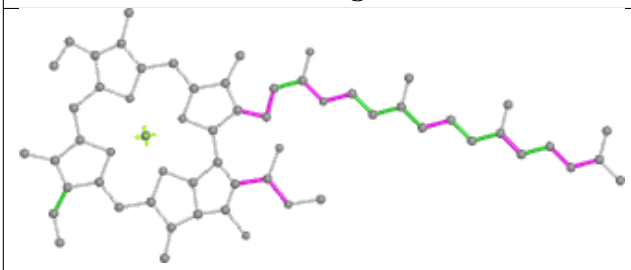
Ligand CLA R 603



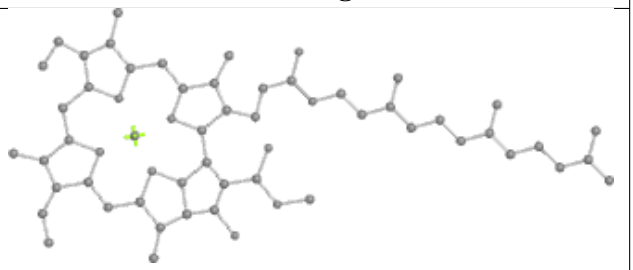
Bond lengths



Bond angles

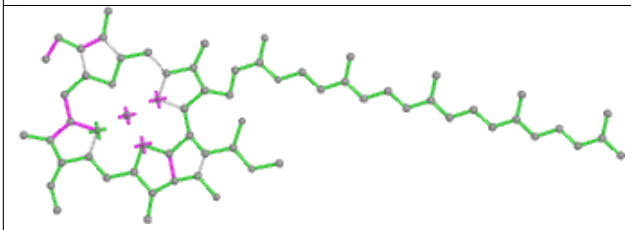


Torsions



Rings

Ligand CLA B1 607



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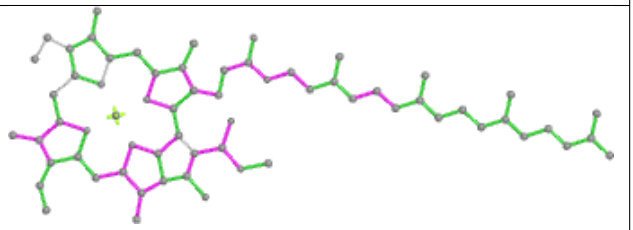
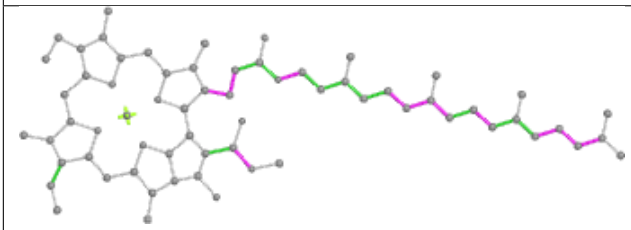


Bond angles



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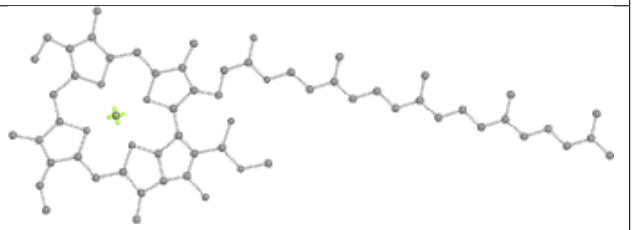
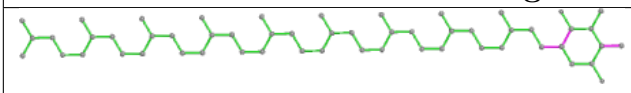
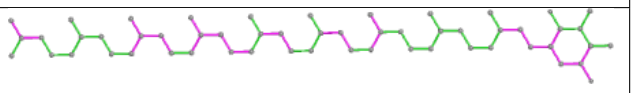


Rings

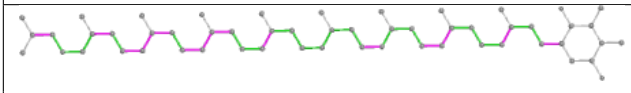
Ligand PL9 d1 405



Bond lengths



Bond angles



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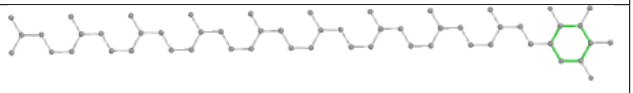
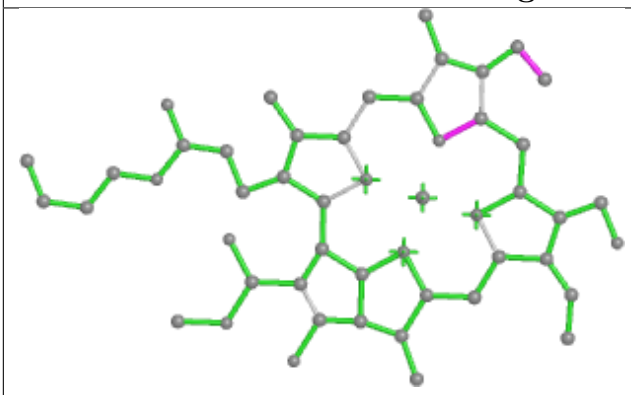


Rings

Ligand CHL n1 608



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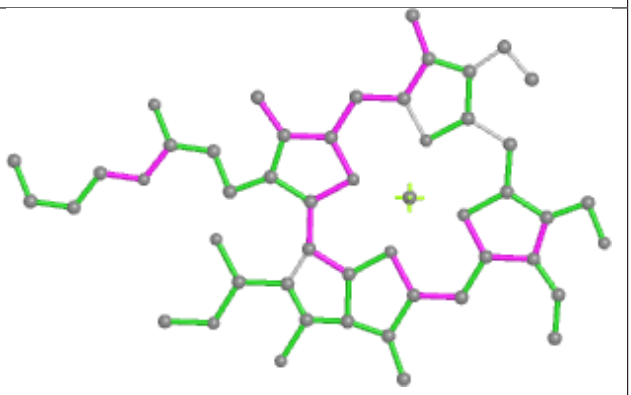
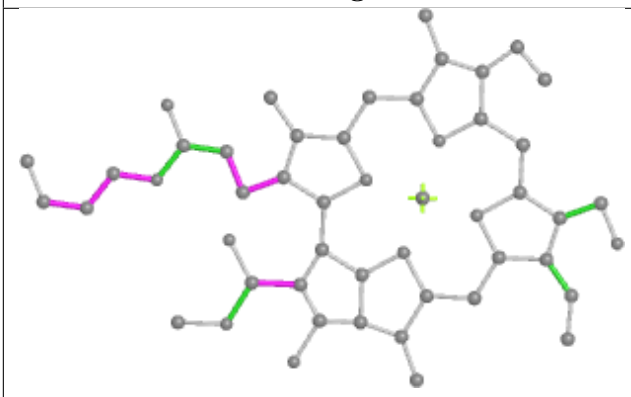


Bond angles



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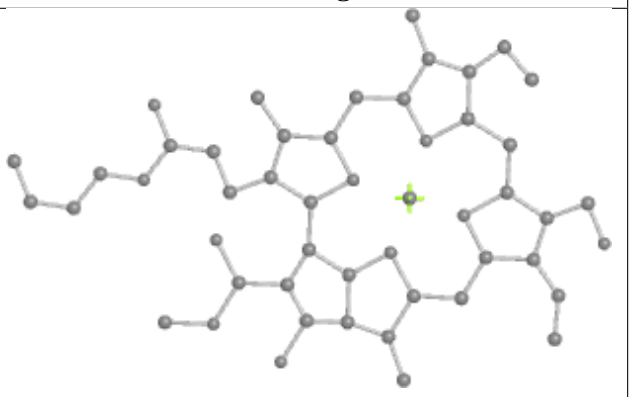
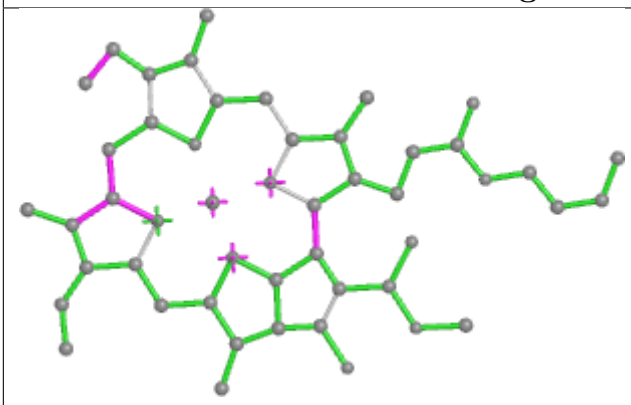


Rings

Ligand CLA g1 604



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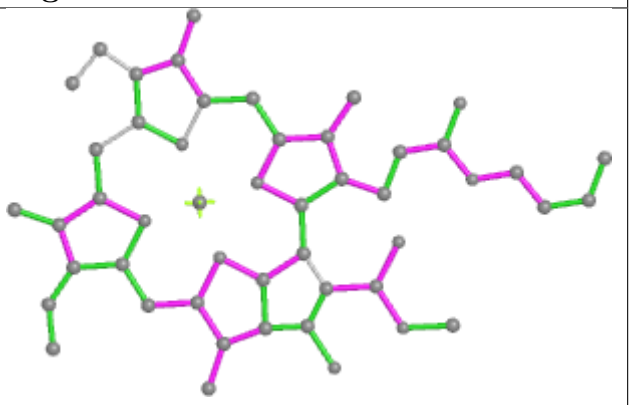
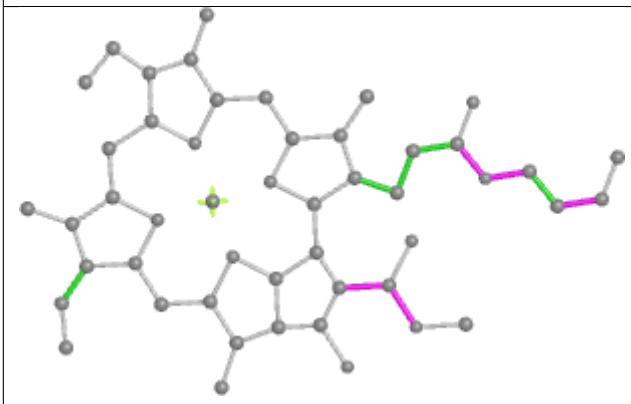


Bond angles



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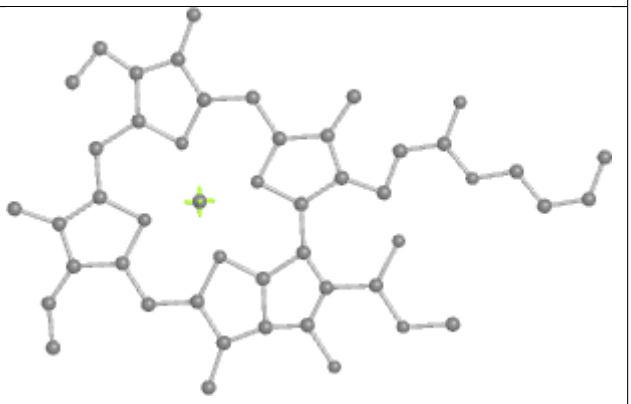
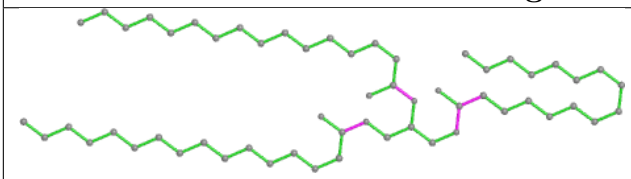


Rings

Ligand 4RF I1 102



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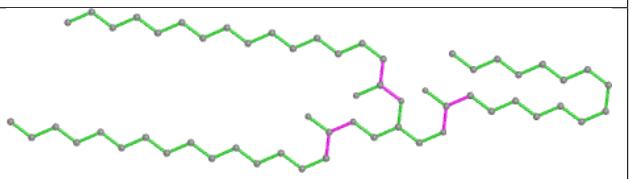

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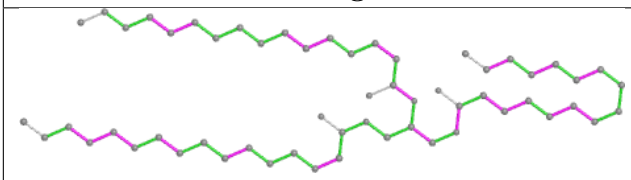

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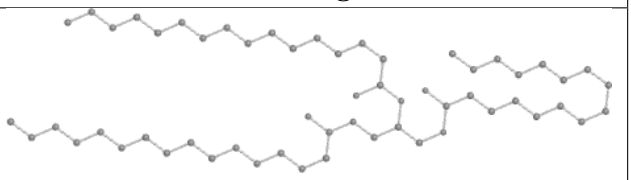
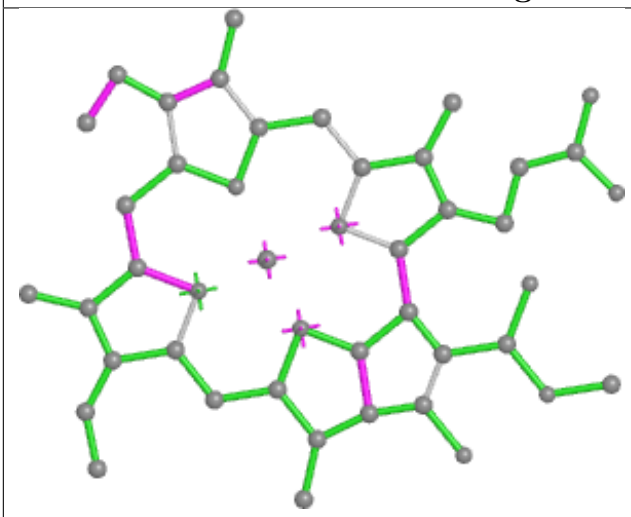


Rings

Ligand CLA N1 612



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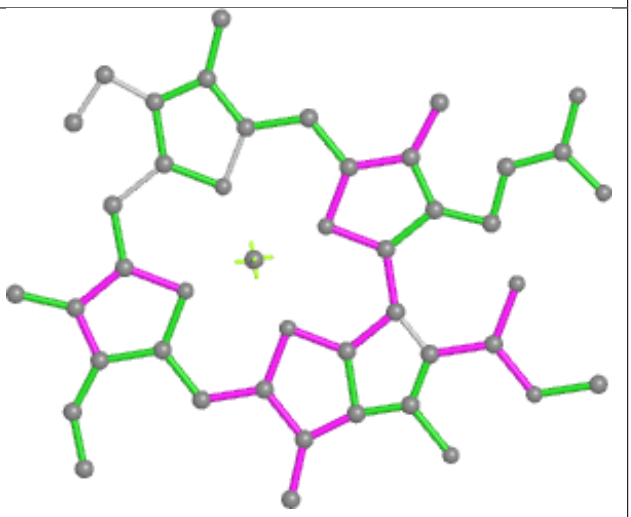
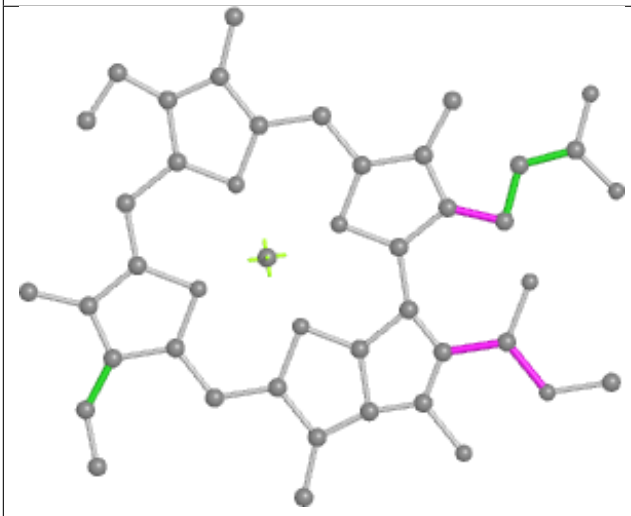


Bond angles



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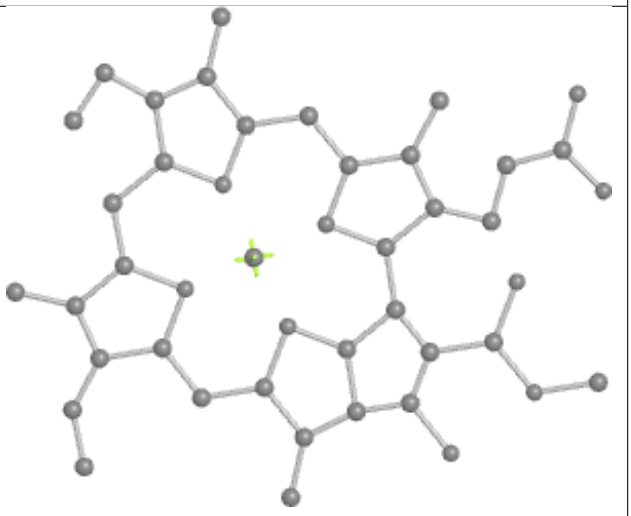

Rings

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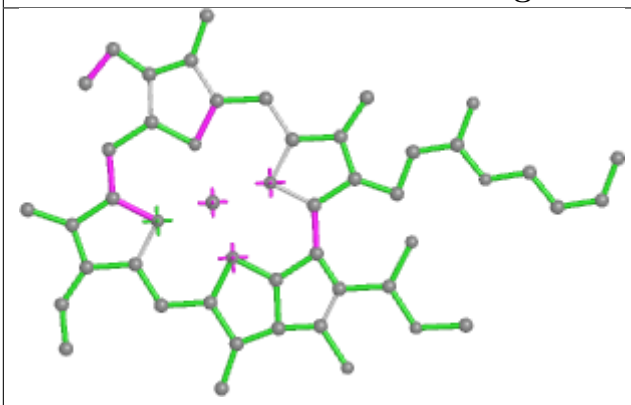

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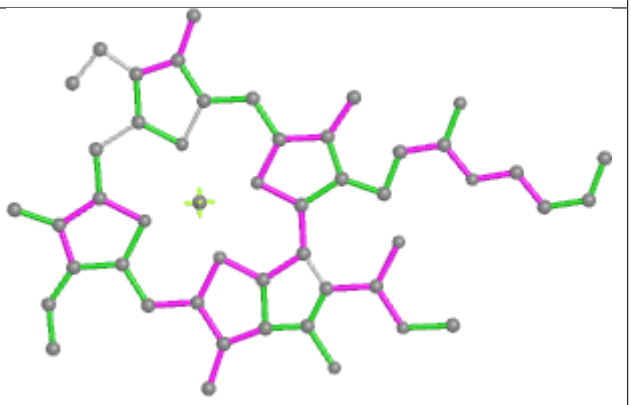
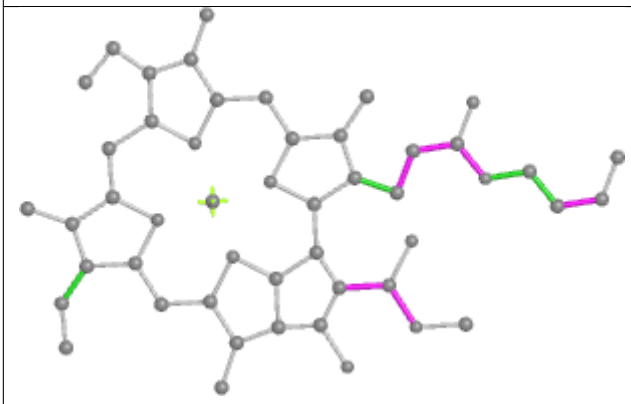


Bond angles



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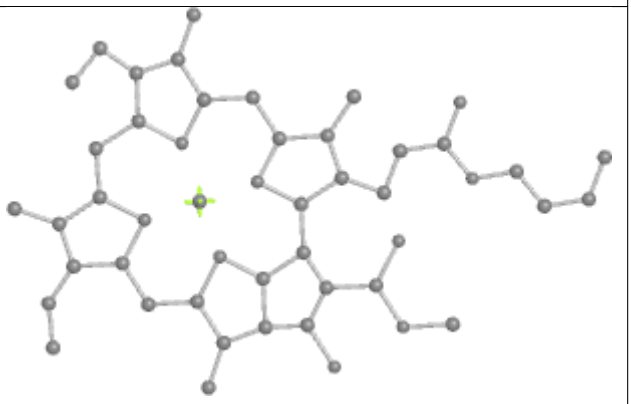
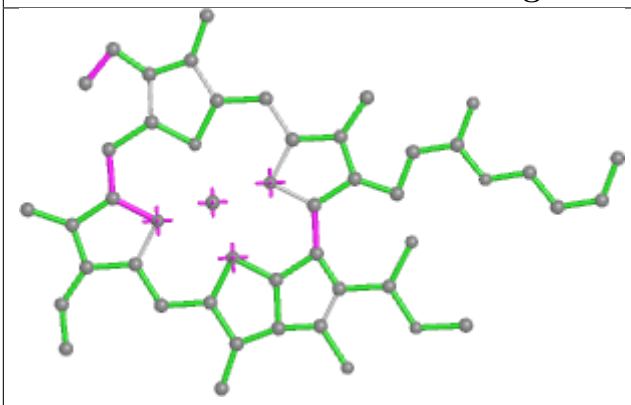
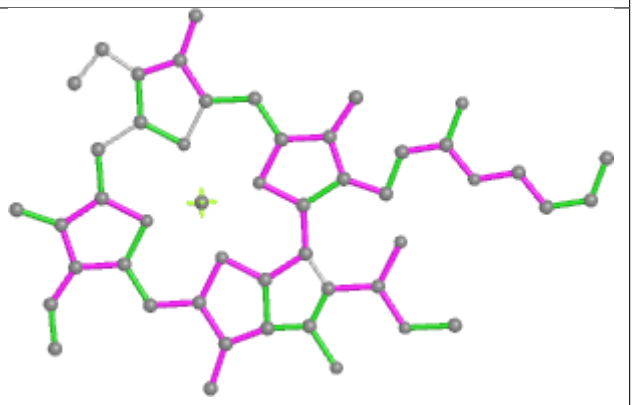


Rings

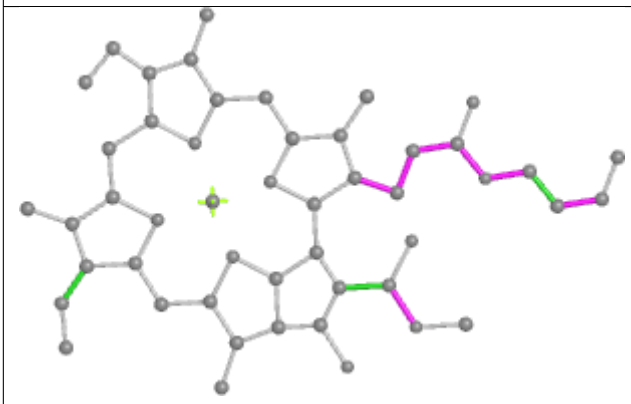
Ligand CLA G 614



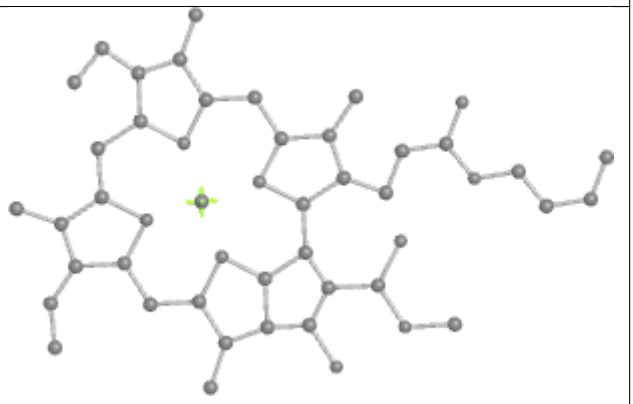
Bond lengths



Bond angles

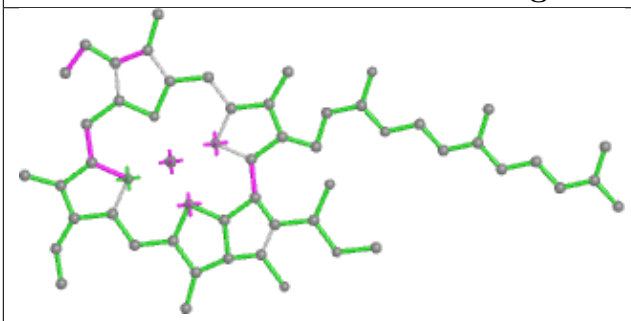


Torsions

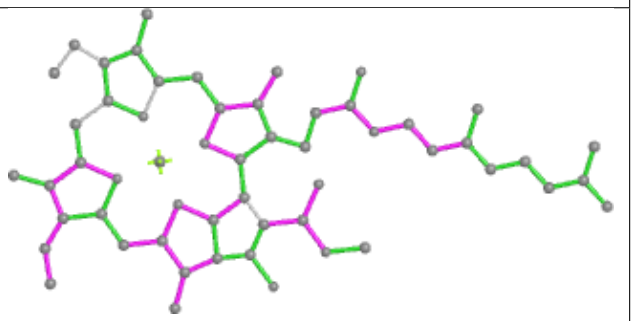


Rings

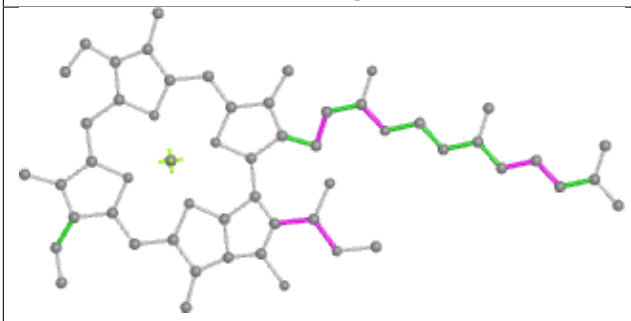
Ligand CLA s 613



Bond lengths



Bond angles



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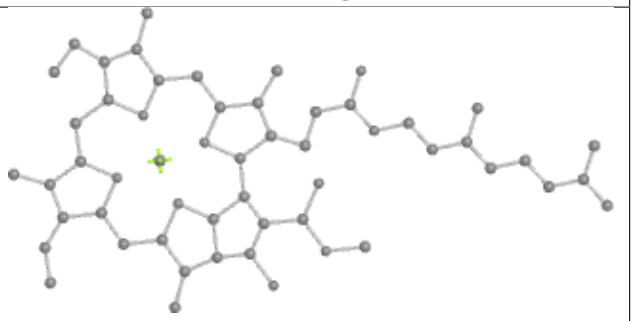
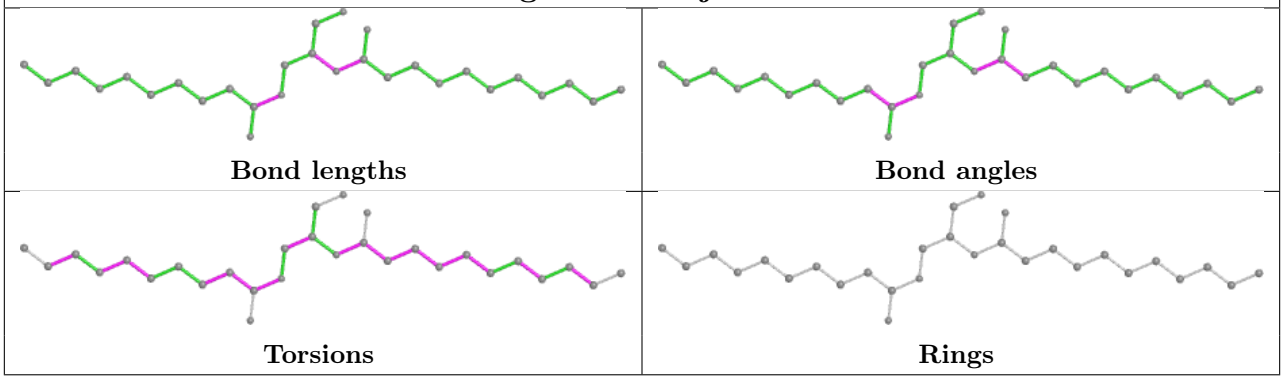
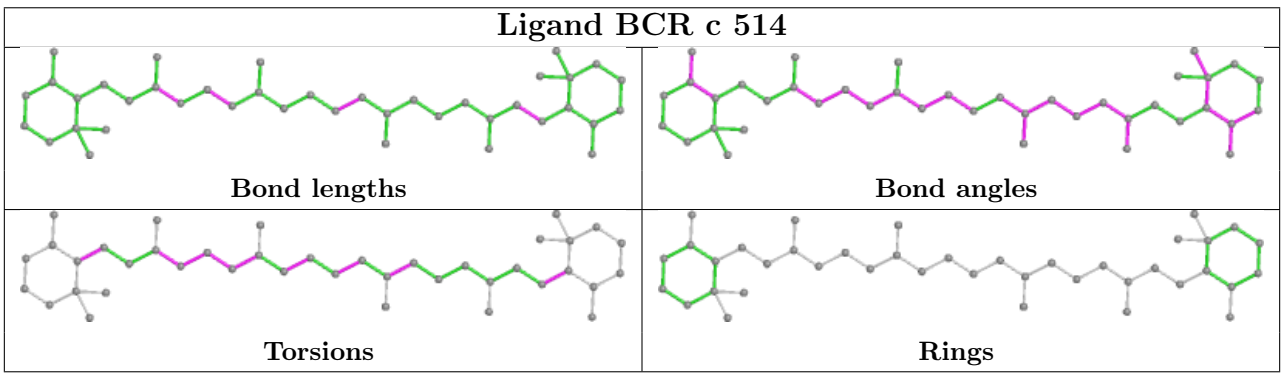


Rings

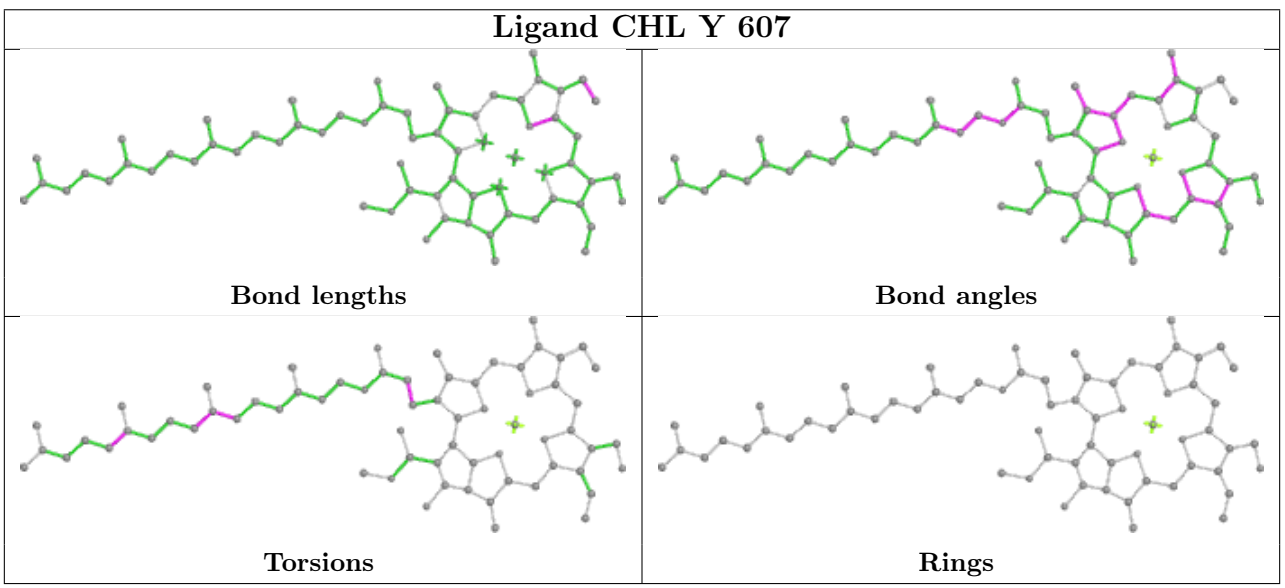
Ligand DGA j1 101



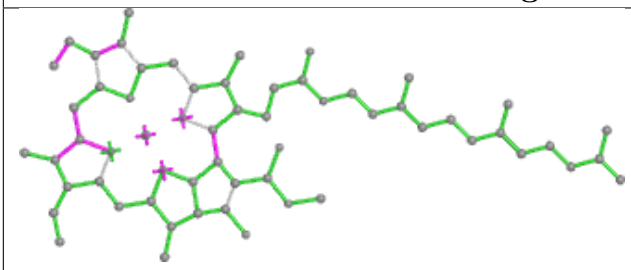
Ligand BCR c 514



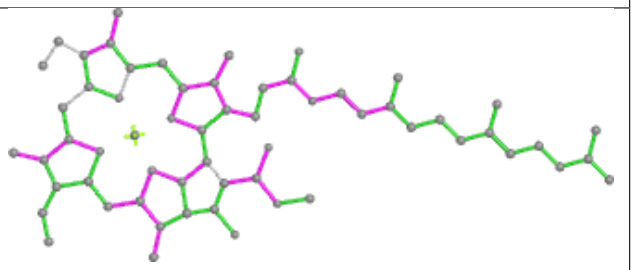
Ligand CHL Y 607



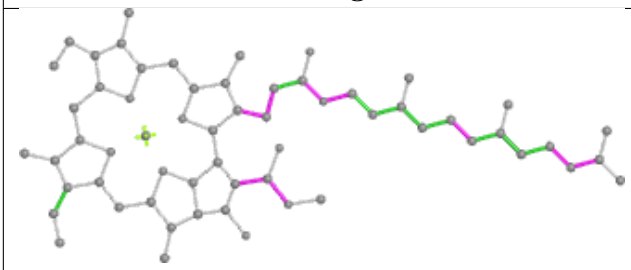
Ligand CLA r1 610



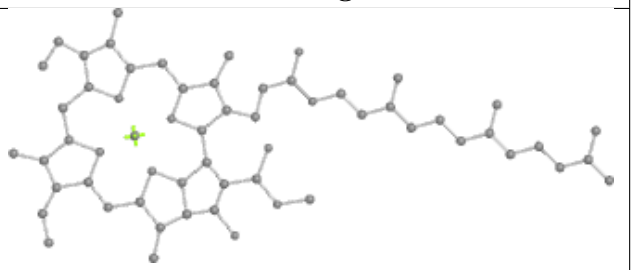
Bond lengths



Bond angles

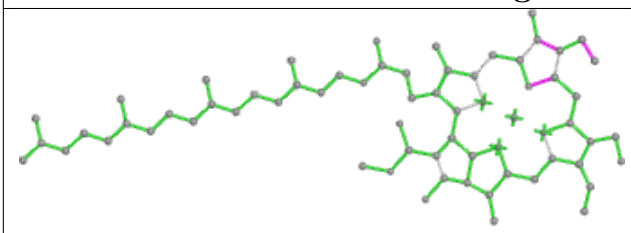


Torsions

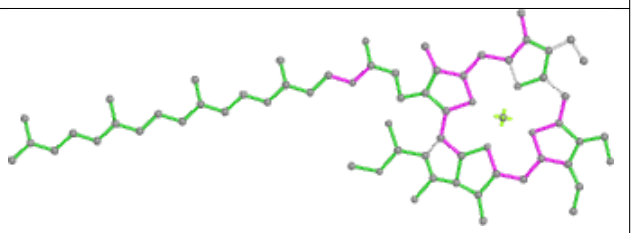


Rings

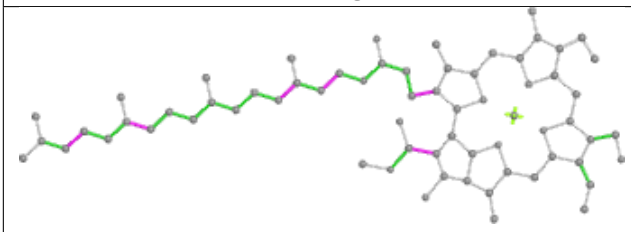
Ligand CHL G1 609



Bond lengths



Bond angles



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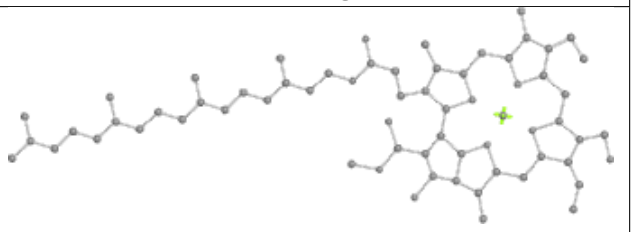
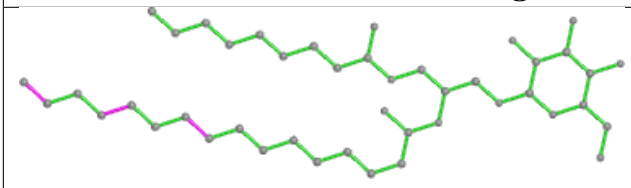
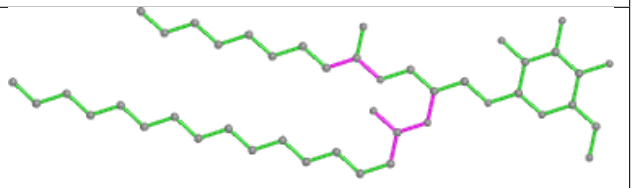


Rings

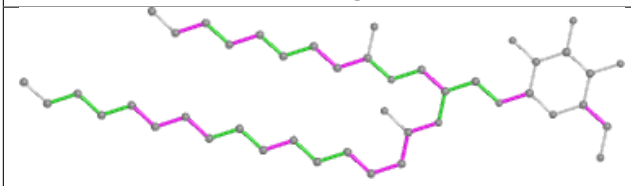
Ligand LMG B1 622



Bond lengths



Bond angles



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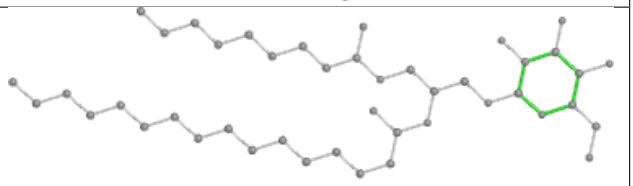
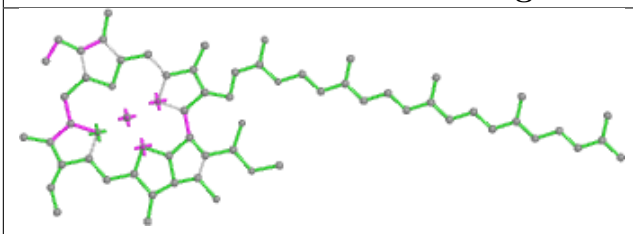
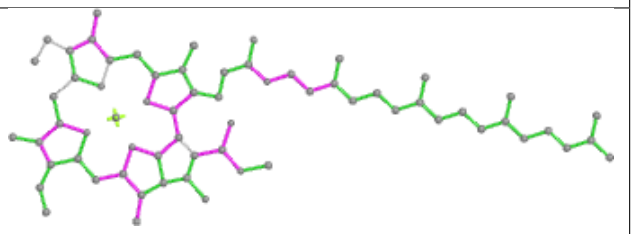


Rings

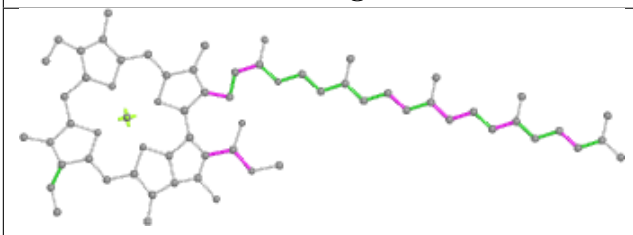
Ligand CLA B1 609



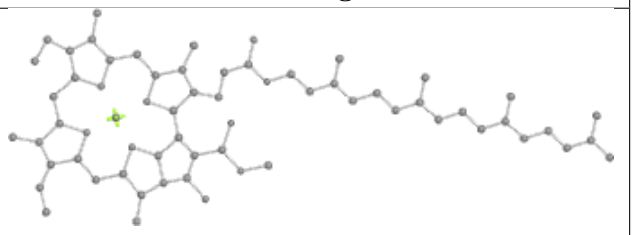
Bond lengths



Bond angles

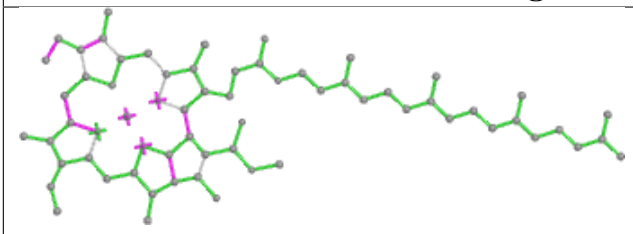


Torsions



Rings

Ligand CLA n 604



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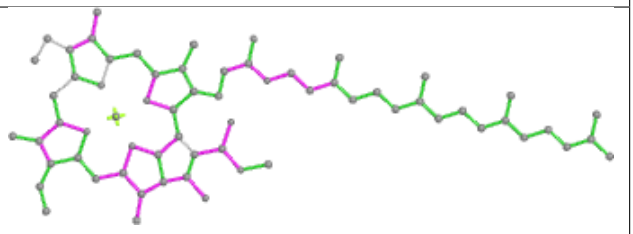

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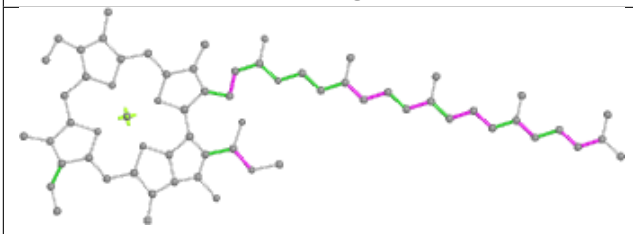

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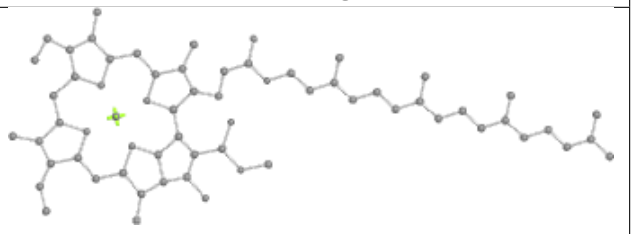
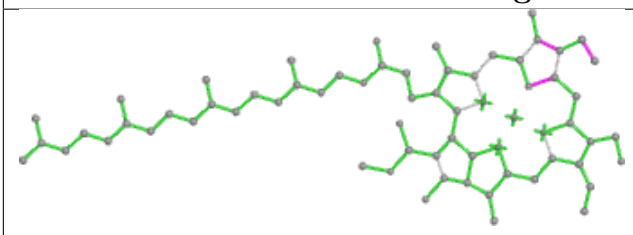


Rings

Ligand CHL N1 601



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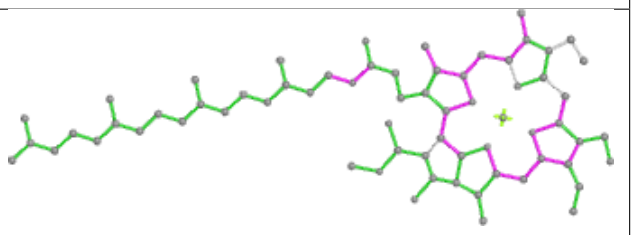

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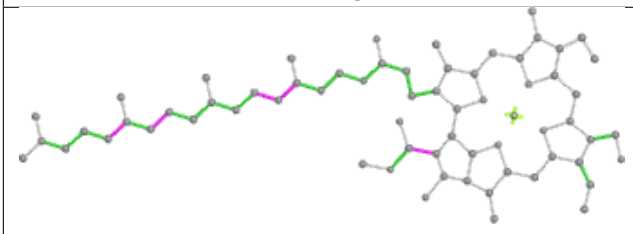

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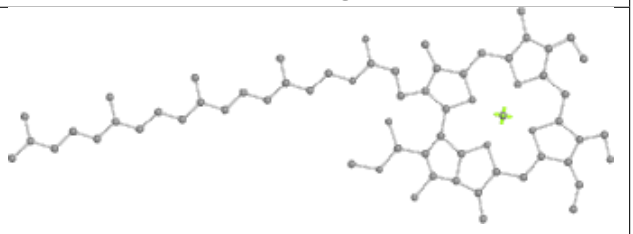
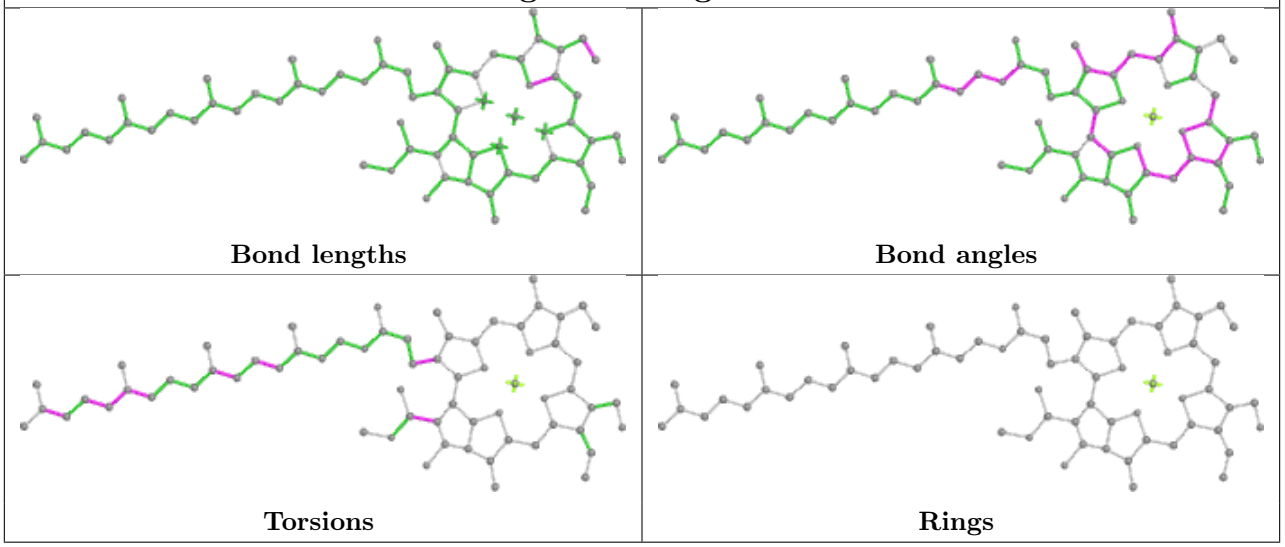
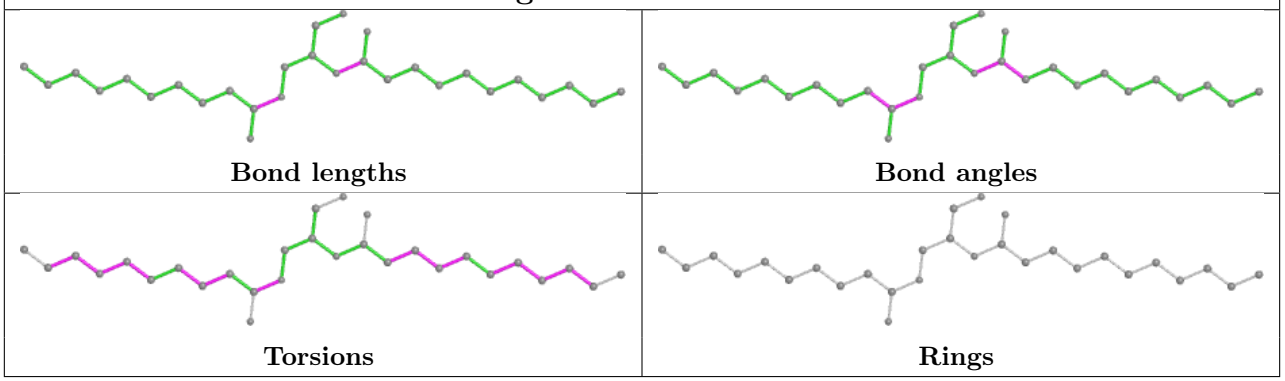


Rings

Ligand CHL g1 601

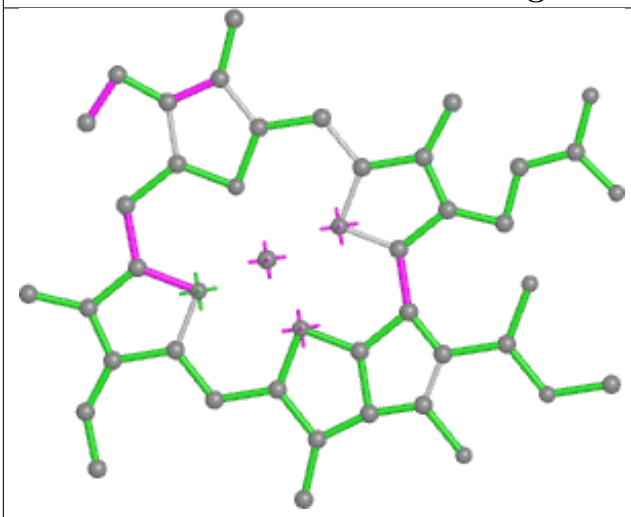


Ligand DGA J1 101



Ligand LUT s 620

Ligand CLA n 612



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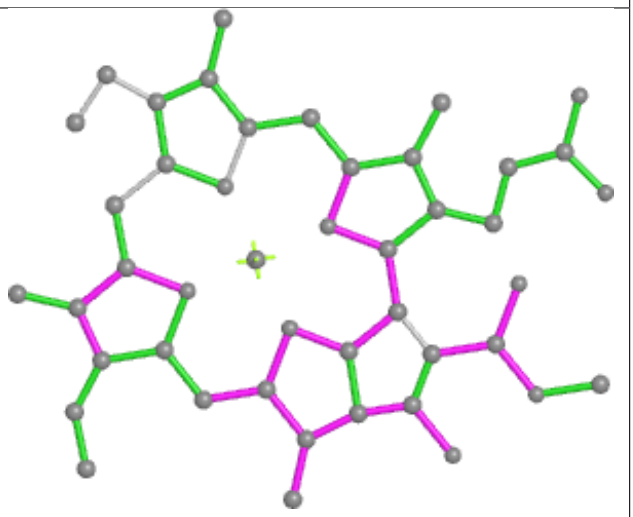
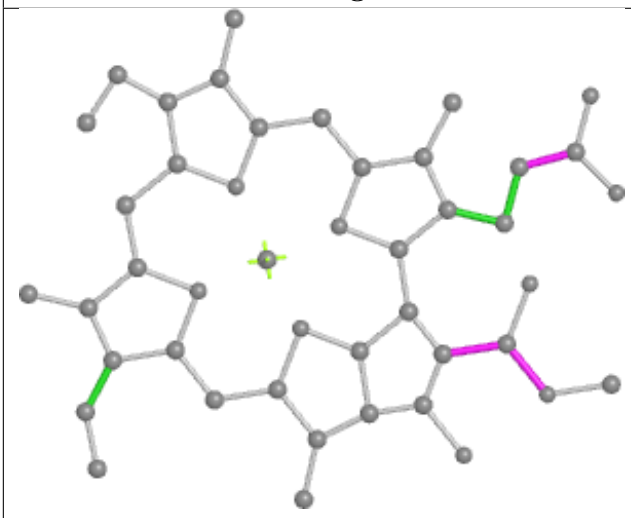


Bond angles



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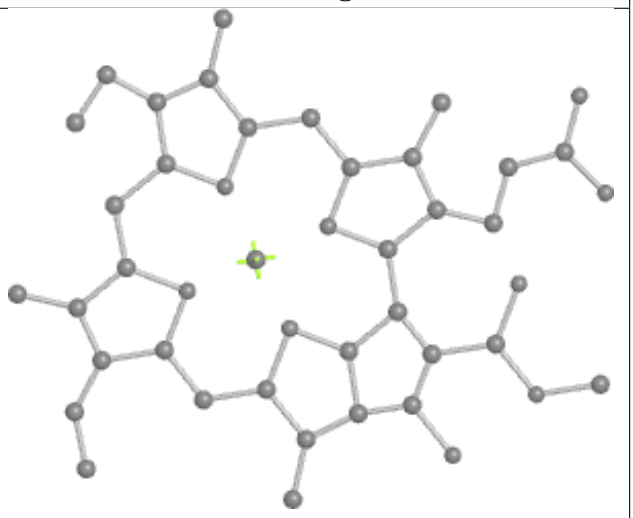
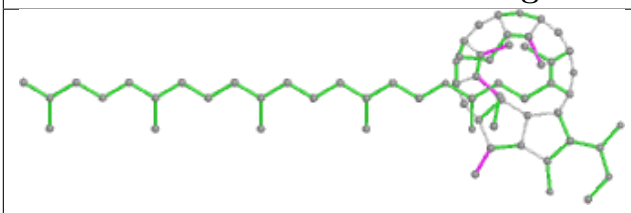


Rings

Ligand PHO A 408



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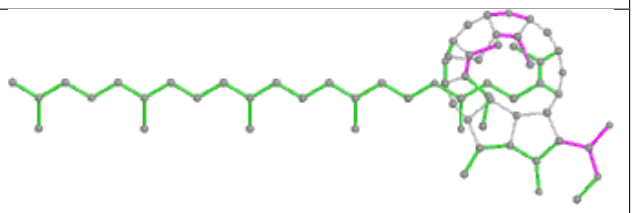

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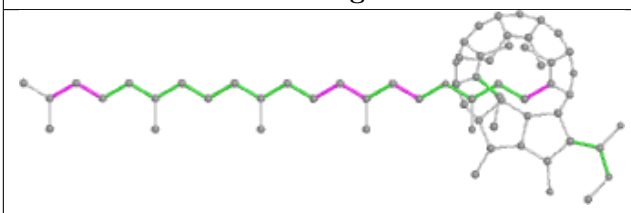

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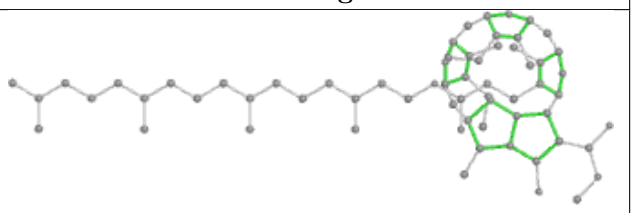
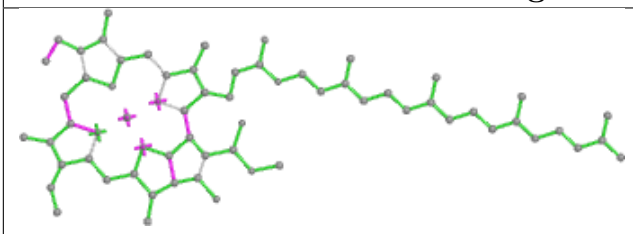


Rings

Ligand CLA y 611



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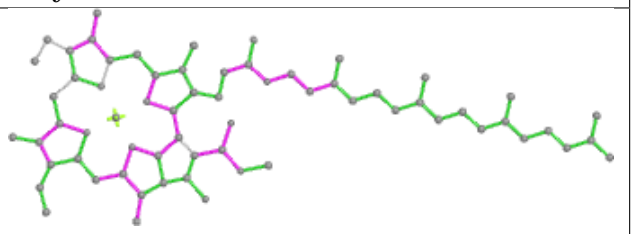
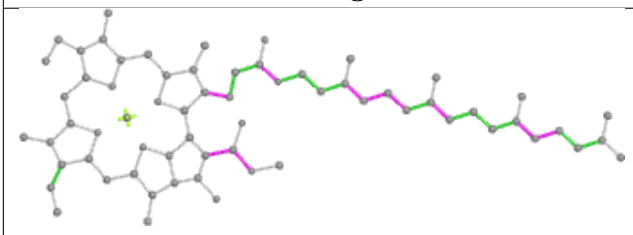


Bond angles



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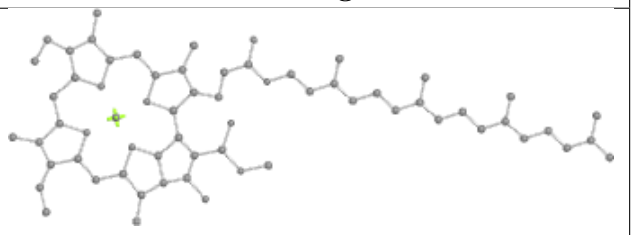
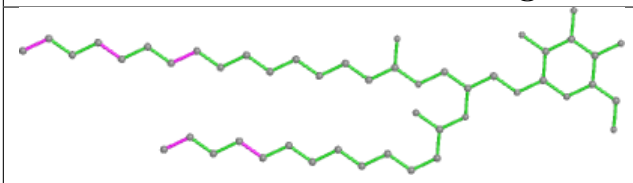


Rings

Ligand LMG H 102



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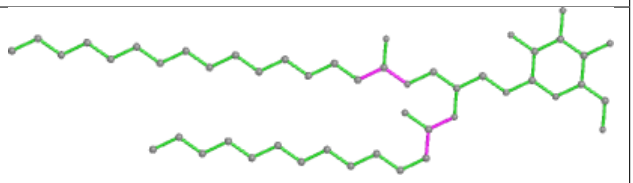
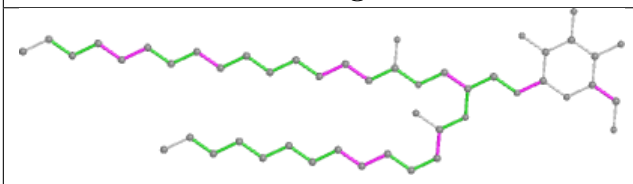


Bond angles



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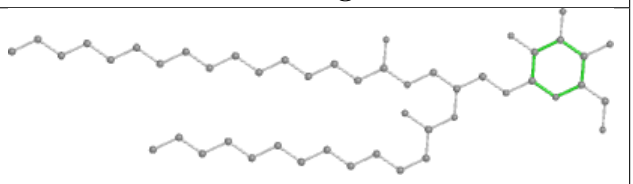
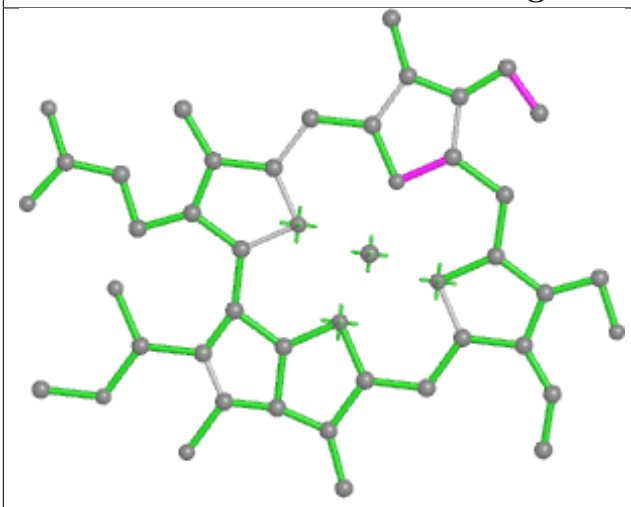


Rings

Ligand CHL y 605



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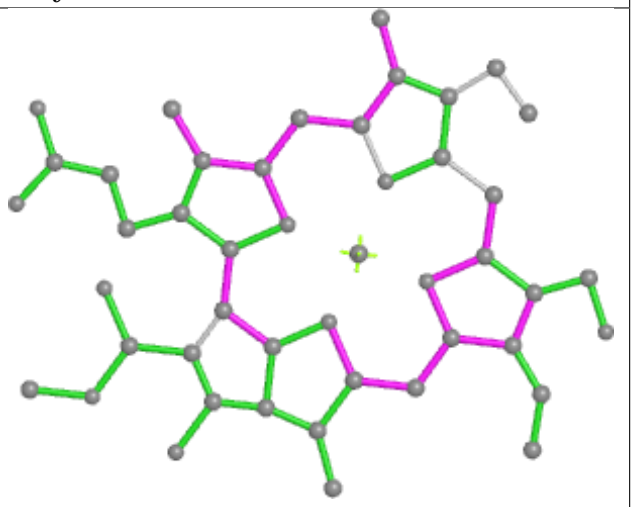
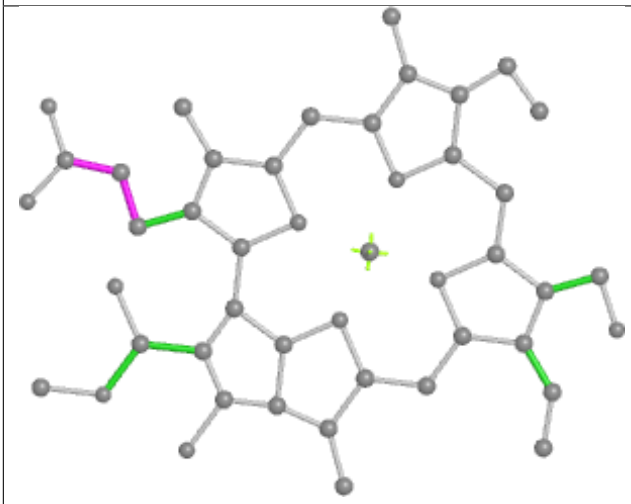
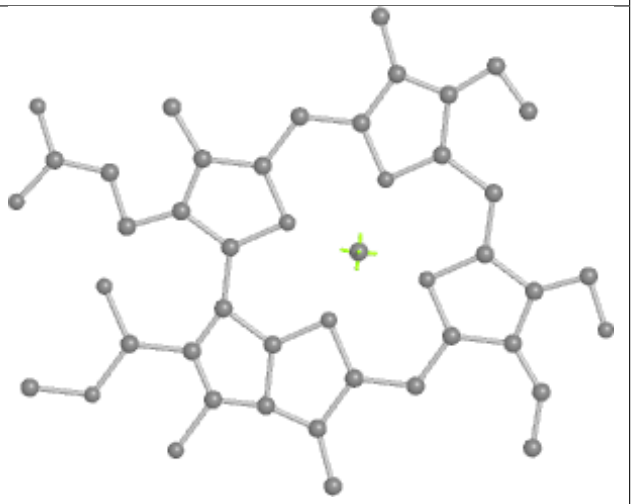


Bond angles

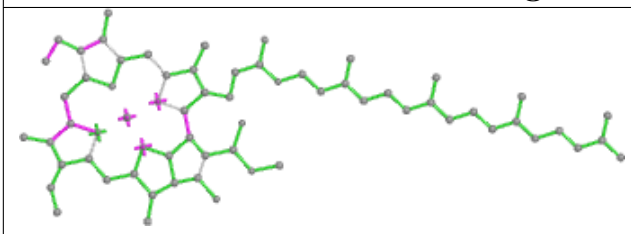


Torsions



Rings

Ligand CLA B 614



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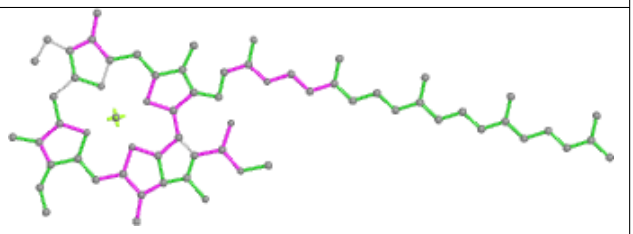
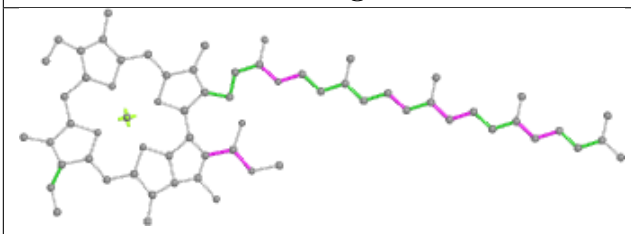
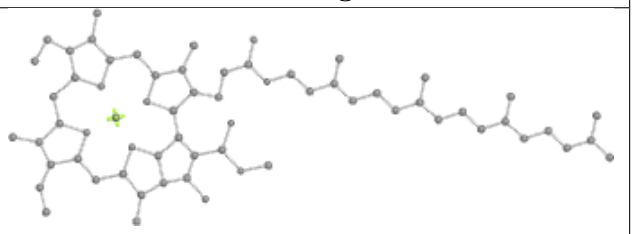


Bond angles

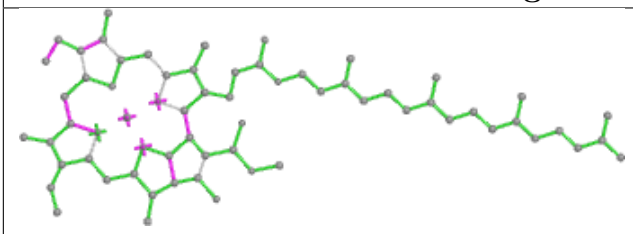


Torsions



Rings

Ligand CLA Y 603



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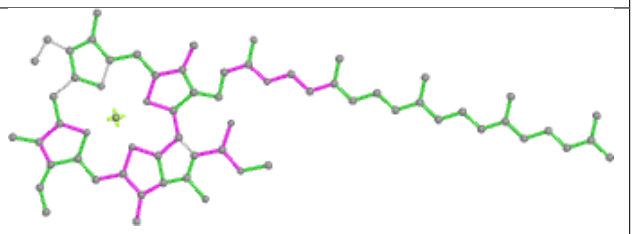
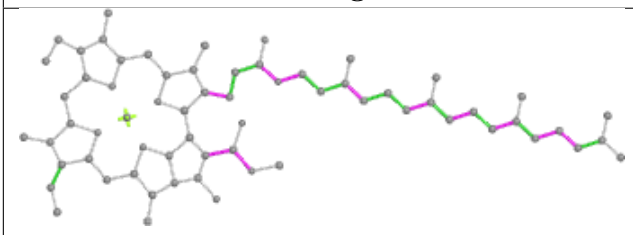


Bond angles



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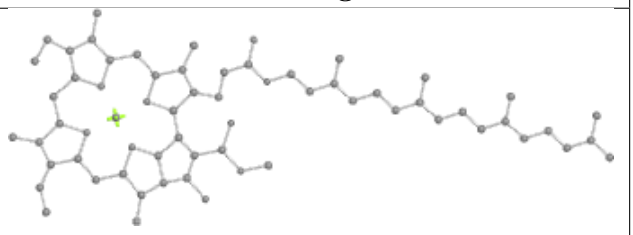
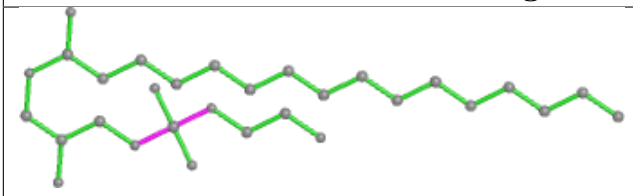


Rings

Ligand LPX s1 625



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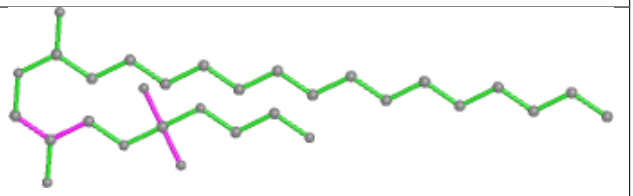
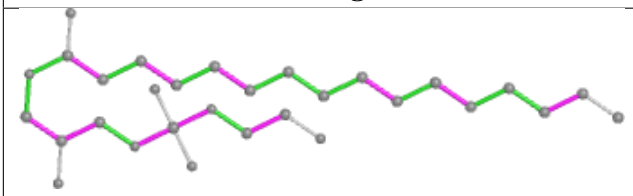


Bond angles



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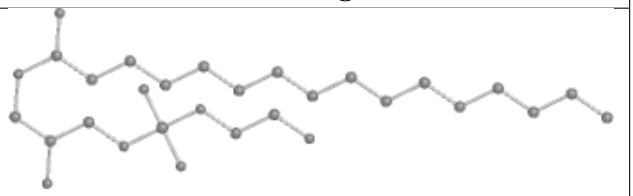
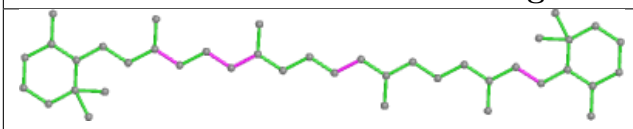


Rings

Ligand BCR c 515



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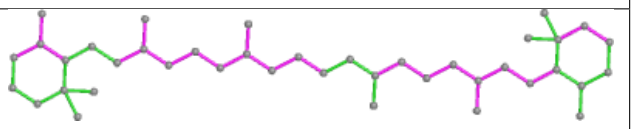
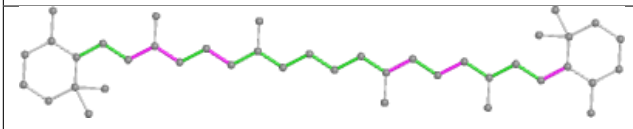


Bond angles



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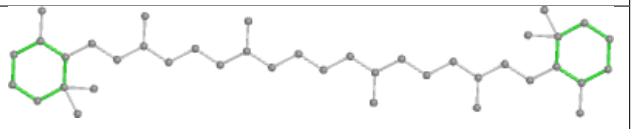
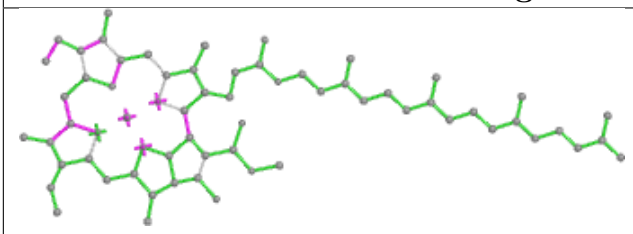


Rings

Ligand CLA B1 602



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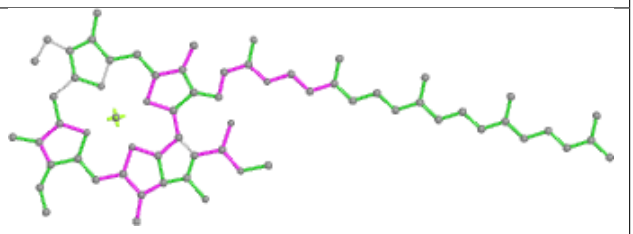
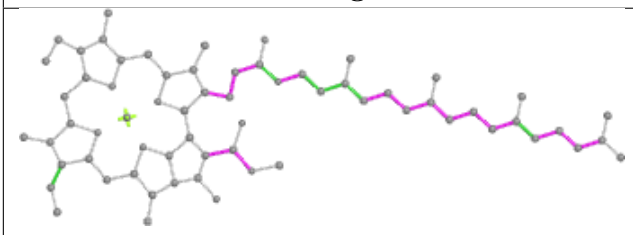


Bond angles



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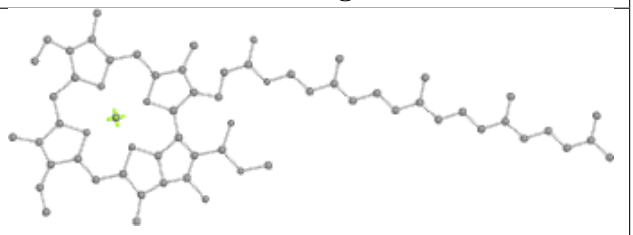
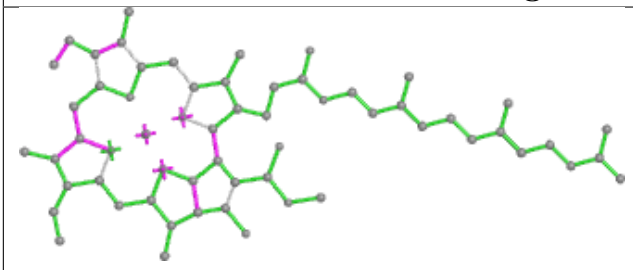


Rings

Ligand CLA R 602



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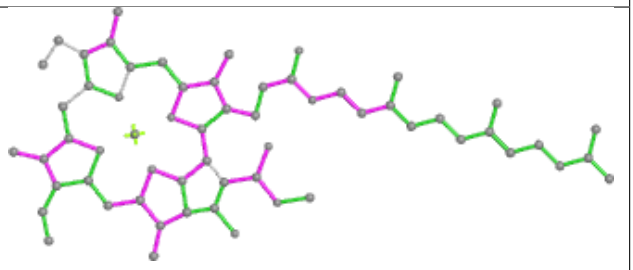
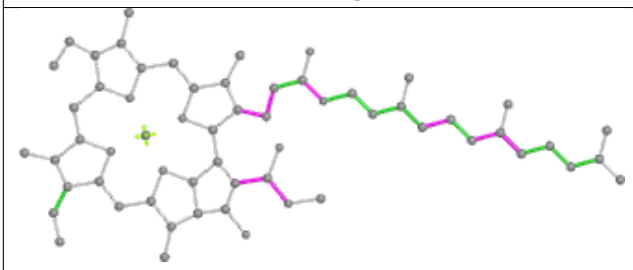


Bond angles



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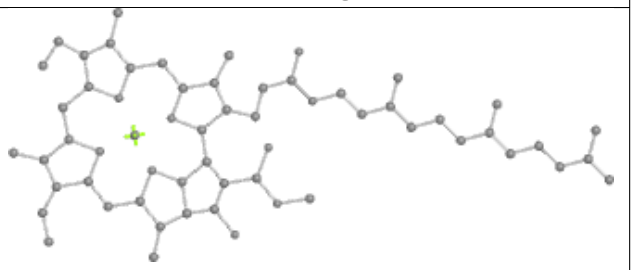
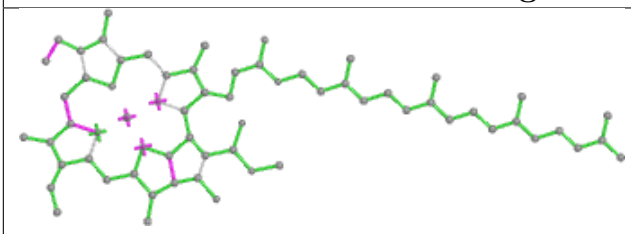
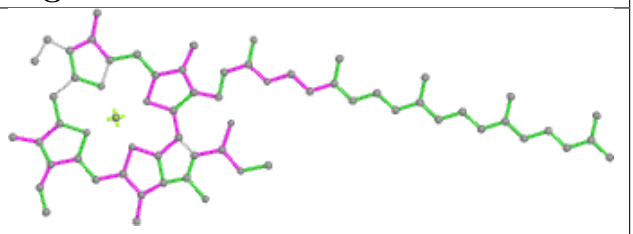


Rings

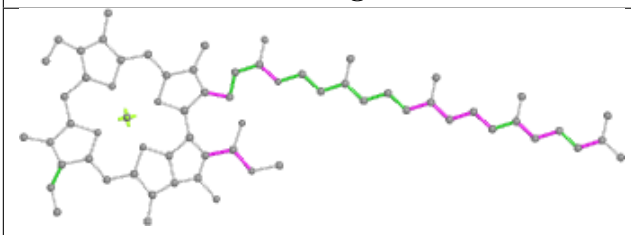
Ligand CLA g1 610



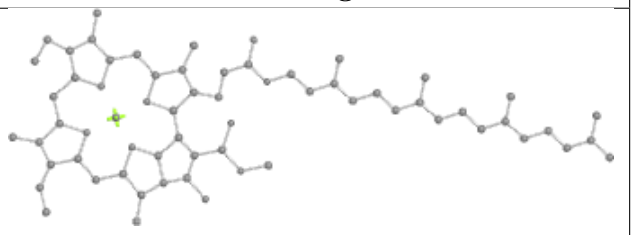
Bond lengths



Bond angles

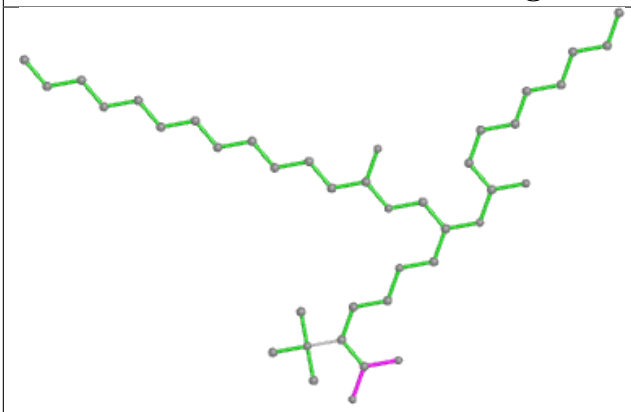


Torsions



Rings

Ligand LMK c 527



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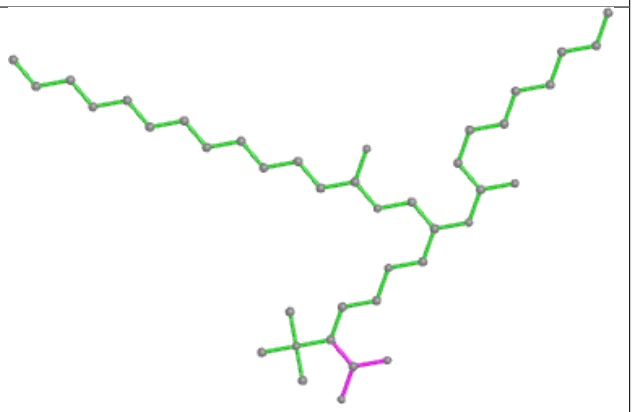
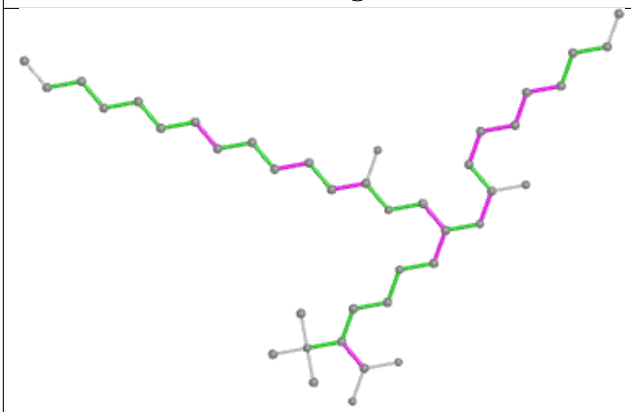


Bond angles



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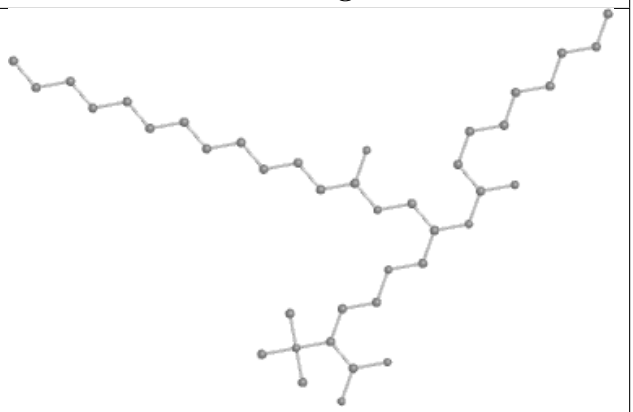
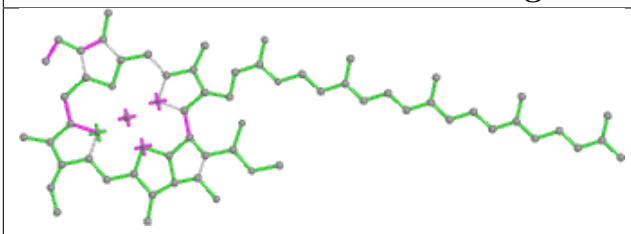


Rings

Ligand CLA B 608



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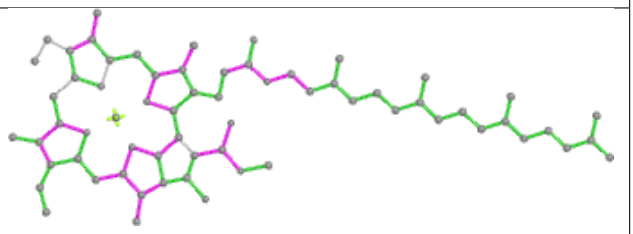
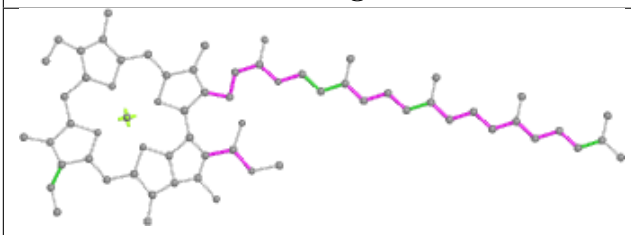


Bond angles



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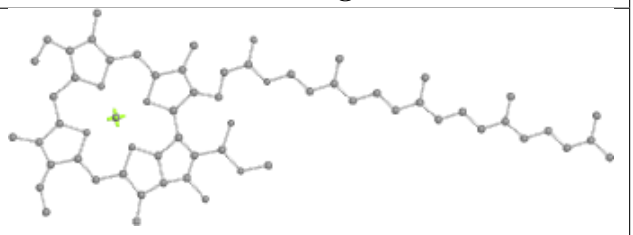
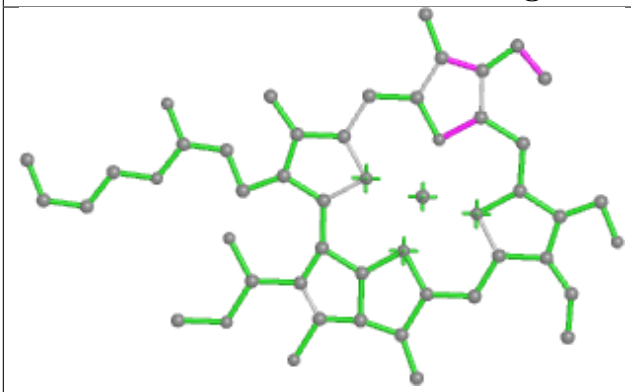


Rings

Ligand CHL R 607



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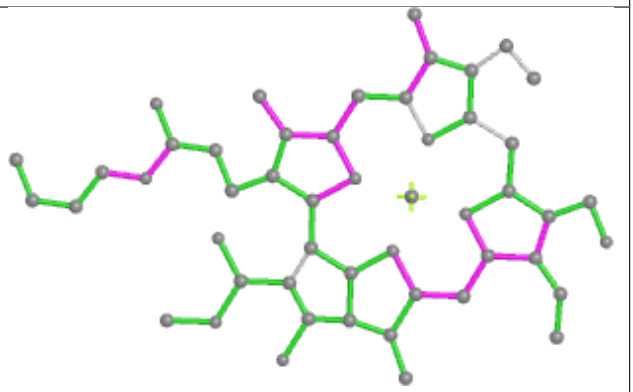

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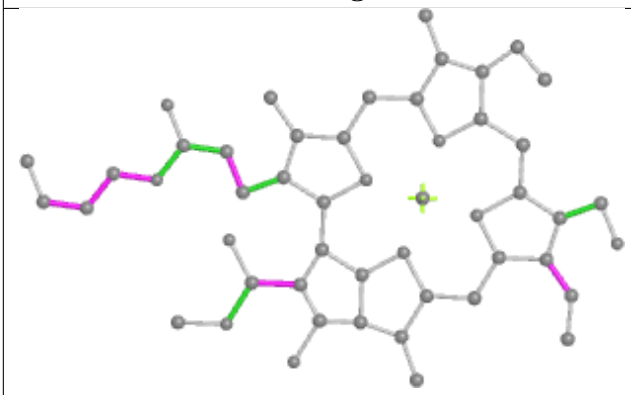
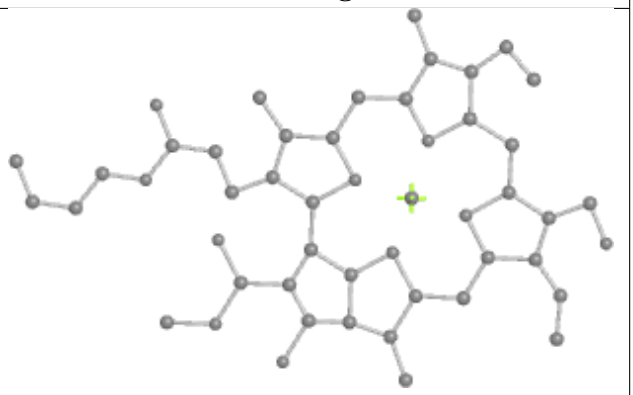
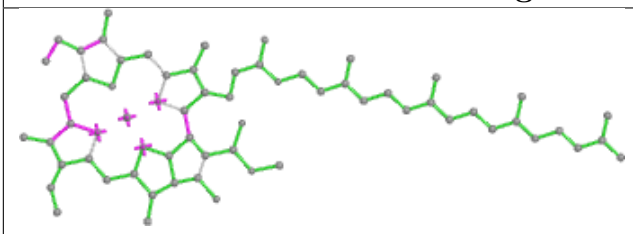


Torsions



Rings

Ligand CLA B1 603



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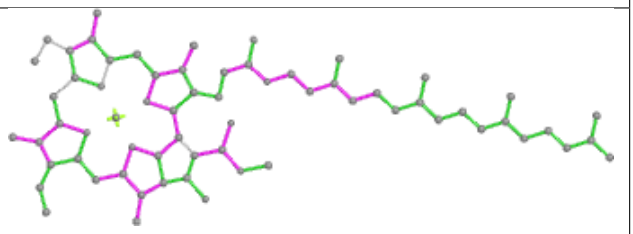

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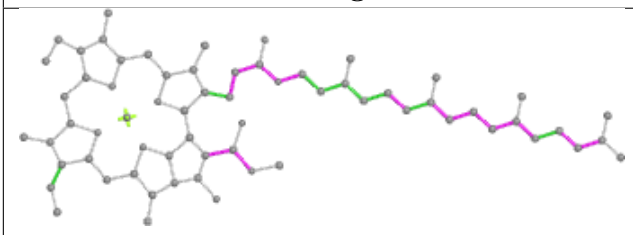

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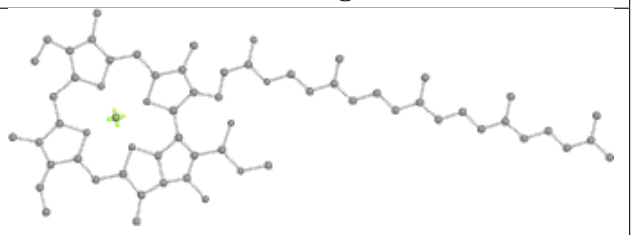
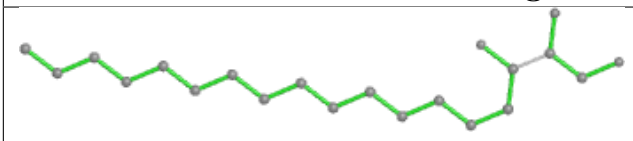


Rings

Ligand SPH Y 625



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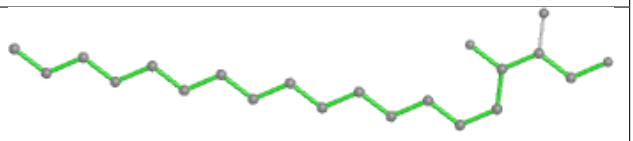

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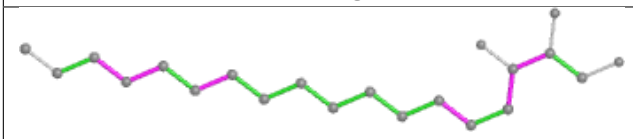

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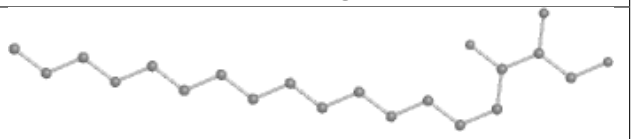
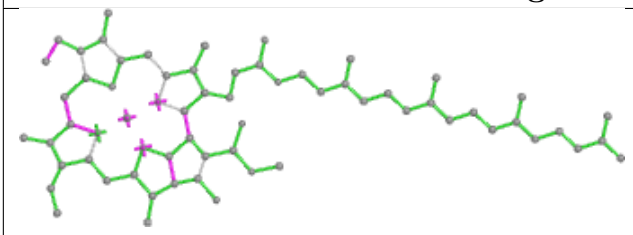


Rings

Ligand CLA y 610



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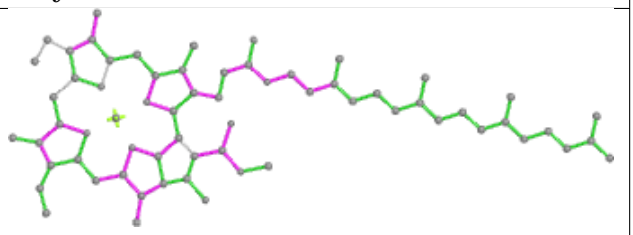

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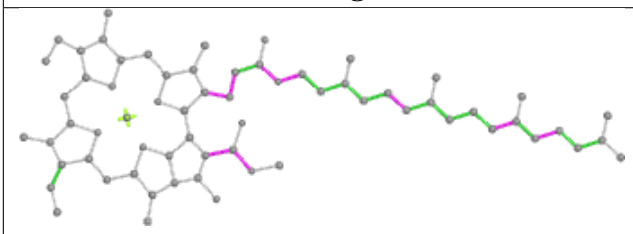

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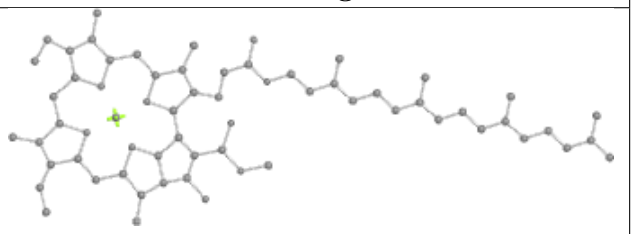
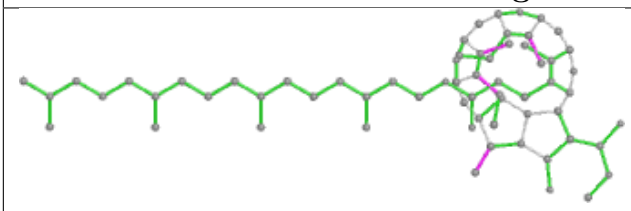


Rings

Ligand PHO A1 408



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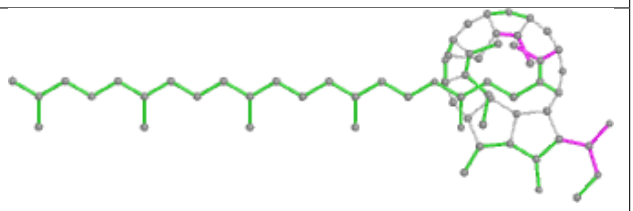

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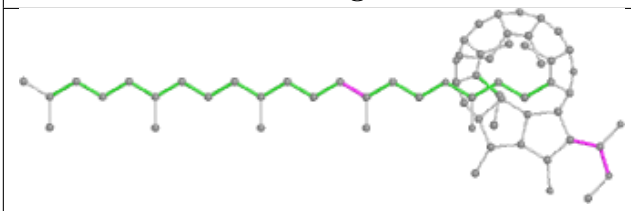

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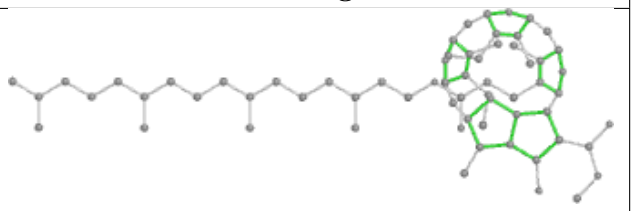
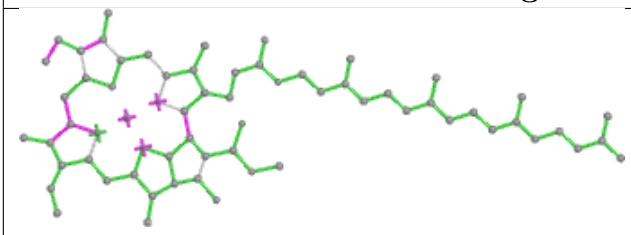


Rings

Ligand CLA s1 603



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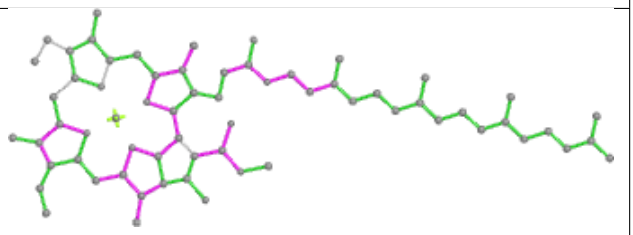
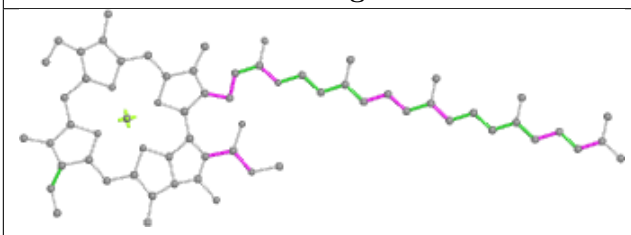


Bond angles



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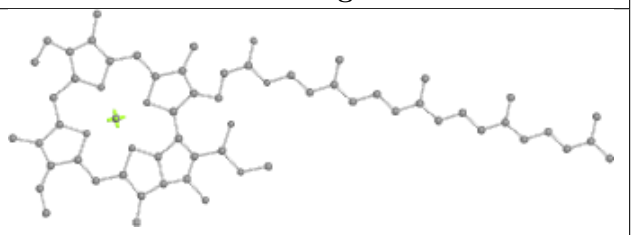
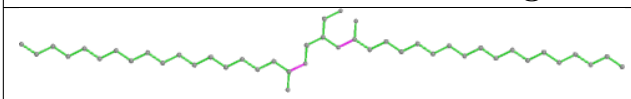


Rings

Ligand DGA b 625



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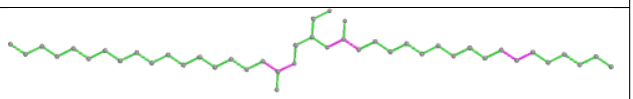
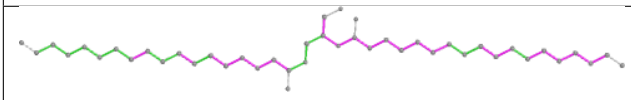


Bond angles



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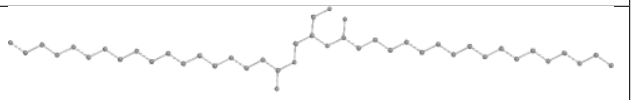
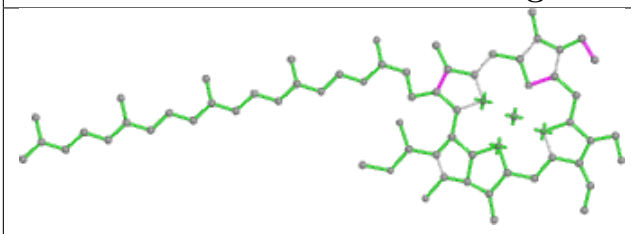


Rings

Ligand CHL n 601



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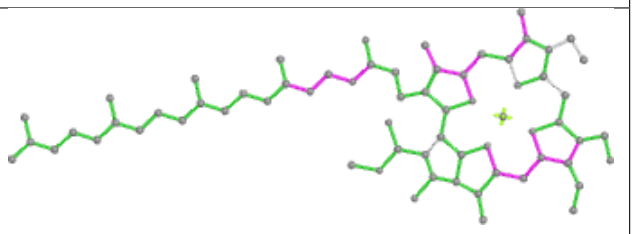

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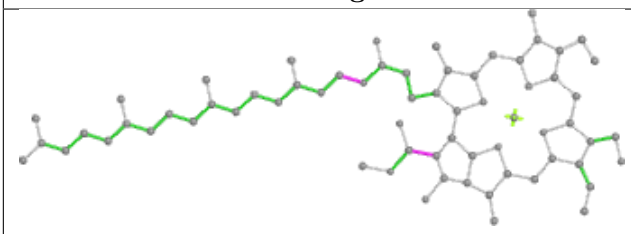

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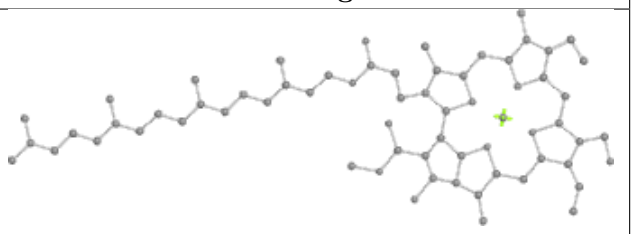
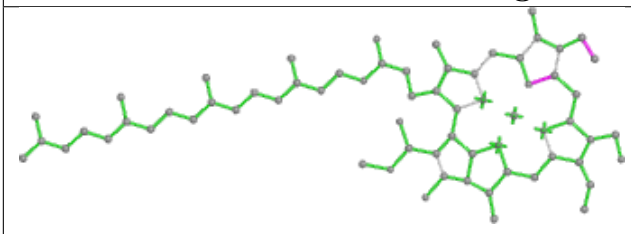


Rings

Ligand CHL N1 609



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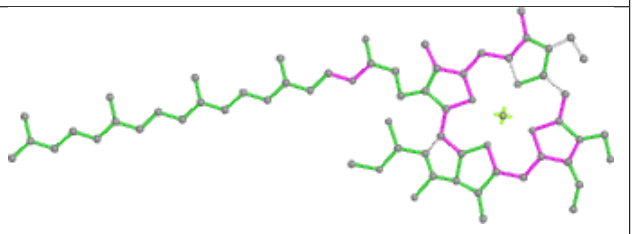
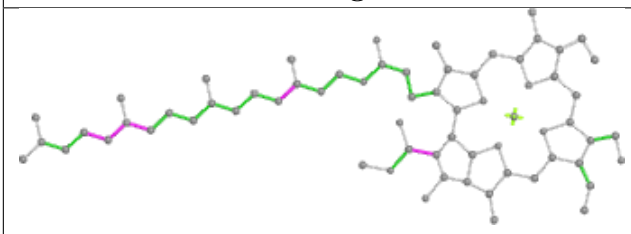


Bond angles



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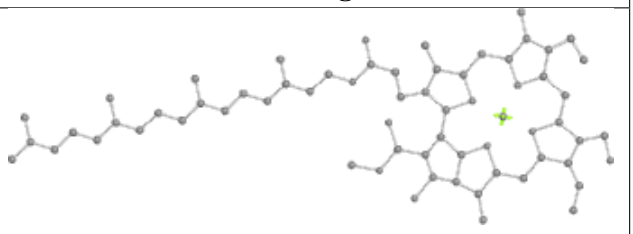
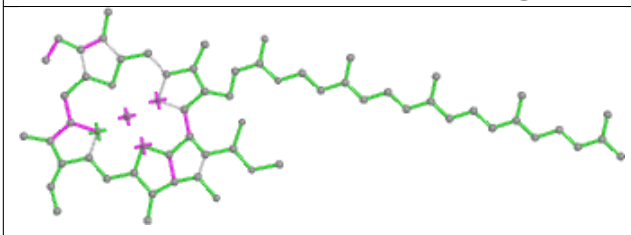


Rings

Ligand CLA C1 510



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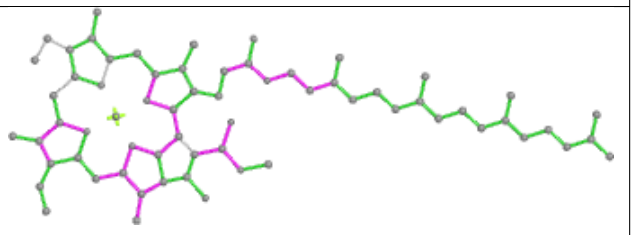
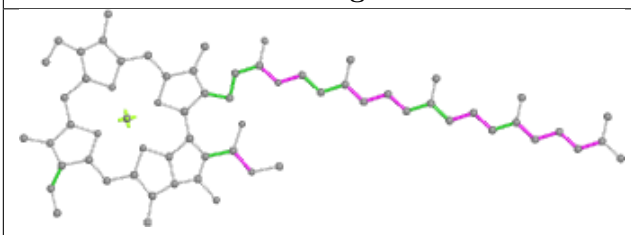


Bond angles



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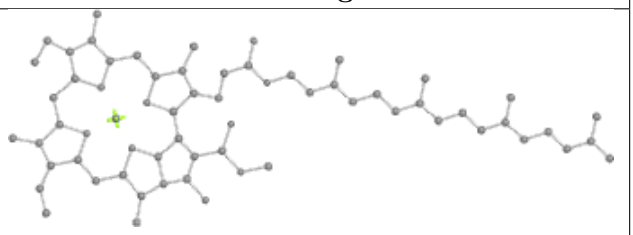
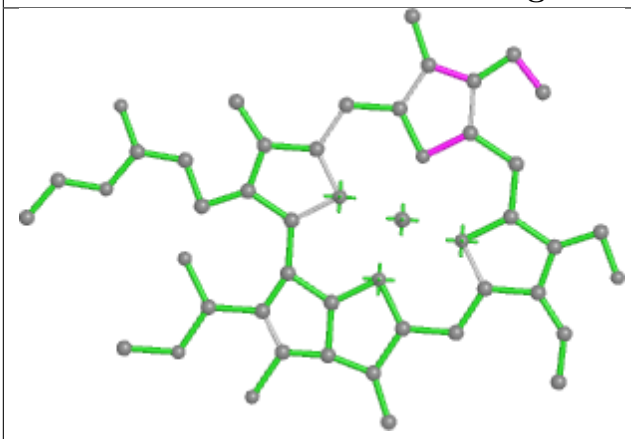


Rings

Ligand CHL g 605



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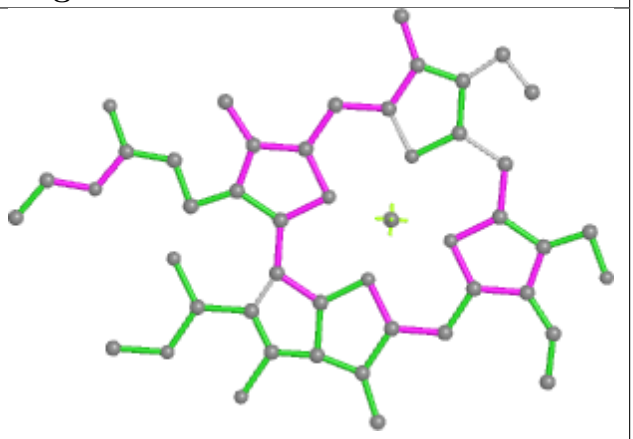
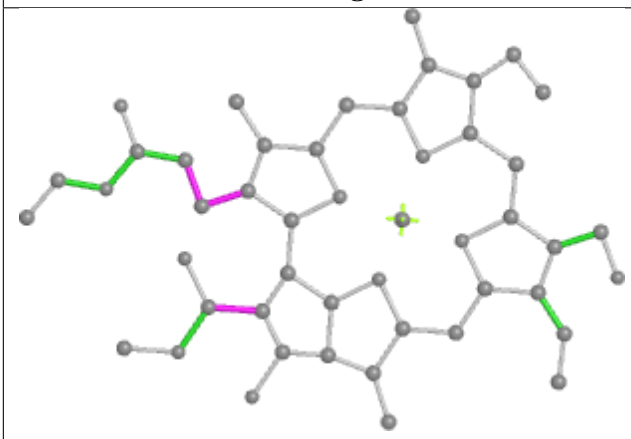


Bond angles



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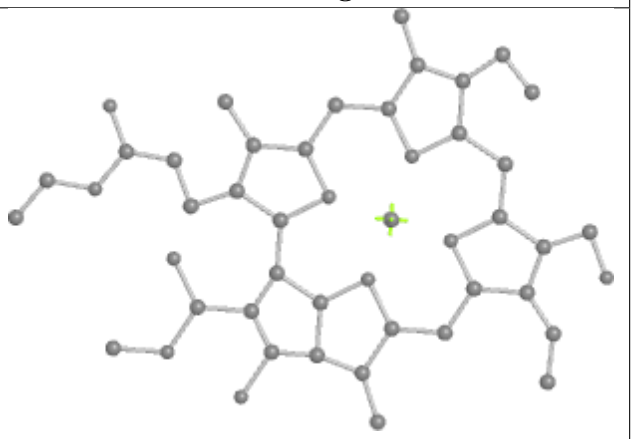
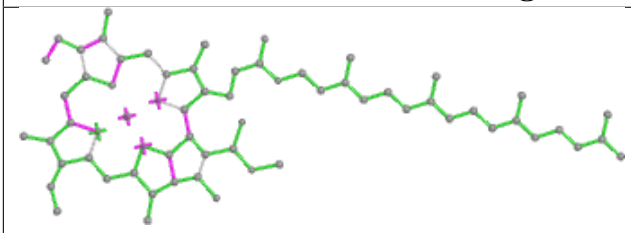
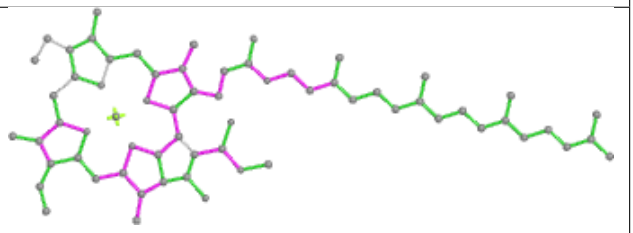


Rings

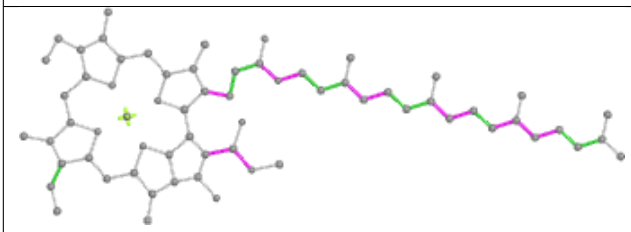
Ligand CLA n1 613



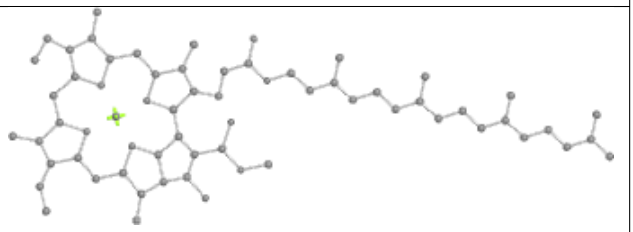
Bond lengths



Bond angles

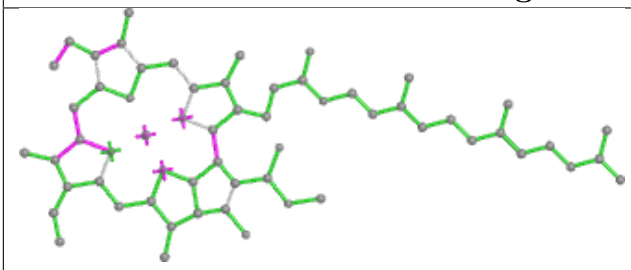


Torsions

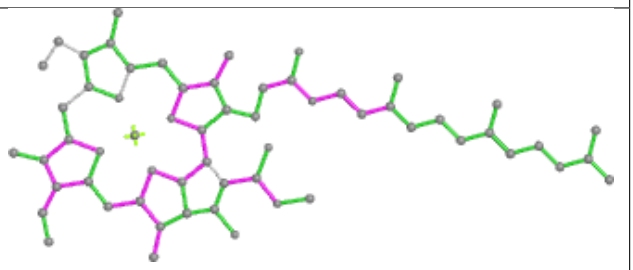


Rings

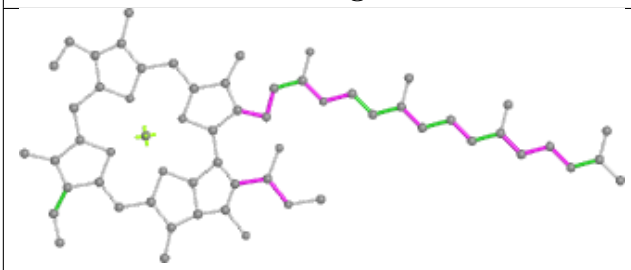
Ligand CLA R1 603



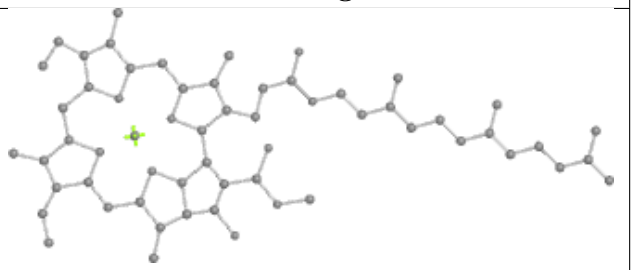
Bond lengths



Bond angles

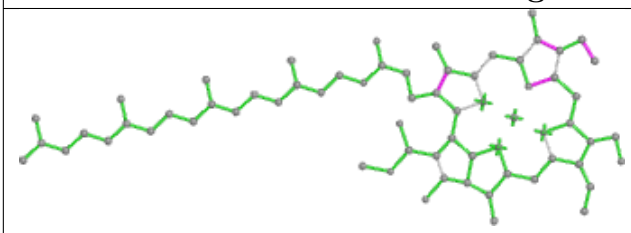


Torsions



Rings

Ligand CHL y 609



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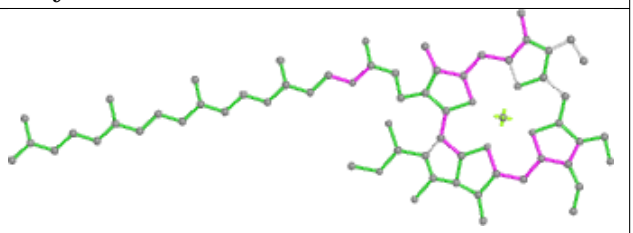
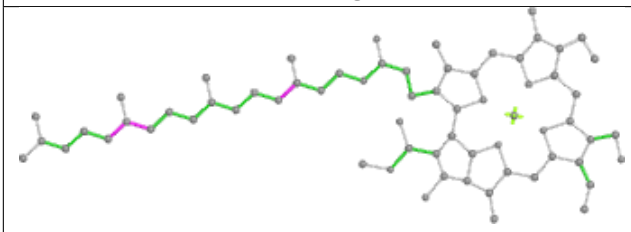
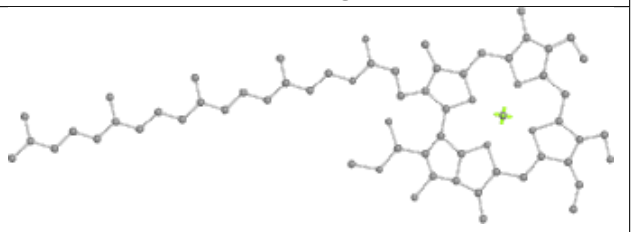


Bond angles

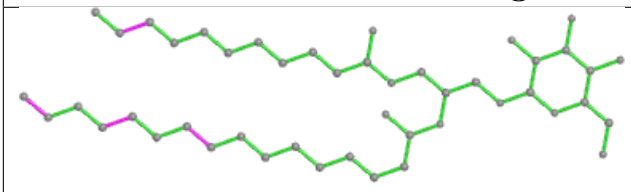


Torsions



Rings

Ligand LMG D1 411



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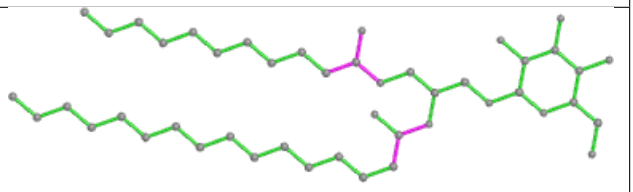
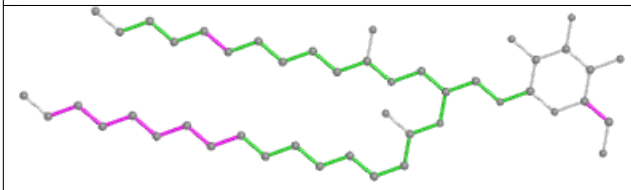


Bond angles



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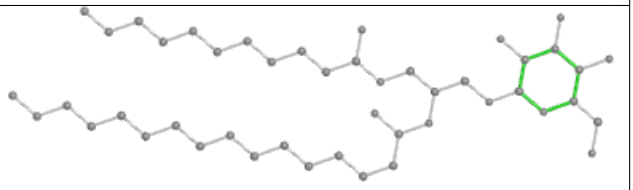
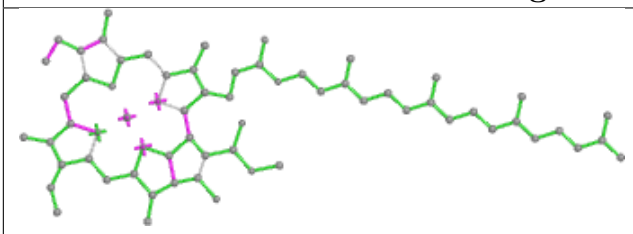


Rings

Ligand CLA c 501



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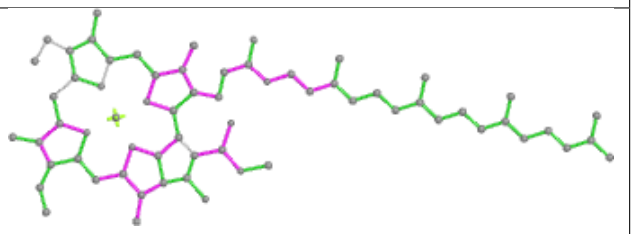
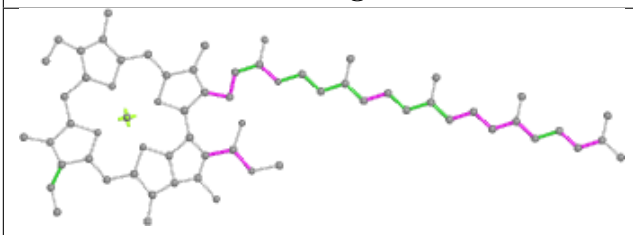
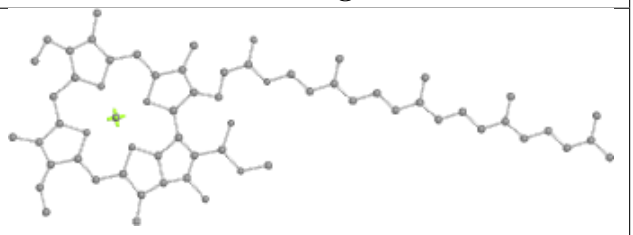


Bond angles

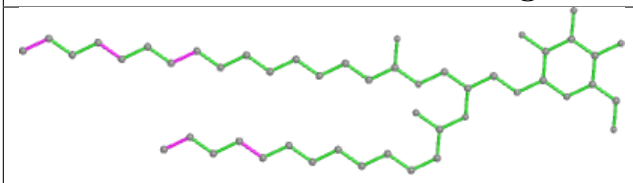


Torsions



Rings

Ligand LMG A 413



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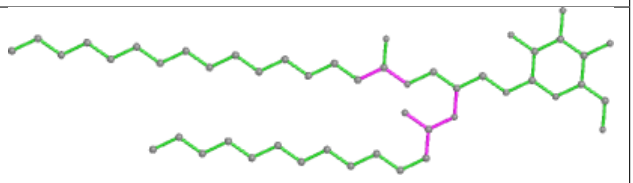
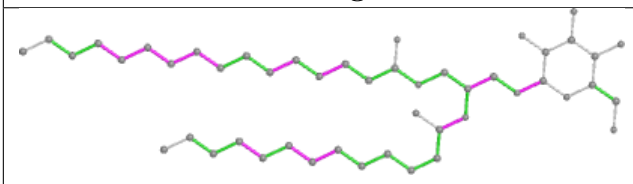


Bond angles



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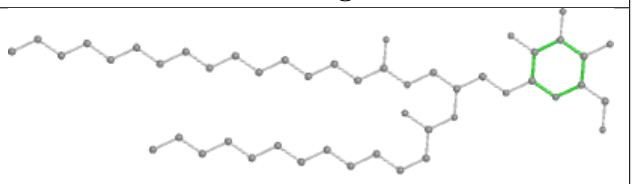
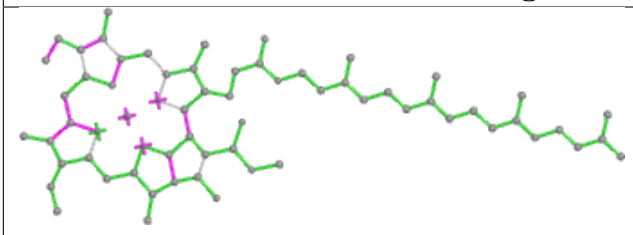


Rings

Ligand CLA c1 505



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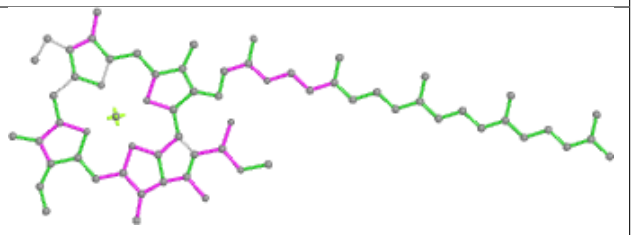
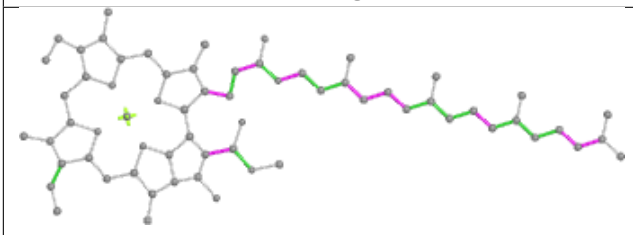


Bond angles



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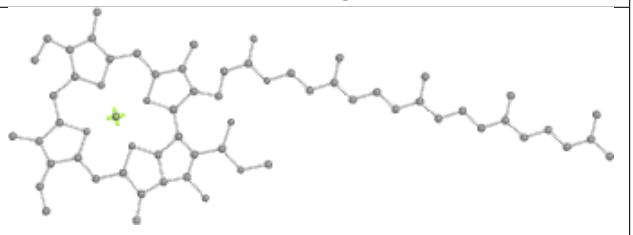
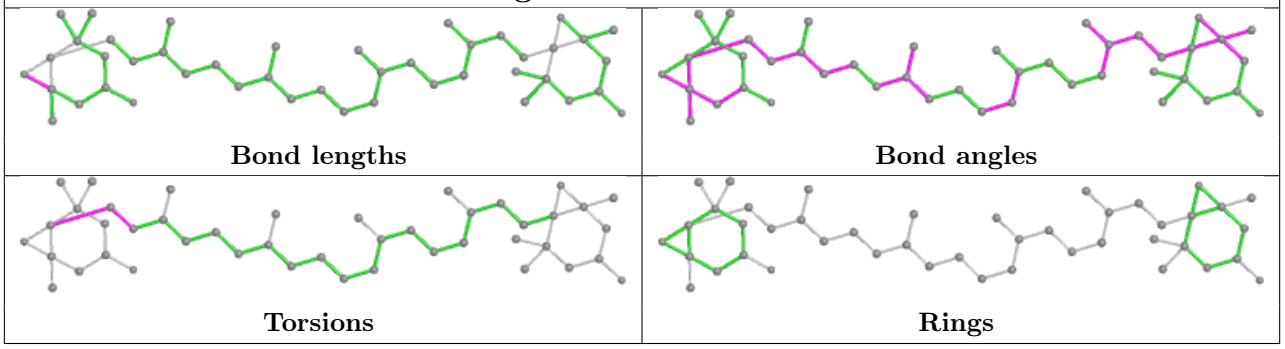
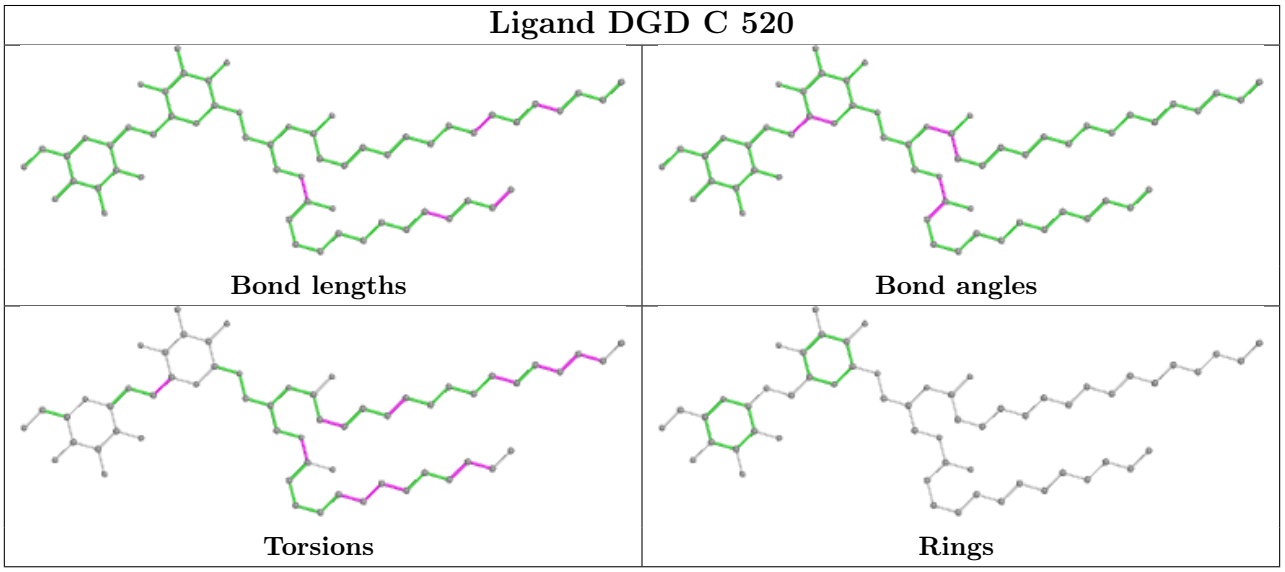


Rings

Ligand XAT G1 622



Ligand DGD C 520



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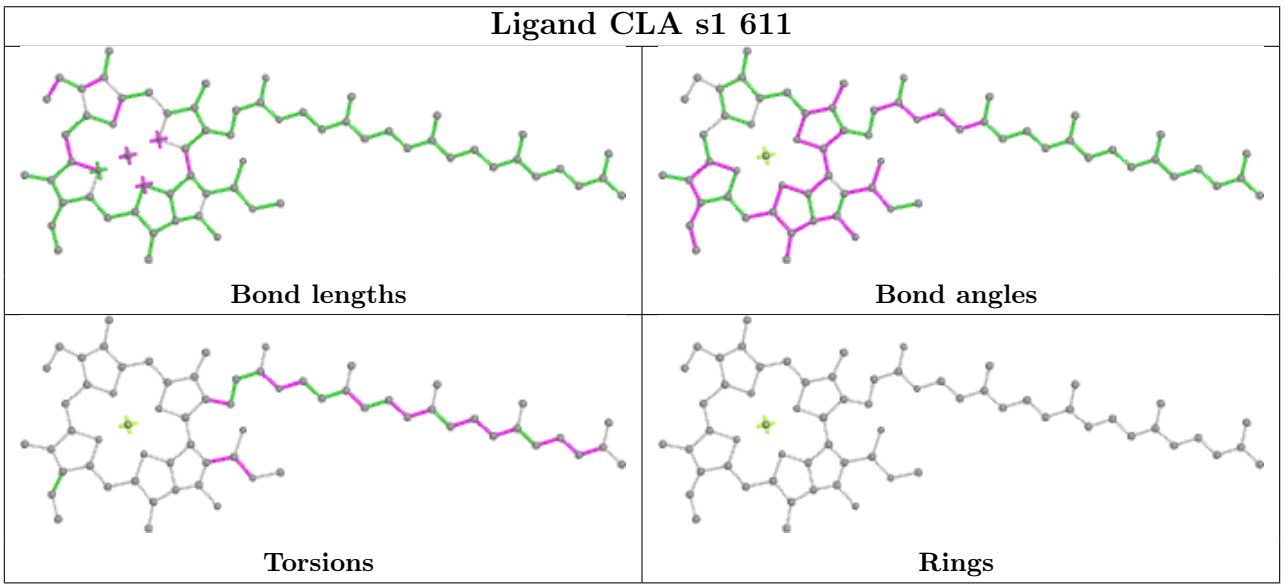
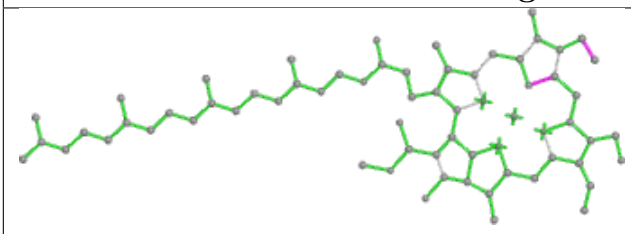
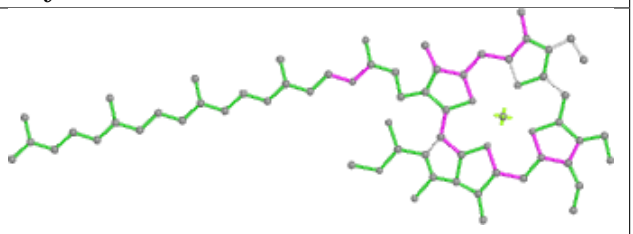


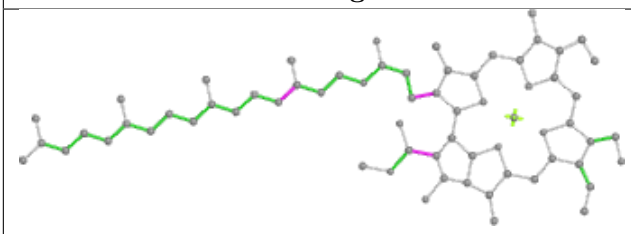
Ligand CHL y1 601



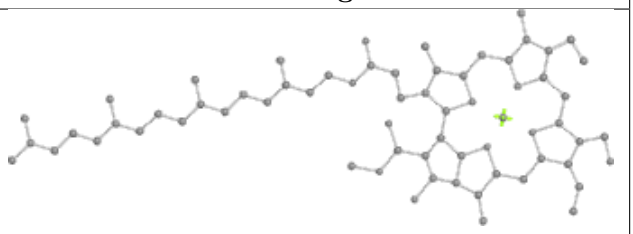
Bond lengths



Bond angles

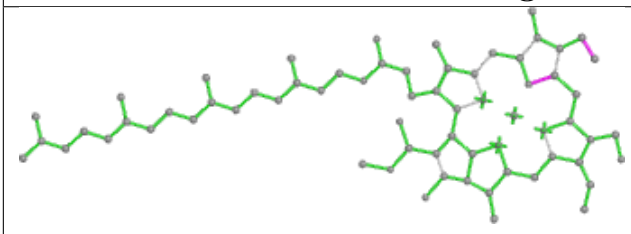


Torsions



Rings

Ligand CHL y1 606



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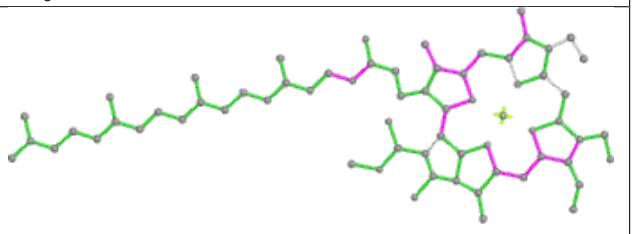
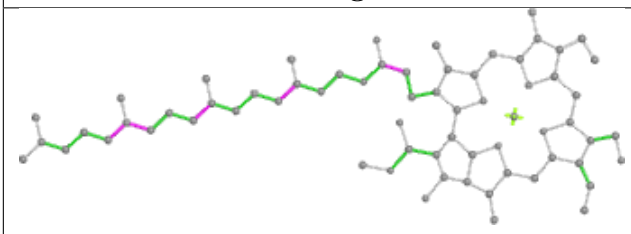


Bond angles



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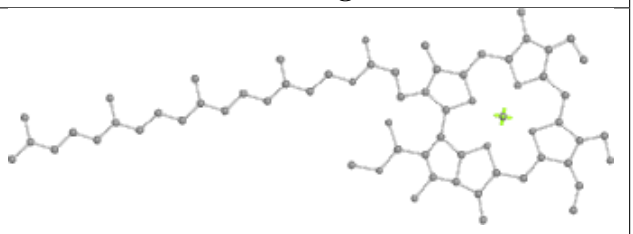

Rings

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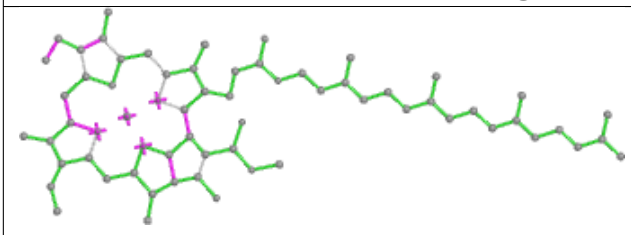

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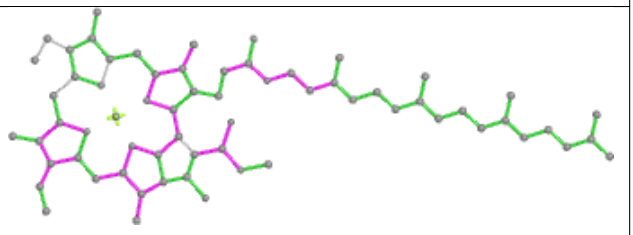
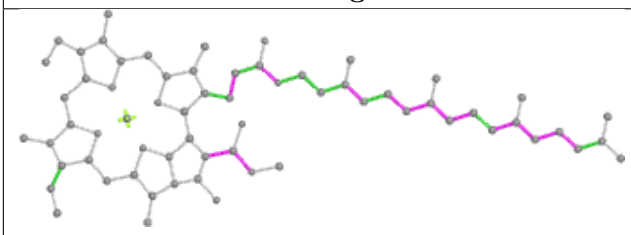


Bond angles



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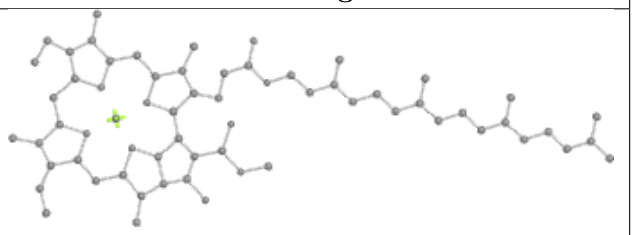
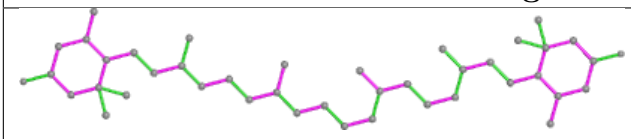
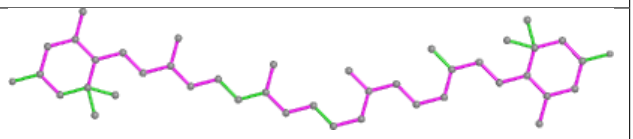


Rings

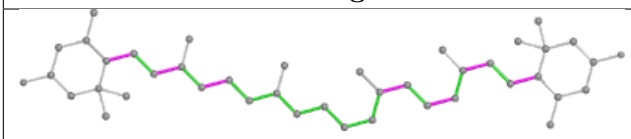
Ligand C7Z b1 620



Bond lengths



Bond angles



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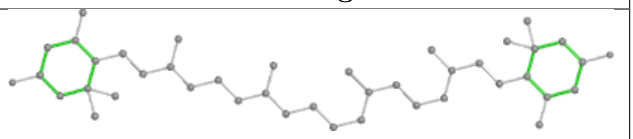
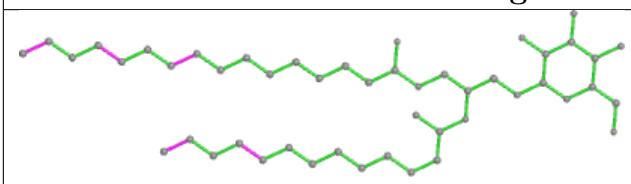


Rings

Ligand LMG H1 102



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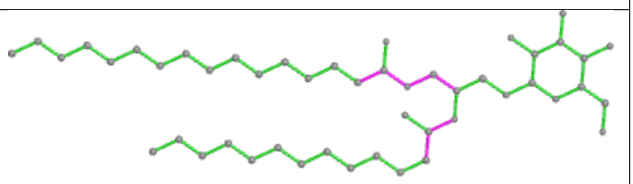
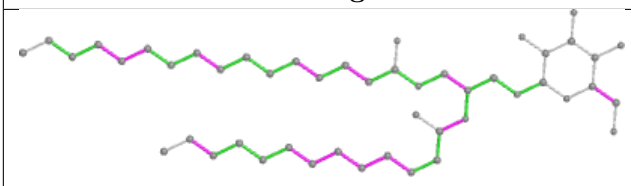


Bond angles



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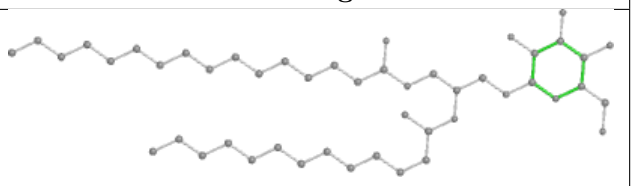
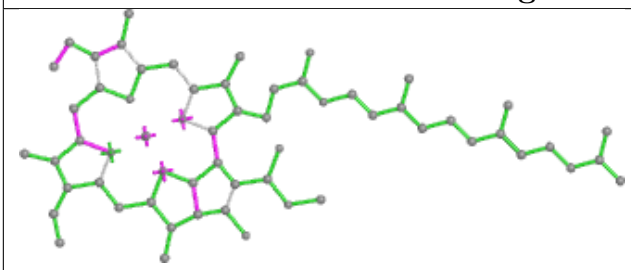
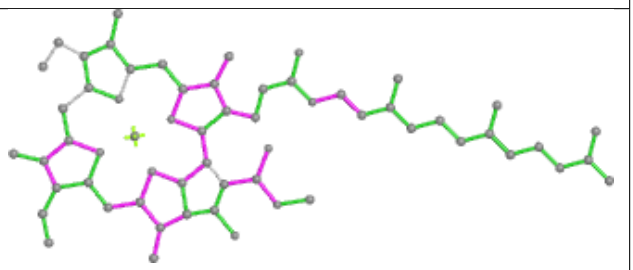


Rings

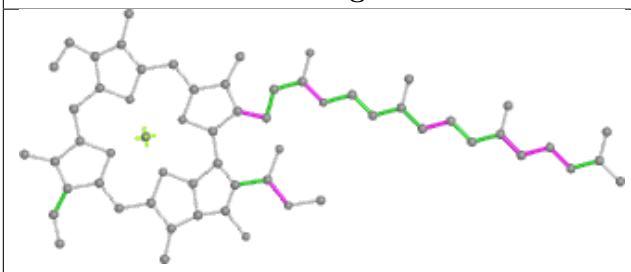
Ligand CLA S1 609



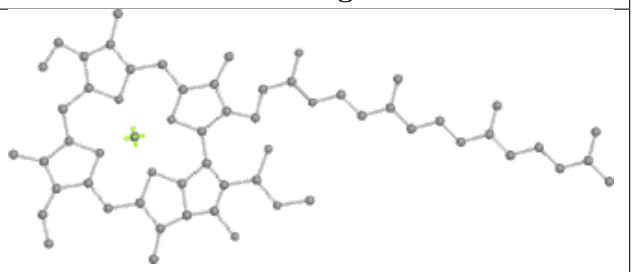
Bond lengths



Bond angles

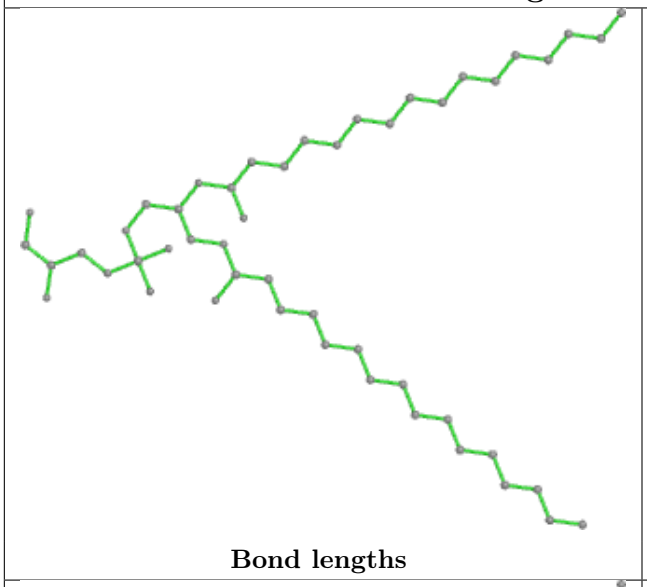


Torsions

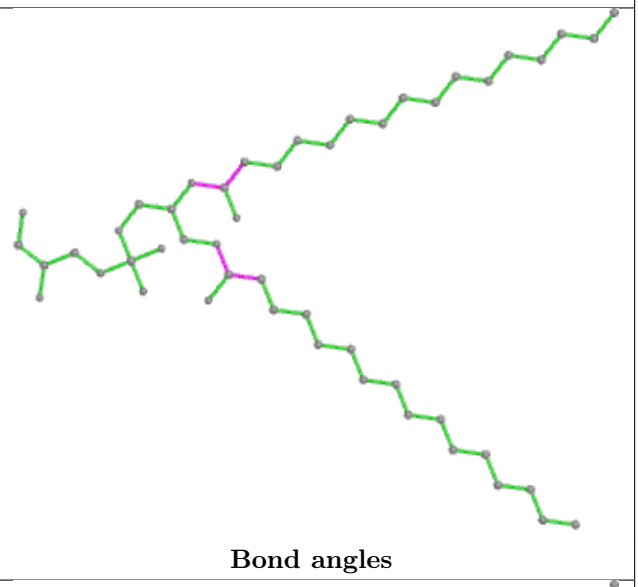


Rings

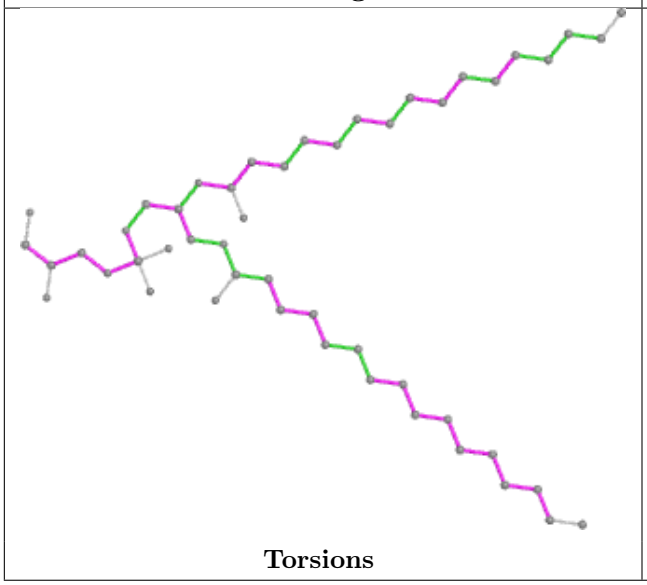
Ligand LHG n 624



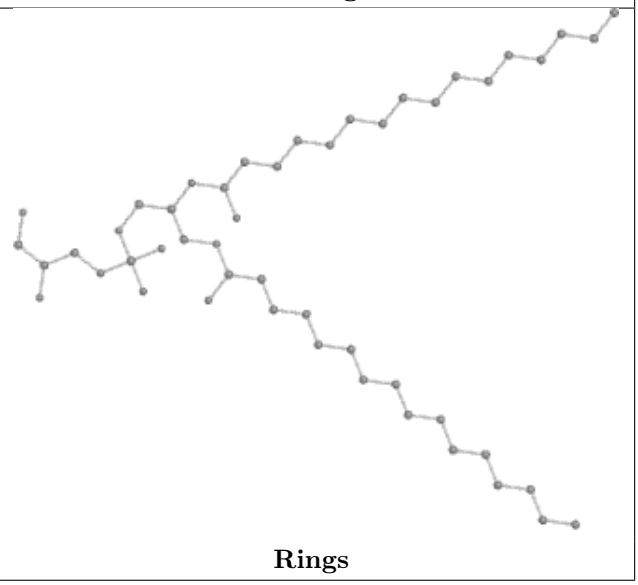
Bond lengths



Bond angles

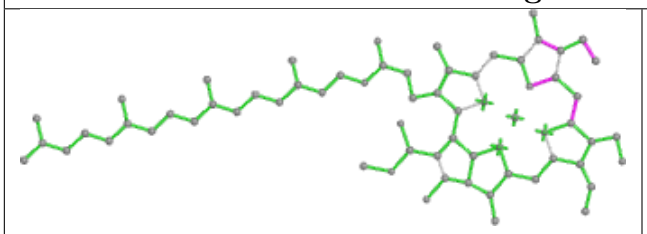


Torsions

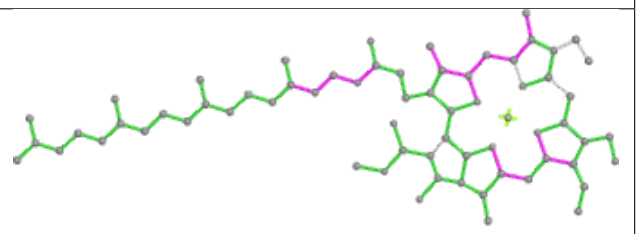


Rings

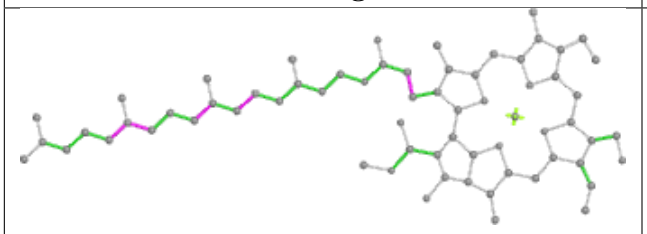
Ligand CHL Y 606



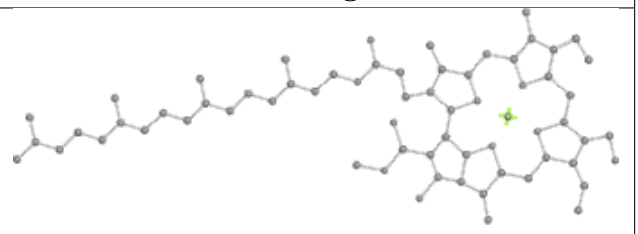
Bond lengths



Bond angles

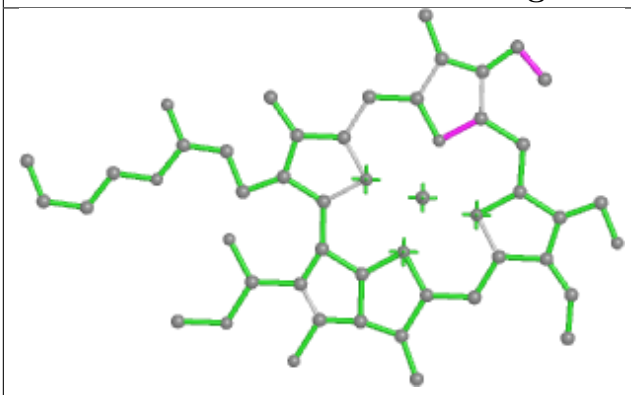


Torsions

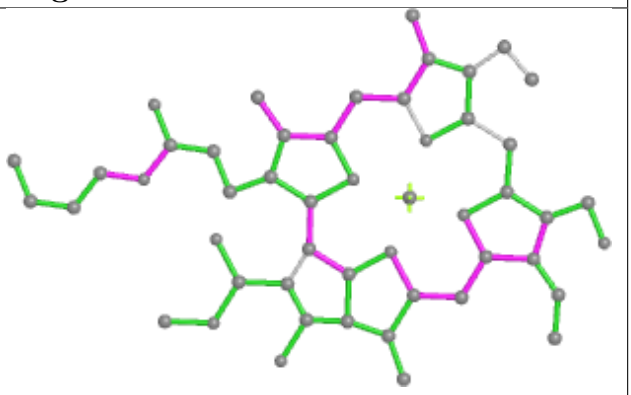


Rings

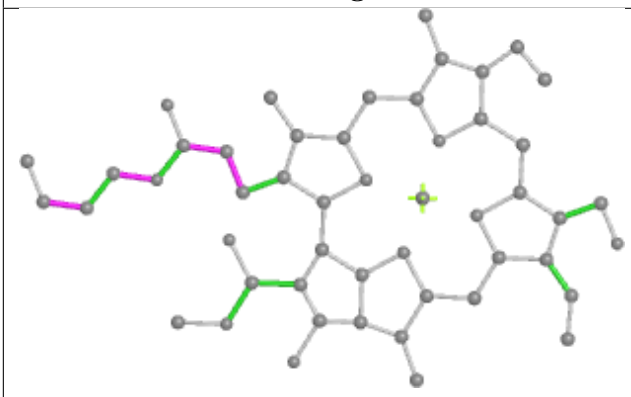
Ligand CHL g 606



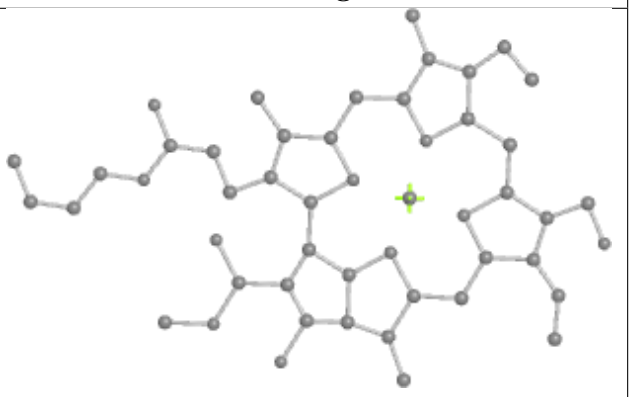
Bond lengths



Bond angles

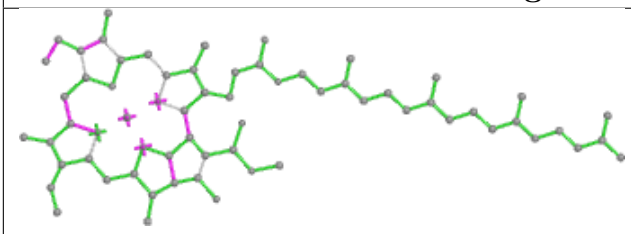


Torsions

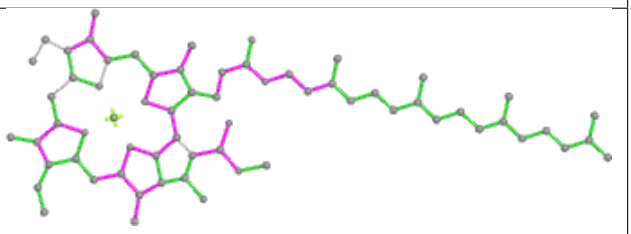


Rings

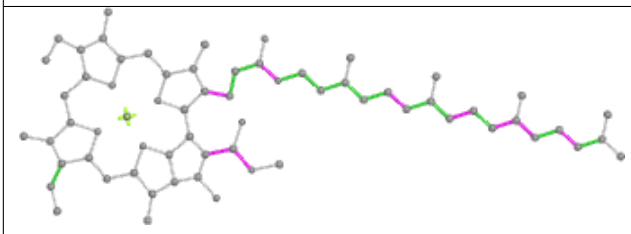
Ligand CLA C 511



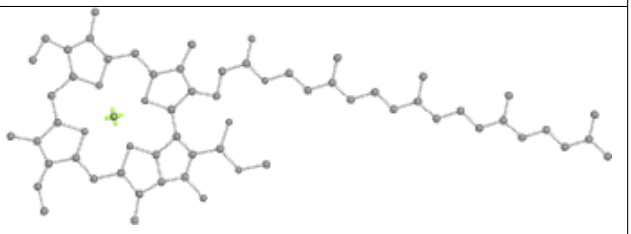
Bond lengths



Bond angles

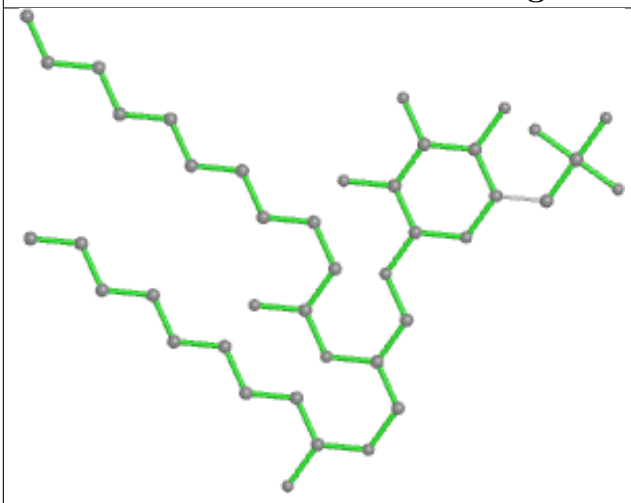


Torsions



Rings

Ligand SQD b 621



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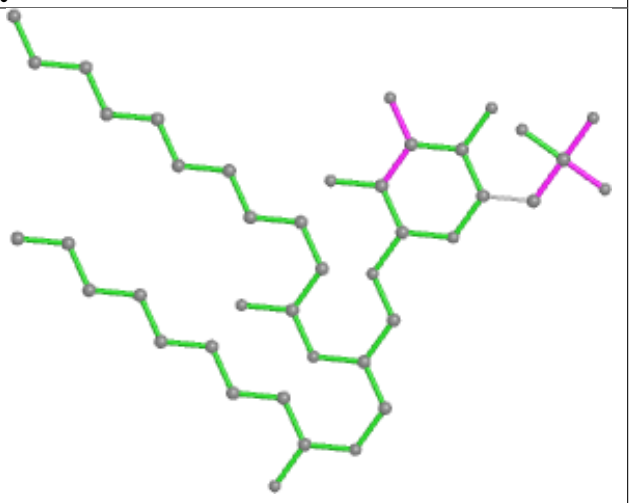
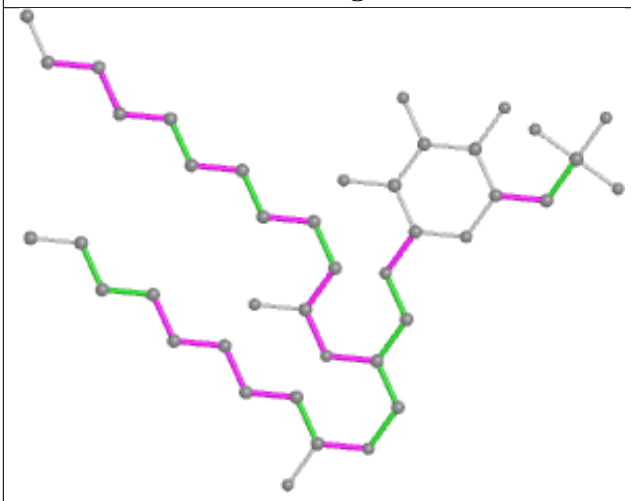
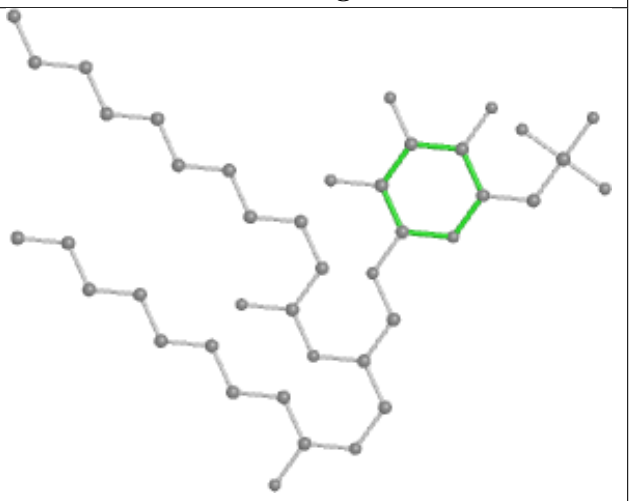


Bond angles

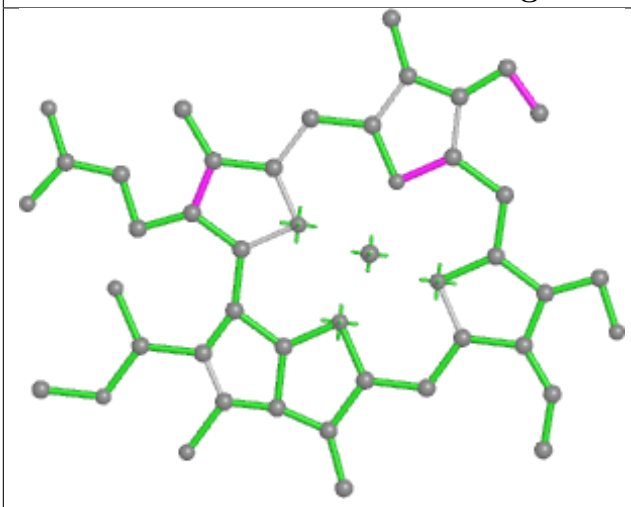


Torsions

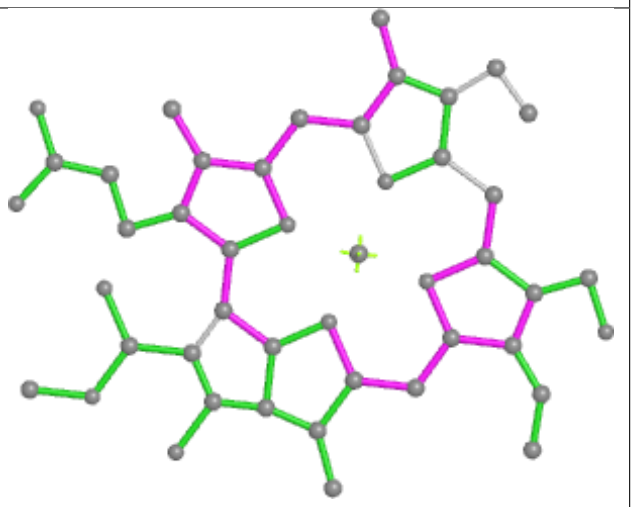


Rings

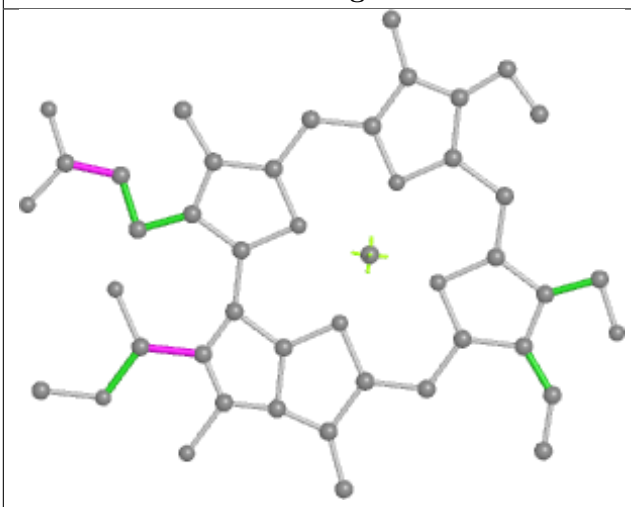
Ligand CHL s1 601



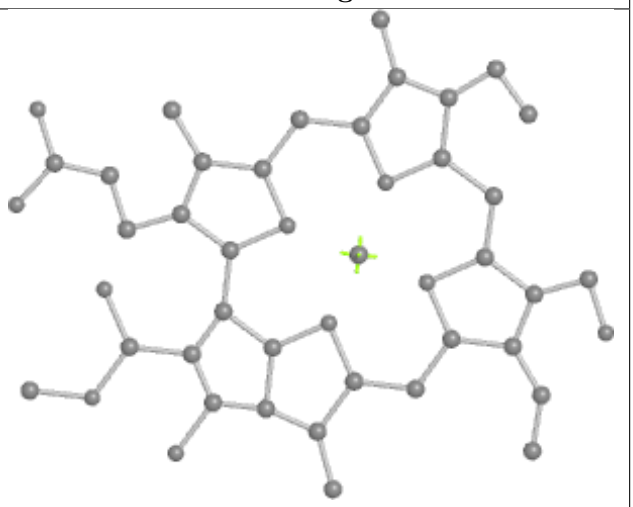
Bond lengths



Bond angles

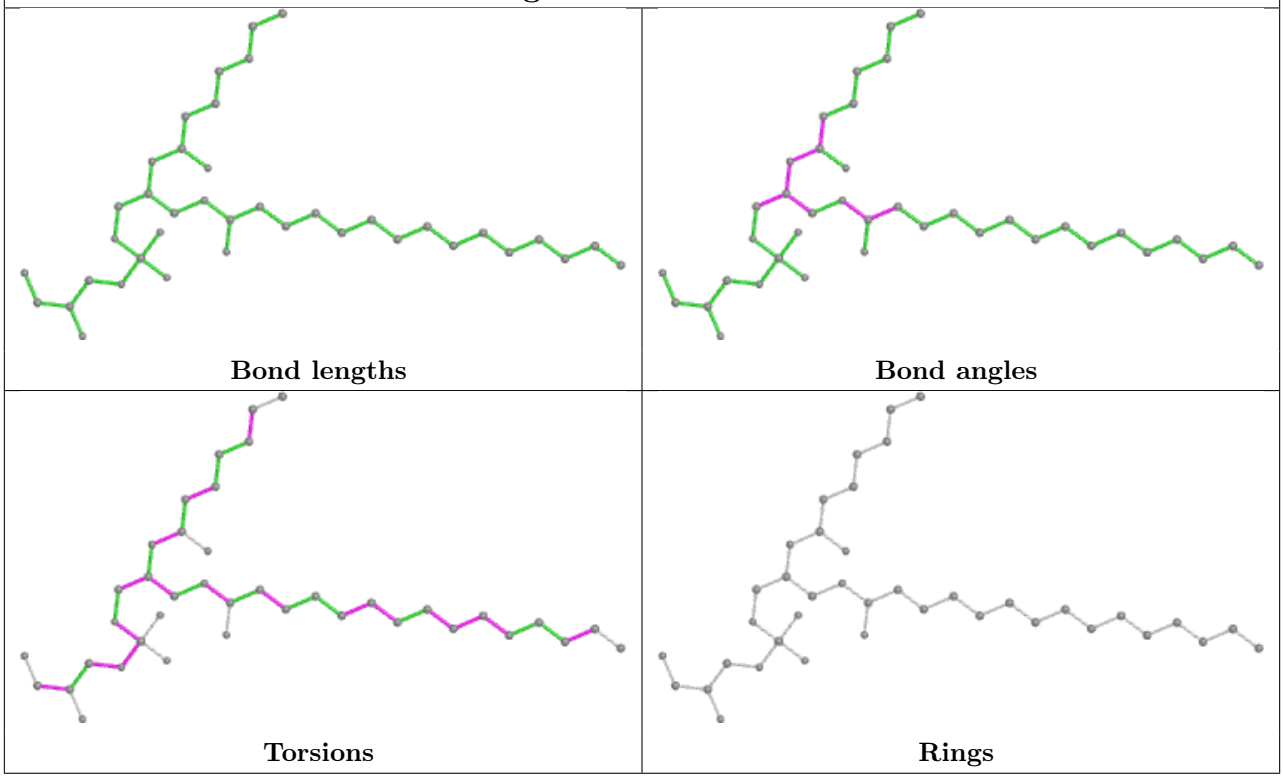


Torsions

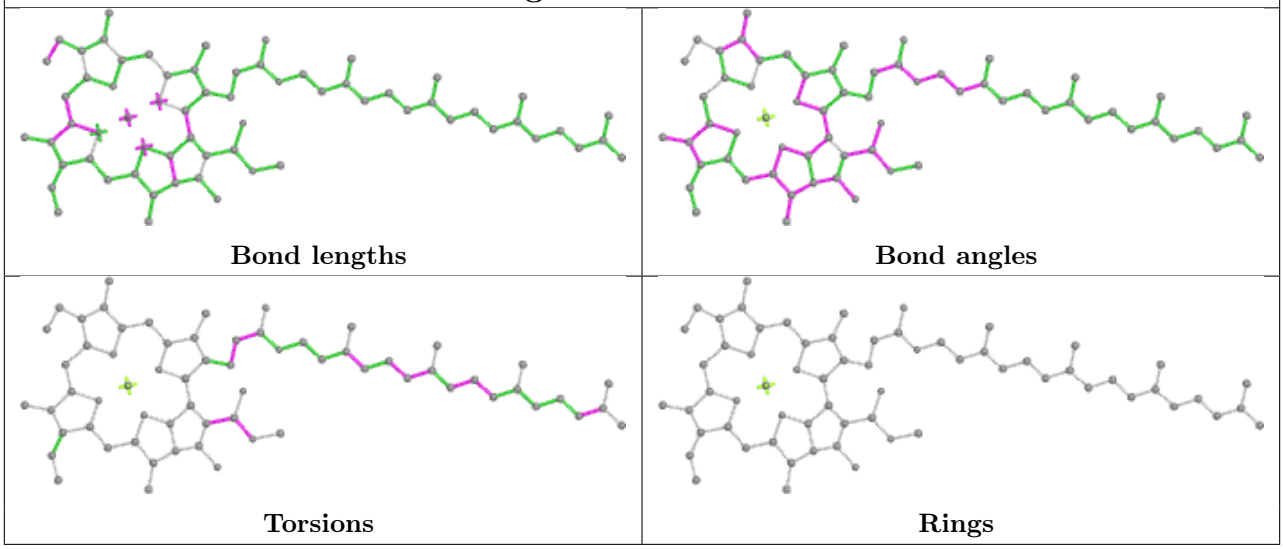


Rings

Ligand LHG D 410



Ligand CLA B 615



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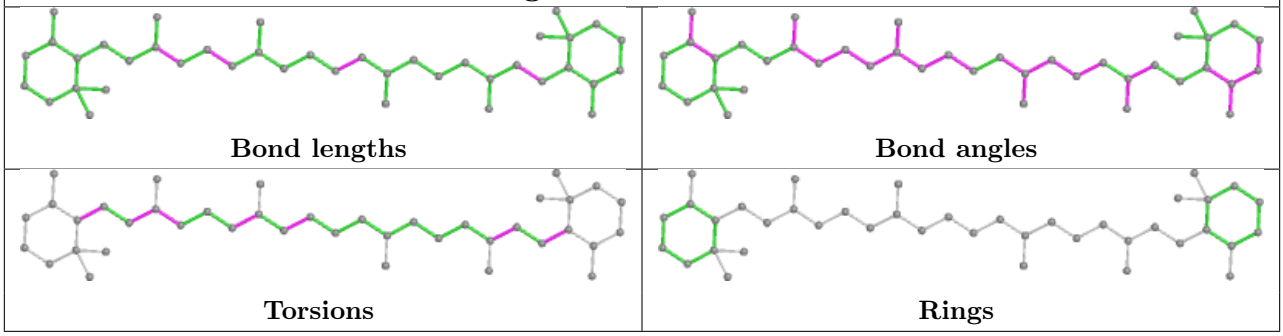

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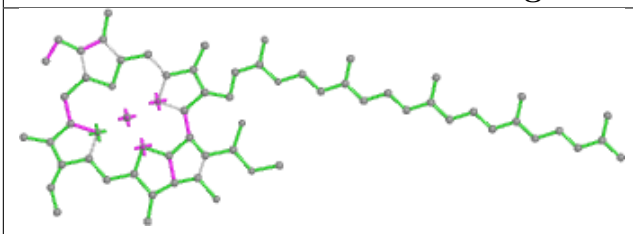
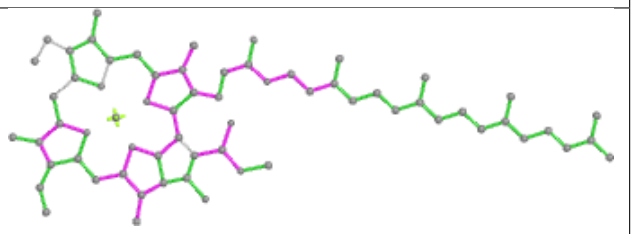
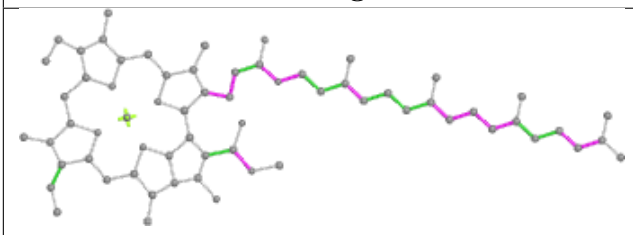


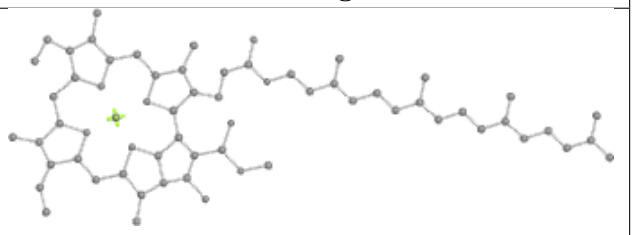
Bond lengths



Bond angles

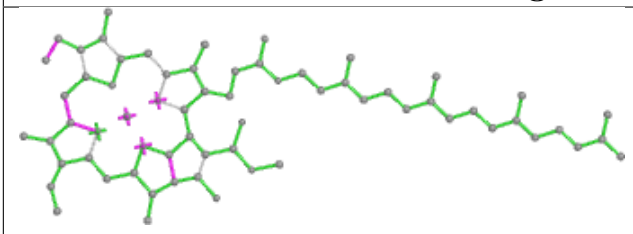


Torsions



Rings

Ligand CLA a 405



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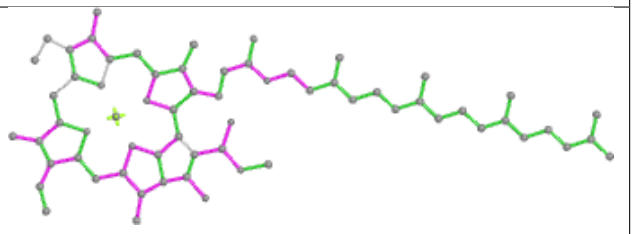
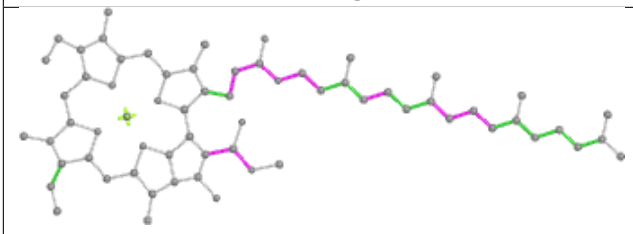


Bond angles



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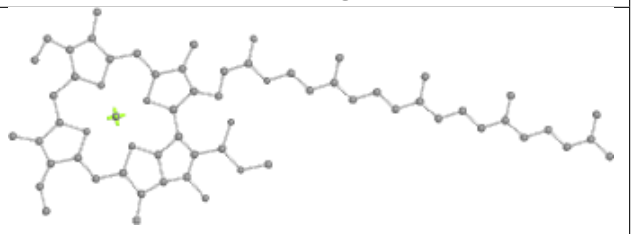
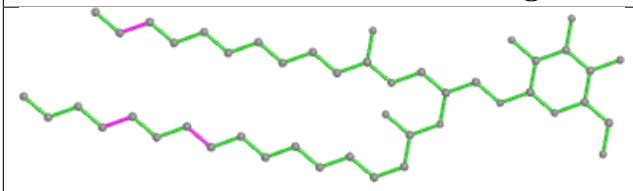


Rings

Ligand LMG d 411



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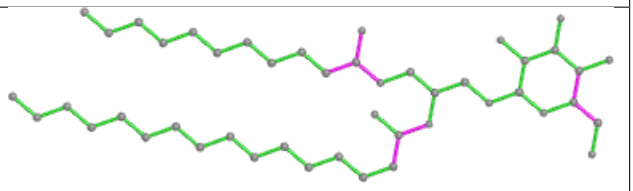
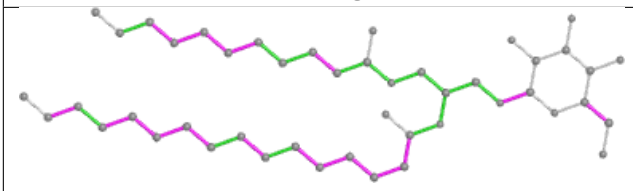


Bond angles



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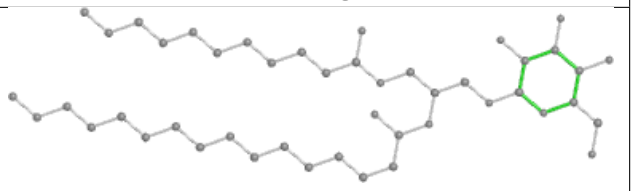
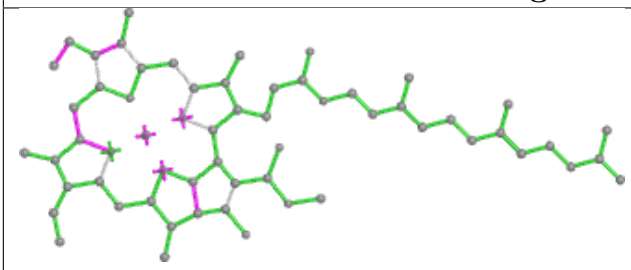


Rings

Ligand CLA r 609



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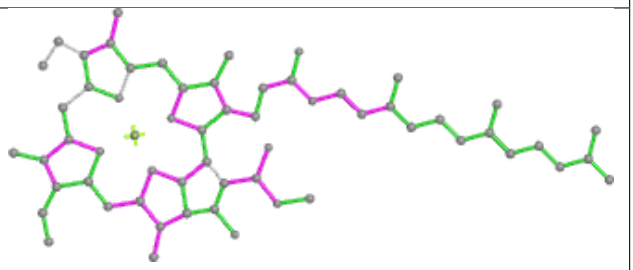
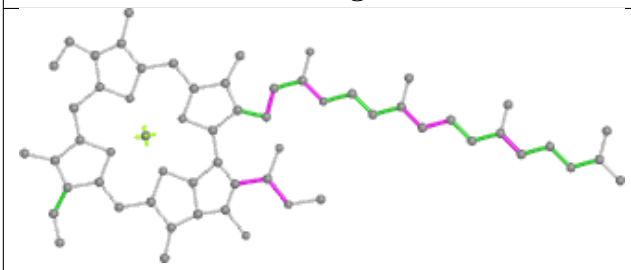
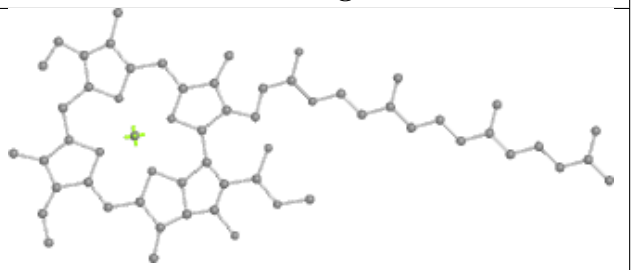


Bond angles

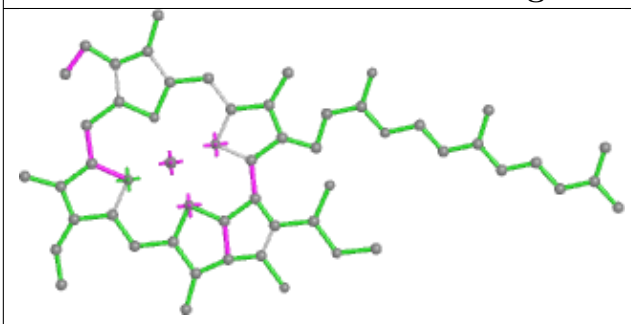


Torsions



Rings

Ligand CLA S 613



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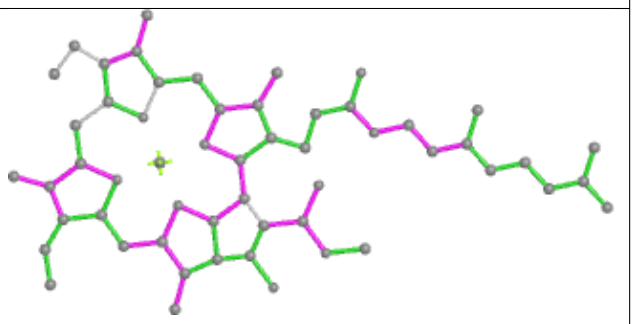

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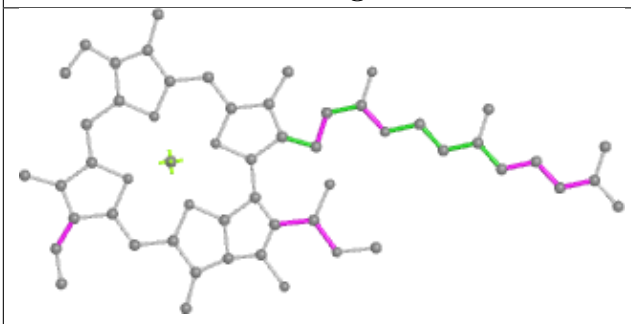

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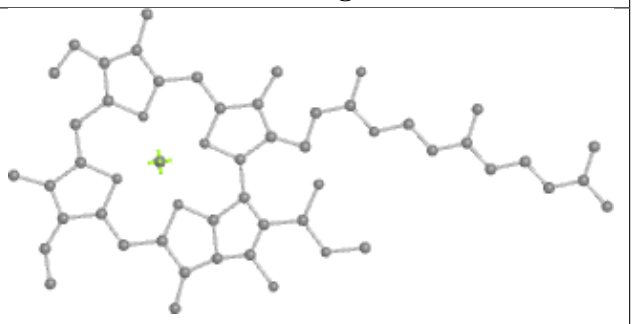
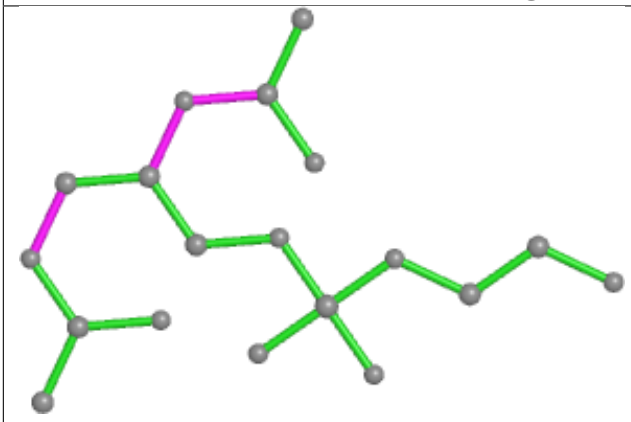


Rings

Ligand PTY Y 627



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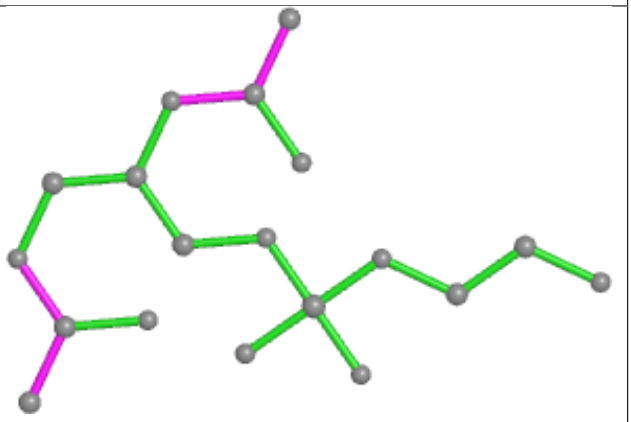

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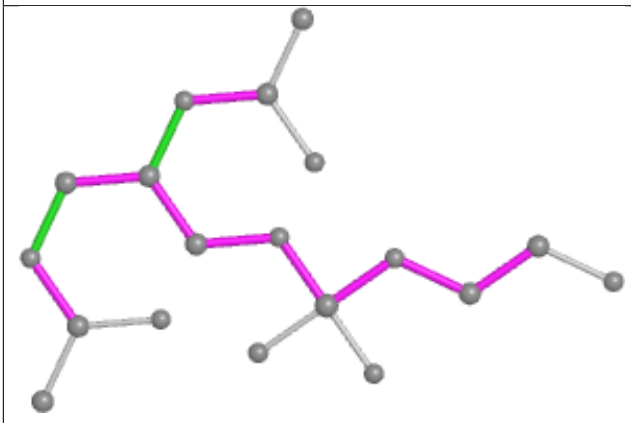

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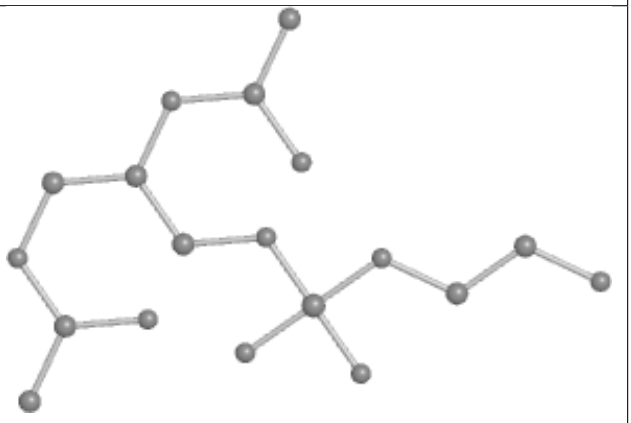
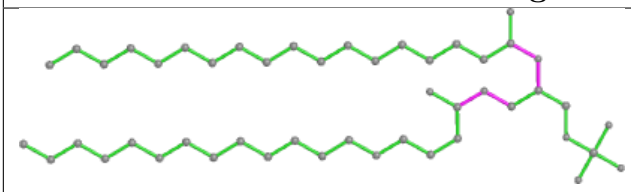


Rings

Ligand 3PH b 624



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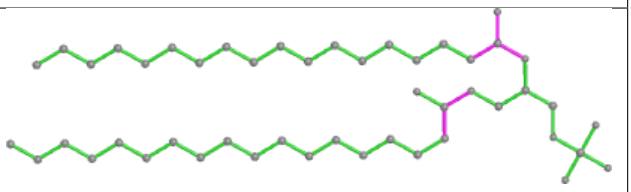
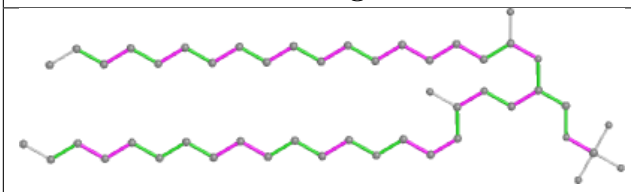
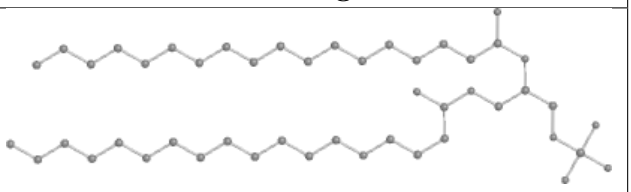


Bond angles

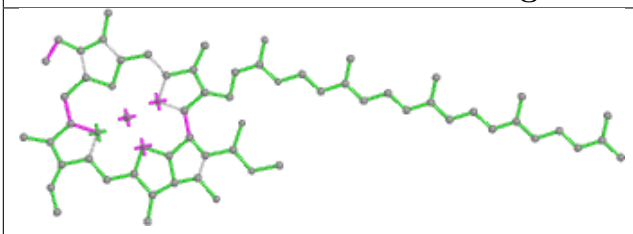


Torsions



Rings

Ligand CLA c1 506



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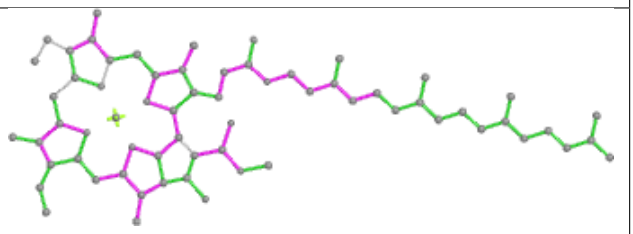
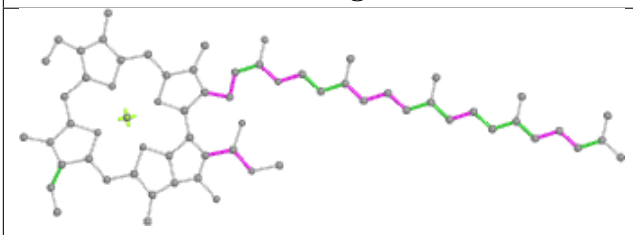


Bond angles



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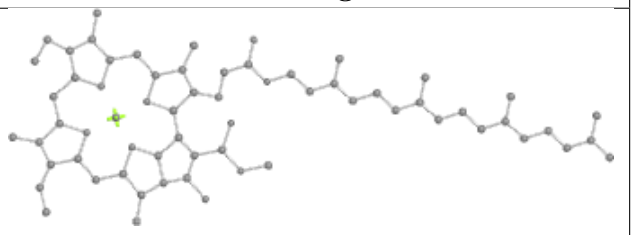
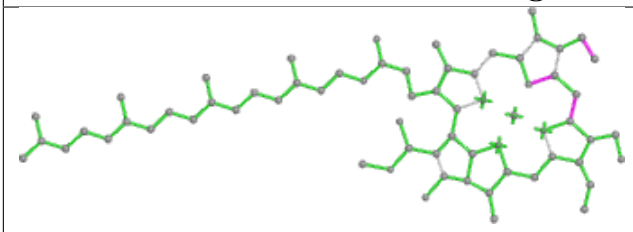
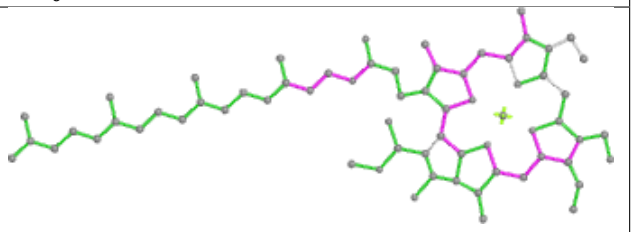


Rings

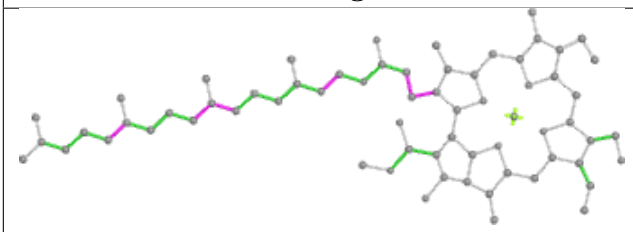
Ligand CHL y 607



Bond lengths



Bond angles



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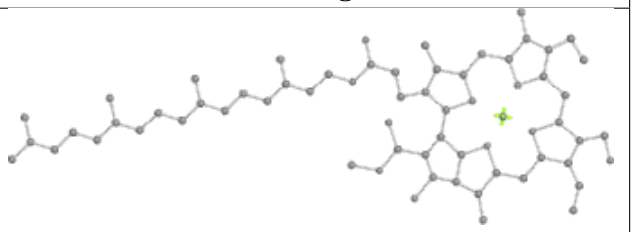
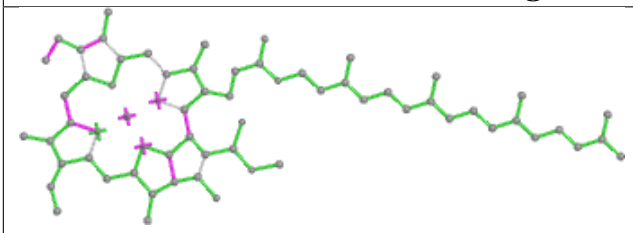
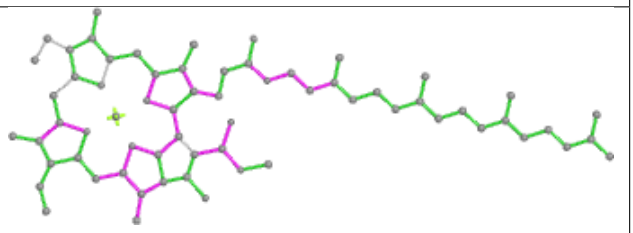


Rings

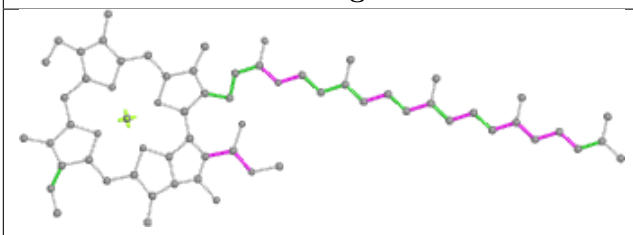
Ligand CLA B 617



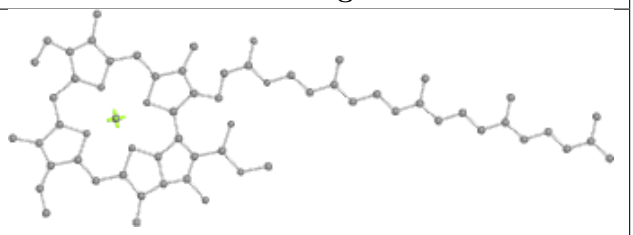
Bond lengths



Bond angles

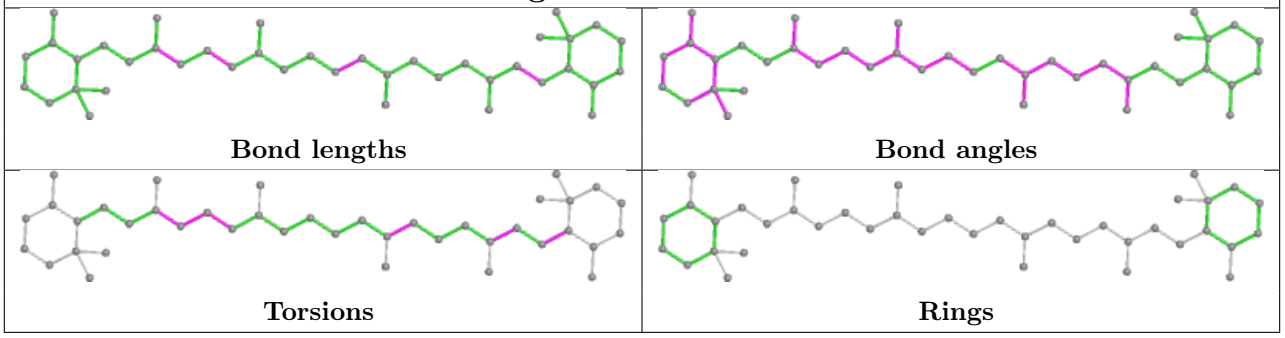


Torsions

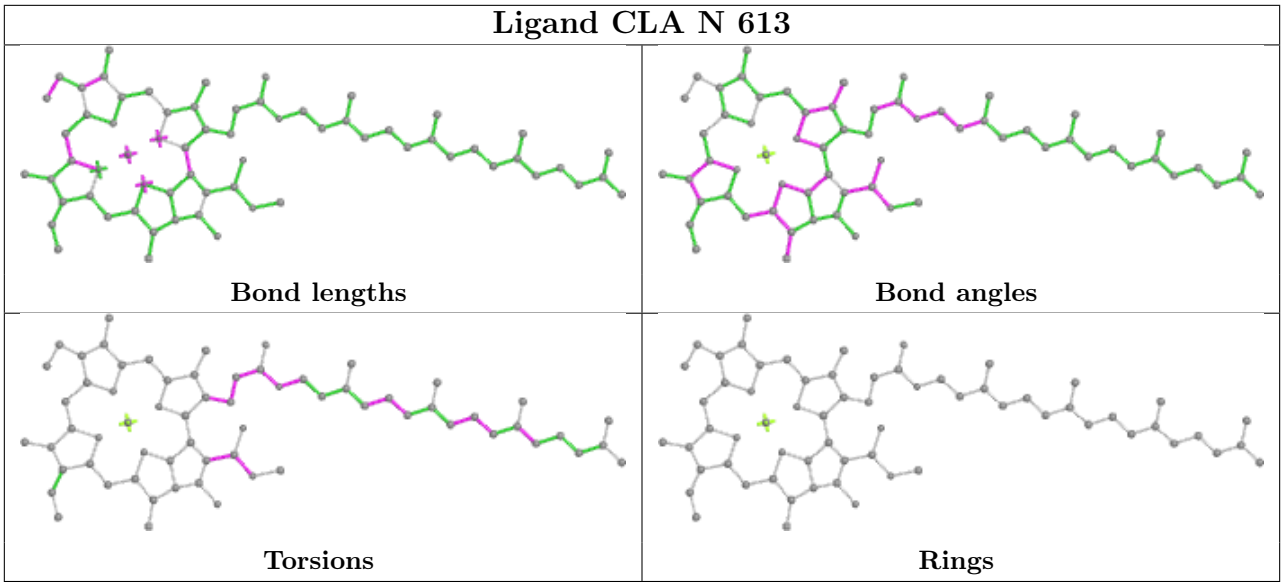


Rings

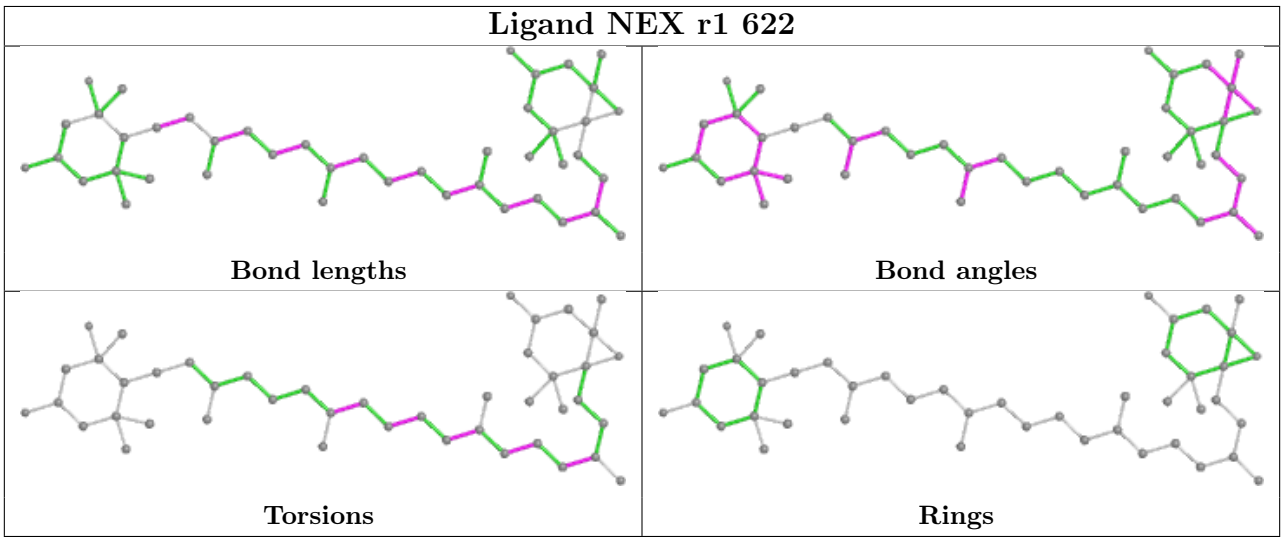
Ligand BCR c 517



Ligand CLA N 613



Ligand NEX r1 622



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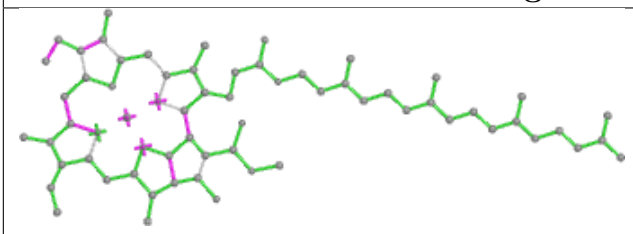
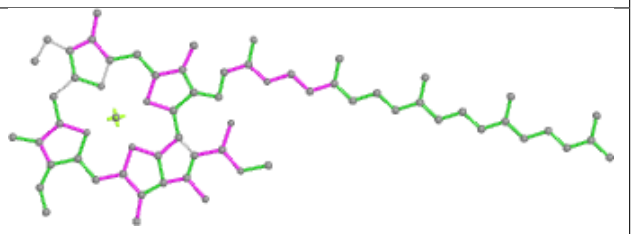
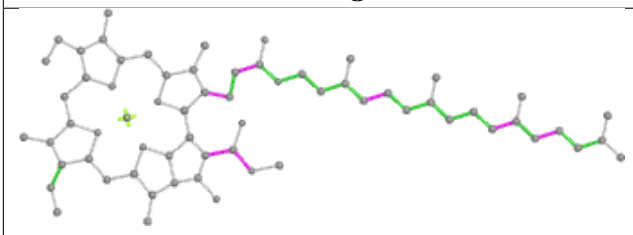


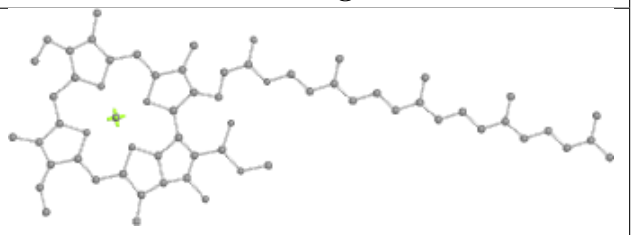
Bond lengths



Bond angles

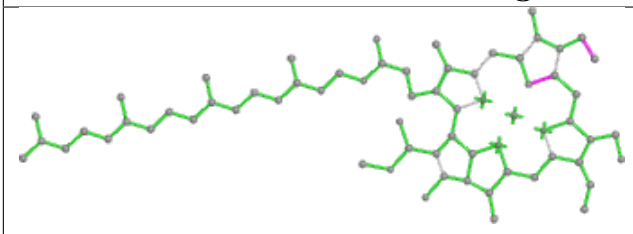


Torsions



Rings

Ligand CHL Y1 609



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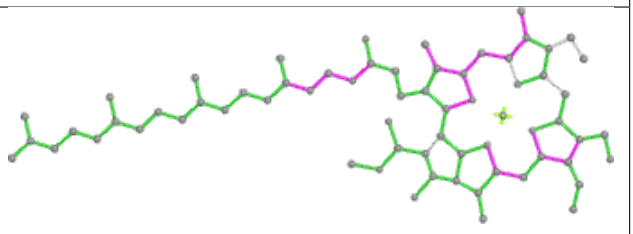
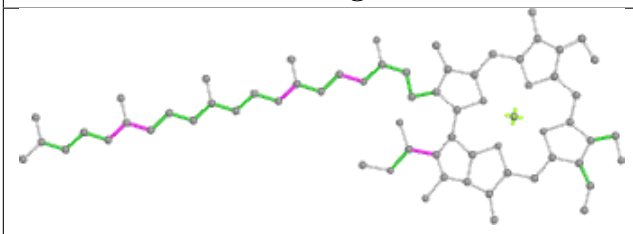
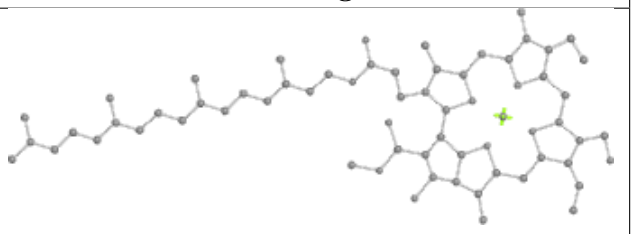


Bond angles

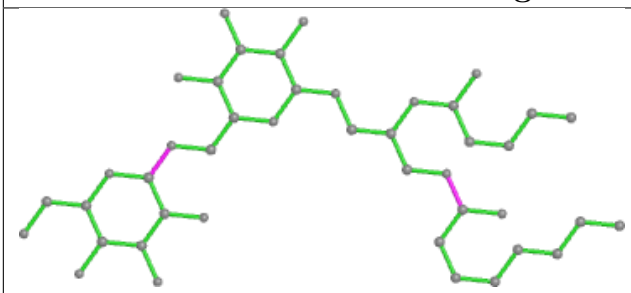


Torsions



Rings

Ligand DGD b1 623



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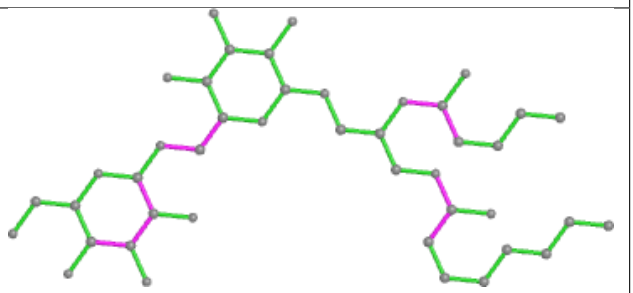
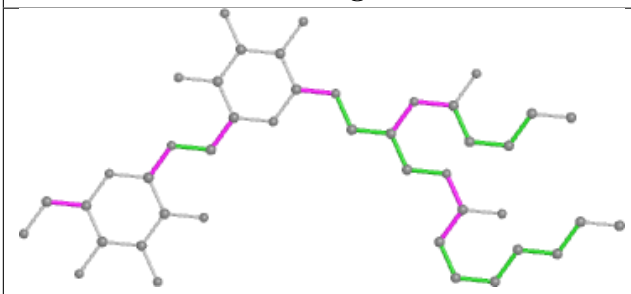
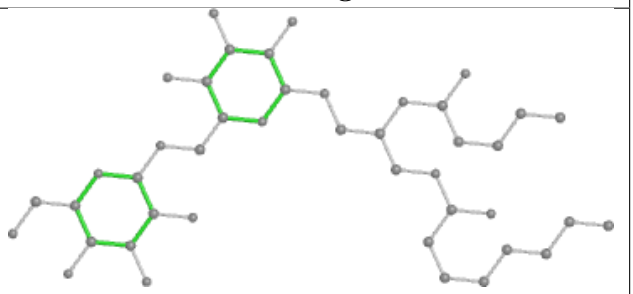


Bond angles

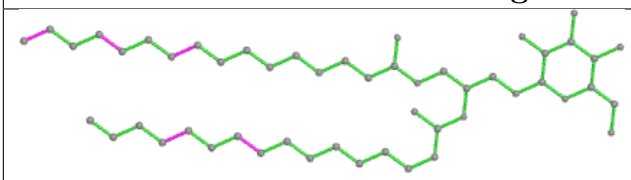


Torsions



Rings

Ligand LMG C1 521



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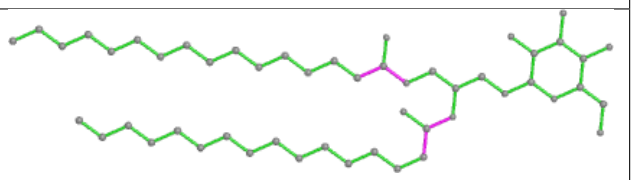

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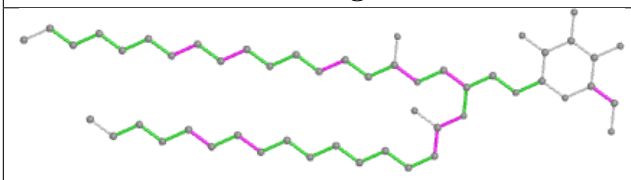

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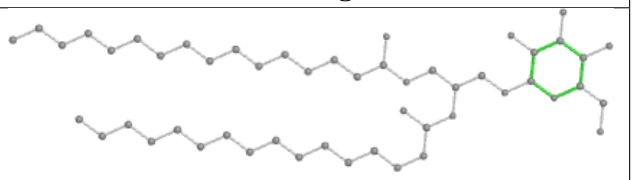
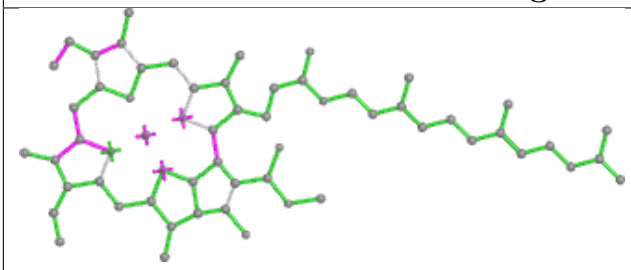


Rings

Ligand CLA r 612



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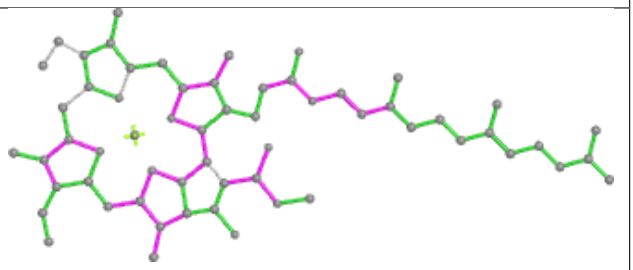
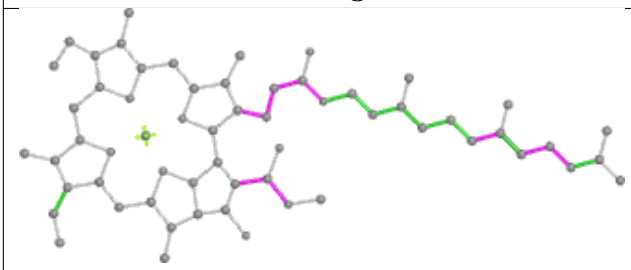


Bond angles



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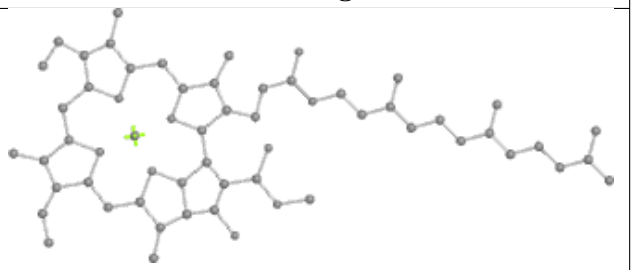
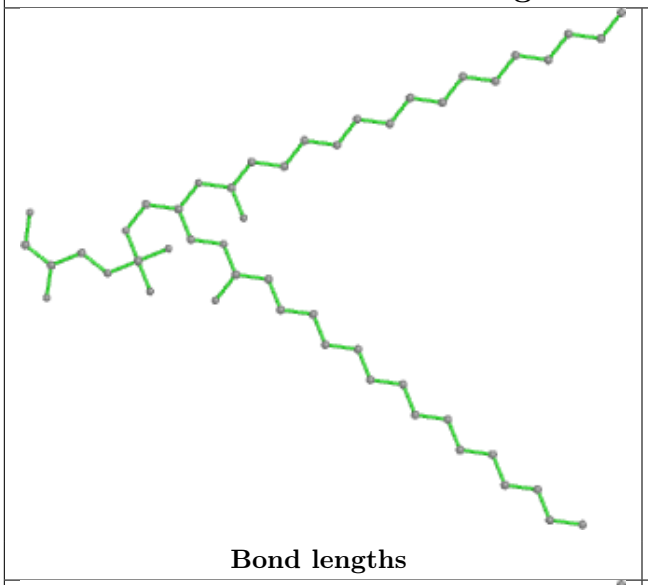
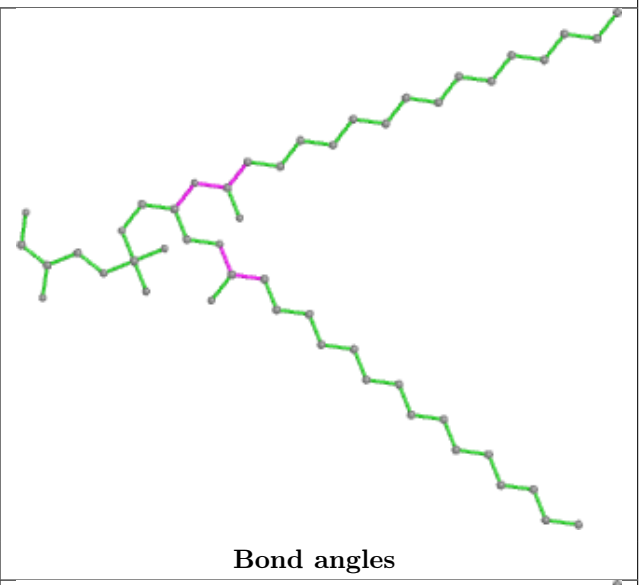


Rings

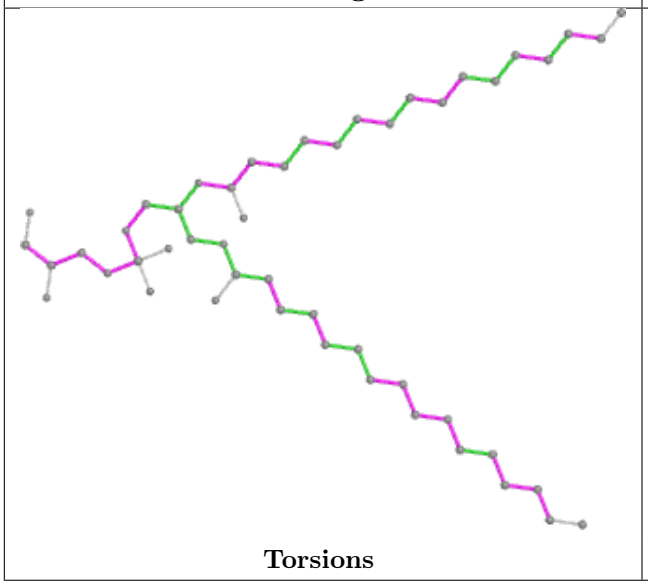
Ligand LHG D1 409



Bond lengths



Bond angles



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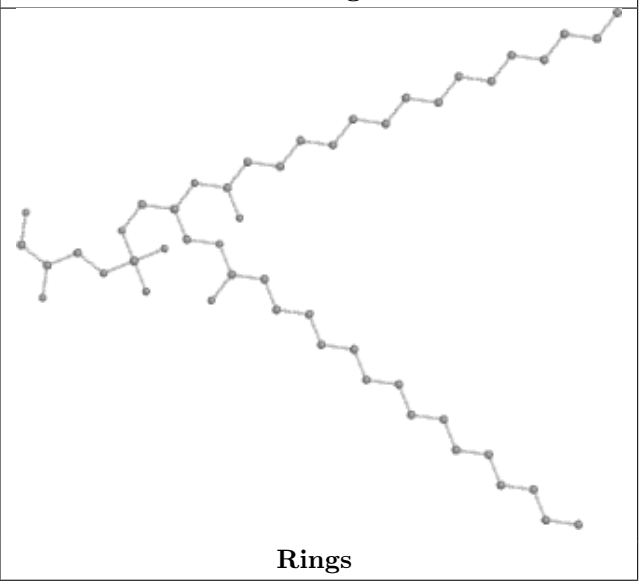
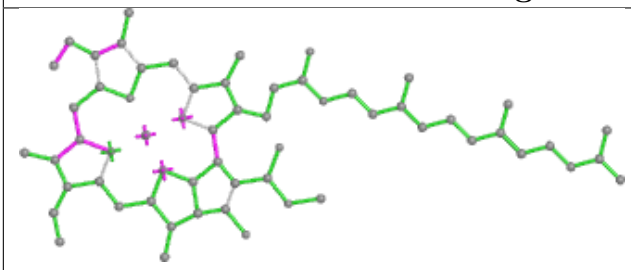
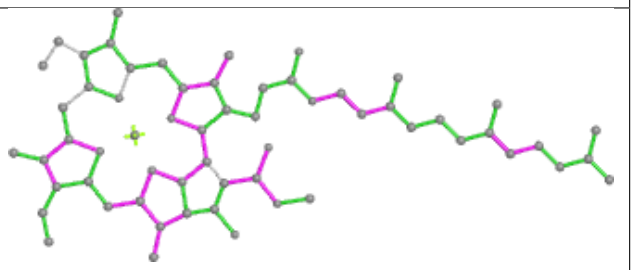
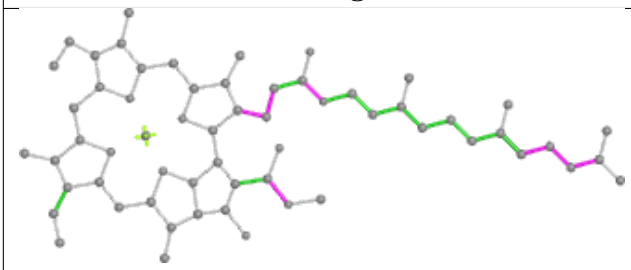
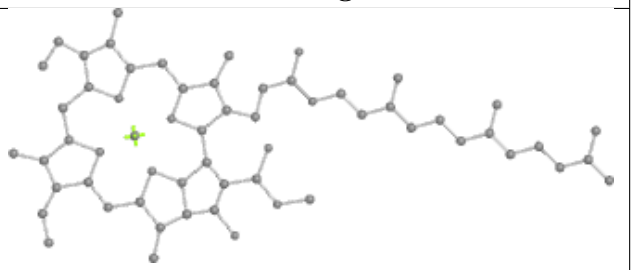
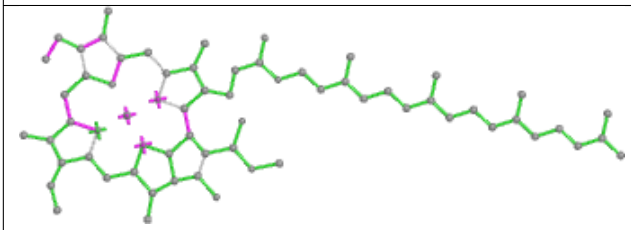
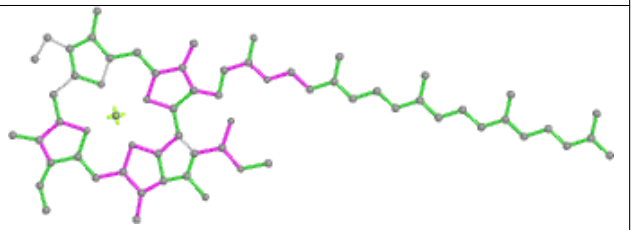
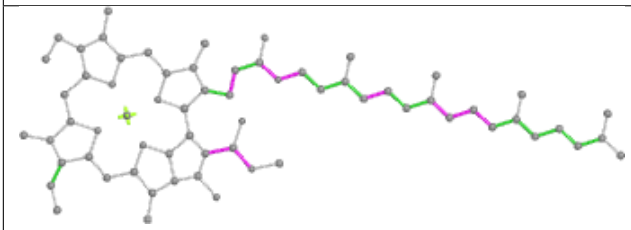
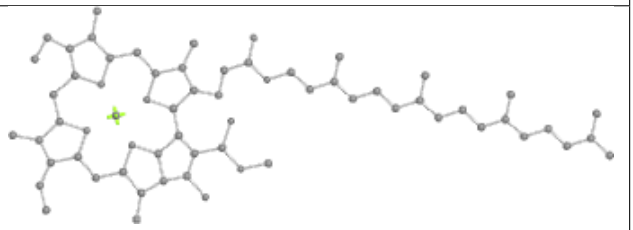
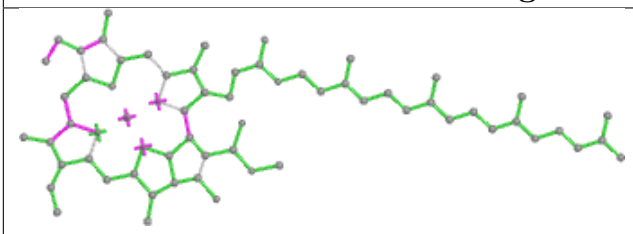


Rings

Ligand CLA R1 608	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA y1 604	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA y1 612



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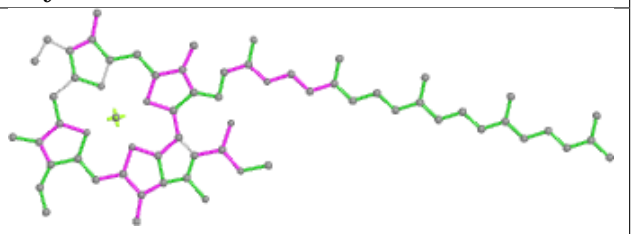
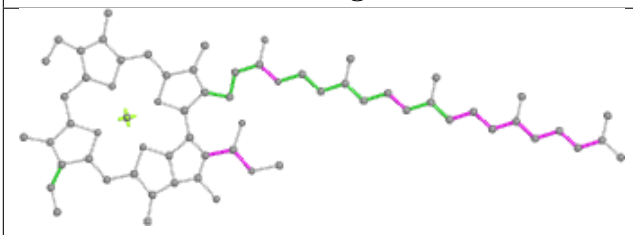
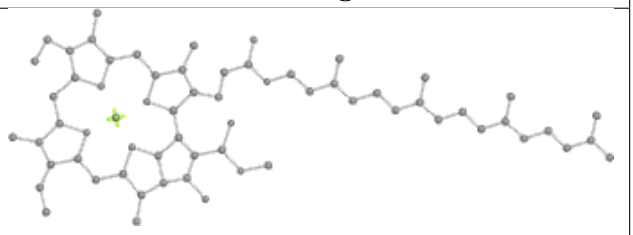


Bond angles

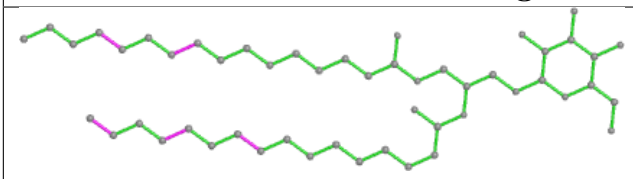


Torsions



Rings

Ligand LMG c1 521



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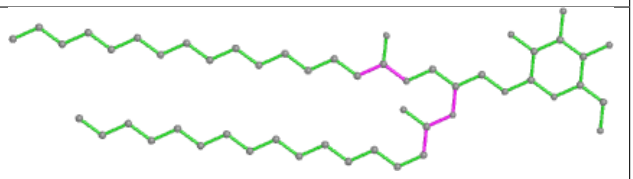
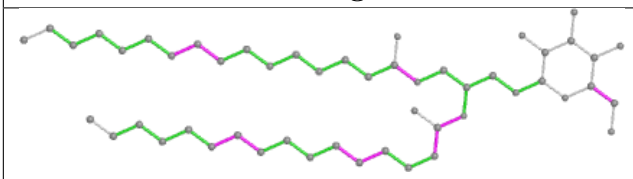


Bond angles



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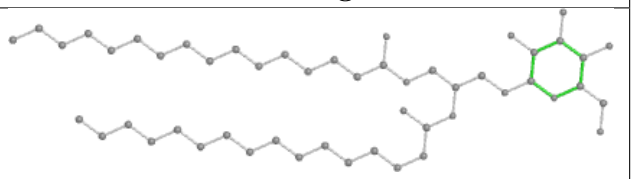
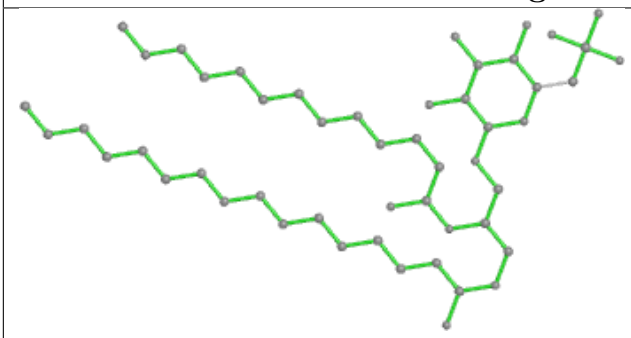
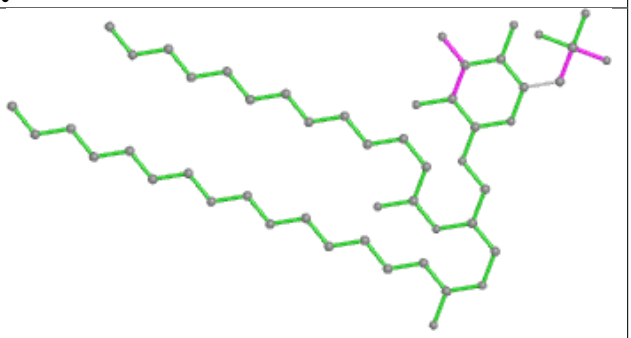


Rings

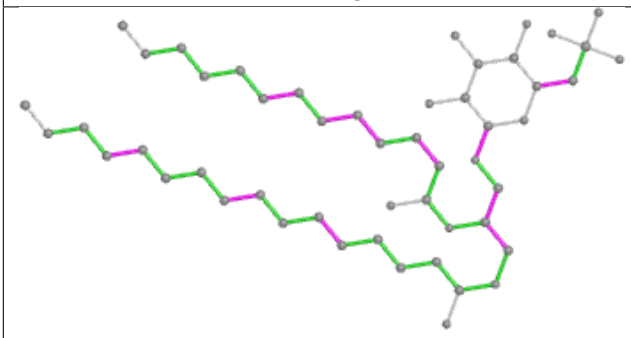
Ligand SQD a 412



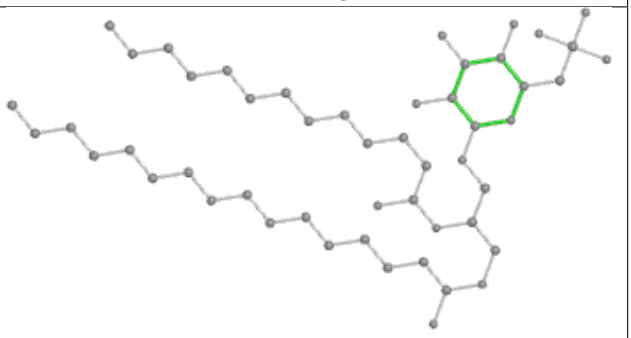
Bond lengths



Bond angles

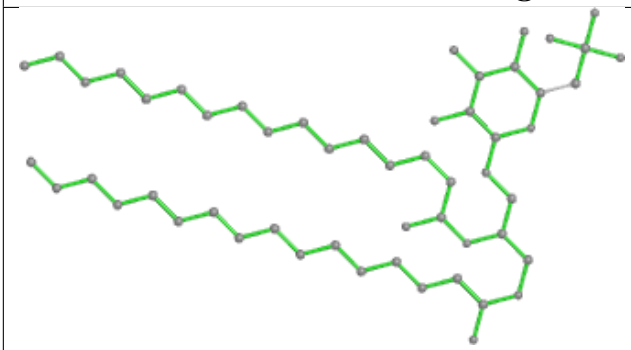


Torsions

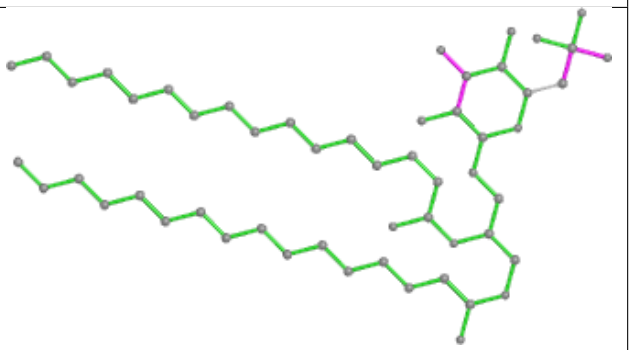


Rings

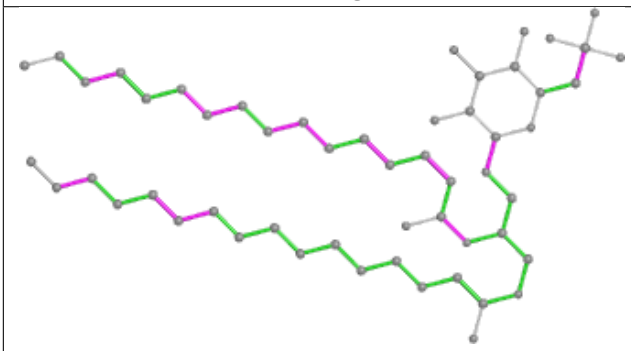
Ligand SQD B1 626



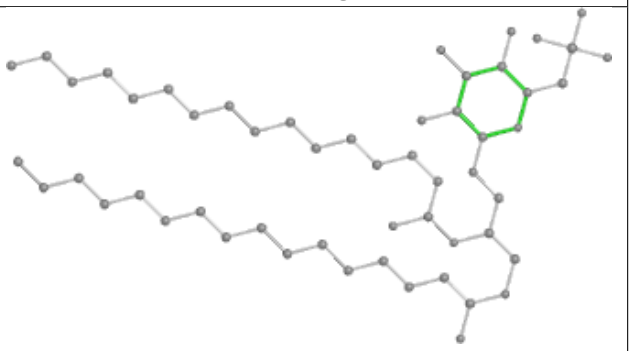
Bond lengths



Bond angles

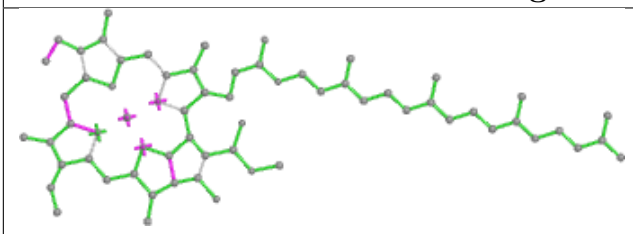


Torsions

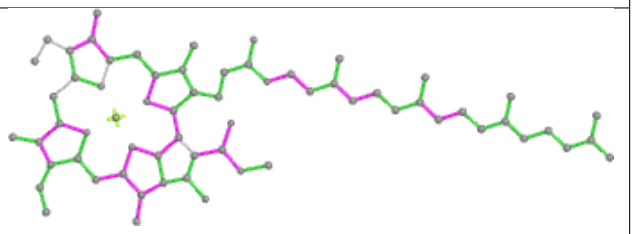


Rings

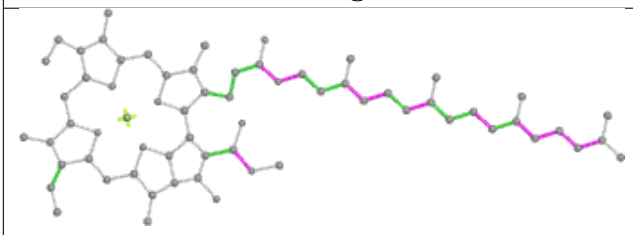
Ligand CLA c 509



Bond lengths



Bond angles



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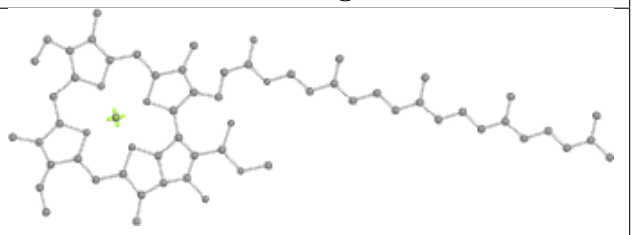
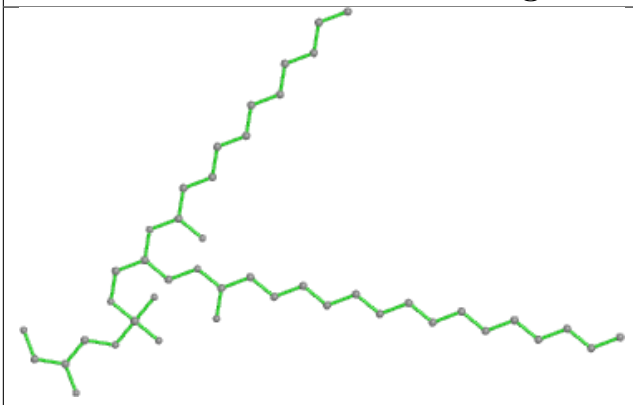
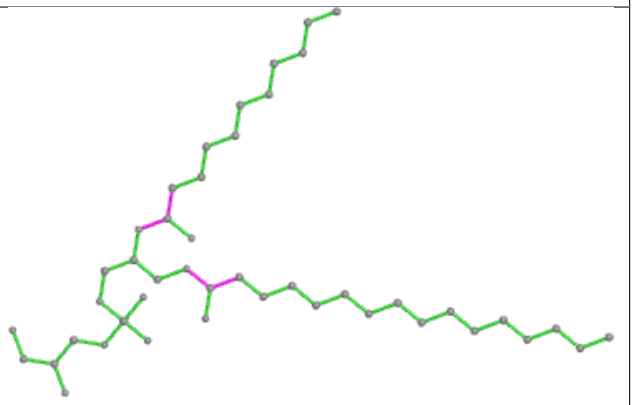


Rings

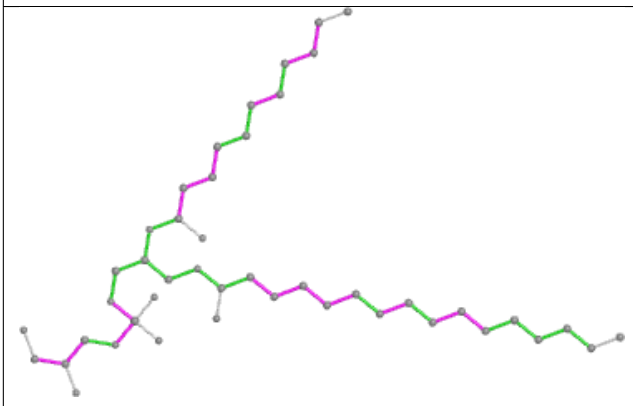
Ligand LHG D 408



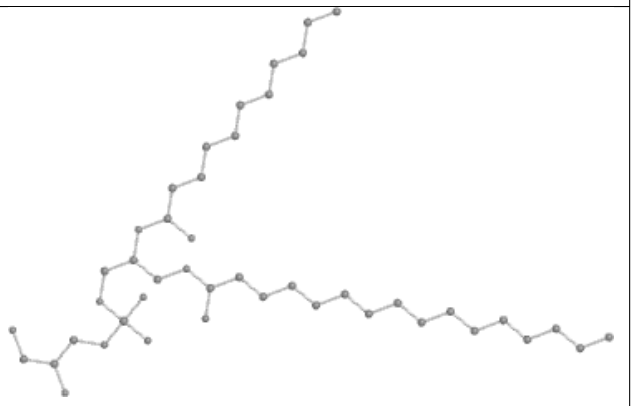
Bond lengths



Bond angles

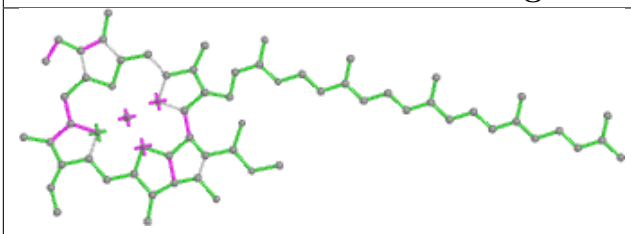


Torsions



Rings

Ligand CLA B 616



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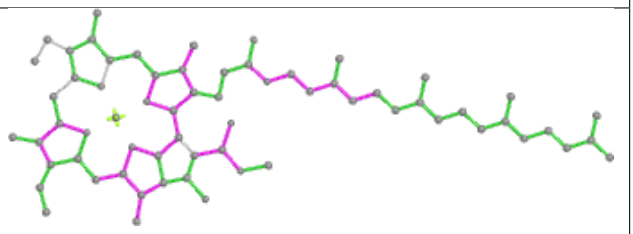

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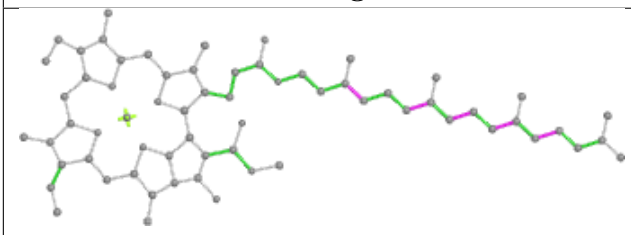

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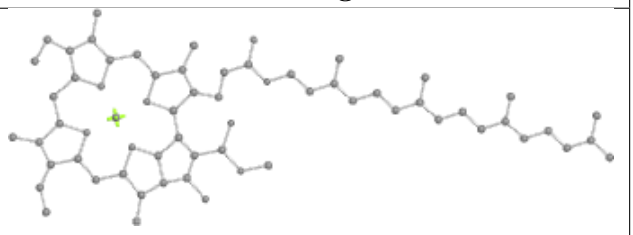
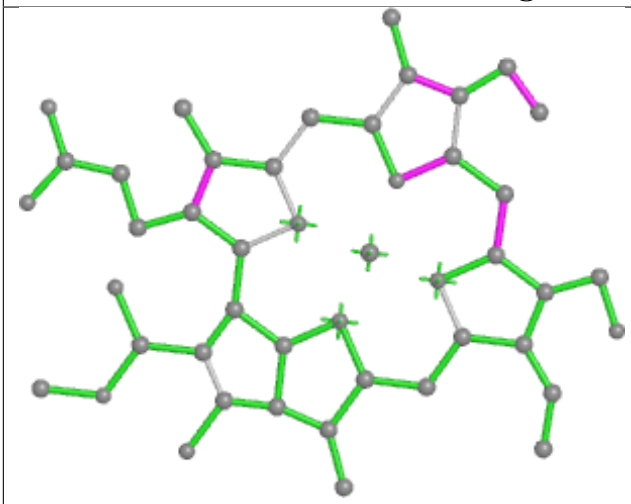


Rings

Ligand CHL S1 601



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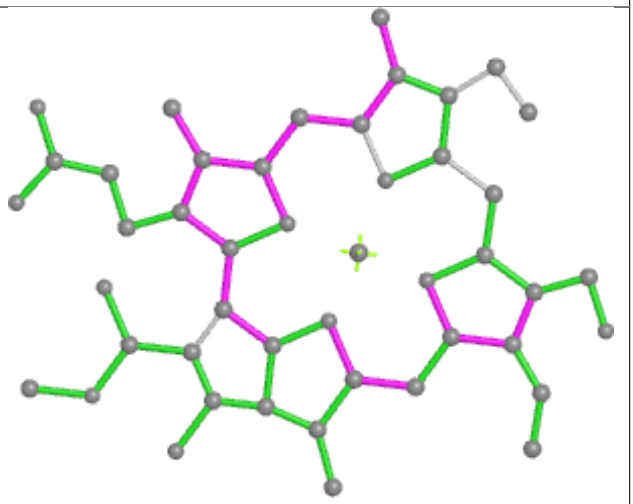
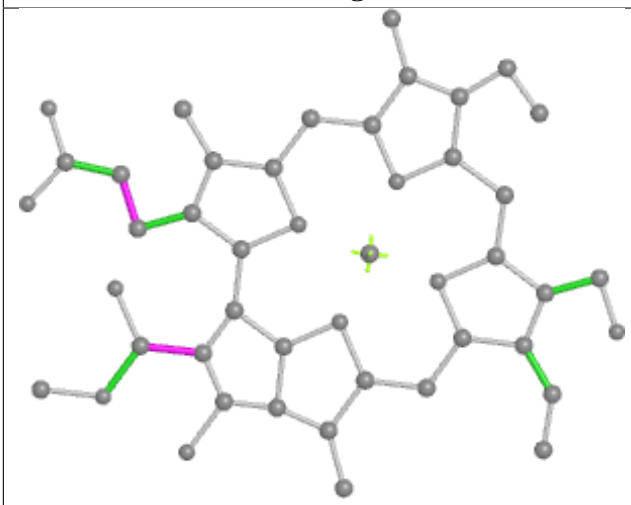


Bond angles



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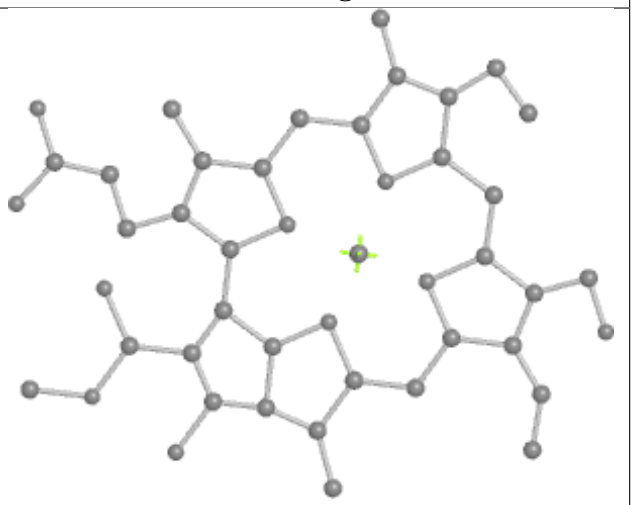
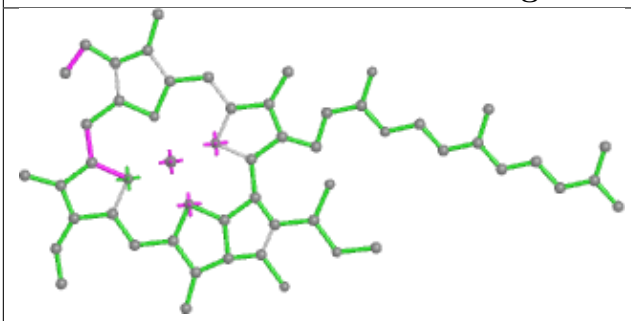


Rings

Ligand CLA s1 604



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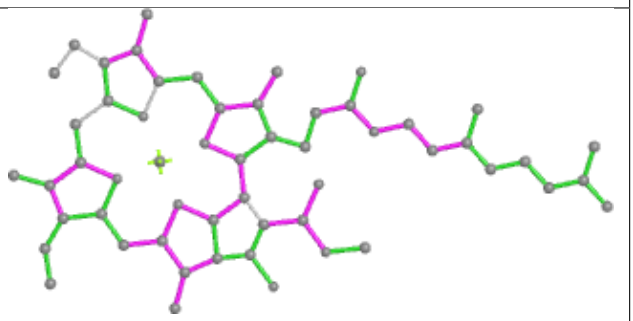

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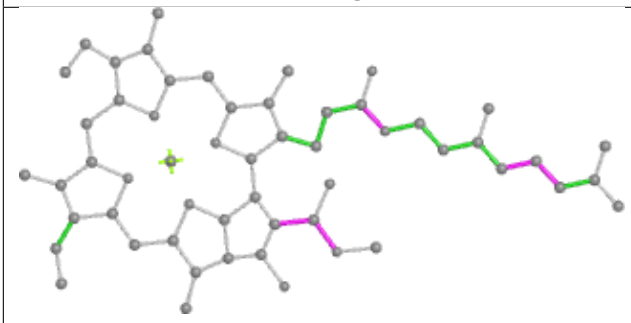

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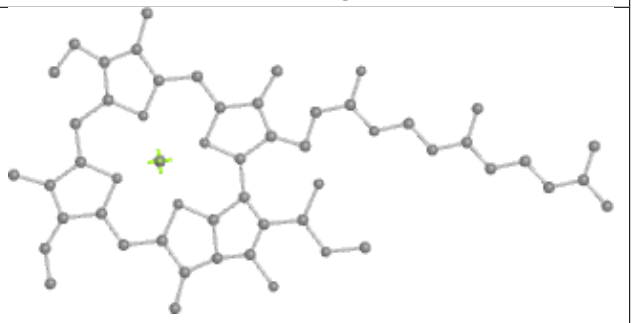
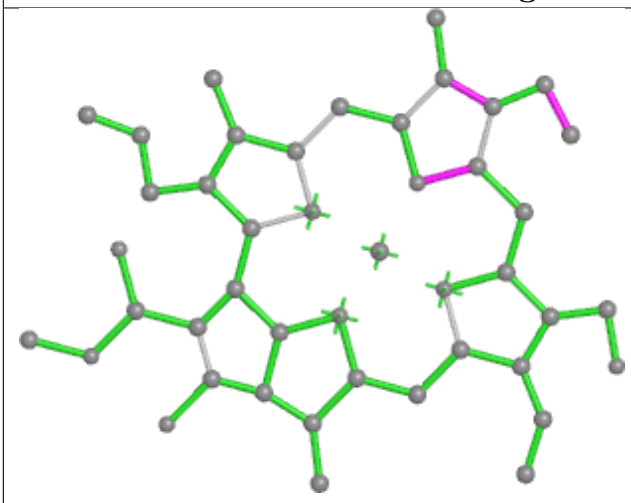


Rings

Ligand CHL g1 608



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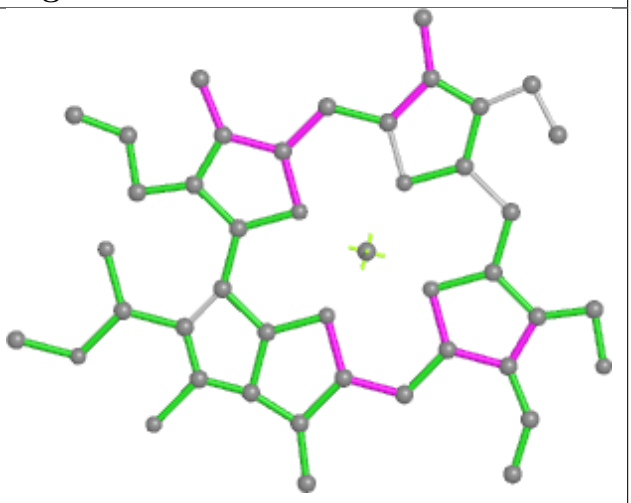

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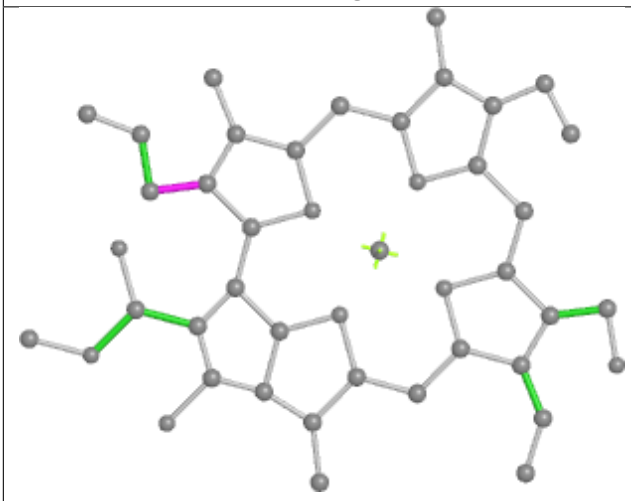

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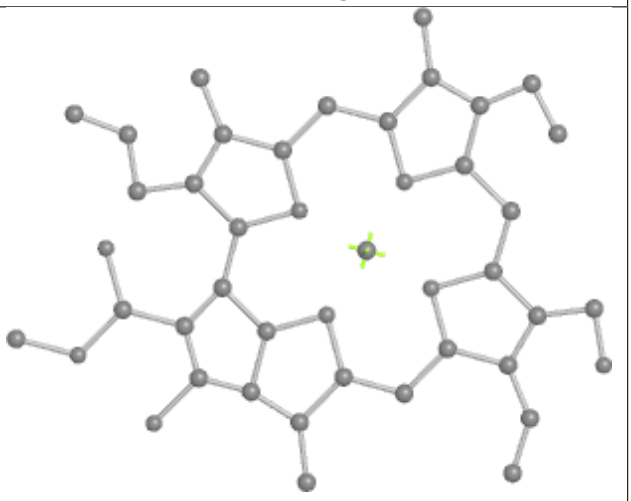
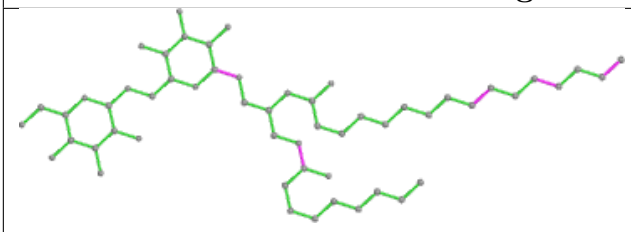


Rings

Ligand DGD c1 518



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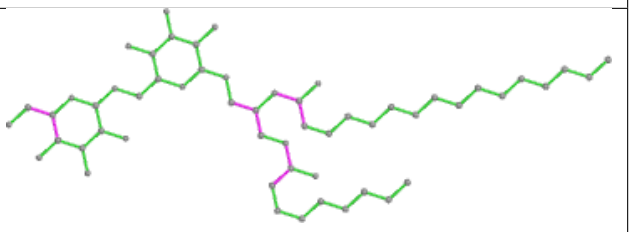
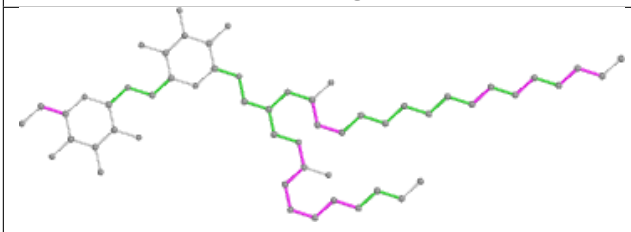


Bond angles



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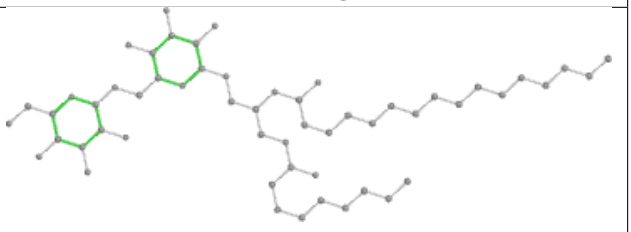
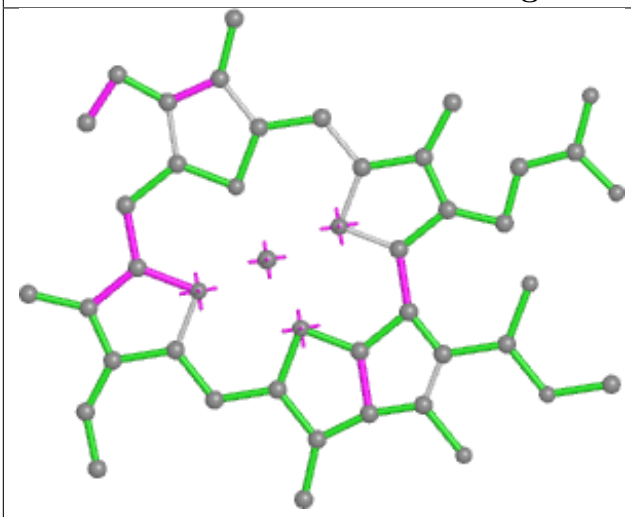


Rings

Ligand CLA s1 612



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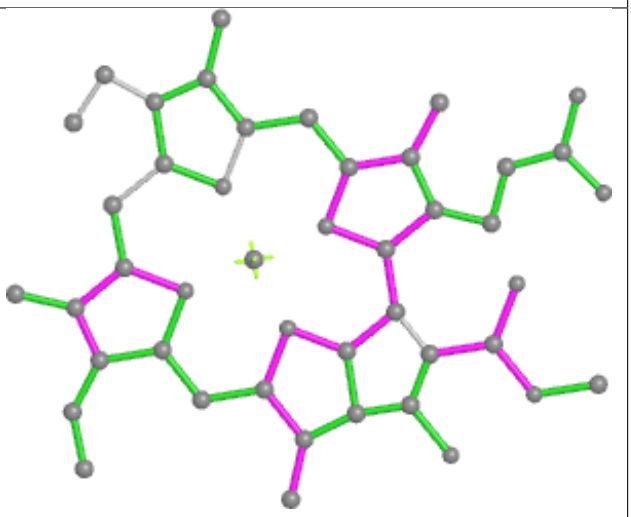

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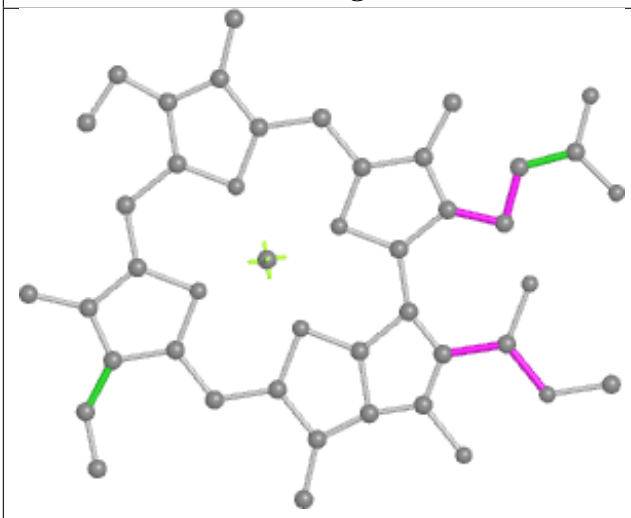

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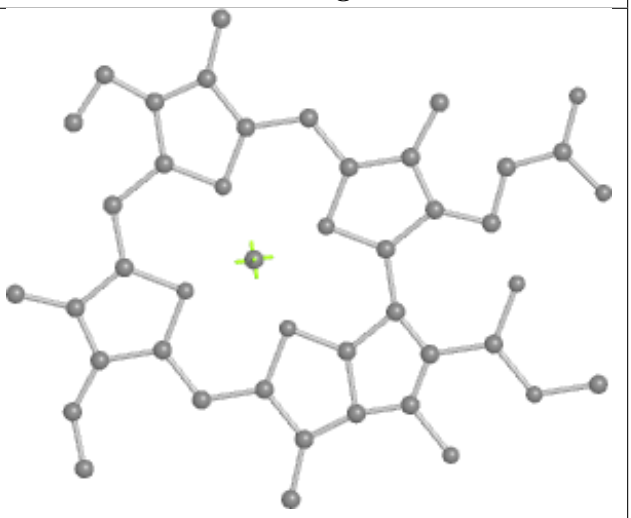
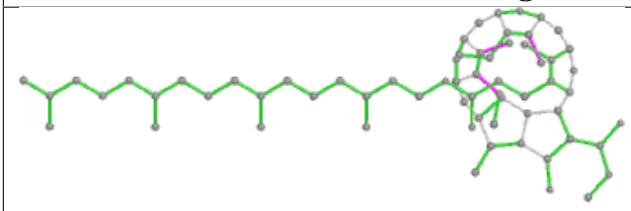


Rings

Ligand PHO a1 409



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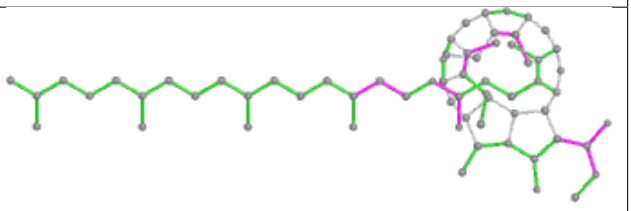

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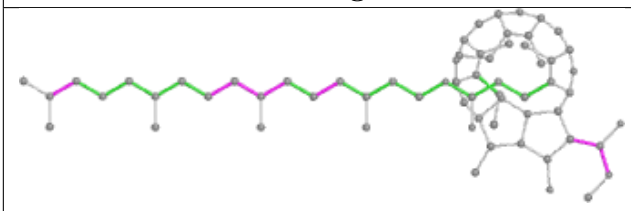

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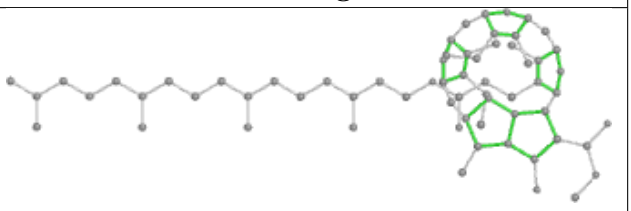
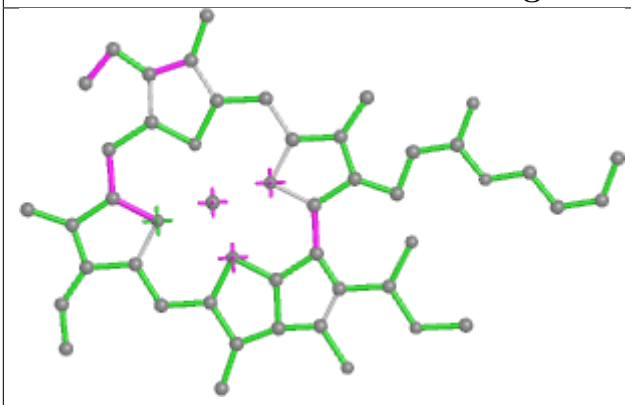
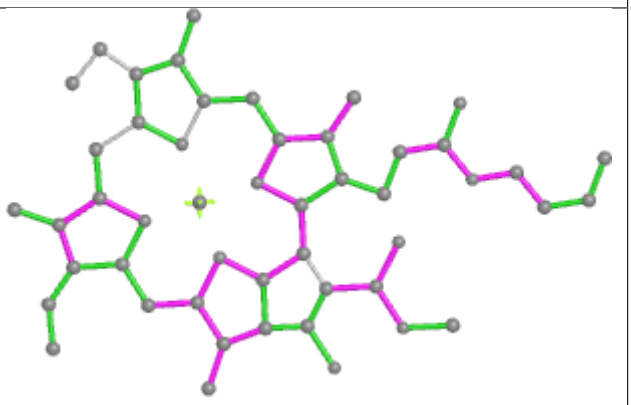


Rings

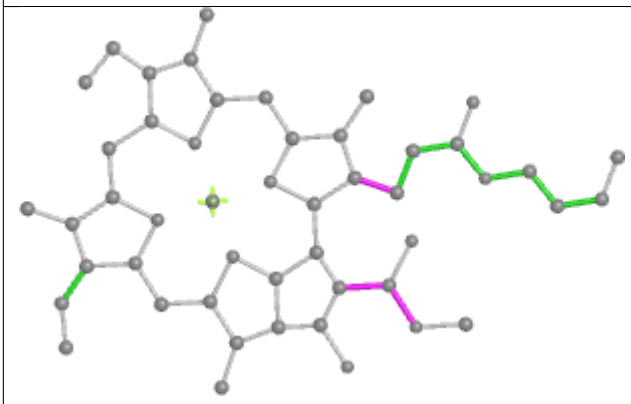
Ligand CLA N 614



Bond lengths



Bond angles



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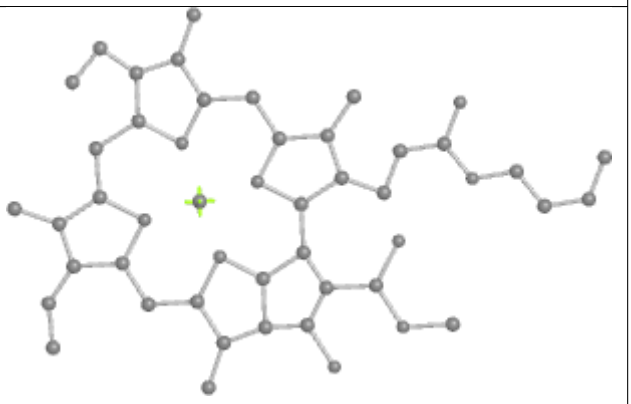
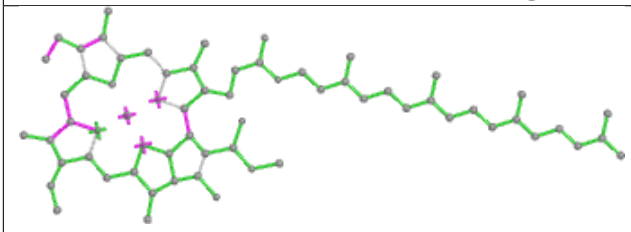


Rings

Ligand CLA G 603



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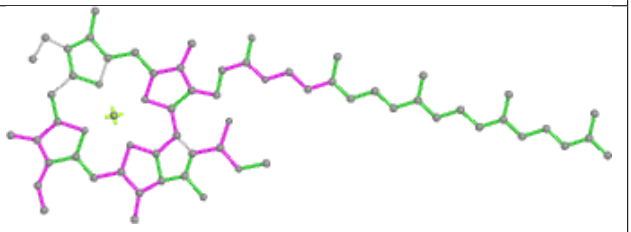

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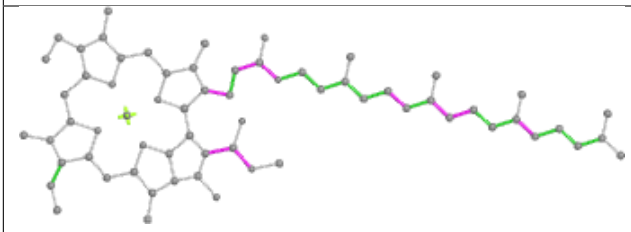

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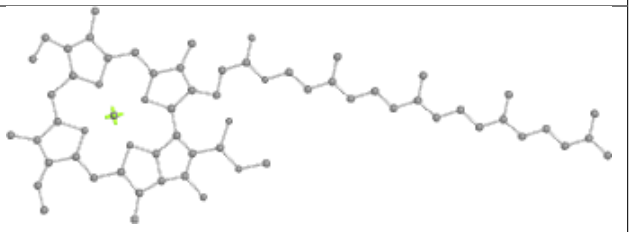
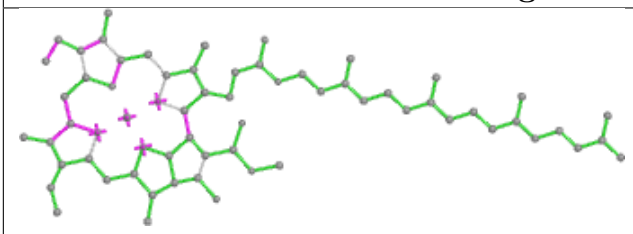


Rings

Ligand CLA b1 602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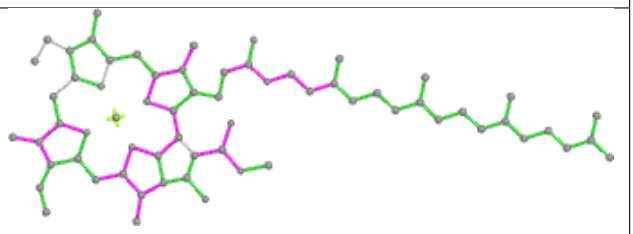
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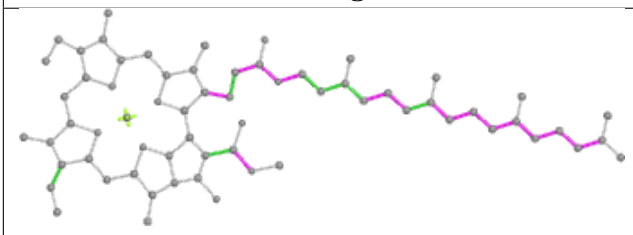
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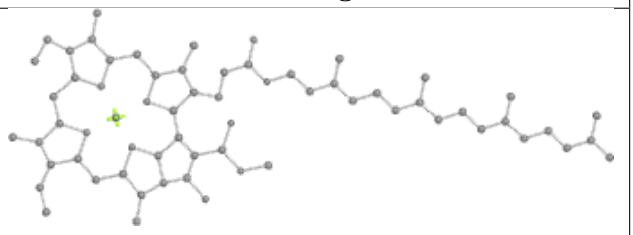
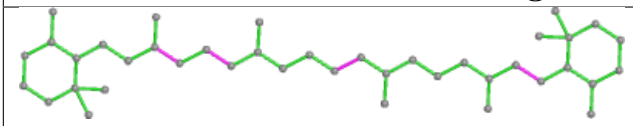

Rings

Ligand BCR a 411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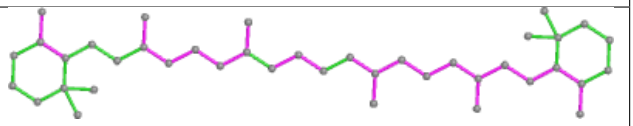
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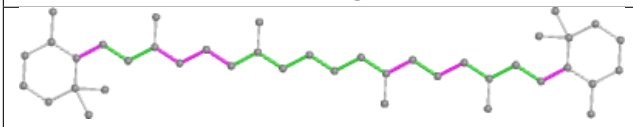
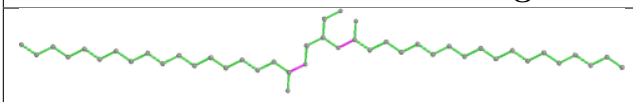

Torsions


Rings

Ligand DGA b1 625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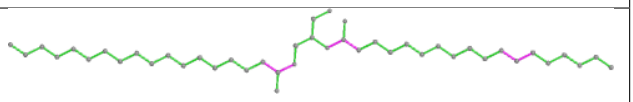
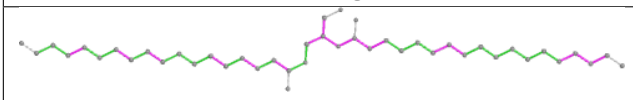
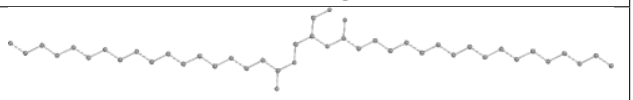
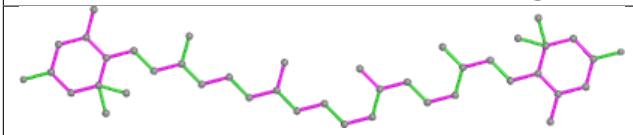

Bond angles


Torsions


Rings

Ligand C7Z B 620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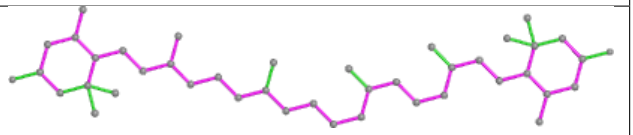
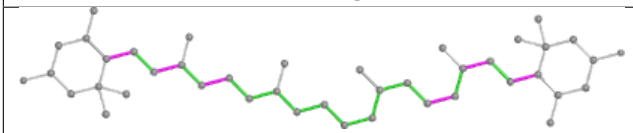

Bond angles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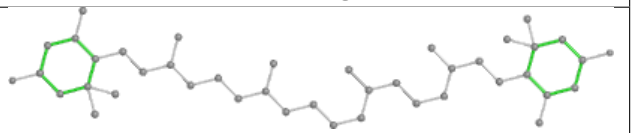
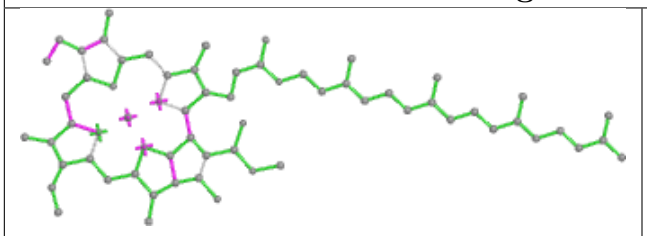

Rings

Ligand CLA C1 501



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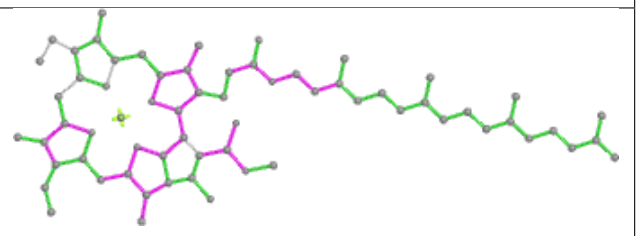
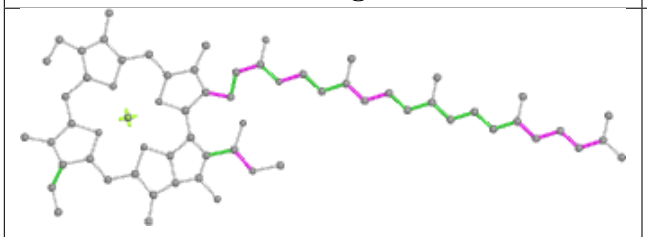


Bond angles



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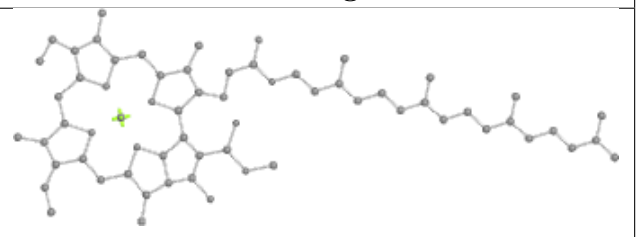
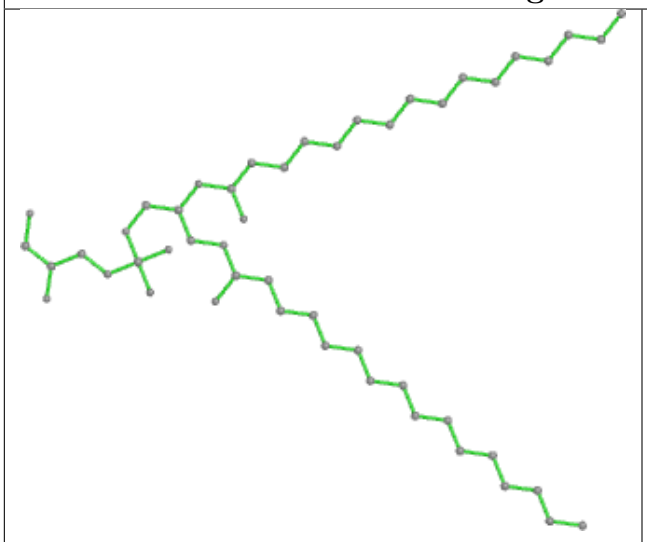
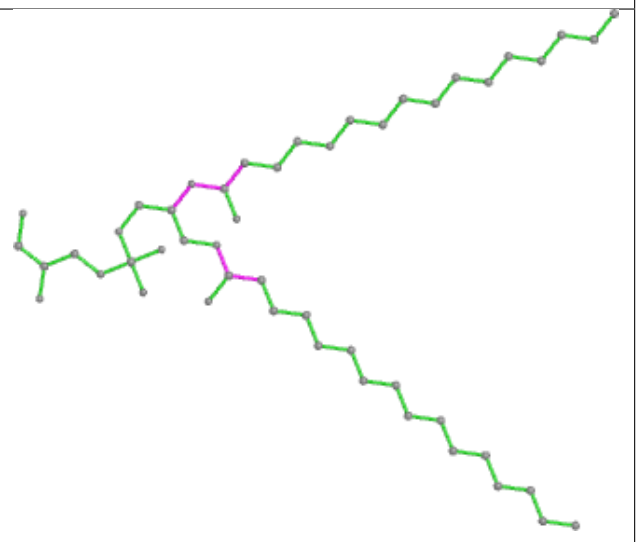


Rings

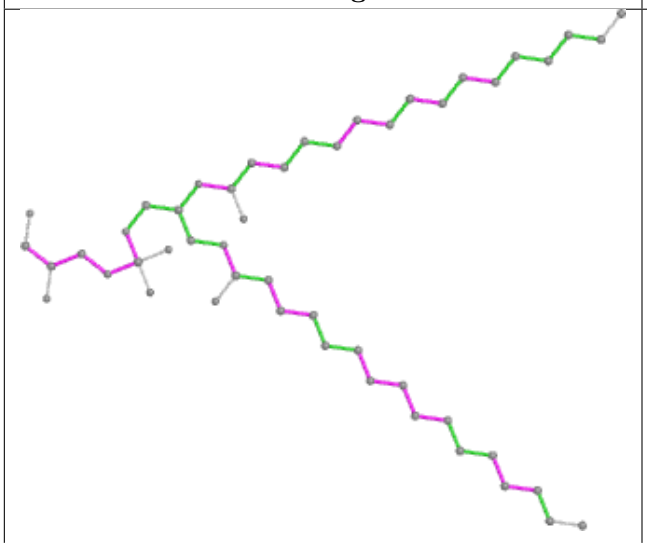
Ligand LHG d 409



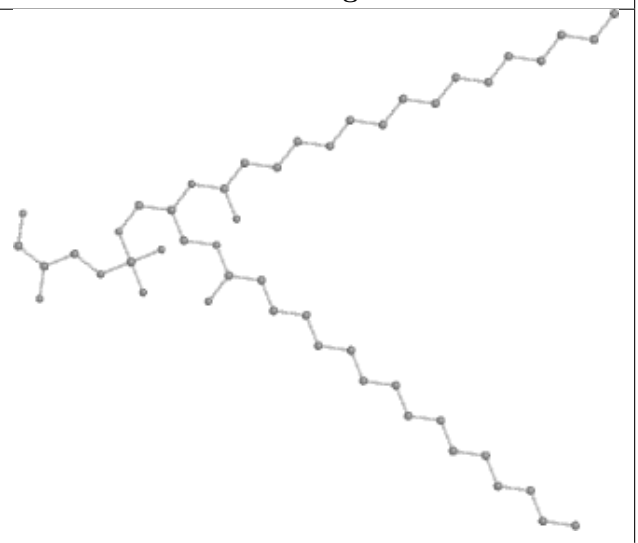
Bond lengths



Bond angles

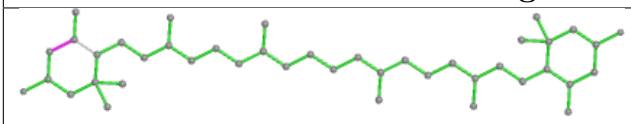


Torsions



Rings

Ligand LUT n1 620



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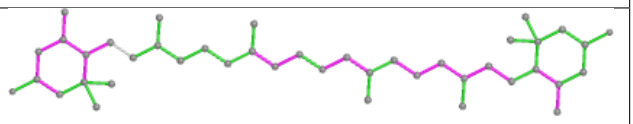

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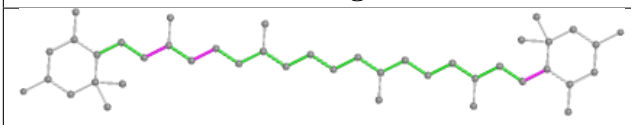

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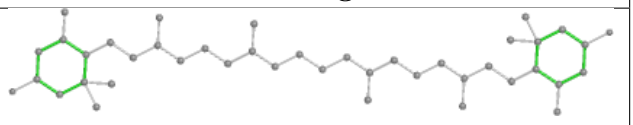
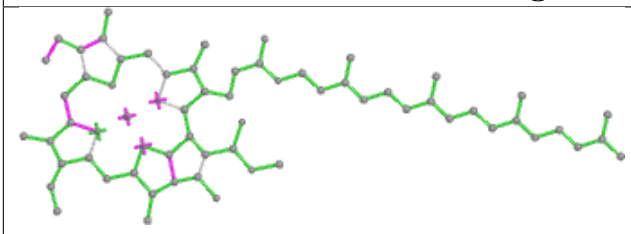


Rings

Ligand CLA c 510



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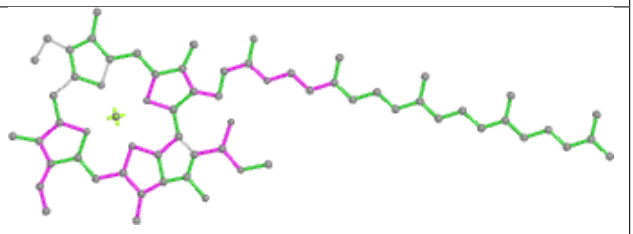
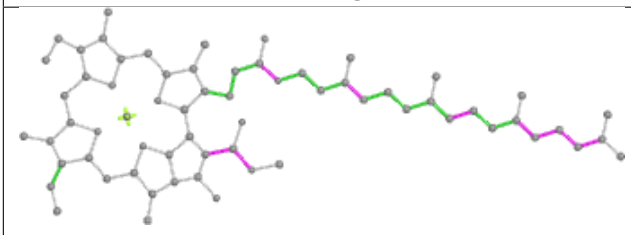


Bond angles



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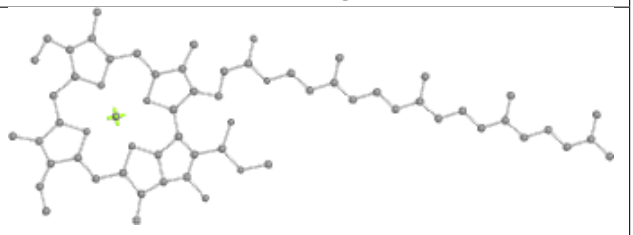
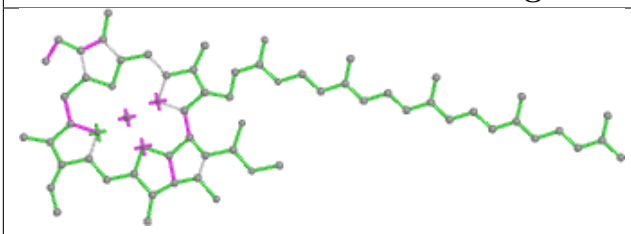


Rings

Ligand CLA B 611



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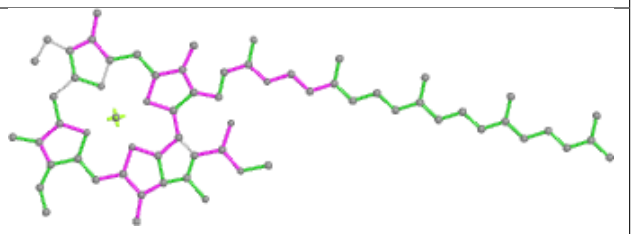

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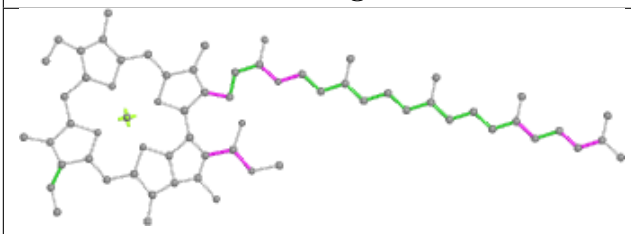

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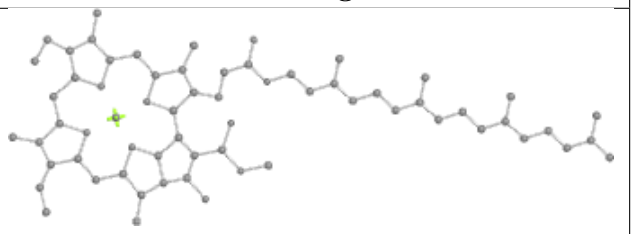
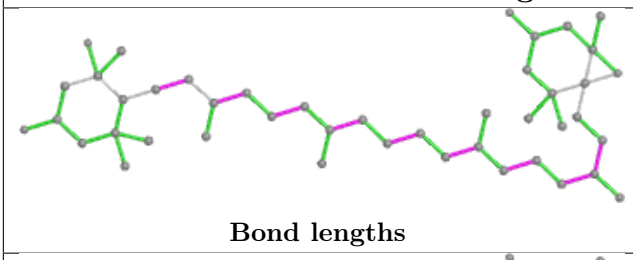


Rings

Ligand NEX S1 623



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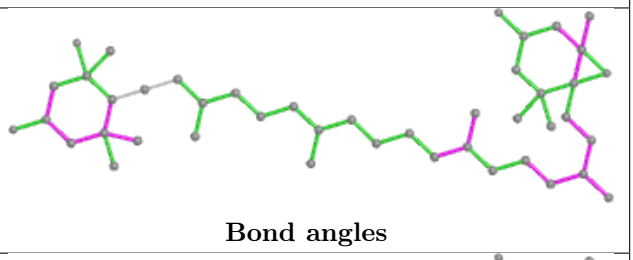
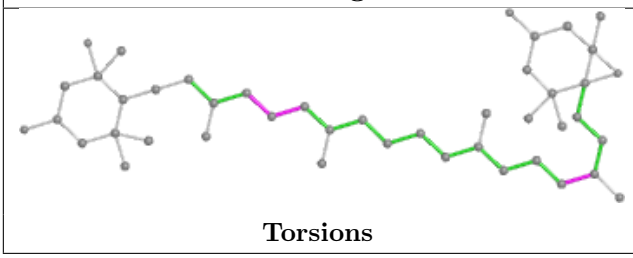


Bond angles



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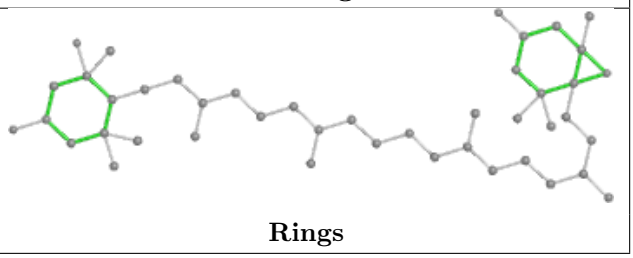
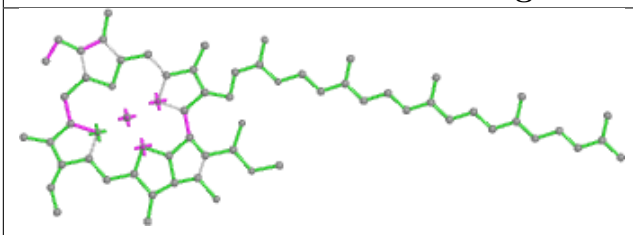


Rings

Ligand CLA B1 611



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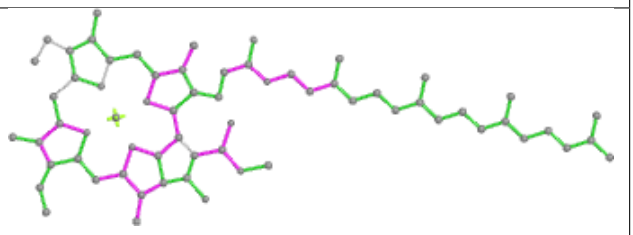
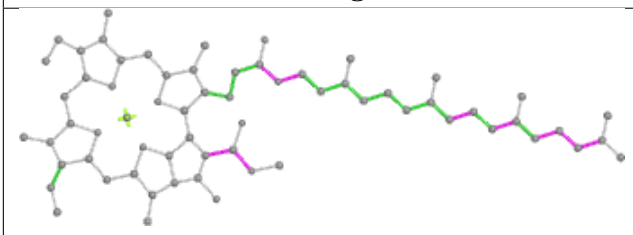


Bond angles



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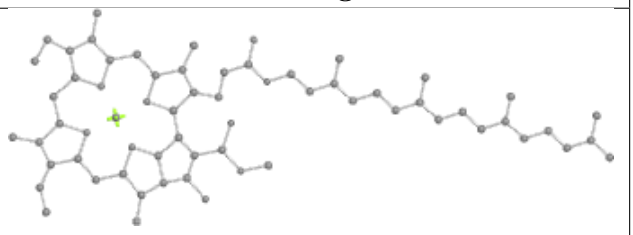
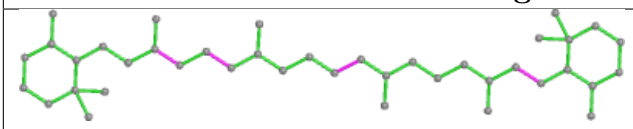


Rings

Ligand BCR B1 619



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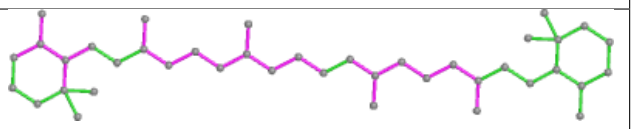

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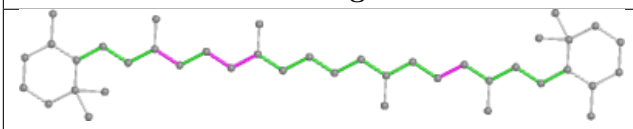

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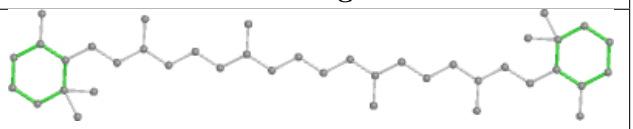
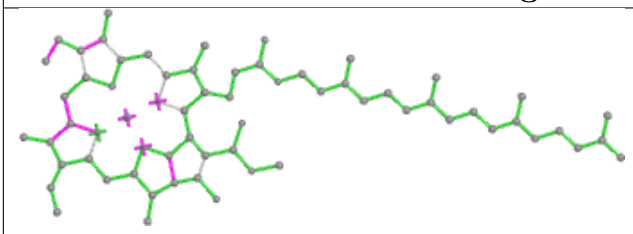


Rings

Ligand CLA c1 510



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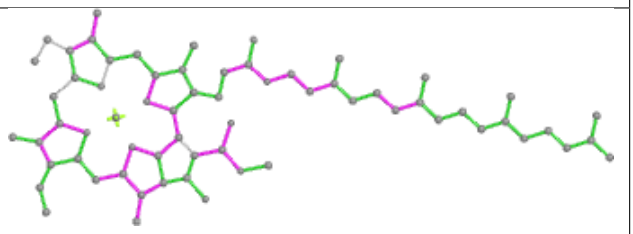
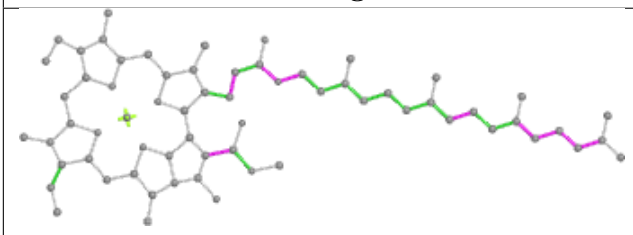


Bond angles



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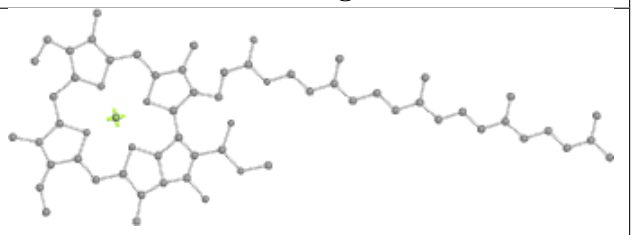
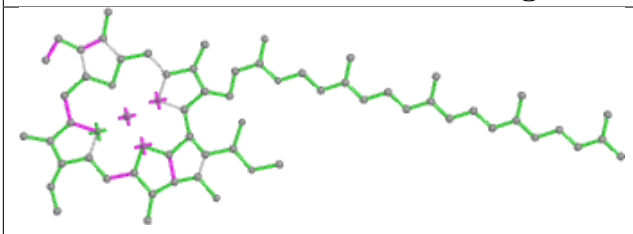


Rings

Ligand CLA c1 502



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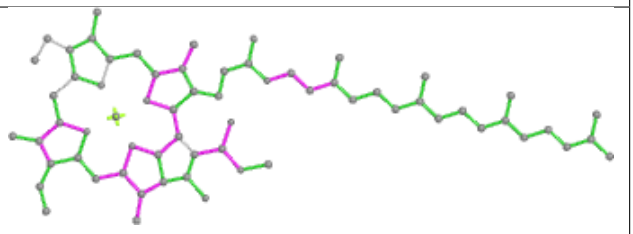
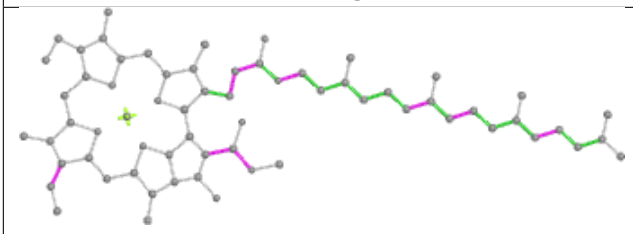


Bond angles



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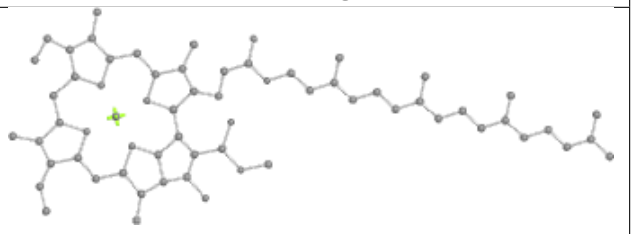
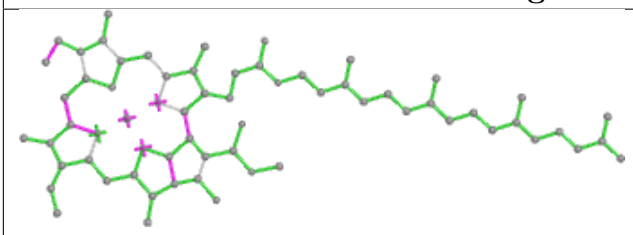


Rings

Ligand CLA y 604



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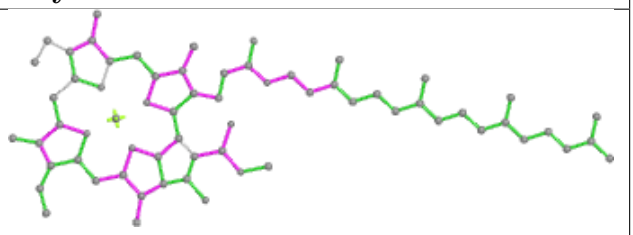

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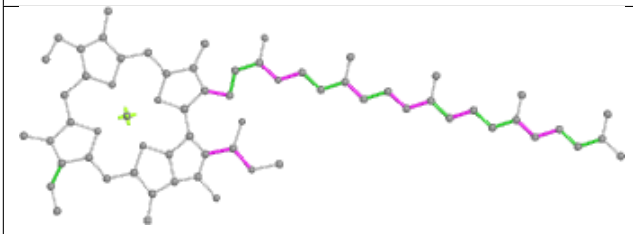

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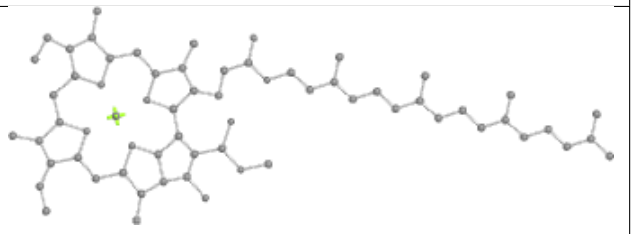
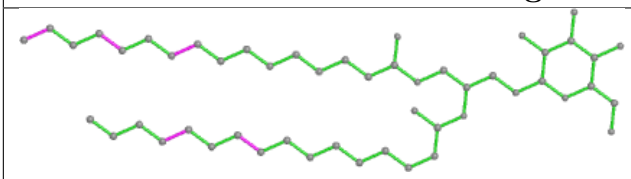


Rings

Ligand LMG c 521



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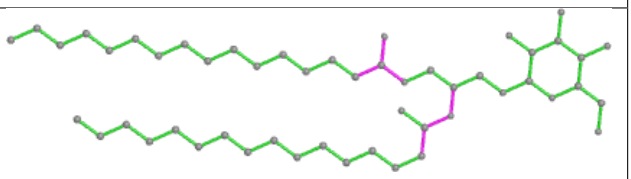
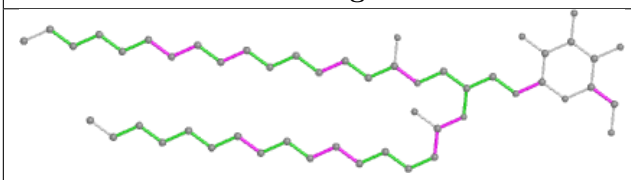


Bond angles



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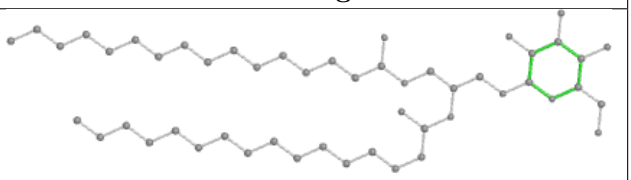
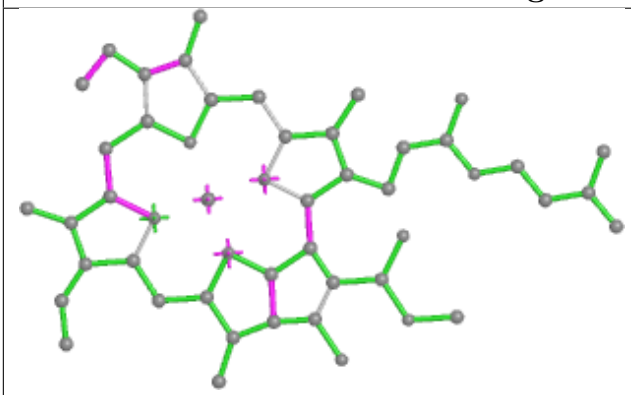


Rings

Ligand CLA S 617



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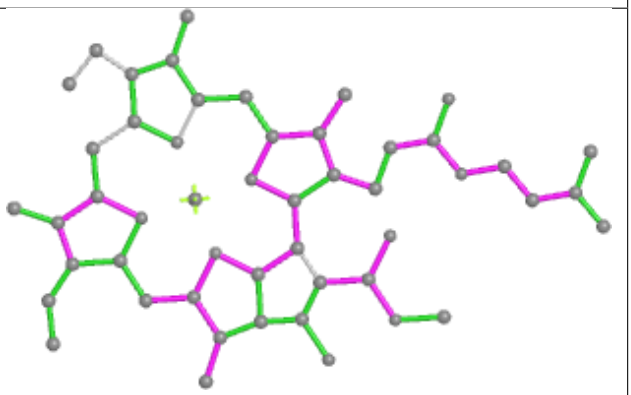

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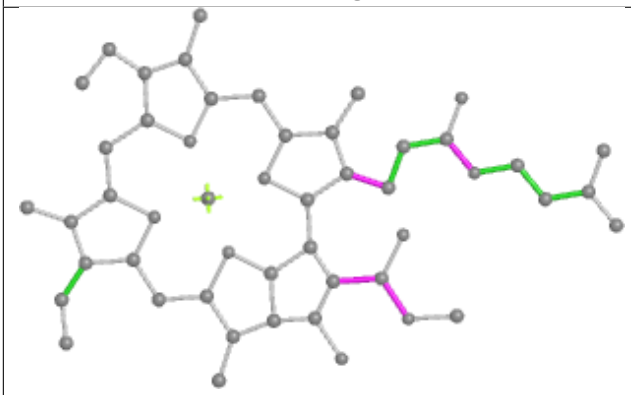

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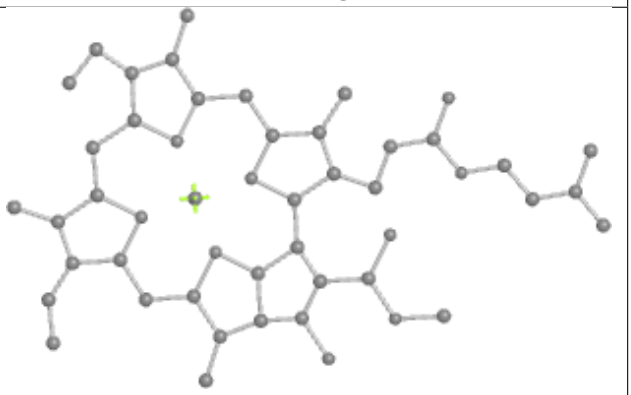
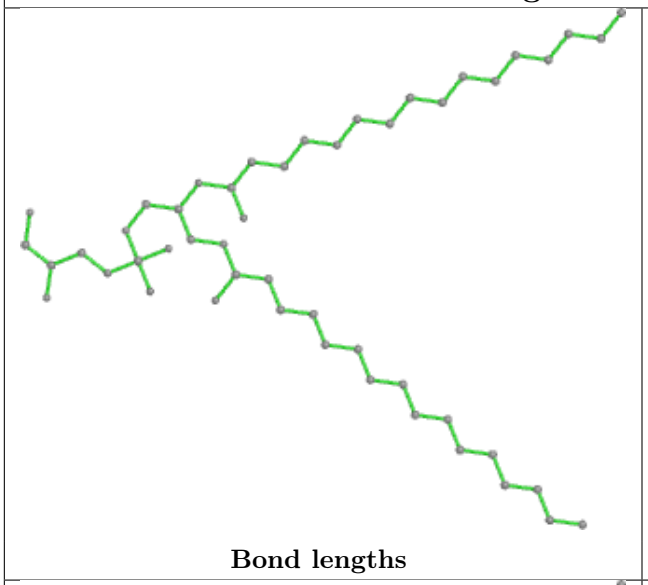


Rings

Ligand LHG Y 624



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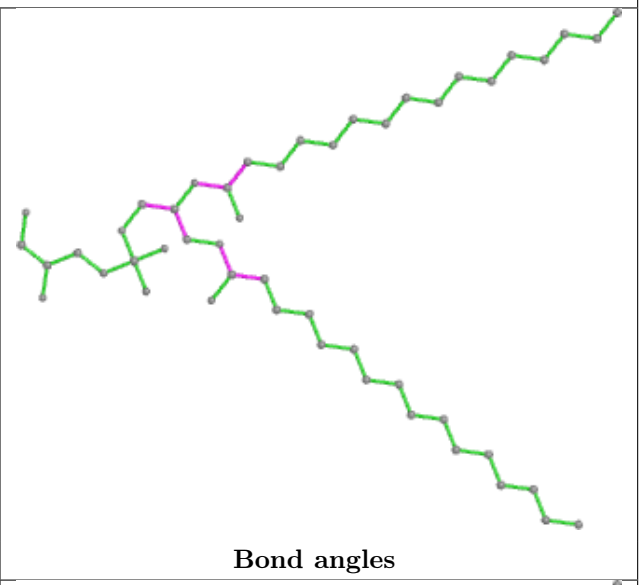
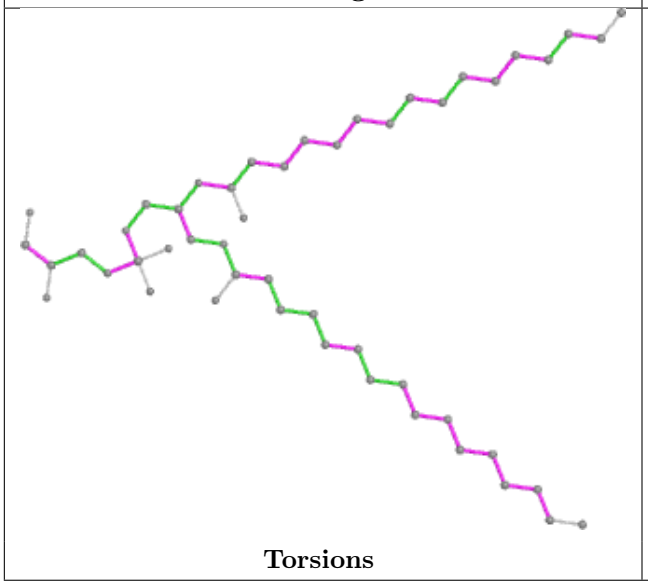


Bond angles



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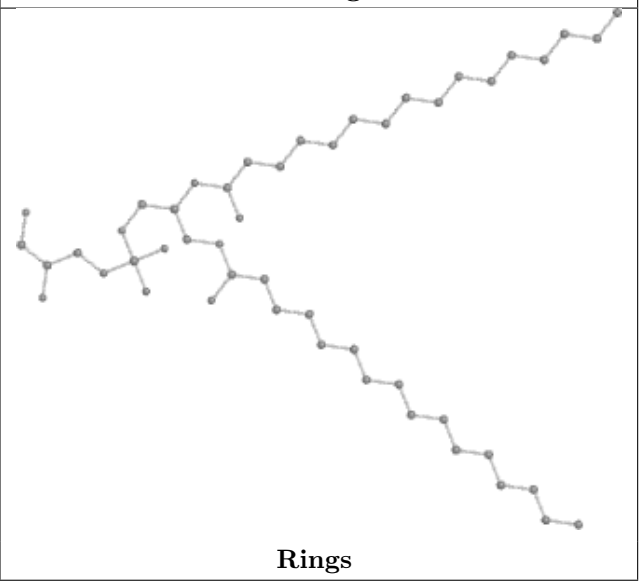
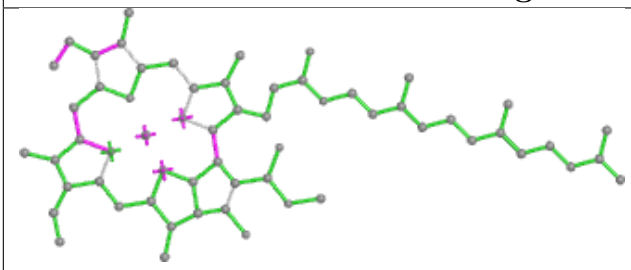


Rings

Ligand CLA R1 612



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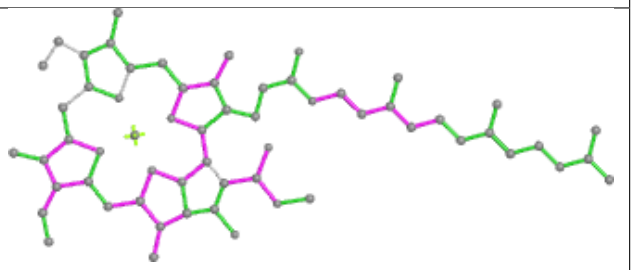
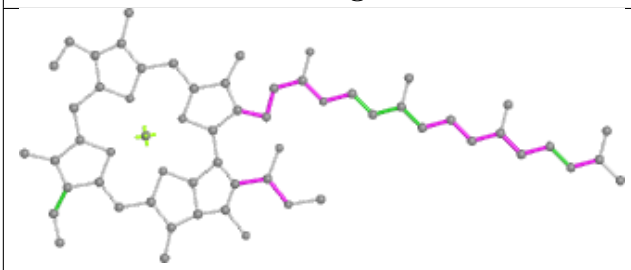


Bond angles



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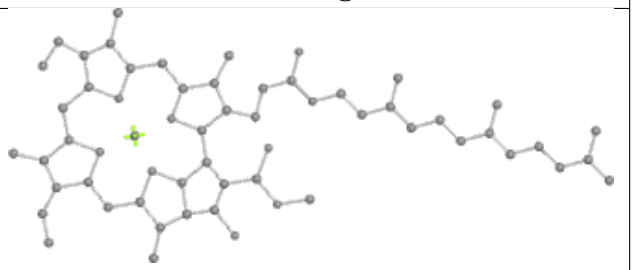
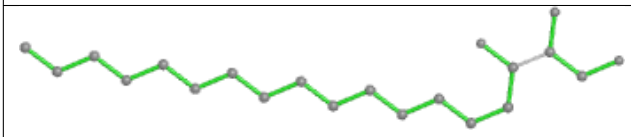
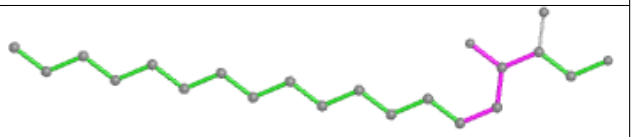


Rings

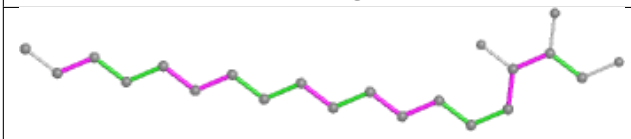
Ligand SPH A 414



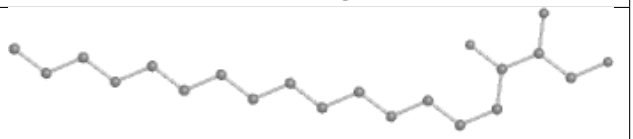
Bond lengths



Bond angles

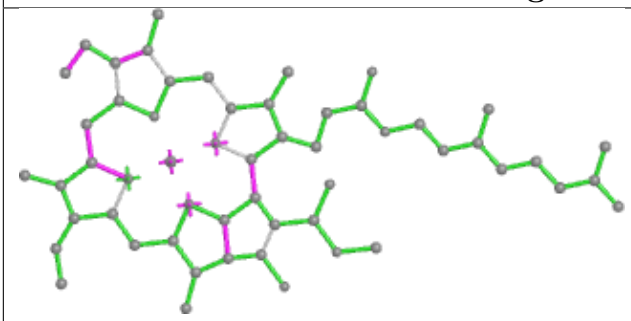


Torsions

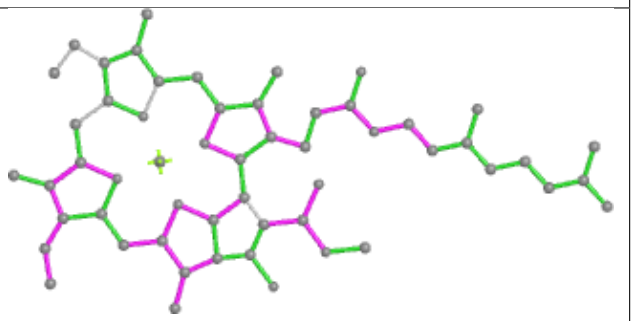


Rings

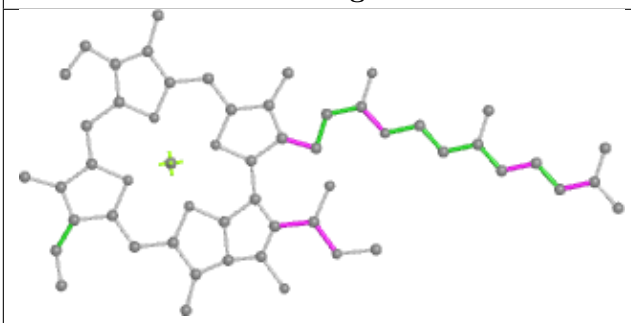
Ligand CLA S 604



Bond lengths



Bond angles



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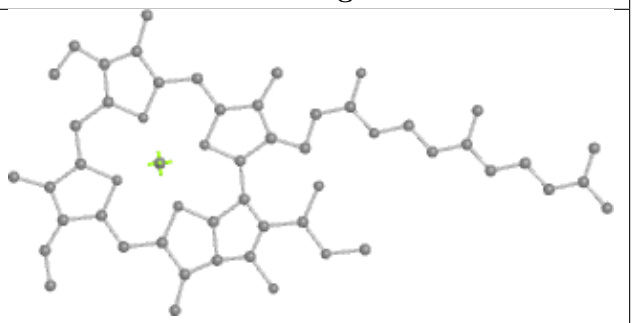
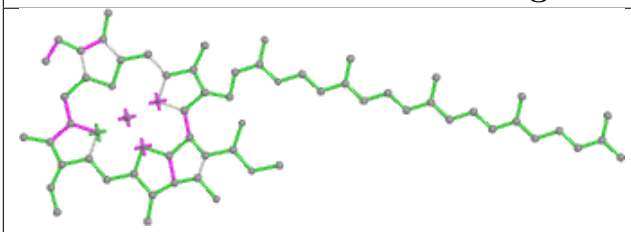


Rings

Ligand CLA s 610



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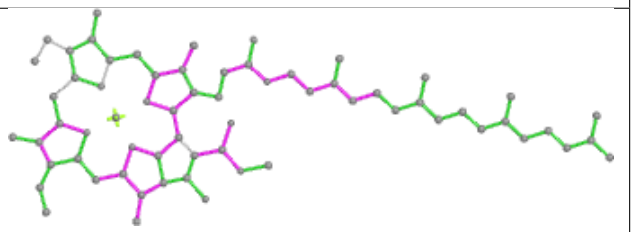
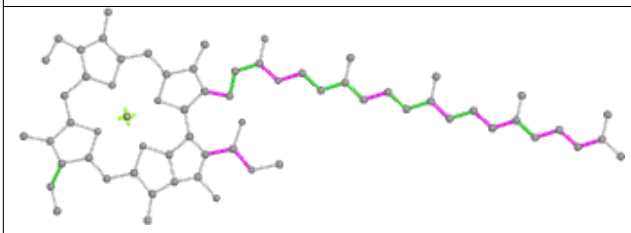
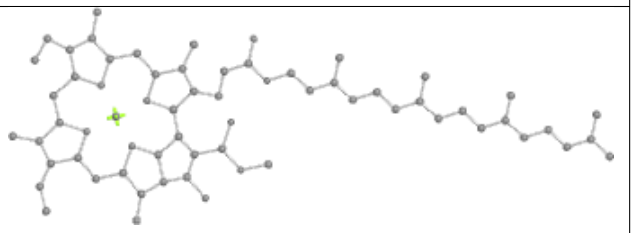


Bond angles

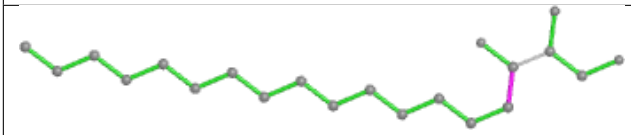


Torsions



Rings

Ligand SPH A1 414



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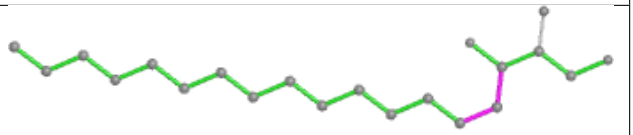
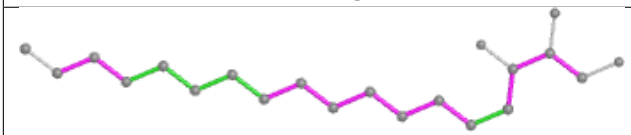


Bond angles

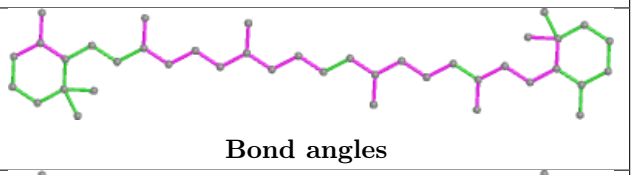


Torsions

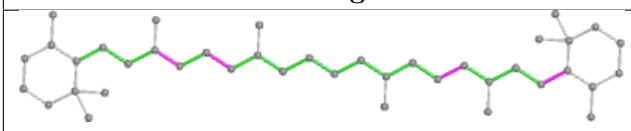
Rings

Ligand BCR b 619

Bond lengths



Bond angles



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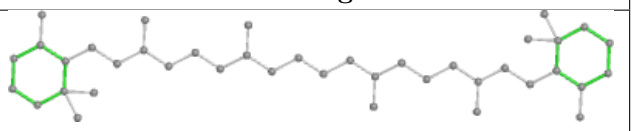
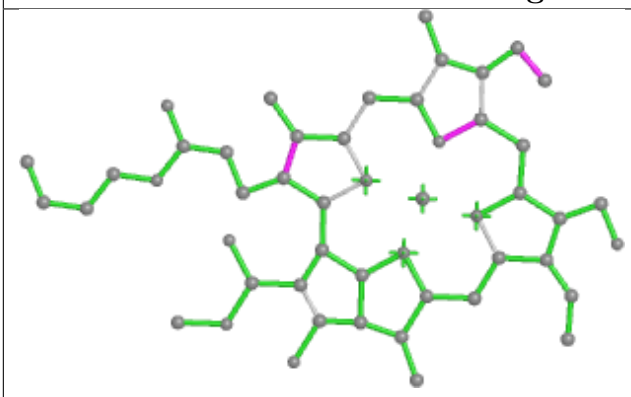


Rings

Ligand CHL n 608



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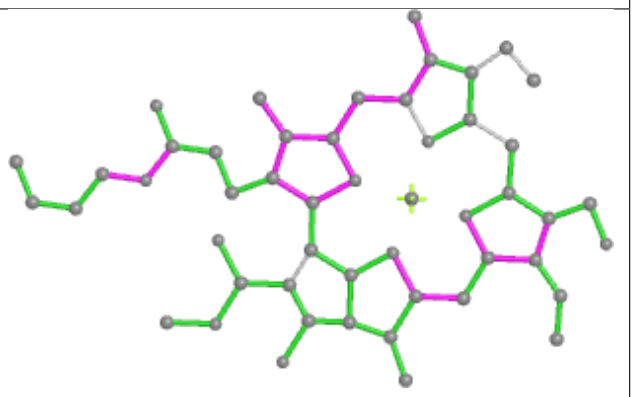
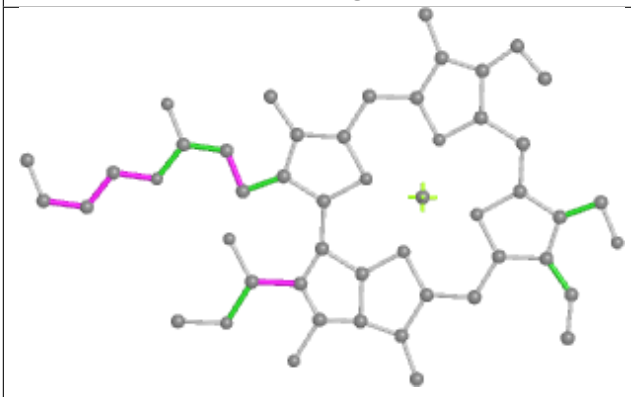


Bond angles



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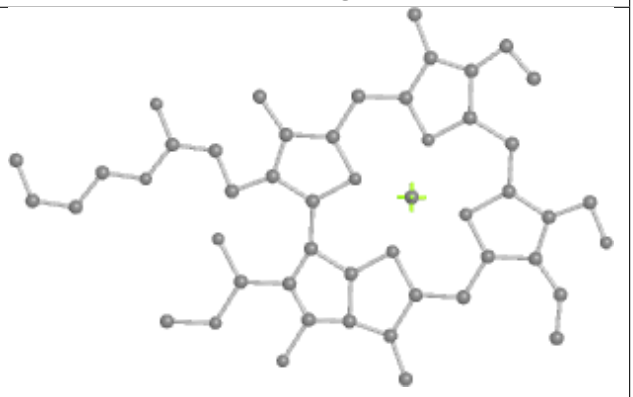
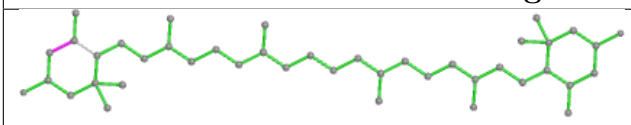


Rings

Ligand LUT Y 621



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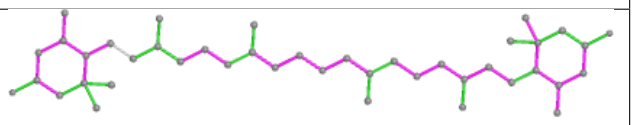
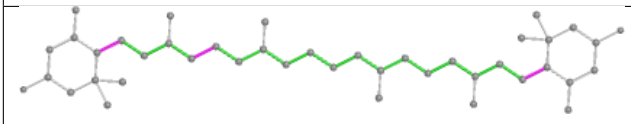


Bond angles



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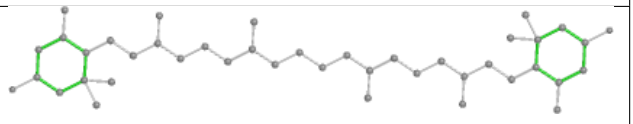
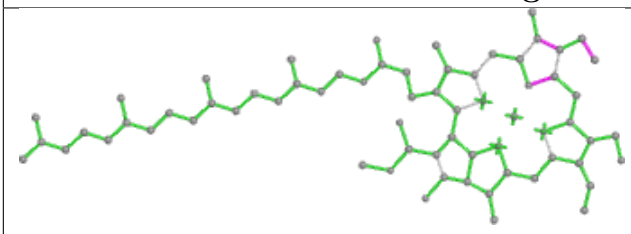


Rings

Ligand CHL G 601



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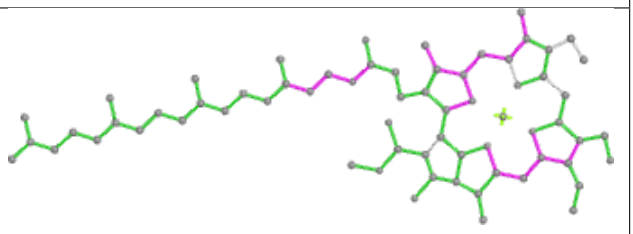

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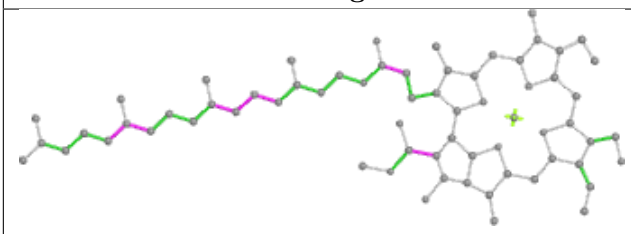

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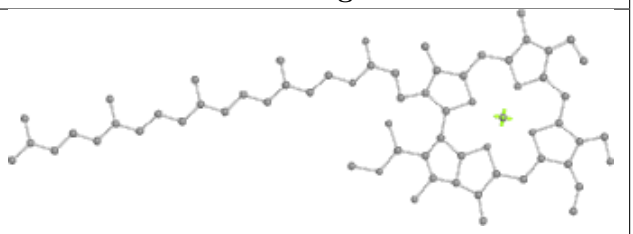
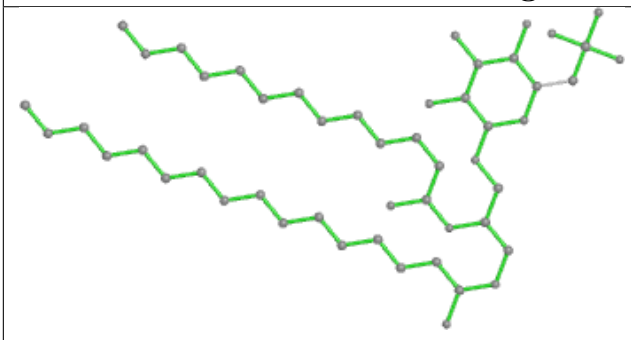


Rings

Ligand SQD a1 412



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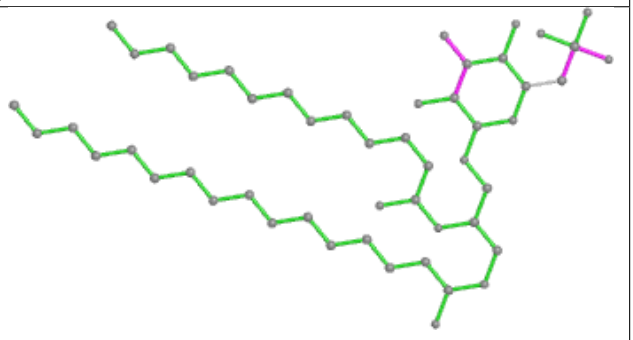
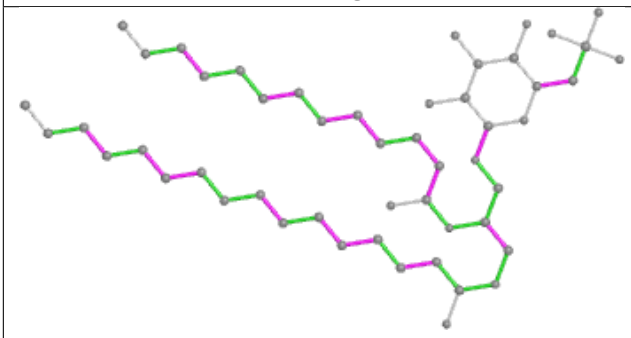


Bond angles



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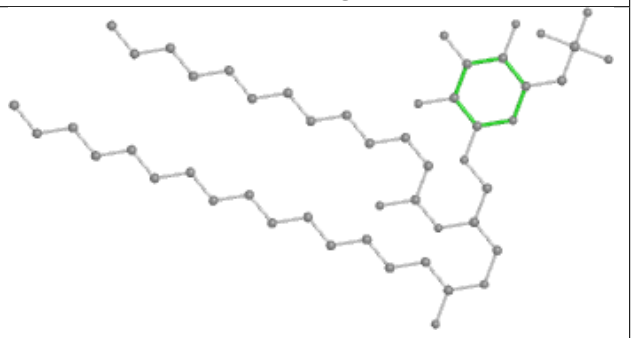
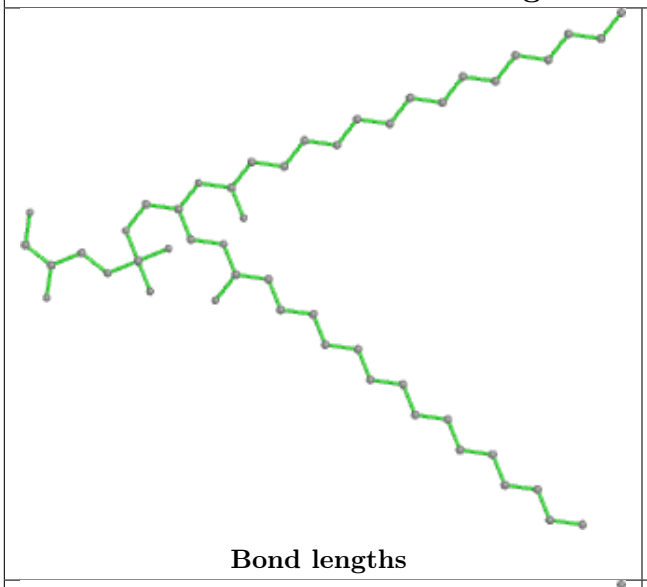


Rings

Ligand LHG D 409



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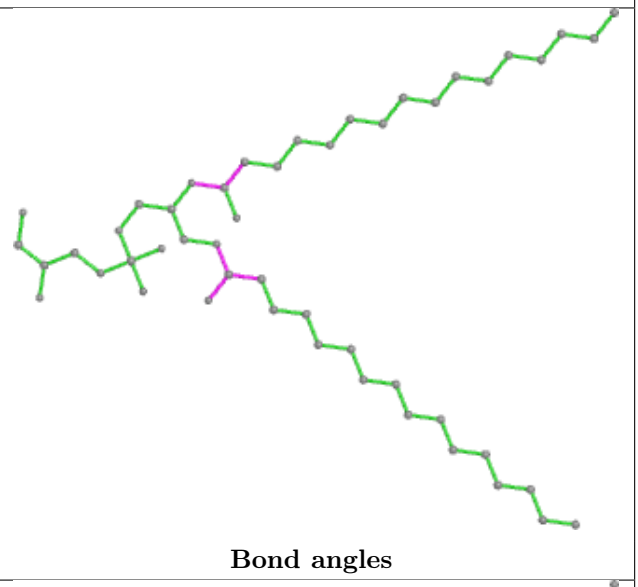
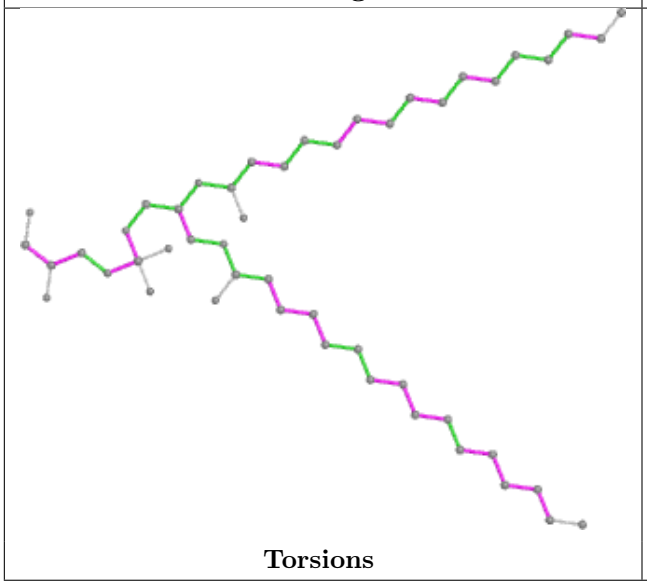


Bond angles



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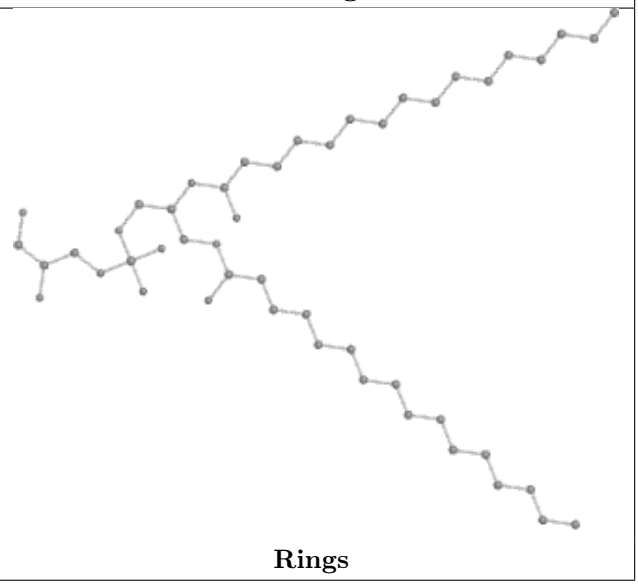
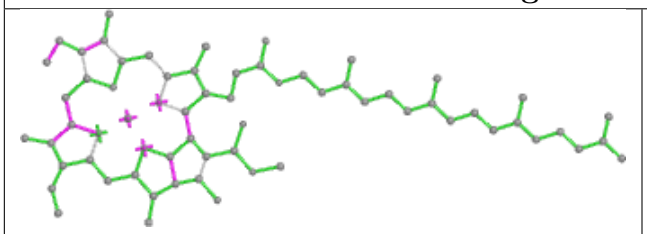


Rings

Ligand CLA c1 513



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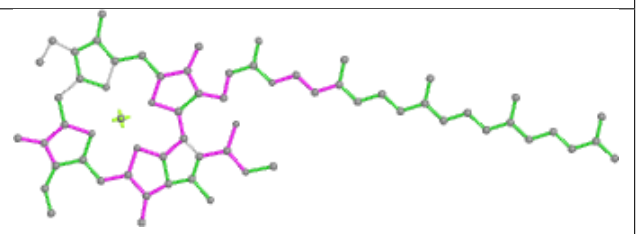
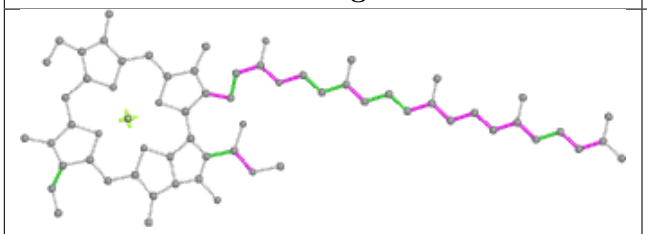


Bond angles



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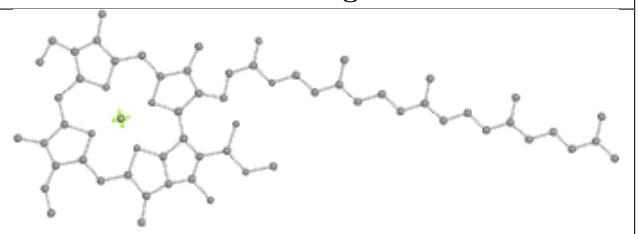
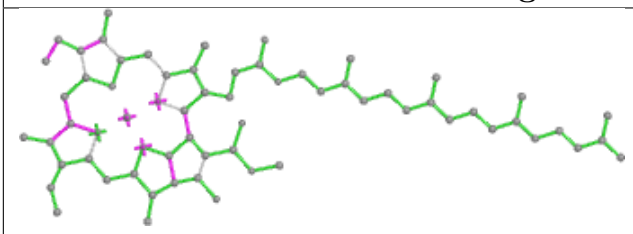


Rings

Ligand CLA y1 602



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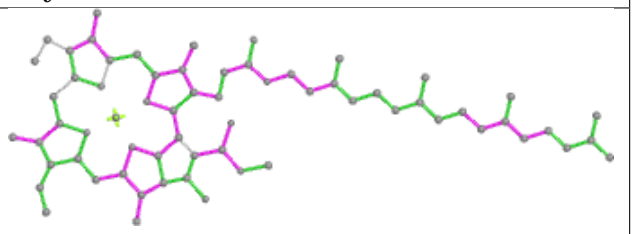

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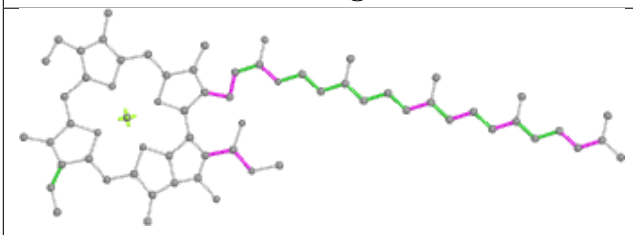

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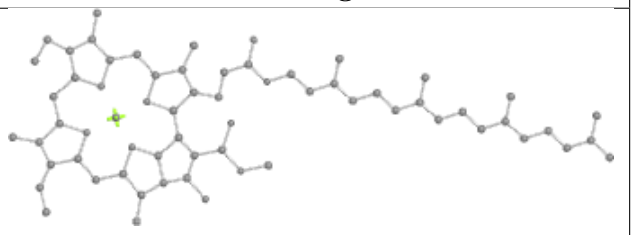
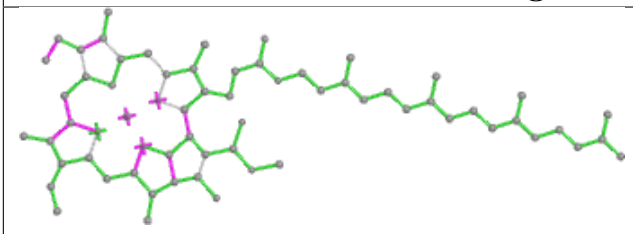


Rings

Ligand CLA b 609



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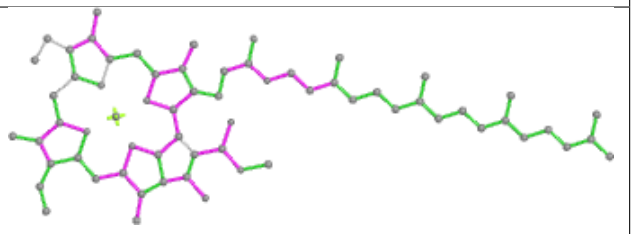
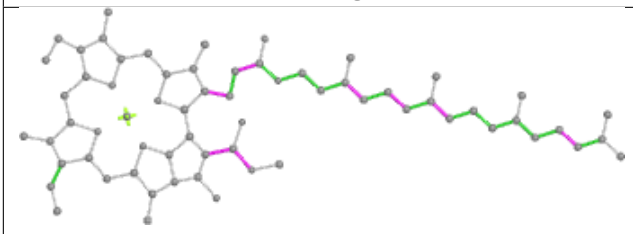


Bond angles



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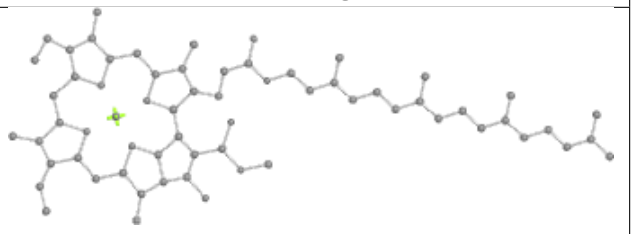
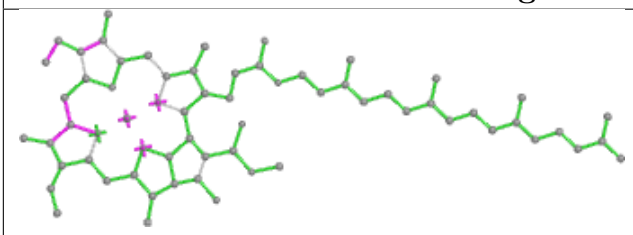
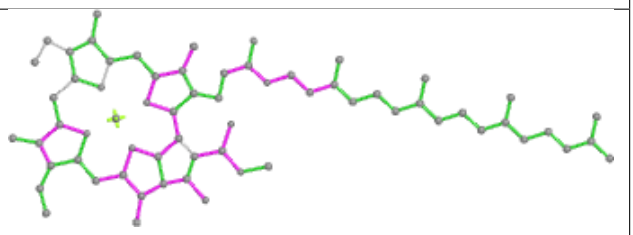


Rings

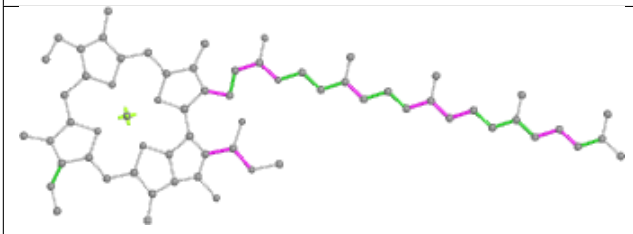
Ligand CLA b1 603



Bond lengths



Bond angles



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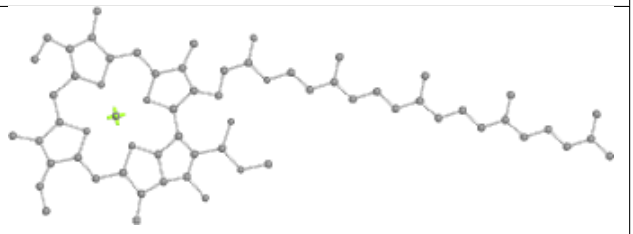
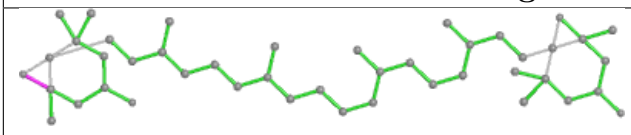
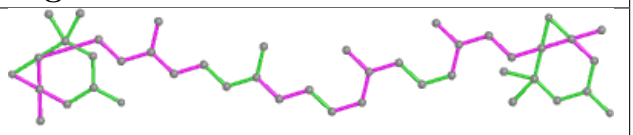
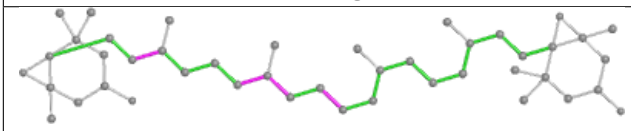
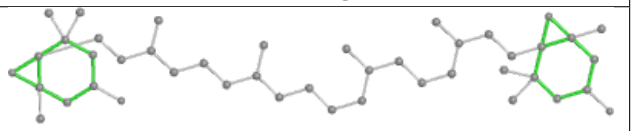


Rings

Ligand XAT g1 622	
 Bond lengths	 Bond angles
 Torsions	 Rings

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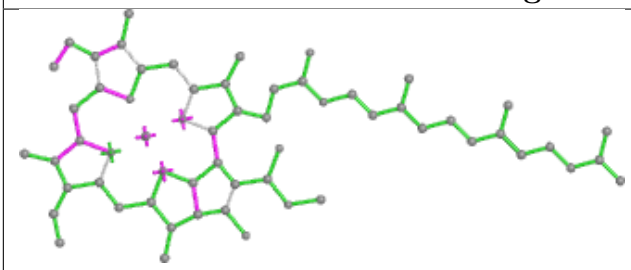
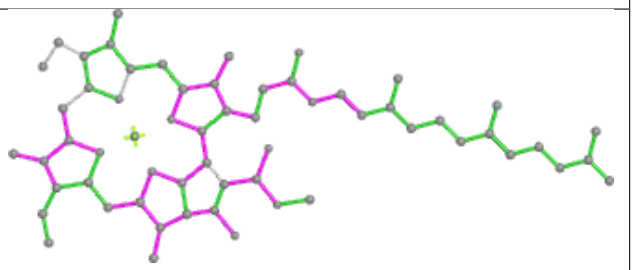
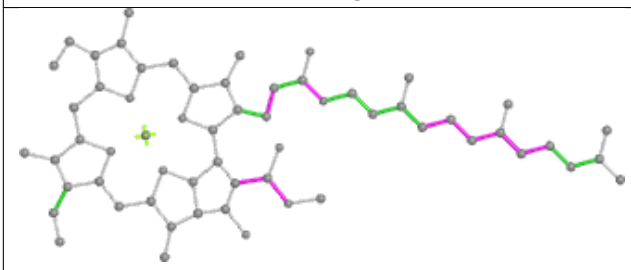
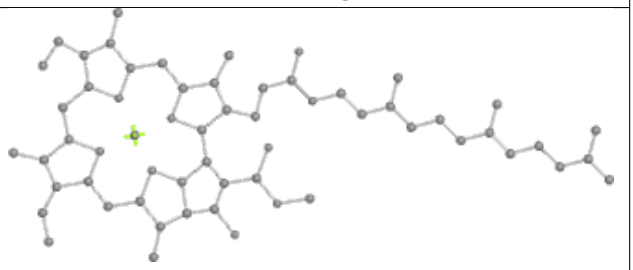
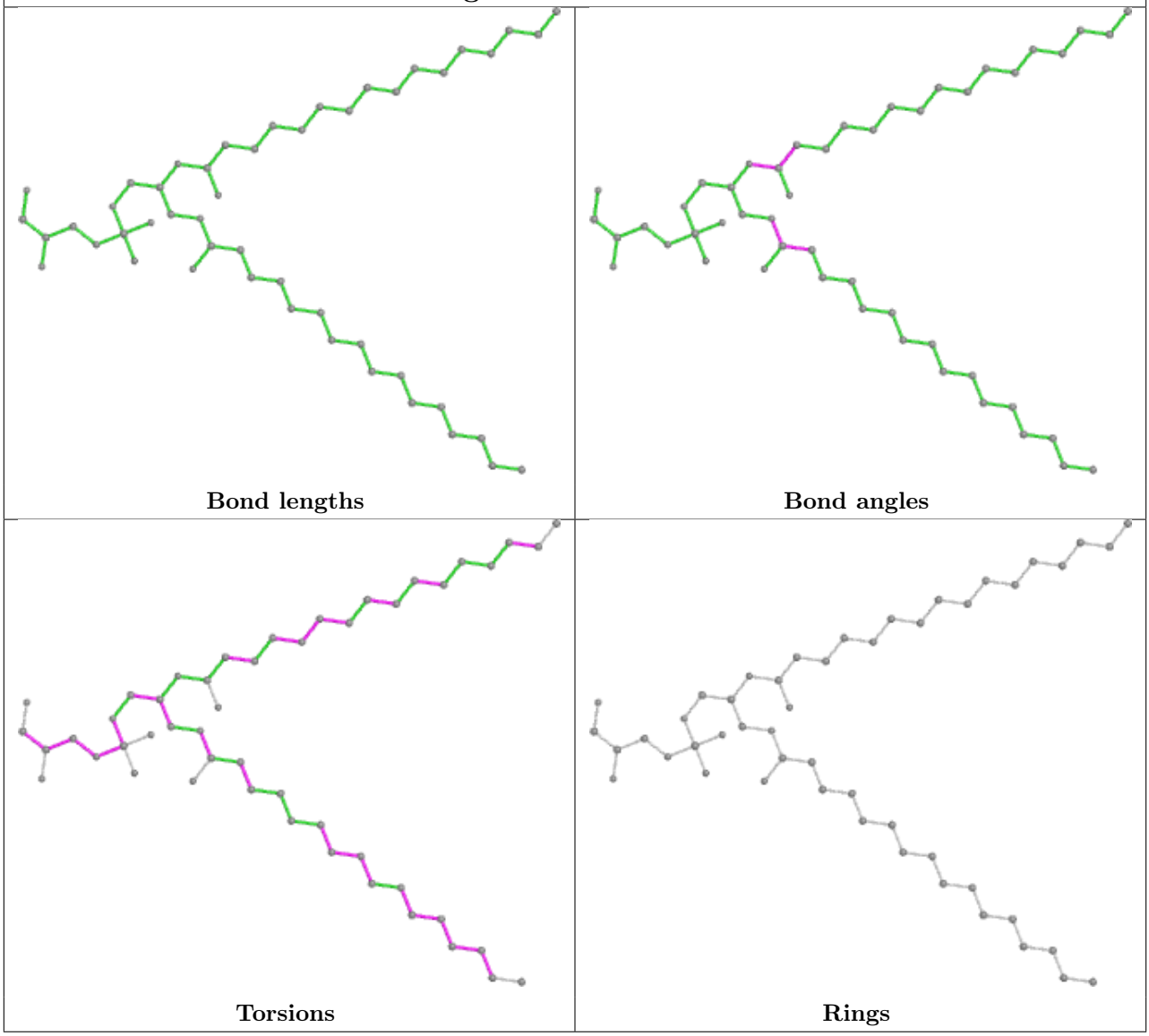
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand LHG d1 409



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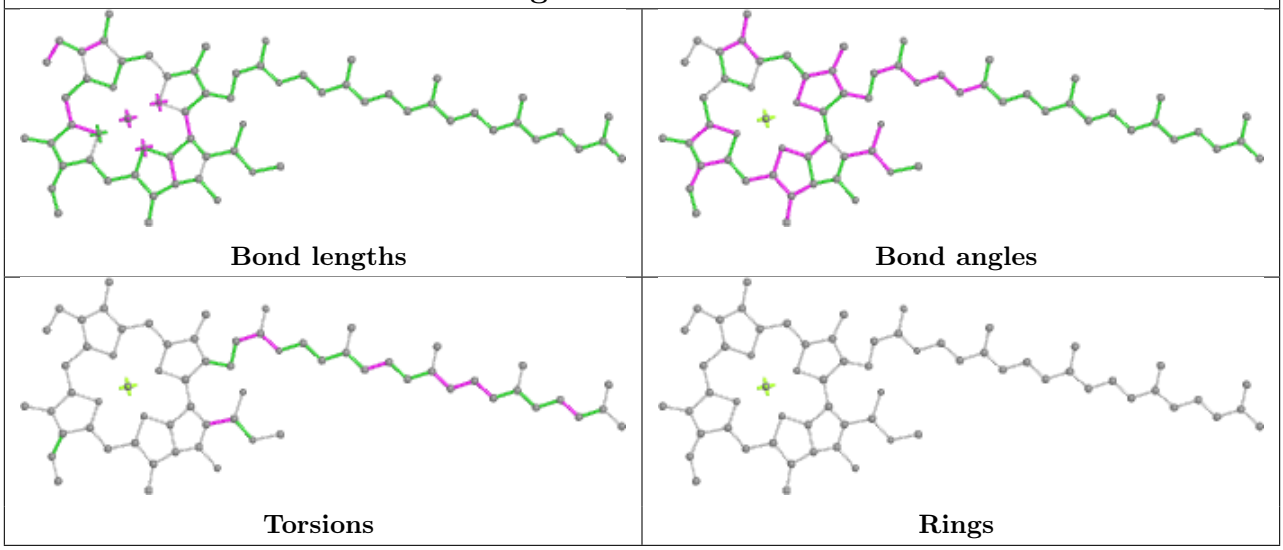
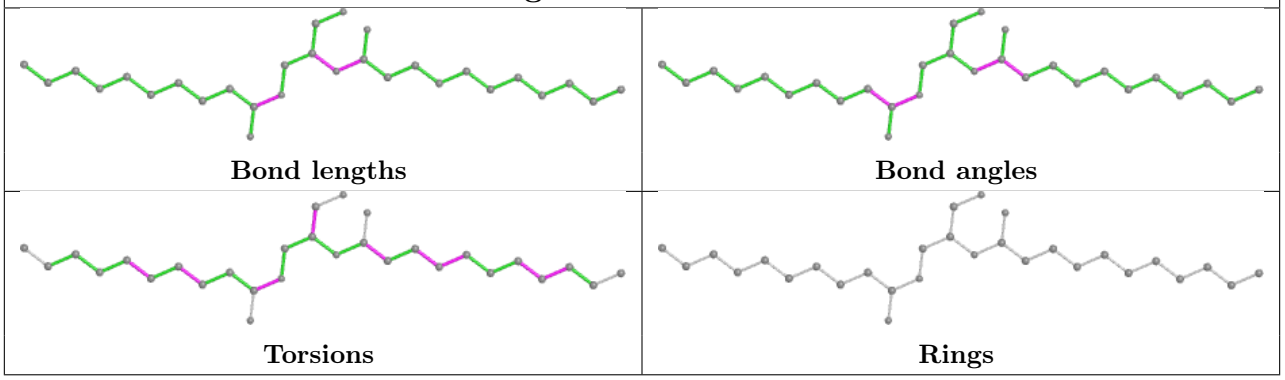


Ligand DGA J 101



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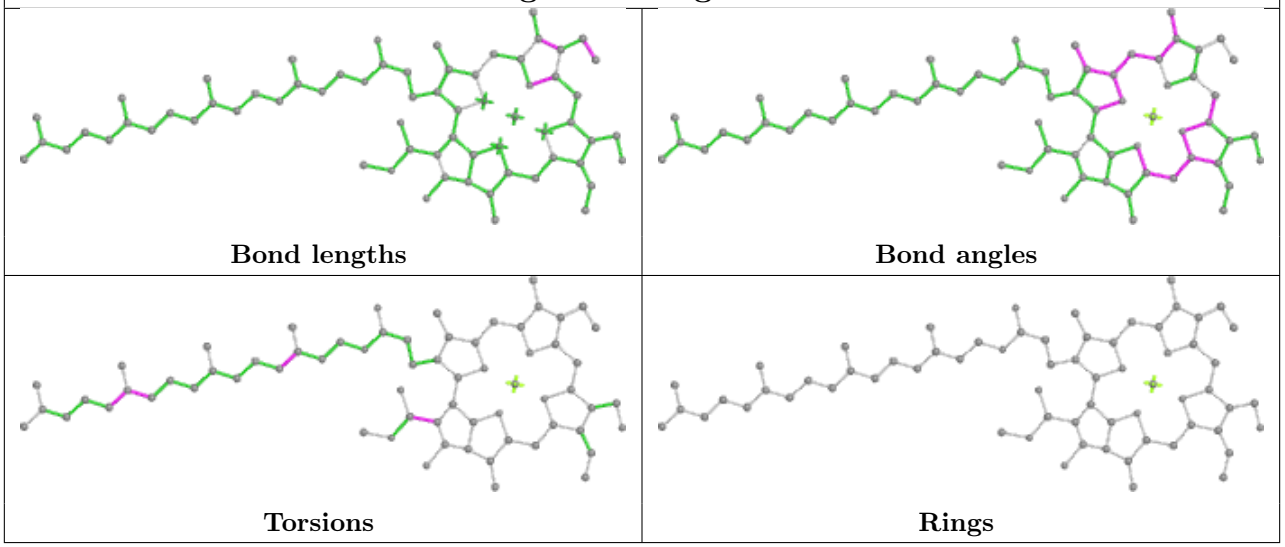

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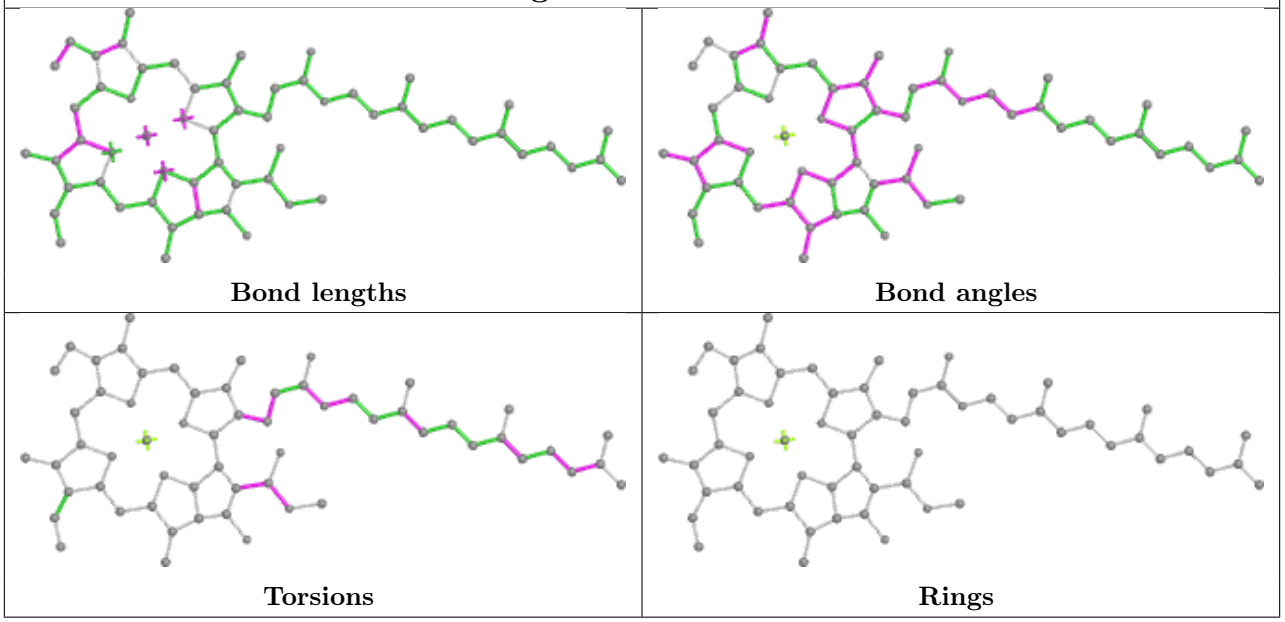

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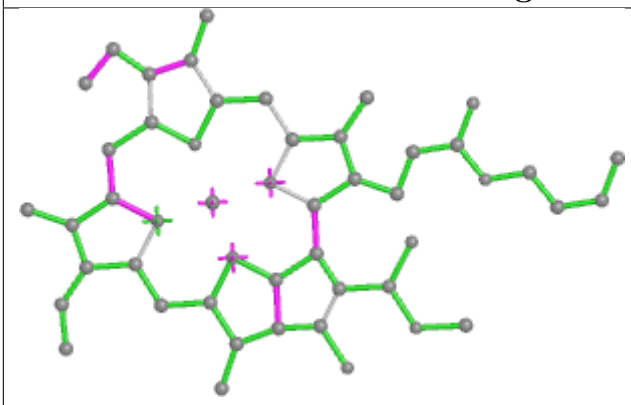

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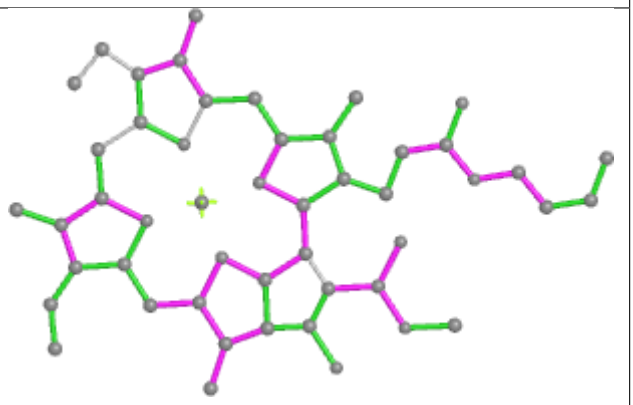

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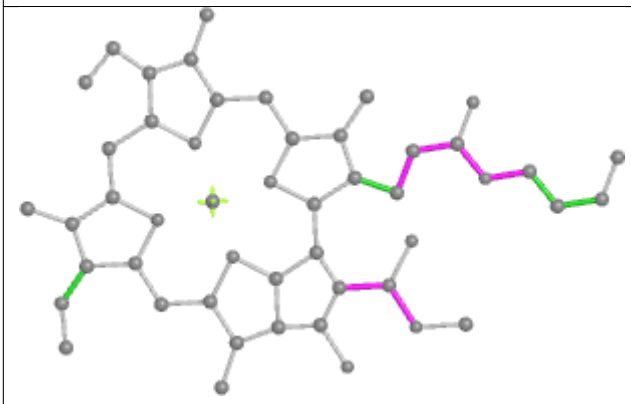
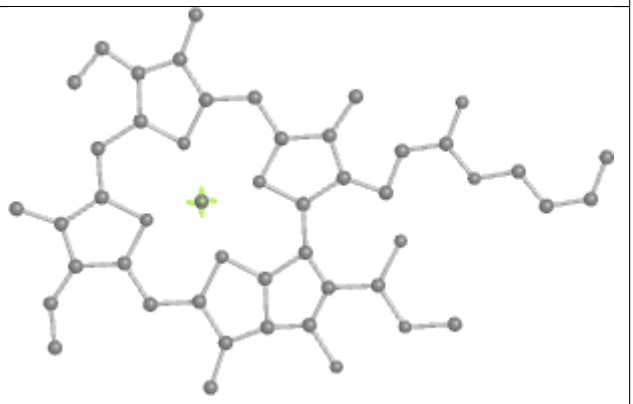
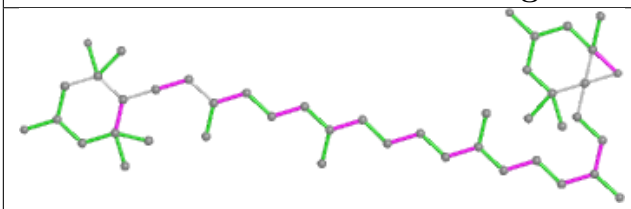


Torsions



Rings

Ligand NEX G 623



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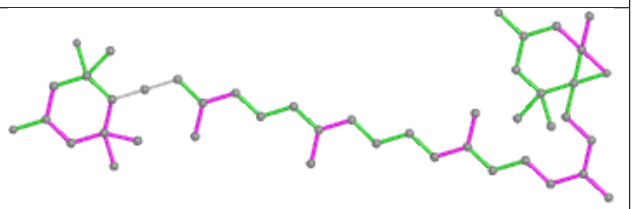

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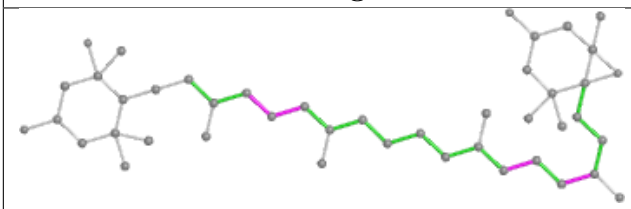

Torsions

Rings

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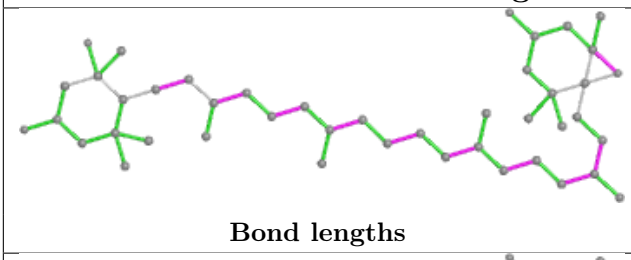

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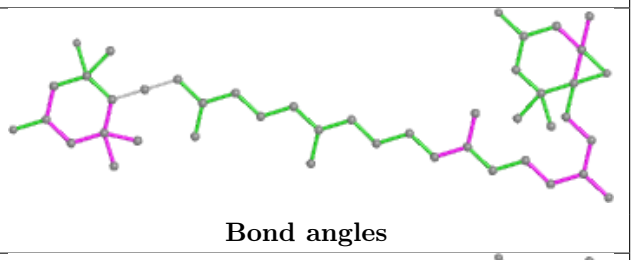

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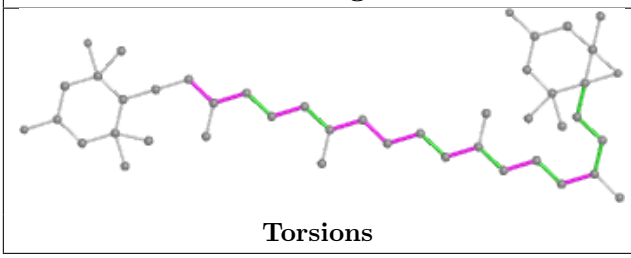

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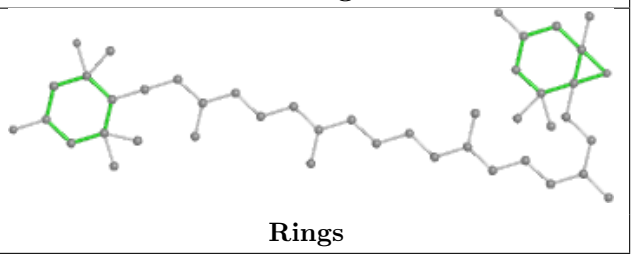
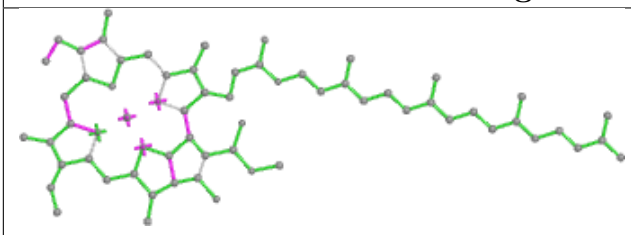


Rings

Ligand CLA Y1 613



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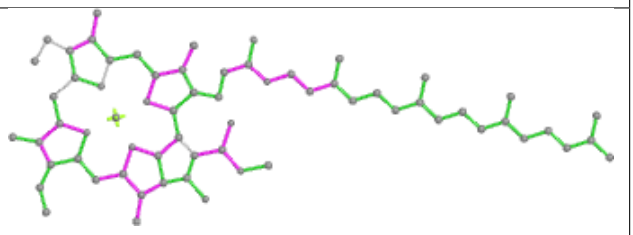

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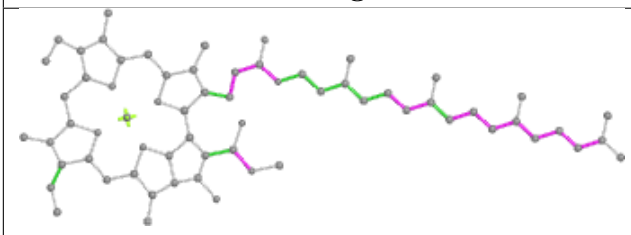

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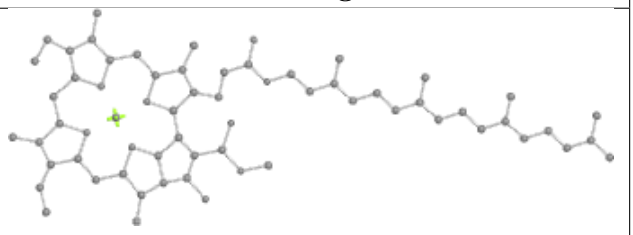

Rings

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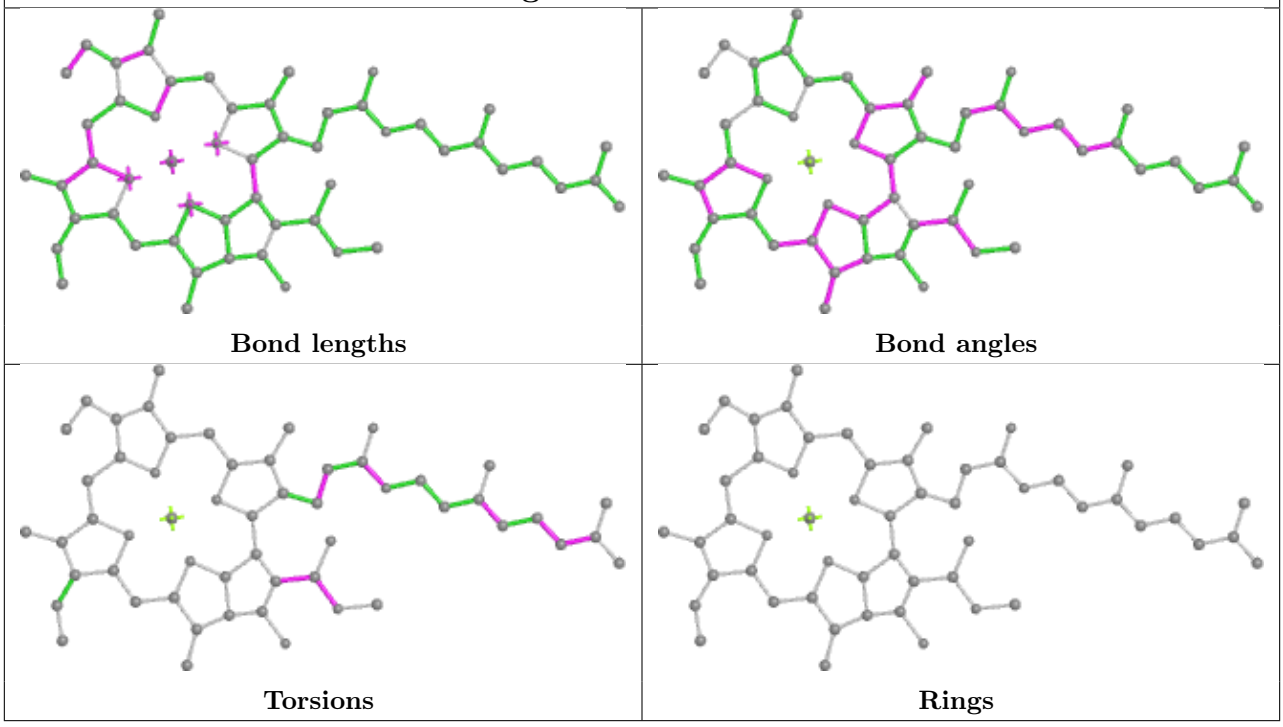

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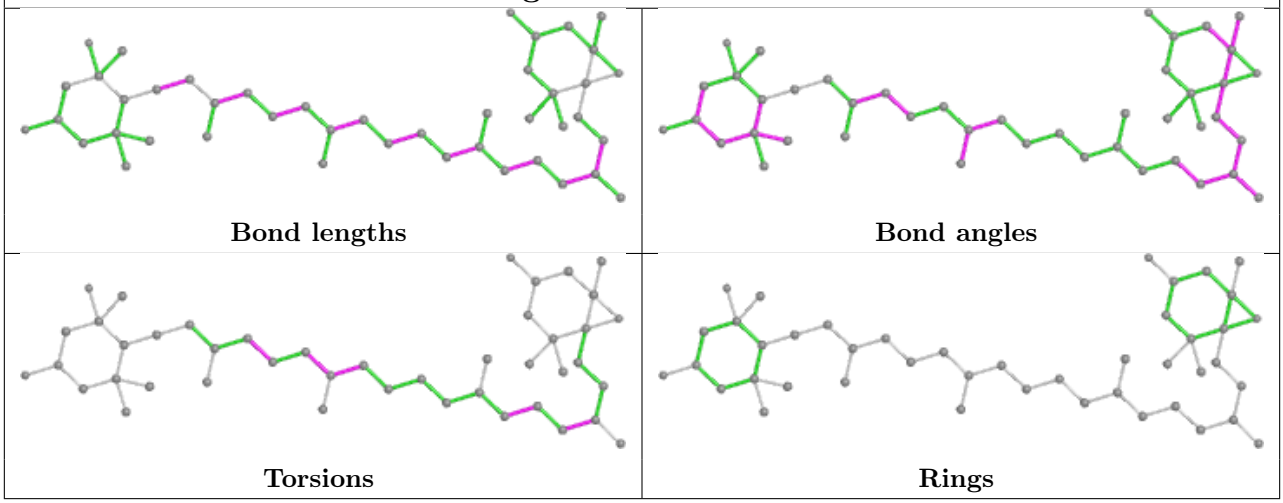

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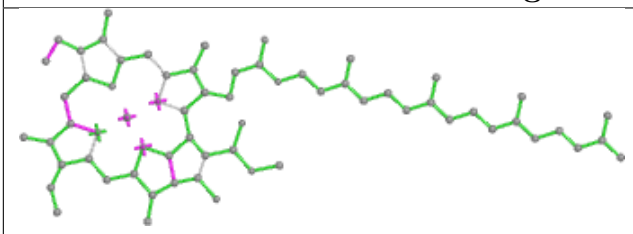

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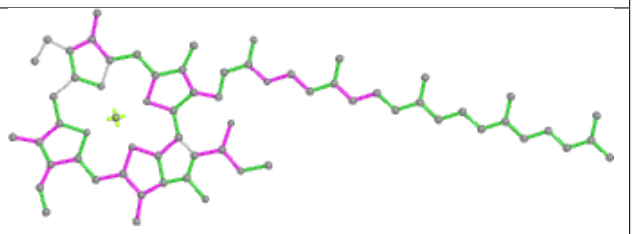

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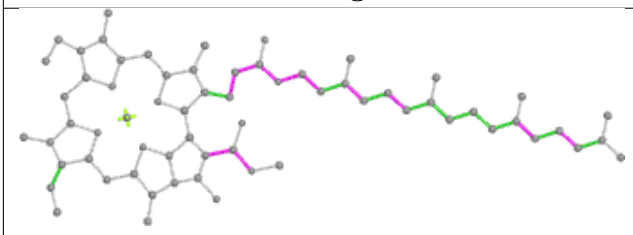

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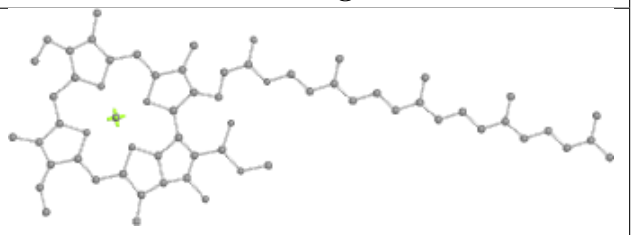

Rings

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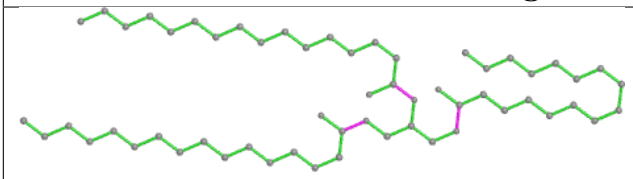

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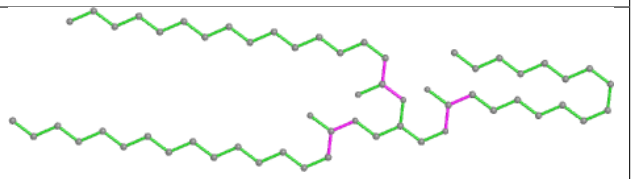

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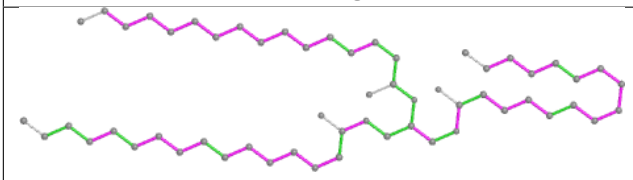

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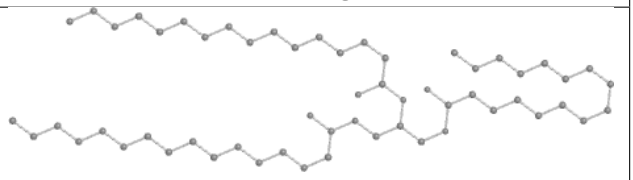

Rings

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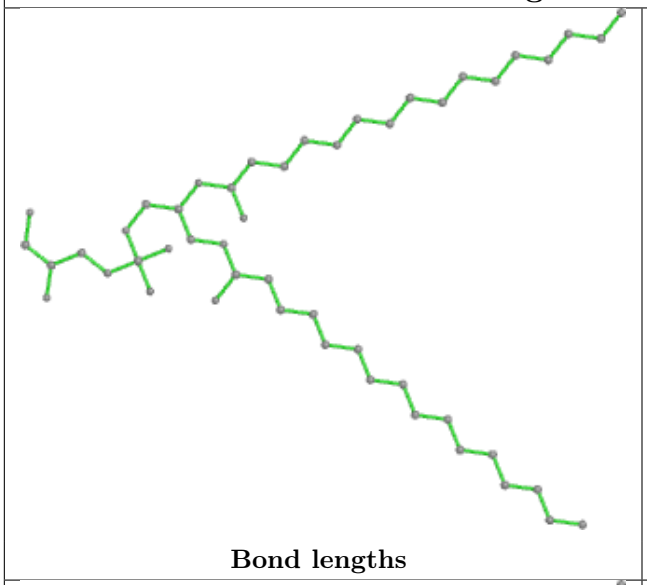

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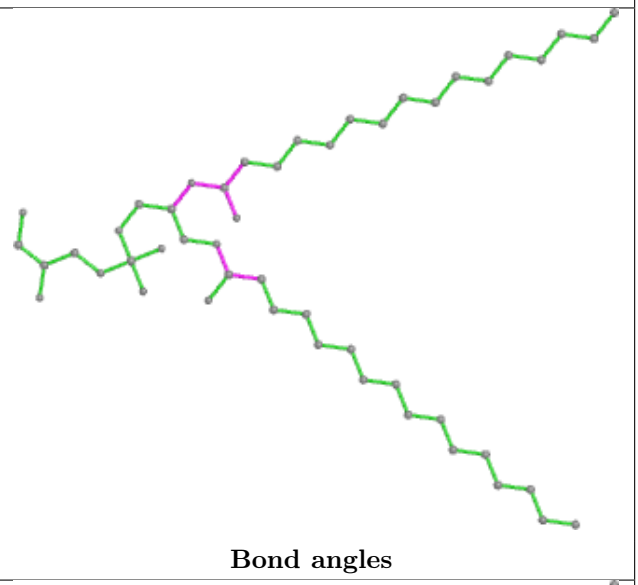

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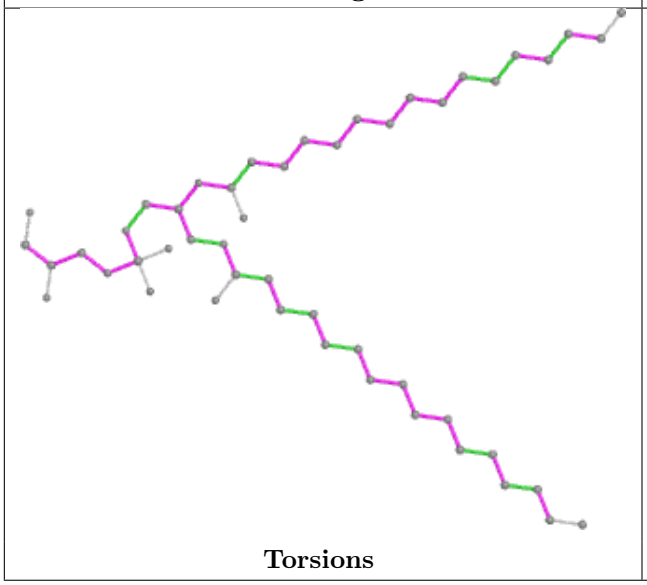

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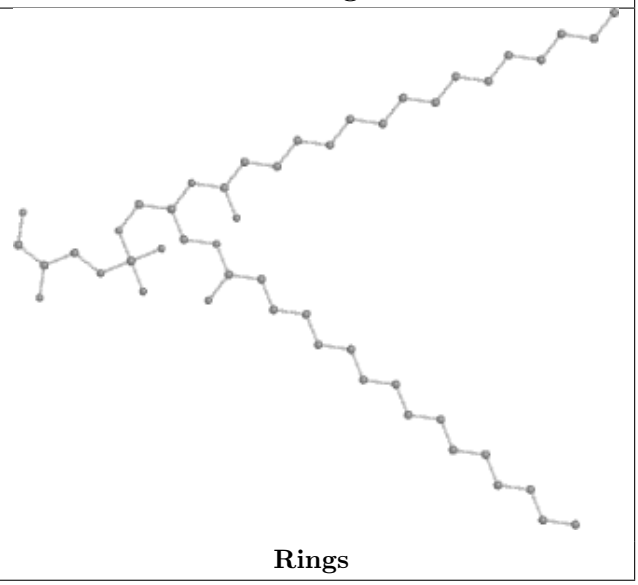
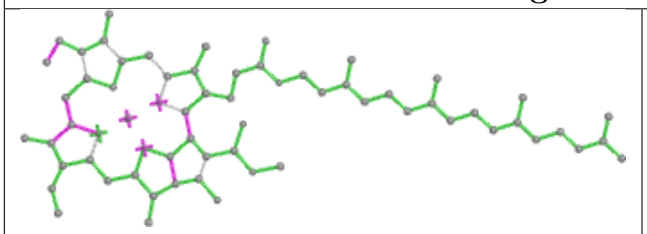


Rings

Ligand CLA c 513



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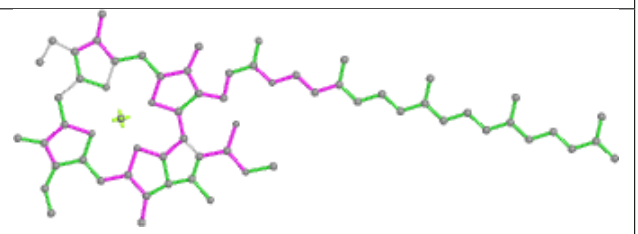

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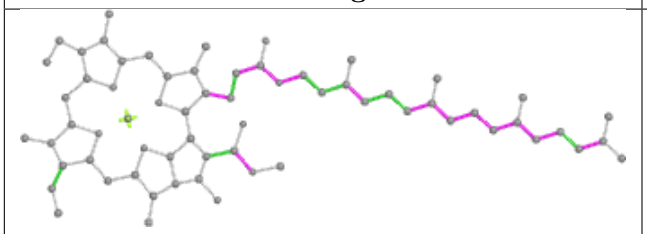

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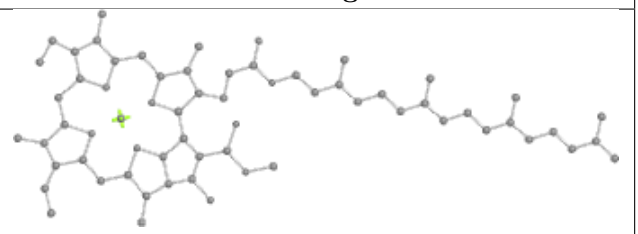

Rings

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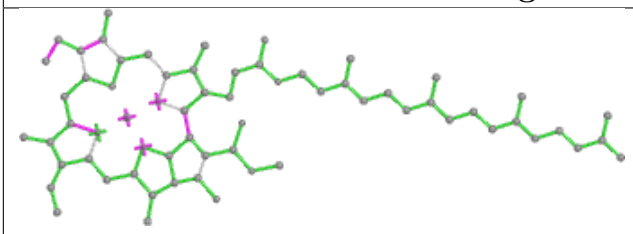

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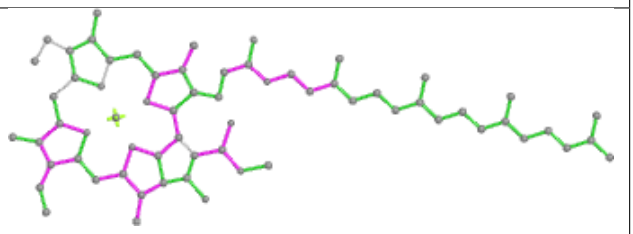

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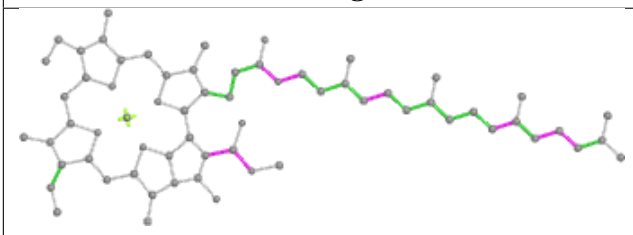

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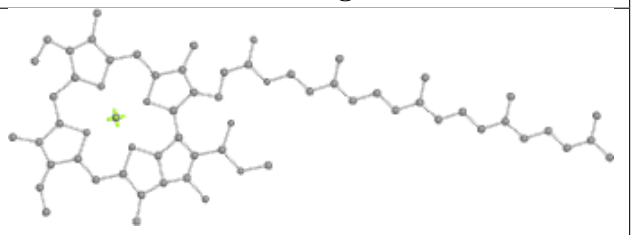

Rings

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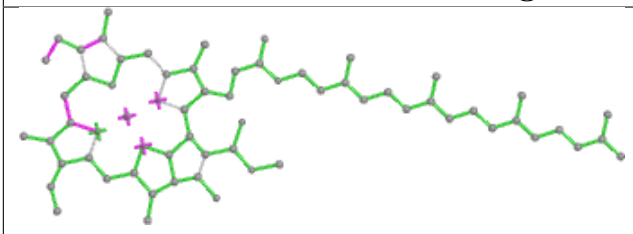

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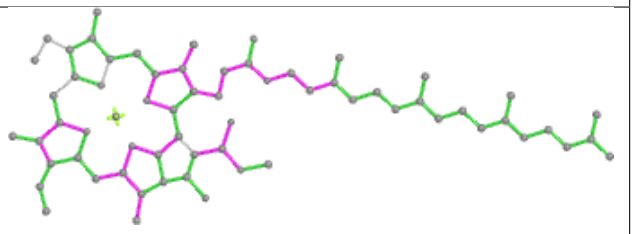

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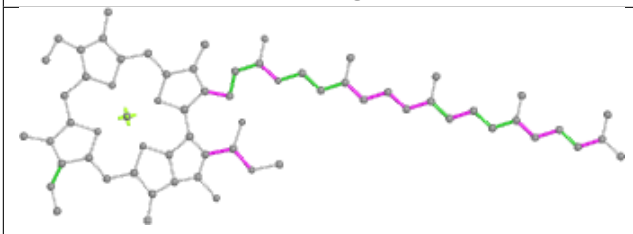

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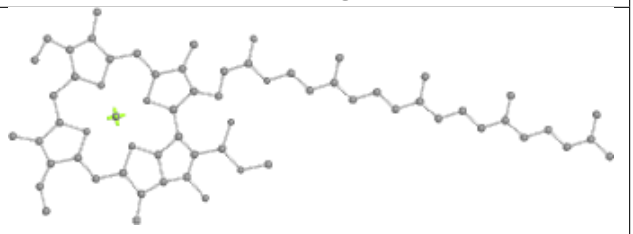

Rings

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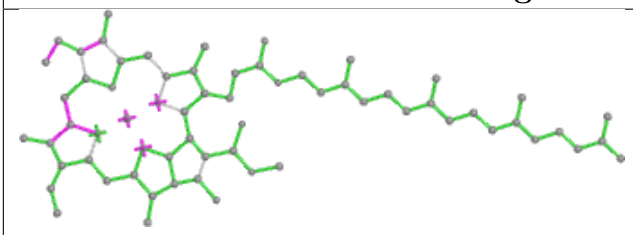

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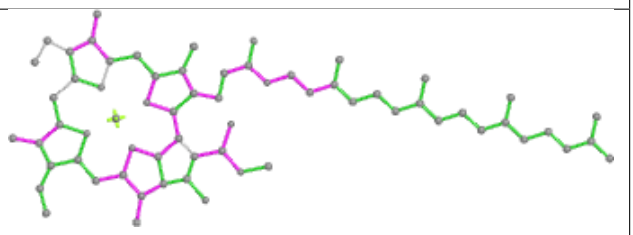

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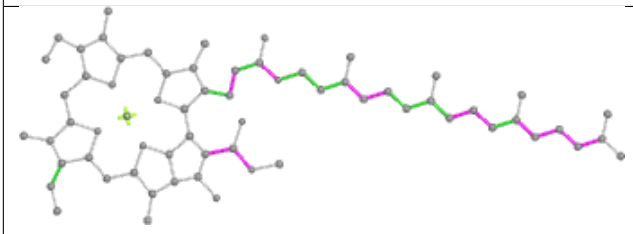

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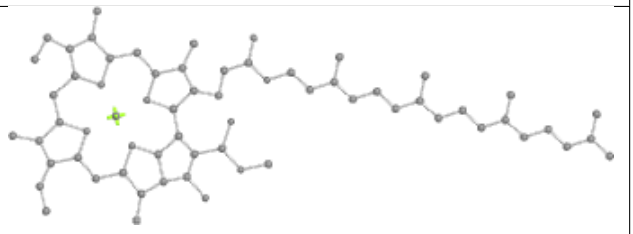
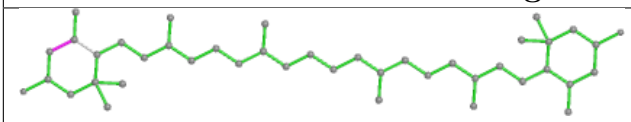


Rings

Ligand LUT Y 620



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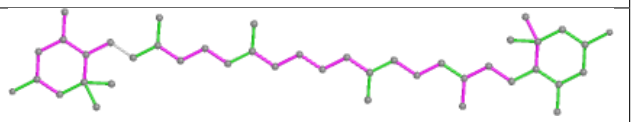
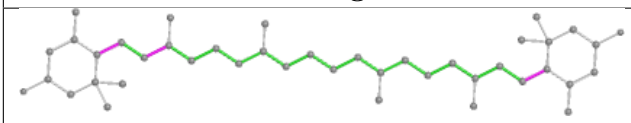


Bond angles



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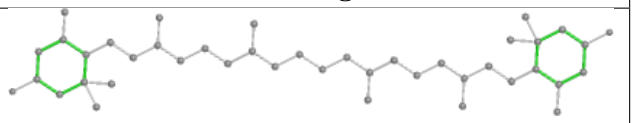

Rings

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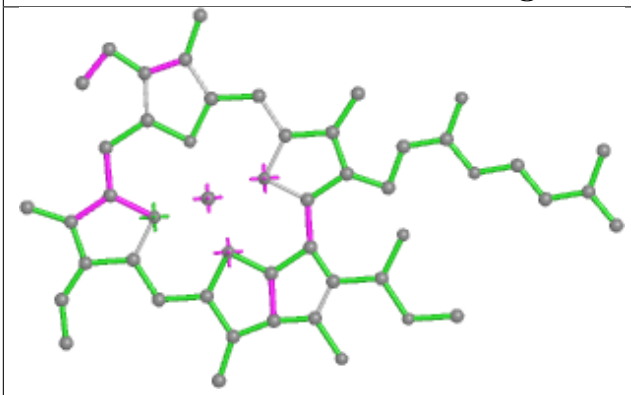
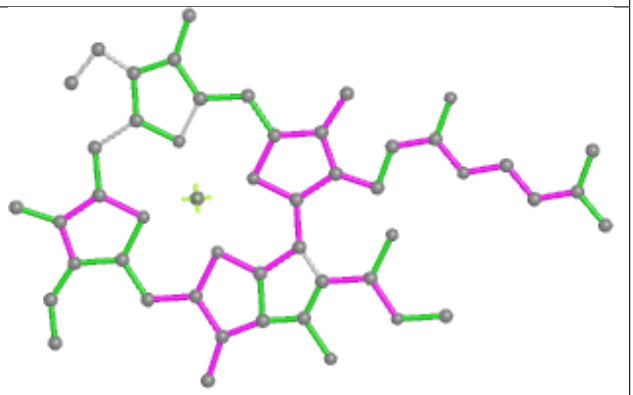
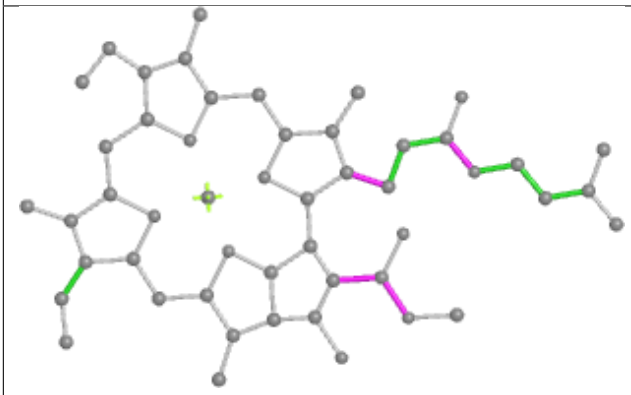


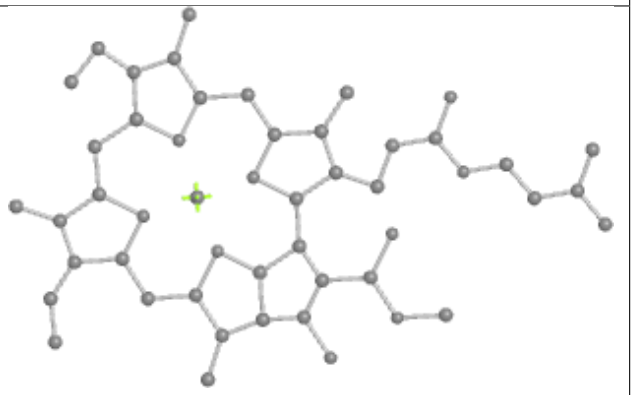
Bond lengths



Bond angles

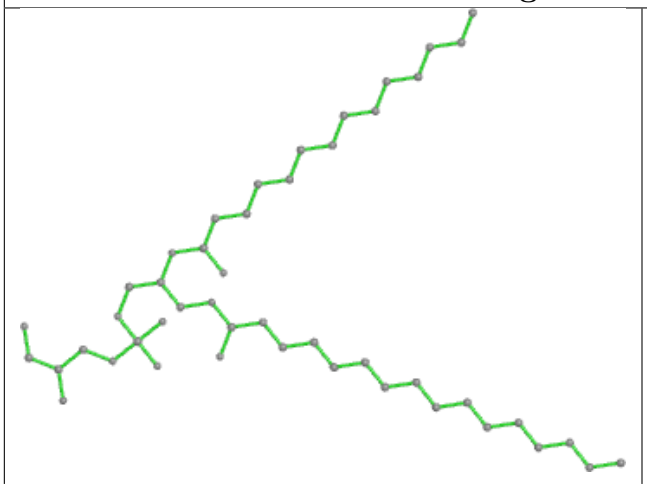


Torsions



Rings

Ligand LHG c1 525



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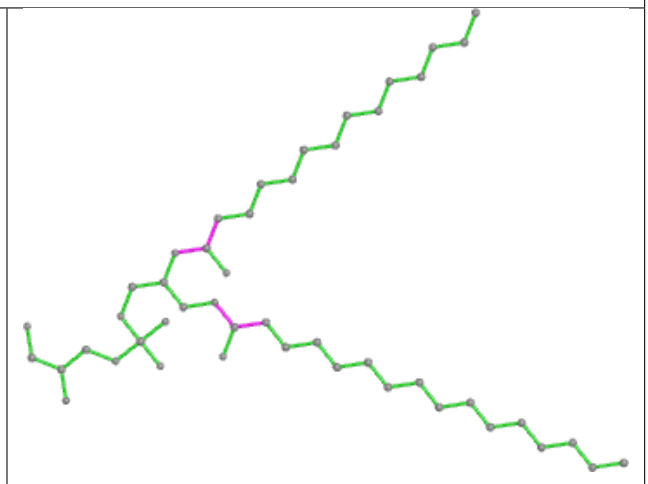
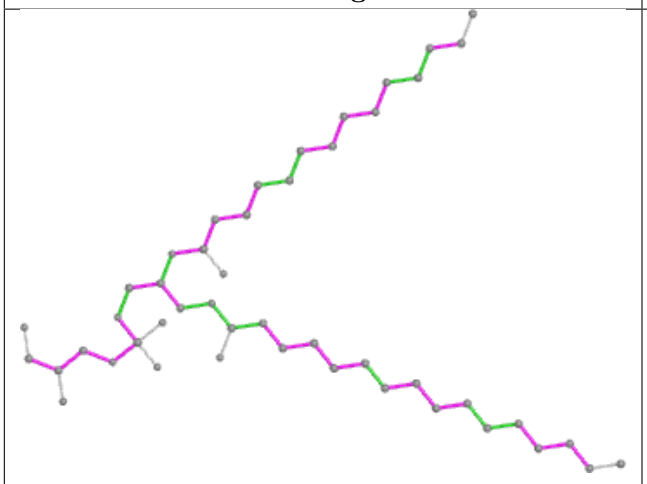
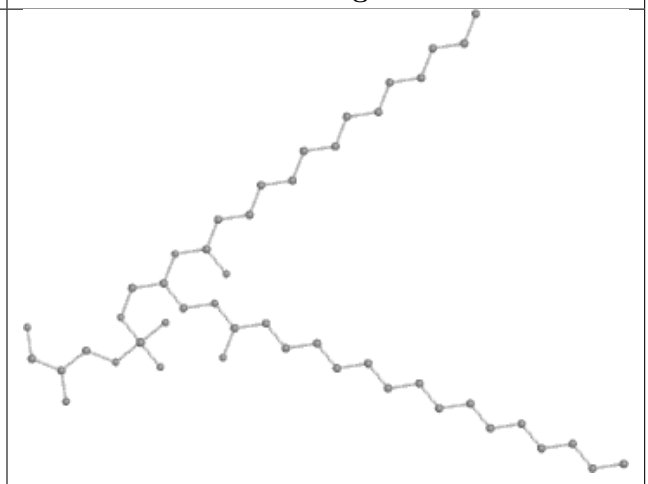


Bond angles

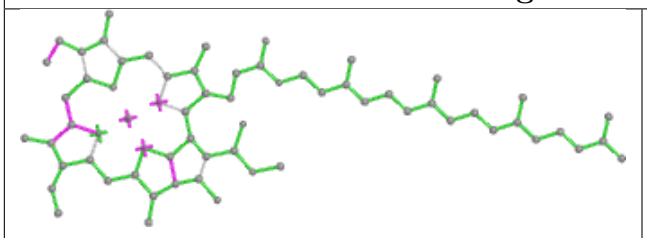


Torsions



Rings

Ligand CLA C1 513



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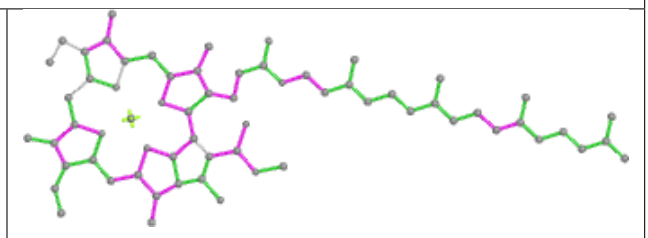
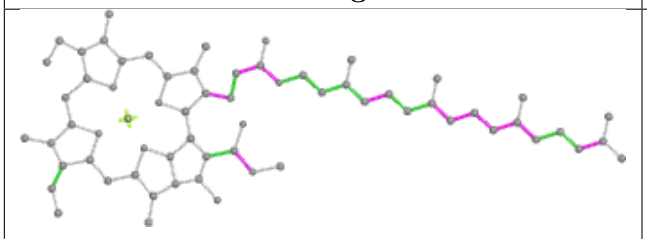
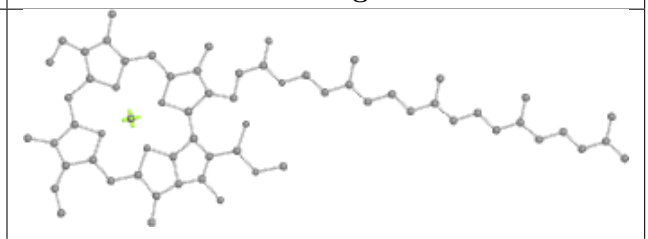


Bond angles

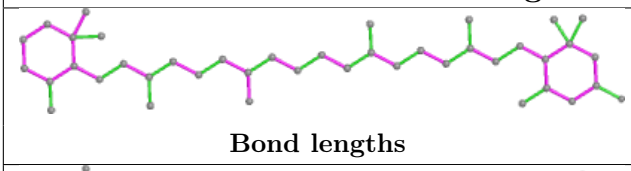


Torsions



Rings

Ligand RRX h 101



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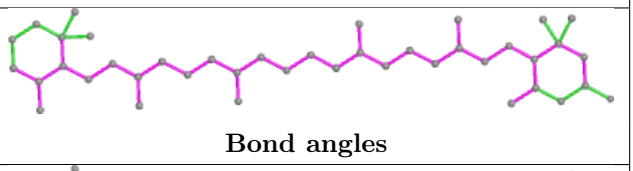
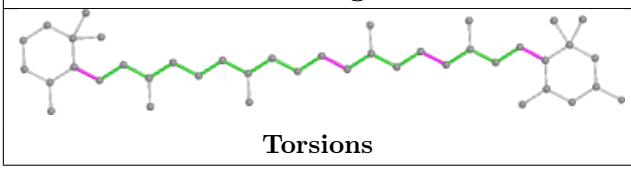
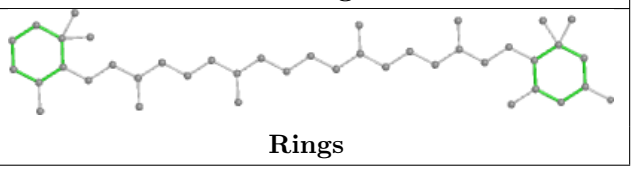


Bond angles

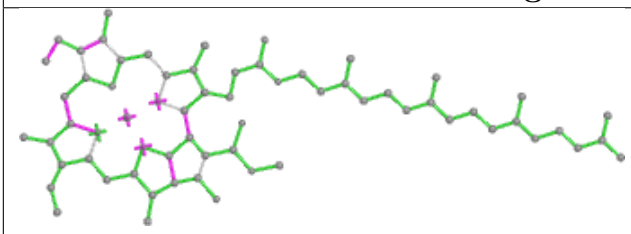


Torsions



Rings

Ligand CLA C 507



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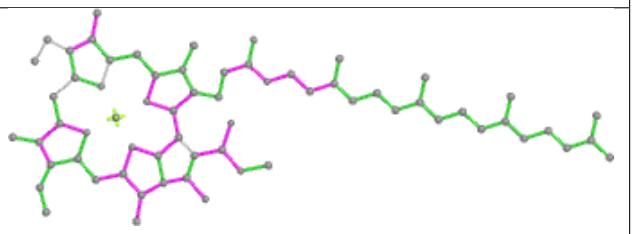
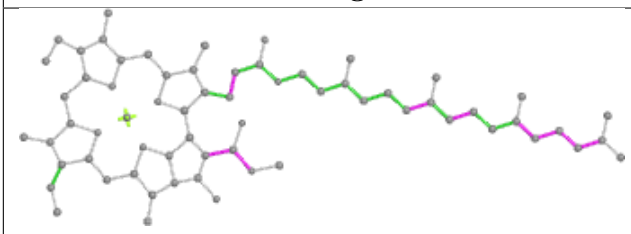


Bond angles



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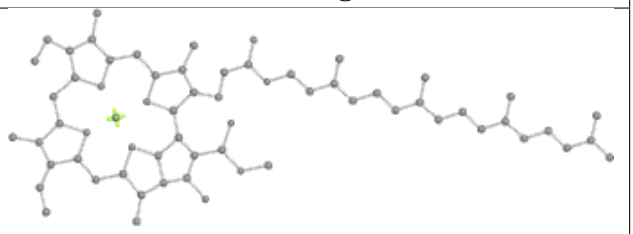
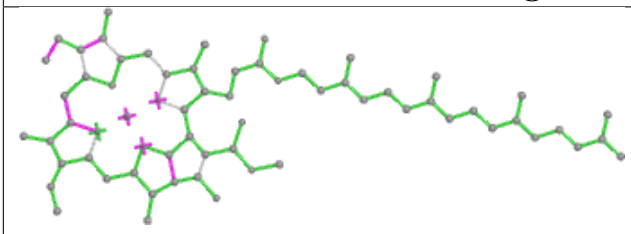
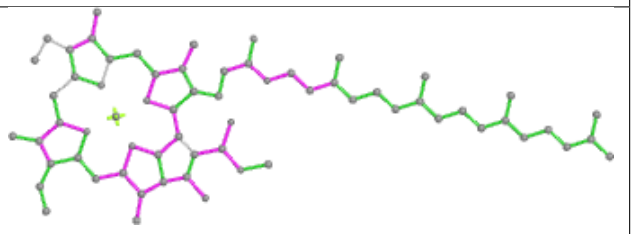


Rings

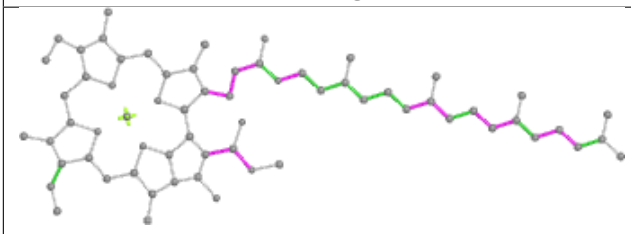
Ligand CLA N 604



Bond lengths



Bond angles



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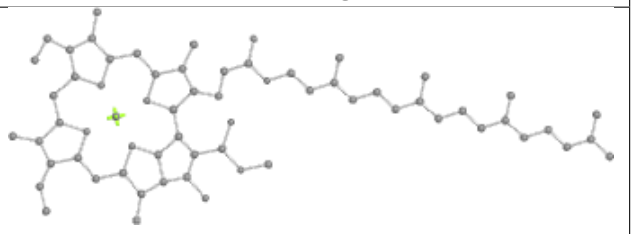
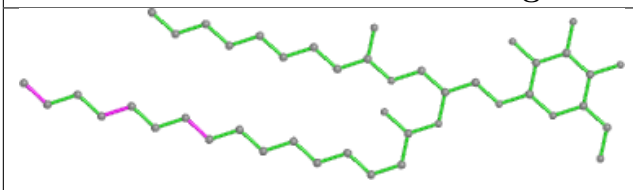
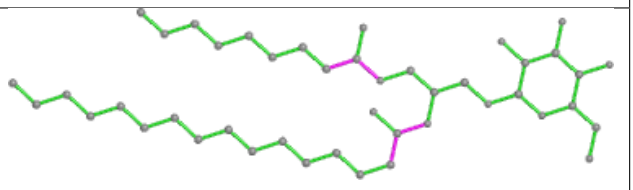


Rings

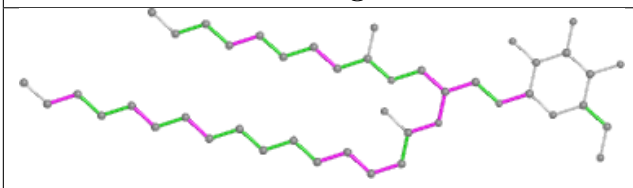
Ligand LMG b 622



Bond lengths



Bond angles



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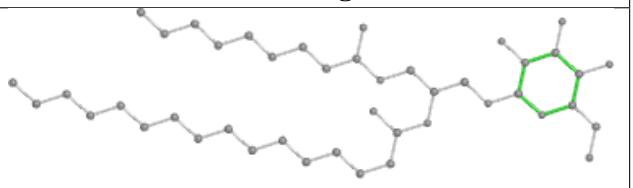
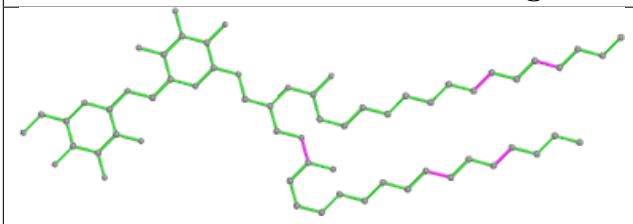
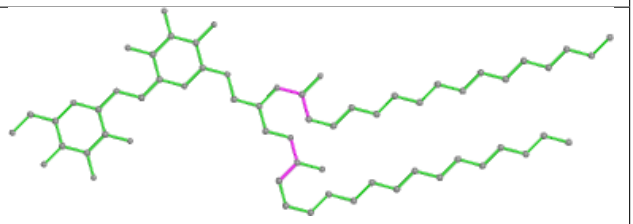


Rings

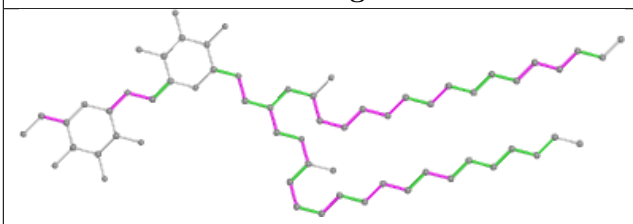
Ligand DGD c 519



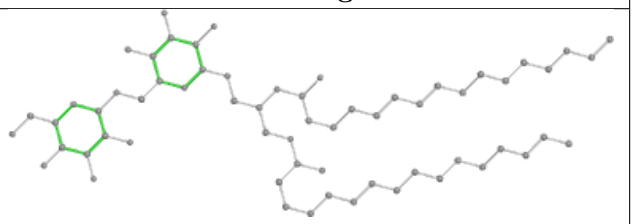
Bond lengths



Bond angles

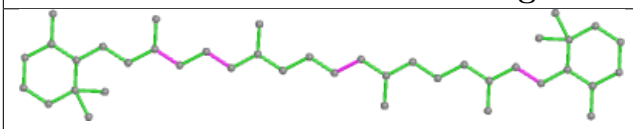


Torsions



Rings

Ligand BCR c1 516



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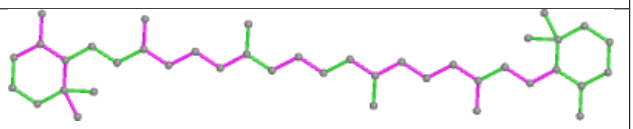
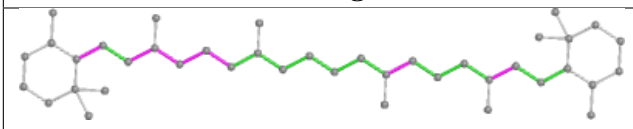


Bond angles



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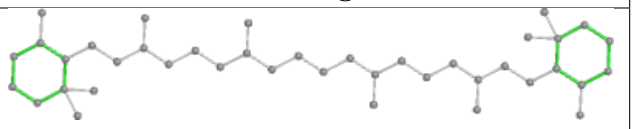
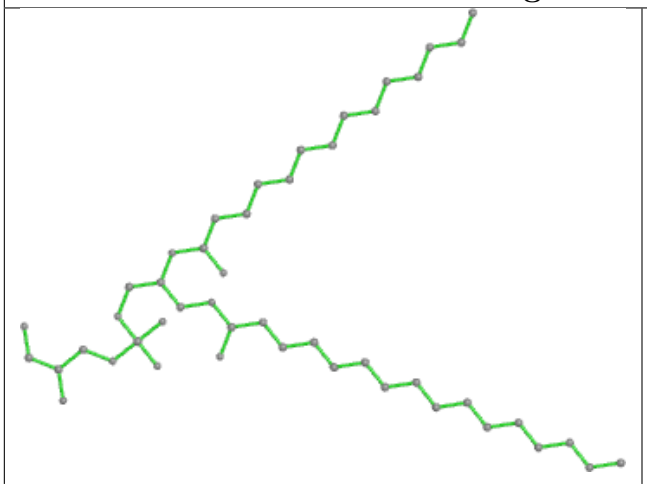


Rings

Ligand LHG C 525



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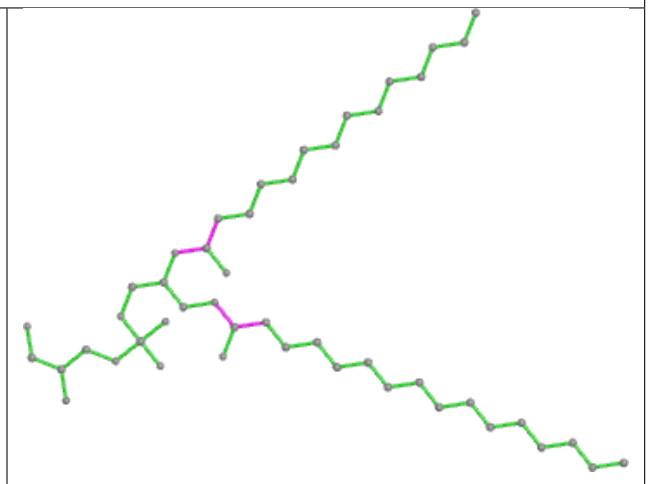
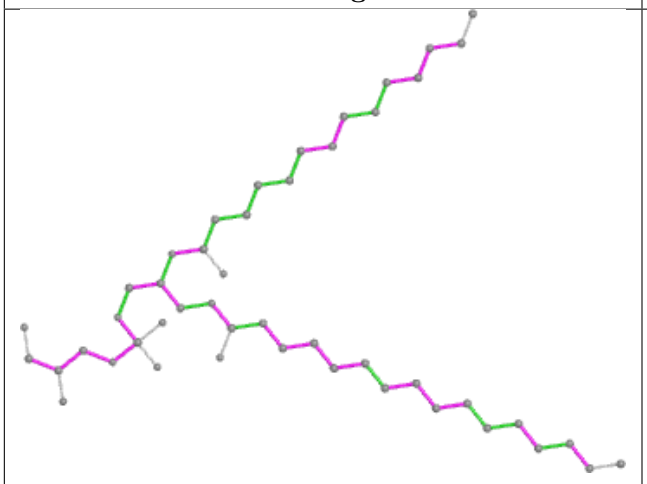


Bond angles



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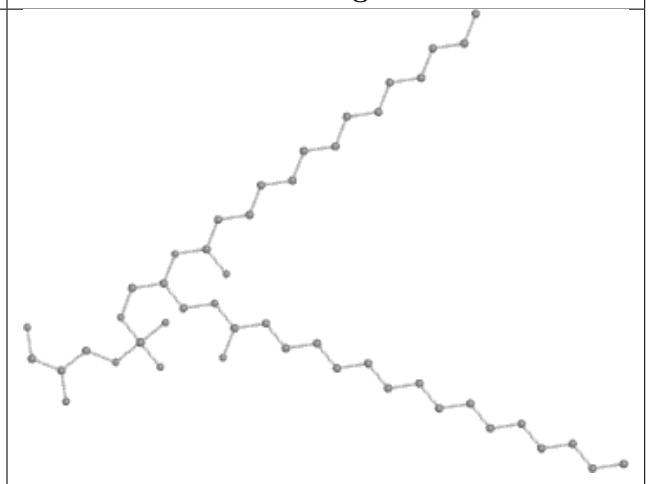
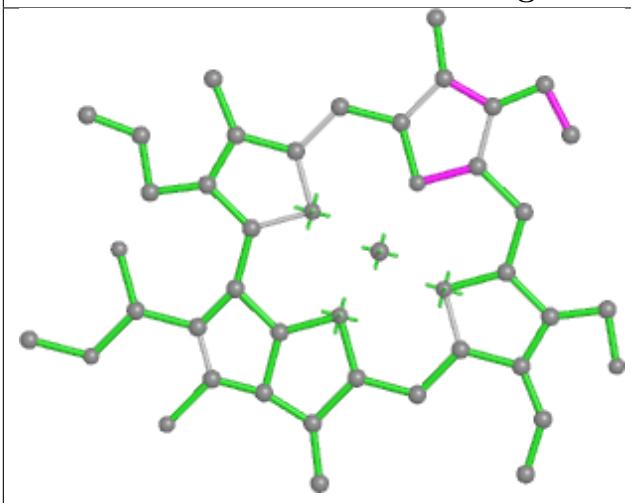


Rings

Ligand CHL S1 606



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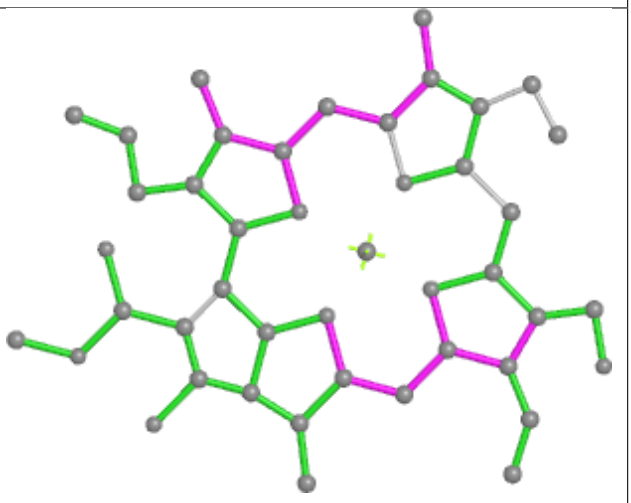
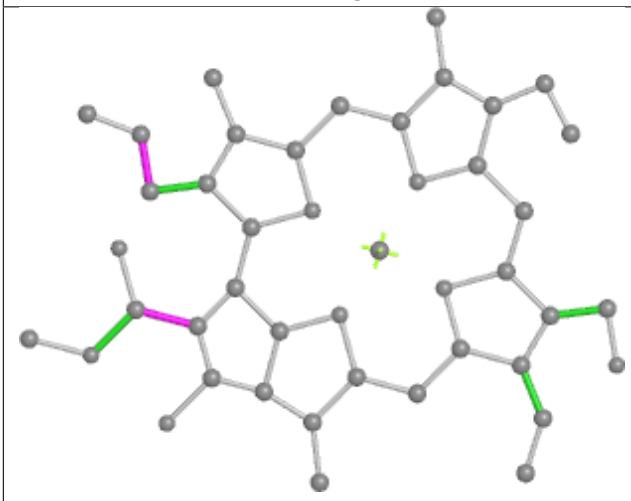
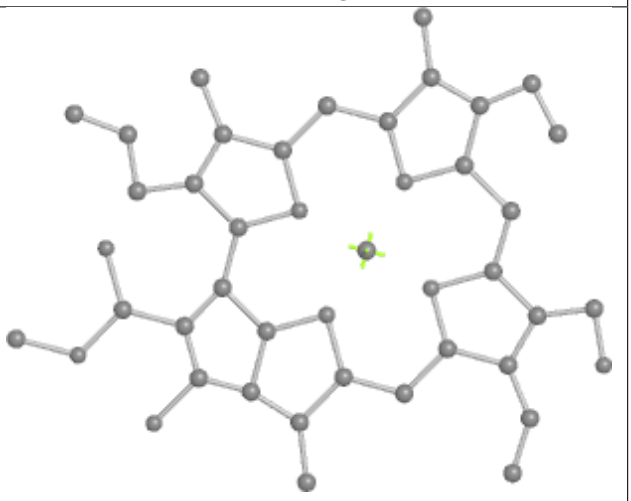


Bond angles

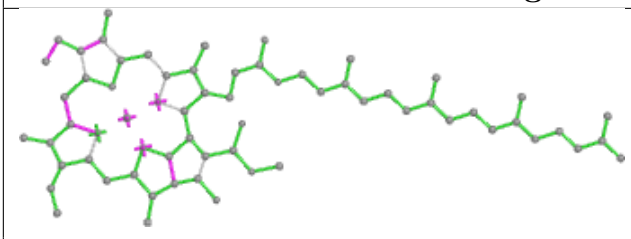


Torsions



Rings

Ligand CLA C 508



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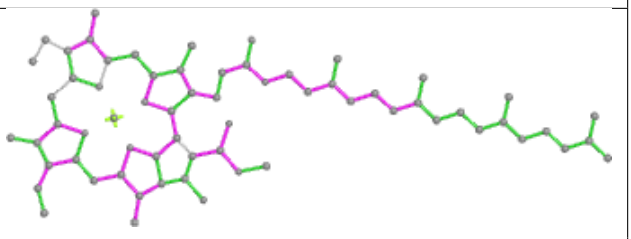
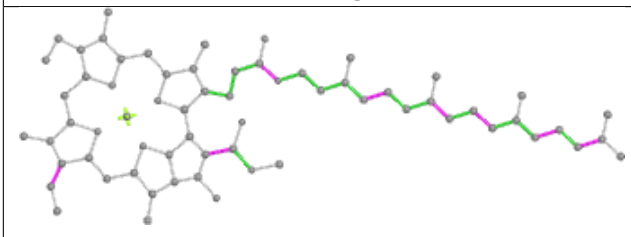


Bond angles



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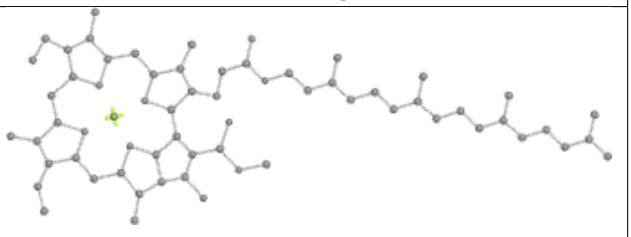
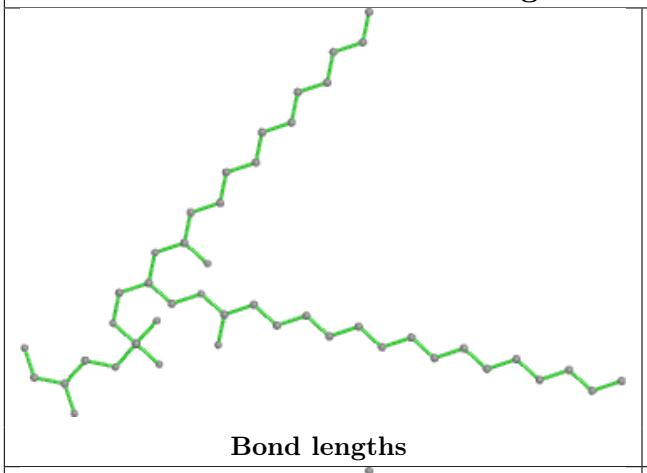


Rings

Ligand LHG s1 624



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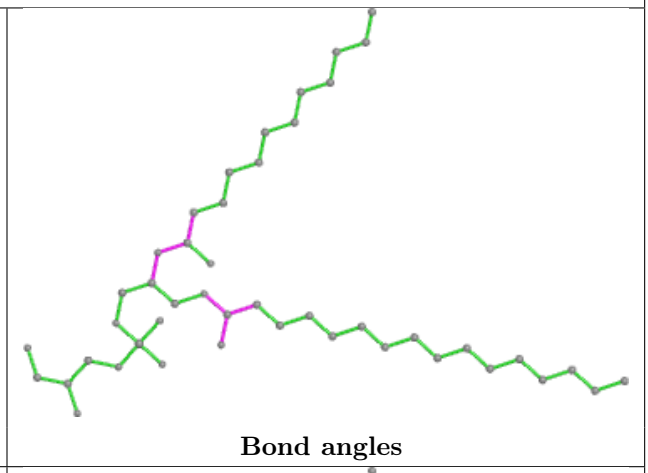
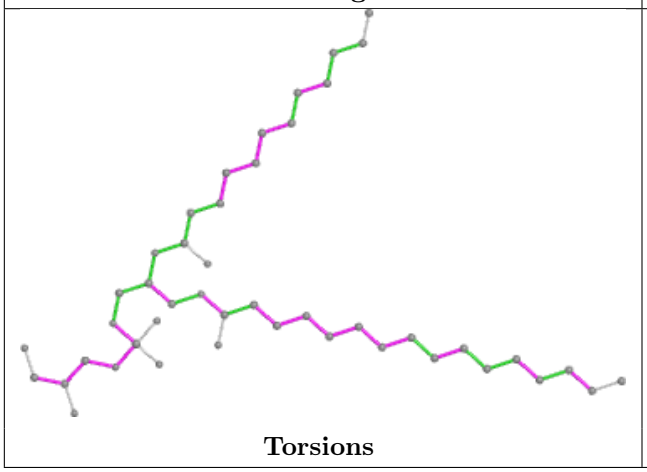


Bond angles



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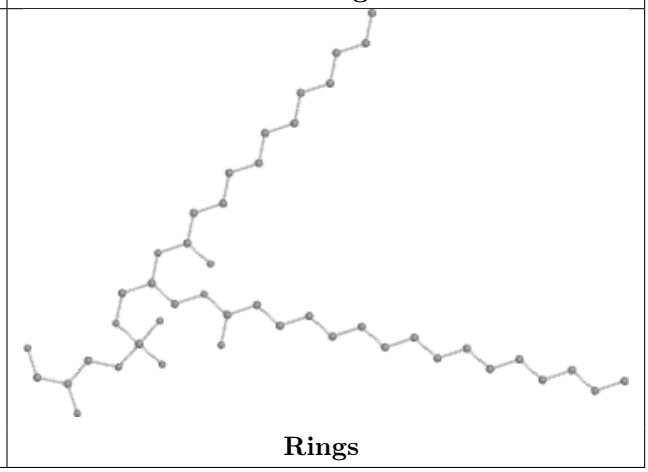
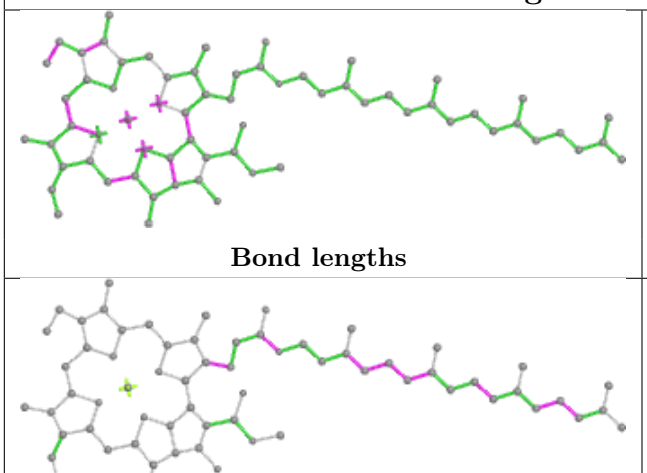
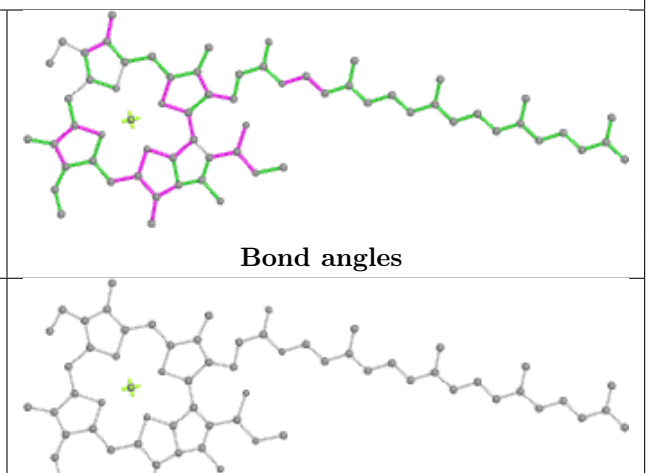


Rings

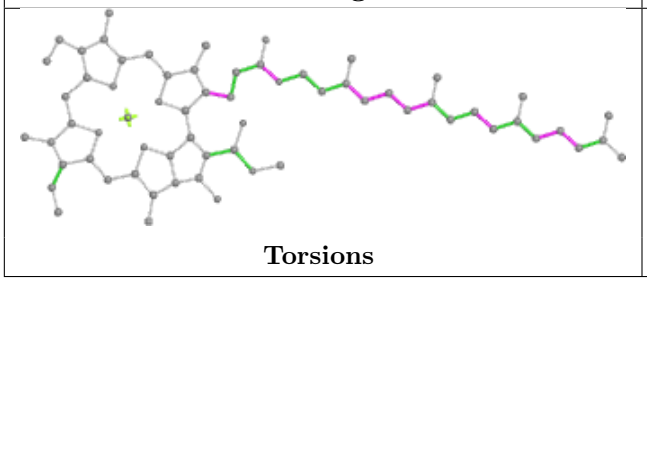
Ligand CLA Y 611



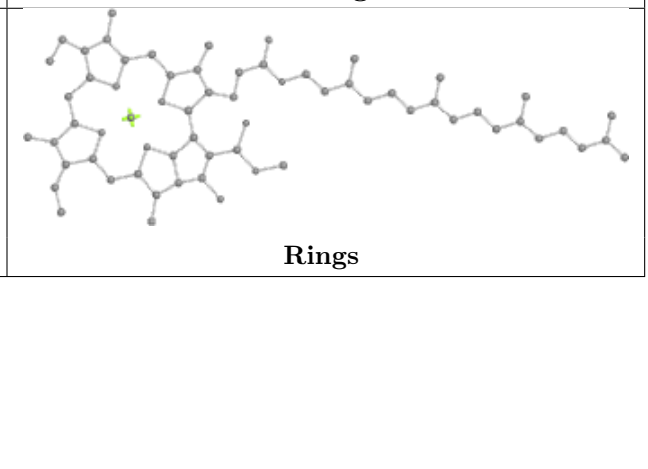
Bond lengths



Bond angles

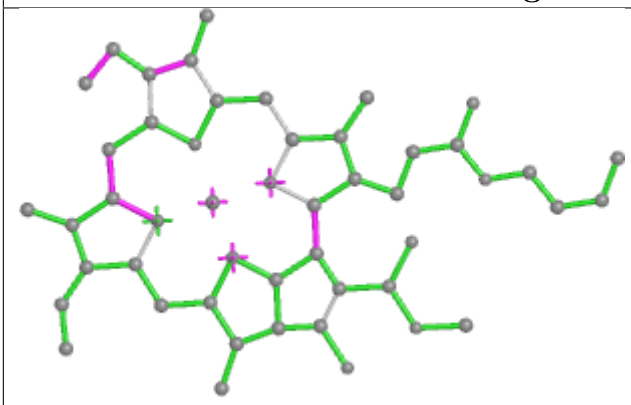


Torsions

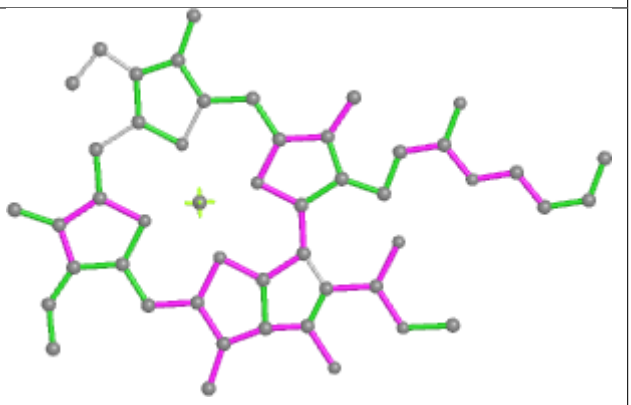


Rings

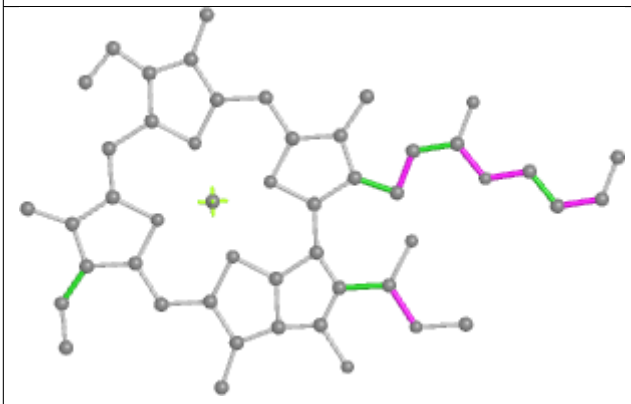
Ligand CLA N 611



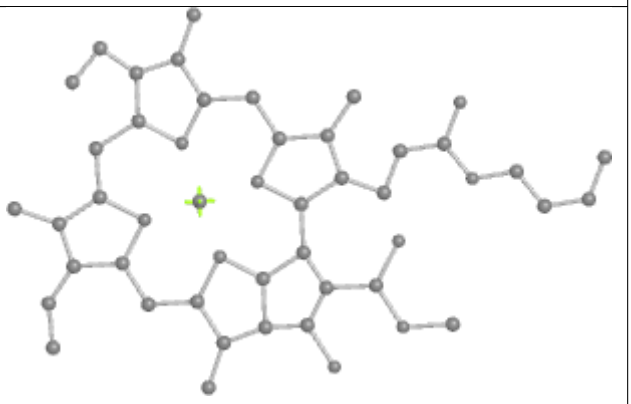
Bond lengths



Bond angles

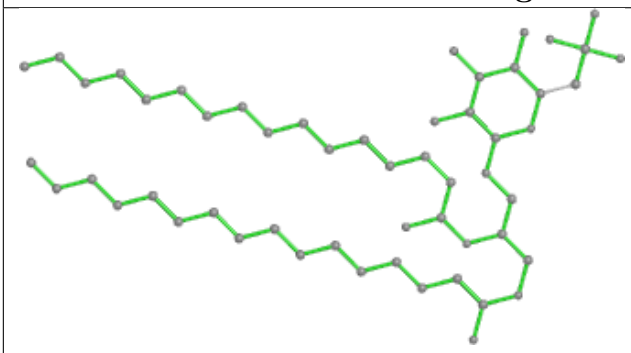


Torsions



Rings

Ligand SQD C1 526



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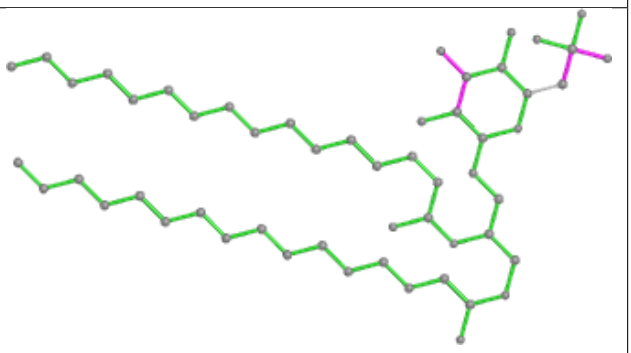
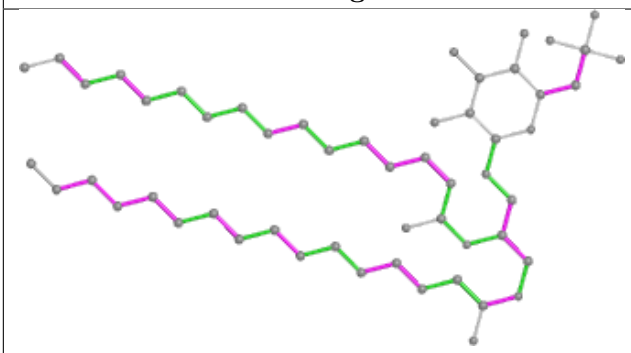


Bond angles



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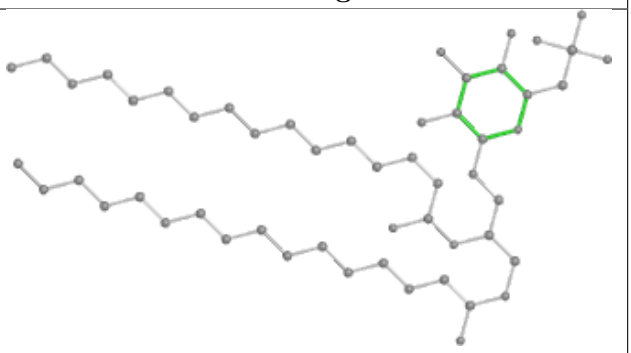
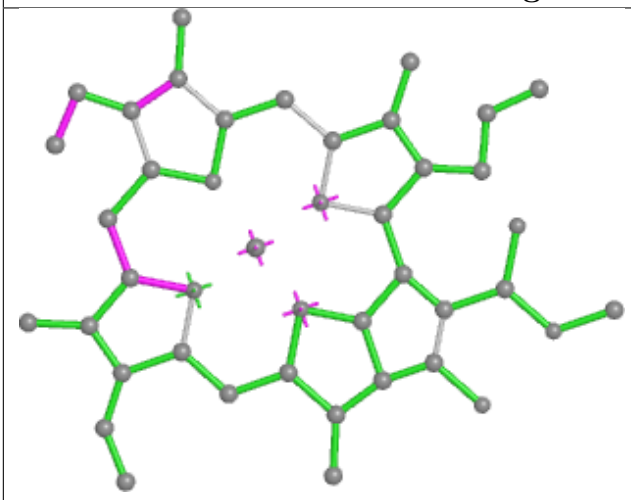


Rings

Ligand CLA G 612



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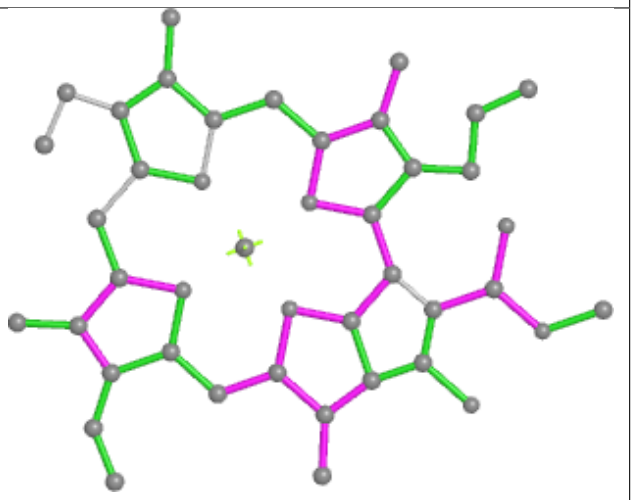
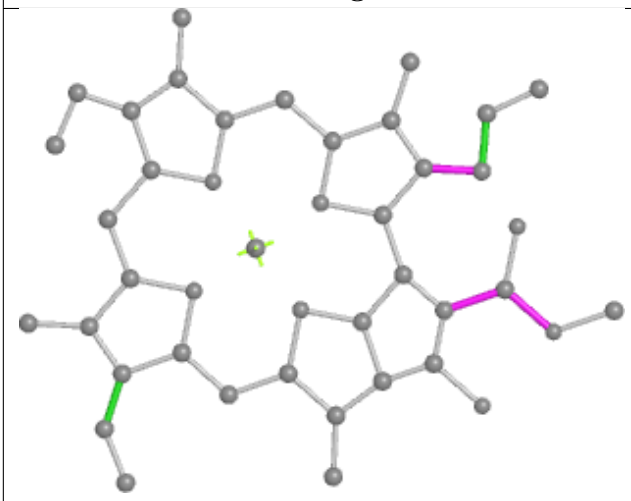


Bond angles



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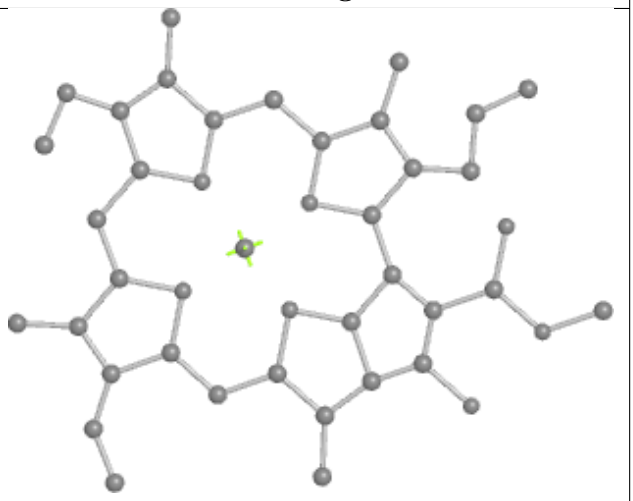
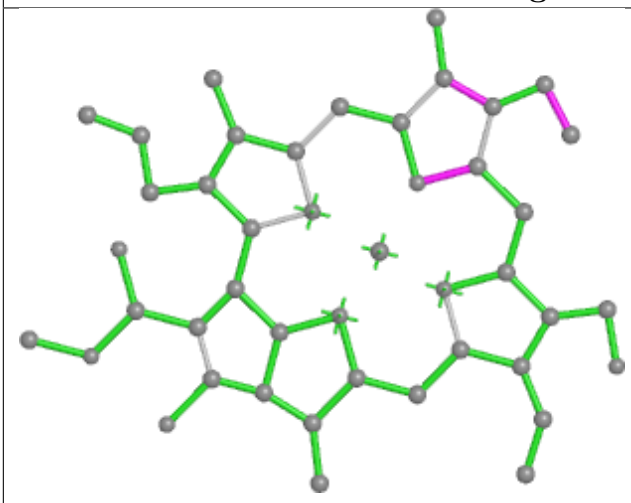


Rings

Ligand CHL r 606



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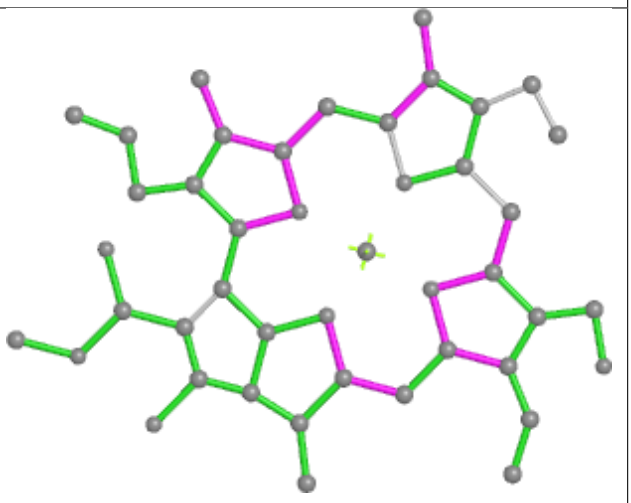
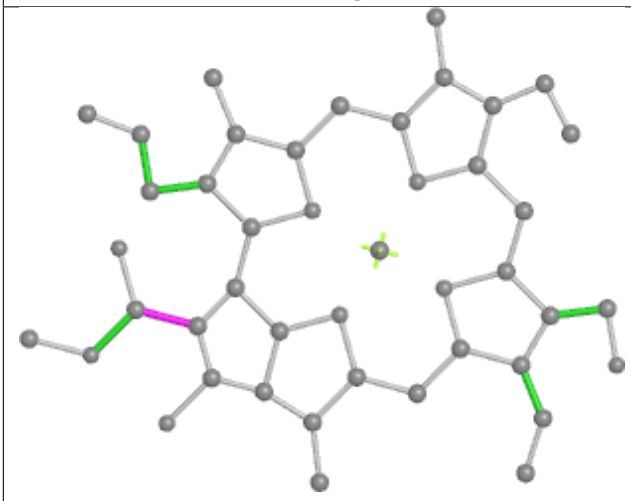


Bond angles



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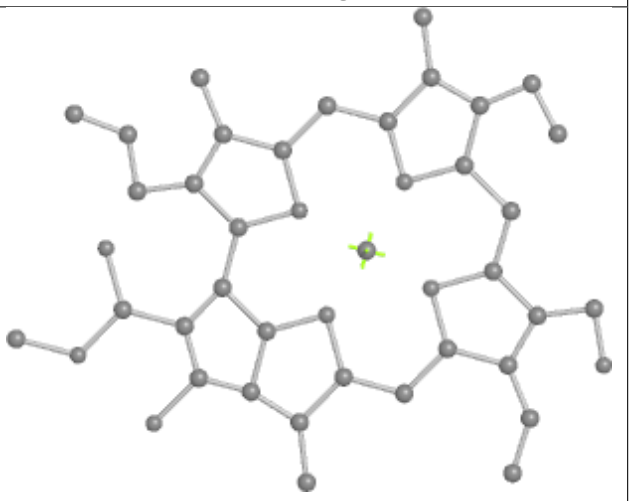
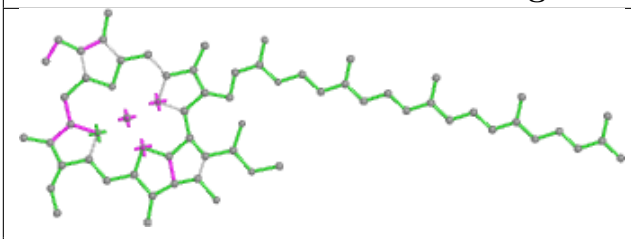


Rings

Ligand CLA g 602



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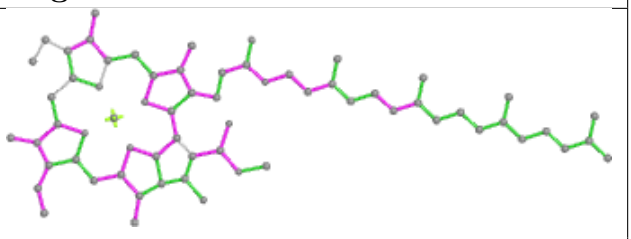

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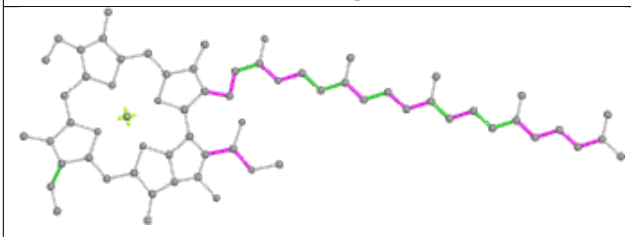

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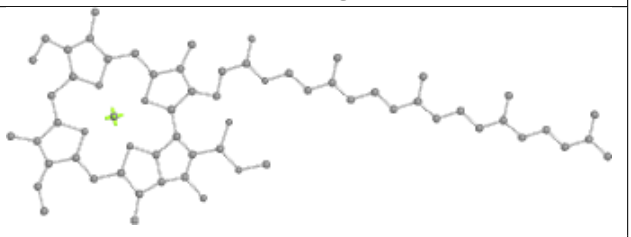
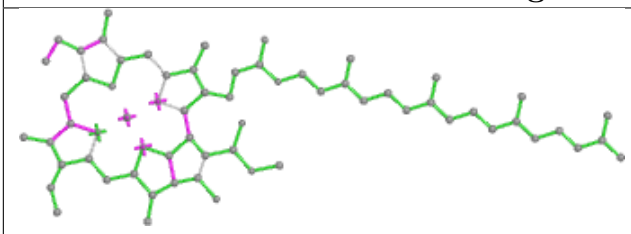


Rings

Ligand CLA S 610



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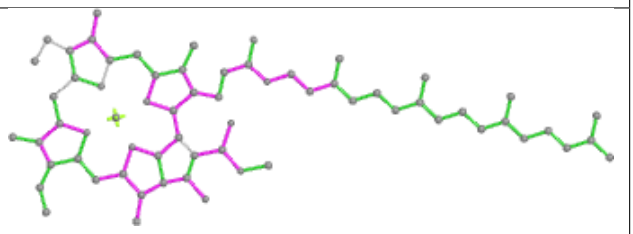

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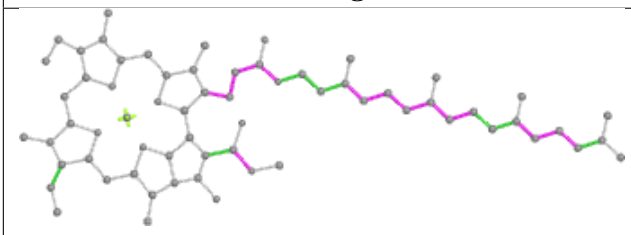

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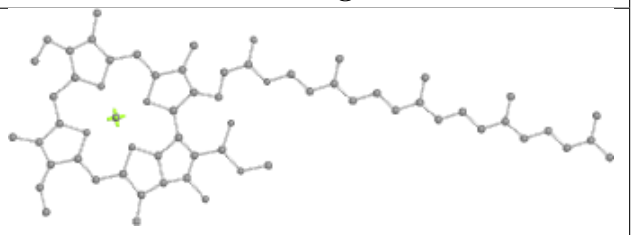
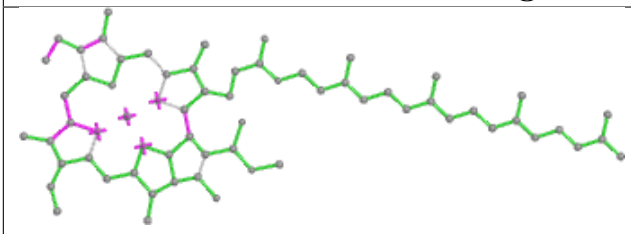


Rings

Ligand CLA S1 611



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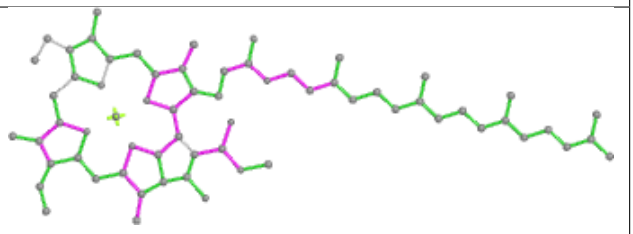
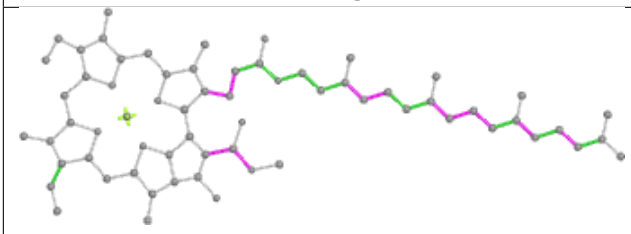


Bond angles



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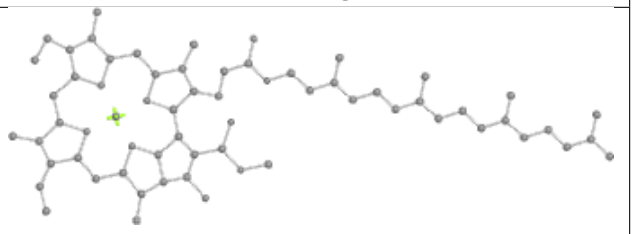
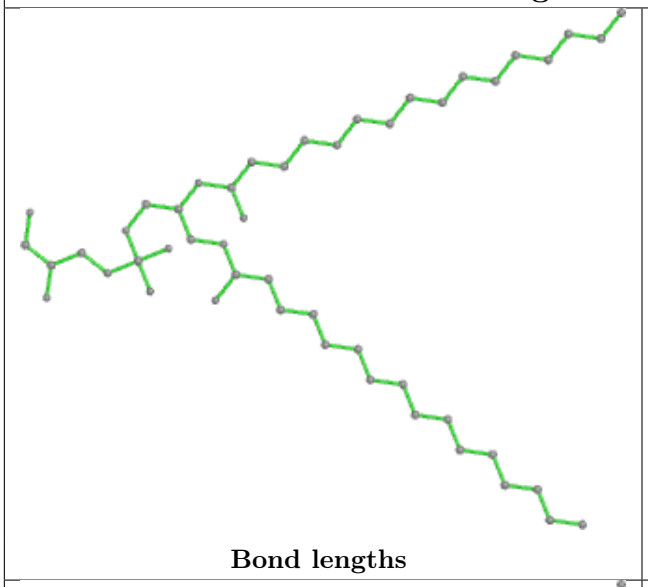


Rings

Ligand LHG l 101



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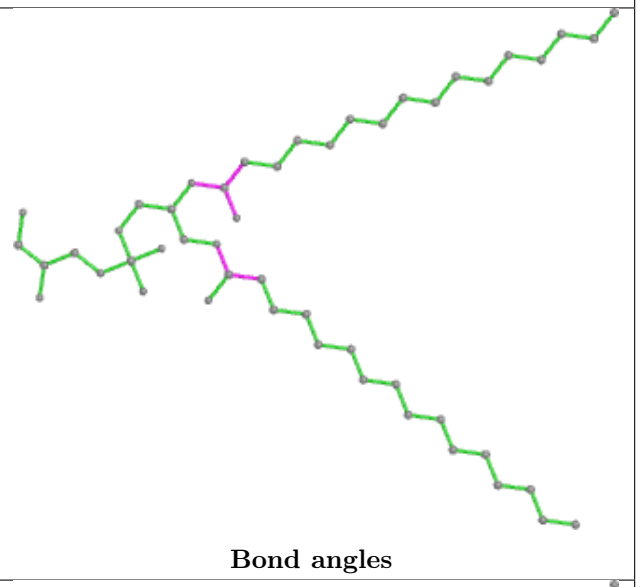
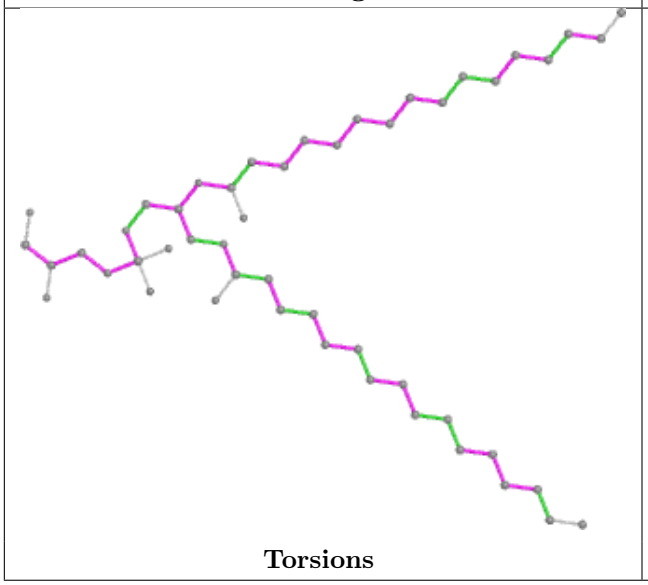


Bond angles



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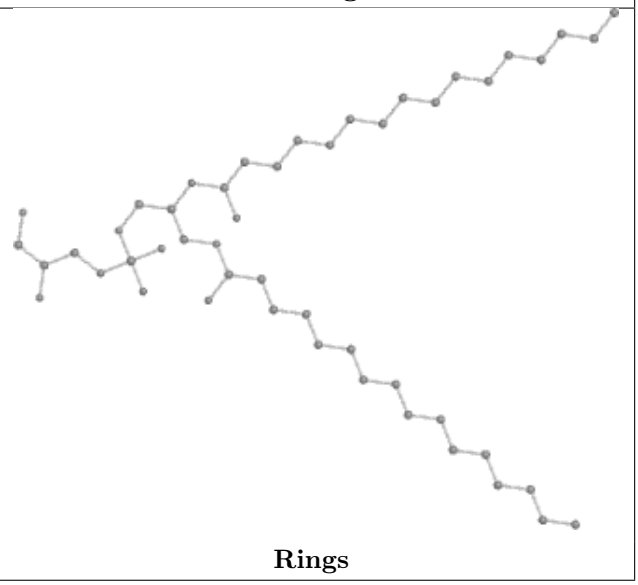
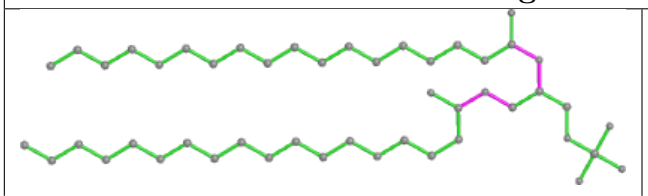


Rings

Ligand 3PH T1 101



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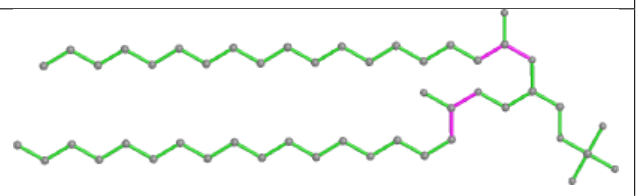
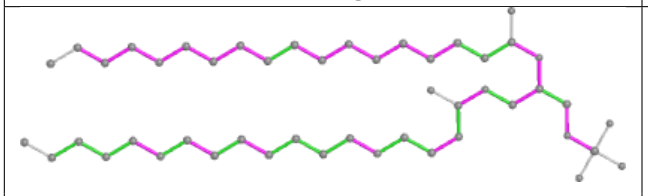


Bond angles



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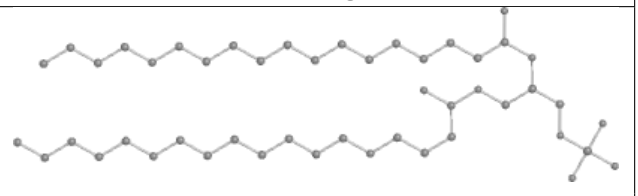
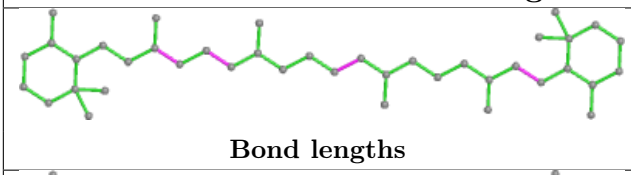


Rings

Ligand BCR d 404



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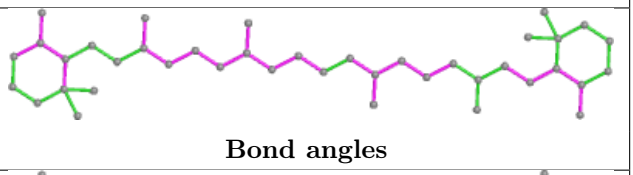
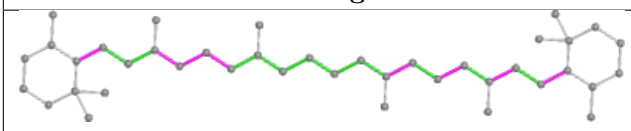


Bond angles



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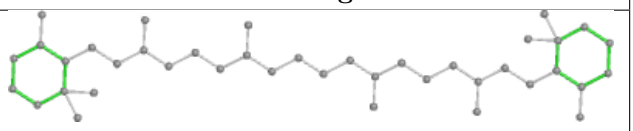
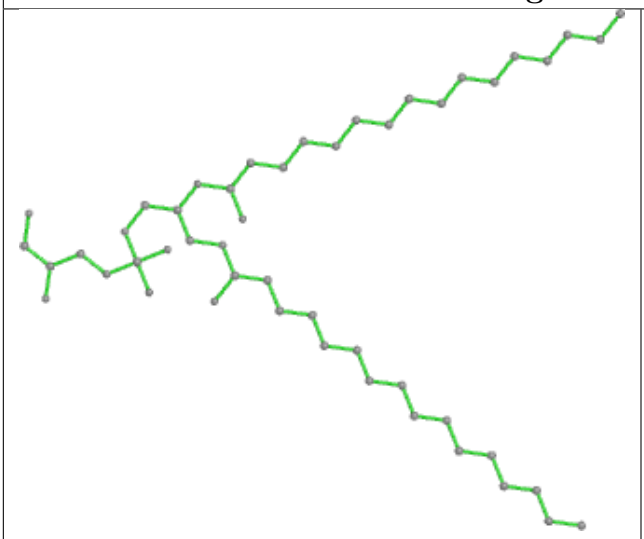


Rings

Ligand LHG y 624



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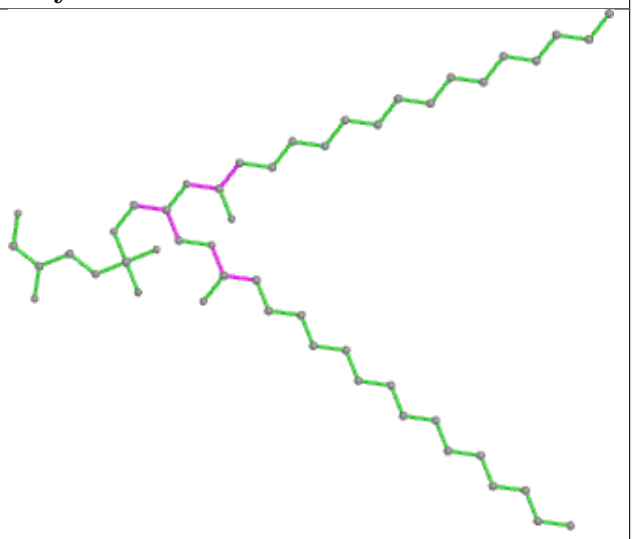
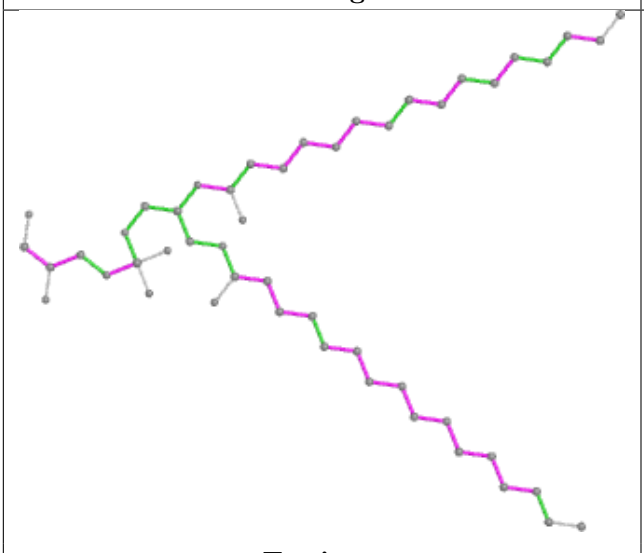


Bond angles



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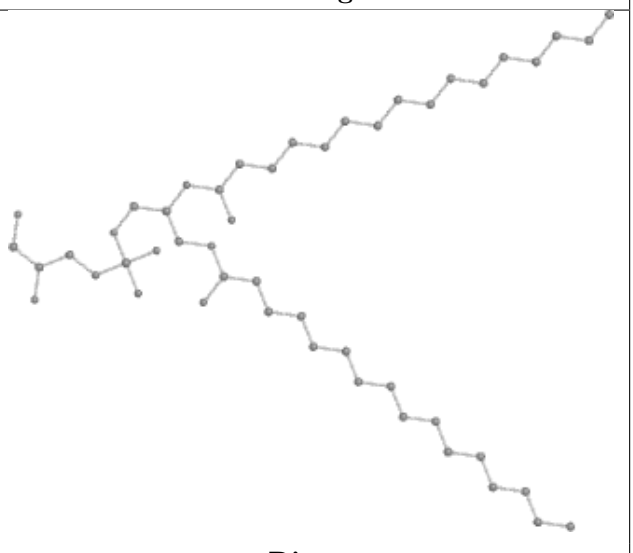
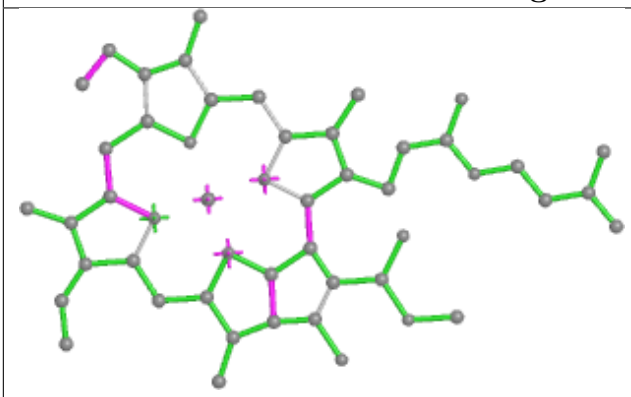


Rings

Ligand CLA s 617



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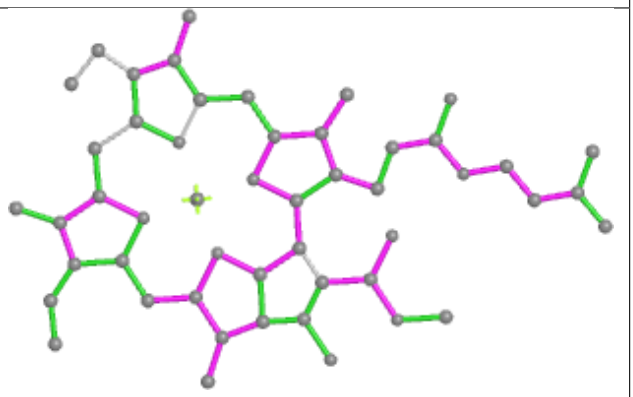
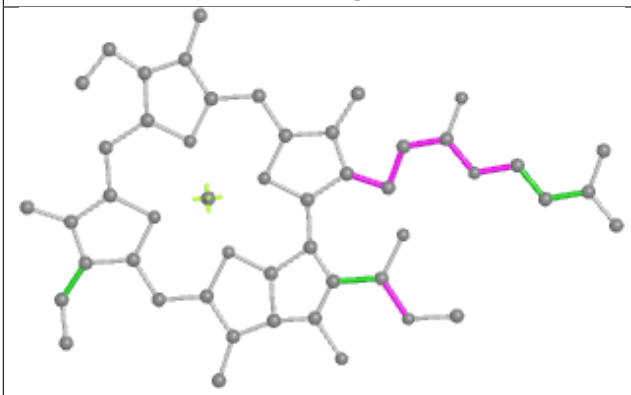


Bond angles



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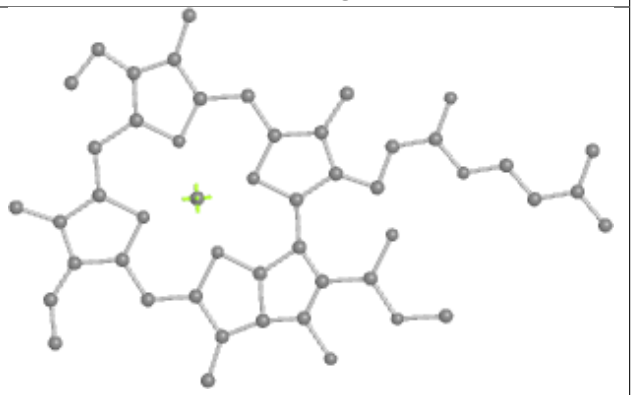
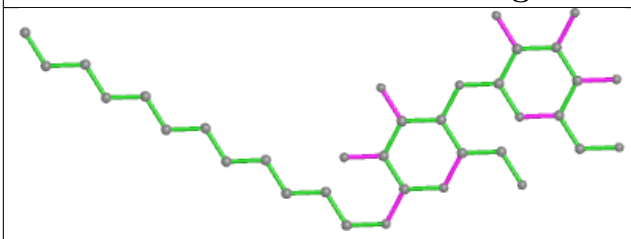


Rings

Ligand LMT R1 625



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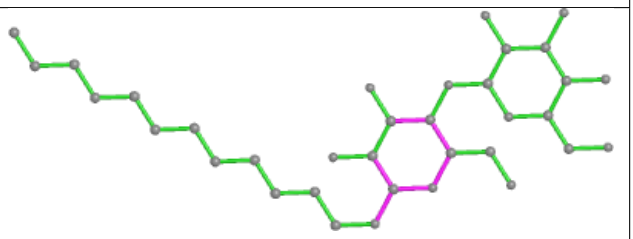
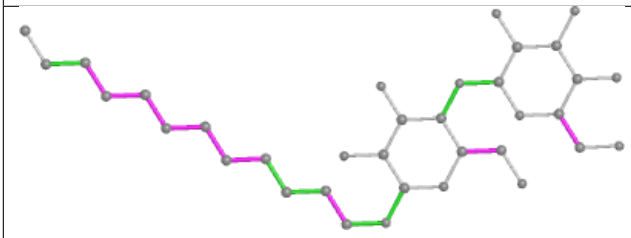
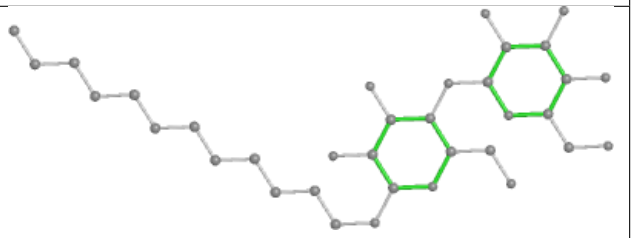


Bond angles

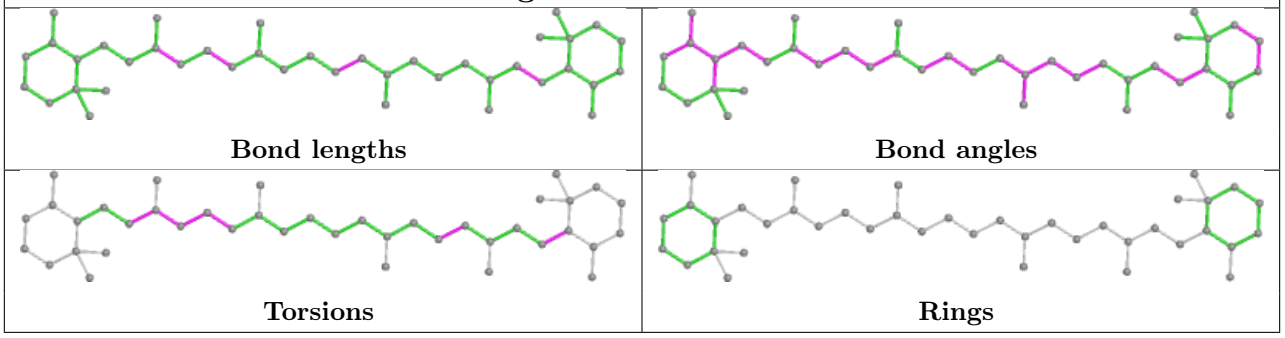


Torsions



Rings

Ligand BCR b1 619



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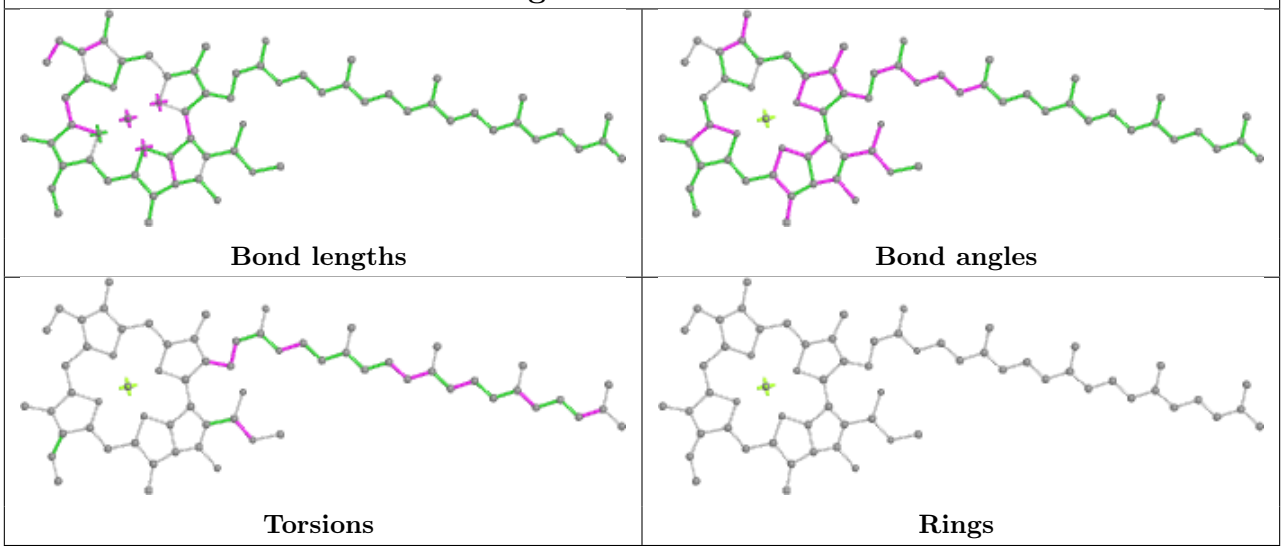
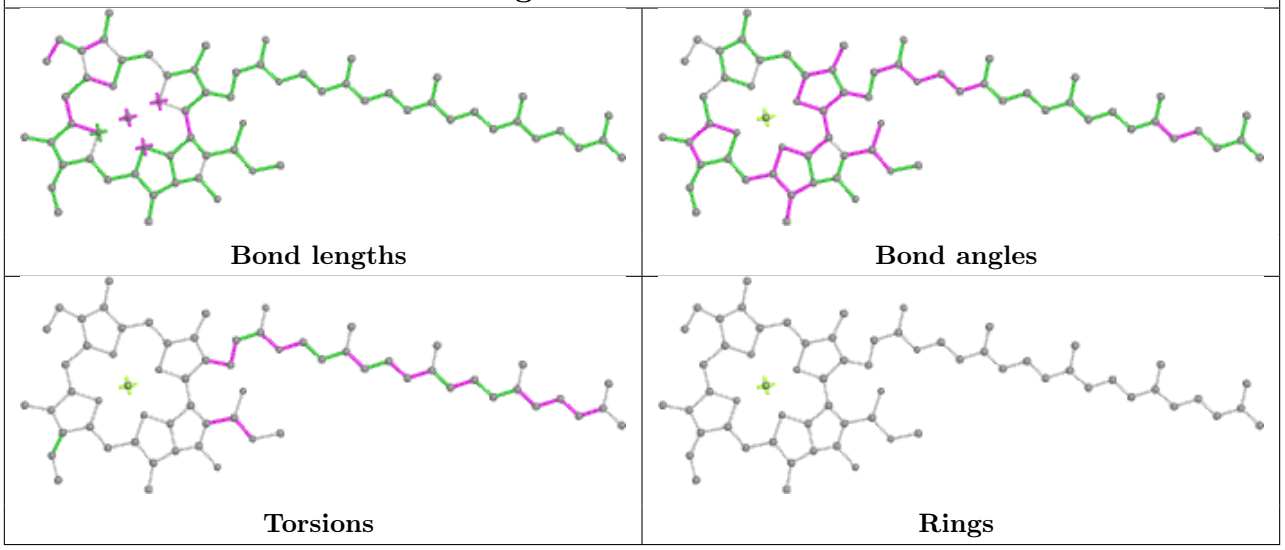
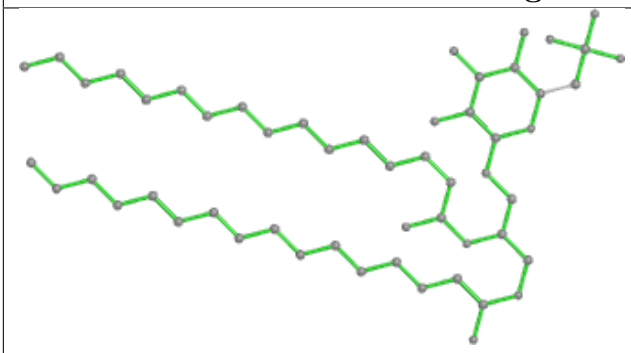


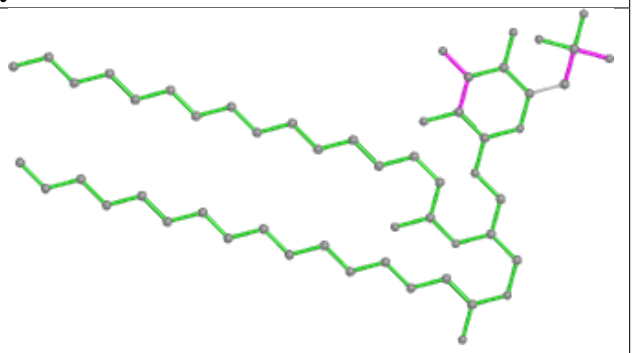
Ligand CLA G1 602



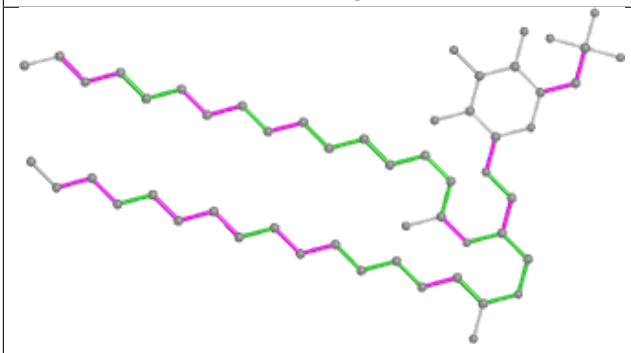
Ligand SQD B 626



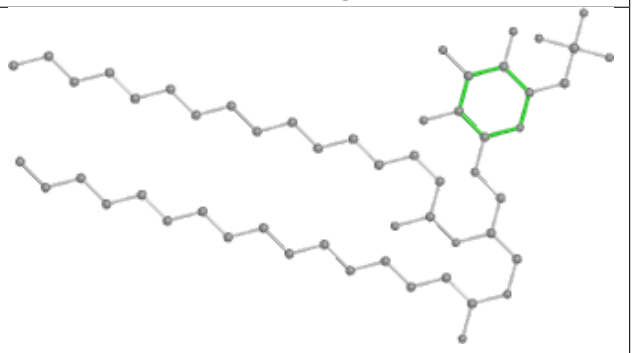
Bond lengths



Bond angles

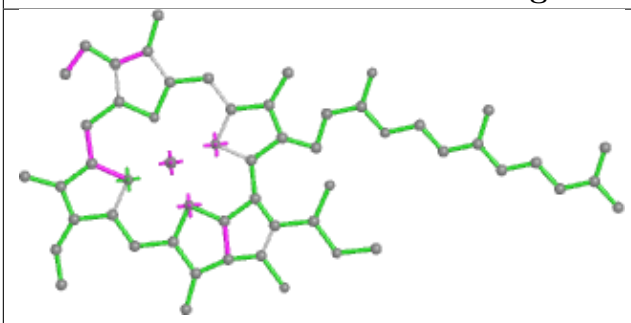


Torsions

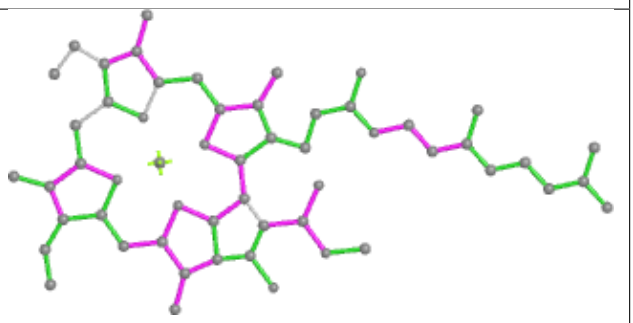


Rings

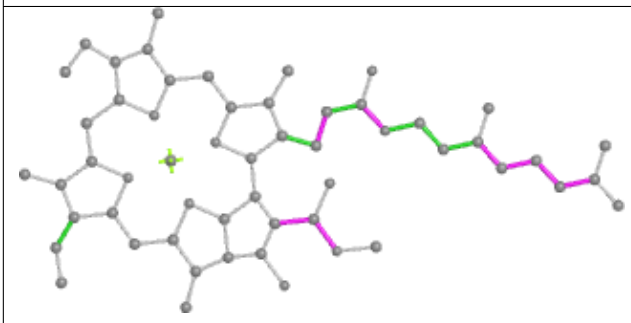
Ligand CLA s 604



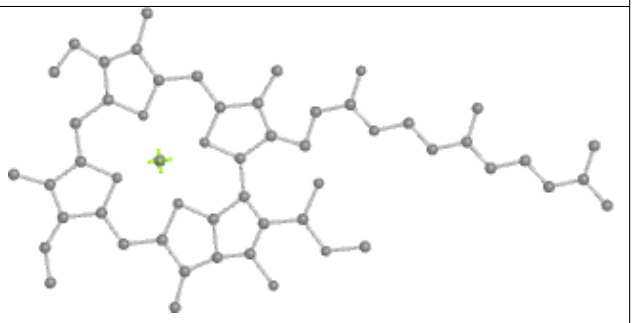
Bond lengths



Bond angles

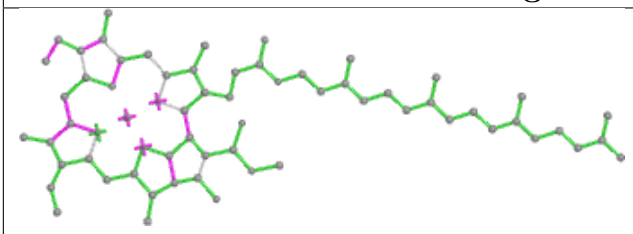


Torsions

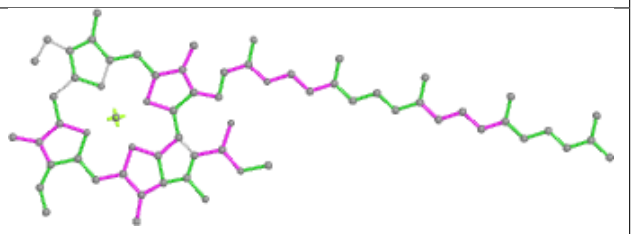


Rings

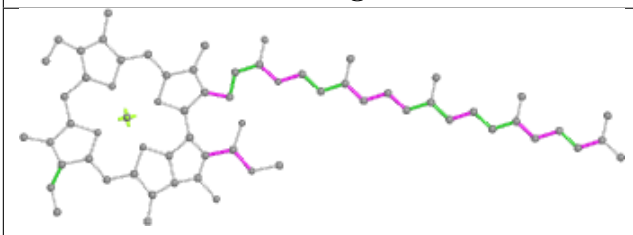
Ligand CLA Y 614



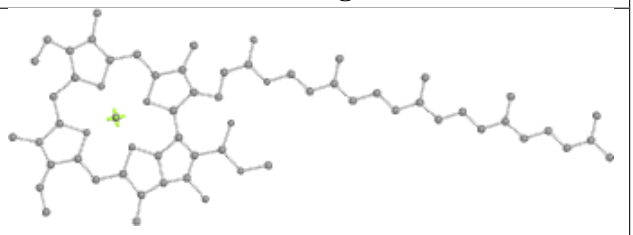
Bond lengths



Bond angles

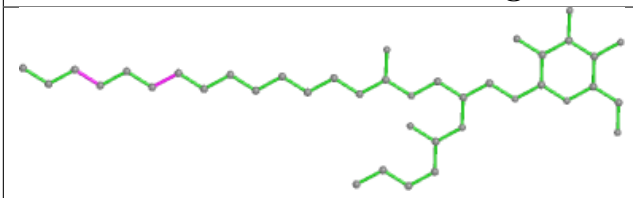


Torsions



Rings

Ligand LMG W1 201



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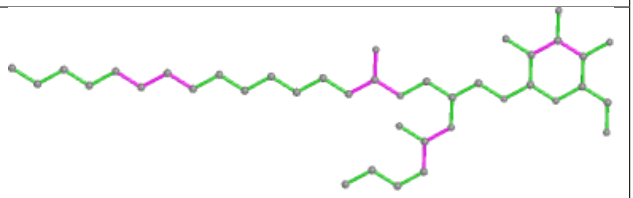
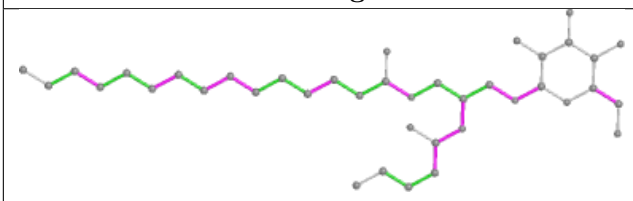


Bond angles



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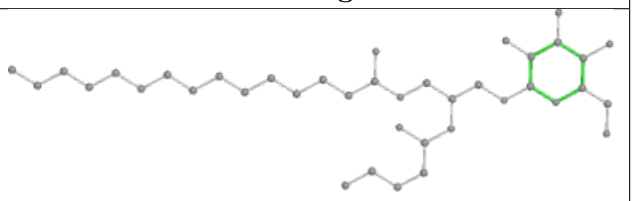
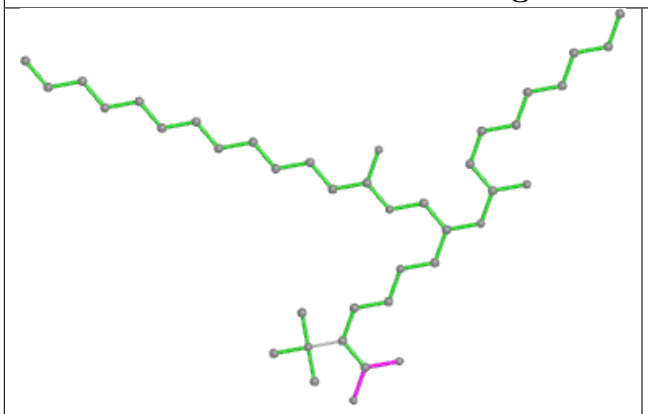


Rings

Ligand LMK C1 527



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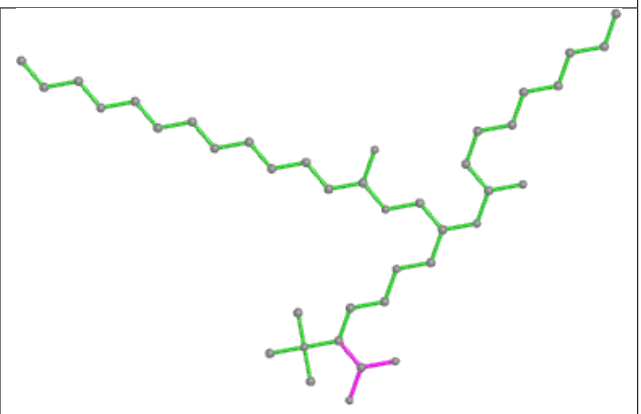
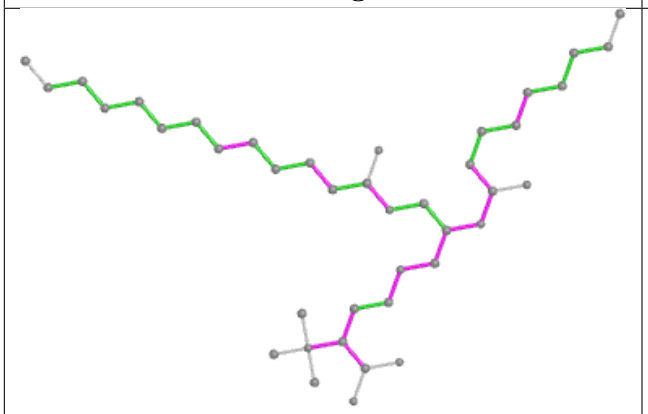
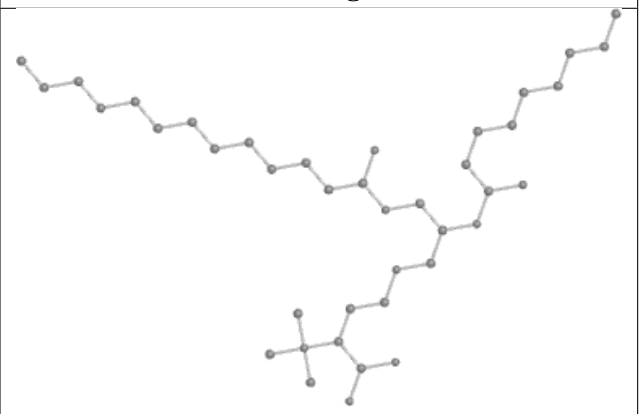


Bond angles

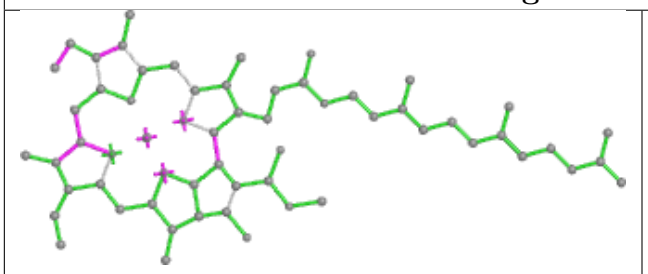


Torsions



Rings

Ligand CLA r1 609



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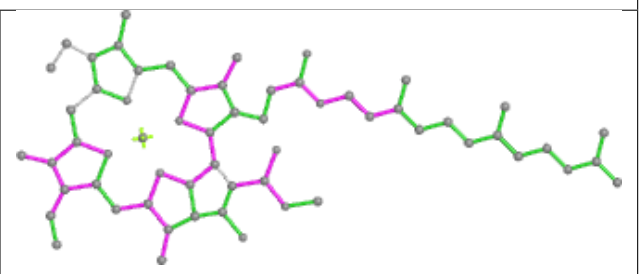
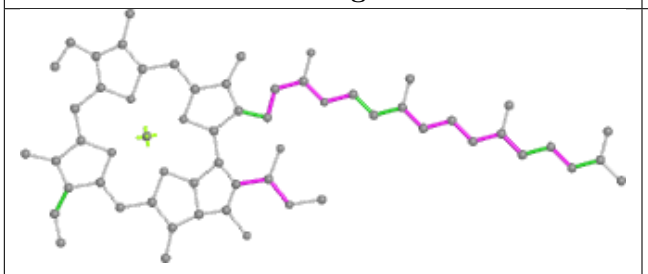


Bond angles



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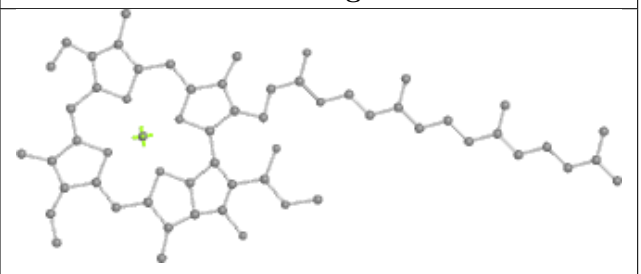
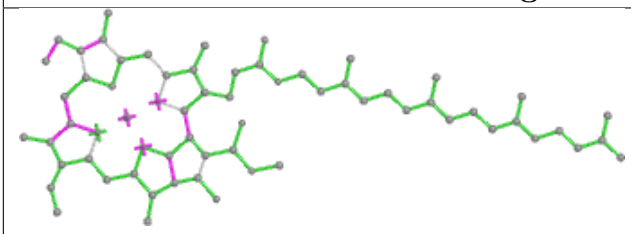


Rings

Ligand CLA c1 503



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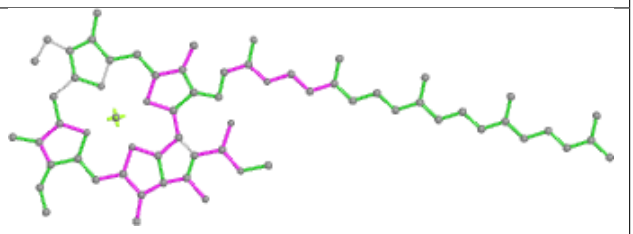
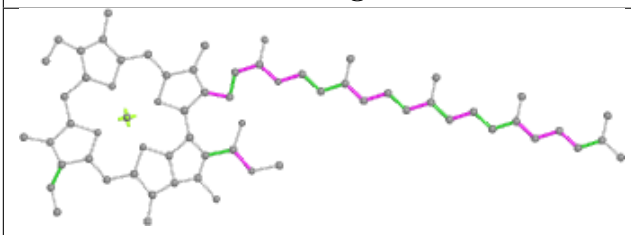


Bond angles



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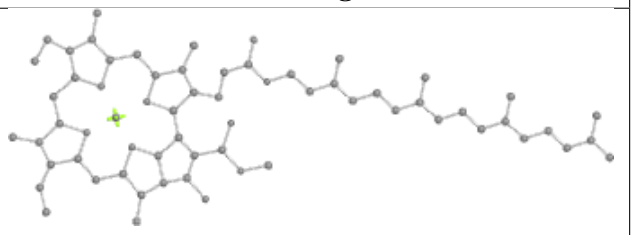
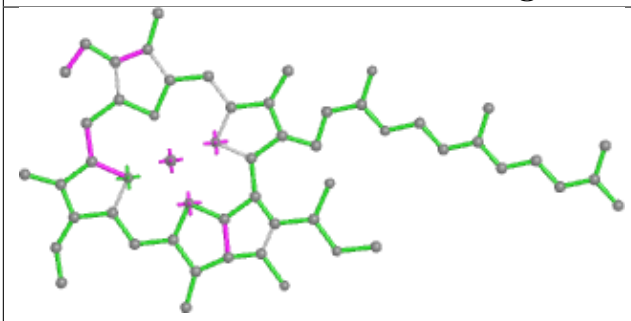


Rings

Ligand CLA S1 614



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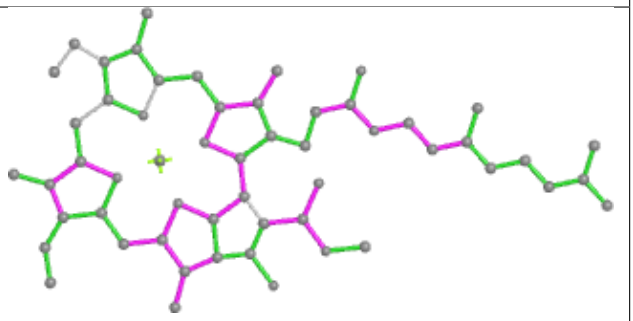
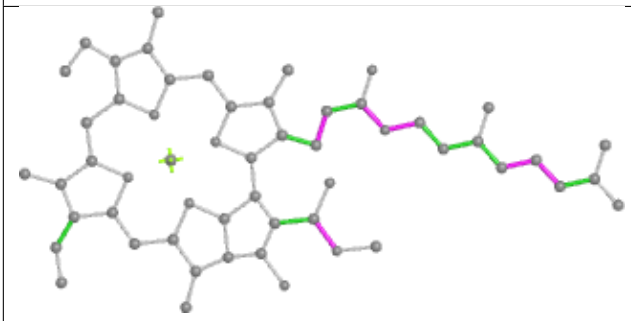


Bond angles



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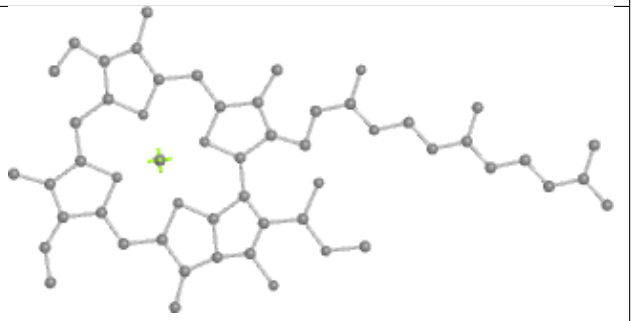
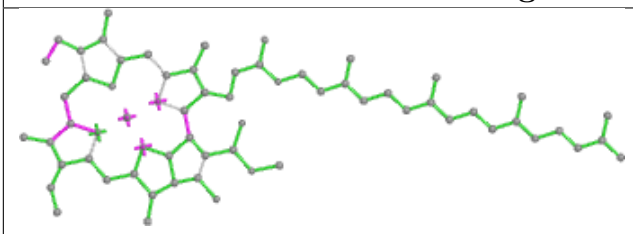


Rings

Ligand CLA d1 403



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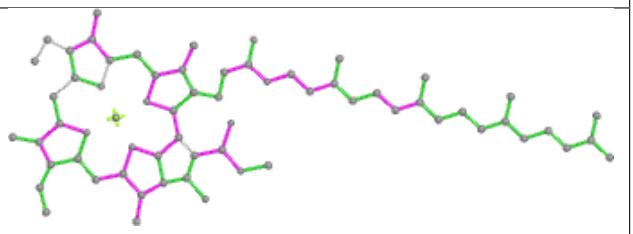
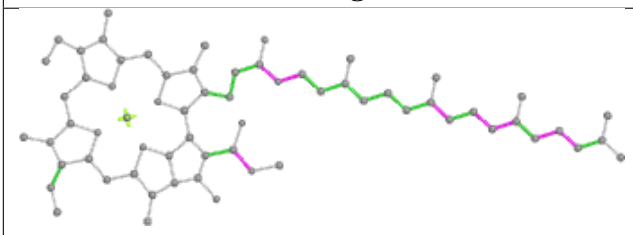


Bond angles



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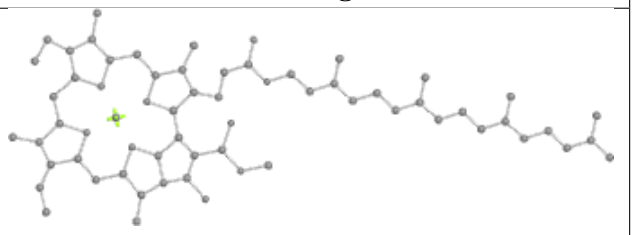
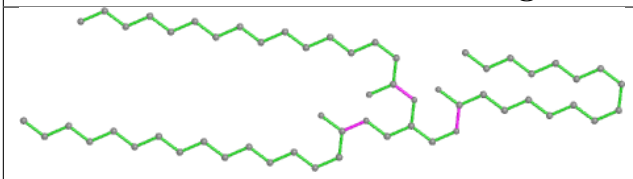


Rings

Ligand 4RF K1 101



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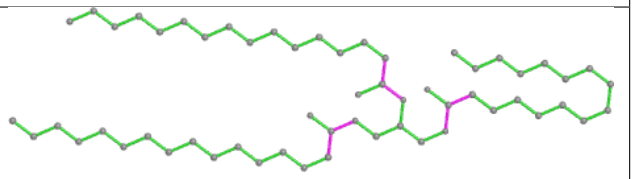
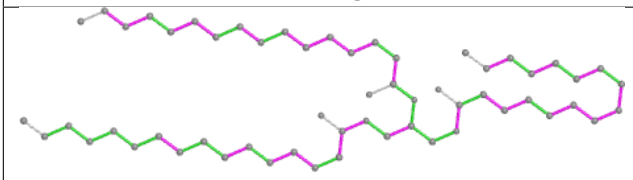


Bond angles



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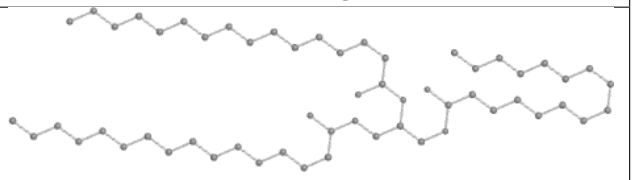
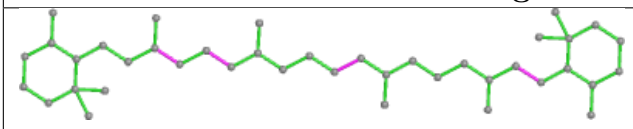


Rings

Ligand BCR D1 404



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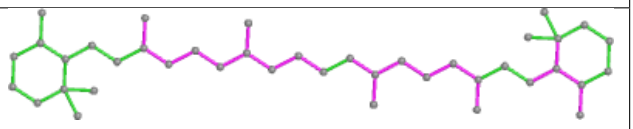
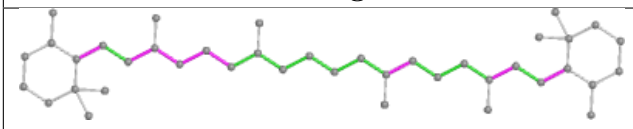


Bond angles



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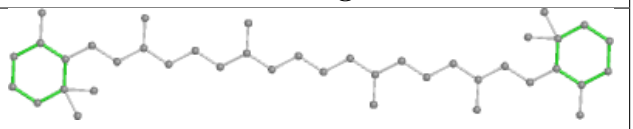
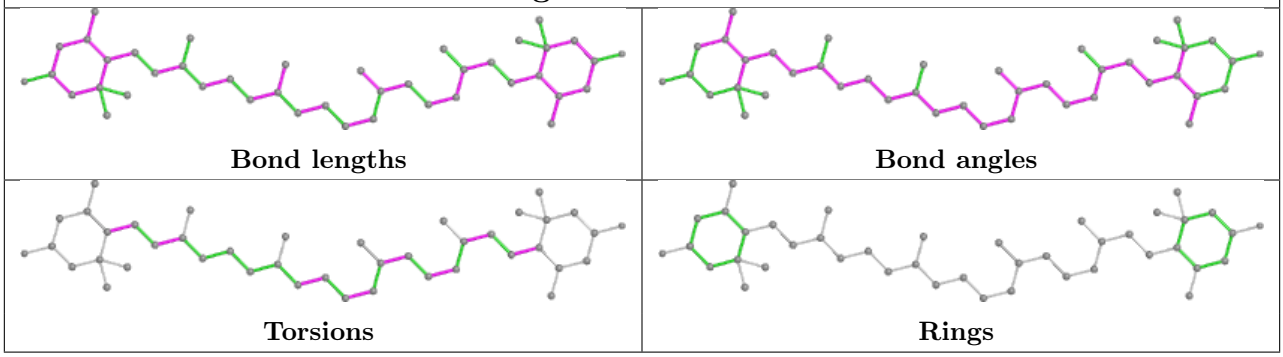
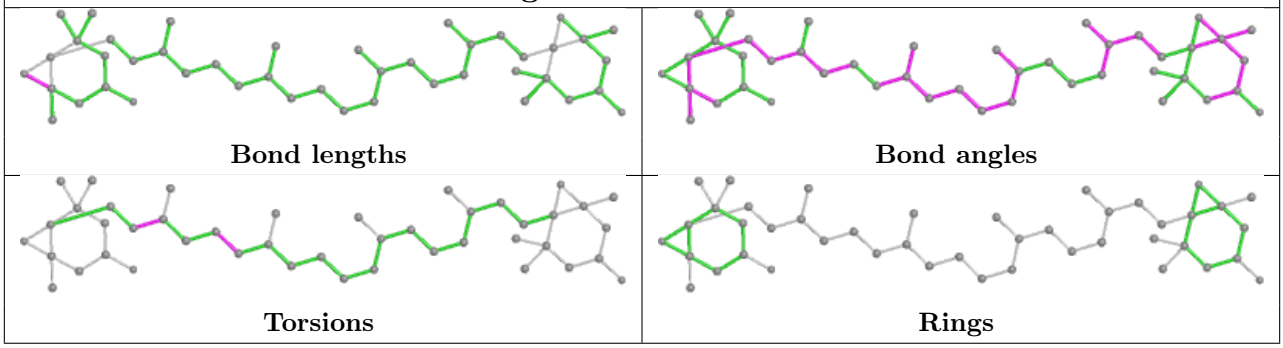


Rings

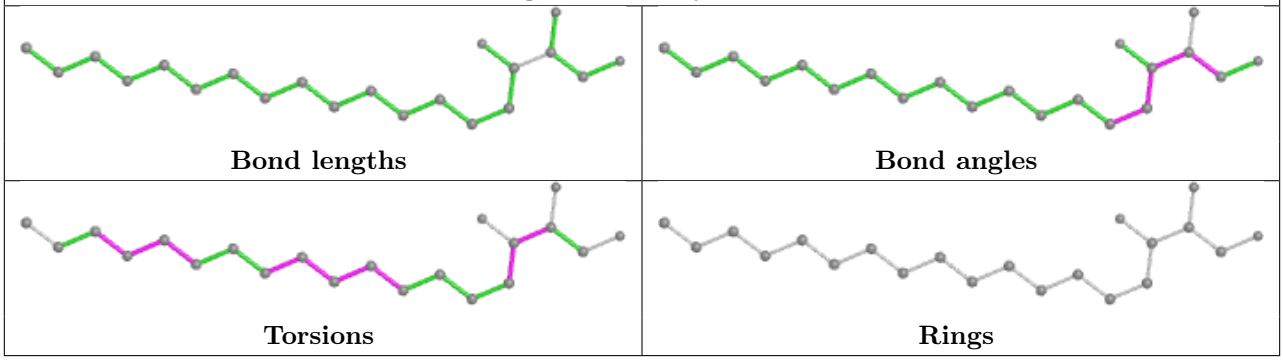
Ligand C7Z b 620



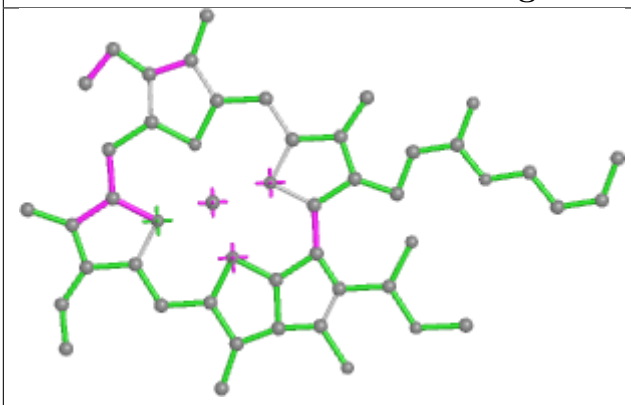
Ligand XAT r1 621



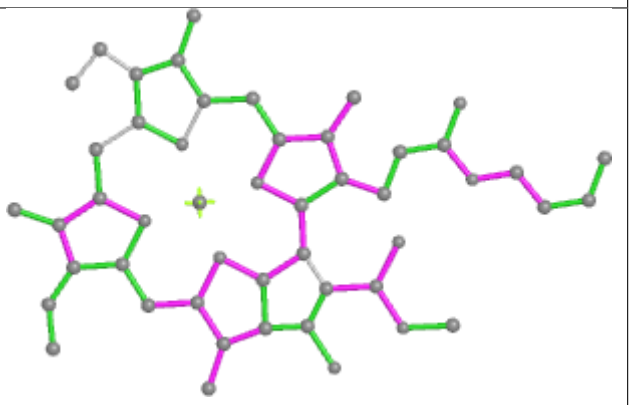
Ligand SPH y1 625



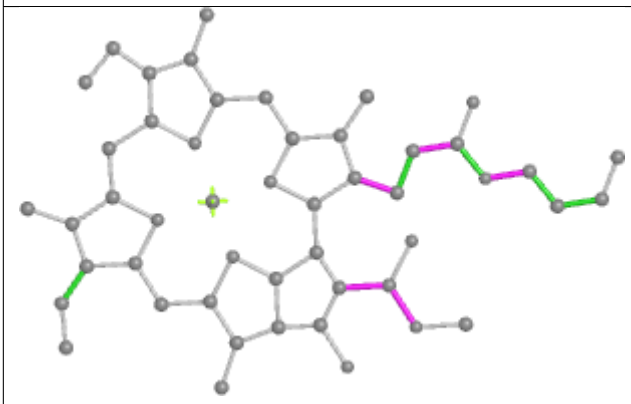
Ligand CLA n1 614



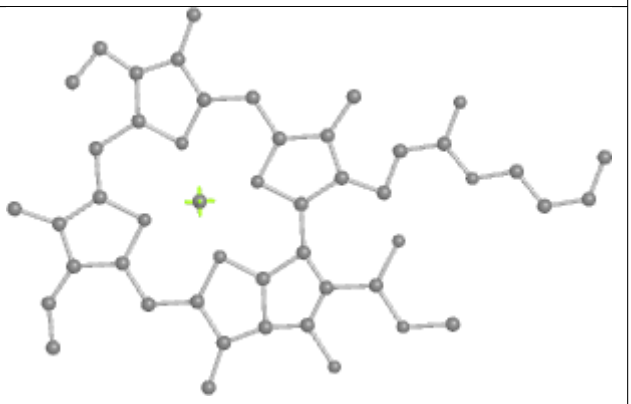
Bond lengths



Bond angles

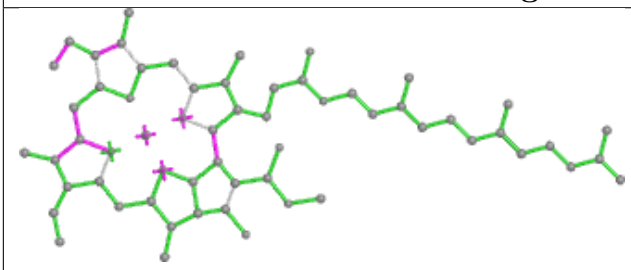


Torsions

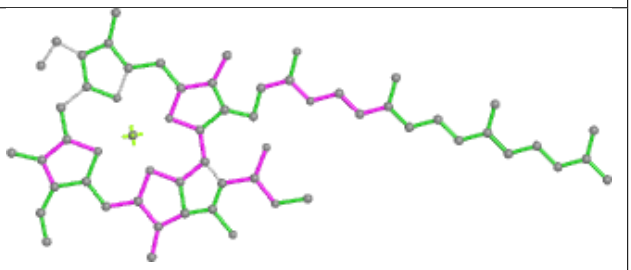


Rings

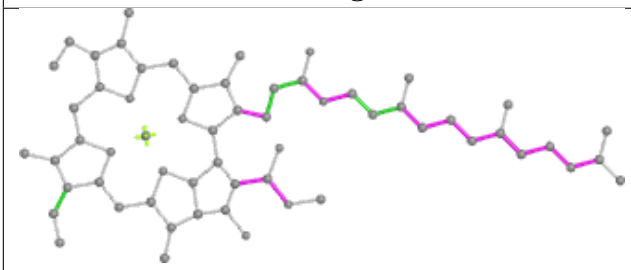
Ligand CLA r1 603



Bond lengths



Bond angles



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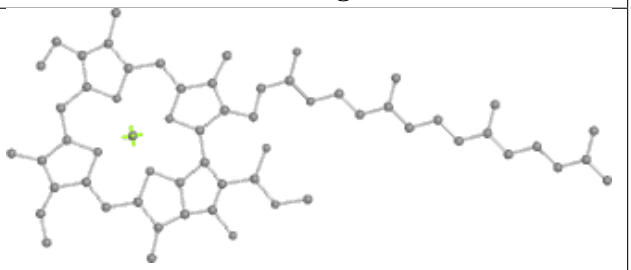
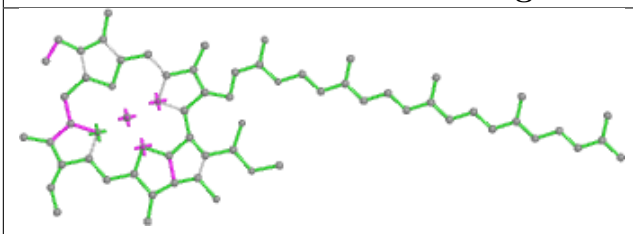


Rings

Ligand CLA C1 512



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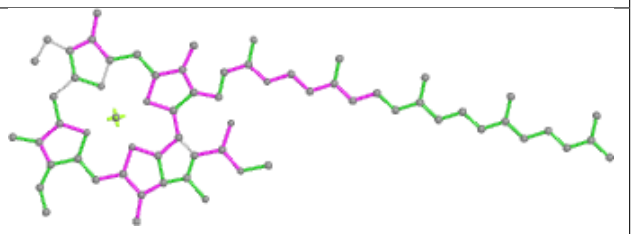
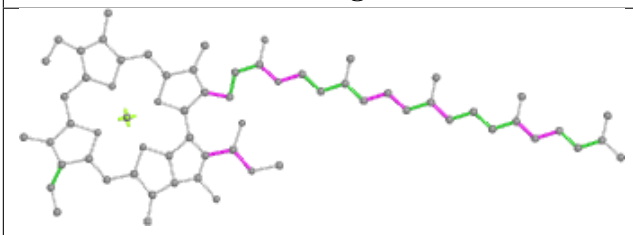
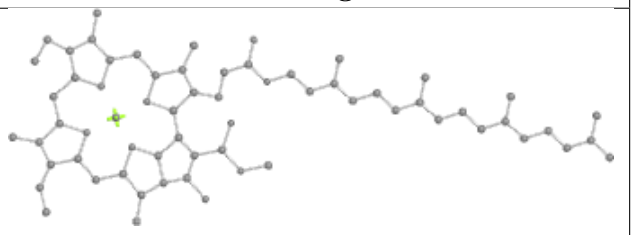


Bond angles

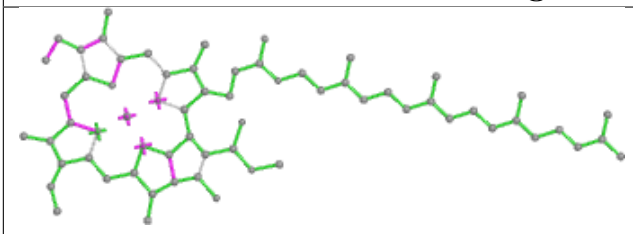


Torsions

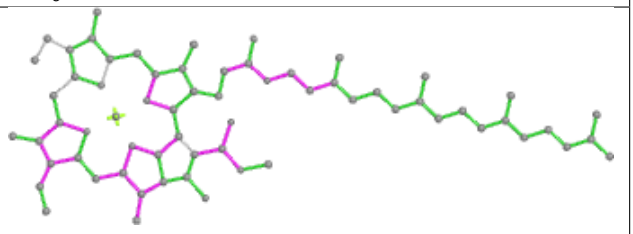


Rings

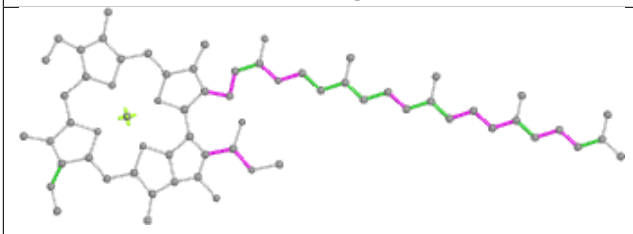
Ligand CLA y 602



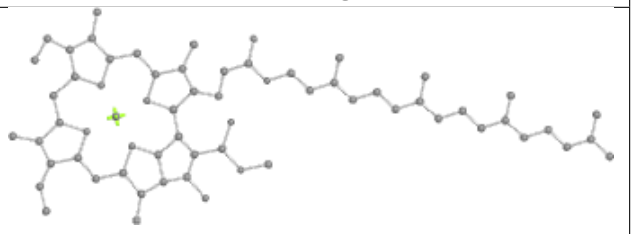
Bond lengths



Bond angles

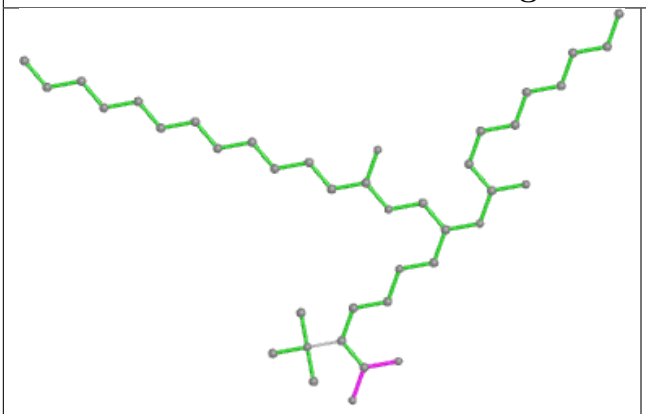


Torsions

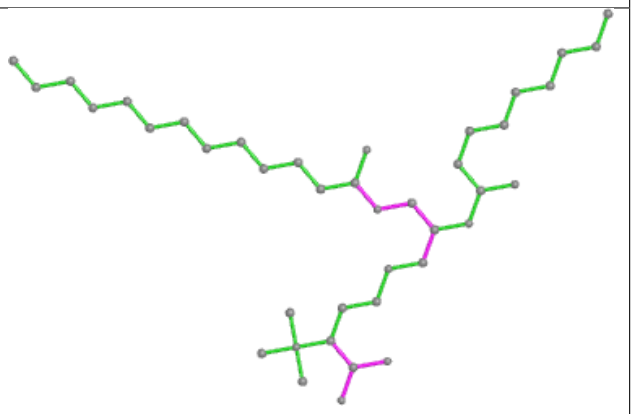


Rings

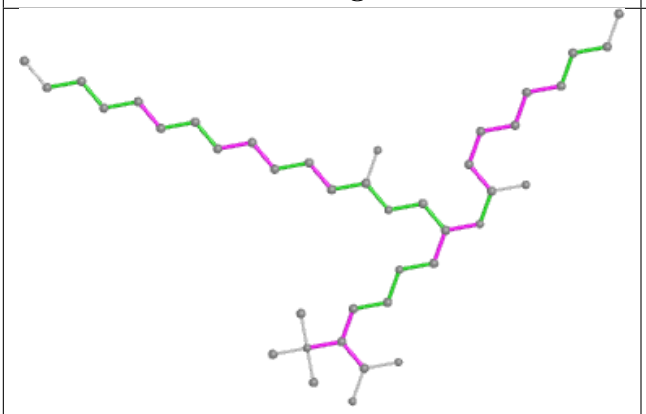
Ligand LMK C 527



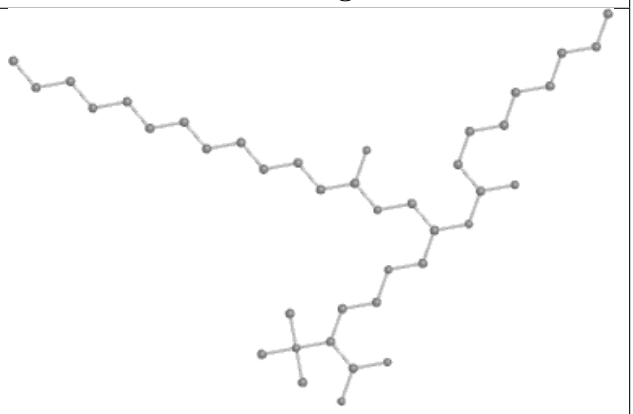
Bond lengths



Bond angles

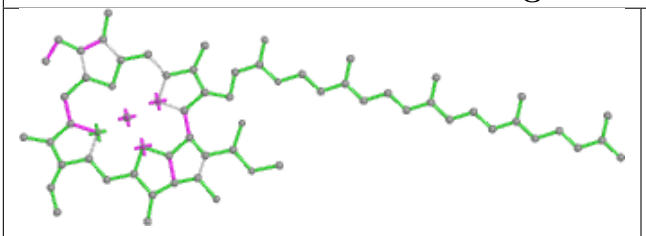


Torsions

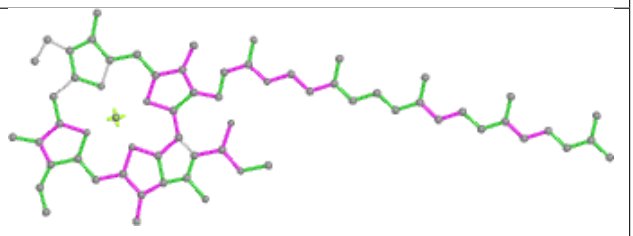


Rings

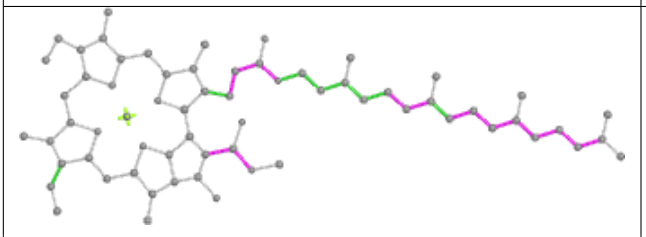
Ligand CLA Y 613



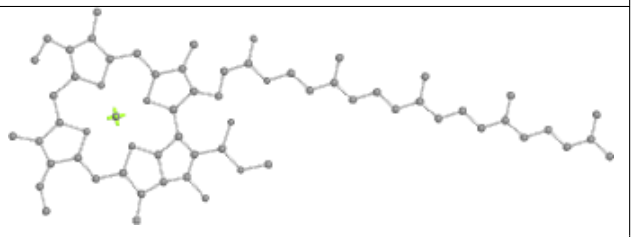
Bond lengths



Bond angles

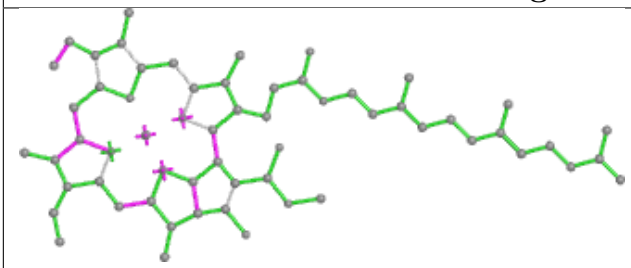


Torsions



Rings

Ligand CLA r 608



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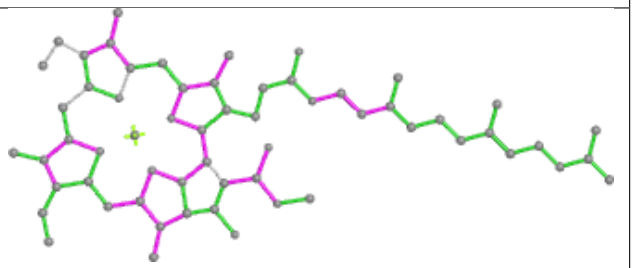
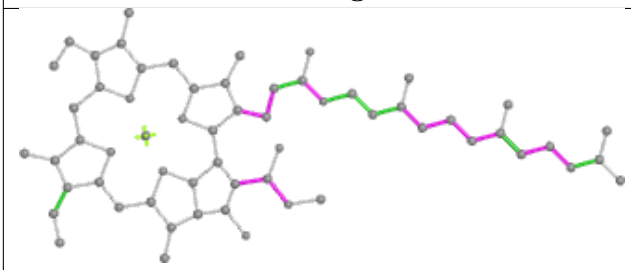
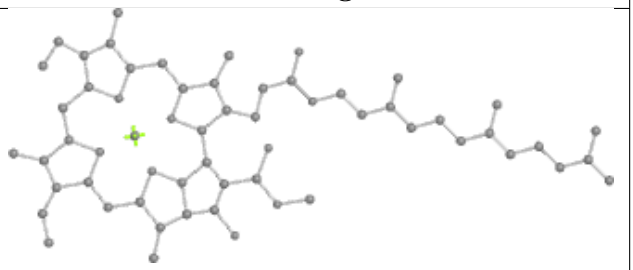


Bond angles

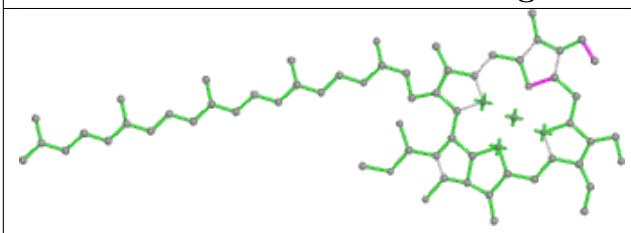


Torsions



Rings

Ligand CHL n1 609



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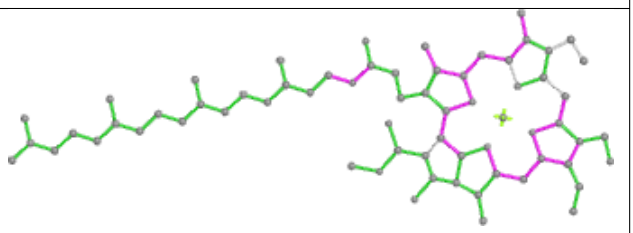
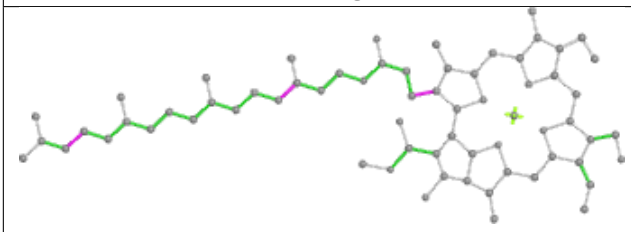
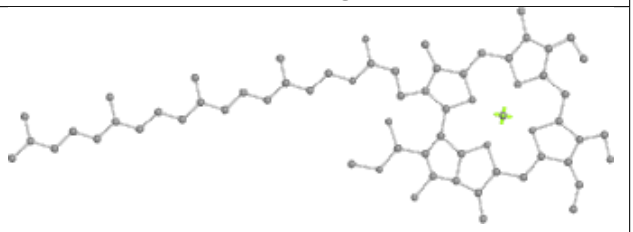


Bond angles

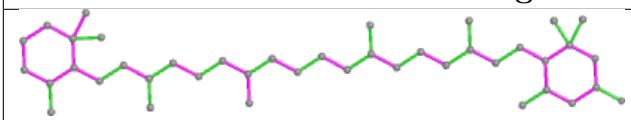


Torsions



Rings

Ligand RRX h1 101



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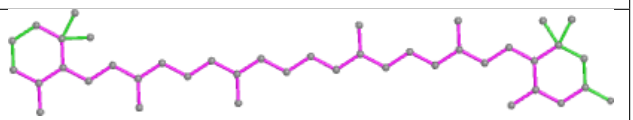
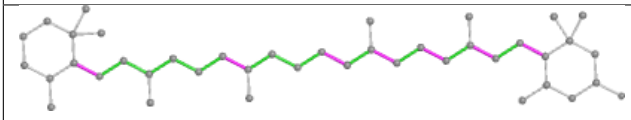


Bond angles



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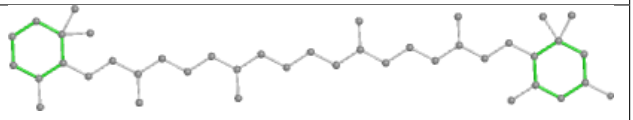
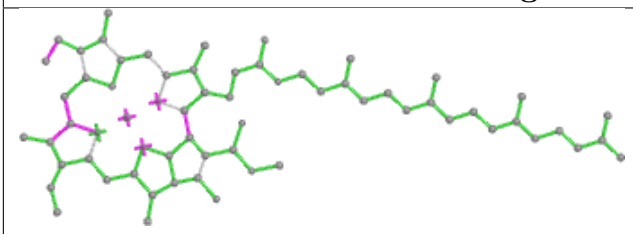


Rings

Ligand CLA c1 512



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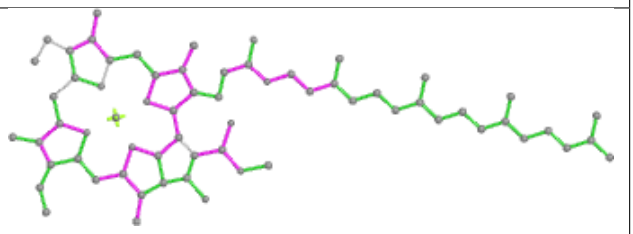
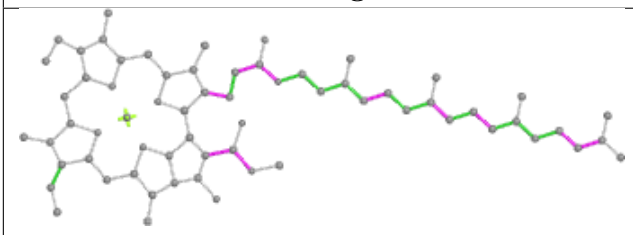


Bond angles



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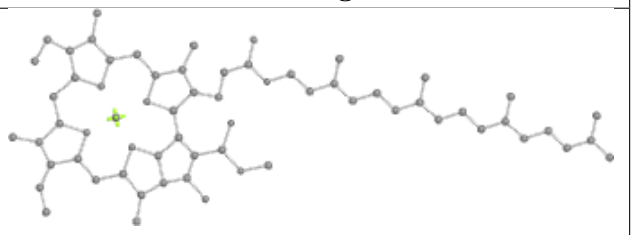
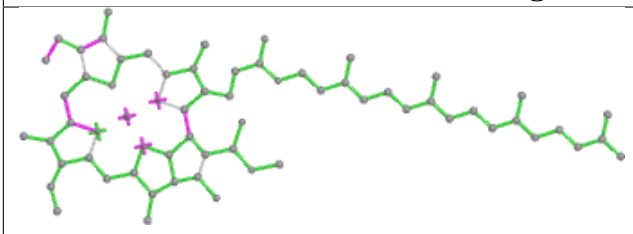


Rings

Ligand CLA g 611



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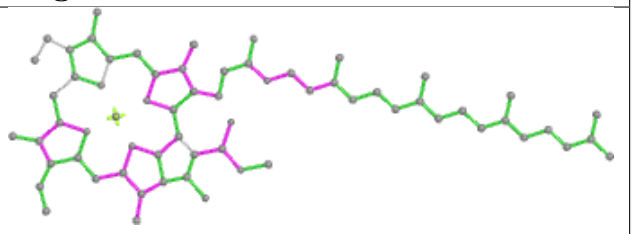
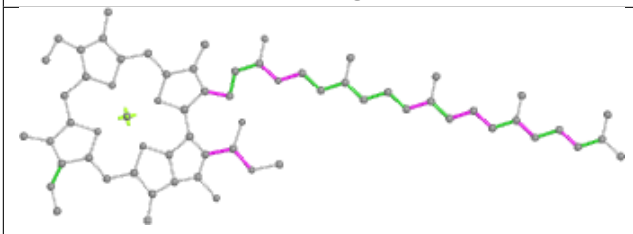


Bond angles



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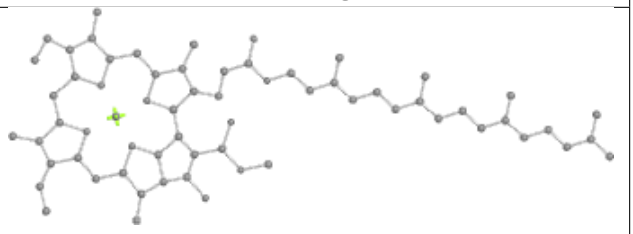
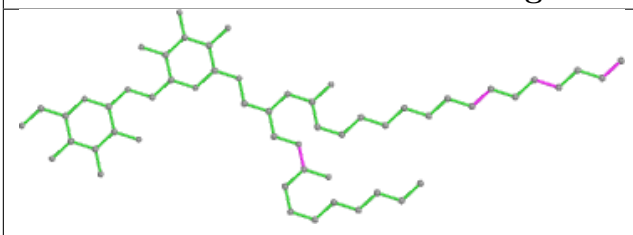
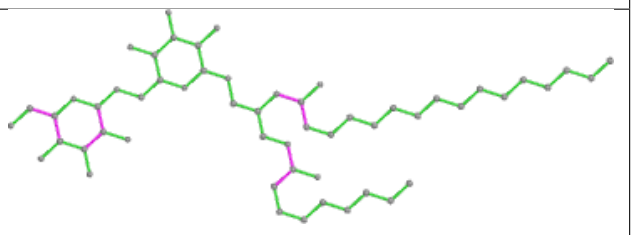


Rings

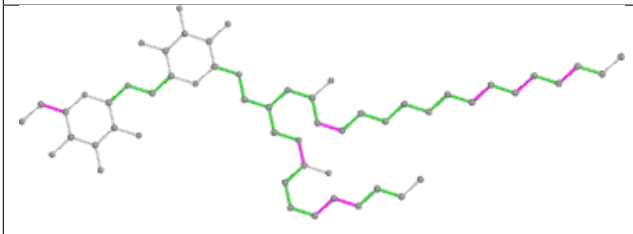
Ligand DGD c 518



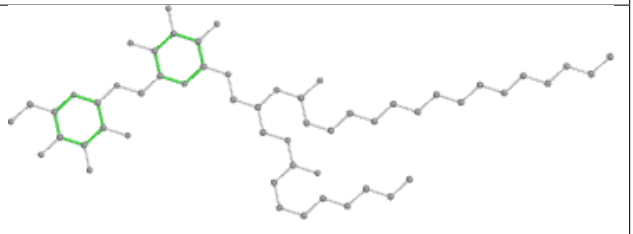
Bond lengths



Bond angles

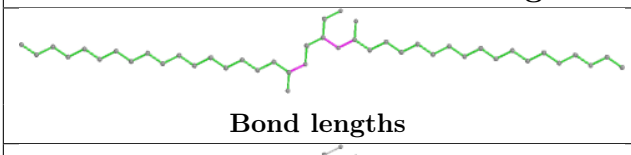


Torsions

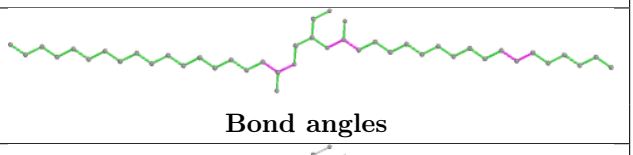


Rings

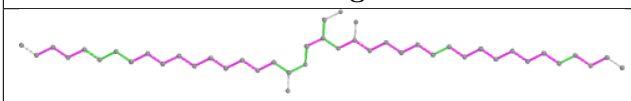
Ligand DGA c 524



Bond lengths



Bond angles



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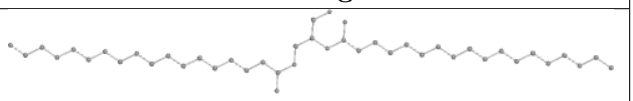
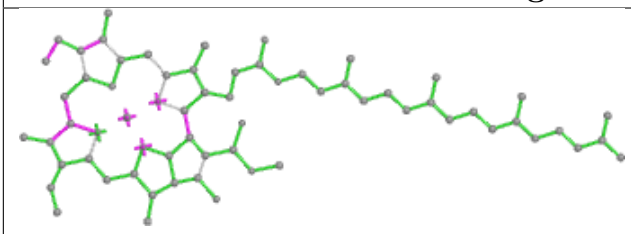
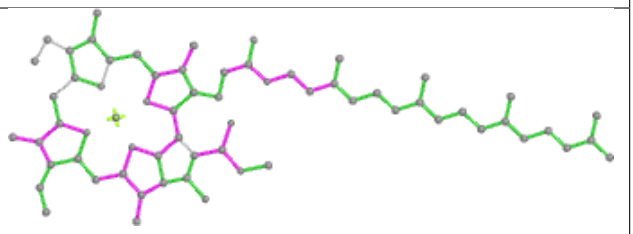


Rings

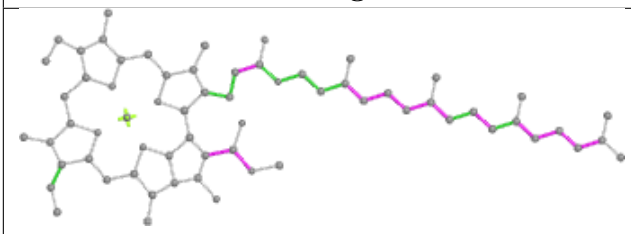
Ligand CLA b 602



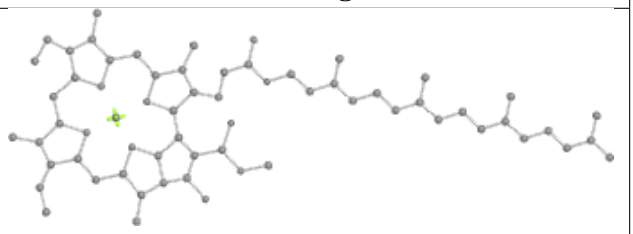
Bond lengths



Bond angles

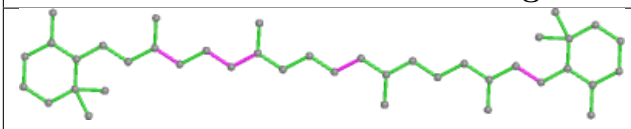


Torsions



Rings

Ligand BCR C 514



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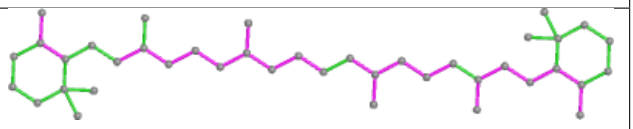
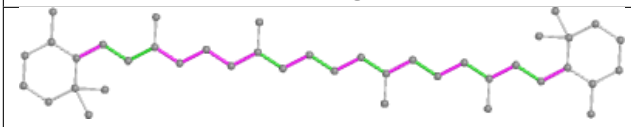


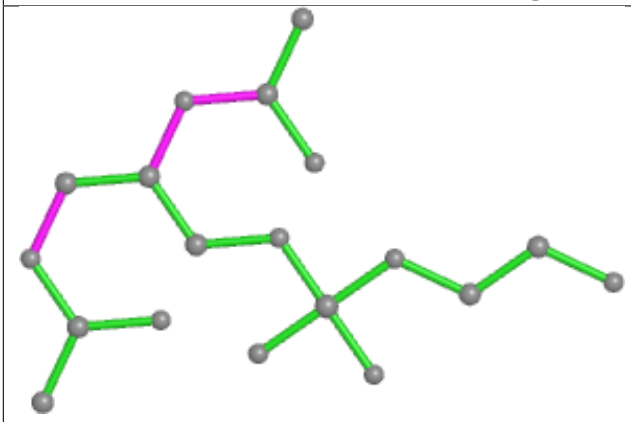
Bond angles



Torsions

Rings

Ligand PTY y 627



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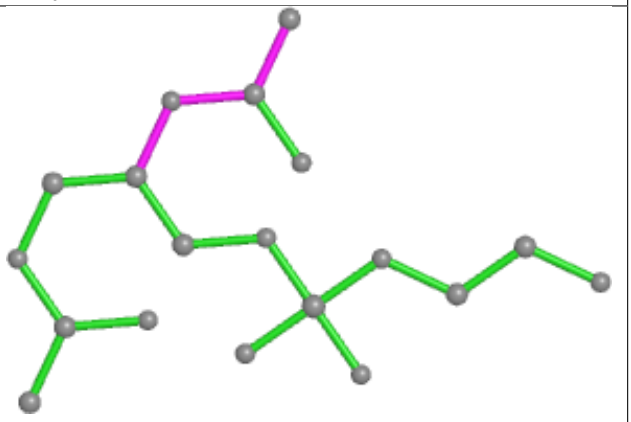
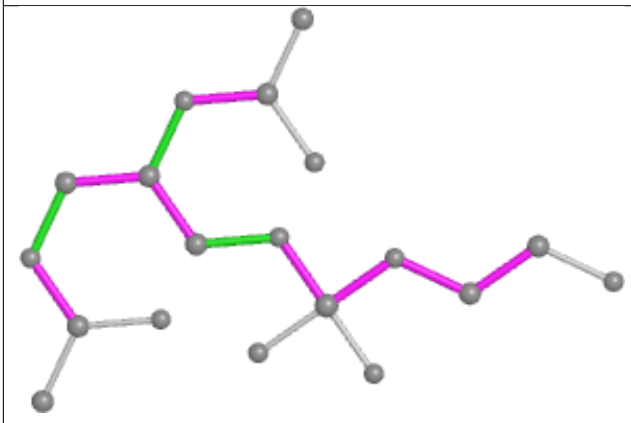
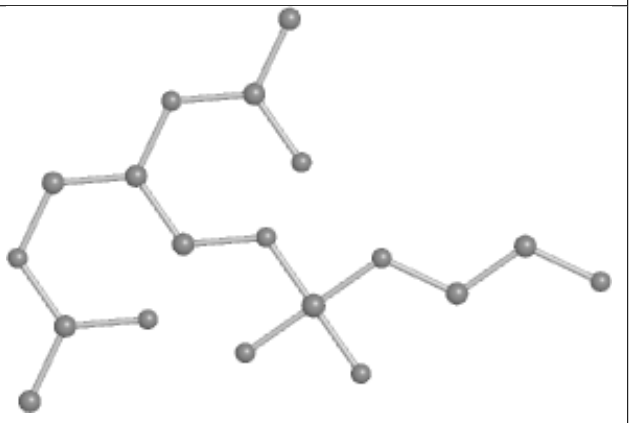


Bond angles

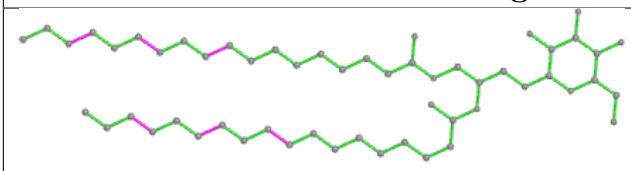


Torsions

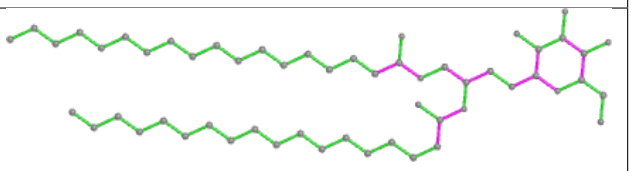


Rings

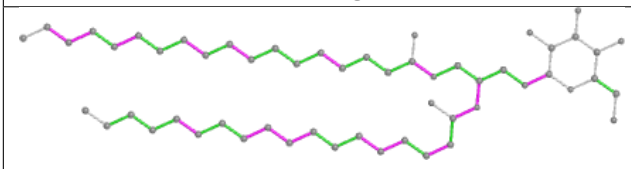
Ligand LMG C1 523



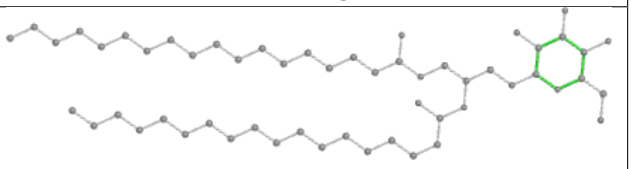
Bond lengths



Bond angles

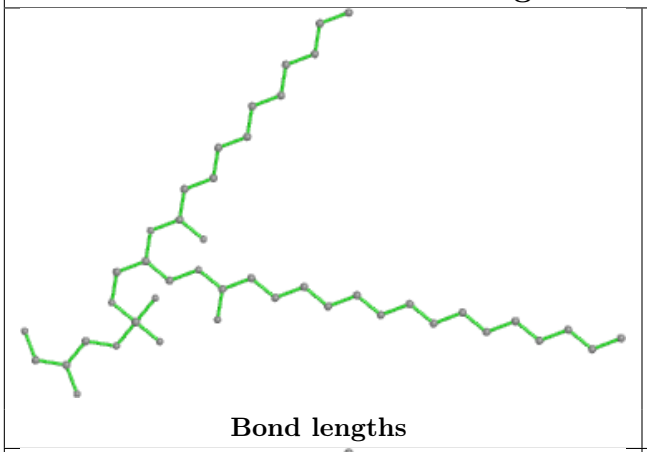


Torsions

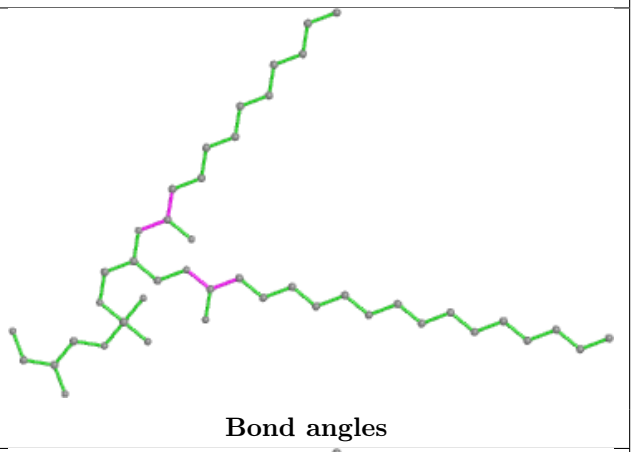


Rings

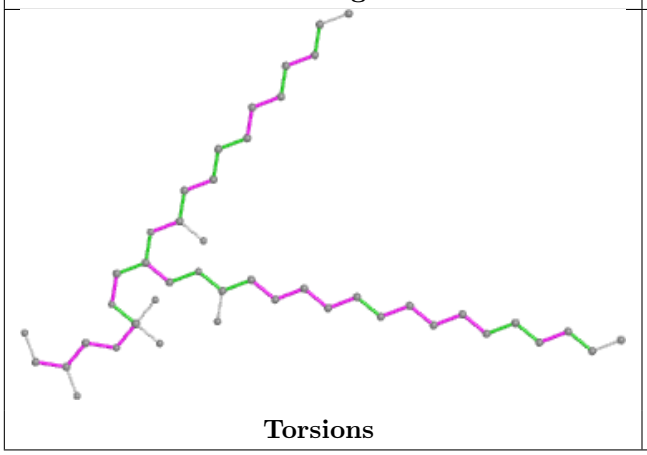
Ligand LHG D1 408



Bond lengths



Bond angles



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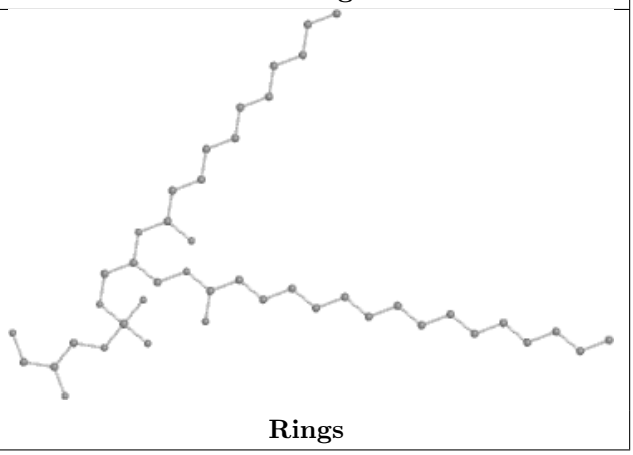
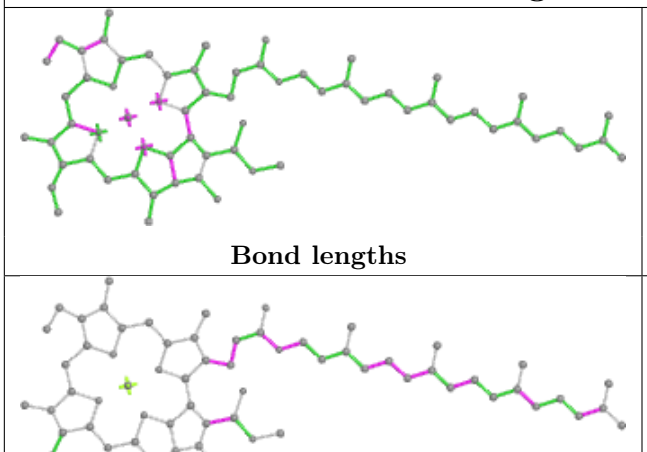
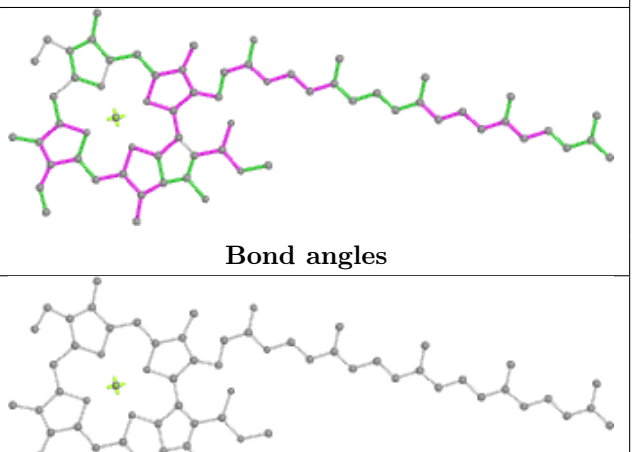


Rings

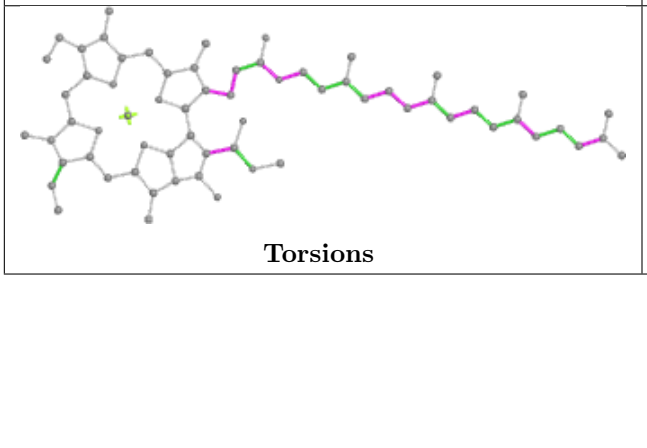
Ligand CLA b 605



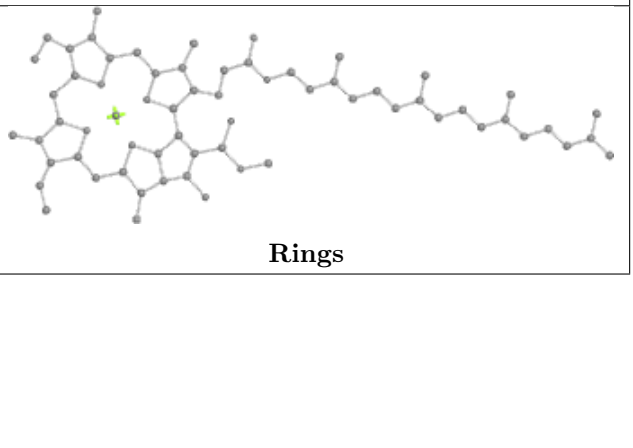
Bond lengths



Bond angles

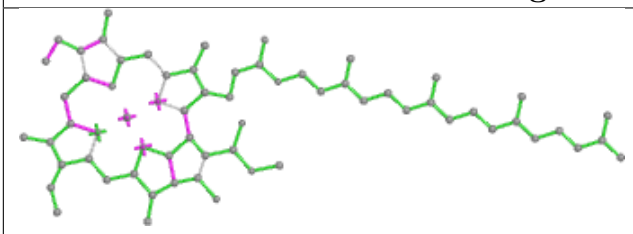


Torsions

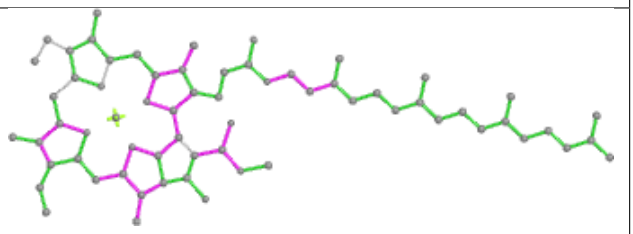


Rings

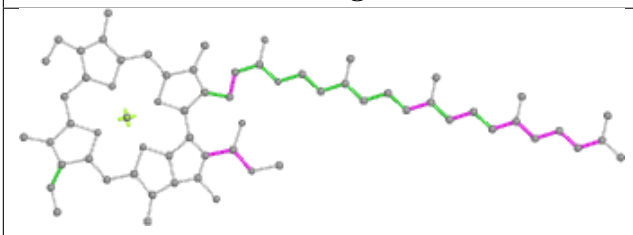
Ligand CLA c 507



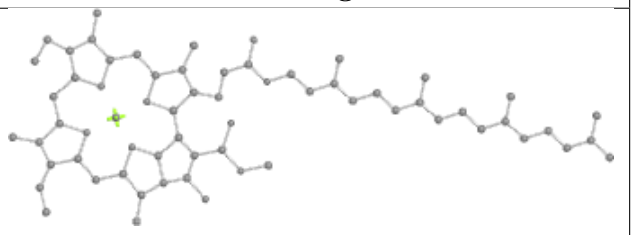
Bond lengths



Bond angles

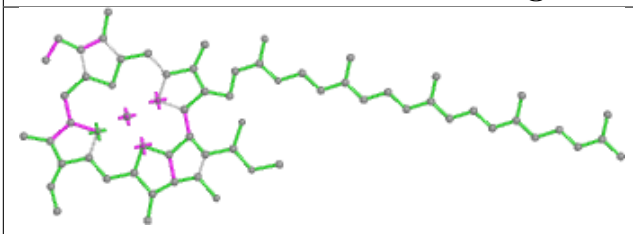


Torsions



Rings

Ligand CLA n 610



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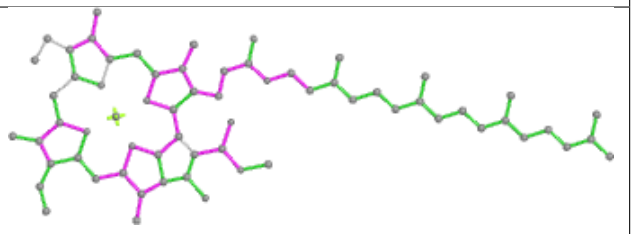

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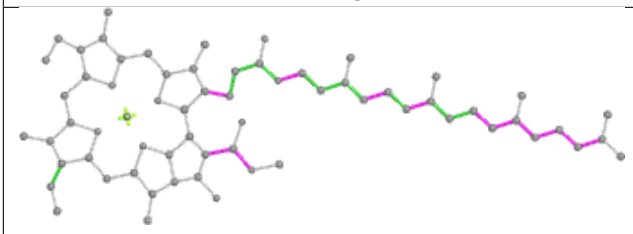
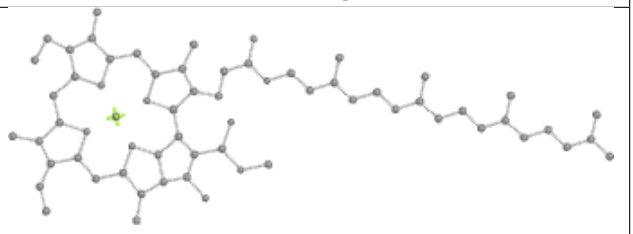
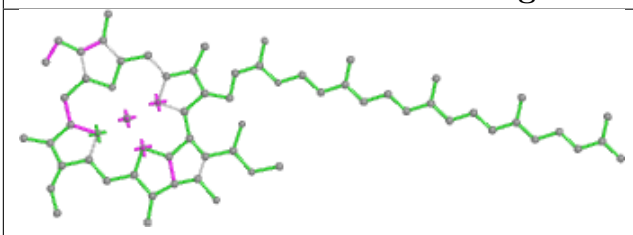


Torsions



Rings

Ligand CLA b1 616



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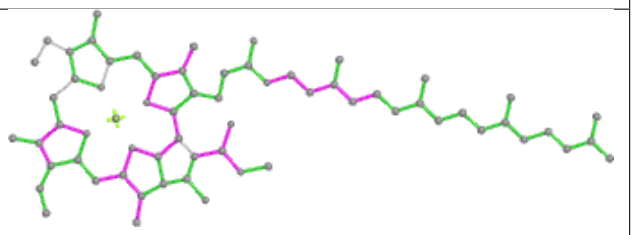

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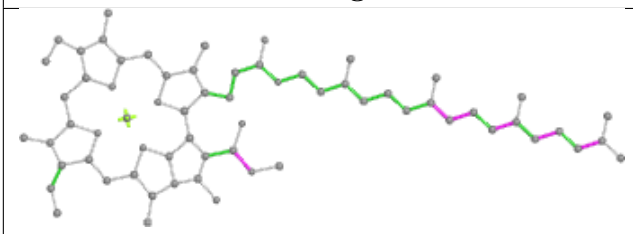

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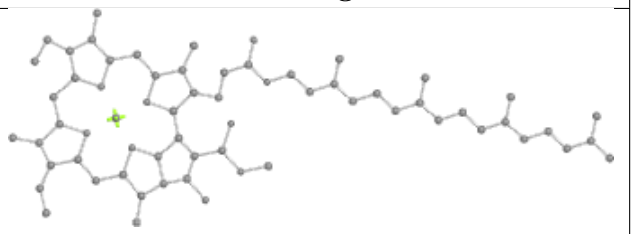
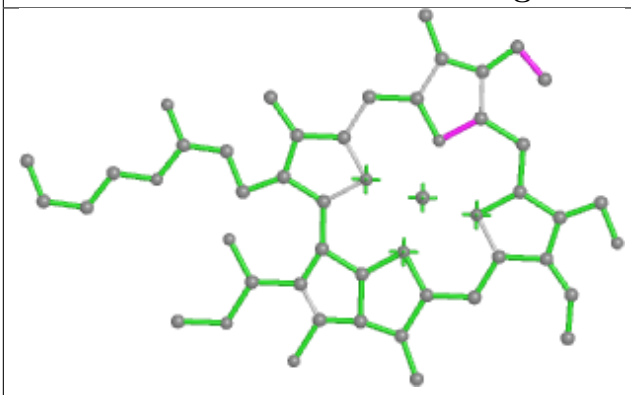


Rings

Ligand CHL G1 606



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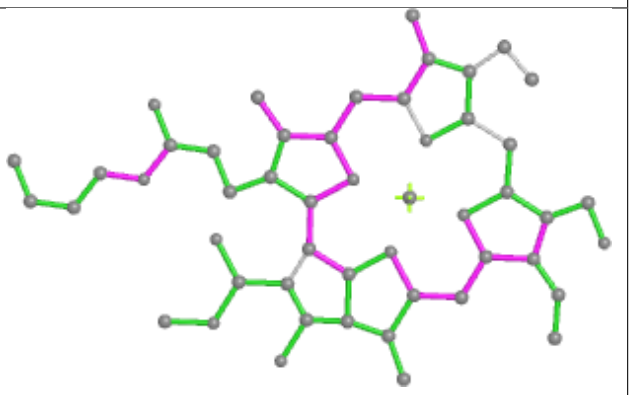
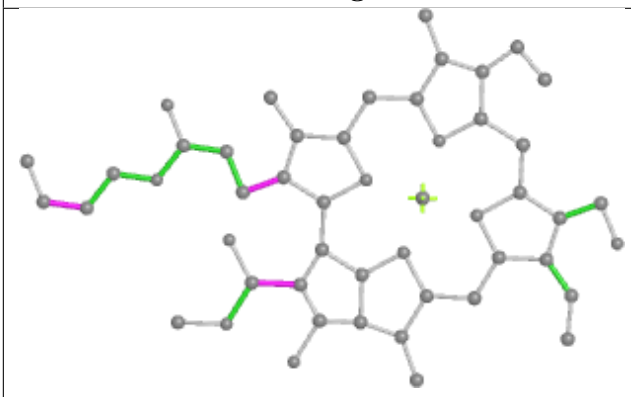


Bond angles



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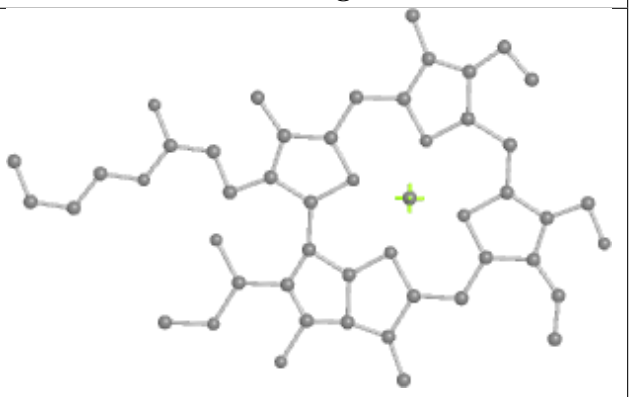
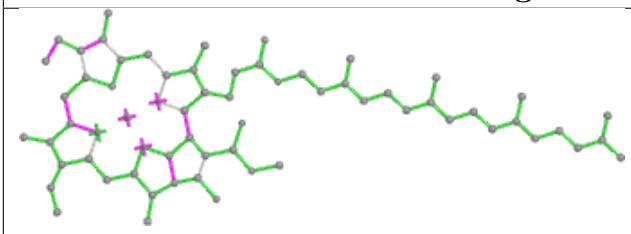


Rings

Ligand CLA Y1 611



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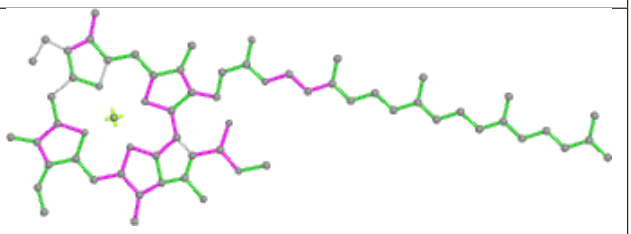

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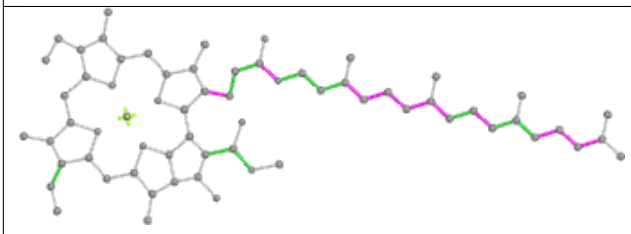

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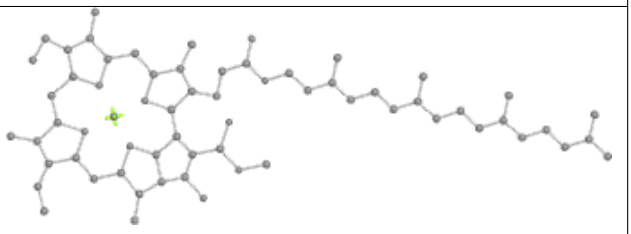
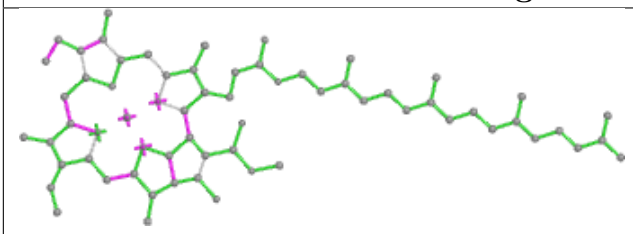


Rings

Ligand CLA B1 606



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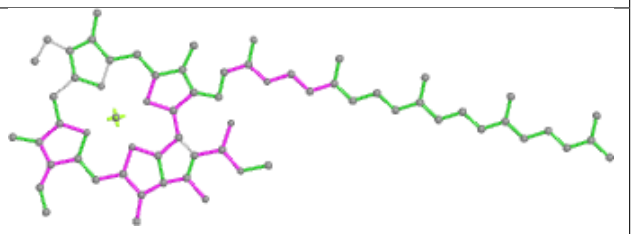
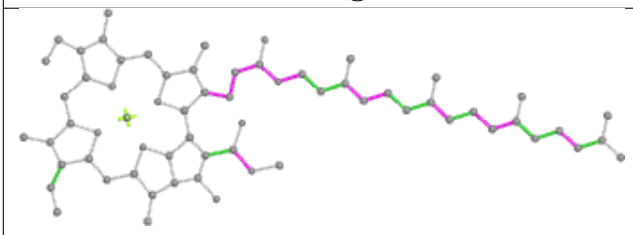


Bond angles



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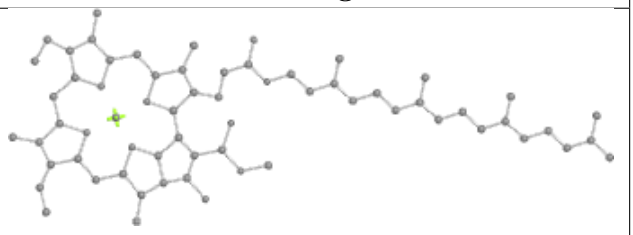
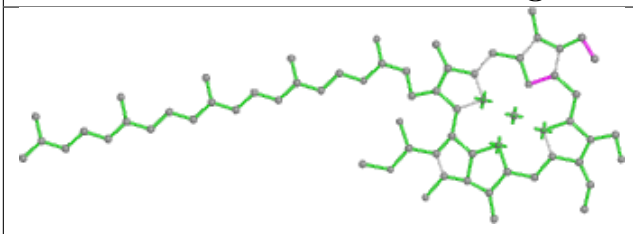


Rings

Ligand CHL n 609



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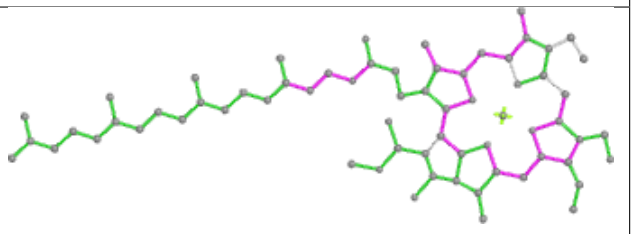

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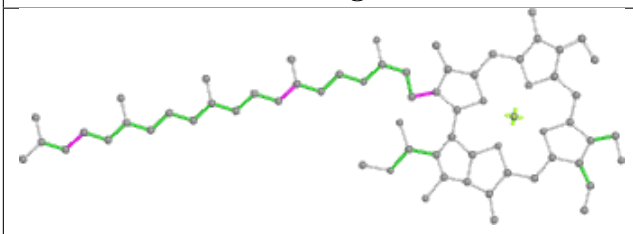

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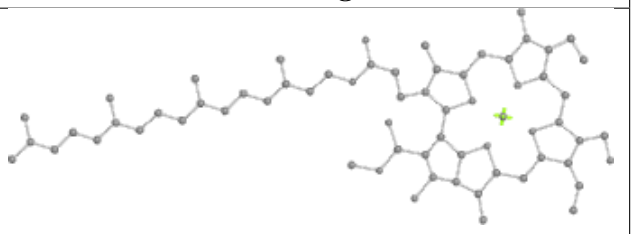
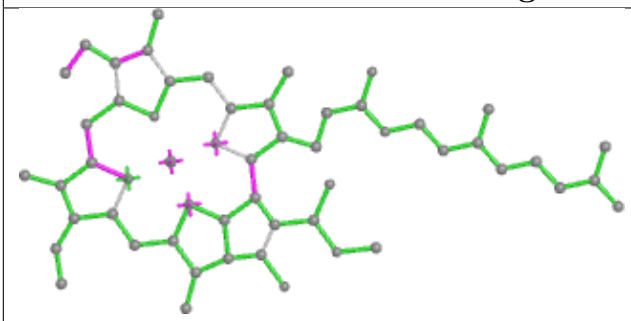


Rings

Ligand CLA S1 613



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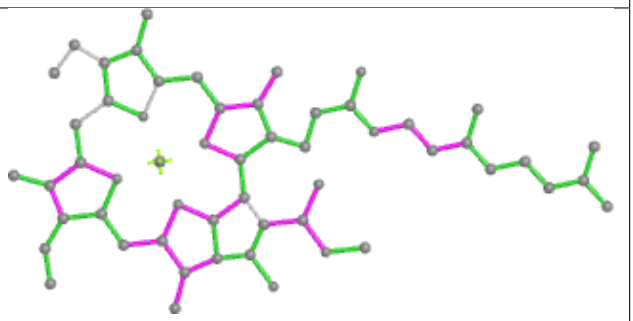
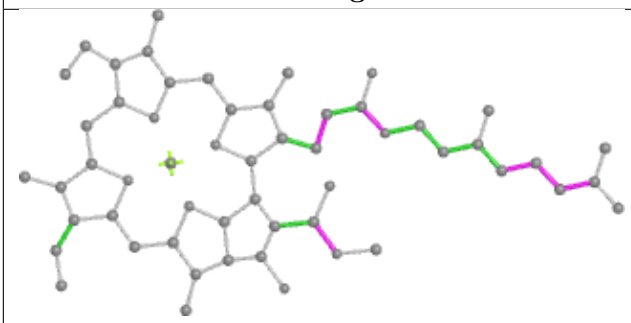


Bond angles



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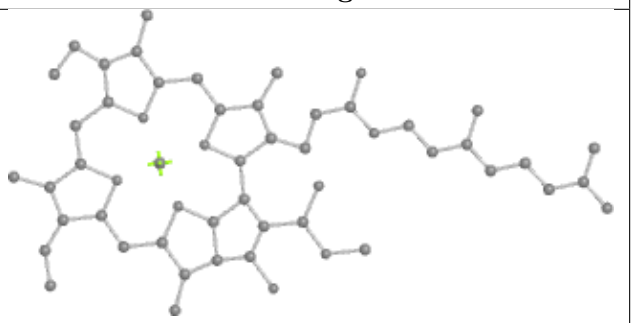
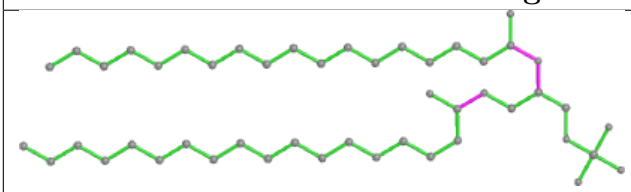
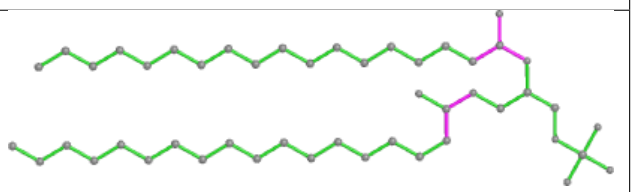


Rings

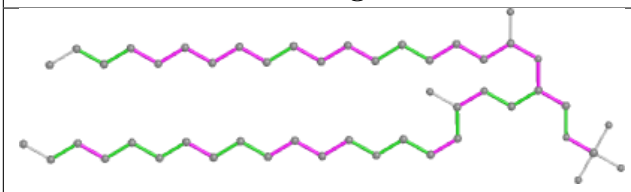
Ligand 3PH s1 626



Bond lengths



Bond angles



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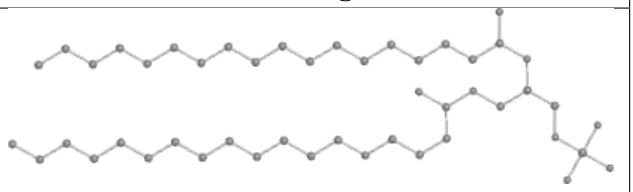
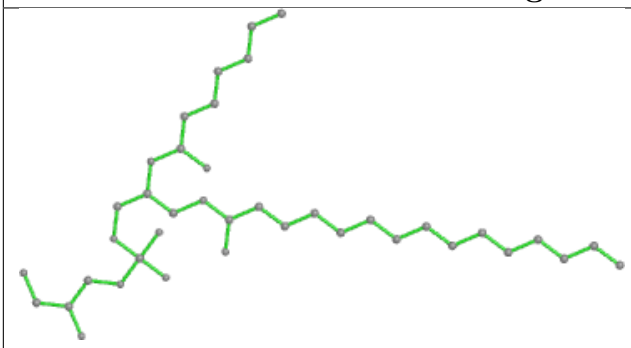


Rings

Ligand LHG d 410



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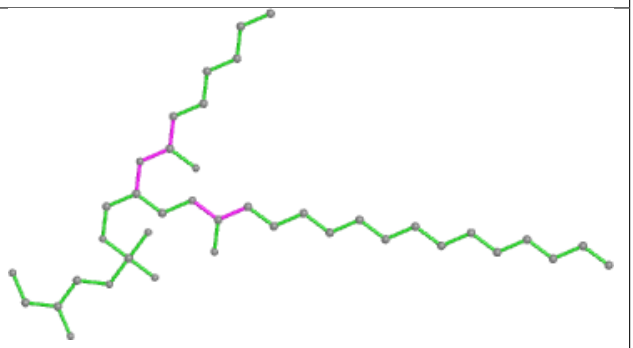

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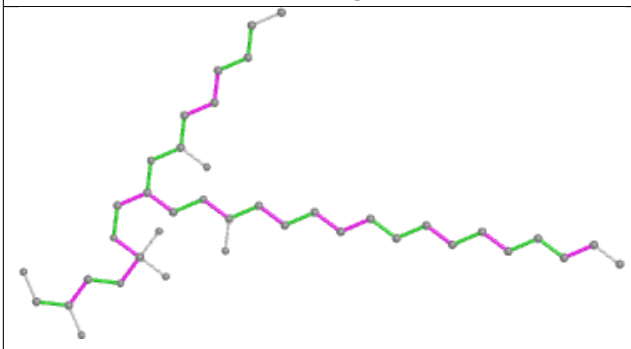

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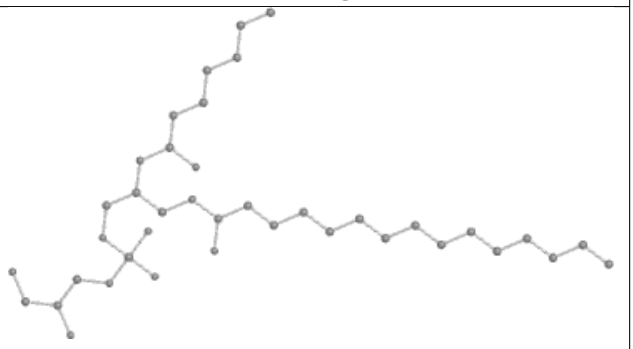
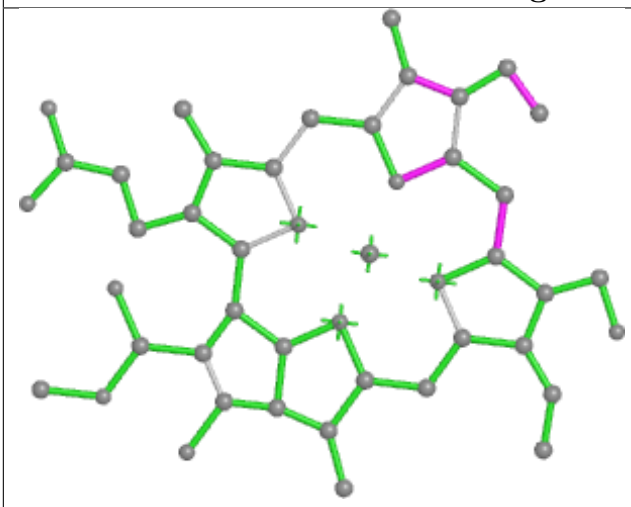


Rings

Ligand CHL s 601



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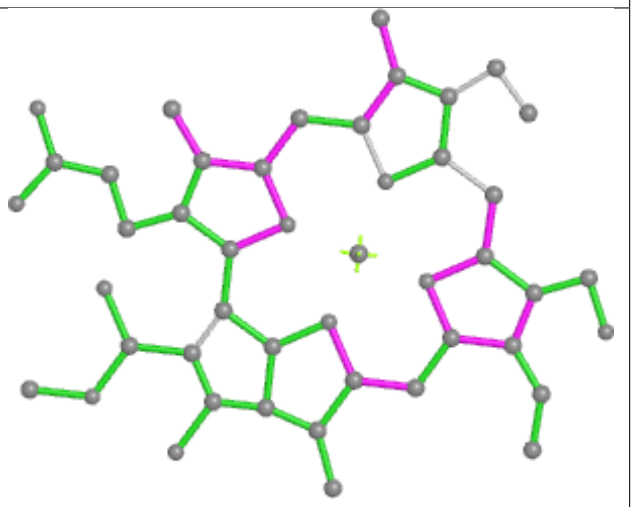

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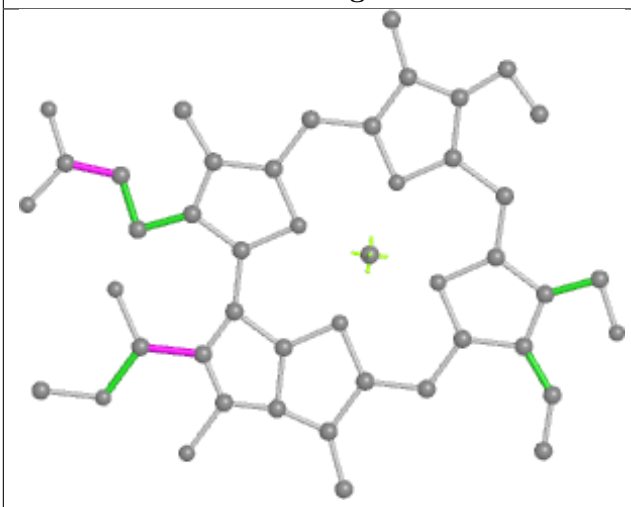

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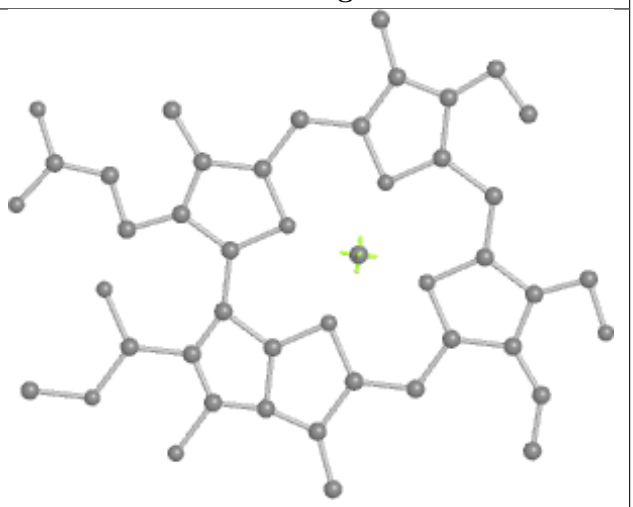
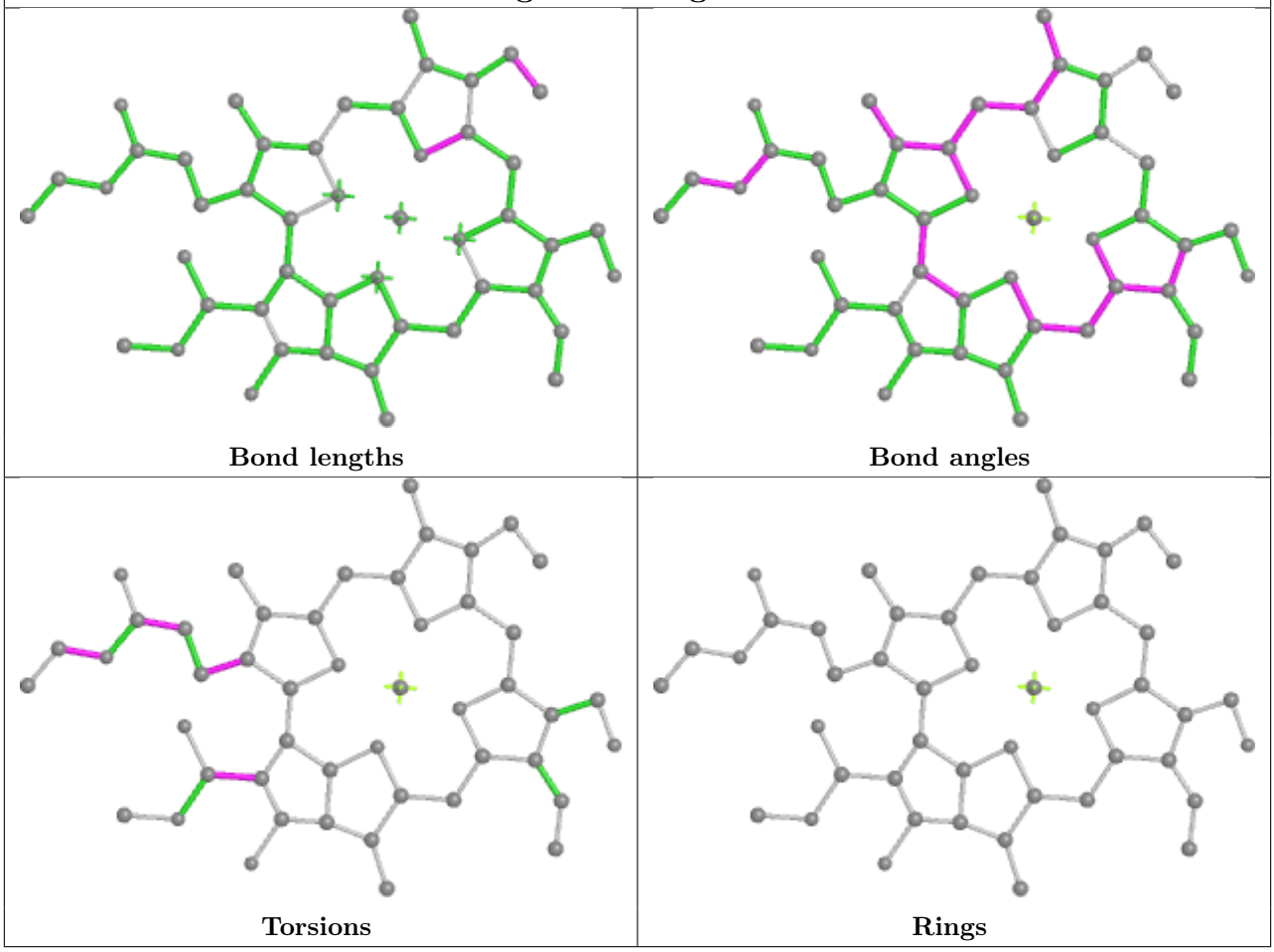
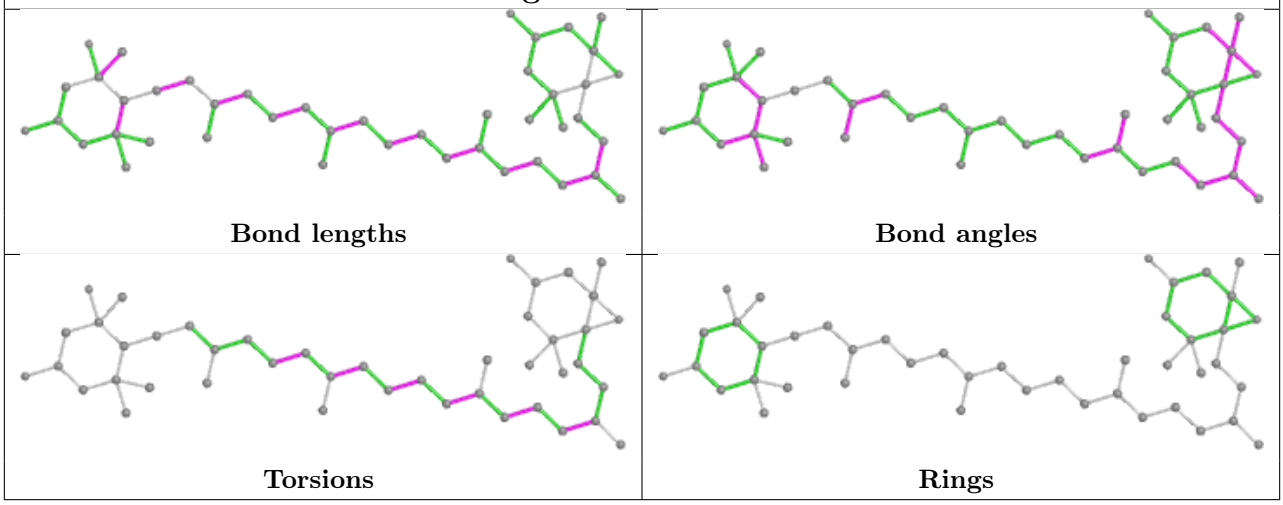


Rings

Ligand CHL g1 605



Ligand NEX R 622



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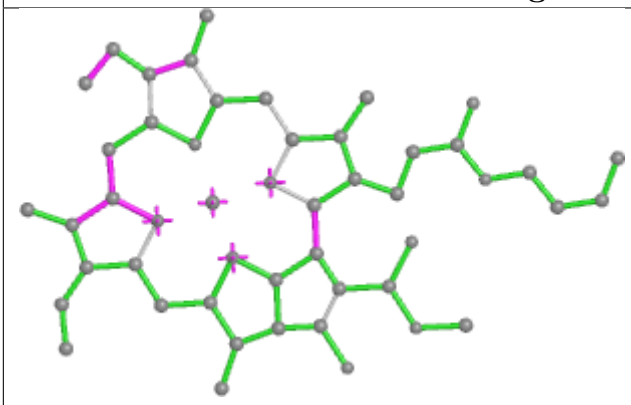
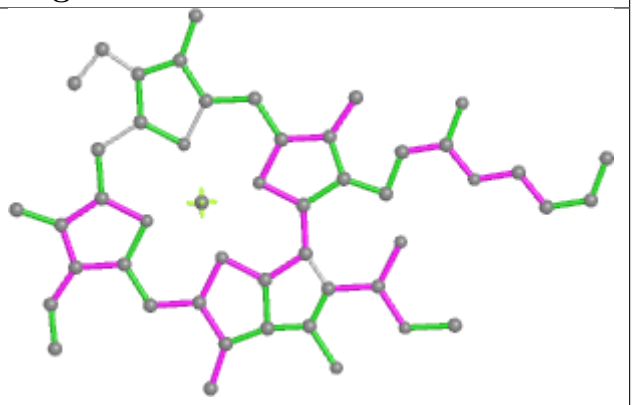
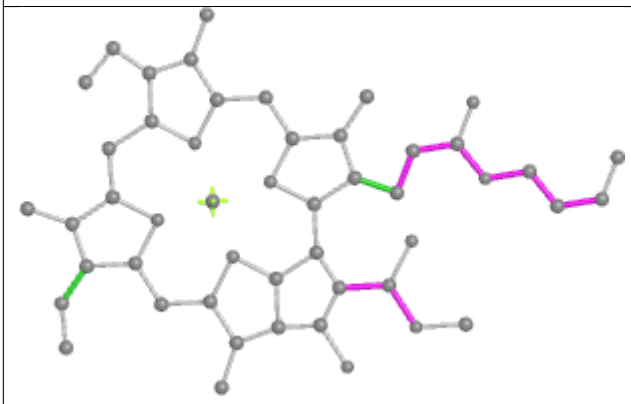


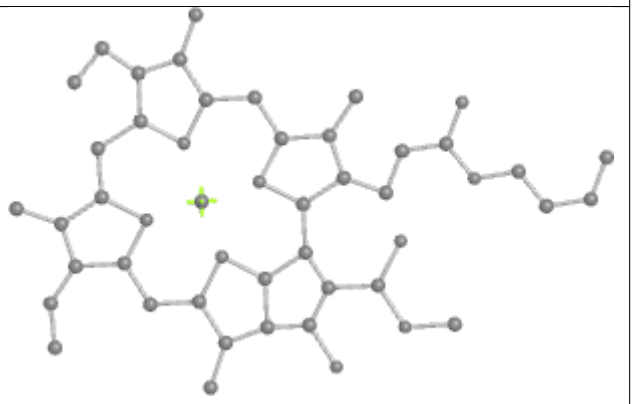
Bond lengths



Bond angles

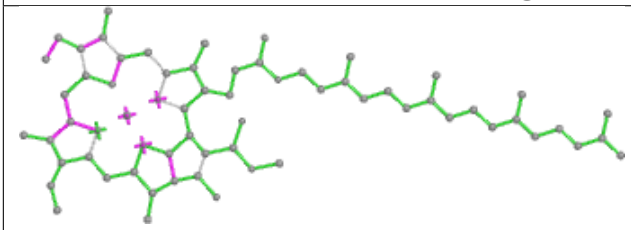


Torsions



Rings

Ligand CLA b1 604



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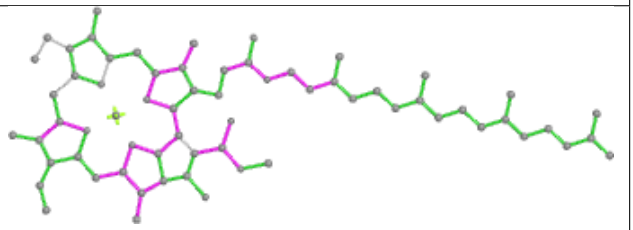
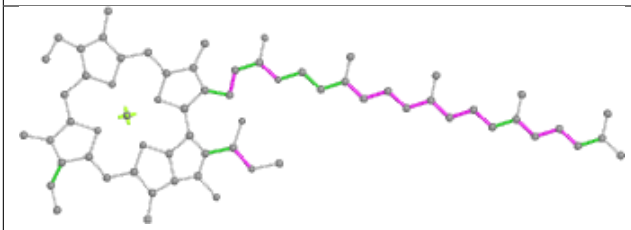
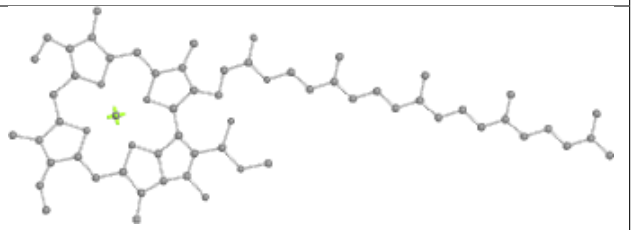


Bond angles

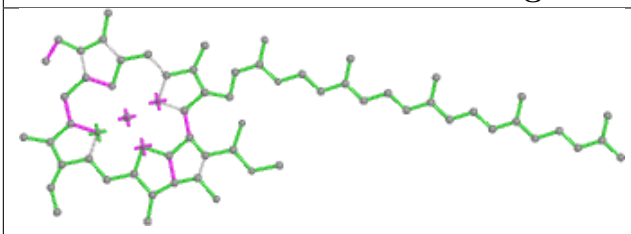


Torsions



Rings

Ligand CLA B 613



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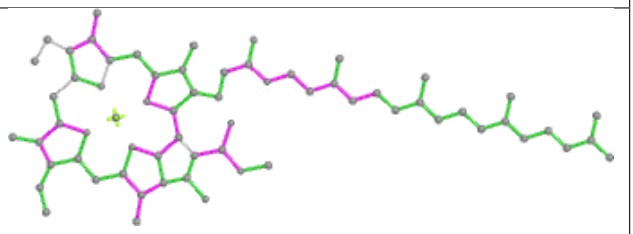
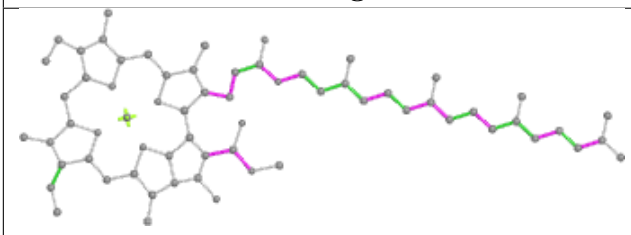
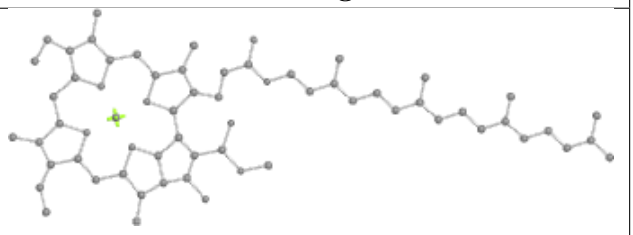


Bond angles

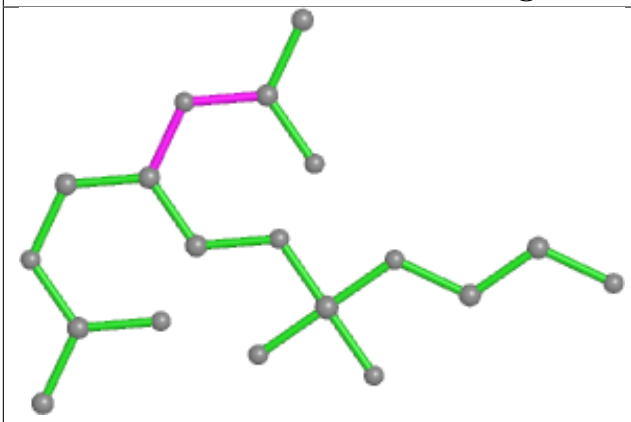


Torsions

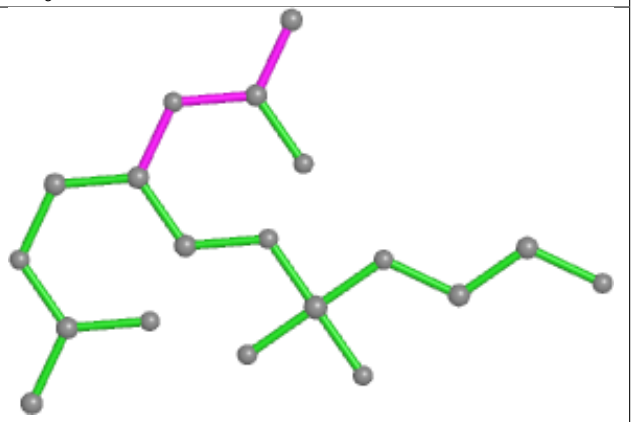


Rings

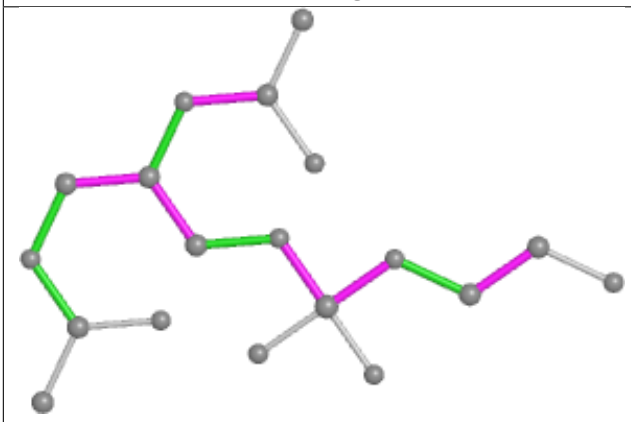
Ligand PTY y1 627



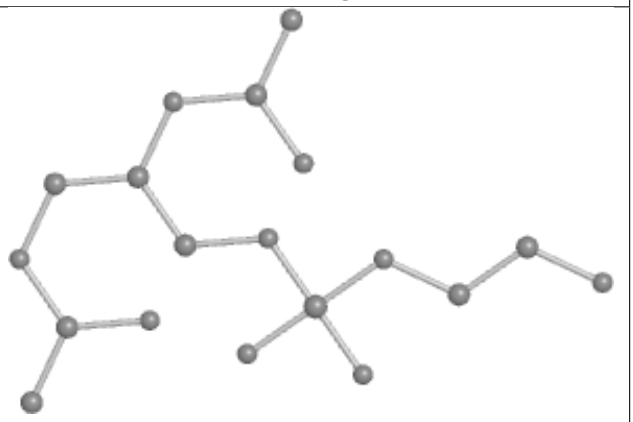
Bond lengths



Bond angles

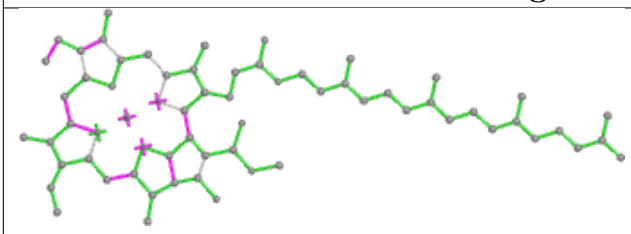


Torsions



Rings

Ligand CLA c 506



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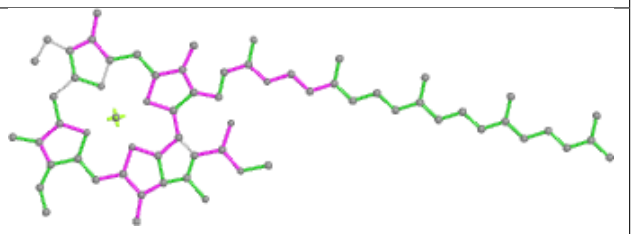
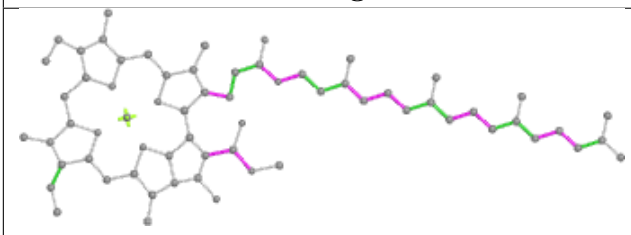


Bond angles



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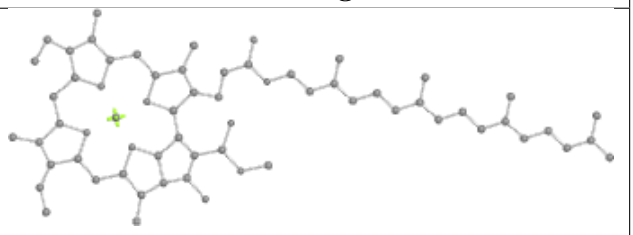
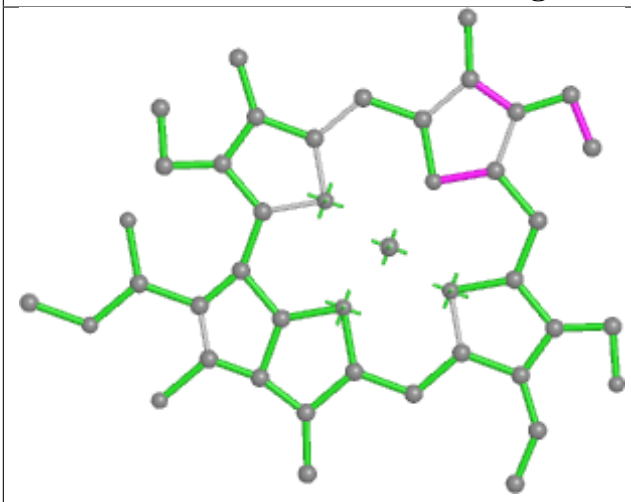


Rings

Ligand CHL s 607



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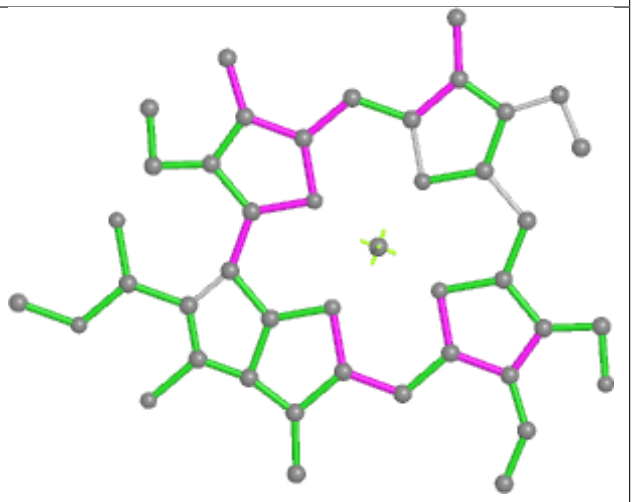

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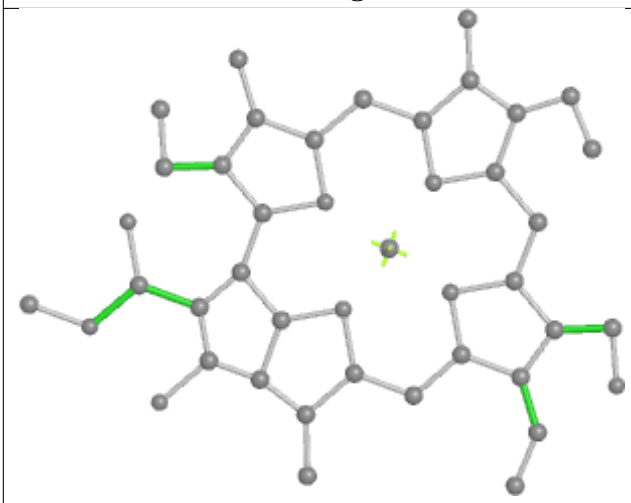

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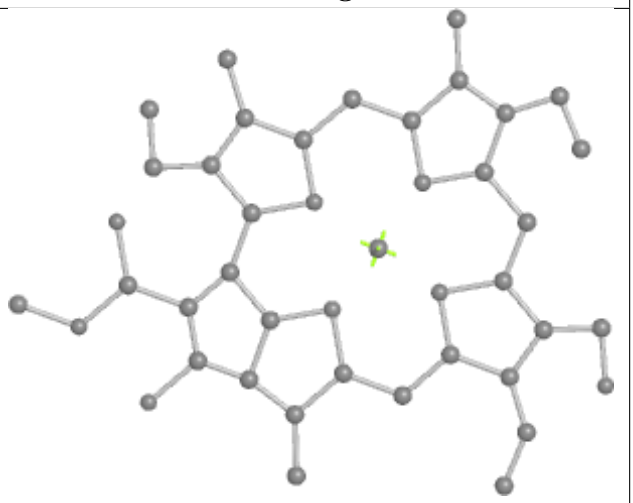
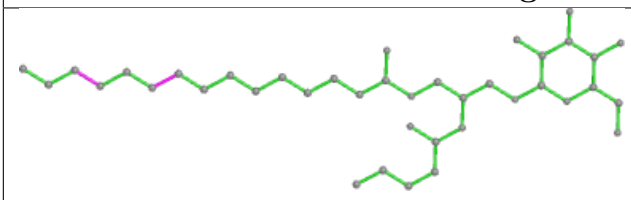


Rings

Ligand LMG w 201



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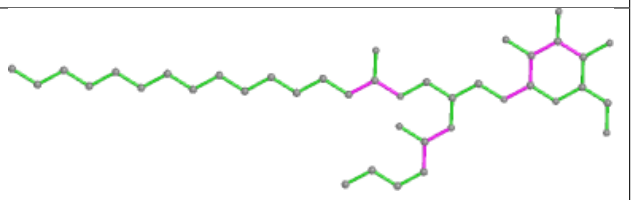

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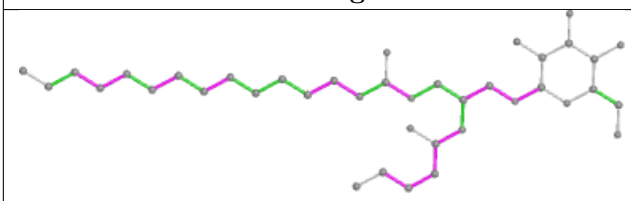

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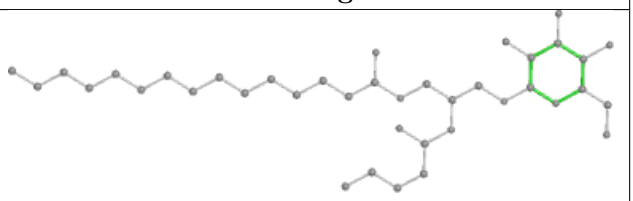
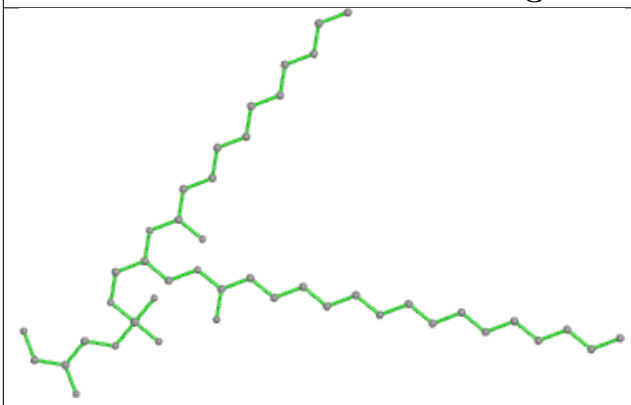


Rings

Ligand LHG d 408



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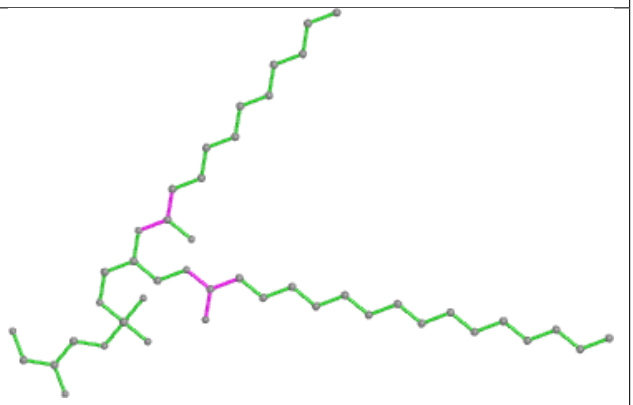
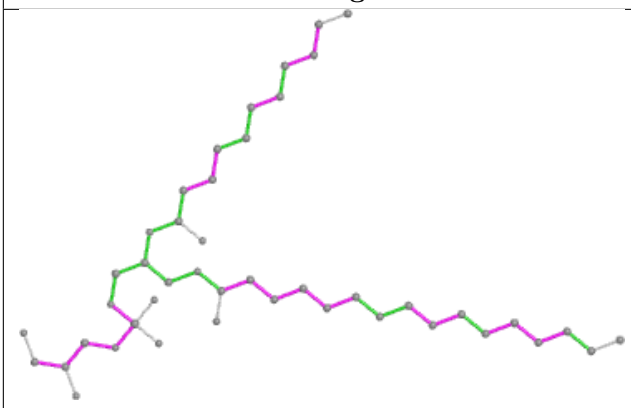


Bond angles



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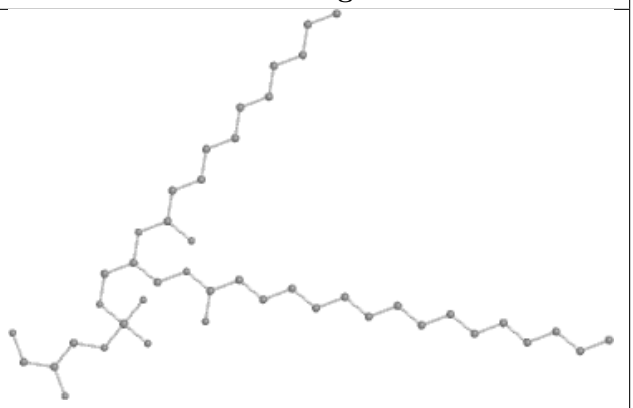
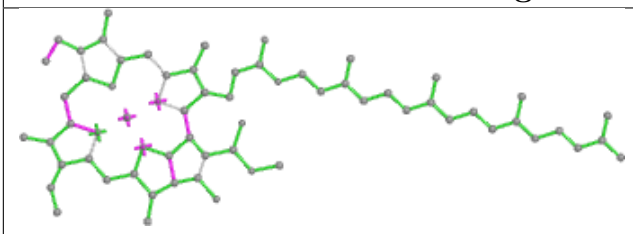


Rings

Ligand CLA Y1 610



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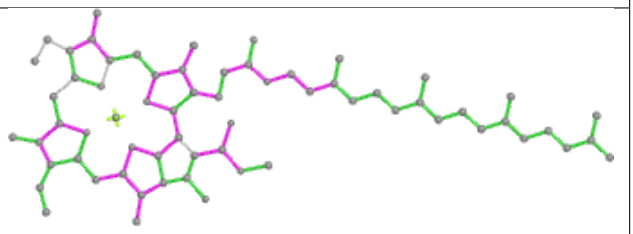
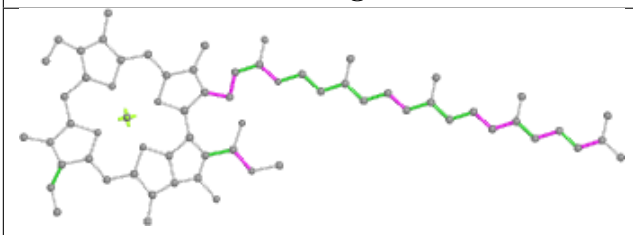


Bond angles



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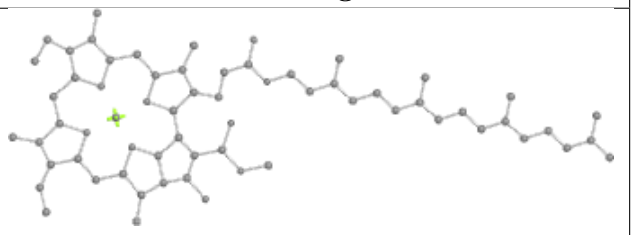
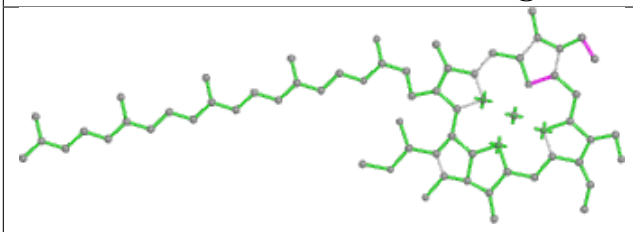


Rings

Ligand CHL n1 607



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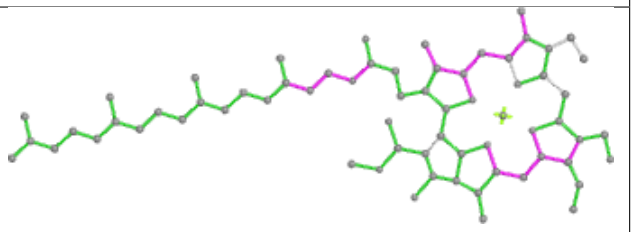
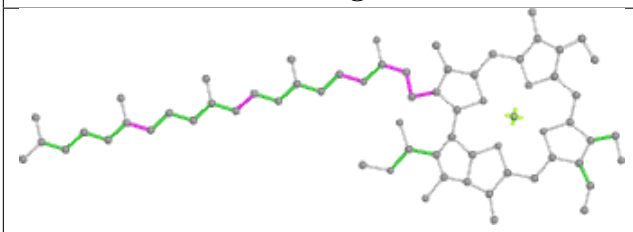


Bond angles



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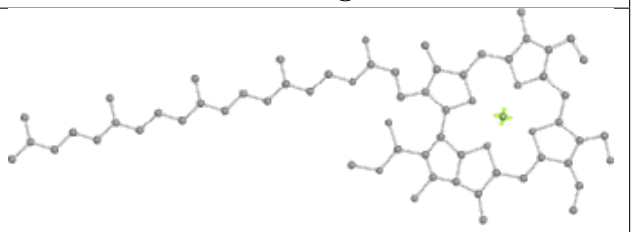
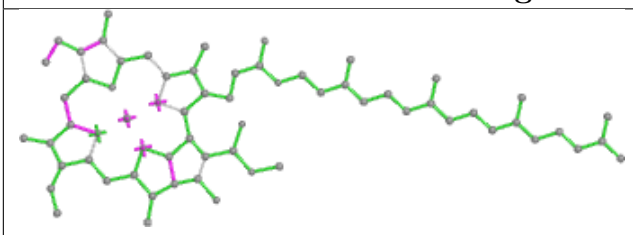


Rings

Ligand CLA Y1 614



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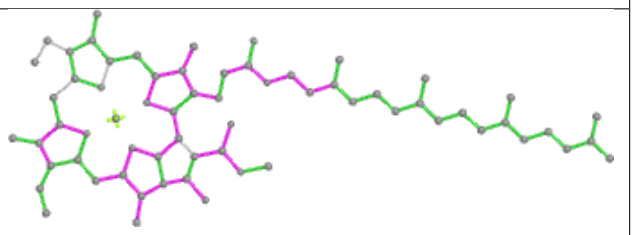
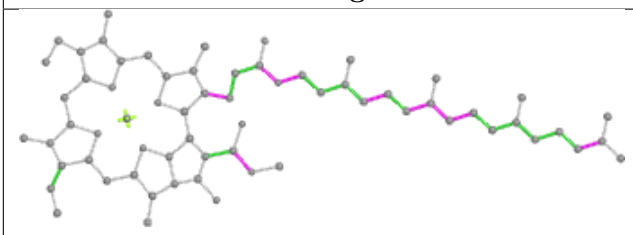


Bond angles



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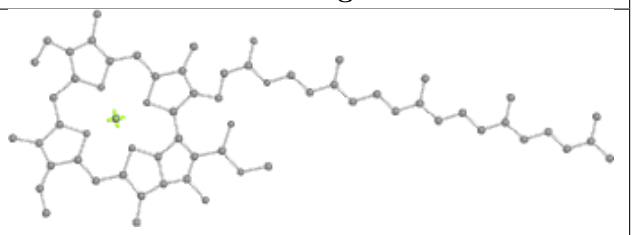
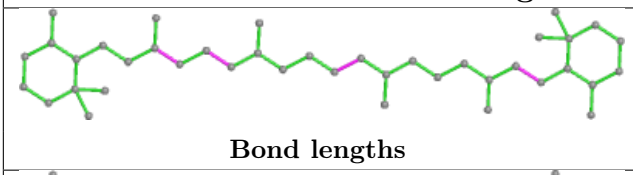
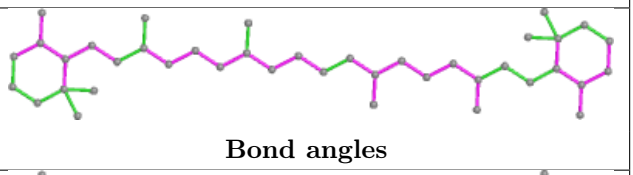


Rings

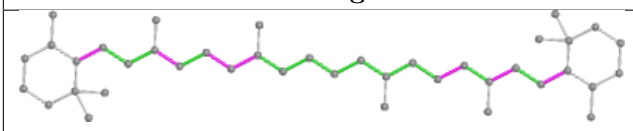
Ligand BCR b1 618



Bond lengths



Bond angles



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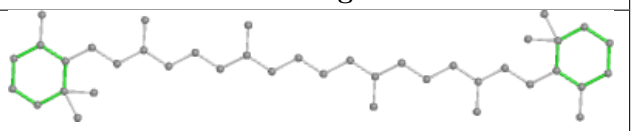
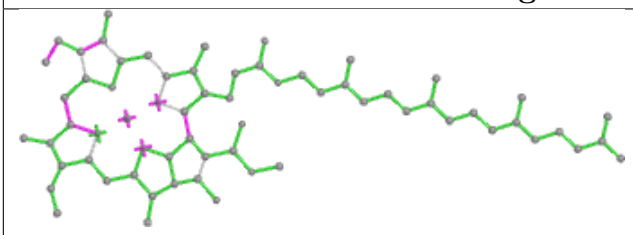


Rings

Ligand CLA y1 613



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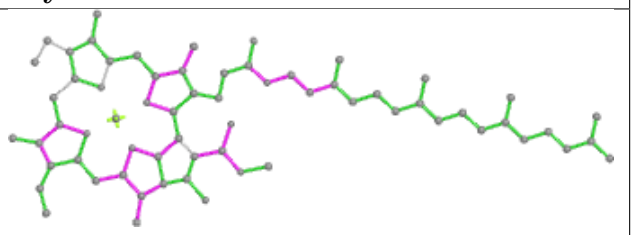
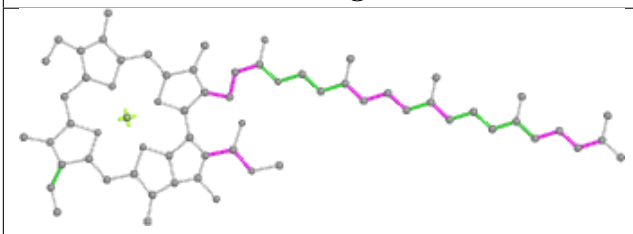


Bond angles



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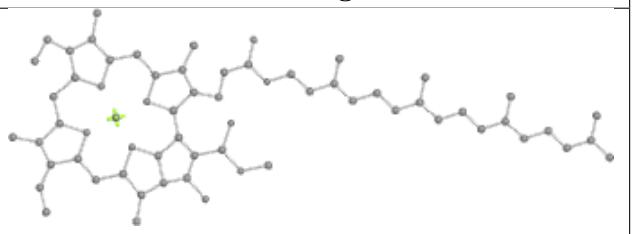
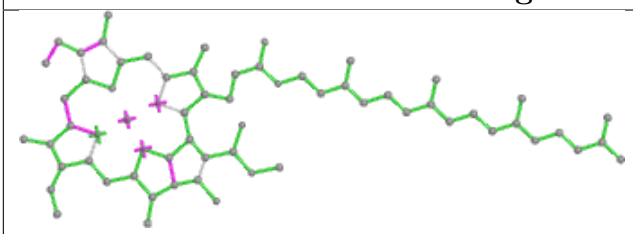


Rings

Ligand CLA B1 604



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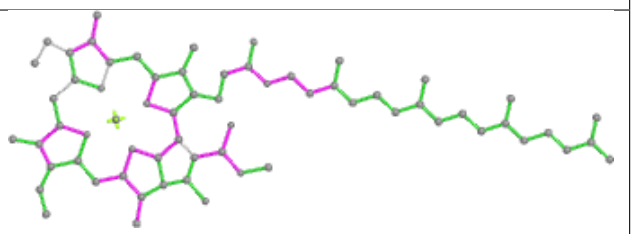
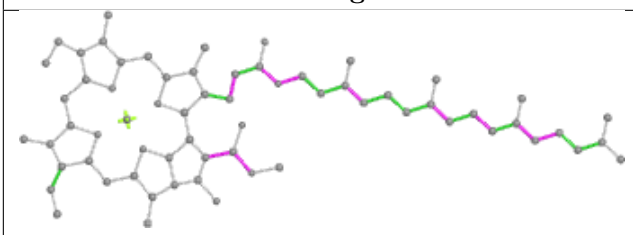


Bond angles



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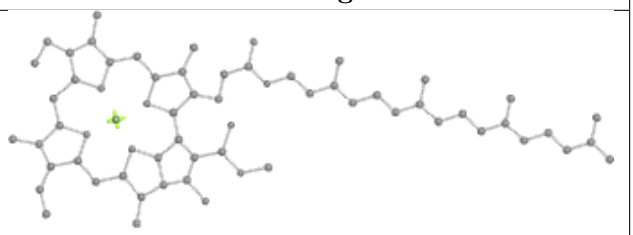
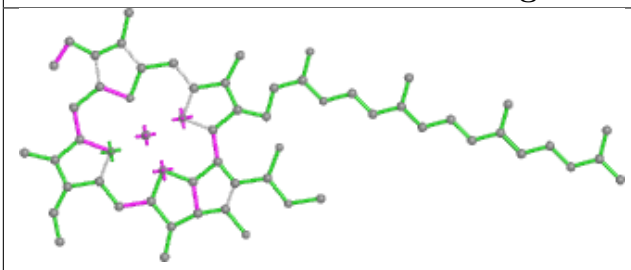


Rings

Ligand CLA a1 410



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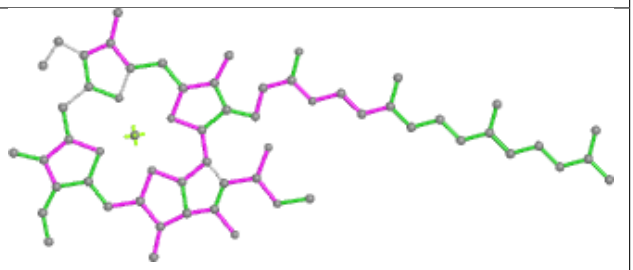
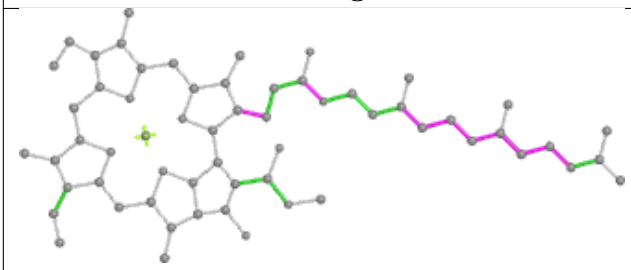


Bond angles



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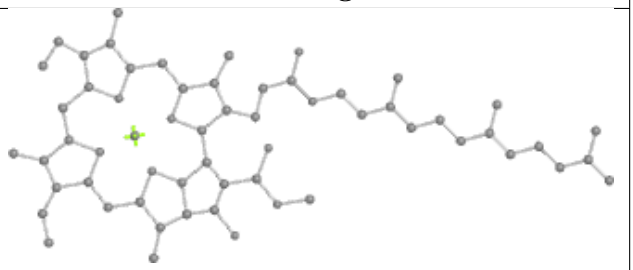
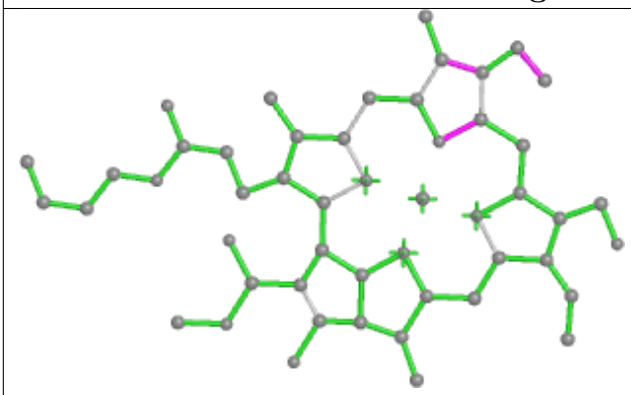


Rings

Ligand CHL r 607



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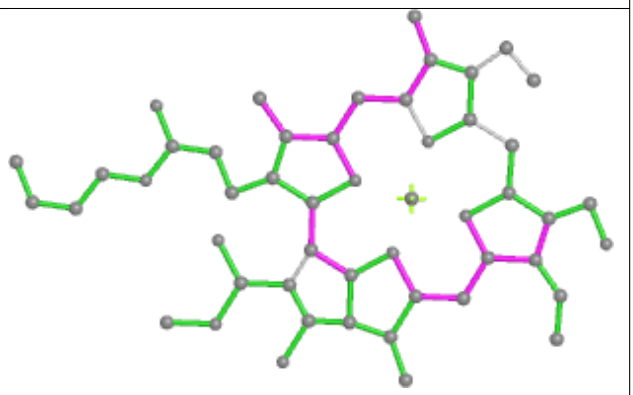
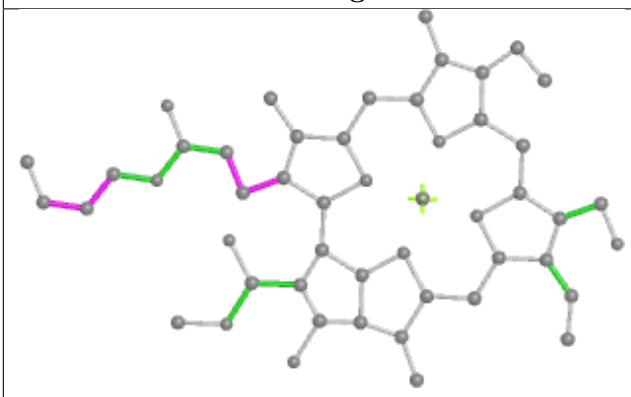


Bond angles



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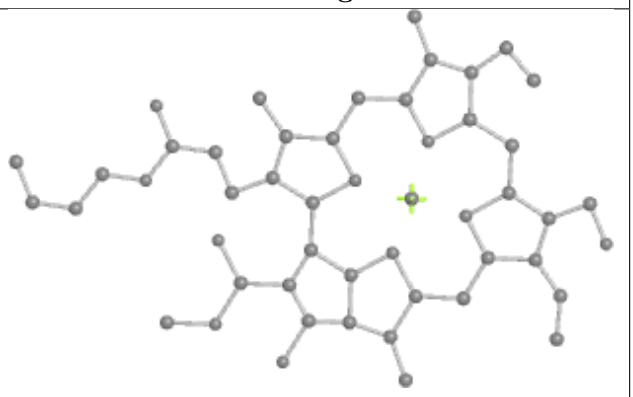
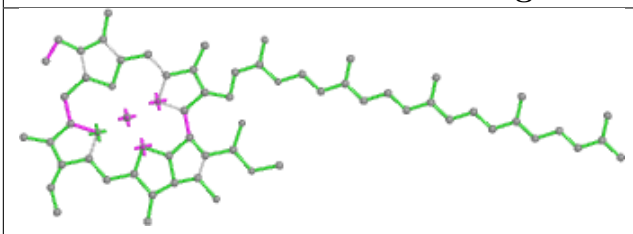
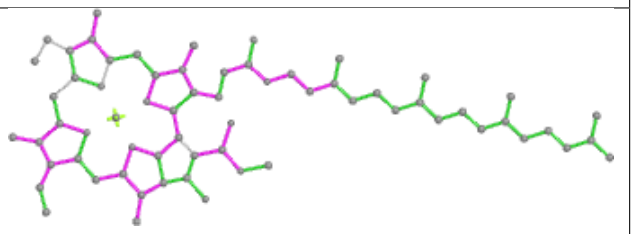


Rings

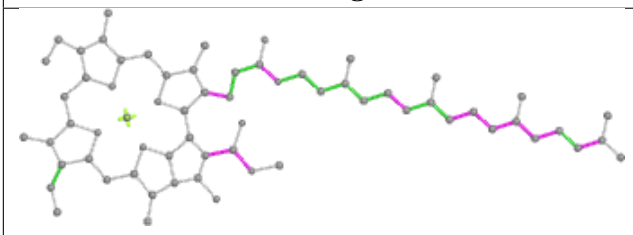
Ligand CLA B1 612



Bond lengths



Bond angles



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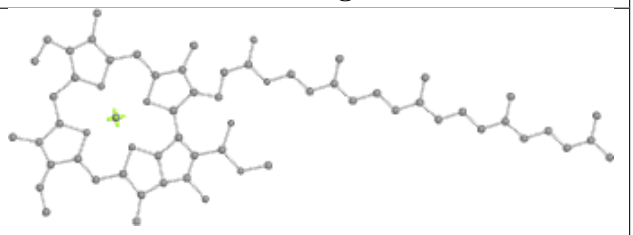
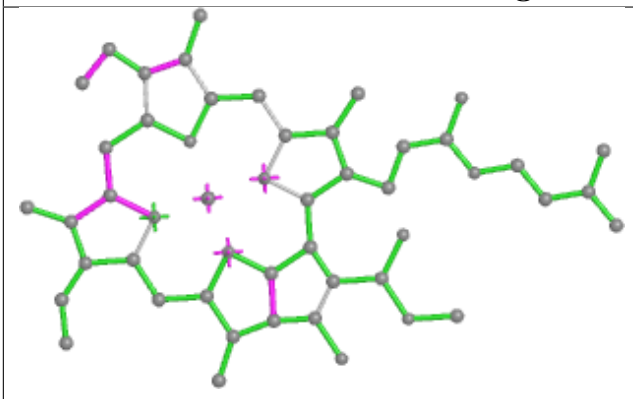


Rings

Ligand CLA Y1 608



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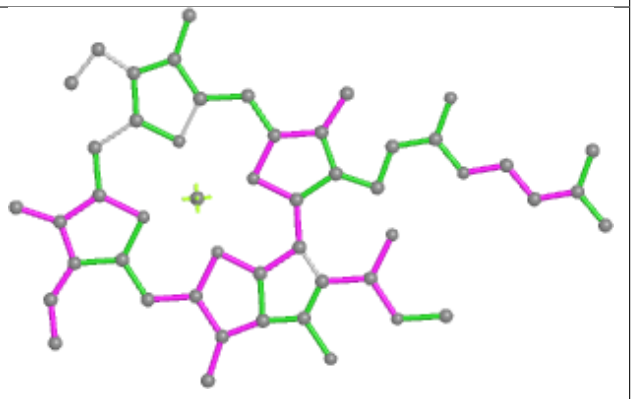
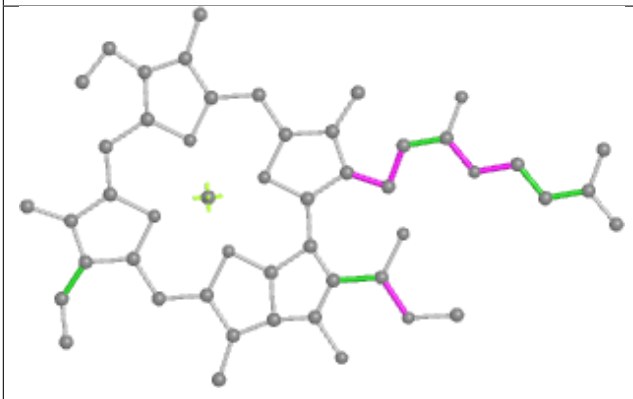
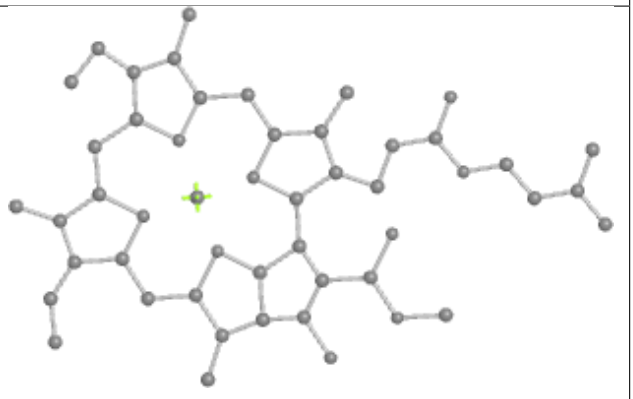


Bond angles

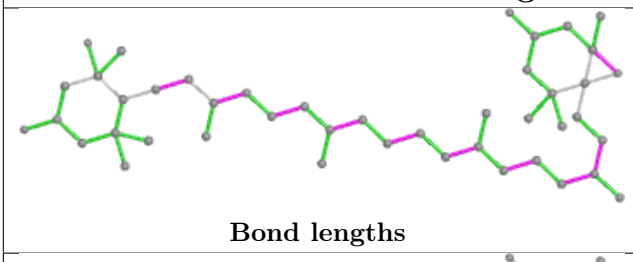


Torsions

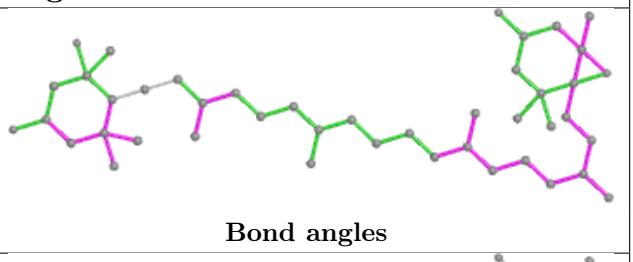


Rings

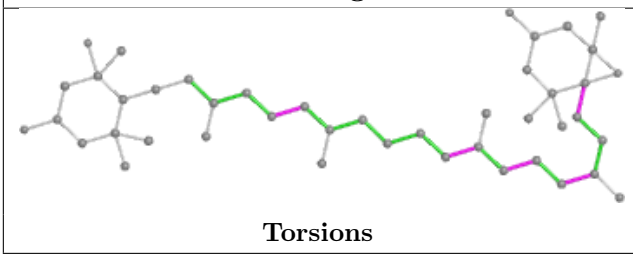
Ligand NEX g1 623



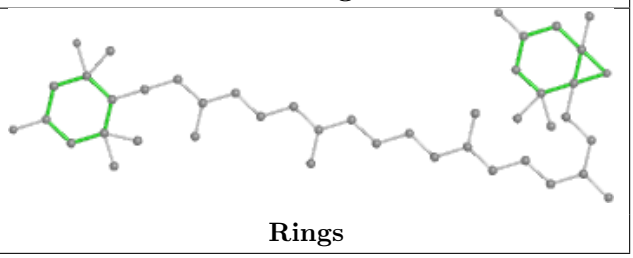
Bond lengths



Bond angles

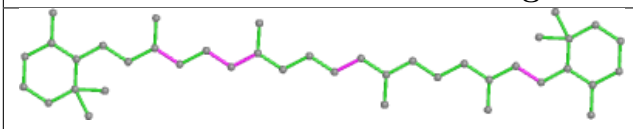


Torsions



Rings

Ligand BCR C 517



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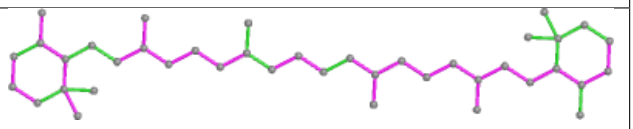

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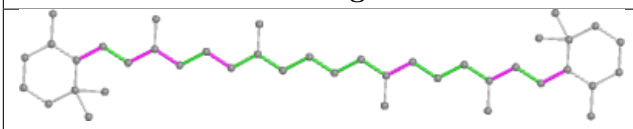
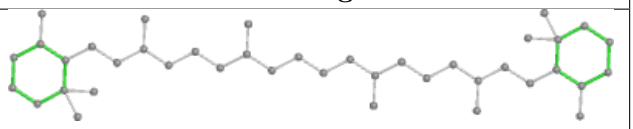
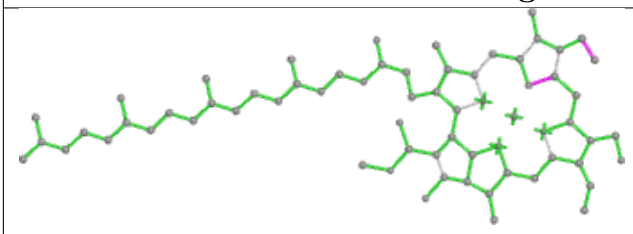


Torsions



Rings

Ligand CHL y1 609



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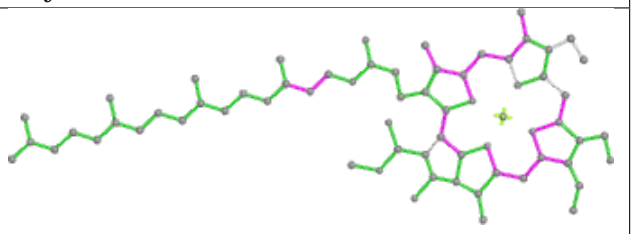
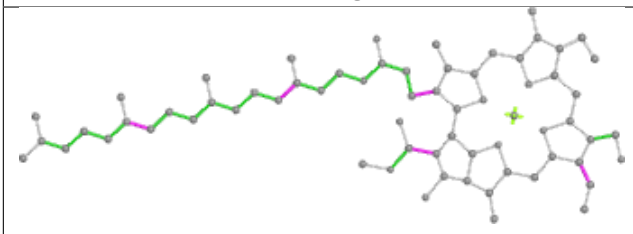


Bond angles



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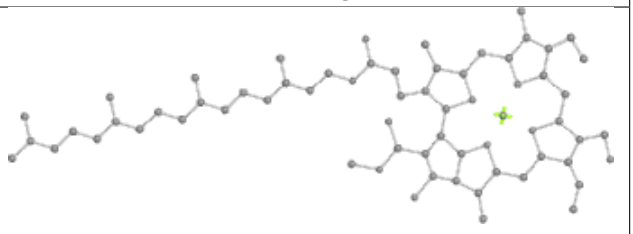
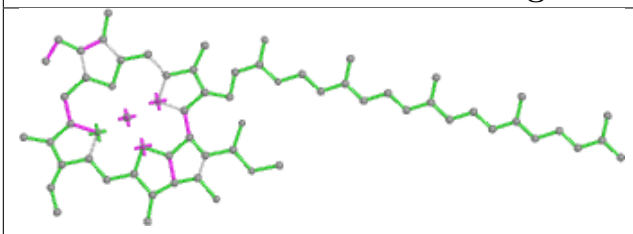


Rings

Ligand CLA b 604



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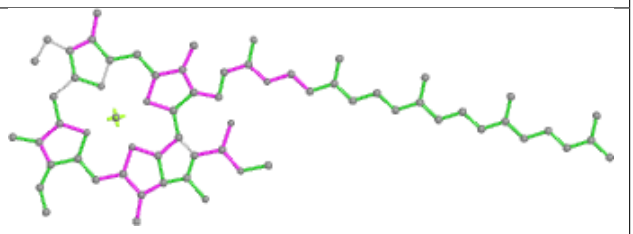

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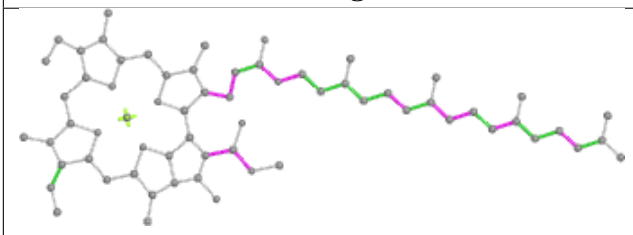

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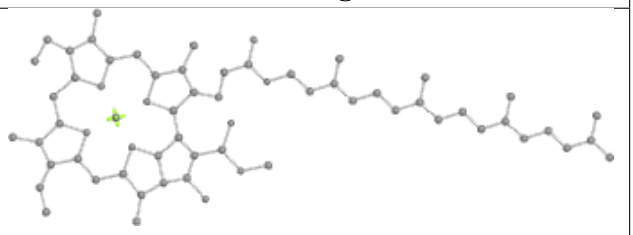
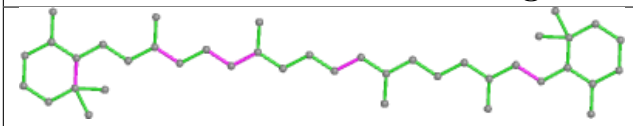


Rings

Ligand BCR C 515



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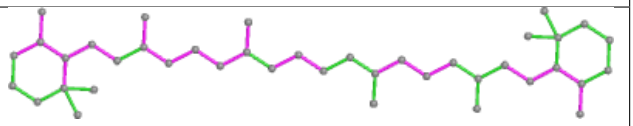
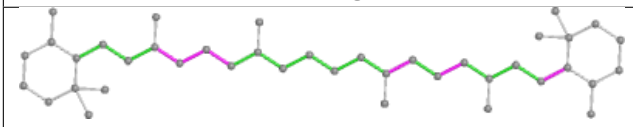


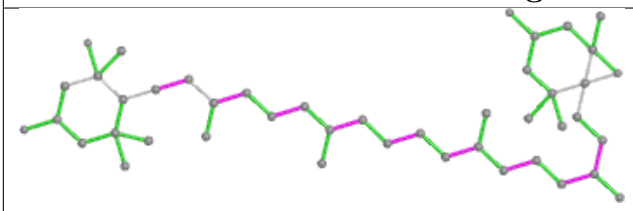
Bond angles



Torsions

Rings

Ligand NEX y 623



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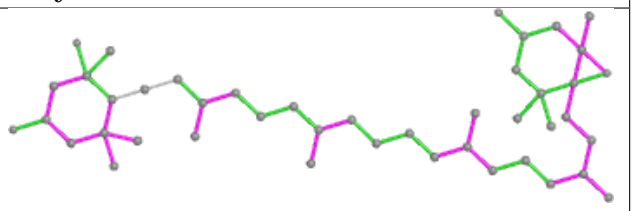
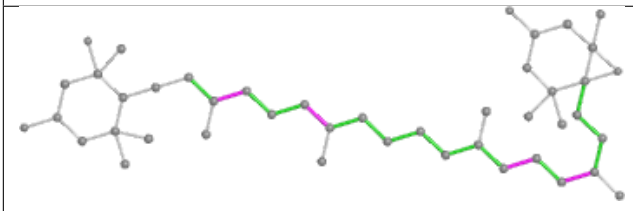


Bond angles



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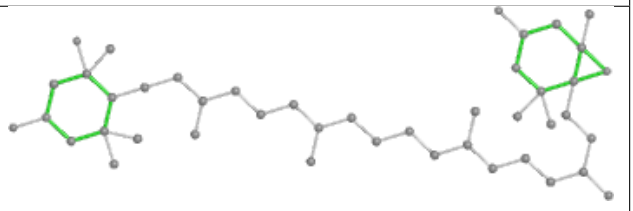
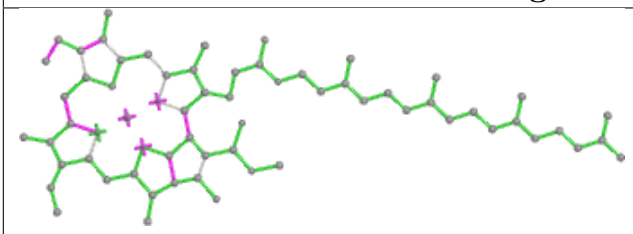


Rings

Ligand CLA c 504



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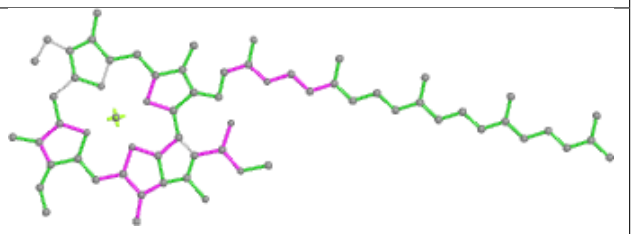
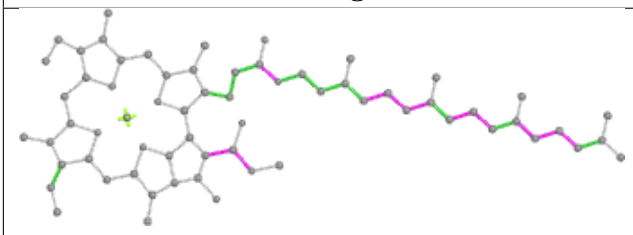


Bond angles



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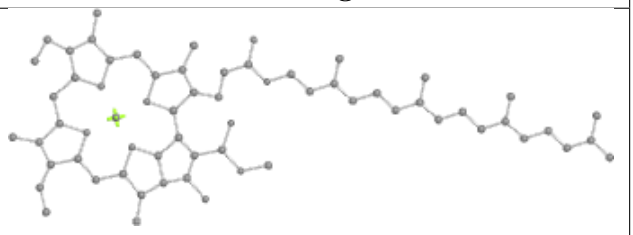
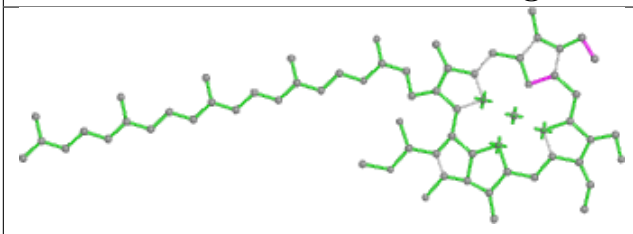


Rings

Ligand CHL G 607



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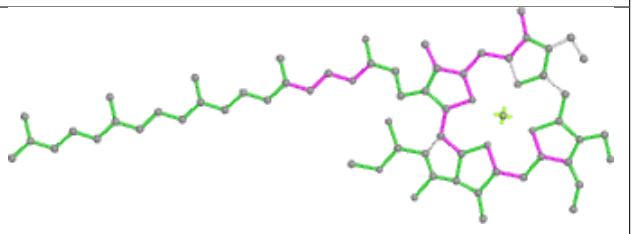

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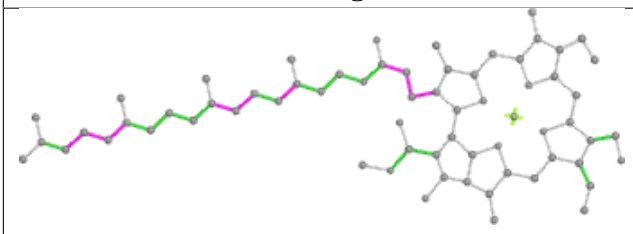
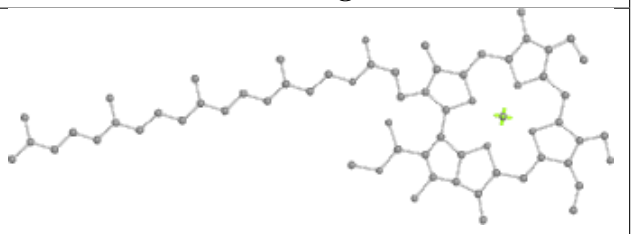
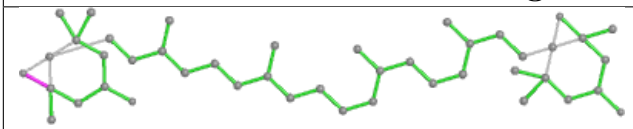


Torsions



Rings

Ligand XAT n 622



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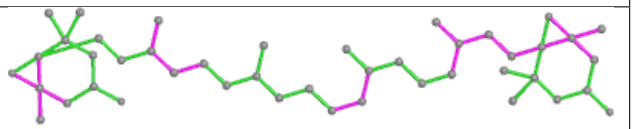

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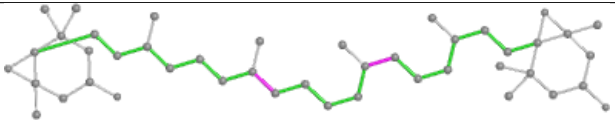

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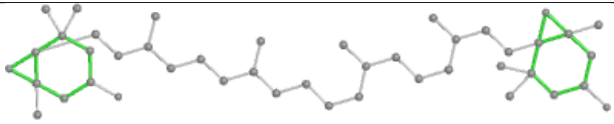
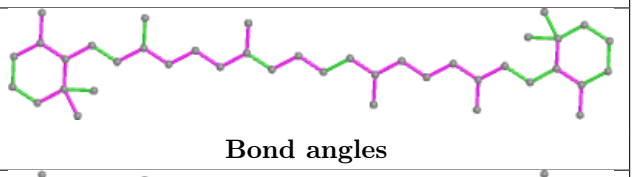


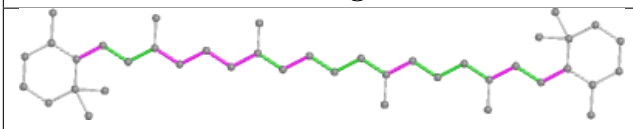
Rings

Ligand BCR B1 618

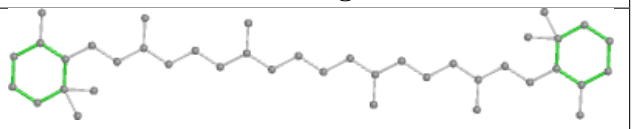
Bond lengths



Bond angles

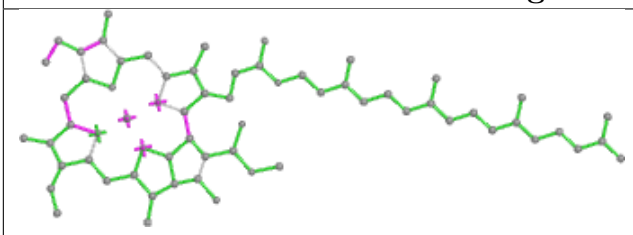


Torsions



Rings

Ligand CLA S 611



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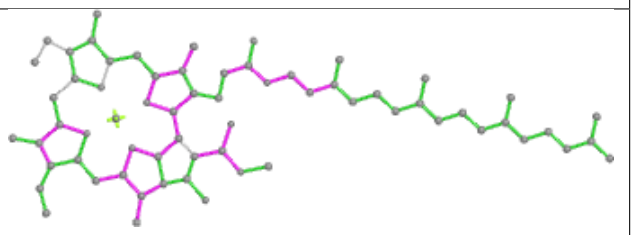
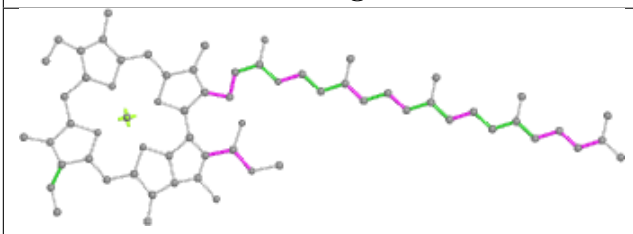


Bond angles



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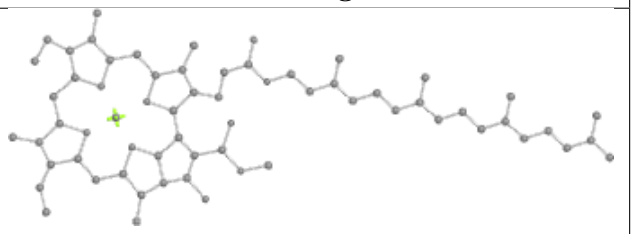
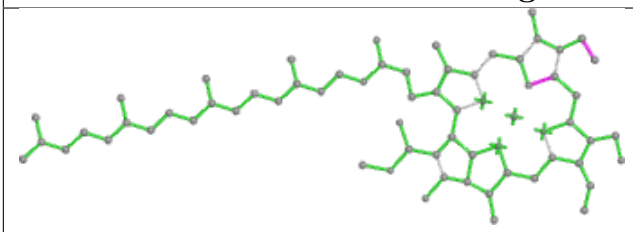


Rings

Ligand CHL y1 607



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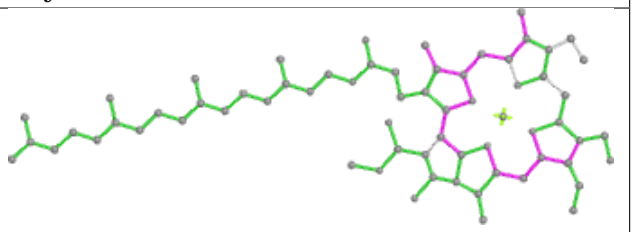
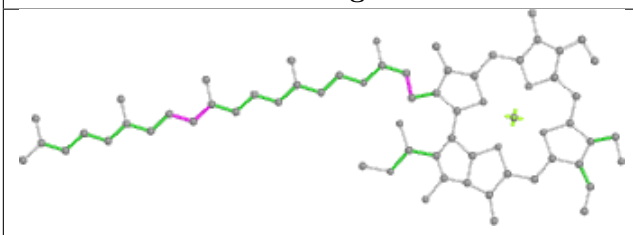


Bond angles



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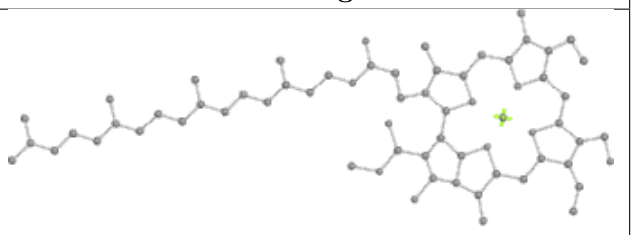
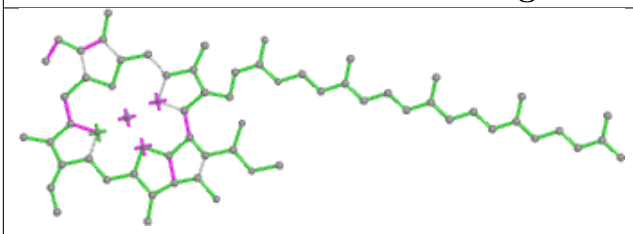


Rings

Ligand CLA b1 607



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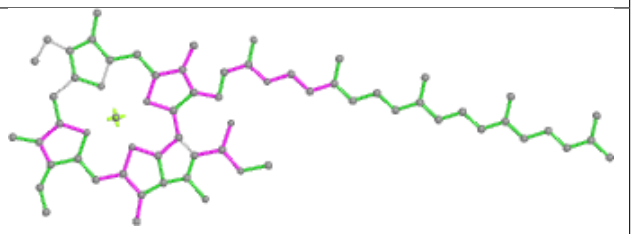
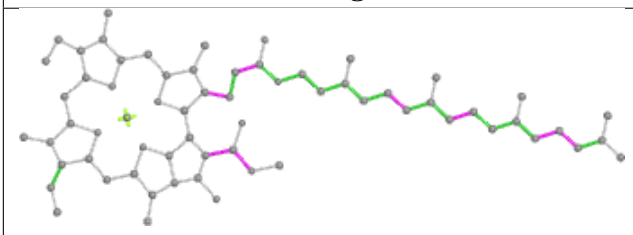


Bond angles



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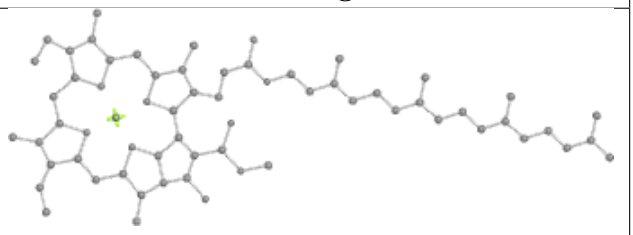
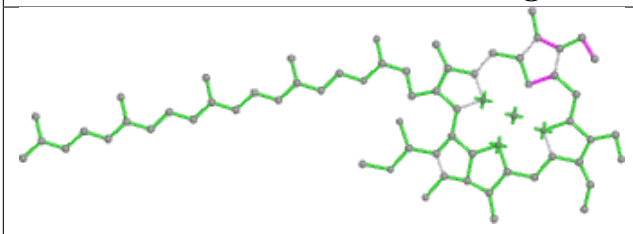


Rings

Ligand CHL N 601



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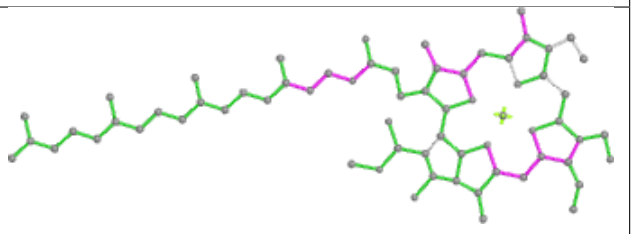
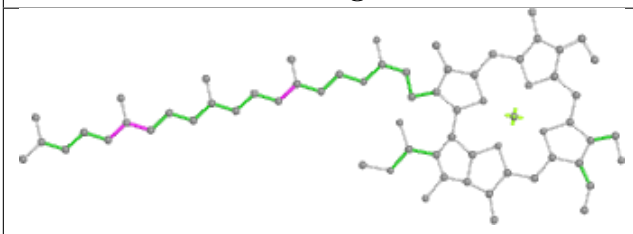


Bond angles



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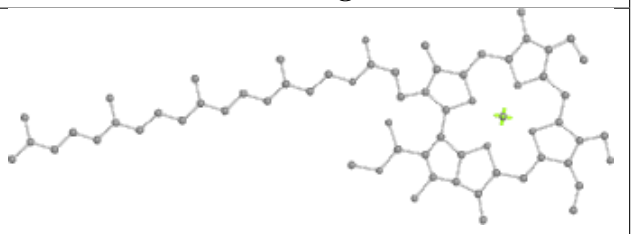
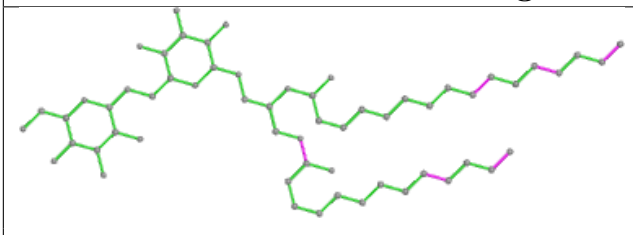
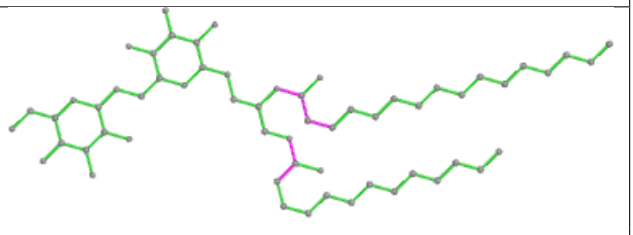


Rings

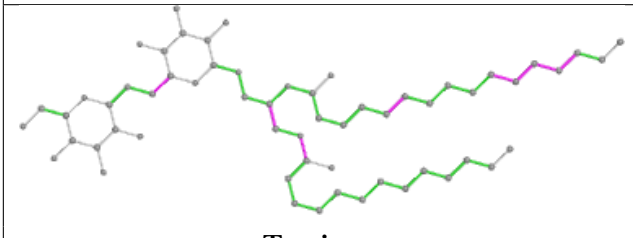
Ligand DGD c1 520



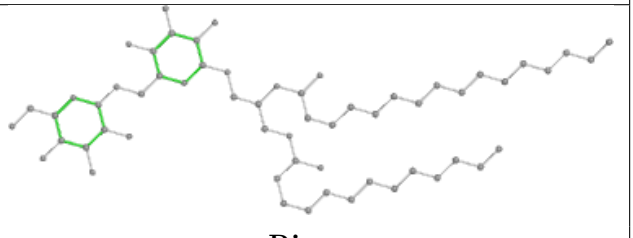
Bond lengths



Bond angles

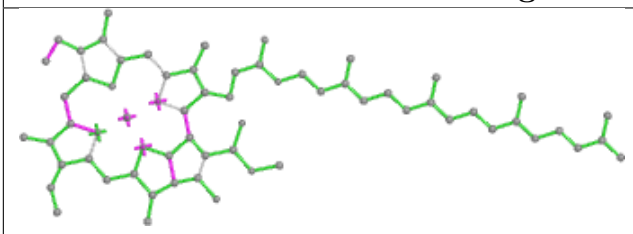


Torsions

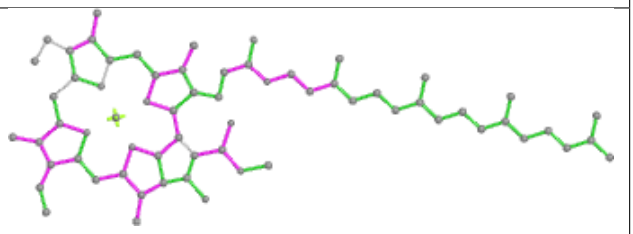


Rings

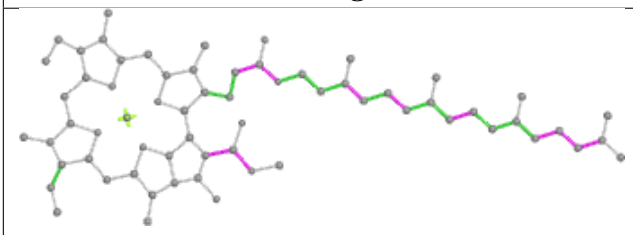
Ligand CLA b1 606



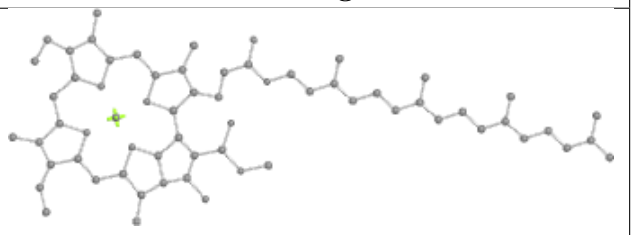
Bond lengths



Bond angles

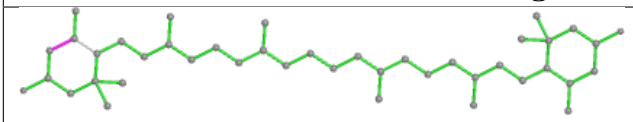


Torsions



Rings

Ligand LUT r 620



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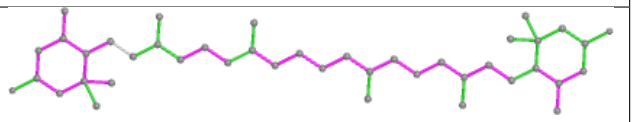
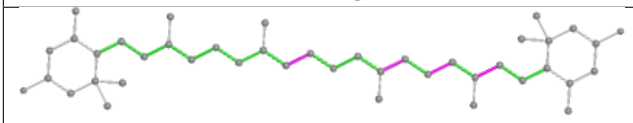
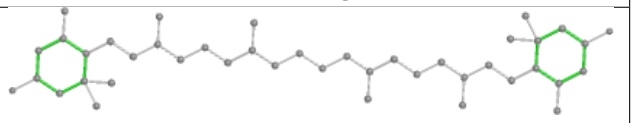


Bond angles

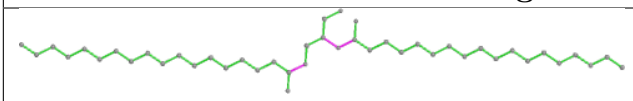


Torsions



Rings

Ligand DGA c1 524



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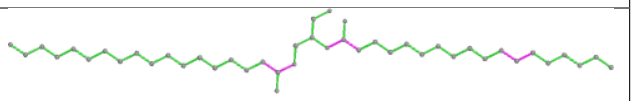
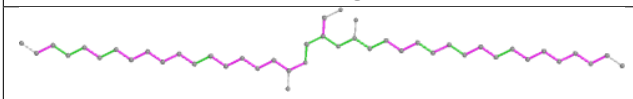


Bond angles



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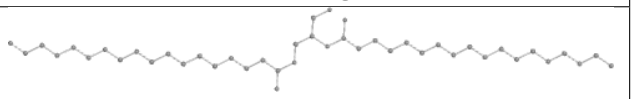
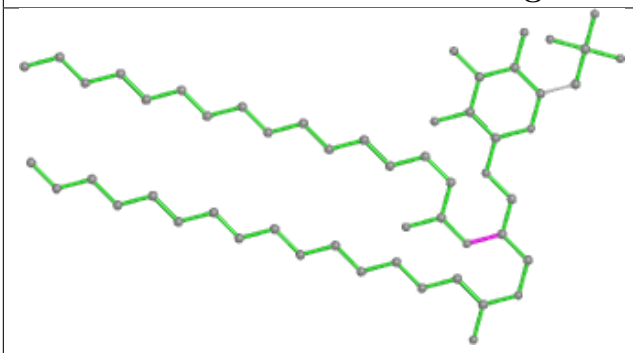


Rings

Ligand SQD C 526



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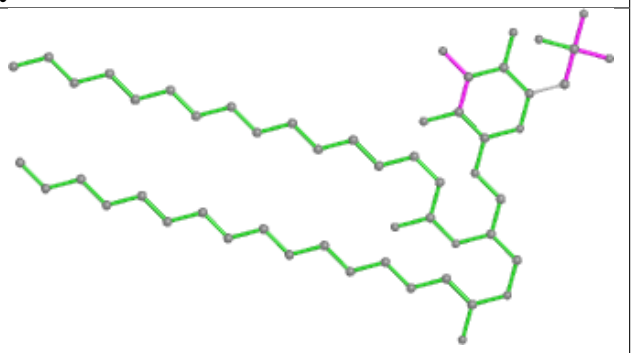
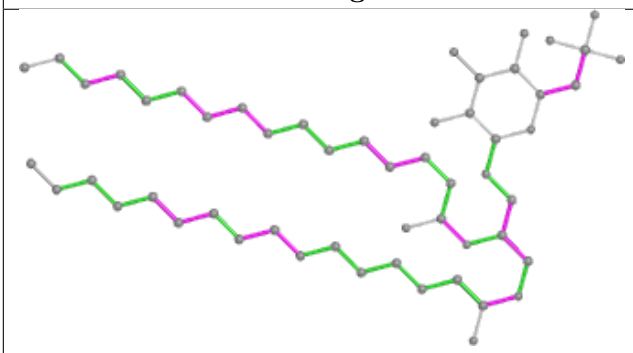


Bond angles



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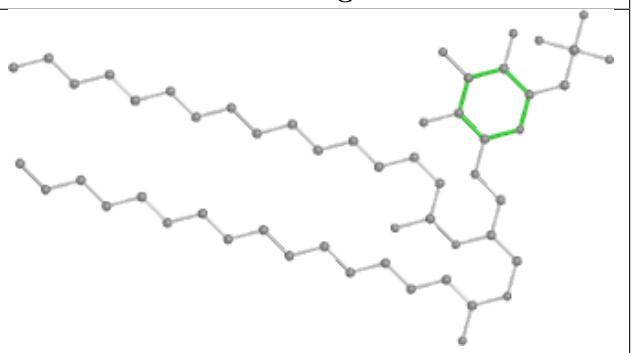
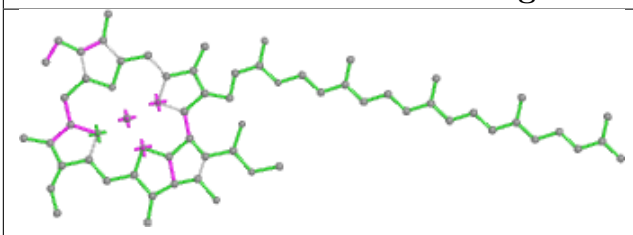


Rings

Ligand CLA d1 402



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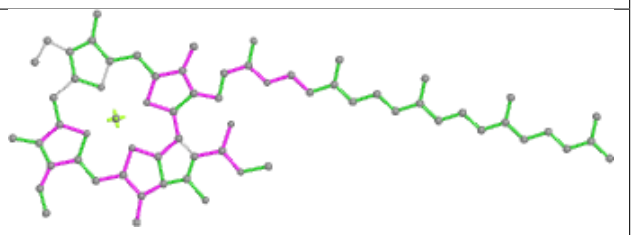
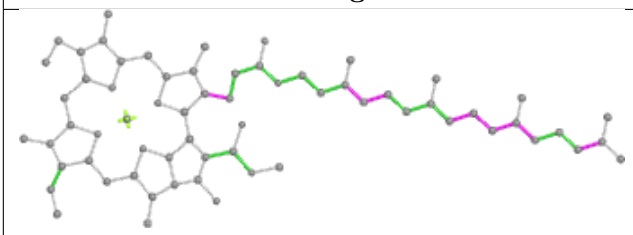


Bond angles



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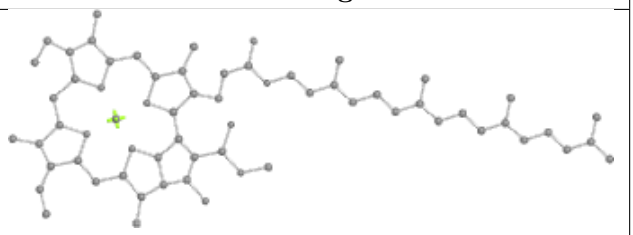
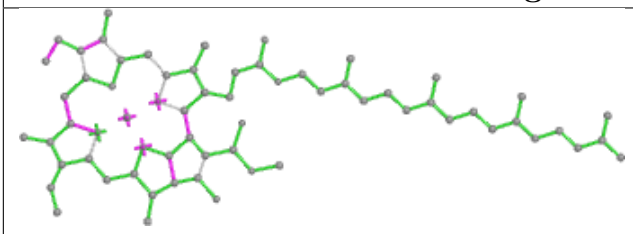


Rings

Ligand CLA C 509



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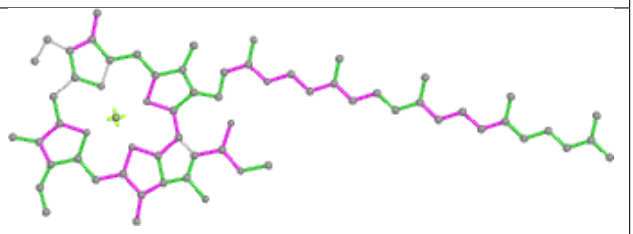
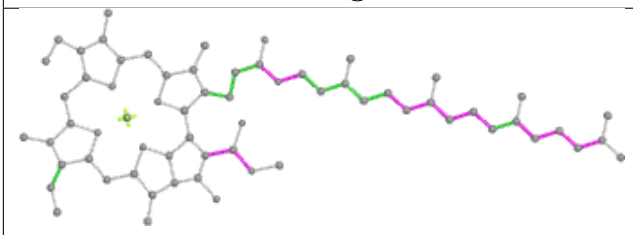


Bond angles



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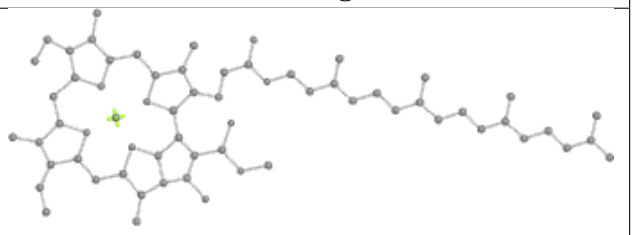
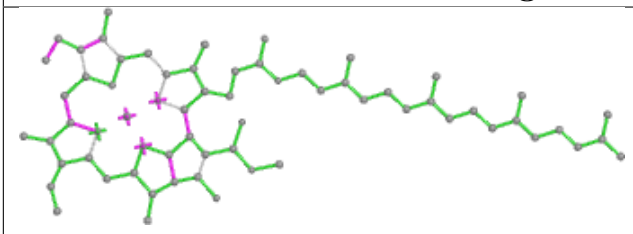


Rings

Ligand CLA b1 613



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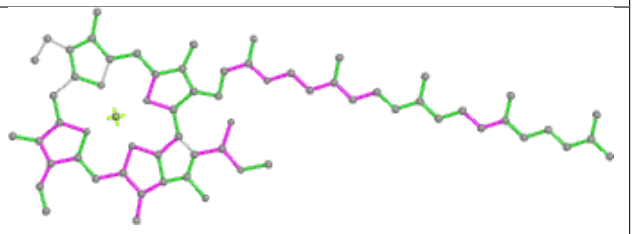
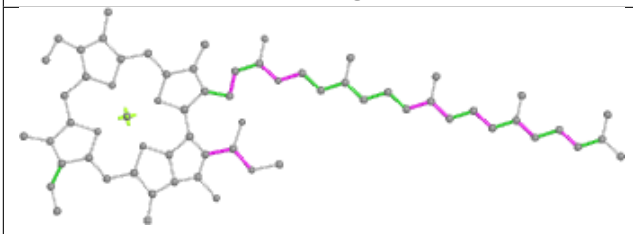


Bond angles



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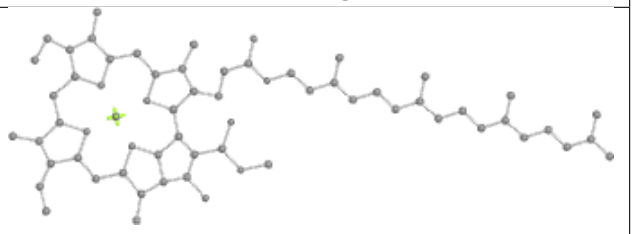
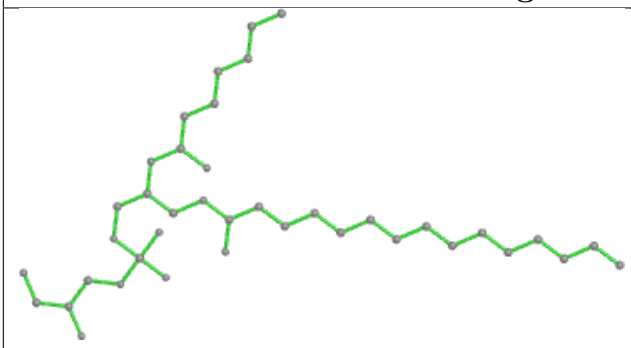


Rings

Ligand LHG d1 410



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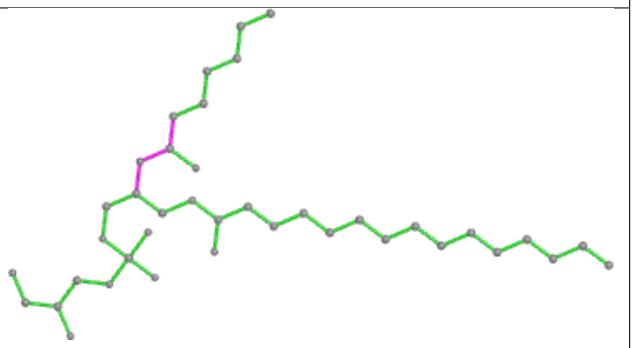
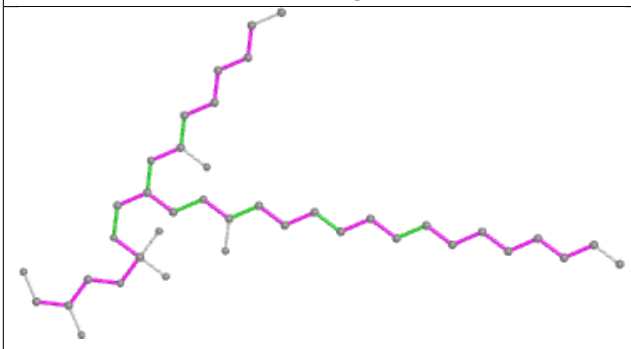


Bond angles



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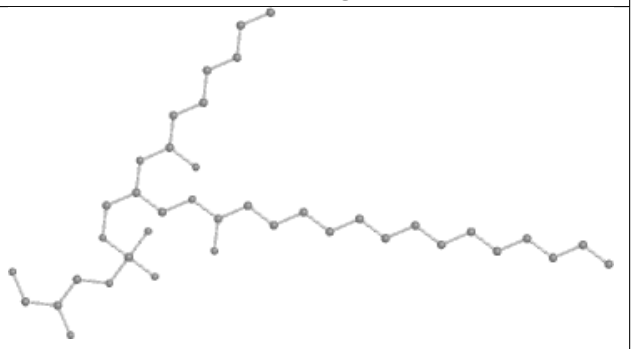
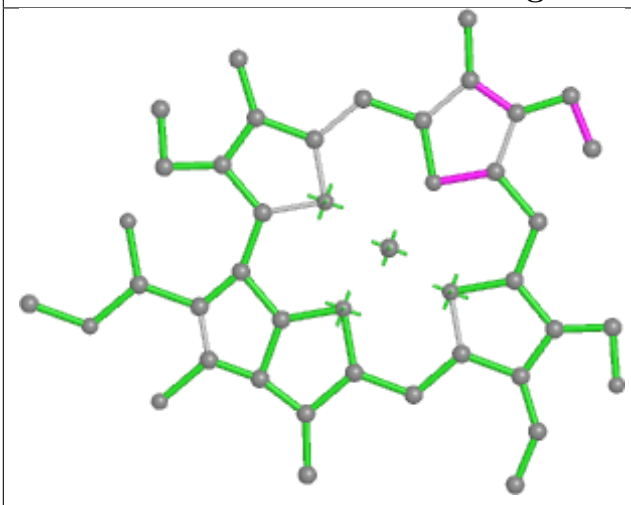


Rings

Ligand CHL S 607



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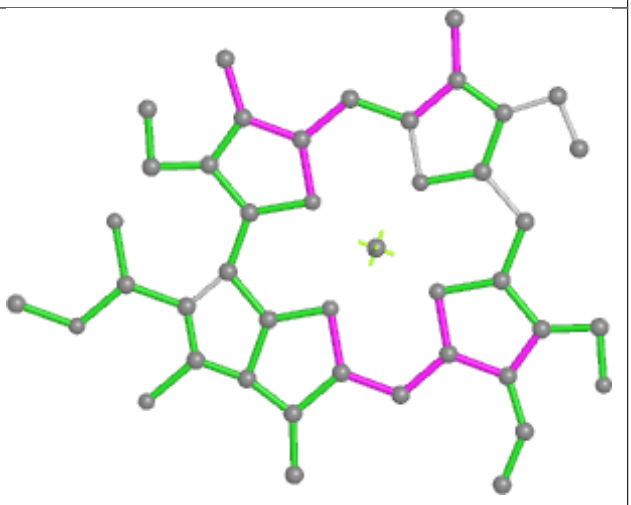
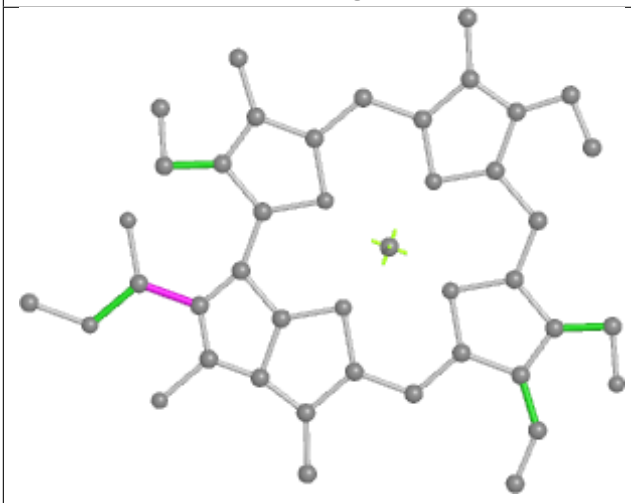


Bond angles



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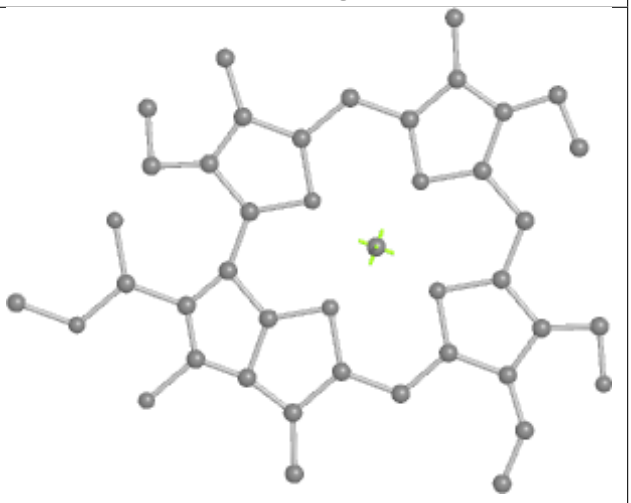
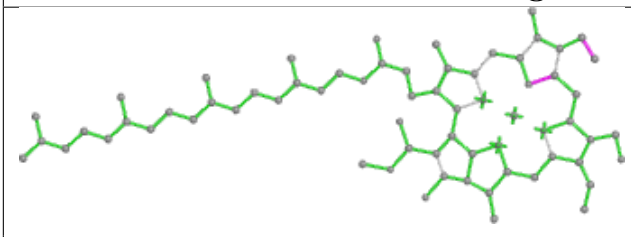


Rings

Ligand CHL g 607



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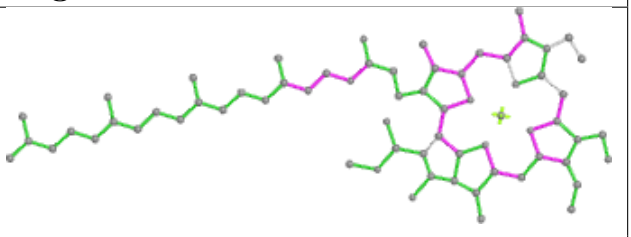
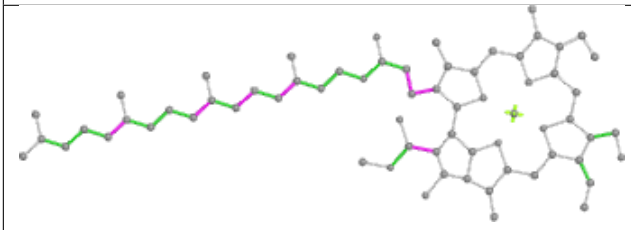


Bond angles



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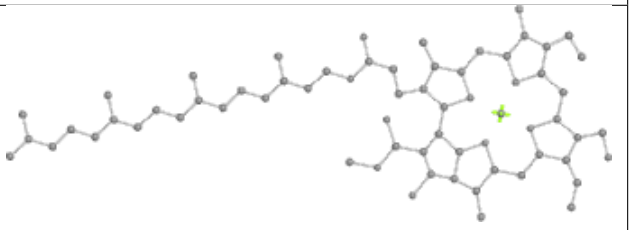
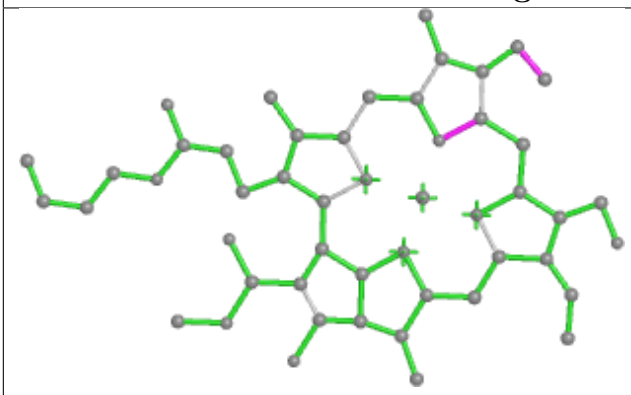


Rings

Ligand CHL N1 608



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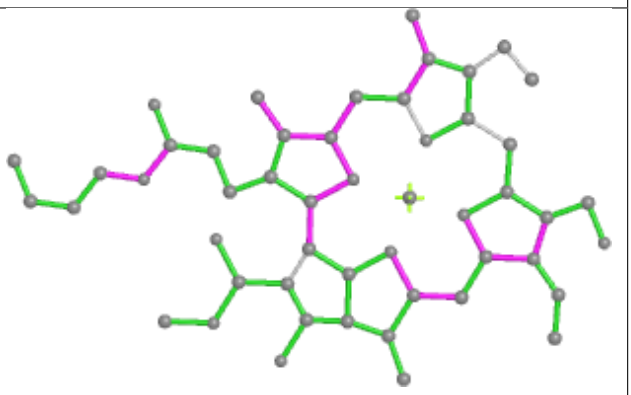
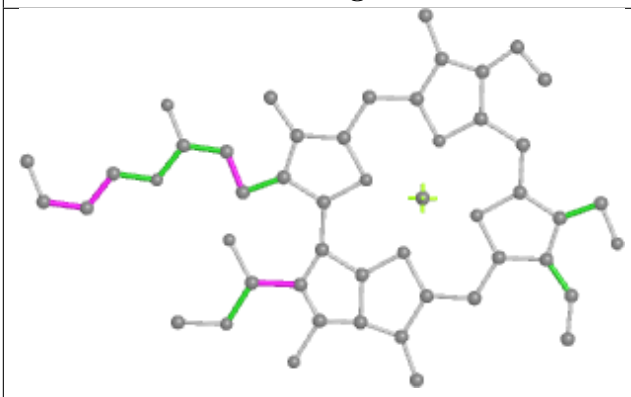


Bond angles



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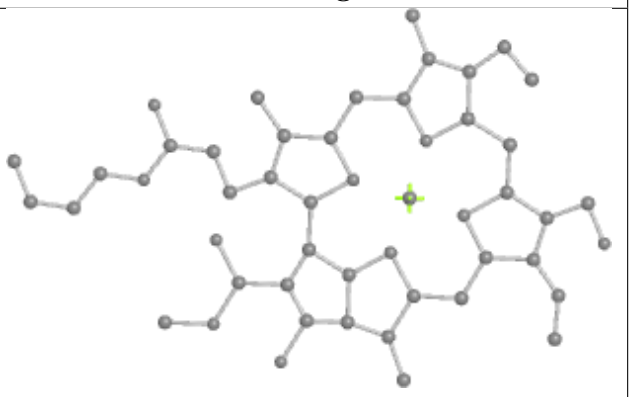
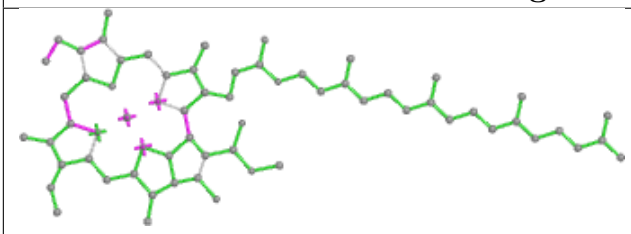


Rings

Ligand CLA c 502



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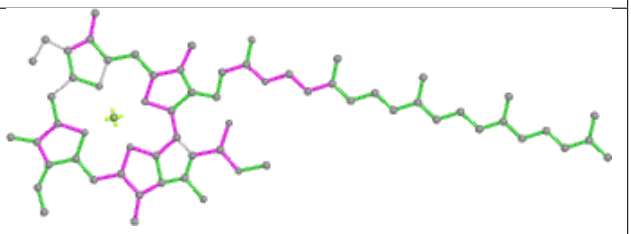
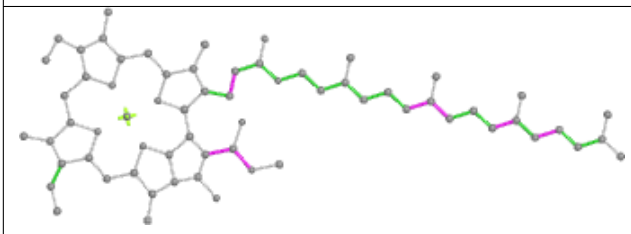
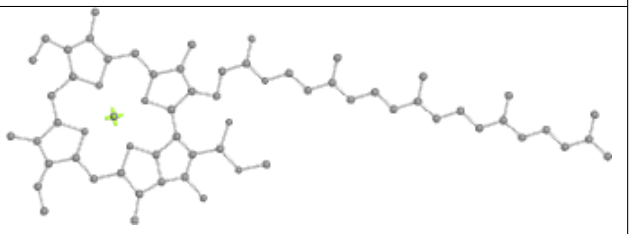


Bond angles

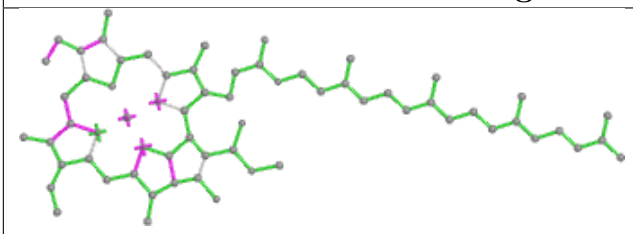


Torsions

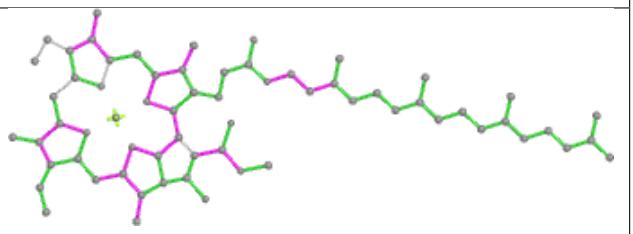


Rings

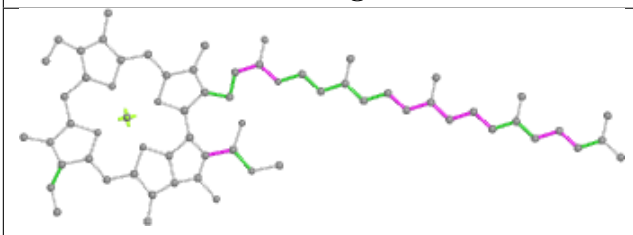
Ligand CLA C1 508



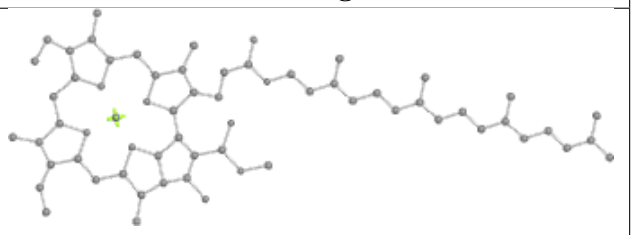
Bond lengths



Bond angles

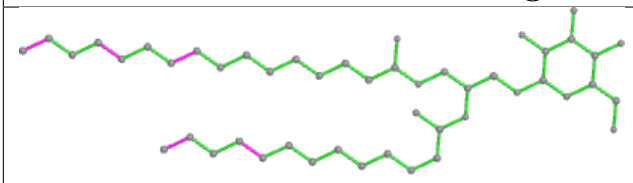


Torsions

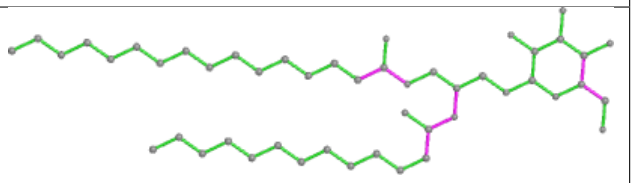


Rings

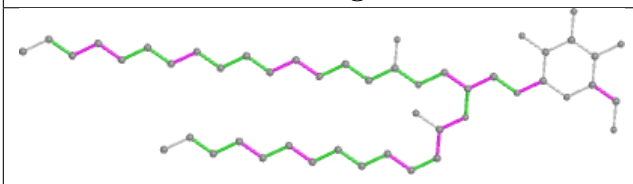
Ligand LMG a 413



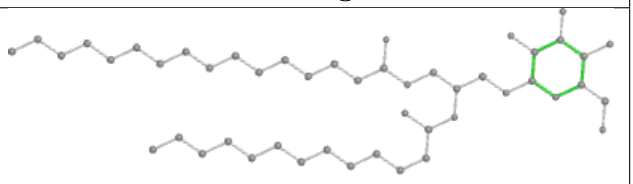
Bond lengths



Bond angles

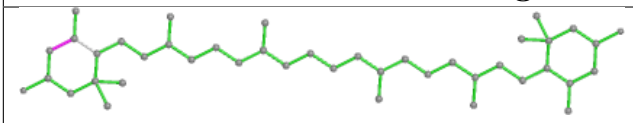


Torsions

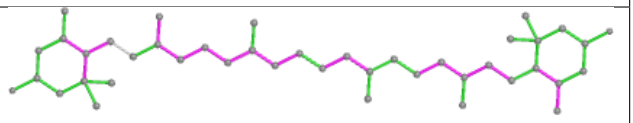


Rings

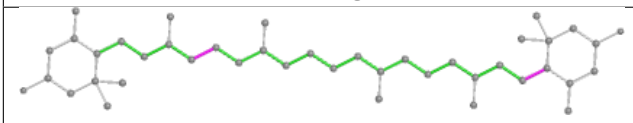
Ligand LUT G1 621



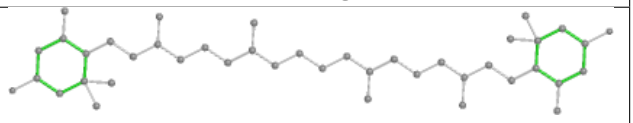
Bond lengths



Bond angles

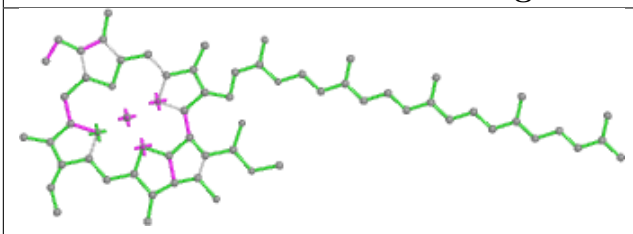


Torsions



Rings

Ligand CLA A1 405



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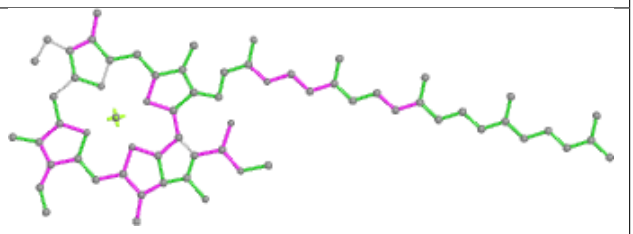
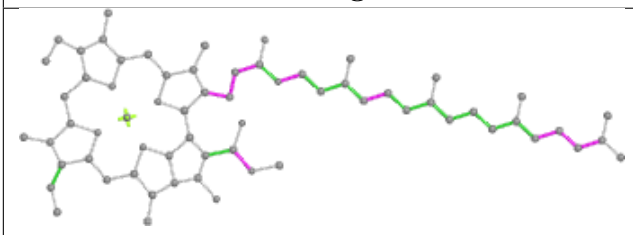
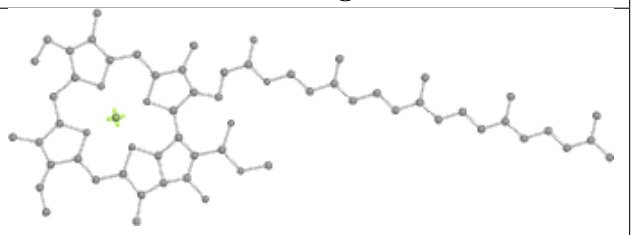


Bond angles

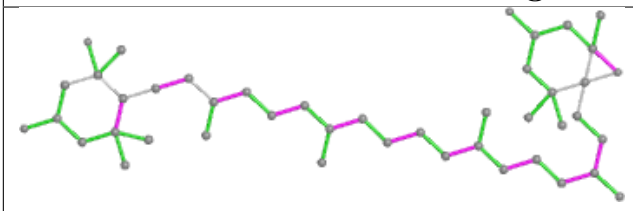


Torsions

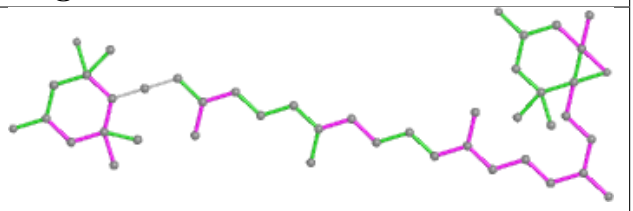


Rings

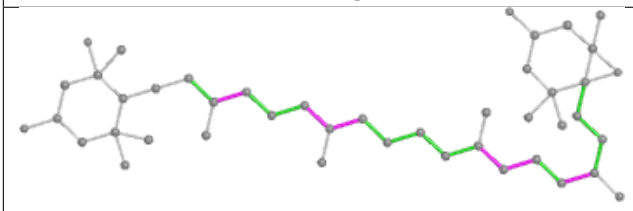
Ligand NEX g 623



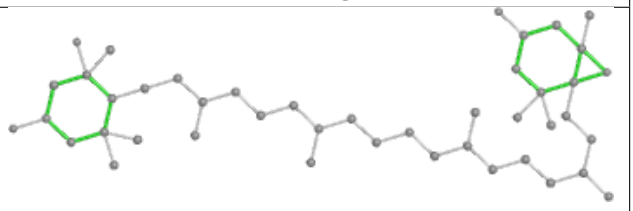
Bond lengths



Bond angles

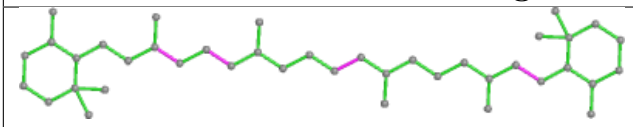


Torsions



Rings

Ligand BCR A1 411



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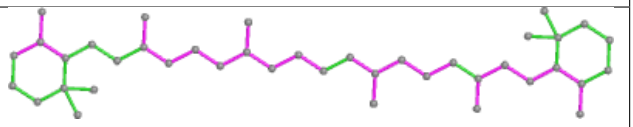
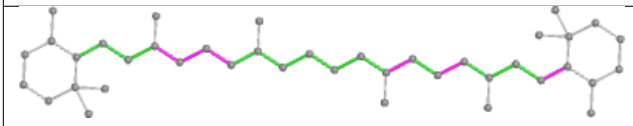


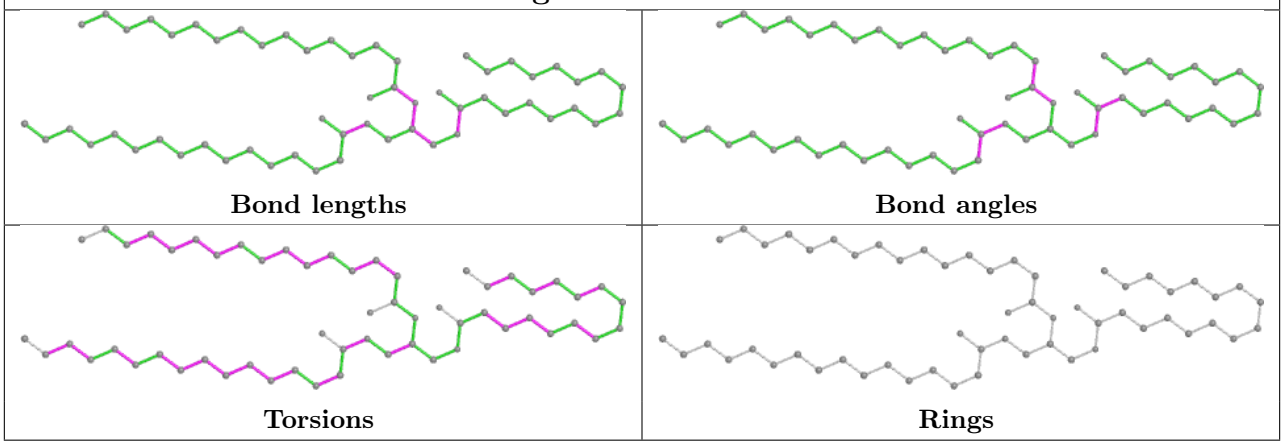
Bond angles



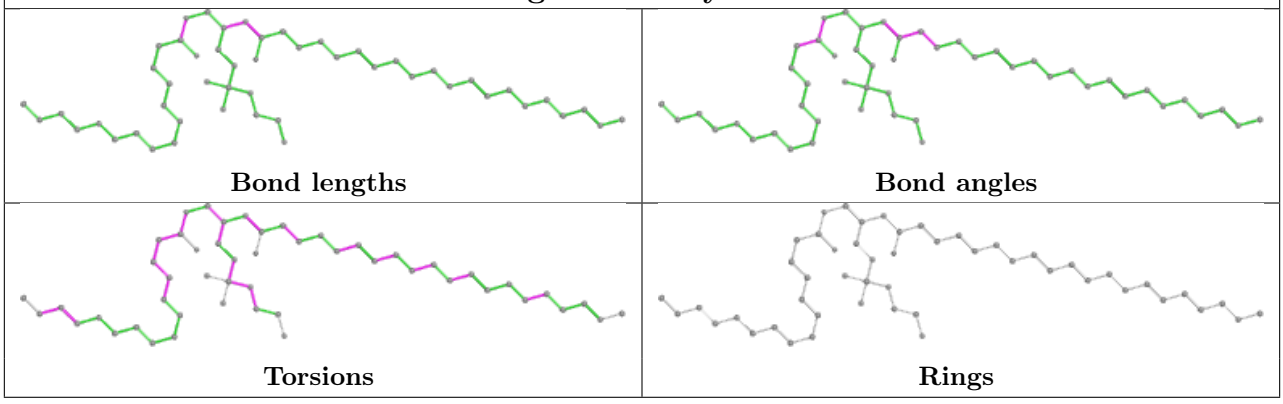
Torsions

Rings

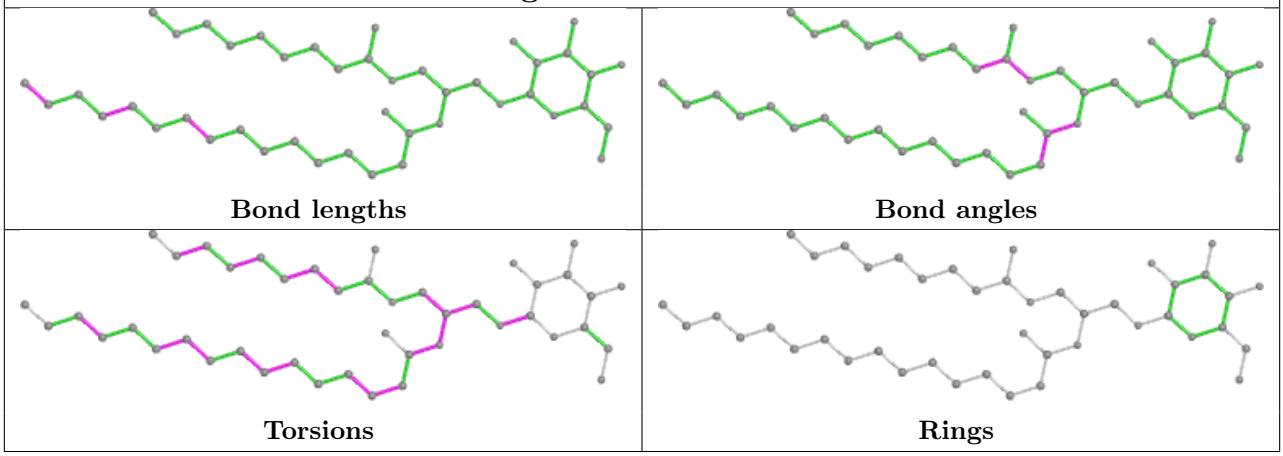
Ligand 4RF k 101



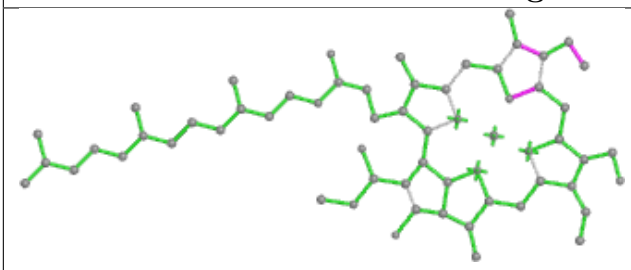
Ligand PTY y 626



Ligand LMG B 622



Ligand CHL S 608



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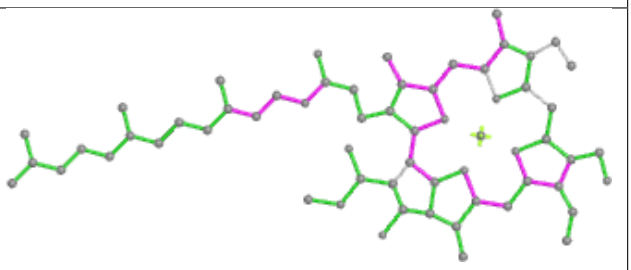
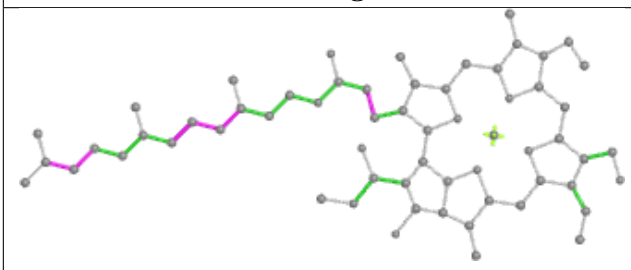


Bond angles



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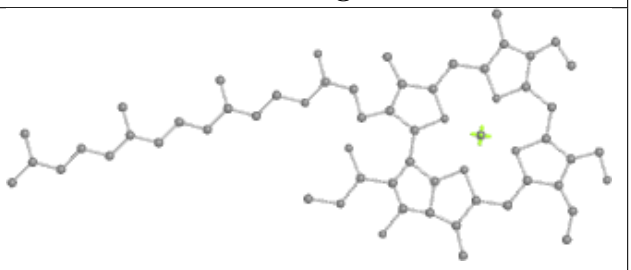
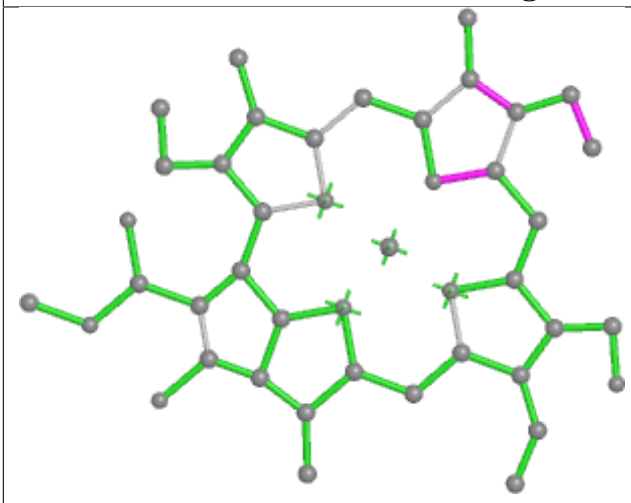


Rings

Ligand CHL s1 607



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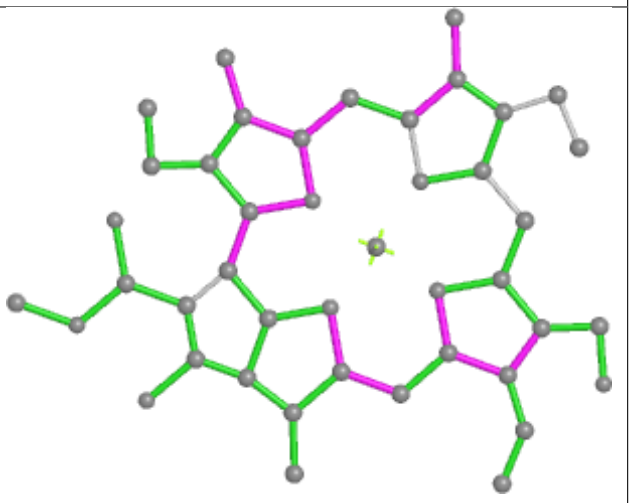
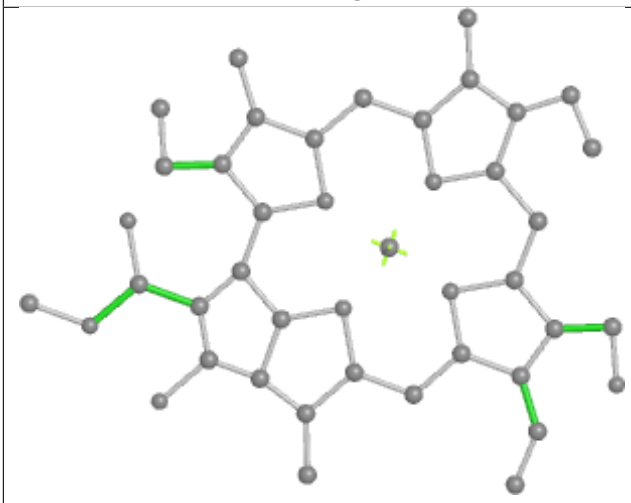


Bond angles



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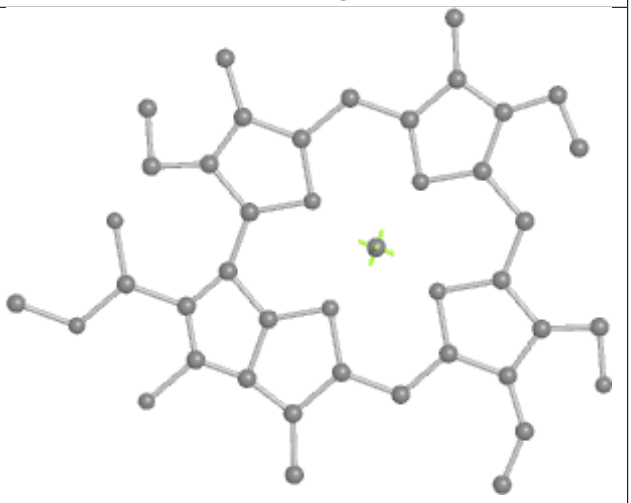
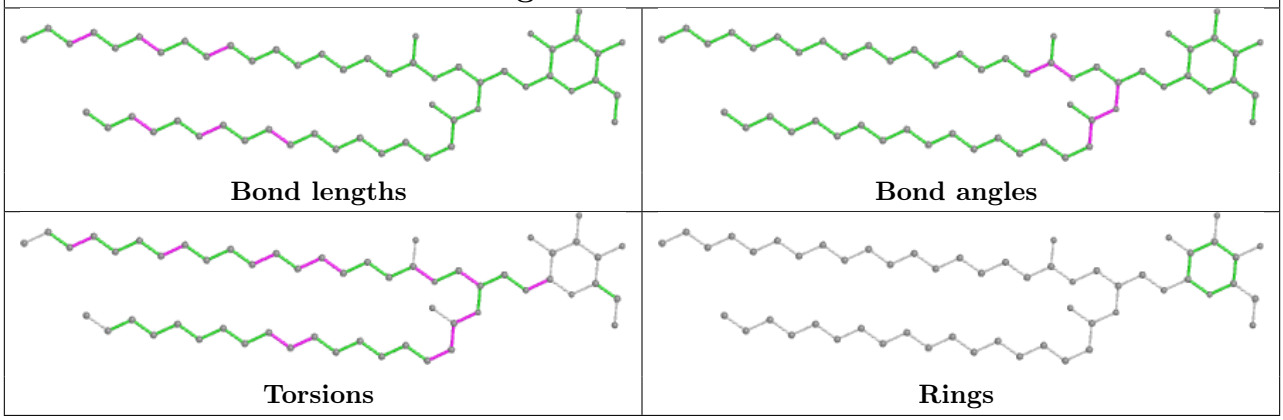
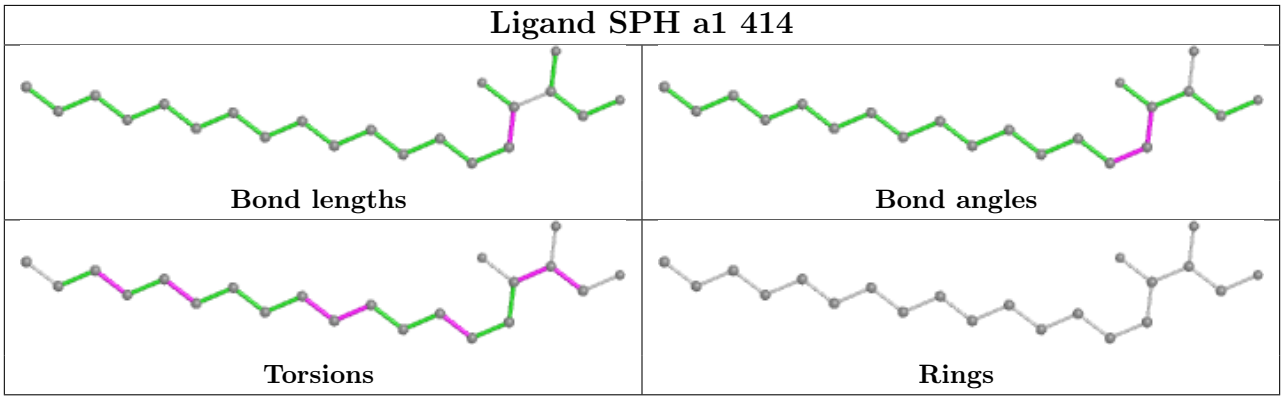


Rings

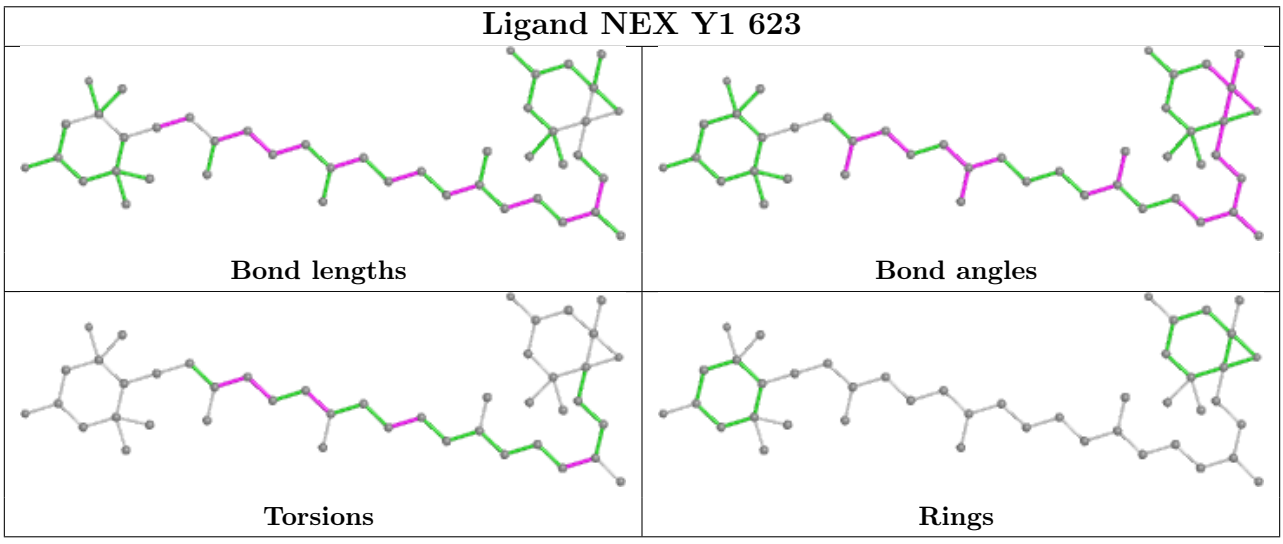
Ligand LMG c1 523



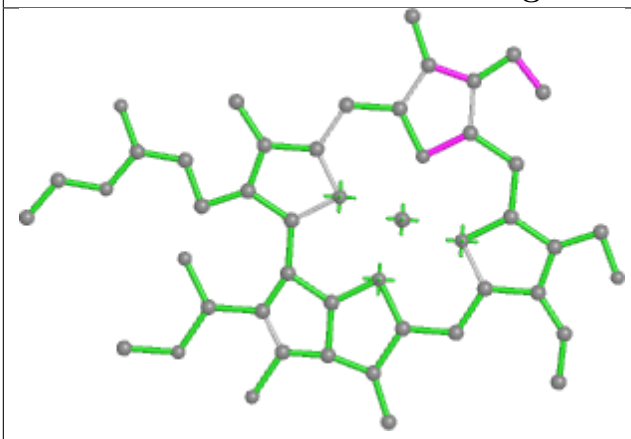
Ligand SPH a1 414



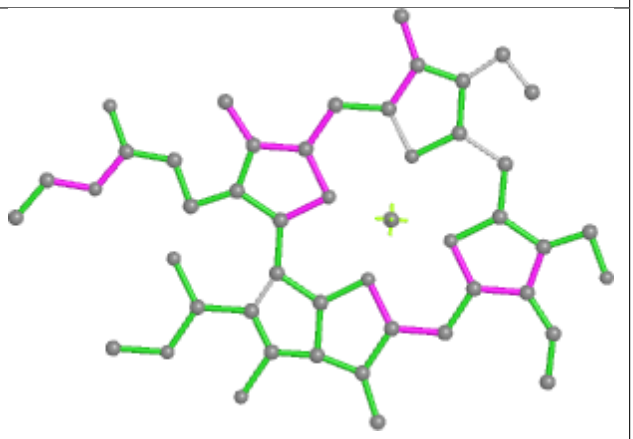
Ligand NEX Y1 623



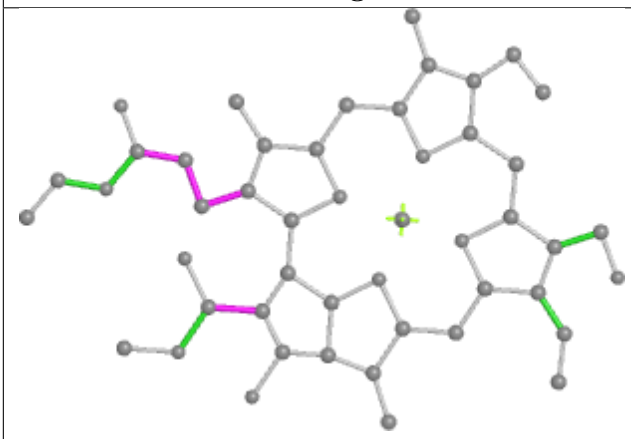
Ligand CHL G 605



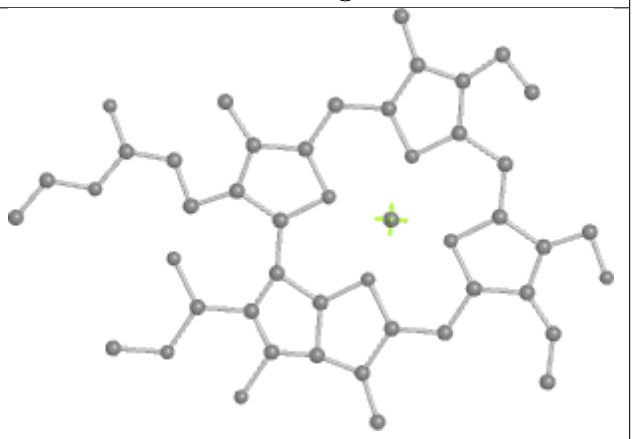
Bond lengths



Bond angles

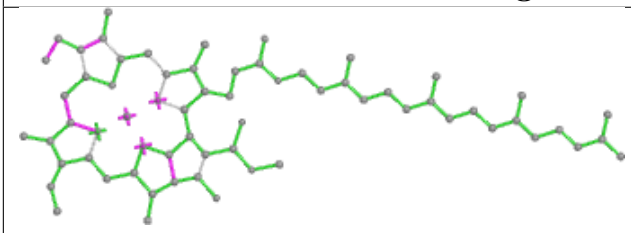


Torsions

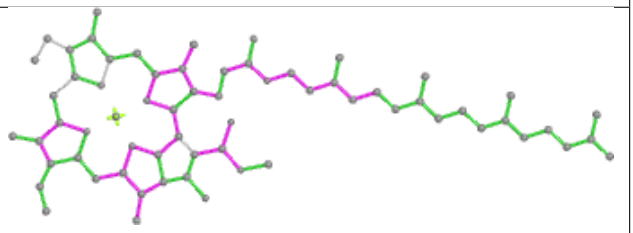


Rings

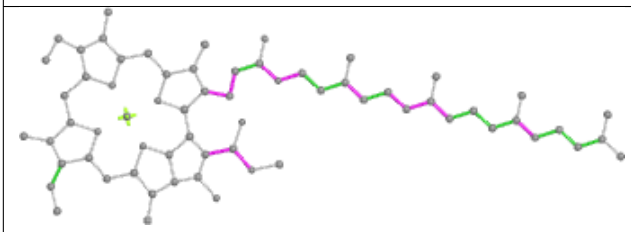
Ligand CLA C1 506



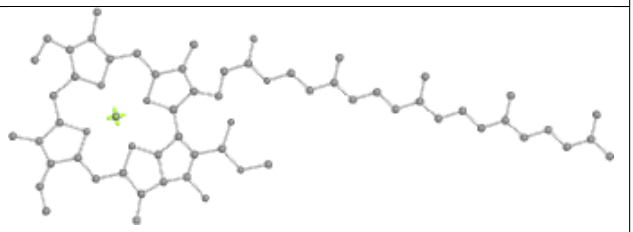
Bond lengths



Bond angles

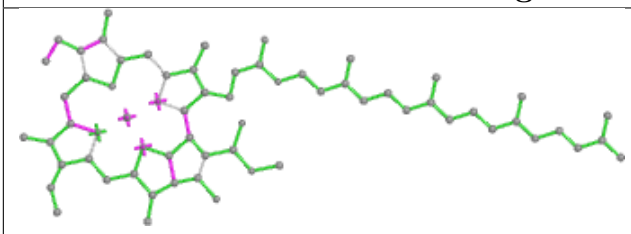


Torsions

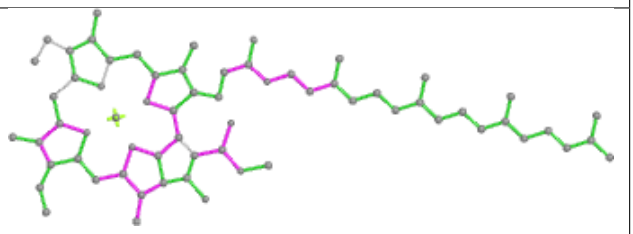


Rings

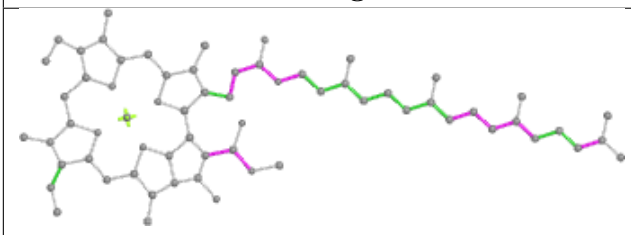
Ligand CLA B1 613



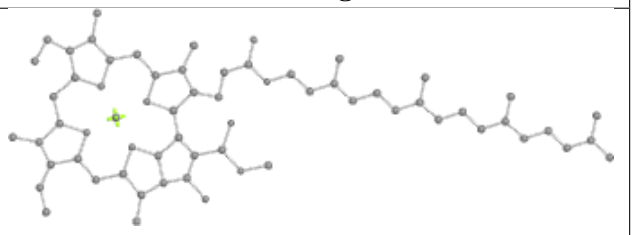
Bond lengths



Bond angles

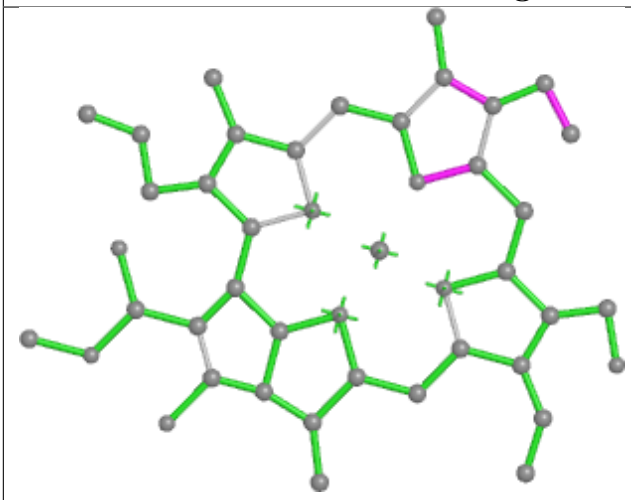


Torsions

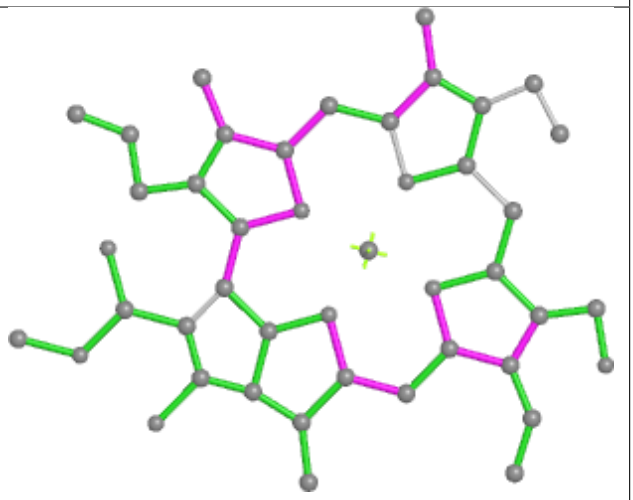


Rings

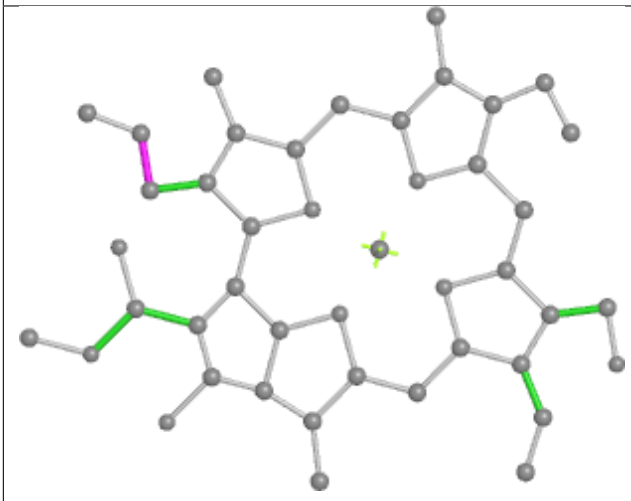
Ligand CHL G1 608



Bond lengths



Bond angles



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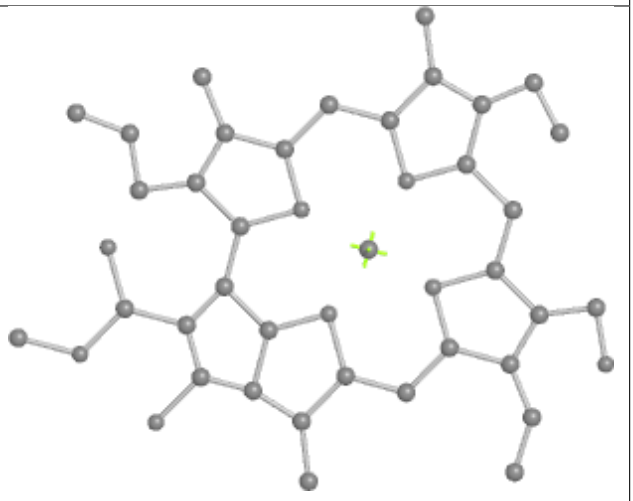
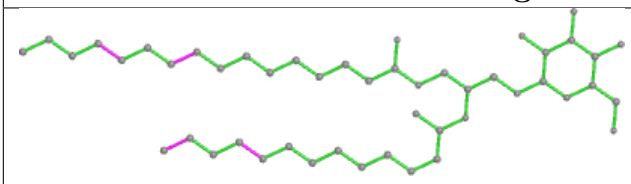


Rings

Ligand LMG h1 102



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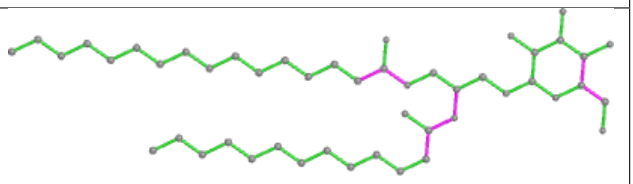
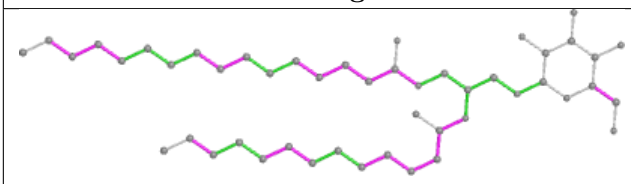
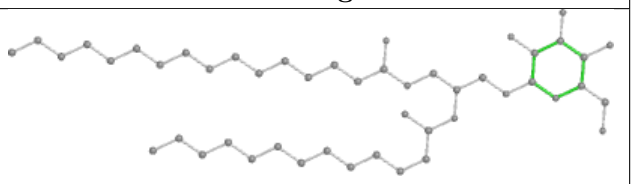


Bond angles

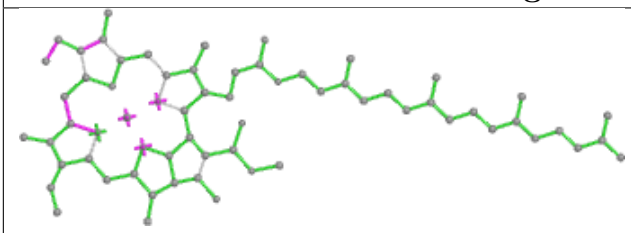


Torsions

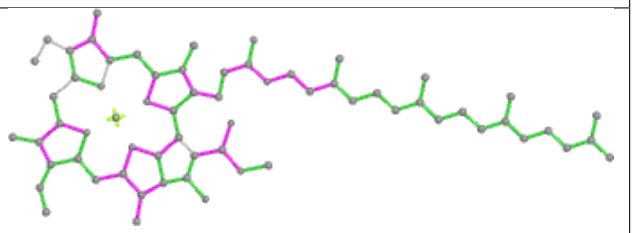


Rings

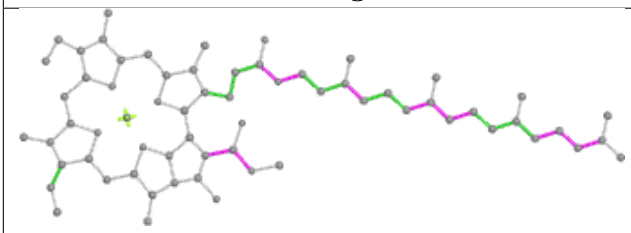
Ligand CLA Y 604



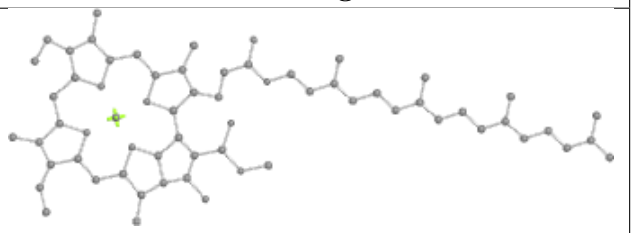
Bond lengths



Bond angles

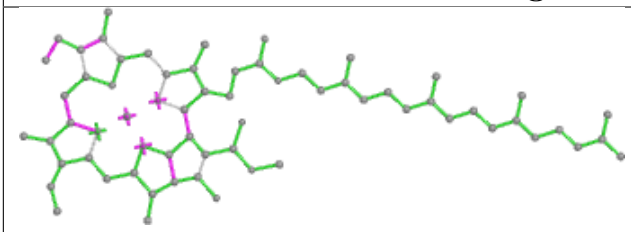


Torsions

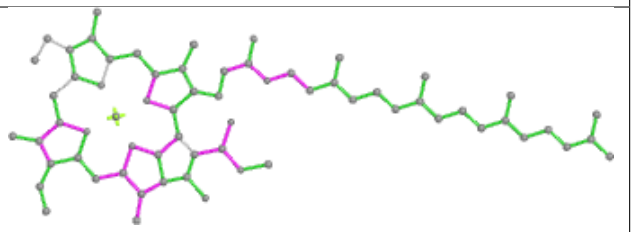


Rings

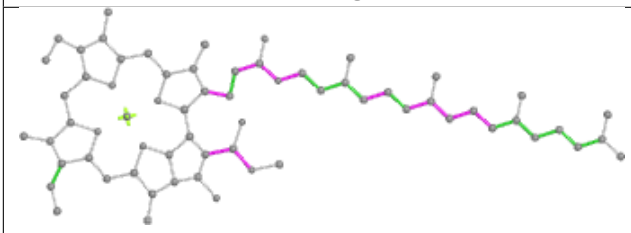
Ligand CLA b 613



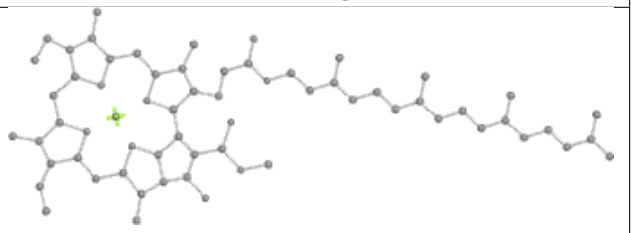
Bond lengths



Bond angles

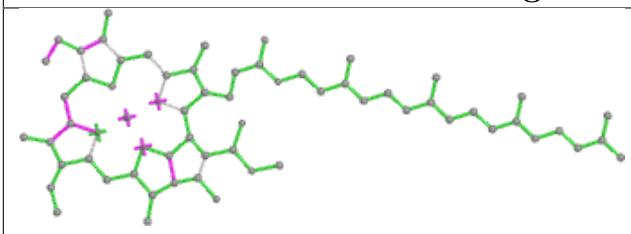


Torsions

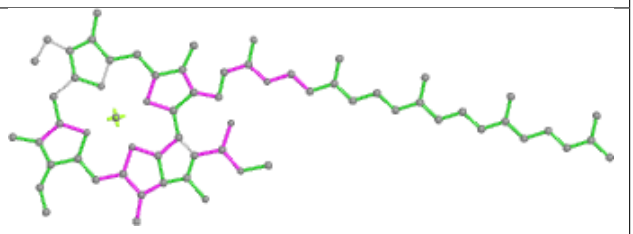


Rings

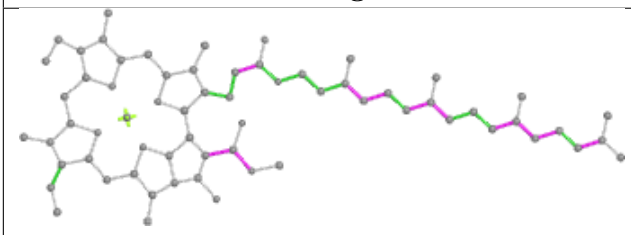
Ligand CLA D 402



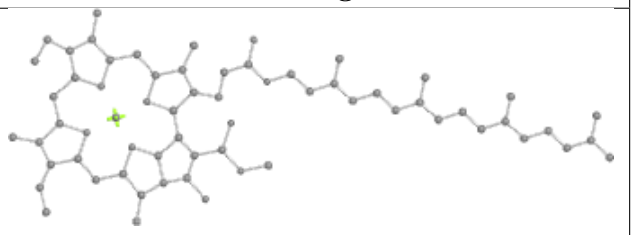
Bond lengths



Bond angles

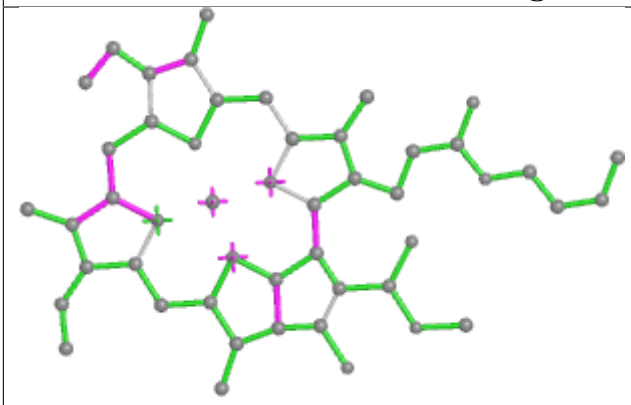


Torsions

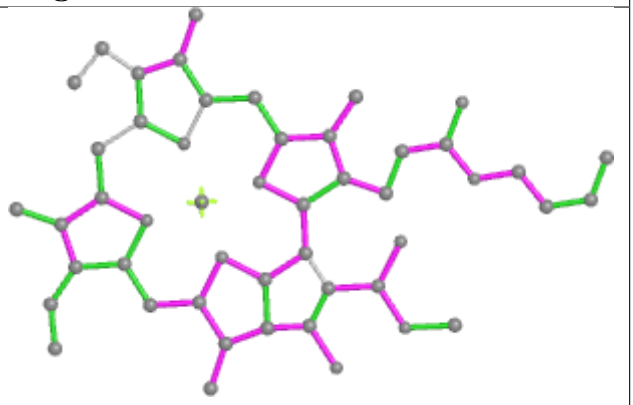


Rings

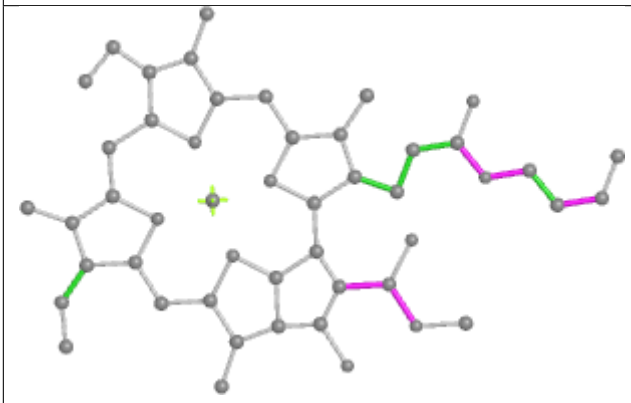
Ligand CLA g 604



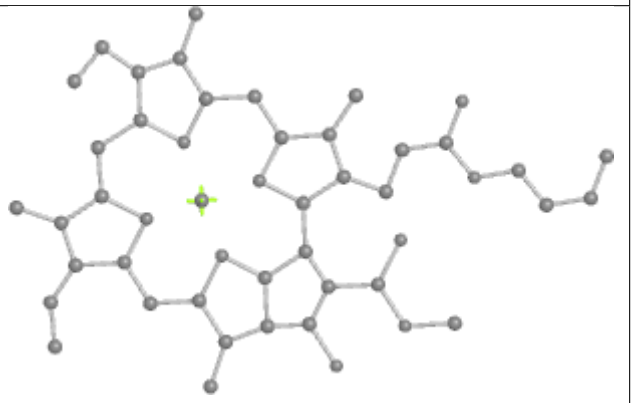
Bond lengths



Bond angles

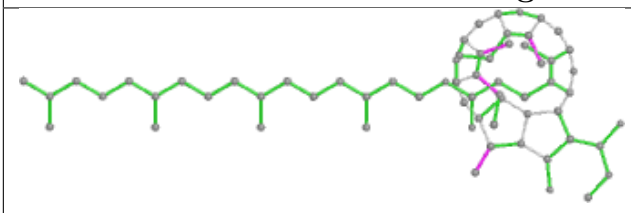


Torsions

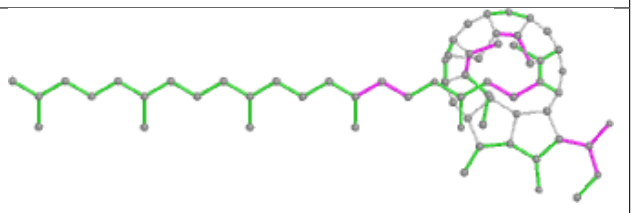


Rings

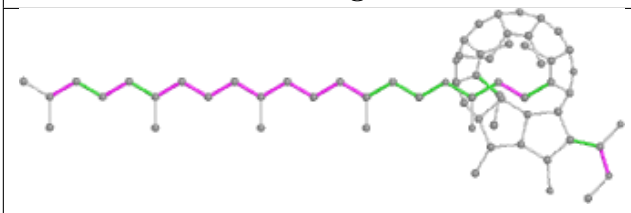
Ligand PHO a1 408



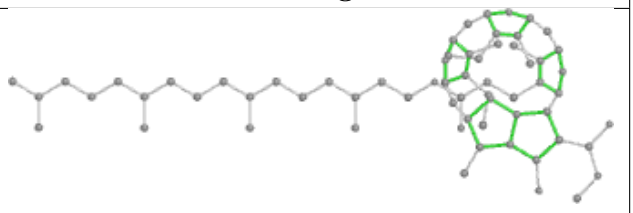
Bond lengths



Bond angles

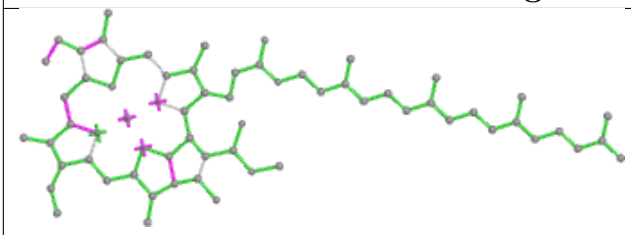


Torsions

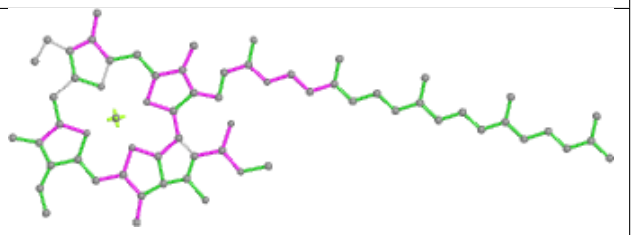


Rings

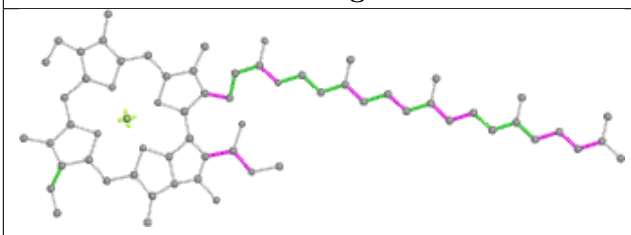
Ligand CLA B 612



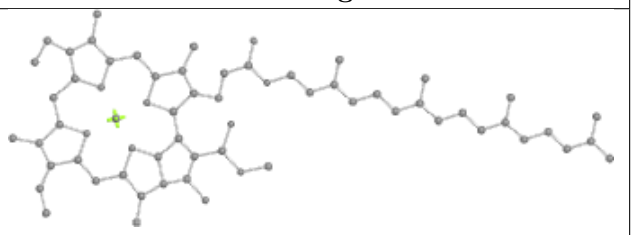
Bond lengths



Bond angles

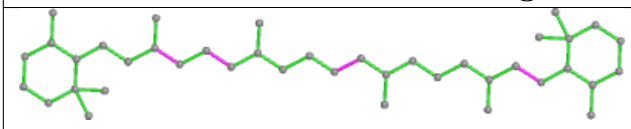


Torsions

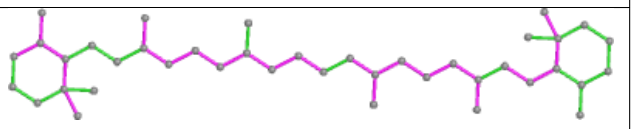


Rings

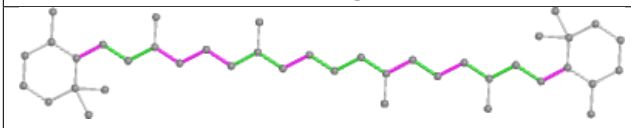
Ligand BCR c1 514



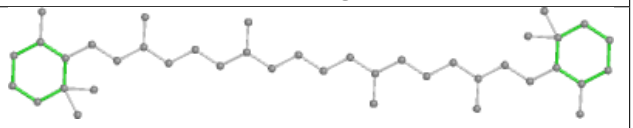
Bond lengths



Bond angles

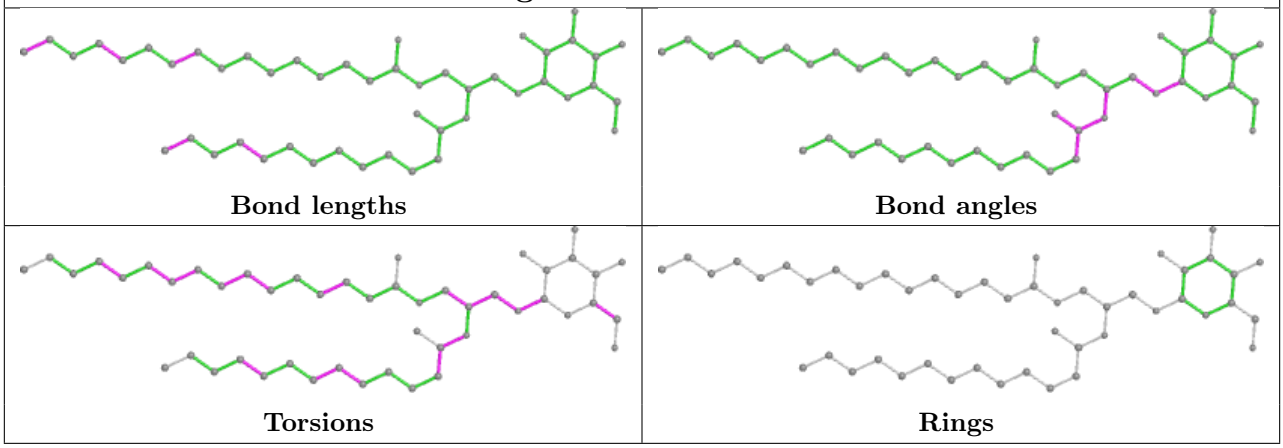


Torsions

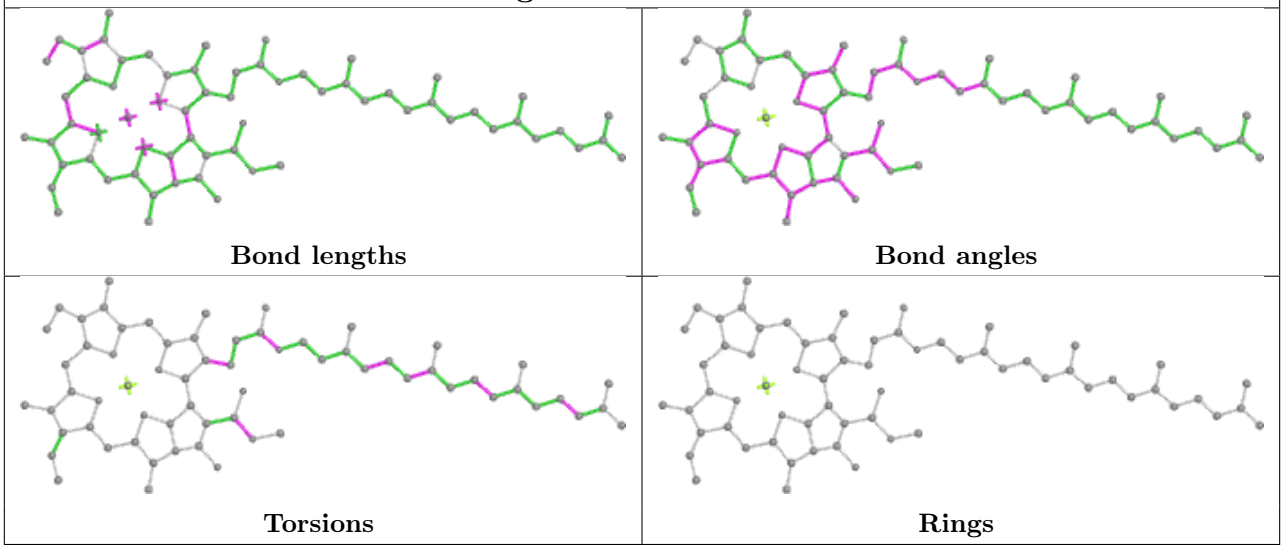


Rings

Ligand LMG a1 413



Ligand CLA C1 511



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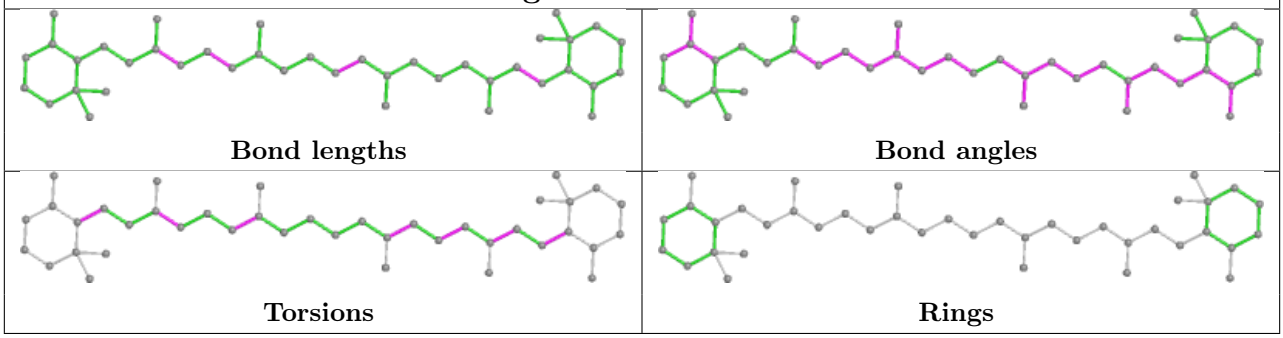

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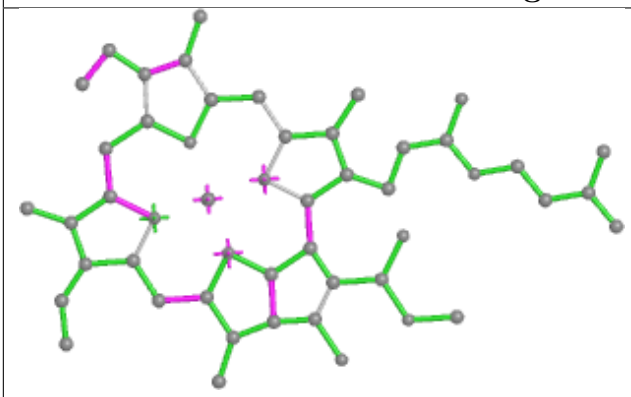
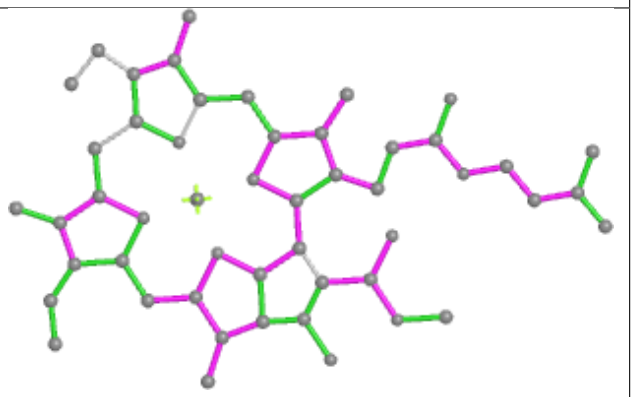
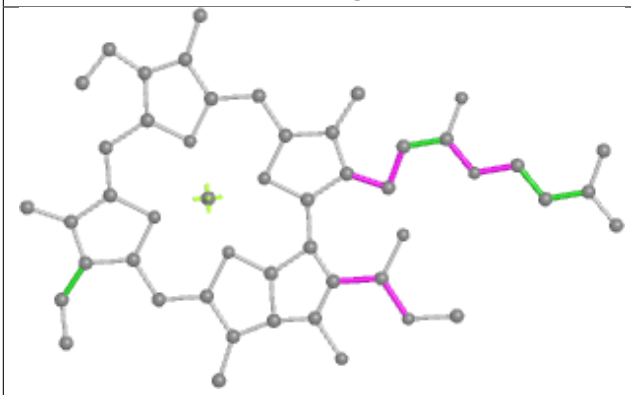


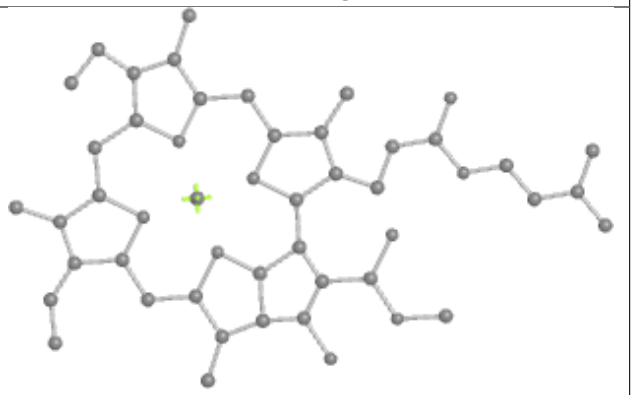
Bond lengths



Bond angles

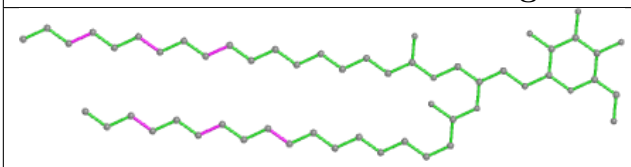


Torsions

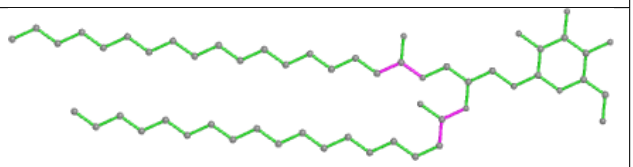


Rings

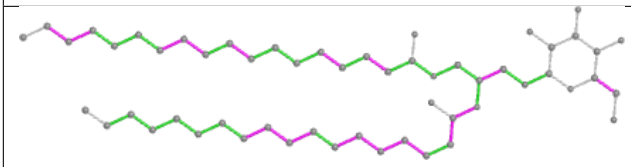
Ligand LMG C 523



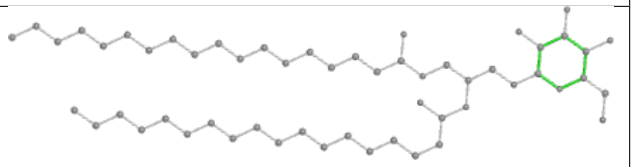
Bond lengths



Bond angles

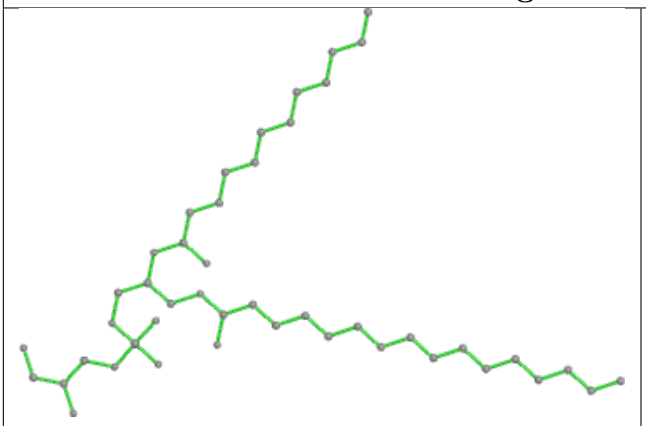


Torsions

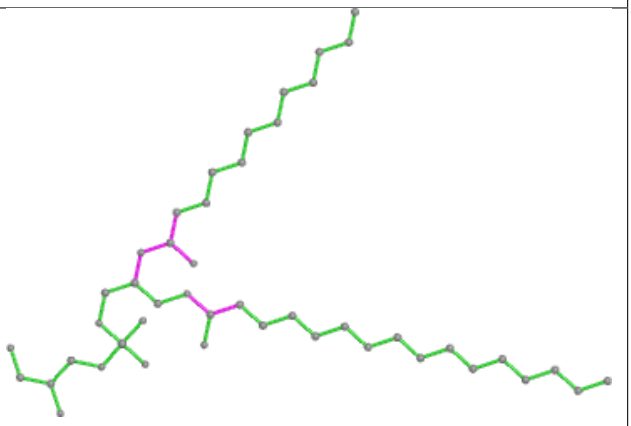


Rings

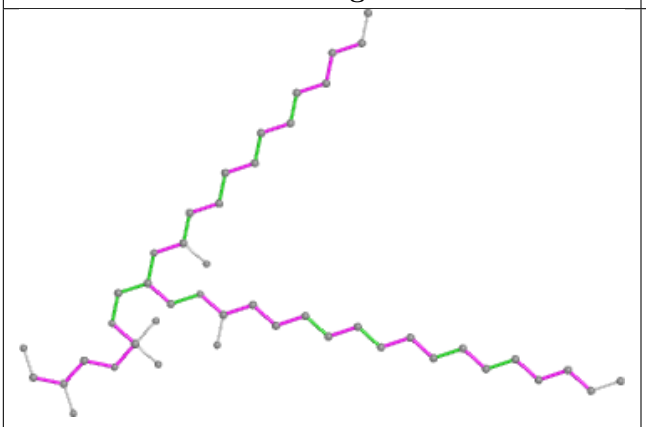
Ligand LHG S1 624



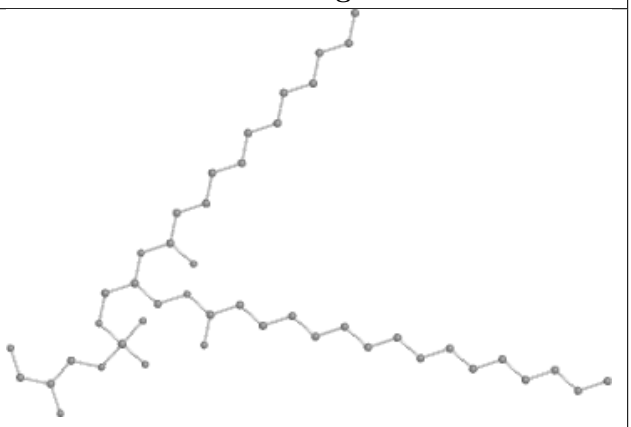
Bond lengths



Bond angles

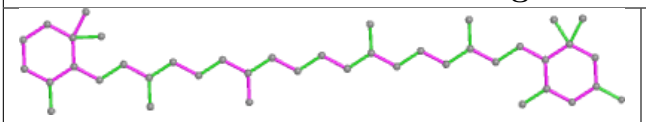


Torsions

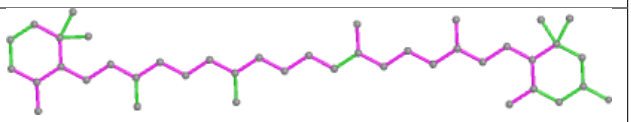


Rings

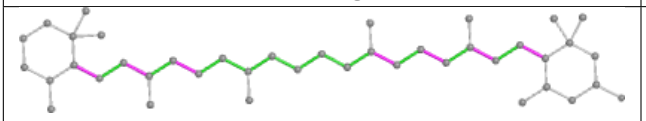
Ligand RRX H1 101



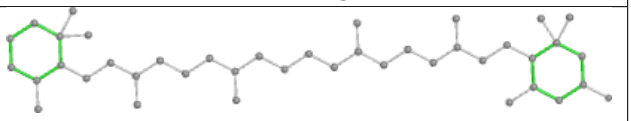
Bond lengths



Bond angles

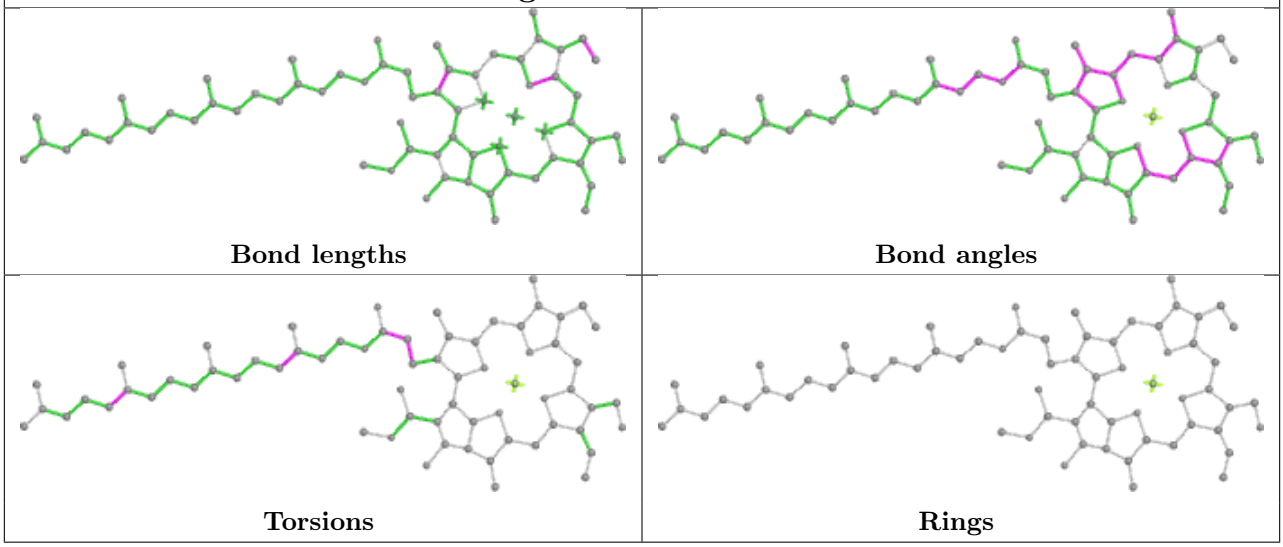


Torsions

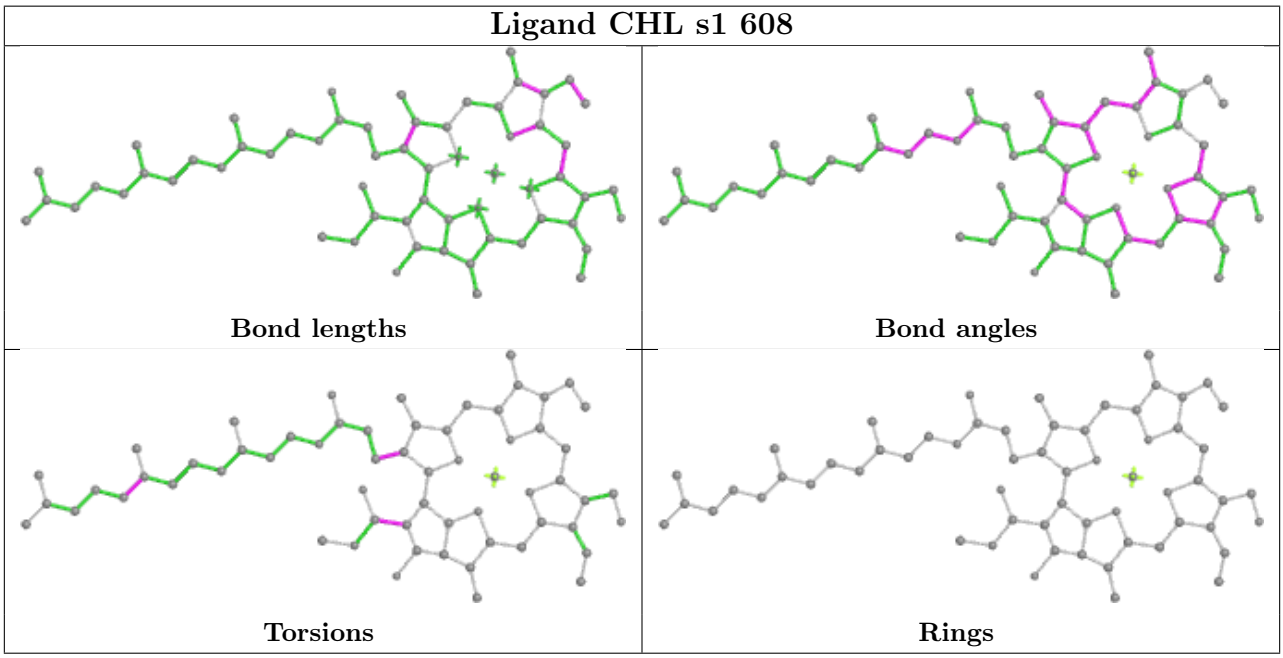


Rings

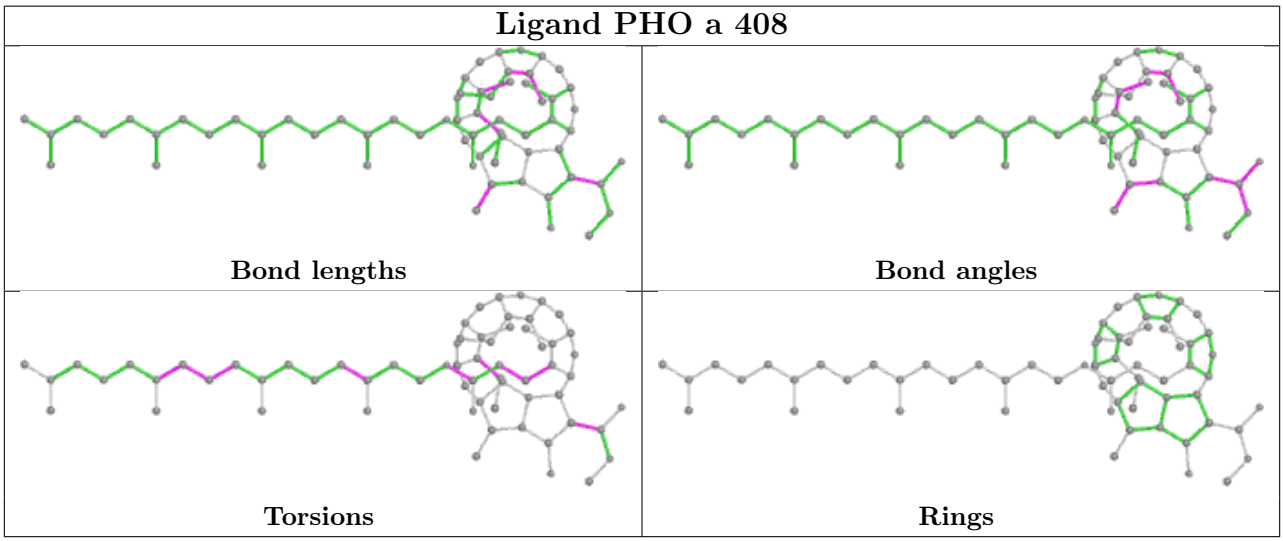
Ligand CHL n1 605



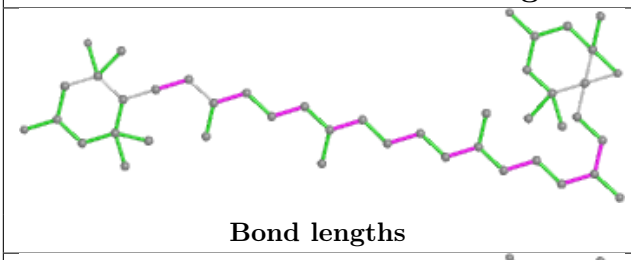
Ligand CHL s1 608



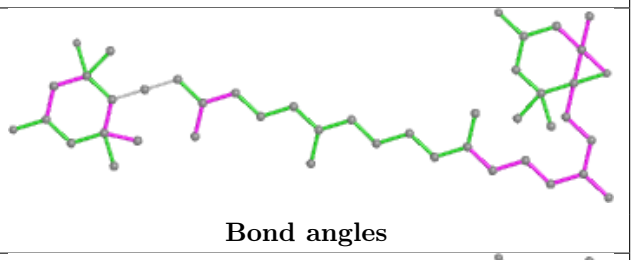
Ligand PHO a 408



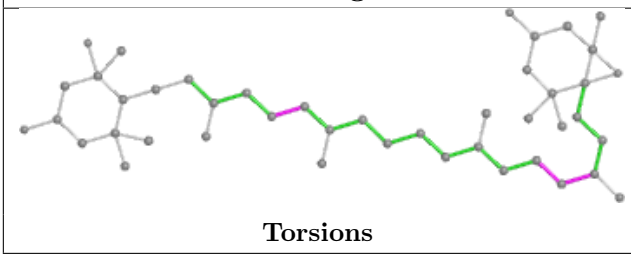
Ligand NEX N 623



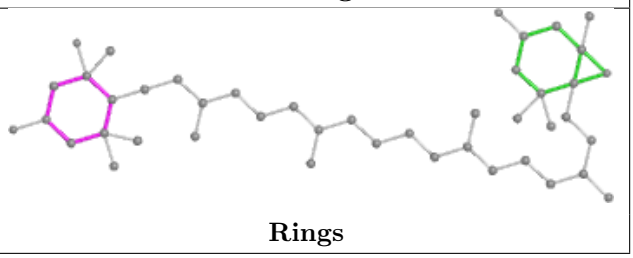
Bond lengths



Bond angles

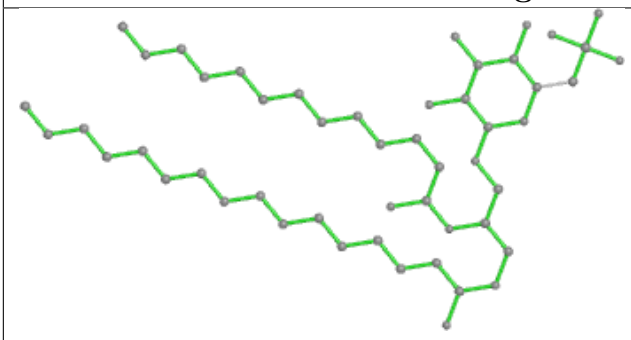


Torsions



Rings

Ligand SQD A1 412



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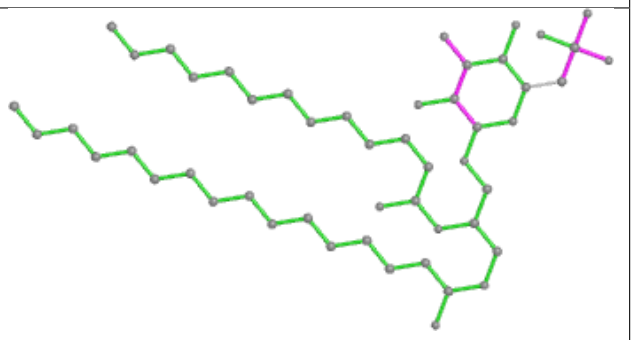
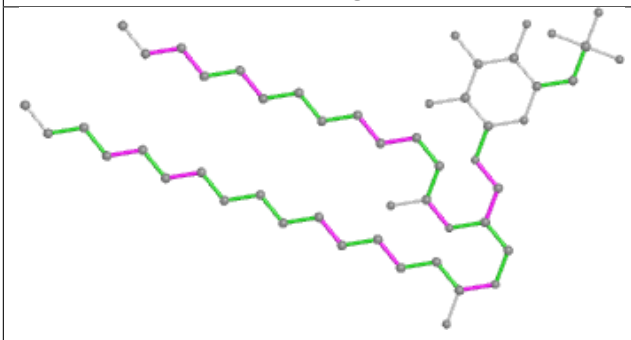
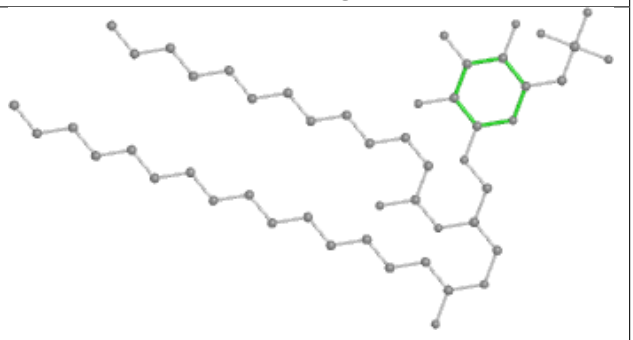


Bond angles

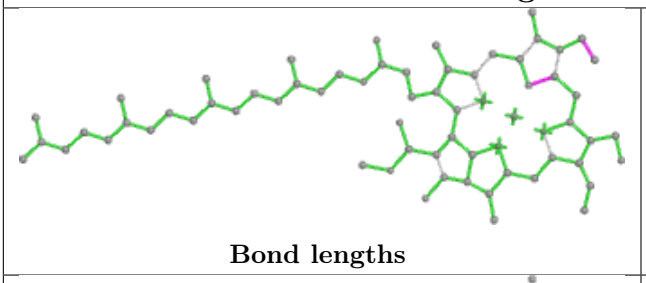


Torsions

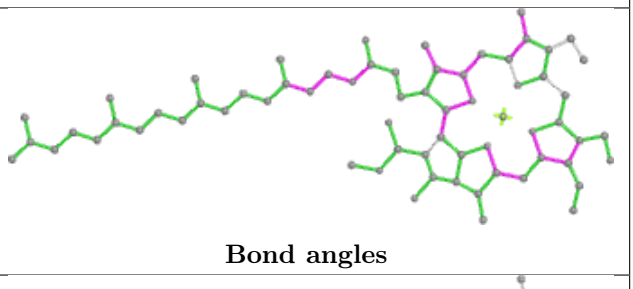


Rings

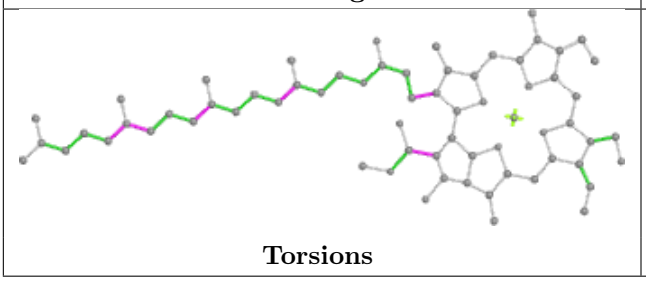
Ligand CHL n1 601



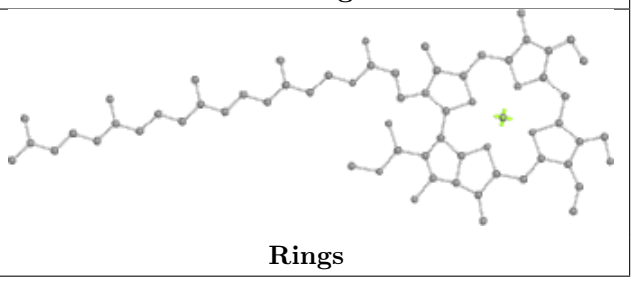
Bond lengths



Bond angles

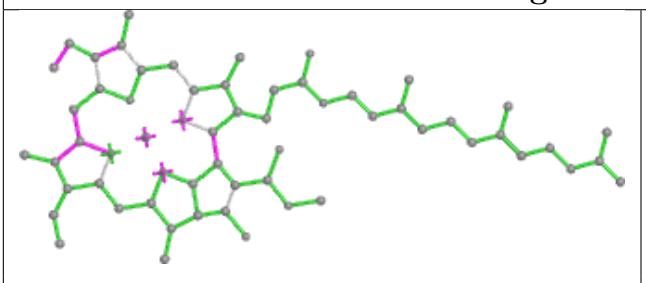


Torsions

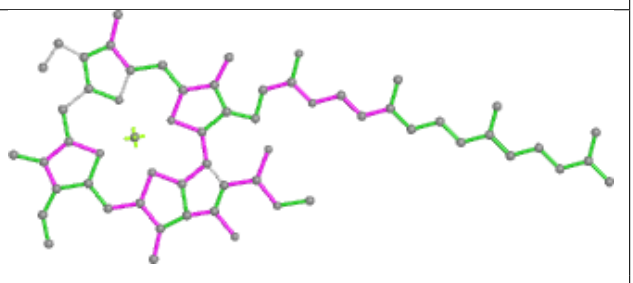


Rings

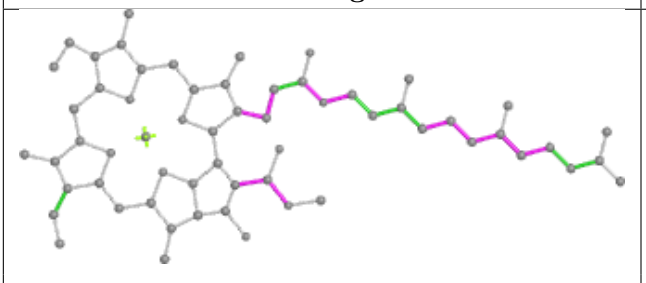
Ligand CLA r 603



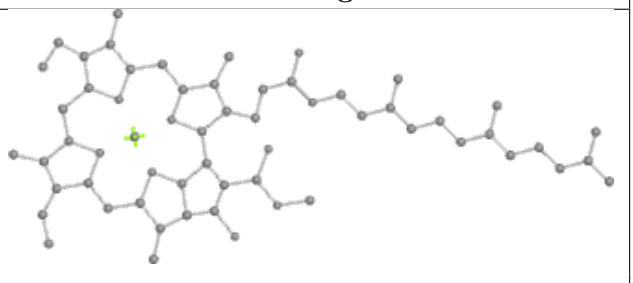
Bond lengths



Bond angles

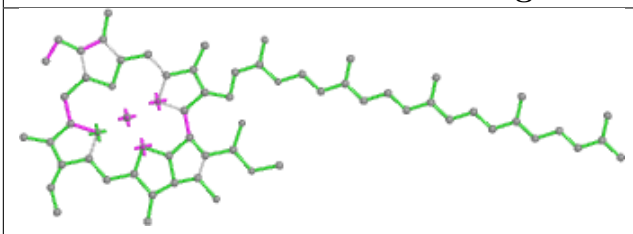


Torsions

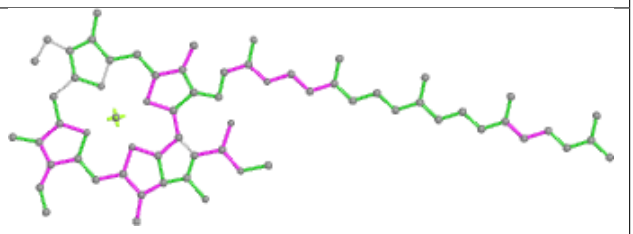


Rings

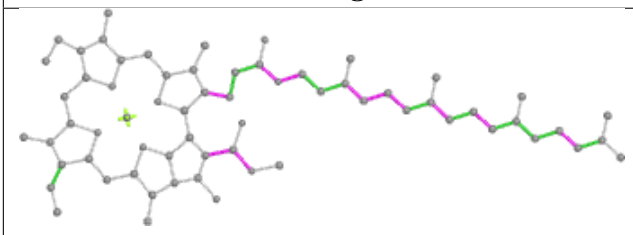
Ligand CLA C1 504



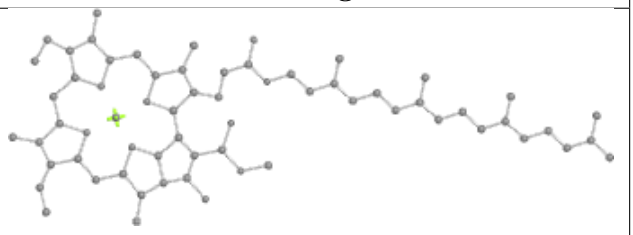
Bond lengths



Bond angles

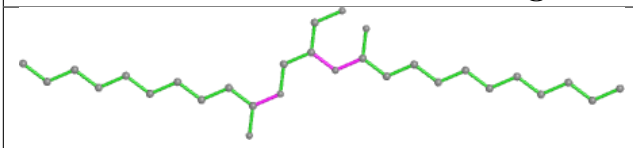


Torsions



Rings

Ligand DGA j 101



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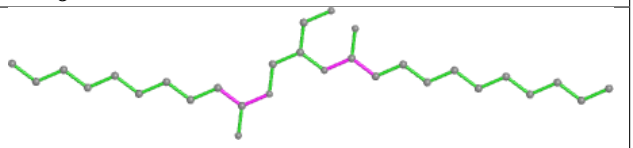

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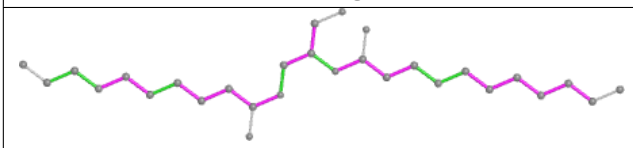

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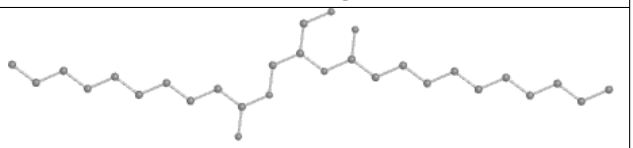
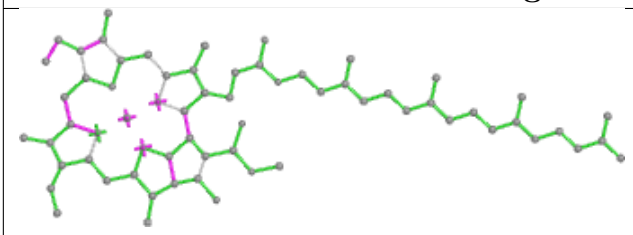


Rings

Ligand CLA Y 612



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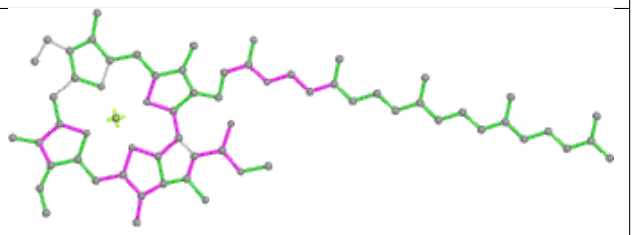

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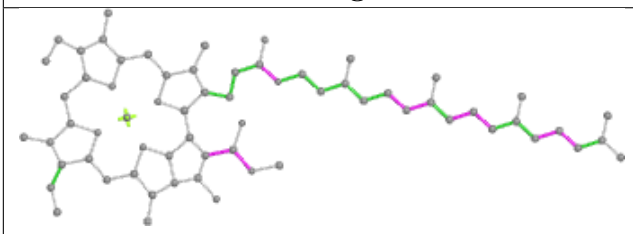

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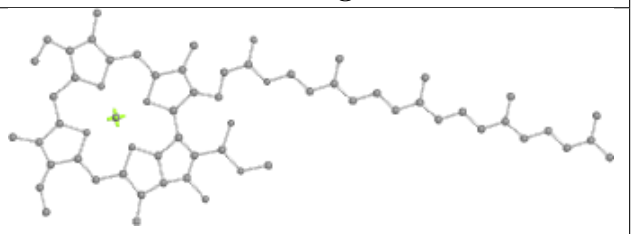
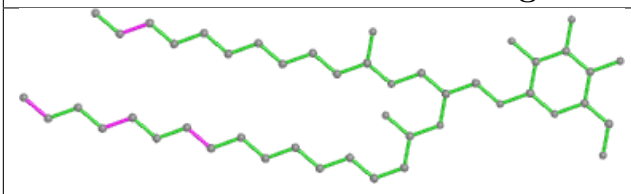


Rings

Ligand LMG D 411



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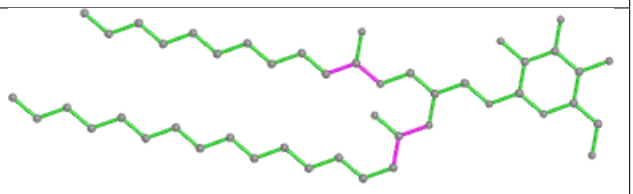

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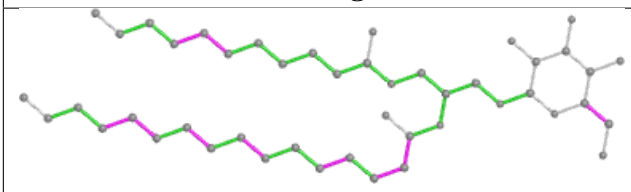

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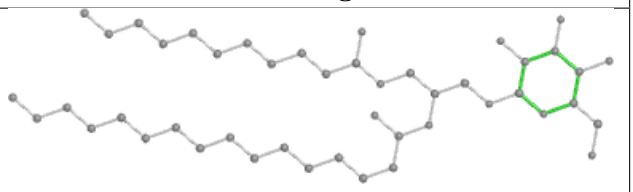
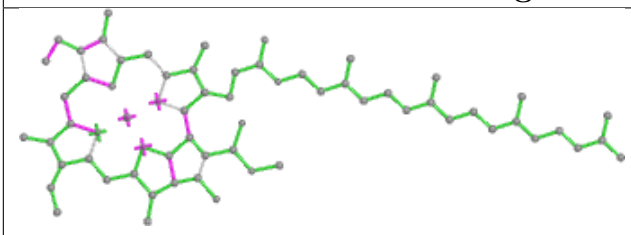


Rings

Ligand CLA A1 406



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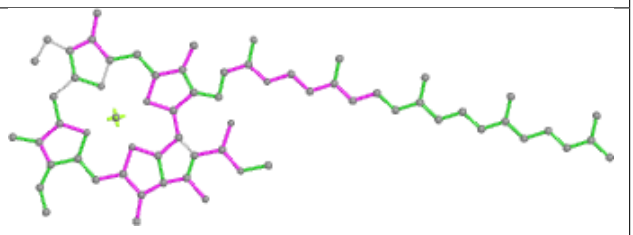

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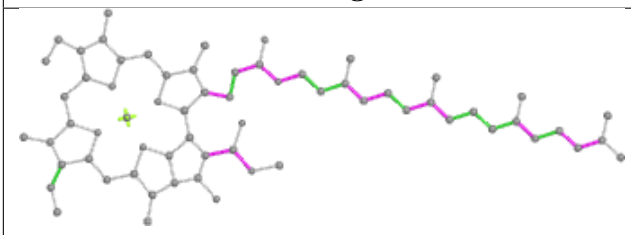

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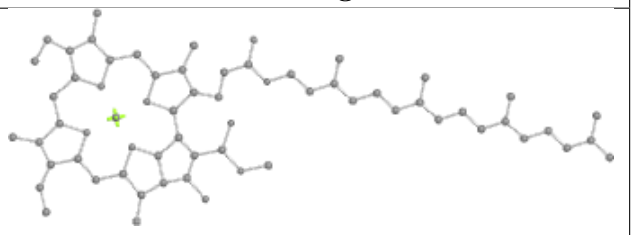
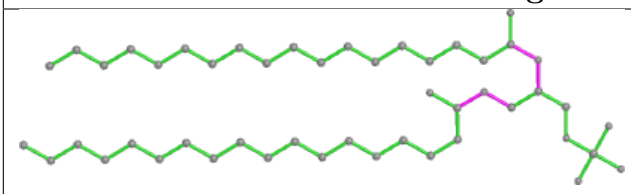


Rings

Ligand 3PH B 624



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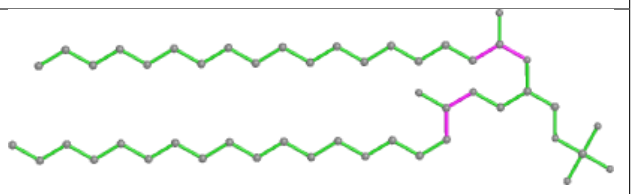

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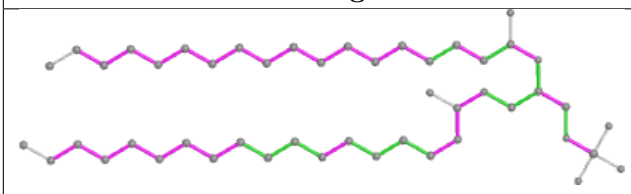

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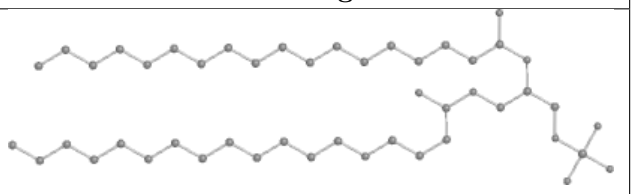

Rings

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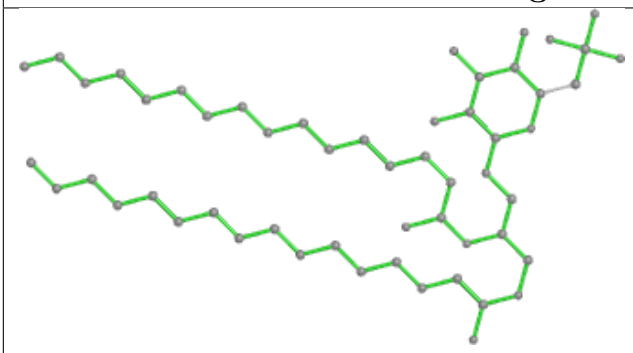

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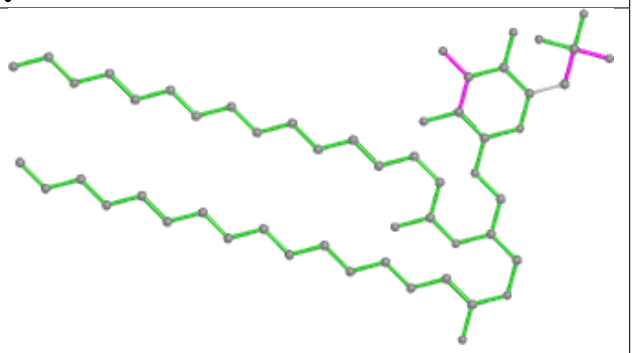

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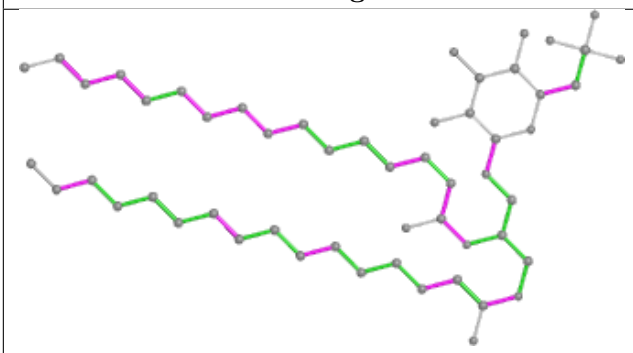

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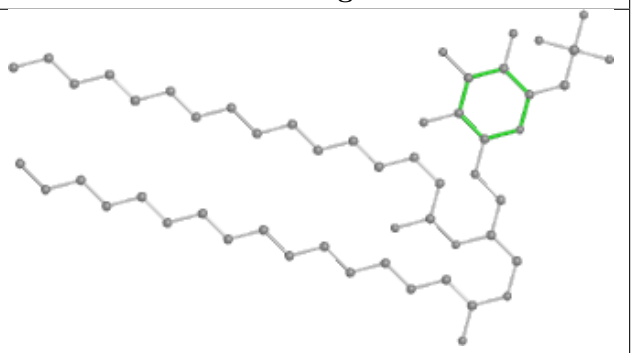
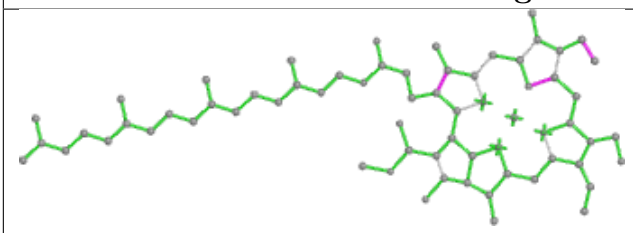


Rings

Ligand CHL Y1 607



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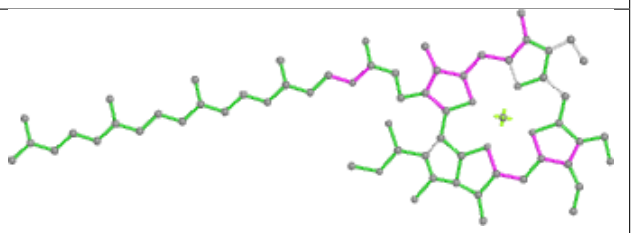

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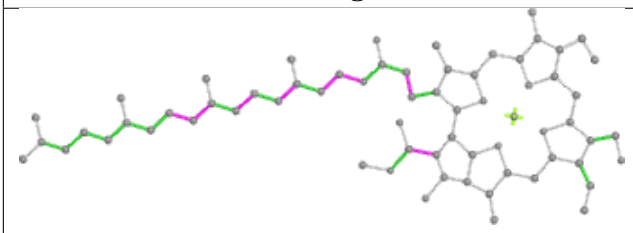

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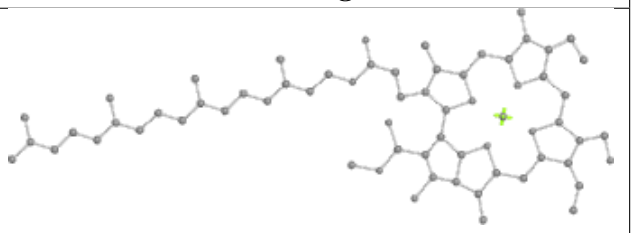
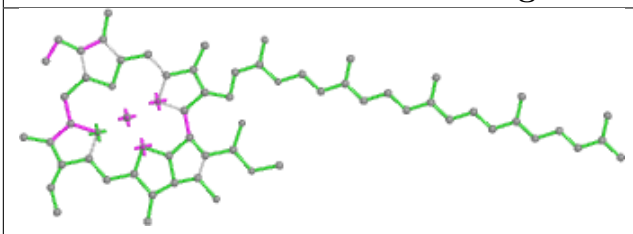


Rings

Ligand CLA b1 609



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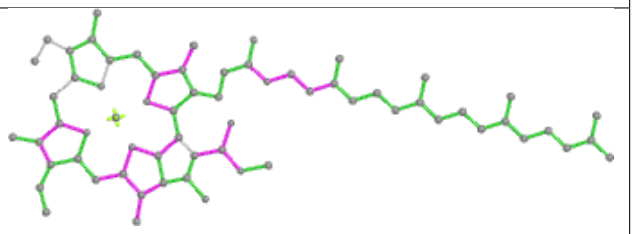
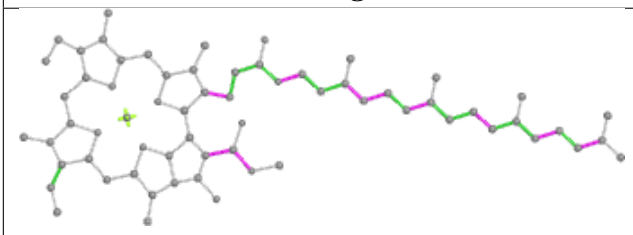


Bond angles



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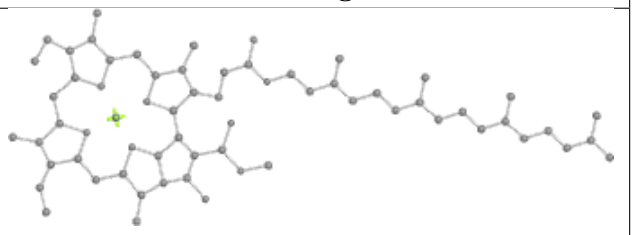
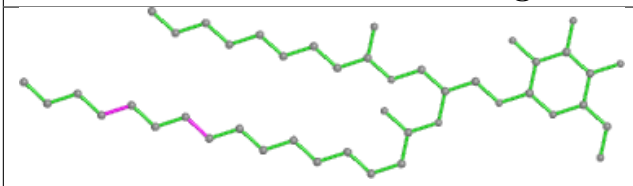


Rings

Ligand LMG b1 622



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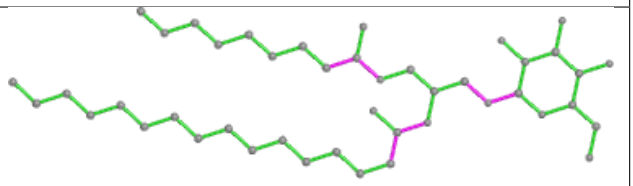

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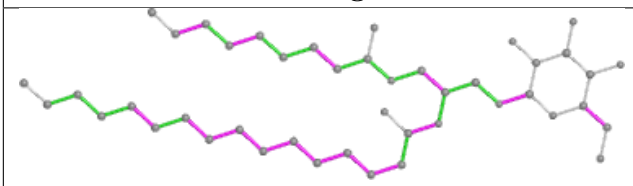

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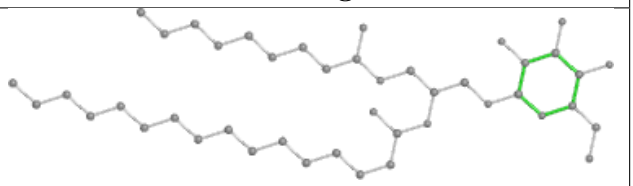
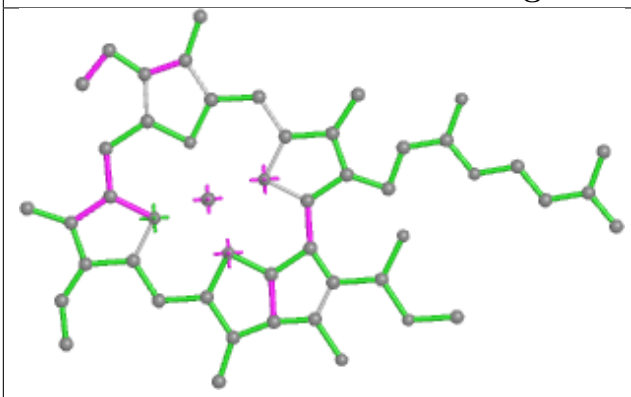


Rings

Ligand CLA Y 608



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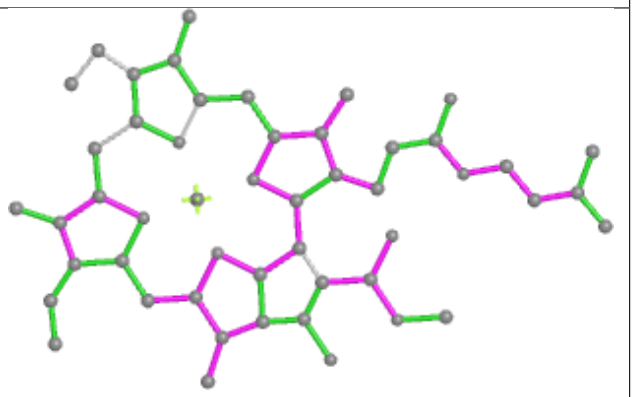
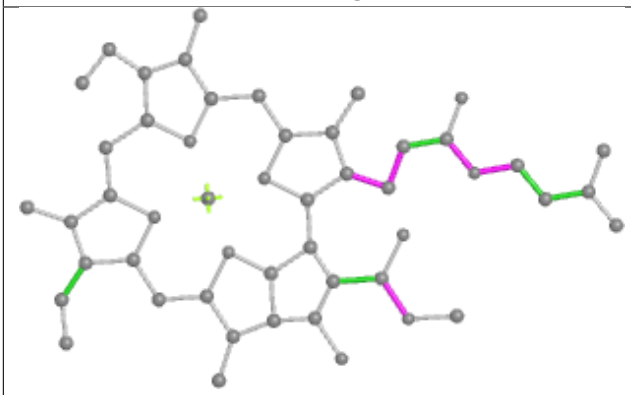


Bond angles



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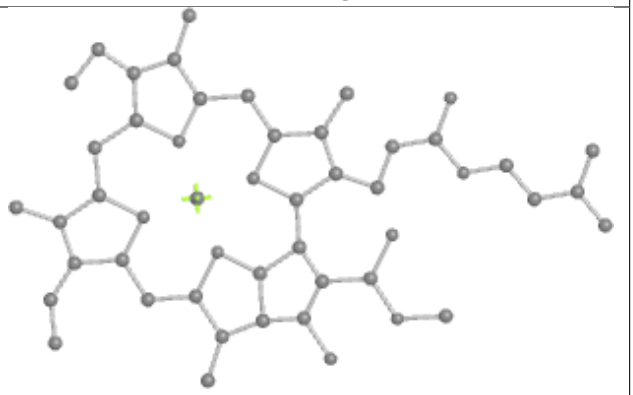
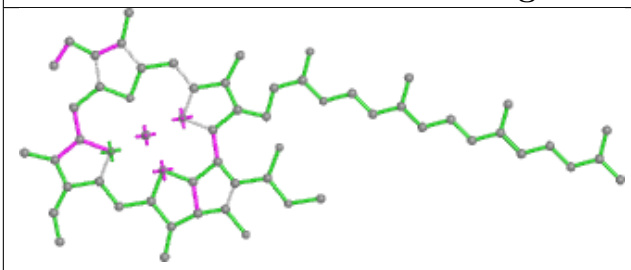


Rings

Ligand CLA S1 602



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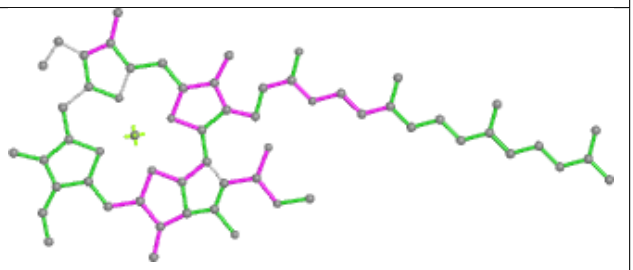
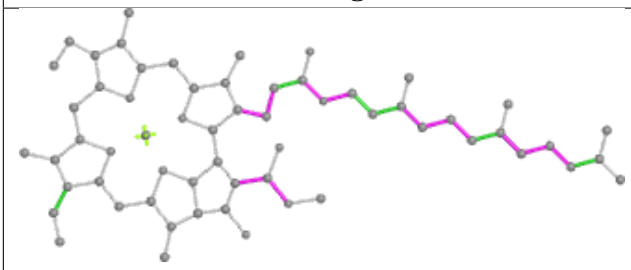


Bond angles



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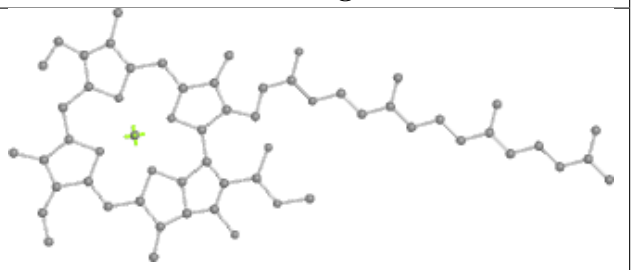
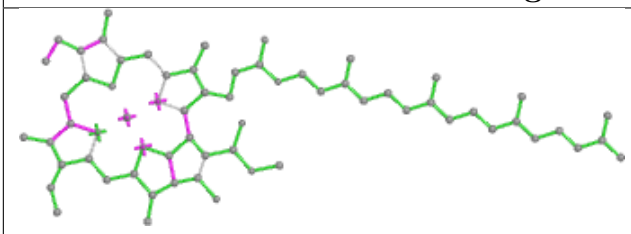


Rings

Ligand CLA B 603



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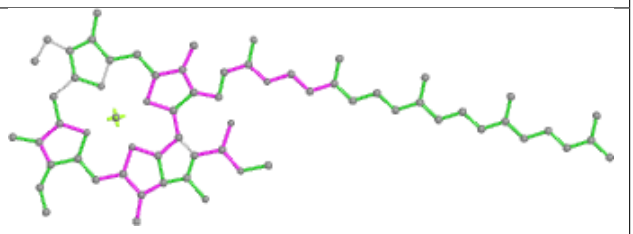
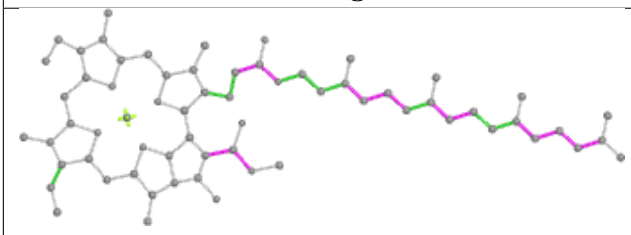


Bond angles



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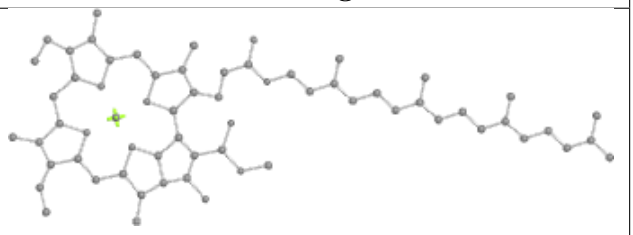
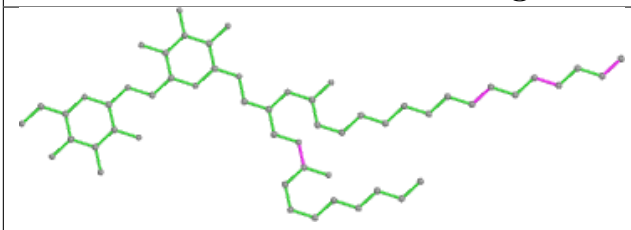


Rings

Ligand DGD C1 518



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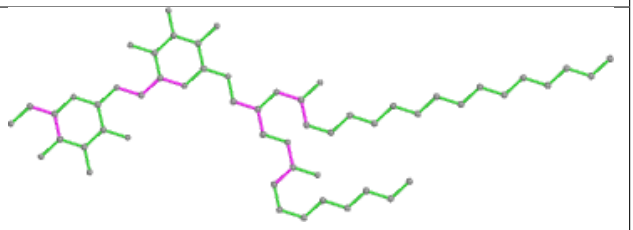
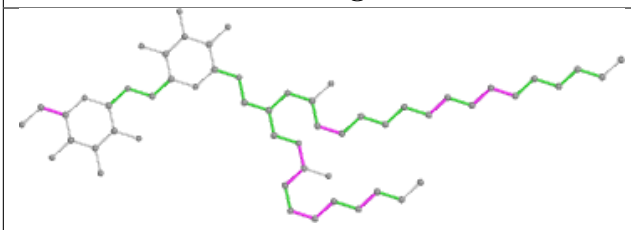


Bond angles



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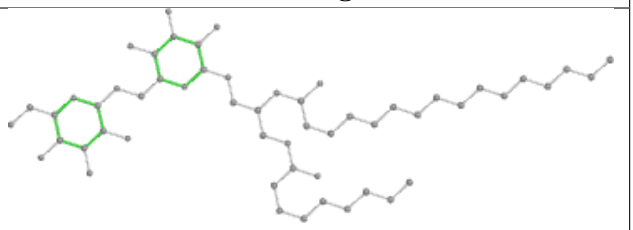
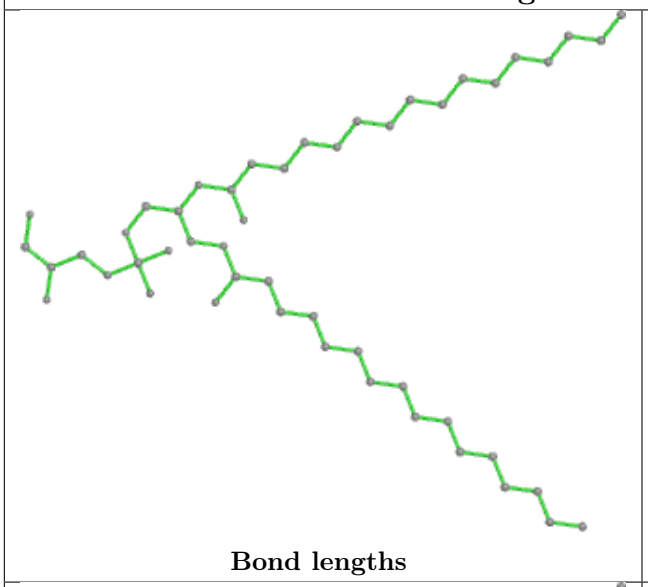
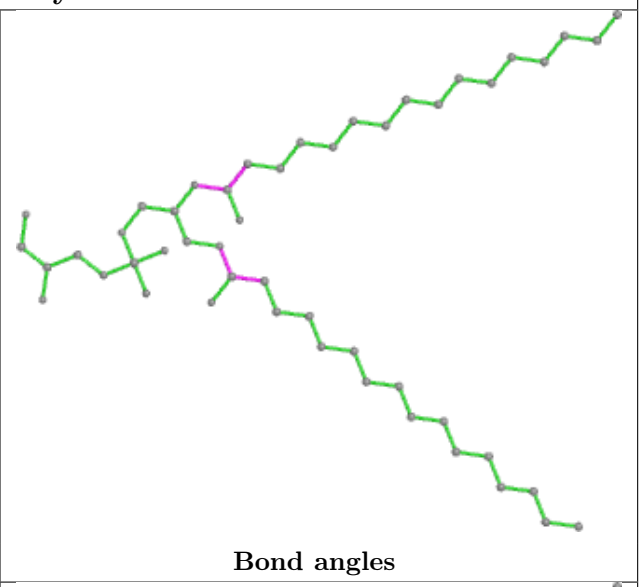


Rings

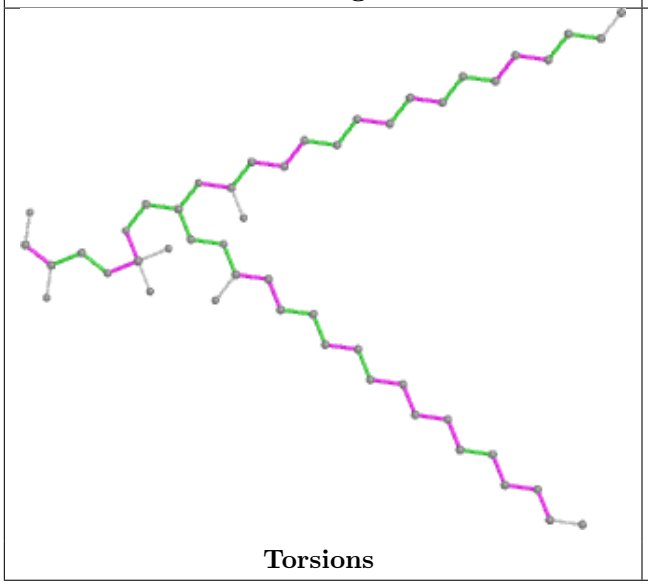
Ligand LHG y1 624



Bond lengths



Bond angles



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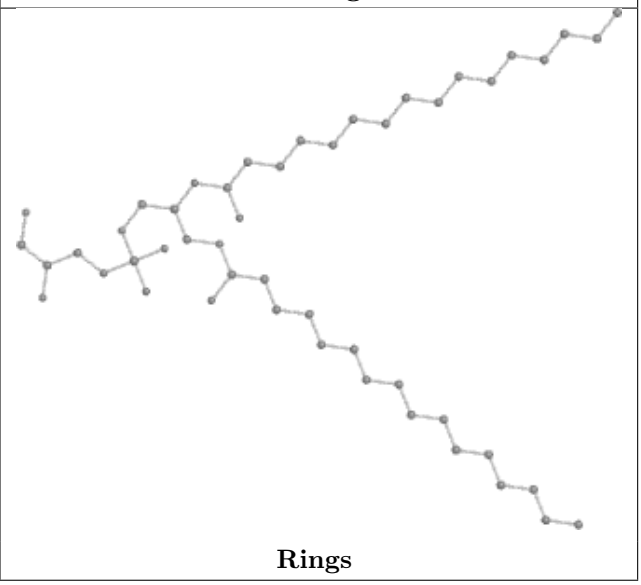
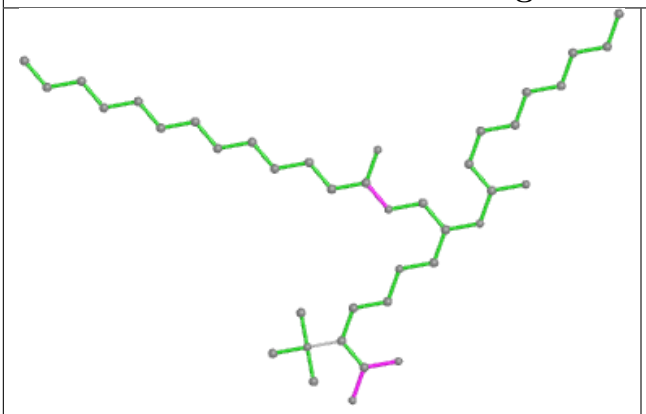
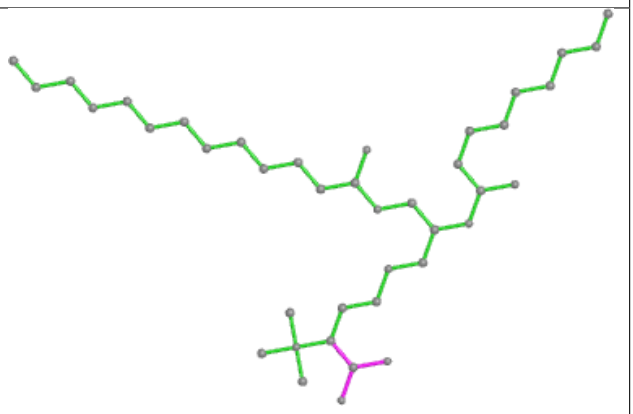


Rings

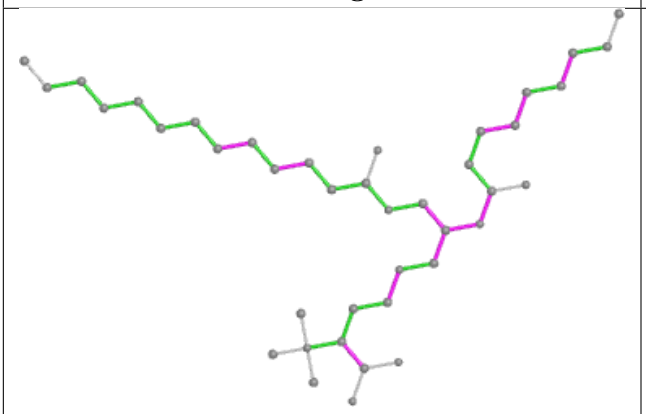
Ligand LMK c1 527



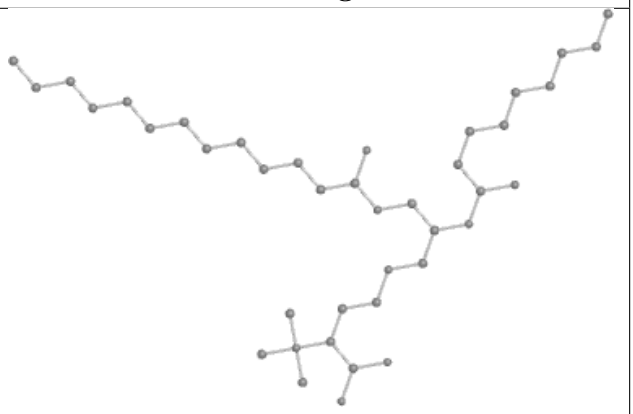
Bond lengths



Bond angles

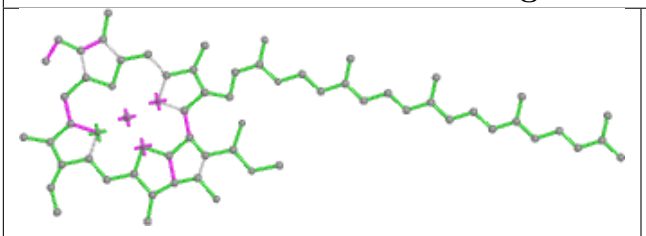


Torsions



Rings

Ligand CLA c1 501



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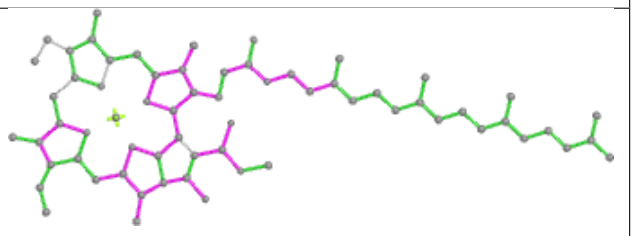

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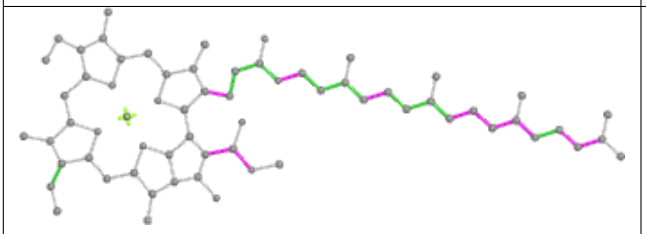

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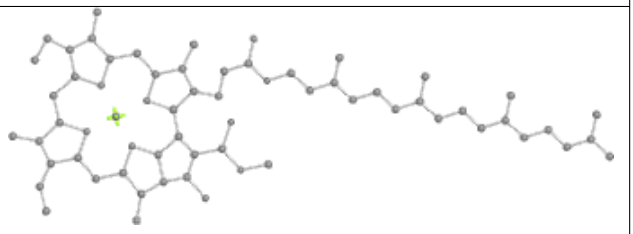
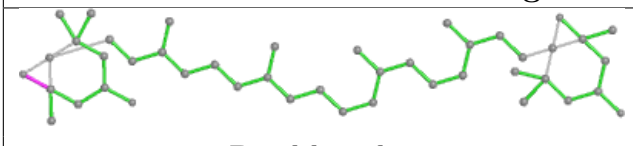


Rings

Ligand XAT Y 622



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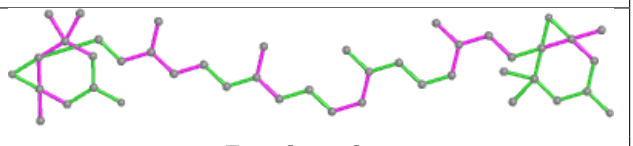
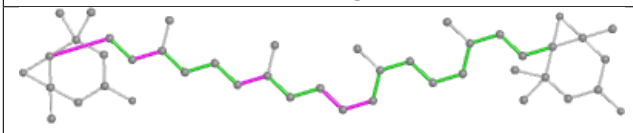


Bond angles



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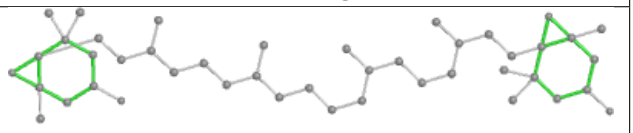
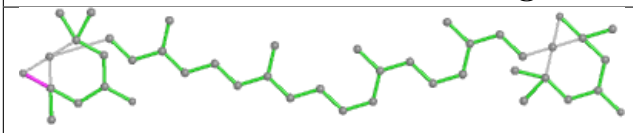


Rings

Ligand XAT y1 622



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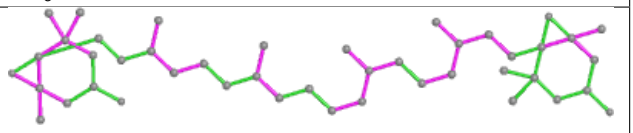

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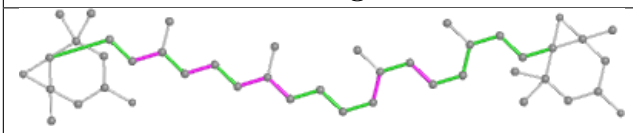

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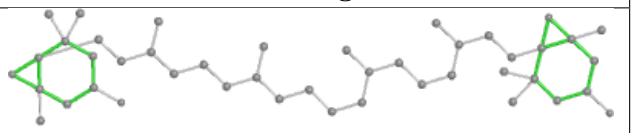
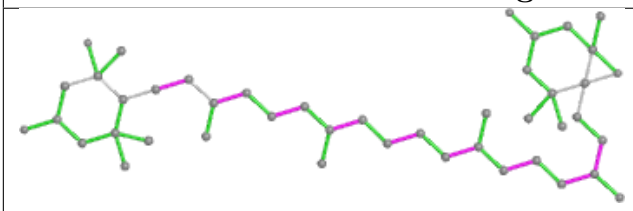


Rings

Ligand NEX n1 623



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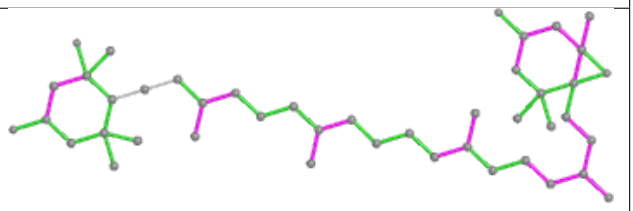

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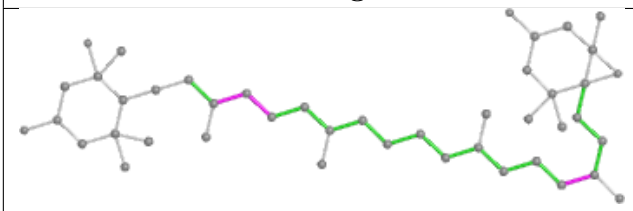
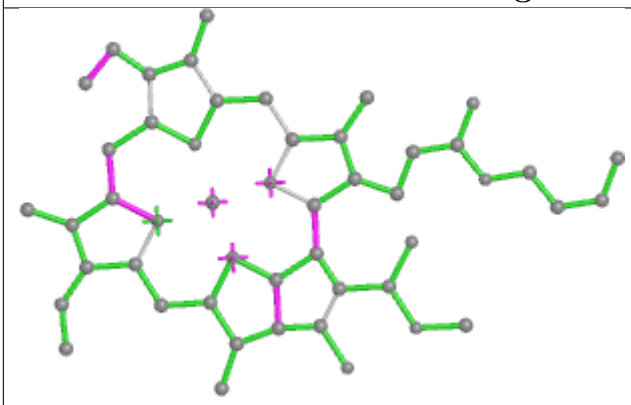


Torsions

Rings

Ligand CLA N1 614



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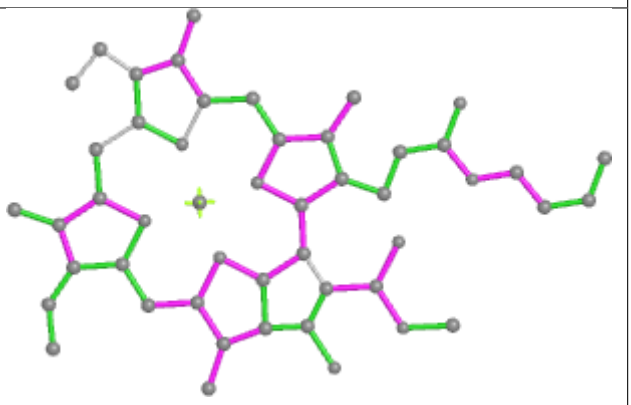

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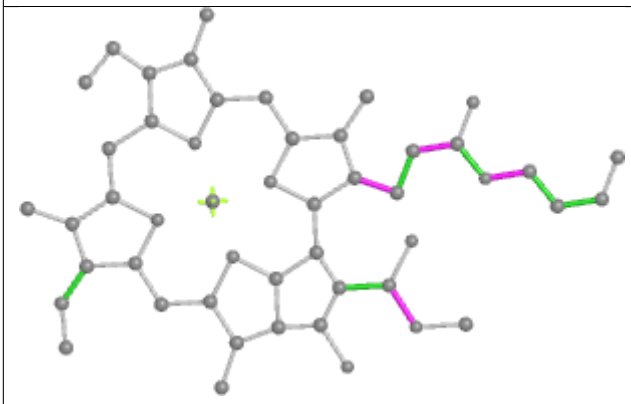

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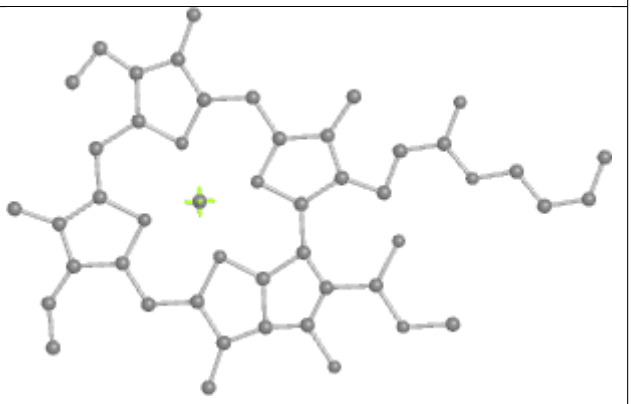
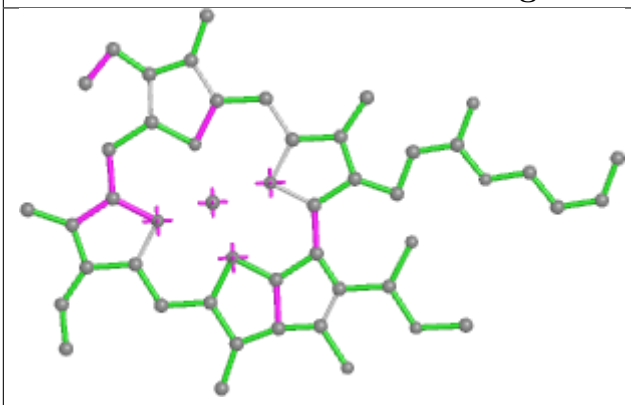


Rings

Ligand CLA g1 614



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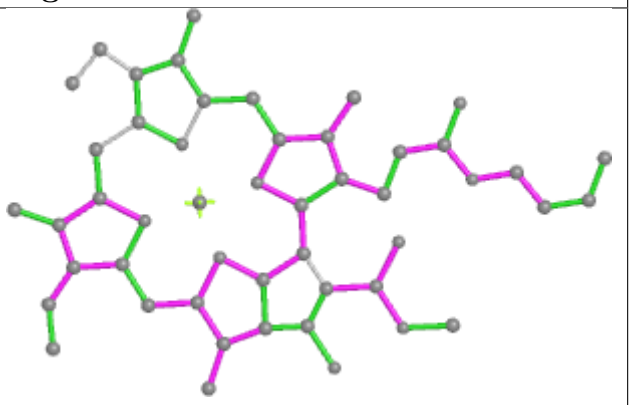
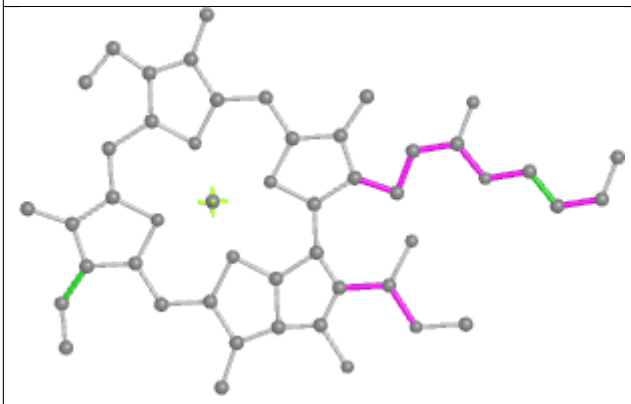


Bond angles



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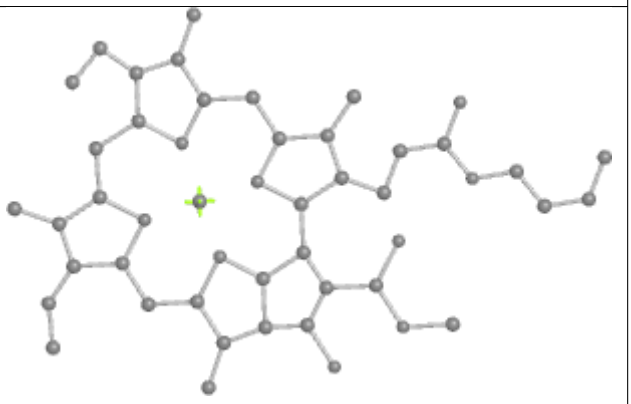
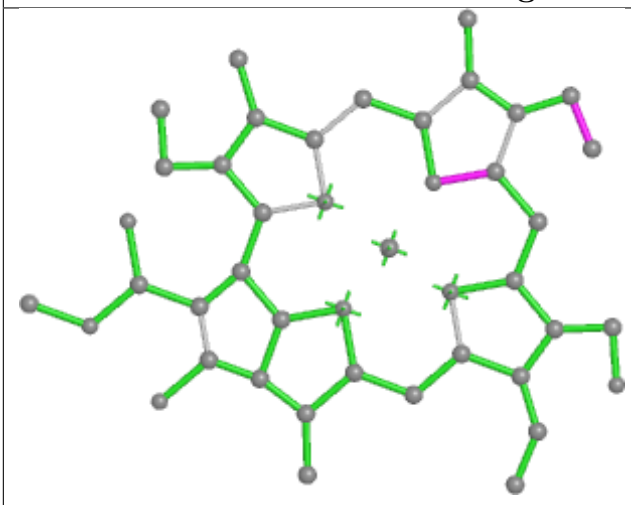


Rings

Ligand CHL S1 607



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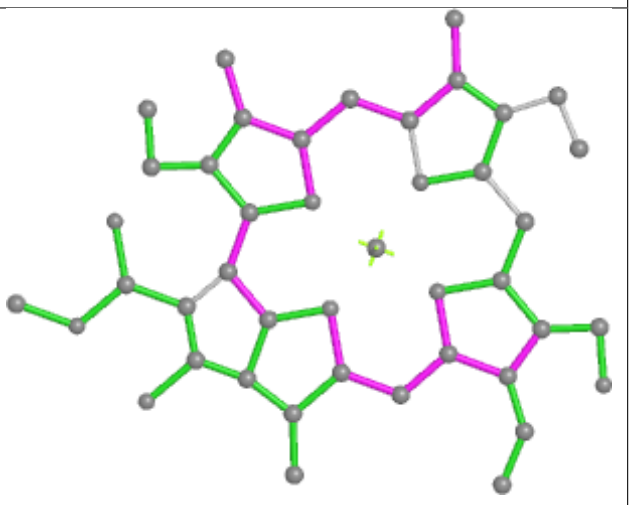
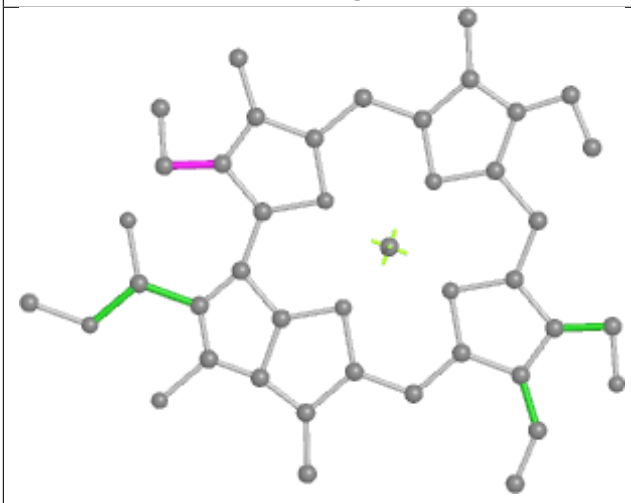


Bond angles



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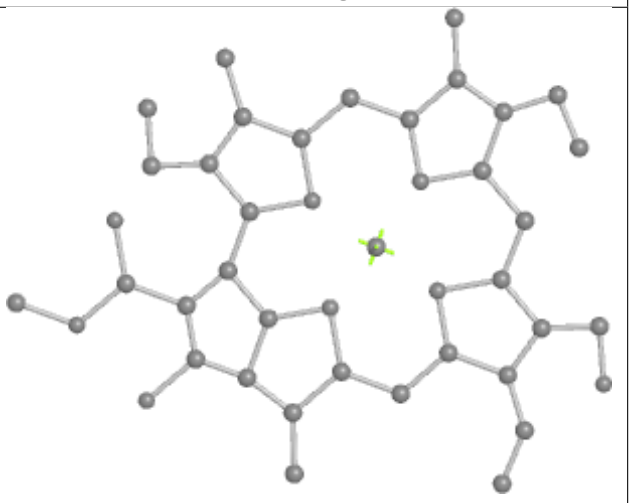
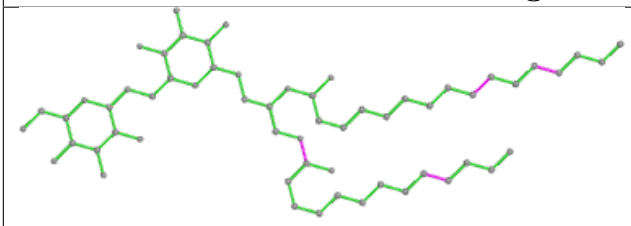


Rings

Ligand DGD c 520



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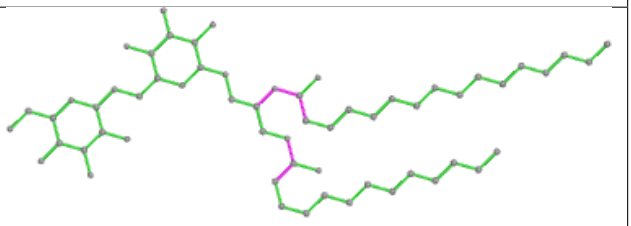
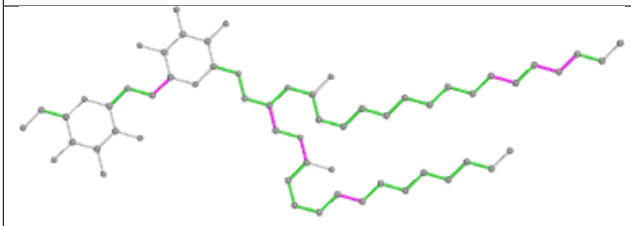


Bond angles



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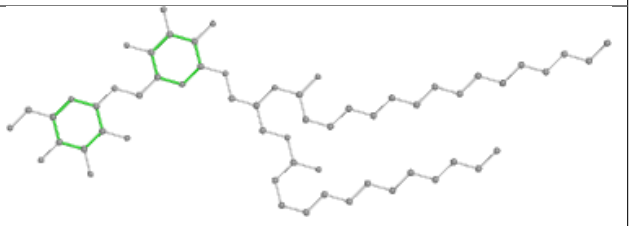
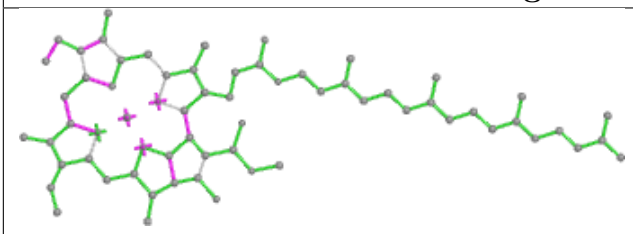


Rings

Ligand CLA Y 610



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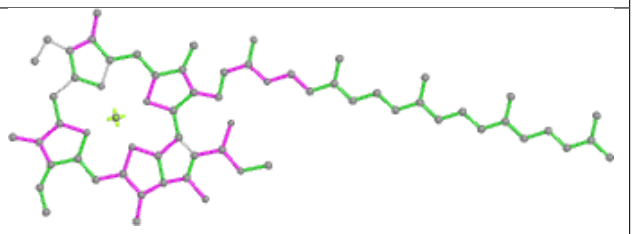
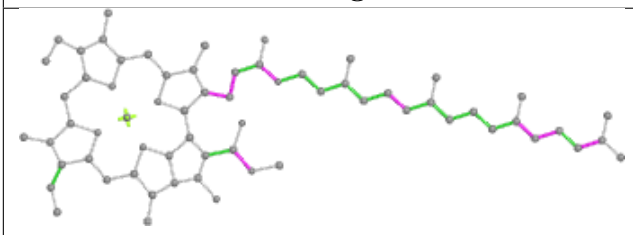


Bond angles



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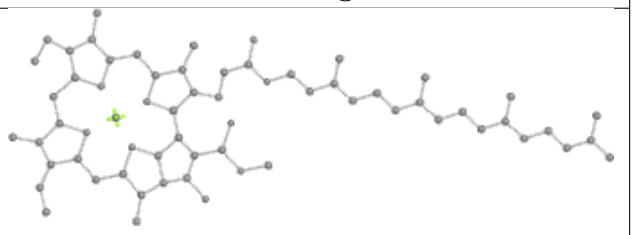
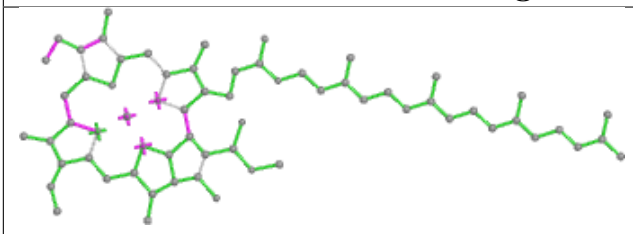


Rings

Ligand CLA N1 603



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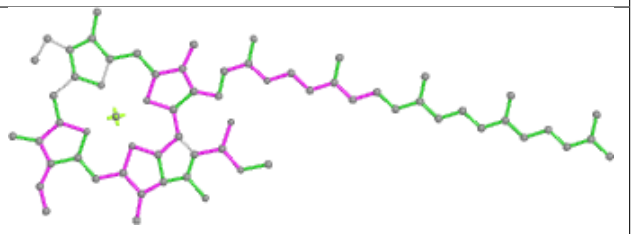
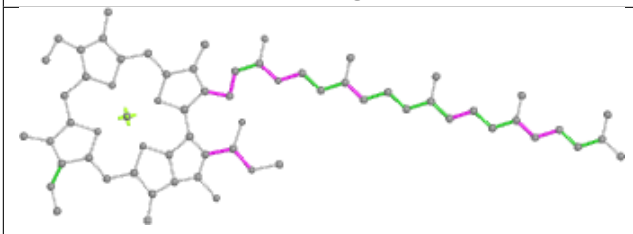


Bond angles



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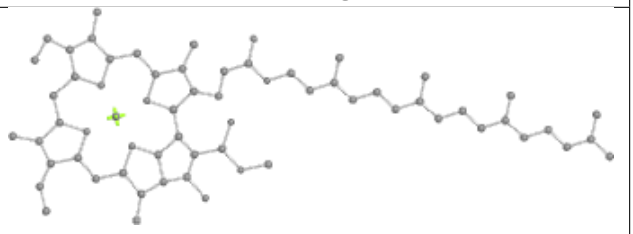
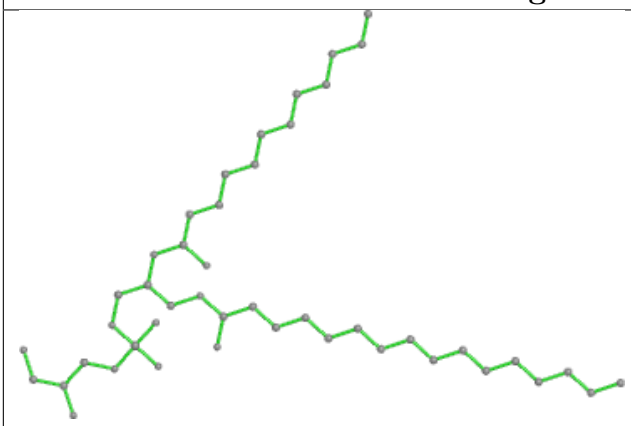


Rings

Ligand LHG s 624



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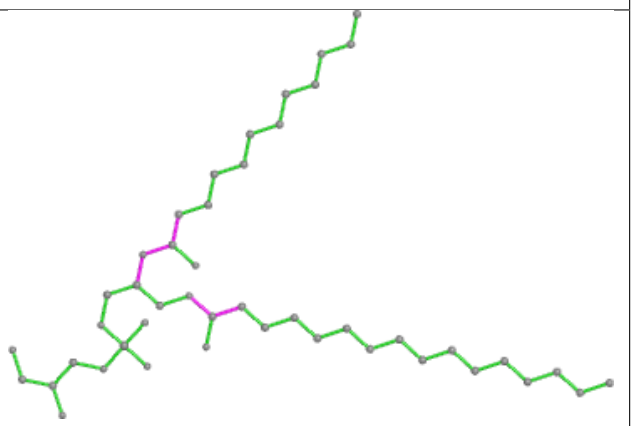
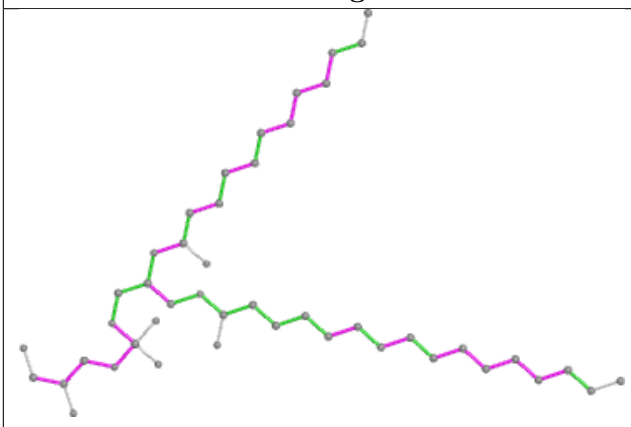


Bond angles



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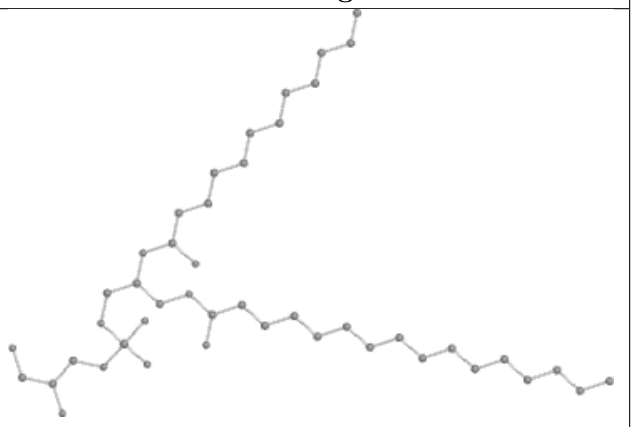
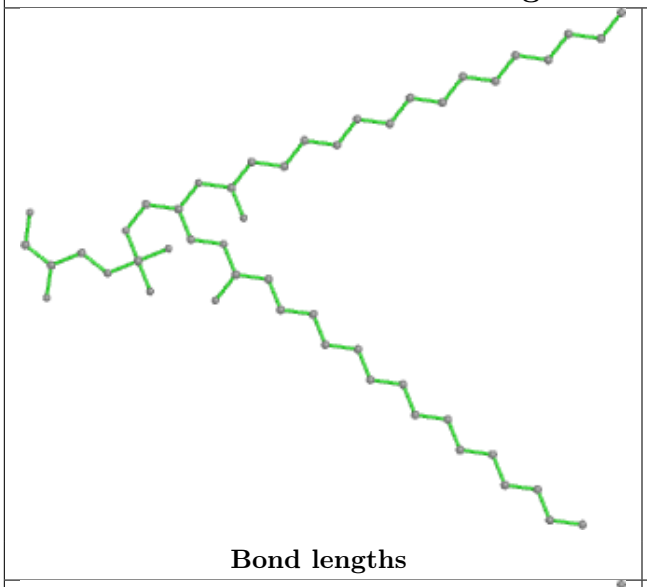


Rings

Ligand LHG G 624



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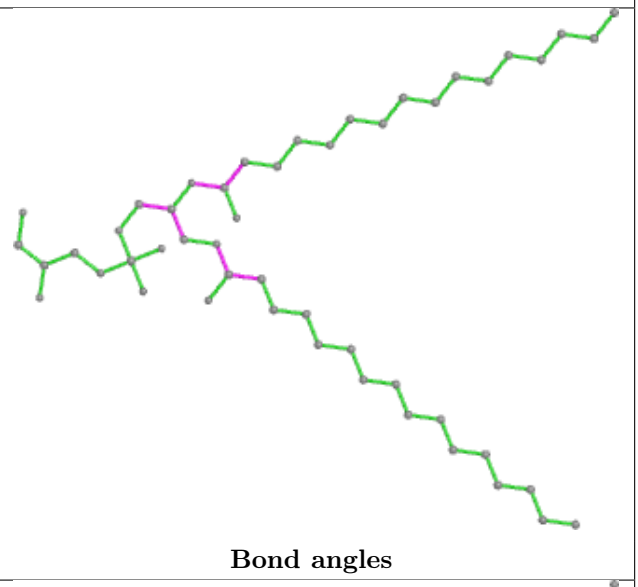
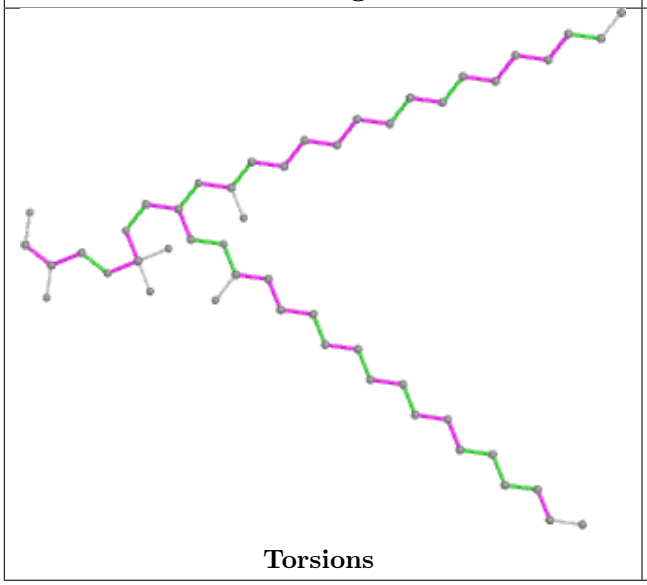


Bond angles



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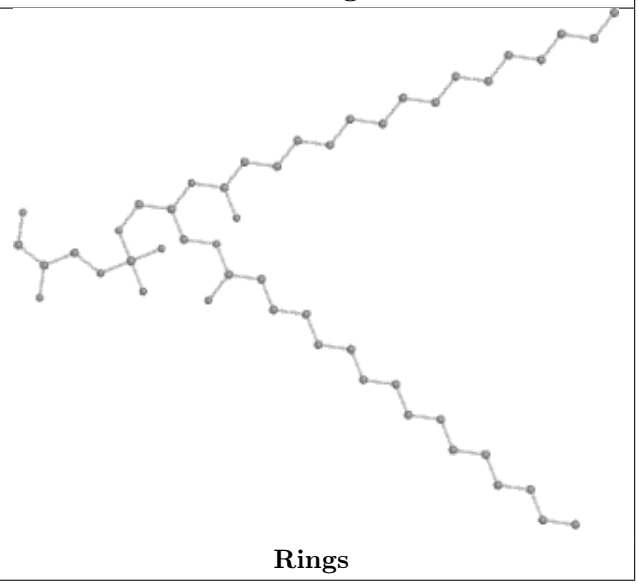
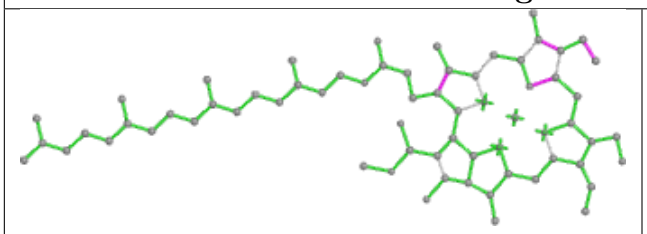


Rings

Ligand CHL Y1 606



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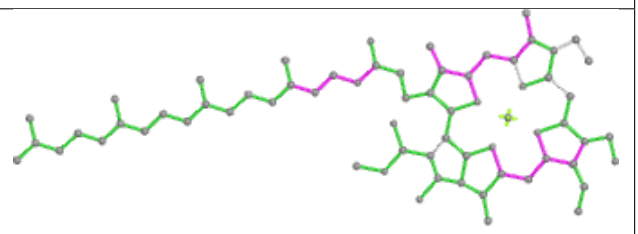
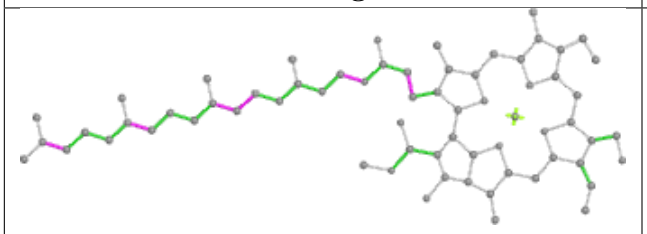


Bond angles



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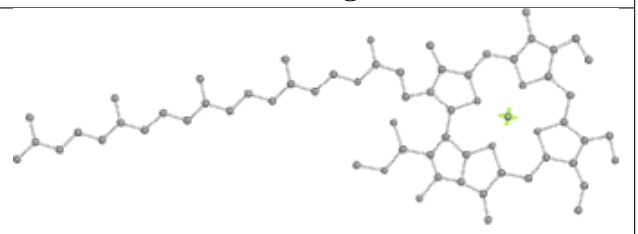
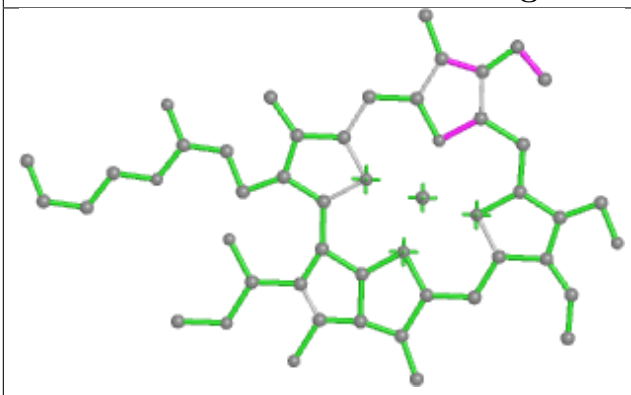


Rings

Ligand CHL r1 607



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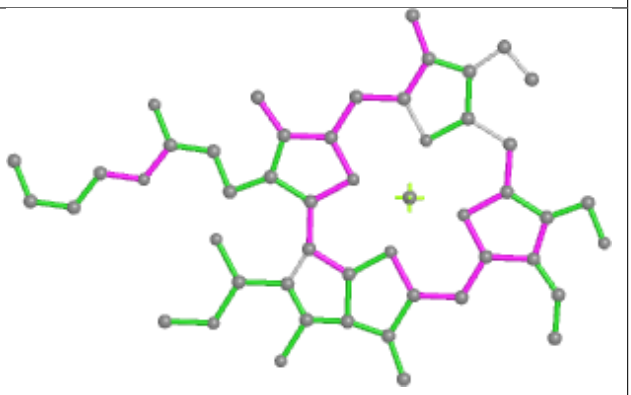
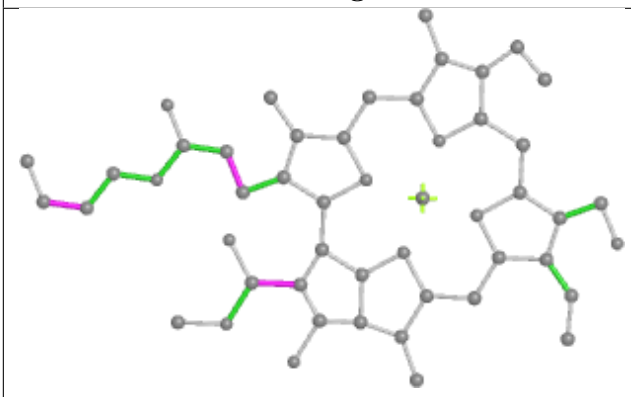


Bond angles



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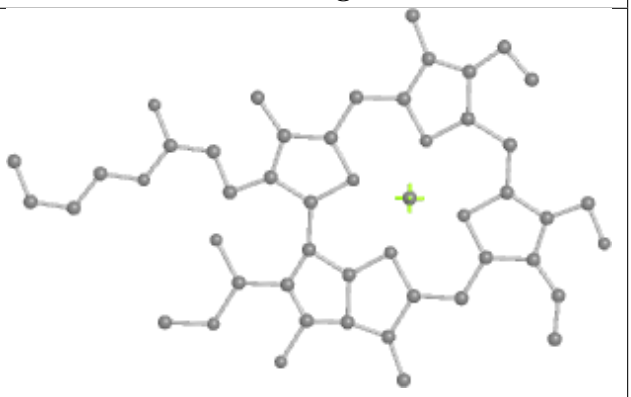
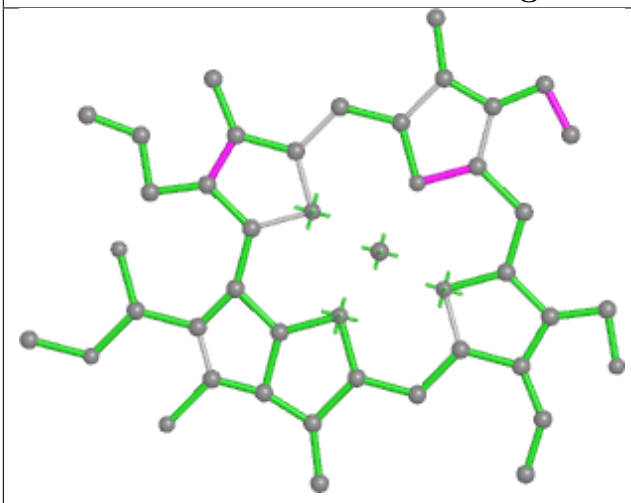
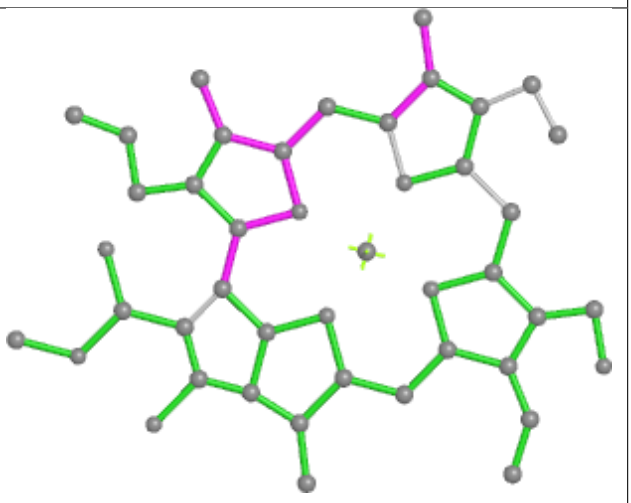


Rings

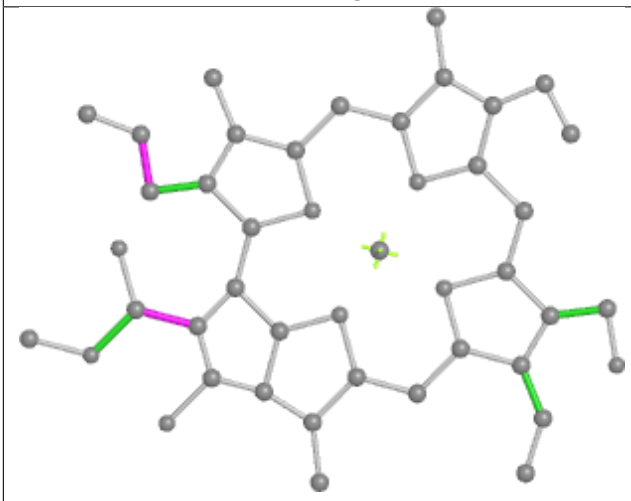
Ligand CHL r1 606



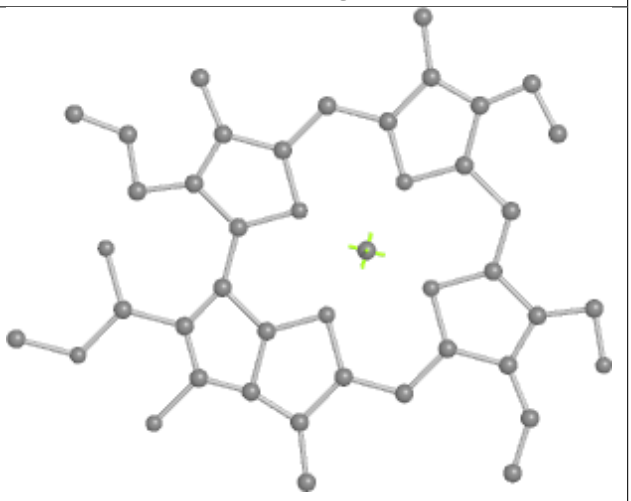
Bond lengths



Bond angles

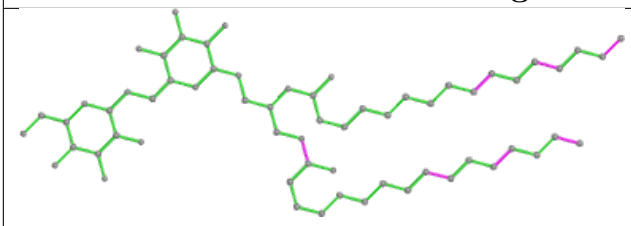


Torsions



Rings

Ligand DGD C1 519



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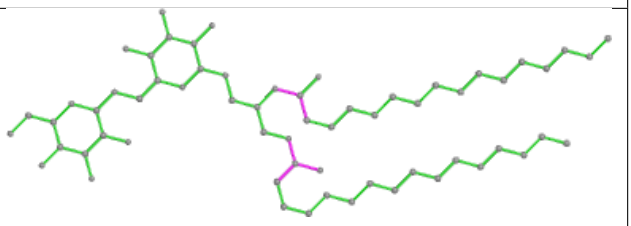

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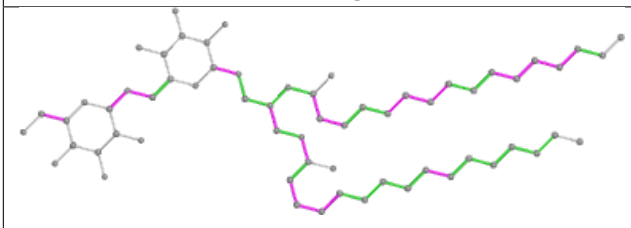

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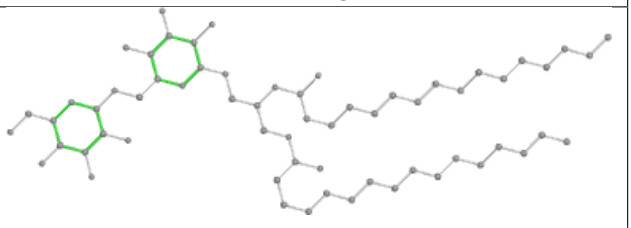
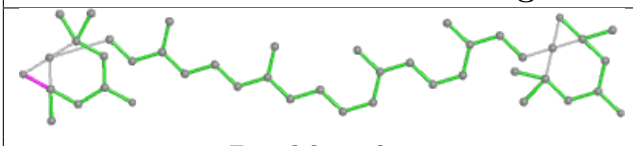


Rings

Ligand XAT n1 622



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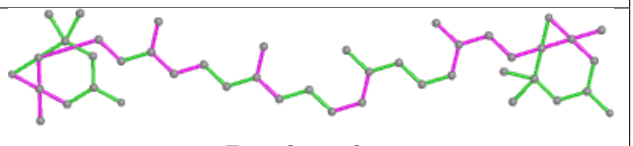

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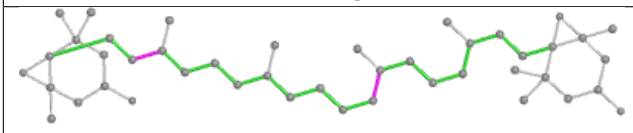

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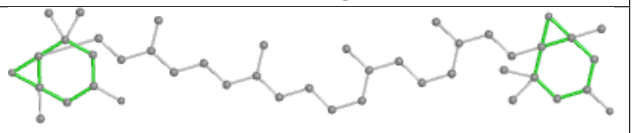
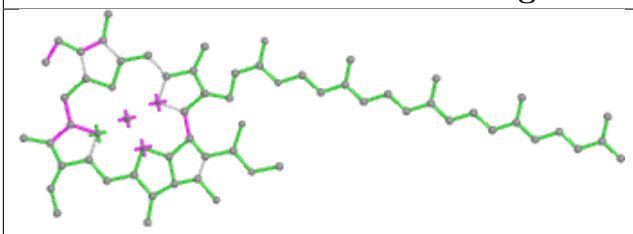
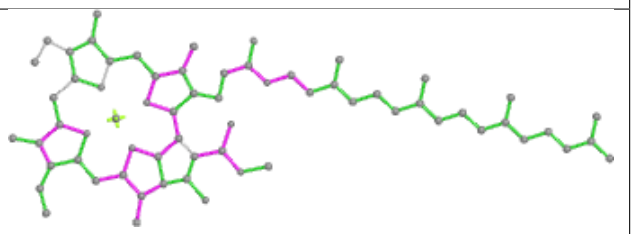


Rings

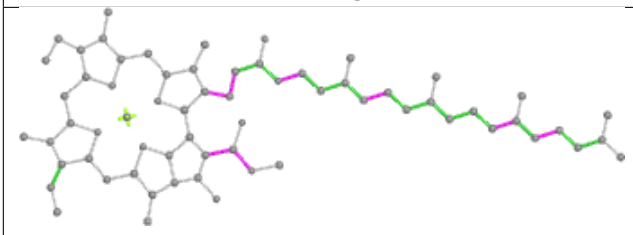
Ligand CLA S1 603



Bond lengths



Bond angles



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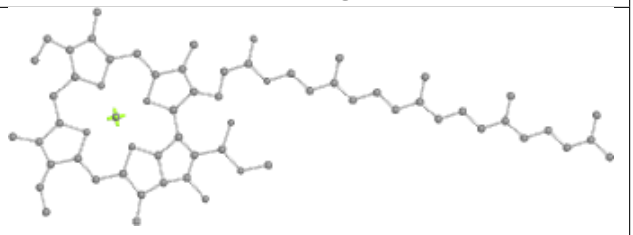
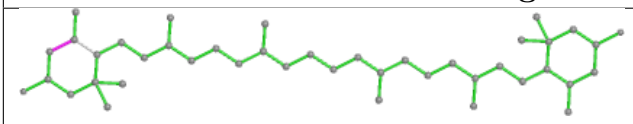


Rings

Ligand LUT n1 621



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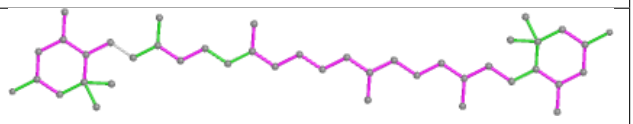

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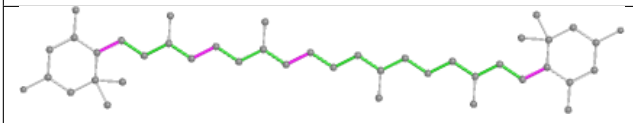
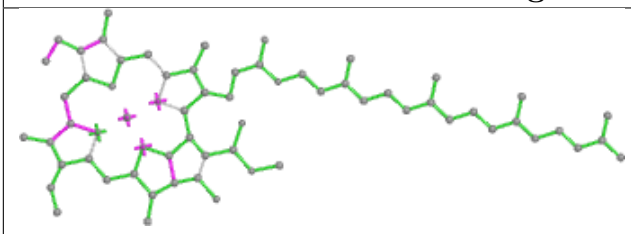
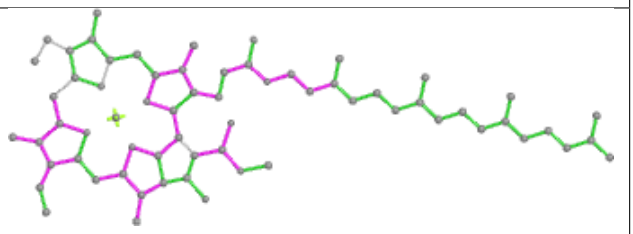
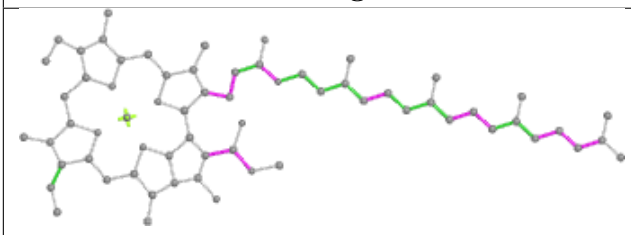
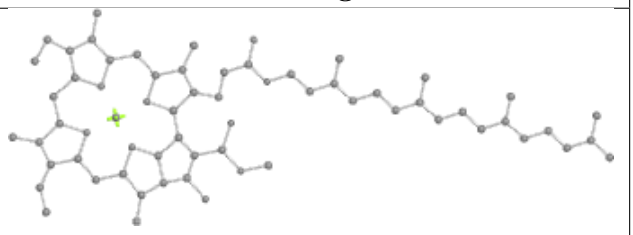


Torsions

Rings

Ligand CLA n 602	
 Bond lengths	 Bond angles
 Torsions	 Rings

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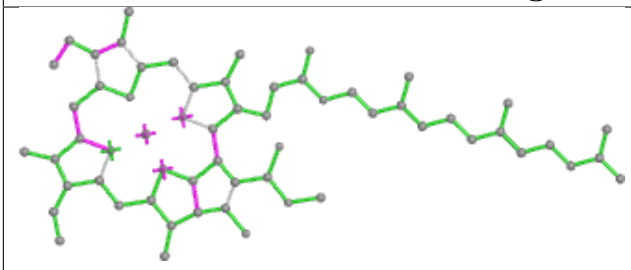
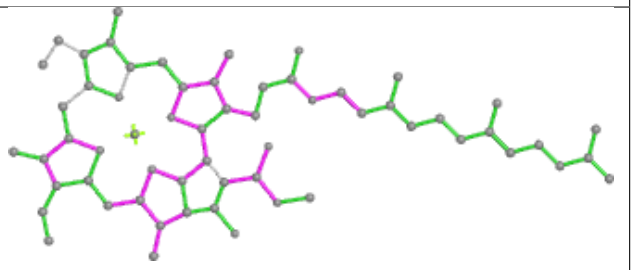
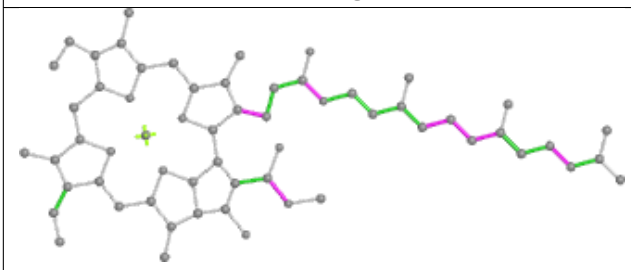
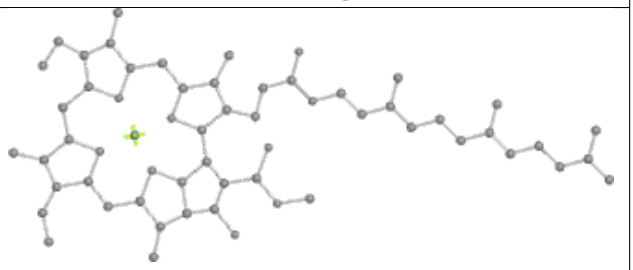
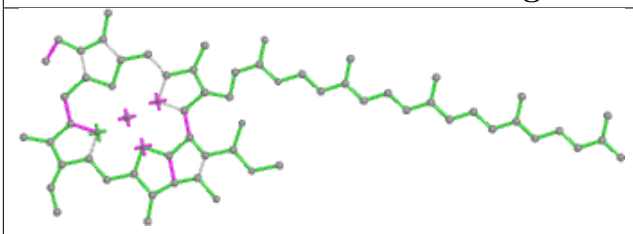
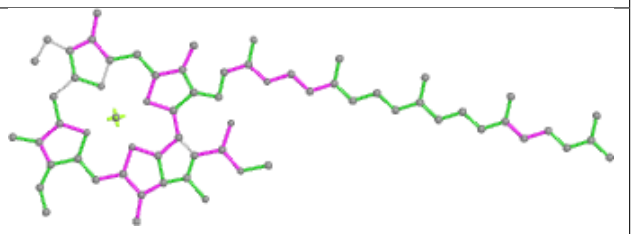
 Bond lengths	 Bond angles
 Torsions	 Rings

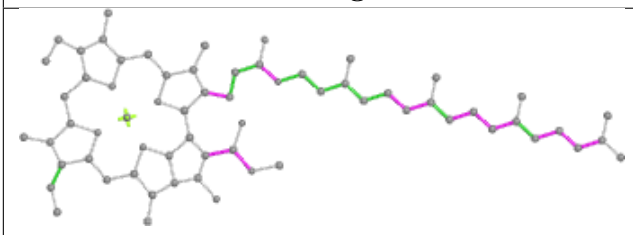
Ligand CLA G 602



Bond lengths



Bond angles



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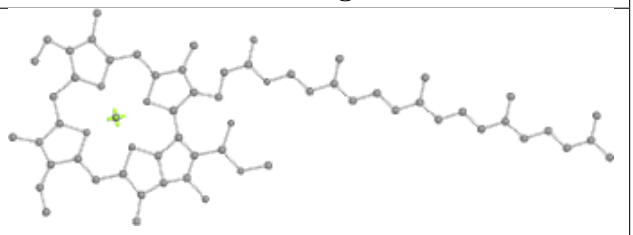
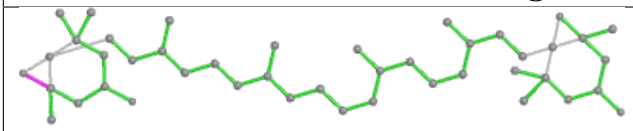


Rings

Ligand XAT y 622



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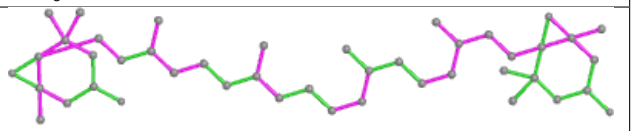
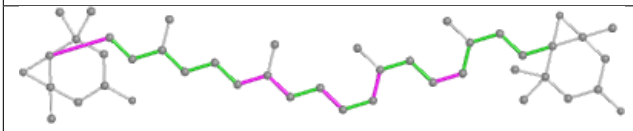


Bond angles



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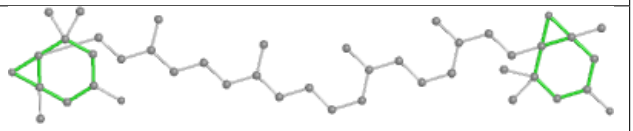
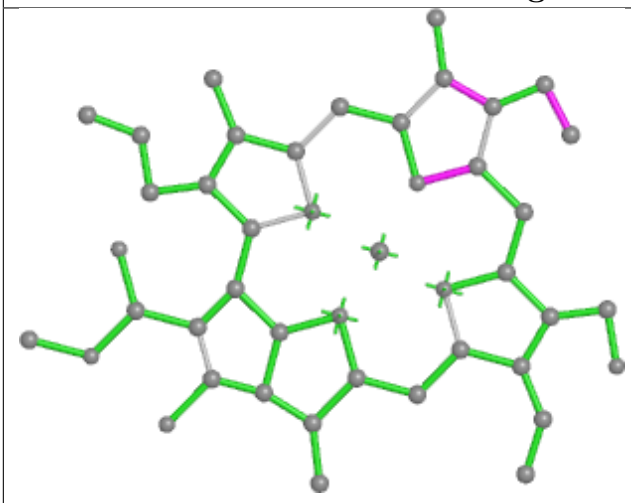


Rings

Ligand CHL g 608



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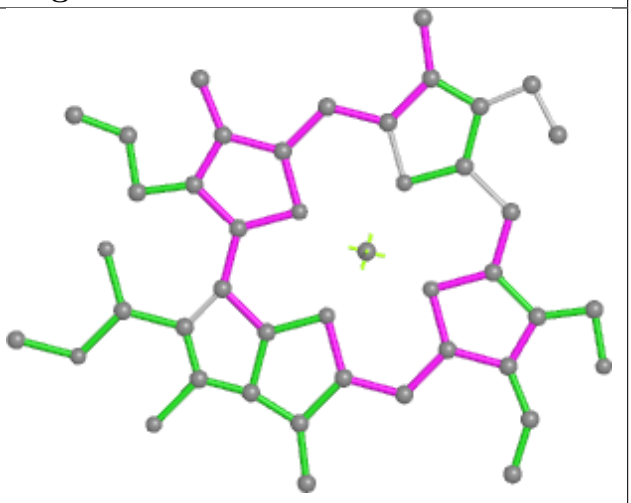
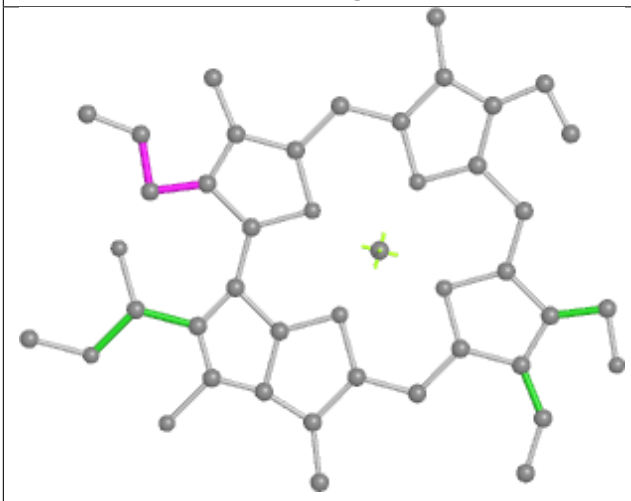


Bond angles



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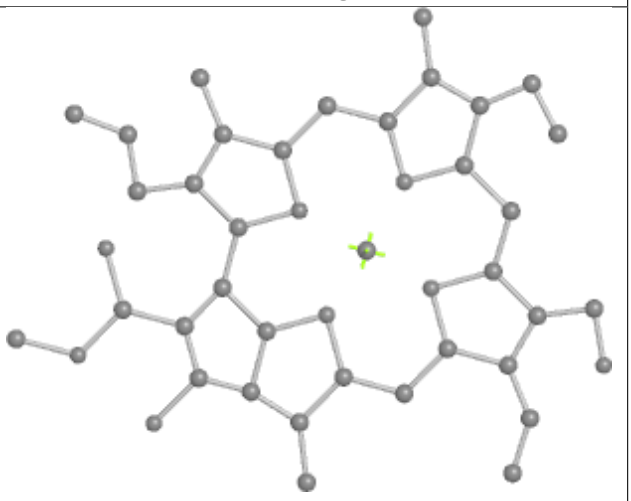
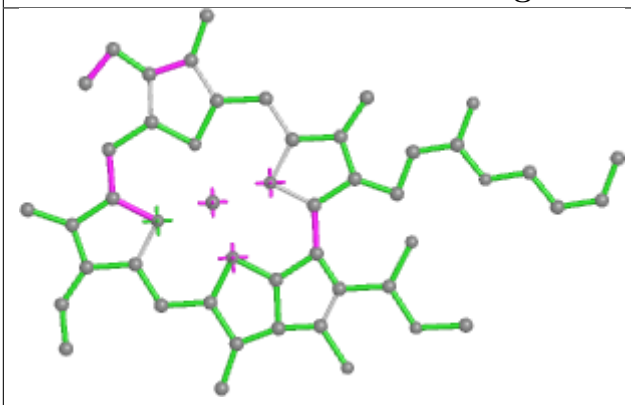


Rings

Ligand CLA G1 604



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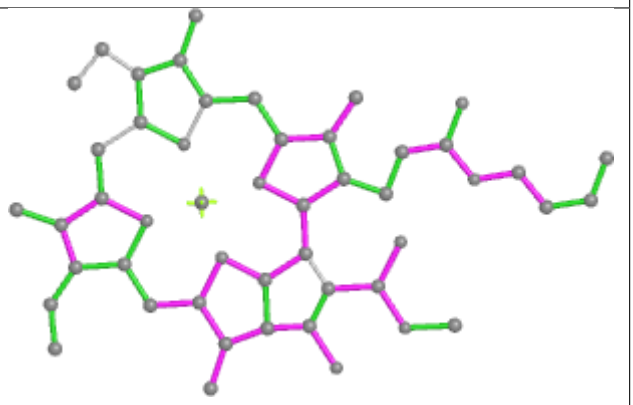
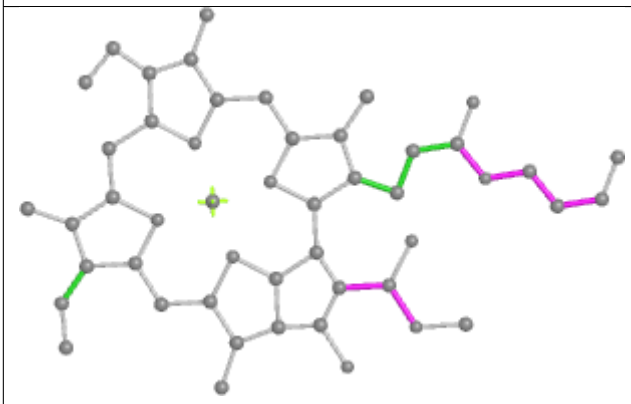


Bond angles



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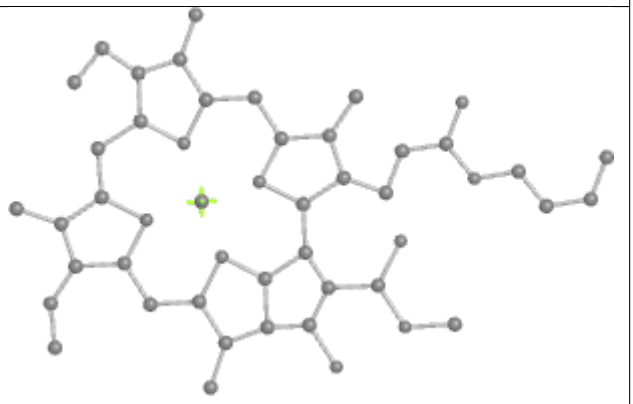
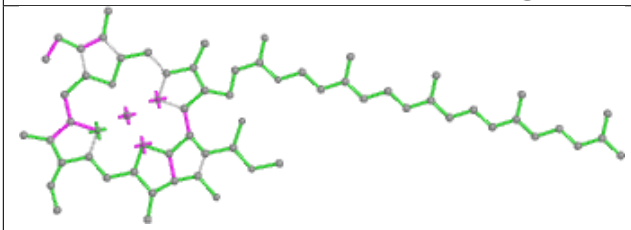


Rings

Ligand CLA y1 610



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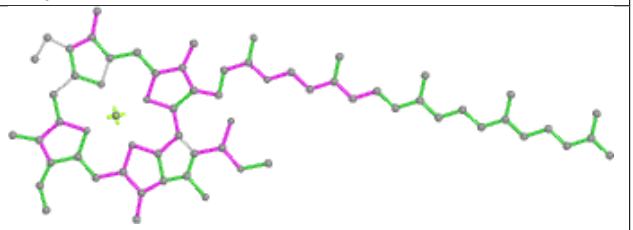
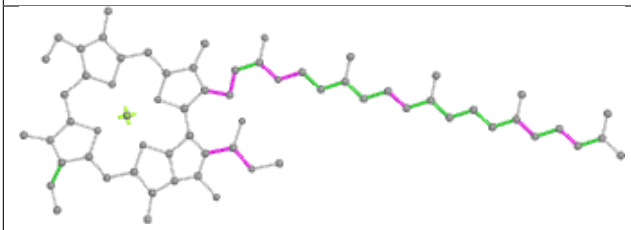


Bond angles



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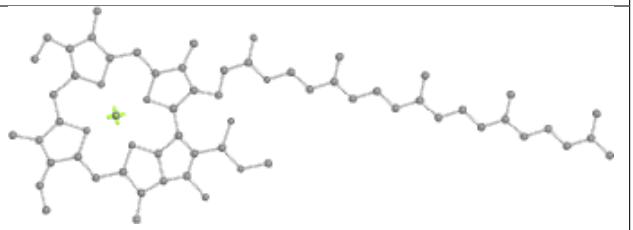
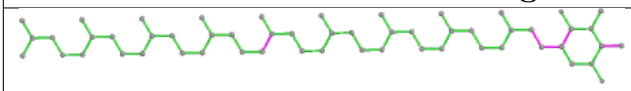


Rings

Ligand PL9 D1 405



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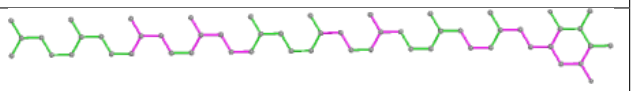
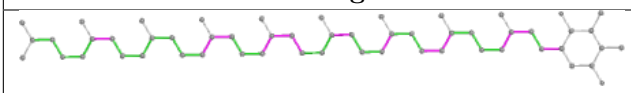
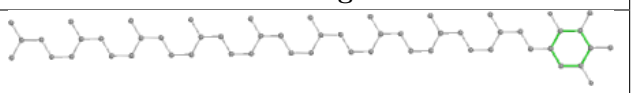


Bond angles

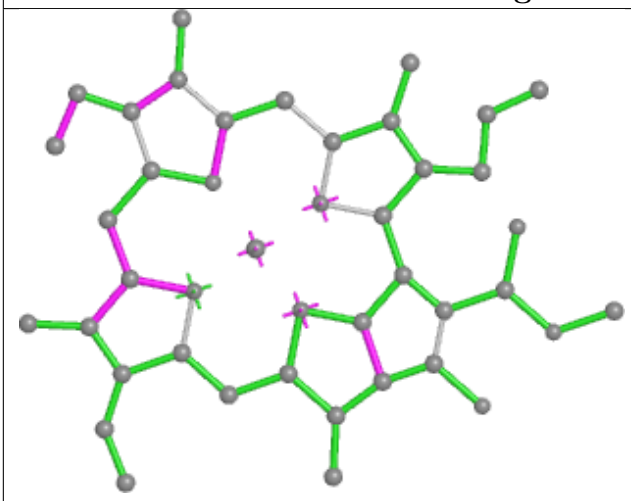


Torsions

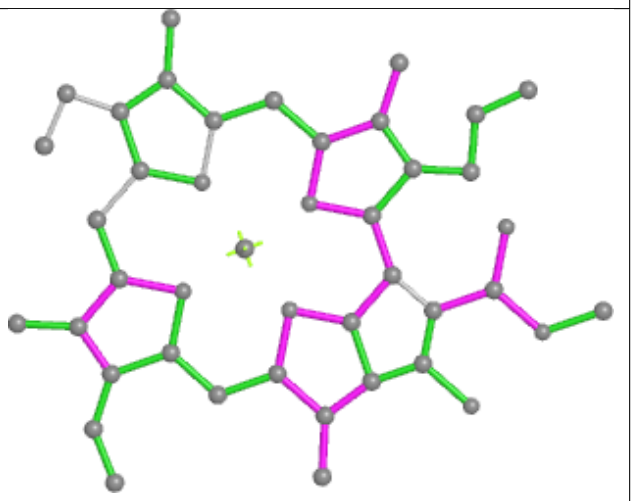


Rings

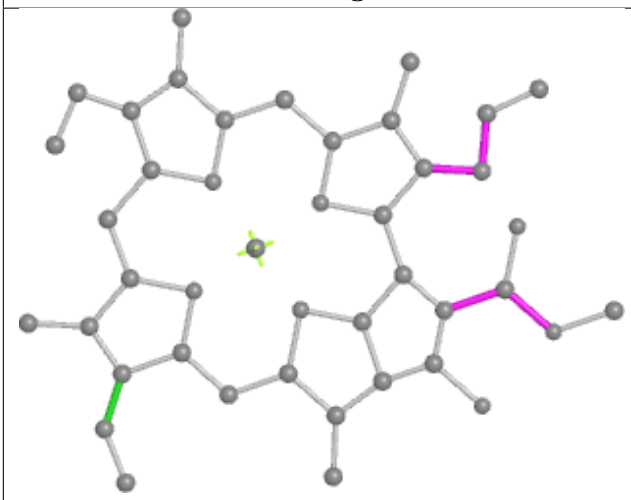
Ligand CLA G1 612



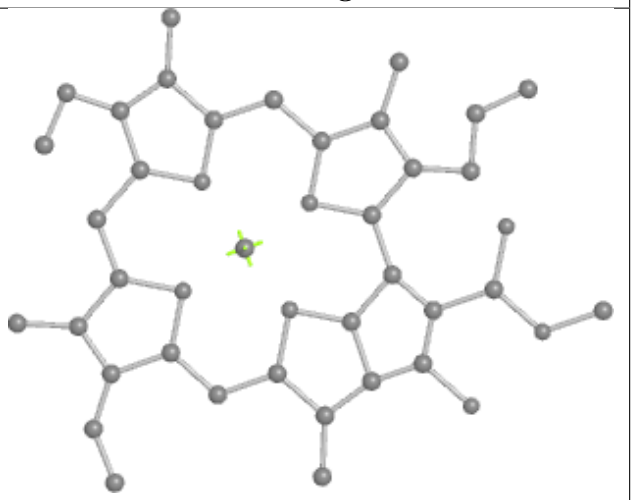
Bond lengths



Bond angles

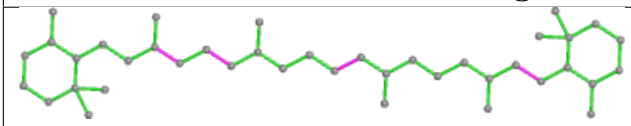


Torsions

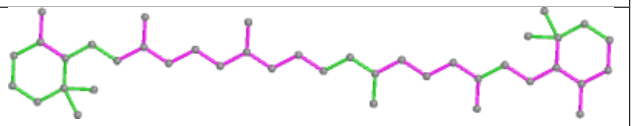


Rings

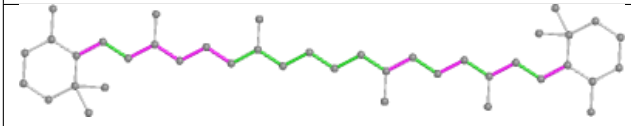
Ligand BCR C1 516



Bond lengths



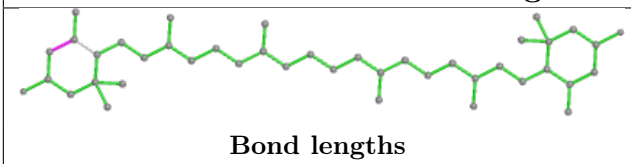
Bond angles

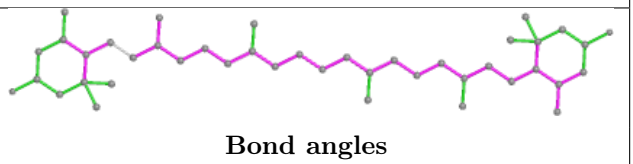


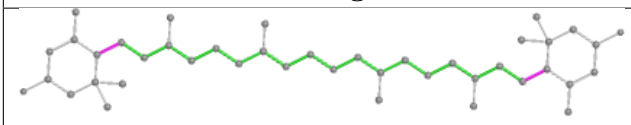
Torsions

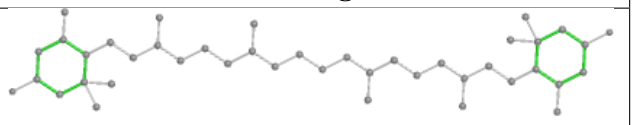
Rings

Ligand LUT R 620

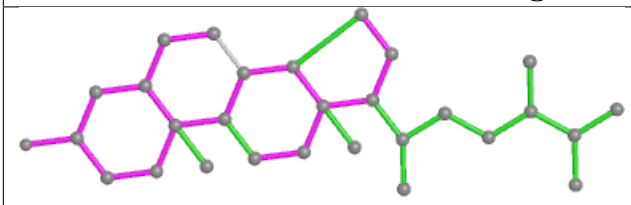

Bond lengths

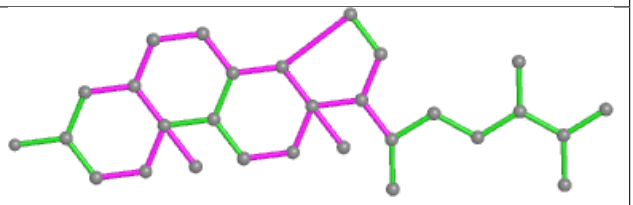

Bond angles

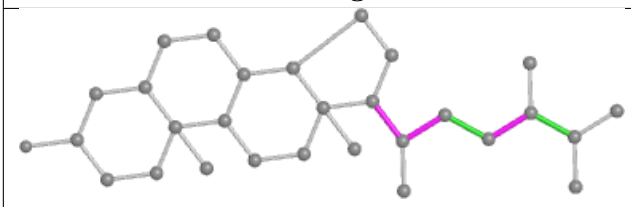

Torsions


Rings

Ligand ERG r 626


Bond lengths


Bond angles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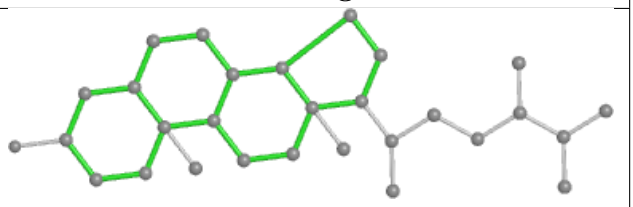
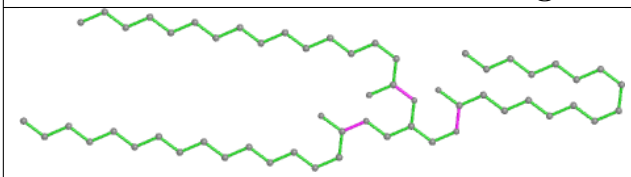

Rings

Ligand 4RF i 101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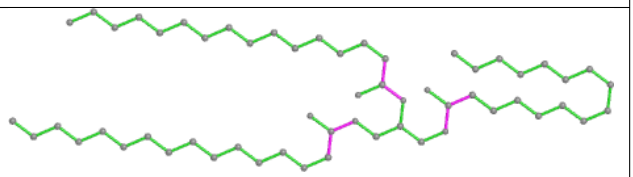
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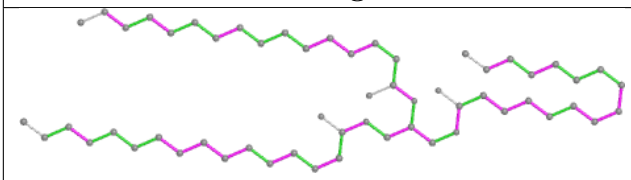
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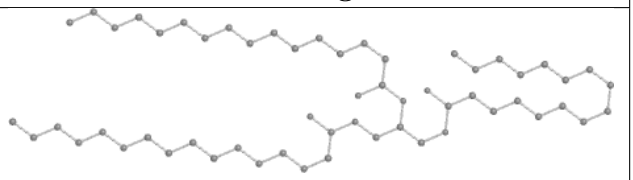
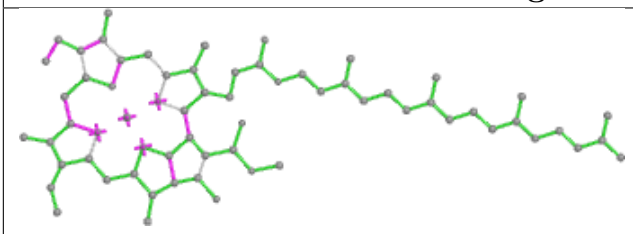

Rings

Ligand CLA y 603



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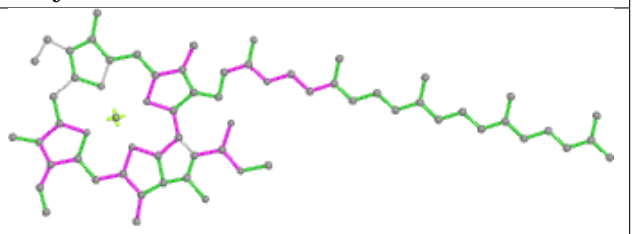
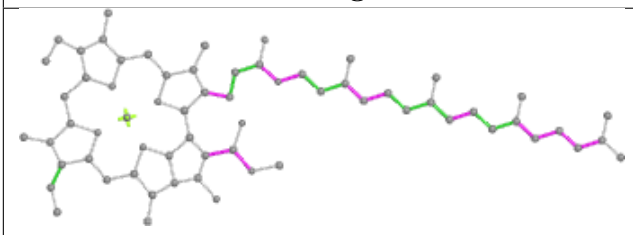


Bond angles



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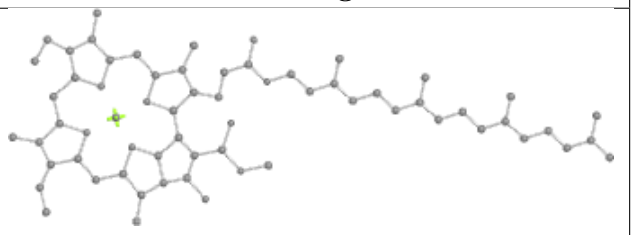
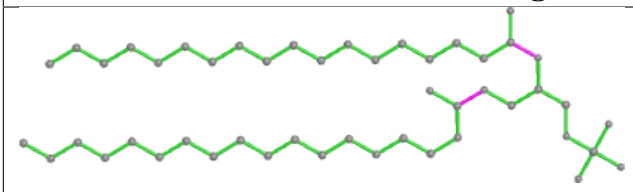


Rings

Ligand 3PH S 626



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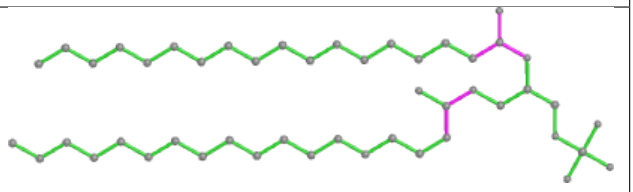
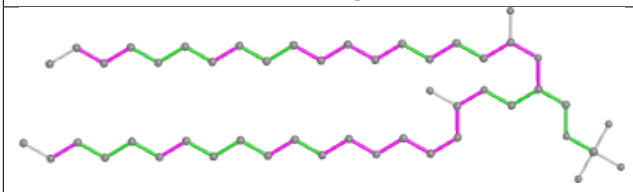


Bond angles



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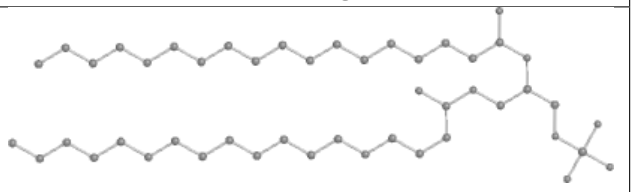
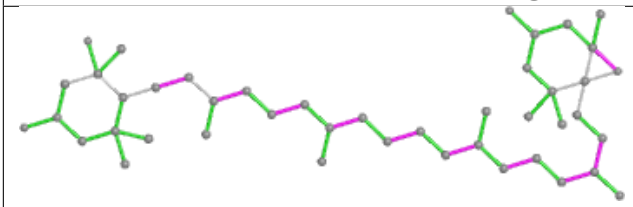


Rings

Ligand NEX S 623



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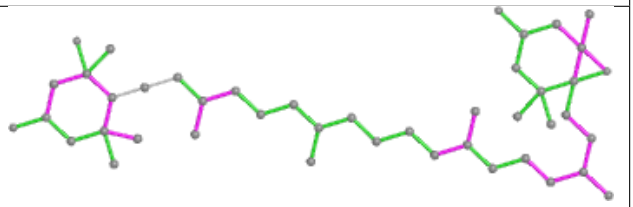
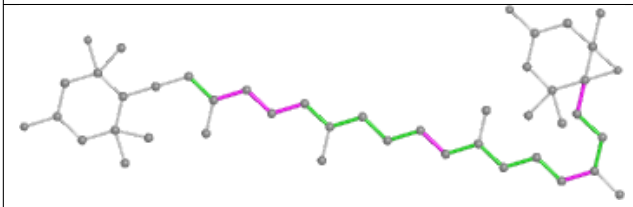


Bond angles



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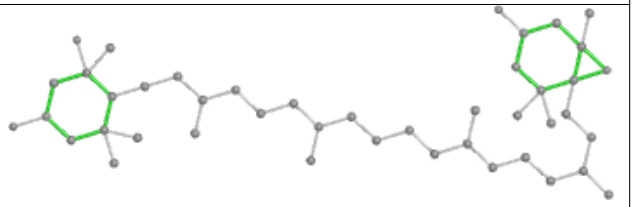
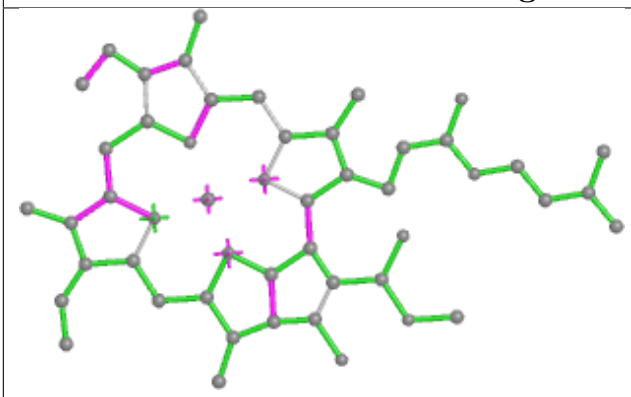


Rings

Ligand CLA y1 608



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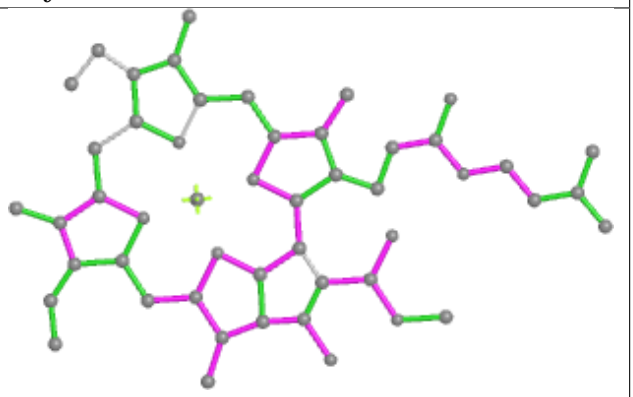
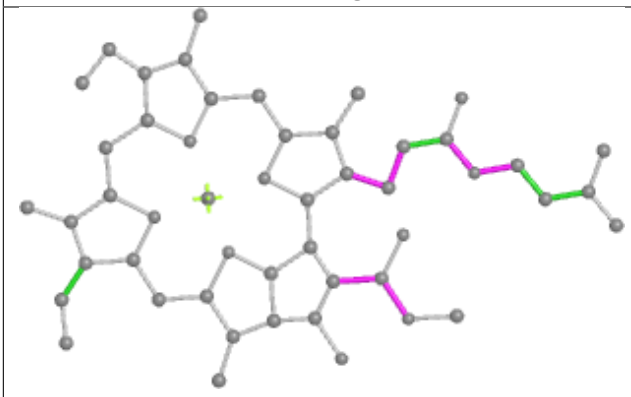


Bond angles



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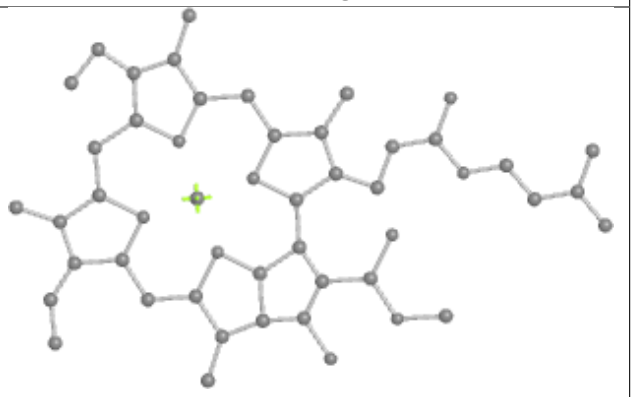
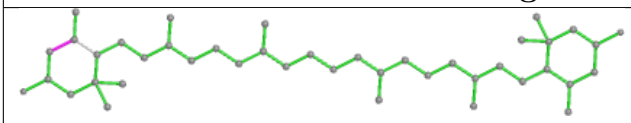


Rings

Ligand LUT g1 621



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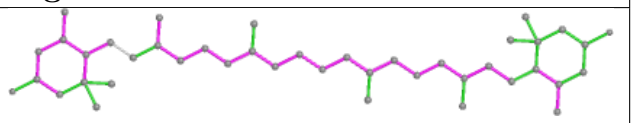

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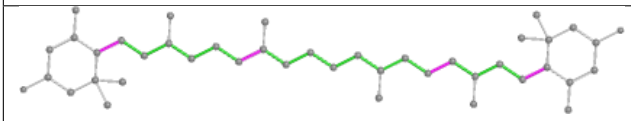

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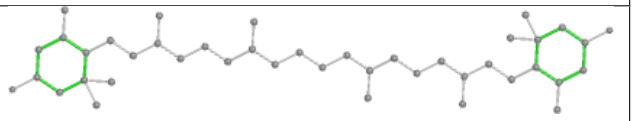
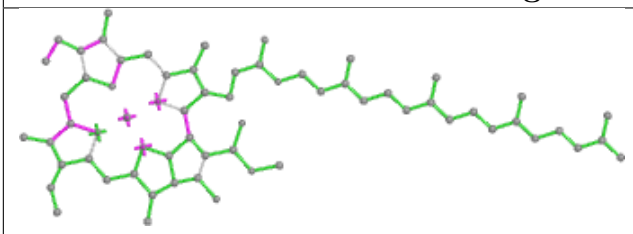


Rings

Ligand CLA D 403



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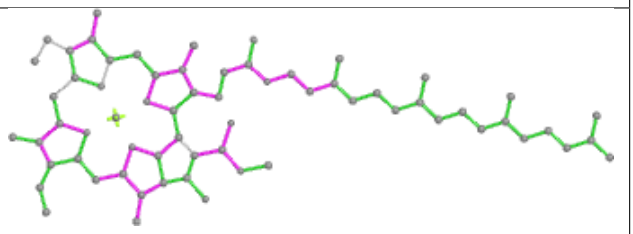
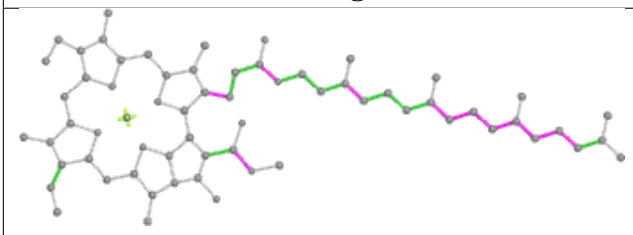
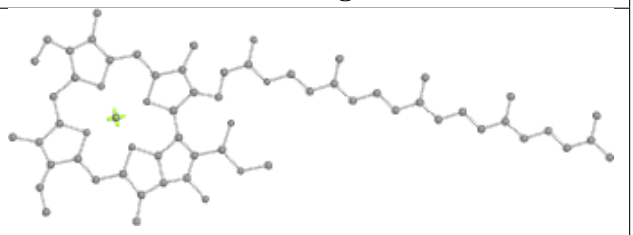


Bond angles

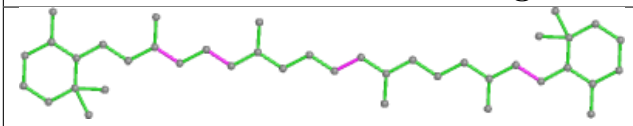


Torsions

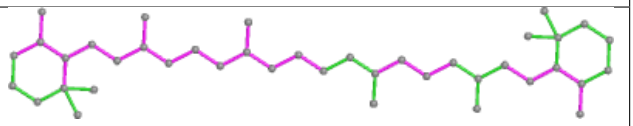


Rings

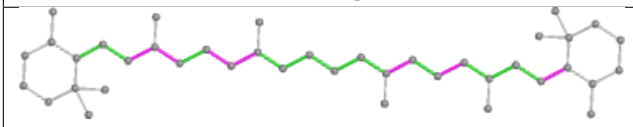
Ligand BCR C1 515



Bond lengths



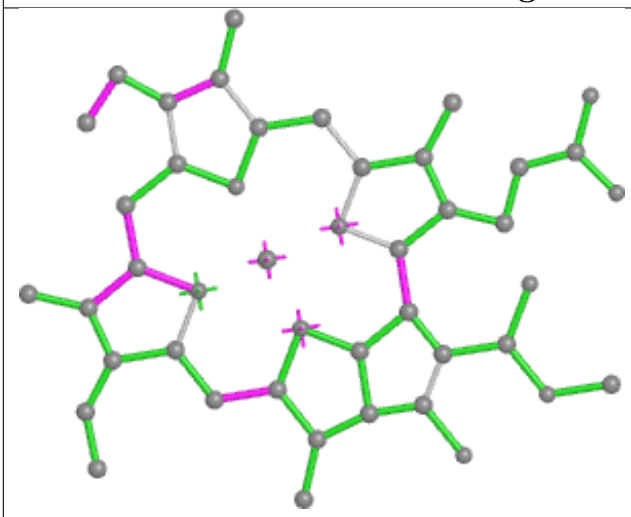
Bond angles



Torsions

Rings

Ligand CLA n1 612



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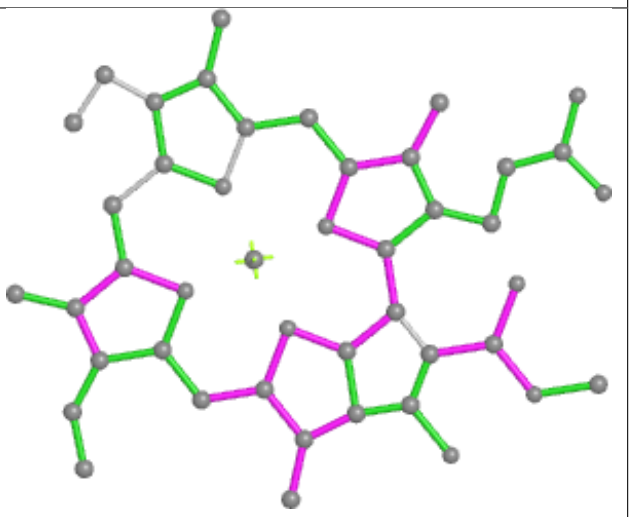

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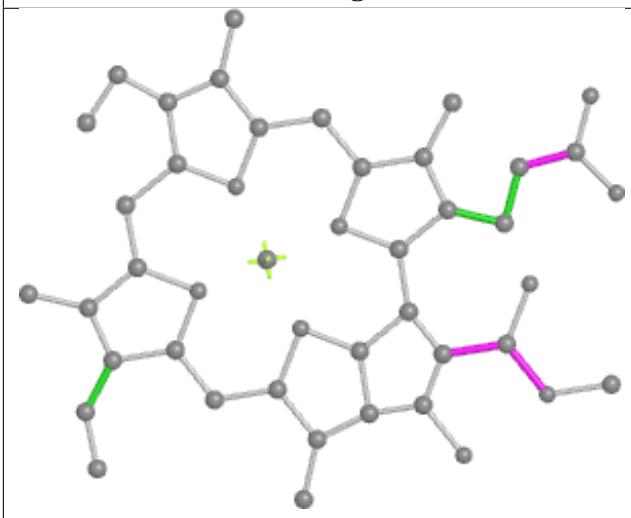
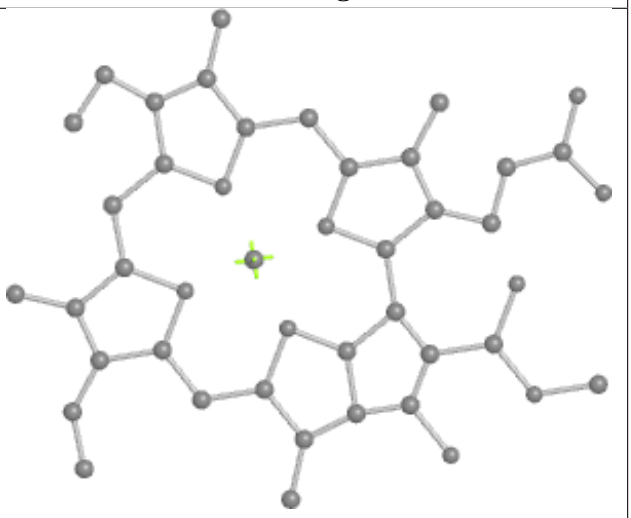
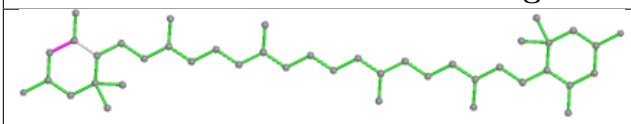


Torsions



Rings

Ligand LUT N 620



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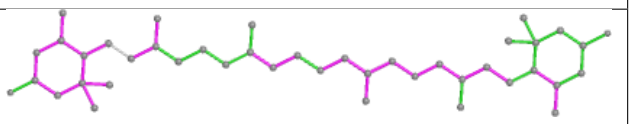
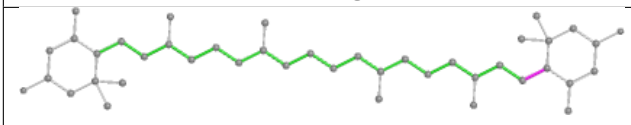


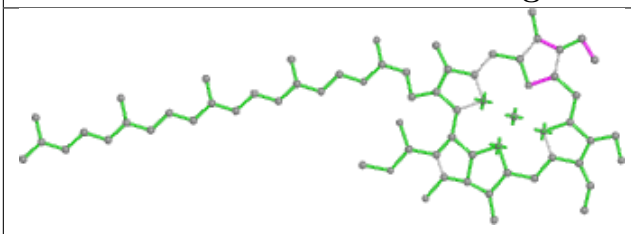
Bond angles



Torsions

Rings

Ligand CHL N 606



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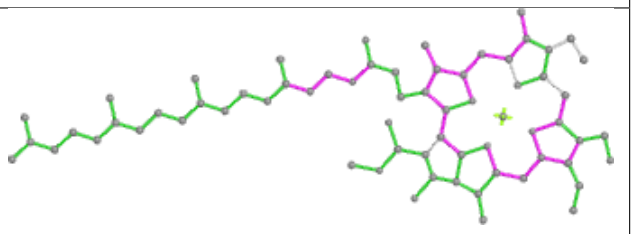
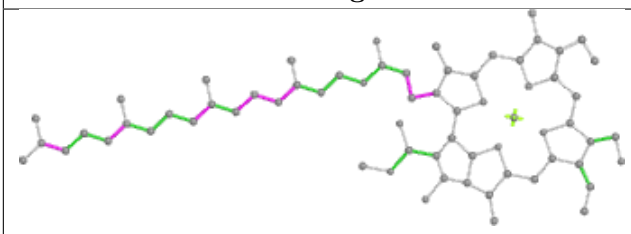


Bond angles



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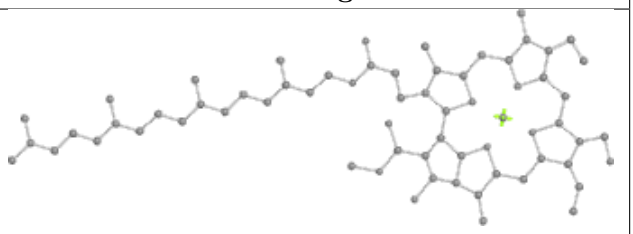
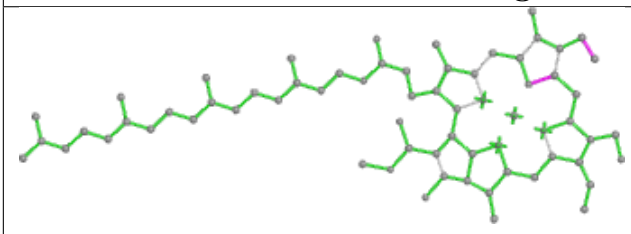
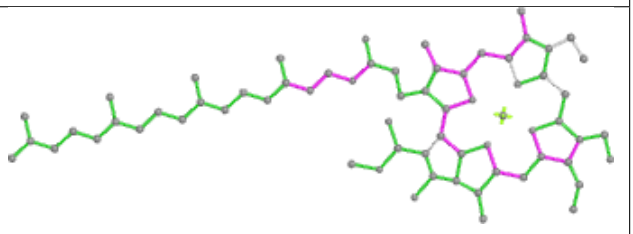


Rings

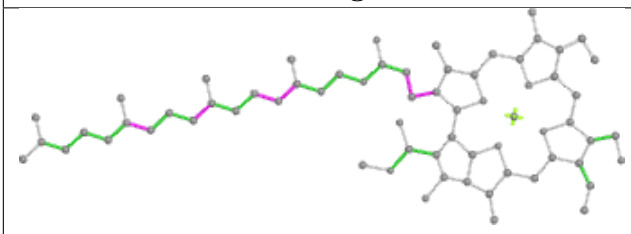
Ligand CHL N1 607



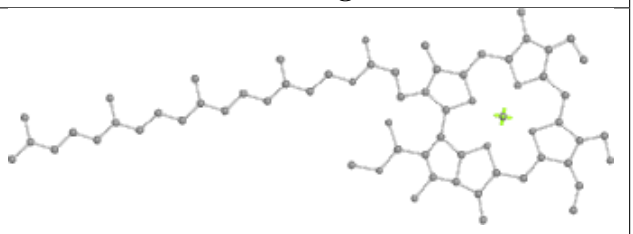
Bond lengths



Bond angles

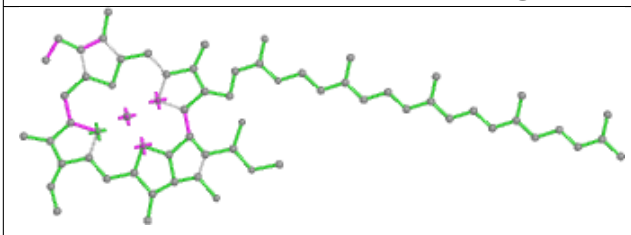


Torsions



Rings

Ligand CLA G1 603



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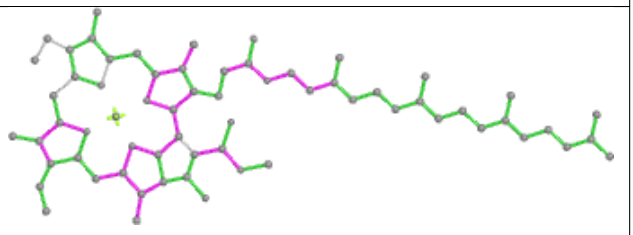
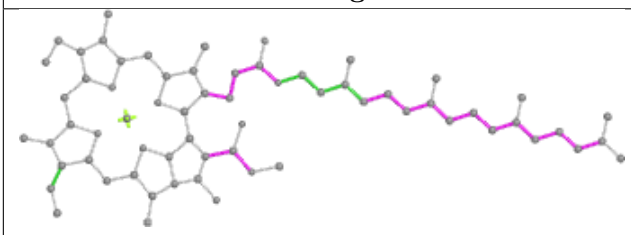
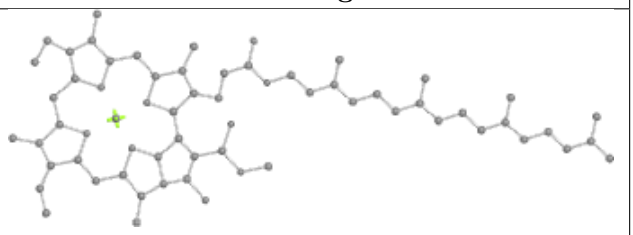


Bond angles

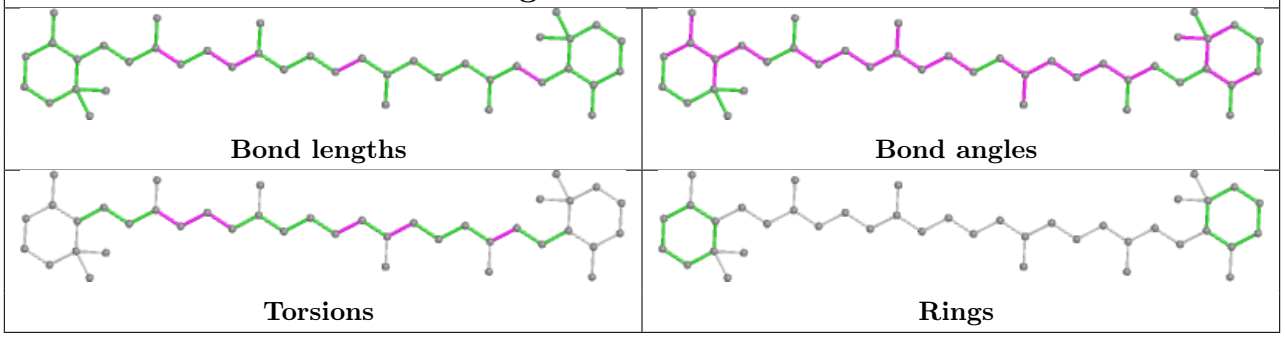


Torsions

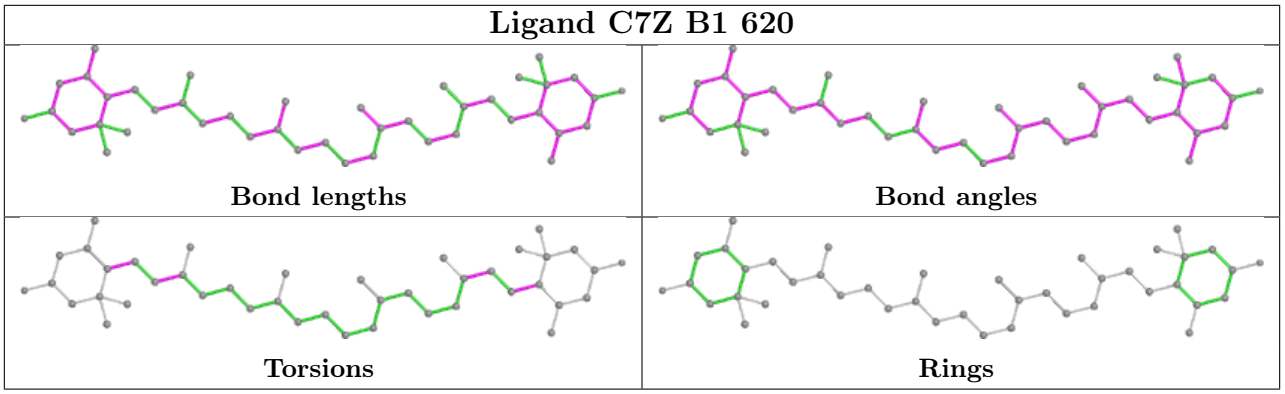


Rings

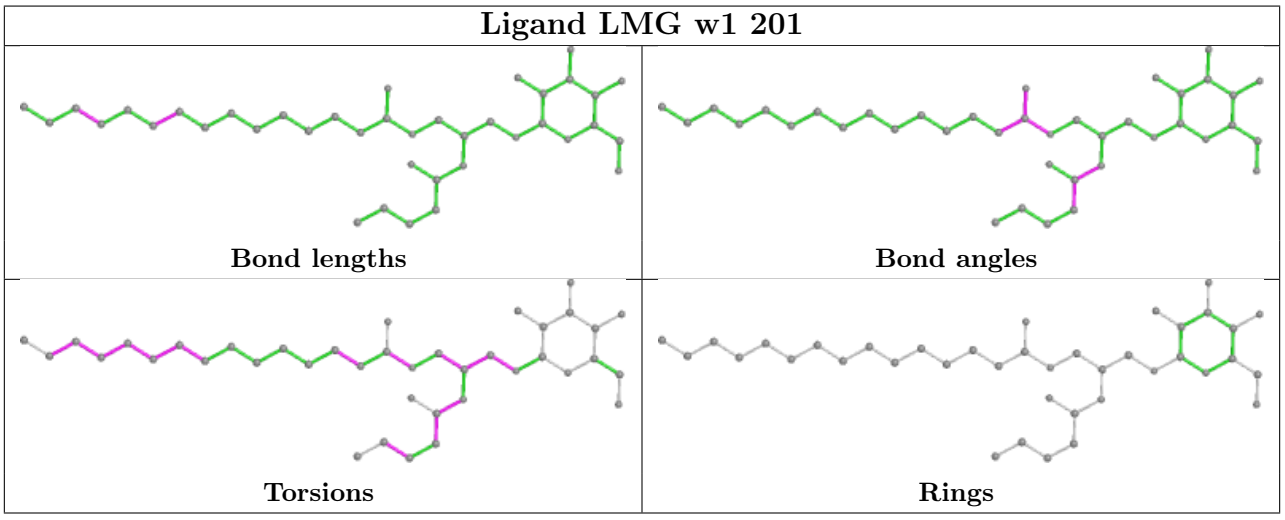
Ligand BCR c1 517

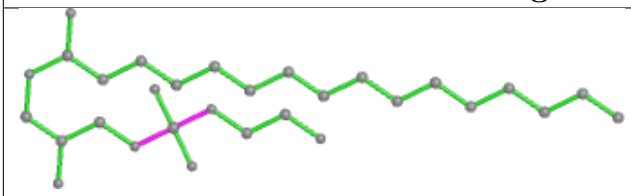
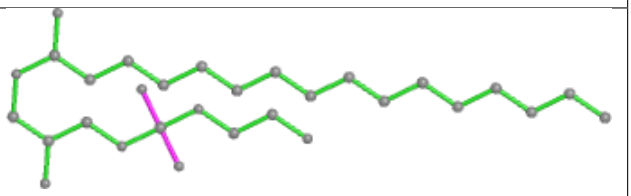
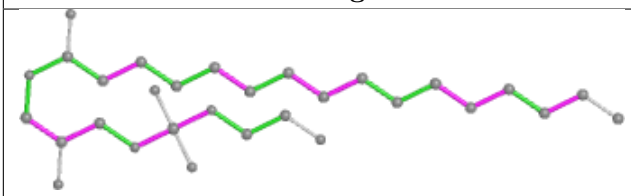
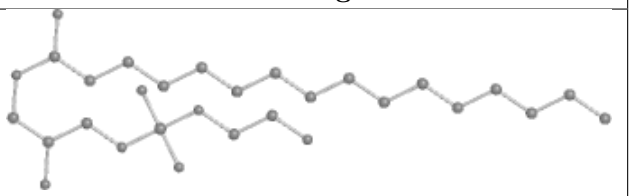


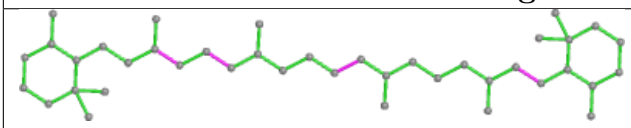
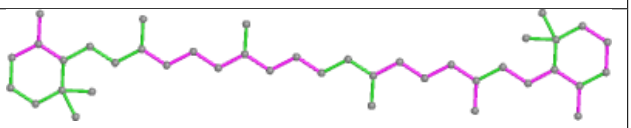
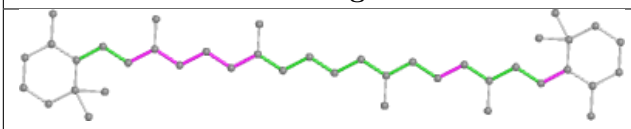
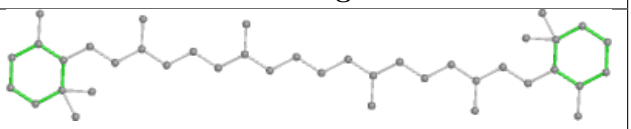
Ligand C7Z B1 620



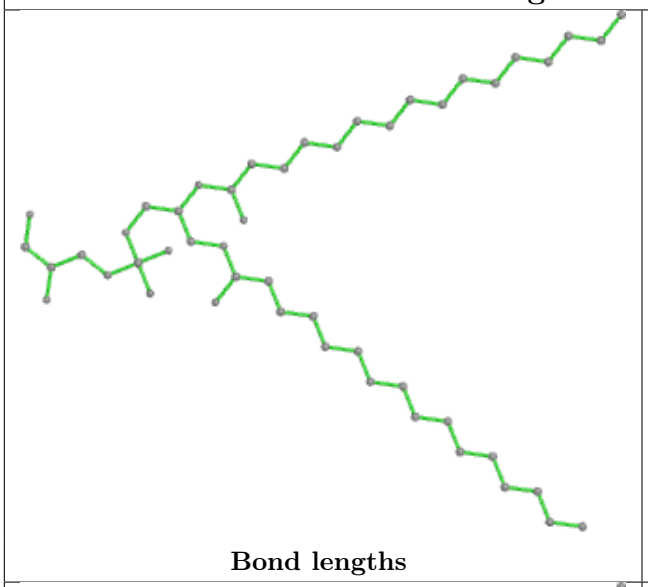
Ligand LMG w1 201



Ligand LPX s 625	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand BCR c1 515	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand LHG g 624



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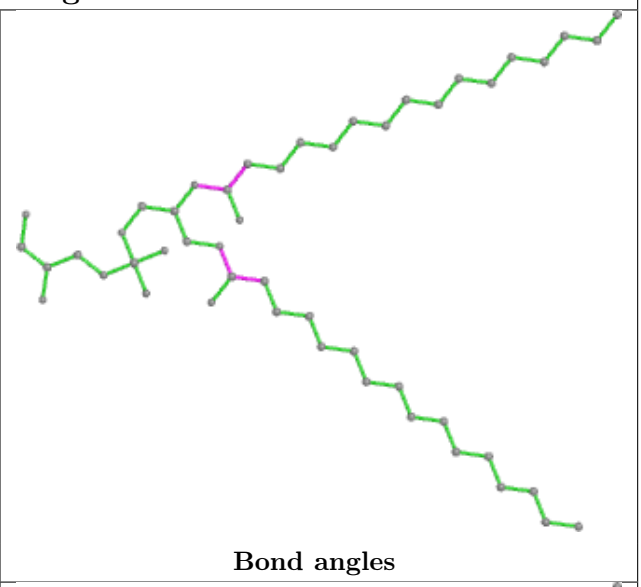
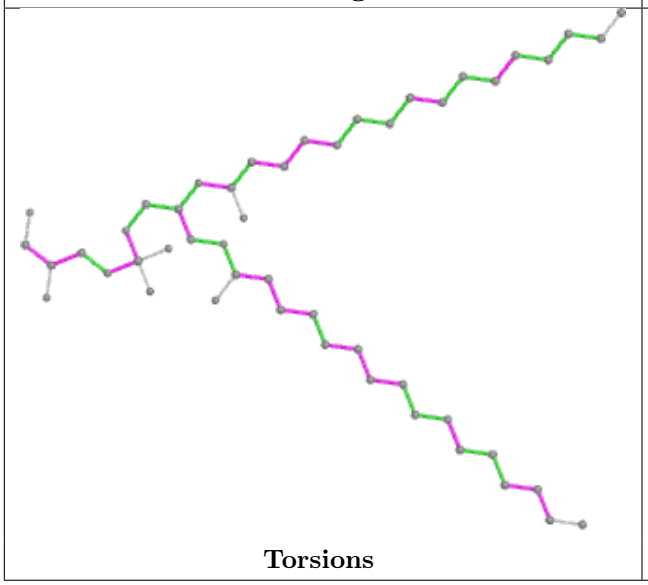
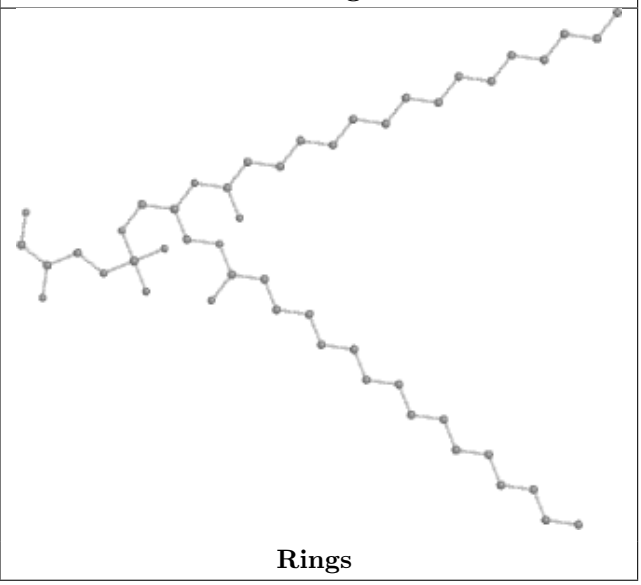


Bond angles

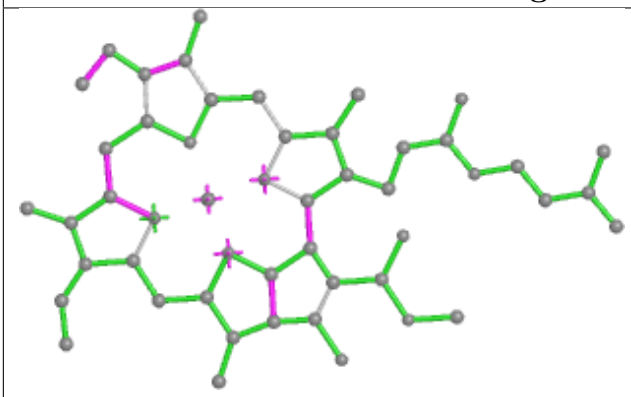


Torsions



Rings

Ligand CLA s 605



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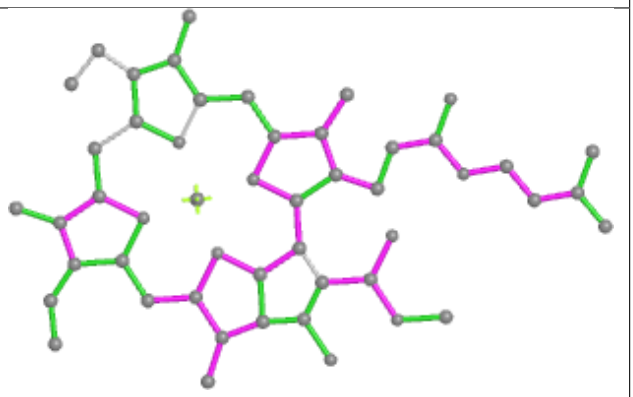

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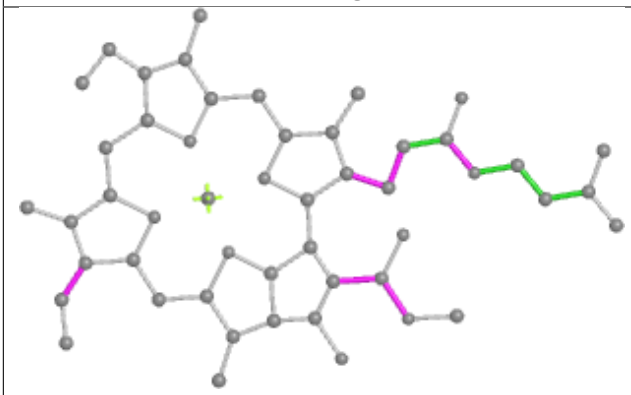

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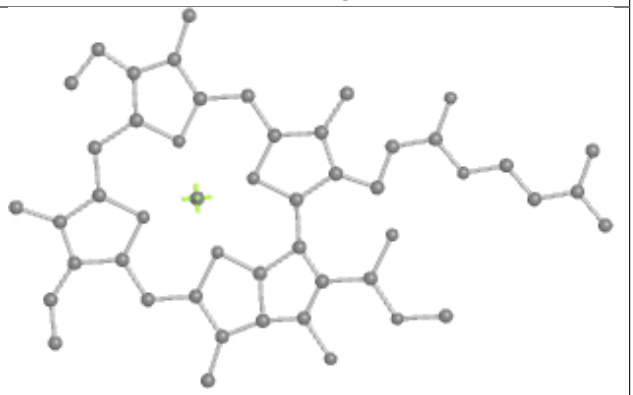
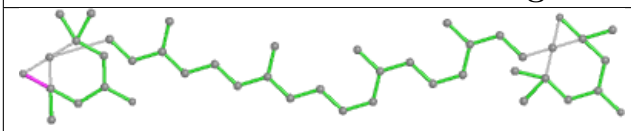


Rings

Ligand XAT g 622



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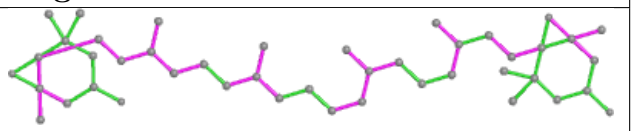

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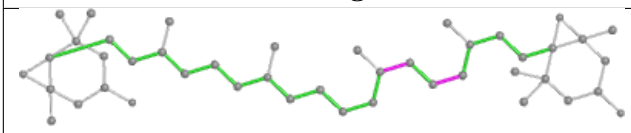

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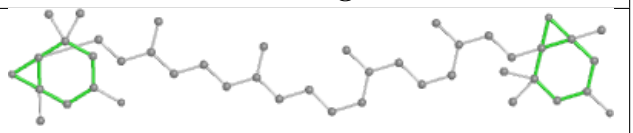
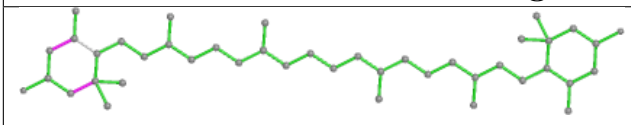


Rings

Ligand LUT g 621



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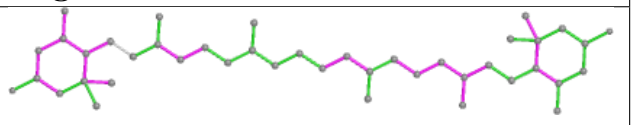

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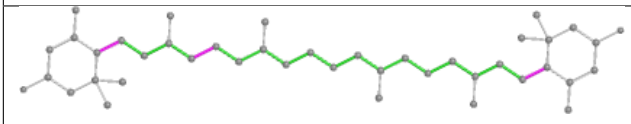

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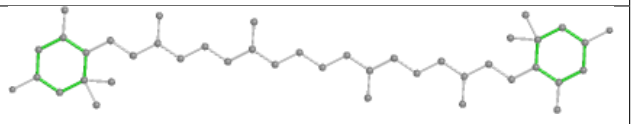
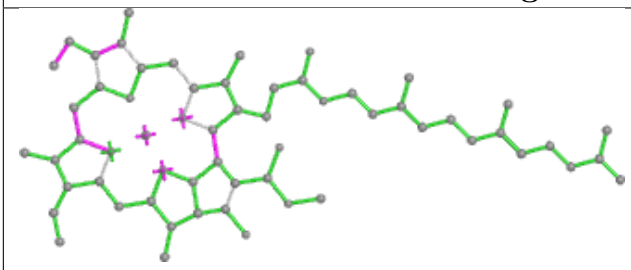


Rings

Ligand CLA r1 608



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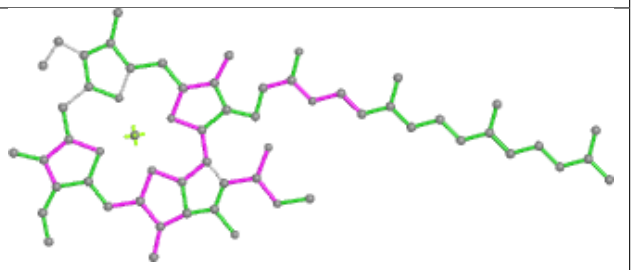

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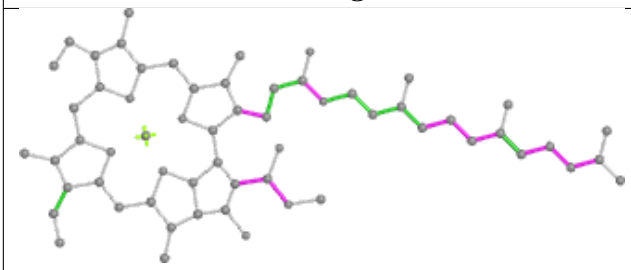

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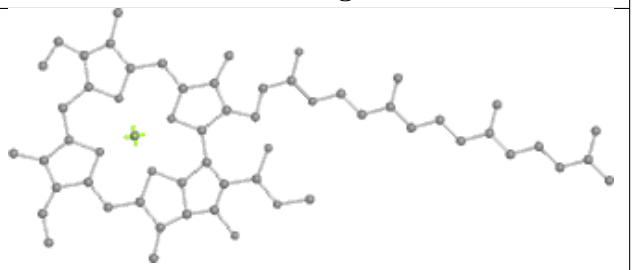
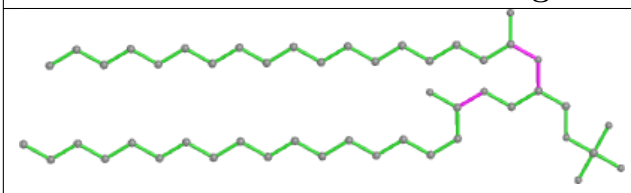


Rings

Ligand 3PH s 626



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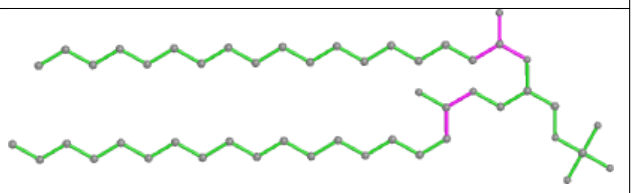

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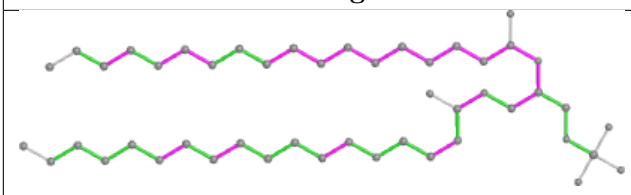

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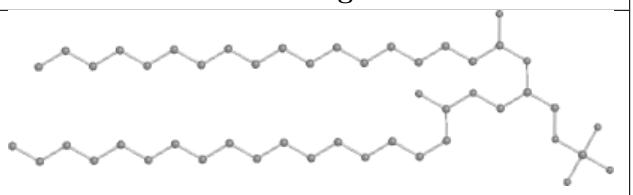
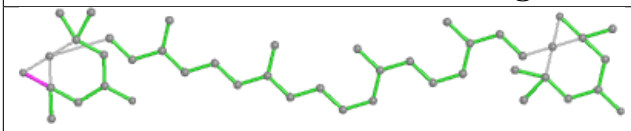
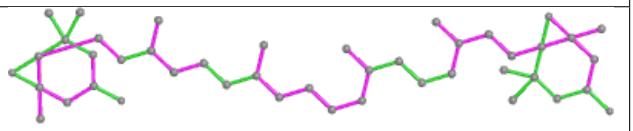


Rings

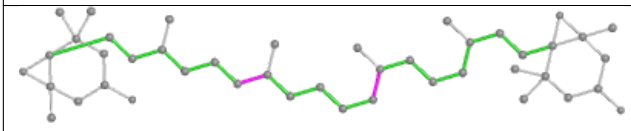
Ligand XAT R1 621



Bond lengths



Bond angles



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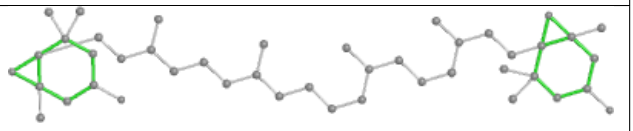
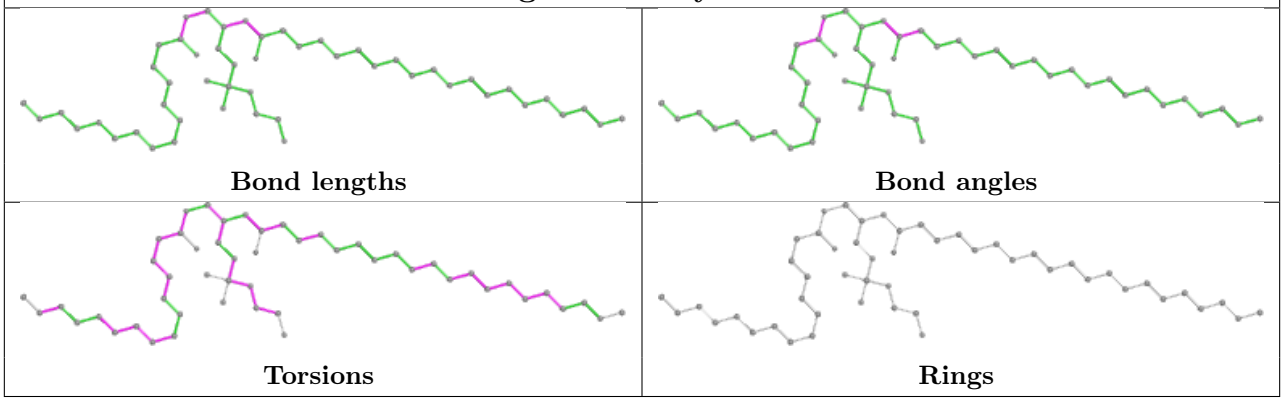
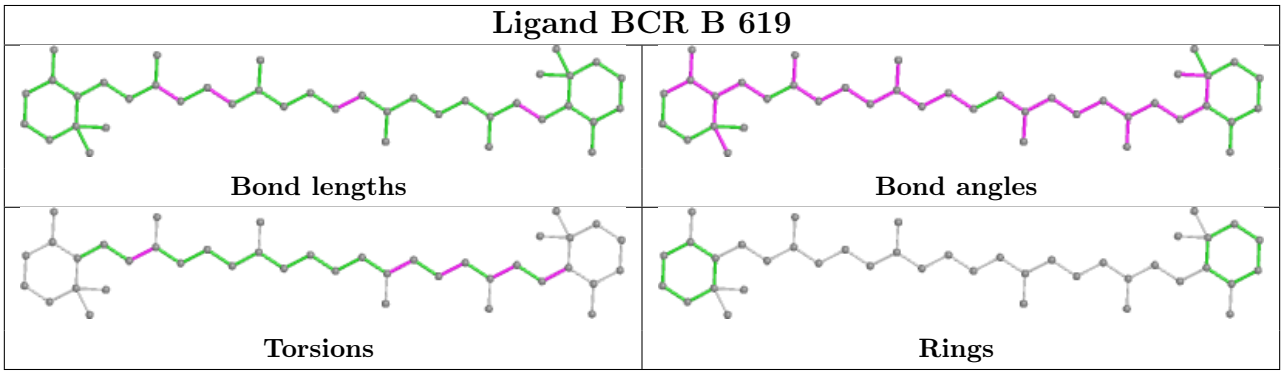


Rings

Ligand PTY y1 626



Ligand BCR B 619



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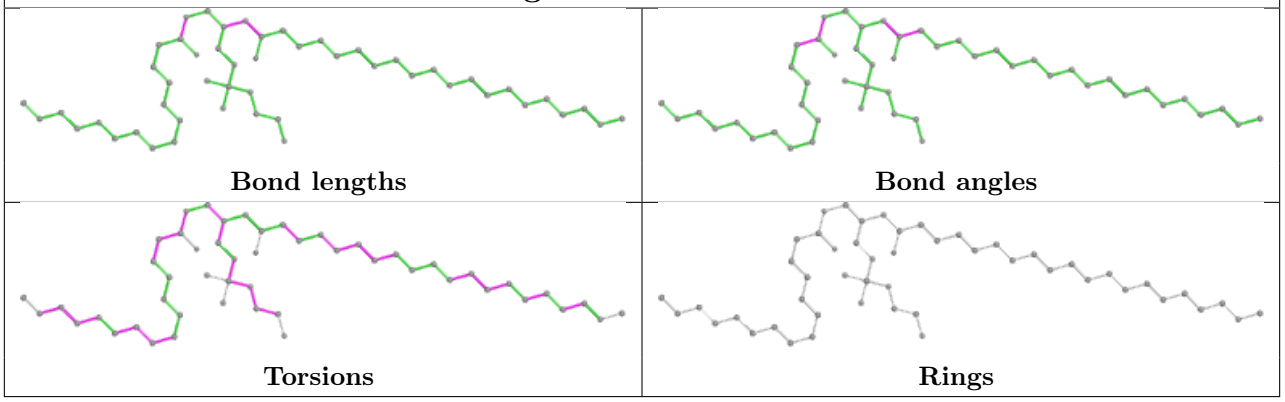
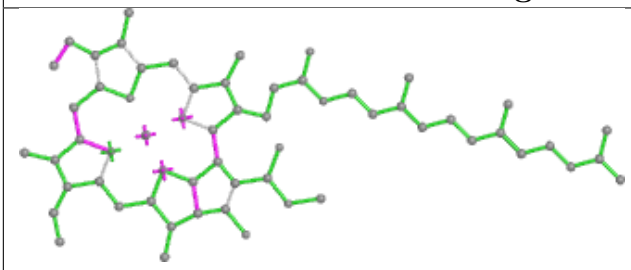
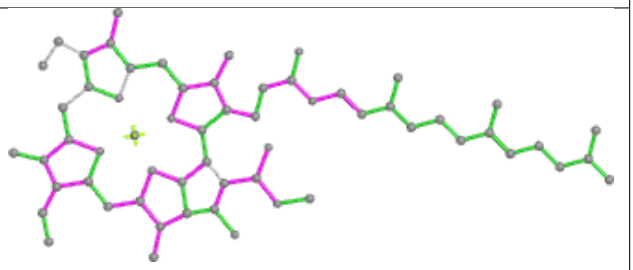


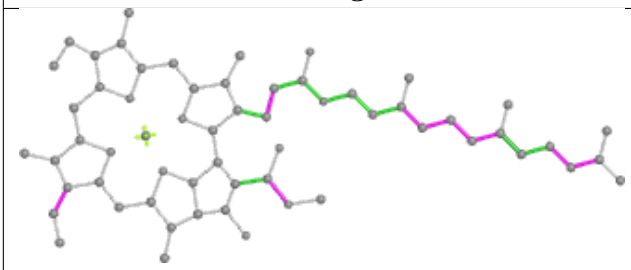
Ligand CLA A1 410



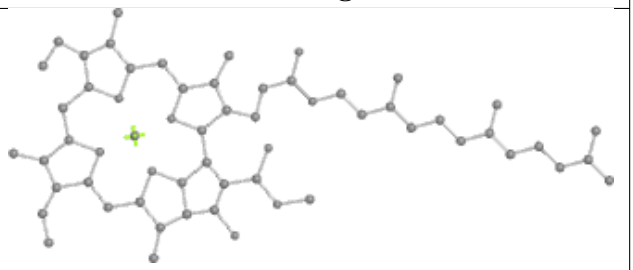
Bond lengths



Bond angles

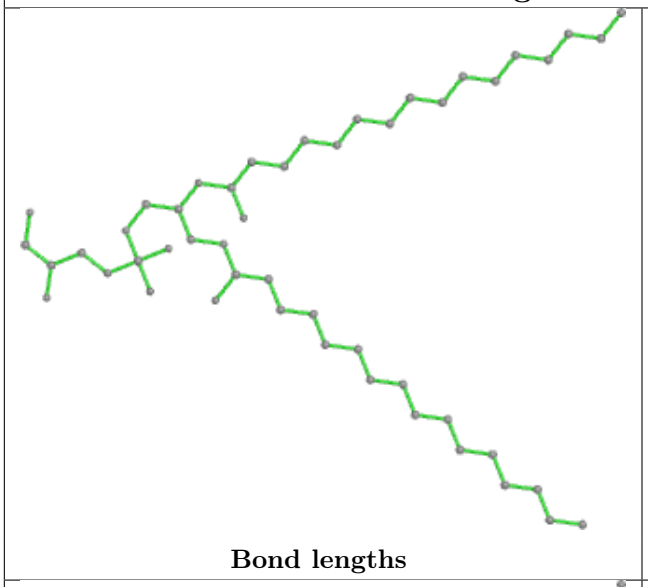


Torsions



Rings

Ligand LHG G1 624



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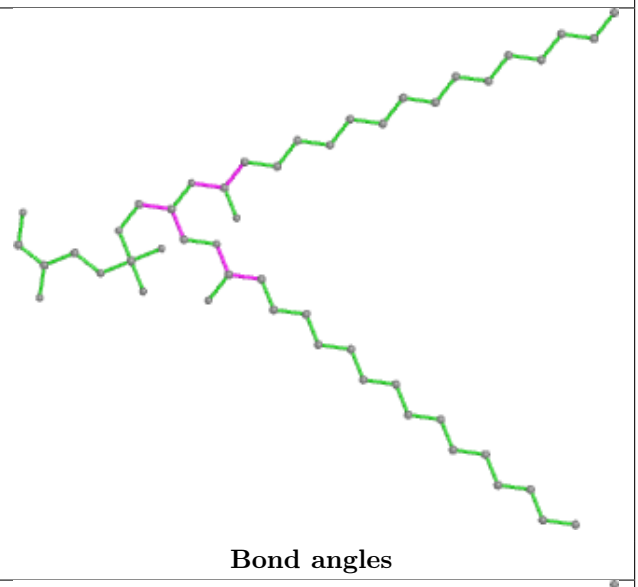
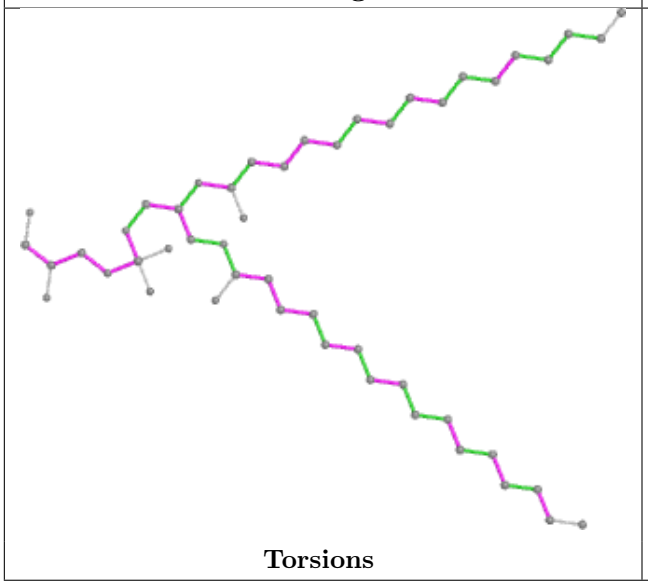


Bond angles



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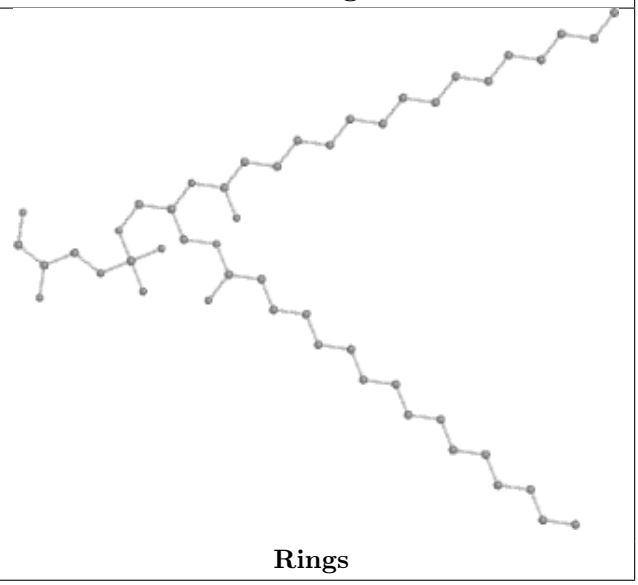
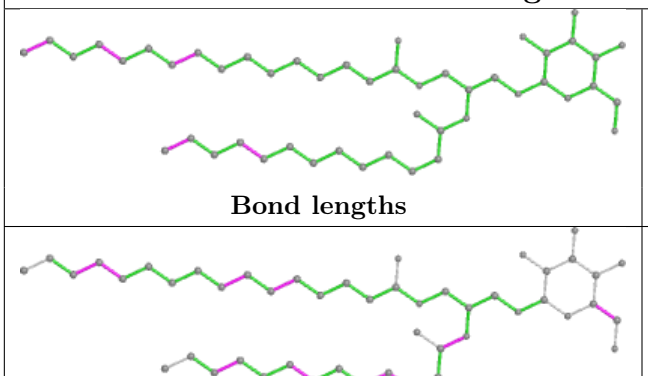


Rings

Ligand LMG h 102



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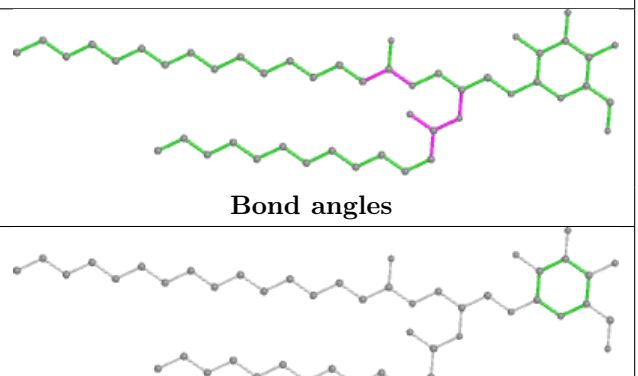
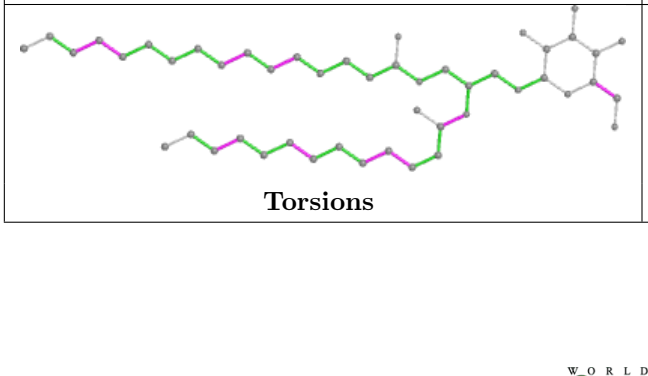


Bond angles



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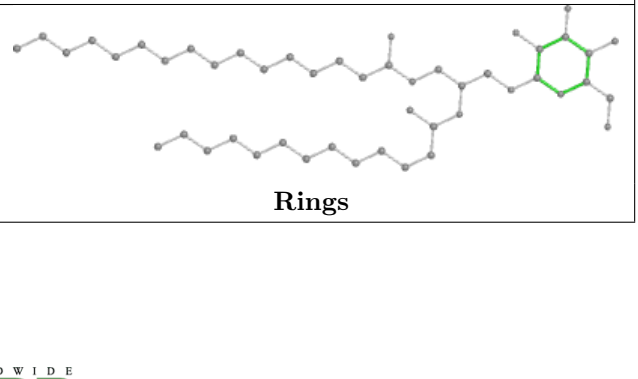
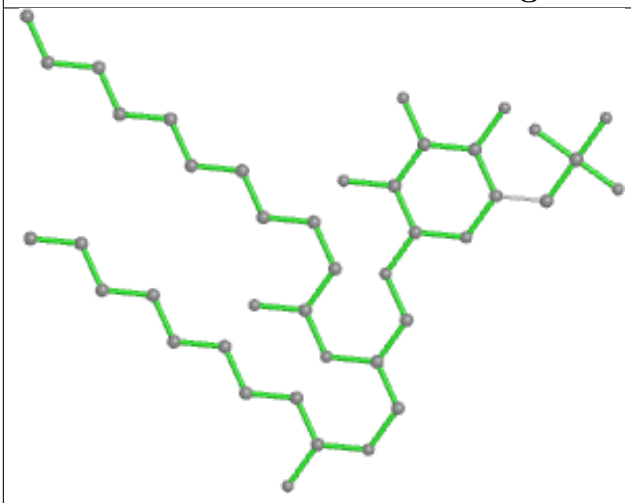
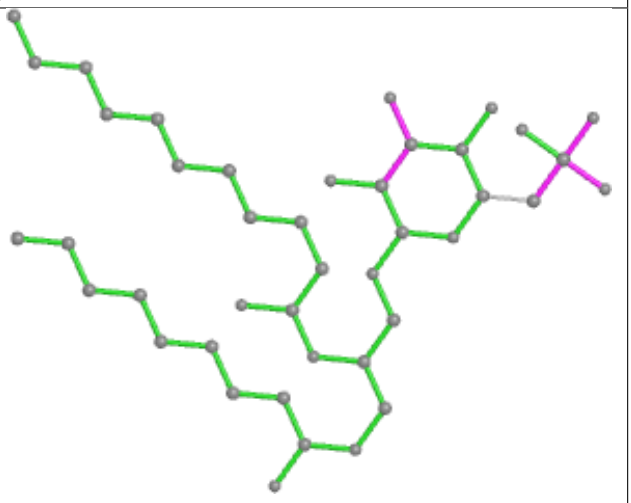


Rings

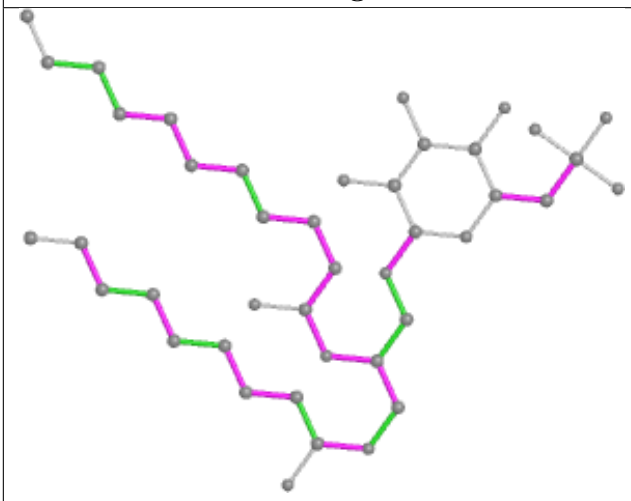
Ligand SQD M 101



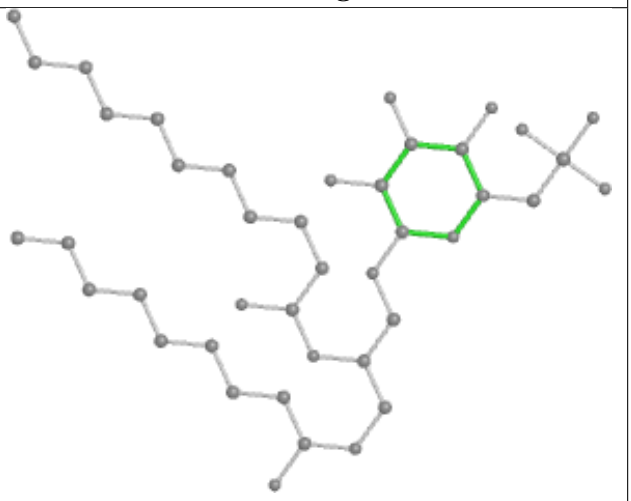
Bond lengths



Bond angles

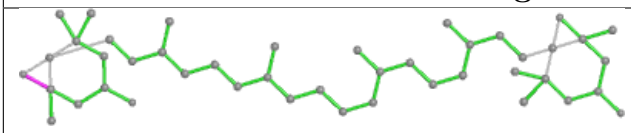


Torsions

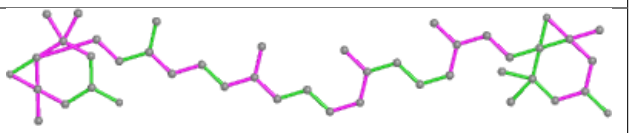


Rings

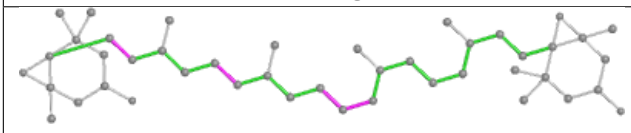
Ligand XAT Y1 622



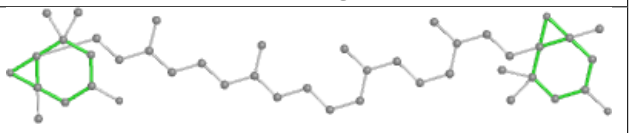
Bond lengths



Bond angles

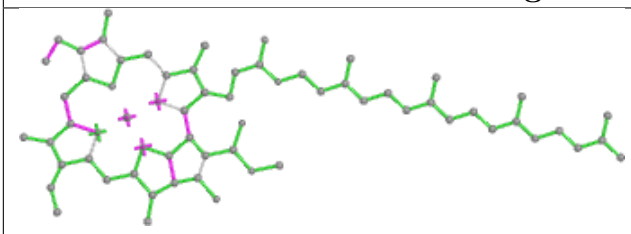


Torsions



Rings

Ligand CLA B 610



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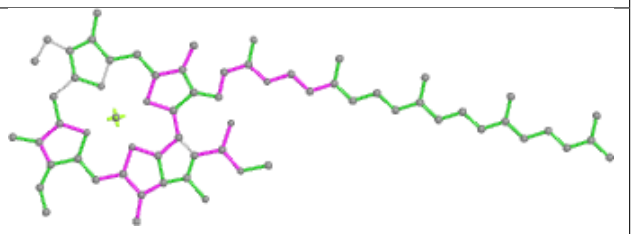
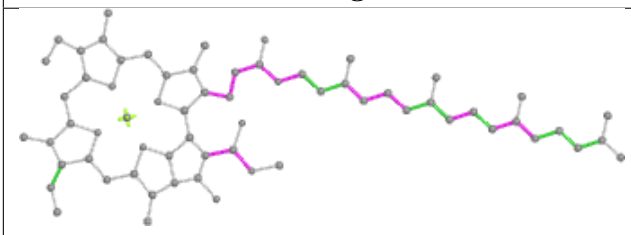
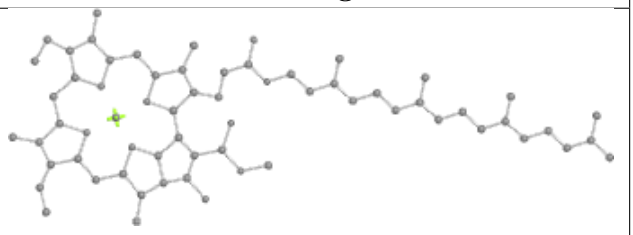


Bond angles

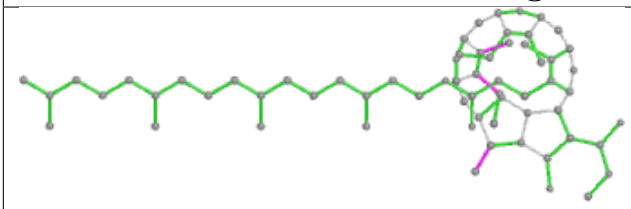


Torsions



Rings

Ligand PHO a 409



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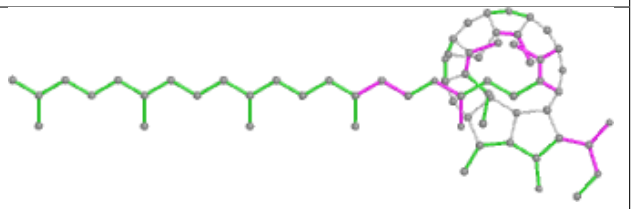
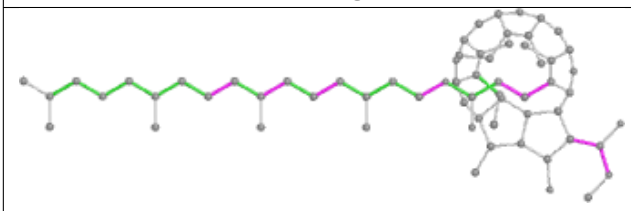


Bond angles



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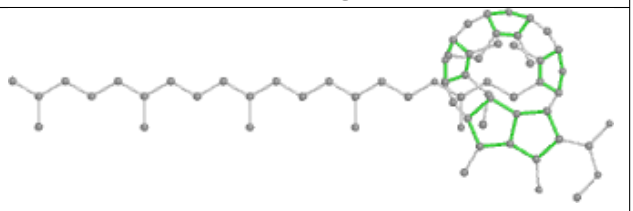
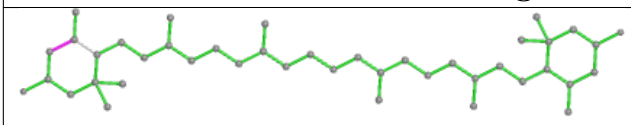


Rings

Ligand LUT Y1 621



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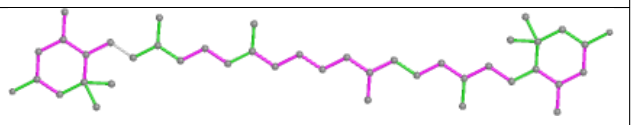
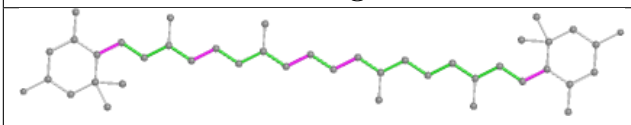


Bond angles



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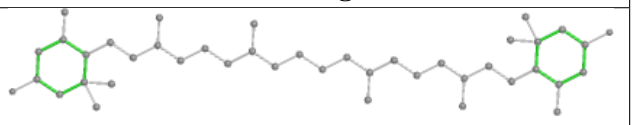
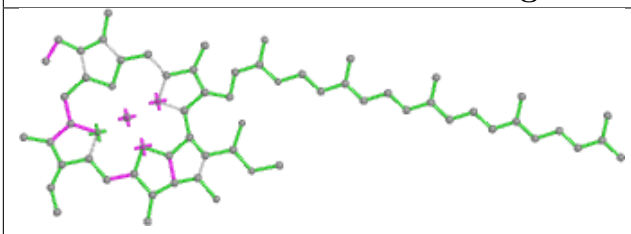


Rings

Ligand CLA c1 509



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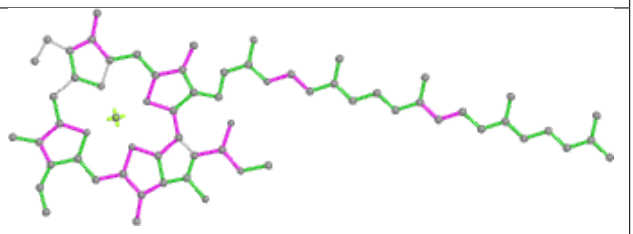

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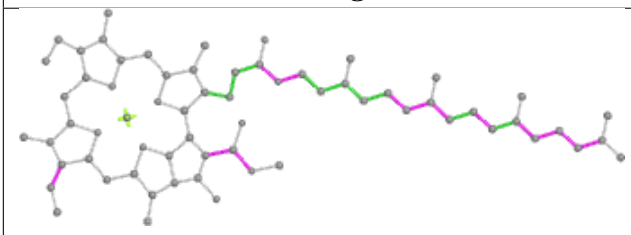

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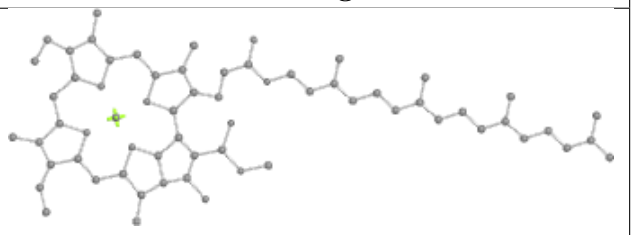
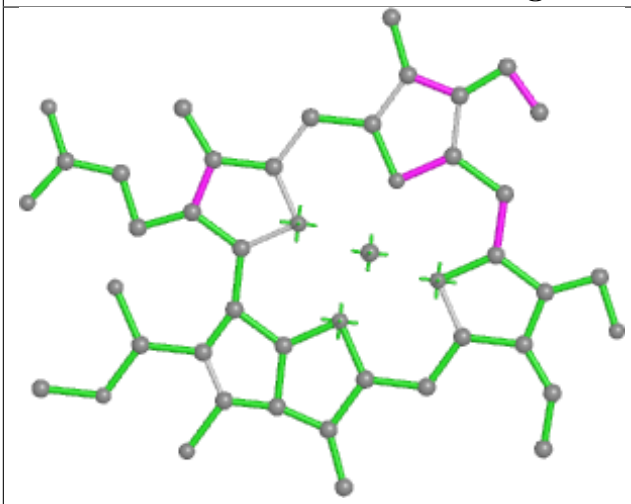


Rings

Ligand CHL S 601



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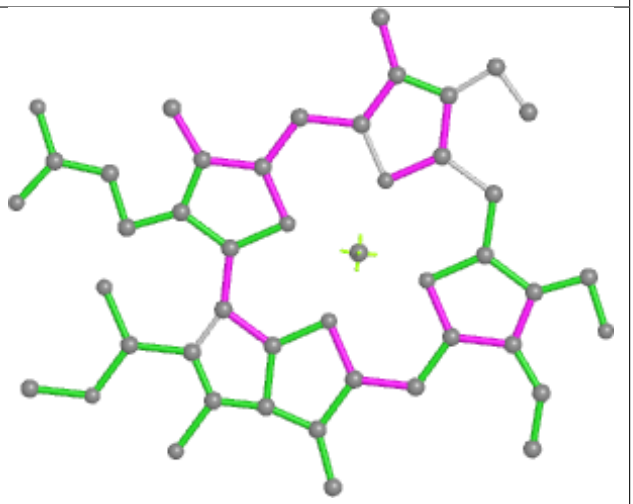
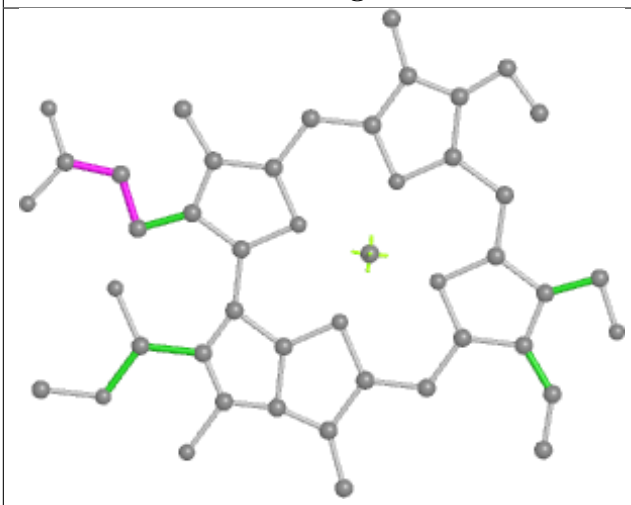


Bond angles



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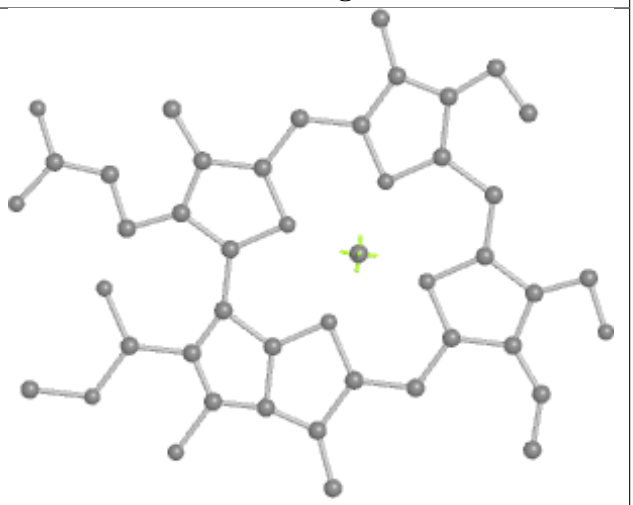
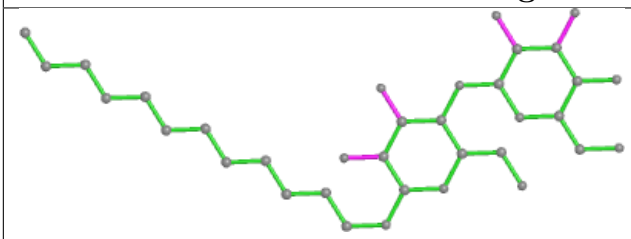


Rings

Ligand LMT r1 625



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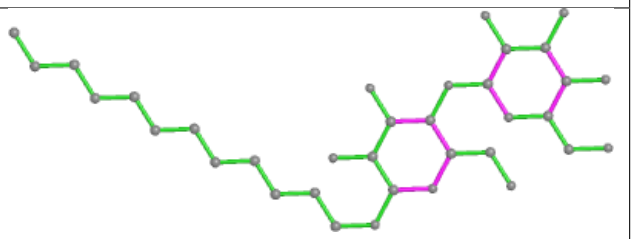
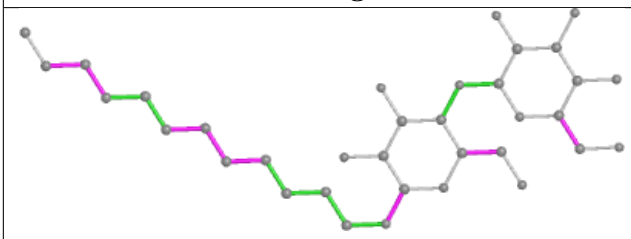


Bond angles



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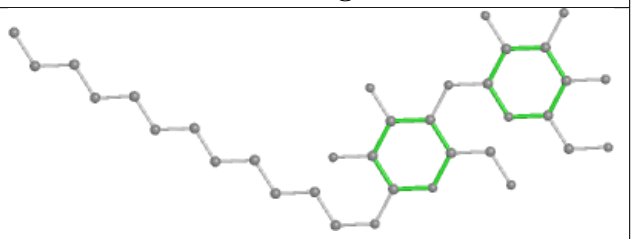
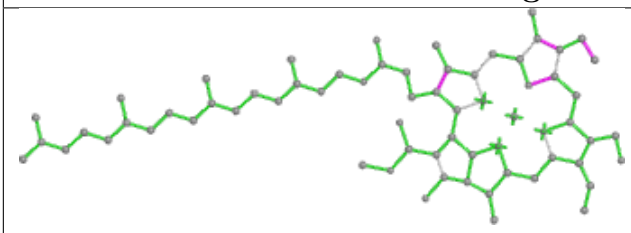


Rings

Ligand CHL N 605



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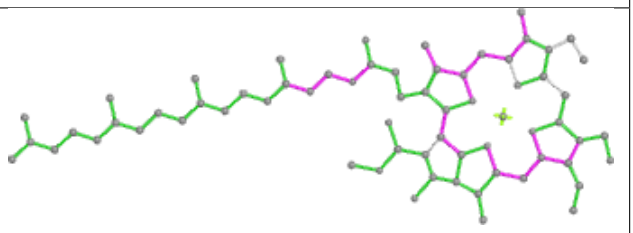
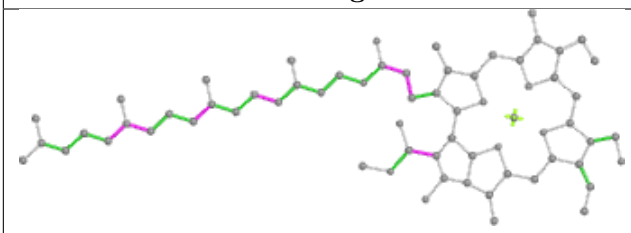


Bond angles



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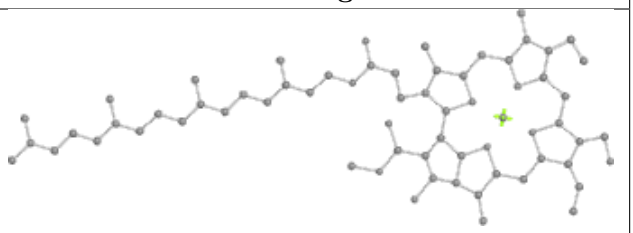
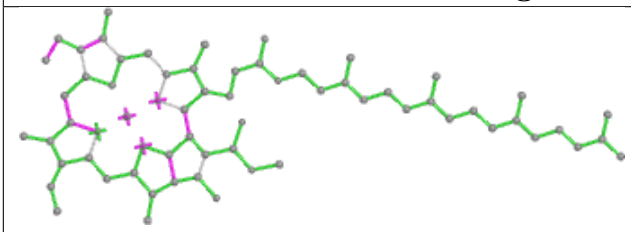


Rings

Ligand CLA B1 605



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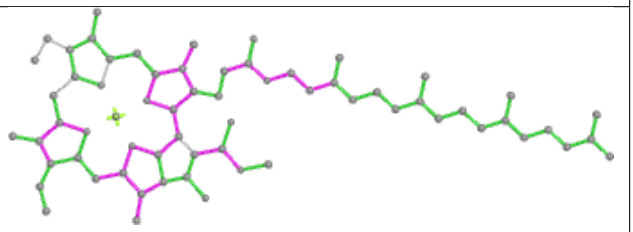
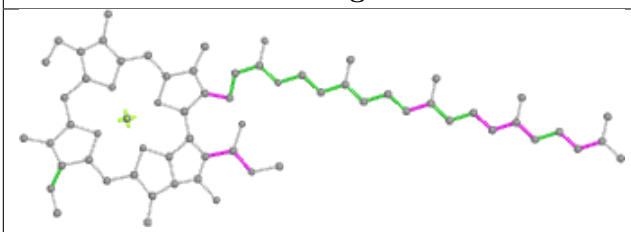


Bond angles



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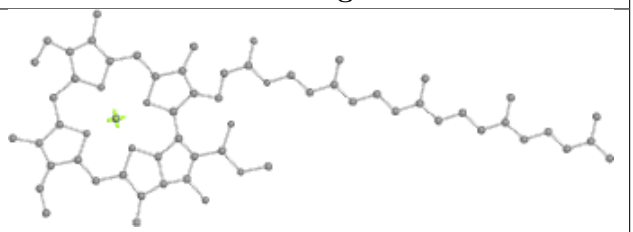
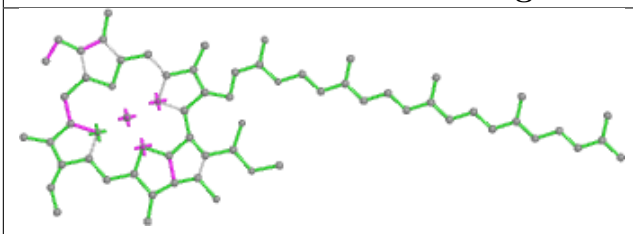


Rings

Ligand CLA C1 502



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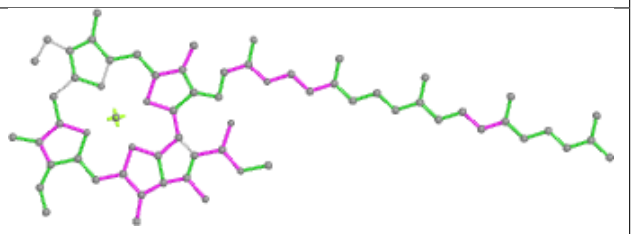
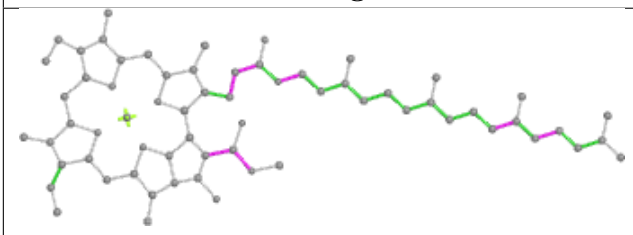


Bond angles



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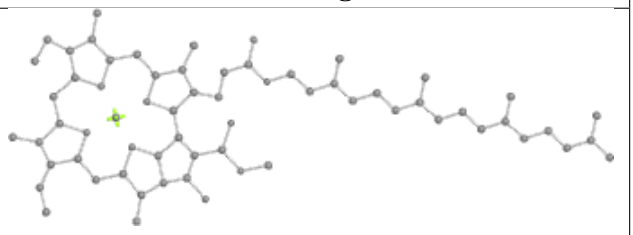
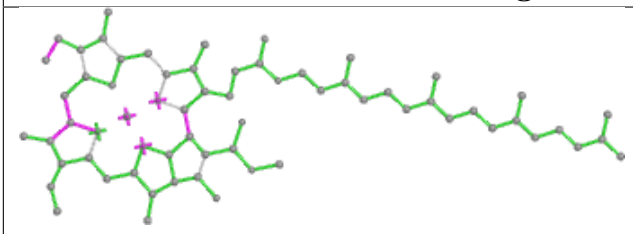


Rings

Ligand CLA C1 505



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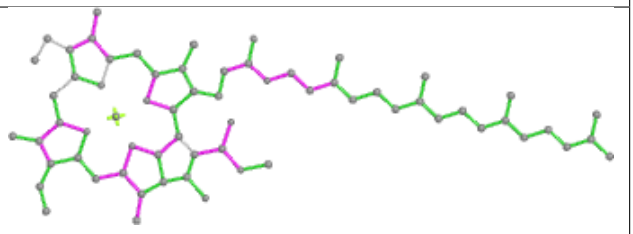
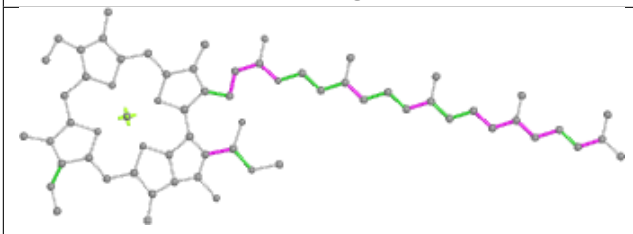


Bond angles



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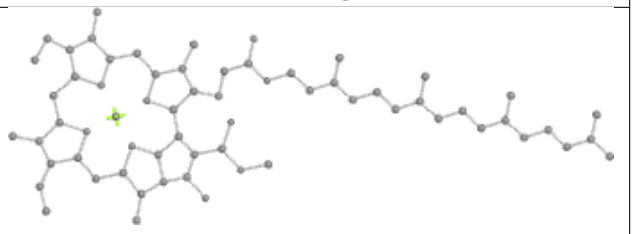
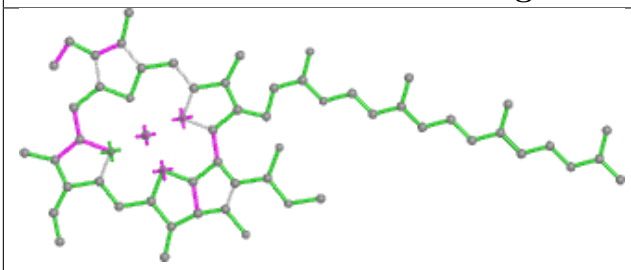


Rings

Ligand CLA R1 610



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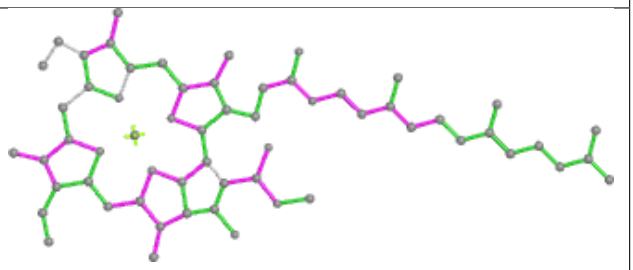
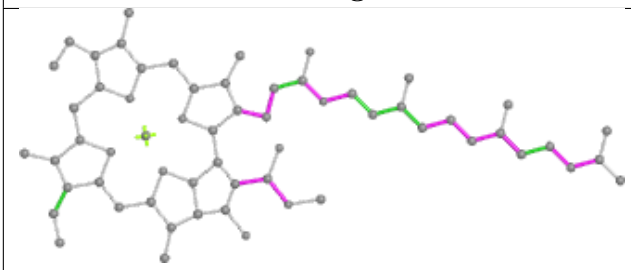
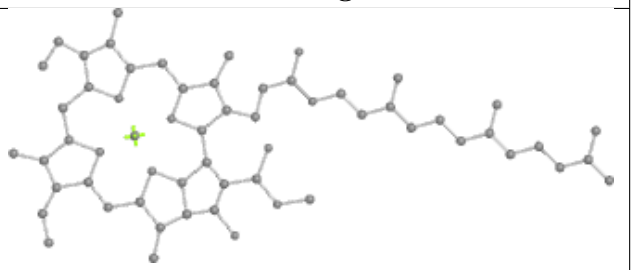


Bond angles

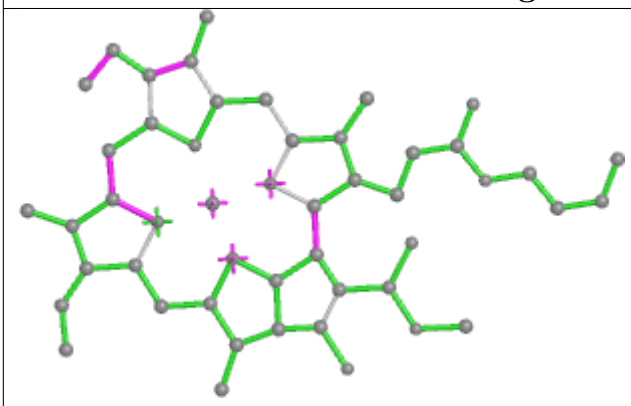


Torsions



Rings

Ligand CLA n1 611



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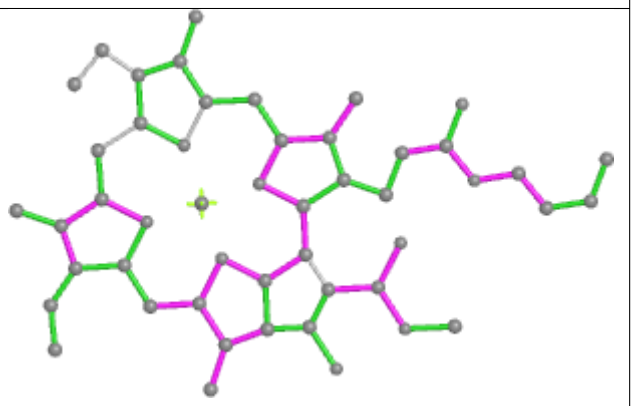
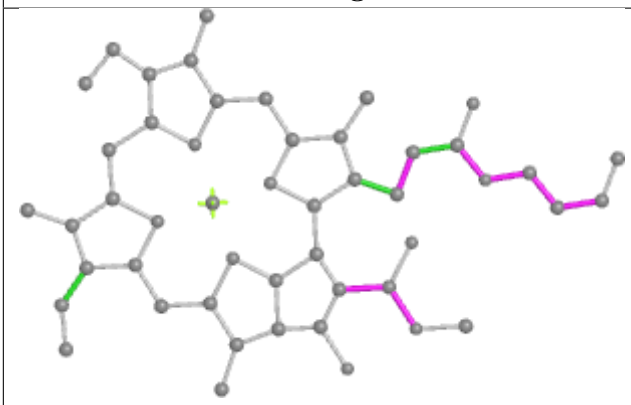


Bond angles



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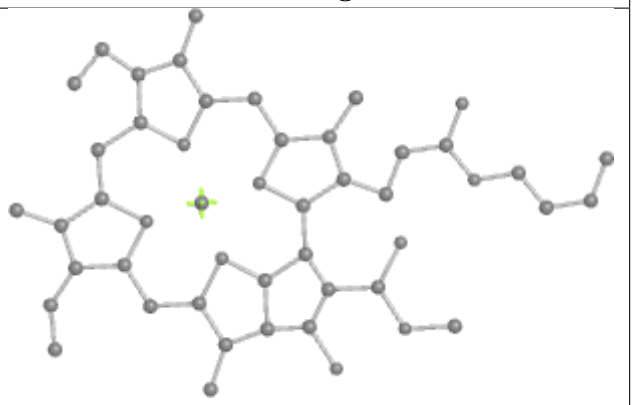
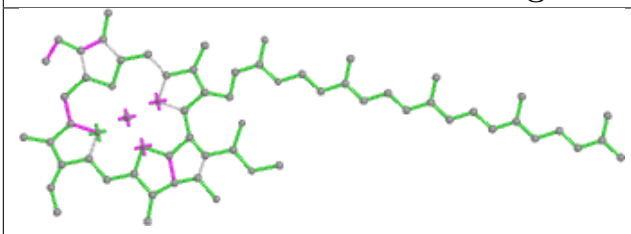


Rings

Ligand CLA b 611



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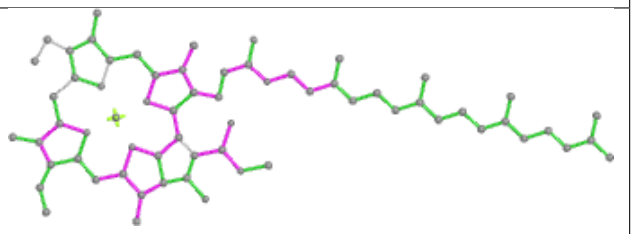
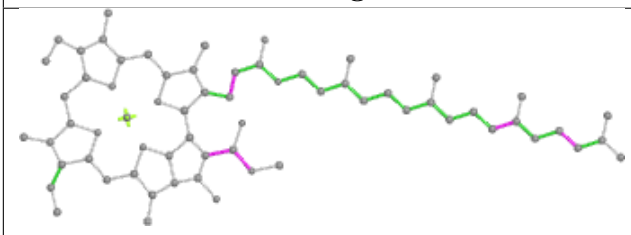
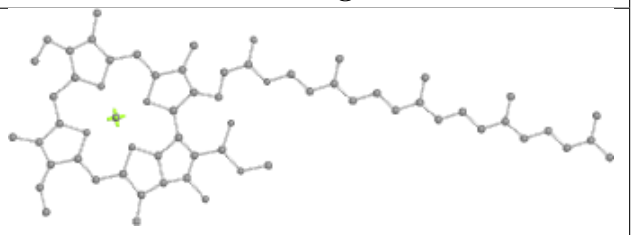


Bond angles

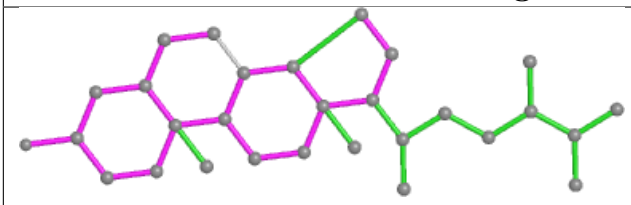


Torsions

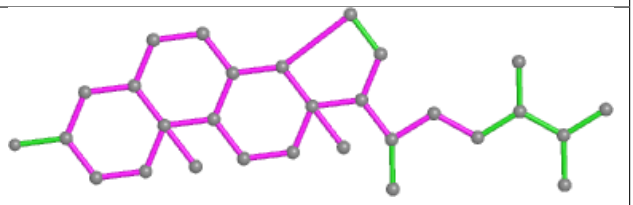


Rings

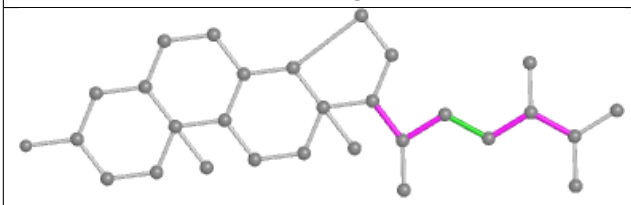
Ligand ERG R1 626



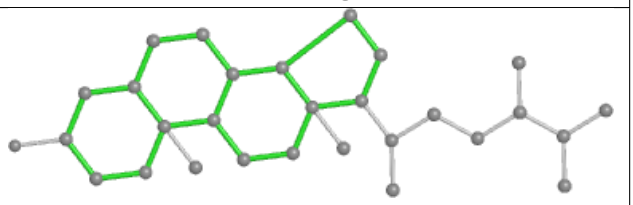
Bond lengths



Bond angles

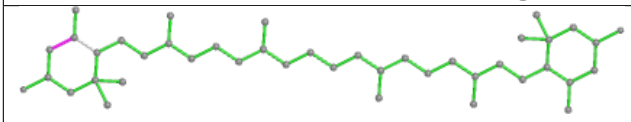


Torsions

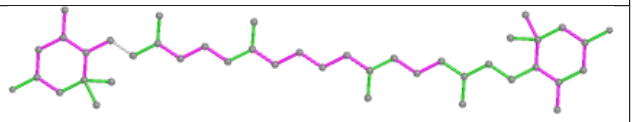


Rings

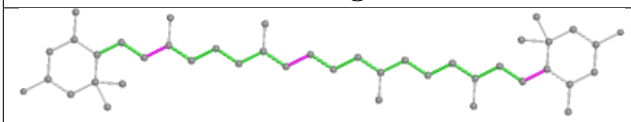
Ligand LUT G1 620



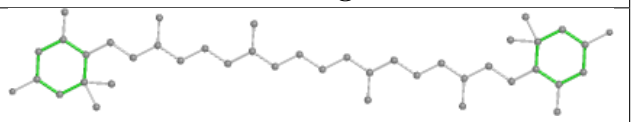
Bond lengths



Bond angles

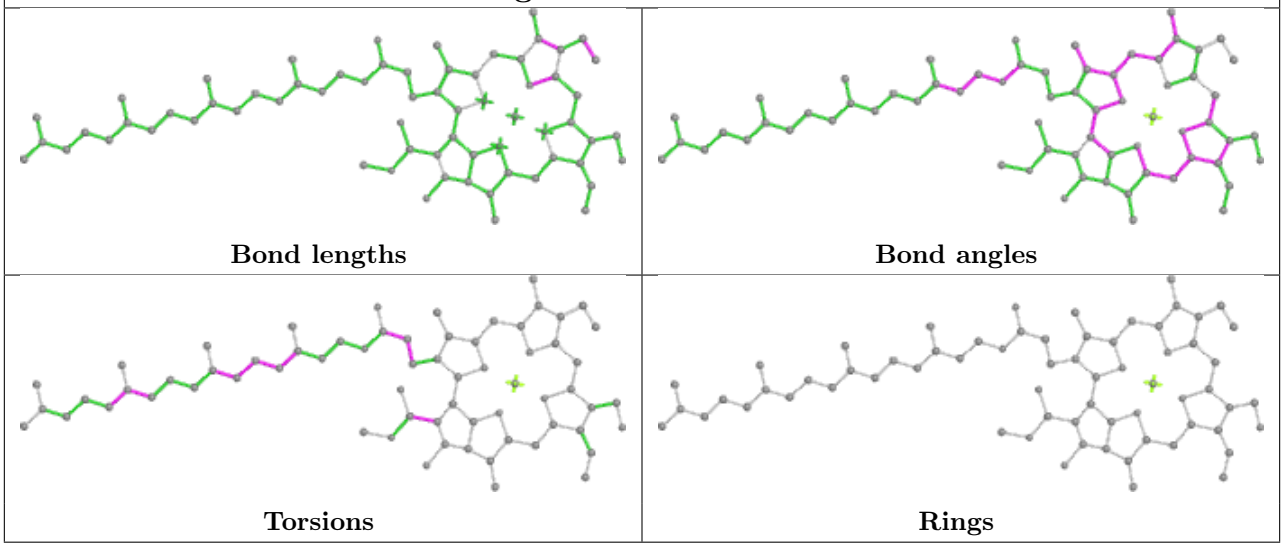


Torsions

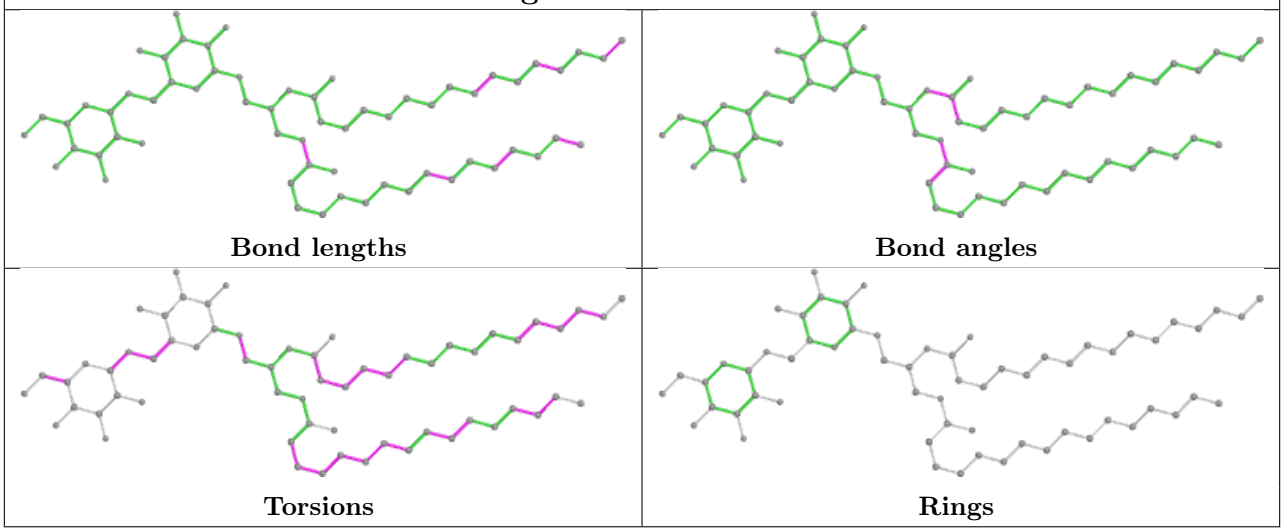


Rings

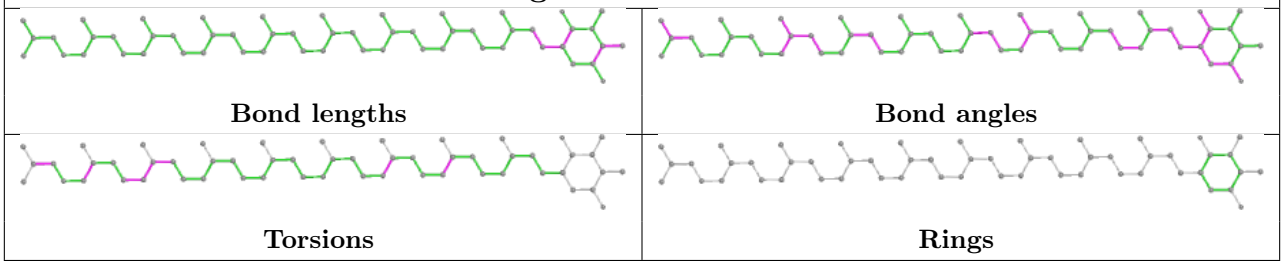
Ligand CHL G1 601



Ligand DGD C 519



Ligand PL9 D 405



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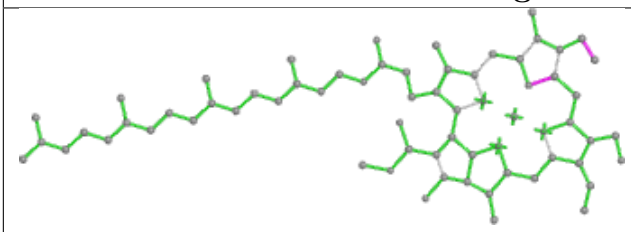
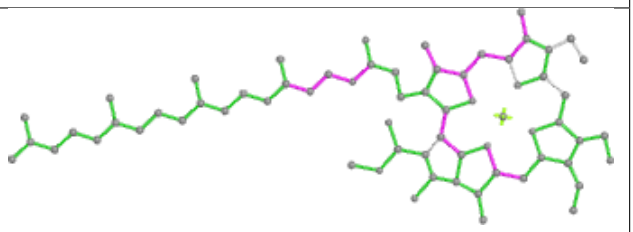
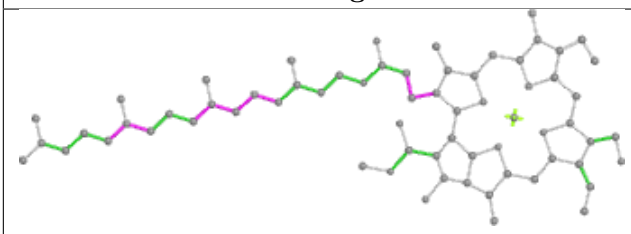


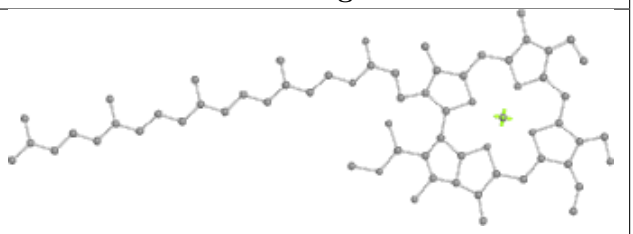
Bond lengths



Bond angles

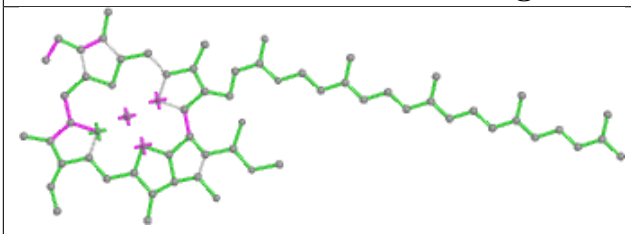


Torsions



Rings

Ligand CLA B1 610



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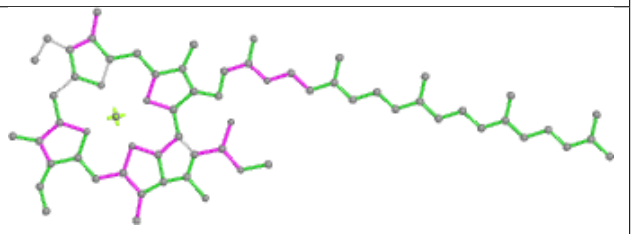
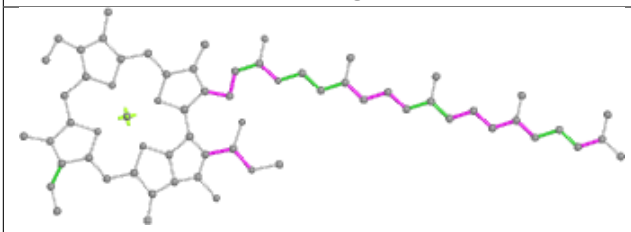


Bond angles



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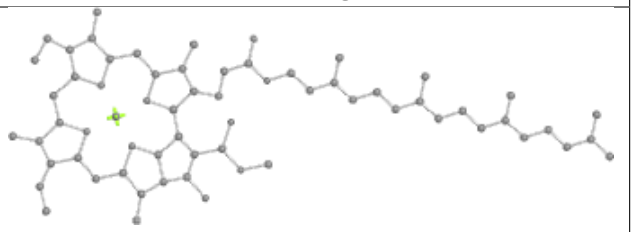
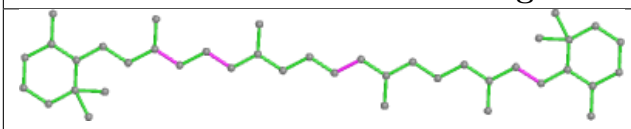


Rings

Ligand BCR d1 404



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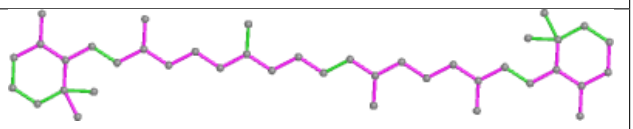
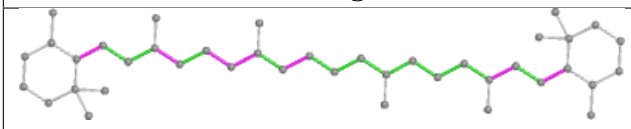


Bond angles



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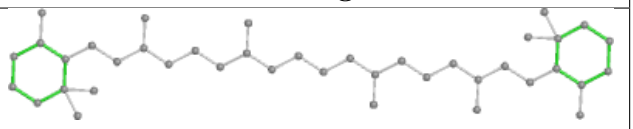
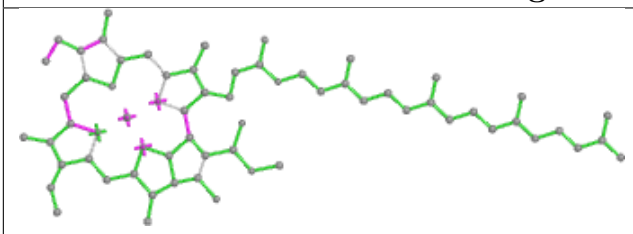


Rings

Ligand CLA g 613



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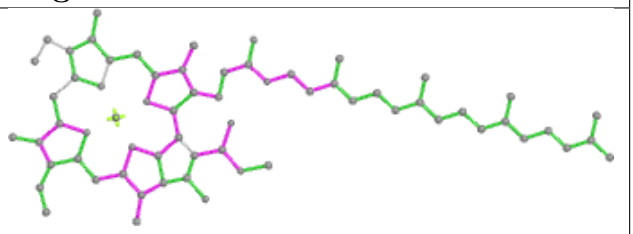
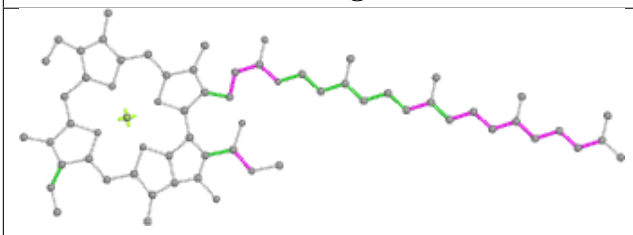
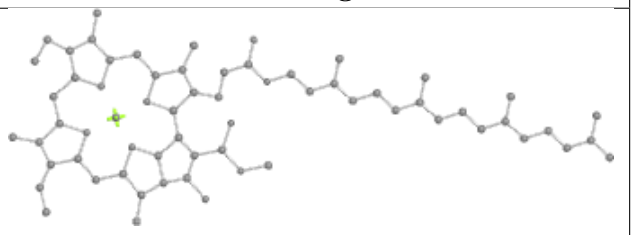


Bond angles

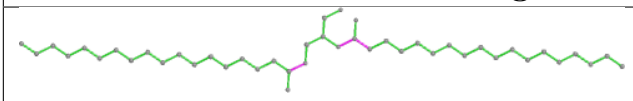


Torsions



Rings

Ligand DGA C1 524



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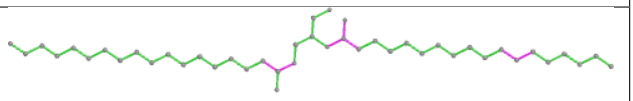
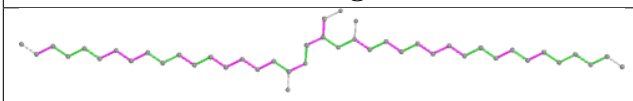


Bond angles



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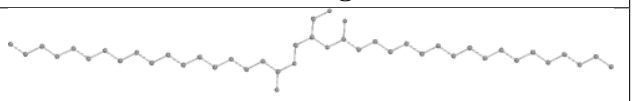
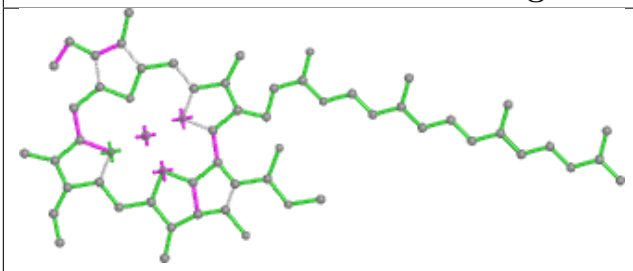
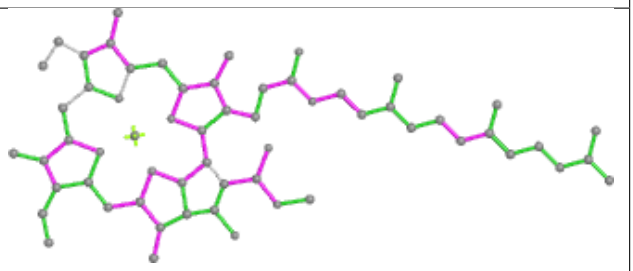


Rings

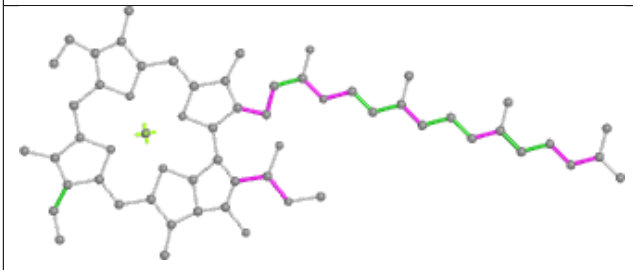
Ligand CLA S 602



Bond lengths



Bond angles



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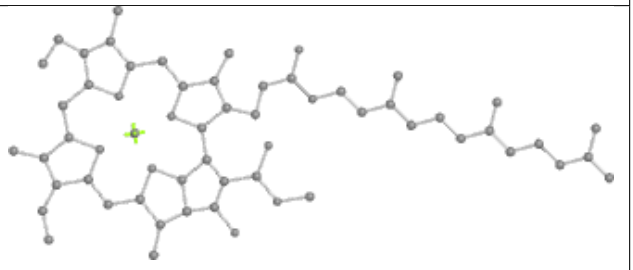
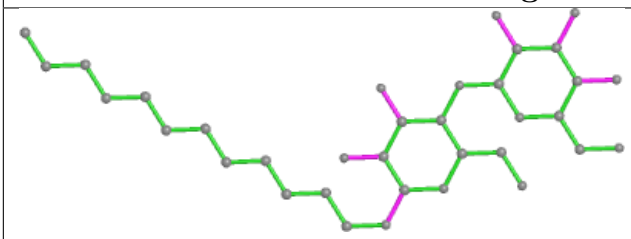
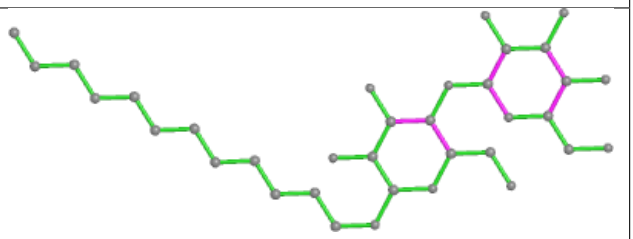


Rings

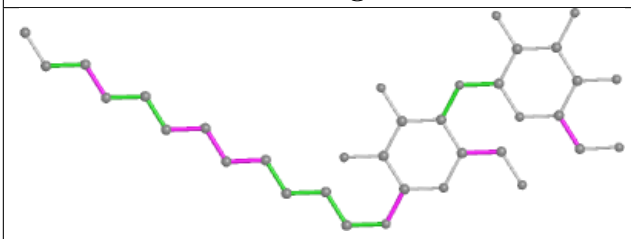
Ligand LMT R 625



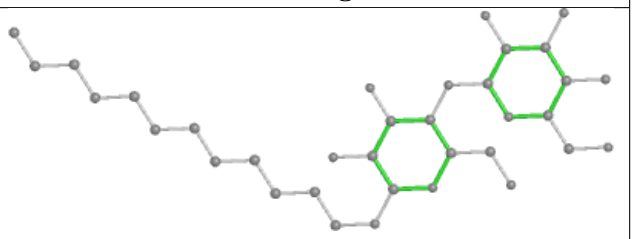
Bond lengths



Bond angles

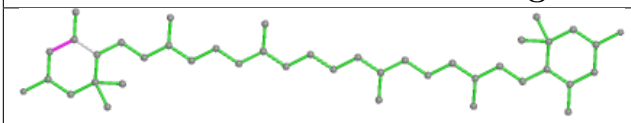


Torsions



Rings

Ligand LUT g 620



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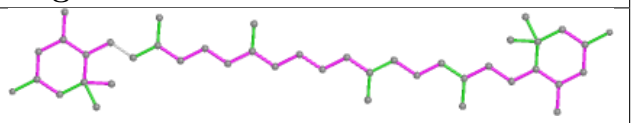
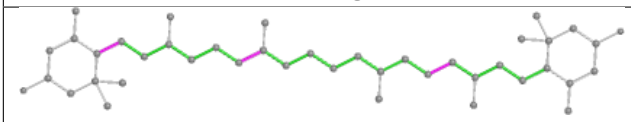


Bond angles



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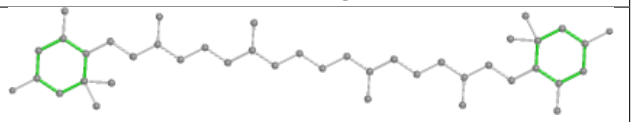
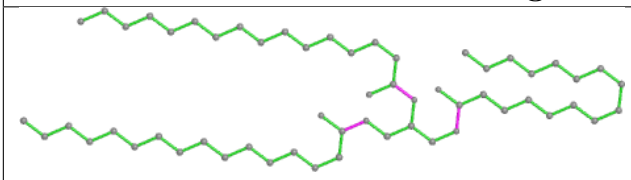


Rings

Ligand 4RF K 101



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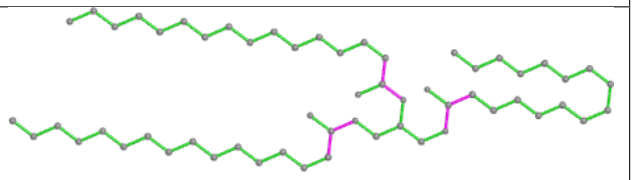
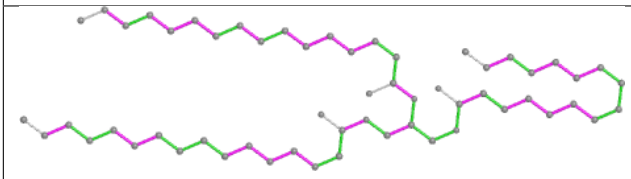


Bond angles



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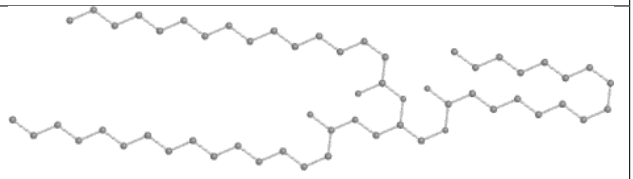
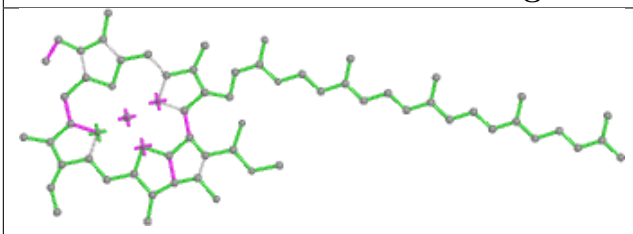


Rings

Ligand CLA A 406



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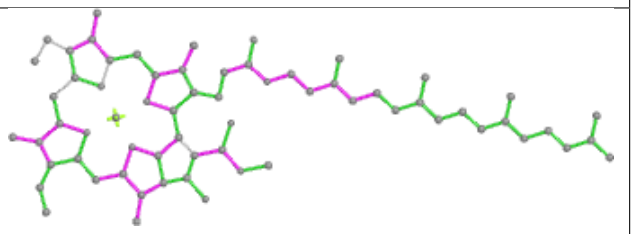
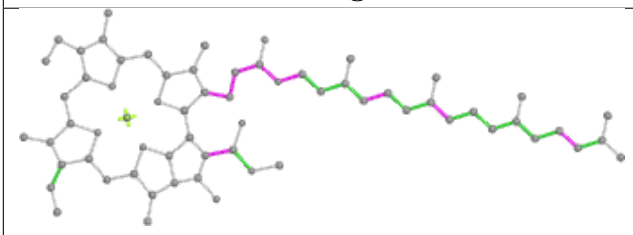
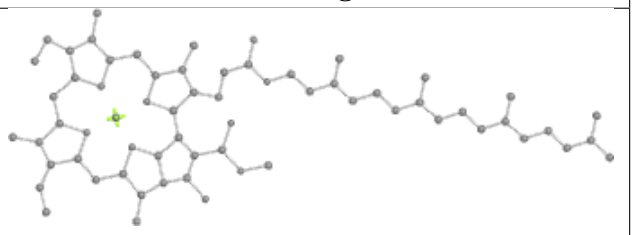


Bond angles

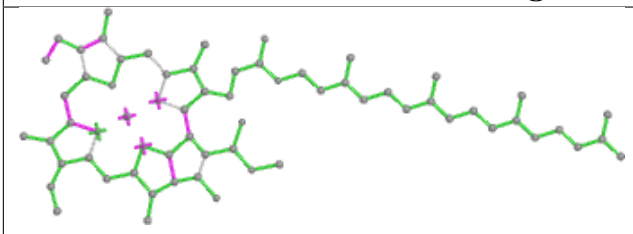


Torsions

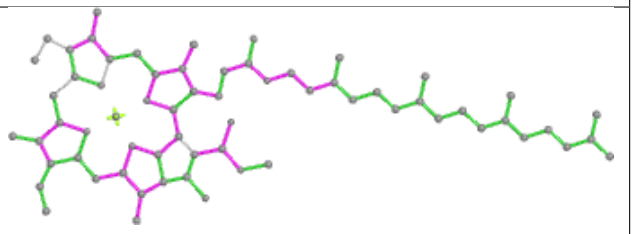


Rings

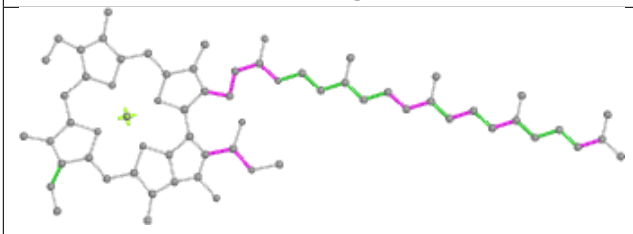
Ligand CLA b 607



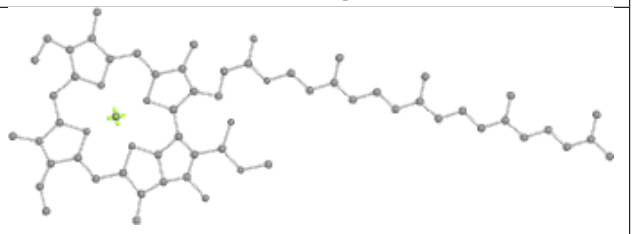
Bond lengths



Bond angles

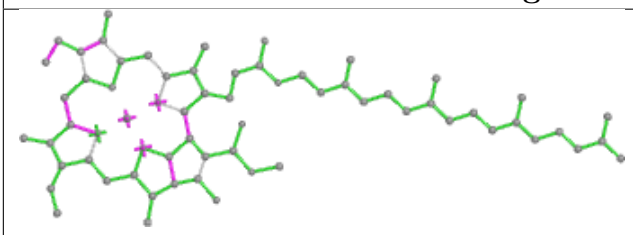


Torsions

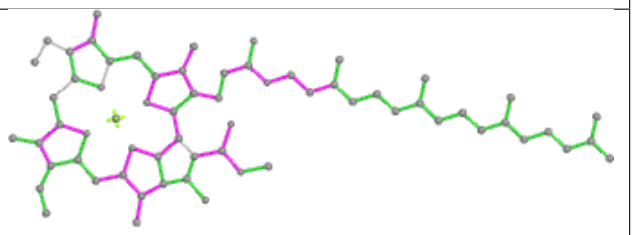


Rings

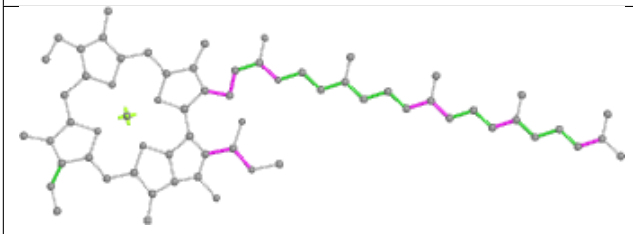
Ligand CLA G 610



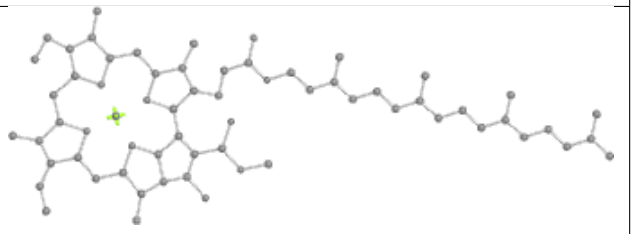
Bond lengths



Bond angles

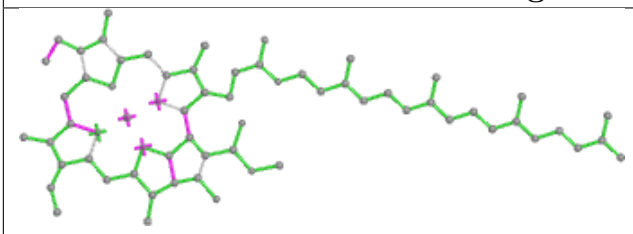


Torsions

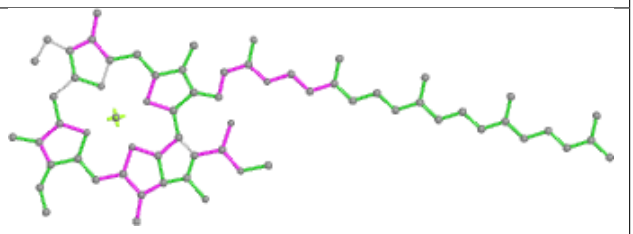


Rings

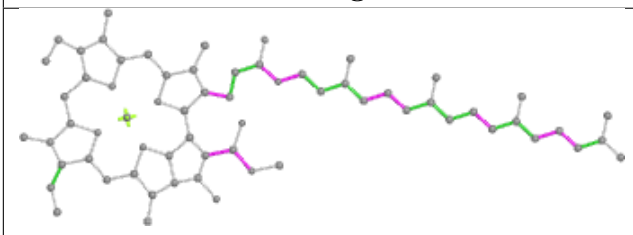
Ligand CLA b 610



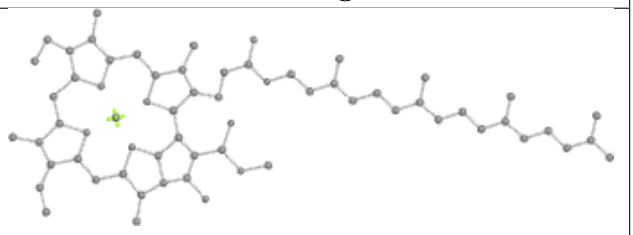
Bond lengths



Bond angles

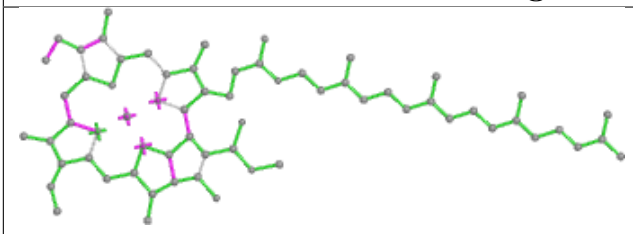


Torsions

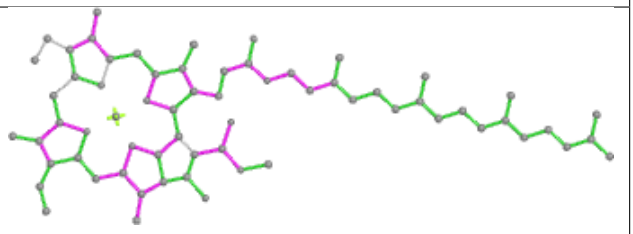


Rings

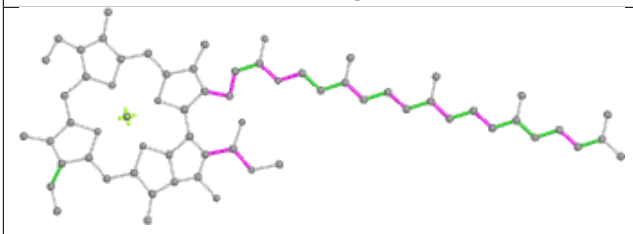
Ligand CLA b 606



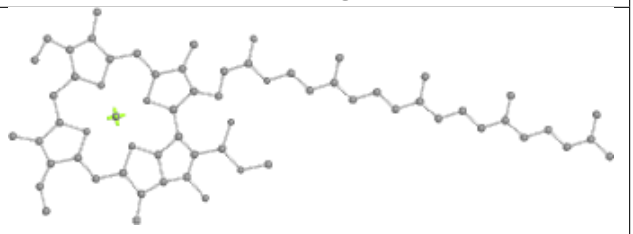
Bond lengths



Bond angles

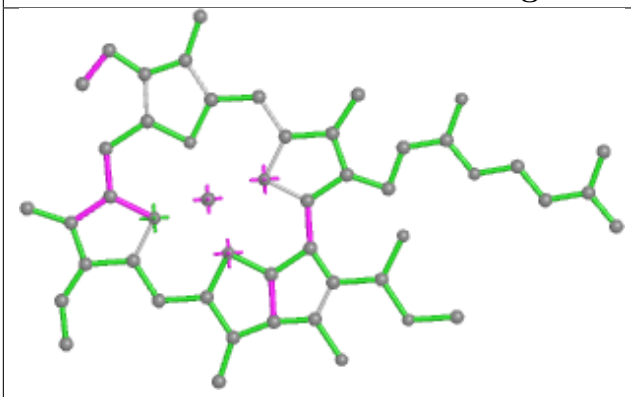


Torsions

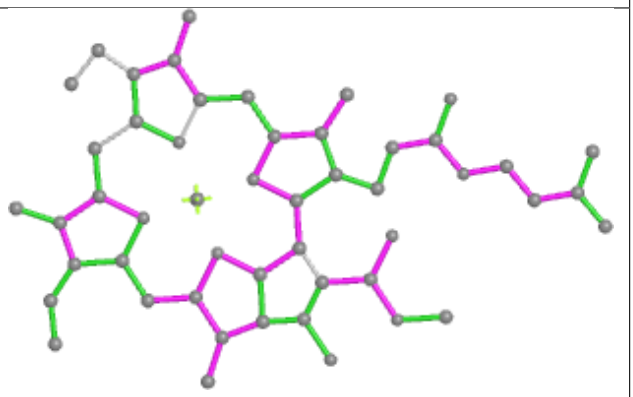


Rings

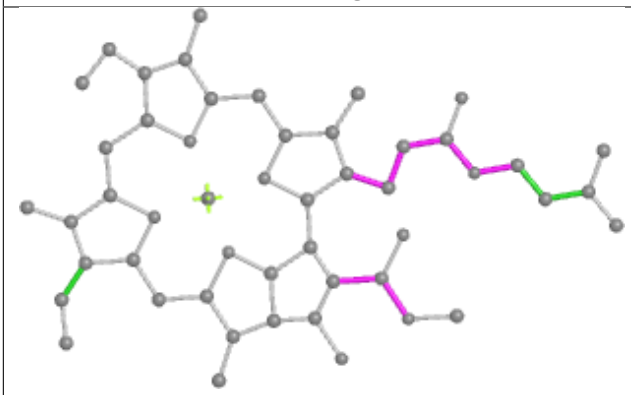
Ligand CLA s1 617



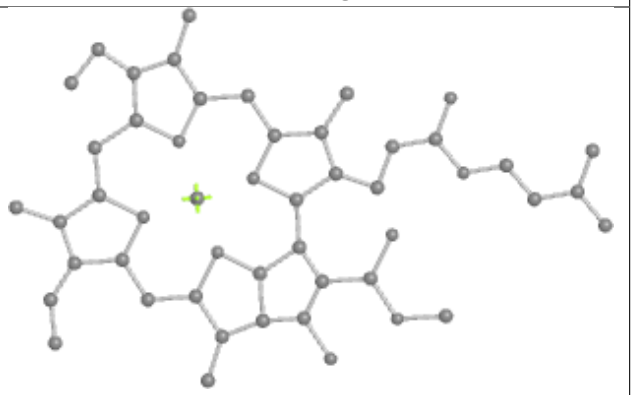
Bond lengths



Bond angles

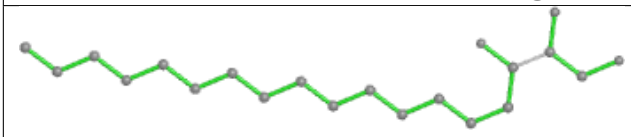


Torsions

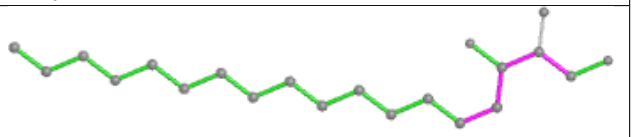


Rings

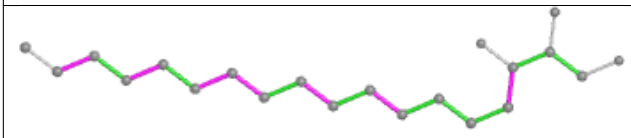
Ligand SPH y 625



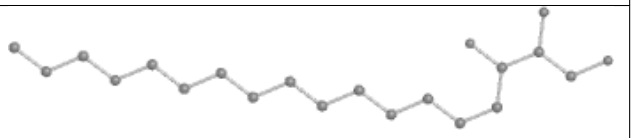
Bond lengths



Bond angles

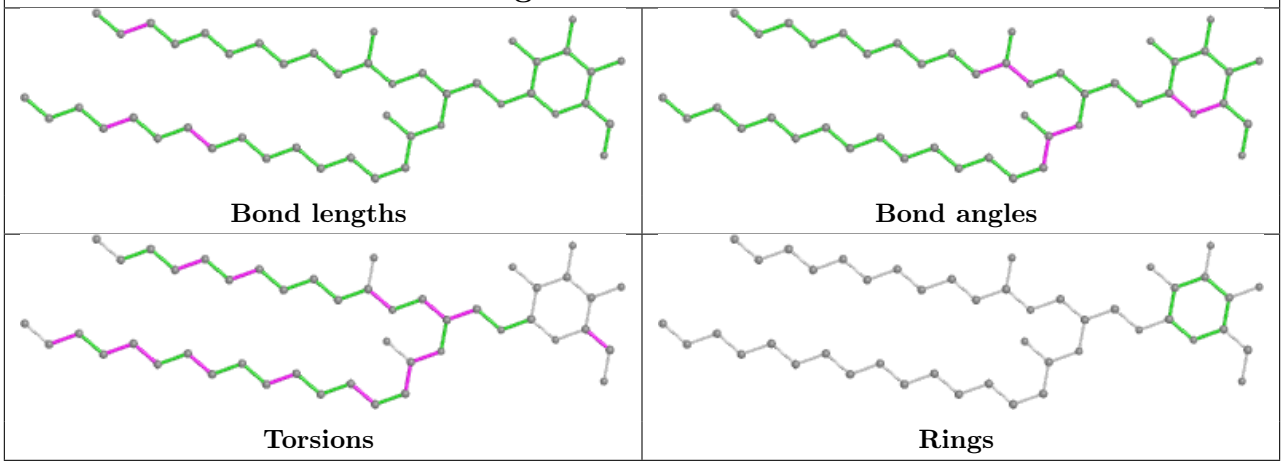


Torsions

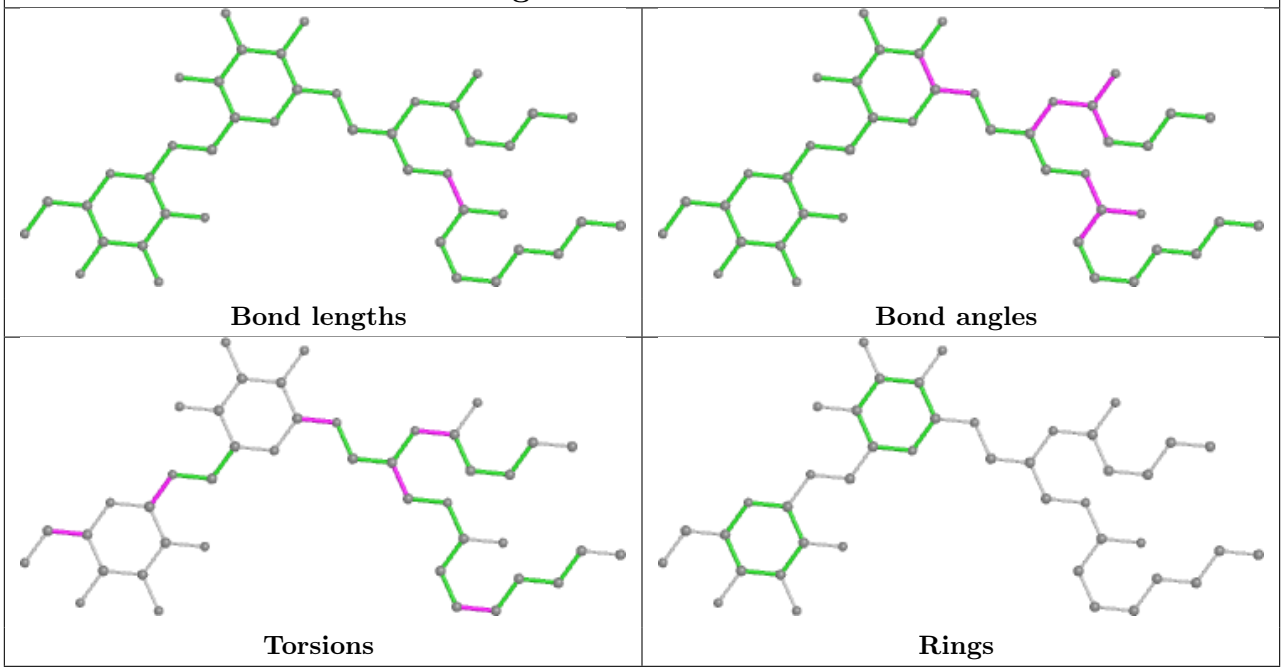


Rings

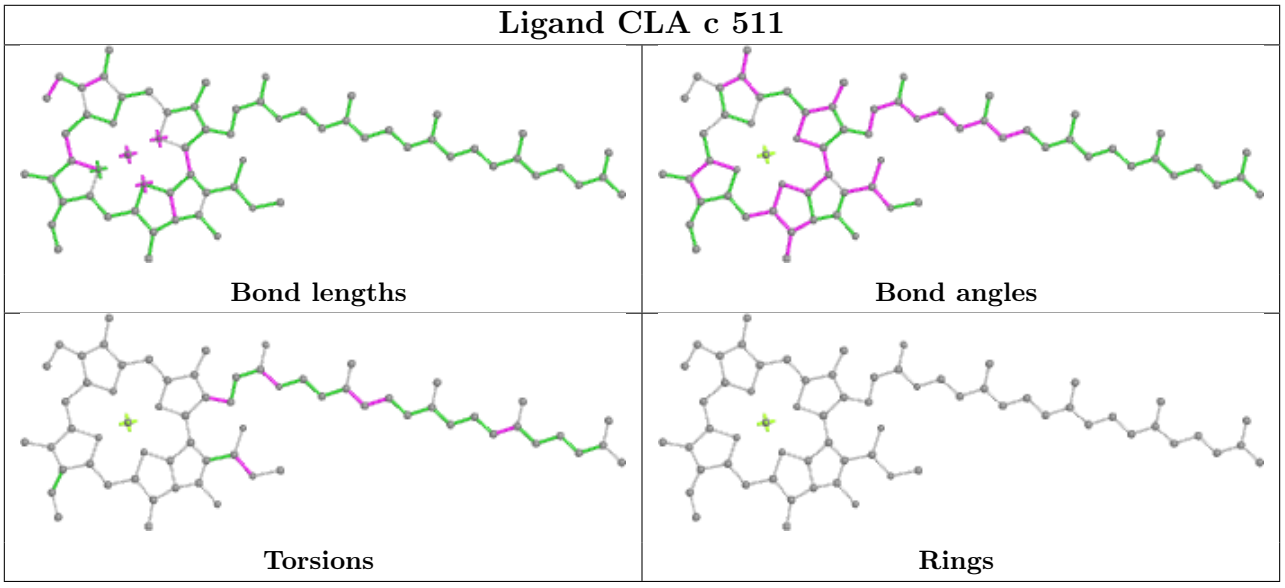
Ligand LMG d1 411



Ligand DGD B1 623

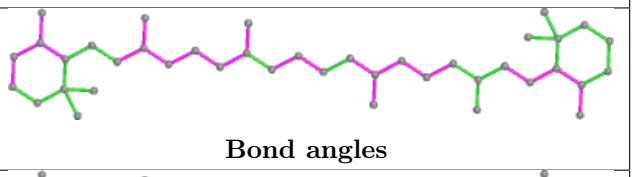


Ligand CLA c 511

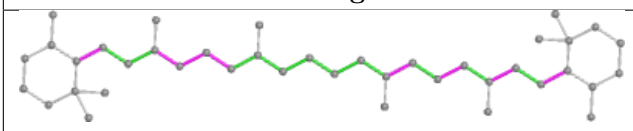


Ligand BCR D 404

Bond lengths



Bond angles



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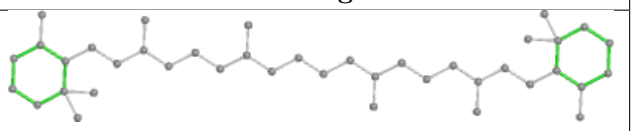
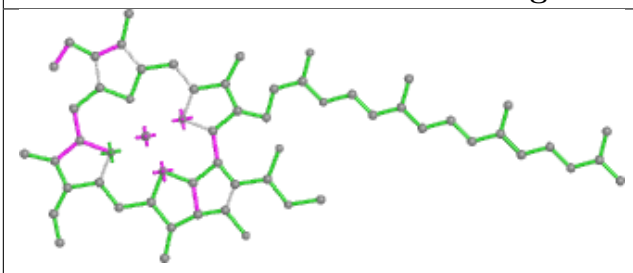
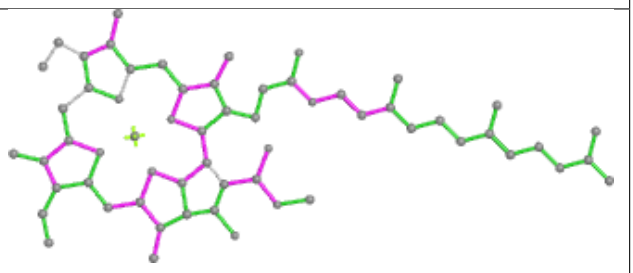


Rings

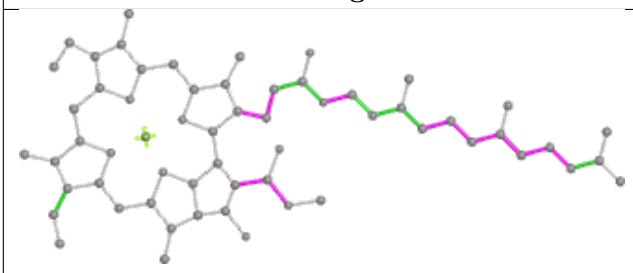
Ligand CLA s 609



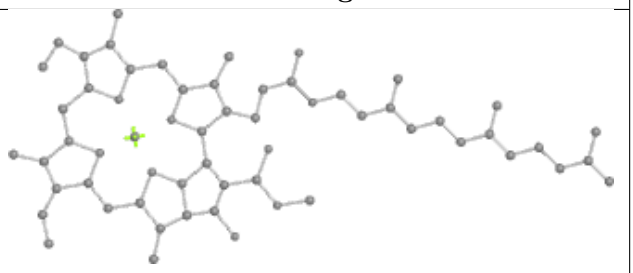
Bond lengths



Bond angles

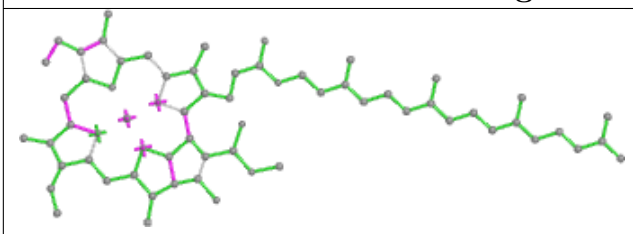


Torsions



Rings

Ligand CLA C1 509



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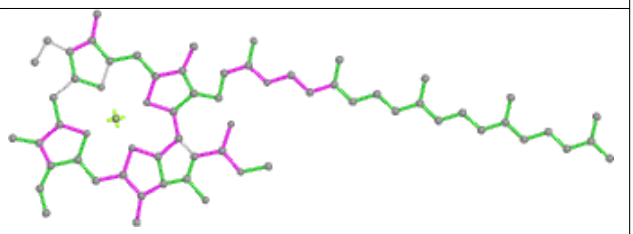
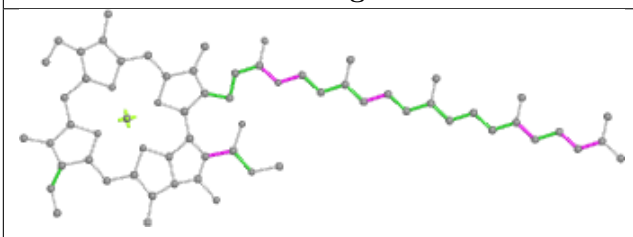
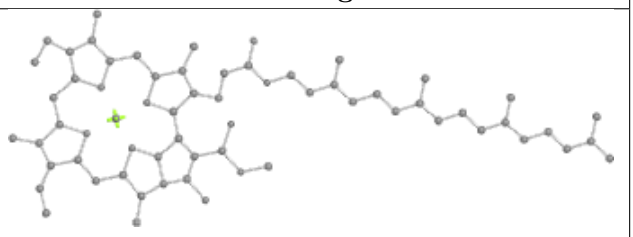


Bond angles

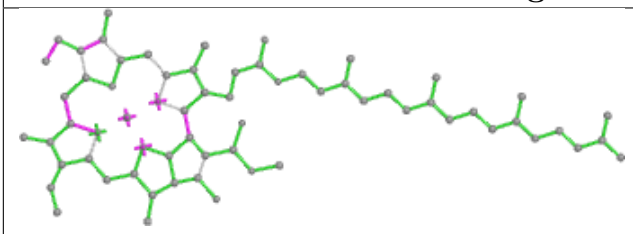


Torsions



Rings

Ligand CLA b 608



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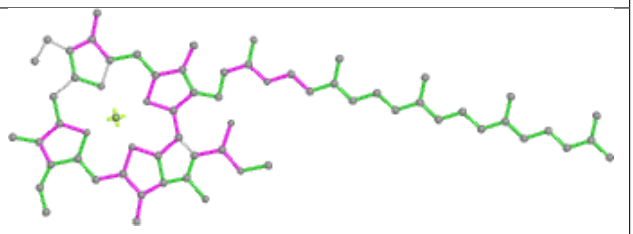
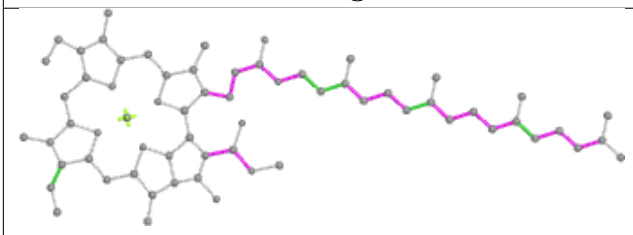


Bond angles



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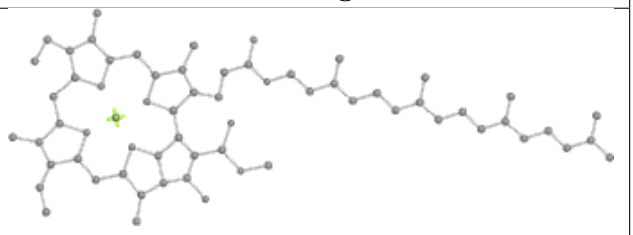
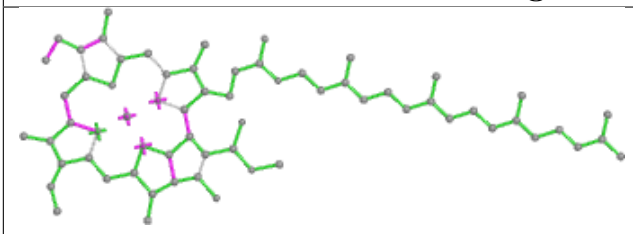
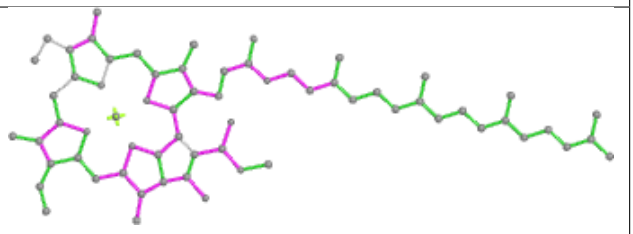


Rings

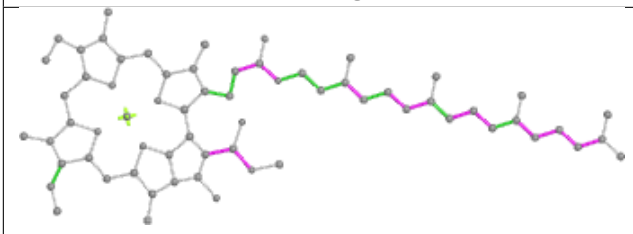
Ligand CLA b 603



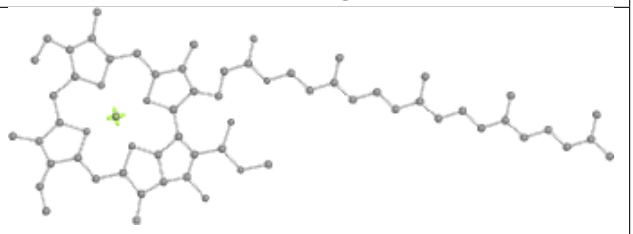
Bond lengths



Bond angles

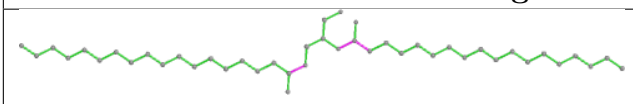


Torsions

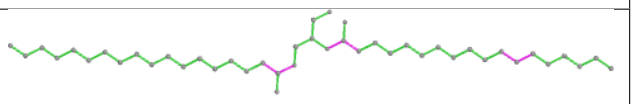


Rings

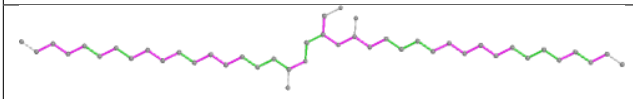
Ligand DGA B1 625



Bond lengths



Bond angles



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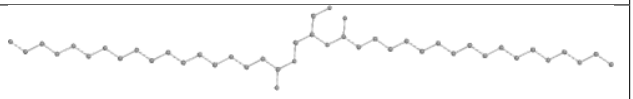
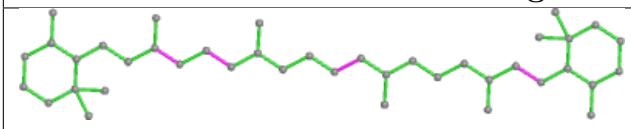
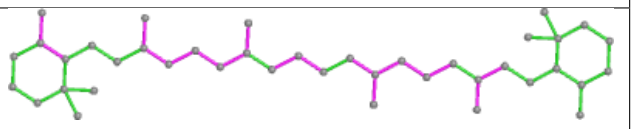
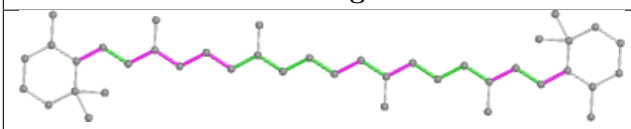
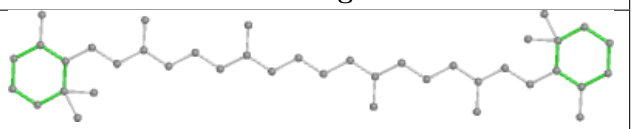
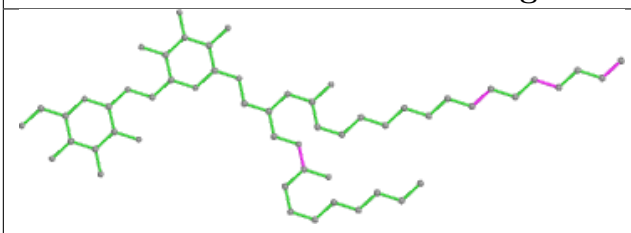
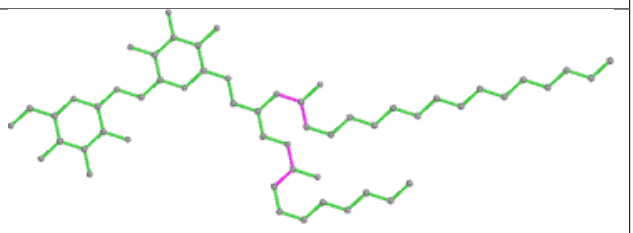
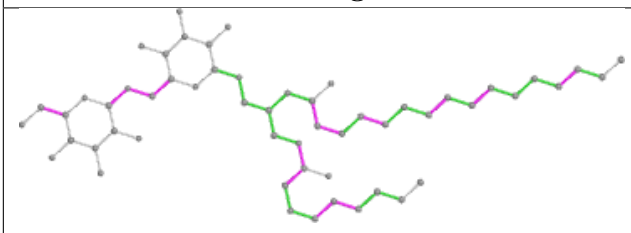
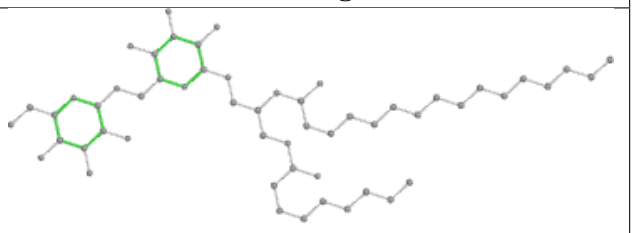
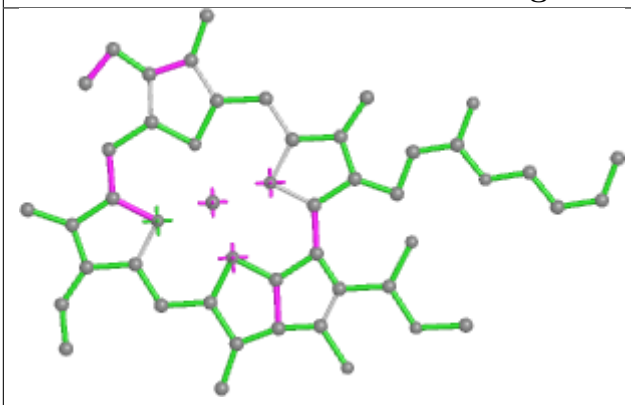


Rings

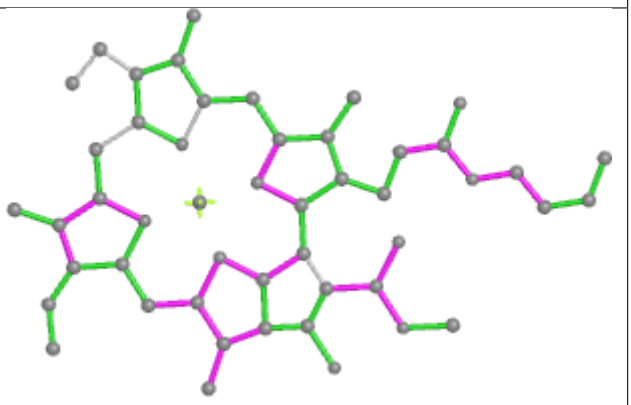
Ligand BCR c 516	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand DGD C 518	
	
Bond lengths	Bond angles
	
Torsions	Rings

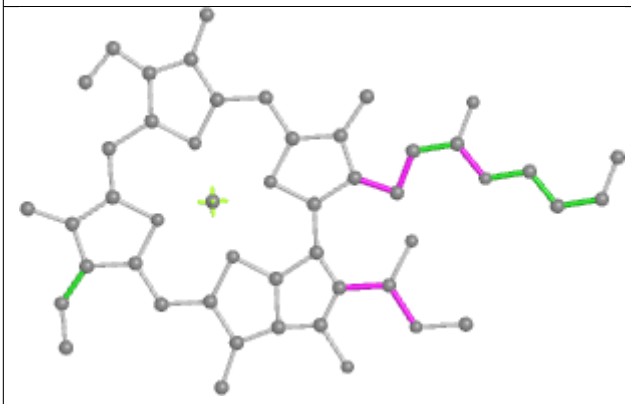
Ligand CLA r 604



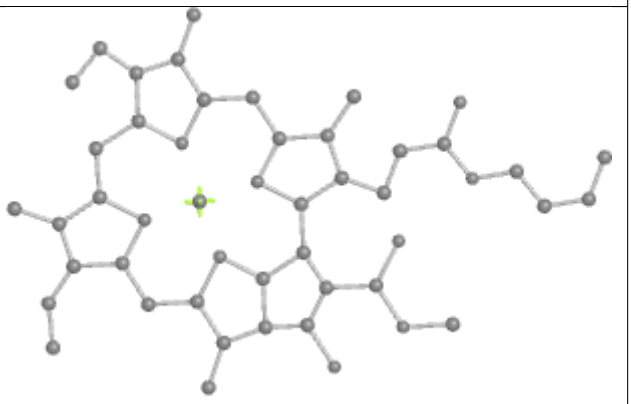
Bond lengths



Bond angles

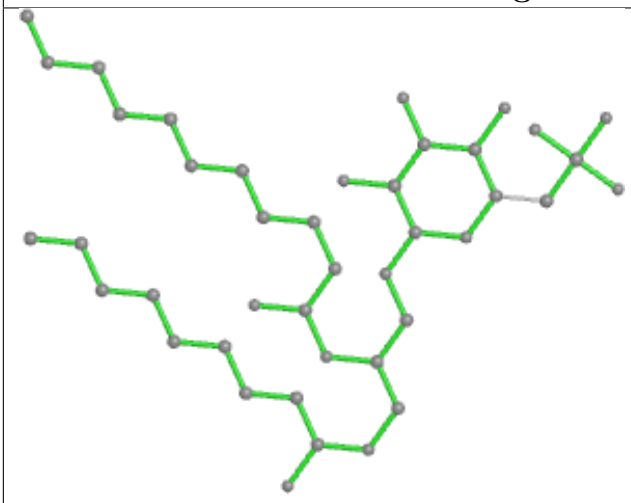


Torsions

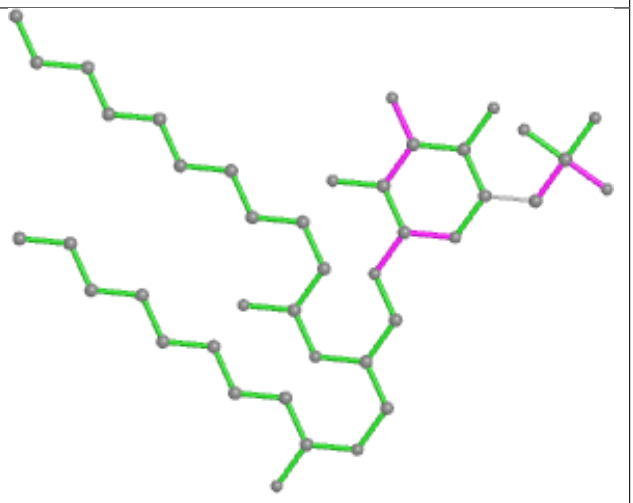


Rings

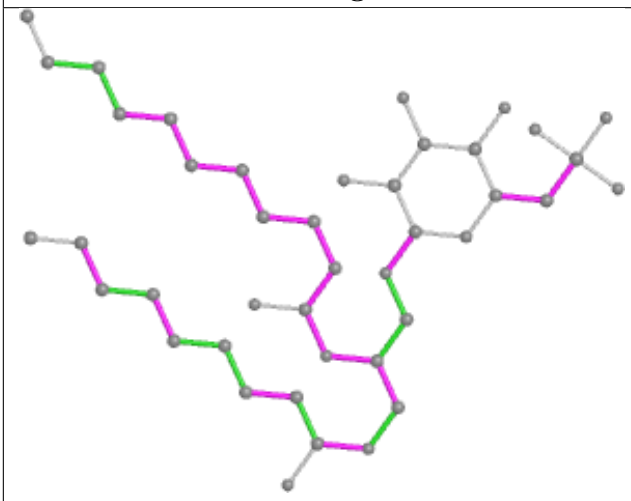
Ligand SQD m1 101



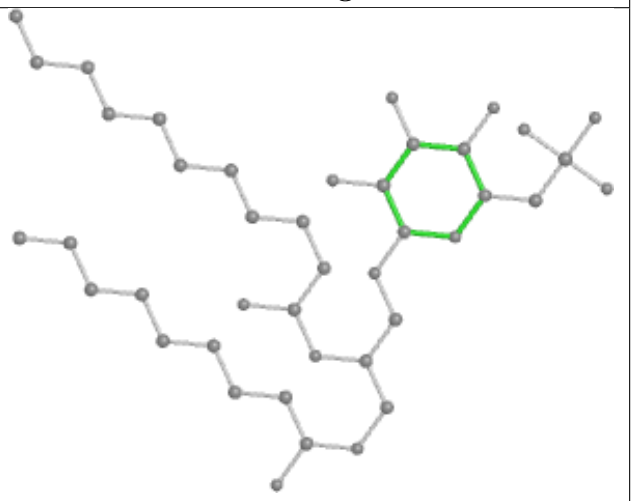
Bond lengths



Bond angles

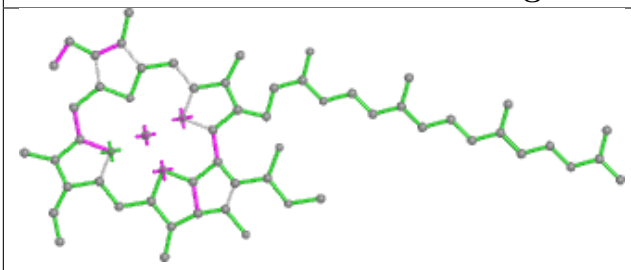


Torsions

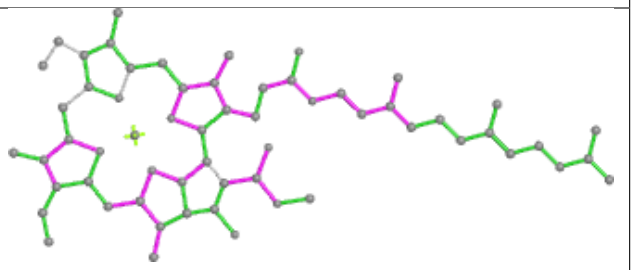


Rings

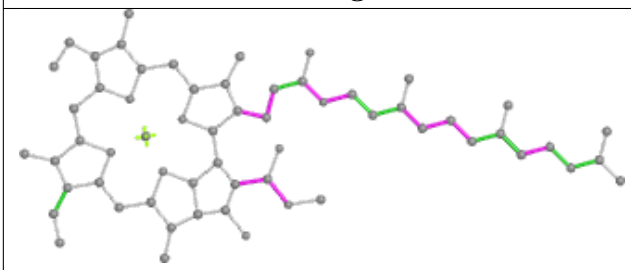
Ligand CLA R 609



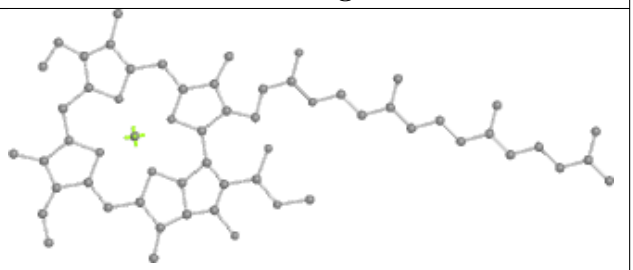
Bond lengths



Bond angles

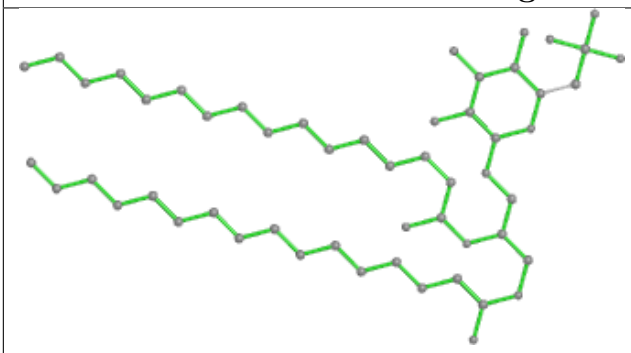


Torsions

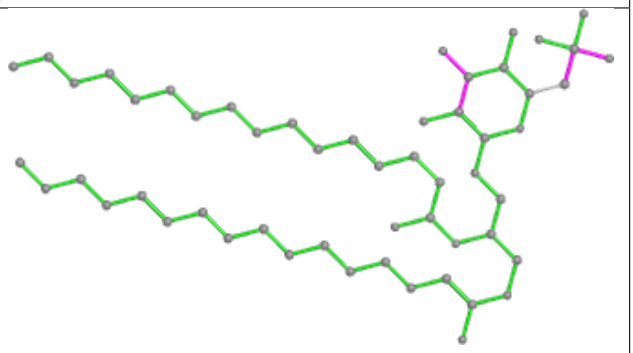


Rings

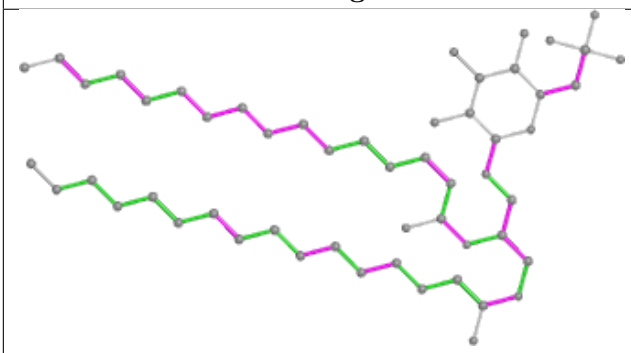
Ligand SQD b1 626



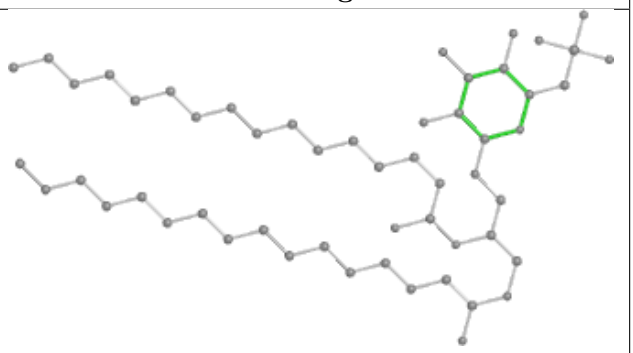
Bond lengths



Bond angles

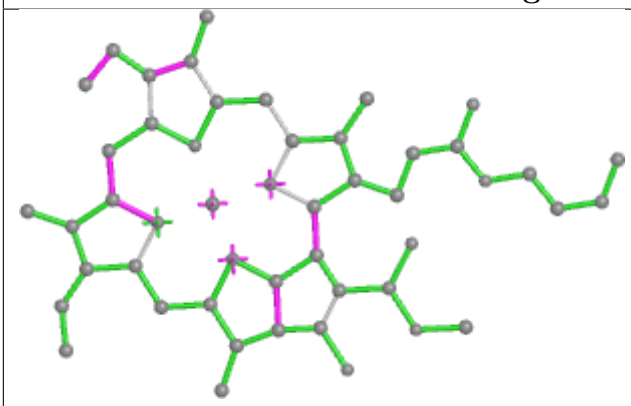


Torsions

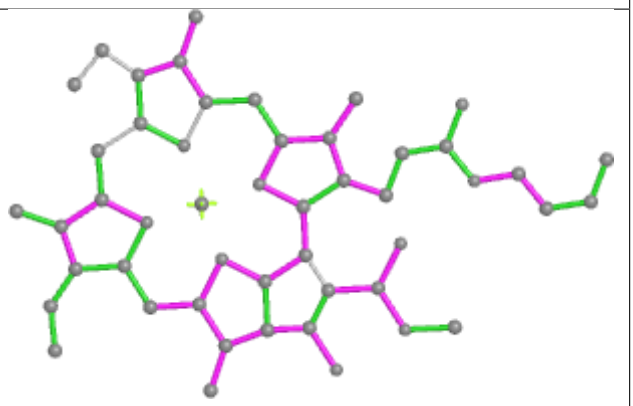


Rings

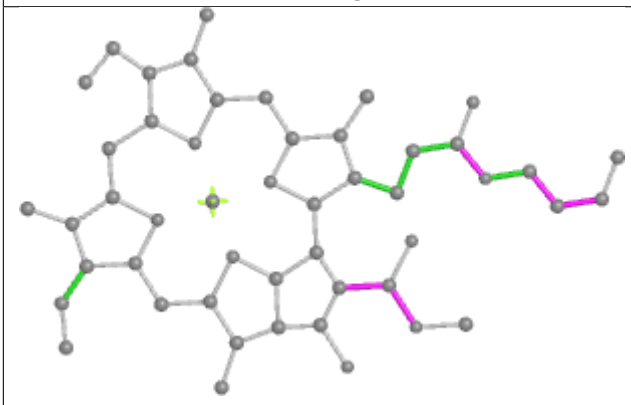
Ligand CLA G 604



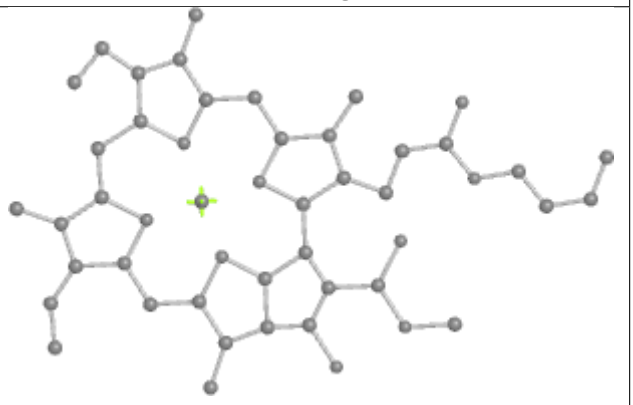
Bond lengths



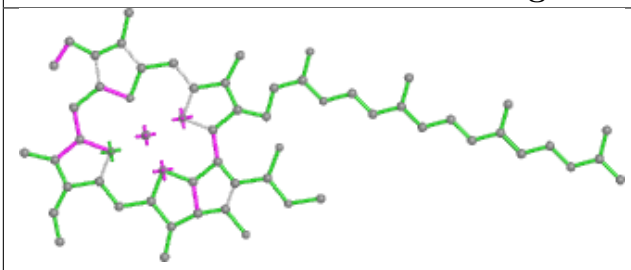
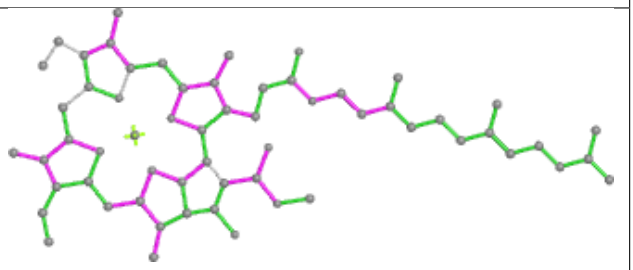
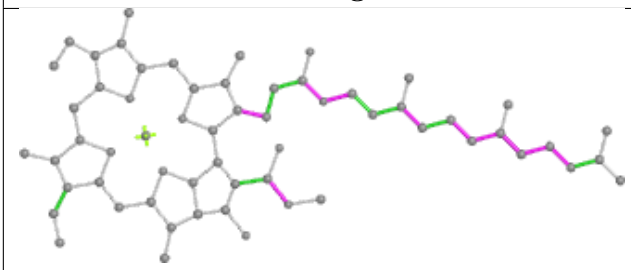
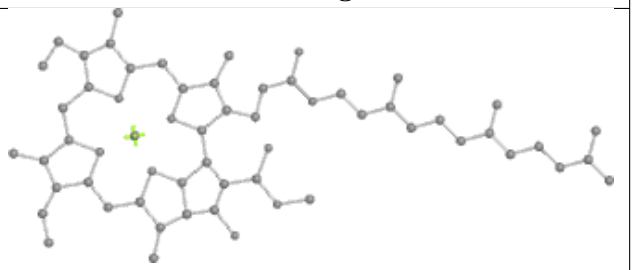
Bond angles

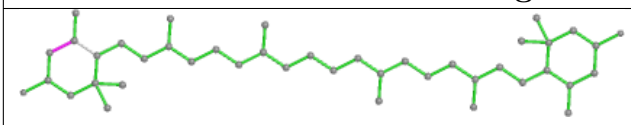
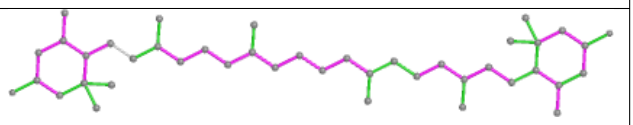
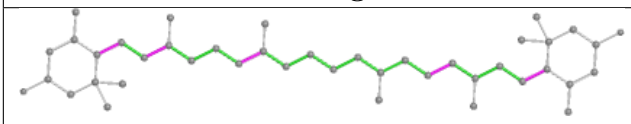
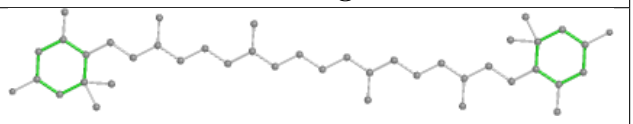


Torsions

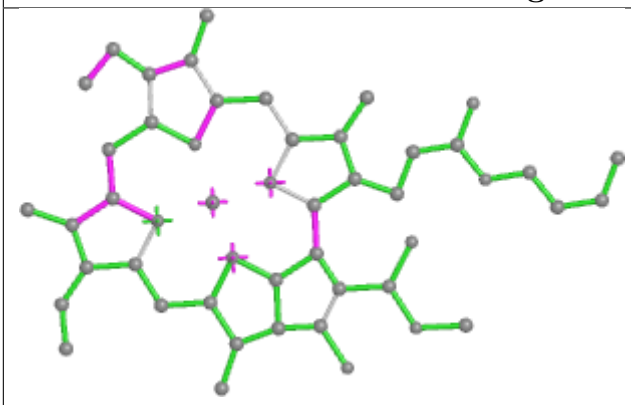


Rings

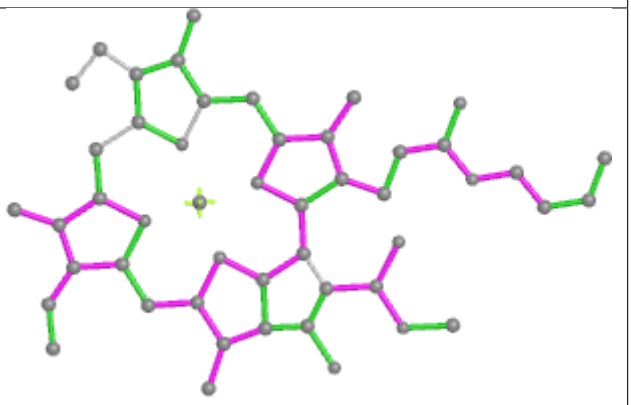
Ligand CLA a 410	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand LUT Y1 620	
	
Bond lengths	Bond angles
	
Torsions	Rings

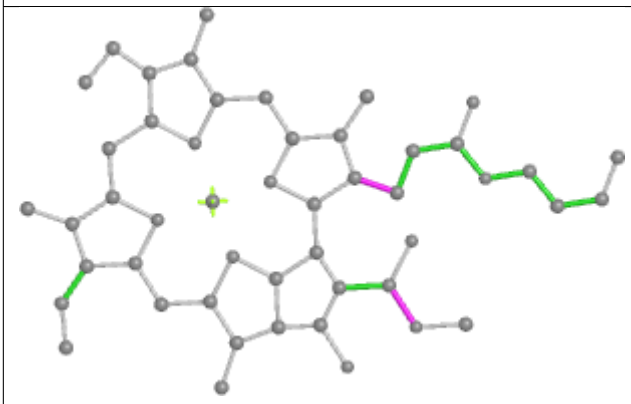
Ligand CLA n 614



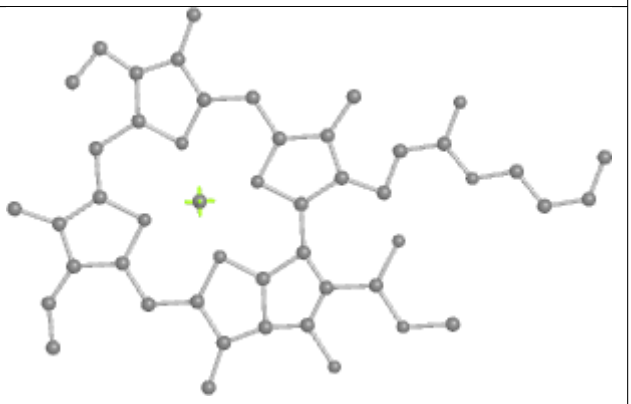
Bond lengths



Bond angles

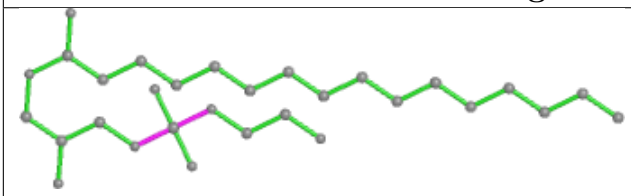


Torsions



Rings

Ligand LPX S 625



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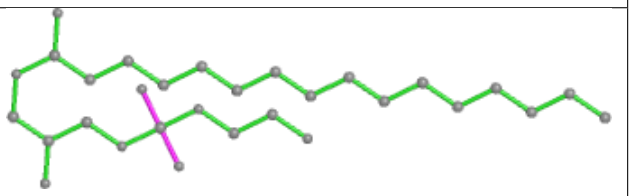
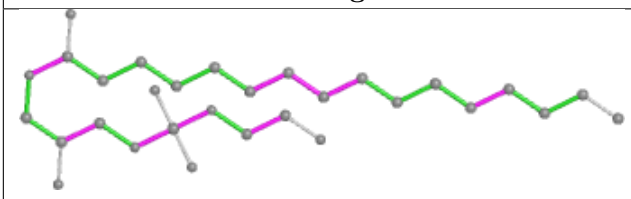


Bond angles



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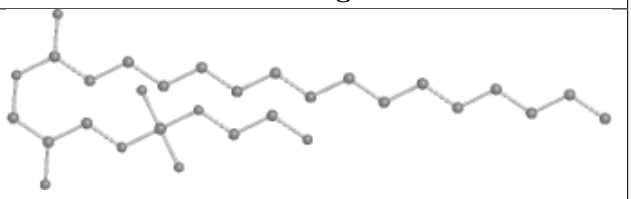
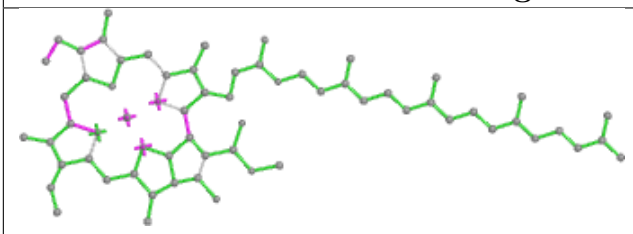
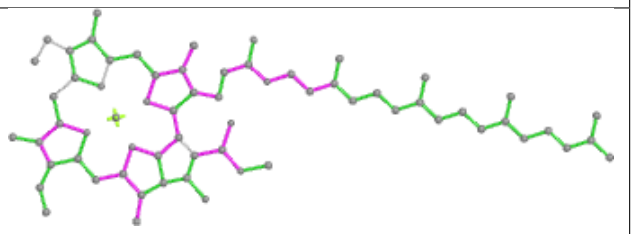


Rings

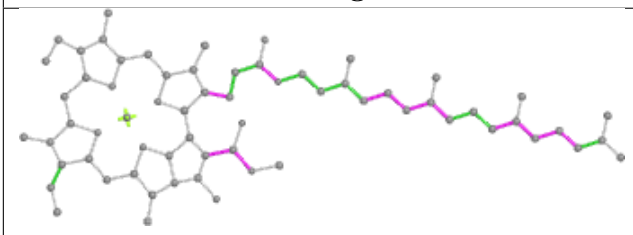
Ligand CLA G1 611



Bond lengths



Bond angles



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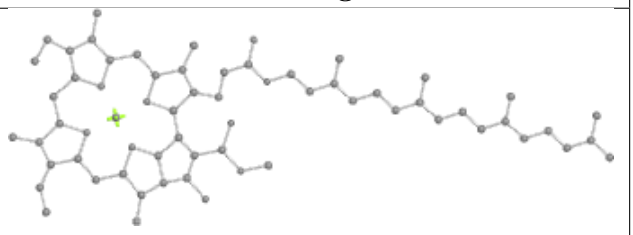
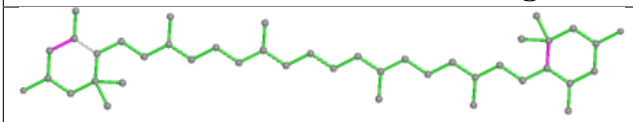
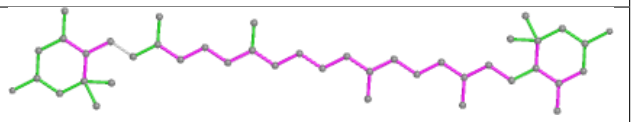


Rings

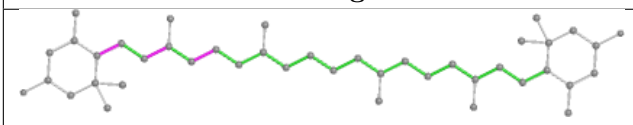
Ligand LUT r1 620



Bond lengths



Bond angles



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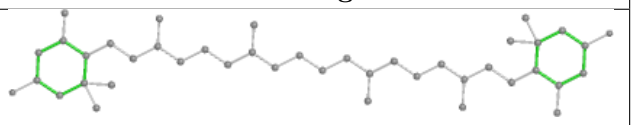
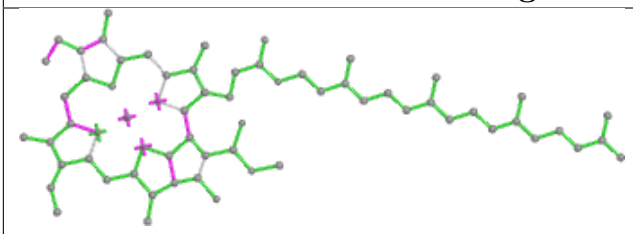


Rings

Ligand CLA y1 611



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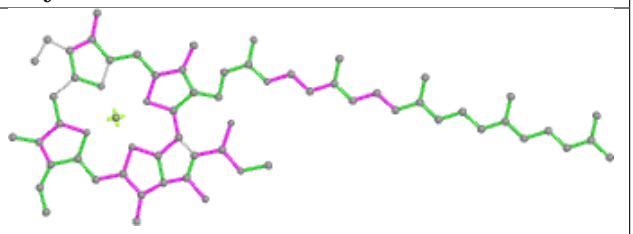
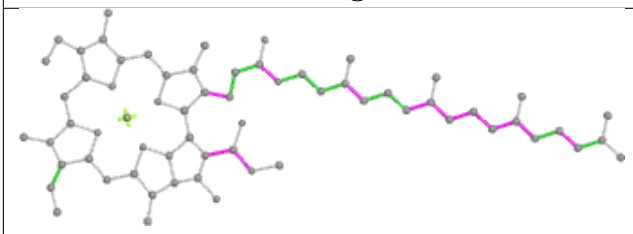
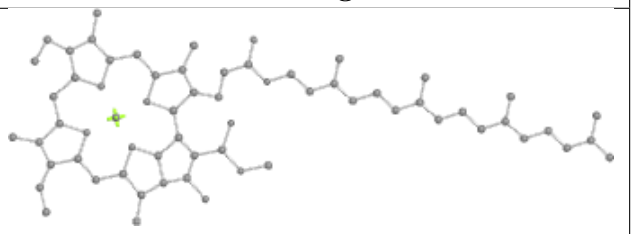


Bond angles

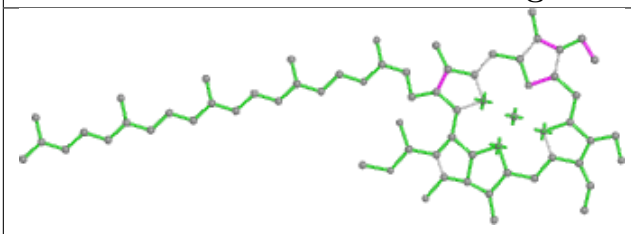


Torsions

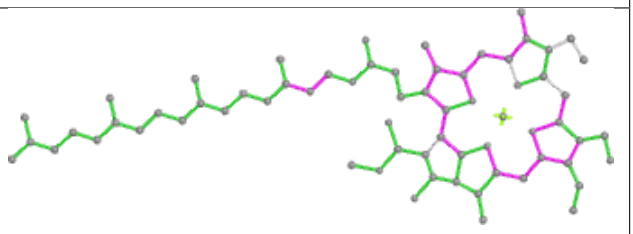


Rings

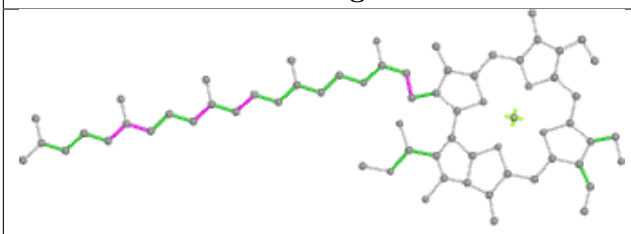
Ligand CHL n 606



Bond lengths



Bond angles



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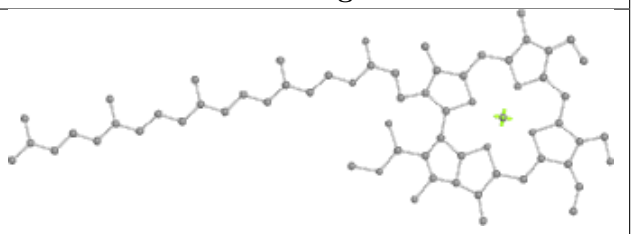
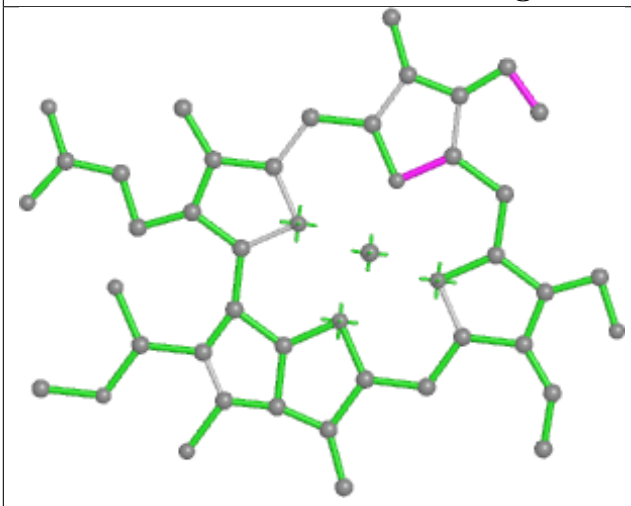


Rings

Ligand CHL Y1 605



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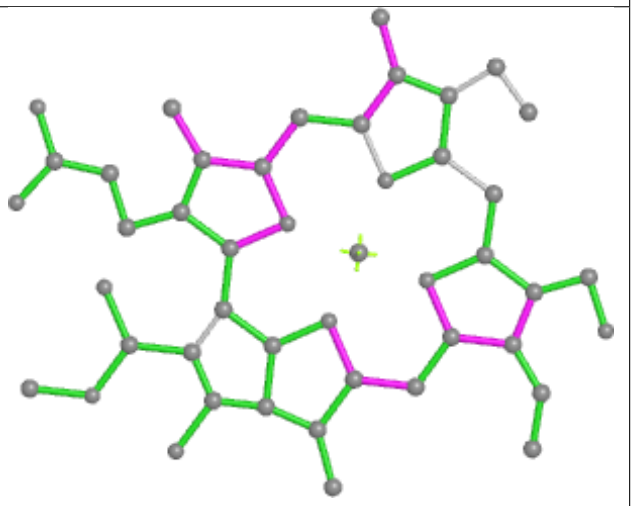
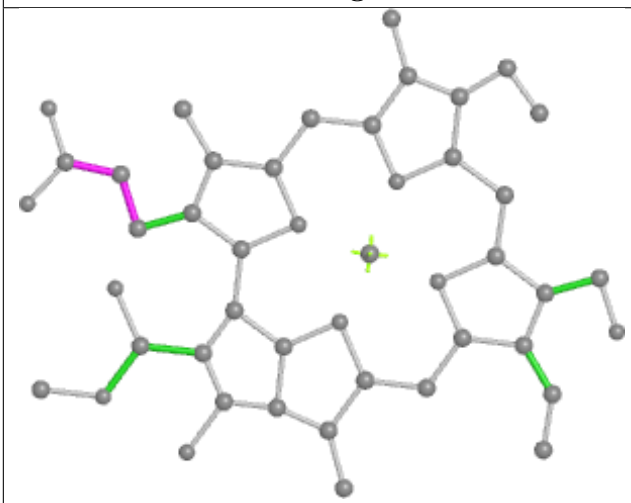
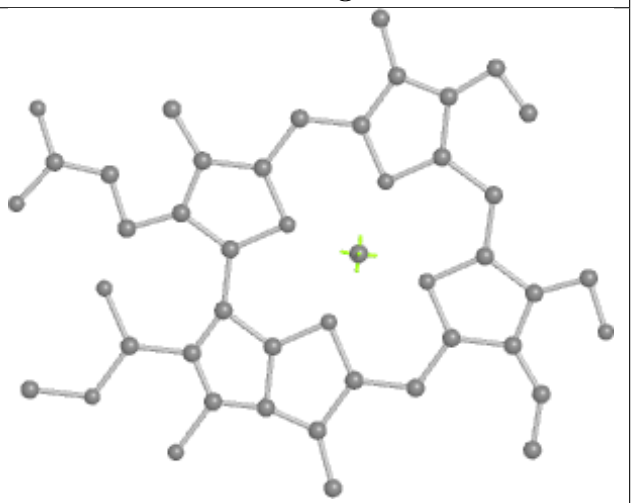


Bond angles

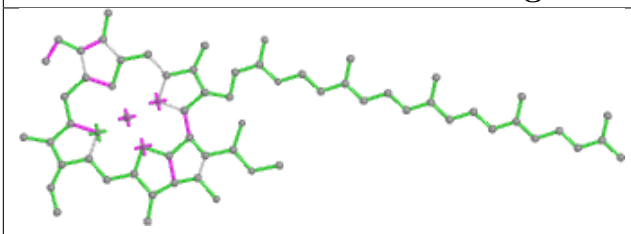


Torsions



Rings

Ligand CLA C 506



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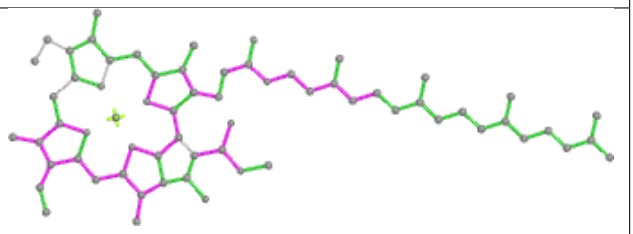
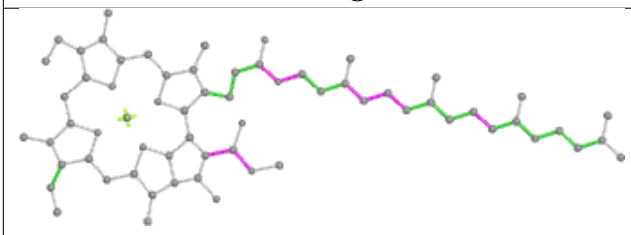
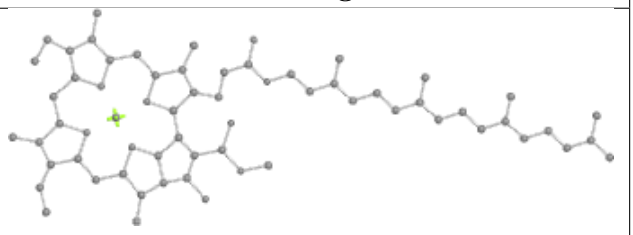


Bond angles

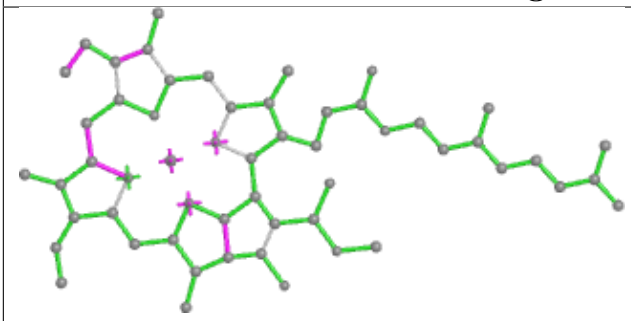


Torsions

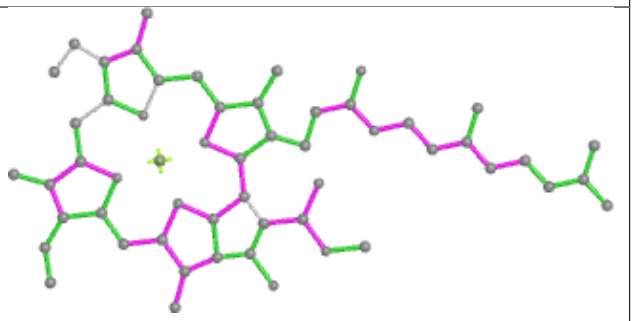


Rings

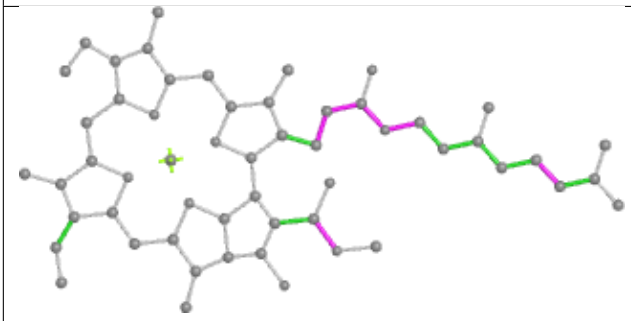
Ligand CLA S 614



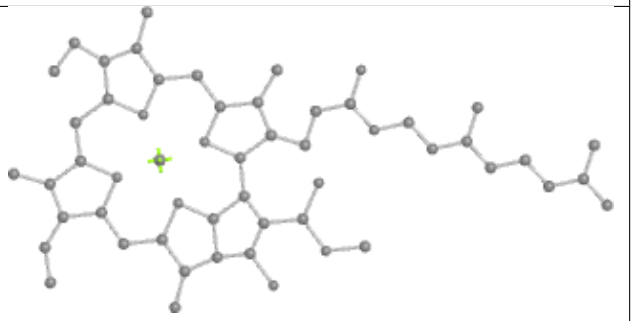
Bond lengths



Bond angles

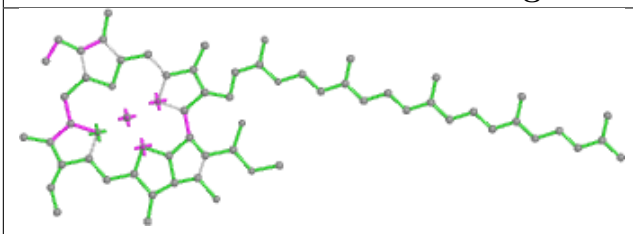


Torsions

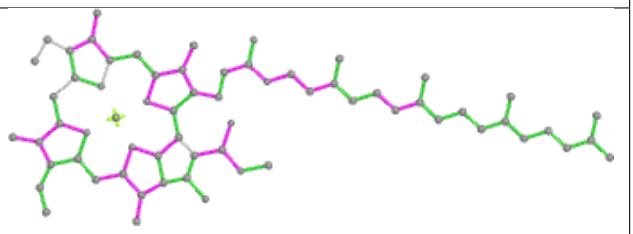


Rings

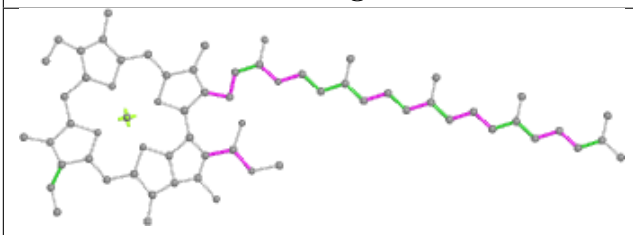
Ligand CLA N 602



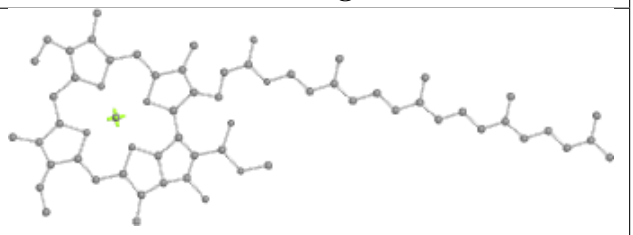
Bond lengths



Bond angles

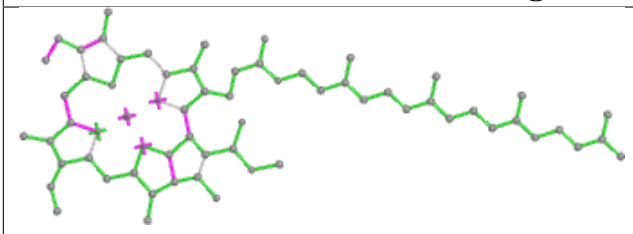


Torsions

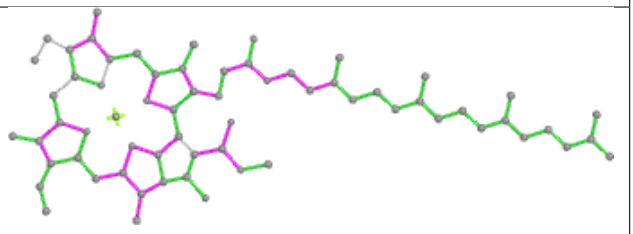


Rings

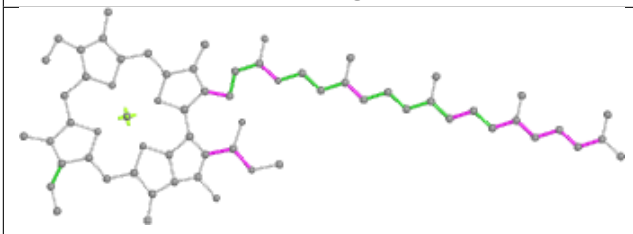
Ligand CLA b 612



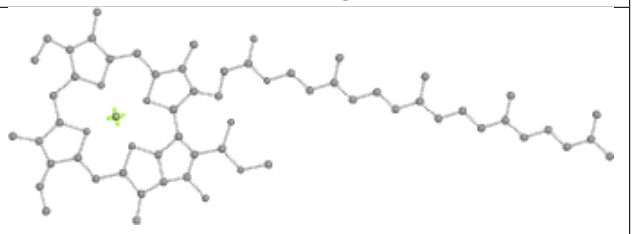
Bond lengths



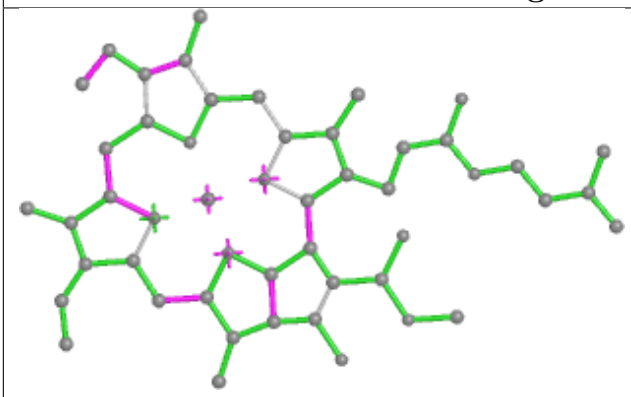
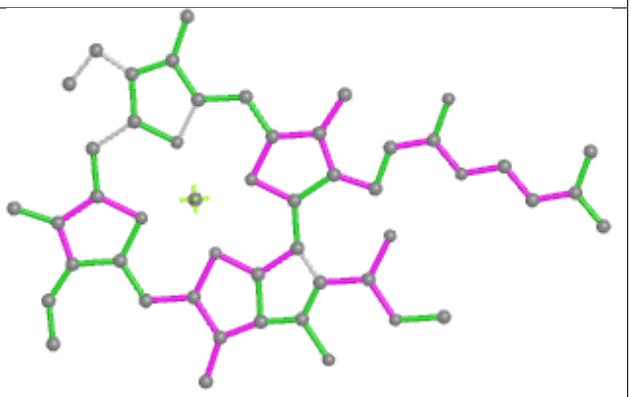
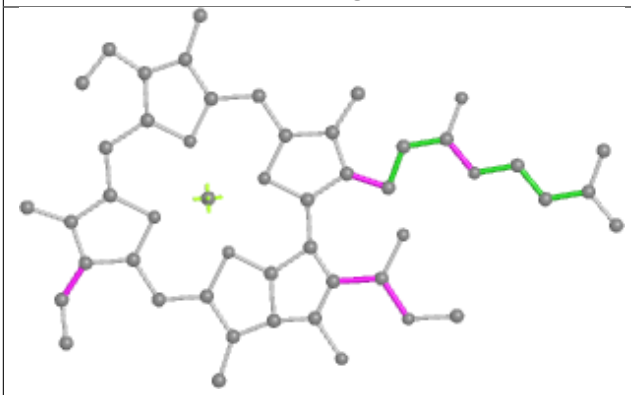
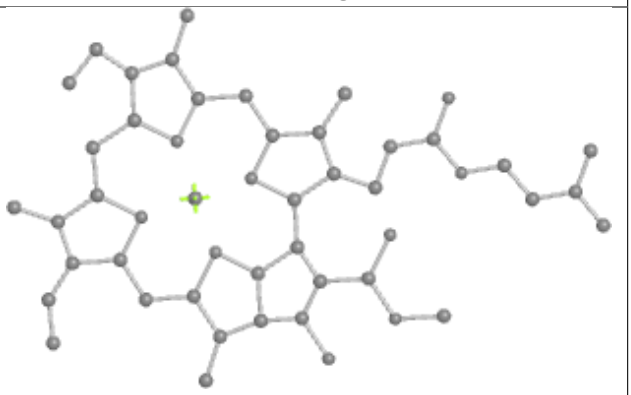
Bond angles

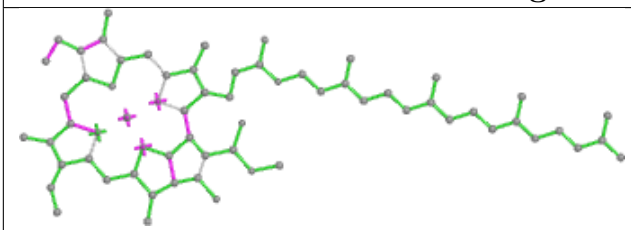
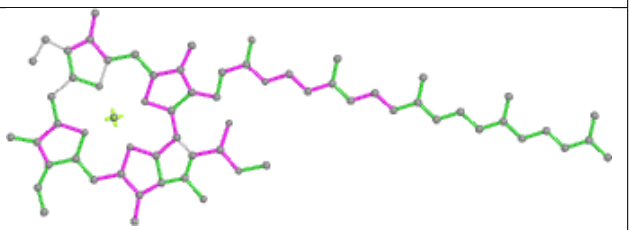
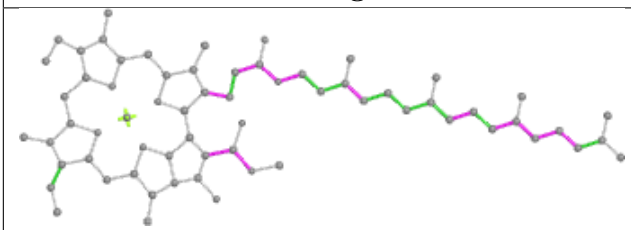
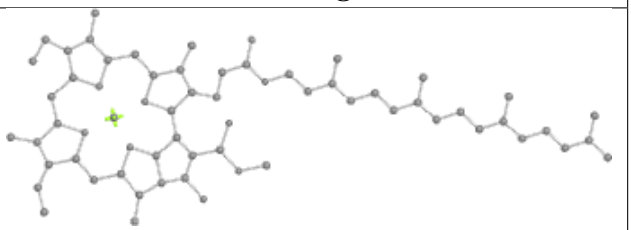


Torsions

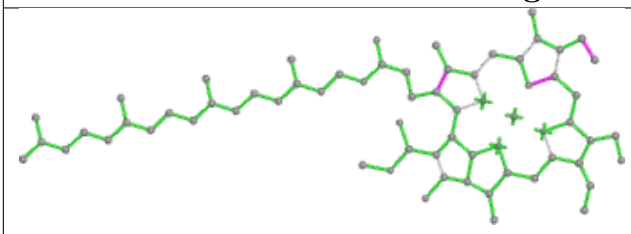


Rings

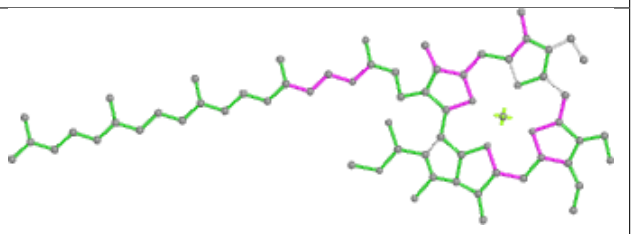
Ligand CLA S 605	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA c 503	
 Bond lengths	 Bond angles
 Torsions	 Rings

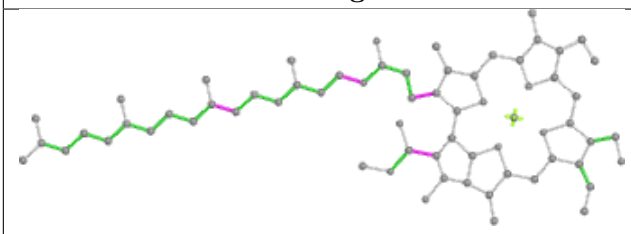
Ligand CHL Y 601



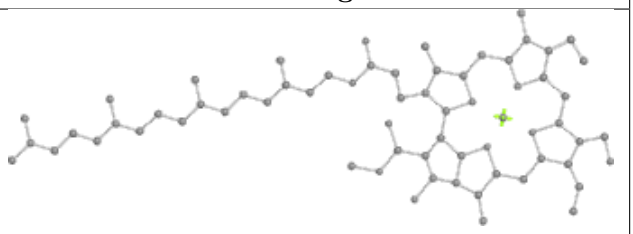
Bond lengths



Bond angles

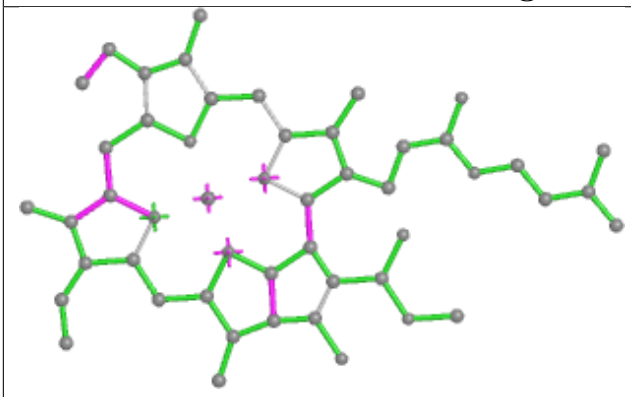


Torsions



Rings

Ligand CLA S1 617



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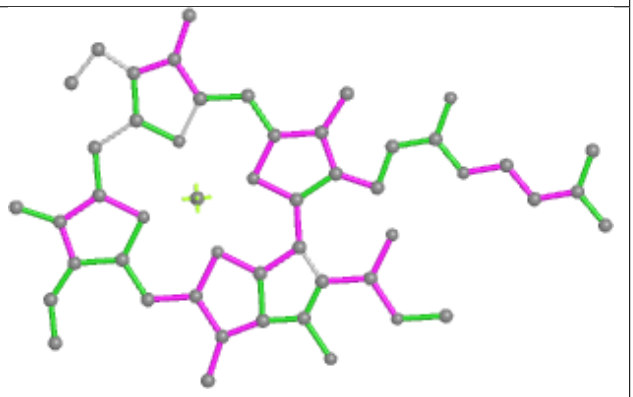

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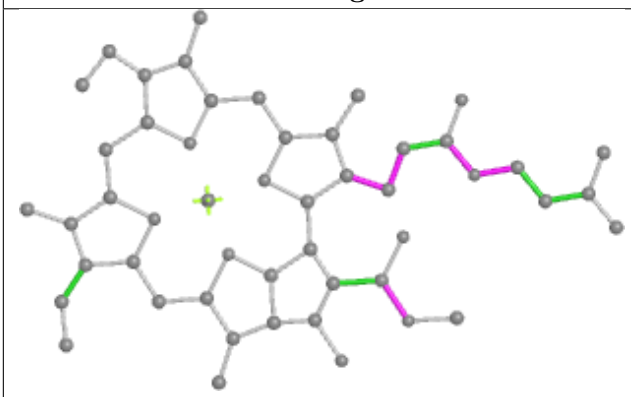

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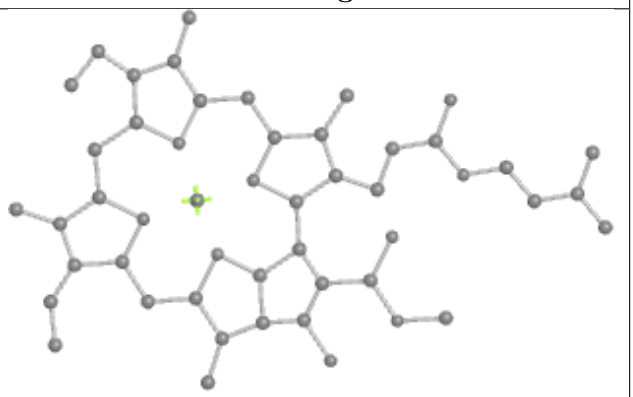
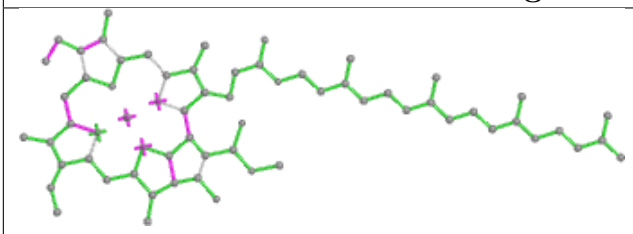


Rings

Ligand CLA C 502



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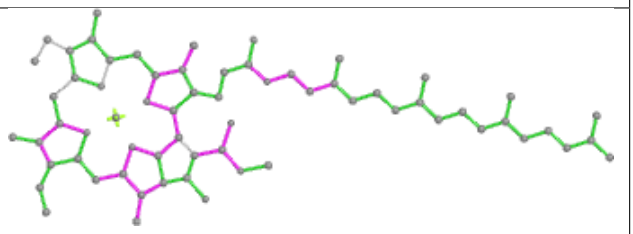
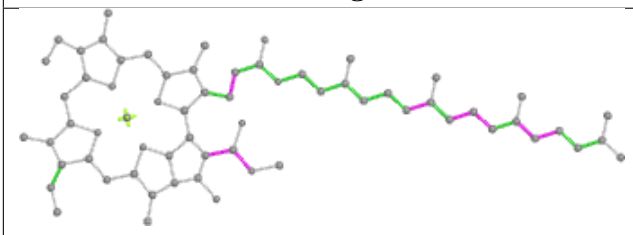


Bond angles



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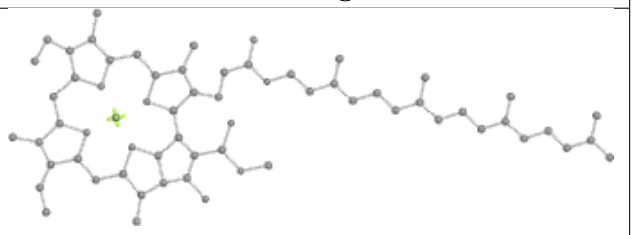
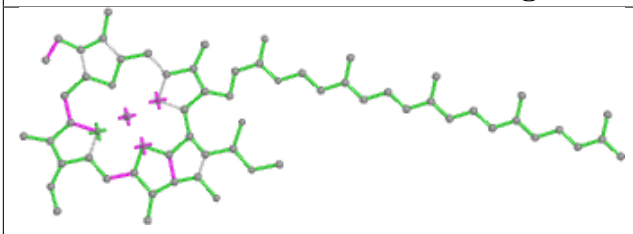


Rings

Ligand CLA c1 507



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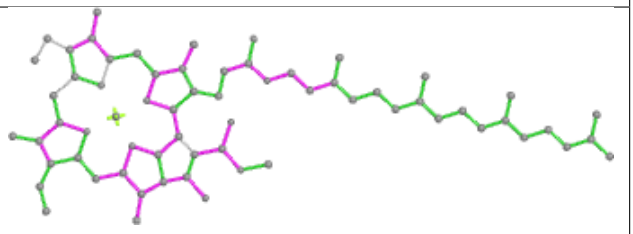

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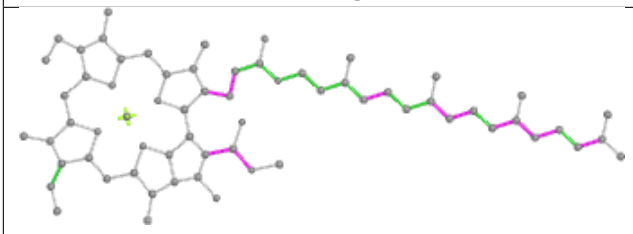

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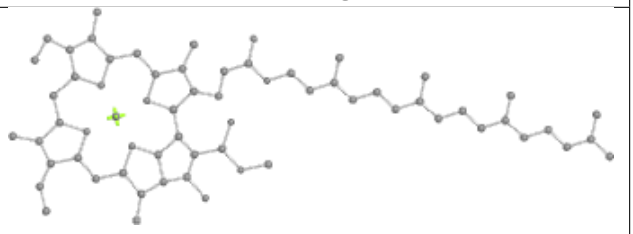
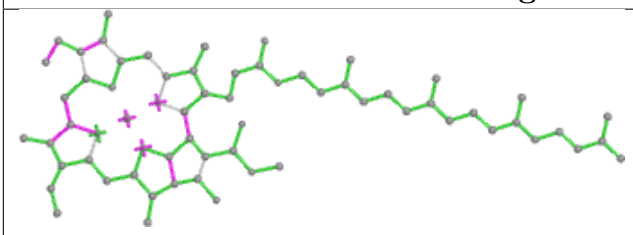


Rings

Ligand CLA y1 614



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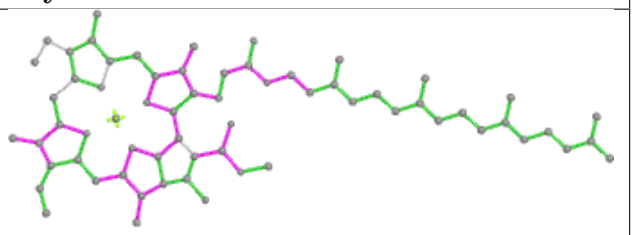
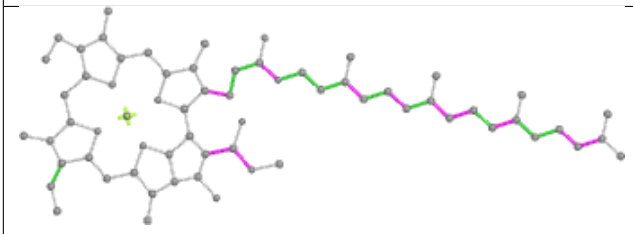


Bond angles



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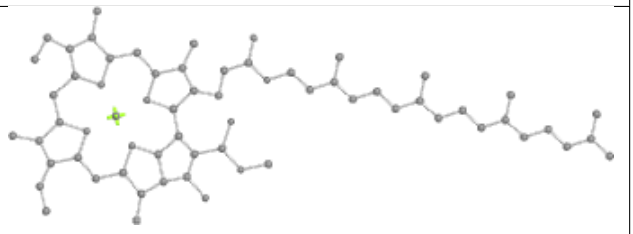
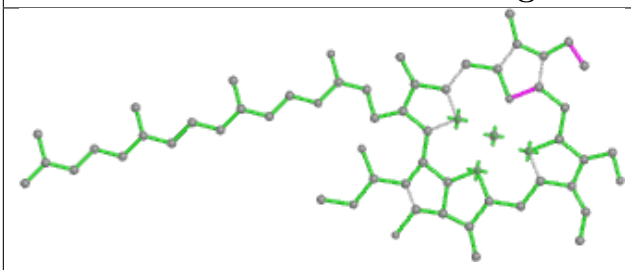
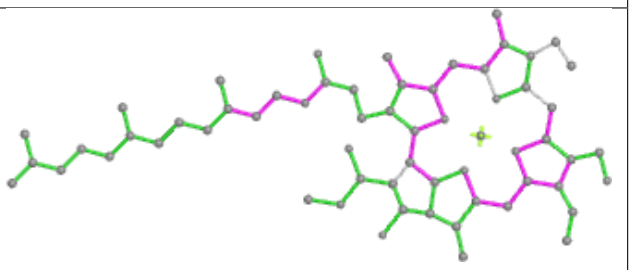
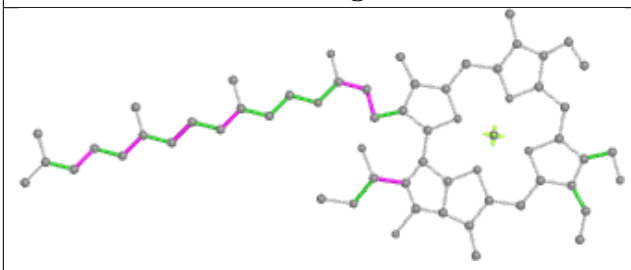
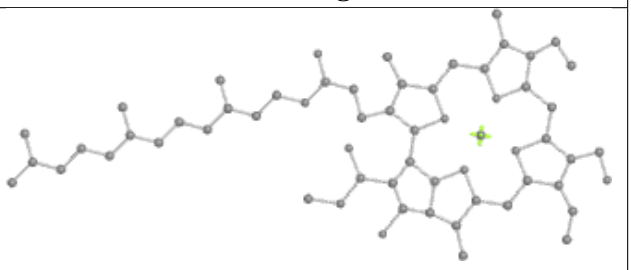
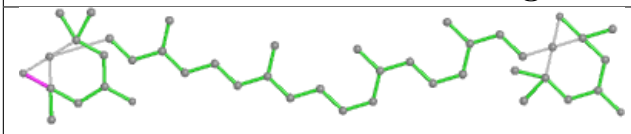
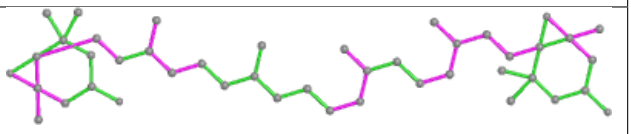
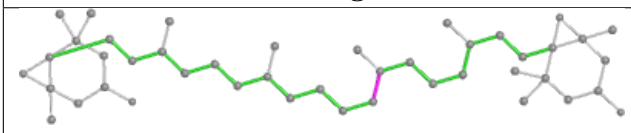
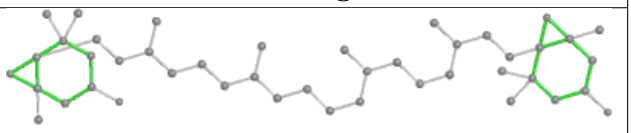
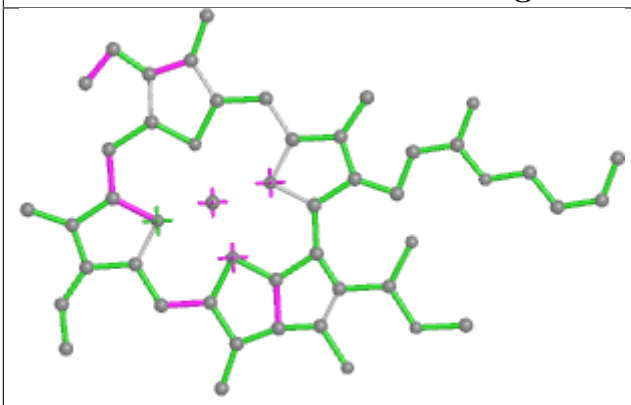


Rings

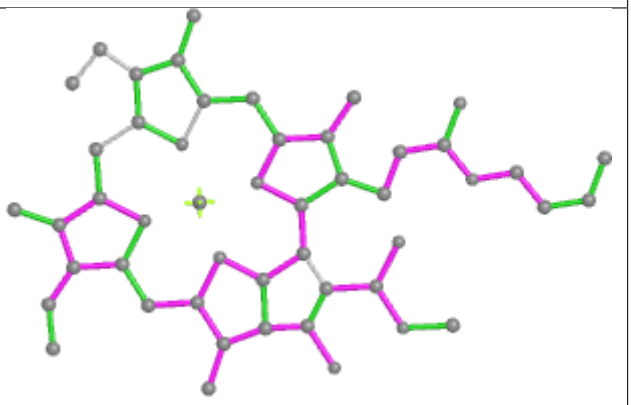
Ligand CHL S1 608	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand XAT G 622	
	
Bond lengths	Bond angles
	
Torsions	Rings

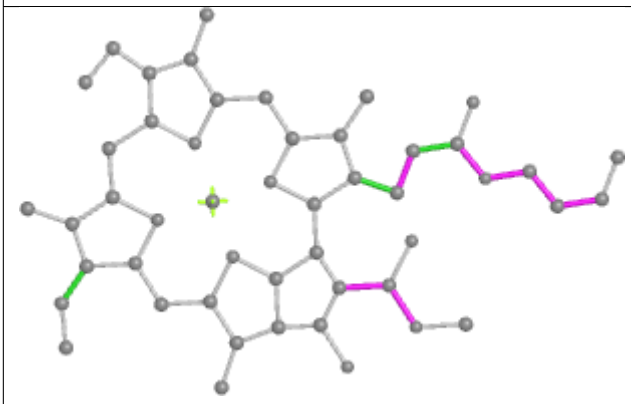
Ligand CLA N1 611



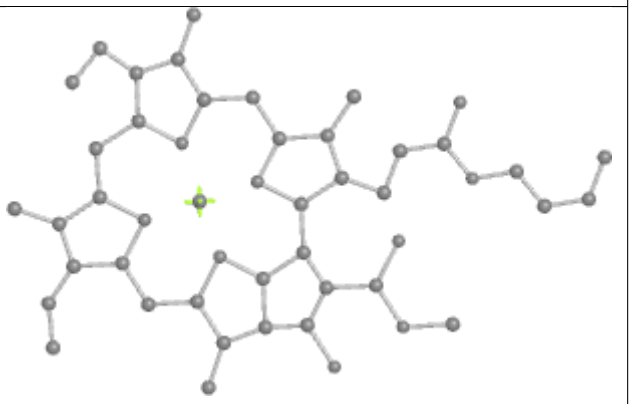
Bond lengths



Bond angles

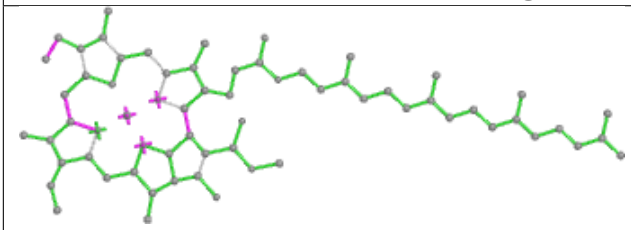


Torsions



Rings

Ligand CLA a1 405



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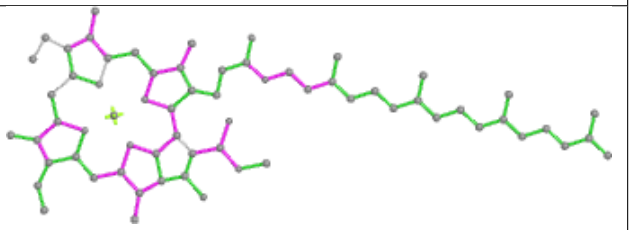
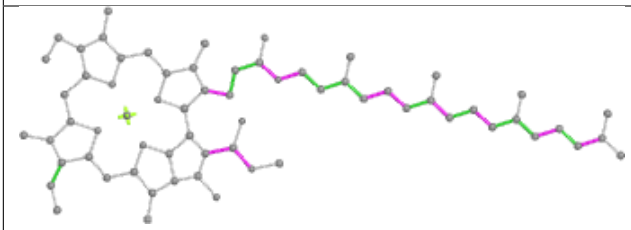


Bond angles



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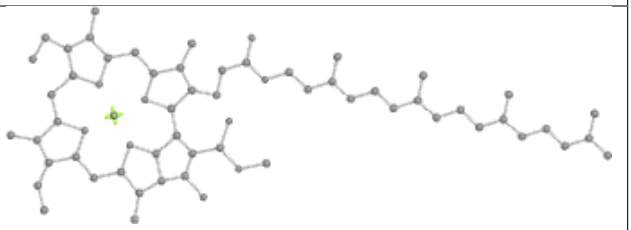
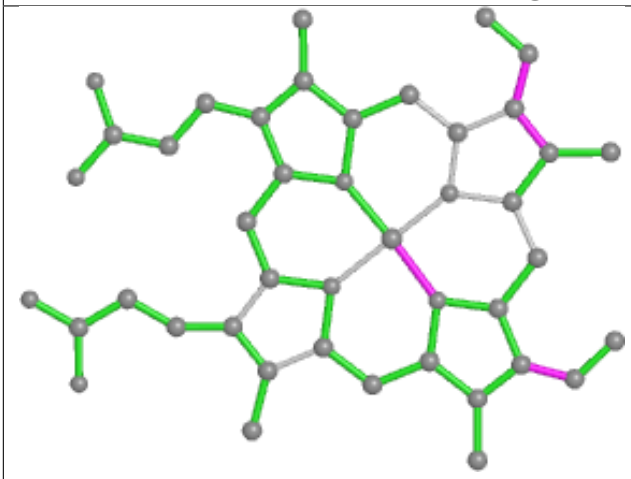
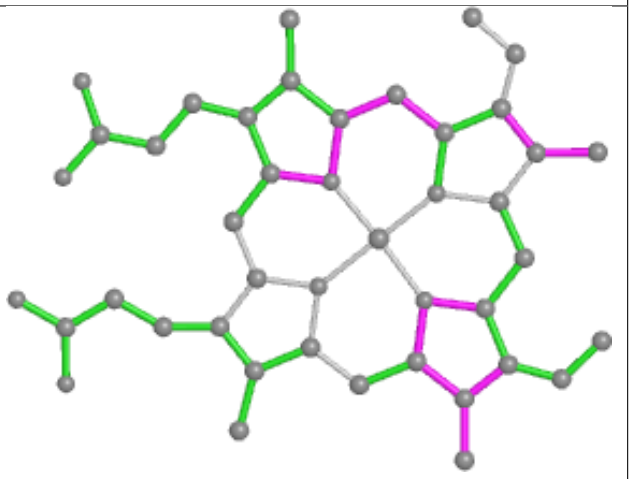


Rings

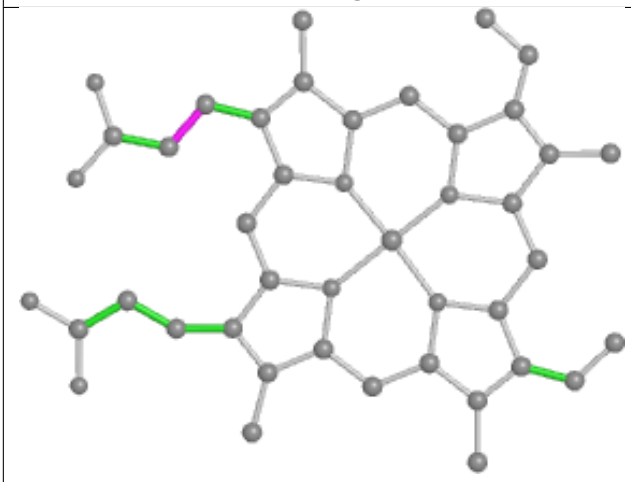
Ligand HEM f 101



Bond lengths



Bond angles



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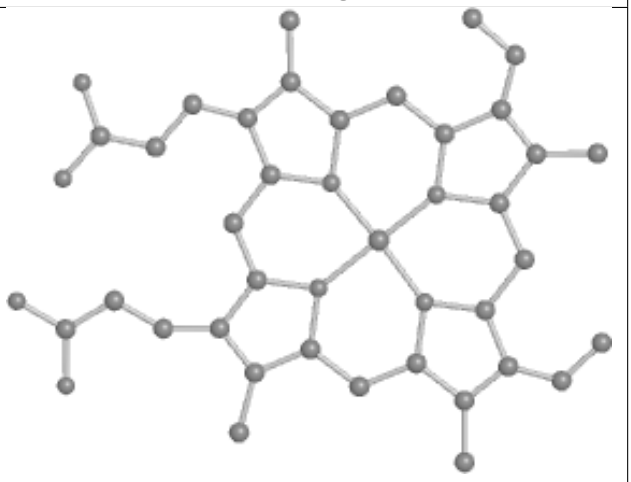
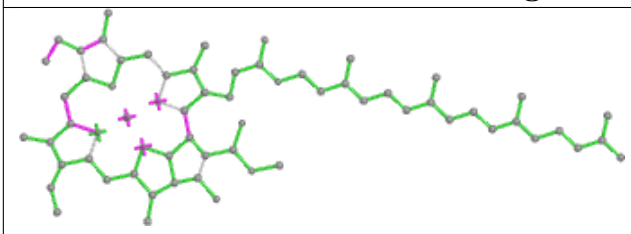
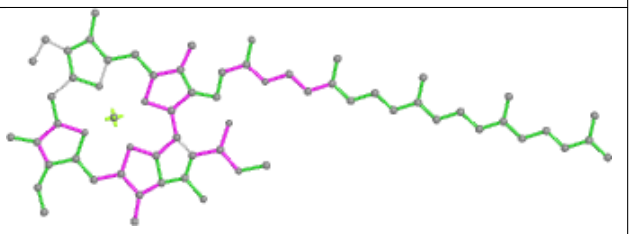


Rings

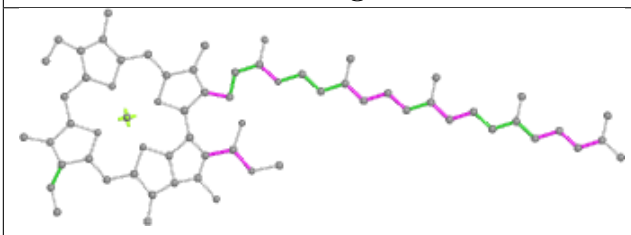
Ligand CLA N 610



Bond lengths



Bond angles



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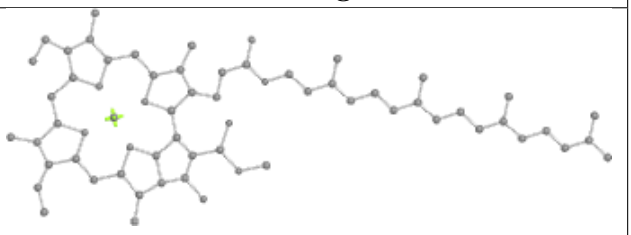
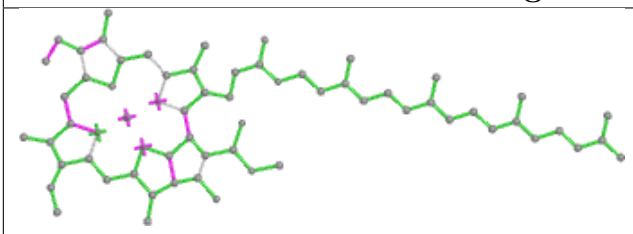
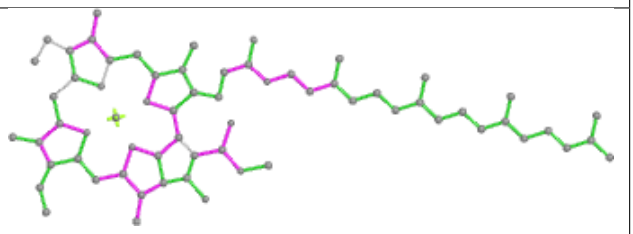


Rings

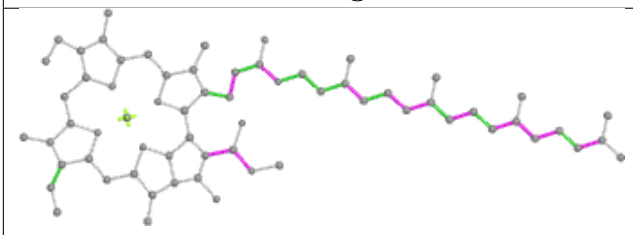
Ligand CLA B 606



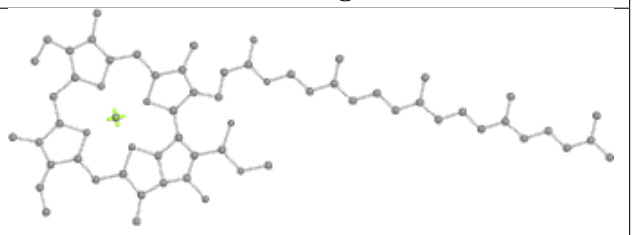
Bond lengths



Bond angles

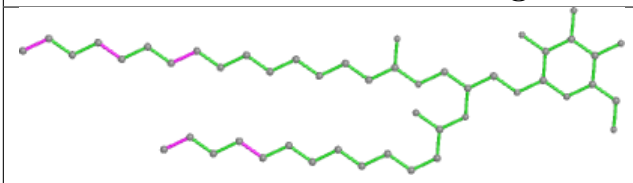


Torsions

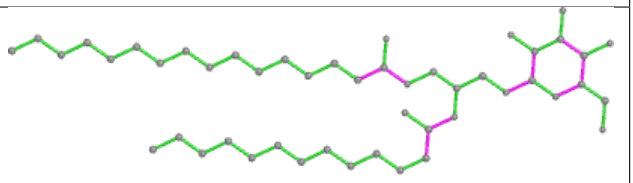


Rings

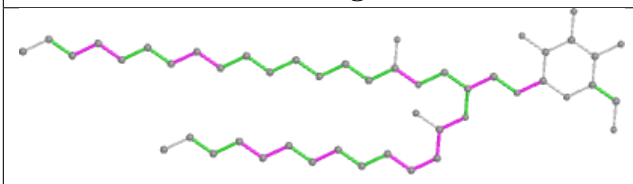
Ligand LMG A1 413



Bond lengths



Bond angles



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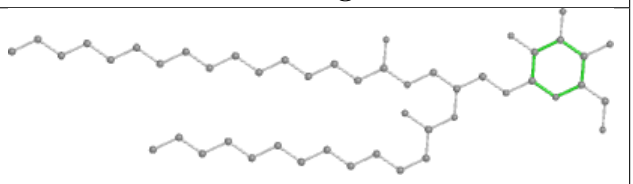
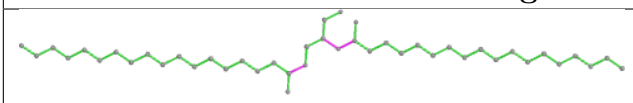


Rings

Ligand DGA C 524



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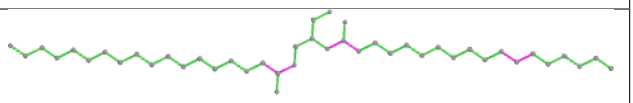
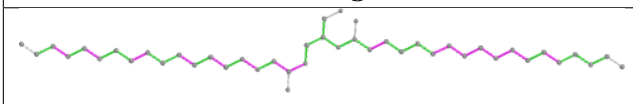


Bond angles



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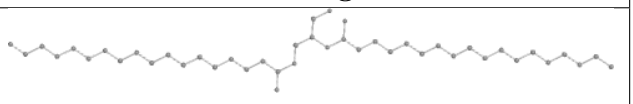
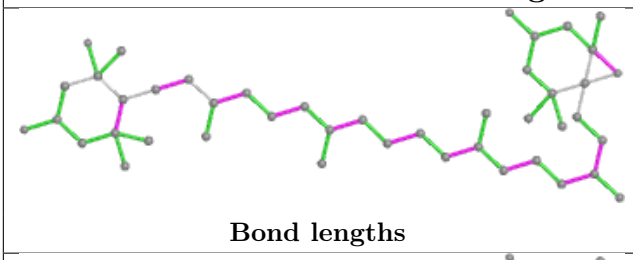


Rings

Ligand NEX s 623



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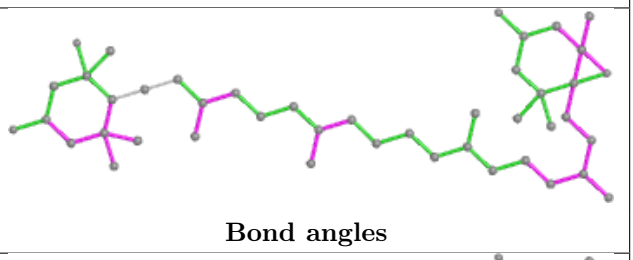
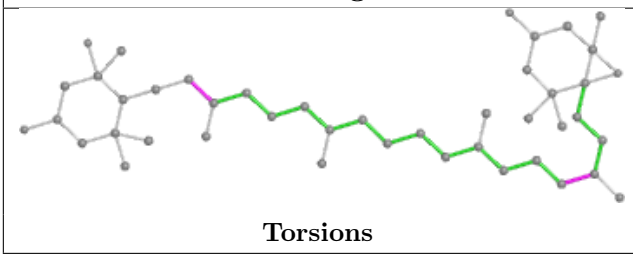


Bond angles



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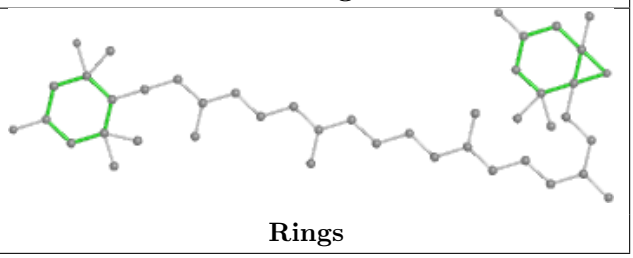
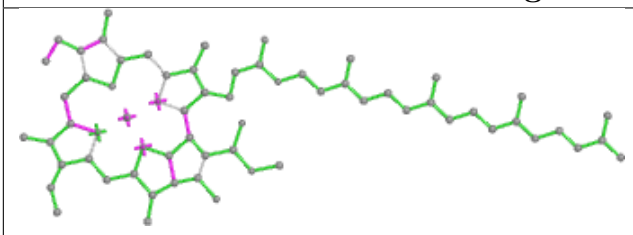


Rings

Ligand CLA C 504



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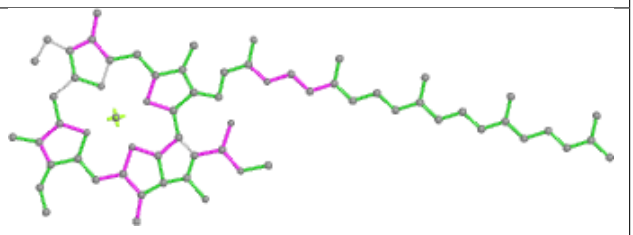
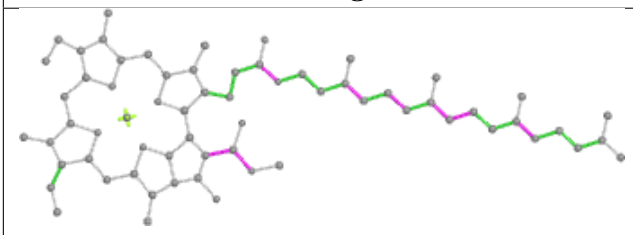


Bond angles



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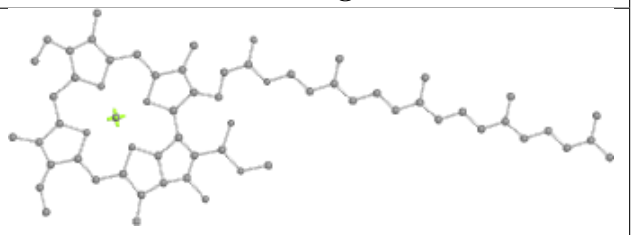
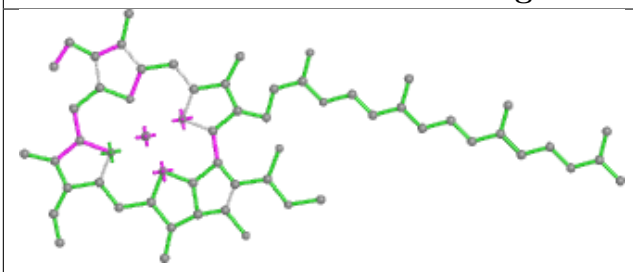


Rings

Ligand CLA R1 609



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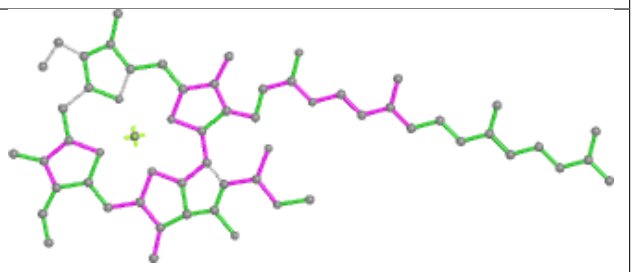

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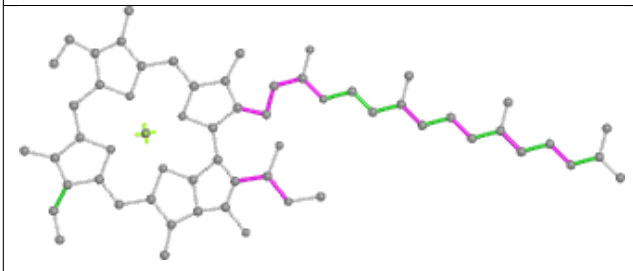

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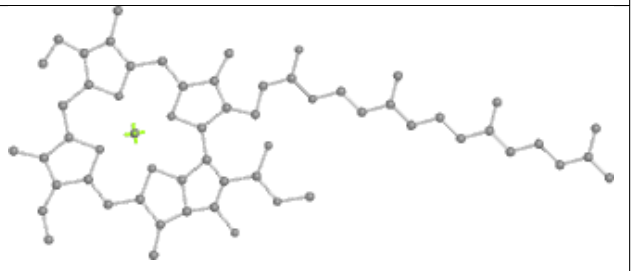
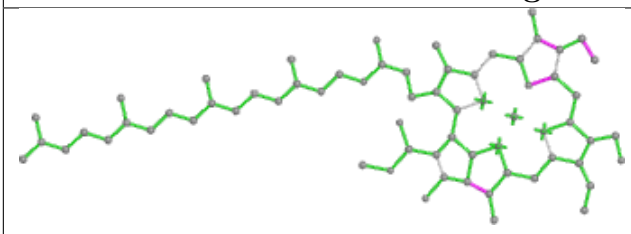


Rings

Ligand CHL Y 609



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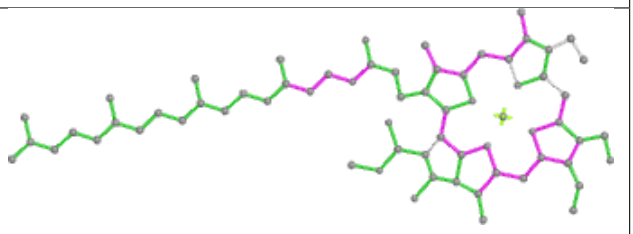
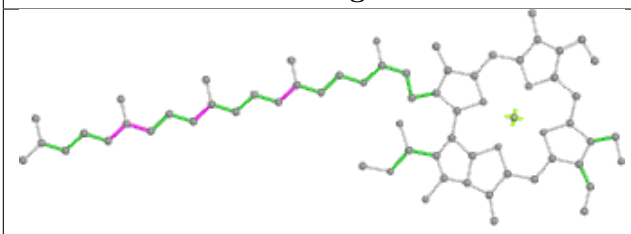


Bond angles



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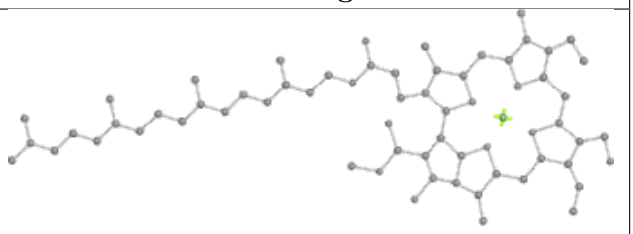
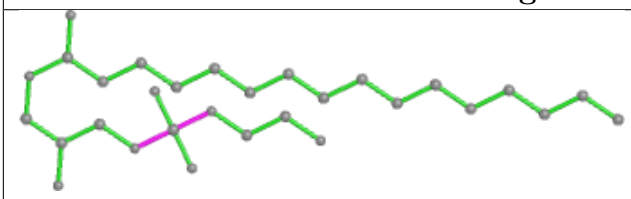


Rings

Ligand LPX S1 625



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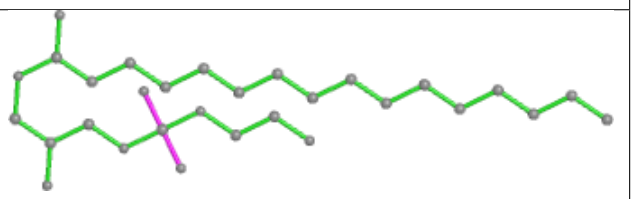
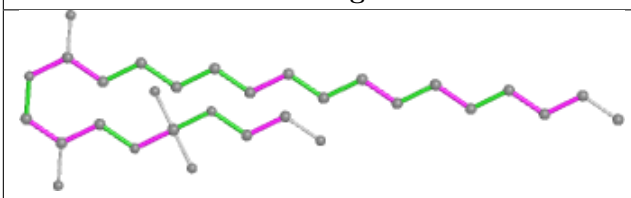


Bond angles



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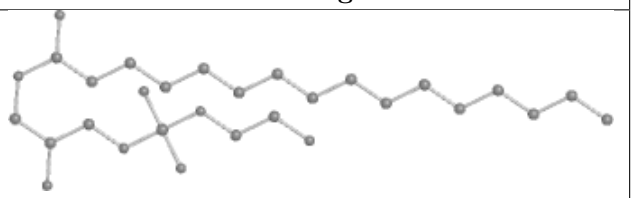
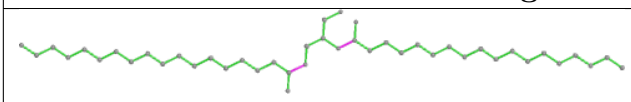


Rings

Ligand DGA B 625



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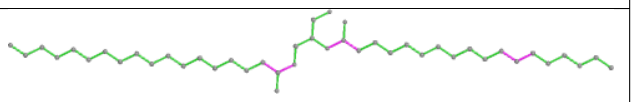
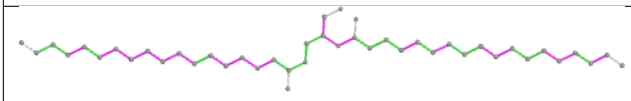


Bond angles



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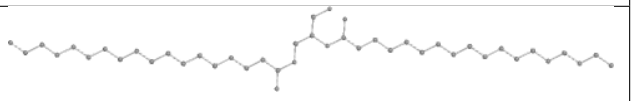
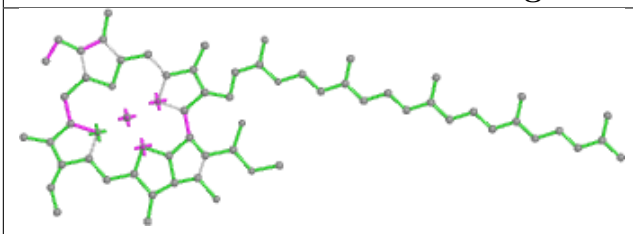
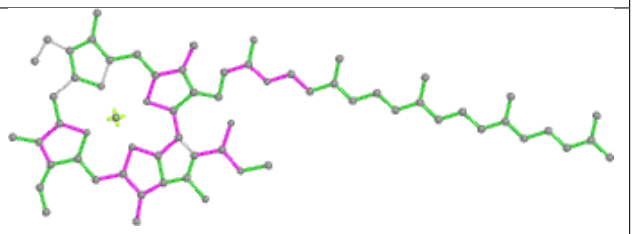


Rings

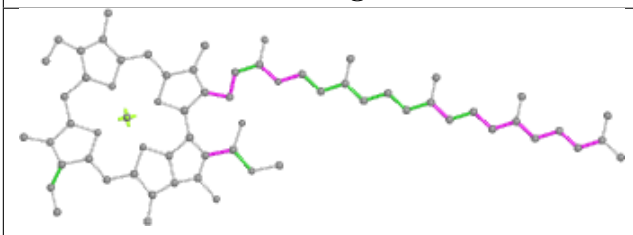
Ligand CLA B 602



Bond lengths



Bond angles



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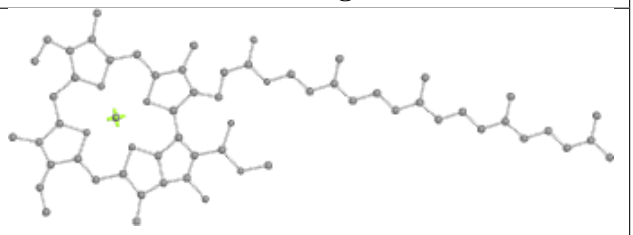
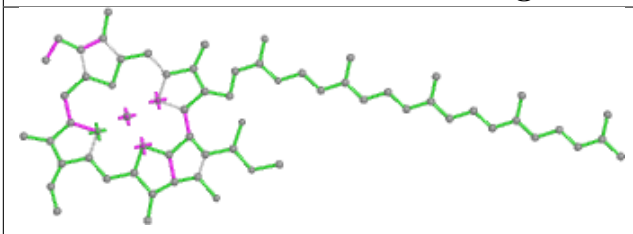


Rings

Ligand CLA B1 617



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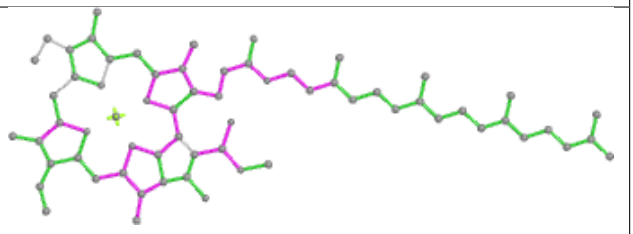
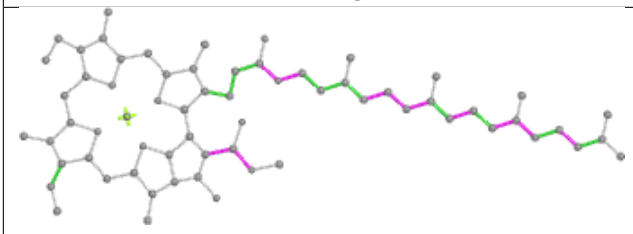


Bond angles



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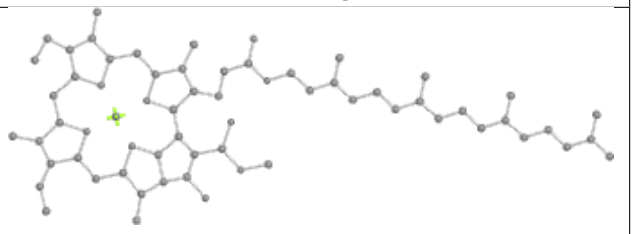
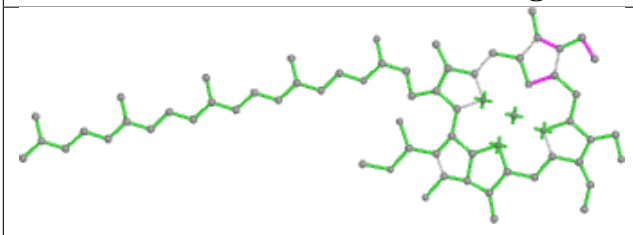


Rings

Ligand CHL g 609



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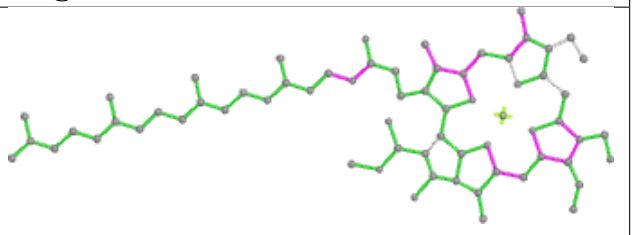
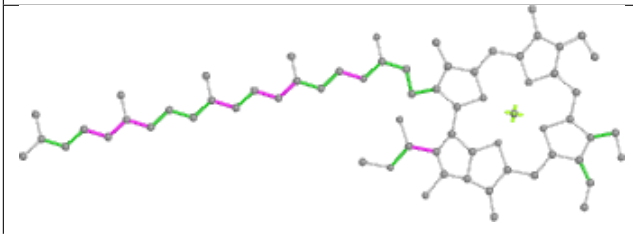


Bond angles



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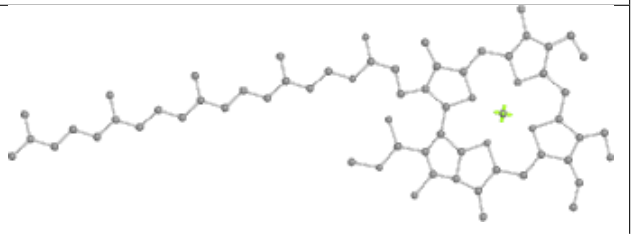
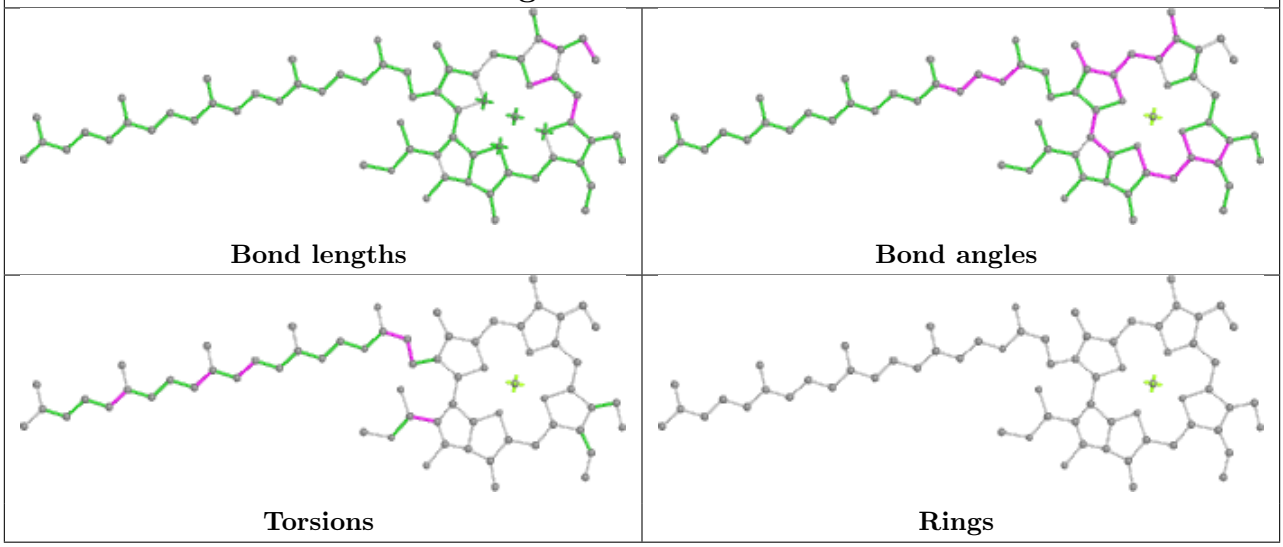
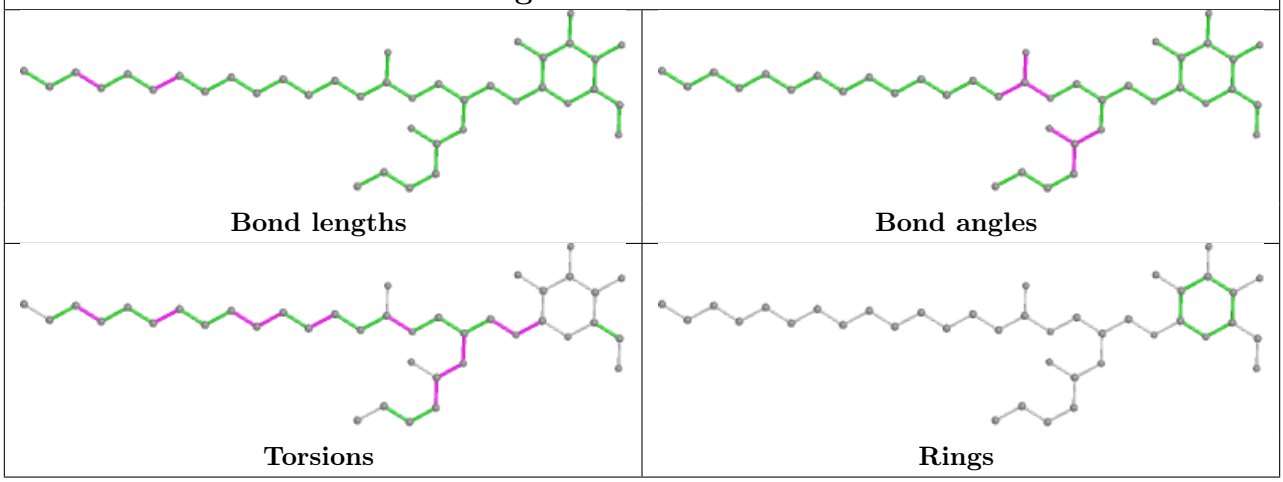


Rings

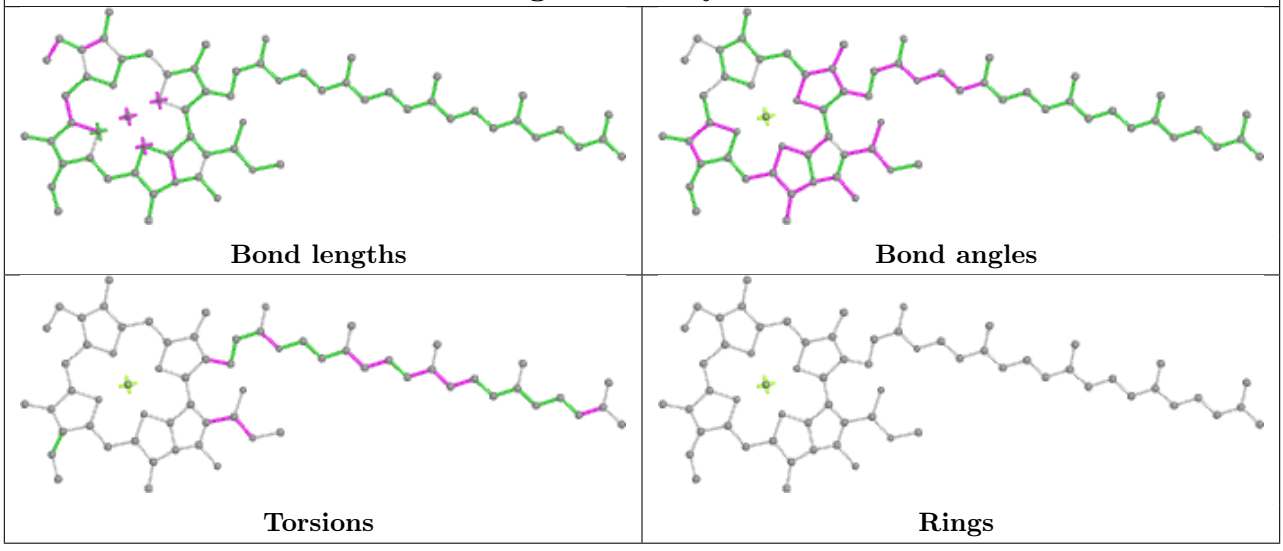
Ligand CHL n1 606



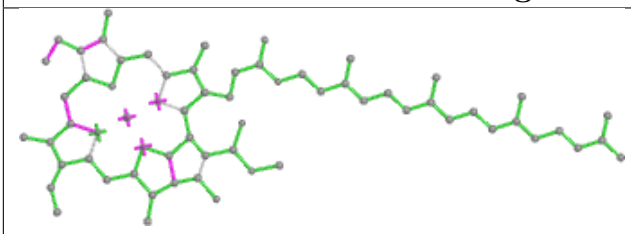
Ligand LMG W 201



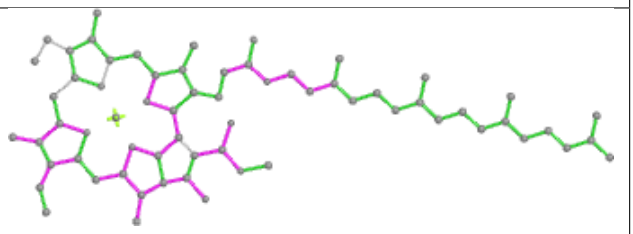
Ligand CLA y 614



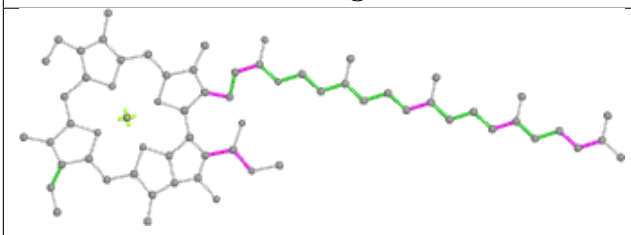
Ligand CLA D1 402



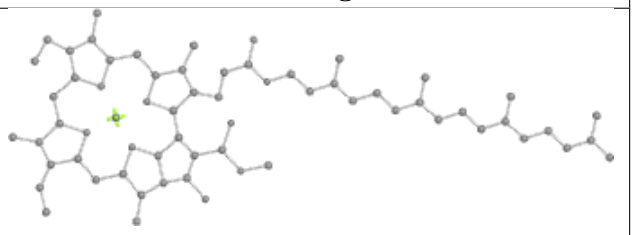
Bond lengths



Bond angles

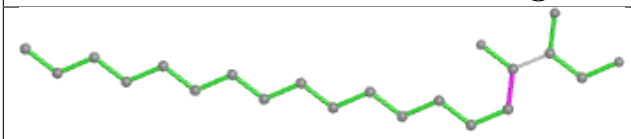


Torsions



Rings

Ligand SPH a 414



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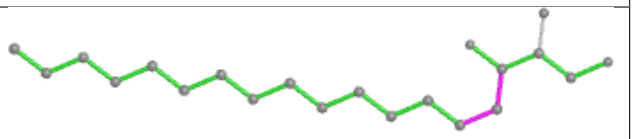
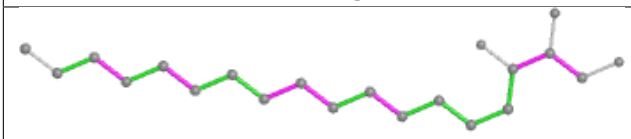
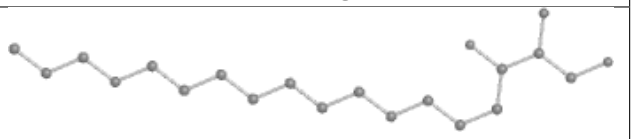


Bond angles

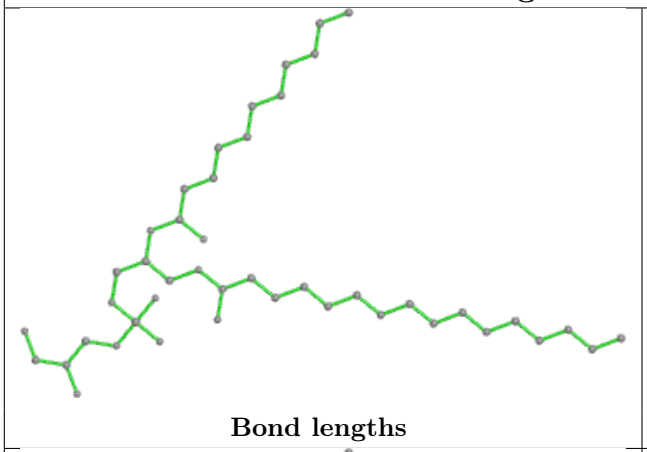


Torsions

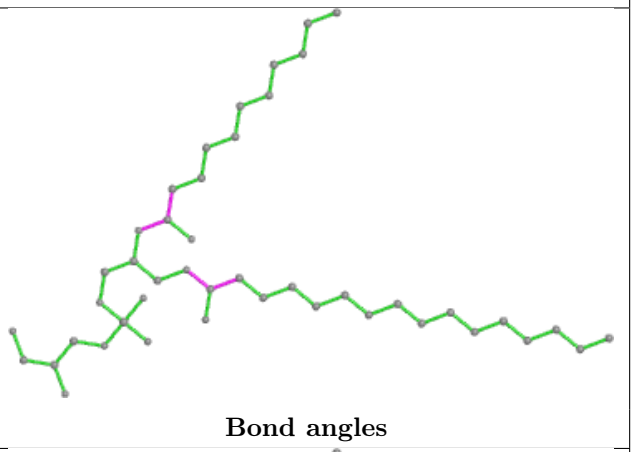


Rings

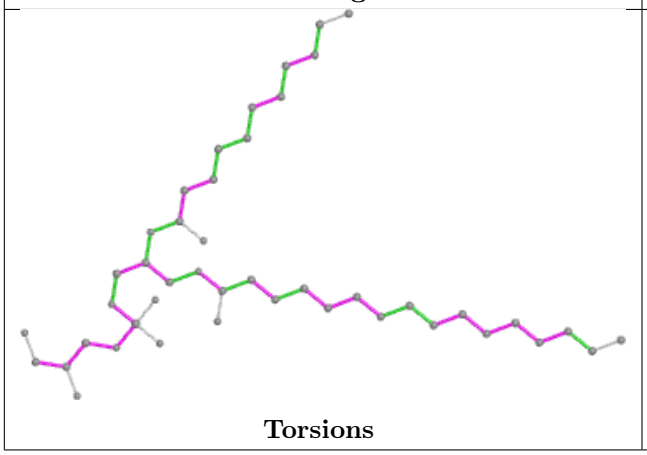
Ligand LHG d1 408



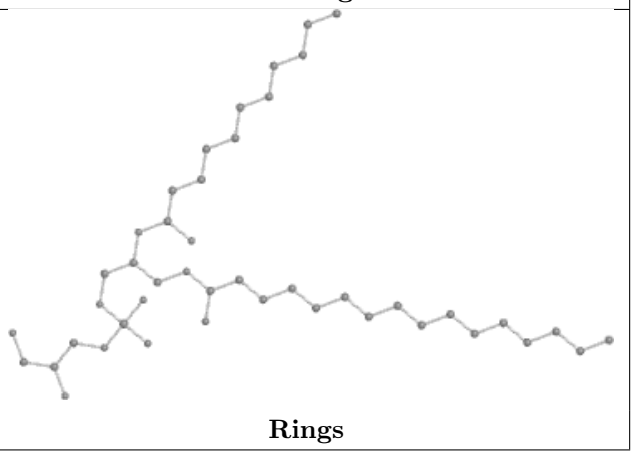
Bond lengths



Bond angles

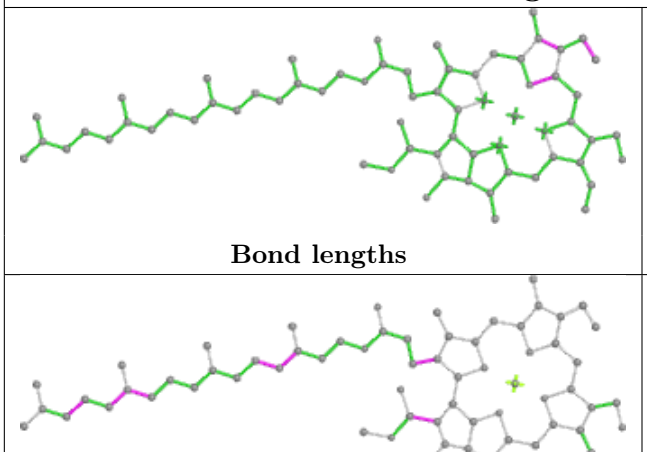


Torsions



Rings

Ligand CHL G 609



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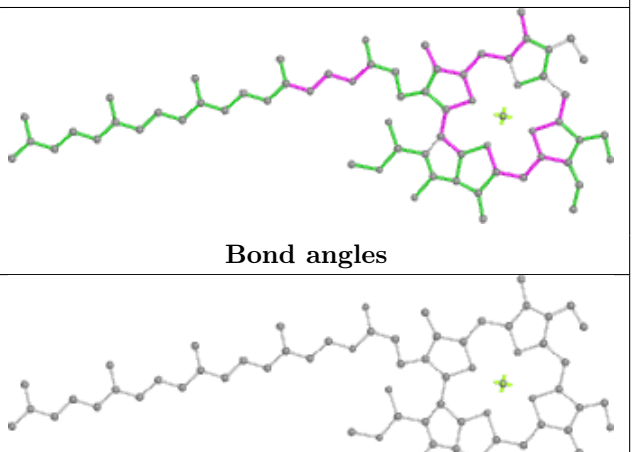

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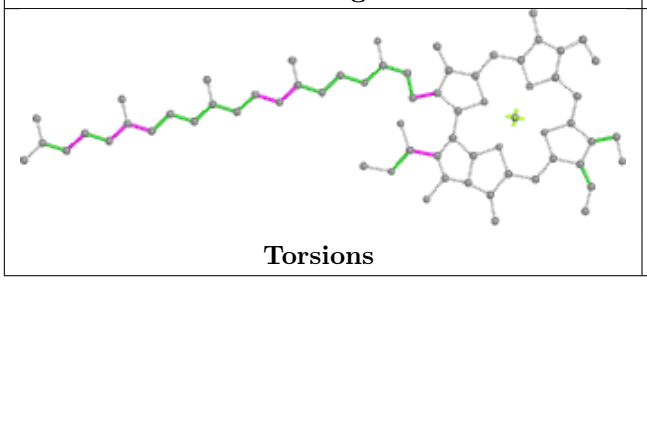

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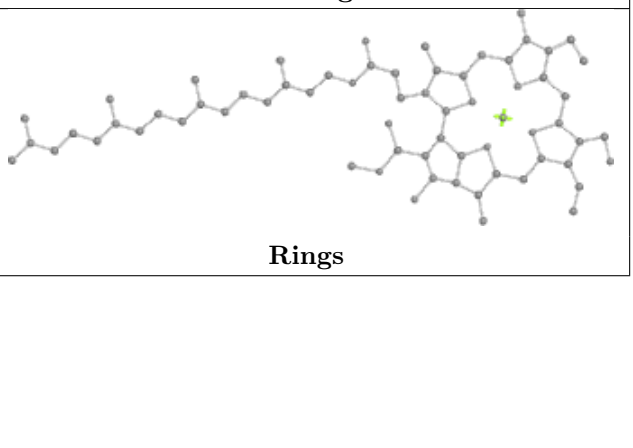
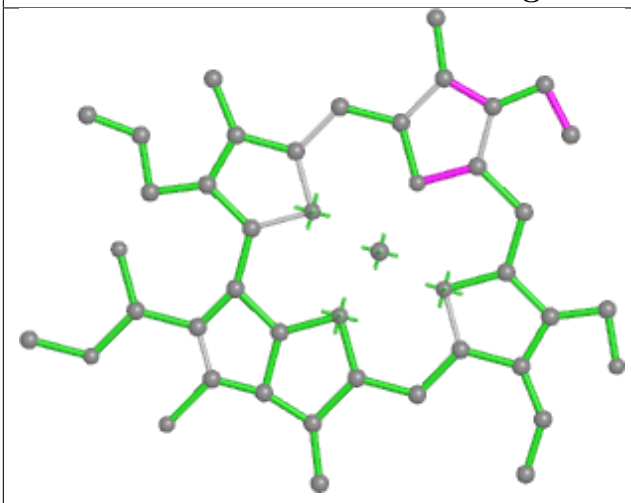


Rings

Ligand CHL G 608



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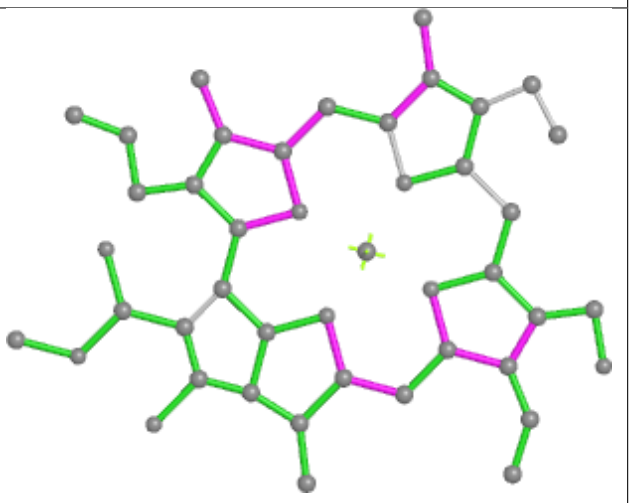

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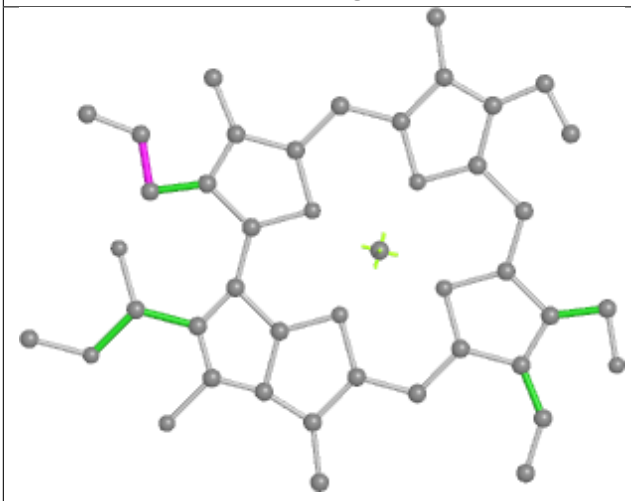

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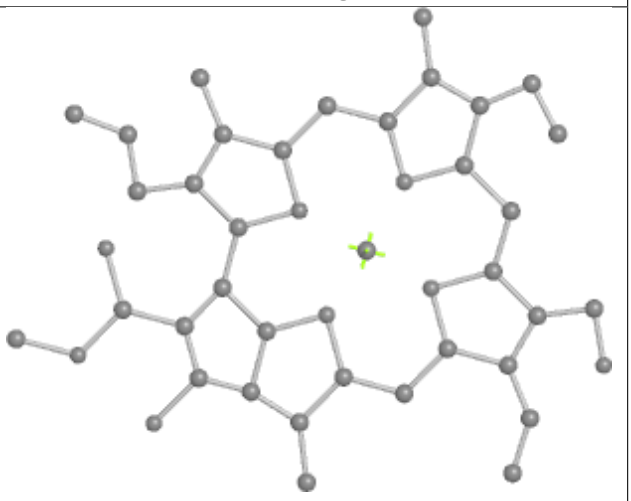
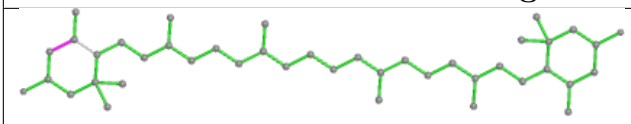


Rings

Ligand LUT g1 620



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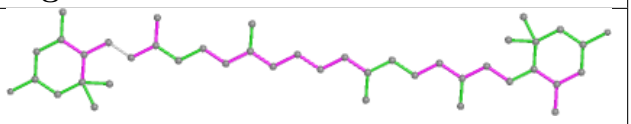

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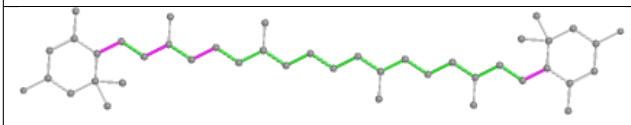

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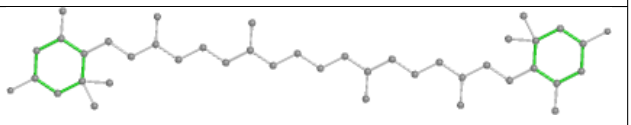
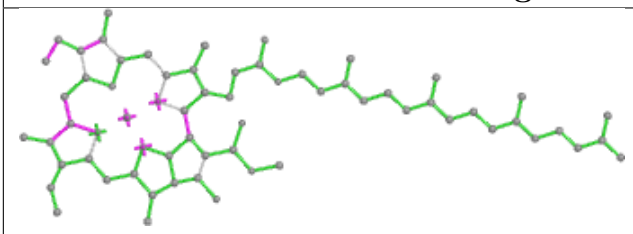


Rings

Ligand CLA N1 613



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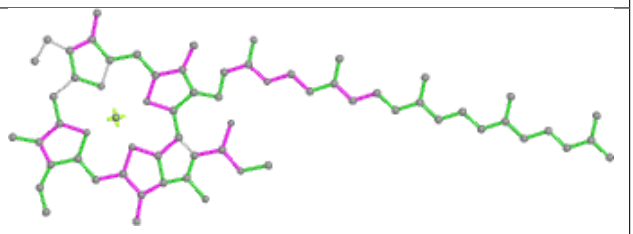
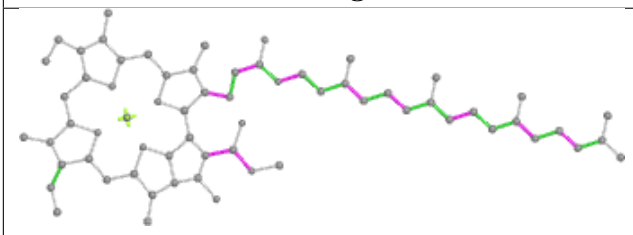


Bond angles



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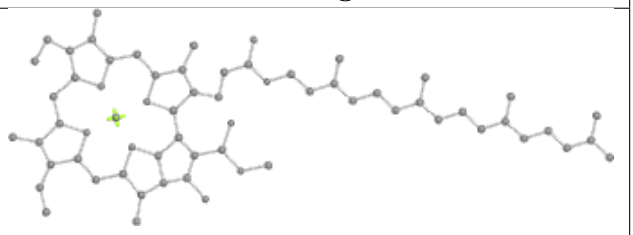
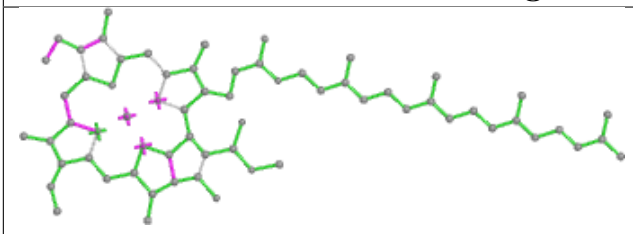


Rings

Ligand CLA C 510



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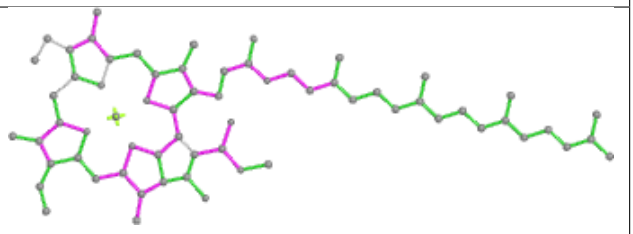

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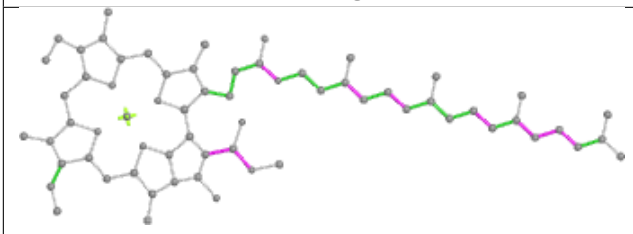

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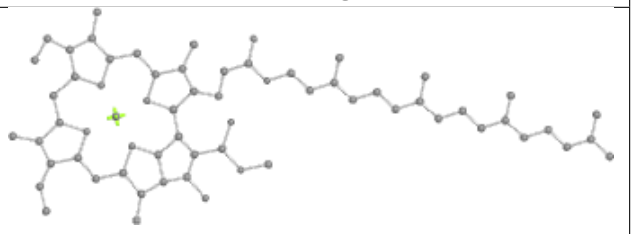
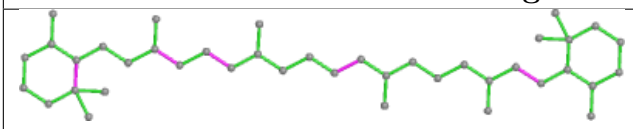


Rings

Ligand BCR B 618



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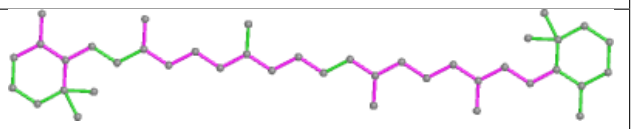
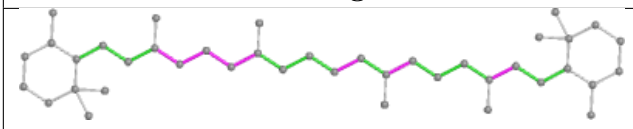


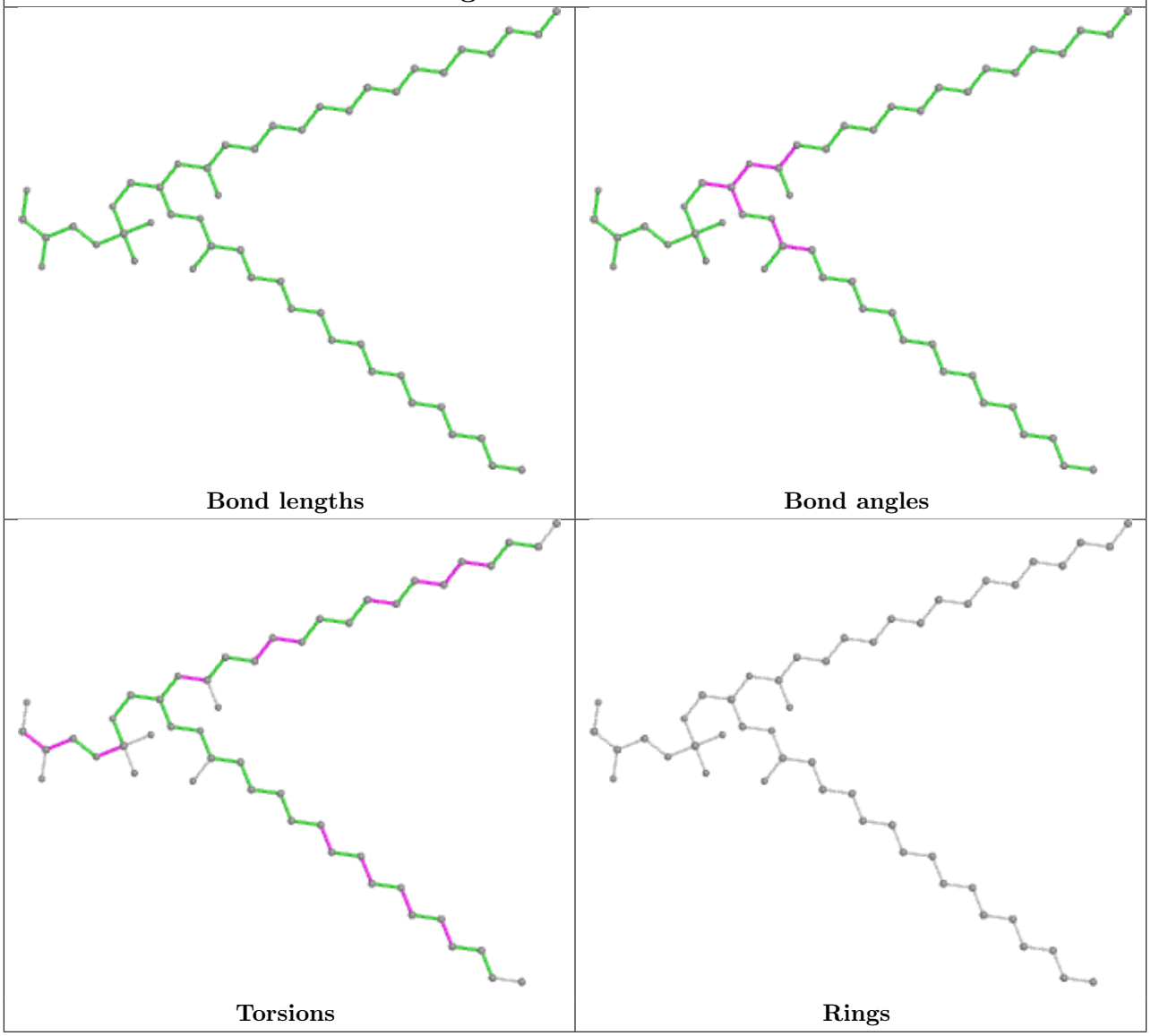
Bond angles



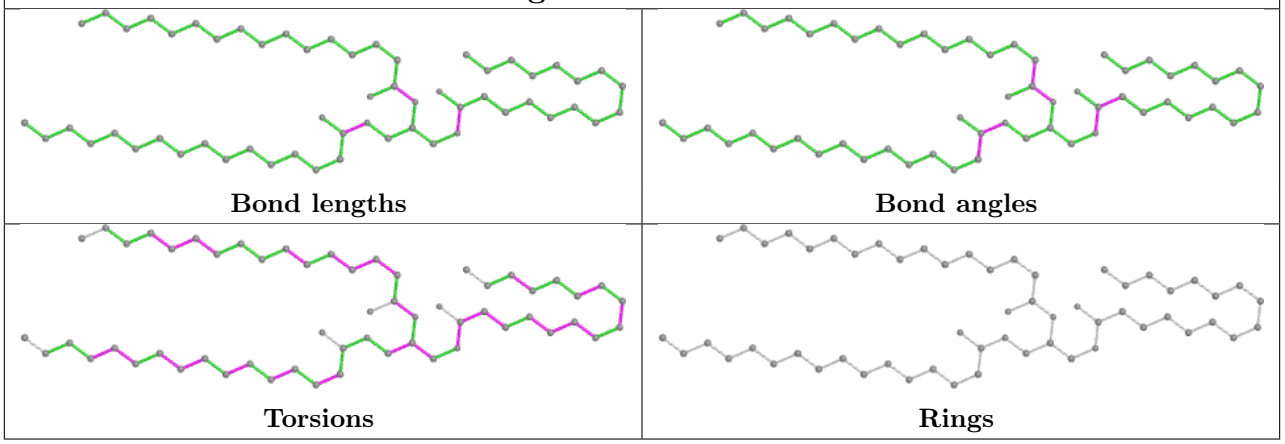
Torsions

Rings

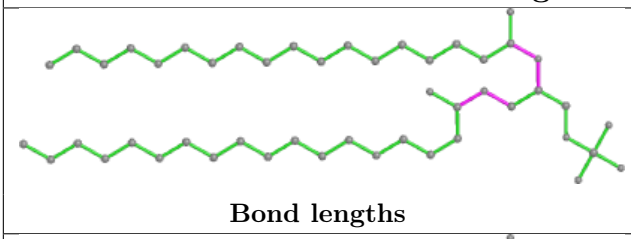
Ligand LHG Y1 624



Ligand 4RF i1 101



Ligand 3PH t 101



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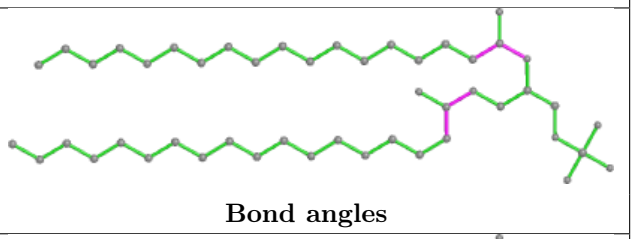
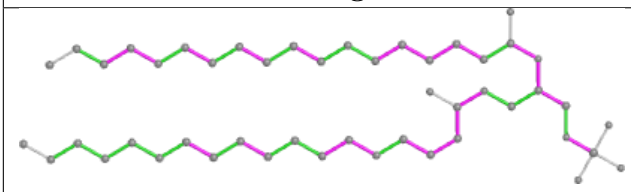


Bond angles



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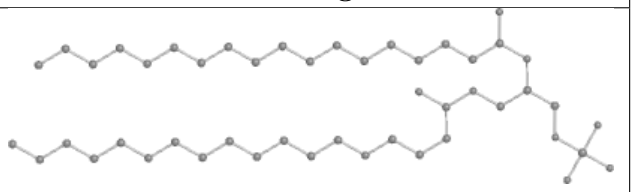
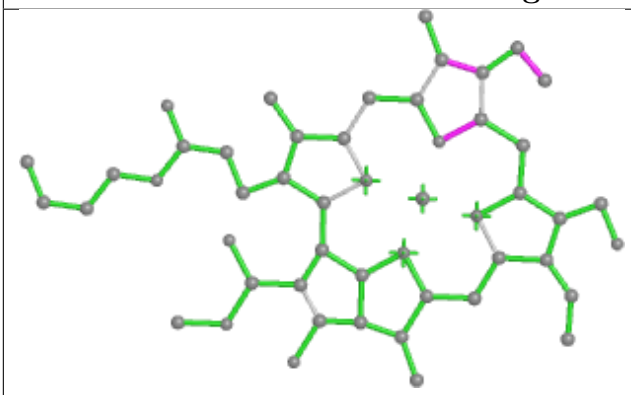


Rings

Ligand CHL G 606



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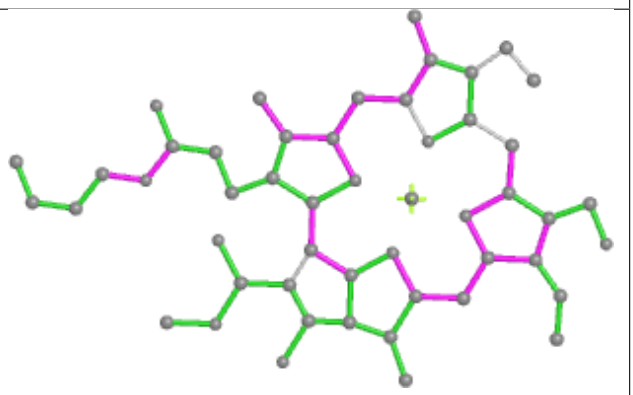
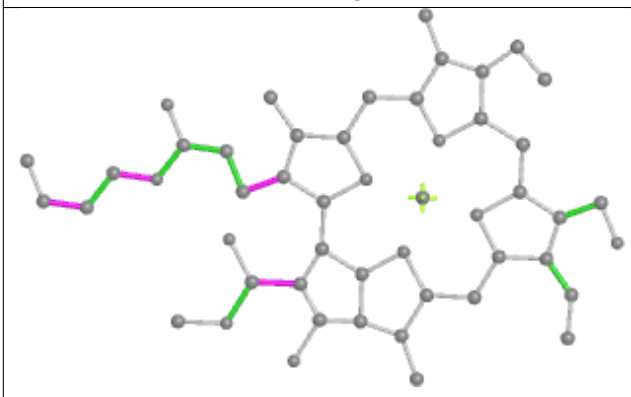


Bond angles



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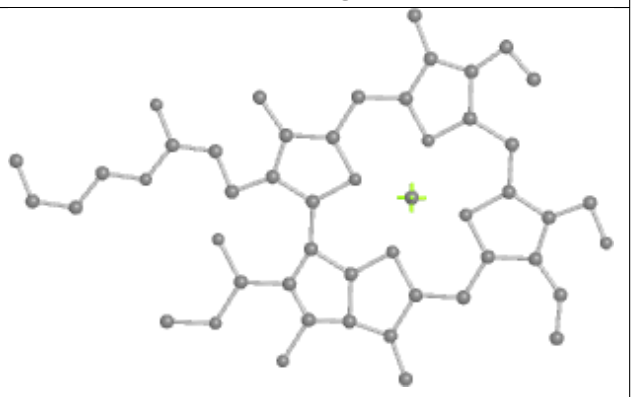
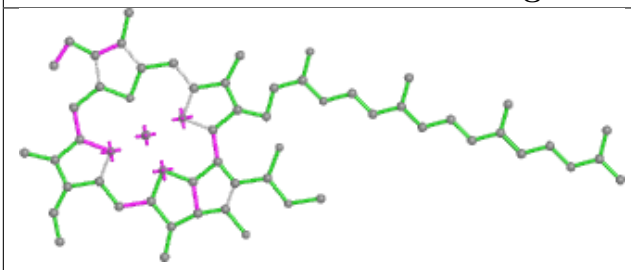
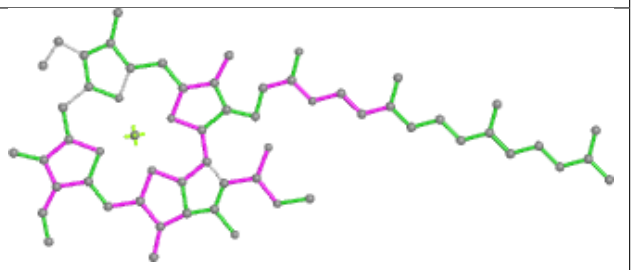
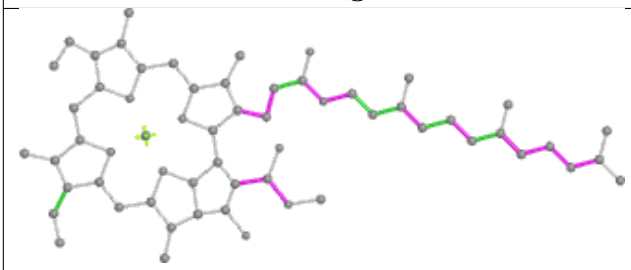
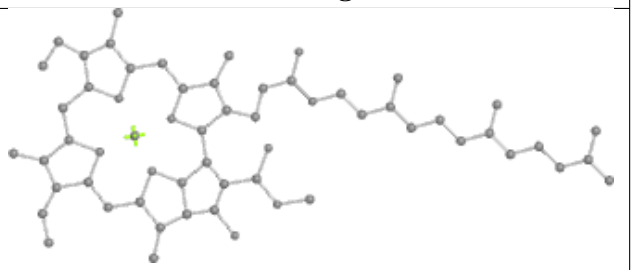
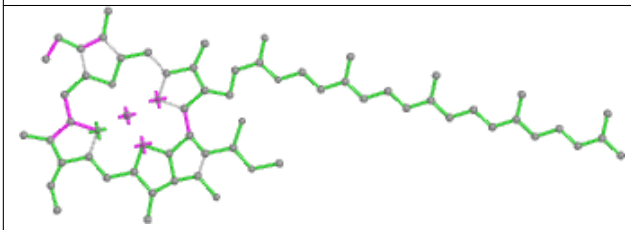
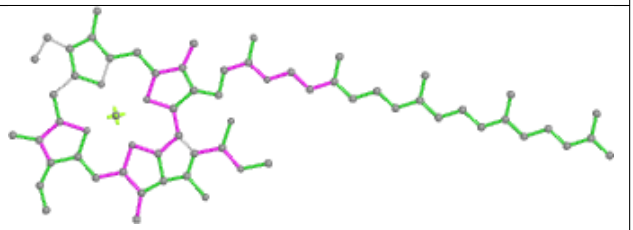
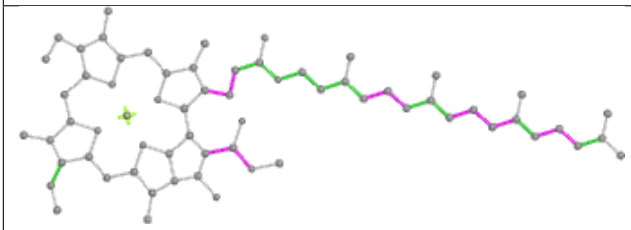
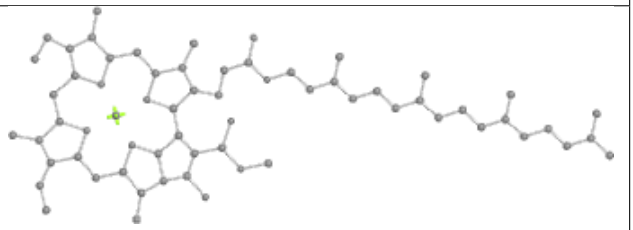
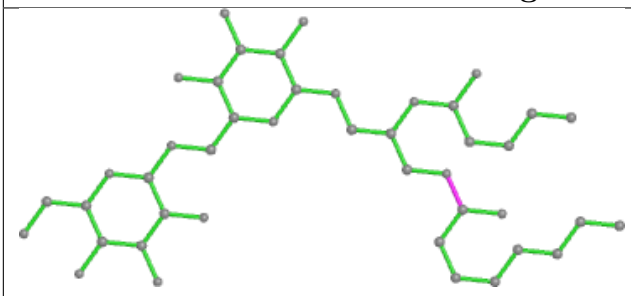


Rings

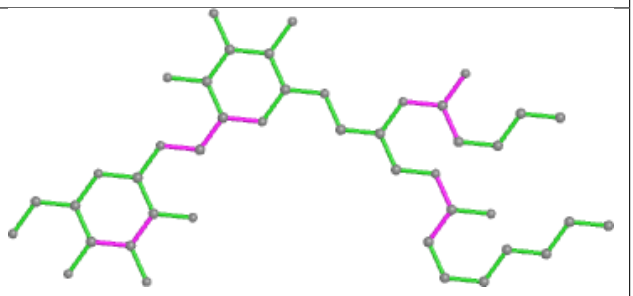
Ligand CLA R 608	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA s 611	
 Bond lengths	 Bond angles
 Torsions	 Rings

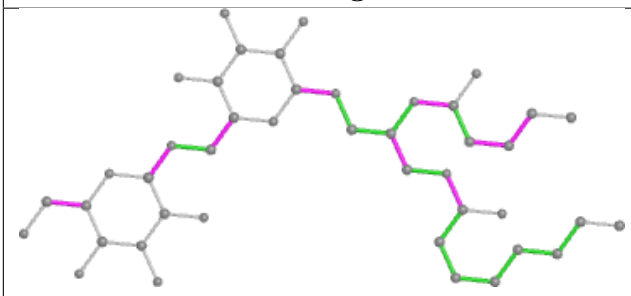
Ligand DGD B 623



Bond lengths



Bond angles



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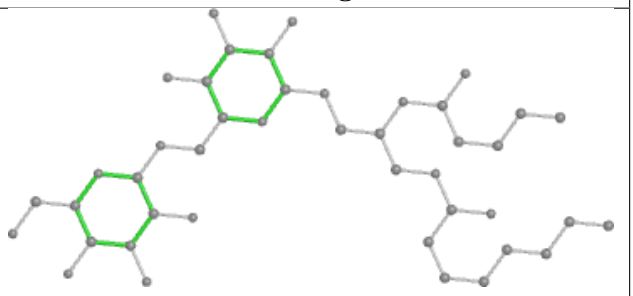
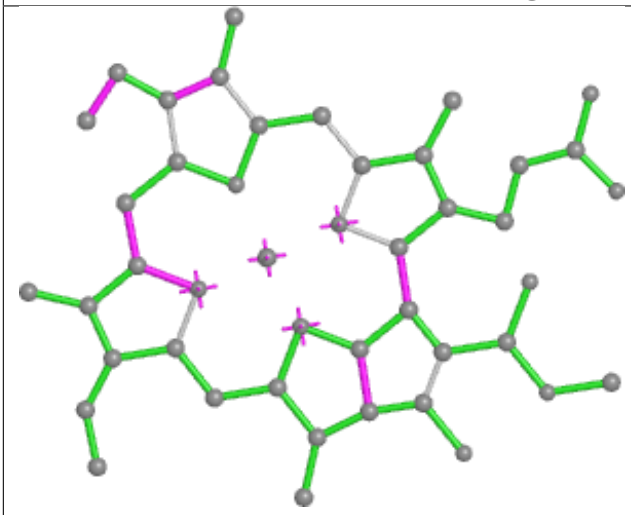
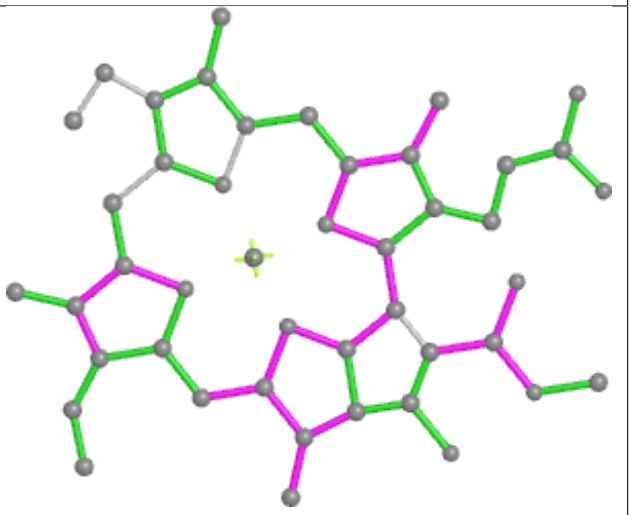


Rings

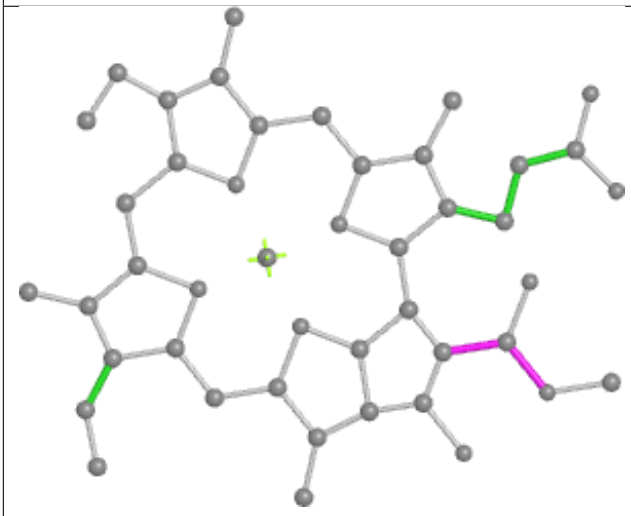
Ligand CLA N 612



Bond lengths



Bond angles



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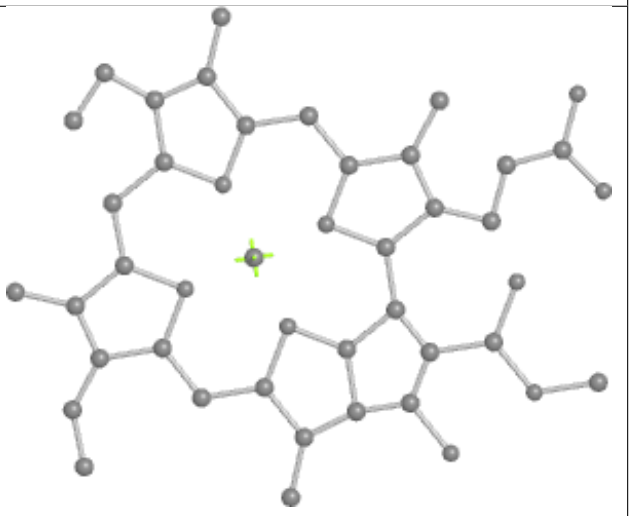
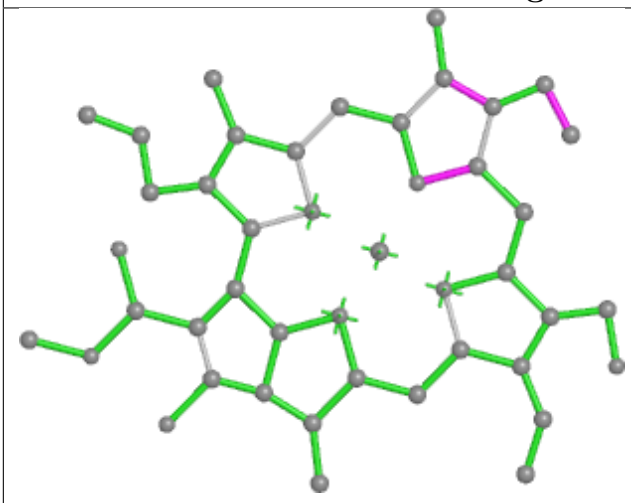
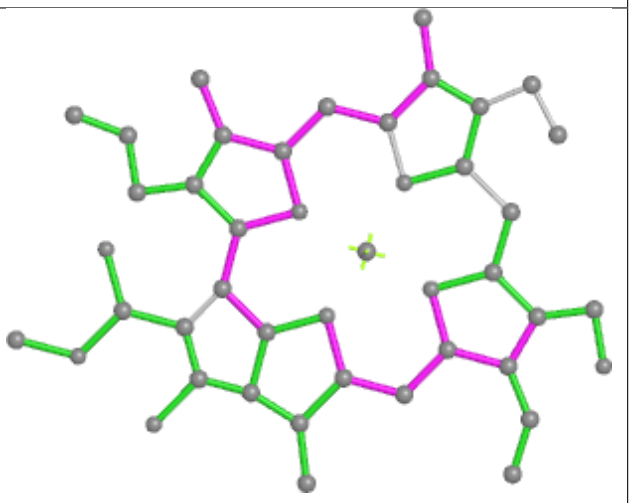


Rings

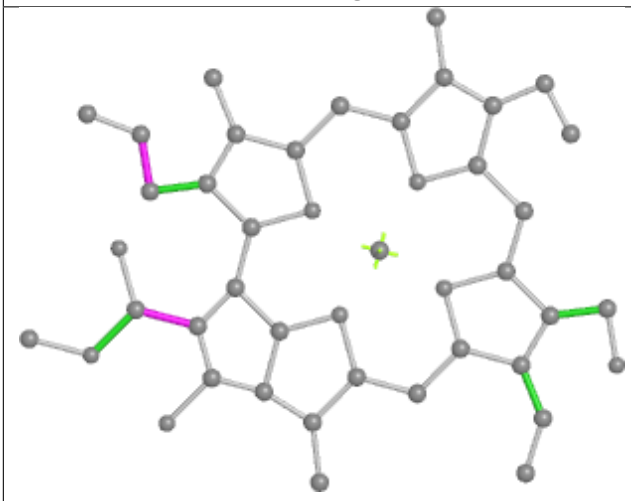
Ligand CHL S 606



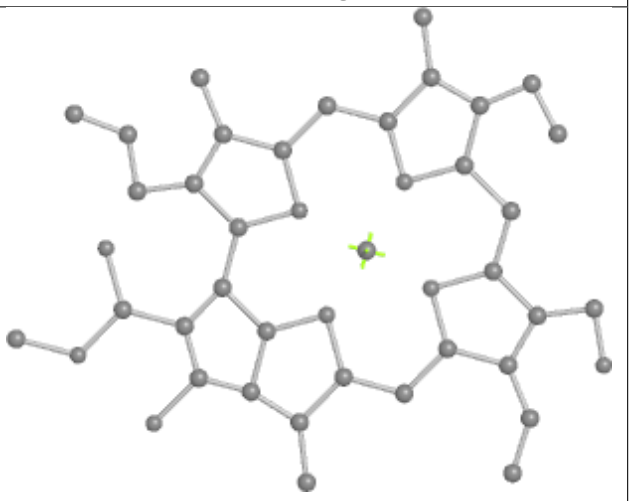
Bond lengths



Bond angles

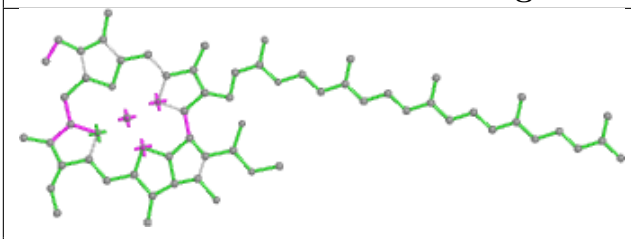


Torsions

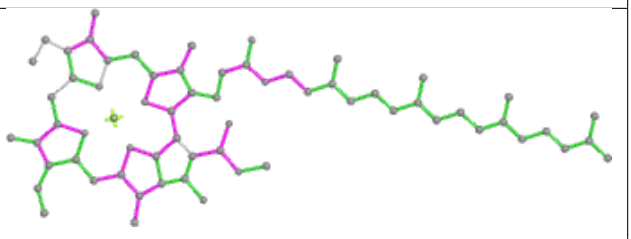


Rings

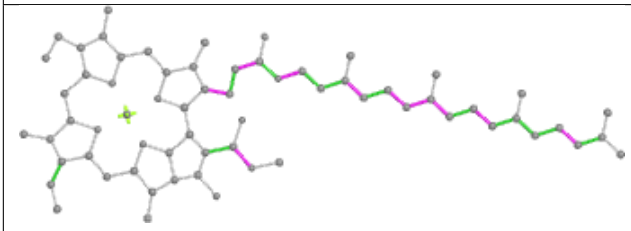
Ligand CLA B1 615



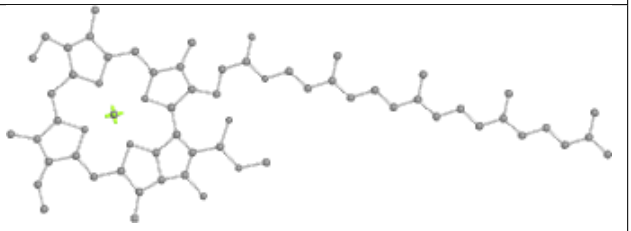
Bond lengths



Bond angles

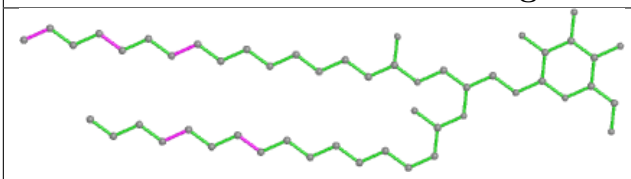


Torsions

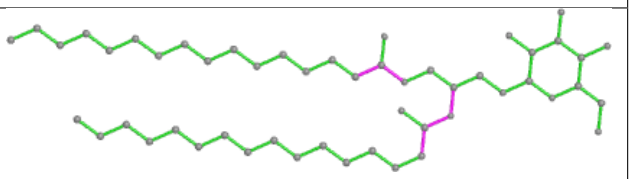


Rings

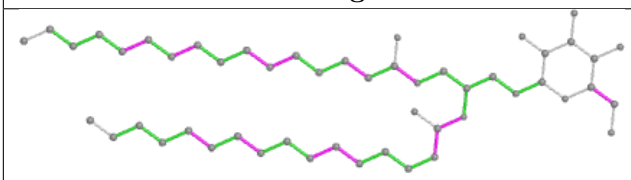
Ligand LMG C 521



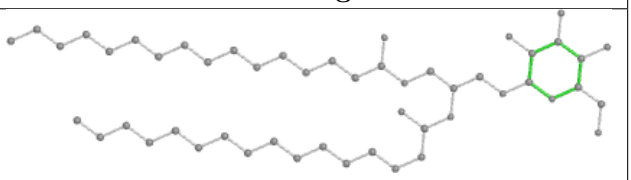
Bond lengths



Bond angles

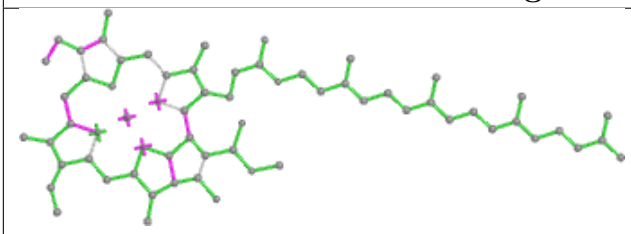


Torsions



Rings

Ligand CLA C 505



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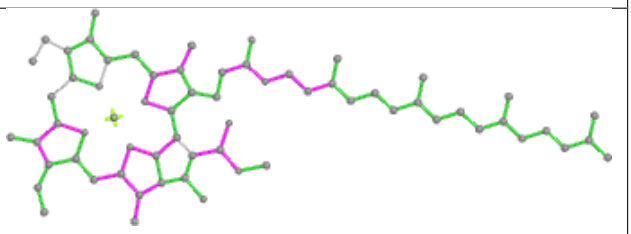
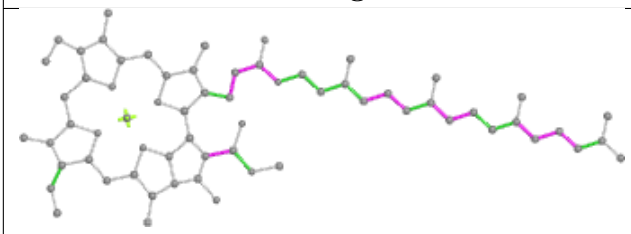
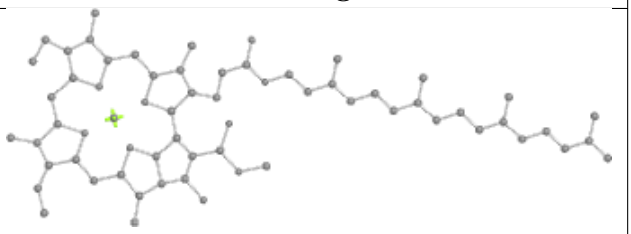


Bond angles

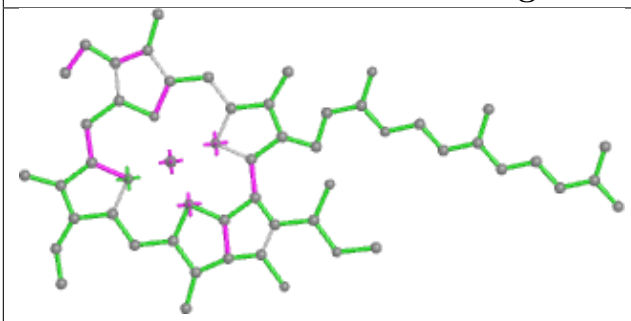


Torsions



Rings

Ligand CLA S1 604



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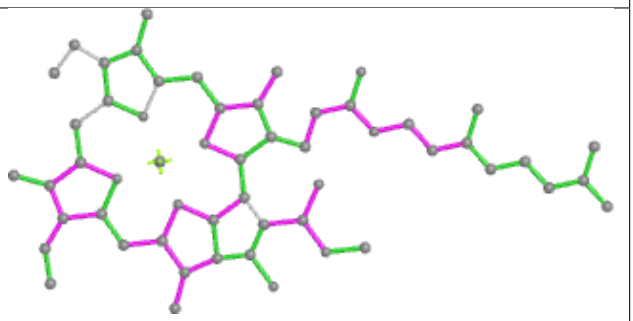
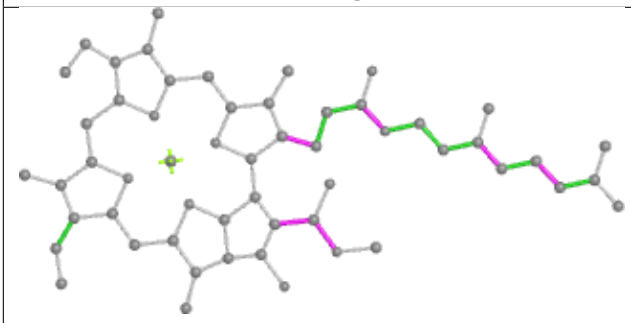


Bond angles



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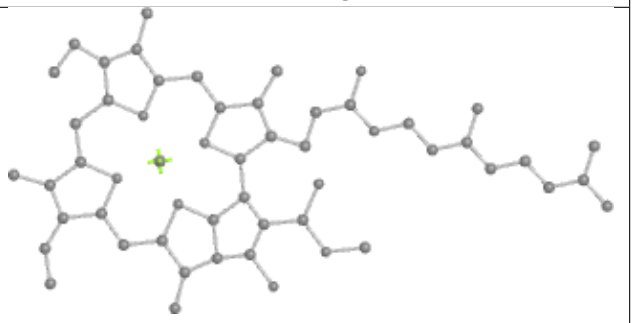
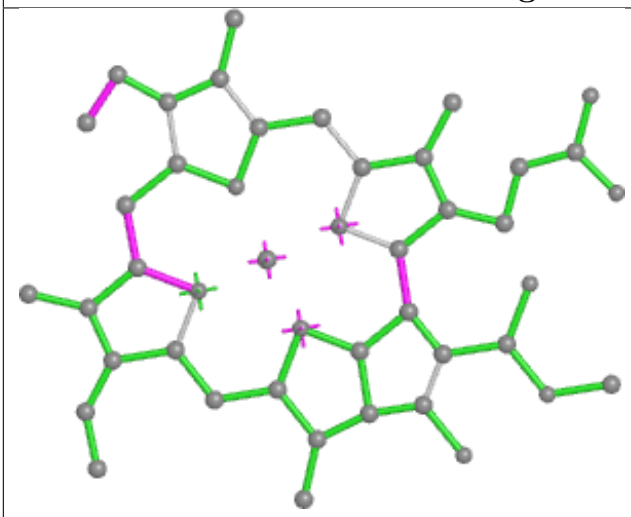


Rings

Ligand CLA S1 612



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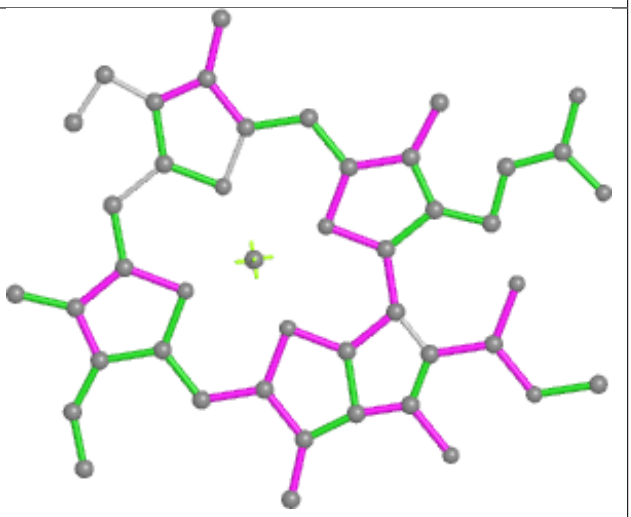
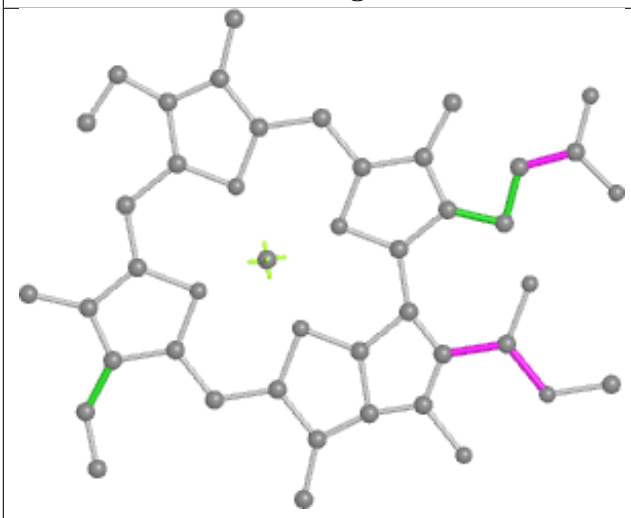


Bond angles



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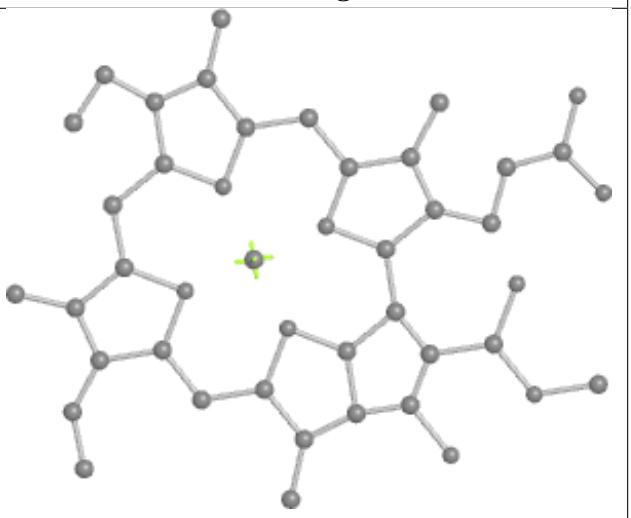
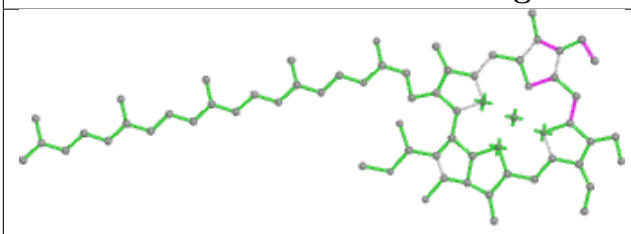


Rings

Ligand CHL N1 606



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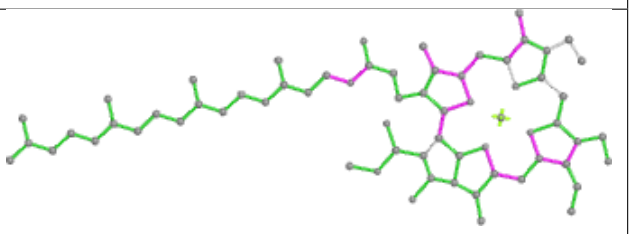
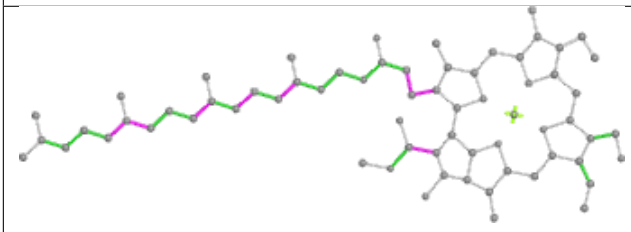


Bond angles



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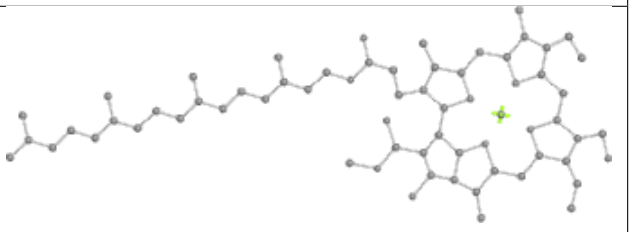
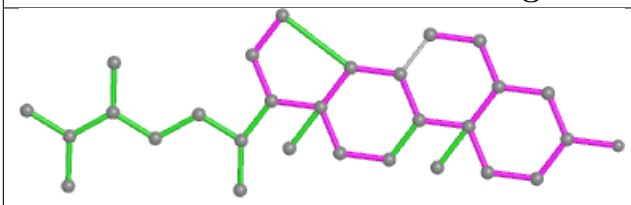


Rings

Ligand ERG R 626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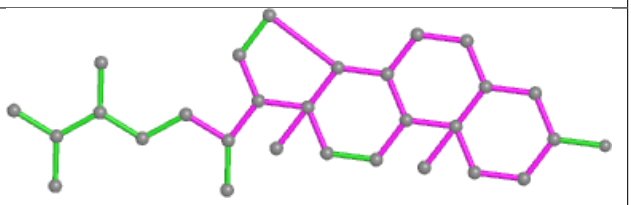
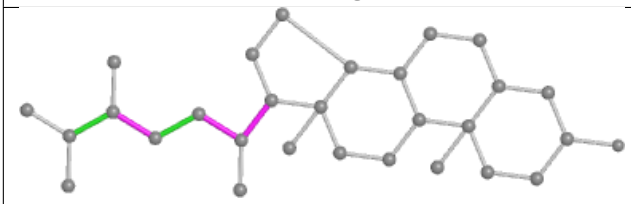

Bond angles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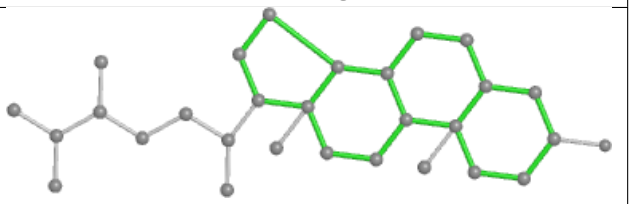
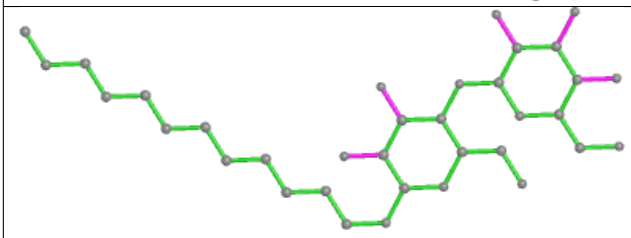
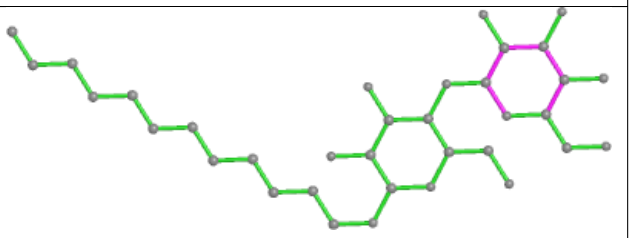
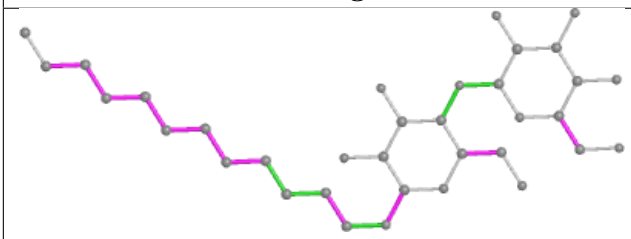

Rings

Ligand LMT r 625


Bond lengths


Bond angles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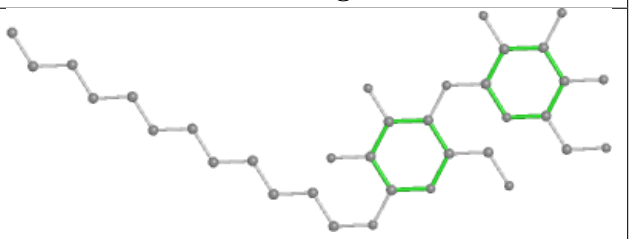
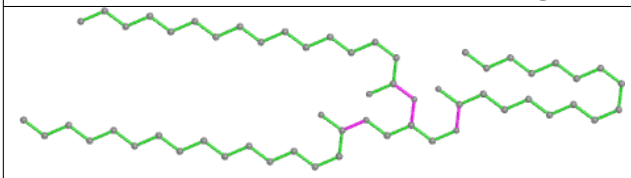

Rings

Ligand 4RF I 102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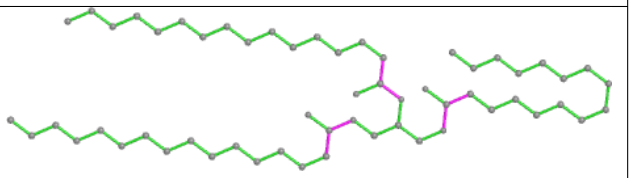
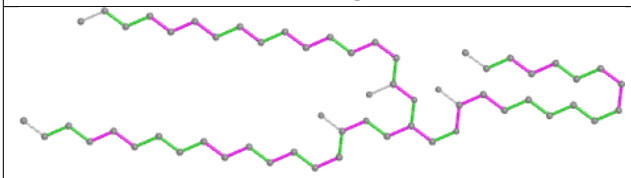

Bond angles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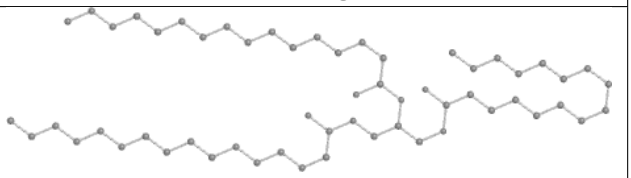
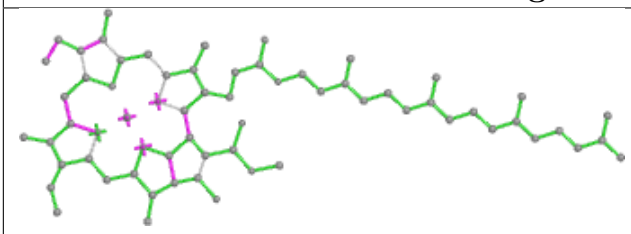
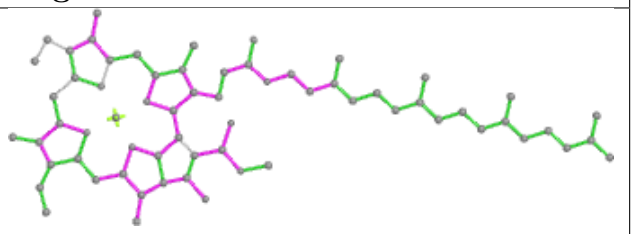

Rings

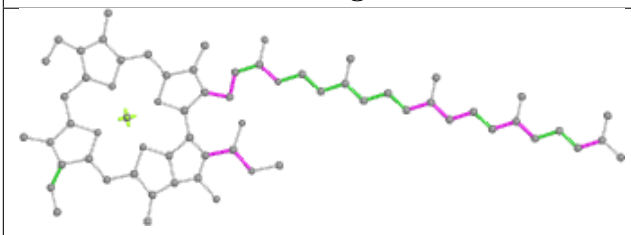
Ligand CLA g 610



Bond lengths



Bond angles



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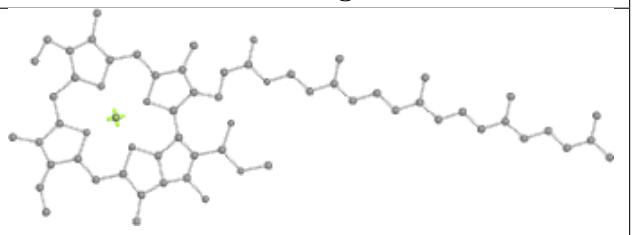
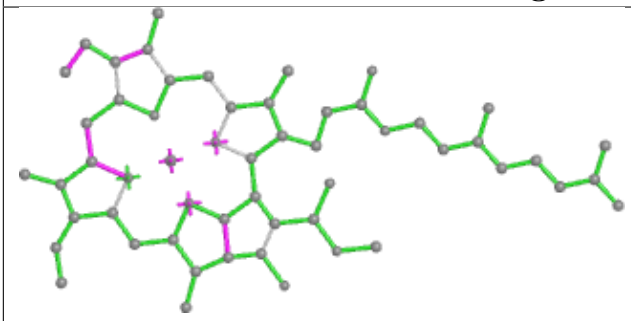


Rings

Ligand CLA s 614



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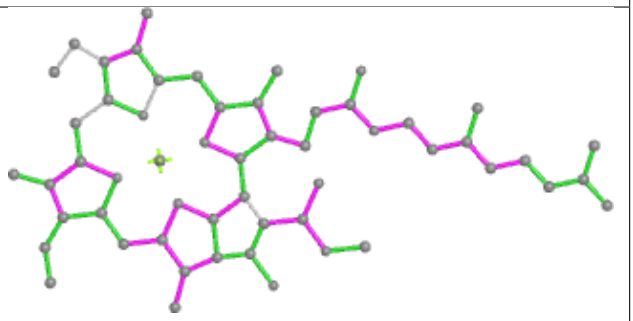
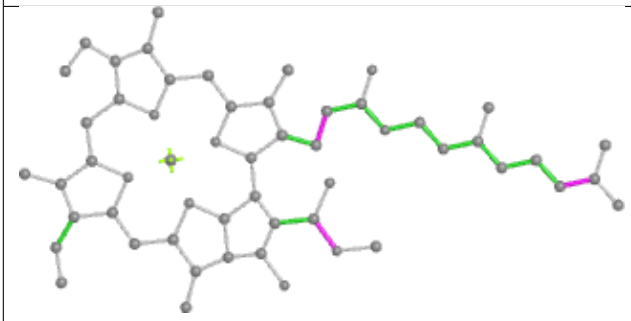


Bond angles



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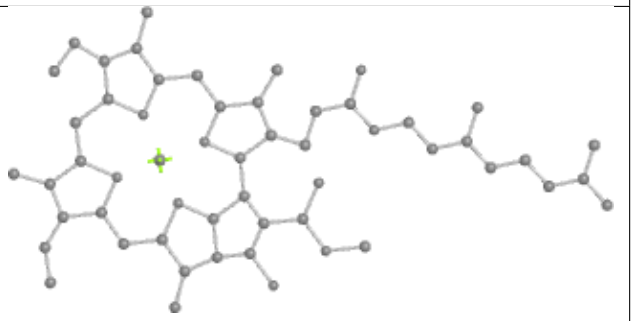
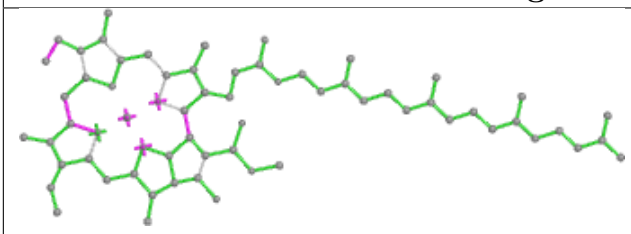


Rings

Ligand CLA n 613



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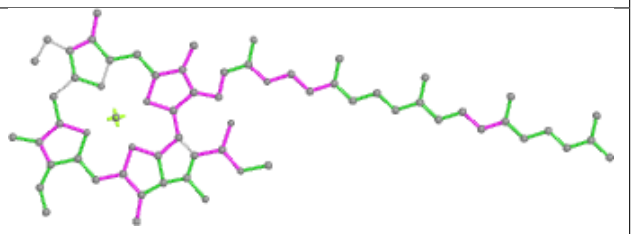
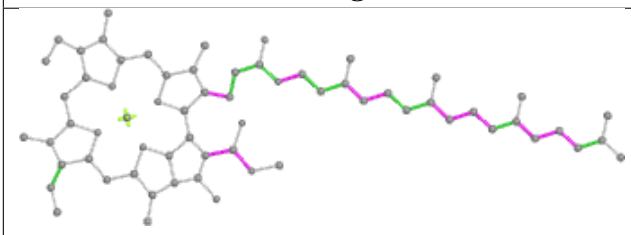


Bond angles



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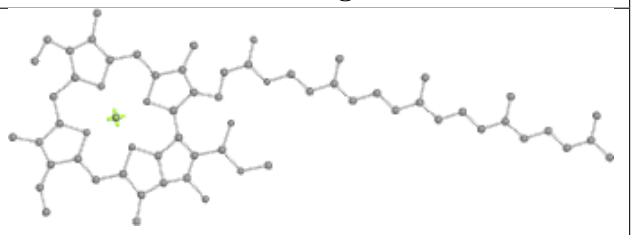
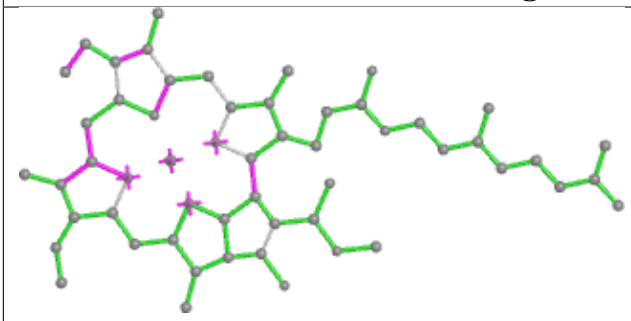


Rings

Ligand CLA s1 614



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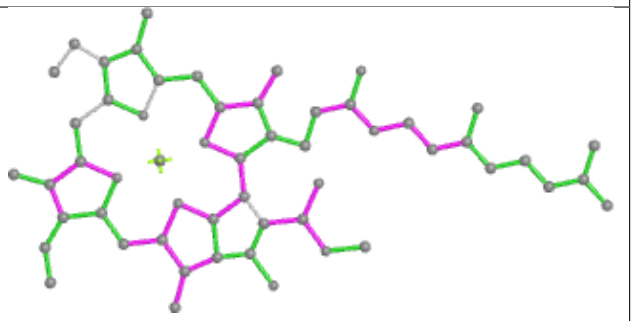
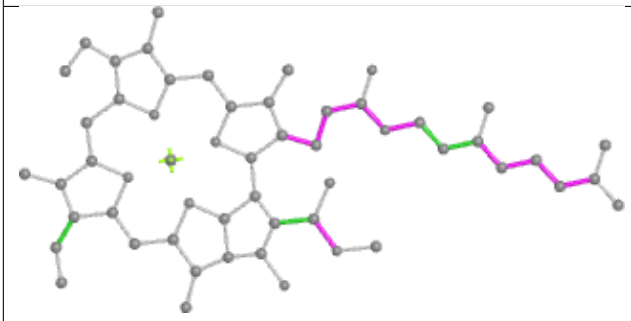
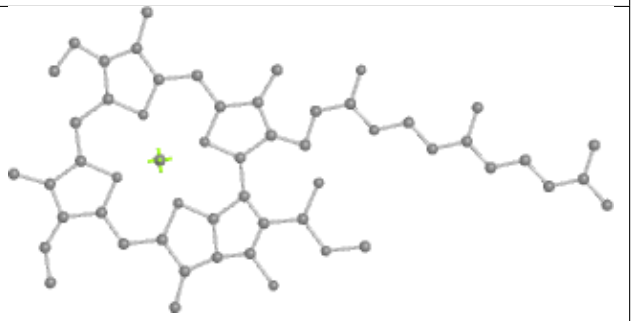


Bond angles

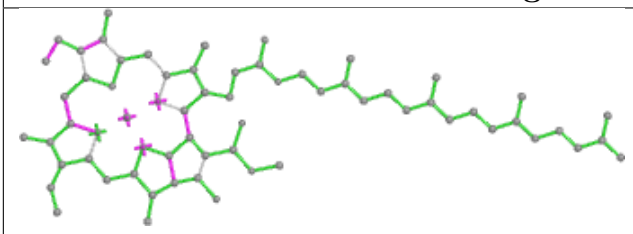


Torsions



Rings

Ligand CLA N 603



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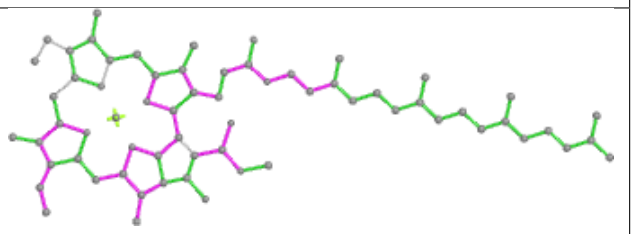
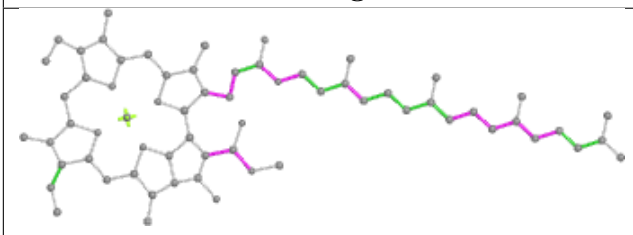
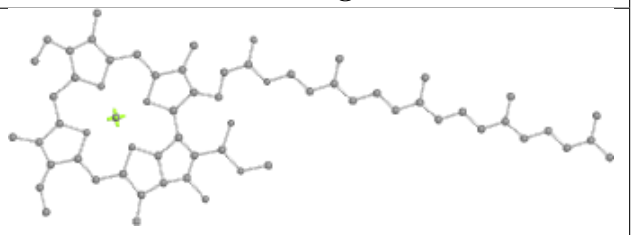


Bond angles

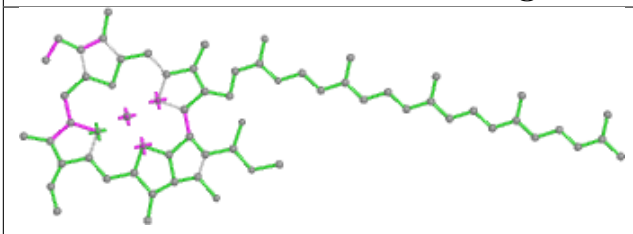


Torsions

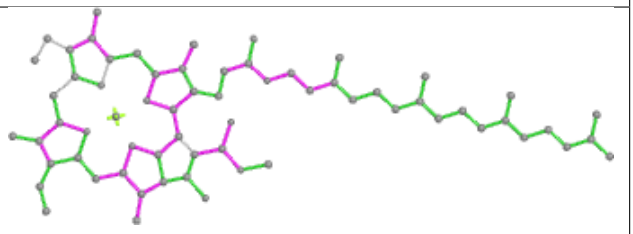


Rings

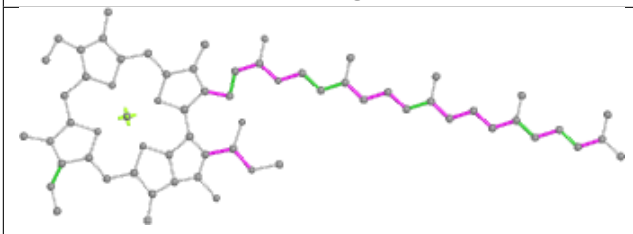
Ligand CLA b1 608



Bond lengths



Bond angles



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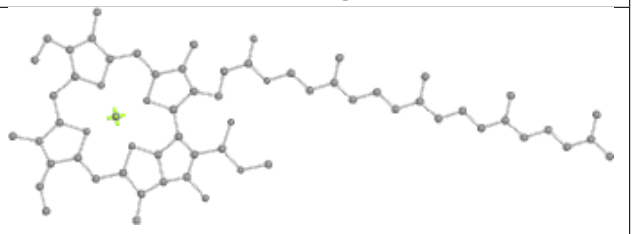
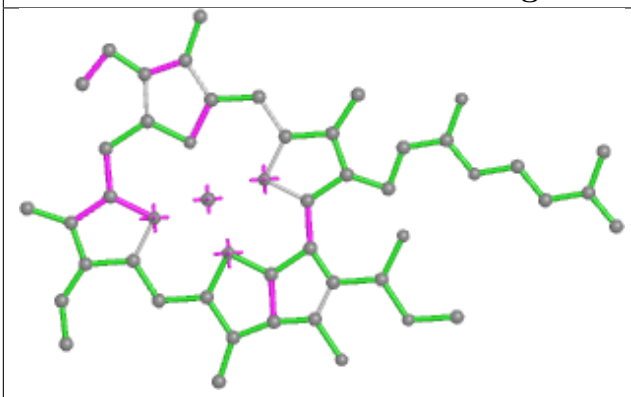
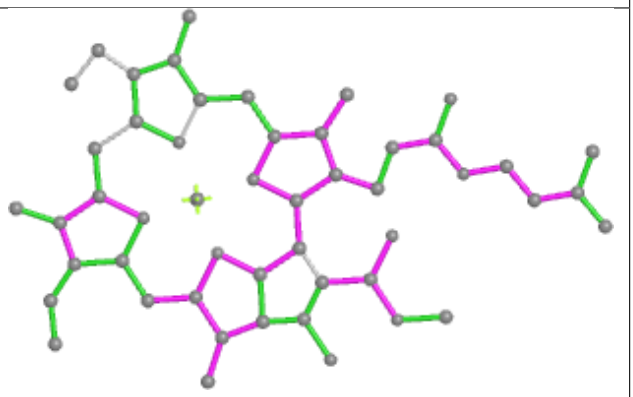


Rings

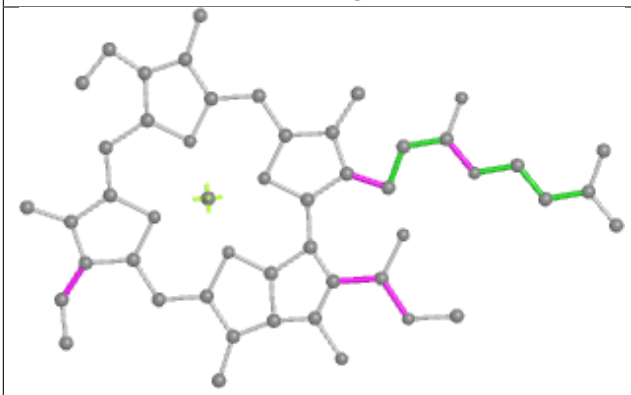
Ligand CLA s1 605



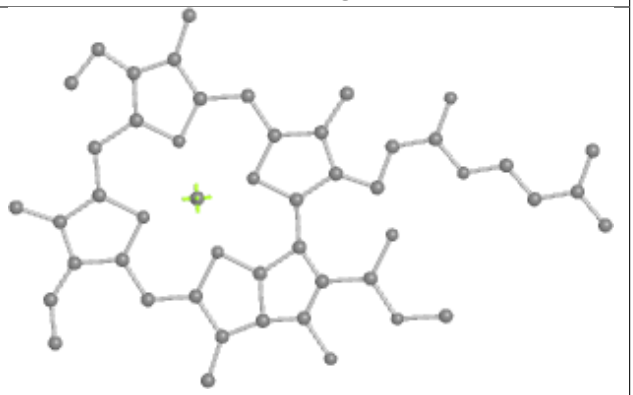
Bond lengths



Bond angles

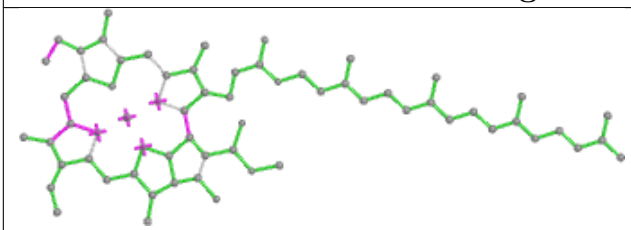


Torsions



Rings

Ligand CLA g1 611



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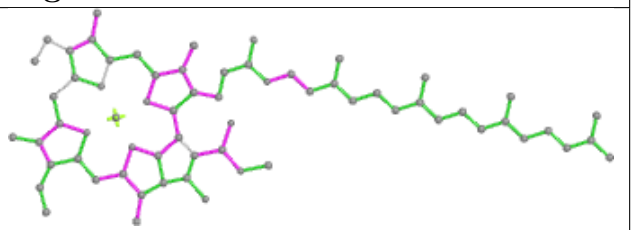

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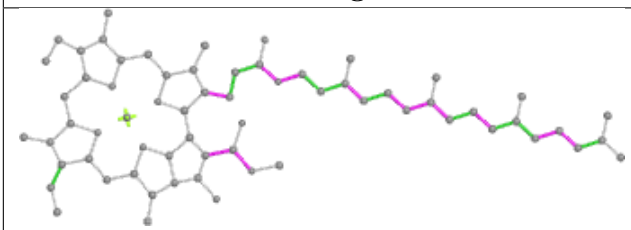

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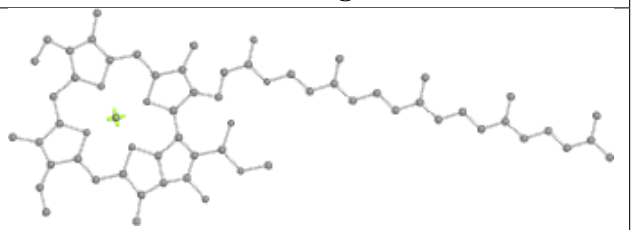
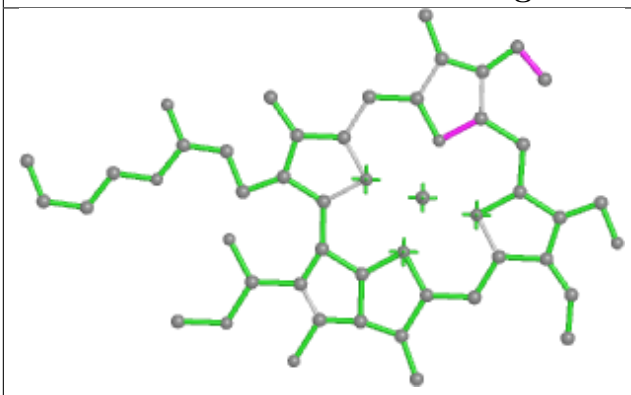


Rings

Ligand CHL R1 607



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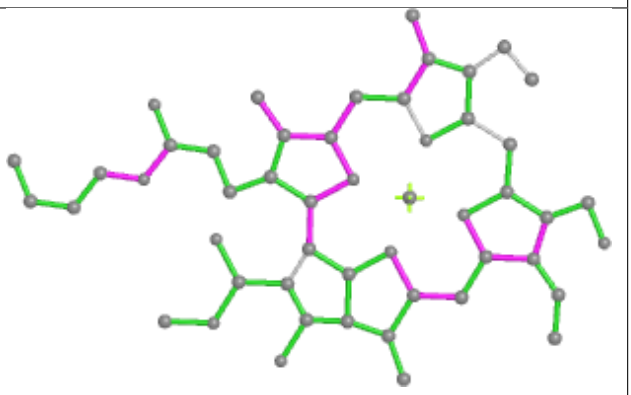

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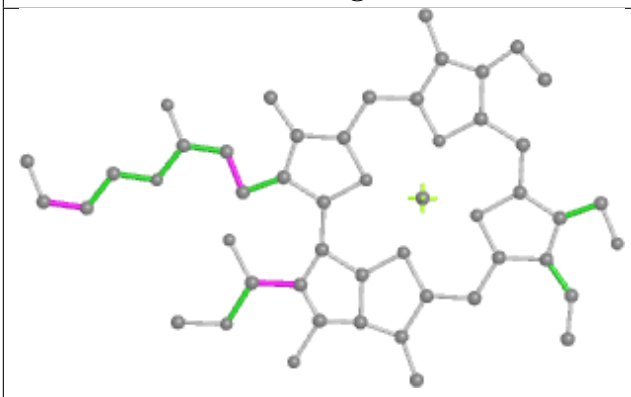

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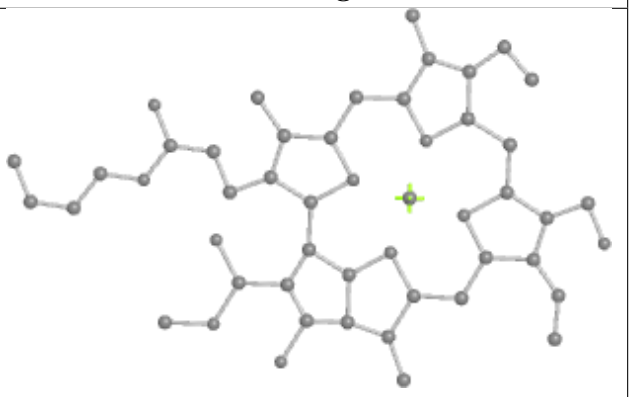
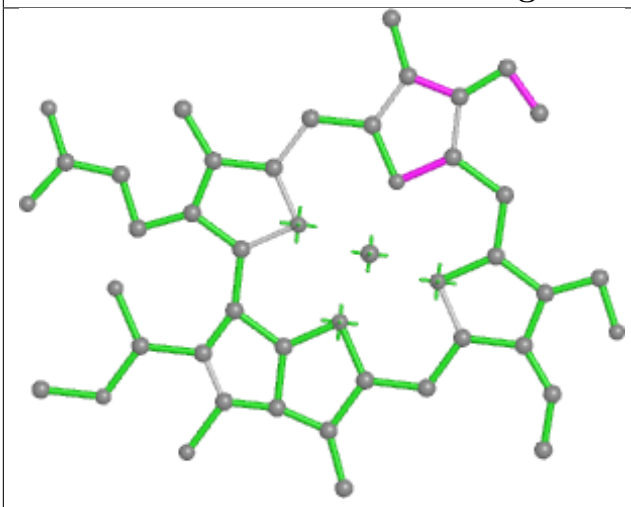


Rings

Ligand CHL y1 605



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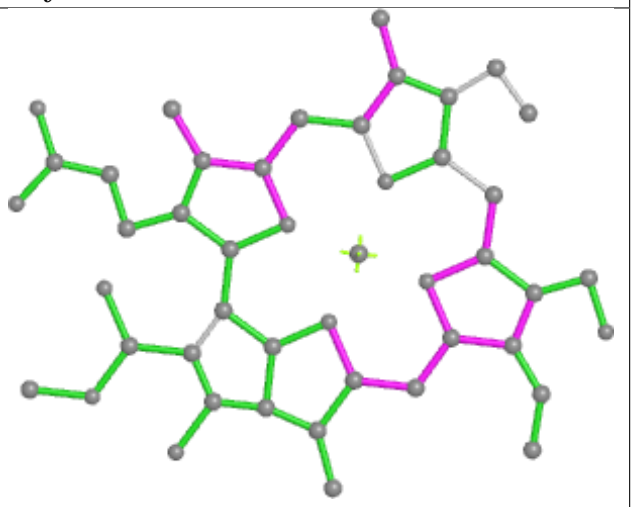

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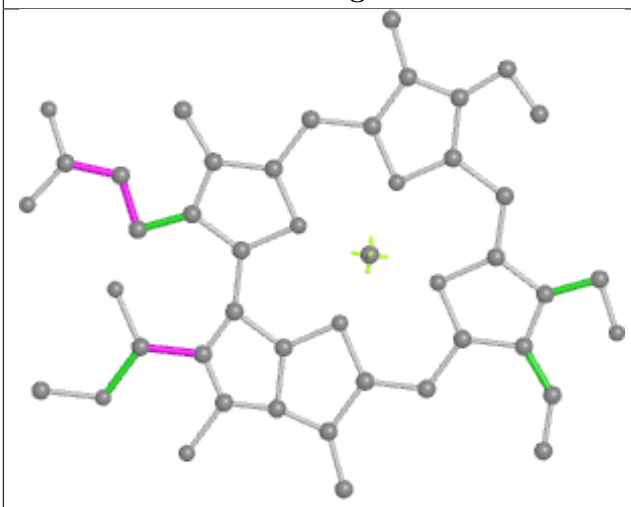

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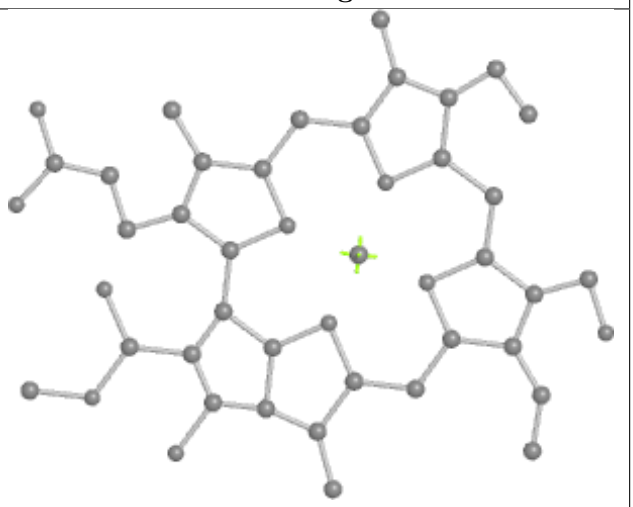
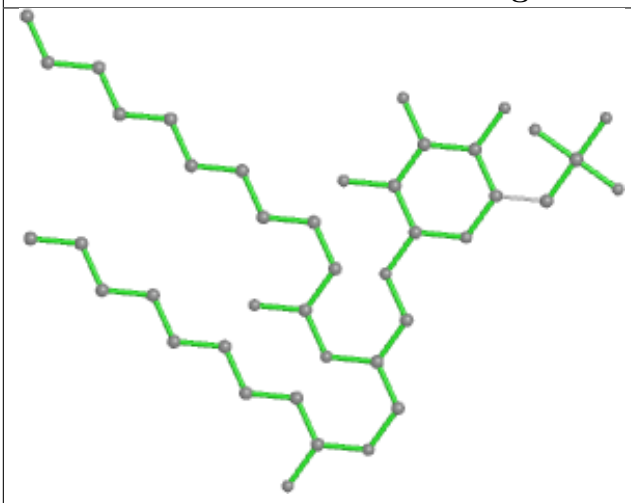


Rings

Ligand SQD M1 101



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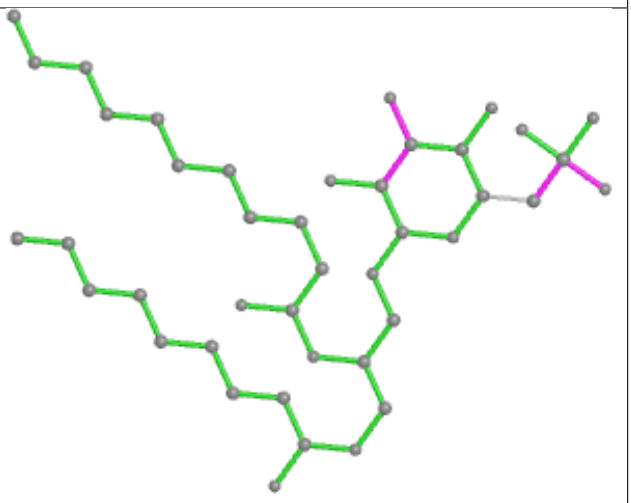

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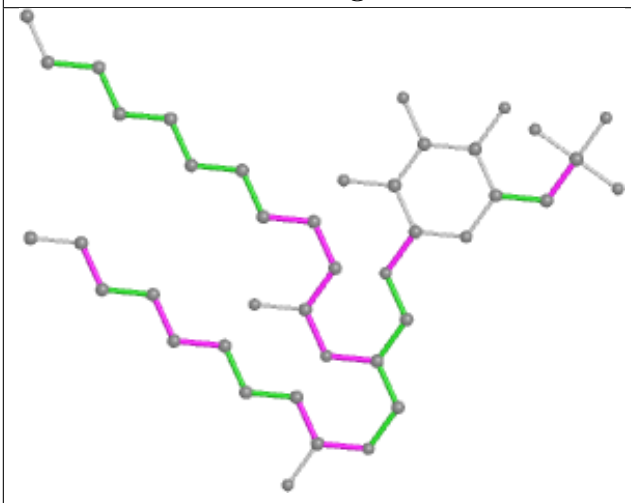

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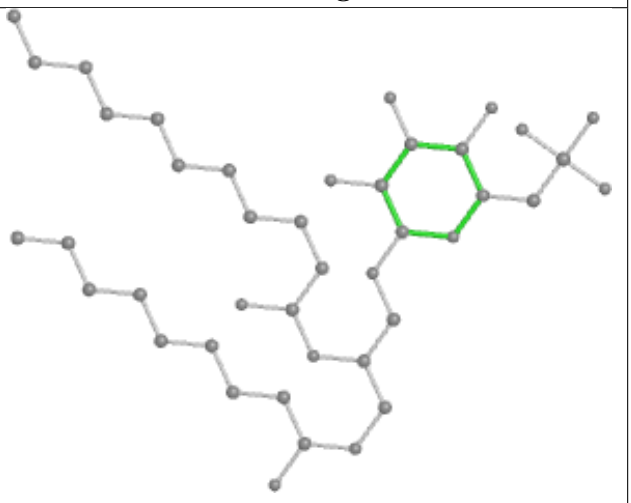
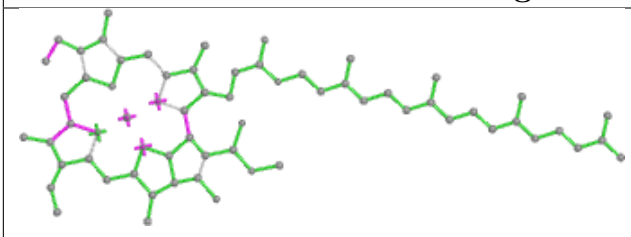


Rings

Ligand CLA G1 613



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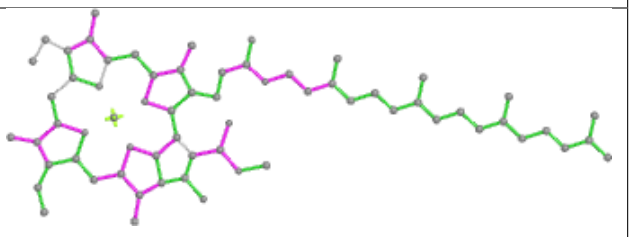

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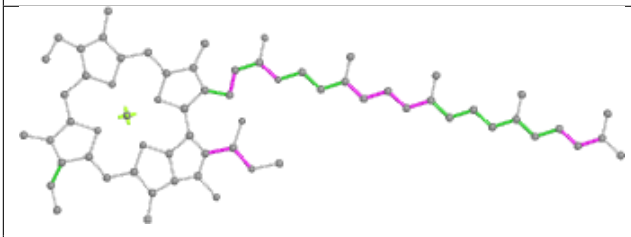

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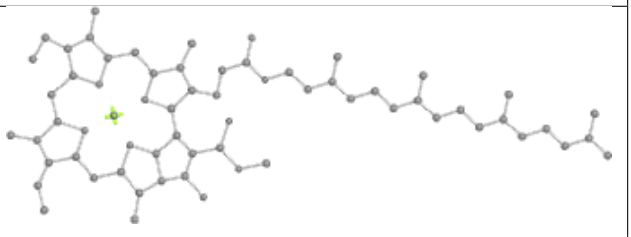
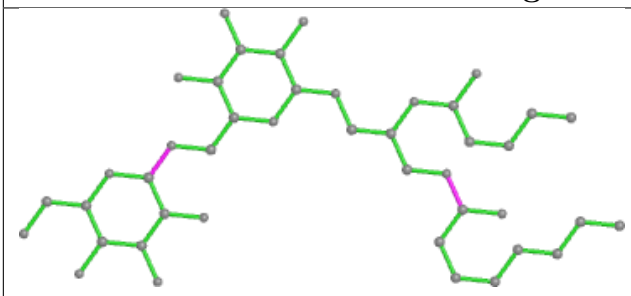


Rings

Ligand DGD b 623



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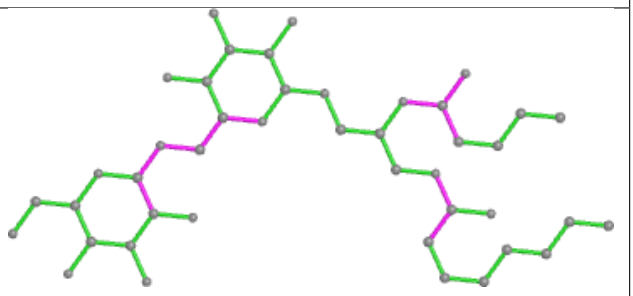

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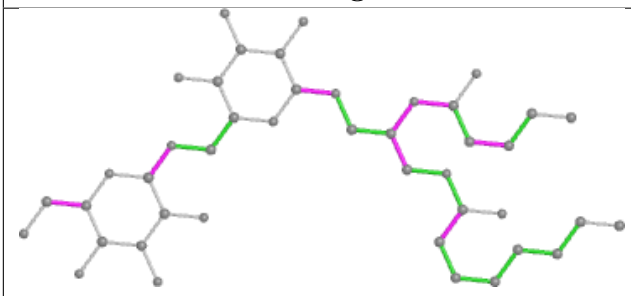

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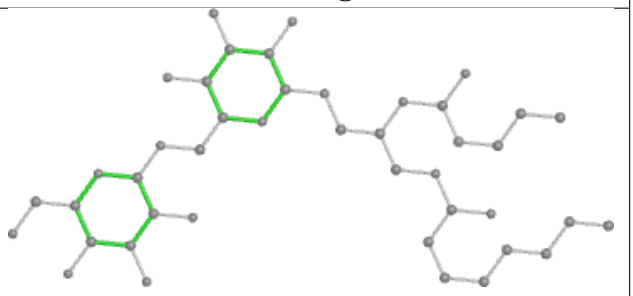
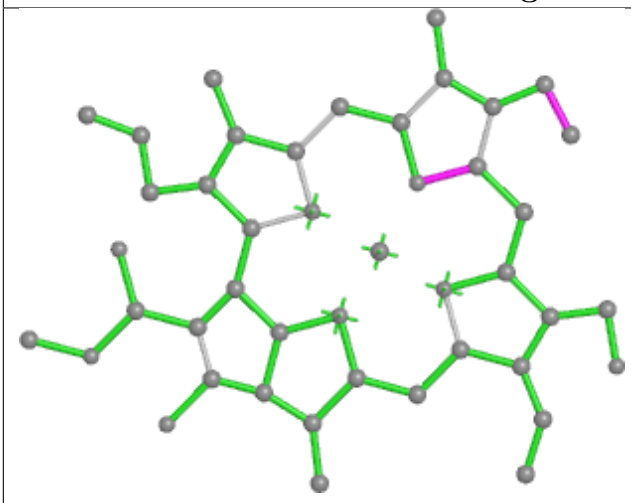


Rings

Ligand CHL s1 606



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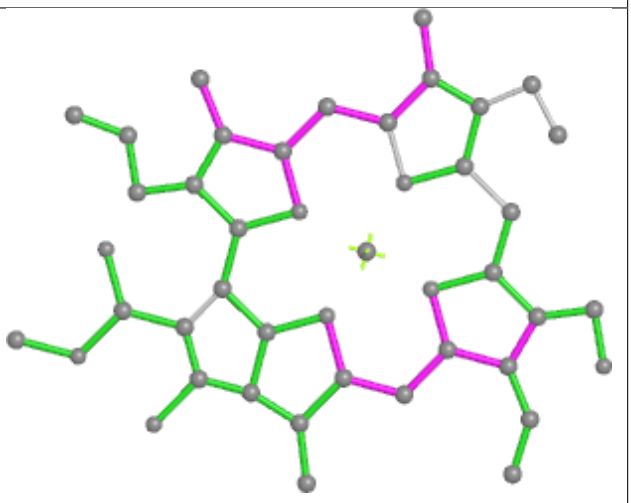

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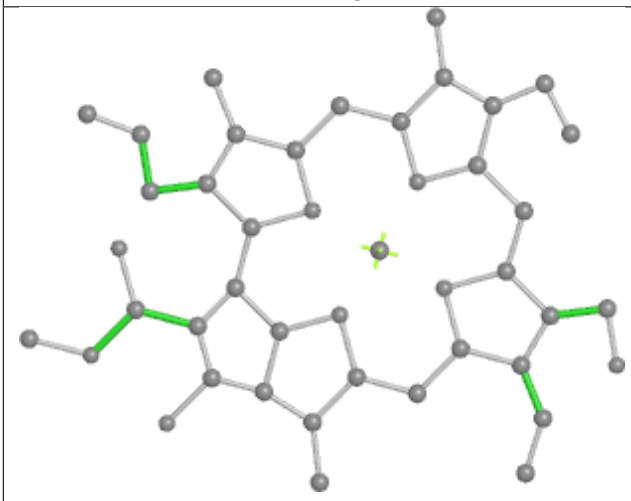

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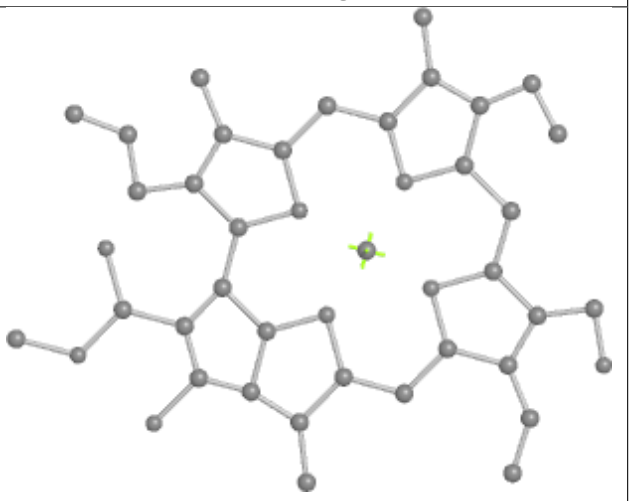
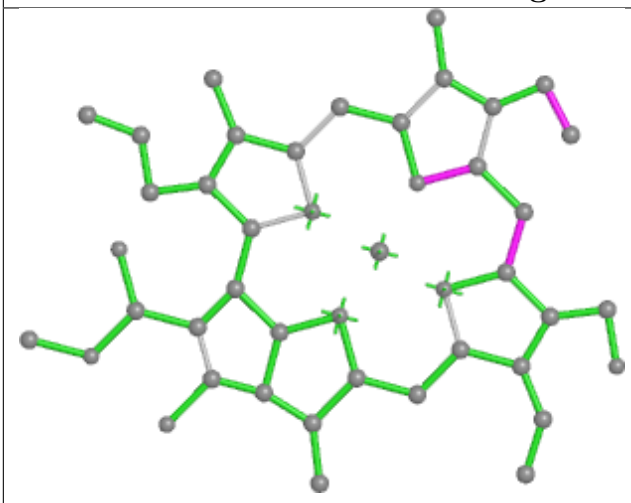


Rings

Ligand CHL s 606



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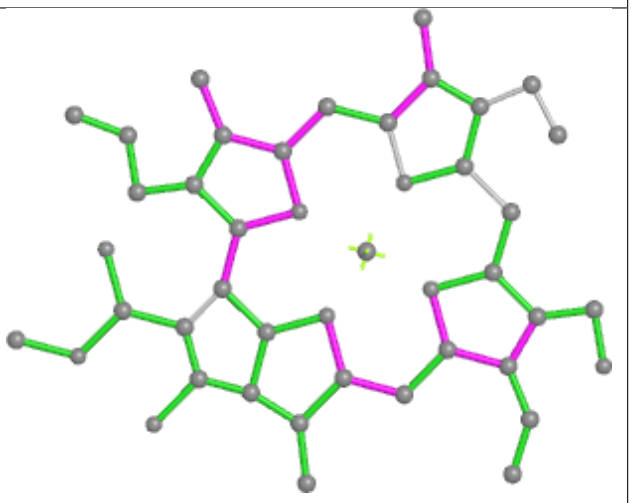

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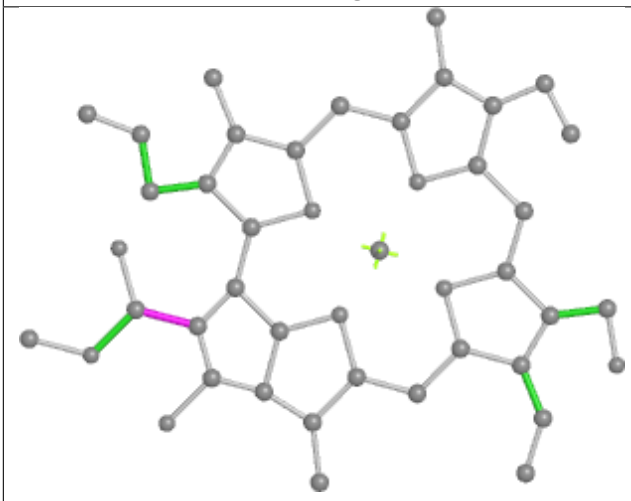

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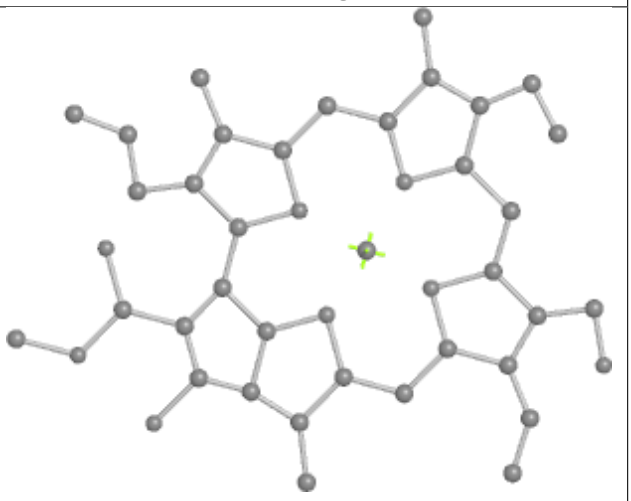
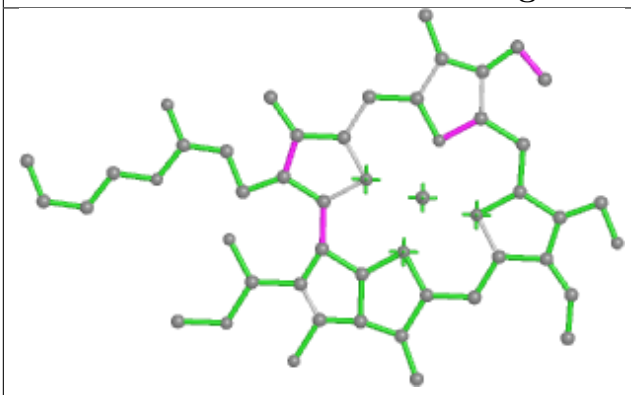


Rings

Ligand CHL g1 606



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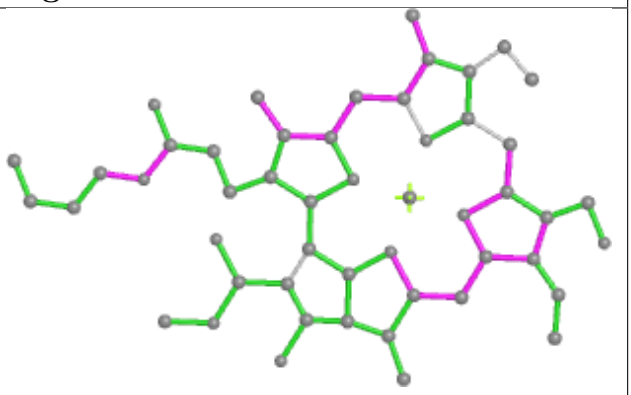

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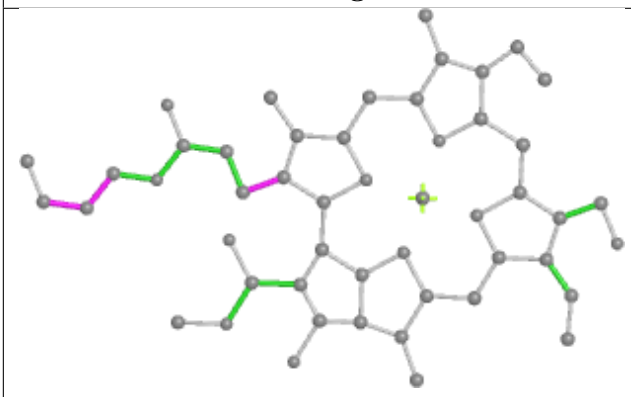

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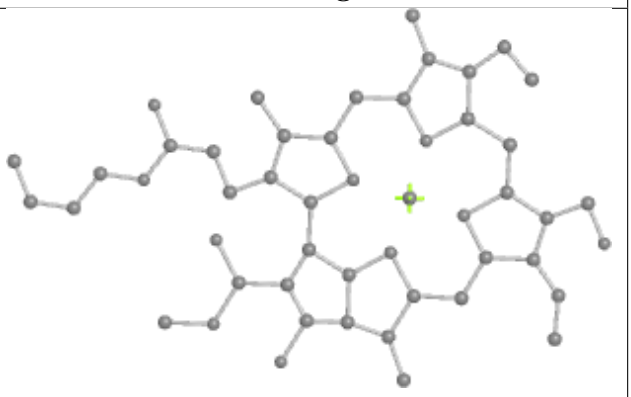
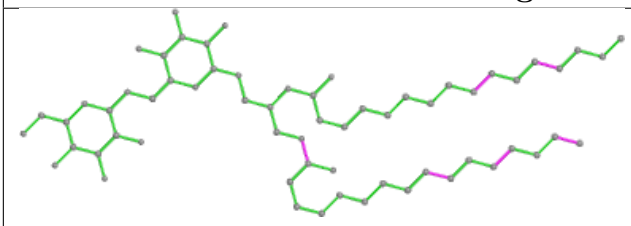


Rings

Ligand DGD c1 519



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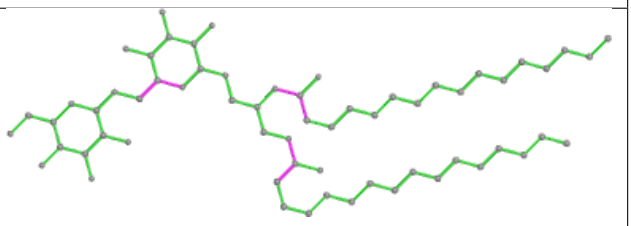
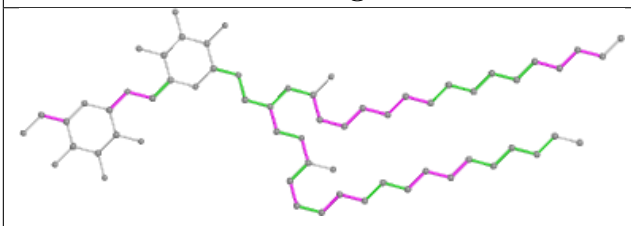


Bond angles



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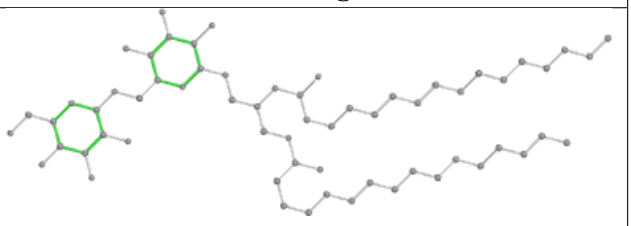
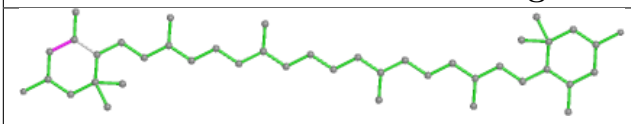


Rings

Ligand LUT y 620



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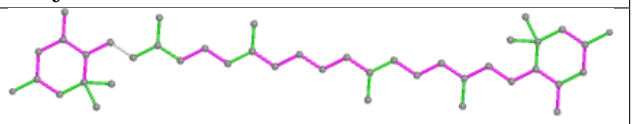
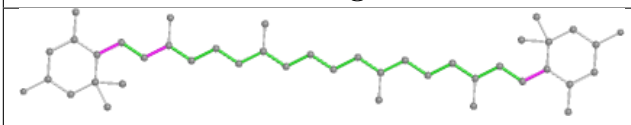


Bond angles



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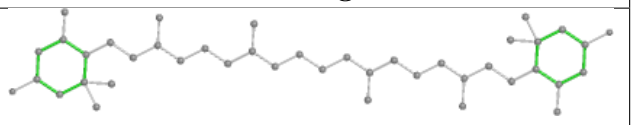
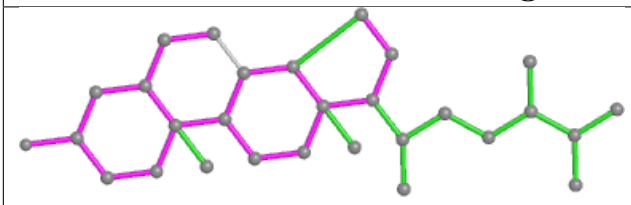


Rings

Ligand ERG r1 626



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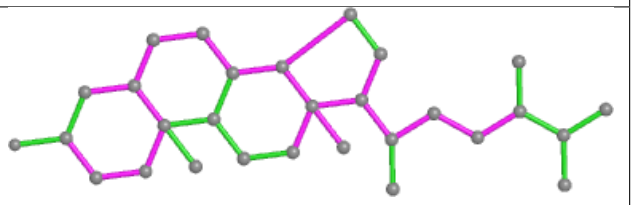
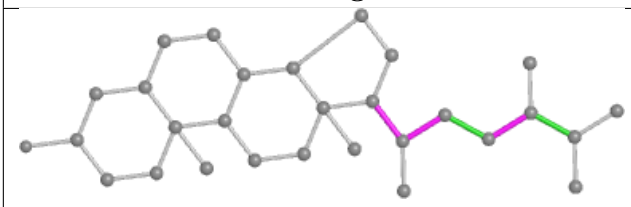


Bond angles



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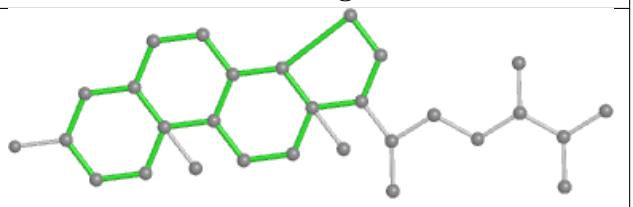
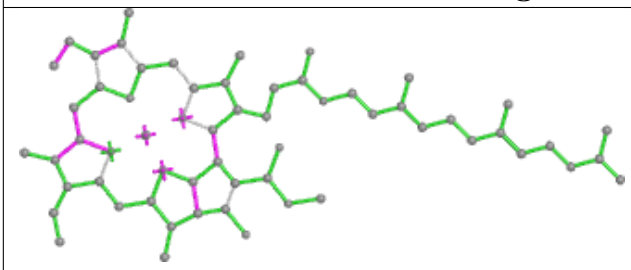


Rings

Ligand CLA R1 602



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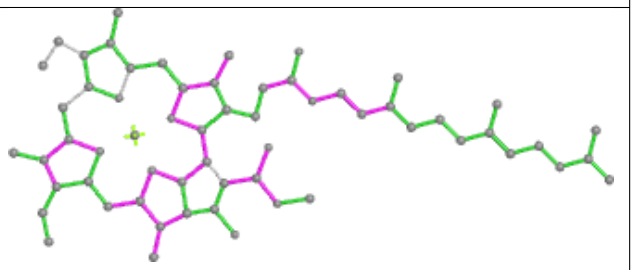
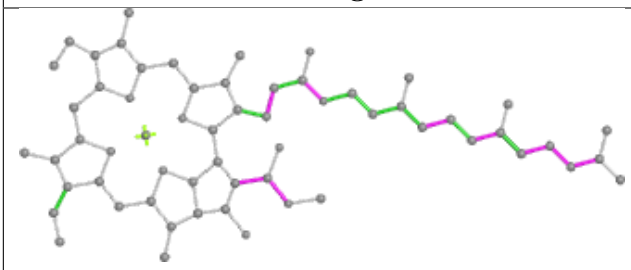


Bond angles



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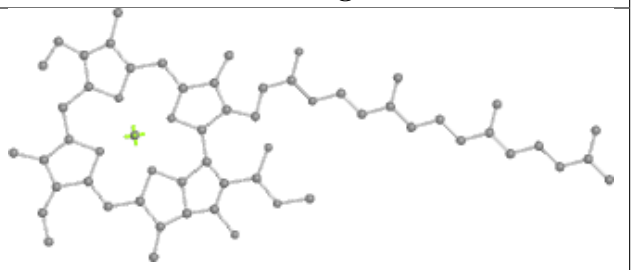
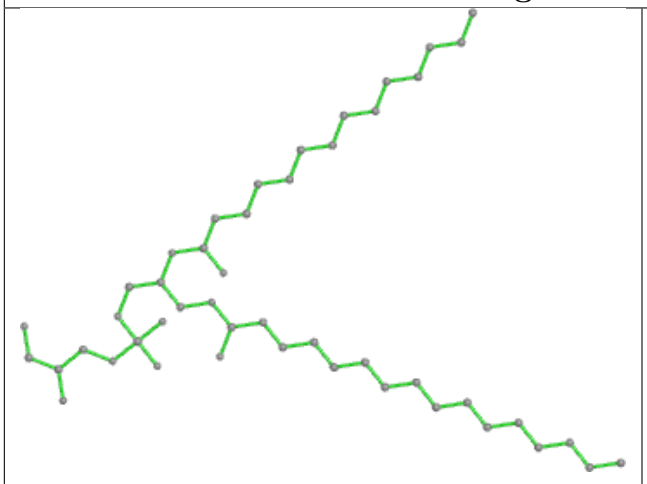


Rings

Ligand LHG C1 525



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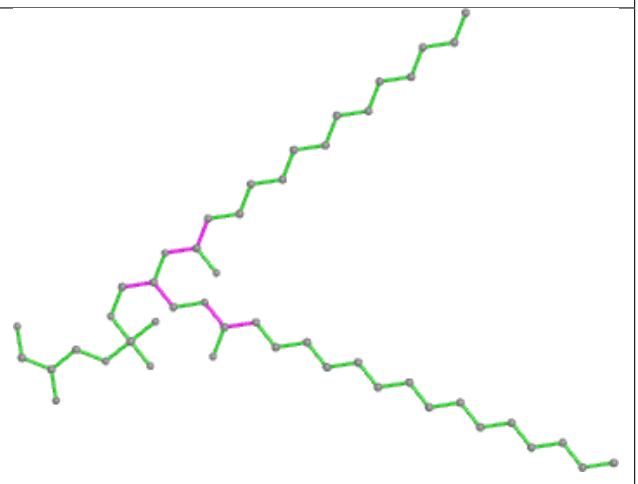
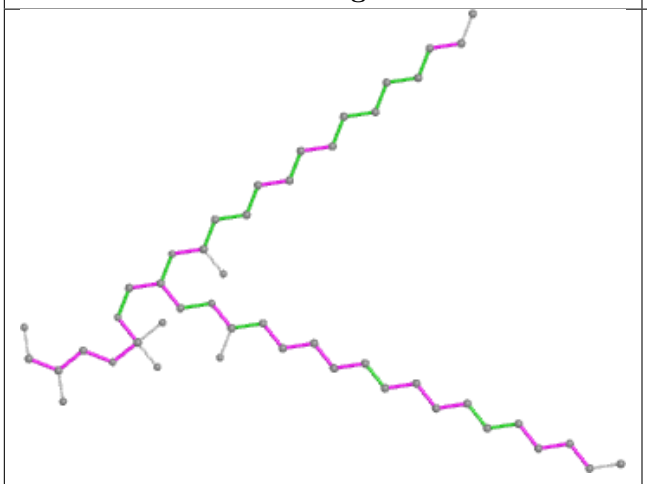
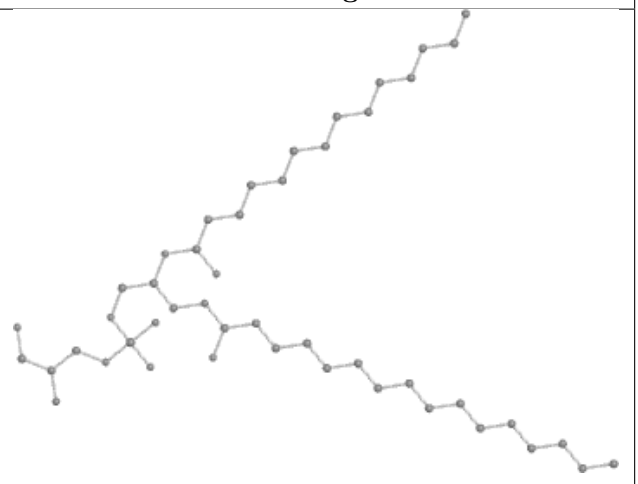


Bond angles

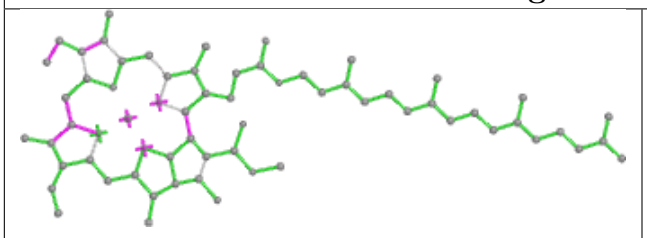


Torsions

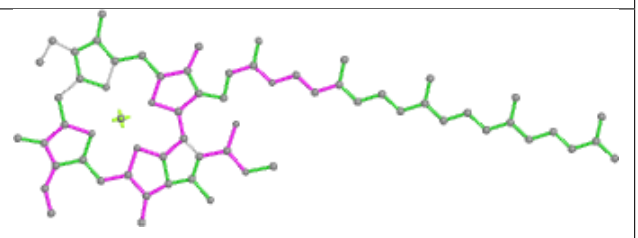


Rings

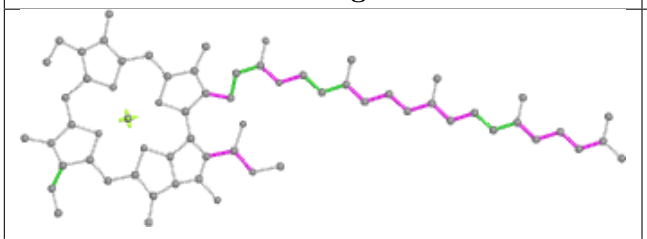
Ligand CLA n 603



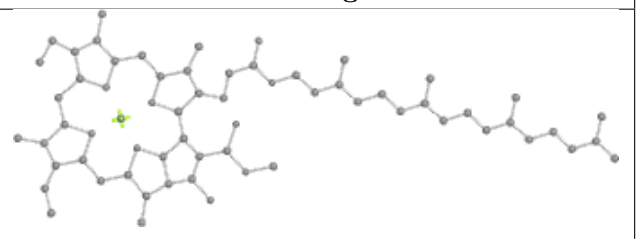
Bond lengths



Bond angles

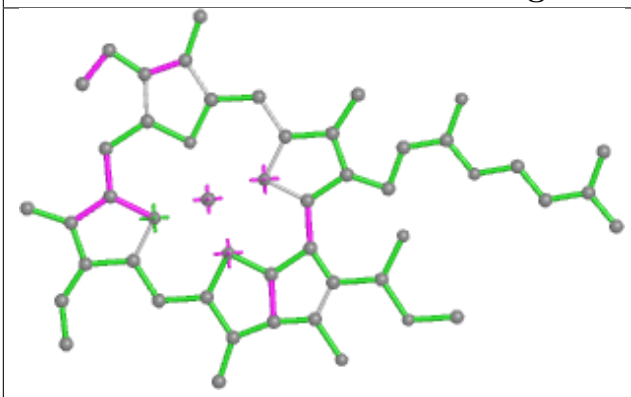


Torsions



Rings

Ligand CLA y 608



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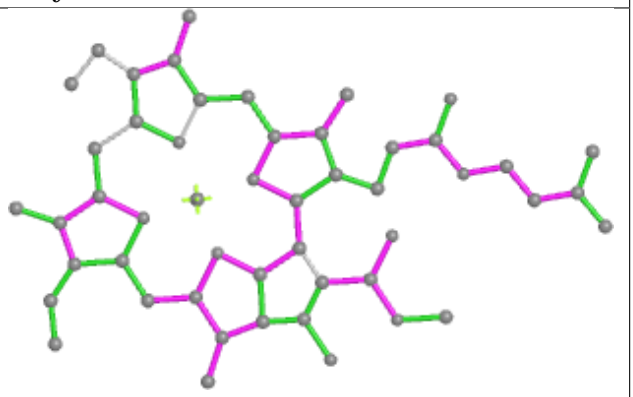
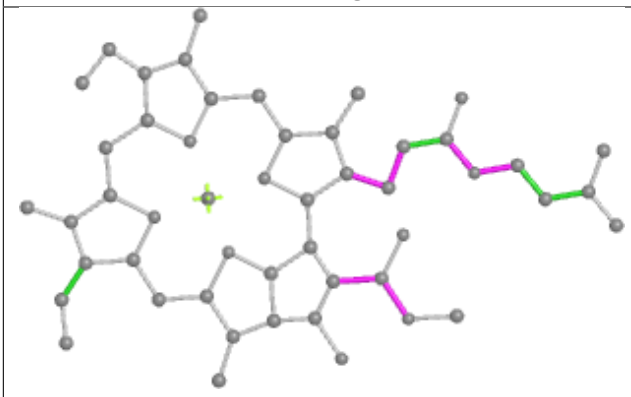


Bond angles



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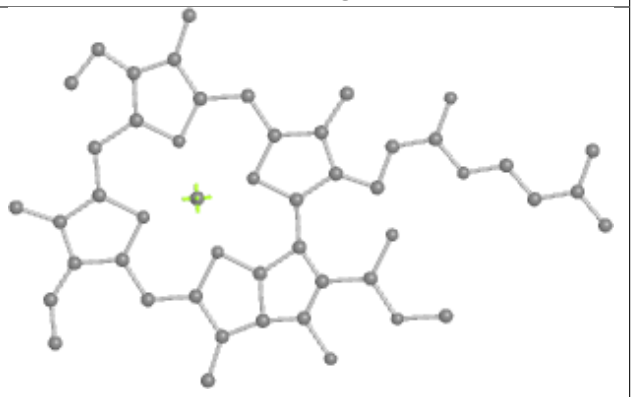
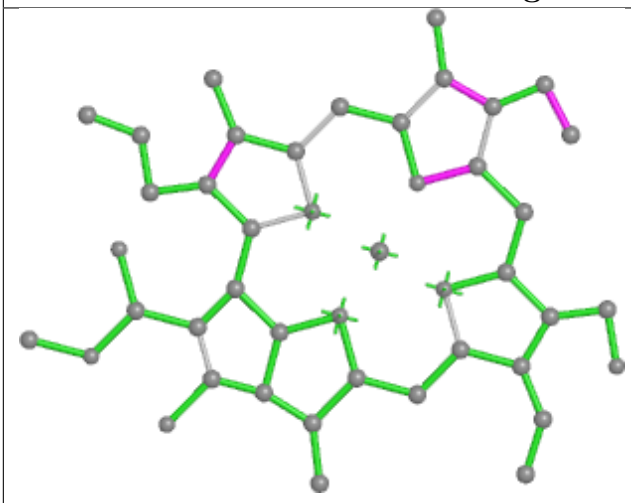


Rings

Ligand CHL R 606



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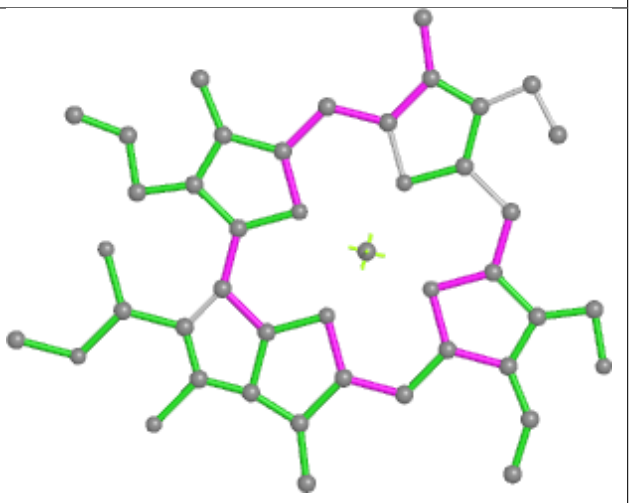
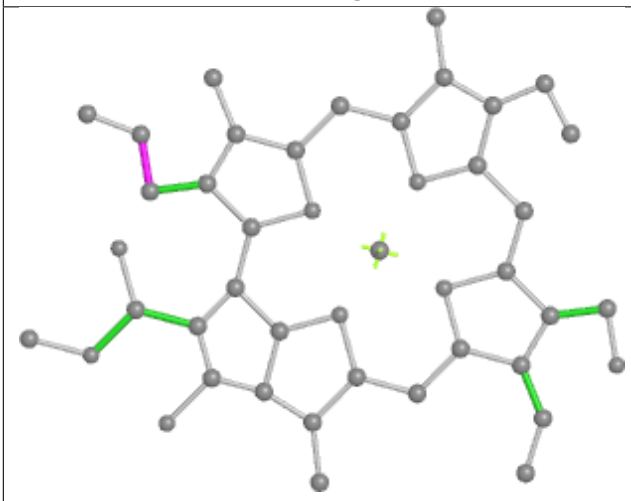


Bond angles



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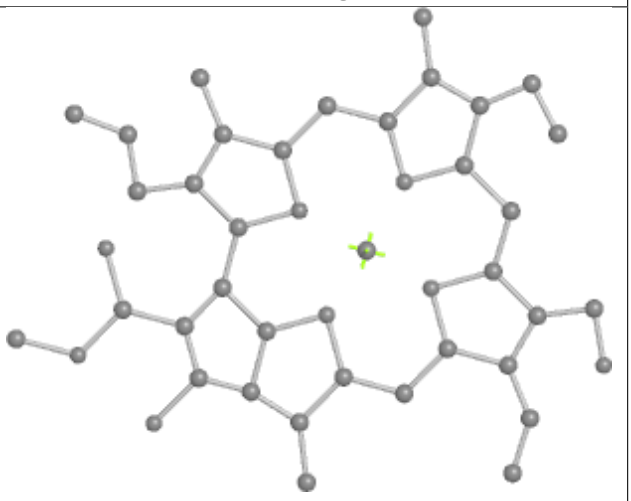
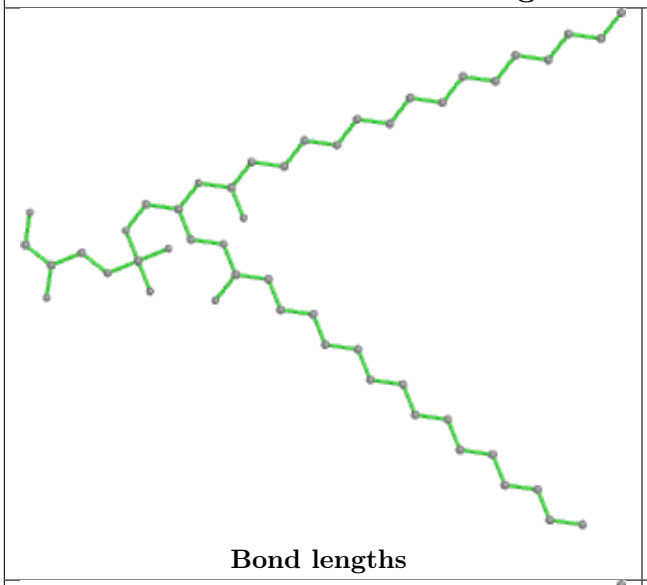
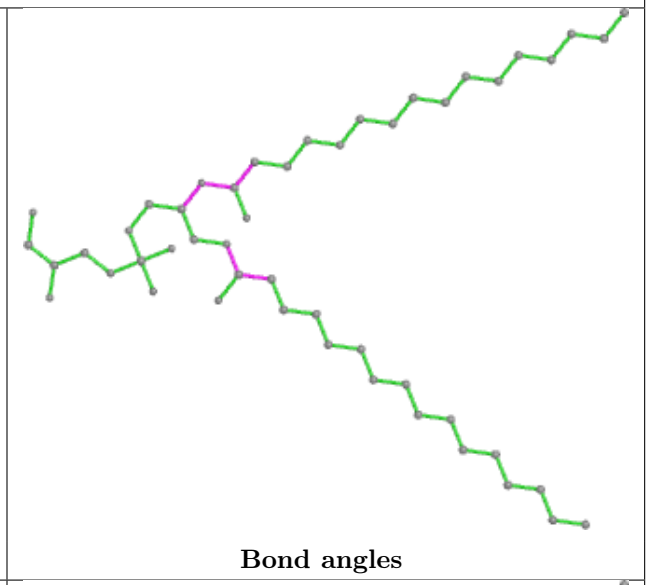


Rings

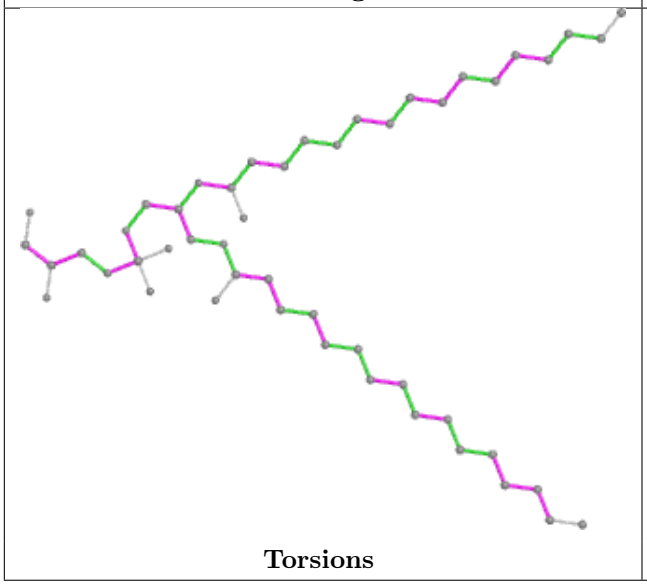
Ligand LHG n1 624



Bond lengths



Bond angles



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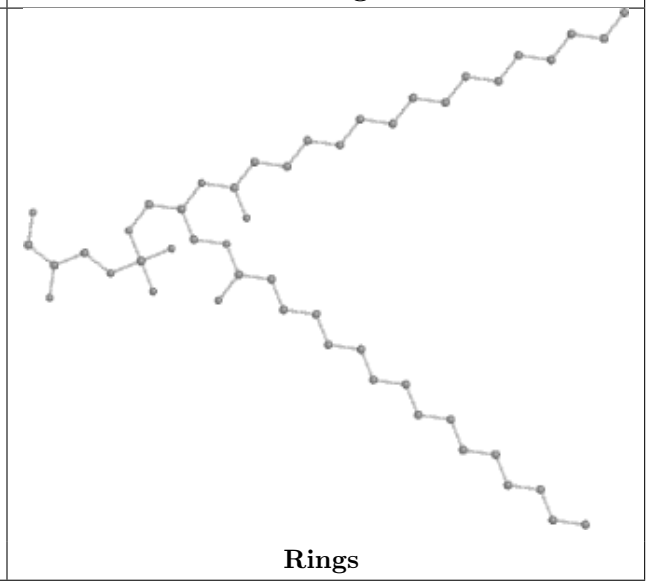
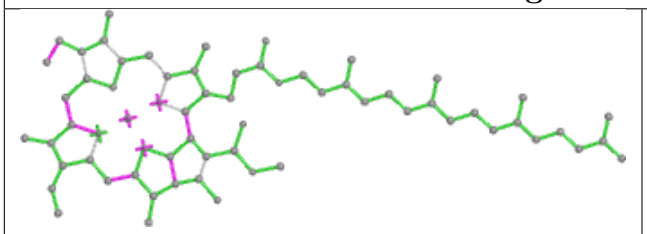
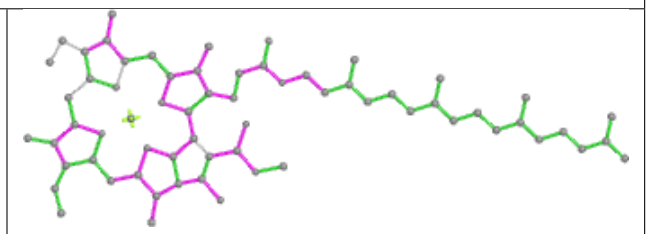


Rings

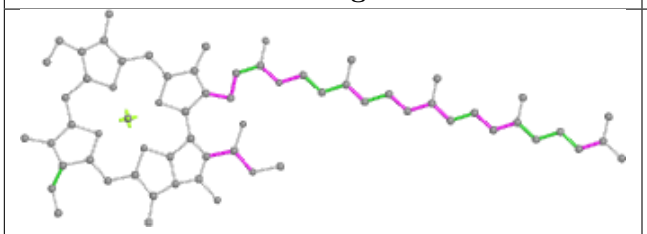
Ligand CLA B 607



Bond lengths



Bond angles



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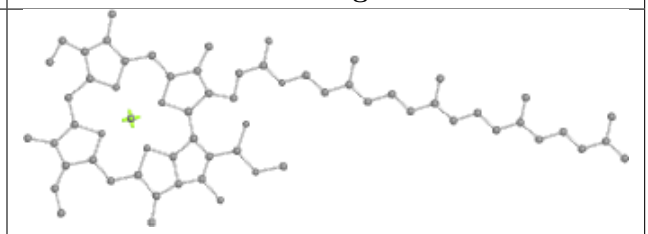
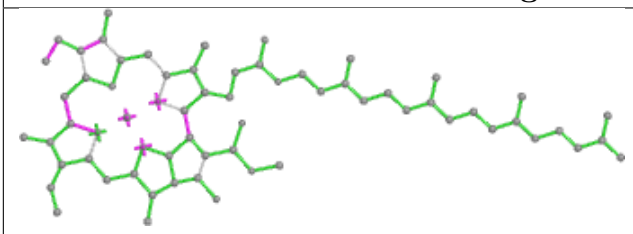


Rings

Ligand CLA c1 511



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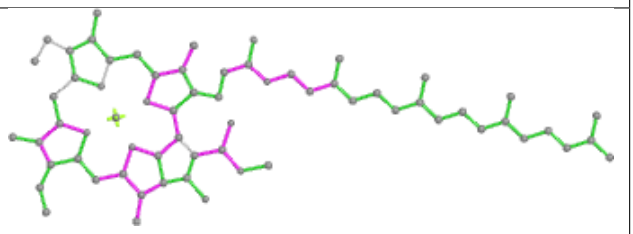

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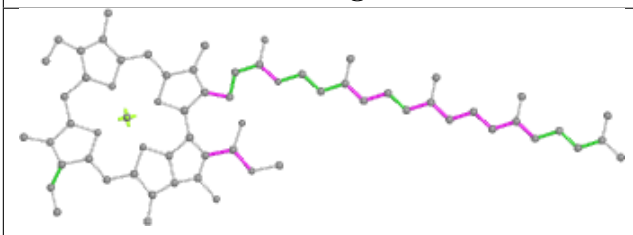

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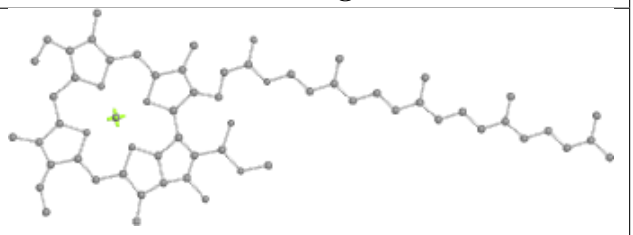
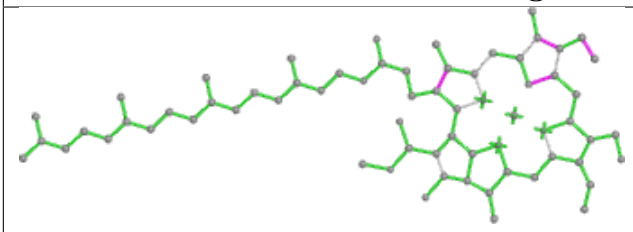
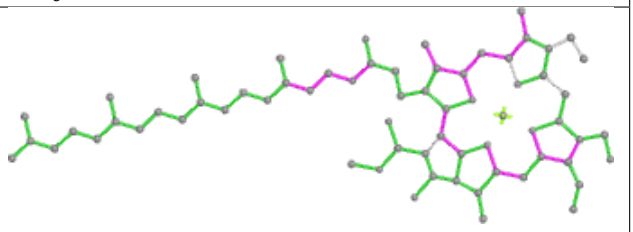


Rings

Ligand CHL y 606



Bond lengths



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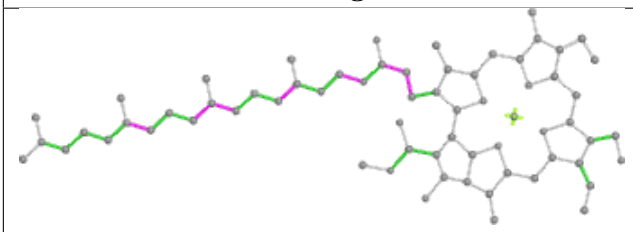

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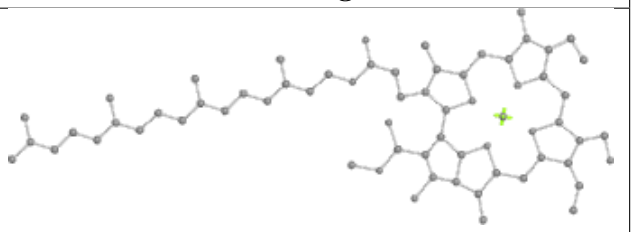
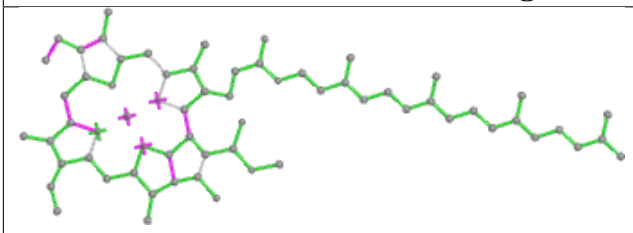


Rings

Ligand CLA b1 615



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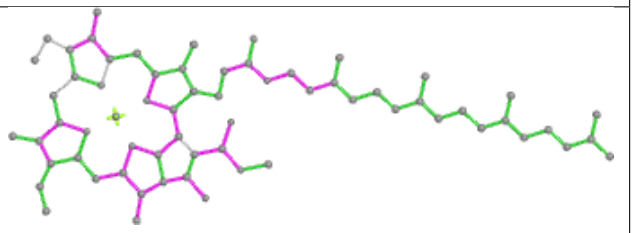
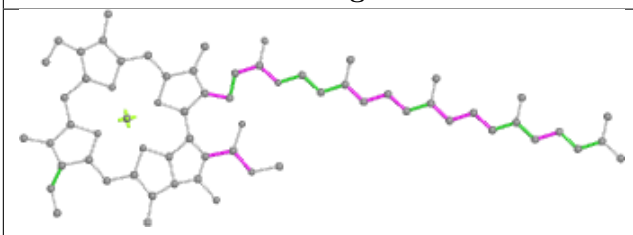


Bond angles



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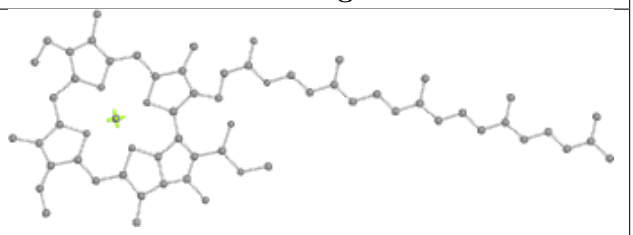
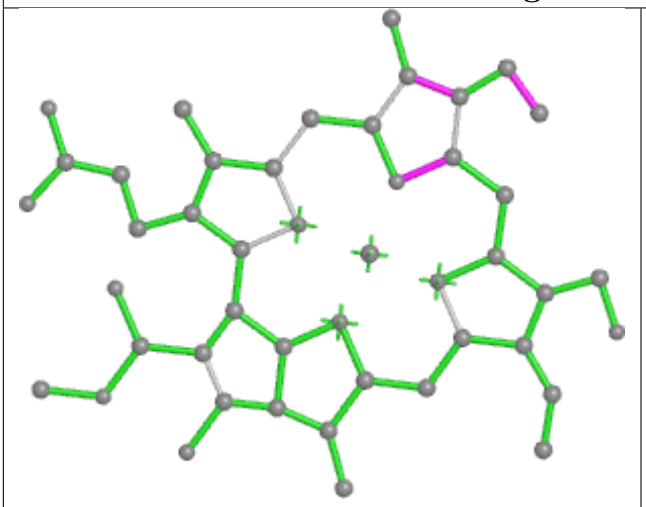
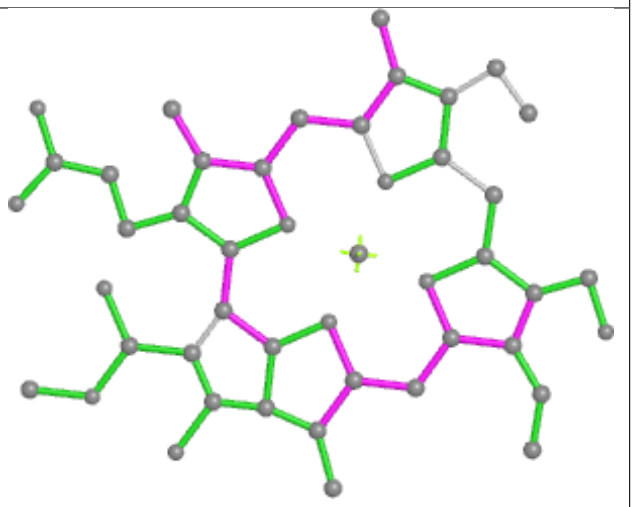


Rings

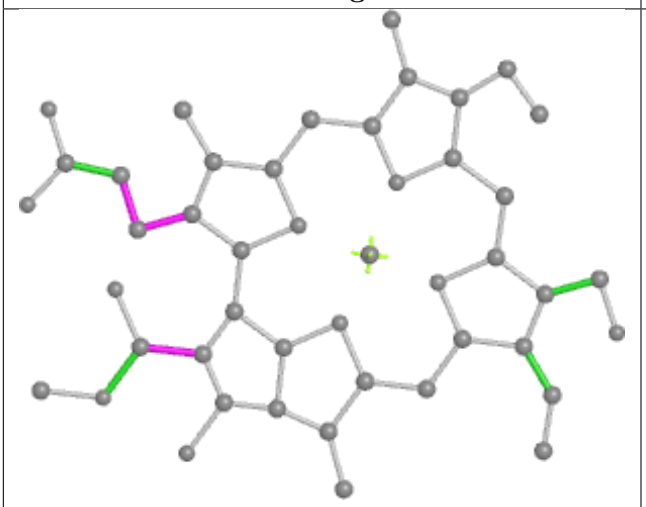
Ligand CHL Y 605



Bond lengths



Bond angles



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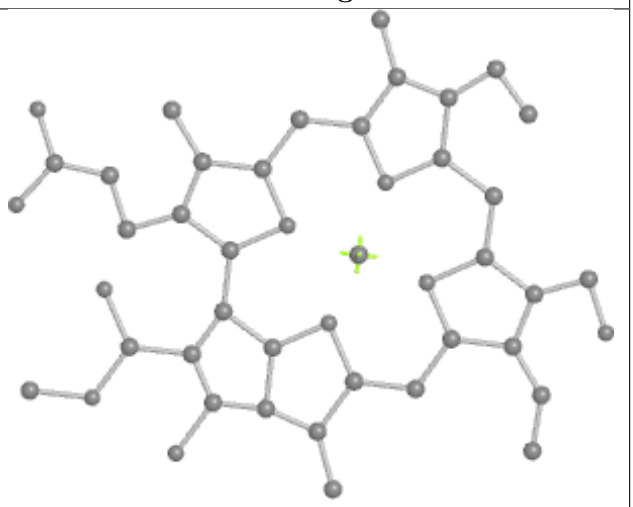
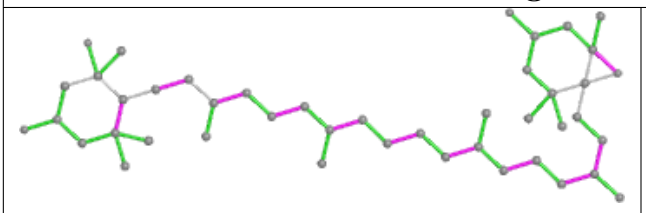


Rings

Ligand NEX n 623



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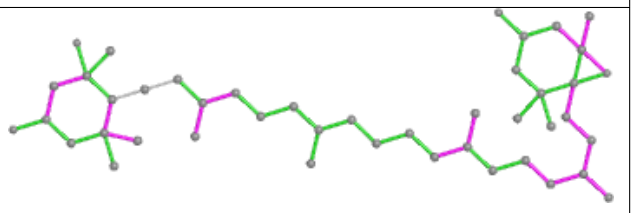
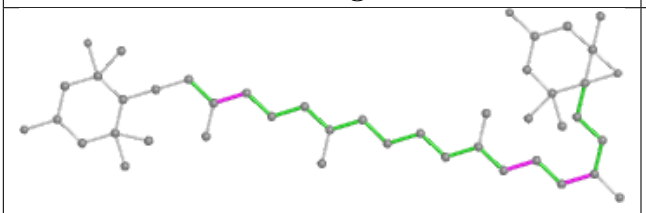


Bond angles



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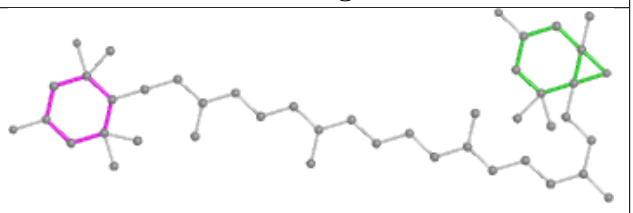
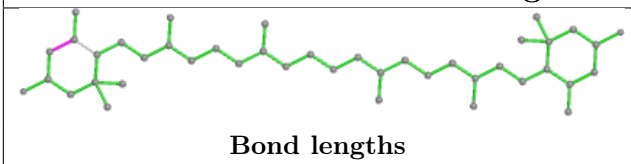
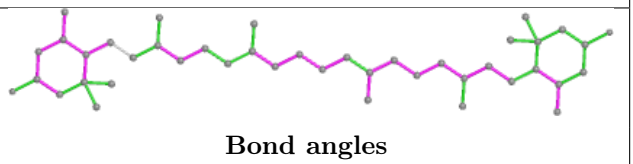
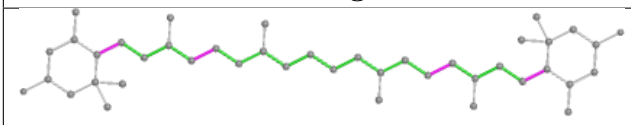


Rings

Ligand LUT G 621


Bond lengths


Bond angles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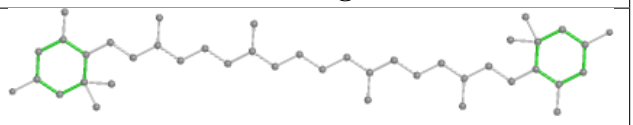
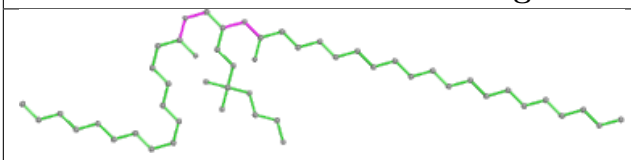
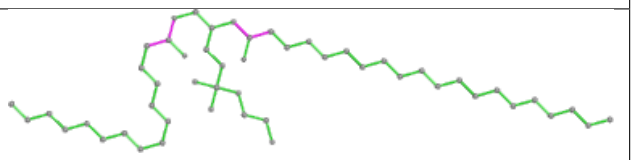
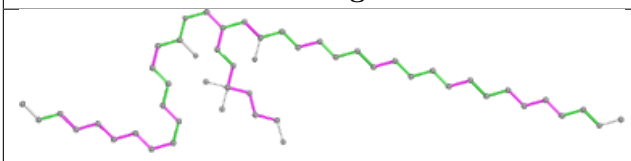

Rings

Ligand PTY Y1 626


Bond lengths


Bond angles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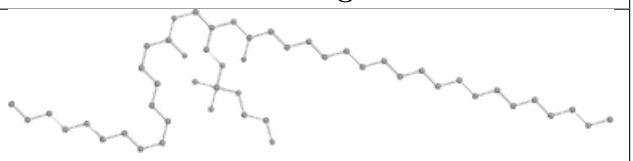
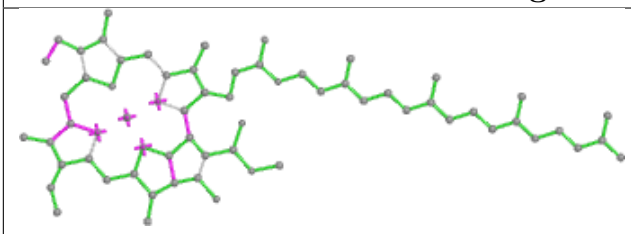

Rings

Ligand CLA c 512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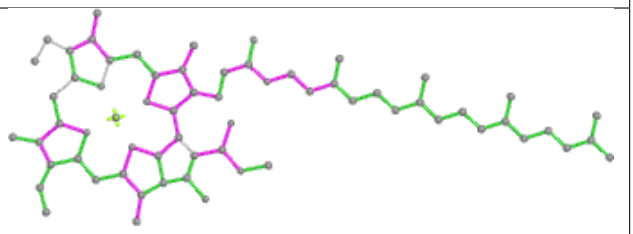
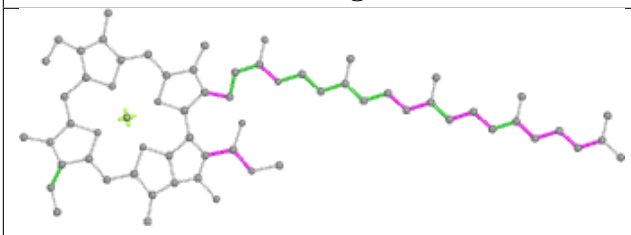
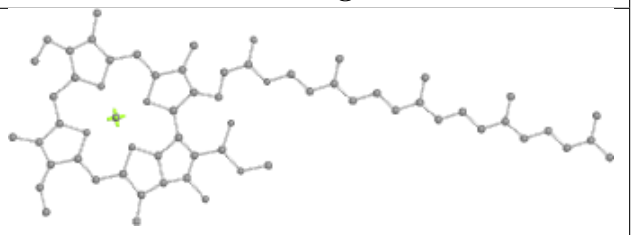
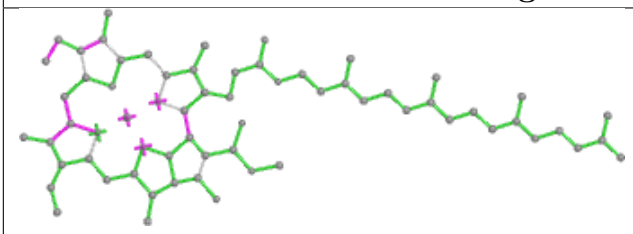

Bond angles

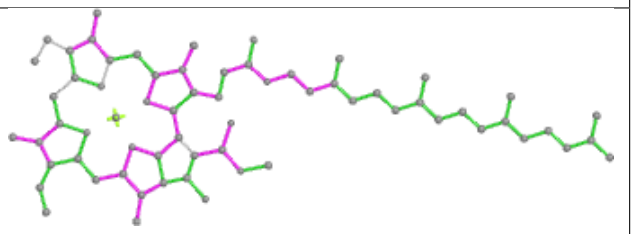

Torsions


Rings

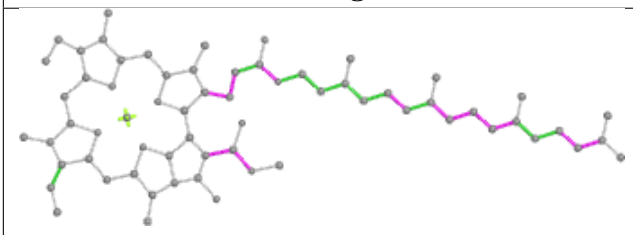
Ligand CLA n1 602



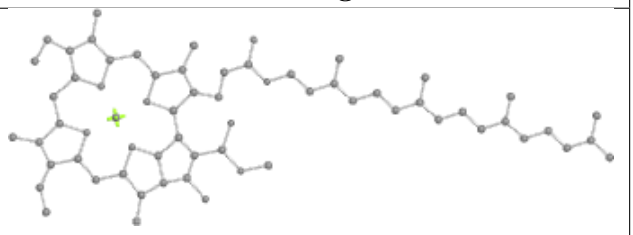
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
22	r	1
22	r1	1
22	R1	1
22	R	1
20	n1	1
20	n	1
21	G1	1

The worst 5 of 7 chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	r	110:PRO	C	126:GLU	N	13.15
1	r1	110:PRO	C	126:GLU	N	13.08
1	R1	110:PRO	C	126:GLU	N	12.94
1	R	110:PRO	C	126:GLU	N	12.16
1	n1	57:PRO	C	58:PRO	N	3.54

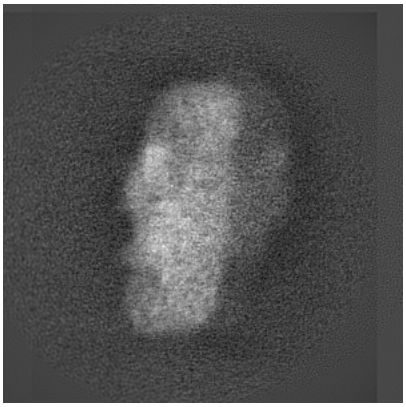
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-13444. These allow visual inspection of the internal detail of the map and identification of artifacts.

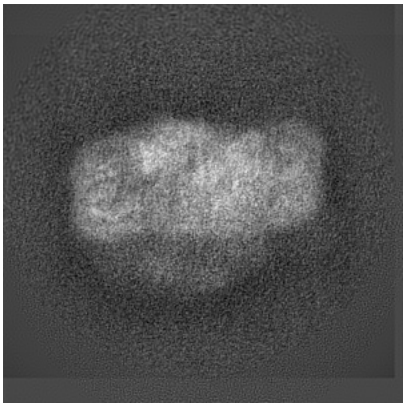
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

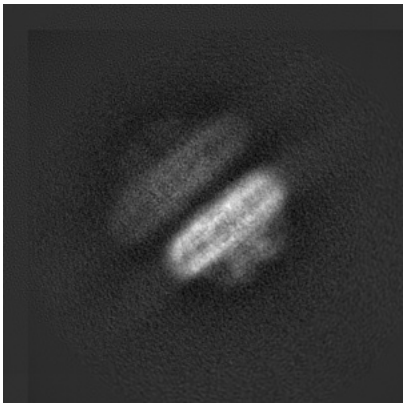
6.1.1 Primary map



X



Y

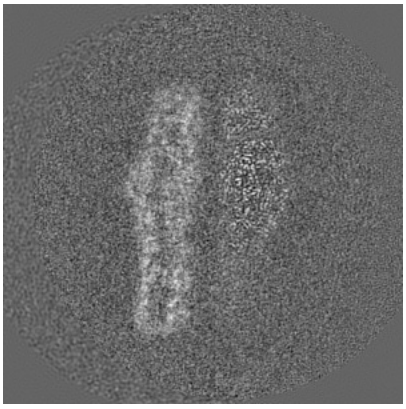


Z

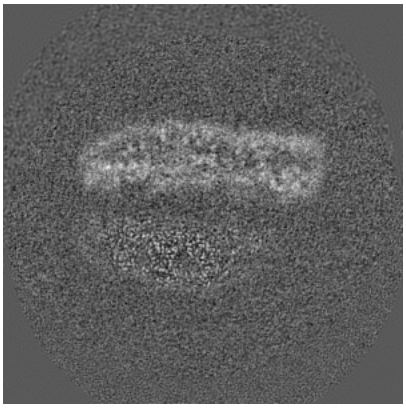
The images above show the map projected in three orthogonal directions.

6.2 Central slices

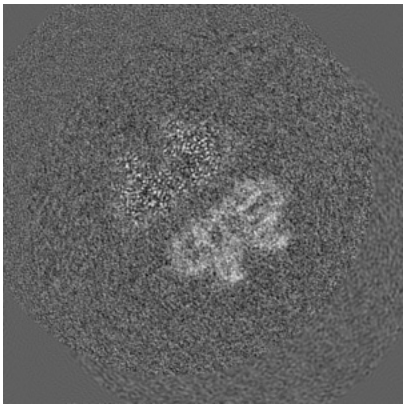
6.2.1 Primary map



X Index: 240



Y Index: 240

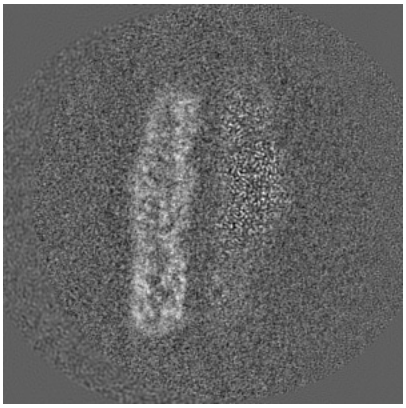


Z Index: 240

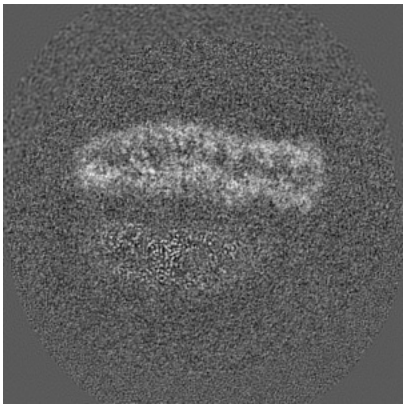
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

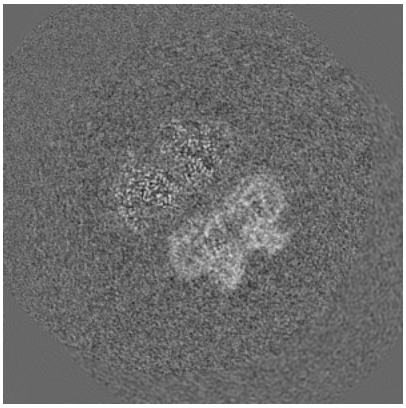
6.3.1 Primary map



X Index: 232



Y Index: 233



Z Index: 236

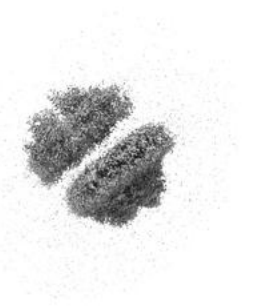
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views (i)

6.4.1 Primary map

X

Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.036. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

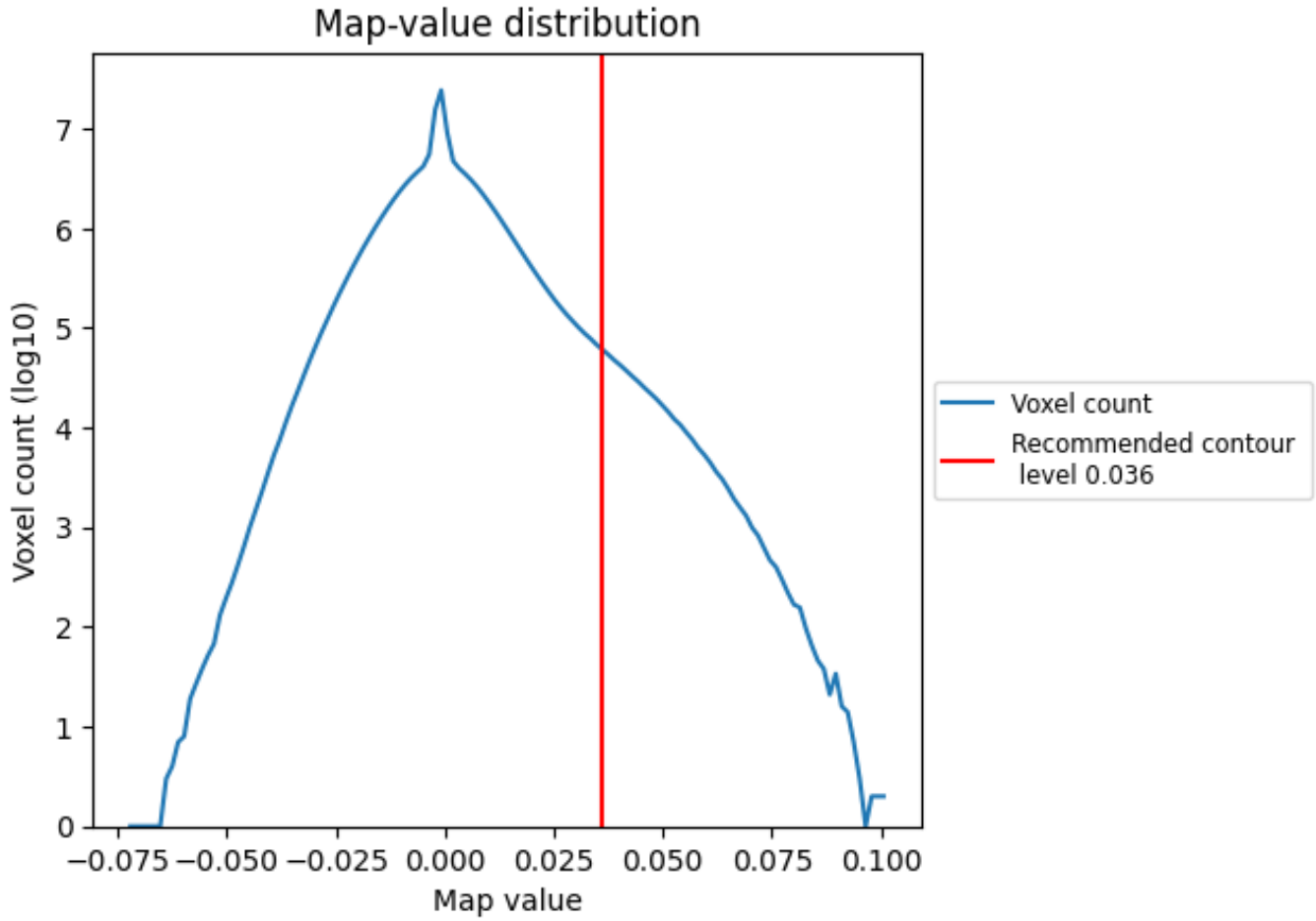
6.5 Mask visualisation (i)

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

7 Map analysis

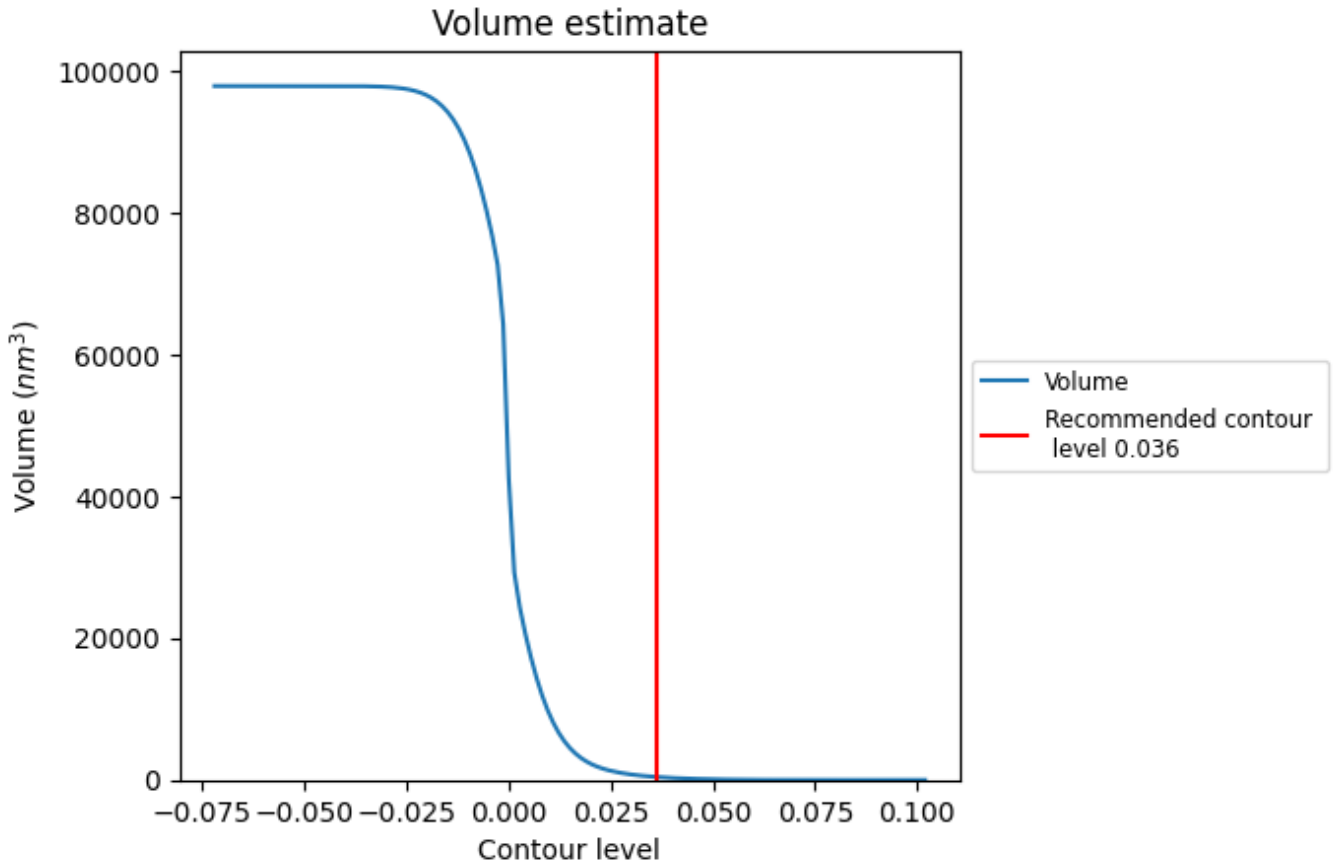
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

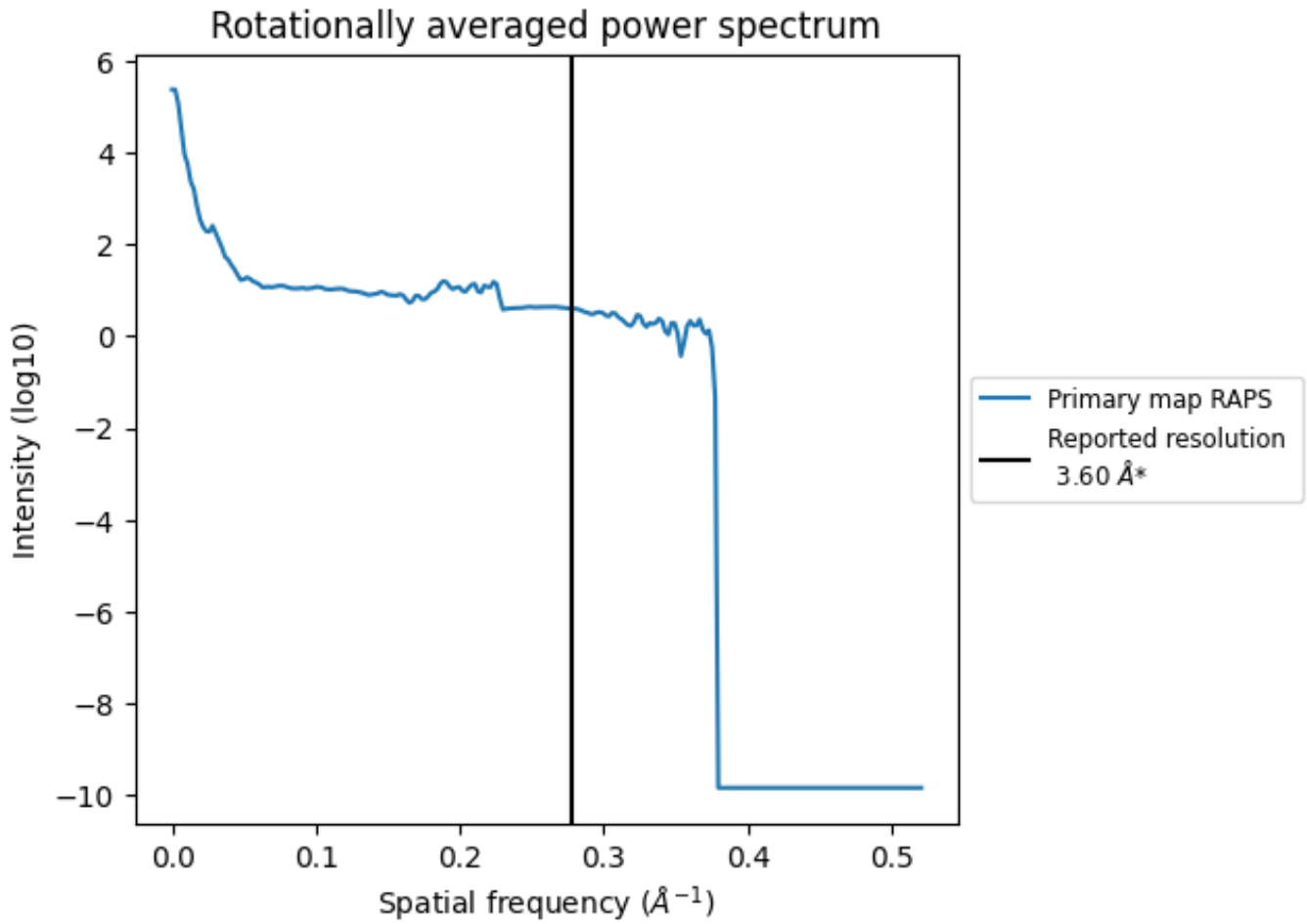
7.2 Volume estimate (i)



The volume at the recommended contour level is 429 nm^3; this corresponds to an approximate mass of 387 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)

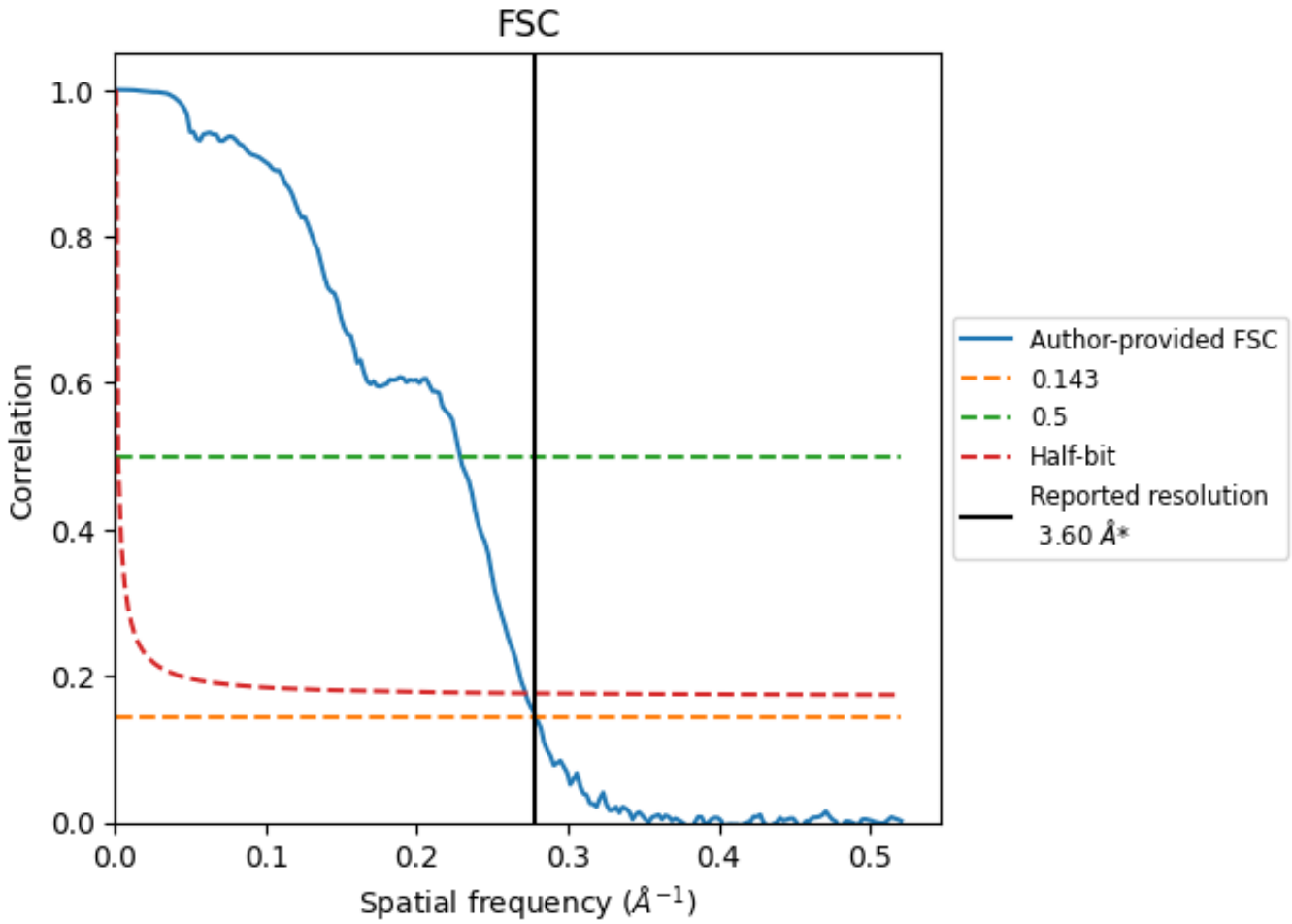


*Reported resolution corresponds to spatial frequency of 0.278 Å^{-1}

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 0.278 Å^{-1}

8.2 Resolution estimates (i)

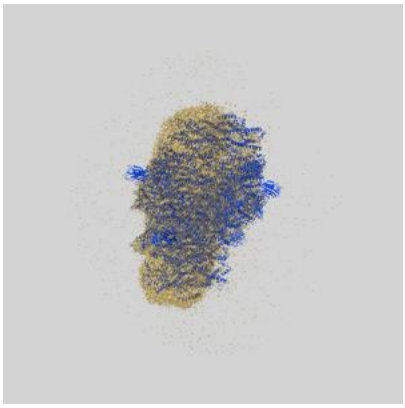
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.60	-	-
Author-provided FSC curve	3.58	4.37	3.68
Unmasked-calculated*	-	-	-

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

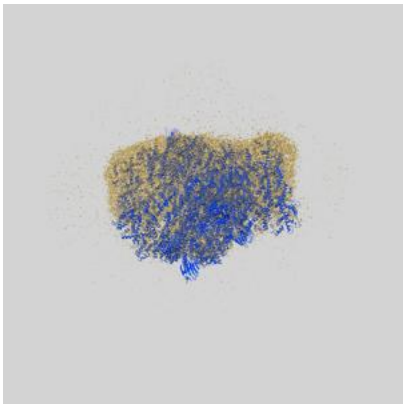
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-13444 and PDB model 7PIN. Per-residue inclusion information can be found in section 3 on page 74.

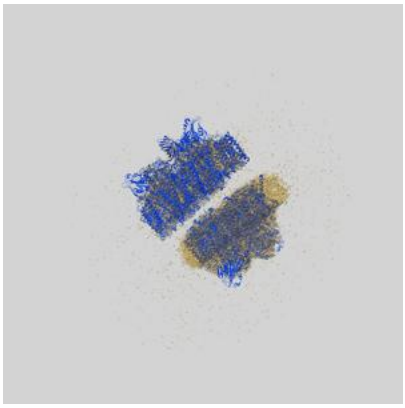
9.1 Map-model overlay



X



Y



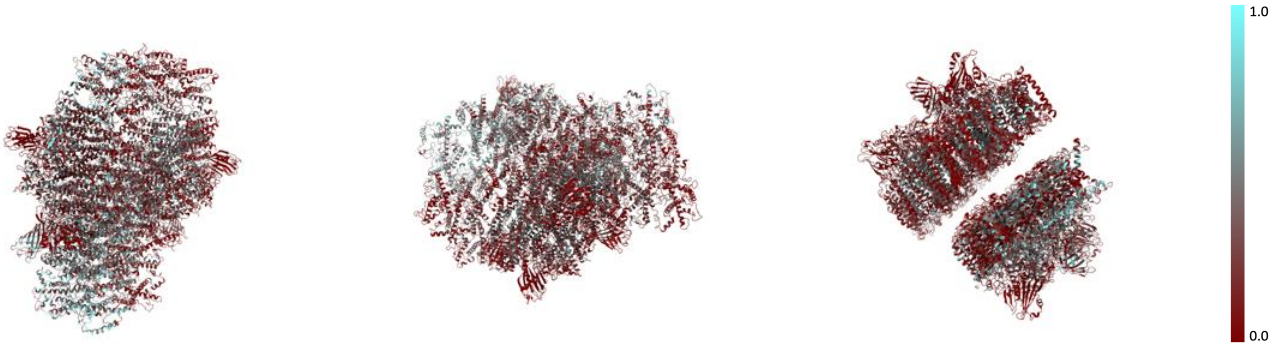
Z

The images above show the 3D surface view of the map at the recommended contour level 0.036 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

This section was not generated.

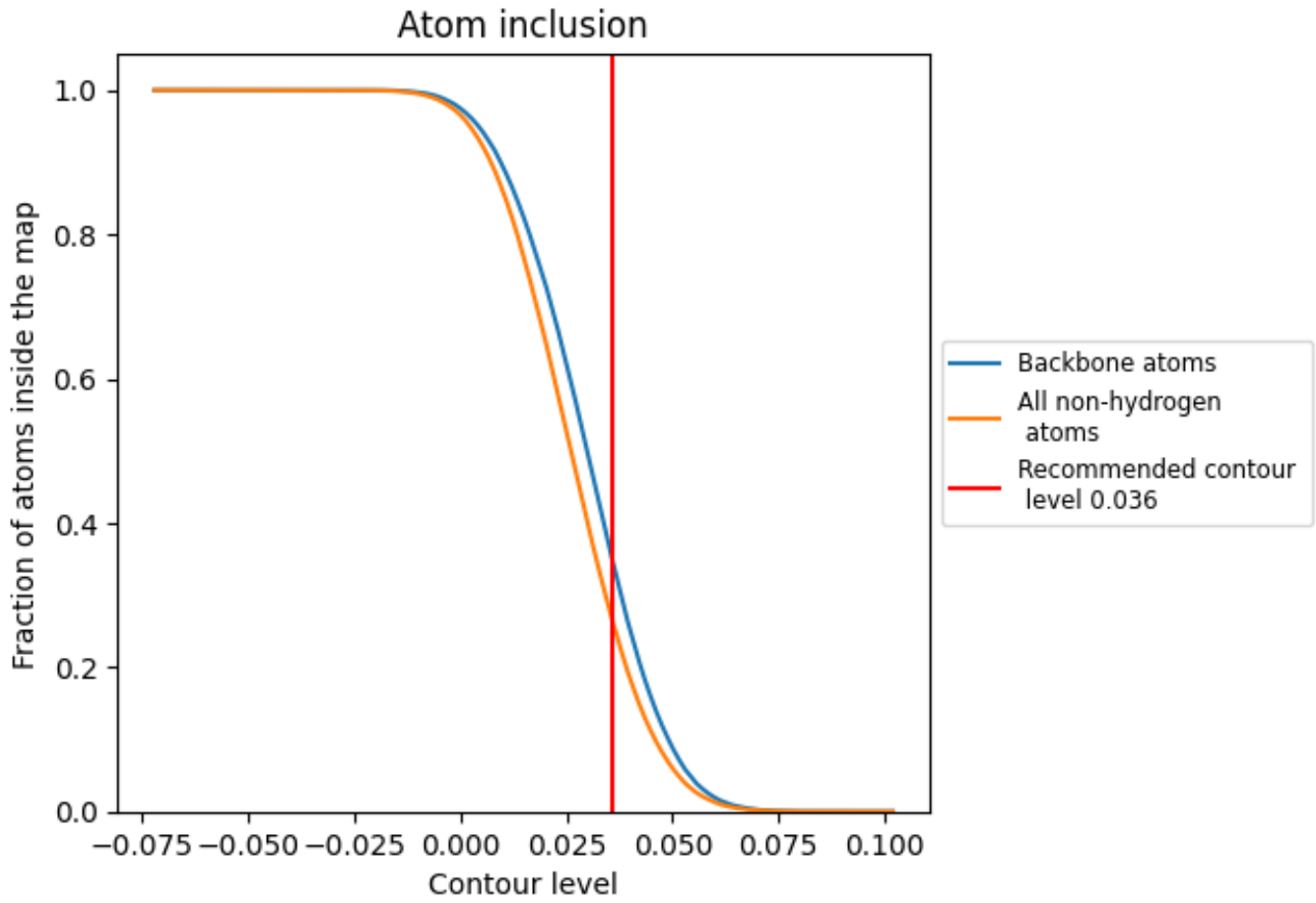
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.036).

9.4 Atom inclusion (i)



At the recommended contour level, 35% of all backbone atoms, 26% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary (i)

The table lists the average atom inclusion at the recommended contour level (0.036) and Q-score for the entire model and for each chain.

Chain	Atom inclusion
All	0.2617
A	0.3527
A1	0.3491
B	0.2795
B1	0.2943
C	0.3493
C1	0.4041
D	0.3194
D1	0.3355
E	0.1683
E1	0.3960
F	0.2273
F1	0.3846
G	0.1005
G1	0.4159
H	0.2164
H1	0.2709
I	0.2714
I1	0.2802
J	0.1655
J1	0.2517
K	0.2343
K1	0.3914
L	0.2817
L1	0.2225
M	0.1855
M1	0.1745
N	0.1412
N1	0.4418
O	0.1148
O1	0.3025
P	0.0007
P1	0.0254
R	0.0977
R1	0.2381

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Chain	Atom inclusion
S	0.1777
S1	0.4388
T	0.1701
T1	0.1944
U	0.0826
U1	0.2202
V	0.1467
V1	0.2800
W	0.1421
W1	0.2650
X	0.1294
X1	0.3881
Y	0.2291
Y1	0.4007
Z	0.1714
Z1	0.3890
a	0.3669
a1	0.2622
b	0.2919
b1	0.2543
c	0.3480
c1	0.2839
d	0.3364
d1	0.2314
e	0.1584
e1	0.2261
f	0.1643
f1	0.2727
g	0.0993
g1	0.3063
h	0.2147
h1	0.1891
i	0.2943
i1	0.2432
j	0.2103
j1	0.2069
k	0.2457
k1	0.2371
l	0.2789
m	0.1818
m1	0.2000
n	0.1583

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Chain	Atom inclusion
n1	0.3226
o	0.1070
o1	0.2652
p	0.0007
p1	0.0254
r	0.0911
r1	0.2372
s	0.1794
s1	0.2429
t	0.2153
t1	0.1701
u	0.0367
u1	0.1284
v	0.1689
v1	0.1467
w	0.1639
w1	0.2459
x	0.0846
x1	0.2090
y	0.2245
y1	0.2950
z	0.1692
z1	0.1956