wwPDB EM Validation Summary Report

Mar 10, 2022 – 04:37 pm GMT

PDB ID	:	7O0W
EMDB ID	:	EMD-12681
Title	:	Cryo-EM structure of the RC-dLH complex (model_1b) from Gemmatimonas phototrophica at 2.47 A
Authors	:	Qian, P.; Koblizek, M.
Deposited on	:	2021-03-27
Resolution	:	2.47 Å(reported)
Based on initial models	:	1LGH, 5Y5S, 6ET5

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

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

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

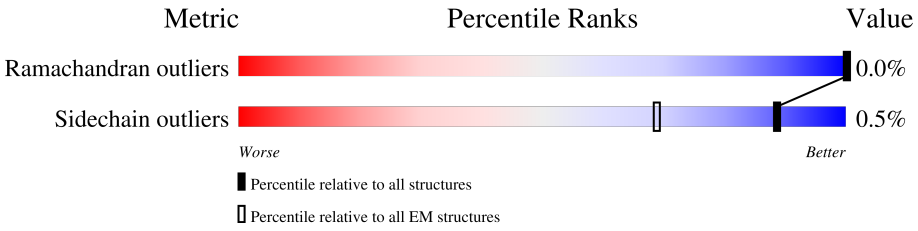
EMDB validation analysis	:	0.0.0.dev97
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.27

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.47 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	AA	54	89% · 9%
1	AB	54	89% · 9%
1	AC	54	89% 11%
1	AD	54	87% · 11%
1	AE	54	87% · 9%
1	AF	54	91% 9%
1	AG	54	91% 9%
1	AH	54	87% · 9%
1	AI	54	91% 9%

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Mol	Chain	Length	Quality of chain
1	AJ	54	89% 9%
1	AK	54	91% 9%
1	AL	54	89% 9%
1	AM	54	91% 9%
1	AN	54	89% 9%
1	AO	54	89% 9%
1	AP	54	89% 9%
1	AQ	54	91% 9%
1	AR	54	89% 9%
1	AS	54	89% 9%
1	AT	54	89% 9%
1	AU	54	89% 9%
1	AV	54	91% 9%
1	AW	54	91% 9%
1	AX	54	91% 9%
2	BA	44	89% 11%
2	BB	44	91% 9%
2	BC	44	89% 11%
2	BD	44	91% 9%
2	BE	44	91% 9%
2	BF	44	86% 11%
2	BG	44	89% 11%
2	BH	44	89% 11%
2	BI	44	91% 9%
2	BJ	44	89% 11%

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Mol	Chain	Length	Quality of chain
2	BK	44	89% 11%
2	BL	44	89% 11%
2	BM	44	89% 11%
2	BN	44	89% 11%
2	BO	44	89% 11%
2	BP	44	89% 11%
2	BQ	44	91% 9%
2	BR	44	91% 9%
2	BS	44	91% 9%
2	BT	44	91% 9%
2	BU	44	89% 11%
2	BV	44	91% 9%
2	BW	44	91% 9%
2	BX	44	89% 11%
2	ba	44	5% 89% 11%
2	bb	44	5% 86% 11%
2	bc	44	89% 11%
2	bd	44	89% 11%
2	be	44	89% 11%
2	bf	44	89% 11%
2	bg	44	89% 11%
2	bh	44	89% 11%
2	bi	44	89% 11%
2	bj	44	89% 11%
2	bk	44	89% 11%

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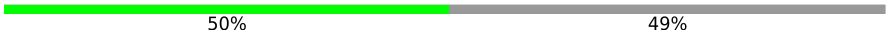
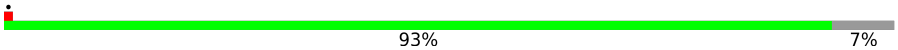
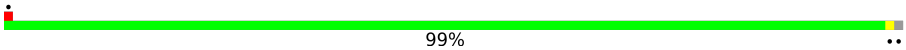
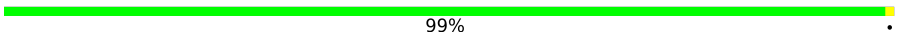
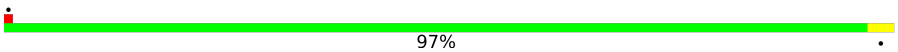
Mol	Chain	Length	Quality of chain
2	bl	44	
2	bm	44	
2	bn	44	
2	bo	44	
2	bp	44	
3	C	354	
4	C1	202	
5	C2	125	
6	H1	67	
7	H2	181	
8	L	274	
9	M	367	
10	aa	71	
11	ab	71	
11	ac	71	
11	ad	71	
11	ae	71	
11	af	71	
11	ag	71	
11	ah	71	
11	ai	71	
11	aj	71	
11	ak	71	
11	al	71	
11	am	71	

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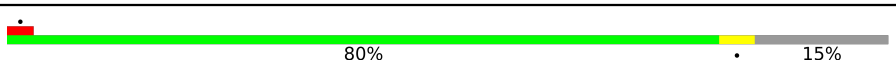
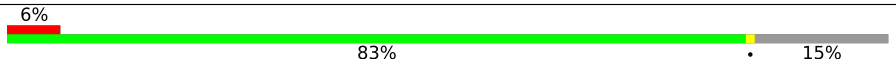
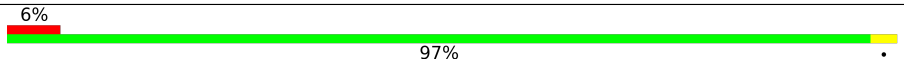
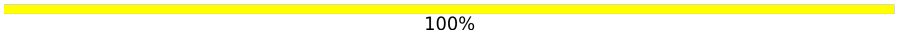
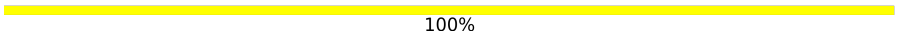
Mol	Chain	Length	Quality of chain
11	an	71	
11	ao	71	
11	ap	71	
12	CG	2	
12	MG	2	

2 Entry composition (i)

There are 28 unique types of molecules in this entry. The entry contains 56476 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 LHh-alpha.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	AA	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AB	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AC	48	Total	C	N	O	S	0	0
			384	256	64	60	4		
1	AD	48	Total	C	N	O	S	0	0
			384	256	64	60	4		
1	AE	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AF	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AG	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AH	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AI	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AJ	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AK	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AL	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AM	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AN	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AO	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AP	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AQ	49	Total	C	N	O	S	0	0
			391	261	65	61	4		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	AR	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AS	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AT	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AU	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AV	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AW	49	Total	C	N	O	S	0	0
			391	261	65	61	4		
1	AX	49	Total	C	N	O	S	0	0
			391	261	65	61	4		

- Molecule 2 is a protein called Light-harvesting protein B:885 subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	BA	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	BB	40	Total	C	N	O	S	0	0
			327	215	56	54	2		
2	BC	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	BD	40	Total	C	N	O	S	0	0
			327	215	56	54	2		
2	BE	40	Total	C	N	O	S	0	0
			327	215	56	54	2		
2	BF	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	BG	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	BH	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	BI	40	Total	C	N	O	S	0	0
			327	215	56	54	2		
2	BJ	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	BK	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	BL	39	Total	C	N	O	S	0	0
			323	213	55	53	2		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	BM	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	BN	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	BO	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	BP	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	BQ	40	Total	C	N	O	S	0	0
			327	215	56	54	2		
2	BR	40	Total	C	N	O	S	0	0
			327	215	56	54	2		
2	BS	40	Total	C	N	O	S	0	0
			327	215	56	54	2		
2	BT	40	Total	C	N	O	S	0	0
			327	215	56	54	2		
2	BU	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	BV	40	Total	C	N	O	S	0	0
			327	215	56	54	2		
2	BW	40	Total	C	N	O	S	0	0
			327	215	56	54	2		
2	BX	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	ba	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	bb	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	bc	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	bd	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	be	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	bf	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	bg	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	bh	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	bi	39	Total	C	N	O	S	0	0
			323	213	55	53	2		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	bj	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	bk	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	bl	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	bm	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	bn	40	Total	C	N	O	S	0	0
			327	215	56	54	2		
2	bo	39	Total	C	N	O	S	0	0
			323	213	55	53	2		
2	bp	39	Total	C	N	O	S	0	0
			323	213	55	53	2		

- Molecule 3 is a protein called MULTIHEME_CYTC domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	299	Total	C	N	O	S	0	0
			2325	1464	419	423	19		

- Molecule 4 is a protein called RC-S.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	C1	103	Total	C	N	O	S	0	0
			806	506	151	145	4		

- Molecule 5 is a protein called RC-U.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	C2	101	Total	C	N	O	S	0	0
			779	491	150	135	3		

- Molecule 6 is a protein called PRCH domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	H1	62	Total	C	N	O	S	0	0
			522	343	89	88	2		

- Molecule 7 is a protein called RC-Hc.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	H2	180	Total	C	N	O	S	0	0
			1404	894	239	267	4		

- Molecule 8 is a protein called Photosynthetic reaction center L subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	L	273	Total	C	N	O	S	0	0
			2165	1457	351	347	10		

- Molecule 9 is a protein called RC-M.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	M	336	Total	C	N	O	S	0	0
			2702	1795	443	454	10		

- Molecule 10 is a protein called LHC domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	aa	59	Total	C	N	O	S	0	0
			455	298	80	75	2		

- Molecule 11 is a protein called LHC domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	ab	60	Total	C	N	O	S	0	0
			465	304	81	77	3		
11	ac	56	Total	C	N	O	S	0	0
			443	290	77	73	3		
11	ad	60	Total	C	N	O	S	0	0
			465	304	81	77	3		
11	ae	60	Total	C	N	O	S	0	0
			465	304	81	77	3		
11	af	60	Total	C	N	O	S	0	0
			465	304	81	77	3		
11	ag	60	Total	C	N	O	S	0	0
			465	304	81	77	3		
11	ah	60	Total	C	N	O	S	0	0
			465	304	81	77	3		
11	ai	60	Total	C	N	O	S	0	0
			465	304	81	77	3		
11	aj	60	Total	C	N	O	S	0	0
			465	304	81	77	3		

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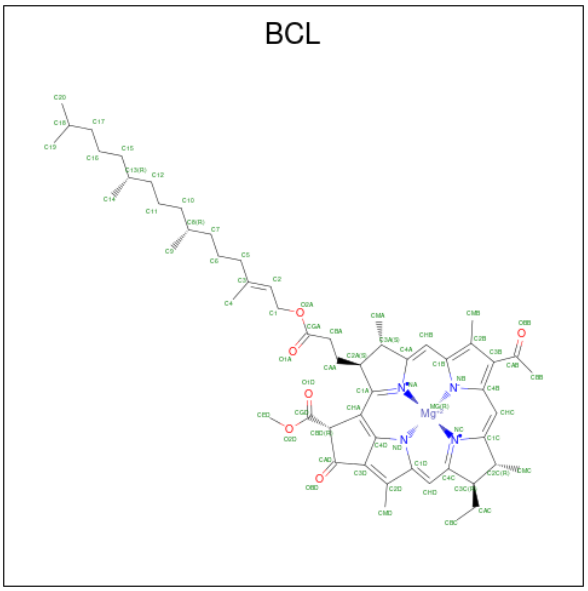
Mol	Chain	Residues	Atoms					AltConf	Trace
11	ak	71	Total 542	C 352	N 95	O 91	S 4	0	0
11	al	60	Total 465	C 304	N 81	O 77	S 3	0	0
11	am	60	Total 465	C 304	N 81	O 77	S 3	0	0
11	an	60	Total 465	C 304	N 81	O 77	S 3	0	0
11	ao	60	Total 465	C 304	N 81	O 77	S 3	0	0
11	ap	71	Total 542	C 352	N 95	O 91	S 4	0	0

- Molecule 12 is an oligosaccharide called alpha-L-rhamnopyranose-(1-4)-alpha-D-mannopyranose.

Mol	Chain	Residues	Atoms			AltConf	Trace
12	CG	2	Total 21	C 12	O 9	0	0
12	MG	2	Total 21	C 12	O 9	0	0

- Molecule 13 is BACTERIOCHLOROPHYLL A (three-letter code: BCL) (formula: $C_{55}H_{74}MgN_4O_6$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
13	AA	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AA	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AB	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AB	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AC	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AC	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AD	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AD	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AE	1	Total	C	Mg	N	O	0
			198	165	3	12	18	
13	AE	1	Total	C	Mg	N	O	0
			198	165	3	12	18	
13	AE	1	Total	C	Mg	N	O	0
			198	165	3	12	18	
13	AF	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	AG	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AG	1	Total	C	Mg	N	O	0
			132	110	2	8	12	

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Mol	Chain	Residues	Atoms					AltConf
13	AH	1	Total	C	Mg	N	O	0
			198	165	3	12	18	
13	AH	1	Total	C	Mg	N	O	0
			198	165	3	12	18	
13	AH	1	Total	C	Mg	N	O	0
			198	165	3	12	18	
13	AI	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	AJ	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AJ	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AK	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AK	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AL	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AL	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AM	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AM	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AN	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AN	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AO	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AO	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AP	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AP	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AQ	1	Total	C	Mg	N	O	0
			198	165	3	12	18	
13	AQ	1	Total	C	Mg	N	O	0
			198	165	3	12	18	
13	AQ	1	Total	C	Mg	N	O	0
			198	165	3	12	18	

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Mol	Chain	Residues	Atoms					AltConf
13	AR	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	AS	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AS	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AT	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AT	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AU	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AU	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AV	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AV	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AW	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AW	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AX	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	AX	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	BA	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BB	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BC	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BD	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BE	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BF	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BG	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BH	1	Total	C	Mg	N	O	0
			66	55	1	4	6	

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Mol	Chain	Residues	Atoms					AltConf
13	BI	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BJ	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BK	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BL	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BM	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BN	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BO	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BP	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BQ	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BR	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BS	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BT	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BU	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BV	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BW	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	BX	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	L	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	L	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	M	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	M	1	Total	C	Mg	N	O	0
			132	110	2	8	12	
13	aa	1	Total	C	Mg	N	O	0
			66	55	1	4	6	

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Mol	Chain	Residues	Atoms					AltConf
13	ab	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	ac	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	ad	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	ae	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	af	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	ag	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	ah	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	ai	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	aj	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	ak	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	al	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	am	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	an	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	ao	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	ap	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	ba	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	bb	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	bc	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	bd	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	be	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	bf	1	Total	C	Mg	N	O	0
			66	55	1	4	6	

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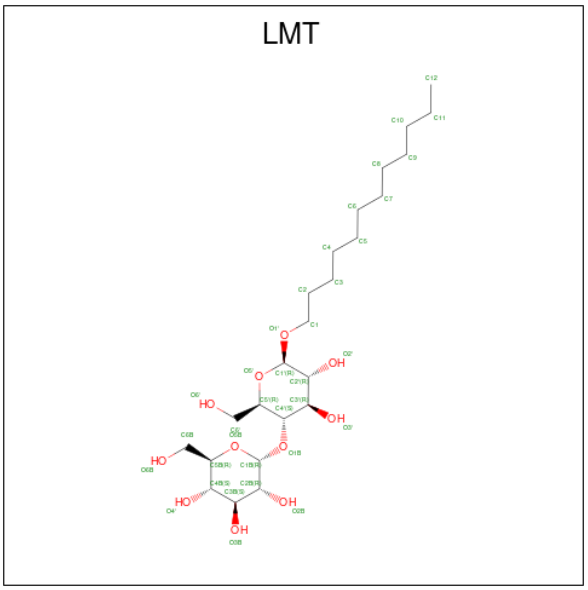
Mol	Chain	Residues	Atoms					AltConf
13	bg	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	bh	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	bi	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	bj	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	bk	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	bl	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	bm	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	bn	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	bo	1	Total	C	Mg	N	O	0
			66	55	1	4	6	
13	bp	1	Total	C	Mg	N	O	0
			66	55	1	4	6	

- Molecule 14 is DODECYL-BETA-D-MALTOSIDE (three-letter code: LMT) (formula: $C_{24}H_{46}O_{11}$).



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

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Mol	Chain	Residues	Atoms	AltConf
14	AB	1	Total C O 35 24 11	0
14	AC	1	Total C O 35 24 11	0
14	AD	1	Total C O 35 24 11	0
14	AE	1	Total C O 105 72 33	0
14	AE	1	Total C O 105 72 33	0
14	AE	1	Total C O 105 72 33	0
14	AG	1	Total C O 35 24 11	0
14	AH	1	Total C O 70 48 22	0
14	AH	1	Total C O 70 48 22	0
14	AJ	1	Total C O 70 48 22	0
14	AJ	1	Total C O 70 48 22	0
14	AK	1	Total C O 70 48 22	0
14	AK	1	Total C O 70 48 22	0
14	AL	1	Total C O 35 24 11	0
14	AM	1	Total C O 35 24 11	0
14	AN	1	Total C O 70 48 22	0
14	AN	1	Total C O 70 48 22	0
14	AP	1	Total C O 35 24 11	0
14	AQ	1	Total C O 35 24 11	0
14	AS	1	Total C O 35 24 11	0
14	AT	1	Total C O 70 48 22	0

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Mol	Chain	Residues	Atoms	AltConf
14	AT	1	Total C O 70 48 22	0
14	AU	1	Total C O 35 24 11	0
14	AV	1	Total C O 70 48 22	0
14	AV	1	Total C O 70 48 22	0
14	AX	1	Total C O 35 24 11	0
14	BA	1	Total C O 35 24 11	0
14	BB	1	Total C O 140 96 44	0
14	BB	1	Total C O 140 96 44	0
14	BB	1	Total C O 140 96 44	0
14	BB	1	Total C O 140 96 44	0
14	BC	1	Total C O 105 72 33	0
14	BC	1	Total C O 105 72 33	0
14	BC	1	Total C O 105 72 33	0
14	BD	1	Total C O 140 96 44	0
14	BD	1	Total C O 140 96 44	0
14	BD	1	Total C O 140 96 44	0
14	BD	1	Total C O 140 96 44	0
14	BE	1	Total C O 105 72 33	0
14	BE	1	Total C O 105 72 33	0
14	BE	1	Total C O 105 72 33	0
14	BF	1	Total C O 70 48 22	0

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Mol	Chain	Residues	Atoms			AltConf
14	BF	1	Total	C	O	0
			70	48	22	
14	BG	1	Total	C	O	0
			105	72	33	
14	BG	1	Total	C	O	0
			105	72	33	
14	BG	1	Total	C	O	0
			105	72	33	
14	BH	1	Total	C	O	0
			105	72	33	
14	BH	1	Total	C	O	0
			105	72	33	
14	BH	1	Total	C	O	0
			105	72	33	
14	BI	1	Total	C	O	0
			105	72	33	
14	BI	1	Total	C	O	0
			105	72	33	
14	BI	1	Total	C	O	0
			105	72	33	
14	BJ	1	Total	C	O	0
			140	96	44	
14	BJ	1	Total	C	O	0
			140	96	44	
14	BJ	1	Total	C	O	0
			140	96	44	
14	BJ	1	Total	C	O	0
			140	96	44	
14	BK	1	Total	C	O	0
			105	72	33	
14	BK	1	Total	C	O	0
			105	72	33	
14	BK	1	Total	C	O	0
			105	72	33	
14	BL	1	Total	C	O	0
			70	48	22	
14	BL	1	Total	C	O	0
			70	48	22	
14	BM	1	Total	C	O	0
			105	72	33	
14	BM	1	Total	C	O	0
			105	72	33	

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Mol	Chain	Residues	Atoms	AltConf
14	BM	1	Total C O 105 72 33	0
14	BN	1	Total C O 105 72 33	0
14	BN	1	Total C O 105 72 33	0
14	BN	1	Total C O 105 72 33	0
14	BO	1	Total C O 105 72 33	0
14	BO	1	Total C O 105 72 33	0
14	BO	1	Total C O 105 72 33	0
14	BP	1	Total C O 140 96 44	0
14	BP	1	Total C O 140 96 44	0
14	BP	1	Total C O 140 96 44	0
14	BP	1	Total C O 140 96 44	0
14	BQ	1	Total C O 70 48 22	0
14	BQ	1	Total C O 70 48 22	0
14	BR	1	Total C O 140 96 44	0
14	BR	1	Total C O 140 96 44	0
14	BR	1	Total C O 140 96 44	0
14	BR	1	Total C O 140 96 44	0
14	BS	1	Total C O 105 72 33	0
14	BS	1	Total C O 105 72 33	0
14	BS	1	Total C O 105 72 33	0
14	BT	1	Total C O 105 72 33	0

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Mol	Chain	Residues	Atoms			AltConf
14	BT	1	Total	C	O	0
			105	72	33	
14	BT	1	Total	C	O	0
			105	72	33	
14	BU	1	Total	C	O	0
			70	48	22	
14	BU	1	Total	C	O	0
			70	48	22	
14	BV	1	Total	C	O	0
			105	72	33	
14	BV	1	Total	C	O	0
			105	72	33	
14	BV	1	Total	C	O	0
			105	72	33	
14	BW	1	Total	C	O	0
			140	96	44	
14	BW	1	Total	C	O	0
			140	96	44	
14	BW	1	Total	C	O	0
			140	96	44	
14	BW	1	Total	C	O	0
			140	96	44	
14	BX	1	Total	C	O	0
			105	72	33	
14	BX	1	Total	C	O	0
			105	72	33	
14	BX	1	Total	C	O	0
			105	72	33	
14	C	1	Total	C	O	0
			35	24	11	
14	C2	1	Total	C	O	0
			35	24	11	
14	H2	1	Total	C	O	0
			35	24	11	
14	L	1	Total	C	O	0
			175	120	55	
14	L	1	Total	C	O	0
			175	120	55	
14	L	1	Total	C	O	0
			175	120	55	
14	L	1	Total	C	O	0
			175	120	55	

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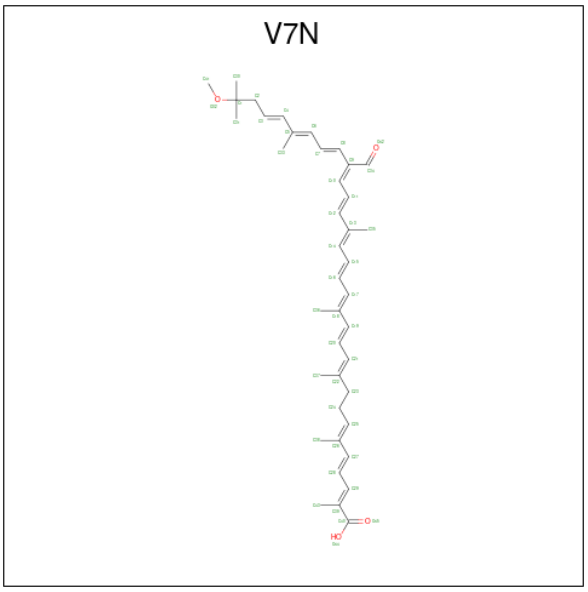
Mol	Chain	Residues	Atoms			AltConf
14	L	1	Total 175	C 120	O 55	0
14	ac	1	Total 35	C 24	O 11	0
14	bc	1	Total 35	C 24	O 11	0
14	be	1	Total 70	C 48	O 22	0
14	be	1	Total 70	C 48	O 22	0
14	bf	1	Total 35	C 24	O 11	0
14	bg	1	Total 35	C 24	O 11	0
14	bh	1	Total 35	C 24	O 11	0
14	bi	1	Total 35	C 24	O 11	0
14	bj	1	Total 35	C 24	O 11	0
14	bk	1	Total 35	C 24	O 11	0
14	bl	1	Total 35	C 24	O 11	0
14	bm	1	Total 35	C 24	O 11	0
14	bn	1	Total 35	C 24	O 11	0
14	bo	1	Total 35	C 24	O 11	0
14	bp	1	Total 70	C 48	O 22	0
14	bp	1	Total 70	C 48	O 22	0

- Molecule 15 is (2 {E},4 {E},6 {E},10 {E},12 {E},14 {E},16 {E},18 {E},20 {E},22 {Z},24 {E},26 {E},28 {E})-23-methanoyl-31-methoxy-2,6,10,14,19,27,31-heptamethyl-dotriaconta-2,4,6,10,12,14,16,18,20,22,24,26,28-tridecaenoic acid (three-letter code: V7N) (formula: $C_{41}H_{54}O_4$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	AltConf
15	AA	1	Total C O 45 41 4	0
15	AD	1	Total C O 45 41 4	0
15	AM	1	Total C O 45 41 4	0
15	AS	1	Total C O 45 41 4	0
15	AW	1	Total C O 45 41 4	0
15	BA	1	Total C O 45 41 4	0
15	BD	1	Total C O 45 41 4	0
15	BE	1	Total C O 45 41 4	0
15	BF	1	Total C O 45 41 4	0
15	BG	1	Total C O 45 41 4	0
15	BH	1	Total C O 45 41 4	0
15	BI	1	Total C O 45 41 4	0
15	BJ	1	Total C O 45 41 4	0
15	BK	1	Total C O 45 41 4	0

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Mol	Chain	Residues	Atoms			AltConf
15	BM	1	Total	C	O	0
			45	41	4	
15	BN	1	Total	C	O	0
			45	41	4	
15	BO	1	Total	C	O	0
			45	41	4	
15	BP	1	Total	C	O	0
			45	41	4	
15	BQ	1	Total	C	O	0
			45	41	4	
15	BR	1	Total	C	O	0
			45	41	4	
15	BS	1	Total	C	O	0
			45	41	4	
15	BU	1	Total	C	O	0
			45	41	4	
15	BV	1	Total	C	O	0
			45	41	4	
15	BW	1	Total	C	O	0
			45	41	4	
15	ag	1	Total	C	O	0
			45	41	4	
15	ba	1	Total	C	O	0
			45	41	4	
15	bb	1	Total	C	O	0
			45	41	4	
15	bc	1	Total	C	O	0
			45	41	4	
15	bd	1	Total	C	O	0
			45	41	4	
15	be	1	Total	C	O	0
			45	41	4	
15	bg	1	Total	C	O	0
			45	41	4	
15	bh	1	Total	C	O	0
			45	41	4	
15	bi	1	Total	C	O	0
			45	41	4	
15	bj	1	Total	C	O	0
			45	41	4	
15	bk	1	Total	C	O	0
			45	41	4	

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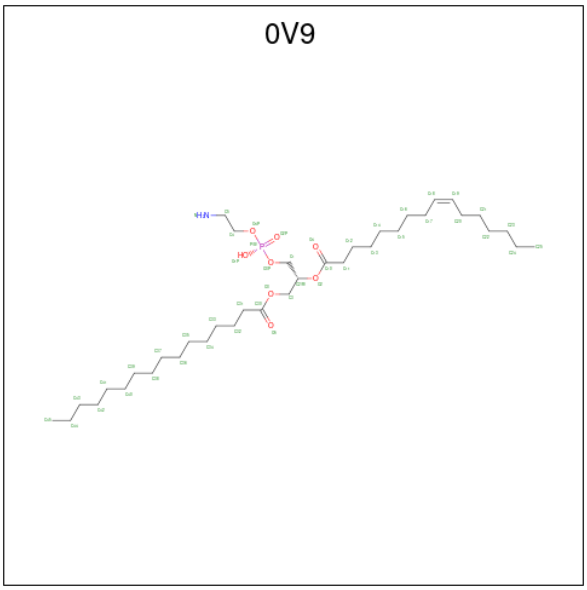
Mol	Chain	Residues	Atoms	AltConf
15	bl	1	Total C O 45 41 4	0
15	bm	1	Total C O 45 41 4	0
15	bn	1	Total C O 45 41 4	0
15	bo	1	Total C O 45 41 4	0
15	bp	1	Total C O 45 41 4	0

- Molecule 16 is (19R,22S)-25-amino-22-hydroxy-22-oxido-16-oxo-17,21,23-trioxa-22lambda 5 -phosphapentacosan-19-yl (9Z)-hexadec-9-enoate (three-letter code: 0V9) (formula: $C_{37}H_{72}NO_8P$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	AltConf
16	AQ	1	Total C N O P 45 35 1 8 1	0
16	H1	1	Total C N O P 45 35 1 8 1	0
16	L	1	Total C N O P 45 35 1 8 1	0
16	M	1	Total C N O P 45 35 1 8 1	0
16	ab	1	Total C N O P 45 35 1 8 1	0

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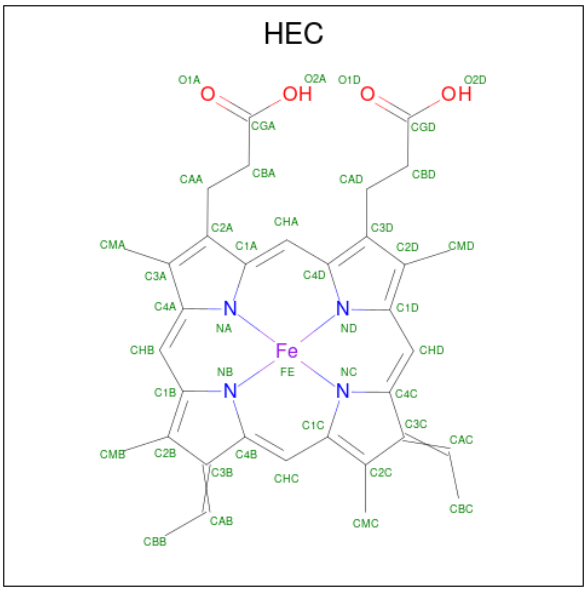
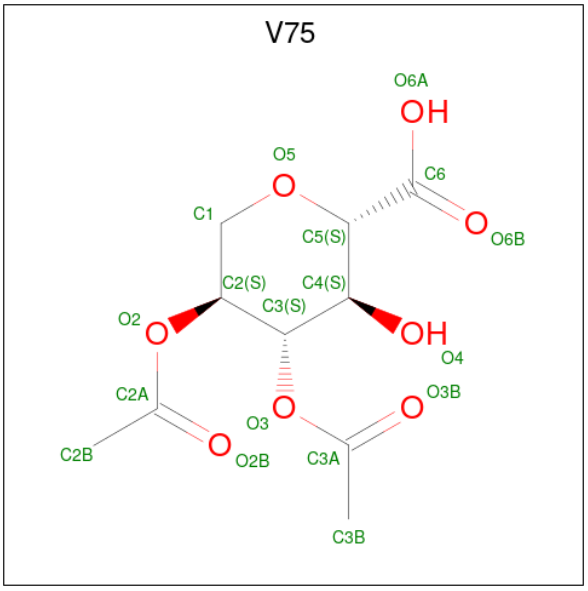
Mol	Chain	Residues	Atoms					AltConf
16	ad	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	bb	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	bd	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	be	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	bf	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	bg	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	bh	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	bi	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	bj	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	bk	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	bl	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	bm	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	bn	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	bo	1	Total	C	N	O	P	0
			45	35	1	8	1	
16	bp	1	Total	C	N	O	P	0
			45	35	1	8	1	

- Molecule 17 is HEME C (three-letter code: HEC) (formula: $C_{34}H_{34}FeN_4O_4$) (labeled as "Ligand of Interest" by depositor).



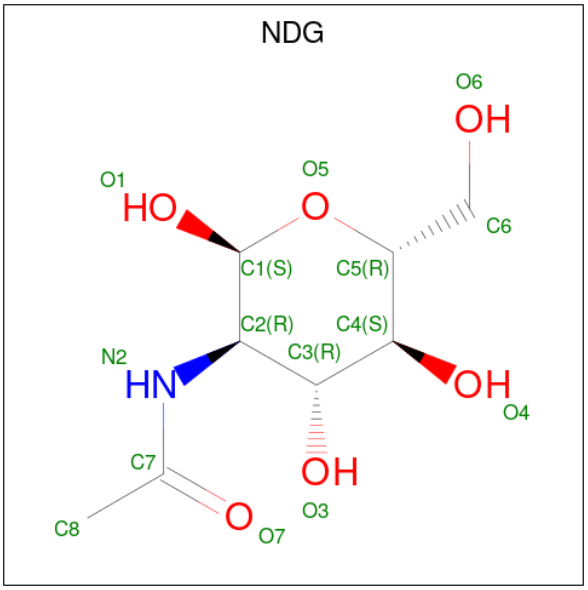
Mol	Chain	Residues	Atoms					AltConf
17	C	1	Total	C	Fe	N	O	0
			172	136	4	16	16	
17	C	1	Total	C	Fe	N	O	0
			172	136	4	16	16	
17	C	1	Total	C	Fe	N	O	0
			172	136	4	16	16	
17	C	1	Total	C	Fe	N	O	0
			172	136	4	16	16	

- Molecule 18 is (2 {S},3 {S},4 {S},5 {S})-4,5-diacetyloxy-3-oxidanyl-oxane-2-carboxylic acid (three-letter code: V75) (formula: $C_{10}H_{14}O_8$) (labeled as "Ligand of Interest" by depositor).



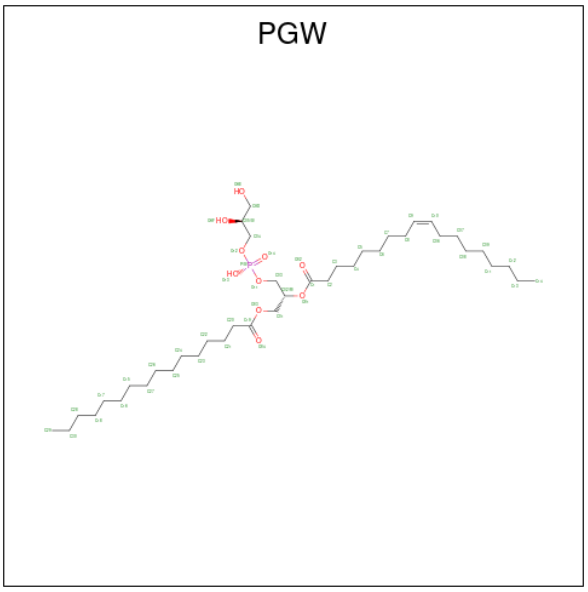
Mol	Chain	Residues	Atoms	AltConf
18	C	1	Total C O 18 10 8	0
18	M	1	Total C O 18 10 8	0

- Molecule 19 is 2-acetamido-2-deoxy-alpha-D-glucopyranose (three-letter code: NDG) (formula: $C_8H_{15}NO_6$).



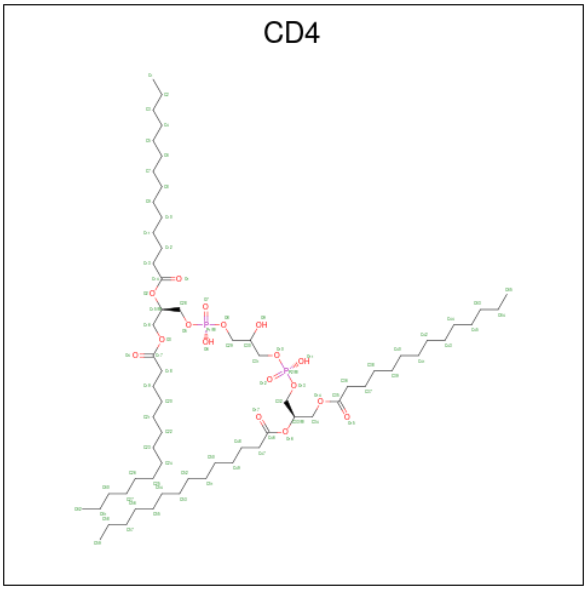
Mol	Chain	Residues	Atoms	AltConf
19	C	1	Total C N O 14 8 1 5	0
19	C1	1	Total C N O 14 8 1 5	0

- Molecule 20 is (1R)-2-{[(S)-{[(2S)-2,3-dihydroxypropyl]oxy}(hydroxy)phosphoryl]oxy}-1-[(hexadecanoyloxy)methyl]ethyl (9Z)-octadec-9-enoate (three-letter code: PGW) (formula: $C_{40}H_{77}O_{10}P$).



Mol	Chain	Residues	Atoms				AltConf
20	H1	1	Total	C	O	P	0
			51	40	10	1	

- Molecule 21 is (2R,5R,11R,14R)-5,8,11-trihydroxy-5,11-dioxido-17-oxo-2,14-bis(tetradecanoyloxy)-4,6,10,12,16-pentaoxa-5,11-diphosphatriacont-1-yl tetradecanoate (three-letter code: CD4) (formula: $C_{65}H_{126}O_{17}P_2$).



Mol	Chain	Residues	Atoms				AltConf
21	H1	1	Total	C	O	P	0
			84	65	17	2	
21	M	1	Total	C	O	P	0
			168	130	34	4	

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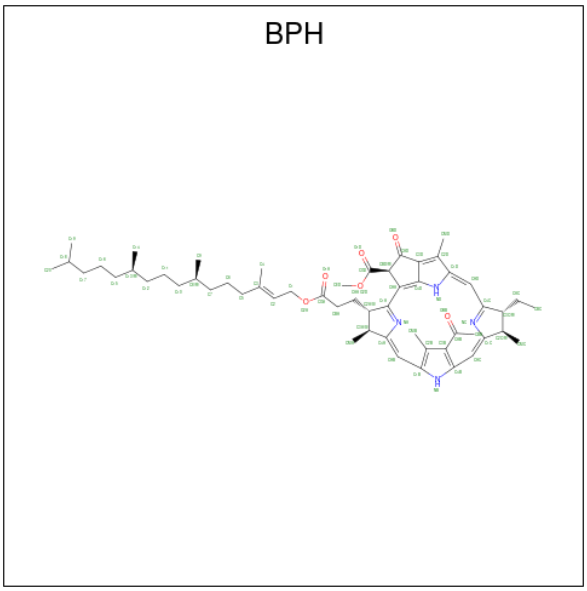
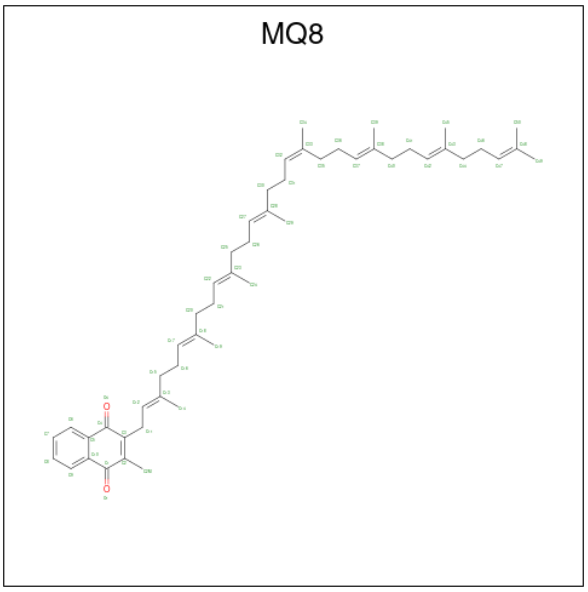
Mol	Chain	Residues	Atoms				AltConf
21	M	1	Total	C	O	P	0
			168	130	34	4	
21	ad	1	Total	C	O	P	0
			84	65	17	2	
21	af	1	Total	C	O	P	0
			168	130	34	4	
21	af	1	Total	C	O	P	0
			168	130	34	4	

- Molecule 22 is BACTERIOPHEOPHYTIN A (three-letter code: BPH) (formula: $C_{55}H_{76}N_4O_6$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
22	L	1	Total	C	N	O	0
			65	55	4	6	
22	M	1	Total	C	N	O	0
			65	55	4	6	

- Molecule 23 is MENAQUINONE 8 (three-letter code: MQ8) (formula: $C_{51}H_{72}O_2$).

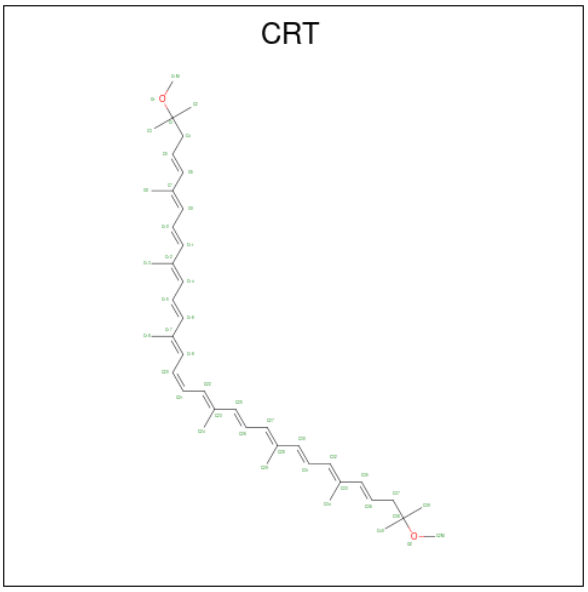


Mol	Chain	Residues	Atoms	AltConf
23	L	1	Total C O 53 51 2	0
23	M	1	Total C O 53 51 2	0
23	ao	1	Total C O 53 51 2	0

- Molecule 24 is FE (III) ION (three-letter code: FE) (formula: Fe).

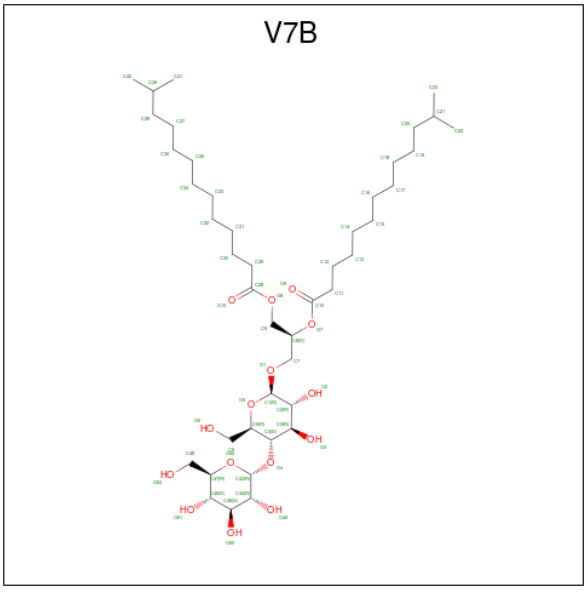
Mol	Chain	Residues	Atoms	AltConf
24	M	1	Total Fe 1 1	0

- Molecule 25 is SPIRILLOXANTHIN (three-letter code: CRT) (formula: $C_{42}H_{60}O_2$).



Mol	Chain	Residues	Atoms			AltConf
25	M	1	Total	C	O	0
			44	42	2	

- Molecule 26 is [(2 {S})-3-[(2 {R},3 {R},4 {R},5 {S},6 {R})-6-(hydroxymethyl)-5-[(2 {R},3 {R},4 {S},5 {S},6 {R})-6-(hydroxymethyl)-3,4,5-tris(oxidanyl)oxan-2-yl]oxy-3,4-bis(oxidanyl)oxan-2-yl]oxy-2-(12-methyltridecanoyloxy)propyl] 12-methyltridecanoate (three-letter code: V7B) (formula: $C_{43}H_{80}O_{15}$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms			AltConf
26	af	1	Total	C	O	0
			58	43	15	

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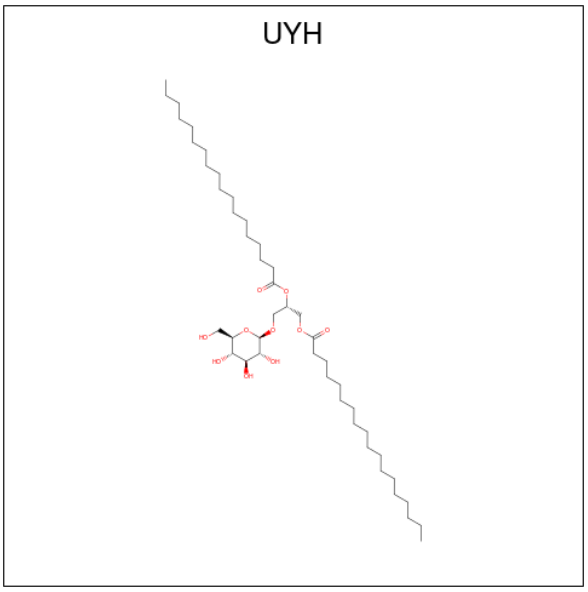
Mol	Chain	Residues	Atoms			AltConf
26	ag	1	Total	C	O	0
			58	43	15	

- Molecule 27 is [(2 {S})-3-[(2 {R},3 {R},4 {S},5 {S},6 {R})-6-(hydroxymethyl)-3,4,5-tris(oxidanyl)oxan-2-yl]oxy-2-octadecanoyloxy-propyl] octadecanoate (three-letter code: UYH) (formula: $C_{45}H_{86}O_{10}$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms			AltConf
27	ai	1	Total	C	O	0
			55	45	10	

- Molecule 28 is water.

Mol	Chain	Residues	Atoms		AltConf
28	AA	2	Total	O	0
			2	2	
28	AC	1	Total	O	0
			1	1	
28	AD	2	Total	O	0
			2	2	
28	AE	2	Total	O	0
			2	2	
28	AG	3	Total	O	0
			3	3	
28	AH	2	Total	O	0
			2	2	

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Mol	Chain	Residues	Atoms	AltConf
28	AI	1	Total O 1 1	0
28	AJ	5	Total O 5 5	0
28	AK	3	Total O 3 3	0
28	AL	2	Total O 2 2	0
28	AM	3	Total O 3 3	0
28	AN	2	Total O 2 2	0
28	AO	1	Total O 1 1	0
28	AP	3	Total O 3 3	0
28	AQ	5	Total O 5 5	0
28	AR	3	Total O 3 3	0
28	AS	4	Total O 4 4	0
28	AT	4	Total O 4 4	0
28	AV	2	Total O 2 2	0
28	AW	3	Total O 3 3	0
28	AX	1	Total O 1 1	0
28	BJ	1	Total O 1 1	0
28	C	67	Total O 67 67	0
28	C1	36	Total O 36 36	0
28	C2	1	Total O 1 1	0
28	H1	4	Total O 4 4	0
28	H2	27	Total O 27 27	0

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Mol	Chain	Residues	Atoms	AltConf
28	L	48	Total O 48 48	0
28	M	63	Total O 63 63	0
28	aa	4	Total O 4 4	0
28	ab	2	Total O 2 2	0
28	ac	1	Total O 1 1	0
28	ad	7	Total O 7 7	0
28	ae	9	Total O 9 9	0
28	af	14	Total O 14 14	0
28	ag	4	Total O 4 4	0
28	ah	3	Total O 3 3	0
28	ai	3	Total O 3 3	0
28	aj	2	Total O 2 2	0
28	ak	6	Total O 6 6	0
28	al	6	Total O 6 6	0
28	am	5	Total O 5 5	0
28	an	7	Total O 7 7	0
28	ao	2	Total O 2 2	0
28	ap	3	Total O 3 3	0
28	bb	2	Total O 2 2	0
28	bc	1	Total O 1 1	0
28	bd	1	Total O 1 1	0

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Mol	Chain	Residues	Atoms	AltConf
28	be	2	Total O 2 2	0
28	bf	3	Total O 3 3	0
28	bg	3	Total O 3 3	0
28	bh	2	Total O 2 2	0
28	bi	2	Total O 2 2	0
28	bj	1	Total O 1 1	0
28	bk	2	Total O 2 2	0
28	bl	1	Total O 1 1	0
28	bm	3	Total O 3 3	0
28	bn	2	Total O 2 2	0
28	bo	1	Total O 1 1	0
28	bp	1	Total O 1 1	0

3 Residue-property plots (i)

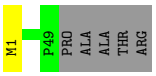
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

- Molecule 1: LHh-alpha

Chain AA:

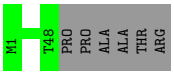
- Molecule 1: LHh-alpha

Chain AB:



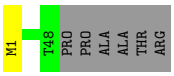
- Molecule 1: LHh-alpha

Chain AC:



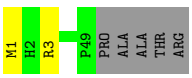
- Molecule 1: LHh-alpha

Chain AD:



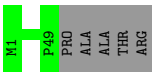
- Molecule 1: LHh-alpha

Chain AE:



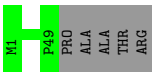
- Molecule 1: LHh-alpha

Chain AF:



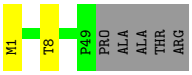
• Molecule 1: LHh-alpha

Chain AG:



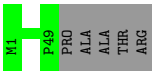
• Molecule 1: LHh-alpha

Chain AH:



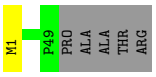
• Molecule 1: LHh-alpha

Chain AI:



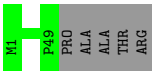
• Molecule 1: LHh-alpha

Chain AJ:



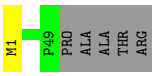
• Molecule 1: LHh-alpha

Chain AK:



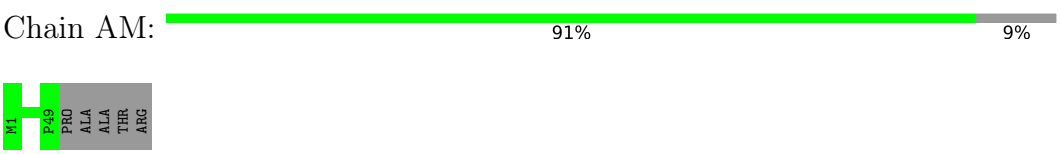
• Molecule 1: LHh-alpha

Chain AL:



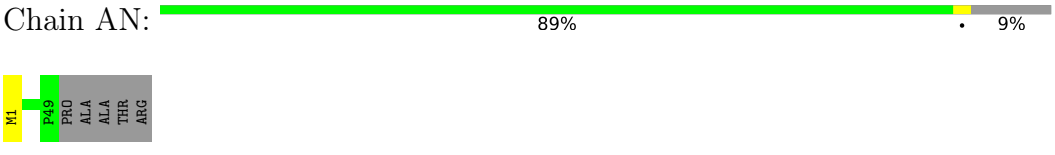
• Molecule 1: LHh-alpha

Chain AM:



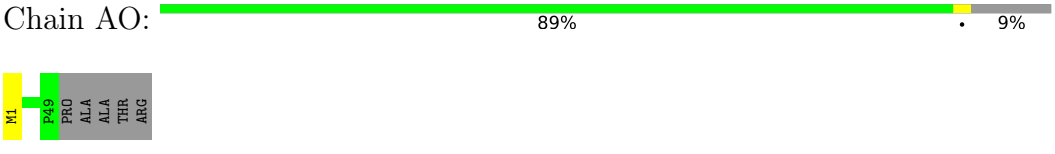
• Molecule 1: LHh-alpha

Chain AN:



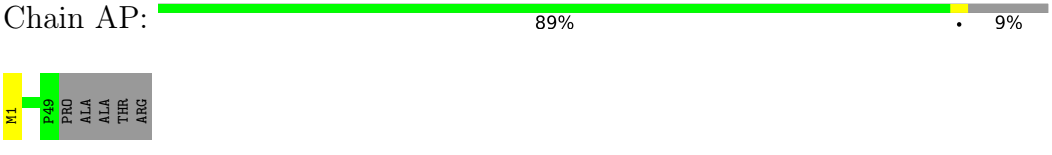
• Molecule 1: LHh-alpha

Chain AO:



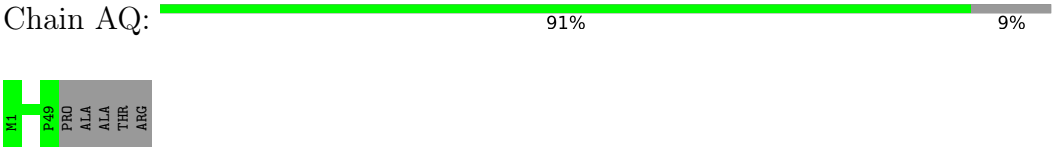
• Molecule 1: LHh-alpha

Chain AP:



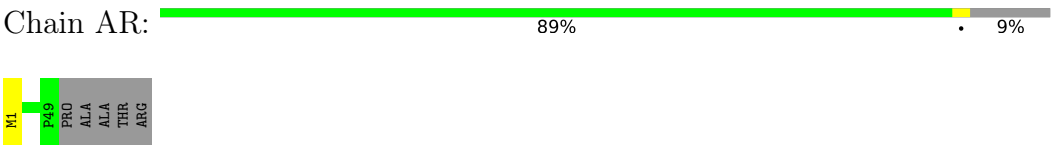
• Molecule 1: LHh-alpha

Chain AQ:



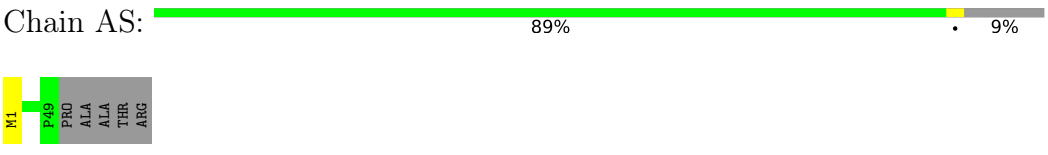
• Molecule 1: LHh-alpha

Chain AR:



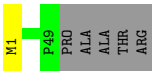
• Molecule 1: LHh-alpha

Chain AS:



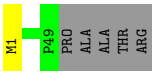
• Molecule 1: LHh-alpha

Chain AT:



• Molecule 1: LHh-alpha

Chain AU:

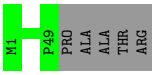


• Molecule 1: LHh-alpha

Chain AV:

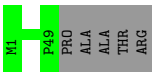
• Molecule 1: LHh-alpha

Chain AW:



• Molecule 1: LHh-alpha

Chain AX:

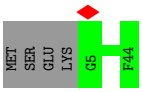


• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BA:

• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BB:

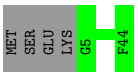


• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BC:

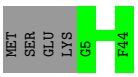
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BD:



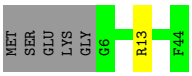
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BE:



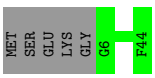
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BF:



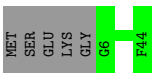
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BG:



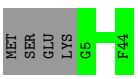
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BH:



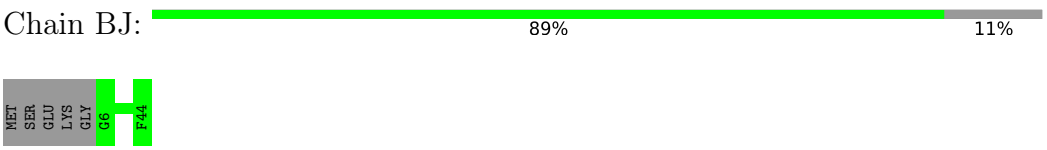
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BI:



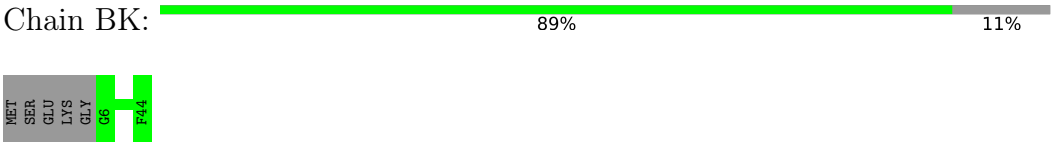
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BJ:



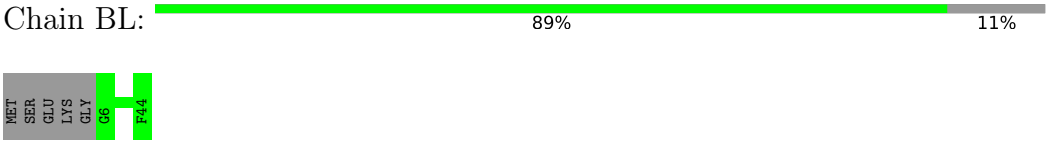
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BK:



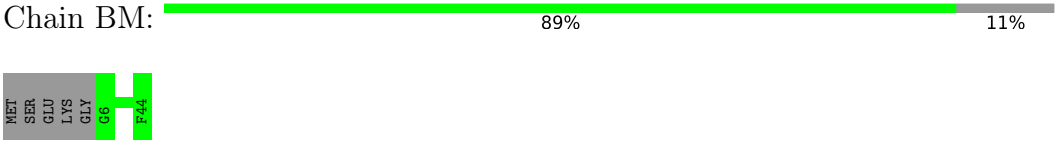
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BL:



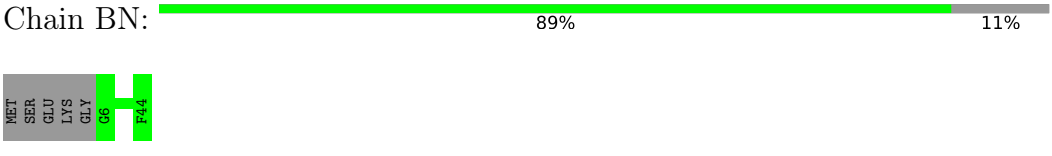
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BM:



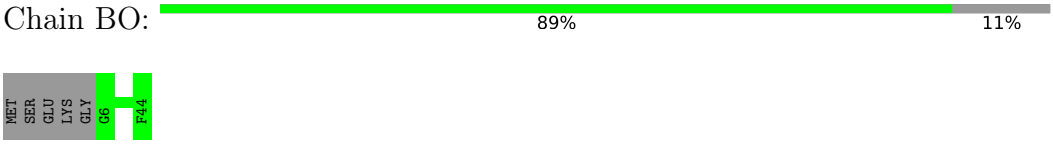
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BN:



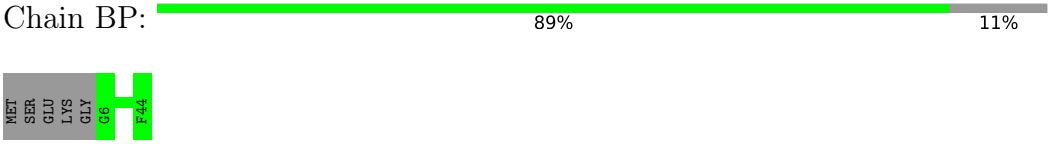
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BO:



• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BP:

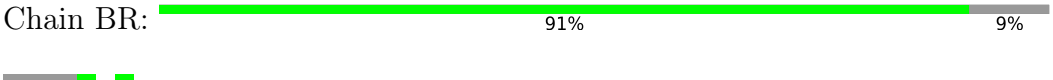


• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BQ:

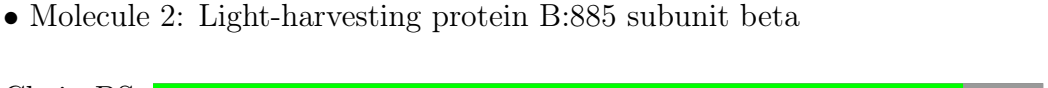
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BR:



• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BS:



• Molecule 2: Light-harvesting protein B:885 subunit beta

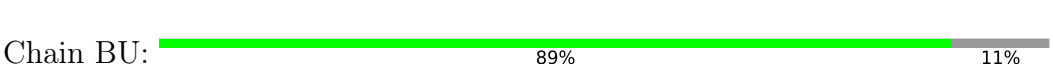
Chain BT:

• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BU:

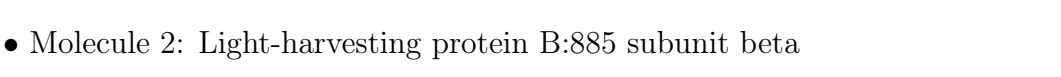
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BV:



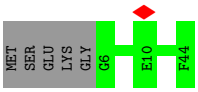
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BW:



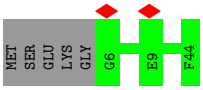
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain BX:



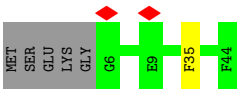
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain ba:



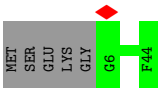
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain bb:



• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain bc:



• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain bd:

• Molecule 2: Light-harvesting protein B:885 subunit beta

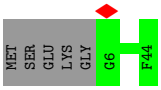
Chain be:

• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain bf:

• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain bg:



• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain bh:

• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain bi:

• Molecule 2: Light-harvesting protein B:885 subunit beta

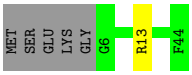
Chain bj:

• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain bk:

• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain bl:

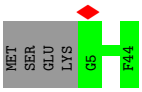


• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain bm:

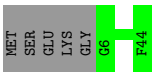
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain bn:



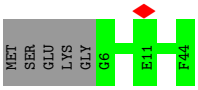
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain bo:



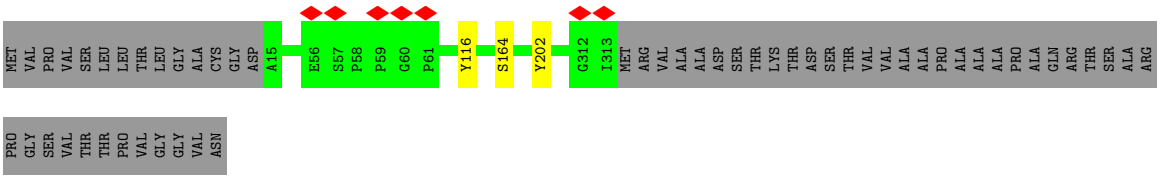
• Molecule 2: Light-harvesting protein B:885 subunit beta

Chain bp:



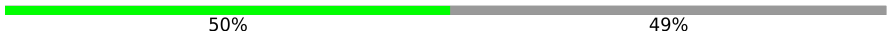
• Molecule 3: MULTIHEME_CYTC domain-containing protein

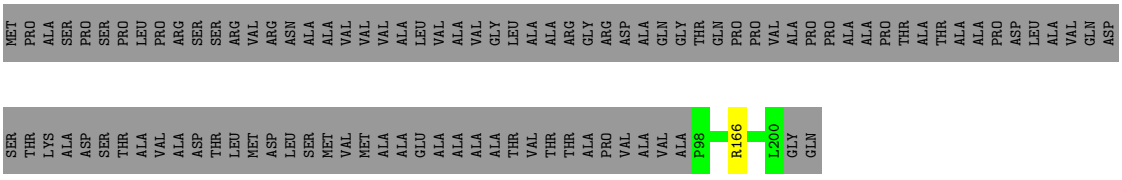
Chain C:



• Molecule 4: RC-S

Chain C1:



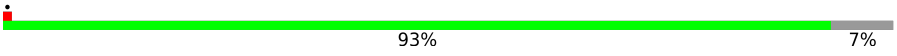


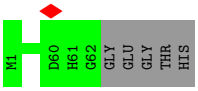
• Molecule 5: RC-U

Chain C2:

• Molecule 6: PRCH domain-containing protein

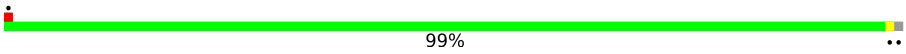
Chain H1:

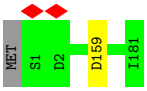




• Molecule 7: RC-Hc

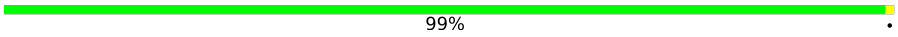
Chain H2:

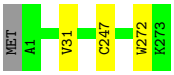




• Molecule 8: Photosynthetic reaction center L subunit

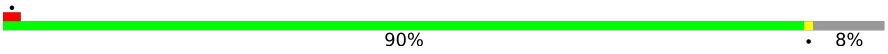
Chain L:

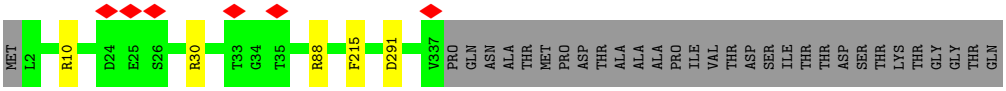




• Molecule 9: RC-M

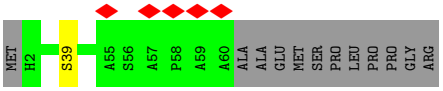
Chain M:





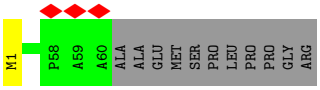
• Molecule 10: LHC domain-containing protein

Chain aa:



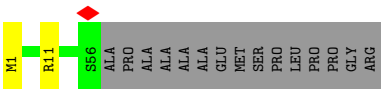
• Molecule 11: LHC domain-containing protein

Chain ab:



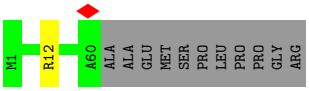
• Molecule 11: LHC domain-containing protein

Chain ac:



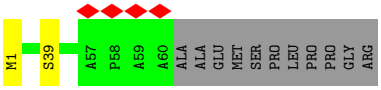
• Molecule 11: LHC domain-containing protein

Chain ad:



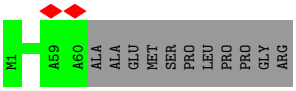
• Molecule 11: LHC domain-containing protein

Chain ae:



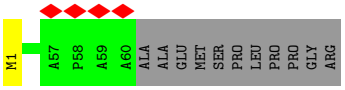
• Molecule 11: LHC domain-containing protein

Chain af:



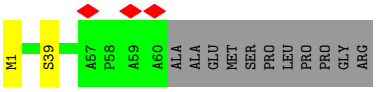
• Molecule 11: LHC domain-containing protein

Chain ag:



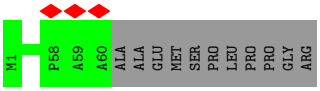
• Molecule 11: LHC domain-containing protein

Chain ah:



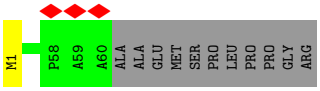
• Molecule 11: LHC domain-containing protein

Chain ai:



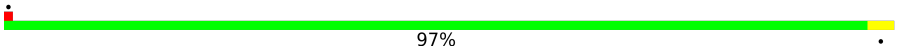
• Molecule 11: LHC domain-containing protein

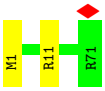
Chain aj:



• Molecule 11: LHC domain-containing protein

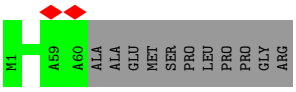
Chain ak:





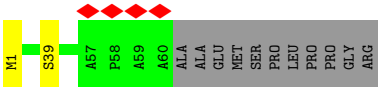
• Molecule 11: LHC domain-containing protein

Chain al:



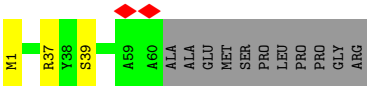
• Molecule 11: LHC domain-containing protein

Chain am:



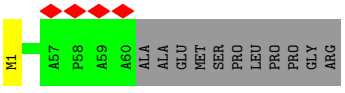
• Molecule 11: LHC domain-containing protein

Chain an:



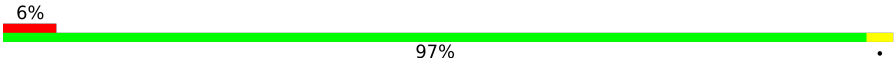
• Molecule 11: LHC domain-containing protein

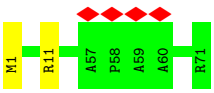
Chain ao:



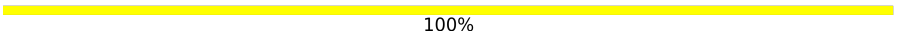
• Molecule 11: LHC domain-containing protein

Chain ap:

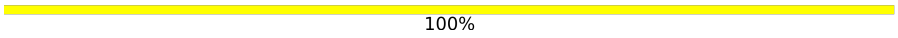




• Molecule 12: alpha-L-rhamnopyranose-(1-4)-alpha-D-mannopyranose

Chain CG: 

• Molecule 12: alpha-L-rhamnopyranose-(1-4)-alpha-D-mannopyranose

Chain MG: 

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	100616	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	24.8	Depositor
Minimum defocus (nm)	-800	Depositor
Maximum defocus (nm)	-2400	Depositor
Magnification	120000	Depositor
Image detector	FEI FALCON IV (4k x 4k)	Depositor
Maximum map value	0.199	Depositor
Minimum map value	-0.058	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.004	Depositor
Recommended contour level	0.0233	Depositor
Map size (Å)	399.784, 399.784, 399.784	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.99946, 0.99946, 0.99946	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: HEC, MQ8, MAN, 0V9, FME, CRT, BPH, V75, UYH, V7B, CD4, PGW, FE, BCL, RAM, LMT, NDG, V7N

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	AA	0.25	0/396	0.52	0/541
1	AB	0.25	0/396	0.49	0/541
1	AC	0.26	0/388	0.54	0/529
1	AD	0.25	0/388	0.53	0/529
1	AE	0.27	0/396	0.54	0/541
1	AF	0.26	0/396	0.54	0/541
1	AG	0.26	0/396	0.51	0/541
1	AH	0.26	0/396	0.49	0/541
1	AI	0.26	0/396	0.53	0/541
1	AJ	0.28	0/396	0.54	0/541
1	AK	0.27	0/396	0.53	0/541
1	AL	0.27	0/396	0.53	0/541
1	AM	0.26	0/396	0.50	0/541
1	AN	0.27	0/396	0.52	0/541
1	AO	0.26	0/396	0.51	0/541
1	AP	0.26	0/396	0.51	0/541
1	AQ	0.27	0/396	0.54	0/541
1	AR	0.26	0/396	0.51	0/541
1	AS	0.28	0/396	0.55	0/541
1	AT	0.27	0/396	0.51	0/541
1	AU	0.26	0/396	0.52	0/541
1	AV	0.28	0/396	0.51	0/541
1	AW	0.26	0/396	0.52	0/541
1	AX	0.26	0/396	0.54	0/541
2	BA	0.24	0/336	0.48	0/456
2	BB	0.26	0/340	0.50	0/461
2	BC	0.25	0/336	0.50	0/456
2	BD	0.25	0/340	0.49	0/461
2	BE	0.26	0/340	0.49	0/461
2	BF	0.27	0/336	0.51	0/456
2	BG	0.27	0/336	0.51	0/456

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
2	BH	0.26	0/336	0.49	0/456
2	BI	0.27	0/340	0.52	0/461
2	BJ	0.28	0/336	0.53	0/456
2	BK	0.28	0/336	0.51	0/456
2	BL	0.27	0/336	0.52	0/456
2	BM	0.26	0/336	0.52	0/456
2	BN	0.27	0/336	0.50	0/456
2	BO	0.26	0/336	0.50	0/456
2	BP	0.28	0/336	0.51	0/456
2	BQ	0.27	0/340	0.52	0/461
2	BR	0.26	0/340	0.51	0/461
2	BS	0.26	0/340	0.51	0/461
2	BT	0.26	0/340	0.50	0/461
2	BU	0.28	0/336	0.51	0/456
2	BV	0.26	0/340	0.50	0/461
2	BW	0.26	0/340	0.50	0/461
2	BX	0.26	0/336	0.51	0/456
2	ba	0.27	0/336	0.50	0/456
2	bb	0.29	0/336	0.53	0/456
2	bc	0.26	0/336	0.50	0/456
2	bd	0.30	0/336	0.57	0/456
2	be	0.31	0/336	0.49	0/456
2	bf	0.30	0/336	0.51	0/456
2	bg	0.28	0/336	0.50	0/456
2	bh	0.30	0/336	0.53	0/456
2	bi	0.29	0/336	0.51	0/456
2	bj	0.31	0/336	0.52	0/456
2	bk	0.29	0/336	0.53	0/456
2	bl	0.31	0/336	0.56	0/456
2	bm	0.29	0/336	0.50	0/456
2	bn	0.30	0/340	0.55	0/461
2	bo	0.29	0/336	0.49	0/456
2	bp	0.29	0/336	0.52	0/456
3	C	0.31	0/2392	0.56	0/3263
4	C1	0.27	0/826	0.58	0/1128
5	C2	0.27	0/800	0.58	0/1094
6	H1	0.29	0/531	0.53	0/717
7	H2	0.30	0/1443	0.55	0/1970
8	L	0.29	0/2252	0.51	0/3081
9	M	0.31	0/2803	0.55	0/3835
10	aa	0.25	0/467	0.54	0/638
11	ab	0.25	0/467	0.55	0/638
11	ac	0.27	0/444	0.59	0/605

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
11	ad	0.29	0/467	0.57	0/638
11	ae	0.31	0/467	0.57	0/638
11	af	0.29	0/467	0.55	0/638
11	ag	0.28	0/467	0.54	0/638
11	ah	0.29	0/467	0.56	0/638
11	ai	0.27	0/467	0.54	0/638
11	aj	0.28	0/467	0.58	0/638
11	ak	0.29	0/547	0.56	0/748
11	al	0.28	0/467	0.56	0/638
11	am	0.29	0/467	0.54	0/638
11	an	0.31	0/467	0.55	0/638
11	ao	0.31	0/467	0.59	0/638
11	ap	0.26	0/547	0.54	0/748
All	All	0.28	0/41628	0.53	0/56738

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	AE	0	1
2	BF	0	1
2	bl	0	1
4	C1	0	1
5	C2	0	1
9	M	0	2
11	ac	0	1
11	ad	0	1
11	ak	0	1
11	an	0	1
All	All	0	11

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

5 of 11 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AE	3	ARG	Sidechain
2	BF	13	ARG	Sidechain

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Mol	Chain	Res	Type	Group
4	C1	166	ARG	Sidechain
5	C2	27	ARG	Sidechain
9	M	10	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	AA	47/54 (87%)	47 (100%)	0	0	100	100
1	AB	47/54 (87%)	47 (100%)	0	0	100	100
1	AC	46/54 (85%)	46 (100%)	0	0	100	100
1	AD	46/54 (85%)	46 (100%)	0	0	100	100
1	AE	47/54 (87%)	47 (100%)	0	0	100	100
1	AF	47/54 (87%)	47 (100%)	0	0	100	100
1	AG	47/54 (87%)	47 (100%)	0	0	100	100
1	AH	47/54 (87%)	47 (100%)	0	0	100	100
1	AI	47/54 (87%)	47 (100%)	0	0	100	100
1	AJ	47/54 (87%)	46 (98%)	1 (2%)	0	100	100
1	AK	47/54 (87%)	47 (100%)	0	0	100	100
1	AL	47/54 (87%)	47 (100%)	0	0	100	100
1	AM	47/54 (87%)	47 (100%)	0	0	100	100
1	AN	47/54 (87%)	46 (98%)	1 (2%)	0	100	100
1	AO	47/54 (87%)	46 (98%)	1 (2%)	0	100	100
1	AP	47/54 (87%)	47 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	AQ	47/54 (87%)	47 (100%)	0	0	100	100
1	AR	47/54 (87%)	47 (100%)	0	0	100	100
1	AS	47/54 (87%)	47 (100%)	0	0	100	100
1	AT	47/54 (87%)	47 (100%)	0	0	100	100
1	AU	47/54 (87%)	47 (100%)	0	0	100	100
1	AV	47/54 (87%)	47 (100%)	0	0	100	100
1	AW	47/54 (87%)	46 (98%)	1 (2%)	0	100	100
1	AX	47/54 (87%)	47 (100%)	0	0	100	100
2	BA	37/44 (84%)	37 (100%)	0	0	100	100
2	BB	38/44 (86%)	38 (100%)	0	0	100	100
2	BC	37/44 (84%)	37 (100%)	0	0	100	100
2	BD	38/44 (86%)	38 (100%)	0	0	100	100
2	BE	38/44 (86%)	38 (100%)	0	0	100	100
2	BF	37/44 (84%)	37 (100%)	0	0	100	100
2	BG	37/44 (84%)	37 (100%)	0	0	100	100
2	BH	37/44 (84%)	37 (100%)	0	0	100	100
2	BI	38/44 (86%)	38 (100%)	0	0	100	100
2	BJ	37/44 (84%)	37 (100%)	0	0	100	100
2	BK	37/44 (84%)	37 (100%)	0	0	100	100
2	BL	37/44 (84%)	37 (100%)	0	0	100	100
2	BM	37/44 (84%)	37 (100%)	0	0	100	100
2	BN	37/44 (84%)	37 (100%)	0	0	100	100
2	BO	37/44 (84%)	37 (100%)	0	0	100	100
2	BP	37/44 (84%)	37 (100%)	0	0	100	100
2	BQ	38/44 (86%)	38 (100%)	0	0	100	100
2	BR	38/44 (86%)	38 (100%)	0	0	100	100
2	BS	38/44 (86%)	38 (100%)	0	0	100	100
2	BT	38/44 (86%)	38 (100%)	0	0	100	100
2	BU	37/44 (84%)	37 (100%)	0	0	100	100
2	BV	38/44 (86%)	37 (97%)	1 (3%)	0	100	100
2	BW	38/44 (86%)	38 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	BX	37/44 (84%)	37 (100%)	0	0	100	100
2	ba	37/44 (84%)	37 (100%)	0	0	100	100
2	bb	37/44 (84%)	37 (100%)	0	0	100	100
2	bc	37/44 (84%)	37 (100%)	0	0	100	100
2	bd	37/44 (84%)	37 (100%)	0	0	100	100
2	be	37/44 (84%)	37 (100%)	0	0	100	100
2	bf	37/44 (84%)	37 (100%)	0	0	100	100
2	bg	37/44 (84%)	37 (100%)	0	0	100	100
2	bh	37/44 (84%)	36 (97%)	1 (3%)	0	100	100
2	bi	37/44 (84%)	37 (100%)	0	0	100	100
2	bj	37/44 (84%)	36 (97%)	1 (3%)	0	100	100
2	bk	37/44 (84%)	37 (100%)	0	0	100	100
2	bl	37/44 (84%)	36 (97%)	1 (3%)	0	100	100
2	bm	37/44 (84%)	37 (100%)	0	0	100	100
2	bn	38/44 (86%)	38 (100%)	0	0	100	100
2	bo	37/44 (84%)	37 (100%)	0	0	100	100
2	bp	37/44 (84%)	37 (100%)	0	0	100	100
3	C	297/354 (84%)	286 (96%)	11 (4%)	0	100	100
4	C1	101/202 (50%)	99 (98%)	2 (2%)	0	100	100
5	C2	99/125 (79%)	98 (99%)	1 (1%)	0	100	100
6	H1	60/67 (90%)	59 (98%)	1 (2%)	0	100	100
7	H2	178/181 (98%)	171 (96%)	7 (4%)	0	100	100
8	L	271/274 (99%)	264 (97%)	6 (2%)	1 (0%)	34	52
9	M	334/367 (91%)	325 (97%)	9 (3%)	0	100	100
10	aa	57/71 (80%)	56 (98%)	1 (2%)	0	100	100
11	ab	58/71 (82%)	57 (98%)	1 (2%)	0	100	100
11	ac	54/71 (76%)	52 (96%)	2 (4%)	0	100	100
11	ad	58/71 (82%)	57 (98%)	1 (2%)	0	100	100
11	ae	58/71 (82%)	58 (100%)	0	0	100	100
11	af	58/71 (82%)	57 (98%)	1 (2%)	0	100	100
11	ag	58/71 (82%)	58 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
11	ah	58/71 (82%)	56 (97%)	2 (3%)	0	100	100
11	ai	58/71 (82%)	56 (97%)	2 (3%)	0	100	100
11	aj	58/71 (82%)	56 (97%)	2 (3%)	0	100	100
11	ak	69/71 (97%)	66 (96%)	3 (4%)	0	100	100
11	al	58/71 (82%)	56 (97%)	2 (3%)	0	100	100
11	am	58/71 (82%)	57 (98%)	1 (2%)	0	100	100
11	an	58/71 (82%)	57 (98%)	1 (2%)	0	100	100
11	ao	58/71 (82%)	57 (98%)	1 (2%)	0	100	100
11	ap	69/71 (97%)	67 (97%)	2 (3%)	0	100	100
All	All	4902/5762 (85%)	4834 (99%)	67 (1%)	1 (0%)	100	100

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
8	L	31	VAL

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	AA	38/41 (93%)	38 (100%)	0	100	100
1	AB	38/41 (93%)	38 (100%)	0	100	100
1	AC	37/41 (90%)	37 (100%)	0	100	100
1	AD	37/41 (90%)	37 (100%)	0	100	100
1	AE	38/41 (93%)	38 (100%)	0	100	100
1	AF	38/41 (93%)	38 (100%)	0	100	100
1	AG	38/41 (93%)	38 (100%)	0	100	100
1	AH	38/41 (93%)	37 (97%)	1 (3%)	46	70
1	AI	38/41 (93%)	38 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	AJ	38/41 (93%)	38 (100%)	0	100	100
1	AK	38/41 (93%)	38 (100%)	0	100	100
1	AL	38/41 (93%)	38 (100%)	0	100	100
1	AM	38/41 (93%)	38 (100%)	0	100	100
1	AN	38/41 (93%)	38 (100%)	0	100	100
1	AO	38/41 (93%)	38 (100%)	0	100	100
1	AP	38/41 (93%)	38 (100%)	0	100	100
1	AQ	38/41 (93%)	38 (100%)	0	100	100
1	AR	38/41 (93%)	38 (100%)	0	100	100
1	AS	38/41 (93%)	38 (100%)	0	100	100
1	AT	38/41 (93%)	38 (100%)	0	100	100
1	AU	38/41 (93%)	38 (100%)	0	100	100
1	AV	38/41 (93%)	38 (100%)	0	100	100
1	AW	38/41 (93%)	38 (100%)	0	100	100
1	AX	38/41 (93%)	38 (100%)	0	100	100
2	BA	31/35 (89%)	31 (100%)	0	100	100
2	BB	31/35 (89%)	31 (100%)	0	100	100
2	BC	31/35 (89%)	31 (100%)	0	100	100
2	BD	31/35 (89%)	31 (100%)	0	100	100
2	BE	31/35 (89%)	31 (100%)	0	100	100
2	BF	31/35 (89%)	31 (100%)	0	100	100
2	BG	31/35 (89%)	31 (100%)	0	100	100
2	BH	31/35 (89%)	31 (100%)	0	100	100
2	BI	31/35 (89%)	31 (100%)	0	100	100
2	BJ	31/35 (89%)	31 (100%)	0	100	100
2	BK	31/35 (89%)	31 (100%)	0	100	100
2	BL	31/35 (89%)	31 (100%)	0	100	100
2	BM	31/35 (89%)	31 (100%)	0	100	100
2	BN	31/35 (89%)	31 (100%)	0	100	100
2	BO	31/35 (89%)	31 (100%)	0	100	100
2	BP	31/35 (89%)	31 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	BQ	31/35 (89%)	31 (100%)	0	100	100
2	BR	31/35 (89%)	31 (100%)	0	100	100
2	BS	31/35 (89%)	31 (100%)	0	100	100
2	BT	31/35 (89%)	31 (100%)	0	100	100
2	BU	31/35 (89%)	31 (100%)	0	100	100
2	BV	31/35 (89%)	31 (100%)	0	100	100
2	BW	31/35 (89%)	31 (100%)	0	100	100
2	BX	31/35 (89%)	31 (100%)	0	100	100
2	ba	31/35 (89%)	31 (100%)	0	100	100
2	bb	31/35 (89%)	30 (97%)	1 (3%)	39	63
2	bc	31/35 (89%)	31 (100%)	0	100	100
2	bd	31/35 (89%)	31 (100%)	0	100	100
2	be	31/35 (89%)	31 (100%)	0	100	100
2	bf	31/35 (89%)	31 (100%)	0	100	100
2	bg	31/35 (89%)	31 (100%)	0	100	100
2	bh	31/35 (89%)	31 (100%)	0	100	100
2	bi	31/35 (89%)	31 (100%)	0	100	100
2	bj	31/35 (89%)	31 (100%)	0	100	100
2	bk	31/35 (89%)	31 (100%)	0	100	100
2	bl	31/35 (89%)	31 (100%)	0	100	100
2	bm	31/35 (89%)	31 (100%)	0	100	100
2	bn	31/35 (89%)	31 (100%)	0	100	100
2	bo	31/35 (89%)	31 (100%)	0	100	100
2	bp	31/35 (89%)	31 (100%)	0	100	100
3	C	245/285 (86%)	242 (99%)	3 (1%)	71	87
4	C1	88/156 (56%)	88 (100%)	0	100	100
5	C2	72/95 (76%)	71 (99%)	1 (1%)	67	84
6	H1	50/53 (94%)	50 (100%)	0	100	100
7	H2	150/151 (99%)	149 (99%)	1 (1%)	84	93
8	L	215/216 (100%)	213 (99%)	2 (1%)	78	91
9	M	274/299 (92%)	271 (99%)	3 (1%)	73	88

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
10	aa	46/55 (84%)	45 (98%)	1 (2%)	52 75
11	ab	46/54 (85%)	46 (100%)	0	100 100
11	ac	45/54 (83%)	45 (100%)	0	100 100
11	ad	46/54 (85%)	46 (100%)	0	100 100
11	ae	46/54 (85%)	45 (98%)	1 (2%)	52 75
11	af	46/54 (85%)	46 (100%)	0	100 100
11	ag	46/54 (85%)	46 (100%)	0	100 100
11	ah	46/54 (85%)	45 (98%)	1 (2%)	52 75
11	ai	46/54 (85%)	46 (100%)	0	100 100
11	aj	46/54 (85%)	46 (100%)	0	100 100
11	ak	54/54 (100%)	54 (100%)	0	100 100
11	al	46/54 (85%)	46 (100%)	0	100 100
11	am	46/54 (85%)	45 (98%)	1 (2%)	52 75
11	an	46/54 (85%)	45 (98%)	1 (2%)	52 75
11	ao	46/54 (85%)	46 (100%)	0	100 100
11	ap	54/54 (100%)	53 (98%)	1 (2%)	57 78
All	All	3995/4504 (89%)	3977 (100%)	18 (0%)	89 95

5 of 18 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
11	am	39	SER
2	bb	35	PHE
11	ap	11	ARG
9	M	30	ARG
11	ah	39	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 7 such sidechains are listed below:

Mol	Chain	Res	Type
5	C2	24	HIS
8	L	104	GLN
9	M	316	GLN
8	L	116	HIS
3	C	44	GLN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

40 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	$\#\|Z\| > 2$
1	FME	AE	1	1	8,9,10	0.91	0	7,9,11	1.10	1 (14%)
1	FME	AX	1	1	8,9,10	0.92	0	7,9,11	0.84	0
11	FME	ah	1	11	8,9,10	0.93	0	7,9,11	1.10	1 (14%)
1	FME	AG	1	1	8,9,10	0.93	0	7,9,11	1.10	0
1	FME	AK	1	1	8,9,10	0.94	0	7,9,11	0.95	0
1	FME	AO	1	1	8,9,10	0.92	0	7,9,11	1.23	2 (28%)
1	FME	AP	1	1	8,9,10	0.89	0	7,9,11	1.36	1 (14%)
1	FME	AV	1	1	8,9,10	0.96	0	7,9,11	0.89	0
1	FME	AB	1	1	8,9,10	0.90	0	7,9,11	1.38	1 (14%)
11	FME	am	1	11	8,9,10	0.96	0	7,9,11	0.99	1 (14%)
11	FME	ab	1	11	8,9,10	0.89	0	7,9,11	1.74	1 (14%)
11	FME	al	1	11	8,9,10	0.95	0	7,9,11	0.90	0
1	FME	AW	1	1	8,9,10	0.96	0	7,9,11	0.87	0
11	FME	an	1	11	8,9,10	0.92	0	7,9,11	1.24	1 (14%)
11	FME	aj	1	11	8,9,10	0.93	0	7,9,11	0.98	1 (14%)
1	FME	AM	1	1	8,9,10	0.94	0	7,9,11	0.97	0
11	FME	ac	1	11	8,9,10	0.90	0	7,9,11	1.06	1 (14%)
11	FME	ai	1	11	8,9,10	0.93	0	7,9,11	0.98	0
11	FME	ak	1	11	8,9,10	0.96	0	7,9,11	1.12	1 (14%)
1	FME	AR	1	1	8,9,10	0.94	0	7,9,11	0.99	1 (14%)
11	FME	ae	1	11	8,9,10	0.90	0	7,9,11	1.08	1 (14%)
11	FME	ad	1	11	8,9,10	0.93	0	7,9,11	0.93	0
11	FME	ag	1	11	8,9,10	0.92	0	7,9,11	1.06	1 (14%)
1	FME	AA	1	1	8,9,10	0.93	0	7,9,11	1.05	1 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	FME	AD	1	1	8,9,10	0.91	0	7,9,11	1.24	1 (14%)
11	FME	ao	1	11	8,9,10	0.84	0	7,9,11	2.24	2 (28%)
11	FME	ap	1	11	8,9,10	0.95	0	7,9,11	1.14	1 (14%)
1	FME	AI	1	1	8,9,10	0.95	0	7,9,11	0.86	0
1	FME	AN	1	1	8,9,10	0.93	0	7,9,11	1.21	1 (14%)
1	FME	AQ	1	1	8,9,10	0.92	0	7,9,11	0.89	0
11	FME	af	1	11	8,9,10	0.97	0	7,9,11	0.79	0
1	FME	AJ	1	1	8,9,10	0.92	0	7,9,11	1.23	1 (14%)
1	FME	AF	1	1	8,9,10	0.95	0	7,9,11	0.96	0
1	FME	AH	1	1	8,9,10	0.96	0	7,9,11	0.98	1 (14%)
1	FME	AC	1	1	8,9,10	0.96	0	7,9,11	0.95	0
1	FME	AT	1	1	8,9,10	0.94	0	7,9,11	1.06	1 (14%)
6	FME	H1	1	6	8,9,10	0.96	0	7,9,11	1.14	0
1	FME	AU	1	1	8,9,10	0.95	0	7,9,11	1.19	1 (14%)
1	FME	AL	1	1	8,9,10	0.94	0	7,9,11	1.12	1 (14%)
1	FME	AS	1	1	8,9,10	0.89	0	7,9,11	1.50	2 (28%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	FME	AE	1	1	-	0/7/9/11	-
1	FME	AX	1	1	-	1/7/9/11	-
11	FME	ah	1	11	-	0/7/9/11	-
1	FME	AG	1	1	-	0/7/9/11	-
1	FME	AK	1	1	-	2/7/9/11	-
1	FME	AO	1	1	-	2/7/9/11	-
1	FME	AP	1	1	-	2/7/9/11	-
1	FME	AV	1	1	-	1/7/9/11	-
1	FME	AB	1	1	-	0/7/9/11	-
11	FME	am	1	11	-	0/7/9/11	-
11	FME	ab	1	11	-	1/7/9/11	-
11	FME	al	1	11	-	2/7/9/11	-
1	FME	AW	1	1	-	1/7/9/11	-
11	FME	an	1	11	-	0/7/9/11	-
11	FME	aj	1	11	-	0/7/9/11	-
1	FME	AM	1	1	-	2/7/9/11	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
11	FME	ac	1	11	-	0/7/9/11	-
11	FME	ai	1	11	-	0/7/9/11	-
11	FME	ak	1	11	-	0/7/9/11	-
1	FME	AR	1	1	-	0/7/9/11	-
11	FME	ae	1	11	-	2/7/9/11	-
11	FME	ad	1	11	-	1/7/9/11	-
11	FME	ag	1	11	-	0/7/9/11	-
1	FME	AA	1	1	-	0/7/9/11	-
1	FME	AD	1	1	-	0/7/9/11	-
11	FME	ao	1	11	-	3/7/9/11	-
11	FME	ap	1	11	-	1/7/9/11	-
1	FME	AI	1	1	-	1/7/9/11	-
1	FME	AN	1	1	-	0/7/9/11	-
1	FME	AQ	1	1	-	1/7/9/11	-
11	FME	af	1	11	-	2/7/9/11	-
1	FME	AJ	1	1	-	1/7/9/11	-
1	FME	AF	1	1	-	1/7/9/11	-
1	FME	AH	1	1	-	1/7/9/11	-
1	FME	AC	1	1	-	0/7/9/11	-
1	FME	AT	1	1	-	2/7/9/11	-
6	FME	H1	1	6	-	0/7/9/11	-
1	FME	AU	1	1	-	1/7/9/11	-
1	FME	AL	1	1	-	0/7/9/11	-
1	FME	AS	1	1	-	2/7/9/11	-

There are no bond length outliers.

The worst 5 of 28 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	ao	1	FME	C-CA-N	4.46	117.78	109.73
11	ab	1	FME	CA-N-CN	4.25	129.36	122.82
11	ao	1	FME	CA-N-CN	3.63	128.40	122.82
1	AS	1	FME	C-CA-N	3.11	115.34	109.73
1	AB	1	FME	C-CA-N	2.77	114.72	109.73

There are no chirality outliers.

5 of 33 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
11	ab	1	FME	CB-CA-N-CN

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Mol	Chain	Res	Type	Atoms
11	ao	1	FME	C-CA-CB-CG
1	AF	1	FME	O-C-CA-CB
1	AH	1	FME	O-C-CA-CB
1	AI	1	FME	O-C-CA-CB

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates (i)

4 monosaccharides are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
12	MAN	CG	1	3,18,12	11,11,12	0.95	1 (9%)	15,15,17	1.07	1 (6%)
12	RAM	CG	2	12	10,10,11	1.80	2 (20%)	14,14,16	0.87	1 (7%)
12	MAN	MG	1	18,9,12	11,11,12	0.81	1 (9%)	15,15,17	1.09	1 (6%)
12	RAM	MG	2	12	10,10,11	1.70	2 (20%)	14,14,16	1.97	3 (21%)

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
12	MAN	CG	1	3,18,12	-	1/2/19/22	0/1/1/1
12	RAM	CG	2	12	-	-	0/1/1/1
12	MAN	MG	1	18,9,12	-	0/2/19/22	0/1/1/1
12	RAM	MG	2	12	-	-	0/1/1/1

The worst 5 of 6 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	CG	2	RAM	O5-C1	4.37	1.50	1.43
12	MG	2	RAM	O5-C1	3.74	1.49	1.43
12	MG	2	RAM	C2-C3	-2.88	1.48	1.52
12	CG	1	MAN	O5-C1	-2.58	1.39	1.43
12	CG	2	RAM	C2-C3	-2.55	1.48	1.52

The worst 5 of 6 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	MG	2	RAM	C6-C5-C4	-4.03	105.62	113.07
12	MG	2	RAM	C3-C4-C5	3.91	115.87	109.77
12	MG	2	RAM	O5-C5-C4	3.76	116.27	109.52
12	MG	1	MAN	C1-O5-C5	2.73	115.89	112.19
12	CG	1	MAN	C1-O5-C5	2.53	115.62	112.19

There are no chirality outliers.

All (1) torsion outliers are listed below:

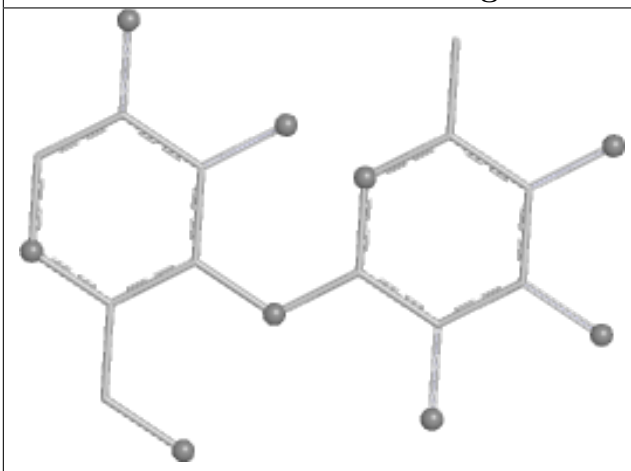
Mol	Chain	Res	Type	Atoms
12	CG	1	MAN	O5-C5-C6-O6

There are no ring outliers.

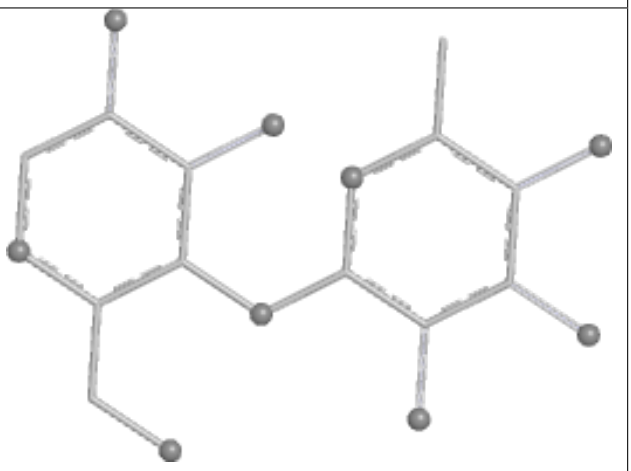
No monomer is involved in short contacts.

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

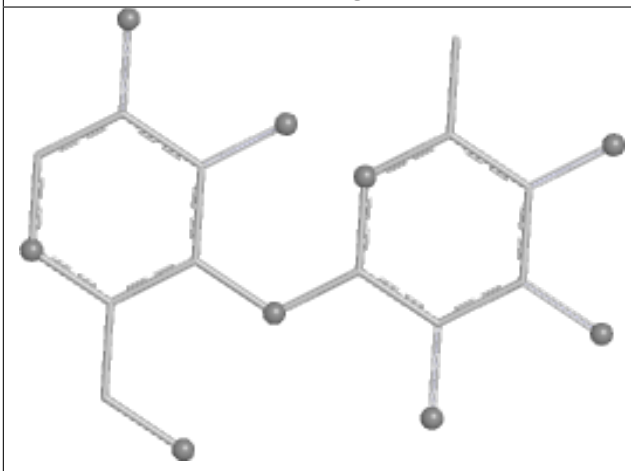
Oligosaccharide Chain CG



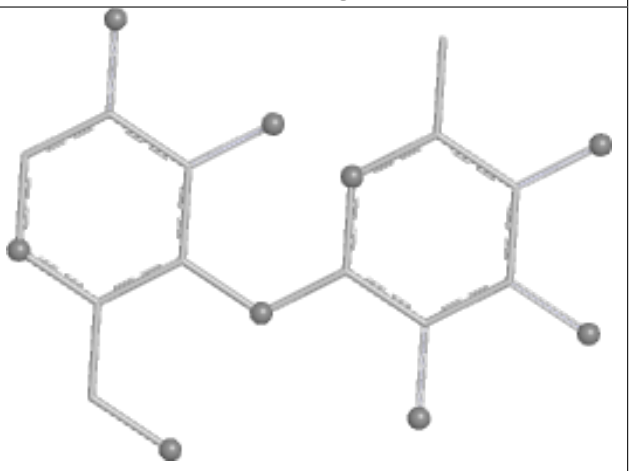
Bond lengths



Bond angles

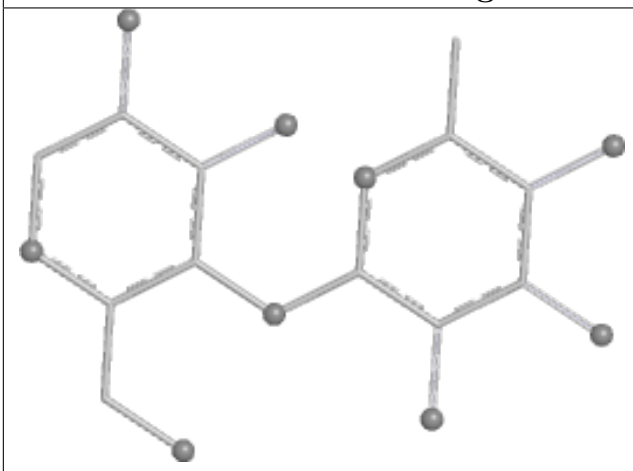


Torsions

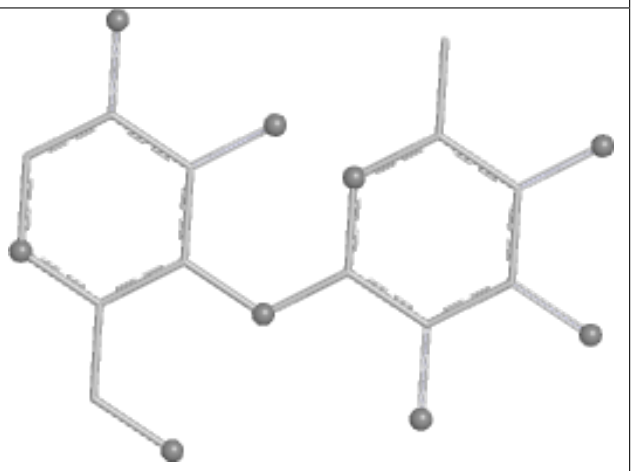


Rings

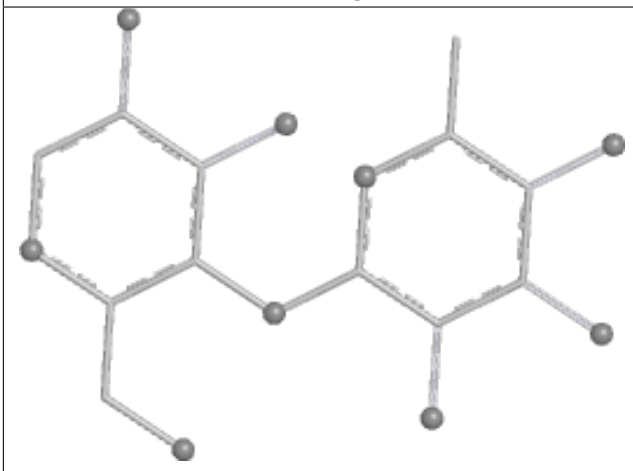
Oligosaccharide Chain MG



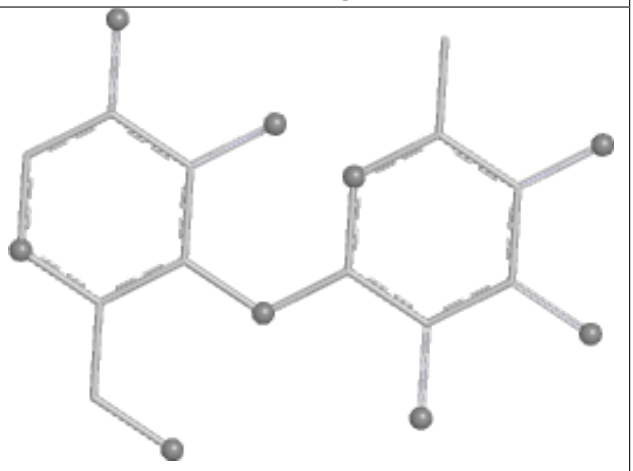
Bond lengths



Bond angles



Torsions



Rings

5.6 Ligand geometry

Of 316 ligands modelled in this entry, 1 is monoatomic - leaving 315 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	$\#\|Z\| > 2$
14	LMT	BJ	1005	-	36,36,36	1.11	5 (13%)	47,47,47	0.94	2 (4%)
14	LMT	BU	1003	-	36,36,36	1.07	4 (11%)	47,47,47	0.96	2 (4%)
14	LMT	BO	1002	-	36,36,36	1.11	5 (13%)	47,47,47	0.98	2 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
14	LMT	BQ	1002	-	36,36,36	1.12	4 (11%)	47,47,47	0.84	2 (4%)
13	BCL	AC	102	-	58,74,74	1.22	3 (5%)	69,115,115	1.37	9 (13%)
14	LMT	ac	101	-	36,36,36	1.12	5 (13%)	47,47,47	0.86	1 (2%)
15	V7N	be	102	-	40,44,44	2.06	10 (25%)	40,54,54	1.47	8 (20%)
14	LMT	L	307	-	36,36,36	1.08	5 (13%)	47,47,47	0.89	2 (4%)
14	LMT	BJ	1006	-	36,36,36	1.09	5 (13%)	47,47,47	0.88	1 (2%)
14	LMT	AJ	101	-	36,36,36	1.10	5 (13%)	47,47,47	0.94	1 (2%)
15	V7N	AA	1004	-	40,44,44	2.14	10 (25%)	40,54,54	1.57	5 (12%)
13	BCL	BU	1004	-	58,74,74	1.23	3 (5%)	69,115,115	1.33	10 (14%)
13	BCL	AL	102	-	58,74,74	1.21	3 (5%)	69,115,115	1.37	9 (13%)
26	V7B	ag	103	-	59,59,59	0.87	4 (6%)	75,75,75	1.00	4 (5%)
15	V7N	BH	1001	-	40,44,44	2.11	10 (25%)	40,54,54	1.61	10 (25%)
19	NDG	C1	301	18	14,14,15	0.63	0	17,19,21	1.01	2 (11%)
13	BCL	AV	103	28	58,74,74	1.21	3 (5%)	69,115,115	1.38	10 (14%)
14	LMT	AT	102	-	36,36,36	1.10	5 (13%)	47,47,47	0.97	2 (4%)
14	LMT	BB	104	-	36,36,36	1.09	4 (11%)	47,47,47	0.82	0
14	LMT	BK	1004	-	36,36,36	1.10	5 (13%)	47,47,47	1.05	3 (6%)
14	LMT	BN	1003	-	36,36,36	1.09	5 (13%)	47,47,47	1.03	2 (4%)
13	BCL	be	103	-	58,74,74	1.23	3 (5%)	69,115,115	1.33	10 (14%)
14	LMT	AQ	101	-	36,36,36	1.11	5 (13%)	47,47,47	0.90	2 (4%)
16	0V9	bn	104	-	44,44,46	0.74	1 (2%)	47,49,51	0.79	1 (2%)
13	BCL	AK	104	-	58,74,74	1.20	3 (5%)	69,115,115	1.37	9 (13%)
25	CRT	M	404	-	41,43,43	0.56	0	50,54,54	0.79	1 (2%)
13	BCL	BD	104	-	58,74,74	1.25	4 (6%)	69,115,115	1.54	11 (15%)
13	BCL	M	406	-	58,74,74	1.22	4 (6%)	69,115,115	1.34	11 (15%)
14	LMT	BH	1004	-	36,36,36	1.11	5 (13%)	47,47,47	0.93	2 (4%)
13	BCL	AE	105	-	58,74,74	1.27	3 (5%)	69,115,115	1.38	11 (15%)
13	BCL	bl	104	-	58,74,74	1.23	3 (5%)	69,115,115	1.34	10 (14%)
15	V7N	bl	101	-	40,44,44	2.10	10 (25%)	40,54,54	1.59	9 (22%)
16	0V9	bm	104	-	44,44,46	0.75	1 (2%)	47,49,51	0.88	1 (2%)
13	BCL	AF	1001	-	58,74,74	1.21	3 (5%)	69,115,115	1.38	9 (13%)
13	BCL	ao	102	-	58,74,74	1.24	3 (5%)	69,115,115	1.35	9 (13%)
13	BCL	AE	104	-	58,74,74	1.22	3 (5%)	69,115,115	1.44	11 (15%)
16	0V9	AQ	105	-	44,44,46	0.76	1 (2%)	47,49,51	0.83	1 (2%)
26	V7B	af	101	-	59,59,59	0.88	3 (5%)	75,75,75	1.09	4 (5%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
14	LMT	BM	1003	-	36,36,36	1.11	4 (11%)	47,47,47	0.91	0
13	BCL	AH	102	28	58,74,74	1.24	3 (5%)	69,115,115	1.54	16 (23%)
13	BCL	BC	104	-	58,74,74	1.20	3 (5%)	69,115,115	1.35	10 (14%)
14	LMT	bo	104	-	36,36,36	1.12	5 (13%)	47,47,47	0.95	1 (2%)
13	BCL	AM	1004	-	58,74,74	1.20	3 (5%)	69,115,115	1.35	9 (13%)
14	LMT	AM	1003	-	36,36,36	1.10	5 (13%)	47,47,47	0.92	2 (4%)
16	0V9	bd	103	-	44,44,46	0.76	1 (2%)	47,49,51	0.93	2 (4%)
15	V7N	bh	101	-	40,44,44	2.10	9 (22%)	40,54,54	1.46	8 (20%)
13	BCL	AO	101	-	58,74,74	1.27	4 (6%)	69,115,115	1.34	9 (13%)
14	LMT	BD	103	-	36,36,36	1.08	4 (11%)	47,47,47	0.92	0
13	BCL	BB	105	-	58,74,74	1.19	3 (5%)	69,115,115	1.37	11 (15%)
14	LMT	bp	101	-	36,36,36	1.08	5 (13%)	47,47,47	1.03	3 (6%)
14	LMT	bm	103	-	36,36,36	1.14	5 (13%)	47,47,47	0.89	1 (2%)
13	BCL	bo	102	-	58,74,74	1.22	3 (5%)	69,115,115	1.35	10 (14%)
13	BCL	AS	102	-	58,74,74	1.23	3 (5%)	69,115,115	1.48	12 (17%)
14	LMT	BK	1003	-	36,36,36	1.12	5 (13%)	47,47,47	0.96	2 (4%)
14	LMT	BS	1003	-	36,36,36	1.07	5 (13%)	47,47,47	0.96	3 (6%)
13	BCL	an	1001	-	58,74,74	1.23	3 (5%)	69,115,115	1.41	10 (14%)
15	V7N	AD	101	-	40,44,44	2.08	10 (25%)	40,54,54	1.53	9 (22%)
13	BCL	AU	103	-	58,74,74	1.23	5 (8%)	69,115,115	1.40	10 (14%)
13	BCL	BE	104	-	58,74,74	1.20	3 (5%)	69,115,115	1.35	9 (13%)
15	V7N	bj	101	-	40,44,44	2.06	9 (22%)	40,54,54	1.48	7 (17%)
16	0V9	H1	102	-	44,44,46	0.77	1 (2%)	47,49,51	0.86	1 (2%)
13	BCL	am	1001	-	58,74,74	1.25	3 (5%)	69,115,115	1.38	10 (14%)
14	LMT	AU	102	-	36,36,36	1.11	4 (11%)	47,47,47	0.83	1 (2%)
14	LMT	BW	1004	-	36,36,36	1.10	5 (13%)	47,47,47	1.04	2 (4%)
13	BCL	bb	102	-	58,74,74	1.21	3 (5%)	69,115,115	1.42	11 (15%)
13	BCL	BV	1005	-	58,74,74	1.21	3 (5%)	69,115,115	1.39	11 (15%)
14	LMT	BE	102	-	36,36,36	1.11	5 (13%)	47,47,47	1.20	6 (12%)
14	LMT	BH	1002	-	36,36,36	1.10	5 (13%)	47,47,47	0.98	2 (4%)
16	0V9	bj	103	-	44,44,46	0.74	1 (2%)	47,49,51	0.88	3 (6%)
16	0V9	bo	103	-	44,44,46	0.75	1 (2%)	47,49,51	0.86	1 (2%)
14	LMT	BT	102	-	36,36,36	1.12	5 (13%)	47,47,47	0.91	2 (4%)
16	0V9	bp	105	-	44,44,46	0.74	1 (2%)	47,49,51	0.92	2 (4%)
14	LMT	BR	1004	-	36,36,36	1.11	4 (11%)	47,47,47	0.89	1 (2%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
18	V75	M	410	19,12	15,18,18	1.89	6 (40%)	19,25,25	1.60	2 (10%)
13	BCL	AL	103	-	58,74,74	1.29	5 (8%)	69,115,115	1.65	14 (20%)
15	V7N	BR	1001	-	40,44,44	2.09	10 (25%)	40,54,54	1.47	7 (17%)
13	BCL	ai	101	-	58,74,74	1.24	3 (5%)	69,115,115	1.40	10 (14%)
13	BCL	AR	101	-	58,74,74	1.22	3 (5%)	69,115,115	1.38	9 (13%)
14	LMT	BO	1004	-	36,36,36	1.13	5 (13%)	47,47,47	0.87	0
14	LMT	BK	1005	-	36,36,36	1.09	5 (13%)	47,47,47	0.98	2 (4%)
13	BCL	BF	103	-	58,74,74	1.20	3 (5%)	69,115,115	1.29	10 (14%)
21	CD4	af	104	-	83,83,83	0.47	0	89,95,95	1.02	4 (4%)
13	BCL	AT	101	-	58,74,74	1.20	3 (5%)	69,115,115	1.37	9 (13%)
14	LMT	AG	101	-	36,36,36	1.16	5 (13%)	47,47,47	1.02	2 (4%)
13	BCL	BW	1005	-	58,74,74	1.21	3 (5%)	69,115,115	1.33	9 (13%)
13	BCL	AC	101	-	58,74,74	1.29	4 (6%)	69,115,115	1.42	12 (17%)
13	BCL	AJ	104	-	58,74,74	1.22	3 (5%)	69,115,115	1.38	9 (13%)
16	0V9	bh	104	-	44,44,46	0.73	1 (2%)	47,49,51	0.85	2 (4%)
16	0V9	bl	102	-	44,44,46	0.74	1 (2%)	47,49,51	0.89	1 (2%)
14	LMT	BW	1003	-	36,36,36	1.10	5 (13%)	47,47,47	0.86	1 (2%)
13	BCL	M	408	-	58,74,74	1.21	4 (6%)	69,115,115	1.44	10 (14%)
23	MQ8	M	402	-	54,54,54	0.66	0	66,69,69	0.96	4 (6%)
14	LMT	BW	1006	-	36,36,36	1.12	5 (13%)	47,47,47	0.90	2 (4%)
13	BCL	BR	1003	-	58,74,74	1.21	4 (6%)	69,115,115	1.36	10 (14%)
13	BCL	bi	102	-	58,74,74	1.23	3 (5%)	69,115,115	1.32	10 (14%)
14	LMT	BN	1004	-	36,36,36	1.12	5 (13%)	47,47,47	0.94	2 (4%)
13	BCL	AD	103	-	58,74,74	1.21	3 (5%)	69,115,115	1.44	11 (15%)
13	BCL	AQ	102	28	58,74,74	1.25	4 (6%)	69,115,115	1.51	13 (18%)
13	BCL	ah	1001	-	58,74,74	1.25	3 (5%)	69,115,115	1.42	9 (13%)
15	V7N	bg	101	-	40,44,44	2.09	9 (22%)	40,54,54	1.52	8 (20%)
15	V7N	bp	102	-	40,44,44	2.22	9 (22%)	40,54,54	1.45	7 (17%)
14	LMT	L	306	-	36,36,36	1.10	5 (13%)	47,47,47	0.89	1 (2%)
14	LMT	BB	103	-	36,36,36	1.07	5 (13%)	47,47,47	0.91	1 (2%)
14	LMT	AA	1003	-	36,36,36	1.14	4 (11%)	47,47,47	1.01	1 (2%)
14	LMT	BJ	1003	-	36,36,36	1.07	5 (13%)	47,47,47	0.94	1 (2%)
13	BCL	aj	101	-	58,74,74	1.22	3 (5%)	69,115,115	1.36	11 (15%)
16	0V9	M	403	-	44,44,46	0.76	1 (2%)	47,49,51	0.89	3 (6%)
13	BCL	AQ	103	-	58,74,74	1.21	3 (5%)	69,115,115	1.42	10 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
13	BCL	AH	105	-	58,74,74	1.27	5 (8%)	69,115,115	1.49	13 (18%)
14	LMT	bf	101	-	36,36,36	1.07	4 (11%)	47,47,47	0.93	2 (4%)
13	BCL	bk	103	-	58,74,74	1.21	3 (5%)	69,115,115	1.46	11 (15%)
14	LMT	BX	103	-	36,36,36	1.09	5 (13%)	47,47,47	0.88	1 (2%)
21	CD4	af	102	-	83,83,83	0.48	0	89,95,95	1.17	7 (7%)
15	V7N	BV	1001	-	40,44,44	2.06	10 (25%)	40,54,54	1.56	8 (20%)
14	LMT	be	101	-	36,36,36	1.10	4 (11%)	47,47,47	0.98	3 (6%)
13	BCL	AI	101	-	58,74,74	1.19	3 (5%)	69,115,115	1.40	10 (14%)
14	LMT	BA	102	-	36,36,36	1.08	4 (11%)	47,47,47	0.92	1 (2%)
14	LMT	BH	1003	-	36,36,36	1.10	4 (11%)	47,47,47	0.92	1 (2%)
14	LMT	bk	104	-	36,36,36	1.13	5 (13%)	47,47,47	0.94	2 (4%)
16	0V9	bk	102	-	44,44,46	0.75	1 (2%)	47,49,51	0.96	3 (6%)
15	V7N	BG	1001	-	40,44,44	2.05	10 (25%)	40,54,54	1.63	9 (22%)
16	0V9	bi	103	-	44,44,46	0.75	1 (2%)	47,49,51	0.84	1 (2%)
14	LMT	BQ	1003	-	36,36,36	1.10	5 (13%)	47,47,47	0.91	1 (2%)
27	UYH	ai	102	-	55,55,55	2.10	14 (25%)	63,63,63	0.98	1 (1%)
14	LMT	BU	1002	-	36,36,36	1.07	5 (13%)	47,47,47	1.03	3 (6%)
15	V7N	BM	1001	-	40,44,44	2.04	10 (25%)	40,54,54	1.65	9 (22%)
13	BCL	AB	1002	-	58,74,74	1.25	5 (8%)	69,115,115	1.41	10 (14%)
14	LMT	BT	104	-	36,36,36	1.08	5 (13%)	47,47,47	0.91	1 (2%)
14	LMT	BC	103	-	36,36,36	1.06	4 (11%)	47,47,47	0.93	2 (4%)
15	V7N	bb	101	-	40,44,44	2.19	9 (22%)	40,54,54	1.48	6 (15%)
13	BCL	bd	102	-	58,74,74	1.21	3 (5%)	69,115,115	1.43	10 (14%)
17	HEC	C	1004	3	26,50,50	2.15	3 (11%)	18,82,82	2.08	6 (33%)
14	LMT	BX	102	-	36,36,36	1.10	5 (13%)	47,47,47	0.97	2 (4%)
16	0V9	be	105	-	44,44,46	0.75	1 (2%)	47,49,51	0.93	2 (4%)
15	V7N	bi	101	-	40,44,44	2.11	10 (25%)	40,54,54	1.38	7 (17%)
16	0V9	bg	103	-	44,44,46	0.74	1 (2%)	47,49,51	0.82	2 (4%)
14	LMT	AX	101	-	36,36,36	1.10	5 (13%)	47,47,47	0.92	3 (6%)
14	LMT	BV	1004	-	36,36,36	1.10	4 (11%)	47,47,47	0.93	1 (2%)
17	HEC	C	1003	3	26,50,50	2.17	3 (11%)	18,82,82	2.23	7 (38%)
15	V7N	AW	103	-	40,44,44	2.13	11 (27%)	40,54,54	1.58	8 (20%)
13	BCL	AS	101	28	58,74,74	1.24	4 (6%)	69,115,115	1.40	11 (15%)
14	LMT	bj	102	-	36,36,36	1.14	5 (13%)	47,47,47	0.93	2 (4%)
14	LMT	AK	103	-	36,36,36	1.11	5 (13%)	47,47,47	0.96	2 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
14	LMT	bg	102	-	36,36,36	1.14	5 (13%)	47,47,47	0.85	1 (2%)
13	BCL	AO	102	-	58,74,74	1.22	3 (5%)	69,115,115	1.35	9 (13%)
14	LMT	AP	101	-	36,36,36	1.09	5 (13%)	47,47,47	0.96	2 (4%)
15	V7N	BF	101	-	40,44,44	2.11	10 (25%)	40,54,54	1.55	8 (20%)
13	BCL	BL	103	-	58,74,74	1.19	3 (5%)	69,115,115	1.37	10 (14%)
15	V7N	BW	1001	-	40,44,44	2.07	10 (25%)	40,54,54	1.50	8 (20%)
13	BCL	BX	101	-	58,74,74	1.18	3 (5%)	69,115,115	1.35	10 (14%)
14	LMT	AT	104	-	36,36,36	1.09	5 (13%)	47,47,47	1.02	2 (4%)
15	V7N	bm	101	-	40,44,44	2.08	10 (25%)	40,54,54	1.54	8 (20%)
14	LMT	BG	1002	-	36,36,36	1.10	5 (13%)	47,47,47	0.93	2 (4%)
14	LMT	C	1005	-	36,36,36	1.11	5 (13%)	47,47,47	0.91	2 (4%)
14	LMT	BP	1006	-	36,36,36	1.11	5 (13%)	47,47,47	0.93	3 (6%)
15	V7N	bo	101	-	40,44,44	2.10	10 (25%)	40,54,54	1.49	8 (20%)
14	LMT	BD	102	-	36,36,36	1.10	5 (13%)	47,47,47	0.98	2 (4%)
14	LMT	BP	1004	-	36,36,36	1.11	4 (11%)	47,47,47	0.86	1 (2%)
14	LMT	BL	102	-	36,36,36	1.08	4 (11%)	47,47,47	0.98	1 (2%)
13	BCL	AB	1001	-	58,74,74	1.21	3 (5%)	69,115,115	1.49	12 (17%)
13	BCL	AV	101	-	58,74,74	1.24	3 (5%)	69,115,115	1.34	10 (14%)
13	BCL	AQ	104	-	58,74,74	1.32	5 (8%)	69,115,115	1.54	14 (20%)
13	BCL	BT	103	-	58,74,74	1.21	3 (5%)	69,115,115	1.38	11 (15%)
15	V7N	BJ	1001	-	40,44,44	2.06	8 (20%)	40,54,54	1.57	9 (22%)
15	V7N	ba	101	-	40,44,44	2.13	11 (27%)	40,54,54	1.46	8 (20%)
13	BCL	BJ	1004	-	58,74,74	1.22	3 (5%)	69,115,115	1.30	10 (14%)
14	LMT	BP	1002	-	36,36,36	1.09	5 (13%)	47,47,47	0.95	3 (6%)
15	V7N	BI	1001	-	40,44,44	2.06	9 (22%)	40,54,54	1.74	11 (27%)
23	MQ8	L	303	-	54,54,54	0.66	0	66,69,69	1.09	6 (9%)
15	V7N	BS	1001	-	40,44,44	2.05	10 (25%)	40,54,54	1.56	8 (20%)
13	BCL	bn	102	-	58,74,74	1.24	3 (5%)	69,115,115	1.37	10 (14%)
14	LMT	BW	1002	-	36,36,36	1.09	5 (13%)	47,47,47	0.91	2 (4%)
14	LMT	BP	1005	-	36,36,36	1.10	4 (11%)	47,47,47	0.88	1 (2%)
16	0V9	L	310	-	44,44,46	0.74	1 (2%)	47,49,51	0.86	2 (4%)
13	BCL	ag	102	-	58,74,74	1.22	3 (5%)	69,115,115	1.35	10 (14%)
13	BCL	ap	1001	-	58,74,74	1.23	3 (5%)	69,115,115	1.50	13 (18%)
15	V7N	bd	101	-	40,44,44	2.11	11 (27%)	40,54,54	1.39	7 (17%)
13	BCL	aa	1001	-	58,74,74	1.25	3 (5%)	69,115,115	1.35	10 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
14	LMT	L	302	-	36,36,36	1.10	5 (13%)	47,47,47	0.93	0
21	CD4	M	409	-	83,83,83	0.47	0	89,95,95	1.04	5 (5%)
15	V7N	BD	101	-	40,44,44	2.12	11 (27%)	40,54,54	1.38	7 (17%)
22	BPH	M	407	-	64,70,70	0.88	4 (6%)	76,101,101	1.08	6 (7%)
13	BCL	bg	104	-	58,74,74	1.23	3 (5%)	69,115,115	1.31	9 (13%)
14	LMT	H2	201	-	36,36,36	1.10	5 (13%)	47,47,47	0.92	2 (4%)
13	BCL	BO	1003	-	58,74,74	1.20	3 (5%)	69,115,115	1.44	11 (15%)
14	LMT	AK	101	-	36,36,36	1.09	5 (13%)	47,47,47	1.06	2 (4%)
14	LMT	bl	103	-	36,36,36	1.09	5 (13%)	47,47,47	0.98	2 (4%)
13	BCL	ab	1001	-	58,74,74	1.24	3 (5%)	69,115,115	1.41	11 (15%)
14	LMT	BF	102	-	36,36,36	1.07	5 (13%)	47,47,47	0.95	1 (2%)
21	CD4	H1	103	-	83,83,83	0.46	0	89,95,95	0.97	5 (5%)
14	LMT	BB	101	-	36,36,36	1.11	5 (13%)	47,47,47	0.90	2 (4%)
13	BCL	AX	102	-	58,74,74	1.23	4 (6%)	69,115,115	1.39	10 (14%)
14	LMT	AE	106	-	36,36,36	1.06	4 (11%)	47,47,47	1.18	4 (8%)
14	LMT	BJ	1002	-	36,36,36	1.11	5 (13%)	47,47,47	0.93	2 (4%)
13	BCL	BK	1002	-	58,74,74	1.17	3 (5%)	69,115,115	1.46	12 (17%)
13	BCL	AN	104	28	58,74,74	1.25	4 (6%)	69,115,115	1.35	10 (14%)
14	LMT	BV	1003	-	36,36,36	1.11	4 (11%)	47,47,47	0.89	2 (4%)
14	LMT	L	304	-	36,36,36	1.09	5 (13%)	47,47,47	0.91	3 (6%)
14	LMT	BX	104	-	36,36,36	1.08	5 (13%)	47,47,47	0.90	1 (2%)
13	BCL	AG	103	-	58,74,74	1.21	3 (5%)	69,115,115	1.35	9 (13%)
13	BCL	AG	102	28	58,74,74	1.21	3 (5%)	69,115,115	1.58	14 (20%)
14	LMT	BN	1002	-	36,36,36	1.10	5 (13%)	47,47,47	0.77	0
13	BCL	AW	101	-	58,74,74	1.22	3 (5%)	69,115,115	1.37	9 (13%)
15	V7N	bc	101	-	40,44,44	2.15	10 (25%)	40,54,54	1.40	8 (20%)
14	LMT	BR	1006	-	36,36,36	1.09	5 (13%)	47,47,47	0.92	1 (2%)
13	BCL	al	1001	-	58,74,74	1.21	3 (5%)	69,115,115	1.38	10 (14%)
13	BCL	BG	1004	-	58,74,74	1.18	3 (5%)	69,115,115	1.32	10 (14%)
14	LMT	AJ	102	-	36,36,36	1.16	5 (13%)	47,47,47	0.92	2 (4%)
14	LMT	AH	104	-	36,36,36	1.14	5 (13%)	47,47,47	0.93	2 (4%)
14	LMT	BC	101	-	36,36,36	1.10	5 (13%)	47,47,47	0.94	1 (2%)
13	BCL	AN	103	-	58,74,74	1.18	3 (5%)	69,115,115	1.36	9 (13%)
23	MQ8	ao	101	-	54,54,54	0.62	0	66,69,69	0.98	3 (4%)
14	LMT	BV	1002	-	36,36,36	1.08	5 (13%)	47,47,47	0.93	2 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
14	LMT	AH	101	-	36,36,36	1.10	5 (13%)	47,47,47	0.87	1 (2%)
15	V7N	bk	101	-	40,44,44	2.15	10 (25%)	40,54,54	1.51	8 (20%)
14	LMT	BL	101	-	36,36,36	1.11	5 (13%)	47,47,47	0.88	1 (2%)
14	LMT	BF	104	-	36,36,36	1.09	4 (11%)	47,47,47	0.93	3 (6%)
13	BCL	AT	103	28	58,74,74	1.25	3 (5%)	69,115,115	1.42	11 (15%)
15	V7N	BN	1001	-	40,44,44	2.07	10 (25%)	40,54,54	2.03	11 (27%)
15	V7N	BO	1001	-	40,44,44	2.08	9 (22%)	40,54,54	1.66	11 (27%)
13	BCL	BN	1005	-	58,74,74	1.21	3 (5%)	69,115,115	1.46	12 (17%)
13	BCL	AM	1002	28	58,74,74	1.25	4 (6%)	69,115,115	1.55	11 (15%)
13	BCL	BA	103	-	58,74,74	1.19	3 (5%)	69,115,115	1.34	10 (14%)
13	BCL	ba	102	-	58,74,74	1.24	3 (5%)	69,115,115	1.42	13 (18%)
20	PGW	H1	101	-	50,50,50	0.44	0	53,56,56	0.95	4 (7%)
13	BCL	AA	1001	-	58,74,74	1.20	3 (5%)	69,115,115	1.40	9 (13%)
14	LMT	BM	1002	-	36,36,36	1.10	5 (13%)	47,47,47	0.96	2 (4%)
13	BCL	AH	103	-	58,74,74	1.20	3 (5%)	69,115,115	1.37	9 (13%)
14	LMT	AD	102	-	36,36,36	1.08	5 (13%)	47,47,47	0.92	2 (4%)
13	BCL	ac	102	-	58,74,74	1.24	3 (5%)	69,115,115	1.35	9 (13%)
14	LMT	AN	102	-	36,36,36	1.11	5 (13%)	47,47,47	0.95	1 (2%)
14	LMT	BR	1005	-	36,36,36	1.05	4 (11%)	47,47,47	1.03	2 (4%)
13	BCL	bm	102	-	58,74,74	1.22	3 (5%)	69,115,115	1.36	11 (15%)
14	LMT	AV	102	-	36,36,36	1.13	5 (13%)	47,47,47	0.97	2 (4%)
15	V7N	BP	1001	-	40,44,44	2.02	9 (22%)	40,54,54	1.62	10 (25%)
14	LMT	bp	103	-	36,36,36	1.10	4 (11%)	47,47,47	1.12	3 (6%)
14	LMT	BC	102	-	36,36,36	1.07	5 (13%)	47,47,47	0.84	1 (2%)
13	BCL	BS	1004	-	58,74,74	1.25	3 (5%)	69,115,115	1.47	13 (18%)
13	BCL	L	308	-	58,74,74	1.18	4 (6%)	69,115,115	1.30	10 (14%)
14	LMT	L	309	-	36,36,36	1.10	5 (13%)	47,47,47	0.82	1 (2%)
13	BCL	BM	1004	-	58,74,74	1.20	3 (5%)	69,115,115	1.44	13 (18%)
14	LMT	bn	103	-	36,36,36	1.11	5 (13%)	47,47,47	1.01	2 (4%)
14	LMT	BD	106	-	36,36,36	1.08	4 (11%)	47,47,47	1.01	1 (2%)
13	BCL	BI	1004	-	58,74,74	1.20	3 (5%)	69,115,115	1.42	12 (17%)
14	LMT	BI	1003	-	36,36,36	1.08	5 (13%)	47,47,47	0.80	1 (2%)
17	HEC	C	1001	3	26,50,50	2.10	3 (11%)	18,82,82	2.18	6 (33%)
13	BCL	AA	1002	28	58,74,74	1.22	3 (5%)	69,115,115	1.43	11 (15%)
13	BCL	bp	104	-	58,74,74	1.21	3 (5%)	69,115,115	1.36	10 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
15	V7N	AM	1001	-	40,44,44	2.08	9 (22%)	40,54,54	1.55	8 (20%)
18	V75	C	1006	19,12	15,18,18	1.86	6 (40%)	19,25,25	1.66	2 (10%)
21	CD4	M	405	-	83,83,83	0.47	0	89,95,95	1.07	6 (6%)
15	V7N	BE	101	-	40,44,44	2.06	9 (22%)	40,54,54	1.53	8 (20%)
14	LMT	C2	1001	-	36,36,36	1.10	5 (13%)	47,47,47	0.95	2 (4%)
14	LMT	AB	1003	-	36,36,36	1.09	5 (13%)	47,47,47	0.98	2 (4%)
14	LMT	BG	1005	-	36,36,36	1.09	4 (11%)	47,47,47	0.85	0
14	LMT	AS	103	-	36,36,36	1.15	5 (13%)	47,47,47	1.03	1 (2%)
19	NDG	C	1007	18	14,14,15	0.69	1 (7%)	17,19,21	0.84	0
13	BCL	AU	101	-	58,74,74	1.20	3 (5%)	69,115,115	1.34	9 (13%)
14	LMT	be	104	-	36,36,36	1.13	5 (13%)	47,47,47	0.80	1 (2%)
14	LMT	BS	1002	-	36,36,36	1.07	5 (13%)	47,47,47	0.94	2 (4%)
14	LMT	AC	103	-	36,36,36	1.07	4 (11%)	47,47,47	0.93	2 (4%)
13	BCL	L	305	-	58,74,74	1.24	4 (6%)	69,115,115	1.36	10 (14%)
14	LMT	bi	104	-	36,36,36	1.10	5 (13%)	47,47,47	0.88	2 (4%)
13	BCL	AP	103	28	58,74,74	1.26	3 (5%)	69,115,115	1.42	12 (17%)
13	BCL	AK	102	28	58,74,74	1.28	4 (6%)	69,115,115	1.34	9 (13%)
14	LMT	AL	101	-	36,36,36	1.09	4 (11%)	47,47,47	0.96	3 (6%)
14	LMT	BR	1002	-	36,36,36	1.09	5 (13%)	47,47,47	0.96	2 (4%)
14	LMT	BO	1005	-	36,36,36	1.05	5 (13%)	47,47,47	0.86	2 (4%)
14	LMT	BI	1005	-	36,36,36	1.11	4 (11%)	47,47,47	1.04	2 (4%)
17	HEC	C	1002	3	26,50,50	2.15	3 (11%)	18,82,82	2.11	4 (22%)
14	LMT	BI	1002	-	36,36,36	1.10	5 (13%)	47,47,47	0.89	2 (4%)
22	BPH	L	301	-	64,70,70	0.86	4 (6%)	76,101,101	1.06	6 (7%)
14	LMT	BE	103	-	36,36,36	1.12	5 (13%)	47,47,47	0.93	2 (4%)
14	LMT	BM	1005	-	36,36,36	1.09	4 (11%)	47,47,47	0.95	1 (2%)
14	LMT	BD	105	-	36,36,36	1.13	5 (13%)	47,47,47	0.91	2 (4%)
13	BCL	ad	102	-	58,74,74	1.24	4 (6%)	69,115,115	1.42	9 (13%)
13	BCL	AD	104	28	58,74,74	1.24	3 (5%)	69,115,115	1.42	12 (17%)
13	BCL	bj	104	-	58,74,74	1.21	3 (5%)	69,115,115	1.48	13 (18%)
13	BCL	AP	102	-	58,74,74	1.21	3 (5%)	69,115,115	1.42	11 (15%)
14	LMT	BS	1005	-	36,36,36	1.07	5 (13%)	47,47,47	0.89	0
15	V7N	BQ	1001	-	40,44,44	2.06	9 (22%)	40,54,54	1.50	8 (20%)
14	LMT	BE	105	-	36,36,36	1.10	5 (13%)	47,47,47	0.95	1 (2%)
13	BCL	bc	103	-	58,74,74	1.23	3 (5%)	69,115,115	1.49	13 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
13	BCL	AW	102	28	58,74,74	1.21	3 (5%)	69,115,115	1.46	11 (15%)
13	BCL	BH	1005	-	58,74,74	1.21	3 (5%)	69,115,115	1.37	10 (14%)
13	BCL	af	103	-	58,74,74	1.23	3 (5%)	69,115,115	1.38	10 (14%)
16	0V9	bb	103	-	44,44,46	0.75	1 (2%)	47,49,51	0.83	1 (2%)
15	V7N	AS	104	-	40,44,44	2.07	9 (22%)	40,54,54	1.42	8 (20%)
15	V7N	BA	101	-	40,44,44	2.12	11 (27%)	40,54,54	1.53	8 (20%)
16	0V9	ad	103	-	44,44,46	0.75	1 (2%)	47,49,51	0.85	2 (4%)
14	LMT	AV	104	-	36,36,36	1.08	5 (13%)	47,47,47	1.05	2 (4%)
13	BCL	BQ	1004	-	58,74,74	1.19	3 (5%)	69,115,115	1.41	11 (15%)
14	LMT	bc	102	-	36,36,36	1.11	4 (11%)	47,47,47	0.97	2 (4%)
14	LMT	AE	101	-	36,36,36	1.11	5 (13%)	47,47,47	1.02	2 (4%)
13	BCL	bh	103	-	58,74,74	1.23	3 (5%)	69,115,115	1.34	10 (14%)
16	0V9	ab	1002	-	44,44,46	0.75	1 (2%)	47,49,51	0.80	1 (2%)
13	BCL	bf	102	-	58,74,74	1.21	3 (5%)	69,115,115	1.34	11 (15%)
13	BCL	AX	103	-	58,74,74	1.26	5 (8%)	69,115,115	1.43	12 (17%)
21	CD4	ad	101	-	83,83,83	0.49	0	89,95,95	1.05	5 (5%)
15	V7N	BK	1001	-	40,44,44	2.09	8 (20%)	40,54,54	1.45	8 (20%)
14	LMT	bh	102	-	36,36,36	1.13	5 (13%)	47,47,47	0.97	2 (4%)
15	V7N	bn	101	-	40,44,44	2.17	11 (27%)	40,54,54	1.66	9 (22%)
13	BCL	AJ	103	28	58,74,74	1.25	3 (5%)	69,115,115	1.45	13 (18%)
13	BCL	AE	103	28	58,74,74	1.24	4 (6%)	69,115,115	1.59	13 (18%)
16	0V9	bf	103	-	44,44,46	0.74	1 (2%)	47,49,51	0.86	1 (2%)
13	BCL	BP	1003	-	58,74,74	1.37	5 (8%)	69,115,115	1.79	13 (18%)
14	LMT	BB	102	-	36,36,36	1.08	5 (13%)	47,47,47	1.00	3 (6%)
14	LMT	AN	101	-	36,36,36	1.07	5 (13%)	47,47,47	0.98	3 (6%)
14	LMT	BG	1003	-	36,36,36	1.09	5 (13%)	47,47,47	0.84	1 (2%)
14	LMT	AE	102	-	36,36,36	1.13	5 (13%)	47,47,47	0.95	2 (4%)
15	V7N	ag	101	-	40,44,44	2.06	9 (22%)	40,54,54	1.57	7 (17%)
13	BCL	ae	1001	-	58,74,74	1.24	3 (5%)	69,115,115	1.38	9 (13%)
15	V7N	BU	1001	-	40,44,44	2.17	9 (22%)	40,54,54	1.86	6 (15%)
13	BCL	ak	1001	-	58,74,74	1.23	3 (5%)	69,115,115	1.43	10 (14%)
14	LMT	BT	101	-	36,36,36	1.09	5 (13%)	47,47,47	0.98	2 (4%)

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
14	LMT	BJ	1005	-	-	4/21/61/61	0/2/2/2
14	LMT	BU	1003	-	-	10/21/61/61	0/2/2/2
14	LMT	BO	1002	-	-	6/21/61/61	0/2/2/2
14	LMT	BQ	1002	-	-	3/21/61/61	0/2/2/2
13	BCL	AC	102	-	-	9/37/137/137	-
14	LMT	ac	101	-	-	2/21/61/61	0/2/2/2
15	V7N	be	102	-	-	6/49/53/53	-
14	LMT	L	307	-	-	5/21/61/61	0/2/2/2
14	LMT	BJ	1006	-	-	4/21/61/61	0/2/2/2
14	LMT	AJ	101	-	-	2/21/61/61	0/2/2/2
15	V7N	AA	1004	-	-	6/49/53/53	-
13	BCL	BU	1004	-	-	11/37/137/137	-
13	BCL	AL	102	-	-	4/37/137/137	-
26	V7B	ag	103	-	-	11/48/88/88	0/2/2/2
15	V7N	BH	1001	-	-	8/49/53/53	-
19	NDG	C1	301	18	-	0/6/23/26	0/1/1/1
13	BCL	AV	103	28	-	5/37/137/137	-
14	LMT	AT	102	-	-	8/21/61/61	0/2/2/2
14	LMT	BB	104	-	-	4/21/61/61	0/2/2/2
14	LMT	BK	1004	-	-	5/21/61/61	0/2/2/2
14	LMT	BN	1003	-	-	5/21/61/61	0/2/2/2
13	BCL	be	103	-	-	5/37/137/137	-
14	LMT	AQ	101	-	-	2/21/61/61	0/2/2/2
16	0V9	bn	104	-	-	9/48/48/50	-
13	BCL	AK	104	-	-	1/37/137/137	-
25	CRT	M	404	-	-	2/51/51/51	-
13	BCL	BD	104	-	-	7/37/137/137	-
13	BCL	M	406	-	-	2/37/137/137	-
14	LMT	BH	1004	-	-	3/21/61/61	0/2/2/2
13	BCL	AE	105	-	-	7/37/137/137	-
13	BCL	bl	104	-	-	8/37/137/137	-
15	V7N	bl	101	-	-	6/49/53/53	-
16	0V9	bm	104	-	-	11/48/48/50	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
13	BCL	AF	1001	-	-	8/37/137/137	-
13	BCL	ao	102	-	-	4/37/137/137	-
13	BCL	AE	104	-	-	2/37/137/137	-
16	0V9	AQ	105	-	-	8/48/48/50	-
26	V7B	af	101	-	-	11/48/88/88	0/2/2/2
14	LMT	BM	1003	-	-	5/21/61/61	0/2/2/2
13	BCL	AH	102	28	-	11/37/137/137	-
13	BCL	BC	104	-	-	8/37/137/137	-
14	LMT	bo	104	-	-	4/21/61/61	0/2/2/2
13	BCL	AM	1004	-	-	7/37/137/137	-
14	LMT	AM	1003	-	-	4/21/61/61	0/2/2/2
16	0V9	bd	103	-	-	9/48/48/50	-
15	V7N	bh	101	-	-	3/49/53/53	-
13	BCL	AO	101	-	-	8/37/137/137	-
14	LMT	BD	103	-	-	5/21/61/61	0/2/2/2
13	BCL	BB	105	-	-	7/37/137/137	-
14	LMT	bp	101	-	-	4/21/61/61	0/2/2/2
14	LMT	bm	103	-	-	7/21/61/61	0/2/2/2
13	BCL	bo	102	-	-	6/37/137/137	-
13	BCL	AS	102	-	-	8/37/137/137	-
14	LMT	BK	1003	-	-	3/21/61/61	0/2/2/2
14	LMT	BS	1003	-	-	6/21/61/61	0/2/2/2
13	BCL	an	1001	-	-	8/37/137/137	-
15	V7N	AD	101	-	-	8/49/53/53	-
13	BCL	AU	103	-	-	6/37/137/137	-
13	BCL	BE	104	-	-	8/37/137/137	-
15	V7N	bj	101	-	-	3/49/53/53	-
16	0V9	H1	102	-	-	11/48/48/50	-
13	BCL	am	1001	-	-	9/37/137/137	-
14	LMT	AU	102	-	-	3/21/61/61	0/2/2/2
14	LMT	BW	1004	-	-	6/21/61/61	0/2/2/2
13	BCL	bb	102	-	-	8/37/137/137	-
13	BCL	BV	1005	-	-	9/37/137/137	-
14	LMT	BE	102	-	-	4/21/61/61	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
14	LMT	BH	1002	-	-	7/21/61/61	0/2/2/2
16	0V9	bj	103	-	-	12/48/48/50	-
16	0V9	bo	103	-	-	16/48/48/50	-
14	LMT	BT	102	-	-	2/21/61/61	0/2/2/2
16	0V9	bp	105	-	-	12/48/48/50	-
14	LMT	BR	1004	-	-	3/21/61/61	0/2/2/2
18	V75	M	410	19,12	-	0/8/29/29	0/1/1/1
13	BCL	AL	103	-	-	10/37/137/137	-
15	V7N	BR	1001	-	-	7/49/53/53	-
13	BCL	ai	101	-	-	2/37/137/137	-
13	BCL	AR	101	-	-	1/37/137/137	-
14	LMT	BO	1004	-	-	4/21/61/61	0/2/2/2
14	LMT	BK	1005	-	-	6/21/61/61	0/2/2/2
13	BCL	BF	103	-	-	9/37/137/137	-
21	CD4	af	104	-	-	20/94/94/94	-
13	BCL	AT	101	-	-	2/37/137/137	-
14	LMT	AG	101	-	-	8/21/61/61	0/2/2/2
13	BCL	BW	1005	-	-	5/37/137/137	-
13	BCL	AC	101	-	-	6/37/137/137	-
13	BCL	AJ	104	-	-	7/37/137/137	-
16	0V9	bh	104	-	-	10/48/48/50	-
16	0V9	bl	102	-	-	11/48/48/50	-
14	LMT	BW	1003	-	-	7/21/61/61	0/2/2/2
13	BCL	M	408	-	-	2/37/137/137	-
23	MQ8	M	402	-	-	4/47/67/67	0/2/2/2
14	LMT	BW	1006	-	-	3/21/61/61	0/2/2/2
13	BCL	BR	1003	-	-	9/37/137/137	-
13	BCL	bi	102	-	-	5/37/137/137	-
14	LMT	BN	1004	-	-	2/21/61/61	0/2/2/2
13	BCL	AD	103	-	-	6/37/137/137	-
13	BCL	AQ	102	28	-	8/37/137/137	-
13	BCL	ah	1001	-	-	4/37/137/137	-
15	V7N	bg	101	-	-	4/49/53/53	-
15	V7N	bp	102	-	-	3/49/53/53	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
14	LMT	L	306	-	-	6/21/61/61	0/2/2/2
14	LMT	BB	103	-	-	1/21/61/61	0/2/2/2
14	LMT	AA	1003	-	-	7/21/61/61	0/2/2/2
14	LMT	BJ	1003	-	-	6/21/61/61	0/2/2/2
13	BCL	aj	101	-	-	7/37/137/137	-
16	0V9	M	403	-	-	14/48/48/50	-
13	BCL	AQ	103	-	-	4/37/137/137	-
13	BCL	AH	105	-	-	11/37/137/137	-
14	LMT	bf	101	-	-	6/21/61/61	0/2/2/2
13	BCL	bk	103	-	-	7/37/137/137	-
14	LMT	BX	103	-	-	5/21/61/61	0/2/2/2
21	CD4	af	102	-	-	23/94/94/94	-
15	V7N	BV	1001	-	-	6/49/53/53	-
14	LMT	be	101	-	-	4/21/61/61	0/2/2/2
13	BCL	AI	101	-	-	8/37/137/137	-
14	LMT	BA	102	-	-	5/21/61/61	0/2/2/2
14	LMT	BH	1003	-	-	1/21/61/61	0/2/2/2
14	LMT	bk	104	-	-	5/21/61/61	0/2/2/2
16	0V9	bk	102	-	-	13/48/48/50	-
15	V7N	BG	1001	-	-	4/49/53/53	-
16	0V9	bi	103	-	-	16/48/48/50	-
14	LMT	BQ	1003	-	-	4/21/61/61	0/2/2/2
27	UYH	ai	102	-	-	11/50/70/70	0/1/1/1
14	LMT	BU	1002	-	-	5/21/61/61	0/2/2/2
15	V7N	BM	1001	-	-	6/49/53/53	-
13	BCL	AB	1002	-	-	3/37/137/137	-
14	LMT	BT	104	-	-	5/21/61/61	0/2/2/2
14	LMT	BC	103	-	-	4/21/61/61	0/2/2/2
15	V7N	bb	101	-	-	4/49/53/53	-
13	BCL	bd	102	-	-	8/37/137/137	-
17	HEC	C	1004	3	-	0/6/54/54	-
14	LMT	BX	102	-	-	9/21/61/61	0/2/2/2
16	0V9	be	105	-	-	17/48/48/50	-
15	V7N	bi	101	-	-	5/49/53/53	-
16	0V9	bg	103	-	-	10/48/48/50	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
14	LMT	AX	101	-	-	3/21/61/61	0/2/2/2
14	LMT	BV	1004	-	-	6/21/61/61	0/2/2/2
17	HEC	C	1003	3	-	0/6/54/54	-
15	V7N	AW	103	-	-	5/49/53/53	-
13	BCL	AS	101	28	-	11/37/137/137	-
14	LMT	bj	102	-	-	2/21/61/61	0/2/2/2
14	LMT	AK	103	-	-	7/21/61/61	0/2/2/2
14	LMT	bg	102	-	-	5/21/61/61	0/2/2/2
13	BCL	AO	102	-	-	2/37/137/137	-
14	LMT	AP	101	-	-	9/21/61/61	0/2/2/2
15	V7N	BF	101	-	-	7/49/53/53	-
13	BCL	BL	103	-	-	6/37/137/137	-
15	V7N	BW	1001	-	-	5/49/53/53	-
13	BCL	BX	101	-	-	7/37/137/137	-
14	LMT	AT	104	-	-	6/21/61/61	0/2/2/2
15	V7N	bm	101	-	-	5/49/53/53	-
14	LMT	BG	1002	-	-	2/21/61/61	0/2/2/2
14	LMT	C	1005	-	-	4/21/61/61	0/2/2/2
14	LMT	BP	1006	-	-	5/21/61/61	0/2/2/2
15	V7N	bo	101	-	-	7/49/53/53	-
14	LMT	BD	102	-	-	4/21/61/61	0/2/2/2
14	LMT	BP	1004	-	-	6/21/61/61	0/2/2/2
14	LMT	BL	102	-	-	3/21/61/61	0/2/2/2
13	BCL	AB	1001	-	-	3/37/137/137	-
13	BCL	AV	101	-	-	8/37/137/137	-
13	BCL	AQ	104	-	-	8/37/137/137	-
13	BCL	BT	103	-	-	6/37/137/137	-
15	V7N	BJ	1001	-	-	4/49/53/53	-
15	V7N	ba	101	-	-	4/49/53/53	-
13	BCL	BJ	1004	-	-	14/37/137/137	-
14	LMT	BP	1002	-	-	5/21/61/61	0/2/2/2
15	V7N	BI	1001	-	-	6/49/53/53	-
23	MQ8	L	303	-	-	11/47/67/67	0/2/2/2
15	V7N	BS	1001	-	-	3/49/53/53	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
13	BCL	bn	102	-	-	8/37/137/137	-
14	LMT	BW	1002	-	-	4/21/61/61	0/2/2/2
14	LMT	BP	1005	-	-	3/21/61/61	0/2/2/2
16	0V9	L	310	-	-	9/48/48/50	-
13	BCL	ag	102	-	-	5/37/137/137	-
13	BCL	ap	1001	-	-	5/37/137/137	-
15	V7N	bd	101	-	-	4/49/53/53	-
13	BCL	aa	1001	-	-	3/37/137/137	-
14	LMT	L	302	-	-	1/21/61/61	0/2/2/2
21	CD4	M	409	-	-	23/94/94/94	-
15	V7N	BD	101	-	-	4/49/53/53	-
22	BPH	M	407	-	-	7/54/105/105	0/5/6/6
13	BCL	bg	104	-	-	8/37/137/137	-
14	LMT	H2	201	-	-	6/21/61/61	0/2/2/2
13	BCL	BO	1003	-	-	3/37/137/137	-
14	LMT	AK	101	-	-	6/21/61/61	0/2/2/2
14	LMT	bl	103	-	-	5/21/61/61	0/2/2/2
13	BCL	ab	1001	-	-	4/37/137/137	-
14	LMT	BF	102	-	-	10/21/61/61	0/2/2/2
21	CD4	H1	103	-	-	18/94/94/94	-
14	LMT	BB	101	-	-	2/21/61/61	0/2/2/2
13	BCL	AX	102	-	-	4/37/137/137	-
14	LMT	AE	106	-	-	5/21/61/61	0/2/2/2
14	LMT	BJ	1002	-	-	1/21/61/61	0/2/2/2
13	BCL	BK	1002	-	-	9/37/137/137	-
13	BCL	AN	104	28	-	1/37/137/137	-
14	LMT	BV	1003	-	-	2/21/61/61	0/2/2/2
14	LMT	L	304	-	-	4/21/61/61	0/2/2/2
14	LMT	BX	104	-	-	7/21/61/61	0/2/2/2
13	BCL	AG	103	-	-	6/37/137/137	-
13	BCL	AG	102	28	-	10/37/137/137	-
14	LMT	BN	1002	-	-	2/21/61/61	0/2/2/2
13	BCL	AW	101	-	-	1/37/137/137	-
15	V7N	bc	101	-	-	6/49/53/53	-
14	LMT	BR	1006	-	-	4/21/61/61	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
13	BCL	al	1001	-	-	3/37/137/137	-
13	BCL	BG	1004	-	-	10/37/137/137	-
14	LMT	AJ	102	-	-	9/21/61/61	0/2/2/2
14	LMT	AH	104	-	-	0/21/61/61	0/2/2/2
14	LMT	BC	101	-	-	6/21/61/61	0/2/2/2
13	BCL	AN	103	-	-	1/37/137/137	-
23	MQ8	ao	101	-	-	4/47/67/67	0/2/2/2
14	LMT	BV	1002	-	-	6/21/61/61	0/2/2/2
14	LMT	AH	101	-	-	5/21/61/61	0/2/2/2
15	V7N	bk	101	-	-	5/49/53/53	-
14	LMT	BL	101	-	-	6/21/61/61	0/2/2/2
14	LMT	BF	104	-	-	7/21/61/61	0/2/2/2
13	BCL	AT	103	28	-	6/37/137/137	-
15	V7N	BN	1001	-	-	8/49/53/53	-
15	V7N	BO	1001	-	-	7/49/53/53	-
13	BCL	BN	1005	-	-	7/37/137/137	-
13	BCL	AM	1002	28	-	8/37/137/137	-
13	BCL	BA	103	-	-	6/37/137/137	-
13	BCL	ba	102	-	-	7/37/137/137	-
20	PGW	H1	101	-	-	13/55/55/55	-
13	BCL	AA	1001	-	-	4/37/137/137	-
14	LMT	BM	1002	-	-	5/21/61/61	0/2/2/2
13	BCL	AH	103	-	-	2/37/137/137	-
14	LMT	AD	102	-	-	4/21/61/61	0/2/2/2
13	BCL	ac	102	-	-	4/37/137/137	-
14	LMT	AN	102	-	-	6/21/61/61	0/2/2/2
14	LMT	BR	1005	-	-	10/21/61/61	0/2/2/2
13	BCL	bm	102	-	-	10/37/137/137	-
14	LMT	AV	102	-	-	8/21/61/61	0/2/2/2
15	V7N	BP	1001	-	-	3/49/53/53	-
14	LMT	bp	103	-	-	6/21/61/61	0/2/2/2
14	LMT	BC	102	-	-	3/21/61/61	0/2/2/2
13	BCL	BS	1004	-	-	5/37/137/137	-
13	BCL	L	308	-	-	1/37/137/137	-
14	LMT	L	309	-	-	1/21/61/61	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
13	BCL	BM	1004	-	-	5/37/137/137	-
14	LMT	bn	103	-	-	7/21/61/61	0/2/2/2
14	LMT	BD	106	-	-	7/21/61/61	0/2/2/2
13	BCL	BI	1004	-	-	9/37/137/137	-
14	LMT	BI	1003	-	-	2/21/61/61	0/2/2/2
17	HEC	C	1001	3	-	0/6/54/54	-
13	BCL	AA	1002	28	-	8/37/137/137	-
13	BCL	bp	104	-	-	11/37/137/137	-
15	V7N	AM	1001	-	-	4/49/53/53	-
18	V75	C	1006	19,12	-	0/8/29/29	0/1/1/1
21	CD4	M	405	-	-	17/94/94/94	-
15	V7N	BE	101	-	-	4/49/53/53	-
14	LMT	C2	1001	-	-	7/21/61/61	0/2/2/2
14	LMT	AB	1003	-	-	4/21/61/61	0/2/2/2
14	LMT	BG	1005	-	-	3/21/61/61	0/2/2/2
14	LMT	AS	103	-	-	9/21/61/61	0/2/2/2
19	NDG	C	1007	18	-	0/6/23/26	0/1/1/1
13	BCL	AU	101	-	-	2/37/137/137	-
14	LMT	be	104	-	-	5/21/61/61	0/2/2/2
14	LMT	BS	1002	-	-	4/21/61/61	0/2/2/2
14	LMT	AC	103	-	-	8/21/61/61	0/2/2/2
13	BCL	L	305	-	-	1/37/137/137	-
14	LMT	bi	104	-	-	3/21/61/61	0/2/2/2
13	BCL	AP	103	28	-	10/37/137/137	-
13	BCL	AK	102	28	-	9/37/137/137	-
14	LMT	AL	101	-	-	2/21/61/61	0/2/2/2
14	LMT	BR	1002	-	-	6/21/61/61	0/2/2/2
14	LMT	BO	1005	-	-	4/21/61/61	0/2/2/2
14	LMT	BI	1005	-	-	6/21/61/61	0/2/2/2
17	HEC	C	1002	3	-	0/6/54/54	-
14	LMT	BI	1002	-	-	5/21/61/61	0/2/2/2
22	BPH	L	301	-	-	4/54/105/105	0/5/6/6
14	LMT	BE	103	-	-	3/21/61/61	0/2/2/2
14	LMT	BM	1005	-	-	5/21/61/61	0/2/2/2
14	LMT	BD	105	-	-	4/21/61/61	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
13	BCL	ad	102	-	-	3/37/137/137	-
13	BCL	AD	104	28	-	9/37/137/137	-
13	BCL	bj	104	-	-	10/37/137/137	-
13	BCL	AP	102	-	-	6/37/137/137	-
14	LMT	BS	1005	-	-	3/21/61/61	0/2/2/2
15	V7N	BQ	1001	-	-	4/49/53/53	-
14	LMT	BE	105	-	-	3/21/61/61	0/2/2/2
13	BCL	bc	103	-	-	7/37/137/137	-
13	BCL	AW	102	28	-	7/37/137/137	-
13	BCL	BH	1005	-	-	10/37/137/137	-
13	BCL	af	103	-	-	9/37/137/137	-
16	0V9	bb	103	-	-	8/48/48/50	-
15	V7N	AS	104	-	-	5/49/53/53	-
15	V7N	BA	101	-	-	3/49/53/53	-
16	0V9	ad	103	-	-	12/48/48/50	-
14	LMT	AV	104	-	-	6/21/61/61	0/2/2/2
13	BCL	BQ	1004	-	-	8/37/137/137	-
14	LMT	bc	102	-	-	5/21/61/61	0/2/2/2
14	LMT	AE	101	-	-	5/21/61/61	0/2/2/2
13	BCL	bh	103	-	-	8/37/137/137	-
16	0V9	ab	1002	-	-	13/48/48/50	-
13	BCL	bf	102	-	-	6/37/137/137	-
13	BCL	AX	103	-	-	9/37/137/137	-
21	CD4	ad	101	-	-	15/94/94/94	-
15	V7N	BK	1001	-	-	5/49/53/53	-
14	LMT	bh	102	-	-	4/21/61/61	0/2/2/2
15	V7N	bn	101	-	-	5/49/53/53	-
13	BCL	AJ	103	28	-	9/37/137/137	-
13	BCL	AE	103	28	-	11/37/137/137	-
16	0V9	bf	103	-	-	10/48/48/50	-
13	BCL	BP	1003	-	-	10/37/137/137	-
14	LMT	BB	102	-	-	0/21/61/61	0/2/2/2
14	LMT	AN	101	-	-	7/21/61/61	0/2/2/2
14	LMT	BG	1003	-	-	2/21/61/61	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
14	LMT	AE	102	-	-	5/21/61/61	0/2/2/2
15	V7N	ag	101	-	-	5/49/53/53	-
13	BCL	ae	1001	-	-	4/37/137/137	-
15	V7N	BU	1001	-	-	8/49/53/53	-
13	BCL	ak	1001	-	-	4/37/137/137	-
14	LMT	BT	101	-	-	6/21/61/61	0/2/2/2

The worst 5 of 1402 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	bc	101	V7N	C28-C27	7.13	1.53	1.34
15	BD	101	V7N	C28-C27	7.02	1.52	1.34
15	BF	101	V7N	C28-C27	6.98	1.52	1.34
15	bi	101	V7N	C28-C27	6.97	1.52	1.34
15	BU	1001	V7N	C28-C27	6.97	1.52	1.34

The worst 5 of 1816 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	BP	1003	BCL	C1-O2A-CGA	8.67	139.18	116.44
15	BU	1001	V7N	C28-C27-C26	-7.29	105.93	126.42
15	AA	1004	V7N	C28-C27-C26	-6.84	107.20	126.42
13	AE	103	BCL	C1-O2A-CGA	6.04	132.28	116.44
13	AL	103	BCL	C1-O2A-CGA	6.01	132.22	116.44

There are no chirality outliers.

5 of 1901 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
13	AE	103	BCL	C3A-C2A-CAA-CBA
13	AE	105	BCL	C1A-C2A-CAA-CBA
13	AE	105	BCL	CHA-CBD-CGD-O1D
13	AE	105	BCL	CHA-CBD-CGD-O2D
13	AG	102	BCL	CHA-CBD-CGD-O1D

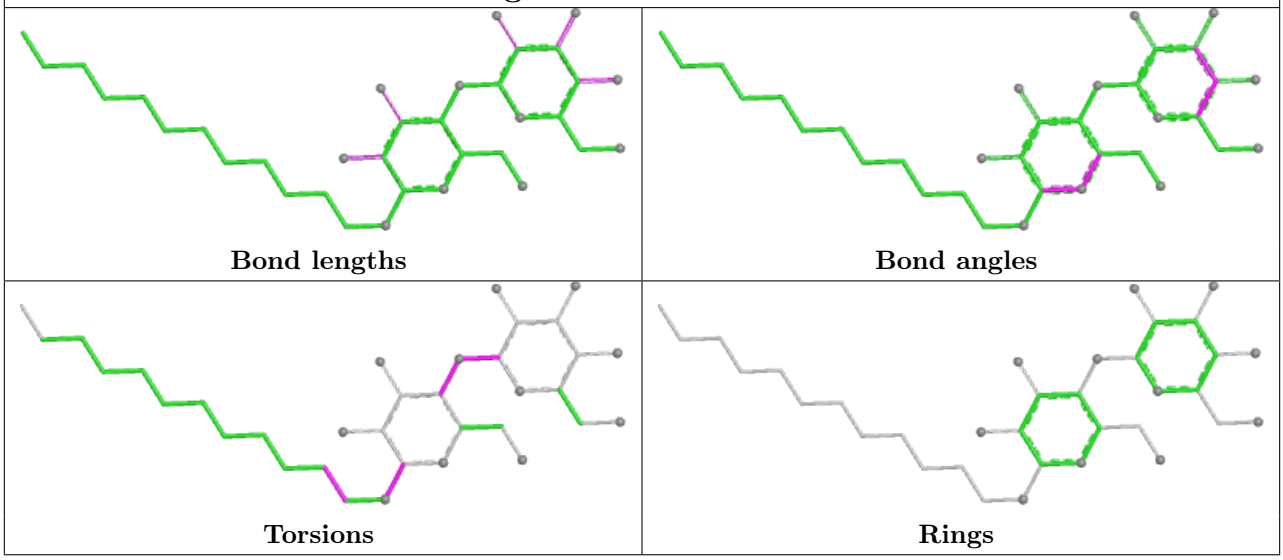
There are no ring outliers.

No monomer is involved in short contacts.

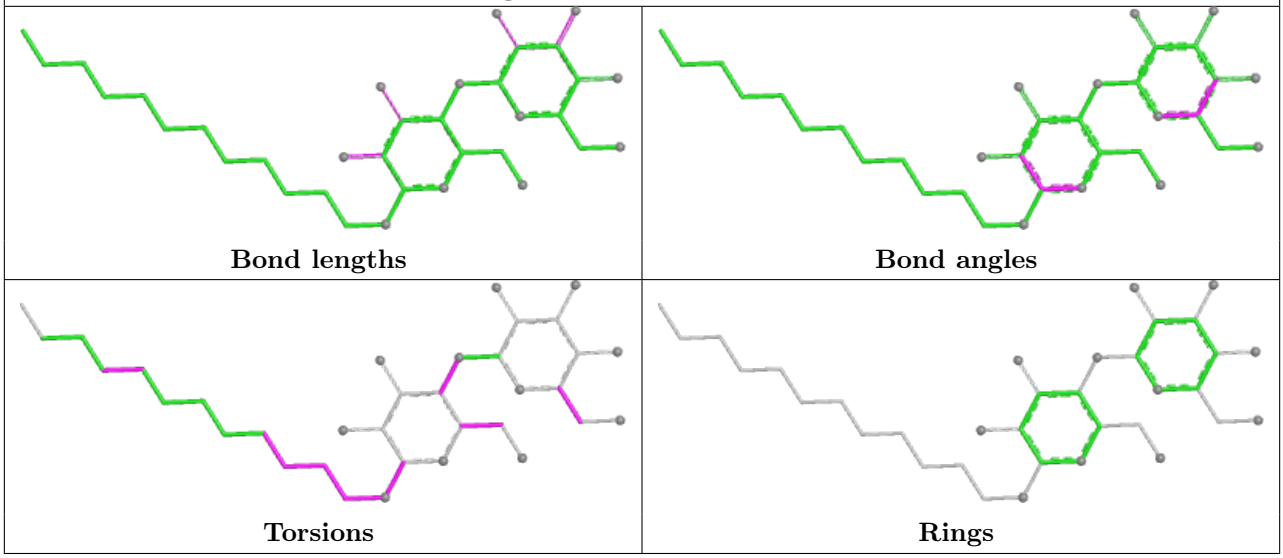
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In

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

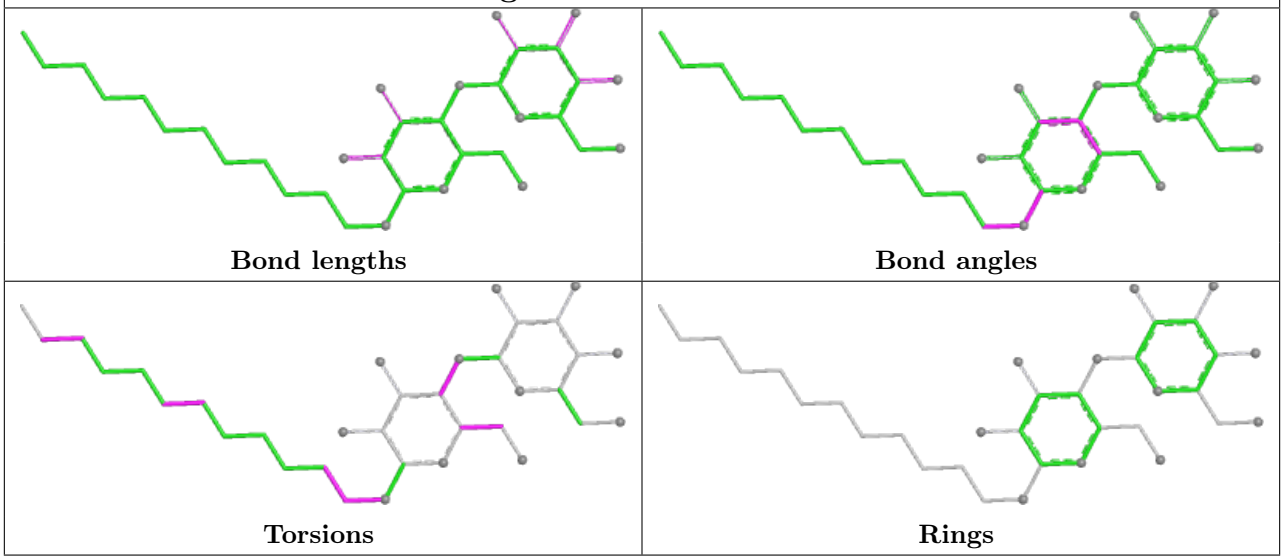
Ligand LMT BJ 1005



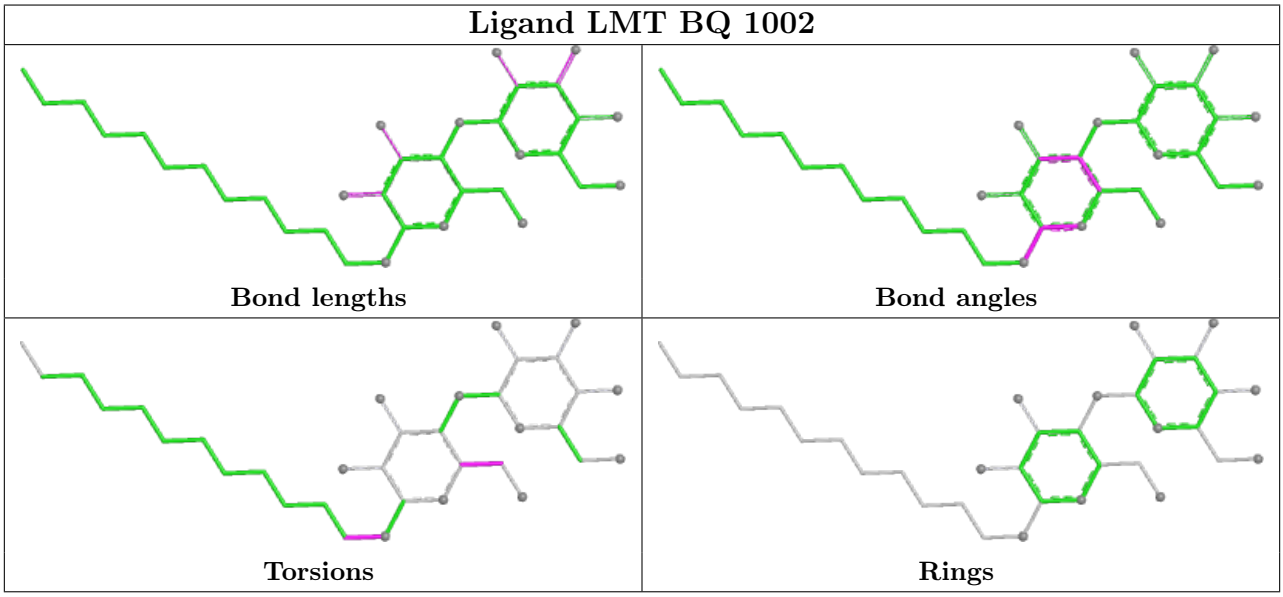
Ligand LMT BU 1003



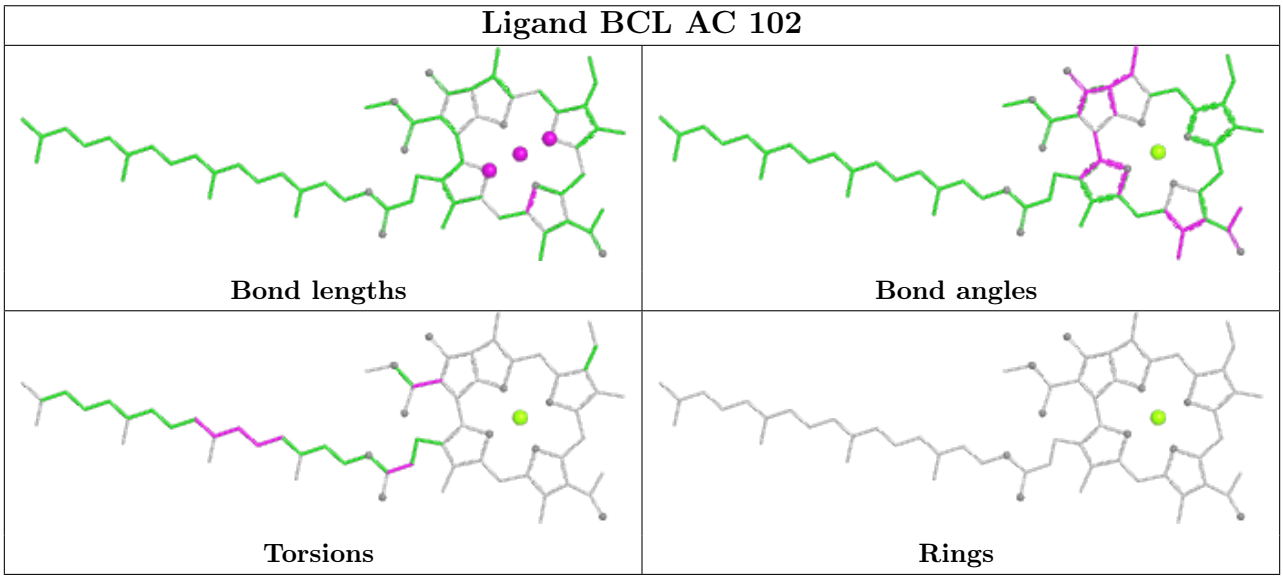
Ligand LMT BO 1002



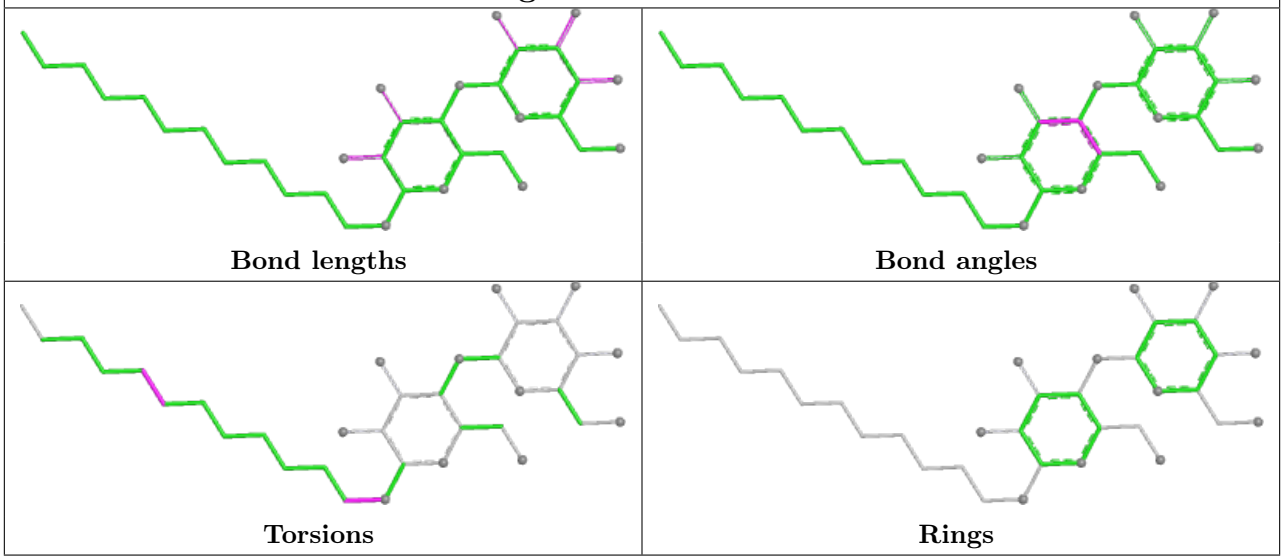
Ligand LMT BQ 1002



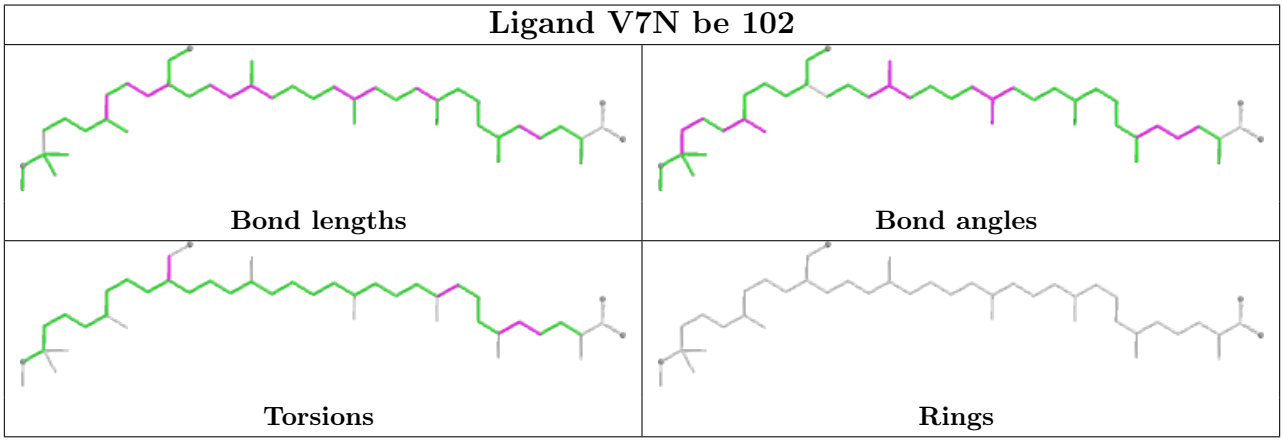
Ligand BCL AC 102



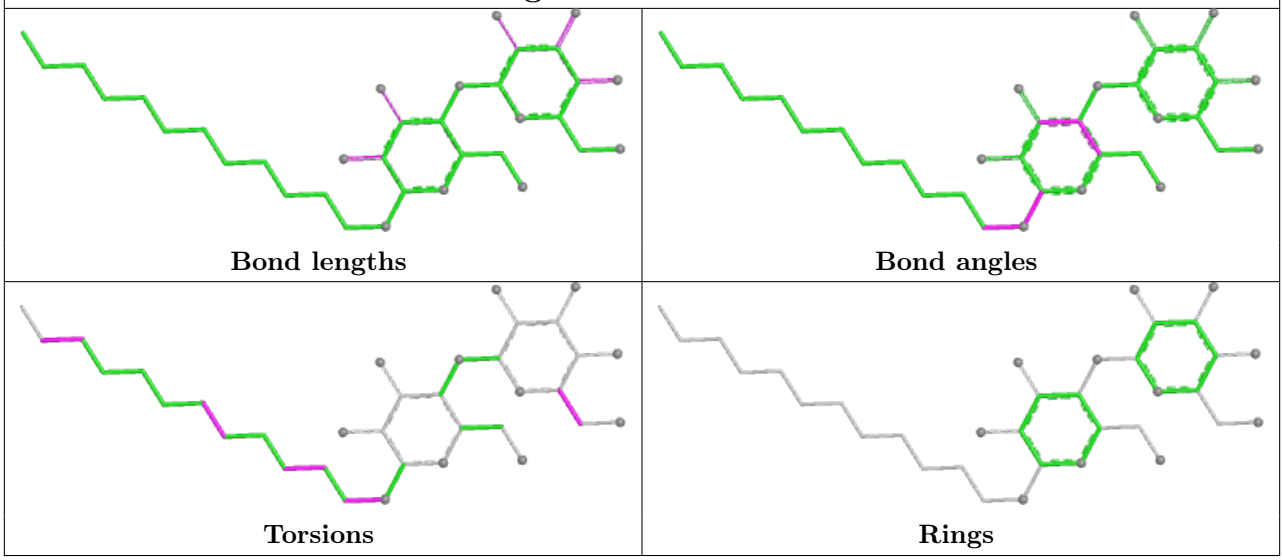
Ligand LMT ac 101



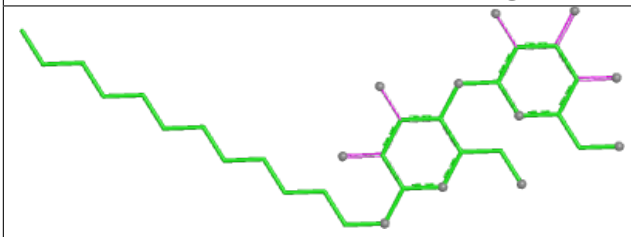
Ligand V7N be 102

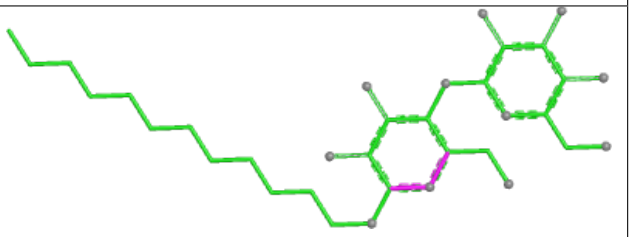


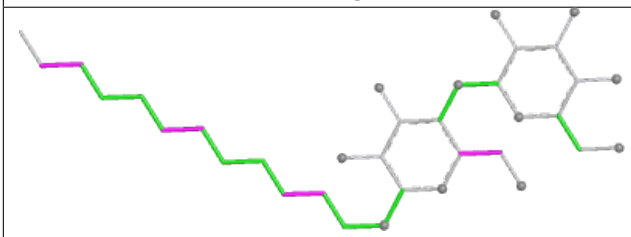
Ligand LMT L 307

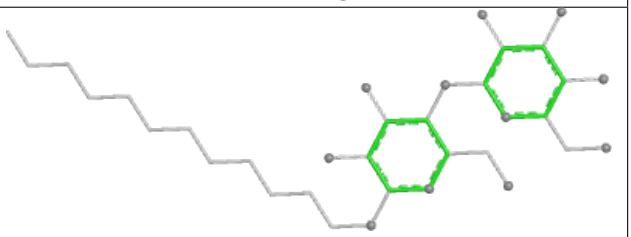


Ligand LMT BJ 1006

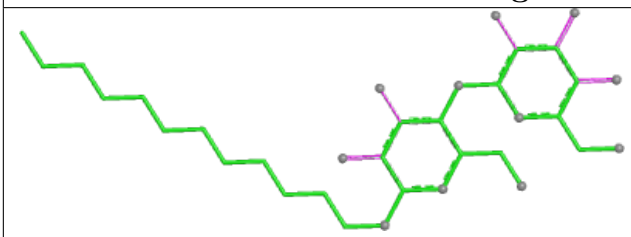

Bond lengths

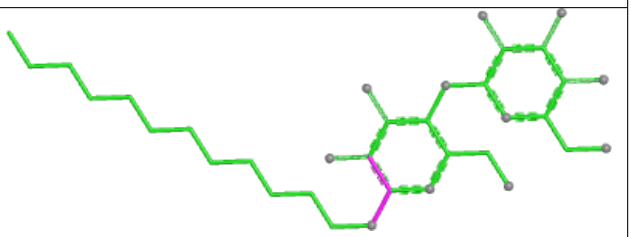

Bond angles

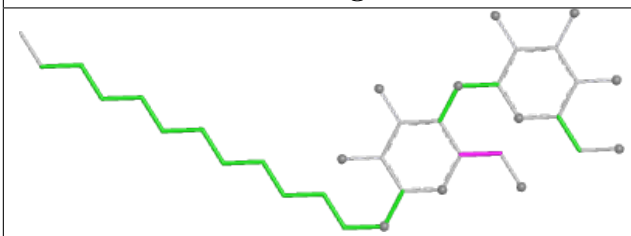

Torsions

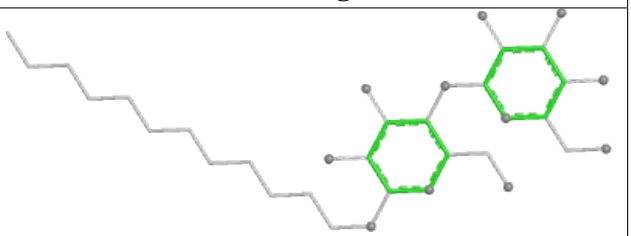

Rings

Ligand LMT AJ 101

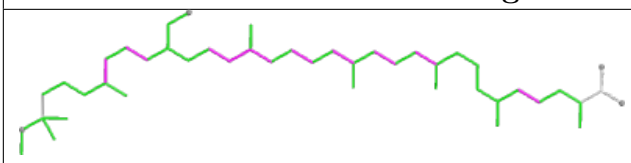

Bond lengths

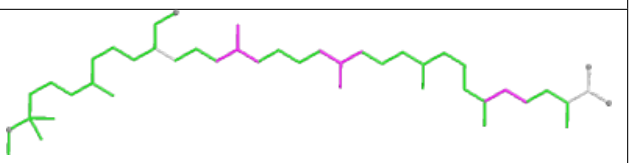

Bond angles

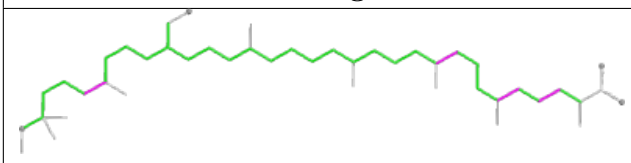

Torsions

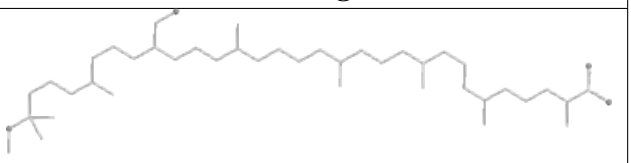

Rings

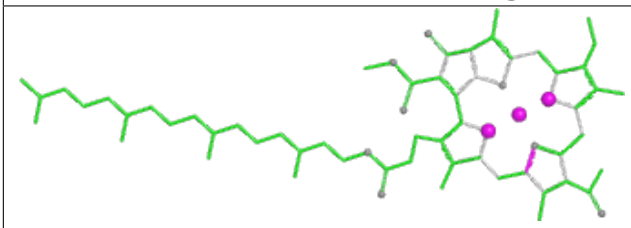
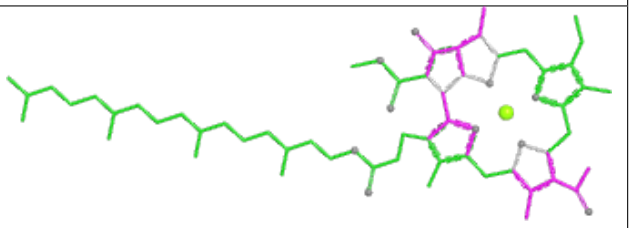
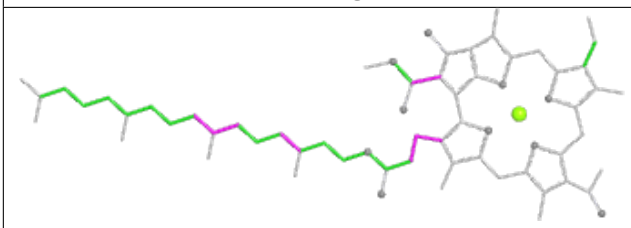
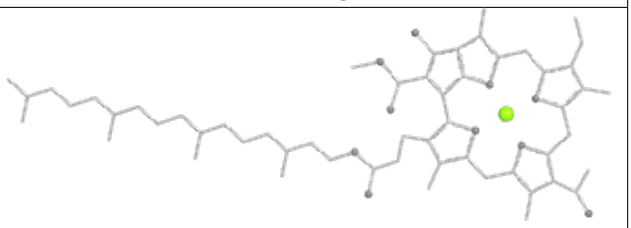
Ligand V7N AA 1004

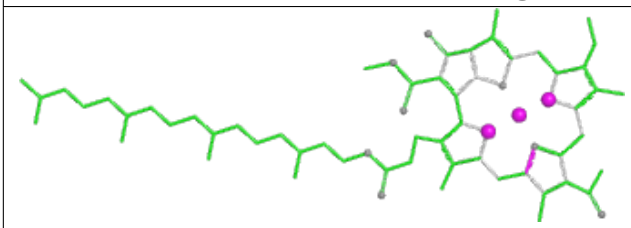
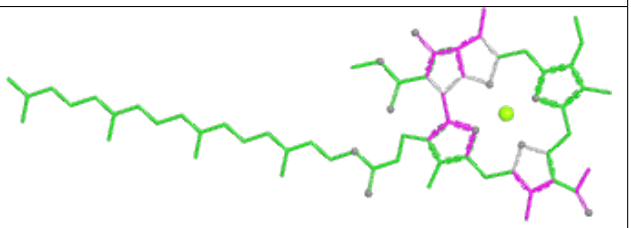
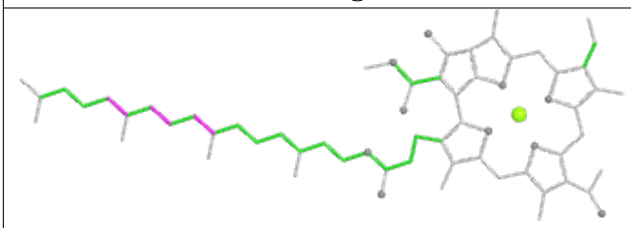
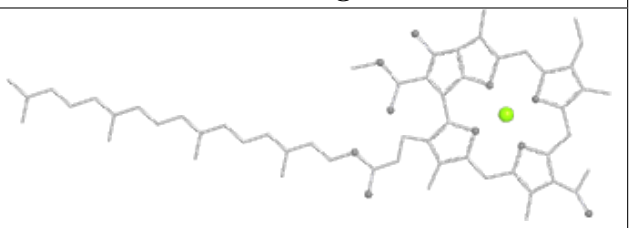

Bond lengths


Bond angles

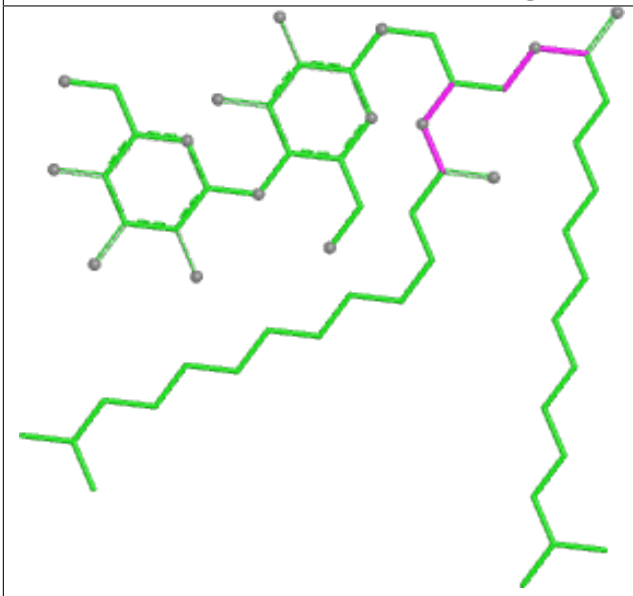

Torsions


Rings

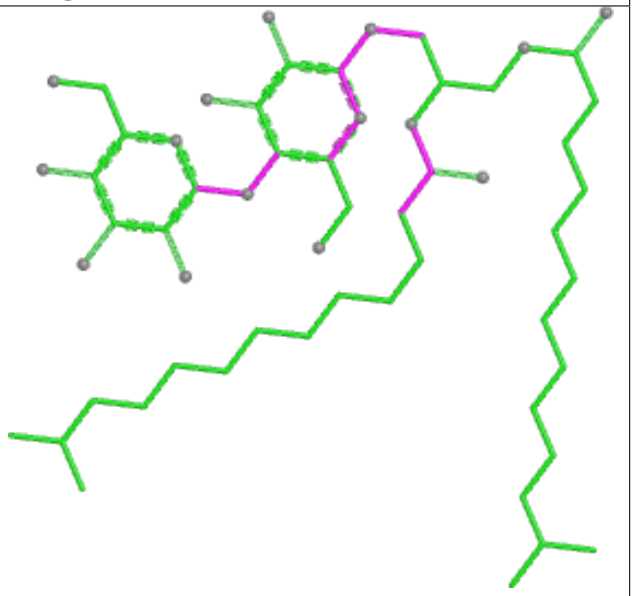
Ligand BCL BU 1004	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand BCL AL 102	
 Bond lengths	 Bond angles
 Torsions	 Rings

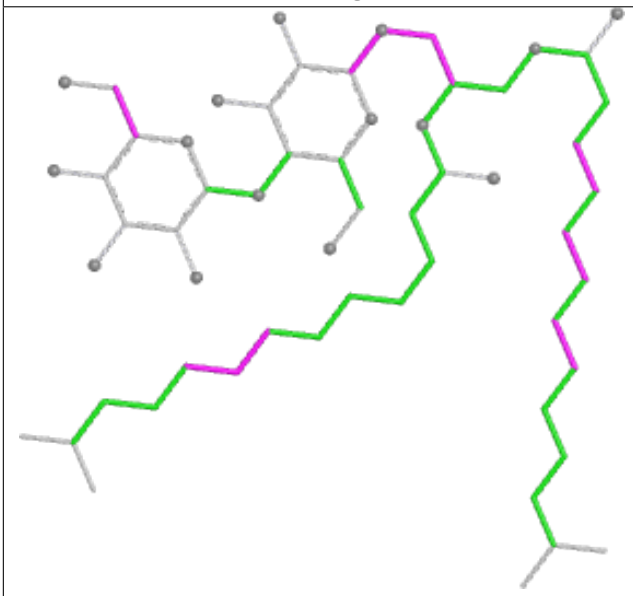
Ligand V7B ag 103



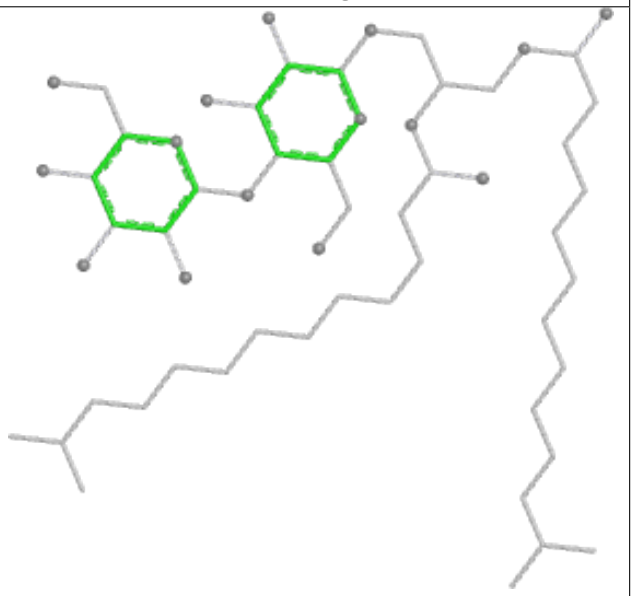
Bond lengths



Bond angles

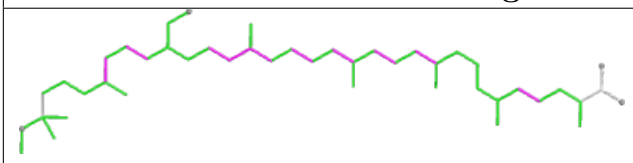


Torsions

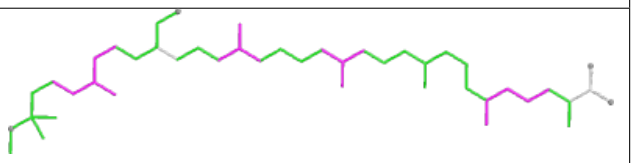


Rings

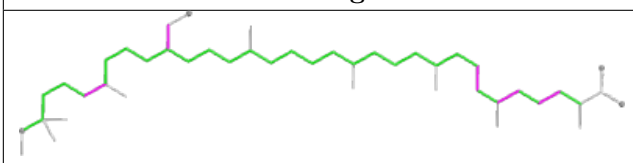
Ligand V7N BH 1001



Bond lengths



Bond angles



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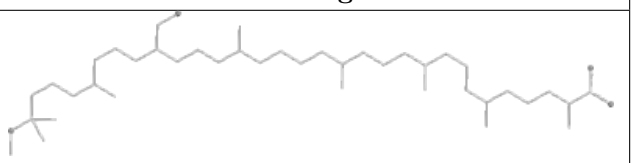
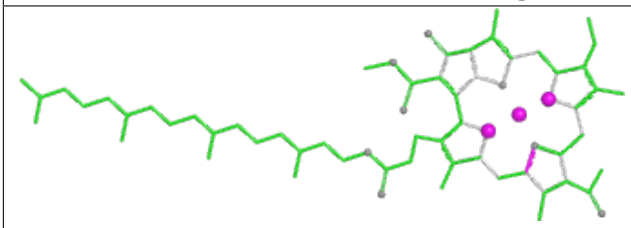


Rings

Ligand BCL AV 103



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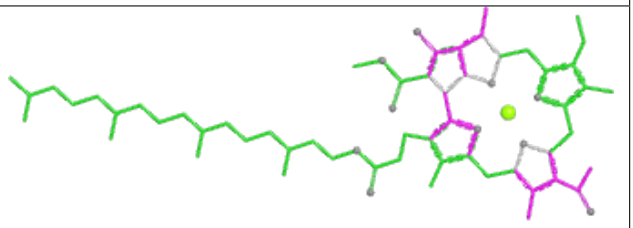

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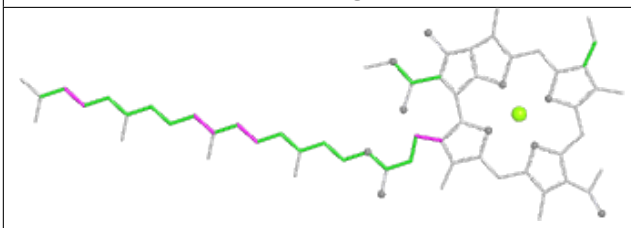

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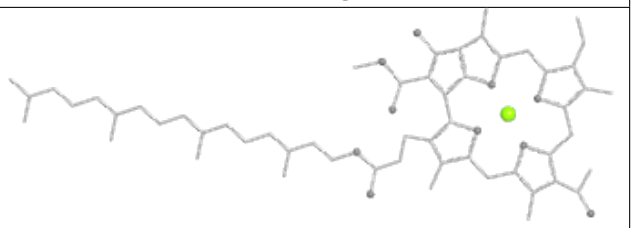
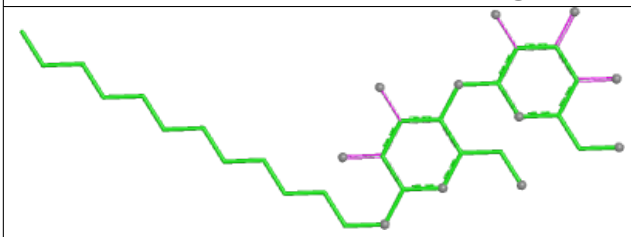


Rings

Ligand LMT AT 102



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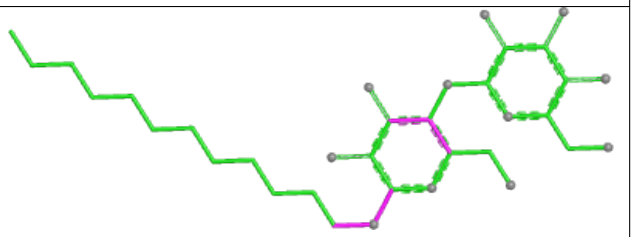

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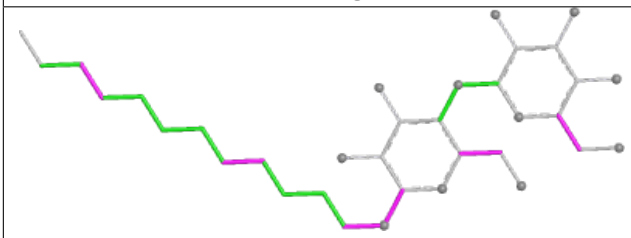

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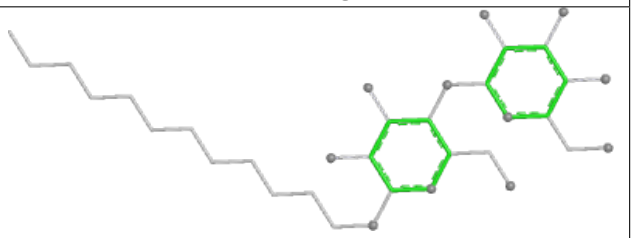
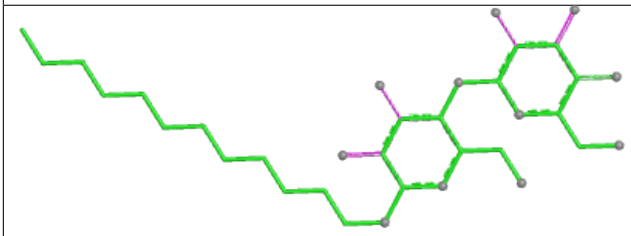


Rings

Ligand LMT BB 104



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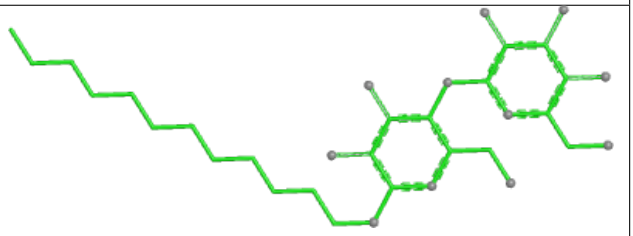
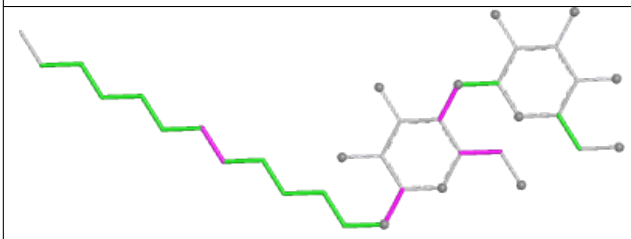


Bond angles



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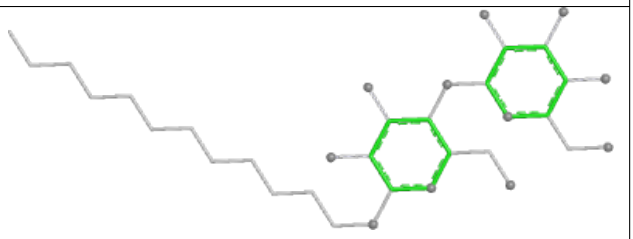

Rings

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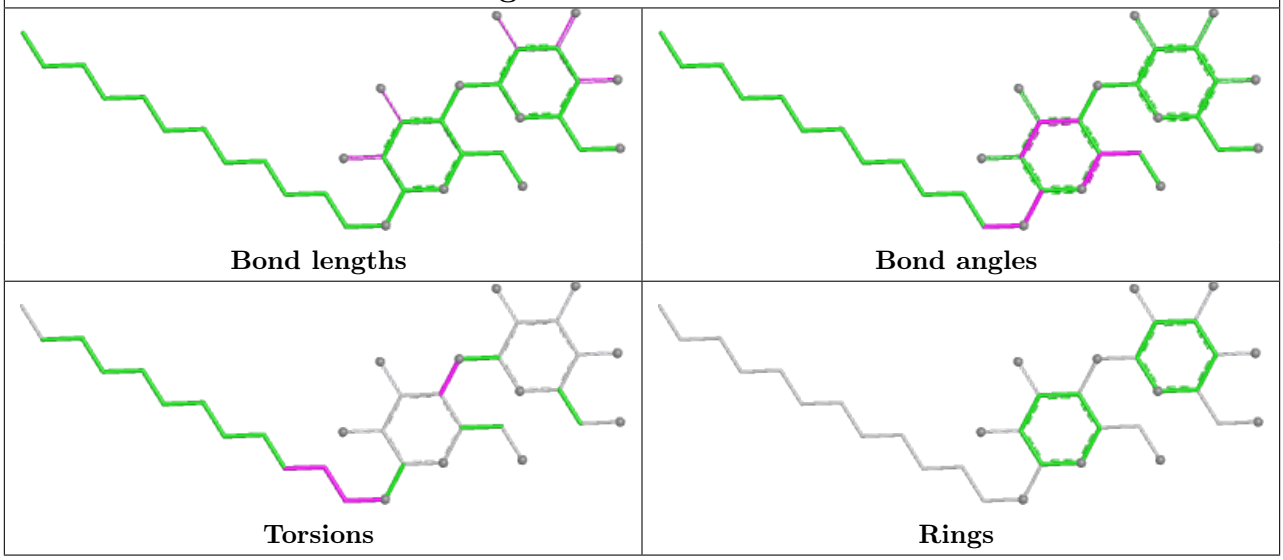

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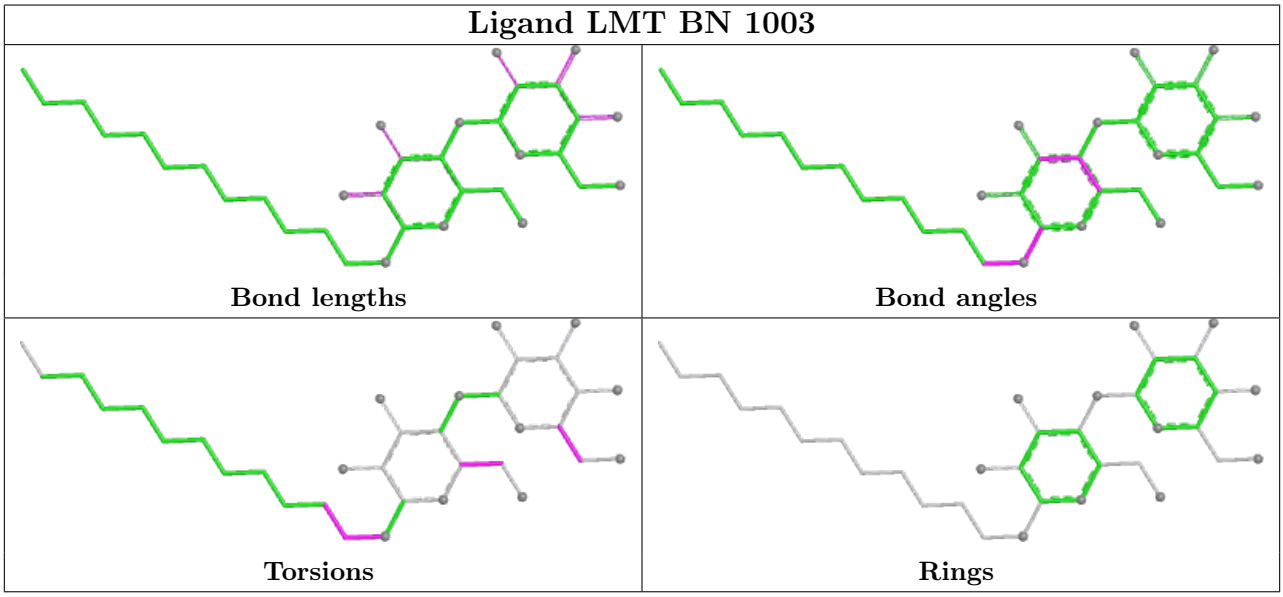
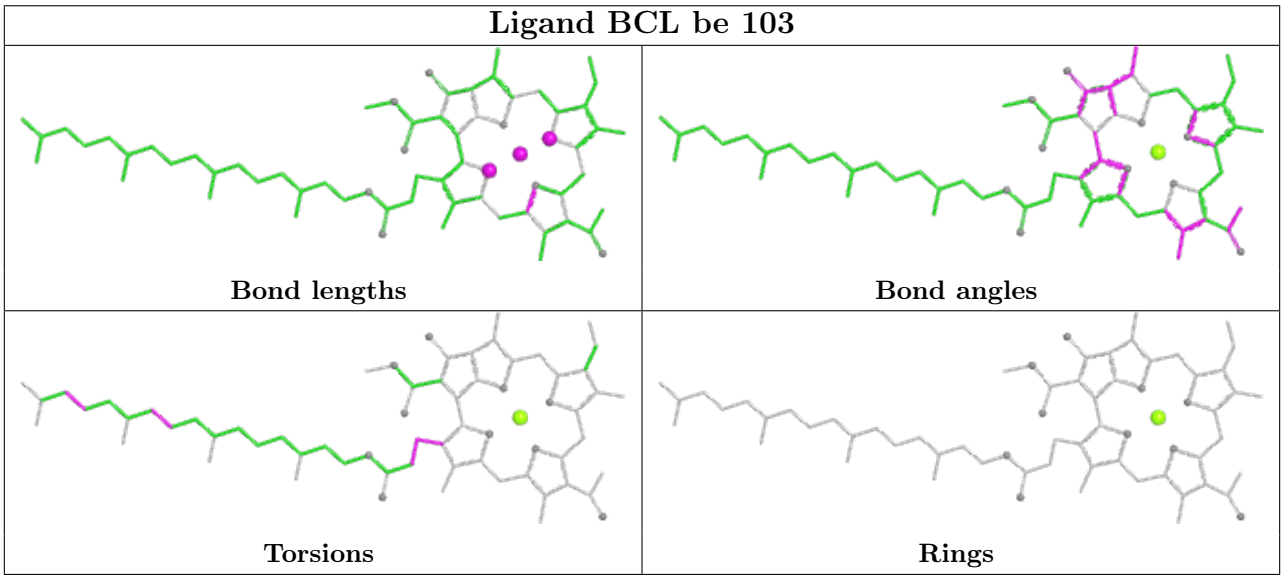
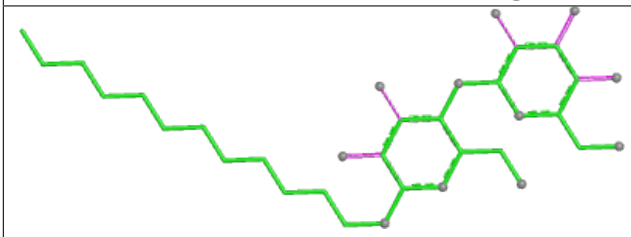


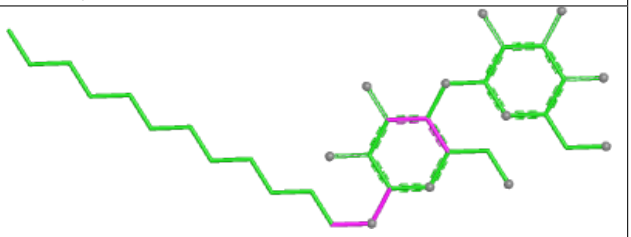
Ligand BCL be 103



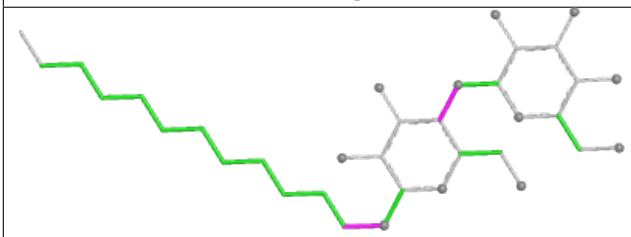
Ligand LMT AQ 101



Bond lengths



Bond angles



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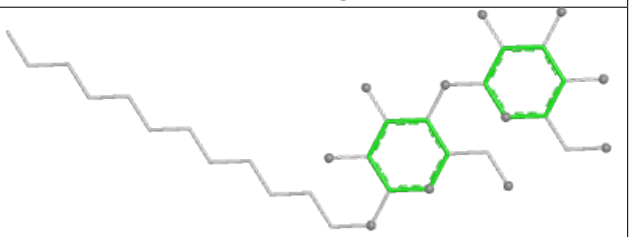
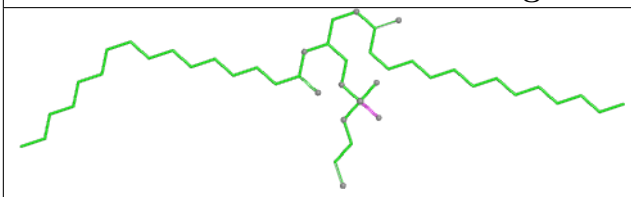


Rings

Ligand 0V9 bn 104



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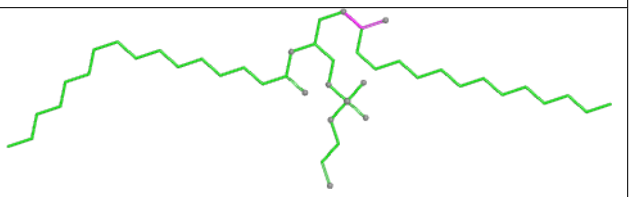
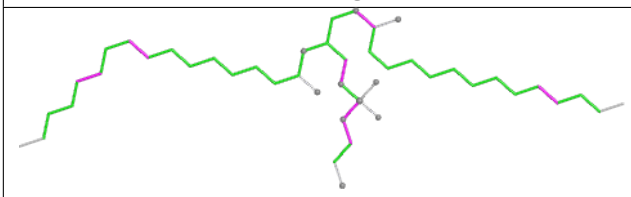


Bond angles



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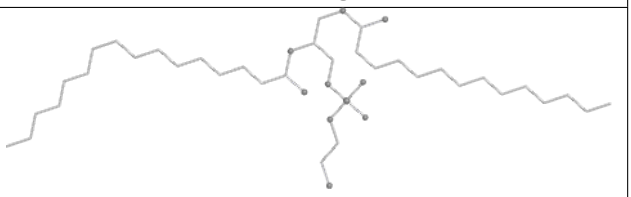
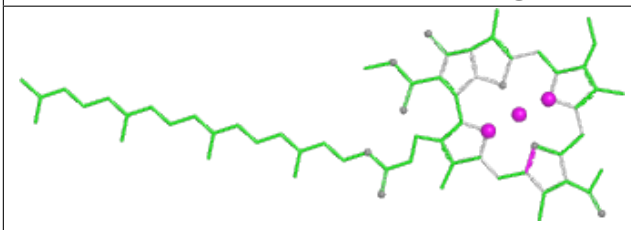


Rings

Ligand BCL AK 104



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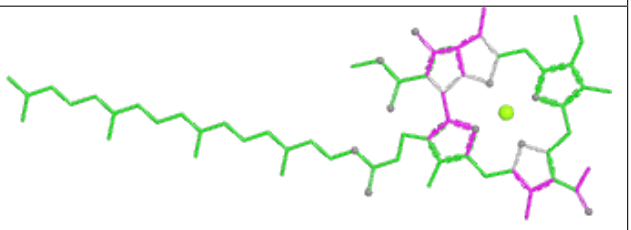
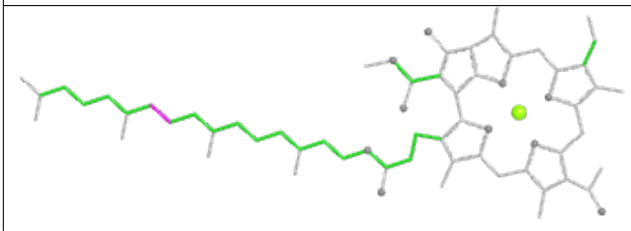


Bond angles



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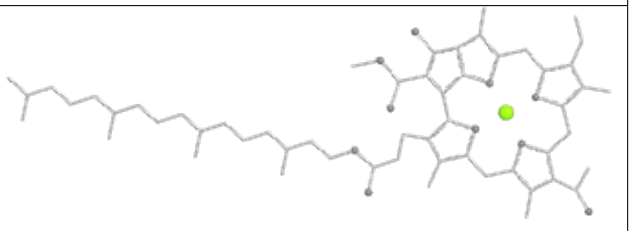
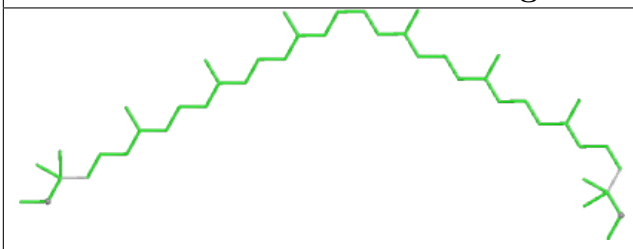


Rings

Ligand CRT M 404



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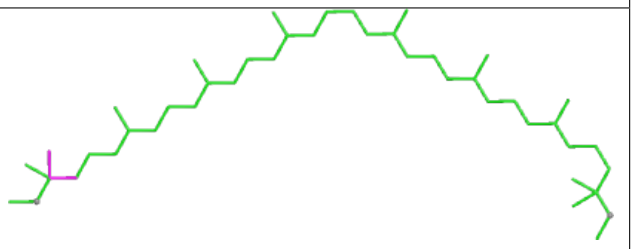
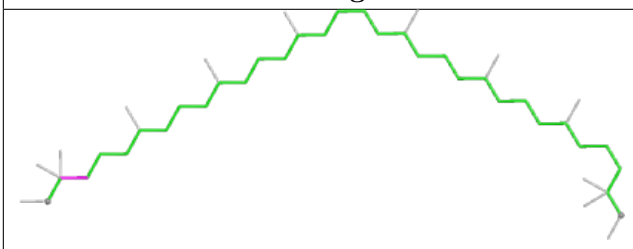


Bond angles



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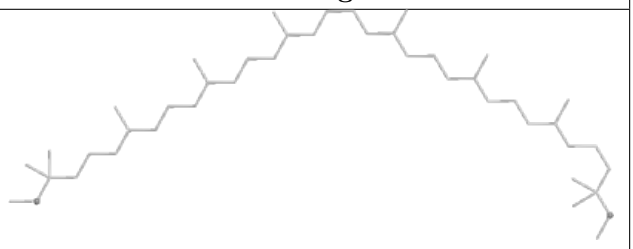
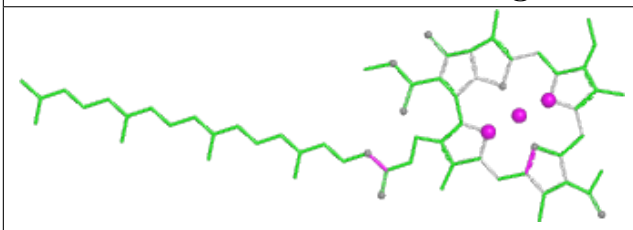


Rings

Ligand BCL BD 104



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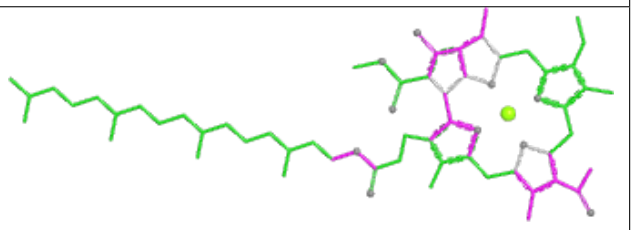
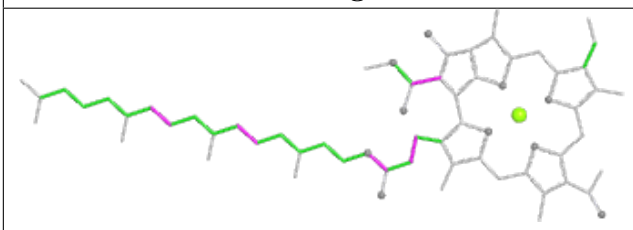


Bond angles



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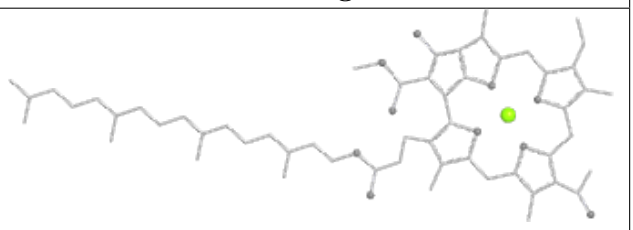
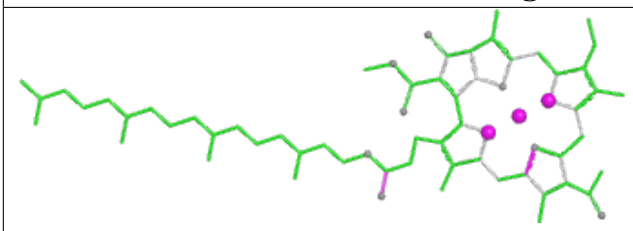


Rings

Ligand BCL M 406



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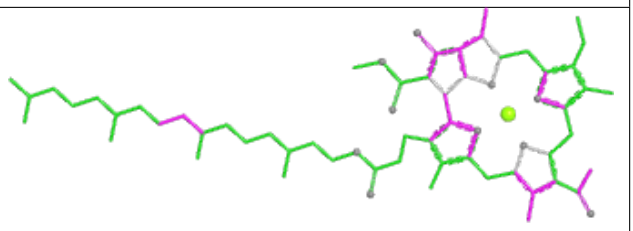
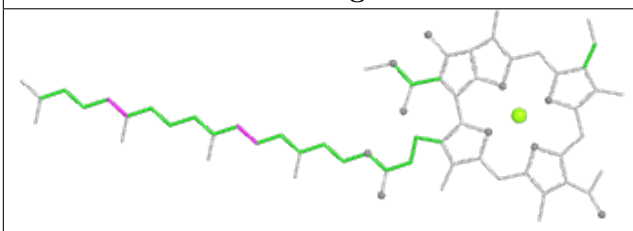


Bond angles



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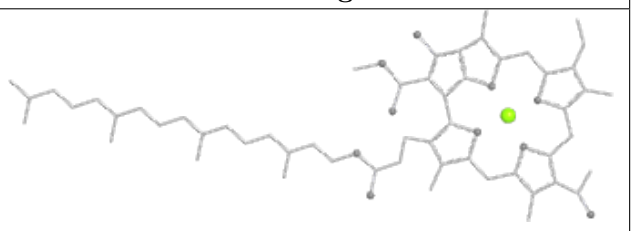
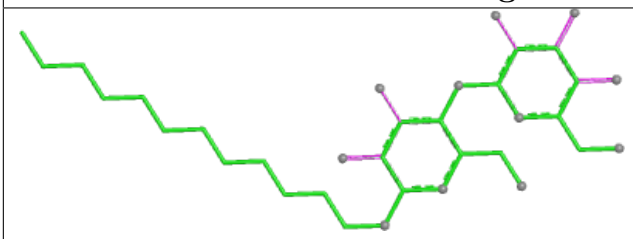


Rings

Ligand LMT BH 1004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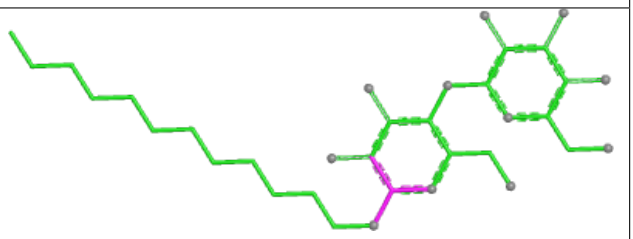
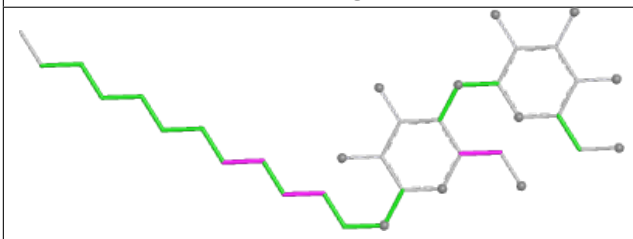

Bond angles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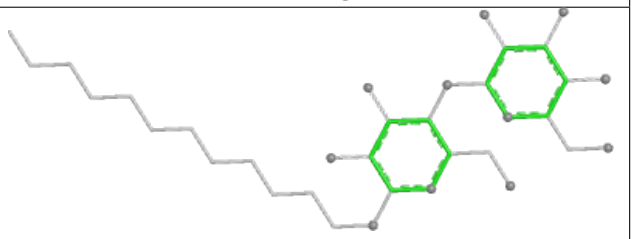
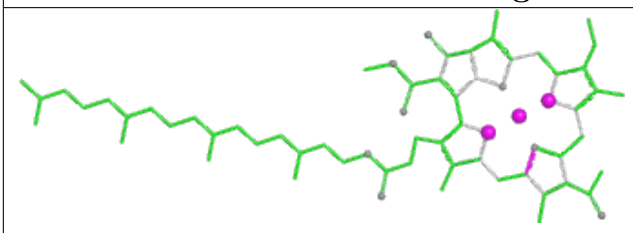

Rings

Ligand BCL AE 105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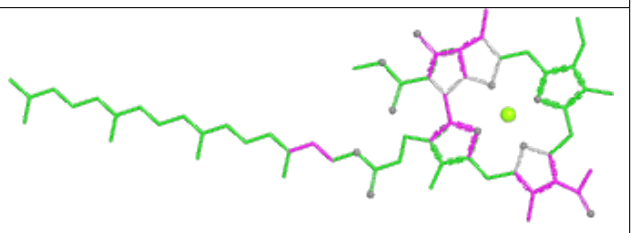
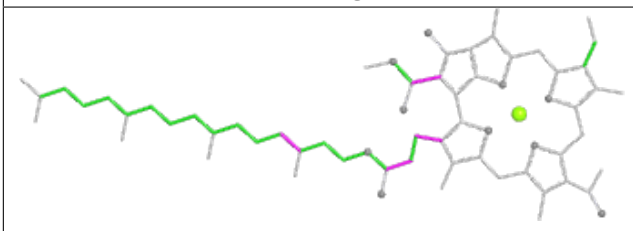

Bond angles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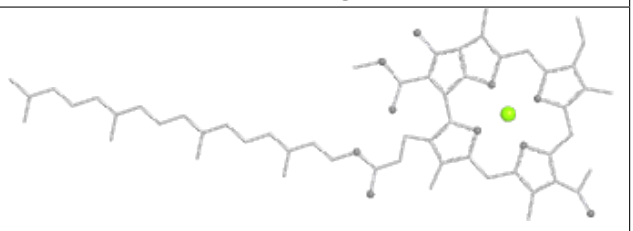
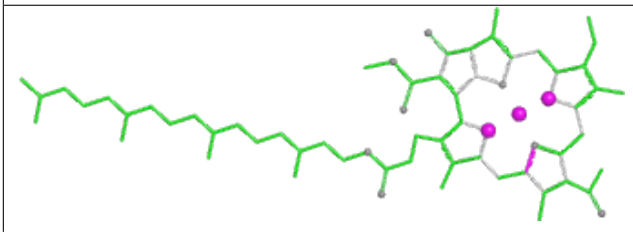

Rings

Ligand BCL bl 104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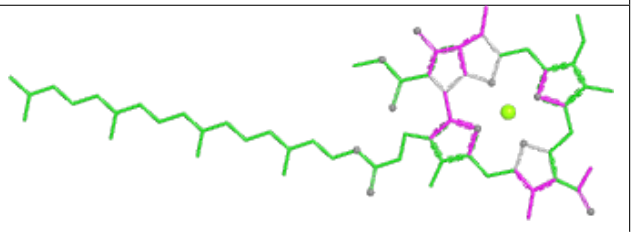
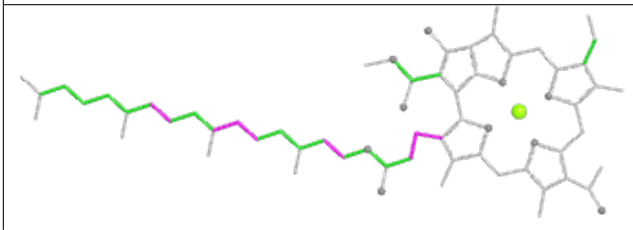
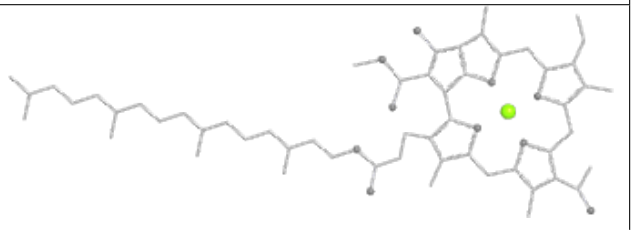
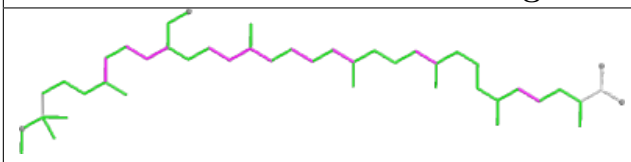
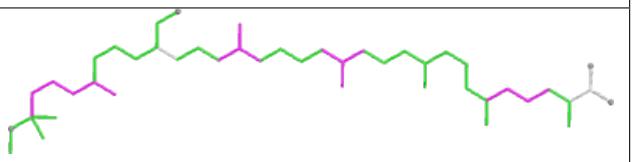

Bond angles

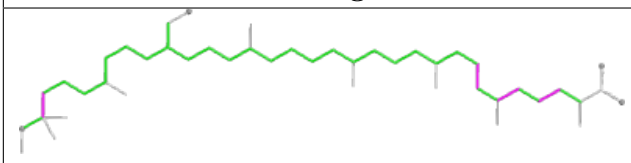

Torsions


Rings

Ligand V7N bl 101


Bond lengths


Bond angles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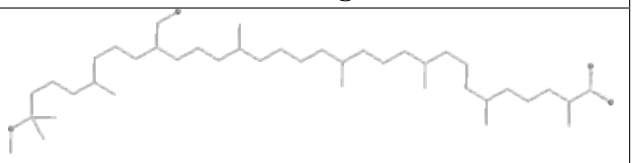
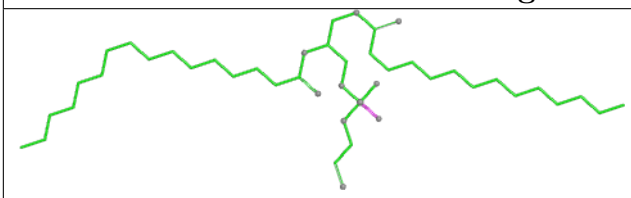

Rings

Ligand 0V9 bm 104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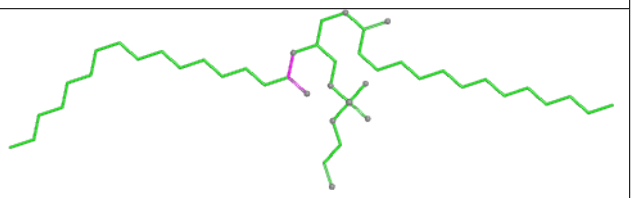
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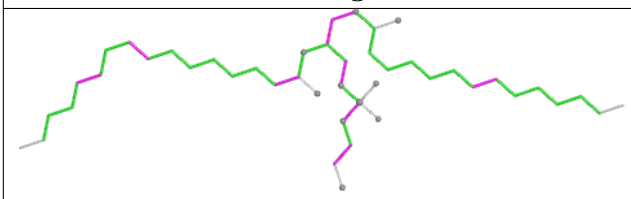
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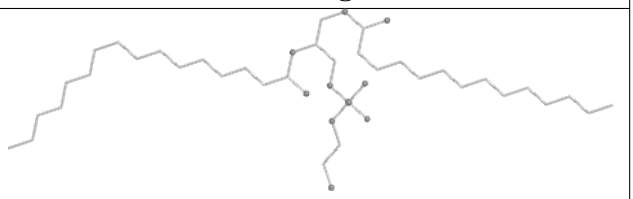
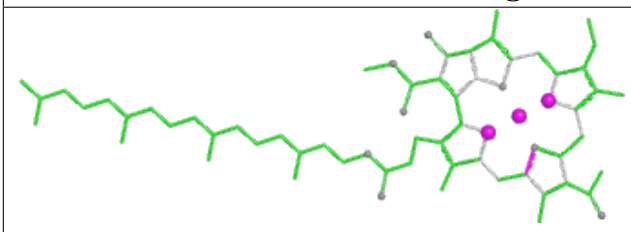

Rings

Ligand BCL AF 1001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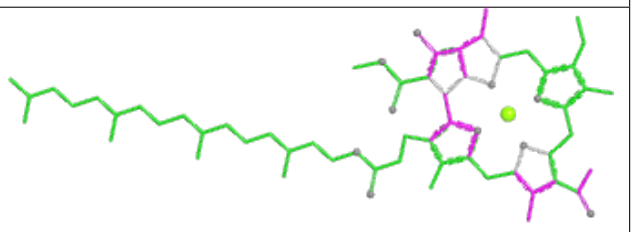
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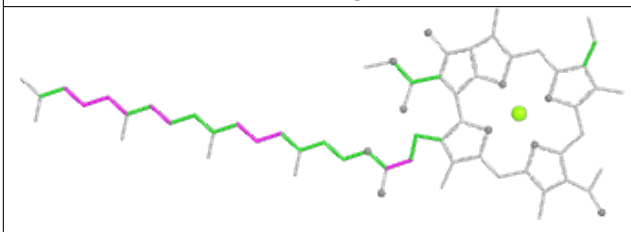
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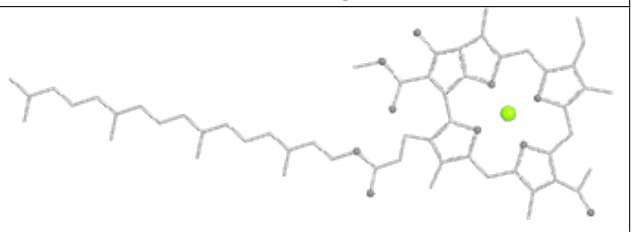
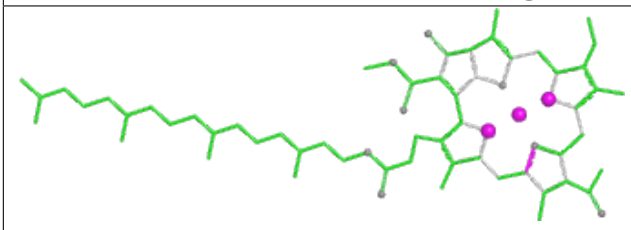
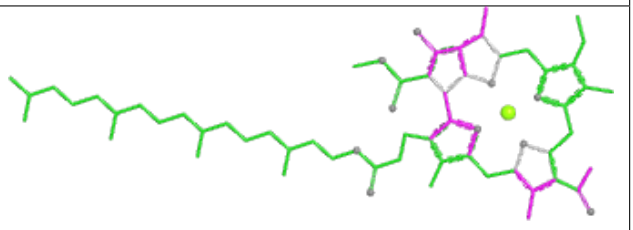

Rings

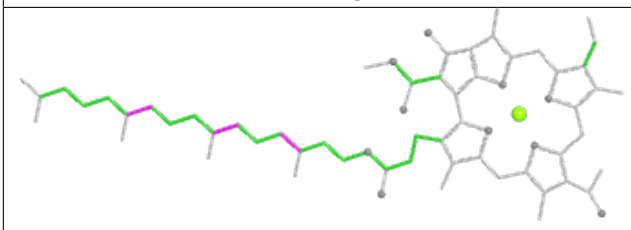
Ligand BCL ao 102



Bond lengths



Bond angles



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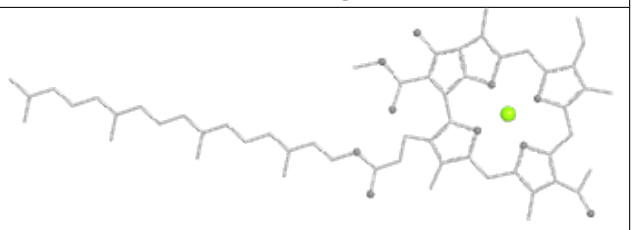
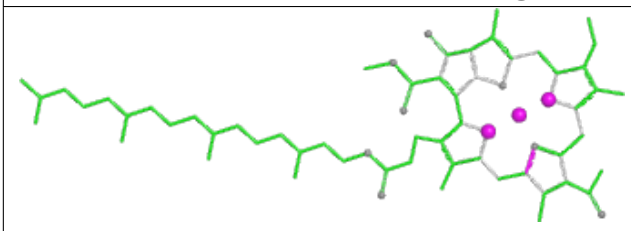


Rings

Ligand BCL AE 104



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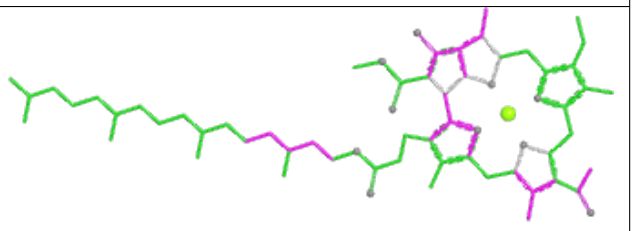
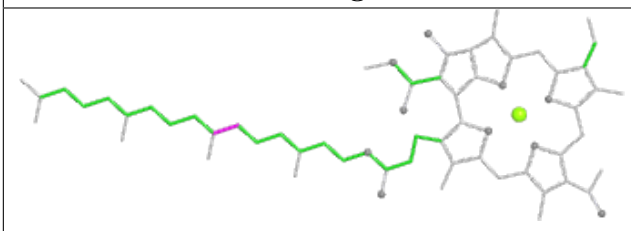


Bond angles



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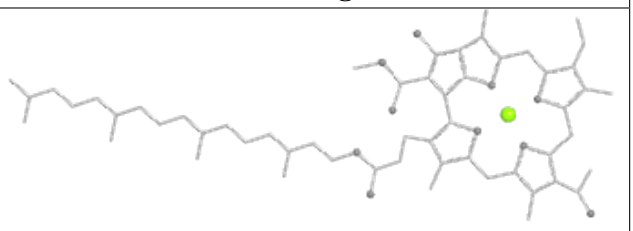
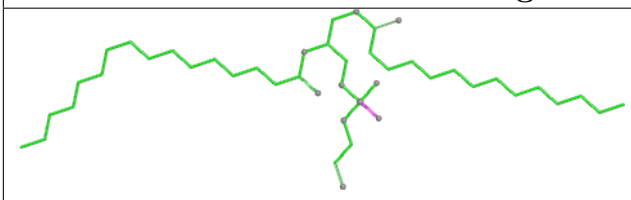


Rings

Ligand 0V9 AQ 105



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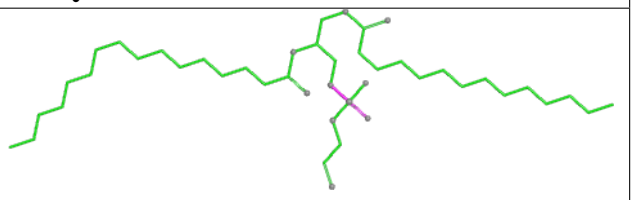
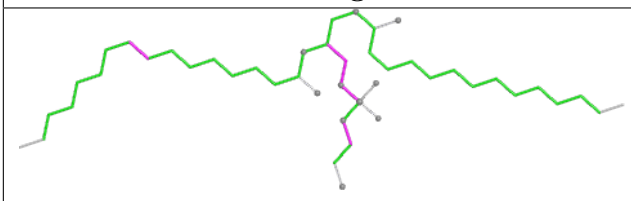


Bond angles



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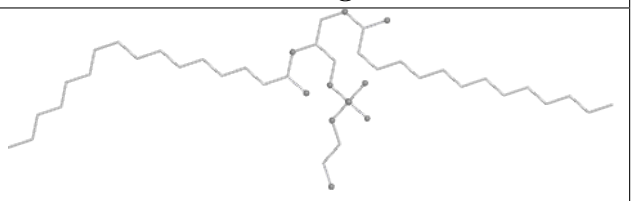
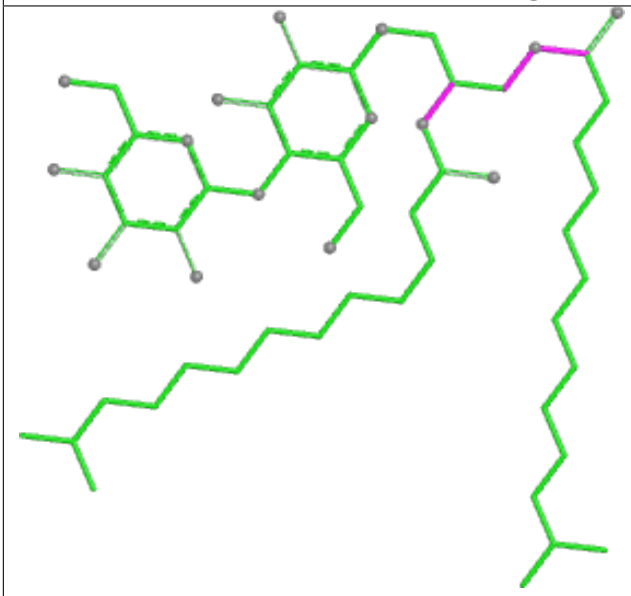


Rings

Ligand V7B af 101



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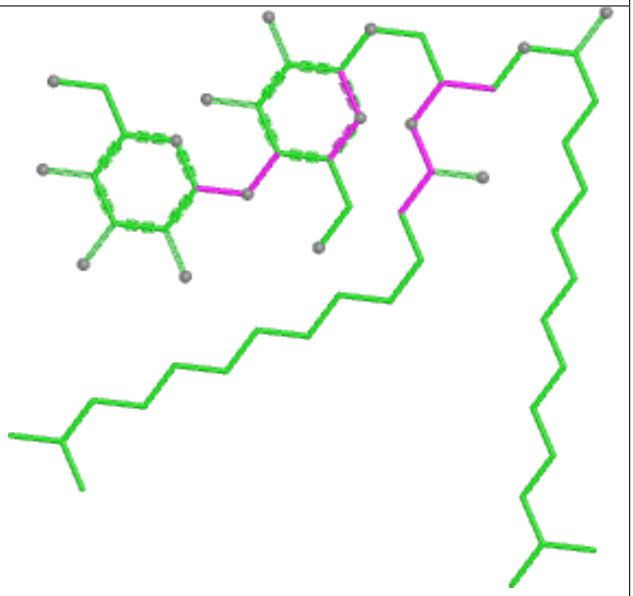

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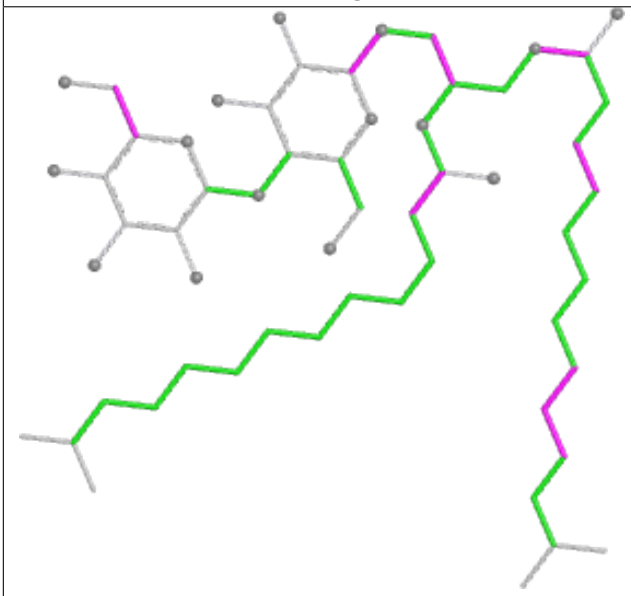

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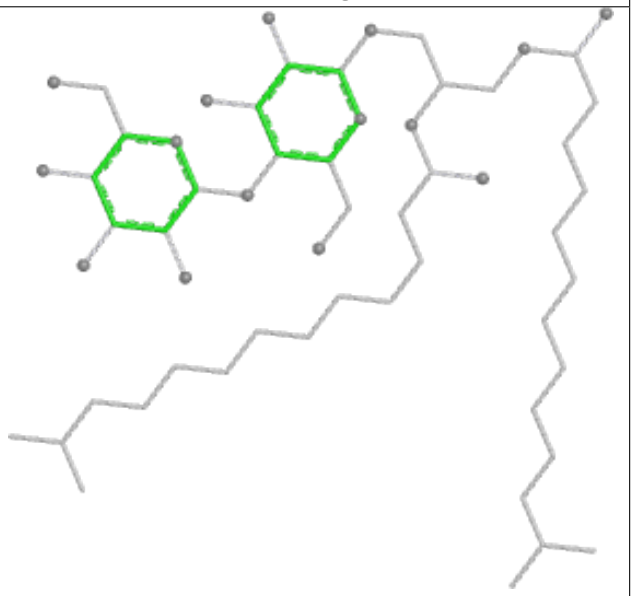
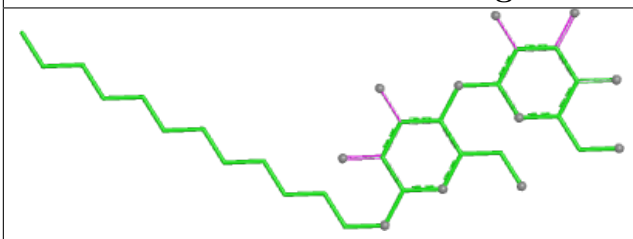


Rings

Ligand LMT BM 1003



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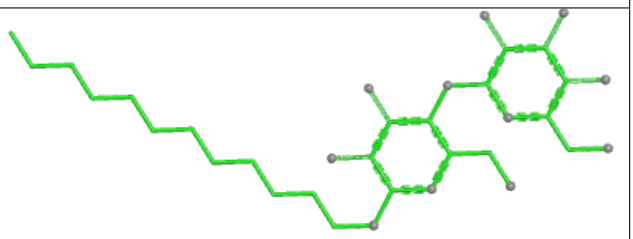

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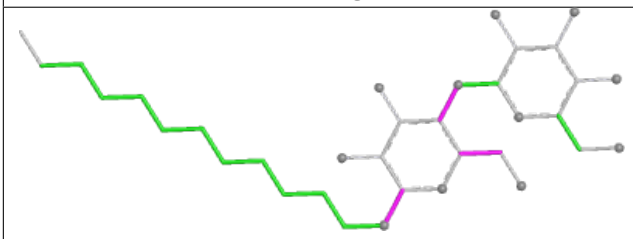

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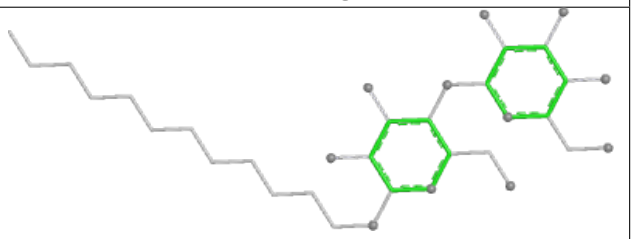
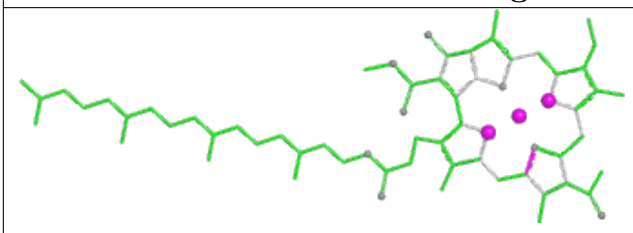


Rings

Ligand BCL AH 102



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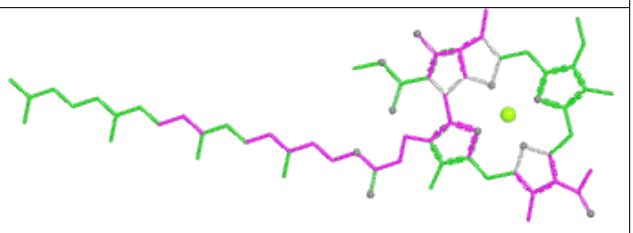

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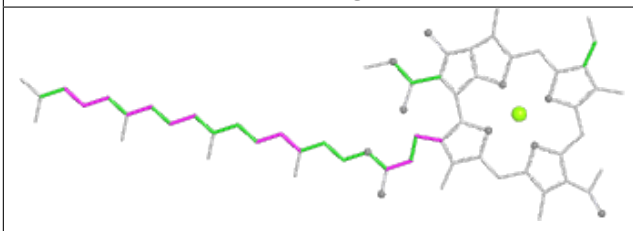

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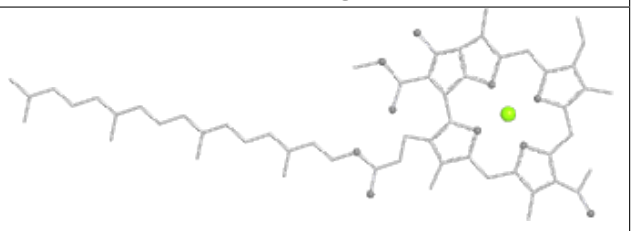
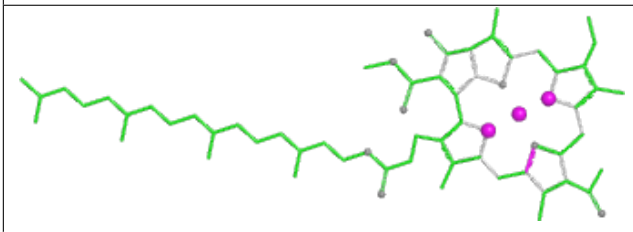


Rings

Ligand BCL BC 104



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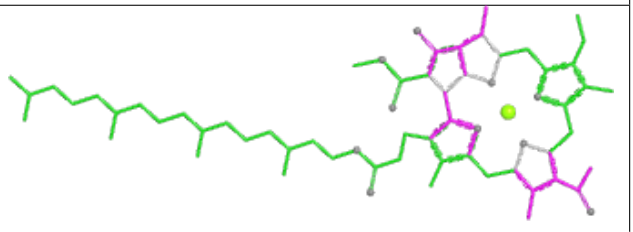
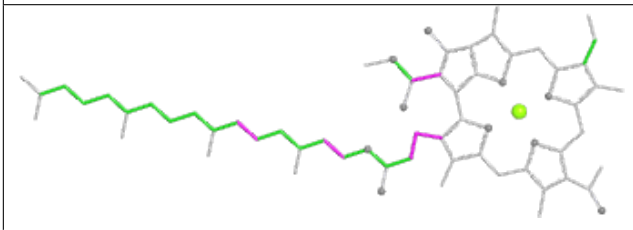


Bond angles



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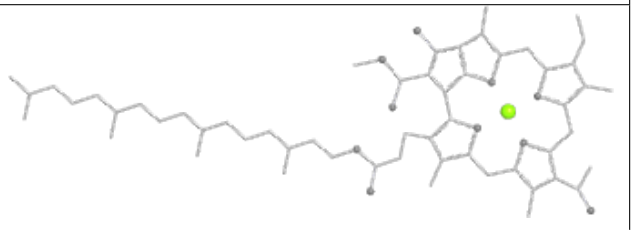
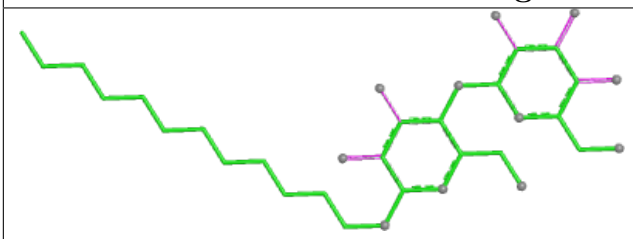
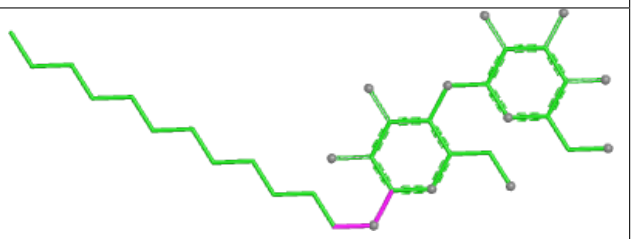


Rings

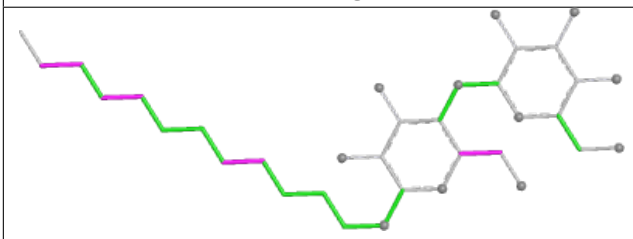
Ligand LMT bo 104



Bond lengths



Bond angles



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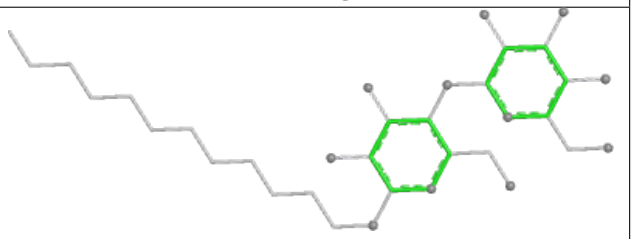
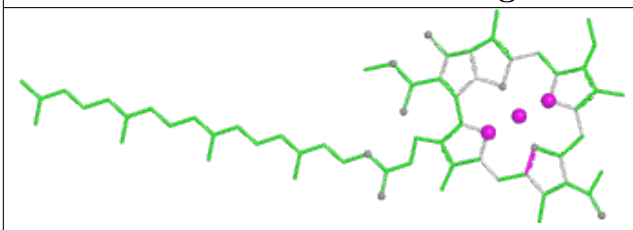
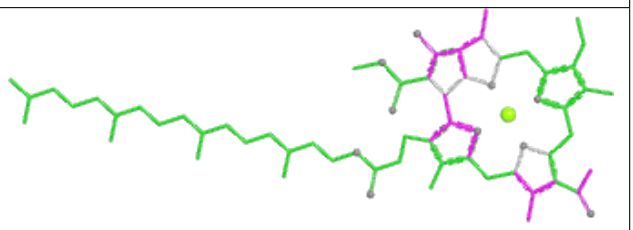


Rings

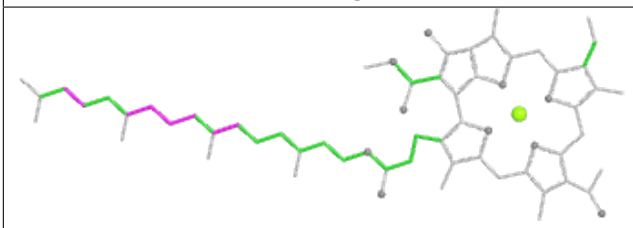
Ligand BCL AM 1004



Bond lengths



Bond angles



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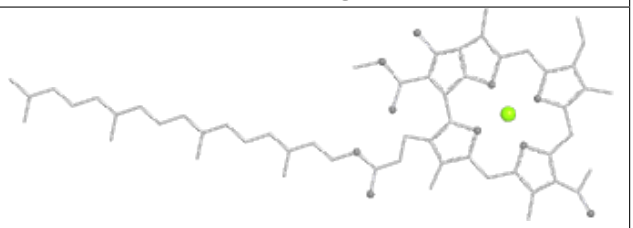
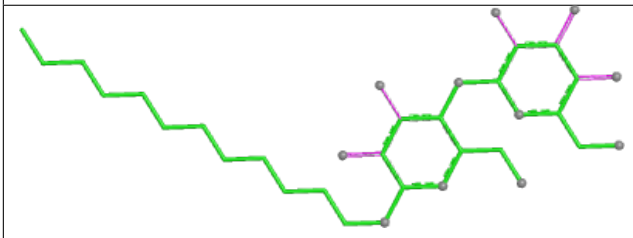


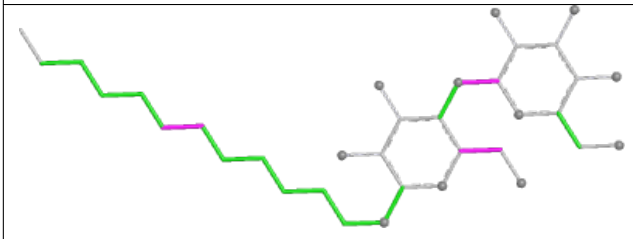
Rings

Ligand LMT AM 1003



Bond lengths

Bond angles



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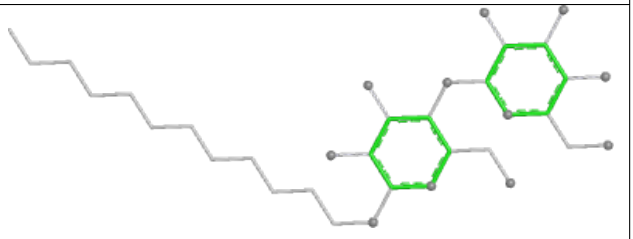
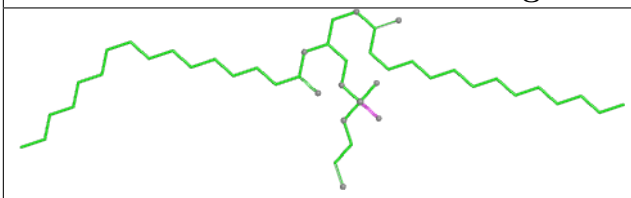
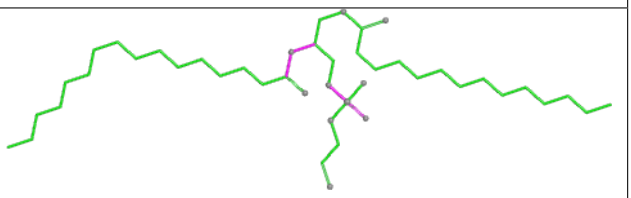
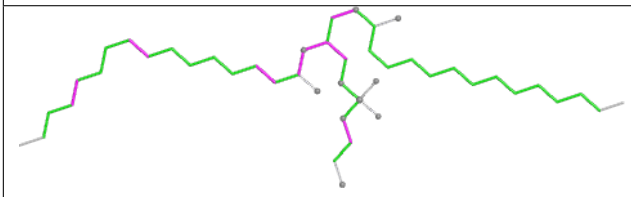
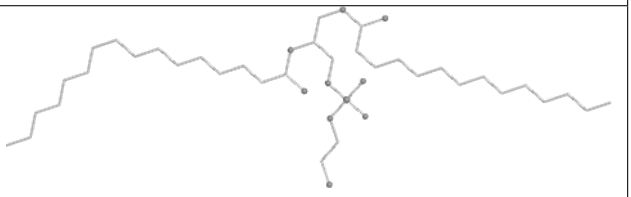
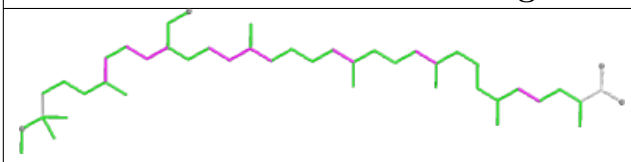
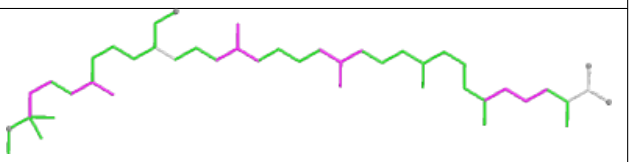
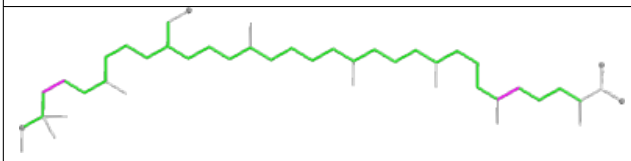
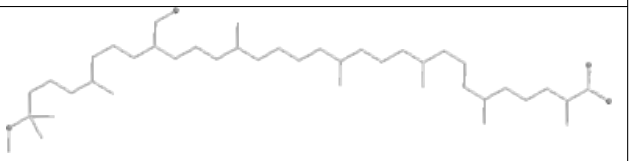
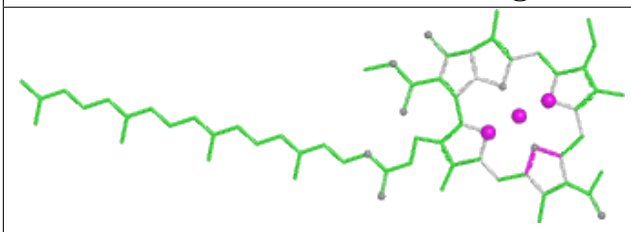
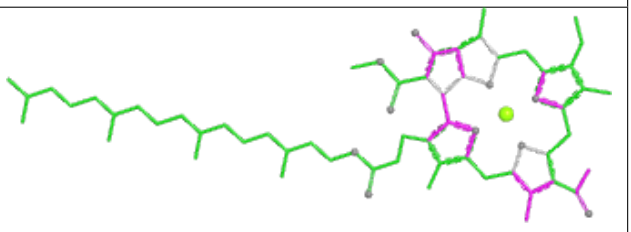
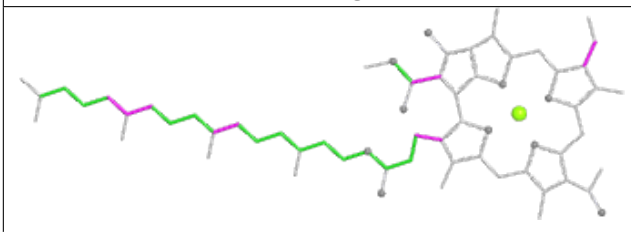
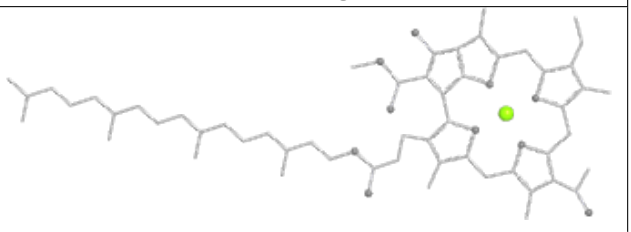


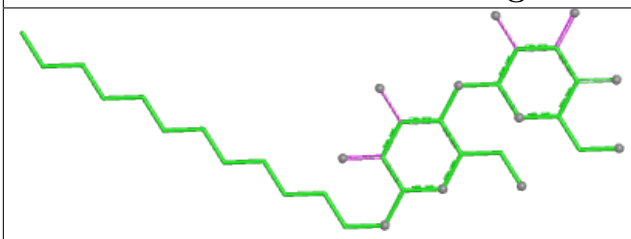
Rings

Ligand 0V9 bd 103	
 Bond lengths	 Bond angles
 Torsions	 Rings

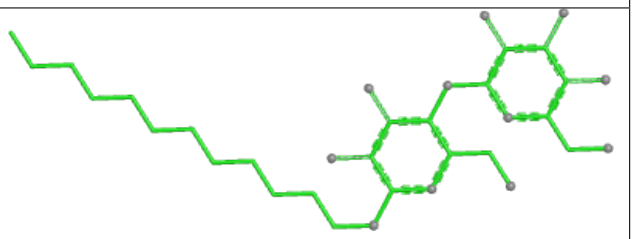
Ligand V7N bh 101	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand BCL AO 101	
 Bond lengths	 Bond angles
 Torsions	 Rings

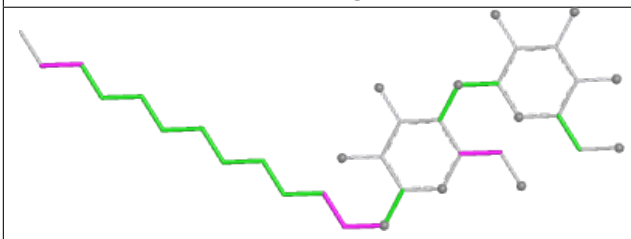
Ligand LMT BD 103



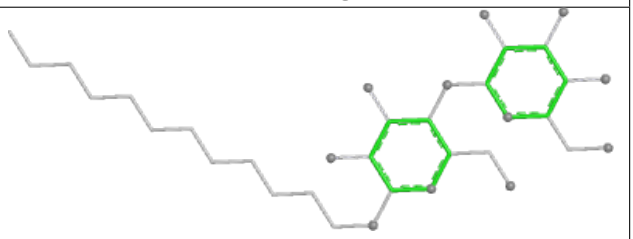
Bond lengths



Bond angles

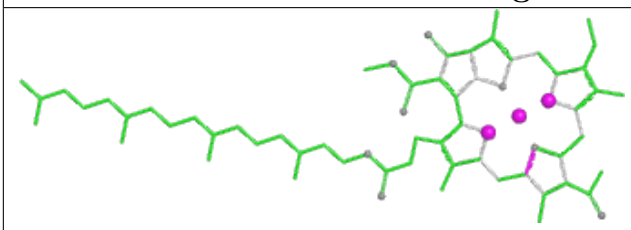


Torsions



Rings

Ligand BCL BB 105



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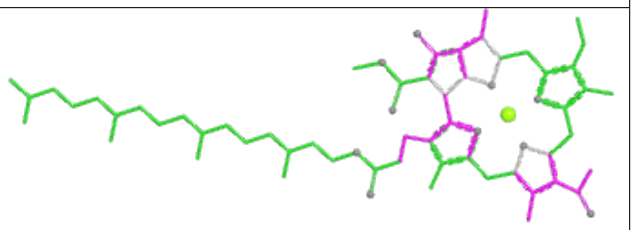

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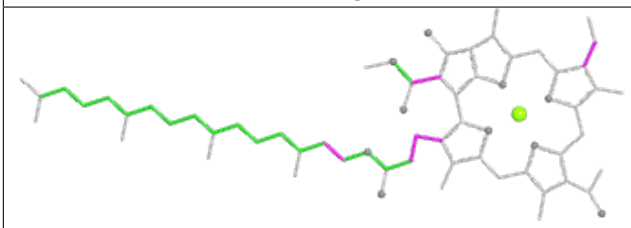

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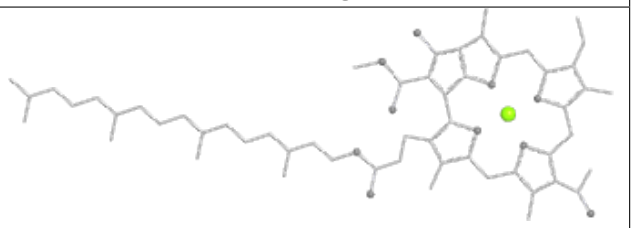
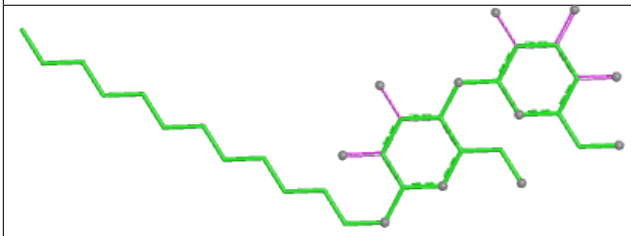


Rings

Ligand LMT bp 101



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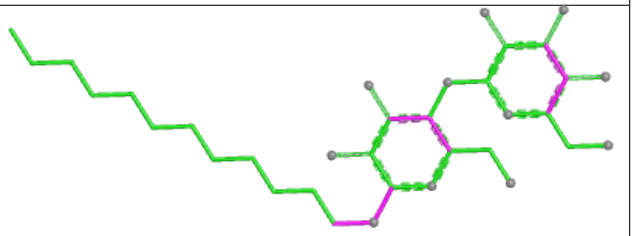
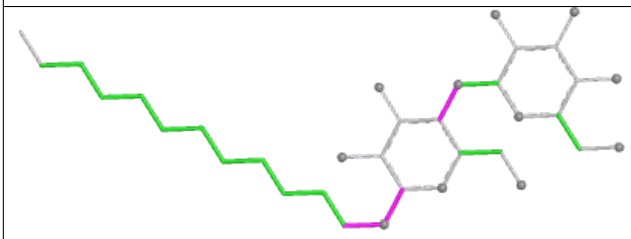


Bond angles



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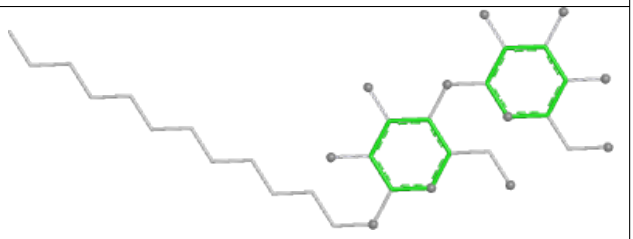
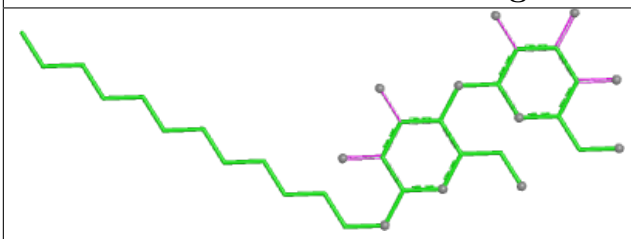


Rings

Ligand LMT bm 103



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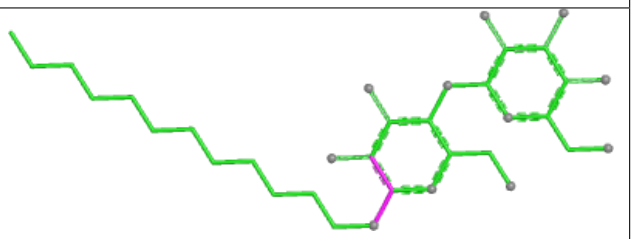

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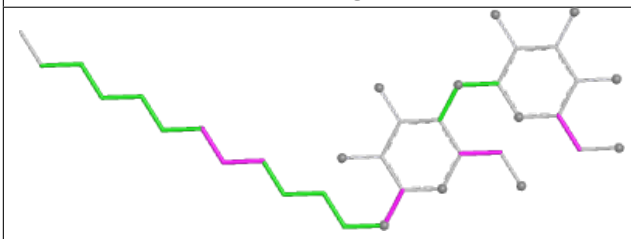

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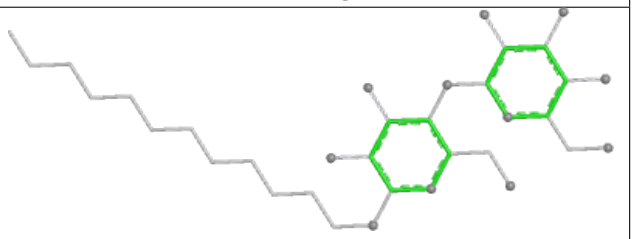
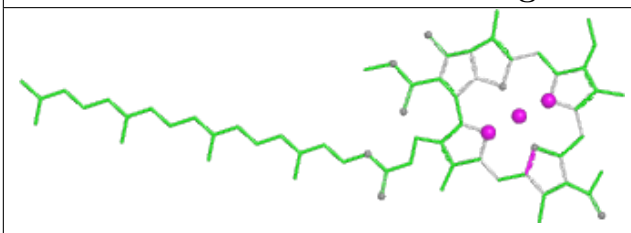


Rings

Ligand BCL bo 102



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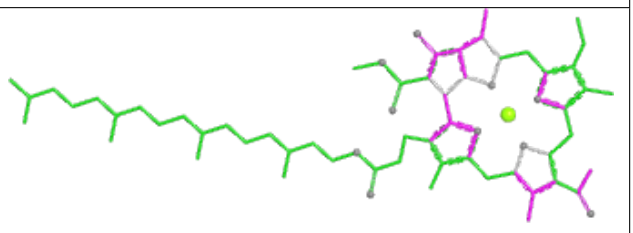

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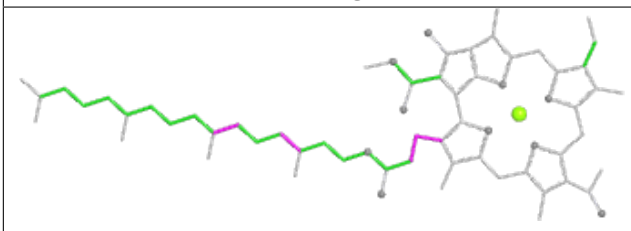

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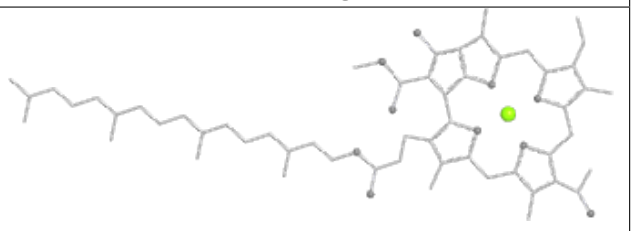
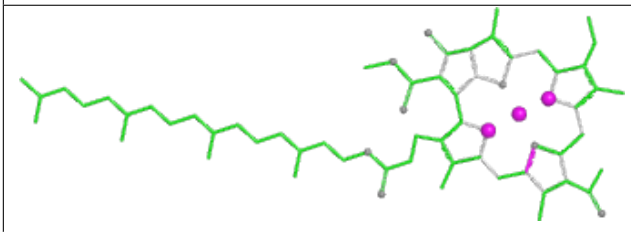


Rings

Ligand BCL AS 102



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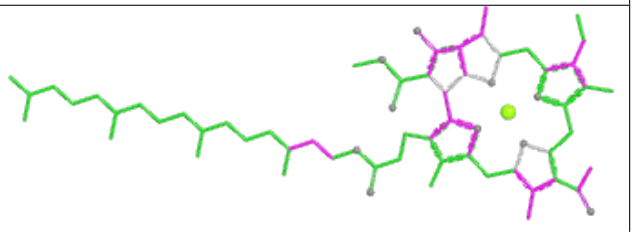
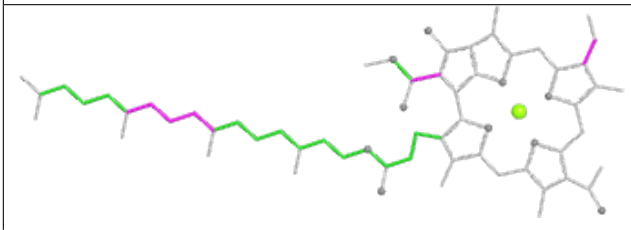


Bond angles



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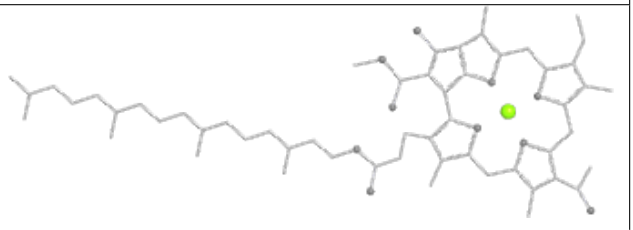
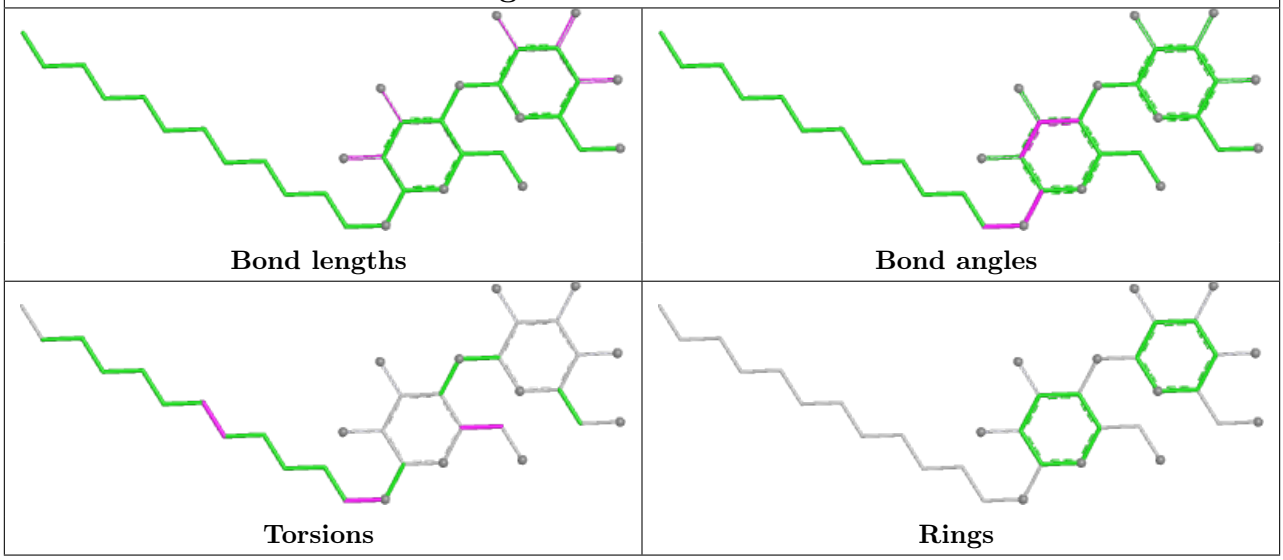


Rings

Ligand LMT BK 1003



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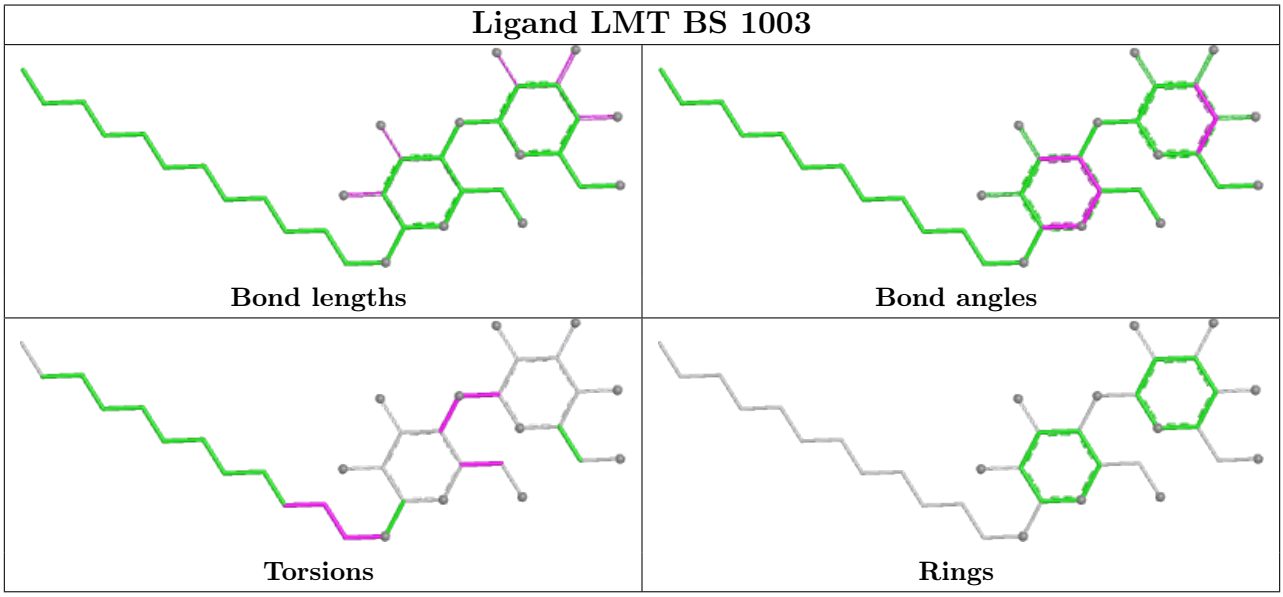

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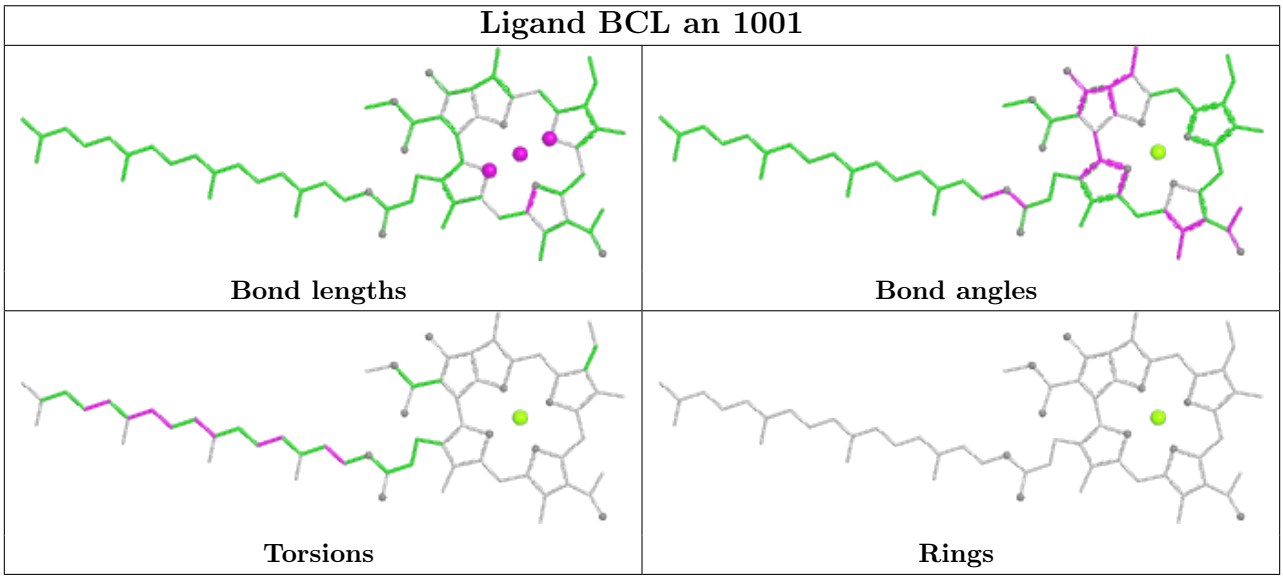
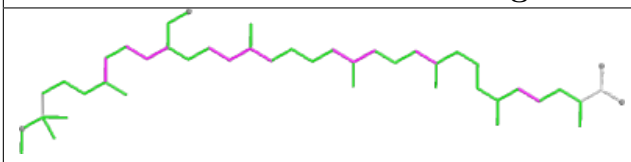
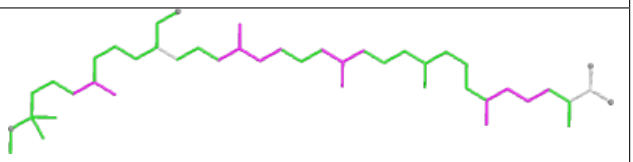


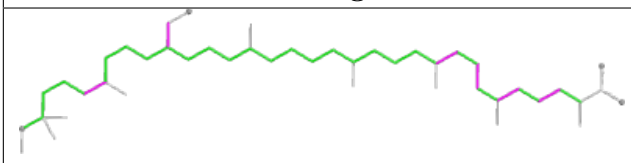
Ligand V7N AD 101



Bond lengths



Bond angles



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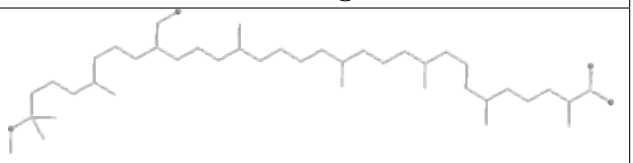
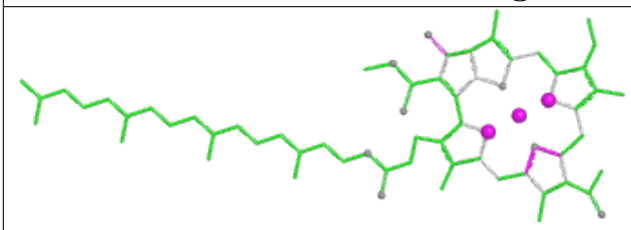


Rings

Ligand BCL AU 103



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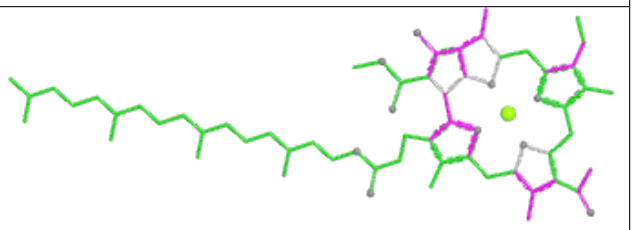
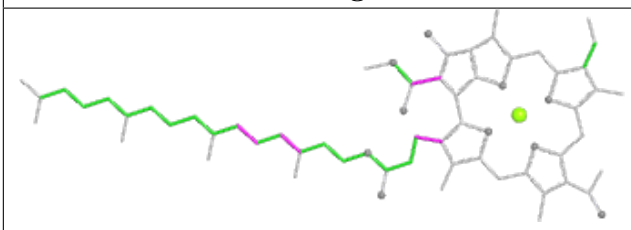


Bond angles



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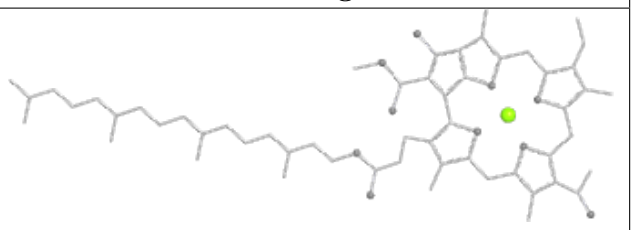
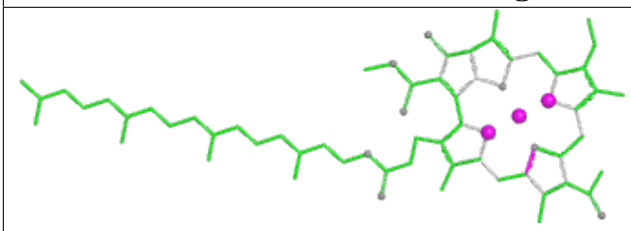


Rings

Ligand BCL BE 104



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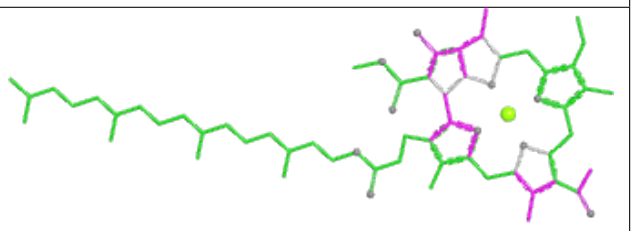
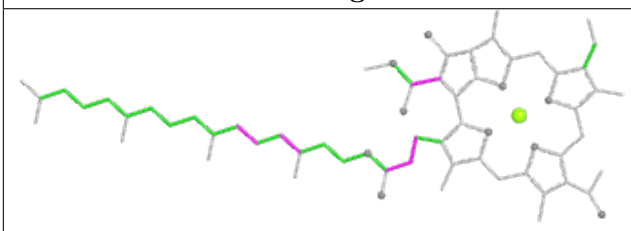


Bond angles



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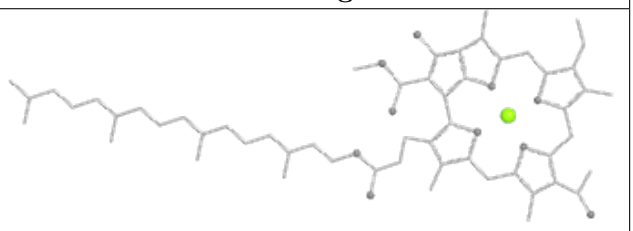
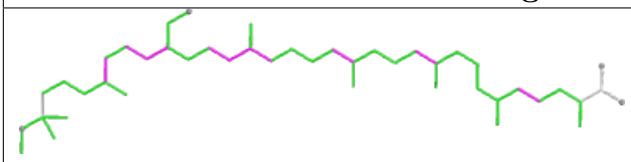


Rings

Ligand V7N bj 101



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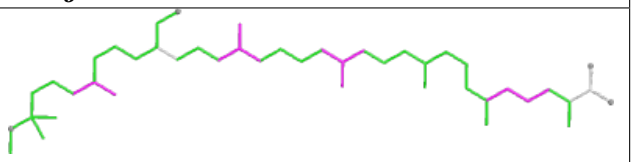
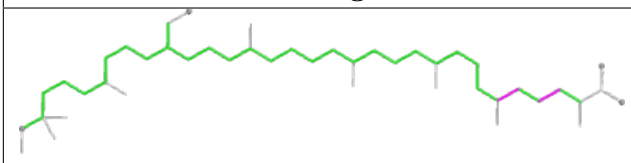


Bond angles



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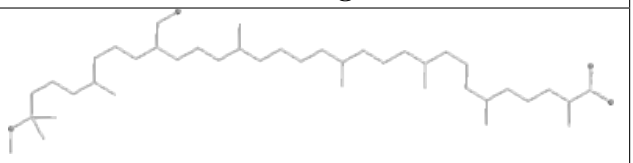
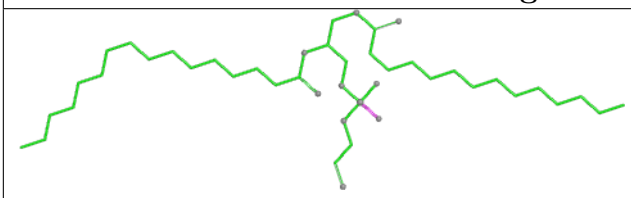


Rings

Ligand 0V9 H1 102



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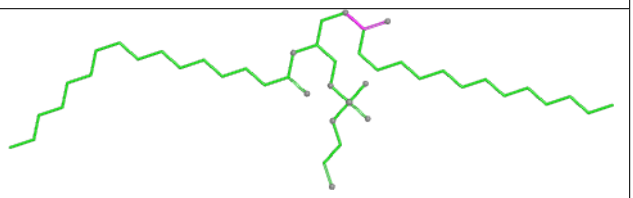
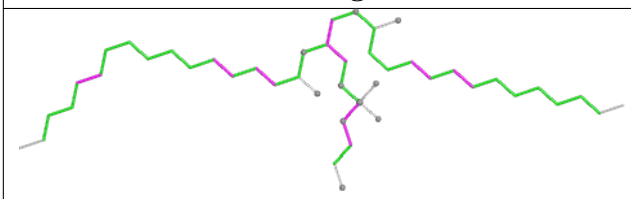


Bond angles



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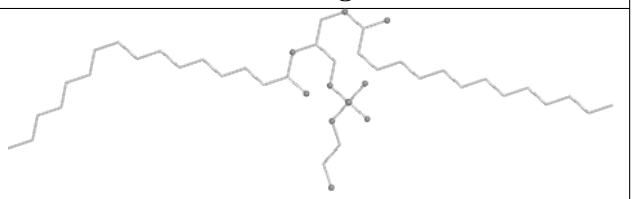
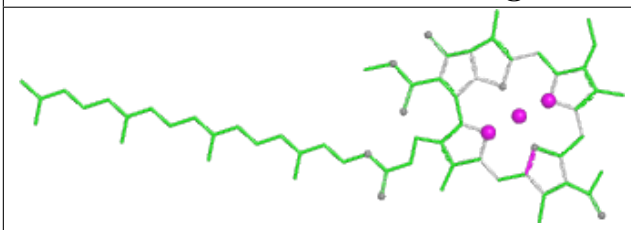


Rings

Ligand BCL am 1001



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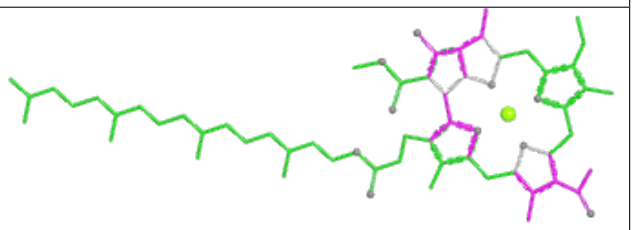
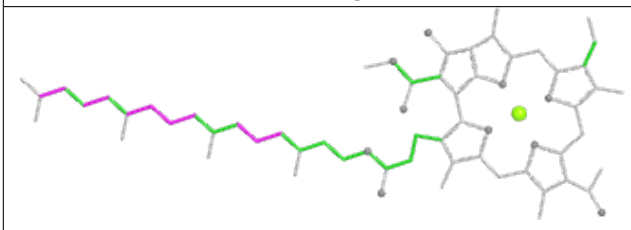


Bond angles



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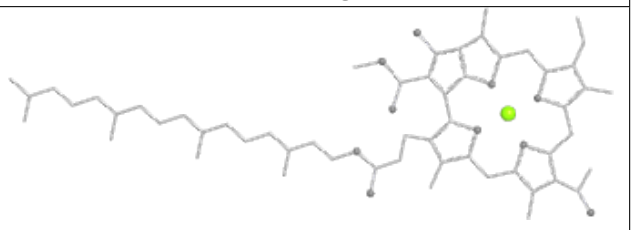
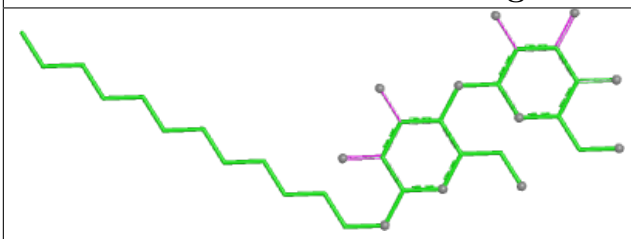
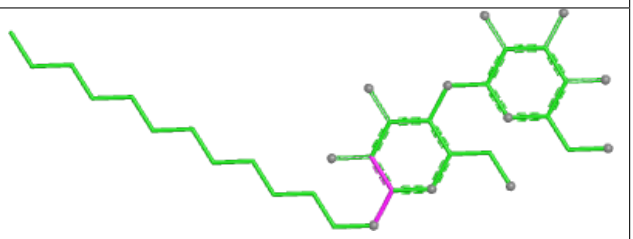
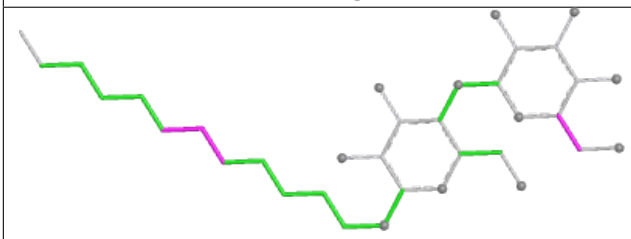


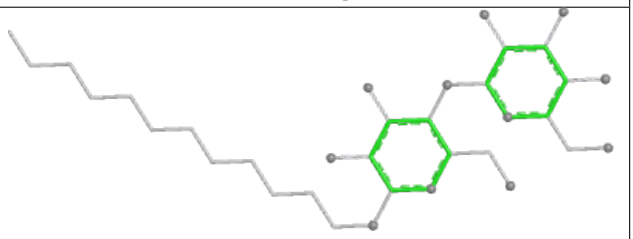
Rings

Ligand LMT AU 102

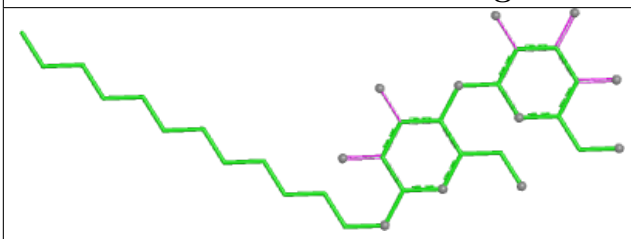

Bond lengths

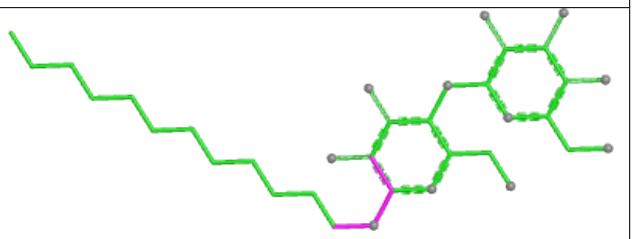

Bond angles

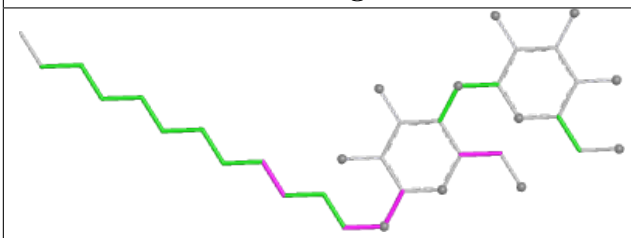

Torsions

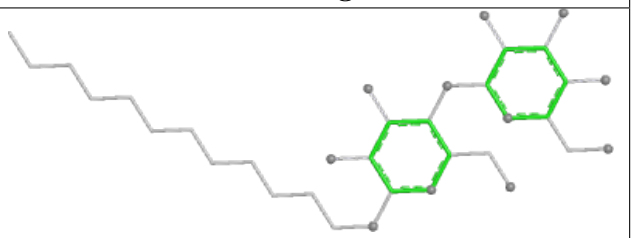

Rings

Ligand LMT BW 1004

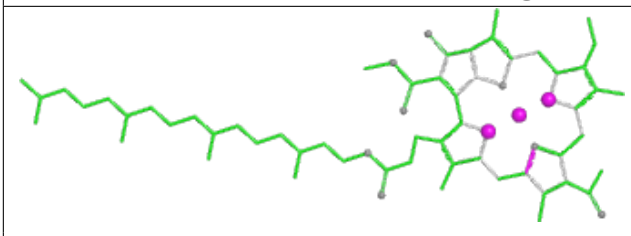

Bond lengths


Bond angles


Torsions


Rings

Ligand BCL bb 102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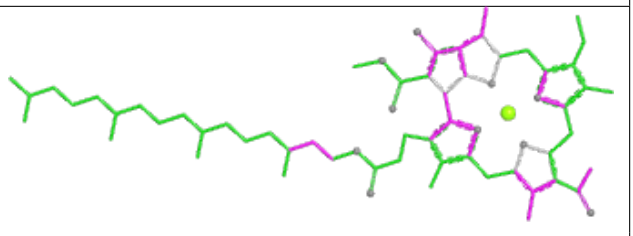
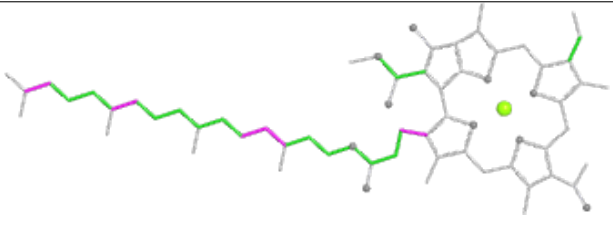
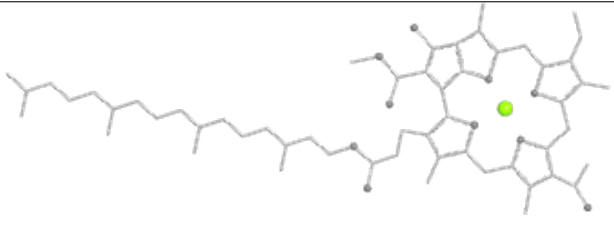
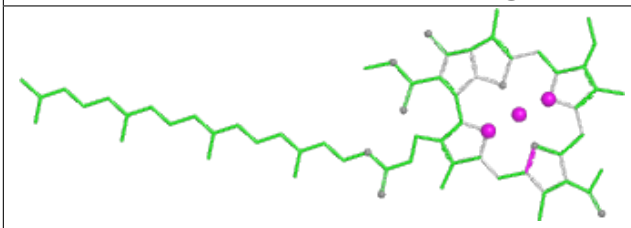

Bond angles

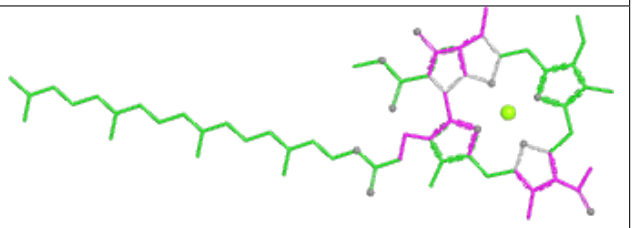

Torsions


Rings

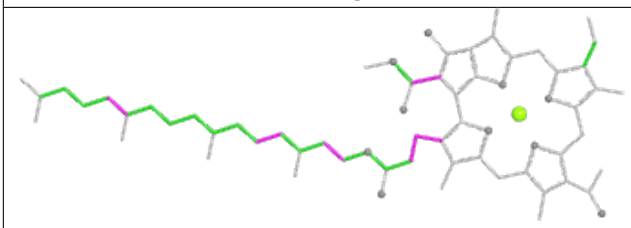
Ligand BCL BV 1005



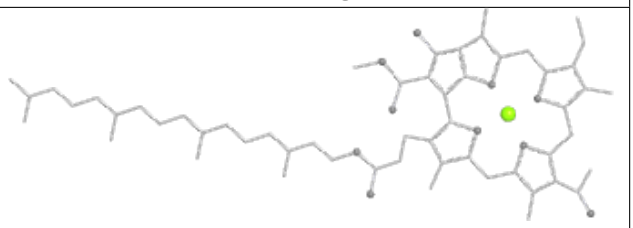
Bond lengths



Bond angles

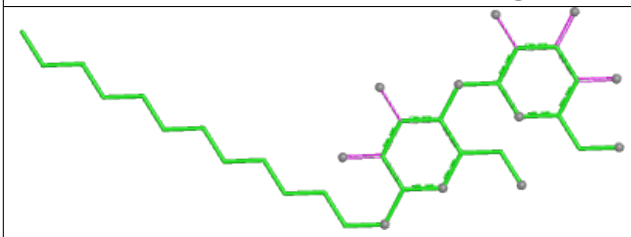


Torsions

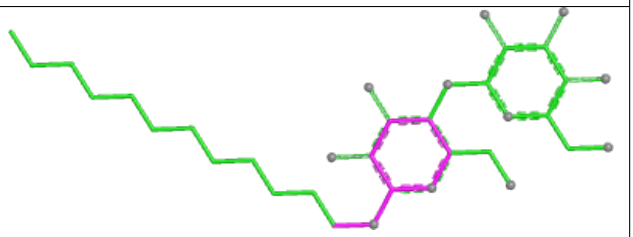


Rings

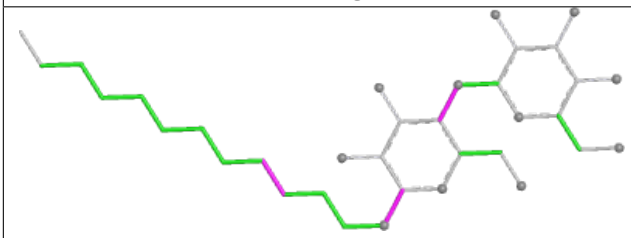
Ligand LMT BE 102



Bond lengths



Bond angles



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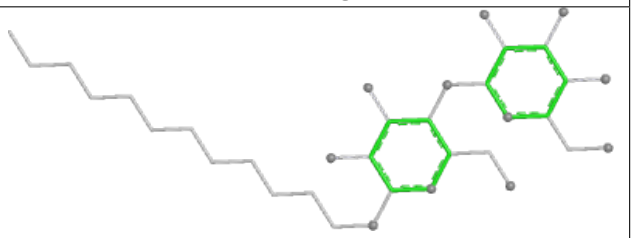
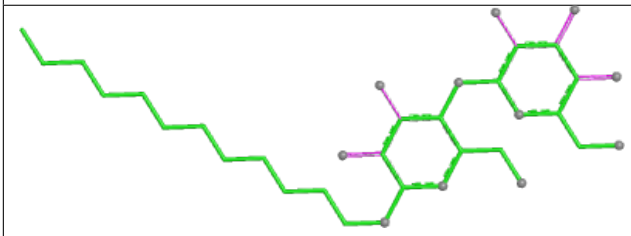
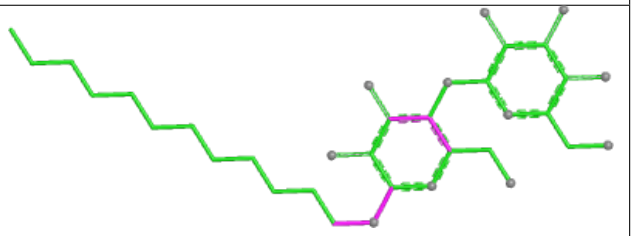


Rings

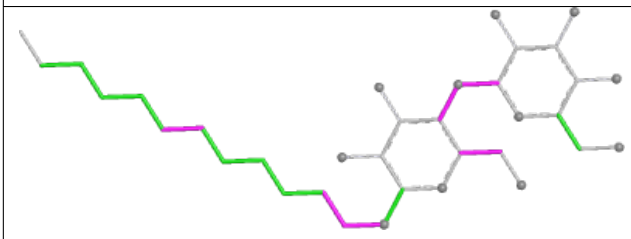
Ligand LMT BH 1002



Bond lengths



Bond angles



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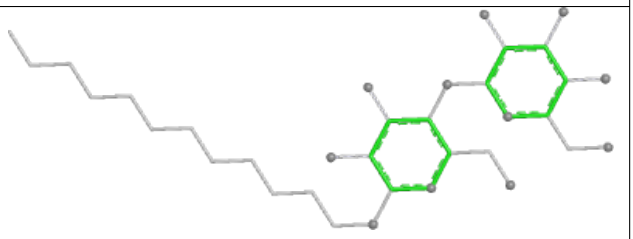
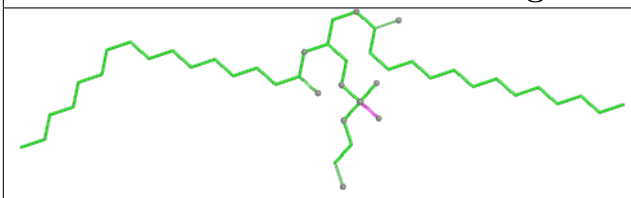
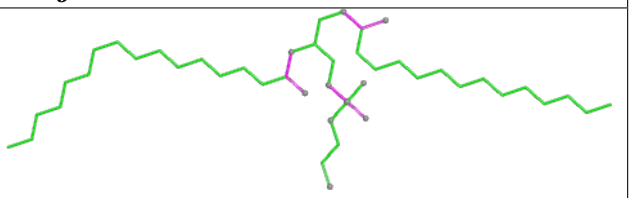


Rings

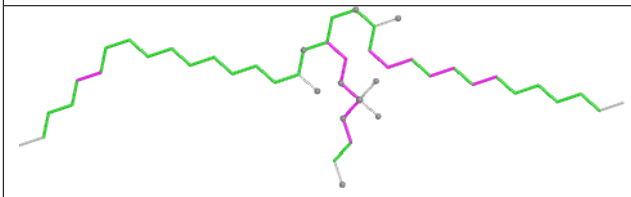
Ligand 0V9 bj 103



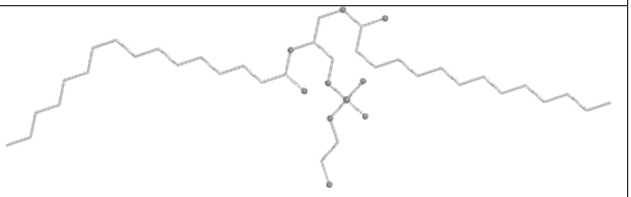
Bond lengths



Bond angles

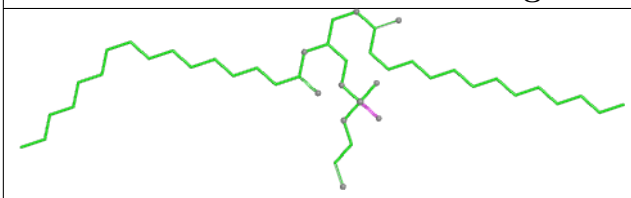


Torsions



Rings

Ligand 0V9 bo 103



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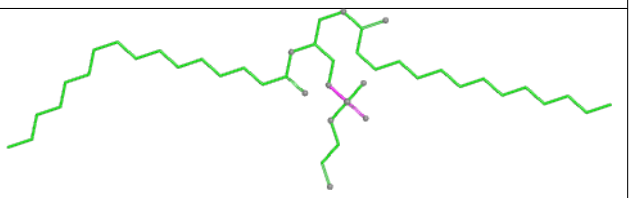
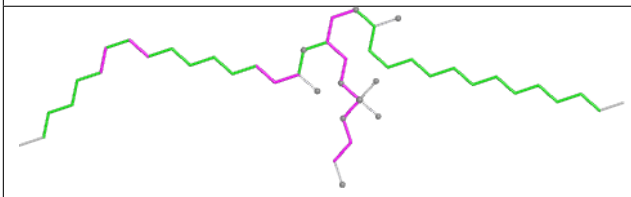


Bond angles



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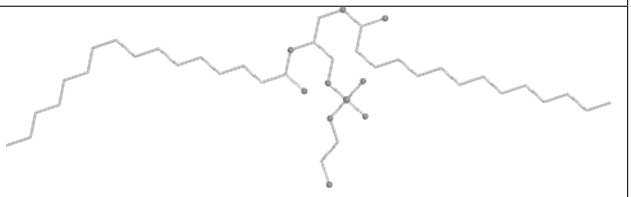
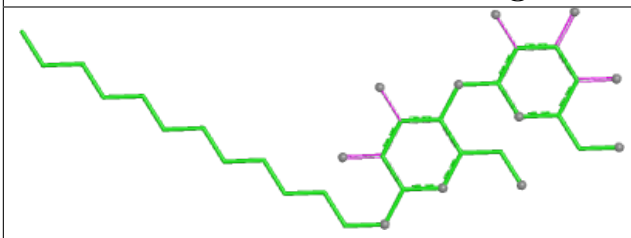
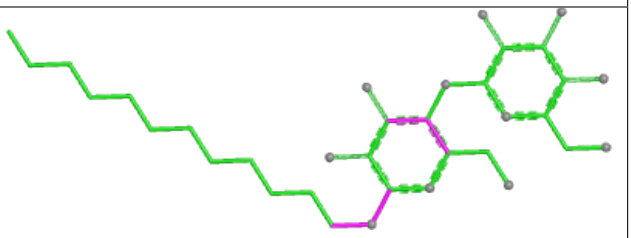


Rings

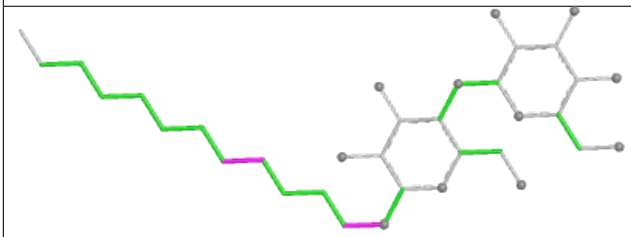
Ligand LMT BT 102



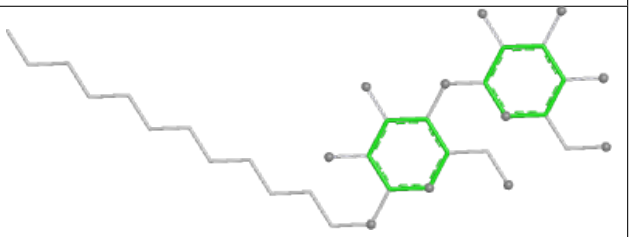
Bond lengths



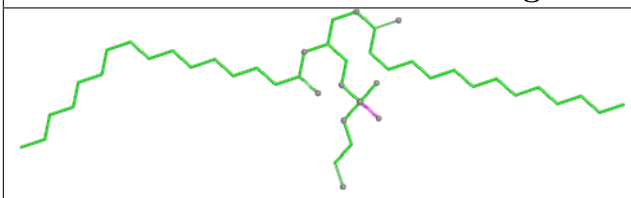
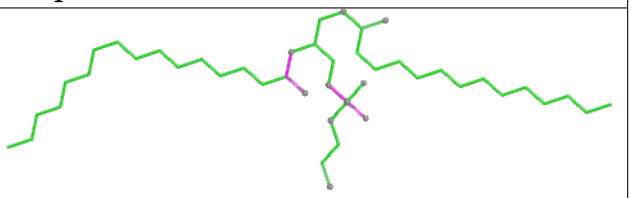
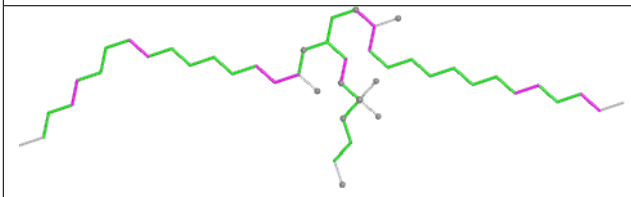
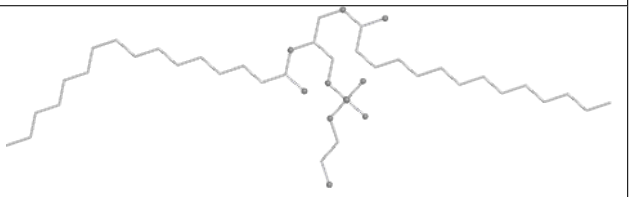
Bond angles

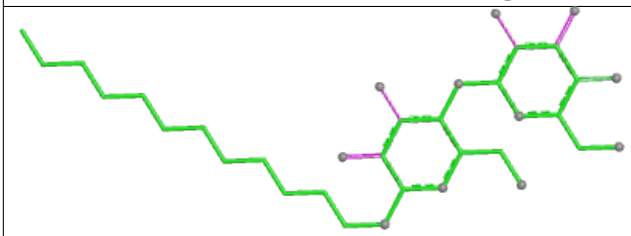
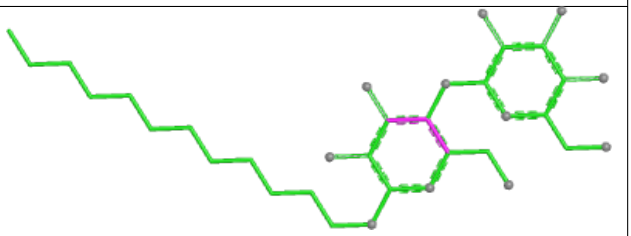
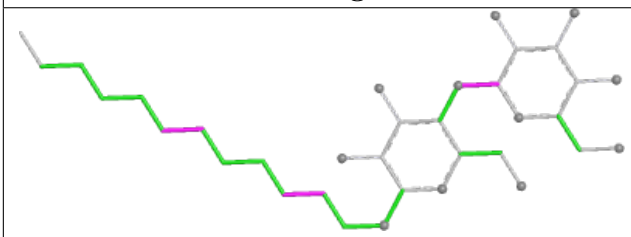
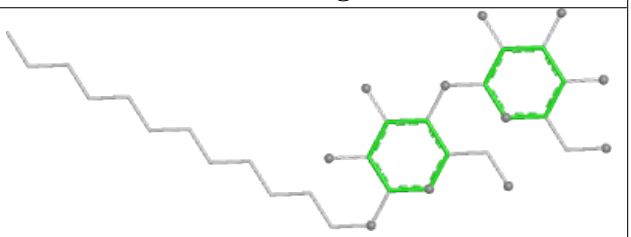


Torsions

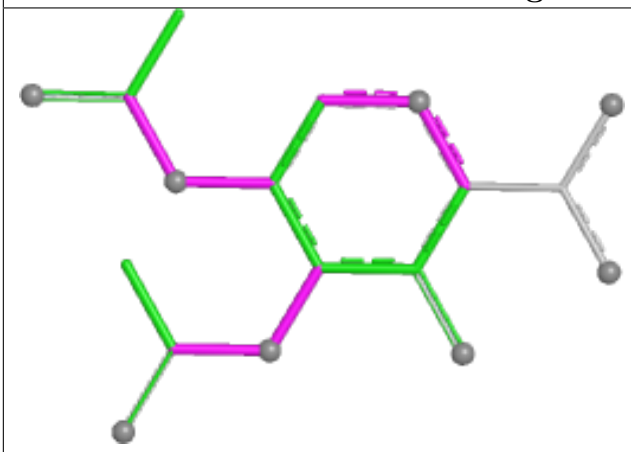


Rings

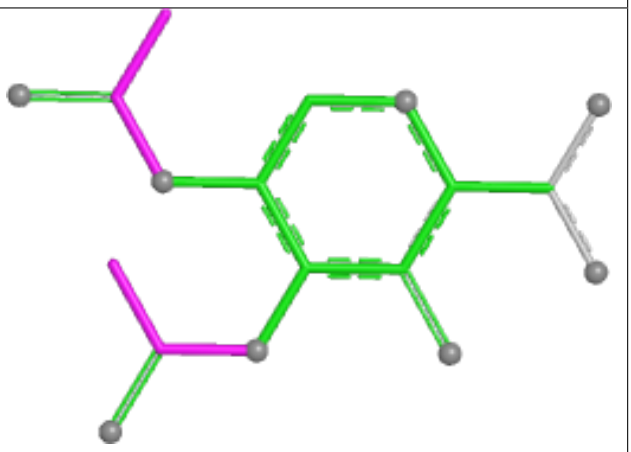
Ligand 0V9 bp 105	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand LMT BR 1004	
 Bond lengths	 Bond angles
 Torsions	 Rings

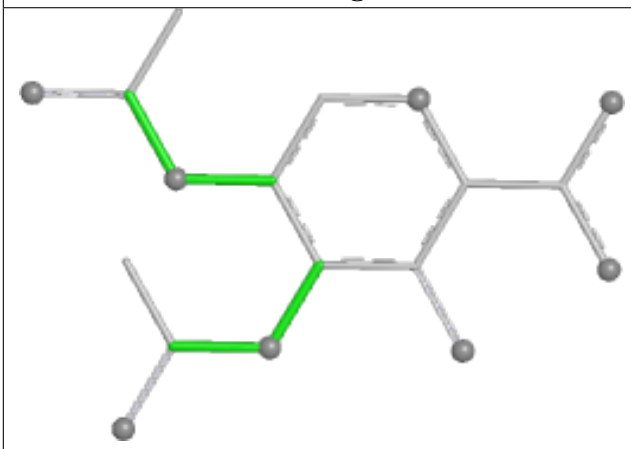
Ligand V75 M 410



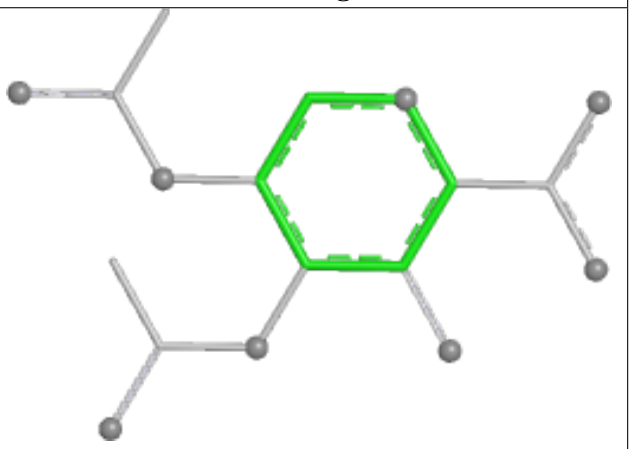
Bond lengths



Bond angles

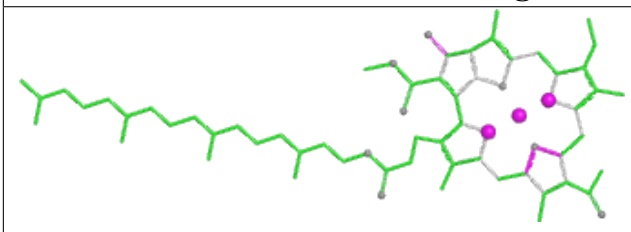


Torsions

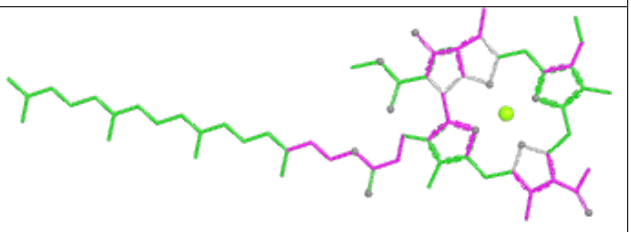


Rings

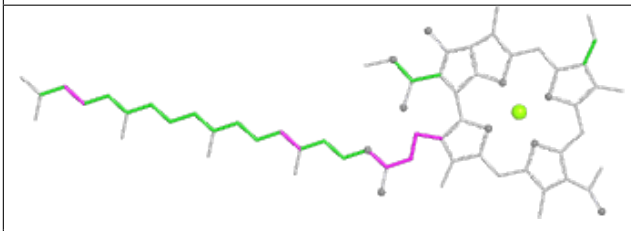
Ligand BCL AL 103



Bond lengths



Bond angles



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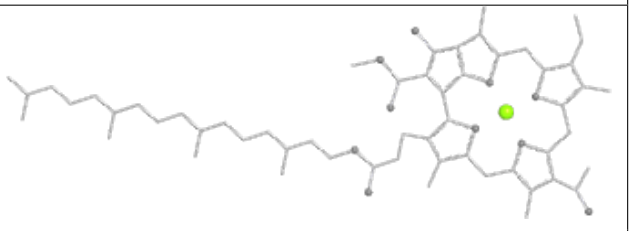
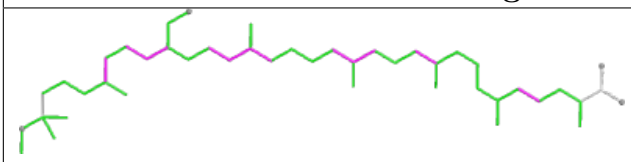
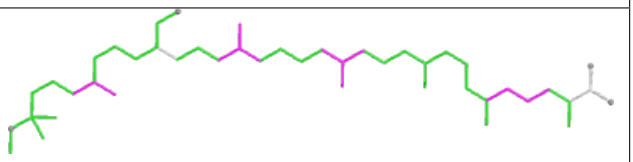


Rings

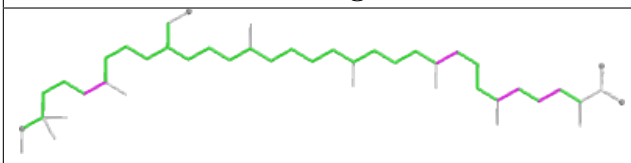
Ligand V7N BR 1001



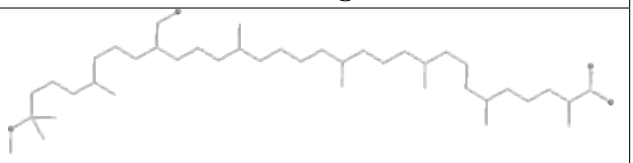
Bond lengths



Bond angles

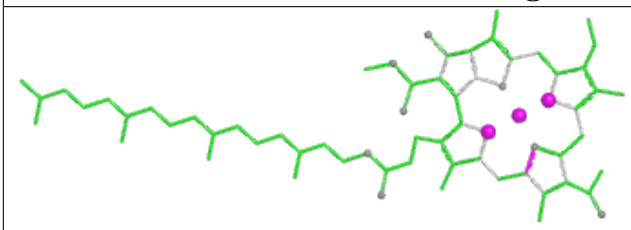


Torsions

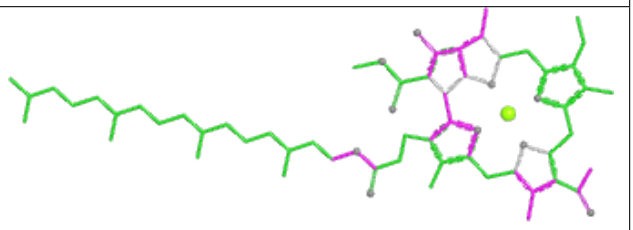


Rings

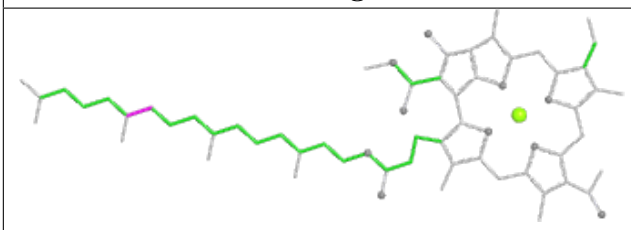
Ligand BCL ai 101



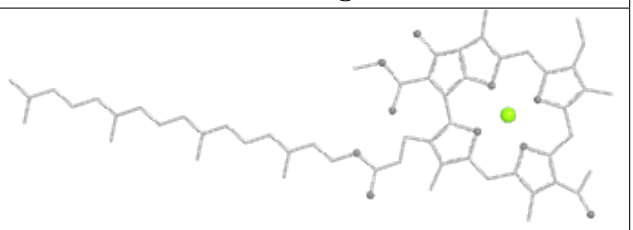
Bond lengths



Bond angles

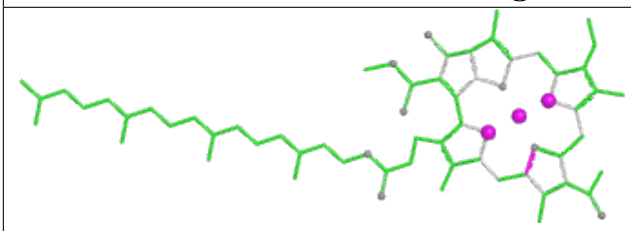


Torsions

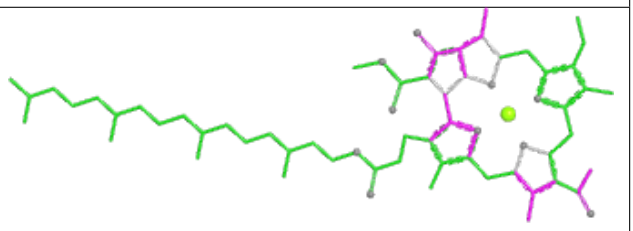


Rings

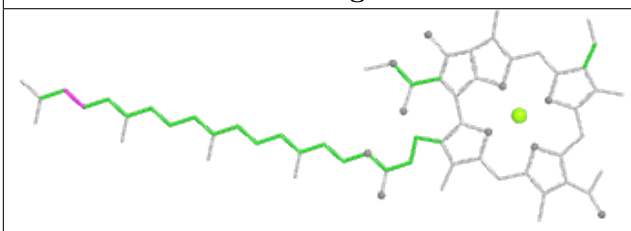
Ligand BCL AR 101



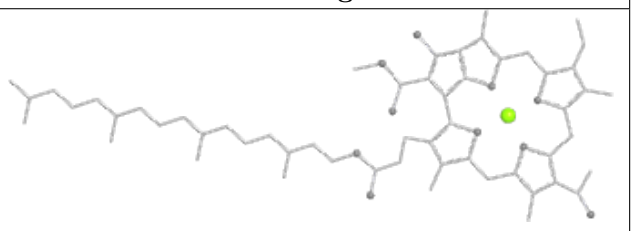
Bond lengths



Bond angles

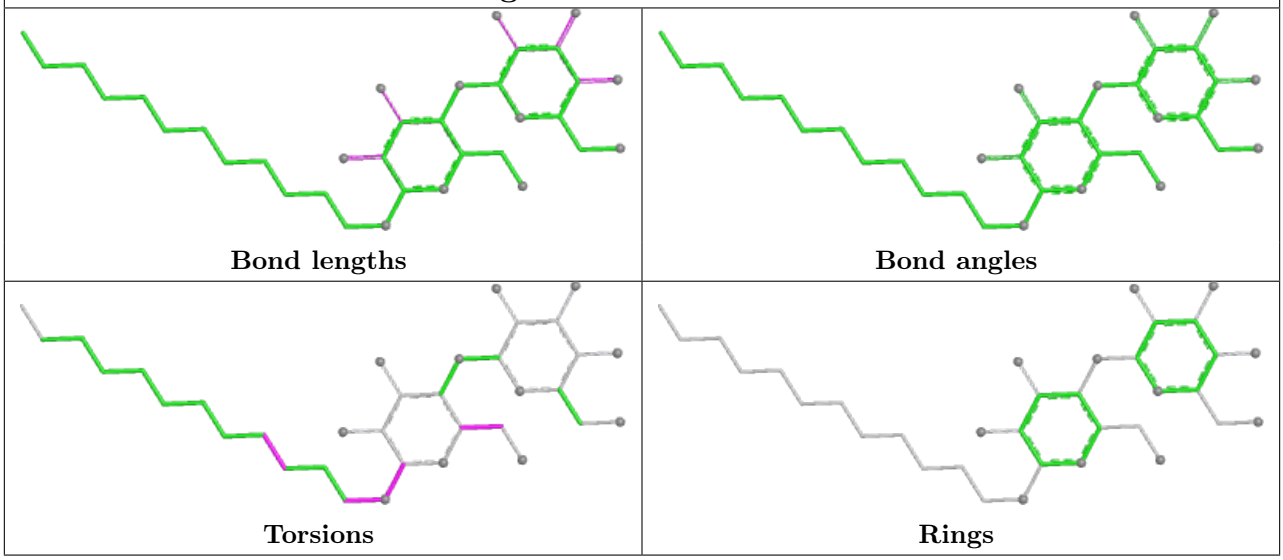


Torsions

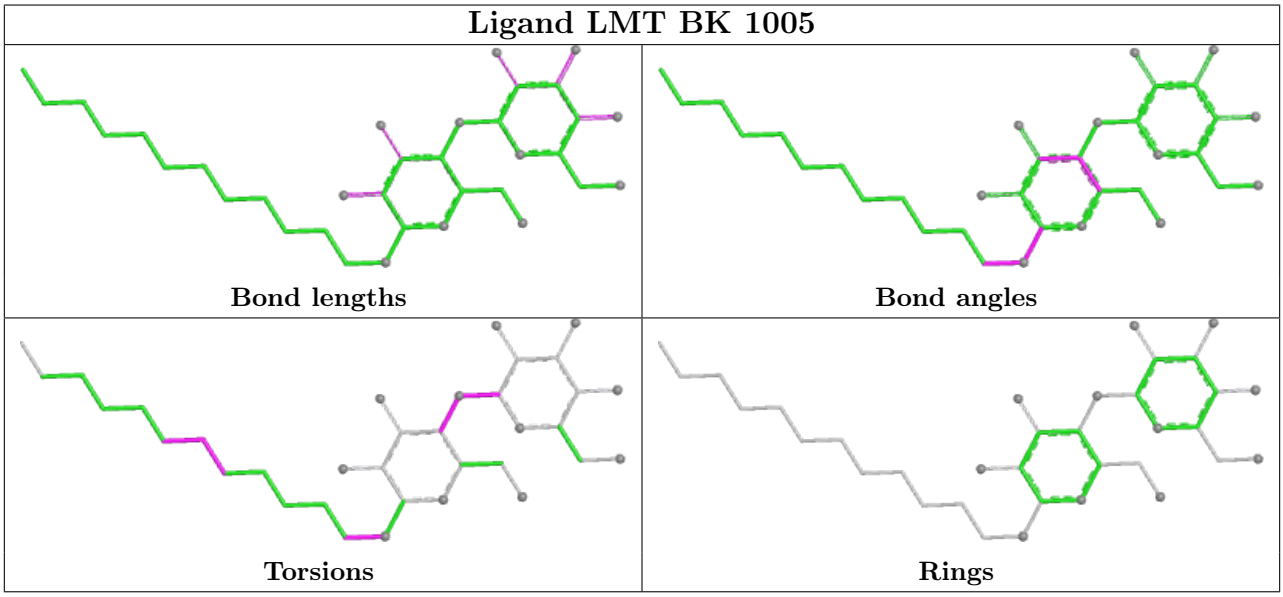


Rings

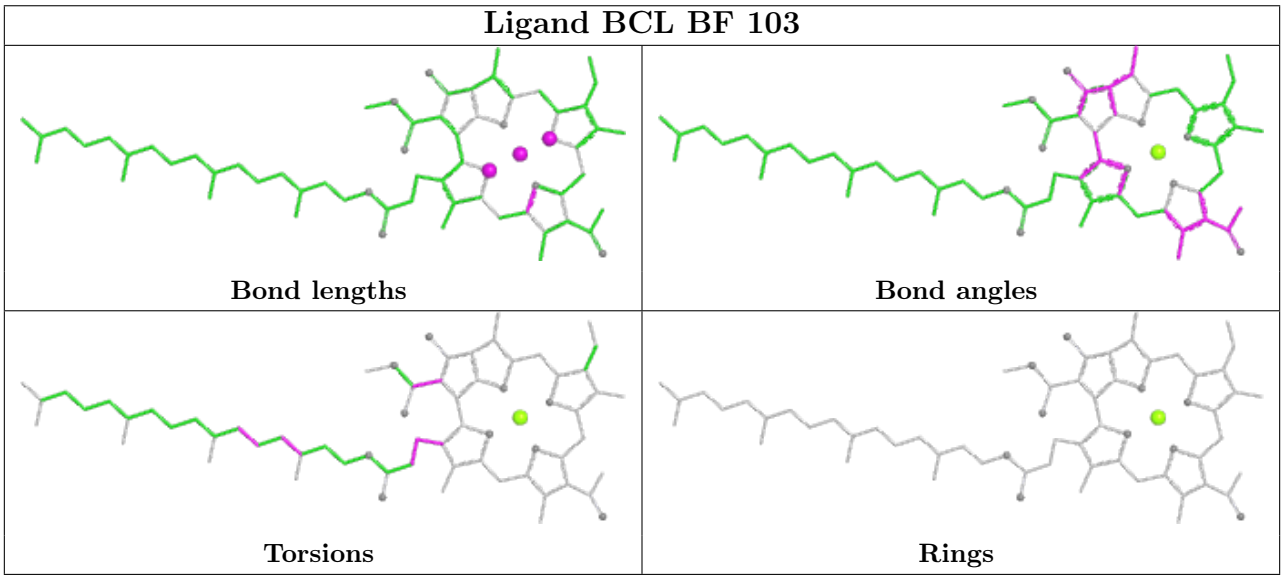
Ligand LMT BO 1004

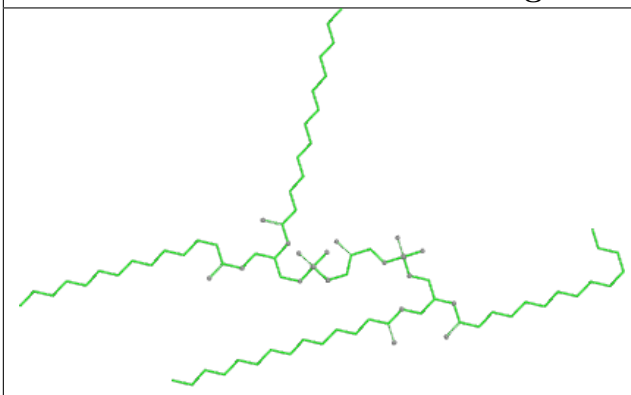
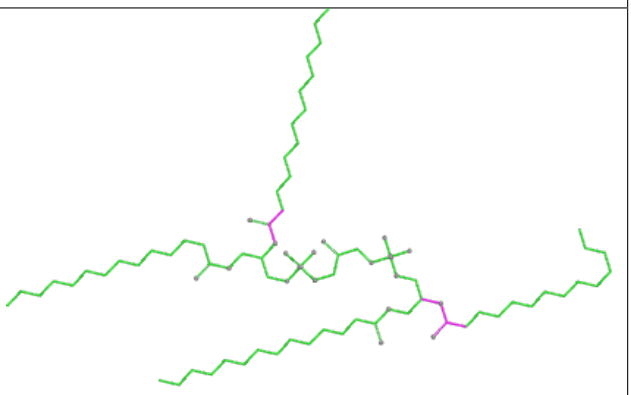
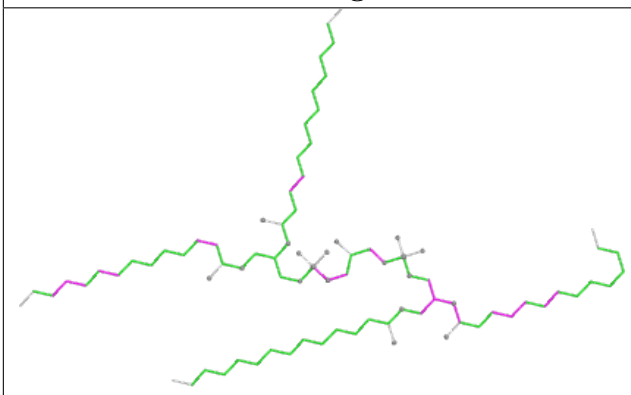
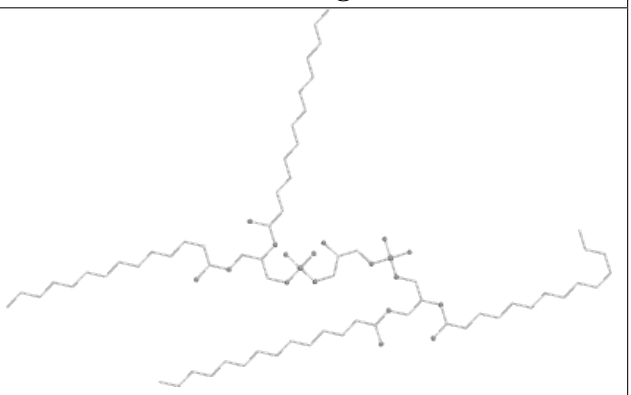


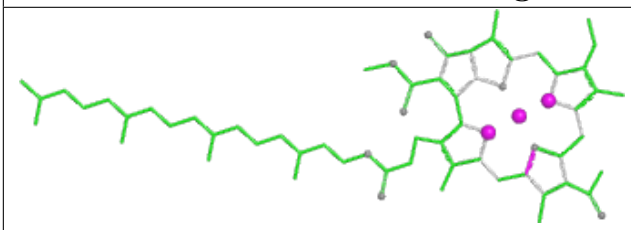
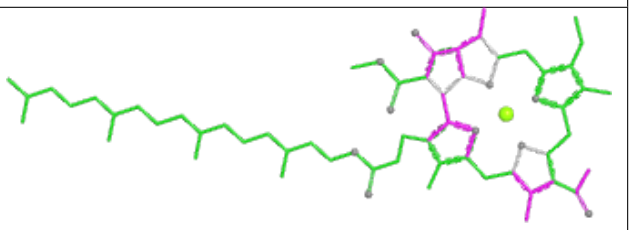
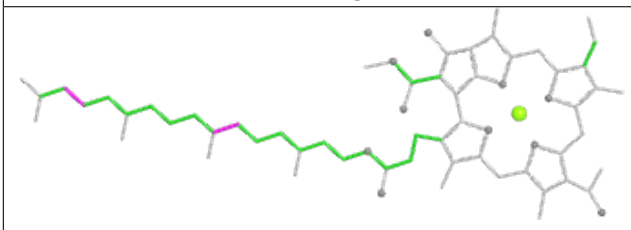
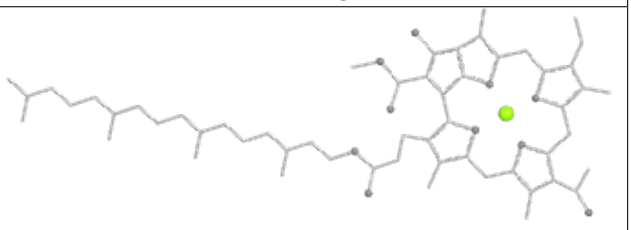
Ligand LMT BK 1005



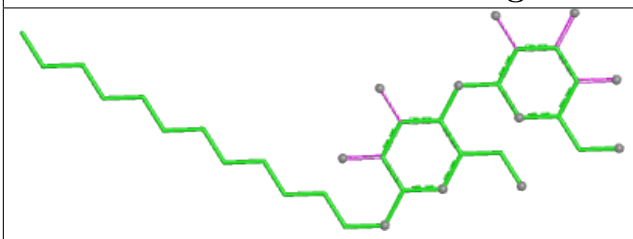
Ligand BCL BF 103

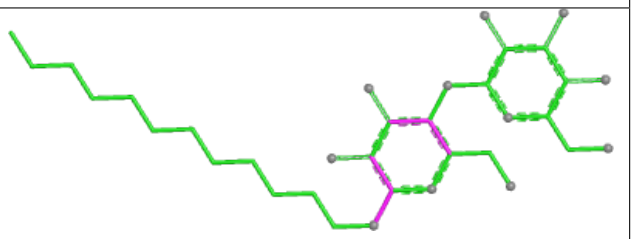


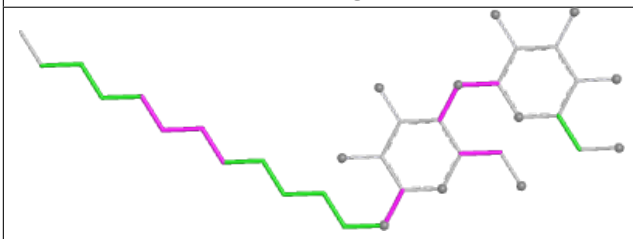
Ligand CD4 af 104	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand BCL AT 101	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand LMT AG 101


Bond lengths


Bond angles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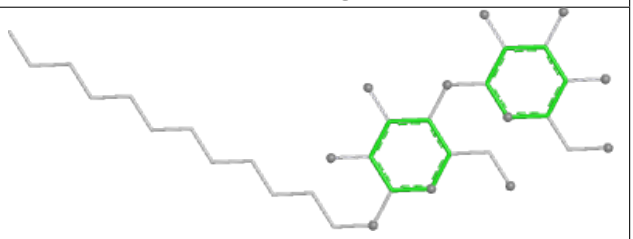
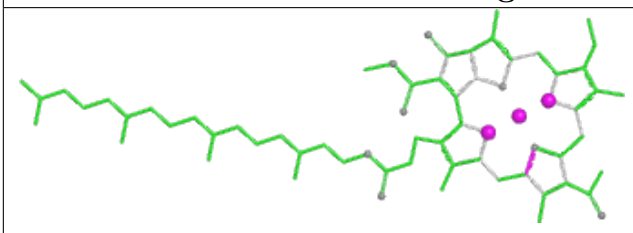
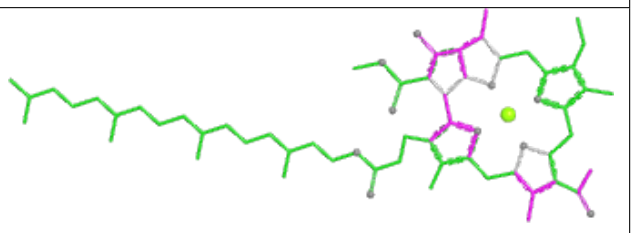
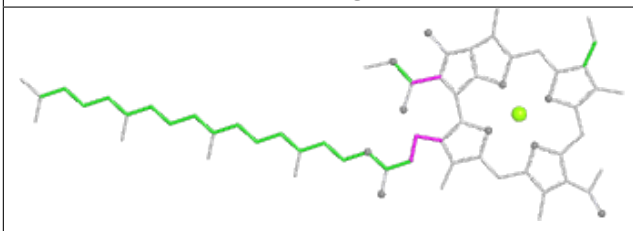

Rings

Ligand BCL BW 1005


Bond lengths


Bond angles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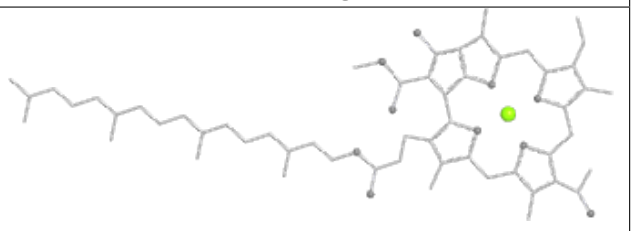
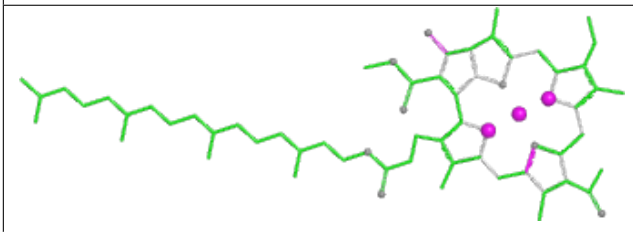
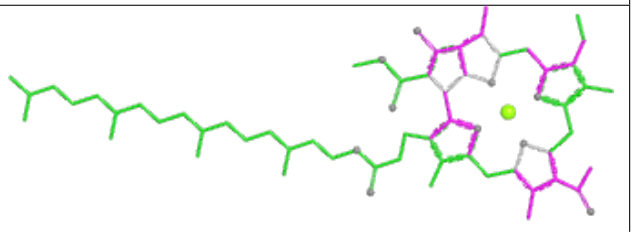

Rings

Ligand BCL AC 101


Bond lengths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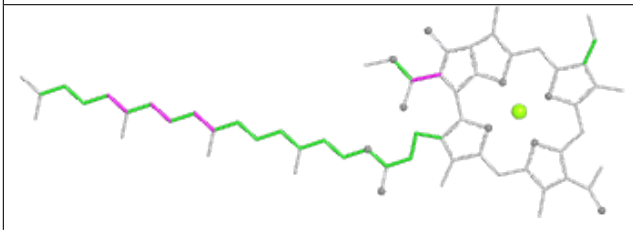
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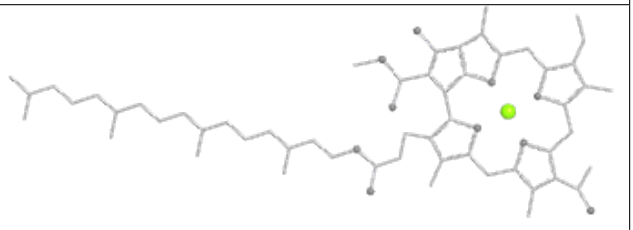
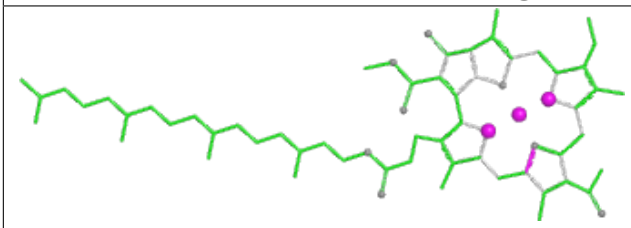
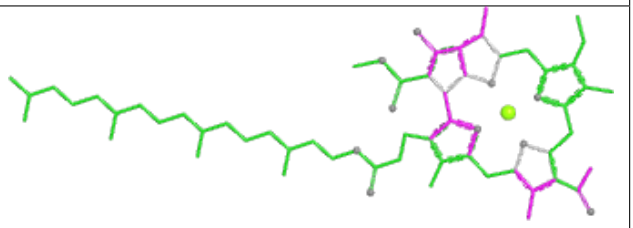

Rings

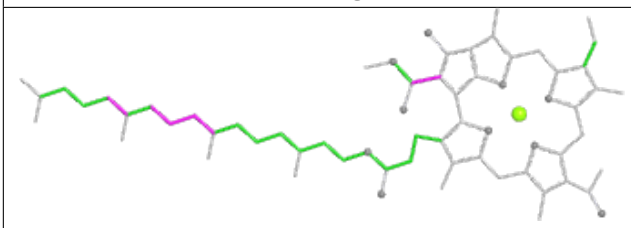
Ligand BCL AJ 104



Bond lengths



Bond angles



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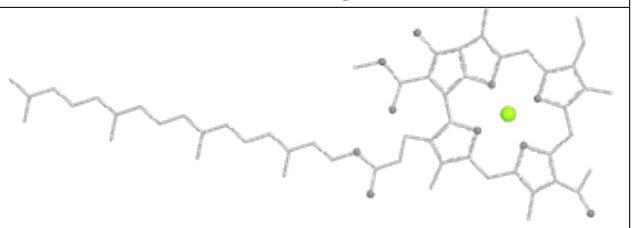
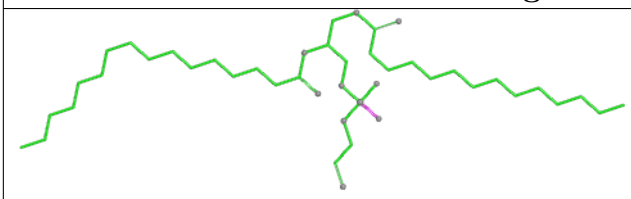
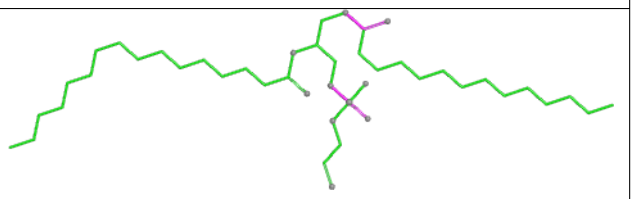


Rings

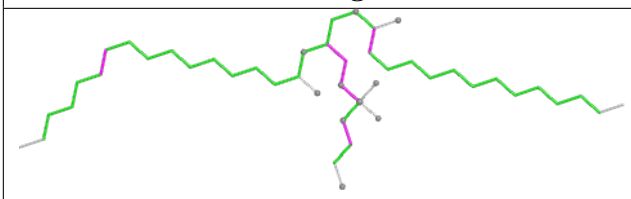
Ligand 0V9 bh 104



Bond lengths



Bond angles



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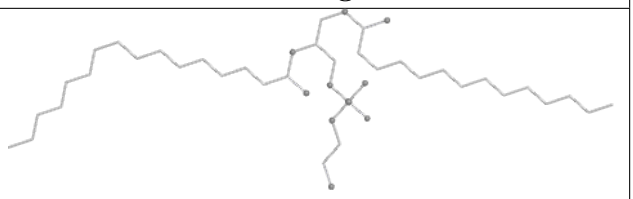
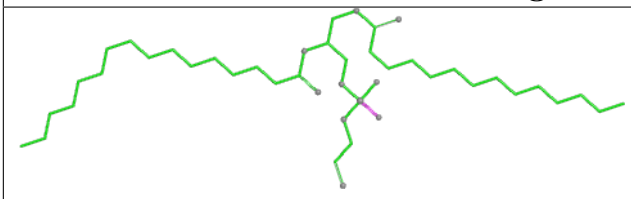


Rings

Ligand 0V9 bl 102



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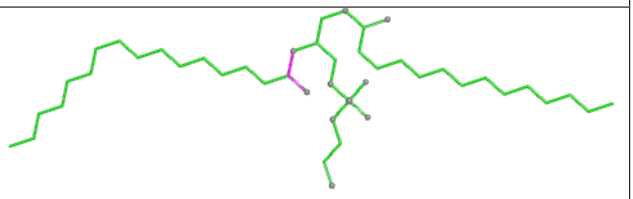
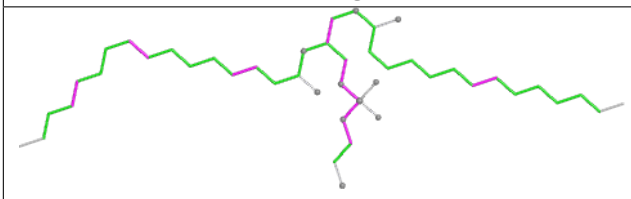


Bond angles



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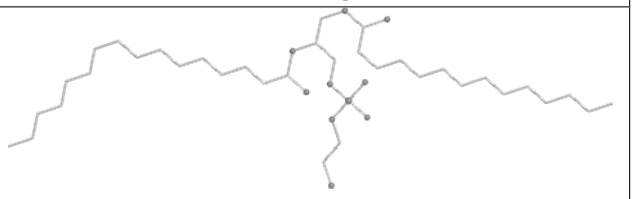
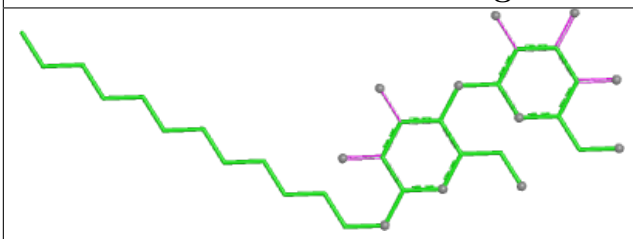


Rings

Ligand LMT BW 1003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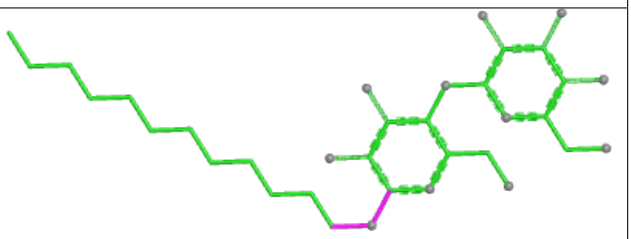
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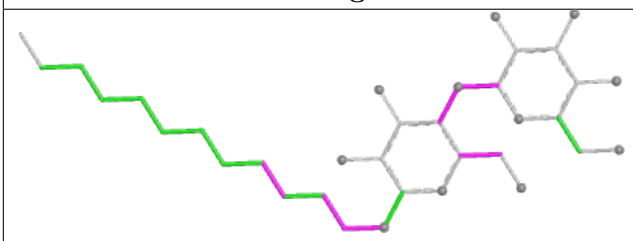
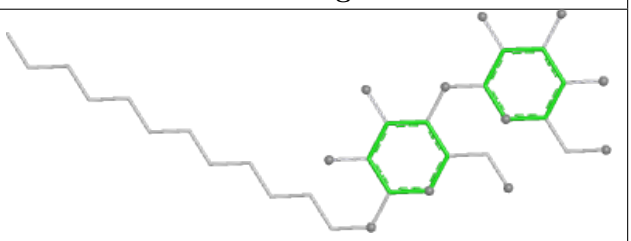
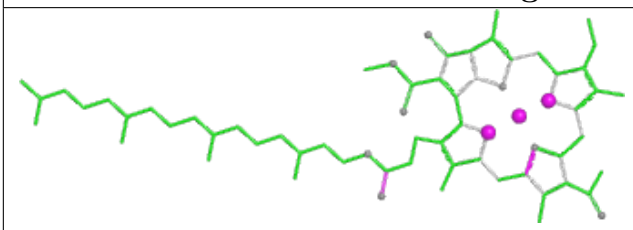

Torsions


Rings

Ligand BCL M 408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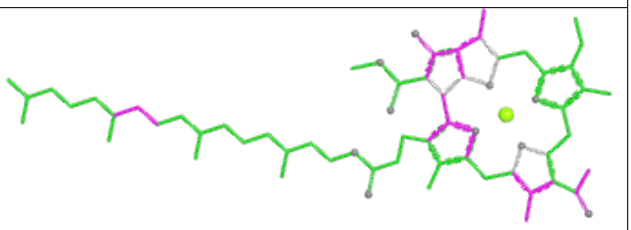
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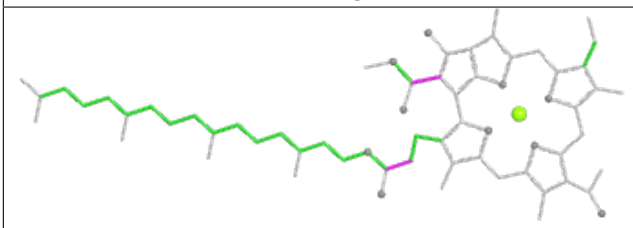
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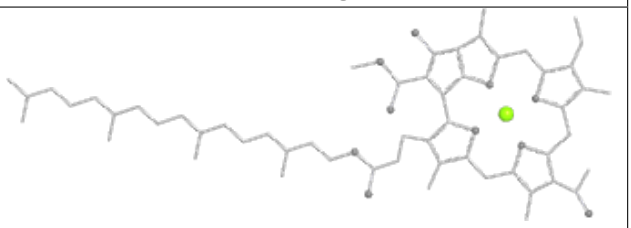
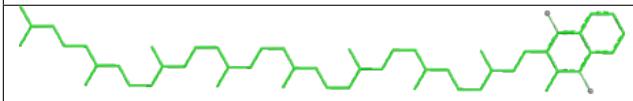
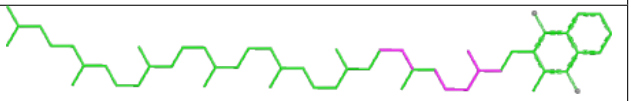
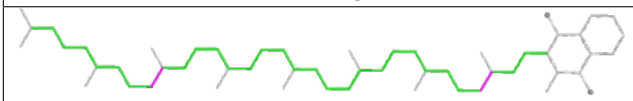
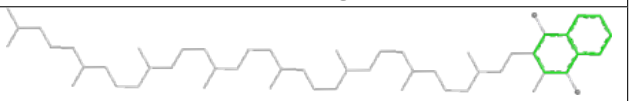

Rings

Ligand MQ8 M 402

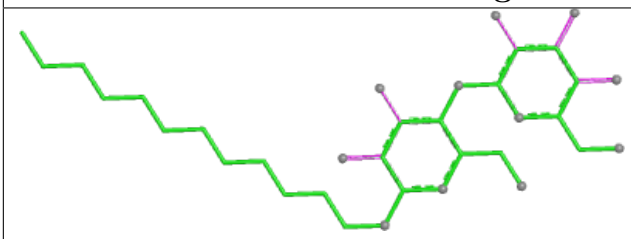

Bond lengths


Bond angles

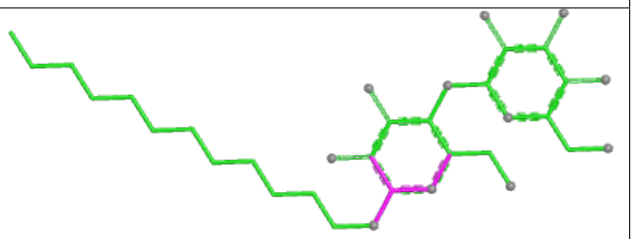

Torsions


Rings

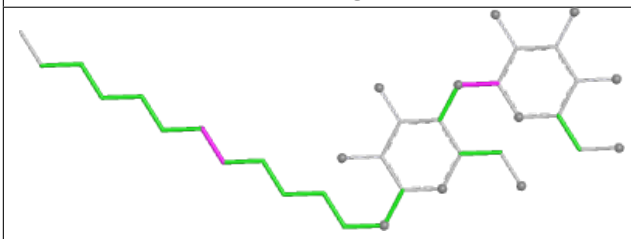
Ligand LMT BW 1006



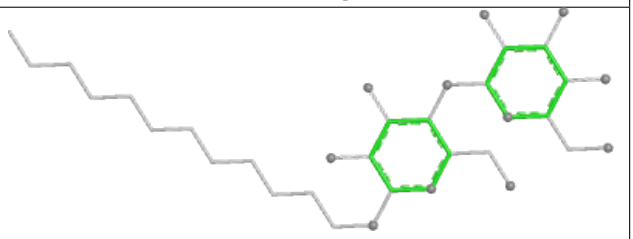
Bond lengths



Bond angles

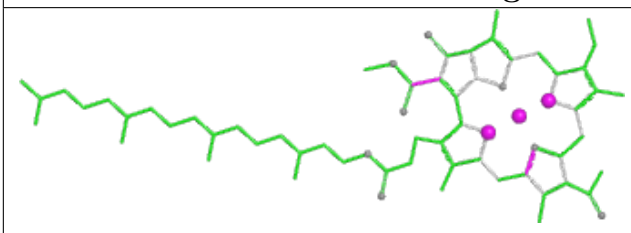


Torsions

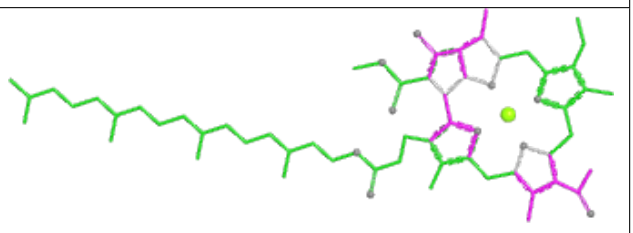


Rings

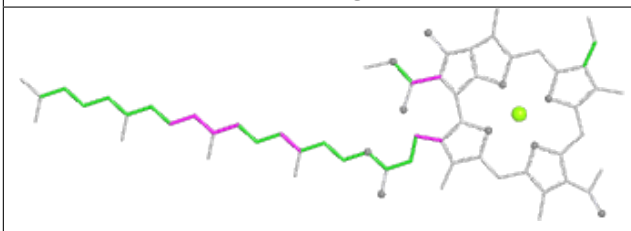
Ligand BCL BR 1003



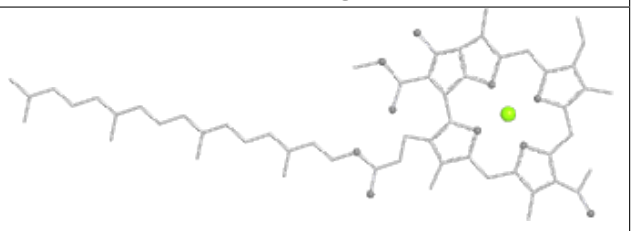
Bond lengths



Bond angles

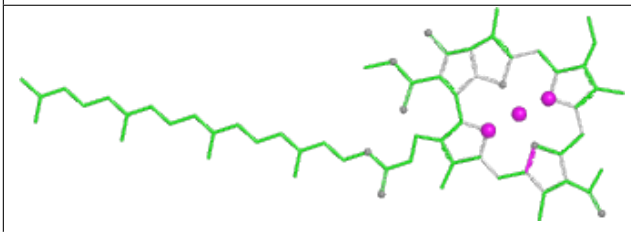


Torsions

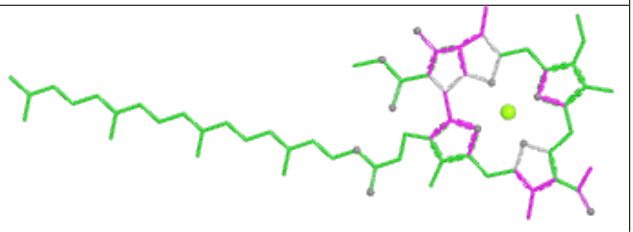


Rings

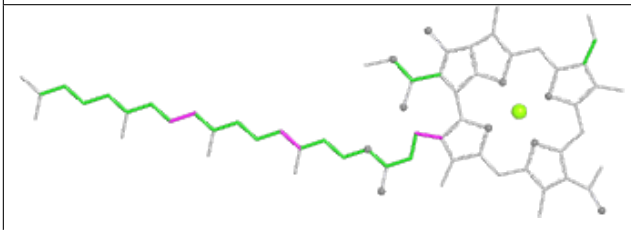
Ligand BCL bi 102



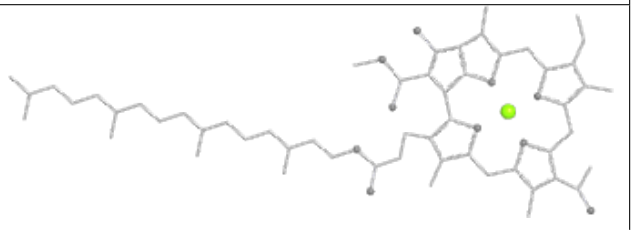
Bond lengths



Bond angles

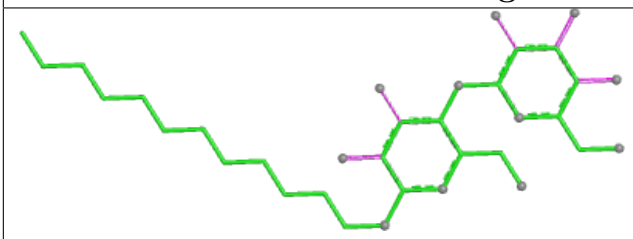


Torsions



Rings

Ligand LMT BN 1004



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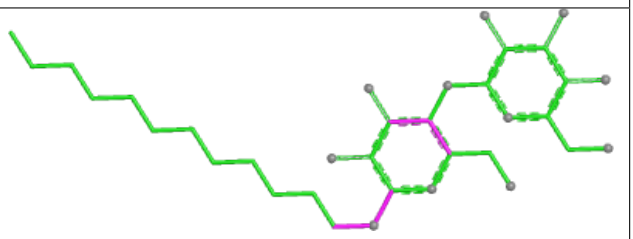
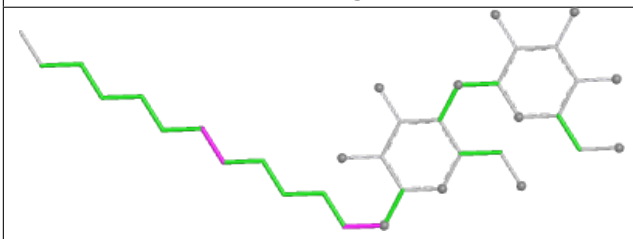
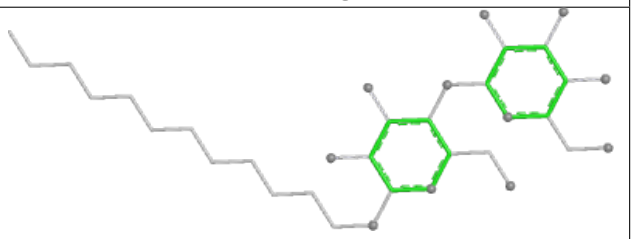


Bond angles

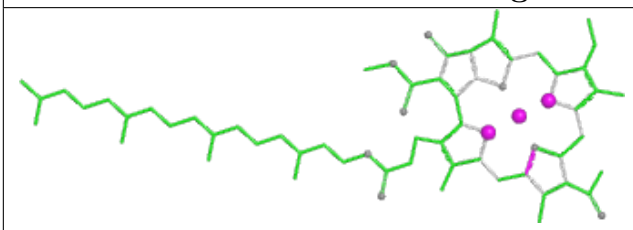


Torsions

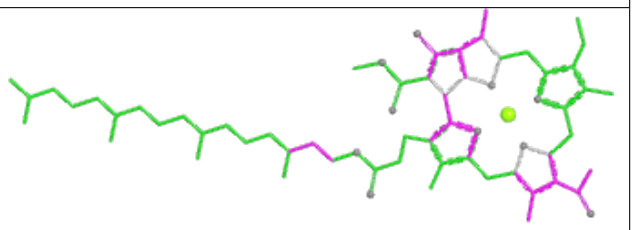


Rings

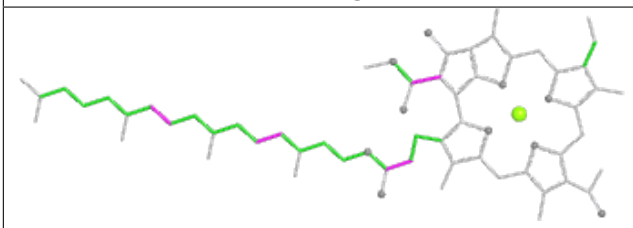
Ligand BCL AD 103



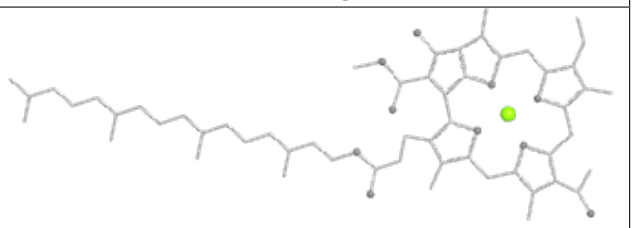
Bond lengths



Bond angles

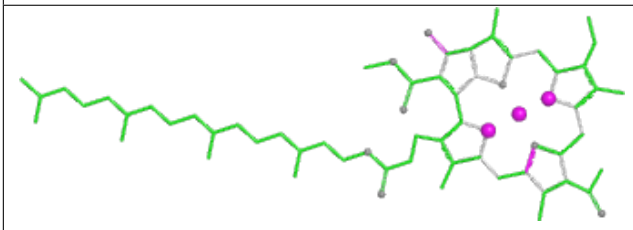


Torsions

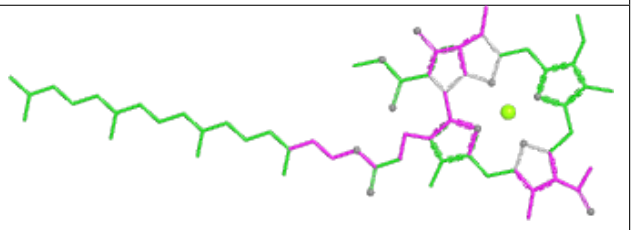


Rings

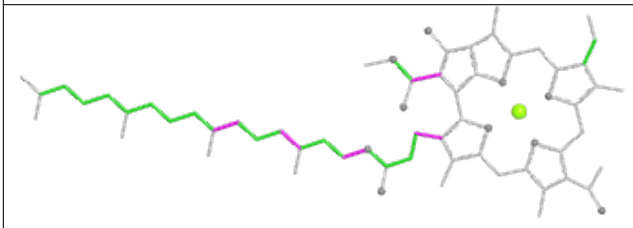
Ligand BCL AQ 102



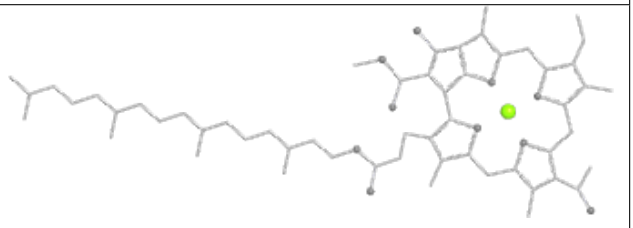
Bond lengths



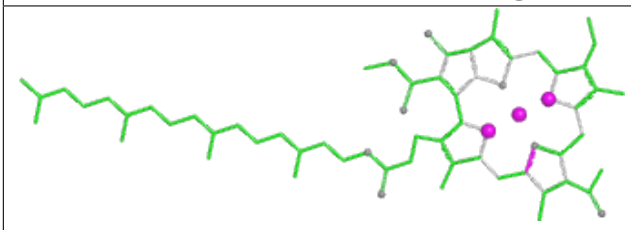
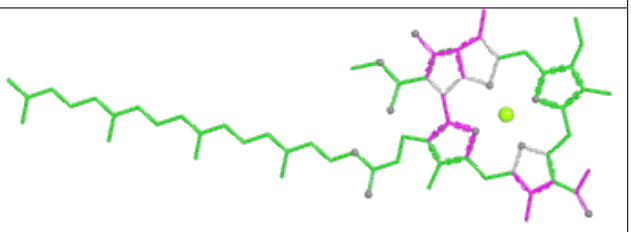
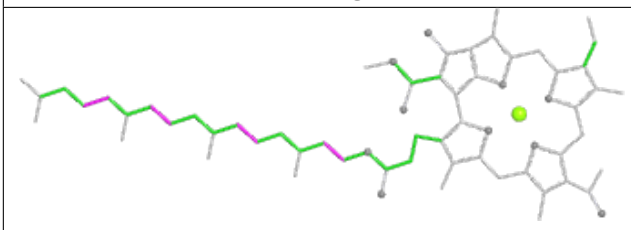
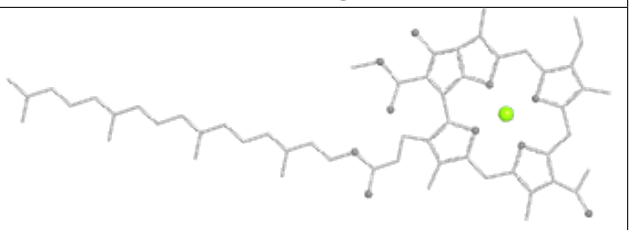
Bond angles

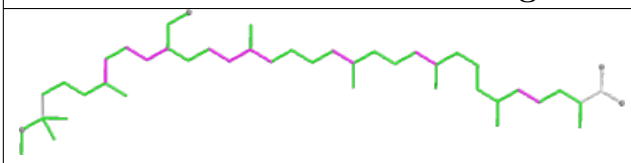
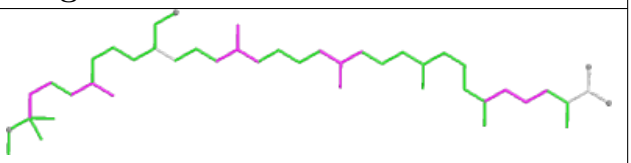
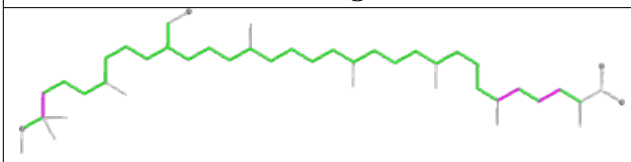
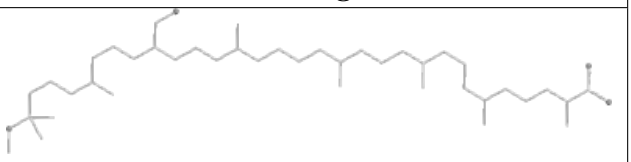


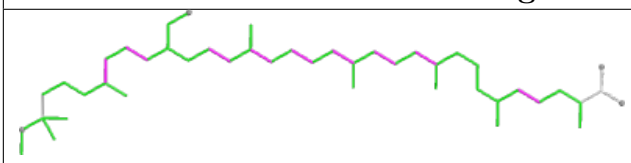
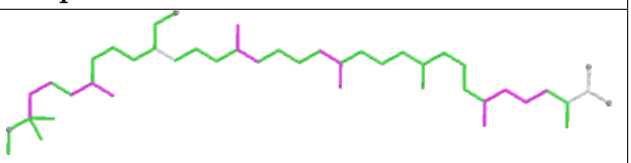
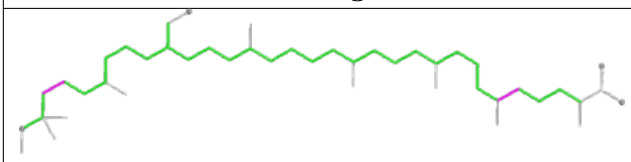
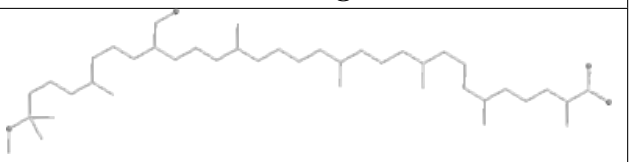
Torsions



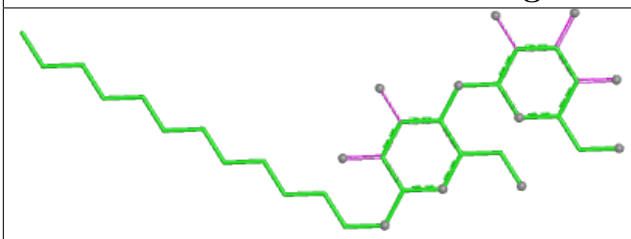
Rings

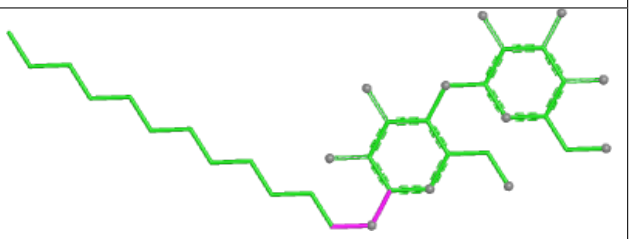
Ligand BCL ah 1001	
 Bond lengths	 Bond angles
 Torsions	 Rings

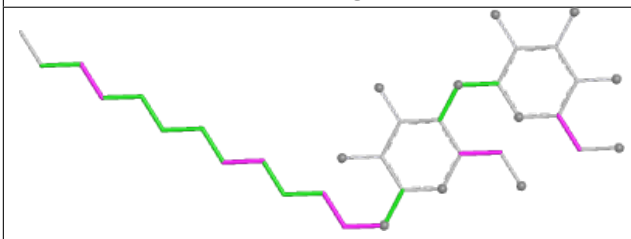
Ligand V7N bg 101	
 Bond lengths	 Bond angles
 Torsions	 Rings

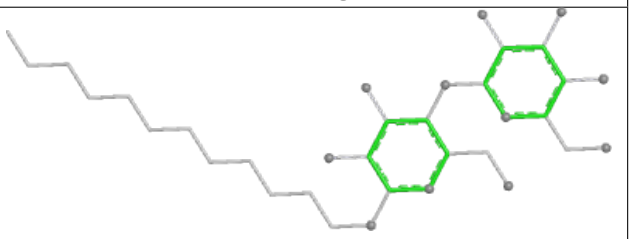
Ligand V7N bp 102	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand LMT L 306

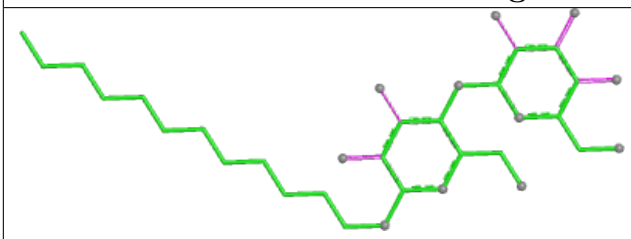

Bond lengths


Bond angles


Torsions


Rings

Ligand LMT BB 103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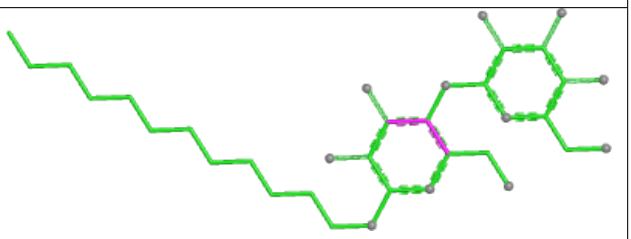
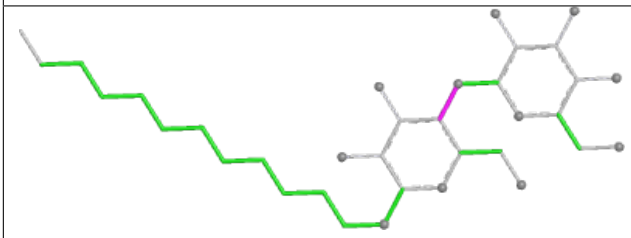
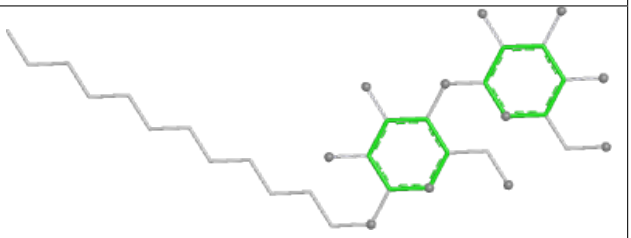
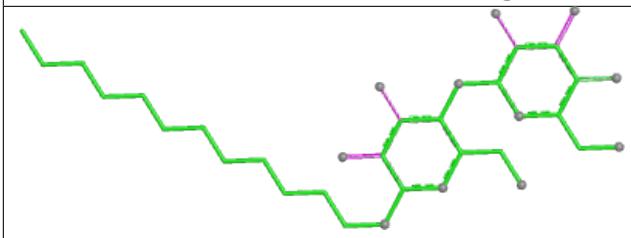
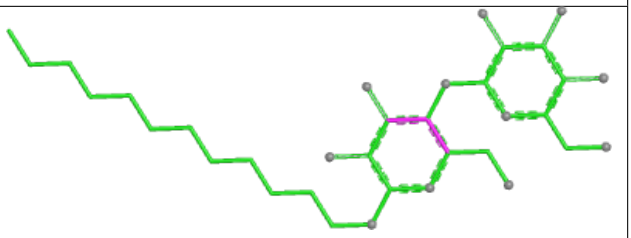

Bond angles

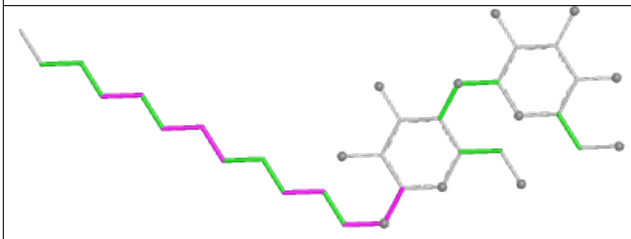

Torsions

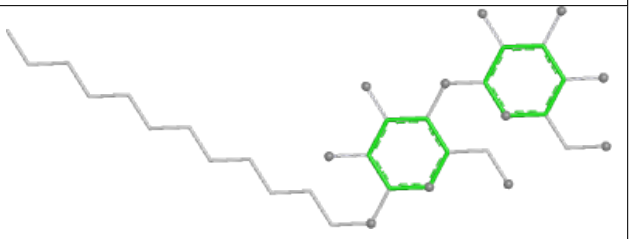

Rings

Ligand LMT AA 1003

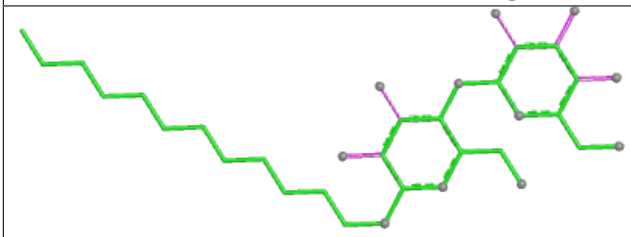

Bond lengths


Bond angles


Torsions


Rings

Ligand LMT BJ 1003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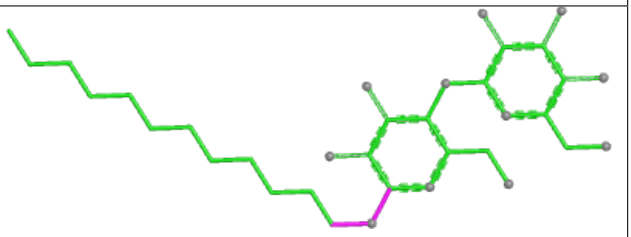
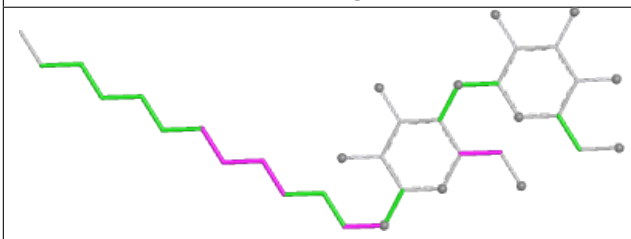
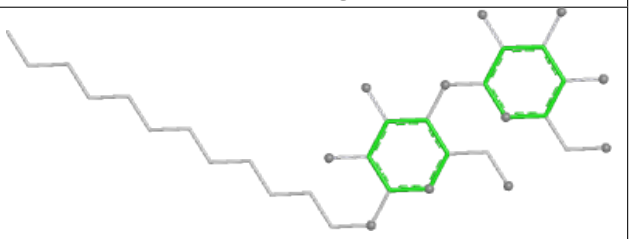
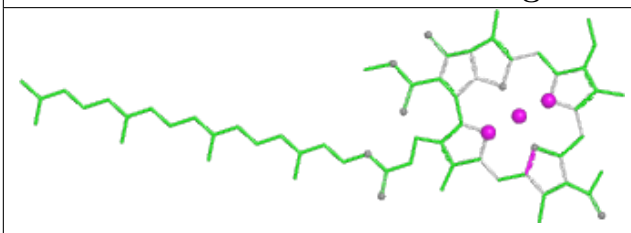

Bond angles


Torsions


Rings

Ligand BCL aj 101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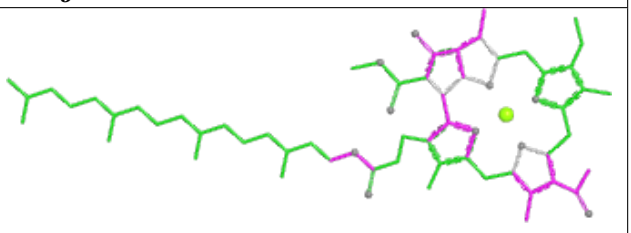
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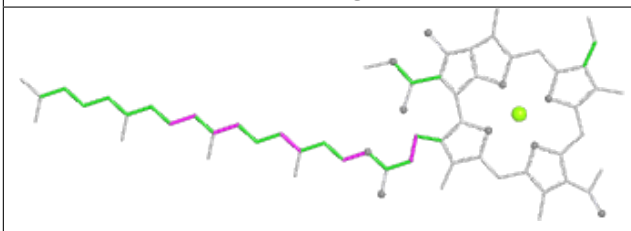
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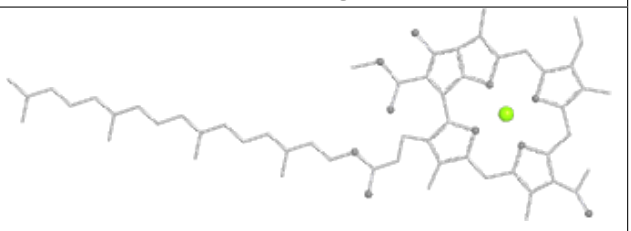
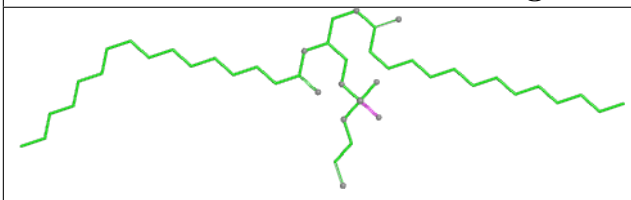
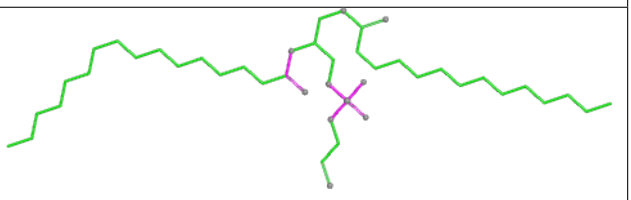
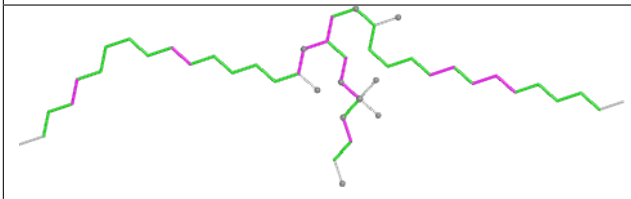
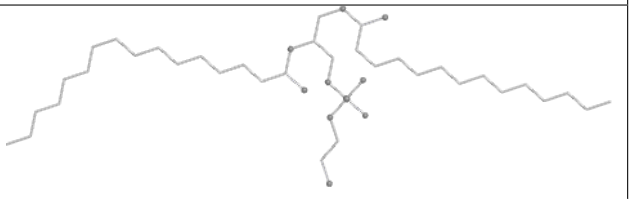

Rings

Ligand 0V9 M 403

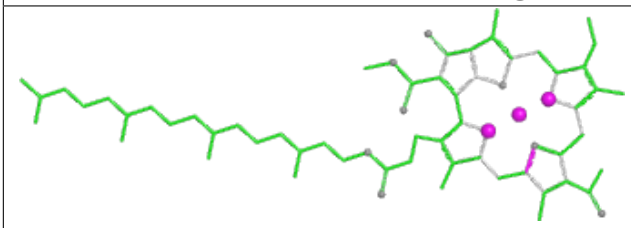

Bond lengths


Bond angles

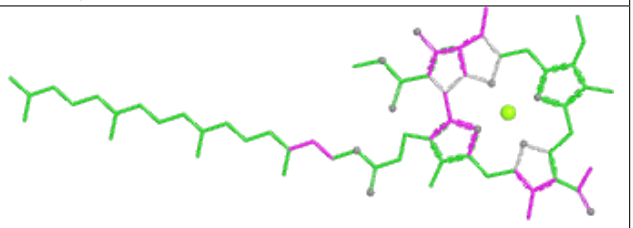

Torsions


Rings

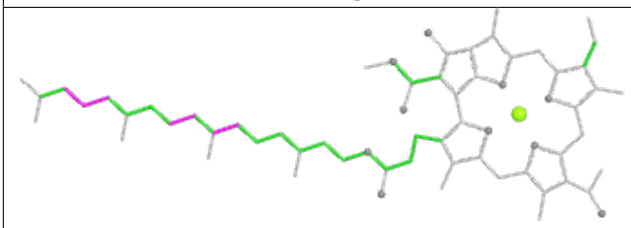
Ligand BCL AQ 103



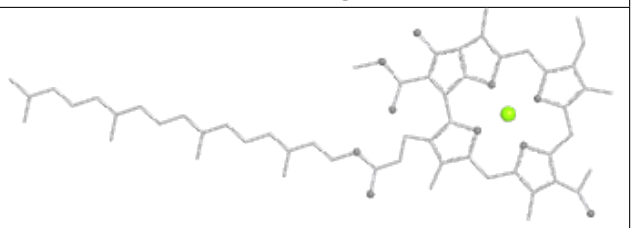
Bond lengths



Bond angles

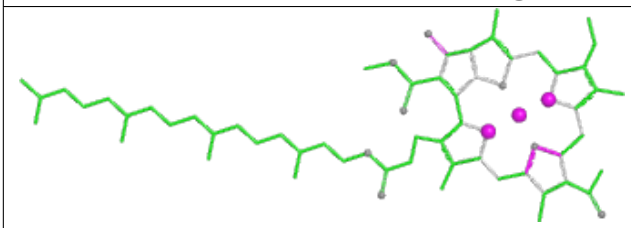


Torsions

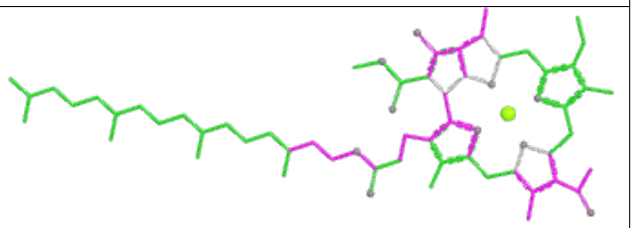


Rings

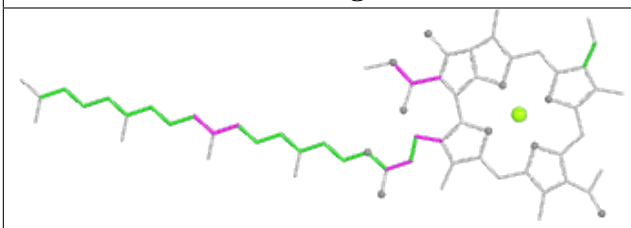
Ligand BCL AH 105



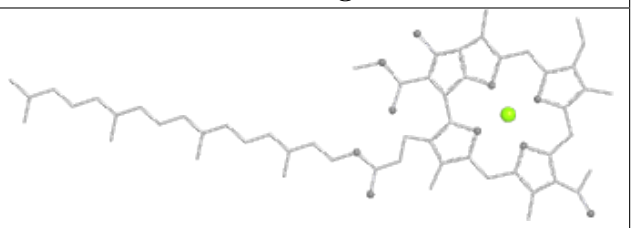
Bond lengths



Bond angles

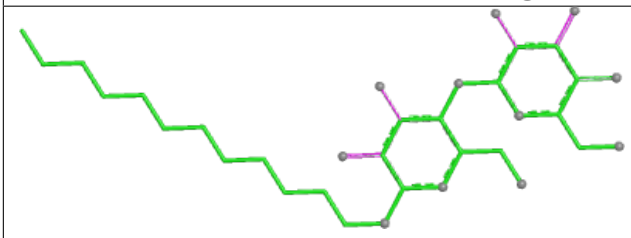


Torsions

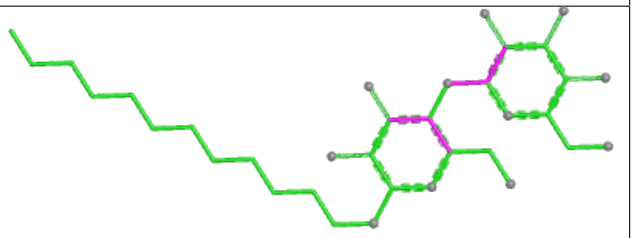


Rings

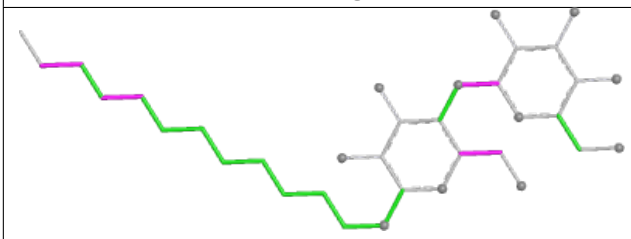
Ligand LMT bf 101



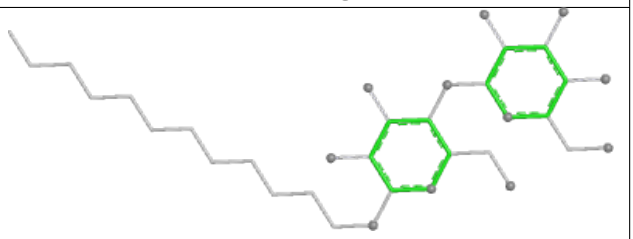
Bond lengths



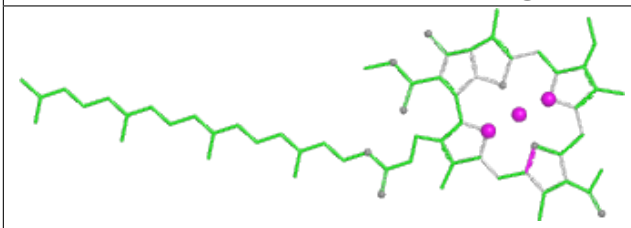
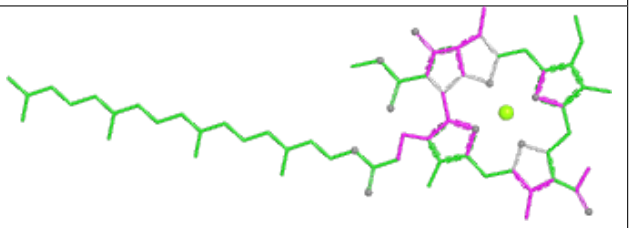
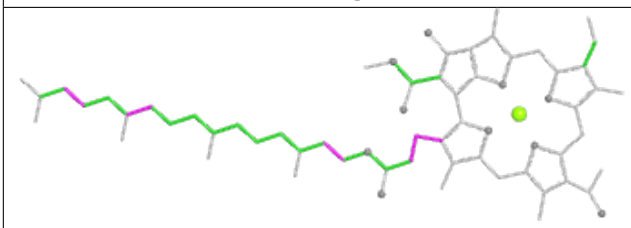
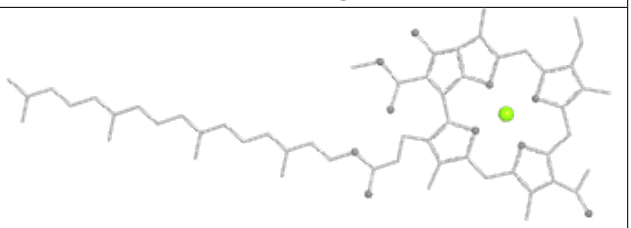
Bond angles

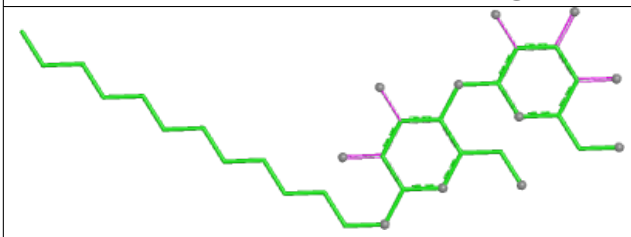
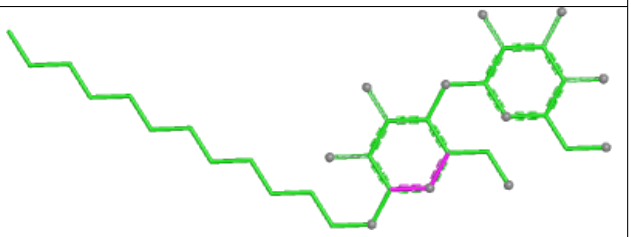
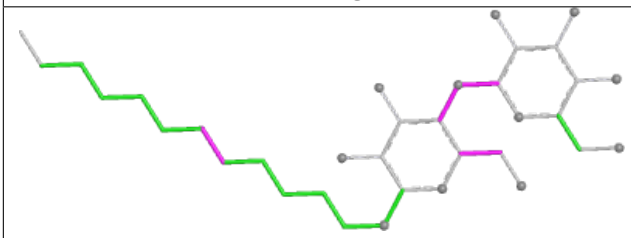
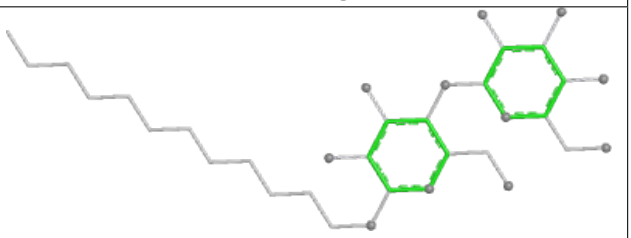


Torsions

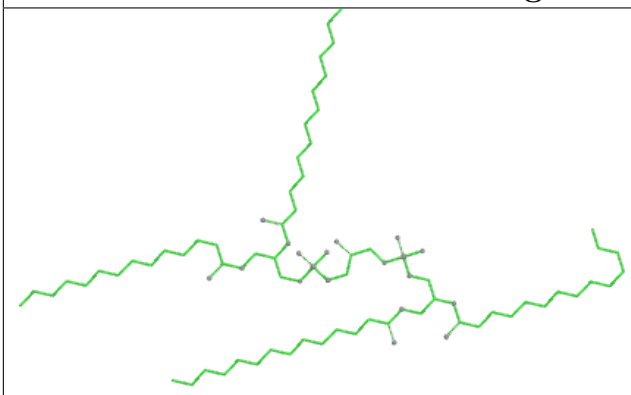


Rings

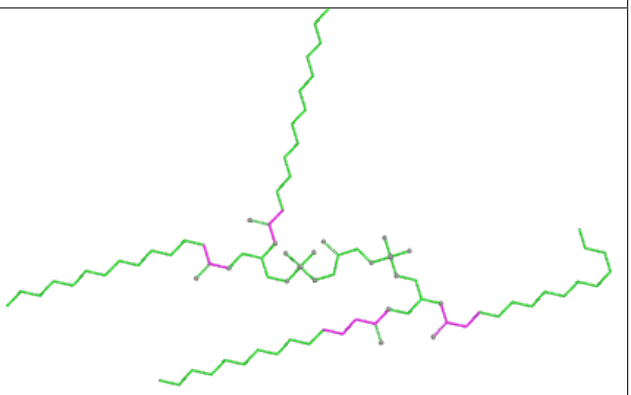
Ligand BCL bk 103	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand LMT BX 103	
 Bond lengths	 Bond angles
 Torsions	 Rings

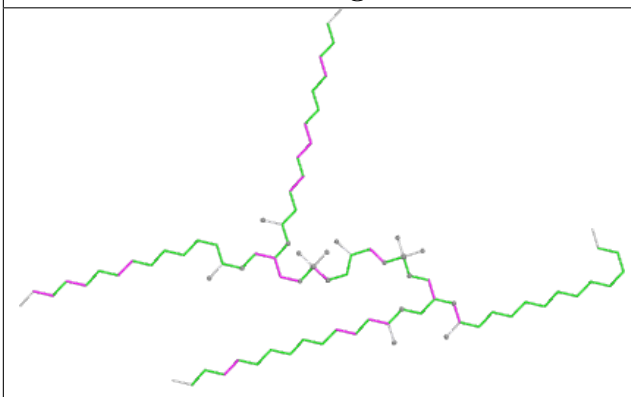
Ligand CD4 af 102



Bond lengths



Bond angles



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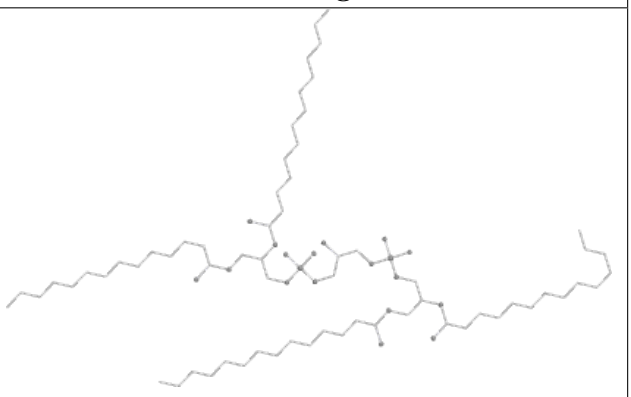
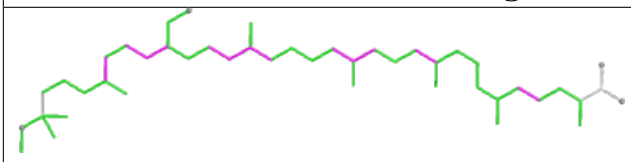
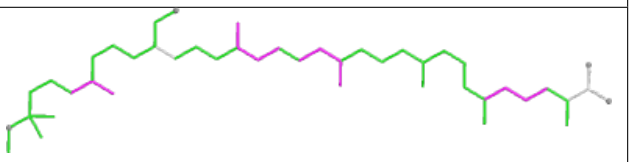


Rings

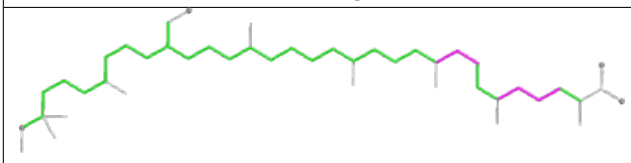
Ligand V7N BV 1001



Bond lengths



Bond angles



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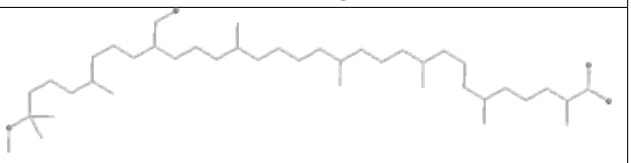
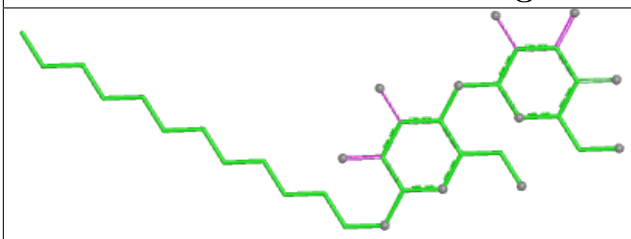


Rings

Ligand LMT be 101



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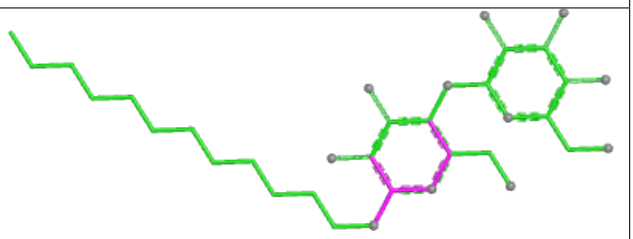

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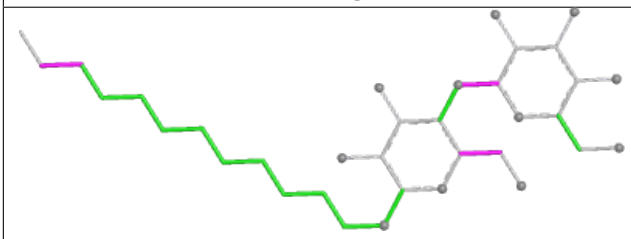

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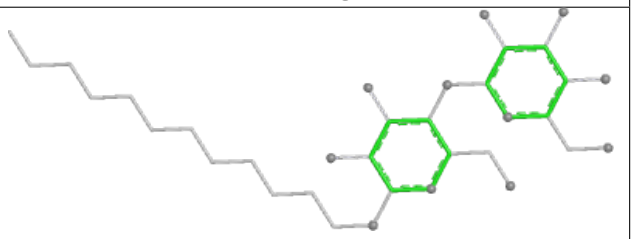
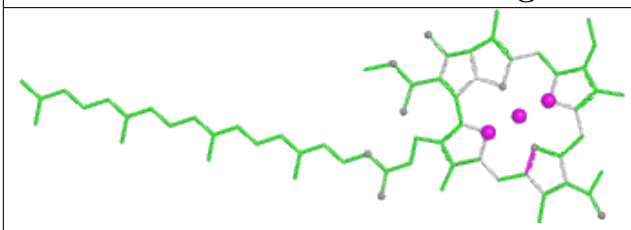


Rings

Ligand BCL AI 101



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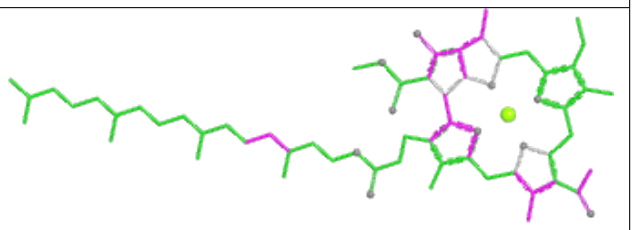

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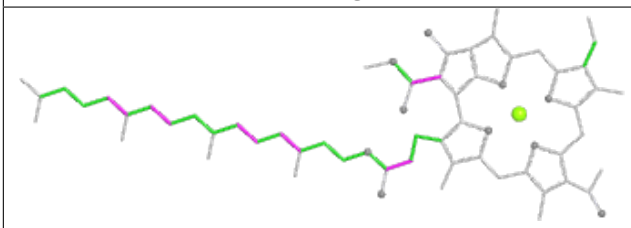

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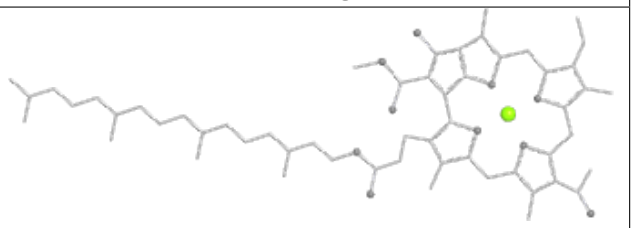
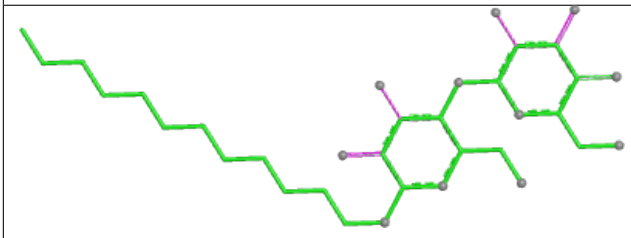


Rings

Ligand LMT BA 102



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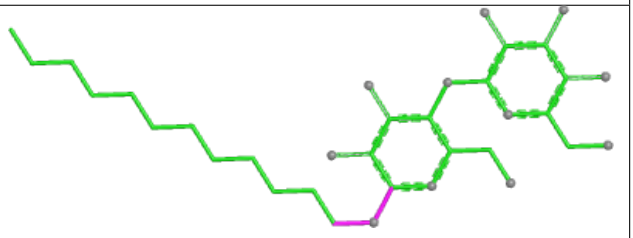

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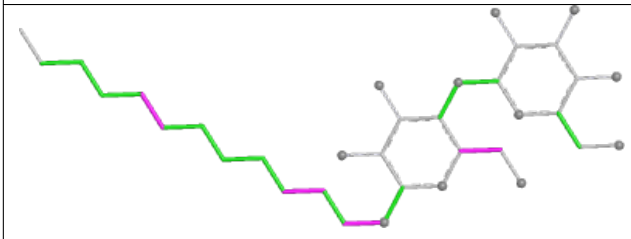

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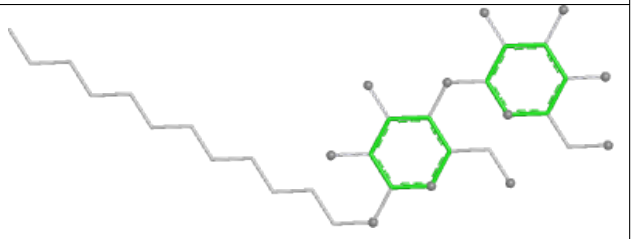
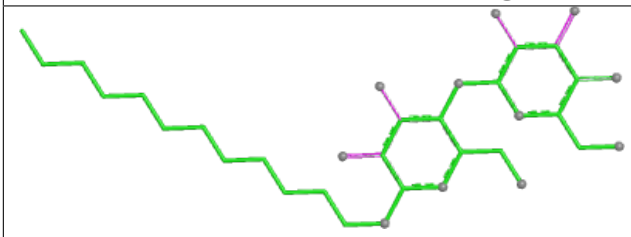


Rings

Ligand LMT BH 1003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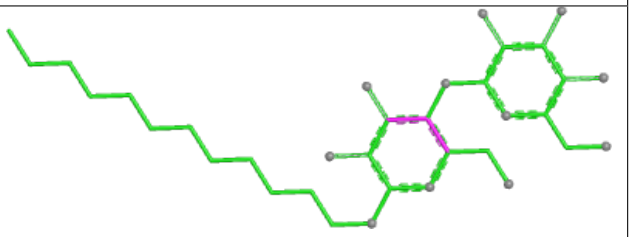
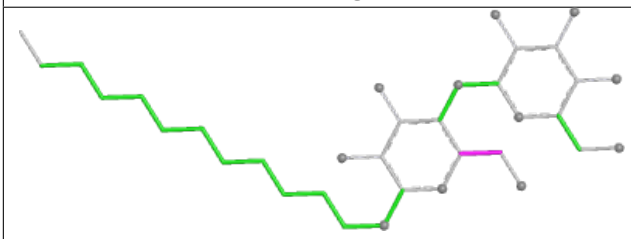

Bond angles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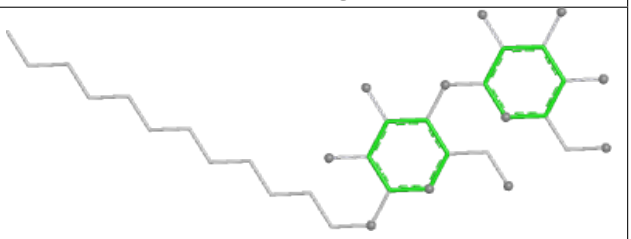
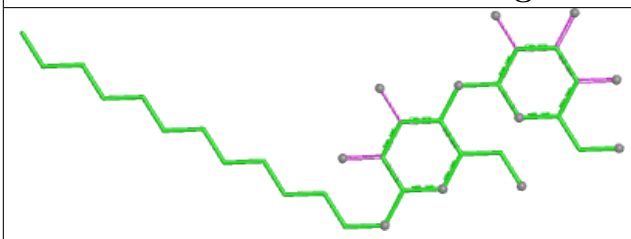

Rings

Ligand LMT bk 104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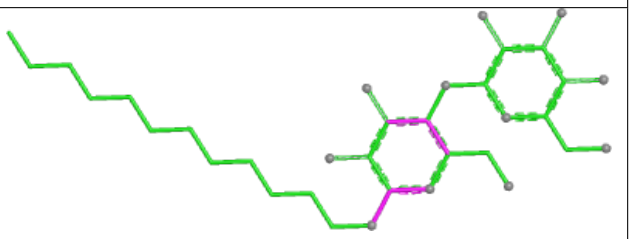
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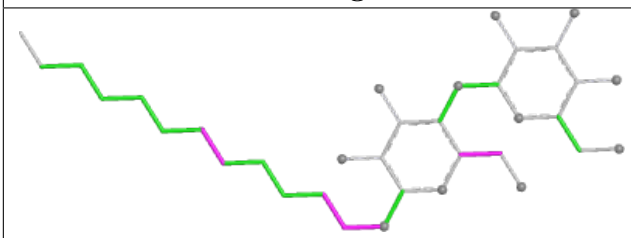
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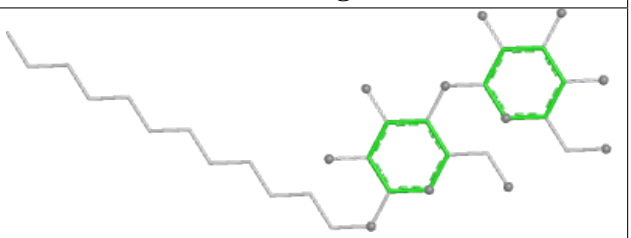
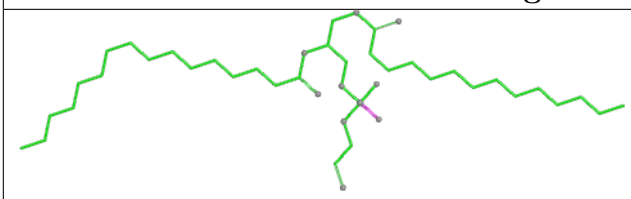

Rings

Ligand 0V9 bk 102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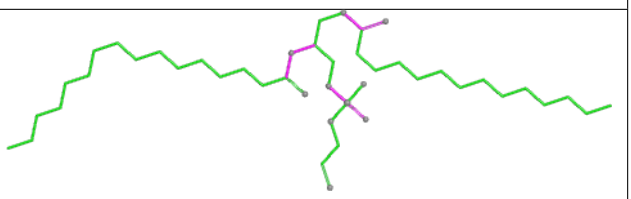
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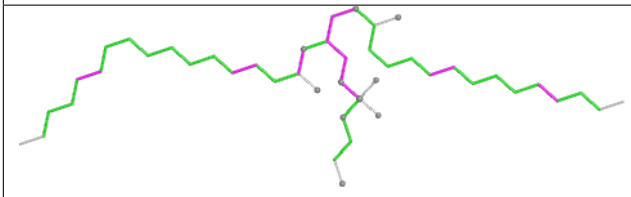
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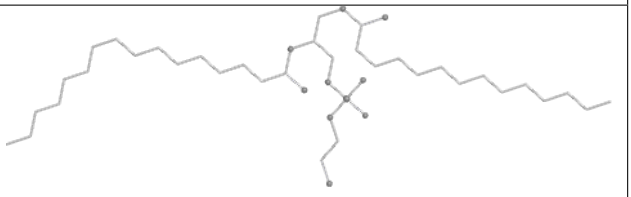
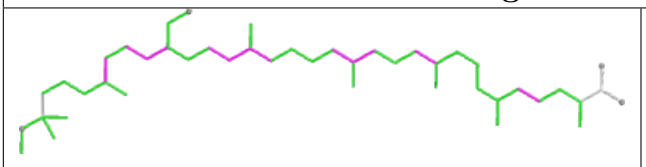

Rings

Ligand V7N BG 1001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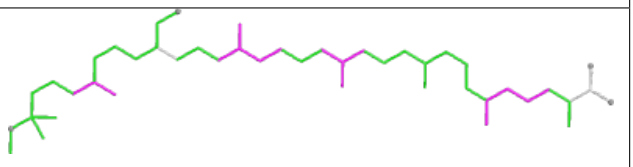
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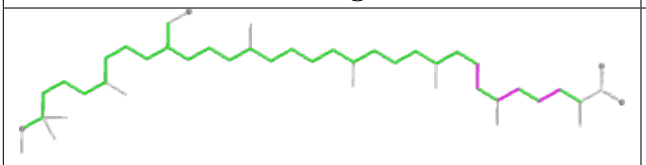
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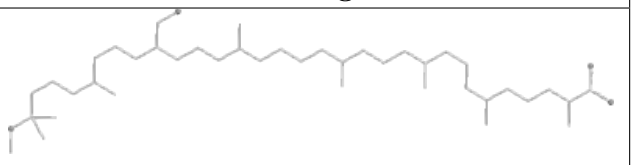
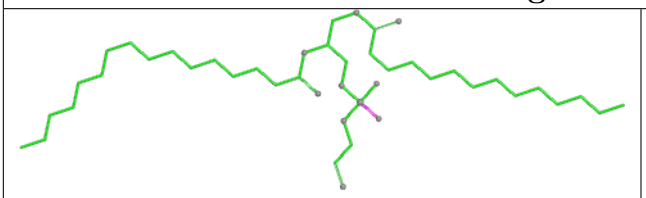

Rings

Ligand 0V9 bi 103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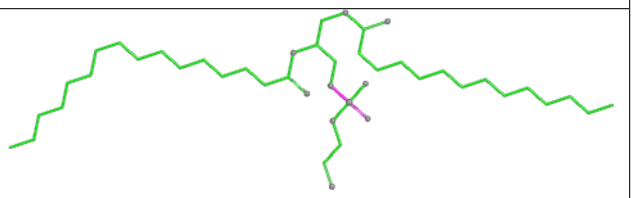
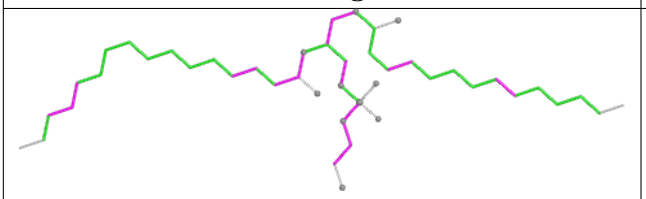

Bond angles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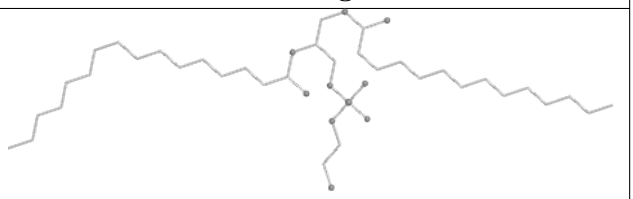
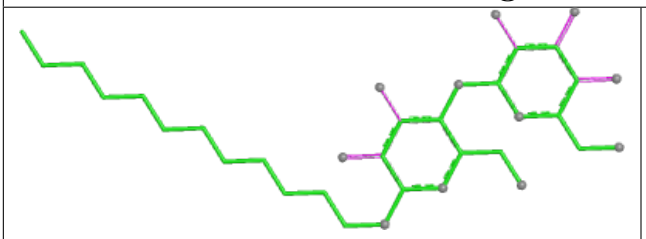

Rings

Ligand LMT BQ 1003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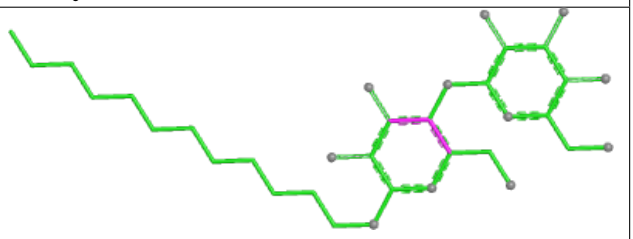
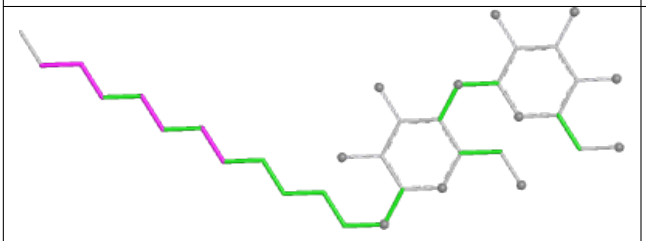

Bond angles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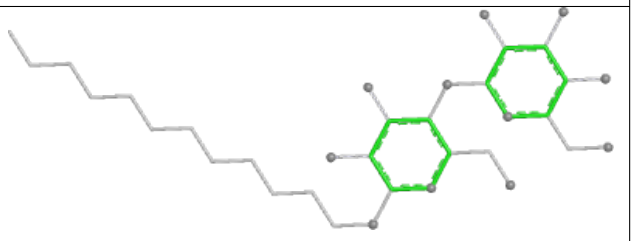
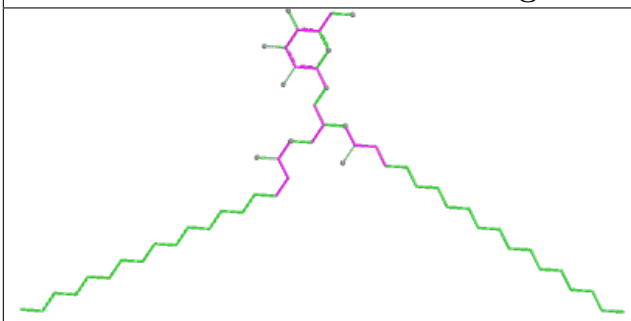
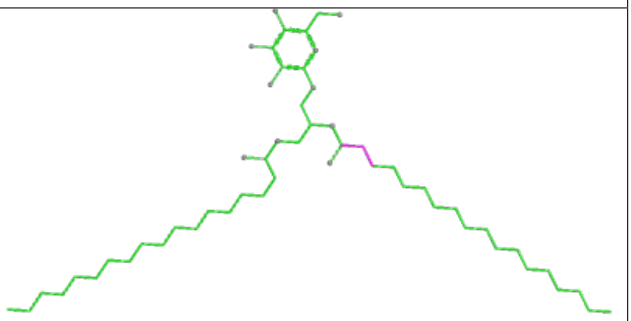
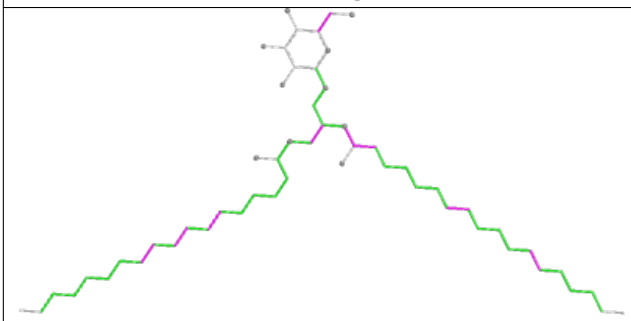
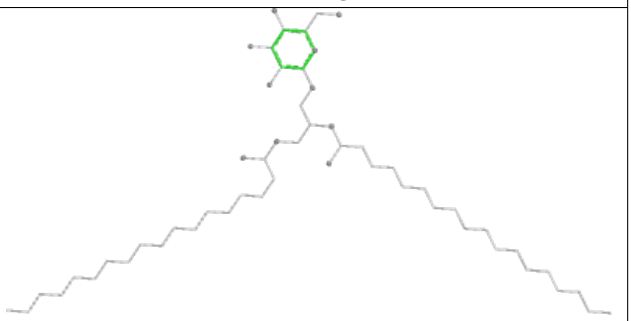
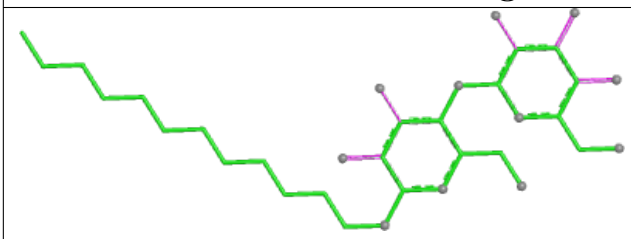
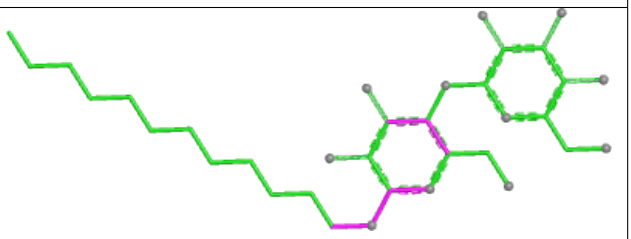
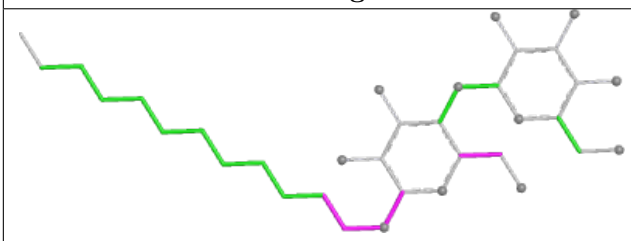
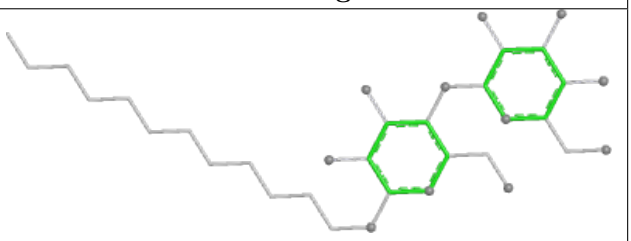
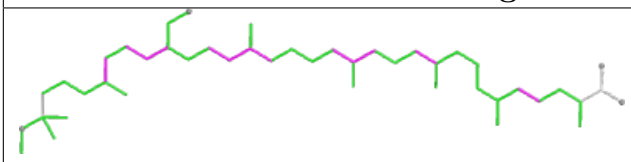

Rings

Ligand UYH ai 102	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand LMT BU 1002	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand V7N BM 1001



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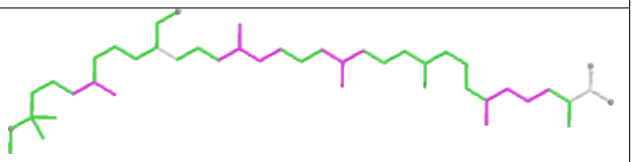

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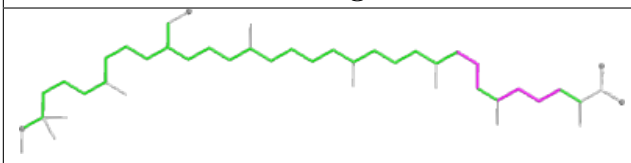

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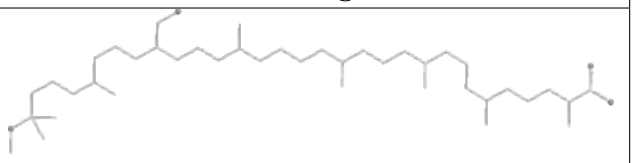
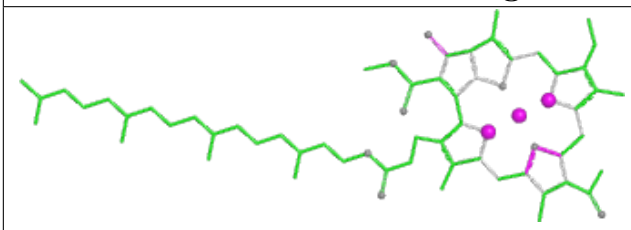


Rings

Ligand BCL AB 1002



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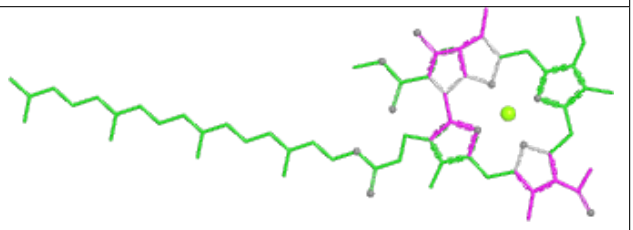

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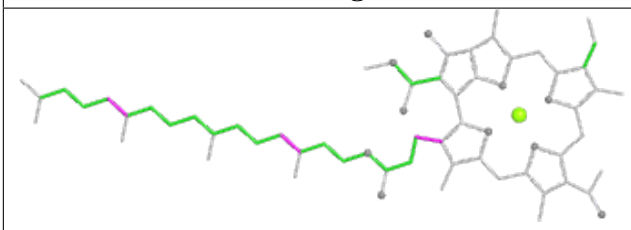

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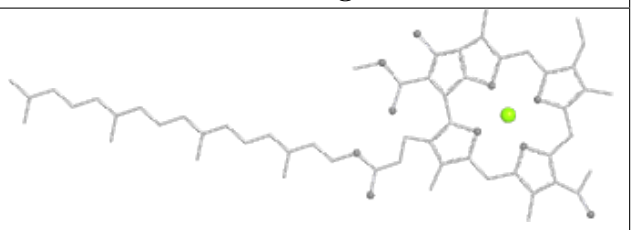
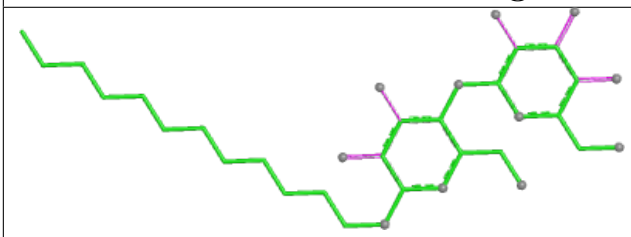


Rings

Ligand LMT BT 104



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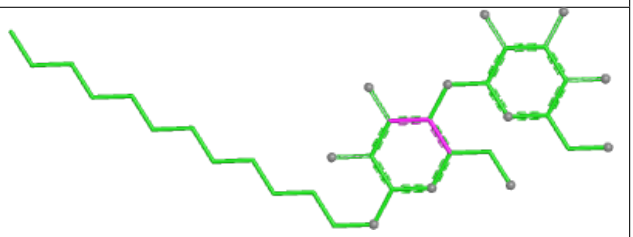

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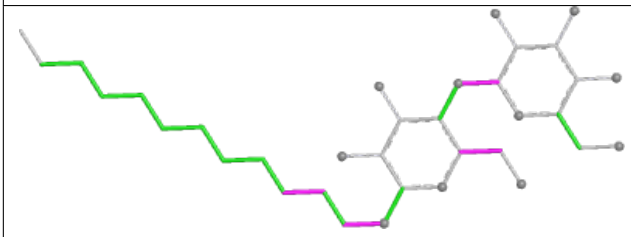

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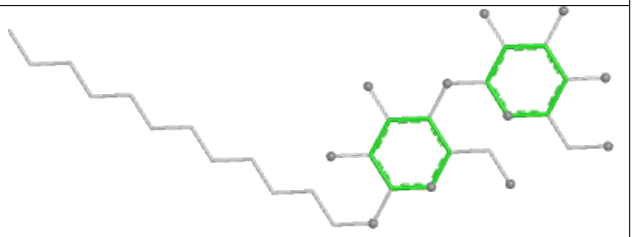
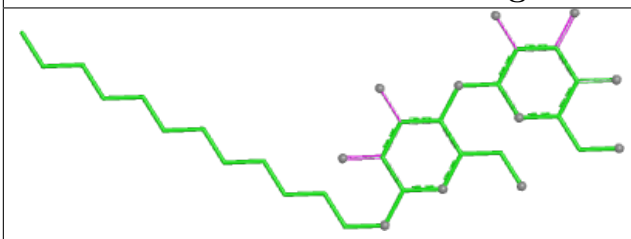


Rings

Ligand LMT BC 103



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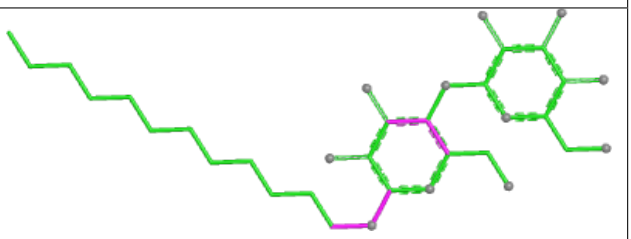

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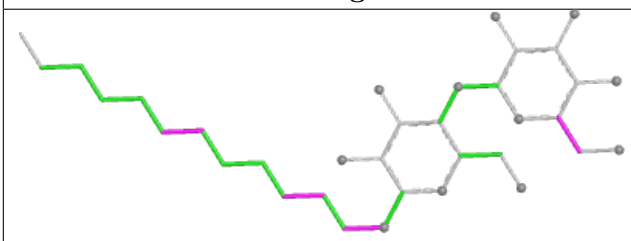

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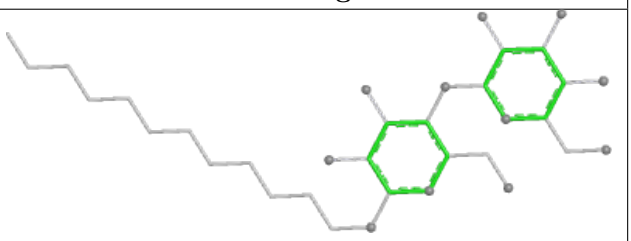
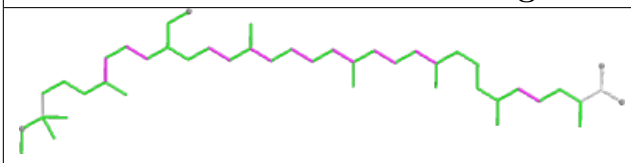


Rings

Ligand V7N bb 101



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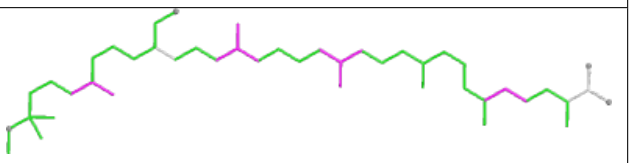

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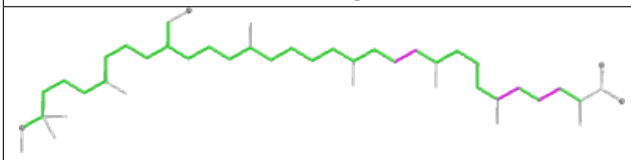

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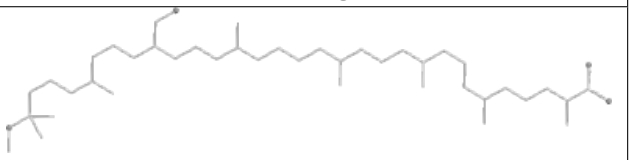
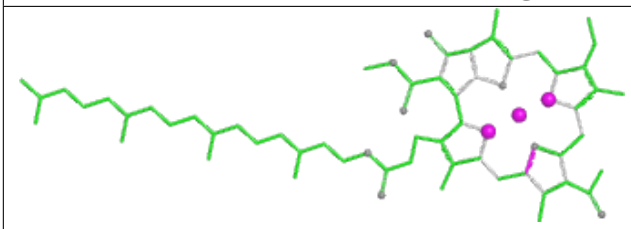


Rings

Ligand BCL bd 102



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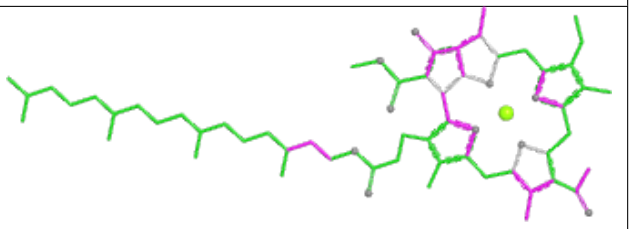

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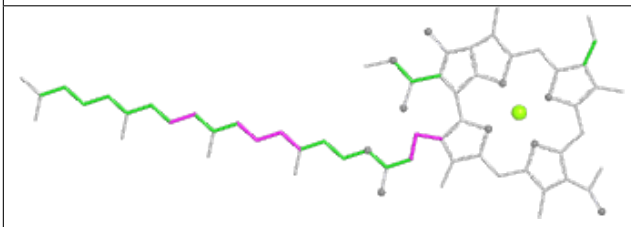

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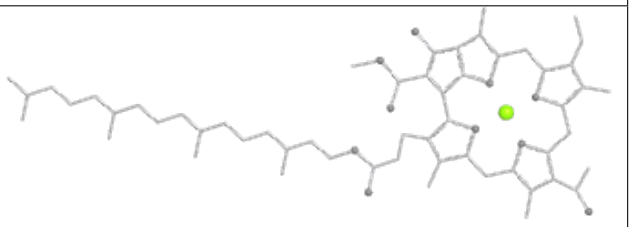
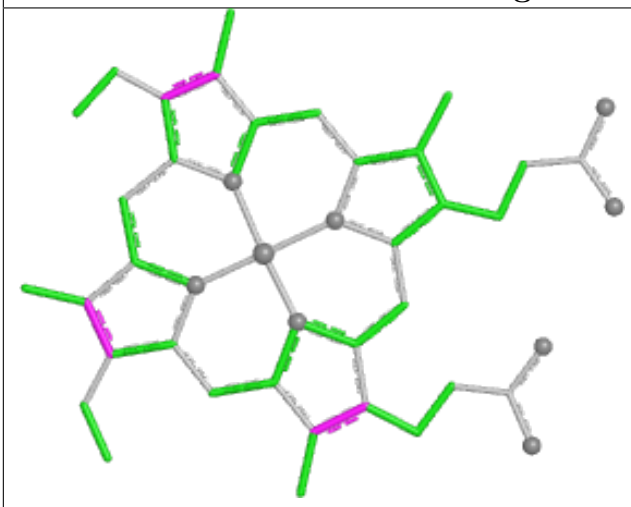


Rings

Ligand HEC C 1004



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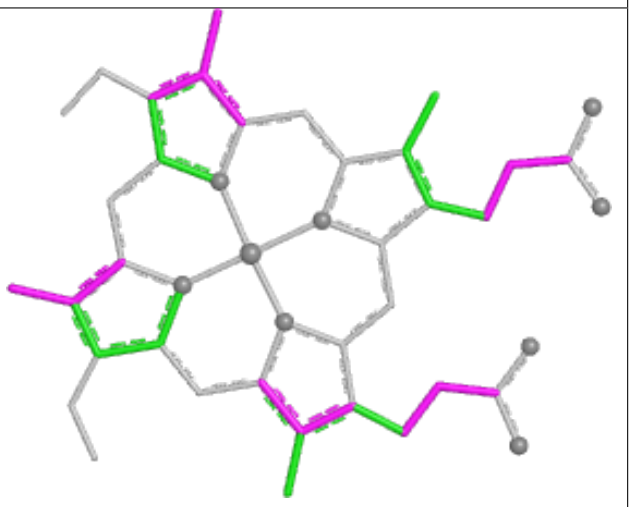
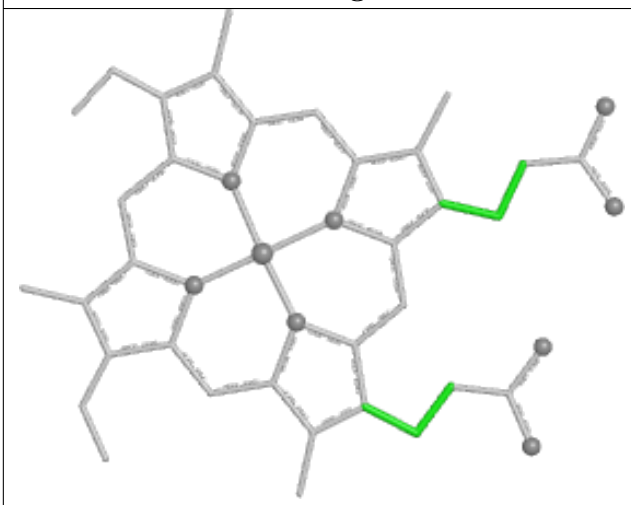


Bond angles



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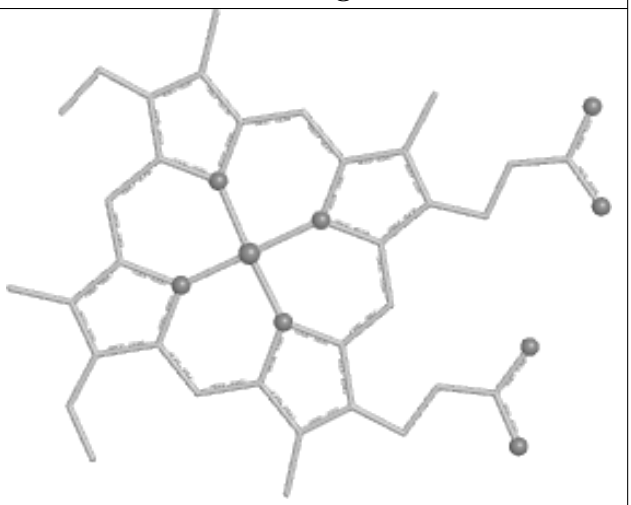
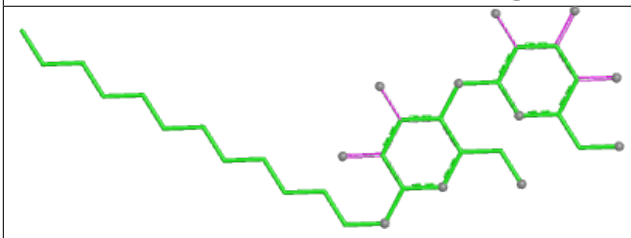


Rings

Ligand LMT BX 102



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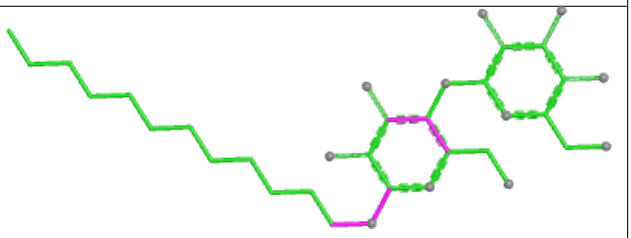
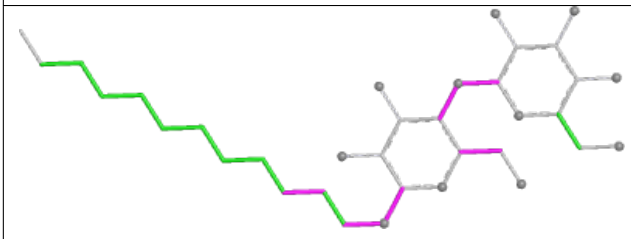


Bond angles



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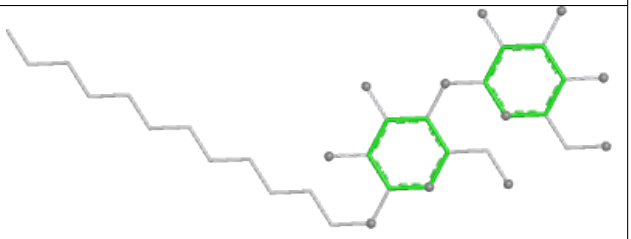
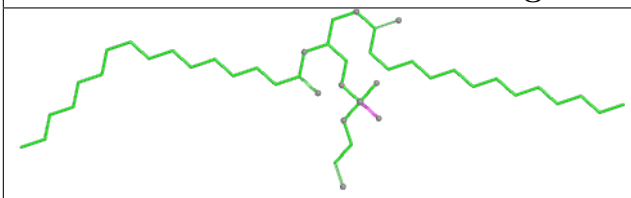
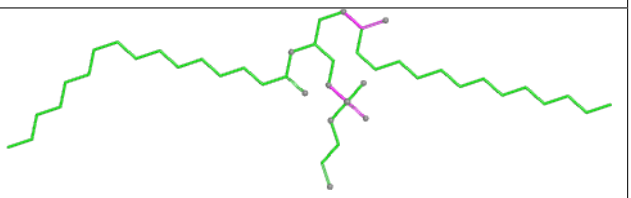
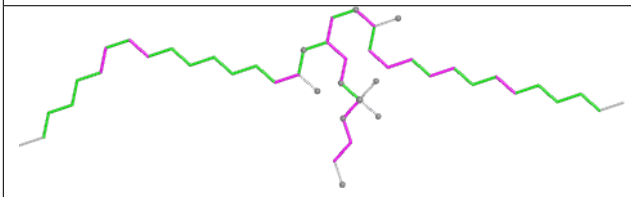
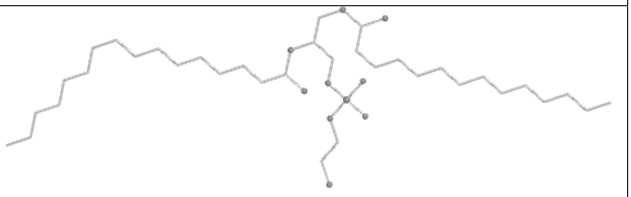
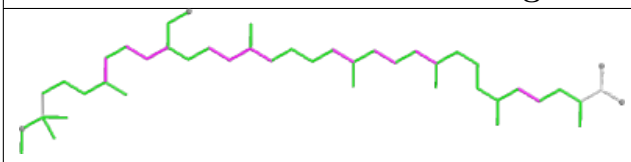
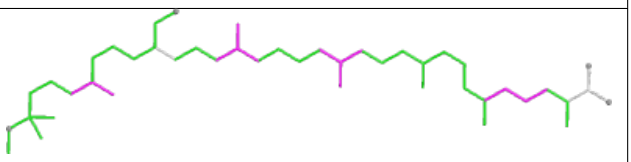
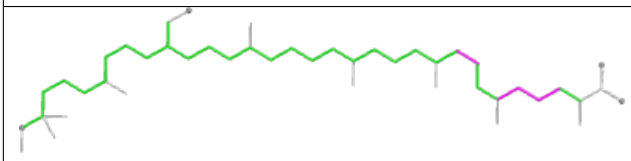
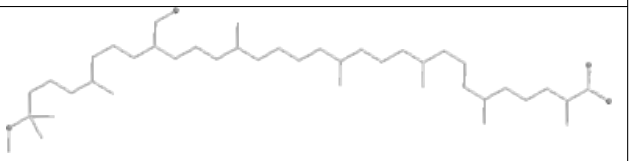
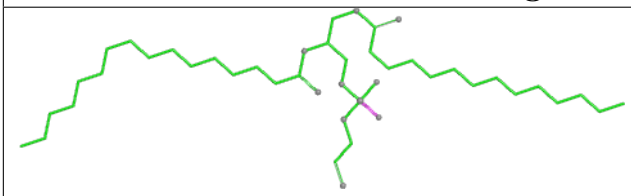
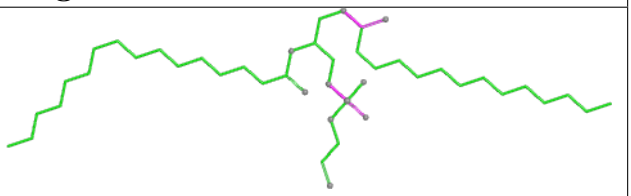
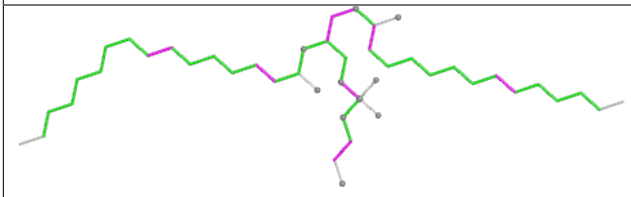
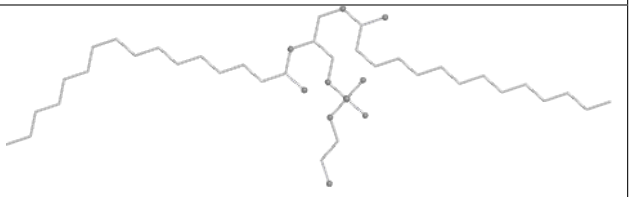
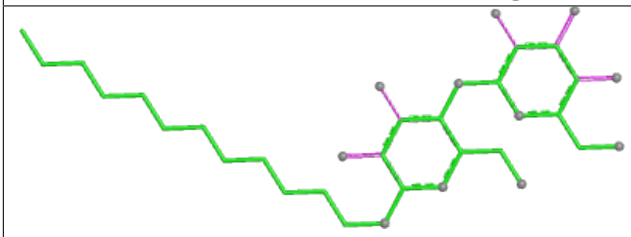
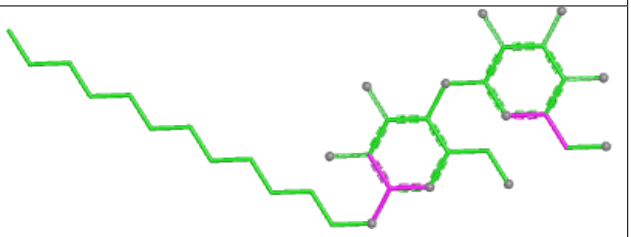
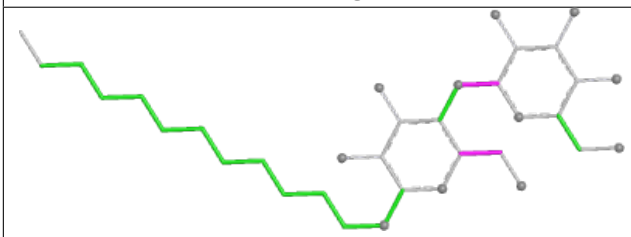
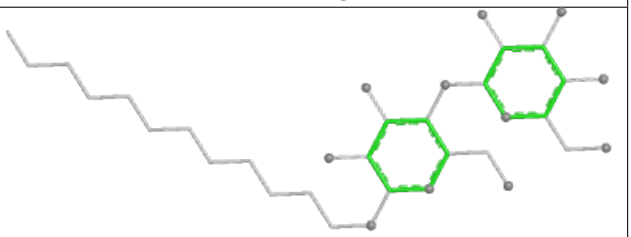


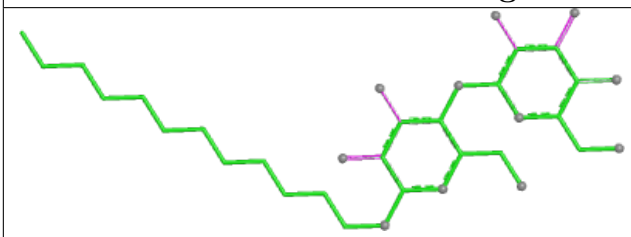
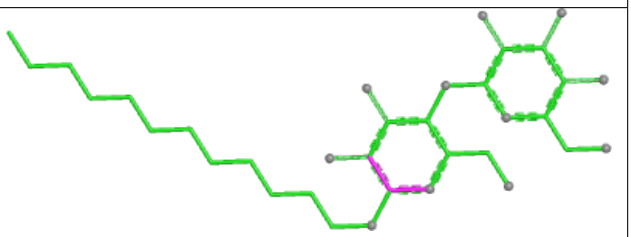
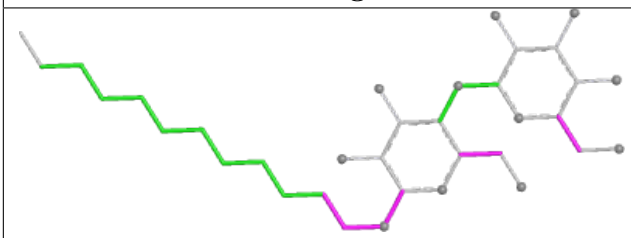
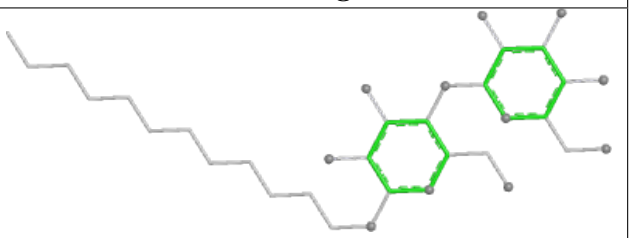
Rings

Ligand 0V9 be 105	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand V7N bi 101	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand 0V9 bg 103	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand LMT AX 101	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand LMT BV 1004	
 Bond lengths	 Bond angles
 Torsions	 Rings

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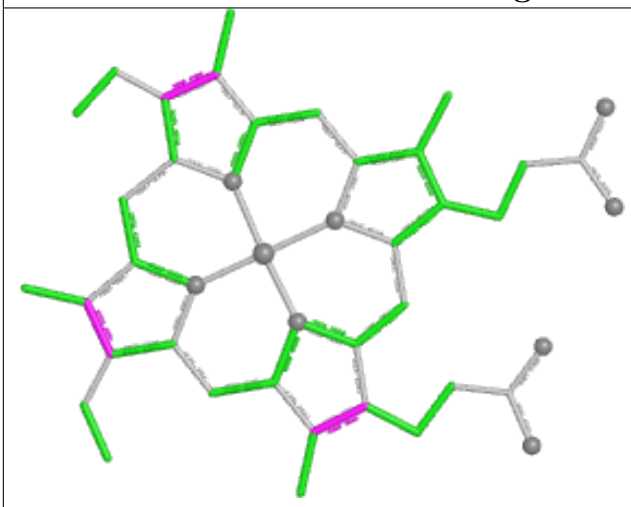
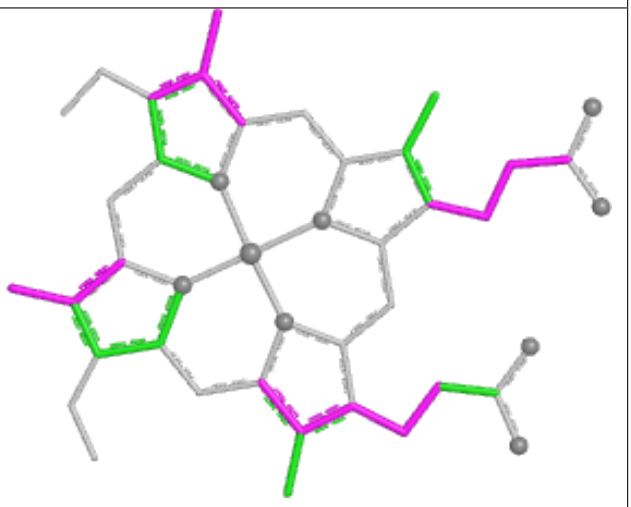
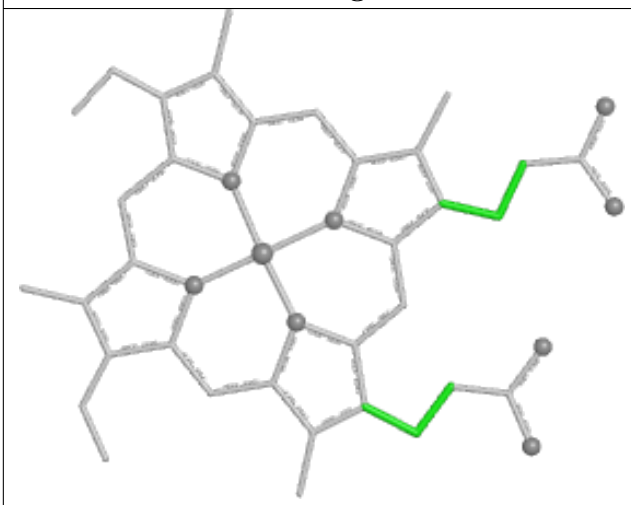
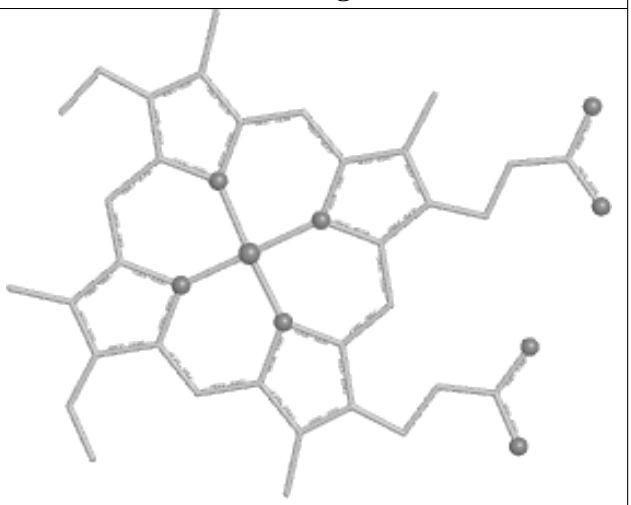
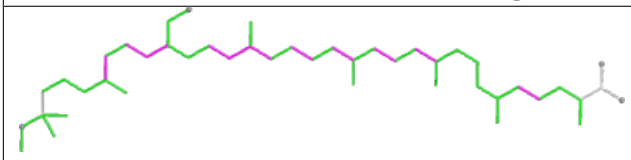
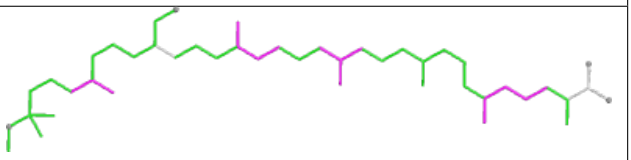
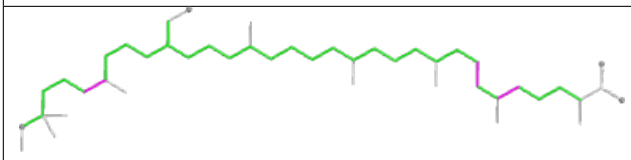
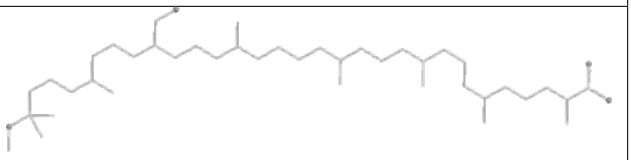
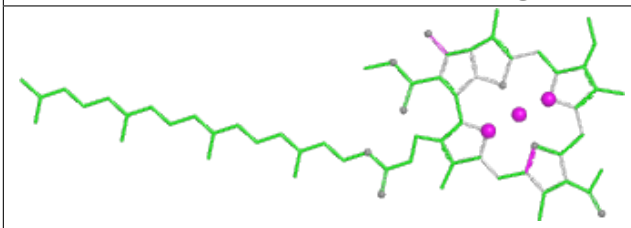
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand V7N AW 103	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand BCL AS 101



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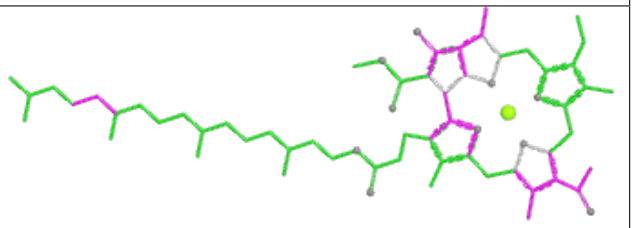

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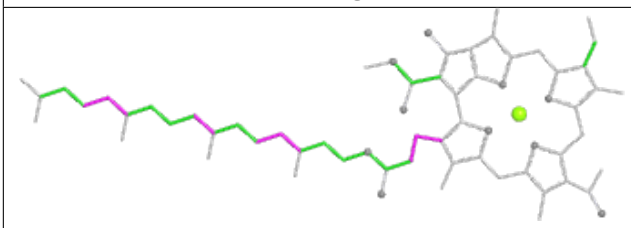

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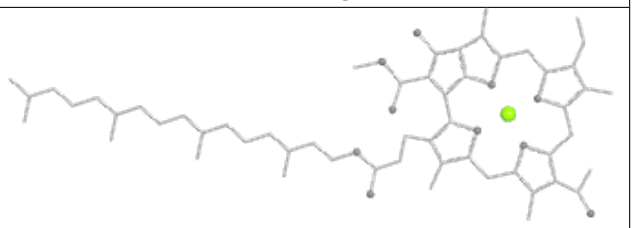
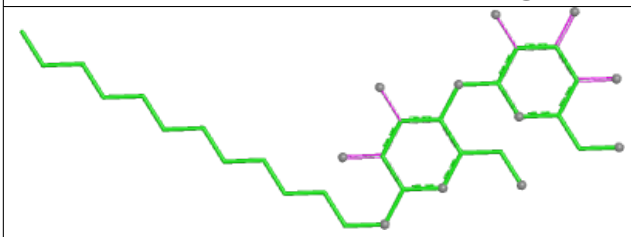


Rings

Ligand LMT bj 102



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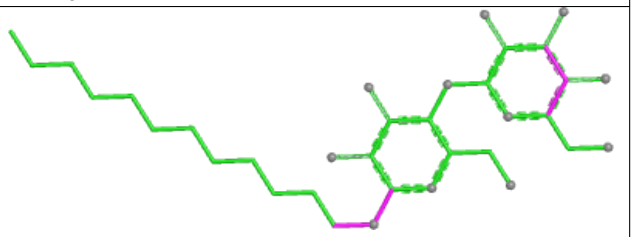

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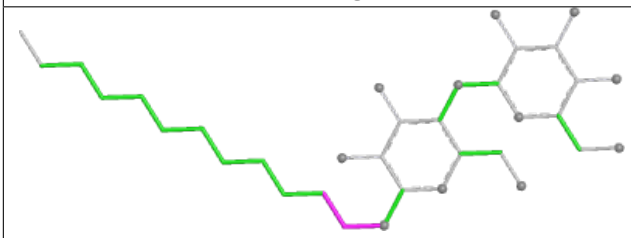

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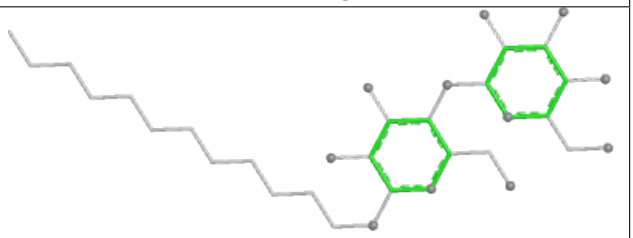
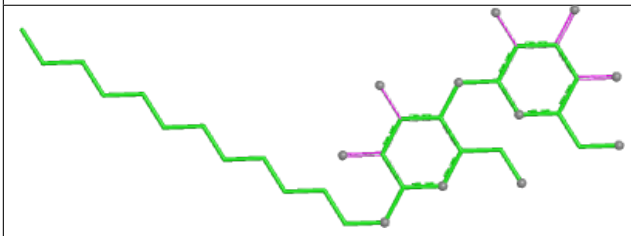


Rings

Ligand LMT AK 103



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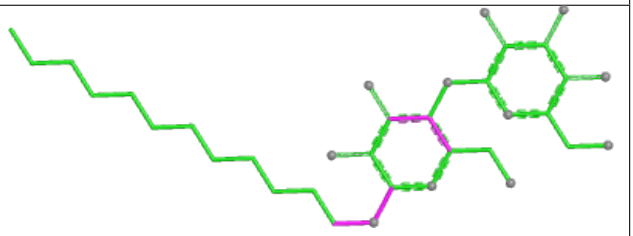

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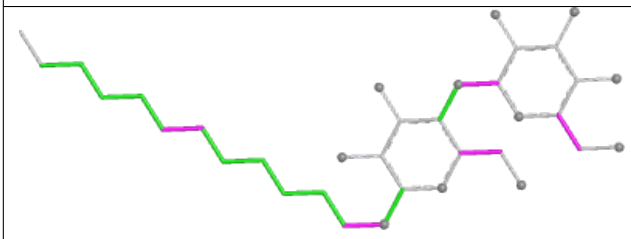

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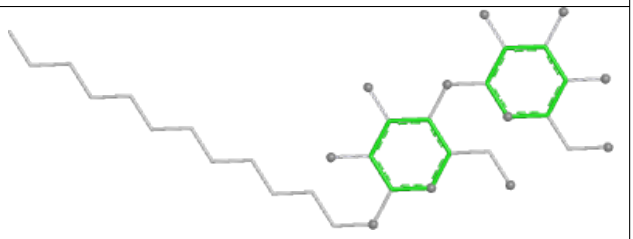
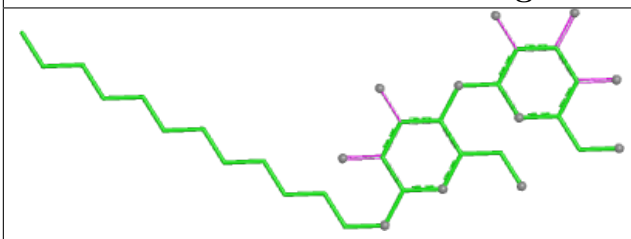


Rings

Ligand LMT bg 102



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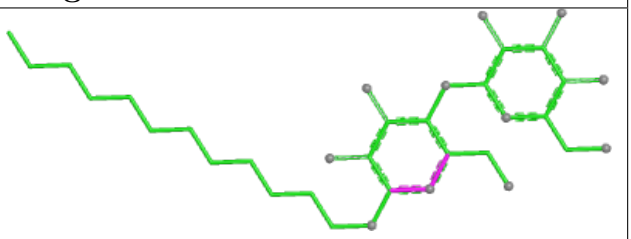

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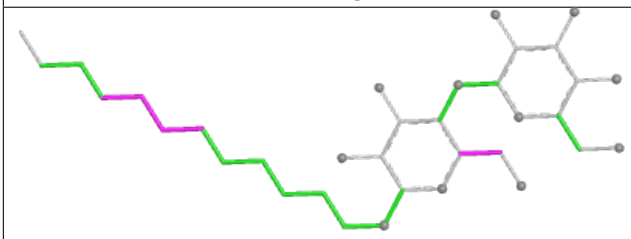

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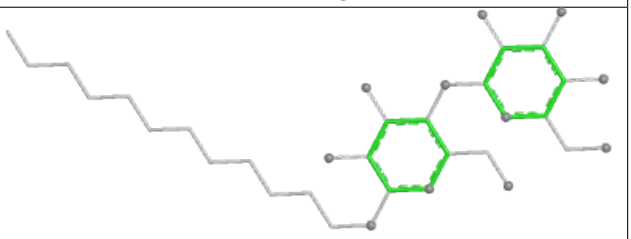
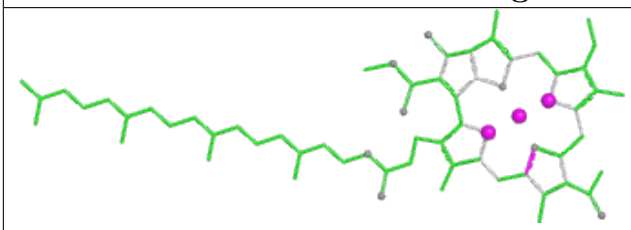


Rings

Ligand BCL AO 102



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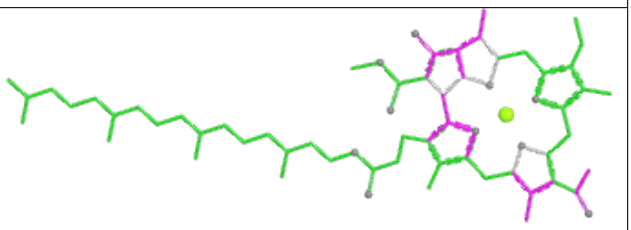

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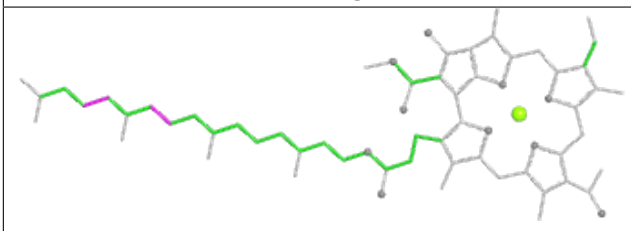

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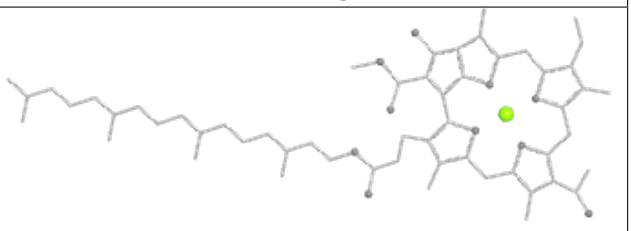
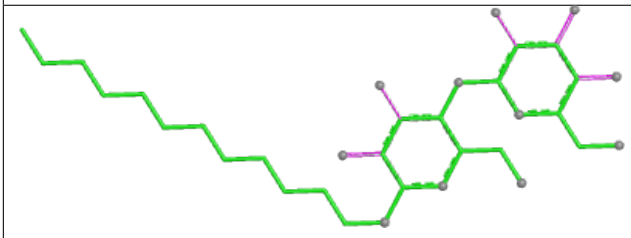


Rings

Ligand LMT AP 101



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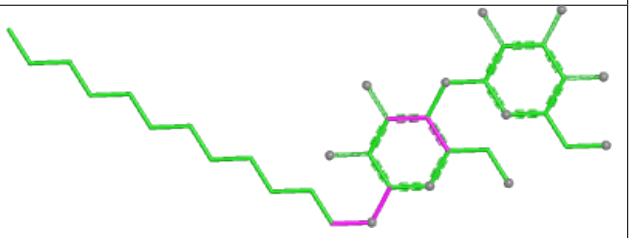

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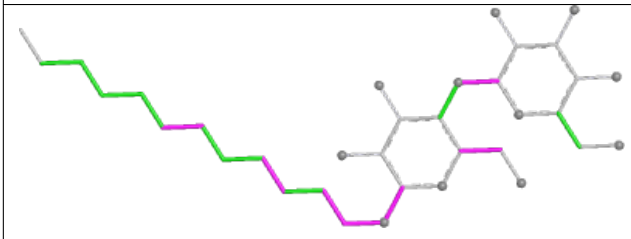

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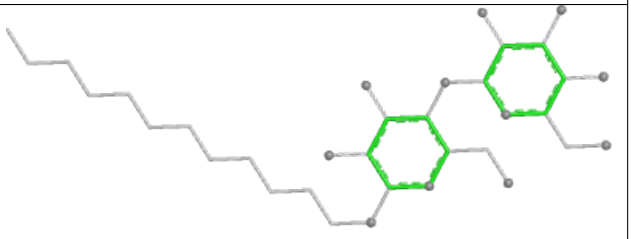
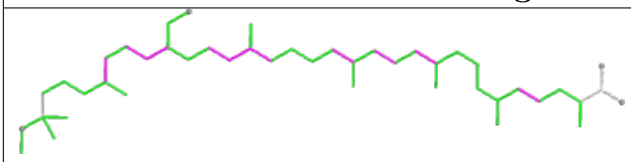


Rings

Ligand V7N BF 101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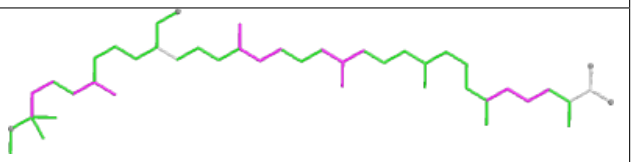
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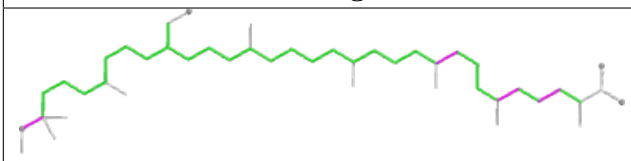
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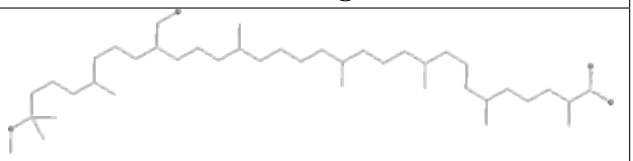
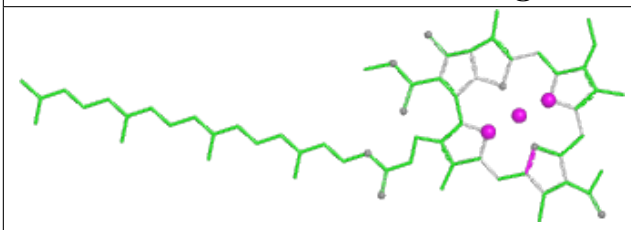

Rings

Ligand BCL BL 103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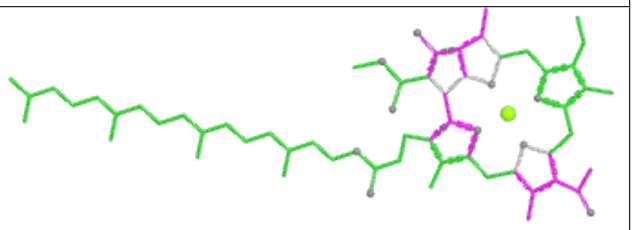
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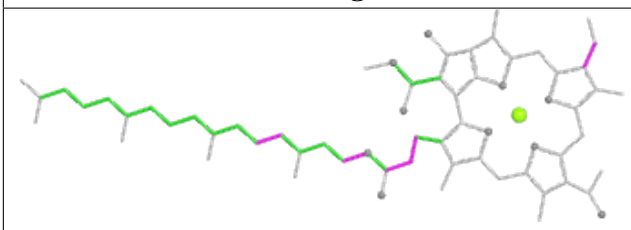
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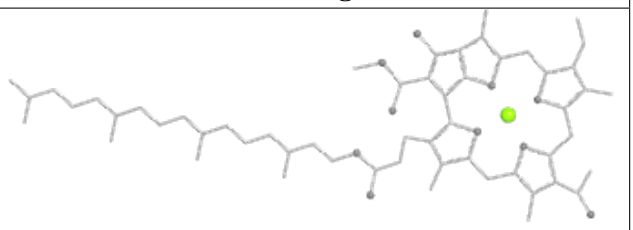
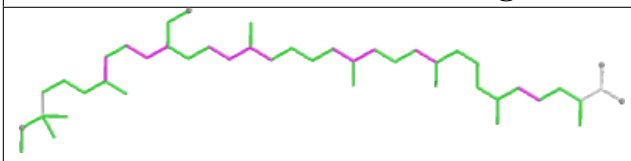

Rings

Ligand V7N BW 1001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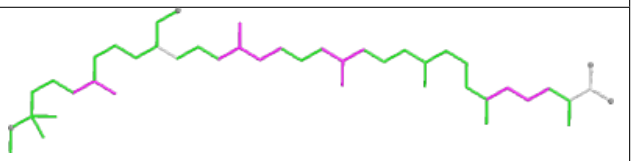
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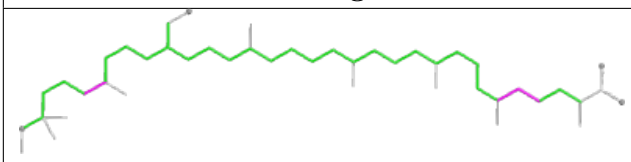
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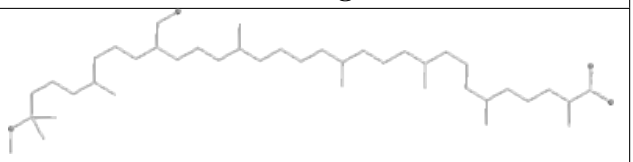
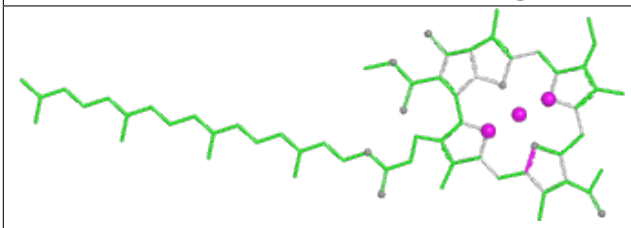

Rings

Ligand BCL BX 101



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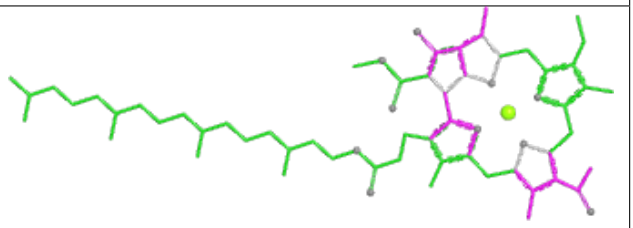
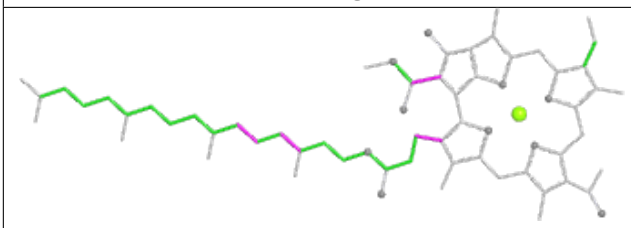


Bond angles



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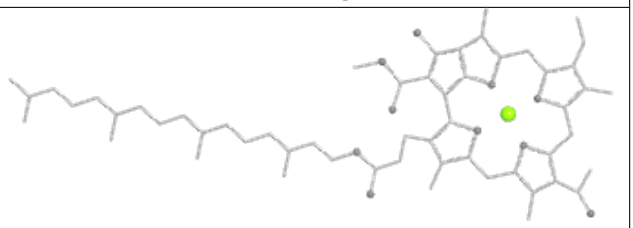
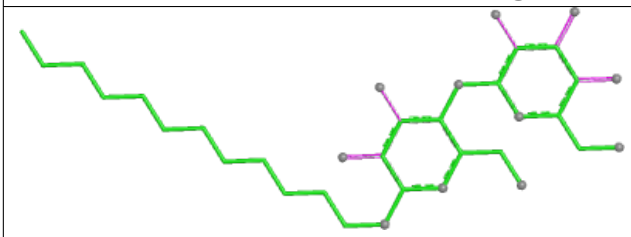


Rings

Ligand LMT AT 104



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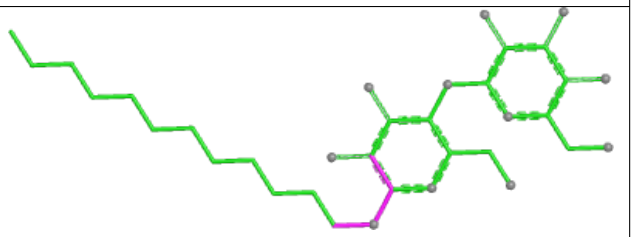

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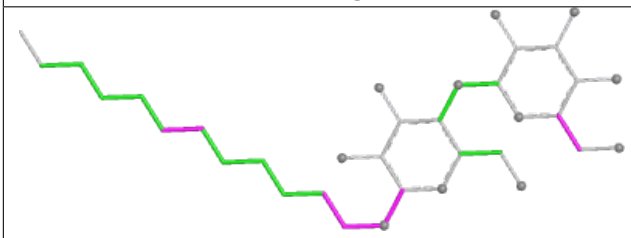
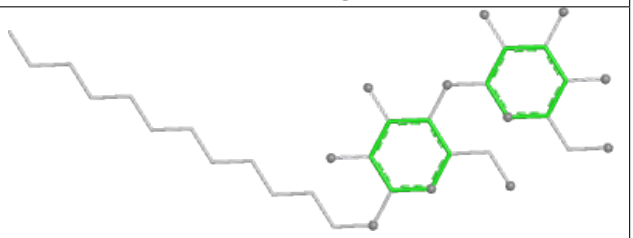
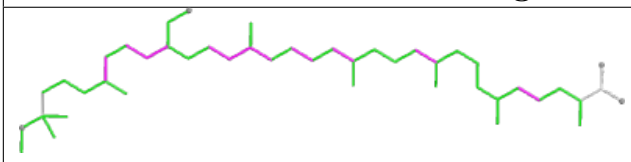


Torsions



Rings

Ligand V7N bm 101



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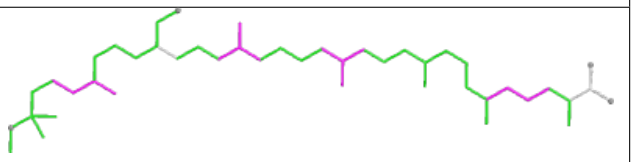
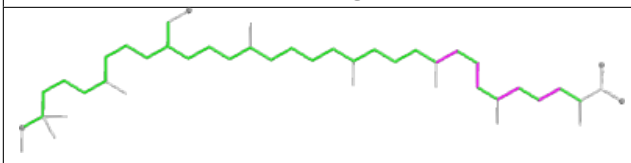


Bond angles



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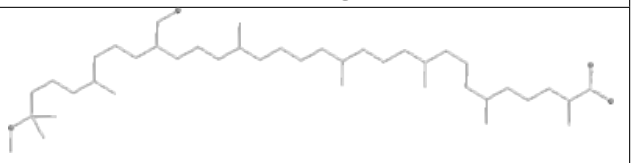
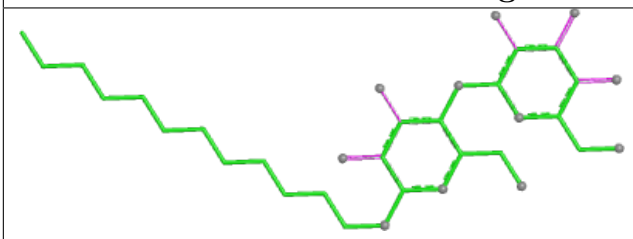
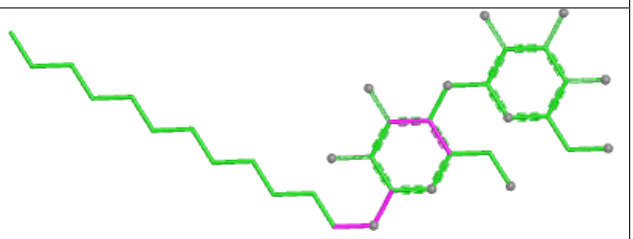


Rings

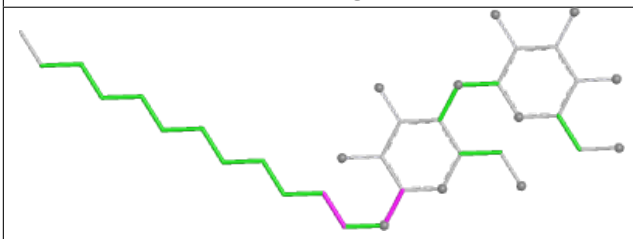
Ligand LMT BG 1002



Bond lengths



Bond angles



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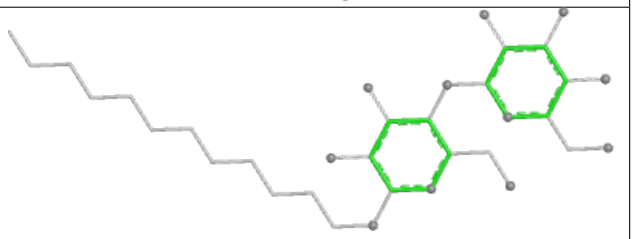
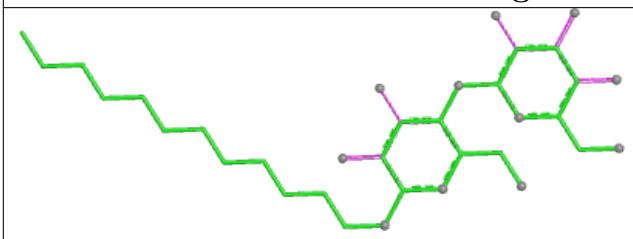
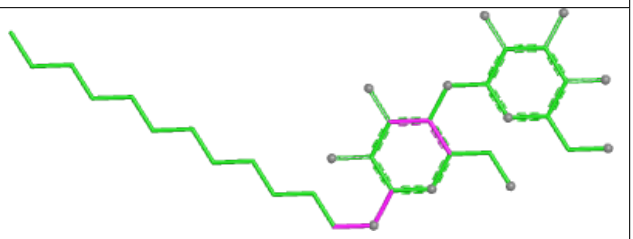


Rings

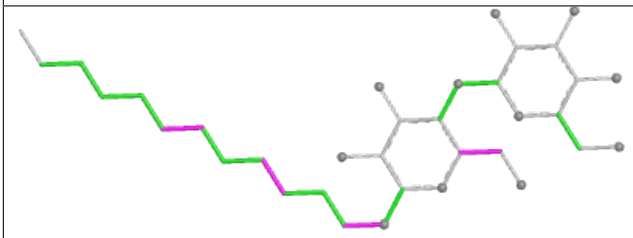
Ligand LMT C 1005



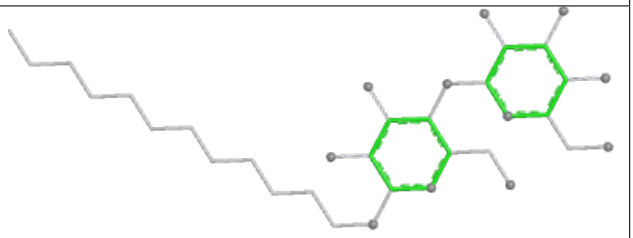
Bond lengths



Bond angles

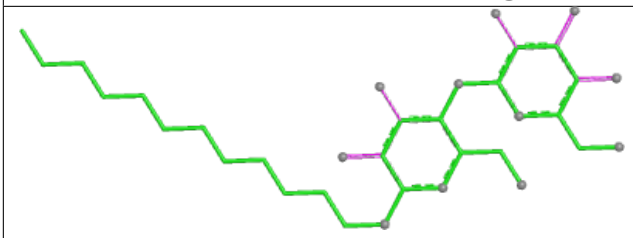


Torsions

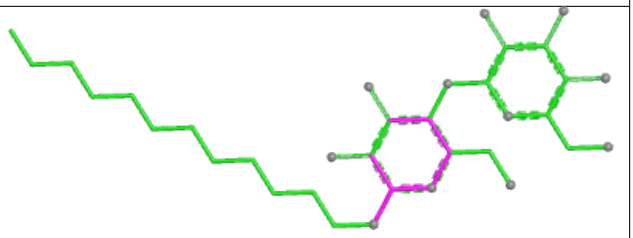


Rings

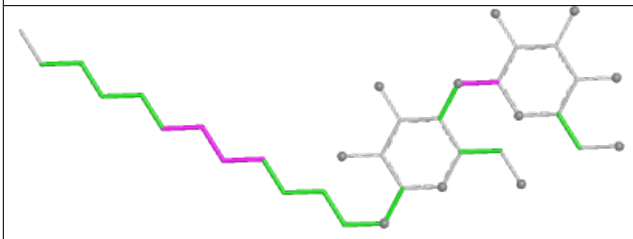
Ligand LMT BP 1006



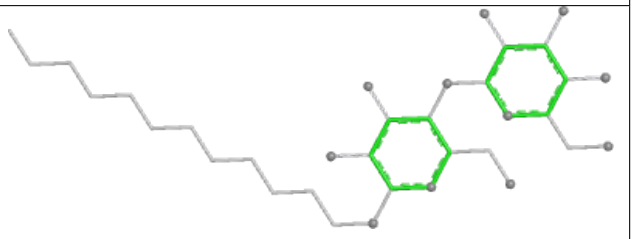
Bond lengths



Bond angles

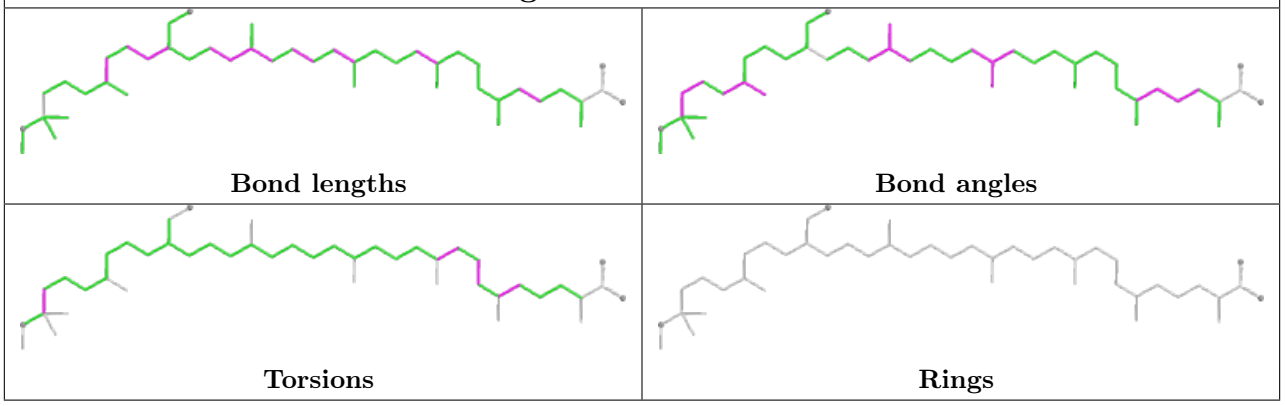


Torsions

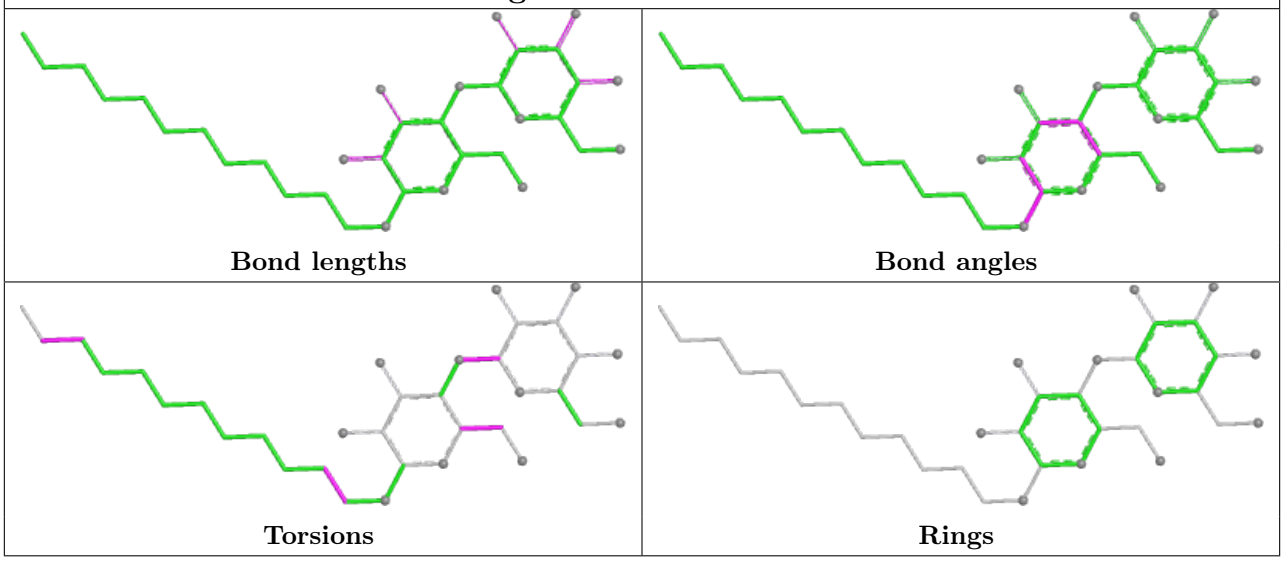


Rings

Ligand V7N bo 101



Ligand LMT BD 102



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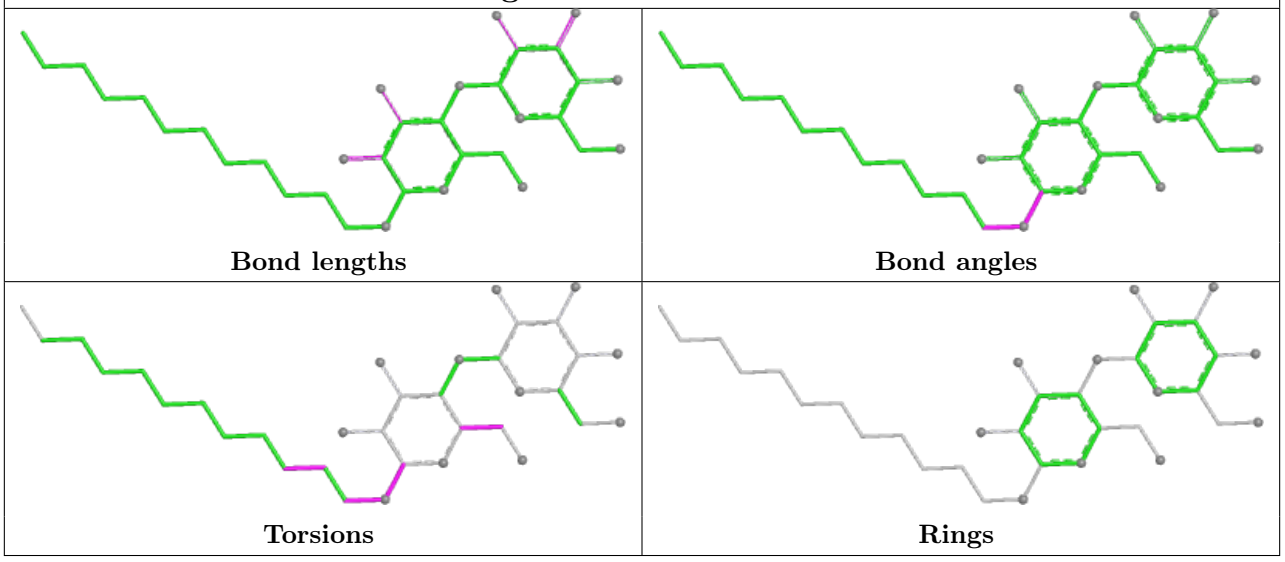
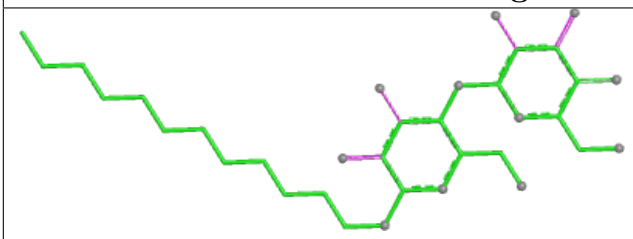
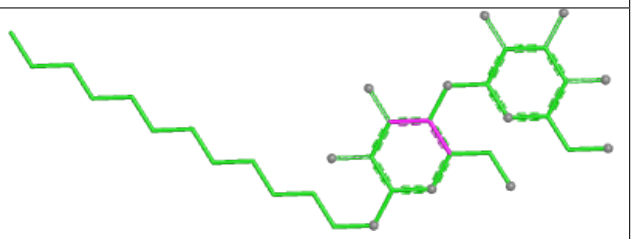


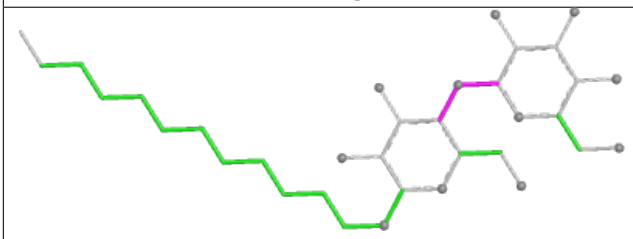
Ligand LMT BL 102



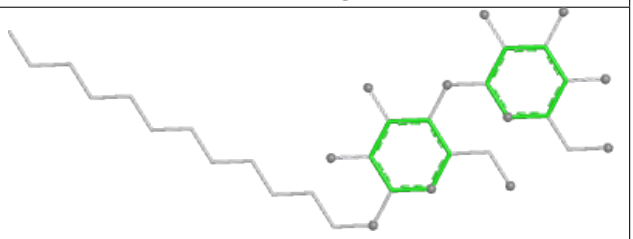
Bond lengths



Bond angles

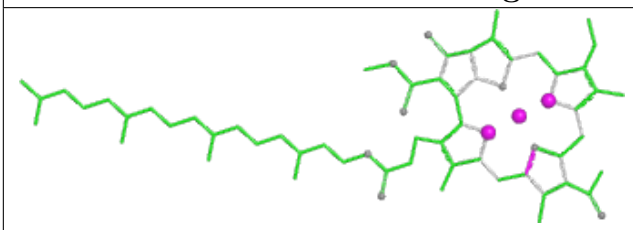


Torsions

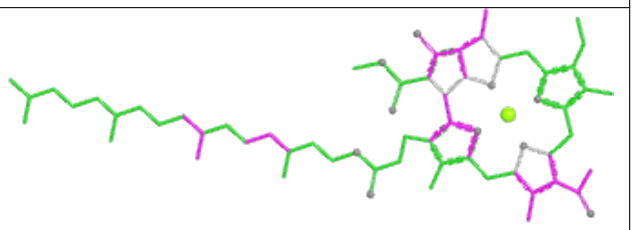


Rings

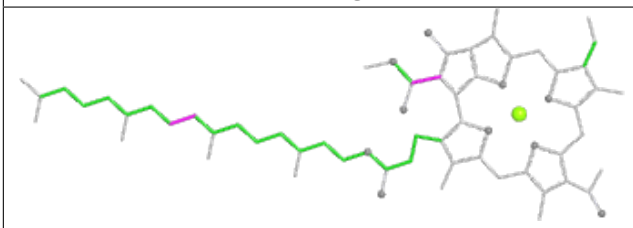
Ligand BCL AB 1001



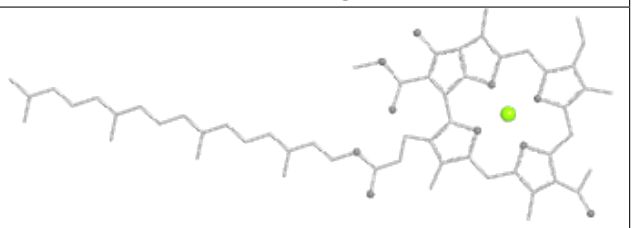
Bond lengths



Bond angles

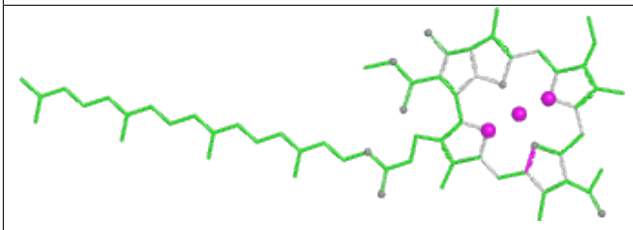


Torsions

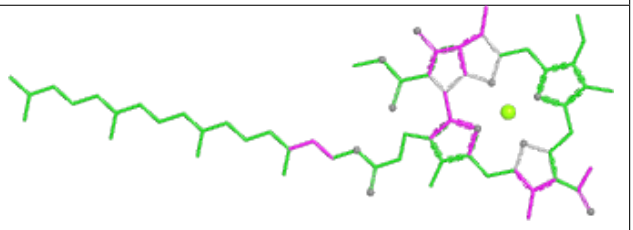


Rings

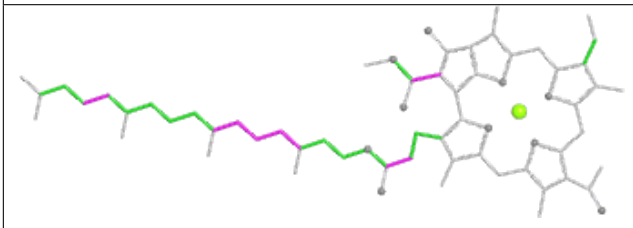
Ligand BCL AV 101



Bond lengths



Bond angles



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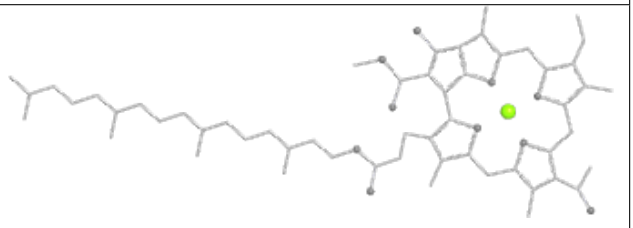
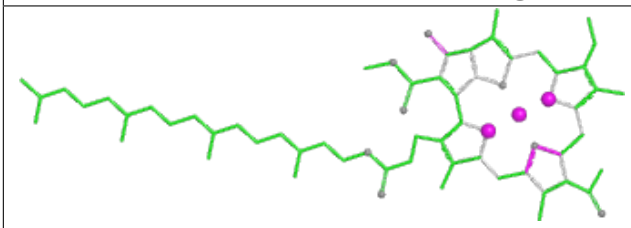
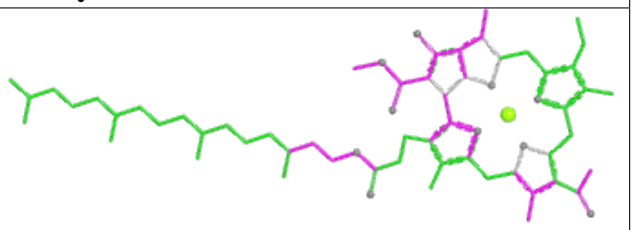


Rings

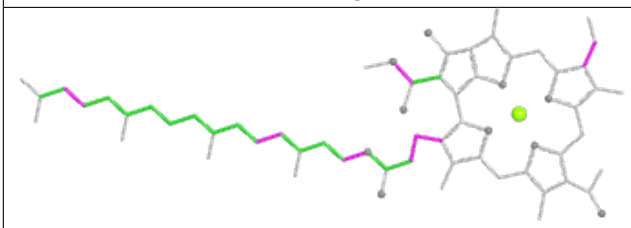
Ligand BCL AQ 104



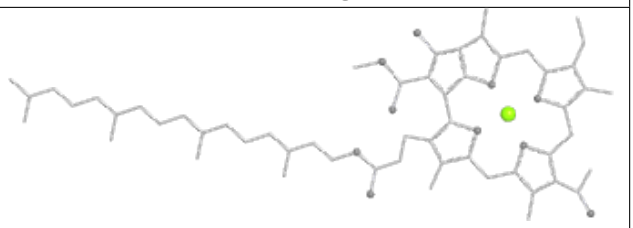
Bond lengths



Bond angles

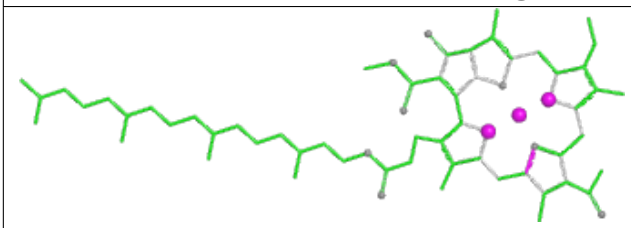


Torsions

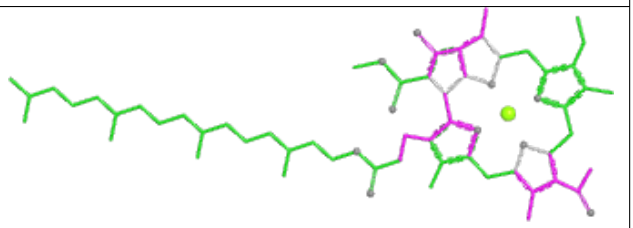


Rings

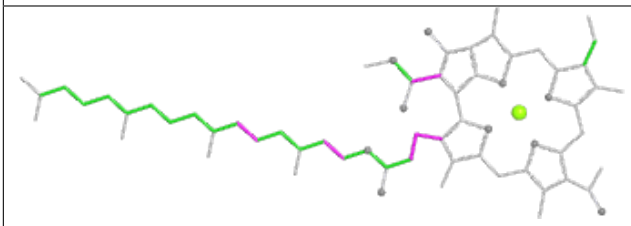
Ligand BCL BT 103



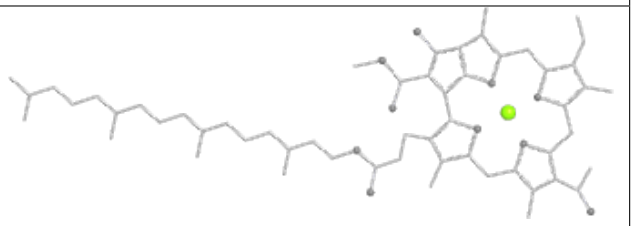
Bond lengths



Bond angles

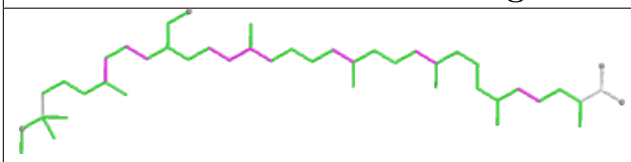


Torsions

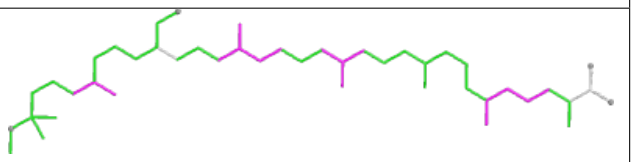


Rings

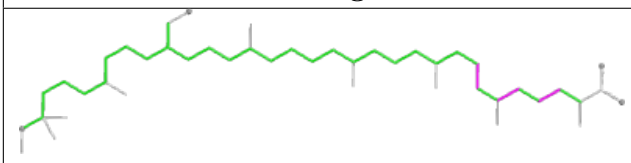
Ligand V7N BJ 1001



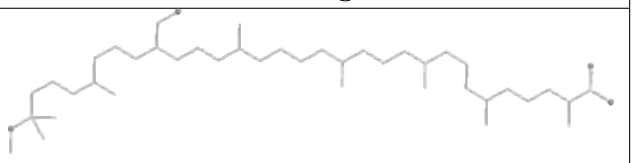
Bond lengths



Bond angles

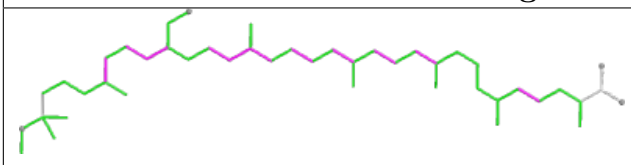


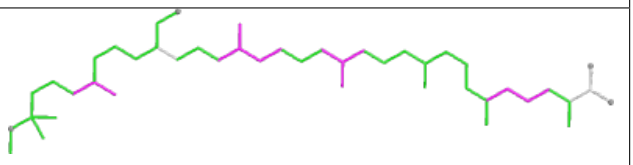
Torsions

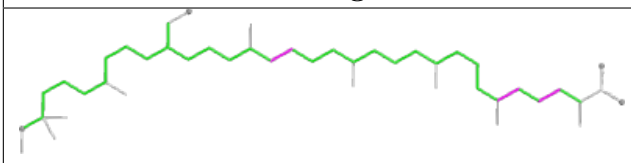


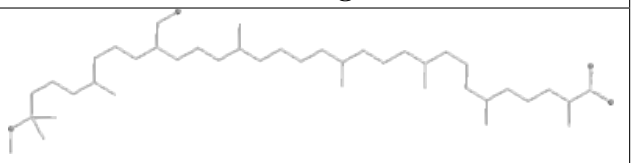
Rings

Ligand V7N ba 101

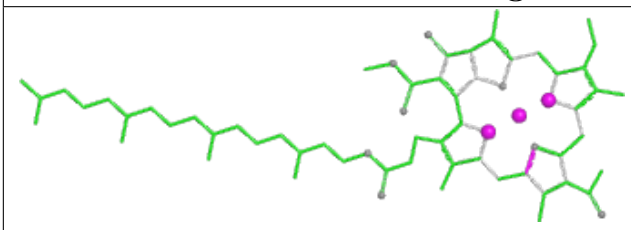

Bond lengths

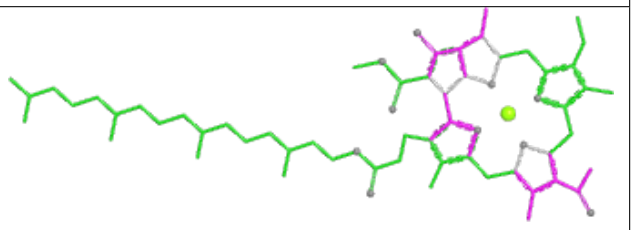

Bond angles

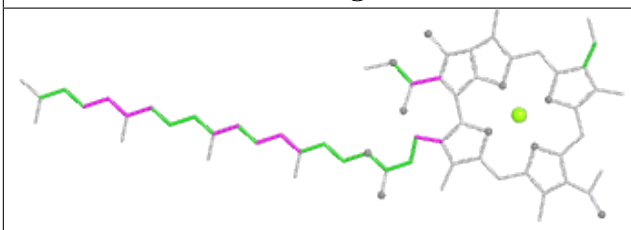

Torsions

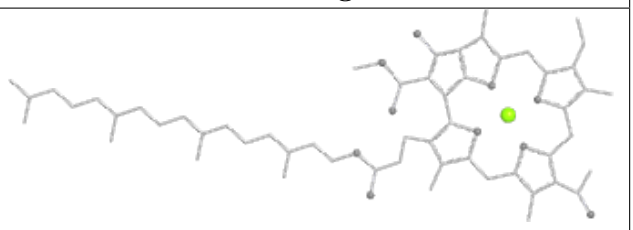

Rings

Ligand BCL BJ 1004

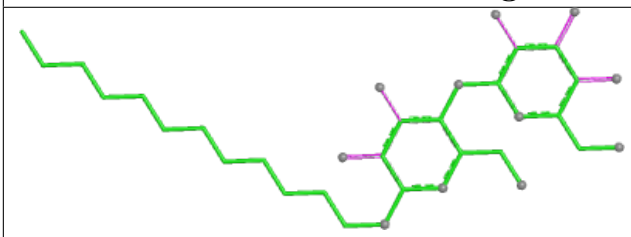

Bond lengths

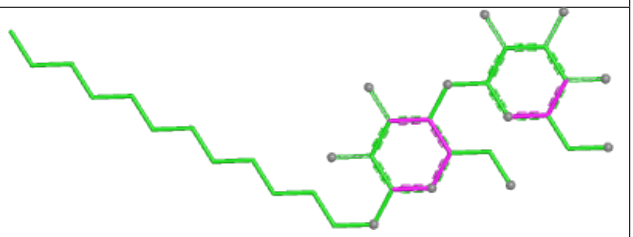

Bond angles

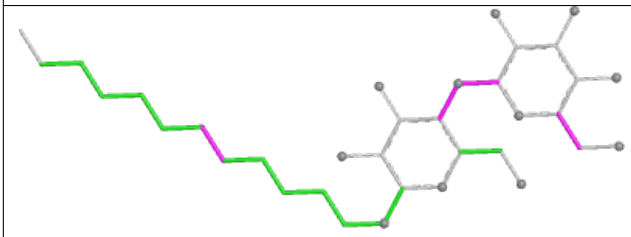

Torsions

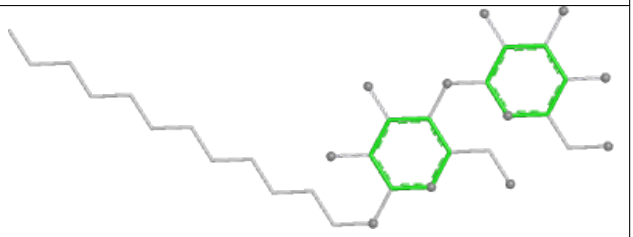

Rings

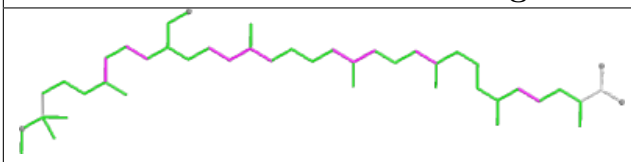
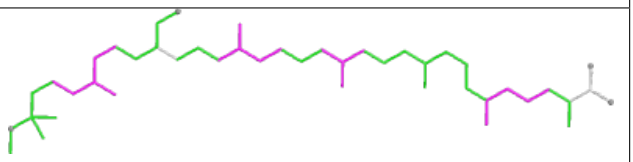
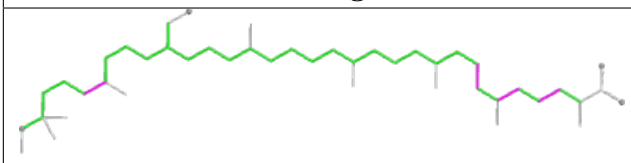
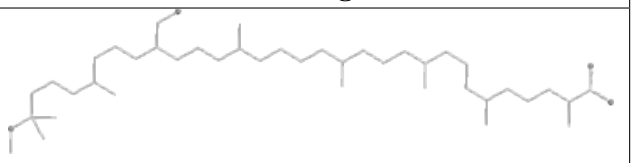
Ligand LMT BP 1002

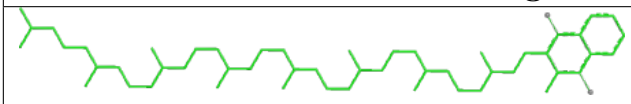
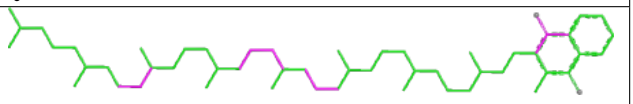
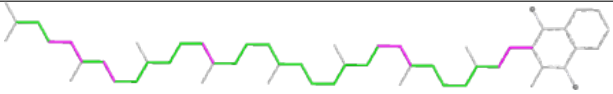
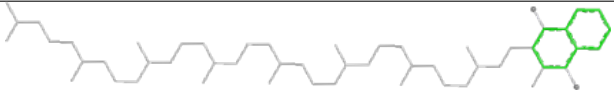

Bond lengths

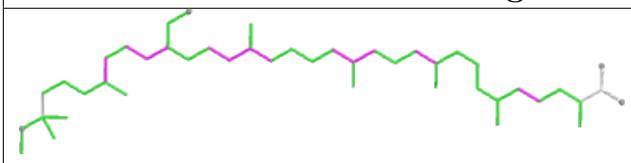
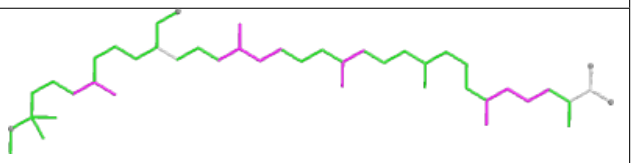
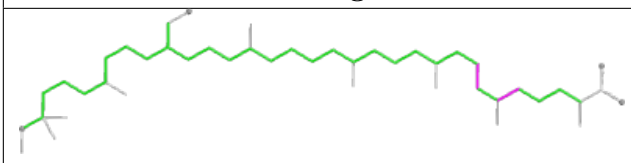
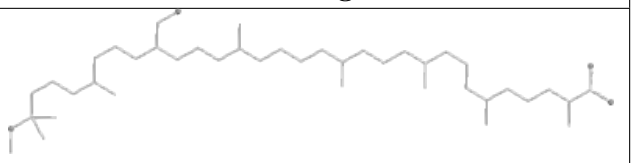

Bond angles


Torsions

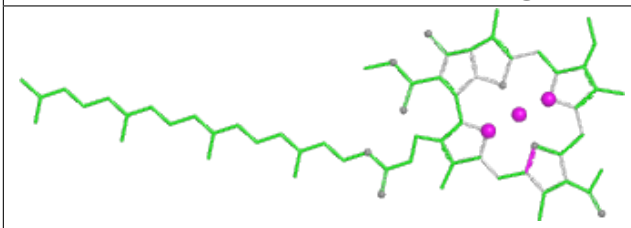

Rings

Ligand V7N BI 1001	
 Bond lengths	 Bond angles
 Torsions	 Rings

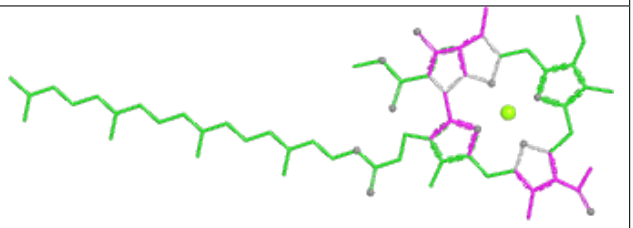
Ligand MQ8 L 303	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand V7N BS 1001	
 Bond lengths	 Bond angles
 Torsions	 Rings

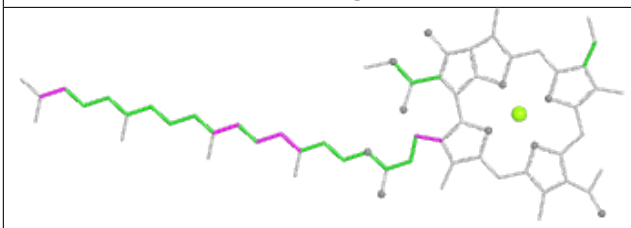
Ligand BCL bn 102



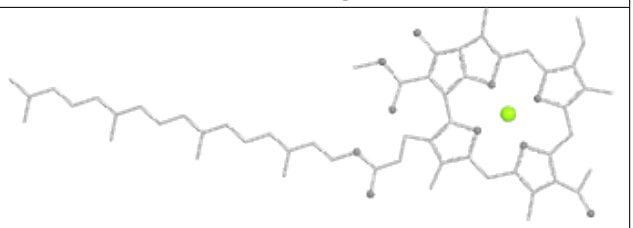
Bond lengths



Bond angles

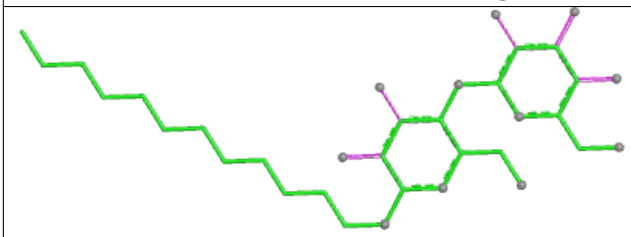


Torsions

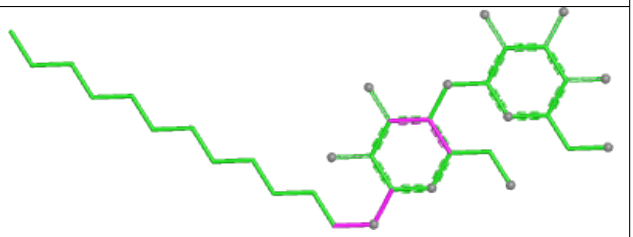


Rings

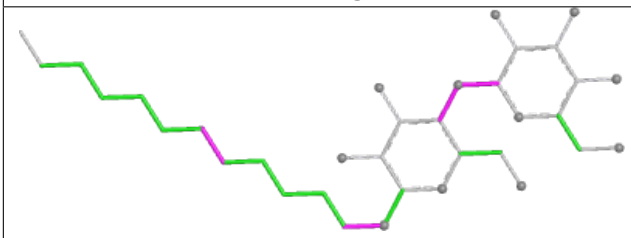
Ligand LMT BW 1002



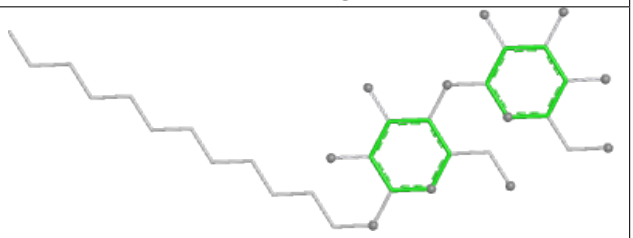
Bond lengths



Bond angles

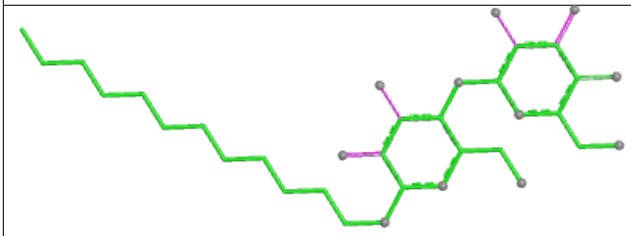


Torsions

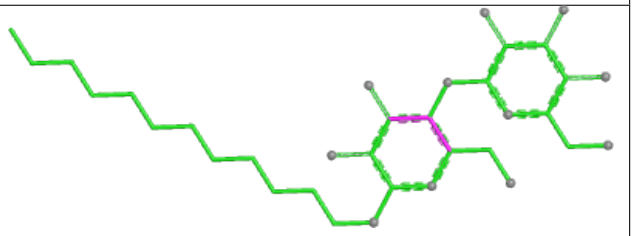


Rings

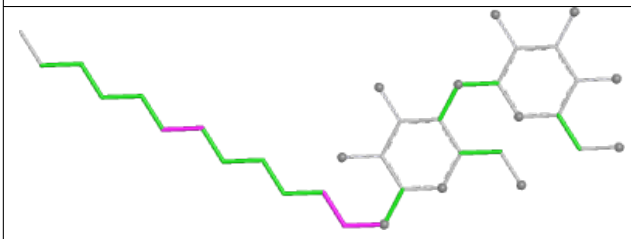
Ligand LMT BP 1005



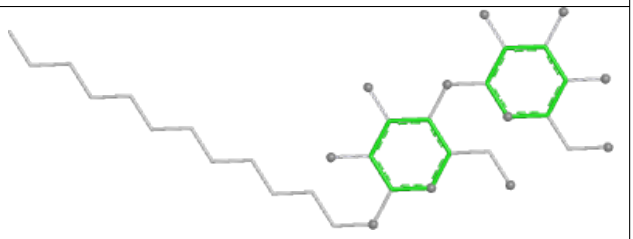
Bond lengths



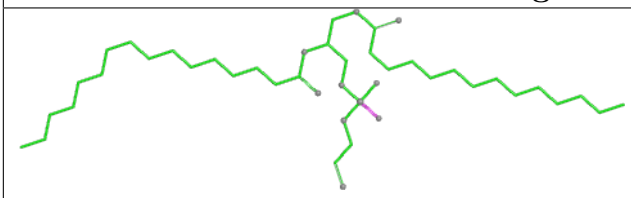
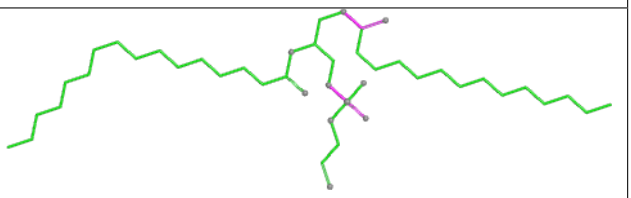
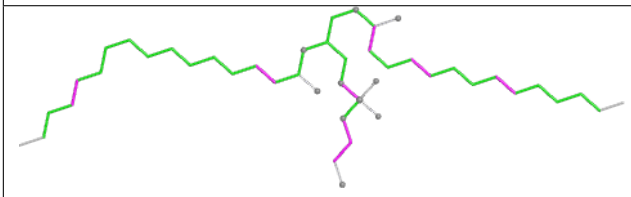
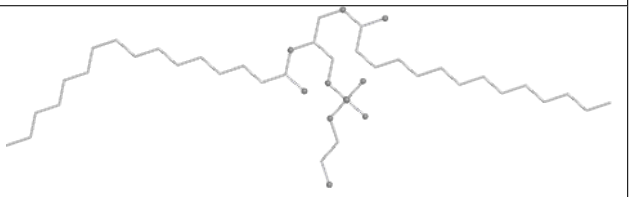
Bond angles

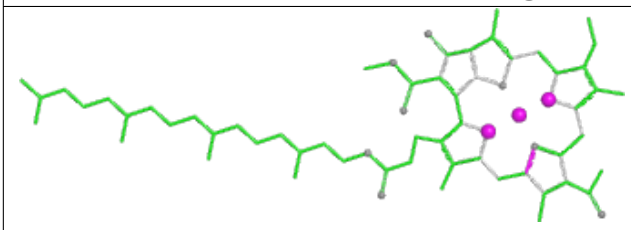
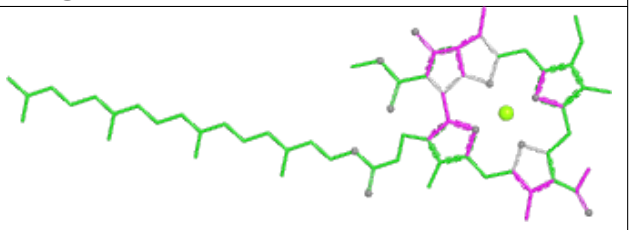
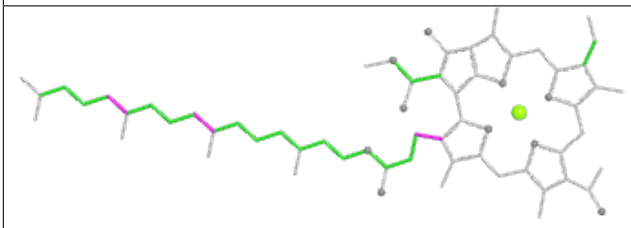
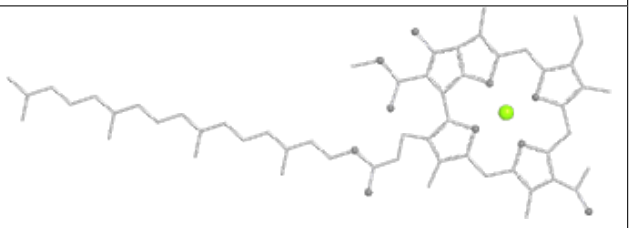


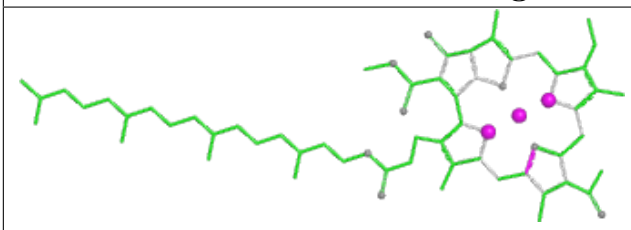
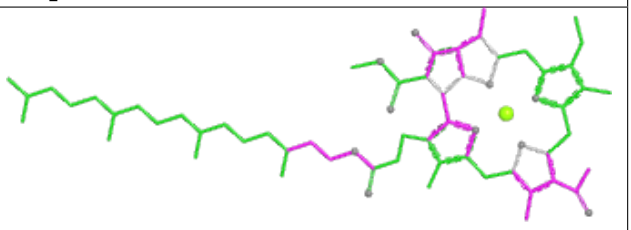
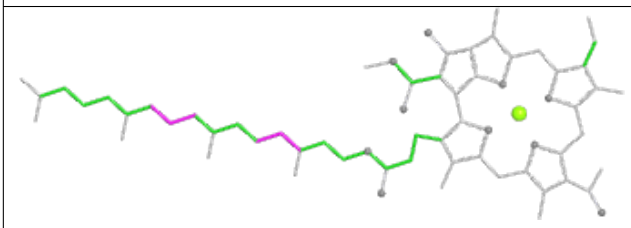
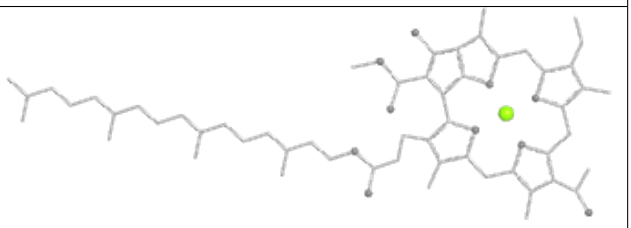
Torsions



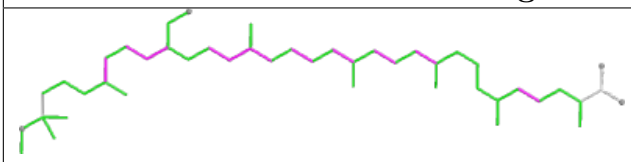
Rings

Ligand 0V9 L 310	
 Bond lengths	 Bond angles
 Torsions	 Rings

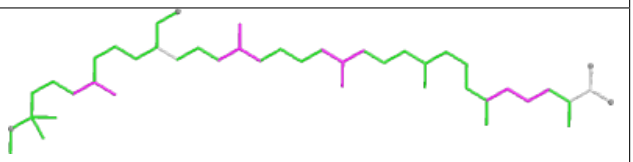
Ligand BCL ag 102	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand BCL ap 1001	
 Bond lengths	 Bond angles
 Torsions	 Rings

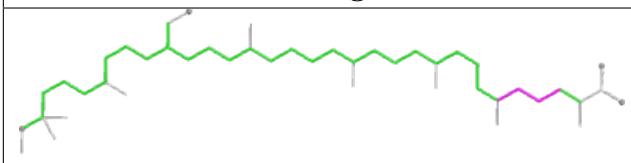
Ligand V7N bd 101



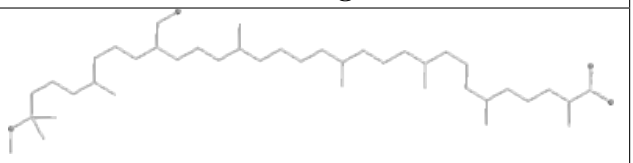
Bond lengths



Bond angles

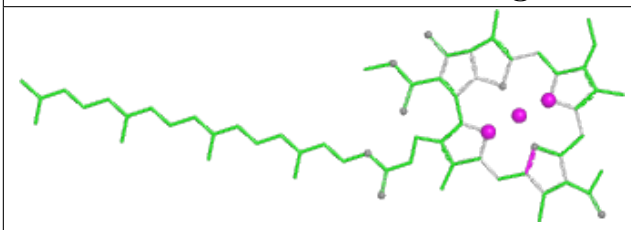


Torsions

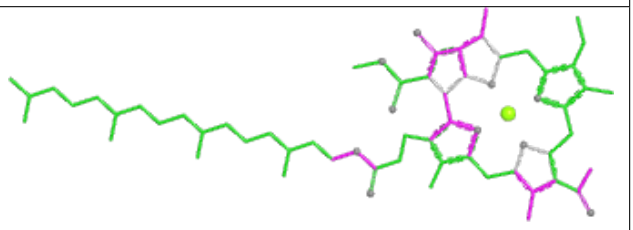


Rings

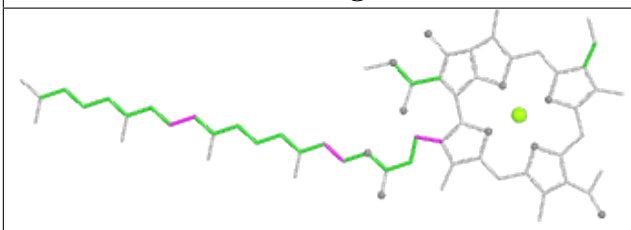
Ligand BCL aa 1001



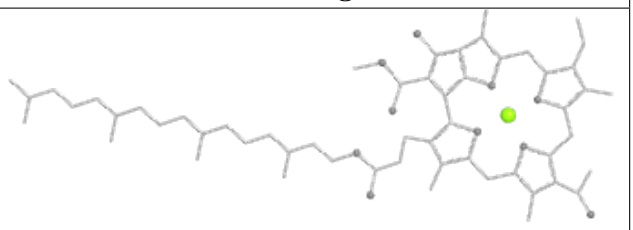
Bond lengths



Bond angles

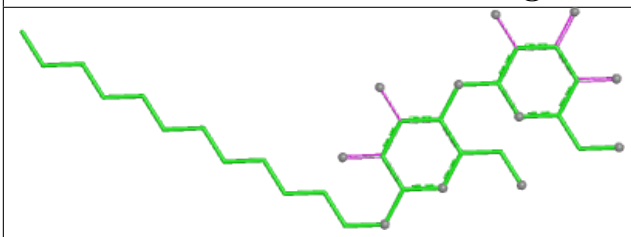


Torsions



Rings

Ligand LMT L 302



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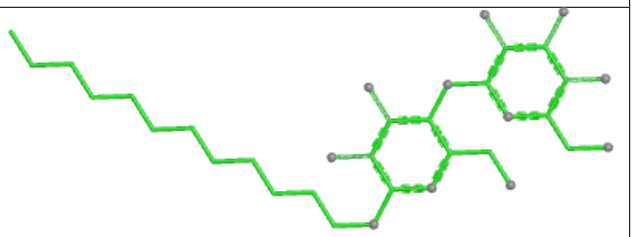
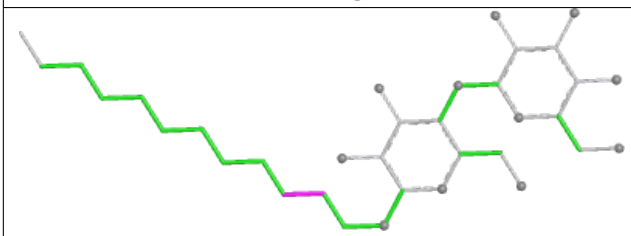
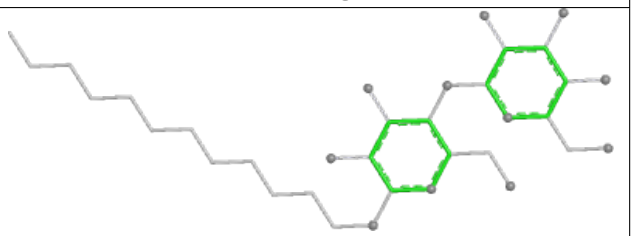


Bond angles

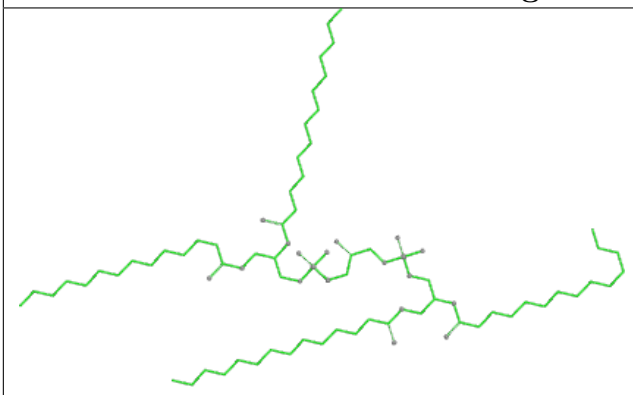


Torsions

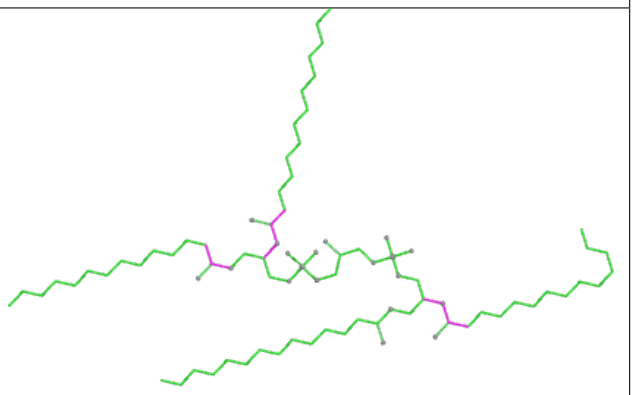


Rings

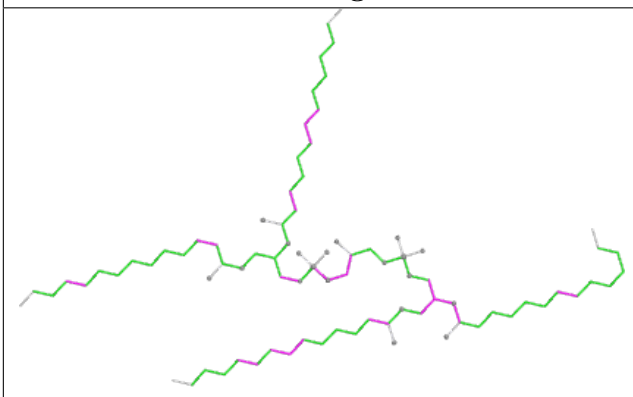
Ligand CD4 M 409



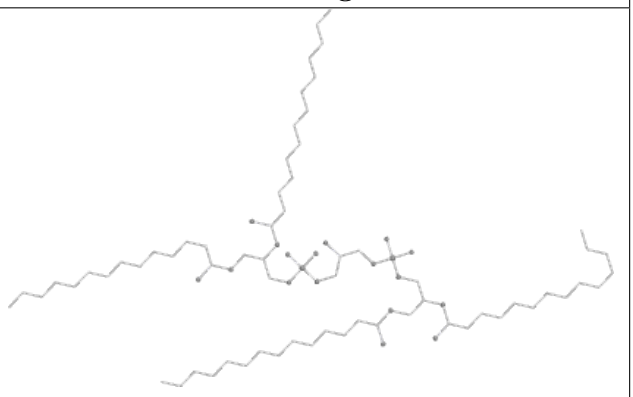
Bond lengths



Bond angles

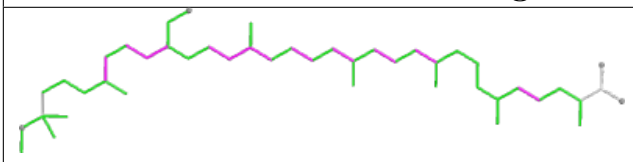


Torsions

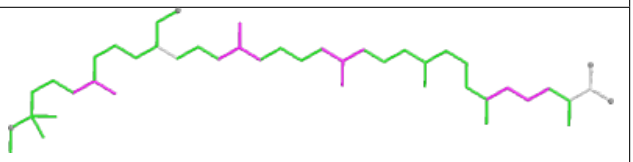


Rings

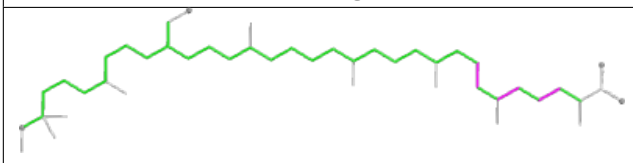
Ligand V7N BD 101



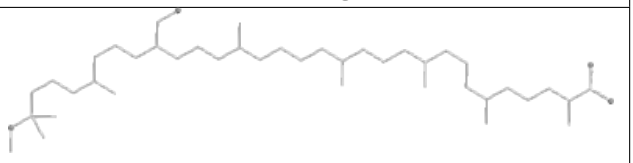
Bond lengths



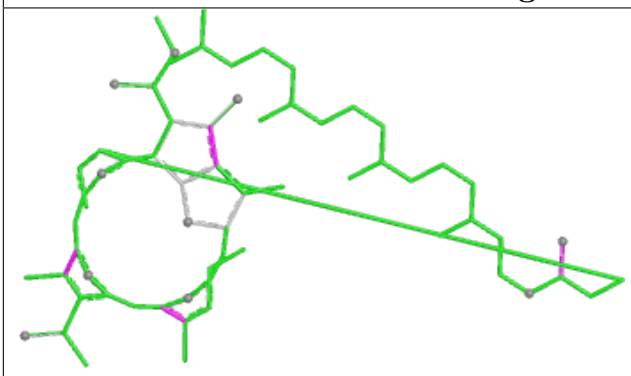
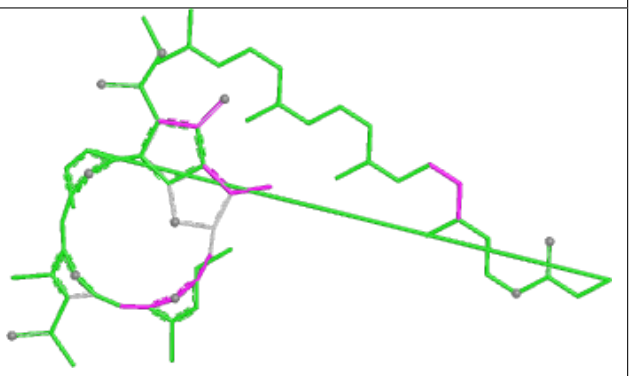
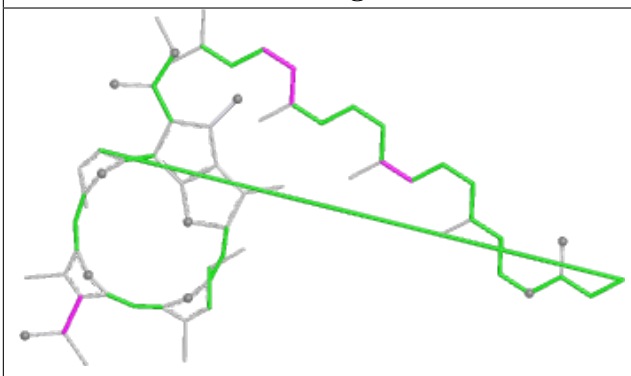
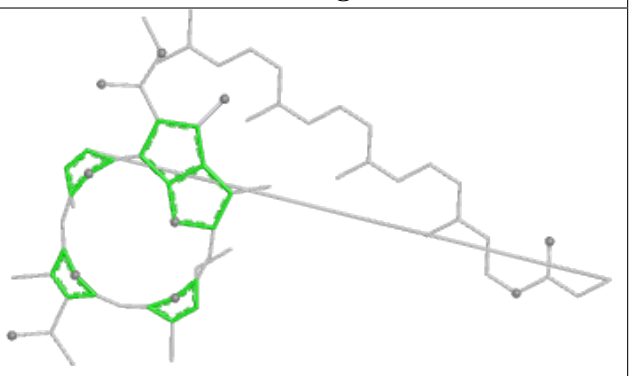
Bond angles

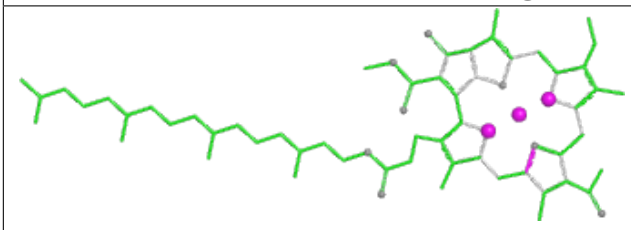
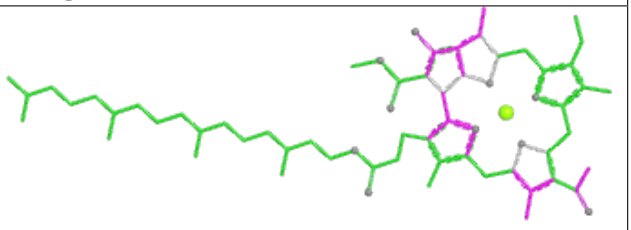
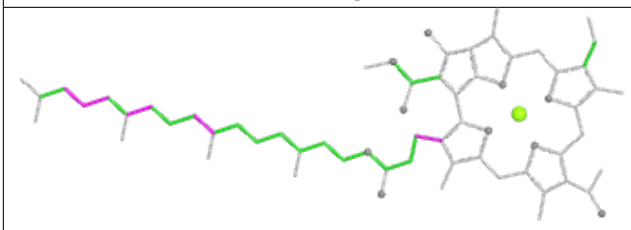
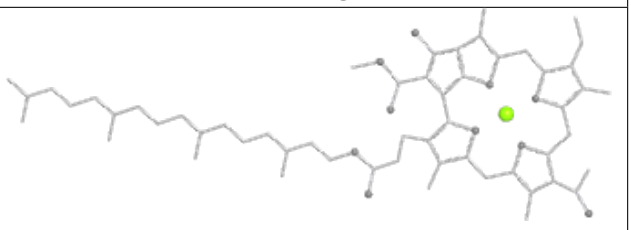


Torsions

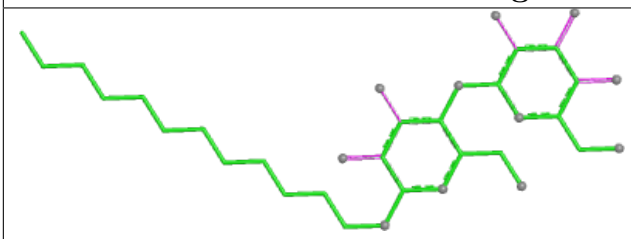


Rings

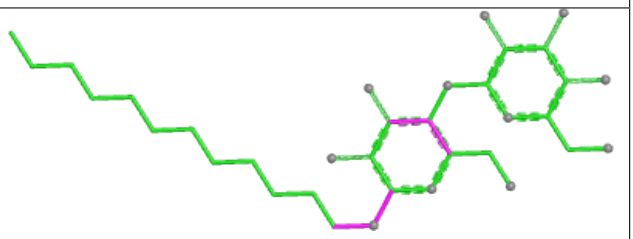
Ligand BPH M 407	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand BCL bg 104	
 Bond lengths	 Bond angles
 Torsions	 Rings

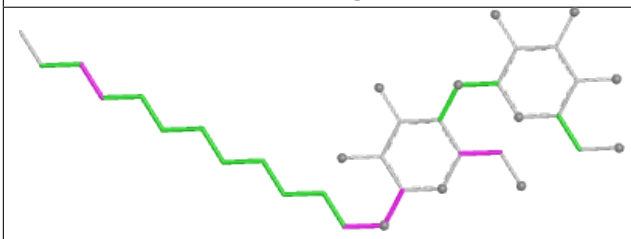
Ligand LMT H2 201



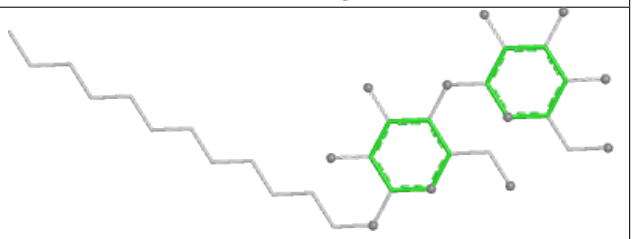
Bond lengths



Bond angles

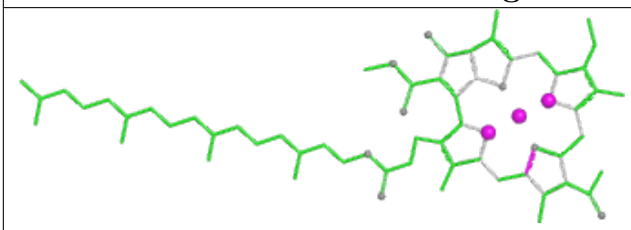


Torsions

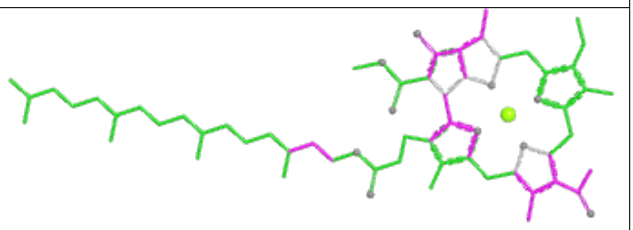


Rings

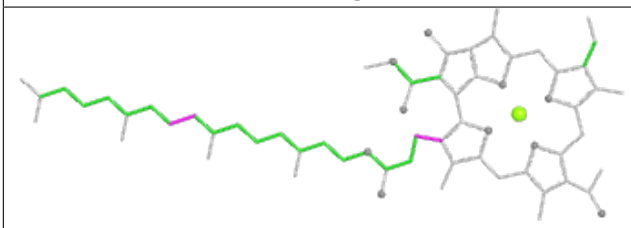
Ligand BCL BO 1003



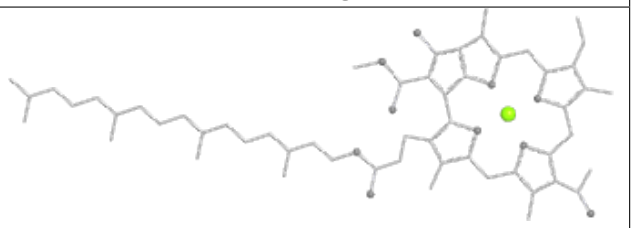
Bond lengths



Bond angles

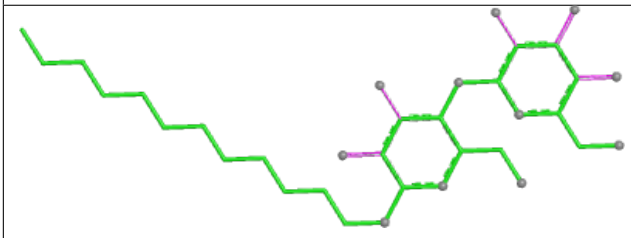


Torsions

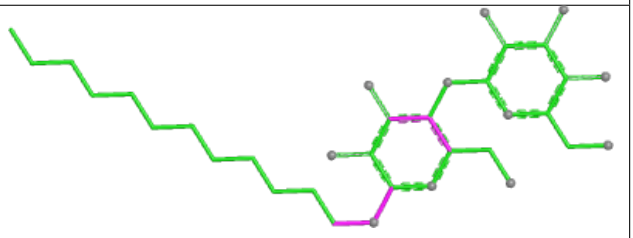


Rings

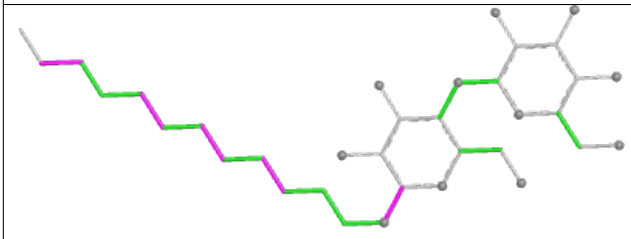
Ligand LMT AK 101



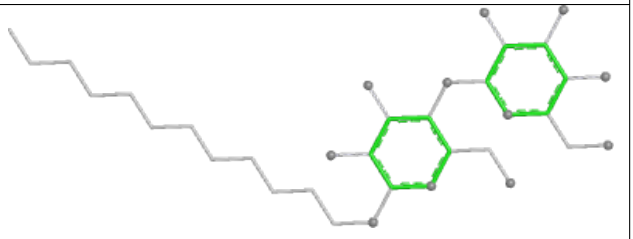
Bond lengths



Bond angles

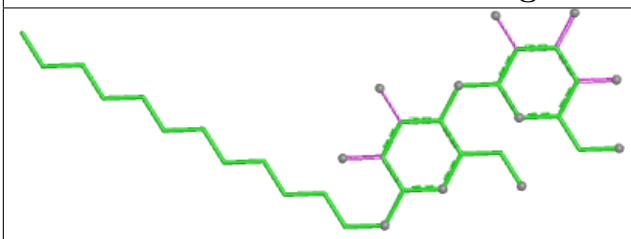


Torsions



Rings

Ligand LMT bl 103



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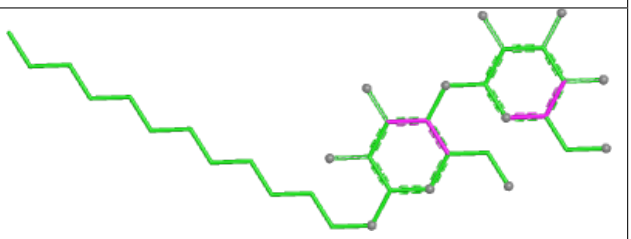

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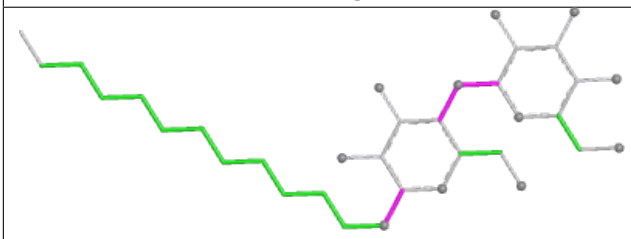

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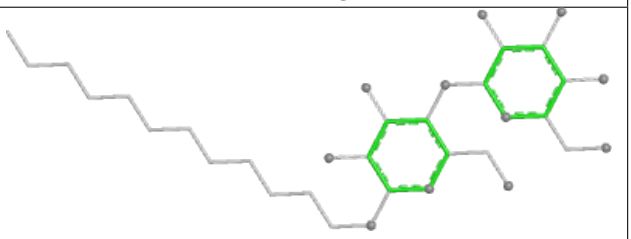
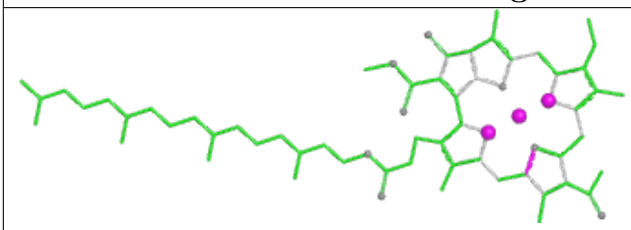
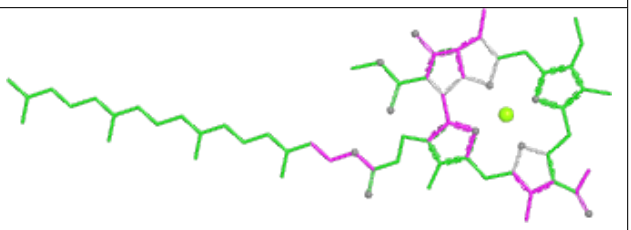


Rings

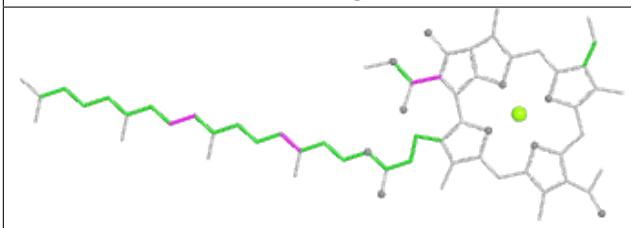
Ligand BCL ab 1001



Bond lengths



Bond angles



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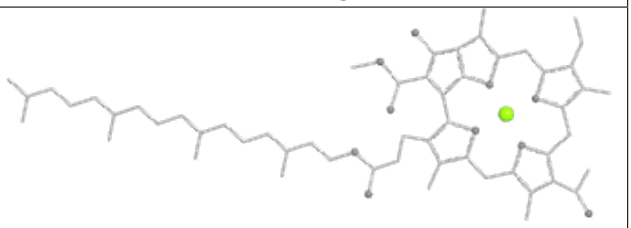
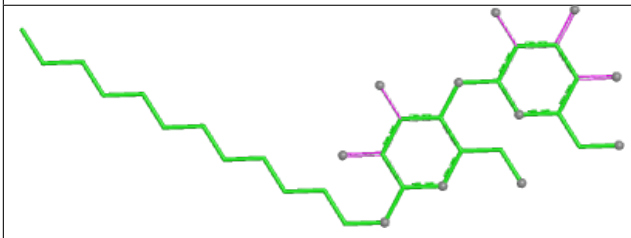


Rings

Ligand LMT BF 102



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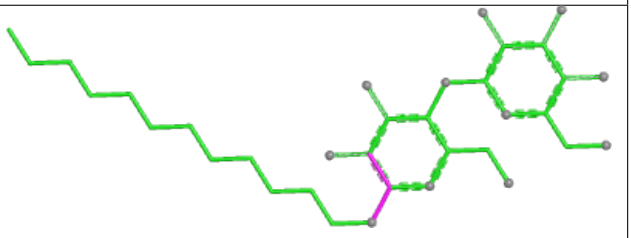
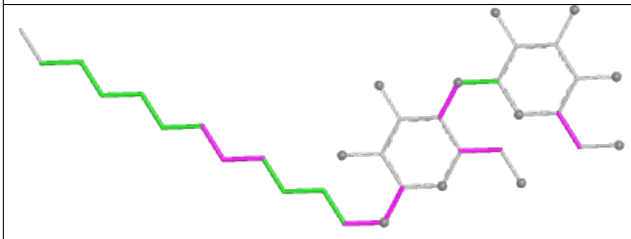


Bond angles



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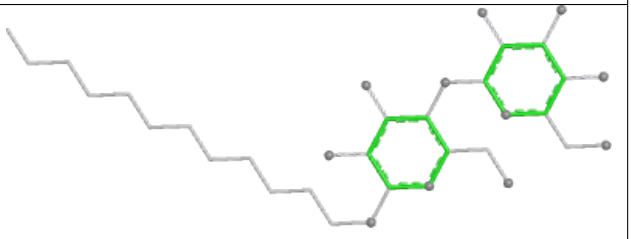
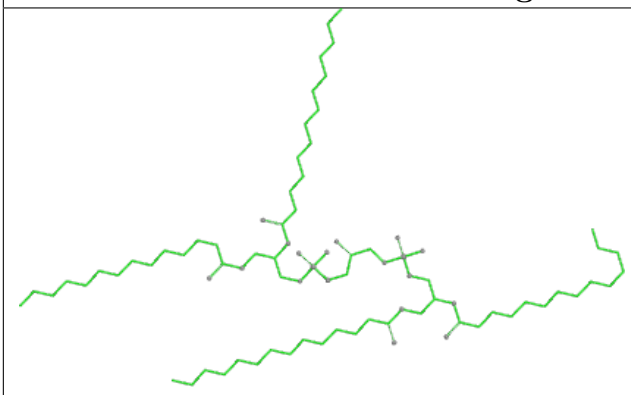
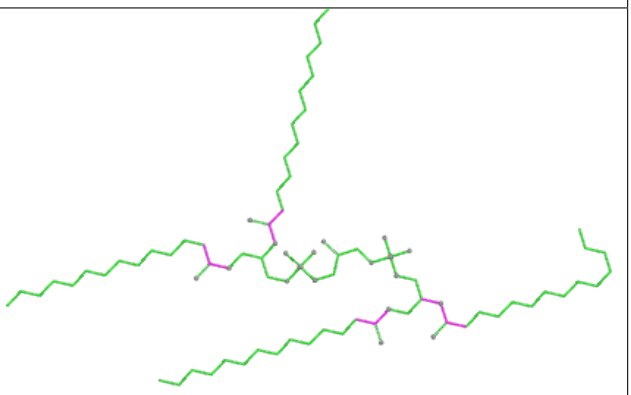
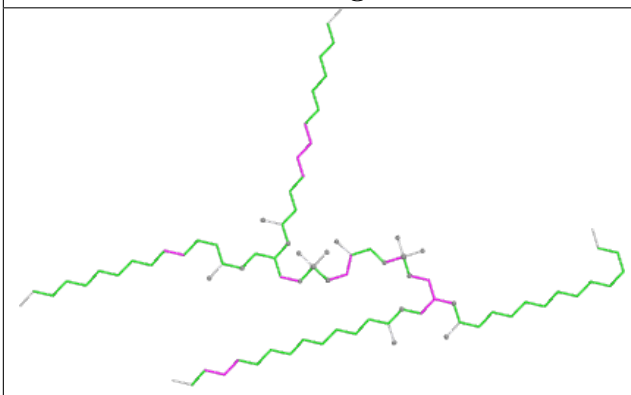
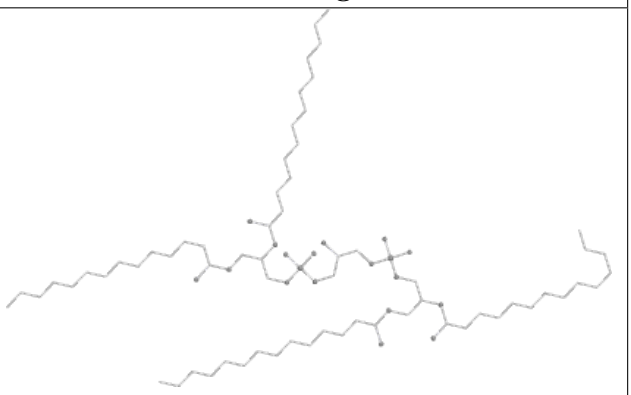
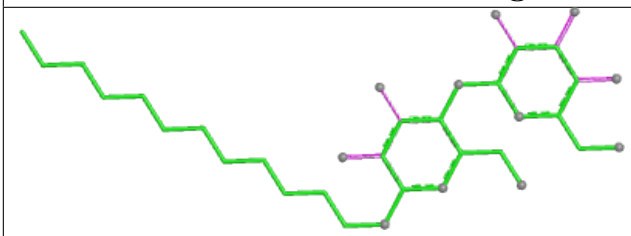
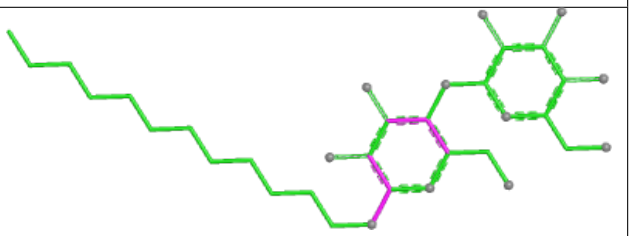
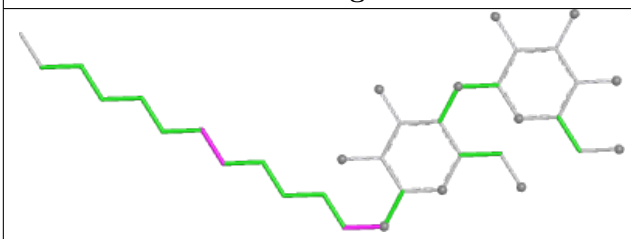
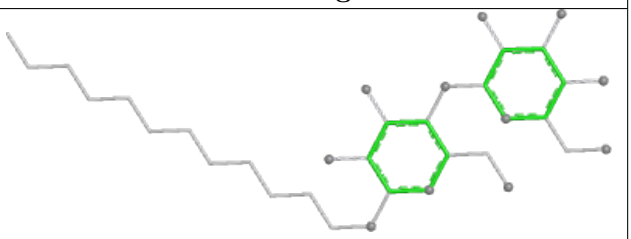
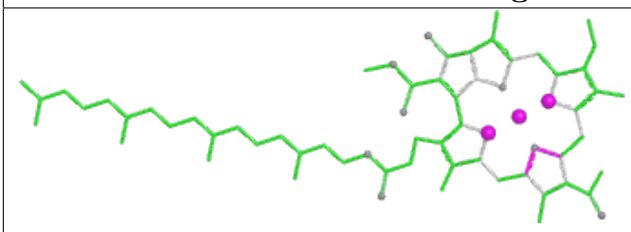


Rings

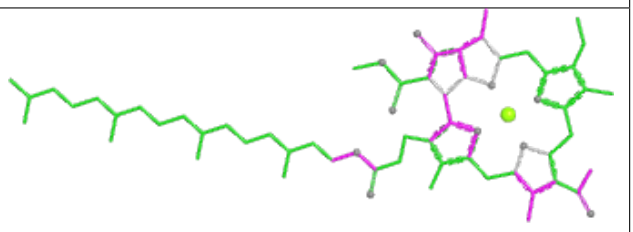
Ligand CD4 H1 103	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand LMT BB 101	
 Bond lengths	 Bond angles
 Torsions	 Rings

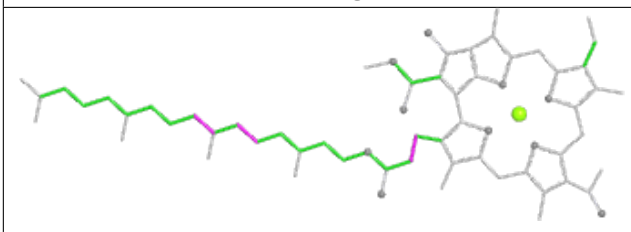
Ligand BCL AX 102



Bond lengths



Bond angles



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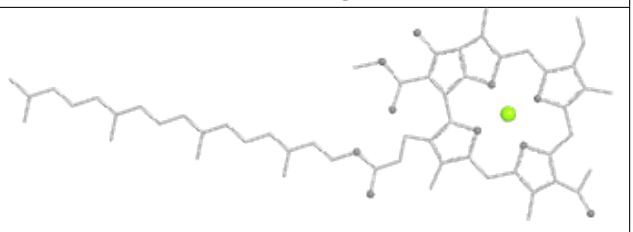
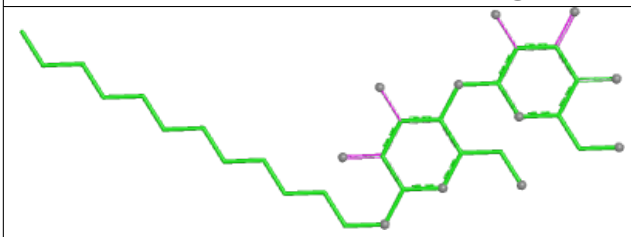


Rings

Ligand LMT AE 106



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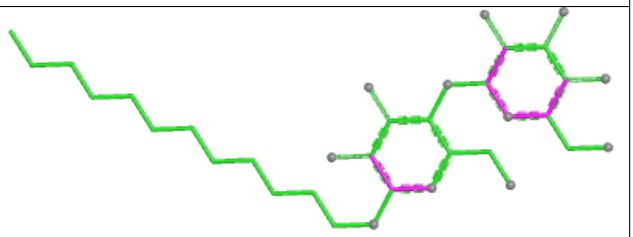
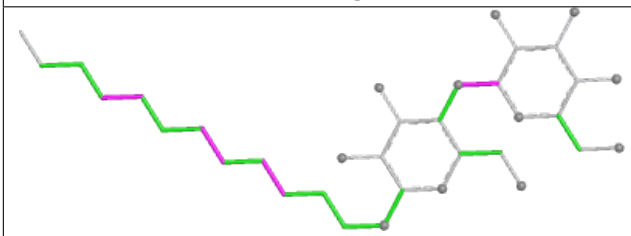


Bond angles



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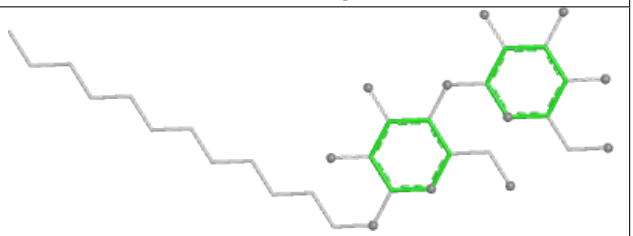
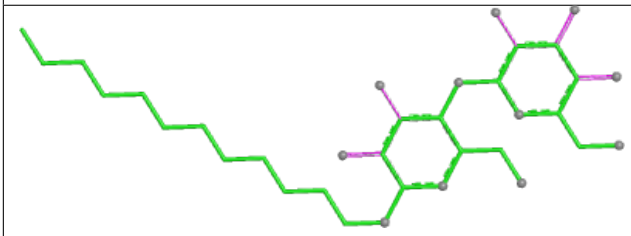
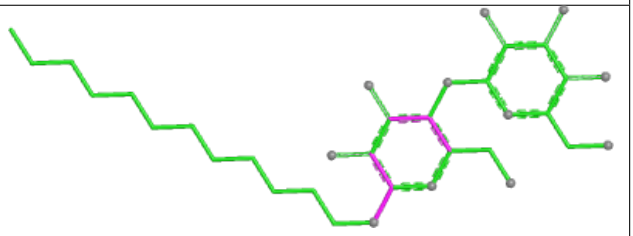


Rings

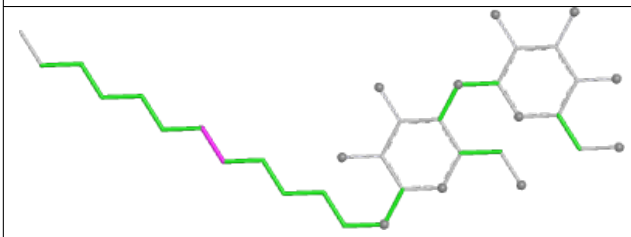
Ligand LMT BJ 1002



Bond lengths



Bond angles



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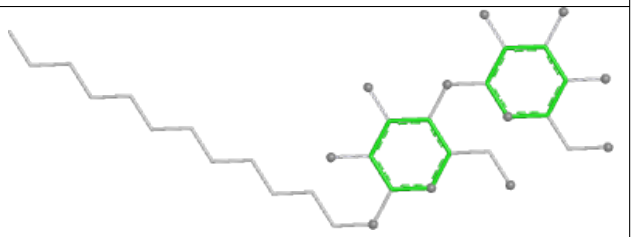
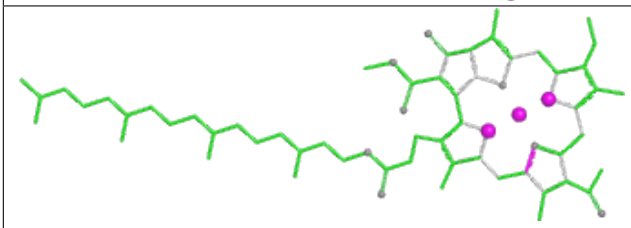
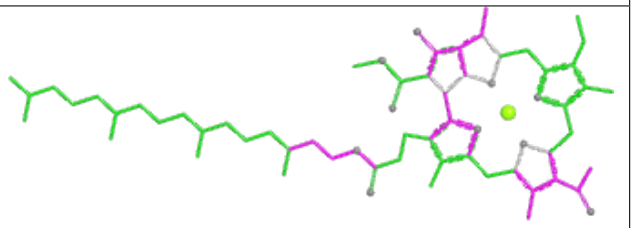


Rings

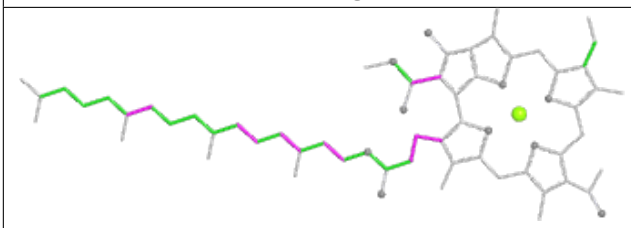
Ligand BCL BK 1002



Bond lengths



Bond angles



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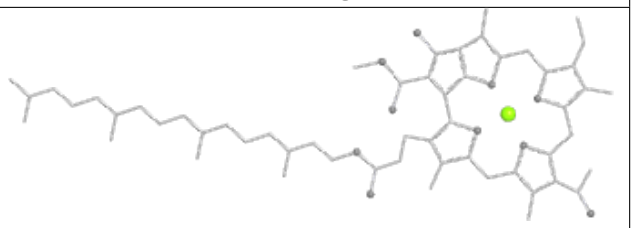
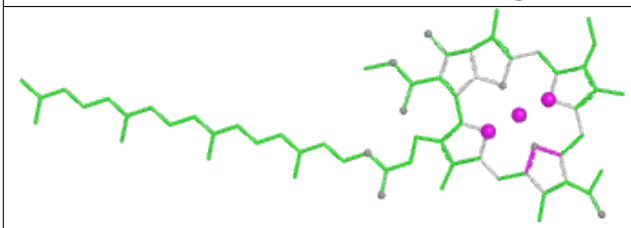


Rings

Ligand BCL AN 104



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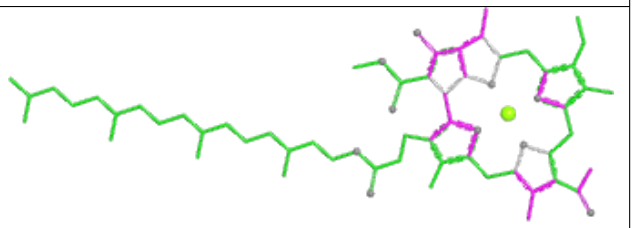

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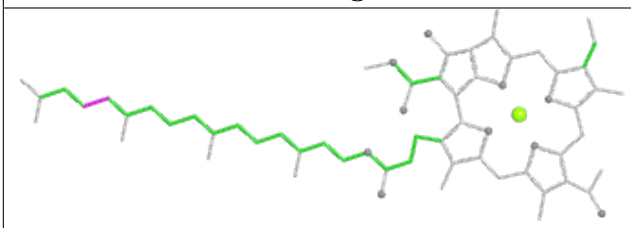

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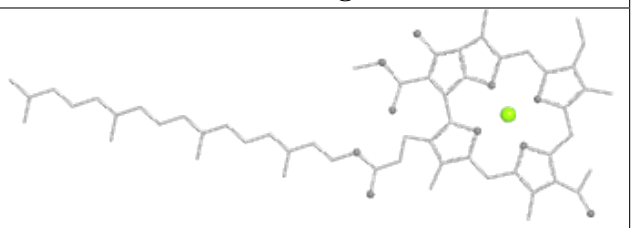
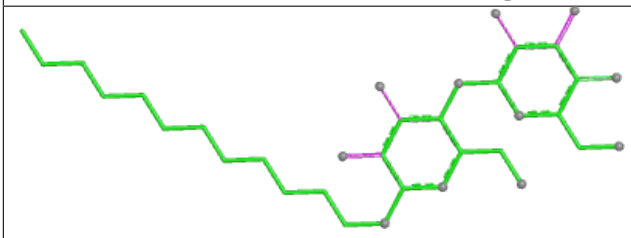


Rings

Ligand LMT BV 1003



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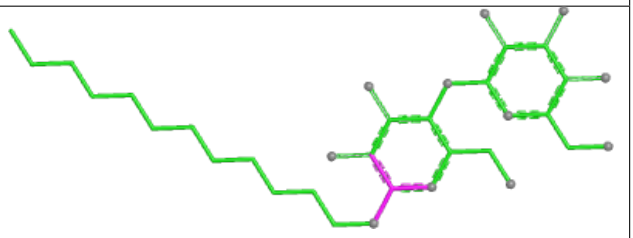
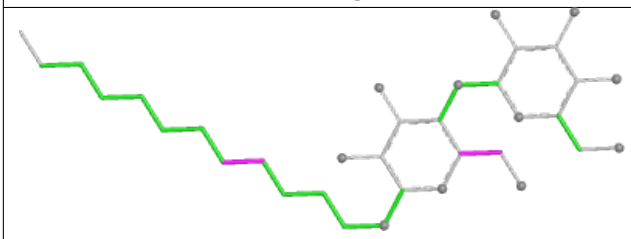


Bond angles



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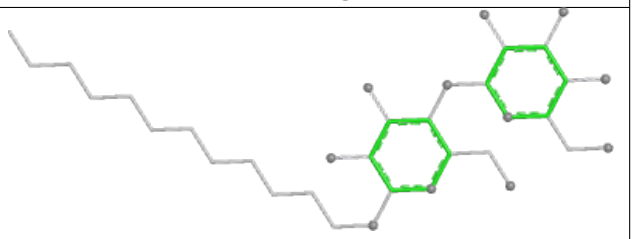
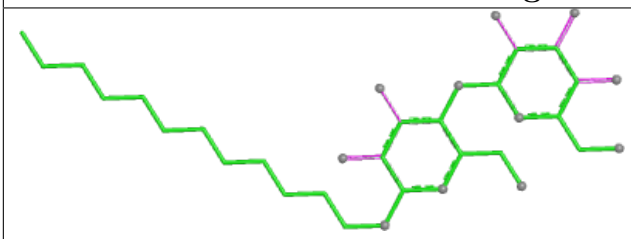
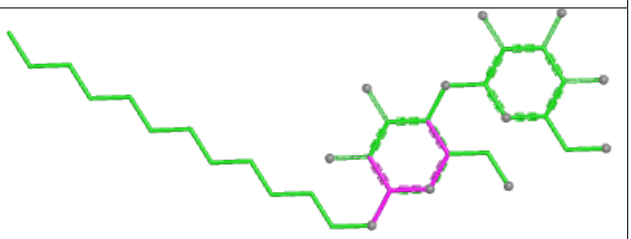
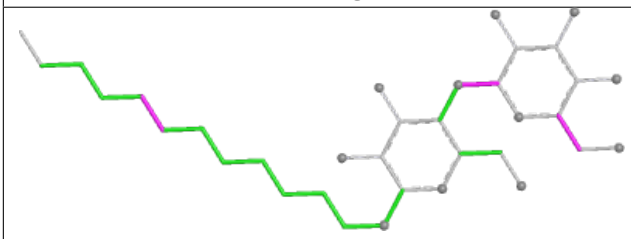


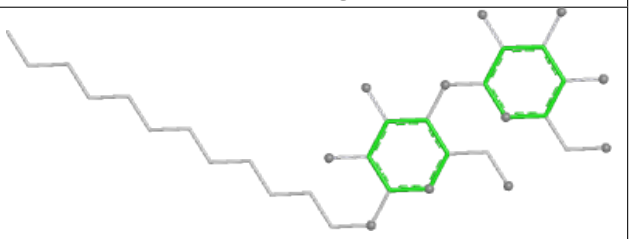
Rings

Ligand LMT L 304

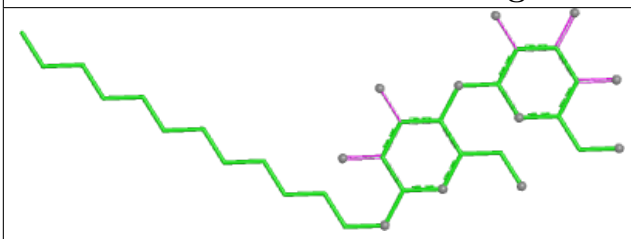

Bond lengths

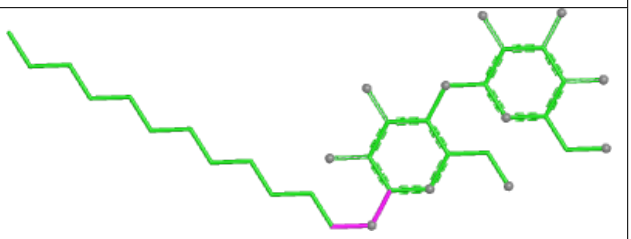

Bond angles

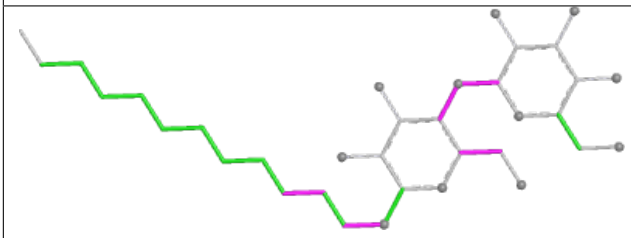

Torsions


Rings

Ligand LMT BX 104


Bond lengths


Bond angles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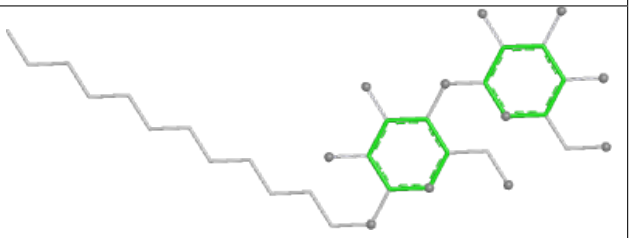
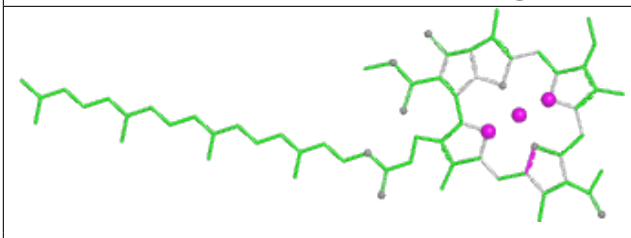

Rings

Ligand BCL AG 103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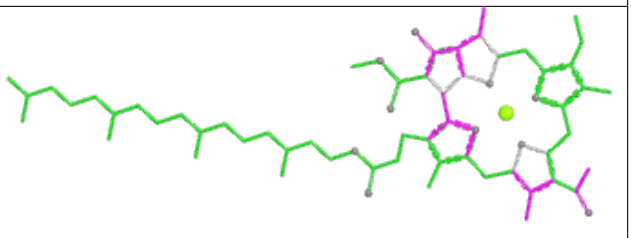
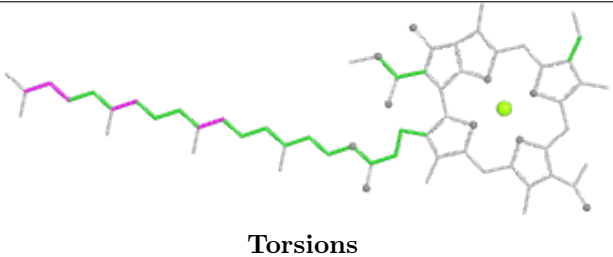

Bond angles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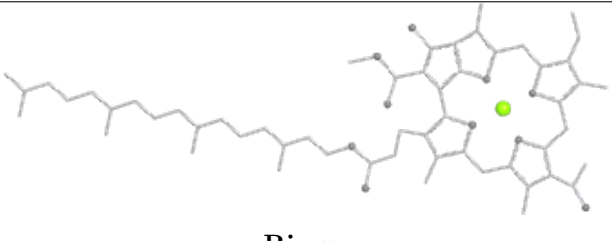
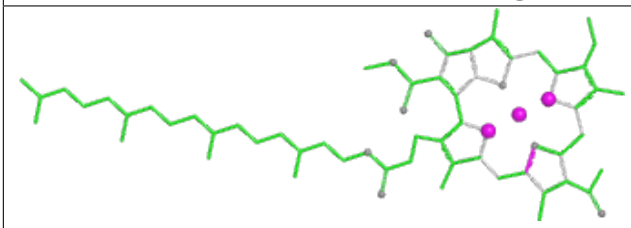
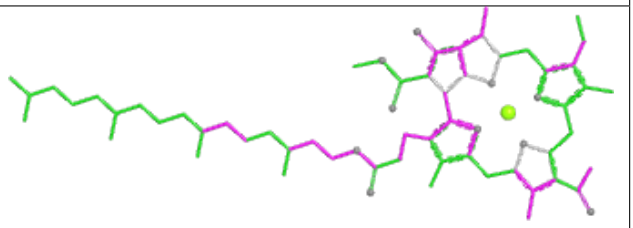

Rings

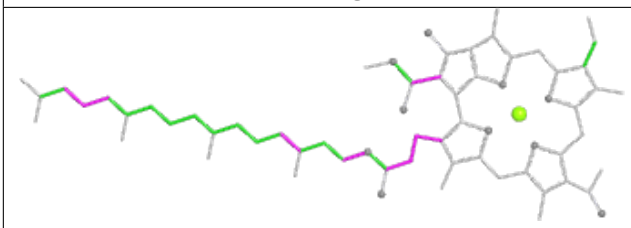
Ligand BCL AG 102



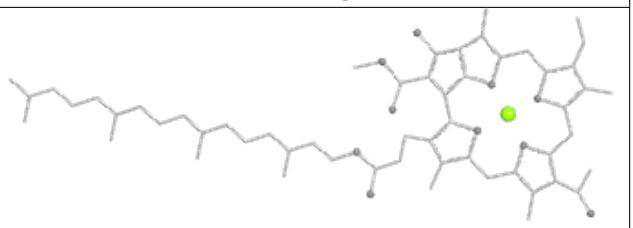
Bond lengths



Bond angles

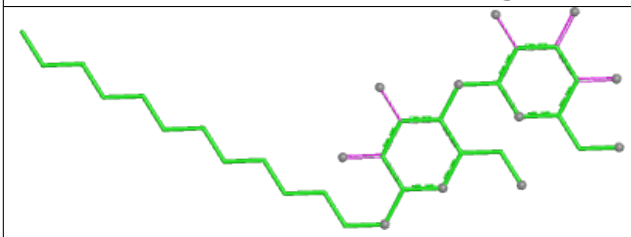


Torsions

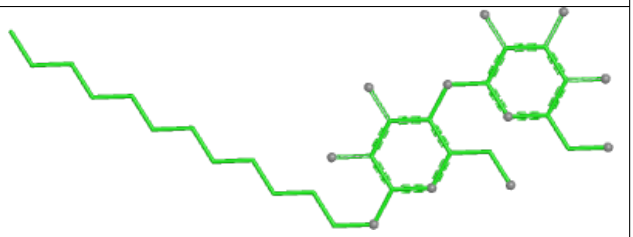


Rings

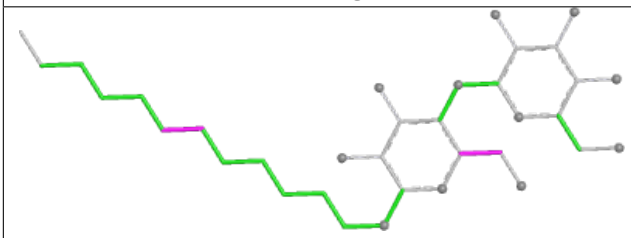
Ligand LMT BN 1002



Bond lengths



Bond angles



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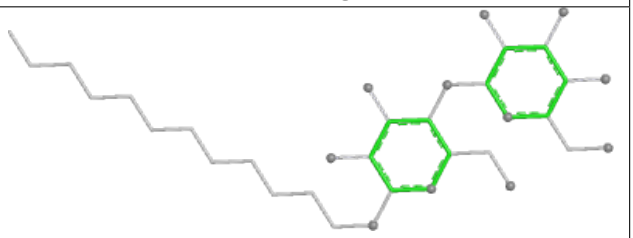
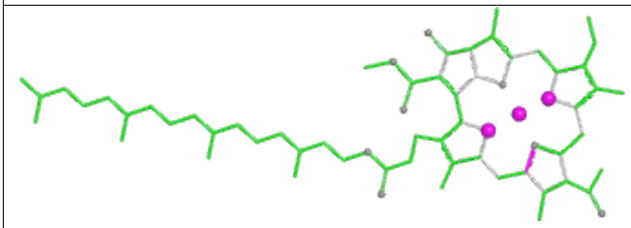
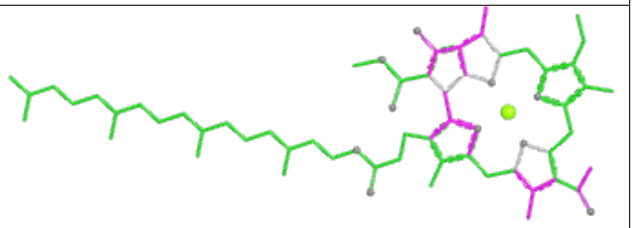


Rings

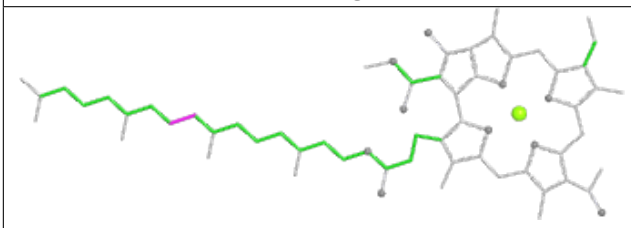
Ligand BCL AW 101



Bond lengths



Bond angles



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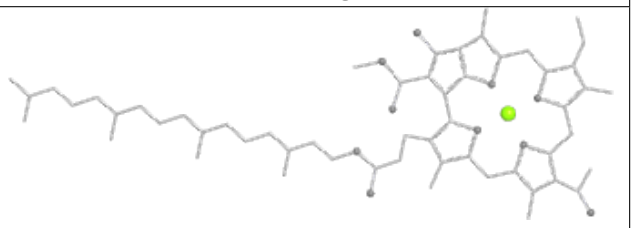
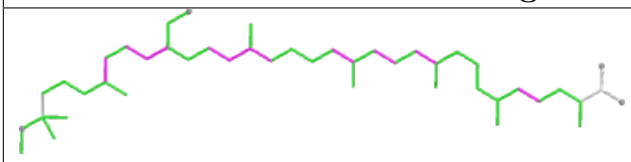


Rings

Ligand V7N bc 101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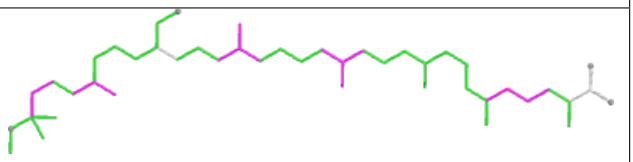
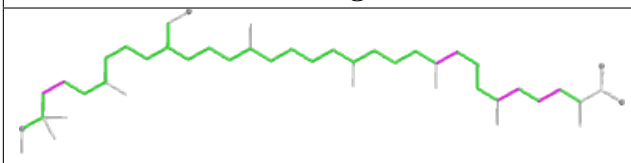

Bond angles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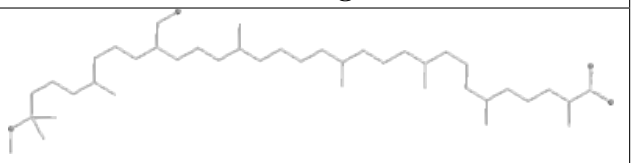
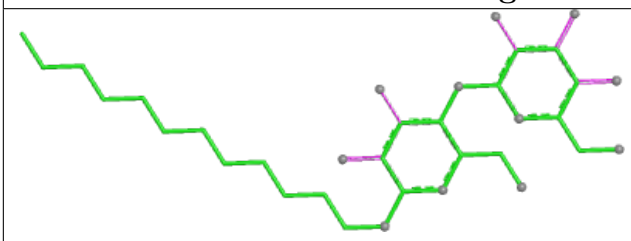
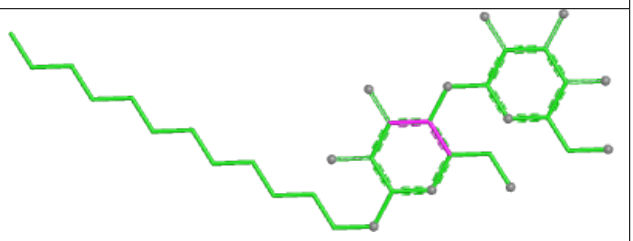
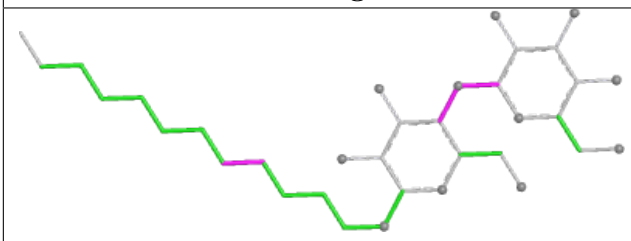

Rings

Ligand LMT BR 1006


Bond lengths


Bond angles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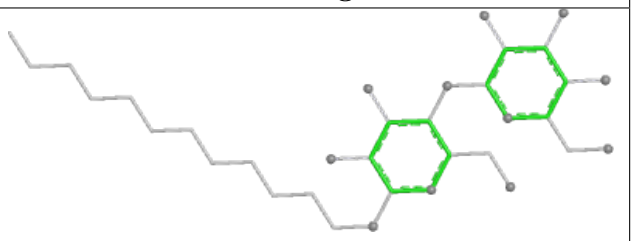
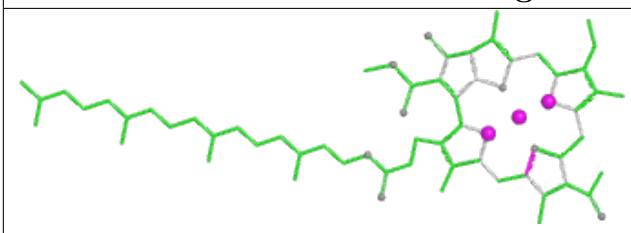

Rings

Ligand BCL al 1001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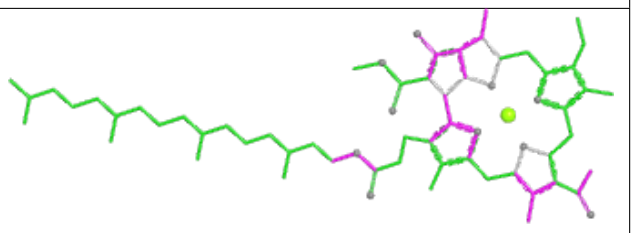
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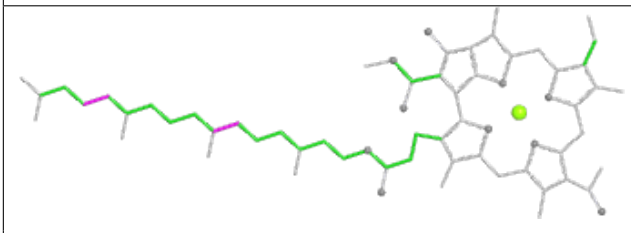
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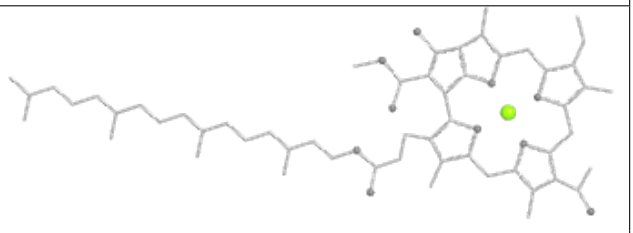
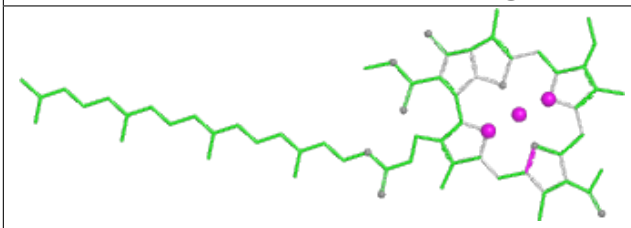

Rings

Ligand BCL BG 1004



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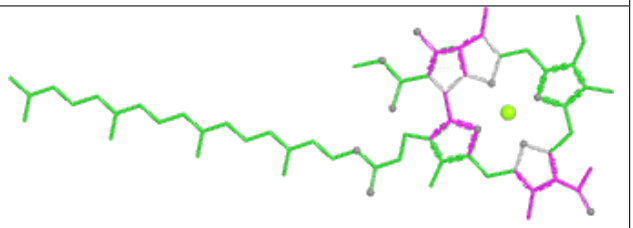
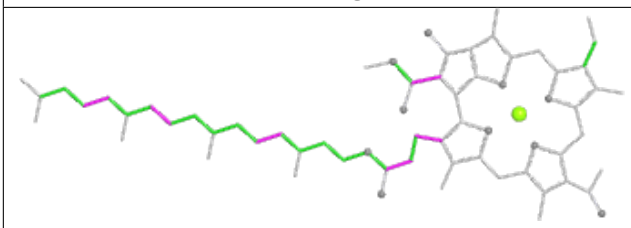


Bond angles



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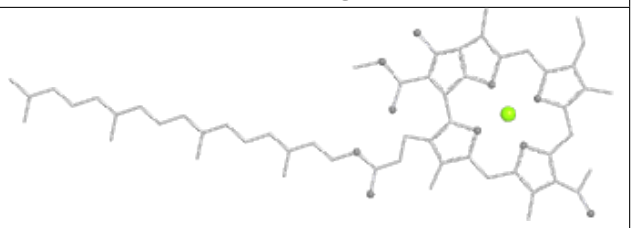
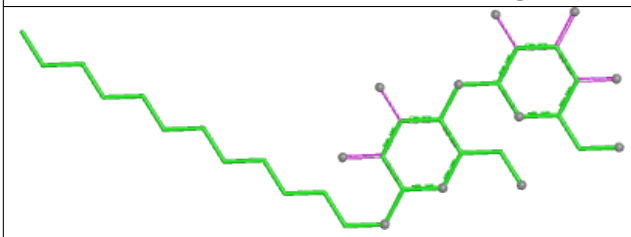


Rings

Ligand LMT AJ 102



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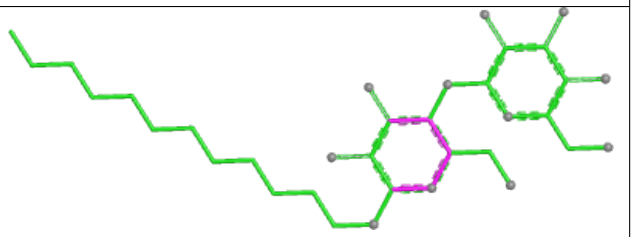
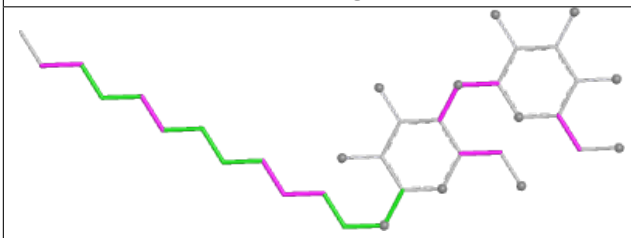


Bond angles



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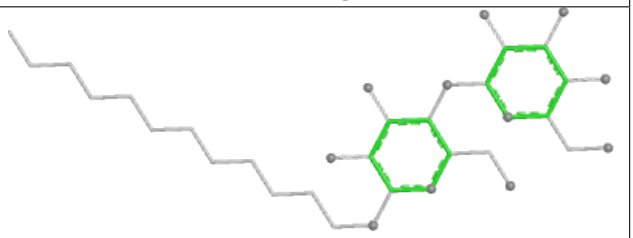
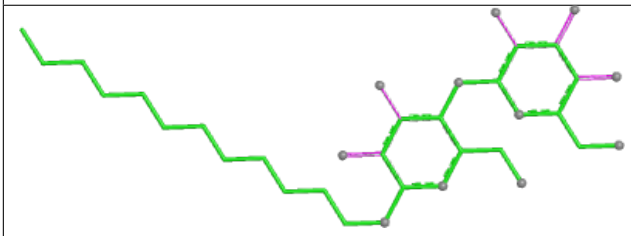


Rings

Ligand LMT AH 104



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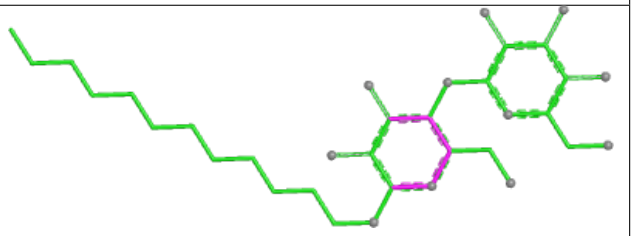
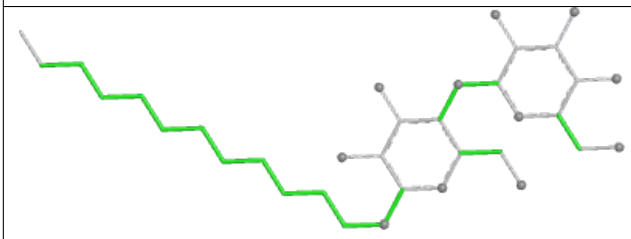


Bond angles



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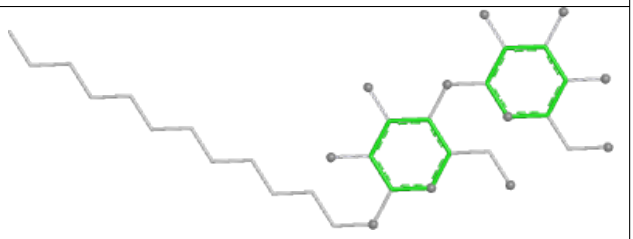
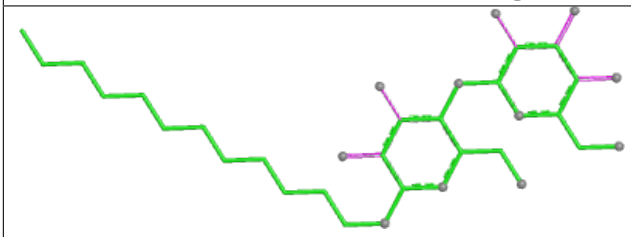


Rings

Ligand LMT BC 101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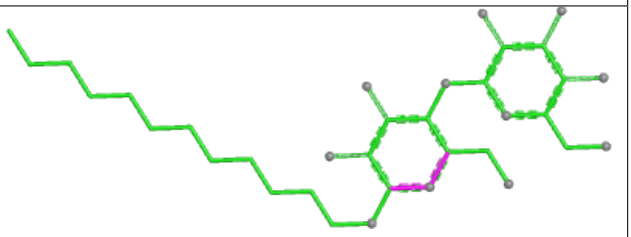
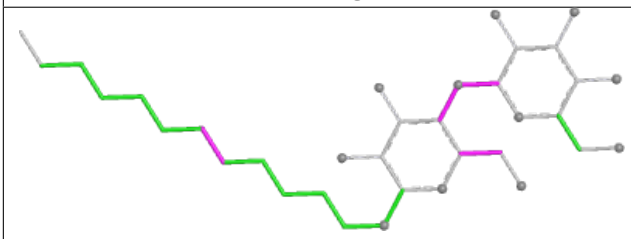

Bond angles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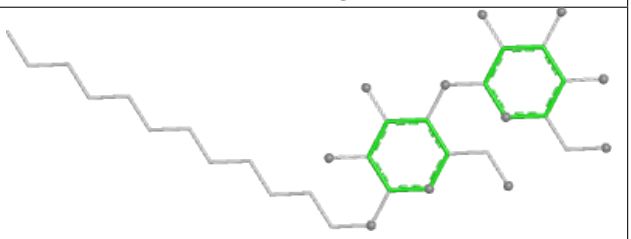
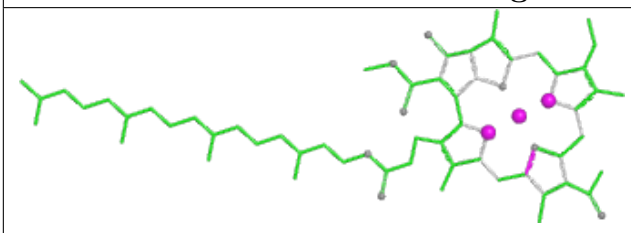

Rings

Ligand BCL AN 103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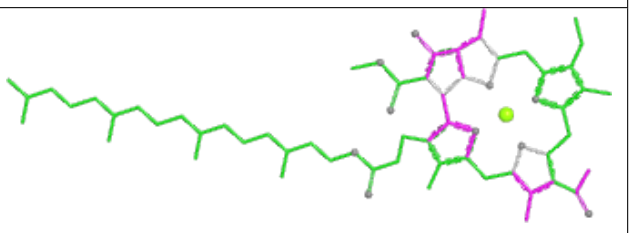
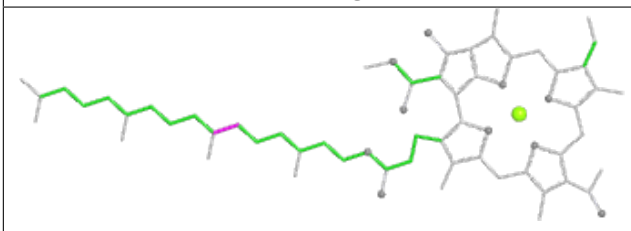

Bond angles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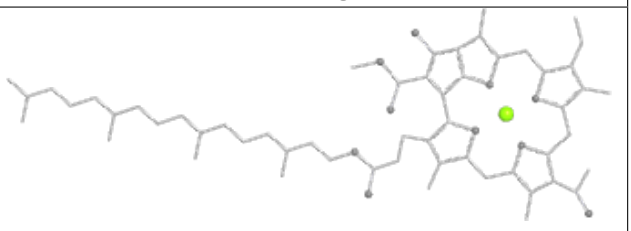
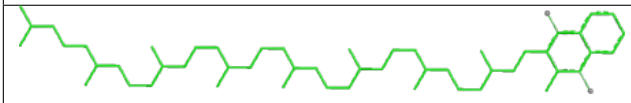

Rings

Ligand MQ8 ao 101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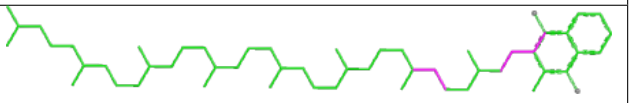
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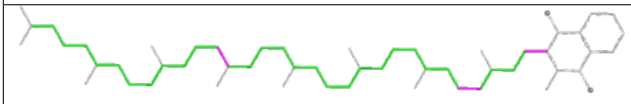
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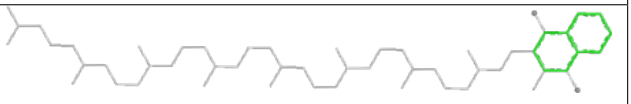
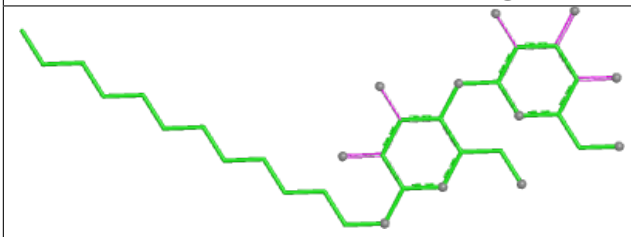

Rings

Ligand LMT BV 1002



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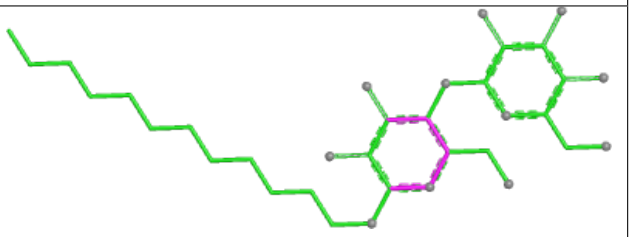
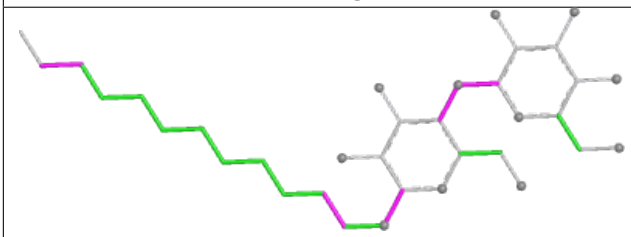


Bond angles



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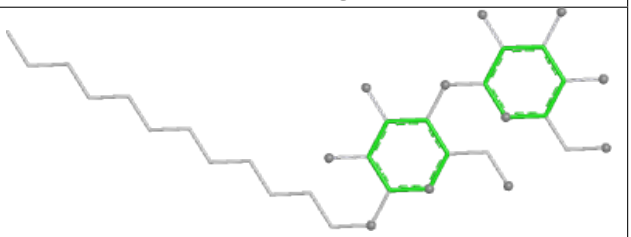
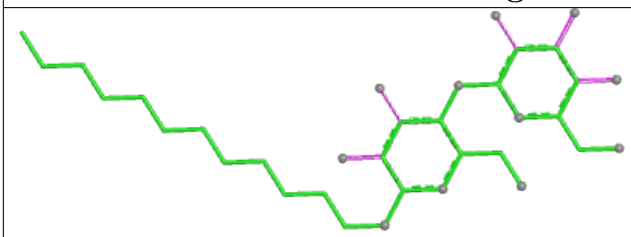
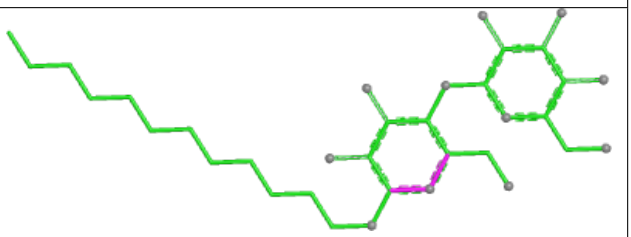


Rings

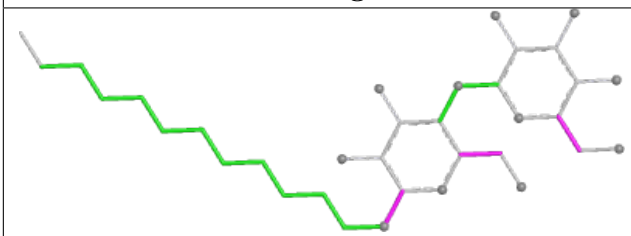
Ligand LMT AH 101



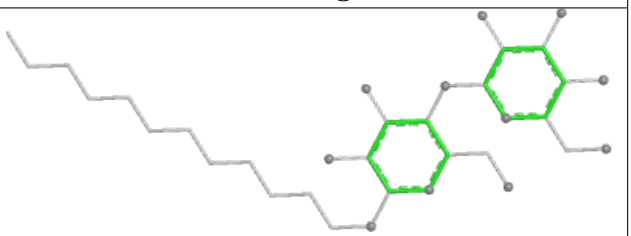
Bond lengths



Bond angles

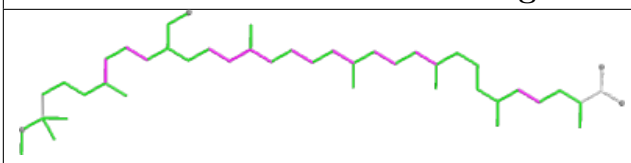


Torsions



Rings

Ligand V7N bk 101



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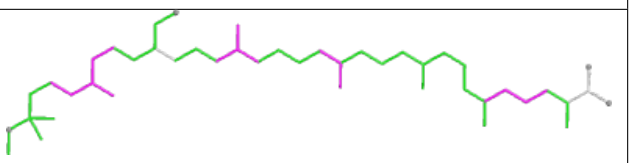
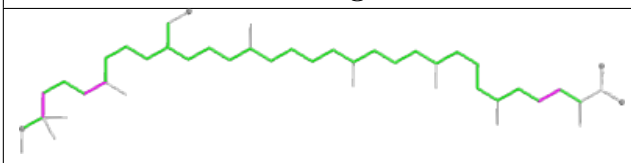
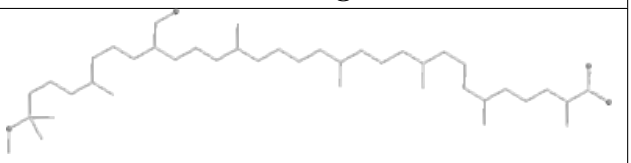


Bond angles

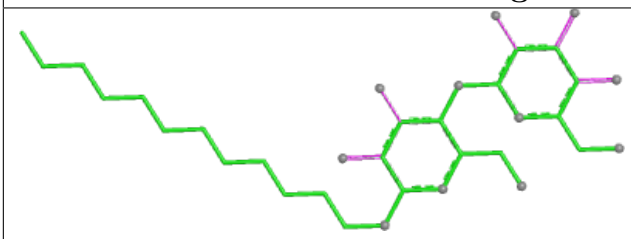


Torsions

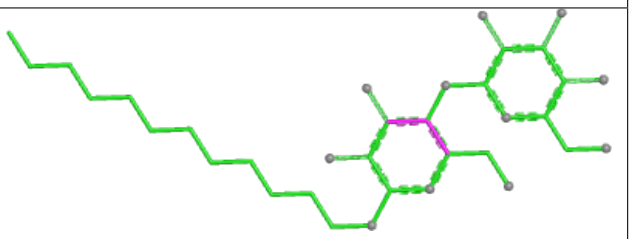


Rings

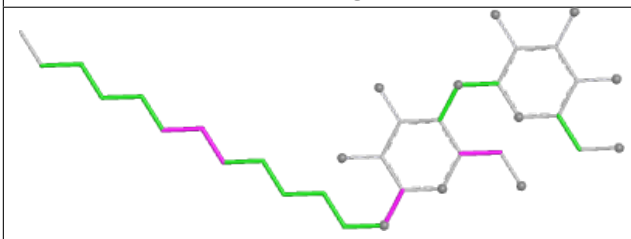
Ligand LMT BL 101



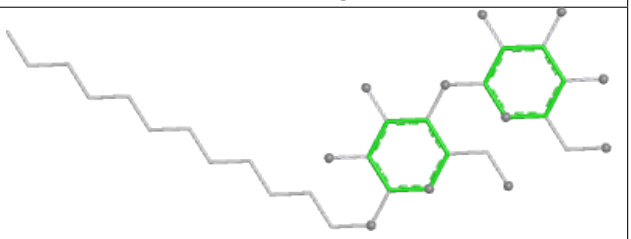
Bond lengths



Bond angles

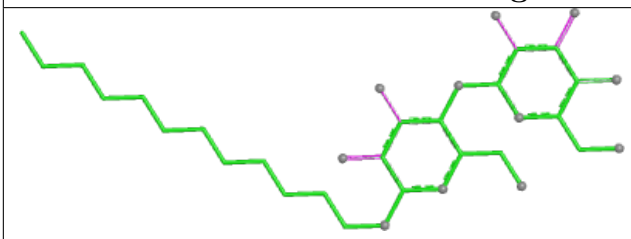


Torsions



Rings

Ligand LMT BF 104



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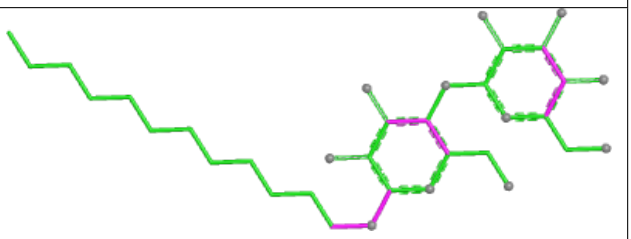

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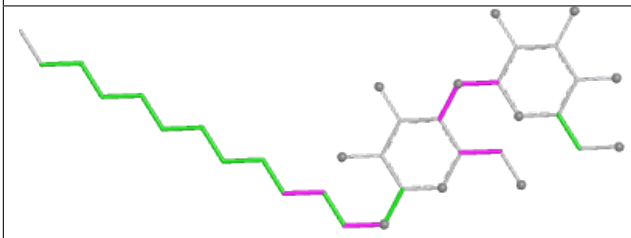

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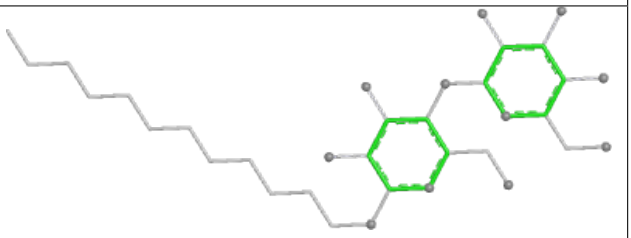
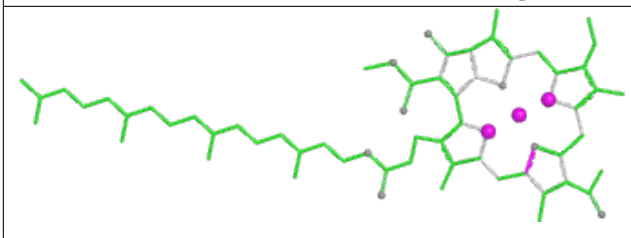
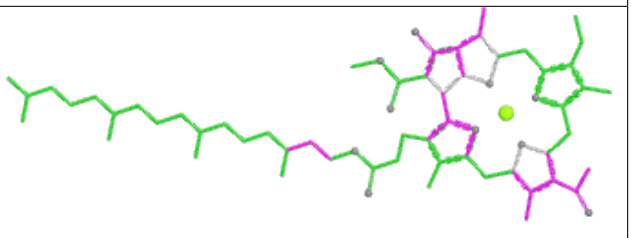


Rings

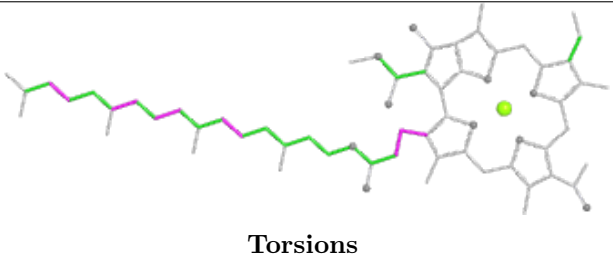
Ligand BCL AT 103



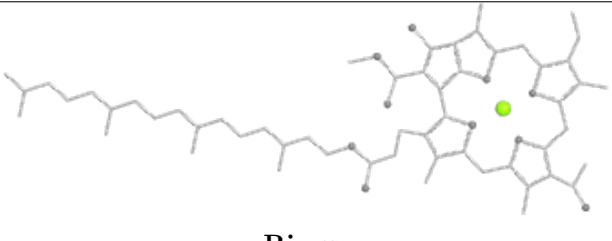
Bond lengths



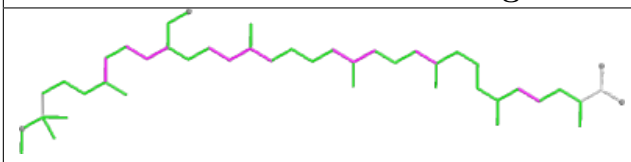
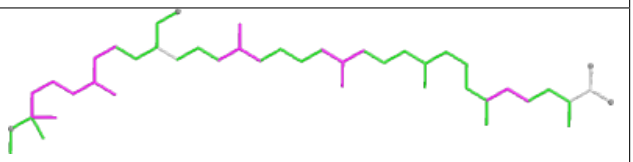
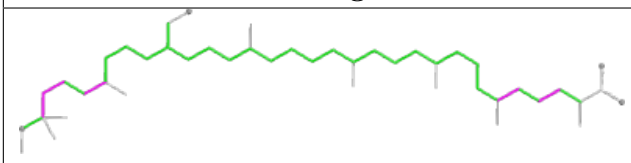
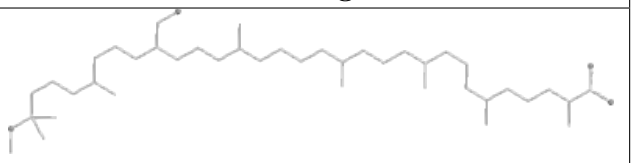
Bond angles

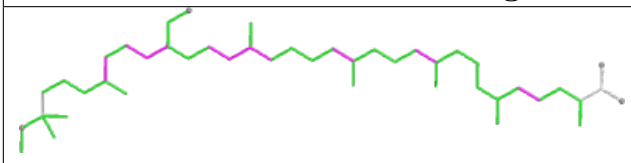
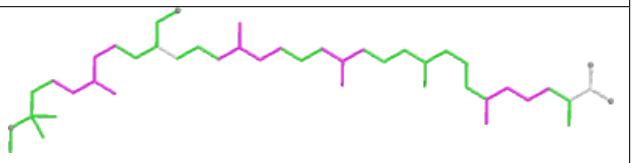
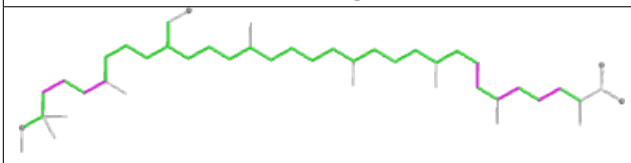
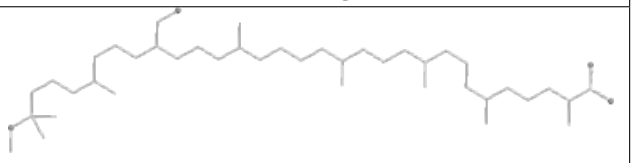


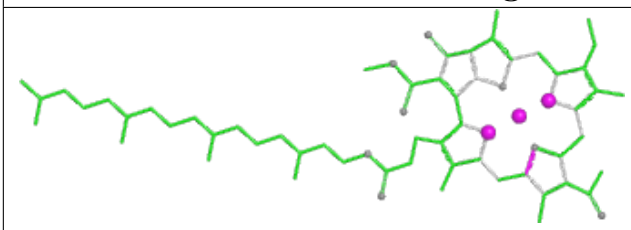
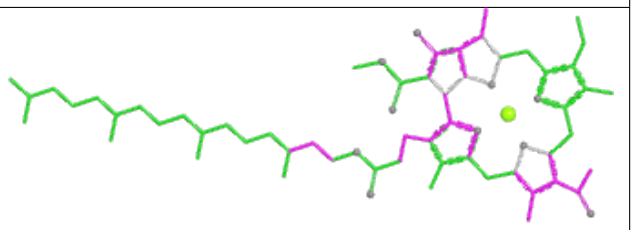
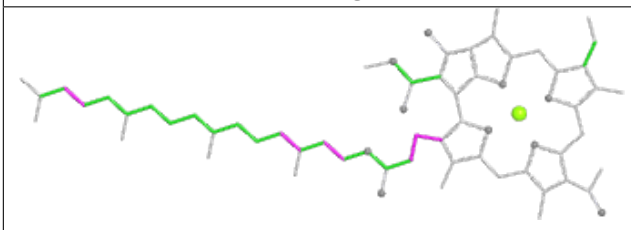
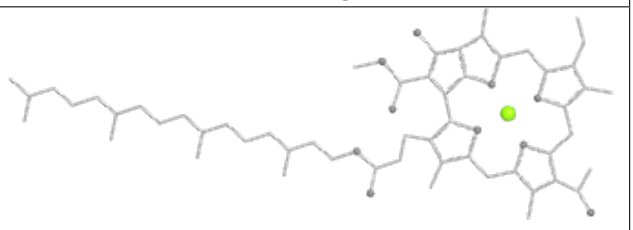
Torsions

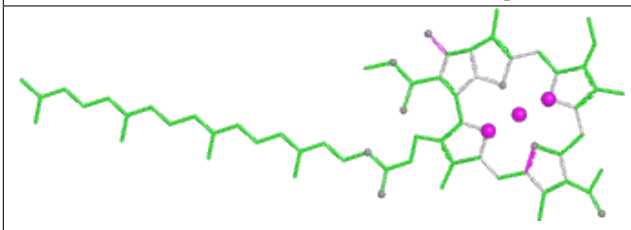
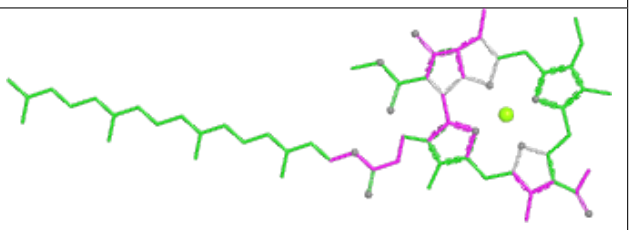
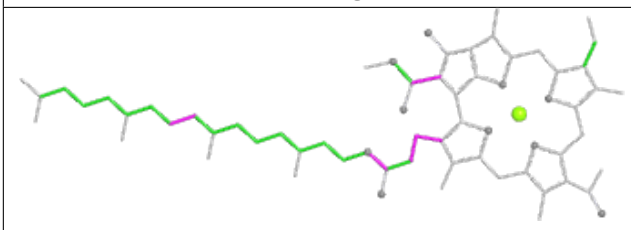
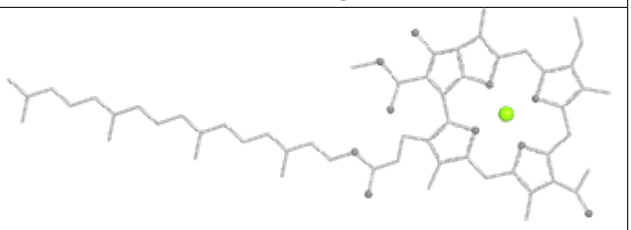


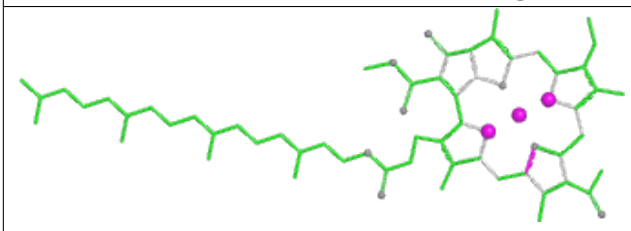
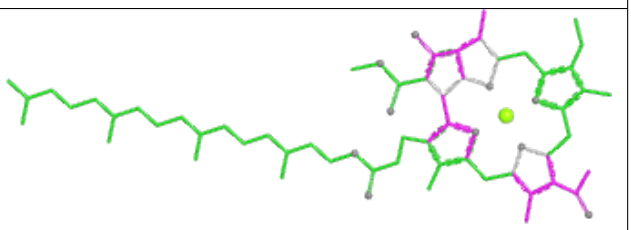
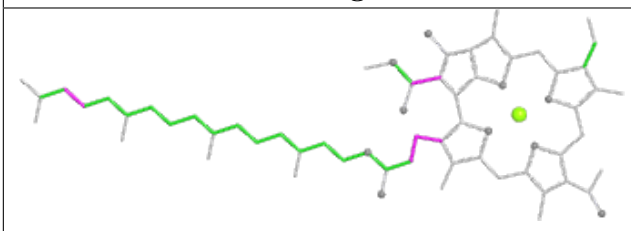
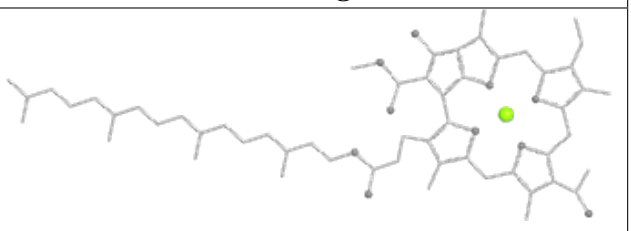
Rings

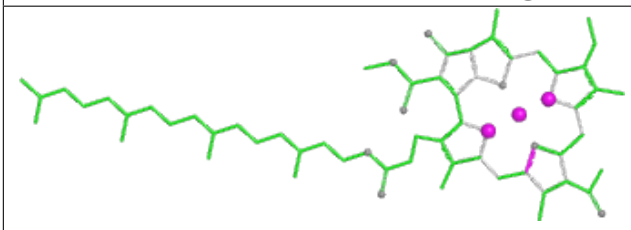
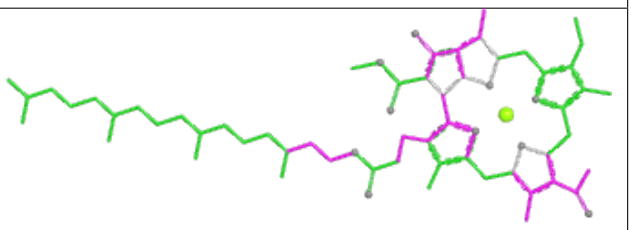
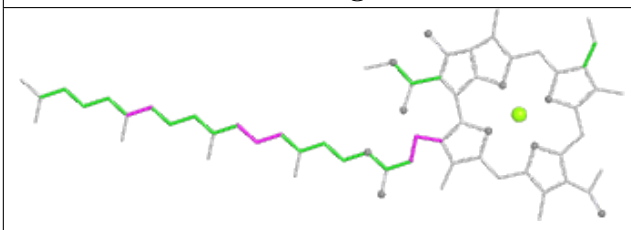
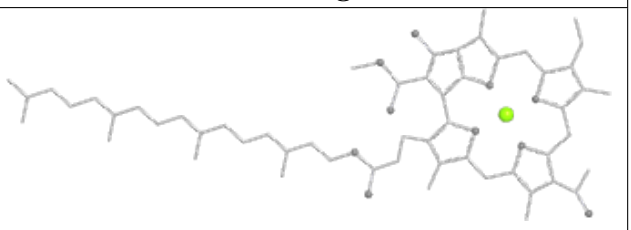
Ligand V7N BN 1001	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand V7N BO 1001	
 Bond lengths	 Bond angles
 Torsions	 Rings

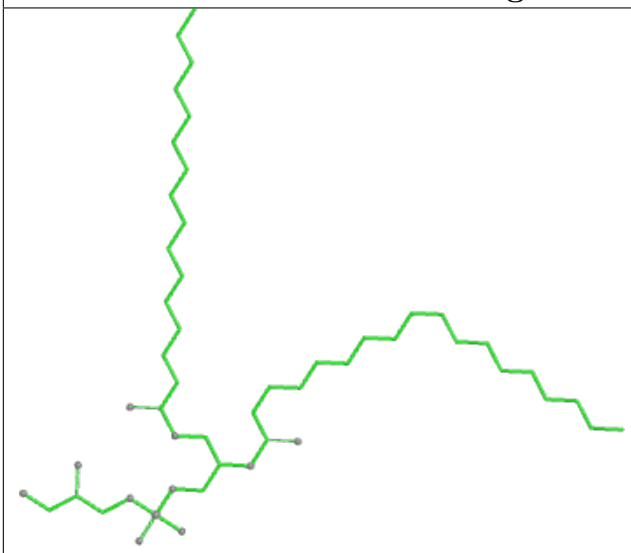
Ligand BCL BN 1005	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand BCL AM 1002	
 Bond lengths	 Bond angles
 Torsions	 Rings

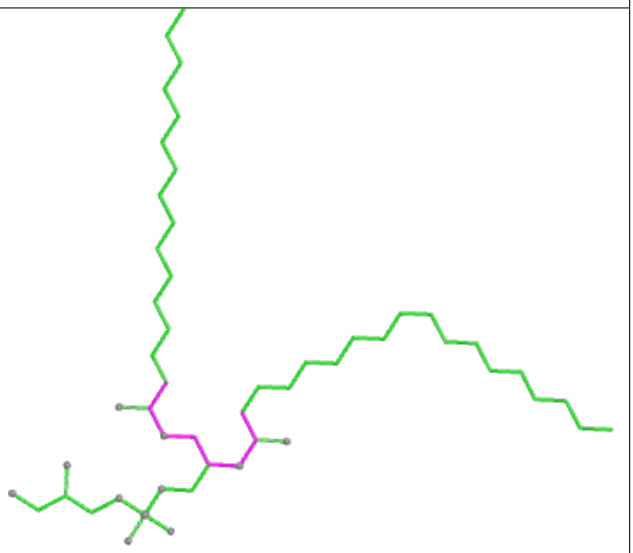
Ligand BCL BA 103	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand BCL ba 102	
 Bond lengths	 Bond angles
 Torsions	 Rings

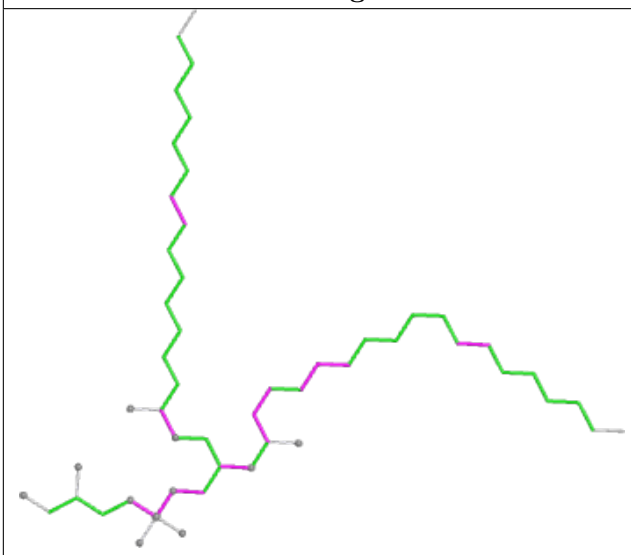
Ligand PGW H1 101



Bond lengths



Bond angles



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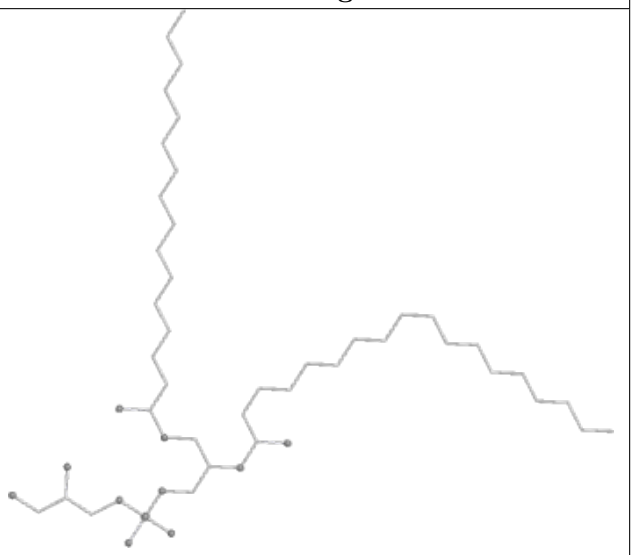
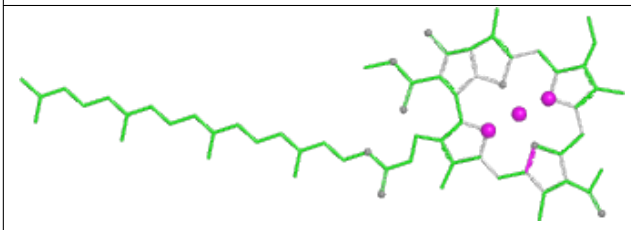


Rings

Ligand BCL AA 1001



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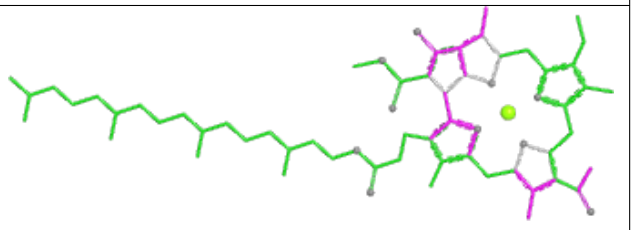
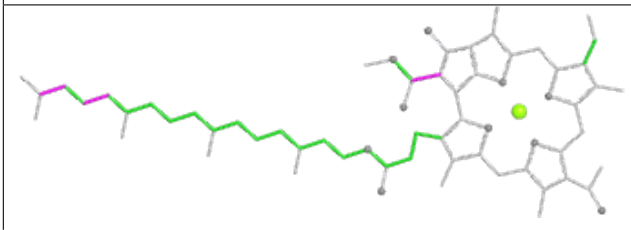
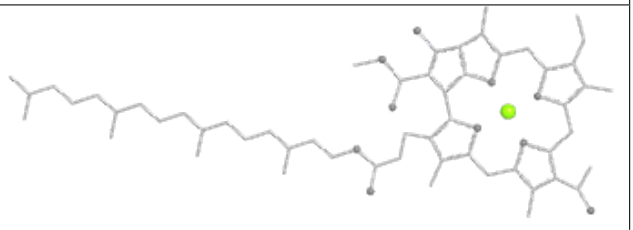


Bond angles

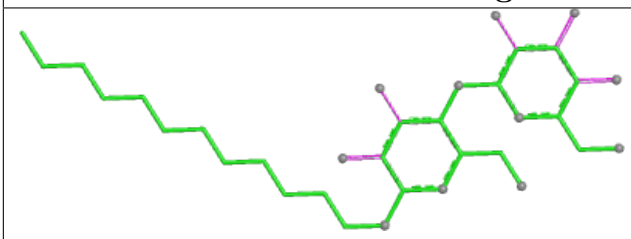


Torsions

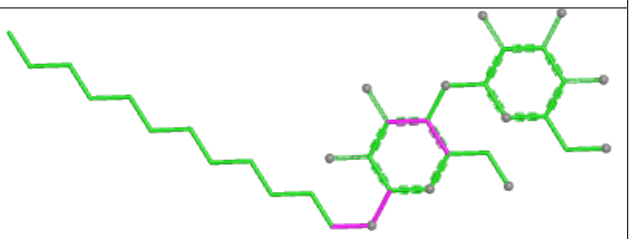


Rings

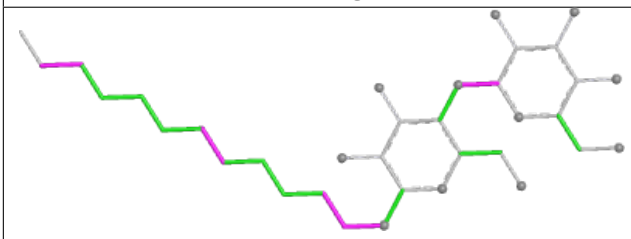
Ligand LMT BM 1002



Bond lengths



Bond angles



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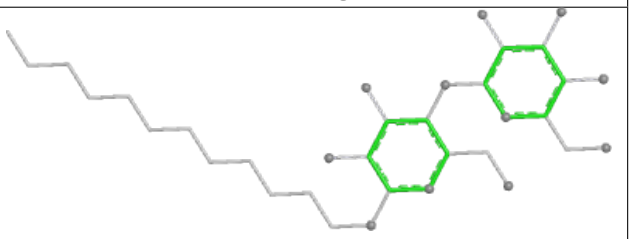
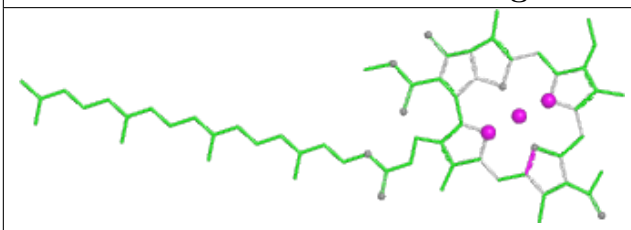


Rings

Ligand BCL AH 103



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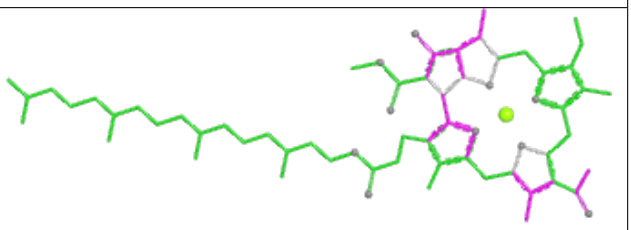
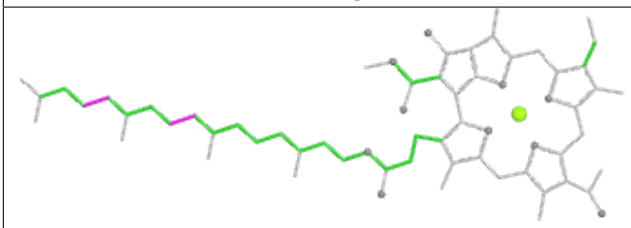


Bond angles



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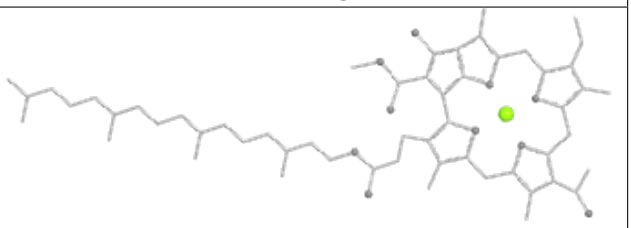
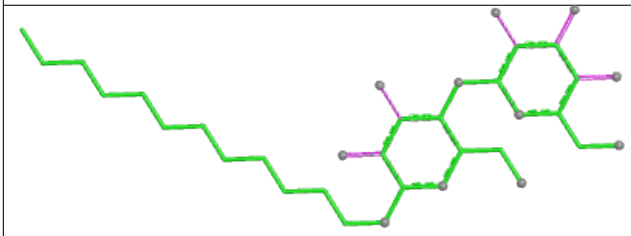
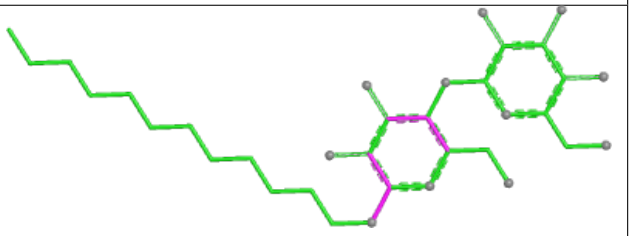


Rings

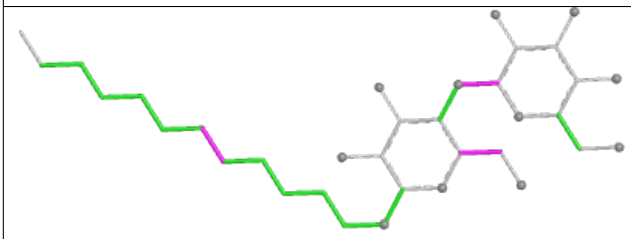
Ligand LMT AD 102



Bond lengths



Bond angles



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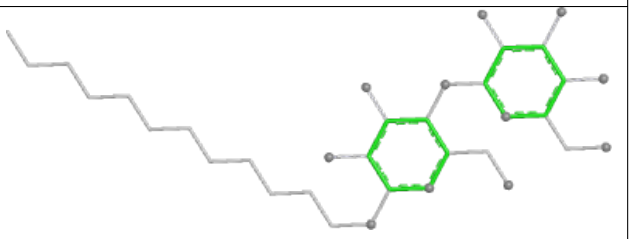
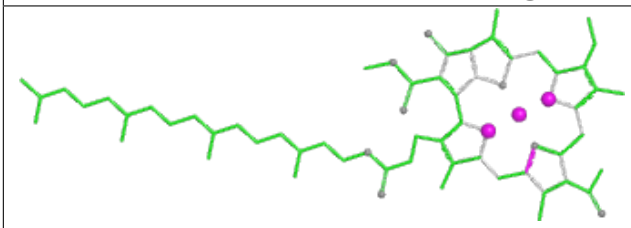
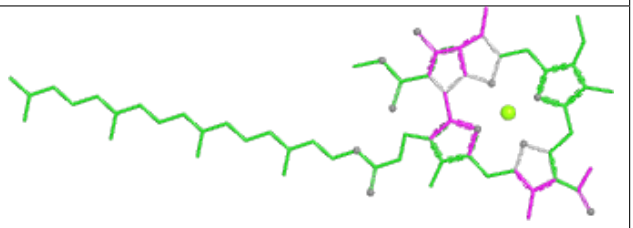


Rings

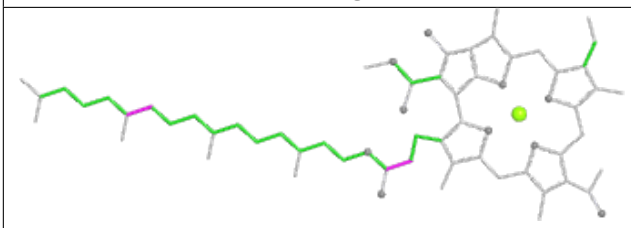
Ligand BCL ac 102



Bond lengths



Bond angles



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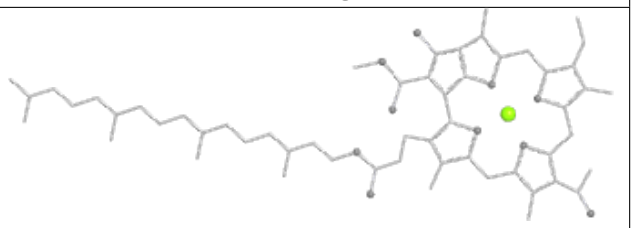
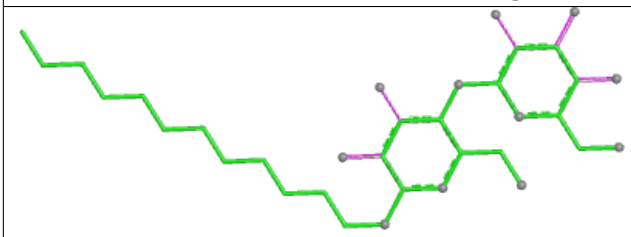
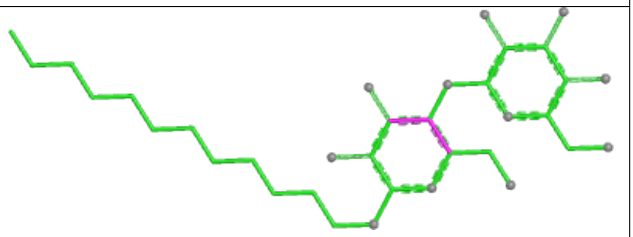


Rings

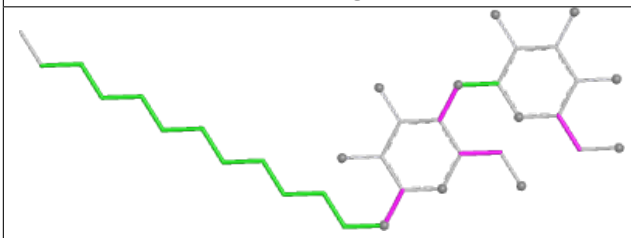
Ligand LMT AN 102



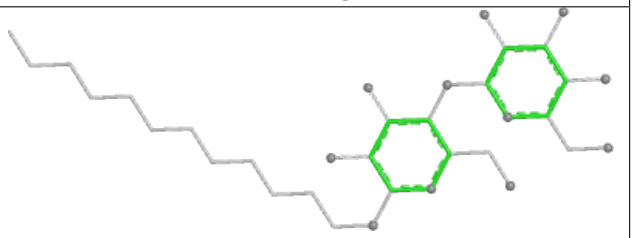
Bond lengths



Bond angles

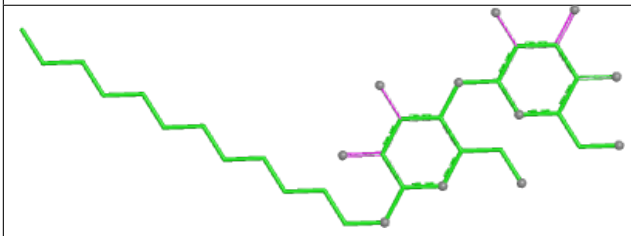


Torsions

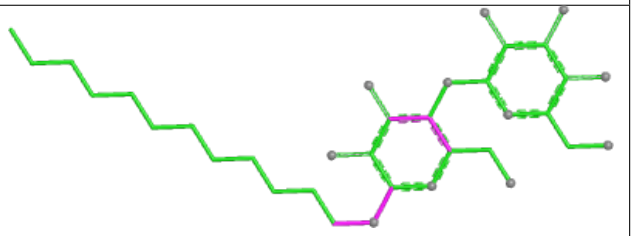


Rings

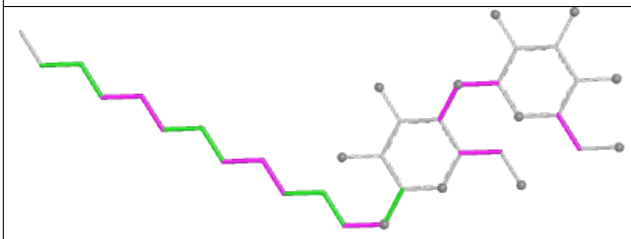
Ligand LMT BR 1005



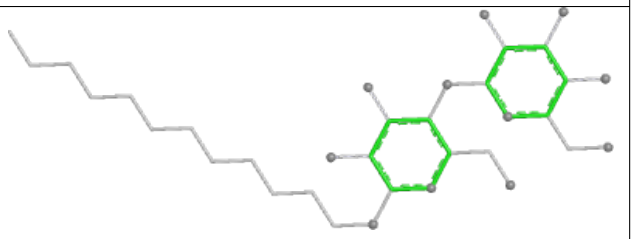
Bond lengths



Bond angles

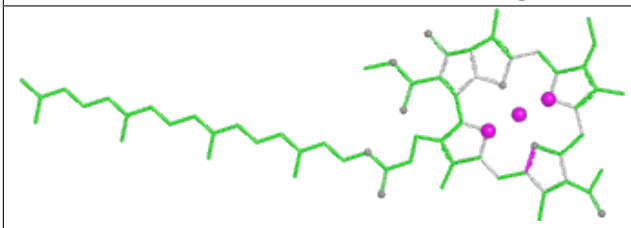


Torsions

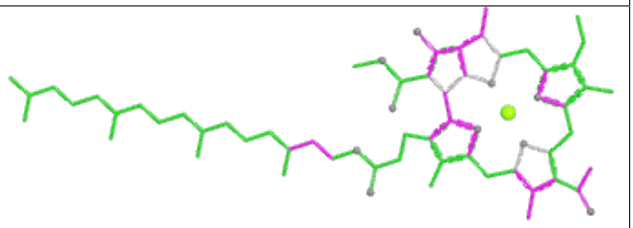


Rings

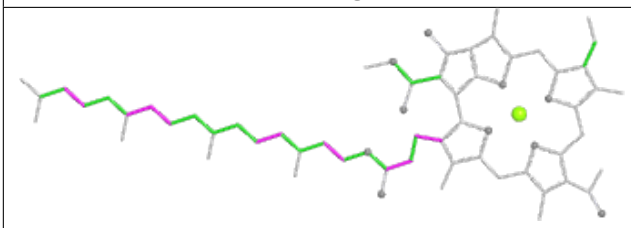
Ligand BCL bm 102



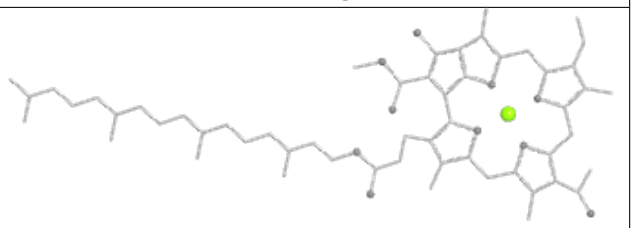
Bond lengths



Bond angles

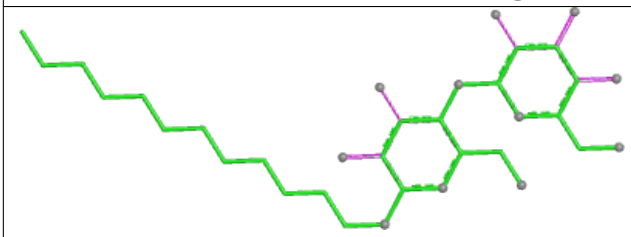


Torsions

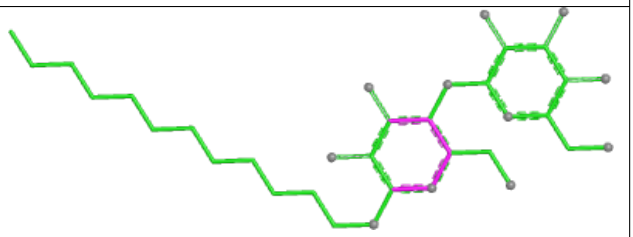


Rings

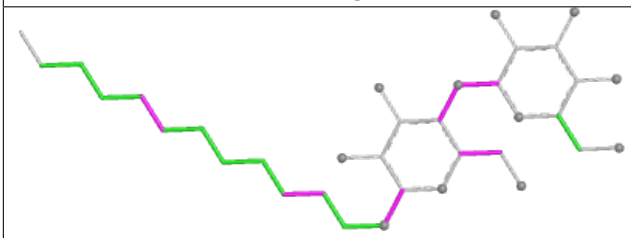
Ligand LMT AV 102



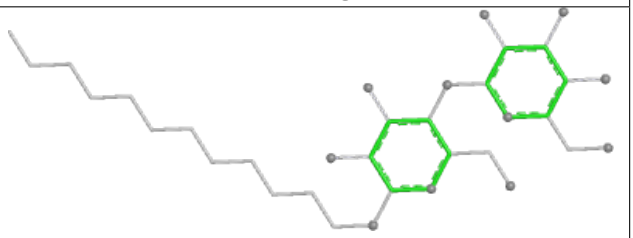
Bond lengths



Bond angles

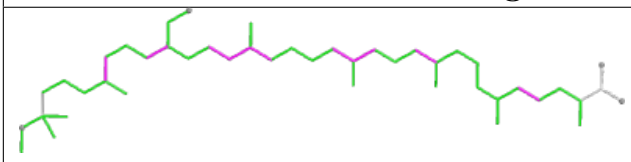


Torsions

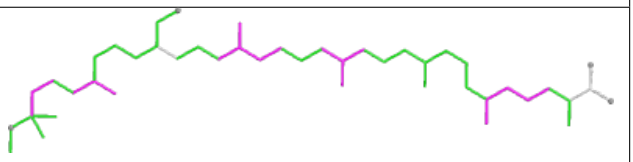


Rings

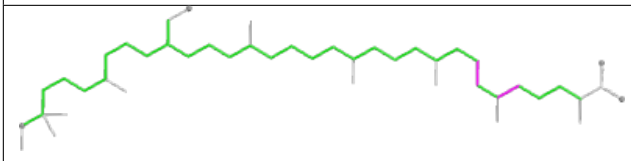
Ligand V7N BP 1001



Bond lengths



Bond angles



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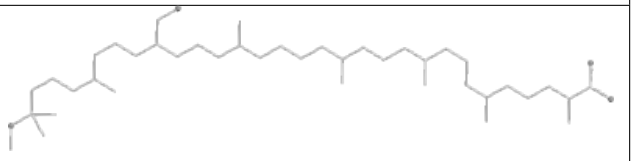
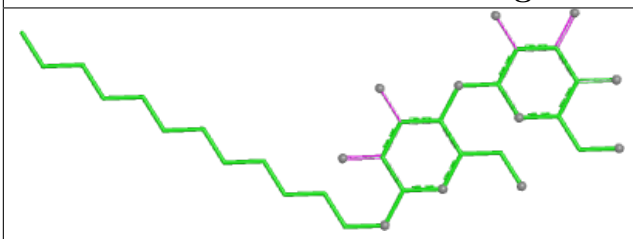


Rings

Ligand LMT bp 103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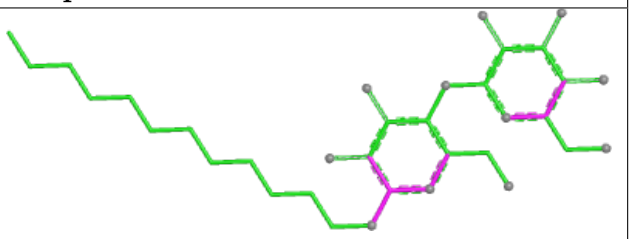
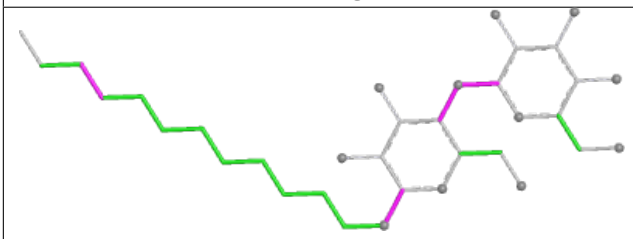
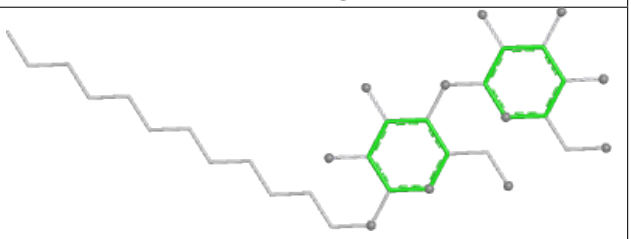
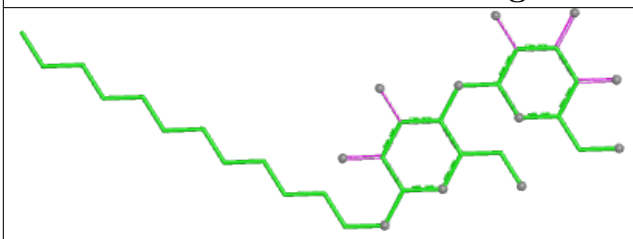
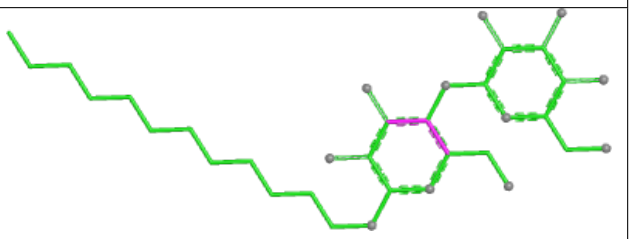

Bond angles

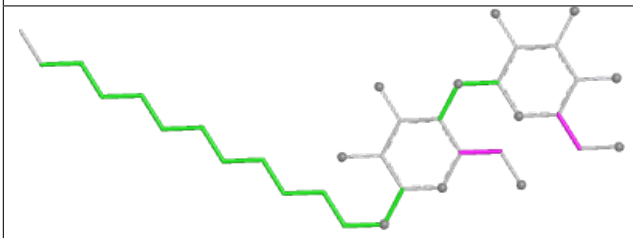

Torsions

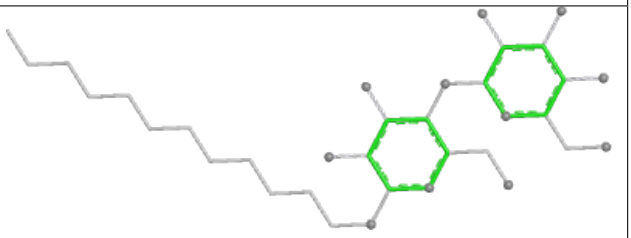

Rings

Ligand LMT BC 102

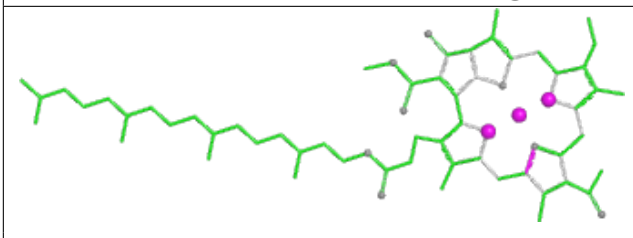

Bond lengths


Bond angles


Torsions


Rings

Ligand BCL BS 1004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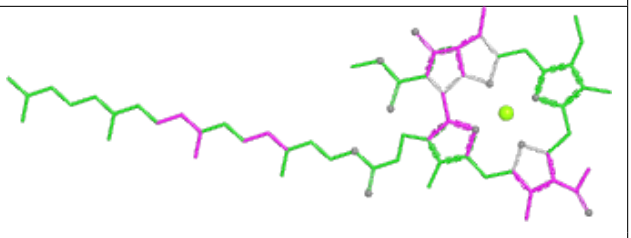
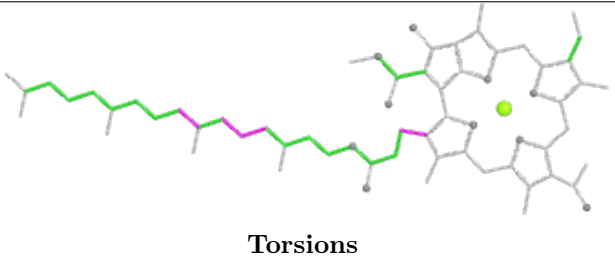
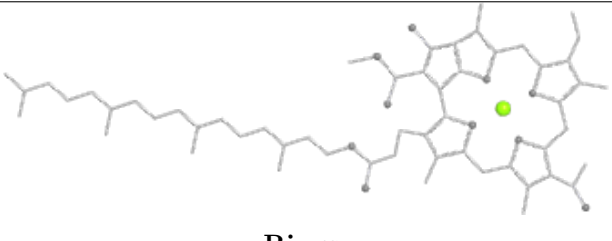
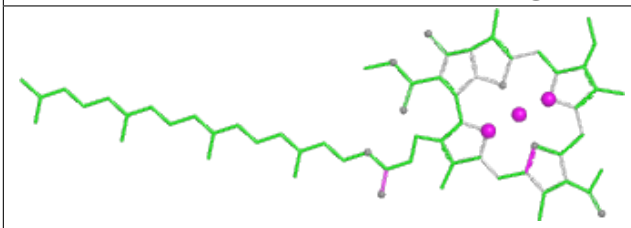

Bond angles

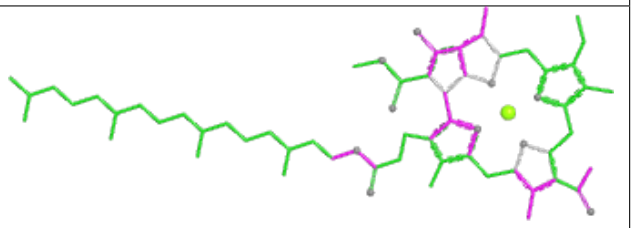

Torsions


Rings

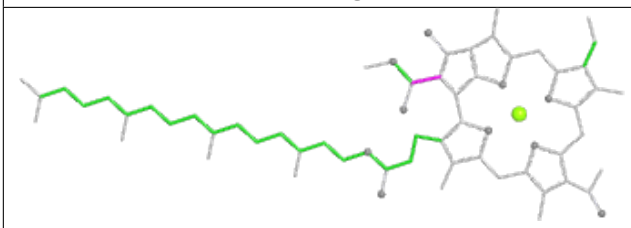
Ligand BCL L 308



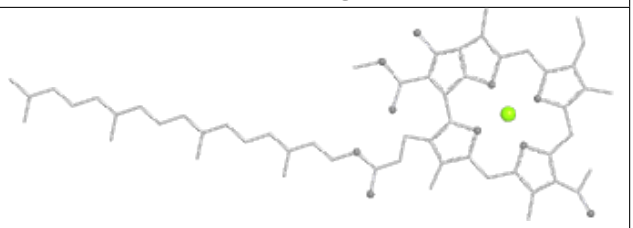
Bond lengths



Bond angles

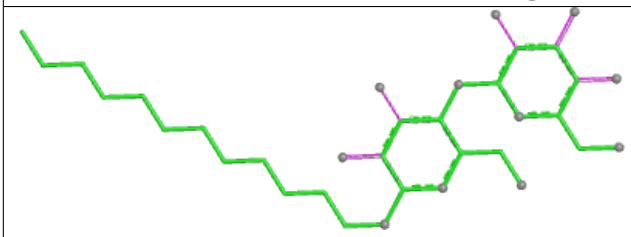


Torsions

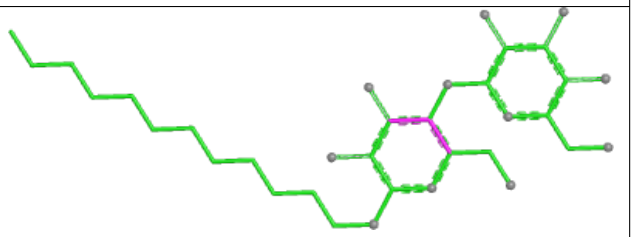


Rings

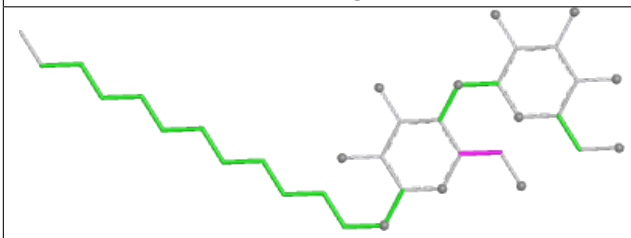
Ligand LMT L 309



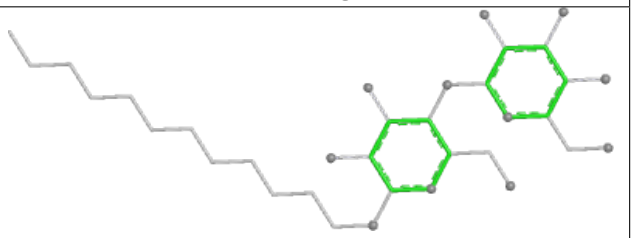
Bond lengths



Bond angles

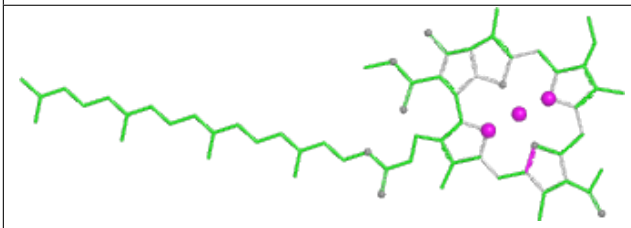


Torsions

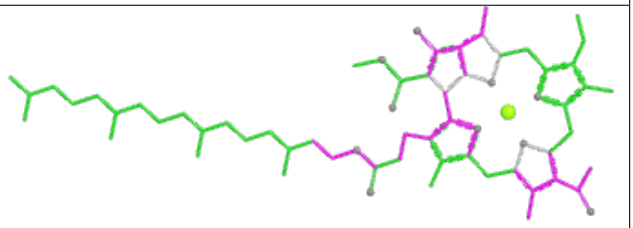


Rings

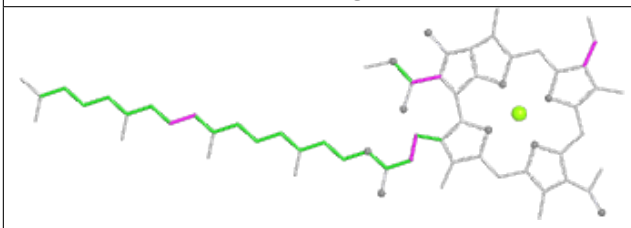
Ligand BCL BM 1004



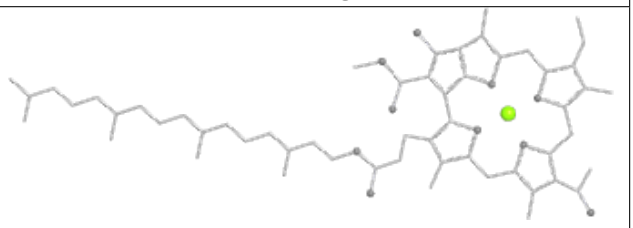
Bond lengths



Bond angles

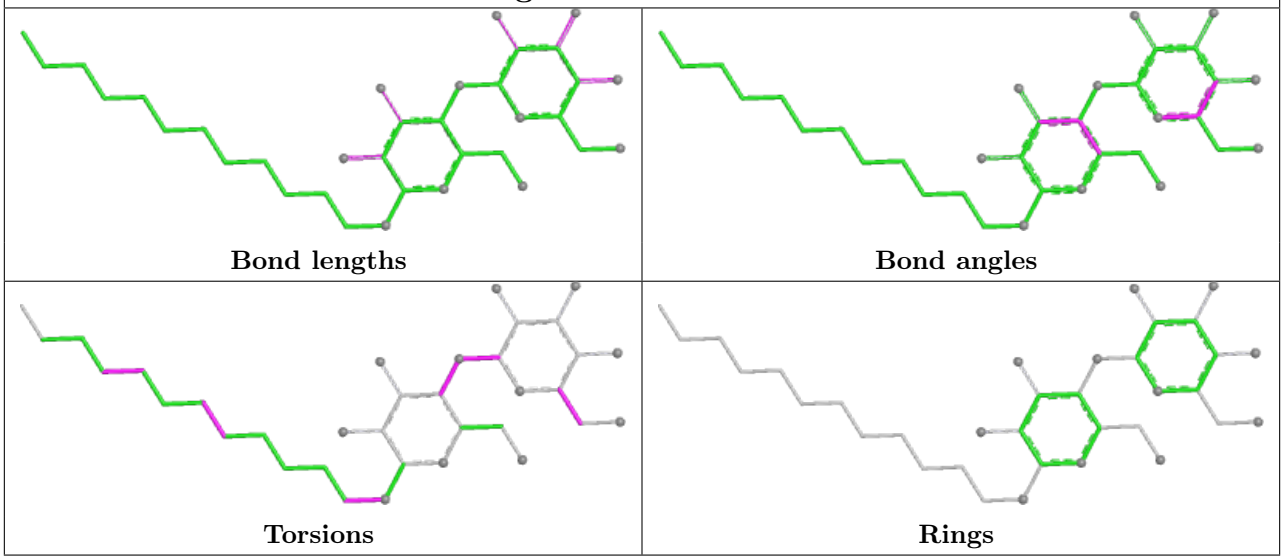


Torsions

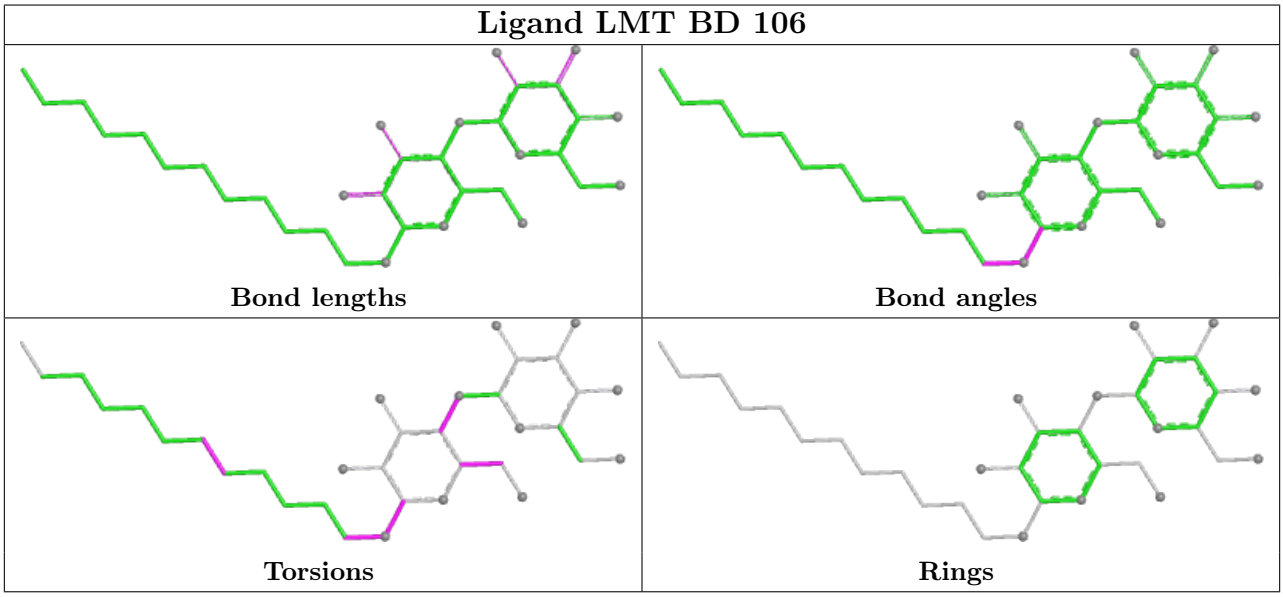


Rings

Ligand LMT bn 103



Ligand LMT BD 106



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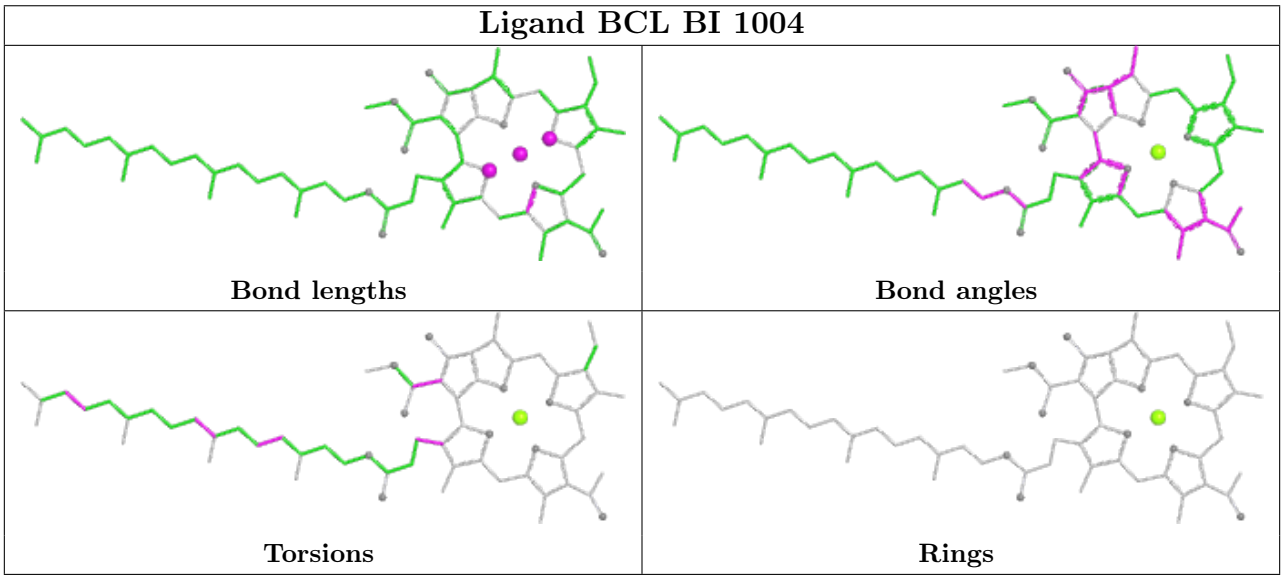

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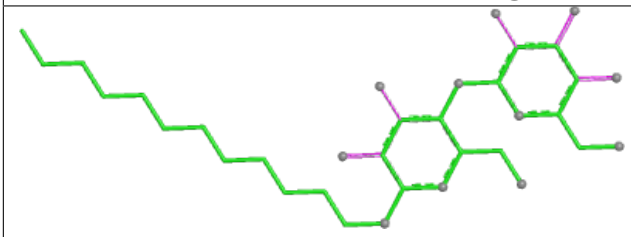
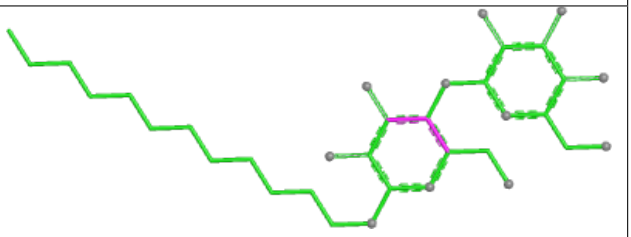
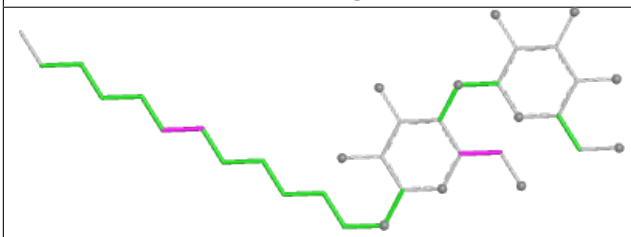


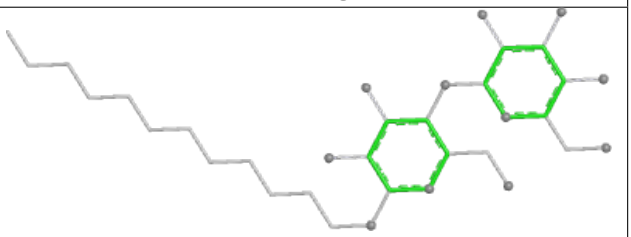
Bond lengths



Bond angles

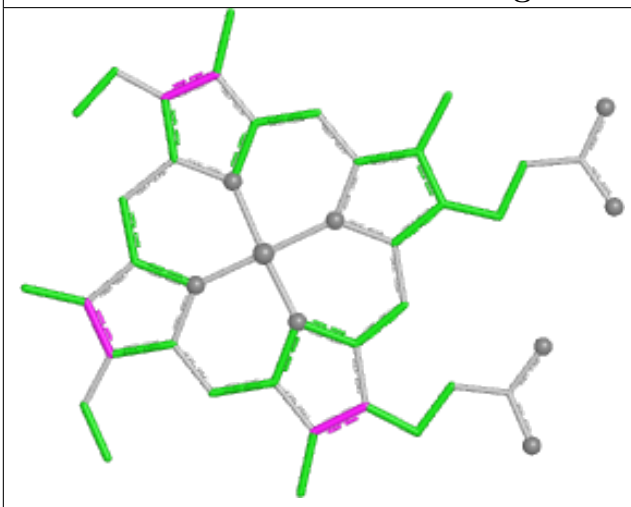


Torsions

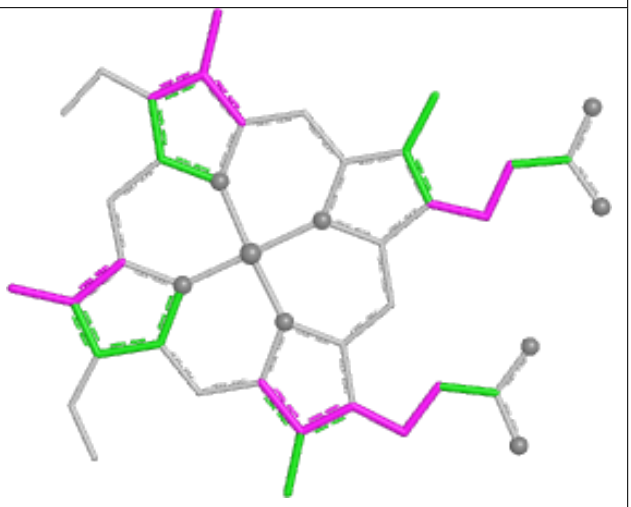


Rings

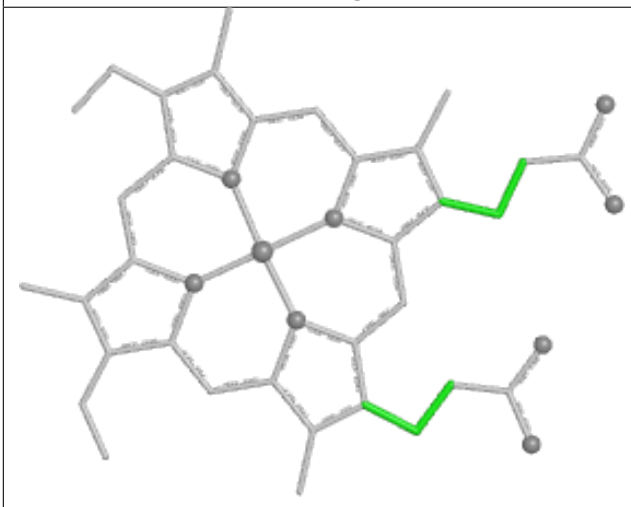
Ligand HEC C 1001



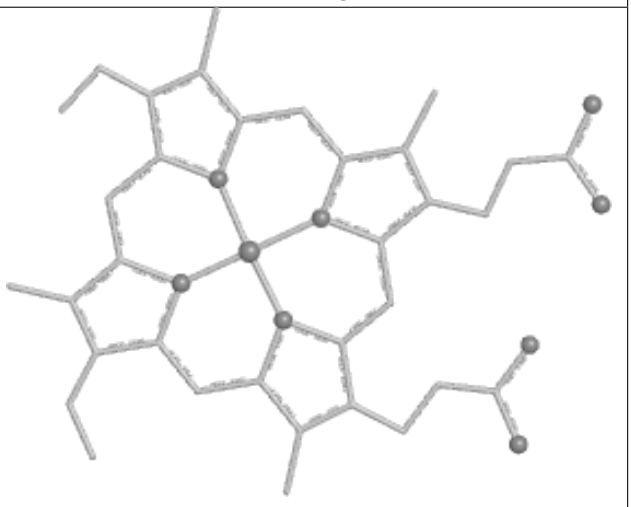
Bond lengths



Bond angles

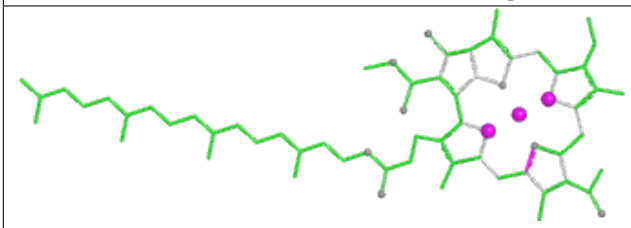


Torsions

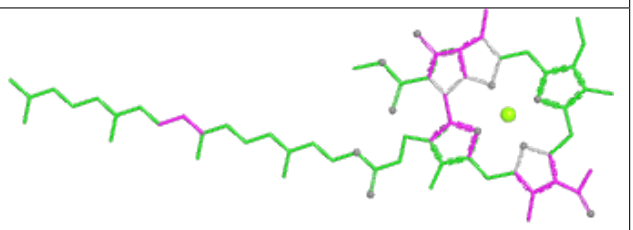


Rings

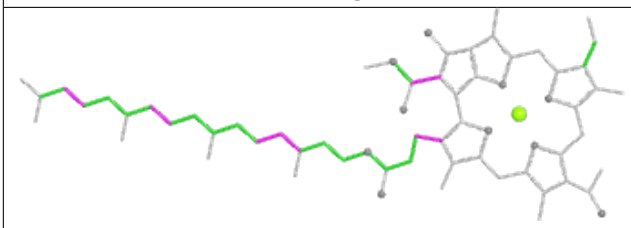
Ligand BCL AA 1002



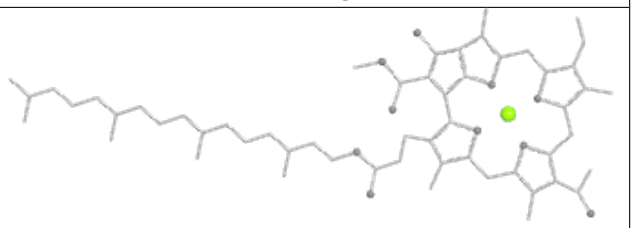
Bond lengths



Bond angles

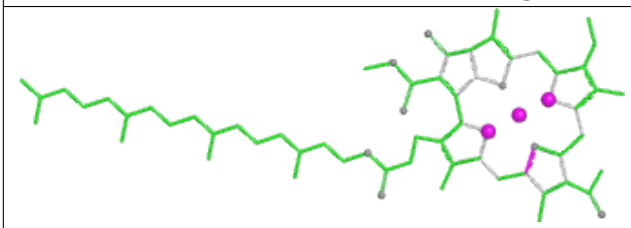


Torsions

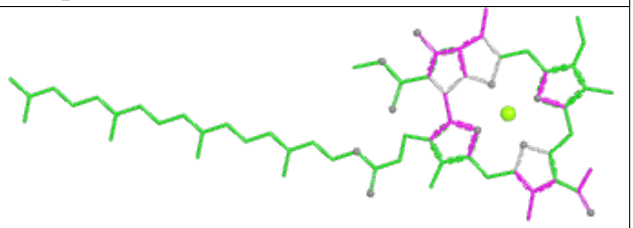


Rings

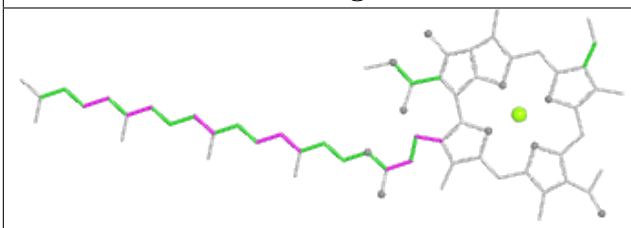
Ligand BCL bp 104



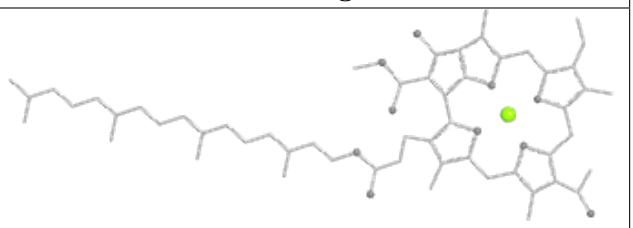
Bond lengths



Bond angles

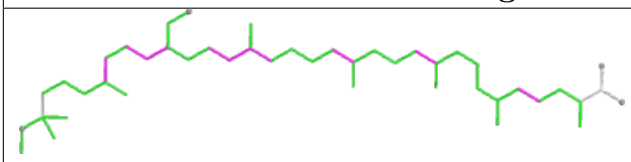


Torsions

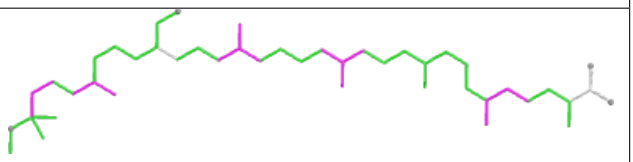


Rings

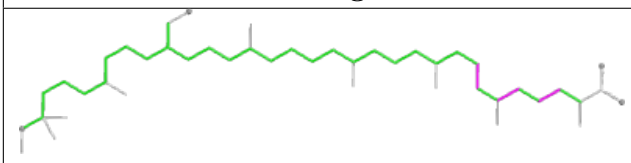
Ligand V7N AM 1001



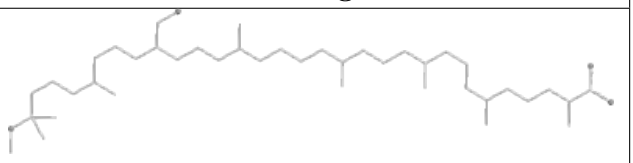
Bond lengths



Bond angles

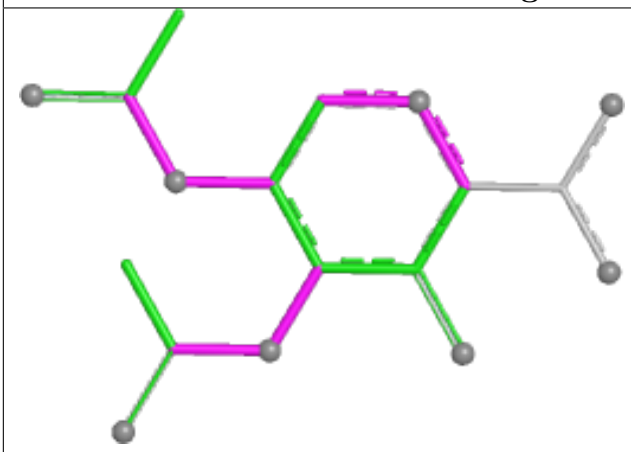


Torsions

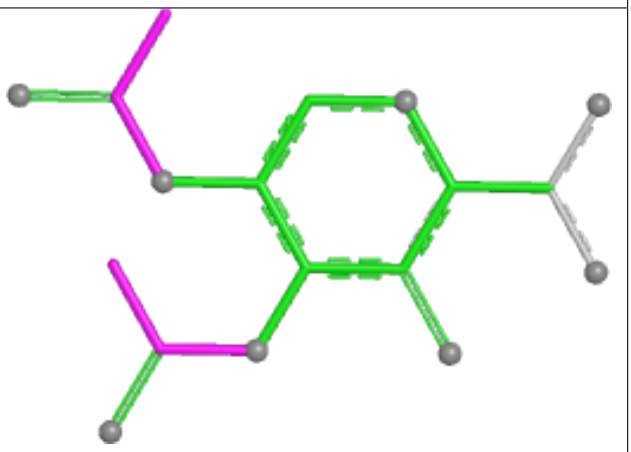


Rings

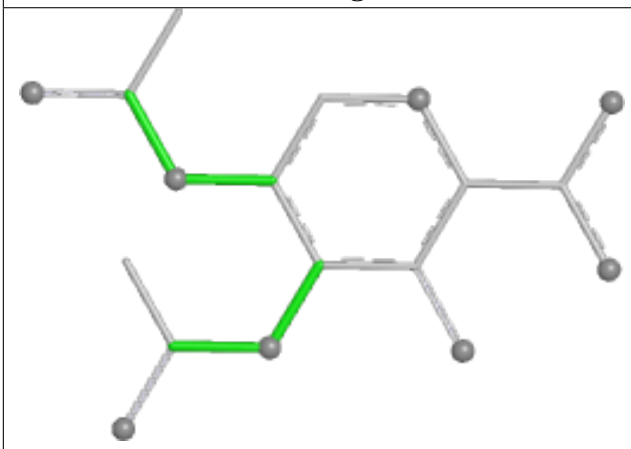
Ligand V75 C 1006



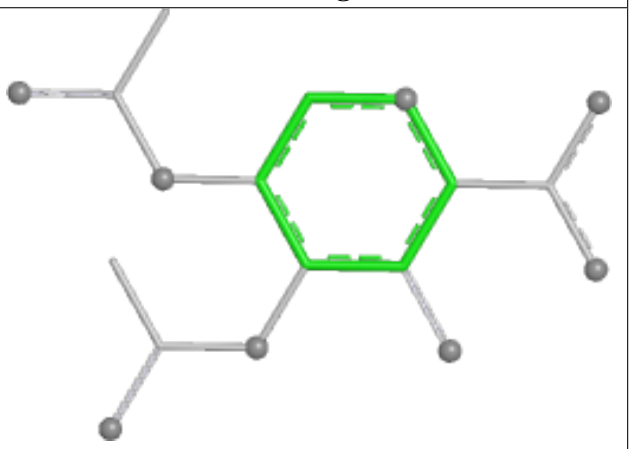
Bond lengths



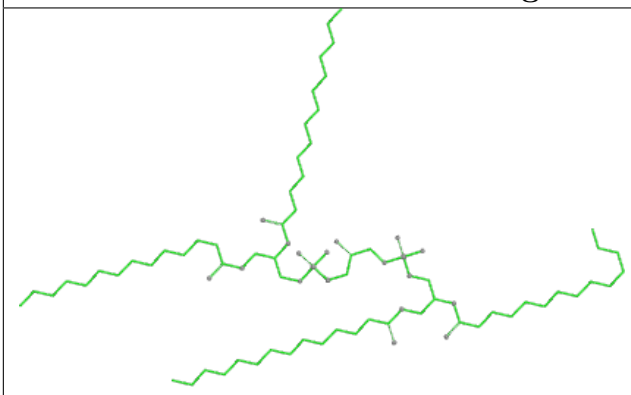
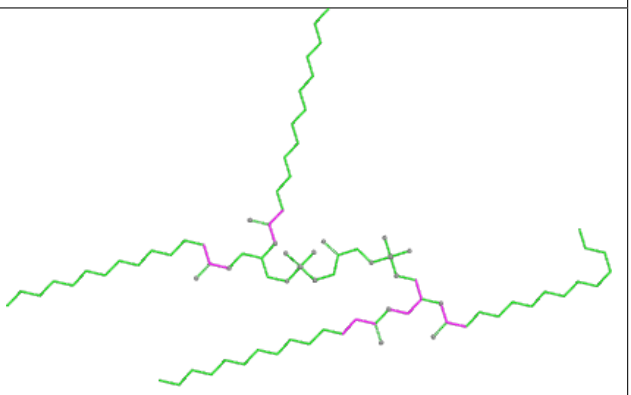
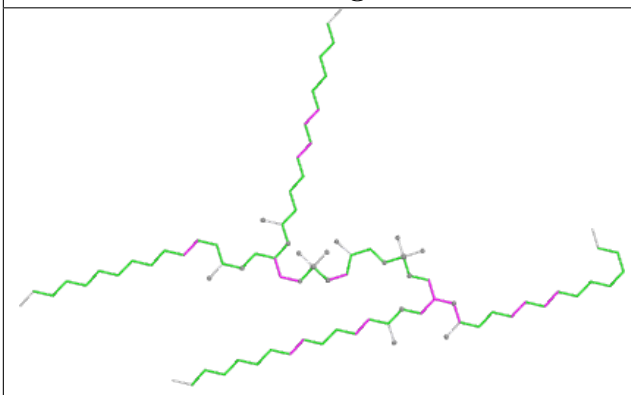
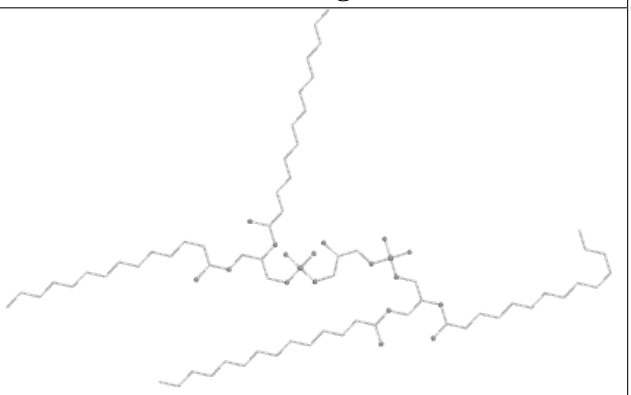
Bond angles

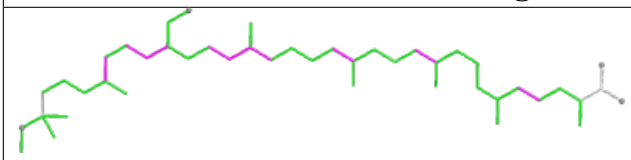
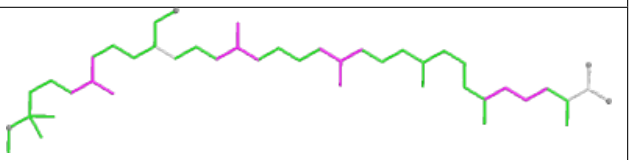
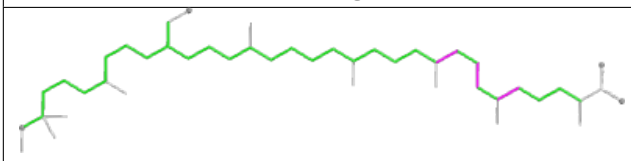
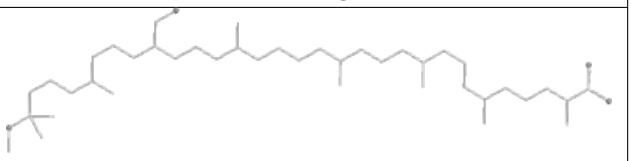


Torsions

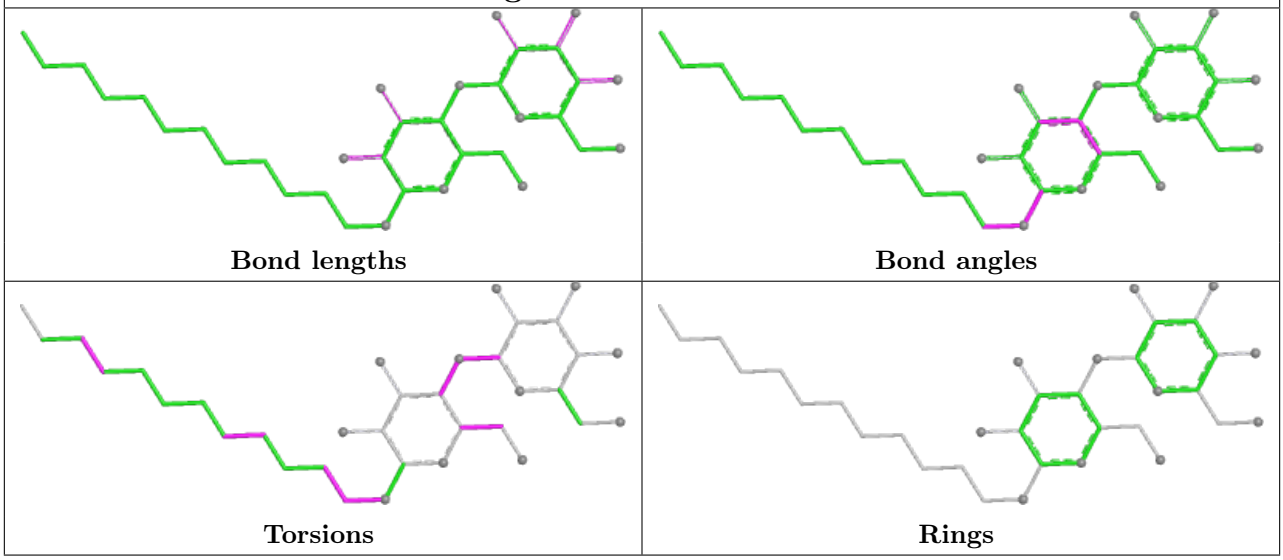


Rings

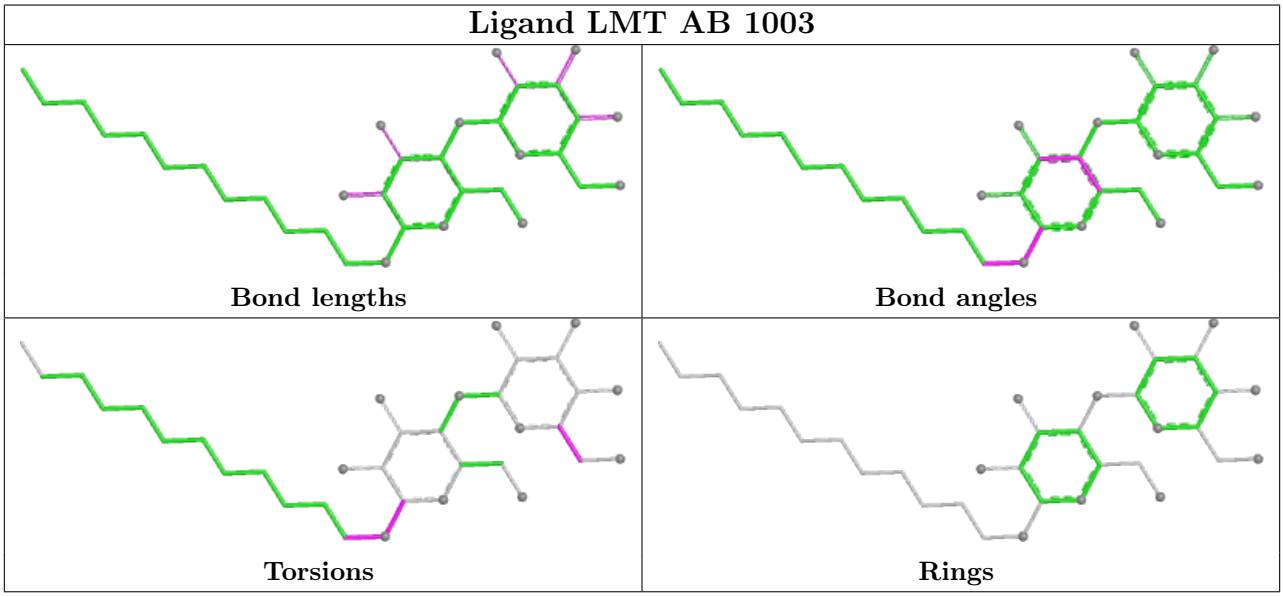
Ligand CD4 M 405	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand V7N BE 101	
 Bond lengths	 Bond angles
 Torsions	 Rings

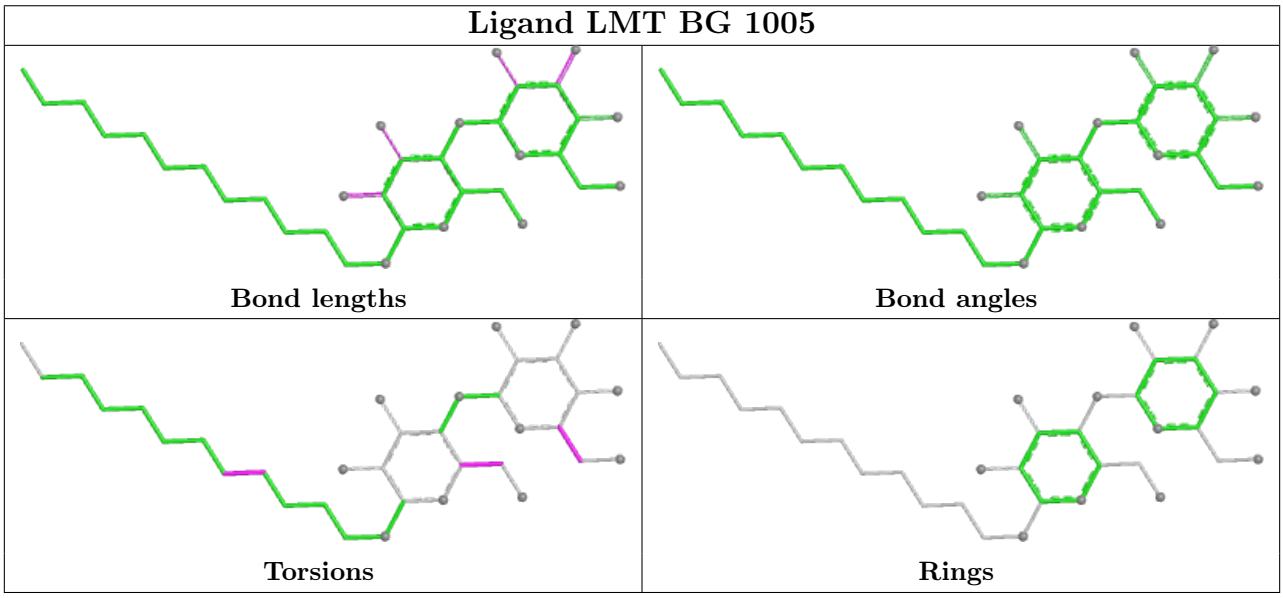
Ligand LMT C2 1001



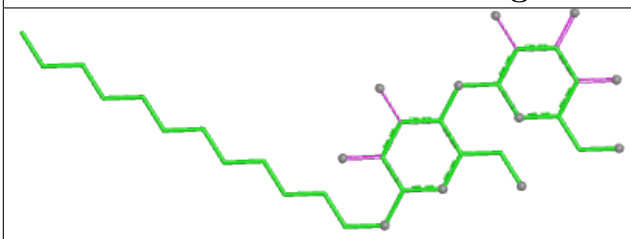
Ligand LMT AB 1003



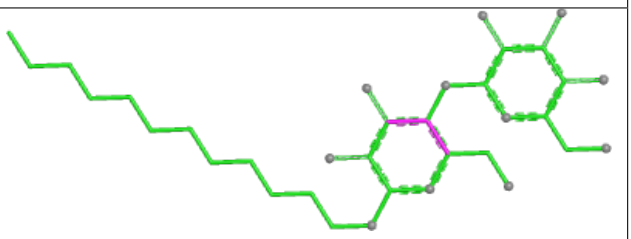
Ligand LMT BG 1005



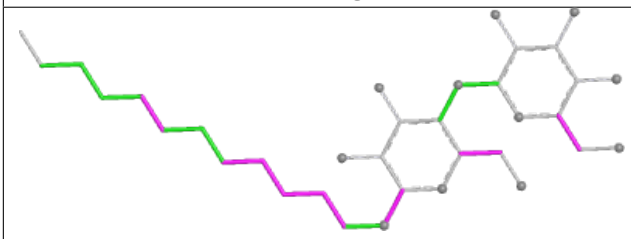
Ligand LMT AS 103



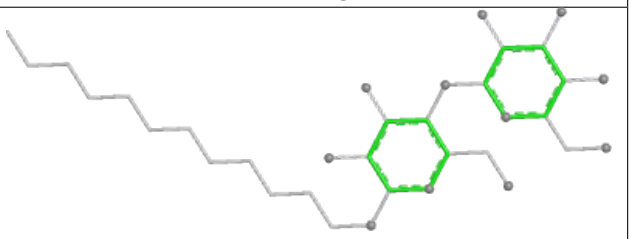
Bond lengths



Bond angles

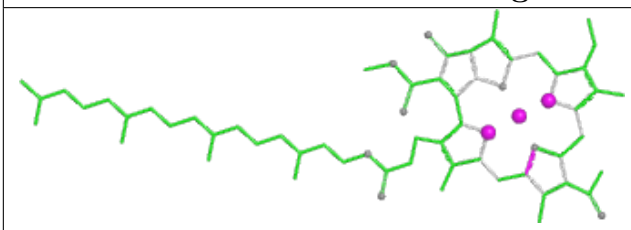


Torsions

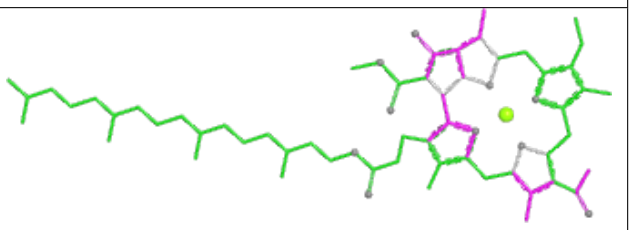


Rings

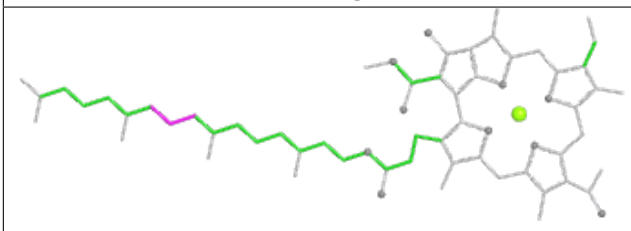
Ligand BCL AU 101



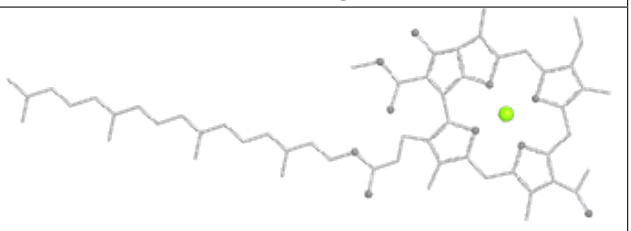
Bond lengths



Bond angles

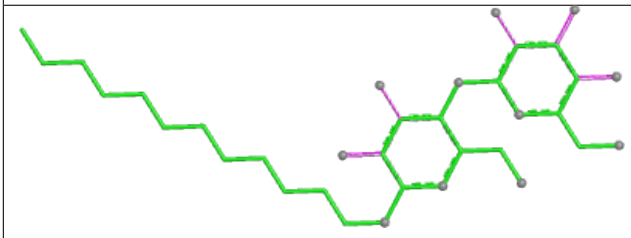


Torsions

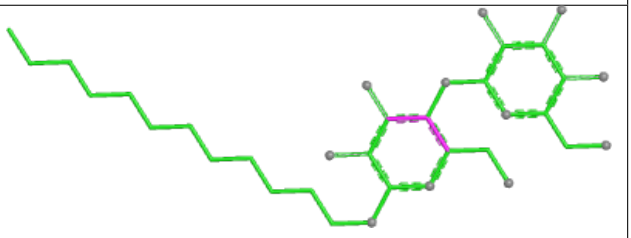


Rings

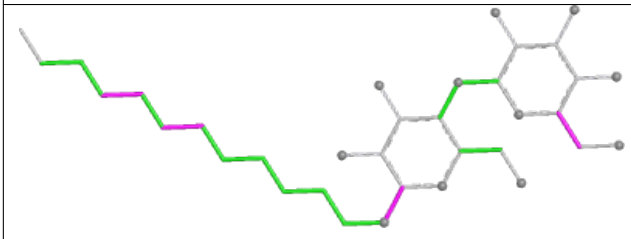
Ligand LMT be 104



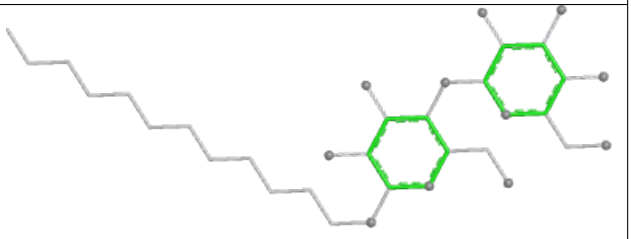
Bond lengths



Bond angles

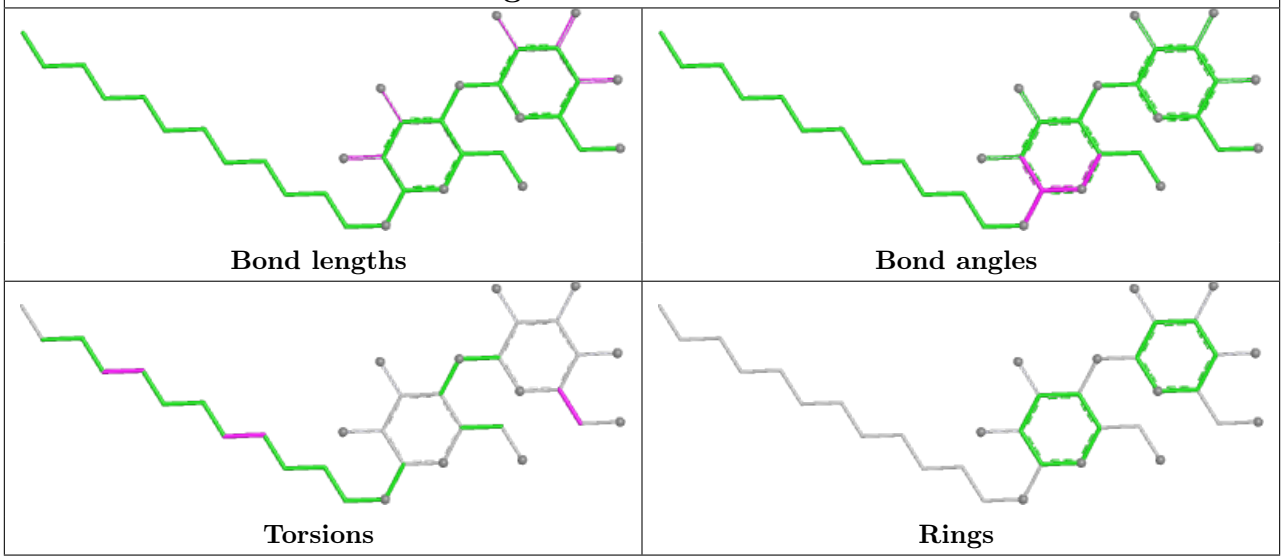


Torsions

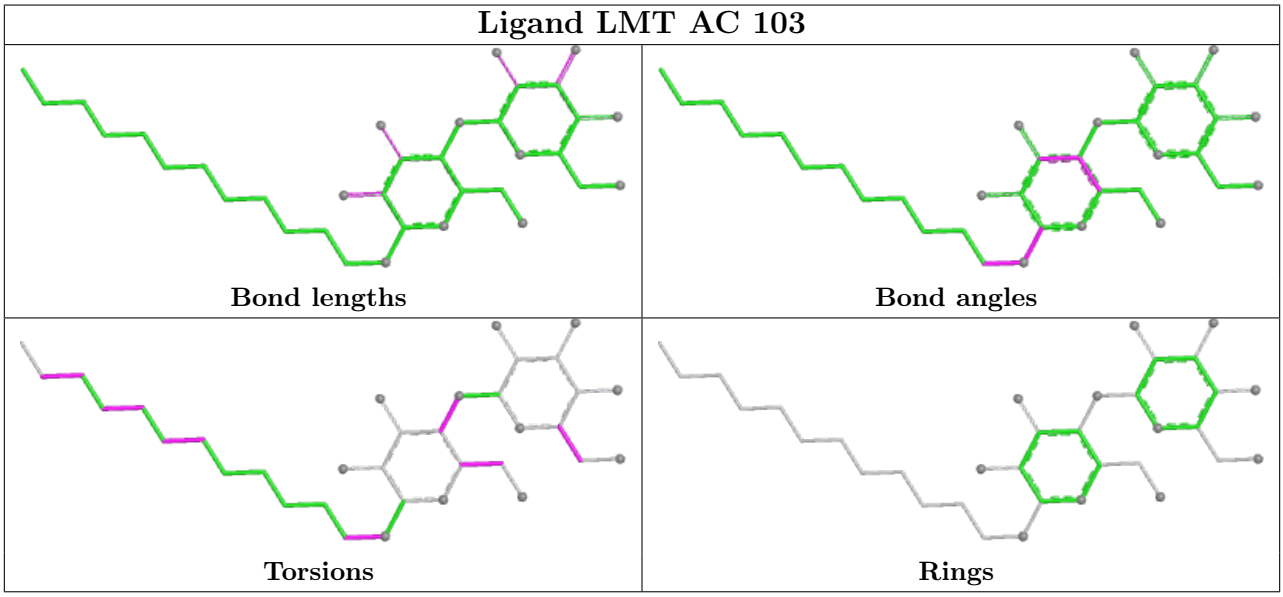


Rings

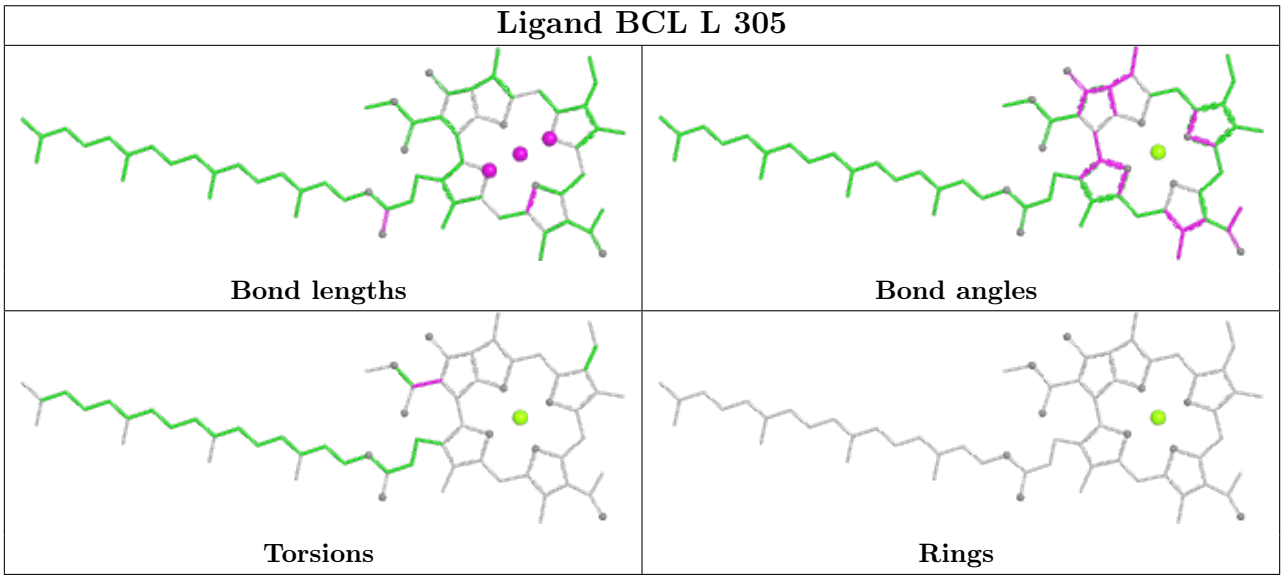
Ligand LMT BS 1002



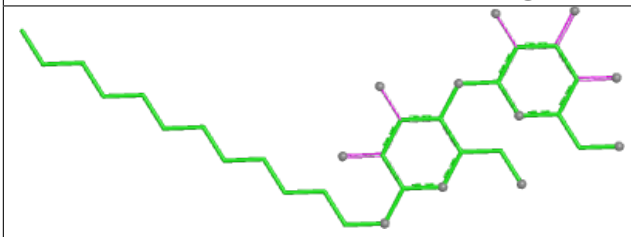
Ligand LMT AC 103

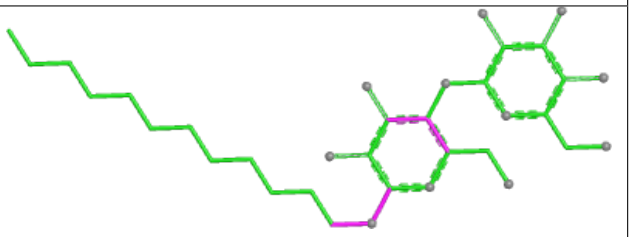


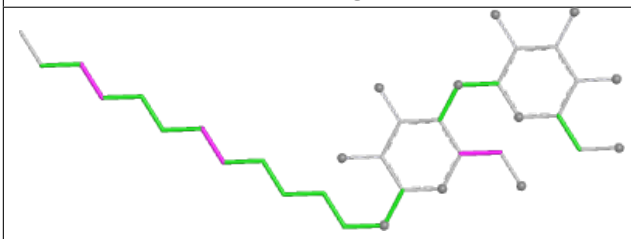
Ligand BCL L 305

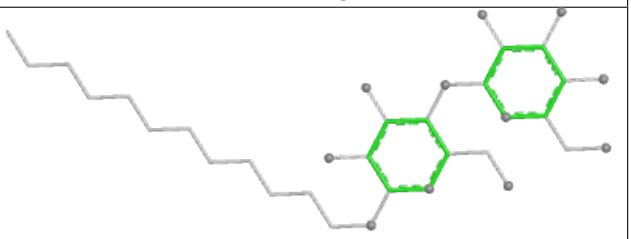


Ligand LMT bi 104

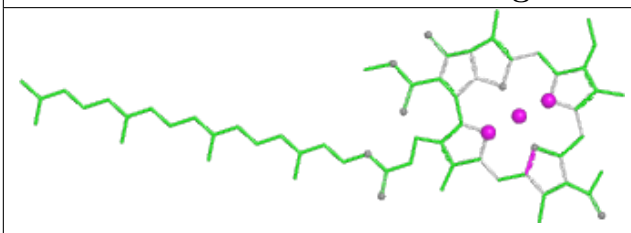

Bond lengths

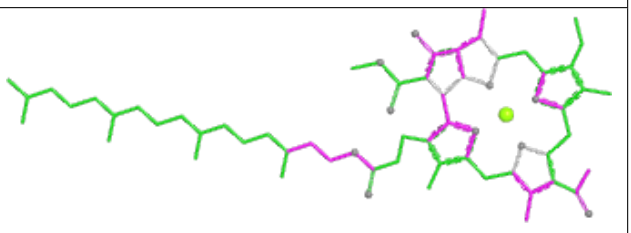

Bond angles

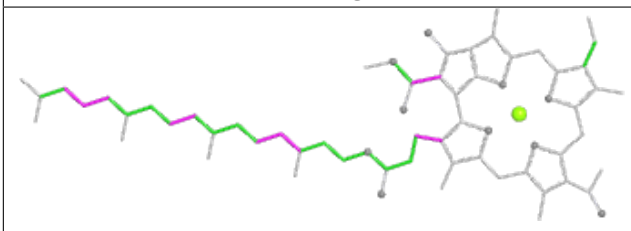

Torsions

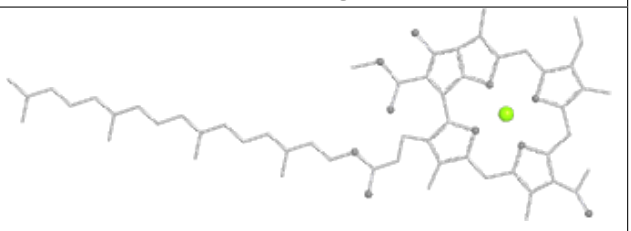

Rings

Ligand BCL AP 103

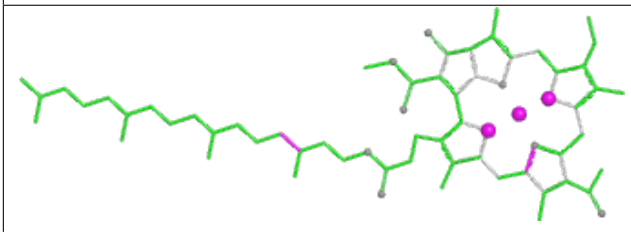

Bond lengths

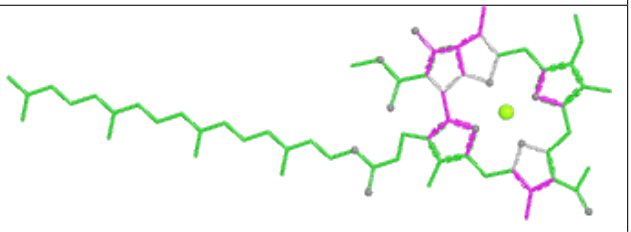

Bond angles

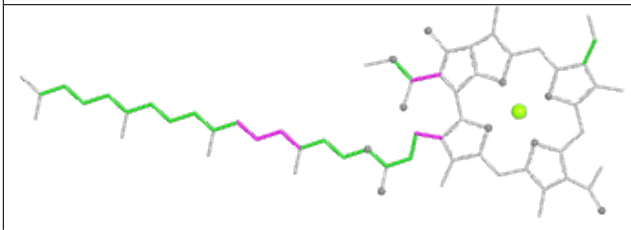

Torsions

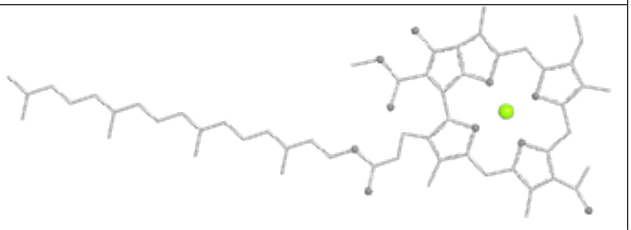

Rings

Ligand BCL AK 102

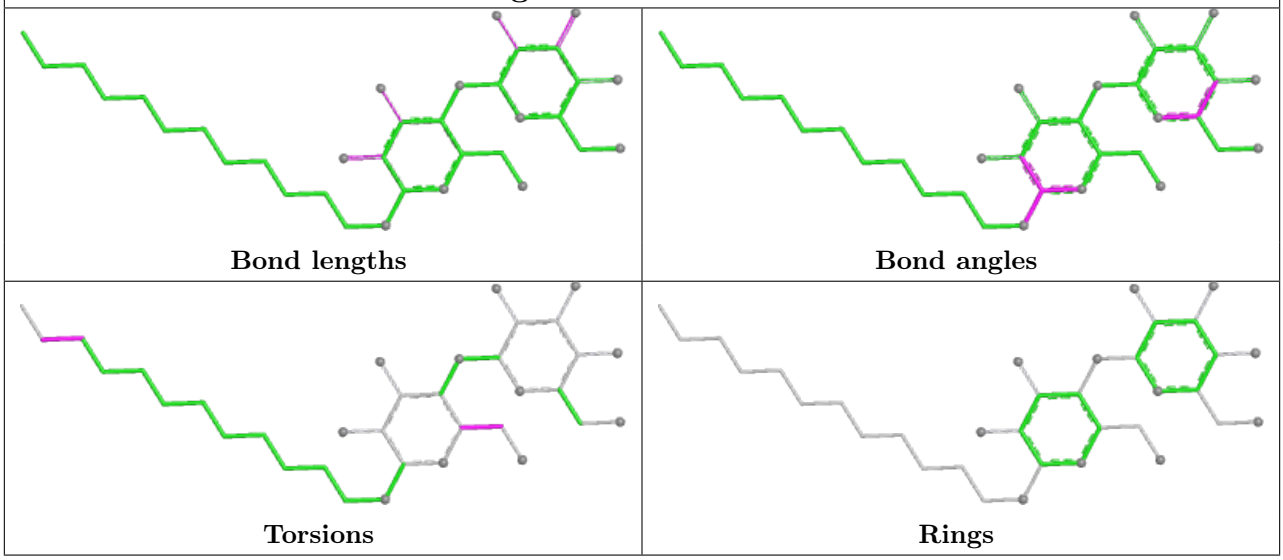

Bond lengths


Bond angles

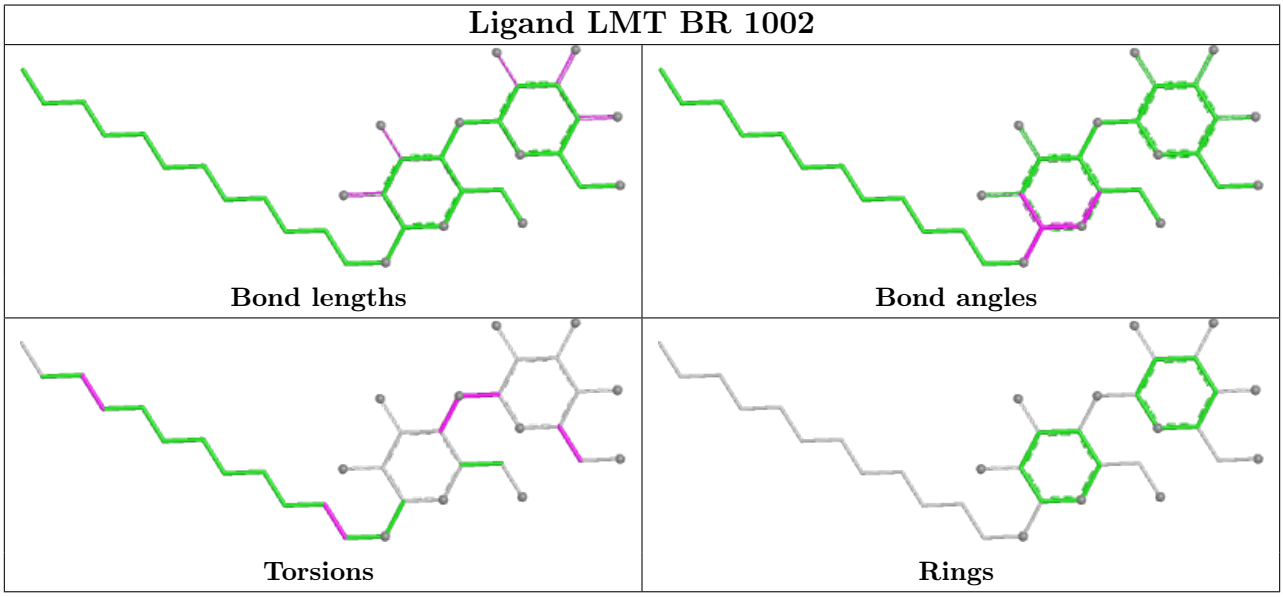

Torsions


Rings

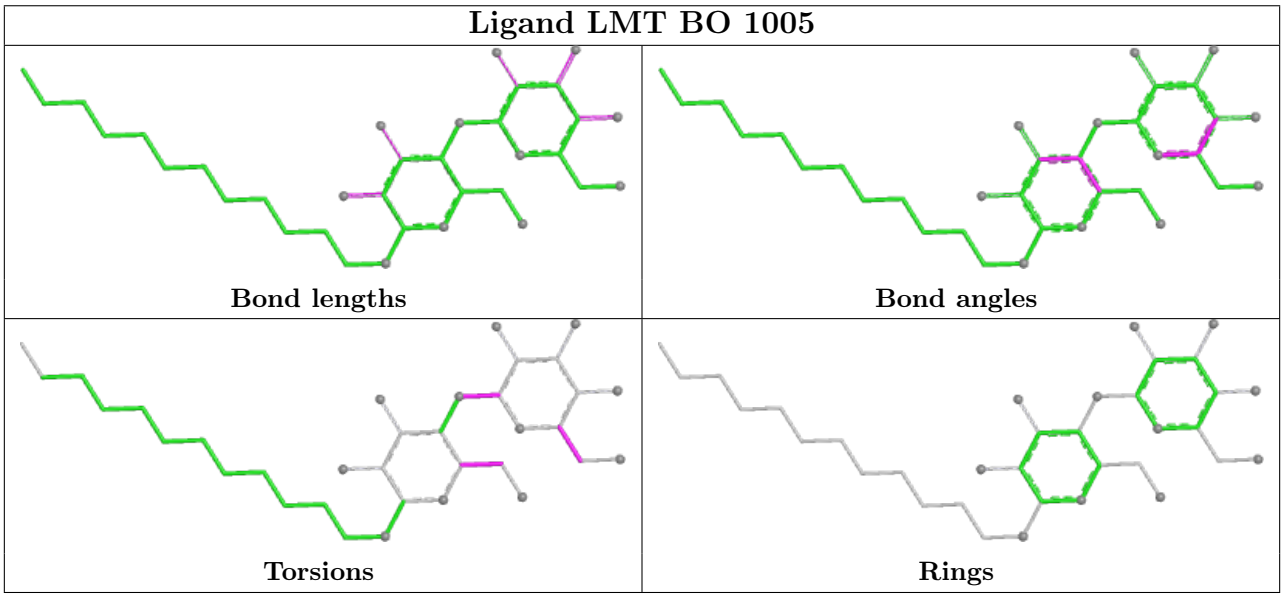
Ligand LMT AL 101



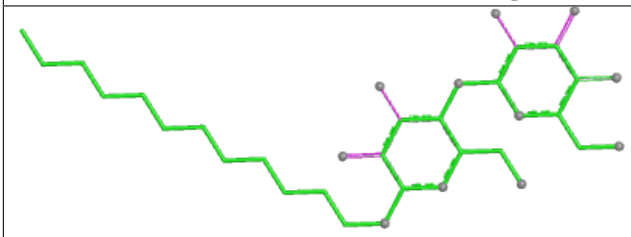
Ligand LMT BR 1002



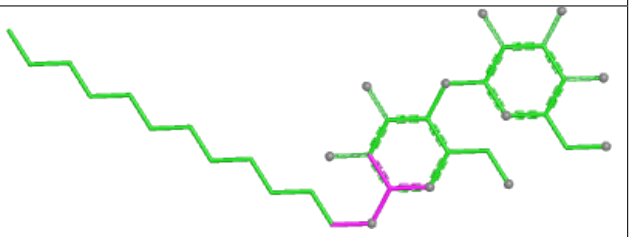
Ligand LMT BO 1005



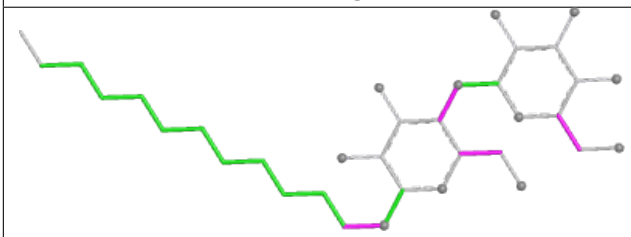
Ligand LMT BI 1005



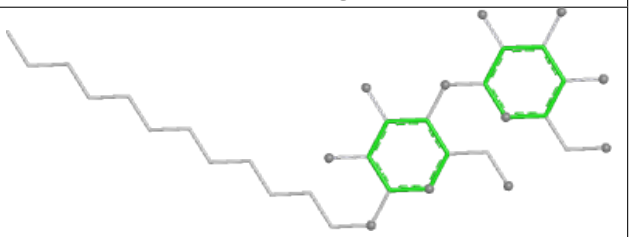
Bond lengths



Bond angles

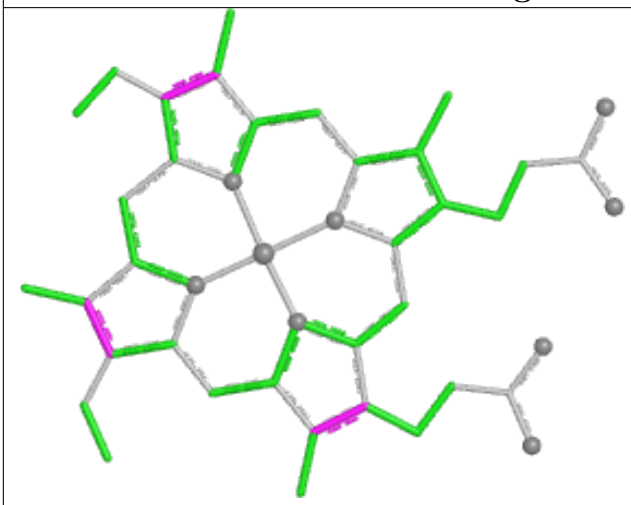


Torsions

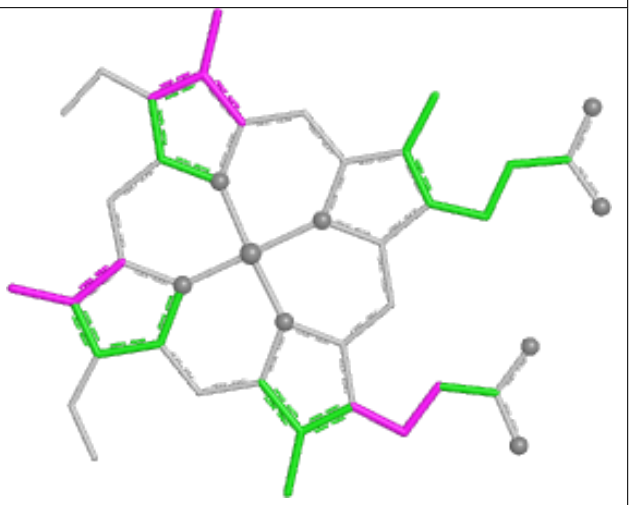


Rings

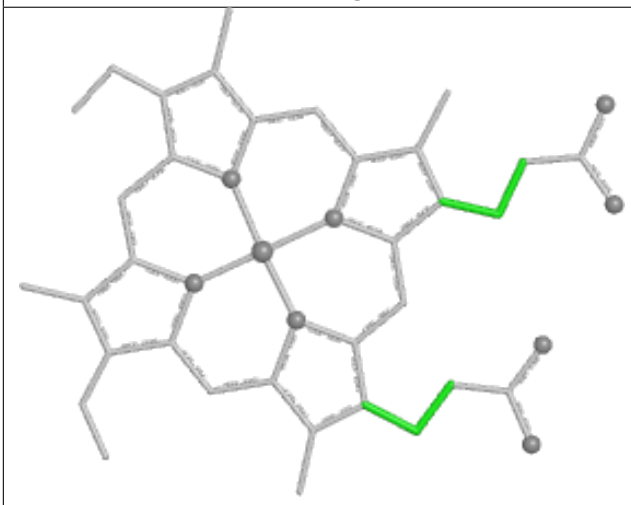
Ligand HEC C 1002



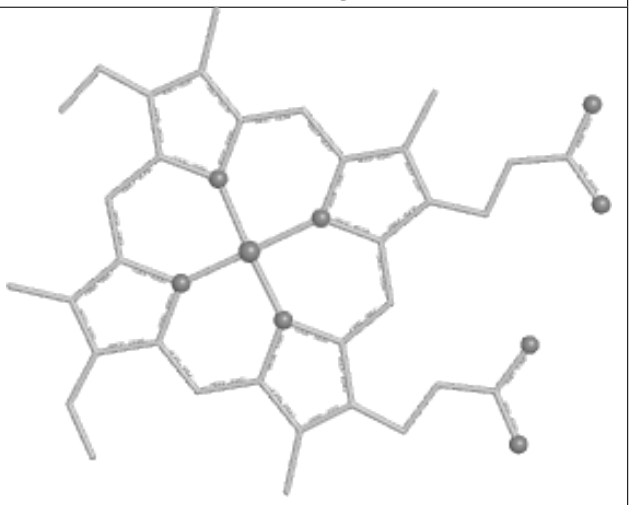
Bond lengths



Bond angles

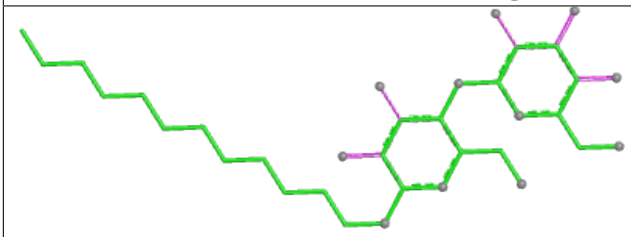


Torsions

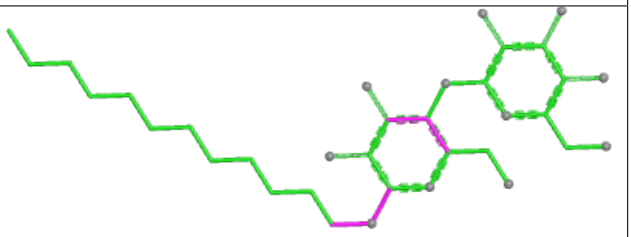


Rings

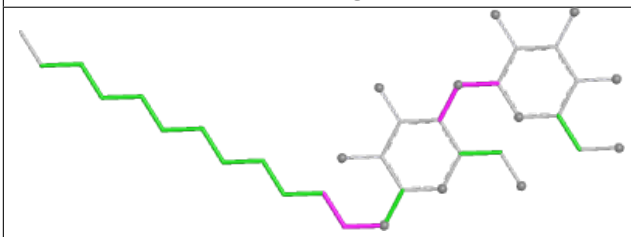
Ligand LMT BI 1002



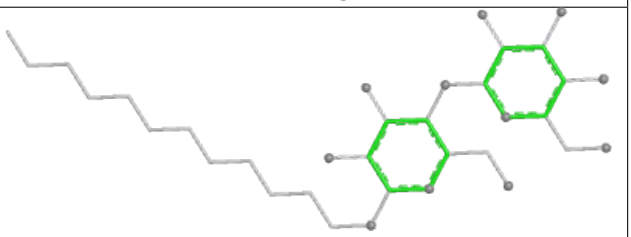
Bond lengths



Bond angles

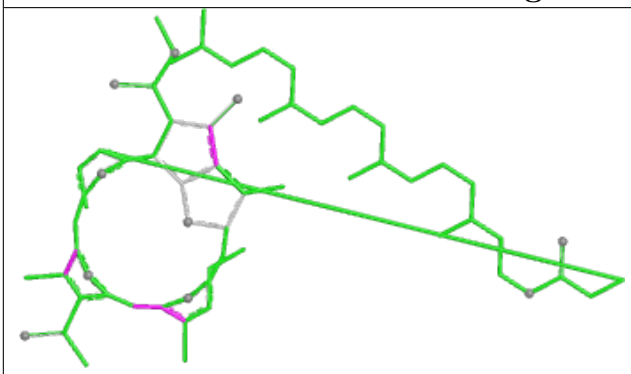


Torsions

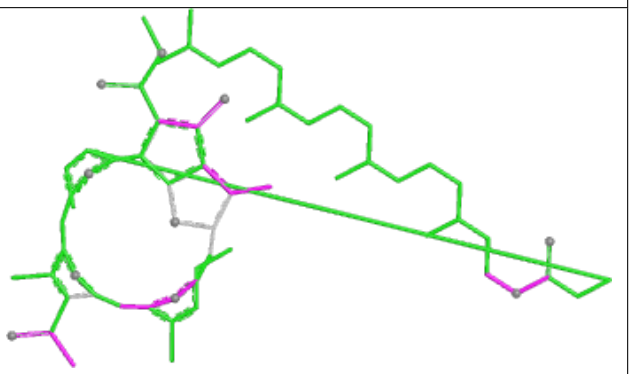


Rings

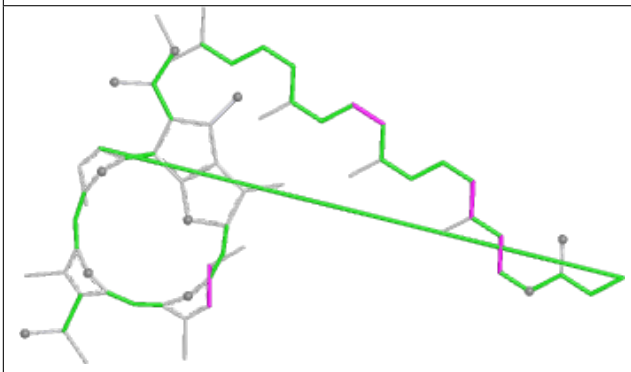
Ligand BPH L 301



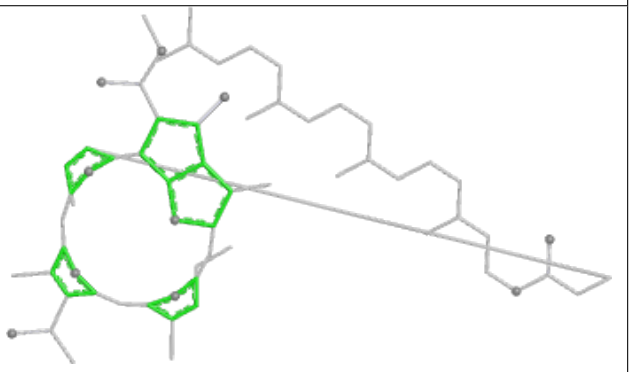
Bond lengths



Bond angles

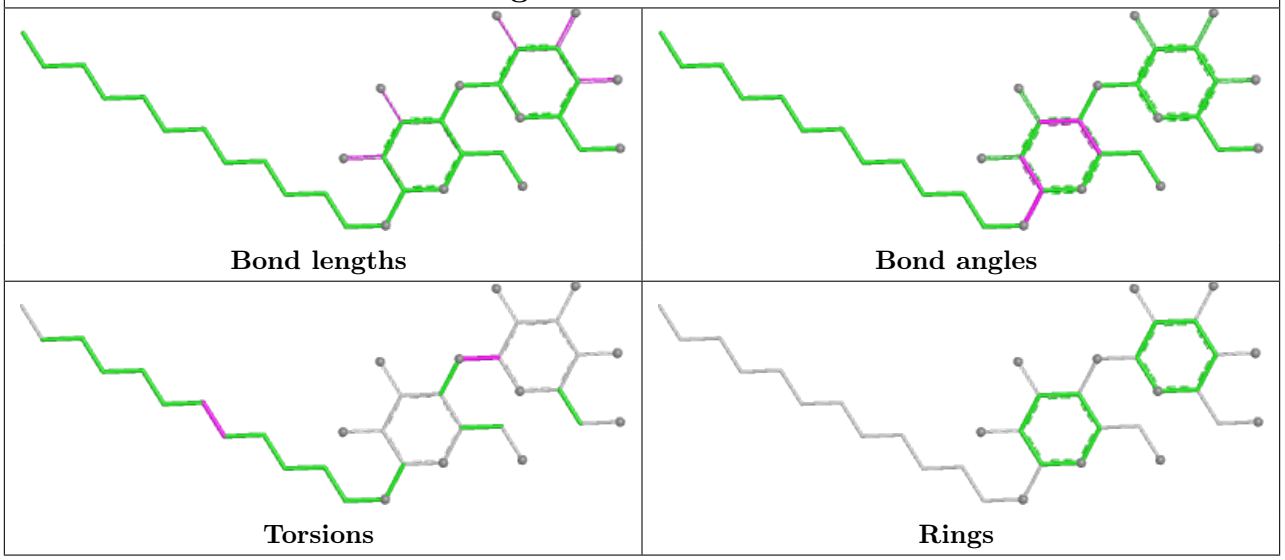


Torsions

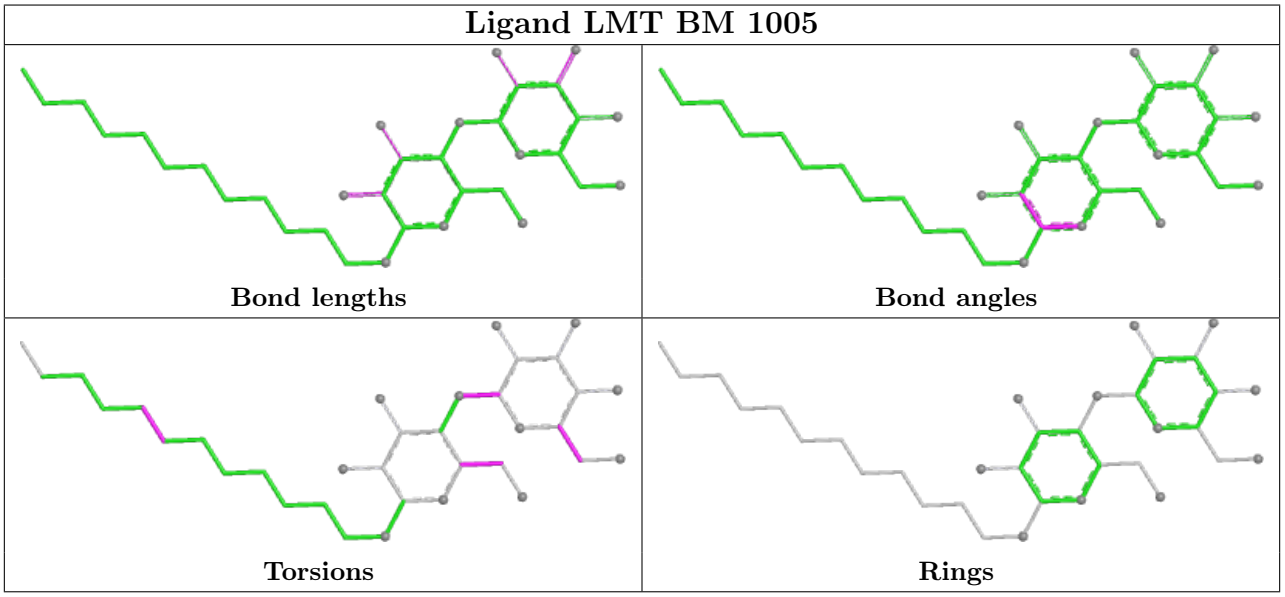


Rings

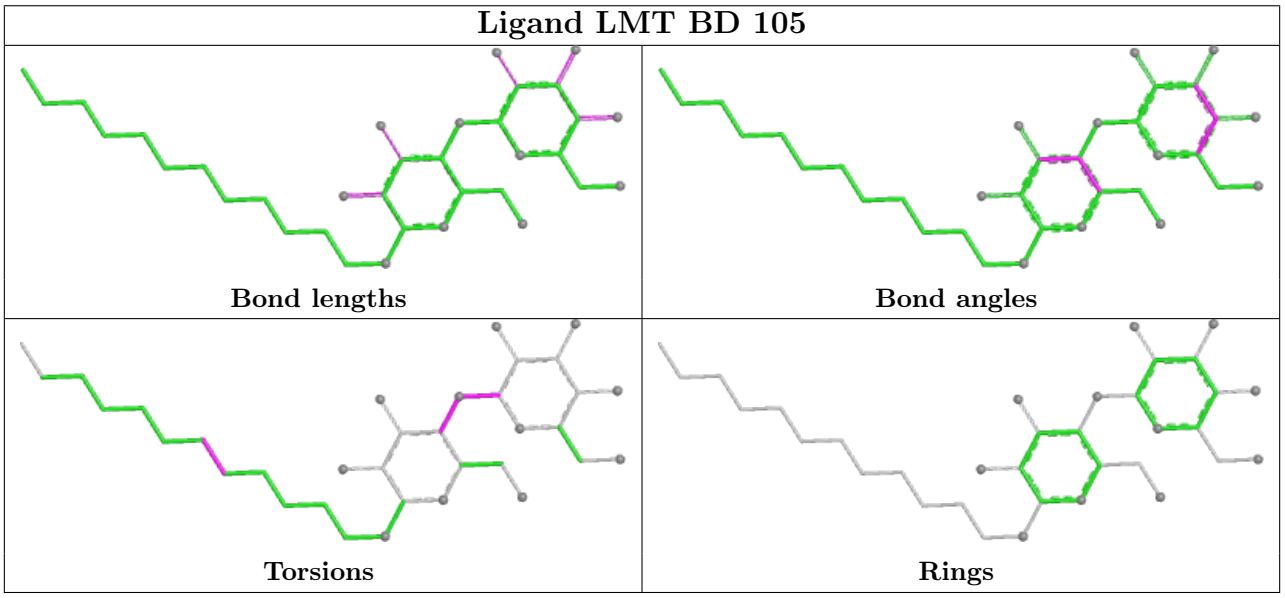
Ligand LMT BE 103

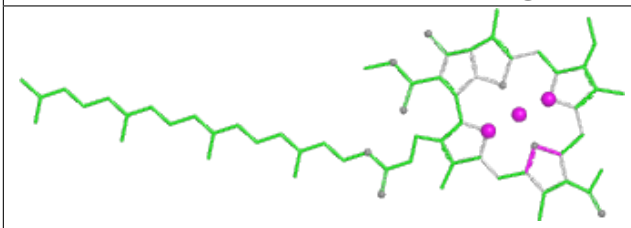
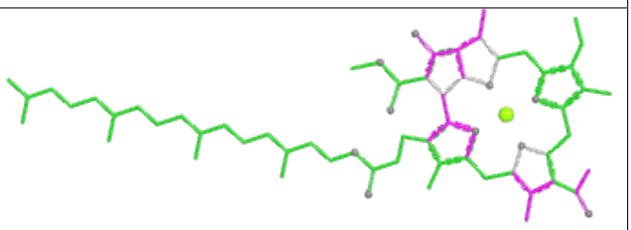
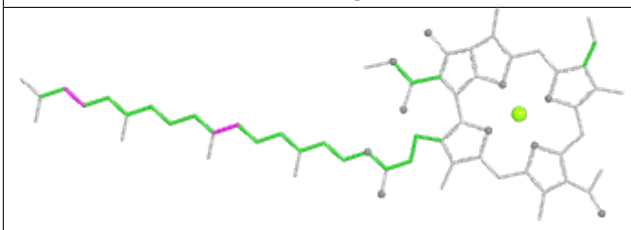
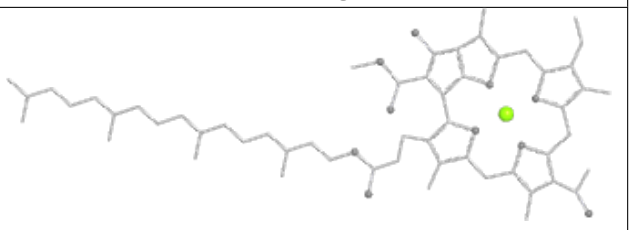


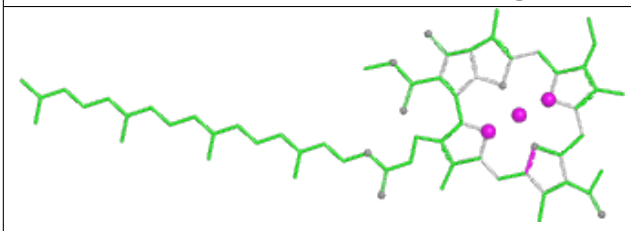
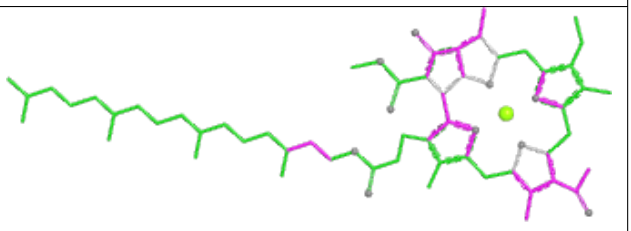
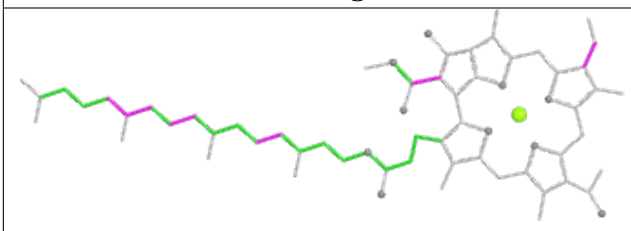
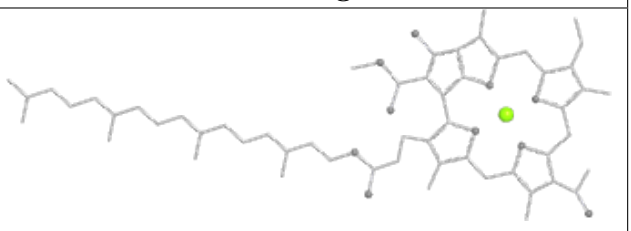
Ligand LMT BM 1005

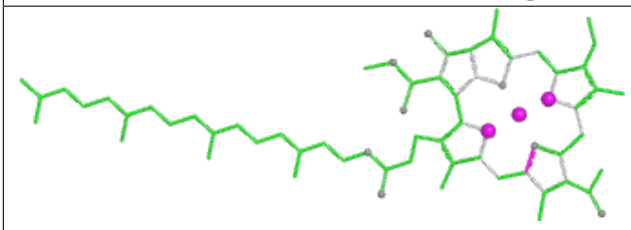
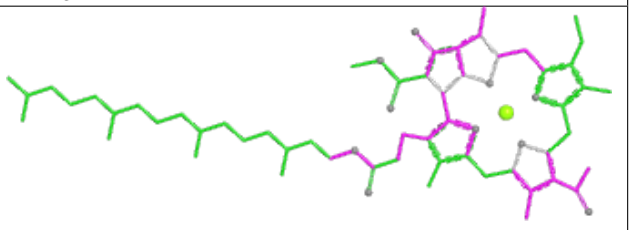
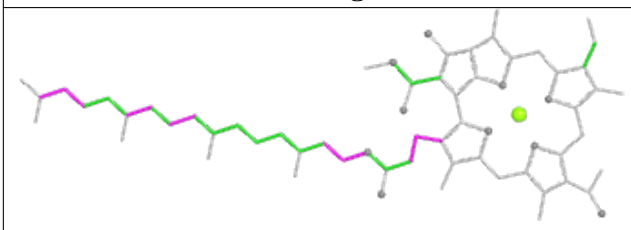
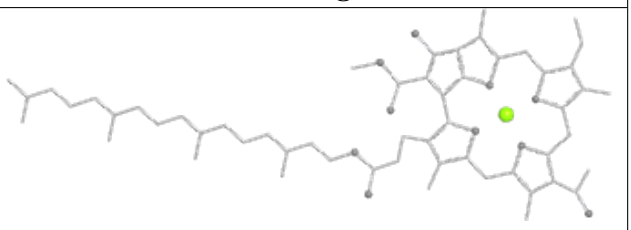


Ligand LMT BD 105

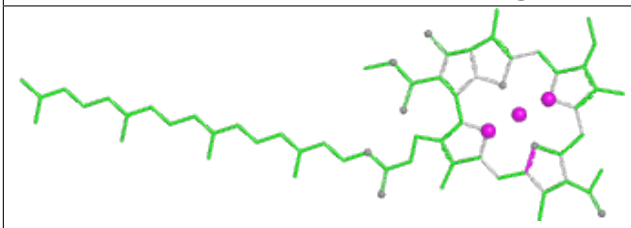


Ligand BCL ad 102	
 Bond lengths	 Bond angles
 Torsions	 Rings

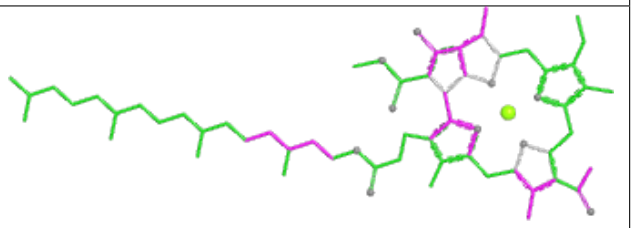
Ligand BCL AD 104	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand BCL bj 104	
 Bond lengths	 Bond angles
 Torsions	 Rings

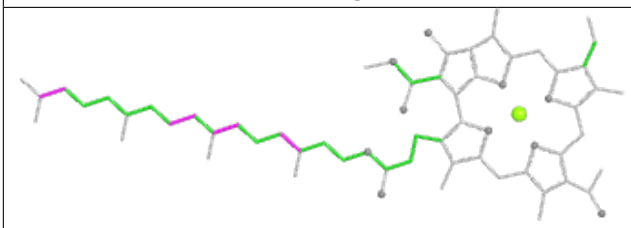
Ligand BCL AP 102



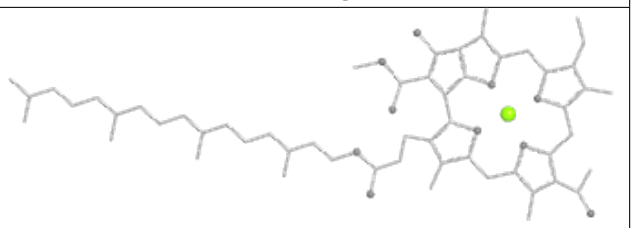
Bond lengths



Bond angles

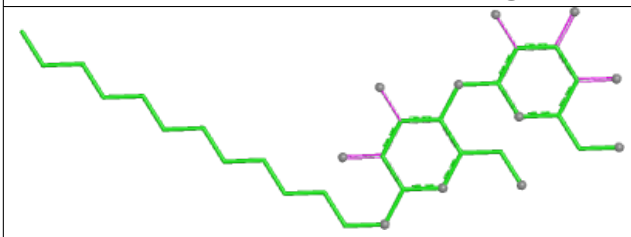


Torsions

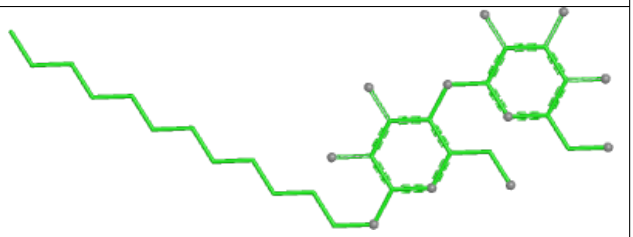


Rings

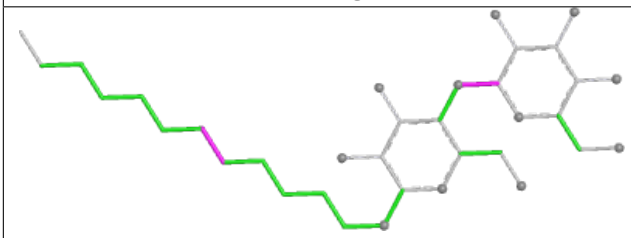
Ligand LMT BS 1005



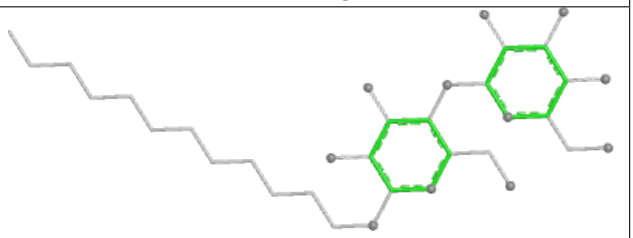
Bond lengths



Bond angles

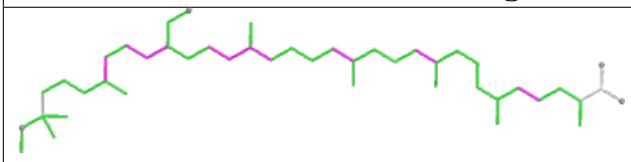


Torsions

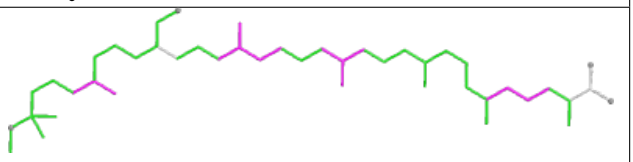


Rings

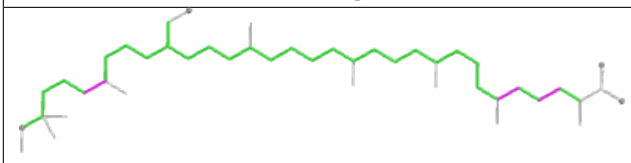
Ligand V7N BQ 1001



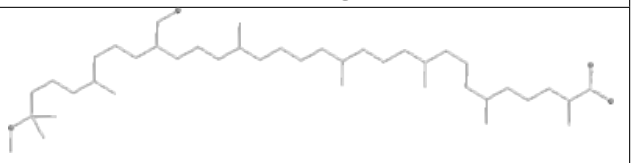
Bond lengths



Bond angles

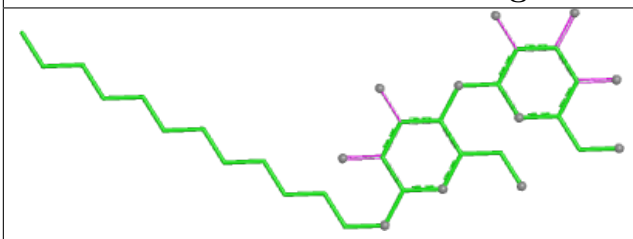


Torsions

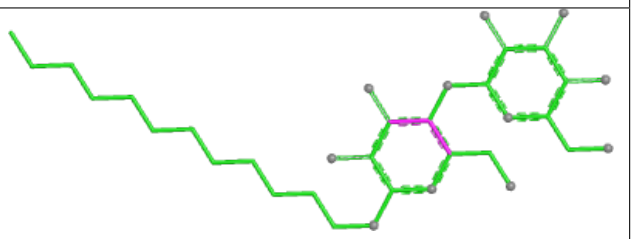


Rings

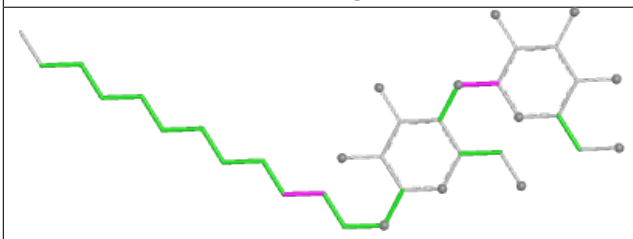
Ligand LMT BE 105



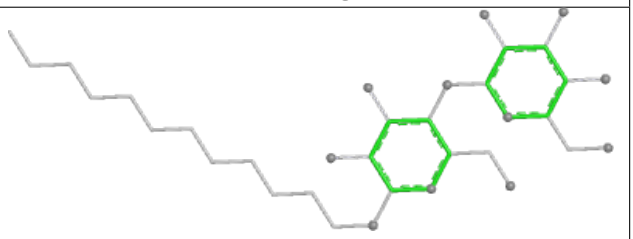
Bond lengths



Bond angles

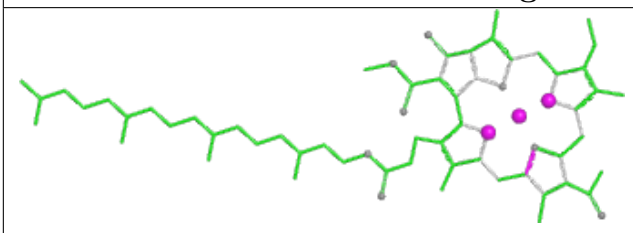


Torsions

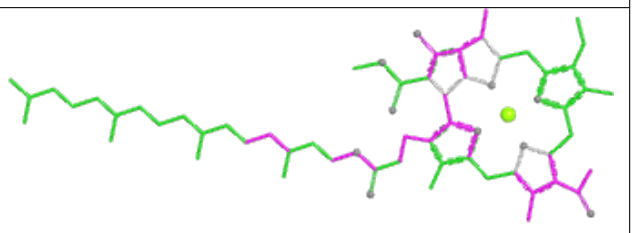


Rings

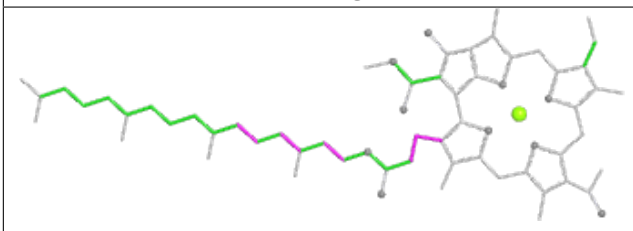
Ligand BCL bc 103



Bond lengths



Bond angles



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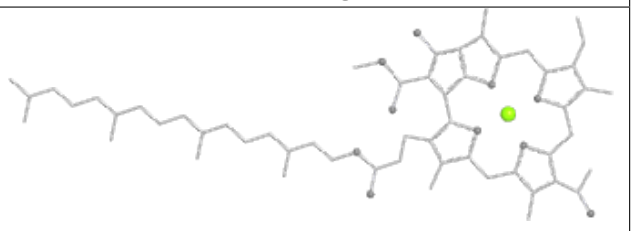
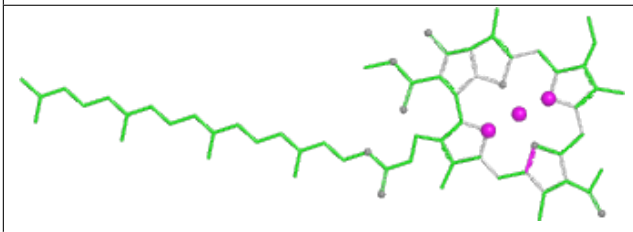
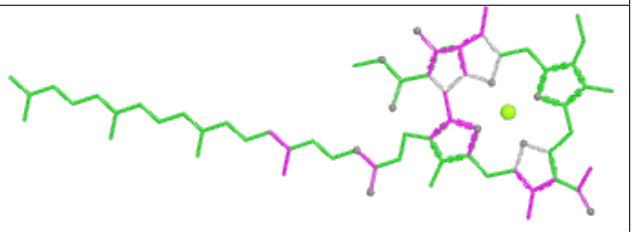


Rings

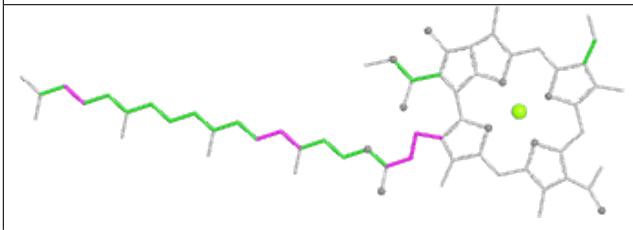
Ligand BCL AW 102



Bond lengths



Bond angles



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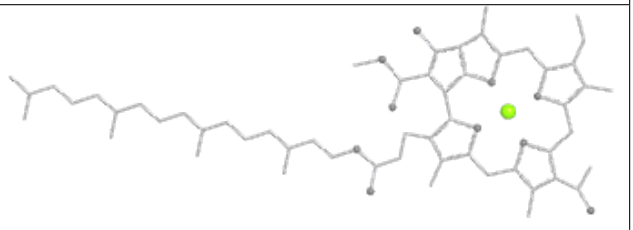
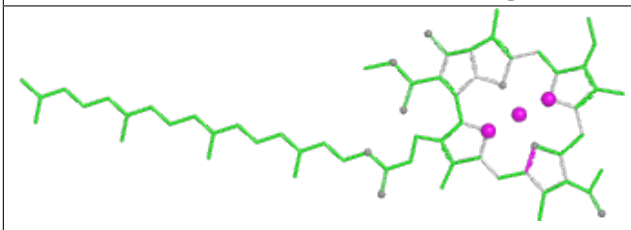
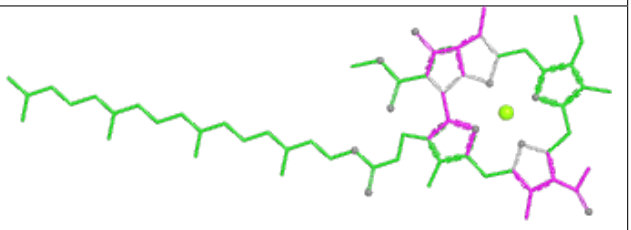


Rings

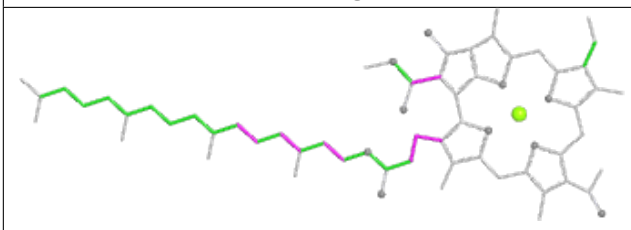
Ligand BCL BH 1005



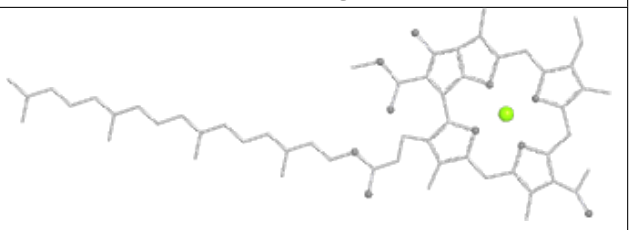
Bond lengths



Bond angles

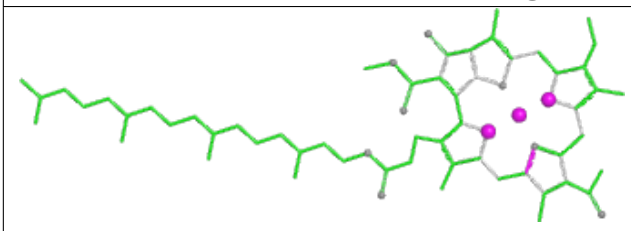


Torsions

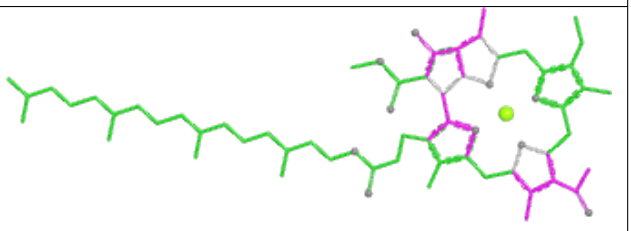


Rings

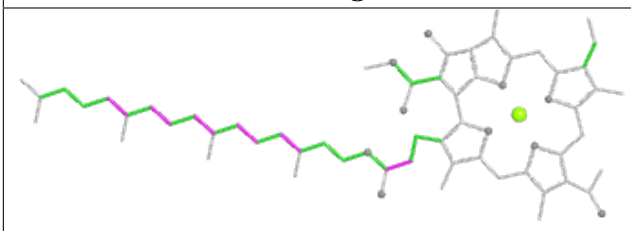
Ligand BCL af 103



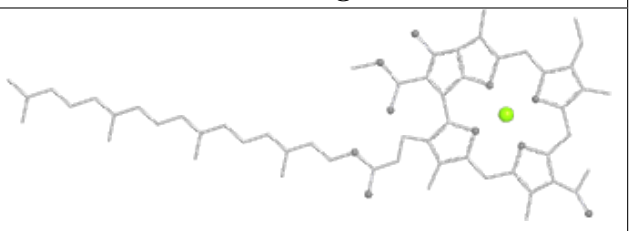
Bond lengths



Bond angles

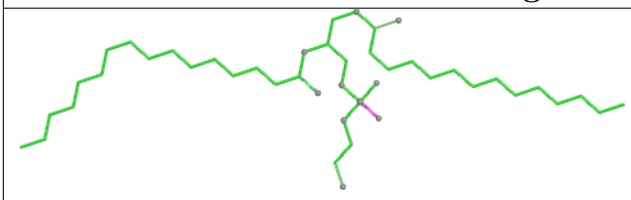


Torsions

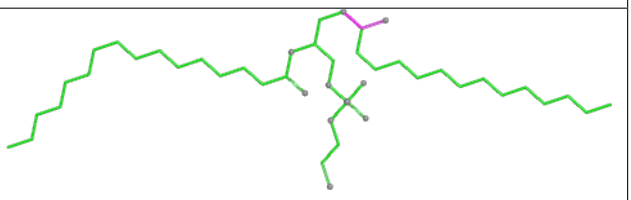


Rings

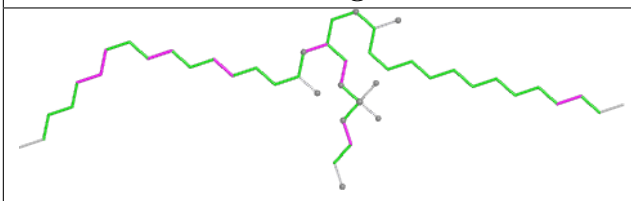
Ligand 0V9 bb 103



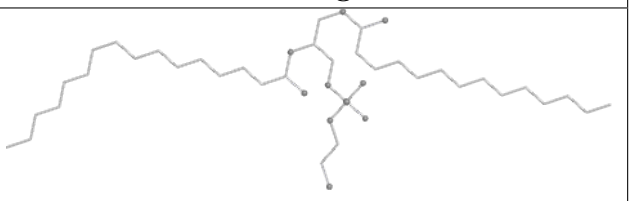
Bond lengths



Bond angles

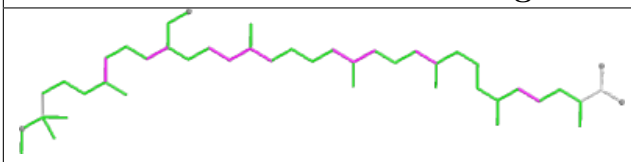


Torsions

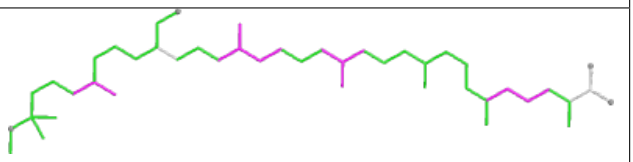


Rings

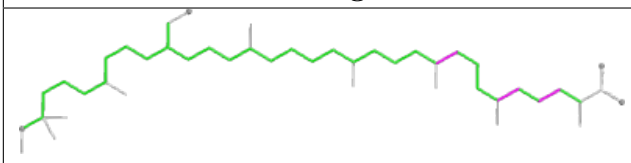
Ligand V7N AS 104



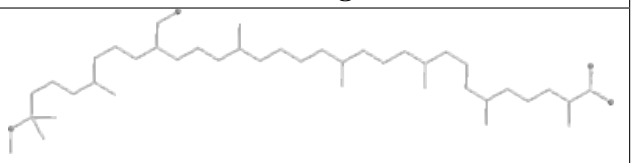
Bond lengths



Bond angles

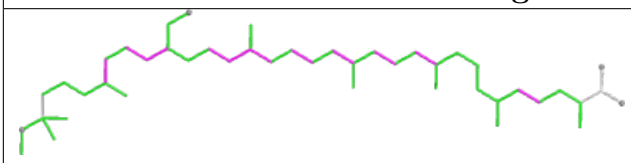


Torsions



Rings

Ligand V7N BA 101



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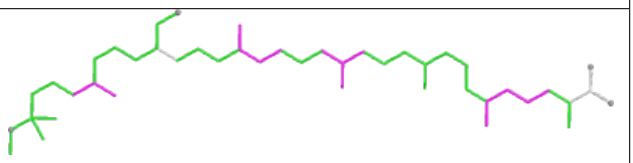

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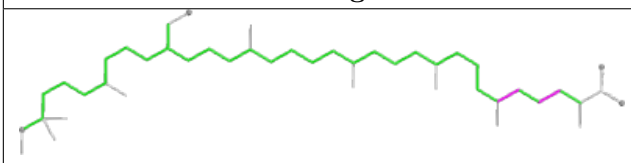

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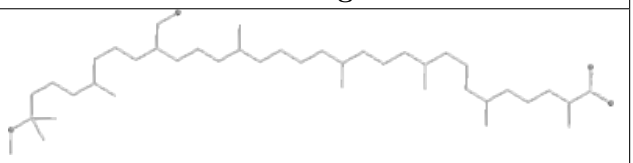
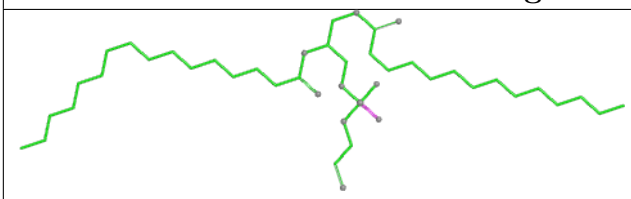


Rings

Ligand 0V9 ad 103



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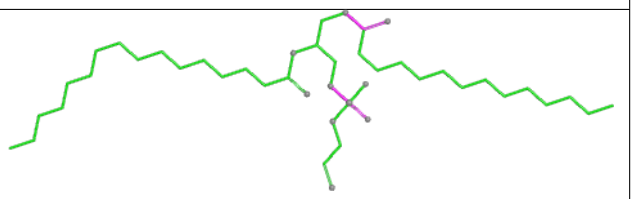
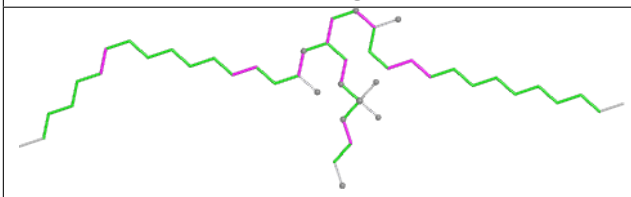


Bond angles



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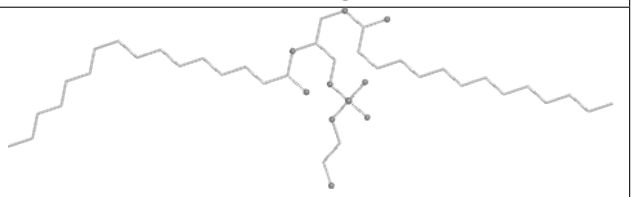
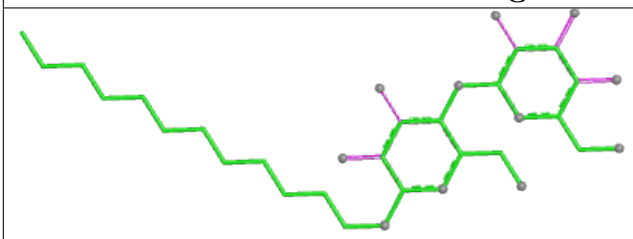


Rings

Ligand LMT AV 104



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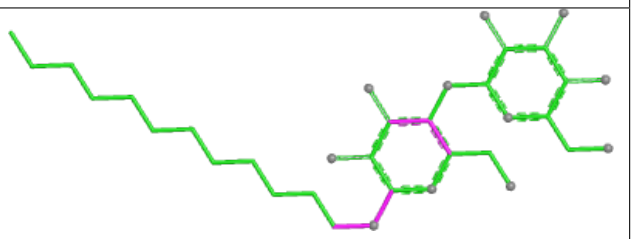

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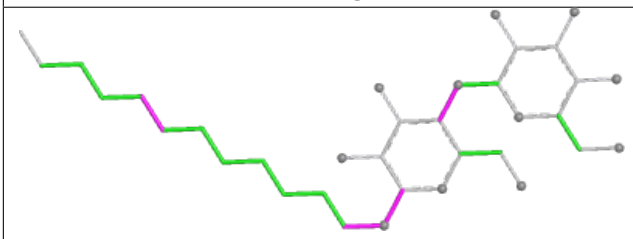

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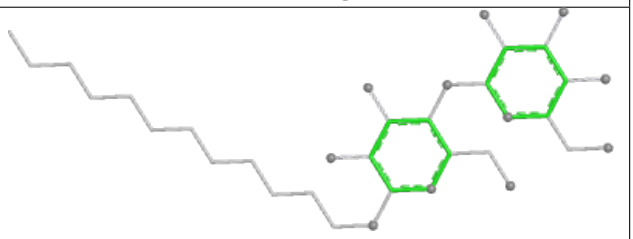
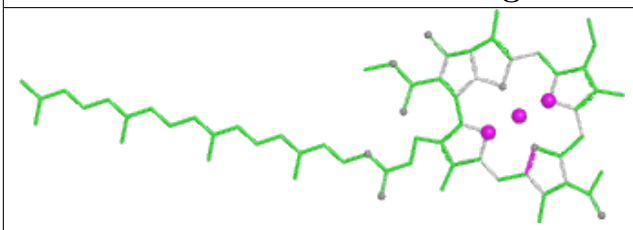


Rings

Ligand BCL BQ 1004



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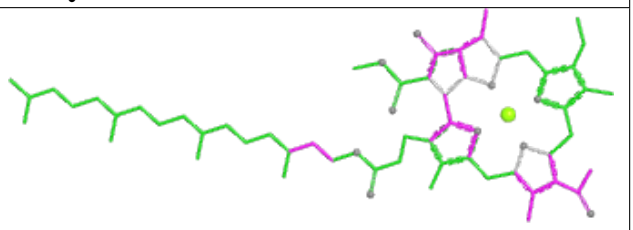
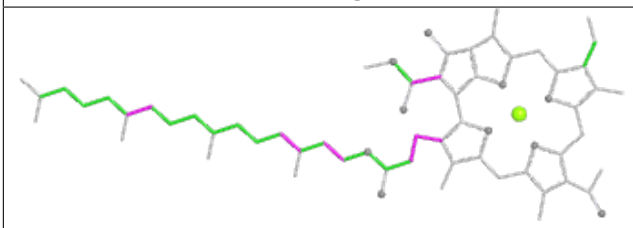


Bond angles



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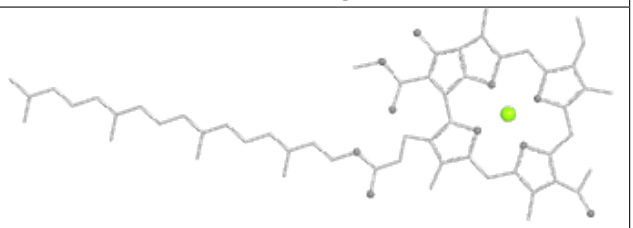
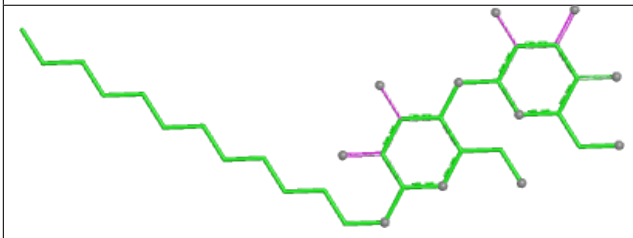


Rings

Ligand LMT bc 102



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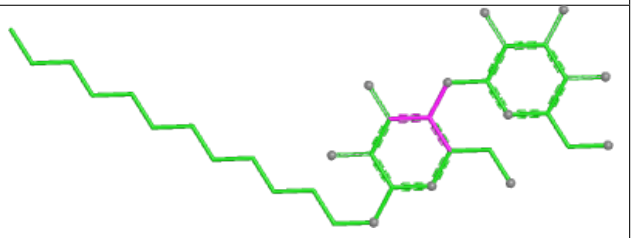
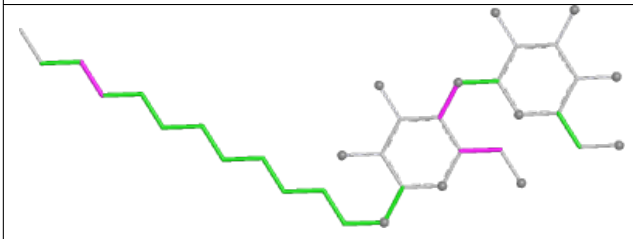


Bond angles



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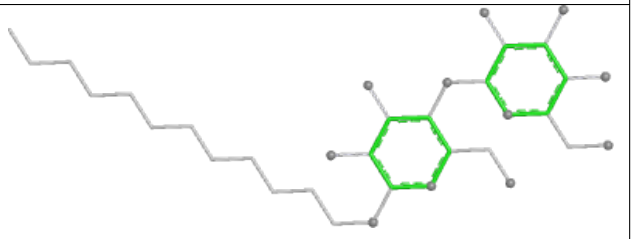
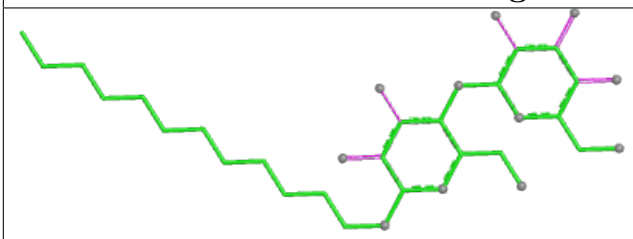


Rings

Ligand LMT AE 101



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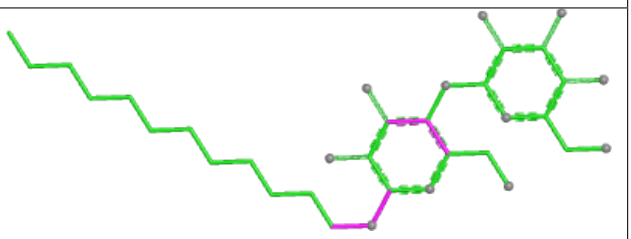

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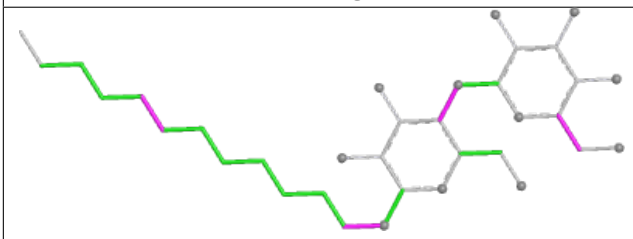

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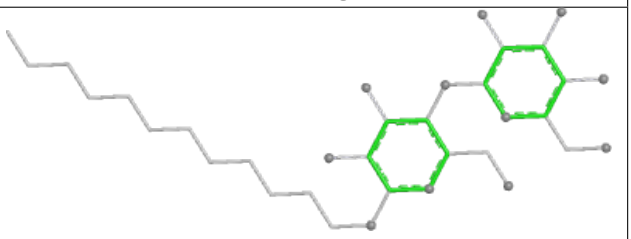
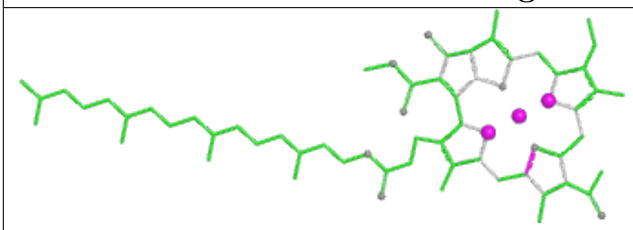
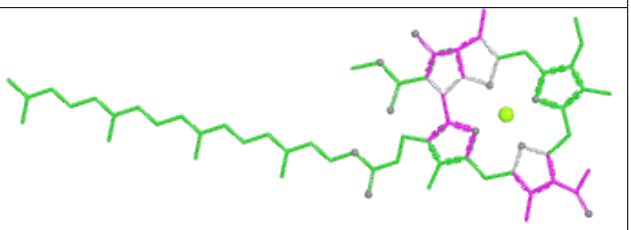


Rings

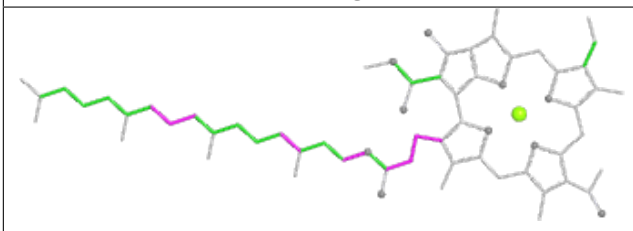
Ligand BCL bh 103



Bond lengths



Bond angles



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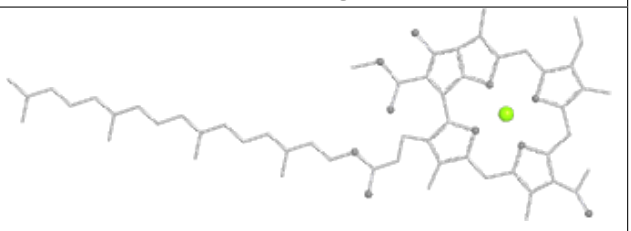
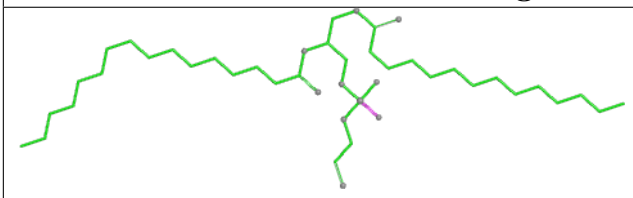
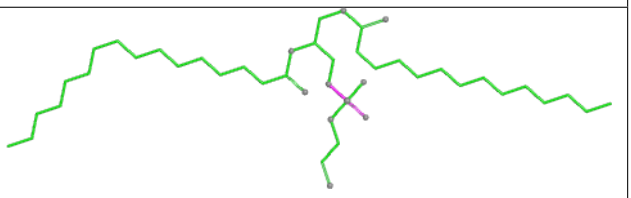


Rings

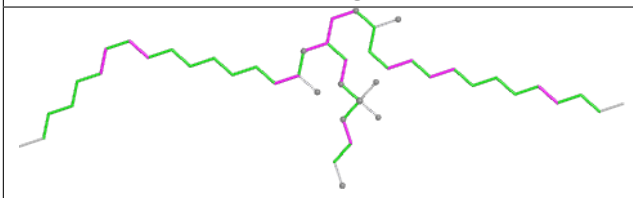
Ligand 0V9 ab 1002



Bond lengths



Bond angles



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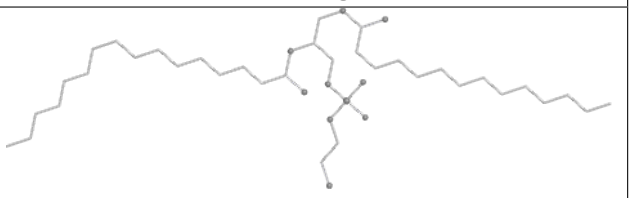
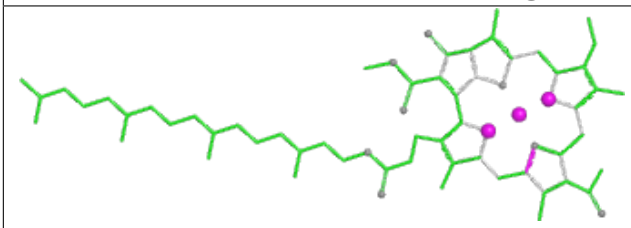
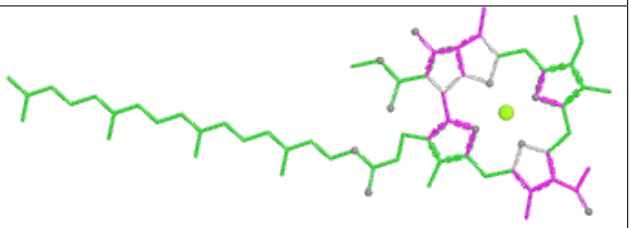
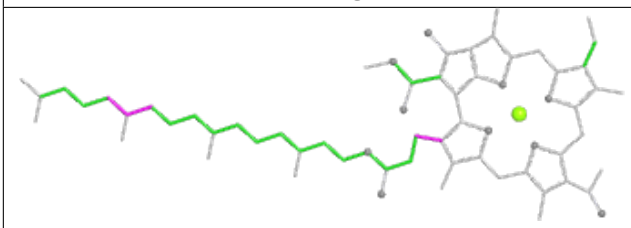
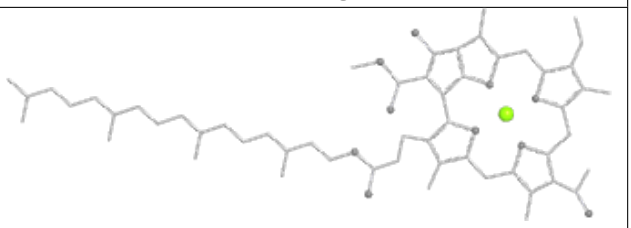
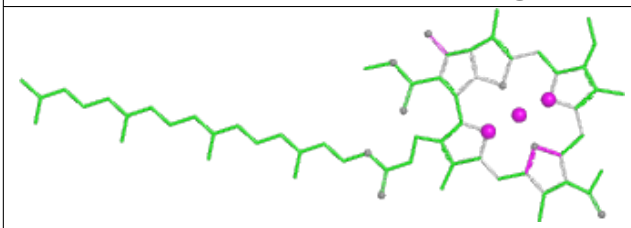
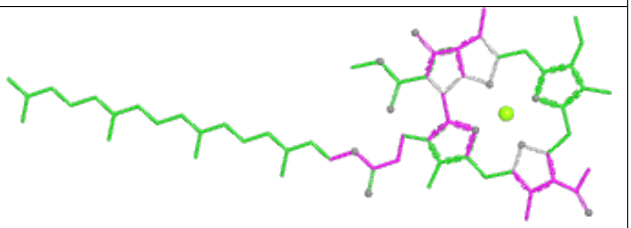
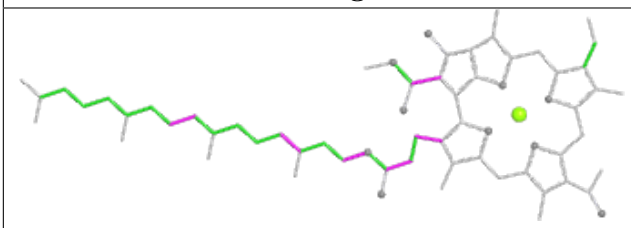
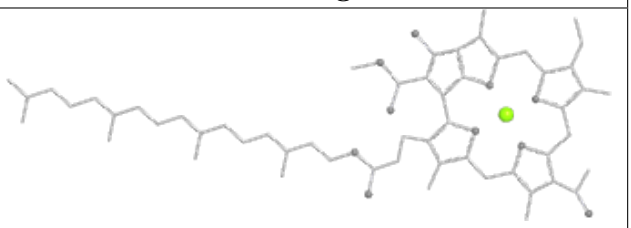
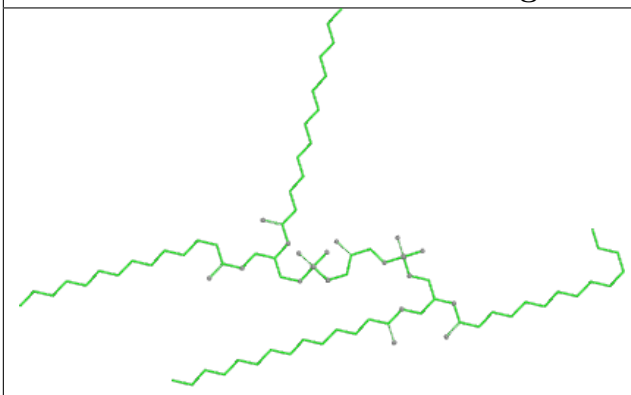


Rings

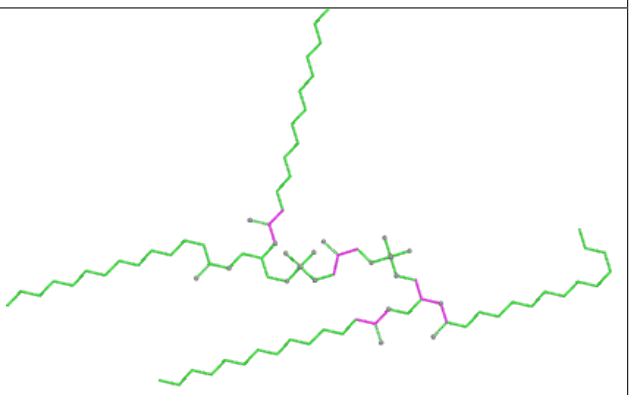
Ligand BCL bf 102	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand BCL AX 103	
 Bond lengths	 Bond angles
 Torsions	 Rings

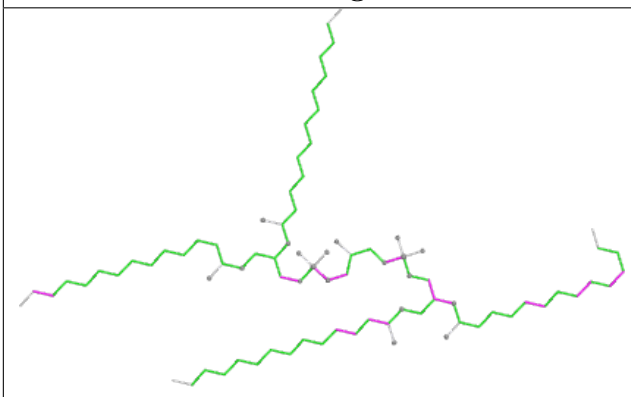
Ligand CD4 ad 101



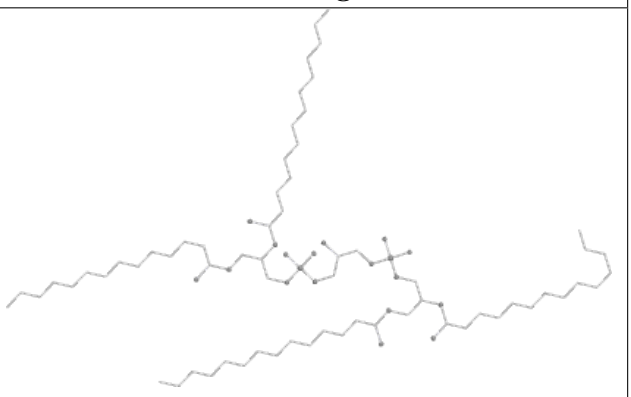
Bond lengths



Bond angles

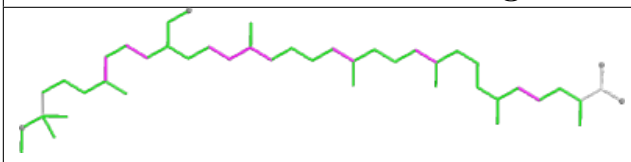


Torsions

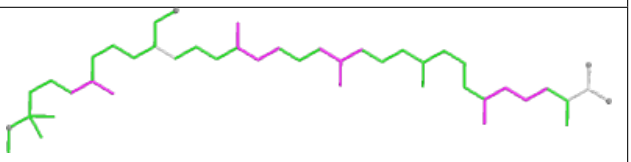


Rings

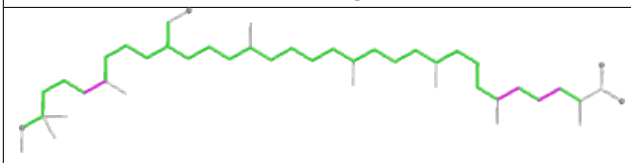
Ligand V7N BK 1001



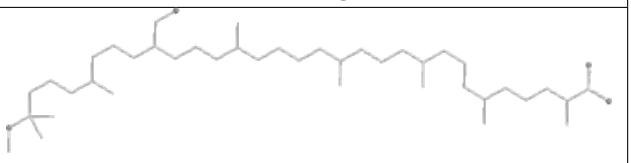
Bond lengths



Bond angles

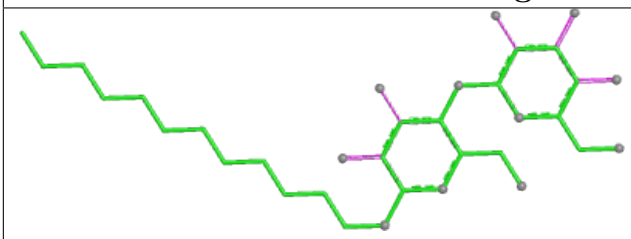


Torsions

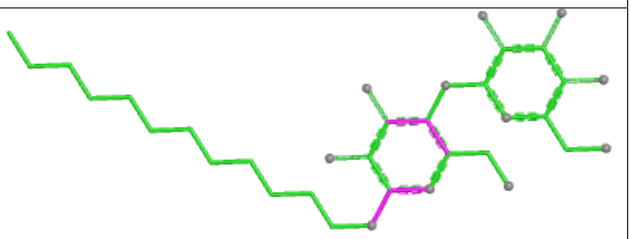


Rings

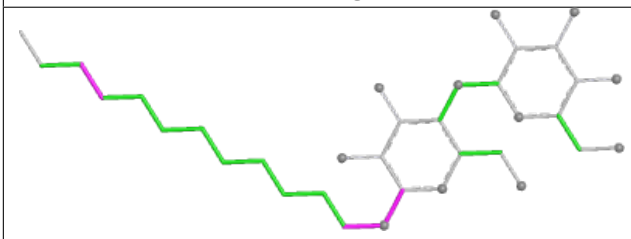
Ligand LMT bh 102



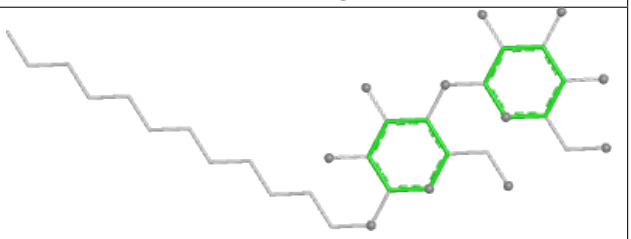
Bond lengths



Bond angles

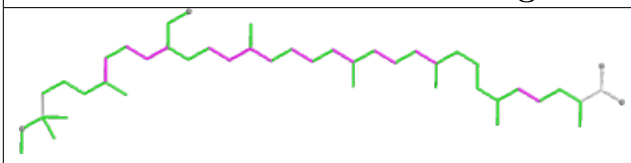


Torsions

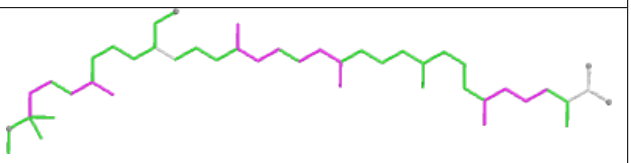


Rings

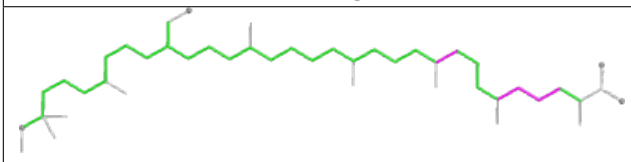
Ligand V7N bn 101



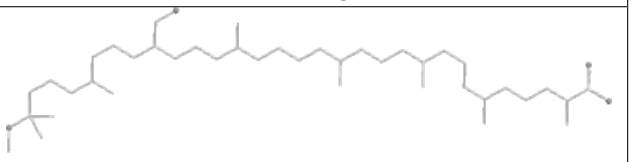
Bond lengths



Bond angles

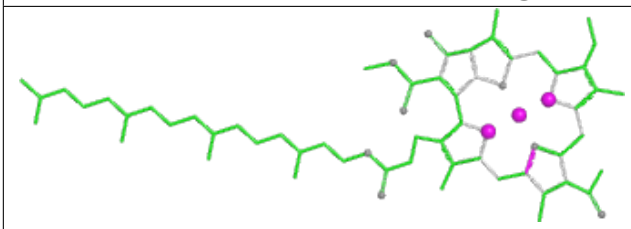


Torsions

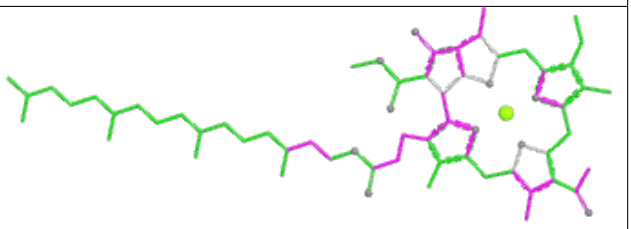


Rings

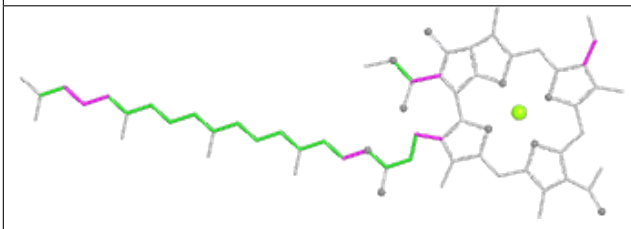
Ligand BCL AJ 103



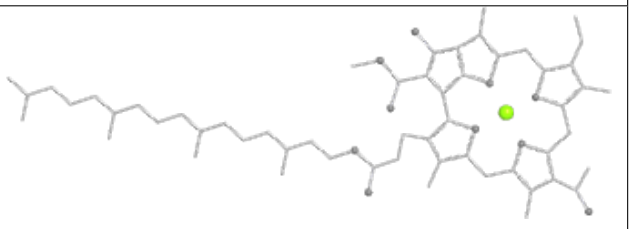
Bond lengths



Bond angles

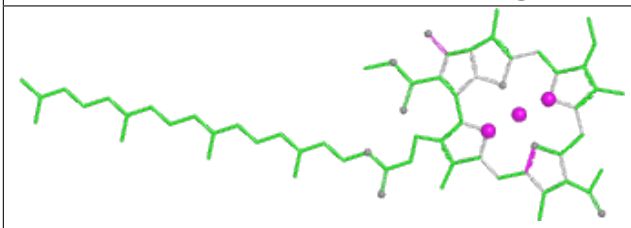


Torsions

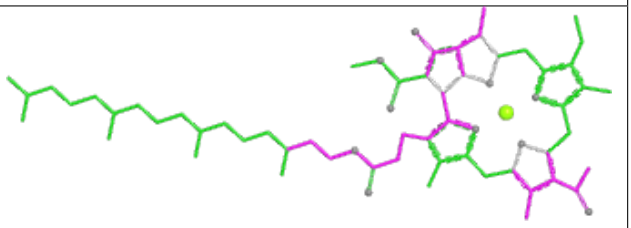


Rings

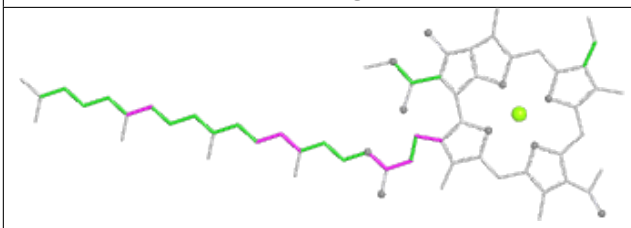
Ligand BCL AE 103



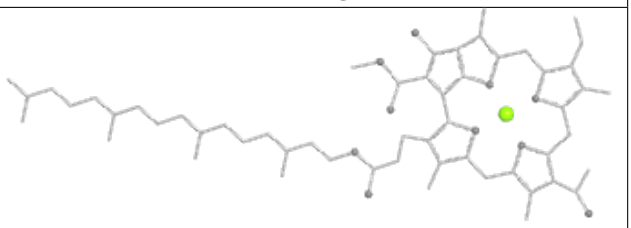
Bond lengths



Bond angles

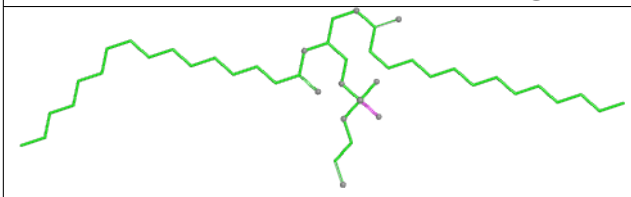


Torsions

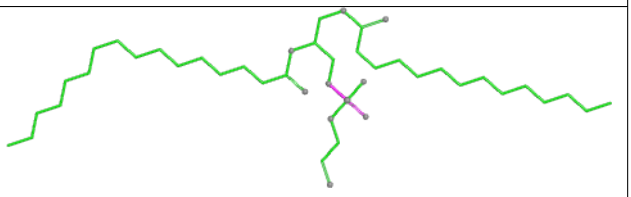


Rings

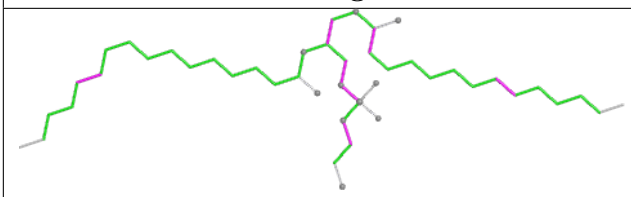
Ligand 0V9 bf 103



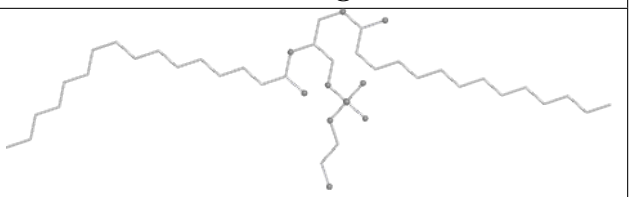
Bond lengths



Bond angles

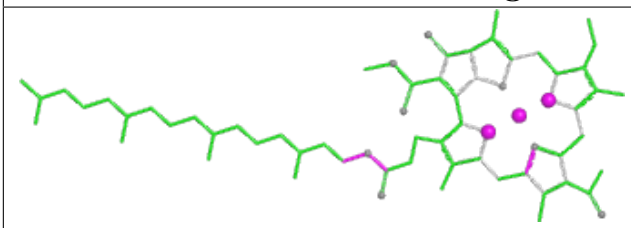


Torsions

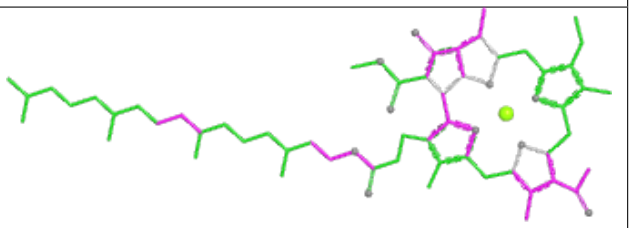


Rings

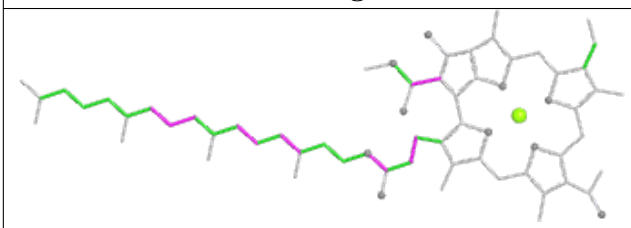
Ligand BCL BP 1003



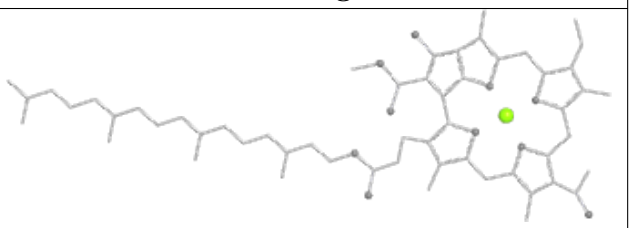
Bond lengths



Bond angles

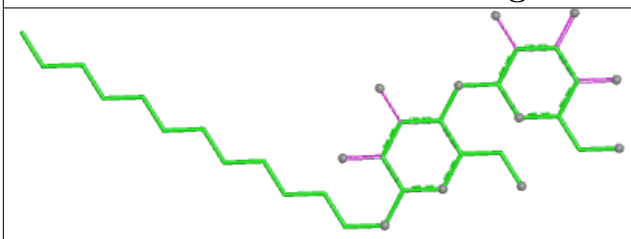


Torsions

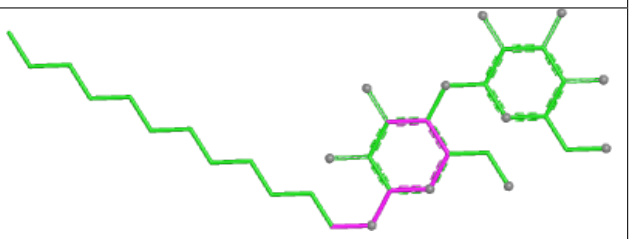


Rings

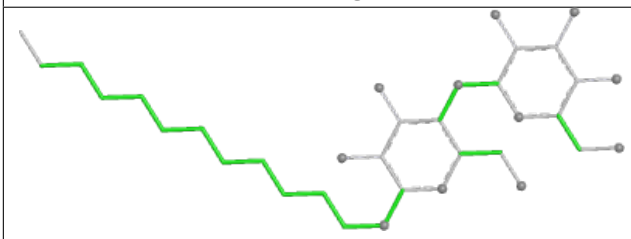
Ligand LMT BB 102



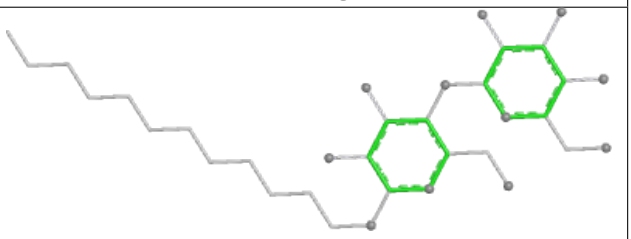
Bond lengths



Bond angles

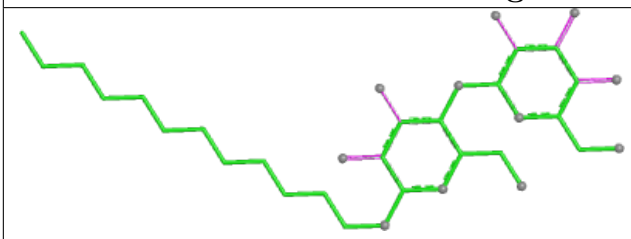


Torsions

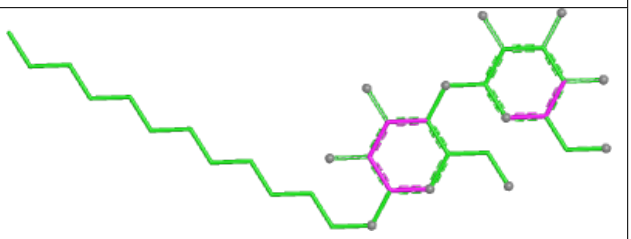


Rings

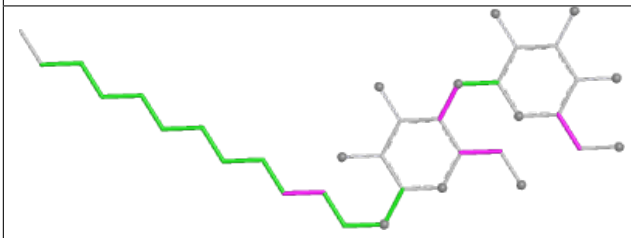
Ligand LMT AN 101



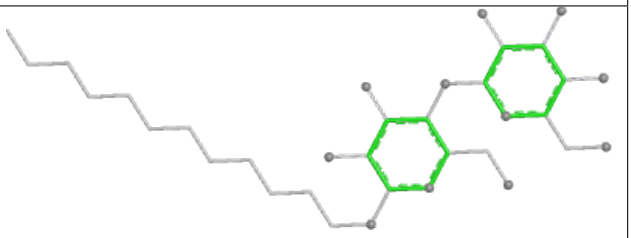
Bond lengths



Bond angles

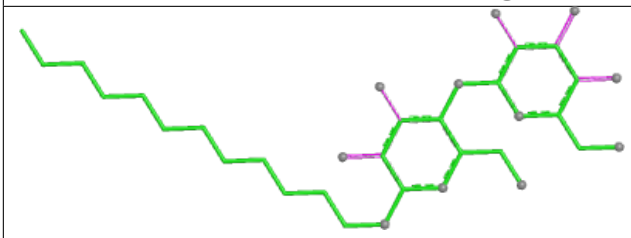


Torsions

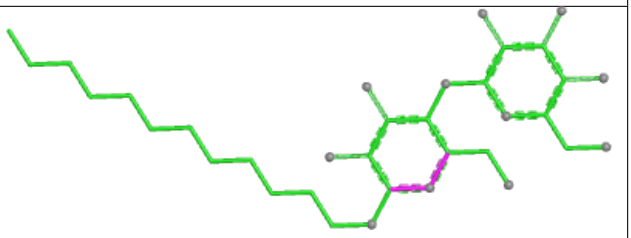


Rings

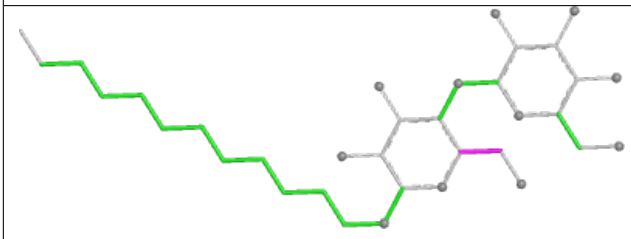
Ligand LMT BG 1003



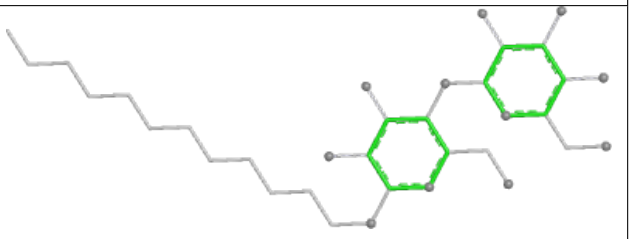
Bond lengths



Bond angles

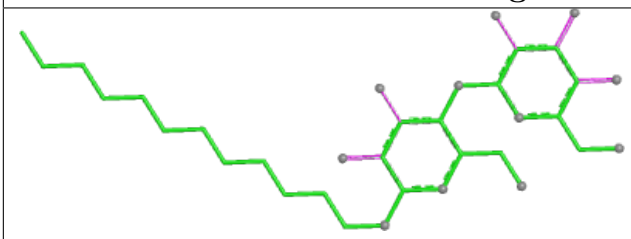


Torsions

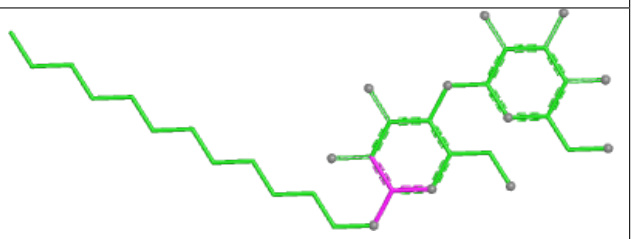


Rings

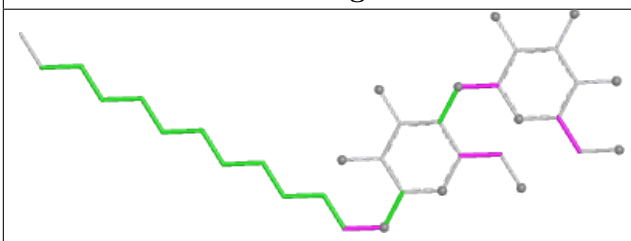
Ligand LMT AE 102



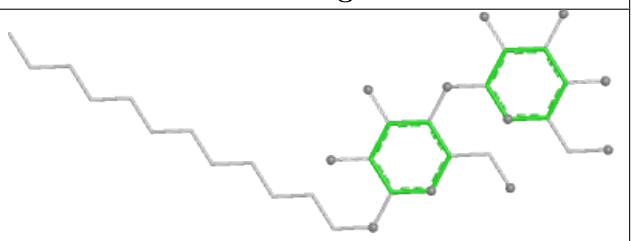
Bond lengths



Bond angles

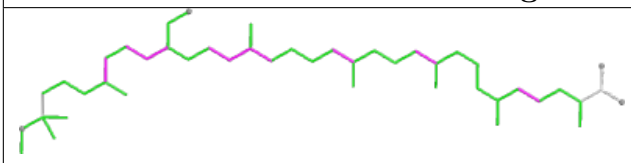


Torsions

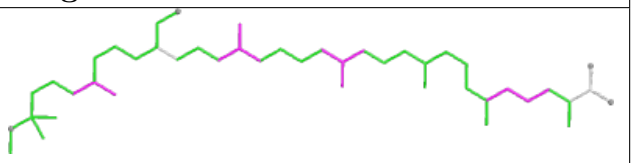


Rings

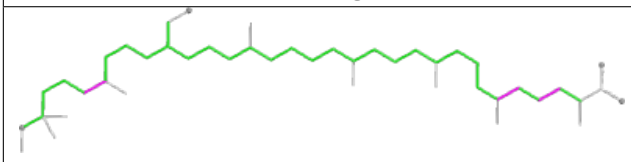
Ligand V7N ag 101



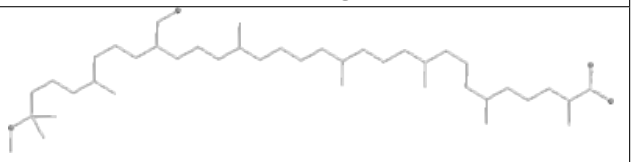
Bond lengths



Bond angles

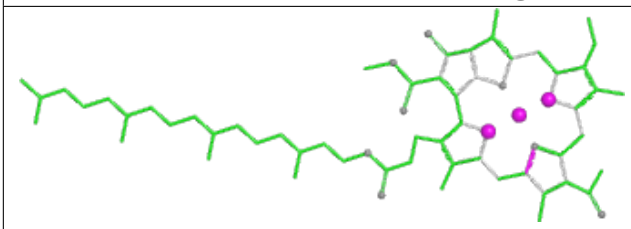


Torsions

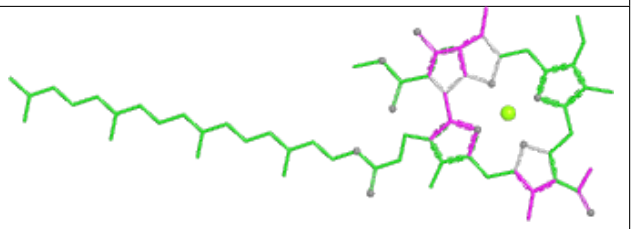


Rings

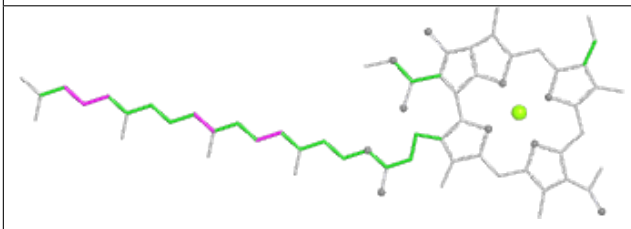
Ligand BCL ae 1001



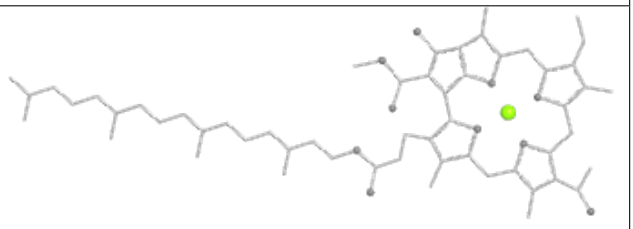
Bond lengths



Bond angles

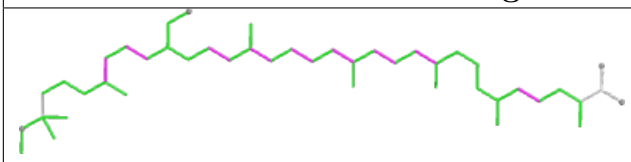


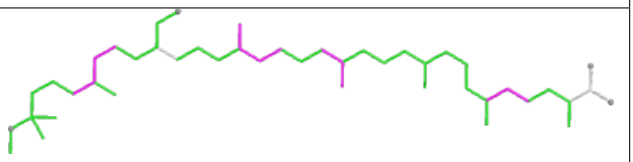
Torsions

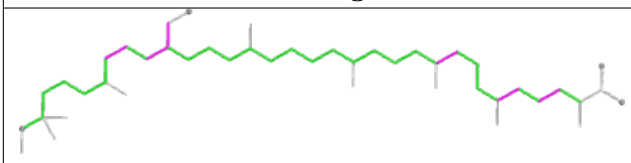


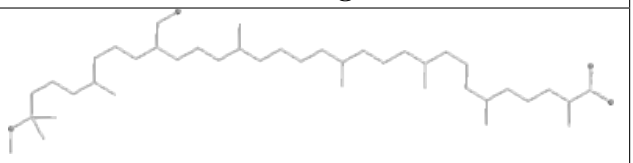
Rings

Ligand V7N BU 1001

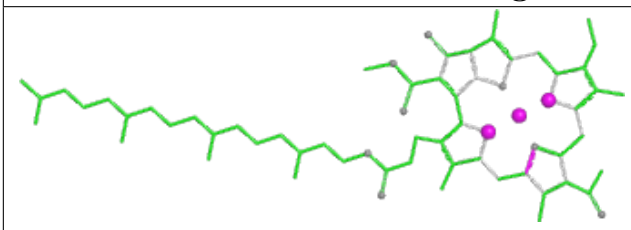

Bond lengths

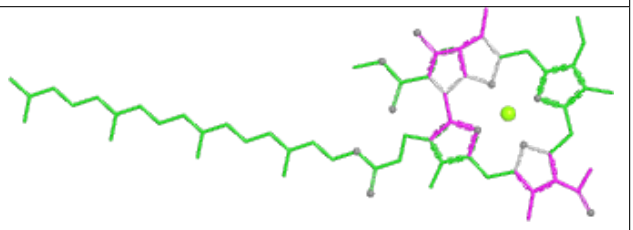

Bond angles

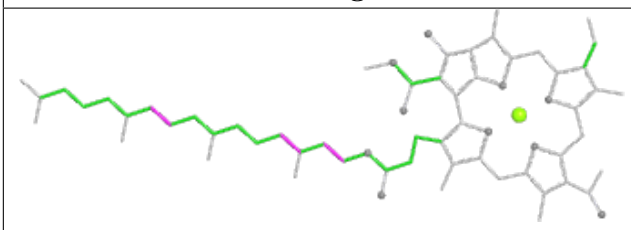

Torsions

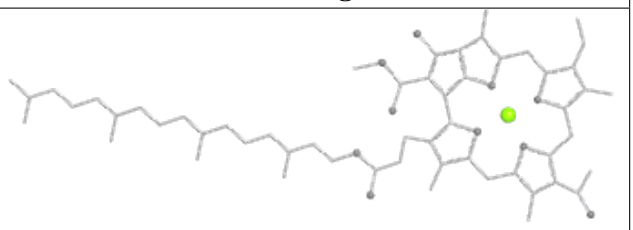

Rings

Ligand BCL ak 1001

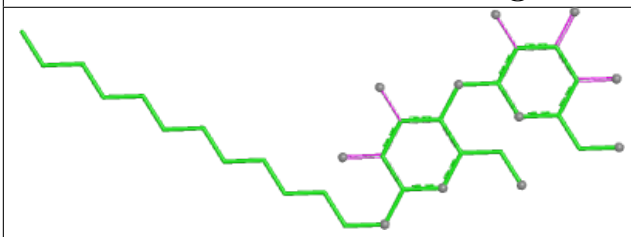

Bond lengths

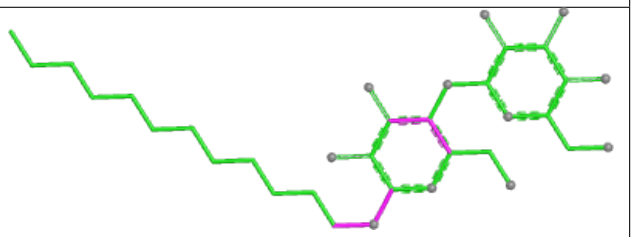

Bond angles

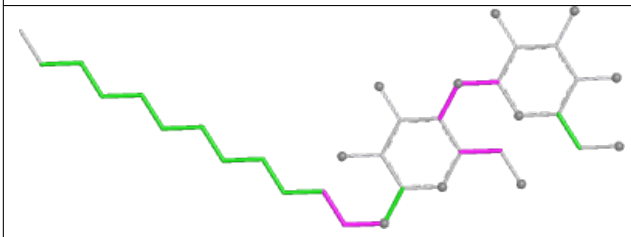

Torsions

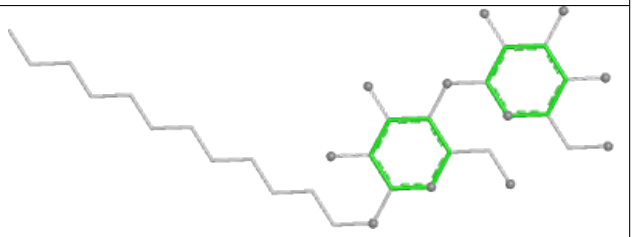

Rings

Ligand LMT BT 101


Bond lengths


Bond angles


Torsions


Rings

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

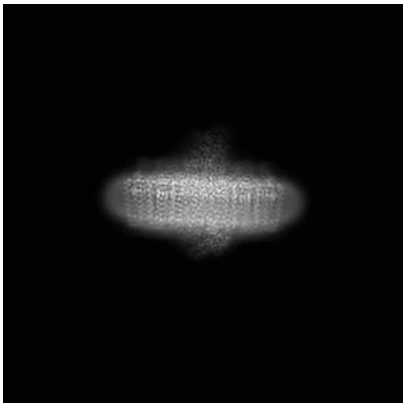
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-12681. These allow visual inspection of the internal detail of the map and identification of artifacts.

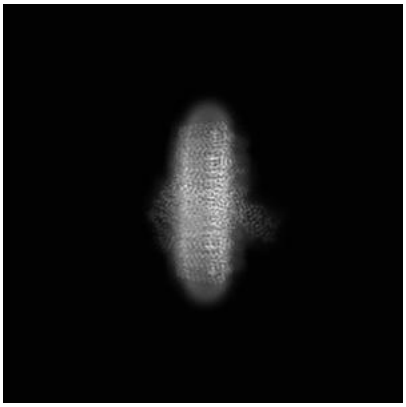
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

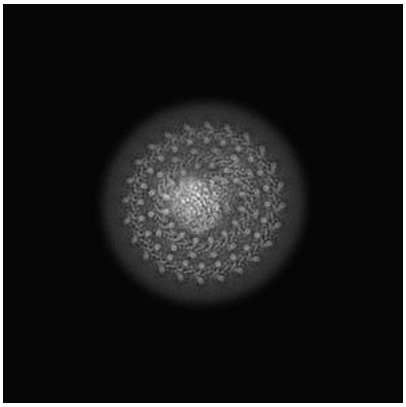
6.1.1 Primary map



X



Y



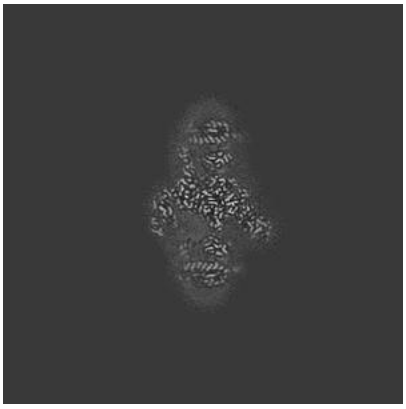
Z

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

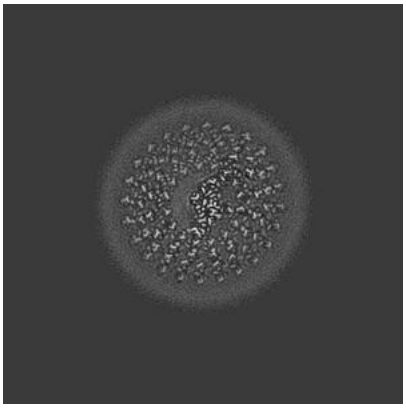
6.2 Central slices

6.2.1 Primary map

X Index: 200



Y Index: 200

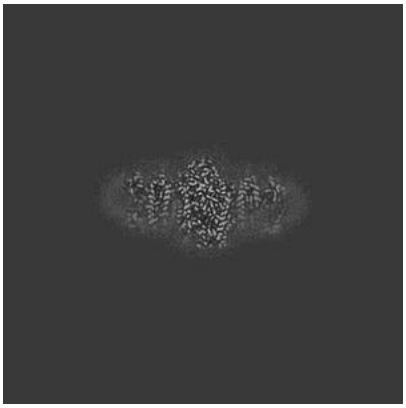


Z Index: 200

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

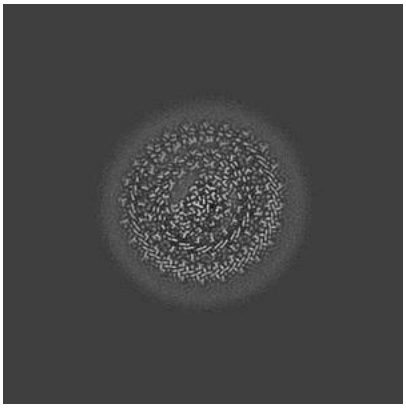
6.3 Largest variance slices (i)

6.3.1 Primary map



X Index: 209

Y Index: 208

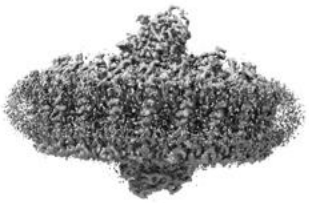


Z Index: 212

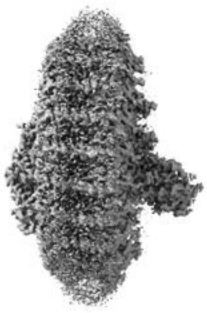
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views (i)

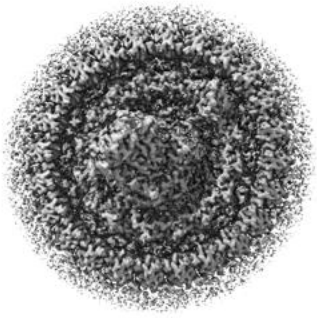
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.0233. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

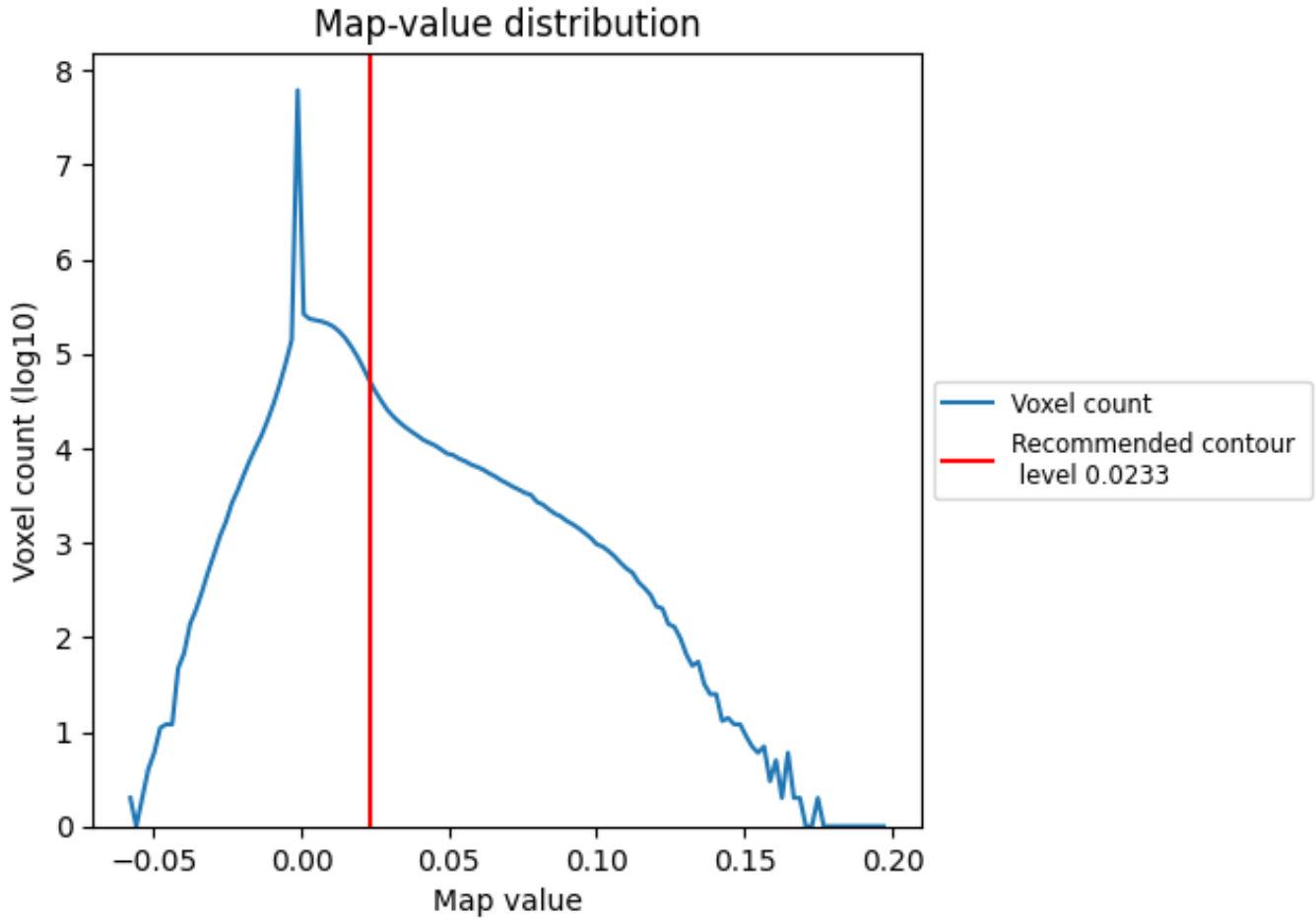
6.5 Mask visualisation (i)

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

7 Map analysis

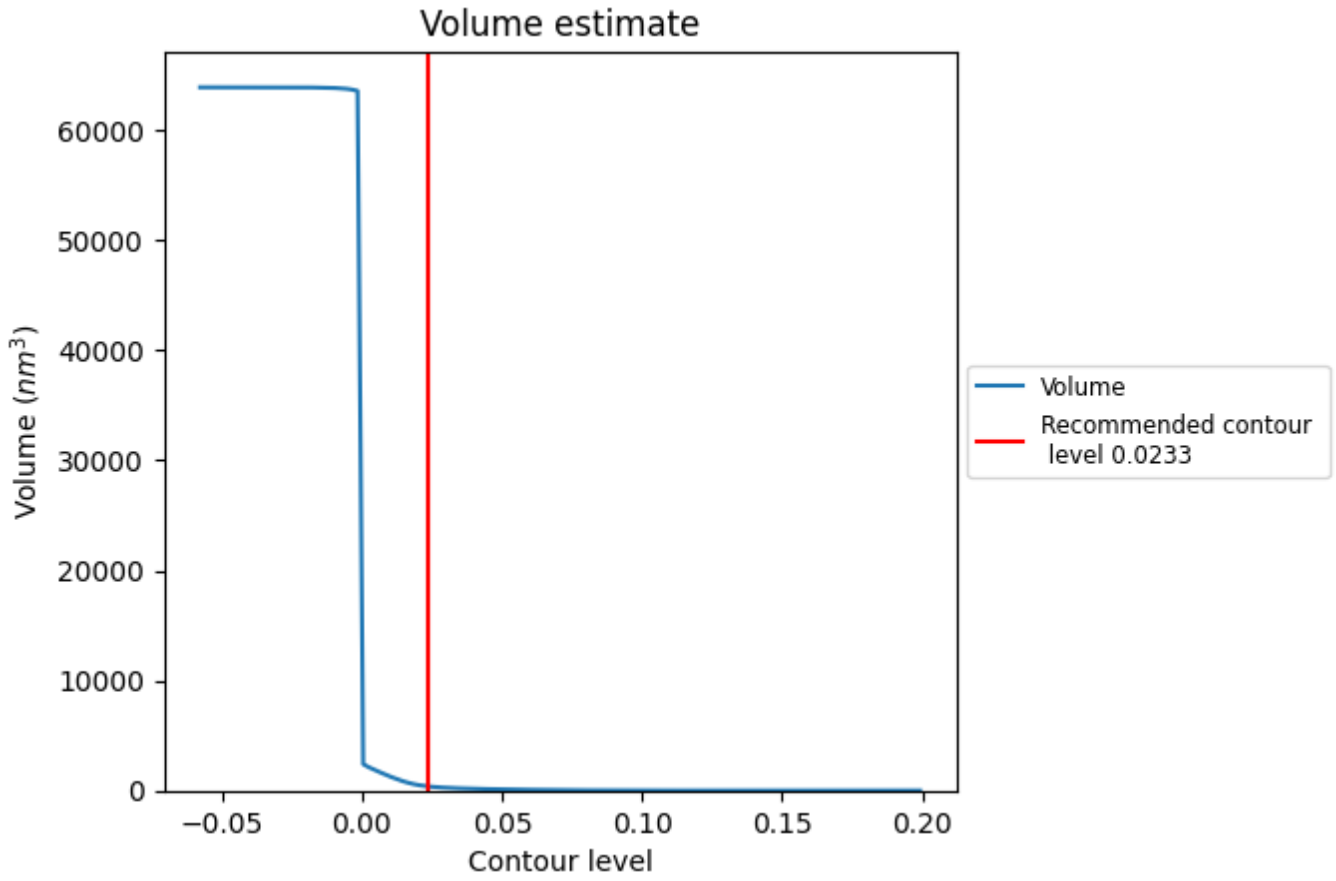
This section contains the results of statistical analysis of the map.

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.

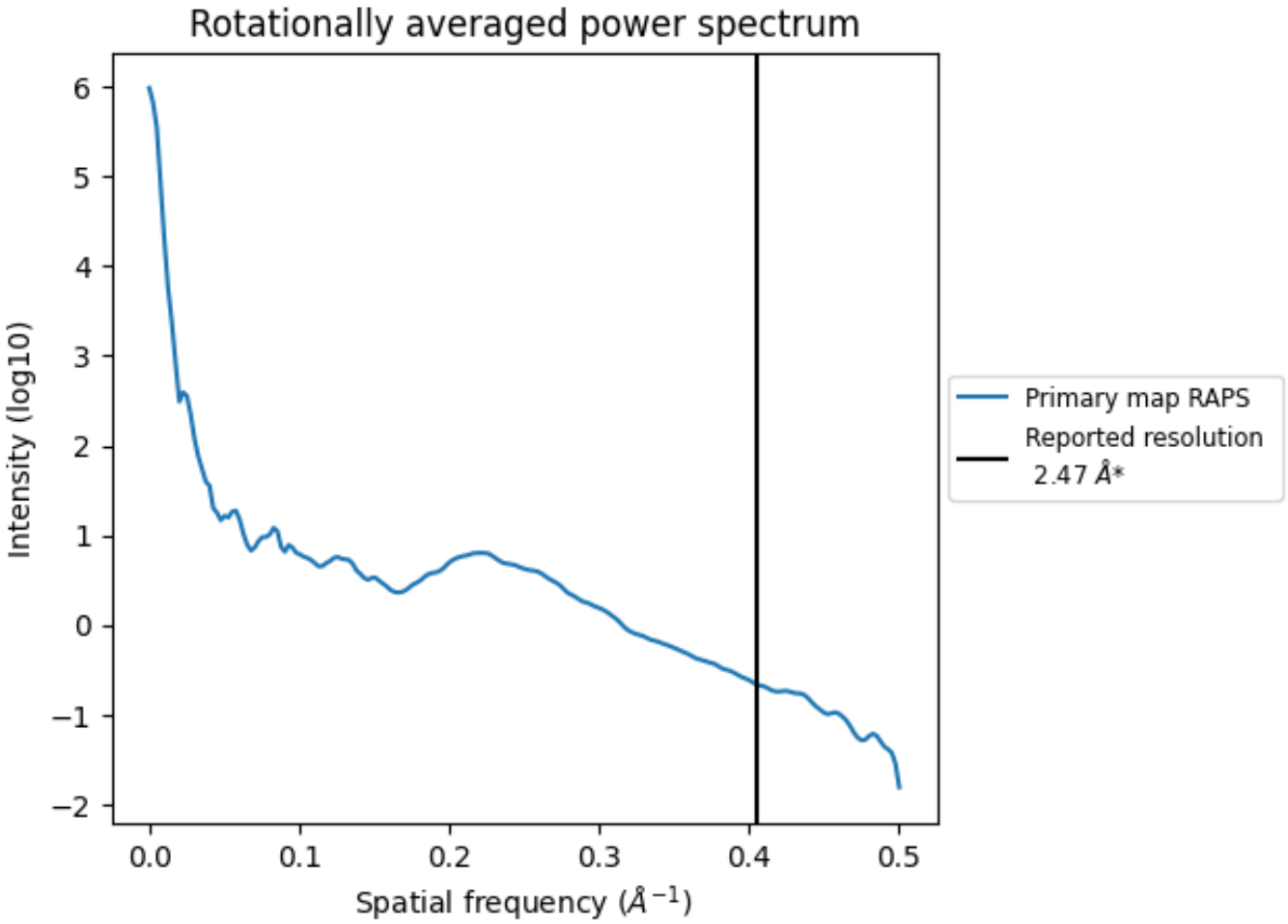
7.2 Volume estimate (i)



The volume at the recommended contour level is 386 nm^3; this corresponds to an approximate mass of 348 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)

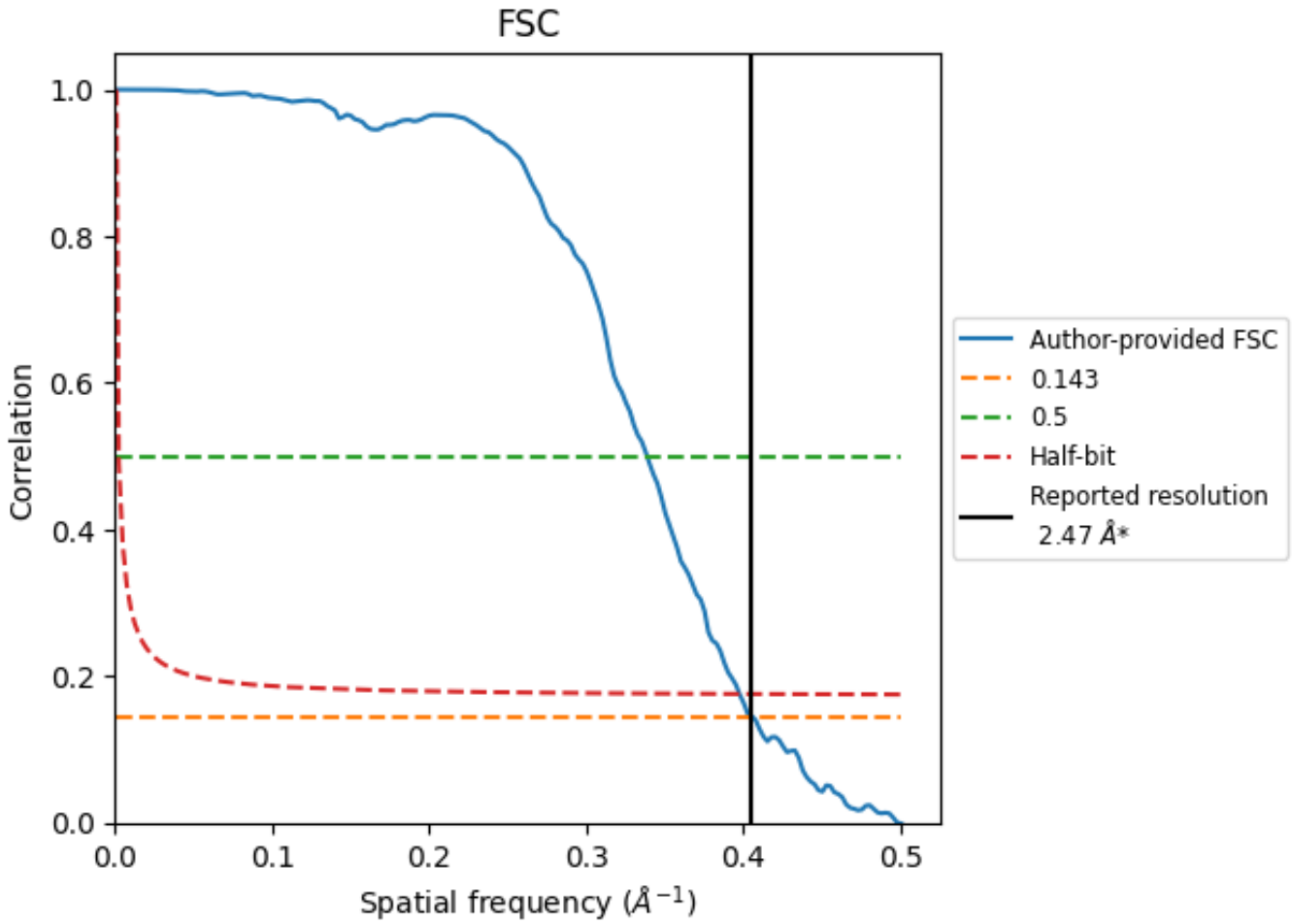


*Reported resolution corresponds to spatial frequency of 0.405 Å^{-1}

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 0.405 Å^{-1}

8.2 Resolution estimates (i)

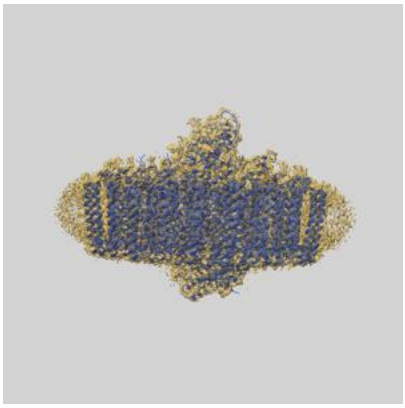
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.47	-	-
Author-provided FSC curve	2.46	2.95	2.52
Unmasked-calculated*	-	-	-

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

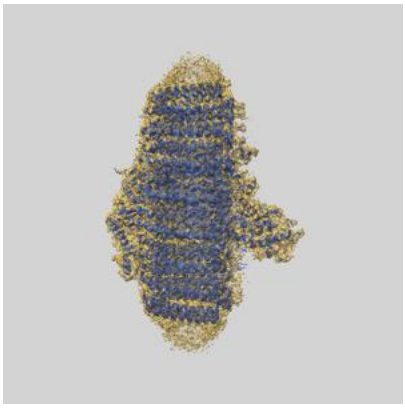
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-12681 and PDB model 7O0W. Per-residue inclusion information can be found in section 3 on page 39.

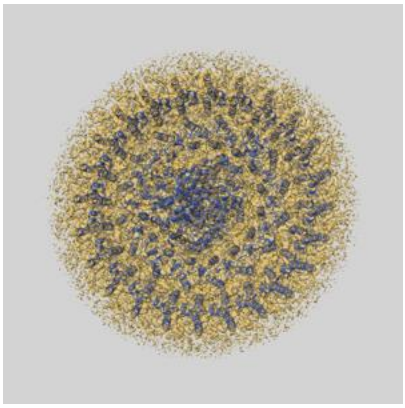
9.1 Map-model overlay



X



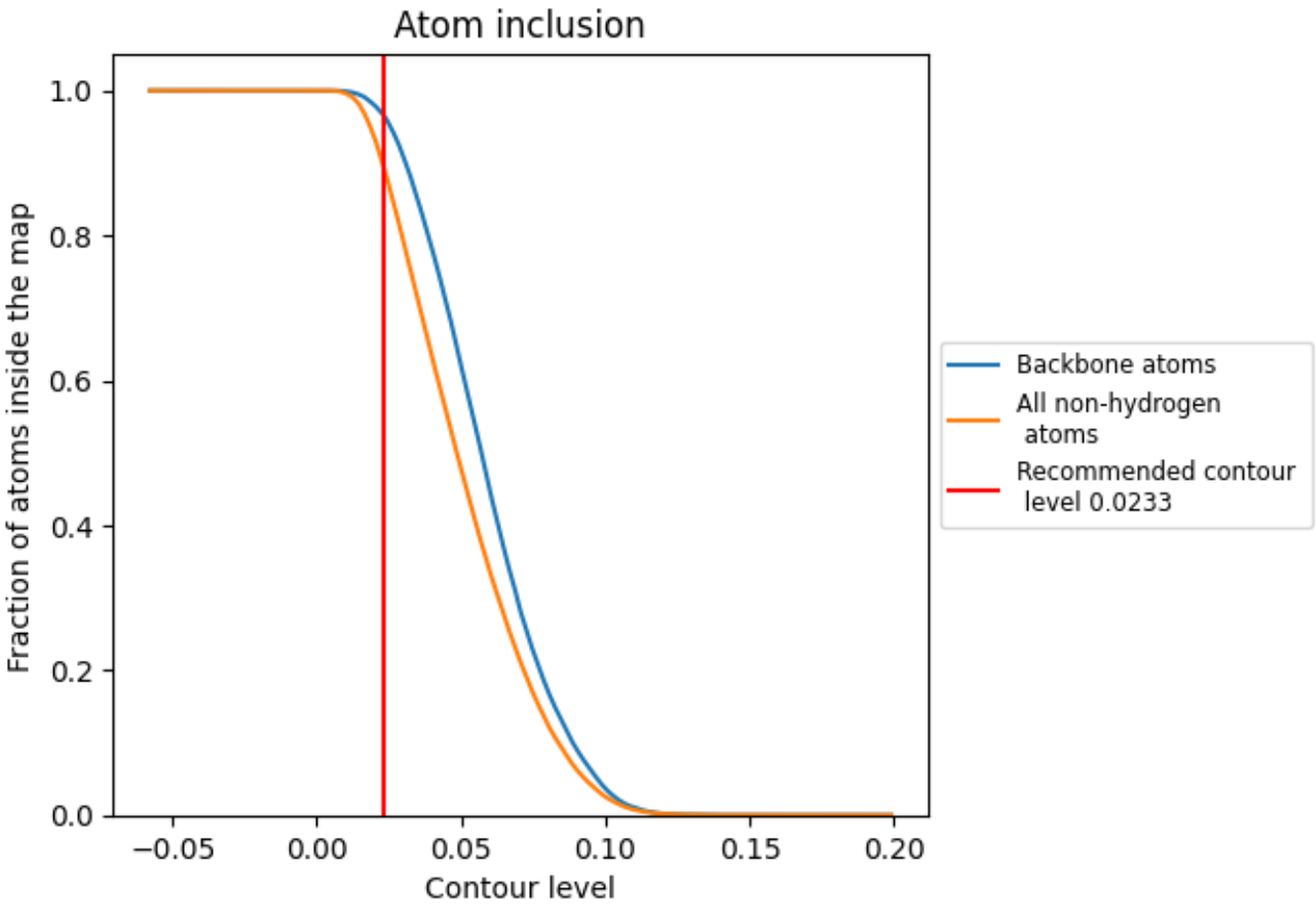
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.0233 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 Atom inclusion (i)



At the recommended contour level, 97% of all backbone atoms, 89% of all non-hydrogen atoms, are inside the map.