wwPDB X-ray Structure Validation Summary Report (i)

Aug 8, 2020 – 01:28 PM BST

PDB ID	:	5GTI
Title	:	Native XFEL structure of photosystem II (two flash dataset)
Authors	:	Suga, M.; Shen, J.R.
Deposited on	:	2016-08-20
Resolution	:	2.50 Å(reported)

This is a wwPDB X-ray Structure 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/XrayValidationReportHelp
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:

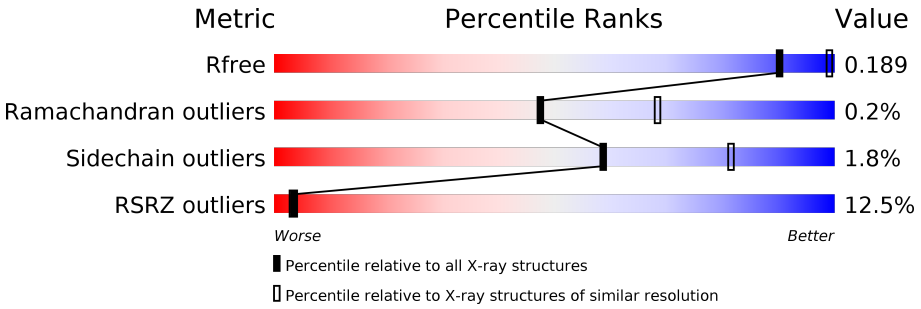
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.13.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.13.1

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 2.50 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)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	4661 (2.50-2.50)
Ramachandran outliers	138981	5231 (2.50-2.50)
Sidechain outliers	138945	5233 (2.50-2.50)
RSRZ outliers	127900	4559 (2.50-2.50)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower 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 electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	344	3% 97%
1	a	344	4% 97%
2	B	505	11% 98%
2	b	505	14% 97%
3	C	455	16% 98%
3	c	455	13% 98%
4	D	342	5% 100%

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Mol	Chain	Length	Quality of chain
4	d	342	8% 99%
5	E	84	8% 95%
5	e	84	23% 90% 6%
6	F	44	2% 77% 23%
6	f	44	9% 68% 30%
7	H	65	12% 94% 5%
7	h	65	29% 97%
8	I	38	18% 95% 5%
8	i	38	8% 92% 5%
9	J	39	15% 92% 5%
9	j	39	26% 100%
10	K	37	11% 92% 8%
10	k	37	8% 92% 8%
11	L	37	14% 97%
11	l	37	11% 97%
12	M	36	3% 89% 8%
12	m	36	8% 89% 6% 6%
13	O	244	12% 98%
13	o	244	18% 98%
14	T	32	3% 91% 6%
14	t	32	88% 6% 6%
15	U	104	13% 91% 8%
15	u	104	4% 91% 7%
16	V	137	4% 100%
16	v	137	15% 100%

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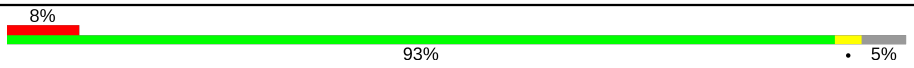
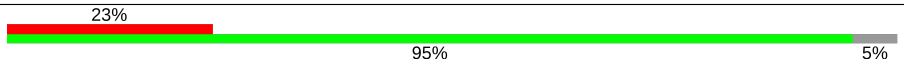
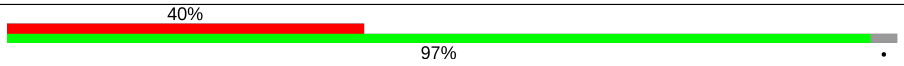
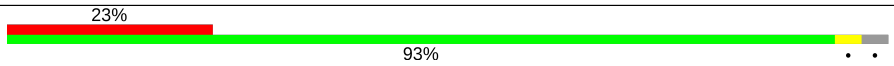
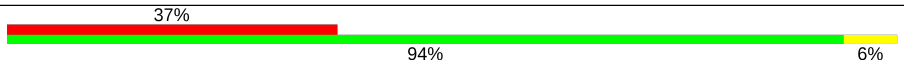
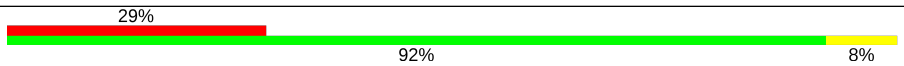
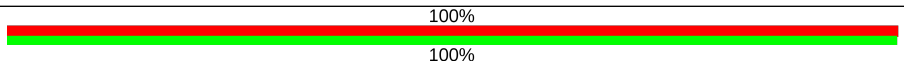
Mol	Chain	Length	Quality of chain
17	X	40	
17	x	40	
18	Y	30	
18	y	30	
19	Z	62	
19	z	62	
20	R	34	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
23	CLA	A	404	X	-	-	-
23	CLA	A	405	X	-	-	-
23	CLA	A	407	X	-	-	-
23	CLA	B	602	X	-	-	-
23	CLA	B	603	X	-	-	-
23	CLA	B	604	X	-	-	-
23	CLA	B	605	X	-	-	-
23	CLA	B	606	X	-	-	-
23	CLA	B	607	X	-	-	-
23	CLA	B	608	X	-	-	-
23	CLA	B	609	X	-	-	-
23	CLA	B	610	X	-	-	-
23	CLA	B	611	X	-	-	-
23	CLA	B	612	X	-	-	-
23	CLA	B	613	X	-	-	-
23	CLA	B	614	X	-	-	-
23	CLA	B	615	X	-	-	-
23	CLA	B	616	X	-	-	-
23	CLA	B	617	X	-	-	-
23	CLA	C	502	X	-	-	-
23	CLA	C	503	X	-	-	-
23	CLA	C	504	X	-	-	-
23	CLA	C	505	X	-	-	-
23	CLA	C	506	X	-	-	-
23	CLA	C	507	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
23	CLA	C	508	X	-	-	-
23	CLA	C	509	X	-	-	-
23	CLA	C	510	X	-	-	-
23	CLA	C	511	X	-	-	-
23	CLA	C	512	X	-	-	-
23	CLA	C	513	X	-	-	-
23	CLA	C	514	X	-	-	-
23	CLA	D	401	X	-	-	-
23	CLA	D	404	X	-	-	-
23	CLA	D	405	X	-	-	-
23	CLA	a	404	X	-	-	-
23	CLA	a	405	X	-	-	-
23	CLA	a	406	X	-	-	-
23	CLA	a	409	X	-	-	-
23	CLA	b	601	X	-	-	-
23	CLA	b	602	X	-	-	-
23	CLA	b	603	X	-	-	-
23	CLA	b	604	X	-	-	-
23	CLA	b	605	X	-	-	-
23	CLA	b	606	X	-	-	-
23	CLA	b	607	X	-	-	-
23	CLA	b	608	X	-	-	-
23	CLA	b	609	X	-	-	-
23	CLA	b	610	X	-	-	-
23	CLA	b	611	X	-	-	-
23	CLA	b	612	X	-	-	-
23	CLA	b	613	X	-	-	-
23	CLA	b	614	X	-	-	-
23	CLA	b	615	X	-	-	-
23	CLA	b	616	X	-	-	-
23	CLA	c	501	X	-	-	-
23	CLA	c	502	X	-	-	-
23	CLA	c	503	X	-	-	-
23	CLA	c	504	X	-	-	-
23	CLA	c	505	X	-	-	-
23	CLA	c	506	X	-	-	-
23	CLA	c	507	X	-	-	-
23	CLA	c	508	X	-	-	-
23	CLA	c	509	X	-	-	-
23	CLA	c	510	X	-	-	-
23	CLA	c	511	X	-	-	-
23	CLA	c	512	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
23	CLA	c	513	X	-	-	-
23	CLA	d	402	X	-	-	-
23	CLA	d	403	X	-	-	-
27	GOL	d	401	-	-	-	X
30	UNL	A	414	-	-	-	X
30	UNL	J	102	-	-	-	X
30	UNL	a	416	-	-	-	X
30	UNL	b	627	-	-	-	X
31	LHG	e	101	-	-	-	X
34	LMG	C	521	-	-	-	X
34	LMG	c	520	-	-	-	X
35	LMT	B	633	-	-	-	X
35	LMT	C	522	-	-	-	X
35	LMT	E	102	-	-	-	X
35	LMT	e	102	-	-	-	X
35	LMT	m	103	-	-	-	X
36	HTG	B	625	-	-	-	X
36	HTG	B	626	-	-	-	X
36	HTG	C	524	-	-	-	X
36	HTG	b	622	-	-	-	X
36	HTG	b	623	-	-	-	X
36	HTG	c	522	-	-	-	X

2 Entry composition

There are 41 unique types of molecules in this entry. The entry contains 52752 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	334	Total	C	N	O	S	0	0	0
			2620	1716	431	458	15			
1	a	334	Total	C	N	O	S	0	0	0
			2620	1716	431	458	15			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	504	Total	C	N	O	S	0	0	0
			3969	2605	661	690	13			
2	b	504	Total	C	N	O	S	0	0	0
			3969	2605	661	690	13			

- Molecule 3 is a protein called Photosystem II CP43 protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	451	Total	C	N	O	S	0	0	0
			3486	2281	584	608	13			
3	c	455	Total	C	N	O	S	0	0	0
			3519	2303	589	614	13			

- Molecule 4 is a protein called Photosystem II D2 protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	342	Total	C	N	O	S	0	0	0
			2726	1805	445	464	12			
4	d	341	Total	C	N	O	S	0	0	0
			2717	1800	444	461	12			

- Molecule 5 is a protein called Cytochrome b559 subunit alpha.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
5	E	81	Total 662	C 432	N 107	O 123	0	0	0
5	e	79	Total 648	C 424	N 105	O 119	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	34	Total 275	C 187	N 45	O 42	S 1	0	0	0
6	f	31	Total 250	C 170	N 42	O 37	S 1	0	0	0

- Molecule 7 is a protein called Photosystem II reaction center protein H.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	H	64	Total 506	C 339	N 81	O 84	S 2	0	0	0
7	h	65	Total 511	C 341	N 82	O 86	S 2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	I	38	Total 314	C 211	N 48	O 54	S 1	0	0	0
8	i	38	Total 314	C 211	N 48	O 54	S 1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	J	38	Total 272	C 182	N 42	O 47	S 1	0	0	0
9	j	39	Total 277	C 185	N 43	O 48	S 1	0	0	0

- Molecule 10 is a protein called Photosystem II PsbK protein.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	K	37	Total 293	C 204	N 43	O 46	0	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	k	37	Total 293	C 204	N 43	O 46	0	0	0

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
11	L	36	Total 296	C 197	N 47	O 52	0	0	0
11	l	36	Total 296	C 197	N 47	O 52	0	0	0

- Molecule 12 is a protein called Photosystem II PsbM protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	M	33	Total 260	C 173	N 38	O 48	S 1	0	0	0
12	m	34	Total 269	C 179	N 40	O 49	S 1	0	0	0

- Molecule 13 is a protein called Photosystem II manganese-stabilizing polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	O	243	Total 1865	C 1165	N 315	O 381	S 4	0	0	0
13	o	243	Total 1865	C 1165	N 315	O 381	S 4	0	0	0

- Molecule 14 is a protein called Photosystem II reaction center protein T.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	T	30	Total 258	C 181	N 36	O 39	S 2	0	0	0
14	t	30	Total 258	C 181	N 36	O 39	S 2	0	0	0

- Molecule 15 is a protein called Photosystem II 12 kDa extrinsic protein.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
15	U	96	Total 765	C 486	N 128	O 151	0	0	0
15	u	97	Total 774	C 491	N 129	O 154	0	0	0

- Molecule 16 is a protein called Cytochrome c-550.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	V	137	Total	C	N	O	S	0	0	0
			1064	675	177	208	4			
16	v	137	Total	C	N	O	S	0	0	0
			1064	675	177	208	4			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
17	X	38	Total	C	N	O	0	0	0
			281	188	45	48			
17	x	38	Total	C	N	O	0	0	0
			281	188	45	48			

- Molecule 18 is a protein called Photosystem II reaction center protein Ycf12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	Y	29	Total	C	N	O	S	0	0	0
			215	142	37	33	3			
18	y	29	Total	C	N	O	S	0	0	0
			215	142	37	33	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	Z	62	Total	C	N	O	S	0	0	0
			479	328	72	77	2			
19	z	62	Total	C	N	O	S	0	0	0
			479	328	72	77	2			

- Molecule 20 is a protein called Photosystem II protein Y.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
20	R	34	Total	C	N	O	0	0	0
			273	186	47	40			

- Molecule 21 is FE (II) ION (three-letter code: FE2) (formula: Fe).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
21	A	1	Total	Fe	0	0
			1	1		

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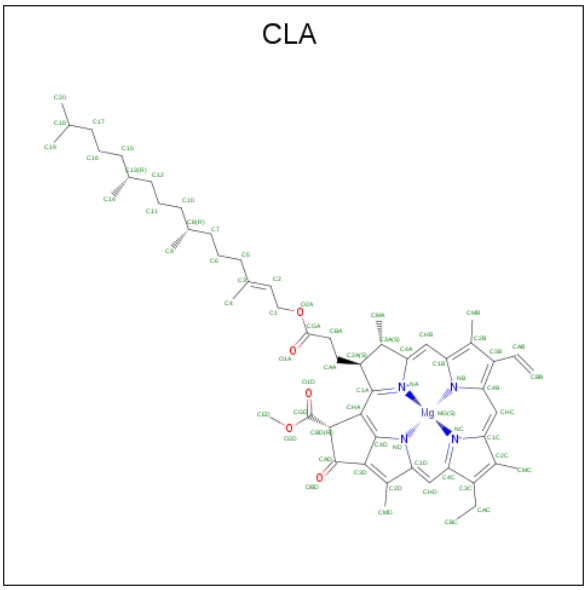
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
21	a	1	Total Fe 1 1	0	0

- Molecule 22 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
22	A	2	Total Cl 2 2	0	0
22	a	2	Total Cl 2 2	0	0

- Molecule 23 is CHLOROPHYLL A (three-letter code: CLA) (formula: $C_{55}H_{72}MgN_4O_5$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
23	A	1	Total C Mg N O 65 55 1 4 5	0	0
23	A	1	Total C Mg N O 65 55 1 4 5	0	0
23	A	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	C	1	Total C Mg N O 65 55 1 4 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	D	1	Total C Mg N O 65 55 1 4 5	0	0
23	D	1	Total C Mg N O 65 55 1 4 5	0	0
23	D	1	Total C Mg N O 65 55 1 4 5	0	0
23	a	1	Total C Mg N O 65 55 1 4 5	0	0
23	a	1	Total C Mg N O 65 55 1 4 5	0	0
23	a	1	Total C Mg N O 65 55 1 4 5	0	0
23	a	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0

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

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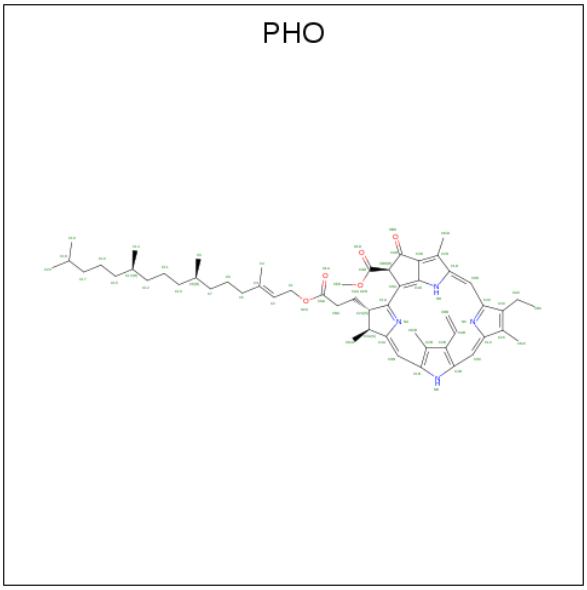
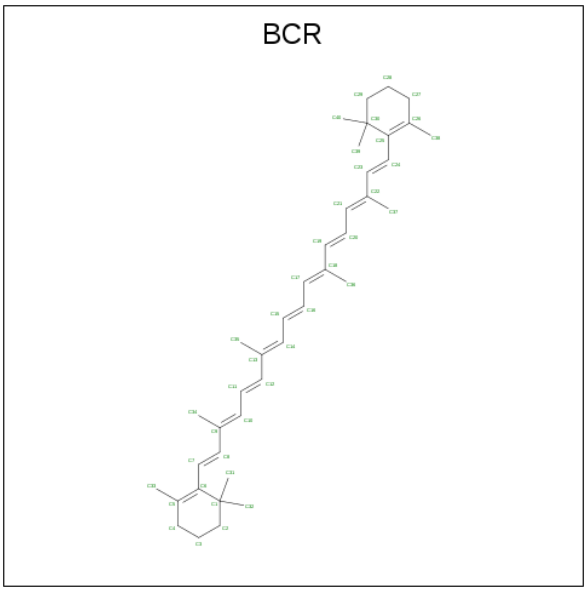
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
23	d	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		

- Molecule 24 is PHEOPHYTIN A (three-letter code: PHO) (formula: $C_{55}H_{74}N_4O_5$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
24	A	1	Total	C	N	O		0	0
			64	55	4	5			
24	D	1	Total	C	N	O		0	0
			64	55	4	5			
24	a	1	Total	C	N	O		0	0
			64	55	4	5			
24	a	1	Total	C	N	O		0	0
			64	55	4	5			

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



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
25	A	1	Total C 40 40	0	0
25	B	1	Total C 40 40	0	0
25	B	1	Total C 40 40	0	0
25	B	1	Total C 40 40	0	0
25	C	1	Total C 40 40	0	0
25	C	1	Total C 40 40	0	0
25	C	1	Total C 40 40	0	0
25	D	1	Total C 40 40	0	0
25	H	1	Total C 40 40	0	0
25	T	1	Total C 40 40	0	0
25	Y	1	Total C 40 40	0	0
25	a	1	Total C 40 40	0	0
25	b	1	Total C 40 40	0	0
25	b	1	Total C 40 40	0	0

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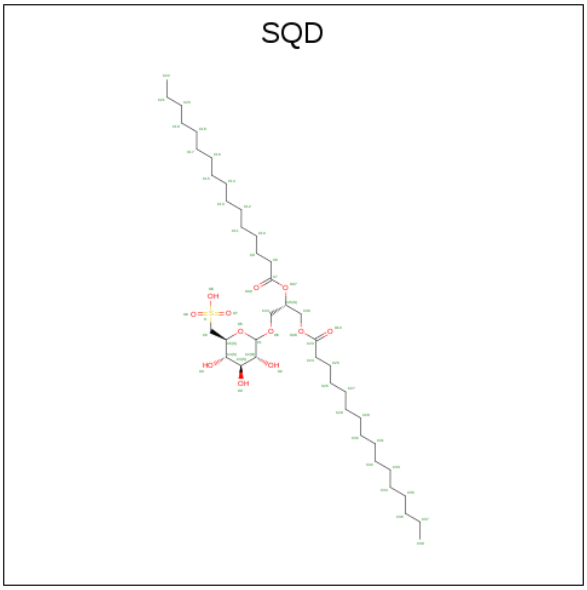
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
25	b	1	Total C 40 40	0	0
25	c	1	Total C 40 40	0	0
25	c	1	Total C 40 40	0	0
25	d	1	Total C 40 40	0	0
25	h	1	Total C 40 40	0	0
25	k	1	Total C 40 40	0	0
25	t	1	Total C 40 40	0	0
25	y	1	Total C 40 40	0	0

- Molecule 26 is 1,2-DI-O-ACYL-3-O-[6-DEOXY-6-SULFO-ALPHA-D-GLUCOPYRANOSYL]-SN-GLYCEROL (three-letter code: SQD) (formula: $C_{41}H_{78}O_{12}S$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
26	A	1	Total C O S 54 41 12 1	0	0
26	A	1	Total C O S 54 41 12 1	0	0
26	B	1	Total C O S 54 41 12 1	0	0

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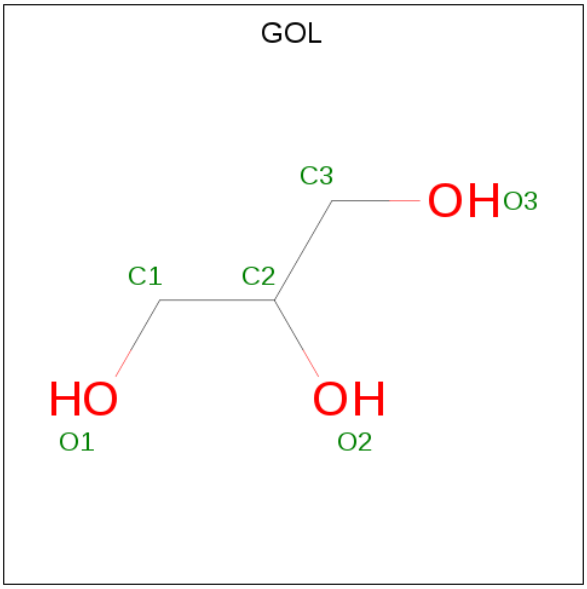
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
26	D	1	Total C O S 43 30 12 1	0	0
26	L	1	Total C O S 54 41 12 1	0	0
26	a	1	Total C O S 54 41 12 1	0	0
26	a	1	Total C O S 54 41 12 1	0	0
26	f	1	Total C O S 43 30 12 1	0	0

- Molecule 27 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
27	A	1	Total C O 6 3 3	0	0
27	B	1	Total C O 6 3 3	0	0
27	B	1	Total C O 6 3 3	0	0
27	C	1	Total C O 6 3 3	0	0
27	O	1	Total C O 6 3 3	0	0
27	a	1	Total C O 6 3 3	0	0

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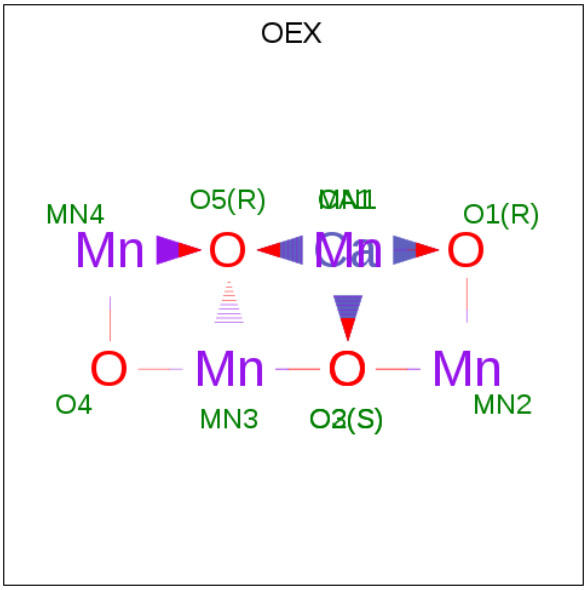
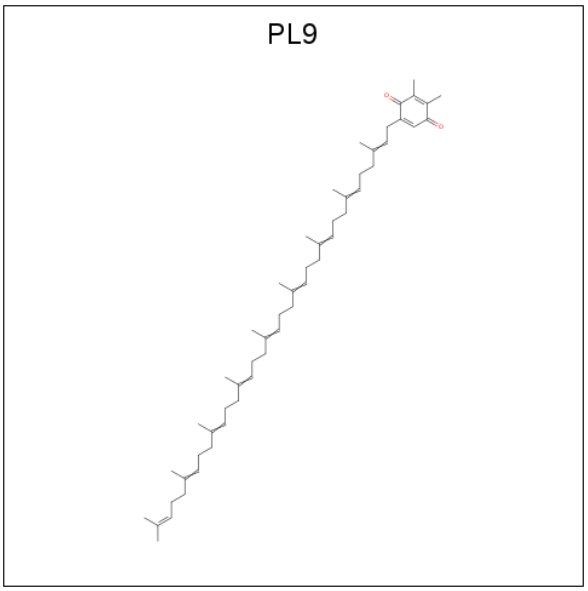
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
27	b	1	Total C O 6 3 3	0	0
27	d	1	Total C O 6 3 3	0	0

- Molecule 28 is CA-MN4-O5 CLUSTER (three-letter code: OEX) (formula: $CaMn_4O_5$).



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

- Molecule 29 is 2,3-DIMETHYL-5-(3,7,11,15,19,23,27,31,35-NONAMETHYL-2,6,10,14,18,22,26,30,34-HEXATRIACONTANONAENYL-2,5-CYCLOHEXADIENE-1,4-DIONE-2,3-DIMETHYL-5-SOLANESYL-1,4-BENZOQUINONE (three-letter code: PL9) (formula: $C_{53}H_{80}O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
29	A	1	Total C O 55 53 2	0	0
29	D	1	Total C O 55 53 2	0	0
29	a	1	Total C O 55 53 2	0	0
29	d	1	Total C O 55 53 2	0	0

- Molecule 30 is UNKNOWN LIGAND (three-letter code: UNL) (formula:).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
30	J	1	Total C 10 10	0	0
30	i	1	Total C O 40 35 5	0	0
30	D	2	Total C O 57 51 6	0	0
30	K	1	Total C O 34 29 5	0	0
30	B	1	Total C O 33 28 5	0	0
30	I	1	Total C O 40 35 5	0	0
30	c	1	Total C O 32 27 5	0	0
30	a	1	Total C O 30 25 5	0	0

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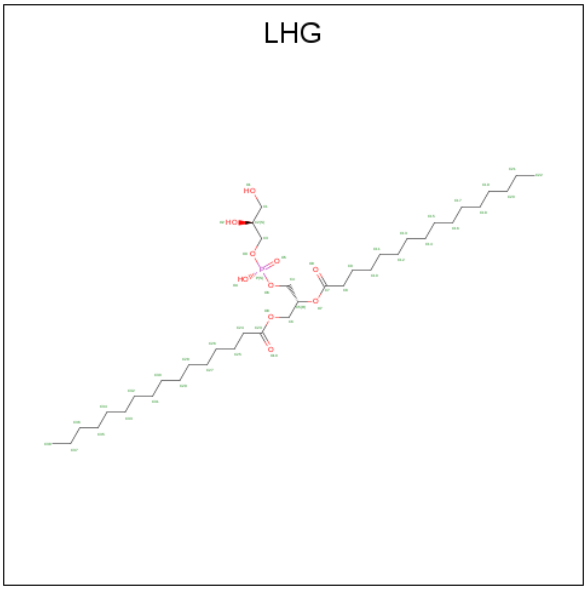
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
30	x	1	Total C O 18 16 2	0	0
30	A	1	Total C O 28 23 5	0	0
30	j	1	Total C 10 10	0	0
30	X	1	Total C O 18 16 2	0	0
30	d	1	Total C O 17 16 1	0	0
30	m	1	Total C 10 10	0	0
30	b	2	Total C O 69 59 10	0	0
30	M	1	Total C 10 10	0	0

- Molecule 31 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula: $C_{38}H_{75}O_{10}P$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	A	1	Total C O P 49 38 10 1	0	0
31	D	1	Total C O P 49 38 10 1	0	0
31	D	1	Total C O P 49 38 10 1	0	0

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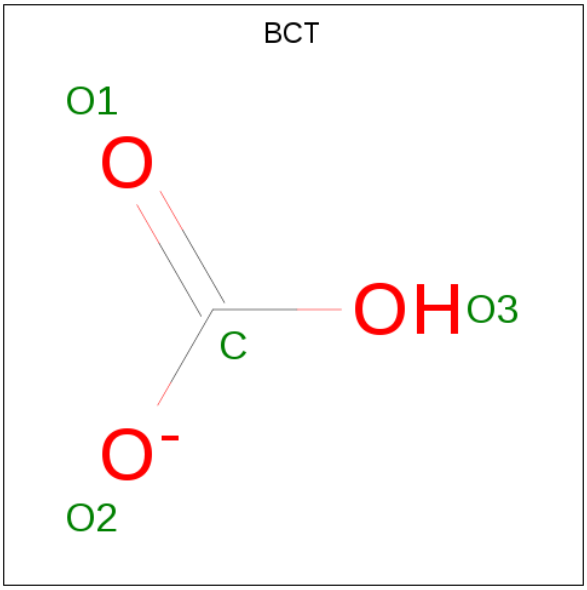
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
31	E	1	Total	C	O	P	0	0
			42	31	10	1		
31	L	1	Total	C	O	P	0	0
			49	38	10	1		
31	b	1	Total	C	O	P	0	0
			49	38	10	1		
31	d	1	Total	C	O	P	0	0
			49	38	10	1		
31	d	1	Total	C	O	P	0	0
			49	38	10	1		
31	d	1	Total	C	O	P	0	0
			49	38	10	1		
31	e	1	Total	C	O	P	0	0
			42	31	10	1		

- Molecule 32 is BICARBONATE ION (three-letter code: BCT) (formula: CHO_3).

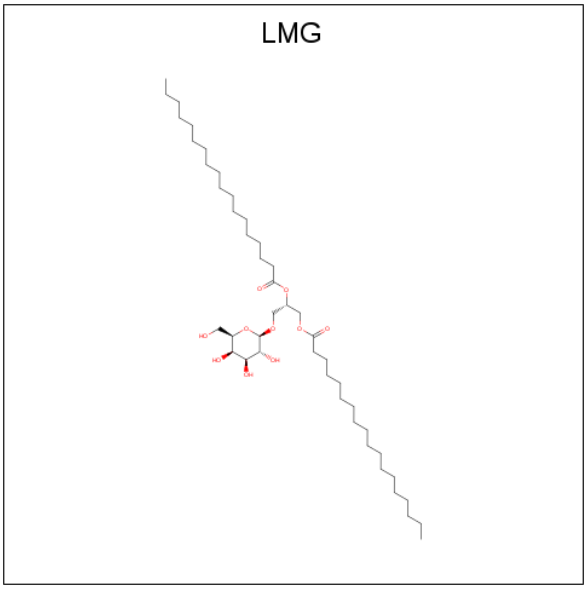


Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
32	A	1	Total	C	O	0	0
			4	1	3		
32	a	1	Total	C	O	0	0
			4	1	3		

- Molecule 33 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
33	B	1	Total Ca 1 1	0	0
33	C	1	Total Ca 1 1	0	0
33	V	1	Total Ca 1 1	0	0
33	c	2	Total Ca 2 2	0	0
33	O	1	Total Ca 1 1	0	0
33	o	1	Total Ca 1 1	0	0

- Molecule 34 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: $C_{45}H_{86}O_{10}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
34	B	1	Total C O 51 41 10	0	0
34	C	1	Total C O 51 41 10	0	0
34	C	1	Total C O 51 41 10	0	0
34	C	1	Total C O 51 41 10	0	0
34	J	1	Total C O 51 41 10	0	0

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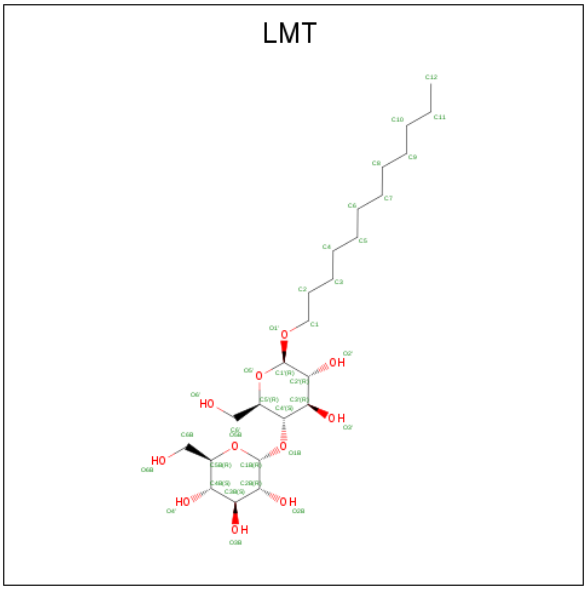
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
34	Z	1	Total C O 37 27 10	0	0
34	a	1	Total C O 51 41 10	0	0
34	c	1	Total C O 51 41 10	0	0
34	c	1	Total C O 51 41 10	0	0
34	j	1	Total C O 51 41 10	0	0
34	m	1	Total C O 51 41 10	0	0
34	z	1	Total C O 39 29 10	0	0

- Molecule 35 is DODECYL-BETA-D-MALTOSIDE (three-letter code: LMT) (formula: $C_{24}H_{46}O_{11}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
35	B	1	Total C O 35 24 11	0	0
35	B	1	Total C O 25 19 6	0	0
35	B	1	Total C O 35 24 11	0	0
35	B	1	Total C O 26 19 7	0	0

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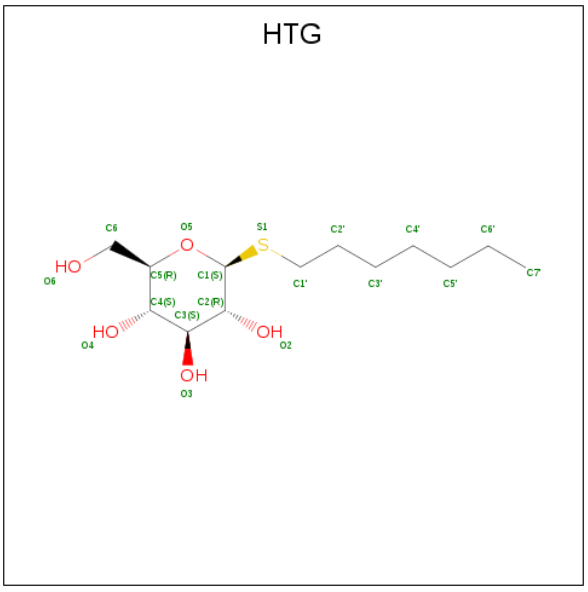
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
35	C	1	Total C O 35 24 11	0	0
35	D	1	Total C O 35 24 11	0	0
35	E	1	Total C O 35 24 11	0	0
35	M	1	Total C O 35 24 11	0	0
35	M	1	Total C O 35 24 11	0	0
35	a	1	Total C O 35 24 11	0	0
35	b	1	Total C O 25 19 6	0	0
35	b	1	Total C O 25 19 6	0	0
35	e	1	Total C O 35 24 11	0	0
35	m	1	Total C O 35 24 11	0	0

- Molecule 36 is heptyl 1-thio-beta-D-glucopyranoside (three-letter code: HTG) (formula: $C_{13}H_{26}O_5S$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
36	B	1	Total C O S 19 13 5 1	0	0

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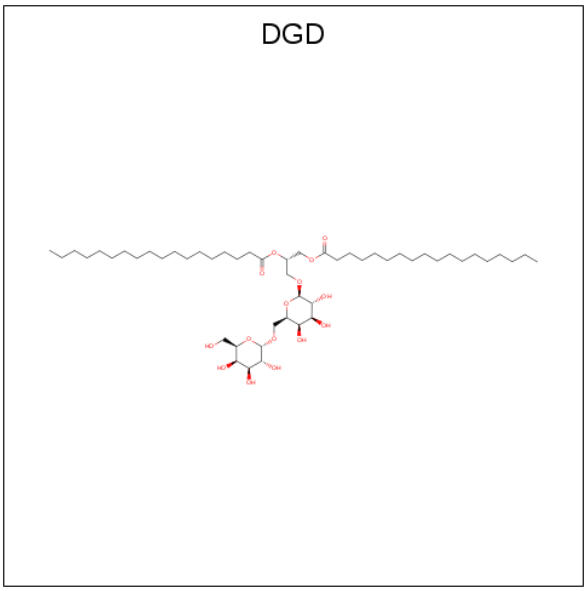
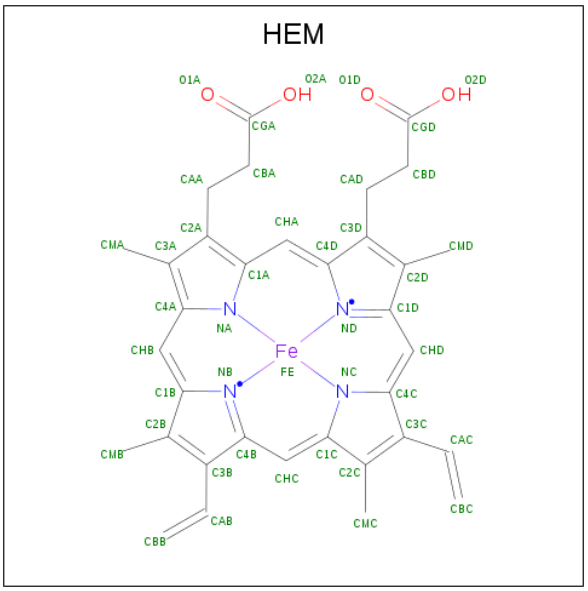
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
36	B	1	Total C O S 19 13 5 1	0	0
36	B	1	Total C O S 19 13 5 1	0	0
36	B	1	Total C O S 19 13 5 1	0	0
36	B	1	Total C O S 19 13 5 1	0	0
36	C	1	Total C O S 19 13 5 1	0	0
36	C	1	Total C S 9 8 1	0	0
36	D	1	Total C O S 16 10 5 1	0	0
36	V	1	Total C O 11 6 5	0	0
36	b	1	Total C O S 19 13 5 1	0	0
36	b	1	Total C O S 19 13 5 1	0	0
36	b	1	Total C O S 19 13 5 1	0	0
36	b	1	Total C O S 19 13 5 1	0	0
36	b	1	Total C O S 19 13 5 1	0	0
36	c	1	Total C O S 19 13 5 1	0	0
36	c	1	Total C O S 19 13 5 1	0	0
36	h	1	Total C O S 16 10 5 1	0	0

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



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
37	C	1	Total C O 62 47 15	0	0
37	C	1	Total C O 62 47 15	0	0
37	C	1	Total C O 62 47 15	0	0
37	H	1	Total C O 62 47 15	0	0
37	c	1	Total C O 62 47 15	0	0
37	c	1	Total C O 62 47 15	0	0
37	c	1	Total C O 62 47 15	0	0
37	h	1	Total C O 62 47 15	0	0

- Molecule 38 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula: $C_{34}H_{32}FeN_4O_4$).

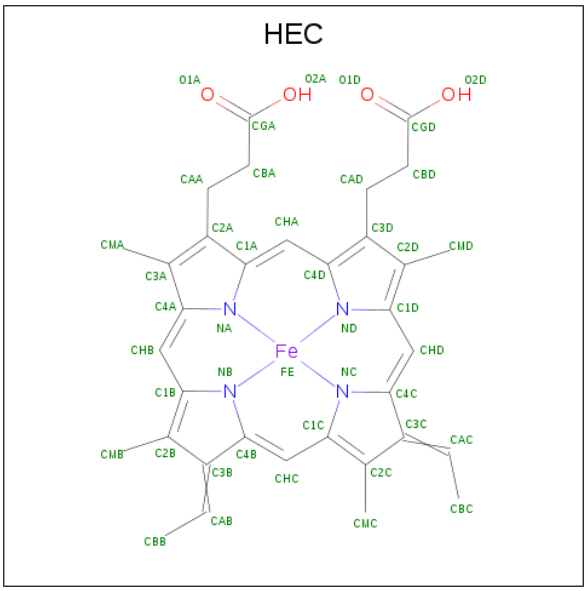


Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
38	E	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		
38	e	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		

- Molecule 39 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
39	J	1	Total	Mg	0	0
			1	1		
39	j	1	Total	Mg	0	0
			1	1		

- Molecule 40 is HEME C (three-letter code: HEC) (formula: $C_{34}H_{34}FeN_4O_4$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
40	V	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		
40	v	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		

- Molecule 41 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
41	A	135	Total	O	0	0
			135	135		
41	B	195	Total	O	0	0
			195	195		
41	C	151	Total	O	0	0
			151	151		
41	D	118	Total	O	0	0
			118	118		
41	E	25	Total	O	0	0
			25	25		
41	F	5	Total	O	0	0
			5	5		
41	H	22	Total	O	0	0
			22	22		
41	I	6	Total	O	0	0
			6	6		
41	J	4	Total	O	0	0
			4	4		
41	K	6	Total	O	0	0
			6	6		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
41	L	6	Total O 6 6	0	0
41	M	15	Total O 15 15	0	0
41	O	105	Total O 105 105	0	0
41	T	13	Total O 13 13	0	0
41	U	51	Total O 51 51	0	0
41	V	81	Total O 81 81	0	0
41	X	4	Total O 4 4	0	0
41	Y	1	Total O 1 1	0	0
41	Z	1	Total O 1 1	0	0
41	R	1	Total O 1 1	0	0
41	a	132	Total O 132 132	0	0
41	b	206	Total O 206 206	0	0
41	c	153	Total O 153 153	0	0
41	d	115	Total O 115 115	0	0
41	e	16	Total O 16 16	0	0
41	f	5	Total O 5 5	0	0
41	h	27	Total O 27 27	0	0
41	i	3	Total O 3 3	0	0
41	j	3	Total O 3 3	0	0
41	k	6	Total O 6 6	0	0
41	l	9	Total O 9 9	0	0

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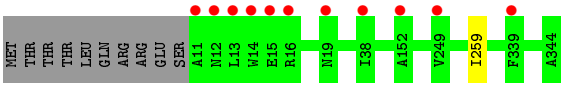
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
41	m	18	Total O 18 18	0	0
41	o	115	Total O 115 115	0	0
41	t	9	Total O 9 9	0	0
41	u	62	Total O 62 62	0	0
41	v	78	Total O 78 78	0	0
41	x	8	Total O 8 8	0	0
41	z	1	Total O 1 1	0	0

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 electron 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 dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

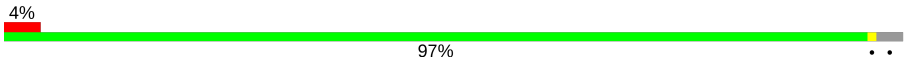
- Molecule 1: Photosystem II D1 protein

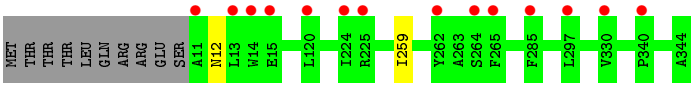
Chain A:



- Molecule 1: Photosystem II D1 protein

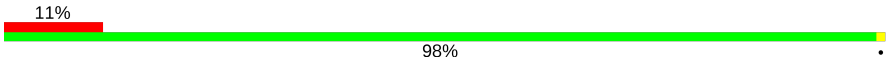
Chain a:

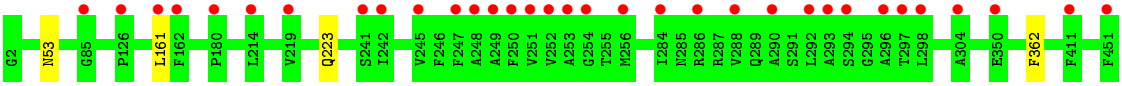


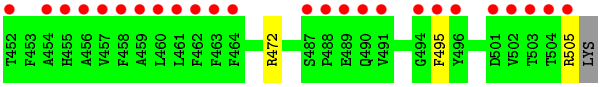


- Molecule 2: Photosystem II CP47 reaction center protein

Chain B:

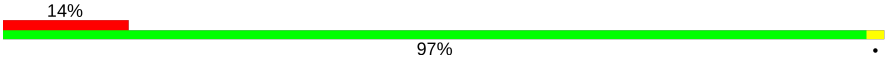


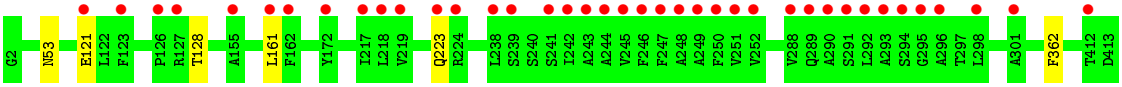


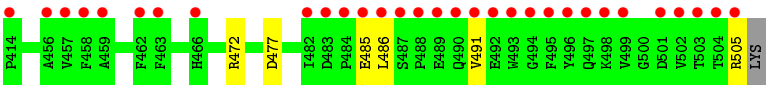


- Molecule 2: Photosystem II CP47 reaction center protein

Chain b:

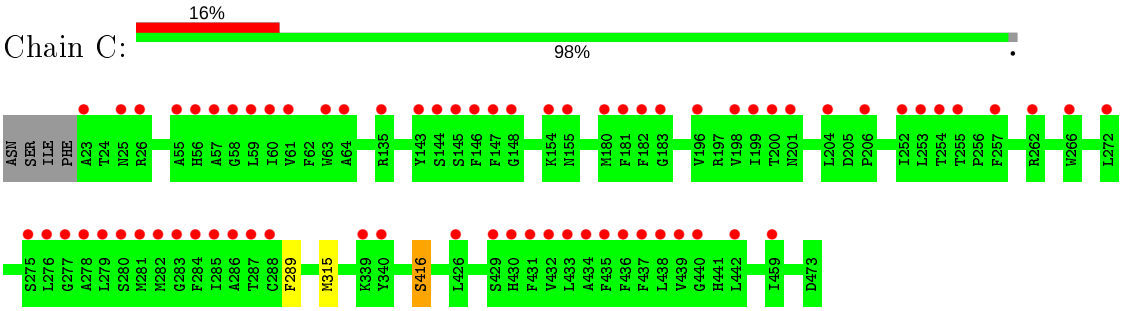






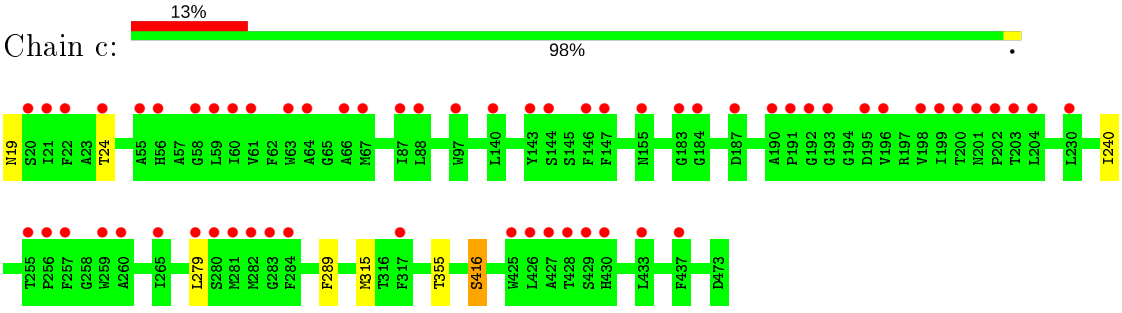
- Molecule 3: Photosystem II CP43 protein

Chain C:



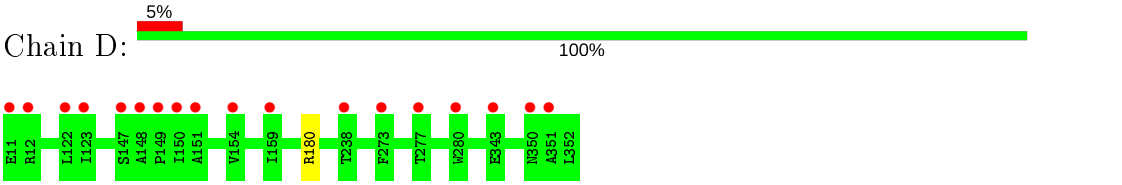
• Molecule 3: Photosystem II CP43 protein

Chain c:



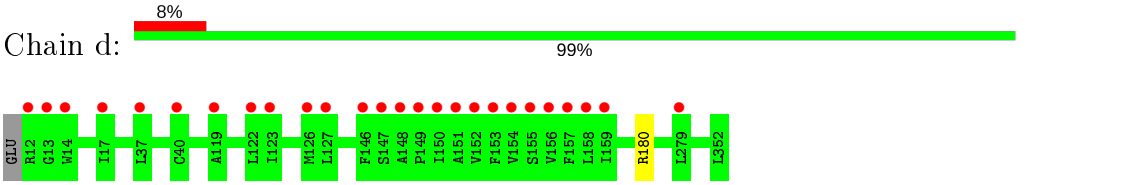
• Molecule 4: Photosystem II D2 protein

Chain D:



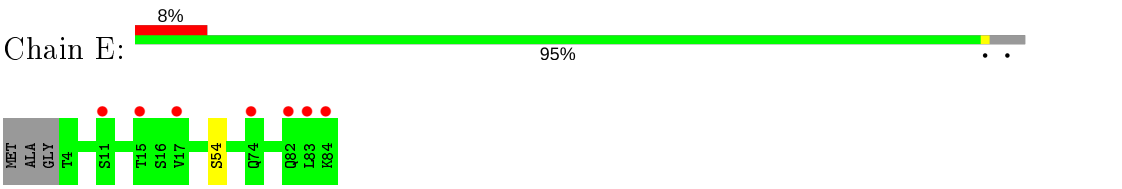
• Molecule 4: Photosystem II D2 protein

Chain d:



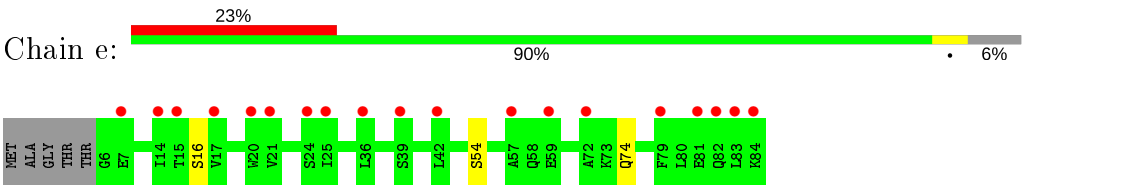
• Molecule 5: Cytochrome b559 subunit alpha

Chain E:



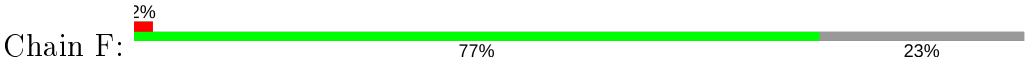
• Molecule 5: Cytochrome b559 subunit alpha

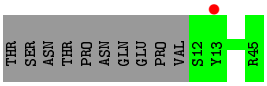
Chain e:



• Molecule 6: Cytochrome b559 subunit beta

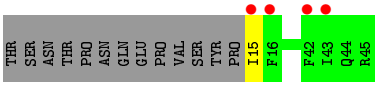
Chain F:





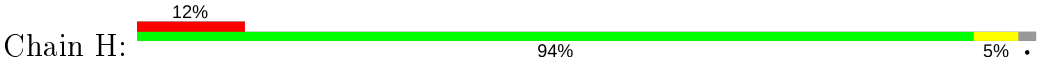
• Molecule 6: Cytochrome b559 subunit beta

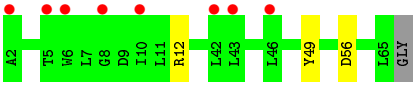
Chain f:



• Molecule 7: Photosystem II reaction center protein H

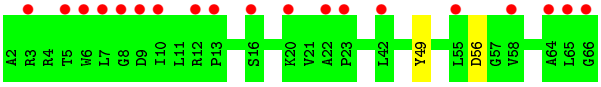
Chain H:





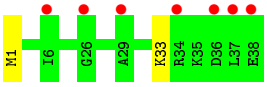
• Molecule 7: Photosystem II reaction center protein H

Chain h:



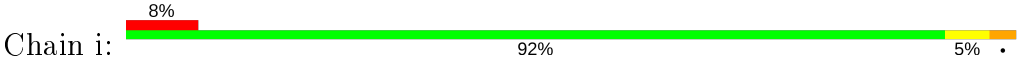
• Molecule 8: Photosystem II reaction center protein I

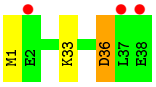
Chain I:



• Molecule 8: Photosystem II reaction center protein I

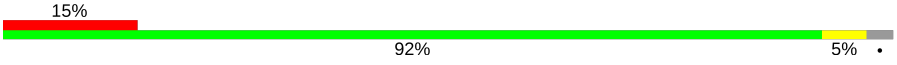
Chain i:

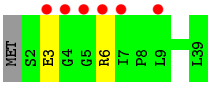




• Molecule 9: Photosystem II reaction center protein J

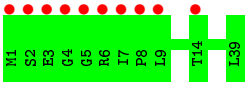
Chain J:





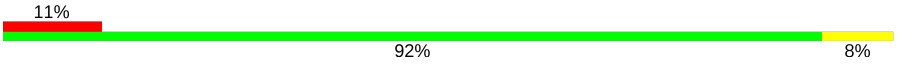
- Molecule 9: Photosystem II reaction center protein J

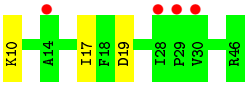
Chain j:



- Molecule 10: Photosystem II PsbK protein

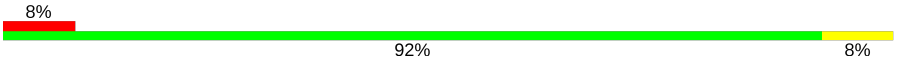
Chain K:

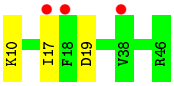




- Molecule 10: Photosystem II PsbK protein

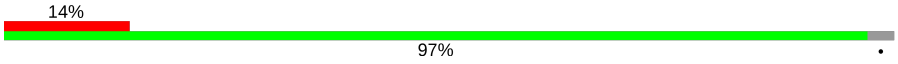
Chain k:

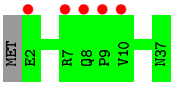




- Molecule 11: Photosystem II reaction center protein L

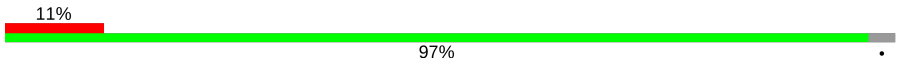
Chain L:

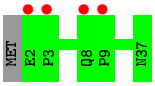




- Molecule 11: Photosystem II reaction center protein L

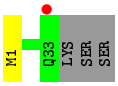
Chain l:





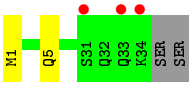
- Molecule 12: Photosystem II PsbM protein

Chain M:



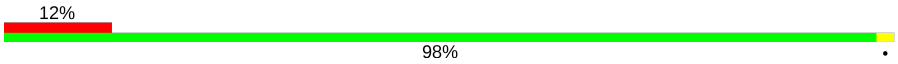
- Molecule 12: Photosystem II PsbM protein

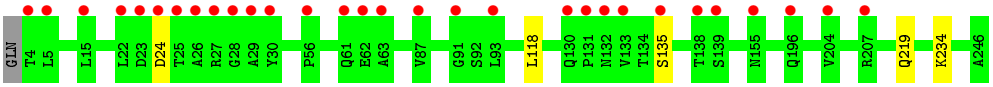
Chain m:



• Molecule 13: Photosystem II manganese-stabilizing polypeptide

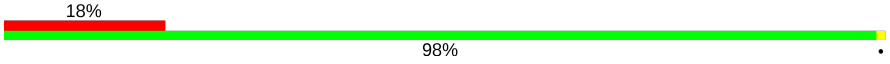
Chain O:

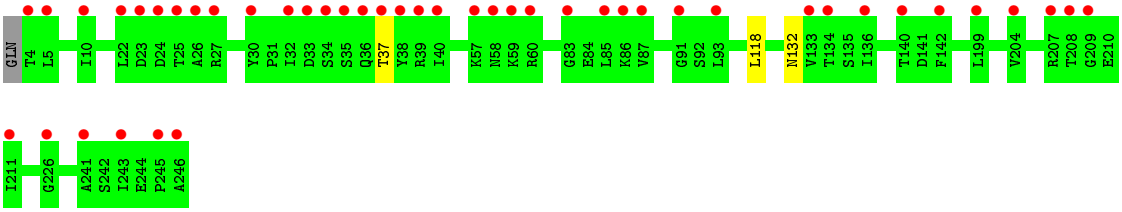




• Molecule 13: Photosystem II manganese-stabilizing polypeptide

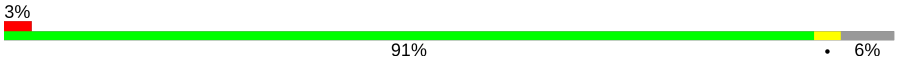
Chain o:

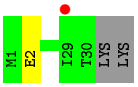




• Molecule 14: Photosystem II reaction center protein T

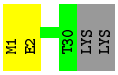
Chain T:





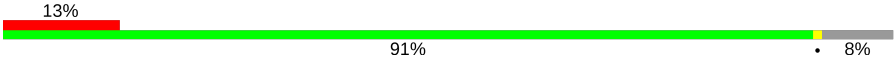
• Molecule 14: Photosystem II reaction center protein T

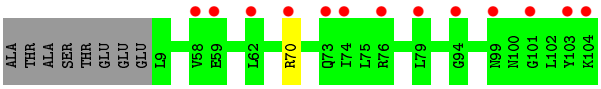
Chain t:



• Molecule 15: Photosystem II 12 kDa extrinsic protein

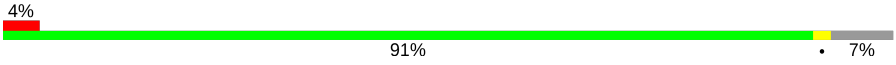
Chain U:





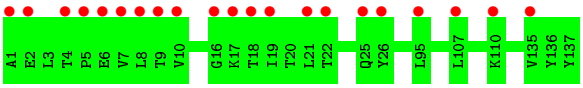
• Molecule 15: Photosystem II 12 kDa extrinsic protein

Chain u:

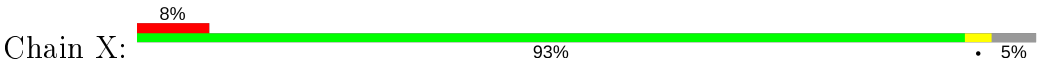


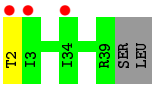
• Molecule 16: Cytochrome c-550

• Molecule 16: Cytochrome c-550

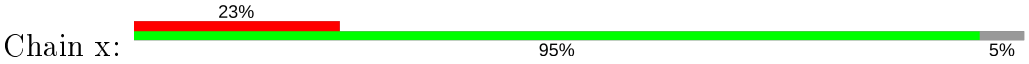


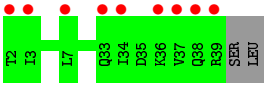
• Molecule 17: Photosystem II reaction center protein X



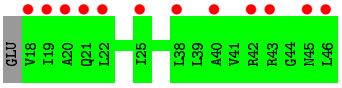


• Molecule 17: Photosystem II reaction center protein X

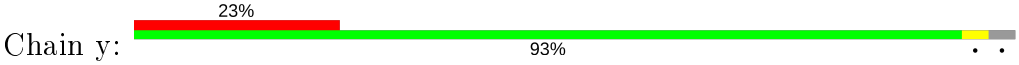


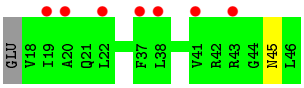


• Molecule 18: Photosystem II reaction center protein Ycf12



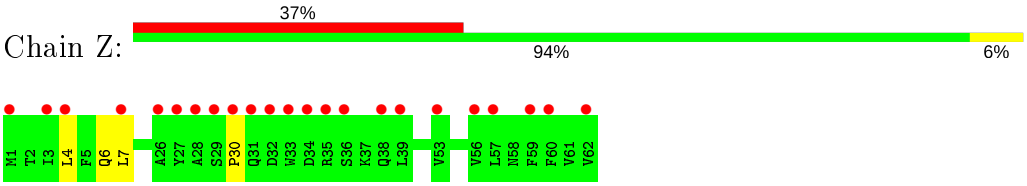
• Molecule 18: Photosystem II reaction center protein Ycf12





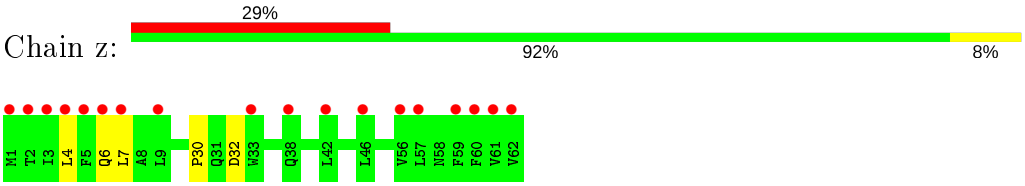
• Molecule 19: Photosystem II reaction center protein Z

Chain Z:



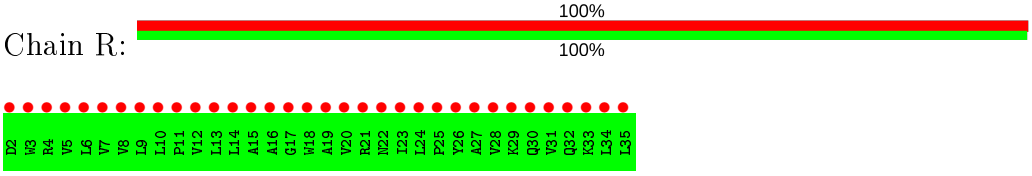
- Molecule 19: Photosystem II reaction center protein Z

Chain z:



- Molecule 20: Photosystem II protein Y

Chain R:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	126.52Å 231.23Å 287.46Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	19.98 – 2.50 46.51 – 2.50	Depositor EDS
% Data completeness (in resolution range)	100.0 (19.98-2.50) 100.0 (46.51-2.50)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.56 (at 2.51Å)	Xtriage
Refinement program	PHENIX 1.8_1069	Depositor
R, R_{free}	0.139 , 0.187 0.142 , 0.189	Depositor DCC
R_{free} test set	14614 reflections (5.04%)	wwPDB-VP
Wilson B-factor (Å^2)	71.4	Xtriage
Anisotropy	0.612	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 68.2	EDS
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.29$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.97	EDS
Total number of atoms	52752	wwPDB-VP
Average B, all atoms (Å^2)	51.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.74% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: LHG, GOL, MG, OEX, PHO, DGD, CL, CA, LMT, CLA, PL9, LMG, FE2, HEC, BCT, HEM, FME, UNL, HTG, BCR, SQD

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>5$	RMSZ	#$\|Z\|>5$
1	A	0.44	0/2705	0.56	0/3689
1	a	0.43	0/2705	0.54	0/3689
2	B	0.42	0/4109	0.54	0/5600
2	b	0.41	0/4109	0.54	0/5600
3	C	0.39	0/3599	0.51	0/4900
3	c	0.39	0/3633	0.53	0/4946
4	D	0.43	0/2821	0.54	0/3844
4	d	0.43	0/2812	0.54	0/3832
5	E	0.35	0/681	0.53	0/928
5	e	0.37	0/667	0.49	0/908
6	F	0.34	0/284	0.48	0/387
6	f	0.40	0/257	0.49	0/349
7	H	0.36	0/519	0.53	0/708
7	h	0.35	0/524	0.49	0/713
8	I	0.37	0/311	0.51	0/419
8	i	0.36	0/311	0.54	0/419
9	J	0.36	0/278	0.46	0/376
9	j	0.35	0/283	0.47	0/383
10	K	0.35	0/303	0.53	0/416
10	k	0.32	0/303	0.51	0/416
11	L	0.42	0/303	0.51	0/412
11	l	0.38	0/303	0.53	0/412
12	M	0.44	0/253	0.58	0/346
12	m	0.42	0/262	0.58	0/357
13	O	0.38	0/1896	0.58	0/2571
13	o	0.39	0/1896	0.58	0/2571
14	T	0.54	0/257	0.56	0/349
14	t	0.52	0/257	0.52	0/349
15	U	0.40	0/776	0.57	0/1052
15	u	0.41	0/785	0.57	0/1064
16	V	0.37	0/1085	0.52	0/1473

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
16	v	0.37	0/1085	0.53	0/1473
17	X	0.33	0/284	0.49	0/384
17	x	0.31	0/284	0.46	0/384
18	Y	0.30	0/216	0.44	0/289
18	y	0.31	0/216	0.50	0/289
19	Z	0.32	0/490	0.46	0/669
19	z	0.32	0/490	0.43	0/669
20	R	0.27	0/279	0.43	0/383
All	All	0.40	0/42631	0.53	0/58018

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	332/344 (96%)	326 (98%)	5 (2%)	1 (0%)	41	61
1	a	332/344 (96%)	327 (98%)	4 (1%)	1 (0%)	41	61
2	B	502/505 (99%)	498 (99%)	4 (1%)	0	100	100
2	b	502/505 (99%)	494 (98%)	8 (2%)	0	100	100
3	C	449/455 (99%)	440 (98%)	8 (2%)	1 (0%)	47	68
3	c	453/455 (100%)	442 (98%)	10 (2%)	1 (0%)	47	68

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	D	340/342 (99%)	330 (97%)	10 (3%)	0	100	100
4	d	339/342 (99%)	333 (98%)	6 (2%)	0	100	100
5	E	79/84 (94%)	78 (99%)	1 (1%)	0	100	100
5	e	77/84 (92%)	76 (99%)	1 (1%)	0	100	100
6	F	32/44 (73%)	32 (100%)	0	0	100	100
6	f	29/44 (66%)	29 (100%)	0	0	100	100
7	H	62/65 (95%)	60 (97%)	2 (3%)	0	100	100
7	h	63/65 (97%)	59 (94%)	4 (6%)	0	100	100
8	I	36/38 (95%)	33 (92%)	3 (8%)	0	100	100
8	i	36/38 (95%)	31 (86%)	4 (11%)	1 (3%)	5	7
9	J	36/39 (92%)	36 (100%)	0	0	100	100
9	j	37/39 (95%)	36 (97%)	1 (3%)	0	100	100
10	K	35/37 (95%)	35 (100%)	0	0	100	100
10	k	35/37 (95%)	35 (100%)	0	0	100	100
11	L	34/37 (92%)	34 (100%)	0	0	100	100
11	l	34/37 (92%)	34 (100%)	0	0	100	100
12	M	31/36 (86%)	31 (100%)	0	0	100	100
12	m	32/36 (89%)	31 (97%)	1 (3%)	0	100	100
13	O	241/244 (99%)	232 (96%)	9 (4%)	0	100	100
13	o	241/244 (99%)	232 (96%)	9 (4%)	0	100	100
14	T	28/32 (88%)	28 (100%)	0	0	100	100
14	t	28/32 (88%)	28 (100%)	0	0	100	100
15	U	94/104 (90%)	89 (95%)	5 (5%)	0	100	100
15	u	95/104 (91%)	91 (96%)	4 (4%)	0	100	100
16	V	135/137 (98%)	132 (98%)	3 (2%)	0	100	100
16	v	135/137 (98%)	132 (98%)	3 (2%)	0	100	100
17	X	36/40 (90%)	36 (100%)	0	0	100	100
17	x	36/40 (90%)	36 (100%)	0	0	100	100
18	Y	27/30 (90%)	26 (96%)	1 (4%)	0	100	100
18	y	27/30 (90%)	25 (93%)	1 (4%)	1 (4%)	3	4
19	Z	60/62 (97%)	59 (98%)	0	1 (2%)	9	16

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
19	z	60/62 (97%)	59 (98%)	0	1 (2%)	9 16
20	R	32/34 (94%)	32 (100%)	0	0	100 100
All	All	5212/5384 (97%)	5097 (98%)	107 (2%)	8 (0%)	47 68

5 of 8 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
8	i	36	ASP
3	C	416	SER
3	c	416	SER
19	Z	30	PRO
1	a	259	ILE

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 X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	269/279 (96%)	269 (100%)	0	100 100
1	a	269/279 (96%)	268 (100%)	1 (0%)	91 97
2	B	402/403 (100%)	395 (98%)	7 (2%)	60 82
2	b	402/403 (100%)	390 (97%)	12 (3%)	41 68
3	C	352/356 (99%)	349 (99%)	3 (1%)	78 92
3	c	356/356 (100%)	348 (98%)	8 (2%)	52 77
4	D	277/277 (100%)	276 (100%)	1 (0%)	91 97
4	d	276/277 (100%)	275 (100%)	1 (0%)	91 97
5	E	72/73 (99%)	71 (99%)	1 (1%)	67 86
5	e	70/73 (96%)	67 (96%)	3 (4%)	29 53
6	F	28/38 (74%)	28 (100%)	0	100 100
6	f	25/38 (66%)	24 (96%)	1 (4%)	31 56
7	H	54/54 (100%)	51 (94%)	3 (6%)	21 40
7	h	54/54 (100%)	52 (96%)	2 (4%)	34 60

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
8	I	34/34 (100%)	33 (97%)	1 (3%)	42 69
8	i	34/34 (100%)	32 (94%)	2 (6%)	19 37
9	J	26/27 (96%)	24 (92%)	2 (8%)	13 25
9	j	26/27 (96%)	26 (100%)	0	100 100
10	K	30/30 (100%)	27 (90%)	3 (10%)	7 15
10	k	30/30 (100%)	27 (90%)	3 (10%)	7 15
11	L	34/35 (97%)	34 (100%)	0	100 100
11	l	34/35 (97%)	34 (100%)	0	100 100
12	M	29/32 (91%)	29 (100%)	0	100 100
12	m	30/32 (94%)	29 (97%)	1 (3%)	38 64
13	O	206/207 (100%)	201 (98%)	5 (2%)	49 74
13	o	206/207 (100%)	203 (98%)	3 (2%)	65 85
14	T	26/28 (93%)	25 (96%)	1 (4%)	33 58
14	t	26/28 (93%)	25 (96%)	1 (4%)	33 58
15	U	83/89 (93%)	82 (99%)	1 (1%)	71 88
15	u	84/89 (94%)	82 (98%)	2 (2%)	49 74
16	V	117/117 (100%)	117 (100%)	0	100 100
16	v	117/117 (100%)	117 (100%)	0	100 100
17	X	31/33 (94%)	30 (97%)	1 (3%)	39 65
17	x	31/33 (94%)	31 (100%)	0	100 100
18	Y	22/23 (96%)	22 (100%)	0	100 100
18	y	22/23 (96%)	22 (100%)	0	100 100
19	Z	52/52 (100%)	49 (94%)	3 (6%)	20 38
19	z	52/52 (100%)	48 (92%)	4 (8%)	13 25
20	R	29/29 (100%)	29 (100%)	0	100 100
All	All	4317/4403 (98%)	4241 (98%)	76 (2%)	59 81

5 of 76 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	b	121	GLU
2	b	486	LEU
15	u	15	GLU

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Mol	Chain	Res	Type
2	b	128	THR
2	b	362	PHE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 25 such sidechains are listed below:

Mol	Chain	Res	Type
19	Z	58	ASN
2	b	223	GLN
13	o	130	GLN
2	b	53	ASN
2	b	331	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

6 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	$\#\|Z\| > 2$
8	FME	i	1	8	8,9,10	0.61	0	7,9,11	1.26	1 (14%)
12	FME	M	1	12	8,9,10	0.55	0	7,9,11	1.35	1 (14%)
12	FME	m	1	12	8,9,10	0.61	0	7,9,11	1.64	3 (42%)
14	FME	T	1	14	8,9,10	0.64	0	7,9,11	1.22	0
8	FME	I	1	8	8,9,10	0.64	0	7,9,11	1.00	1 (14%)
14	FME	t	1	14	8,9,10	0.68	0	7,9,11	1.72	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
8	FME	i	1	8	-	2/7/9/11	-
12	FME	M	1	12	-	0/7/9/11	-
12	FME	m	1	12	-	2/7/9/11	-
14	FME	T	1	14	-	3/7/9/11	-
8	FME	I	1	8	-	0/7/9/11	-
14	FME	t	1	14	-	0/7/9/11	-

There are no bond length outliers.

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

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	t	1	FME	CA-N-CN	-2.74	118.61	122.82
14	t	1	FME	O-C-CA	-2.68	117.76	124.78
12	M	1	FME	O-C-CA	-2.52	118.17	124.78
12	m	1	FME	CA-N-CN	-2.39	119.15	122.82
8	i	1	FME	O-C-CA	-2.30	118.75	124.78

There are no chirality outliers.

5 of 7 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
12	m	1	FME	O1-CN-N-CA
12	m	1	FME	CB-CA-N-CN
14	T	1	FME	O1-CN-N-CA
14	T	1	FME	C-CA-CB-CG
14	T	1	FME	N-CA-CB-CG

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 218 ligands modelled in this entry, 18 are unknown and 15 are monoatomic - leaving 185 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	$\#\|Z\| > 2$
34	LMG	c	520	-	51,51,55	0.97	2 (3%)	59,59,63	1.21	7 (11%)
25	BCR	d	404	-	41,41,41	1.12	1 (2%)	56,56,56	1.68	13 (23%)
36	HTG	b	623	-	19,19,19	1.08	2 (10%)	23,24,24	1.63	3 (13%)
27	GOL	A	410	-	5,5,5	0.37	0	5,5,5	0.25	0
29	PL9	d	405	-	55,55,55	0.64	2 (3%)	68,69,69	1.86	22 (32%)
23	CLA	c	502	3	59,73,73	2.04	12 (20%)	67,113,113	2.19	20 (29%)
37	DGD	C	517	-	63,63,67	0.85	2 (3%)	77,77,81	1.19	7 (9%)
24	PHO	a	408	-	67,69,69	2.23	15 (22%)	85,99,99	1.87	22 (25%)
23	CLA	B	608	41	59,73,73	2.05	14 (23%)	67,113,113	2.19	23 (34%)
23	CLA	b	605	2	59,73,73	2.00	13 (22%)	67,113,113	2.24	23 (34%)
23	CLA	b	611	2	59,73,73	2.01	12 (20%)	67,113,113	2.33	22 (32%)
25	BCR	H	101	-	41,41,41	1.08	1 (2%)	56,56,56	1.59	11 (19%)
23	CLA	B	606	2	59,73,73	1.99	14 (23%)	67,113,113	2.17	24 (35%)
25	BCR	T	101	-	41,41,41	1.04	1 (2%)	56,56,56	1.85	10 (17%)
25	BCR	y	101	-	41,41,41	1.09	1 (2%)	56,56,56	1.66	12 (21%)
29	PL9	a	415	-	55,55,55	0.65	1 (1%)	68,69,69	2.00	20 (29%)
24	PHO	a	407	-	67,69,69	2.13	17 (25%)	85,99,99	2.02	25 (29%)
23	CLA	A	405	41	59,73,73	2.03	14 (23%)	67,113,113	2.11	23 (34%)
35	LMT	D	403	-	36,36,36	0.57	1 (2%)	47,47,47	1.20	4 (8%)
23	CLA	c	508	3	59,73,73	2.07	13 (22%)	67,113,113	2.23	21 (31%)
26	SQD	L	102	-	53,54,54	1.03	3 (5%)	62,65,65	1.53	10 (16%)
27	GOL	b	624	-	5,5,5	0.36	0	5,5,5	0.41	0
27	GOL	O	302	-	5,5,5	0.34	0	5,5,5	0.34	0
25	BCR	A	408	-	41,41,41	0.99	1 (2%)	56,56,56	1.65	16 (28%)
23	CLA	D	404	4	59,73,73	2.04	13 (22%)	67,113,113	2.23	22 (32%)
35	LMT	M	101	-	36,36,36	0.56	0	47,47,47	1.10	3 (6%)
38	HEM	E	103	5,6	27,50,50	0.83	1 (3%)	17,82,82	2.28	4 (23%)
34	LMG	z	101	-	39,39,55	1.09	2 (5%)	47,47,63	1.12	4 (8%)
31	LHG	d	406	-	48,48,48	0.87	3 (6%)	51,54,54	1.09	5 (9%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
23	CLA	c	511	3	59,73,73	2.03	13 (22%)	67,113,113	2.06	20 (29%)
36	HTG	C	524	-	8,8,19	0.39	0	7,7,24	1.15	1 (14%)
36	HTG	B	629	-	19,19,19	0.97	2 (10%)	23,24,24	1.35	3 (13%)
27	GOL	a	412	-	5,5,5	0.43	0	5,5,5	0.27	0
23	CLA	C	504	3	59,73,73	1.97	13 (22%)	67,113,113	2.08	19 (28%)
25	BCR	C	516	-	41,41,41	1.05	1 (2%)	56,56,56	1.50	11 (19%)
27	GOL	B	627	-	5,5,5	0.35	0	5,5,5	0.37	0
35	LMT	b	628	-	25,25,36	0.54	1 (4%)	30,30,47	1.21	4 (13%)
23	CLA	a	406	41	59,73,73	2.00	10 (16%)	67,113,113	2.19	23 (34%)
23	CLA	B	602	41	59,73,73	2.05	13 (22%)	67,113,113	2.12	23 (34%)
23	CLA	C	507	3	59,73,73	2.01	13 (22%)	67,113,113	2.21	23 (34%)
23	CLA	C	502	3	59,73,73	1.98	13 (22%)	67,113,113	2.31	24 (35%)
23	CLA	a	404	1	59,73,73	2.00	12 (20%)	67,113,113	2.24	27 (40%)
34	LMG	a	417	-	51,51,55	0.96	3 (5%)	59,59,63	1.11	4 (6%)
36	HTG	B	630	-	19,19,19	1.01	2 (10%)	23,24,24	1.33	1 (4%)
34	LMG	j	101	39	51,51,55	0.91	2 (3%)	59,59,63	1.08	6 (10%)
40	HEC	V	202	16	26,50,50	1.53	4 (15%)	18,82,82	1.52	6 (33%)
23	CLA	D	401	41	59,73,73	2.02	12 (20%)	67,113,113	2.17	24 (35%)
23	CLA	c	509	3	59,73,73	2.05	14 (23%)	67,113,113	2.19	22 (32%)
36	HTG	b	625	-	19,19,19	0.99	2 (10%)	23,24,24	1.48	3 (13%)
23	CLA	c	512	3	59,73,73	2.00	13 (22%)	67,113,113	2.27	23 (34%)
26	SQD	A	411	-	53,54,54	1.03	3 (5%)	62,65,65	1.11	4 (6%)
23	CLA	d	402	4	59,73,73	1.99	14 (23%)	67,113,113	2.16	22 (32%)
24	PHO	D	402	-	67,69,69	2.14	17 (25%)	85,99,99	2.01	23 (27%)
23	CLA	c	506	3	59,73,73	1.98	14 (23%)	67,113,113	2.14	23 (34%)
23	CLA	c	503	3	59,73,73	1.99	13 (22%)	67,113,113	2.17	21 (31%)
23	CLA	B	610	2	59,73,73	2.00	13 (22%)	67,113,113	2.11	17 (25%)
35	LMT	E	102	-	36,36,36	0.51	1 (2%)	47,47,47	0.86	0
23	CLA	B	609	2	59,73,73	1.93	13 (22%)	67,113,113	2.19	22 (32%)
23	CLA	A	407	1	59,73,73	2.03	13 (22%)	67,113,113	2.09	21 (31%)
37	DGD	C	519	-	63,63,67	0.83	2 (3%)	77,77,81	0.99	4 (5%)
29	PL9	A	413	-	55,55,55	0.63	2 (3%)	68,69,69	1.96	22 (32%)
31	LHG	D	408	-	48,48,48	0.90	2 (4%)	51,54,54	1.00	3 (5%)
24	PHO	A	406	-	67,69,69	2.18	17 (25%)	85,99,99	2.00	23 (27%)
23	CLA	C	510	3	59,73,73	2.04	14 (23%)	67,113,113	2.19	21 (31%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	BCT	A	416	21	0,3,3	0.00	-	0,3,3	0.00	-
23	CLA	C	514	3	59,73,73	2.01	13 (22%)	67,113,113	2.16	24 (35%)
25	BCR	C	515	-	41,41,41	1.03	1 (2%)	56,56,56	1.54	7 (12%)
34	LMG	c	519	-	51,51,55	0.96	3 (5%)	59,59,63	1.05	5 (8%)
31	LHG	b	630	-	48,48,48	0.93	2 (4%)	51,54,54	1.06	2 (3%)
27	GOL	C	525	-	5,5,5	0.39	0	5,5,5	0.20	0
23	CLA	B	604	2	59,73,73	2.01	13 (22%)	67,113,113	2.27	23 (34%)
26	SQD	a	413	-	53,54,54	1.09	4 (7%)	62,65,65	1.23	8 (12%)
23	CLA	B	605	2	59,73,73	1.98	12 (20%)	67,113,113	2.20	22 (32%)
35	LMT	B	633	-	36,36,36	0.56	1 (2%)	47,47,47	0.97	1 (2%)
23	CLA	c	505	3	59,73,73	1.97	13 (22%)	67,113,113	2.09	19 (28%)
23	CLA	b	615	2	59,73,73	1.96	13 (22%)	67,113,113	2.15	23 (34%)
36	HTG	b	621	-	19,19,19	1.24	2 (10%)	23,24,24	1.76	5 (21%)
25	BCR	B	618	-	41,41,41	1.04	1 (2%)	56,56,56	1.63	10 (17%)
36	HTG	B	624	-	19,19,19	0.98	1 (5%)	23,24,24	1.38	4 (17%)
34	LMG	Z	101	-	37,37,55	0.99	3 (8%)	45,45,63	1.54	8 (17%)
23	CLA	b	602	2	59,73,73	2.04	13 (22%)	67,113,113	2.30	27 (40%)
26	SQD	a	411	-	53,54,54	0.98	3 (5%)	62,65,65	1.60	11 (17%)
23	CLA	b	607	41	59,73,73	1.95	14 (23%)	67,113,113	2.19	22 (32%)
31	LHG	e	101	-	41,41,48	1.03	2 (4%)	44,47,54	0.94	2 (4%)
23	CLA	b	612	2	59,73,73	2.04	13 (22%)	67,113,113	2.22	21 (31%)
32	BCT	a	419	21	0,3,3	0.00	-	0,3,3	0.00	-
29	PL9	D	407	-	55,55,55	0.67	2 (3%)	68,69,69	1.66	19 (27%)
23	CLA	c	501	3	59,73,73	2.00	13 (22%)	67,113,113	2.21	23 (34%)
25	BCR	h	102	-	41,41,41	1.05	1 (2%)	56,56,56	1.47	10 (17%)
27	GOL	B	628	-	5,5,5	0.54	0	5,5,5	0.49	0
37	DGD	c	517	-	63,63,67	0.91	3 (4%)	77,77,81	0.98	4 (5%)
36	HTG	h	101	-	16,16,19	1.09	2 (12%)	20,21,24	1.30	1 (5%)
31	LHG	E	101	-	41,41,48	1.02	2 (4%)	44,47,54	1.09	3 (6%)
23	CLA	b	608	2	59,73,73	2.03	13 (22%)	67,113,113	2.17	24 (35%)
36	HTG	c	522	-	19,19,19	1.00	2 (10%)	23,24,24	1.47	3 (13%)
36	HTG	b	626	-	19,19,19	1.08	2 (10%)	23,24,24	1.28	2 (8%)
36	HTG	C	523	-	19,19,19	0.96	1 (5%)	23,24,24	1.50	3 (13%)
23	CLA	b	606	2	59,73,73	1.92	13 (22%)	67,113,113	2.20	20 (29%)
25	BCR	t	101	-	41,41,41	1.01	1 (2%)	56,56,56	1.84	13 (23%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
23	CLA	C	508	41	59,73,73	1.99	12 (20%)	67,113,113	2.19	23 (34%)
36	HTG	B	626	-	19,19,19	0.96	1 (5%)	23,24,24	1.59	2 (8%)
23	CLA	b	604	2	59,73,73	1.92	12 (20%)	67,113,113	2.23	22 (32%)
28	OEX	a	414	1,3,41	0,15,15	0.00	-	-		
38	HEM	e	103	5,6	27,50,50	0.88	1 (3%)	17,82,82	1.93	3 (17%)
34	LMG	C	520	-	51,51,55	0.94	2 (3%)	59,59,63	1.08	3 (5%)
25	BCR	b	618	-	41,41,41	0.98	1 (2%)	56,56,56	1.53	12 (21%)
23	CLA	C	511	3	59,73,73	2.01	11 (18%)	67,113,113	2.21	20 (29%)
23	CLA	C	505	41	59,73,73	2.06	13 (22%)	67,113,113	2.16	24 (35%)
35	LMT	B	632	-	25,25,36	0.45	0	30,30,47	0.71	0
35	LMT	a	418	-	36,36,36	0.49	1 (2%)	47,47,47	0.74	1 (2%)
26	SQD	f	101	-	42,43,54	1.18	3 (7%)	51,54,65	1.53	8 (15%)
26	SQD	A	409	-	53,54,54	0.98	3 (5%)	62,65,65	1.84	13 (20%)
37	DGD	C	518	-	63,63,67	0.86	2 (3%)	77,77,81	0.98	5 (6%)
36	HTG	D	412	-	16,16,19	1.03	2 (12%)	20,21,24	1.40	1 (5%)
23	CLA	b	610	41	59,73,73	2.06	13 (22%)	67,113,113	2.24	22 (32%)
36	HTG	c	521	-	19,19,19	0.93	1 (5%)	23,24,24	1.46	1 (4%)
23	CLA	c	510	3	59,73,73	1.96	13 (22%)	67,113,113	2.23	25 (37%)
25	BCR	Y	101	-	41,41,41	0.98	1 (2%)	56,56,56	1.82	17 (30%)
25	BCR	a	410	-	41,41,41	0.99	1 (2%)	56,56,56	1.57	13 (23%)
23	CLA	B	613	2	59,73,73	2.02	14 (23%)	67,113,113	2.28	23 (34%)
25	BCR	B	619	-	41,41,41	0.97	1 (2%)	56,56,56	1.56	13 (23%)
23	CLA	A	404	1	59,73,73	2.04	12 (20%)	67,113,113	2.29	24 (35%)
35	LMT	M	103	-	36,36,36	0.46	0	47,47,47	0.78	1 (2%)
26	SQD	D	413	-	42,43,54	1.14	3 (7%)	51,54,65	1.63	12 (23%)
23	CLA	B	616	2	59,73,73	1.98	11 (18%)	67,113,113	2.19	24 (35%)
23	CLA	C	509	3	59,73,73	2.09	13 (22%)	67,113,113	2.27	24 (35%)
25	BCR	k	101	-	41,41,41	1.03	1 (2%)	56,56,56	1.61	13 (23%)
27	GOL	d	401	-	5,5,5	0.35	0	5,5,5	0.52	0
23	CLA	C	512	3	59,73,73	2.06	14 (23%)	67,113,113	2.06	21 (31%)
28	OEX	A	412	1,3,41	0,15,15	0.00	-	-		
40	HEC	v	201	16	26,50,50	1.55	4 (15%)	18,82,82	1.61	5 (27%)
23	CLA	C	503	3	59,73,73	1.98	13 (22%)	67,113,113	2.08	19 (28%)
23	CLA	B	607	2	59,73,73	1.94	12 (20%)	67,113,113	2.18	22 (32%)
35	LMT	m	103	-	36,36,36	0.50	0	47,47,47	0.93	1 (2%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
23	CLA	b	603	2	59,73,73	1.99	12 (20%)	67,113,113	2.26	21 (31%)
23	CLA	b	609	2	59,73,73	2.03	13 (22%)	67,113,113	2.21	20 (29%)
36	HTG	b	622	-	19,19,19	1.01	2 (10%)	23,24,24	1.39	2 (8%)
25	BCR	c	514	-	41,41,41	1.01	1 (2%)	56,56,56	1.87	15 (26%)
34	LMG	C	521	-	51,51,55	0.98	3 (5%)	59,59,63	1.21	4 (6%)
23	CLA	c	507	41	59,73,73	2.02	13 (22%)	67,113,113	2.18	22 (32%)
31	LHG	A	415	-	48,48,48	0.86	2 (4%)	51,54,54	1.18	6 (11%)
23	CLA	b	614	2	59,73,73	2.03	13 (22%)	67,113,113	2.15	21 (31%)
35	LMT	b	620	-	25,25,36	0.46	0	30,30,47	0.66	0
25	BCR	B	620	-	41,41,41	1.06	1 (2%)	56,56,56	1.50	12 (21%)
23	CLA	B	603	2	59,73,73	2.07	13 (22%)	67,113,113	2.25	21 (31%)
23	CLA	C	513	3	59,73,73	2.01	12 (20%)	67,113,113	2.20	23 (34%)
35	LMT	C	522	-	36,36,36	0.53	1 (2%)	47,47,47	1.02	4 (8%)
31	LHG	d	408	-	48,48,48	0.96	2 (4%)	51,54,54	0.99	3 (5%)
37	DGD	c	518	-	63,63,67	0.86	3 (4%)	77,77,81	1.09	4 (5%)
23	CLA	B	614	2	59,73,73	2.05	13 (22%)	67,113,113	2.11	21 (31%)
25	BCR	C	527	-	41,41,41	1.01	1 (2%)	56,56,56	1.57	12 (21%)
23	CLA	b	613	2	59,73,73	2.08	13 (22%)	67,113,113	2.14	23 (34%)
25	BCR	b	619	-	41,41,41	1.08	2 (4%)	56,56,56	1.81	12 (21%)
35	LMT	e	102	-	36,36,36	0.48	0	47,47,47	0.84	3 (6%)
31	LHG	D	409	-	48,48,48	0.94	2 (4%)	51,54,54	1.06	3 (5%)
23	CLA	c	513	3	59,73,73	2.03	13 (22%)	67,113,113	2.19	22 (32%)
23	CLA	b	616	2	59,73,73	2.03	13 (22%)	67,113,113	2.30	24 (35%)
23	CLA	a	409	1	59,73,73	2.02	14 (23%)	67,113,113	2.22	27 (40%)
23	CLA	B	611	41	59,73,73	2.05	13 (22%)	67,113,113	2.26	24 (35%)
23	CLA	D	405	4	59,73,73	2.01	12 (20%)	67,113,113	2.14	22 (32%)
31	LHG	d	407	-	48,48,48	0.91	2 (4%)	51,54,54	0.93	3 (5%)
37	DGD	c	516	-	63,63,67	0.85	2 (3%)	77,77,81	1.08	6 (7%)
35	LMT	B	634	-	26,26,36	0.49	0	31,31,47	0.90	1 (3%)
37	DGD	H	102	-	63,63,67	0.89	2 (3%)	77,77,81	0.98	3 (3%)
23	CLA	a	405	41	59,73,73	2.07	12 (20%)	67,113,113	2.20	26 (38%)
25	BCR	c	515	-	41,41,41	0.98	1 (2%)	56,56,56	1.67	14 (25%)
23	CLA	B	617	2	59,73,73	2.03	13 (22%)	67,113,113	2.27	22 (32%)
34	LMG	B	622	-	51,51,55	0.90	2 (3%)	59,59,63	1.15	5 (8%)
37	DGD	h	103	-	63,63,67	0.89	3 (4%)	77,77,81	0.96	3 (3%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
34	LMG	J	101	39	51,51,55	0.91	3 (5%)	59,59,63	1.07	5 (8%)
31	LHG	L	101	-	48,48,48	0.91	2 (4%)	51,54,54	1.17	4 (7%)
26	SQD	B	621	-	53,54,54	1.04	3 (5%)	62,65,65	1.45	8 (12%)
23	CLA	b	601	41	59,73,73	2.06	12 (20%)	67,113,113	2.12	20 (29%)
36	HTG	B	625	-	19,19,19	0.83	1 (5%)	23,24,24	1.60	1 (4%)
23	CLA	B	615	2	59,73,73	1.96	13 (22%)	67,113,113	2.24	21 (31%)
34	LMG	C	501	-	51,51,55	0.95	2 (3%)	59,59,63	1.26	6 (10%)
23	CLA	d	403	4	59,73,73	2.02	12 (20%)	67,113,113	2.18	22 (32%)
23	CLA	C	506	3	59,73,73	1.96	13 (22%)	67,113,113	2.18	20 (29%)
34	LMG	m	101	-	51,51,55	0.89	2 (3%)	59,59,63	1.17	6 (10%)
36	HTG	V	203	-	11,11,19	0.28	0	15,15,24	1.35	1 (6%)
35	LMT	B	623	-	36,36,36	0.42	0	47,47,47	1.14	4 (8%)
23	CLA	B	612	2	59,73,73	2.02	12 (20%)	67,113,113	2.25	23 (34%)
25	BCR	D	406	-	41,41,41	1.03	1 (2%)	56,56,56	1.77	13 (23%)
23	CLA	c	504	41	59,73,73	2.07	14 (23%)	67,113,113	2.13	23 (34%)
25	BCR	b	617	-	41,41,41	1.06	1 (2%)	56,56,56	1.39	6 (10%)

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
34	LMG	c	520	-	-	8/46/66/70	0/1/1/1
25	BCR	d	404	-	-	8/29/63/63	0/2/2/2
36	HTG	b	623	-	-	2/10/30/30	0/1/1/1
27	GOL	A	410	-	-	4/4/4/4	-
29	PL9	d	405	-	-	6/53/73/73	0/1/1/1
23	CLA	c	502	3	3/3/20/25	8/37/135/135	-
37	DGD	C	517	-	-	15/51/91/95	0/2/2/2
24	PHO	a	408	-	-	3/53/103/103	0/5/6/6
23	CLA	B	608	41	3/3/20/25	3/37/135/135	-
27	GOL	a	412	-	-	2/4/4/4	-
23	CLA	b	605	2	3/3/20/25	13/37/135/135	-
23	CLA	b	611	2	3/3/20/25	10/37/135/135	-
25	BCR	H	101	-	-	4/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	CLA	B	606	2	3/3/20/25	11/37/135/135	-
25	BCR	T	101	-	-	5/29/63/63	0/2/2/2
25	BCR	y	101	-	-	4/29/63/63	0/2/2/2
29	PL9	a	415	-	-	16/53/73/73	0/1/1/1
24	PHO	a	407	-	-	4/53/103/103	0/5/6/6
23	CLA	A	405	41	2/2/20/25	8/37/135/135	-
35	LMT	D	403	-	-	8/21/61/61	0/2/2/2
23	CLA	c	508	3	3/3/20/25	6/37/135/135	-
26	SQD	L	102	-	-	22/49/69/69	0/1/1/1
27	GOL	b	624	-	-	2/4/4/4	-
27	GOL	O	302	-	-	2/4/4/4	-
25	BCR	A	408	-	-	1/29/63/63	0/2/2/2
23	CLA	D	404	4	1/1/20/25	2/37/135/135	-
35	LMT	M	101	-	-	2/21/61/61	0/2/2/2
38	HEM	E	103	5,6	-	0/6/54/54	-
34	LMG	z	101	-	-	15/34/54/70	0/1/1/1
31	LHG	d	406	-	-	12/53/53/53	-
23	CLA	c	511	3	3/3/20/25	5/37/135/135	-
36	HTG	C	524	-	-	1/6/6/30	-
36	HTG	B	629	-	-	1/10/30/30	0/1/1/1
23	CLA	d	403	4	3/3/20/25	6/37/135/135	-
23	CLA	C	504	3	3/3/20/25	3/37/135/135	-
25	BCR	C	516	-	-	1/29/63/63	0/2/2/2
27	GOL	B	627	-	-	4/4/4/4	-
35	LMT	b	628	-	-	9/17/37/61	0/1/1/2
23	CLA	a	406	41	2/2/20/25	8/37/135/135	-
23	CLA	B	602	41	3/3/20/25	13/37/135/135	-
23	CLA	C	507	3	3/3/20/25	14/37/135/135	-
23	CLA	C	502	3	3/3/20/25	5/37/135/135	-
38	HEM	e	103	5,6	-	0/6/54/54	-
23	CLA	a	404	1	3/3/20/25	5/37/135/135	-
34	LMG	a	417	-	-	14/46/66/70	0/1/1/1
36	HTG	B	630	-	-	1/10/30/30	0/1/1/1
34	LMG	j	101	39	-	8/46/66/70	0/1/1/1
40	HEC	V	202	16	-	0/6/54/54	-
23	CLA	D	401	41	3/3/20/25	8/37/135/135	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	CLA	c	509	3	3/3/20/25	15/37/135/135	-
36	HTG	b	625	-	-	5/10/30/30	0/1/1/1
23	CLA	c	512	3	3/3/20/25	9/37/135/135	-
26	SQD	A	411	-	-	14/49/69/69	0/1/1/1
23	CLA	d	402	4	1/1/20/25	3/37/135/135	-
24	PHO	D	402	-	-	6/53/103/103	0/5/6/6
23	CLA	c	506	3	3/3/20/25	12/37/135/135	-
23	CLA	c	503	3	3/3/20/25	3/37/135/135	-
35	LMT	E	102	-	-	10/21/61/61	0/2/2/2
23	CLA	B	609	2	3/3/20/25	4/37/135/135	-
23	CLA	A	407	1	3/3/20/25	8/37/135/135	-
37	DGD	C	519	-	-	7/51/91/95	0/2/2/2
29	PL9	A	413	-	-	11/53/73/73	0/1/1/1
31	LHG	D	408	-	-	18/53/53/53	-
24	PHO	A	406	-	-	4/53/103/103	0/5/6/6
23	CLA	C	510	3	3/3/20/25	14/37/135/135	-
23	CLA	C	514	3	2/2/20/25	8/37/135/135	-
25	BCR	C	515	-	-	1/29/63/63	0/2/2/2
34	LMG	c	519	-	-	13/46/66/70	0/1/1/1
31	LHG	b	630	-	-	19/53/53/53	-
27	GOL	C	525	-	-	2/4/4/4	-
23	CLA	B	604	2	3/3/20/25	6/37/135/135	-
26	SQD	a	413	-	-	16/49/69/69	0/1/1/1
23	CLA	B	605	2	3/3/20/25	13/37/135/135	-
35	LMT	B	633	-	-	5/21/61/61	0/2/2/2
23	CLA	c	505	3	1/1/20/25	7/37/135/135	-
23	CLA	b	615	2	3/3/20/25	7/37/135/135	-
36	HTG	b	621	-	-	2/10/30/30	0/1/1/1
25	BCR	B	618	-	-	2/29/63/63	0/2/2/2
36	HTG	B	624	-	-	4/10/30/30	0/1/1/1
34	LMG	Z	101	-	-	14/31/51/70	0/1/1/1
23	CLA	b	602	2	2/2/20/25	4/37/135/135	-
26	SQD	a	411	-	-	14/49/69/69	0/1/1/1
23	CLA	b	607	41	3/3/20/25	9/37/135/135	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
31	LHG	e	101	-	-	14/46/46/53	-
23	CLA	b	612	2	3/3/20/25	5/37/135/135	-
29	PL9	D	407	-	-	7/53/73/73	0/1/1/1
23	CLA	c	501	3	3/3/20/25	8/37/135/135	-
25	BCR	h	102	-	-	0/29/63/63	0/2/2/2
27	GOL	B	628	-	-	4/4/4/4	-
37	DGD	c	517	-	-	14/51/91/95	0/2/2/2
36	HTG	h	101	-	-	3/7/27/30	0/1/1/1
31	LHG	E	101	-	-	17/46/46/53	-
23	CLA	b	608	2	2/2/20/25	5/37/135/135	-
36	HTG	c	522	-	-	2/10/30/30	0/1/1/1
36	HTG	b	626	-	-	0/10/30/30	0/1/1/1
36	HTG	C	523	-	-	0/10/30/30	0/1/1/1
23	CLA	b	606	2	3/3/20/25	10/37/135/135	-
25	BCR	t	101	-	-	1/29/63/63	0/2/2/2
23	CLA	C	508	41	3/3/20/25	7/37/135/135	-
36	HTG	B	626	-	-	4/10/30/30	0/1/1/1
23	CLA	b	604	2	3/3/20/25	9/37/135/135	-
23	CLA	C	505	41	3/3/20/25	6/37/135/135	-
34	LMG	C	520	-	-	16/46/66/70	0/1/1/1
25	BCR	b	618	-	-	2/29/63/63	0/2/2/2
23	CLA	C	511	3	3/3/20/25	13/37/135/135	-
35	LMT	B	632	-	-	7/17/37/61	0/1/1/2
35	LMT	a	418	-	-	3/21/61/61	0/2/2/2
26	SQD	f	101	-	-	16/38/58/69	0/1/1/1
26	SQD	A	409	-	-	14/49/69/69	0/1/1/1
37	DGD	C	518	-	-	15/51/91/95	0/2/2/2
36	HTG	D	412	-	-	1/7/27/30	0/1/1/1
23	CLA	b	610	41	3/3/20/25	7/37/135/135	-
36	HTG	c	521	-	-	3/10/30/30	0/1/1/1
23	CLA	c	510	3	3/3/20/25	8/37/135/135	-
25	BCR	Y	101	-	-	3/29/63/63	0/2/2/2
25	BCR	a	410	-	-	0/29/63/63	0/2/2/2
23	CLA	B	613	2	3/3/20/25	4/37/135/135	-
25	BCR	B	619	-	-	0/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	CLA	A	404	1	3/3/20/25	3/37/135/135	-
35	LMT	M	103	-	-	14/21/61/61	0/2/2/2
26	SQD	D	413	-	-	14/38/58/69	0/1/1/1
23	CLA	B	616	2	3/3/20/25	10/37/135/135	-
23	CLA	C	509	3	3/3/20/25	6/37/135/135	-
25	BCR	k	101	-	-	1/29/63/63	0/2/2/2
27	GOL	d	401	-	-	2/4/4/4	-
23	CLA	C	512	3	3/3/20/25	6/37/135/135	-
40	HEC	v	201	16	-	0/6/54/54	-
23	CLA	C	503	3	3/3/20/25	9/37/135/135	-
23	CLA	B	607	2	3/3/20/25	5/37/135/135	-
35	LMT	m	103	-	-	8/21/61/61	0/2/2/2
23	CLA	b	603	2	2/2/20/25	4/37/135/135	-
23	CLA	b	609	2	3/3/20/25	8/37/135/135	-
36	HTG	b	622	-	-	1/10/30/30	0/1/1/1
34	LMG	m	101	-	-	16/46/66/70	0/1/1/1
25	BCR	c	514	-	-	2/29/63/63	0/2/2/2
34	LMG	C	521	-	-	9/46/66/70	0/1/1/1
23	CLA	c	507	41	3/3/20/25	8/37/135/135	-
31	LHG	A	415	-	-	11/53/53/53	-
23	CLA	b	614	2	3/3/20/25	15/37/135/135	-
35	LMT	b	620	-	-	5/17/37/61	0/1/1/2
25	BCR	B	620	-	-	0/29/63/63	0/2/2/2
23	CLA	B	603	2	3/3/20/25	8/37/135/135	-
23	CLA	C	513	3	3/3/20/25	7/37/135/135	-
35	LMT	C	522	-	-	9/21/61/61	0/2/2/2
31	LHG	d	408	-	-	17/53/53/53	-
37	DGD	c	518	-	-	6/51/91/95	0/2/2/2
23	CLA	B	614	2	3/3/20/25	5/37/135/135	-
25	BCR	C	527	-	-	1/29/63/63	0/2/2/2
23	CLA	b	613	2	3/3/20/25	7/37/135/135	-
25	BCR	b	619	-	-	0/29/63/63	0/2/2/2
35	LMT	e	102	-	-	8/21/61/61	0/2/2/2
31	LHG	D	409	-	-	14/53/53/53	-
23	CLA	c	513	3	2/2/20/25	6/37/135/135	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	CLA	b	616	2	3/3/20/25	12/37/135/135	-
23	CLA	a	409	1	3/3/20/25	7/37/135/135	-
23	CLA	B	611	41	3/3/20/25	7/37/135/135	-
23	CLA	D	405	4	3/3/20/25	7/37/135/135	-
31	LHG	d	407	-	-	23/53/53/53	-
37	DGD	c	516	-	-	15/51/91/95	0/2/2/2
35	LMT	B	634	-	-	6/17/38/61	0/1/1/2
37	DGD	H	102	-	-	10/51/91/95	0/2/2/2
23	CLA	a	405	41	3/3/20/25	5/37/135/135	-
25	BCR	c	515	-	-	0/29/63/63	0/2/2/2
23	CLA	B	617	2	3/3/20/25	7/37/135/135	-
34	LMG	B	622	-	-	12/46/66/70	0/1/1/1
37	DGD	h	103	-	-	11/51/91/95	0/2/2/2
34	LMG	J	101	39	-	10/46/66/70	0/1/1/1
31	LHG	L	101	-	-	16/53/53/53	-
26	SQD	B	621	-	-	21/49/69/69	0/1/1/1
23	CLA	b	601	41	2/2/20/25	19/37/135/135	-
36	HTG	B	625	-	-	5/10/30/30	0/1/1/1
23	CLA	B	615	2	3/3/20/25	12/37/135/135	-
34	LMG	C	501	-	-	11/46/66/70	0/1/1/1
23	CLA	C	506	3	1/1/20/25	7/37/135/135	-
23	CLA	B	610	2	3/3/20/25	9/37/135/135	-
36	HTG	V	203	-	-	0/2/19/30	0/1/1/1
35	LMT	B	623	-	-	8/21/61/61	0/2/2/2
23	CLA	B	612	2	3/3/20/25	4/37/135/135	-
25	BCR	D	406	-	-	7/29/63/63	0/2/2/2
23	CLA	c	504	41	3/3/20/25	12/37/135/135	-
25	BCR	b	617	-	-	2/29/63/63	0/2/2/2

The worst 5 of 1130 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	c	502	CLA	C3B-C2B	6.96	1.50	1.40
23	B	614	CLA	C3B-C2B	6.74	1.49	1.40
23	A	404	CLA	C3B-C2B	6.65	1.49	1.40
23	C	509	CLA	C3B-C2B	6.56	1.49	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	b	613	CLA	C3B-C2B	6.54	1.49	1.40

The worst 5 of 2292 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	A	406	PHO	CMD-C2D-C1D	8.02	137.41	125.06
23	B	608	CLA	C4A-NA-C1A	-7.32	103.41	106.71
23	B	612	CLA	CHD-C4C-C3C	-6.98	114.58	124.84
23	B	609	CLA	CHD-C4C-C3C	-6.93	114.66	124.84
24	a	407	PHO	CMD-C2D-C1D	6.91	135.70	125.06

5 of 194 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
23	c	502	CLA	NC
23	c	502	CLA	ND
23	c	502	CLA	NA
23	B	608	CLA	NC
23	B	608	CLA	ND

5 of 1339 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
34	c	520	LMG	O9-C10-O7-C8
34	c	520	LMG	C11-C10-O7-C8
23	c	502	CLA	C14-C13-C15-C16
25	d	404	BCR	C7-C8-C9-C10
25	d	404	BCR	C7-C8-C9-C34

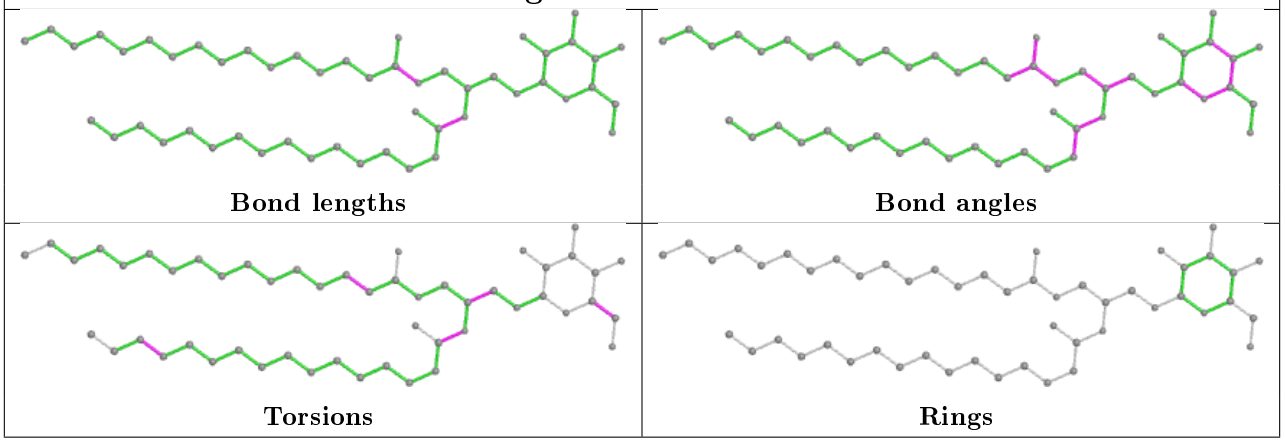
There are no ring outliers.

No monomer is involved in short contacts.

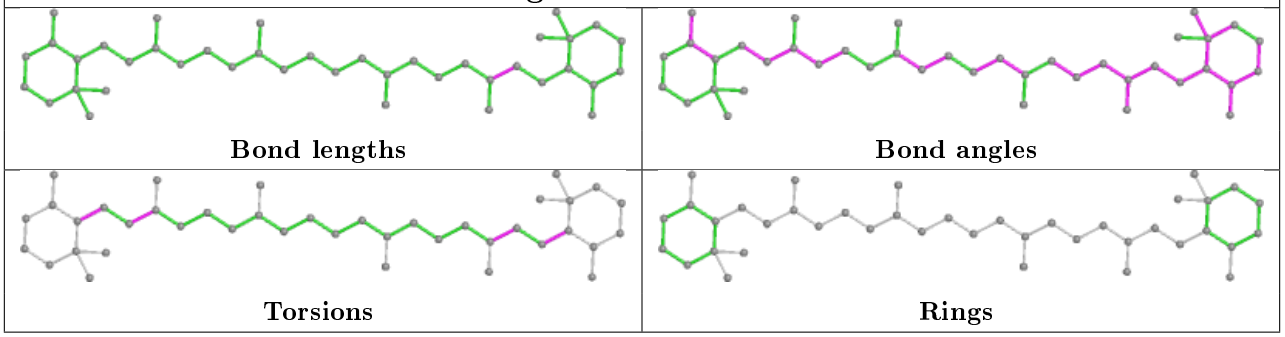
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. 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.

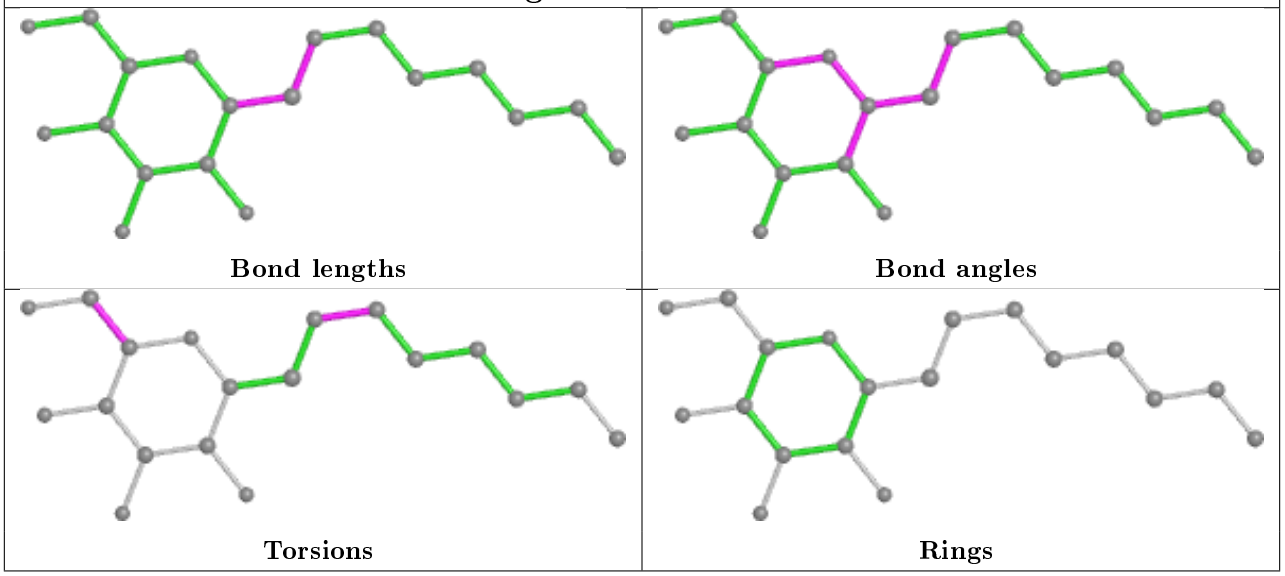
Ligand LMG c 520



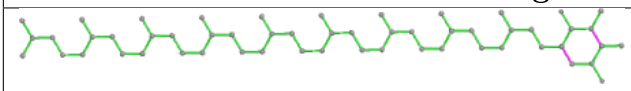
Ligand BCR d 404

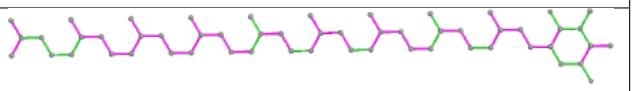


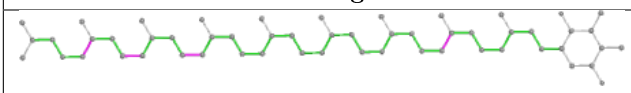
Ligand HTG b 623

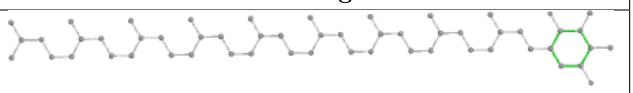


Ligand PL9 d 405

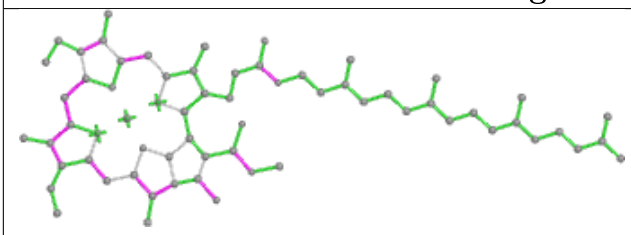

Bond lengths

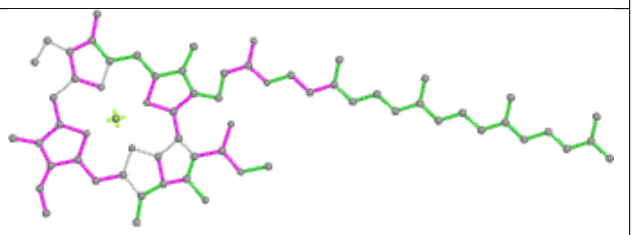

Bond angles

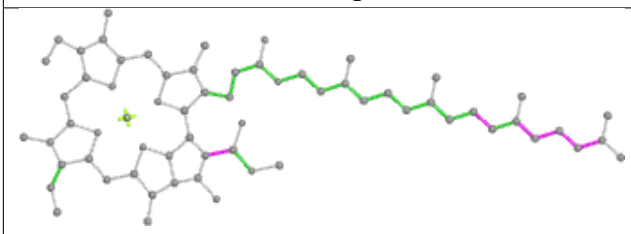

Torsions

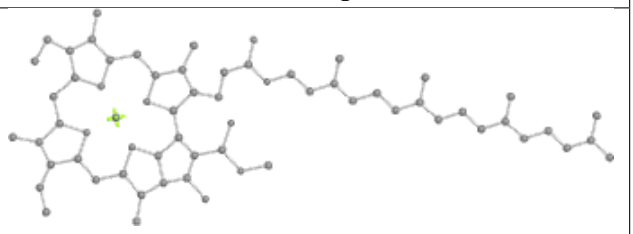

Rings

Ligand CLA c 502

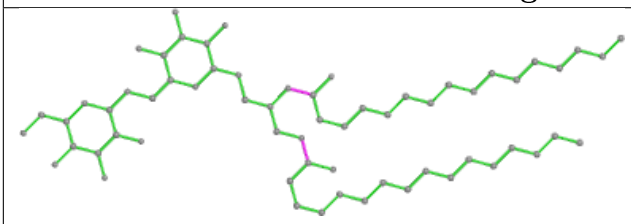

Bond lengths

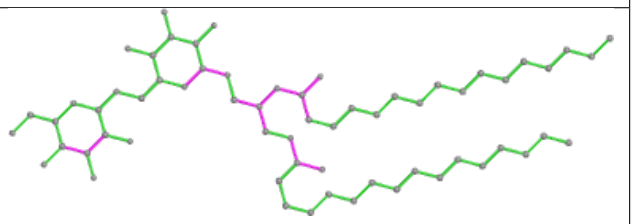

Bond angles

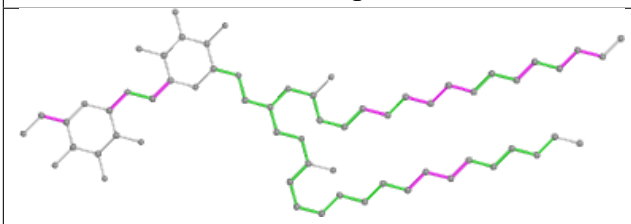

Torsions

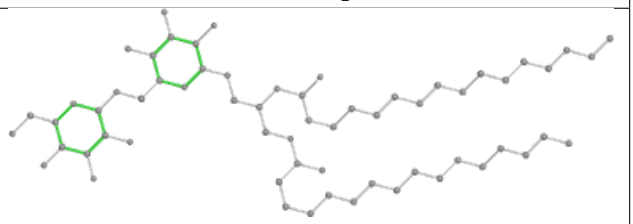

Rings

Ligand DGD C 517

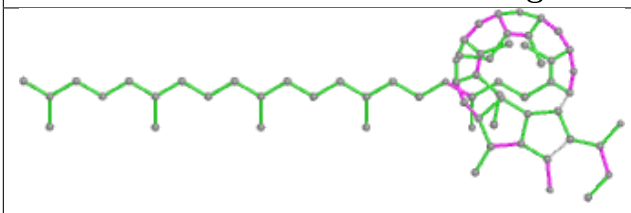

Bond lengths


Bond angles

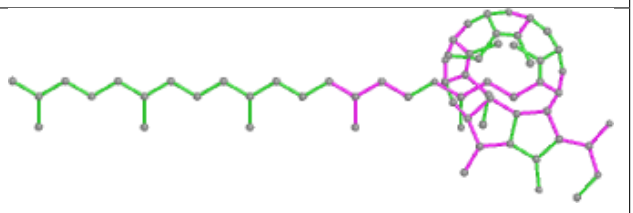

Torsions


Rings

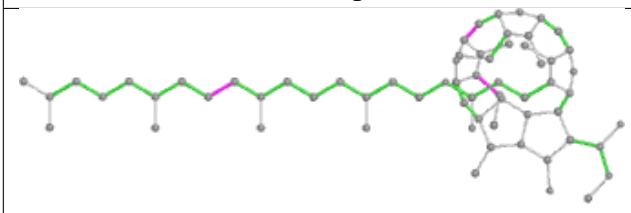
Ligand PHO a 408



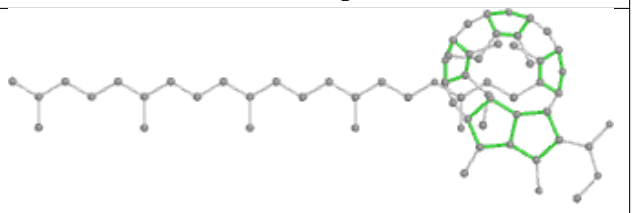
Bond lengths



Bond angles

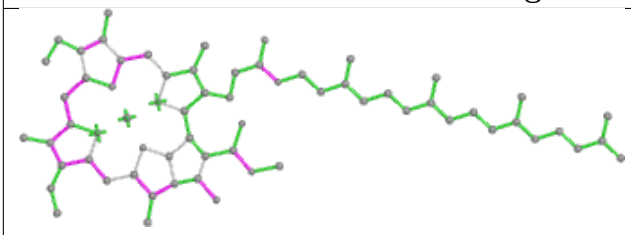


Torsions

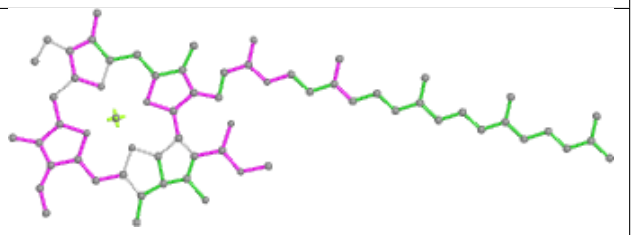


Rings

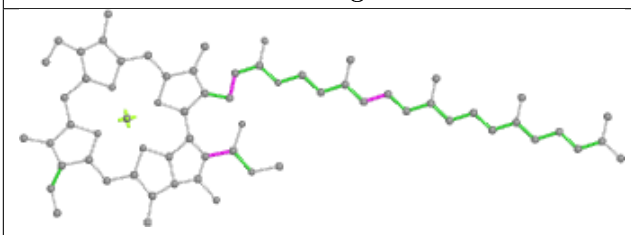
Ligand CLA B 608



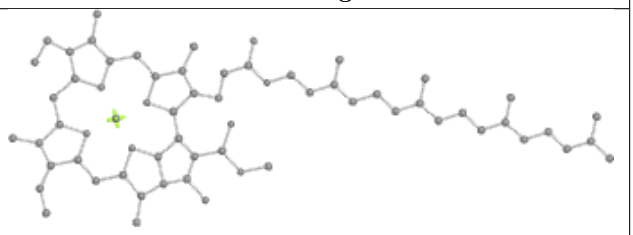
Bond lengths



Bond angles

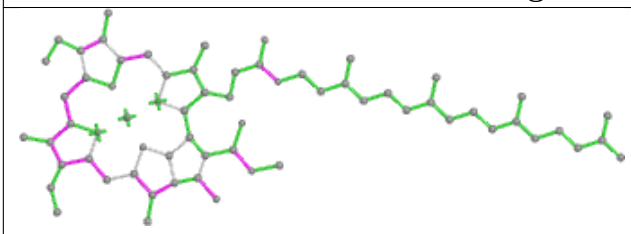


Torsions

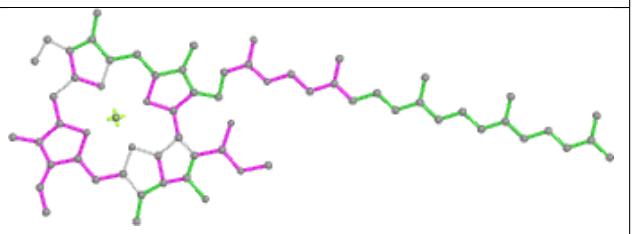


Rings

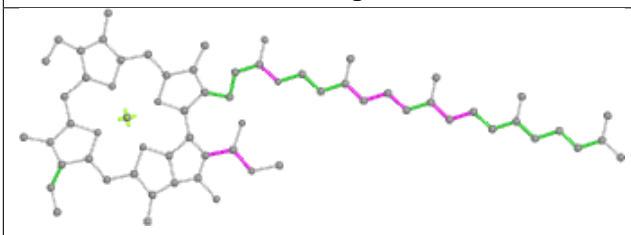
Ligand CLA b 605



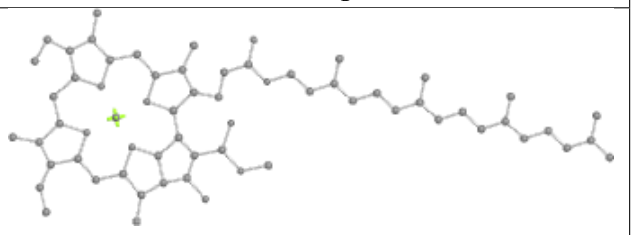
Bond lengths



Bond angles

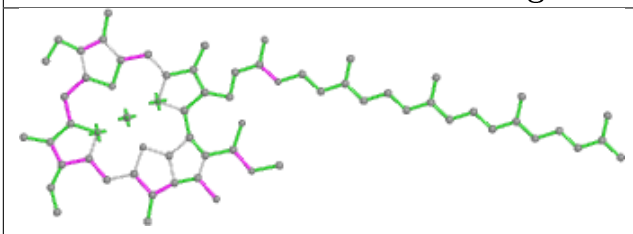


Torsions

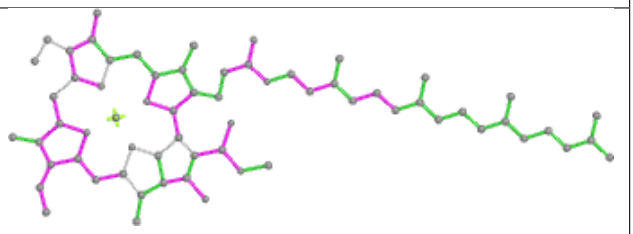


Rings

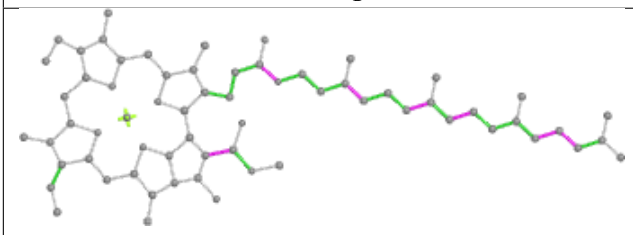
Ligand CLA b 611



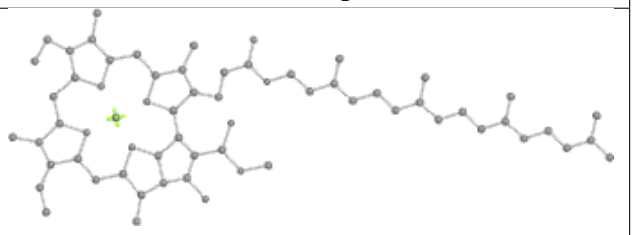
Bond lengths



Bond angles

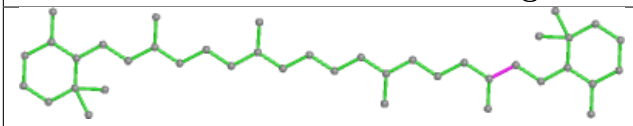


Torsions

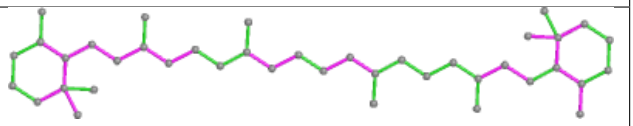


Rings

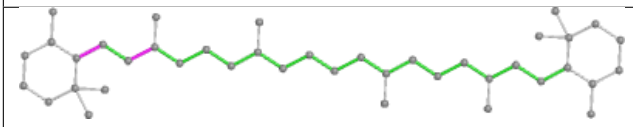
Ligand BCR H 101



Bond lengths



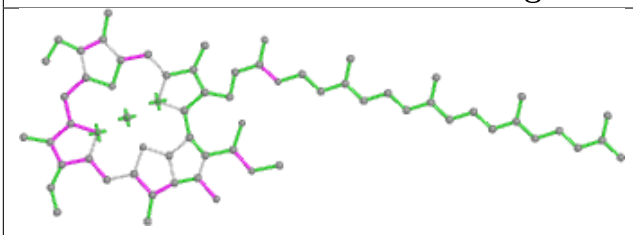
Bond angles



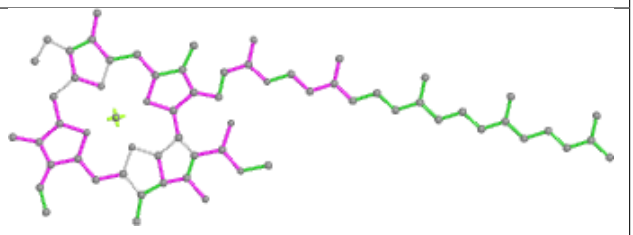
Torsions

Rings

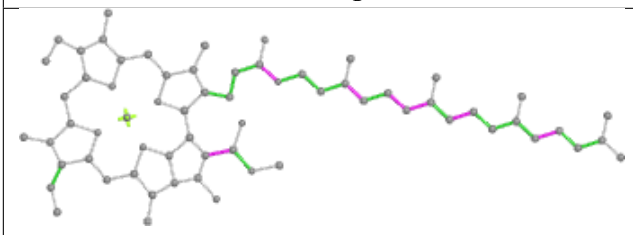
Ligand CLA B 606



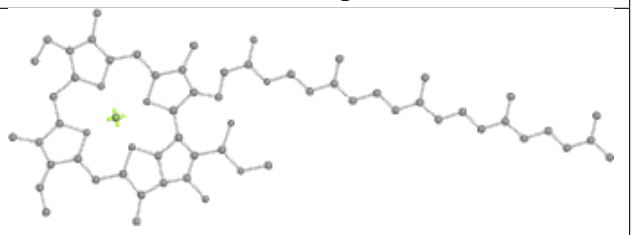
Bond lengths



Bond angles

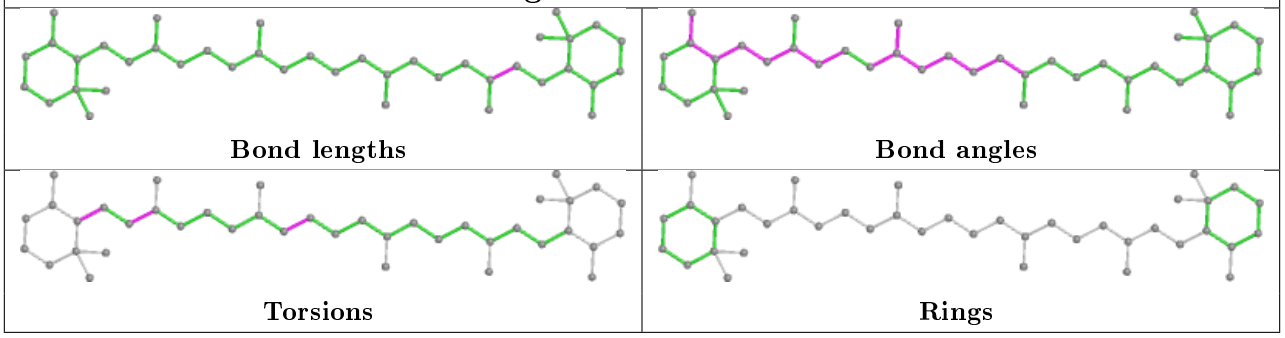


Torsions

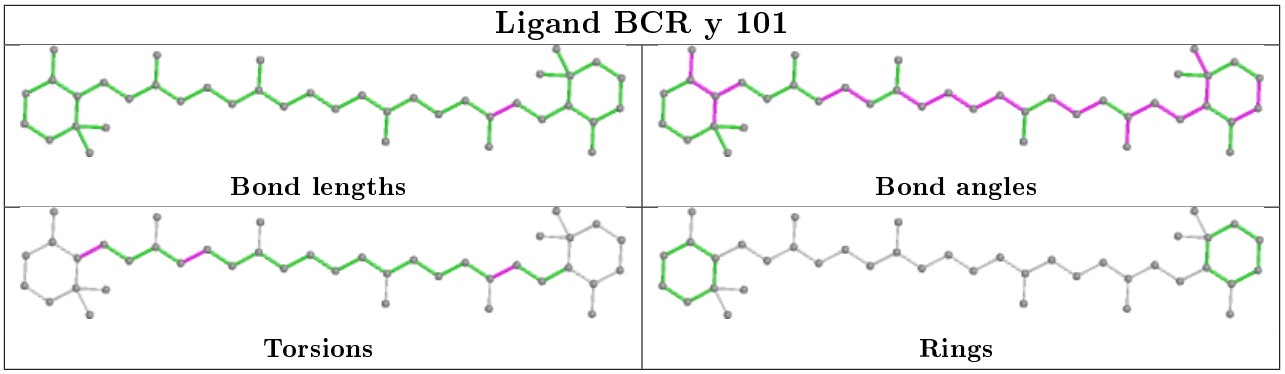


Rings

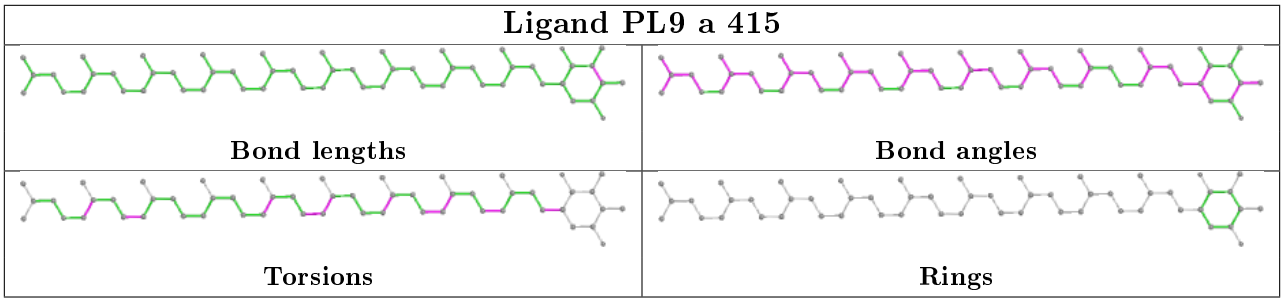
Ligand BCR T 101



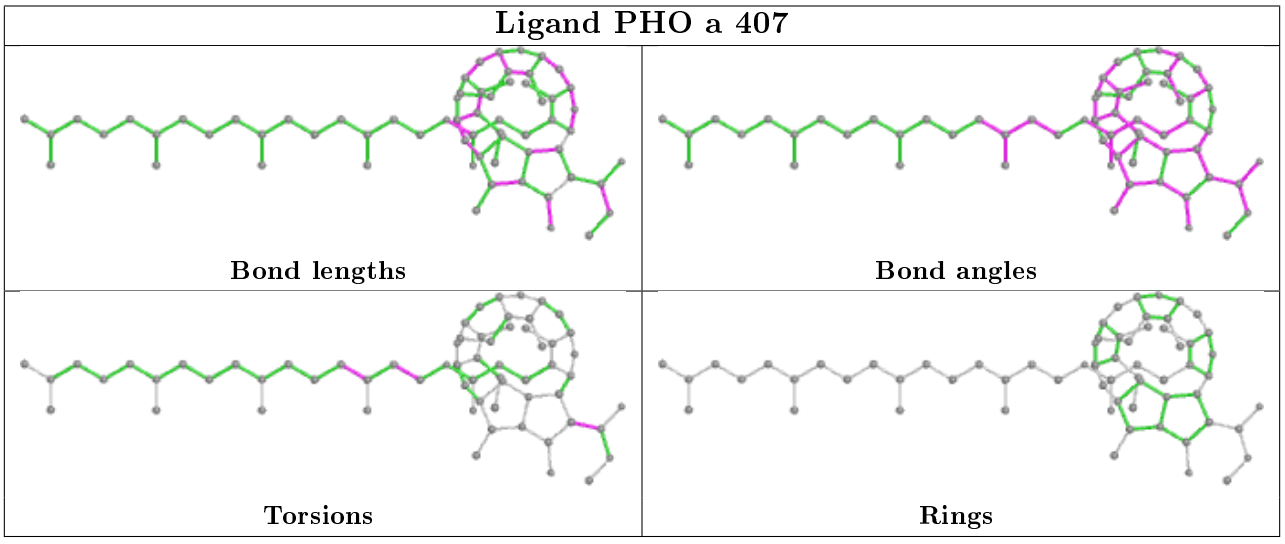
Ligand BCR y 101



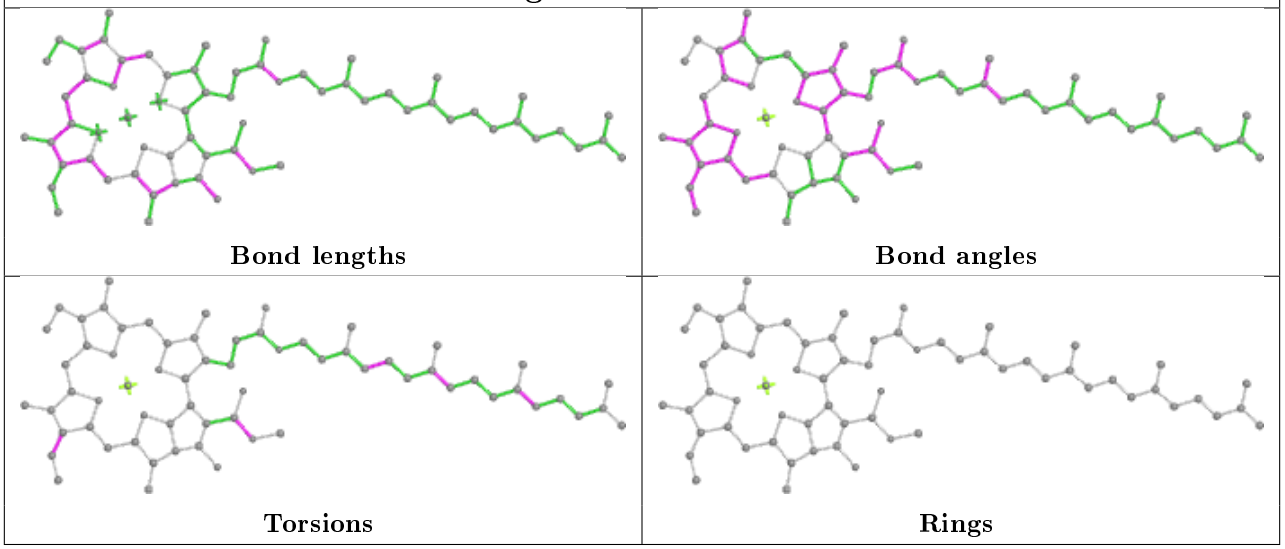
Ligand PL9 a 415



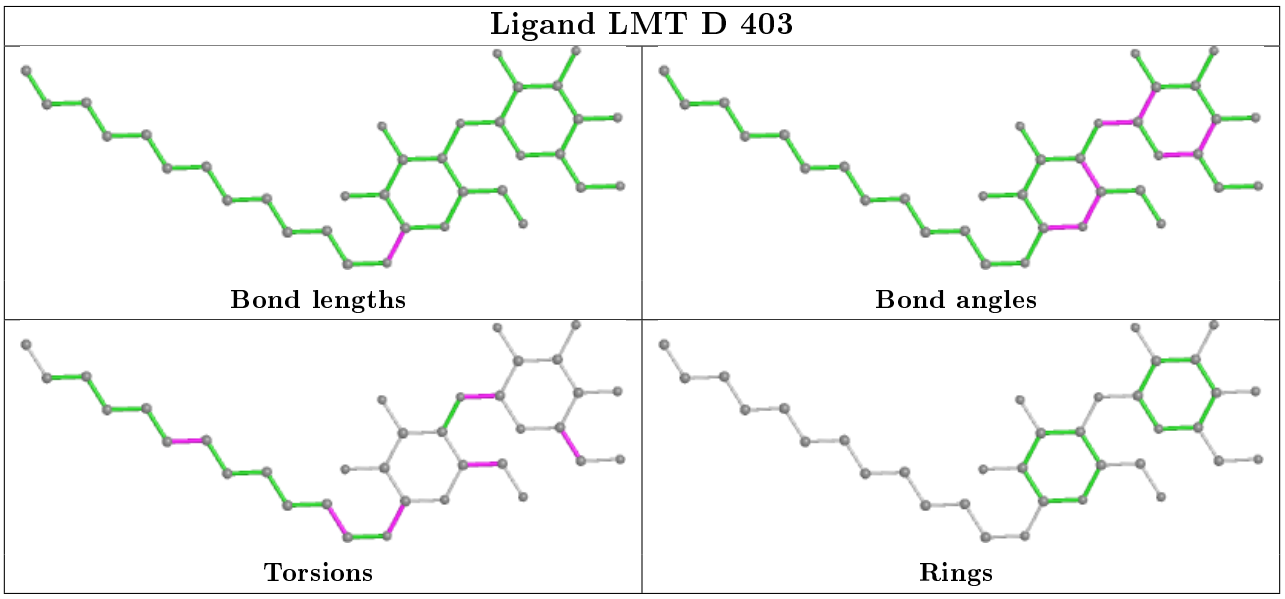
Ligand PHO a 407



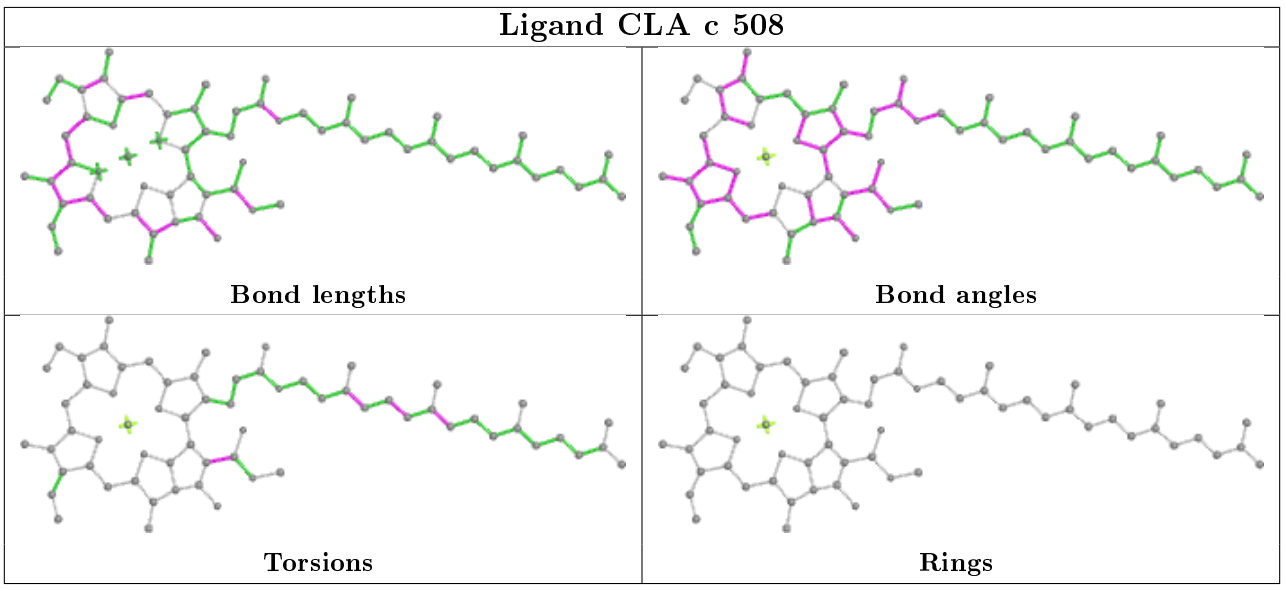
Ligand CLA A 405



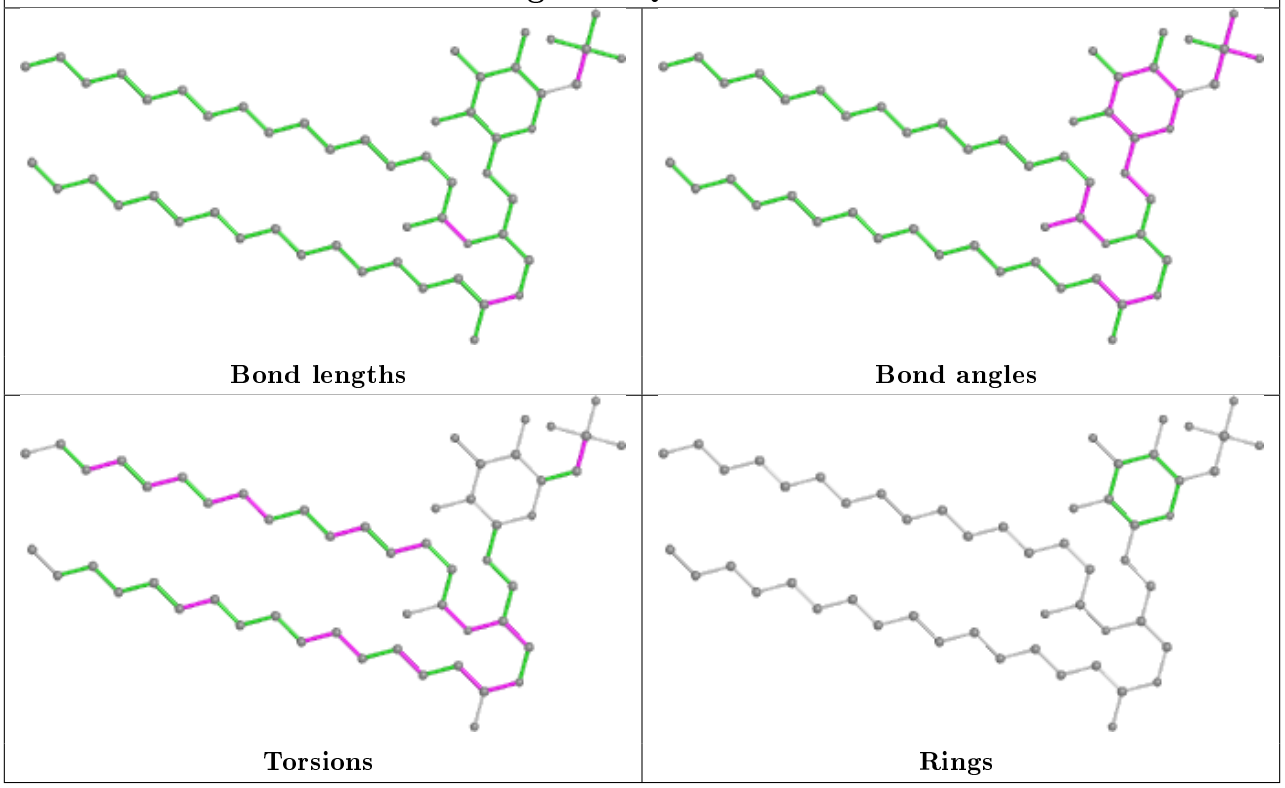
Ligand LMT D 403



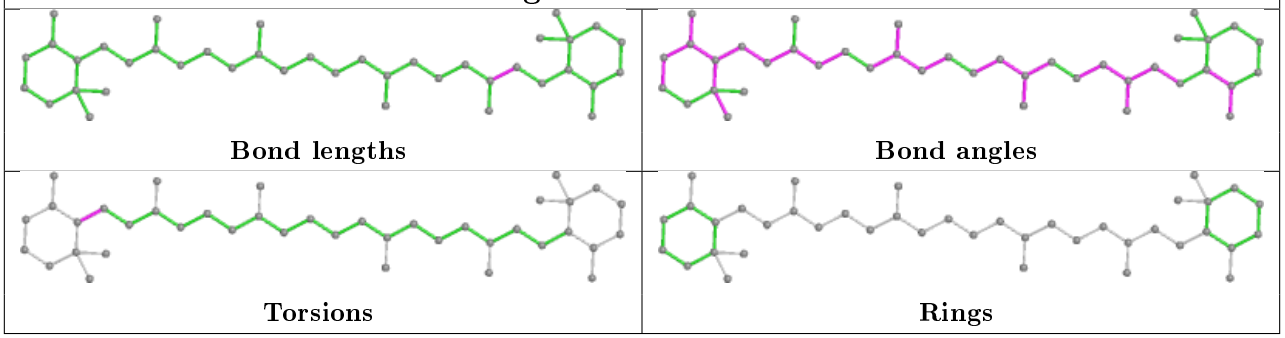
Ligand CLA c 508



Ligand SQD L 102



Ligand BCR A 408



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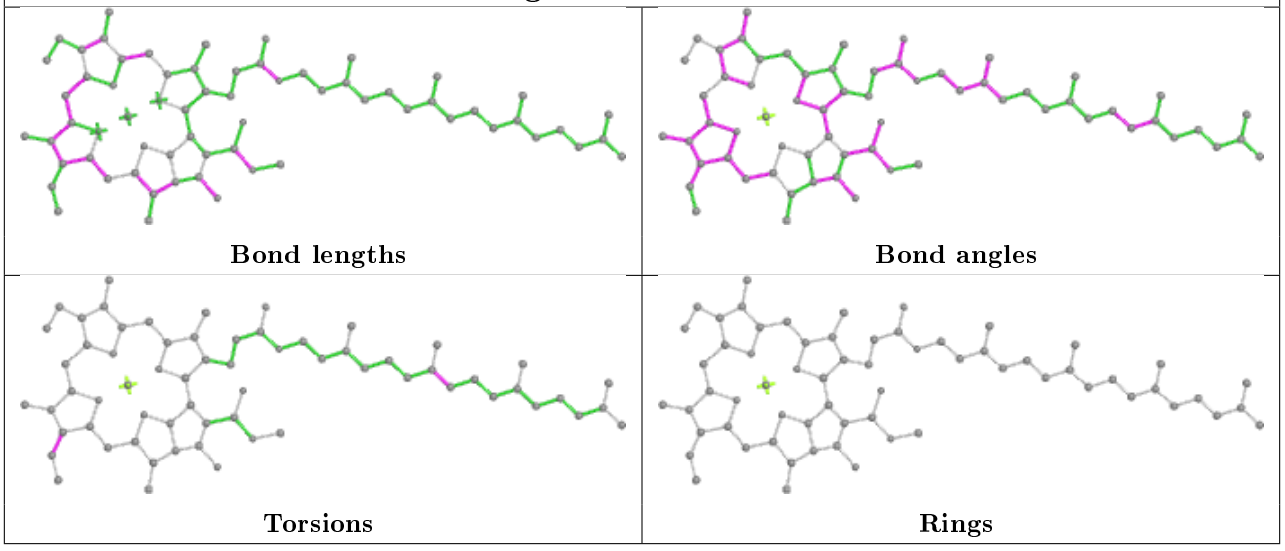
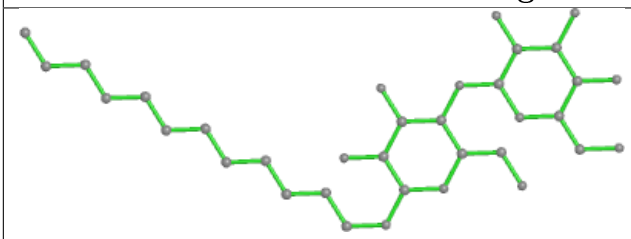
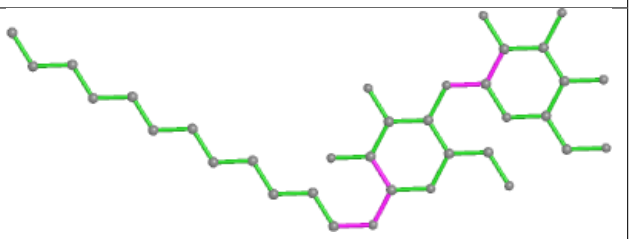


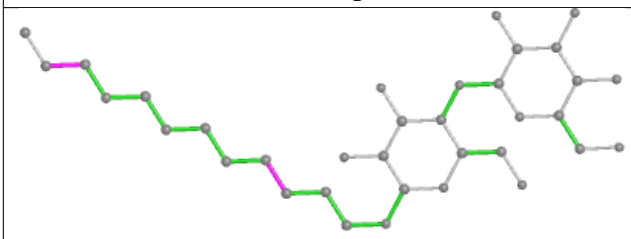
Ligand LMT M 101



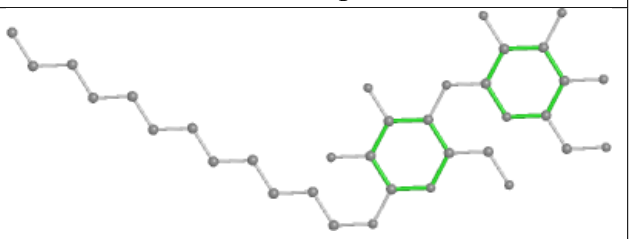
Bond lengths



Bond angles

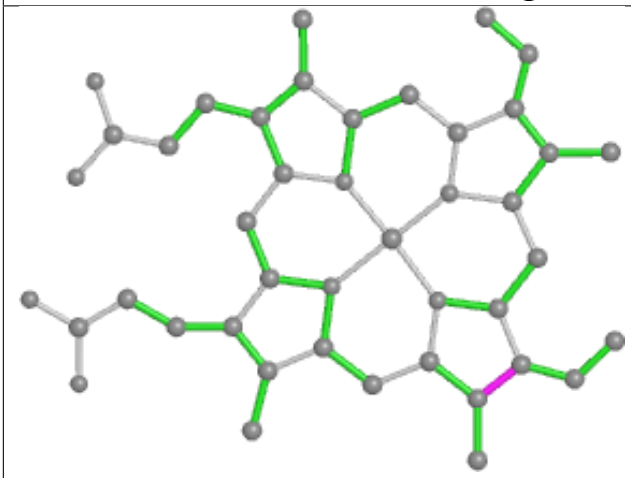


Torsions

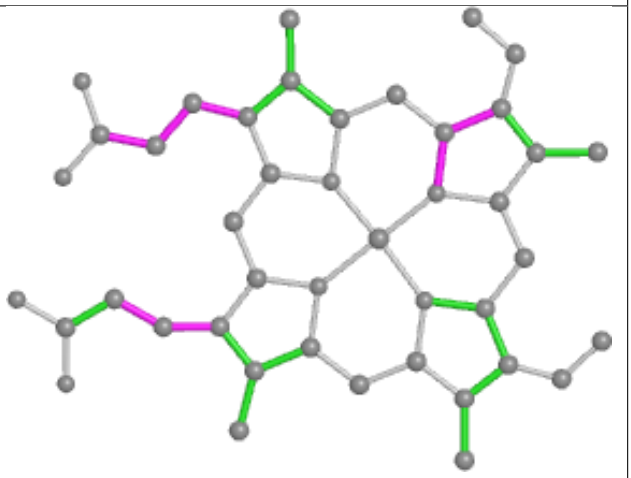


Rings

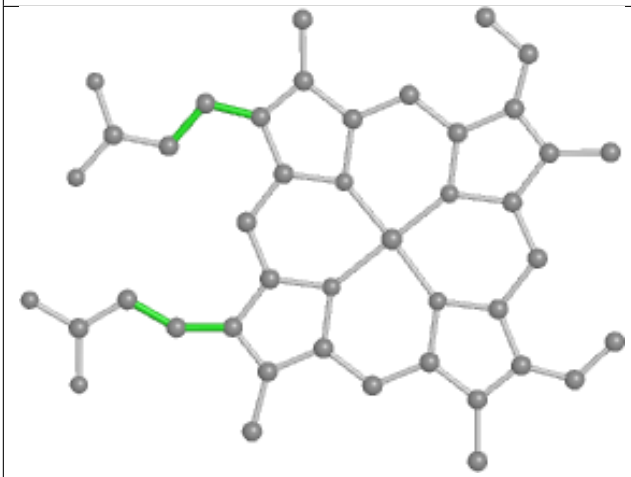
Ligand HEM E 103



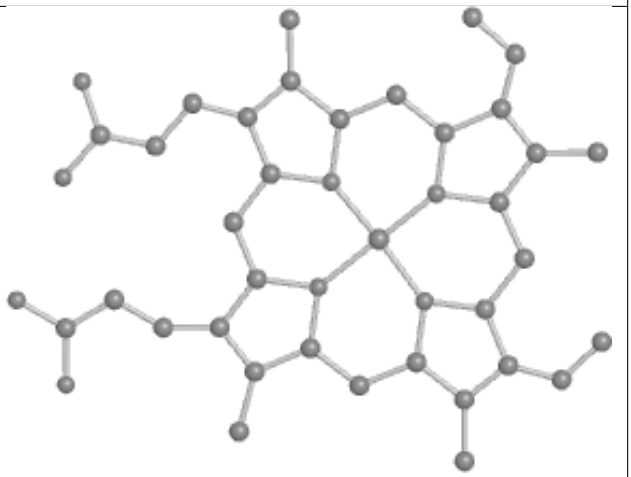
Bond lengths



Bond angles

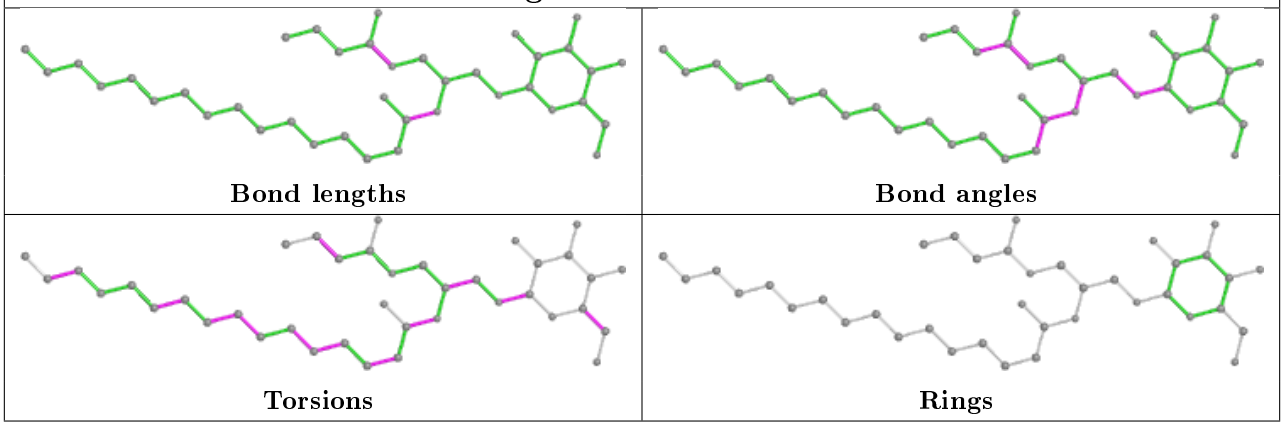


Torsions

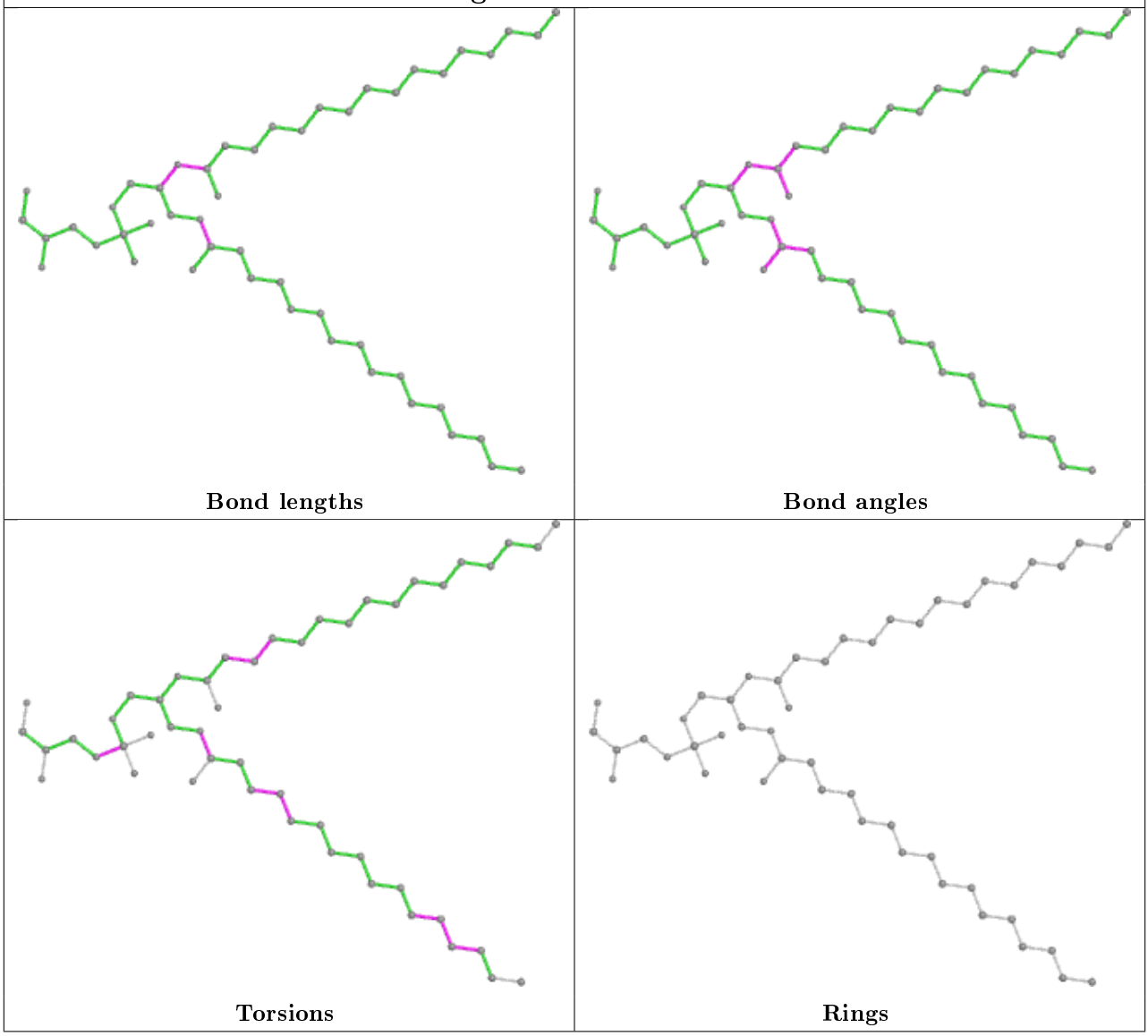


Rings

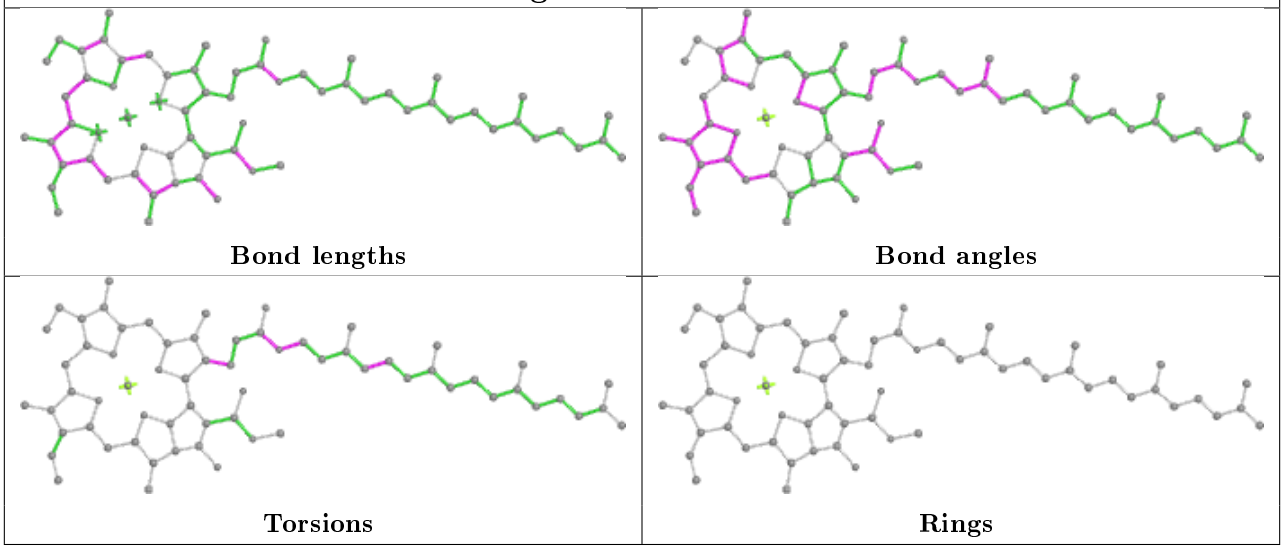
Ligand LMG z 101



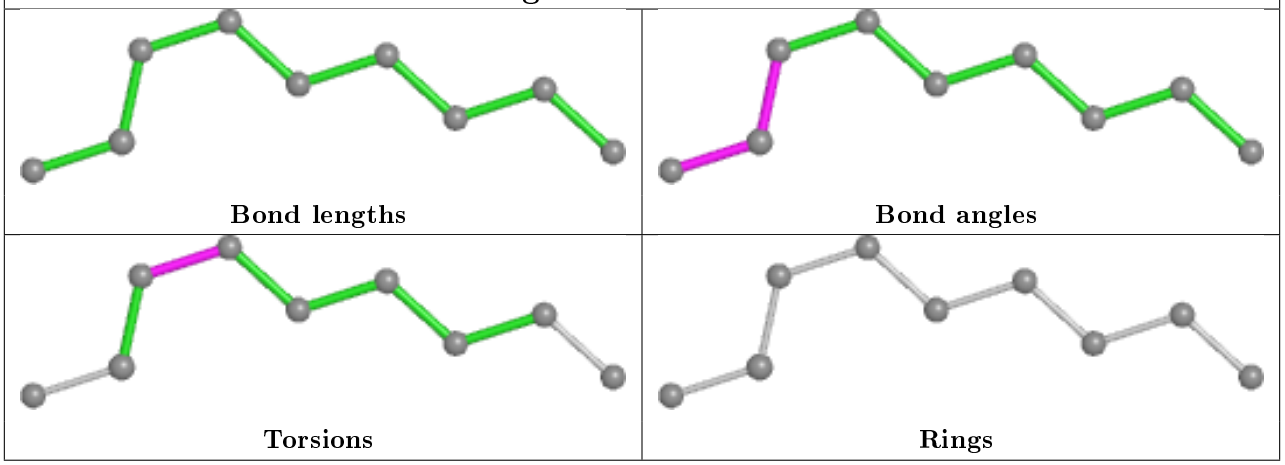
Ligand LHG d 406



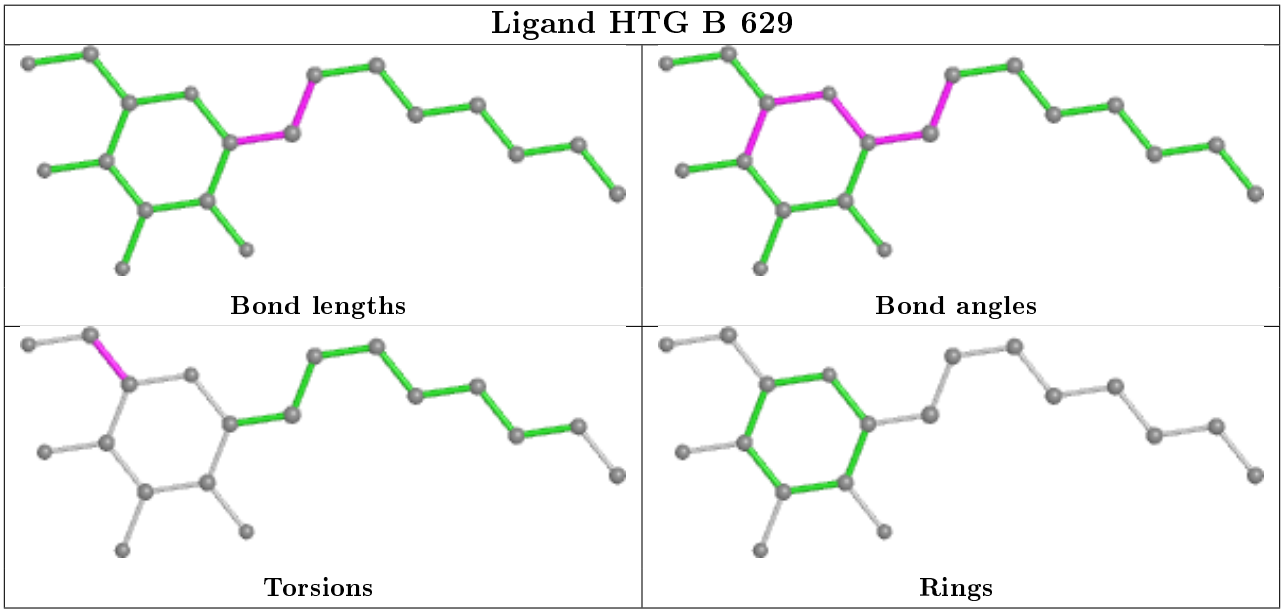
Ligand CLA c 511



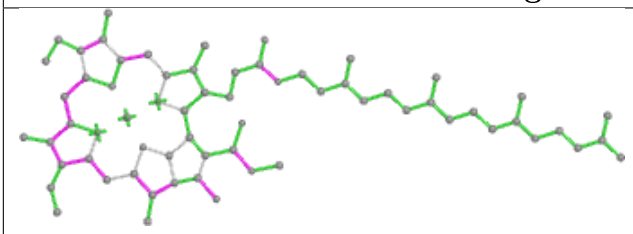
Ligand HTG C 524

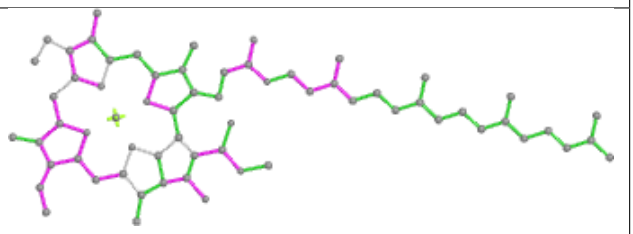


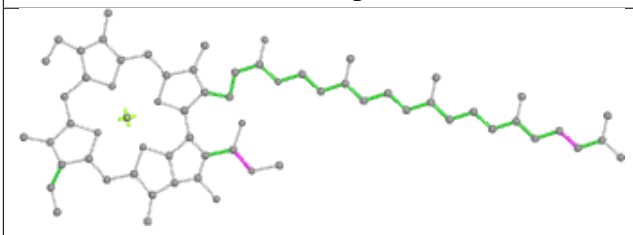
Ligand HTG B 629

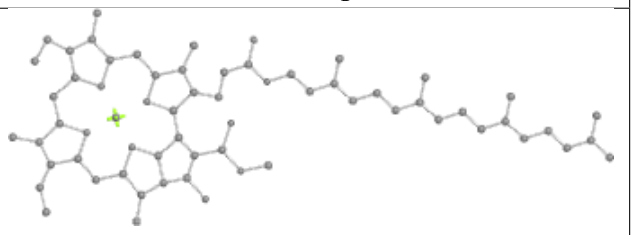


Ligand CLA C 504

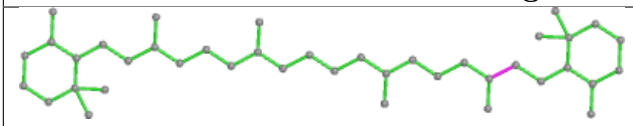

Bond lengths

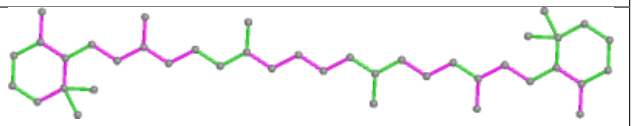

Bond angles

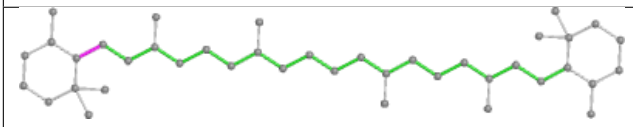

Torsions


Rings

Ligand BCR C 516

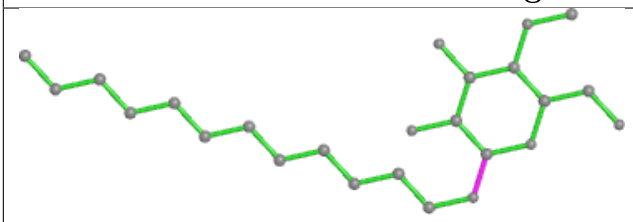

Bond lengths

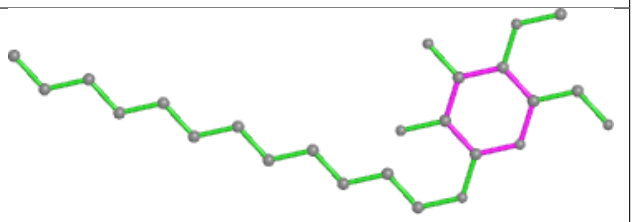

Bond angles

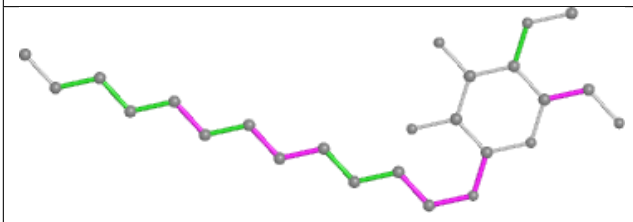

Torsions

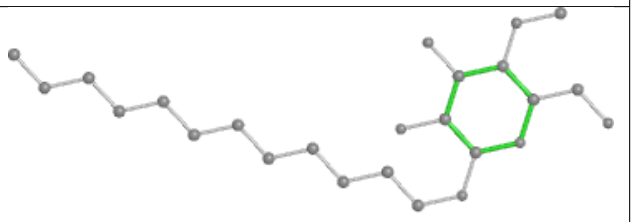

Rings

Ligand LMT b 628

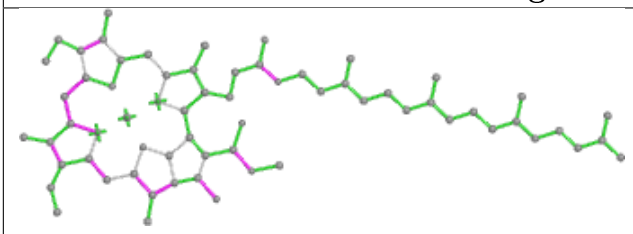

Bond lengths


Bond angles

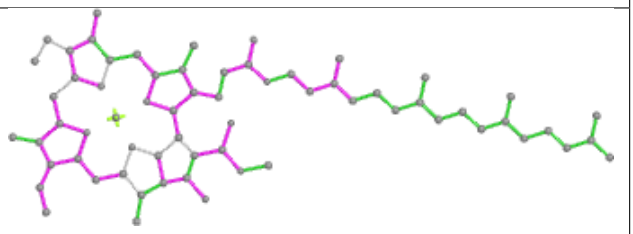

Torsions


Rings

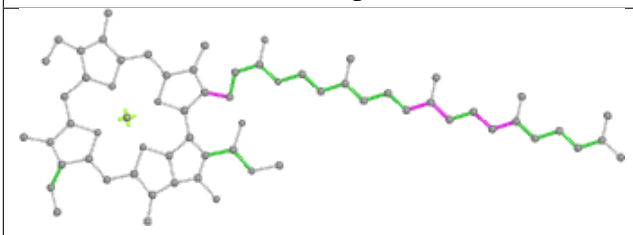
Ligand CLA a 406



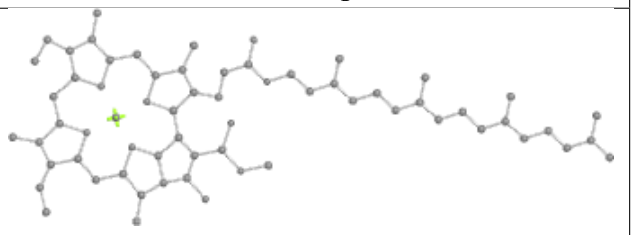
Bond lengths



Bond angles

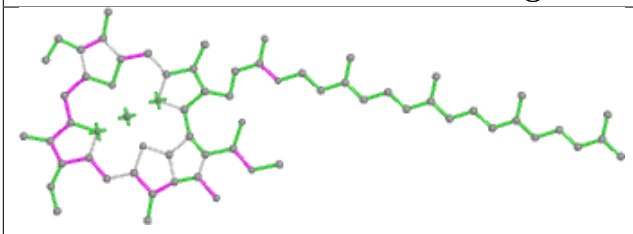


Torsions

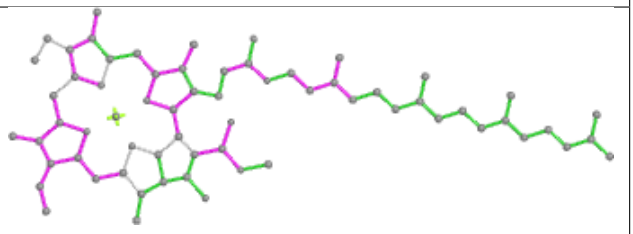


Rings

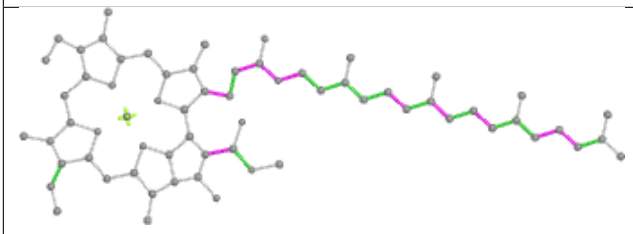
Ligand CLA B 602



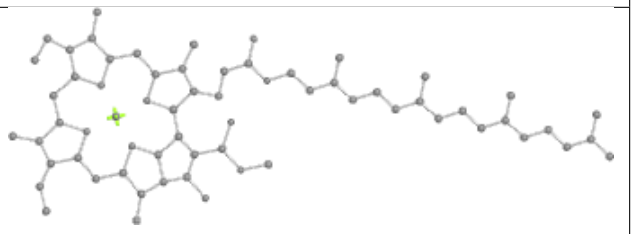
Bond lengths



Bond angles

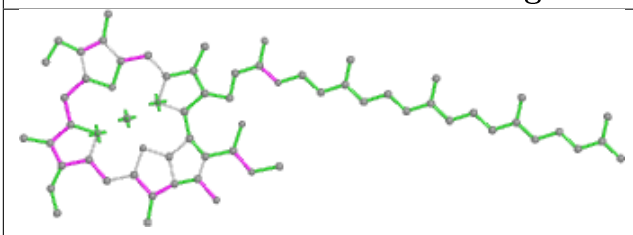


Torsions

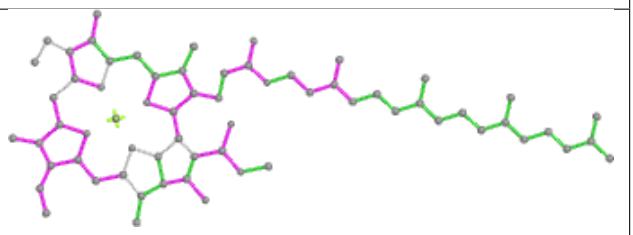


Rings

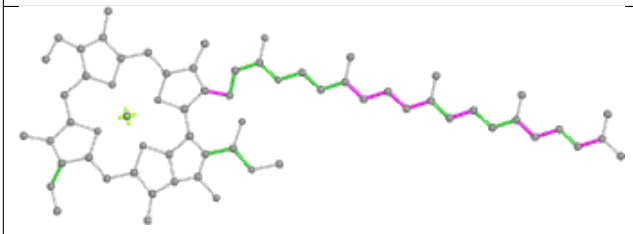
Ligand CLA C 507



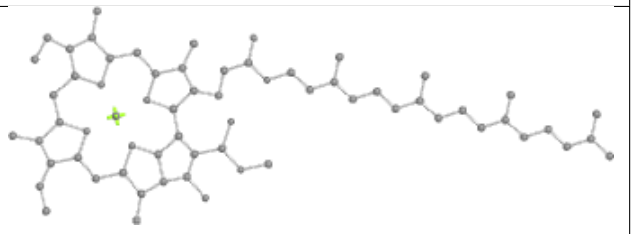
Bond lengths



Bond angles

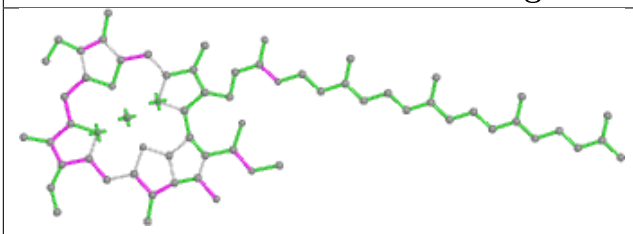


Torsions

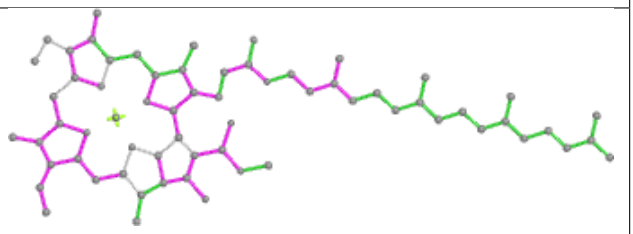


Rings

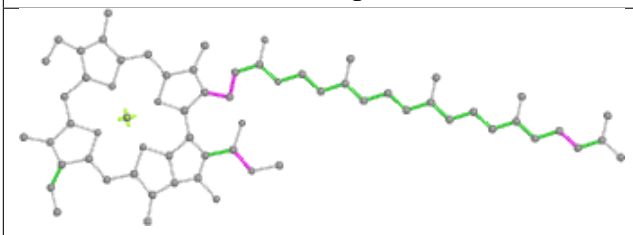
Ligand CLA C 502



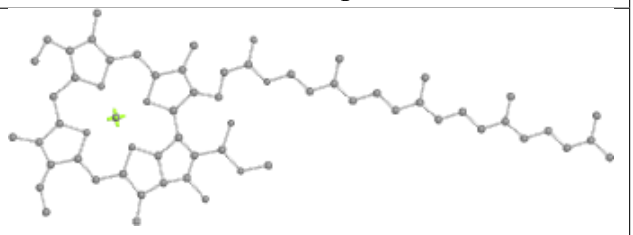
Bond lengths



Bond angles

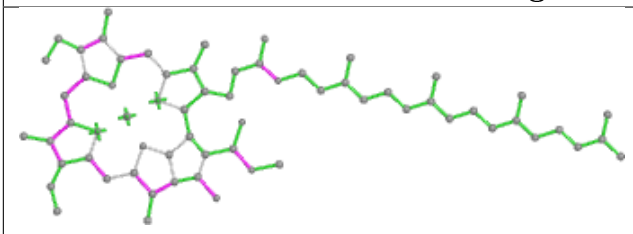


Torsions

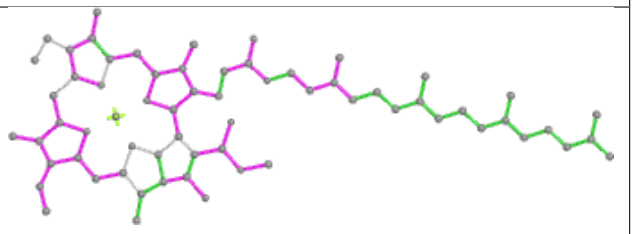


Rings

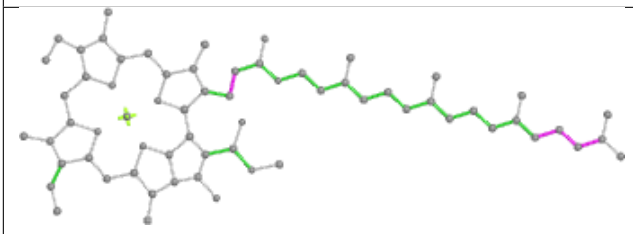
Ligand CLA a 404



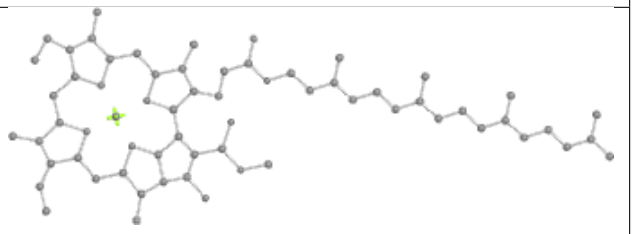
Bond lengths



Bond angles

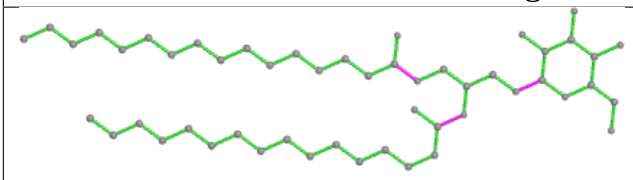


Torsions

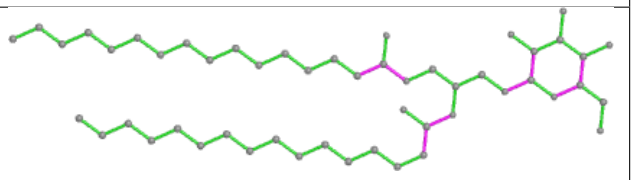


Rings

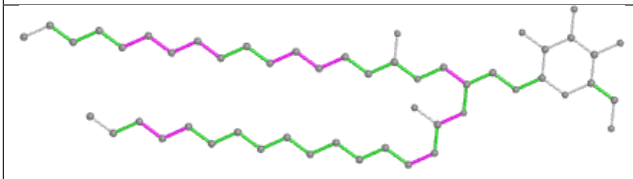
Ligand LMG a 417



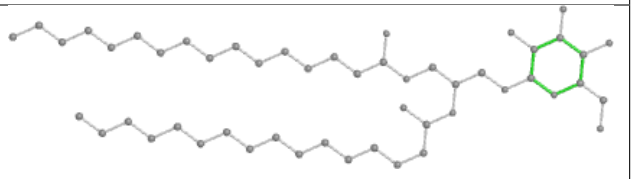
Bond lengths



Bond angles

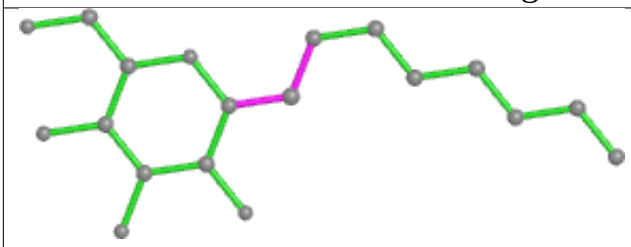


Torsions

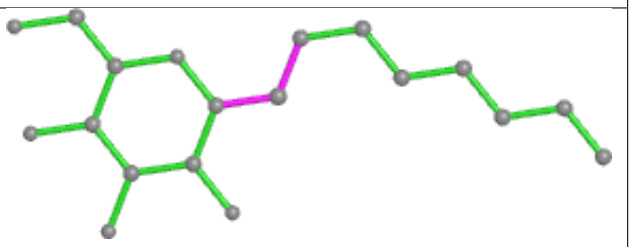


Rings

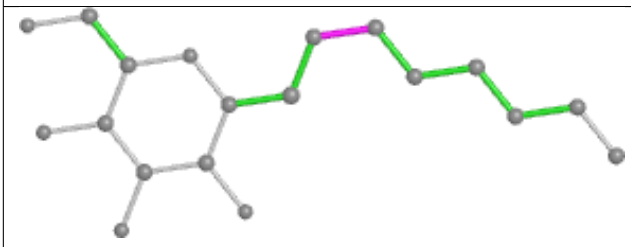
Ligand HTG B 630



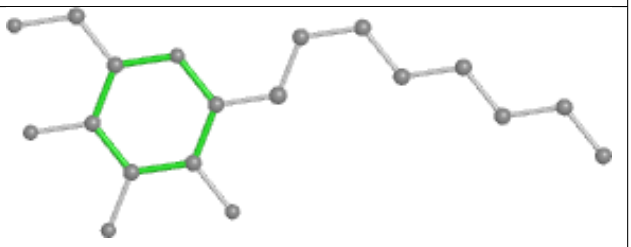
Bond lengths



Bond angles

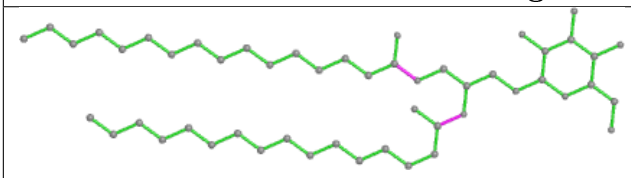


Torsions

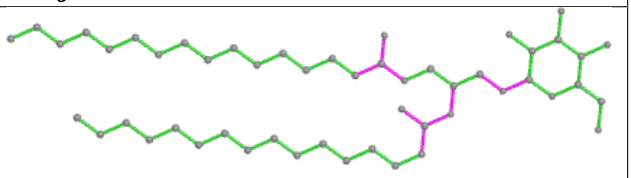


Rings

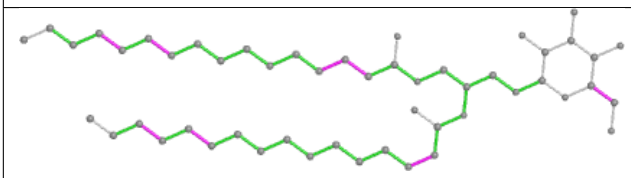
Ligand LMG j 101



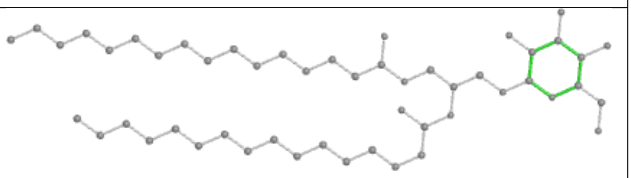
Bond lengths



Bond angles

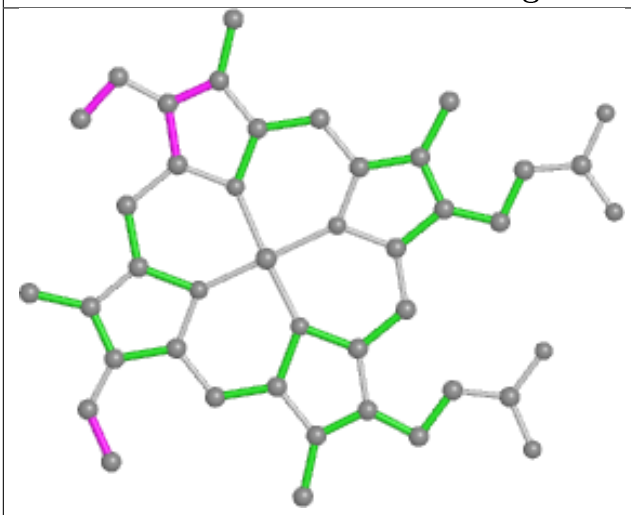


Torsions

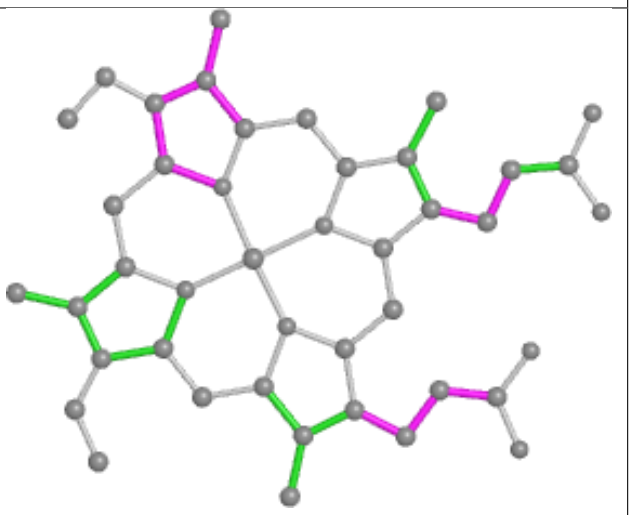


Rings

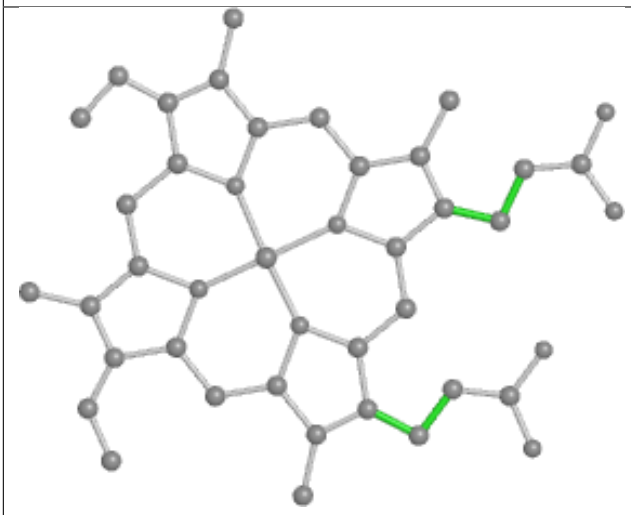
Ligand HEC V 202



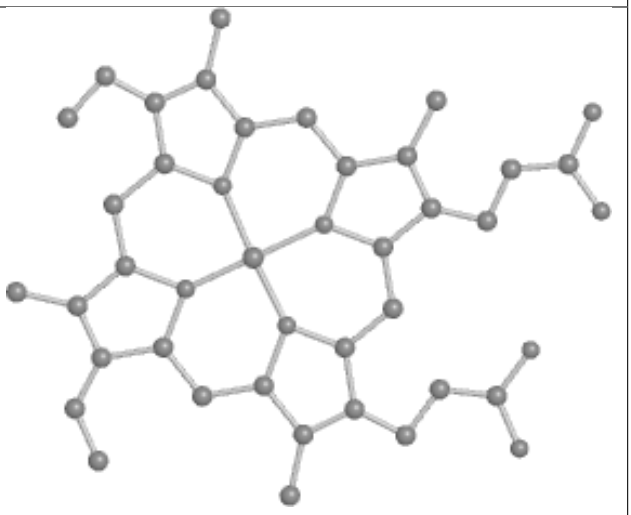
Bond lengths



Bond angles

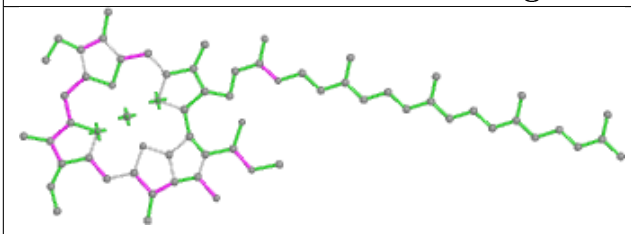


Torsions

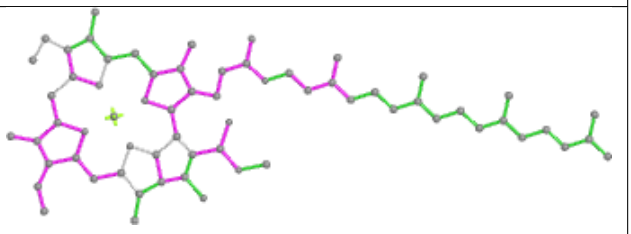


Rings

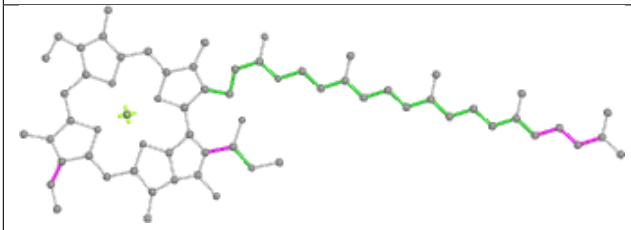
Ligand CLA D 401



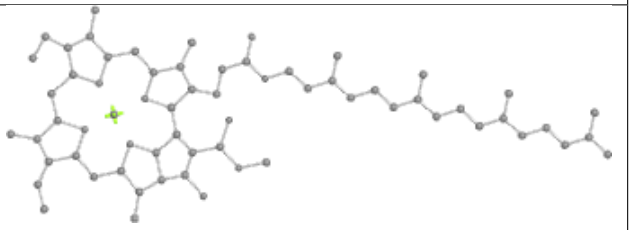
Bond lengths



Bond angles

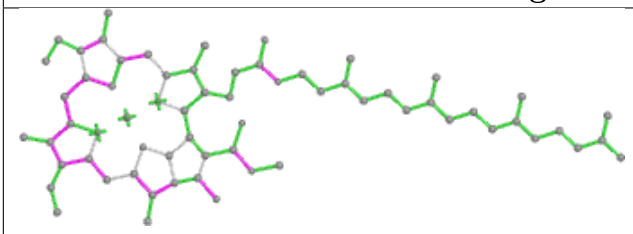


Torsions

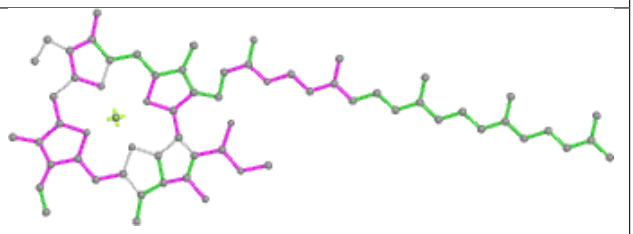


Rings

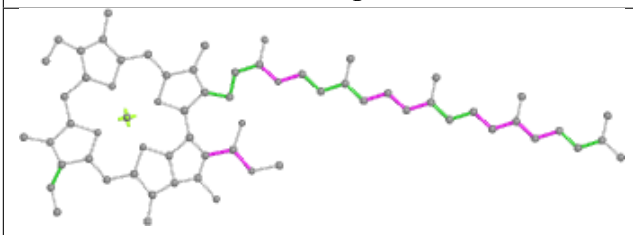
Ligand CLA c 509



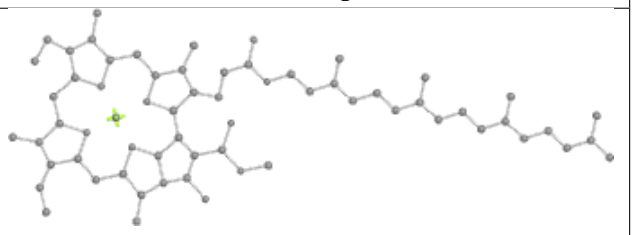
Bond lengths



Bond angles

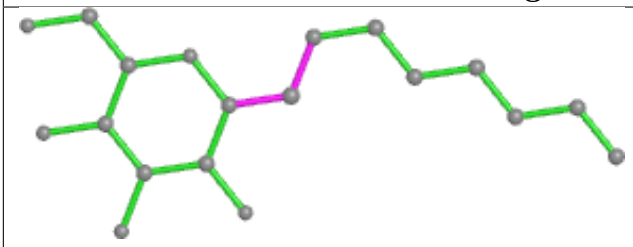


Torsions

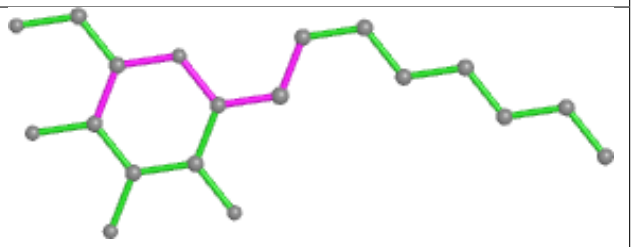


Rings

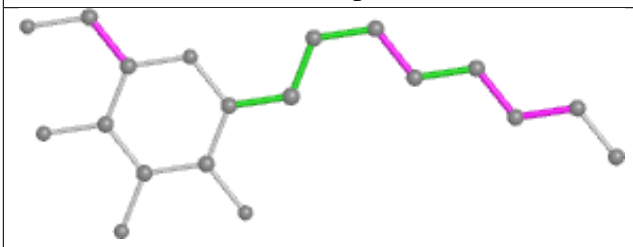
Ligand HTG b 625



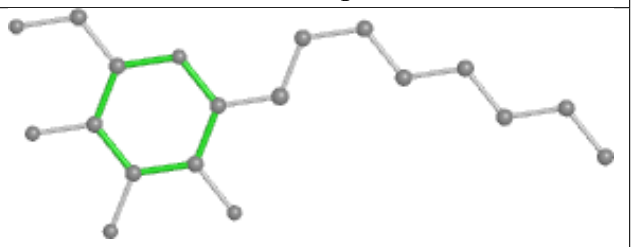
Bond lengths



Bond angles

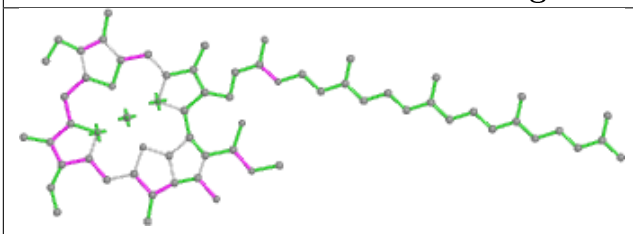


Torsions

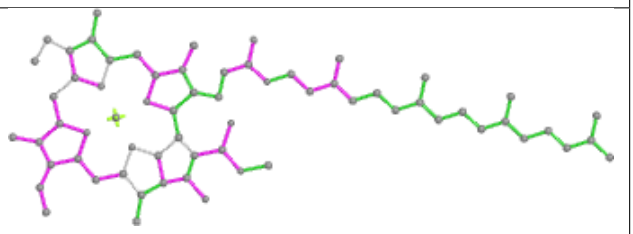


Rings

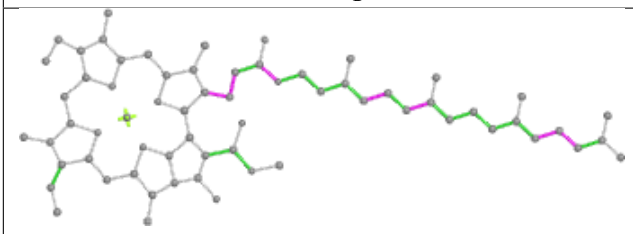
Ligand CLA c 512



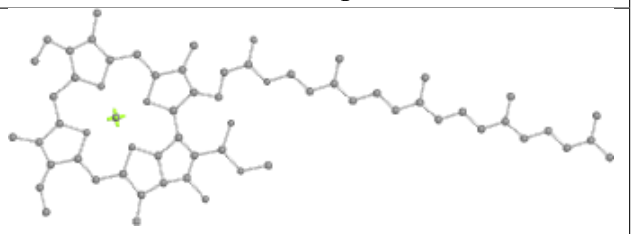
Bond lengths



Bond angles

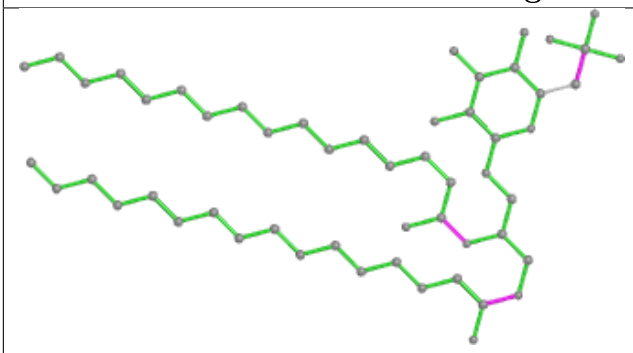


Torsions

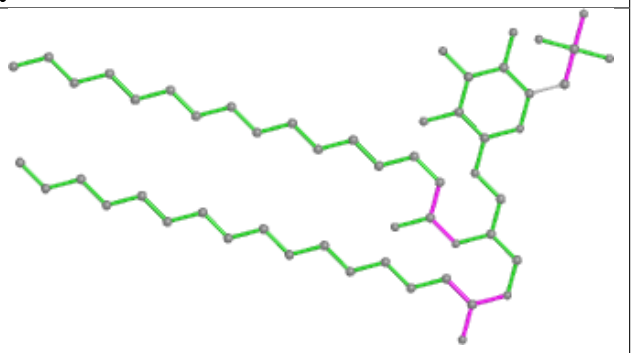


Rings

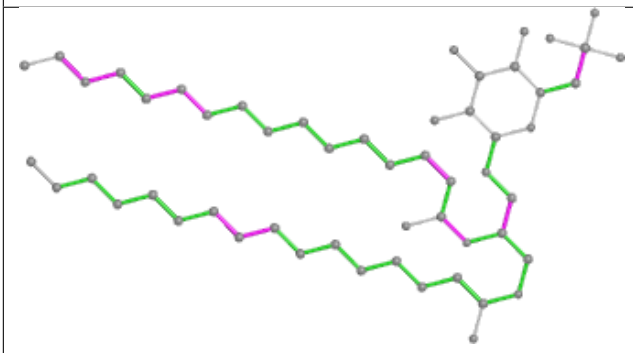
Ligand SQD A 411



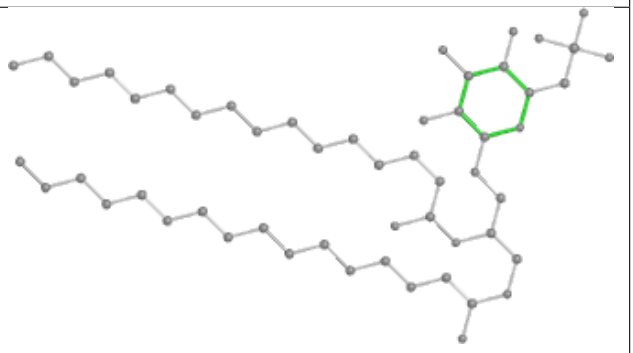
Bond lengths



Bond angles

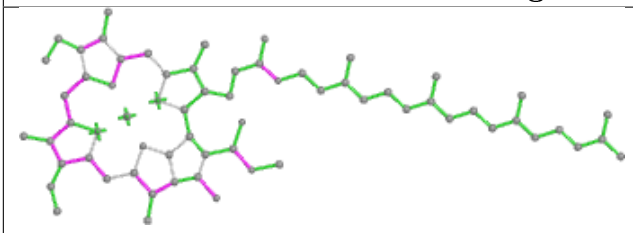


Torsions

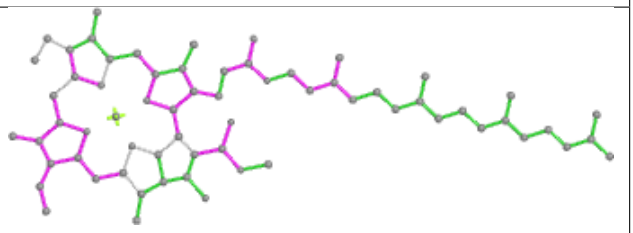


Rings

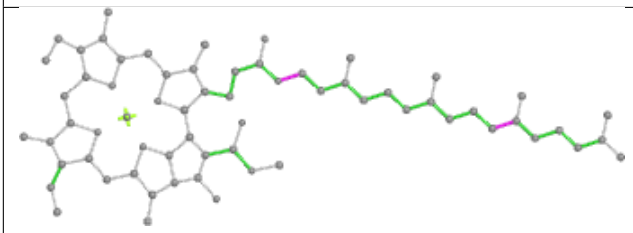
Ligand CLA d 402



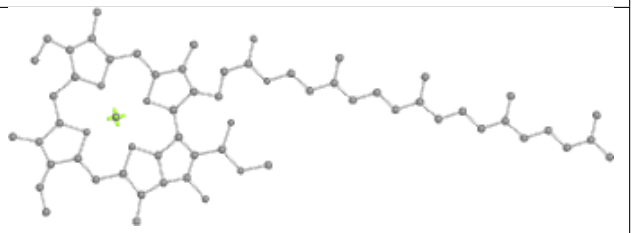
Bond lengths



Bond angles

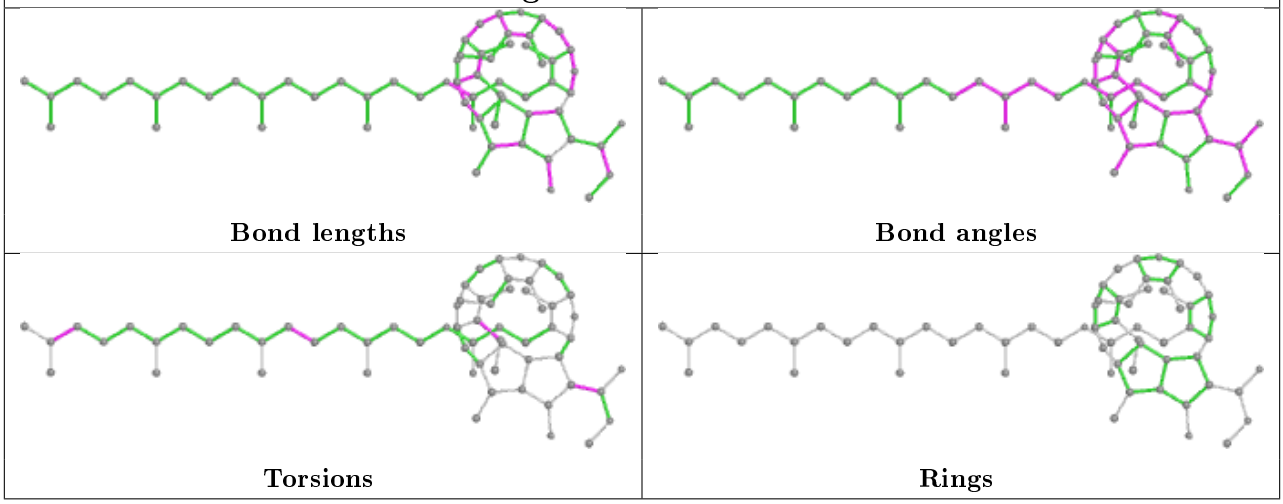


Torsions

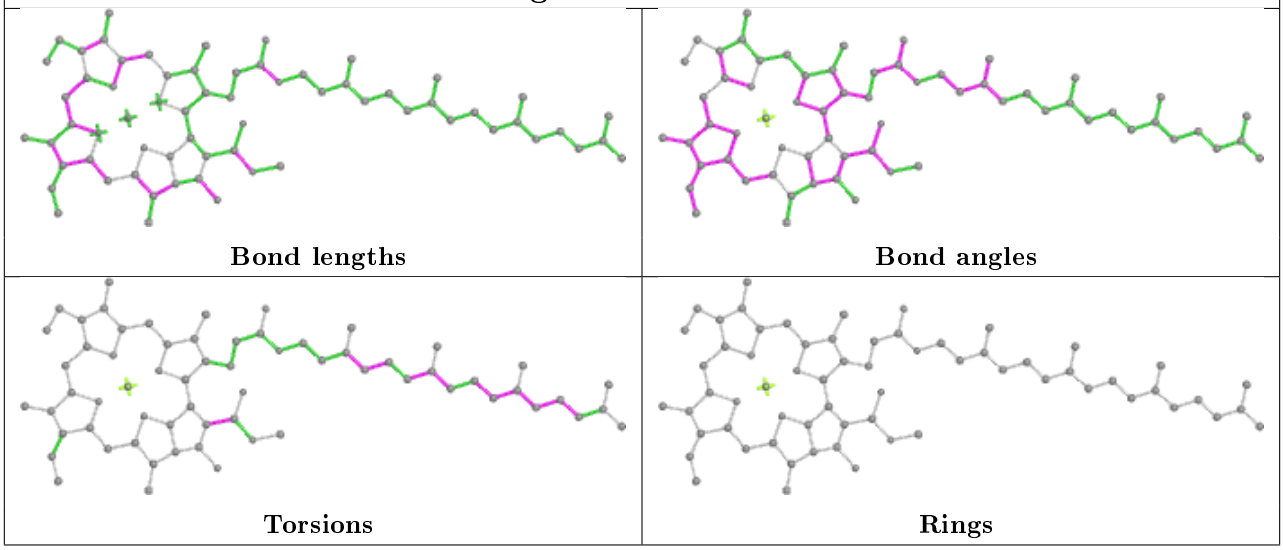


Rings

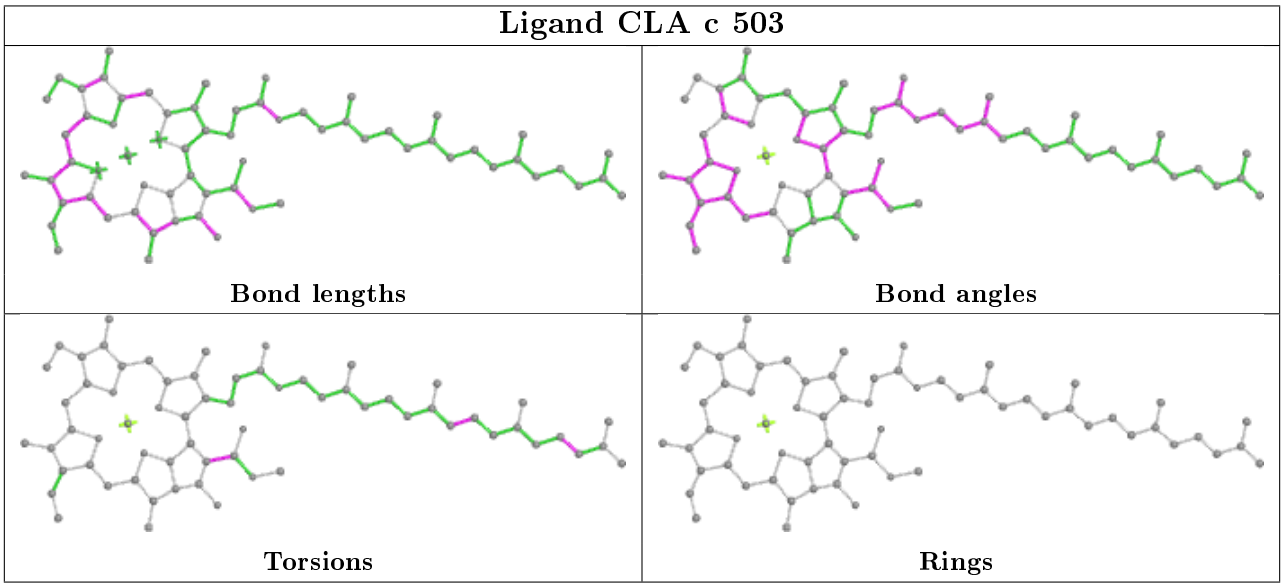
Ligand PHO D 402



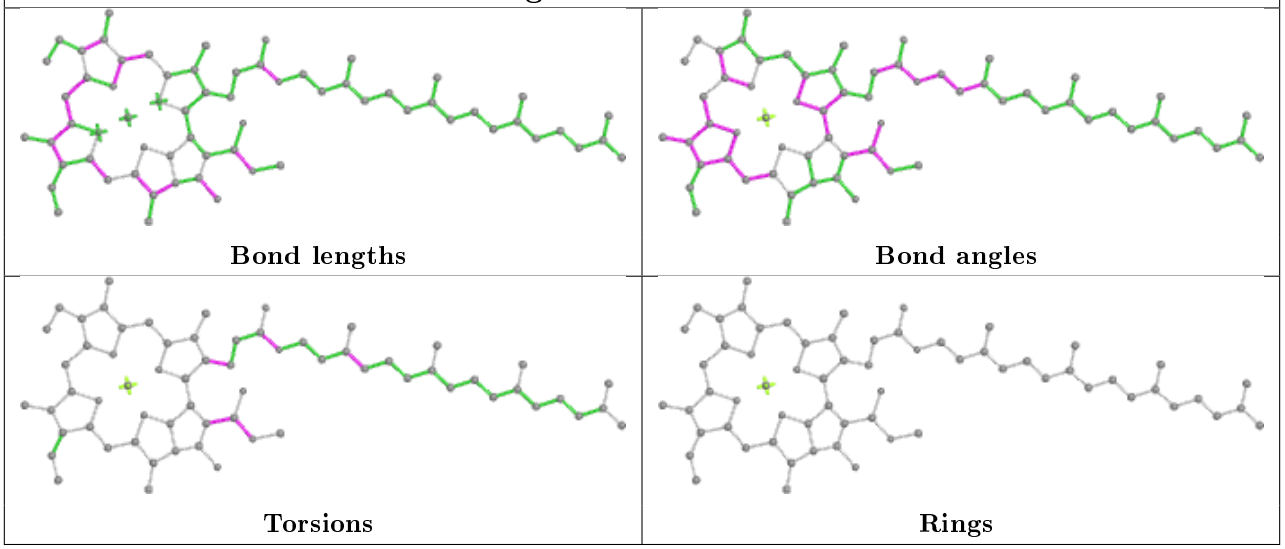
Ligand CLA c 506



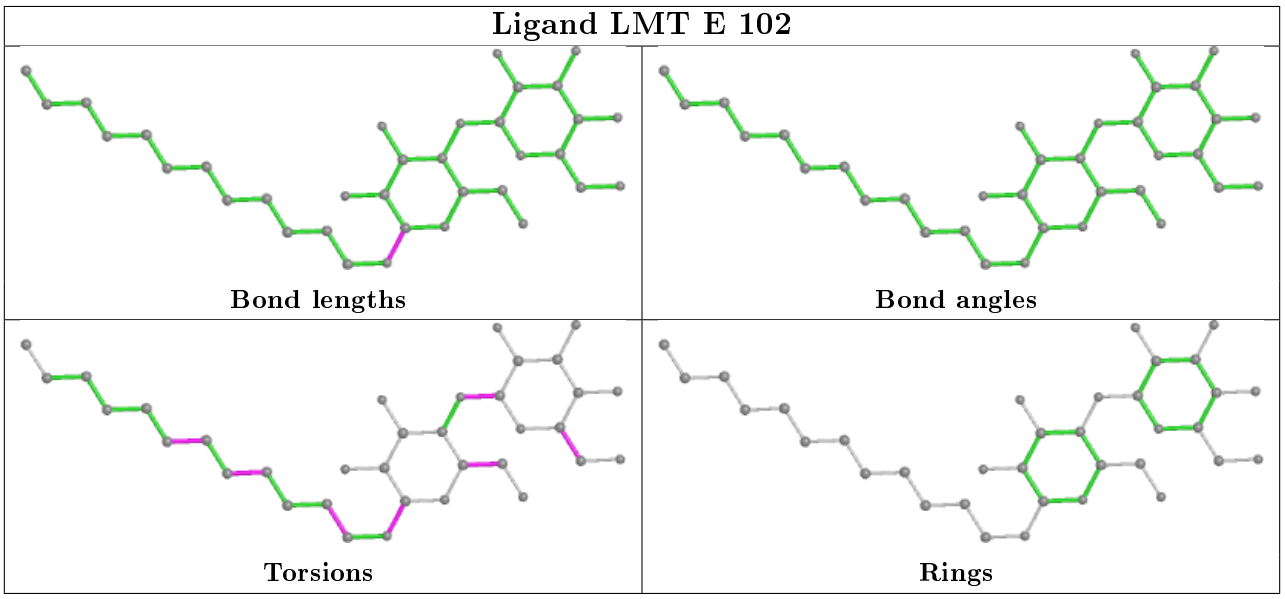
Ligand CLA c 503



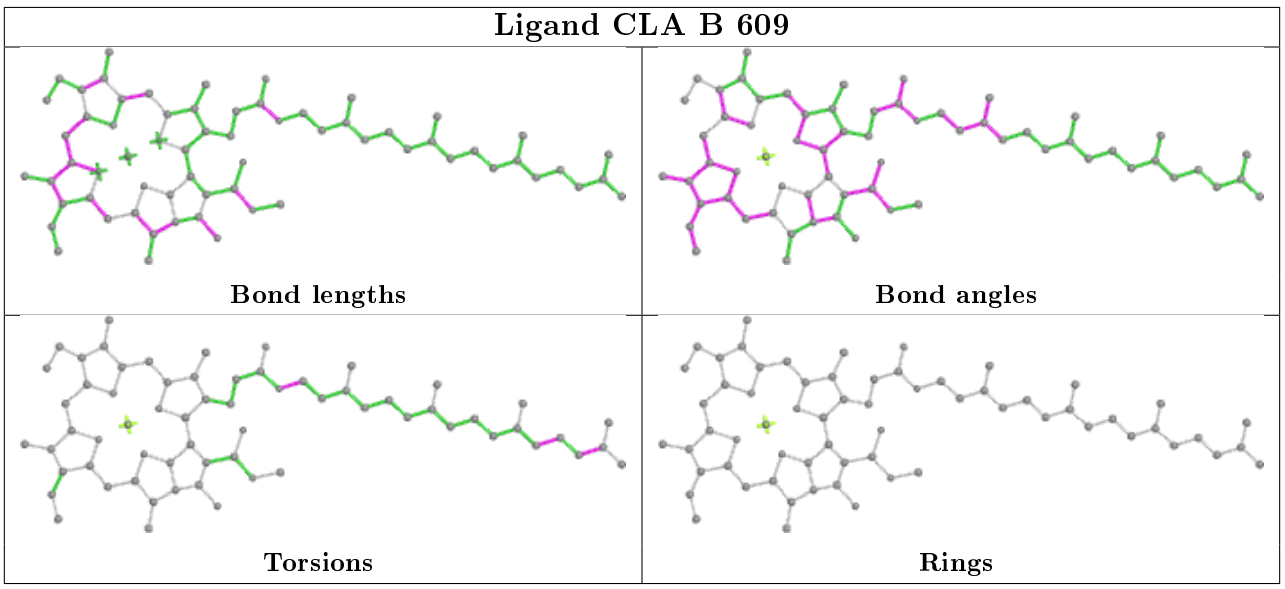
Ligand CLA B 610



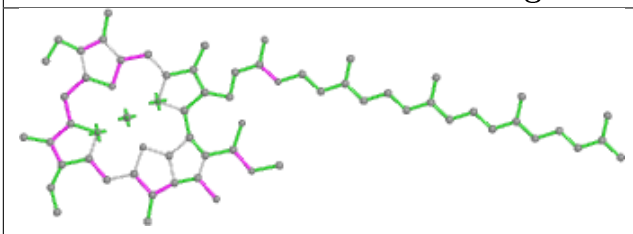
Ligand LMT E 102



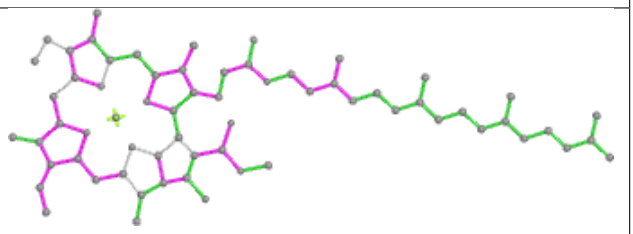
Ligand CLA B 609



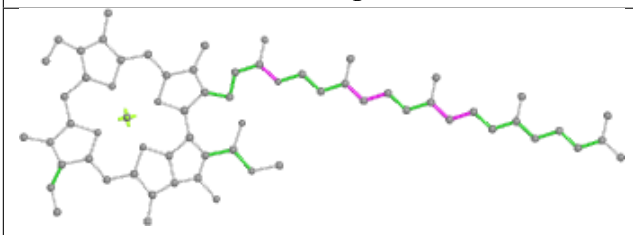
Ligand CLA A 407



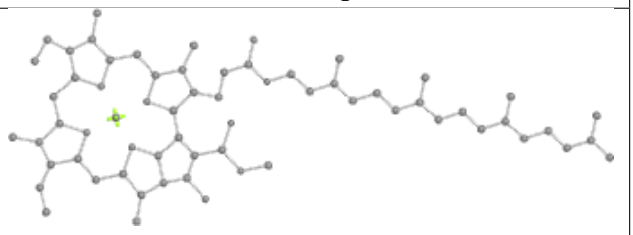
Bond lengths



Bond angles

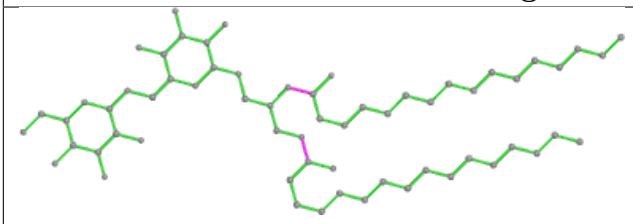


Torsions

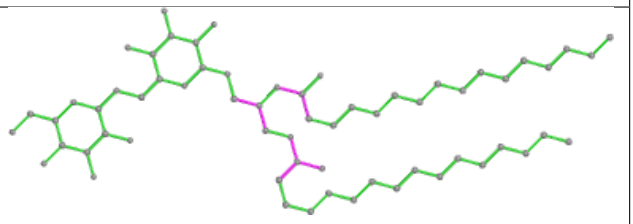


Rings

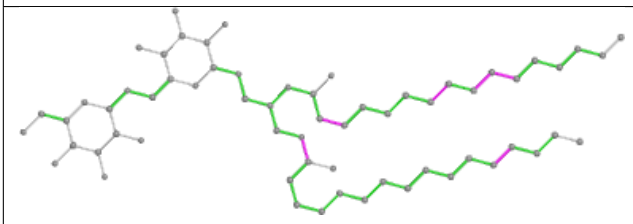
Ligand DGD C 519



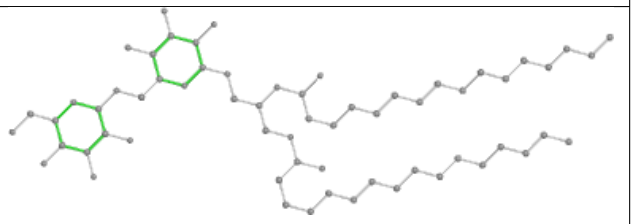
Bond lengths



Bond angles

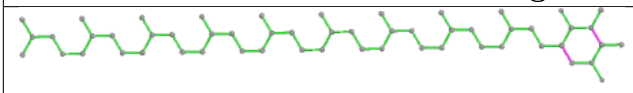


Torsions

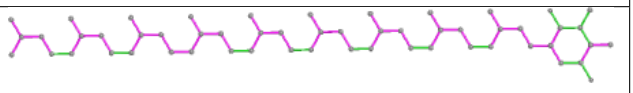


Rings

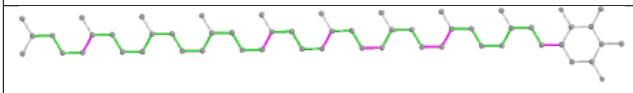
Ligand PL9 A 413



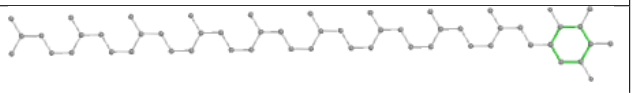
Bond lengths



Bond angles

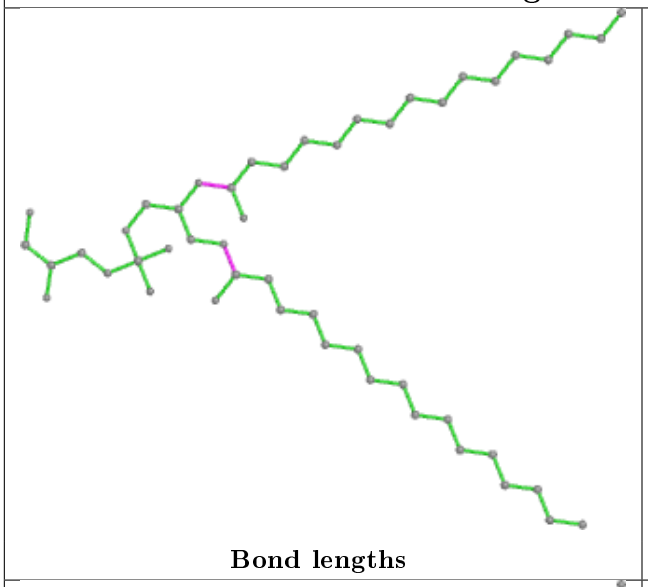


Torsions

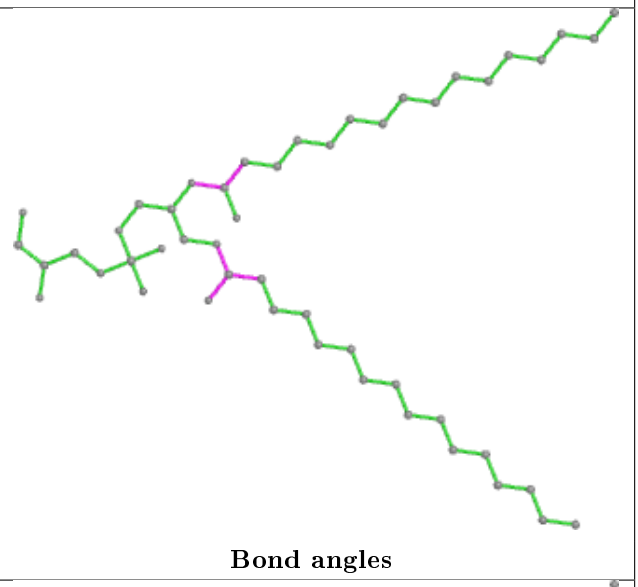


Rings

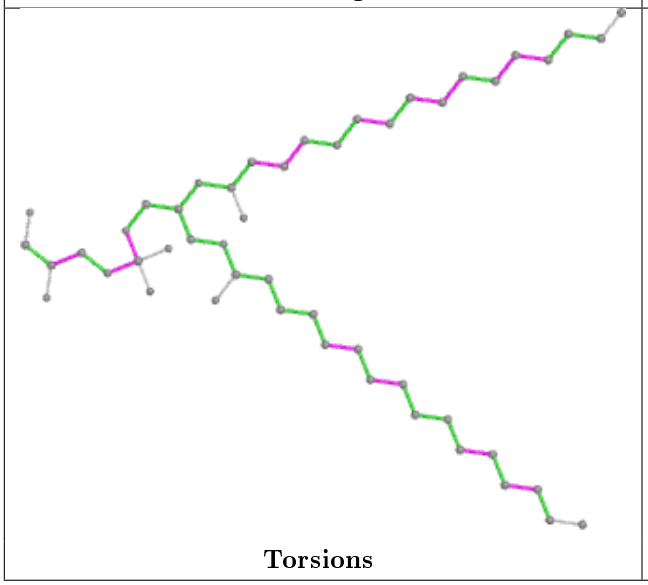
Ligand LHG D 408



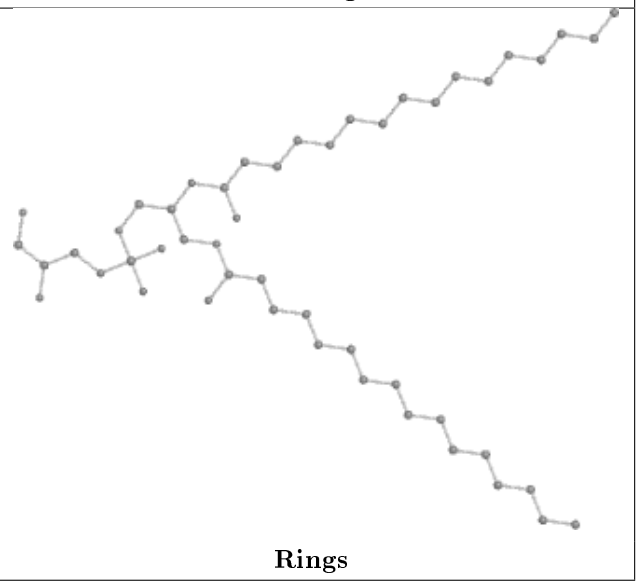
Bond lengths



Bond angles

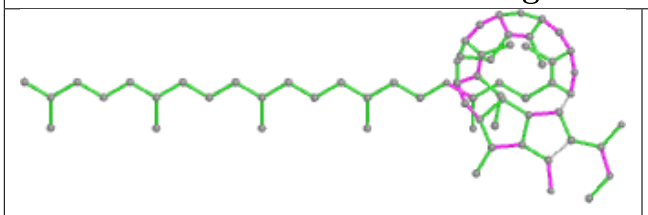


Torsions

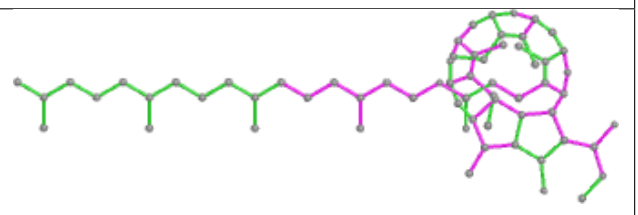


Rings

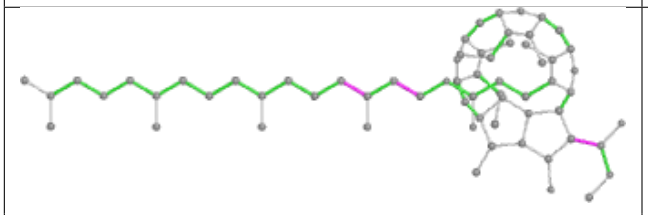
Ligand PHO A 406



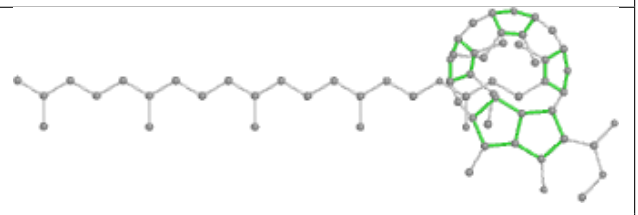
Bond lengths



Bond angles

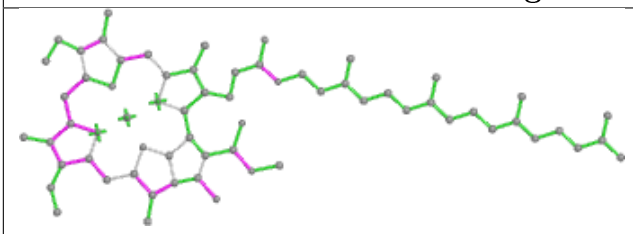


Torsions

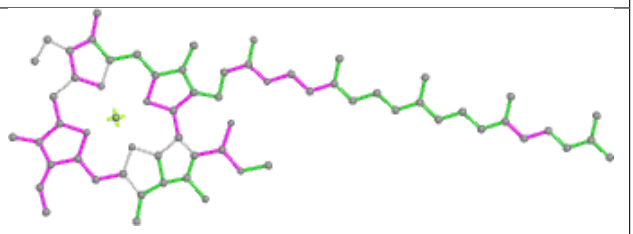


Rings

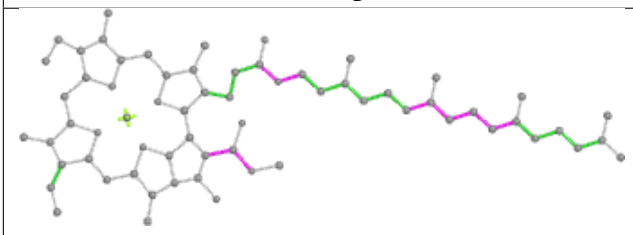
Ligand CLA C 510



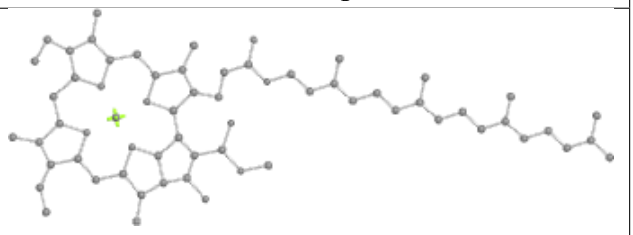
Bond lengths



Bond angles

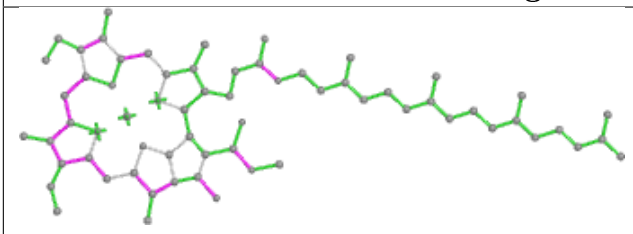


Torsions

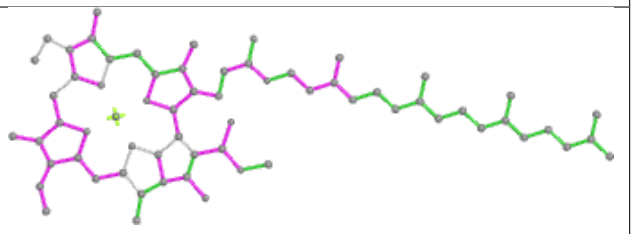


Rings

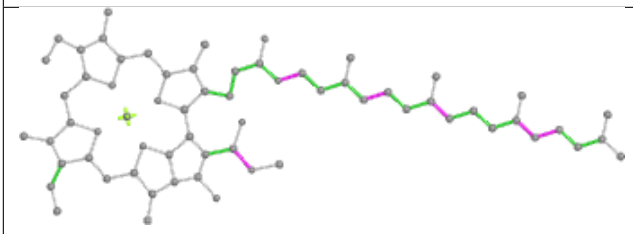
Ligand CLA C 514



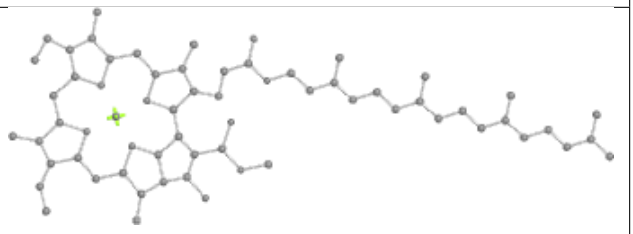
Bond lengths



Bond angles

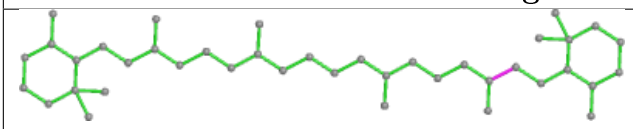


Torsions

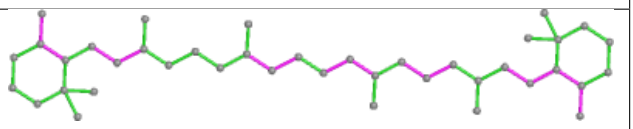


Rings

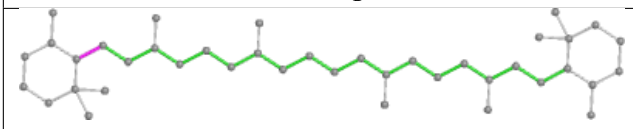
Ligand BCR C 515



Bond lengths



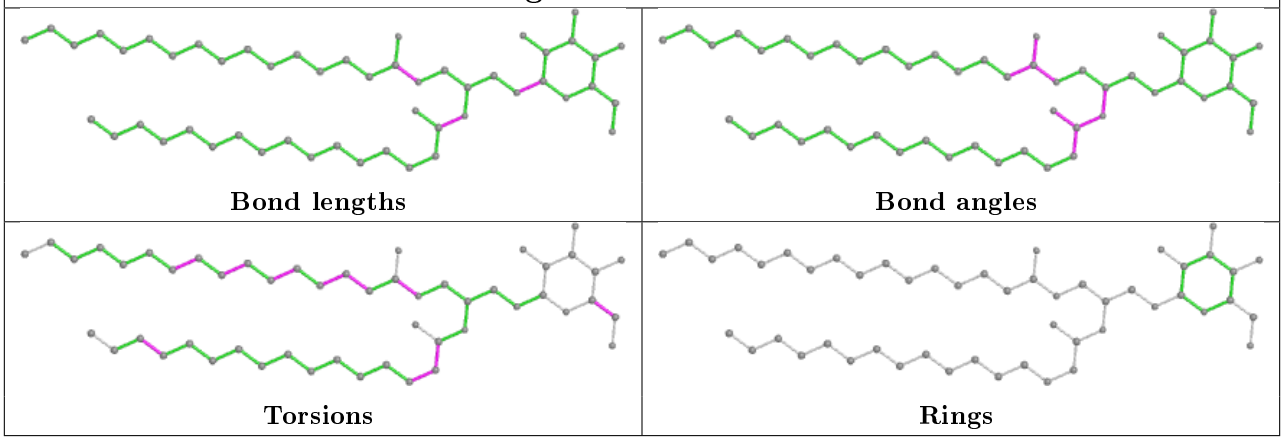
Bond angles



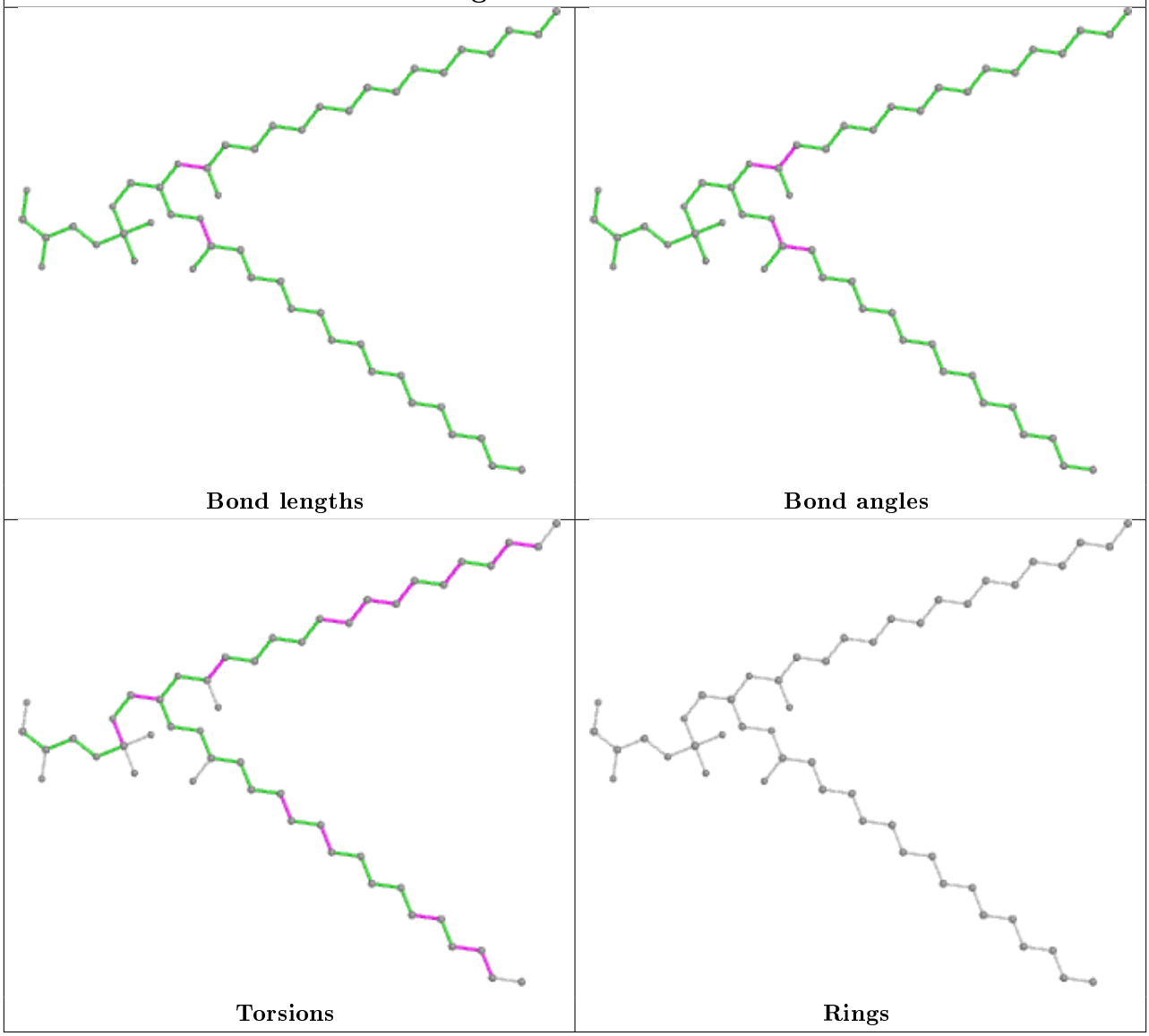
Torsions

Rings

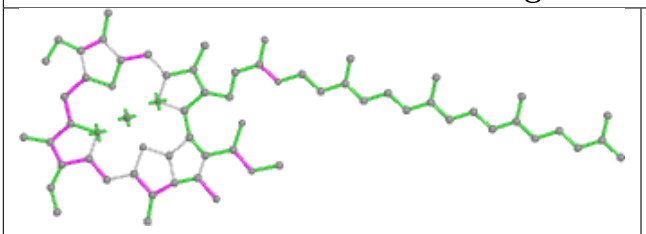
Ligand LMG c 519



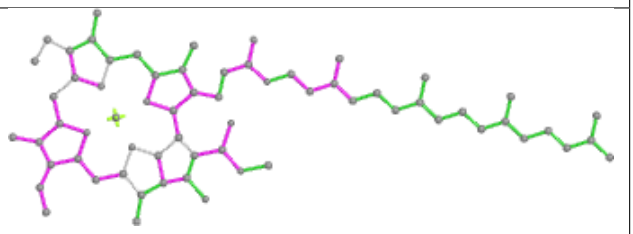
Ligand LHG b 630



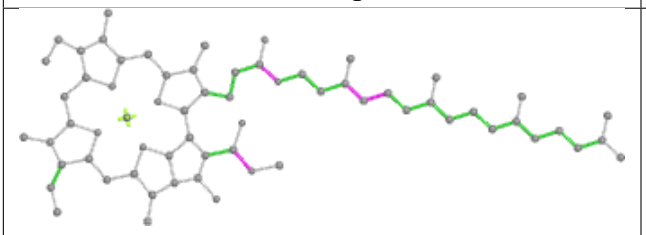
Ligand CLA B 604



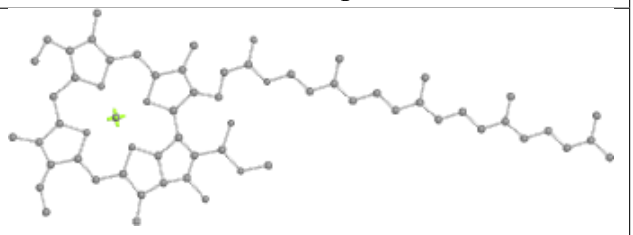
Bond lengths



Bond angles

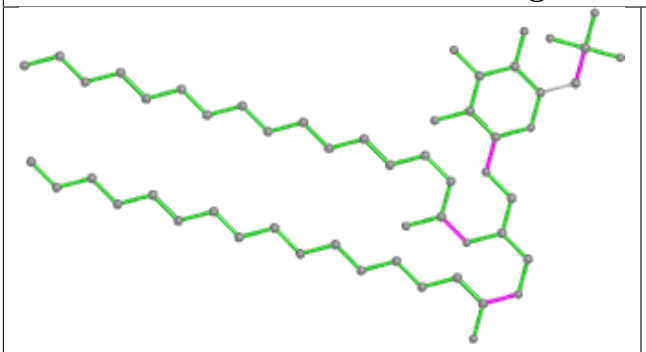


Torsions



Rings

Ligand SQD a 413



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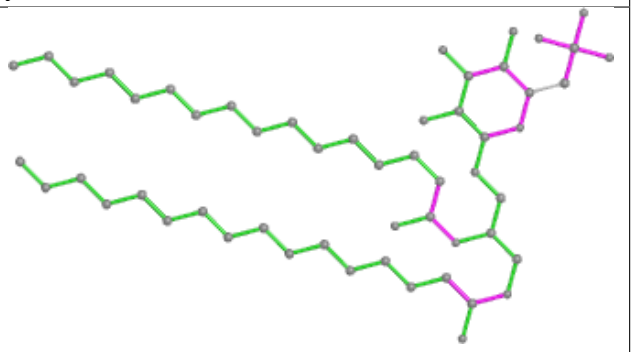
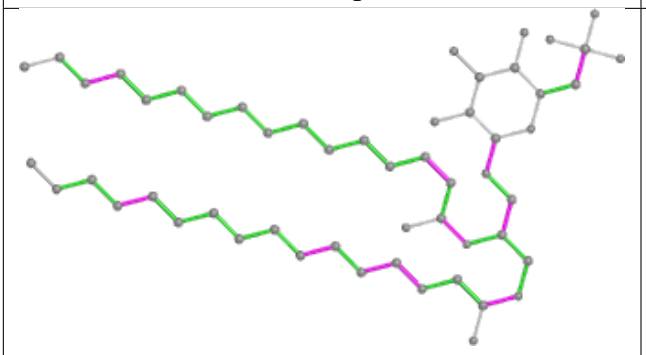
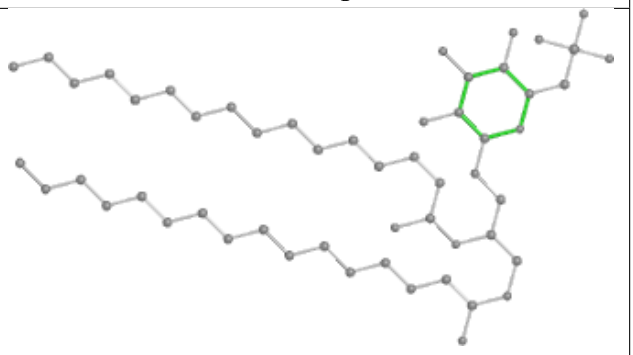


Bond angles

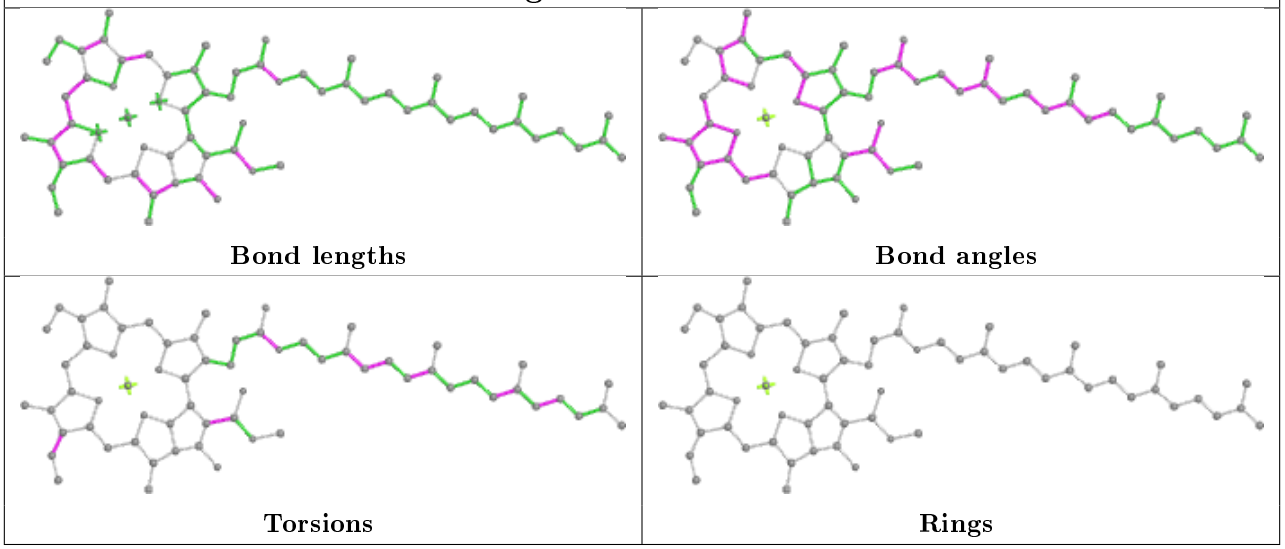


Torsions

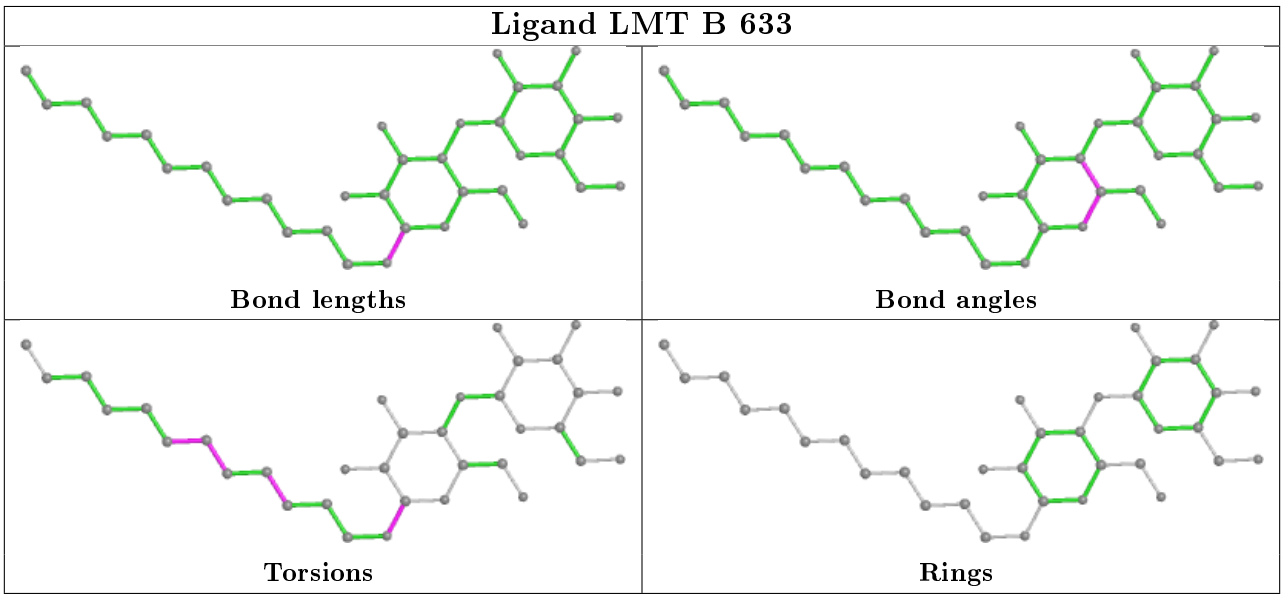


Rings

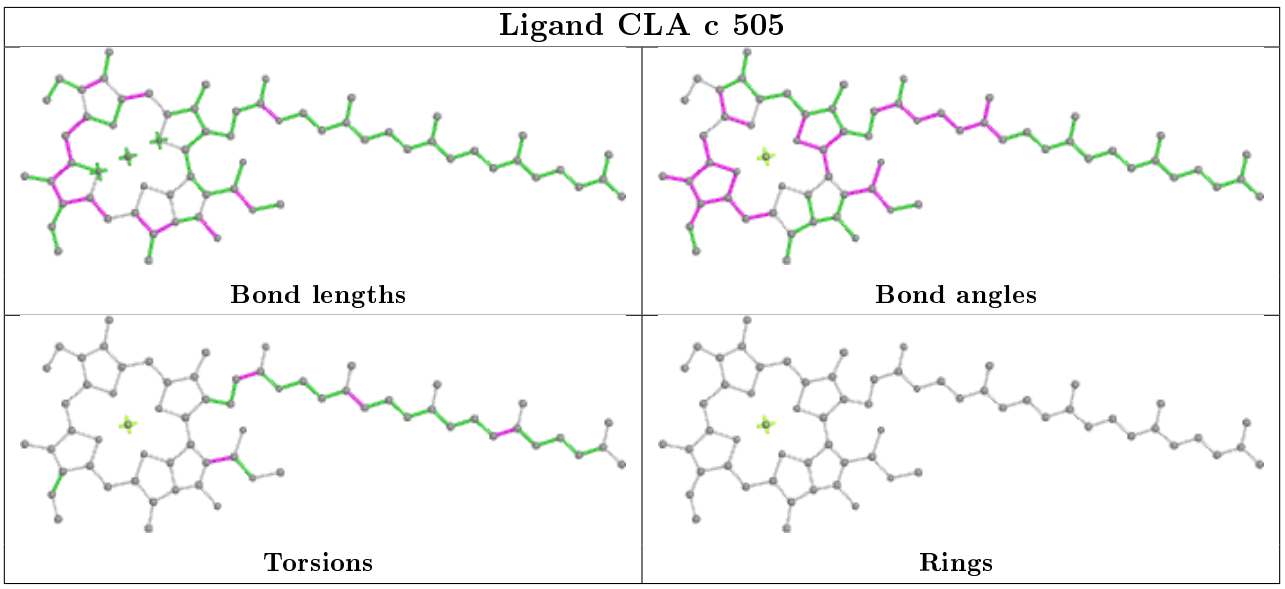
Ligand CLA B 605



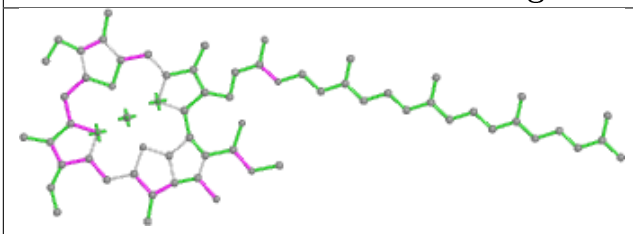
Ligand LMT B 633

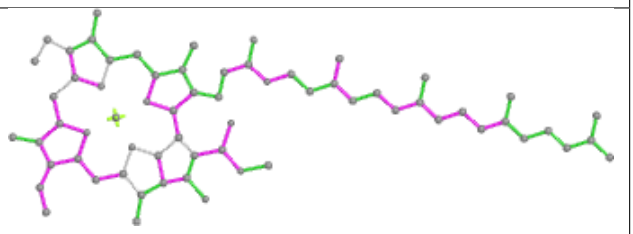


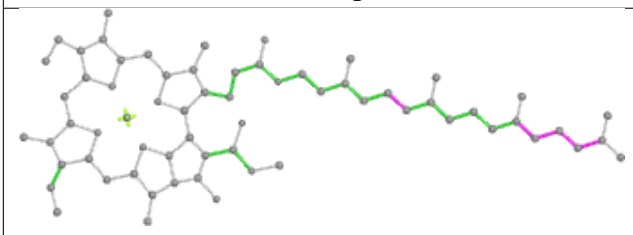
Ligand CLA c 505

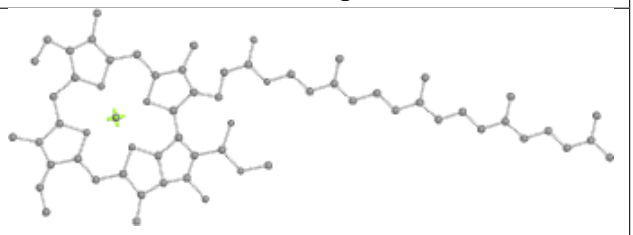


Ligand CLA b 615

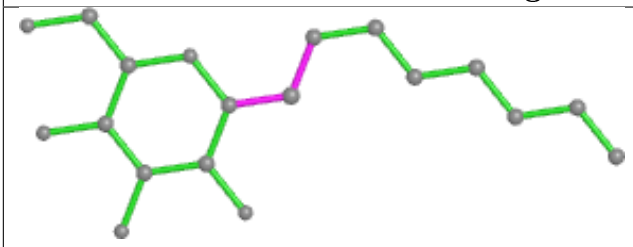

Bond lengths

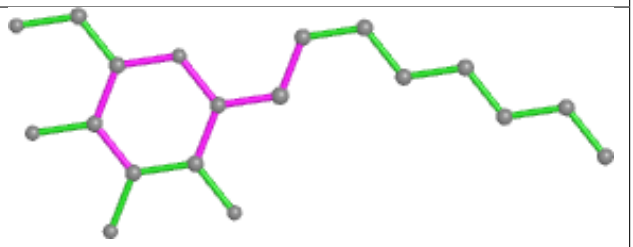

Bond angles

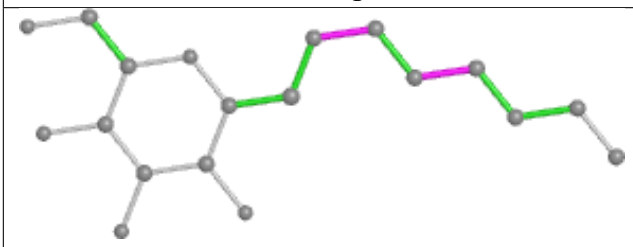

Torsions

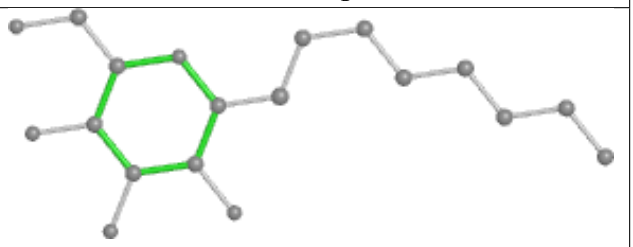

Rings

Ligand HTG b 621

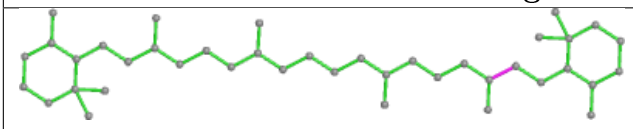

Bond lengths

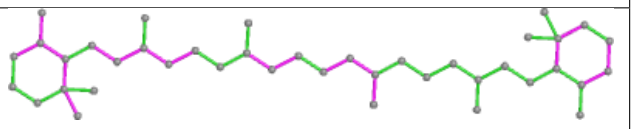

Bond angles

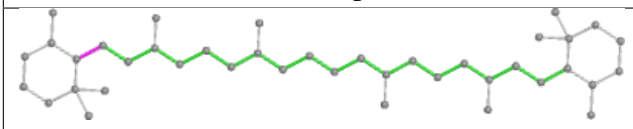

Torsions

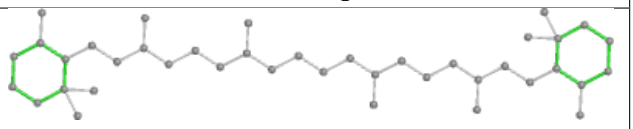

Rings

Ligand BCR B 618

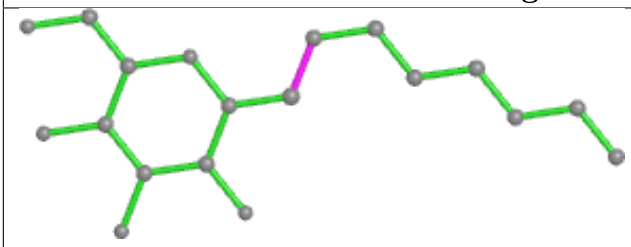

Bond lengths


Bond angles

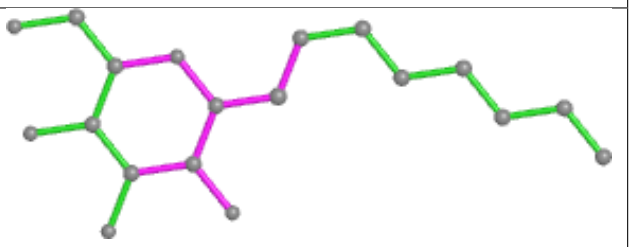

Torsions


Rings

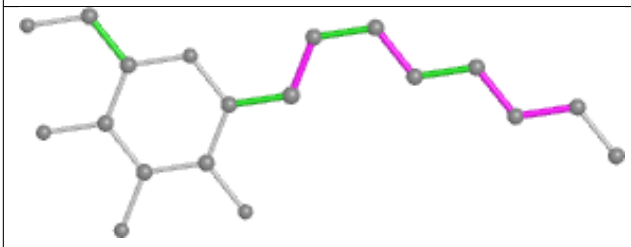
Ligand HTG B 624



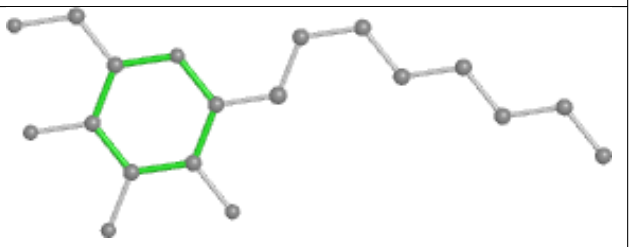
Bond lengths



Bond angles

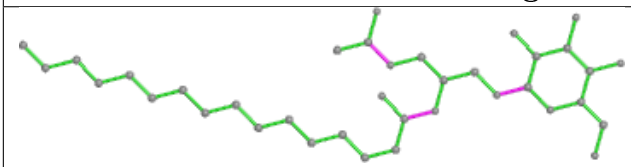


Torsions



Rings

Ligand LMG Z 101



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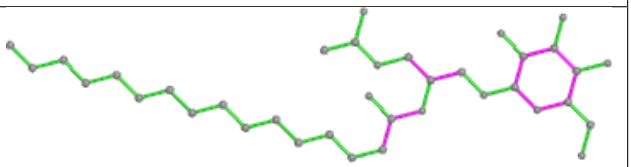
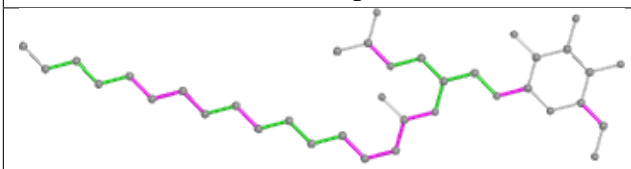
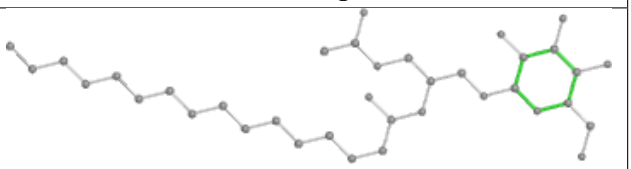


Bond angles

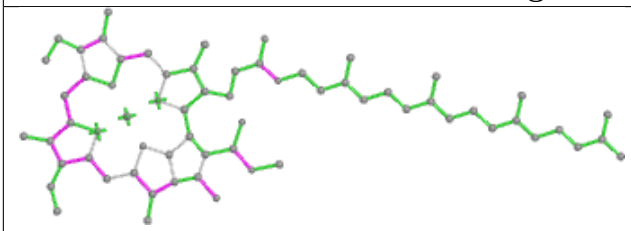


Torsions

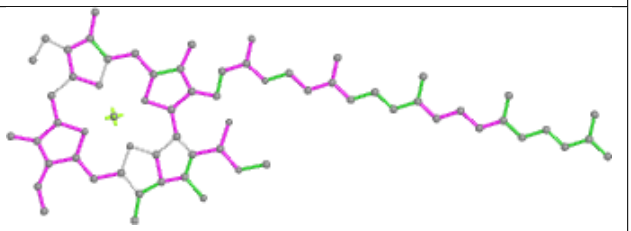


Rings

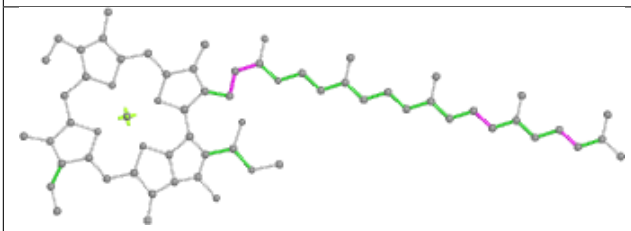
Ligand CLA b 602



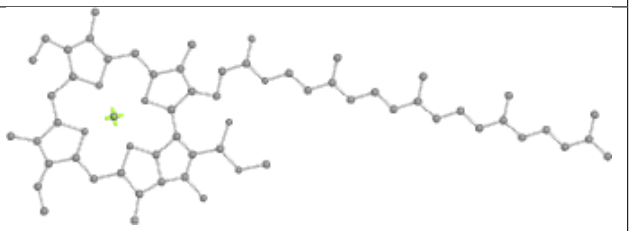
Bond lengths



Bond angles

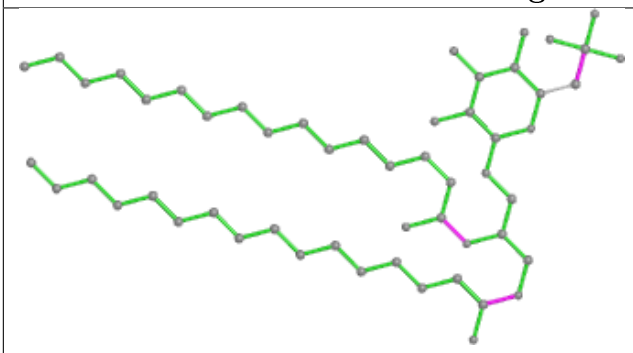


Torsions

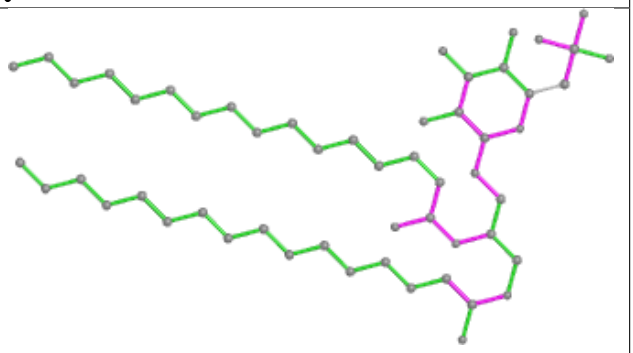


Rings

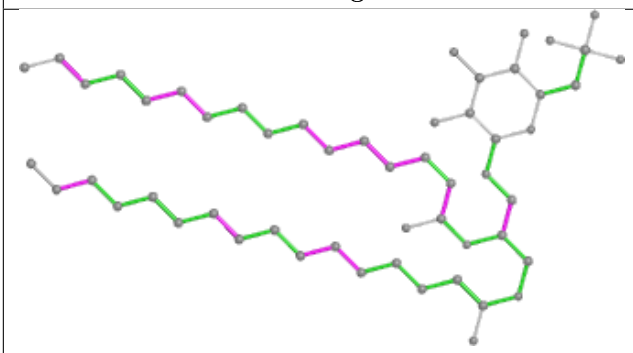
Ligand SQD a 411



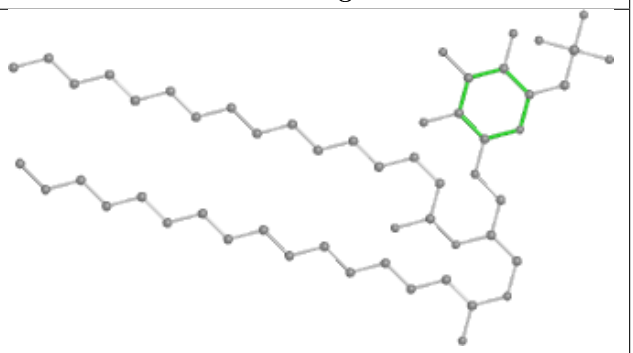
Bond lengths



Bond angles

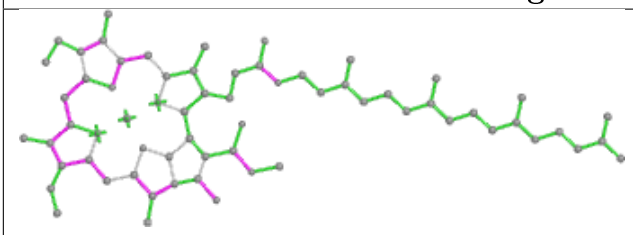


Torsions

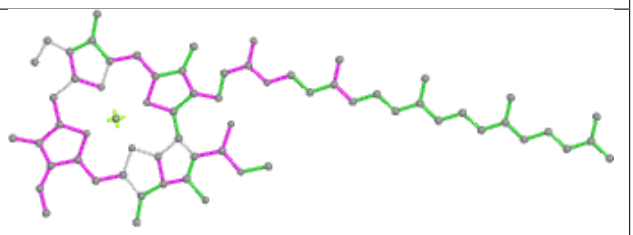


Rings

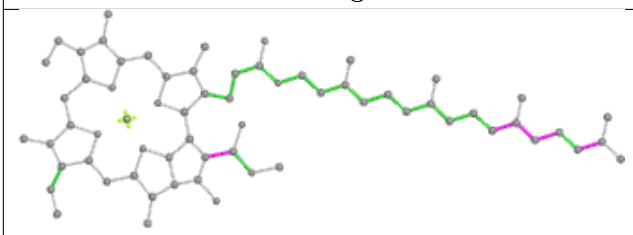
Ligand CLA b 607



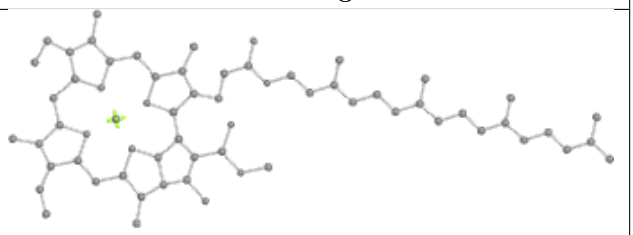
Bond lengths



Bond angles

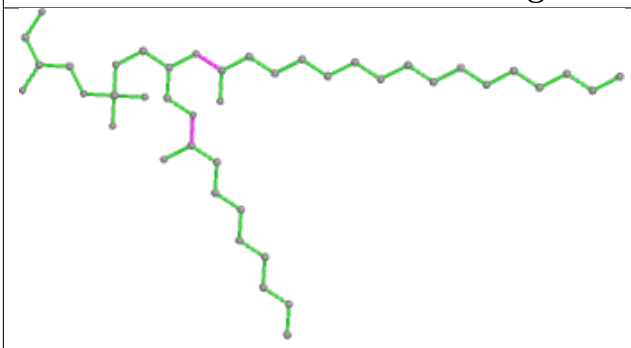


Torsions

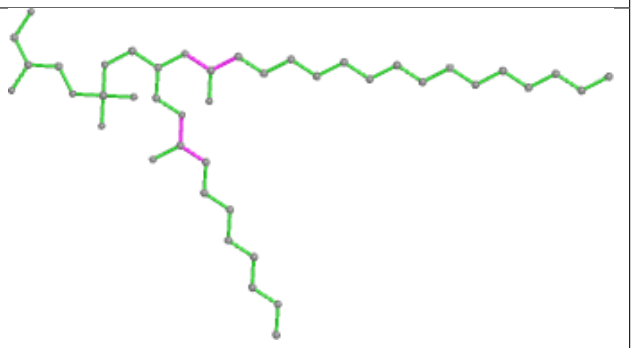


Rings

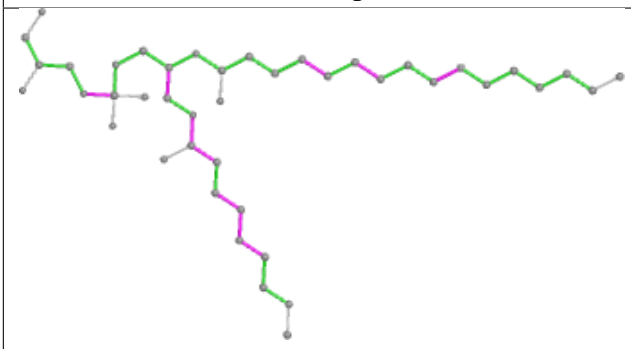
Ligand LHG e 101



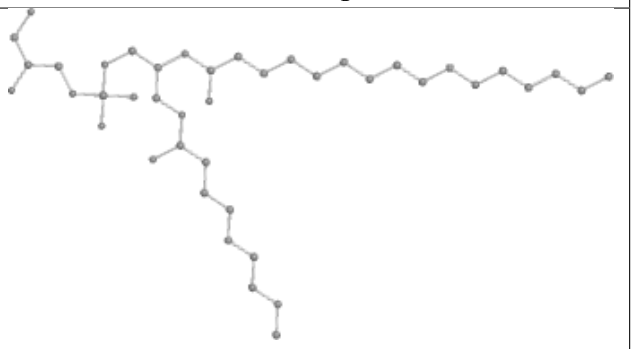
Bond lengths



Bond angles

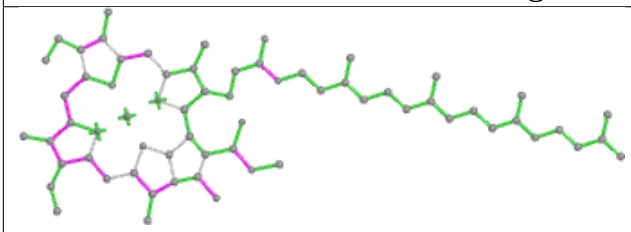


Torsions

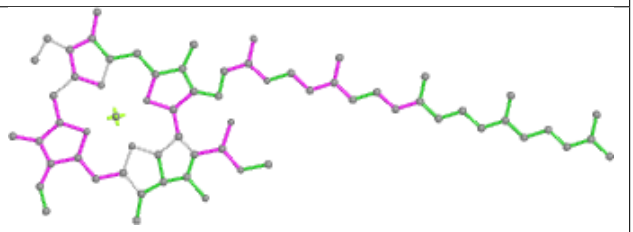


Rings

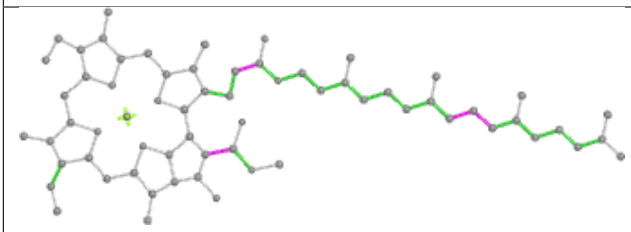
Ligand CLA b 612



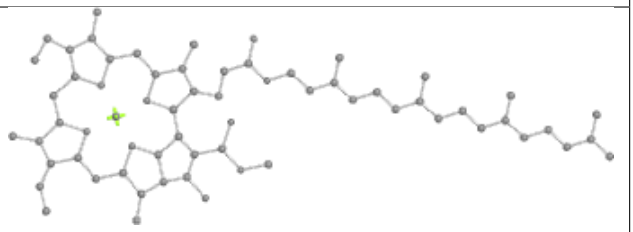
Bond lengths



Bond angles

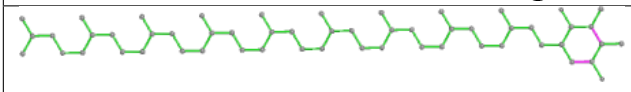


Torsions

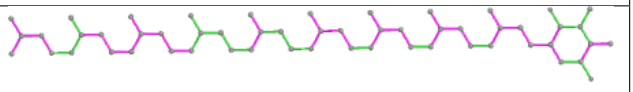


Rings

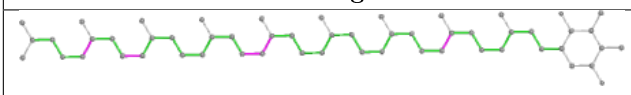
Ligand PL9 D 407



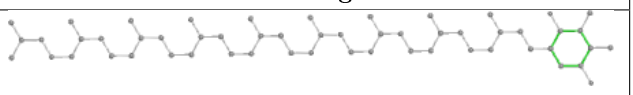
Bond lengths



Bond angles

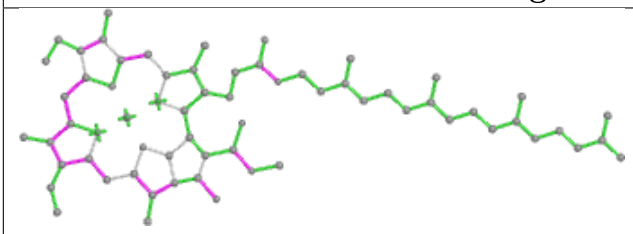


Torsions

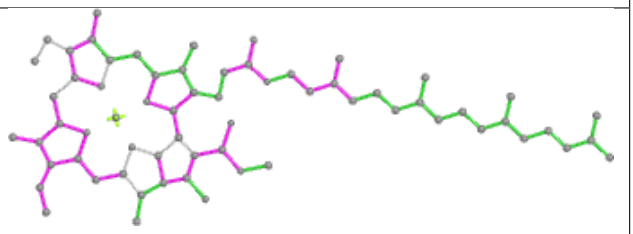


Rings

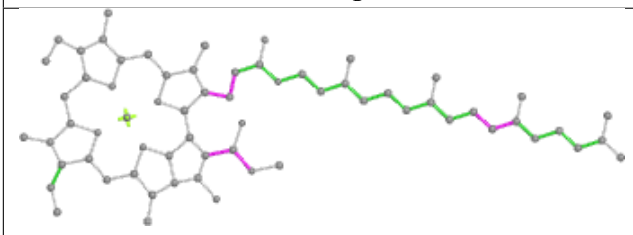
Ligand CLA c 501



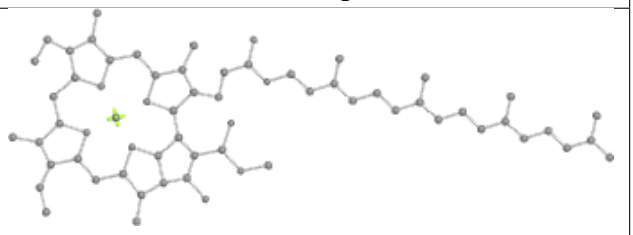
Bond lengths



Bond angles

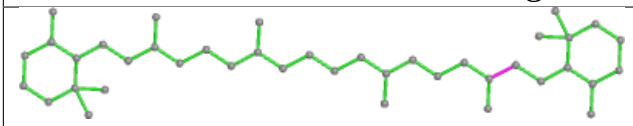


Torsions

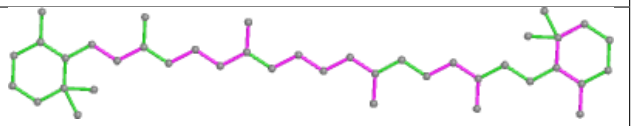


Rings

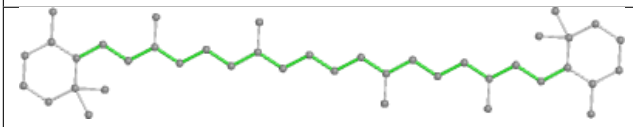
Ligand BCR h 102



Bond lengths



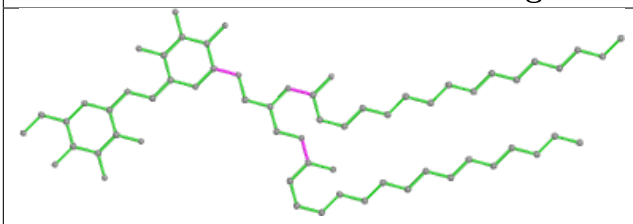
Bond angles



Torsions

Rings

Ligand DGD c 517



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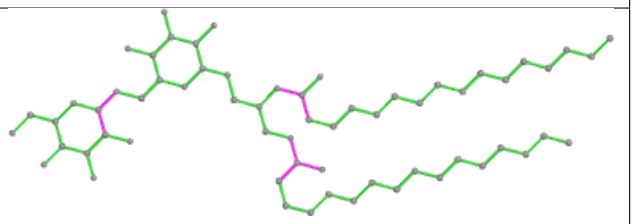
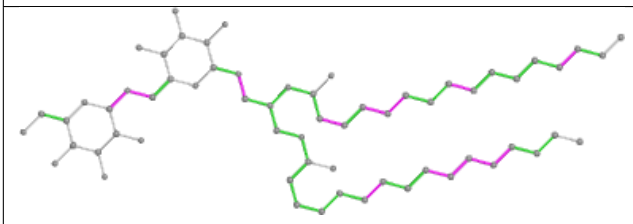


Bond angles



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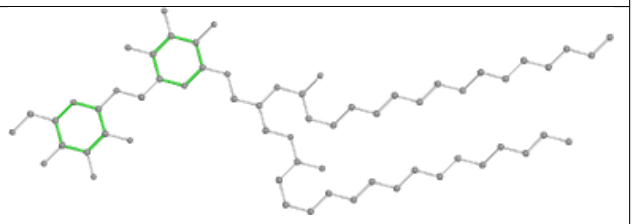
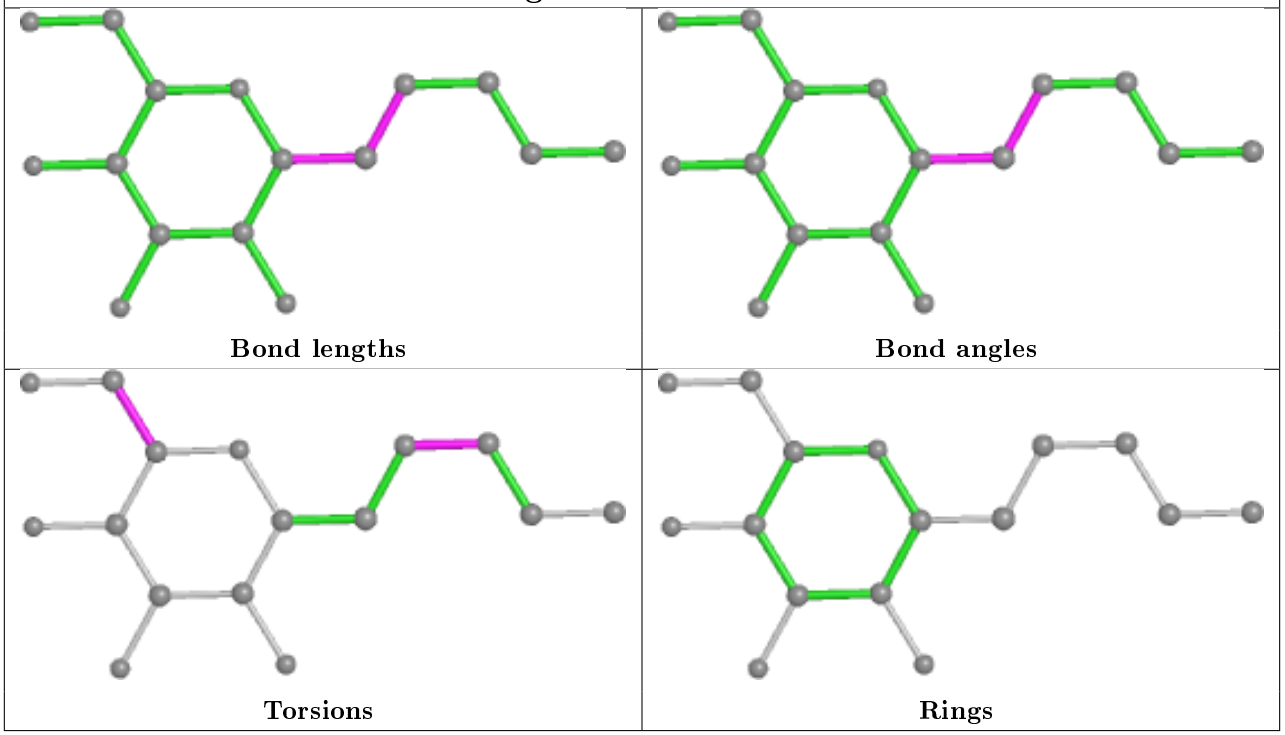
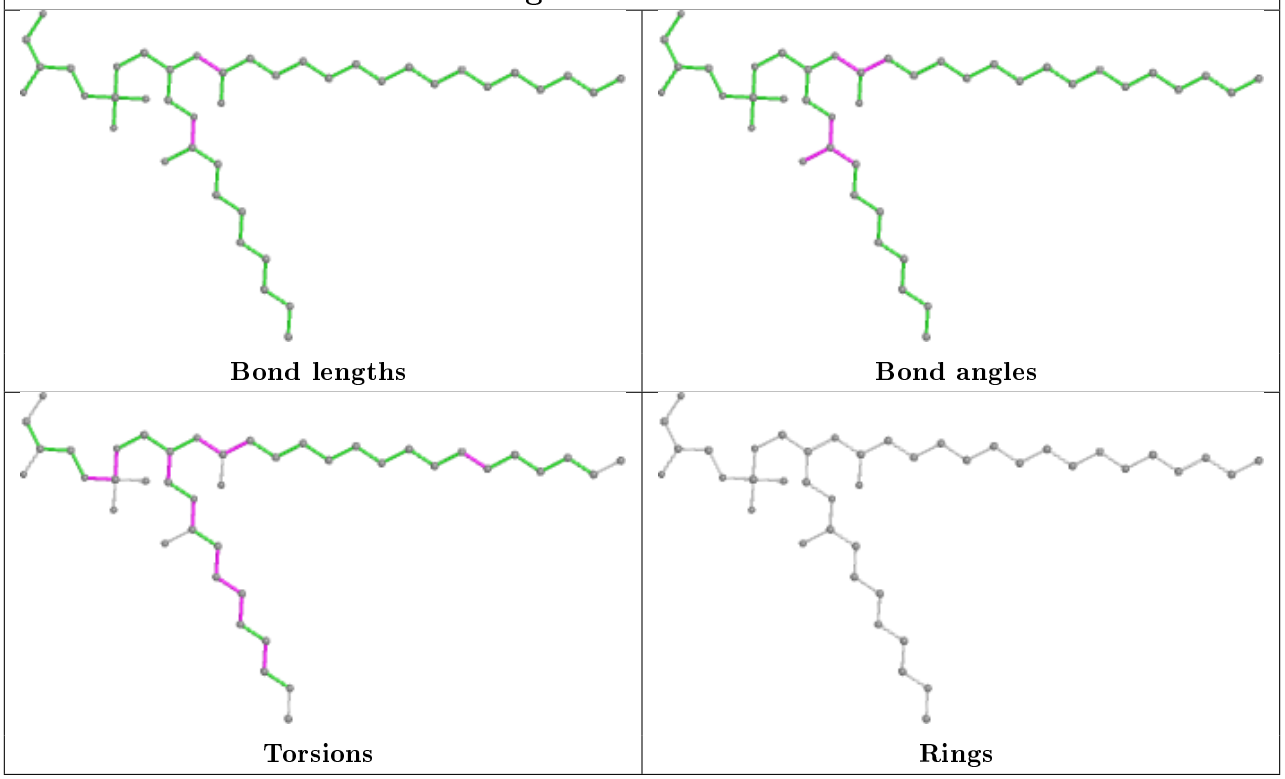


Rings

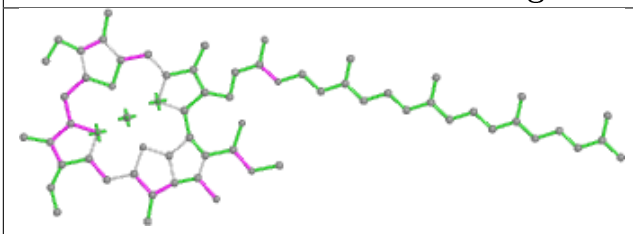
Ligand HTG h 101



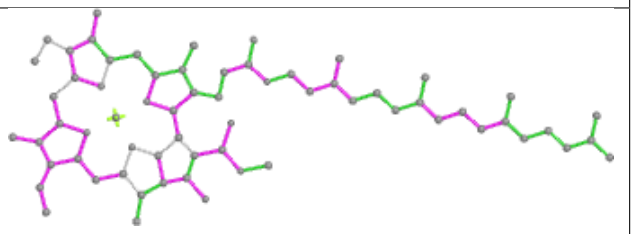
Ligand LHG E 101



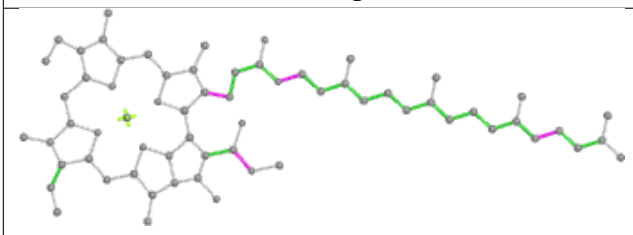
Ligand CLA b 608



Bond lengths



Bond angles



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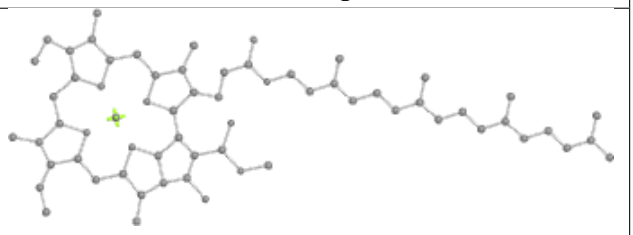
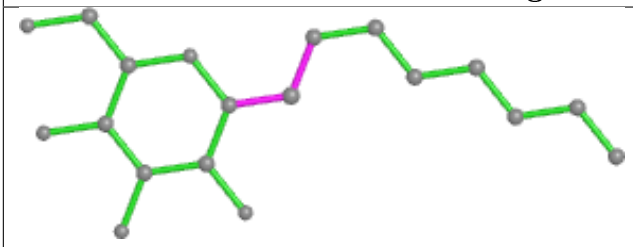
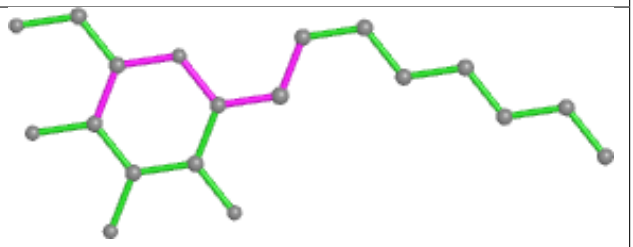


Rings

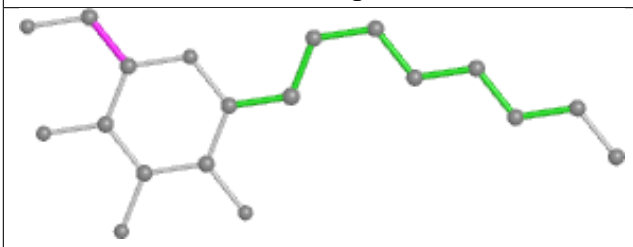
Ligand HTG c 522



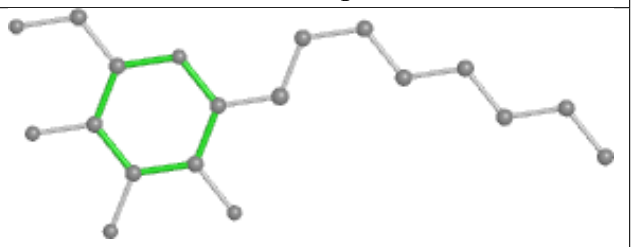
Bond lengths



Bond angles

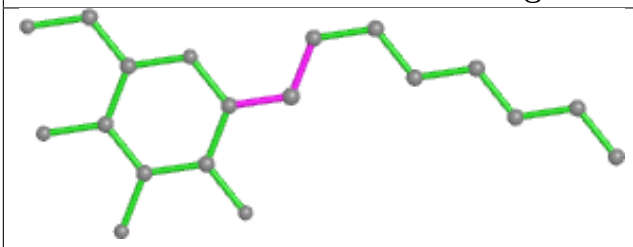


Torsions

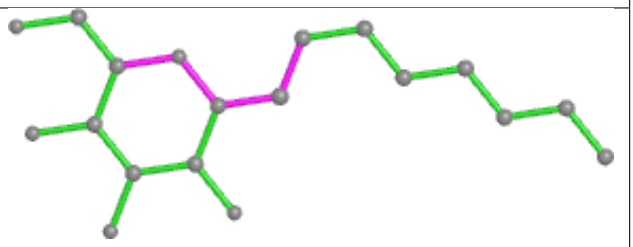


Rings

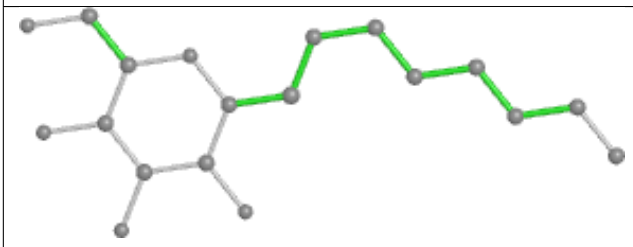
Ligand HTG b 626



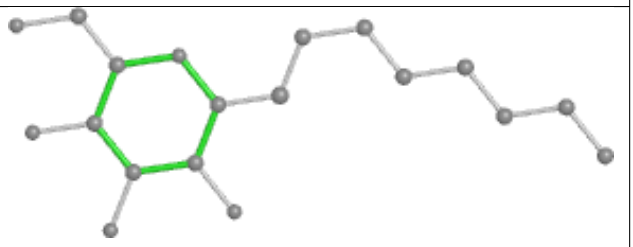
Bond lengths



Bond angles

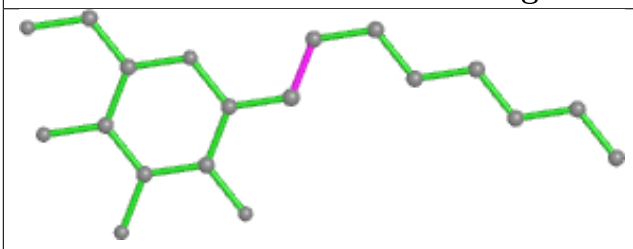


Torsions

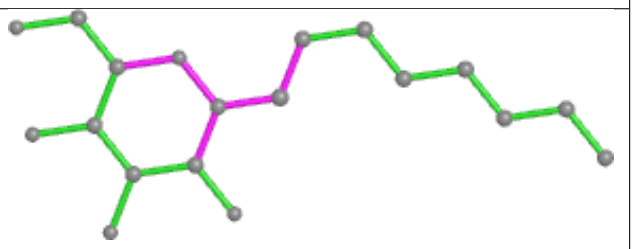


Rings

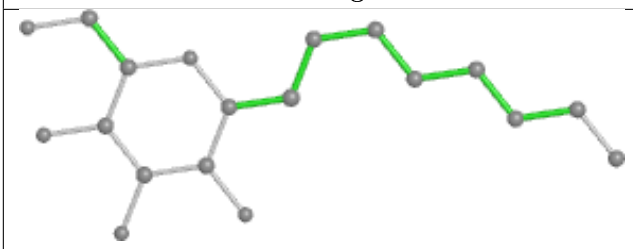
Ligand HTG C 523



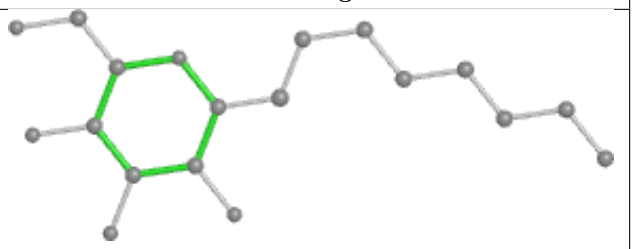
Bond lengths



Bond angles

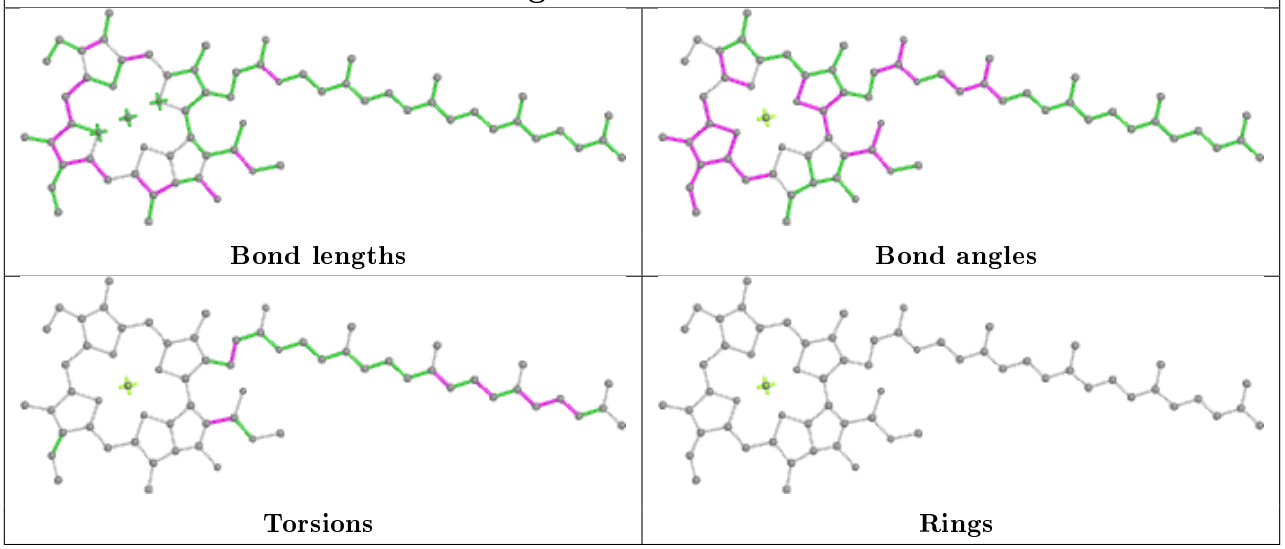


Torsions

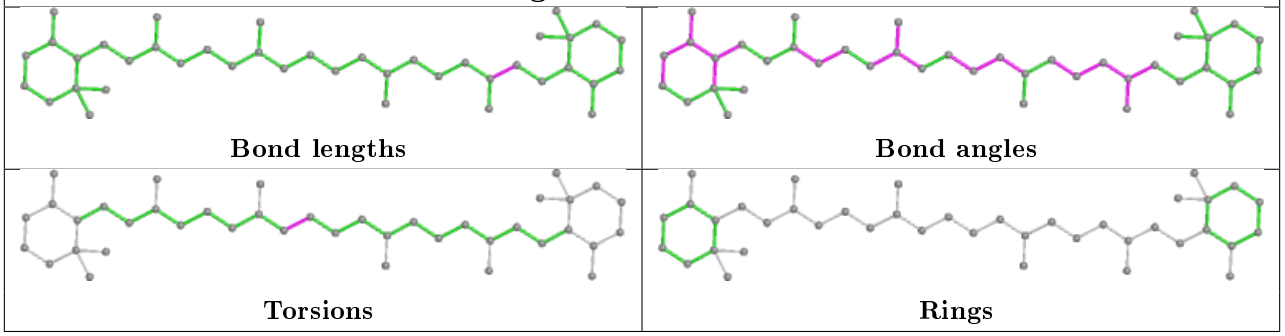


Rings

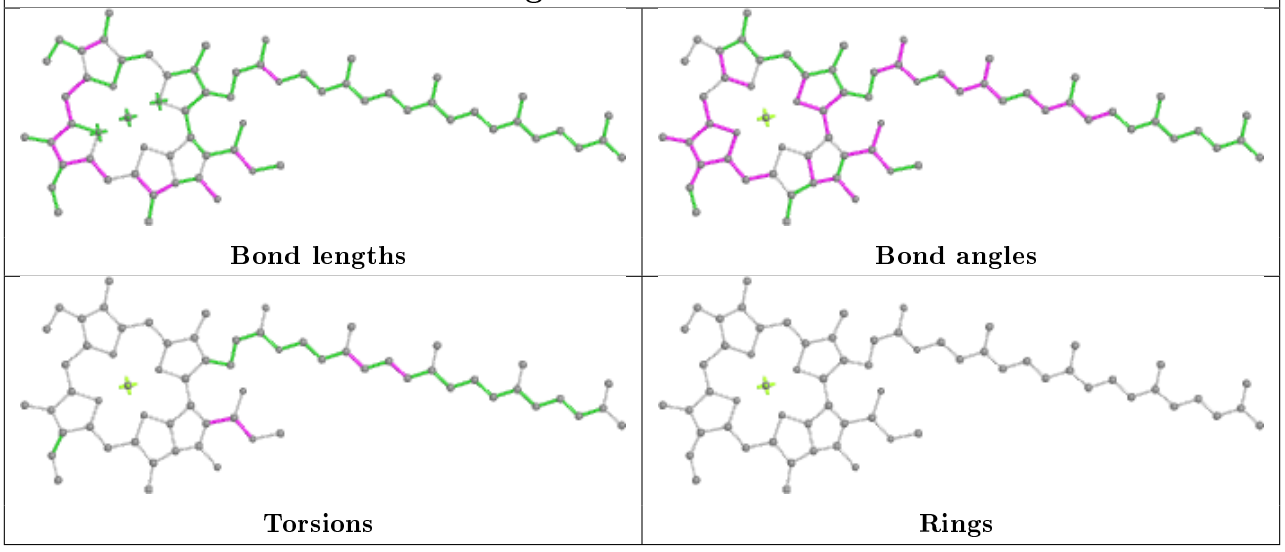
Ligand CLA b 606



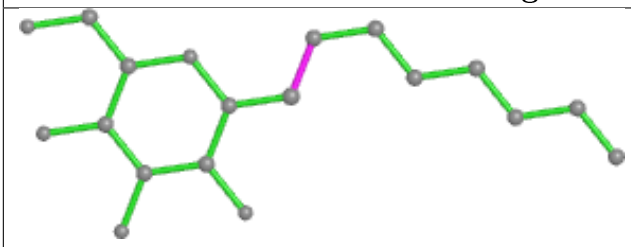
Ligand BCR t 101



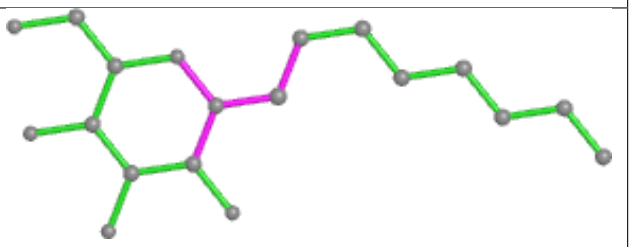
Ligand CLA C 508



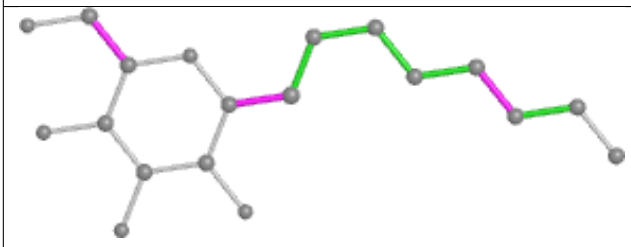
Ligand HTG B 626



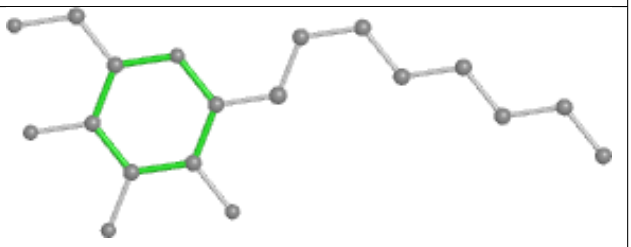
Bond lengths



Bond angles

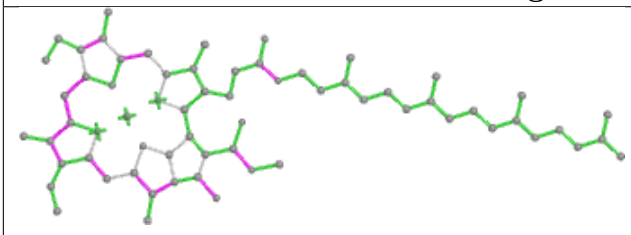


Torsions

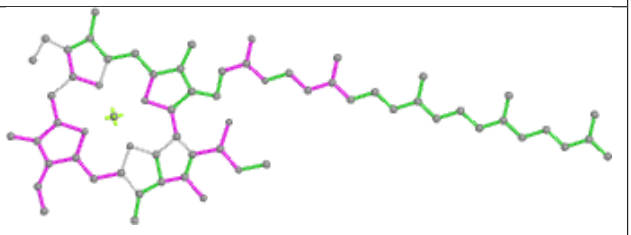


Rings

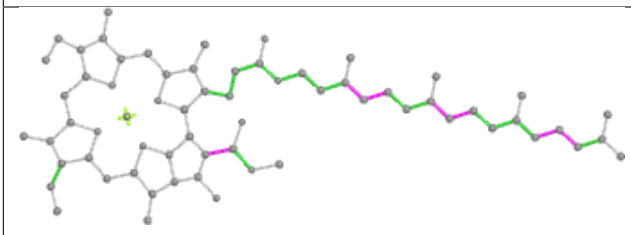
Ligand CLA b 604



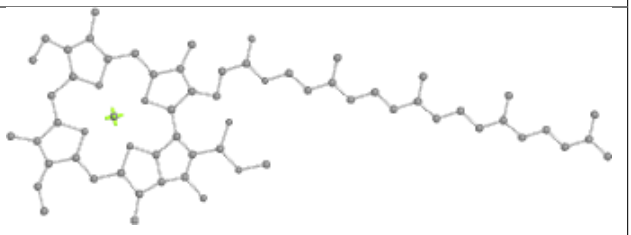
Bond lengths



Bond angles

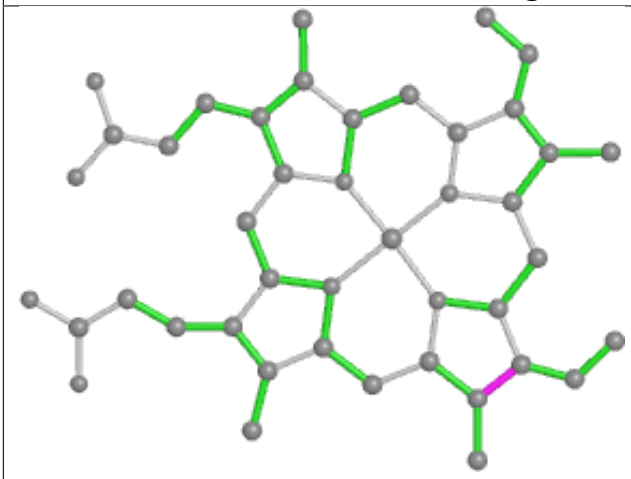


Torsions

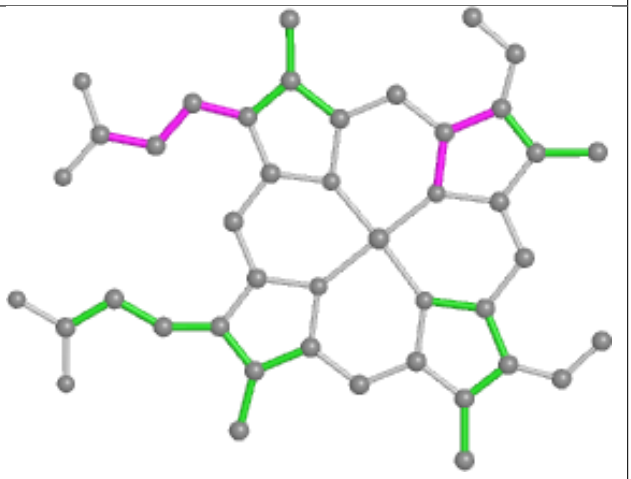


Rings

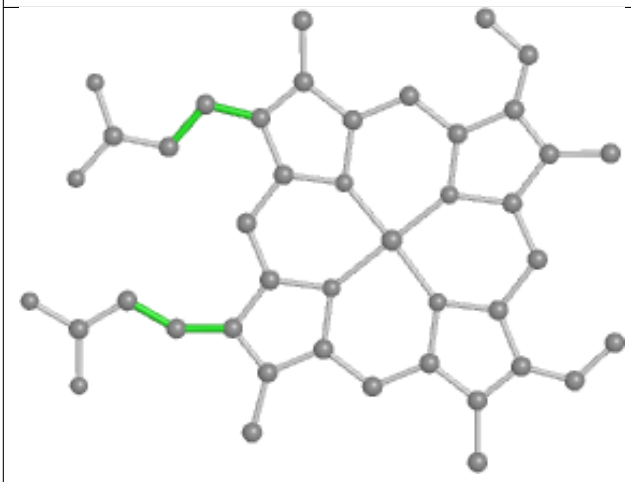
Ligand HEM e 103



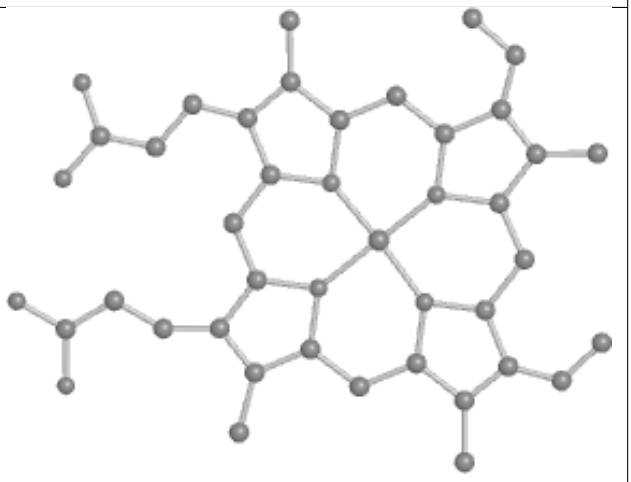
Bond lengths



Bond angles

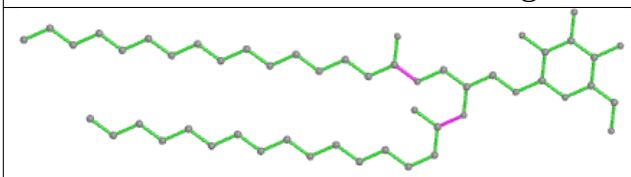


Torsions

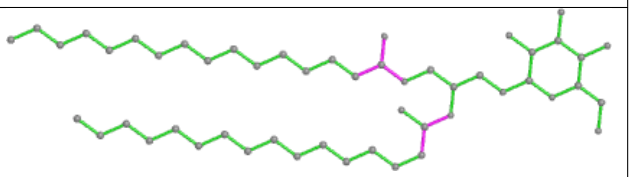


Rings

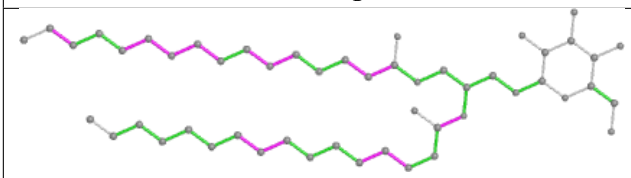
Ligand LMG C 520



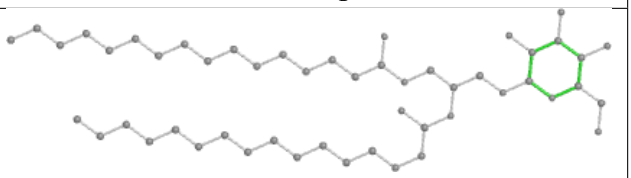
Bond lengths



Bond angles

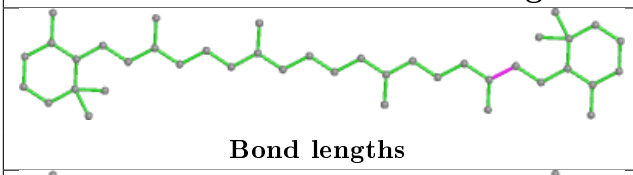


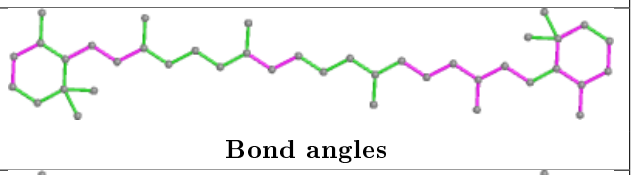
Torsions

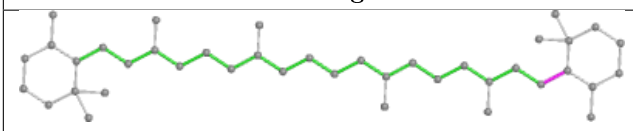


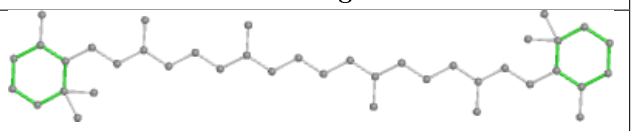
Rings

Ligand BCR b 618

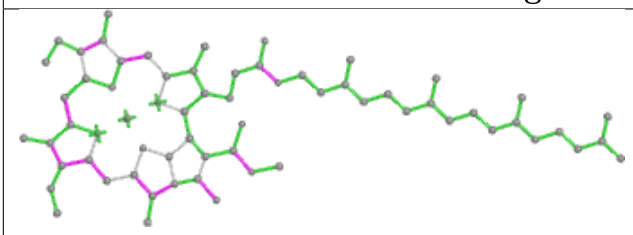

Bond lengths

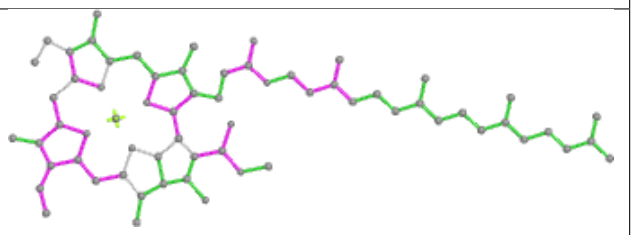

Bond angles

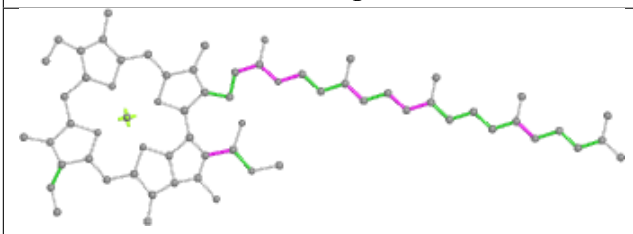

Torsions

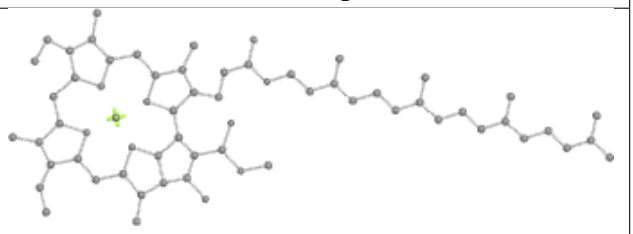

Rings

Ligand CLA C 511

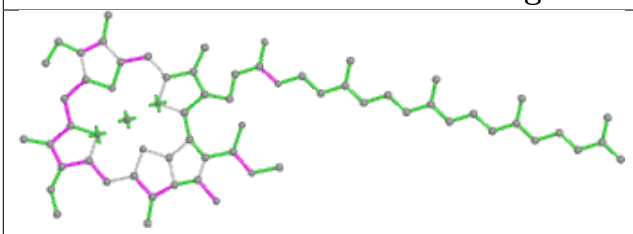

Bond lengths

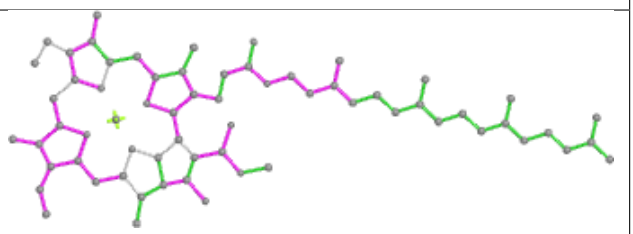

Bond angles

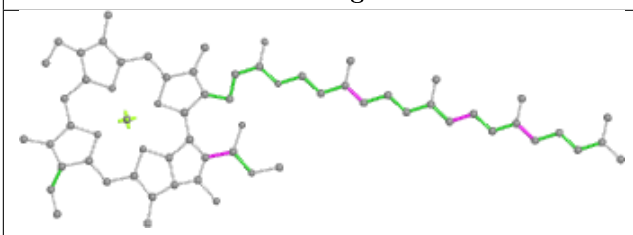

Torsions

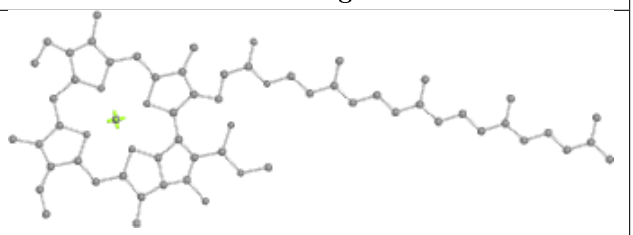

Rings

Ligand CLA C 505

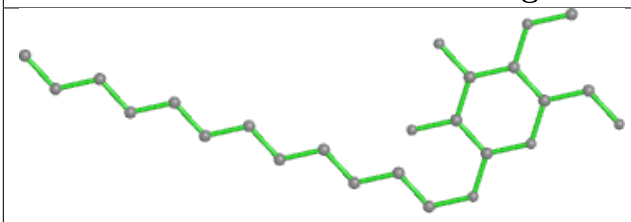

Bond lengths


Bond angles

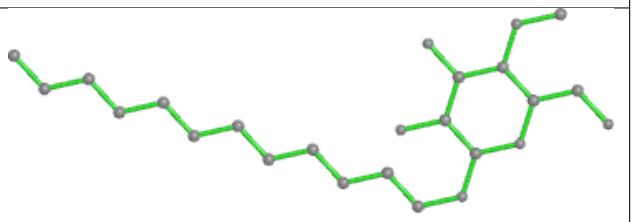

Torsions


Rings

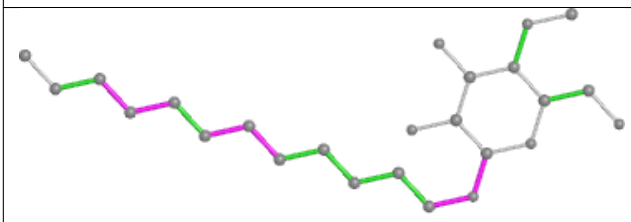
Ligand LMT B 632



Bond lengths



Bond angles



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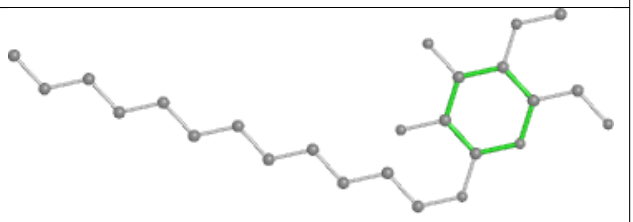
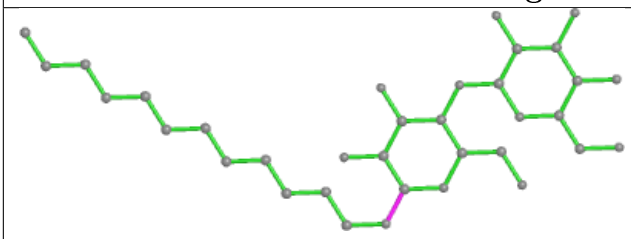
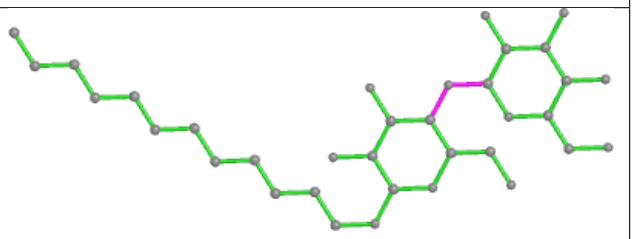


Rings

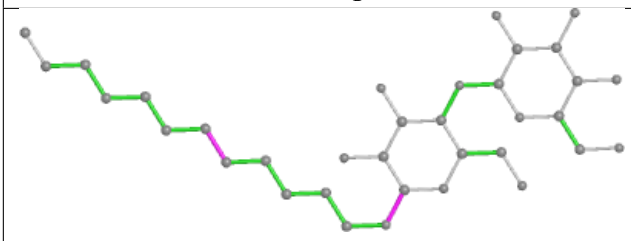
Ligand LMT a 418



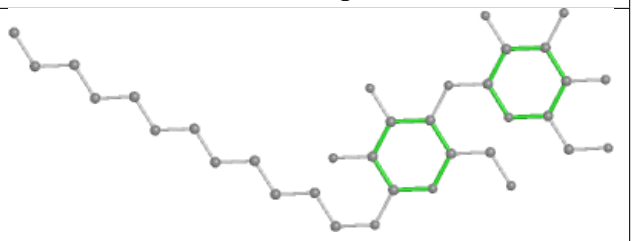
Bond lengths



Bond angles

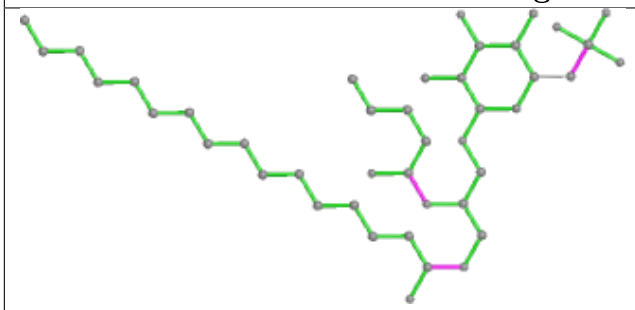


Torsions

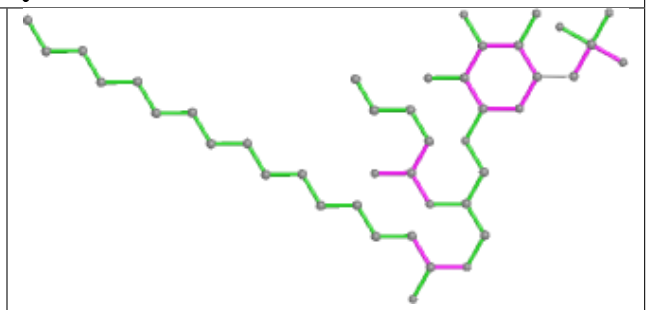


Rings

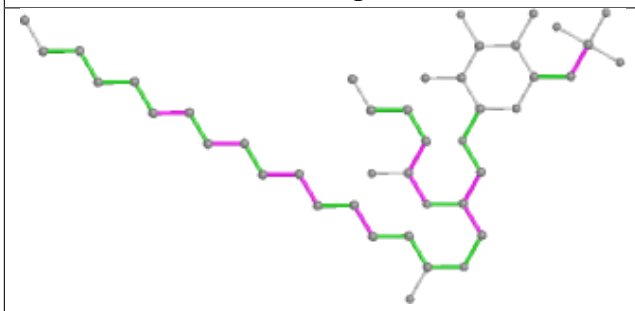
Ligand SQD f 101



Bond lengths



Bond angles



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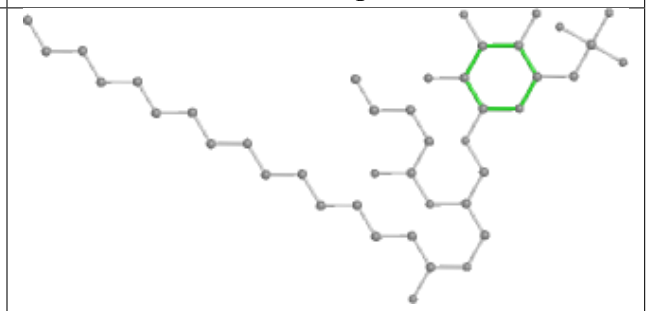
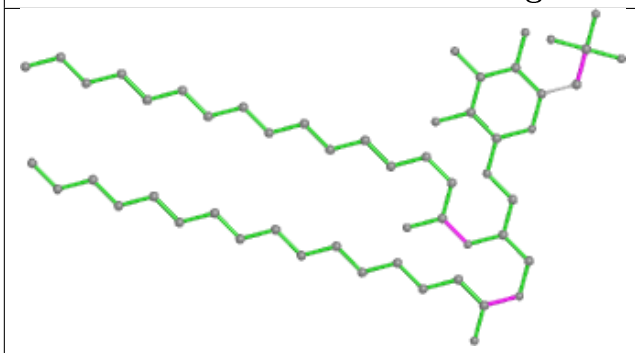
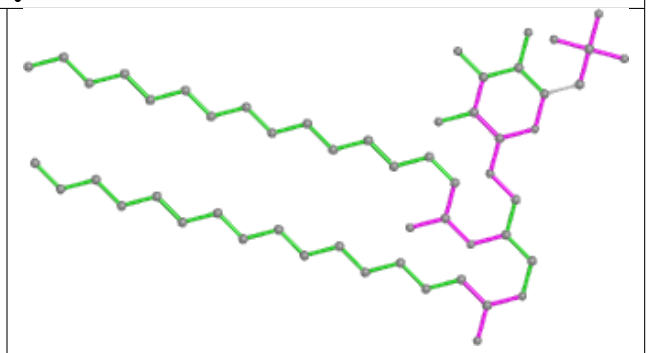


Rings

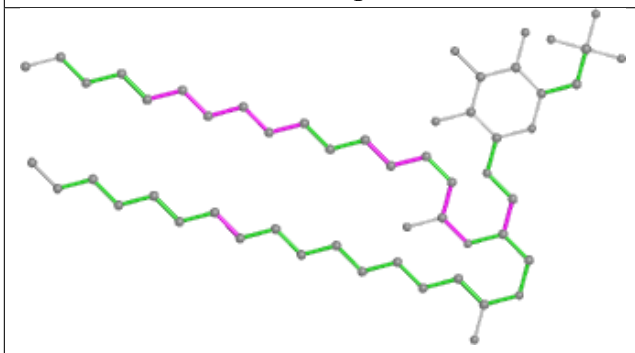
Ligand SQD A 409



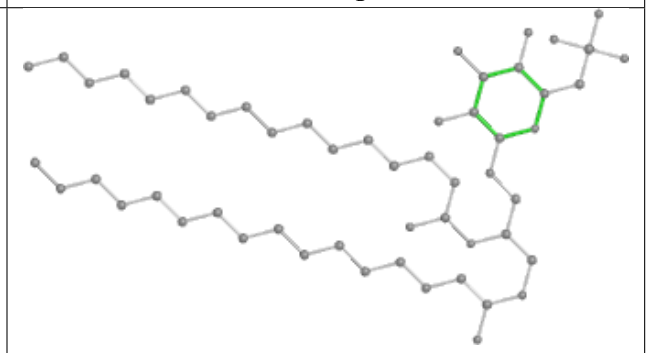
Bond lengths



Bond angles

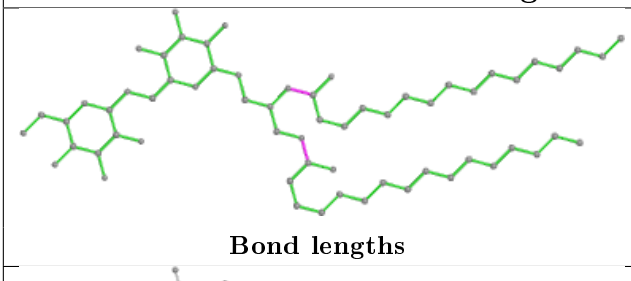


Torsions

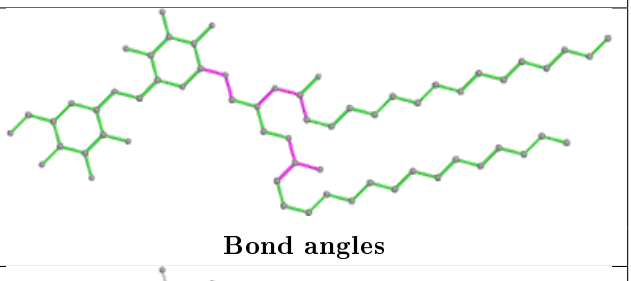


Rings

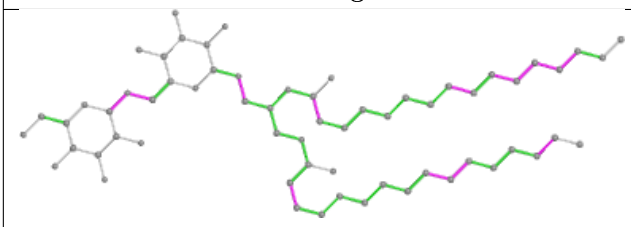
Ligand DGD C 518



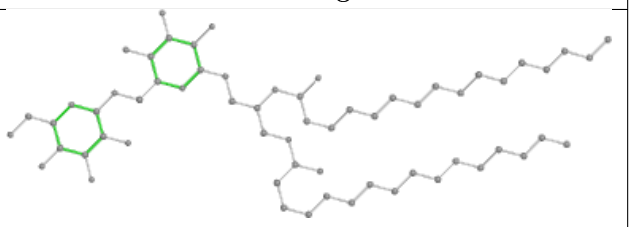
Bond lengths



Bond angles

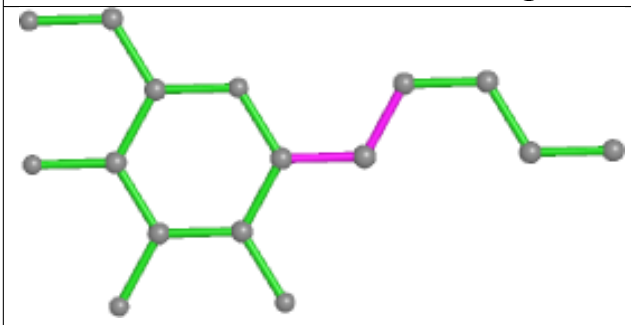


Torsions

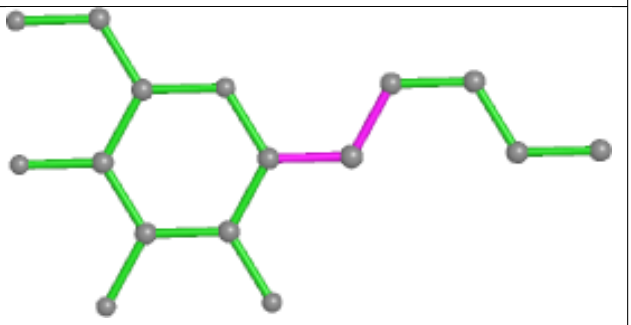


Rings

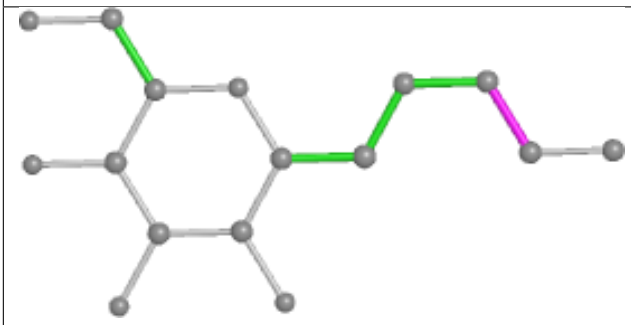
Ligand HTG D 412



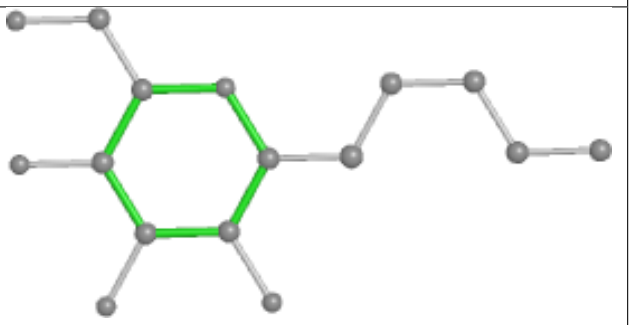
Bond lengths



Bond angles

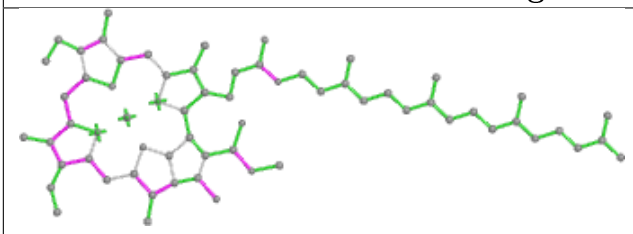


Torsions

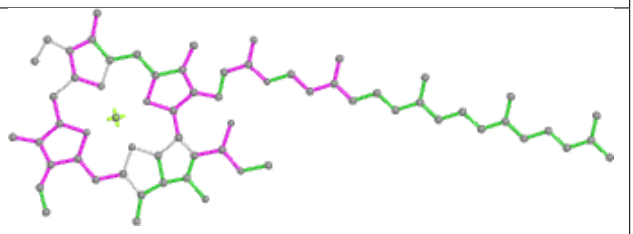


Rings

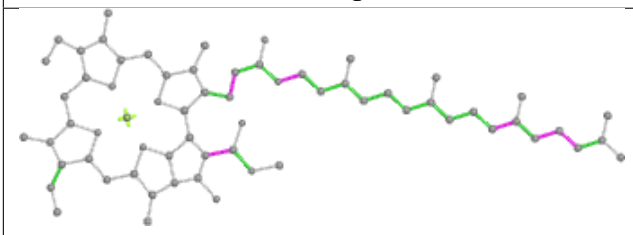
Ligand CLA b 610



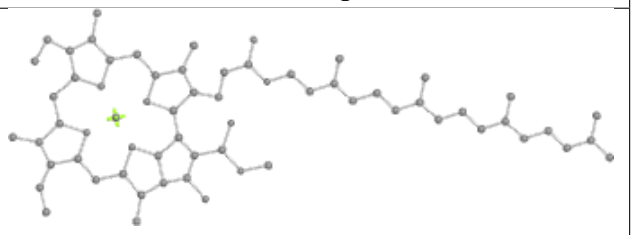
Bond lengths



Bond angles

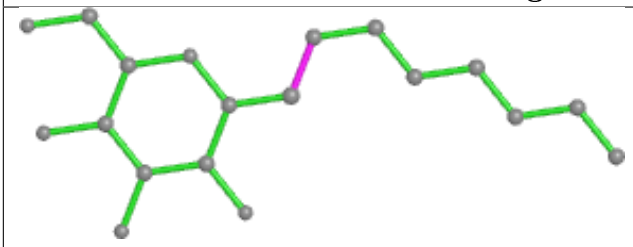


Torsions

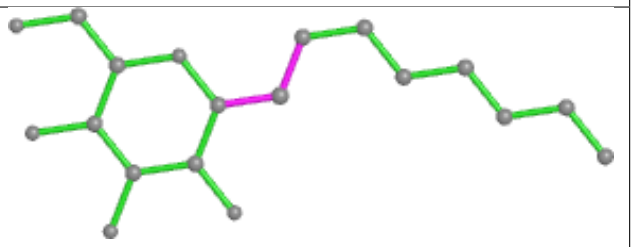


Rings

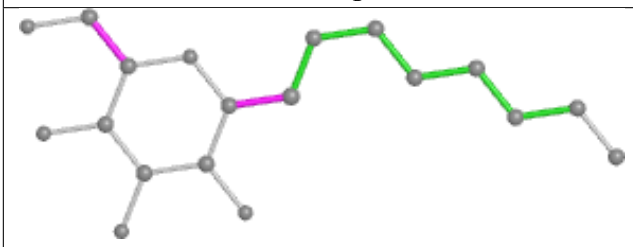
Ligand HTG c 521



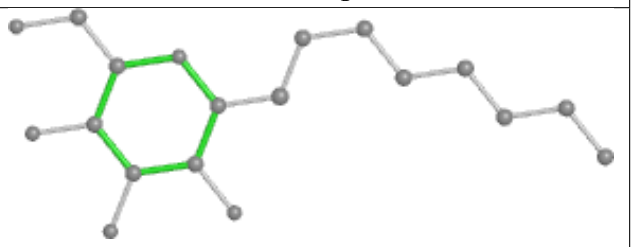
Bond lengths



Bond angles

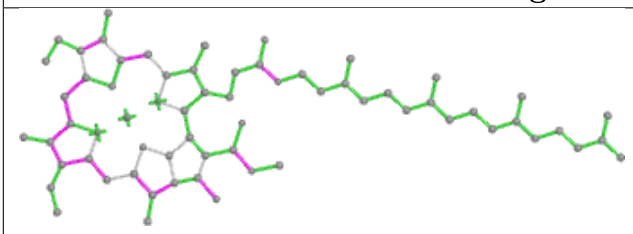


Torsions

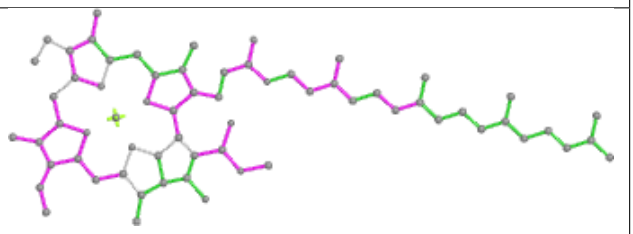


Rings

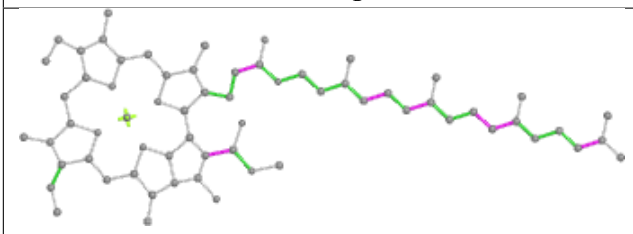
Ligand CLA c 510



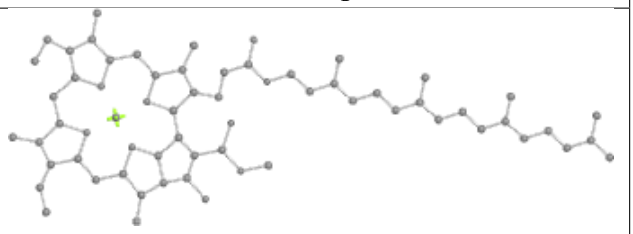
Bond lengths



Bond angles

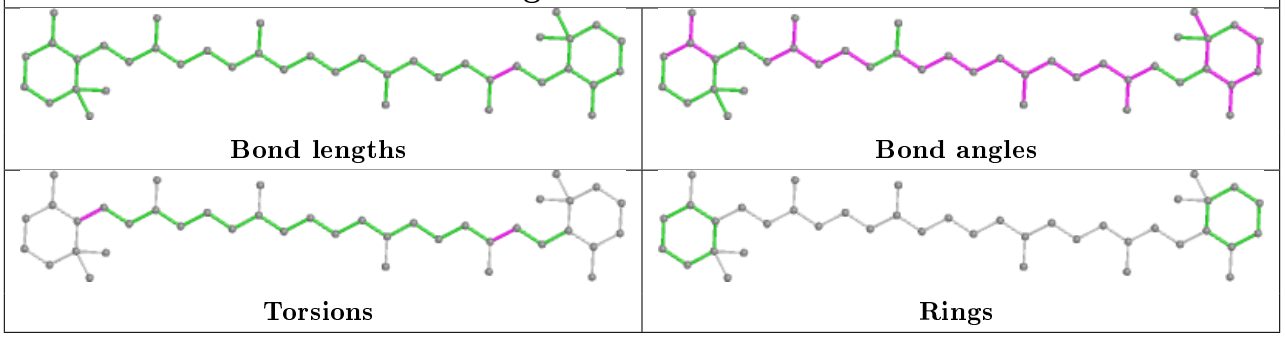


Torsions

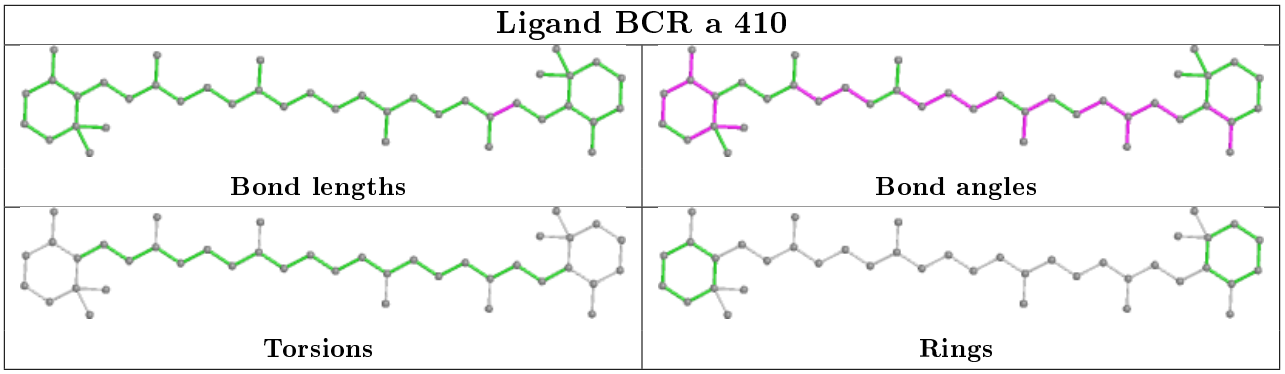


Rings

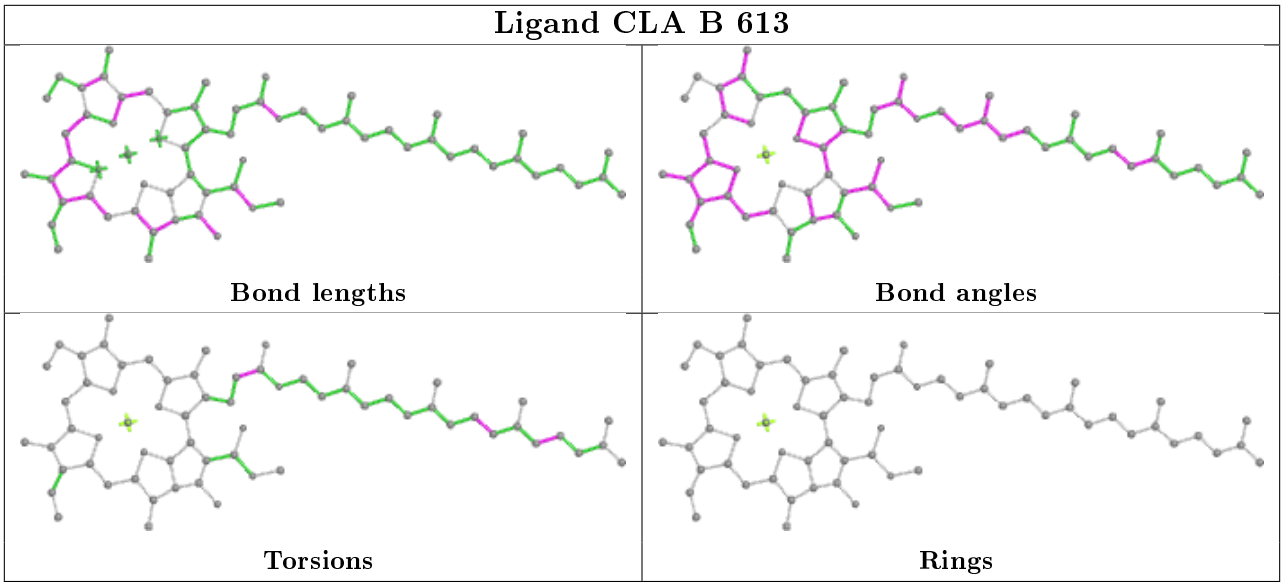
Ligand BCR Y 101



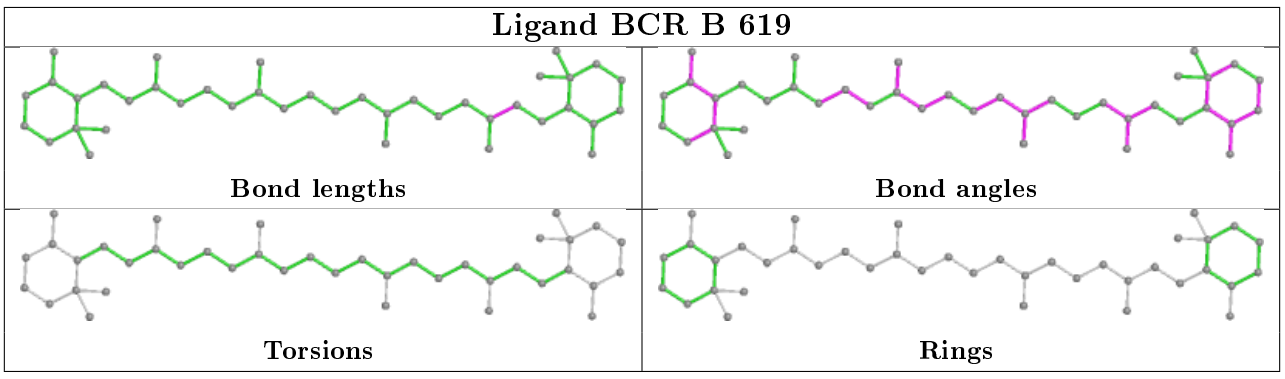
Ligand BCR a 410



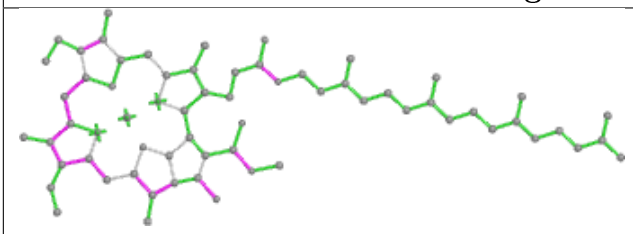
Ligand CLA B 613



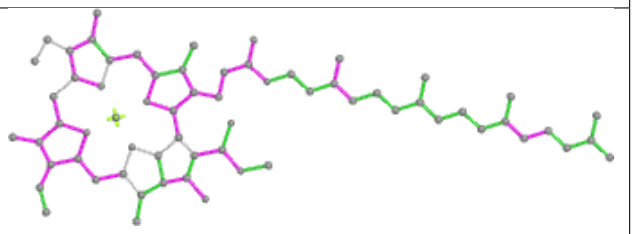
Ligand BCR B 619



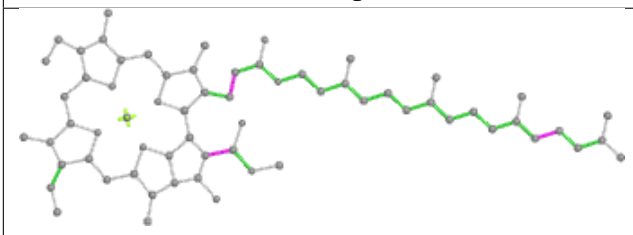
Ligand CLA A 404



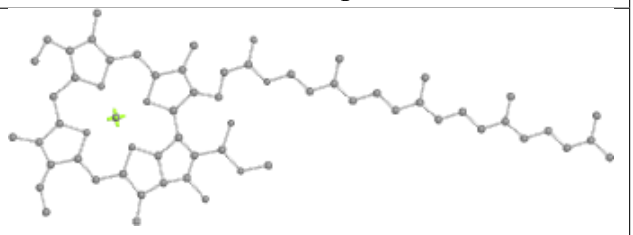
Bond lengths



Bond angles

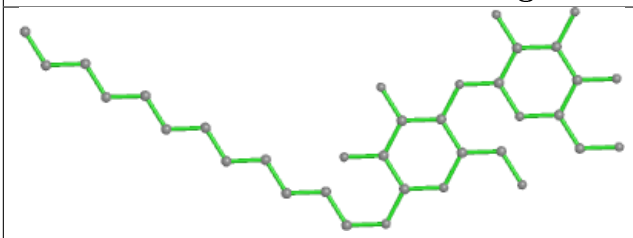


Torsions

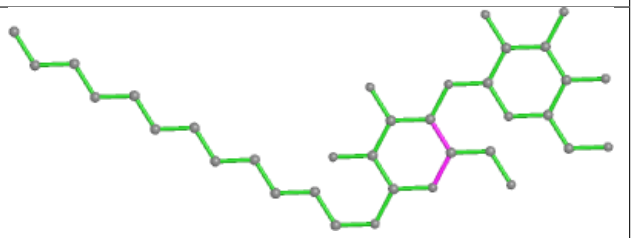


Rings

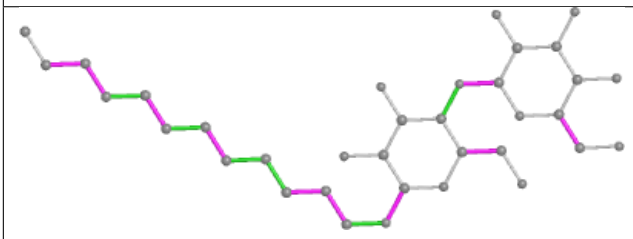
Ligand LMT M 103



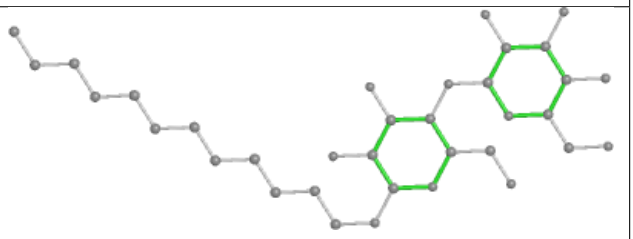
Bond lengths



Bond angles

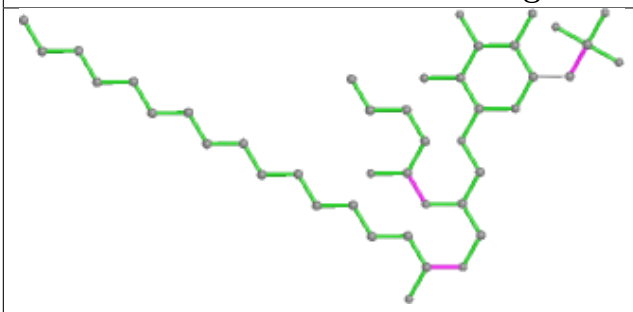


Torsions

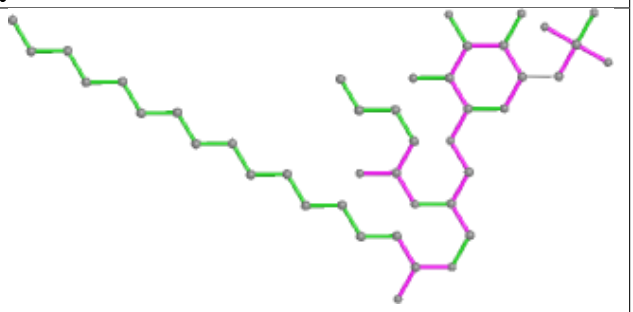


Rings

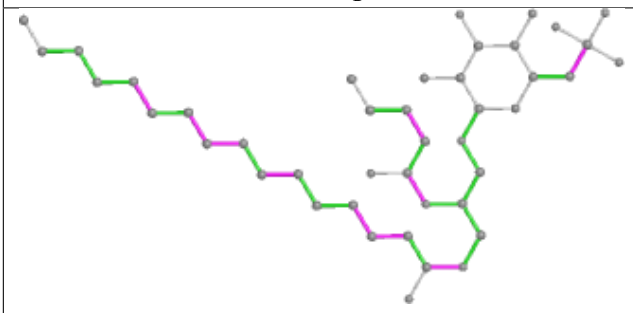
Ligand SQD D 413



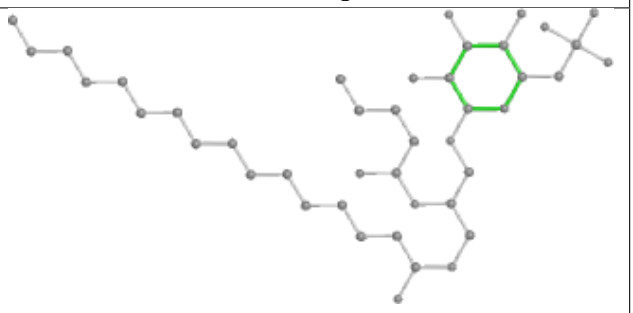
Bond lengths



Bond angles

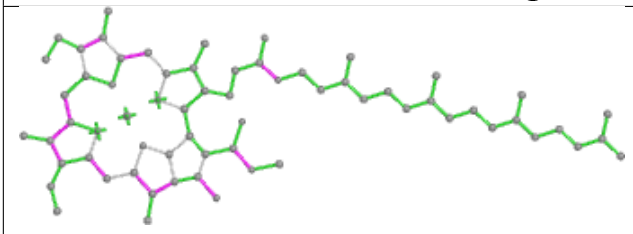


Torsions

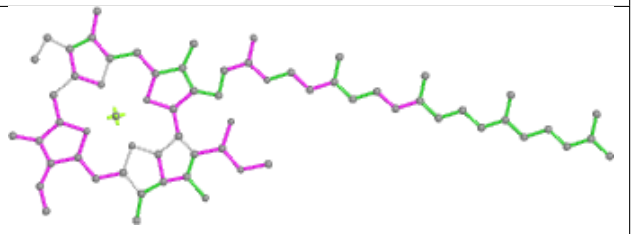


Rings

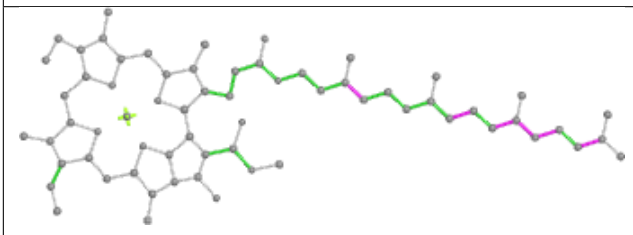
Ligand CLA B 616



Bond lengths



Bond angles



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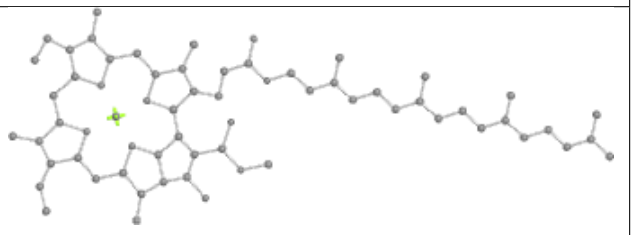
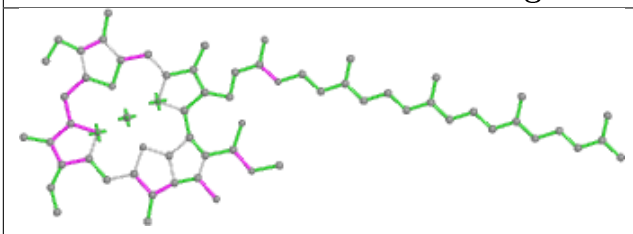


Rings

Ligand CLA C 509



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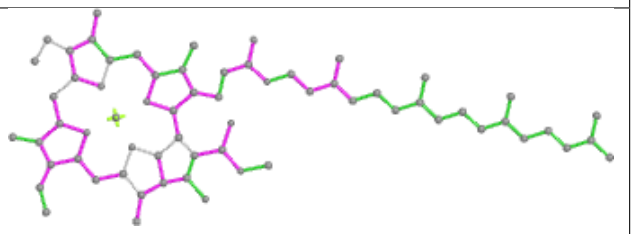
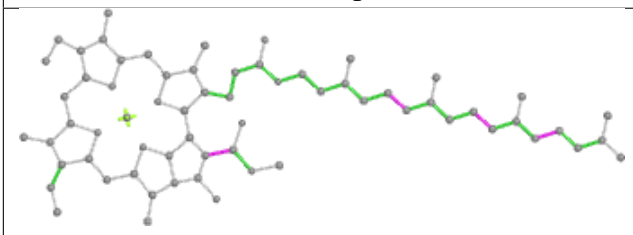


Bond angles



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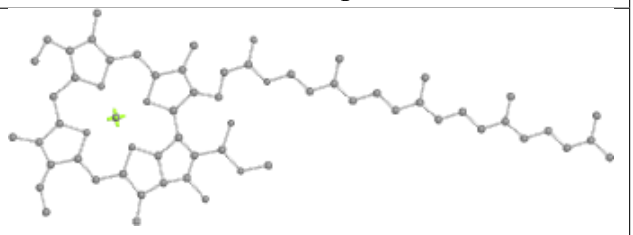
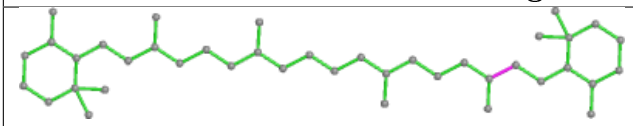


Rings

Ligand BCR k 101



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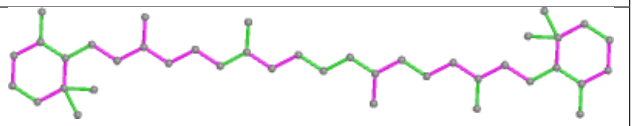

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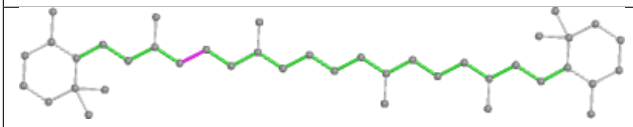
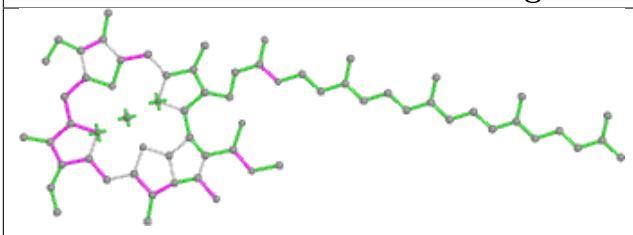


Torsions

Rings

Ligand CLA C 512



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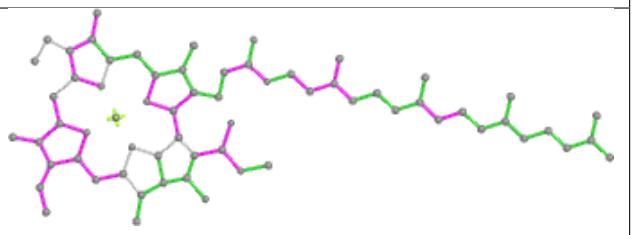
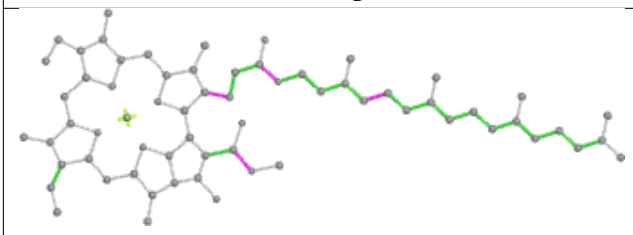


Bond angles



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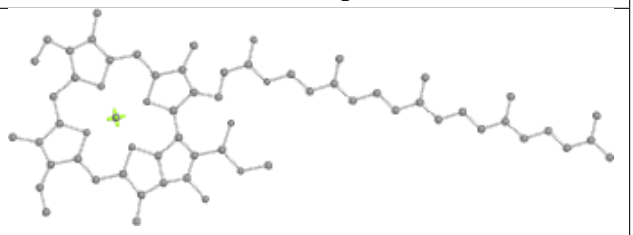
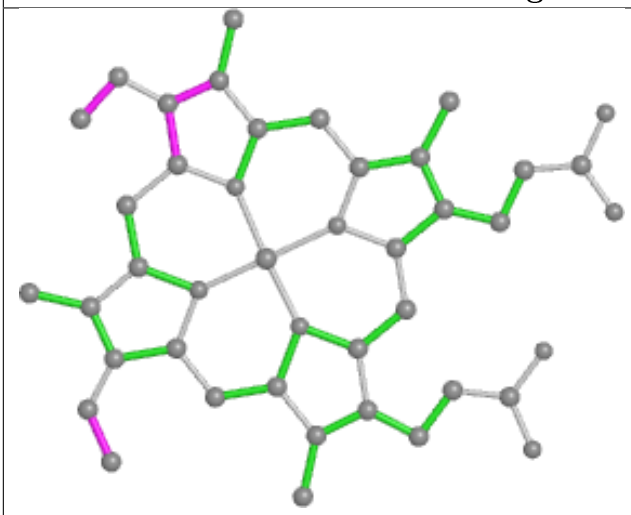


Rings

Ligand HEC v 201



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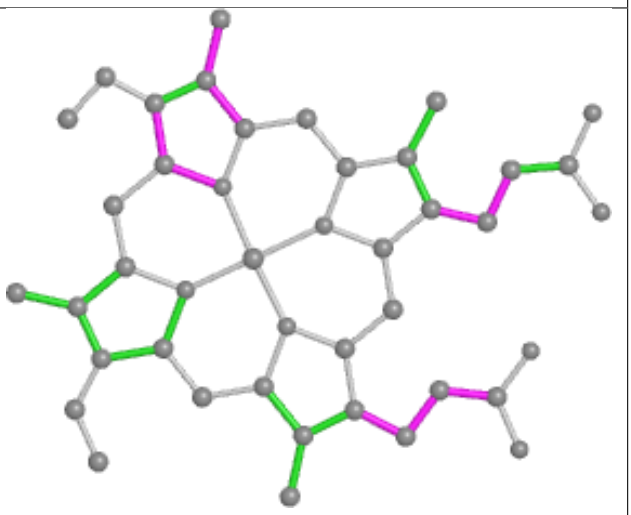

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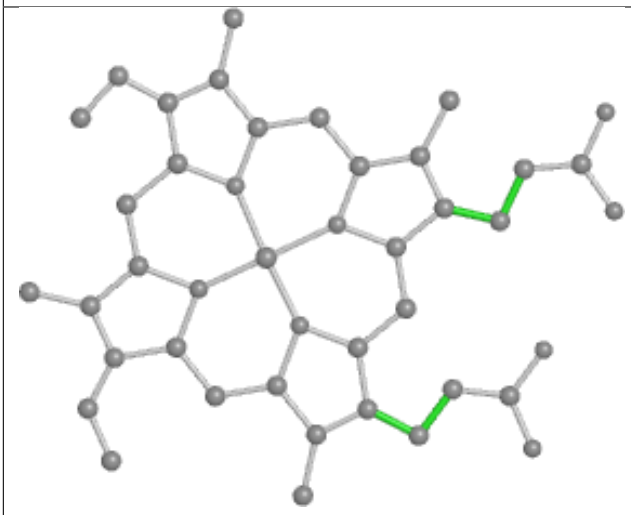

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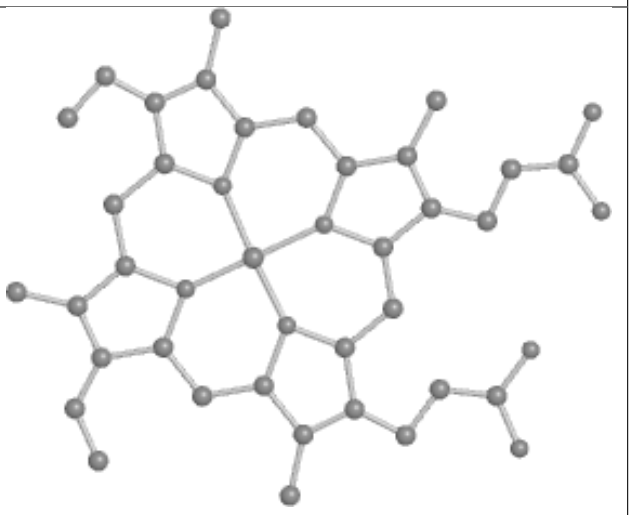
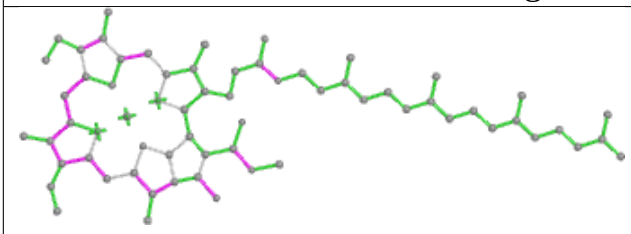


Rings

Ligand CLA C 503



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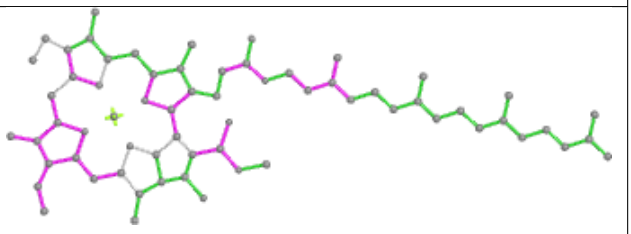
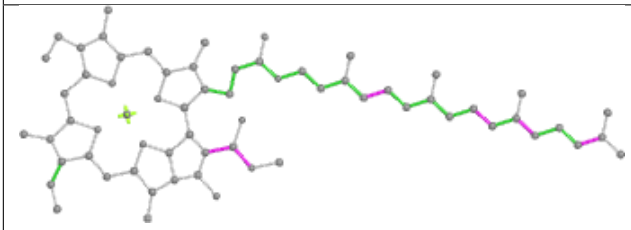


Bond angles



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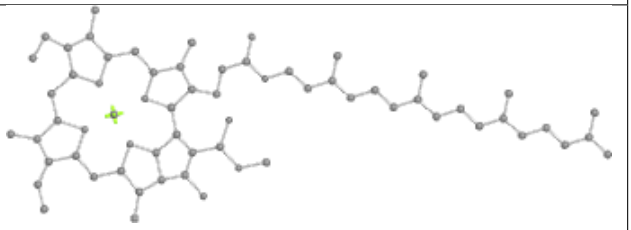
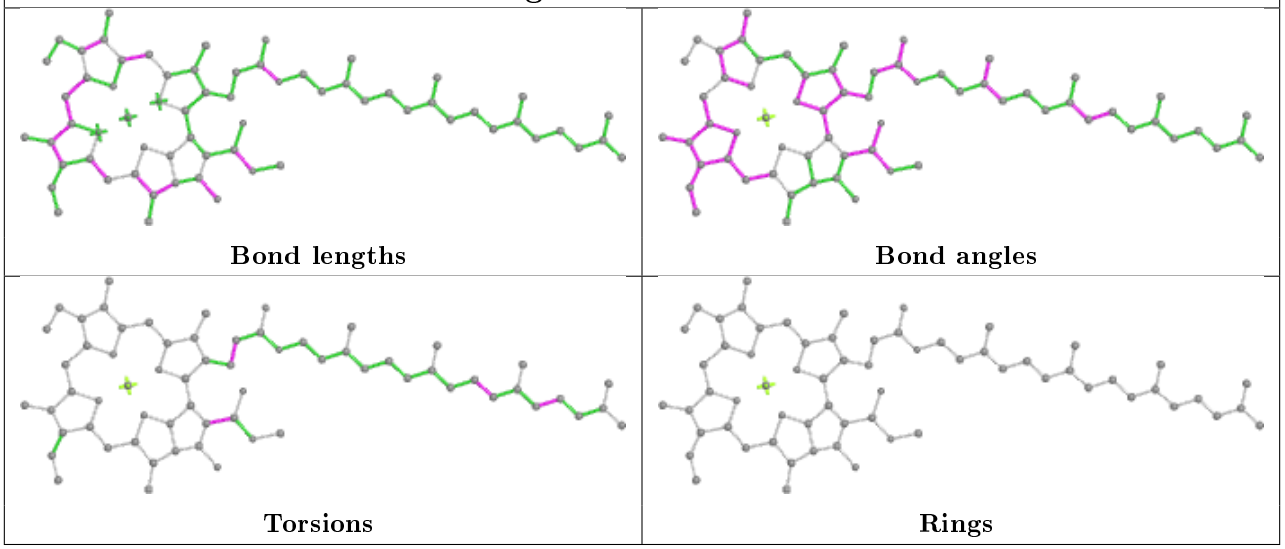
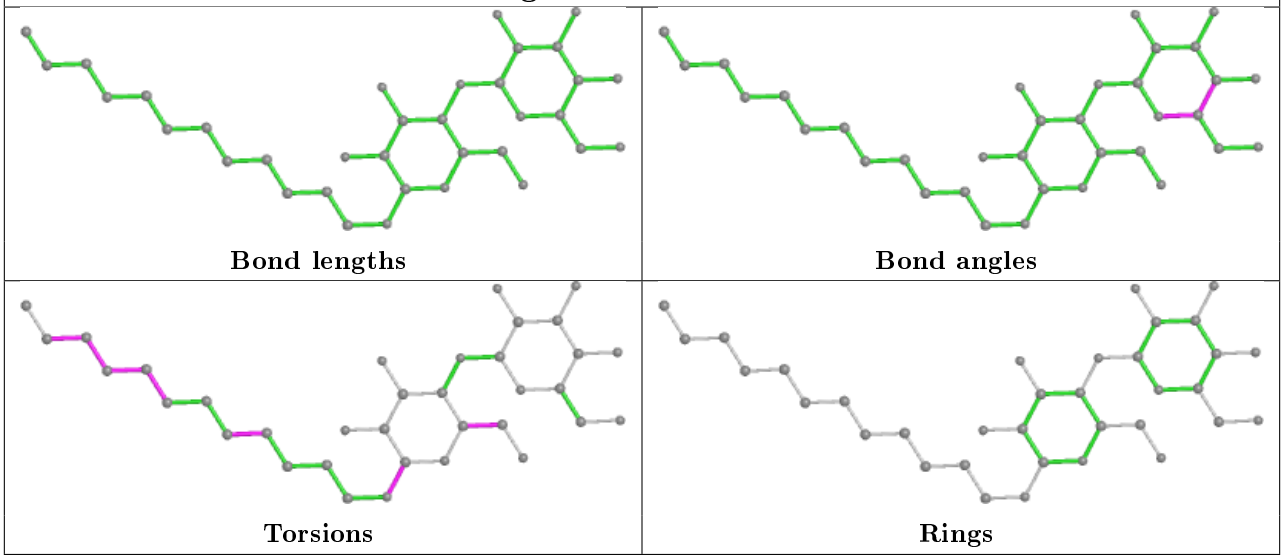


Rings

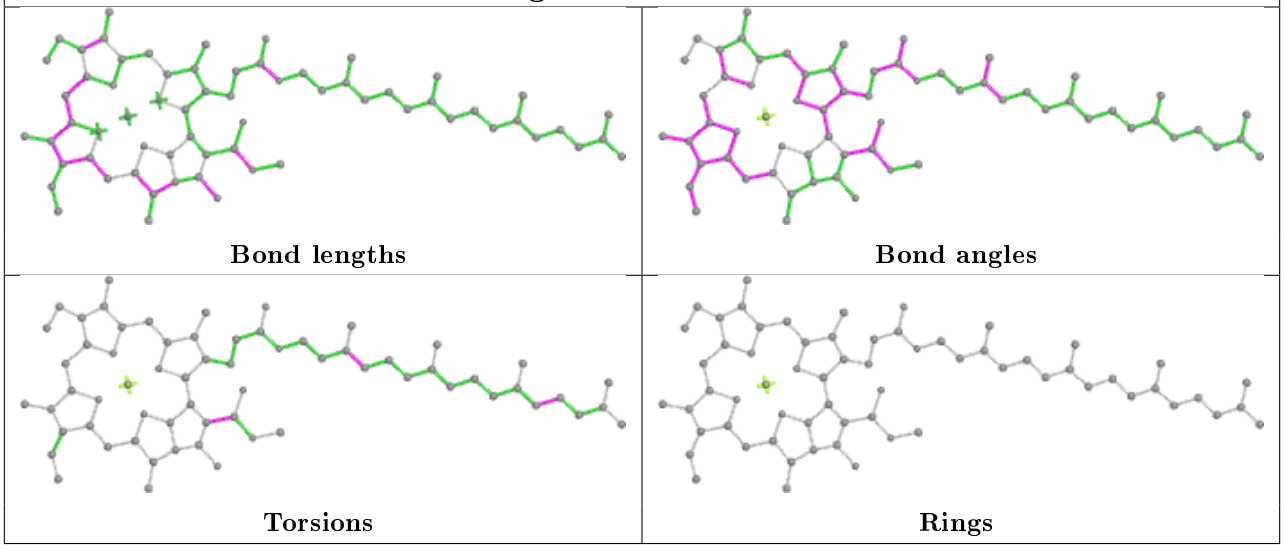
Ligand CLA B 607



Ligand LMT m 103



Ligand CLA b 603



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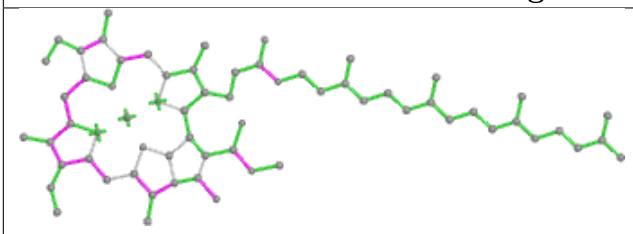
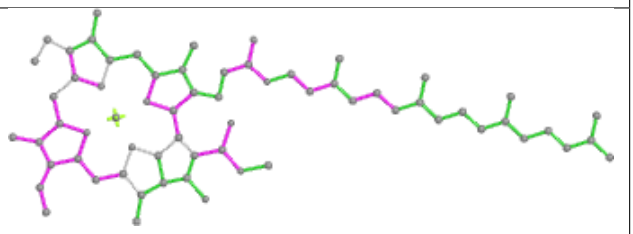
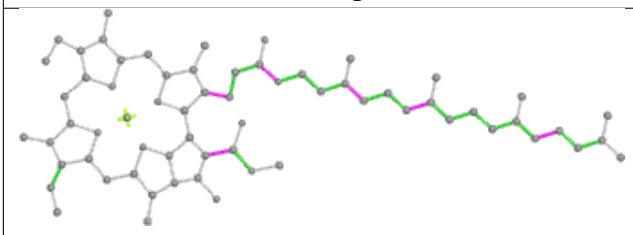
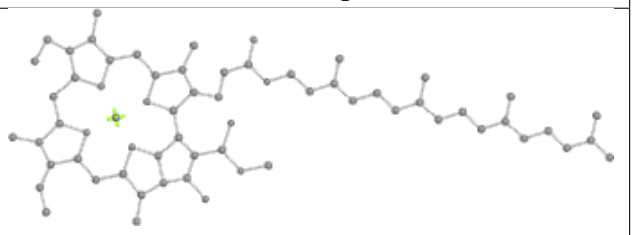
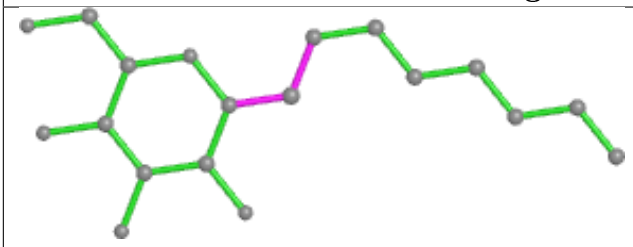

Bond lengths

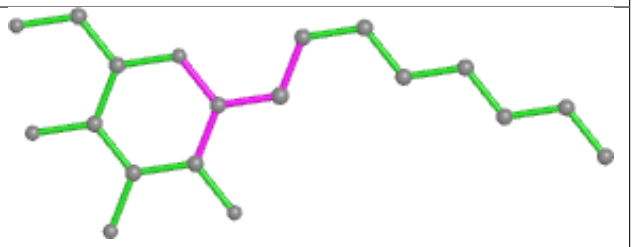

Bond angles

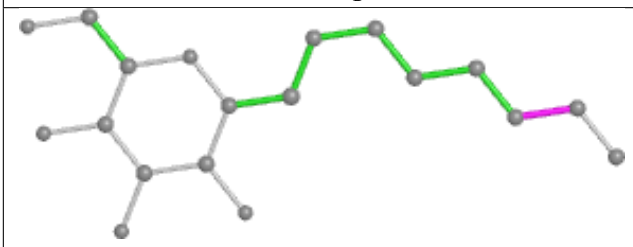

Torsions

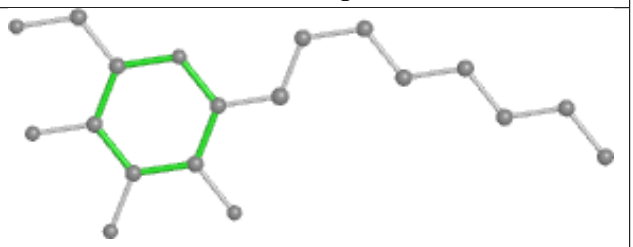

Rings

Ligand HTG b 622

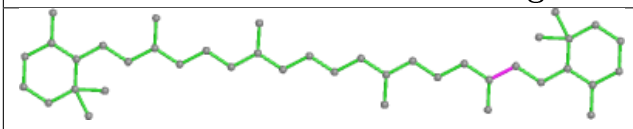

Bond lengths


Bond angles


Torsions


Rings

Ligand BCR c 514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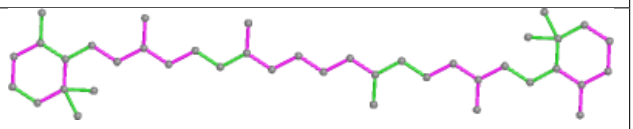
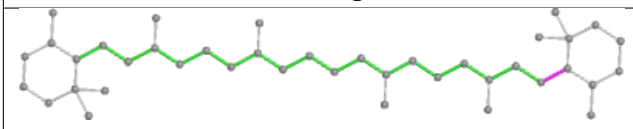

Bond angles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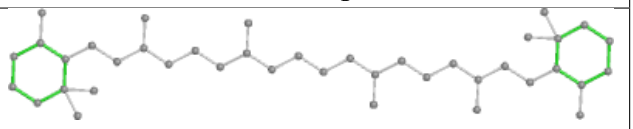
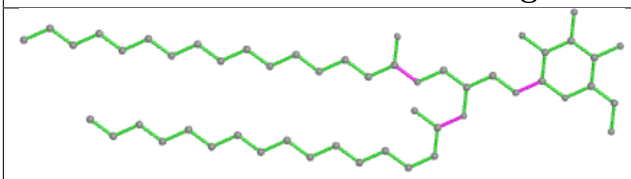
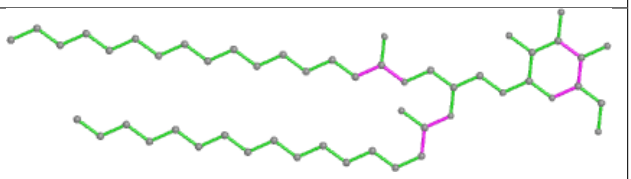

Rings

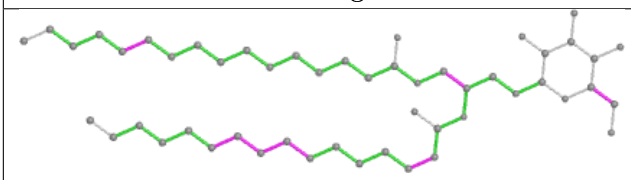
Ligand LMG C 521



Bond lengths



Bond angles



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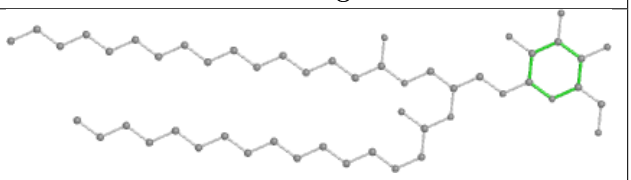
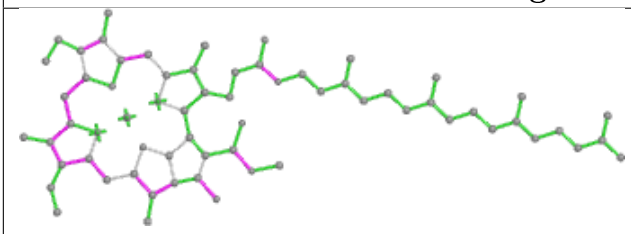


Rings

Ligand CLA c 507



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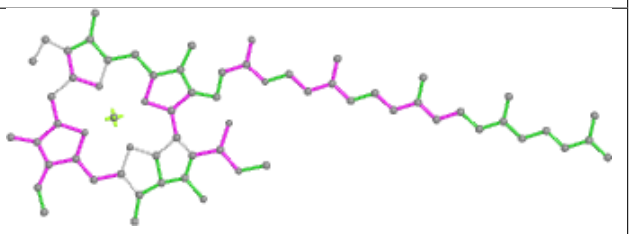
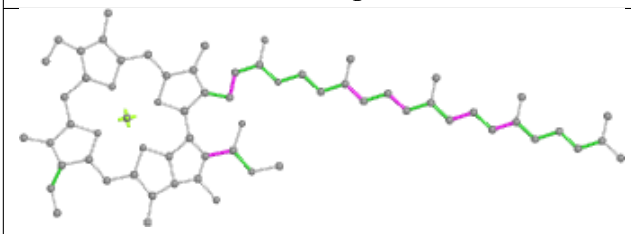
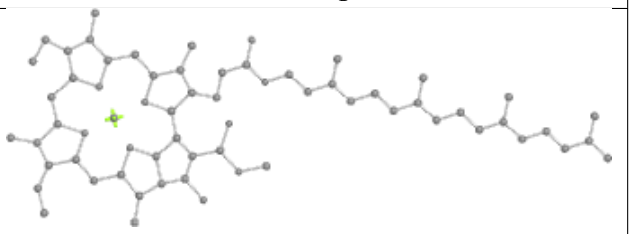


Bond angles

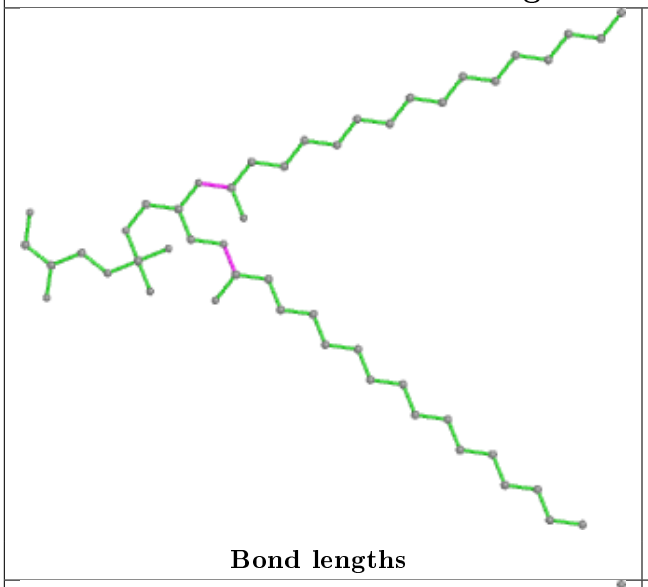


Torsions

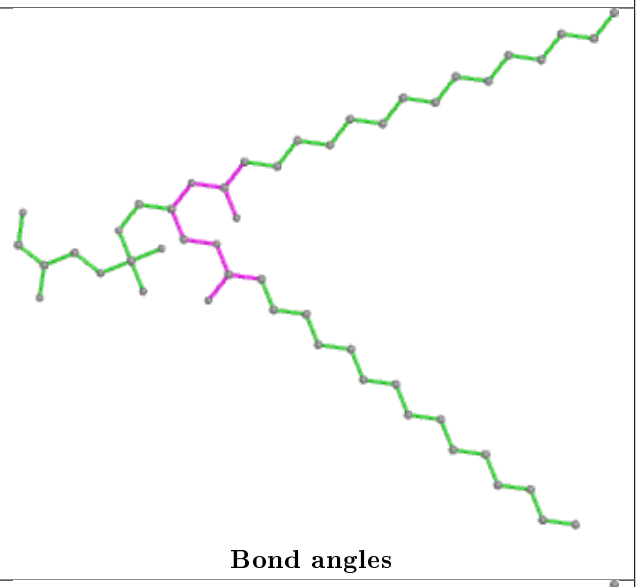


Rings

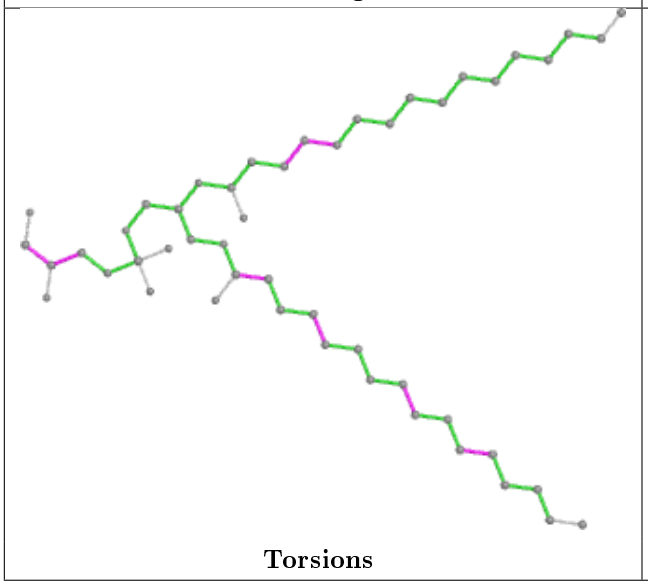
Ligand LHG A 415



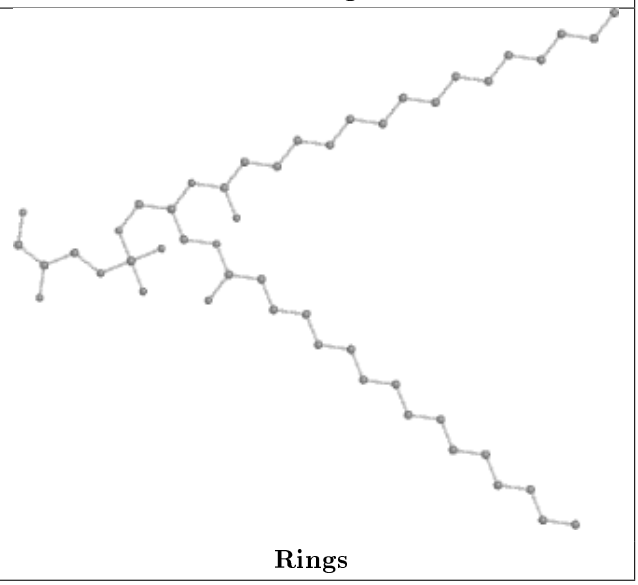
Bond lengths



Bond angles

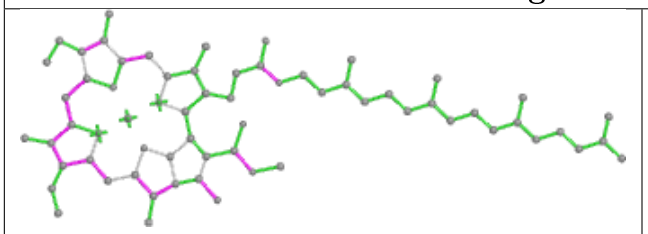


Torsions

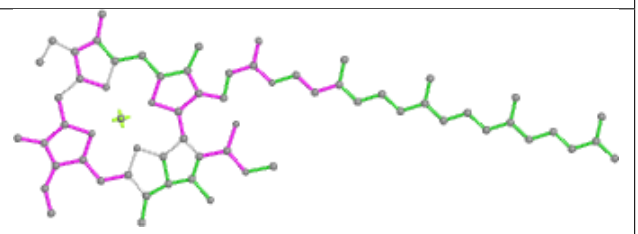


Rings

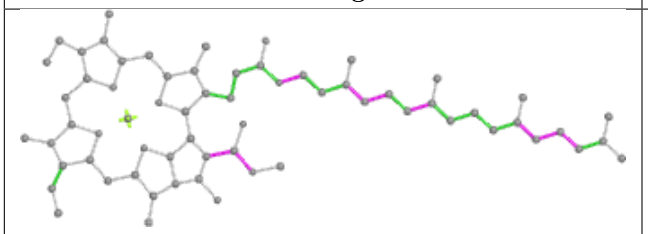
Ligand CLA b 614



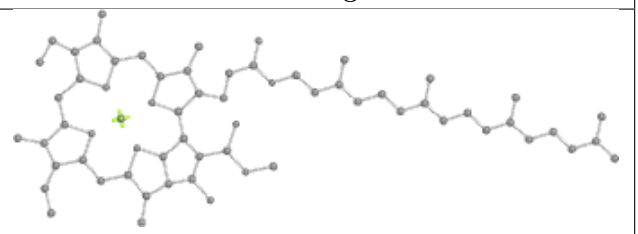
Bond lengths



Bond angles

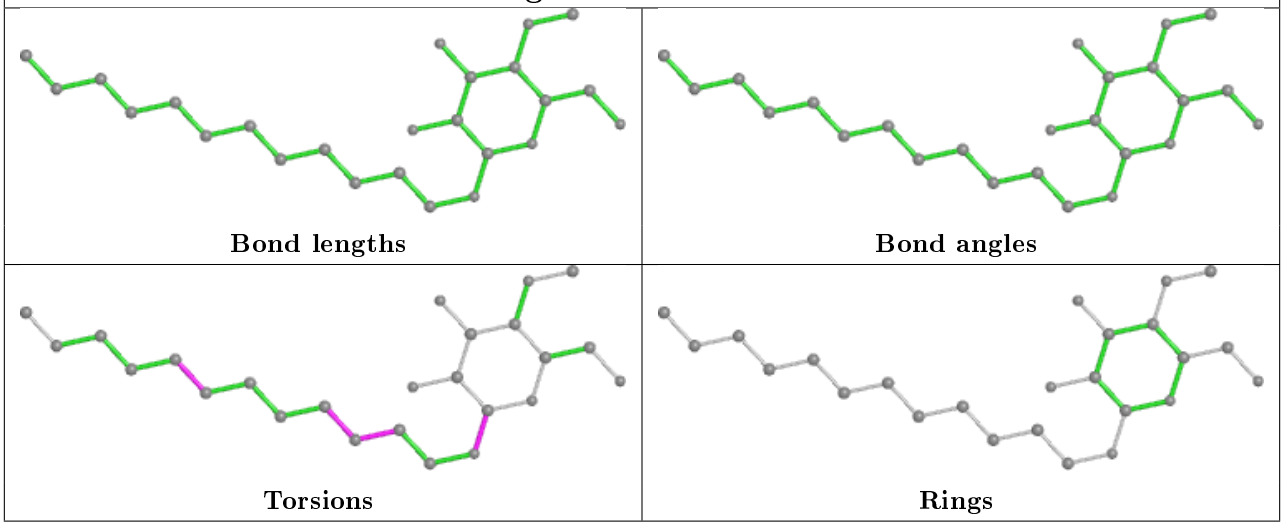


Torsions

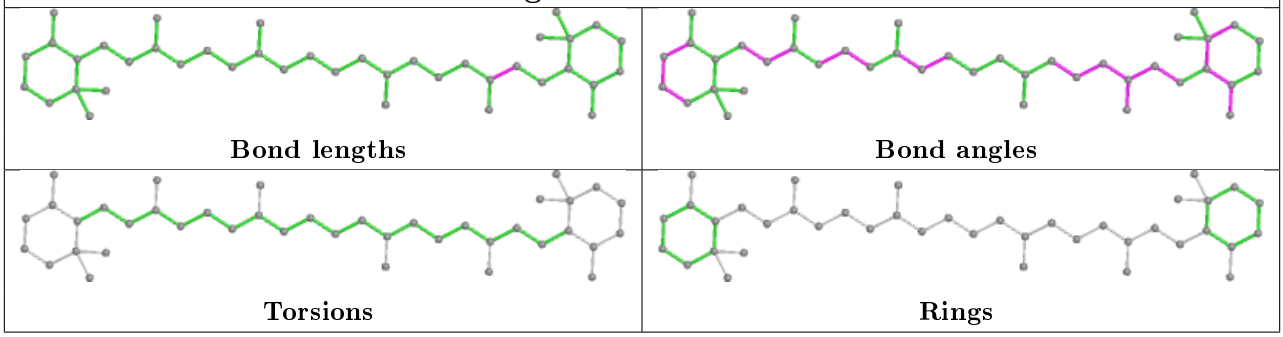


Rings

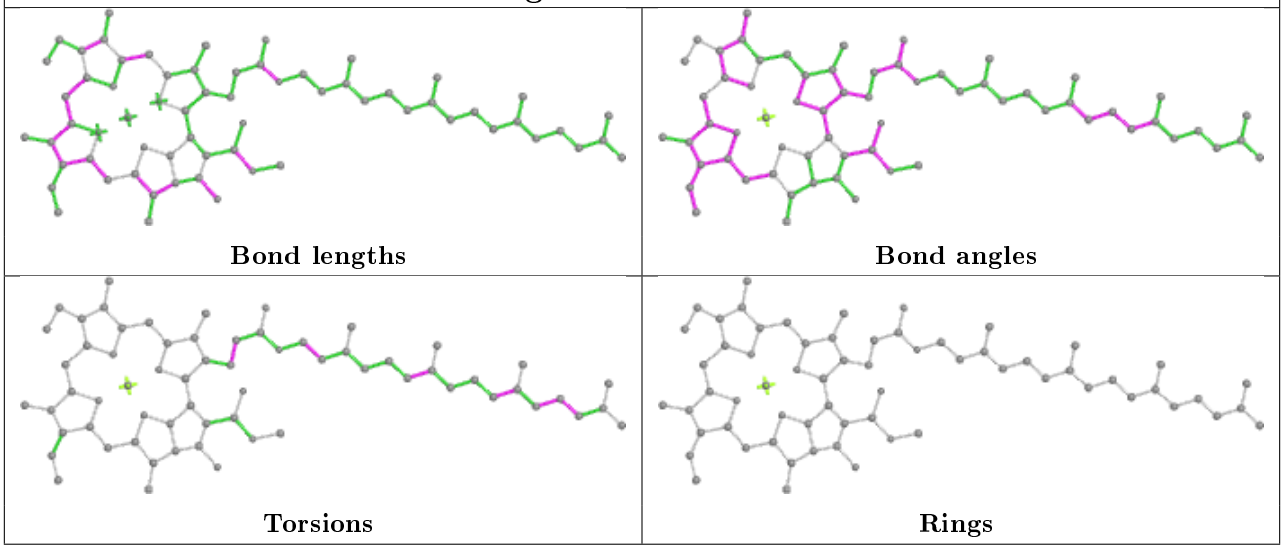
Ligand LMT b 620



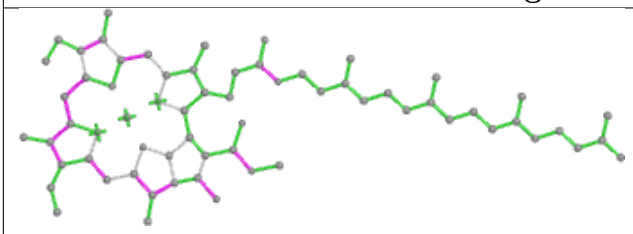
Ligand BCR B 620



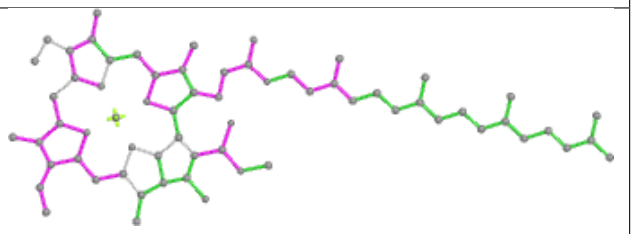
Ligand CLA B 603



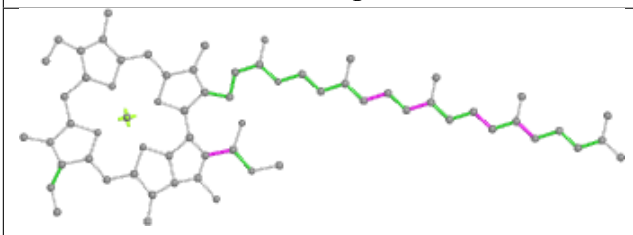
Ligand CLA C 513



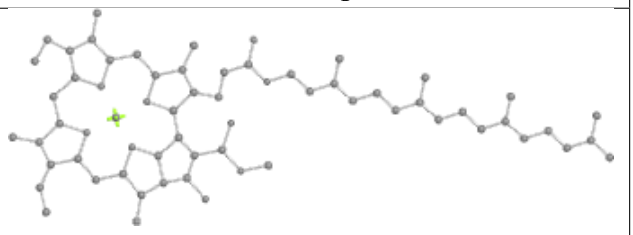
Bond lengths



Bond angles

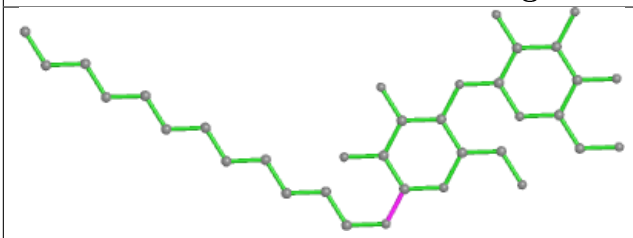


Torsions

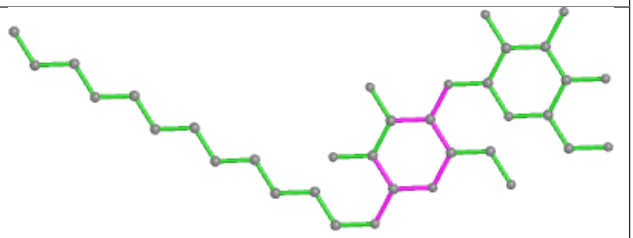


Rings

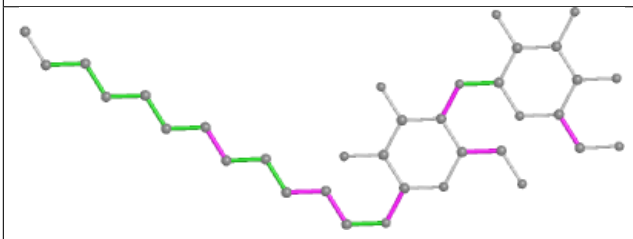
Ligand LMT C 522



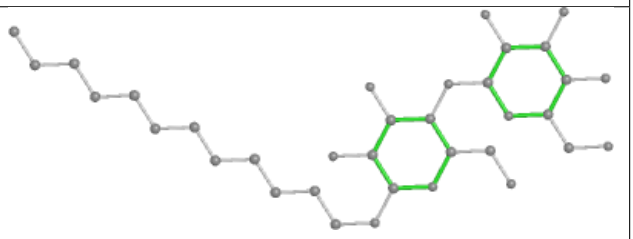
Bond lengths



Bond angles

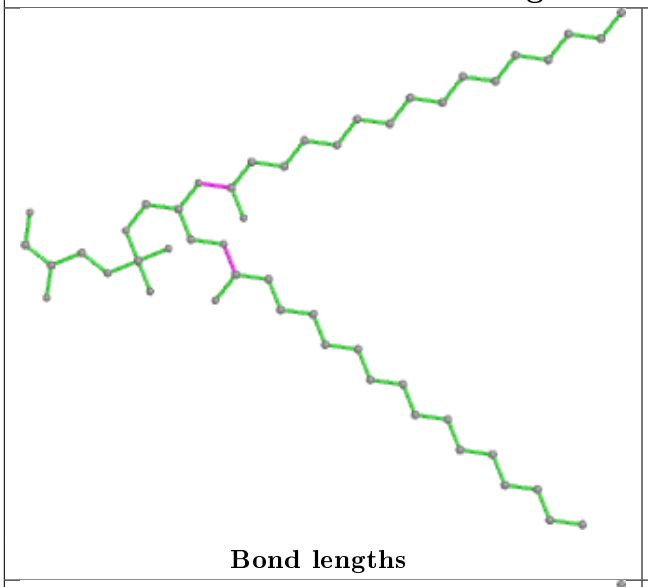


Torsions

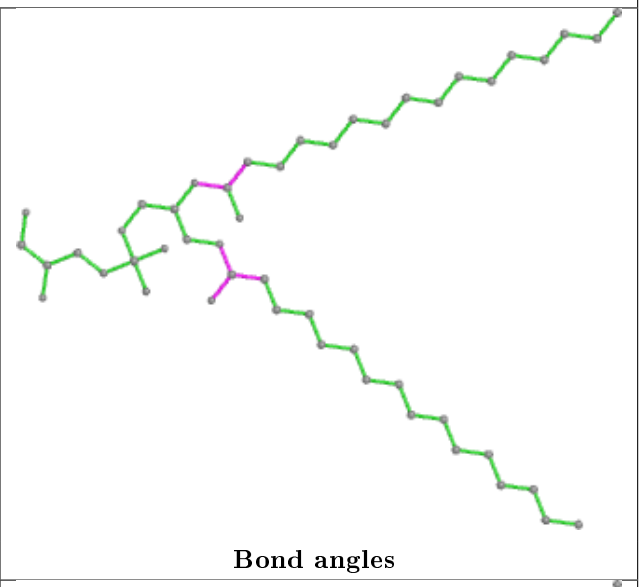


Rings

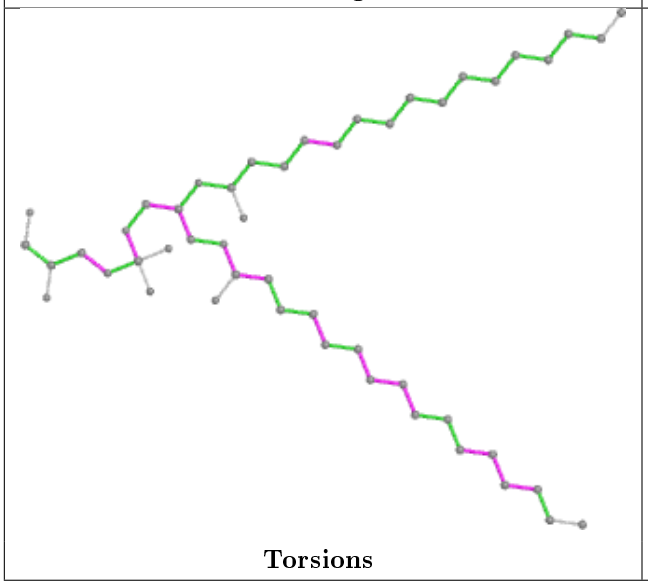
Ligand LHG d 408



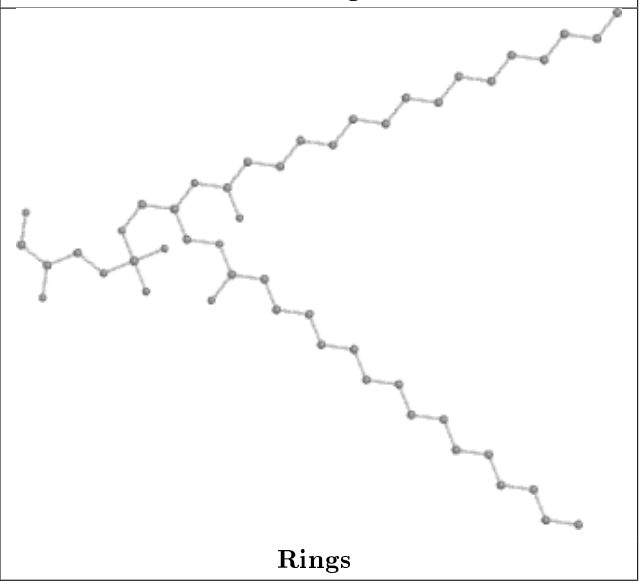
Bond lengths



Bond angles

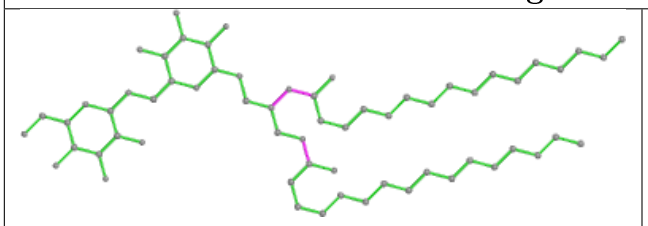


Torsions

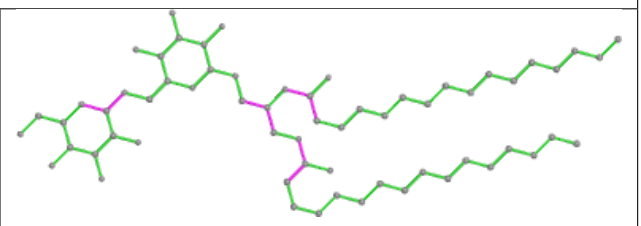


Rings

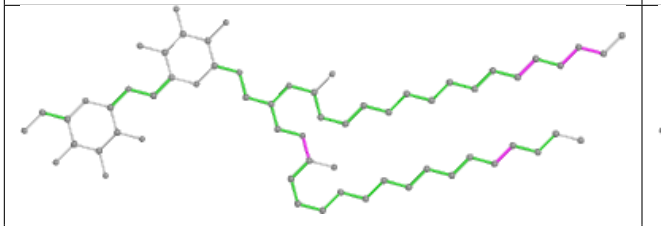
Ligand DGD c 518



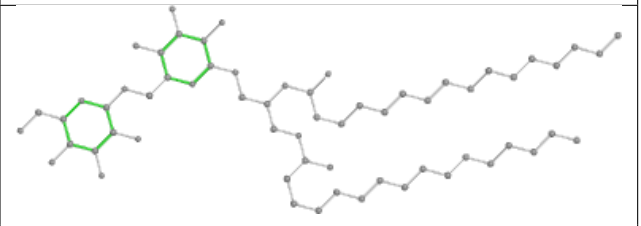
Bond lengths



Bond angles

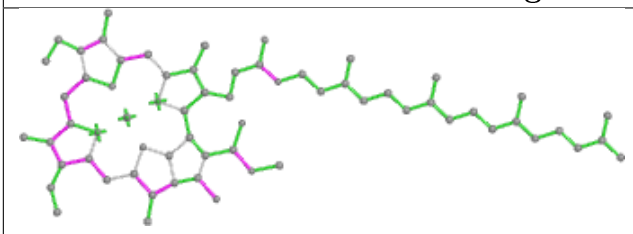


Torsions

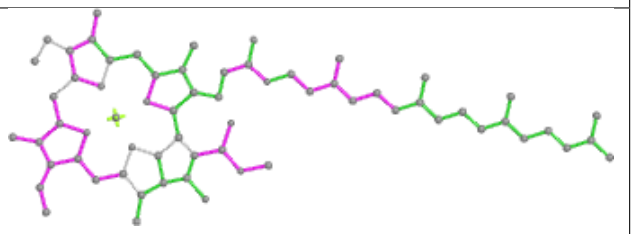


Rings

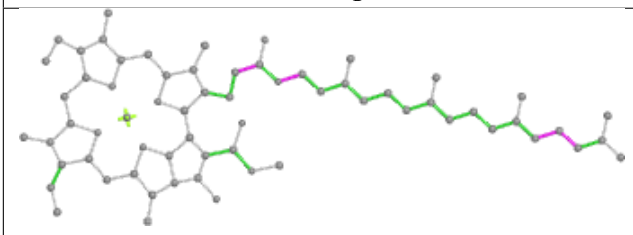
Ligand CLA B 614



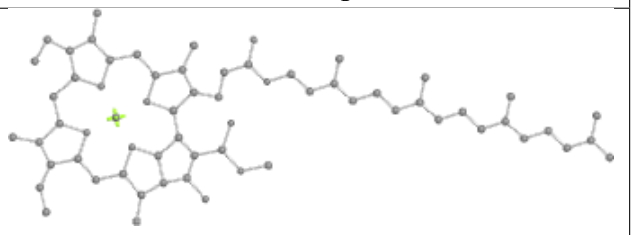
Bond lengths



Bond angles

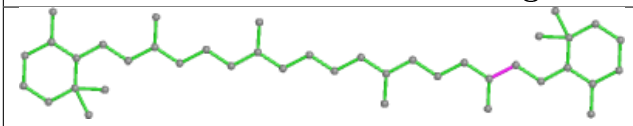


Torsions

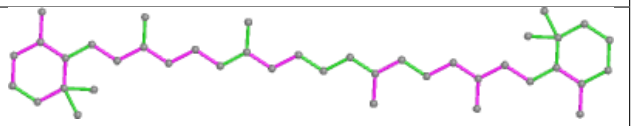


Rings

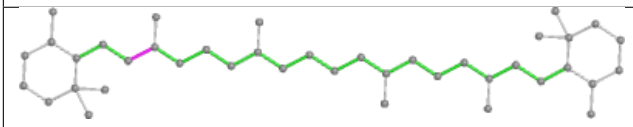
Ligand BCR C 527



Bond lengths



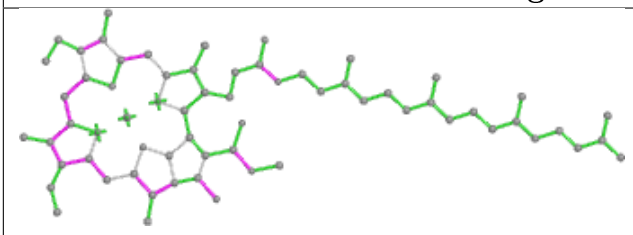
Bond angles



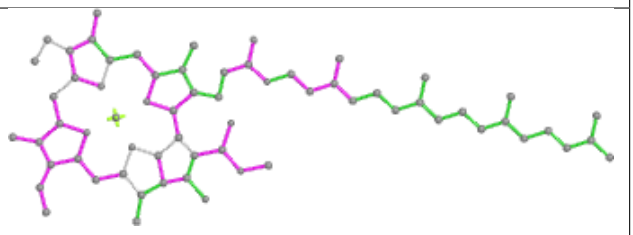
Torsions

Rings

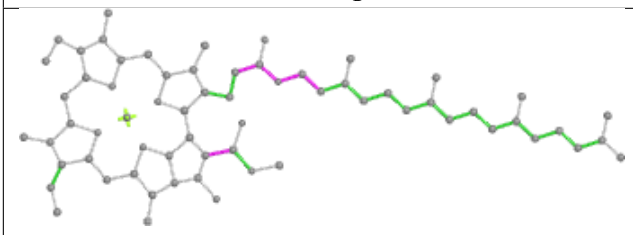
Ligand CLA b 613



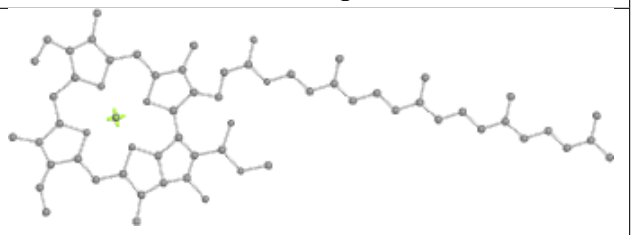
Bond lengths



Bond angles

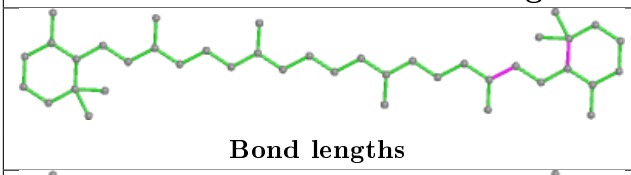


Torsions

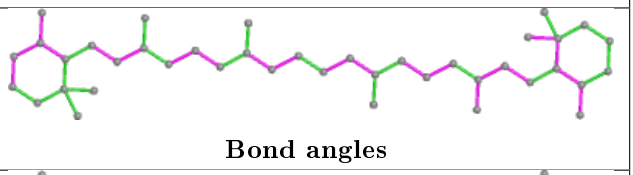


Rings

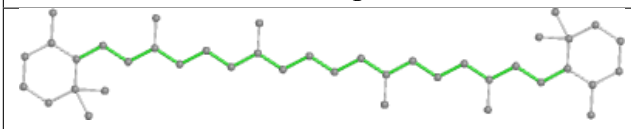
Ligand BCR b 619



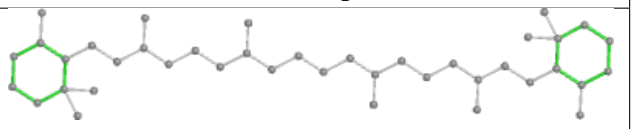
Bond lengths



Bond angles

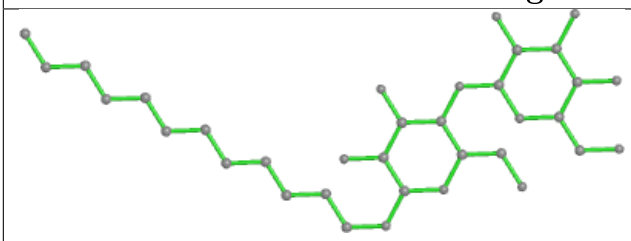


Torsions

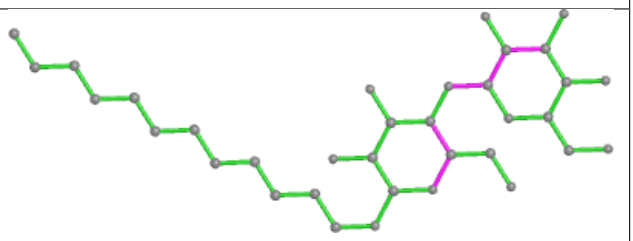


Rings

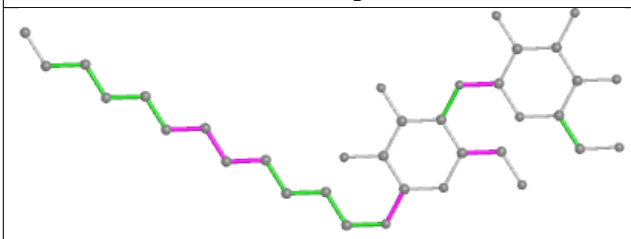
Ligand LMT e 102



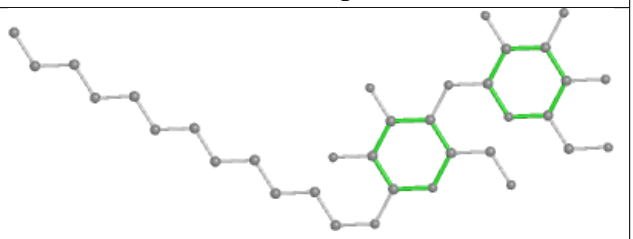
Bond lengths



Bond angles

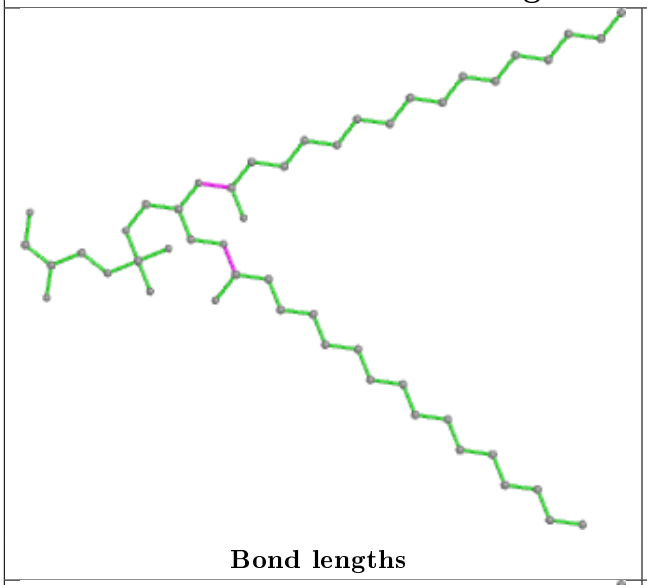


Torsions

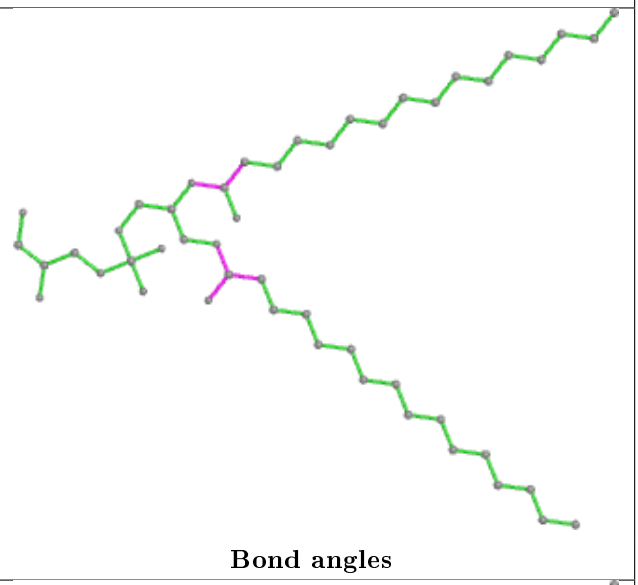


Rings

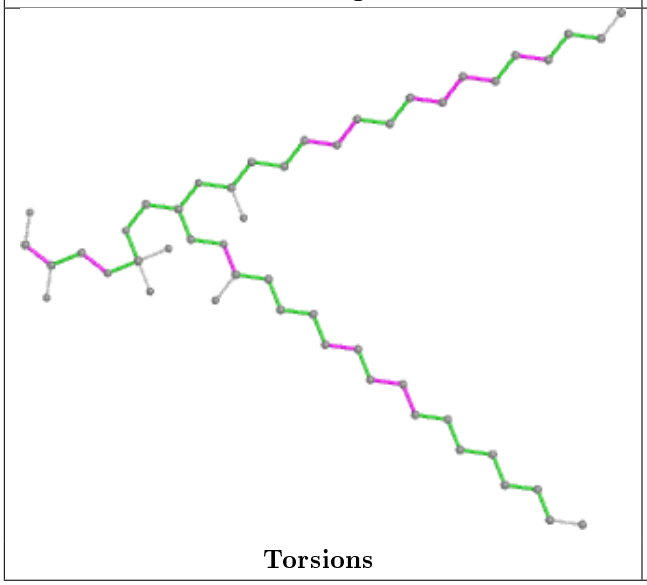
Ligand LHG D 409



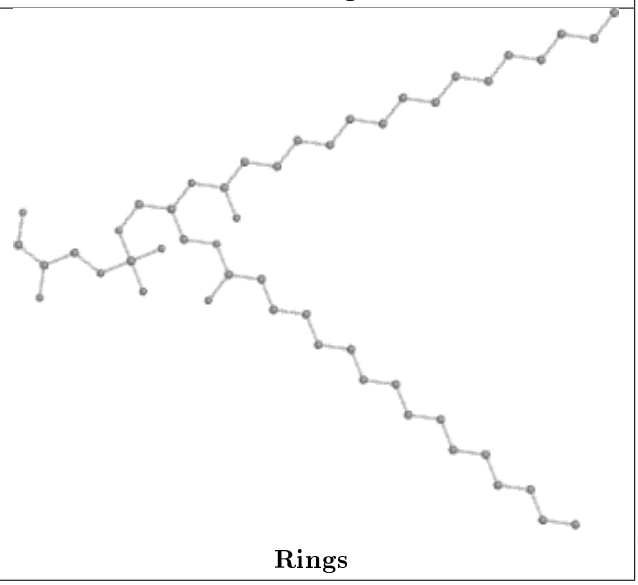
Bond lengths



Bond angles

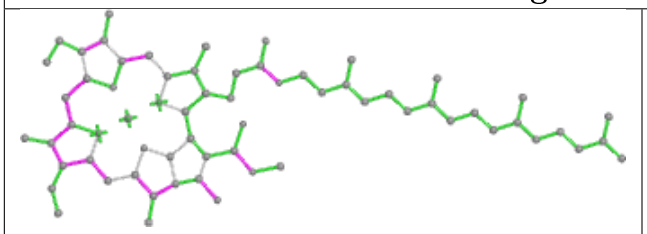


Torsions

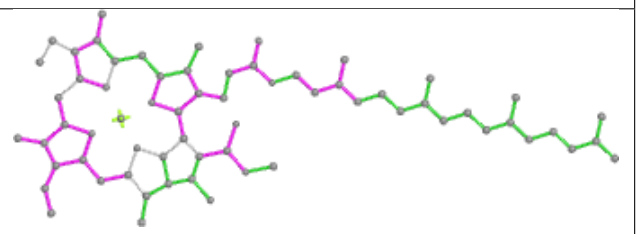


Rings

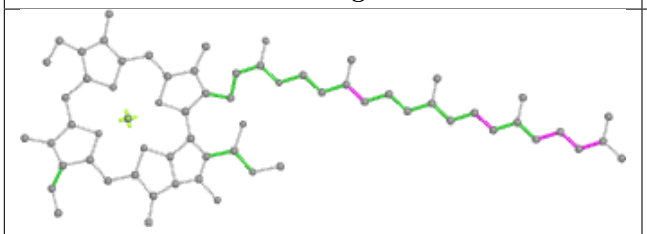
Ligand CLA c 513



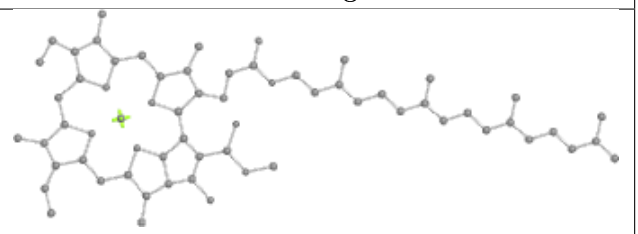
Bond lengths



Bond angles

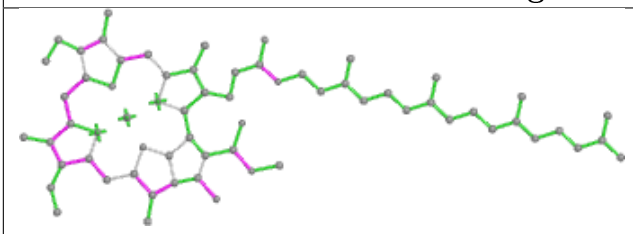


Torsions

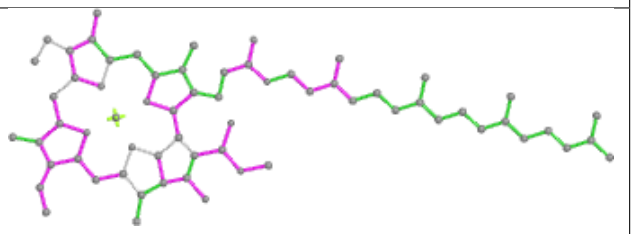


Rings

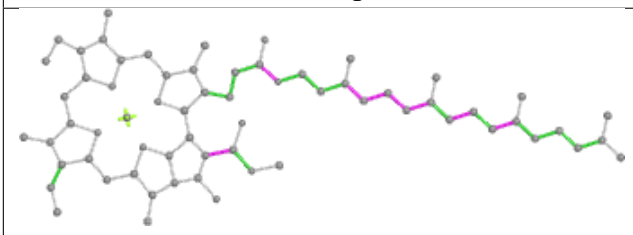
Ligand CLA b 616



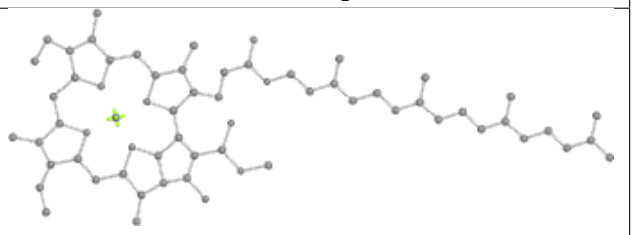
Bond lengths



Bond angles

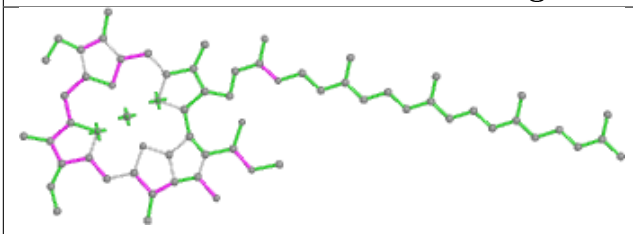


Torsions

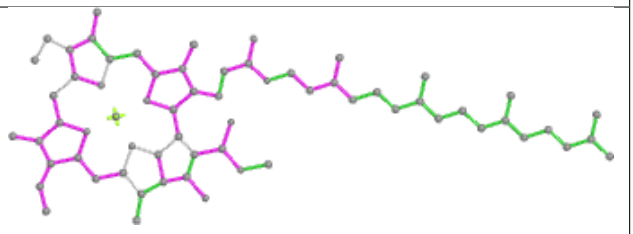


Rings

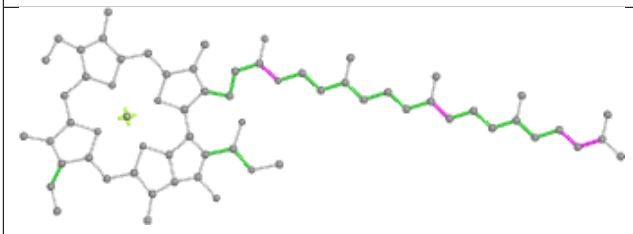
Ligand CLA a 409



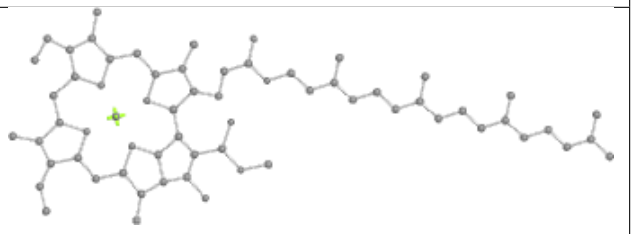
Bond lengths



Bond angles

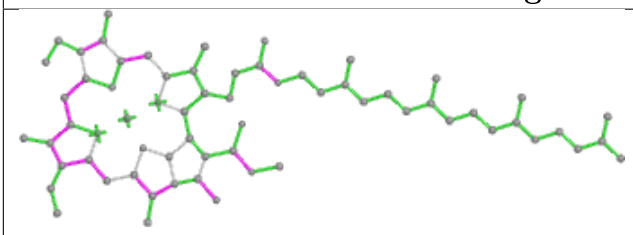


Torsions

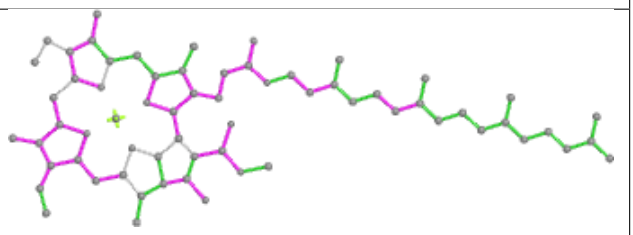


Rings

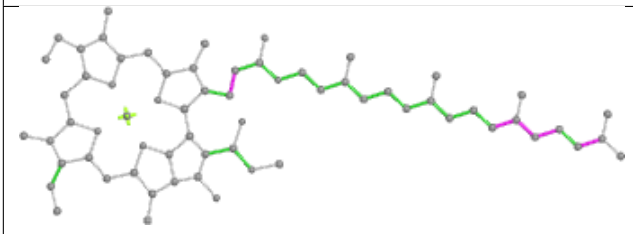
Ligand CLA B 611



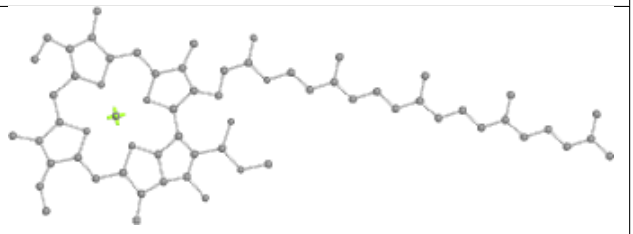
Bond lengths



Bond angles

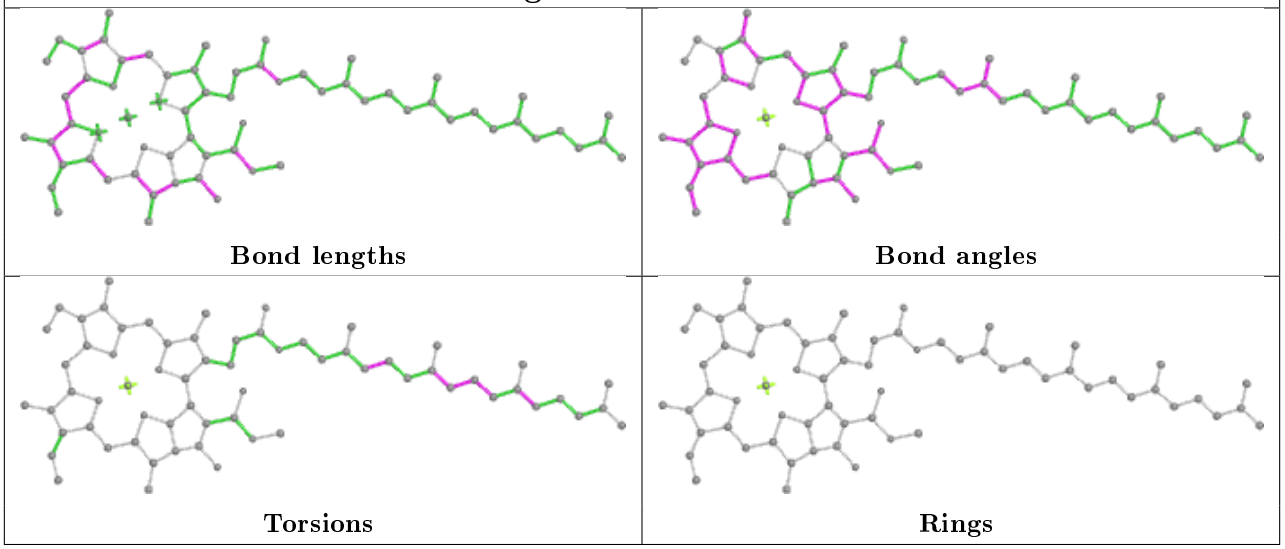


Torsions

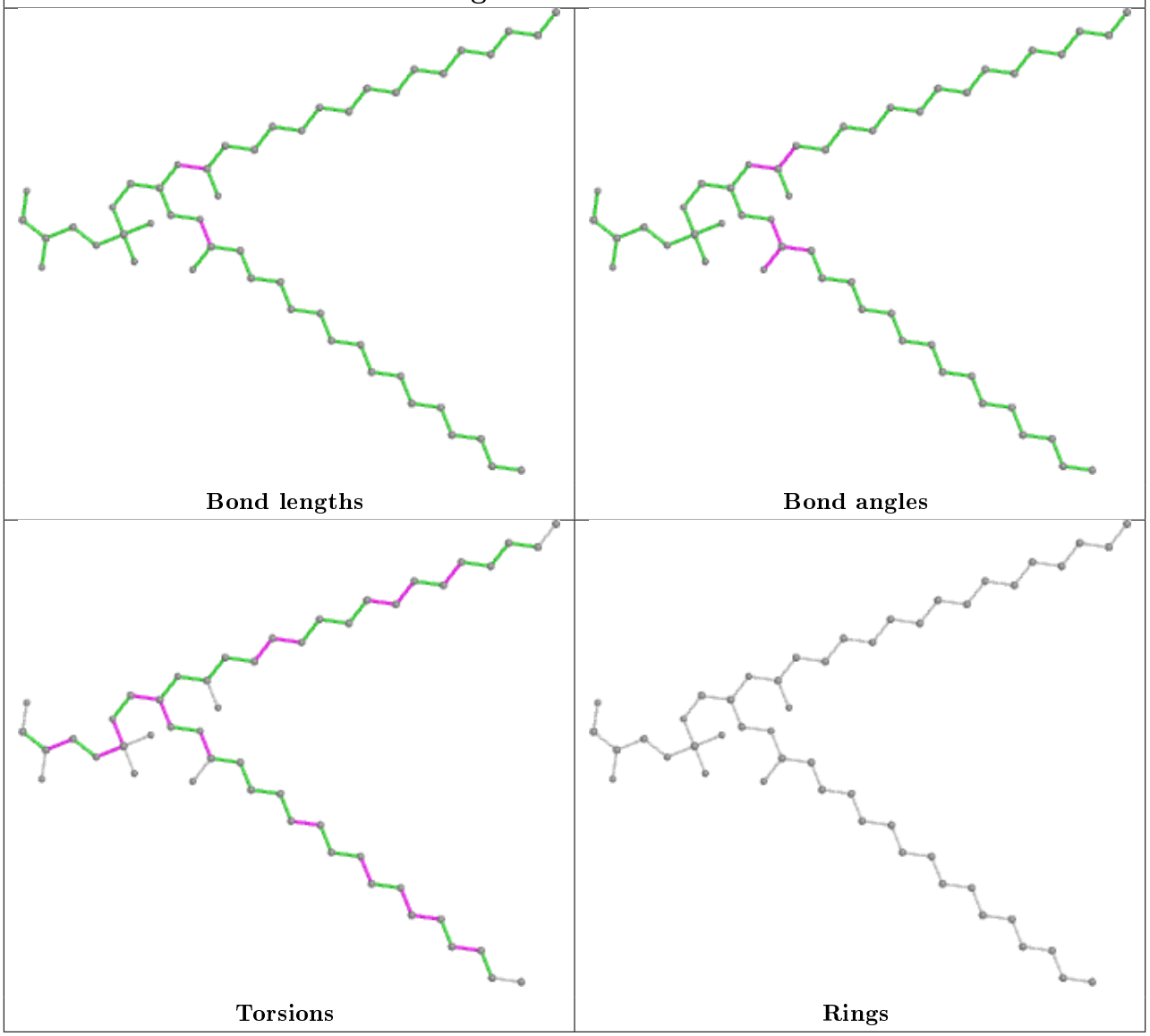


Rings

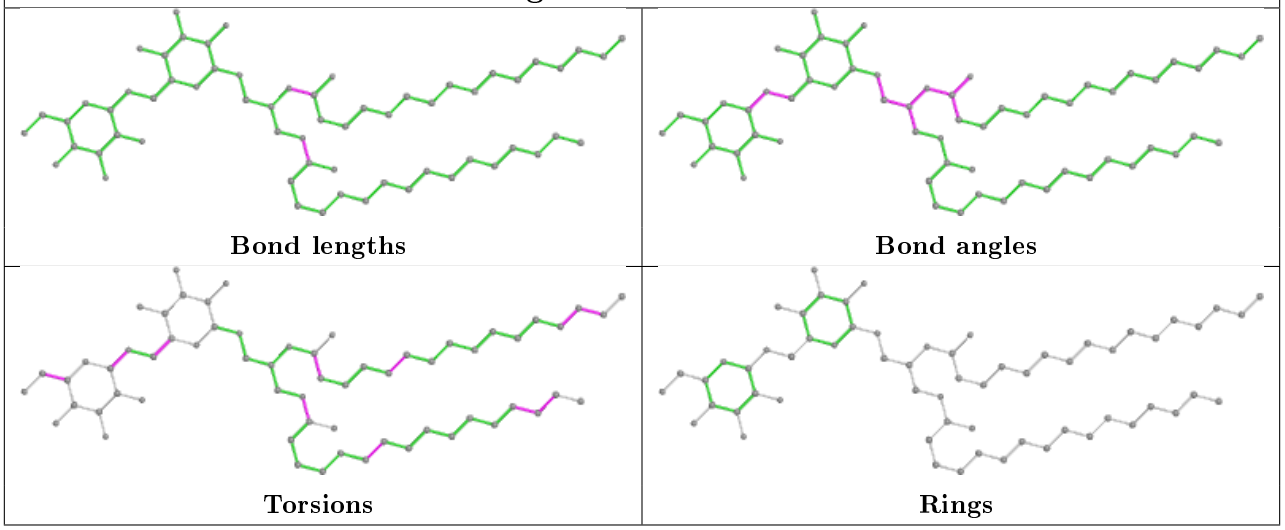
Ligand CLA D 405



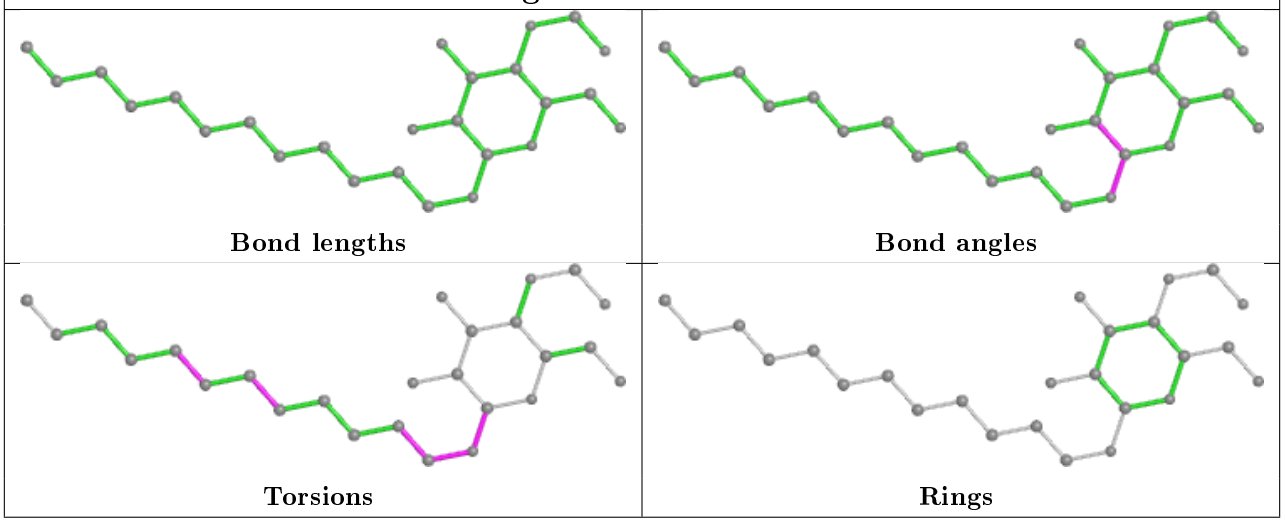
Ligand LHG d 407



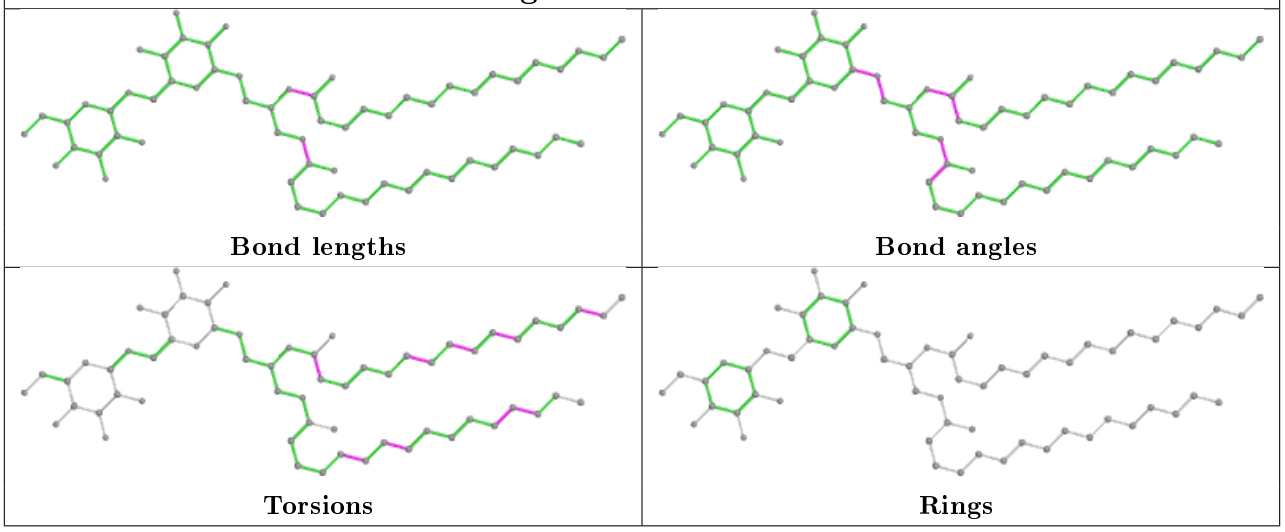
Ligand DGD c 516



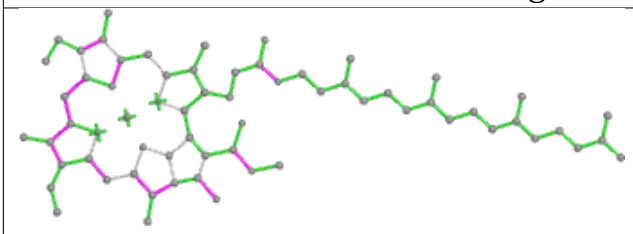
Ligand LMT B 634



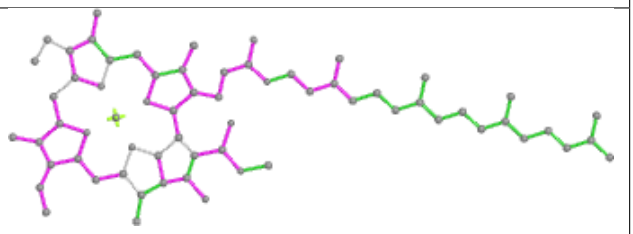
Ligand DGD H 102



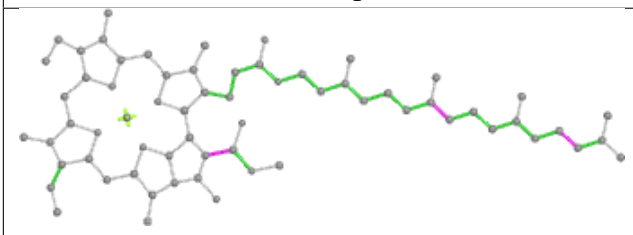
Ligand CLA a 405



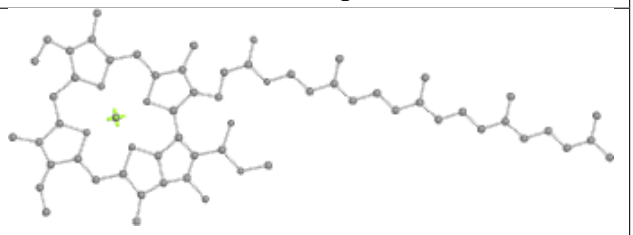
Bond lengths



Bond angles

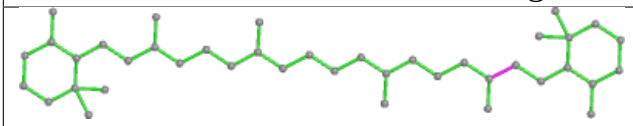


Torsions

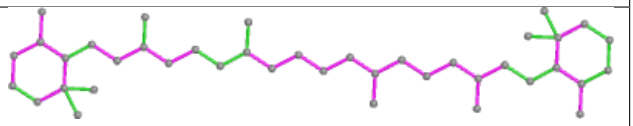


Rings

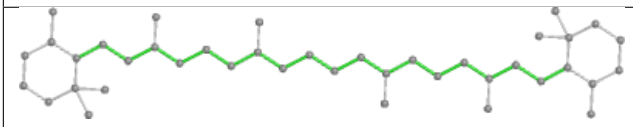
Ligand BCR c 515



Bond lengths



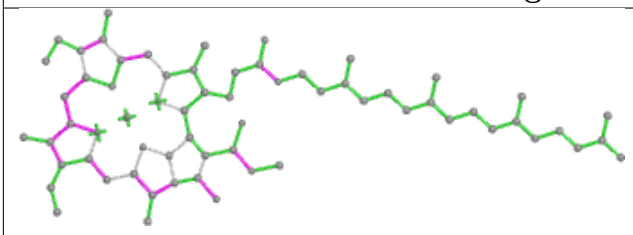
Bond angles



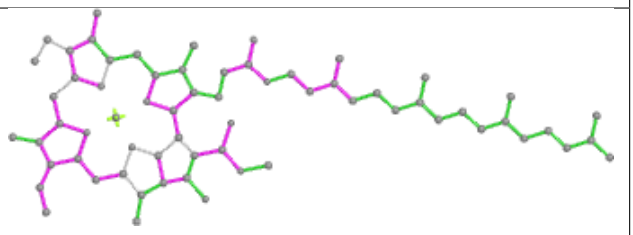
Torsions

Rings

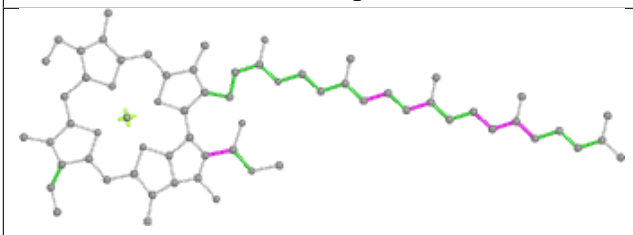
Ligand CLA B 617



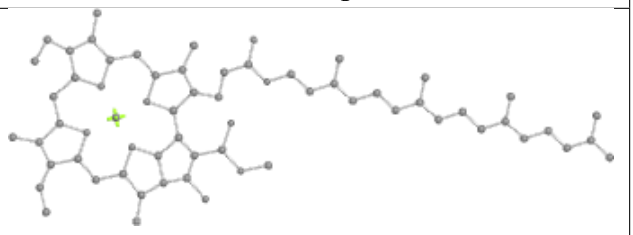
Bond lengths



Bond angles

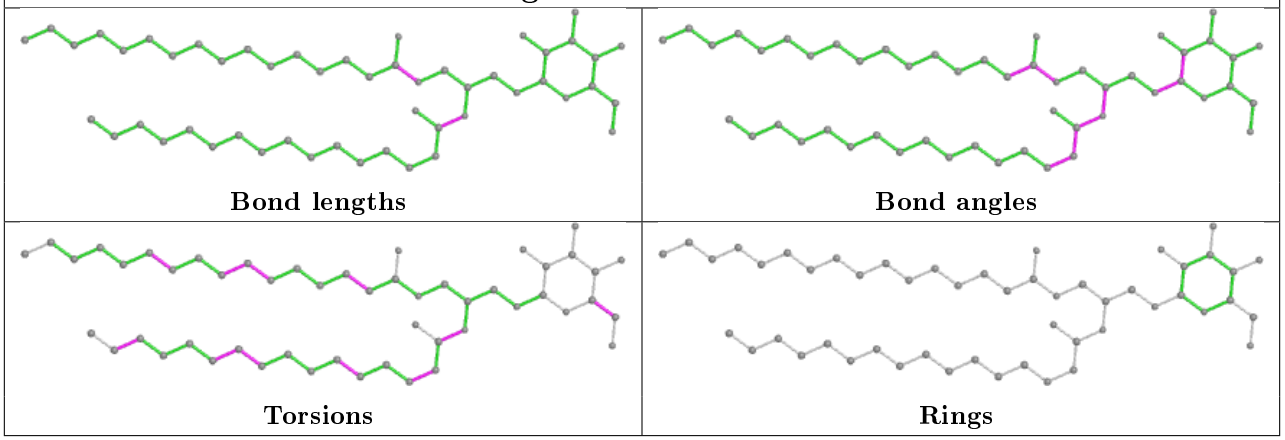


Torsions

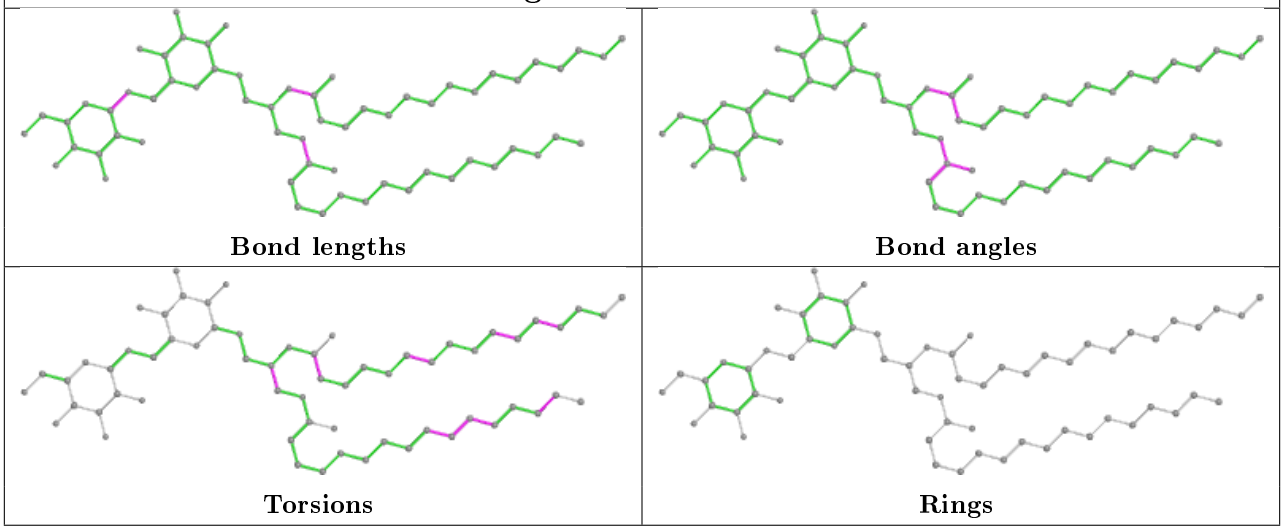


Rings

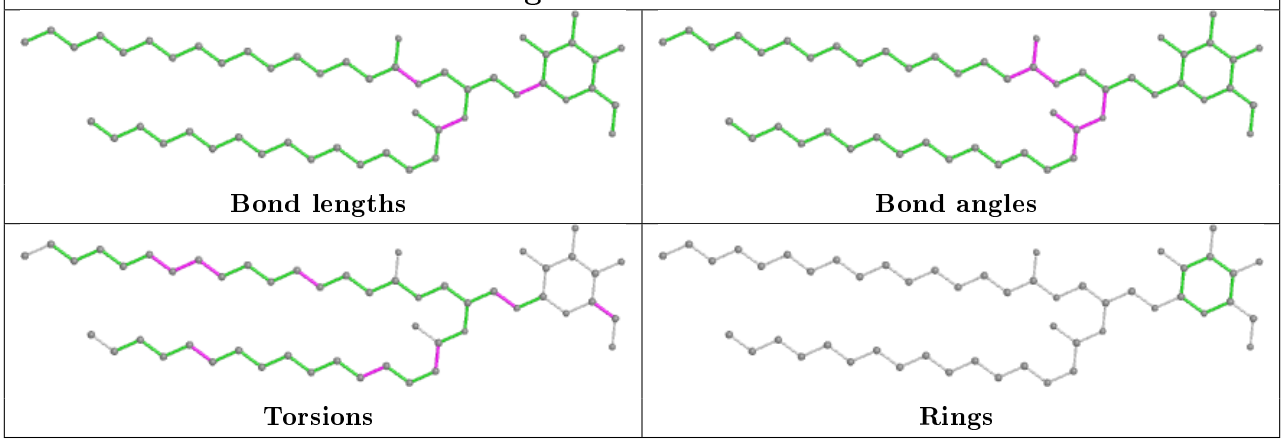
Ligand LMG B 622



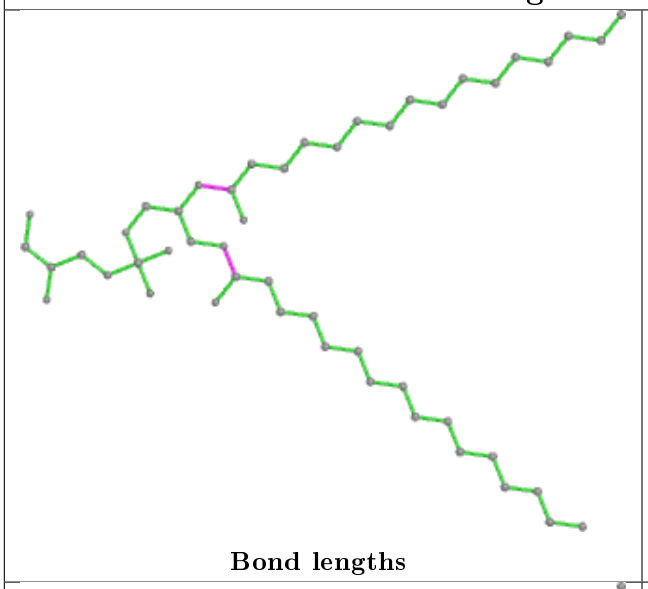
Ligand DGD h 103



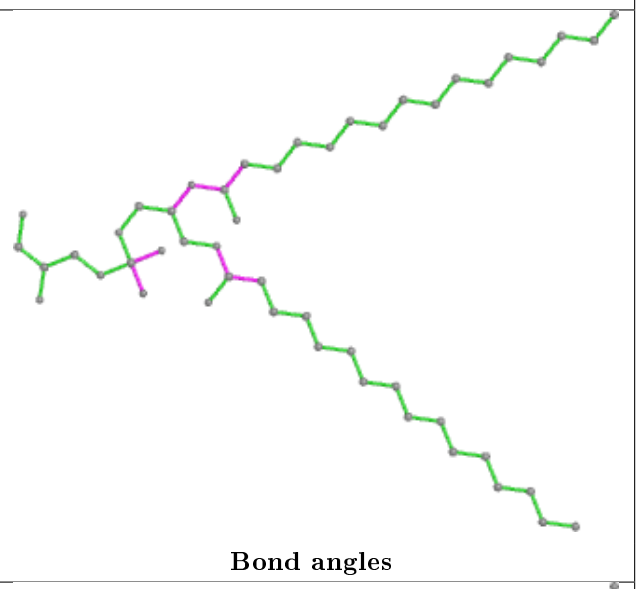
Ligand LMG J 101



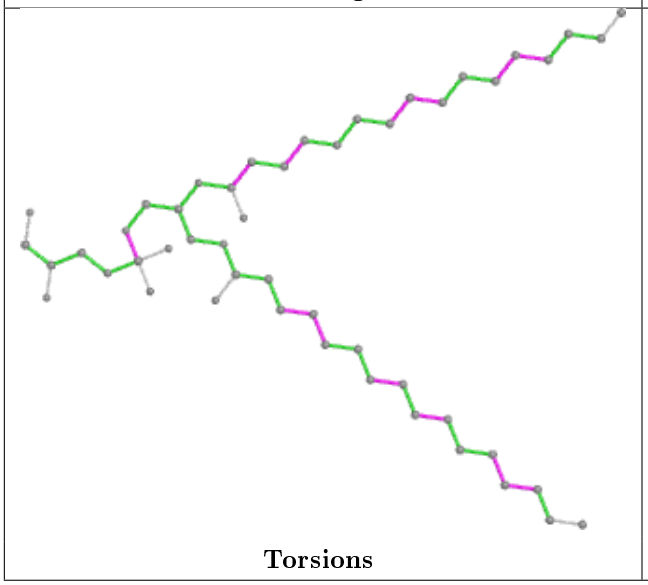
Ligand LHG L 101



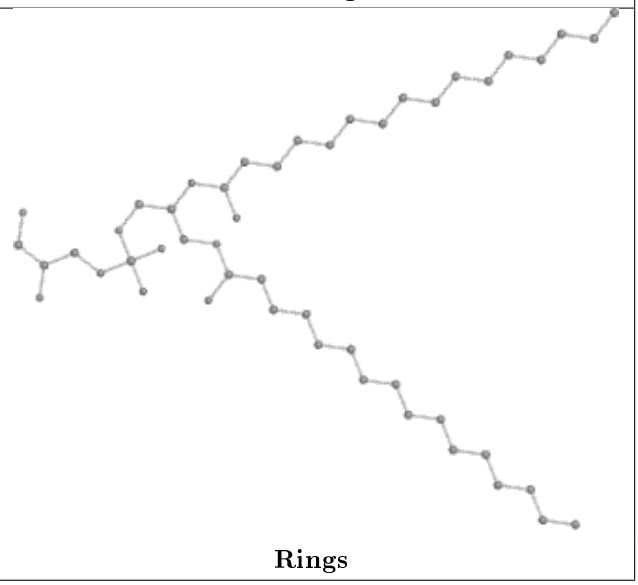
Bond lengths



Bond angles

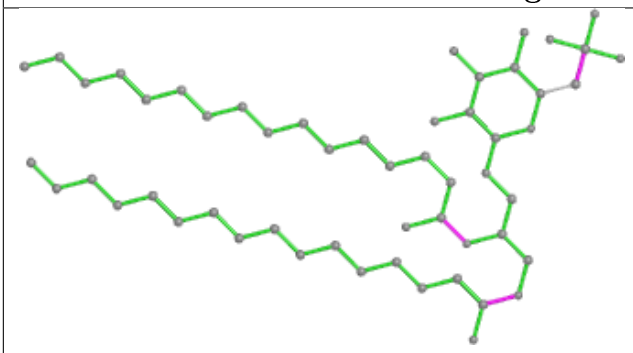


Torsions

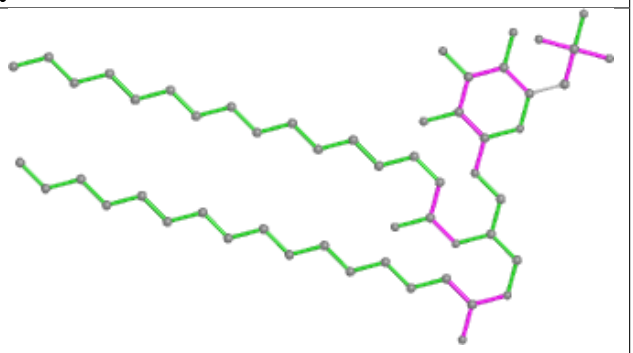


Rings

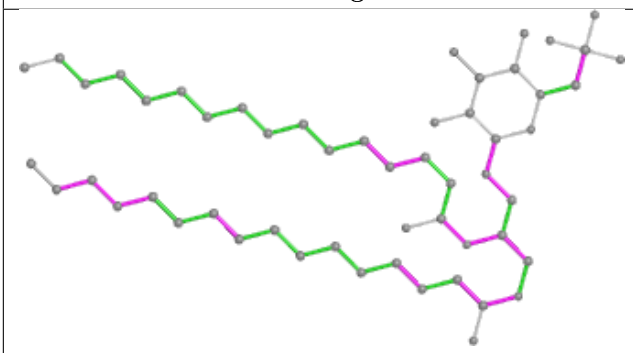
Ligand SQD B 621



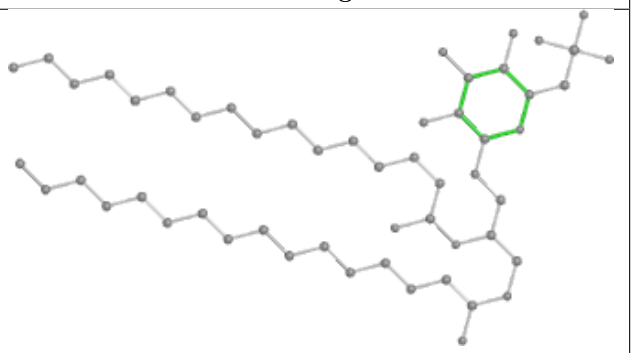
Bond lengths



Bond angles

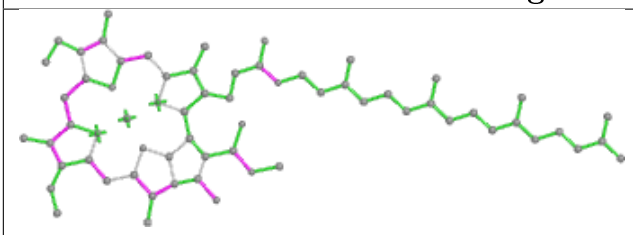


Torsions

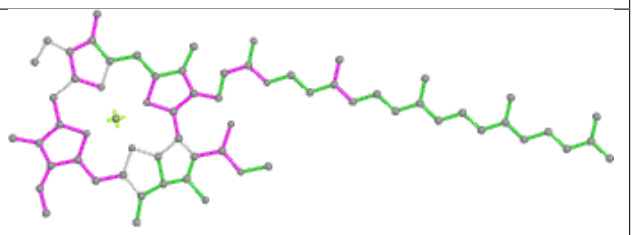


Rings

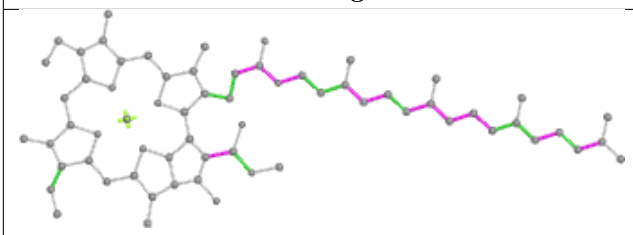
Ligand CLA b 601



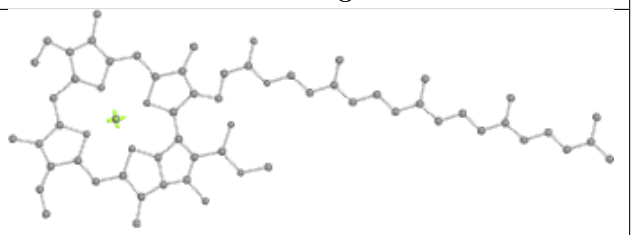
Bond lengths



Bond angles

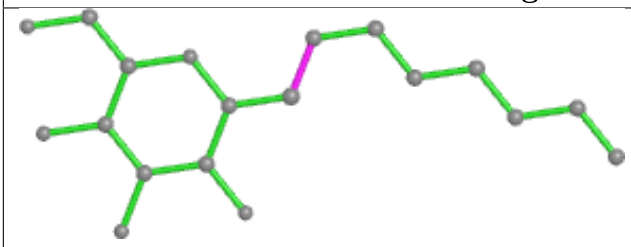


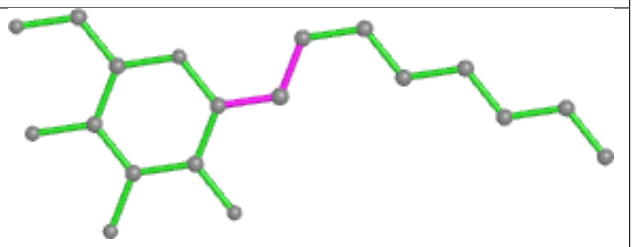
Torsions

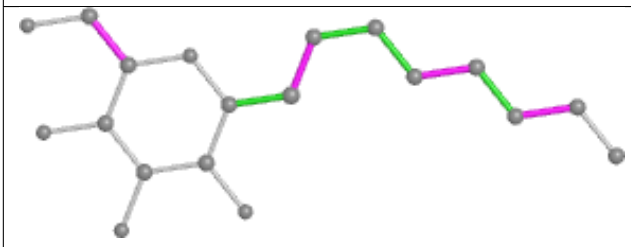


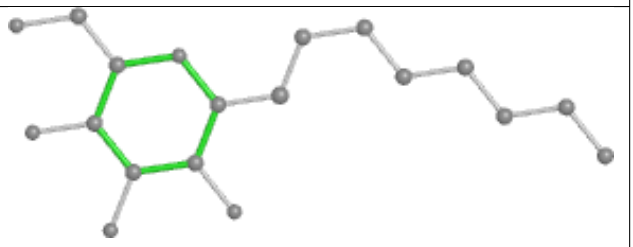
Rings

Ligand HTG B 625

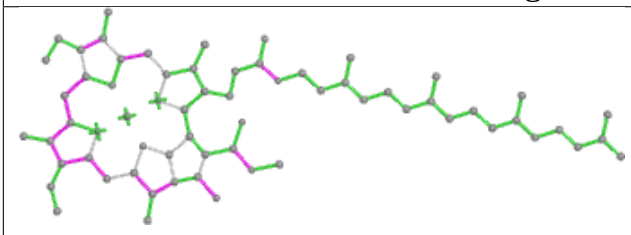

Bond lengths

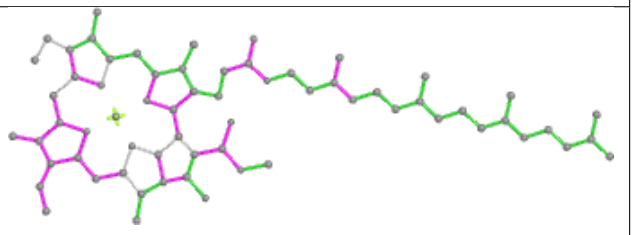

Bond angles

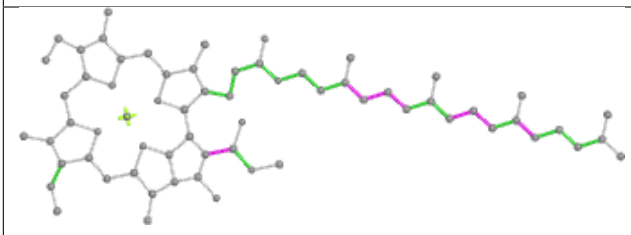

Torsions

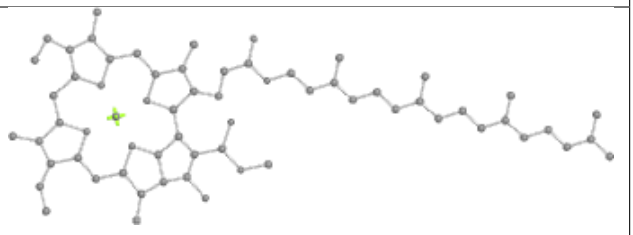

Rings

Ligand CLA B 615

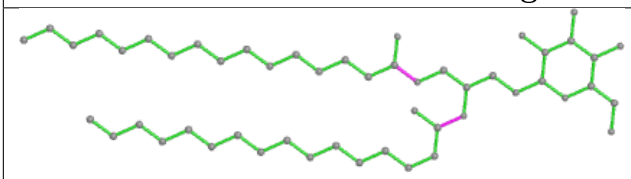

Bond lengths

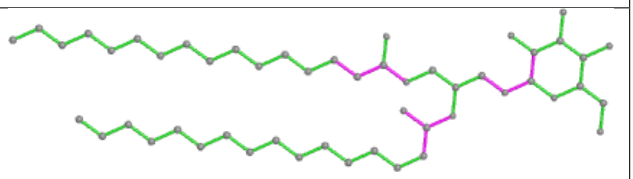

Bond angles

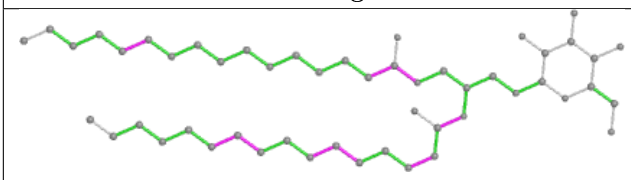

Torsions

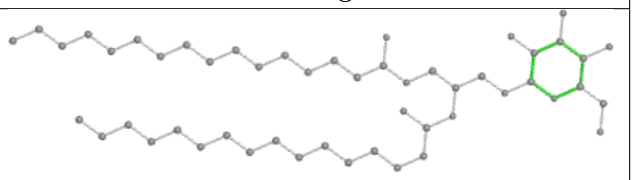

Rings

Ligand LMG C 501

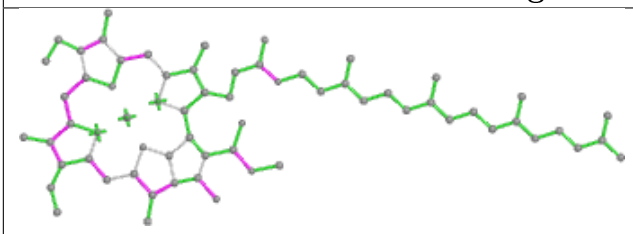

Bond lengths


Bond angles

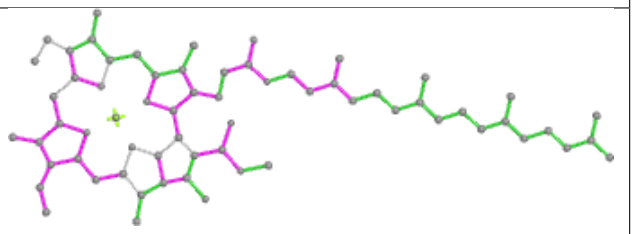

Torsions


Rings

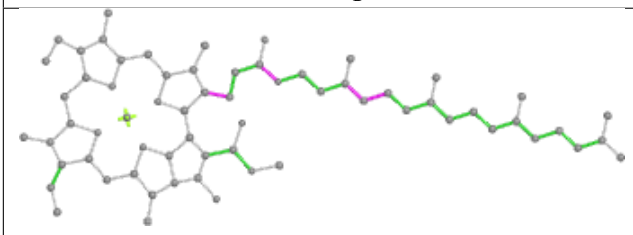
Ligand CLA d 403



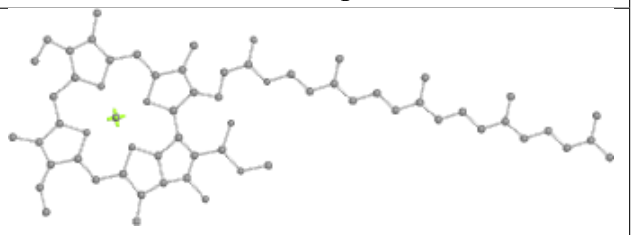
Bond lengths



Bond angles

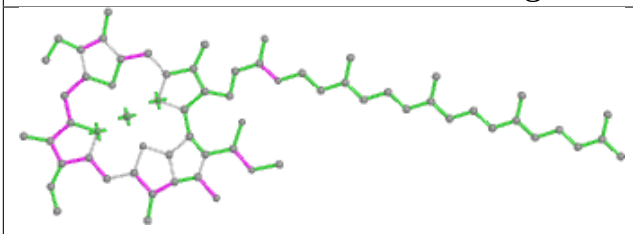


Torsions

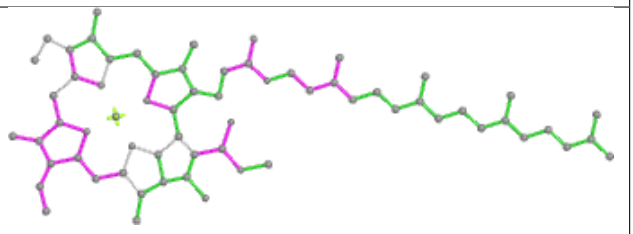


Rings

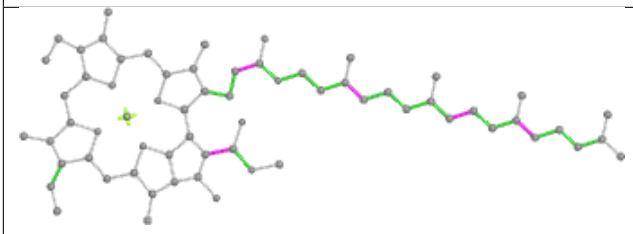
Ligand CLA C 506



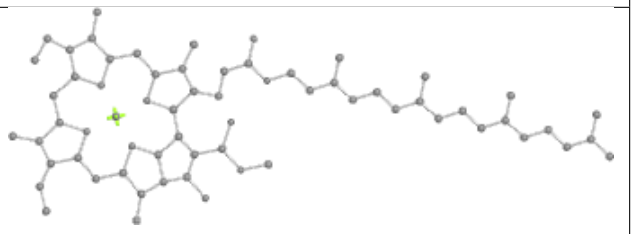
Bond lengths



Bond angles

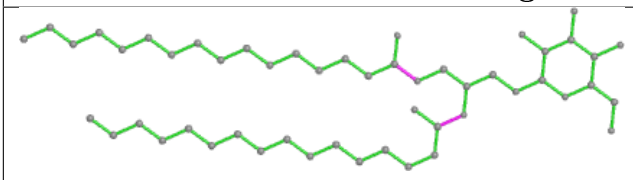


Torsions

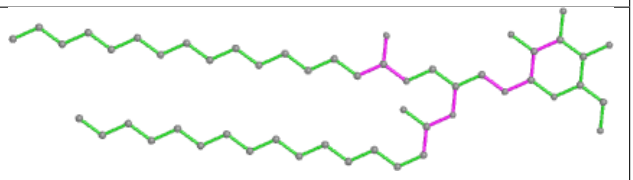


Rings

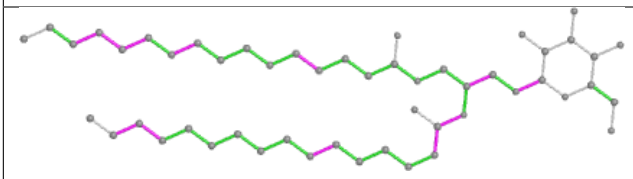
Ligand LMG m 101



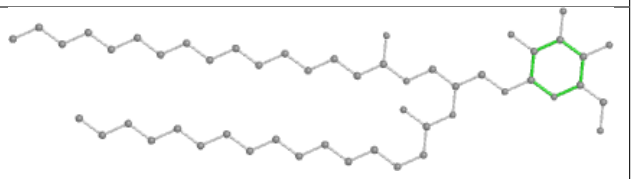
Bond lengths



Bond angles

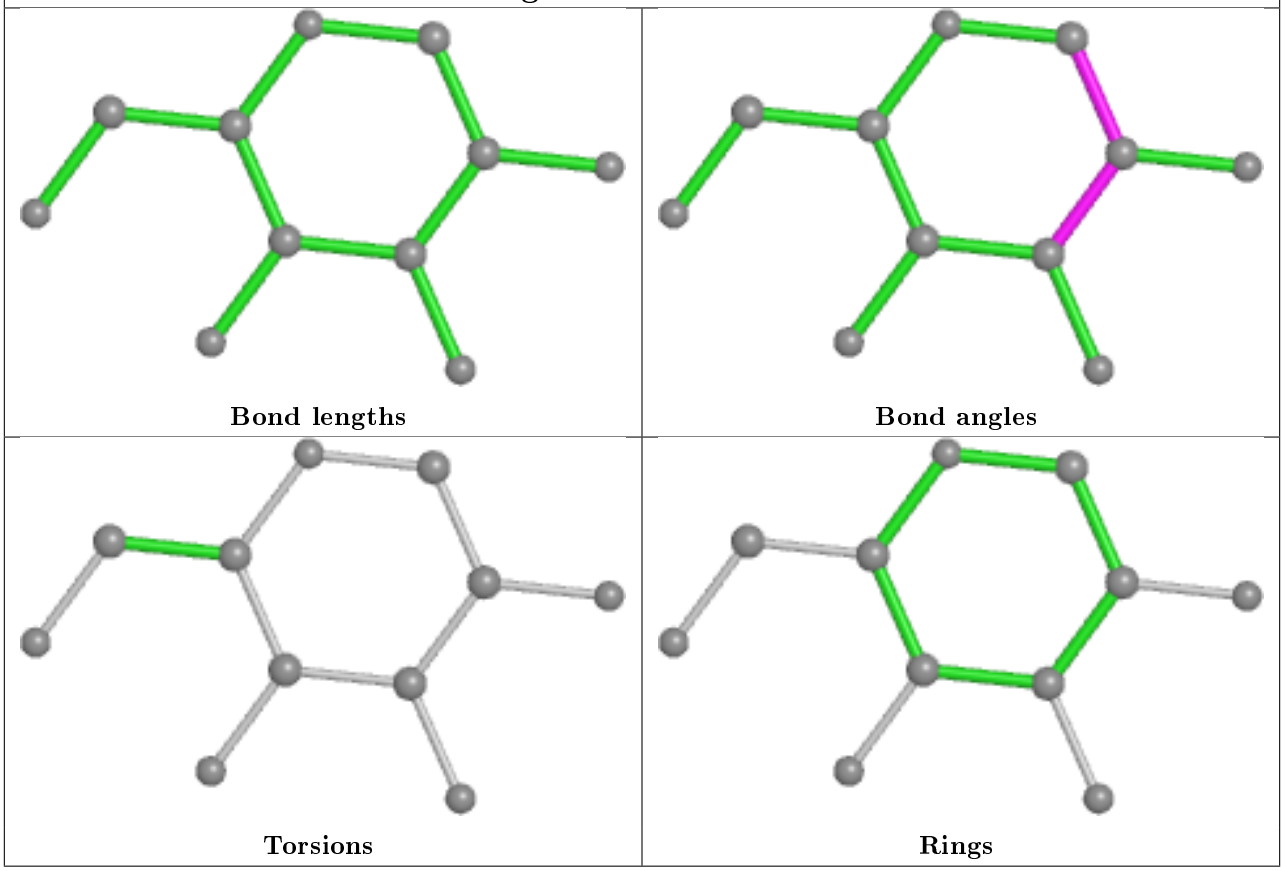


Torsions

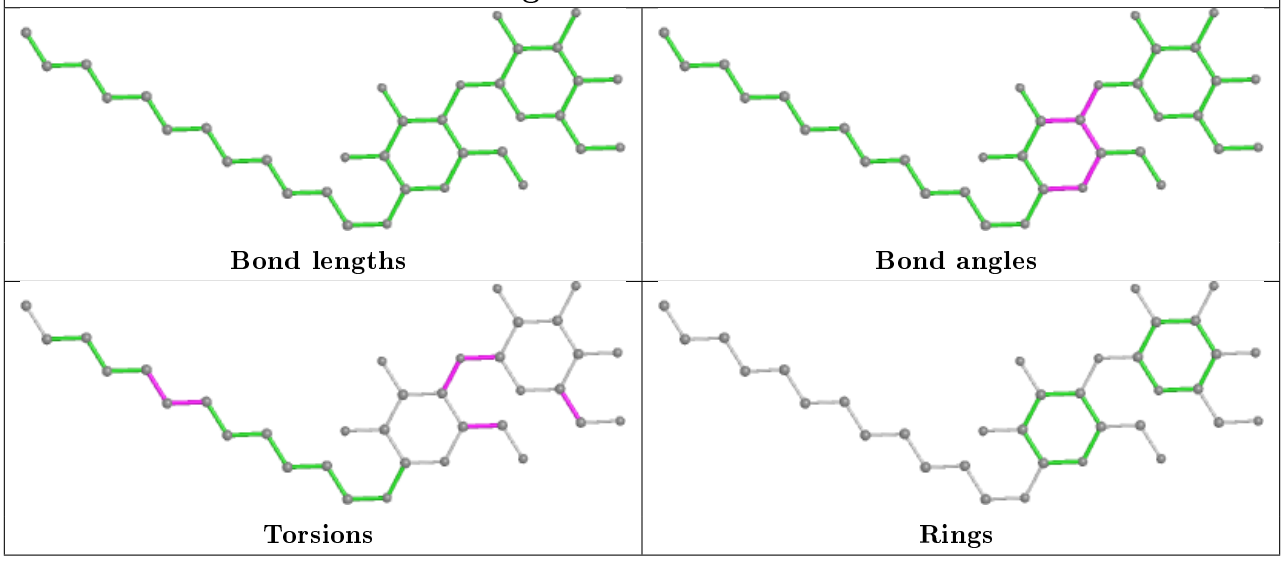


Rings

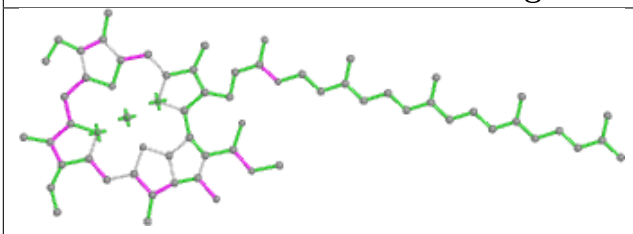
Ligand HTG V 203



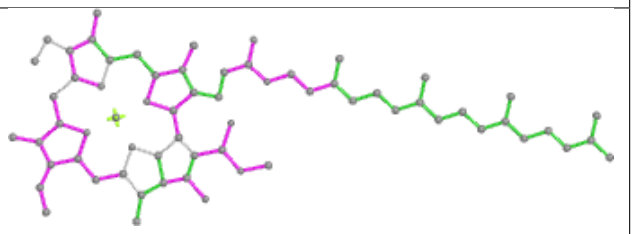
Ligand LMT B 623



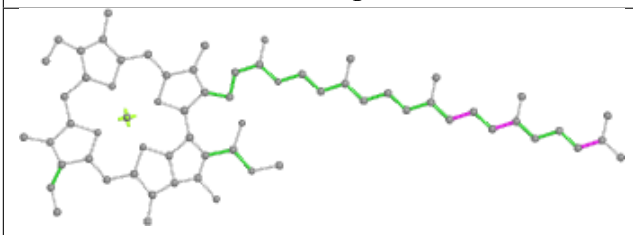
Ligand CLA B 612



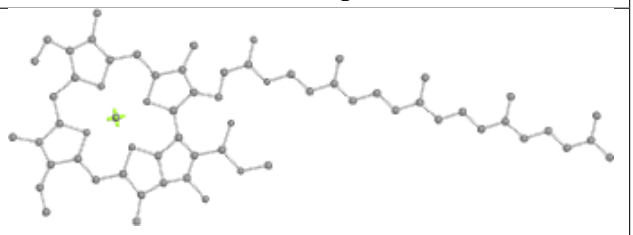
Bond lengths



Bond angles

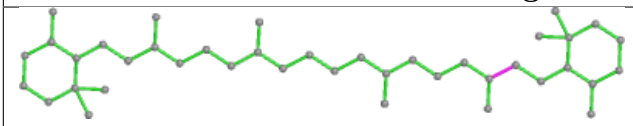


Torsions

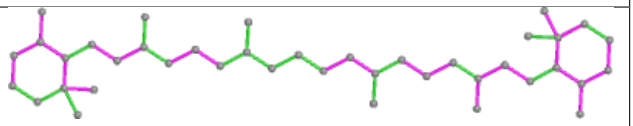


Rings

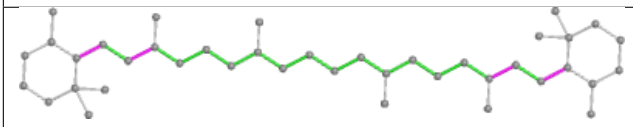
Ligand BCR D 406



Bond lengths



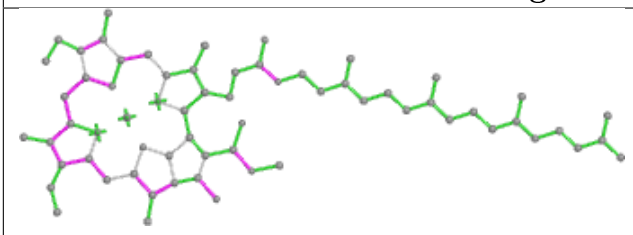
Bond angles



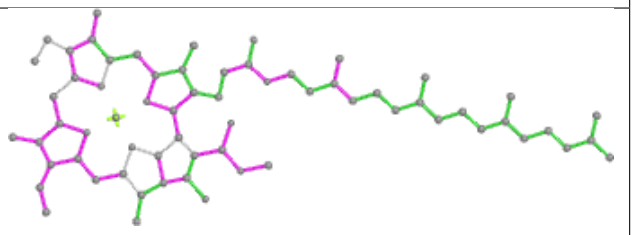
Torsions

Rings

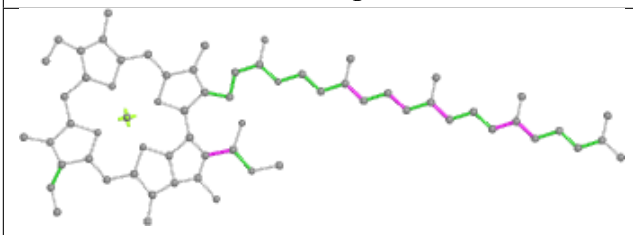
Ligand CLA c 504



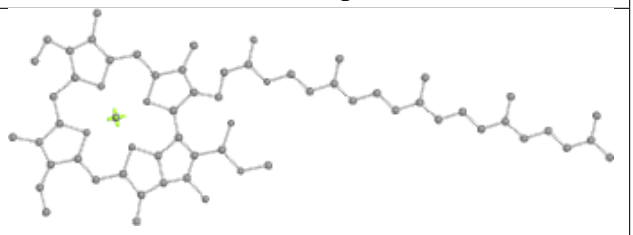
Bond lengths



Bond angles

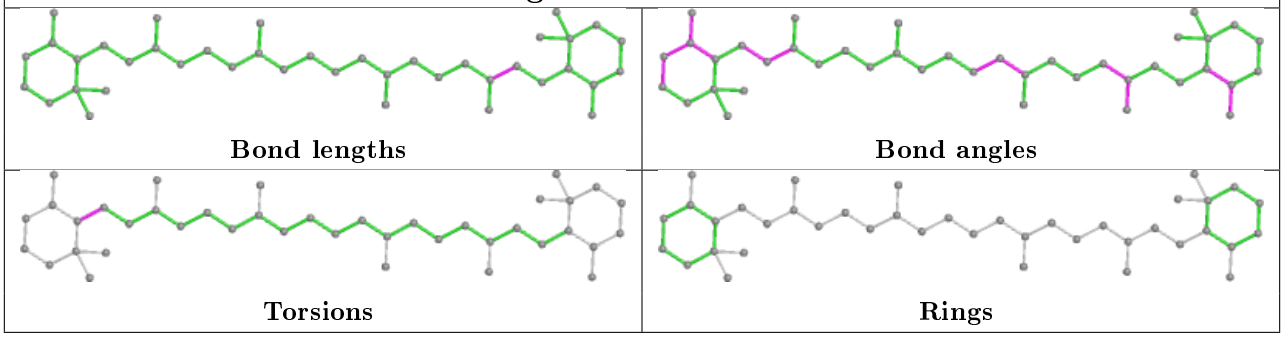


Torsions

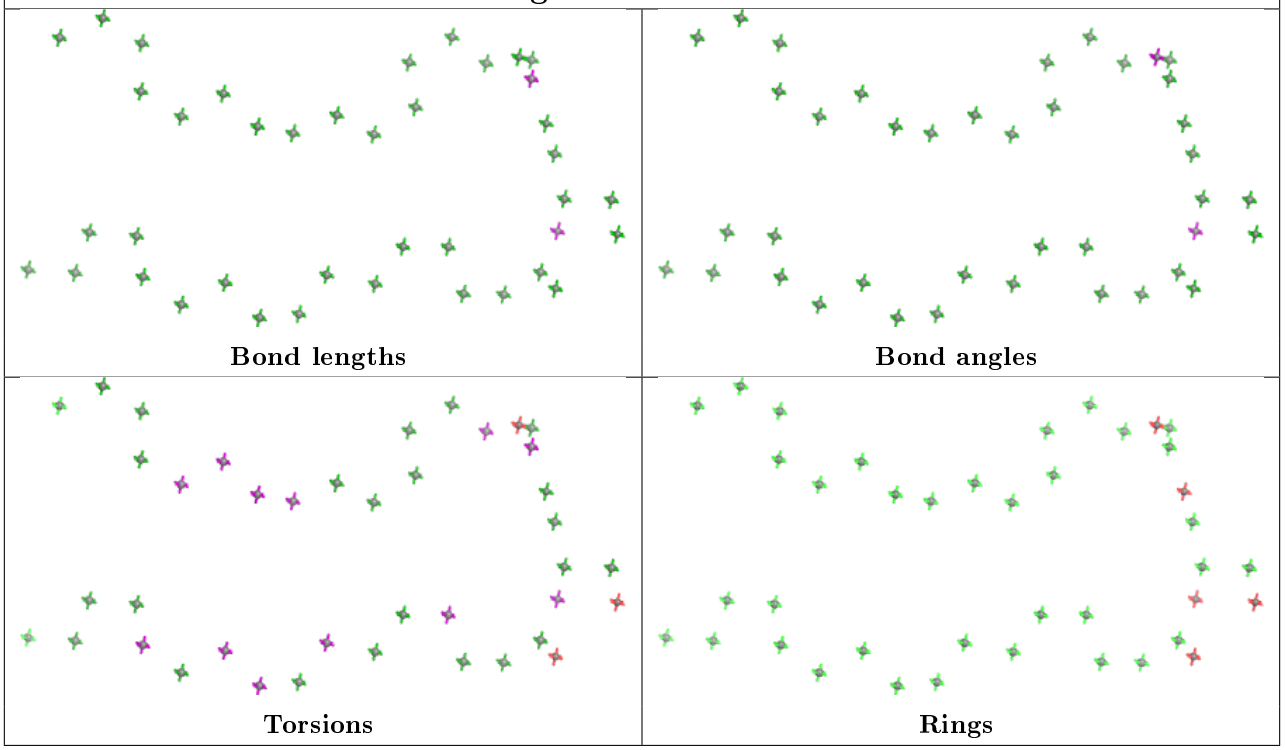


Rings

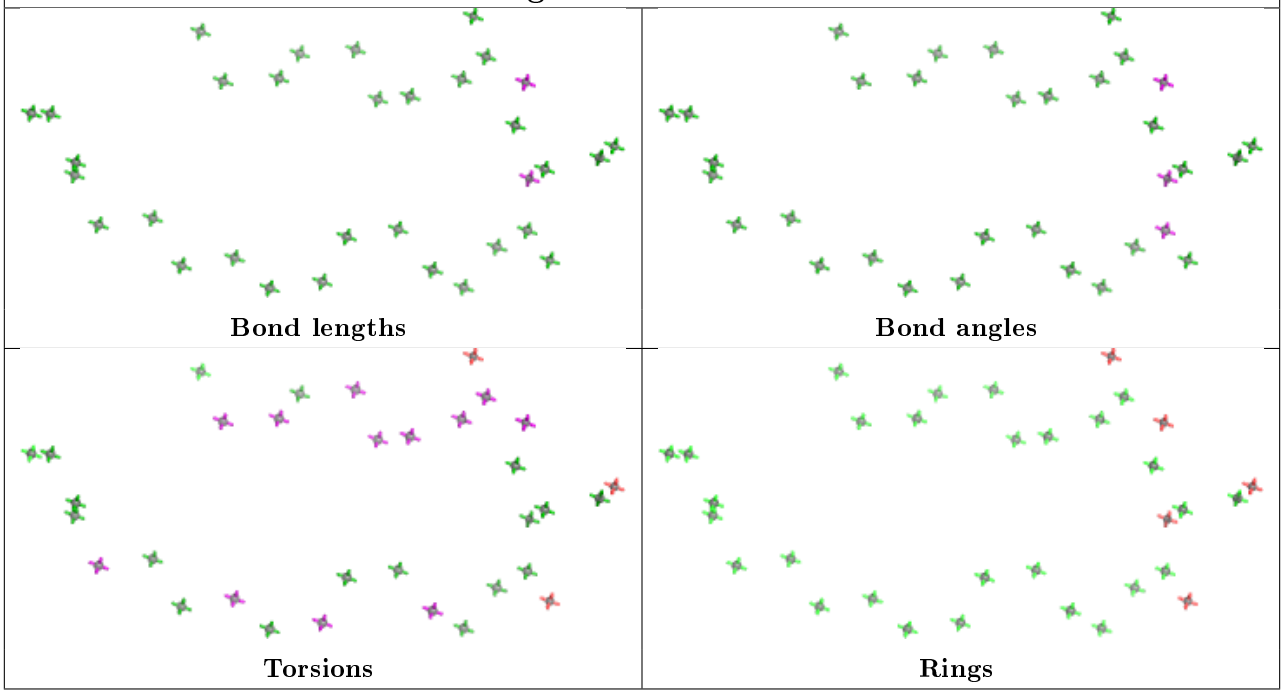
Ligand BCR b 617



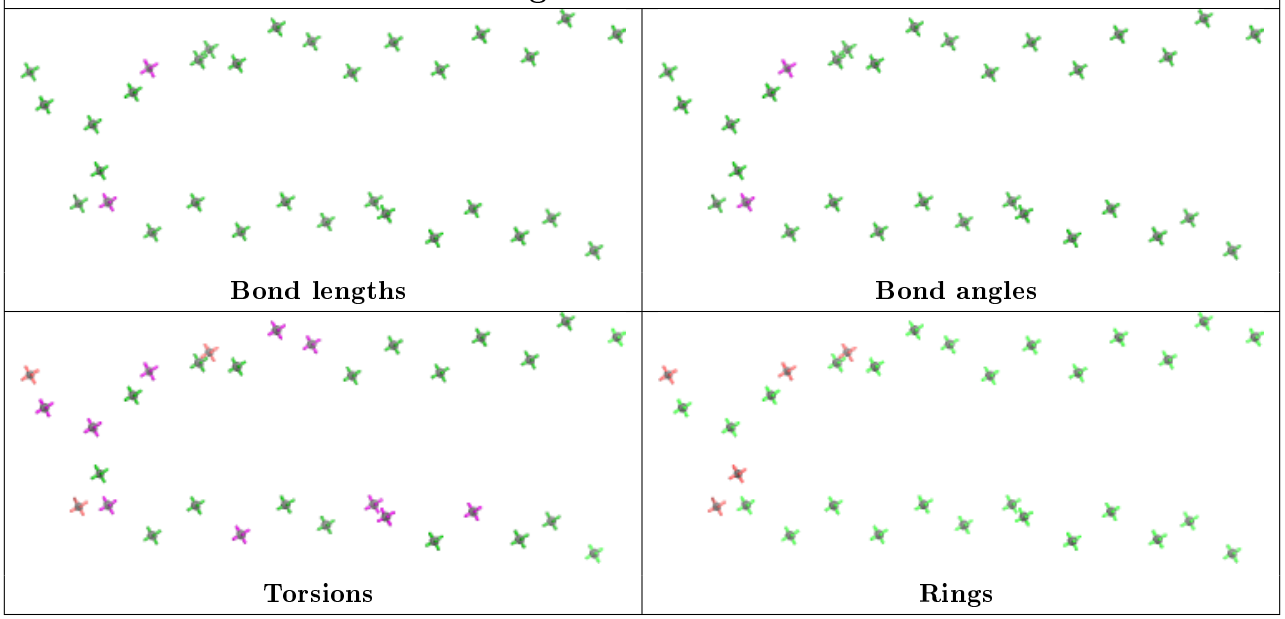
Ligand UNL I 101

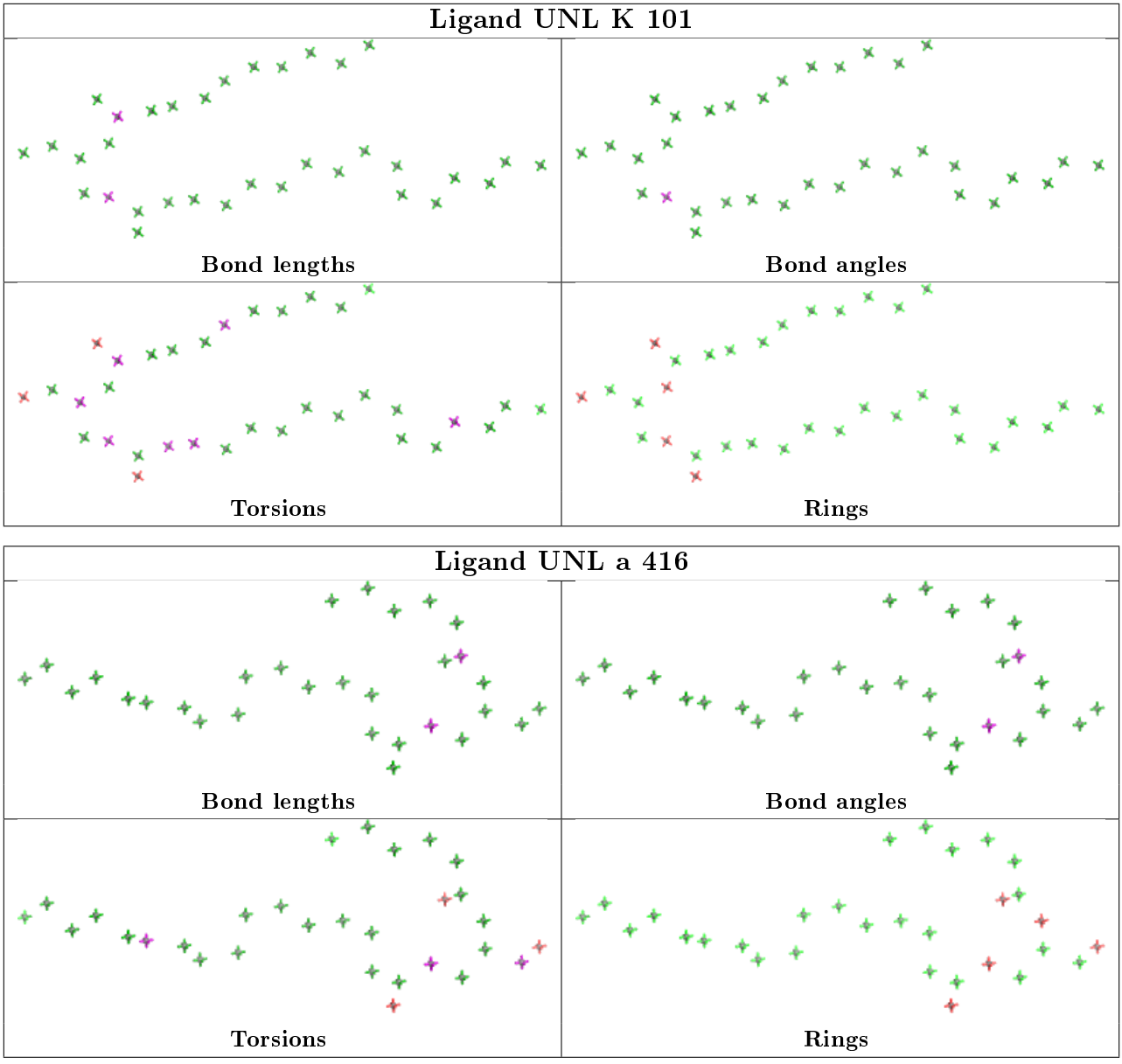


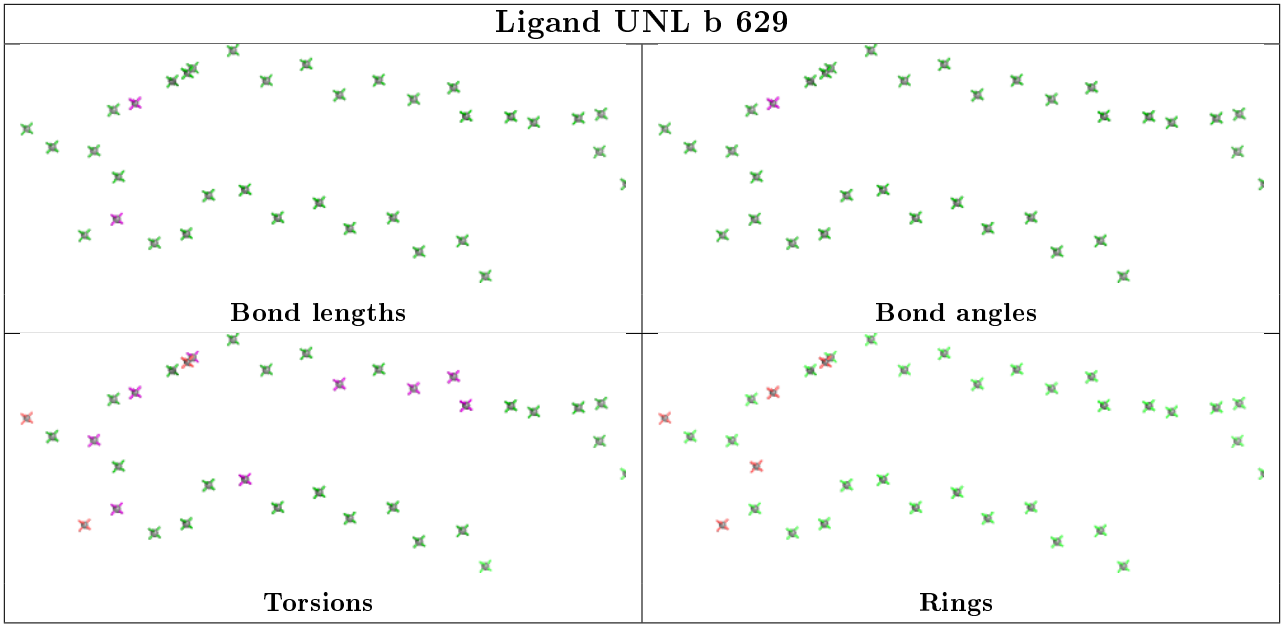
Ligand UNL b 627

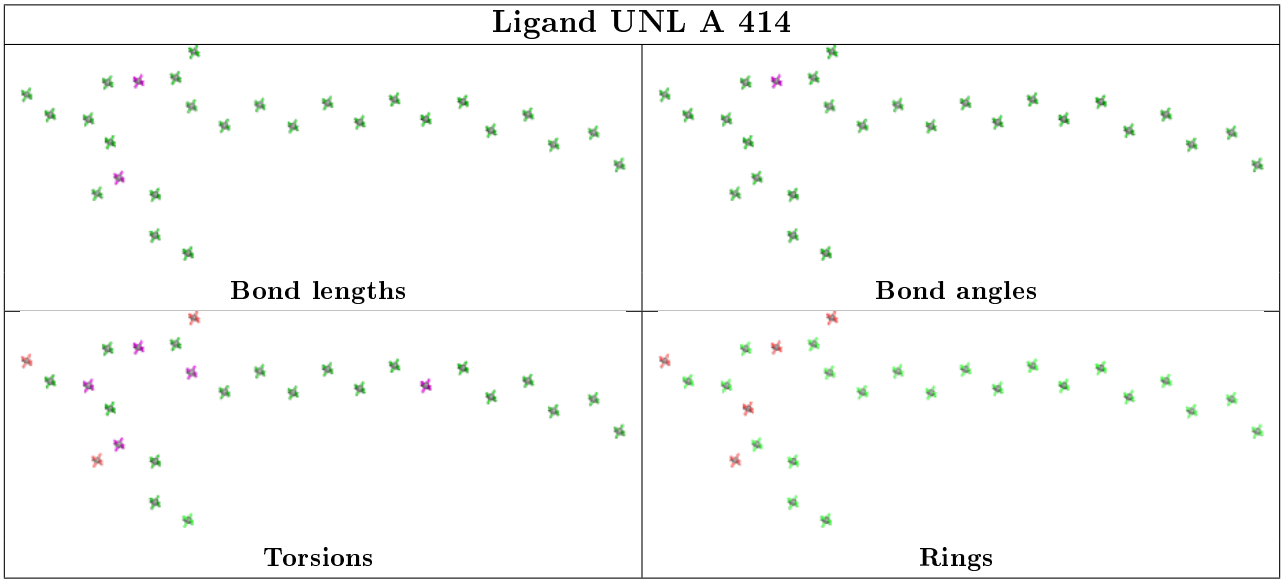


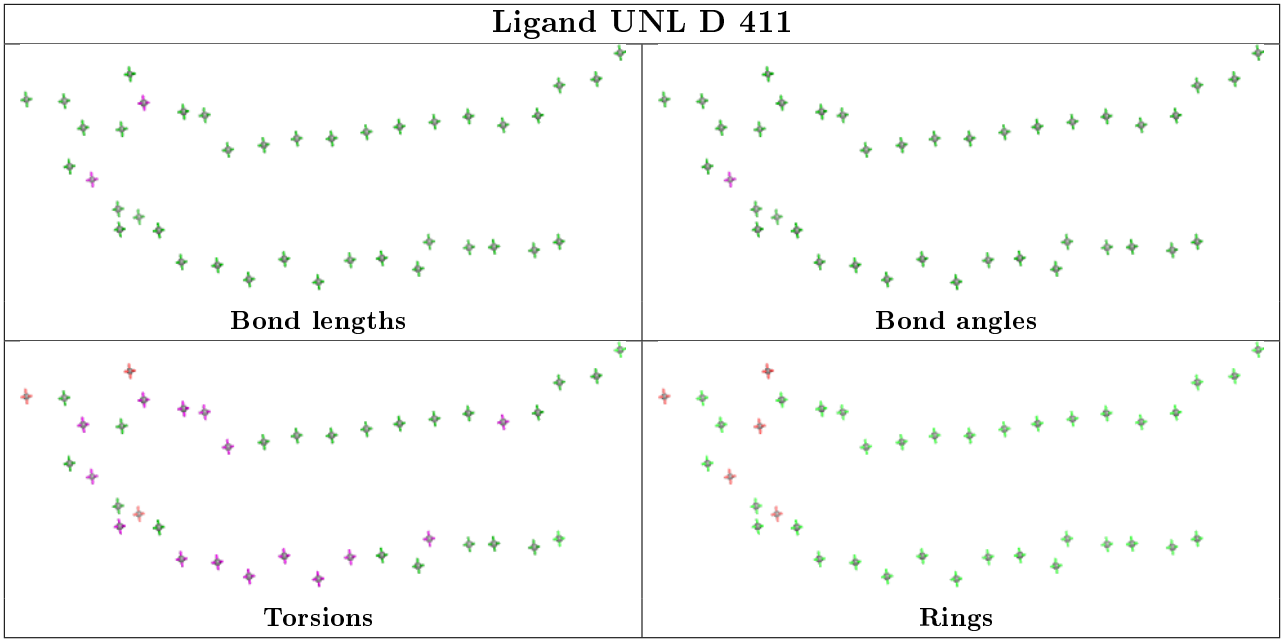
Ligand UNL c 525

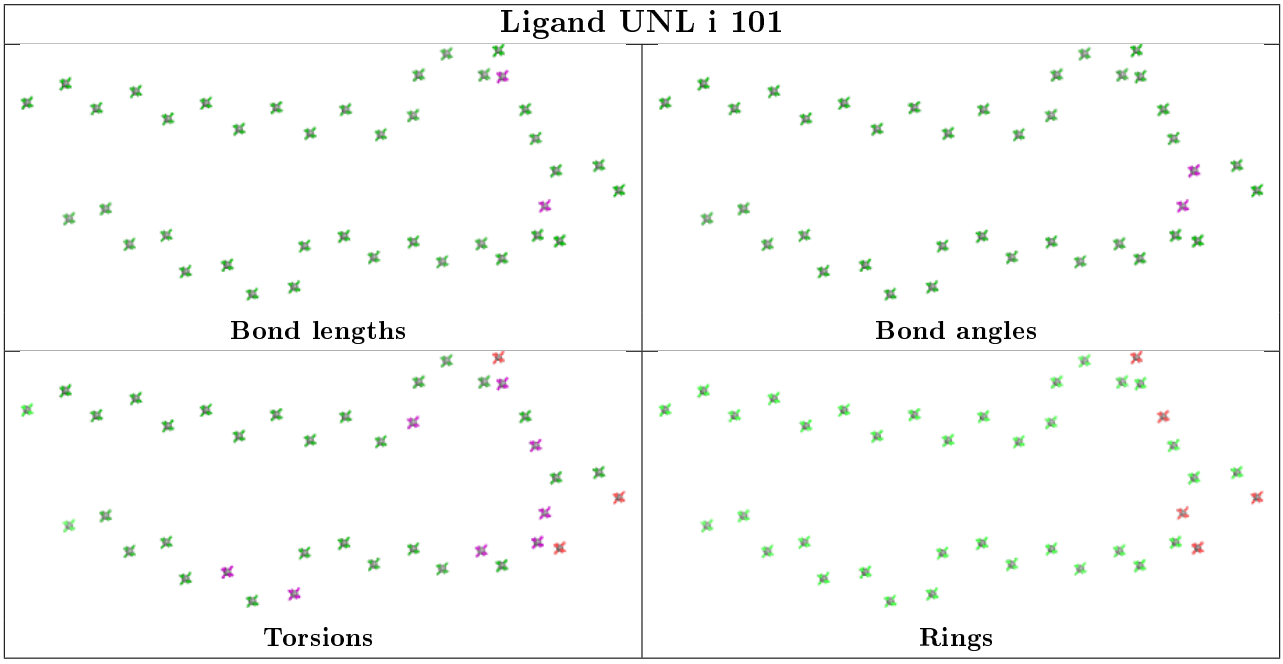


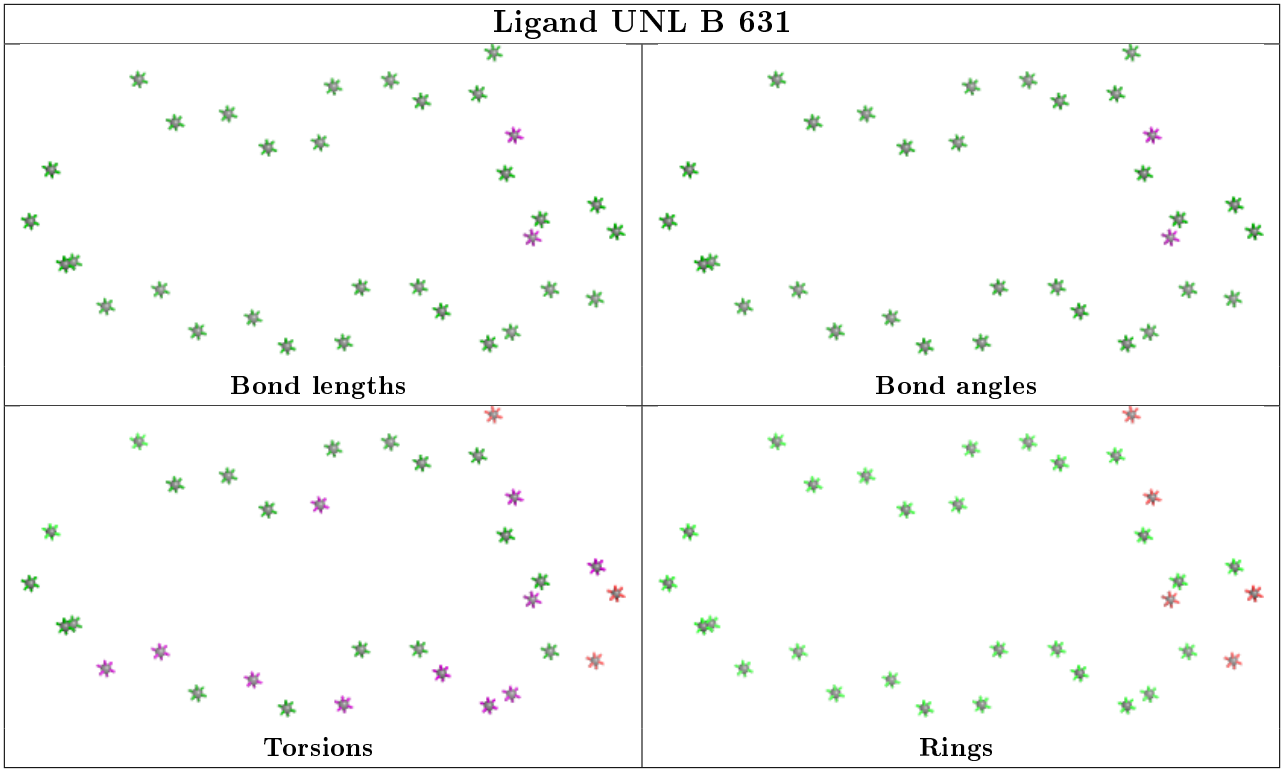

Ligand UNL K 101
Bond lengths
Bond angles
Torsions
Rings
Ligand UNL a 416
Bond lengths
Bond angles
Torsions
Rings


Ligand UNL b 629
Bond lengths
Bond angles
Torsions
Rings


Ligand UNL A 414
Bond lengths
Bond angles
Torsions
Rings


Ligand UNL D 411
Bond lengths
Bond angles
Torsions
Rings


Ligand UNL i 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 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	334/344 (97%)	0.05	11 (3%) 46 50	22, 33, 58, 97	0
1	a	334/344 (97%)	0.20	14 (4%) 36 39	24, 36, 65, 113	0
2	B	504/505 (99%)	0.31	58 (11%) 4 4	24, 38, 68, 118	0
2	b	504/505 (99%)	0.47	70 (13%) 2 2	25, 40, 77, 122	0
3	C	451/455 (99%)	0.64	71 (15%) 2 1	27, 48, 70, 108	0
3	c	455/455 (100%)	0.45	61 (13%) 3 2	32, 52, 72, 118	0
4	D	342/342 (100%)	0.08	18 (5%) 26 28	22, 35, 58, 113	0
4	d	341/342 (99%)	0.28	26 (7%) 13 14	24, 39, 59, 124	0
5	E	81/84 (96%)	0.34	7 (8%) 10 10	40, 59, 90, 125	0
5	e	79/84 (94%)	0.95	19 (24%) 0 0	45, 62, 100, 125	0
6	F	34/44 (77%)	-0.09	1 (2%) 51 55	41, 51, 81, 96	0
6	f	31/44 (70%)	-0.07	4 (12%) 3 3	48, 53, 84, 128	0
7	H	64/65 (98%)	0.37	8 (12%) 3 3	37, 51, 72, 104	0
7	h	65/65 (100%)	1.14	19 (29%) 0 0	40, 54, 79, 152	0
8	I	37/38 (97%)	0.42	7 (18%) 1 1	36, 48, 98, 129	0
8	i	37/38 (97%)	0.24	3 (8%) 12 12	38, 49, 107, 137	0
9	J	38/39 (97%)	0.29	6 (15%) 2 1	37, 55, 113, 156	0
9	j	39/39 (100%)	0.84	10 (25%) 0 0	46, 56, 109, 137	0
10	K	37/37 (100%)	0.15	4 (10%) 5 5	49, 58, 81, 98	0
10	k	37/37 (100%)	0.40	3 (8%) 12 12	52, 60, 82, 99	0
11	L	36/37 (97%)	0.50	5 (13%) 2 2	23, 30, 98, 143	0
11	l	36/37 (97%)	0.19	4 (11%) 5 5	24, 31, 97, 143	0
12	M	32/36 (88%)	-0.19	1 (3%) 49 52	24, 31, 53, 125	0
12	m	33/36 (91%)	-0.30	3 (9%) 9 9	24, 32, 66, 126	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	O	243/244 (99%)	0.36	30 (12%) 4 3	22, 50, 103, 163	0
13	o	243/244 (99%)	0.57	45 (18%) 1 1	26, 50, 108, 151	0
14	T	29/32 (90%)	0.28	1 (3%) 45 48	26, 31, 68, 97	0
14	t	29/32 (90%)	-0.03	0 100 100	26, 31, 69, 98	0
15	U	96/104 (92%)	0.57	13 (13%) 3 2	32, 44, 72, 86	0
15	u	97/104 (93%)	-0.10	4 (4%) 37 40	37, 47, 72, 105	0
16	V	137/137 (100%)	0.17	5 (3%) 42 46	30, 46, 75, 111	0
16	v	137/137 (100%)	0.45	21 (15%) 2 1	37, 54, 79, 112	0
17	X	38/40 (95%)	0.40	3 (7%) 12 12	49, 58, 80, 121	0
17	x	38/40 (95%)	1.08	9 (23%) 0 0	50, 60, 84, 123	0
18	Y	29/30 (96%)	1.71	12 (41%) 0 0	60, 76, 112, 120	0
18	y	29/30 (96%)	1.07	7 (24%) 0 0	63, 76, 107, 118	0
19	Z	62/62 (100%)	1.44	23 (37%) 0 0	57, 77, 127, 161	0
19	z	62/62 (100%)	1.60	18 (29%) 0 0	61, 79, 127, 161	0
20	R	34/34 (100%)	6.37	34 (100%) 0 0	92, 116, 145, 149	0
All	All	5284/5384 (98%)	0.43	658 (12%) 3 3	22, 45, 88, 163	0

The worst 5 of 658 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
20	R	18	TRP	11.0
20	R	20	VAL	10.3
2	b	495	PHE	9.2
20	R	35	LEU	8.9
1	A	11	ALA	8.3

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
8	FME	i	1	10/11	0.96	0.11	38,50,63,74	0
12	FME	m	1	10/11	0.96	0.11	26,43,69,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
12	FME	M	1	10/11	0.97	0.17	33,41,72,72	0
8	FME	I	1	10/11	0.97	0.17	29,49,53,54	0
14	FME	t	1	10/11	0.97	0.10	22,34,47,66	0
14	FME	T	1	10/11	0.98	0.09	19,37,45,52	0

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
30	UNL	A	414	28/-	0.27	0.57	66,93,121,126	0
36	HTG	B	626	19/19	0.48	0.70	51,135,163,189	0
36	HTG	D	412	16/19	0.48	0.40	43,118,136,138	0
34	LMG	C	521	51/55	0.52	0.51	50,107,149,153	0
30	UNL	a	416	30/-	0.54	0.50	86,102,121,129	0
36	HTG	C	524	9/19	0.57	1.21	70,90,106,139	0
35	LMT	B	633	35/35	0.58	0.45	39,117,133,139	0
30	UNL	b	627	33/-	0.59	0.45	53,80,145,147	0
36	HTG	b	623	19/19	0.59	0.61	73,116,140,180	0
35	LMT	D	403	35/35	0.60	0.40	40,112,125,126	0
35	LMT	C	522	35/35	0.60	0.64	83,119,141,151	0
34	LMG	c	520	51/55	0.64	0.43	62,104,135,147	0
35	LMT	e	102	35/35	0.64	0.80	75,139,161,171	0
35	LMT	m	103	35/35	0.65	0.50	40,85,113,117	0
30	UNL	J	102	10/-	0.66	0.45	59,66,85,90	0
35	LMT	M	103	35/35	0.68	0.34	37,128,152,157	0
35	LMT	M	101	35/35	0.68	0.34	40,85,105,107	0
30	UNL	B	631	33/-	0.68	0.26	36,92,134,151	0
30	UNL	I	101	40/-	0.70	0.32	39,89,141,148	0
36	HTG	c	522	19/19	0.70	0.82	83,139,149,158	0
25	BCR	h	102	40/40	0.71	0.29	42,57,71,74	0
36	HTG	B	625	19/19	0.72	0.43	43,101,109,111	0
34	LMG	Z	101	37/55	0.72	0.40	57,103,134,149	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
30	UNL	j	102	10/-	0.73	0.32	57,81,94,94	0
35	LMT	E	102	35/35	0.73	0.56	91,129,157,163	0
31	LHG	e	101	42/49	0.73	0.43	63,119,140,150	0
30	UNL	c	525	32/-	0.73	0.33	74,104,124,132	0
30	UNL	K	101	34/-	0.74	0.32	62,102,116,137	0
30	UNL	m	102	10/-	0.75	0.32	36,47,64,66	0
30	UNL	i	101	40/-	0.75	0.38	56,91,147,151	0
29	PL9	a	415	55/55	0.75	0.34	56,82,108,115	0
27	GOL	d	401	6/6	0.76	0.68	36,51,76,77	0
36	HTG	b	622	19/19	0.76	0.83	77,105,127,134	0
36	HTG	b	621	19/19	0.78	0.26	33,91,127,144	0
29	PL9	A	413	55/55	0.78	0.34	44,83,100,110	0
35	LMT	b	628	25/35	0.78	0.28	37,63,135,142	0
26	SQD	f	101	43/54	0.78	0.32	86,117,154,157	0
35	LMT	b	620	25/35	0.79	0.24	55,88,143,147	0
36	HTG	h	101	16/19	0.79	0.38	71,110,125,143	0
26	SQD	L	102	54/54	0.79	0.26	39,73,114,123	0
33	CA	B	601	1/1	0.79	0.12	144,144,144,144	0
36	HTG	C	523	19/19	0.80	0.43	95,107,121,133	0
30	UNL	b	629	36/-	0.81	0.33	46,85,130,141	0
36	HTG	c	521	19/19	0.81	0.37	71,125,137,163	0
36	HTG	b	626	19/19	0.81	0.25	66,114,151,181	0
31	LHG	E	101	42/49	0.81	0.26	47,95,114,121	0
36	HTG	B	630	19/19	0.82	0.27	67,116,145,154	0
26	SQD	B	621	54/54	0.82	0.24	44,82,109,118	0
35	LMT	B	632	25/35	0.82	0.26	41,68,135,136	0
25	BCR	H	101	40/40	0.82	0.23	35,46,66,73	0
34	LMG	C	520	51/55	0.83	0.28	43,75,125,134	0
34	LMG	C	501	51/55	0.83	0.29	40,81,110,113	0
27	GOL	O	302	6/6	0.83	0.27	63,68,72,78	0
30	UNL	x	101	18/-	0.84	0.32	47,66,104,105	0
35	LMT	B	623	35/35	0.84	0.26	50,95,120,122	0
26	SQD	A	411	54/54	0.85	0.25	41,71,114,129	0
30	UNL	M	102	10/-	0.85	0.27	38,51,60,60	0
30	UNL	D	411	40/-	0.85	0.28	49,76,125,128	0
35	LMT	a	418	35/35	0.86	0.53	97,118,139,139	0
27	GOL	B	628	6/6	0.86	0.26	47,58,65,72	0
36	HTG	V	203	11/19	0.86	0.61	88,101,107,108	0
34	LMG	z	101	39/55	0.86	0.24	69,117,144,151	0
33	CA	O	301	1/1	0.87	0.12	101,101,101,101	0
30	UNL	D	410	17/-	0.87	0.37	46,64,94,102	0
34	LMG	c	519	51/55	0.87	0.28	47,78,122,143	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
34	LMG	a	417	51/55	0.87	0.22	42,79,99,115	0
36	HTG	B	624	19/19	0.88	0.21	33,71,128,130	0
35	LMT	B	634	26/35	0.88	0.18	48,90,109,115	0
27	GOL	a	412	6/6	0.88	0.24	56,70,85,86	0
34	LMG	B	622	51/55	0.88	0.23	35,53,83,101	0
37	DGD	h	103	62/66	0.88	0.29	34,46,67,76	0
23	CLA	C	513	65/65	0.88	0.22	46,60,106,112	0
23	CLA	C	514	65/65	0.89	0.25	50,65,100,107	0
30	UNL	X	101	18/-	0.89	0.20	39,66,83,87	0
26	SQD	a	413	54/54	0.89	0.22	37,73,134,146	0
37	DGD	C	518	62/66	0.89	0.23	35,51,111,119	0
23	CLA	b	602	65/65	0.89	0.25	36,48,68,77	0
23	CLA	c	512	65/65	0.89	0.22	53,66,96,104	0
25	BCR	y	101	40/40	0.89	0.17	48,60,74,77	0
34	LMG	m	101	51/55	0.90	0.20	33,52,85,99	0
23	CLA	c	507	65/65	0.90	0.19	43,57,70,72	0
36	HTG	B	629	19/19	0.90	0.20	47,59,78,83	0
23	CLA	B	603	65/65	0.90	0.23	31,41,57,69	0
23	CLA	c	513	65/65	0.90	0.22	58,74,112,119	0
23	CLA	b	616	65/65	0.90	0.20	34,51,101,111	0
23	CLA	C	512	65/65	0.90	0.18	39,54,77,85	0
26	SQD	D	413	43/54	0.90	0.30	58,106,117,124	0
37	DGD	H	102	62/66	0.90	0.29	29,42,64,68	0
34	LMG	J	101	51/55	0.91	0.20	33,54,96,105	0
23	CLA	C	504	65/65	0.91	0.29	37,47,66,75	0
23	CLA	b	609	65/65	0.91	0.17	39,48,63,74	0
23	CLA	b	615	65/65	0.91	0.18	33,43,65,87	0
31	LHG	b	630	49/49	0.91	0.17	26,43,59,64	0
23	CLA	B	610	65/65	0.91	0.17	31,42,53,89	0
23	CLA	c	502	65/65	0.91	0.43	40,55,70,74	0
31	LHG	A	415	49/49	0.91	0.34	29,46,67,82	0
23	CLA	C	508	65/65	0.91	0.24	40,51,66,78	0
25	BCR	C	516	40/40	0.92	0.22	38,50,63,68	0
25	BCR	B	620	40/40	0.92	0.16	30,43,67,78	0
23	CLA	b	601	65/65	0.92	0.27	46,70,107,135	0
23	CLA	c	509	65/65	0.92	0.25	46,56,73,79	0
31	LHG	d	407	49/49	0.92	0.25	24,38,58,65	0
37	DGD	C	517	62/66	0.92	0.26	30,41,77,88	0
23	CLA	d	403	65/65	0.92	0.18	41,52,102,116	0
27	GOL	b	624	6/6	0.92	0.15	75,92,97,104	0
23	CLA	C	502	65/65	0.92	0.23	36,45,67,70	0
23	CLA	c	511	65/65	0.92	0.19	47,56,78,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
23	CLA	B	612	65/65	0.92	0.26	24,32,49,54	0
25	BCR	D	406	40/40	0.92	0.19	35,46,78,84	0
23	CLA	C	507	65/65	0.93	0.16	42,57,106,115	0
36	HTG	b	625	19/19	0.93	0.11	40,60,90,94	0
23	CLA	c	503	65/65	0.93	0.44	44,55,67,84	0
23	CLA	B	616	65/65	0.93	0.15	29,38,60,67	0
33	CA	V	201	1/1	0.93	0.11	94,94,94,94	0
27	GOL	C	525	6/6	0.93	0.26	45,56,66,73	0
23	CLA	C	505	65/65	0.93	0.23	32,46,91,111	0
37	DGD	c	517	62/66	0.93	0.23	42,55,110,126	0
23	CLA	B	615	65/65	0.93	0.17	23,32,86,95	0
25	BCR	C	527	40/40	0.93	0.17	43,55,71,72	0
23	CLA	C	503	65/65	0.93	0.36	33,43,60,67	0
37	DGD	C	519	62/66	0.93	0.17	30,44,80,109	0
34	LMG	j	101	51/55	0.93	0.17	41,56,92,119	0
26	SQD	a	411	54/54	0.93	0.19	44,69,108,113	0
23	CLA	D	405	65/65	0.93	0.18	33,48,111,119	0
23	CLA	c	505	65/65	0.93	0.20	36,46,76,82	0
33	CA	o	301	1/1	0.93	0.11	89,89,89,89	0
23	CLA	b	612	65/65	0.93	0.28	28,35,48,69	0
31	LHG	d	408	49/49	0.94	0.21	40,55,105,111	0
37	DGD	c	516	62/66	0.94	0.23	35,47,74,93	0
25	BCR	c	514	40/40	0.94	0.14	58,68,80,83	0
23	CLA	c	508	65/65	0.94	0.20	39,53,121,131	0
25	BCR	Y	101	40/40	0.94	0.15	40,51,62,71	0
23	CLA	B	617	65/65	0.94	0.21	33,45,121,132	0
23	CLA	B	613	65/65	0.94	0.25	26,33,45,65	0
23	CLA	D	404	65/65	0.94	0.18	21,29,50,56	0
23	CLA	B	605	65/65	0.94	0.31	22,31,101,111	0
31	LHG	L	101	49/49	0.94	0.25	26,39,54,75	0
23	CLA	C	510	65/65	0.94	0.32	39,53,71,79	0
31	LHG	d	406	49/49	0.94	0.23	27,48,81,84	0
23	CLA	C	509	65/65	0.94	0.32	33,46,93,103	0
25	BCR	k	101	40/40	0.94	0.17	50,60,84,87	0
25	BCR	C	515	40/40	0.94	0.17	49,60,74,82	0
25	BCR	d	404	40/40	0.94	0.15	43,55,79,81	0
25	BCR	b	619	40/40	0.94	0.15	33,46,69,80	0
23	CLA	B	602	65/65	0.94	0.21	39,61,93,123	0
23	CLA	b	606	65/65	0.94	0.14	29,42,91,110	0
31	LHG	D	409	49/49	0.94	0.21	32,50,107,117	0
23	CLA	B	607	65/65	0.94	0.14	28,37,76,93	0
26	SQD	A	409	54/54	0.94	0.16	41,66,99,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
23	CLA	c	501	65/65	0.94	0.23	43,53,67,72	0
23	CLA	b	610	65/65	0.95	0.22	35,44,56,61	0
29	PL9	d	405	55/55	0.95	0.20	24,33,49,66	0
23	CLA	c	510	65/65	0.95	0.34	39,51,67,71	0
37	DGD	c	518	62/66	0.95	0.20	39,50,74,97	0
23	CLA	b	608	65/65	0.95	0.29	34,44,67,72	0
23	CLA	C	506	65/65	0.95	0.28	33,44,75,82	0
23	CLA	b	604	65/65	0.95	0.33	24,33,95,101	0
23	CLA	b	614	65/65	0.95	0.15	25,35,93,107	0
23	CLA	b	605	65/65	0.95	0.26	26,34,51,76	0
30	UNL	d	409	17/-	0.95	0.38	48,58,94,99	0
29	PL9	D	407	55/55	0.95	0.24	20,30,44,53	0
23	CLA	b	603	65/65	0.95	0.27	32,44,61,70	0
27	GOL	B	627	6/6	0.95	0.36	60,77,93,95	0
23	CLA	c	504	65/65	0.95	0.29	41,52,94,117	0
25	BCR	b	617	40/40	0.95	0.16	21,35,45,51	0
23	CLA	a	405	65/65	0.96	0.15	23,29,52,60	0
25	BCR	c	515	40/40	0.96	0.14	41,54,66,70	0
31	LHG	D	408	49/49	0.96	0.26	25,37,56,78	0
25	BCR	B	618	40/40	0.96	0.18	24,37,48,49	0
23	CLA	d	402	65/65	0.96	0.22	27,32,58,72	0
25	BCR	b	618	40/40	0.96	0.22	22,36,51,56	0
23	CLA	C	511	65/65	0.96	0.48	36,48,61,67	0
23	CLA	c	506	65/65	0.96	0.15	47,65,98,117	0
23	CLA	B	606	65/65	0.96	0.21	24,33,46,51	0
23	CLA	B	608	65/65	0.96	0.22	20,28,59,67	0
23	CLA	b	613	65/65	0.96	0.26	24,36,79,89	0
23	CLA	b	611	65/65	0.96	0.21	27,35,57,62	0
23	CLA	b	607	65/65	0.96	0.18	21,30,58,67	0
33	CA	c	523	1/1	0.96	0.17	68,68,68,68	0
23	CLA	A	405	65/65	0.96	0.15	24,33,85,94	0
25	BCR	t	101	40/40	0.96	0.24	23,43,64,68	0
24	PHO	a	408	64/64	0.96	0.28	30,40,53,60	0
23	CLA	a	409	65/65	0.96	0.18	30,44,124,130	0
39	MG	j	103	1/1	0.96	0.13	48,48,48,48	0
27	GOL	A	410	6/6	0.96	0.12	45,57,60,90	0
25	BCR	a	410	40/40	0.96	0.15	28,38,55,58	0
23	CLA	a	404	65/65	0.96	0.19	27,33,52,66	0
25	BCR	B	619	40/40	0.96	0.23	21,36,52,60	0
23	CLA	A	404	65/65	0.96	0.17	22,25,39,58	0
23	CLA	A	407	65/65	0.97	0.15	28,38,98,117	0
39	MG	J	103	1/1	0.97	0.17	43,43,43,43	0

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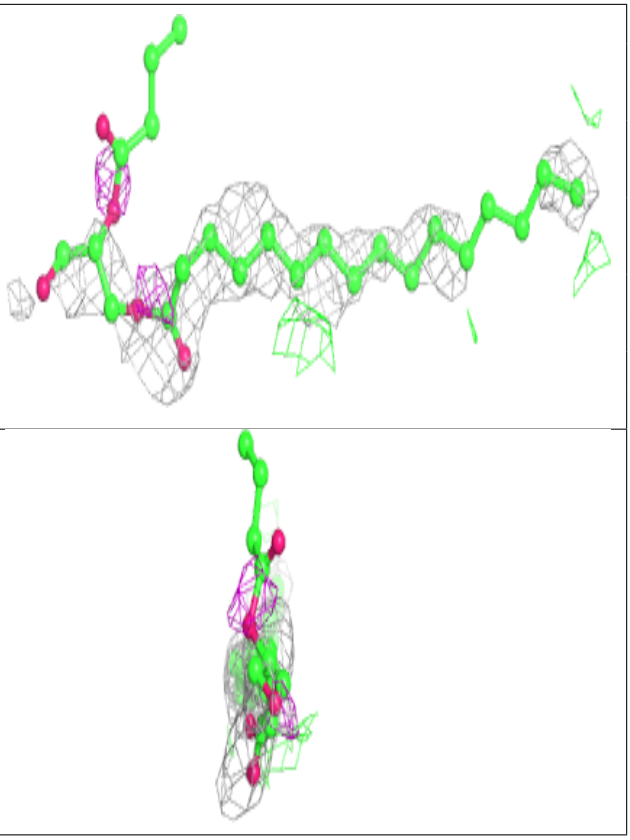
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
38	HEM	e	103	43/43	0.97	0.20	52,78,106,116	0
23	CLA	B	604	65/65	0.97	0.27	30,43,56,67	0
25	BCR	T	101	40/40	0.97	0.24	21,37,55,60	0
23	CLA	D	401	65/65	0.97	0.16	21,28,43,47	0
24	PHO	A	406	64/64	0.97	0.20	22,29,39,46	0
24	PHO	D	402	64/64	0.97	0.24	25,31,44,55	0
23	CLA	B	611	65/65	0.97	0.23	29,41,55,70	0
25	BCR	A	408	40/40	0.97	0.17	23,34,48,56	0
23	CLA	B	609	65/65	0.97	0.24	30,42,56,66	0
23	CLA	B	614	65/65	0.97	0.32	23,31,72,87	0
23	CLA	a	406	65/65	0.97	0.20	30,38,98,103	0
33	CA	C	526	1/1	0.98	0.26	59,59,59,59	0
40	HEC	v	201	43/43	0.98	0.14	44,53,63,82	0
40	HEC	V	202	43/43	0.98	0.12	33,36,48,70	0
38	HEM	E	103	43/43	0.98	0.09	43,56,69,83	0
24	PHO	a	407	64/64	0.98	0.20	24,31,45,50	0
32	BCT	a	419	4/4	0.98	0.07	41,45,48,58	0
33	CA	c	524	1/1	0.98	0.08	66,66,66,66	0
32	BCT	A	416	4/4	0.98	0.08	32,45,46,51	0
22	CL	a	403	1/1	0.98	0.27	41,41,41,41	0
22	CL	A	402	1/1	0.99	0.10	24,24,24,24	0
28	OEX	A	412	10/10	0.99	0.10	23,32,46,47	0
21	FE2	a	401	1/1	0.99	0.04	47,47,47,47	0
21	FE2	A	401	1/1	0.99	0.05	46,46,46,46	0
28	OEX	a	414	10/10	0.99	0.09	29,36,46,48	0
22	CL	A	403	1/1	0.99	0.25	27,27,27,27	0
22	CL	a	402	1/1	1.00	0.13	28,28,28,28	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

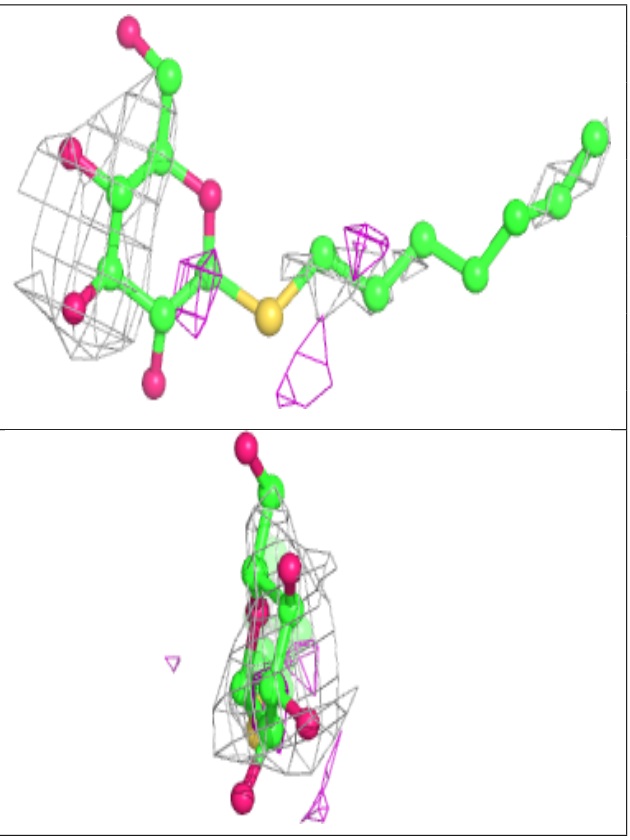
Electron density around UNL A 414:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



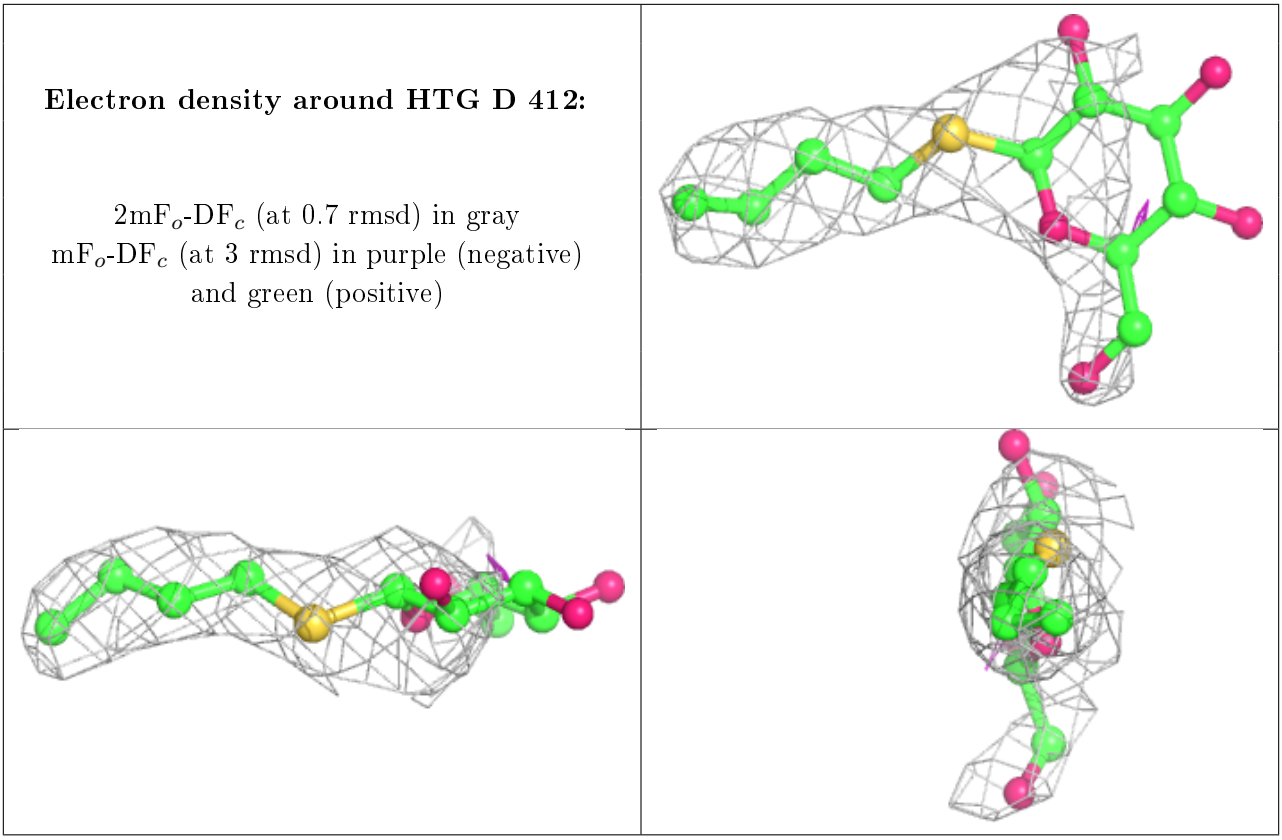
Electron density around HTG B 626:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



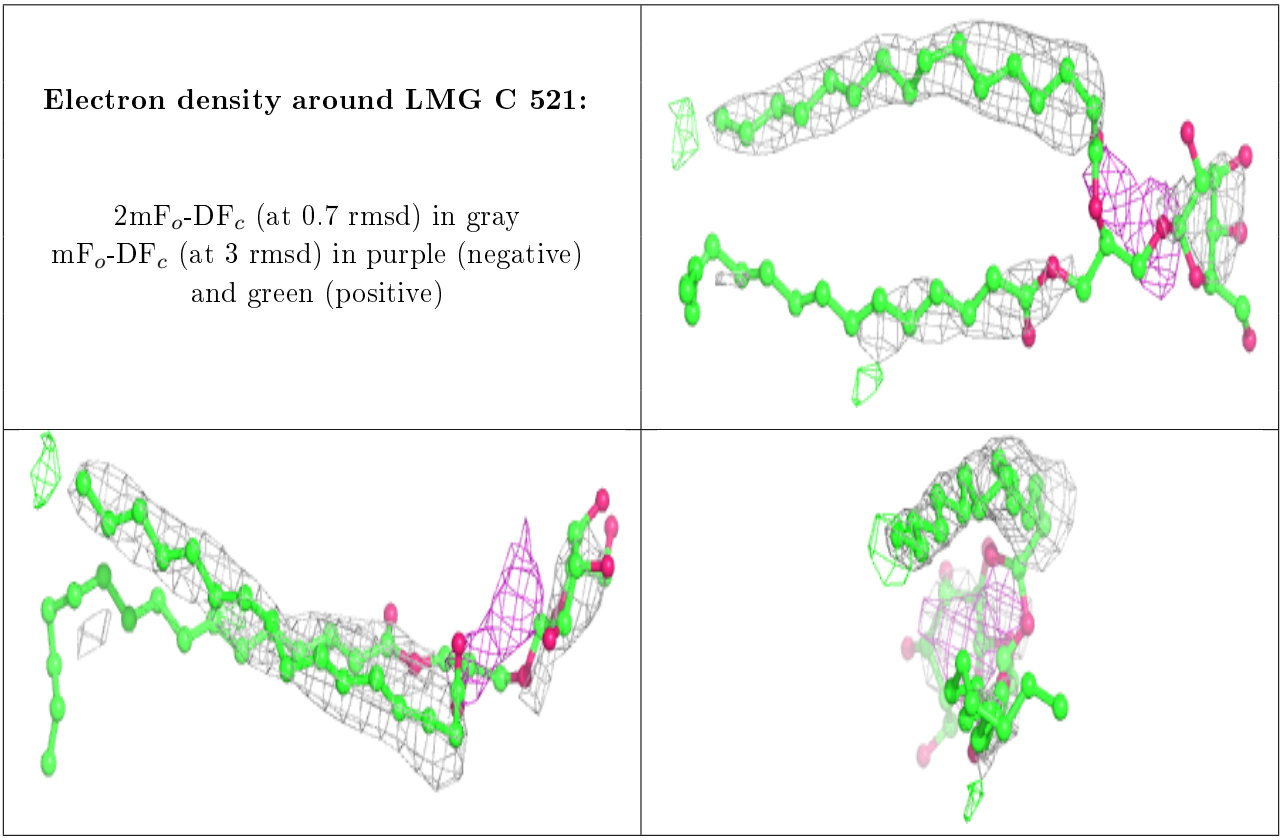
Electron density around HTG D 412:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



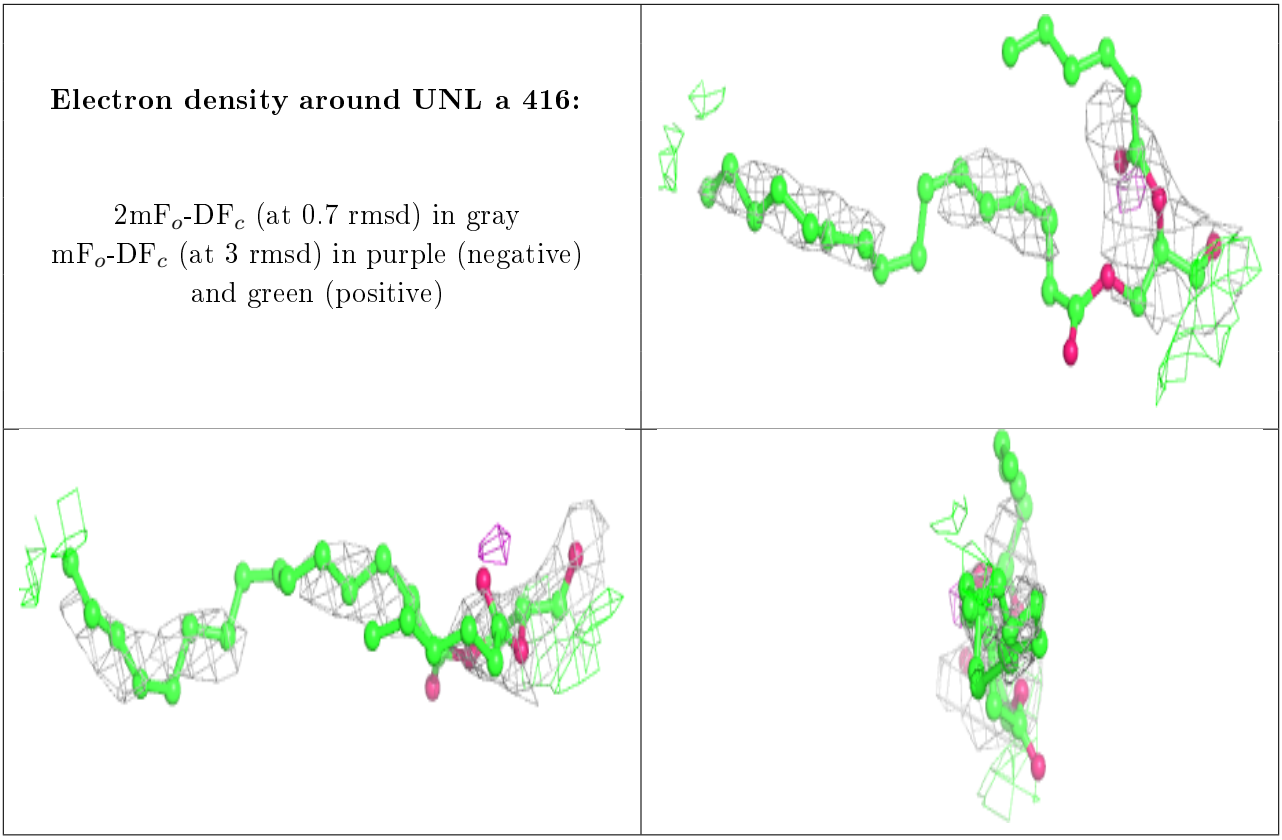
Electron density around LMG C 521:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



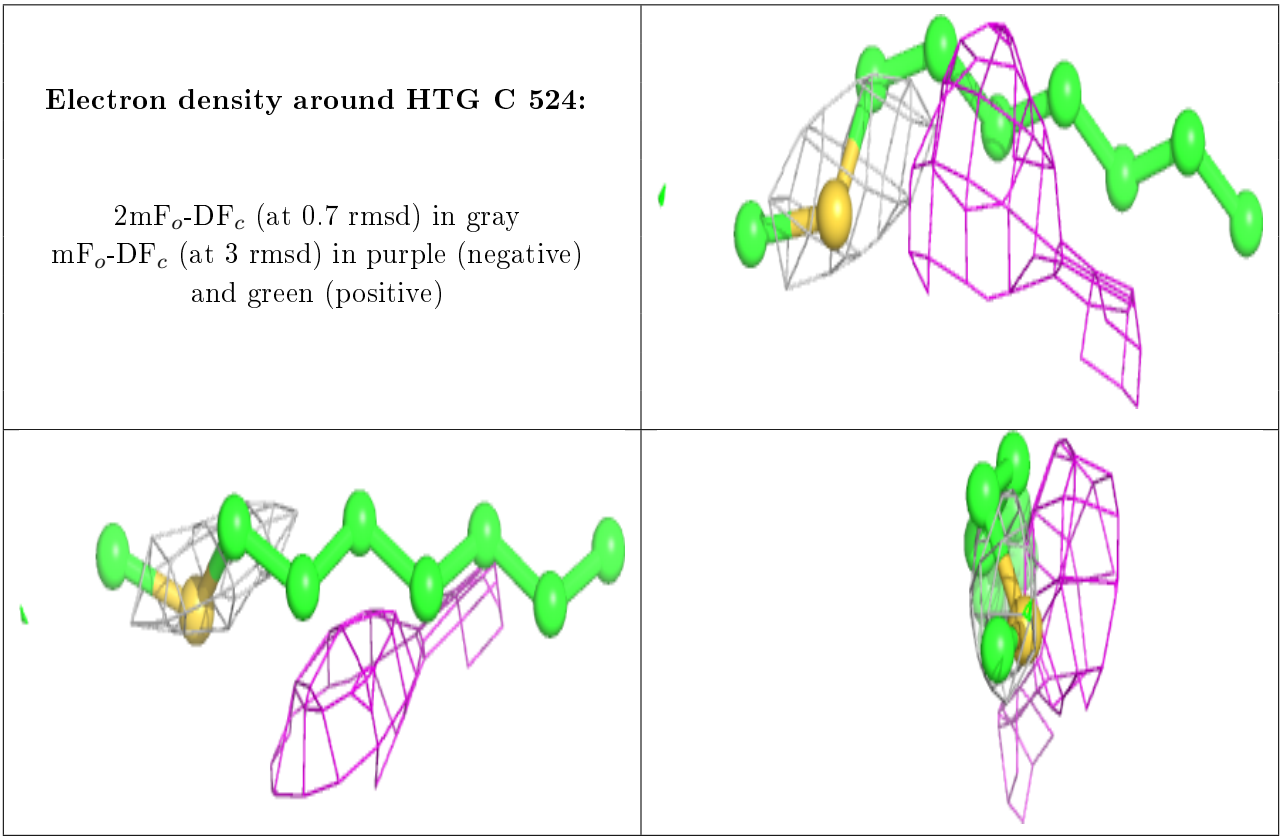
Electron density around UNL a 416:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



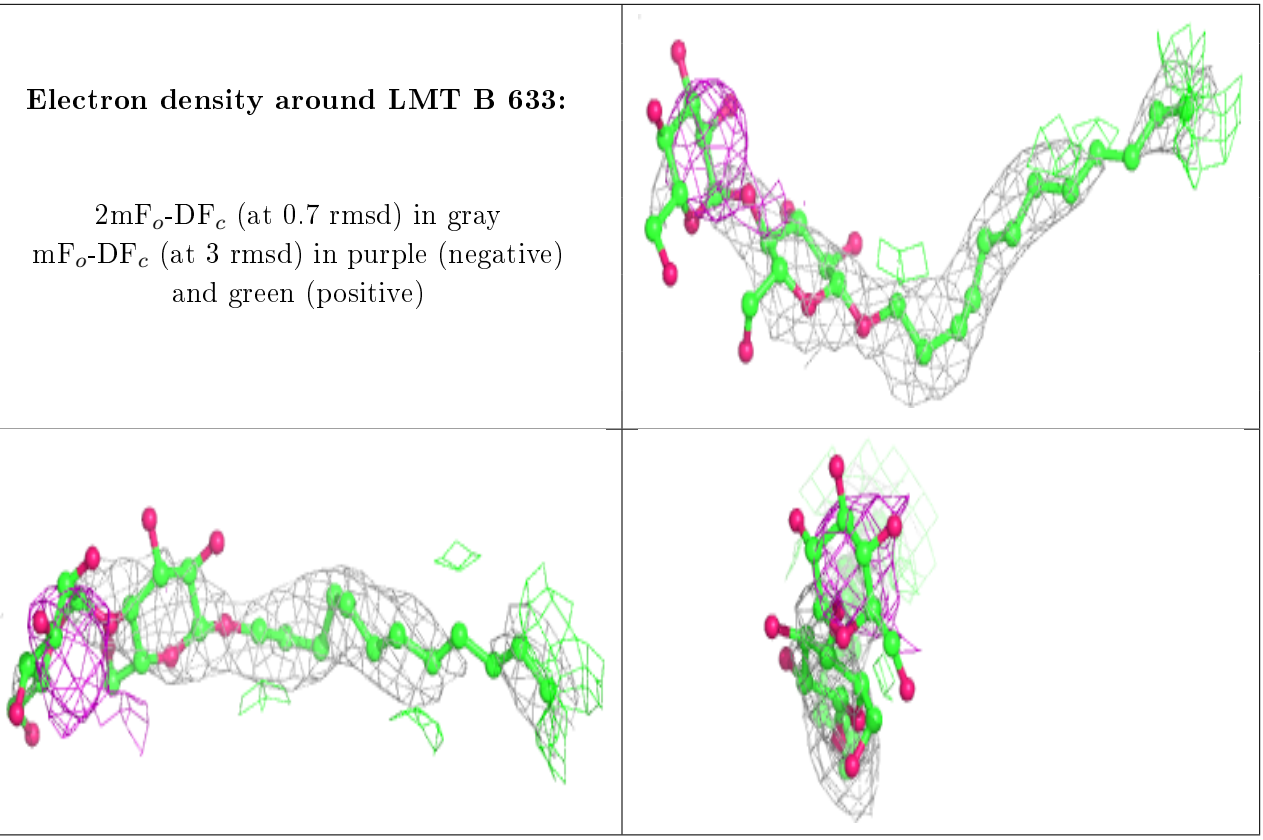
Electron density around HTG C 524:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



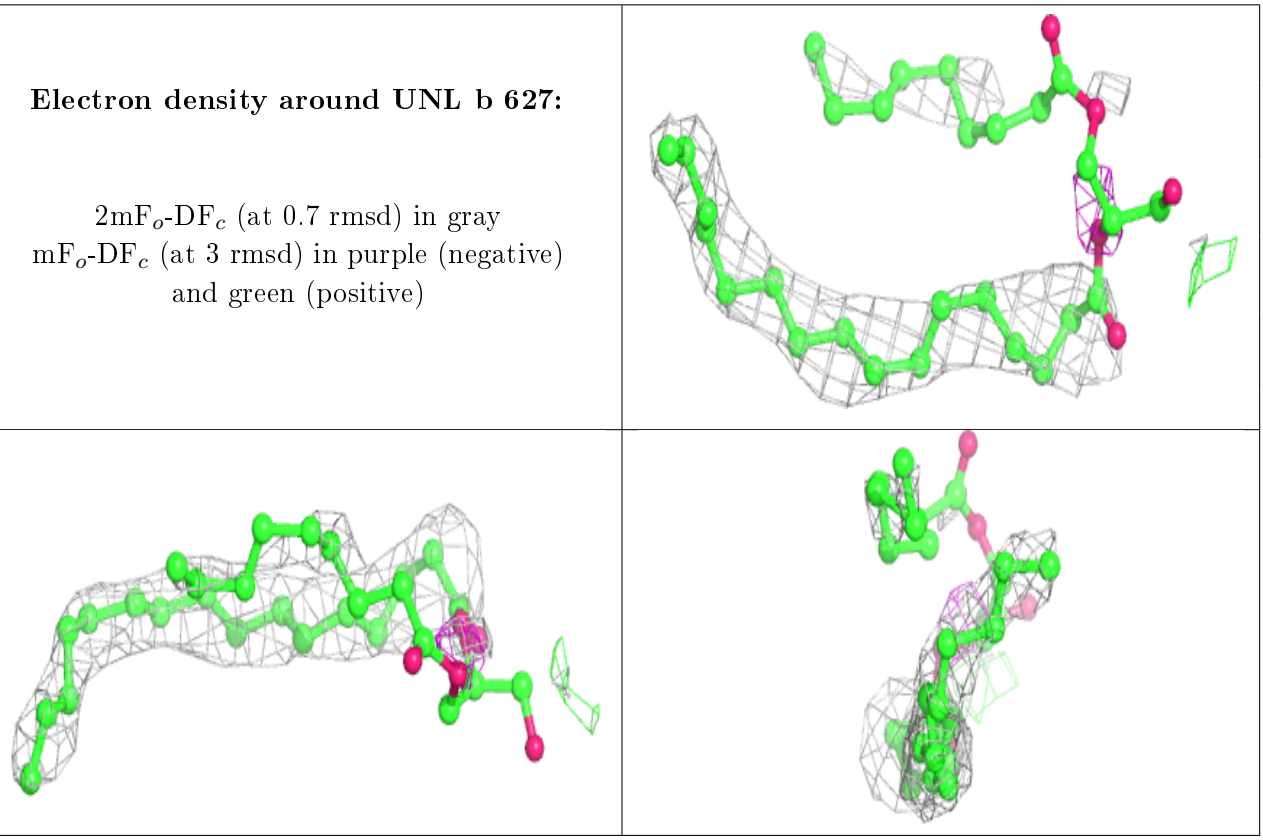
Electron density around LMT B 633:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



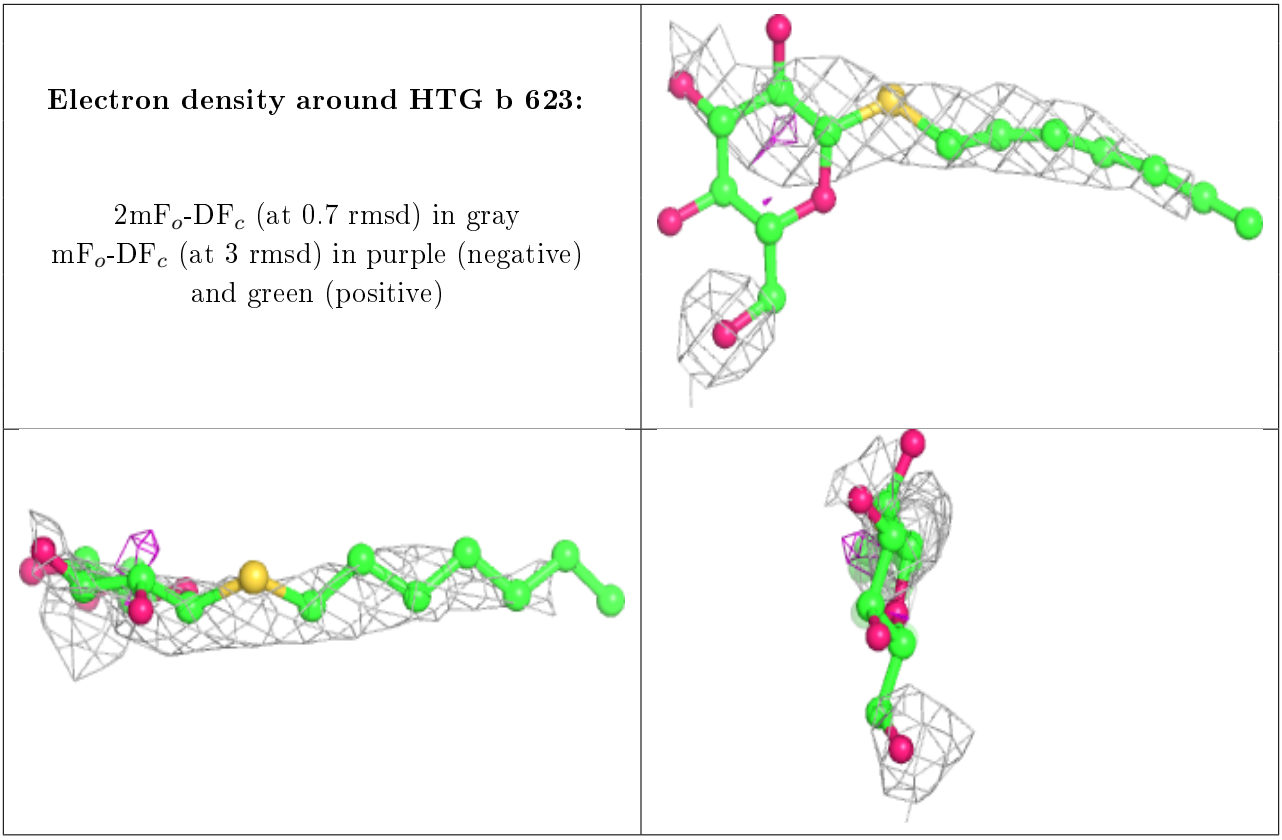
Electron density around UNL b 627:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



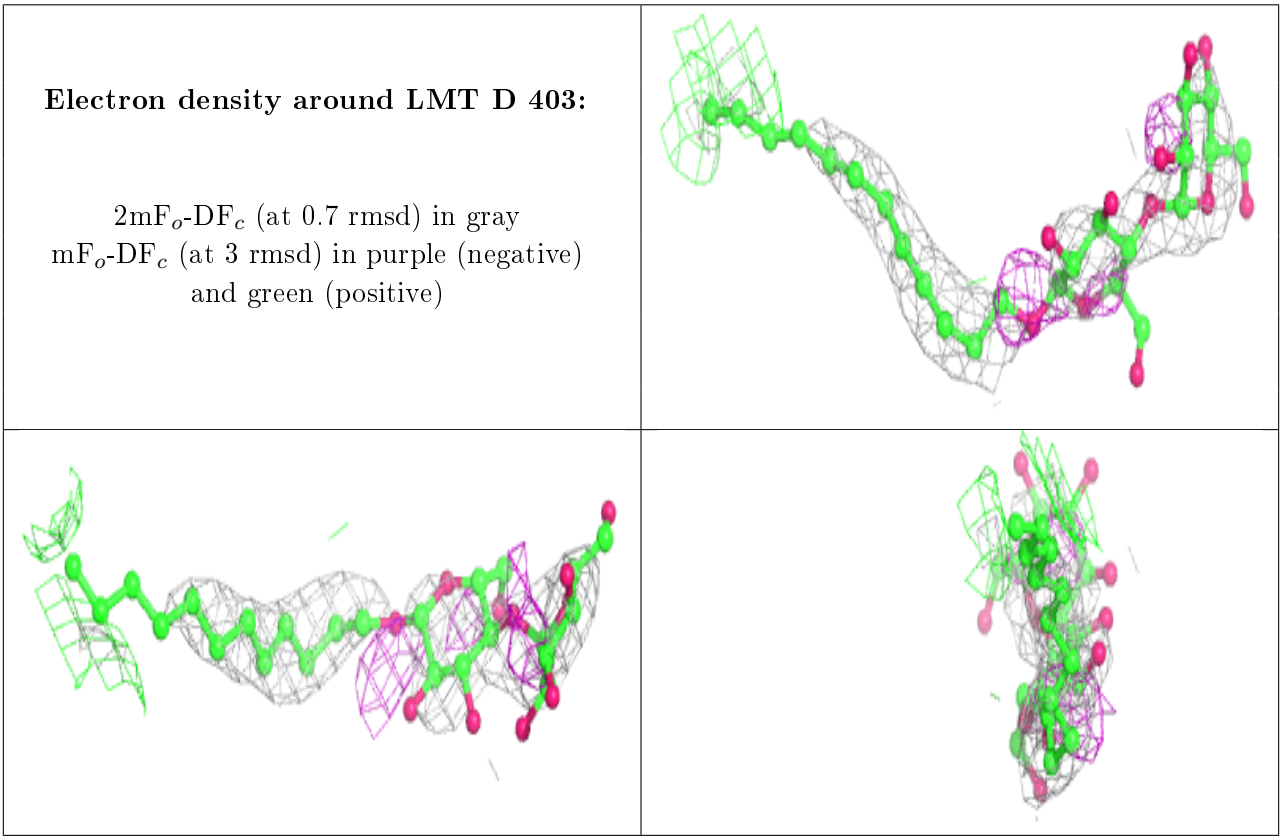
Electron density around HTG b 623:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



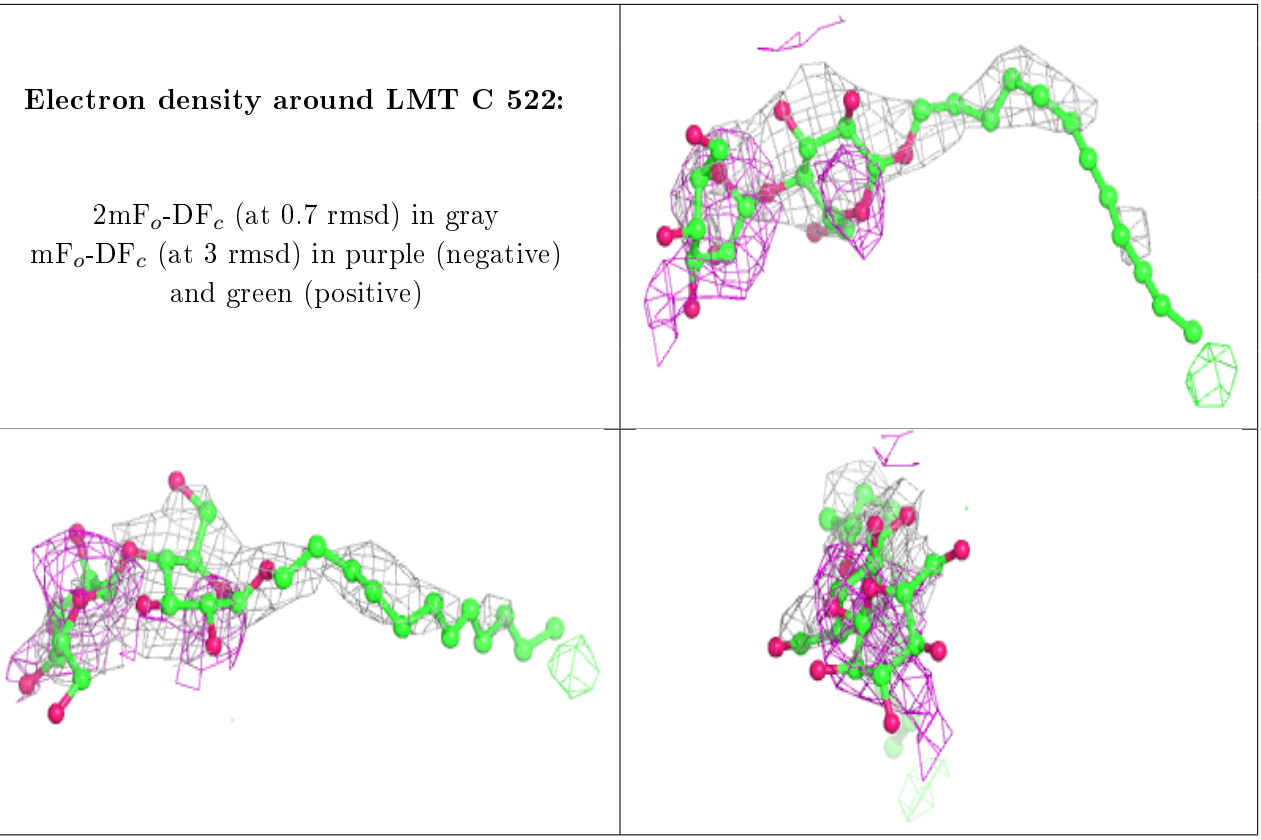
Electron density around LMT D 403:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



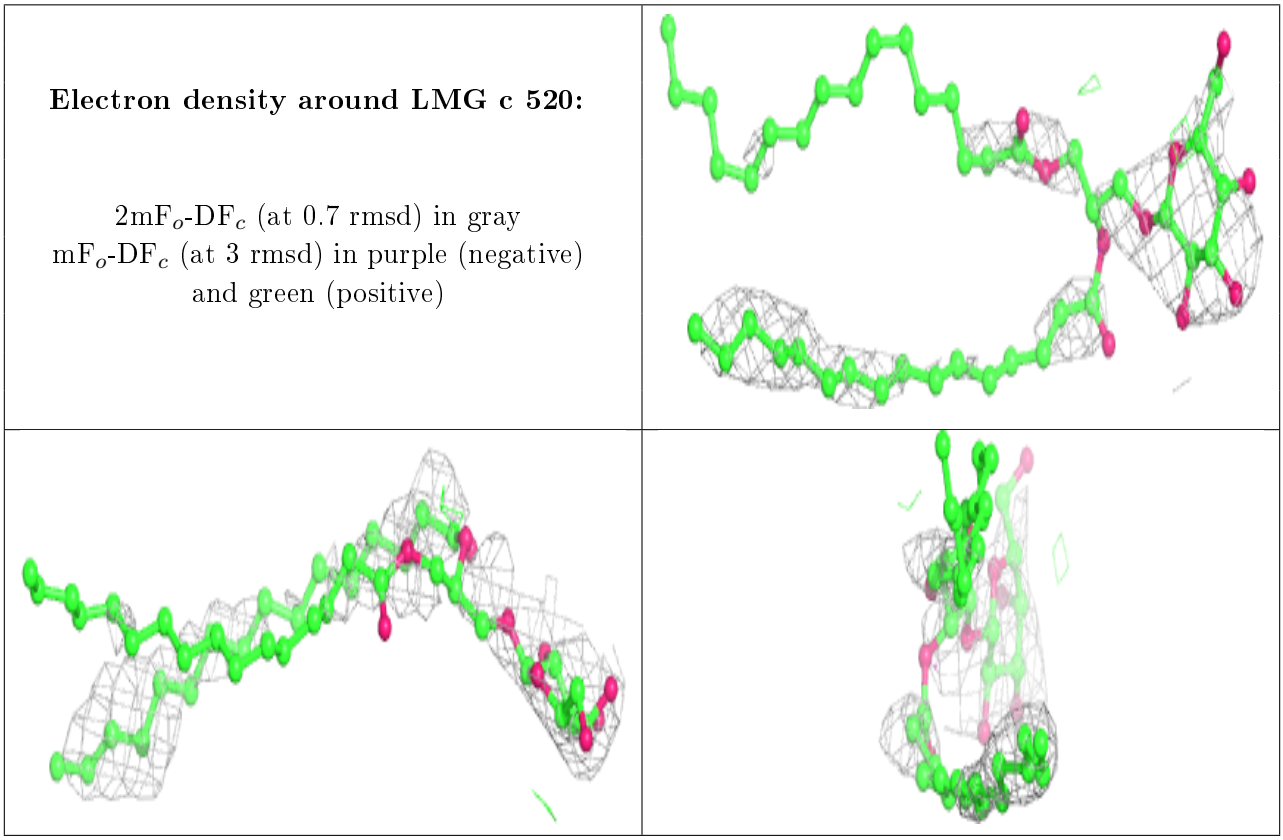
Electron density around LMT C 522:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



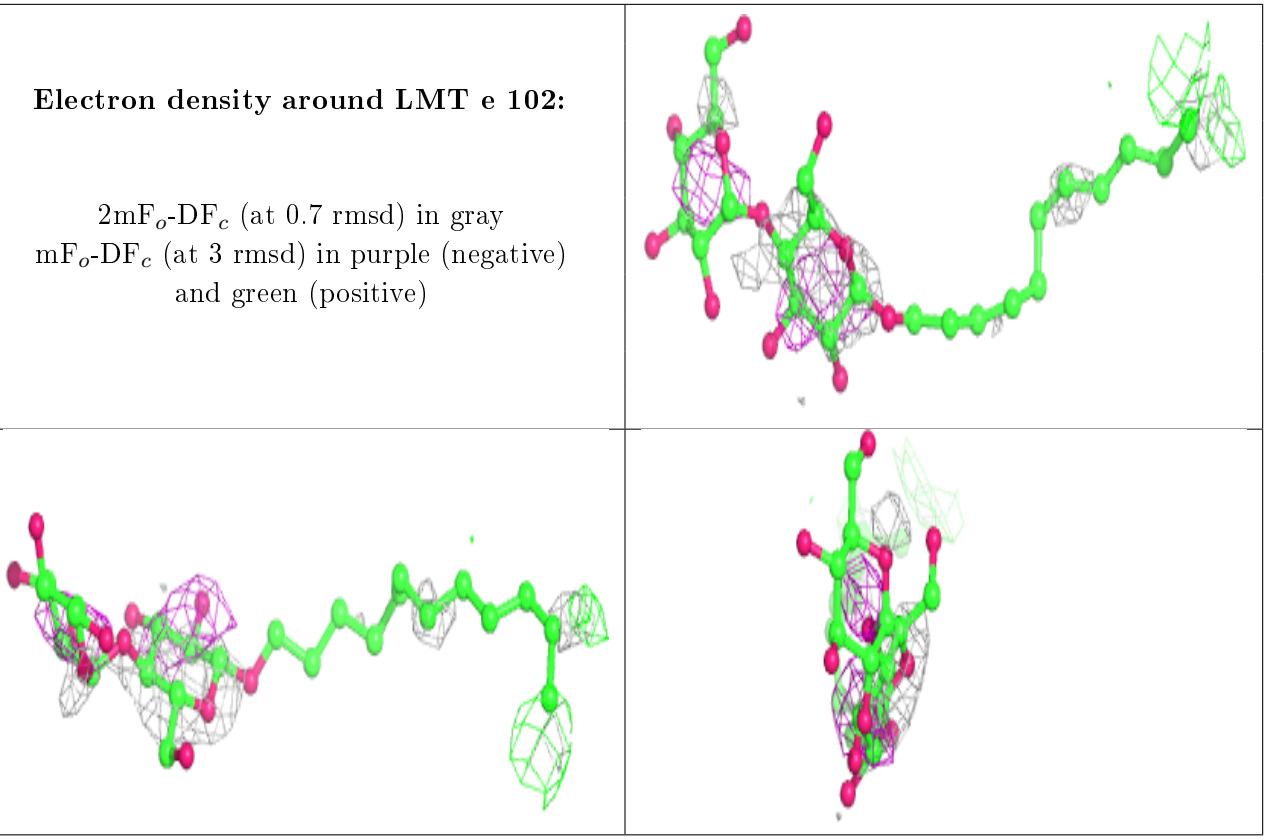
Electron density around LMG c 520:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



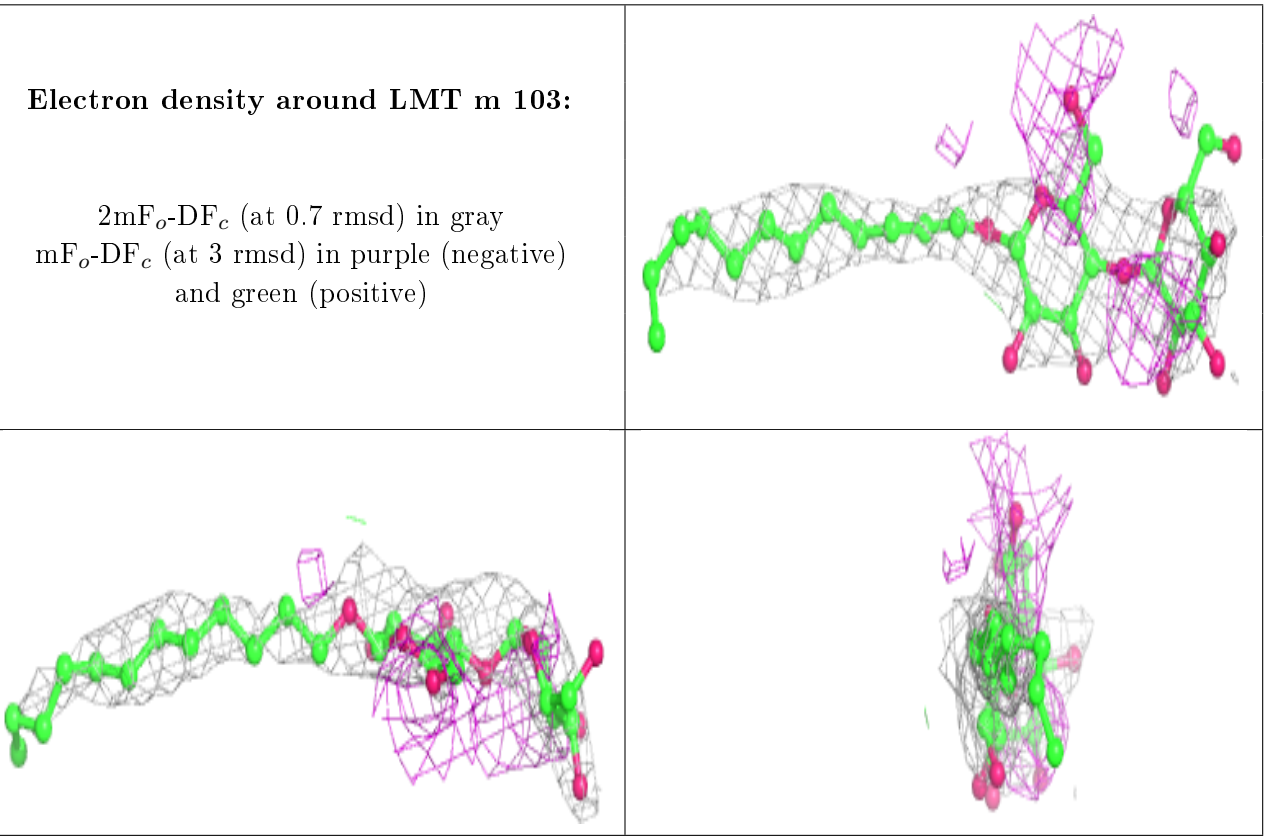
Electron density around LMT e 102:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



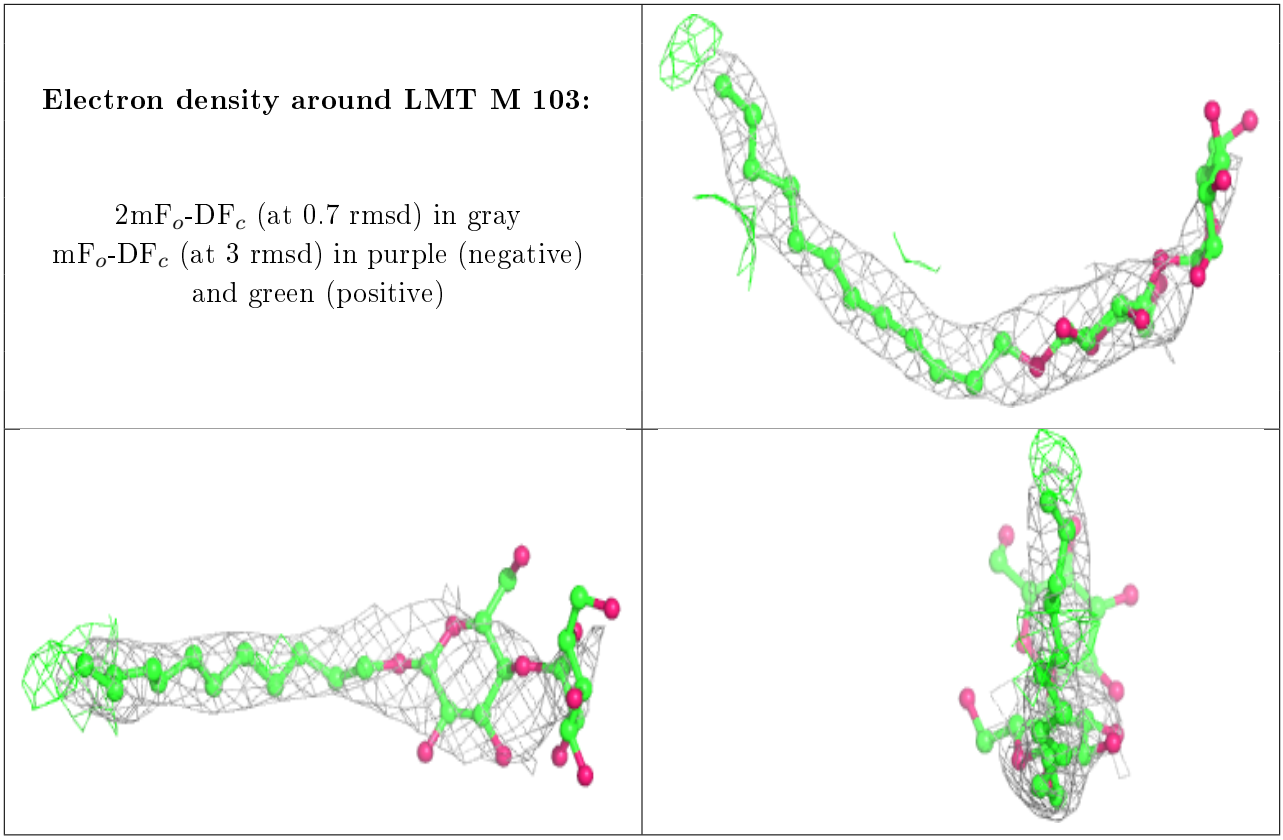
Electron density around LMT m 103:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



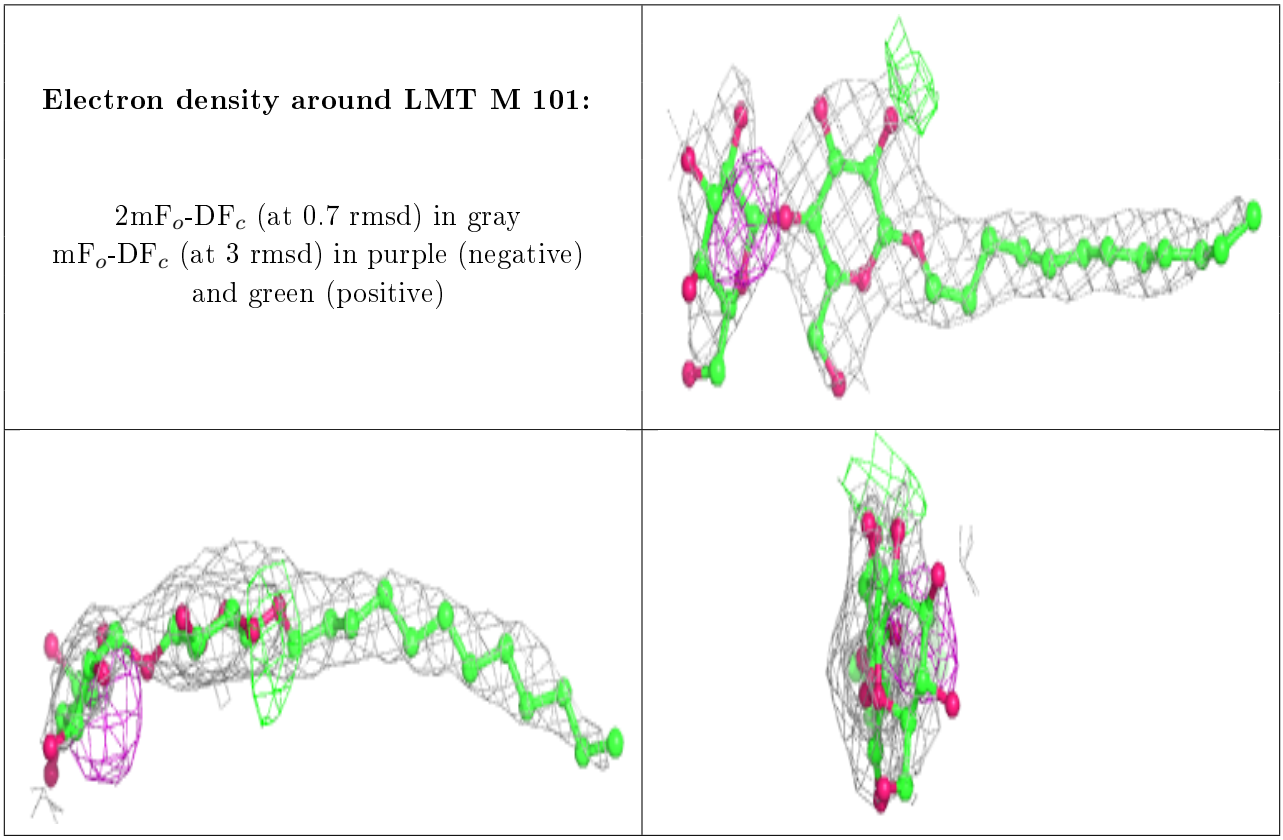
Electron density around LMT M 103:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



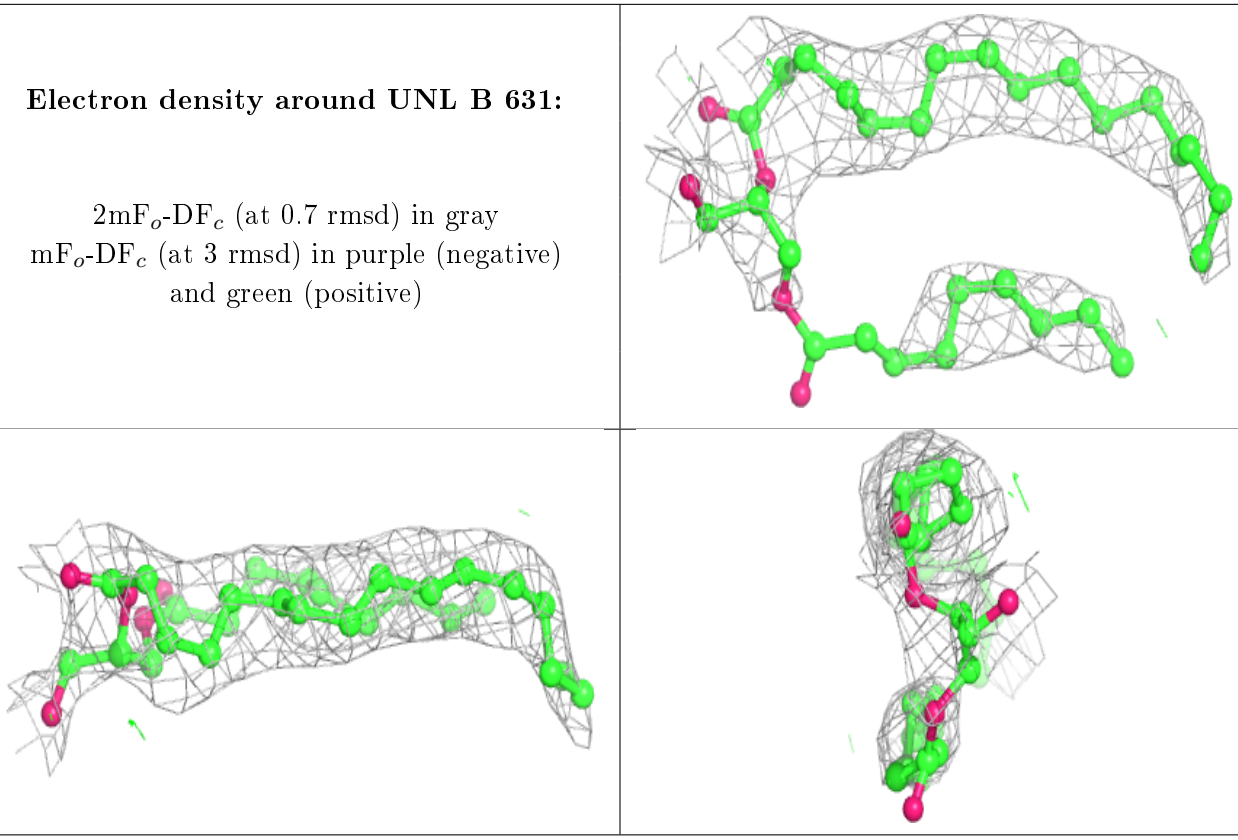
Electron density around LMT M 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



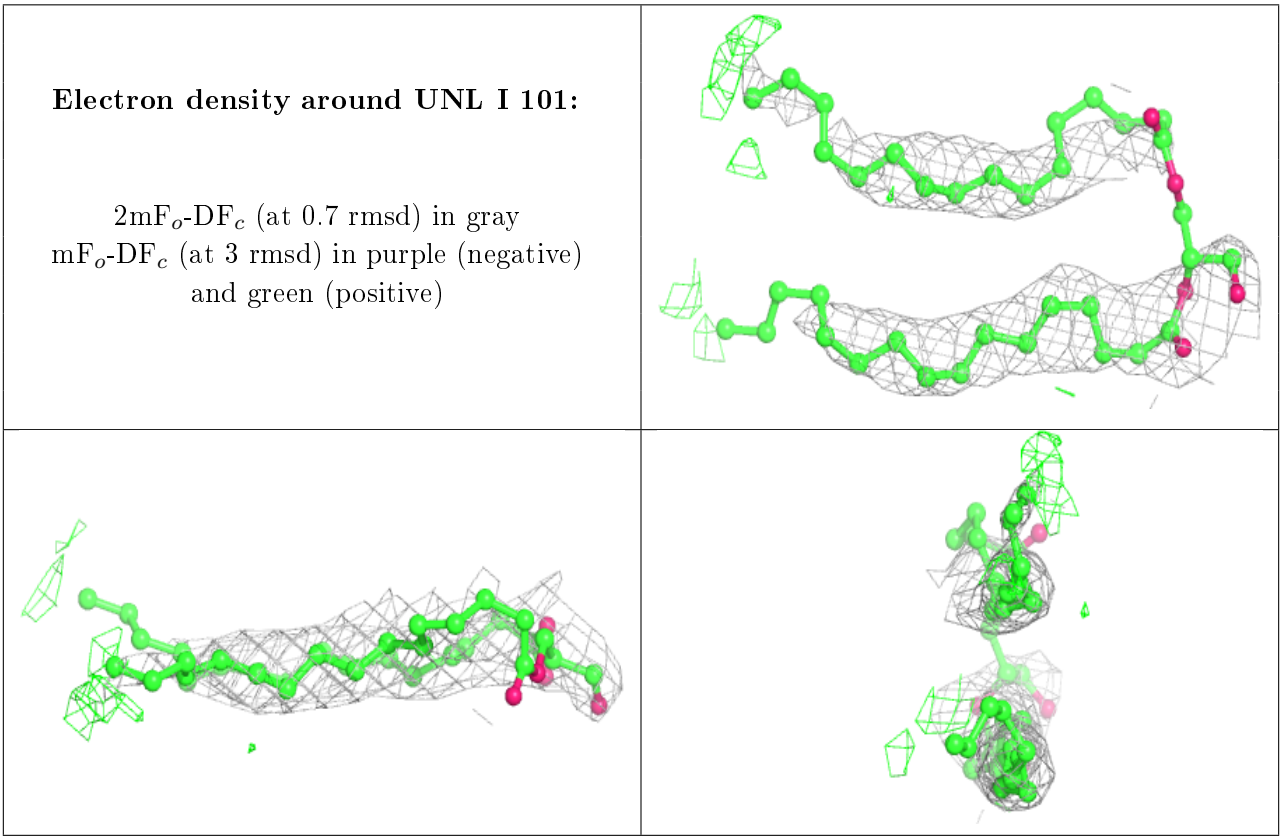
Electron density around UNL B 631:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



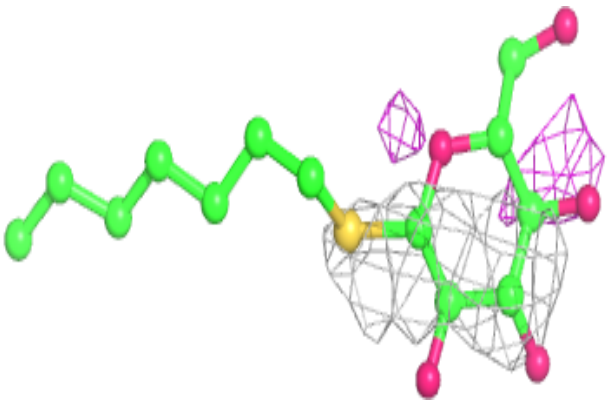
Electron density around UNL I 101:

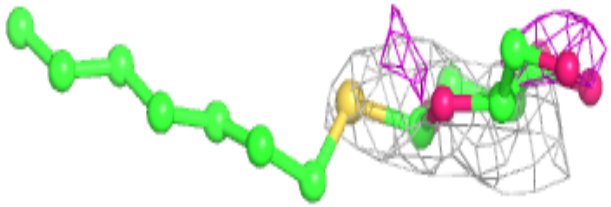
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around HTG c 522:

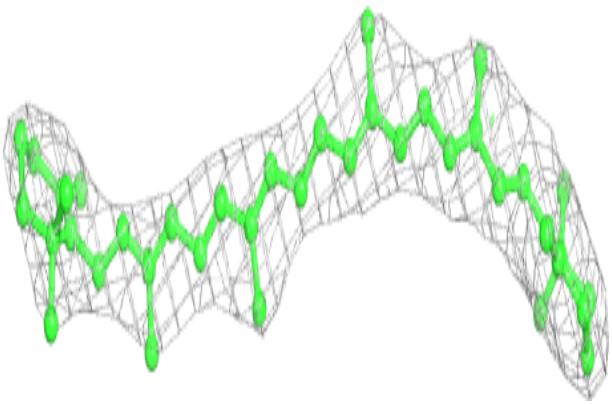
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

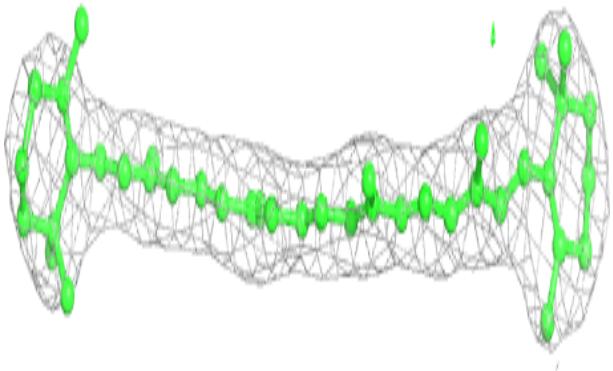


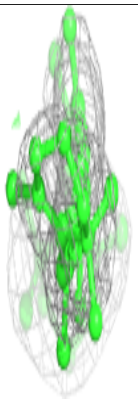


Electron density around BCR h 102:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

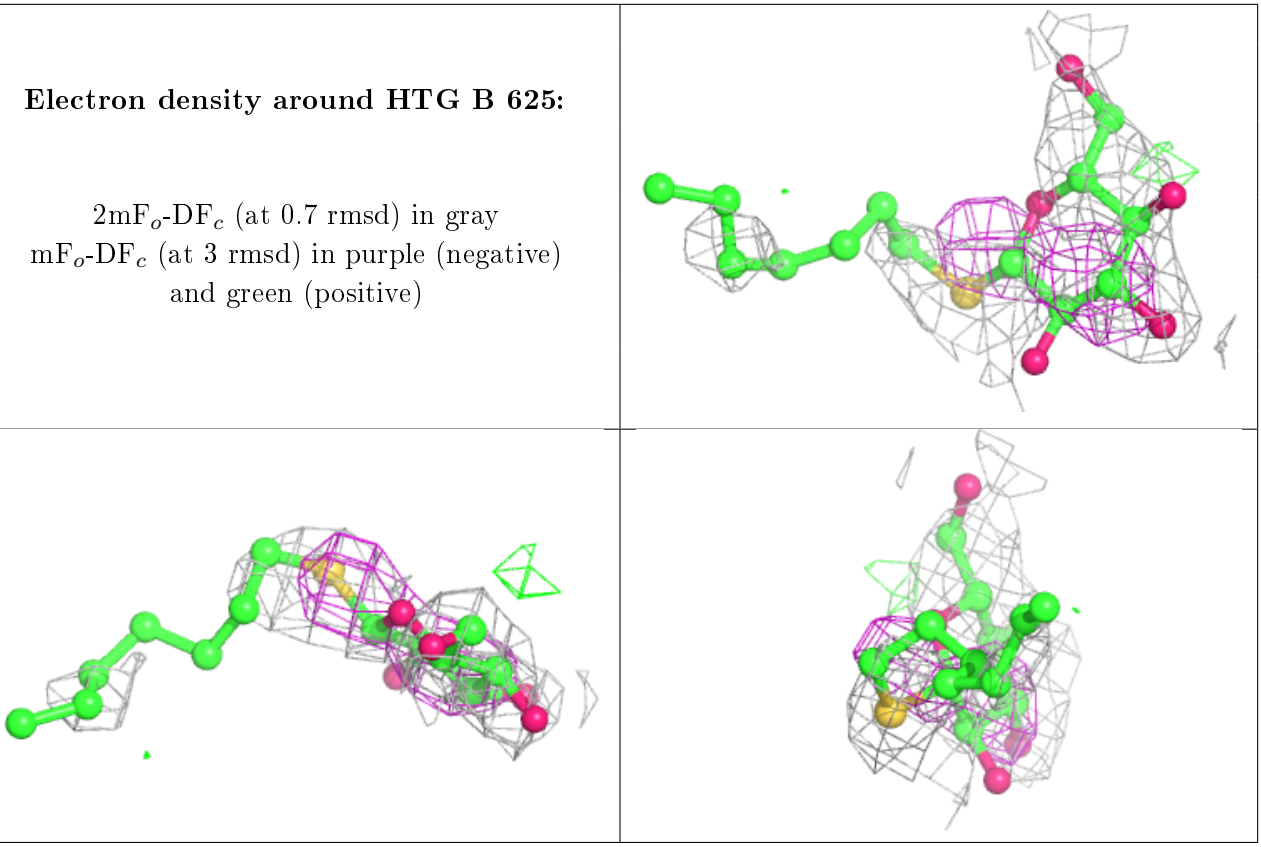






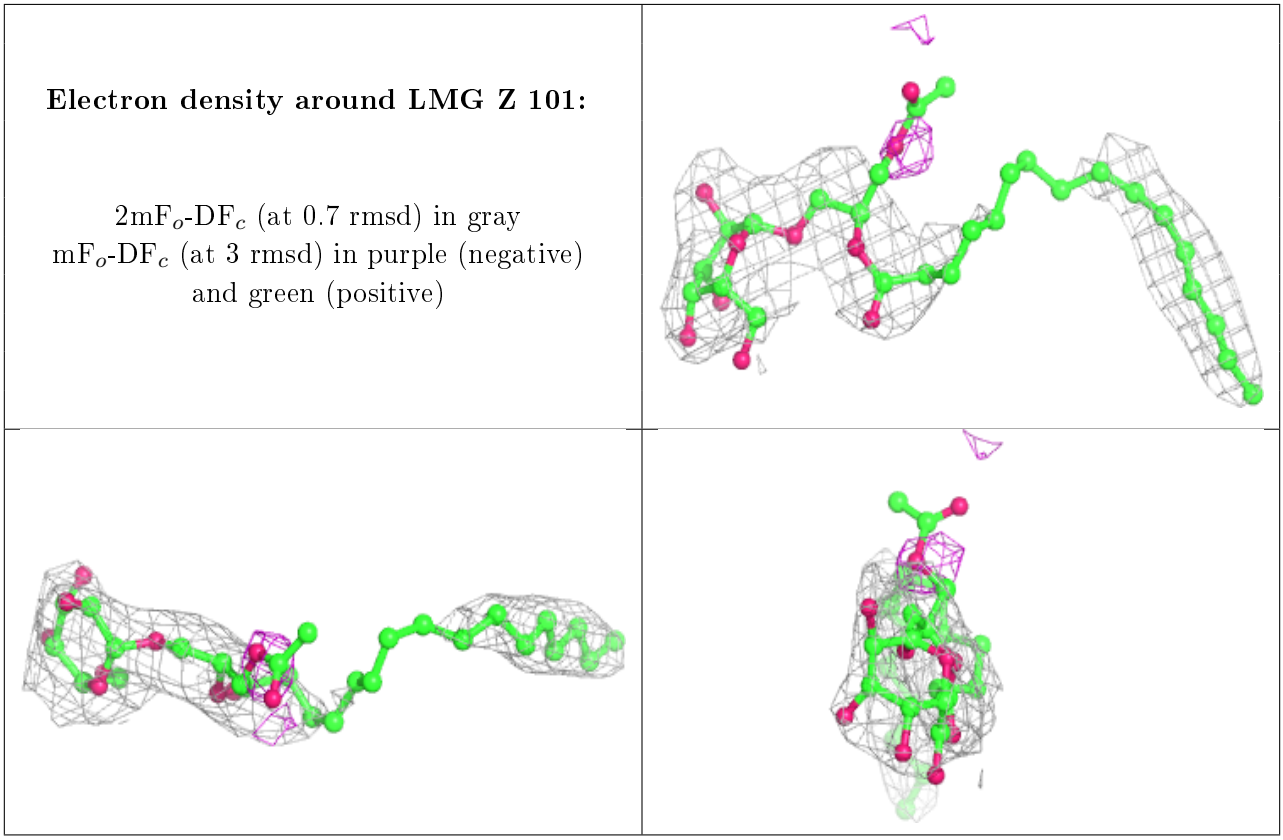
Electron density around HTG B 625:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



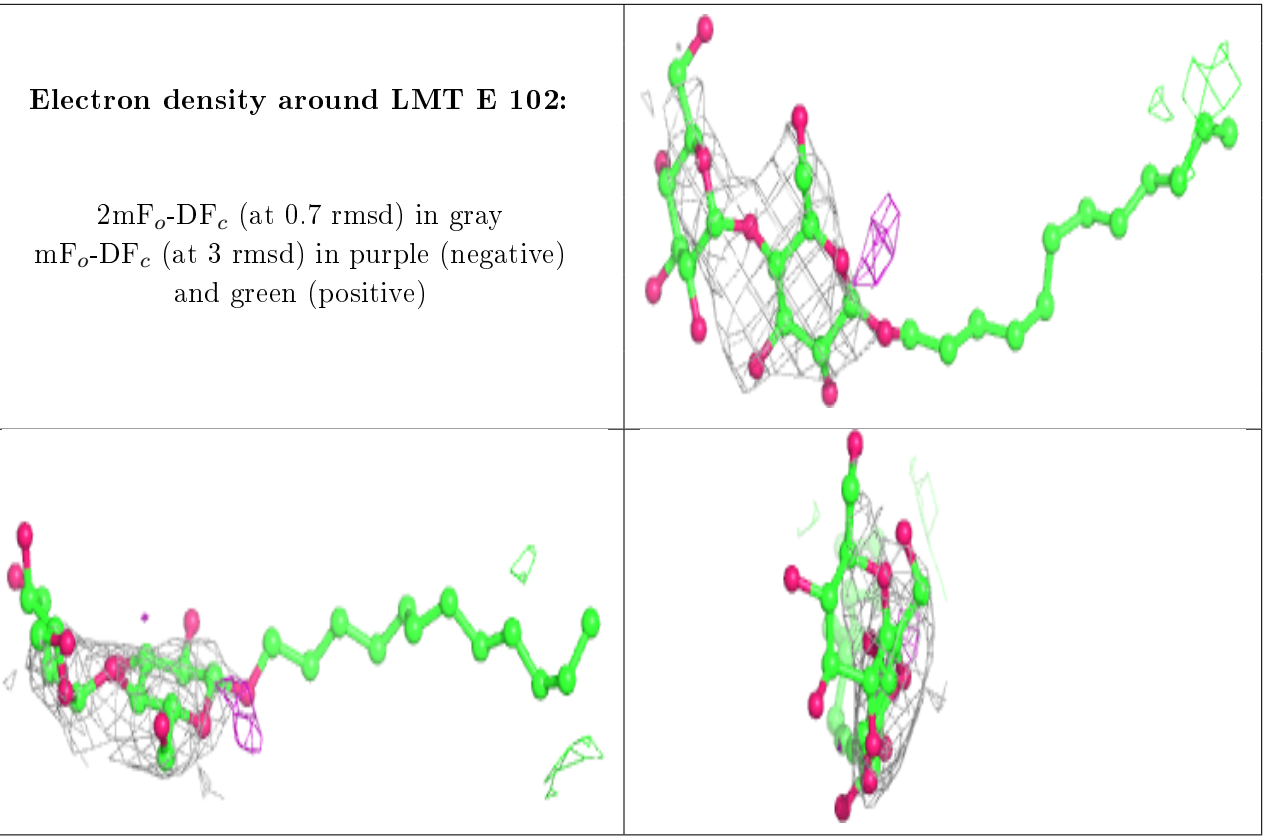
Electron density around LMG Z 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



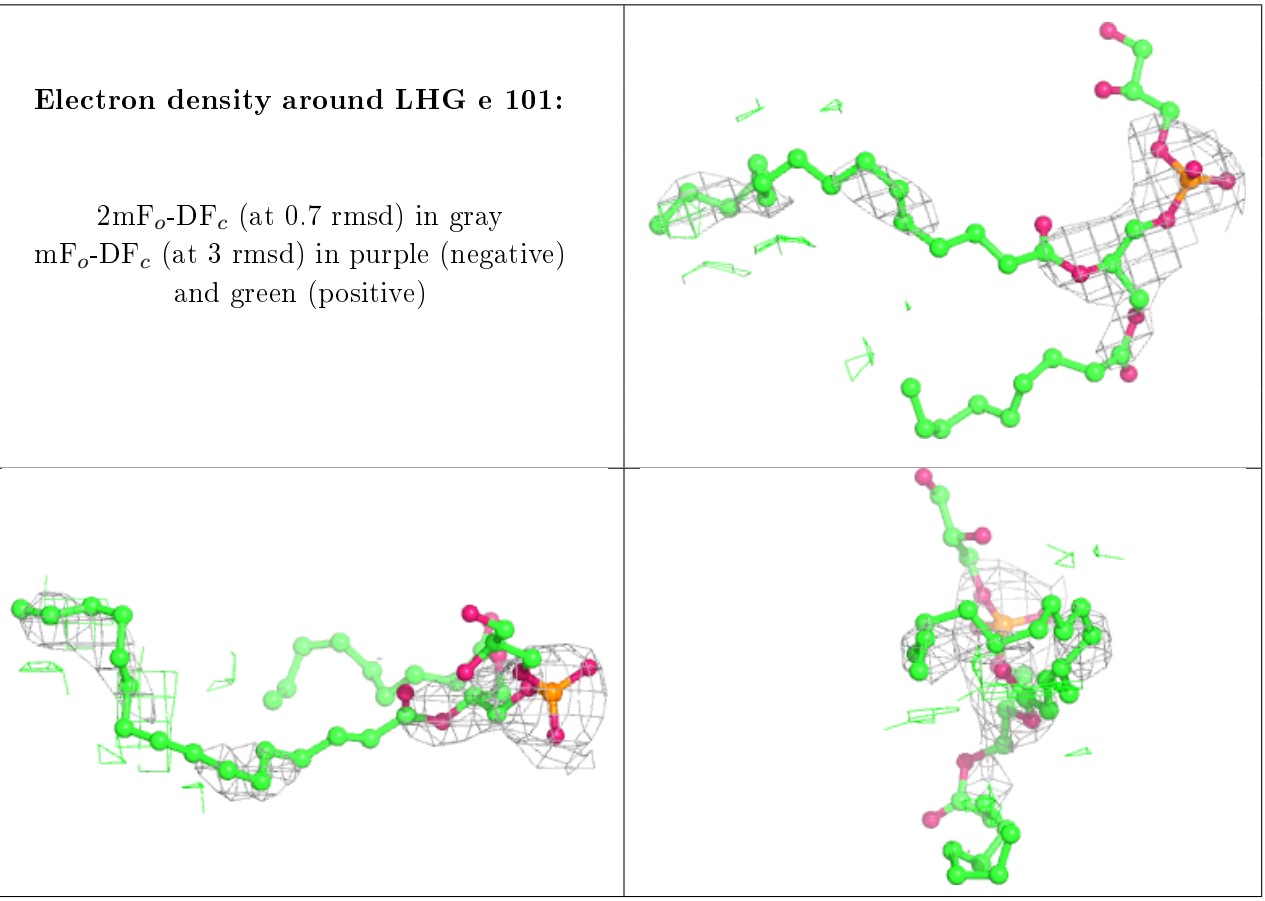
Electron density around LMT E 102:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



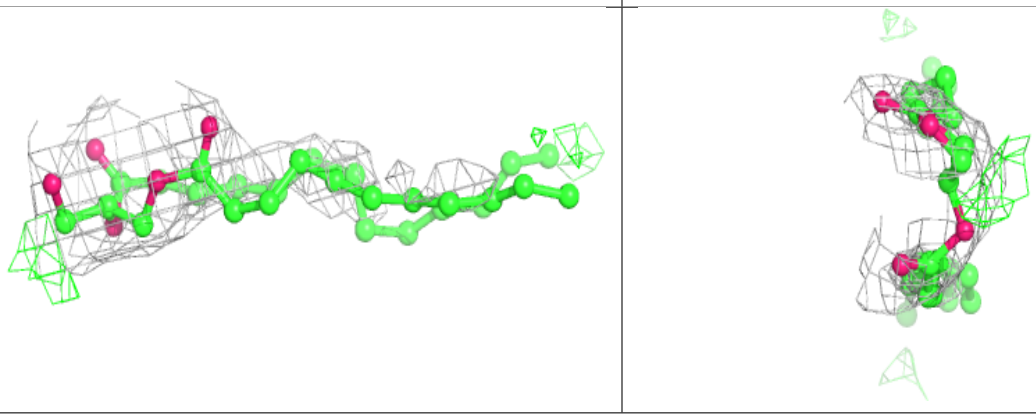
Electron density around LHG e 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



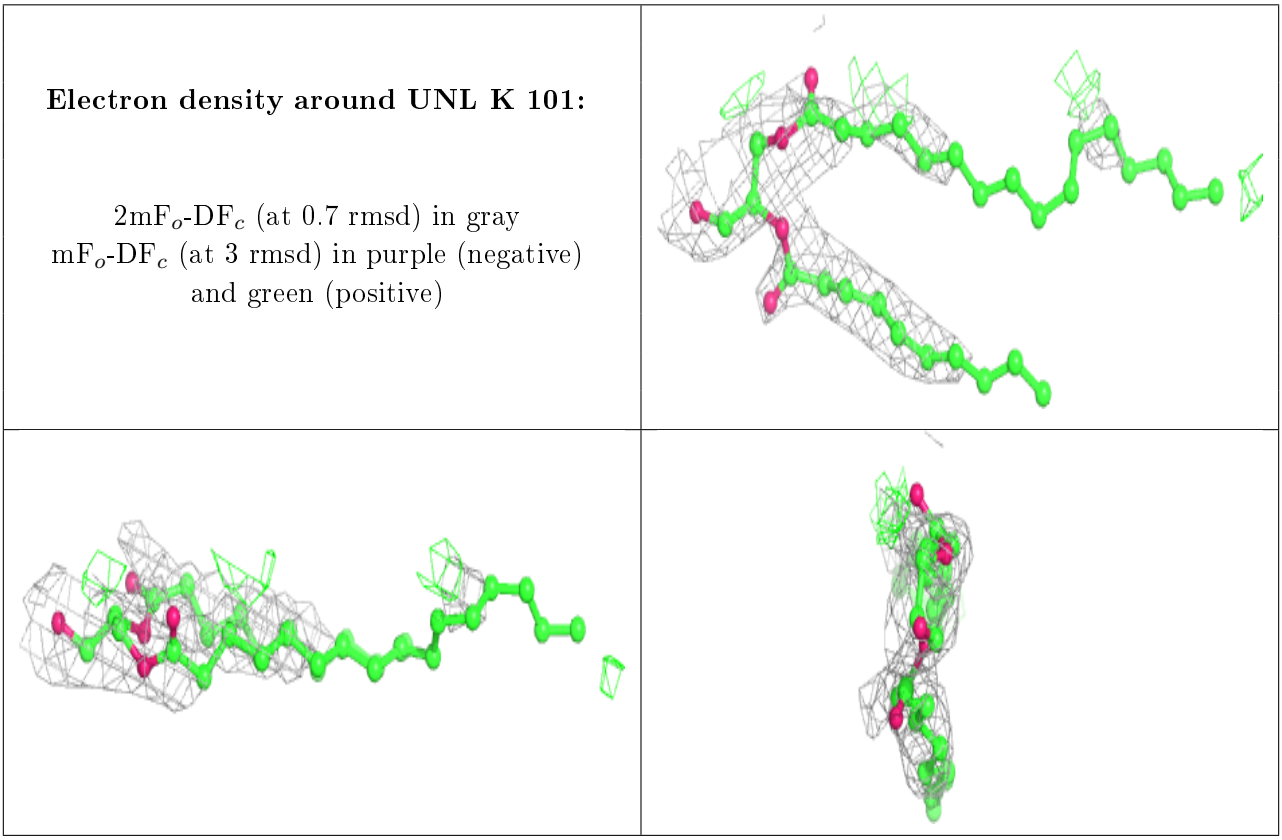
Electron density around UNL c 525:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



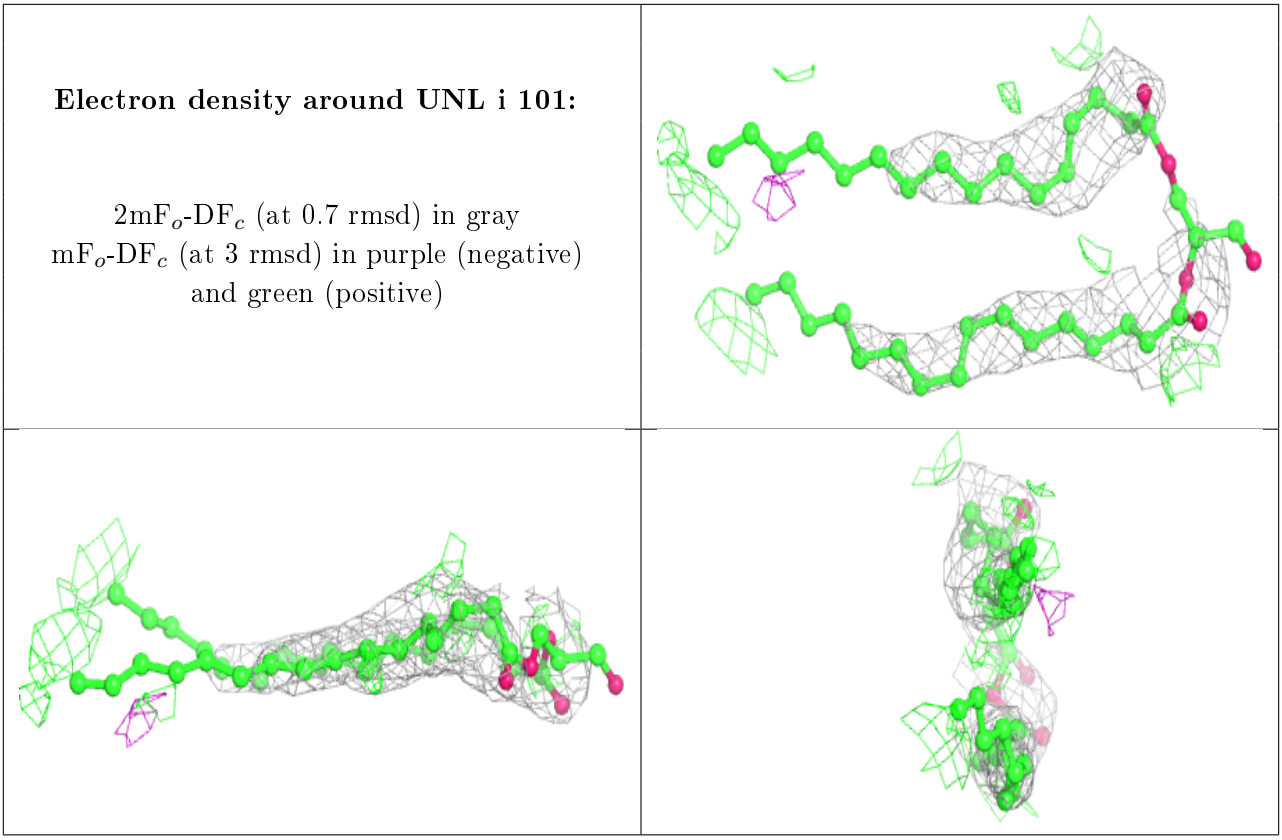
Electron density around UNL K 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



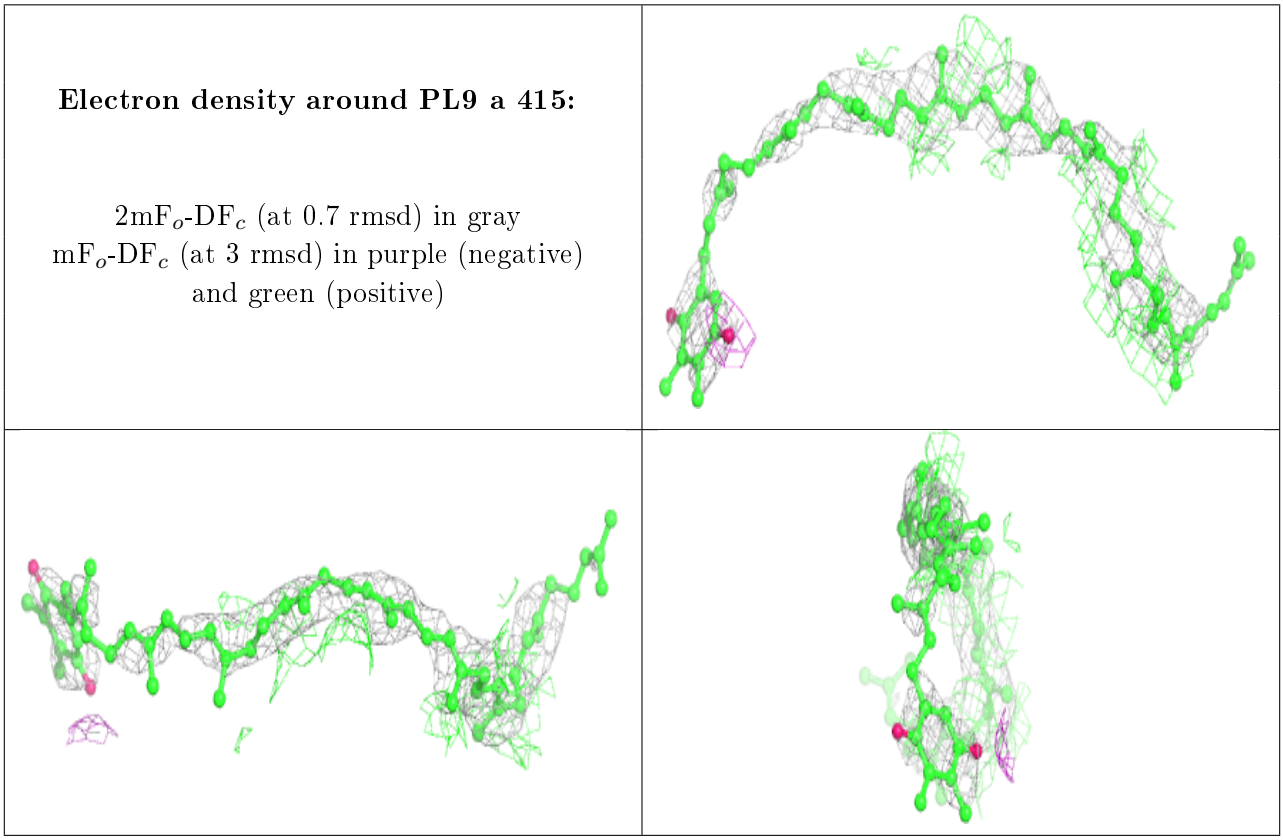
Electron density around UNL i 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



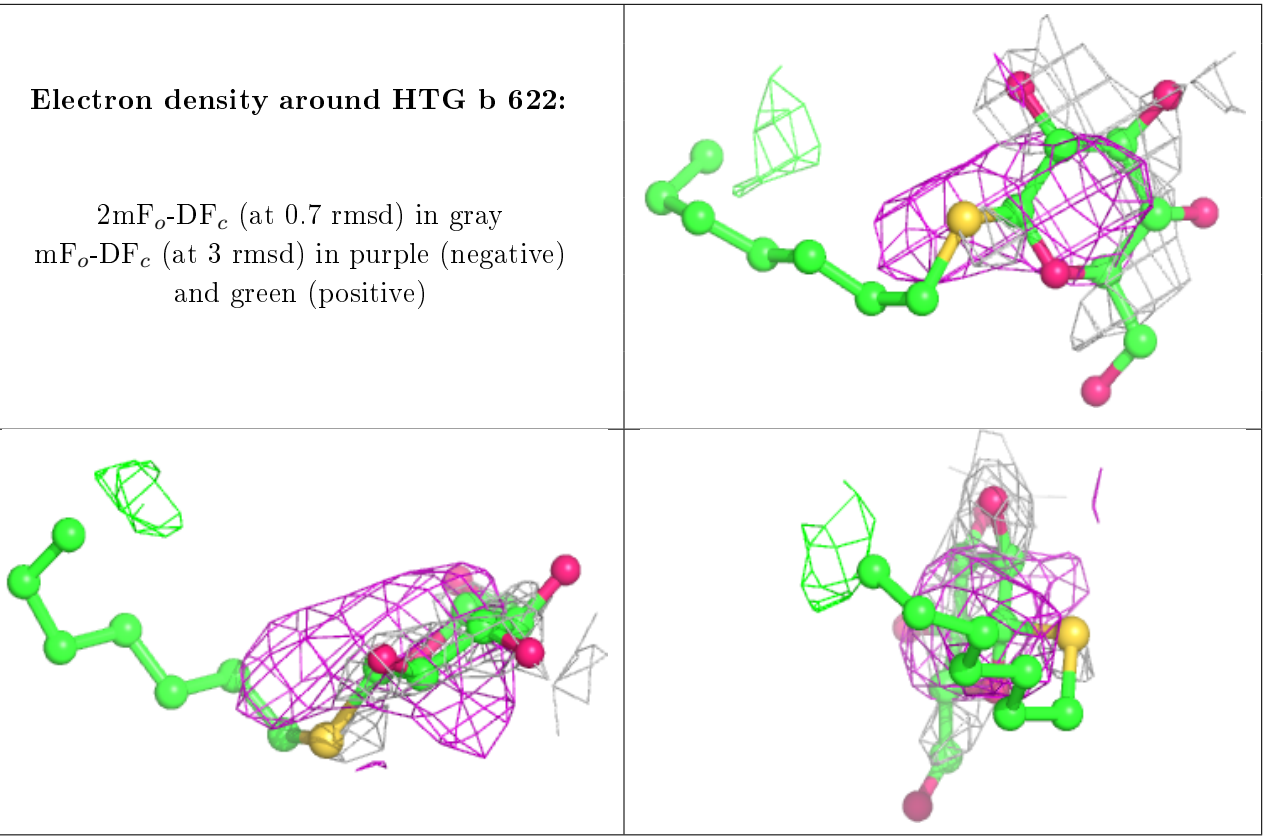
Electron density around PL9 a 415:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



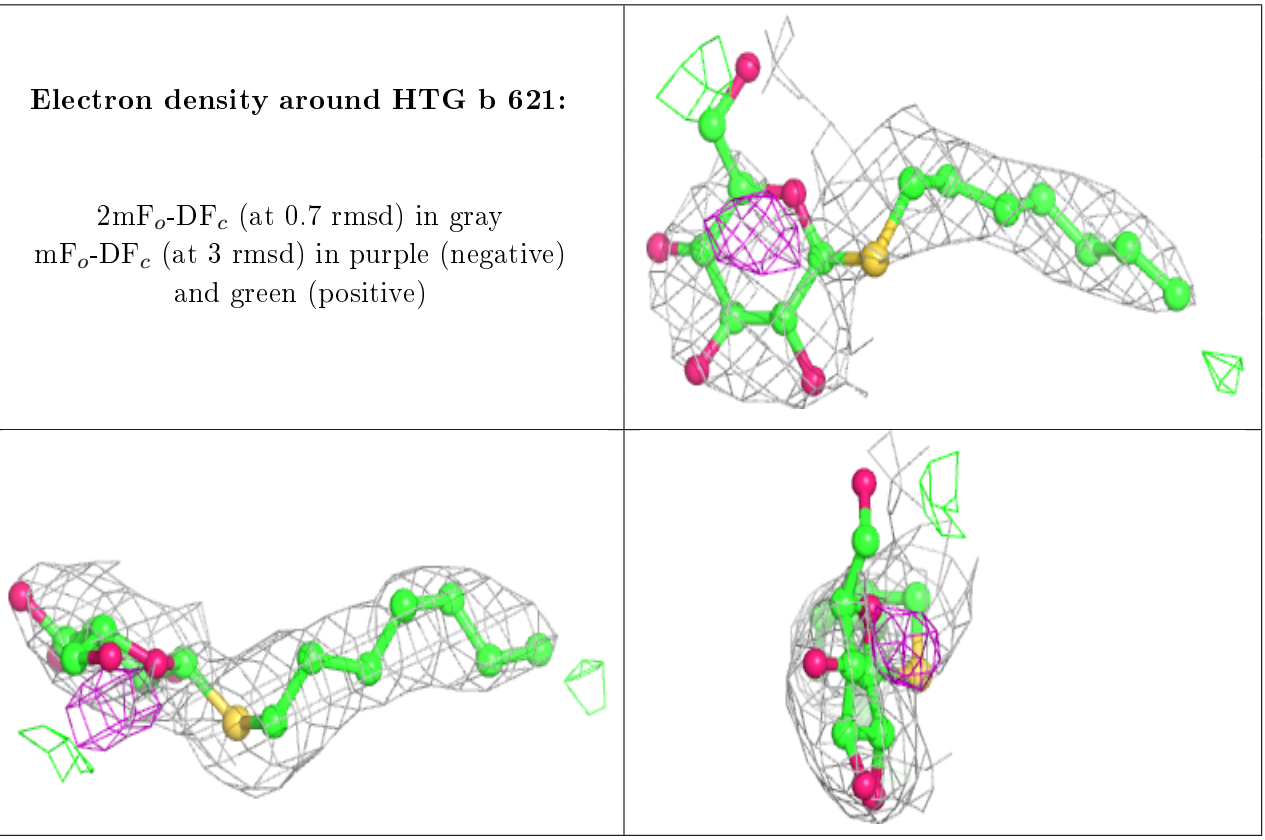
Electron density around HTG b 622:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



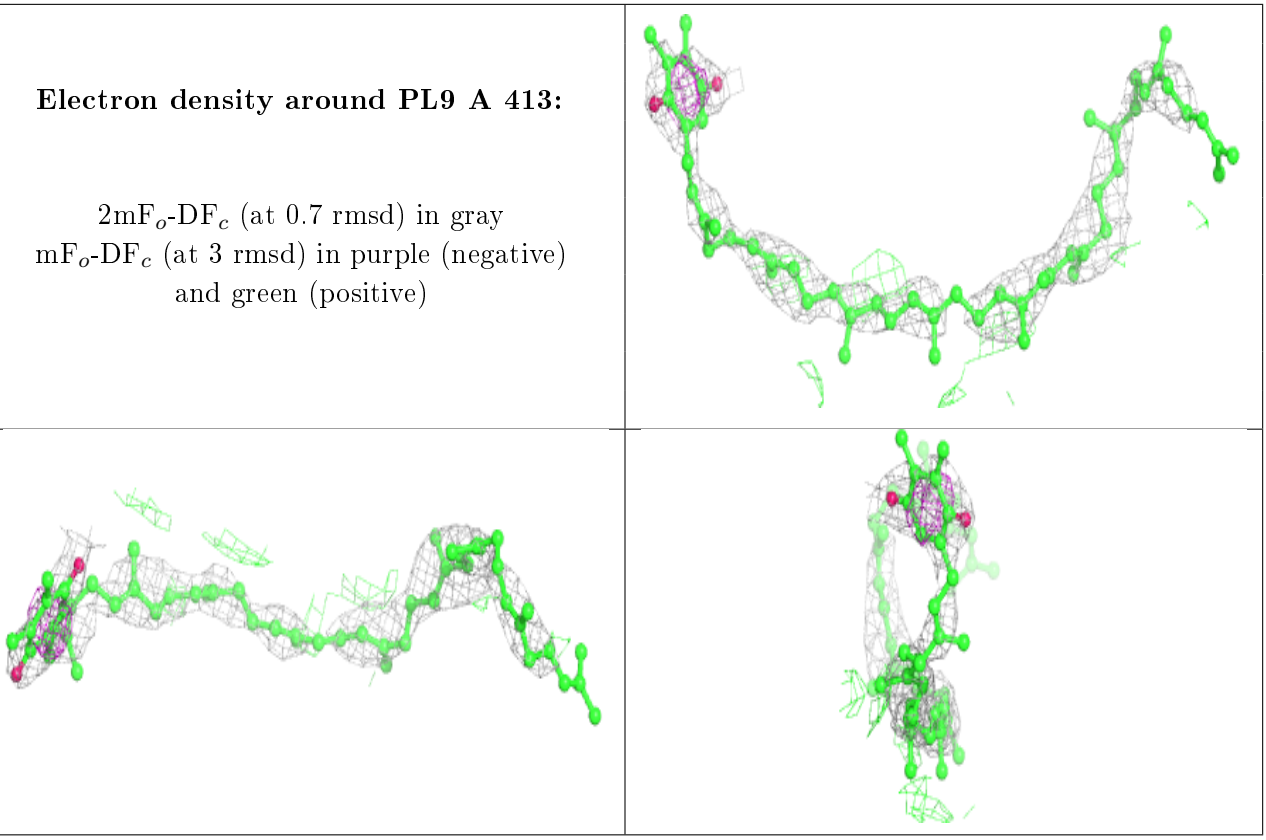
Electron density around HTG b 621:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



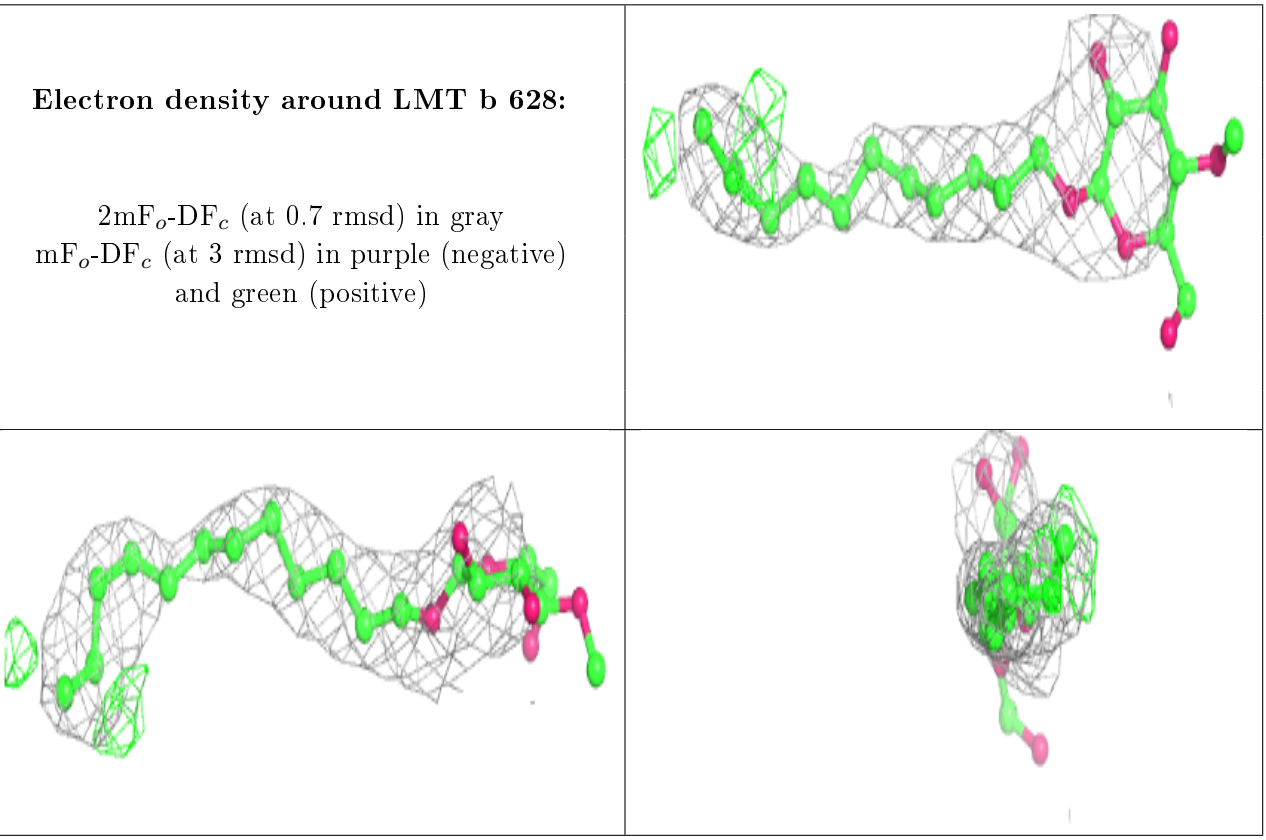
Electron density around PL9 A 413:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



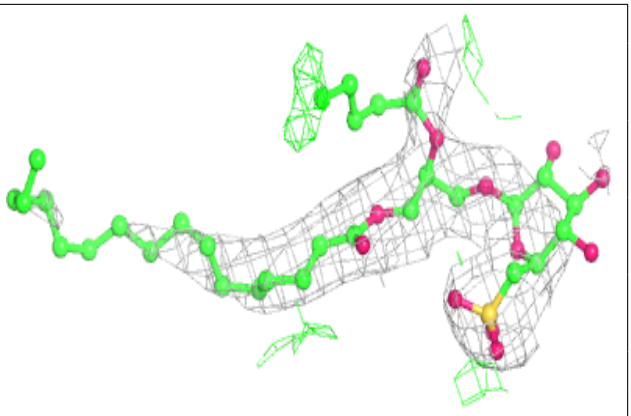
Electron density around LMT b 628:

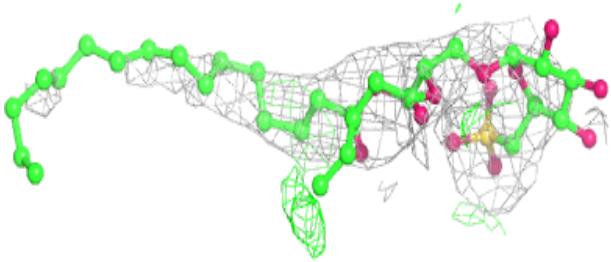
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

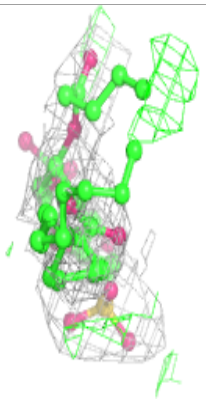


Electron density around SQD f 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

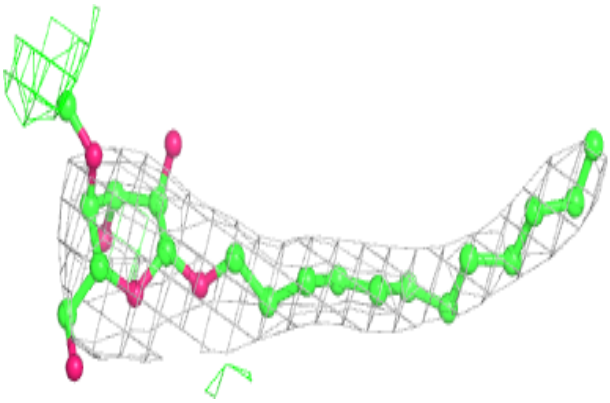


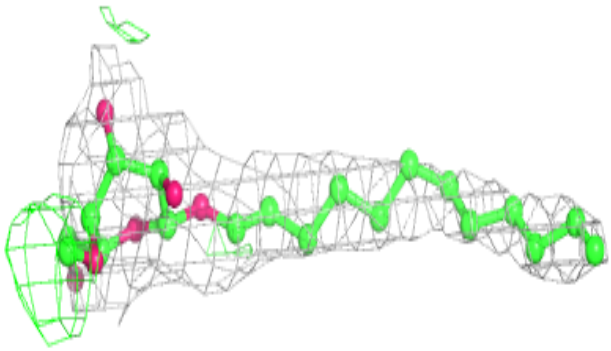


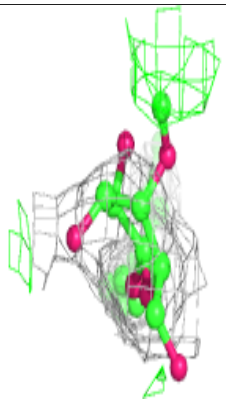


Electron density around LMT b 620:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

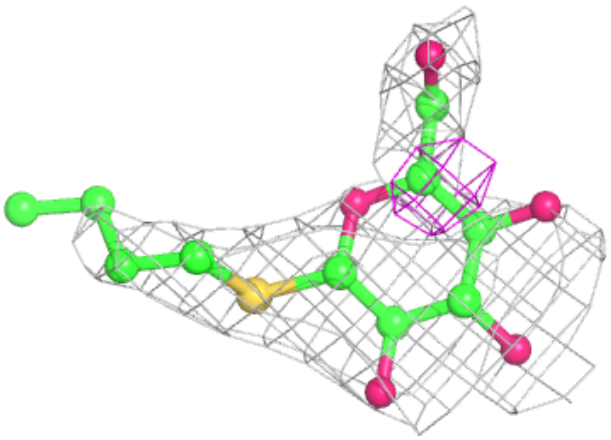


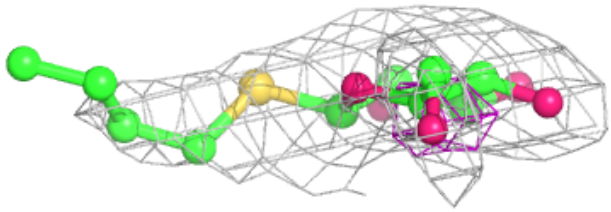


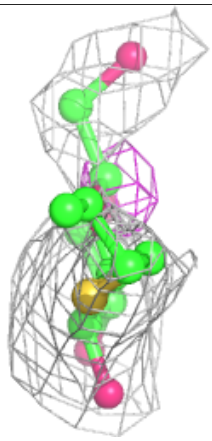


Electron density around HTG h 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

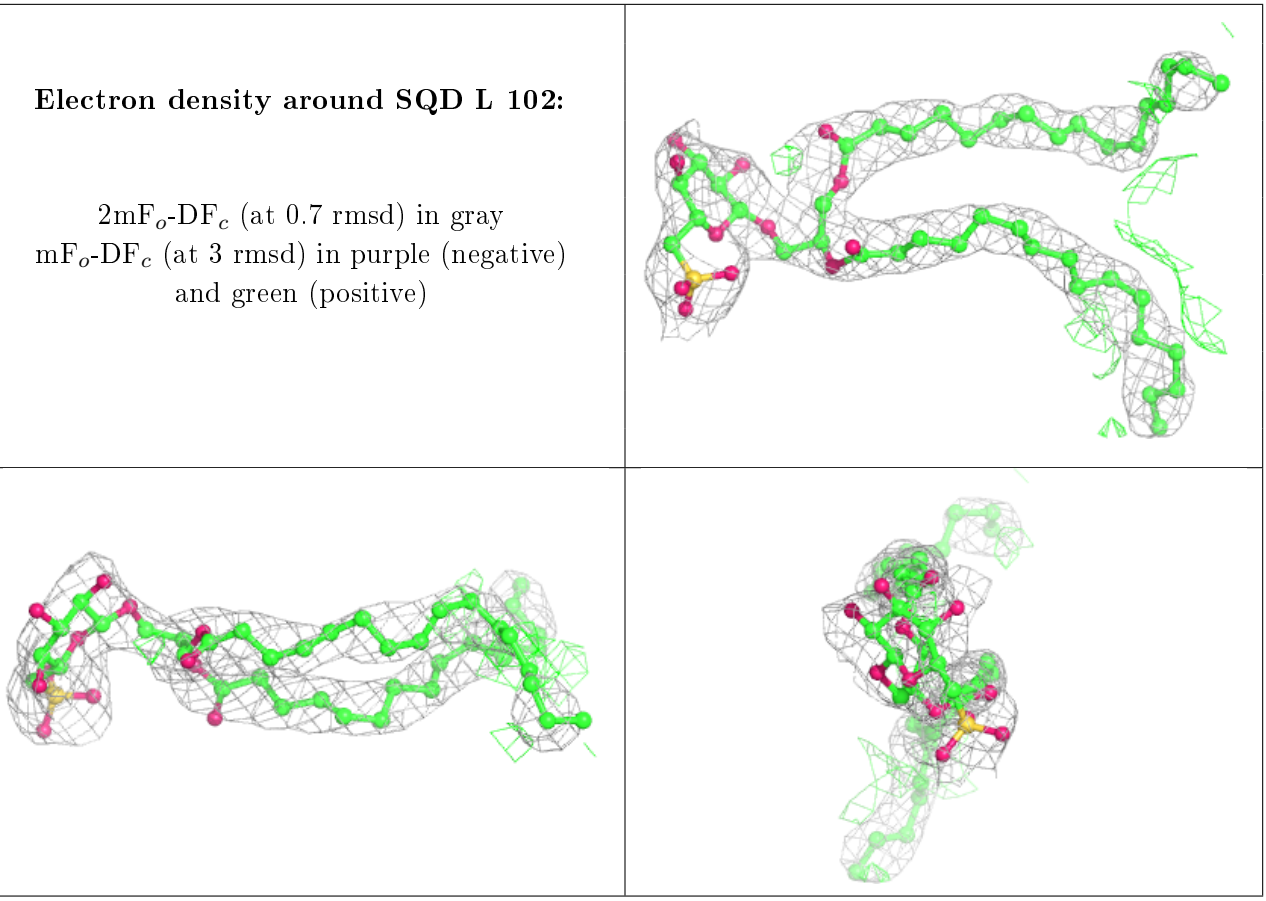






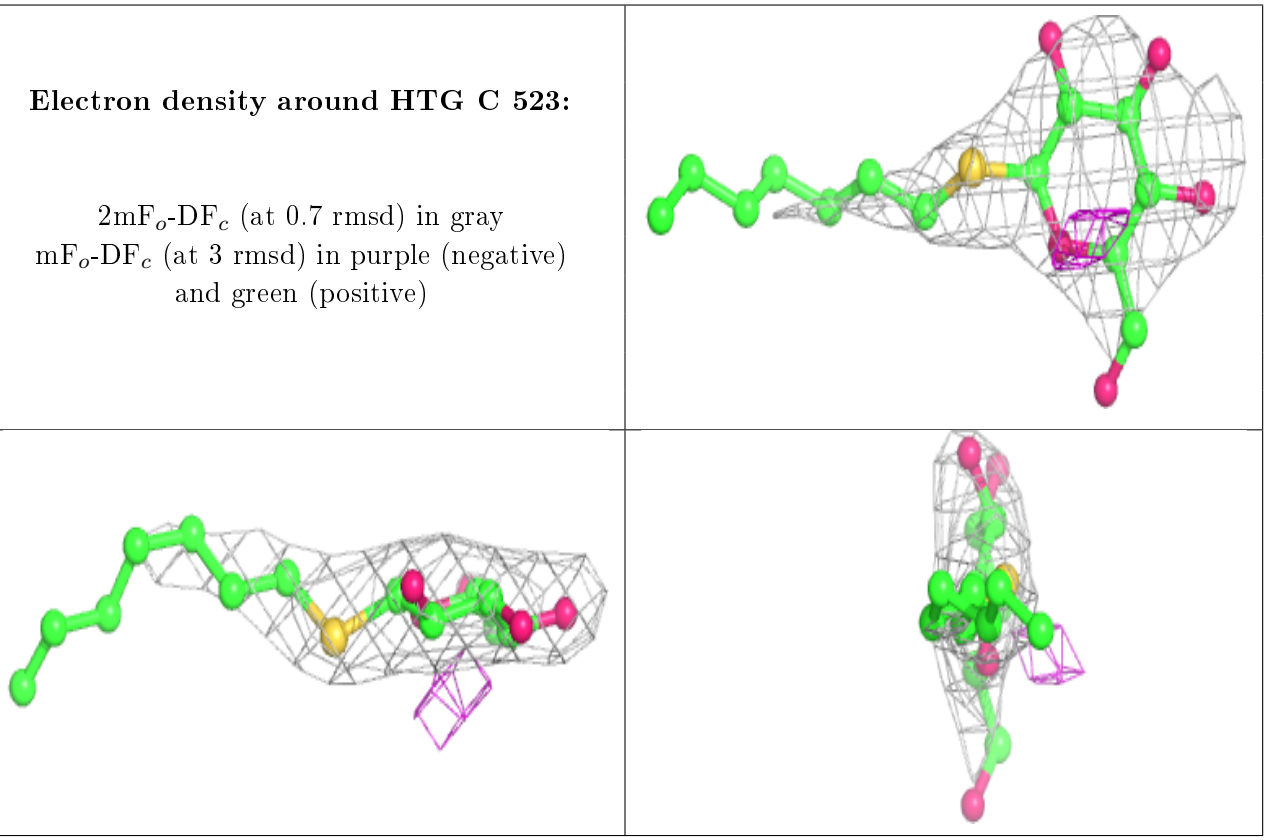
Electron density around SQD L 102:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



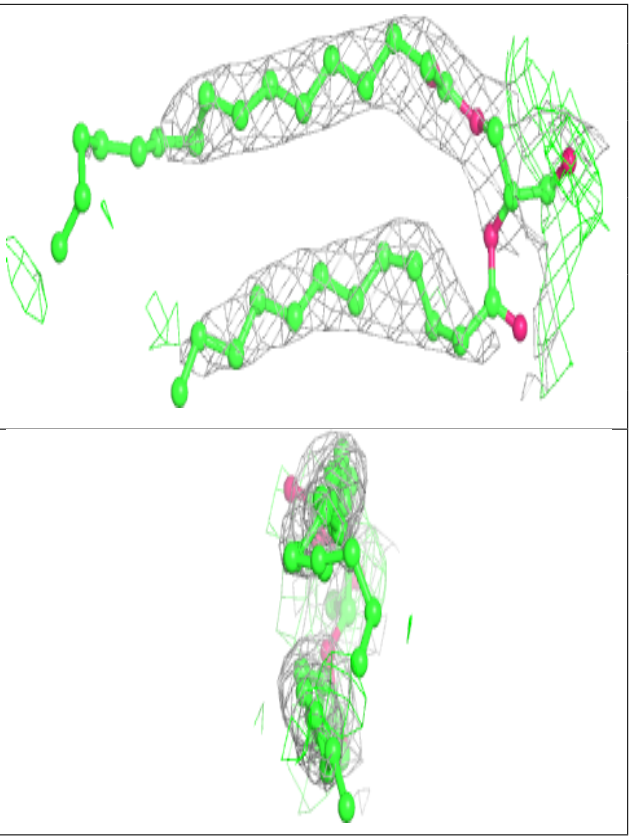
Electron density around HTG C 523:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



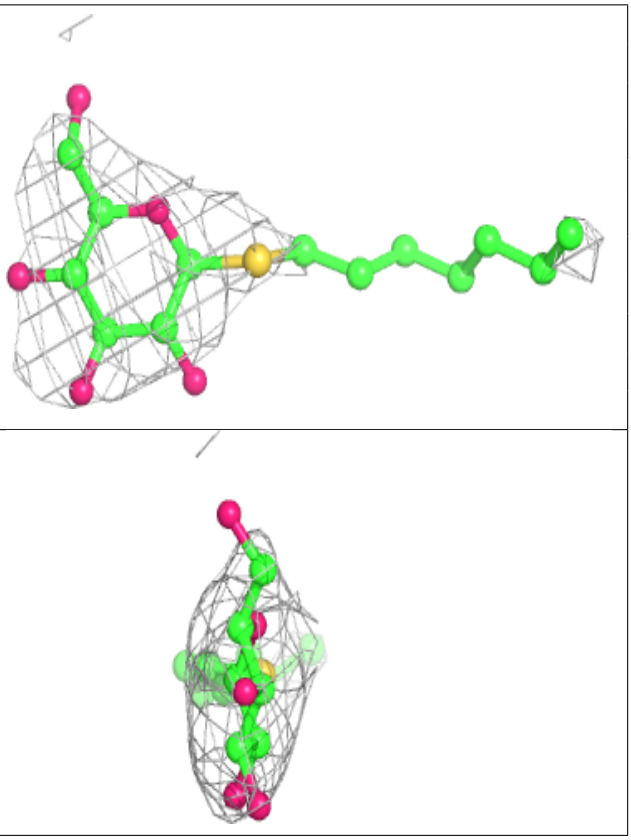
Electron density around UNL b 629:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



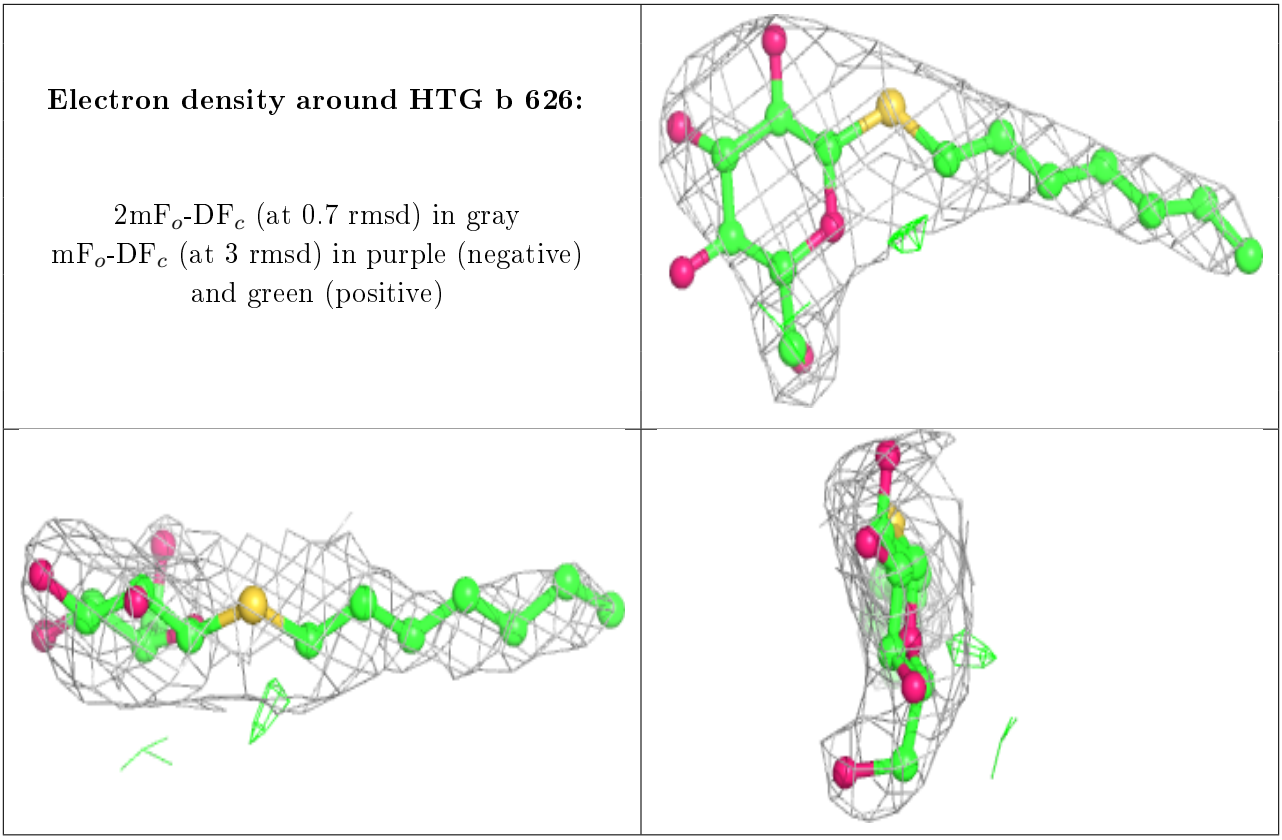
Electron density around HTG c 521:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



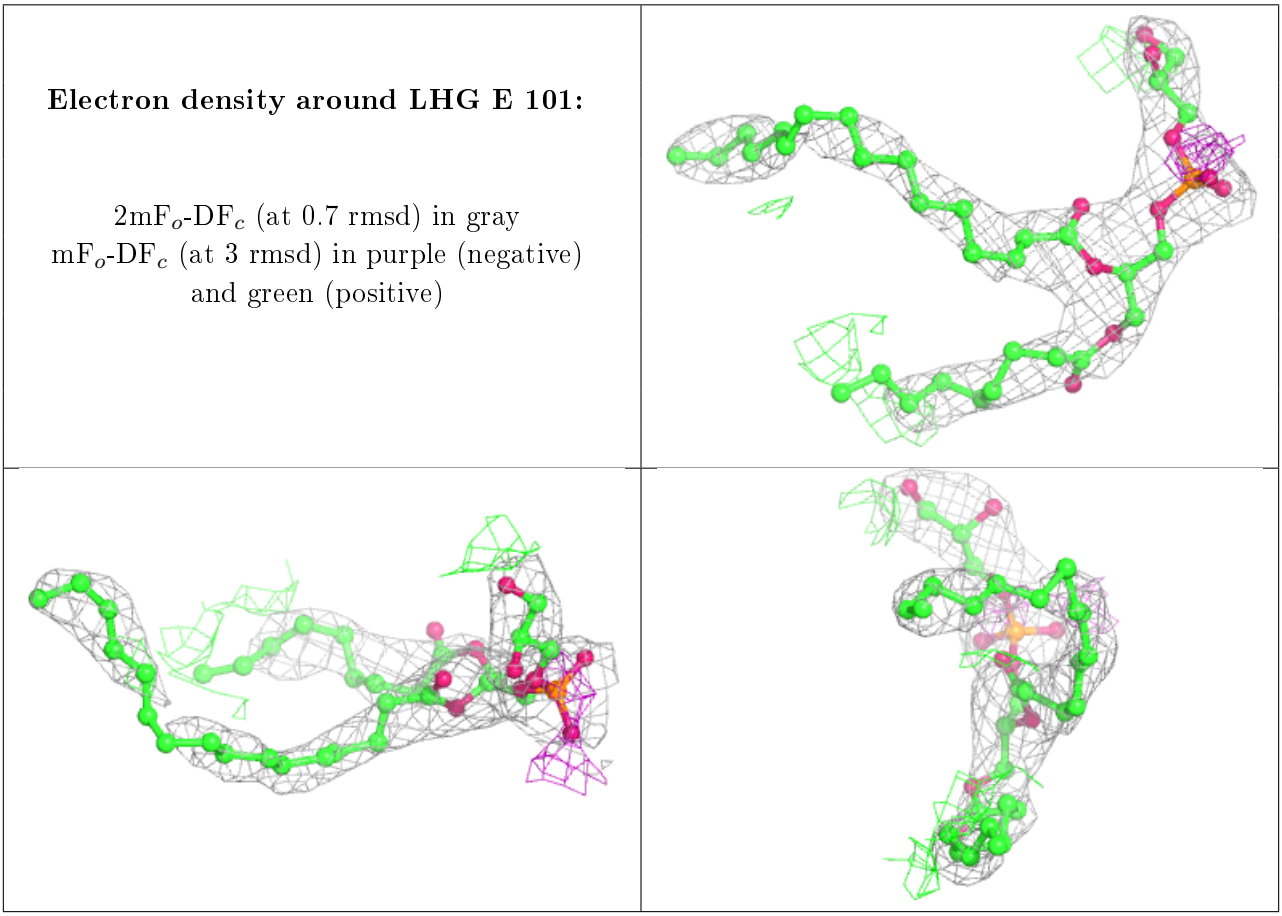
Electron density around HTG b 626:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



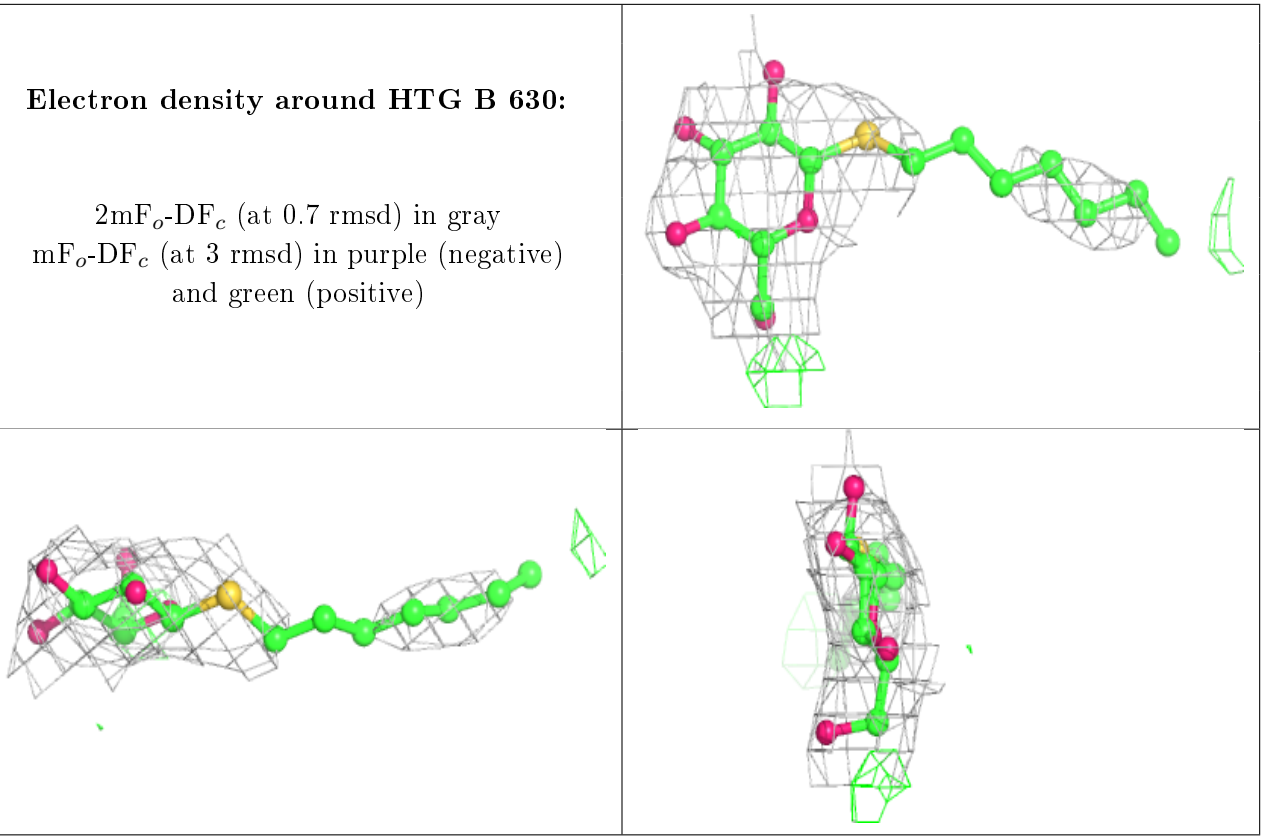
Electron density around LHG E 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



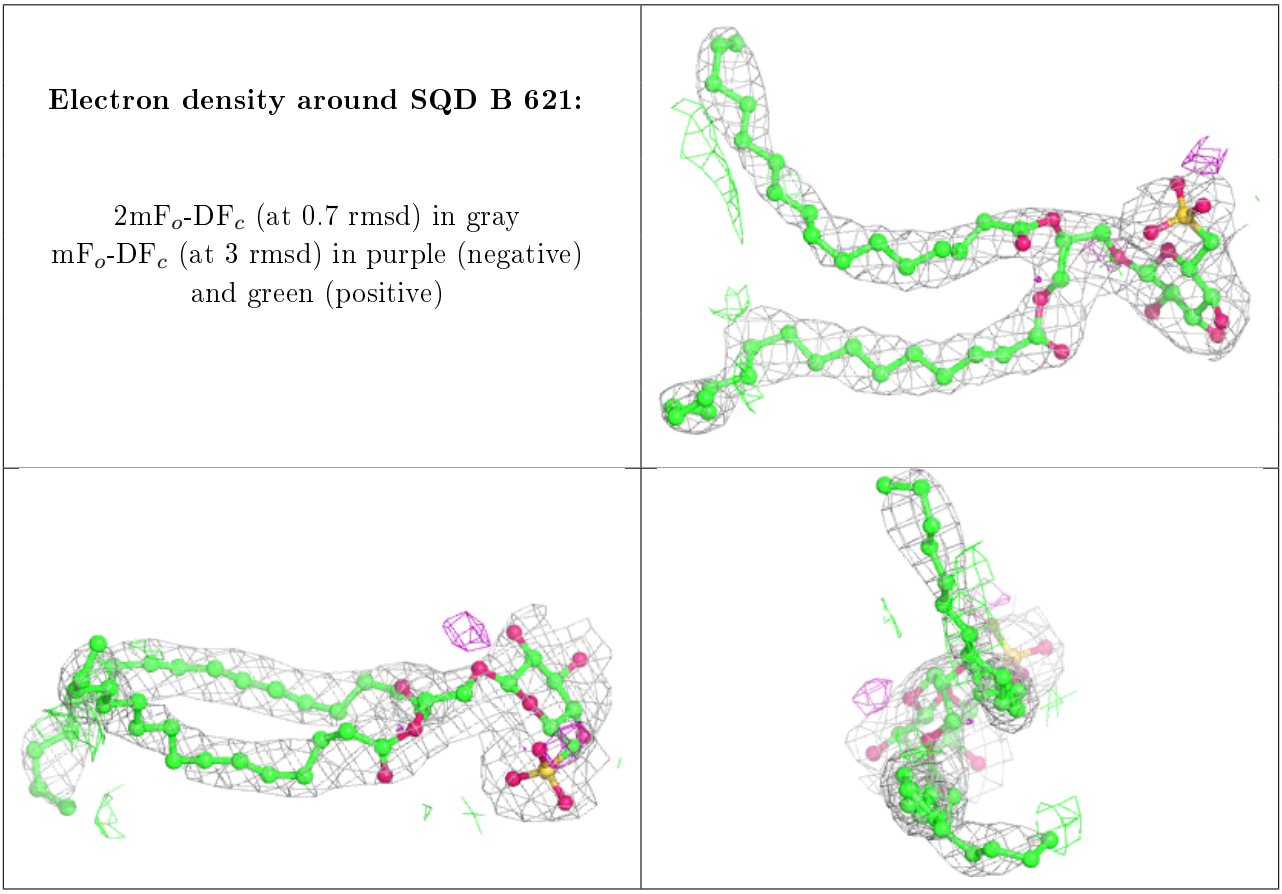
Electron density around HTG B 630:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



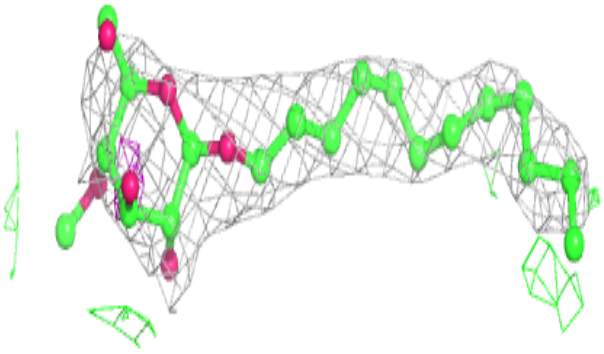
Electron density around SQD B 621:

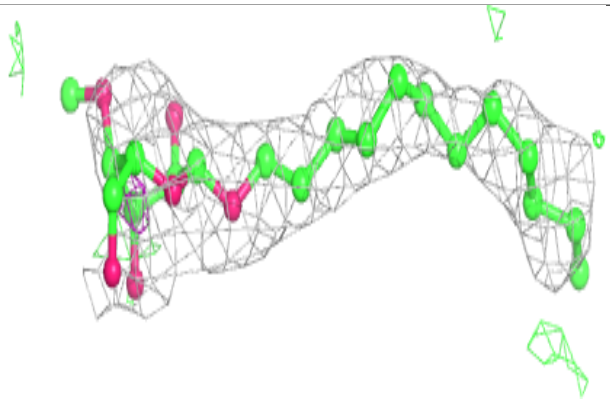
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

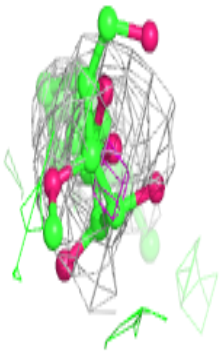


Electron density around LMT B 632:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

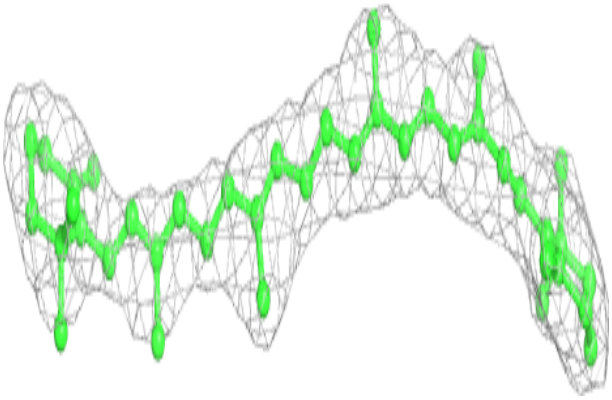


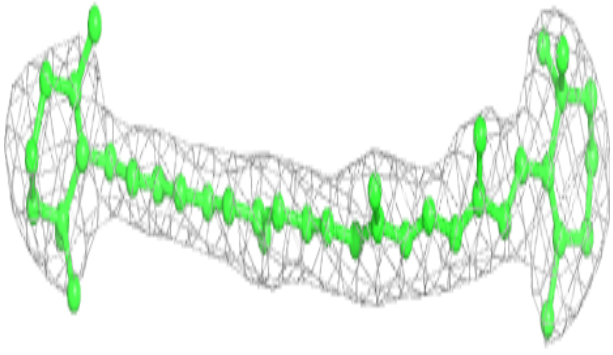


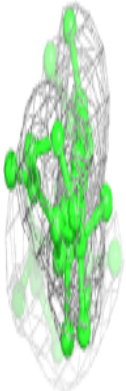


Electron density around BCR H 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

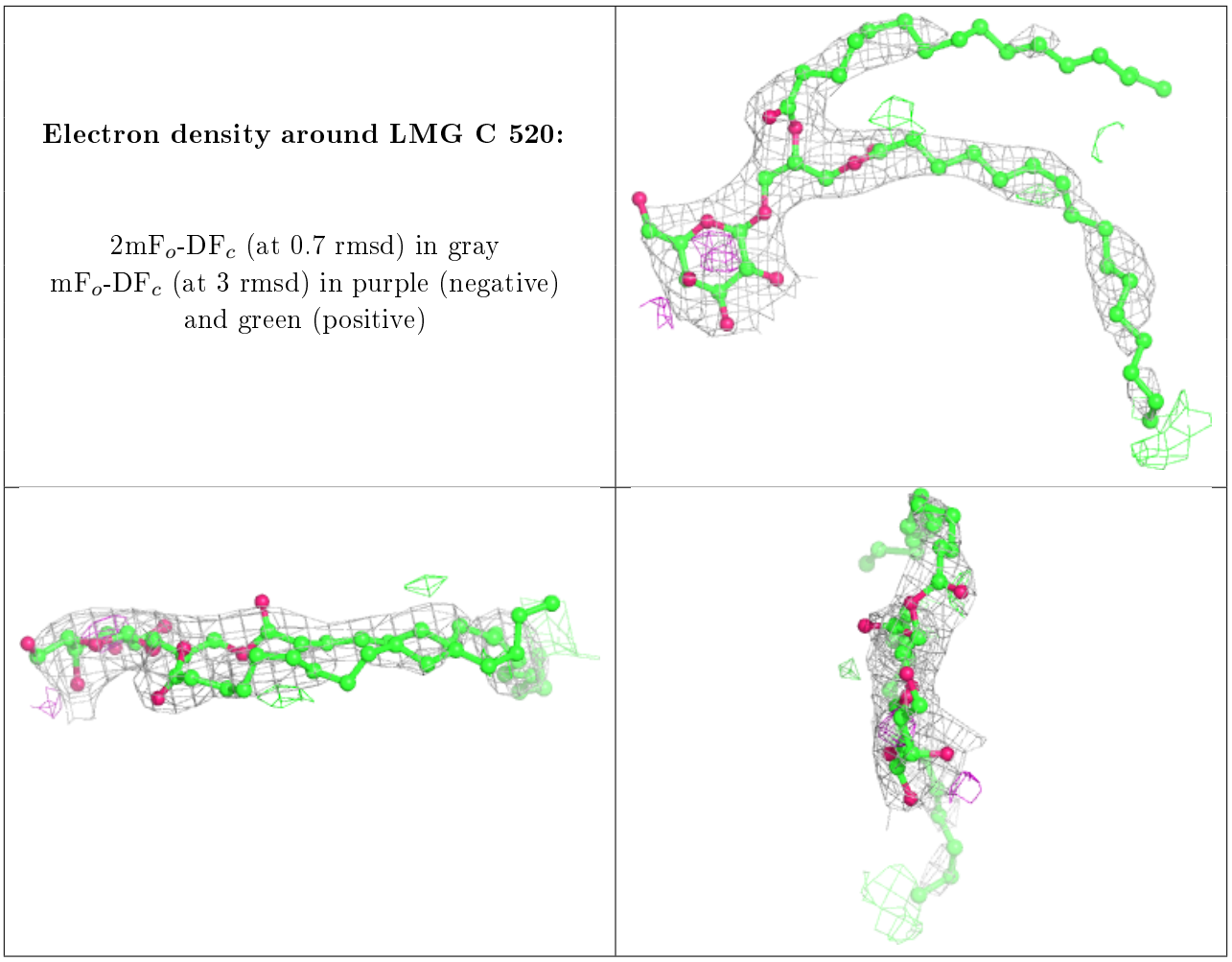






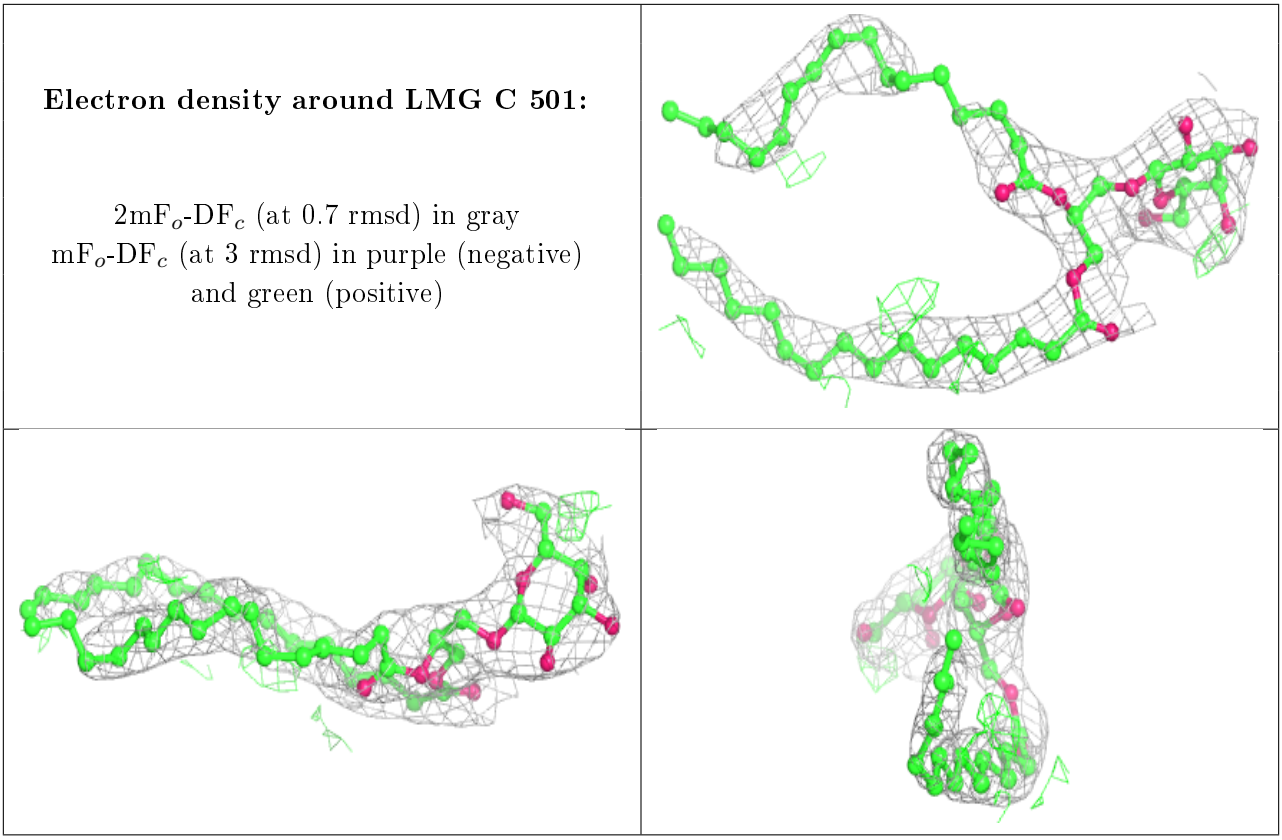
Electron density around LMG C 520:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



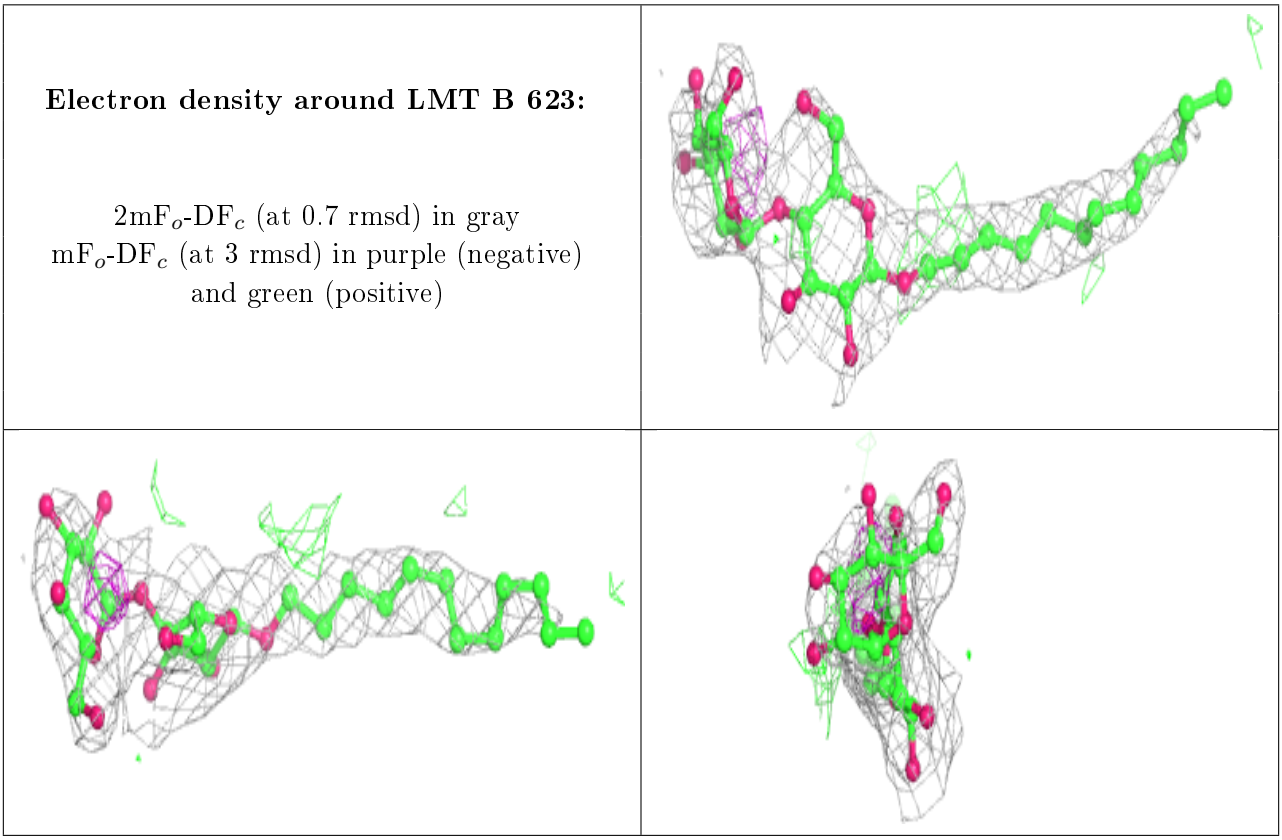
Electron density around LMG C 501:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



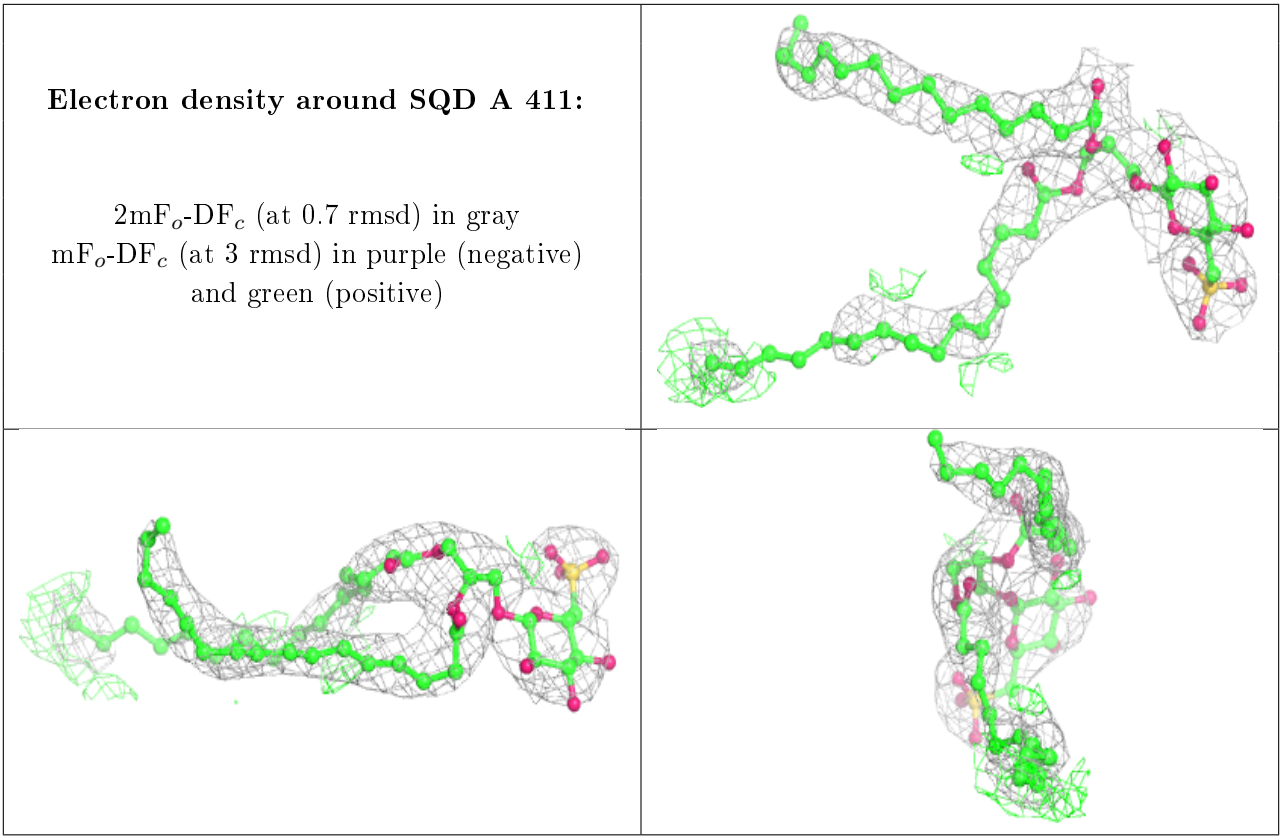
Electron density around LMT B 623:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



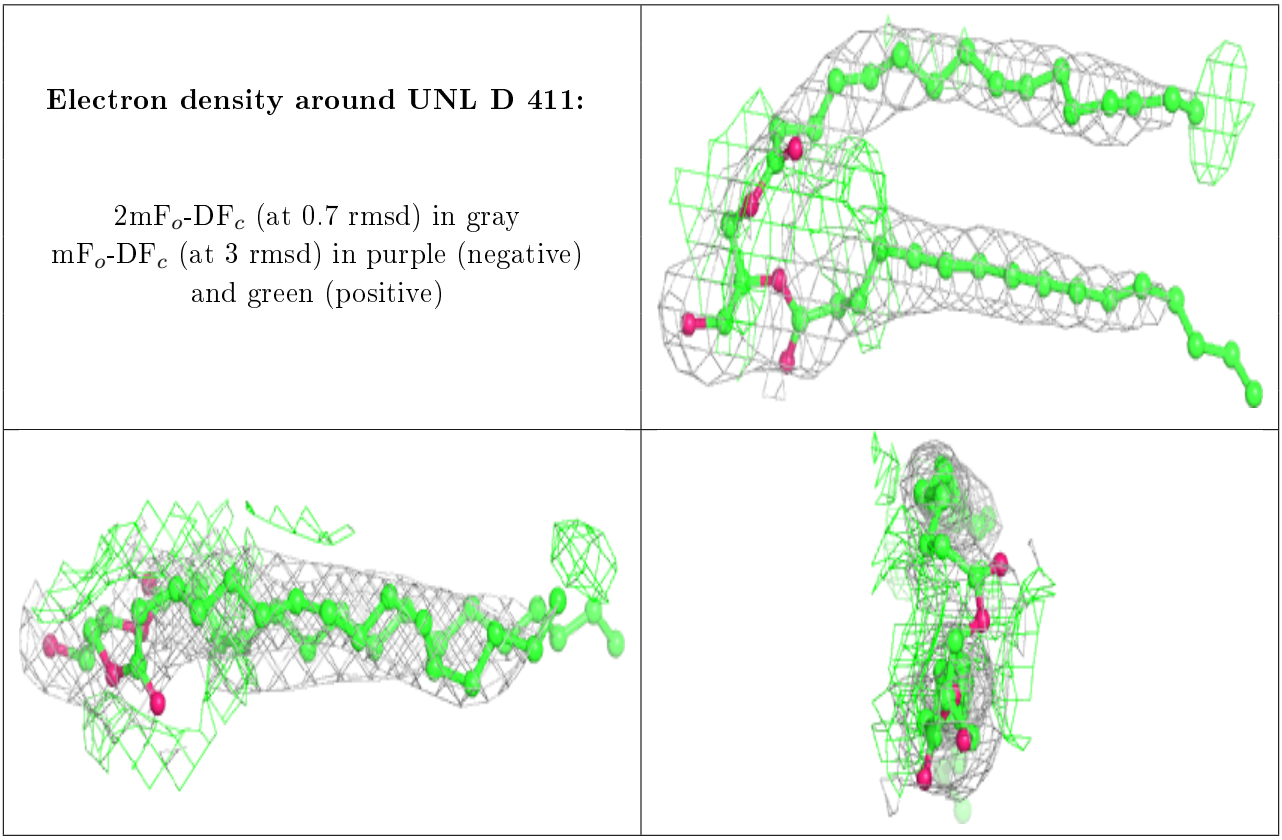
Electron density around SQD A 411:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



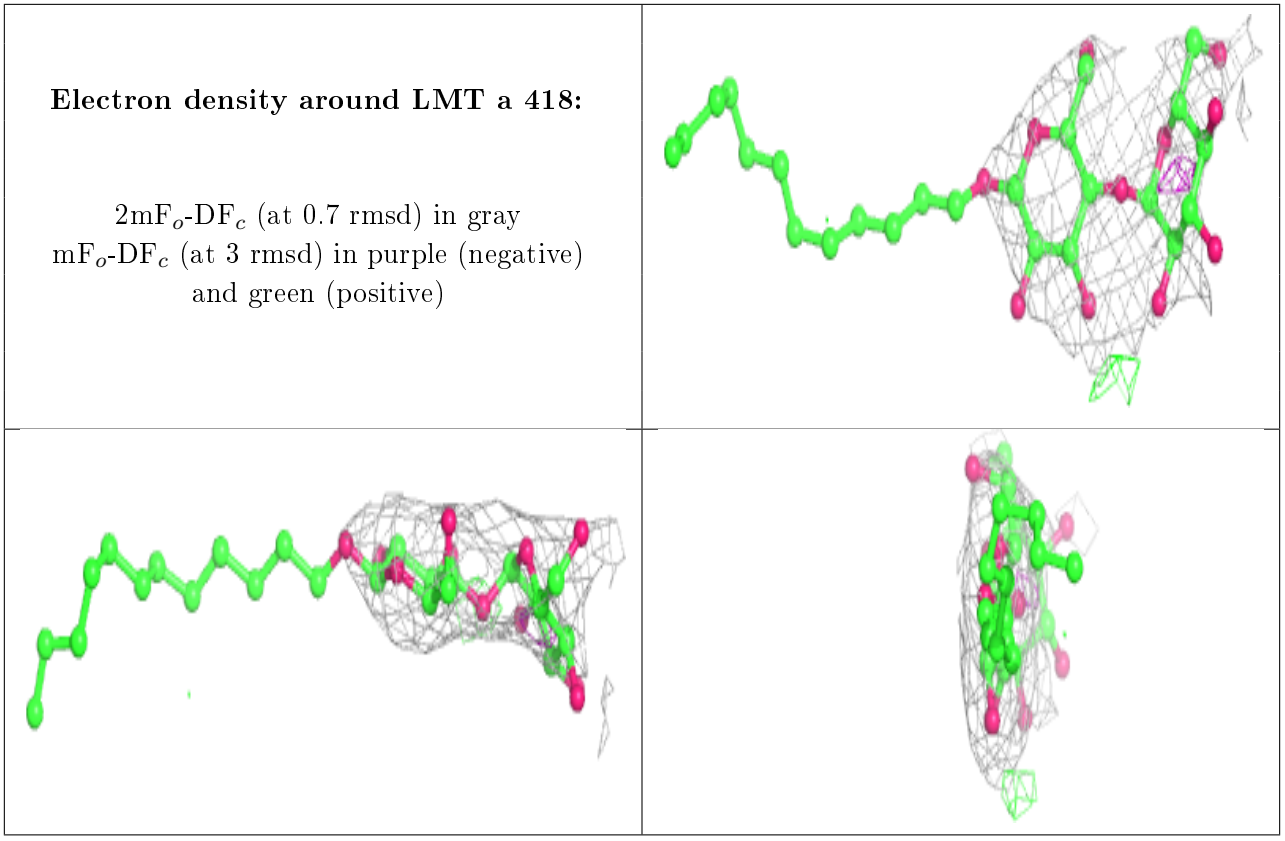
Electron density around UNL D 411:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



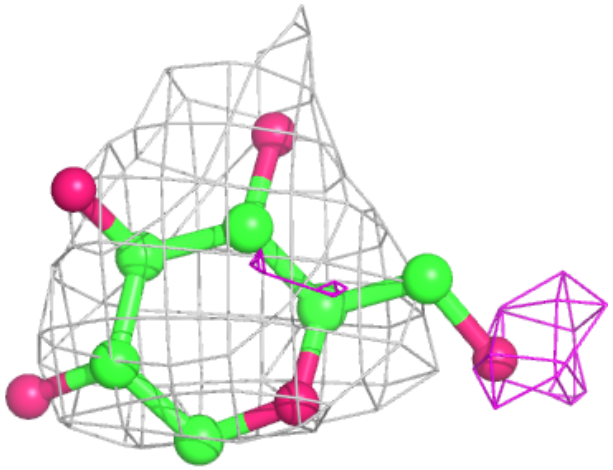
Electron density around LMT a 418:

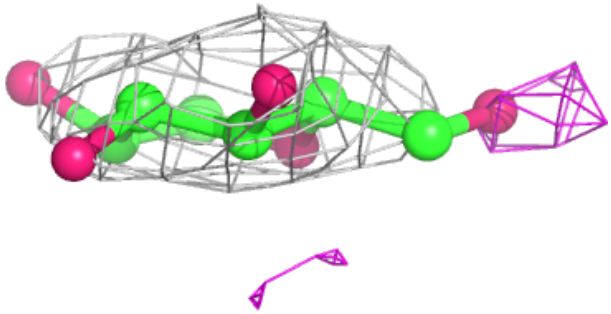
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

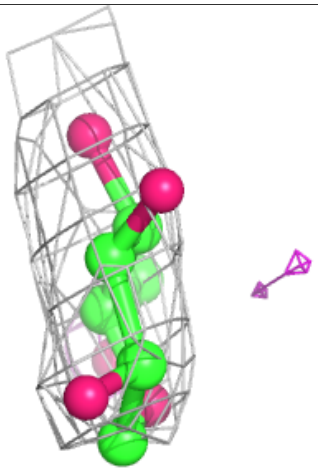


Electron density around HTG V 203:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

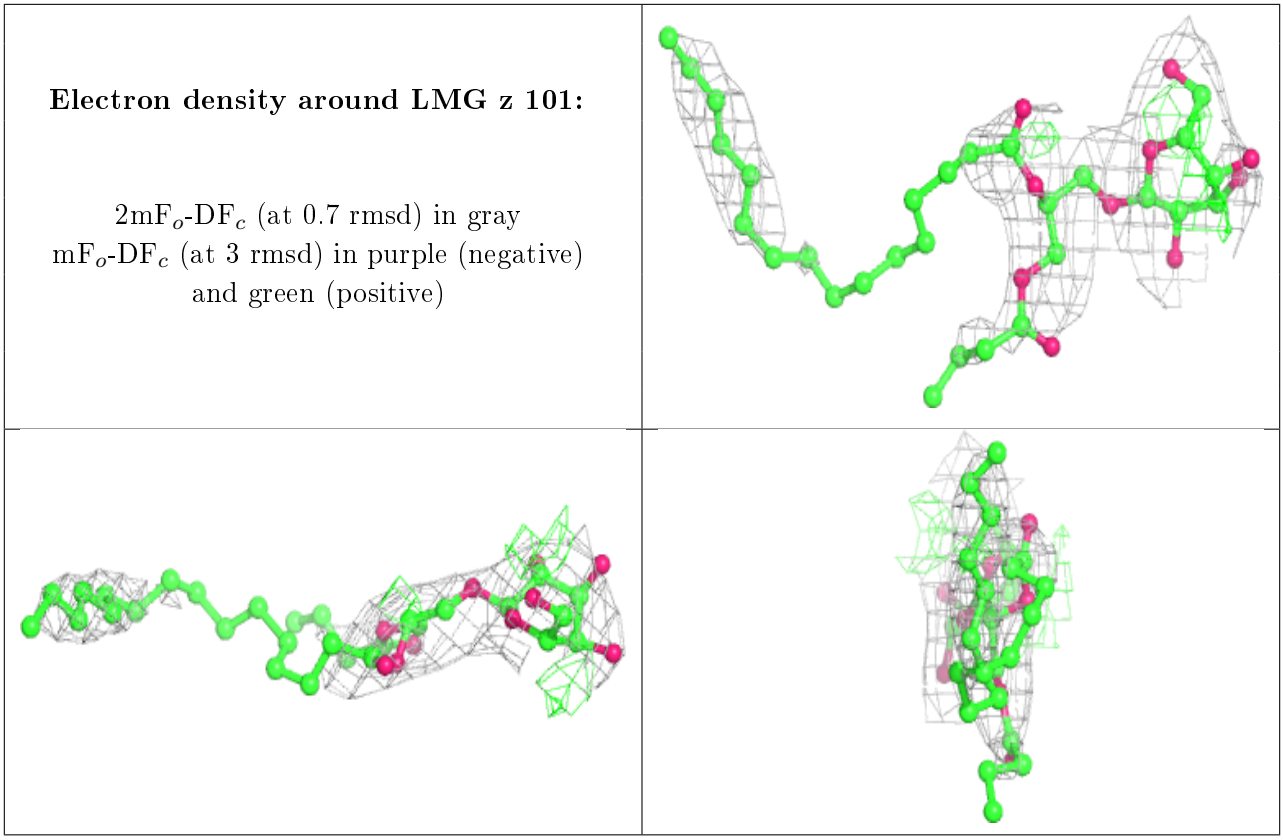






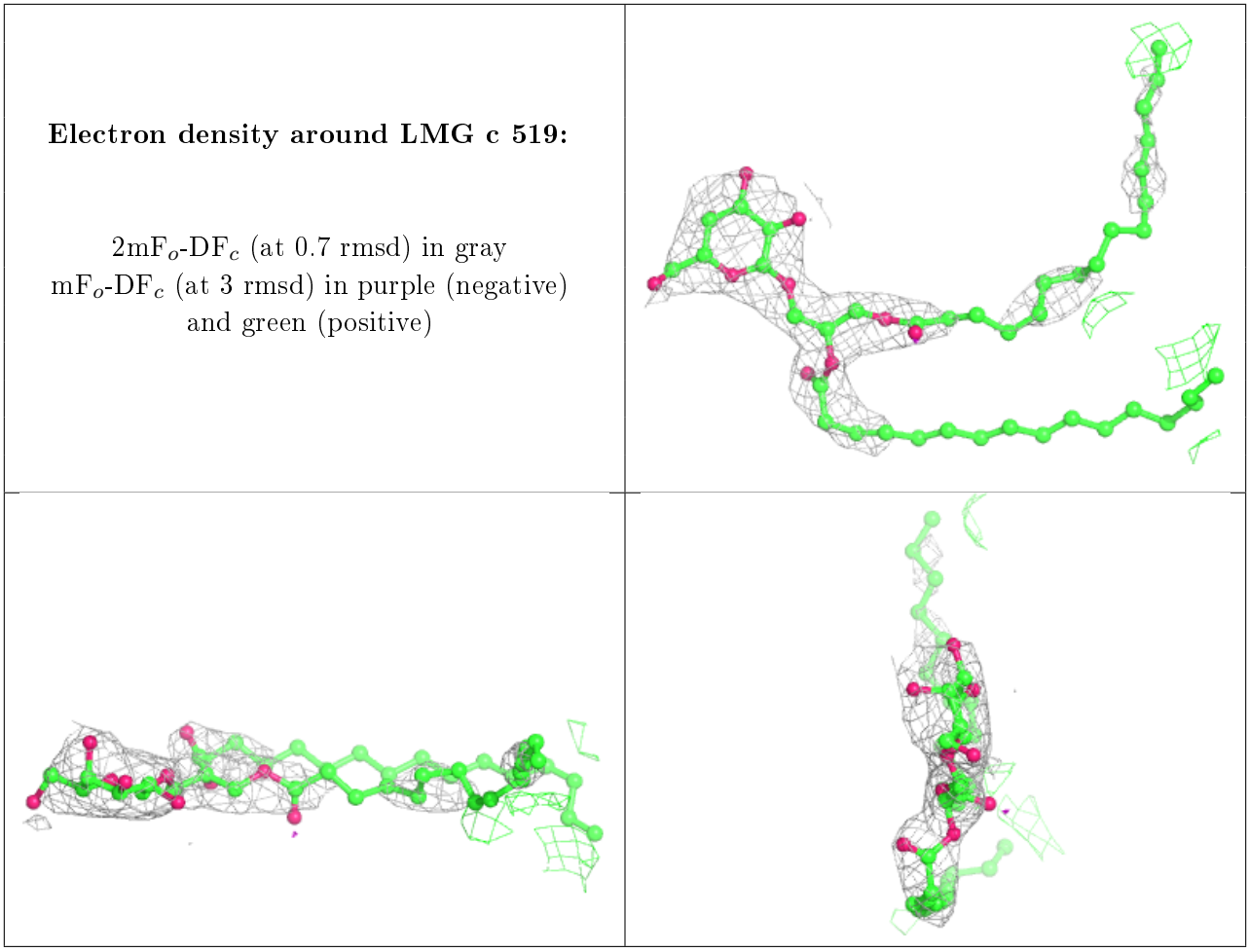
Electron density around LMG z 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



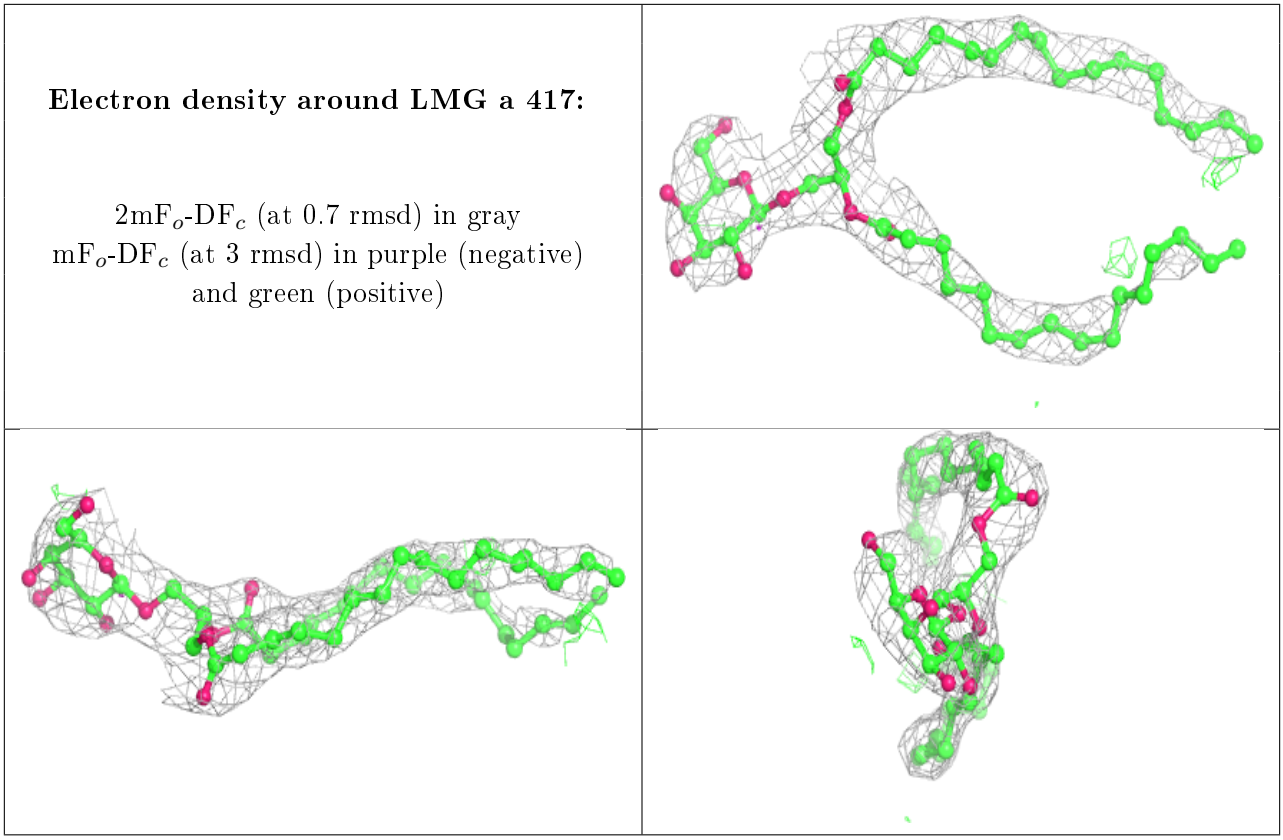
Electron density around LMG c 519:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



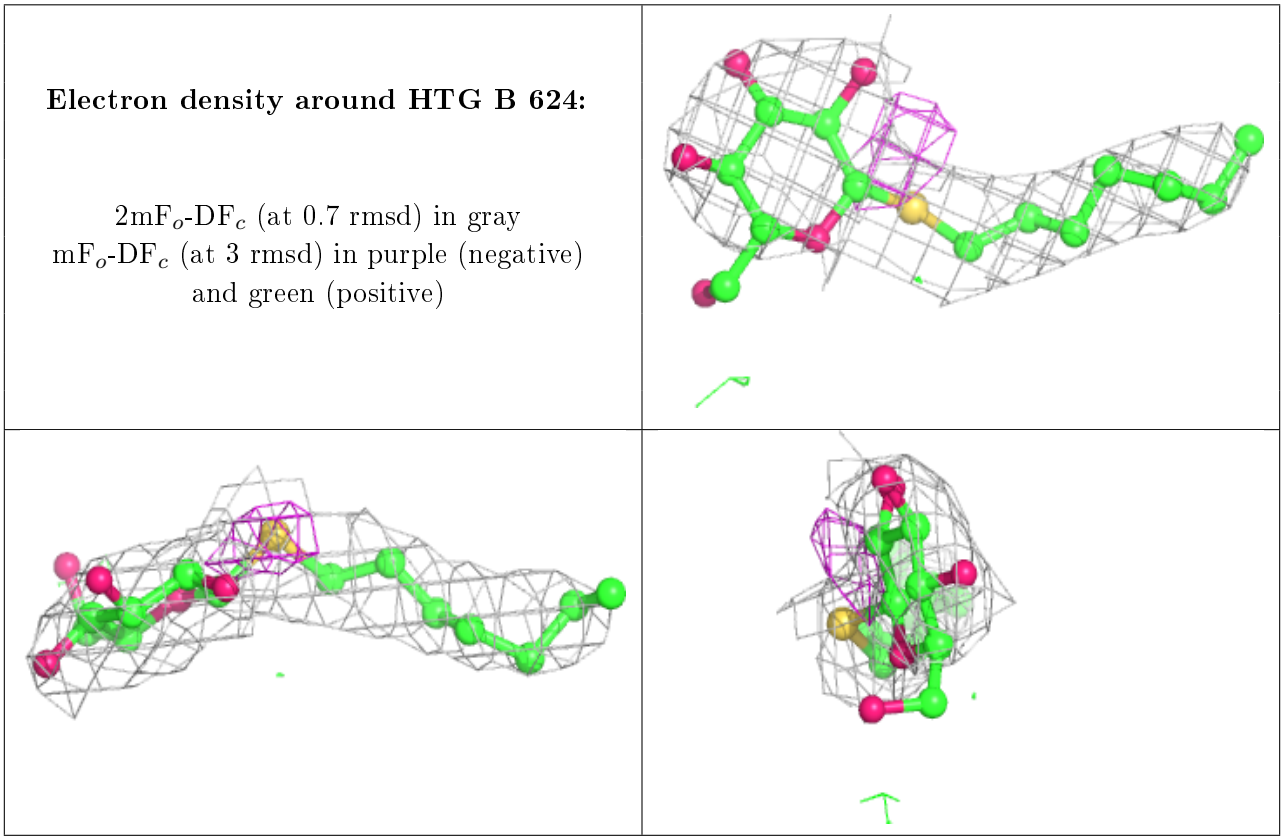
Electron density around LMG a 417:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



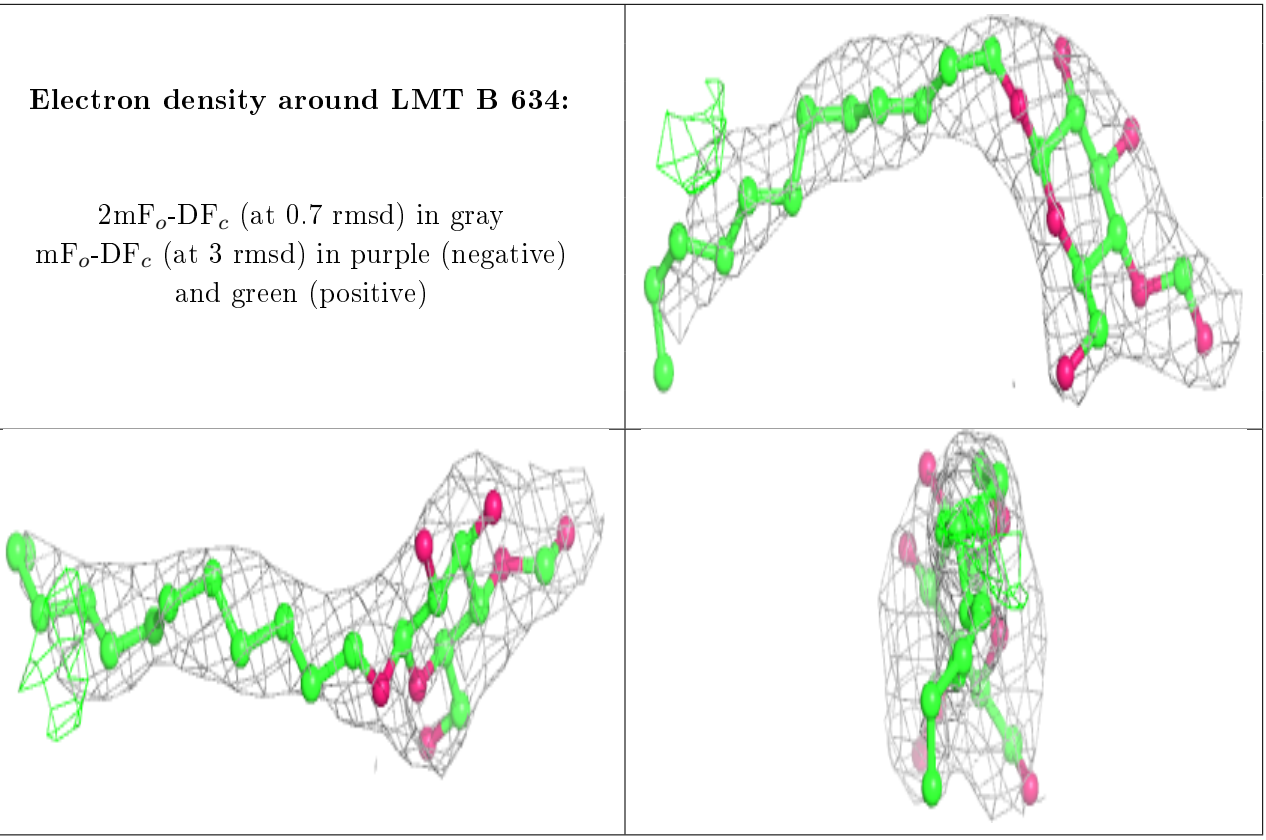
Electron density around HTG B 624:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



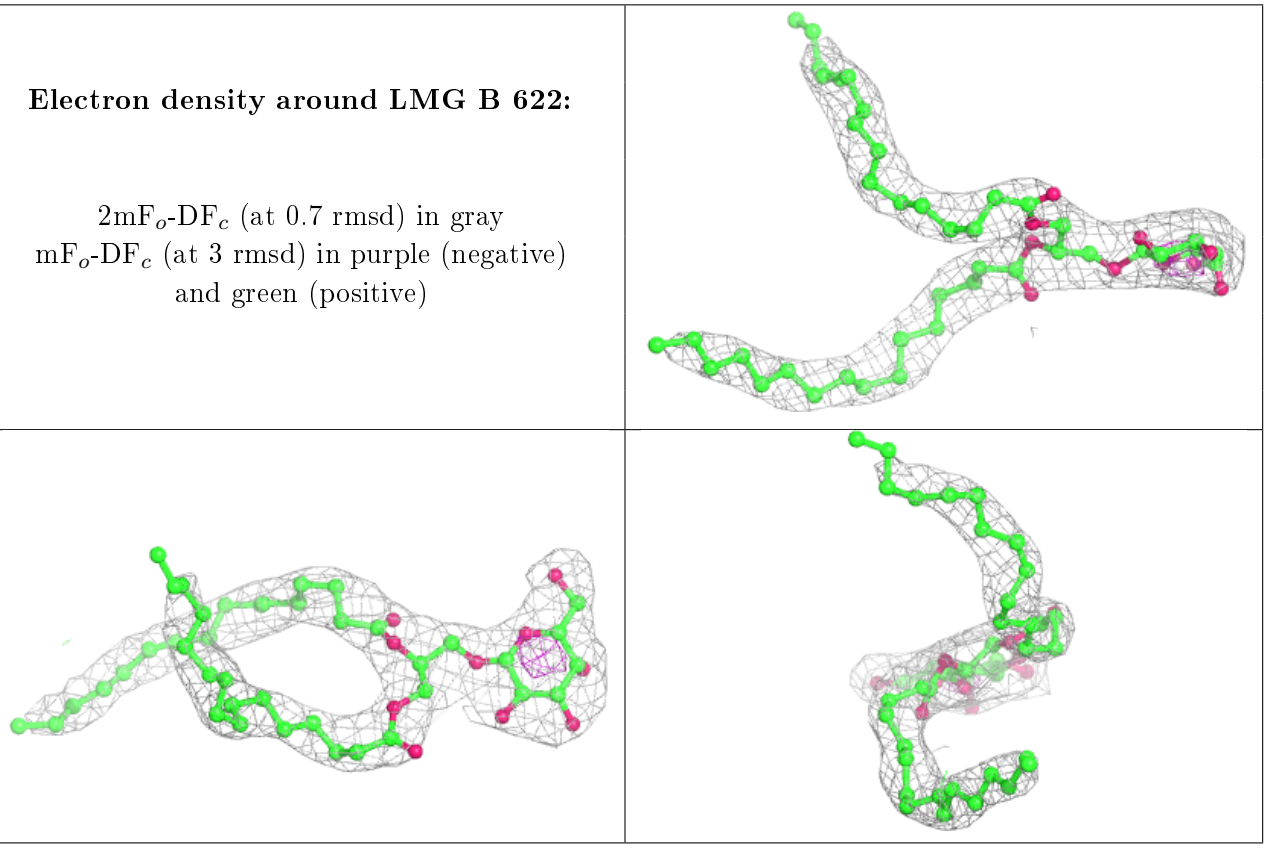
Electron density around LMT B 634:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



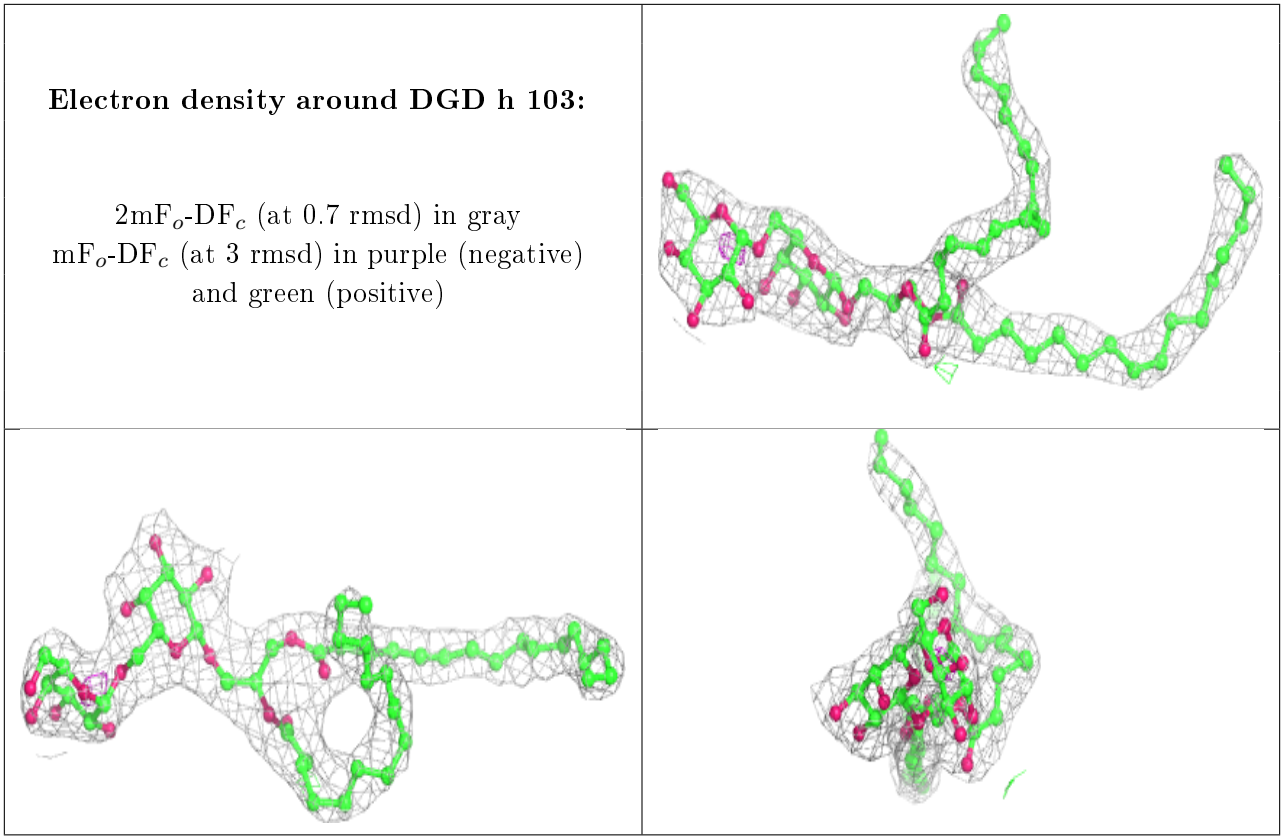
Electron density around LMG B 622:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



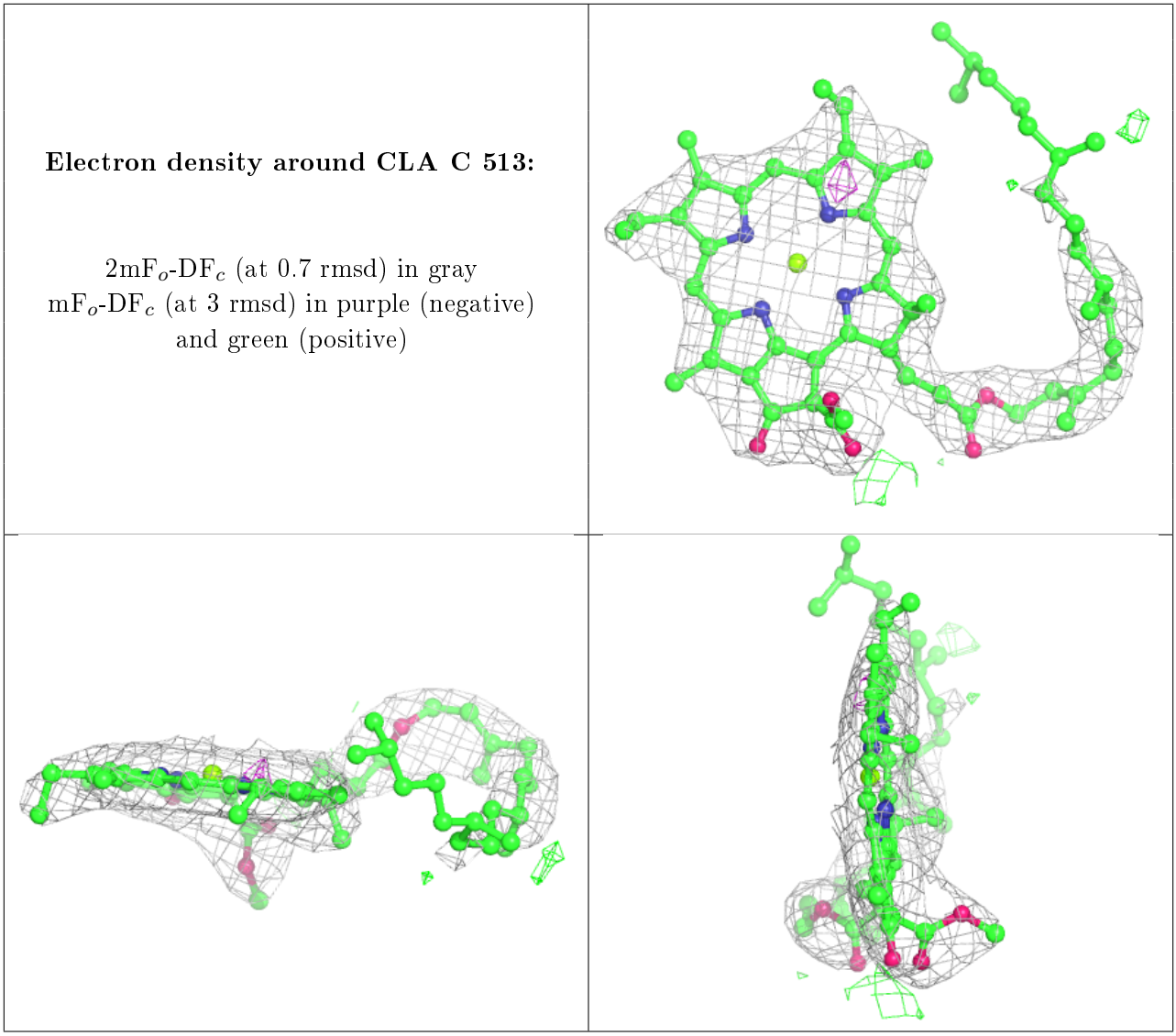
Electron density around DGD h 103:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



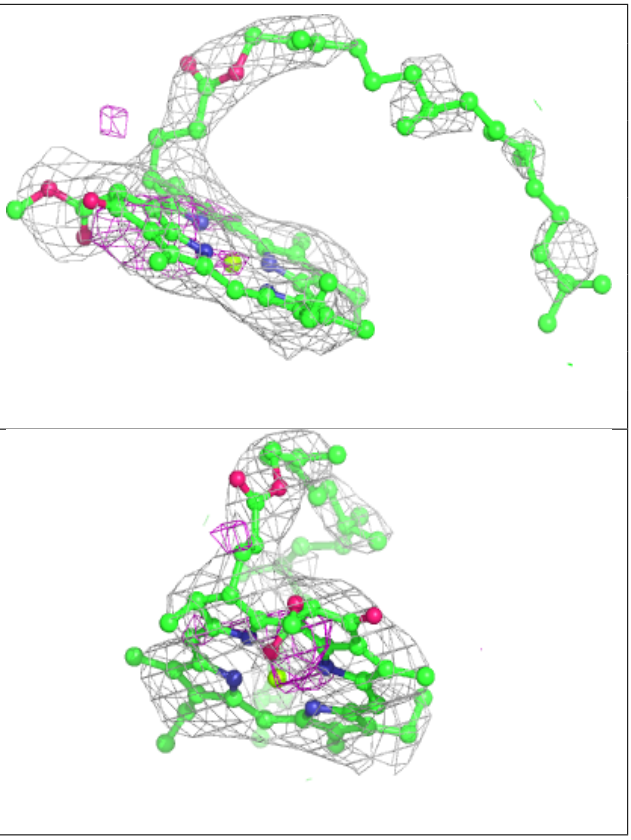
Electron density around CLA C 513:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



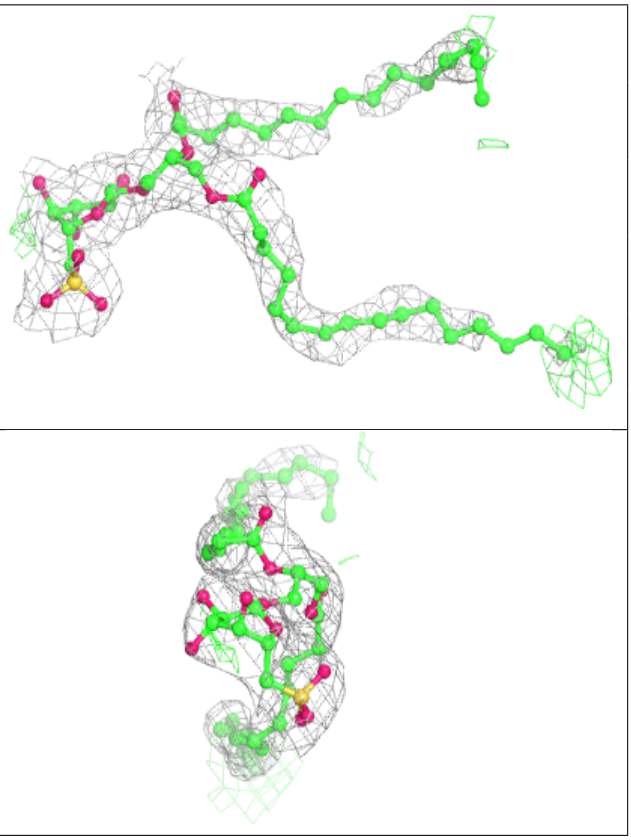
Electron density around CLA C 514:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



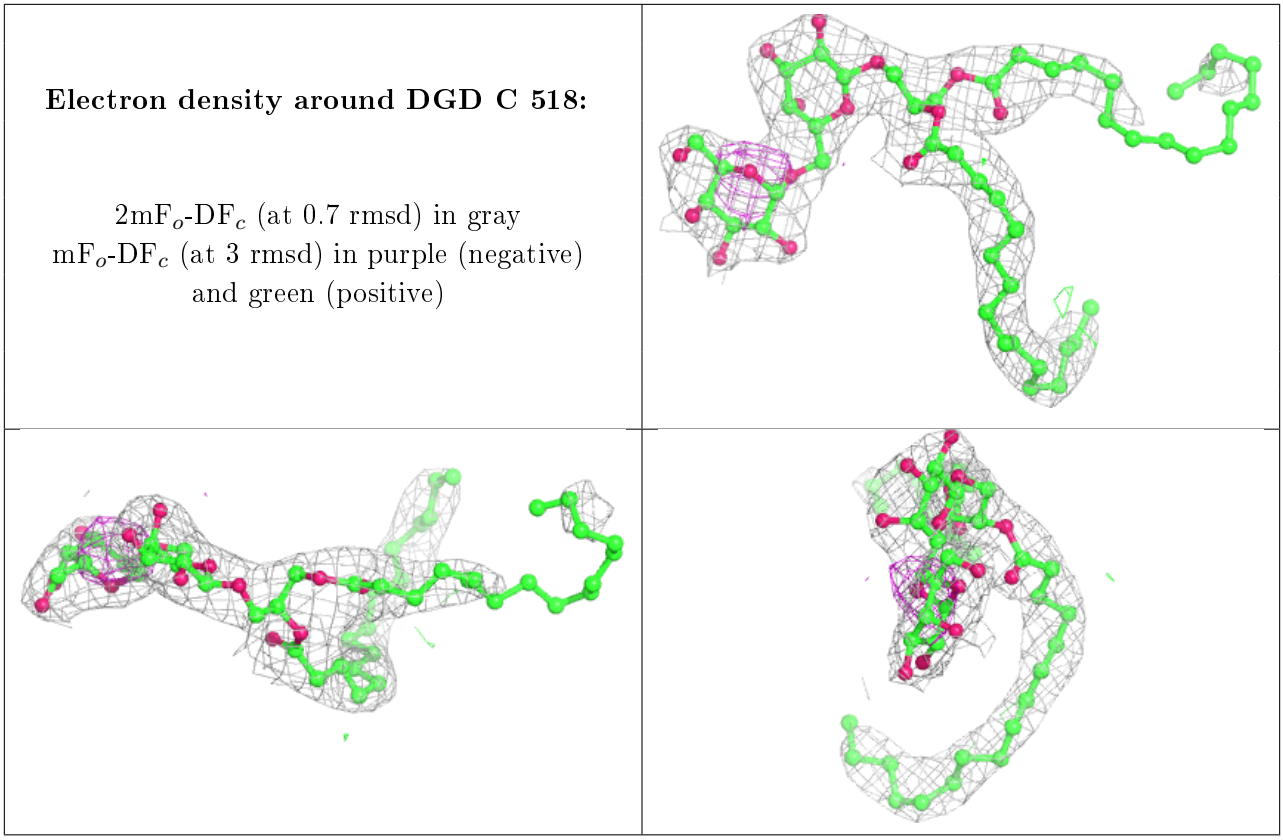
Electron density around SQD a 413:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



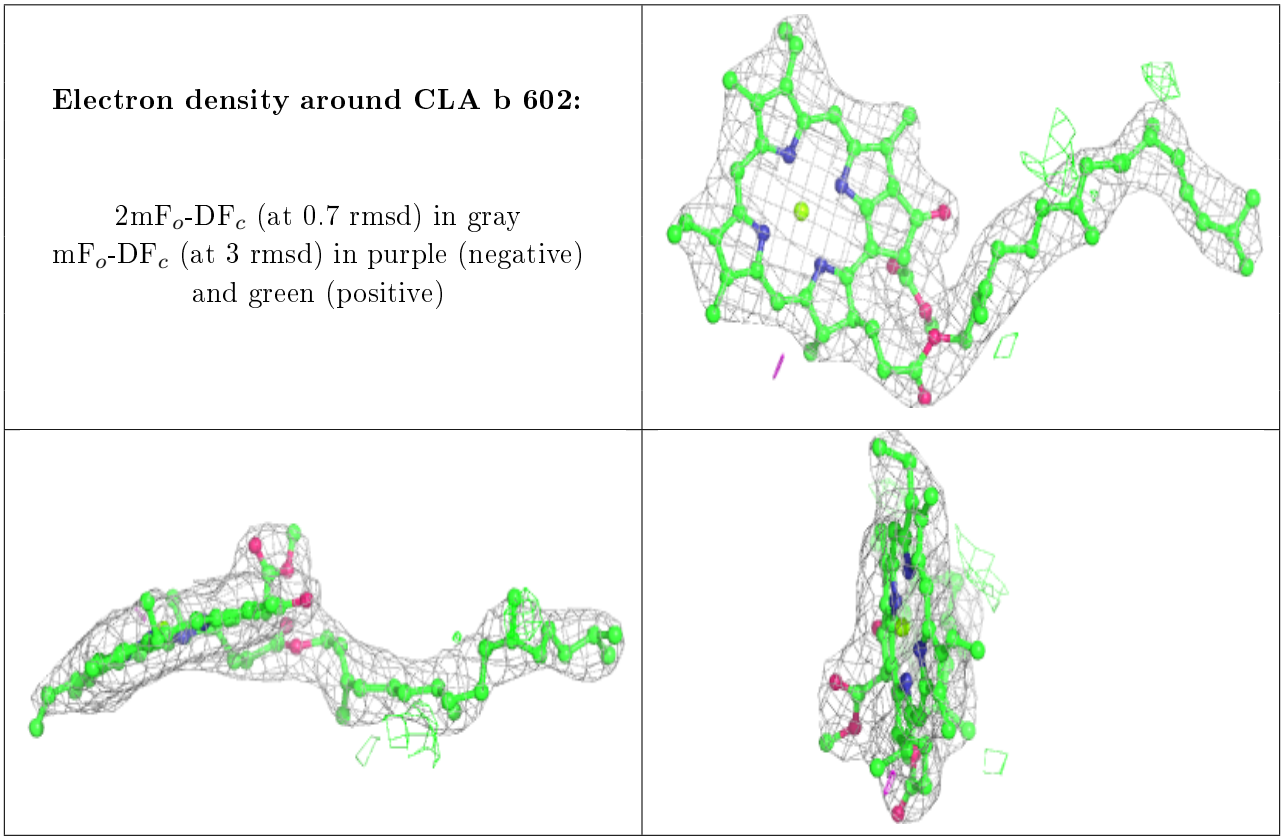
Electron density around DGD C 518:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



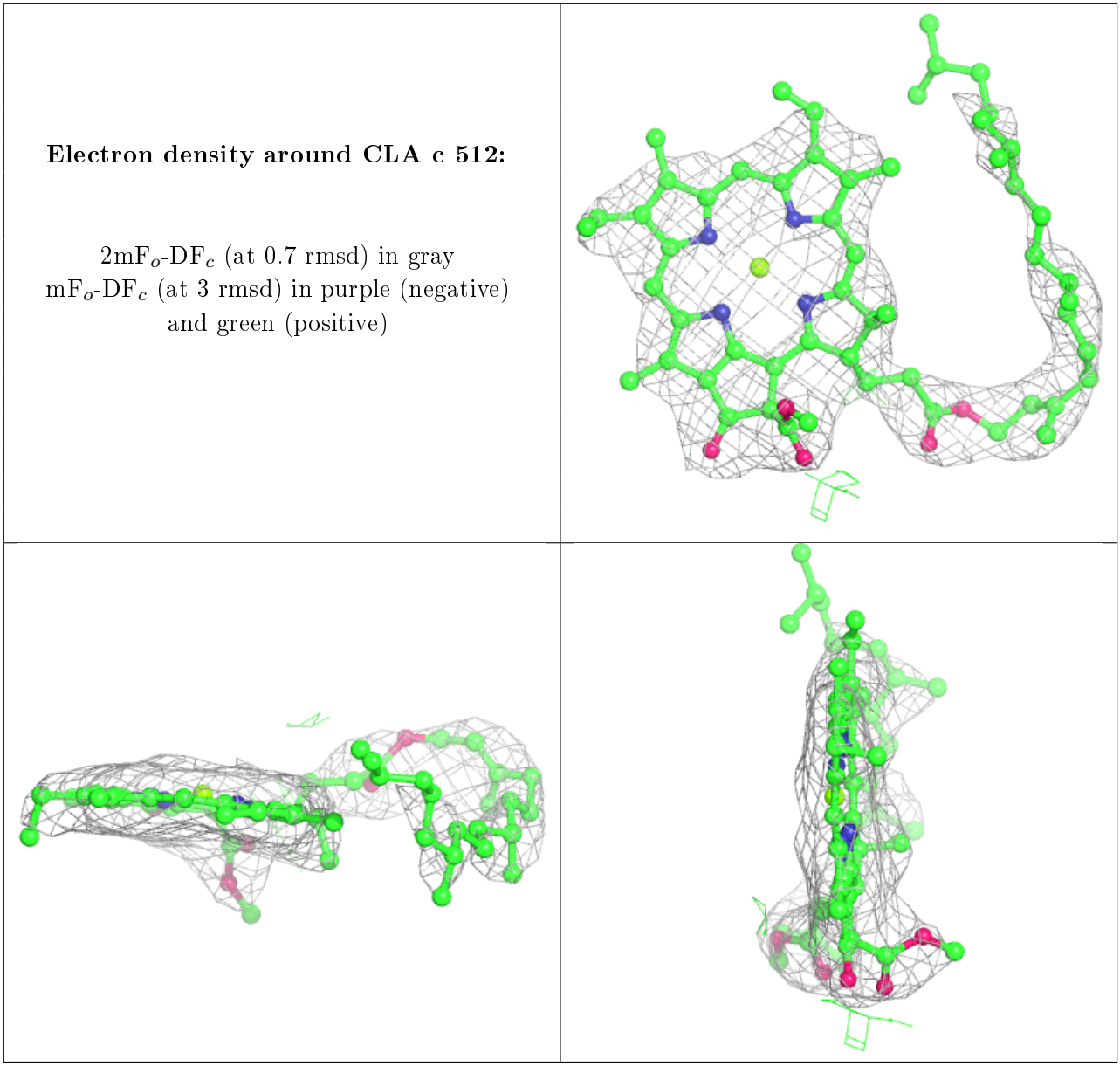
Electron density around CLA b 602:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



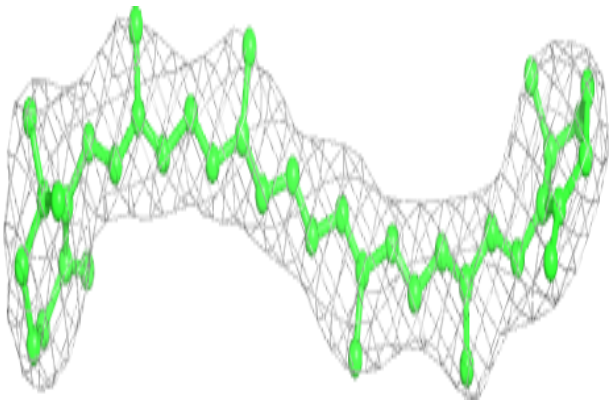
Electron density around CLA c 512:

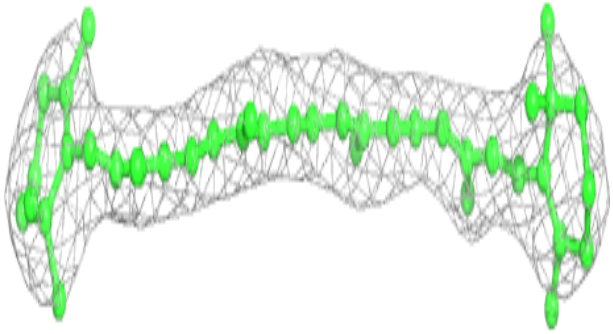
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

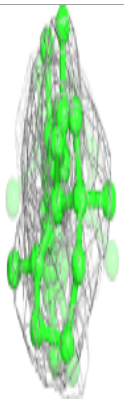


Electron density around BCR y 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

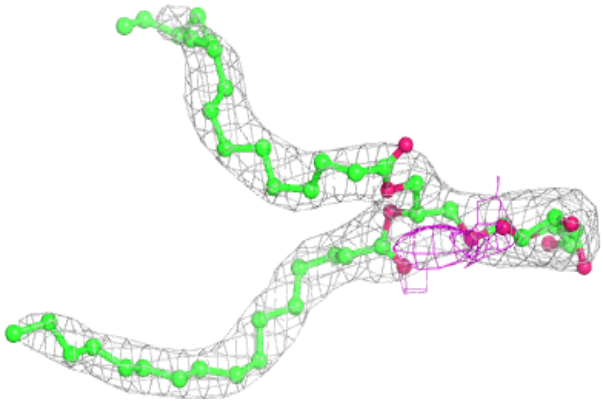


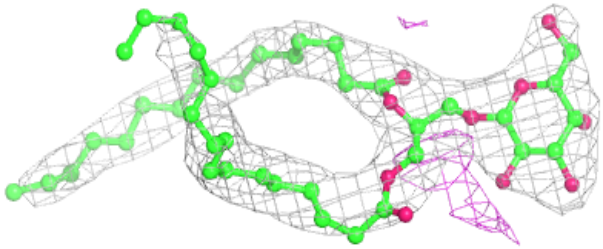


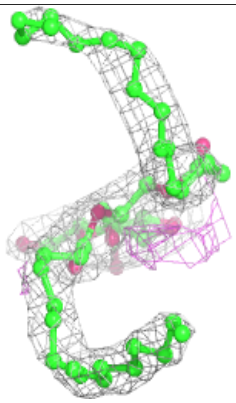


Electron density around LMG m 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

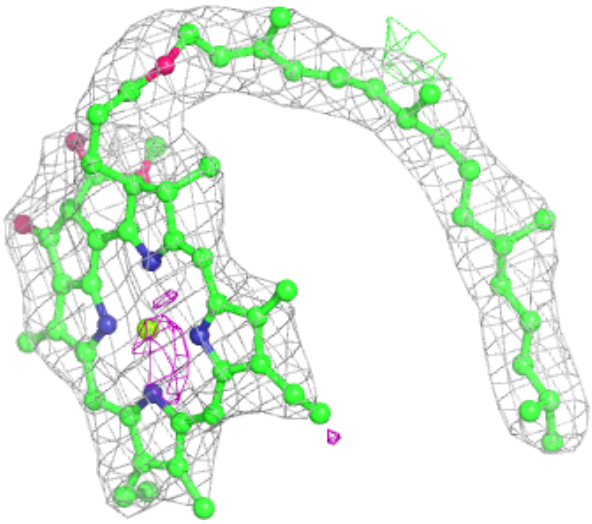


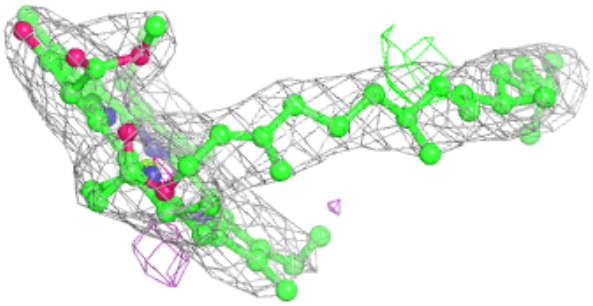


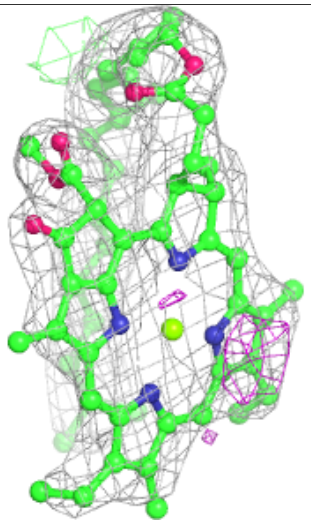


Electron density around CLA c 507:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

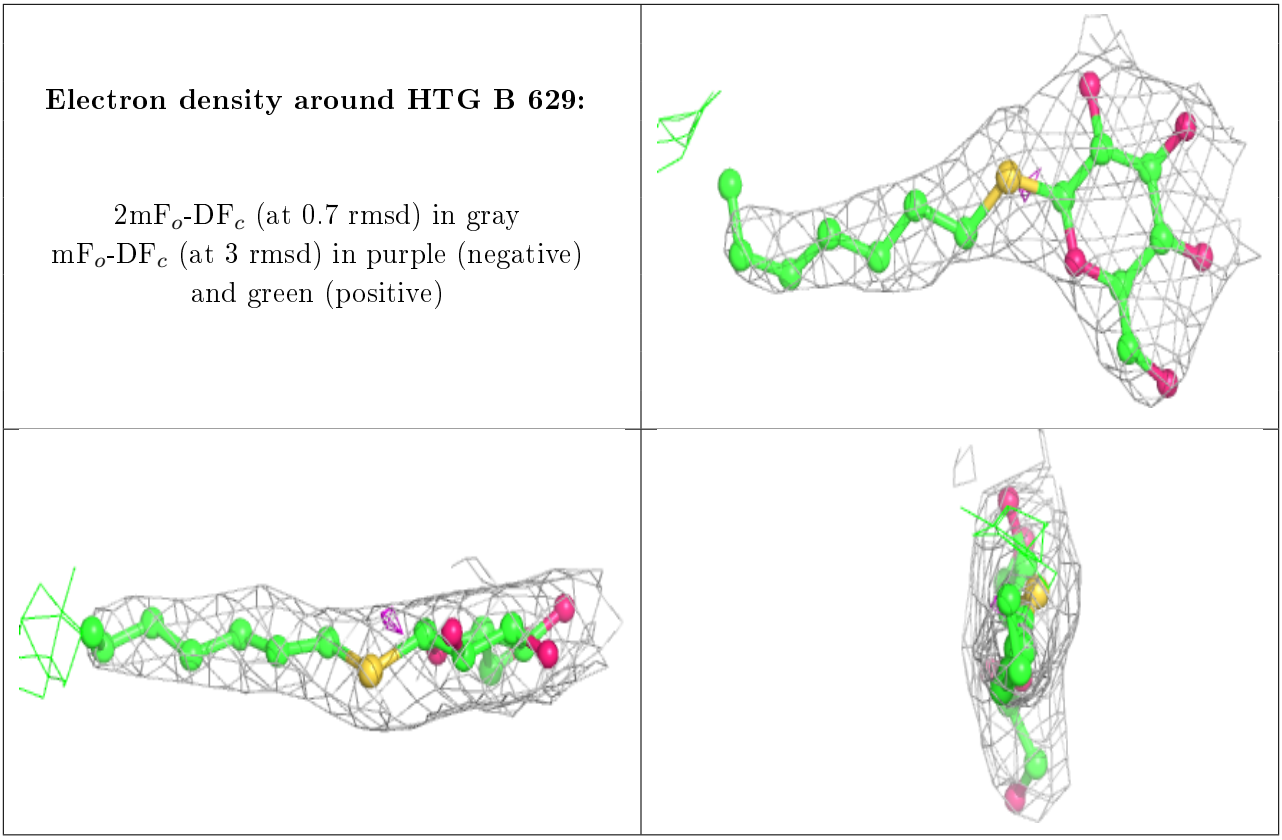






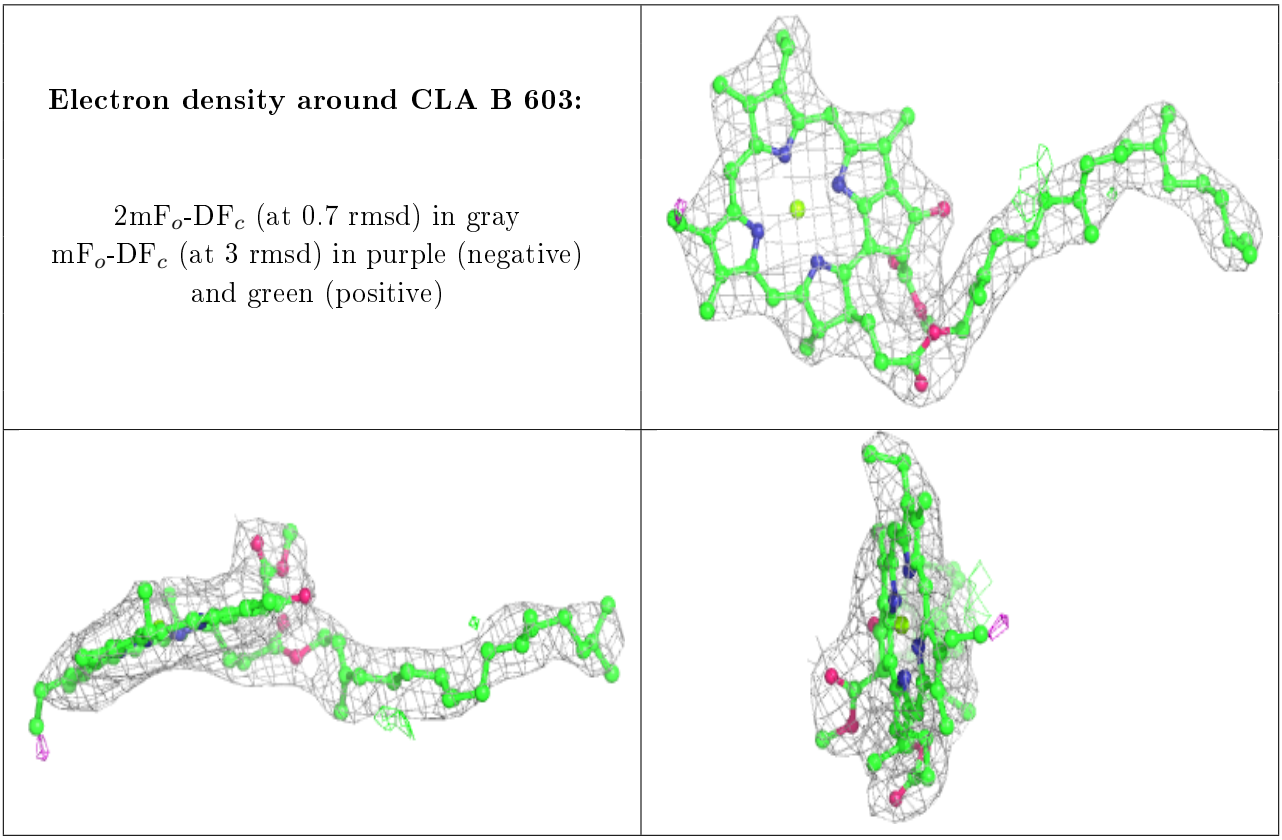
Electron density around HTG B 629:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



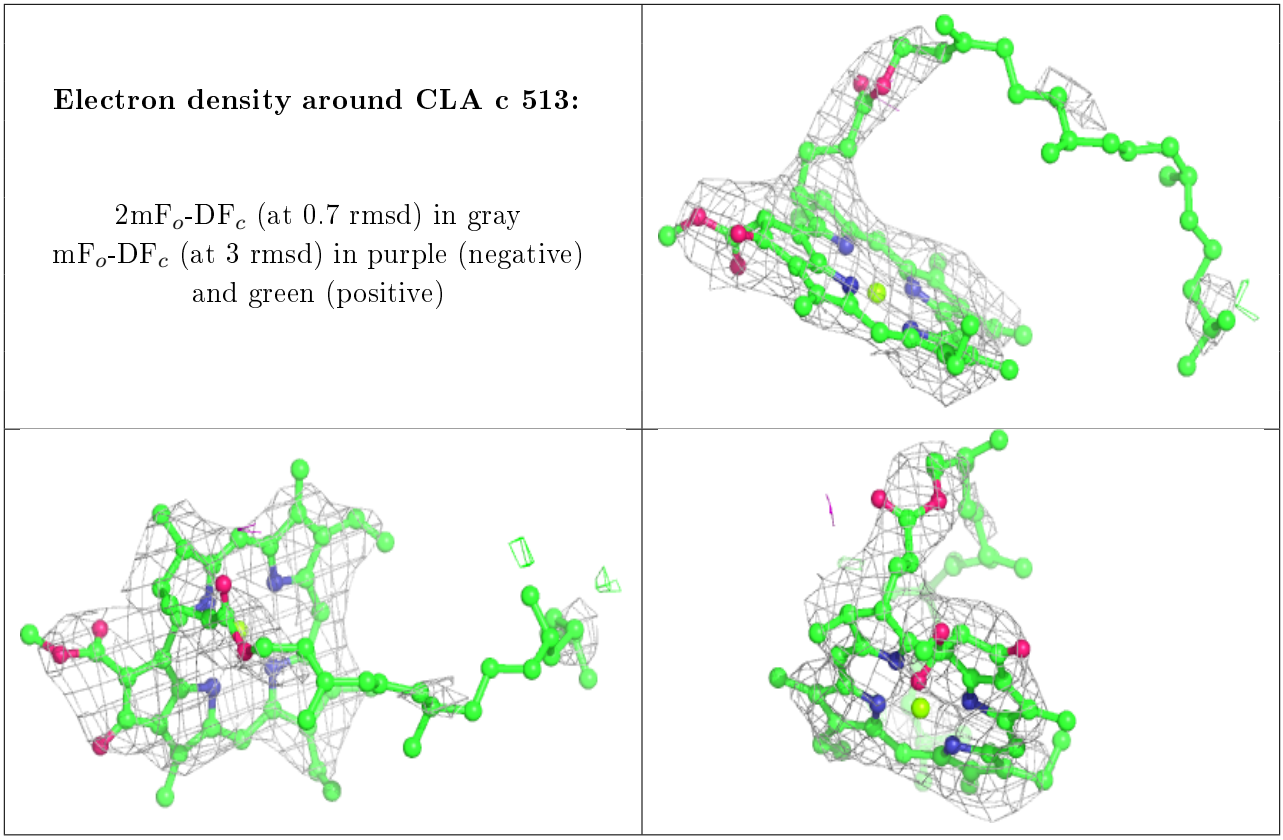
Electron density around CLA B 603:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



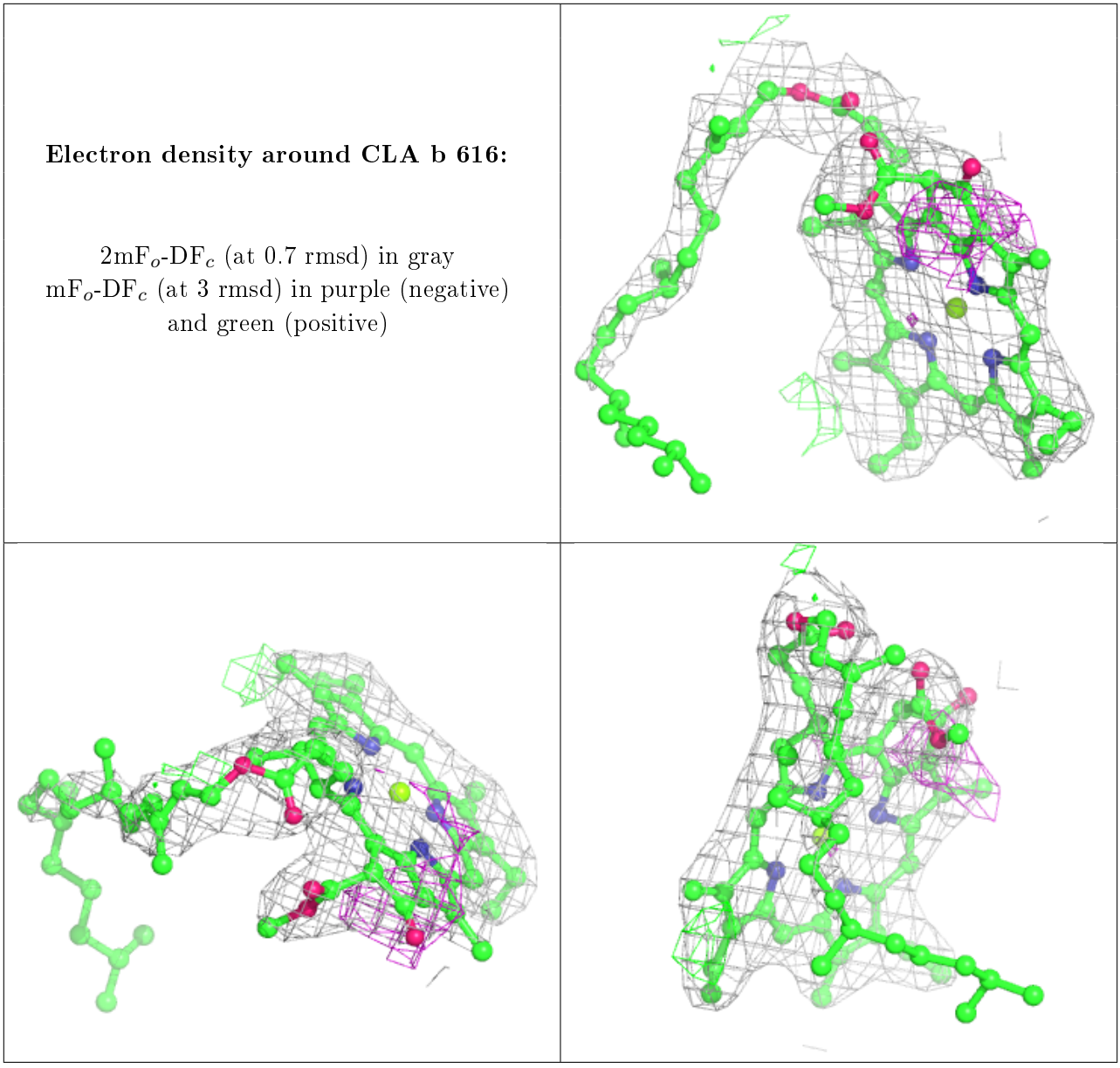
Electron density around CLA c 513:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



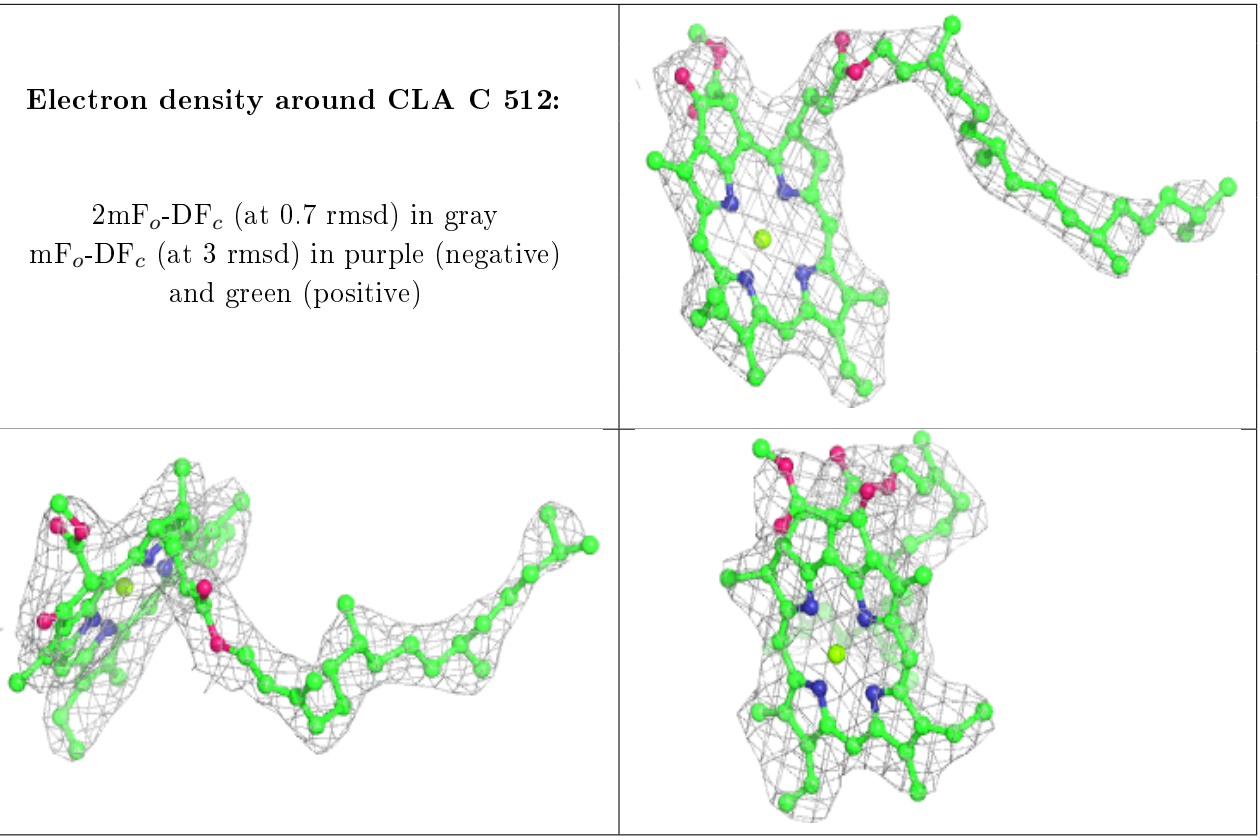
Electron density around CLA b 616:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



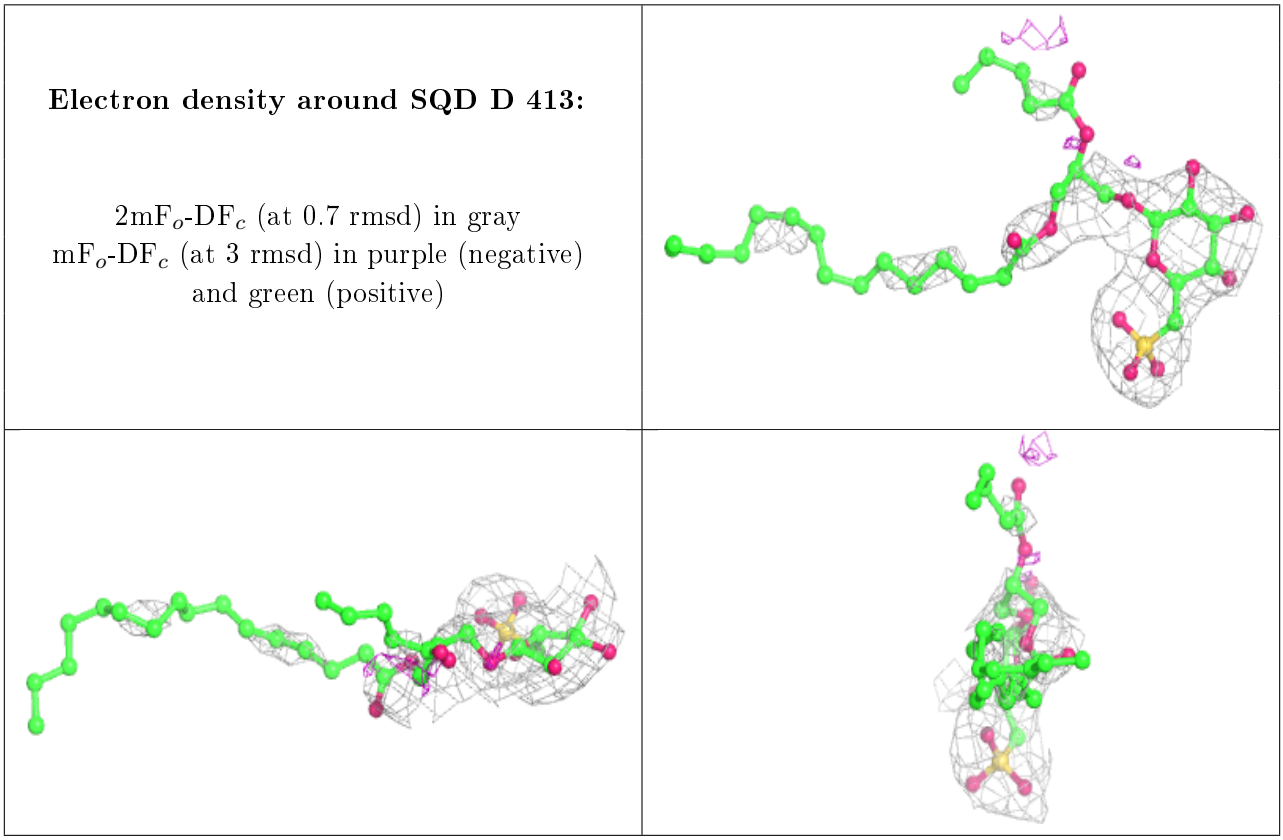
Electron density around CLA C 512:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



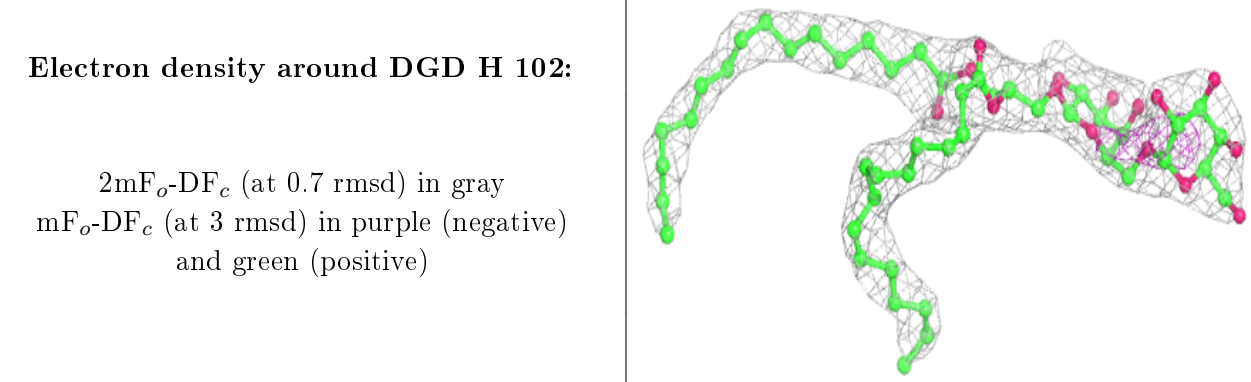
Electron density around SQD D 413:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



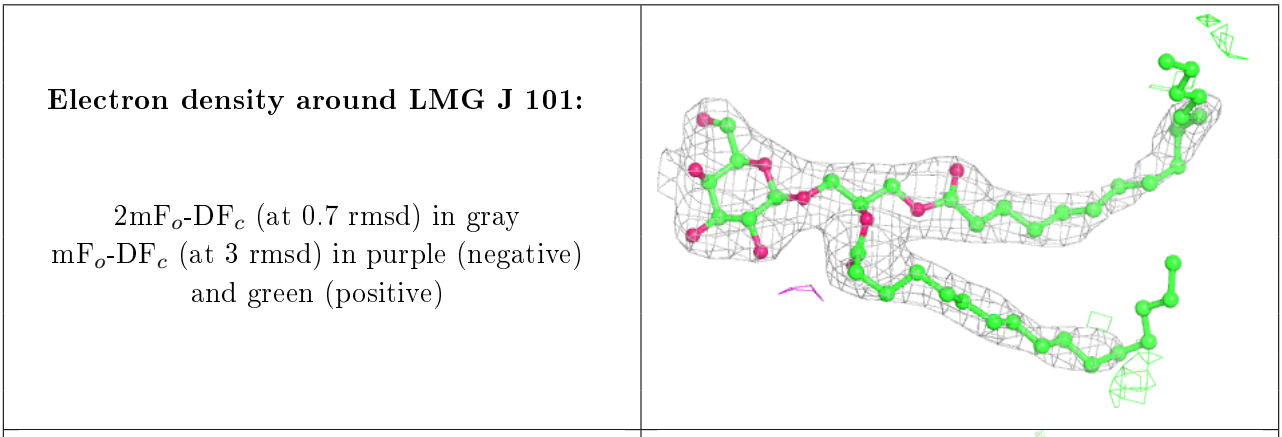
Electron density around DGD H 102:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



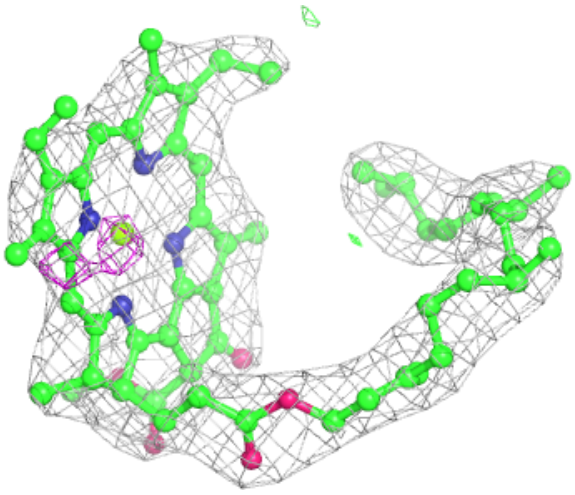
Electron density around LMG J 101:

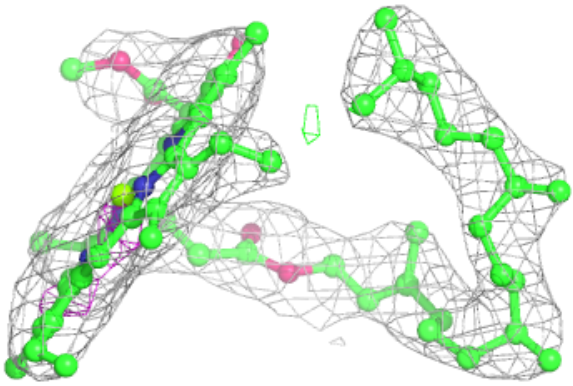
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

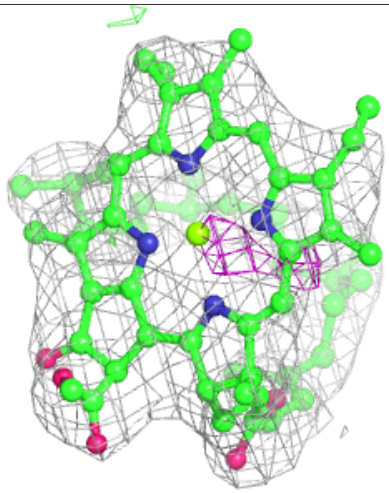


Electron density around CLA C 504:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

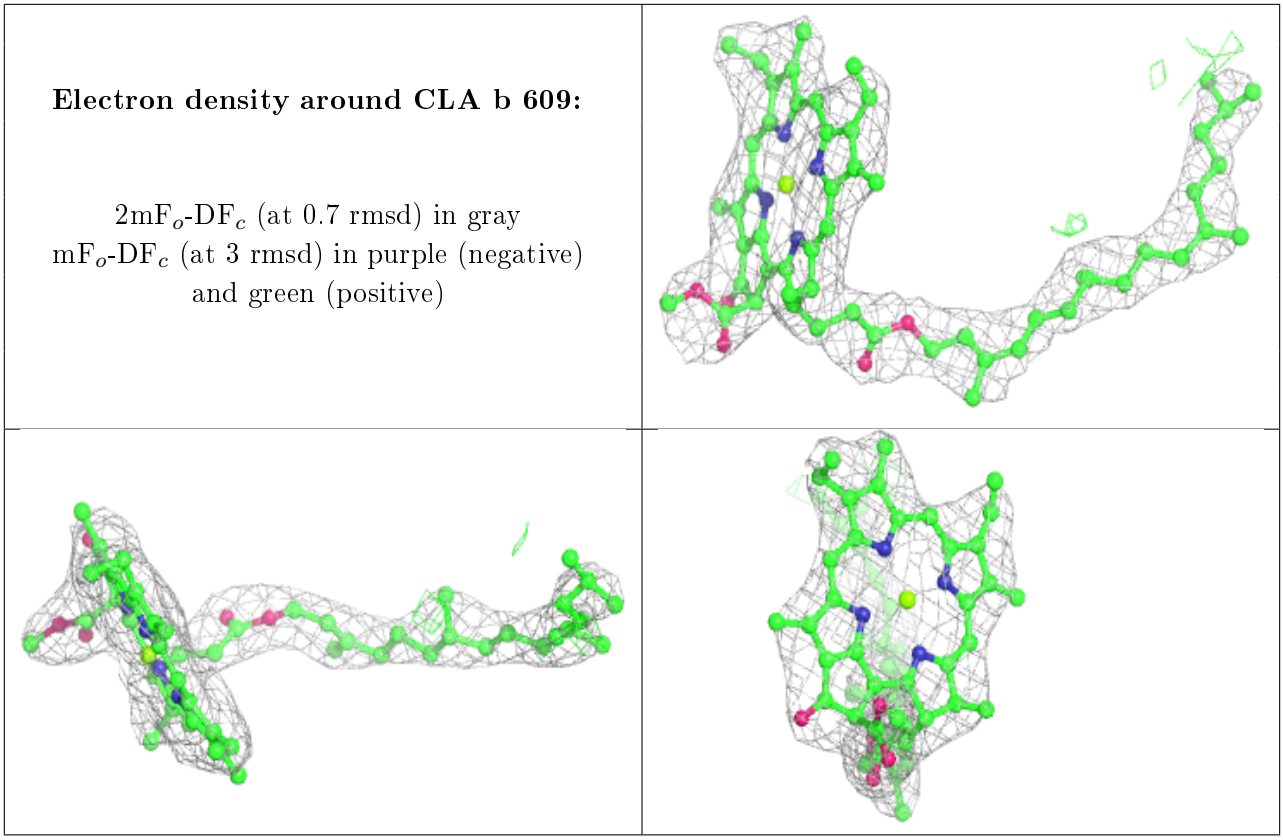






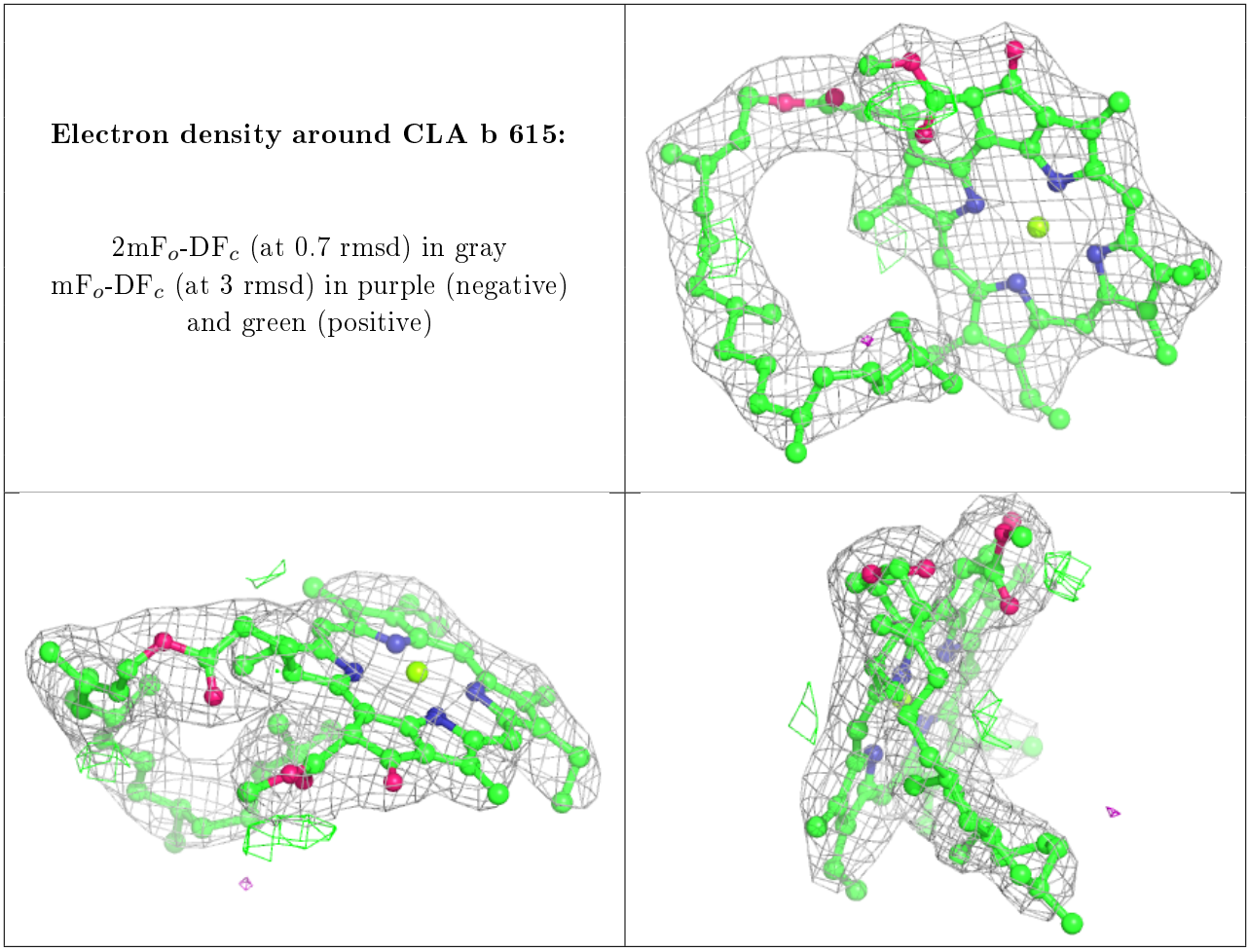
Electron density around CLA b 609:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



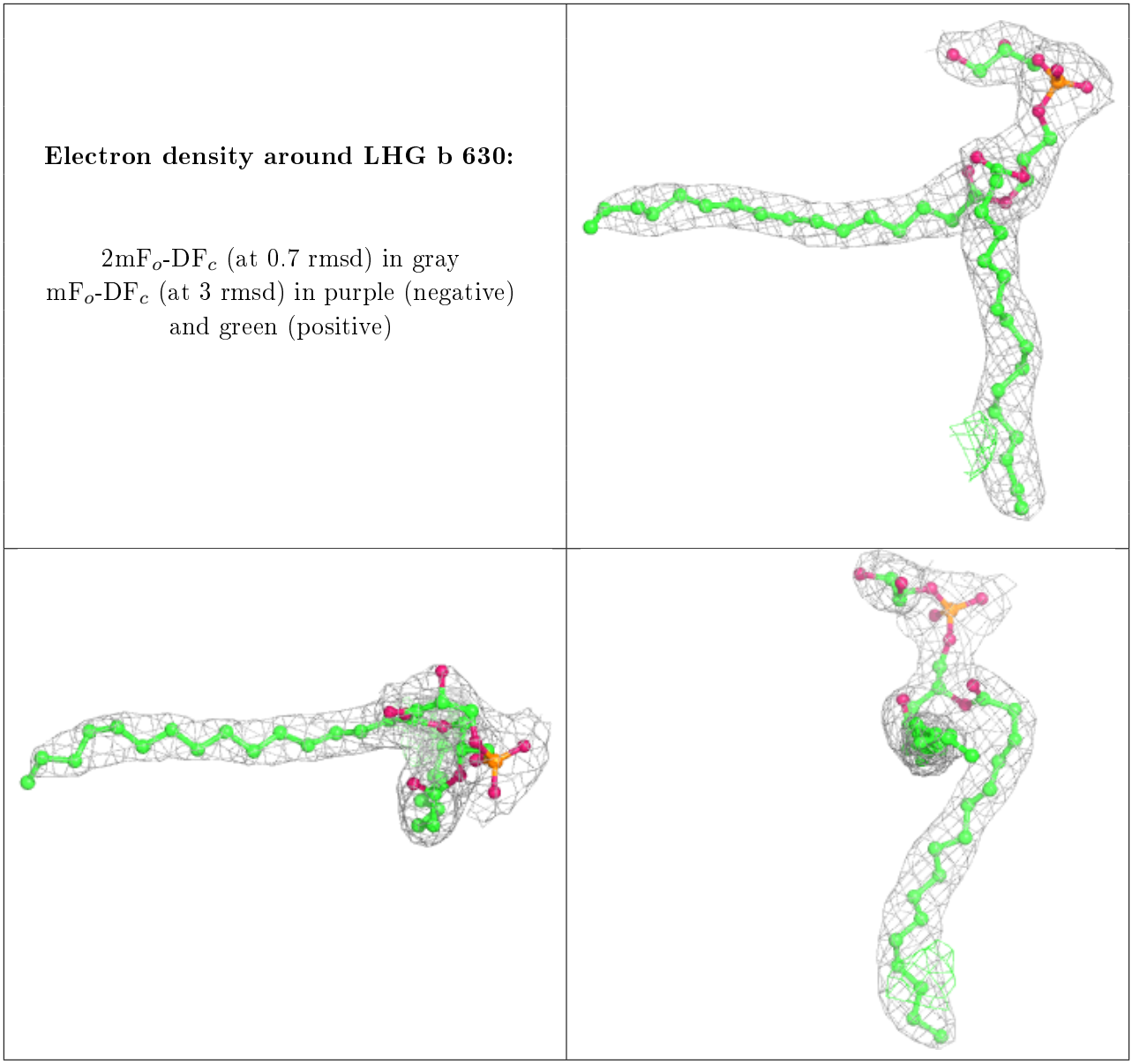
Electron density around CLA b 615:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



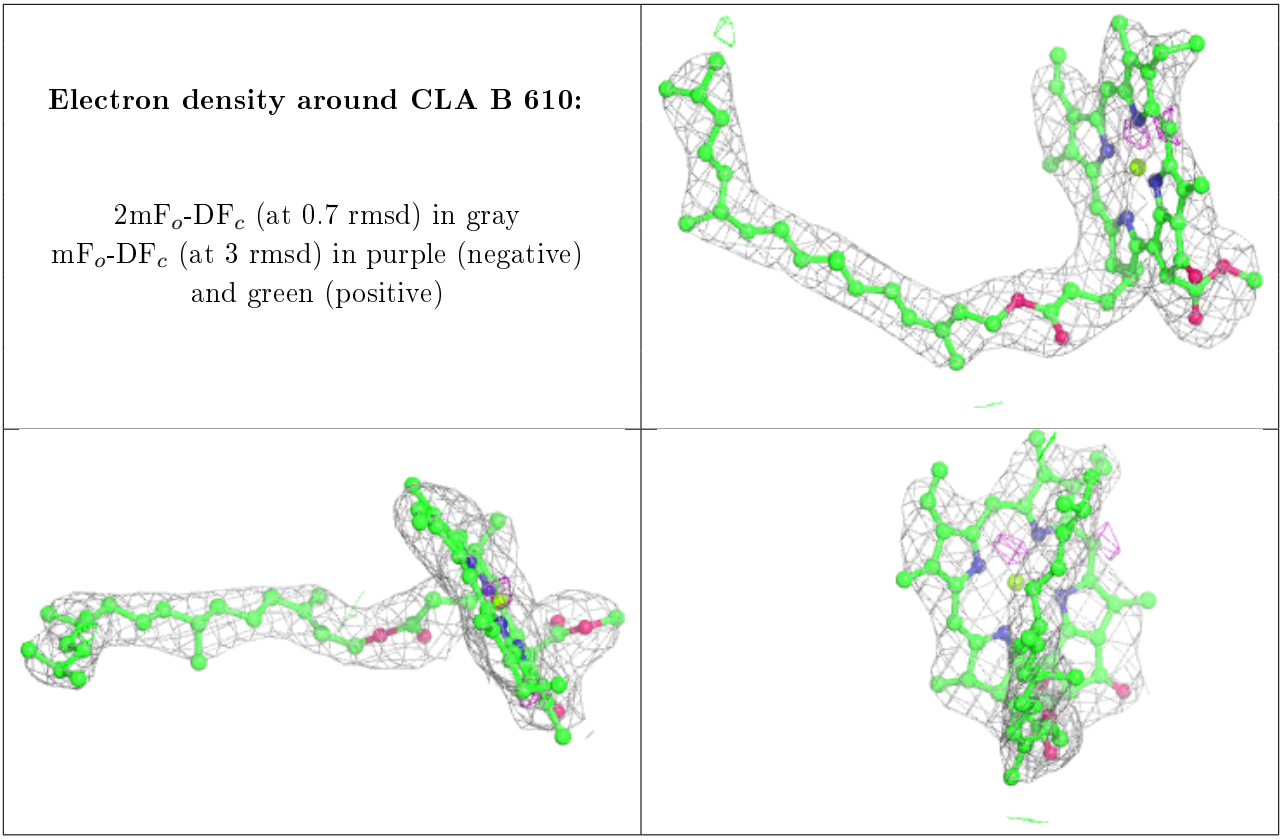
Electron density around LHG b 630:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



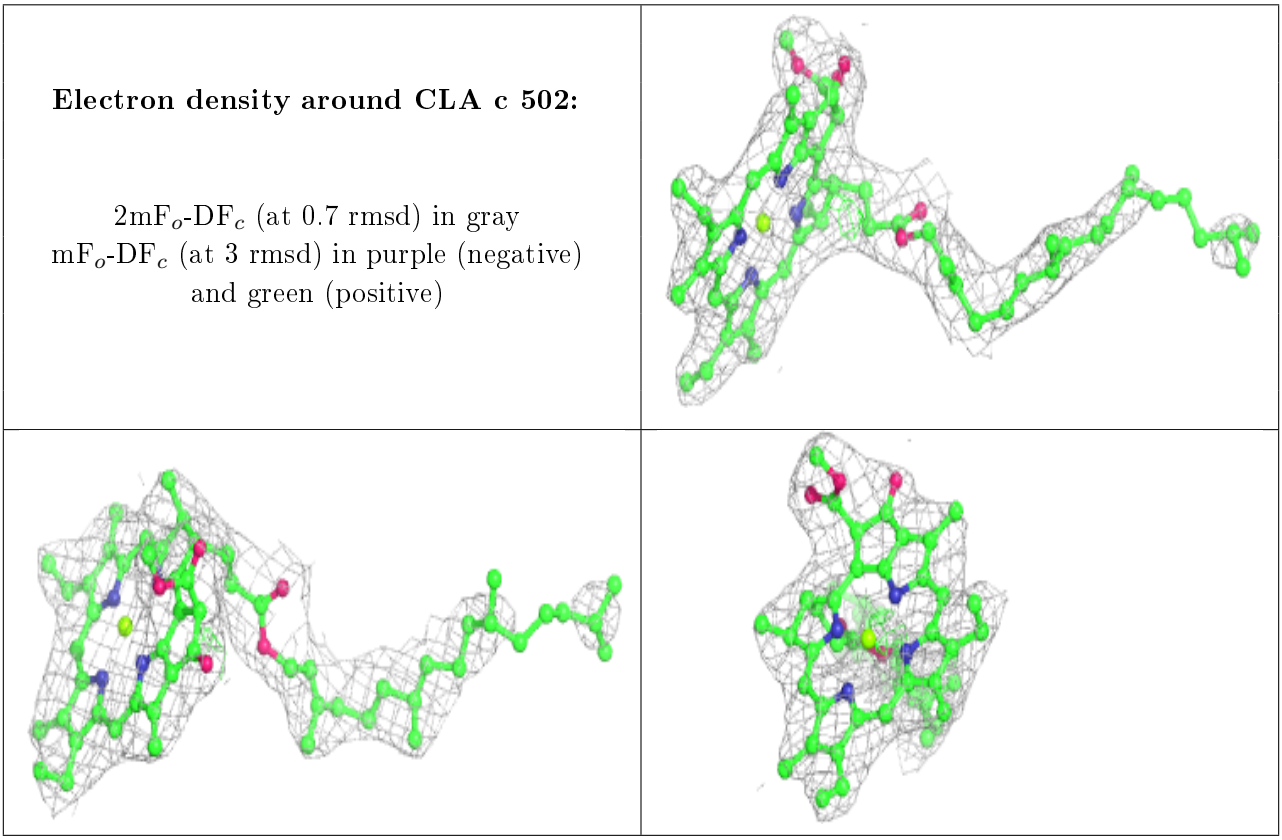
Electron density around CLA B 610:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



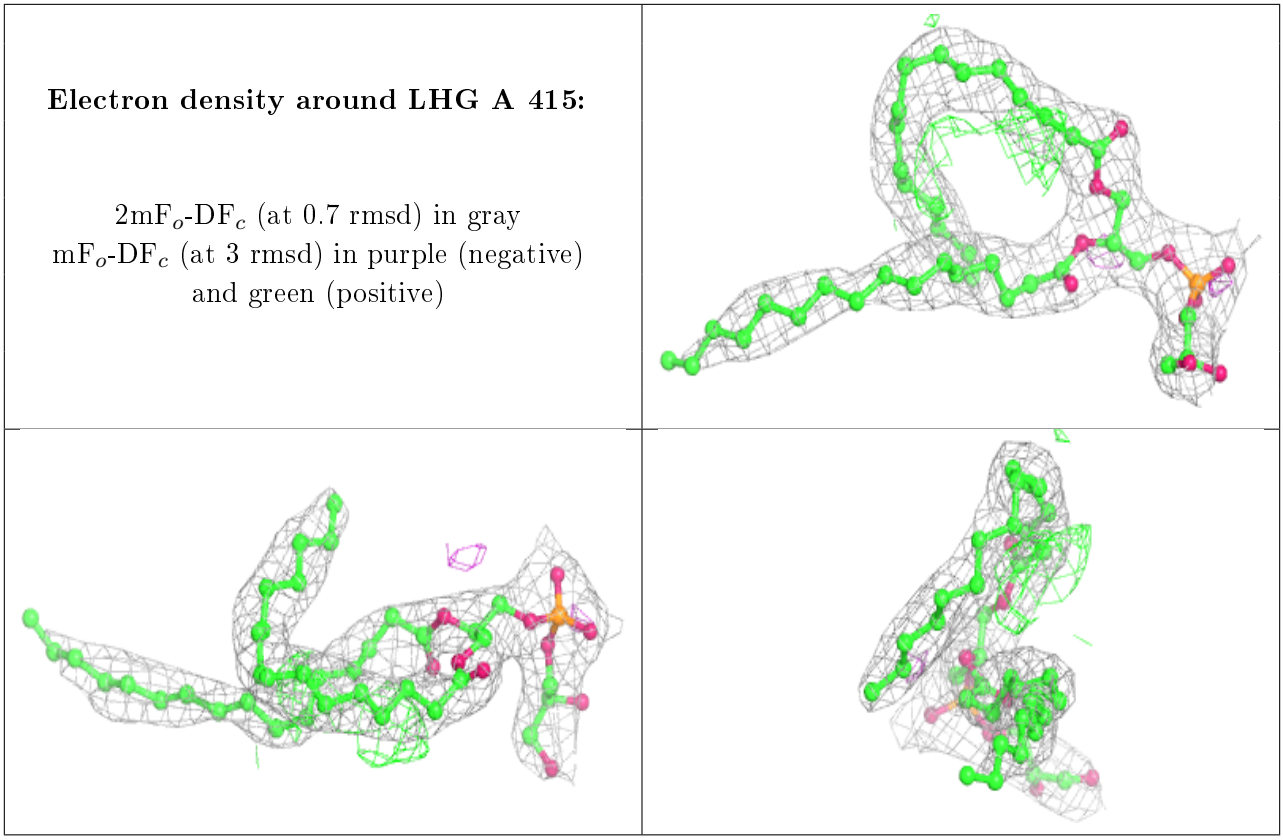
Electron density around CLA c 502:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



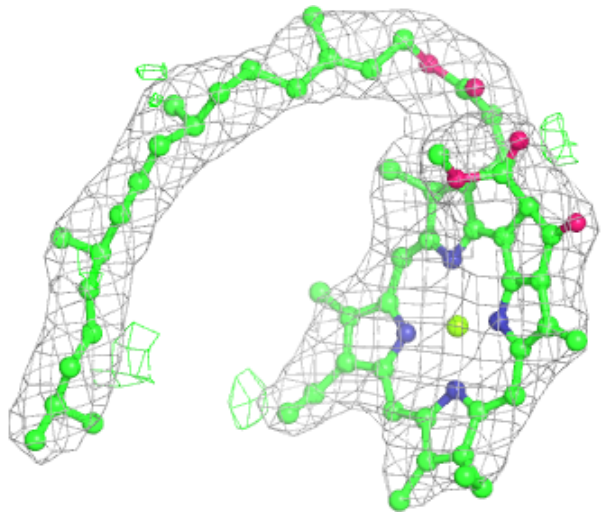
Electron density around LHG A 415:

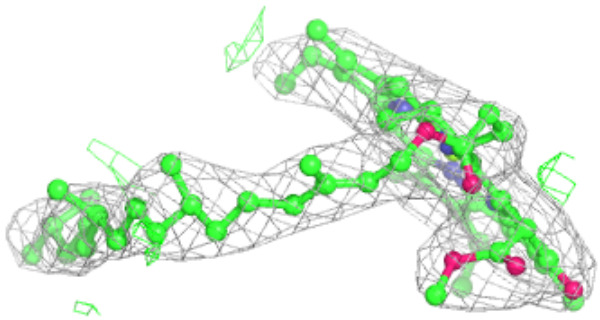
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

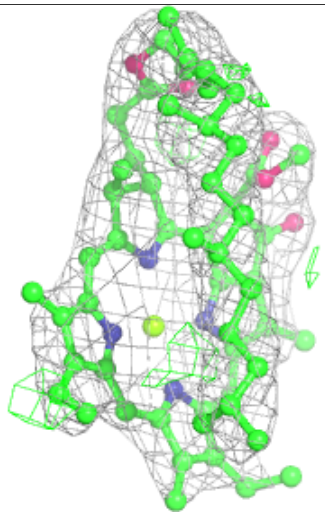


Electron density around CLA C 508:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

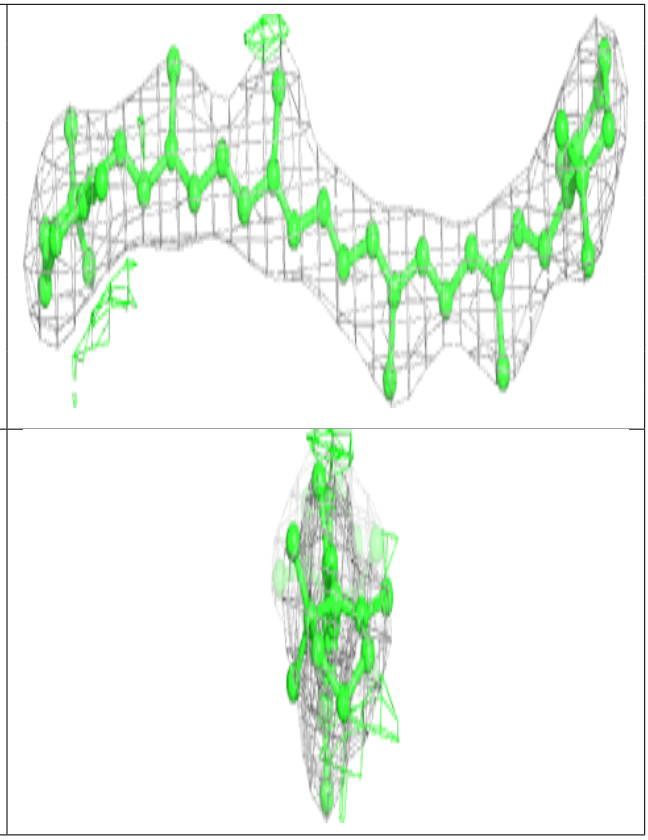






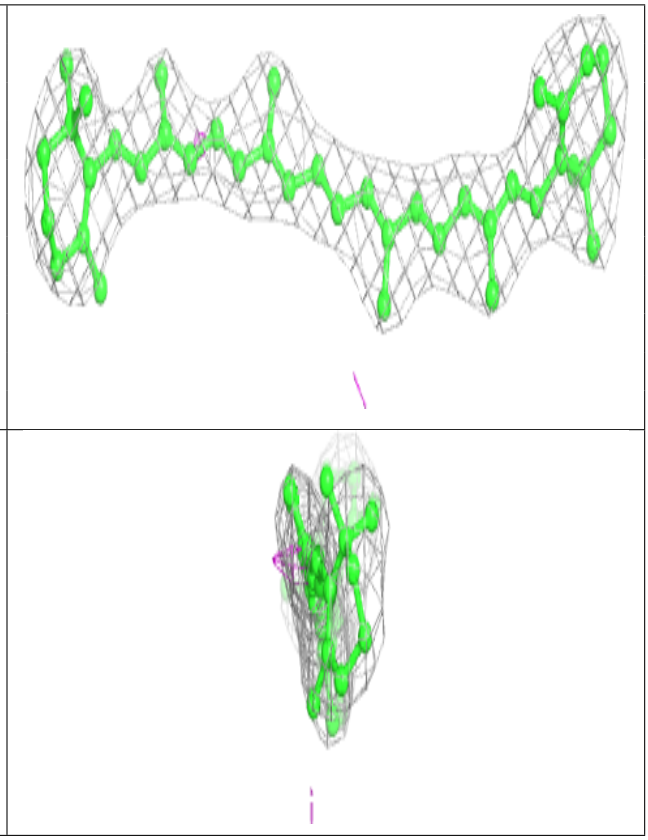
Electron density around BCR C 516:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



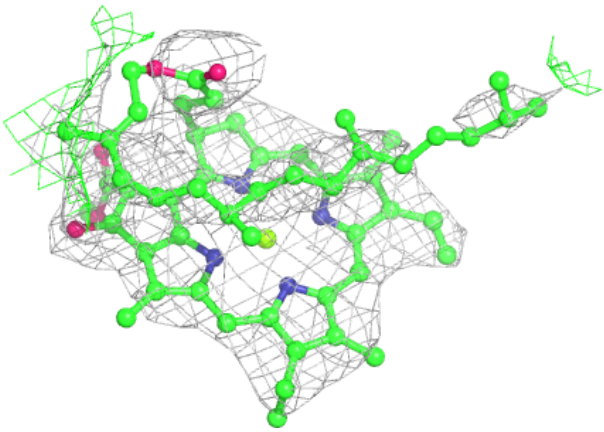
Electron density around BCR B 620:

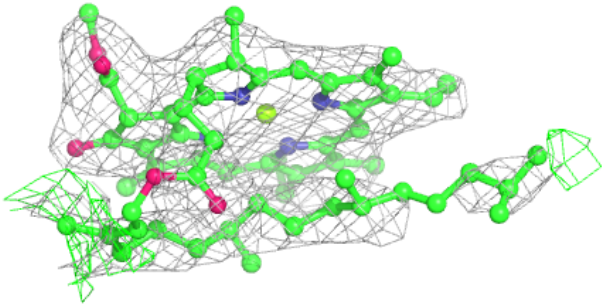
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

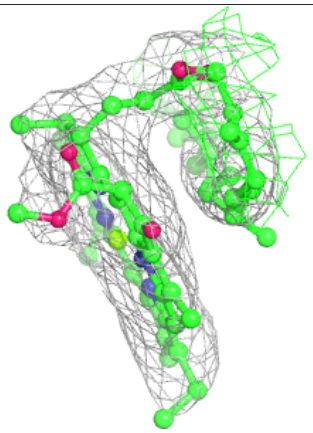


Electron density around CLA b 601:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

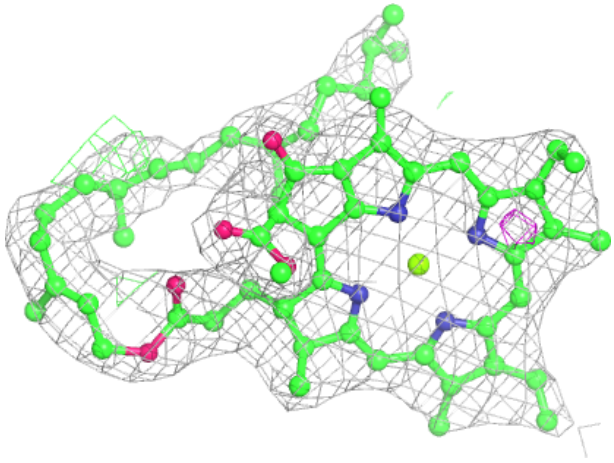


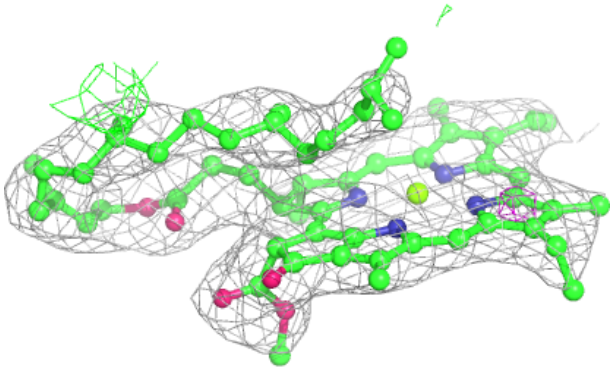


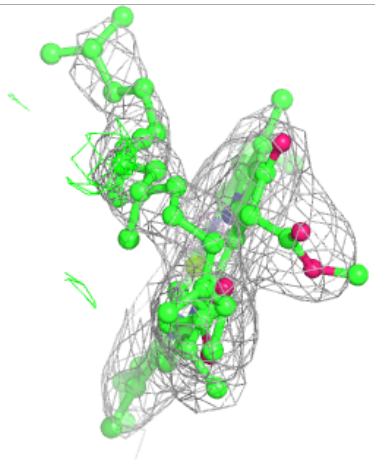


Electron density around CLA c 509:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

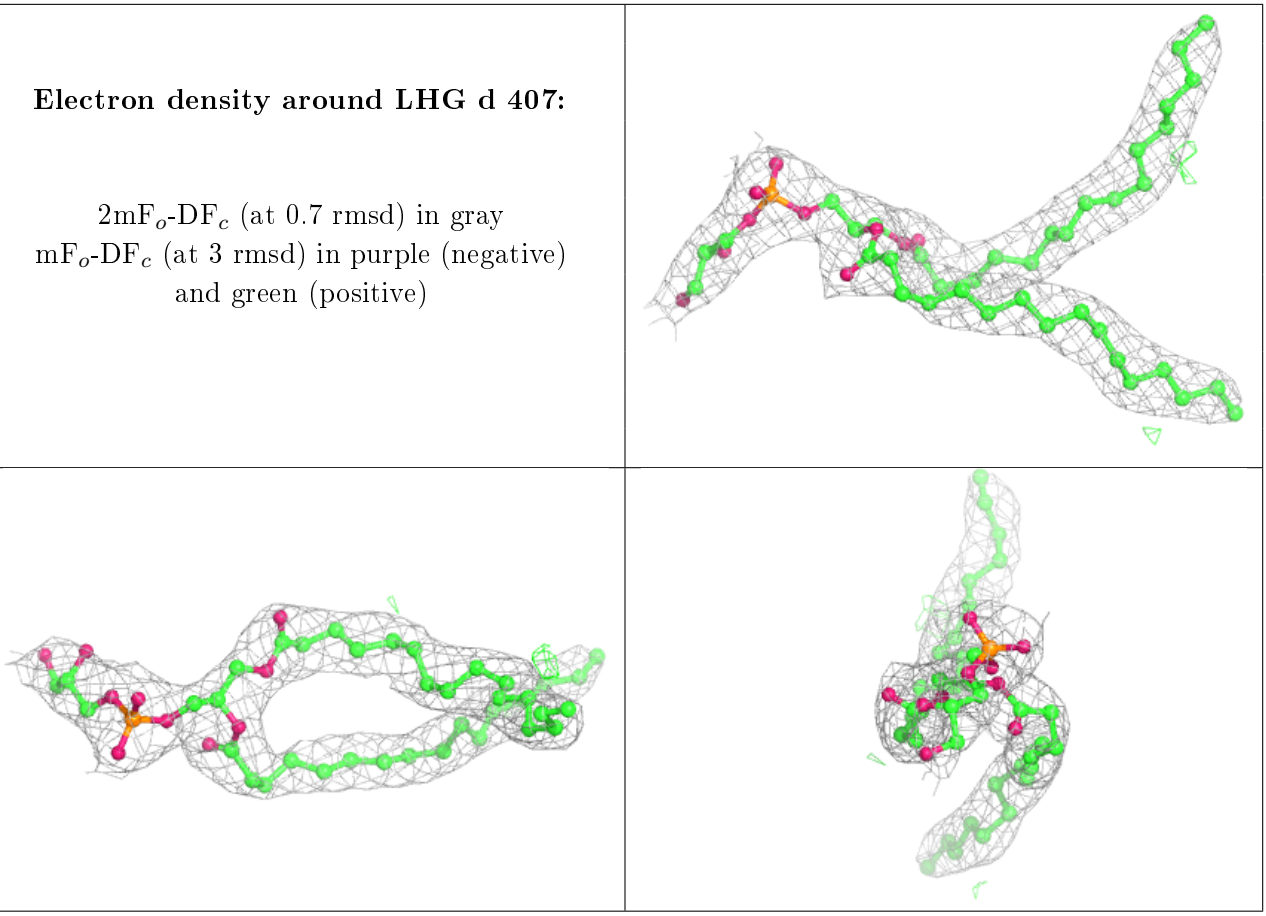






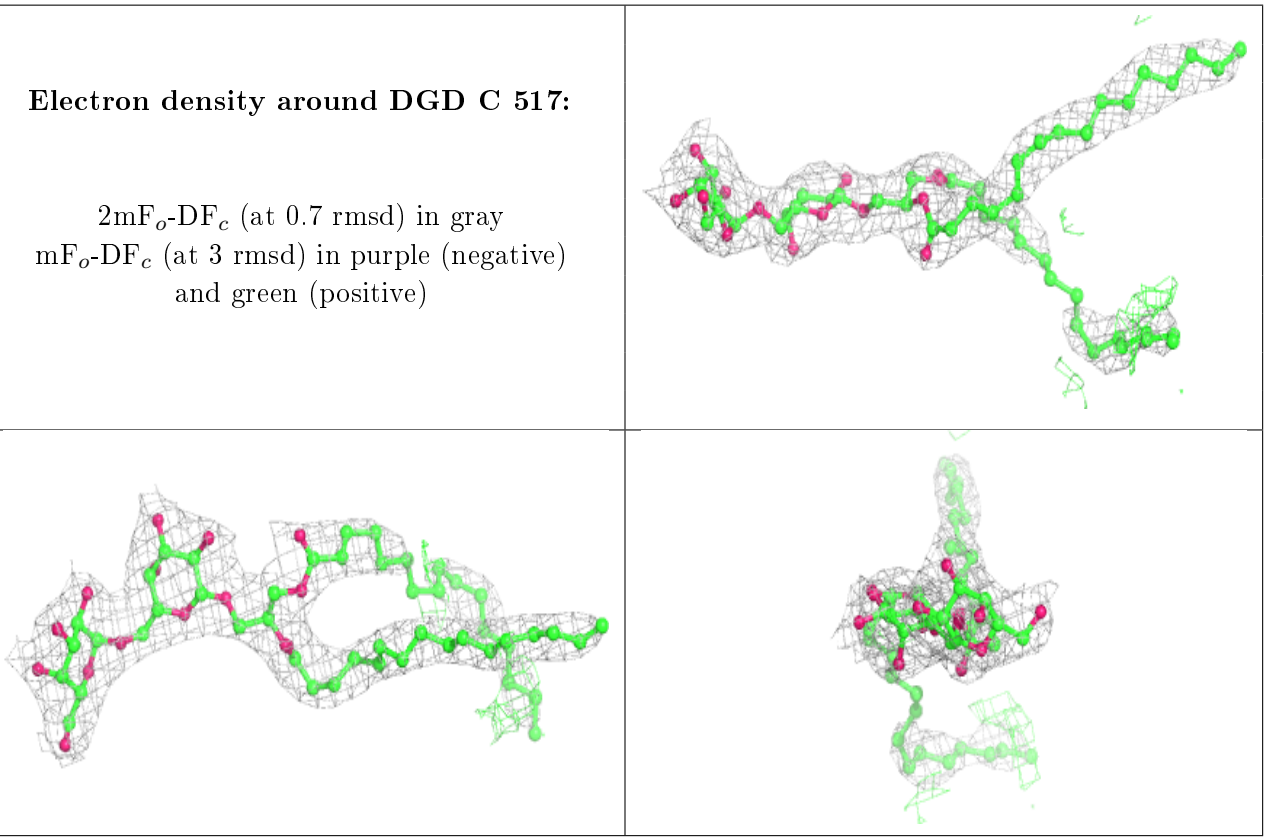
Electron density around LHG d 407:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



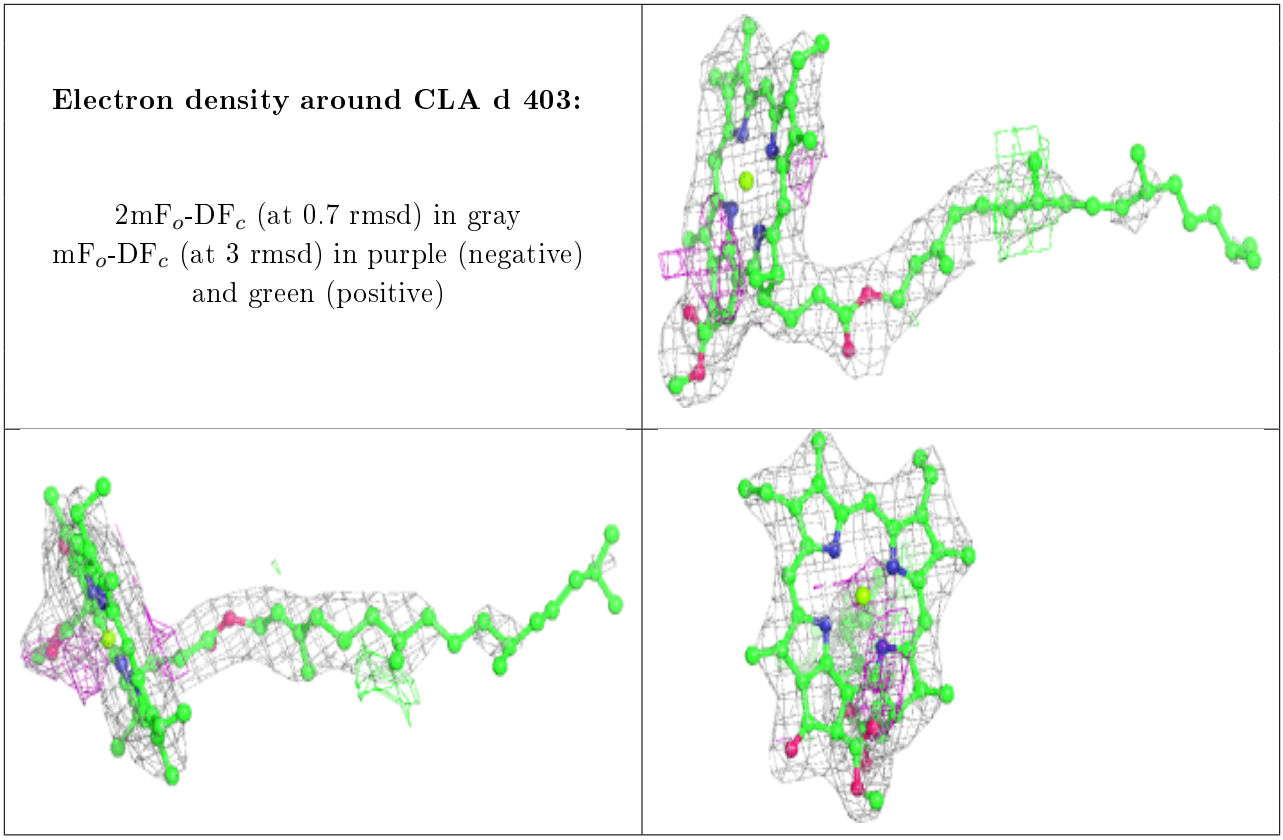
Electron density around DGD C 517:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



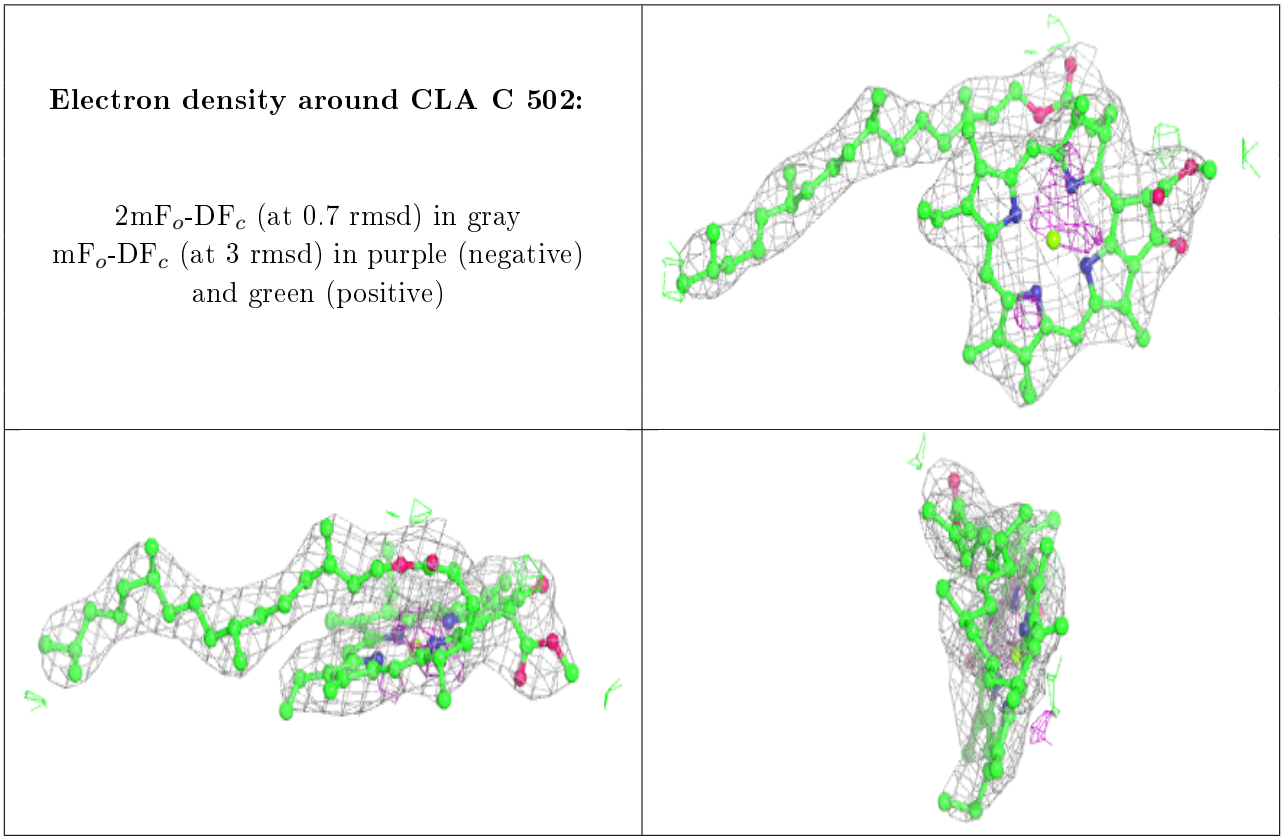
Electron density around CLA d 403:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



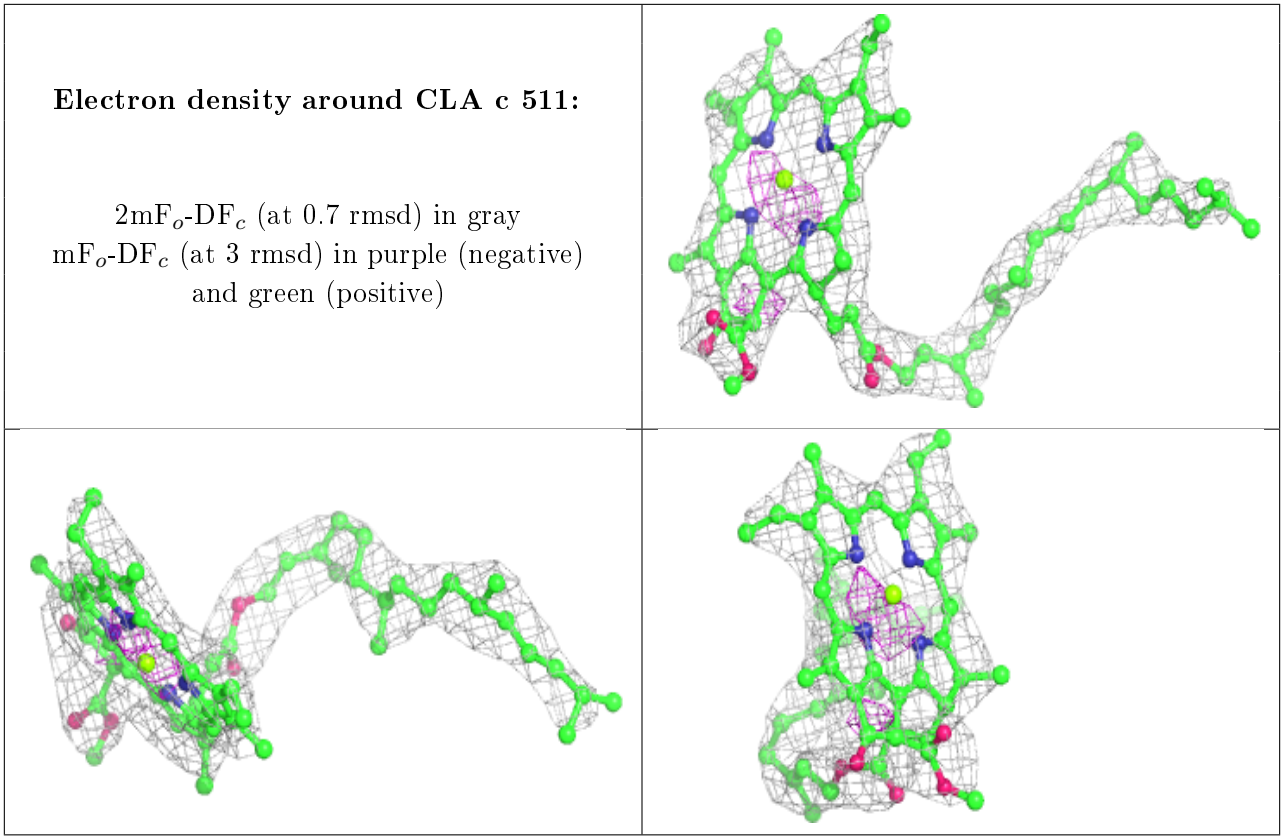
Electron density around CLA C 502:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



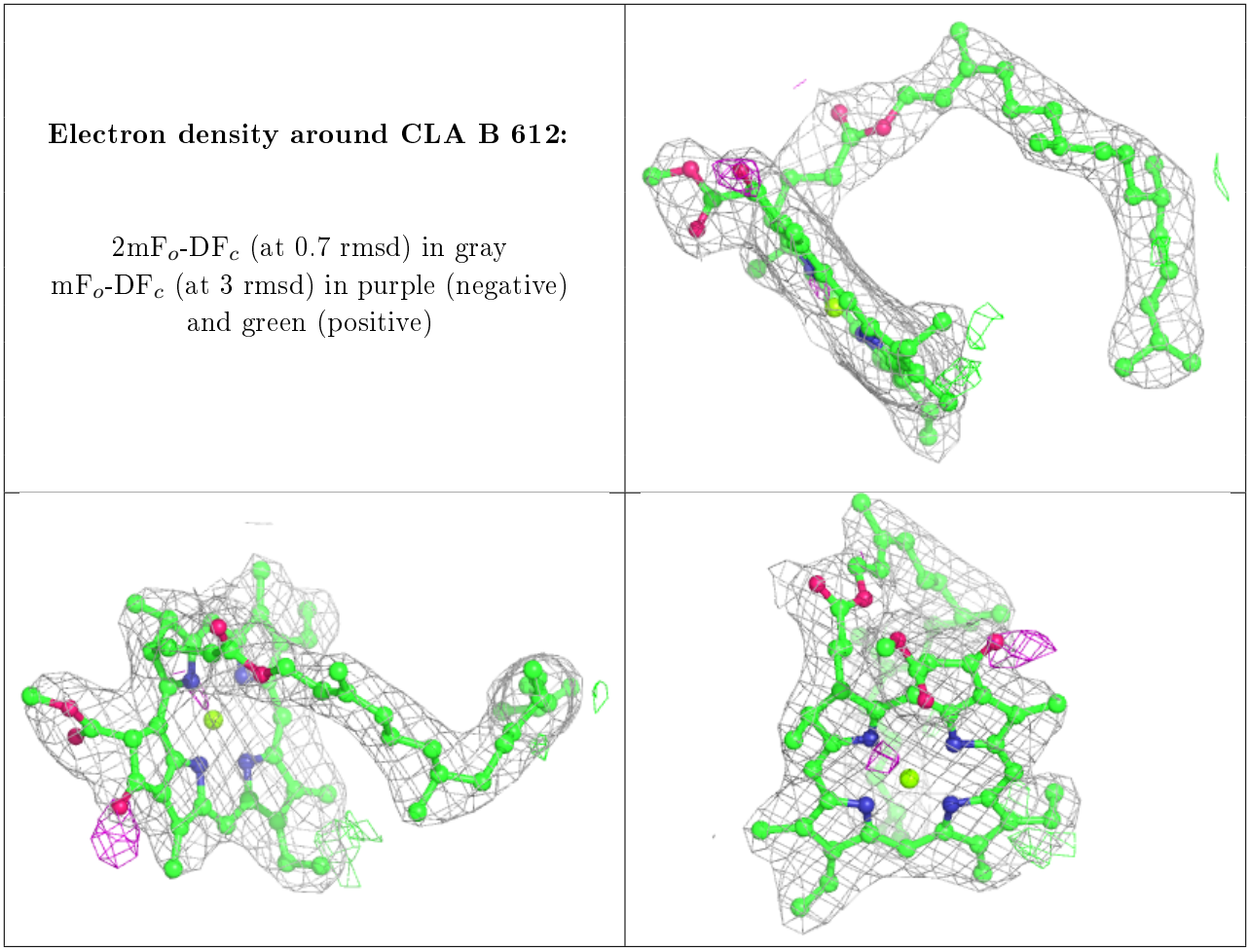
Electron density around CLA c 511:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



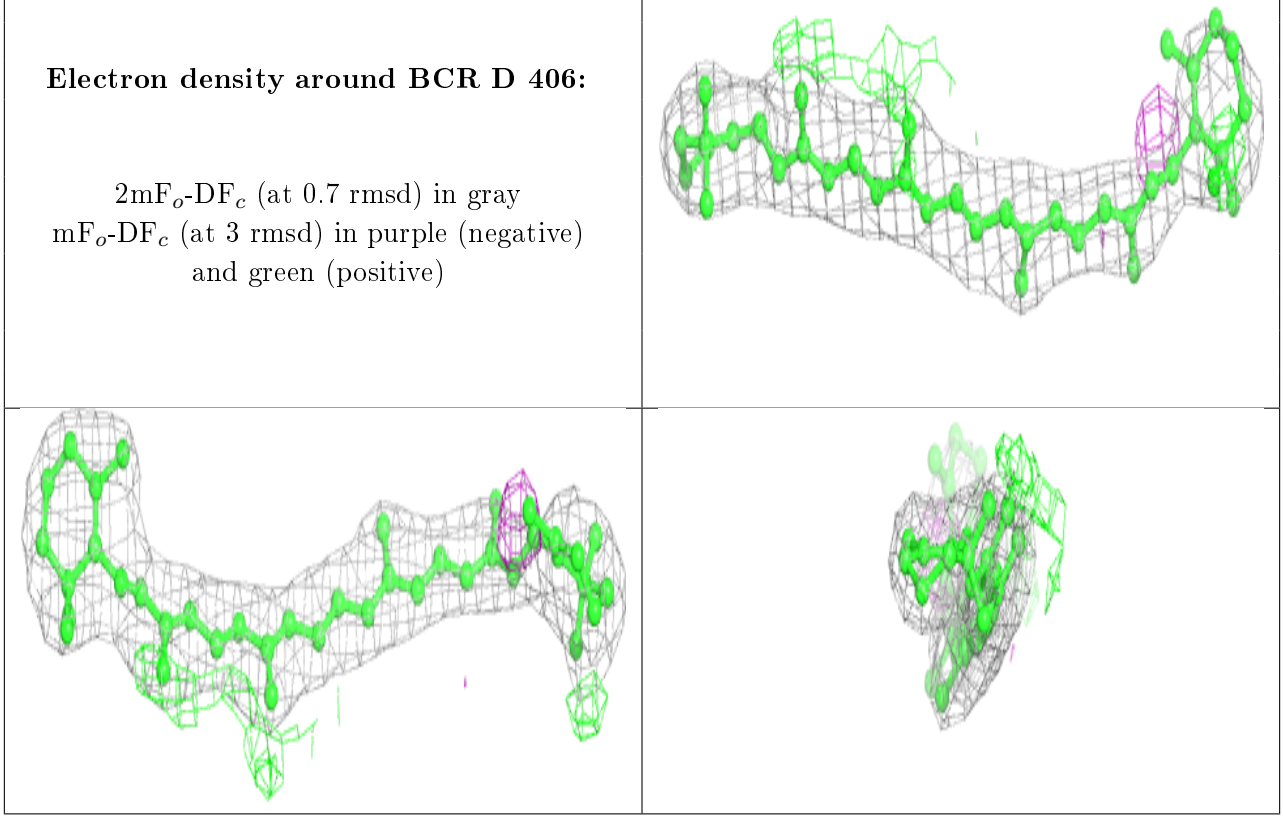
Electron density around CLA B 612:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



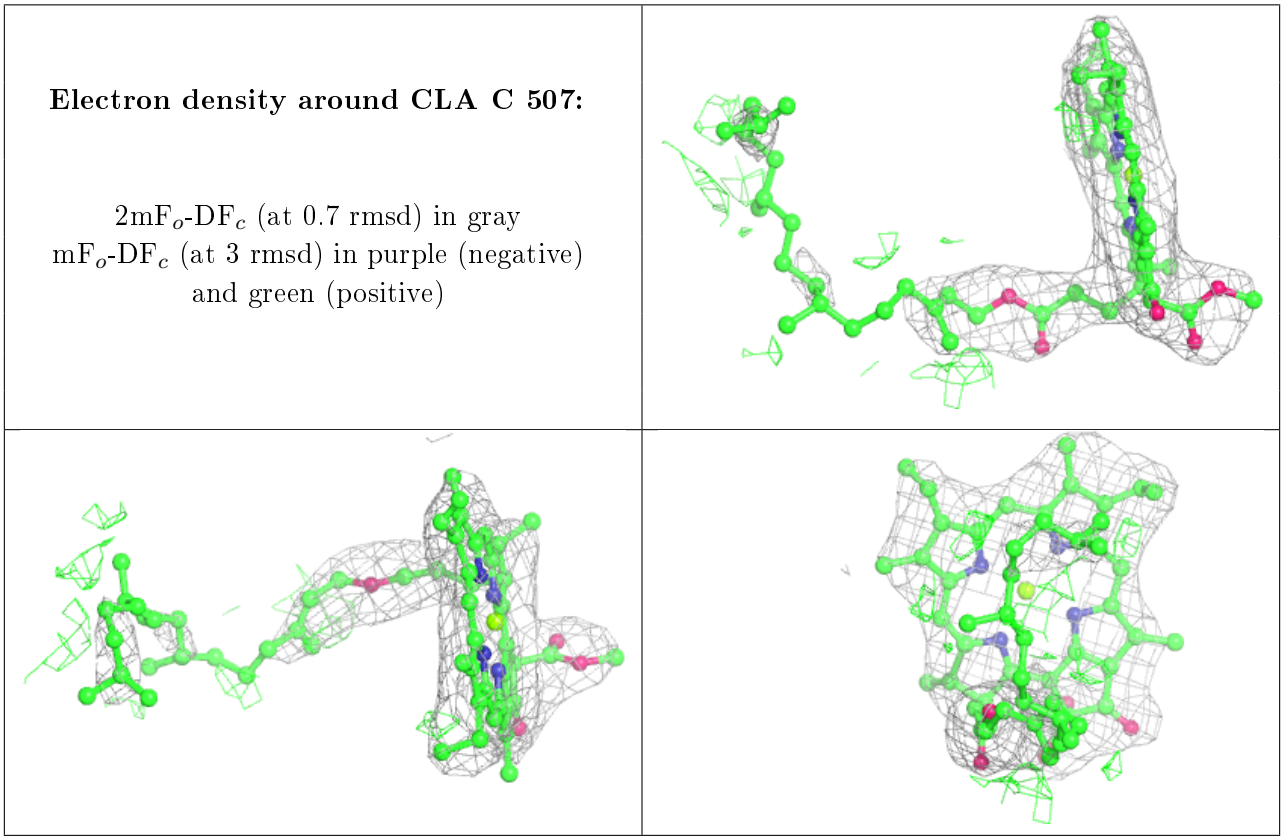
Electron density around BCR D 406:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



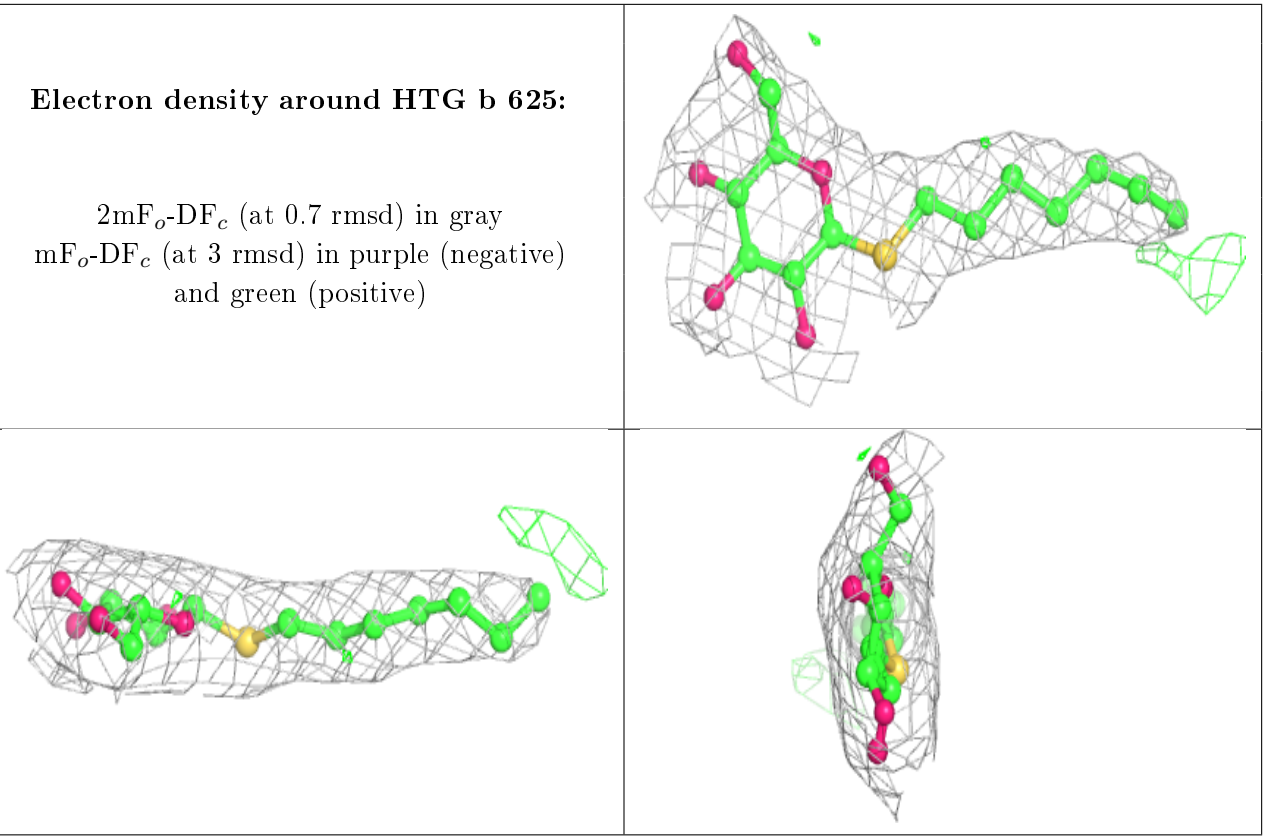
Electron density around CLA C 507:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



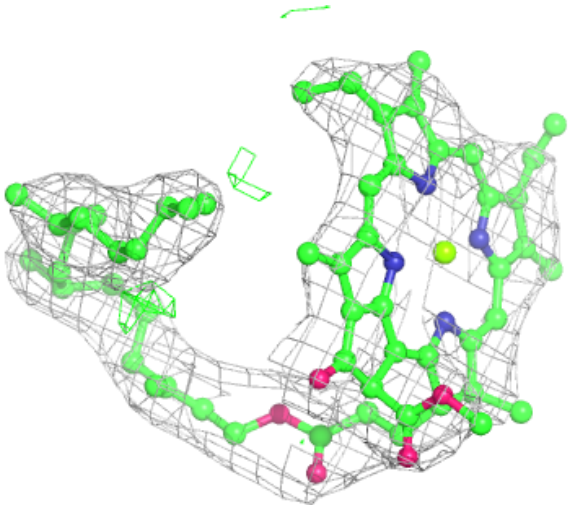
Electron density around HTG b 625:

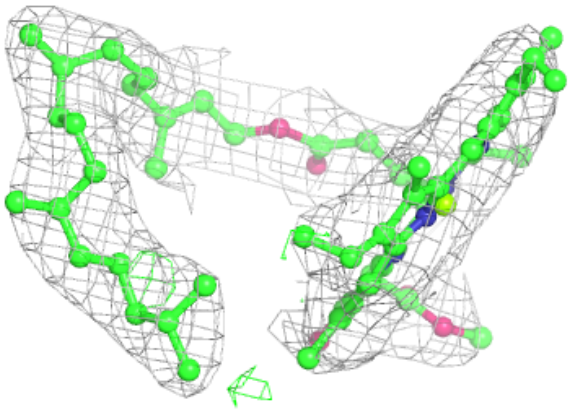
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

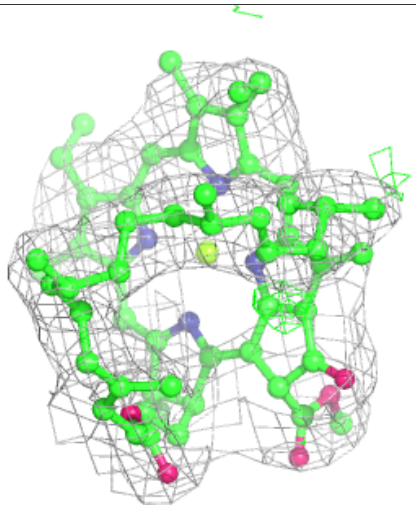


Electron density around CLA c 503:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

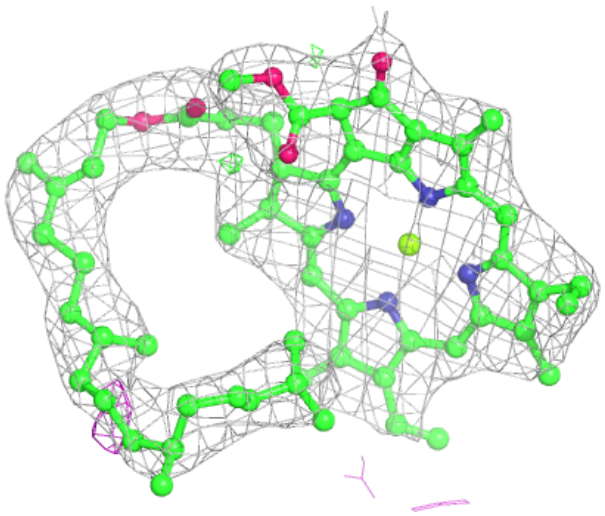


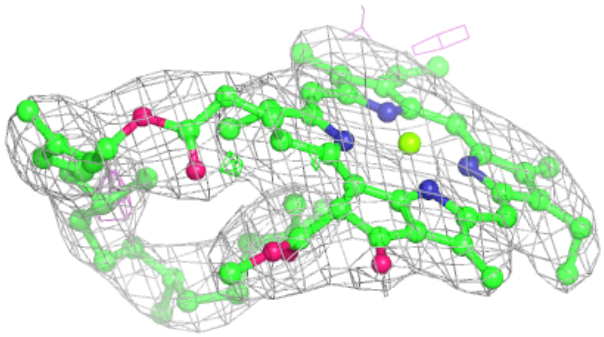


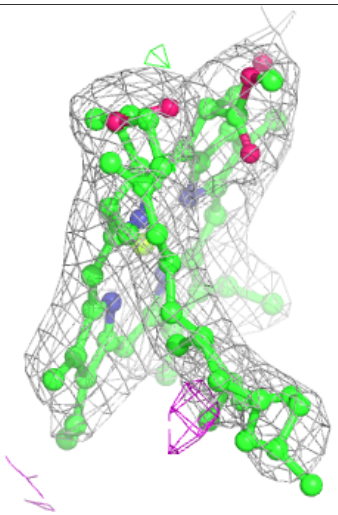


Electron density around CLA B 616:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

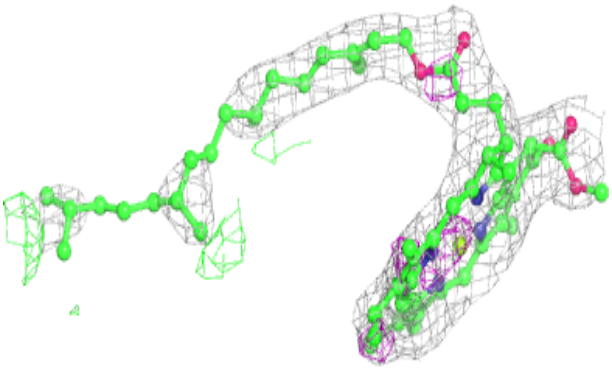


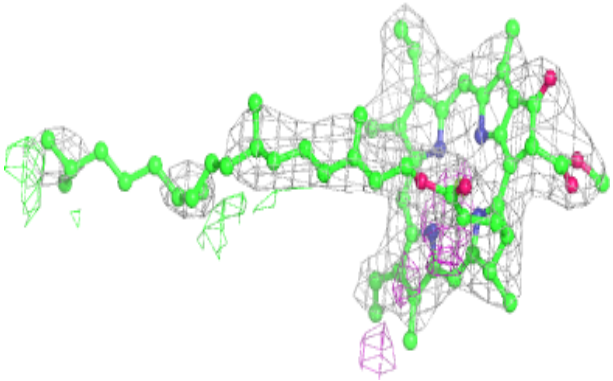


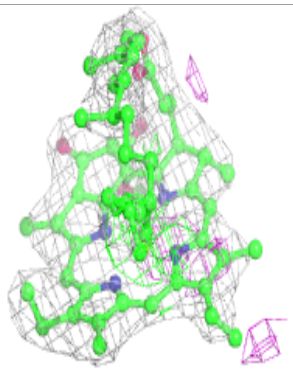


Electron density around CLA C 505:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

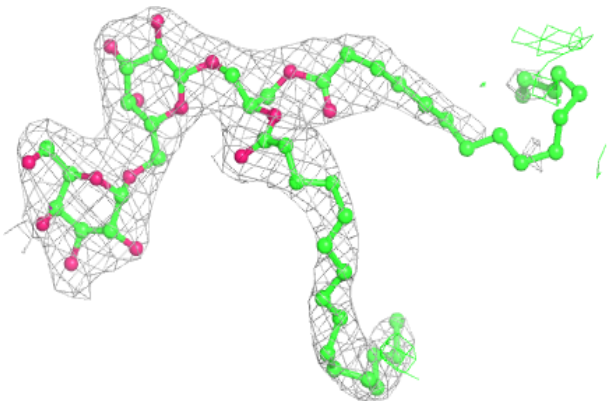


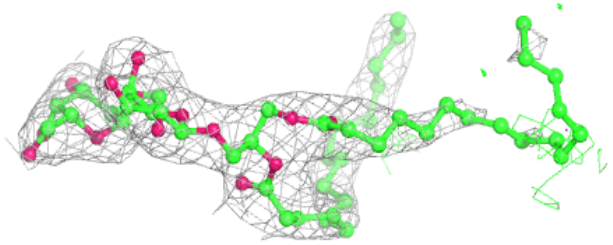


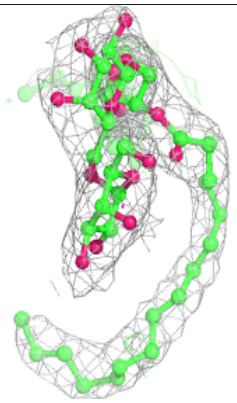


Electron density around DGD c 517:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

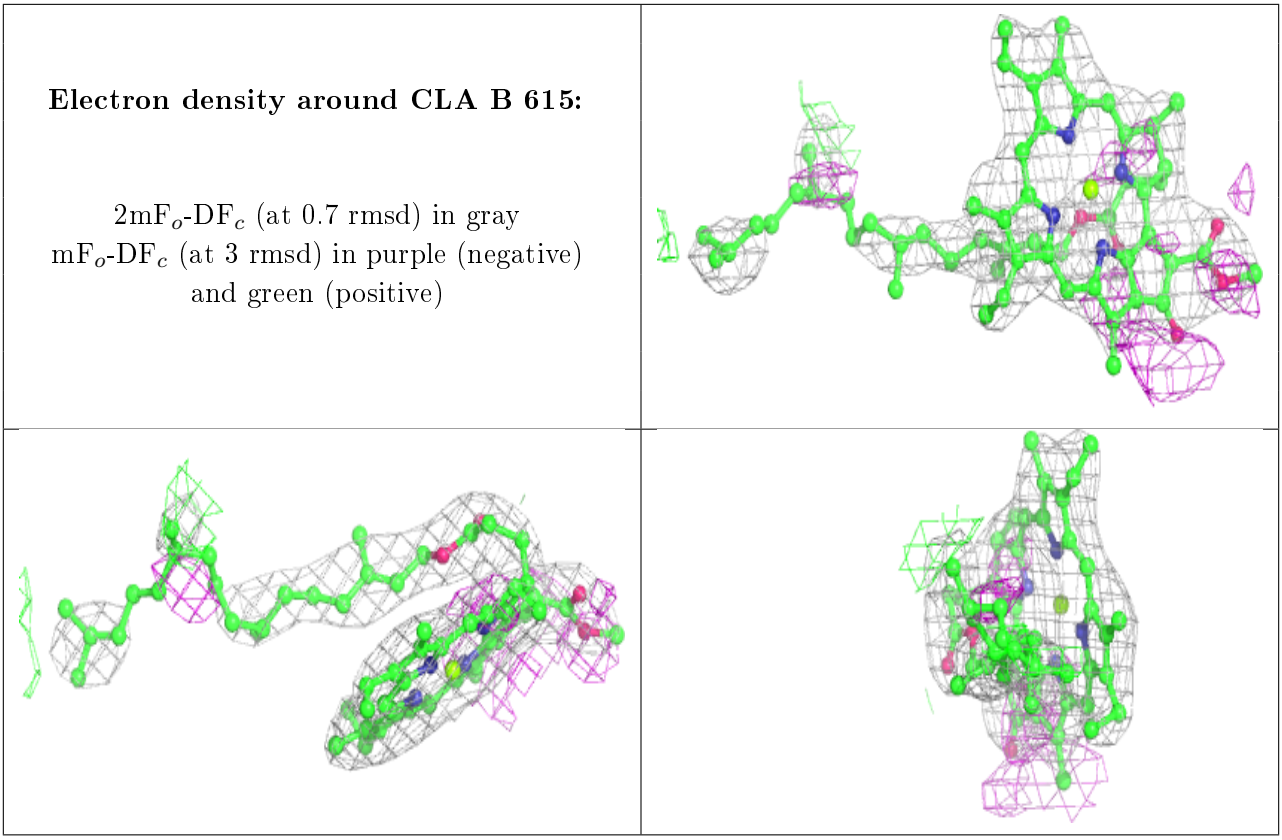






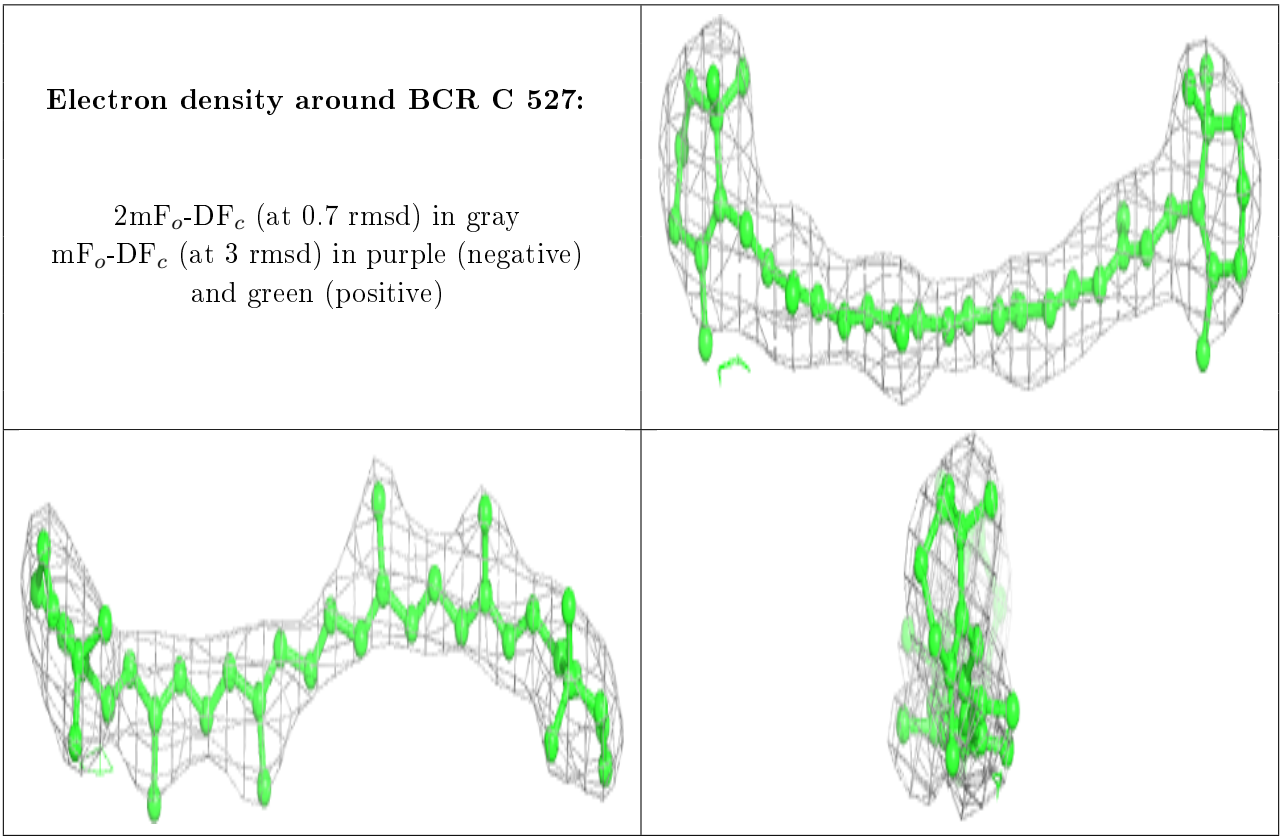
Electron density around CLA B 615:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



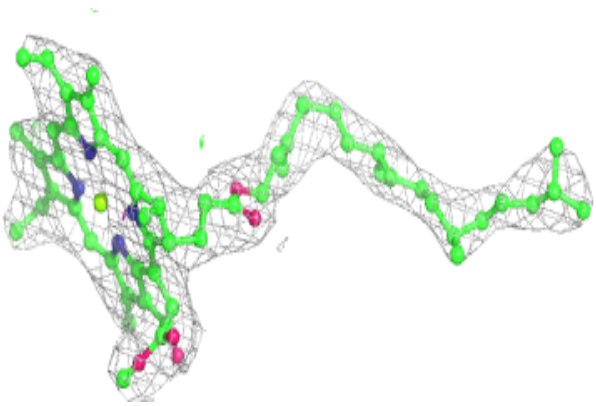
Electron density around BCR C 527:

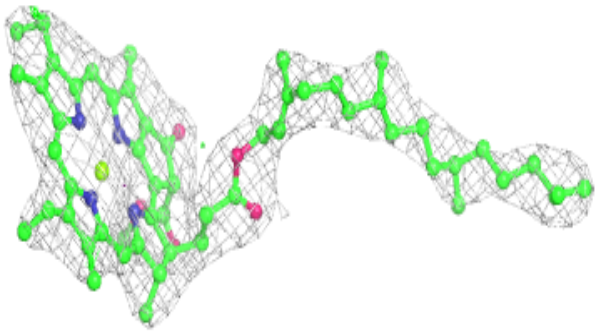
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

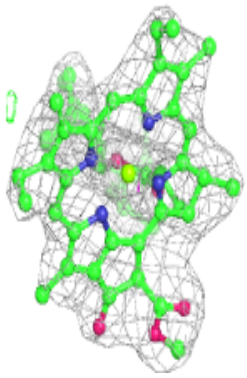


Electron density around CLA C 503:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

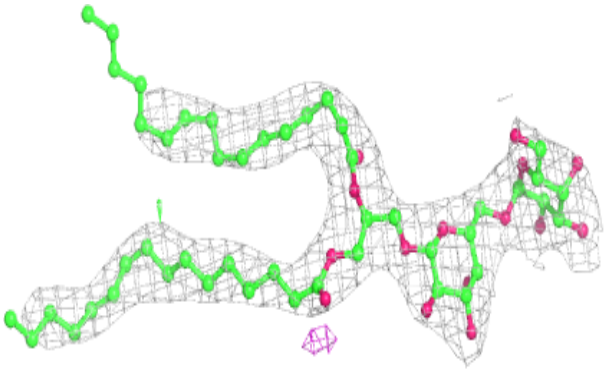


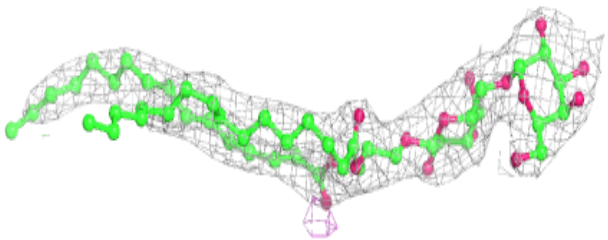


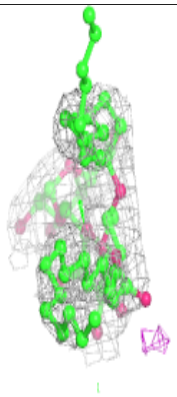


Electron density around DGD C 519:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

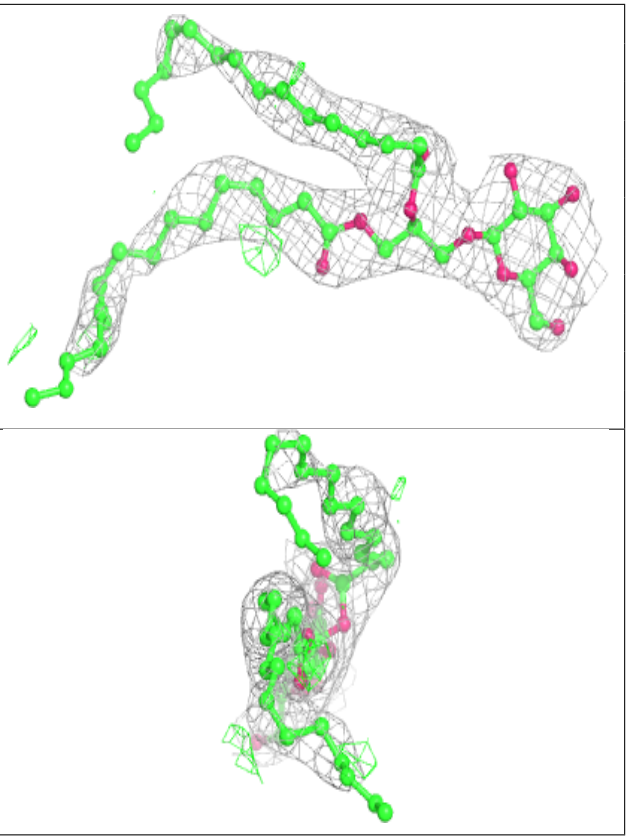


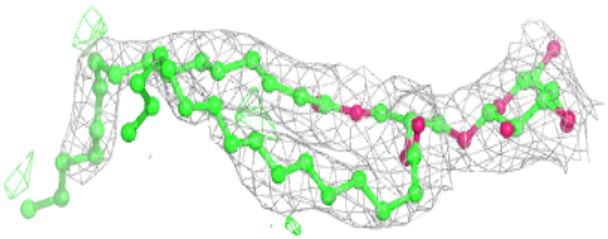




Electron density around LMG j 101:

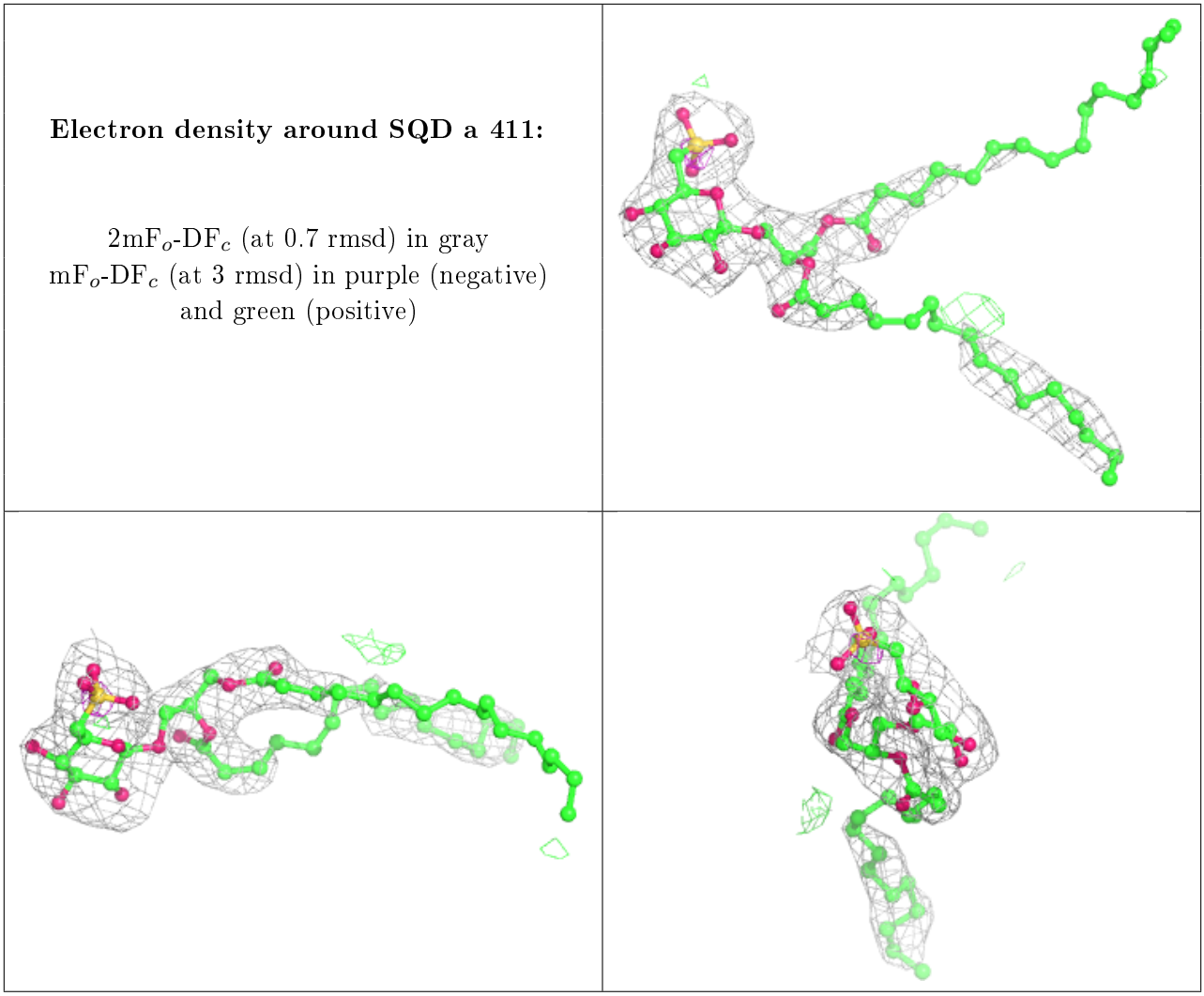
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





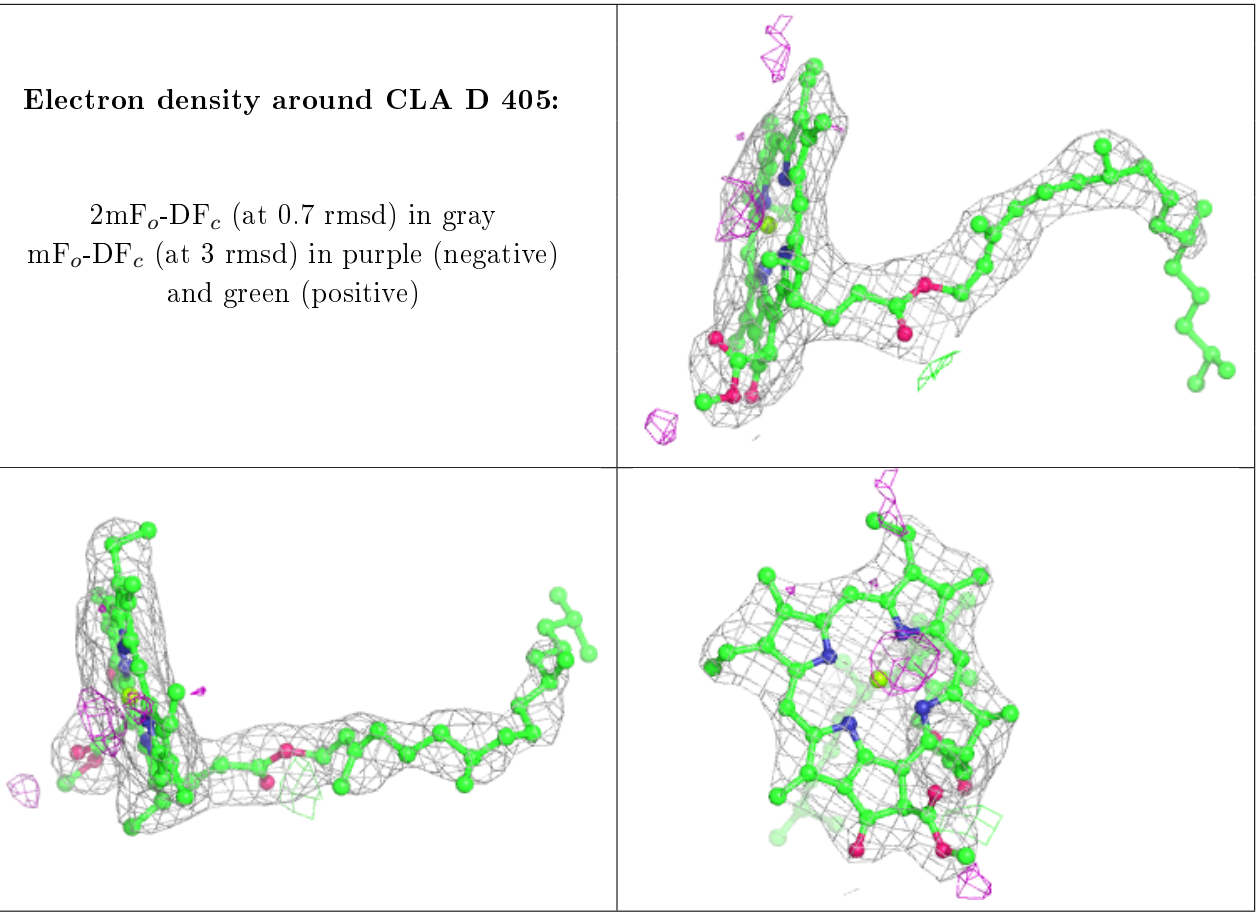
Electron density around SQD a 411:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



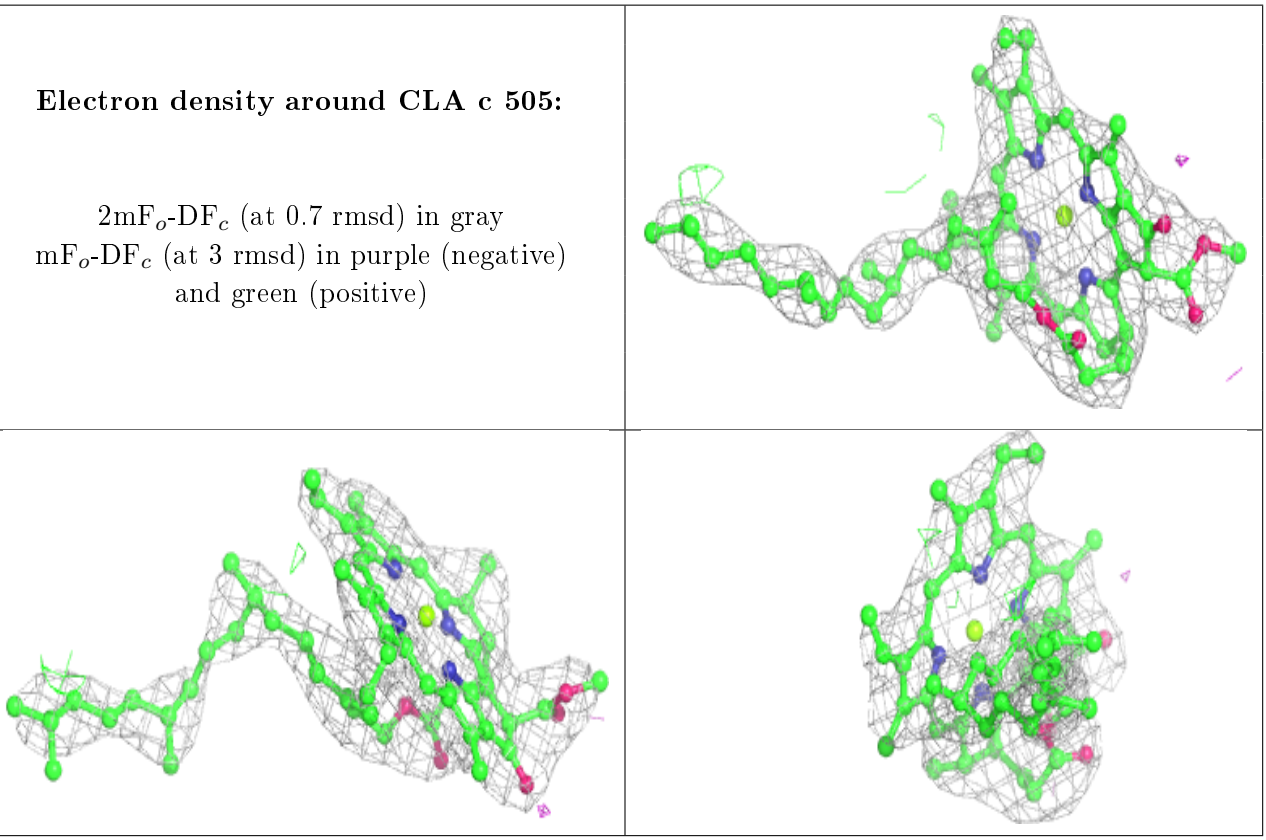
Electron density around CLA D 405:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



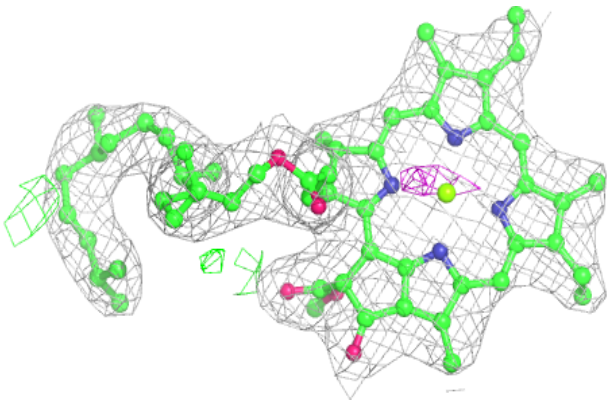
Electron density around CLA c 505:

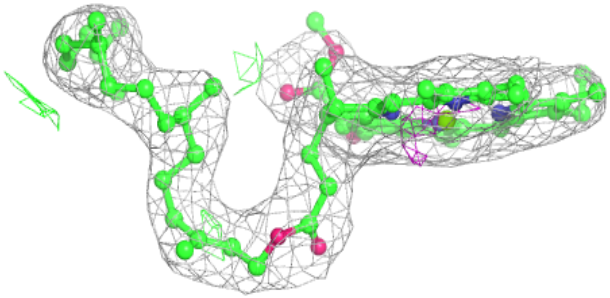
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

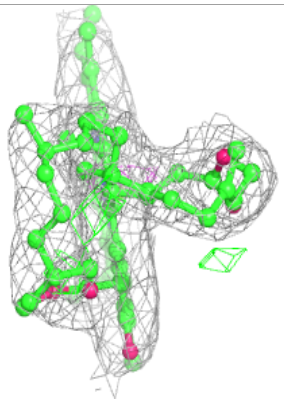


Electron density around CLA b 612:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

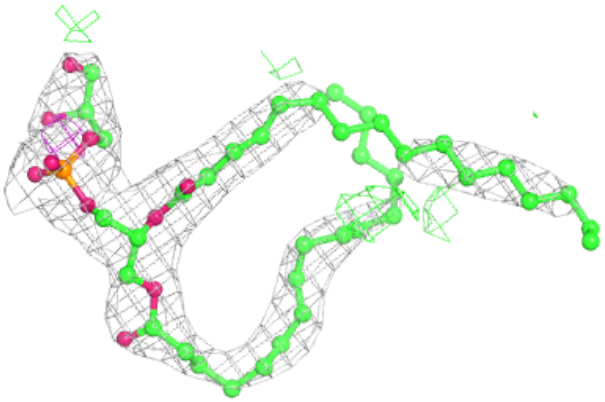


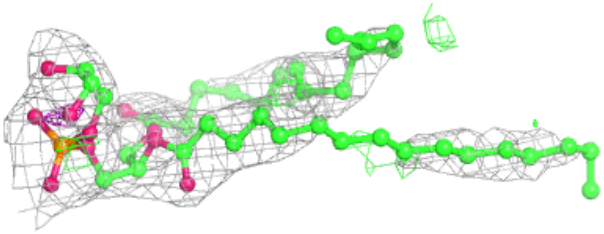


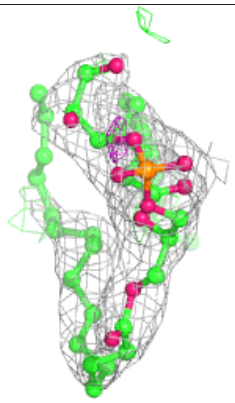


Electron density around LHG d 408:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

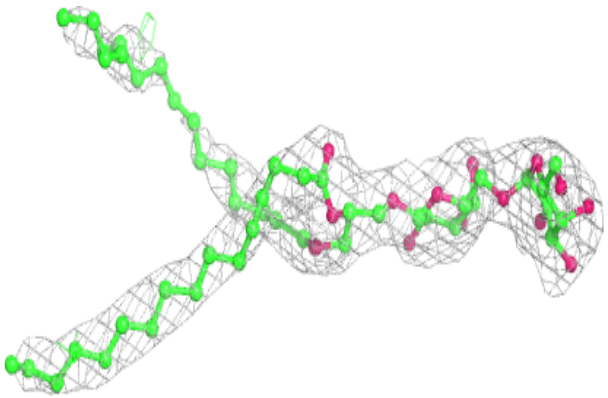


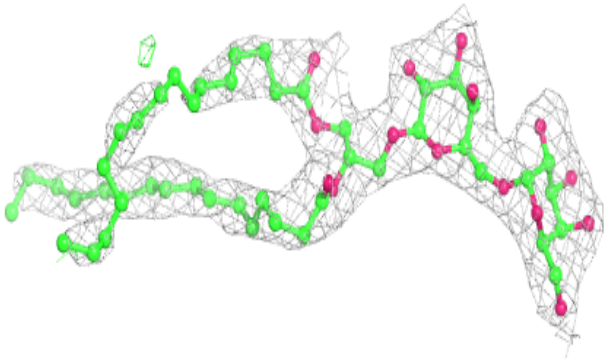


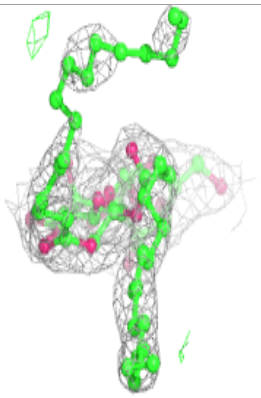


Electron density around DGD c 516:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

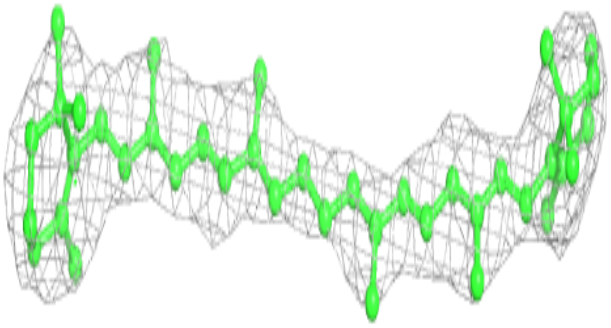


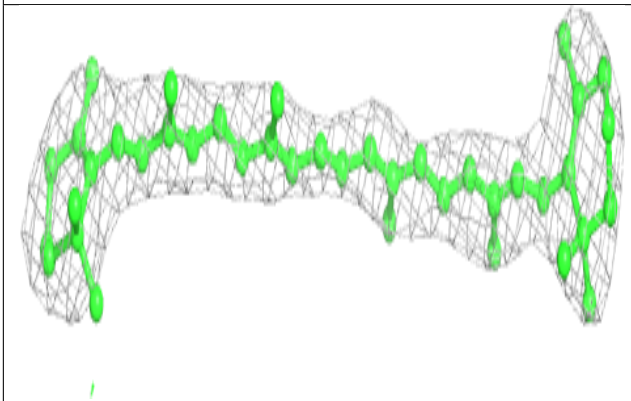


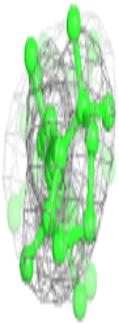


Electron density around BCR c 514:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

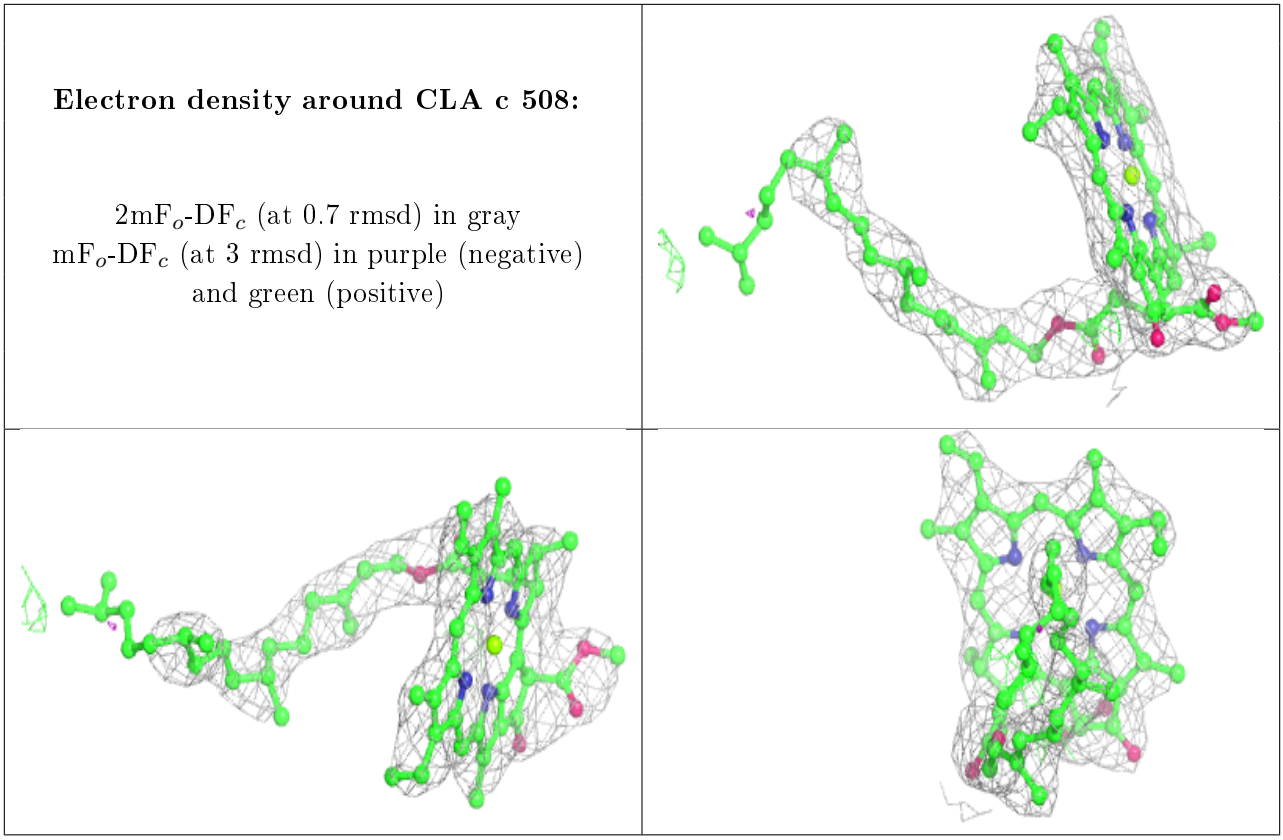






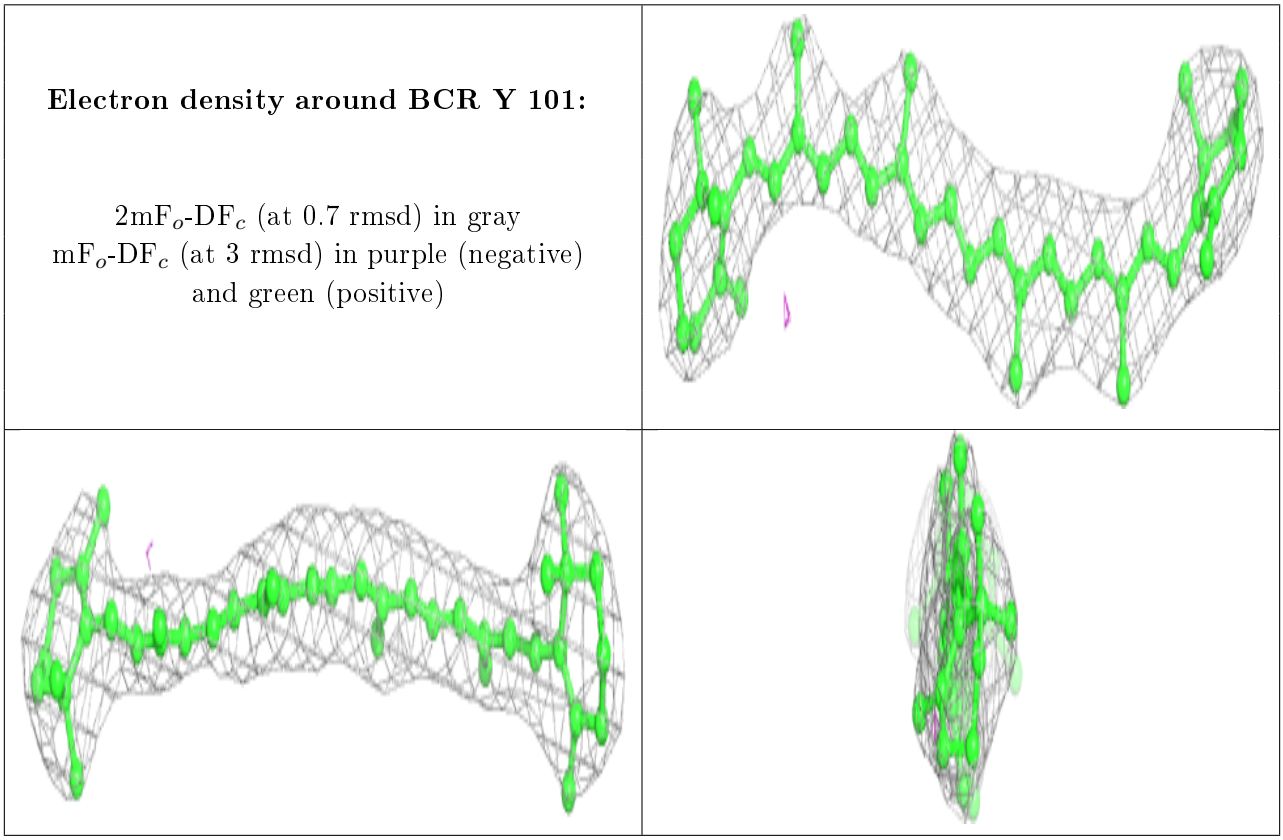
Electron density around CLA c 508:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



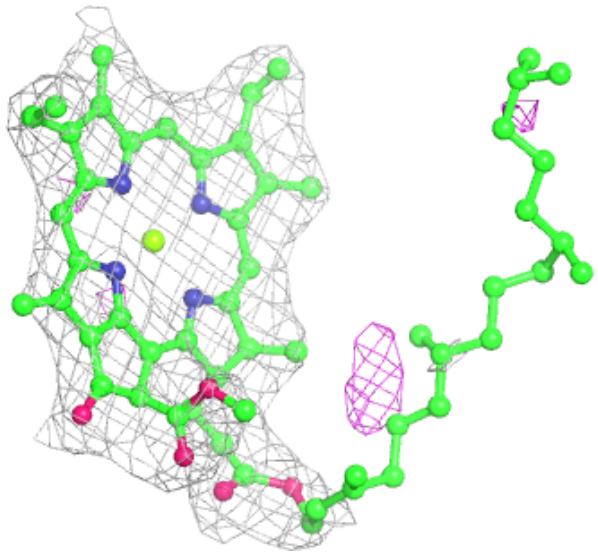
Electron density around BCR Y 101:

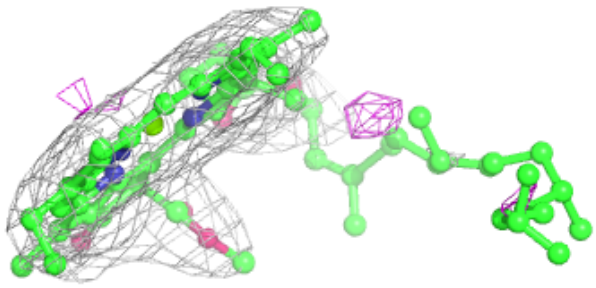
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

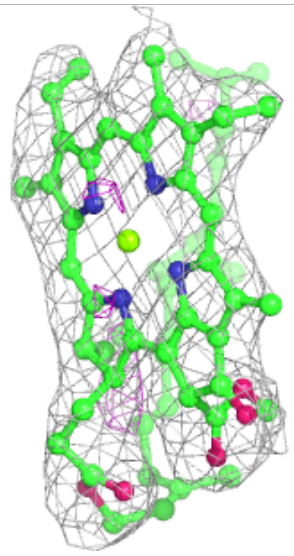


Electron density around CLA B 617:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

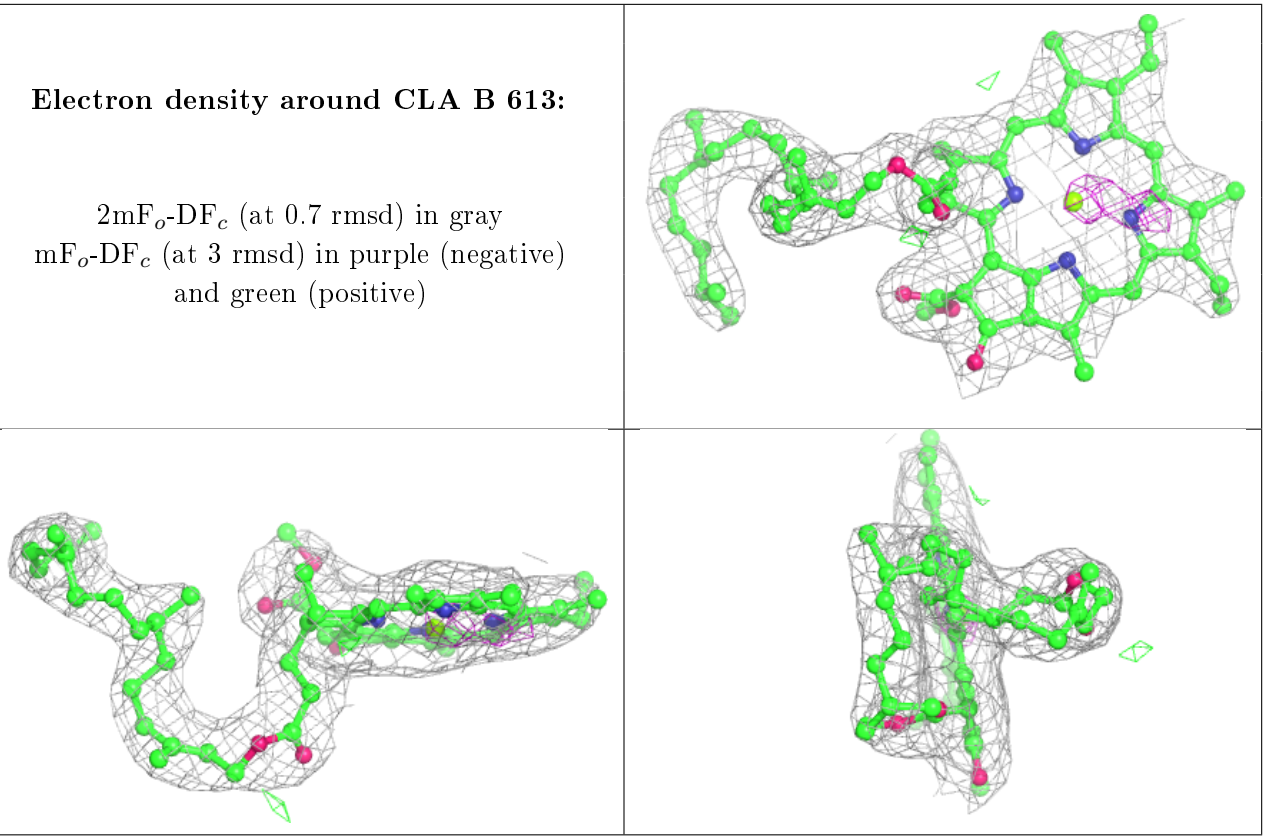






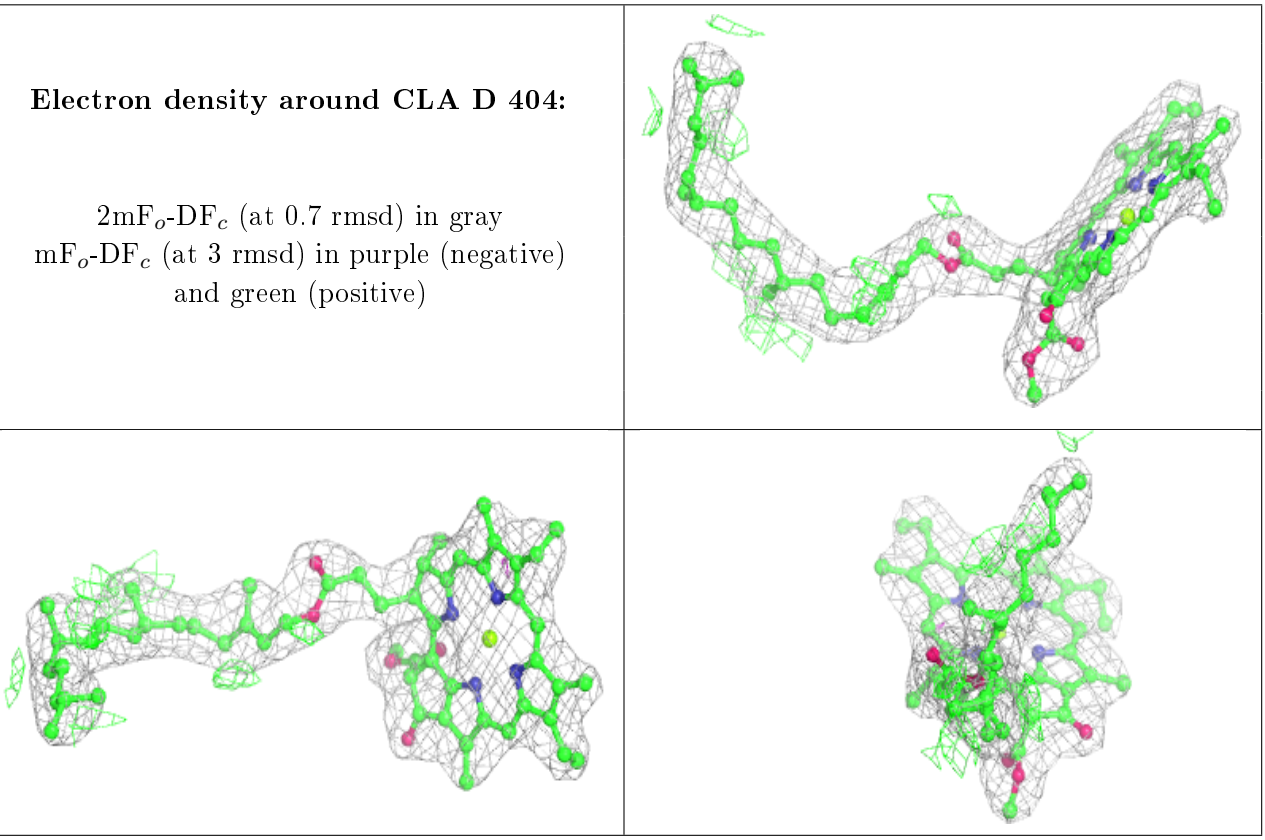
Electron density around CLA B 613:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



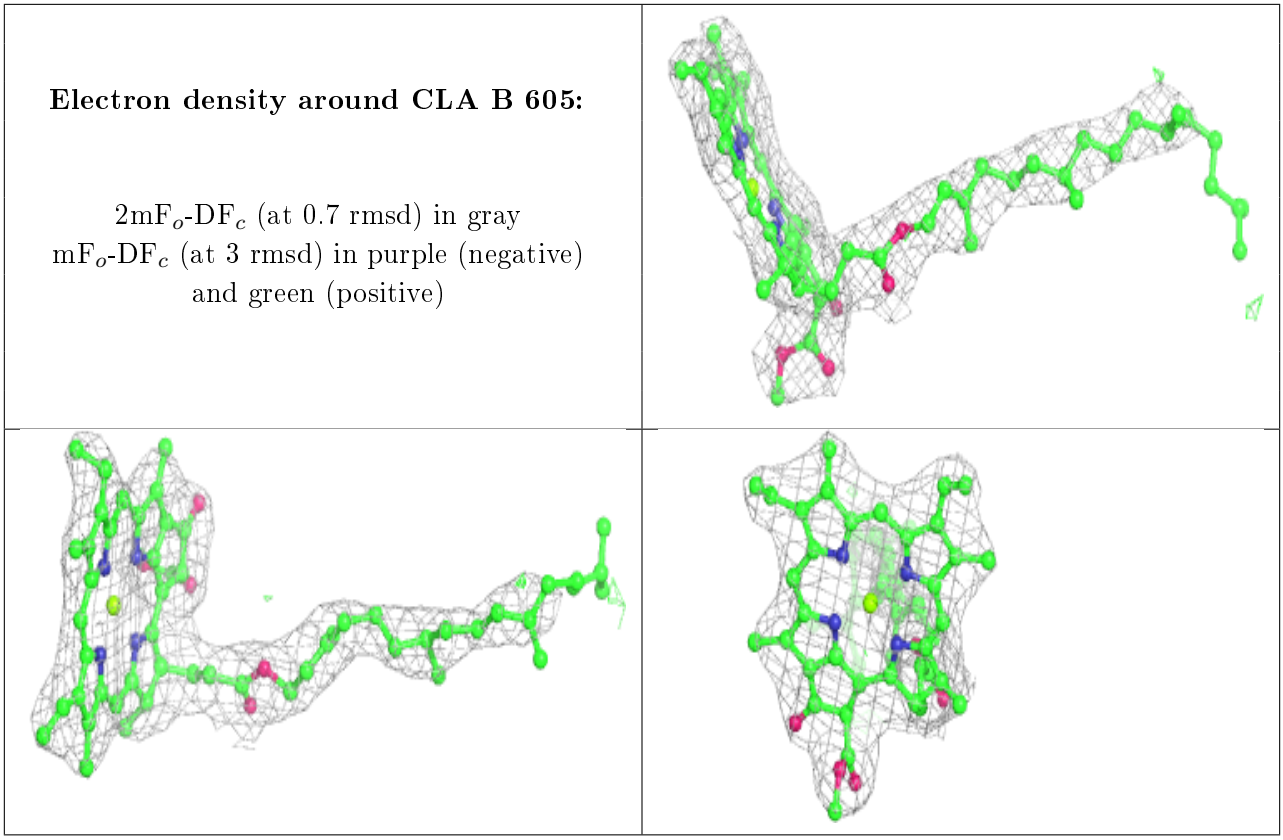
Electron density around CLA D 404:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



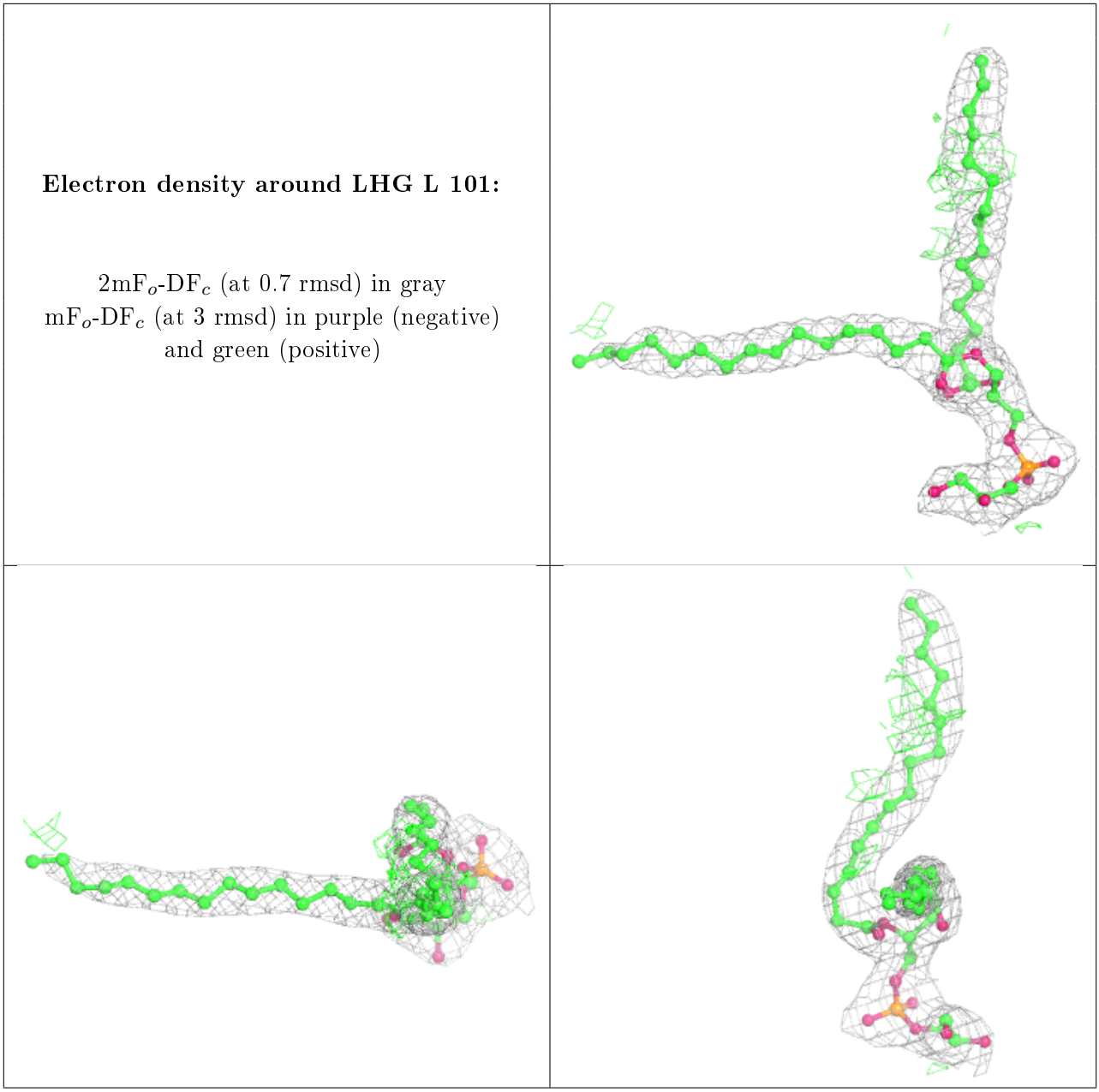
Electron density around CLA B 605:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



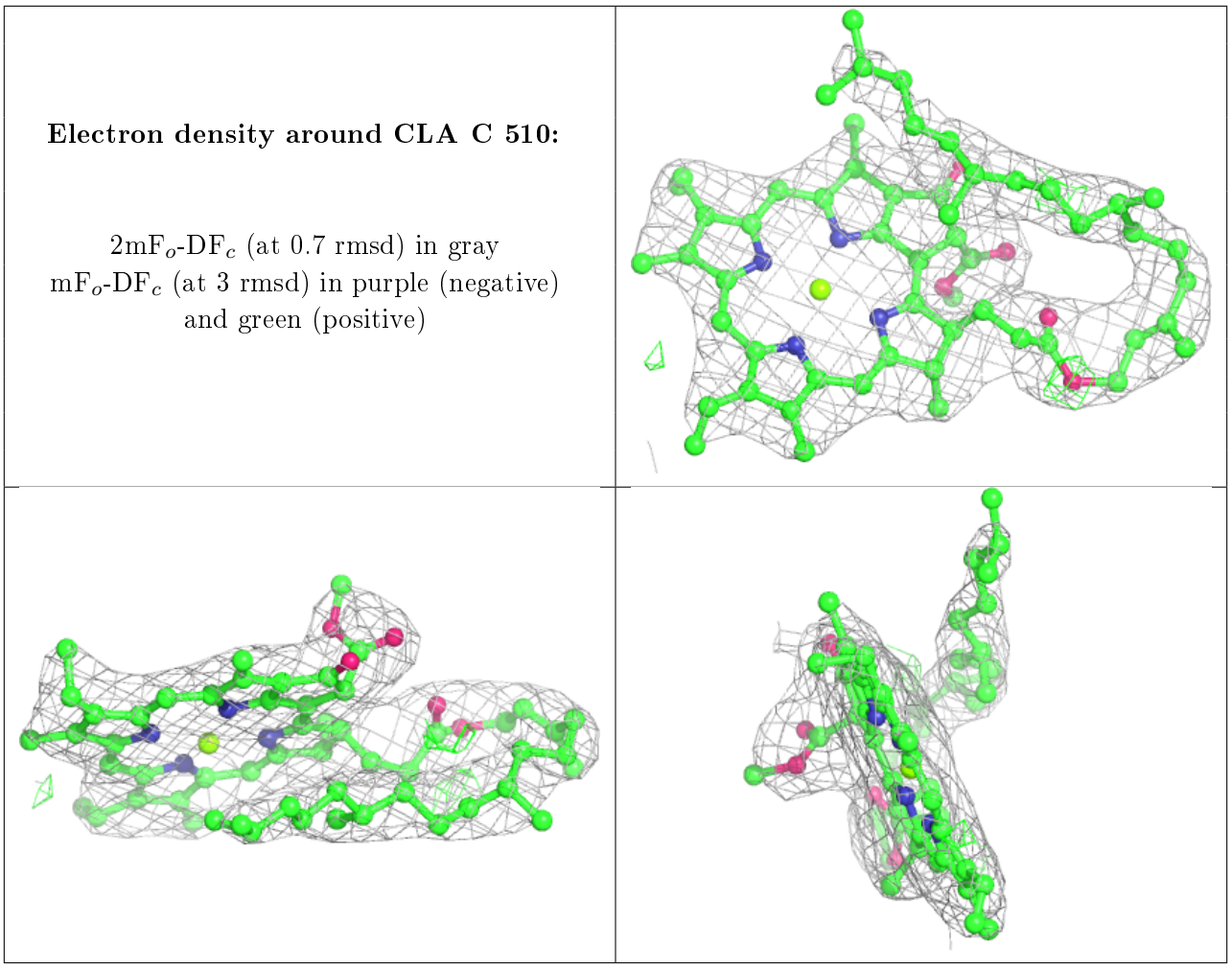
Electron density around LHG L 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



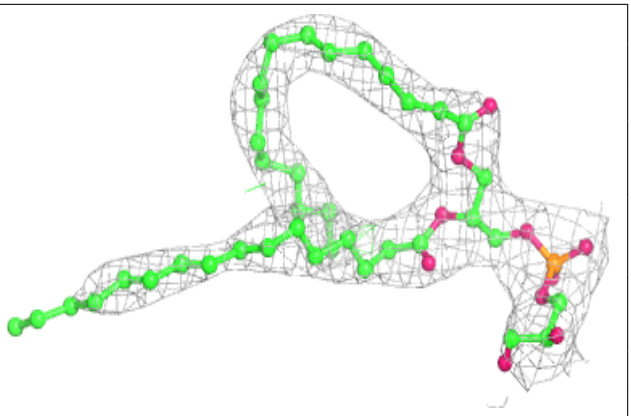
Electron density around CLA C 510:

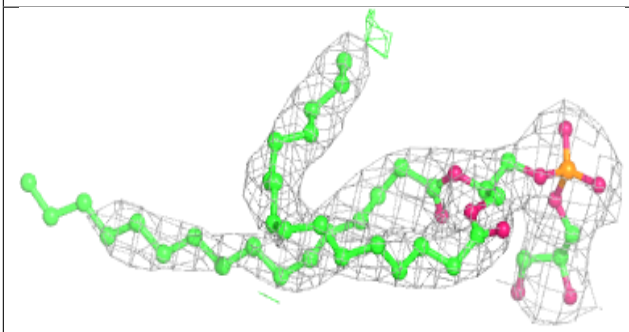
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

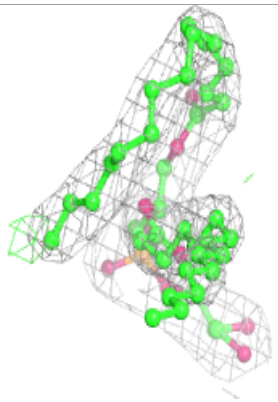


Electron density around LHG d 406:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

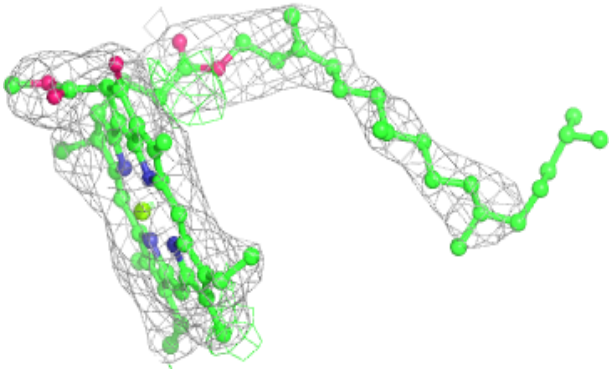


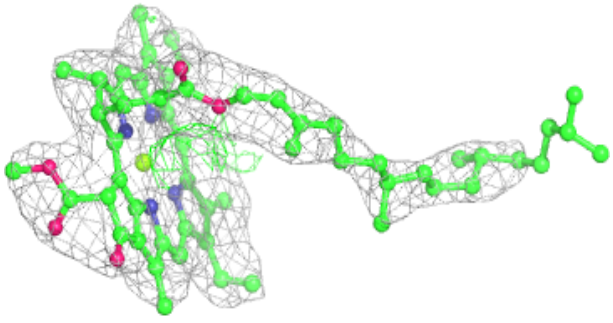


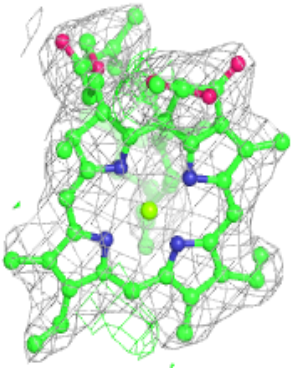


Electron density around CLA C 509:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

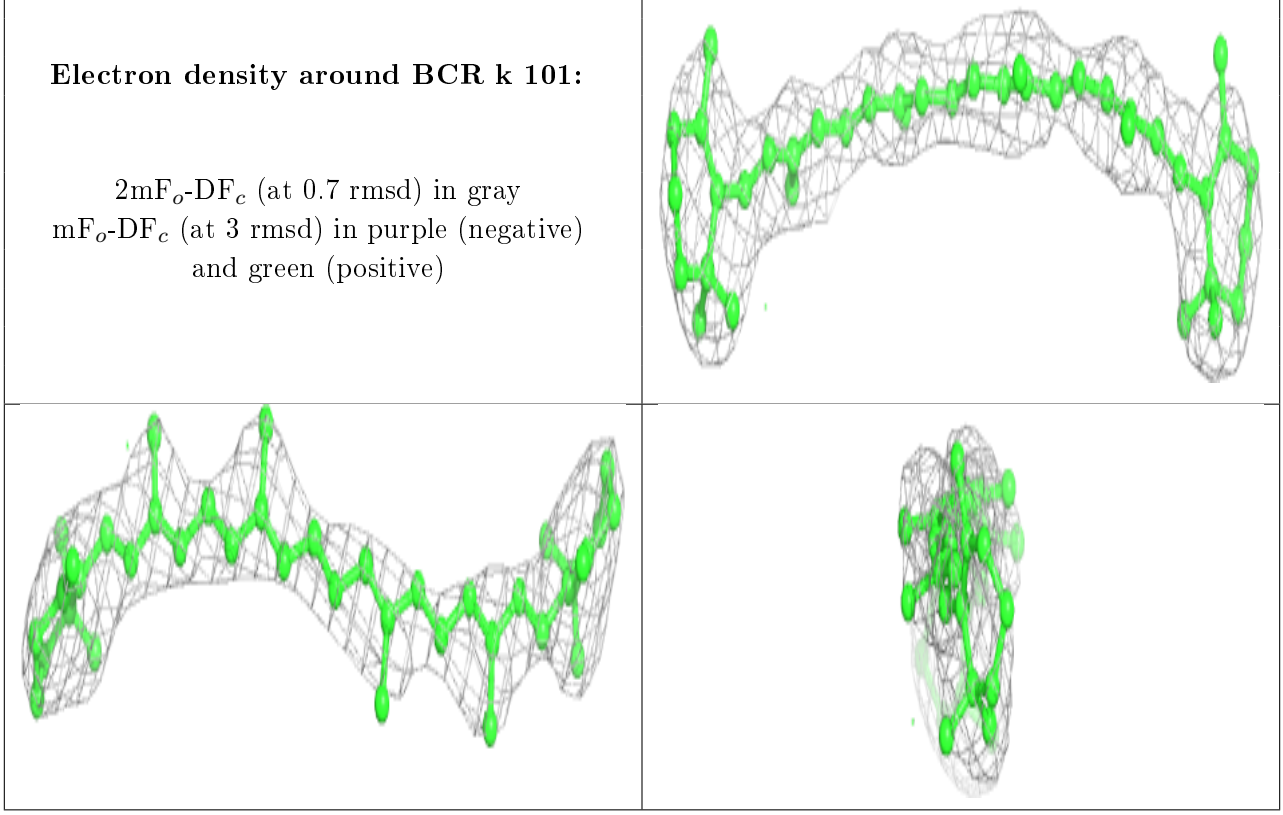






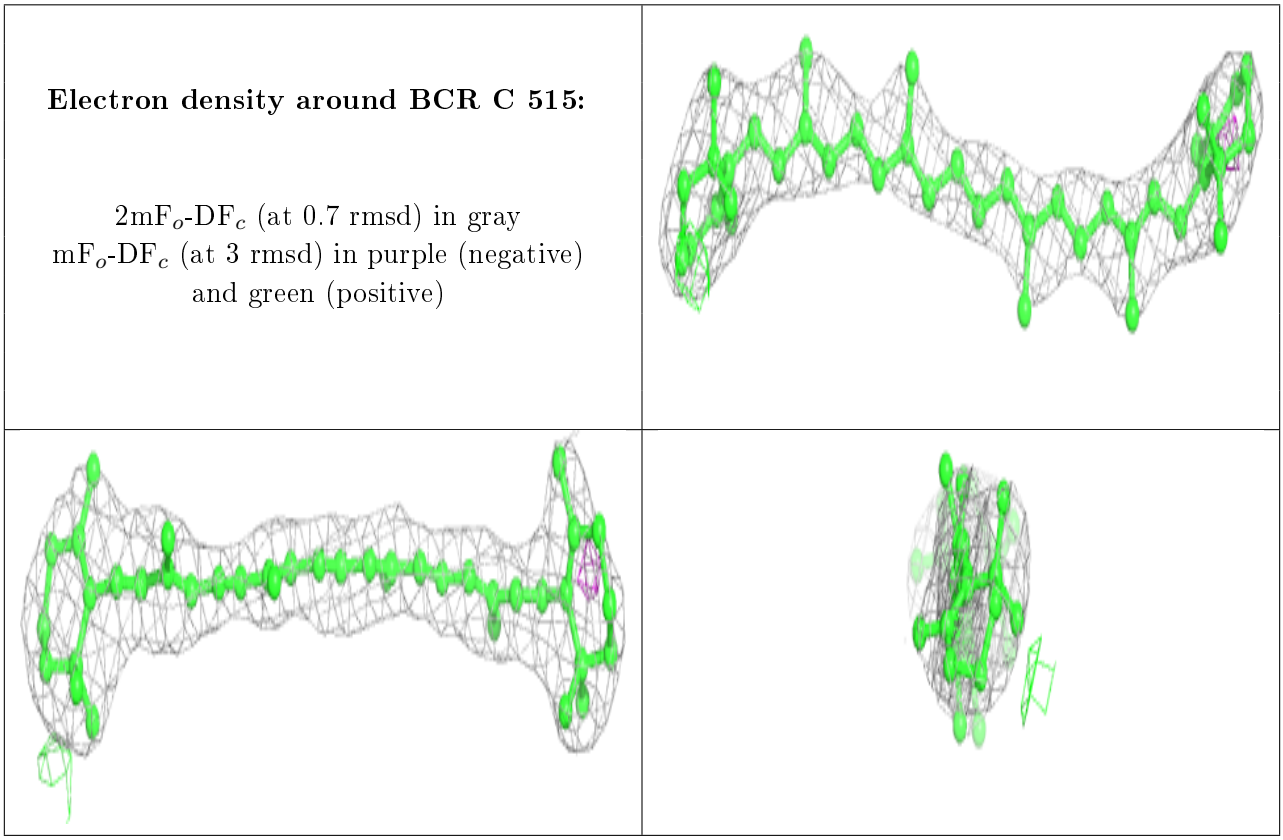
Electron density around BCR k 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



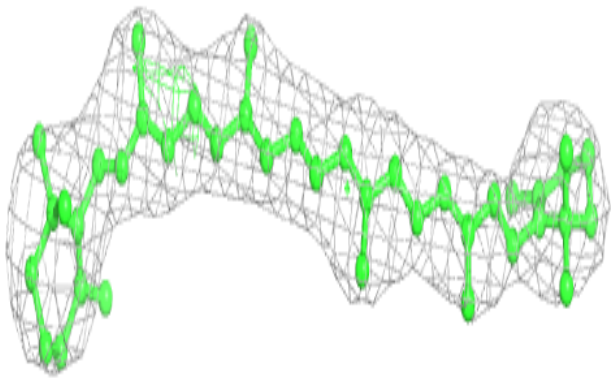
Electron density around BCR C 515:

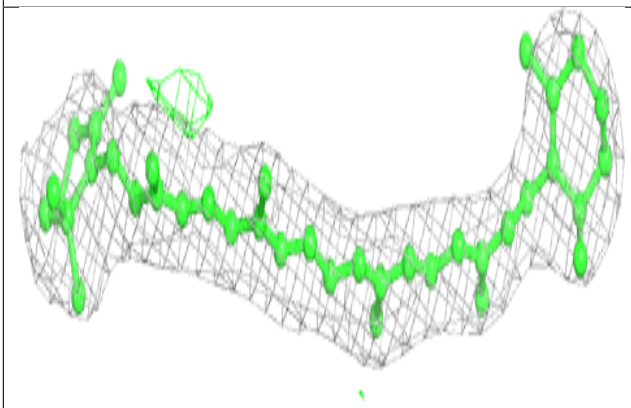
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

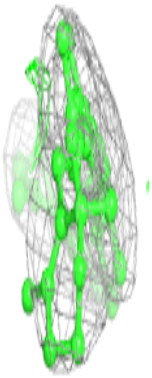


Electron density around BCR d 404:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

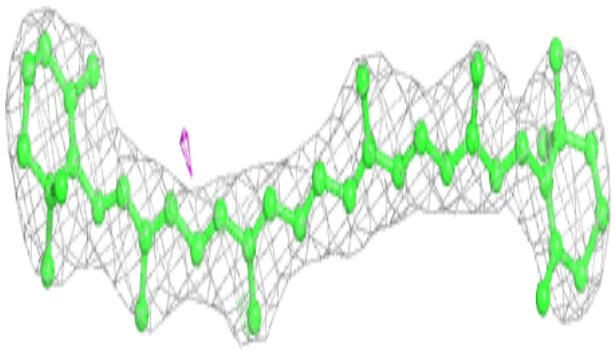


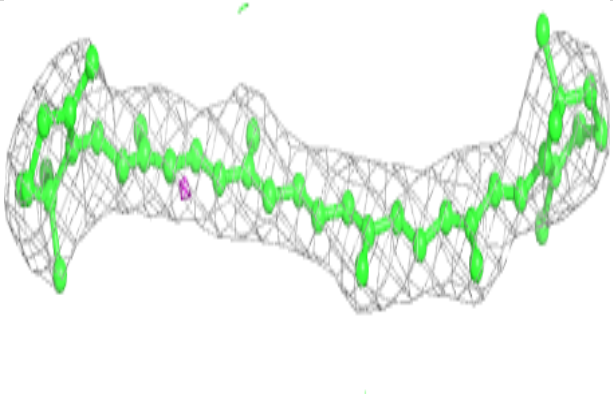


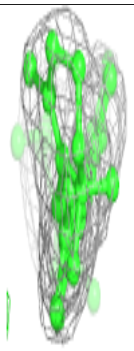


Electron density around BCR b 619:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

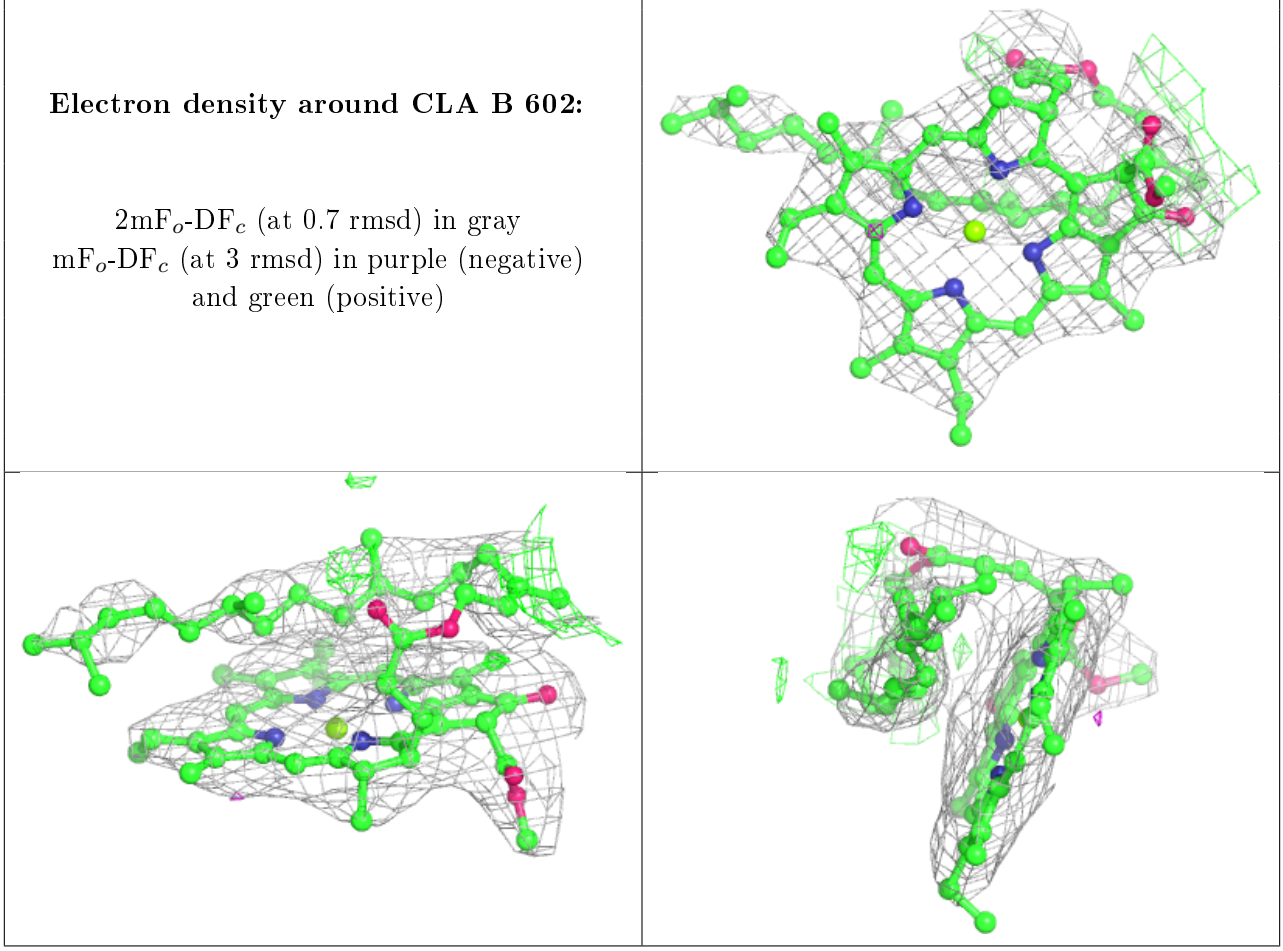






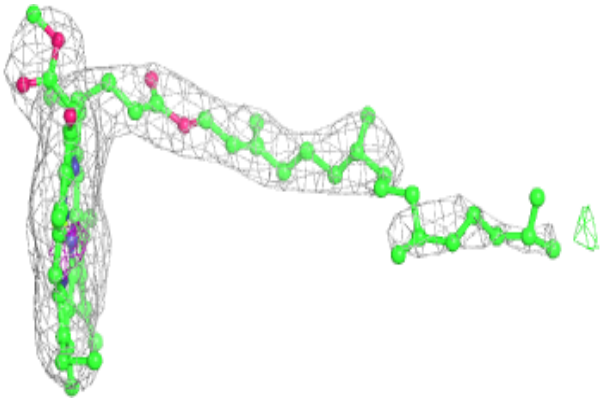
Electron density around CLA B 602:

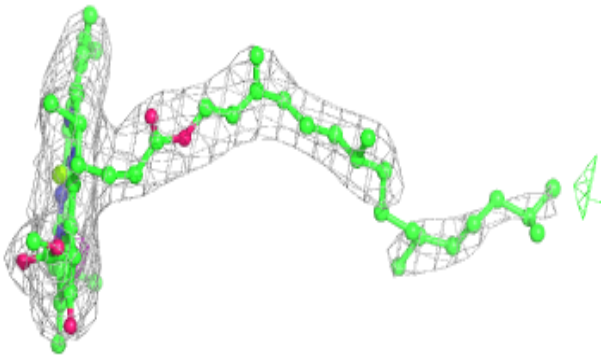
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

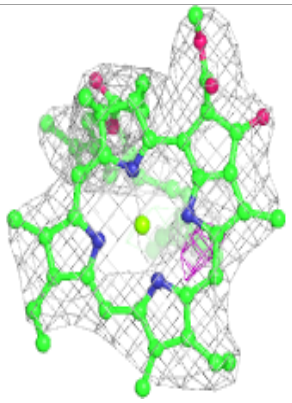


Electron density around CLA b 606:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

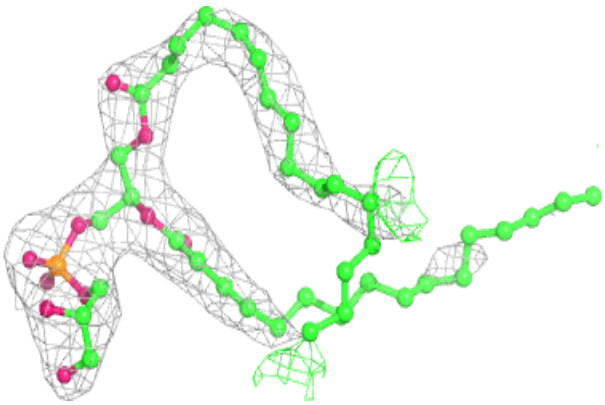


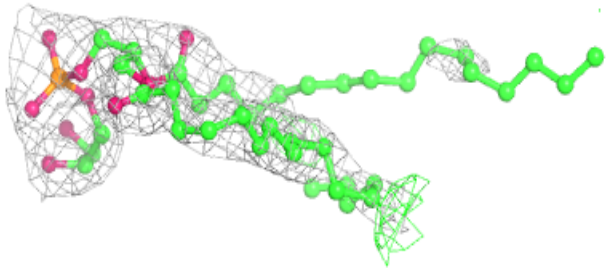


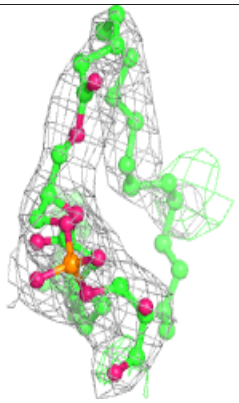


Electron density around LHG D 409:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

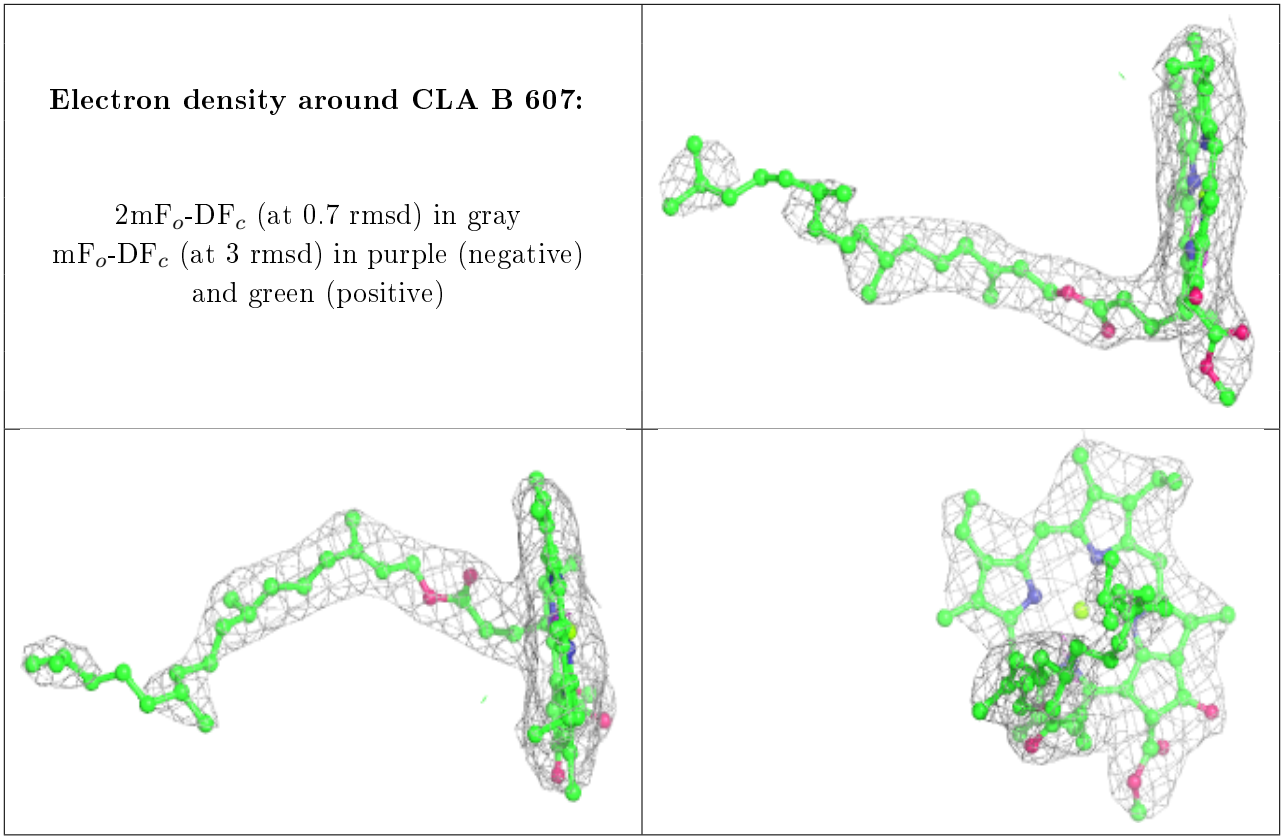






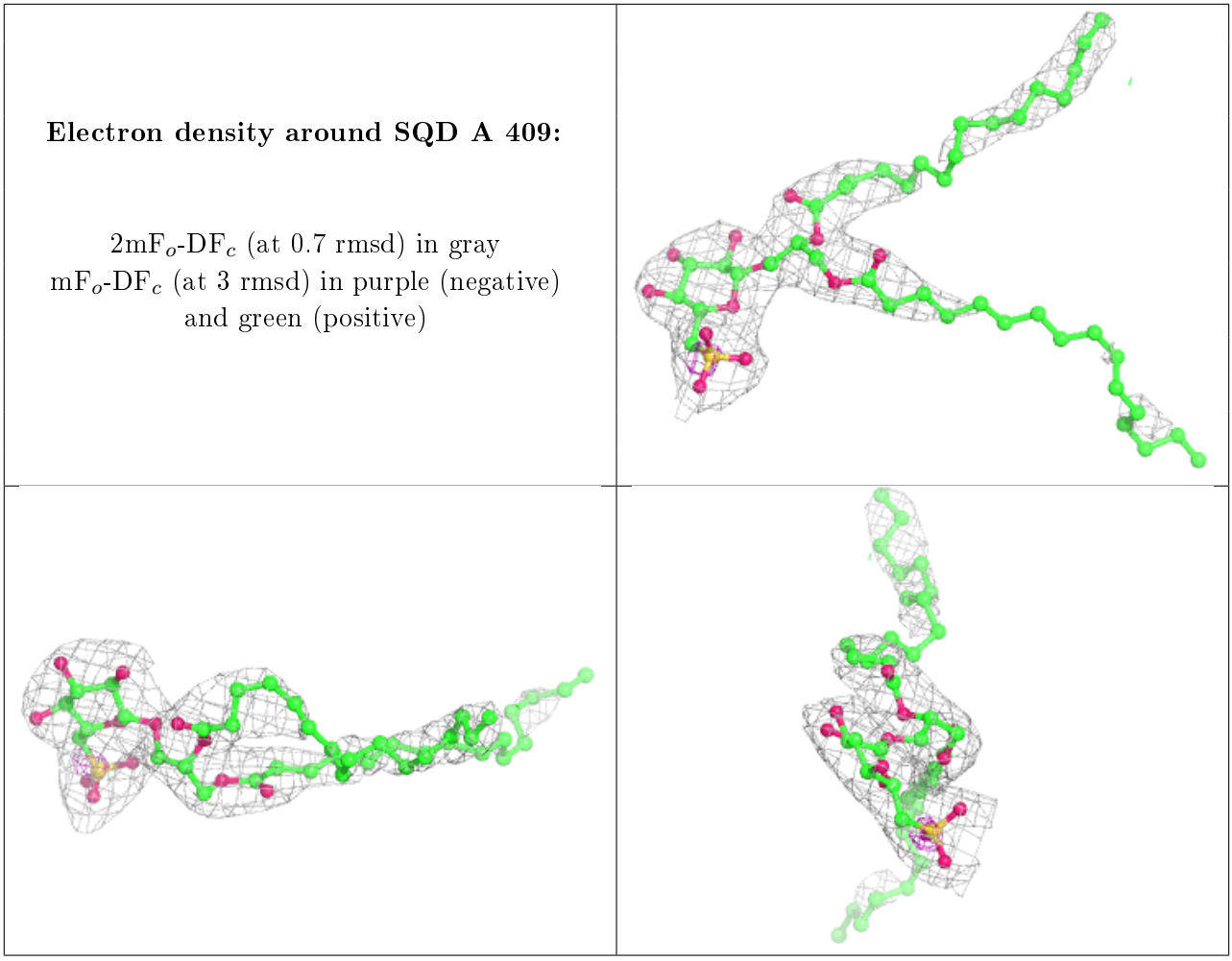
Electron density around CLA B 607:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



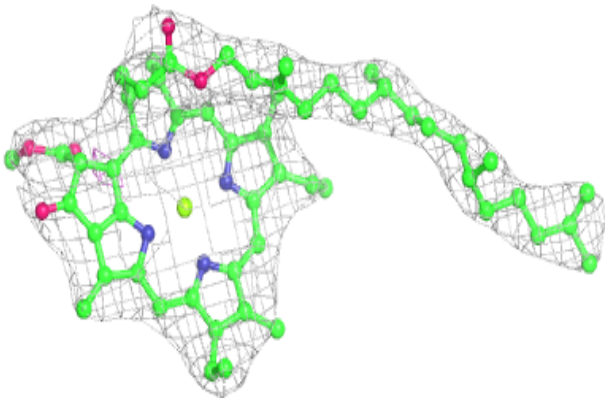
Electron density around SQD A 409:

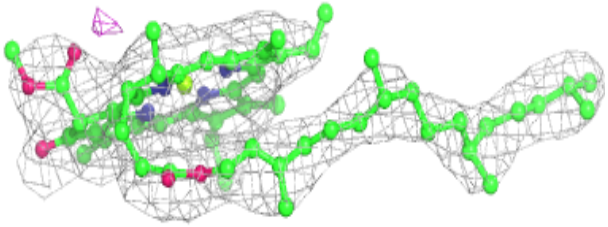
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

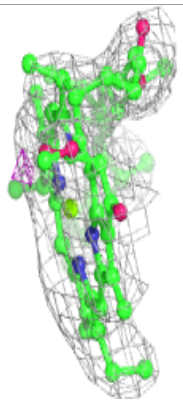


Electron density around CLA c 501:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

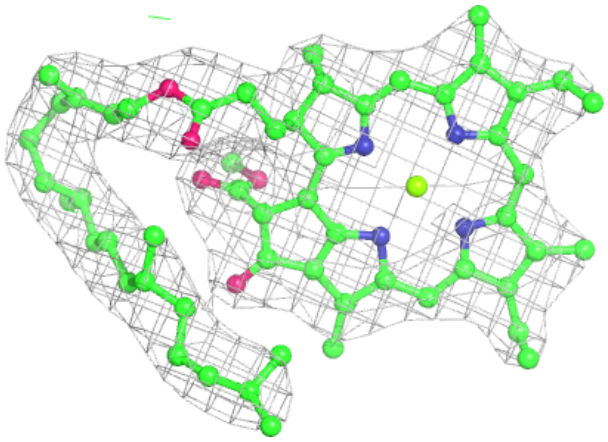


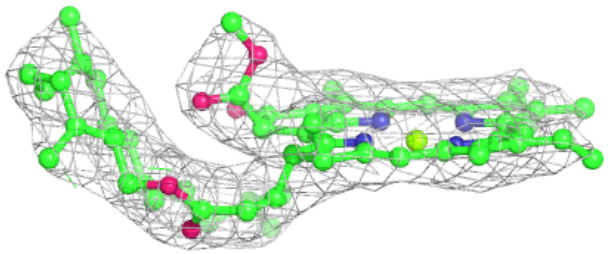


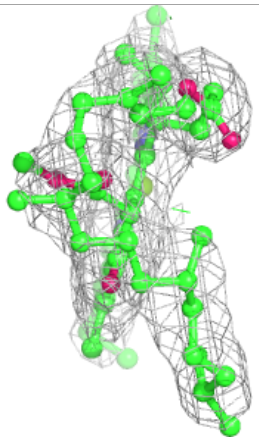


Electron density around CLA b 610:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

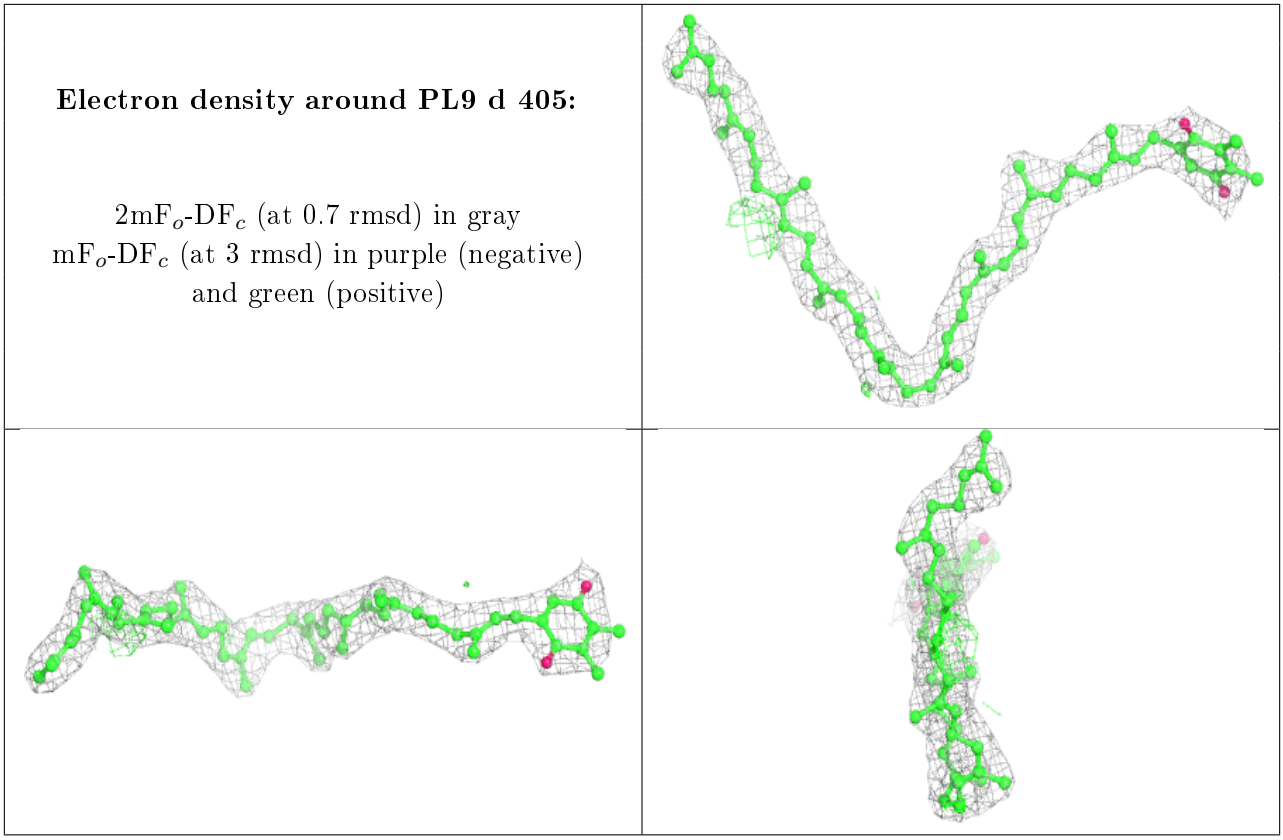






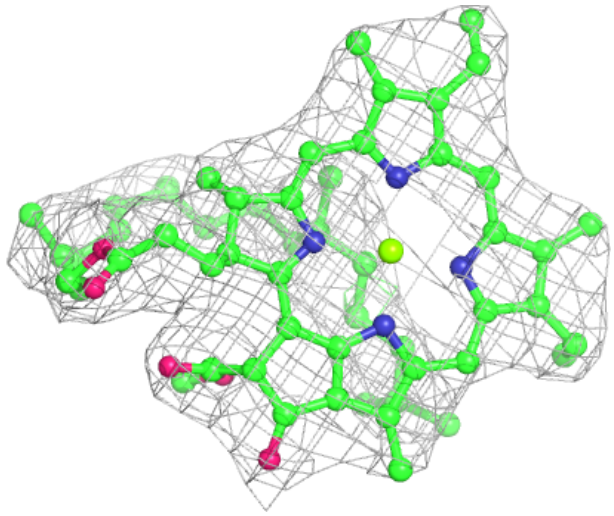
Electron density around PL9 d 405:

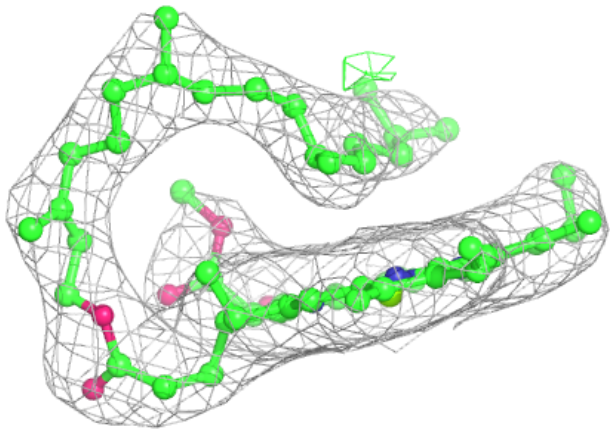
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

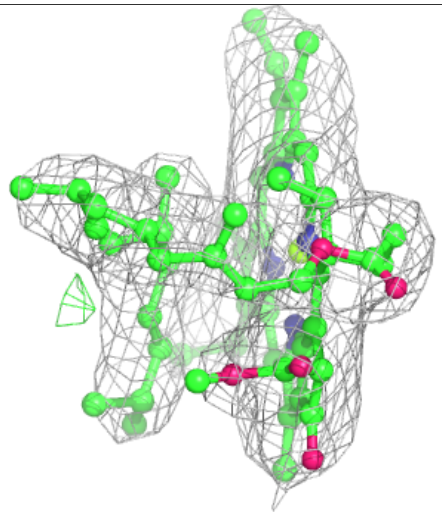


Electron density around CLA c 510:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

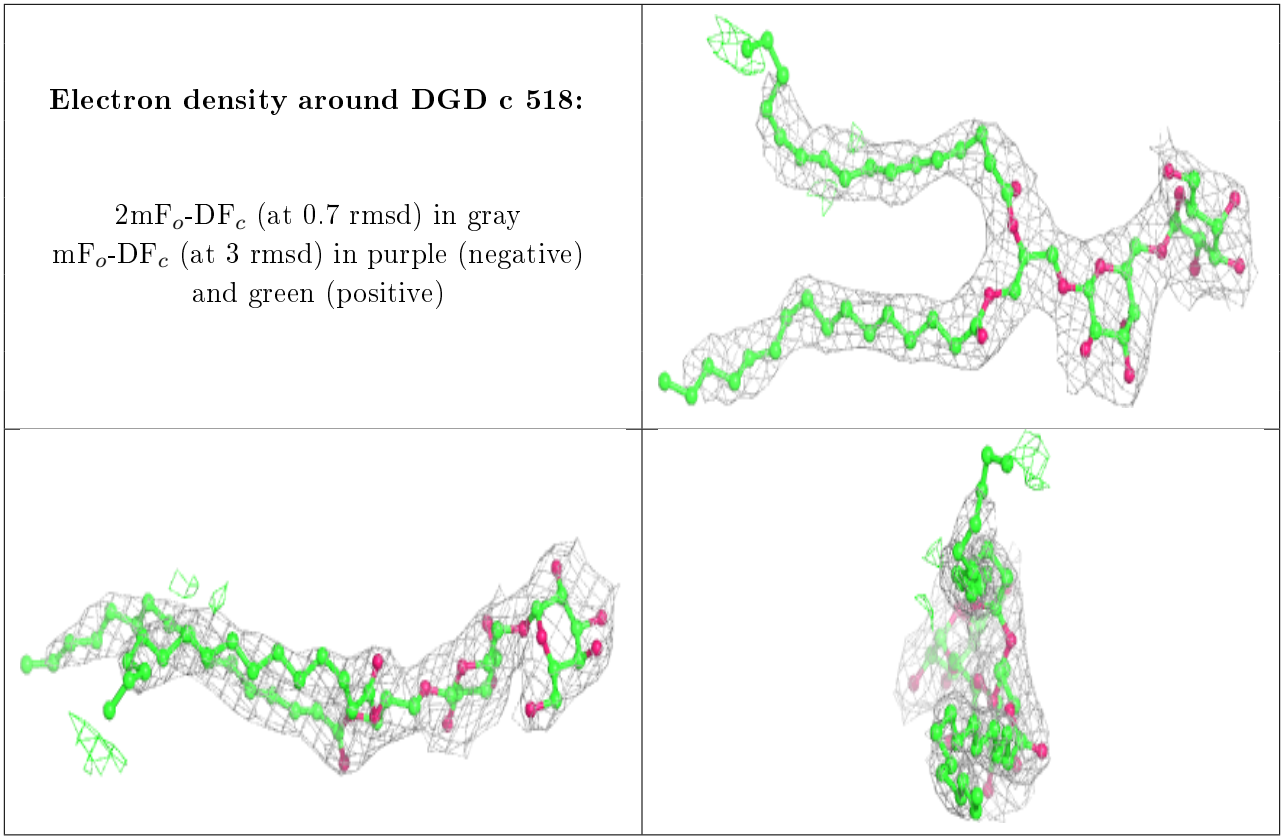






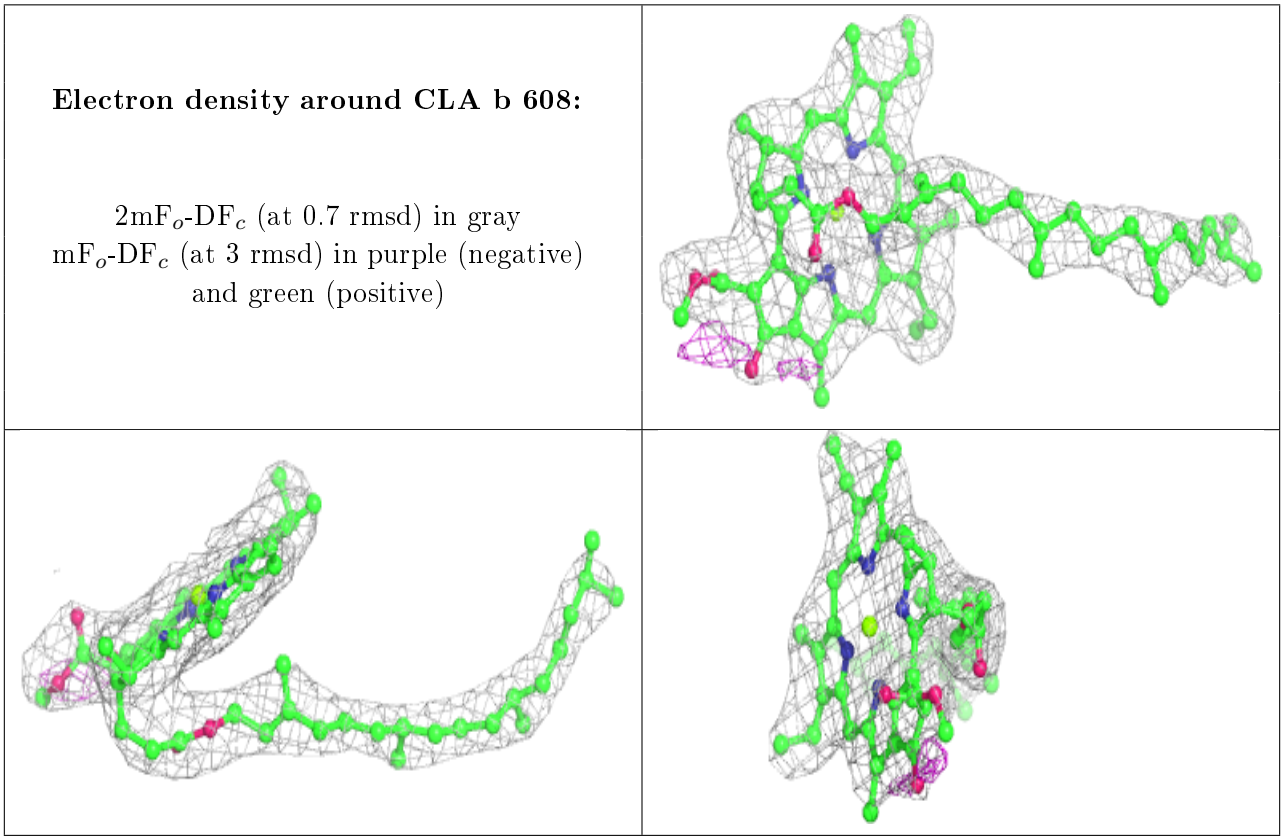
Electron density around DGD c 518:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



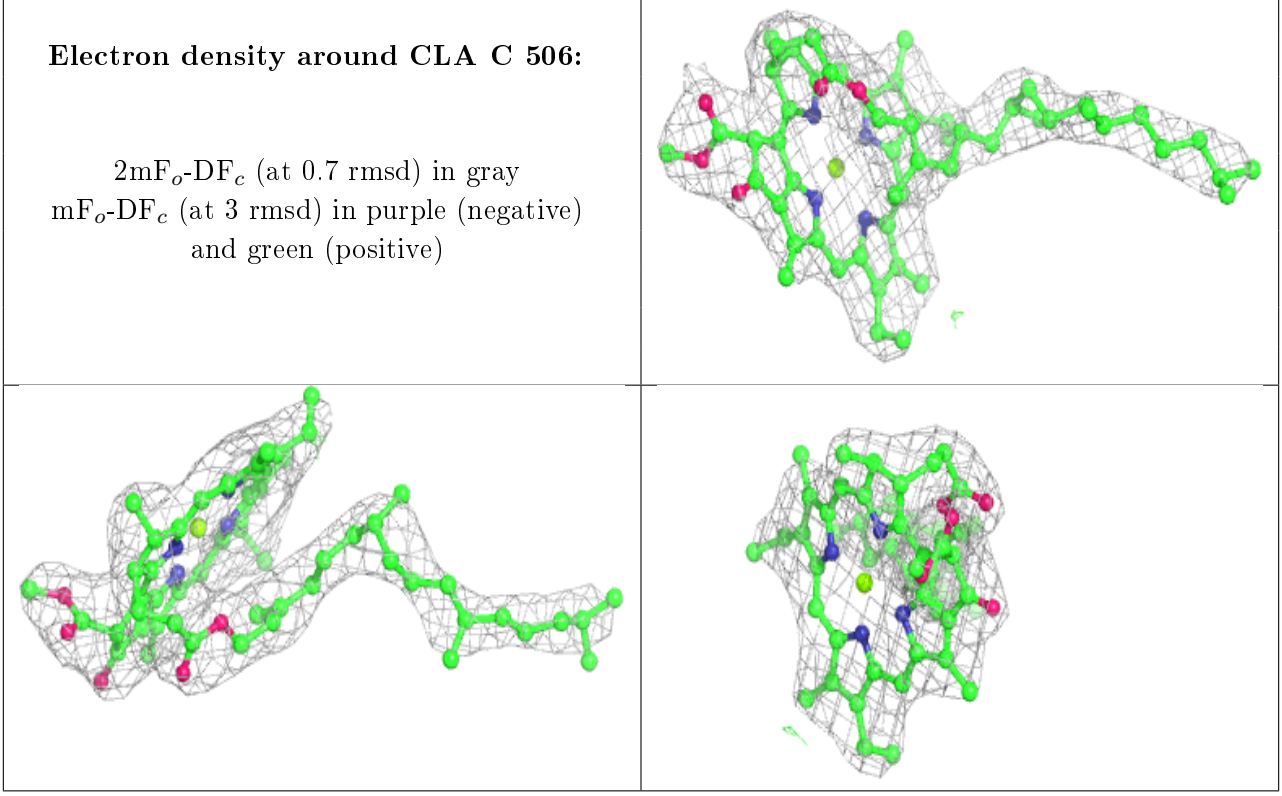
Electron density around CLA b 608:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



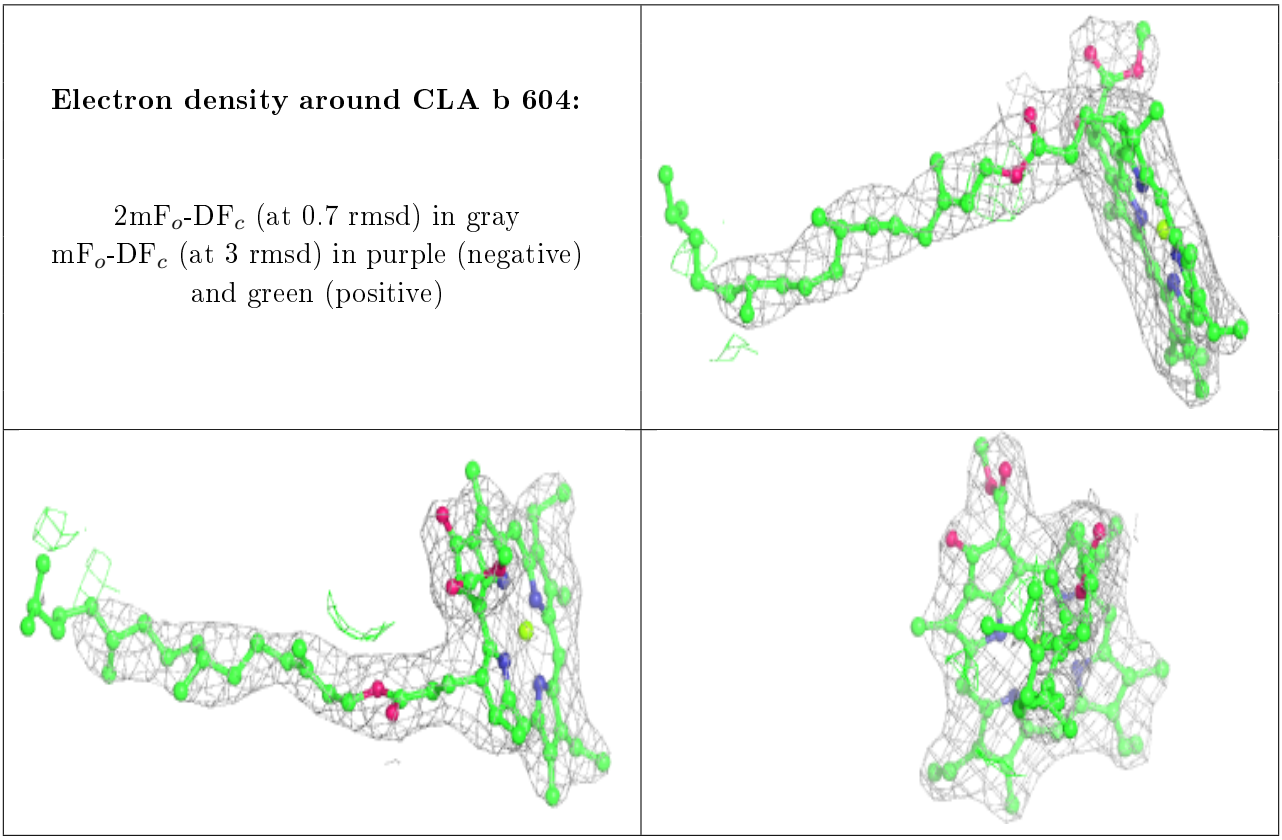
Electron density around CLA C 506:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



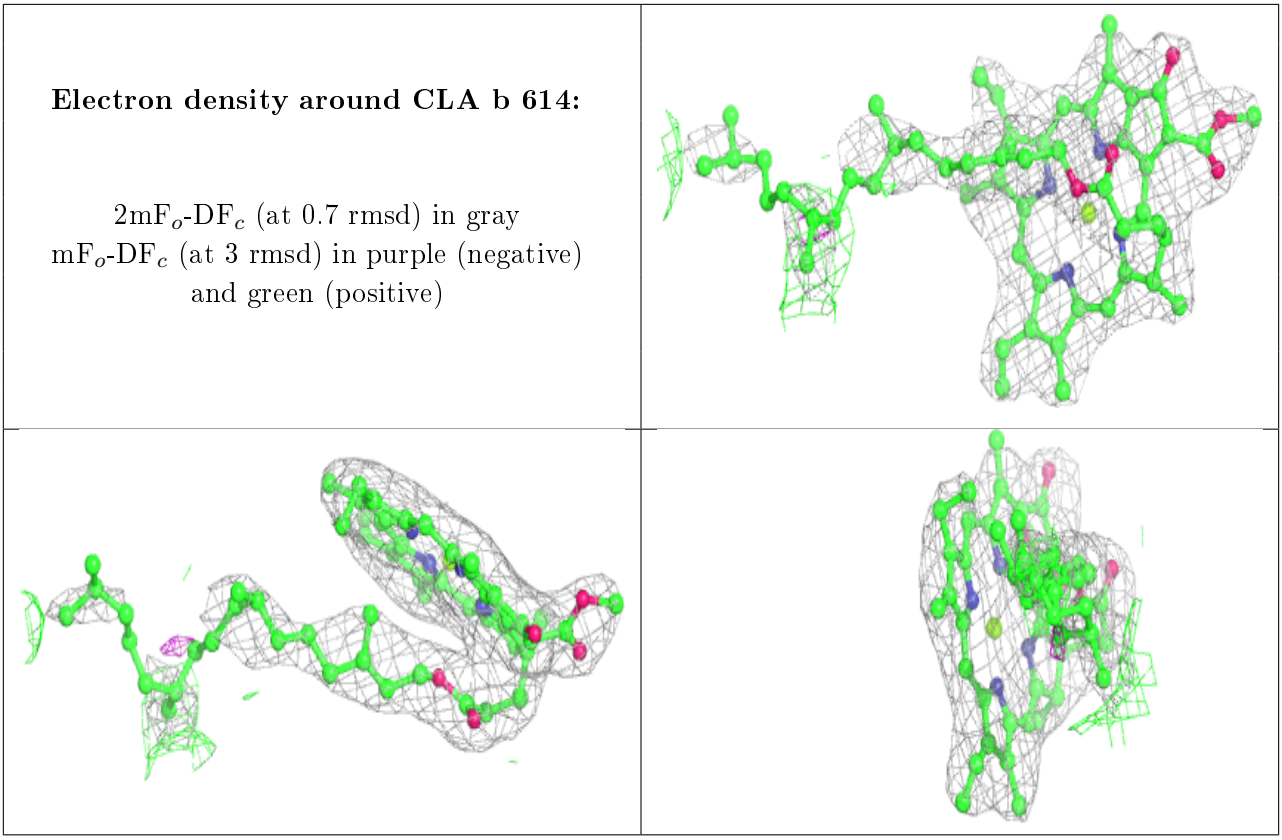
Electron density around CLA b 604:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



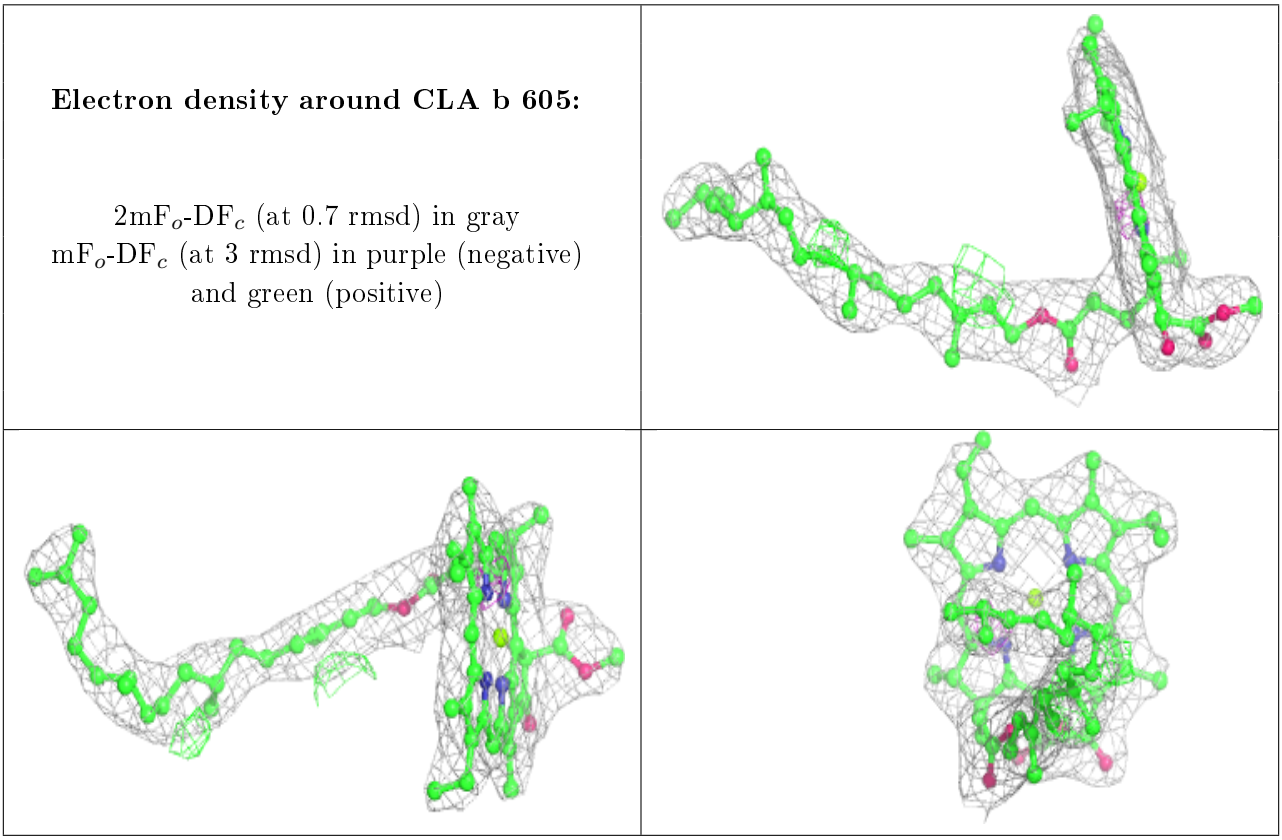
Electron density around CLA b 614:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



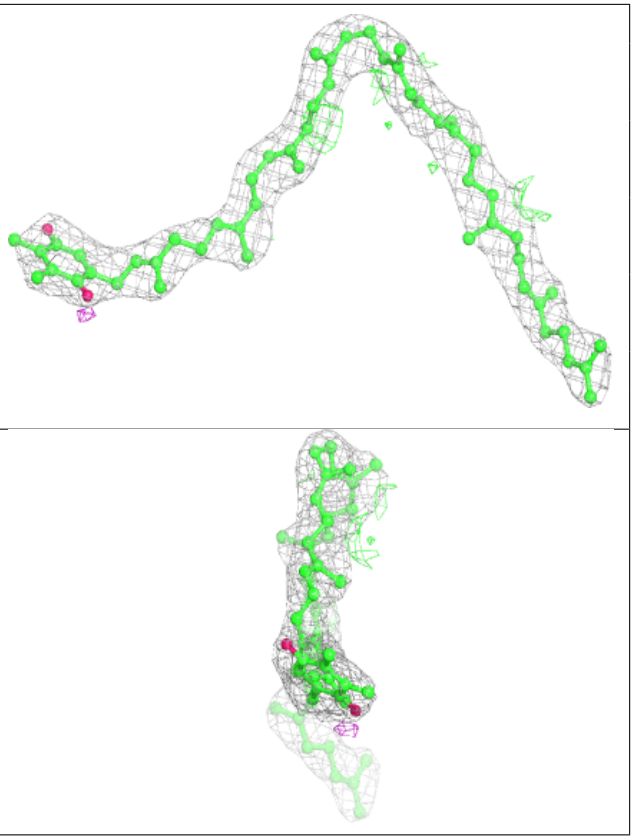
Electron density around CLA b 605:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



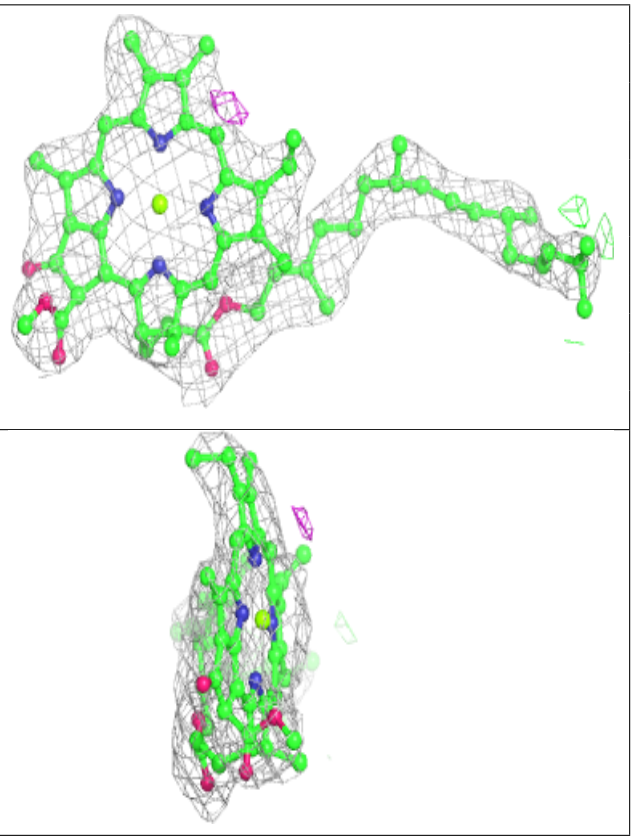
Electron density around PL9 D 407:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



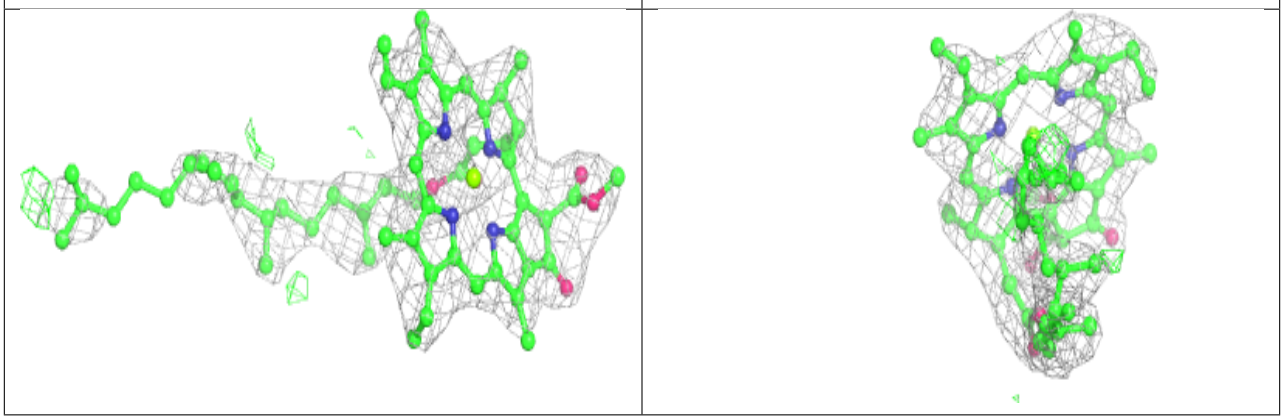
Electron density around CLA b 603:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



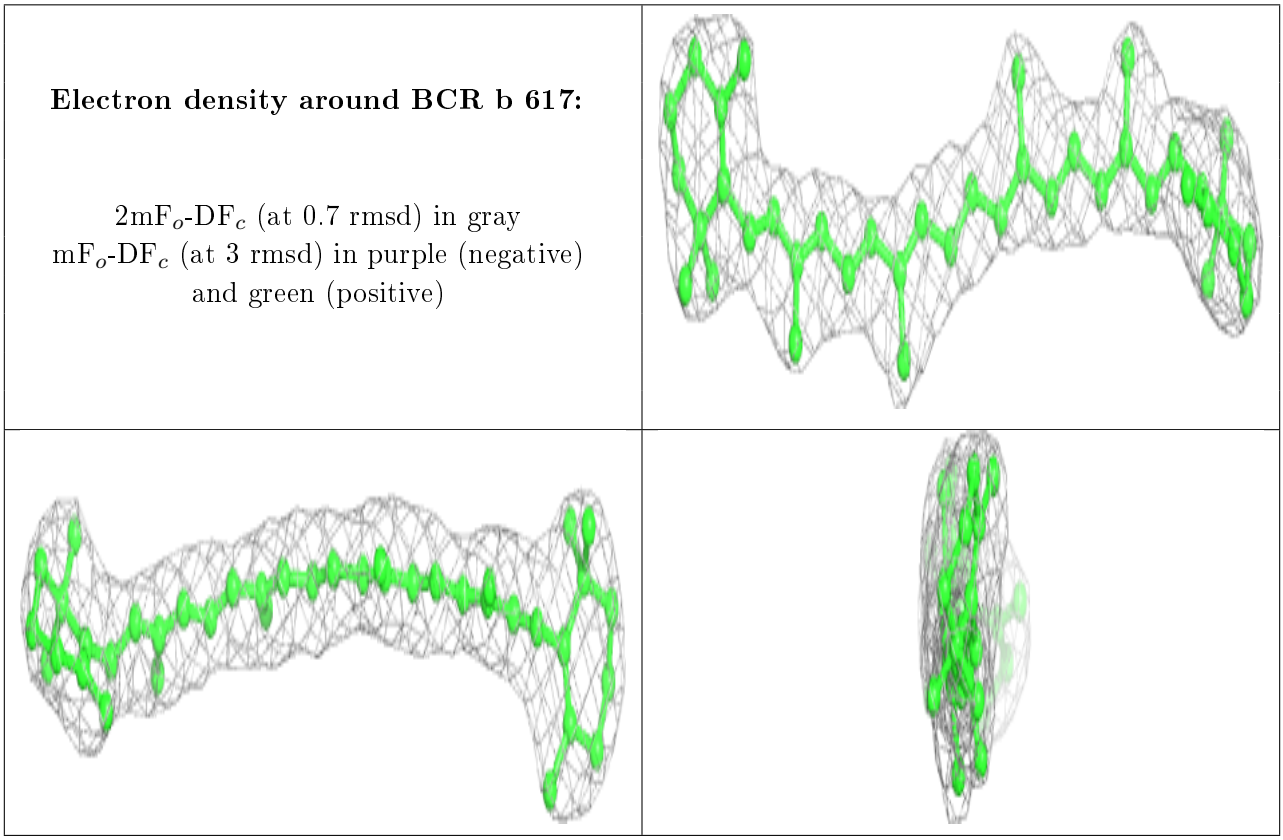
Electron density around CLA c 504:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



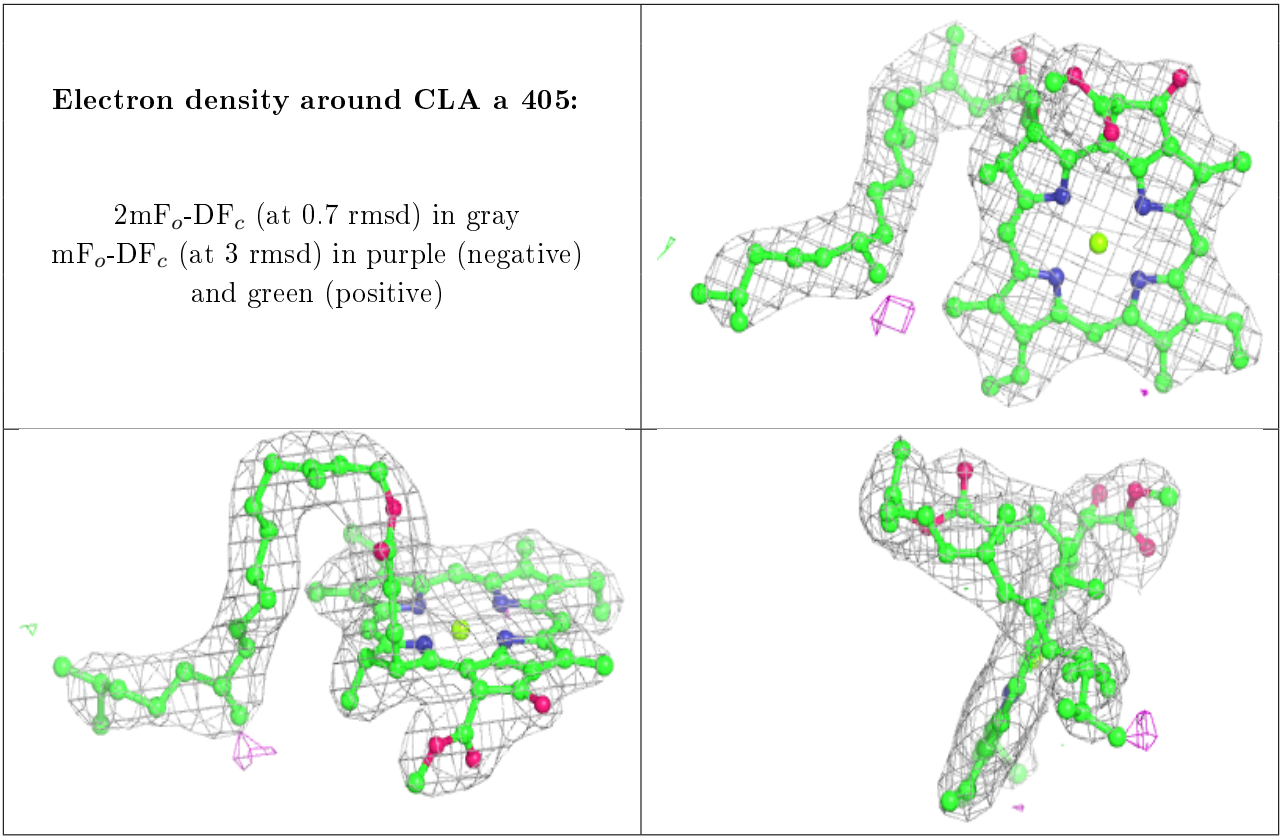
Electron density around BCR b 617:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



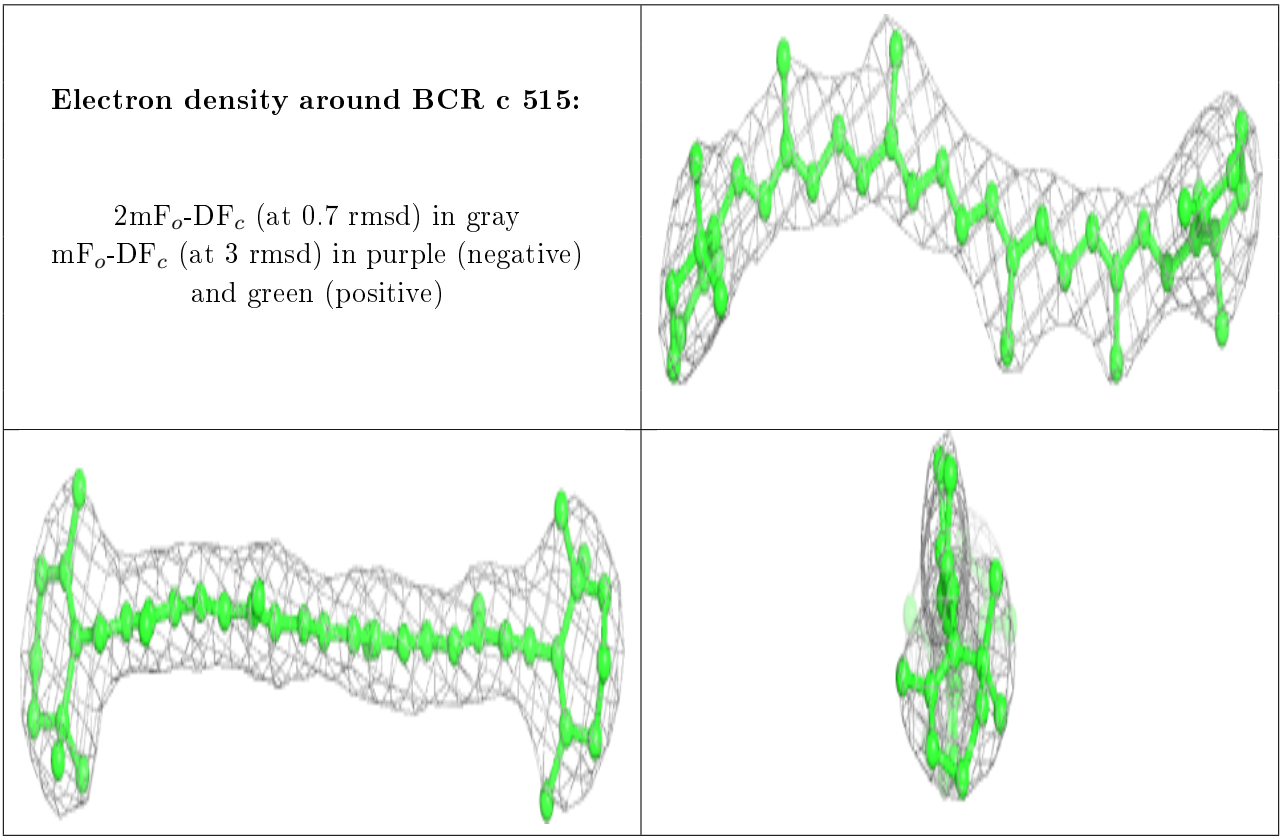
Electron density around CLA a 405:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



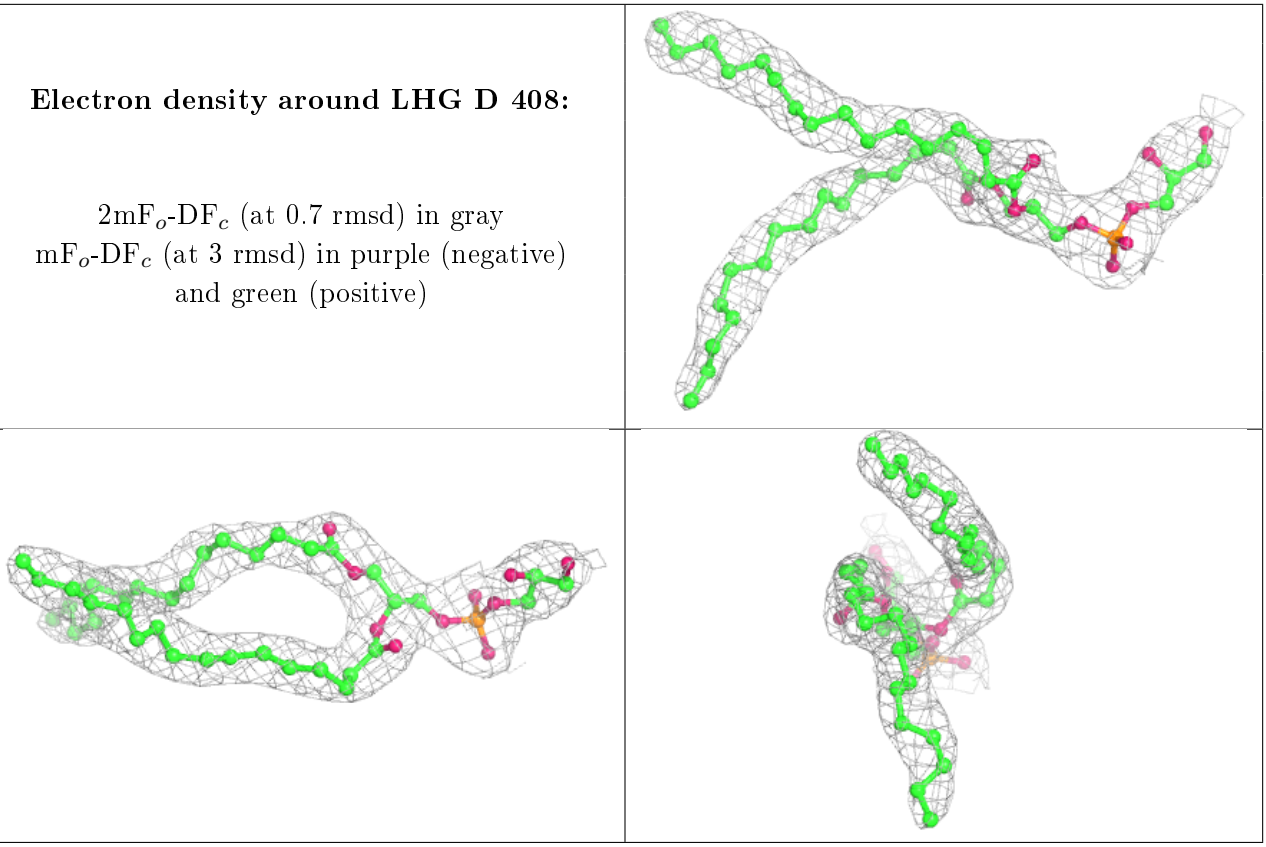
Electron density around BCR c 515:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



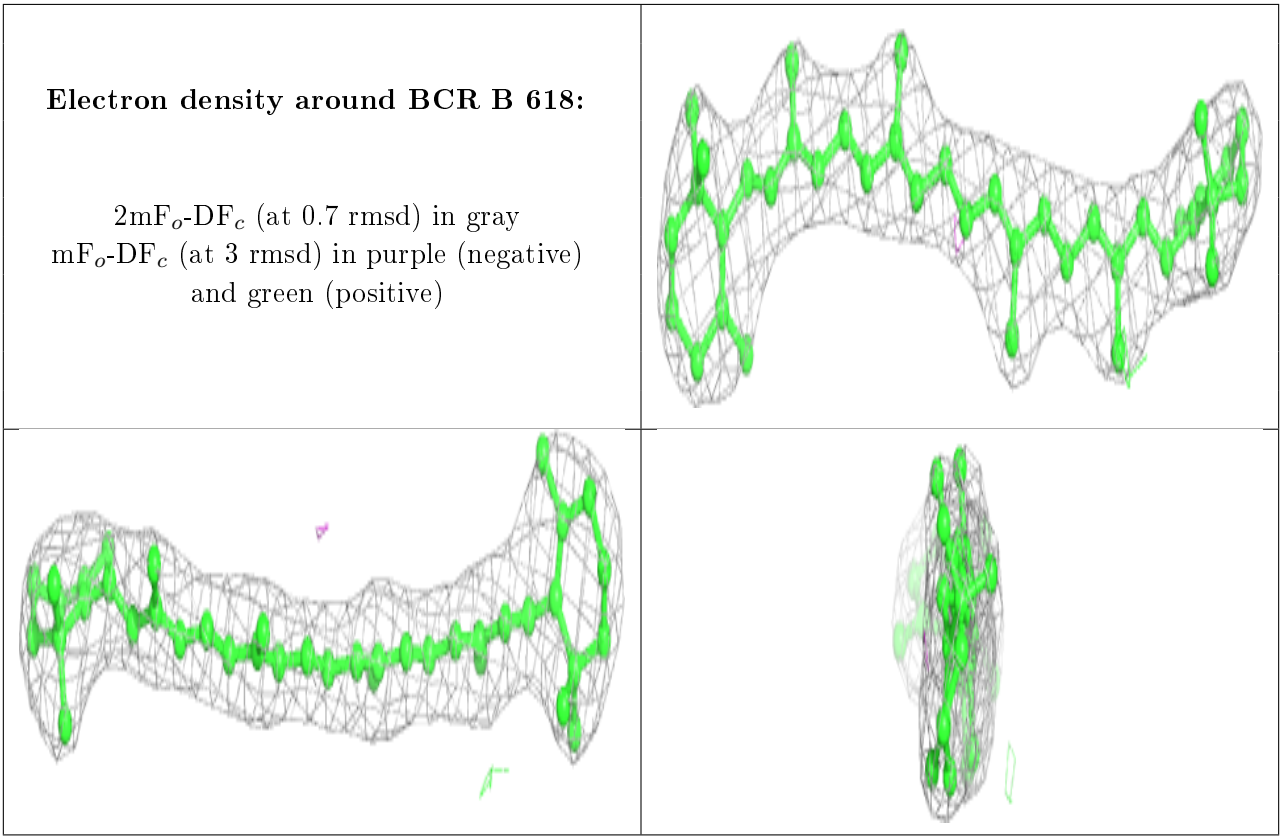
Electron density around LHG D 408:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



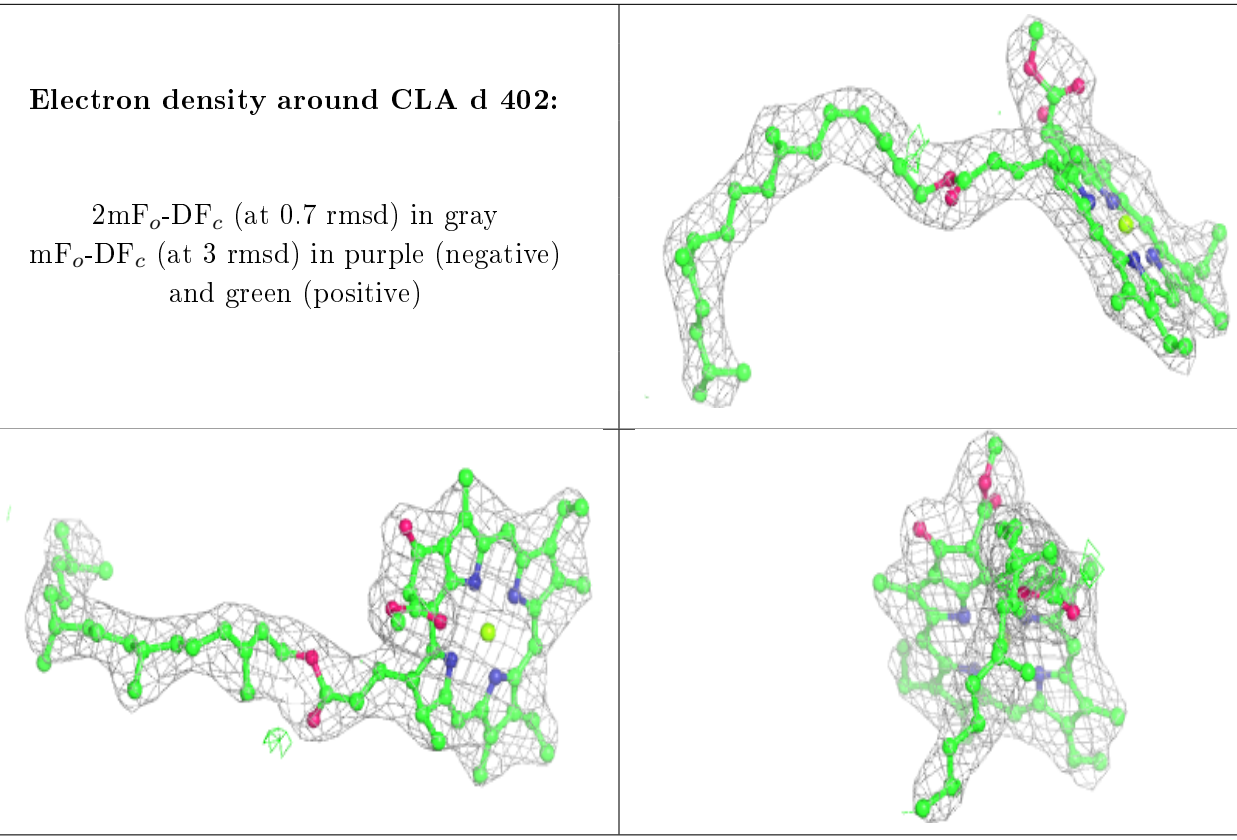
Electron density around BCR B 618:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



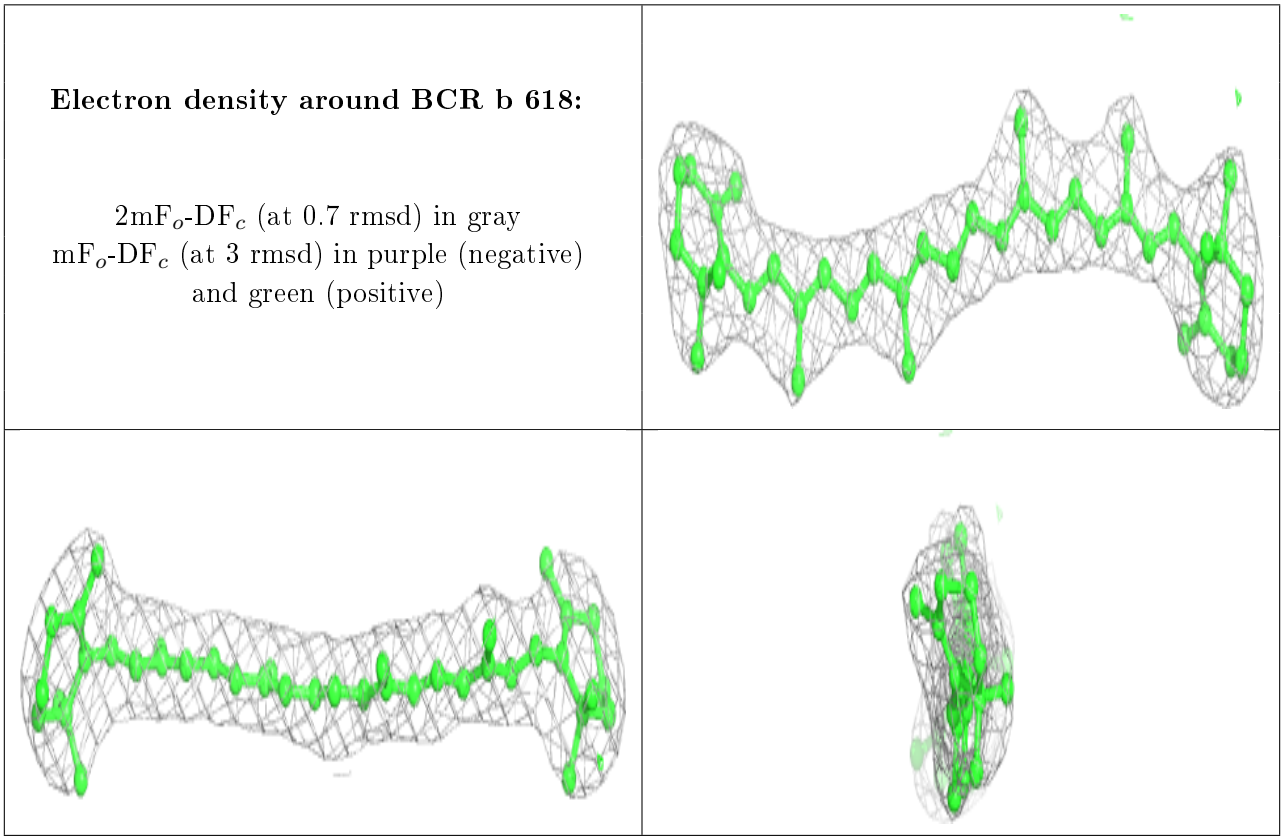
Electron density around CLA d 402:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



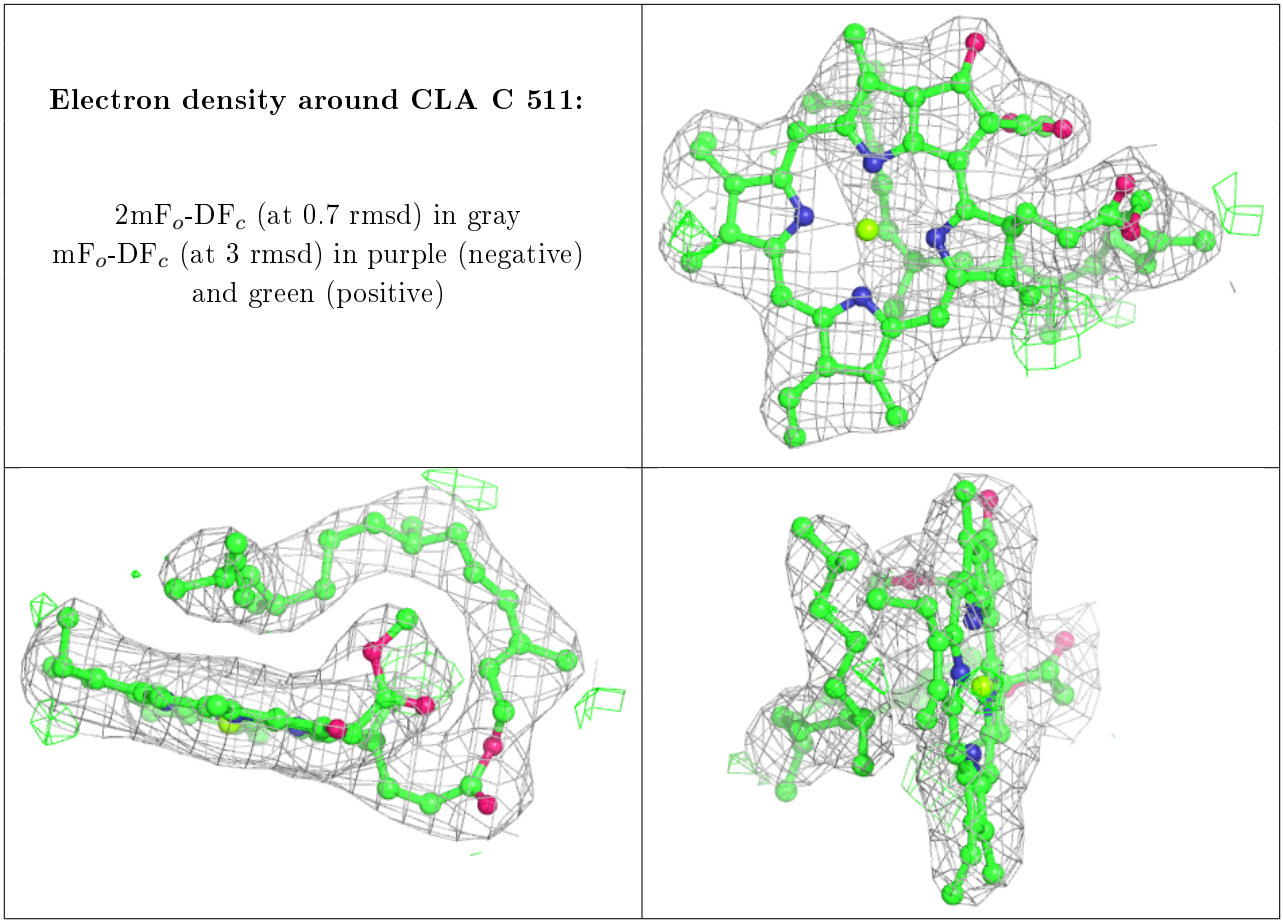
Electron density around BCR b 618:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



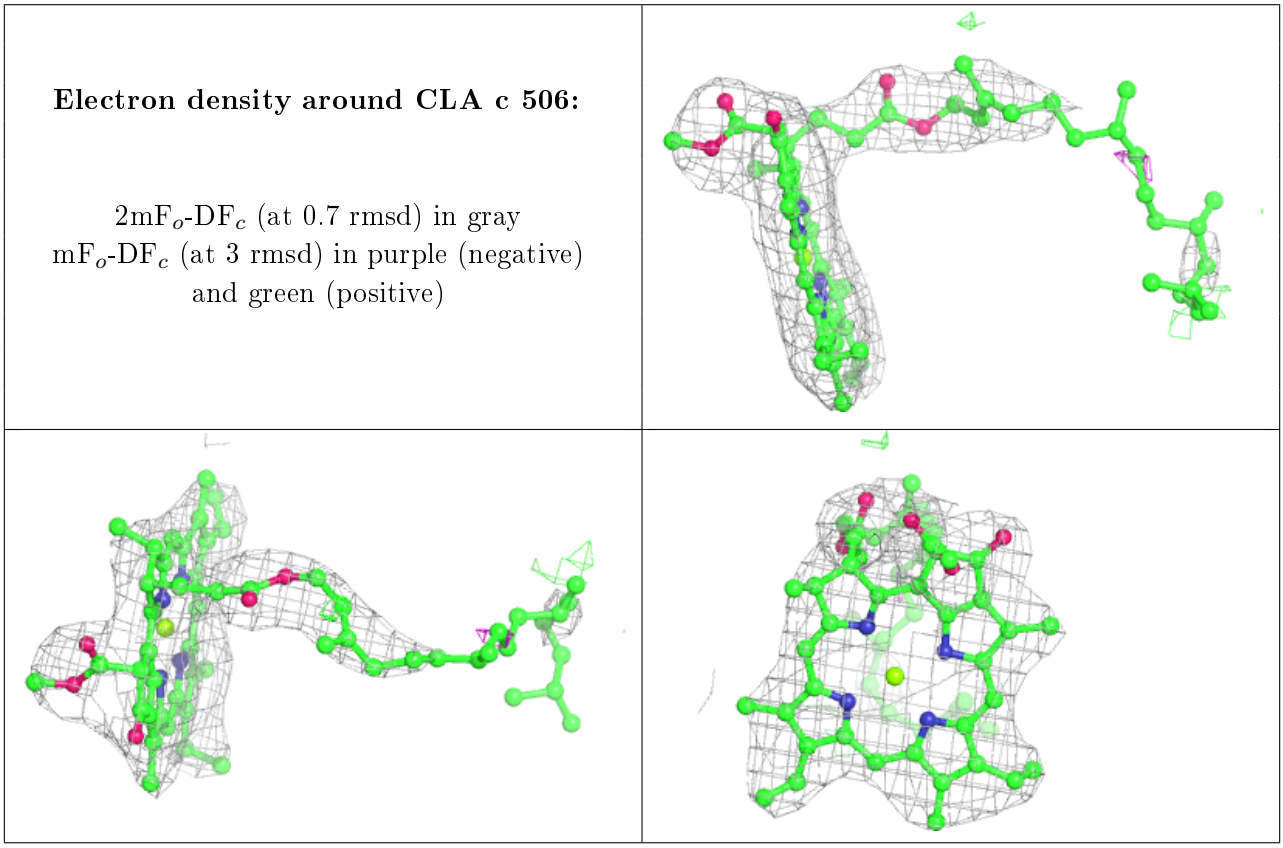
Electron density around CLA C 511:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



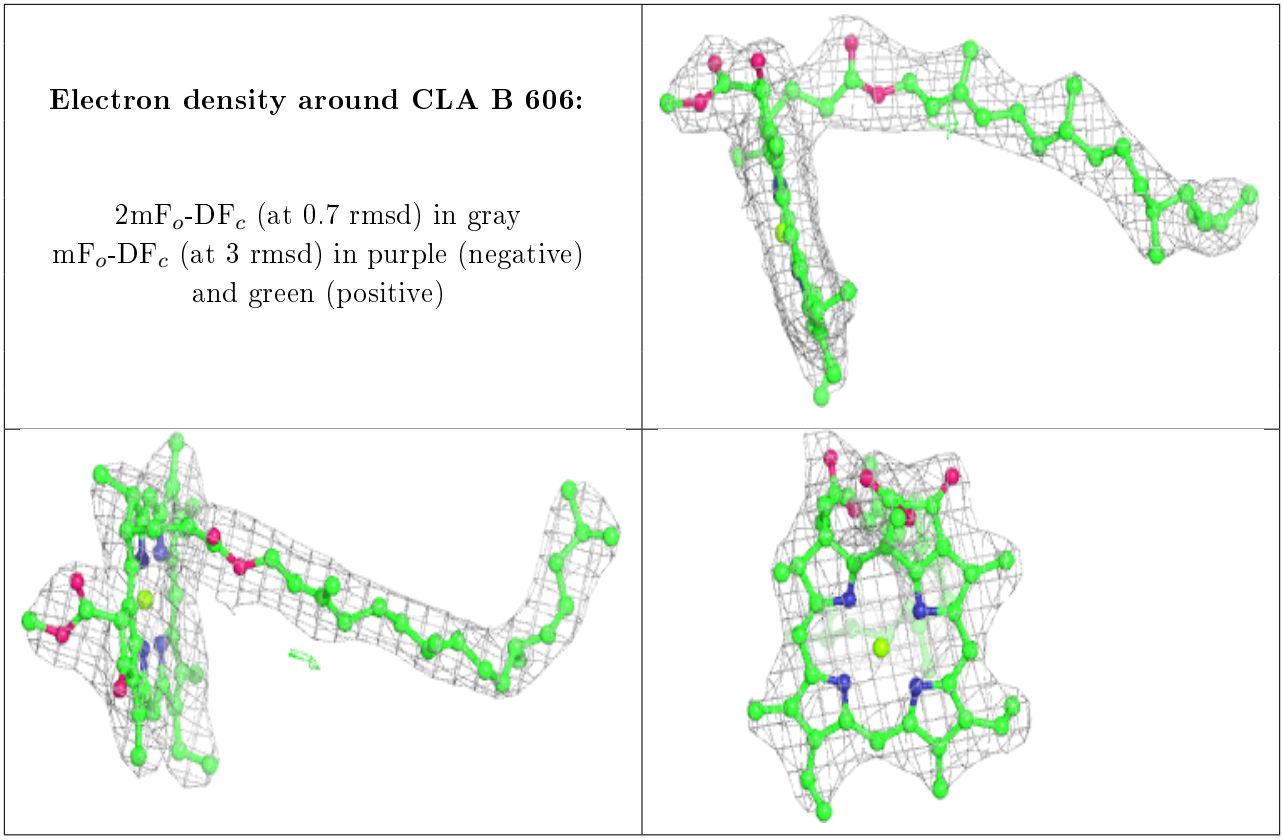
Electron density around CLA c 506:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



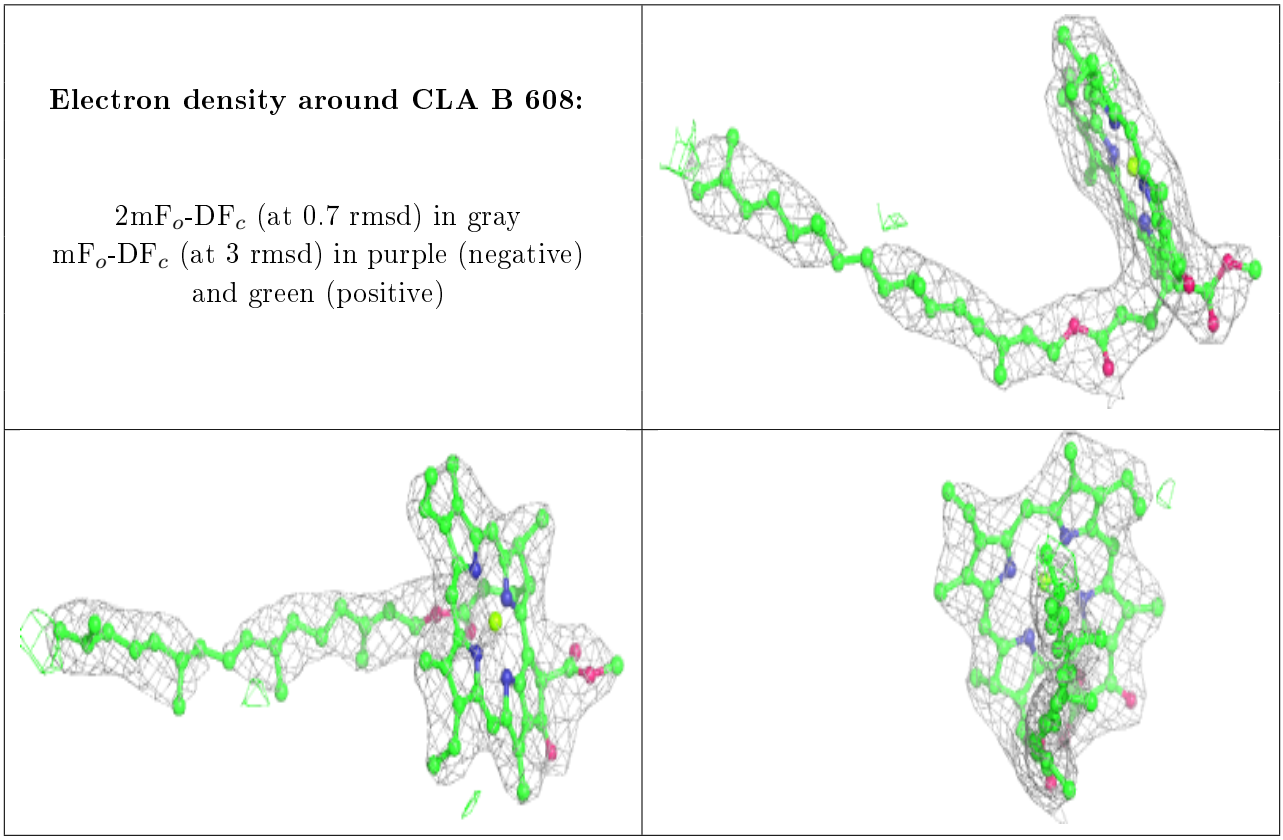
Electron density around CLA B 606:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



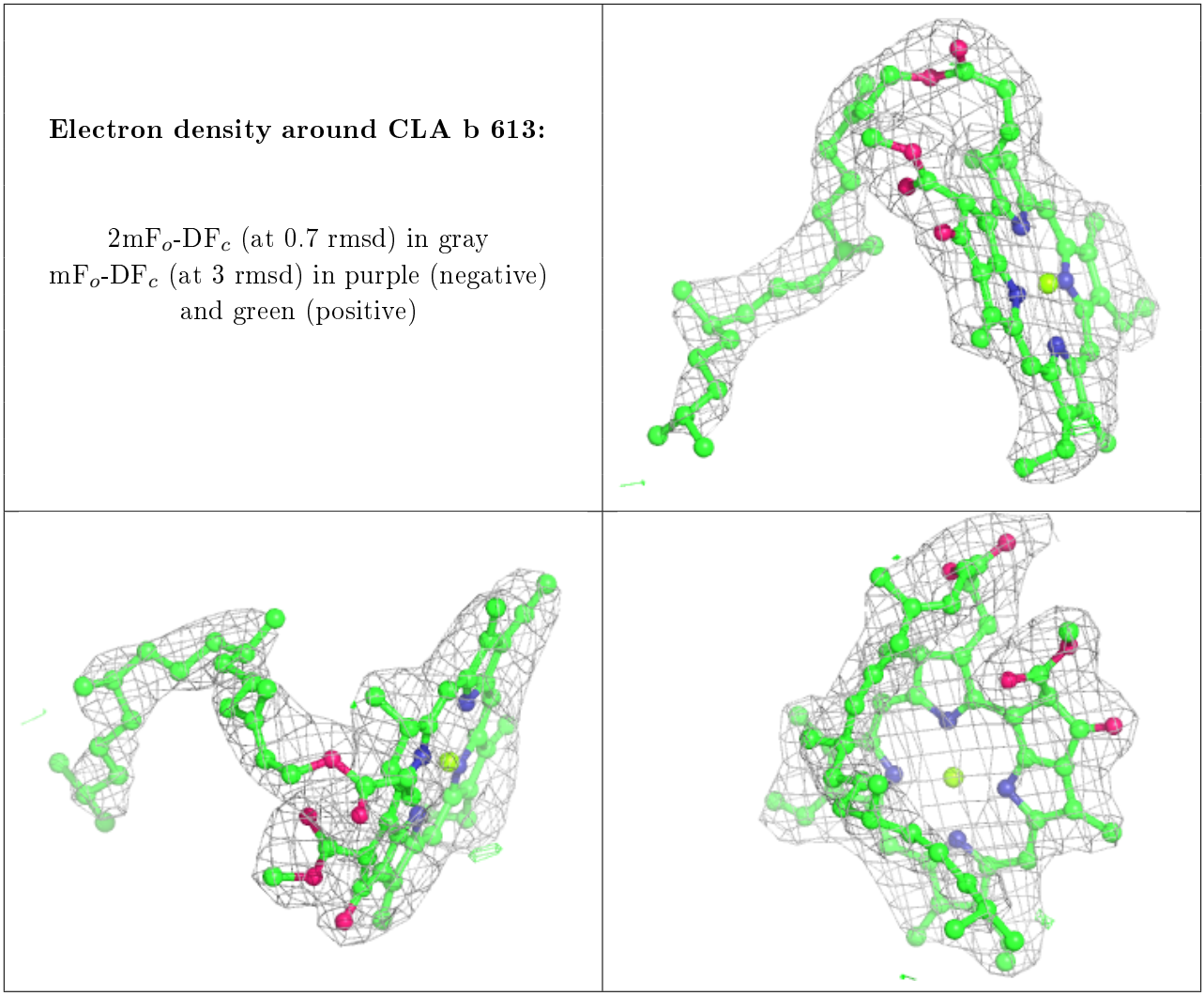
Electron density around CLA B 608:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



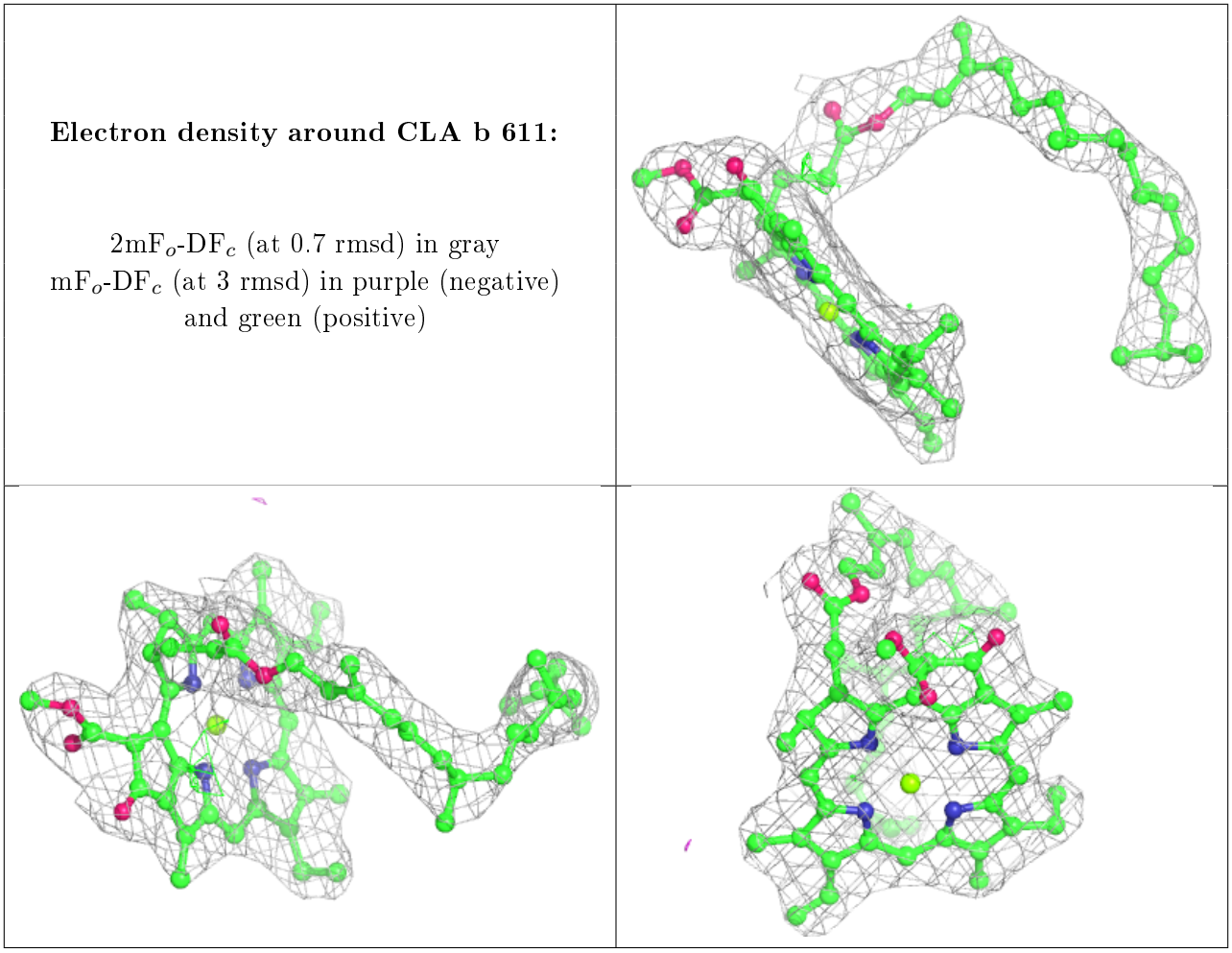
Electron density around CLA b 613:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



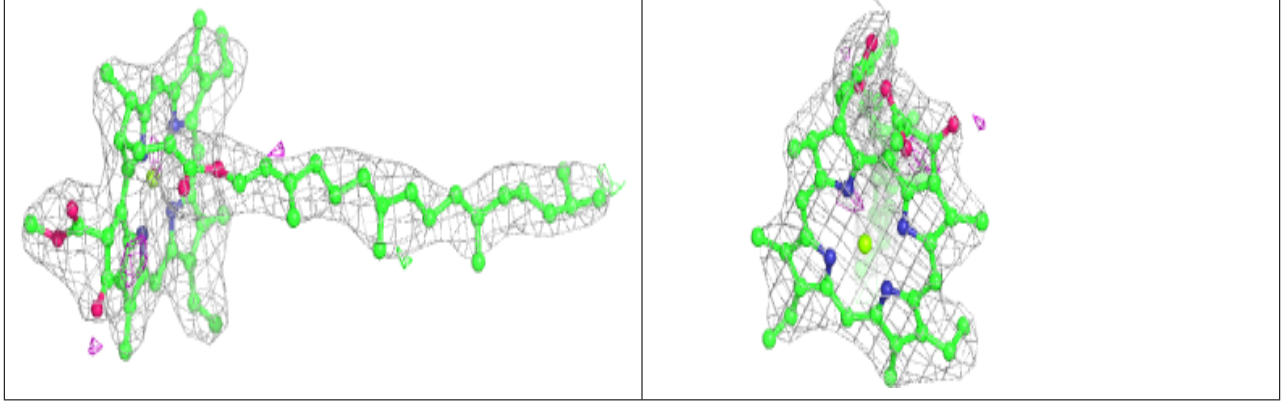
Electron density around CLA b 611:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



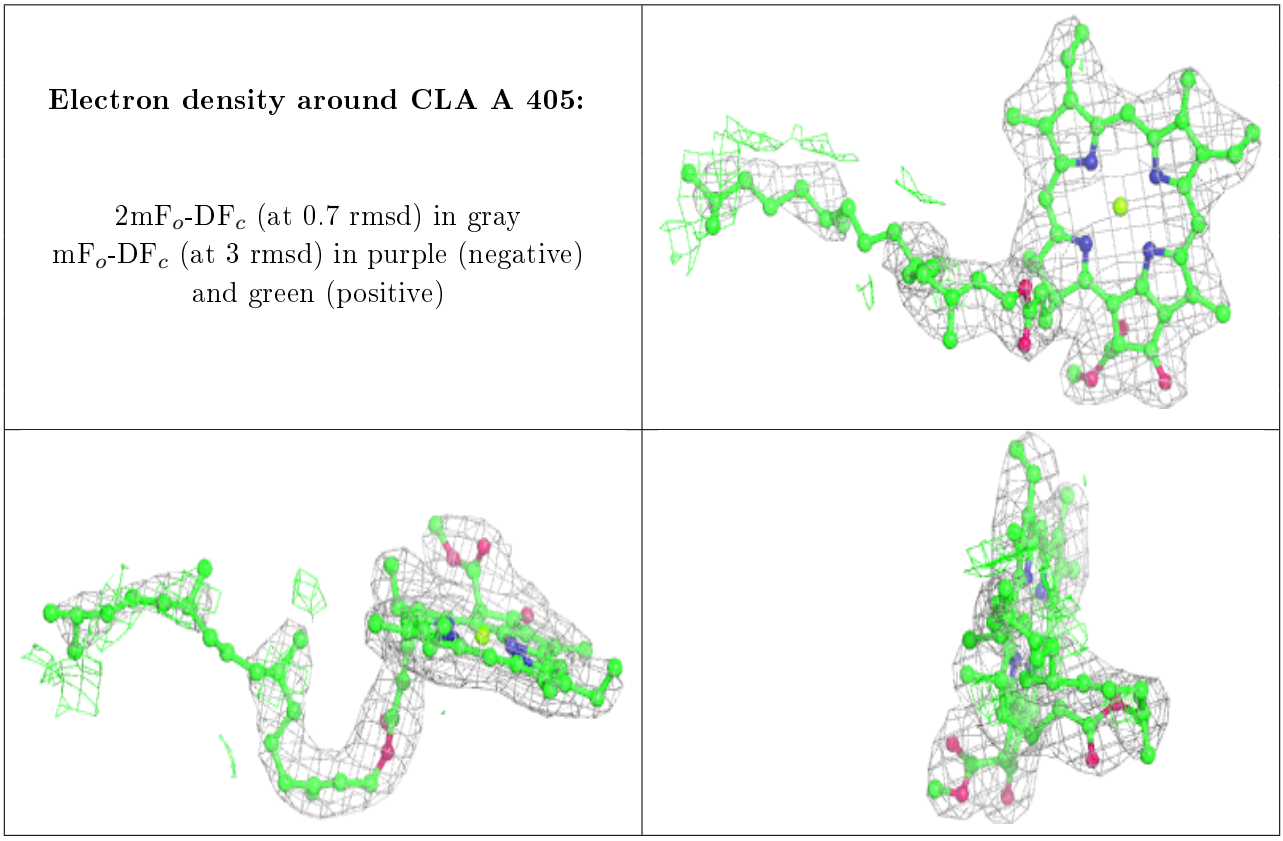
Electron density around CLA b 607:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



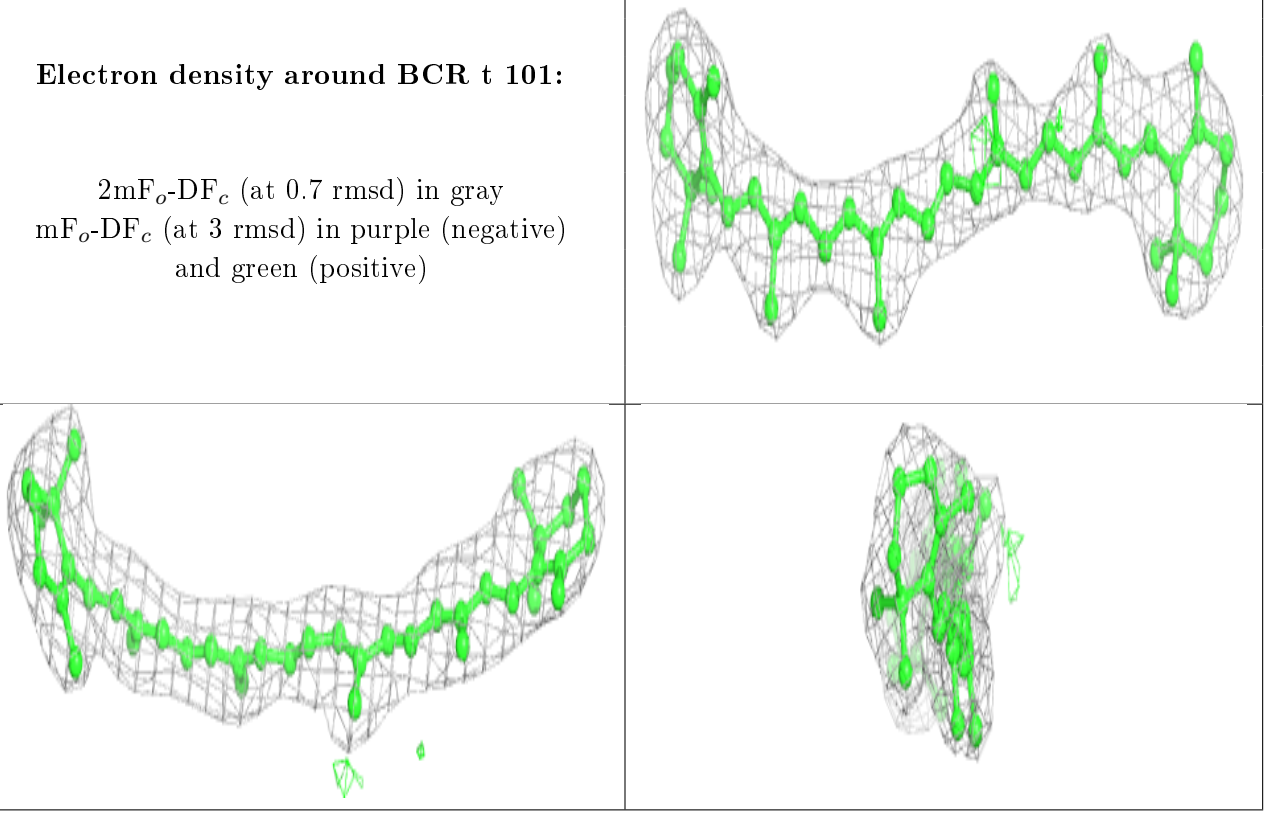
Electron density around CLA A 405:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



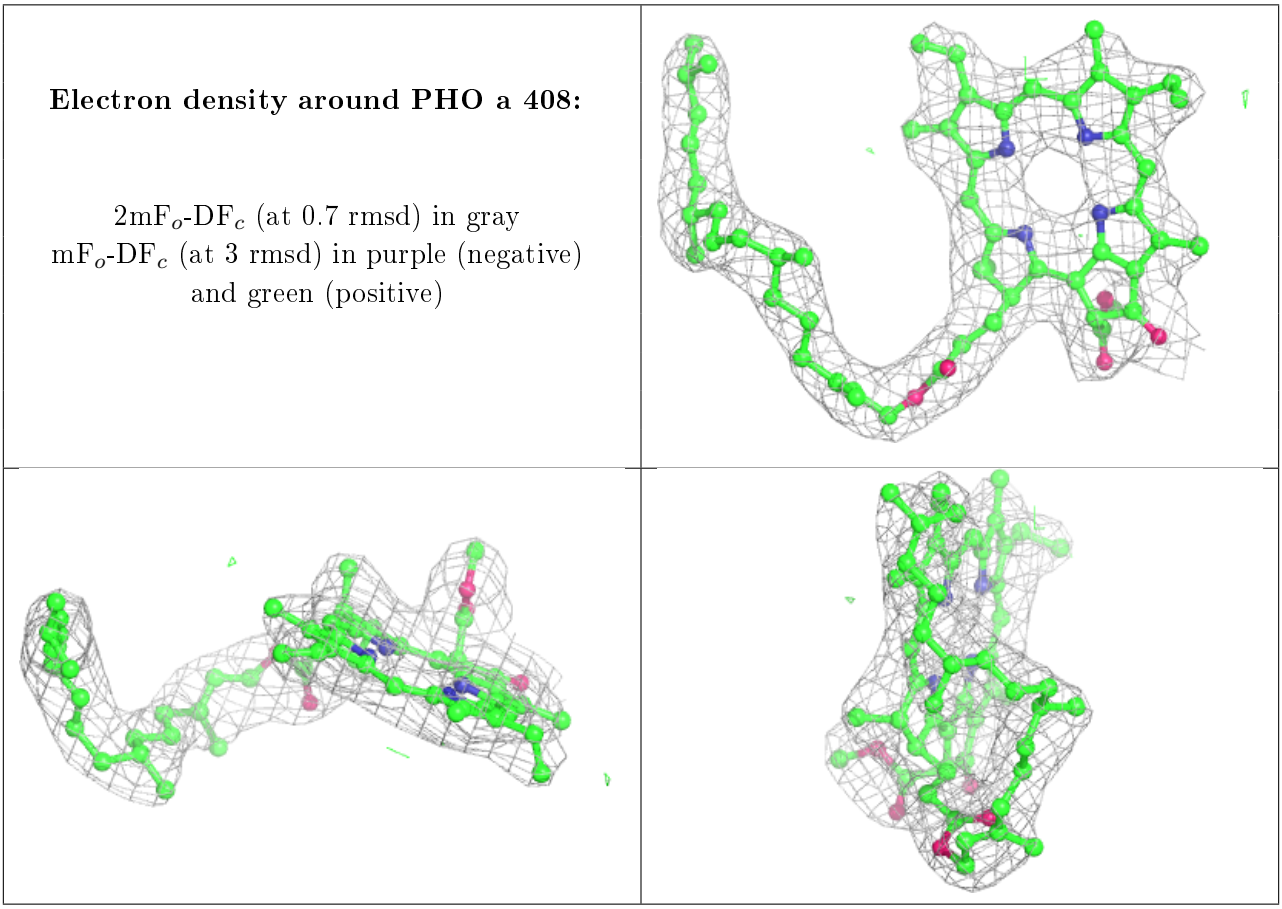
Electron density around BCR t 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



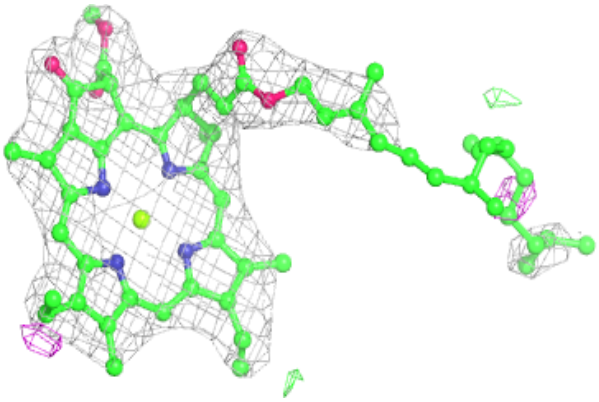
Electron density around PHO a 408:

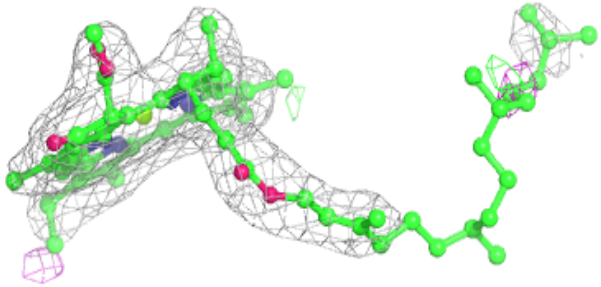
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

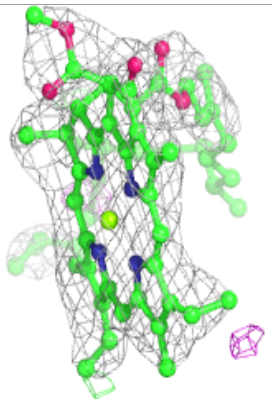


Electron density around CLA a 409:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

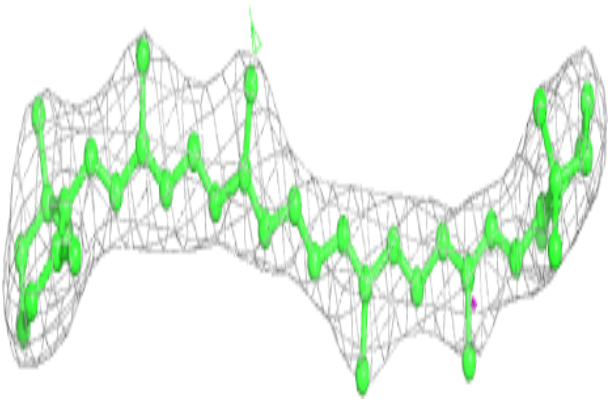


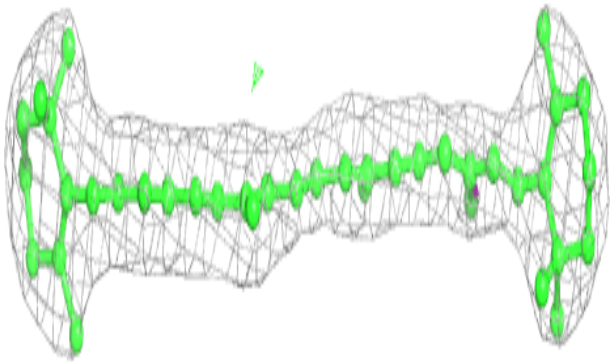


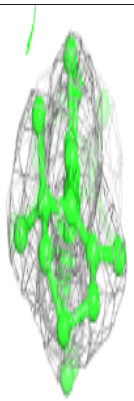


Electron density around BCR a 410:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

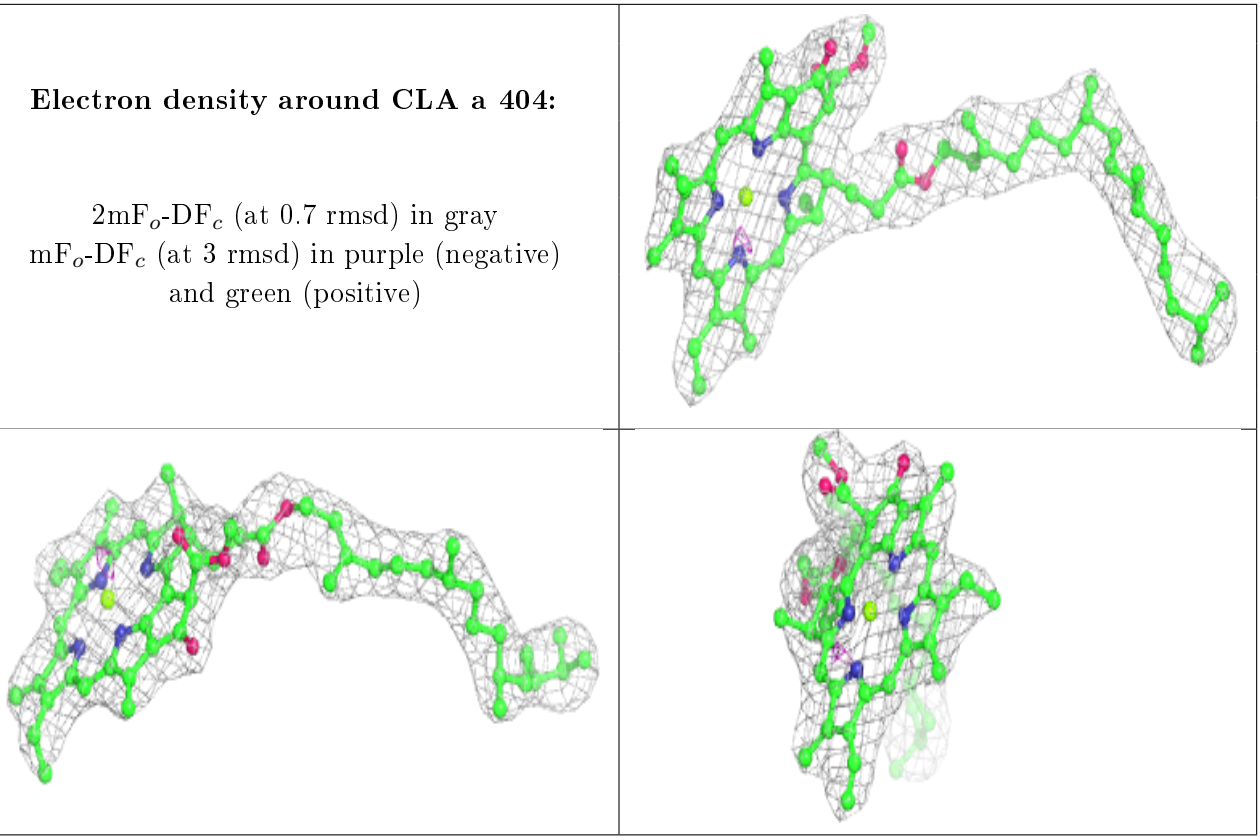






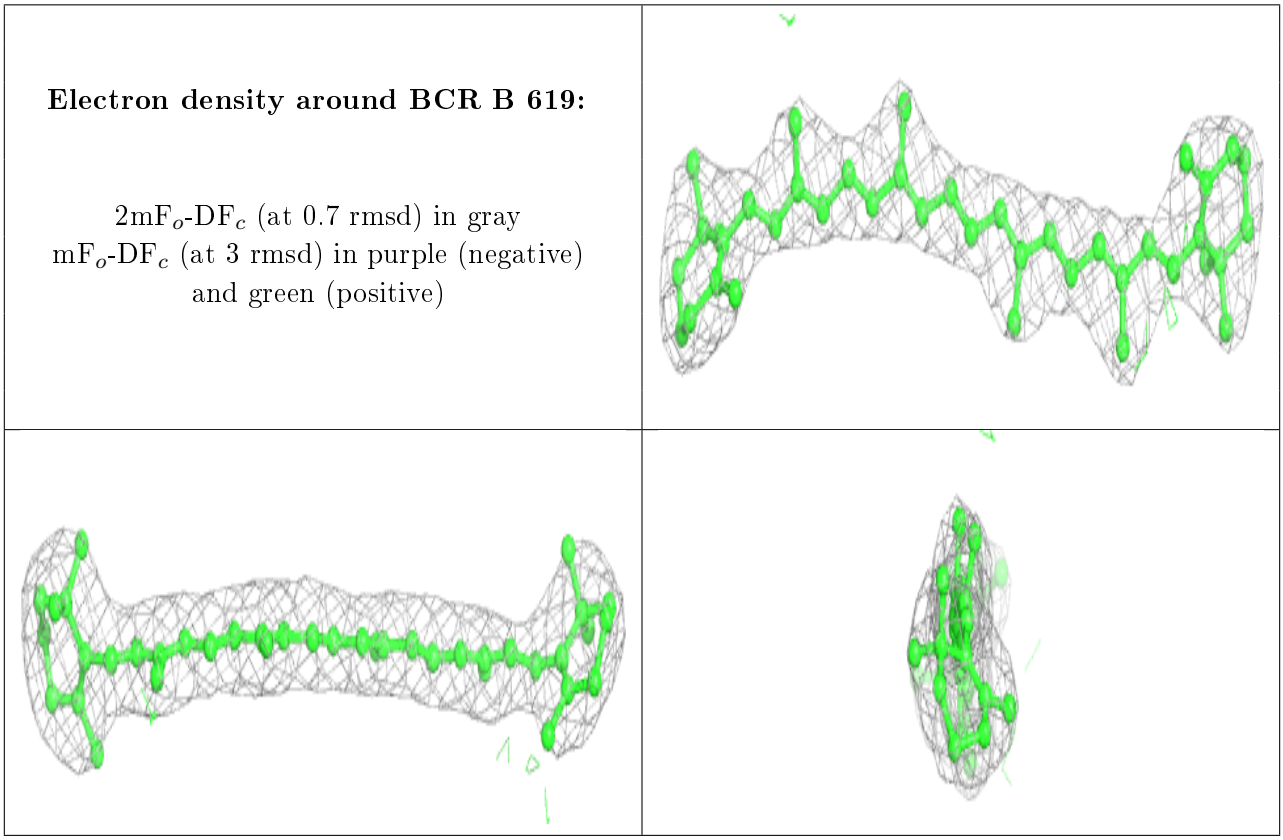
Electron density around CLA a 404:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



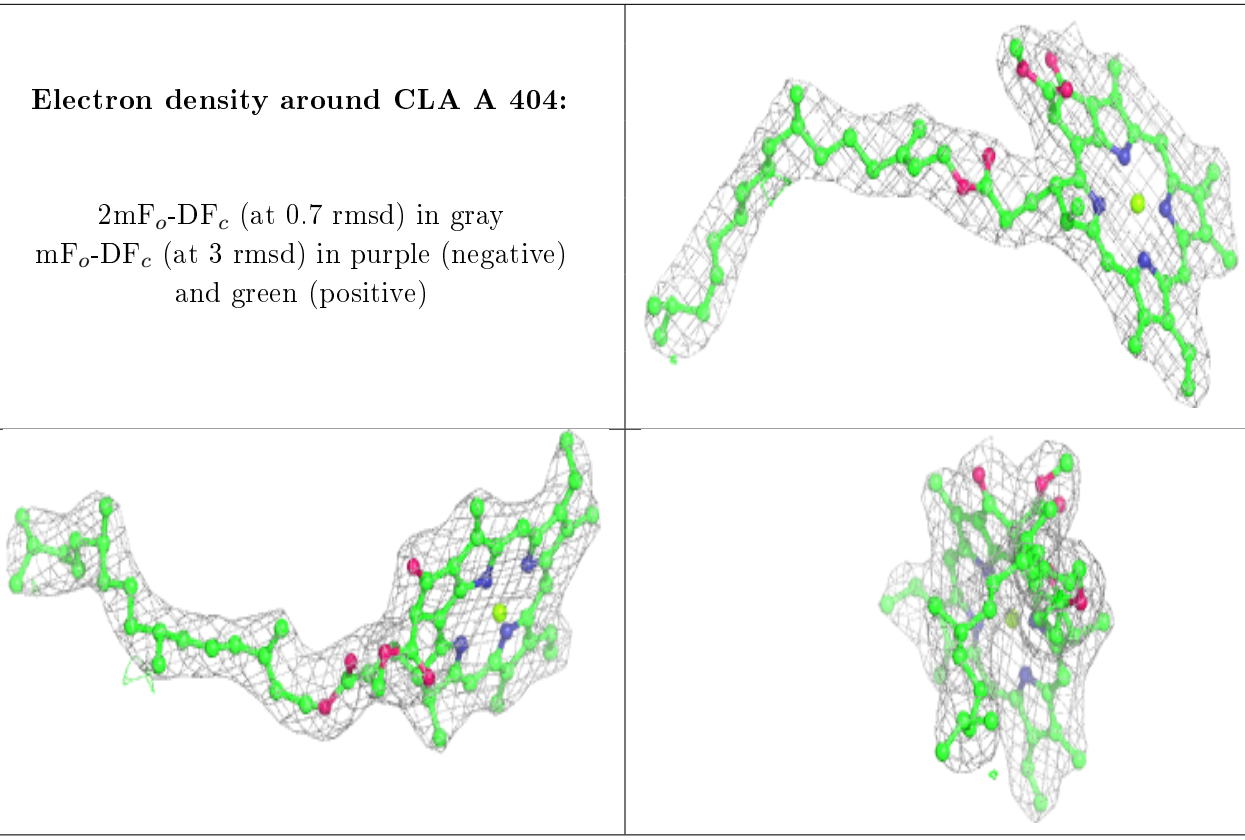
Electron density around BCR B 619:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



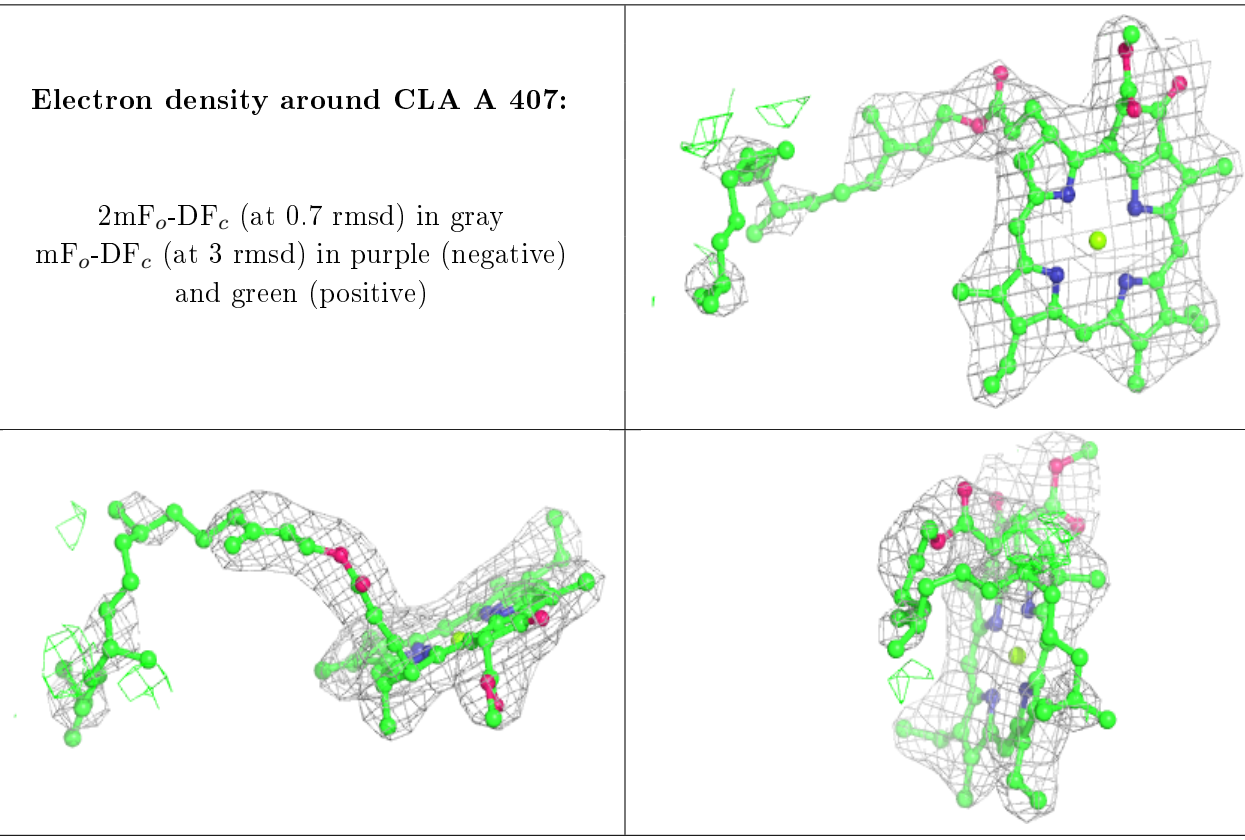
Electron density around CLA A 404:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



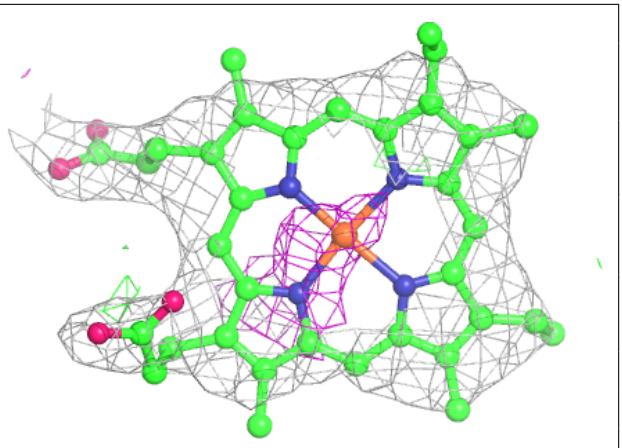
Electron density around CLA A 407:

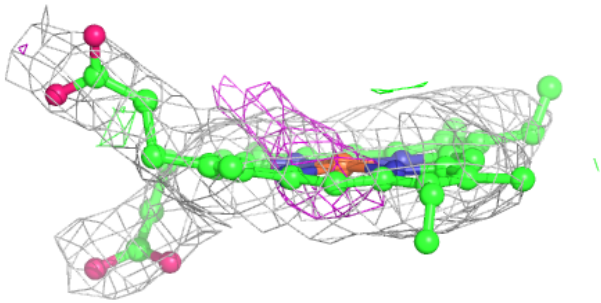
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

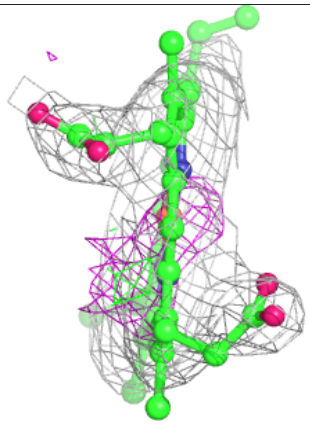


Electron density around HEM e 103:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

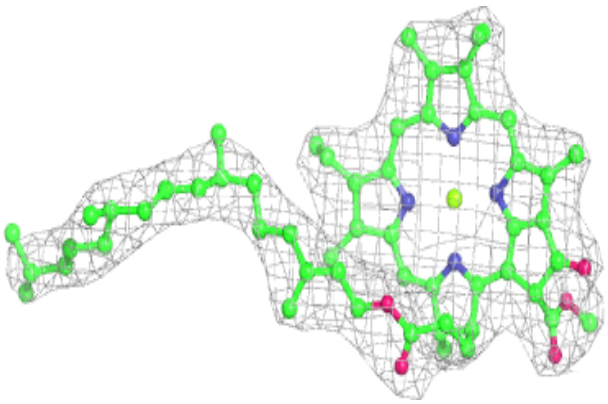


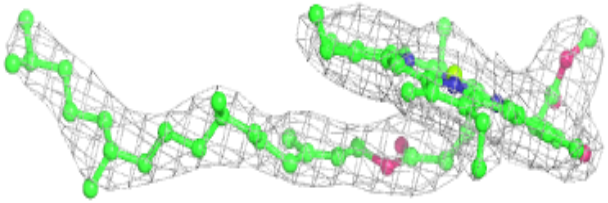


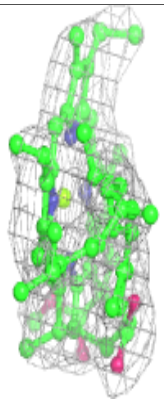


Electron density around CLA B 604:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

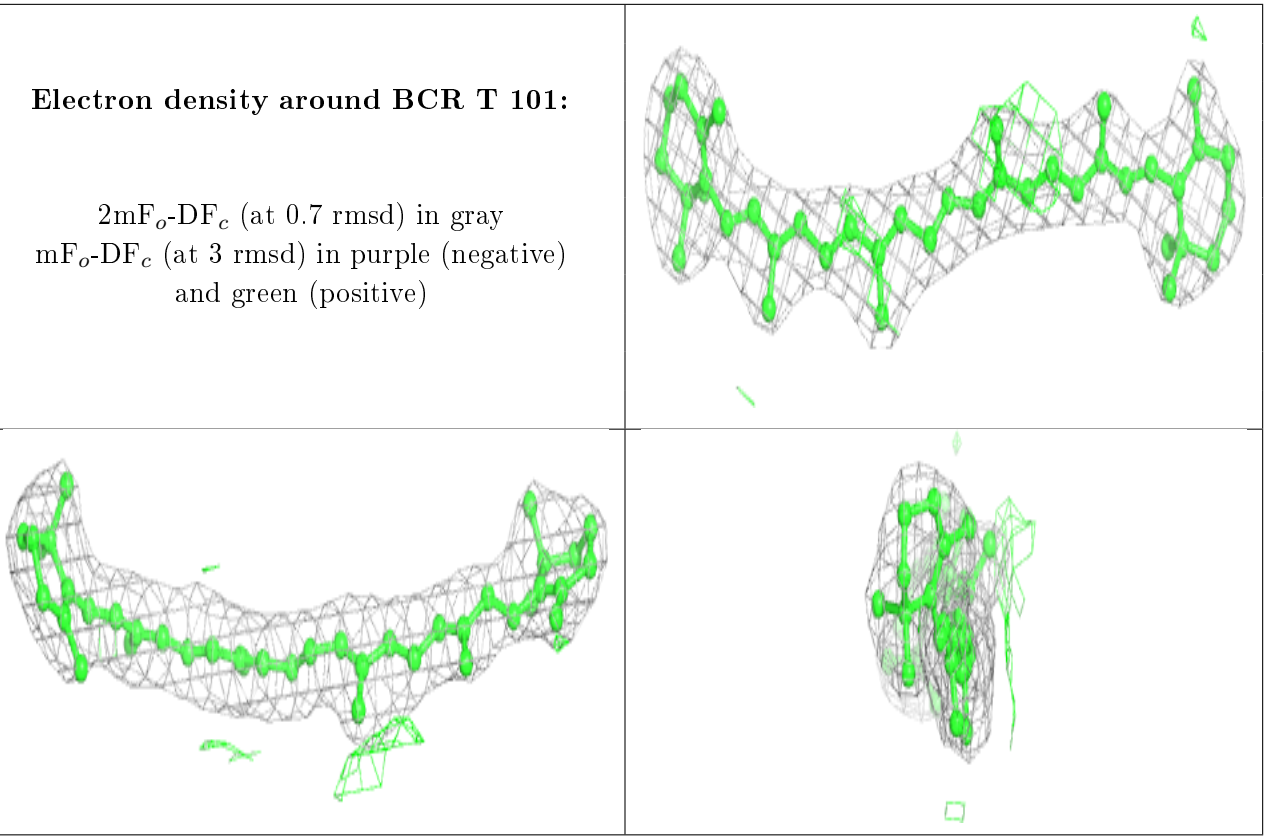






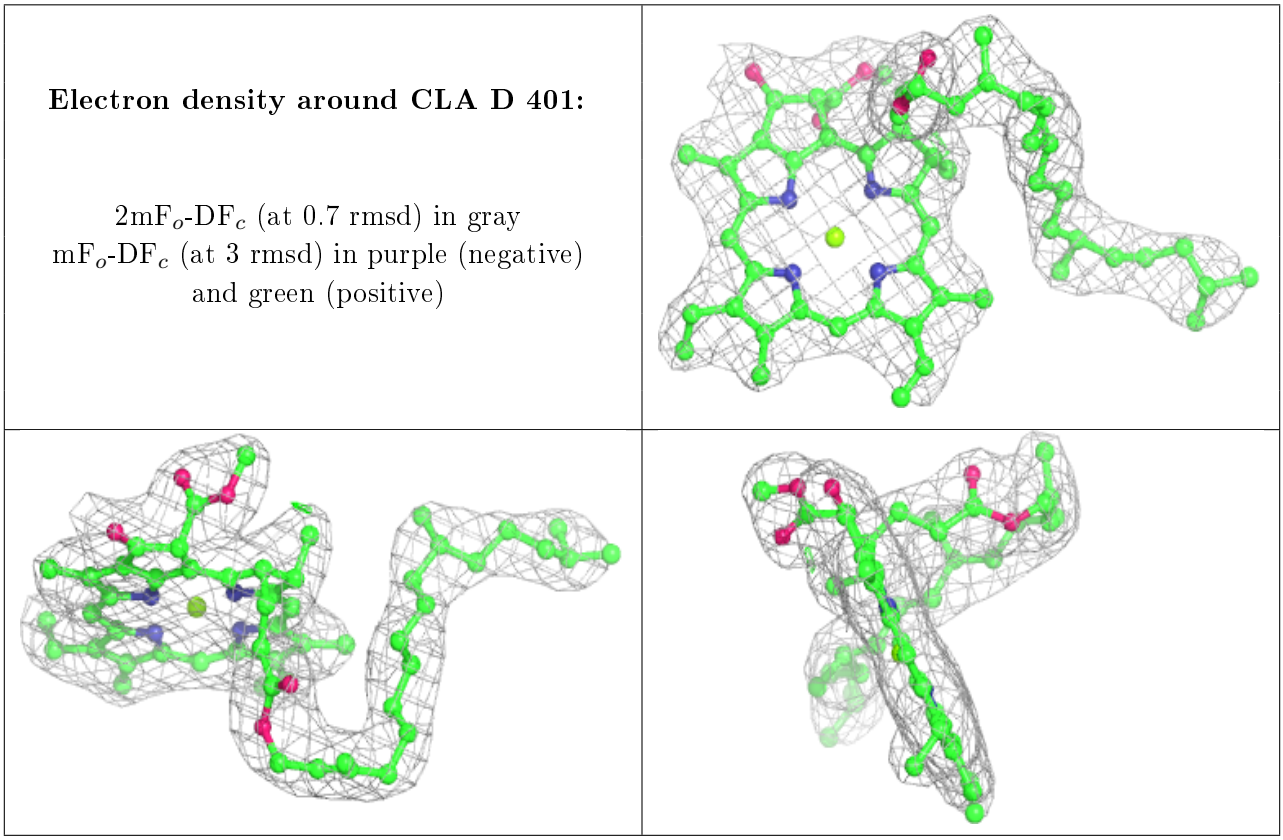
Electron density around BCR T 101:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



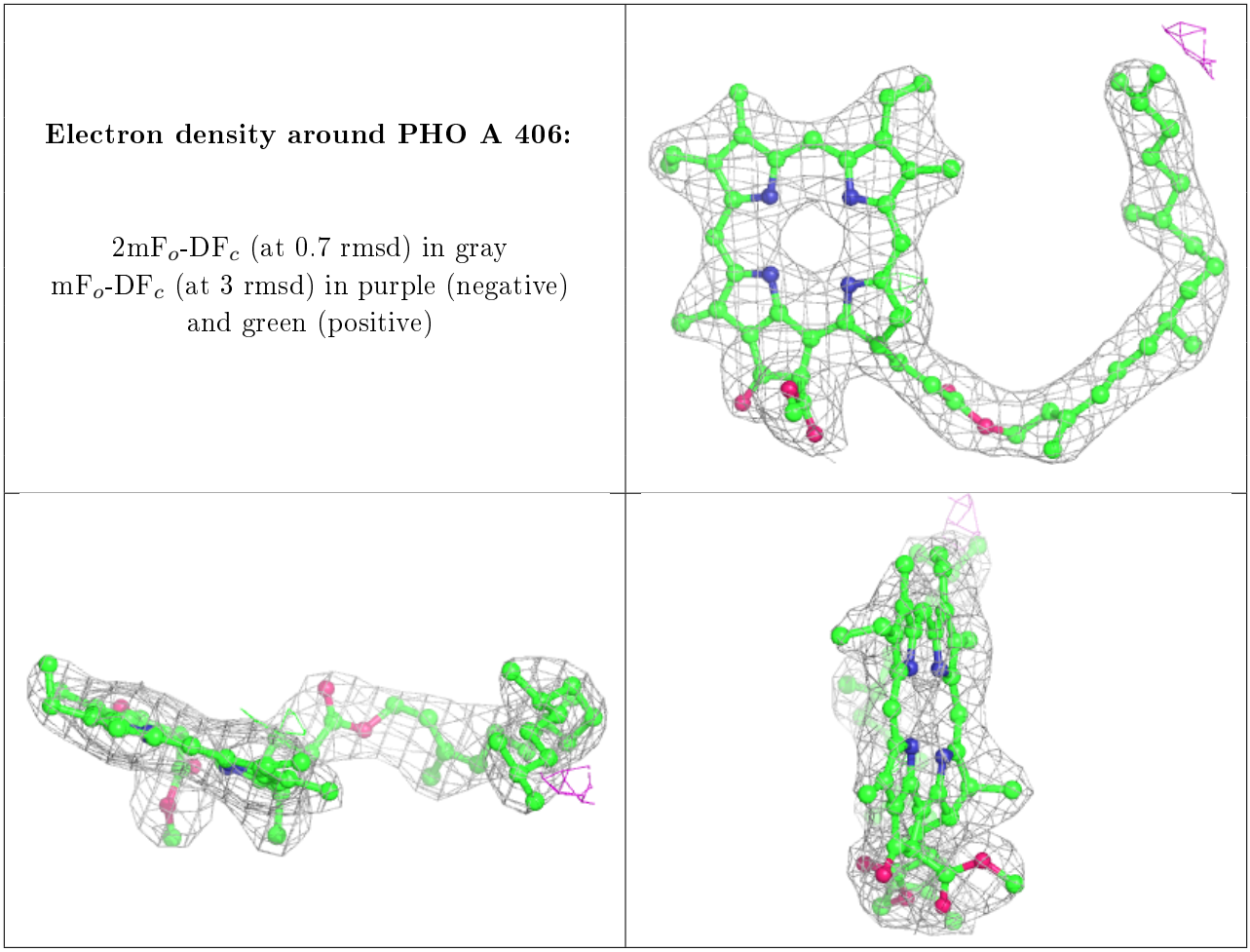
Electron density around CLA D 401:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



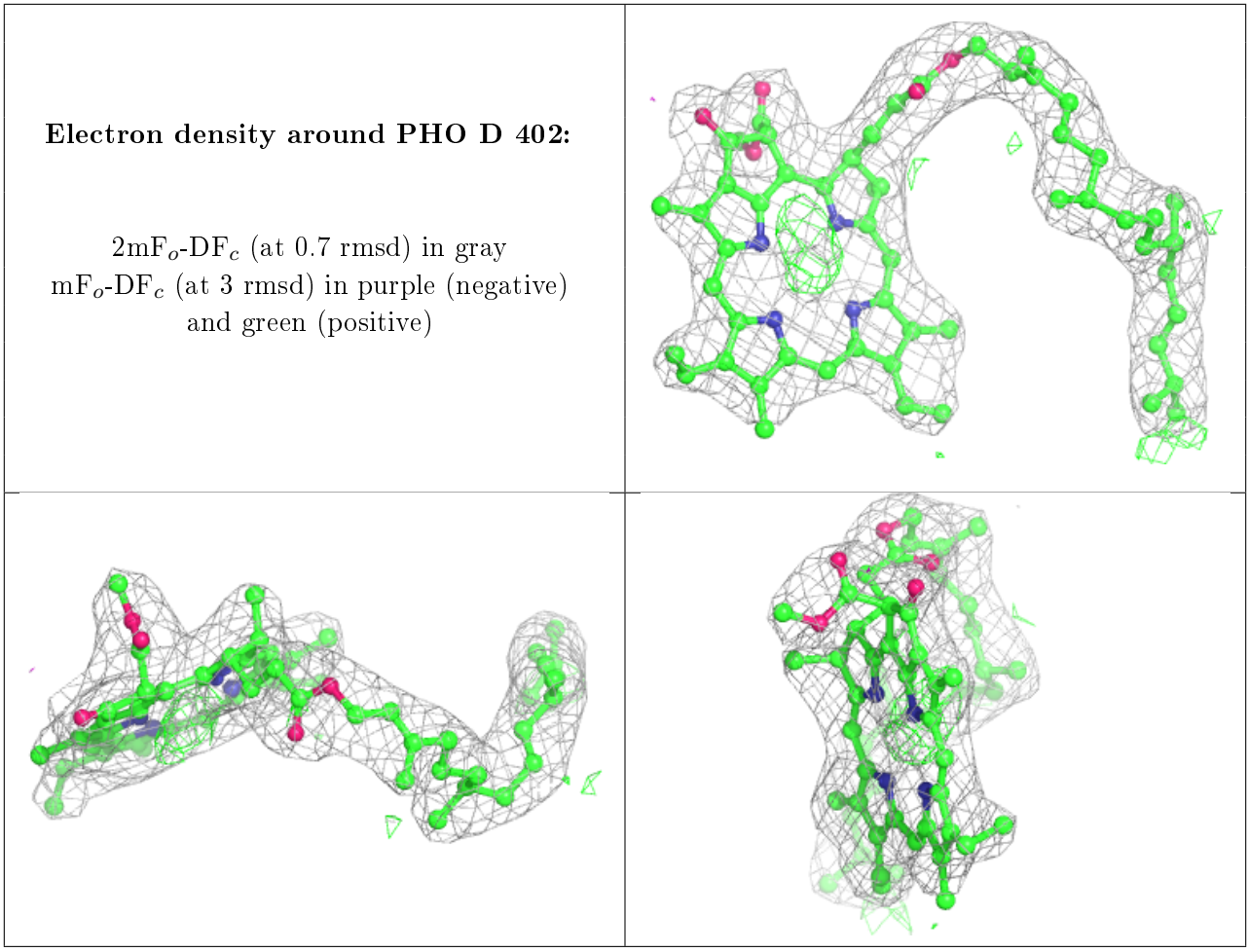
Electron density around PHO A 406:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



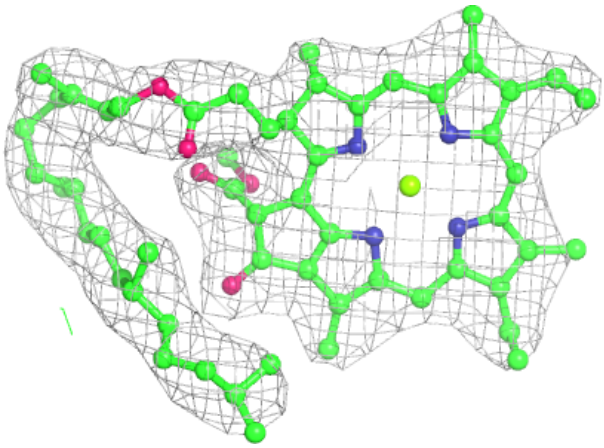
Electron density around PHO D 402:

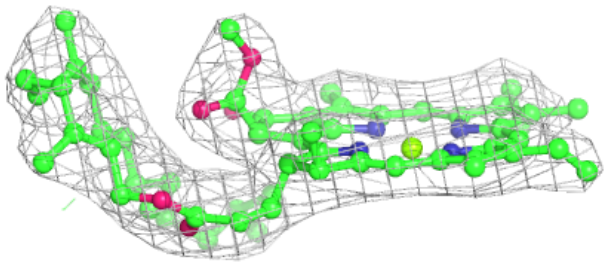
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around CLA B 611:

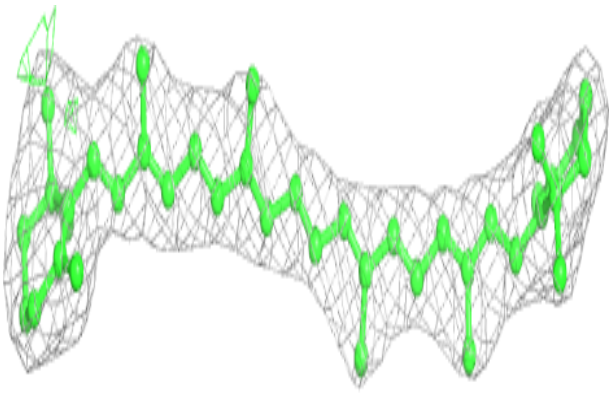
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

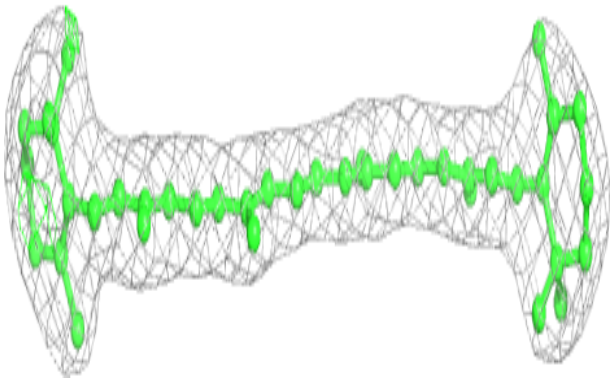


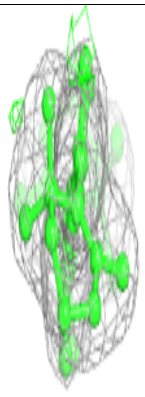


Electron density around BCR A 408:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

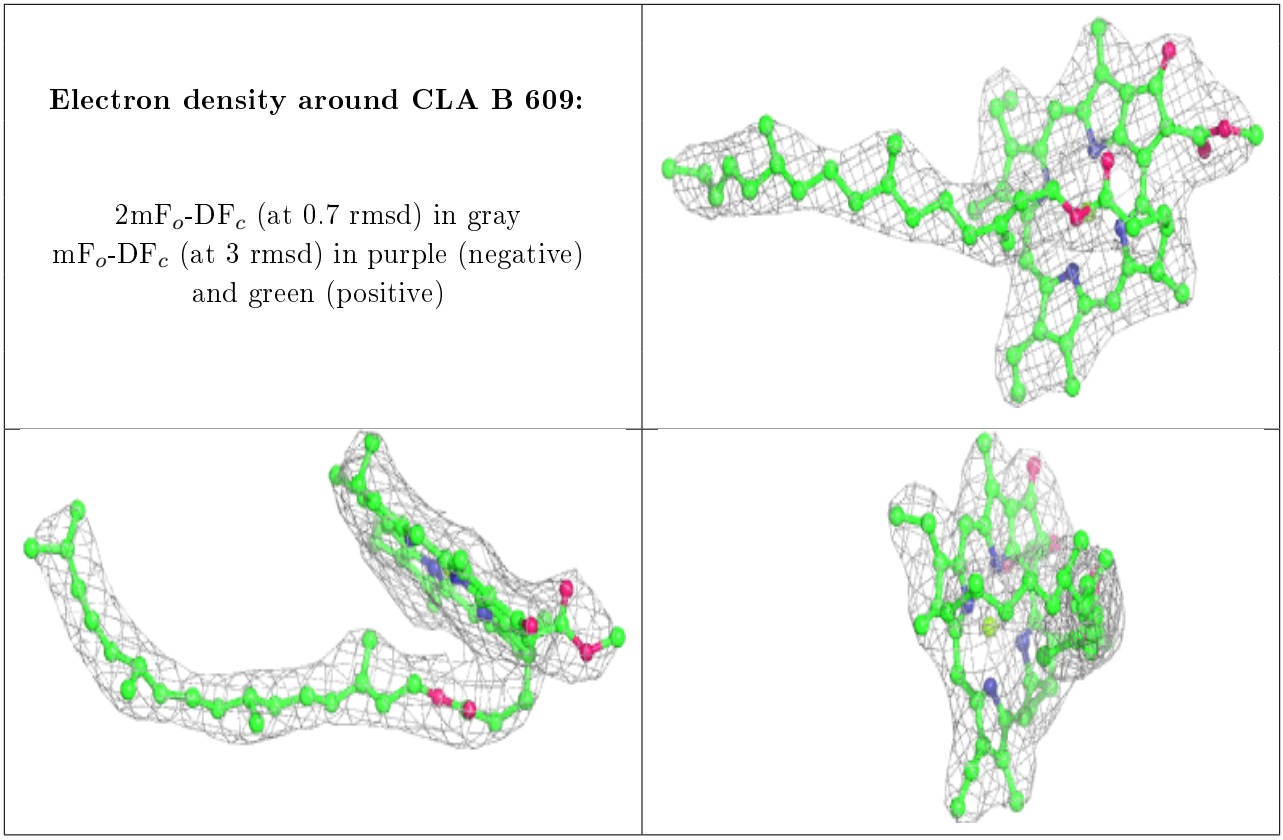






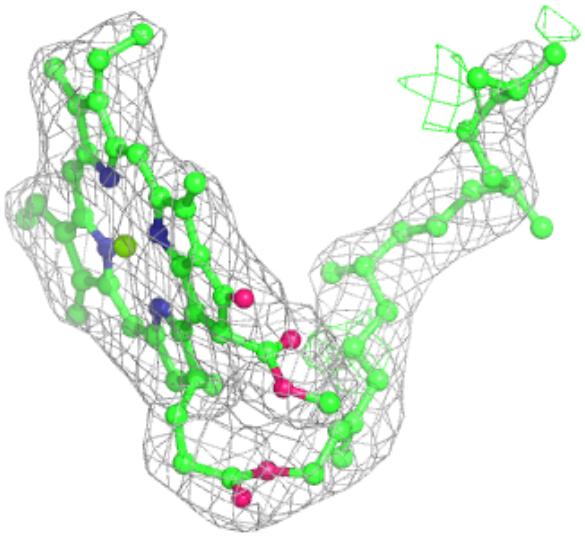
Electron density around CLA B 609:

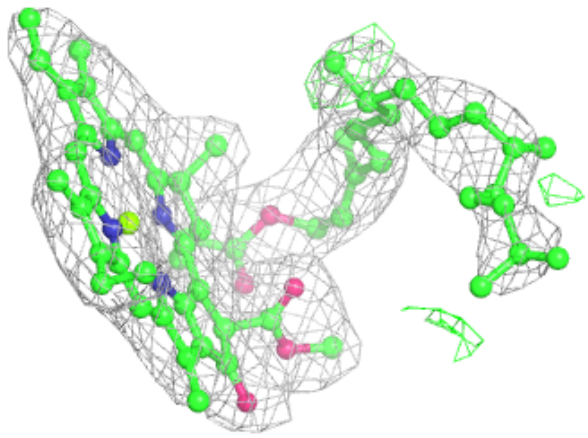
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

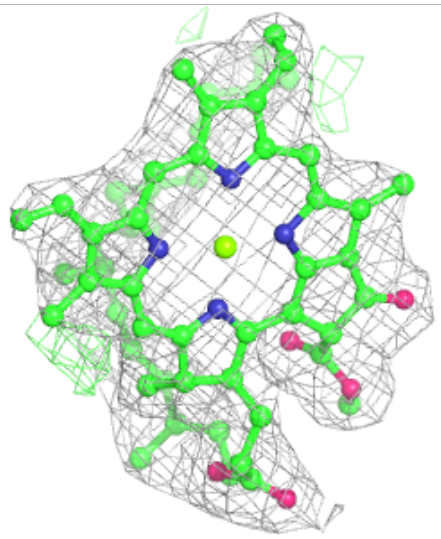


Electron density around CLA B 614:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

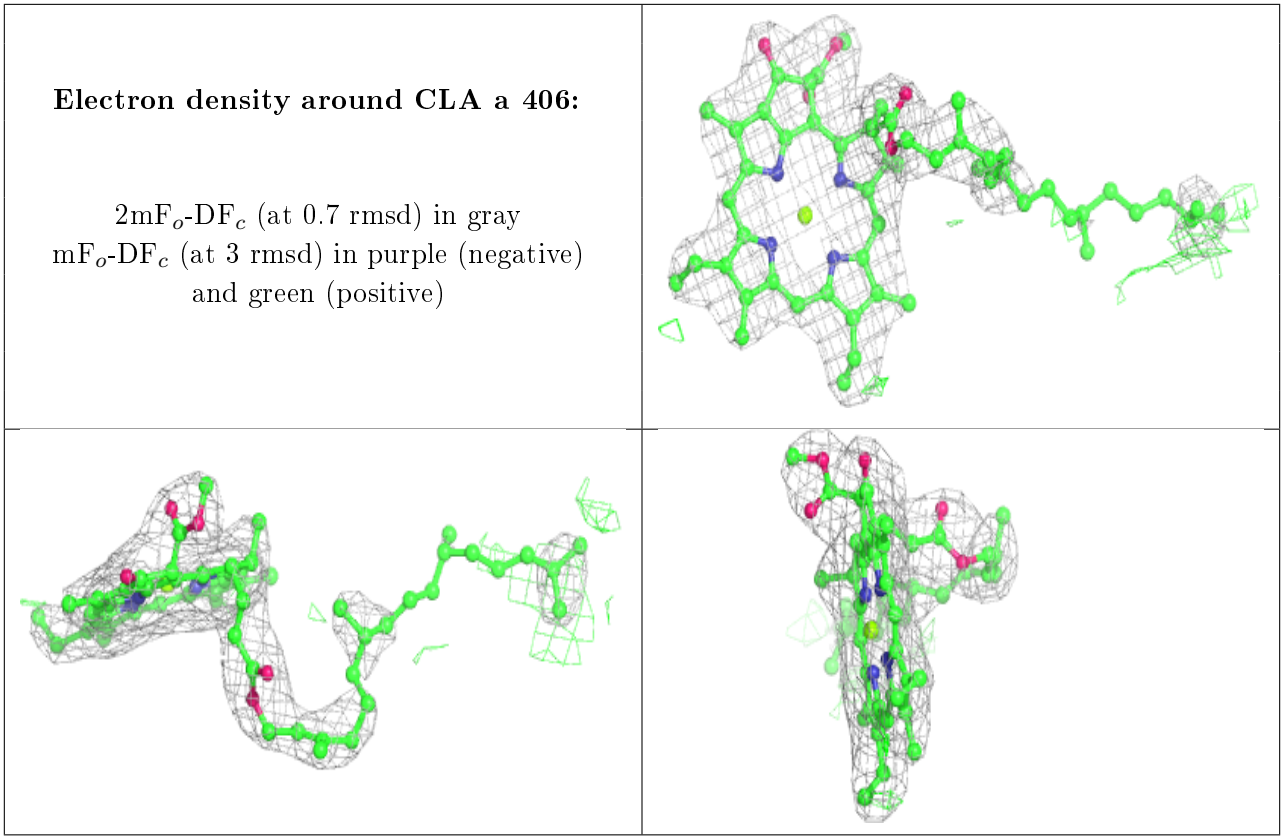






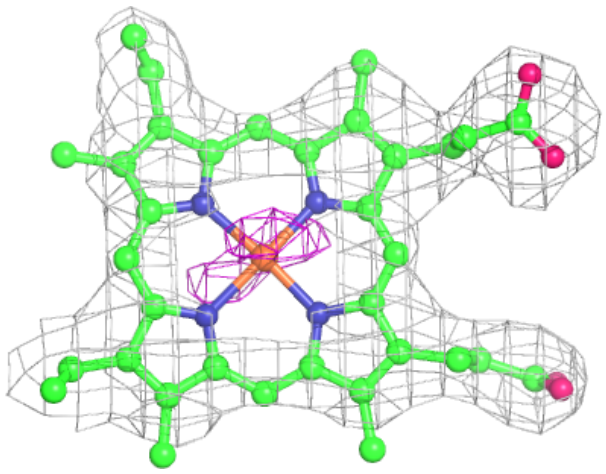
Electron density around CLA a 406:

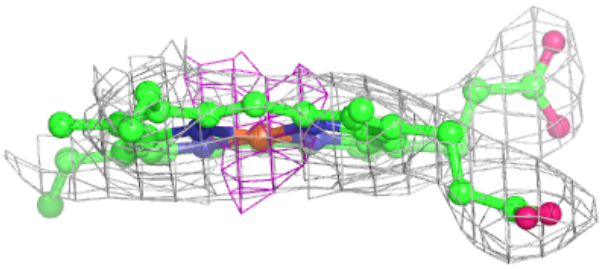
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

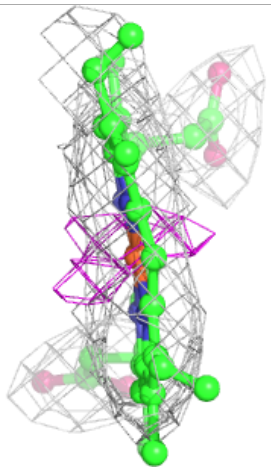


Electron density around HEC v 201:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

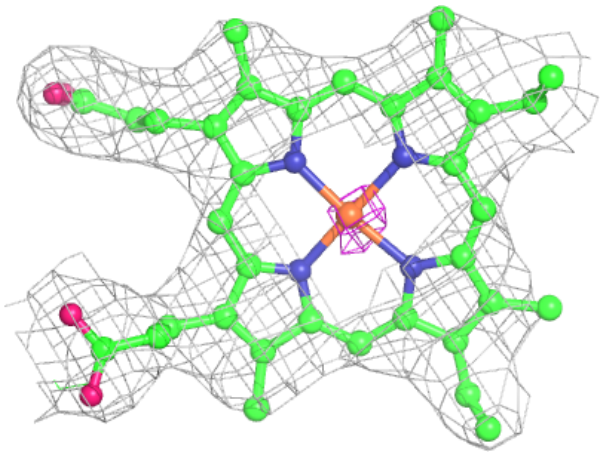


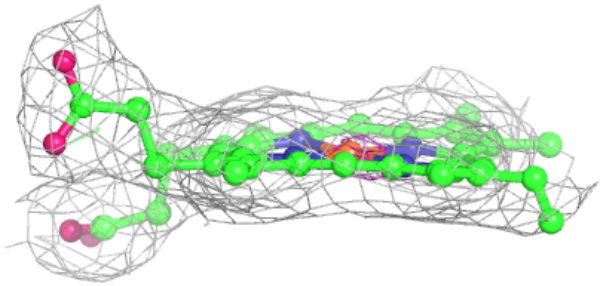


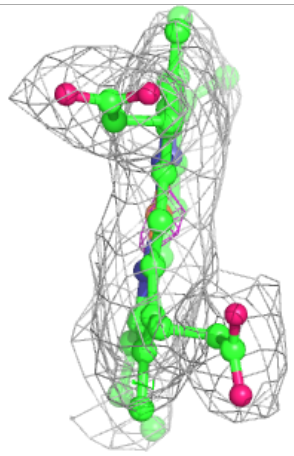


Electron density around HEC V 202:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

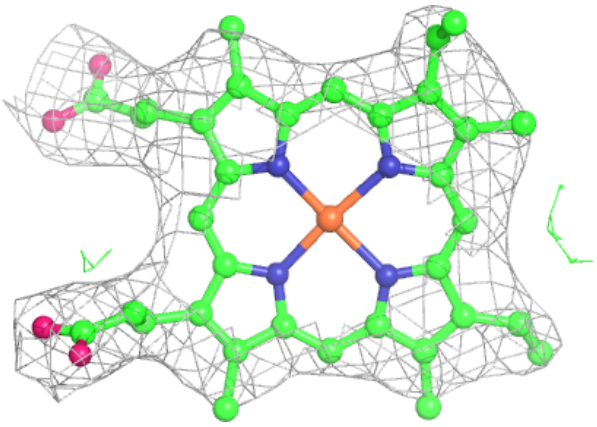


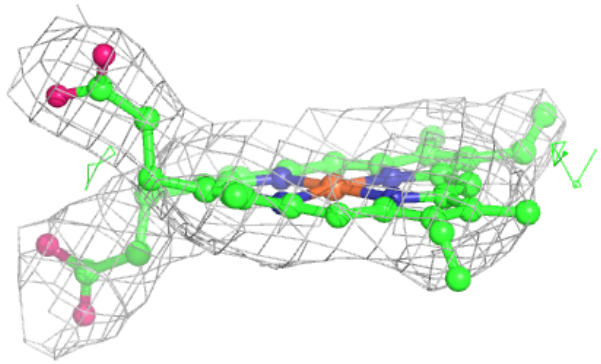


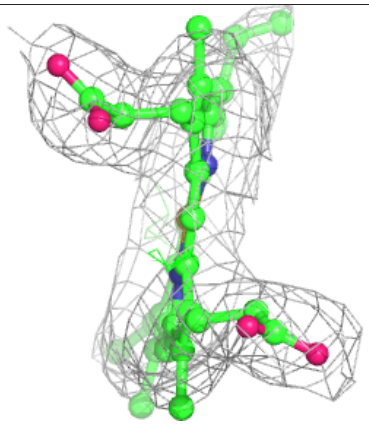


Electron density around HEM E 103:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

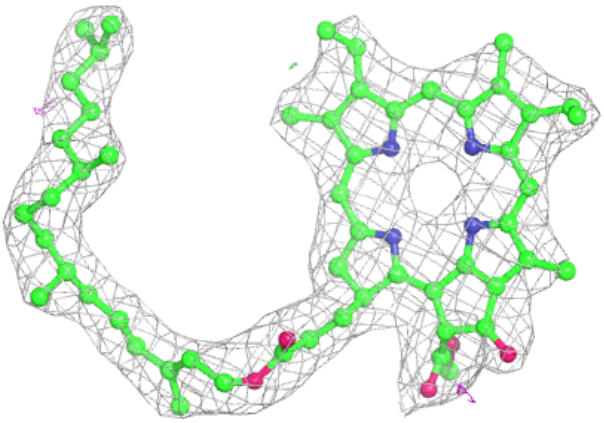


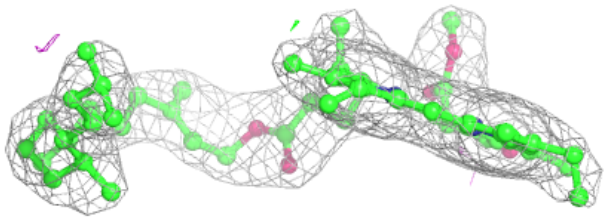


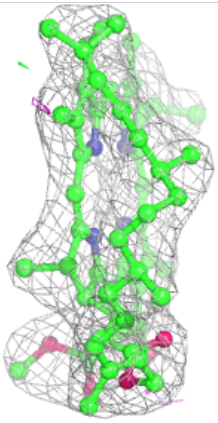


Electron density around PHO a 407:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)







6.5 Other polymers (i)

There are no such residues in this entry.