Full wwPDB X-ray Structure Validation Report (i)

Aug 9, 2023 – 04:00 PM EDT

PDB ID	:	8F4C
Title	:	RT XFEL structure of the two-flash state of Photosystem II (2F, S3-rich) at 2.00 Angstrom resolution
Authors	:	Bhowmick, A.; Hussein, R.; Bogacz, I.; Simon, P.S.; Ibrahim, M.; Chatterjee, R.; Doyle, M.D.; Cheah, M.H.; Fransson, T.; Chernev, P.; Kim, I.-S.; Makita, H.; Dasgupta, M.; Kaminsky, C.J.; Zhang, M.; Gatcke, J.; Haupt, S.; Nangca, I.I.; Keable, S.M.; Aydin, O.; Tono, K.; Owada, S.; Gee, L.B.; Fuller, F.D.; Batyuk, A.; Alonso-Mori, R.; Holton, J.M.; Paley, D.W.; Moriarty, N.W.; Mamedov, F.; Adams, P.D.; Brewster, A.S.; Dobbek, H.; Sauter, N.K.; Bergmann, U.; Zouni, A.; Messinger, J.; Kern, J.; Yano, J.; Yachandra, V.K.
Deposited on	:	2022-11-10
Resolution	:	2.00 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

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

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

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

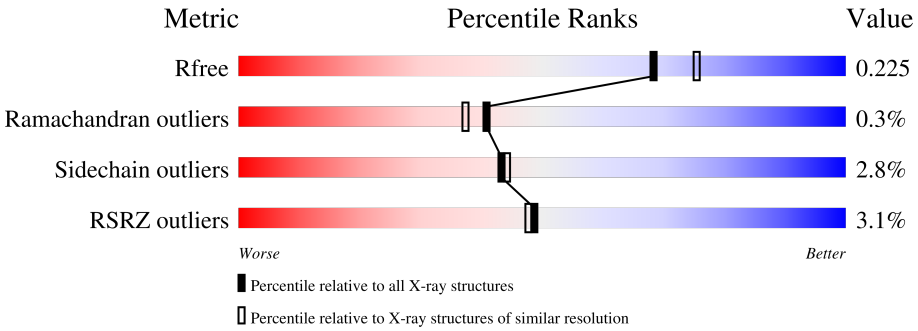
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.35

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 2.00 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	8085 (2.00-2.00)
Ramachandran outliers	138981	9054 (2.00-2.00)
Sidechain outliers	138945	9053 (2.00-2.00)
RSRZ outliers	127900	7900 (2.00-2.00)

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 of 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	96%
1	a	344	94%

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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)	:	2.35

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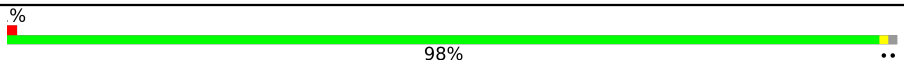
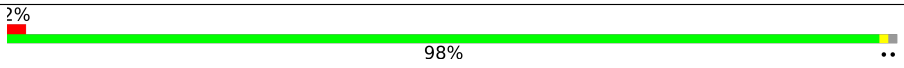
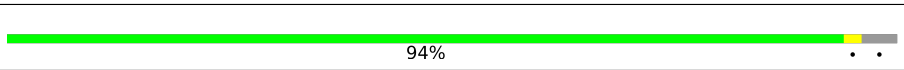
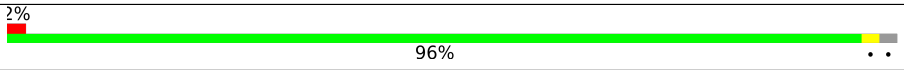
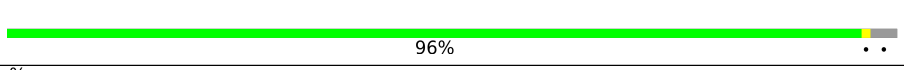
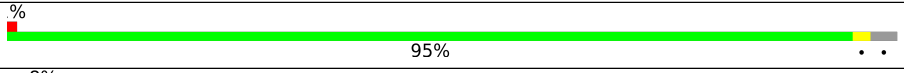
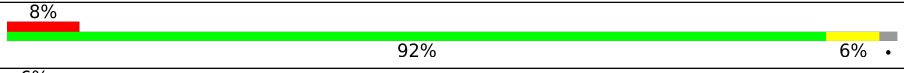
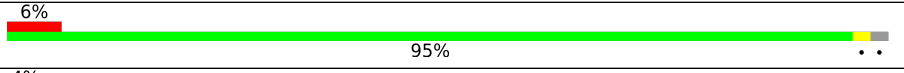
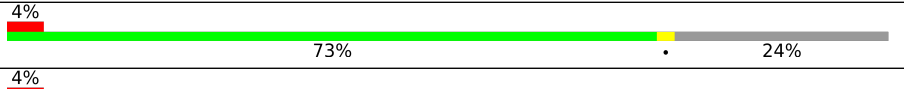
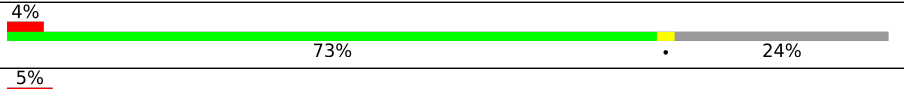
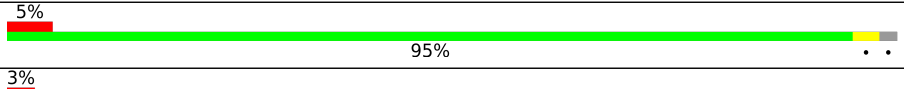
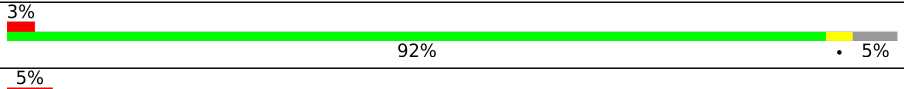
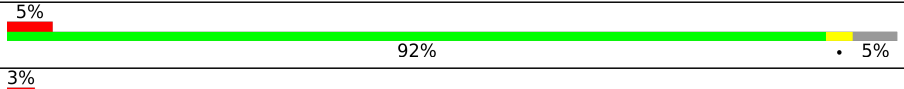
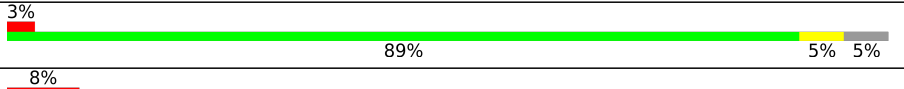
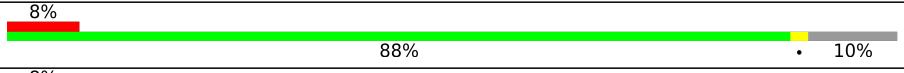
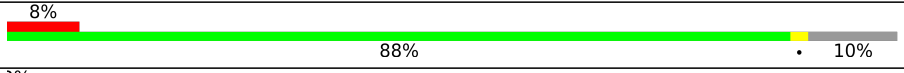
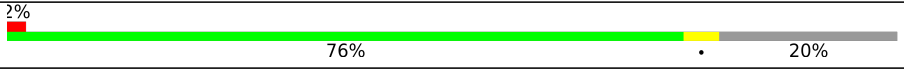
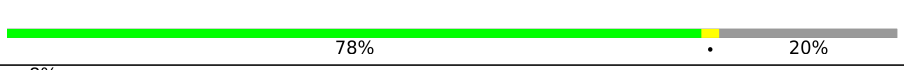
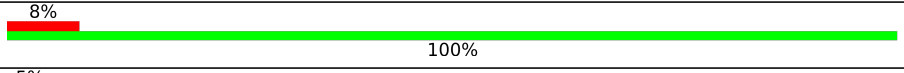
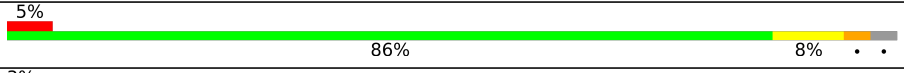
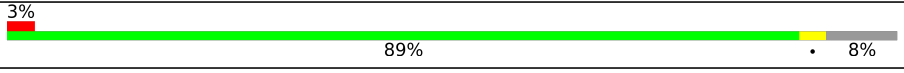
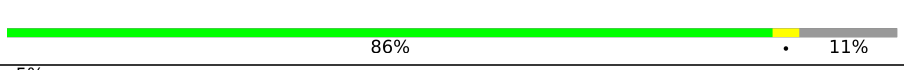
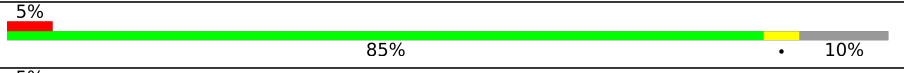
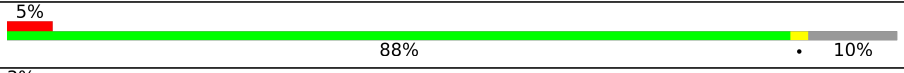
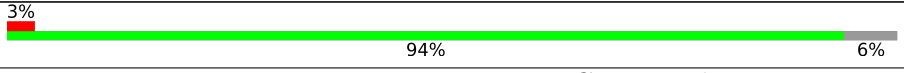
Mol	Chain	Length	Quality of chain
2	B	510	
2	b	510	
3	C	461	
3	c	461	
4	D	352	
4	d	352	
5	E	84	
5	e	84	
6	F	45	
6	f	45	
7	H	66	
7	h	66	
8	I	38	
8	i	38	
9	J	40	
9	j	40	
10	K	46	
10	k	46	
11	L	37	
11	l	37	
12	M	36	
12	m	36	
13	O	272	
13	o	272	
14	T	32	

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Mol	Chain	Length	Quality of chain
14	t	32	9% 91% 6%
15	U	134	% 71% 28%
15	u	134	% 71% 28%
16	V	163	82% 16%
16	v	163	82% 16%
17	Y	46	11% 57% 41%
17	y	46	9% 59% 7% 35%
18	X	41	7% 90% 7%
18	x	41	12% 90% 5% 5%
19	Z	62	19% 85% 15%
19	z	62	18% 94% 6%
20	R	41	20% 78% 5% 17%
20	r	41	29% 71% 5% 24%

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
25	CLA	A	606	X	-	-	-
25	CLA	A	607	X	-	-	-
25	CLA	A	608	X	-	-	-
25	CLA	A	611	X	-	-	-
25	CLA	B	601	X	-	-	-
25	CLA	B	602	X	-	-	-
25	CLA	B	603	X	-	-	-
25	CLA	B	604	X	-	-	-
25	CLA	B	605	X	-	-	-
25	CLA	B	606	X	-	-	-
25	CLA	B	607	X	-	-	-
25	CLA	B	608	X	-	-	-
25	CLA	B	610	X	-	-	-
25	CLA	B	611	X	-	-	-
25	CLA	B	612	X	-	-	-

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

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
25	CLA	c	511	X	-	-	-
25	CLA	c	512	X	-	-	-
25	CLA	c	513	X	-	-	-
25	CLA	d	403	X	-	-	-
25	CLA	d	404	X	-	-	-

2 Entry composition

There are 37 unique types of molecules in this entry. The entry contains 53435 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 protein D1 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	334	Total	C	N	O	S	0	64	0
			3113	2030	513	551	19			
1	a	334	Total	C	N	O	S	0	64	0
			3110	2027	513	551	19			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	505	Total	C	N	O	S	0	4	0
			4005	2631	666	695	13			
2	b	505	Total	C	N	O	S	0	0	0
			3978	2610	665	690	13			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	442	Total	C	N	O	S	0	11	0
			3509	2302	586	607	14			
3	c	451	Total	C	N	O	S	0	12	0
			3583	2343	602	624	14			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	341	Total	C	N	O	S	0	2	0
			2731	1809	446	464	12			
4	d	341	Total	C	N	O	S	0	3	0
			2737	1813	446	466	12			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
5	E	82	Total 666	C 436	N 107	O 123	0	1	0
5	e	82	Total 664	C 434	N 108	O 122	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	34	Total 275	C 187	N 45	O 42	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	65	Total 510	C 341	N 82	O 85	S 2	0	0	0
7	h	63	Total 498	C 333	N 80	O 83	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	36	Total 296	C 200	N 46	O 49	S 1	0	0	0
8	i	36	Total 296	C 200	N 46	O 49	S 1	0	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
I	1	FME	-	initiating methionine	UNP Q8DJZ6
i	1	FME	-	initiating methionine	UNP Q8DJZ6

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	J	36	Total 257	C 174	N 40	O 42	S 1	0	0	0
9	j	36	Total 257	C 174	N 40	O 42	S 1	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	L	37	Total	C	N	O	S	0	0	0
			304	202	48	53	1			
11	l	36	Total	C	N	O		0	0	0
			296	197	47	52				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	M	33	Total	C	N	O	S	0	0	0
			256	171	37	47	1			
12	m	32	Total	C	N	O	S	0	0	0
			251	168	36	46	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	O	244	Total	C	N	O	S	0	1	0
			1870	1168	313	385	4			
13	o	244	Total	C	N	O	S	0	0	0
			1874	1170	317	383	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	T	30	Total	C	N	O	S	0	0	0
			258	181	36	39	2			
14	t	30	Total	C	N	O	S	0	0	0
			256	180	36	38	2			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
T	1	FME	-	initiating methionine	UNP Q8DIQ0

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Chain	Residue	Modelled	Actual	Comment	Reference
t	1	FME	-	initiating methionine	UNP Q8DIQ0

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

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

- 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 Ycf12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	Y	27	Total	C	N	O	S	0	0	0
			196	128	35	30	3			
17	y	30	Total	C	N	O	S	0	0	0
			218	144	35	36	3			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	X	38	Total	C	N	O	0	0	0
			281	188	45	48			
18	x	39	Total	C	N	O	0	0	0
			286	191	46	49			

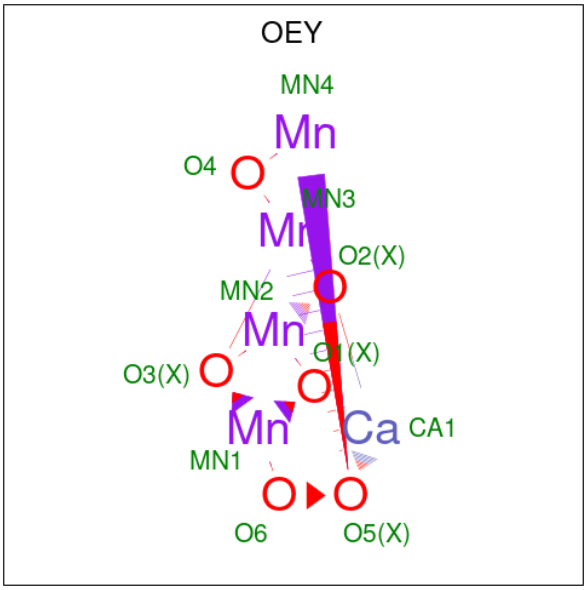
- Molecule 19 is a protein called Photosystem II reaction center protein Z.

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
			477	326	72	77	2			

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

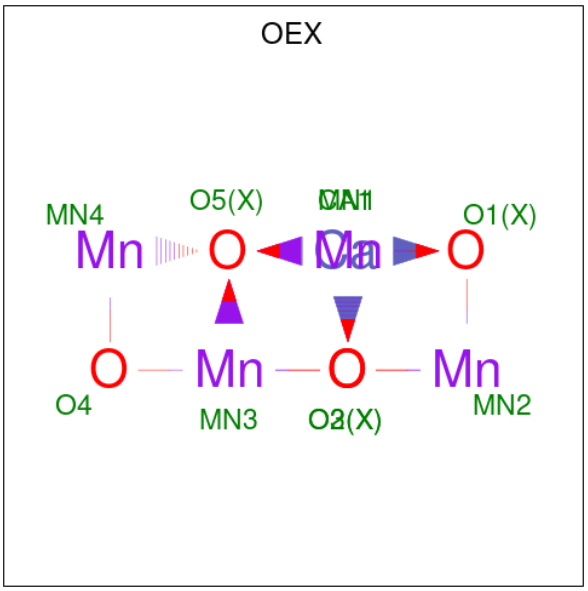
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
20	R	34	Total	C	N	O	0	0	0
			271	184	47	40			
20	r	31	Total	C	N	O	0	0	0
			246	166	43	37			

- Molecule 21 is CA-MN4-O6 CLUSTER (three-letter code: OEY) (formula: $CaMn_4O_6$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
21	A	1	Total	Ca	Mn	O	0	1
			11	1	4	6		
21	a	1	Total	Ca	Mn	O	0	1
			11	1	4	6		

- Molecule 22 is CA-MN4-O5 CLUSTER (three-letter code: OEX) (formula: $CaMn_4O_5$) (labeled as "Ligand of Interest" by depositor).



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

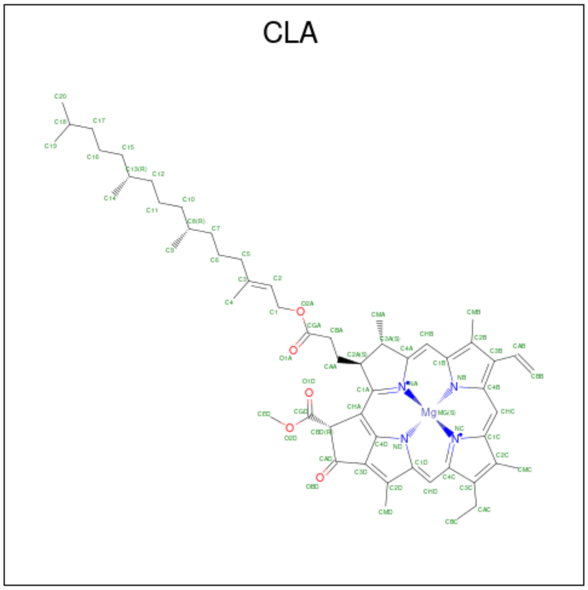
- Molecule 23 is FE (II) ION (three-letter code: FE2) (formula: Fe).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
23	A	1	Total	Fe	0	0
			1	1		
23	a	1	Total	Fe	0	0
			1	1		

- Molecule 24 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

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

- Molecule 25 is CHLOROPHYLL A (three-letter code: CLA) (formula: $C_{55}H_{72}MgN_4O_5$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
25	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	A	1	Total 54	C 44	Mg 1	N 4	O 5	0	0
25	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 59	C 49	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	D	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	D	1	Total 65	C 55	Mg 1	N 4	O 5	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
25	a	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	a	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	a	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	a	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
25	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0

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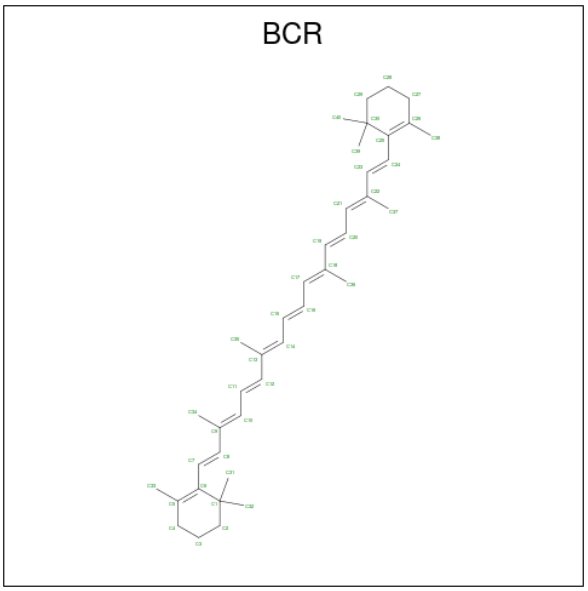
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
25	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	c	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
25	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	c	1	Total 64	C 54	Mg 1	N 4	O 5	0	0
25	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	d	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	d	1	Total 65	C 55	Mg 1	N 4	O 5	0	0

- Molecule 26 is BETA-CAROTENE (three-letter code: BCR) (formula: $C_{40}H_{56}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
26	A	1	Total C 40 40	0	0
26	B	1	Total C 40 40	0	0
26	B	1	Total C 40 40	0	0
26	B	1	Total C 40 40	0	0
26	C	1	Total C 40 40	0	0
26	D	1	Total C 40 40	0	0
26	H	1	Total C 40 40	0	0
26	K	1	Total C 40 40	0	0
26	K	1	Total C 40 40	0	0
26	T	1	Total C 40 40	0	0
26	Z	1	Total C 40 40	0	0
26	a	1	Total C 40 40	0	0
26	b	1	Total C 40 40	0	0
26	b	1	Total C 40 40	0	0

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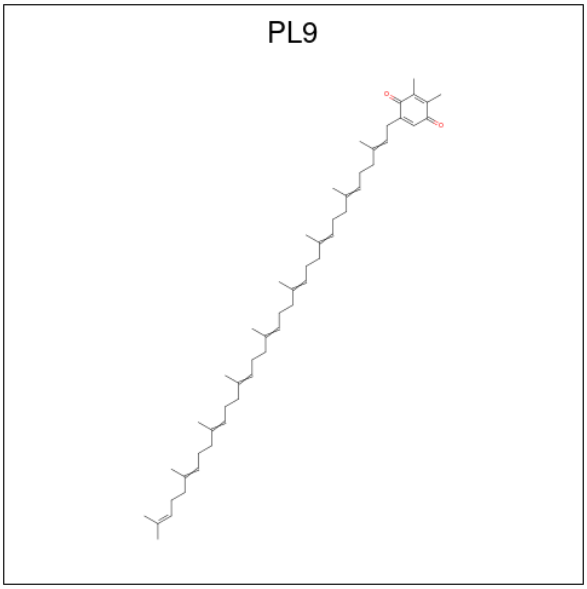
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
26	b	1	Total C 40 40	0	0
26	c	1	Total C 40 40	0	0
26	d	1	Total C 40 40	0	0
26	k	1	Total C 40 40	0	0
26	k	1	Total C 40 40	0	0
26	k	1	Total C 40 40	0	0
26	t	1	Total C 40 40	0	0
26	x	1	Total C 40 40	0	0

- Molecule 27 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
27	A	1	Total C O 55 53 2	0	0
27	D	1	Total C O 55 53 2	0	0

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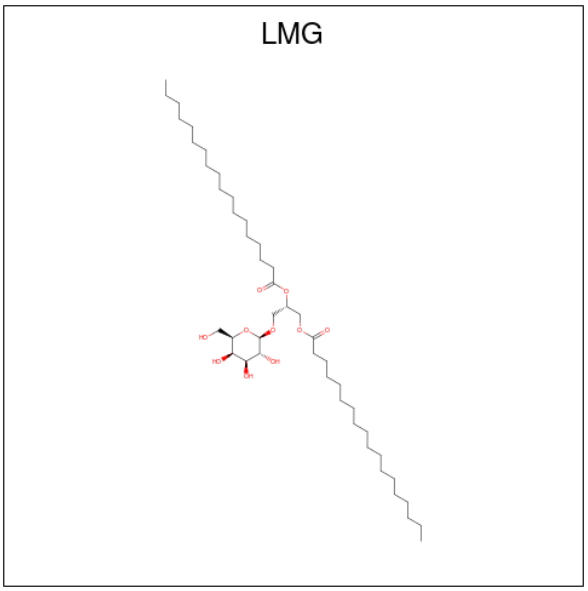
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
27	a	1	Total C O 55 53 2	0	0
27	d	1	Total C O 55 53 2	0	0

- Molecule 28 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: $C_{45}H_{86}O_{10}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
28	A	1	Total C O 48 38 10	0	0
28	B	1	Total C O 28 24 4	0	0
28	C	1	Total C O 48 38 10	0	0
28	D	1	Total C O 51 41 10	0	0
28	D	1	Total C O 33 27 6	0	0
28	M	1	Total C O 51 41 10	0	0
28	b	1	Total C O 51 41 10	0	0
28	b	1	Total C O 55 45 10	0	0
28	c	1	Total C O 37 27 10	0	0

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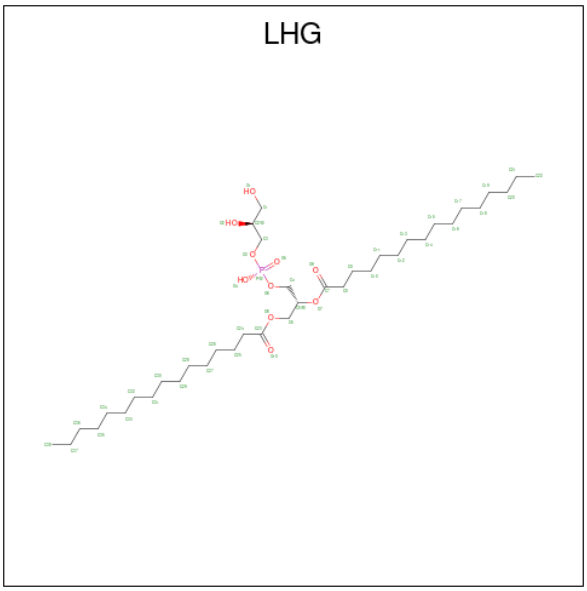
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
28	c	1	Total C O 48 38 10	0	0
28	c	1	Total C O 49 39 10	0	0
28	d	1	Total C O 23 21 2	0	0
28	d	1	Total C O 44 34 10	0	0

- Molecule 29 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula: $C_{38}H_{75}O_{10}P$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
29	A	1	Total C O P 47 36 10 1	0	0
29	B	1	Total C O P 49 38 10 1	0	0
29	D	1	Total C O P 49 38 10 1	0	0
29	E	1	Total C O P 49 38 10 1	0	0
29	L	1	Total C O P 49 38 10 1	0	0
29	d	1	Total C O P 49 38 10 1	0	0
29	d	1	Total C O P 49 38 10 1	0	0

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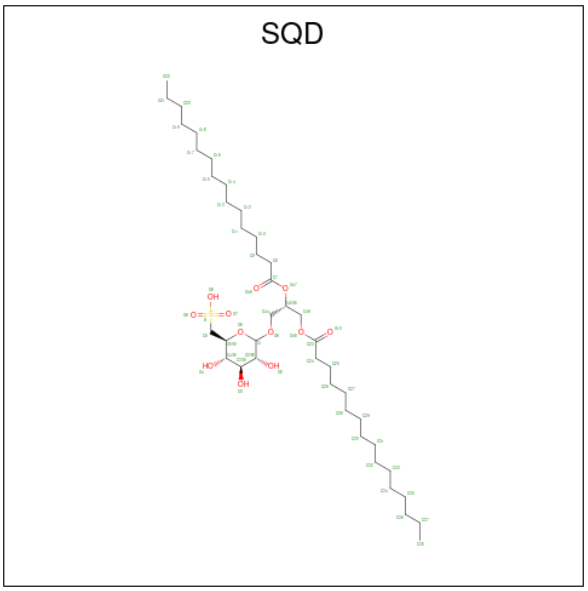
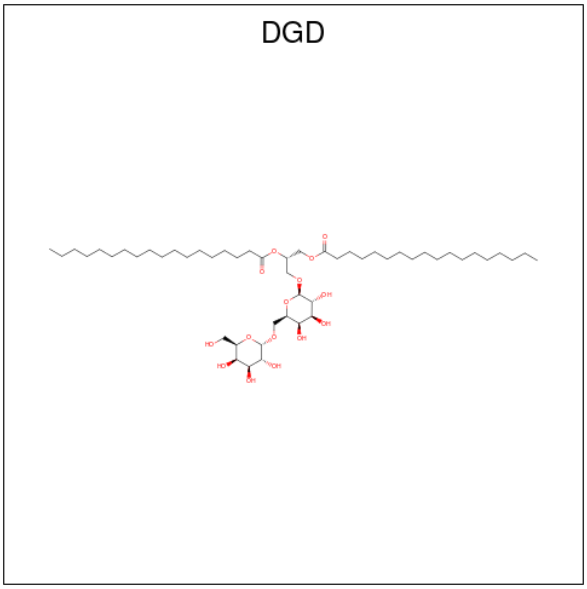
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
29	d	1	Total C O P 39 28 10 1	0	0
29	e	1	Total C O P 42 31 10 1	0	0
29	l	1	Total C O P 49 38 10 1	0	0

- Molecule 30 is 1,2-DI-O-ACYL-3-O-[6-DEOXY-6-SULFO-ALPHA-D-GLUCOPYRANOSYL]-SN-GLYCEROL (three-letter code: SQD) (formula: $C_{41}H_{78}O_{12}S$).



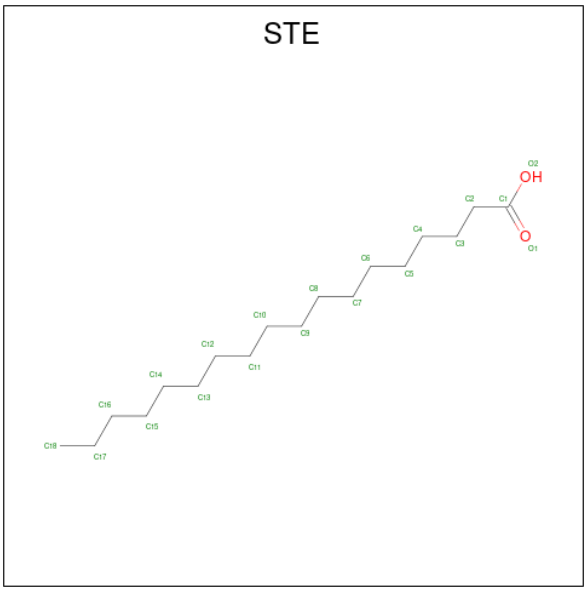
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
30	A	1	Total C O S 52 39 12 1	0	0
30	A	1	Total C O 39 35 4	0	0
30	B	1	Total C O S 54 41 12 1	0	0
30	D	1	Total C O S 36 25 10 1	0	0
30	a	1	Total C O S 54 41 12 1	0	0
30	a	1	Total C O 36 31 5	0	0
30	b	1	Total C O S 49 36 12 1	0	0
30	f	1	Total C O S 41 28 12 1	0	0

- Molecule 31 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula: $C_{51}H_{96}O_{15}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	A	1	Total C O 66 51 15	0	0
31	C	1	Total C O 62 47 15	0	0
31	C	1	Total C O 62 47 15	0	0
31	C	1	Total C O 62 47 15	0	0
31	H	1	Total C O 62 47 15	0	0
31	c	1	Total C O 62 47 15	0	0
31	c	1	Total C O 62 47 15	0	0
31	c	1	Total C O 62 47 15	0	0
31	h	1	Total C O 62 47 15	0	0
31	o	1	Total C O 44 39 5	0	0

- Molecule 32 is STEARIC ACID (three-letter code: STE) (formula: $C_{18}H_{36}O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
32	B	1	Total C O 17 15 2	0	0
32	B	1	Total C O 12 10 2	0	0
32	B	1	Total C O 18 16 2	0	0
32	B	1	Total C O 12 10 2	0	0
32	B	1	Total C 16 16	0	0
32	C	1	Total C O 12 10 2	0	0
32	C	1	Total C O 12 10 2	0	0
32	C	1	Total C 16 16	0	0
32	E	1	Total C O 12 10 2	0	0
32	H	1	Total C 18 18	0	0
32	I	1	Total C 15 15	0	0
32	J	1	Total C O 12 10 2	0	0
32	M	1	Total C O 15 13 2	0	0
32	M	1	Total C 10 10	0	0

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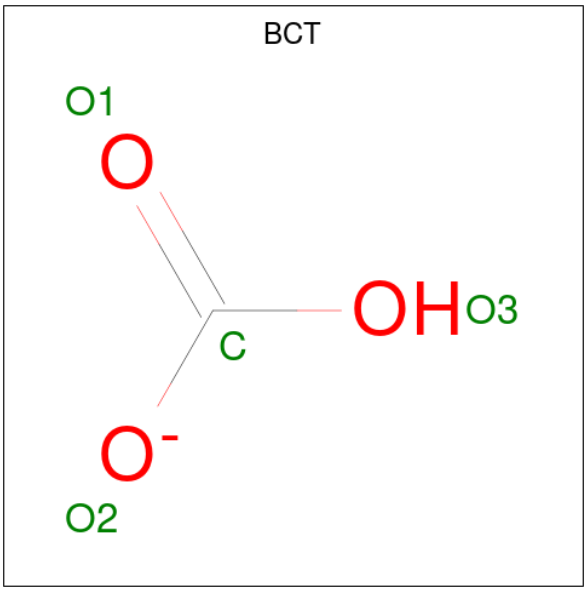
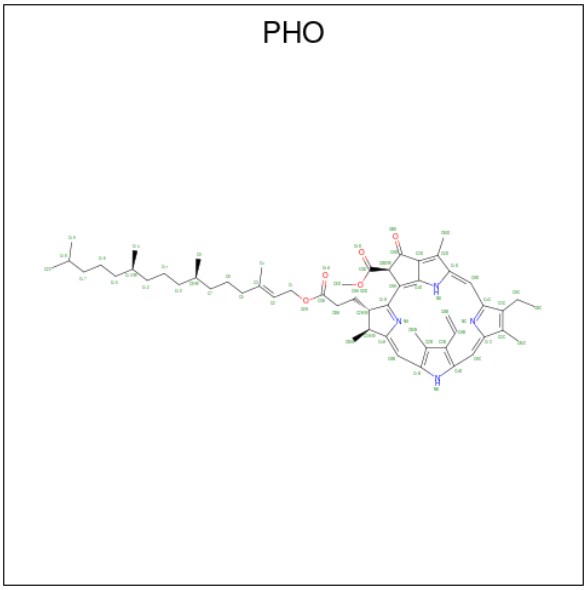
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
32	T	1	Total C 15 15	0	0
32	T	1	Total C O 20 18 2	0	0
32	X	1	Total C O 20 18 2	0	0
32	a	1	Total C O 12 10 2	0	0
32	b	1	Total C 16 16	0	0
32	b	1	Total C O 20 18 2	0	0
32	b	1	Total C O 16 14 2	0	0
32	b	1	Total C 10 10	0	0
32	c	1	Total C O 20 18 2	0	0
32	c	1	Total C O 12 10 2	0	0
32	d	1	Total C O 17 15 2	0	0
32	d	1	Total C O 20 18 2	0	0
32	j	1	Total C O 12 10 2	0	0
32	l	1	Total C 18 18	0	0
32	m	1	Total C O 12 10 2	0	0
32	t	1	Total C O 14 12 2	0	0
32	t	1	Total C 10 10	0	0

- Molecule 33 is BICARBONATE ION (three-letter code: BCT) (formula: CHO_3).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
33	D	1	Total	C	O	0	0
			4	1	3		
33	a	1	Total	C	O	0	0
			4	1	3		

- Molecule 34 is PHEOPHYTIN A (three-letter code: PHO) (formula: $C_{55}H_{74}N_4O_5$).



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

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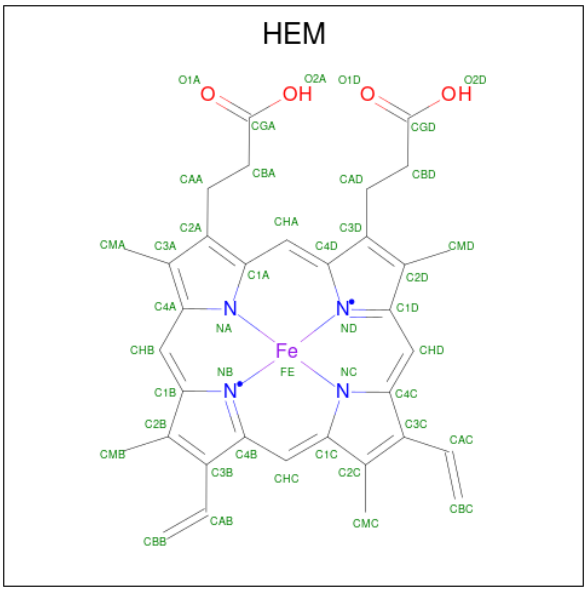
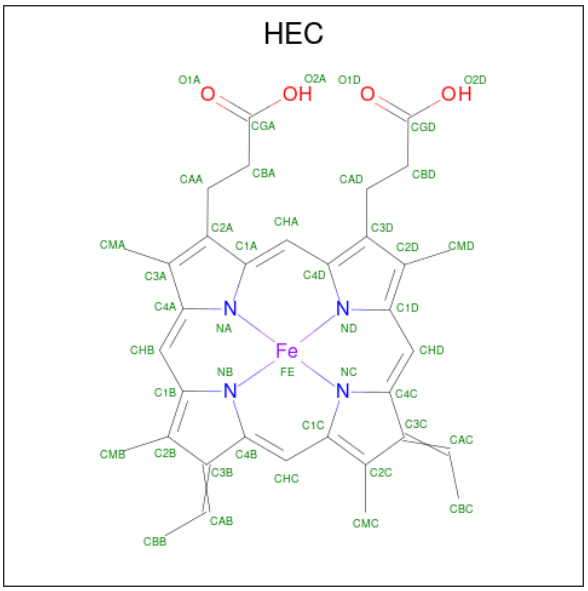
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
34	d	1	Total	C	N	O	0	0
			64	55	4	5		
34	d	1	Total	C	N	O	0	0
			64	55	4	5		

- Molecule 35 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula: $C_{34}H_{32}FeN_4O_4$).



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

- Molecule 36 is HEME C (three-letter code: HEC) (formula: $C_{34}H_{34}FeN_4O_4$).



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

- Molecule 37 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
37	A	140	Total	O	0	4
			144	144		
37	B	208	Total	O	0	0
			208	208		
37	C	199	Total	O	0	0
			199	199		
37	D	134	Total	O	0	0
			134	134		
37	E	31	Total	O	0	0
			31	31		
37	F	8	Total	O	0	0
			8	8		
37	H	30	Total	O	0	0
			30	30		
37	I	16	Total	O	0	0
			16	16		
37	J	12	Total	O	0	0
			12	12		
37	K	5	Total	O	0	0
			5	5		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
37	L	9	Total O 9 9	0	0
37	M	11	Total O 11 11	0	0
37	O	85	Total O 85 85	0	0
37	T	12	Total O 12 12	0	0
37	U	41	Total O 41 41	0	0
37	V	71	Total O 71 71	0	0
37	Y	5	Total O 5 5	0	0
37	X	9	Total O 9 9	0	0
37	Z	5	Total O 5 5	0	0
37	R	10	Total O 10 10	0	0
37	a	133	Total O 137 137	0	4
37	b	199	Total O 199 199	0	0
37	c	172	Total O 172 172	0	0
37	d	119	Total O 119 119	0	0
37	e	32	Total O 32 32	0	0
37	f	6	Total O 6 6	0	0
37	h	27	Total O 27 27	0	0
37	i	15	Total O 15 15	0	0
37	j	9	Total O 9 9	0	0
37	k	6	Total O 6 6	0	0
37	l	9	Total O 9 9	0	0

Continued on next page...

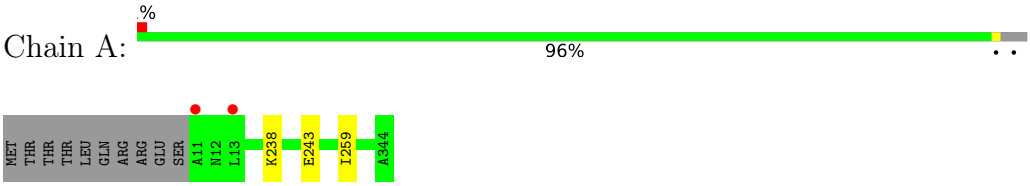
Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
37	m	10	Total O 10 10	0	0
37	o	102	Total O 102 102	0	0
37	t	9	Total O 9 9	0	0
37	u	53	Total O 53 53	0	0
37	v	57	Total O 57 57	0	0
37	y	5	Total O 5 5	0	0
37	x	9	Total O 9 9	0	0
37	z	3	Total O 3 3	0	0
37	r	4	Total O 4 4	0	0

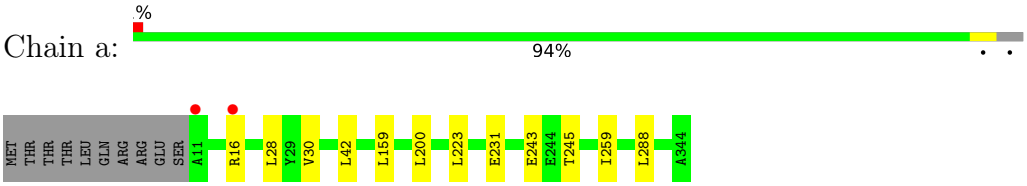
3 Residue-property plots (i)

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.

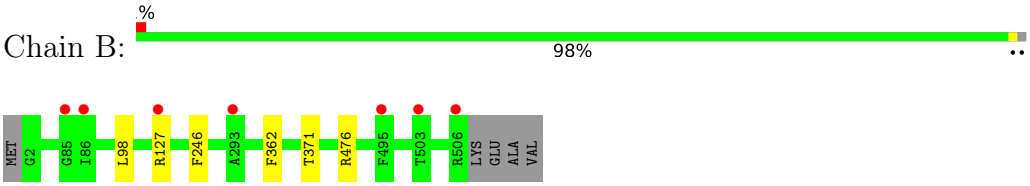
• Molecule 1: Photosystem II protein D1 1



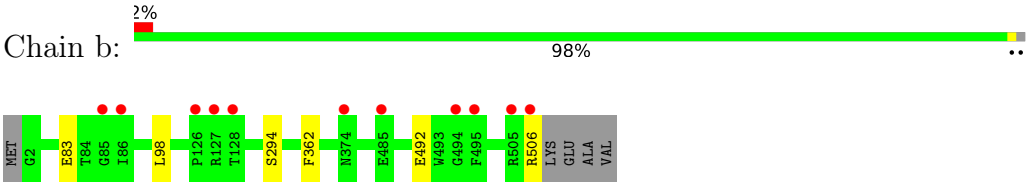
• Molecule 1: Photosystem II protein D1 1



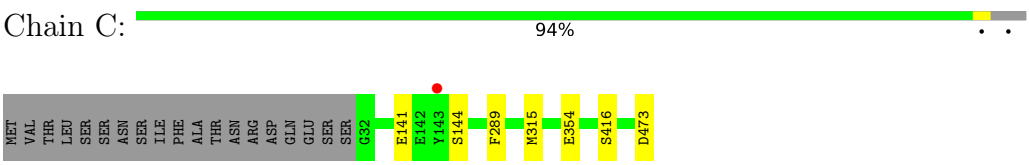
• Molecule 2: Photosystem II CP47 reaction center protein



• Molecule 2: Photosystem II CP47 reaction center protein

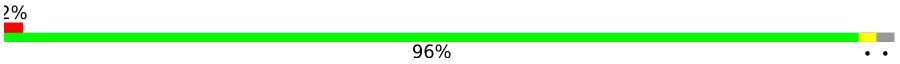


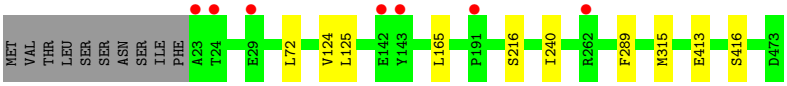
• Molecule 3: Photosystem II CP43 reaction center protein



• Molecule 3: Photosystem II CP43 reaction center protein

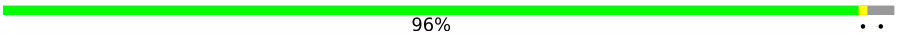
Chain c:

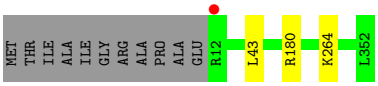




• Molecule 4: Photosystem II D2 protein

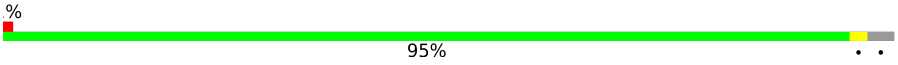
Chain D:

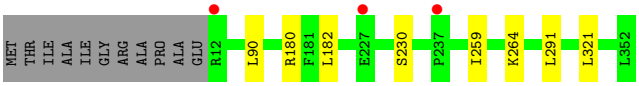




• Molecule 4: Photosystem II D2 protein

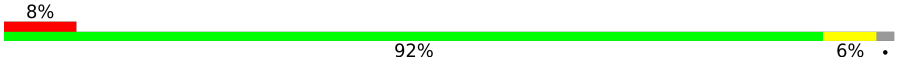
Chain d:

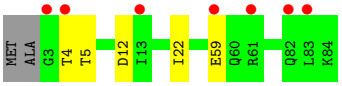




• Molecule 5: Cytochrome b559 subunit alpha

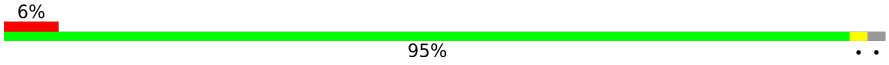
Chain E:

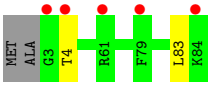




• Molecule 5: Cytochrome b559 subunit alpha

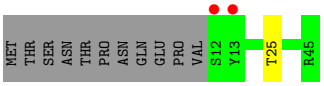
Chain e:





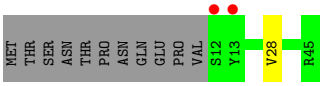
• Molecule 6: Cytochrome b559 subunit beta

Chain F:



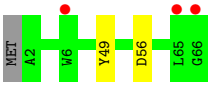
• Molecule 6: Cytochrome b559 subunit beta

Chain f:



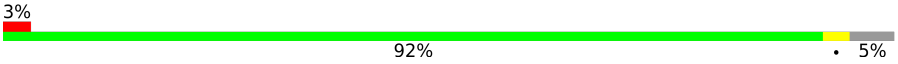
• Molecule 7: Photosystem II reaction center protein H

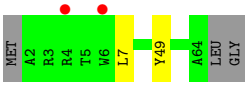
Chain H:



• Molecule 7: Photosystem II reaction center protein H

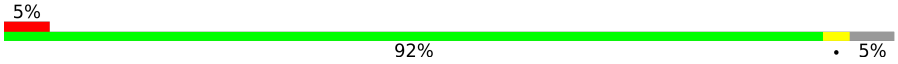
Chain h:

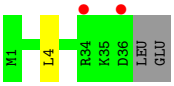




• Molecule 8: Photosystem II reaction center protein I

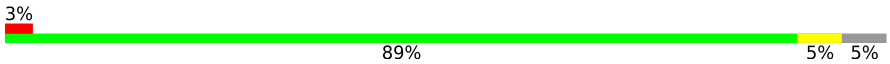
Chain I:

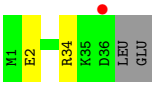




• Molecule 8: Photosystem II reaction center protein I

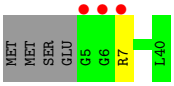
Chain i:





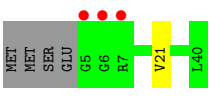
• Molecule 9: Photosystem II reaction center protein J

Chain J:



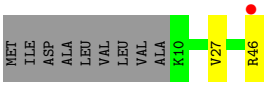
• Molecule 9: Photosystem II reaction center protein J

Chain j:



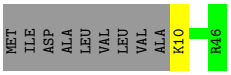
• Molecule 10: Photosystem II reaction center protein K

Chain K:



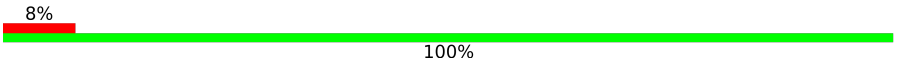
• Molecule 10: Photosystem II reaction center protein K

Chain k:



• Molecule 11: Photosystem II reaction center protein L

Chain L:

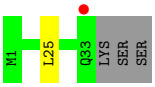


• Molecule 11: Photosystem II reaction center protein L

Chain l:

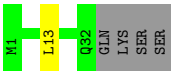
• Molecule 12: Photosystem II reaction center protein M

Chain M:



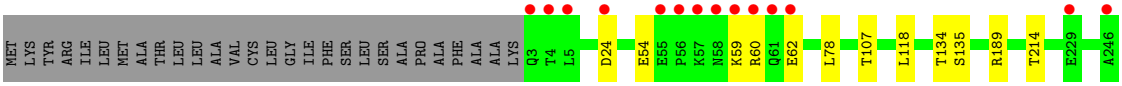
• Molecule 12: Photosystem II reaction center protein M

Chain m:



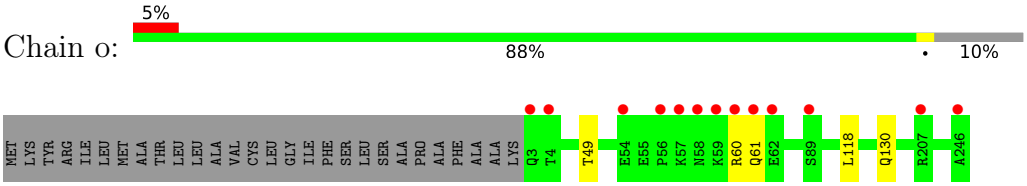
• Molecule 13: Photosystem II manganese-stabilizing polypeptide

Chain O:



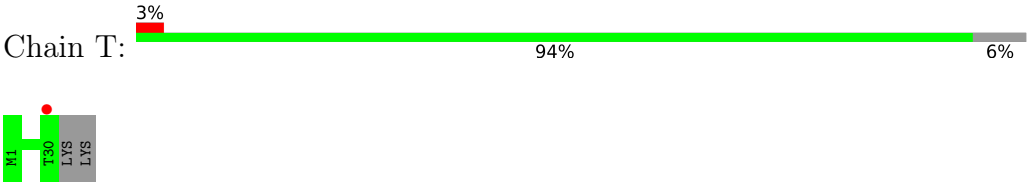
• Molecule 13: Photosystem II manganese-stabilizing polypeptide

Chain o:



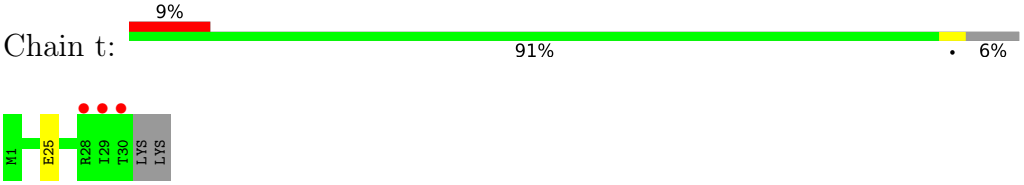
• Molecule 14: Photosystem II reaction center protein T

Chain T:



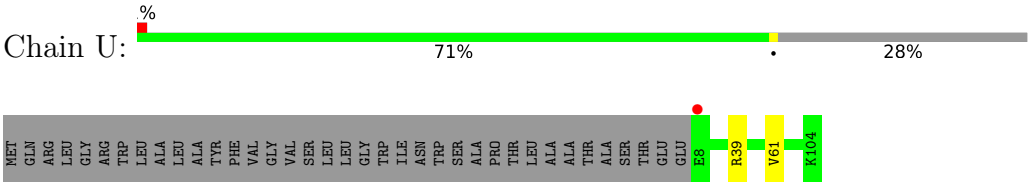
• Molecule 14: Photosystem II reaction center protein T

Chain t:



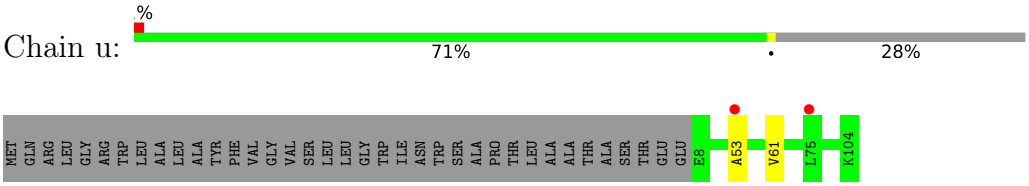
• Molecule 15: Photosystem II 12 kDa extrinsic protein

Chain U:



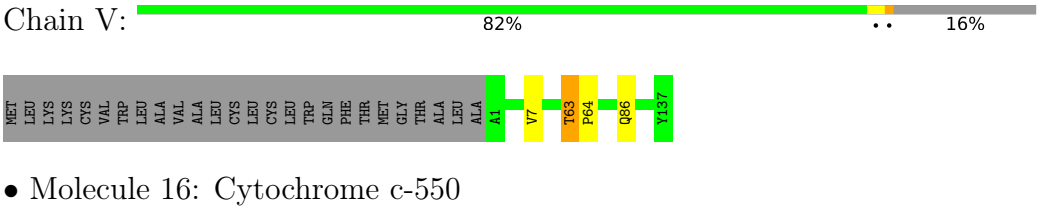
• Molecule 15: Photosystem II 12 kDa extrinsic protein

Chain u:



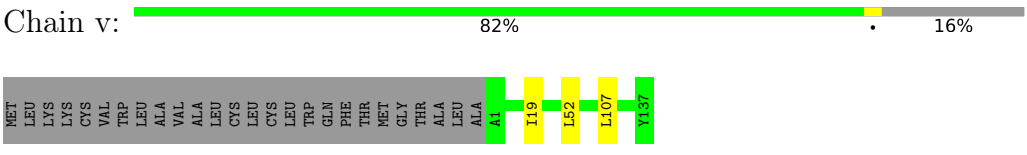
• Molecule 16: Cytochrome c-550

Chain V:



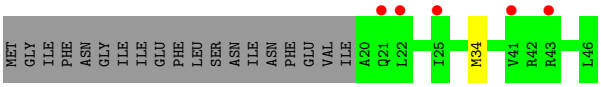
• Molecule 16: Cytochrome c-550

Chain v:



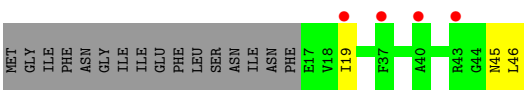
• Molecule 17: Photosystem II reaction center protein Ycf12

Chain Y:



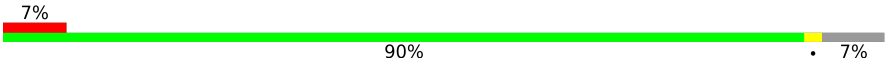
• Molecule 17: Photosystem II reaction center protein Ycf12

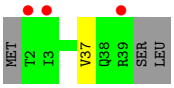
Chain y:



• Molecule 18: Photosystem II reaction center X protein

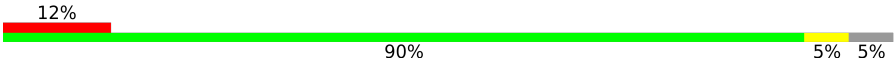
Chain X:

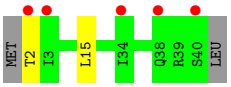




• Molecule 18: Photosystem II reaction center X protein

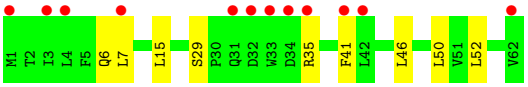
Chain x:





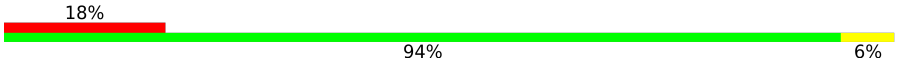
• Molecule 19: Photosystem II reaction center protein Z

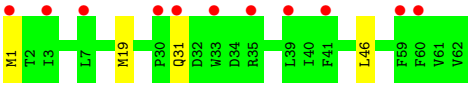
Chain Z:



• Molecule 19: Photosystem II reaction center protein Z

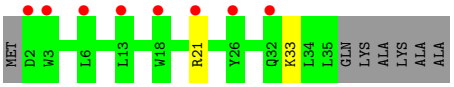
Chain z:





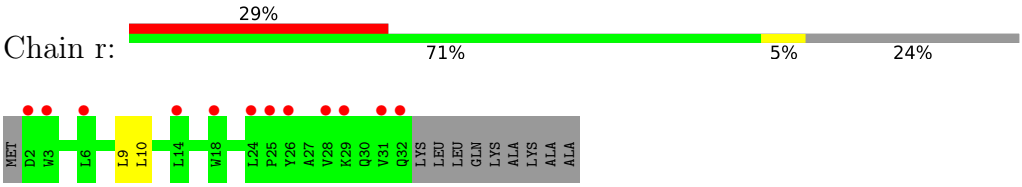
• Molecule 20: Photosystem II protein Y

Chain R:



• 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	117.33Å 222.79Å 309.12Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	19.80 – 2.00 19.80 – 2.00	Depositor EDS
% Data completeness (in resolution range)	99.7 (19.80-2.00) 85.7 (19.80-2.00)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.39 (at 2.01Å)	Xtriage
Refinement program	PHENIX 1.19.2_4158	Depositor
R, R_{free}	0.180 , 0.224 0.180 , 0.225	Depositor DCC
R_{free} test set	4804 reflections (0.89%)	wwPDB-VP
Wilson B-factor (Å^2)	27.6	Xtriage
Anisotropy	0.236	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 64.3	EDS
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	53435	wwPDB-VP
Average B, all atoms (Å^2)	40.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.63% 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: BCT, CLA, STE, OEX, DGD, PHO, OEY, LHG, HEM, SQD, CL, PL9, BCR, HEC, FE2, FME, LMG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.43	0/3212	0.59	0/4376
1	a	0.42	0/3209	0.58	0/4372
2	B	0.40	0/4155	0.57	0/5661
2	b	0.39	0/4118	0.56	1/5611 (0.0%)
3	C	0.39	0/3625	0.54	0/4935
3	c	0.37	0/3705	0.54	0/5042
4	D	0.42	0/2825	0.57	0/3847
4	d	0.40	0/2834	0.57	0/3859
5	E	0.36	0/688	0.53	0/940
5	e	0.34	0/683	0.53	0/932
6	F	0.34	0/284	0.48	0/387
6	f	0.31	0/284	0.51	0/387
7	H	0.40	0/523	0.54	0/713
7	h	0.37	0/511	0.56	0/697
8	I	0.41	0/293	0.56	0/396
8	i	0.43	0/293	0.54	0/396
9	J	0.36	0/263	0.56	0/356
9	j	0.34	0/263	0.53	0/356
10	K	0.36	0/303	0.50	0/416
10	k	0.35	0/303	0.55	0/416
11	L	0.38	0/311	0.56	0/422
11	l	0.39	0/303	0.62	1/412 (0.2%)
12	M	0.36	0/249	0.51	0/341
12	m	0.39	0/244	0.51	0/334
13	O	0.38	0/1904	0.64	0/2585
13	o	0.38	0/1905	0.62	0/2583
14	T	0.46	0/257	0.59	0/349
14	t	0.41	0/255	0.52	0/346
15	U	0.33	0/785	0.57	0/1064
15	u	0.35	0/785	0.59	0/1064
16	V	0.34	0/1085	0.58	1/1473 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
16	v	0.33	0/1085	0.55	0/1473
17	Y	0.30	0/197	0.53	0/264
17	y	0.28	0/219	0.50	0/294
18	X	0.35	0/284	0.50	0/384
18	x	0.32	0/289	0.43	0/391
19	Z	0.32	0/490	0.48	0/669
19	z	0.30	0/488	0.41	0/666
20	R	0.32	0/277	0.54	0/380
20	r	0.30	0/252	0.50	0/347
All	All	0.39	0/44038	0.56	3/59936 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
16	V	0	1

There are no bond length outliers.

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	b	98	LEU	CA-CB-CG	5.55	128.08	115.30
16	V	63	THR	C-N-CD	-5.05	109.50	120.60
11	l	30	LEU	CA-CB-CG	5.02	126.84	115.30

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	V	63	THR	Peptide

5.2 Too-close contacts (i)

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

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	395/344 (115%)	389 (98%)	5 (1%)	1 (0%)	41 37
1	a	395/344 (115%)	388 (98%)	5 (1%)	2 (0%)	29 23
2	B	507/510 (99%)	498 (98%)	9 (2%)	0	100 100
2	b	503/510 (99%)	494 (98%)	8 (2%)	1 (0%)	47 44
3	C	451/461 (98%)	443 (98%)	7 (2%)	1 (0%)	47 44
3	c	461/461 (100%)	453 (98%)	7 (2%)	1 (0%)	47 44
4	D	340/352 (97%)	331 (97%)	9 (3%)	0	100 100
4	d	341/352 (97%)	332 (97%)	9 (3%)	0	100 100
5	E	81/84 (96%)	80 (99%)	1 (1%)	0	100 100
5	e	80/84 (95%)	80 (100%)	0	0	100 100
6	F	32/45 (71%)	32 (100%)	0	0	100 100
6	f	32/45 (71%)	32 (100%)	0	0	100 100
7	H	63/66 (96%)	61 (97%)	2 (3%)	0	100 100
7	h	61/66 (92%)	58 (95%)	3 (5%)	0	100 100
8	I	34/38 (90%)	33 (97%)	1 (3%)	0	100 100
8	i	34/38 (90%)	31 (91%)	3 (9%)	0	100 100
9	J	34/40 (85%)	32 (94%)	1 (3%)	1 (3%)	4 1
9	j	34/40 (85%)	33 (97%)	1 (3%)	0	100 100
10	K	35/46 (76%)	35 (100%)	0	0	100 100
10	k	35/46 (76%)	35 (100%)	0	0	100 100
11	L	35/37 (95%)	35 (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	30/36 (83%)	29 (97%)	1 (3%)	0	100 100
13	O	243/272 (89%)	231 (95%)	8 (3%)	4 (2%)	9 4

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
13	o	242/272 (89%)	236 (98%)	5 (2%)	1 (0%)	34	30
14	T	28/32 (88%)	28 (100%)	0	0	100	100
14	t	28/32 (88%)	28 (100%)	0	0	100	100
15	U	95/134 (71%)	93 (98%)	2 (2%)	0	100	100
15	u	95/134 (71%)	91 (96%)	3 (3%)	1 (1%)	14	8
16	V	135/163 (83%)	131 (97%)	3 (2%)	1 (1%)	22	16
16	v	135/163 (83%)	129 (96%)	6 (4%)	0	100	100
17	Y	25/46 (54%)	24 (96%)	1 (4%)	0	100	100
17	y	28/46 (61%)	28 (100%)	0	0	100	100
18	X	36/41 (88%)	35 (97%)	1 (3%)	0	100	100
18	x	37/41 (90%)	37 (100%)	0	0	100	100
19	Z	60/62 (97%)	58 (97%)	2 (3%)	0	100	100
19	z	60/62 (97%)	58 (97%)	2 (3%)	0	100	100
20	R	32/41 (78%)	31 (97%)	1 (3%)	0	100	100
20	r	29/41 (71%)	28 (97%)	1 (3%)	0	100	100
All	All	5386/5700 (94%)	5265 (98%)	107 (2%)	14 (0%)	41	37

All (14) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	C	416	SER
16	V	64	PRO
3	c	416	SER
9	J	7	ARG
13	O	60	ARG
15	u	53	ALA
13	O	62	GLU
13	o	61	GLN
13	O	59	LYS
13	O	134	THR
2	b	294	SER
1	a	259	ILE
1	A	259	ILE
1	a	30	VAL

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	322/280 (115%)	320 (99%)	2 (1%)	86 90
1	a	321/280 (115%)	310 (97%)	11 (3%)	37 36
2	B	407/407 (100%)	401 (98%)	6 (2%)	65 69
2	b	402/407 (99%)	398 (99%)	4 (1%)	76 81
3	C	353/362 (98%)	346 (98%)	7 (2%)	55 58
3	c	362/362 (100%)	352 (97%)	10 (3%)	43 44
4	D	277/283 (98%)	274 (99%)	3 (1%)	73 78
4	d	278/283 (98%)	270 (97%)	8 (3%)	42 43
5	E	72/73 (99%)	66 (92%)	6 (8%)	11 7
5	e	71/73 (97%)	69 (97%)	2 (3%)	43 44
6	F	28/39 (72%)	27 (96%)	1 (4%)	35 34
6	f	28/39 (72%)	27 (96%)	1 (4%)	35 34
7	H	54/55 (98%)	52 (96%)	2 (4%)	34 32
7	h	53/55 (96%)	51 (96%)	2 (4%)	33 31
8	I	32/34 (94%)	31 (97%)	1 (3%)	40 40
8	i	32/34 (94%)	30 (94%)	2 (6%)	18 13
9	J	24/28 (86%)	24 (100%)	0	100 100
9	j	24/28 (86%)	23 (96%)	1 (4%)	30 27
10	K	30/37 (81%)	28 (93%)	2 (7%)	16 11
10	k	30/37 (81%)	29 (97%)	1 (3%)	38 37
11	L	35/35 (100%)	35 (100%)	0	100 100
11	l	34/35 (97%)	30 (88%)	4 (12%)	5 3
12	M	28/32 (88%)	27 (96%)	1 (4%)	35 34
12	m	28/32 (88%)	27 (96%)	1 (4%)	35 34
13	O	206/228 (90%)	198 (96%)	8 (4%)	32 30
13	o	207/228 (91%)	203 (98%)	4 (2%)	57 61

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
14	T	26/28 (93%)	26 (100%)	0	100 100
14	t	25/28 (89%)	24 (96%)	1 (4%)	31 29
15	U	84/112 (75%)	82 (98%)	2 (2%)	49 51
15	u	84/112 (75%)	83 (99%)	1 (1%)	71 76
16	V	117/138 (85%)	115 (98%)	2 (2%)	60 65
16	v	117/138 (85%)	114 (97%)	3 (3%)	46 48
17	Y	19/37 (51%)	18 (95%)	1 (5%)	22 18
17	y	22/37 (60%)	19 (86%)	3 (14%)	3 2
18	X	31/34 (91%)	30 (97%)	1 (3%)	39 38
18	x	31/34 (91%)	29 (94%)	2 (6%)	17 12
19	Z	52/52 (100%)	43 (83%)	9 (17%)	2 1
19	z	51/52 (98%)	47 (92%)	4 (8%)	12 8
20	R	28/33 (85%)	26 (93%)	2 (7%)	14 10
20	r	25/33 (76%)	23 (92%)	2 (8%)	12 7
All	All	4450/4654 (96%)	4327 (97%)	123 (3%)	43 44

All (123) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	238	LYS
1	A	243	GLU
2	B	98	LEU
2	B	127	ARG
2	B	246	PHE
2	B	362	PHE
2	B	371	THR
2	B	476	ARG
3	C	141	GLU
3	C	144	SER
3	C	289	PHE
3	C	315	MET
3	C	354[A]	GLU
3	C	354[B]	GLU
3	C	473	ASP
4	D	43	LEU
4	D	180	ARG
4	D	264	LYS

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Mol	Chain	Res	Type
5	E	4	THR
5	E	5	THR
5	E	12	ASP
5	E	22[A]	ILE
5	E	22[B]	ILE
5	E	59	GLU
6	F	25	THR
7	H	49	TYR
7	H	56	ASP
8	I	4	LEU
10	K	27	VAL
10	K	46	ARG
12	M	25	LEU
13	O	24	ASP
13	O	54	GLU
13	O	78	LEU
13	O	107	THR
13	O	118	LEU
13	O	135	SER
13	O	189	ARG
13	O	214	THR
15	U	39	ARG
15	U	61	VAL
16	V	7	VAL
16	V	86	GLN
17	Y	34	MET
18	X	37	VAL
19	Z	6	GLN
19	Z	7	LEU
19	Z	15	LEU
19	Z	29	SER
19	Z	35	ARG
19	Z	41	PHE
19	Z	46	LEU
19	Z	50	LEU
19	Z	52	LEU
20	R	21	ARG
20	R	33	LYS
1	a	16	ARG
1	a	28	LEU
1	a	42	LEU
1	a	159[A]	LEU

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Mol	Chain	Res	Type
1	a	159[B]	LEU
1	a	200	LEU
1	a	223	LEU
1	a	231	GLU
1	a	243	GLU
1	a	245	THR
1	a	288	LEU
2	b	83	GLU
2	b	362	PHE
2	b	492	GLU
2	b	506	ARG
3	c	72	LEU
3	c	124	VAL
3	c	125	LEU
3	c	165	LEU
3	c	216	SER
3	c	240	ILE
3	c	289	PHE
3	c	315	MET
3	c	413[A]	GLU
3	c	413[B]	GLU
4	d	90	LEU
4	d	180	ARG
4	d	182	LEU
4	d	230	SER
4	d	259	ILE
4	d	264	LYS
4	d	291	LEU
4	d	321	LEU
5	e	4	THR
5	e	83	LEU
6	f	28	VAL
7	h	7	LEU
7	h	49	TYR
8	i	2	GLU
8	i	34	ARG
9	j	21	VAL
10	k	10	LYS
11	l	2	GLU
11	l	7	ARG
11	l	21	LEU
11	l	30	LEU

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Mol	Chain	Res	Type
12	m	13	LEU
13	o	49	THR
13	o	60	ARG
13	o	118	LEU
13	o	130	GLN
14	t	25	GLU
15	u	61	VAL
16	v	19	ILE
16	v	52	LEU
16	v	107	LEU
17	y	19	ILE
17	y	45	ASN
17	y	46	LEU
18	x	2	THR
18	x	15	LEU
19	z	1	MET
19	z	19	MET
19	z	31	GLN
19	z	46	LEU
20	r	9	LEU
20	r	10	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (17) such sidechains are listed below:

Mol	Chain	Res	Type
13	O	82	GLN
13	O	88	ASN
16	V	86	GLN
18	X	38	GLN
19	Z	6	GLN
19	Z	31	GLN
19	Z	38	GLN
1	a	234	ASN
2	b	409	GLN
2	b	490	GLN
3	c	28	GLN
3	c	378	ASN
5	e	60	GLN
5	e	82	GLN
18	x	33	GLN
19	z	31	GLN
20	r	30	GLN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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	0.93	0	7,9,11	0.79	0
8	FME	I	1	8	8,9,10	0.95	0	7,9,11	0.77	0
12	FME	M	1	12	8,9,10	0.99	0	7,9,11	0.70	0
14	FME	T	1	14	8,9,10	1.06	0	7,9,11	0.81	0
12	FME	m	1	12	8,9,10	0.91	0	7,9,11	0.86	0
14	FME	t	1	14	8,9,10	1.10	0	7,9,11	1.01	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
8	FME	i	1	8	-	0/7/9/11	-
8	FME	I	1	8	-	0/7/9/11	-
12	FME	M	1	12	-	0/7/9/11	-
14	FME	T	1	14	-	2/7/9/11	-
12	FME	m	1	12	-	0/7/9/11	-
14	FME	t	1	14	-	4/7/9/11	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
14	t	1	FME	O-C-CA-CB
14	T	1	FME	CB-CG-SD-CE
14	t	1	FME	CB-CG-SD-CE
14	t	1	FME	C-CA-CB-CG
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 188 ligands modelled in this entry, 6 are monoatomic - leaving 182 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	$\#\|Z\| > 2$
25	CLA	C	509	-	65,73,73	1.48	6 (9%)	76,113,113	1.39	8 (10%)
25	CLA	c	510	-	65,73,73	1.62	6 (9%)	76,113,113	1.44	8 (10%)
25	CLA	C	506	-	65,73,73	1.53	7 (10%)	76,113,113	1.26	8 (10%)
28	LMG	b	622	-	51,51,55	0.86	2 (3%)	59,59,63	1.41	7 (11%)
31	DGD	o	301	-	43,43,67	0.80	3 (6%)	45,45,81	1.42	7 (15%)
32	STE	d	412	-	16,16,19	0.58	0	16,16,19	1.22	1 (6%)
32	STE	l	102	-	17,17,19	0.30	0	16,16,19	0.95	0
34	PHO	d	401	-	51,69,69	0.99	2 (3%)	47,99,99	1.10	3 (6%)
25	CLA	A	607	37	65,73,73	1.60	6 (9%)	76,113,113	1.45	11 (14%)
25	CLA	C	512	-	65,73,73	1.55	8 (12%)	76,113,113	1.39	10 (13%)
26	BCR	H	101	-	41,41,41	0.96	1 (2%)	56,56,56	1.18	4 (7%)
28	LMG	D	411	-	31,31,55	0.70	1 (3%)	33,33,63	1.23	3 (9%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
25	CLA	B	602	-	65,73,73	1.55	8 (12%)	76,113,113	1.44	11 (14%)
32	STE	M	102	-	14,14,19	0.74	0	14,14,19	1.05	0
25	CLA	B	609	-	65,73,73	1.53	8 (12%)	76,113,113	1.44	10 (13%)
29	LHG	E	101	-	48,48,48	0.75	2 (4%)	51,54,54	1.23	6 (11%)
28	LMG	B	621	-	26,26,55	0.67	1 (3%)	26,26,63	1.23	2 (7%)
34	PHO	D	403	-	51,69,69	0.99	3 (5%)	47,99,99	1.30	6 (12%)
25	CLA	A	608	-	54,62,73	1.59	5 (9%)	62,99,113	1.50	8 (12%)
25	CLA	c	504	37	60,68,73	1.51	5 (8%)	70,107,113	1.44	10 (14%)
29	LHG	d	408	-	48,48,48	0.68	1 (2%)	51,54,54	1.22	6 (11%)
25	CLA	a	609	-	65,73,73	1.57	8 (12%)	76,113,113	1.36	9 (11%)
30	SQD	A	615	-	38,38,54	1.71	5 (13%)	40,40,65	1.25	3 (7%)
25	CLA	b	609	-	65,73,73	1.60	8 (12%)	76,113,113	1.42	6 (7%)
33	BCT	D	401	23	2,3,3	1.11	0	2,3,3	3.29	1 (50%)
26	BCR	A	609	-	41,41,41	0.93	2 (4%)	56,56,56	1.27	6 (10%)
25	CLA	B	603	-	65,73,73	1.58	8 (12%)	76,113,113	1.45	10 (13%)
27	PL9	a	611	-	55,55,55	0.66	1 (1%)	68,69,69	1.54	10 (14%)
32	STE	B	626	-	11,11,19	0.68	0	11,11,19	1.35	2 (18%)
25	CLA	b	602	-	65,73,73	1.38	5 (7%)	76,113,113	1.47	9 (11%)
32	STE	H	103	-	17,17,19	0.35	0	16,16,19	0.88	0
31	DGD	C	515	-	63,63,67	1.00	5 (7%)	77,77,81	1.37	9 (11%)
31	DGD	c	516	-	63,63,67	1.01	2 (3%)	77,77,81	1.37	10 (12%)
31	DGD	H	102	-	63,63,67	1.20	7 (11%)	77,77,81	1.37	10 (12%)
32	STE	b	626	-	9,9,19	0.34	0	8,8,19	0.71	0
28	LMG	b	624	-	55,55,55	0.78	3 (5%)	63,63,63	1.40	10 (15%)
26	BCR	b	617	-	41,41,41	1.00	3 (7%)	56,56,56	1.24	4 (7%)
29	LHG	L	101	-	48,48,48	0.74	1 (2%)	51,54,54	1.17	4 (7%)
32	STE	B	624	-	11,11,19	0.74	0	11,11,19	1.28	0
25	CLA	c	511	3	65,73,73	1.73	7 (10%)	76,113,113	1.52	7 (9%)
25	CLA	B	611	-	65,73,73	1.51	7 (10%)	76,113,113	1.41	8 (10%)
25	CLA	c	509	-	65,73,73	1.45	6 (9%)	76,113,113	1.52	8 (10%)
26	BCR	B	617	-	41,41,41	0.97	2 (4%)	56,56,56	1.17	5 (8%)
32	STE	I	101	-	14,14,19	0.34	0	13,13,19	0.80	0
25	CLA	B	612	-	65,73,73	1.36	5 (7%)	76,113,113	1.53	13 (17%)
27	PL9	d	406	-	55,55,55	1.16	4 (7%)	68,69,69	1.65	14 (20%)
28	LMG	A	612	-	48,48,55	0.95	4 (8%)	56,56,63	1.23	4 (7%)
32	STE	M	103	-	9,9,19	0.35	0	8,8,19	0.75	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
25	CLA	B	608	-	65,73,73	1.53	6 (9%)	76,113,113	1.51	9 (11%)
26	BCR	B	618	-	41,41,41	0.99	2 (4%)	56,56,56	1.19	5 (8%)
25	CLA	C	505	-	65,73,73	1.63	6 (9%)	76,113,113	1.44	7 (9%)
26	BCR	k	103	-	41,41,41	1.02	2 (4%)	56,56,56	1.16	4 (7%)
25	CLA	B	607	37	65,73,73	1.43	7 (10%)	76,113,113	1.48	9 (11%)
36	HEC	v	201	16	32,50,50	2.19	4 (12%)	24,82,82	1.63	5 (20%)
25	CLA	b	604	-	65,73,73	1.49	6 (9%)	76,113,113	1.55	9 (11%)
22	OEX	a	602[A]	37,3,1	0,15,15	-	-	-		
28	LMG	c	520	-	48,48,55	0.99	5 (10%)	56,56,63	1.29	6 (10%)
32	STE	B	627	-	15,15,19	0.36	0	14,14,19	0.78	0
29	LHG	l	101	-	48,48,48	0.69	1 (2%)	51,54,54	1.20	4 (7%)
31	DGD	C	517	-	63,63,67	0.92	1 (1%)	77,77,81	1.39	10 (12%)
32	STE	b	623	-	19,19,19	0.64	0	19,19,19	0.99	0
22	OEX	A	602[A]	37,3,1	0,15,15	-	-	-		
25	CLA	C	508	-	65,73,73	1.47	7 (10%)	76,113,113	1.55	11 (14%)
32	STE	B	625	-	17,17,19	0.60	0	17,17,19	1.17	0
32	STE	C	521	-	15,15,19	0.30	0	14,14,19	0.92	0
25	CLA	C	513	-	65,73,73	1.48	7 (10%)	76,113,113	1.53	7 (9%)
25	CLA	c	507	37	65,73,73	1.52	10 (15%)	76,113,113	1.51	10 (13%)
30	SQD	f	102	-	40,41,54	1.67	8 (20%)	49,52,65	1.77	12 (24%)
25	CLA	B	606	-	65,73,73	1.74	9 (13%)	76,113,113	1.46	7 (9%)
21	OEY	a	601[B]	37,3,1	0,16,16	-	-	-		
25	CLA	B	616	-	60,68,73	1.59	7 (11%)	70,107,113	1.45	7 (10%)
36	HEC	V	201	16	32,50,50	2.02	3 (9%)	24,82,82	2.14	6 (25%)
33	BCT	a	606	23	2,3,3	1.25	0	2,3,3	3.05	1 (50%)
32	STE	a	615	-	11,11,19	0.79	0	11,11,19	1.16	1 (9%)
26	BCR	t	101	-	41,41,41	0.96	2 (4%)	56,56,56	1.29	7 (12%)
30	SQD	B	623	-	53,54,54	1.56	9 (16%)	62,65,65	1.67	10 (16%)
25	CLA	B	614	-	65,73,73	1.49	6 (9%)	76,113,113	1.51	11 (14%)
25	CLA	d	404	-	65,73,73	1.59	10 (15%)	76,113,113	1.29	7 (9%)
34	PHO	d	402	-	51,69,69	0.93	1 (1%)	47,99,99	1.42	6 (12%)
28	LMG	M	101	-	51,51,55	0.85	2 (3%)	59,59,63	1.36	4 (6%)
25	CLA	C	503	-	65,73,73	1.59	10 (15%)	76,113,113	1.75	12 (15%)
28	LMG	D	408	-	51,51,55	0.86	2 (3%)	59,59,63	1.32	5 (8%)
26	BCR	K	101	-	41,41,41	1.01	2 (4%)	56,56,56	1.14	5 (8%)
27	PL9	A	610	-	55,55,55	0.89	1 (1%)	68,69,69	1.51	13 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
28	LMG	d	410	-	21,21,55	0.51	0	20,20,63	1.27	3 (15%)
28	LMG	d	411	-	44,44,55	0.82	1 (2%)	52,52,63	1.32	6 (11%)
32	STE	b	621	-	15,15,19	0.34	0	14,14,19	0.82	0
25	CLA	c	502	-	65,73,73	1.48	6 (9%)	76,113,113	1.36	9 (11%)
26	BCR	k	101	-	41,41,41	1.07	2 (4%)	56,56,56	1.24	6 (10%)
32	STE	d	413	-	19,19,19	0.64	0	19,19,19	1.05	1 (5%)
25	CLA	A	606	-	65,73,73	1.60	7 (10%)	76,113,113	1.32	7 (9%)
25	CLA	b	603	-	65,73,73	1.60	9 (13%)	76,113,113	1.45	10 (13%)
25	CLA	C	510	-	65,73,73	1.43	7 (10%)	76,113,113	1.51	8 (10%)
25	CLA	b	608	-	65,73,73	1.60	8 (12%)	76,113,113	1.50	13 (17%)
32	STE	c	519	-	19,19,19	0.58	0	19,19,19	1.02	0
28	LMG	c	522	-	49,49,55	0.90	4 (8%)	57,57,63	1.26	3 (5%)
25	CLA	b	601	37	65,73,73	1.58	7 (10%)	76,113,113	1.47	7 (9%)
25	CLA	B	604	-	65,73,73	1.51	7 (10%)	76,113,113	1.56	10 (13%)
25	CLA	c	512	-	65,73,73	1.49	7 (10%)	76,113,113	1.41	10 (13%)
25	CLA	b	616	-	60,68,73	1.58	6 (10%)	70,107,113	1.56	10 (14%)
25	CLA	a	612	37	65,73,73	1.73	8 (12%)	76,113,113	1.50	8 (10%)
32	STE	C	520	-	11,11,19	0.70	0	11,11,19	1.20	1 (9%)
25	CLA	c	513	-	65,73,73	1.53	6 (9%)	76,113,113	1.36	7 (9%)
25	CLA	a	607	-	65,73,73	1.59	10 (15%)	76,113,113	1.48	7 (9%)
25	CLA	C	504	37	59,67,73	1.56	7 (11%)	68,105,113	1.38	10 (14%)
26	BCR	c	514	-	41,41,41	1.11	3 (7%)	56,56,56	1.21	5 (8%)
35	HEM	F	101	5,6	41,50,50	1.48	4 (9%)	45,82,82	1.36	5 (11%)
31	DGD	A	616	-	67,67,67	1.10	7 (10%)	81,81,81	1.31	8 (9%)
32	STE	X	101	-	19,19,19	0.58	0	19,19,19	1.17	0
32	STE	b	625	-	15,15,19	0.71	0	15,15,19	0.94	0
26	BCR	d	405	-	41,41,41	1.05	2 (4%)	56,56,56	1.20	6 (10%)
32	STE	C	519	-	11,11,19	0.67	0	11,11,19	1.46	1 (9%)
32	STE	T	103	-	19,19,19	0.58	0	19,19,19	1.08	1 (5%)
32	STE	t	103	-	9,9,19	0.35	0	8,8,19	0.77	0
25	CLA	c	506	-	65,73,73	1.61	8 (12%)	76,113,113	1.37	9 (11%)
25	CLA	C	501	-	65,73,73	1.76	10 (15%)	76,113,113	1.38	6 (7%)
26	BCR	a	610	-	41,41,41	0.91	1 (2%)	56,56,56	1.26	6 (10%)
32	STE	c	521	-	11,11,19	0.72	0	11,11,19	1.15	0
25	CLA	c	501	-	65,73,73	1.40	7 (10%)	76,113,113	1.47	8 (10%)
30	SQD	D	409	-	35,36,54	1.50	5 (14%)	42,45,65	3.18	12 (28%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
26	BCR	T	101	-	41,41,41	0.91	1 (2%)	56,56,56	1.22	7 (12%)
31	DGD	c	515	-	63,63,67	1.00	4 (6%)	77,77,81	1.41	12 (15%)
31	DGD	C	516	-	63,63,67	1.07	6 (9%)	77,77,81	1.37	14 (18%)
25	CLA	b	605	-	65,73,73	1.61	5 (7%)	76,113,113	1.47	13 (17%)
30	SQD	a	613	-	53,54,54	1.54	5 (9%)	62,65,65	1.85	12 (19%)
32	STE	B	620	-	16,16,19	0.68	0	16,16,19	1.09	0
25	CLA	B	605	-	65,73,73	1.38	5 (7%)	76,113,113	1.35	10 (13%)
26	BCR	x	101	-	41,41,41	0.97	2 (4%)	56,56,56	1.21	4 (7%)
25	CLA	D	405	-	65,73,73	1.51	9 (13%)	76,113,113	1.35	8 (10%)
25	CLA	a	608	37	65,73,73	1.55	6 (9%)	76,113,113	1.36	11 (14%)
25	CLA	A	611	37	65,73,73	1.61	8 (12%)	76,113,113	1.43	7 (9%)
25	CLA	C	511	3	65,73,73	1.59	6 (9%)	76,113,113	1.51	11 (14%)
29	LHG	D	410	-	48,48,48	0.80	2 (4%)	51,54,54	1.22	7 (13%)
30	SQD	a	614	-	35,35,54	1.64	5 (14%)	37,37,65	1.49	6 (16%)
32	STE	j	101	-	11,11,19	0.75	0	11,11,19	1.07	0
26	BCR	D	406	-	41,41,41	1.00	2 (4%)	56,56,56	1.07	3 (5%)
29	LHG	e	101	-	41,41,48	0.75	1 (2%)	44,47,54	1.32	6 (13%)
26	BCR	B	619	-	41,41,41	1.01	2 (4%)	56,56,56	1.23	4 (7%)
26	BCR	K	102	-	41,41,41	0.97	2 (4%)	56,56,56	1.04	2 (3%)
28	LMG	c	518	-	37,37,55	1.00	3 (8%)	45,45,63	1.33	5 (11%)
29	LHG	B	622	-	48,48,48	0.78	1 (2%)	51,54,54	1.30	7 (13%)
25	CLA	b	610	37	65,73,73	1.49	7 (10%)	76,113,113	1.47	13 (17%)
25	CLA	B	613	-	65,73,73	1.48	7 (10%)	76,113,113	1.52	9 (11%)
27	PL9	D	407	-	55,55,55	0.91	3 (5%)	68,69,69	1.71	14 (20%)
25	CLA	B	610	37	65,73,73	1.60	10 (15%)	76,113,113	1.36	9 (11%)
25	CLA	b	611	-	65,73,73	1.49	5 (7%)	76,113,113	1.43	9 (11%)
30	SQD	b	620	-	48,49,54	1.62	10 (20%)	57,60,65	1.80	11 (19%)
25	CLA	d	403	-	65,73,73	1.46	8 (12%)	76,113,113	1.30	7 (9%)
29	LHG	d	407	-	48,48,48	0.74	2 (4%)	51,54,54	1.32	6 (11%)
26	BCR	b	619	-	41,41,41	0.96	2 (4%)	56,56,56	1.10	3 (5%)
29	LHG	d	409	-	38,38,48	0.81	1 (2%)	41,44,54	1.07	2 (4%)
31	DGD	c	517	-	63,63,67	0.86	0	77,77,81	1.33	7 (9%)
25	CLA	b	614	-	65,73,73	1.49	7 (10%)	76,113,113	1.39	11 (14%)
34	PHO	D	402	-	51,69,69	0.99	3 (5%)	47,99,99	1.24	5 (10%)
25	CLA	b	612	-	65,73,73	1.56	8 (12%)	76,113,113	1.55	10 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
25	CLA	c	508	-	64,72,73	1.55	7 (10%)	74,111,113	1.47	9 (12%)
32	STE	T	102	-	14,14,19	0.30	0	13,13,19	0.99	0
26	BCR	b	618	-	41,41,41	1.12	2 (4%)	56,56,56	1.13	5 (8%)
25	CLA	D	404	-	65,73,73	1.46	5 (7%)	76,113,113	1.47	11 (14%)
25	CLA	c	505	-	65,73,73	1.56	9 (13%)	76,113,113	1.25	9 (11%)
25	CLA	C	507	37	65,73,73	1.52	6 (9%)	76,113,113	1.49	11 (14%)
32	STE	J	101	-	11,11,19	0.71	0	11,11,19	1.09	0
25	CLA	b	607	37	65,73,73	1.48	8 (12%)	76,113,113	1.38	8 (10%)
25	CLA	C	502	-	65,73,73	1.48	7 (10%)	76,113,113	1.32	8 (10%)
32	STE	E	102	-	11,11,19	0.73	0	11,11,19	1.17	1 (9%)
25	CLA	b	613	-	65,73,73	1.67	8 (12%)	76,113,113	1.63	11 (14%)
26	BCR	Z	101	-	41,41,41	1.03	2 (4%)	56,56,56	1.12	4 (7%)
28	LMG	C	518	-	48,48,55	0.80	1 (2%)	56,56,63	1.33	8 (14%)
35	HEM	f	101	5,6	41,50,50	1.48	5 (12%)	45,82,82	1.62	9 (20%)
32	STE	m	101	-	11,11,19	0.69	0	11,11,19	1.19	1 (9%)
25	CLA	B	601	37	65,73,73	1.67	7 (10%)	76,113,113	1.54	10 (13%)
21	OEY	A	601[B]	37,3,1	0,16,16	-	-	-		
32	STE	t	102	-	13,13,19	0.66	0	13,13,19	1.21	1 (7%)
25	CLA	b	615	-	65,73,73	1.63	8 (12%)	76,113,113	1.48	8 (10%)
29	LHG	A	613	-	46,46,48	0.85	2 (4%)	49,52,54	1.22	4 (8%)
26	BCR	C	514	-	41,41,41	1.02	2 (4%)	56,56,56	1.13	6 (10%)
26	BCR	k	102	-	41,41,41	1.00	2 (4%)	56,56,56	1.04	2 (3%)
31	DGD	h	101	-	63,63,67	0.97	3 (4%)	77,77,81	1.41	11 (14%)
25	CLA	B	615	-	65,73,73	1.71	9 (13%)	76,113,113	1.28	7 (9%)
25	CLA	c	503	-	65,73,73	1.54	8 (12%)	76,113,113	1.52	10 (13%)
30	SQD	A	614	-	51,52,54	1.54	7 (13%)	60,63,65	1.96	11 (18%)
25	CLA	b	606	-	65,73,73	1.73	7 (10%)	76,113,113	1.51	6 (7%)

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
25	CLA	C	509	-	1/1/15/20	14/37/115/115	-
25	CLA	c	510	-	1/1/15/20	10/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	C	506	-	1/1/15/20	13/37/115/115	-
28	LMG	b	622	-	-	17/46/66/70	0/1/1/1
31	DGD	o	301	-	-	19/45/45/95	-
32	STE	d	412	-	-	10/14/14/17	-
32	STE	l	102	-	-	9/15/15/17	-
34	PHO	d	401	-	-	2/37/103/103	0/5/6/6
25	CLA	A	607	37	1/1/15/20	12/37/115/115	-
25	CLA	C	512	-	1/1/15/20	17/37/115/115	-
26	BCR	H	101	-	-	4/29/63/63	0/2/2/2
28	LMG	D	411	-	-	14/33/33/70	-
25	CLA	B	602	-	1/1/15/20	8/37/115/115	-
32	STE	M	102	-	-	6/12/12/17	-
25	CLA	B	609	-	-	3/37/115/115	-
29	LHG	E	101	-	-	23/53/53/53	-
28	LMG	B	621	-	-	5/22/22/70	-
34	PHO	D	403	-	-	3/37/103/103	0/5/6/6
25	CLA	A	608	-	1/1/12/20	3/24/102/115	-
25	CLA	c	504	37	1/1/14/20	10/31/109/115	-
29	LHG	d	408	-	-	21/53/53/53	-
25	CLA	a	609	-	1/1/15/20	9/37/115/115	-
30	SQD	A	615	-	-	12/39/39/69	-
25	CLA	b	609	-	-	7/37/115/115	-
26	BCR	A	609	-	-	2/29/63/63	0/2/2/2
25	CLA	B	603	-	1/1/15/20	6/37/115/115	-
27	PL9	a	611	-	-	15/53/73/73	0/1/1/1
32	STE	B	626	-	-	6/9/9/17	-
25	CLA	b	602	-	1/1/15/20	9/37/115/115	-
32	STE	H	103	-	-	10/15/15/17	-
31	DGD	C	515	-	-	24/51/91/95	0/2/2/2
31	DGD	c	516	-	-	19/51/91/95	0/2/2/2
31	DGD	H	102	-	-	17/51/91/95	0/2/2/2
32	STE	b	626	-	-	5/7/7/17	-
28	LMG	b	624	-	-	24/50/70/70	0/1/1/1
26	BCR	b	617	-	-	4/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	LHG	L	101	-	-	20/53/53/53	-
32	STE	B	624	-	-	5/9/9/17	-
25	CLA	c	511	3	1/1/15/20	9/37/115/115	-
25	CLA	B	611	-	1/1/15/20	5/37/115/115	-
25	CLA	c	509	-	1/1/15/20	11/37/115/115	-
26	BCR	B	617	-	-	5/29/63/63	0/2/2/2
32	STE	I	101	-	-	3/12/12/17	-
25	CLA	B	612	-	1/1/15/20	10/37/115/115	-
27	PL9	d	406	-	-	12/53/73/73	0/1/1/1
28	LMG	A	612	-	-	18/43/63/70	0/1/1/1
32	STE	M	103	-	-	5/7/7/17	-
25	CLA	B	608	-	1/1/15/20	6/37/115/115	-
26	BCR	B	618	-	-	3/29/63/63	0/2/2/2
25	CLA	C	505	-	1/1/15/20	10/37/115/115	-
26	BCR	k	103	-	-	6/29/63/63	0/2/2/2
25	CLA	B	607	37	1/1/15/20	8/37/115/115	-
36	HEC	v	201	16	-	2/10/54/54	-
25	CLA	b	604	-	1/1/15/20	8/37/115/115	-
28	LMG	c	520	-	-	21/43/63/70	0/1/1/1
32	STE	B	627	-	-	7/13/13/17	-
29	LHG	l	101	-	-	15/53/53/53	-
31	DGD	C	517	-	-	15/51/91/95	0/2/2/2
32	STE	b	623	-	-	12/17/17/17	-
25	CLA	C	508	-	-	8/37/115/115	-
32	STE	B	625	-	-	9/15/15/17	-
32	STE	C	521	-	-	5/13/13/17	-
25	CLA	C	513	-	1/1/15/20	12/37/115/115	-
25	CLA	c	507	37	1/1/15/20	8/37/115/115	-
30	SQD	f	102	-	-	17/36/56/69	0/1/1/1
25	CLA	B	606	-	1/1/15/20	13/37/115/115	-
25	CLA	B	616	-	1/1/14/20	7/31/109/115	-
36	HEC	V	201	16	-	2/10/54/54	-
32	STE	a	615	-	-	6/9/9/17	-
26	BCR	t	101	-	-	7/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
30	SQD	B	623	-	-	21/49/69/69	0/1/1/1
25	CLA	B	614	-	1/1/15/20	10/37/115/115	-
25	CLA	d	404	-	1/1/15/20	8/37/115/115	-
34	PHO	d	402	-	-	5/37/103/103	0/5/6/6
28	LMG	M	101	-	-	22/46/66/70	0/1/1/1
25	CLA	C	503	-	1/1/15/20	5/37/115/115	-
28	LMG	D	408	-	-	18/46/66/70	0/1/1/1
26	BCR	K	101	-	-	5/29/63/63	0/2/2/2
27	PL9	A	610	-	-	26/53/73/73	0/1/1/1
28	LMG	d	410	-	-	13/17/17/70	-
28	LMG	d	411	-	-	13/39/59/70	0/1/1/1
32	STE	b	621	-	-	10/13/13/17	-
25	CLA	c	502	-	1/1/15/20	3/37/115/115	-
26	BCR	k	101	-	-	10/29/63/63	0/2/2/2
32	STE	d	413	-	-	10/17/17/17	-
25	CLA	A	606	-	1/1/15/20	4/37/115/115	-
25	CLA	b	603	-	1/1/15/20	13/37/115/115	-
25	CLA	C	510	-	1/1/15/20	6/37/115/115	-
25	CLA	b	608	-	1/1/15/20	6/37/115/115	-
32	STE	c	519	-	-	10/17/17/17	-
28	LMG	c	522	-	-	25/44/64/70	0/1/1/1
25	CLA	b	601	37	1/1/15/20	13/37/115/115	-
25	CLA	B	604	-	1/1/15/20	14/37/115/115	-
25	CLA	c	512	-	1/1/15/20	21/37/115/115	-
25	CLA	b	616	-	1/1/14/20	3/31/109/115	-
25	CLA	a	612	37	-	4/37/115/115	-
32	STE	C	520	-	-	4/9/9/17	-
25	CLA	c	513	-	1/1/15/20	6/37/115/115	-
25	CLA	a	607	-	1/1/15/20	4/37/115/115	-
25	CLA	C	504	37	1/1/13/20	8/30/108/115	-
26	BCR	c	514	-	-	5/29/63/63	0/2/2/2
35	HEM	F	101	5,6	-	2/12/54/54	-
31	DGD	A	616	-	-	28/55/95/95	0/2/2/2
32	STE	X	101	-	-	10/17/17/17	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	STE	b	625	-	-	7/13/13/17	-
26	BCR	d	405	-	-	6/29/63/63	0/2/2/2
32	STE	C	519	-	-	1/9/9/17	-
32	STE	T	103	-	-	8/17/17/17	-
32	STE	t	103	-	-	3/7/7/17	-
25	CLA	c	506	-	1/1/15/20	16/37/115/115	-
25	CLA	C	501	-	1/1/15/20	4/37/115/115	-
26	BCR	a	610	-	-	1/29/63/63	0/2/2/2
32	STE	c	521	-	-	4/9/9/17	-
25	CLA	c	501	-	1/1/15/20	6/37/115/115	-
30	SQD	D	409	-	-	13/28/48/69	0/1/1/1
26	BCR	T	101	-	-	7/29/63/63	0/2/2/2
31	DGD	c	515	-	-	26/51/91/95	0/2/2/2
31	DGD	C	516	-	-	22/51/91/95	0/2/2/2
25	CLA	b	605	-	1/1/15/20	11/37/115/115	-
30	SQD	a	613	-	-	24/49/69/69	0/1/1/1
32	STE	B	620	-	-	8/14/14/17	-
25	CLA	B	605	-	1/1/15/20	10/37/115/115	-
26	BCR	x	101	-	-	4/29/63/63	0/2/2/2
25	CLA	D	405	-	-	6/37/115/115	-
25	CLA	a	608	37	-	10/37/115/115	-
25	CLA	A	611	37	1/1/15/20	7/37/115/115	-
25	CLA	C	511	3	1/1/15/20	4/37/115/115	-
29	LHG	D	410	-	-	20/53/53/53	-
30	SQD	a	614	-	-	18/37/37/69	-
32	STE	j	101	-	-	5/9/9/17	-
26	BCR	D	406	-	-	6/29/63/63	0/2/2/2
29	LHG	e	101	-	-	26/46/46/53	-
26	BCR	B	619	-	-	6/29/63/63	0/2/2/2
26	BCR	K	102	-	-	8/29/63/63	0/2/2/2
28	LMG	c	518	-	-	12/31/51/70	0/1/1/1
29	LHG	B	622	-	-	18/53/53/53	-
25	CLA	b	610	37	1/1/15/20	5/37/115/115	-
25	CLA	B	613	-	1/1/15/20	11/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
27	PL9	D	407	-	-	11/53/73/73	0/1/1/1
25	CLA	B	610	37	1/1/15/20	6/37/115/115	-
25	CLA	b	611	-	1/1/15/20	5/37/115/115	-
30	SQD	b	620	-	-	18/44/64/69	0/1/1/1
25	CLA	d	403	-	1/1/15/20	6/37/115/115	-
29	LHG	d	407	-	-	18/53/53/53	-
26	BCR	b	619	-	-	1/29/63/63	0/2/2/2
29	LHG	d	409	-	-	9/43/43/53	-
31	DGD	c	517	-	-	23/51/91/95	0/2/2/2
25	CLA	b	614	-	1/1/15/20	22/37/115/115	-
34	PHO	D	402	-	-	4/37/103/103	0/5/6/6
25	CLA	b	612	-	1/1/15/20	3/37/115/115	-
25	CLA	c	508	-	-	5/36/114/115	-
32	STE	T	102	-	-	9/12/12/17	-
26	BCR	b	618	-	-	3/29/63/63	0/2/2/2
25	CLA	D	404	-	1/1/15/20	3/37/115/115	-
25	CLA	c	505	-	1/1/15/20	10/37/115/115	-
25	CLA	C	507	37	1/1/15/20	10/37/115/115	-
32	STE	J	101	-	-	7/9/9/17	-
25	CLA	b	607	37	1/1/15/20	15/37/115/115	-
25	CLA	C	502	-	-	8/37/115/115	-
32	STE	E	102	-	-	6/9/9/17	-
25	CLA	b	613	-	1/1/15/20	18/37/115/115	-
26	BCR	Z	101	-	-	4/29/63/63	0/2/2/2
28	LMG	C	518	-	-	20/43/63/70	0/1/1/1
35	HEM	f	101	5,6	-	4/12/54/54	-
32	STE	m	101	-	-	4/9/9/17	-
25	CLA	B	601	37	1/1/15/20	20/37/115/115	-
32	STE	t	102	-	-	3/11/11/17	-
25	CLA	b	615	-	1/1/15/20	9/37/115/115	-
29	LHG	A	613	-	-	19/51/51/53	-
26	BCR	C	514	-	-	2/29/63/63	0/2/2/2
26	BCR	k	102	-	-	8/29/63/63	0/2/2/2
31	DGD	h	101	-	-	14/51/91/95	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	B	615	-	1/1/15/20	11/37/115/115	-
25	CLA	c	503	-	1/1/15/20	8/37/115/115	-
30	SQD	A	614	-	-	22/47/67/69	0/1/1/1
25	CLA	b	606	-	1/1/15/20	6/37/115/115	-

All (716) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	b	613	CLA	C4B-NB	8.56	1.42	1.35
25	B	615	CLA	C4B-NB	8.44	1.42	1.35
25	b	605	CLA	C4B-NB	8.15	1.42	1.35
25	C	501	CLA	C4B-NB	8.02	1.42	1.35
25	B	603	CLA	C4B-NB	7.88	1.42	1.35
25	b	601	CLA	C4B-NB	7.86	1.42	1.35
25	b	609	CLA	C4B-NB	7.85	1.42	1.35
25	C	507	CLA	C4B-NB	7.84	1.42	1.35
25	B	601	CLA	C4B-NB	7.80	1.42	1.35
25	b	603	CLA	C4B-NB	7.78	1.42	1.35
25	c	511	CLA	MG-NA	7.77	2.24	2.06
25	d	404	CLA	C4B-NB	7.71	1.42	1.35
25	C	505	CLA	C4B-NB	7.66	1.42	1.35
25	C	504	CLA	C4B-NB	7.64	1.42	1.35
25	c	513	CLA	C4B-NB	7.59	1.42	1.35
25	a	609	CLA	C4B-NB	7.58	1.42	1.35
25	b	604	CLA	C4B-NB	7.55	1.41	1.35
25	B	606	CLA	MG-NA	7.54	2.24	2.06
25	C	513	CLA	C4B-NB	7.52	1.41	1.35
25	B	609	CLA	C4B-NB	7.51	1.41	1.35
25	b	606	CLA	MG-NA	7.51	2.24	2.06
25	B	602	CLA	C4B-NB	7.48	1.41	1.35
25	b	614	CLA	C4B-NB	7.47	1.41	1.35
25	A	607	CLA	C4B-NB	7.45	1.41	1.35
25	c	504	CLA	C4B-NB	7.44	1.41	1.35
25	A	608	CLA	C4B-NB	7.43	1.41	1.35
25	B	606	CLA	C4B-NB	7.41	1.41	1.35
25	B	608	CLA	C4B-NB	7.39	1.41	1.35
25	a	608	CLA	C4B-NB	7.39	1.41	1.35
25	b	615	CLA	C4B-NB	7.36	1.41	1.35
25	b	606	CLA	C4B-NB	7.35	1.41	1.35
25	c	505	CLA	C4B-NB	7.34	1.41	1.35
25	c	503	CLA	C4B-NB	7.27	1.41	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	a	612	CLA	MG-NA	7.26	2.23	2.06
25	c	509	CLA	C4B-NB	7.23	1.41	1.35
25	b	616	CLA	C4B-NB	7.21	1.41	1.35
25	C	502	CLA	C4B-NB	7.20	1.41	1.35
25	B	614	CLA	C4B-NB	7.13	1.41	1.35
25	C	511	CLA	C4B-NB	7.07	1.41	1.35
25	A	606	CLA	C4B-NB	7.07	1.41	1.35
25	C	509	CLA	C4B-NB	7.04	1.41	1.35
25	c	510	CLA	C4B-NB	7.02	1.41	1.35
25	c	511	CLA	C4B-NB	7.01	1.41	1.35
25	c	506	CLA	C4B-NB	7.01	1.41	1.35
25	C	503	CLA	C4B-NB	7.00	1.41	1.35
25	B	610	CLA	C4B-NB	6.99	1.41	1.35
25	C	506	CLA	C4B-NB	6.99	1.41	1.35
25	c	502	CLA	C4B-NB	6.99	1.41	1.35
25	c	508	CLA	C4B-NB	6.97	1.41	1.35
25	b	607	CLA	C4B-NB	6.97	1.41	1.35
25	B	613	CLA	C4B-NB	6.93	1.41	1.35
25	b	608	CLA	C4B-NB	6.91	1.41	1.35
25	b	612	CLA	C4B-NB	6.84	1.41	1.35
25	B	612	CLA	C4B-NB	6.82	1.41	1.35
25	c	512	CLA	C4B-NB	6.81	1.41	1.35
25	c	507	CLA	C4B-NB	6.72	1.41	1.35
25	B	616	CLA	C4B-NB	6.70	1.41	1.35
25	D	405	CLA	C4B-NB	6.69	1.41	1.35
25	A	611	CLA	C4B-NB	6.66	1.41	1.35
25	b	602	CLA	C4B-NB	6.65	1.41	1.35
25	b	610	CLA	C4B-NB	6.65	1.41	1.35
25	b	611	CLA	C4B-NB	6.63	1.41	1.35
25	C	508	CLA	C4B-NB	6.63	1.41	1.35
36	v	201	HEC	C2B-C3B	-6.61	1.33	1.40
25	C	512	CLA	C4B-NB	6.58	1.41	1.35
25	B	611	CLA	C4B-NB	6.56	1.41	1.35
25	C	510	CLA	C4B-NB	6.47	1.41	1.35
25	a	612	CLA	C4B-NB	6.41	1.40	1.35
25	c	501	CLA	C4B-NB	6.33	1.40	1.35
25	a	607	CLA	C4B-NB	6.29	1.40	1.35
36	V	201	HEC	C2B-C3B	-6.28	1.34	1.40
25	D	404	CLA	C4B-NB	6.27	1.40	1.35
25	B	607	CLA	C4B-NB	6.23	1.40	1.35
25	b	615	CLA	MG-NA	6.11	2.20	2.06
25	B	605	CLA	C4B-NB	6.10	1.40	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	B	604	CLA	C4B-NB	6.04	1.40	1.35
25	d	403	CLA	C4B-NB	5.87	1.40	1.35
25	C	505	CLA	MG-NA	5.77	2.20	2.06
25	C	511	CLA	MG-NA	5.71	2.19	2.06
25	B	615	CLA	MG-NA	5.69	2.19	2.06
25	c	510	CLA	MG-NA	5.57	2.19	2.06
36	v	201	HEC	C3C-C2C	-5.55	1.35	1.40
30	A	615	SQD	O47-C45	-5.45	1.37	1.47
25	B	601	CLA	MG-NA	5.45	2.19	2.06
25	b	608	CLA	MG-NA	5.44	2.19	2.06
25	A	606	CLA	MG-NA	5.37	2.19	2.06
36	V	201	HEC	C3C-C2C	-5.21	1.35	1.40
25	D	404	CLA	MG-NC	5.20	2.18	2.06
36	v	201	HEC	C3D-C2D	5.18	1.53	1.37
30	b	620	SQD	O48-C23	5.09	1.48	1.33
25	c	506	CLA	MG-ND	-5.07	1.95	2.05
25	B	603	CLA	MG-NA	5.05	2.18	2.06
36	V	201	HEC	C3D-C2D	5.02	1.52	1.37
30	a	613	SQD	O48-C23	4.99	1.47	1.33
25	B	611	CLA	MG-NA	4.99	2.18	2.06
30	D	409	SQD	O48-C23	4.92	1.47	1.33
25	b	612	CLA	MG-ND	-4.89	1.96	2.05
25	b	611	CLA	MG-NA	4.86	2.17	2.06
30	f	102	SQD	O48-C23	4.79	1.47	1.33
30	A	615	SQD	O48-C23	4.77	1.47	1.33
30	B	623	SQD	O48-C23	4.72	1.47	1.33
25	a	607	CLA	MG-NC	4.72	2.17	2.06
25	B	616	CLA	MG-NA	4.71	2.17	2.06
25	C	501	CLA	C1D-ND	4.69	1.43	1.37
30	a	614	SQD	O48-C23	4.66	1.47	1.33
25	A	607	CLA	MG-NA	4.64	2.17	2.06
25	C	501	CLA	MG-NA	4.63	2.17	2.06
30	A	614	SQD	O48-C23	4.61	1.46	1.33
25	A	611	CLA	MG-NA	4.61	2.17	2.06
25	a	609	CLA	C1D-ND	4.55	1.43	1.37
35	F	101	HEM	C3C-C2C	-4.51	1.34	1.40
25	b	610	CLA	C1D-ND	4.45	1.43	1.37
25	D	405	CLA	C1D-ND	4.44	1.43	1.37
25	C	501	CLA	MG-ND	-4.38	1.97	2.05
25	B	601	CLA	C1D-ND	4.30	1.43	1.37
25	b	613	CLA	MG-NA	4.28	2.16	2.06
27	d	406	PL9	C6-C1	-4.27	1.40	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	A	611	CLA	C1D-ND	4.27	1.43	1.37
25	B	604	CLA	MG-NA	4.20	2.16	2.06
25	c	502	CLA	C1D-ND	4.14	1.42	1.37
25	C	509	CLA	C1D-ND	4.13	1.42	1.37
25	c	512	CLA	C1D-ND	4.07	1.42	1.37
25	A	608	CLA	C1D-ND	4.06	1.42	1.37
25	B	616	CLA	C1D-ND	4.06	1.42	1.37
25	a	607	CLA	C1D-ND	4.05	1.42	1.37
25	C	503	CLA	MG-NA	4.04	2.15	2.06
25	B	604	CLA	C1D-ND	4.02	1.42	1.37
25	c	508	CLA	MG-NC	4.01	2.15	2.06
25	b	612	CLA	C1D-ND	4.00	1.42	1.37
25	B	602	CLA	MG-NA	3.98	2.15	2.06
25	C	506	CLA	C1D-ND	3.98	1.42	1.37
25	a	612	CLA	C1D-ND	3.97	1.42	1.37
25	B	613	CLA	MG-NC	3.94	2.15	2.06
25	C	511	CLA	C1D-ND	3.91	1.42	1.37
25	A	606	CLA	MG-ND	-3.88	1.98	2.05
25	b	603	CLA	C1D-ND	3.86	1.42	1.37
25	a	608	CLA	C4D-ND	-3.86	1.32	1.37
25	d	403	CLA	MG-NC	3.84	2.15	2.06
25	B	611	CLA	C1D-ND	3.83	1.42	1.37
25	c	509	CLA	C1D-ND	3.83	1.42	1.37
25	c	503	CLA	C1D-ND	3.82	1.42	1.37
25	B	609	CLA	MG-NA	3.81	2.15	2.06
35	f	101	HEM	C3C-CAC	3.80	1.55	1.47
25	a	608	CLA	C1D-ND	3.80	1.42	1.37
25	C	513	CLA	C1D-ND	3.79	1.42	1.37
25	b	601	CLA	C1D-ND	3.78	1.42	1.37
30	a	614	SQD	O47-C7	3.78	1.45	1.34
25	c	513	CLA	MG-NA	3.78	2.15	2.06
25	b	602	CLA	C1D-ND	3.77	1.42	1.37
25	C	508	CLA	MG-NA	3.77	2.15	2.06
25	B	610	CLA	MG-NA	3.76	2.15	2.06
25	C	505	CLA	CHC-C1C	3.76	1.44	1.35
25	C	507	CLA	C1D-ND	3.75	1.42	1.37
25	B	608	CLA	MG-NA	3.75	2.15	2.06
25	b	613	CLA	C1D-ND	3.75	1.42	1.37
25	c	510	CLA	C1D-ND	3.71	1.42	1.37
25	c	513	CLA	C1D-ND	3.70	1.42	1.37
35	f	101	HEM	C3C-C2C	-3.69	1.35	1.40
25	c	508	CLA	C4D-ND	-3.67	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	d	403	CLA	C1D-ND	3.67	1.42	1.37
25	b	608	CLA	CHC-C1C	3.67	1.44	1.35
25	b	601	CLA	MG-NA	3.65	2.14	2.06
25	C	512	CLA	C4D-ND	-3.64	1.32	1.37
27	d	406	PL9	C3-C4	-3.64	1.43	1.49
25	b	605	CLA	MG-NA	3.63	2.14	2.06
25	B	605	CLA	C1D-ND	3.63	1.42	1.37
25	c	507	CLA	C1D-ND	3.62	1.42	1.37
25	b	605	CLA	C1D-ND	3.62	1.42	1.37
25	b	614	CLA	CHC-C1C	3.61	1.44	1.35
25	b	616	CLA	C1D-ND	3.60	1.42	1.37
25	b	605	CLA	C4D-ND	-3.60	1.32	1.37
25	c	506	CLA	C1D-ND	3.60	1.42	1.37
25	c	501	CLA	C1D-ND	3.59	1.42	1.37
25	b	616	CLA	C4D-ND	-3.59	1.32	1.37
25	b	607	CLA	C1D-ND	3.58	1.42	1.37
30	B	623	SQD	O47-C7	3.58	1.44	1.34
27	A	610	PL9	C7-C3	-3.57	1.47	1.51
25	b	611	CLA	C1D-ND	3.56	1.42	1.37
25	c	504	CLA	C4D-ND	-3.55	1.32	1.37
25	B	615	CLA	CHC-C1C	3.55	1.44	1.35
25	b	605	CLA	CHC-C1C	3.55	1.44	1.35
25	b	615	CLA	C1D-ND	3.55	1.42	1.37
30	f	102	SQD	O47-C7	3.54	1.44	1.34
25	B	609	CLA	C1D-ND	3.54	1.42	1.37
25	b	604	CLA	MG-NA	3.54	2.14	2.06
25	d	404	CLA	CHC-C1C	3.53	1.44	1.35
25	d	404	CLA	C1D-ND	3.53	1.42	1.37
25	B	602	CLA	C1D-ND	3.53	1.42	1.37
25	A	607	CLA	C1D-ND	3.52	1.42	1.37
25	C	504	CLA	C1D-ND	3.50	1.42	1.37
25	C	507	CLA	MG-NA	3.50	2.14	2.06
25	B	607	CLA	C1D-ND	3.49	1.42	1.37
31	A	616	DGD	C4D-C3D	3.49	1.61	1.52
25	B	606	CLA	C1D-ND	3.48	1.42	1.37
25	C	503	CLA	C1D-ND	3.48	1.42	1.37
25	a	612	CLA	MG-ND	-3.48	1.98	2.05
25	c	508	CLA	CHC-C1C	3.48	1.43	1.35
25	B	614	CLA	C1D-ND	3.47	1.42	1.37
25	B	612	CLA	C4D-ND	-3.46	1.32	1.37
25	C	509	CLA	C4D-ND	-3.46	1.32	1.37
25	c	510	CLA	CHC-C1C	3.46	1.43	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	B	610	CLA	CHC-C1C	3.46	1.43	1.35
25	b	607	CLA	MG-NC	3.45	2.14	2.06
25	D	404	CLA	C1D-ND	3.44	1.42	1.37
30	b	620	SQD	O47-C7	3.44	1.44	1.34
25	c	503	CLA	C4D-ND	-3.44	1.33	1.37
25	B	605	CLA	C4D-ND	-3.43	1.33	1.37
25	c	511	CLA	C1D-ND	3.43	1.42	1.37
25	c	505	CLA	MG-ND	-3.43	1.99	2.05
25	b	604	CLA	C1D-ND	3.43	1.42	1.37
30	B	623	SQD	O47-C45	-3.43	1.38	1.46
25	B	608	CLA	C4D-ND	-3.42	1.33	1.37
25	B	612	CLA	CHC-C1C	3.42	1.43	1.35
25	b	609	CLA	MG-NA	3.42	2.14	2.06
25	b	614	CLA	C1D-ND	3.41	1.42	1.37
25	c	503	CLA	CHC-C1C	3.41	1.43	1.35
25	C	512	CLA	C1D-ND	3.41	1.42	1.37
26	b	618	BCR	C1-C6	-3.41	1.49	1.53
25	A	606	CLA	C1D-ND	3.41	1.42	1.37
35	F	101	HEM	C3C-CAC	3.41	1.54	1.47
25	A	611	CLA	CHC-C1C	3.40	1.43	1.35
25	c	505	CLA	CHC-C1C	3.40	1.43	1.35
30	A	614	SQD	O47-C45	-3.39	1.38	1.46
25	A	608	CLA	CHC-C1C	3.39	1.43	1.35
30	D	409	SQD	C24-C23	3.39	1.60	1.50
26	c	514	BCR	C1-C6	-3.38	1.49	1.53
25	C	512	CLA	MG-NC	3.38	2.14	2.06
25	B	608	CLA	C1D-ND	3.38	1.41	1.37
25	a	607	CLA	MG-NA	3.38	2.14	2.06
25	c	508	CLA	C1D-ND	3.38	1.41	1.37
25	b	601	CLA	CHC-C1C	3.37	1.43	1.35
25	c	504	CLA	CHC-C1C	3.36	1.43	1.35
25	B	610	CLA	C1D-ND	3.36	1.41	1.37
25	C	510	CLA	C1D-ND	3.35	1.41	1.37
25	B	613	CLA	C1D-ND	3.34	1.41	1.37
25	b	609	CLA	C1D-ND	3.34	1.41	1.37
30	a	613	SQD	O47-C45	-3.34	1.38	1.46
25	A	607	CLA	CHC-C1C	3.33	1.43	1.35
25	B	614	CLA	MG-NA	3.33	2.14	2.06
25	c	505	CLA	C1D-ND	3.33	1.41	1.37
25	c	506	CLA	MG-NA	3.33	2.14	2.06
25	C	510	CLA	C4D-ND	-3.32	1.33	1.37
25	C	501	CLA	CHC-C1C	3.32	1.43	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	c	511	CLA	CHC-C1C	3.32	1.43	1.35
30	B	623	SQD	O5-C1	3.31	1.50	1.41
25	B	611	CLA	CHC-C1C	3.31	1.43	1.35
25	c	509	CLA	CHC-C1C	3.31	1.43	1.35
30	b	620	SQD	O5-C1	3.31	1.50	1.41
25	B	613	CLA	C4D-ND	-3.31	1.33	1.37
25	B	608	CLA	CHC-C1C	3.30	1.43	1.35
25	C	508	CLA	CHC-C1C	3.30	1.43	1.35
30	A	615	SQD	O47-C7	3.30	1.43	1.34
25	C	512	CLA	MG-ND	-3.29	1.99	2.05
25	c	509	CLA	C4D-ND	-3.29	1.33	1.37
25	b	615	CLA	CHC-C1C	3.29	1.43	1.35
25	a	609	CLA	MG-ND	-3.29	1.99	2.05
25	B	606	CLA	CHC-C1C	3.29	1.43	1.35
25	C	505	CLA	C1D-ND	3.28	1.41	1.37
30	a	613	SQD	O47-C7	3.28	1.43	1.34
25	c	513	CLA	CHC-C1C	3.28	1.43	1.35
30	a	614	SQD	C24-C23	3.28	1.60	1.50
25	B	610	CLA	MG-NC	-3.28	1.98	2.06
25	D	404	CLA	C4D-ND	-3.27	1.33	1.37
26	B	617	BCR	C1-C6	-3.27	1.49	1.53
25	b	604	CLA	C4D-ND	-3.27	1.33	1.37
25	C	503	CLA	CHC-C1C	3.27	1.43	1.35
25	b	603	CLA	CHC-C1C	3.27	1.43	1.35
25	b	608	CLA	C1D-ND	3.26	1.41	1.37
25	b	609	CLA	MG-NC	3.26	2.14	2.06
31	H	102	DGD	O5D-C1E	3.26	1.45	1.40
26	c	514	BCR	C30-C25	-3.25	1.49	1.53
25	A	607	CLA	C4D-ND	-3.25	1.33	1.37
25	b	604	CLA	CHC-C1C	3.25	1.43	1.35
25	b	612	CLA	C4D-ND	-3.25	1.33	1.37
25	c	506	CLA	CHC-C1C	3.24	1.43	1.35
25	a	608	CLA	CHC-C1C	3.24	1.43	1.35
26	Z	101	BCR	C30-C25	-3.24	1.49	1.53
26	K	102	BCR	C1-C6	-3.23	1.49	1.53
25	b	609	CLA	C4D-ND	-3.23	1.33	1.37
25	b	616	CLA	MG-NA	3.23	2.13	2.06
26	d	405	BCR	C30-C25	-3.22	1.49	1.53
25	B	602	CLA	CHC-C1C	3.22	1.43	1.35
25	C	510	CLA	CHC-C1C	3.22	1.43	1.35
25	b	602	CLA	CHC-C1C	3.21	1.43	1.35
25	c	512	CLA	CHC-C1C	3.21	1.43	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	b	618	BCR	C30-C25	-3.21	1.49	1.53
25	C	506	CLA	CHC-C1C	3.21	1.43	1.35
25	c	512	CLA	C4D-ND	-3.20	1.33	1.37
25	C	512	CLA	CHC-C1C	3.20	1.43	1.35
26	k	101	BCR	C1-C6	-3.20	1.49	1.53
25	b	606	CLA	C1D-ND	3.19	1.41	1.37
31	C	516	DGD	C4D-C3D	3.19	1.60	1.52
25	B	604	CLA	CHC-C1C	3.19	1.43	1.35
25	C	507	CLA	CHC-C1C	3.18	1.43	1.35
25	B	613	CLA	CHC-C1C	3.17	1.43	1.35
25	B	605	CLA	CHC-C1C	3.17	1.43	1.35
25	b	613	CLA	C4D-ND	-3.16	1.33	1.37
25	B	607	CLA	C4D-ND	-3.16	1.33	1.37
25	c	505	CLA	C4D-ND	-3.15	1.33	1.37
30	f	102	SQD	C24-C23	3.15	1.59	1.50
30	f	102	SQD	O47-C45	-3.15	1.38	1.46
25	B	614	CLA	C4D-ND	-3.15	1.33	1.37
25	C	511	CLA	CHC-C1C	3.14	1.43	1.35
30	A	615	SQD	C24-C23	3.14	1.59	1.50
25	C	502	CLA	C1D-ND	3.14	1.41	1.37
30	A	614	SQD	O5-C1	3.14	1.49	1.41
25	C	502	CLA	CHC-C1C	3.14	1.43	1.35
25	b	612	CLA	CHC-C1C	3.13	1.43	1.35
25	A	611	CLA	C4D-ND	-3.12	1.33	1.37
25	B	615	CLA	C1D-ND	3.12	1.41	1.37
25	b	608	CLA	C4D-ND	-3.12	1.33	1.37
25	B	603	CLA	CHC-C1C	3.12	1.43	1.35
25	C	504	CLA	CHC-C1C	3.12	1.43	1.35
25	B	604	CLA	MG-NC	3.12	2.13	2.06
25	b	610	CLA	MG-NA	3.11	2.13	2.06
25	C	508	CLA	C1D-ND	3.11	1.41	1.37
25	C	513	CLA	C4D-ND	-3.11	1.33	1.37
25	C	505	CLA	C4D-ND	-3.10	1.33	1.37
25	b	603	CLA	MG-NA	3.10	2.13	2.06
25	C	502	CLA	C4D-ND	-3.10	1.33	1.37
25	c	505	CLA	MG-NA	3.10	2.13	2.06
25	A	606	CLA	CHC-C1C	3.10	1.42	1.35
25	B	601	CLA	CHC-C1C	3.09	1.42	1.35
25	C	506	CLA	C4D-ND	-3.09	1.33	1.37
25	c	503	CLA	MG-NC	3.09	2.13	2.06
25	b	616	CLA	CHC-C1C	3.09	1.42	1.35
25	C	506	CLA	MG-ND	-3.09	1.99	2.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	a	609	CLA	C4D-ND	-3.08	1.33	1.37
25	A	608	CLA	C4D-ND	-3.06	1.33	1.37
25	D	404	CLA	CHC-C1C	3.04	1.42	1.35
25	B	603	CLA	C4D-ND	-3.04	1.33	1.37
25	B	614	CLA	CHC-C1C	3.03	1.42	1.35
29	D	410	LHG	O7-C5	-3.02	1.39	1.46
25	b	606	CLA	C4D-ND	-3.02	1.33	1.37
25	C	513	CLA	CHC-C1C	3.02	1.42	1.35
30	a	613	SQD	C24-C23	3.02	1.59	1.50
26	B	618	BCR	C30-C25	-3.02	1.49	1.53
30	A	614	SQD	C24-C23	3.02	1.59	1.50
25	a	607	CLA	C4D-ND	-3.01	1.33	1.37
25	b	611	CLA	C4D-ND	-3.01	1.33	1.37
25	a	612	CLA	C4D-ND	-3.01	1.33	1.37
25	c	510	CLA	C4D-ND	-3.01	1.33	1.37
25	B	610	CLA	C4D-ND	-3.00	1.33	1.37
25	d	403	CLA	C4D-ND	-3.00	1.33	1.37
25	D	405	CLA	C4D-ND	-3.00	1.33	1.37
28	c	520	LMG	C3-C2	3.00	1.60	1.52
25	a	607	CLA	CHC-C1C	3.00	1.42	1.35
25	A	611	CLA	MG-ND	-3.00	1.99	2.05
25	c	501	CLA	C4D-ND	-2.99	1.33	1.37
29	L	101	LHG	O7-C5	-2.99	1.39	1.46
26	H	101	BCR	C30-C25	-2.99	1.49	1.53
26	k	101	BCR	C30-C25	-2.98	1.49	1.53
25	b	613	CLA	CHC-C1C	2.98	1.42	1.35
25	c	507	CLA	C4D-ND	-2.98	1.33	1.37
25	C	508	CLA	C4D-ND	-2.97	1.33	1.37
25	C	503	CLA	C4D-ND	-2.97	1.33	1.37
25	C	510	CLA	MG-NA	2.97	2.13	2.06
25	B	610	CLA	MG-ND	-2.97	1.99	2.05
26	C	514	BCR	C1-C6	-2.95	1.49	1.53
26	d	405	BCR	C1-C6	-2.95	1.49	1.53
25	C	509	CLA	CHC-C1C	2.95	1.42	1.35
30	b	620	SQD	C24-C23	2.95	1.59	1.50
35	F	101	HEM	CAB-C3B	2.95	1.55	1.47
25	a	612	CLA	CHC-C1C	2.95	1.42	1.35
25	c	502	CLA	C4D-ND	-2.94	1.33	1.37
26	k	103	BCR	C1-C6	-2.94	1.49	1.53
25	d	403	CLA	MG-ND	-2.94	2.00	2.05
31	o	301	DGD	O1G-C1A	2.94	1.41	1.33
25	c	507	CLA	CHC-C1C	2.93	1.42	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	b	611	CLA	CHC-C1C	2.93	1.42	1.35
25	b	609	CLA	CHC-C1C	2.92	1.42	1.35
25	B	604	CLA	C4D-ND	-2.92	1.33	1.37
25	b	607	CLA	C4D-ND	-2.91	1.33	1.37
25	B	607	CLA	CHC-C1C	2.91	1.42	1.35
25	C	511	CLA	C4D-ND	-2.91	1.33	1.37
30	b	620	SQD	O47-C45	-2.91	1.39	1.46
25	B	612	CLA	C1D-ND	2.90	1.41	1.37
30	f	102	SQD	O5-C1	2.90	1.49	1.41
31	A	616	DGD	C4D-C5D	2.89	1.59	1.53
25	c	502	CLA	CHC-C1C	2.89	1.42	1.35
25	B	616	CLA	CHC-C1C	2.89	1.42	1.35
31	H	102	DGD	C4E-C5E	2.89	1.59	1.53
30	A	614	SQD	O47-C7	2.88	1.42	1.34
25	c	507	CLA	MG-NA	2.88	2.13	2.06
25	C	504	CLA	C4D-ND	-2.88	1.33	1.37
25	a	609	CLA	CHC-C1C	2.88	1.42	1.35
26	C	514	BCR	C30-C25	-2.87	1.49	1.53
26	D	406	BCR	C30-C25	-2.87	1.49	1.53
25	d	403	CLA	CHC-C1C	2.87	1.42	1.35
25	c	508	CLA	MG-ND	2.86	2.11	2.05
28	D	408	LMG	C7-C8	2.86	1.59	1.50
25	D	405	CLA	MG-NA	2.85	2.13	2.06
25	b	602	CLA	C4D-ND	-2.85	1.33	1.37
25	b	614	CLA	MG-NC	2.85	2.13	2.06
27	d	406	PL9	C31-C29	-2.83	1.45	1.51
26	B	619	BCR	C1-C6	-2.83	1.49	1.53
26	K	101	BCR	C1-C6	-2.83	1.49	1.53
31	C	515	DGD	C4E-C3E	2.82	1.59	1.52
31	H	102	DGD	C1E-C2E	2.82	1.60	1.52
25	c	513	CLA	C4D-ND	-2.82	1.33	1.37
26	b	619	BCR	C1-C6	-2.81	1.49	1.53
25	B	606	CLA	C4D-ND	-2.81	1.33	1.37
25	C	501	CLA	C4D-ND	-2.80	1.33	1.37
31	h	101	DGD	C4D-C3D	2.80	1.59	1.52
26	k	102	BCR	C30-C25	-2.80	1.49	1.53
25	b	603	CLA	C4D-ND	-2.79	1.33	1.37
25	B	607	CLA	MG-NC	2.78	2.12	2.06
26	K	101	BCR	C30-C25	-2.78	1.49	1.53
30	B	623	SQD	C24-C23	2.78	1.58	1.50
25	b	606	CLA	CHC-C1C	2.77	1.42	1.35
25	B	603	CLA	C1D-ND	2.77	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	B	609	CLA	C4D-ND	-2.77	1.33	1.37
29	A	613	LHG	O3-C3	-2.77	1.34	1.44
30	a	613	SQD	O5-C1	2.77	1.48	1.41
25	c	501	CLA	CHC-C1C	2.76	1.42	1.35
25	c	507	CLA	MG-ND	2.76	2.11	2.05
26	k	102	BCR	C1-C6	-2.76	1.50	1.53
25	B	602	CLA	C4D-ND	-2.76	1.33	1.37
26	b	617	BCR	C30-C25	-2.75	1.50	1.53
25	b	610	CLA	CHC-C1C	2.74	1.42	1.35
26	Z	101	BCR	C1-C6	-2.74	1.50	1.53
25	c	506	CLA	C4D-ND	-2.73	1.33	1.37
29	B	622	LHG	O7-C5	-2.73	1.39	1.46
25	c	504	CLA	C1D-ND	2.73	1.41	1.37
30	a	614	SQD	O47-C45	-2.73	1.39	1.46
25	b	615	CLA	C4D-ND	-2.72	1.34	1.37
31	c	516	DGD	C3E-C2E	2.72	1.59	1.52
31	h	101	DGD	C6D-C5D	2.72	1.60	1.51
29	d	407	LHG	O7-C5	-2.72	1.39	1.46
29	A	613	LHG	P-O6	2.70	1.70	1.59
25	B	616	CLA	C4D-ND	-2.70	1.34	1.37
25	d	404	CLA	C4D-ND	-2.69	1.34	1.37
25	D	405	CLA	MG-NC	2.69	2.12	2.06
26	A	609	BCR	C1-C6	-2.68	1.50	1.53
26	b	617	BCR	C1-C6	-2.67	1.50	1.53
31	H	102	DGD	O2D-C2D	-2.67	1.36	1.43
25	c	502	CLA	MG-NA	2.66	2.12	2.06
31	h	101	DGD	C1E-C2E	2.66	1.60	1.52
25	A	606	CLA	C4D-ND	-2.66	1.34	1.37
25	B	615	CLA	C4D-ND	-2.66	1.34	1.37
29	d	409	LHG	P-O6	2.65	1.70	1.59
25	C	503	CLA	MG-ND	2.65	2.11	2.05
25	B	608	CLA	CMB-C2B	-2.64	1.46	1.51
25	d	404	CLA	MG-NA	2.64	2.12	2.06
26	D	406	BCR	C1-C6	-2.64	1.50	1.53
25	C	502	CLA	MG-NA	2.64	2.12	2.06
25	A	611	CLA	MG-NC	2.63	2.12	2.06
31	o	301	DGD	C1G-C2G	2.63	1.58	1.50
25	c	509	CLA	MG-NC	2.62	2.12	2.06
31	C	516	DGD	O2G-C2G	-2.62	1.40	1.46
25	b	610	CLA	CMB-C2B	-2.61	1.46	1.51
25	b	610	CLA	C4D-ND	-2.61	1.34	1.37
26	x	101	BCR	C30-C25	-2.60	1.50	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	H	102	DGD	C4D-C5D	2.60	1.58	1.53
34	d	402	PHO	CAC-C3C	-2.58	1.47	1.52
25	B	601	CLA	CMB-C2B	-2.58	1.46	1.51
26	T	101	BCR	C30-C25	-2.57	1.50	1.53
35	f	101	HEM	CAB-C3B	2.57	1.54	1.47
34	d	401	PHO	CAC-C3C	-2.56	1.47	1.52
25	b	609	CLA	CMB-C2B	-2.56	1.46	1.51
25	d	404	CLA	MG-ND	-2.55	2.00	2.05
25	b	603	CLA	MG-NC	2.54	2.12	2.06
31	A	616	DGD	C1E-C2E	2.54	1.59	1.52
25	b	613	CLA	MG-ND	-2.54	2.00	2.05
25	b	614	CLA	C4D-ND	-2.54	1.34	1.37
25	b	612	CLA	CMB-C2B	-2.53	1.46	1.51
31	c	515	DGD	C3G-C2G	2.53	1.58	1.50
28	A	612	LMG	C4-C5	2.53	1.58	1.53
31	c	516	DGD	C4D-C3D	2.52	1.58	1.52
25	b	608	CLA	MG-NC	-2.52	2.00	2.06
25	c	503	CLA	MG-NA	2.52	2.12	2.06
28	A	612	LMG	C7-C8	2.52	1.58	1.50
25	D	405	CLA	CHC-C1C	2.52	1.41	1.35
25	C	506	CLA	MG-NC	2.51	2.12	2.06
28	c	520	LMG	C4-C3	2.51	1.58	1.52
28	c	522	LMG	C1-C2	2.50	1.59	1.52
25	C	512	CLA	CMB-C2B	-2.50	1.46	1.51
25	b	601	CLA	C4D-ND	-2.50	1.34	1.37
31	C	516	DGD	C1G-C2G	2.49	1.58	1.50
25	B	605	CLA	MG-NA	2.49	2.12	2.06
25	c	506	CLA	MG-NC	2.49	2.12	2.06
31	C	516	DGD	C1E-C2E	2.49	1.59	1.52
25	B	602	CLA	CMB-C2B	-2.48	1.46	1.51
26	k	103	BCR	C30-C25	-2.48	1.50	1.53
35	f	101	HEM	FE-NB	2.48	2.09	1.96
25	b	607	CLA	CHC-C1C	2.48	1.41	1.35
25	C	507	CLA	C4D-ND	-2.48	1.34	1.37
27	D	407	PL9	C6-C1	-2.48	1.44	1.48
29	E	101	LHG	O7-C5	-2.48	1.40	1.46
26	t	101	BCR	C30-C25	-2.47	1.50	1.53
25	B	610	CLA	C3B-C2B	-2.47	1.36	1.40
25	b	615	CLA	CMB-C2B	-2.47	1.46	1.51
34	D	402	PHO	CMC-C2C	-2.47	1.45	1.51
29	E	101	LHG	P-O6	2.47	1.69	1.59
25	B	602	CLA	MG-ND	-2.46	2.00	2.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	D	402	PHO	CAC-C3C	-2.46	1.47	1.52
25	b	606	CLA	C1B-NB	2.46	1.37	1.35
25	C	503	CLA	MG-NC	2.45	2.12	2.06
25	a	607	CLA	MG-ND	-2.45	2.00	2.05
25	B	612	CLA	MG-NA	2.45	2.12	2.06
25	c	507	CLA	CMB-C2B	-2.45	1.46	1.51
31	C	516	DGD	O3E-C3E	-2.45	1.37	1.43
28	b	622	LMG	O7-C8	-2.45	1.40	1.46
28	c	520	LMG	C1-C2	2.44	1.59	1.52
25	C	504	CLA	CMB-C2B	-2.44	1.46	1.51
25	d	403	CLA	CMB-C2B	-2.44	1.46	1.51
25	a	612	CLA	C1B-NB	2.44	1.37	1.35
26	t	101	BCR	C1-C6	-2.44	1.50	1.53
26	B	619	BCR	C30-C25	-2.44	1.50	1.53
25	B	609	CLA	CHC-C1C	2.43	1.41	1.35
31	C	517	DGD	O3G-C3G	-2.43	1.39	1.43
25	c	510	CLA	CMB-C2B	-2.43	1.46	1.51
25	B	606	CLA	C3B-CAB	-2.43	1.43	1.47
28	b	624	LMG	C3-C2	2.43	1.58	1.52
25	b	616	CLA	CMB-C2B	-2.43	1.46	1.51
25	B	614	CLA	CMB-C2B	-2.42	1.46	1.51
26	b	619	BCR	C30-C25	-2.42	1.50	1.53
25	c	513	CLA	CMB-C2B	-2.42	1.46	1.51
28	c	518	LMG	C4-C5	2.42	1.58	1.53
28	c	522	LMG	C3-C2	2.41	1.58	1.52
34	d	401	PHO	O2D-CGD	2.41	1.39	1.33
25	c	505	CLA	CMB-C2B	-2.41	1.46	1.51
25	C	504	CLA	MG-NA	2.41	2.12	2.06
31	A	616	DGD	C6E-C5E	2.41	1.59	1.51
25	b	607	CLA	MG-ND	-2.41	2.01	2.05
25	B	607	CLA	CMB-C2B	-2.41	1.46	1.51
25	c	511	CLA	C4D-ND	-2.40	1.34	1.37
27	d	406	PL9	C53-C6	-2.40	1.45	1.50
30	D	409	SQD	O9-S	2.40	1.52	1.45
25	B	611	CLA	C1D-C2D	2.39	1.50	1.45
25	C	509	CLA	MG-NA	2.39	2.12	2.06
25	a	612	CLA	CMB-C2B	-2.39	1.46	1.51
31	c	515	DGD	O2G-C2G	-2.39	1.40	1.46
28	b	624	LMG	C4-C3	2.38	1.58	1.52
34	D	402	PHO	O2D-CGD	2.38	1.39	1.33
25	c	511	CLA	MG-ND	-2.38	2.01	2.05
25	b	612	CLA	MG-NC	2.38	2.11	2.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	K	102	BCR	C30-C25	-2.38	1.50	1.53
31	C	515	DGD	C3G-C2G	2.38	1.58	1.50
25	B	601	CLA	C4D-ND	-2.37	1.34	1.37
25	a	608	CLA	CMB-C2B	-2.37	1.46	1.51
28	A	612	LMG	C4-C3	2.37	1.58	1.52
25	a	609	CLA	MG-NA	2.36	2.11	2.06
25	B	610	CLA	CMB-C2B	-2.36	1.46	1.51
25	d	404	CLA	MG-NC	2.36	2.11	2.06
25	C	508	CLA	MG-ND	2.35	2.10	2.05
25	b	612	CLA	CMC-C2C	-2.35	1.45	1.50
25	c	509	CLA	CMB-C2B	-2.35	1.46	1.51
28	D	408	LMG	O6-C5	-2.35	1.38	1.44
25	B	606	CLA	C3B-C2B	-2.35	1.37	1.40
25	b	602	CLA	MG-NC	2.35	2.11	2.06
30	D	409	SQD	O5-C1	2.34	1.47	1.41
25	C	508	CLA	C1D-C2D	2.34	1.49	1.45
25	C	513	CLA	MG-NC	2.33	2.11	2.06
25	b	614	CLA	CMC-C2C	-2.33	1.45	1.50
28	D	411	LMG	C7-C8	2.33	1.56	1.51
25	b	606	CLA	CMB-C2B	-2.32	1.46	1.51
25	B	603	CLA	CMB-C2B	-2.31	1.46	1.51
25	a	607	CLA	CMB-C2B	-2.31	1.46	1.51
25	b	613	CLA	CMB-C2B	-2.31	1.46	1.51
25	C	502	CLA	CMB-C2B	-2.30	1.46	1.51
31	c	515	DGD	O1G-C1G	-2.29	1.39	1.45
25	b	603	CLA	CMB-C2B	-2.29	1.46	1.51
25	C	513	CLA	CMB-C2B	-2.29	1.46	1.51
25	b	603	CLA	CMD-C2D	-2.28	1.46	1.50
25	C	507	CLA	CMB-C2B	-2.28	1.46	1.51
25	C	510	CLA	CMB-C2B	-2.28	1.46	1.51
28	c	520	LMG	O1-C1	2.28	1.44	1.40
25	C	503	CLA	C1D-C2D	2.28	1.49	1.45
28	d	411	LMG	C4-C5	2.28	1.57	1.53
30	B	623	SQD	O9-S	2.28	1.51	1.45
26	B	618	BCR	C1-C6	-2.27	1.50	1.53
26	x	101	BCR	C1-C6	-2.27	1.50	1.53
25	A	611	CLA	C3C-C2C	2.27	1.41	1.36
30	A	615	SQD	C46-C45	2.26	1.55	1.50
25	a	609	CLA	CMC-C2C	-2.26	1.46	1.50
28	B	621	LMG	O8-C28	2.26	1.38	1.30
30	b	620	SQD	C46-C45	2.26	1.57	1.50
30	A	614	SQD	O9-S	2.26	1.51	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	B	623	SQD	O7-S	2.26	1.51	1.45
25	B	616	CLA	CMC-C2C	-2.25	1.46	1.50
25	c	512	CLA	CMB-C2B	-2.25	1.47	1.51
25	c	504	CLA	CMB-C2B	-2.25	1.47	1.51
25	D	405	CLA	CMB-C2B	-2.25	1.47	1.51
25	d	404	CLA	CMD-C2D	-2.24	1.46	1.50
28	c	518	LMG	C3-C2	2.24	1.58	1.52
26	a	610	BCR	C1-C6	-2.24	1.50	1.53
34	D	403	PHO	CMB-C2B	-2.24	1.46	1.51
25	A	606	CLA	CMD-C2D	-2.24	1.46	1.50
34	D	403	PHO	CAC-C3C	-2.24	1.48	1.52
25	B	615	CLA	C3B-C2B	-2.24	1.37	1.40
28	C	518	LMG	O7-C8	-2.23	1.41	1.46
30	f	102	SQD	O7-S	2.23	1.51	1.45
31	o	301	DGD	O2G-C1B	2.23	1.40	1.34
26	B	617	BCR	C30-C25	-2.23	1.50	1.53
25	b	610	CLA	C3B-C2B	-2.23	1.37	1.40
30	b	620	SQD	C6-S	2.22	1.85	1.77
31	H	102	DGD	C1G-C2G	2.22	1.57	1.50
30	b	620	SQD	O9-S	2.22	1.51	1.45
30	f	102	SQD	O9-S	2.21	1.51	1.45
35	F	101	HEM	CMD-C2D	2.21	1.55	1.50
28	b	624	LMG	O1-C7	-2.21	1.39	1.43
25	C	511	CLA	CMB-C2B	-2.20	1.47	1.51
25	a	607	CLA	C3D-C4D	2.20	1.49	1.44
25	b	601	CLA	CMB-C2B	-2.20	1.47	1.51
29	d	407	LHG	C24-C23	2.20	1.57	1.50
25	B	606	CLA	CMD-C2D	-2.19	1.46	1.50
31	C	516	DGD	O3D-C3D	-2.19	1.37	1.43
31	A	616	DGD	O1G-C1G	-2.18	1.40	1.45
28	c	520	LMG	C7-C8	2.18	1.57	1.50
29	e	101	LHG	P-O6	2.18	1.68	1.59
25	b	607	CLA	CMB-C2B	-2.18	1.47	1.51
25	C	501	CLA	MG-NC	2.18	2.11	2.06
25	b	607	CLA	C4B-CHC	-2.17	1.34	1.41
25	C	501	CLA	CMB-C2B	-2.17	1.47	1.51
25	B	611	CLA	C4D-ND	-2.17	1.34	1.37
28	A	612	LMG	C1-C2	2.17	1.58	1.52
25	a	608	CLA	MG-NA	2.16	2.11	2.06
29	l	101	LHG	O7-C5	-2.16	1.41	1.46
25	D	405	CLA	CMD-C2D	-2.16	1.46	1.50
27	D	407	PL9	C11-C9	-2.16	1.46	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	B	613	CLA	CMB-C2B	-2.15	1.47	1.51
25	C	502	CLA	CMC-C2C	-2.15	1.46	1.50
25	b	613	CLA	MG-NC	2.15	2.11	2.06
28	c	518	LMG	C1-C2	2.15	1.58	1.52
25	c	507	CLA	C3D-C4D	2.15	1.49	1.44
29	d	408	LHG	O7-C5	-2.15	1.41	1.46
25	B	602	CLA	C1B-NB	2.14	1.37	1.35
25	c	501	CLA	CMB-C2B	-2.14	1.47	1.51
25	B	610	CLA	C3D-C4D	2.13	1.49	1.44
25	B	616	CLA	CMB-C2B	-2.13	1.47	1.51
25	b	603	CLA	MG-ND	-2.13	2.01	2.05
31	C	515	DGD	O2D-C2D	-2.13	1.38	1.43
25	B	609	CLA	CMB-C2B	-2.13	1.47	1.51
25	C	513	CLA	CMC-C2C	-2.13	1.46	1.50
25	b	601	CLA	CMC-C2C	-2.13	1.46	1.50
25	b	608	CLA	CMB-C2B	-2.13	1.47	1.51
26	A	609	BCR	C33-C5	-2.13	1.47	1.50
31	C	515	DGD	O2G-C2G	-2.13	1.41	1.46
25	c	507	CLA	C3B-C2B	-2.13	1.37	1.40
25	d	404	CLA	CMB-C2B	-2.12	1.47	1.51
25	B	609	CLA	C3B-C2B	-2.12	1.37	1.40
25	B	607	CLA	C3B-C2B	-2.12	1.37	1.40
25	C	503	CLA	CMB-C2B	-2.12	1.47	1.51
25	c	501	CLA	MG-NC	2.12	2.11	2.06
30	b	620	SQD	O5-C5	2.12	1.49	1.44
25	b	609	CLA	O2D-CGD	2.12	1.38	1.33
25	D	405	CLA	C3B-C2B	-2.12	1.37	1.40
27	a	611	PL9	C53-C6	-2.12	1.46	1.50
25	B	603	CLA	CMD-C2D	-2.11	1.46	1.50
25	c	507	CLA	C3B-CAB	-2.11	1.43	1.47
28	M	101	LMG	C4-C3	2.11	1.57	1.52
28	M	101	LMG	C9-C8	2.10	1.57	1.50
25	c	503	CLA	CMB-C2B	-2.10	1.47	1.51
25	c	511	CLA	CMB-C2B	-2.10	1.47	1.51
26	b	617	BCR	C33-C5	-2.10	1.47	1.50
25	b	614	CLA	CMB-C2B	-2.10	1.47	1.51
25	b	615	CLA	C3B-C2B	-2.10	1.37	1.40
25	C	501	CLA	C1D-C2D	2.10	1.49	1.45
31	A	616	DGD	C3E-C2E	2.09	1.57	1.52
25	B	613	CLA	CMD-C2D	-2.09	1.46	1.50
28	c	522	LMG	C4-C5	2.09	1.57	1.53
25	C	512	CLA	CMD-C2D	-2.09	1.46	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	f	101	HEM	C3B-C2B	-2.09	1.33	1.37
29	D	410	LHG	P-O6	2.09	1.67	1.59
25	a	609	CLA	CMB-C2B	-2.09	1.47	1.51
25	c	506	CLA	CMB-C2B	-2.09	1.47	1.51
25	A	608	CLA	CMD-C2D	-2.09	1.46	1.50
25	d	404	CLA	CMC-C2C	-2.08	1.46	1.50
25	B	606	CLA	C1B-NB	2.08	1.37	1.35
25	B	615	CLA	CMB-C2B	-2.08	1.47	1.51
31	c	515	DGD	C6D-C5D	2.08	1.58	1.51
25	b	604	CLA	CMB-C2B	-2.08	1.47	1.51
25	c	501	CLA	C4B-CHC	-2.08	1.35	1.41
25	A	607	CLA	CMB-C2B	-2.08	1.47	1.51
30	B	623	SQD	O5-C5	2.08	1.49	1.44
25	C	504	CLA	CMD-C2D	-2.07	1.46	1.50
30	f	102	SQD	O5-C5	2.07	1.49	1.44
25	C	505	CLA	CMB-C2B	-2.07	1.47	1.51
25	C	501	CLA	CMD-C2D	-2.07	1.46	1.50
25	c	505	CLA	C1B-NB	2.07	1.37	1.35
25	c	512	CLA	C3B-C2B	-2.07	1.37	1.40
31	A	616	DGD	C3G-C2G	2.07	1.57	1.50
30	B	623	SQD	C8-C7	2.06	1.56	1.50
28	c	522	LMG	C4-C3	2.06	1.57	1.52
25	B	609	CLA	C3D-C4D	2.06	1.48	1.44
30	D	409	SQD	O7-S	2.05	1.51	1.45
27	D	407	PL9	C3-C4	-2.05	1.46	1.49
25	B	604	CLA	C1B-NB	2.05	1.37	1.35
30	a	614	SQD	C46-C45	2.05	1.57	1.50
25	b	615	CLA	CMD-C2D	-2.05	1.46	1.50
25	c	503	CLA	CMC-C2C	-2.05	1.46	1.50
30	b	620	SQD	O7-S	2.04	1.51	1.45
25	C	503	CLA	C3D-C4D	2.04	1.48	1.44
25	c	508	CLA	CMD-C2D	-2.04	1.46	1.50
25	c	505	CLA	C3B-C2B	-2.04	1.37	1.40
25	C	509	CLA	CMB-C2B	-2.04	1.47	1.51
25	a	607	CLA	C1D-C2D	2.04	1.49	1.45
25	B	603	CLA	C3B-CAB	-2.04	1.43	1.47
25	c	502	CLA	C4B-CHC	-2.03	1.35	1.41
34	D	403	PHO	CMD-C2D	-2.03	1.46	1.51
26	c	514	BCR	C33-C5	-2.03	1.47	1.50
31	C	515	DGD	C3E-C2E	2.02	1.57	1.52
25	B	615	CLA	C1D-C2D	2.02	1.49	1.45
36	v	201	HEC	C4B-C3B	2.02	1.46	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	c	512	CLA	C1D-C2D	2.02	1.49	1.45
25	d	403	CLA	C3B-C2B	-2.02	1.37	1.40
25	b	608	CLA	C1D-C2D	2.02	1.49	1.45
31	H	102	DGD	C6D-C5D	2.02	1.57	1.51
30	A	614	SQD	O7-S	2.01	1.51	1.45
25	C	506	CLA	MG-NA	2.01	2.11	2.06
25	B	601	CLA	CMD-C2D	-2.01	1.46	1.50
25	B	615	CLA	CMC-C2C	-2.01	1.46	1.50
28	b	622	LMG	C1-C2	2.01	1.58	1.52
25	B	611	CLA	CMB-C2B	-2.01	1.47	1.51
25	C	510	CLA	CMD-C2D	-2.00	1.46	1.50

All (1140) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	D	409	SQD	O6-C1-C2	12.53	127.87	108.30
25	C	503	CLA	C4A-NA-C1A	9.38	110.92	106.71
25	c	511	CLA	C4A-NA-C1A	8.61	110.58	106.71
25	C	511	CLA	C4A-NA-C1A	8.31	110.44	106.71
30	D	409	SQD	C1-O5-C5	-8.17	97.65	113.69
25	b	613	CLA	C4A-NA-C1A	7.99	110.30	106.71
25	C	513	CLA	C4A-NA-C1A	7.99	110.30	106.71
25	B	606	CLA	C4A-NA-C1A	7.82	110.22	106.71
25	B	604	CLA	C4A-NA-C1A	7.76	110.19	106.71
25	b	601	CLA	C4A-NA-C1A	7.75	110.19	106.71
25	b	615	CLA	C4A-NA-C1A	7.68	110.16	106.71
25	c	507	CLA	C4A-NA-C1A	7.66	110.15	106.71
25	c	509	CLA	C4A-NA-C1A	7.64	110.14	106.71
25	B	609	CLA	C4A-NA-C1A	7.64	110.14	106.71
25	c	503	CLA	C4A-NA-C1A	7.61	110.13	106.71
25	a	607	CLA	C4A-NA-C1A	7.54	110.10	106.71
25	C	501	CLA	C4A-NA-C1A	7.36	110.01	106.71
30	a	613	SQD	O6-C1-C2	7.22	119.57	108.30
25	B	614	CLA	C4A-NA-C1A	7.12	109.91	106.71
25	b	606	CLA	C4A-NA-C1A	7.10	109.90	106.71
25	C	507	CLA	C4A-NA-C1A	7.07	109.88	106.71
25	B	607	CLA	C4A-NA-C1A	6.96	109.83	106.71
25	B	601	CLA	C4A-NA-C1A	6.90	109.81	106.71
30	D	409	SQD	C44-O6-C1	6.81	125.14	113.84
25	b	609	CLA	C4A-NA-C1A	6.74	109.74	106.71
25	b	611	CLA	C4A-NA-C1A	6.67	109.70	106.71
25	C	508	CLA	C4A-NA-C1A	6.67	109.70	106.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	a	613	SQD	C1-O5-C5	-6.53	100.88	113.69
25	C	510	CLA	C4A-NA-C1A	6.44	109.60	106.71
25	a	612	CLA	C4A-NA-C1A	6.36	109.56	106.71
25	B	605	CLA	C4A-NA-C1A	6.35	109.56	106.71
25	A	611	CLA	C4A-NA-C1A	6.25	109.52	106.71
25	C	502	CLA	C4A-NA-C1A	6.24	109.51	106.71
25	B	616	CLA	C4A-NA-C1A	6.20	109.49	106.71
25	b	604	CLA	C4A-NA-C1A	6.18	109.48	106.71
36	V	201	HEC	CBD-CAD-C3D	-6.10	102.20	112.62
25	b	605	CLA	C4A-NA-C1A	6.08	109.44	106.71
27	a	611	PL9	C7-C3-C4	6.08	121.82	116.88
30	A	614	SQD	O7-S-C6	6.07	114.16	106.94
25	b	616	CLA	C4A-NA-C1A	6.07	109.43	106.71
25	B	611	CLA	C4A-NA-C1A	6.02	109.41	106.71
25	b	607	CLA	C4A-NA-C1A	5.99	109.40	106.71
30	D	409	SQD	C1-C2-C3	-5.98	97.54	110.00
30	A	614	SQD	O6-C1-C2	5.89	117.49	108.30
25	c	510	CLA	C4A-NA-C1A	5.88	109.35	106.71
25	c	504	CLA	C4A-NA-C1A	5.88	109.35	106.71
27	D	407	PL9	C7-C3-C4	5.86	121.64	116.88
25	B	612	CLA	C4A-NA-C1A	5.77	109.30	106.71
25	c	501	CLA	C4A-NA-C1A	5.74	109.28	106.71
25	B	608	CLA	C4A-NA-C1A	5.72	109.28	106.71
25	d	403	CLA	C4A-NA-C1A	5.72	109.28	106.71
25	C	505	CLA	C4A-NA-C1A	5.71	109.27	106.71
25	c	508	CLA	C4A-NA-C1A	5.52	109.19	106.71
25	b	602	CLA	C4A-NA-C1A	5.51	109.18	106.71
25	D	404	CLA	C4A-NA-C1A	5.50	109.18	106.71
30	b	620	SQD	O6-C1-C2	5.50	116.89	108.30
25	b	610	CLA	C4A-NA-C1A	5.44	109.15	106.71
25	a	609	CLA	C4A-NA-C1A	5.43	109.14	106.71
25	C	506	CLA	C4A-NA-C1A	5.41	109.14	106.71
30	B	623	SQD	O47-C7-C8	5.40	123.15	111.50
25	B	615	CLA	C4A-NA-C1A	5.40	109.14	106.71
25	B	603	CLA	C4A-NA-C1A	5.34	109.11	106.71
25	b	613	CLA	CMB-C2B-C1B	-5.32	120.29	128.46
25	C	512	CLA	C4A-NA-C1A	5.27	109.07	106.71
25	B	608	CLA	CMB-C2B-C1B	-5.25	120.40	128.46
25	c	512	CLA	C4A-NA-C1A	5.21	109.05	106.71
25	B	613	CLA	C4A-NA-C1A	5.19	109.04	106.71
25	c	506	CLA	C4A-NA-C1A	5.19	109.04	106.71
25	C	504	CLA	C4A-NA-C1A	5.11	109.00	106.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	A	606	CLA	C4A-NA-C1A	5.08	108.99	106.71
30	a	614	SQD	O47-C7-C8	5.04	122.37	111.50
25	b	612	CLA	CMB-C2B-C1B	-5.04	120.72	128.46
25	b	612	CLA	C4A-NA-C1A	5.03	108.97	106.71
25	c	513	CLA	CMB-C2B-C1B	-5.02	120.75	128.46
25	a	608	CLA	C4A-NA-C1A	5.01	108.96	106.71
25	D	405	CLA	C4A-NA-C1A	4.99	108.95	106.71
25	c	502	CLA	C4A-NA-C1A	4.95	108.93	106.71
25	c	513	CLA	C4A-NA-C1A	4.90	108.91	106.71
30	D	409	SQD	O9-S-C6	4.89	112.75	106.94
25	C	510	CLA	CMB-C2B-C1B	-4.78	121.12	128.46
25	B	602	CLA	CMB-C2B-C1B	-4.67	121.29	128.46
25	A	607	CLA	C4A-NA-C1A	4.66	108.80	106.71
30	A	614	SQD	O47-C7-C8	4.64	121.50	111.50
25	B	602	CLA	C4A-NA-C1A	4.63	108.79	106.71
25	A	608	CLA	C4A-NA-C1A	4.62	108.78	106.71
25	c	510	CLA	CMB-C2B-C1B	-4.61	121.38	128.46
25	b	616	CLA	CMB-C2B-C1B	-4.59	121.41	128.46
25	d	404	CLA	C4A-NA-C1A	4.58	108.76	106.71
25	b	604	CLA	CMB-C2B-C1B	-4.57	121.44	128.46
25	C	508	CLA	CHD-C1D-ND	-4.57	120.26	124.45
25	C	509	CLA	CMB-C2B-C1B	-4.53	121.50	128.46
36	v	201	HEC	CBD-CAD-C3D	-4.53	104.89	112.62
25	B	613	CLA	C1-C2-C3	-4.51	118.24	126.04
25	C	509	CLA	C4A-NA-C1A	4.50	108.73	106.71
31	C	517	DGD	O3G-C3G-C2G	-4.50	100.05	110.90
25	B	613	CLA	CMB-C2B-C1B	-4.45	121.63	128.46
25	B	612	CLA	CMB-C2B-C1B	-4.44	121.63	128.46
25	b	608	CLA	CMB-C2B-C1B	-4.43	121.66	128.46
25	b	606	CLA	CMB-C2B-C1B	-4.42	121.67	128.46
25	C	505	CLA	CMB-C2B-C1B	-4.41	121.68	128.46
25	b	612	CLA	CMB-C2B-C3B	4.41	132.93	124.68
30	D	409	SQD	O8-S-C6	4.41	112.76	105.74
33	D	401	BCT	O2-C-O1	4.39	130.94	119.55
30	A	614	SQD	C1-O5-C5	-4.38	105.10	113.69
27	d	406	PL9	C7-C3-C4	4.38	120.43	116.88
36	V	201	HEC	CMC-C2C-C1C	-4.36	121.77	128.46
30	A	614	SQD	C1-C2-C3	-4.35	100.94	110.00
27	A	610	PL9	C7-C3-C4	4.30	120.38	116.88
30	f	102	SQD	O7-S-C6	4.30	112.05	106.94
25	B	607	CLA	CMB-C2B-C1B	-4.29	121.87	128.46
25	c	501	CLA	O2D-CGD-O1D	-4.29	115.46	123.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	b	603	CLA	C4A-NA-C1A	4.28	108.63	106.71
25	c	512	CLA	C1-C2-C3	-4.25	118.69	126.04
25	C	513	CLA	CMB-C2B-C1B	-4.24	121.94	128.46
25	a	612	CLA	CMB-C2B-C1B	-4.23	121.96	128.46
25	B	610	CLA	C4A-NA-C1A	4.22	108.60	106.71
25	b	603	CLA	CMB-C2B-C1B	-4.21	122.00	128.46
25	b	606	CLA	O2D-CGD-O1D	-4.21	115.61	123.84
29	e	101	LHG	O4-P-O5	4.20	133.01	112.24
25	c	504	CLA	CMB-C2B-C1B	-4.20	122.01	128.46
25	c	509	CLA	CMB-C2B-C1B	-4.15	122.08	128.46
25	C	508	CLA	CMB-C2B-C1B	-4.13	122.11	128.46
28	b	624	LMG	C1-O6-C5	-4.13	105.58	113.69
25	c	505	CLA	C4A-NA-C1A	4.12	108.56	106.71
30	B	623	SQD	O6-C1-C2	4.11	114.72	108.30
31	o	301	DGD	O3G-C3G-C2G	-4.10	100.90	111.78
25	C	509	CLA	CMB-C2B-C3B	4.10	132.35	124.68
29	L	101	LHG	O4-P-O5	4.10	132.51	112.24
35	f	101	HEM	CBA-CAA-C2A	-4.10	105.63	112.62
33	a	606	BCT	O2-C-O1	4.09	130.15	119.55
29	E	101	LHG	O4-P-O5	4.09	132.44	112.24
25	c	513	CLA	CMB-C2B-C3B	4.08	132.31	124.68
29	d	408	LHG	O4-P-O5	4.08	132.41	112.24
25	B	612	CLA	O2D-CGD-O1D	-4.08	115.87	123.84
27	d	406	PL9	C7-C8-C9	-4.07	120.01	126.79
29	A	613	LHG	O4-P-O5	4.07	132.38	112.24
25	C	510	CLA	CMB-C2B-C3B	4.06	132.27	124.68
25	D	405	CLA	CMB-C2B-C1B	-4.06	122.23	128.46
25	B	612	CLA	CMB-C2B-C3B	4.04	132.24	124.68
30	f	102	SQD	O9-S-O7	-4.04	99.98	113.95
25	b	609	CLA	CMB-C2B-C1B	-4.03	122.26	128.46
25	B	608	CLA	CMB-C2B-C3B	4.02	132.20	124.68
25	B	602	CLA	CMB-C2B-C3B	4.02	132.20	124.68
25	b	608	CLA	CMB-C2B-C3B	4.02	132.19	124.68
29	B	622	LHG	O4-P-O5	4.02	132.10	112.24
25	c	502	CLA	CMB-C2B-C1B	-4.02	122.29	128.46
29	D	410	LHG	O4-P-O5	4.01	132.08	112.24
29	d	409	LHG	O4-P-O5	3.99	131.99	112.24
25	b	603	CLA	O2D-CGD-O1D	-3.99	116.04	123.84
34	d	402	PHO	C1-C2-C3	-3.98	119.16	126.04
25	b	602	CLA	CMB-C2B-C1B	-3.98	122.35	128.46
29	l	101	LHG	O4-P-O5	3.98	131.89	112.24
25	C	507	CLA	CMB-C2B-C1B	-3.97	122.36	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	a	611	PL9	C7-C3-C2	-3.97	118.08	123.30
25	b	610	CLA	O2D-CGD-O1D	-3.95	116.11	123.84
30	b	620	SQD	O7-S-C6	3.95	111.64	106.94
25	b	614	CLA	CMB-C2B-C1B	-3.94	122.40	128.46
25	B	614	CLA	O2D-CGD-O1D	-3.92	116.17	123.84
25	a	608	CLA	CMB-C2B-C1B	-3.92	122.44	128.46
29	d	407	LHG	O4-P-O5	3.91	131.59	112.24
25	b	616	CLA	CMB-C2B-C3B	3.90	131.97	124.68
25	A	608	CLA	O2D-CGD-O1D	-3.88	116.25	123.84
25	c	509	CLA	O2A-CGA-O1A	-3.88	113.81	123.59
25	b	613	CLA	CMB-C2B-C3B	3.87	131.91	124.68
30	f	102	SQD	O6-C1-C2	3.86	114.33	108.30
30	b	620	SQD	O8-S-C6	3.86	111.89	105.74
25	b	616	CLA	O2D-CGD-O1D	-3.85	116.31	123.84
25	b	606	CLA	O2D-CGD-CBD	3.85	118.11	111.27
25	B	613	CLA	CMB-C2B-C3B	3.85	131.88	124.68
30	A	614	SQD	O9-S-O7	-3.84	100.66	113.95
25	D	404	CLA	CMB-C2B-C1B	-3.84	122.56	128.46
31	H	102	DGD	O3G-C3G-C2G	-3.82	101.67	110.90
25	b	612	CLA	O2D-CGD-O1D	-3.81	116.38	123.84
25	c	503	CLA	CMB-C2B-C1B	-3.81	122.61	128.46
35	F	101	HEM	CBD-CAD-C3D	-3.78	102.12	112.63
34	D	402	PHO	CMB-C2B-C3B	3.78	131.74	124.68
25	B	604	CLA	CMB-C2B-C1B	-3.77	122.67	128.46
25	B	601	CLA	O2A-C1-C2	-3.77	98.73	108.64
25	a	612	CLA	CMB-C2B-C3B	3.76	131.72	124.68
25	c	510	CLA	CMB-C2B-C3B	3.75	131.70	124.68
31	C	515	DGD	O3G-C3G-C2G	-3.75	101.84	110.90
25	B	601	CLA	O2D-CGD-O1D	-3.74	116.52	123.84
25	b	604	CLA	CMB-C2B-C3B	3.73	131.65	124.68
25	a	607	CLA	CMB-C2B-C1B	-3.72	122.75	128.46
25	b	605	CLA	O2D-CGD-O1D	-3.72	116.57	123.84
25	C	505	CLA	CMB-C2B-C3B	3.72	131.63	124.68
25	b	601	CLA	CMB-C2B-C1B	-3.70	122.78	128.46
25	c	506	CLA	CMB-C2B-C1B	-3.69	122.78	128.46
25	C	513	CLA	O2D-CGD-O1D	-3.69	116.63	123.84
25	b	602	CLA	CMB-C2B-C3B	3.69	131.58	124.68
26	B	617	BCR	C2-C1-C6	3.69	116.15	110.48
25	C	512	CLA	CMB-C2B-C1B	-3.68	122.81	128.46
25	b	601	CLA	O2D-CGD-O1D	-3.67	116.65	123.84
25	b	603	CLA	CMB-C2B-C3B	3.66	131.52	124.68
25	b	607	CLA	CMB-C2B-C1B	-3.66	122.84	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	D	404	CLA	O2D-CGD-O1D	-3.65	116.70	123.84
25	c	508	CLA	CMB-C2B-C1B	-3.65	122.86	128.46
25	B	603	CLA	CMB-C2B-C1B	-3.64	122.86	128.46
25	B	606	CLA	O2D-CGD-O1D	-3.64	116.72	123.84
25	c	502	CLA	CMB-C2B-C3B	3.64	131.49	124.68
25	c	511	CLA	CMB-C2B-C1B	-3.63	122.88	128.46
25	C	503	CLA	CHD-C1D-ND	-3.62	121.13	124.45
25	D	405	CLA	CMB-C2B-C3B	3.62	131.45	124.68
30	f	102	SQD	O5-C5-C4	3.61	116.25	109.69
25	d	404	CLA	CMB-C2B-C1B	-3.61	122.91	128.46
26	b	617	BCR	C2-C1-C6	3.61	116.04	110.48
25	C	506	CLA	CMB-C2B-C1B	-3.61	122.92	128.46
31	C	516	DGD	O3G-C3G-C2G	-3.60	102.20	110.90
25	c	505	CLA	O2D-CGD-O1D	-3.60	116.81	123.84
25	C	508	CLA	CMB-C2B-C3B	3.59	131.40	124.68
25	A	611	CLA	CMB-C2B-C1B	-3.58	122.96	128.46
30	A	615	SQD	O47-C7-C8	3.57	119.19	111.50
25	B	603	CLA	O2D-CGD-O1D	-3.57	116.86	123.84
25	B	616	CLA	CMB-C2B-C1B	-3.56	122.98	128.46
25	A	607	CLA	O2D-CGD-O1D	-3.56	116.87	123.84
25	b	610	CLA	C1-C2-C3	-3.56	119.88	126.04
25	c	508	CLA	O2D-CGD-O1D	-3.56	116.89	123.84
30	f	102	SQD	O47-C7-C8	3.55	120.71	110.80
25	A	608	CLA	CMB-C2B-C1B	-3.55	123.00	128.46
25	B	611	CLA	CMB-C2B-C1B	-3.55	123.01	128.46
25	A	606	CLA	CMB-C2B-C1B	-3.54	123.02	128.46
30	b	620	SQD	O9-S-O7	-3.53	101.72	113.95
27	D	407	PL9	C7-C8-C9	-3.53	120.92	126.79
25	B	607	CLA	CMB-C2B-C3B	3.53	131.28	124.68
35	f	101	HEM	CBD-CAD-C3D	-3.53	102.83	112.63
25	b	613	CLA	C1-C2-C3	-3.51	119.97	126.04
25	b	606	CLA	CMB-C2B-C3B	3.51	131.24	124.68
25	b	603	CLA	C1B-CHB-C4A	-3.50	123.18	130.12
25	B	602	CLA	O2D-CGD-CBD	3.50	117.48	111.27
34	d	402	PHO	CMB-C2B-C3B	3.49	131.21	124.68
25	c	509	CLA	CMB-C2B-C3B	3.49	131.20	124.68
25	B	614	CLA	CMB-C2B-C1B	-3.48	123.11	128.46
25	b	604	CLA	O2D-CGD-O1D	-3.48	117.03	123.84
25	A	611	CLA	CMB-C2B-C3B	3.48	131.18	124.68
25	c	502	CLA	O2D-CGD-O1D	-3.47	117.06	123.84
25	B	610	CLA	CHB-C4A-NA	3.46	129.30	124.51
25	C	501	CLA	O2D-CGD-O1D	-3.45	117.09	123.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	a	614	SQD	O48-C23-C24	3.45	122.72	111.91
25	a	608	CLA	CMB-C2B-C3B	3.44	131.12	124.68
25	B	609	CLA	CMB-C2B-C1B	-3.44	123.18	128.46
25	C	504	CLA	CMB-C2B-C1B	-3.44	123.18	128.46
25	c	504	CLA	CMB-C2B-C3B	3.44	131.11	124.68
25	C	513	CLA	CMB-C2B-C3B	3.44	131.11	124.68
25	C	508	CLA	O2D-CGD-O1D	-3.44	117.12	123.84
25	c	508	CLA	CMB-C2B-C3B	3.44	131.11	124.68
30	a	613	SQD	O47-C7-C8	3.43	118.89	111.50
25	b	605	CLA	CHD-C1D-ND	-3.43	121.30	124.45
25	c	501	CLA	CMB-C2B-C1B	-3.42	123.20	128.46
34	D	403	PHO	CMB-C2B-C3B	3.42	131.08	124.68
25	B	601	CLA	CMB-C2B-C1B	-3.41	123.22	128.46
27	d	406	PL9	C22-C23-C24	-3.41	119.45	127.66
31	c	516	DGD	O3G-C3G-C2G	-3.41	102.67	110.90
25	b	612	CLA	C1-C2-C3	-3.40	120.16	126.04
31	c	517	DGD	O3G-C3G-C2G	-3.39	102.71	110.90
25	B	604	CLA	O2D-CGD-O1D	-3.39	117.21	123.84
25	A	607	CLA	CMB-C2B-C1B	-3.39	123.26	128.46
25	b	608	CLA	C4A-NA-C1A	3.38	108.22	106.71
26	B	619	BCR	C2-C1-C6	3.38	115.68	110.48
30	D	409	SQD	O48-C23-C24	3.37	122.50	111.91
25	D	404	CLA	CMB-C2B-C3B	3.37	130.99	124.68
25	a	607	CLA	CMB-C2B-C3B	3.37	130.97	124.68
30	b	620	SQD	O5-C5-C4	3.36	115.79	109.69
25	A	608	CLA	CHB-C4A-NA	3.34	129.14	124.51
30	a	613	SQD	O9-S-O7	-3.34	102.38	113.95
25	c	501	CLA	O2D-CGD-CBD	3.34	117.21	111.27
25	B	610	CLA	O2D-CGD-O1D	-3.34	117.31	123.84
34	d	402	PHO	CMC-C2C-C3C	3.34	131.23	124.94
25	a	609	CLA	CMB-C2B-C1B	-3.32	123.36	128.46
25	b	614	CLA	C4A-NA-C1A	3.32	108.20	106.71
25	c	507	CLA	CHB-C4A-NA	3.31	129.09	124.51
25	A	608	CLA	CMB-C2B-C3B	3.30	130.85	124.68
31	C	517	DGD	O6D-C1D-O3G	-3.29	102.19	109.97
27	A	610	PL9	C36-C34-C33	-3.28	114.48	121.12
25	c	506	CLA	CMB-C2B-C3B	3.28	130.81	124.68
25	C	512	CLA	C1-C2-C3	-3.27	120.39	126.04
25	b	602	CLA	CHB-C4A-NA	3.27	129.03	124.51
25	B	608	CLA	CHD-C1D-ND	-3.27	121.45	124.45
25	B	604	CLA	CMB-C2B-C3B	3.25	130.76	124.68
25	B	608	CLA	O2D-CGD-O1D	-3.25	117.48	123.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	b	607	CLA	CMB-C2B-C3B	3.25	130.76	124.68
25	b	602	CLA	O2D-CGD-O1D	-3.24	117.50	123.84
25	b	614	CLA	CMB-C2B-C3B	3.24	130.74	124.68
25	C	507	CLA	CMB-C2B-C3B	3.24	130.74	124.68
25	B	602	CLA	O2D-CGD-O1D	-3.24	117.51	123.84
30	f	102	SQD	O9-S-C6	3.23	110.78	106.94
25	b	611	CLA	O2D-CGD-CBD	3.23	117.01	111.27
25	c	504	CLA	O2D-CGD-O1D	-3.23	117.53	123.84
25	b	609	CLA	CMB-C2B-C3B	3.22	130.71	124.68
25	B	603	CLA	CMB-C2B-C3B	3.22	130.70	124.68
25	B	616	CLA	CMB-C2B-C3B	3.22	130.70	124.68
25	d	404	CLA	CMB-C2B-C3B	3.22	130.69	124.68
25	c	507	CLA	O2D-CGD-O1D	-3.20	117.58	123.84
35	F	101	HEM	CBA-CAA-C2A	-3.20	107.16	112.62
31	A	616	DGD	C3G-C2G-C1G	-3.20	104.23	111.79
25	A	606	CLA	CMB-C2B-C3B	3.19	130.64	124.68
25	C	512	CLA	CMB-C2B-C3B	3.18	130.62	124.68
30	a	613	SQD	O8-S-C6	3.18	110.80	105.74
25	C	504	CLA	CHD-C1D-ND	-3.17	121.54	124.45
25	C	507	CLA	CHB-C4A-NA	3.17	128.89	124.51
34	d	402	PHO	O1D-CGD-CBD	3.17	130.01	124.74
25	a	609	CLA	O2D-CGD-CBD	3.17	116.89	111.27
25	b	614	CLA	CHD-C1D-ND	-3.16	121.55	124.45
25	B	603	CLA	O2A-CGA-O1A	-3.15	115.63	123.59
30	D	409	SQD	O9-S-O7	-3.15	103.03	113.95
30	b	620	SQD	C3-C4-C5	3.15	115.86	110.24
25	B	610	CLA	CHD-C1D-ND	-3.15	121.56	124.45
34	D	403	PHO	C1-C2-C3	-3.15	120.60	126.04
25	c	503	CLA	CMB-C2B-C3B	3.15	130.56	124.68
34	D	403	PHO	O2D-CGD-O1D	-3.14	117.69	123.84
25	C	503	CLA	CMB-C2B-C1B	-3.14	123.64	128.46
27	D	407	PL9	C7-C3-C2	-3.14	119.17	123.30
25	b	610	CLA	CMB-C2B-C1B	-3.14	123.64	128.46
25	c	501	CLA	CMB-C2B-C3B	3.14	130.55	124.68
25	B	612	CLA	C1-C2-C3	-3.13	120.62	126.04
27	D	407	PL9	C40-C39-C41	3.13	120.54	115.27
31	C	515	DGD	CDB-CCB-CBB	-3.13	98.52	114.42
25	C	505	CLA	C1-C2-C3	-3.13	120.63	126.04
25	b	608	CLA	O2D-CGD-O1D	-3.13	117.72	123.84
31	h	101	DGD	O3G-C3G-C2G	-3.13	103.35	110.90
30	b	620	SQD	C1-C2-C3	-3.13	103.48	110.00
27	D	407	PL9	C36-C34-C33	-3.13	114.79	121.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	c	516	DGD	O6D-C1D-O3G	-3.13	102.57	109.97
25	C	510	CLA	O2D-CGD-O1D	-3.12	117.73	123.84
25	a	609	CLA	O2D-CGD-O1D	-3.12	117.74	123.84
25	b	608	CLA	CHD-C1D-ND	-3.12	121.59	124.45
25	b	613	CLA	O2D-CGD-O1D	-3.11	117.75	123.84
30	a	613	SQD	C1-C2-C3	-3.11	103.51	110.00
25	A	607	CLA	CMB-C2B-C3B	3.11	130.50	124.68
25	C	506	CLA	CMB-C2B-C3B	3.11	130.50	124.68
25	C	503	CLA	O2A-C1-C2	-3.11	100.46	108.64
25	C	509	CLA	O2D-CGD-O1D	-3.10	117.78	123.84
25	c	511	CLA	CMB-C2B-C3B	3.09	130.46	124.68
25	C	511	CLA	CMB-C2B-C1B	-3.08	123.72	128.46
31	c	515	DGD	O3G-C3G-C2G	-3.08	103.46	110.90
25	B	615	CLA	CMB-C2B-C1B	-3.06	123.75	128.46
30	a	613	SQD	O9-S-C6	3.06	110.58	106.94
25	d	403	CLA	O2D-CGD-O1D	-3.06	117.85	123.84
25	b	611	CLA	CMB-C2B-C1B	-3.06	123.75	128.46
25	b	604	CLA	C1-C2-C3	-3.06	120.75	126.04
25	B	611	CLA	CMB-C2B-C3B	3.05	130.39	124.68
25	D	404	CLA	C1B-CHB-C4A	-3.05	124.07	130.12
25	b	611	CLA	O2D-CGD-O1D	-3.05	117.88	123.84
32	d	413	STE	C3-C2-C1	-3.05	106.79	114.47
25	B	611	CLA	O2D-CGD-O1D	-3.04	117.89	123.84
30	a	613	SQD	O48-C23-C24	3.04	121.46	111.91
30	B	623	SQD	O8-S-C6	3.04	110.59	105.74
25	b	601	CLA	CHB-C4A-NA	3.04	128.72	124.51
27	d	406	PL9	C7-C3-C2	-3.04	119.30	123.30
26	x	101	BCR	C2-C1-C6	3.04	115.16	110.48
30	b	620	SQD	O48-C23-C24	3.04	121.44	111.91
25	B	610	CLA	O2A-CGA-O1A	-3.04	115.93	123.59
25	C	510	CLA	CHD-C1D-ND	-3.03	121.67	124.45
27	A	610	PL9	C22-C23-C24	-3.03	120.37	127.66
34	d	401	PHO	CMC-C2C-C3C	3.03	130.65	124.94
25	c	512	CLA	O2D-CGD-O1D	-3.02	117.93	123.84
27	d	406	PL9	C42-C43-C44	-3.02	120.40	127.66
29	d	407	LHG	O8-C23-C24	3.01	121.37	111.91
29	D	410	LHG	O8-C23-C24	3.01	121.36	111.91
30	A	614	SQD	O5-C1-C2	-3.00	103.99	110.35
27	d	406	PL9	C37-C38-C39	-3.00	120.43	127.66
25	B	614	CLA	CMB-C2B-C3B	3.00	130.29	124.68
25	A	607	CLA	O2D-CGD-CBD	3.00	116.60	111.27
25	C	503	CLA	CMB-C2B-C3B	3.00	130.29	124.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	D	407	PL9	C22-C23-C24	-2.99	120.46	127.66
31	c	515	DGD	CDB-CCB-CBB	-2.99	99.24	114.42
25	a	612	CLA	C1B-CHB-C4A	-2.99	124.19	130.12
30	B	623	SQD	O5-C5-C4	2.99	115.12	109.69
25	B	616	CLA	O2D-CGD-O1D	-2.98	118.01	123.84
25	A	607	CLA	C1B-CHB-C4A	-2.98	124.21	130.12
29	d	407	LHG	C11-C10-C9	-2.97	99.32	114.42
25	a	609	CLA	CMB-C2B-C3B	2.97	130.24	124.68
25	A	607	CLA	C1-C2-C3	-2.97	120.91	126.04
25	b	611	CLA	CHD-C1D-ND	-2.97	121.73	124.45
29	B	622	LHG	O8-C23-C24	2.97	121.22	111.91
25	b	601	CLA	CMB-C2B-C3B	2.96	130.22	124.68
30	b	620	SQD	O47-C7-C8	2.96	117.88	111.50
28	b	622	LMG	O1-C7-C8	-2.96	103.76	110.90
36	V	201	HEC	CMC-C2C-C3C	2.95	129.29	125.82
32	C	519	STE	C3-C2-C1	-2.95	107.03	114.47
25	c	501	CLA	CHD-C1D-ND	-2.95	121.74	124.45
27	A	610	PL9	C7-C3-C2	-2.94	119.43	123.30
25	B	602	CLA	C1B-CHB-C4A	-2.94	124.29	130.12
30	B	623	SQD	O48-C23-C24	2.94	121.14	111.91
25	D	405	CLA	O2D-CGD-O1D	-2.94	118.09	123.84
28	c	518	LMG	O6-C1-O1	-2.94	103.02	109.97
25	A	607	CLA	C2D-C1D-ND	-2.94	107.94	110.10
29	d	408	LHG	O8-C23-C24	2.94	121.12	111.91
25	c	512	CLA	CHB-C4A-NA	2.93	128.57	124.51
30	B	623	SQD	C3-C4-C5	2.93	115.47	110.24
25	C	506	CLA	O2D-CGD-O1D	-2.93	118.11	123.84
25	c	508	CLA	O2D-CGD-CBD	2.93	116.47	111.27
30	B	623	SQD	C1-O5-C5	-2.93	107.94	113.69
25	D	404	CLA	O2D-CGD-CBD	2.93	116.47	111.27
25	D	405	CLA	C1B-CHB-C4A	-2.93	124.32	130.12
26	c	514	BCR	C27-C26-C25	2.93	126.98	122.73
29	e	101	LHG	O8-C23-C24	2.92	121.08	111.91
27	d	406	PL9	C40-C39-C41	2.92	120.18	115.27
25	A	611	CLA	O2D-CGD-O1D	-2.92	118.14	123.84
25	B	608	CLA	O2D-CGD-CBD	2.92	116.45	111.27
26	d	405	BCR	C27-C26-C25	2.91	126.95	122.73
25	C	502	CLA	O2A-CGA-O1A	-2.91	116.25	123.59
25	c	508	CLA	CHB-C4A-NA	2.90	128.53	124.51
25	b	614	CLA	O2D-CGD-O1D	-2.89	118.18	123.84
25	b	605	CLA	O1D-CGD-CBD	2.89	130.41	124.48
27	D	407	PL9	C27-C28-C29	-2.89	120.70	127.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	h	101	DGD	C4E-C3E-C2E	-2.89	105.79	110.82
28	d	411	LMG	O6-C1-O1	-2.88	103.15	109.97
28	b	622	LMG	O1-C1-C2	-2.88	103.80	108.30
26	H	101	BCR	C2-C1-C6	2.88	114.92	110.48
26	b	617	BCR	C27-C26-C25	2.88	126.91	122.73
25	C	507	CLA	O2D-CGD-O1D	-2.87	118.23	123.84
26	A	609	BCR	C27-C26-C25	2.87	126.90	122.73
25	b	610	CLA	CMB-C2B-C3B	2.87	130.04	124.68
26	B	618	BCR	C15-C14-C13	-2.87	123.22	127.31
25	B	616	CLA	C1B-CHB-C4A	-2.87	124.44	130.12
36	v	201	HEC	CMC-C2C-C1C	-2.86	124.07	128.46
25	c	513	CLA	O2D-CGD-O1D	-2.86	118.25	123.84
25	D	404	CLA	CHB-C4A-NA	2.85	128.46	124.51
26	k	101	BCR	C15-C14-C13	-2.85	123.24	127.31
35	f	101	HEM	C1B-NB-C4B	2.85	108.02	105.07
25	a	608	CLA	CHB-C4A-NA	2.84	128.44	124.51
25	b	616	CLA	C1B-CHB-C4A	-2.84	124.49	130.12
25	d	403	CLA	CMB-C2B-C1B	-2.84	124.10	128.46
28	D	408	LMG	O6-C1-O1	-2.84	103.26	109.97
25	b	602	CLA	C1-C2-C3	-2.84	121.14	126.04
28	M	101	LMG	C38-C37-C36	-2.83	100.06	114.42
31	C	515	DGD	O5D-C6D-C5D	-2.83	103.81	109.05
25	B	615	CLA	CHB-C4A-NA	2.83	128.42	124.51
25	C	503	CLA	C7-C6-C5	-2.83	105.68	113.36
28	C	518	LMG	O1-C7-C8	-2.82	104.09	110.90
25	c	507	CLA	CMB-C2B-C1B	-2.82	124.13	128.46
29	d	407	LHG	O8-C23-O10	-2.82	116.48	123.59
25	A	606	CLA	CHB-C4A-NA	2.82	128.41	124.51
25	b	610	CLA	C1B-CHB-C4A	-2.81	124.54	130.12
25	C	512	CLA	CHB-C4A-NA	2.81	128.40	124.51
25	c	501	CLA	CHB-C4A-NA	2.81	128.40	124.51
25	c	502	CLA	C1-C2-C3	-2.81	121.19	126.04
25	a	608	CLA	O2A-CGA-O1A	-2.80	116.52	123.59
26	k	101	BCR	C33-C5-C6	-2.80	121.38	124.53
25	B	613	CLA	C16-C15-C13	-2.80	106.86	115.92
28	b	622	LMG	O3-C3-C2	-2.80	103.88	110.35
25	C	501	CLA	O2D-CGD-CBD	2.80	116.23	111.27
25	C	505	CLA	O2D-CGD-O1D	-2.80	118.37	123.84
25	c	512	CLA	CMB-C2B-C1B	-2.79	124.17	128.46
25	B	615	CLA	CHD-C1D-ND	-2.79	121.89	124.45
25	B	606	CLA	CMB-C2B-C1B	-2.79	124.18	128.46
25	C	502	CLA	CMB-C2B-C1B	-2.79	124.18	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	b	608	CLA	C1B-CHB-C4A	-2.79	124.59	130.12
25	b	611	CLA	CHB-C4A-NA	2.79	128.37	124.51
25	C	509	CLA	CHB-C4A-NA	2.78	128.36	124.51
31	C	515	DGD	C3D-C4D-C5D	-2.78	105.28	110.24
31	o	301	DGD	CDB-CCB-CBB	-2.78	100.31	114.42
25	C	503	CLA	CHB-C4A-NA	2.78	128.36	124.51
25	C	511	CLA	O2A-CGA-O1A	-2.78	116.58	123.59
25	b	607	CLA	CHB-C4A-NA	2.78	128.35	124.51
25	B	616	CLA	CHD-C1D-ND	-2.78	121.90	124.45
25	B	604	CLA	CHB-C4A-NA	2.77	128.35	124.51
25	b	608	CLA	CHB-C4A-NA	2.77	128.35	124.51
25	b	612	CLA	O2A-CGA-O1A	-2.77	116.60	123.59
25	b	612	CLA	C1B-CHB-C4A	-2.77	124.64	130.12
25	b	603	CLA	C1-C2-C3	-2.77	121.26	126.04
26	T	101	BCR	C33-C5-C6	-2.77	121.42	124.53
26	d	405	BCR	C38-C26-C25	-2.76	121.42	124.53
25	b	616	CLA	C1-C2-C3	-2.76	121.27	126.04
25	b	607	CLA	CHD-C1D-ND	-2.76	121.92	124.45
25	a	607	CLA	CHB-C4A-NA	2.76	128.33	124.51
34	D	403	PHO	O1D-CGD-CBD	2.75	129.33	124.74
25	b	607	CLA	O2D-CGD-O1D	-2.75	118.45	123.84
26	d	405	BCR	C33-C5-C6	-2.75	121.44	124.53
25	a	612	CLA	O2D-CGD-O1D	-2.75	118.46	123.84
34	d	402	PHO	O2D-CGD-O1D	-2.75	118.47	123.84
25	c	507	CLA	C1B-CHB-C4A	-2.75	124.67	130.12
34	d	401	PHO	CMB-C2B-C3B	2.75	129.82	124.68
27	D	407	PL9	C37-C38-C39	-2.75	121.05	127.66
25	C	504	CLA	O2D-CGD-O1D	-2.74	118.48	123.84
30	A	614	SQD	O9-S-C6	2.74	110.19	106.94
30	f	102	SQD	O48-C23-C24	2.73	120.49	111.91
25	b	604	CLA	O2D-CGD-CBD	2.73	116.12	111.27
31	h	101	DGD	C1E-O6E-C5E	2.73	119.05	113.69
26	B	618	BCR	C35-C13-C14	-2.73	119.10	122.92
34	D	402	PHO	O2D-CGD-O1D	-2.73	118.50	123.84
26	A	609	BCR	C15-C14-C13	-2.72	123.42	127.31
36	V	201	HEC	CMB-C2B-C1B	-2.72	124.28	128.46
25	B	604	CLA	O2A-CGA-O1A	-2.72	116.73	123.59
25	c	505	CLA	CMB-C2B-C1B	-2.72	124.29	128.46
25	b	614	CLA	CHB-C4A-NA	2.72	128.27	124.51
35	f	101	HEM	C3B-C2B-C1B	2.71	108.50	106.49
26	C	514	BCR	C2-C1-C6	2.71	114.66	110.48
25	d	403	CLA	CMB-C2B-C3B	2.71	129.75	124.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	c	507	CLA	O2A-CGA-O1A	-2.71	116.75	123.59
25	b	608	CLA	C2D-C1D-ND	-2.71	108.11	110.10
29	l	101	LHG	O8-C23-C24	2.71	120.40	111.91
25	b	612	CLA	C11-C12-C13	-2.71	107.17	115.92
26	T	101	BCR	C27-C26-C25	2.70	126.66	122.73
26	k	103	BCR	C27-C26-C25	2.70	126.66	122.73
30	b	620	SQD	O9-S-C6	2.70	110.15	106.94
31	h	101	DGD	O6E-C5E-C4E	2.69	114.58	109.69
26	a	610	BCR	C11-C10-C9	-2.68	123.48	127.31
25	c	502	CLA	C1B-CHB-C4A	-2.68	124.80	130.12
25	B	608	CLA	C6-C7-C8	-2.68	107.25	115.92
25	B	609	CLA	O2D-CGD-O1D	-2.68	118.59	123.84
25	d	404	CLA	O2D-CGD-O1D	-2.68	118.59	123.84
27	a	611	PL9	C22-C23-C24	-2.68	121.21	127.66
27	D	407	PL9	C20-C19-C21	2.68	119.78	115.27
27	D	407	PL9	C31-C32-C33	-2.68	103.08	111.88
25	c	510	CLA	C1-C2-C3	-2.67	121.42	126.04
26	d	405	BCR	C7-C8-C9	-2.67	122.20	126.23
31	c	516	DGD	CDB-CCB-CBB	-2.67	100.87	114.42
26	k	102	BCR	C33-C5-C6	-2.67	121.53	124.53
29	B	622	LHG	C20-C19-C18	-2.67	100.89	114.42
31	C	516	DGD	O6D-C1D-O3G	-2.66	103.67	109.97
36	V	201	HEC	C1D-C2D-C3D	-2.66	105.15	107.00
25	B	602	CLA	CHB-C4A-NA	2.66	128.19	124.51
25	b	615	CLA	CHB-C4A-NA	2.66	128.19	124.51
26	c	514	BCR	C33-C5-C6	-2.65	121.55	124.53
25	b	601	CLA	O2D-CGD-CBD	2.65	115.98	111.27
25	B	609	CLA	CMB-C2B-C3B	2.65	129.64	124.68
25	B	603	CLA	O2D-CGD-CBD	2.65	115.97	111.27
26	B	618	BCR	C2-C1-C6	2.65	114.55	110.48
25	A	607	CLA	C1D-ND-C4D	2.64	108.21	106.33
27	d	406	PL9	C20-C19-C21	2.64	119.72	115.27
25	C	512	CLA	O2D-CGD-O1D	-2.64	118.68	123.84
25	C	503	CLA	O2D-CGD-O1D	-2.64	118.68	123.84
31	C	517	DGD	CDB-CCB-CBB	-2.63	101.05	114.42
25	b	615	CLA	CMB-C2B-C1B	-2.63	124.42	128.46
31	C	515	DGD	O6D-C1D-O3G	-2.63	103.74	109.97
31	A	616	DGD	CDB-CCB-CBB	-2.63	101.07	114.42
27	D	407	PL9	C12-C13-C14	-2.63	121.33	127.66
29	A	613	LHG	O8-C6-C5	-2.63	100.78	108.43
35	F	101	HEM	CHC-C4B-NB	2.63	127.28	124.43
25	b	608	CLA	O2D-CGD-CBD	2.62	115.93	111.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	B	612	CLA	CHB-C4A-NA	2.62	128.14	124.51
25	c	510	CLA	O2D-CGD-O1D	-2.62	118.71	123.84
27	A	610	PL9	C7-C8-C9	-2.62	122.43	126.79
25	b	602	CLA	O2D-CGD-CBD	2.62	115.92	111.27
25	c	507	CLA	CMB-C2B-C3B	2.62	129.57	124.68
35	f	101	HEM	C4B-CHC-C1C	2.61	126.01	122.56
27	A	610	PL9	C20-C19-C21	2.61	119.67	115.27
31	h	101	DGD	CDB-CCB-CBB	-2.61	101.16	114.42
31	h	101	DGD	C1D-C2D-C3D	-2.61	104.56	110.00
25	D	404	CLA	O2A-CGA-O1A	-2.61	117.00	123.59
31	c	517	DGD	CDB-CCB-CBB	-2.61	101.18	114.42
25	B	611	CLA	CHD-C1D-ND	-2.61	122.06	124.45
30	B	623	SQD	O7-S-C6	2.61	110.04	106.94
25	B	608	CLA	O2A-C1-C2	-2.60	101.79	108.64
28	d	411	LMG	O1-C7-C8	-2.60	104.63	110.90
25	b	603	CLA	O2D-CGD-CBD	2.59	115.88	111.27
25	a	609	CLA	CHB-C4A-NA	2.59	128.10	124.51
25	b	611	CLA	CMB-C2B-C3B	2.59	129.53	124.68
26	d	405	BCR	C30-C25-C26	-2.59	118.96	122.61
34	D	402	PHO	CMC-C2C-C3C	2.59	129.83	124.94
25	B	612	CLA	O2A-CGA-O1A	-2.59	117.05	123.59
25	A	611	CLA	C1B-CHB-C4A	-2.59	124.98	130.12
27	d	406	PL9	C36-C34-C33	-2.59	115.88	121.12
25	c	506	CLA	C4-C3-C5	2.59	119.62	115.27
25	C	511	CLA	CHB-C4A-NA	2.59	128.09	124.51
25	B	613	CLA	C1B-CHB-C4A	-2.59	124.99	130.12
29	E	101	LHG	O8-C23-C24	2.59	120.02	111.91
31	c	515	DGD	C3G-C2G-C1G	-2.58	105.68	111.79
25	C	513	CLA	CHB-C4A-NA	2.58	128.08	124.51
25	B	607	CLA	CHD-C1D-ND	-2.58	122.08	124.45
26	D	406	BCR	C27-C26-C25	2.58	126.47	122.73
25	B	603	CLA	CHD-C1D-ND	-2.58	122.09	124.45
25	B	604	CLA	O2A-C1-C2	2.57	115.39	108.64
25	C	501	CLA	C2D-C1D-ND	-2.57	108.21	110.10
25	b	612	CLA	CHB-C4A-NA	2.57	128.07	124.51
25	b	614	CLA	C1-C2-C3	-2.57	121.60	126.04
26	b	617	BCR	C15-C14-C13	-2.57	123.64	127.31
25	c	509	CLA	CHB-C4A-NA	2.57	128.06	124.51
25	B	614	CLA	CHD-C1D-ND	-2.56	122.10	124.45
25	b	604	CLA	O2A-CGA-O1A	-2.56	117.13	123.59
26	H	101	BCR	C16-C15-C14	-2.56	118.23	123.47
27	a	611	PL9	C37-C38-C39	-2.56	121.50	127.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	k	101	BCR	C27-C26-C25	2.56	126.45	122.73
26	x	101	BCR	C27-C26-C25	2.56	126.44	122.73
25	A	608	CLA	O2D-CGD-CBD	2.56	115.81	111.27
25	B	610	CLA	C1B-CHB-C4A	-2.56	125.06	130.12
31	C	516	DGD	CDB-CCB-CBB	-2.56	101.45	114.42
30	D	409	SQD	O5-C5-C4	2.55	114.33	109.69
30	f	102	SQD	C1-O5-C5	-2.55	108.68	113.69
25	b	603	CLA	CHD-C1D-ND	-2.55	122.11	124.45
26	t	101	BCR	C33-C5-C6	-2.55	121.66	124.53
25	A	608	CLA	C1B-CHB-C4A	-2.55	125.06	130.12
28	c	518	LMG	O8-C28-O10	-2.55	117.16	123.59
26	b	617	BCR	C33-C5-C6	-2.55	121.66	124.53
31	c	515	DGD	CBB-CAB-C9B	-2.55	101.48	114.42
25	a	609	CLA	O2A-CGA-O1A	-2.55	117.16	123.59
25	b	614	CLA	O2A-CGA-O1A	-2.55	117.16	123.59
31	A	616	DGD	O6D-C1D-O3G	-2.55	103.94	109.97
29	E	101	LHG	C11-C10-C9	-2.55	101.50	114.42
25	b	610	CLA	CHB-C4A-NA	2.54	128.03	124.51
36	v	201	HEC	CBA-CAA-C2A	-2.54	108.32	112.60
25	a	608	CLA	O2D-CGD-O1D	-2.54	118.87	123.84
25	C	504	CLA	CHB-C4A-NA	2.54	128.03	124.51
31	C	516	DGD	O5D-C6D-C5D	-2.54	104.35	109.05
31	A	616	DGD	O3G-C3G-C2G	-2.54	104.77	110.90
27	A	610	PL9	C31-C32-C33	-2.54	103.54	111.88
25	c	503	CLA	CHD-C1D-ND	-2.53	122.12	124.45
25	C	503	CLA	C1-O2A-CGA	2.53	123.09	116.44
25	c	504	CLA	CHB-C4A-NA	2.53	128.01	124.51
25	b	616	CLA	O2D-CGD-CBD	2.53	115.77	111.27
25	B	614	CLA	C1-C2-C3	-2.53	121.67	126.04
30	B	623	SQD	O9-S-O7	-2.53	105.19	113.95
25	b	615	CLA	O2A-CGA-O1A	-2.53	117.21	123.59
29	l	101	LHG	C11-C10-C9	-2.52	101.61	114.42
25	B	612	CLA	CHD-C1D-ND	-2.52	122.13	124.45
28	b	622	LMG	O6-C1-O1	-2.52	104.00	109.97
30	A	614	SQD	O47-C7-O49	-2.52	117.60	123.70
28	A	612	LMG	C38-C37-C36	-2.52	101.62	114.42
25	B	603	CLA	C1B-CHB-C4A	-2.52	125.12	130.12
25	B	614	CLA	CHB-C4A-NA	2.52	128.00	124.51
25	C	506	CLA	O2A-CGA-O1A	-2.52	117.23	123.59
25	B	615	CLA	O2D-CGD-O1D	-2.52	118.91	123.84
29	B	622	LHG	C11-C10-C9	-2.52	101.63	114.42
25	C	511	CLA	CMB-C2B-C3B	2.52	129.39	124.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	k	103	BCR	C11-C10-C9	-2.52	123.72	127.31
25	b	610	CLA	CAA-CBA-CGA	-2.51	105.90	113.25
25	b	601	CLA	CHD-C1D-ND	-2.51	122.14	124.45
26	H	101	BCR	C27-C26-C25	2.51	126.38	122.73
25	a	612	CLA	CHB-C4A-NA	2.51	127.99	124.51
25	b	604	CLA	CHB-C4A-NA	2.51	127.99	124.51
25	B	605	CLA	CMB-C2B-C1B	-2.51	124.60	128.46
29	e	101	LHG	C11-C10-C9	-2.51	101.69	114.42
26	t	101	BCR	C11-C10-C9	-2.51	123.73	127.31
28	b	624	LMG	O2-C2-C1	-2.51	103.95	110.05
25	c	508	CLA	O2A-CGA-O1A	-2.51	117.27	123.59
25	B	601	CLA	C4-C3-C5	2.51	119.49	115.27
31	C	517	DGD	C3G-C2G-C1G	-2.50	105.87	111.79
25	c	512	CLA	CMB-C2B-C3B	2.50	129.36	124.68
26	k	102	BCR	C27-C26-C25	2.50	126.36	122.73
25	c	503	CLA	CHB-C4A-NA	2.50	127.97	124.51
25	c	504	CLA	O2D-CGD-CBD	2.50	115.71	111.27
25	b	616	CLA	CHD-C1D-ND	-2.50	122.16	124.45
25	C	502	CLA	O2D-CGD-O1D	-2.50	118.96	123.84
25	c	511	CLA	CHD-C1D-ND	-2.50	122.16	124.45
30	f	102	SQD	O5-C1-C2	-2.49	105.07	110.35
31	C	516	DGD	O2D-C2D-C1D	-2.49	103.99	110.05
25	D	404	CLA	C4-C3-C5	2.49	119.47	115.27
25	A	606	CLA	O2A-CGA-O1A	-2.49	117.30	123.59
25	c	507	CLA	CHD-C1D-ND	-2.49	122.16	124.45
26	a	610	BCR	C2-C1-C6	2.49	114.31	110.48
26	a	610	BCR	C16-C15-C14	-2.49	118.37	123.47
29	d	408	LHG	C18-C17-C16	-2.49	101.79	114.42
25	B	607	CLA	CHB-C4A-NA	2.49	127.95	124.51
31	H	102	DGD	C1D-C2D-C3D	-2.49	104.82	110.00
30	A	615	SQD	C45-O47-C7	-2.49	114.68	117.88
25	d	404	CLA	C1B-CHB-C4A	-2.49	125.19	130.12
25	b	605	CLA	CHB-C4A-NA	2.48	127.95	124.51
25	B	601	CLA	O2D-CGD-CBD	2.48	115.68	111.27
25	A	606	CLA	C1B-CHB-C4A	-2.48	125.20	130.12
26	T	101	BCR	C3-C4-C5	-2.48	109.64	114.08
25	c	510	CLA	CHD-C1D-ND	-2.48	122.17	124.45
31	o	301	DGD	C1G-C2G-C3G	-2.48	105.99	111.80
31	c	516	DGD	O2D-C2D-C1D	-2.48	104.02	110.05
28	M	101	LMG	C40-C39-C38	-2.48	101.84	114.42
26	k	103	BCR	C33-C5-C6	-2.48	121.75	124.53
25	B	605	CLA	C16-C15-C13	-2.48	107.91	115.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	c	504	CLA	O2A-CGA-O1A	-2.48	117.34	123.59
35	F	101	HEM	C4D-ND-C1D	2.48	107.63	105.07
26	b	618	BCR	C27-C26-C25	2.47	126.32	122.73
25	c	506	CLA	O2D-CGD-O1D	-2.47	119.00	123.84
25	a	607	CLA	O2A-CGA-O1A	-2.47	117.36	123.59
25	c	502	CLA	O1D-CGD-CBD	2.47	129.54	124.48
25	C	512	CLA	O2A-CGA-O1A	-2.47	117.36	123.59
26	Z	101	BCR	C2-C1-C6	2.47	114.28	110.48
32	d	412	STE	O2-C1-C2	2.47	121.96	114.03
27	d	406	PL9	C12-C13-C14	-2.47	121.72	127.66
29	d	408	LHG	C20-C19-C18	-2.47	101.90	114.42
25	B	606	CLA	O2D-CGD-CBD	2.47	115.65	111.27
25	C	508	CLA	O2D-CGD-CBD	2.46	115.65	111.27
25	c	512	CLA	O2A-CGA-O1A	-2.46	117.38	123.59
25	b	616	CLA	O2A-CGA-O1A	-2.46	117.38	123.59
25	B	601	CLA	CMB-C2B-C3B	2.46	129.28	124.68
25	B	605	CLA	CMB-C2B-C3B	2.46	129.28	124.68
26	K	102	BCR	C27-C26-C25	2.46	126.30	122.73
28	c	522	LMG	O6-C1-O1	-2.46	104.16	109.97
25	b	604	CLA	CHD-C1D-ND	-2.45	122.20	124.45
25	B	601	CLA	C2D-C1D-ND	-2.45	108.30	110.10
31	H	102	DGD	O6D-C1D-O3G	-2.45	104.17	109.97
25	C	509	CLA	O2D-CGD-CBD	2.45	115.62	111.27
26	t	101	BCR	C15-C16-C17	-2.45	118.46	123.47
25	C	507	CLA	O2A-CGA-O1A	-2.45	117.42	123.59
34	d	402	PHO	CMA-C3A-C4A	-2.45	109.02	114.38
25	b	608	CLA	C1D-ND-C4D	2.45	108.07	106.33
25	B	606	CLA	CHB-C4A-NA	2.44	127.89	124.51
25	c	510	CLA	CHB-C4A-NA	2.44	127.89	124.51
28	c	522	LMG	C38-C37-C36	-2.44	102.04	114.42
25	B	613	CLA	O2A-C1-C2	-2.44	102.23	108.64
27	A	610	PL9	C27-C28-C29	-2.44	121.79	127.66
26	K	101	BCR	C27-C26-C25	2.44	126.27	122.73
25	C	504	CLA	CMB-C2B-C3B	2.44	129.24	124.68
25	a	612	CLA	O2D-CGD-CBD	2.44	115.60	111.27
25	B	614	CLA	C1B-CHB-C4A	-2.44	125.29	130.12
26	K	101	BCR	C2-C1-C6	2.44	114.23	110.48
25	b	613	CLA	C2A-C1A-CHA	2.43	128.12	123.86
26	A	609	BCR	C37-C22-C21	-2.43	119.51	122.92
25	C	506	CLA	CHB-C4A-NA	2.43	127.88	124.51
25	b	616	CLA	CHB-C4A-NA	2.43	127.87	124.51
25	C	503	CLA	O1D-CGD-CBD	2.43	129.46	124.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	c	516	DGD	O5D-C6D-C5D	-2.43	104.55	109.05
25	B	610	CLA	CMB-C2B-C1B	-2.43	124.73	128.46
31	C	516	DGD	C1D-C2D-C3D	-2.43	104.94	110.00
31	C	515	DGD	CBB-CAB-C9B	-2.43	102.10	114.42
25	A	611	CLA	O2D-CGD-CBD	2.43	115.58	111.27
25	d	404	CLA	CHD-C1D-ND	-2.43	122.22	124.45
27	d	406	PL9	C31-C32-C33	-2.43	103.91	111.88
31	h	101	DGD	C6D-C5D-C4D	2.42	117.16	112.09
25	b	610	CLA	O2A-CGA-O1A	-2.42	117.47	123.59
26	a	610	BCR	C7-C8-C9	-2.42	122.57	126.23
27	a	611	PL9	C27-C28-C29	-2.42	121.82	127.66
31	H	102	DGD	O6E-C5E-C4E	2.42	114.09	109.69
25	c	512	CLA	CHD-C1D-ND	-2.42	122.23	124.45
25	A	611	CLA	CHB-C4A-NA	2.42	127.86	124.51
28	b	622	LMG	C38-C37-C36	-2.42	102.14	114.42
26	K	101	BCR	C15-C16-C17	-2.42	118.52	123.47
25	B	609	CLA	O2A-CGA-O1A	-2.42	117.49	123.59
26	c	514	BCR	C35-C13-C14	-2.42	119.53	122.92
25	c	509	CLA	O2D-CGD-O1D	-2.41	119.12	123.84
29	d	407	LHG	C18-C17-C16	-2.41	102.18	114.42
25	c	513	CLA	C1B-CHB-C4A	-2.41	125.34	130.12
25	a	609	CLA	C1B-CHB-C4A	-2.41	125.34	130.12
35	f	101	HEM	C4D-ND-C1D	2.41	107.56	105.07
28	D	408	LMG	C38-C37-C36	-2.41	102.19	114.42
31	c	516	DGD	C1D-C2D-C3D	-2.41	104.98	110.00
28	C	518	LMG	C40-C39-C38	-2.41	102.21	114.42
25	b	607	CLA	C1B-CHB-C4A	-2.41	125.35	130.12
31	H	102	DGD	O5D-C1E-C2E	2.40	112.06	108.30
31	o	301	DGD	CFB-CEB-CDB	-2.40	102.22	114.42
25	B	614	CLA	O2A-CGA-O1A	-2.40	117.53	123.59
25	A	608	CLA	CHD-C1D-ND	-2.40	122.25	124.45
27	a	611	PL9	C7-C8-C9	-2.40	122.79	126.79
25	B	601	CLA	CAA-C2A-C3A	-2.40	106.20	112.78
25	a	612	CLA	CHD-C1D-ND	-2.40	122.25	124.45
26	K	102	BCR	C33-C5-C6	-2.40	121.83	124.53
25	b	602	CLA	CAC-C3C-C4C	2.40	127.92	124.81
25	b	602	CLA	C1B-CHB-C4A	-2.40	125.37	130.12
25	C	507	CLA	CHD-C1D-ND	-2.40	122.25	124.45
34	D	402	PHO	O2D-CGD-CBD	2.39	114.03	111.00
25	b	613	CLA	O2A-CGA-O1A	-2.39	117.56	123.59
25	c	504	CLA	C1-C2-C3	-2.39	121.91	126.04
25	b	615	CLA	CHC-C1C-NC	2.39	127.82	124.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	h	101	DGD	O6D-C1D-O3G	-2.38	104.33	109.97
25	b	605	CLA	O2A-CGA-O1A	-2.38	117.58	123.59
27	a	611	PL9	O2-C1-C2	-2.38	116.33	121.78
25	c	507	CLA	O2D-CGD-CBD	2.38	115.50	111.27
30	f	102	SQD	C3-C4-C5	2.38	114.48	110.24
25	B	605	CLA	CHD-C1D-ND	-2.38	122.27	124.45
30	a	613	SQD	O7-S-C6	2.38	109.76	106.94
27	a	611	PL9	C40-C39-C41	2.38	119.27	115.27
25	C	511	CLA	O2D-CGD-O1D	-2.37	119.19	123.84
30	A	615	SQD	O48-C23-C24	2.37	119.36	111.91
26	B	617	BCR	C29-C30-C25	2.37	114.13	110.48
25	C	508	CLA	CHD-C1D-C2D	2.37	130.45	125.48
25	c	513	CLA	C1-C2-C3	-2.37	121.94	126.04
25	B	612	CLA	C11-C12-C13	-2.37	108.27	115.92
25	b	615	CLA	CHD-C1D-ND	-2.37	122.28	124.45
25	b	605	CLA	CMB-C2B-C1B	-2.37	124.83	128.46
25	B	605	CLA	O2A-CGA-O1A	-2.36	117.62	123.59
25	B	603	CLA	C4-C3-C5	2.36	119.25	115.27
25	c	512	CLA	C1B-CHB-C4A	-2.36	125.44	130.12
25	B	602	CLA	O2A-CGA-O1A	-2.36	117.63	123.59
26	T	101	BCR	C2-C1-C6	2.36	114.11	110.48
26	b	618	BCR	C11-C10-C9	-2.36	123.94	127.31
29	A	613	LHG	C11-C10-C9	-2.36	102.47	114.42
31	c	516	DGD	C3E-C4E-C5E	-2.35	106.04	110.24
25	C	501	CLA	O2A-CGA-O1A	-2.35	117.65	123.59
30	a	614	SQD	C46-C45-C44	-2.35	106.30	111.80
31	A	616	DGD	O2D-C2D-C1D	-2.35	104.34	110.05
28	b	624	LMG	C3-C4-C5	-2.35	106.05	110.24
28	A	612	LMG	C40-C39-C38	-2.35	102.52	114.42
25	b	613	CLA	C1B-CHB-C4A	-2.35	125.47	130.12
27	a	611	PL9	O2-C1-C6	2.34	124.65	120.59
25	c	508	CLA	CHD-C1D-ND	-2.34	122.30	124.45
25	B	604	CLA	C1B-CHB-C4A	-2.34	125.48	130.12
26	k	101	BCR	C2-C1-C6	2.34	114.08	110.48
25	c	503	CLA	C7-C6-C5	-2.34	107.00	113.36
25	d	403	CLA	O2A-CGA-O1A	-2.34	117.69	123.59
28	D	408	LMG	C40-C39-C38	-2.34	102.55	114.42
31	C	516	DGD	C5B-C4B-C3B	-2.34	102.56	114.42
31	C	515	DGD	O2D-C2D-C1D	-2.34	104.37	110.05
25	B	610	CLA	C1-C2-C3	-2.34	122.00	126.04
25	B	610	CLA	O2D-CGD-CBD	2.34	115.42	111.27
25	C	510	CLA	CHB-C4A-NA	2.34	127.74	124.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	A	616	DGD	CBB-CAB-C9B	-2.33	102.57	114.42
29	B	622	LHG	C18-C17-C16	-2.33	102.58	114.42
26	k	101	BCR	C15-C16-C17	-2.33	118.69	123.47
28	D	408	LMG	O3-C3-C2	-2.33	104.95	110.35
35	f	101	HEM	CAB-C3B-C2B	-2.33	120.92	128.60
25	B	606	CLA	CMB-C2B-C3B	2.33	129.04	124.68
26	T	101	BCR	C35-C13-C14	-2.33	119.66	122.92
25	a	608	CLA	CHD-C1D-ND	-2.33	122.31	124.45
29	D	410	LHG	C18-C17-C16	-2.33	102.59	114.42
29	E	101	LHG	C20-C19-C18	-2.33	102.59	114.42
31	C	517	DGD	CAB-C9B-C8B	-2.33	102.59	114.42
34	D	403	PHO	CMC-C2C-C3C	2.33	129.34	124.94
31	c	515	DGD	O5D-C6D-C5D	-2.33	104.73	109.05
25	B	612	CLA	C1B-CHB-C4A	-2.33	125.50	130.12
28	b	622	LMG	O8-C28-O10	-2.33	117.71	123.59
25	C	504	CLA	O2A-CGA-O1A	-2.33	117.72	123.59
25	b	603	CLA	O2A-CGA-O1A	-2.33	117.72	123.59
26	T	101	BCR	C7-C8-C9	-2.33	122.72	126.23
26	B	619	BCR	C29-C30-C25	2.33	114.06	110.48
28	C	518	LMG	O6-C1-O1	-2.33	104.47	109.97
25	C	502	CLA	CMB-C2B-C3B	2.32	129.03	124.68
26	K	101	BCR	C33-C5-C6	-2.32	121.92	124.53
25	C	510	CLA	O2A-CGA-O1A	-2.32	117.73	123.59
25	B	615	CLA	CMB-C2B-C3B	2.32	129.03	124.68
32	B	626	STE	O2-C1-C2	2.32	121.49	114.03
25	b	611	CLA	C7-C6-C5	-2.32	107.05	113.36
25	b	609	CLA	O2A-CGA-O1A	-2.32	117.73	123.59
26	t	101	BCR	C27-C26-C25	2.32	126.10	122.73
25	c	511	CLA	O2D-CGD-O1D	-2.32	119.30	123.84
30	f	102	SQD	C1-C2-C3	-2.32	105.17	110.00
25	C	508	CLA	CHB-C4A-NA	2.32	127.72	124.51
31	C	517	DGD	C1D-C2D-C3D	-2.32	105.17	110.00
25	C	502	CLA	C1-C2-C3	-2.32	122.03	126.04
29	L	101	LHG	C20-C19-C18	-2.32	102.66	114.42
31	c	516	DGD	CBB-CAB-C9B	-2.31	102.67	114.42
25	a	607	CLA	O2D-CGD-O1D	-2.31	119.31	123.84
25	B	607	CLA	O2A-CGA-O1A	-2.31	117.75	123.59
25	b	615	CLA	C1B-CHB-C4A	-2.31	125.54	130.12
35	f	101	HEM	CHC-C4B-C3B	2.31	128.11	124.57
26	C	514	BCR	C27-C26-C25	2.31	126.08	122.73
28	c	518	LMG	C40-C39-C38	-2.31	102.71	114.42
31	C	515	DGD	C3G-C2G-C1G	-2.31	106.33	111.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	B	602	CLA	C1-C2-C3	-2.31	122.06	126.04
34	D	402	PHO	C1-C2-C3	-2.31	122.06	126.04
27	a	611	PL9	C32-C33-C34	-2.31	122.11	127.66
25	b	614	CLA	C1B-CHB-C4A	-2.30	125.56	130.12
25	D	405	CLA	O2A-CGA-O1A	-2.30	117.78	123.59
26	H	101	BCR	C24-C23-C22	-2.30	122.76	126.23
26	C	514	BCR	C15-C16-C17	-2.30	118.77	123.47
26	B	619	BCR	C3-C4-C5	-2.30	109.98	114.08
30	a	614	SQD	C9-C8-C7	-2.30	105.27	113.62
30	f	102	SQD	O8-S-C6	2.29	109.40	105.74
36	v	201	HEC	CMB-C2B-C1B	-2.29	124.94	128.46
31	C	516	DGD	C3D-C4D-C5D	-2.29	106.15	110.24
25	c	505	CLA	C1-C2-C3	-2.29	122.08	126.04
29	d	407	LHG	C20-C19-C18	-2.29	102.80	114.42
25	C	508	CLA	CHD-C4C-NC	2.29	127.81	124.20
28	c	518	LMG	O2-C2-C1	-2.29	104.49	110.05
30	D	409	SQD	O6-C44-C45	-2.28	101.56	109.56
28	M	101	LMG	O6-C1-O1	-2.28	104.57	109.97
25	b	608	CLA	CHD-C1D-C2D	2.28	130.27	125.48
27	A	610	PL9	O2-C1-C2	-2.28	116.55	121.78
27	A	610	PL9	C40-C39-C41	2.28	119.11	115.27
25	a	608	CLA	C1B-CHB-C4A	-2.28	125.60	130.12
25	b	609	CLA	CHB-C4A-NA	2.28	127.66	124.51
30	a	613	SQD	C44-O6-C1	-2.28	109.29	113.74
25	c	503	CLA	CHD-C4C-NC	2.28	127.79	124.20
25	c	502	CLA	O2A-CGA-O1A	-2.28	117.85	123.59
28	b	624	LMG	O7-C10-O9	-2.27	118.20	123.70
25	C	508	CLA	C7-C6-C5	-2.27	107.18	113.36
32	t	102	STE	O2-C1-C2	2.27	121.34	114.03
28	C	518	LMG	C38-C37-C36	-2.27	102.88	114.42
26	A	609	BCR	C2-C1-C6	2.27	113.98	110.48
28	c	520	LMG	C40-C39-C38	-2.27	102.90	114.42
25	C	509	CLA	C1-C2-C3	-2.27	122.12	126.04
26	B	617	BCR	C3-C4-C5	-2.27	110.03	114.08
31	o	301	DGD	C5B-C4B-C3B	-2.26	102.93	114.42
31	c	515	DGD	O2D-C2D-C1D	-2.26	104.55	110.05
31	A	616	DGD	C1D-C2D-C3D	-2.26	105.28	110.00
36	v	201	HEC	C1D-C2D-C3D	-2.26	105.42	107.00
28	c	518	LMG	C38-C37-C36	-2.26	102.95	114.42
31	C	517	DGD	O3E-C3E-C2E	-2.26	105.12	110.35
28	d	410	LMG	O7-C10-O9	-2.26	117.67	123.30
25	C	513	CLA	O2A-CGA-O1A	-2.26	117.90	123.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	a	610	BCR	C29-C30-C25	2.26	113.95	110.48
26	D	406	BCR	C38-C26-C25	-2.26	121.99	124.53
25	b	607	CLA	C1-O2A-CGA	2.26	122.36	116.44
29	e	101	LHG	C20-C19-C18	-2.25	102.98	114.42
25	c	503	CLA	O2D-CGD-O1D	-2.25	119.43	123.84
31	H	102	DGD	O3E-C3E-C2E	-2.25	105.14	110.35
25	C	507	CLA	C1B-CHB-C4A	-2.25	125.66	130.12
29	D	410	LHG	C20-C19-C18	-2.25	102.99	114.42
31	H	102	DGD	O2D-C2D-C1D	-2.25	104.58	110.05
26	t	101	BCR	C1-C6-C5	-2.25	119.44	122.61
26	b	619	BCR	C2-C1-C6	2.25	113.94	110.48
25	C	504	CLA	CHD-C4C-NC	2.25	127.74	124.20
29	D	410	LHG	O8-C23-O10	-2.24	117.93	123.59
31	H	102	DGD	C8B-C7B-C6B	-2.24	103.03	114.42
25	c	504	CLA	CHD-C1D-ND	-2.24	122.39	124.45
28	b	624	LMG	O1-C7-C8	-2.24	105.49	110.90
25	B	607	CLA	O2D-CGD-O1D	-2.24	119.46	123.84
29	D	410	LHG	C11-C10-C9	-2.24	103.05	114.42
28	b	624	LMG	C40-C39-C38	-2.24	103.06	114.42
26	Z	101	BCR	C27-C26-C25	2.24	125.98	122.73
28	c	520	LMG	O2-C2-C1	-2.24	104.61	110.05
25	B	608	CLA	CHB-C4A-NA	2.24	127.61	124.51
27	d	406	PL9	C35-C34-C36	2.24	119.04	115.27
25	C	512	CLA	CHD-C1D-ND	-2.24	122.40	124.45
25	C	502	CLA	C1B-CHB-C4A	-2.24	125.69	130.12
25	b	606	CLA	C1B-CHB-C4A	-2.24	125.69	130.12
25	D	405	CLA	CHB-C4A-NA	2.24	127.60	124.51
25	B	613	CLA	O2D-CGD-O1D	-2.23	119.47	123.84
25	d	403	CLA	CHB-C4A-NA	2.23	127.60	124.51
25	a	608	CLA	CHA-C1A-NA	-2.23	121.28	126.40
28	C	518	LMG	O8-C28-O10	-2.23	117.96	123.59
26	a	610	BCR	C27-C26-C25	2.23	125.97	122.73
25	c	503	CLA	O2A-CGA-O1A	-2.23	117.96	123.59
32	a	615	STE	C3-C2-C1	-2.23	108.86	114.47
25	B	605	CLA	O2D-CGD-O1D	-2.23	119.49	123.84
25	B	607	CLA	C1B-CHB-C4A	-2.22	125.71	130.12
28	C	518	LMG	O2-C2-C1	-2.22	104.64	110.05
25	c	506	CLA	CHB-C4A-NA	2.22	127.59	124.51
29	l	101	LHG	C20-C19-C18	-2.22	103.15	114.42
31	c	515	DGD	C7B-C6B-C5B	-2.22	103.16	114.42
31	c	517	DGD	O2D-C2D-C1D	-2.22	104.66	110.05
29	E	101	LHG	C18-C17-C16	-2.22	103.17	114.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	B	609	CLA	CHB-C4A-NA	2.22	127.58	124.51
26	x	101	BCR	C3-C4-C5	-2.21	110.12	114.08
31	c	517	DGD	O6D-C1D-O3G	-2.21	104.74	109.97
25	C	506	CLA	O1D-CGD-CBD	2.21	129.01	124.48
25	B	616	CLA	O2D-CGD-CBD	2.21	115.19	111.27
25	C	512	CLA	O2D-CGD-CBD	2.21	115.19	111.27
25	C	511	CLA	C1-C2-C3	-2.21	122.22	126.04
31	C	516	DGD	O3G-C1D-C2D	-2.21	104.86	108.30
28	B	621	LMG	O7-C10-O9	-2.20	117.81	123.30
29	E	101	LHG	C27-C26-C25	-2.20	103.24	114.42
25	C	503	CLA	CHD-C1D-C2D	2.20	130.10	125.48
28	b	622	LMG	C40-C39-C38	-2.20	103.24	114.42
25	B	612	CLA	O2D-CGD-CBD	2.20	115.18	111.27
25	c	506	CLA	C2D-C1D-ND	-2.20	108.48	110.10
36	V	201	HEC	CBA-CAA-C2A	-2.20	108.90	112.60
31	c	515	DGD	O6D-C1D-O3G	-2.20	104.77	109.97
30	A	614	SQD	O48-C23-C24	2.20	118.81	111.91
31	c	515	DGD	O3E-C3E-C2E	-2.20	105.27	110.35
25	c	505	CLA	CHD-C1D-ND	-2.20	122.44	124.45
28	d	411	LMG	O2-C2-C1	-2.20	104.71	110.05
32	C	520	STE	O2-C1-C2	2.20	121.09	114.03
28	d	411	LMG	C38-C37-C36	-2.20	103.27	114.42
25	b	605	CLA	CHD-C1D-C2D	2.20	130.09	125.48
28	A	612	LMG	O3-C3-C2	-2.20	105.27	110.35
30	a	614	SQD	O48-C23-O10	-2.19	118.06	123.59
26	C	514	BCR	C33-C5-C6	-2.19	122.07	124.53
28	C	518	LMG	C1-O6-C5	-2.19	109.39	113.69
25	b	613	CLA	CHB-C4A-NA	2.19	127.54	124.51
25	b	608	CLA	O2A-CGA-O1A	-2.19	118.06	123.59
28	B	621	LMG	C38-C37-C36	-2.19	103.32	114.42
29	d	408	LHG	C11-C10-C9	-2.19	103.32	114.42
25	B	611	CLA	O2D-CGD-CBD	2.19	115.15	111.27
25	B	601	CLA	C1B-CHB-C4A	-2.19	125.79	130.12
28	b	624	LMG	O5-C6-C5	-2.18	103.80	111.29
25	a	608	CLA	C2D-C1D-ND	-2.18	108.50	110.10
25	B	612	CLA	O1D-CGD-CBD	2.18	128.95	124.48
25	b	612	CLA	O2D-CGD-CBD	2.18	115.14	111.27
28	D	411	LMG	O1-C7-C8	-2.18	106.00	111.78
29	e	101	LHG	C18-C17-C16	-2.18	103.36	114.42
25	B	606	CLA	O2A-CGA-O1A	-2.18	118.09	123.59
29	D	410	LHG	C27-C26-C25	-2.18	103.36	114.42
27	A	610	PL9	O2-C1-C6	2.18	124.36	120.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	c	509	CLA	C1B-CHB-C4A	-2.18	125.81	130.12
25	C	513	CLA	O2D-CGD-CBD	2.18	115.13	111.27
35	F	101	HEM	C4B-CHC-C1C	2.17	125.42	122.56
27	A	610	PL9	O1-C4-C3	-2.17	118.33	120.72
25	C	501	CLA	CMB-C2B-C1B	-2.17	125.13	128.46
26	A	609	BCR	C16-C17-C18	-2.17	124.21	127.31
28	c	522	LMG	C40-C39-C38	-2.17	103.41	114.42
28	b	624	LMG	C38-C37-C36	-2.17	103.42	114.42
30	B	623	SQD	C46-C45-C44	-2.17	106.66	111.79
26	k	101	BCR	C35-C13-C14	-2.17	119.89	122.92
28	d	411	LMG	C40-C39-C38	-2.17	103.43	114.42
31	H	102	DGD	C1D-O6D-C5D	-2.17	109.44	113.69
25	B	611	CLA	C2D-C1D-ND	-2.16	108.51	110.10
25	A	606	CLA	O2D-CGD-O1D	-2.16	119.61	123.84
26	C	514	BCR	C7-C8-C9	-2.16	122.97	126.23
26	b	619	BCR	C24-C23-C22	-2.16	122.97	126.23
25	c	511	CLA	CHB-C4A-NA	2.16	127.49	124.51
25	c	511	CLA	C2A-C1A-CHA	2.15	127.63	123.86
25	C	512	CLA	C1B-CHB-C4A	-2.15	125.85	130.12
25	d	404	CLA	CHB-C4A-NA	2.15	127.49	124.51
25	b	609	CLA	C1B-CHB-C4A	-2.15	125.85	130.12
26	b	619	BCR	C27-C26-C25	2.15	125.86	122.73
25	b	605	CLA	O2A-C1-C2	-2.15	102.98	108.64
27	d	406	PL9	C8-C7-C3	2.15	118.06	111.98
25	B	614	CLA	O2D-CGD-CBD	2.15	115.09	111.27
25	C	507	CLA	C2A-C1A-CHA	2.15	127.62	123.86
25	b	610	CLA	O2D-CGD-CBD	2.15	115.08	111.27
25	C	502	CLA	CHD-C1D-ND	-2.15	122.48	124.45
25	C	506	CLA	C1B-CHB-C4A	-2.15	125.86	130.12
25	B	609	CLA	C1B-CHB-C4A	-2.15	125.87	130.12
35	f	101	HEM	CHB-C1B-NB	2.14	127.03	124.38
26	B	618	BCR	C28-C27-C26	-2.14	110.25	114.08
28	c	520	LMG	O6-C1-O1	-2.14	104.90	109.97
25	c	510	CLA	C7-C6-C5	-2.14	107.54	113.36
28	D	408	LMG	O2-C2-C1	-2.14	104.85	110.05
26	B	617	BCR	C33-C5-C6	-2.14	122.12	124.53
26	c	514	BCR	C11-C10-C9	-2.14	124.26	127.31
31	h	101	DGD	CBB-CAB-C9B	-2.14	103.58	114.42
25	b	613	CLA	C7-C6-C5	-2.14	107.56	113.36
25	C	505	CLA	CHB-C4A-NA	2.14	127.47	124.51
26	A	609	BCR	C16-C15-C14	-2.13	119.10	123.47
30	A	614	SQD	C45-O47-C7	-2.13	112.54	117.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	b	614	CLA	O1D-CGD-CBD	2.13	128.85	124.48
25	B	611	CLA	C1-C2-C3	-2.13	122.36	126.04
25	B	604	CLA	O2D-CGD-CBD	2.13	115.06	111.27
26	c	514	BCR	C15-C16-C17	-2.13	119.11	123.47
26	C	514	BCR	C11-C10-C9	-2.13	124.27	127.31
28	M	101	LMG	C6-C5-C4	-2.13	108.02	113.00
25	d	403	CLA	C1B-CHB-C4A	-2.13	125.90	130.12
25	C	508	CLA	O2A-CGA-O1A	-2.13	118.23	123.59
25	c	505	CLA	CMB-C2B-C3B	2.12	128.65	124.68
25	c	507	CLA	C7-C6-C5	-2.12	107.60	113.36
25	a	609	CLA	CGD-CBD-CAD	-2.12	103.87	110.73
29	A	613	LHG	C18-C17-C16	-2.12	103.67	114.42
25	b	608	CLA	CHC-C1C-NC	2.12	127.42	124.20
25	c	503	CLA	C1B-CHB-C4A	-2.12	125.92	130.12
27	A	610	PL9	C12-C13-C14	-2.12	122.56	127.66
25	c	506	CLA	C1B-CHB-C4A	-2.12	125.92	130.12
25	b	615	CLA	O2D-CGD-O1D	-2.12	119.70	123.84
31	H	102	DGD	CDB-CCB-CBB	-2.12	103.68	114.42
31	c	517	DGD	CAB-C9B-C8B	-2.11	103.69	114.42
31	c	517	DGD	C1D-C2D-C3D	-2.11	105.60	110.00
25	b	610	CLA	O1D-CGD-CBD	2.11	128.80	124.48
31	c	515	DGD	C1D-C2D-C3D	-2.11	105.60	110.00
25	B	609	CLA	C7-C6-C5	-2.11	107.63	113.36
25	B	604	CLA	C2D-C1D-ND	-2.11	108.55	110.10
25	A	607	CLA	O2A-CGA-O1A	-2.11	118.27	123.59
26	b	618	BCR	C15-C14-C13	-2.11	124.30	127.31
28	D	411	LMG	O7-C10-O9	-2.11	118.61	123.70
32	m	101	STE	O2-C1-C2	2.10	120.79	114.03
25	b	610	CLA	CHD-C1D-ND	-2.10	122.52	124.45
25	C	509	CLA	C1B-CHB-C4A	-2.10	125.95	130.12
31	A	616	DGD	CAB-C9B-C8B	-2.10	103.75	114.42
25	b	611	CLA	C1B-CHB-C4A	-2.10	125.95	130.12
26	b	618	BCR	C8-C7-C6	-2.10	121.30	127.20
25	b	605	CLA	CMB-C2B-C3B	2.10	128.61	124.68
25	c	501	CLA	O2A-CGA-O1A	-2.10	118.29	123.59
25	B	607	CLA	CED-O2D-CGD	2.10	120.69	115.94
25	B	603	CLA	CHB-C4A-NA	2.10	127.41	124.51
31	C	516	DGD	O6E-C1E-O5D	-2.10	105.01	109.97
26	t	101	BCR	C35-C13-C14	-2.10	119.99	122.92
28	c	520	LMG	C38-C37-C36	-2.10	103.78	114.42
28	c	520	LMG	C42-C41-C40	-2.10	103.78	114.42
34	D	403	PHO	OBD-CAD-CBD	-2.10	122.75	125.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	b	618	BCR	C30-C25-C26	-2.09	119.67	122.61
26	D	406	BCR	C7-C8-C9	-2.09	123.08	126.23
28	d	411	LMG	O3-C3-C2	-2.09	105.52	110.35
25	b	610	CLA	CHA-C1A-NA	-2.09	121.61	126.40
25	C	503	CLA	C1B-CHB-C4A	-2.09	125.98	130.12
30	D	409	SQD	O4-C4-C3	-2.09	105.52	110.35
25	C	504	CLA	C1-C2-C3	-2.09	122.43	126.04
30	a	613	SQD	C3-C4-C5	2.09	113.96	110.24
25	C	505	CLA	O2D-CGD-CBD	2.09	114.97	111.27
31	C	516	DGD	C3E-C4E-C5E	-2.09	106.52	110.24
25	C	504	CLA	O2D-CGD-CBD	2.08	114.97	111.27
25	A	607	CLA	C4D-CHA-C1A	2.08	123.78	121.25
25	B	602	CLA	C2D-C1D-ND	-2.08	108.57	110.10
32	T	103	STE	C3-C2-C1	-2.08	109.22	114.47
25	C	511	CLA	O2A-C1-C2	-2.08	103.16	108.64
25	c	509	CLA	O2A-CGA-CBA	2.08	118.44	111.91
25	B	614	CLA	O1D-CGD-CBD	2.08	128.74	124.48
25	D	404	CLA	CMD-C2D-C3D	2.08	132.40	127.61
25	B	615	CLA	O2D-CGD-CBD	2.08	114.96	111.27
32	E	102	STE	O2-C1-C2	2.08	120.70	114.03
29	e	101	LHG	C27-C26-C25	-2.08	103.88	114.42
25	c	502	CLA	CHD-C1D-ND	-2.08	122.55	124.45
25	B	612	CLA	C16-C15-C13	-2.08	109.21	115.92
29	d	409	LHG	O8-C23-C24	2.07	118.42	111.91
25	C	507	CLA	O2D-CGD-CBD	2.07	114.95	111.27
31	c	515	DGD	O3D-C3D-C4D	-2.07	105.56	110.35
25	D	404	CLA	C1-C2-C3	-2.07	122.46	126.04
28	A	612	LMG	C6-C5-C4	-2.07	108.16	113.00
31	h	101	DGD	O5E-C6E-C5E	-2.07	104.19	111.29
25	B	605	CLA	C1B-CHB-C4A	-2.07	126.03	130.12
26	B	617	BCR	C8-C7-C6	-2.07	121.40	127.20
25	C	511	CLA	C1B-CHB-C4A	-2.07	126.03	130.12
27	d	406	PL9	C27-C28-C29	-2.06	122.69	127.66
25	C	511	CLA	C3A-C2A-C1A	2.06	104.43	101.34
26	K	101	BCR	C11-C10-C9	-2.06	124.37	127.31
26	d	405	BCR	C35-C13-C14	-2.06	120.04	122.92
30	b	620	SQD	C44-O6-C1	-2.05	109.73	113.74
25	c	512	CLA	C4-C3-C5	2.05	118.73	115.27
30	D	409	SQD	O3-C3-C2	2.05	115.10	110.35
31	C	517	DGD	O6E-C1E-O5D	-2.05	105.11	109.97
28	D	411	LMG	C38-C37-C36	-2.05	104.00	114.42
25	b	614	CLA	C3C-C4C-NC	-2.05	108.27	110.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	b	624	LMG	O8-C28-O10	-2.05	118.41	123.59
25	b	603	CLA	C2D-C1D-ND	-2.05	108.59	110.10
29	L	101	LHG	C18-C17-C16	-2.05	104.02	114.42
25	c	505	CLA	C1B-CHB-C4A	-2.05	126.06	130.12
28	d	410	LMG	C38-C37-C36	-2.05	104.03	114.42
31	c	515	DGD	C5B-C4B-C3B	-2.05	104.03	114.42
25	B	602	CLA	C11-C12-C13	-2.05	109.30	115.92
25	a	608	CLA	C2A-C1A-CHA	2.05	127.44	123.86
25	B	605	CLA	CAA-CBA-CGA	-2.04	107.28	113.25
25	c	513	CLA	CHB-C4A-NA	2.04	127.34	124.51
31	h	101	DGD	C7B-C6B-C5B	-2.04	104.06	114.42
25	a	607	CLA	C7-C6-C5	-2.04	107.81	113.36
31	C	517	DGD	CBB-CAB-C9B	-2.04	104.06	114.42
25	c	505	CLA	CHB-C4A-NA	2.04	127.33	124.51
28	b	624	LMG	C42-C41-C40	-2.04	104.08	114.42
28	d	410	LMG	C40-C39-C38	-2.04	104.08	114.42
30	a	614	SQD	O49-C7-C8	-2.03	115.80	123.73
31	C	516	DGD	C7B-C6B-C5B	-2.03	104.11	114.42
25	c	508	CLA	CHD-C4C-NC	2.03	127.40	124.20
29	B	622	LHG	O8-C23-O10	-2.03	118.47	123.59
30	a	613	SQD	O5-C1-C2	-2.03	106.06	110.35
25	B	613	CLA	CHB-C4A-NA	2.03	127.31	124.51
25	b	605	CLA	C2D-C1D-ND	-2.03	108.61	110.10
27	D	407	PL9	C42-C43-C44	-2.03	122.78	127.66
31	o	301	DGD	CBB-CAB-C9B	-2.03	104.14	114.42
31	C	516	DGD	CAB-C9B-C8B	-2.02	104.14	114.42
25	B	605	CLA	CHB-C4A-NA	2.02	127.31	124.51
29	L	101	LHG	C11-C10-C9	-2.02	104.16	114.42
26	k	103	BCR	C24-C23-C22	-2.02	123.18	126.23
25	B	609	CLA	CHA-C1A-NA	-2.02	121.78	126.40
25	c	504	CLA	O1A-CGA-CBA	2.02	131.61	123.73
25	b	613	CLA	C3A-C2A-C1A	2.02	104.36	101.34
28	c	520	LMG	O1-C1-C2	-2.02	105.15	108.30
26	t	101	BCR	C7-C8-C9	-2.02	123.19	126.23
26	x	101	BCR	C7-C8-C9	-2.02	123.19	126.23
27	D	407	PL9	C32-C33-C34	-2.02	122.81	127.66
34	d	401	PHO	C1-C2-C3	-2.01	122.56	126.04
25	c	505	CLA	O2D-CGD-CBD	2.01	114.85	111.27
26	Z	101	BCR	C15-C14-C13	-2.01	124.44	127.31
31	c	516	DGD	C7B-C6B-C5B	-2.01	104.20	114.42
31	c	517	DGD	CBB-CAB-C9B	-2.01	104.20	114.42
29	d	408	LHG	O8-C23-O10	-2.01	118.51	123.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	c	506	CLA	CHA-C1A-NA	-2.01	121.79	126.40
25	C	511	CLA	C4-C3-C5	2.01	118.65	115.27
25	C	507	CLA	CHA-C1A-NA	-2.01	121.80	126.40
26	B	618	BCR	C33-C5-C6	-2.01	122.27	124.53
28	C	518	LMG	O7-C10-O9	-2.01	118.85	123.70
31	C	517	DGD	C5B-C4B-C3B	-2.01	104.23	114.42
26	Z	101	BCR	C33-C5-C6	-2.01	122.27	124.53
26	T	101	BCR	C31-C1-C6	2.01	113.56	110.30
32	B	626	STE	C3-C2-C1	-2.01	109.41	114.47
25	C	510	CLA	C1B-CHB-C4A	-2.01	126.14	130.12
31	c	516	DGD	C5B-C4B-C3B	-2.01	104.24	114.42
26	B	619	BCR	C15-C16-C17	-2.01	119.37	123.47
27	D	407	PL9	O2-C1-C2	-2.01	117.19	121.78
29	B	622	LHG	O8-C6-C5	-2.00	102.60	108.43
25	b	605	CLA	C4-C3-C5	2.00	118.64	115.27
31	C	516	DGD	CBB-CAB-C9B	-2.00	104.25	114.42
25	b	605	CLA	C1B-CHB-C4A	-2.00	126.15	130.12
25	D	405	CLA	C1-C2-C3	-2.00	122.58	126.04
31	o	301	DGD	CAB-C9B-C8B	-2.00	104.26	114.42
31	C	515	DGD	C6B-C5B-C4B	-2.00	104.26	114.42
25	B	609	CLA	CAC-C3C-C4C	2.00	127.41	124.81

All (62) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
25	A	606	CLA	ND
25	A	607	CLA	ND
25	A	608	CLA	ND
25	A	611	CLA	ND
25	B	601	CLA	ND
25	B	602	CLA	ND
25	B	603	CLA	ND
25	B	604	CLA	ND
25	B	605	CLA	ND
25	B	606	CLA	ND
25	B	607	CLA	ND
25	B	608	CLA	ND
25	B	610	CLA	ND
25	B	611	CLA	ND
25	B	612	CLA	ND
25	B	613	CLA	ND
25	B	614	CLA	ND

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Mol	Chain	Res	Type	Atom
25	B	615	CLA	ND
25	B	616	CLA	ND
25	C	501	CLA	ND
25	C	503	CLA	ND
25	C	504	CLA	ND
25	C	505	CLA	ND
25	C	506	CLA	ND
25	C	507	CLA	ND
25	C	509	CLA	ND
25	C	510	CLA	ND
25	C	511	CLA	ND
25	C	512	CLA	ND
25	C	513	CLA	ND
25	D	404	CLA	ND
25	a	607	CLA	ND
25	a	609	CLA	ND
25	b	601	CLA	ND
25	b	602	CLA	ND
25	b	603	CLA	ND
25	b	604	CLA	ND
25	b	605	CLA	ND
25	b	606	CLA	ND
25	b	607	CLA	ND
25	b	608	CLA	ND
25	b	610	CLA	ND
25	b	611	CLA	ND
25	b	612	CLA	ND
25	b	613	CLA	ND
25	b	614	CLA	ND
25	b	615	CLA	ND
25	b	616	CLA	ND
25	c	501	CLA	ND
25	c	502	CLA	ND
25	c	503	CLA	ND
25	c	504	CLA	ND
25	c	505	CLA	ND
25	c	506	CLA	ND
25	c	507	CLA	ND
25	c	509	CLA	ND
25	c	510	CLA	ND
25	c	511	CLA	ND
25	c	512	CLA	ND

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Mol	Chain	Res	Type	Atom
25	c	513	CLA	ND
25	d	403	CLA	ND
25	d	404	CLA	ND

All (1784) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
25	A	611	CLA	CHA-CBD-CGD-O1D
25	A	611	CLA	CHA-CBD-CGD-O2D
25	B	601	CLA	C1A-C2A-CAA-CBA
25	B	602	CLA	C14-C13-C15-C16
25	B	614	CLA	CAD-CBD-CGD-O1D
25	B	614	CLA	CAD-CBD-CGD-O2D
25	B	614	CLA	C4-C3-C5-C6
25	C	504	CLA	C2-C3-C5-C6
25	C	504	CLA	C4-C3-C5-C6
25	C	508	CLA	CHA-CBD-CGD-O1D
25	C	508	CLA	CHA-CBD-CGD-O2D
25	C	509	CLA	C11-C10-C8-C9
25	C	513	CLA	C4-C3-C5-C6
25	D	405	CLA	C2-C3-C5-C6
25	D	405	CLA	C4-C3-C5-C6
25	a	608	CLA	CHA-CBD-CGD-O1D
25	a	608	CLA	CHA-CBD-CGD-O2D
25	a	612	CLA	CHA-CBD-CGD-O1D
25	a	612	CLA	CHA-CBD-CGD-O2D
25	b	606	CLA	CHA-CBD-CGD-O1D
25	b	614	CLA	CAD-CBD-CGD-O1D
25	b	614	CLA	CAD-CBD-CGD-O2D
25	b	614	CLA	C2-C3-C5-C6
25	b	614	CLA	C4-C3-C5-C6
25	b	614	CLA	C6-C7-C8-C9
25	c	507	CLA	C2-C3-C5-C6
25	c	507	CLA	C4-C3-C5-C6
25	c	508	CLA	CHA-CBD-CGD-O1D
25	c	508	CLA	CHA-CBD-CGD-O2D
25	c	509	CLA	C6-C7-C8-C9
25	c	512	CLA	C1A-C2A-CAA-CBA
26	B	618	BCR	C7-C8-C9-C34
26	B	619	BCR	C37-C22-C23-C24
26	D	406	BCR	C37-C22-C23-C24
26	K	102	BCR	C5-C6-C7-C8

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Mol	Chain	Res	Type	Atoms
26	K	102	BCR	C16-C17-C18-C36
26	K	102	BCR	C37-C22-C23-C24
26	T	101	BCR	C11-C12-C13-C35
26	T	101	BCR	C16-C17-C18-C36
26	b	617	BCR	C1-C6-C7-C8
26	b	617	BCR	C21-C22-C23-C24
26	b	619	BCR	C37-C22-C23-C24
26	c	514	BCR	C7-C8-C9-C10
26	c	514	BCR	C7-C8-C9-C34
26	d	405	BCR	C37-C22-C23-C24
26	k	101	BCR	C11-C12-C13-C35
26	k	102	BCR	C5-C6-C7-C8
26	k	102	BCR	C7-C8-C9-C34
26	t	101	BCR	C7-C8-C9-C34
27	A	610	PL9	C22-C23-C24-C26
27	A	610	PL9	C23-C24-C26-C27
27	A	610	PL9	C37-C38-C39-C40
27	A	610	PL9	C40-C39-C41-C42
27	A	610	PL9	C43-C44-C46-C47
27	A	610	PL9	C45-C44-C46-C47
27	D	407	PL9	C32-C33-C34-C36
27	a	611	PL9	C22-C23-C24-C25
27	a	611	PL9	C23-C24-C26-C27
27	a	611	PL9	C24-C26-C27-C28
27	a	611	PL9	C28-C29-C31-C32
27	a	611	PL9	C47-C48-C49-C50
27	d	406	PL9	C32-C33-C34-C36
28	A	612	LMG	O6-C1-O1-C7
28	A	612	LMG	O9-C10-O7-C8
28	A	612	LMG	C11-C10-O7-C8
28	C	518	LMG	C11-C10-O7-C8
28	D	411	LMG	O1-C7-C8-C9
28	D	411	LMG	O1-C7-C8-O7
28	D	411	LMG	C11-C10-O7-C8
28	b	624	LMG	C9-C8-O7-C10
28	c	520	LMG	C11-C10-O7-C8
28	c	522	LMG	C2-C1-O1-C7
28	c	522	LMG	O6-C1-O1-C7
29	A	613	LHG	O1-C1-C2-C3
29	A	613	LHG	C3-O3-P-O5
29	B	622	LHG	O1-C1-C2-C3
29	B	622	LHG	C3-O3-P-O4

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Mol	Chain	Res	Type	Atoms
29	D	410	LHG	O2-C2-C3-O3
29	D	410	LHG	C3-O3-P-O4
29	D	410	LHG	C3-O3-P-O5
29	D	410	LHG	C3-O3-P-O6
29	D	410	LHG	C4-O6-P-O4
29	E	101	LHG	C4-O6-P-O4
29	L	101	LHG	C3-O3-P-O4
29	L	101	LHG	C4-O6-P-O4
29	d	407	LHG	C3-O3-P-O5
29	d	407	LHG	C3-O3-P-O6
29	d	408	LHG	O1-C1-C2-C3
29	d	408	LHG	C3-O3-P-O4
29	d	408	LHG	C3-O3-P-O6
29	d	408	LHG	C4-O6-P-O4
29	d	409	LHG	C4-O6-P-O4
29	e	101	LHG	O1-C1-C2-O2
29	e	101	LHG	O1-C1-C2-C3
29	e	101	LHG	C1-C2-C3-O3
29	e	101	LHG	C3-O3-P-O4
30	B	623	SQD	C2-C1-O6-C44
30	B	623	SQD	O5-C1-O6-C44
30	B	623	SQD	O6-C44-C45-O47
30	B	623	SQD	O49-C7-O47-C45
30	B	623	SQD	C8-C7-O47-C45
30	a	613	SQD	O6-C44-C45-O47
30	a	614	SQD	O49-C7-O47-C45
30	a	614	SQD	C8-C7-O47-C45
30	b	620	SQD	C8-C7-O47-C45
30	b	620	SQD	O10-C23-O48-C46
30	f	102	SQD	C2-C1-O6-C44
30	f	102	SQD	O5-C1-O6-C44
31	A	616	DGD	C2B-C1B-O2G-C2G
31	A	616	DGD	O1B-C1B-O2G-C2G
31	A	616	DGD	O2G-C2G-C3G-O3G
31	o	301	DGD	O1B-C1B-O2G-C2G
25	C	509	CLA	CBD-CGD-O2D-CED
25	b	601	CLA	CBD-CGD-O2D-CED
28	c	520	LMG	O10-C28-O8-C9
29	e	101	LHG	O10-C23-O8-C6
25	C	509	CLA	O1D-CGD-O2D-CED
25	b	601	CLA	O1D-CGD-O2D-CED
28	c	520	LMG	C29-C28-O8-C9

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Mol	Chain	Res	Type	Atoms
29	e	101	LHG	C24-C23-O8-C6
27	D	407	PL9	C47-C48-C49-C50
27	D	407	PL9	C47-C48-C49-C51
27	a	611	PL9	C47-C48-C49-C51
28	M	101	LMG	O10-C28-O8-C9
28	c	522	LMG	O10-C28-O8-C9
29	E	101	LHG	O10-C23-O8-C6
30	f	102	SQD	O10-C23-O48-C46
28	D	411	LMG	O9-C10-O7-C8
28	b	624	LMG	O9-C10-O7-C8
28	c	520	LMG	O9-C10-O7-C8
30	b	620	SQD	O49-C7-O47-C45
25	B	616	CLA	C3-C5-C6-C7
25	b	601	CLA	C3-C5-C6-C7
25	b	614	CLA	C3-C5-C6-C7
28	c	522	LMG	C29-C28-O8-C9
29	E	101	LHG	C24-C23-O8-C6
30	b	620	SQD	C24-C23-O48-C46
30	f	102	SQD	C24-C23-O48-C46
25	C	513	CLA	CBD-CGD-O2D-CED
25	A	608	CLA	C4-C3-C5-C6
25	b	605	CLA	C4-C3-C5-C6
27	a	611	PL9	C25-C24-C26-C27
25	A	608	CLA	C2-C3-C5-C6
25	B	614	CLA	C2-C3-C5-C6
25	C	513	CLA	C2-C3-C5-C6
25	B	606	CLA	C2A-CAA-CBA-CGA
25	b	606	CLA	C2A-CAA-CBA-CGA
28	M	101	LMG	C29-C28-O8-C9
30	D	409	SQD	C24-C23-O48-C46
27	A	610	PL9	C47-C48-C49-C51
27	A	610	PL9	C22-C23-C24-C25
27	d	406	PL9	C32-C33-C34-C35
25	B	601	CLA	CBD-CGD-O2D-CED
25	C	501	CLA	CBD-CGD-O2D-CED
27	A	610	PL9	C37-C38-C39-C41
27	a	611	PL9	C22-C23-C24-C26
28	c	520	LMG	C4-C5-C6-O5
31	o	301	DGD	O1A-C1A-O1G-C1G
25	c	512	CLA	CBD-CGD-O2D-CED
25	c	513	CLA	CBD-CGD-O2D-CED
25	b	605	CLA	C3-C5-C6-C7

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Mol	Chain	Res	Type	Atoms
25	b	613	CLA	C3-C5-C6-C7
25	B	601	CLA	CBA-CGA-O2A-C1
28	b	624	LMG	O6-C5-C6-O5
28	c	522	LMG	C4-C5-C6-O5
28	b	624	LMG	C11-C10-O7-C8
31	o	301	DGD	C2B-C1B-O2G-C2G
32	m	101	STE	C6-C7-C8-C9
25	B	604	CLA	CBD-CGD-O2D-CED
25	B	601	CLA	O1A-CGA-O2A-C1
30	D	409	SQD	O10-C23-O48-C46
27	A	610	PL9	C20-C19-C21-C22
25	b	605	CLA	C2-C3-C5-C6
27	A	610	PL9	C18-C19-C21-C22
29	l	101	LHG	C7-C8-C9-C10
28	c	520	LMG	O6-C5-C6-O5
28	c	522	LMG	O6-C5-C6-O5
27	D	407	PL9	C44-C46-C47-C48
30	a	614	SQD	C24-C23-O48-C46
30	D	409	SQD	C45-C46-O48-C23
31	C	515	DGD	O6E-C5E-C6E-O5E
27	A	610	PL9	C12-C13-C14-C16
27	a	611	PL9	C27-C28-C29-C31
30	a	614	SQD	O10-C23-O48-C46
31	o	301	DGD	C2A-C1A-O1G-C1G
30	A	614	SQD	C23-C24-C25-C26
29	d	409	LHG	C24-C25-C26-C27
25	A	607	CLA	C15-C16-C17-C18
29	E	101	LHG	C27-C28-C29-C30
25	B	613	CLA	C8-C10-C11-C12
25	C	506	CLA	C8-C10-C11-C12
25	C	513	CLA	C15-C16-C17-C18
25	b	611	CLA	C13-C15-C16-C17
25	b	611	CLA	C15-C16-C17-C18
29	e	101	LHG	O2-C2-C3-O3
28	c	522	LMG	C10-C11-C12-C13
30	D	409	SQD	C2-C1-O6-C44
25	B	606	CLA	C11-C10-C8-C9
25	B	611	CLA	C11-C12-C13-C14
25	B	615	CLA	C11-C10-C8-C9
25	C	502	CLA	C14-C13-C15-C16
25	C	503	CLA	C11-C10-C8-C9
25	C	507	CLA	C11-C10-C8-C9

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Mol	Chain	Res	Type	Atoms
25	C	512	CLA	C6-C7-C8-C9
25	C	512	CLA	C11-C10-C8-C9
25	C	513	CLA	C11-C12-C13-C14
25	D	405	CLA	C11-C12-C13-C14
25	b	601	CLA	C14-C13-C15-C16
25	b	605	CLA	C11-C10-C8-C9
25	b	606	CLA	C14-C13-C15-C16
25	b	613	CLA	C6-C7-C8-C9
25	c	511	CLA	C14-C13-C15-C16
25	c	512	CLA	C6-C7-C8-C9
26	B	619	BCR	C11-C12-C13-C35
26	Z	101	BCR	C37-C22-C23-C24
26	c	514	BCR	C11-C12-C13-C35
26	x	101	BCR	C7-C8-C9-C34
29	e	101	LHG	C23-C24-C25-C26
30	A	614	SQD	C7-C8-C9-C10
25	C	512	CLA	C5-C6-C7-C8
25	b	601	CLA	C8-C10-C11-C12
25	b	613	CLA	C10-C11-C12-C13
25	c	503	CLA	C8-C10-C11-C12
25	c	506	CLA	C13-C15-C16-C17
25	c	509	CLA	C13-C15-C16-C17
25	c	510	CLA	C10-C11-C12-C13
30	a	613	SQD	C17-C18-C19-C20
25	A	607	CLA	C10-C11-C12-C13
25	C	503	CLA	C5-C6-C7-C8
25	b	607	CLA	C10-C11-C12-C13
25	b	614	CLA	C5-C6-C7-C8
28	b	622	LMG	C10-C11-C12-C13
28	c	522	LMG	C28-C29-C30-C31
25	b	613	CLA	CBD-CGD-O2D-CED
32	C	519	STE	C4-C5-C6-C7
25	B	613	CLA	C5-C6-C7-C8
25	C	506	CLA	C15-C16-C17-C18
25	C	508	CLA	C15-C16-C17-C18
25	a	609	CLA	C5-C6-C7-C8
25	b	615	CLA	C10-C11-C12-C13
25	b	615	CLA	C13-C15-C16-C17
25	c	503	CLA	C5-C6-C7-C8
25	c	507	CLA	C5-C6-C7-C8
25	c	511	CLA	C13-C15-C16-C17
25	c	511	CLA	C15-C16-C17-C18

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Mol	Chain	Res	Type	Atoms
25	d	404	CLA	C10-C11-C12-C13
29	B	622	LHG	O1-C1-C2-O2
28	D	411	LMG	C10-C11-C12-C13
28	b	624	LMG	C10-C11-C12-C13
28	c	520	LMG	C10-C11-C12-C13
28	d	411	LMG	C28-C29-C30-C31
29	d	407	LHG	C23-C24-C25-C26
29	d	409	LHG	C23-C24-C25-C26
30	f	102	SQD	C23-C24-C25-C26
31	H	102	DGD	C1B-C2B-C3B-C4B
31	c	515	DGD	C1B-C2B-C3B-C4B
32	X	101	STE	C1-C2-C3-C4
25	C	512	CLA	CBD-CGD-O2D-CED
25	B	607	CLA	C13-C15-C16-C17
25	C	509	CLA	C10-C11-C12-C13
25	C	513	CLA	C10-C11-C12-C13
25	D	405	CLA	C13-C15-C16-C17
25	c	512	CLA	C13-C15-C16-C17
29	E	101	LHG	C23-C24-C25-C26
25	B	602	CLA	C8-C10-C11-C12
25	C	510	CLA	C10-C11-C12-C13
25	B	606	CLA	C12-C13-C15-C16
25	B	615	CLA	C11-C10-C8-C7
25	c	512	CLA	C12-C13-C15-C16
25	c	513	CLA	C6-C7-C8-C10
31	c	517	DGD	O1A-C1A-O1G-C1G
25	c	506	CLA	CBA-CGA-O2A-C1
25	c	512	CLA	C2A-CAA-CBA-CGA
25	B	616	CLA	C5-C6-C7-C8
25	C	509	CLA	C13-C15-C16-C17
25	a	608	CLA	C8-C10-C11-C12
28	b	624	LMG	O6-C1-O1-C7
25	B	601	CLA	C5-C6-C7-C8
25	B	604	CLA	C15-C16-C17-C18
25	b	603	CLA	C5-C6-C7-C8
25	c	510	CLA	C5-C6-C7-C8
27	A	610	PL9	C9-C11-C12-C13
27	A	610	PL9	C34-C36-C37-C38
27	A	610	PL9	C39-C41-C42-C43
27	A	610	PL9	C44-C46-C47-C48
27	a	611	PL9	C39-C41-C42-C43
30	B	623	SQD	C11-C10-C9-C8

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Mol	Chain	Res	Type	Atoms
26	B	619	BCR	C10-C11-C12-C13
26	k	101	BCR	C10-C11-C12-C13
25	B	608	CLA	C3-C5-C6-C7
25	B	601	CLA	C13-C15-C16-C17
25	B	606	CLA	C8-C10-C11-C12
25	B	607	CLA	C5-C6-C7-C8
25	b	609	CLA	C15-C16-C17-C18
30	a	613	SQD	C7-C8-C9-C10
25	B	601	CLA	C15-C16-C17-C18
25	c	506	CLA	C8-C10-C11-C12
25	c	509	CLA	C10-C11-C12-C13
28	b	624	LMG	C4-C5-C6-O5
25	B	615	CLA	C13-C15-C16-C17
25	C	505	CLA	C10-C11-C12-C13
25	b	605	CLA	C10-C11-C12-C13
25	b	607	CLA	C8-C10-C11-C12
29	D	410	LHG	C4-O6-P-O3
29	d	408	LHG	C4-O6-P-O3
29	e	101	LHG	C3-O3-P-O6
29	l	101	LHG	C4-O6-P-O3
31	c	515	DGD	O6E-C5E-C6E-O5E
25	b	613	CLA	C13-C15-C16-C17
25	c	506	CLA	O1A-CGA-O2A-C1
29	l	101	LHG	C23-C24-C25-C26
30	D	409	SQD	C23-C24-C25-C26
29	D	410	LHG	C1-C2-C3-O3
28	C	518	LMG	O9-C10-O7-C8
25	B	613	CLA	C4-C3-C5-C6
27	D	407	PL9	C33-C34-C36-C37
25	B	606	CLA	C15-C16-C17-C18
25	a	609	CLA	CBA-CGA-O2A-C1
25	c	512	CLA	CBA-CGA-O2A-C1
25	B	601	CLA	C8-C10-C11-C12
25	C	513	CLA	O1D-CGD-O2D-CED
31	A	616	DGD	C1B-C2B-C3B-C4B
32	b	625	STE	C1-C2-C3-C4
28	M	101	LMG	C29-C30-C31-C32
28	c	518	LMG	C31-C32-C33-C34
29	A	613	LHG	C25-C26-C27-C28
26	A	609	BCR	C11-C10-C9-C34
26	D	406	BCR	C20-C21-C22-C37
26	H	101	BCR	C16-C17-C18-C36

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Mol	Chain	Res	Type	Atoms
26	b	617	BCR	C20-C21-C22-C37
26	k	101	BCR	C11-C10-C9-C34
26	k	102	BCR	C20-C21-C22-C37
26	k	103	BCR	C20-C21-C22-C37
28	C	518	LMG	C12-C13-C14-C15
28	D	408	LMG	C33-C34-C35-C36
28	b	622	LMG	C38-C39-C40-C41
28	b	624	LMG	C31-C32-C33-C34
29	B	622	LHG	C9-C10-C11-C12
29	E	101	LHG	C28-C29-C30-C31
29	d	408	LHG	C26-C27-C28-C29
30	A	615	SQD	C11-C12-C13-C14
30	B	623	SQD	C13-C14-C15-C16
30	f	102	SQD	C28-C29-C30-C31
30	f	102	SQD	C29-C30-C31-C32
31	C	516	DGD	C4A-C5A-C6A-C7A
31	C	517	DGD	C7B-C8B-C9B-CAB
31	c	516	DGD	C7A-C8A-C9A-CAA
31	h	101	DGD	C2B-C3B-C4B-C5B
31	h	101	DGD	C6B-C7B-C8B-C9B
32	B	627	STE	C11-C12-C13-C14
32	T	103	STE	C7-C8-C9-C10
32	X	101	STE	C11-C12-C13-C14
32	a	615	STE	C4-C5-C6-C7
32	b	625	STE	C3-C4-C5-C6
32	c	519	STE	C2-C3-C4-C5
32	t	102	STE	C6-C7-C8-C9
25	B	601	CLA	C16-C17-C18-C20
25	B	603	CLA	C16-C17-C18-C19
25	B	611	CLA	C16-C17-C18-C19
25	d	403	CLA	C16-C17-C18-C19
28	C	518	LMG	C29-C28-O8-C9
28	D	408	LMG	C16-C17-C18-C19
28	b	622	LMG	C11-C12-C13-C14
29	B	622	LHG	C29-C30-C31-C32
29	E	101	LHG	C18-C19-C20-C21
29	L	101	LHG	C18-C19-C20-C21
30	A	614	SQD	C30-C31-C32-C33
30	a	614	SQD	C10-C11-C12-C13
30	f	102	SQD	C25-C26-C27-C28
31	A	616	DGD	C7A-C8A-C9A-CAA
31	A	616	DGD	CCA-CDA-CEA-CFA

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Mol	Chain	Res	Type	Atoms
31	C	515	DGD	C5A-C6A-C7A-C8A
31	C	515	DGD	CAB-CBB-CCB-CDB
31	C	517	DGD	CBB-CCB-CDB-CEB
31	h	101	DGD	C5B-C6B-C7B-C8B
31	o	301	DGD	C2B-C3B-C4B-C5B
32	H	103	STE	C5-C6-C7-C8
32	j	101	STE	C4-C5-C6-C7
28	D	411	LMG	C9-C8-O7-C10
30	b	620	SQD	C46-C45-O47-C7
25	C	511	CLA	C8-C10-C11-C12
28	D	411	LMG	C11-C12-C13-C14
28	D	411	LMG	C12-C13-C14-C15
29	L	101	LHG	C27-C28-C29-C30
29	d	408	LHG	C28-C29-C30-C31
29	e	101	LHG	C14-C15-C16-C17
30	B	623	SQD	C33-C34-C35-C36
30	a	613	SQD	C30-C31-C32-C33
30	a	614	SQD	C11-C12-C13-C14
31	H	102	DGD	CCA-CDA-CEA-CFA
32	B	624	STE	C2-C3-C4-C5
32	B	626	STE	C2-C3-C4-C5
32	b	626	STE	C3-C4-C5-C6
25	B	601	CLA	O1D-CGD-O2D-CED
28	b	624	LMG	C16-C17-C18-C19
28	c	522	LMG	C12-C13-C14-C15
28	c	522	LMG	C38-C39-C40-C41
29	A	613	LHG	C9-C10-C11-C12
29	d	408	LHG	C32-C33-C34-C35
29	d	409	LHG	C26-C27-C28-C29
30	D	409	SQD	C27-C28-C29-C30
30	D	409	SQD	C30-C31-C32-C33
30	a	613	SQD	C11-C12-C13-C14
31	A	616	DGD	C4A-C5A-C6A-C7A
31	C	517	DGD	C6A-C7A-C8A-C9A
31	c	516	DGD	CBA-CCA-CDA-CEA
31	o	301	DGD	C4A-C5A-C6A-C7A
32	b	621	STE	C11-C10-C9-C8
29	d	407	LHG	O2-C2-C3-O3
28	D	408	LMG	C17-C18-C19-C20
28	d	410	LMG	C31-C32-C33-C34
29	A	613	LHG	C33-C34-C35-C36
29	D	410	LHG	C14-C15-C16-C17

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Mol	Chain	Res	Type	Atoms
29	L	101	LHG	C31-C32-C33-C34
32	B	625	STE	C5-C6-C7-C8
32	I	101	STE	C11-C10-C9-C8
32	T	102	STE	C11-C10-C9-C8
32	c	519	STE	C11-C12-C13-C14
25	c	512	CLA	O1D-CGD-O2D-CED
26	B	619	BCR	C12-C13-C14-C15
26	K	102	BCR	C16-C17-C18-C19
26	T	101	BCR	C12-C13-C14-C15
26	k	101	BCR	C12-C13-C14-C15
26	k	102	BCR	C20-C21-C22-C23
26	t	101	BCR	C12-C13-C14-C15
26	x	101	BCR	C11-C10-C9-C8
28	b	624	LMG	C2-C1-O1-C7
31	C	516	DGD	C2E-C1E-O5D-C6D
31	c	516	DGD	C2E-C1E-O5D-C6D
28	D	408	LMG	C36-C37-C38-C39
28	M	101	LMG	C14-C15-C16-C17
28	d	410	LMG	C39-C40-C41-C42
28	d	411	LMG	C13-C14-C15-C16
29	D	410	LHG	C11-C12-C13-C14
29	e	101	LHG	C16-C17-C18-C19
30	a	614	SQD	C12-C13-C14-C15
30	f	102	SQD	C26-C27-C28-C29
31	A	616	DGD	C6B-C7B-C8B-C9B
31	C	516	DGD	CBB-CCB-CDB-CEB
32	B	620	STE	C3-C4-C5-C6
32	b	623	STE	C14-C15-C16-C17
25	A	607	CLA	C16-C17-C18-C20
25	B	609	CLA	C16-C17-C18-C20
25	C	509	CLA	C16-C17-C18-C19
25	C	505	CLA	C4-C3-C5-C6
25	C	506	CLA	C4-C3-C5-C6
28	M	101	LMG	C39-C40-C41-C42
28	c	518	LMG	C36-C37-C38-C39
28	c	520	LMG	C31-C32-C33-C34
29	A	613	LHG	C11-C12-C13-C14
29	E	101	LHG	C24-C25-C26-C27
30	A	614	SQD	C11-C12-C13-C14
30	A	615	SQD	C15-C16-C17-C18
31	A	616	DGD	C2B-C3B-C4B-C5B
31	A	616	DGD	C5B-C6B-C7B-C8B

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Mol	Chain	Res	Type	Atoms
31	o	301	DGD	C5A-C6A-C7A-C8A
32	C	521	STE	C4-C5-C6-C7
32	E	102	STE	C4-C5-C6-C7
32	T	102	STE	C11-C12-C13-C14
32	b	625	STE	C11-C10-C9-C8
32	c	519	STE	C6-C7-C8-C9
27	A	610	PL9	C38-C39-C41-C42
25	C	506	CLA	C6-C7-C8-C9
25	b	613	CLA	C14-C13-C15-C16
25	c	505	CLA	C11-C10-C8-C9
25	c	506	CLA	C6-C7-C8-C9
25	d	404	CLA	C6-C7-C8-C9
28	c	518	LMG	C28-C29-C30-C31
28	C	518	LMG	C11-C12-C13-C14
28	b	622	LMG	C30-C31-C32-C33
28	c	518	LMG	C33-C34-C35-C36
28	d	411	LMG	C36-C37-C38-C39
29	A	613	LHG	C29-C30-C31-C32
29	D	410	LHG	C10-C11-C12-C13
29	e	101	LHG	C27-C28-C29-C30
31	C	517	DGD	C5A-C6A-C7A-C8A
31	c	517	DGD	C2A-C3A-C4A-C5A
32	M	102	STE	C11-C10-C9-C8
32	c	519	STE	C12-C13-C14-C15
32	d	413	STE	C14-C15-C16-C17
25	C	505	CLA	C5-C6-C7-C8
25	b	614	CLA	C10-C11-C12-C13
26	C	514	BCR	C7-C8-C9-C34
28	A	612	LMG	C16-C17-C18-C19
29	E	101	LHG	C33-C34-C35-C36
29	d	408	LHG	C33-C34-C35-C36
31	c	515	DGD	C6A-C7A-C8A-C9A
29	d	407	LHG	O1-C1-C2-C3
29	d	409	LHG	O1-C1-C2-C3
25	B	606	CLA	C13-C15-C16-C17
28	M	101	LMG	C13-C14-C15-C16
28	c	518	LMG	C38-C39-C40-C41
29	d	408	LHG	C14-C15-C16-C17
30	A	615	SQD	C29-C30-C31-C32
30	f	102	SQD	C32-C33-C34-C35
31	c	515	DGD	C4B-C5B-C6B-C7B
31	c	517	DGD	CBA-CCA-CDA-CEA

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Mol	Chain	Res	Type	Atoms
31	h	101	DGD	C8A-C9A-CAA-CBA
31	o	301	DGD	C3B-C4B-C5B-C6B
31	o	301	DGD	C6B-C7B-C8B-C9B
32	B	625	STE	C6-C7-C8-C9
32	a	615	STE	C5-C6-C7-C8
32	b	623	STE	C13-C14-C15-C16
32	l	102	STE	C3-C4-C5-C6
29	e	101	LHG	C7-C8-C9-C10
28	C	518	LMG	C17-C18-C19-C20
28	C	518	LMG	C32-C33-C34-C35
29	A	613	LHG	C34-C35-C36-C37
29	E	101	LHG	C11-C10-C9-C8
30	a	613	SQD	C12-C13-C14-C15
30	b	620	SQD	C26-C27-C28-C29
30	b	620	SQD	C29-C30-C31-C32
31	C	515	DGD	C2A-C3A-C4A-C5A
31	C	516	DGD	CAA-CBA-CCA-CDA
31	H	102	DGD	C7B-C8B-C9B-CAB
31	c	517	DGD	C5B-C6B-C7B-C8B
32	B	620	STE	C9-C10-C11-C12
32	C	520	STE	C3-C4-C5-C6
32	E	102	STE	C3-C4-C5-C6
32	X	101	STE	C5-C6-C7-C8
32	a	615	STE	C2-C3-C4-C5
32	b	621	STE	C14-C15-C16-C17
25	B	603	CLA	C16-C17-C18-C20
25	B	611	CLA	C16-C17-C18-C20
25	C	502	CLA	C16-C17-C18-C19
25	b	607	CLA	C16-C17-C18-C19
25	b	607	CLA	C16-C17-C18-C20
25	b	614	CLA	C16-C17-C18-C19
25	d	403	CLA	C16-C17-C18-C20
31	C	516	DGD	O6E-C1E-O5D-C6D
31	c	516	DGD	O6E-C1E-O5D-C6D
28	A	612	LMG	C37-C38-C39-C40
28	M	101	LMG	C31-C32-C33-C34
28	d	410	LMG	C33-C34-C35-C36
28	d	410	LMG	C37-C38-C39-C40
29	D	410	LHG	C33-C34-C35-C36
29	L	101	LHG	C10-C11-C12-C13
31	A	616	DGD	CEB-CFB-CGB-CHB
31	H	102	DGD	C6B-C7B-C8B-C9B

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Mol	Chain	Res	Type	Atoms
25	C	501	CLA	O1D-CGD-O2D-CED
28	b	624	LMG	C32-C33-C34-C35
28	c	522	LMG	C14-C15-C16-C17
28	d	410	LMG	C32-C33-C34-C35
29	A	613	LHG	C10-C11-C12-C13
29	D	410	LHG	C9-C10-C11-C12
29	l	101	LHG	C24-C25-C26-C27
29	l	101	LHG	C28-C29-C30-C31
31	c	515	DGD	C5A-C6A-C7A-C8A
31	c	515	DGD	C6B-C7B-C8B-C9B
31	o	301	DGD	C6A-C7A-C8A-C9A
32	C	520	STE	C5-C6-C7-C8
32	T	102	STE	C12-C13-C14-C15
32	b	623	STE	C5-C6-C7-C8
32	d	413	STE	C10-C11-C12-C13
31	c	516	DGD	C1A-C2A-C3A-C4A
28	C	518	LMG	C30-C31-C32-C33
30	A	614	SQD	C11-C10-C9-C8
30	a	613	SQD	C32-C33-C34-C35
31	c	517	DGD	C4B-C5B-C6B-C7B
32	b	623	STE	C4-C5-C6-C7
28	A	612	LMG	C33-C34-C35-C36
28	D	408	LMG	C31-C32-C33-C34
28	c	522	LMG	C32-C33-C34-C35
28	c	522	LMG	C33-C34-C35-C36
29	d	407	LHG	C12-C13-C14-C15
29	d	407	LHG	C16-C17-C18-C19
32	T	103	STE	C9-C10-C11-C12
25	c	512	CLA	C3A-C2A-CAA-CBA
28	A	612	LMG	C36-C37-C38-C39
28	b	624	LMG	C13-C14-C15-C16
30	A	614	SQD	C24-C25-C26-C27
31	c	517	DGD	C6A-C7A-C8A-C9A
32	X	101	STE	C11-C10-C9-C8
25	b	614	CLA	C16-C17-C18-C20
28	C	518	LMG	C31-C32-C33-C34
28	c	520	LMG	C30-C31-C32-C33
29	d	408	LHG	C12-C13-C14-C15
31	A	616	DGD	C4B-C5B-C6B-C7B
31	c	515	DGD	C7A-C8A-C9A-CAA
25	c	513	CLA	O1D-CGD-O2D-CED
28	c	520	LMG	O1-C7-C8-C9

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Mol	Chain	Res	Type	Atoms
29	d	407	LHG	C17-C18-C19-C20
31	C	516	DGD	C4B-C5B-C6B-C7B
31	C	517	DGD	CAB-CBB-CCB-CDB
32	E	102	STE	C6-C7-C8-C9
30	a	613	SQD	C23-C24-C25-C26
32	d	413	STE	C1-C2-C3-C4
29	B	622	LHG	C28-C29-C30-C31
31	c	517	DGD	C3A-C4A-C5A-C6A
32	X	101	STE	C12-C13-C14-C15
27	d	406	PL9	C28-C29-C31-C32
29	e	101	LHG	C8-C7-O7-C5
32	B	627	STE	C11-C10-C9-C8
32	X	101	STE	C10-C11-C12-C13
29	A	613	LHG	O1-C1-C2-O2
29	d	408	LHG	O1-C1-C2-O2
25	B	615	CLA	C5-C6-C7-C8
28	D	408	LMG	C14-C15-C16-C17
28	c	520	LMG	C11-C12-C13-C14
28	c	522	LMG	C19-C20-C21-C22
29	e	101	LHG	C24-C25-C26-C27
31	A	616	DGD	C9A-CAA-CBA-CCA
31	c	517	DGD	C4A-C5A-C6A-C7A
32	M	102	STE	C7-C8-C9-C10
32	d	413	STE	C12-C13-C14-C15
25	a	609	CLA	O1A-CGA-O2A-C1
25	c	512	CLA	O1A-CGA-O2A-C1
25	C	502	CLA	C16-C17-C18-C20
25	b	604	CLA	C16-C17-C18-C20
25	B	603	CLA	C13-C15-C16-C17
25	c	503	CLA	C15-C16-C17-C18
29	E	101	LHG	C31-C32-C33-C34
31	h	101	DGD	CBA-CCA-CDA-CEA
30	A	614	SQD	C26-C27-C28-C29
32	b	621	STE	C5-C6-C7-C8
32	d	412	STE	C3-C4-C5-C6
29	B	622	LHG	C23-C24-C25-C26
25	a	607	CLA	C15-C16-C17-C18
28	b	624	LMG	C18-C19-C20-C21
30	A	614	SQD	C16-C17-C18-C19
32	l	102	STE	C14-C15-C16-C17
25	c	506	CLA	C2-C1-O2A-CGA
29	D	410	LHG	C15-C16-C17-C18

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Mol	Chain	Res	Type	Atoms
30	A	615	SQD	C32-C33-C34-C35
30	B	623	SQD	C34-C35-C36-C37
31	c	516	DGD	C8A-C9A-CAA-CBA
32	B	625	STE	C11-C12-C13-C14
32	J	101	STE	C6-C7-C8-C9
32	c	521	STE	C5-C6-C7-C8
25	c	512	CLA	C5-C6-C7-C8
28	d	411	LMG	C38-C39-C40-C41
31	C	516	DGD	C9B-CAB-CBB-CCB
31	h	101	DGD	C3B-C4B-C5B-C6B
32	H	103	STE	C3-C4-C5-C6
26	D	406	BCR	C23-C24-C25-C26
26	D	406	BCR	C23-C24-C25-C30
26	K	102	BCR	C1-C6-C7-C8
26	b	617	BCR	C5-C6-C7-C8
26	k	102	BCR	C1-C6-C7-C8
26	t	101	BCR	C1-C6-C7-C8
26	t	101	BCR	C5-C6-C7-C8
28	B	621	LMG	C33-C34-C35-C36
28	b	622	LMG	C12-C13-C14-C15
28	b	622	LMG	C36-C37-C38-C39
29	d	408	LHG	C29-C30-C31-C32
30	D	409	SQD	C29-C30-C31-C32
30	a	613	SQD	C28-C29-C30-C31
32	B	620	STE	C11-C12-C13-C14
32	d	413	STE	C3-C4-C5-C6
28	b	622	LMG	C29-C28-O8-C9
25	b	603	CLA	C10-C11-C12-C13
25	b	605	CLA	C15-C16-C17-C18
31	C	515	DGD	C4B-C5B-C6B-C7B
32	C	521	STE	C11-C10-C9-C8
32	T	102	STE	C13-C14-C15-C16
30	A	615	SQD	C7-C8-C9-C10
29	B	622	LHG	C27-C28-C29-C30
29	d	407	LHG	C25-C26-C27-C28
31	H	102	DGD	C3A-C4A-C5A-C6A
32	b	625	STE	C6-C7-C8-C9
28	b	624	LMG	C39-C40-C41-C42
28	d	410	LMG	C36-C37-C38-C39
28	d	410	LMG	C38-C39-C40-C41
32	b	626	STE	C5-C6-C7-C8
25	c	504	CLA	C4-C3-C5-C6

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Mol	Chain	Res	Type	Atoms
25	A	607	CLA	C6-C7-C8-C10
25	A	607	CLA	C11-C10-C8-C7
25	B	615	CLA	C11-C12-C13-C15
25	C	503	CLA	C11-C10-C8-C7
25	C	505	CLA	C2-C3-C5-C6
25	C	506	CLA	C2-C3-C5-C6
25	C	509	CLA	C11-C10-C8-C7
25	C	511	CLA	C6-C7-C8-C10
25	C	512	CLA	C11-C10-C8-C7
25	C	513	CLA	C12-C13-C15-C16
25	b	601	CLA	C11-C12-C13-C15
25	b	614	CLA	C6-C7-C8-C10
25	b	614	CLA	C11-C12-C13-C15
25	b	615	CLA	C11-C10-C8-C7
25	c	505	CLA	C11-C10-C8-C7
25	C	504	CLA	C11-C12-C13-C14
28	A	612	LMG	C39-C40-C41-C42
31	C	516	DGD	C2B-C3B-C4B-C5B
32	d	412	STE	C5-C6-C7-C8
25	A	611	CLA	C13-C15-C16-C17
25	c	509	CLA	C5-C6-C7-C8
25	A	607	CLA	C16-C17-C18-C19
25	C	509	CLA	C16-C17-C18-C20
30	f	102	SQD	O49-C7-O47-C45
28	C	518	LMG	C28-C29-C30-C31
28	D	411	LMG	C28-C29-C30-C31
31	c	516	DGD	C1B-C2B-C3B-C4B
30	B	623	SQD	C24-C23-O48-C46
29	E	101	LHG	C29-C30-C31-C32
30	A	615	SQD	C19-C20-C21-C22
25	B	607	CLA	C15-C16-C17-C18
31	o	301	DGD	C7A-C8A-C9A-CAA
32	c	519	STE	C1-C2-C3-C4
29	E	101	LHG	C32-C33-C34-C35
30	B	623	SQD	C11-C12-C13-C14
30	D	409	SQD	C25-C26-C27-C28
31	C	517	DGD	C3A-C4A-C5A-C6A
31	c	517	DGD	C5A-C6A-C7A-C8A
31	c	517	DGD	CCA-CDA-CEA-CFA
32	d	412	STE	C11-C12-C13-C14
30	a	614	SQD	C16-C17-C18-C19
30	f	102	SQD	C24-C25-C26-C27

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Mol	Chain	Res	Type	Atoms
31	c	515	DGD	C3B-C4B-C5B-C6B
32	T	102	STE	C5-C6-C7-C8
28	C	518	LMG	O6-C1-O1-C7
25	B	601	CLA	C10-C11-C12-C13
25	c	511	CLA	C8-C10-C11-C12
29	d	407	LHG	C11-C12-C13-C14
31	C	515	DGD	C9B-CAB-CBB-CCB
32	B	620	STE	C6-C7-C8-C9
32	b	621	STE	C13-C14-C15-C16
30	f	102	SQD	C8-C7-O47-C45
25	C	512	CLA	O1D-CGD-O2D-CED
28	d	410	LMG	C34-C35-C36-C37
28	d	410	LMG	C35-C36-C37-C38
29	d	409	LHG	C29-C30-C31-C32
25	C	508	CLA	CBD-CGD-O2D-CED
28	D	408	LMG	C37-C38-C39-C40
30	B	623	SQD	C26-C27-C28-C29
32	C	521	STE	C7-C8-C9-C10
32	X	101	STE	C7-C8-C9-C10
28	M	101	LMG	O6-C5-C6-O5
29	e	101	LHG	O9-C7-O7-C5
29	l	101	LHG	C32-C33-C34-C35
31	A	616	DGD	C7B-C8B-C9B-CAB
31	c	515	DGD	C5B-C6B-C7B-C8B
28	A	612	LMG	O1-C7-C8-O7
30	a	614	SQD	O47-C45-C46-O48
31	A	616	DGD	O1G-C1G-C2G-O2G
25	B	616	CLA	CBA-CGA-O2A-C1
29	d	407	LHG	C28-C29-C30-C31
32	T	102	STE	C9-C10-C11-C12
28	C	518	LMG	C37-C38-C39-C40
28	c	522	LMG	C17-C18-C19-C20
30	D	409	SQD	C28-C29-C30-C31
30	a	613	SQD	C9-C10-C11-C12
31	C	516	DGD	C6B-C7B-C8B-C9B
25	B	607	CLA	C8-C10-C11-C12
27	d	406	PL9	C30-C29-C31-C32
25	b	609	CLA	C2-C3-C5-C6
25	c	504	CLA	C2-C3-C5-C6
27	A	610	PL9	C33-C34-C36-C37
27	d	406	PL9	C4-C3-C7-C8
31	c	517	DGD	C6B-C7B-C8B-C9B

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Mol	Chain	Res	Type	Atoms
25	A	607	CLA	C11-C10-C8-C9
25	B	615	CLA	C11-C12-C13-C14
25	C	506	CLA	C14-C13-C15-C16
25	C	511	CLA	C6-C7-C8-C9
25	b	601	CLA	C11-C12-C13-C14
25	b	615	CLA	C11-C10-C8-C9
25	c	504	CLA	C11-C10-C8-C9
25	c	506	CLA	C11-C12-C13-C14
25	c	510	CLA	C11-C12-C13-C14
25	c	512	CLA	C14-C13-C15-C16
25	c	513	CLA	C6-C7-C8-C9
27	A	610	PL9	C47-C48-C49-C50
30	a	613	SQD	C24-C25-C26-C27
30	B	623	SQD	C30-C31-C32-C33
30	a	614	SQD	C29-C30-C31-C32
30	b	620	SQD	C25-C26-C27-C28
31	c	517	DGD	C7B-C8B-C9B-CAB
28	c	518	LMG	O6-C5-C6-O5
25	b	601	CLA	C1A-C2A-CAA-CBA
25	c	508	CLA	C1A-C2A-CAA-CBA
25	B	601	CLA	C16-C17-C18-C19
25	B	612	CLA	C16-C17-C18-C20
25	b	604	CLA	C16-C17-C18-C19
31	C	516	DGD	C3B-C4B-C5B-C6B
32	B	625	STE	C12-C13-C14-C15
29	d	408	LHG	C30-C31-C32-C33
30	A	614	SQD	C13-C14-C15-C16
31	H	102	DGD	C9A-CAA-CBA-CCA
25	b	602	CLA	C3-C5-C6-C7
28	D	408	LMG	C12-C13-C14-C15
30	A	614	SQD	C27-C28-C29-C30
30	b	620	SQD	C28-C29-C30-C31
32	t	102	STE	C3-C4-C5-C6
25	C	507	CLA	C10-C11-C12-C13
25	C	513	CLA	C8-C10-C11-C12
30	a	614	SQD	C11-C10-C9-C8
30	A	615	SQD	C14-C15-C16-C17
25	c	505	CLA	C5-C6-C7-C8
25	A	611	CLA	C16-C17-C18-C20
25	b	615	CLA	C16-C17-C18-C19
28	M	101	LMG	C38-C39-C40-C41
31	C	516	DGD	C6A-C7A-C8A-C9A

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Mol	Chain	Res	Type	Atoms
32	H	103	STE	C11-C10-C9-C8
29	d	407	LHG	C1-C2-C3-O3
25	b	609	CLA	C4-C3-C5-C6
25	B	613	CLA	C2-C3-C5-C6
28	c	520	LMG	C41-C42-C43-C44
29	e	101	LHG	C13-C14-C15-C16
30	A	615	SQD	C17-C18-C19-C20
28	d	411	LMG	O6-C5-C6-O5
31	h	101	DGD	C7A-C8A-C9A-CAA
32	J	101	STE	C3-C4-C5-C6
32	T	102	STE	C10-C11-C12-C13
32	m	101	STE	C5-C6-C7-C8
28	M	101	LMG	C28-C29-C30-C31
25	B	616	CLA	O1A-CGA-O2A-C1
30	B	623	SQD	O10-C23-O48-C46
30	a	614	SQD	C18-C19-C20-C21
31	c	516	DGD	C3A-C4A-C5A-C6A
28	D	411	LMG	C7-C8-C9-O8
28	b	622	LMG	C15-C16-C17-C18
29	E	101	LHG	C4-C5-C6-O8
29	e	101	LHG	C4-C5-C6-O8
30	a	613	SQD	O6-C44-C45-C46
30	a	613	SQD	C10-C11-C12-C13
31	A	616	DGD	C1G-C2G-C3G-O3G
32	b	626	STE	C7-C8-C9-C10
25	B	605	CLA	C15-C16-C17-C18
25	B	611	CLA	C8-C10-C11-C12
25	C	506	CLA	C10-C11-C12-C13
28	D	411	LMG	C31-C32-C33-C34
28	b	624	LMG	C17-C18-C19-C20
29	A	613	LHG	C30-C31-C32-C33
29	A	613	LHG	C35-C36-C37-C38
32	c	521	STE	C2-C3-C4-C5
31	C	516	DGD	C5D-C6D-O5D-C1E
31	c	516	DGD	C5D-C6D-O5D-C1E
29	A	613	LHG	C27-C28-C29-C30
29	L	101	LHG	C19-C20-C21-C22
31	o	301	DGD	CBA-CCA-CDA-CEA
32	d	412	STE	C10-C11-C12-C13
31	h	101	DGD	O2G-C1B-C2B-C3B
25	C	512	CLA	C3-C5-C6-C7
25	C	502	CLA	C15-C16-C17-C18

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Mol	Chain	Res	Type	Atoms
29	L	101	LHG	C30-C31-C32-C33
29	d	407	LHG	O1-C1-C2-O2
31	C	516	DGD	C8A-C9A-CAA-CBA
31	o	301	DGD	CFA-CGA-CHA-CIA
28	D	408	LMG	C34-C35-C36-C37
29	D	410	LHG	C25-C26-C27-C28
29	d	409	LHG	C27-C28-C29-C30
31	c	515	DGD	C4A-C5A-C6A-C7A
32	H	103	STE	C10-C11-C12-C13
26	B	617	BCR	C35-C13-C14-C15
28	D	408	LMG	O6-C5-C6-O5
25	b	615	CLA	C16-C17-C18-C20
30	a	613	SQD	C24-C23-O48-C46
31	A	616	DGD	C5A-C6A-C7A-C8A
31	c	515	DGD	CCB-CDB-CEB-CFB
25	b	611	CLA	C8-C10-C11-C12
25	c	509	CLA	C8-C10-C11-C12
25	B	604	CLA	O1D-CGD-O2D-CED
30	a	613	SQD	C25-C26-C27-C28
25	a	609	CLA	C10-C11-C12-C13
25	B	613	CLA	C2-C1-O2A-CGA
28	c	522	LMG	C13-C14-C15-C16
29	l	101	LHG	C26-C27-C28-C29
30	f	102	SQD	C27-C28-C29-C30
32	M	103	STE	C5-C6-C7-C8
32	t	103	STE	C4-C5-C6-C7
25	b	613	CLA	O1D-CGD-O2D-CED
28	b	622	LMG	C17-C18-C19-C20
29	E	101	LHG	C12-C13-C14-C15
30	a	613	SQD	C26-C27-C28-C29
32	M	102	STE	C6-C7-C8-C9
25	A	606	CLA	C15-C16-C17-C18
28	d	411	LMG	C30-C31-C32-C33
30	A	614	SQD	C17-C18-C19-C20
31	H	102	DGD	C6A-C7A-C8A-C9A
30	A	614	SQD	C10-C11-C12-C13
31	C	515	DGD	CBB-CCB-CDB-CEB
31	H	102	DGD	C4B-C5B-C6B-C7B
32	a	615	STE	C3-C4-C5-C6
25	B	608	CLA	C13-C15-C16-C17
26	T	101	BCR	C16-C17-C18-C19
32	E	102	STE	C7-C8-C9-C10

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Mol	Chain	Res	Type	Atoms
28	c	520	LMG	O1-C7-C8-O7
28	d	411	LMG	C35-C36-C37-C38
30	A	615	SQD	C16-C17-C18-C19
32	B	625	STE	C4-C5-C6-C7
32	B	625	STE	C13-C14-C15-C16
29	d	409	LHG	C30-C31-C32-C33
30	B	623	SQD	C28-C29-C30-C31
30	a	613	SQD	C11-C10-C9-C8
32	H	103	STE	C1-C2-C3-C4
27	d	406	PL9	C15-C14-C16-C17
31	C	516	DGD	C8B-C9B-CAB-CBB
25	B	602	CLA	C12-C13-C15-C16
25	B	604	CLA	C11-C12-C13-C15
25	B	605	CLA	C12-C13-C15-C16
25	B	611	CLA	C11-C12-C13-C15
25	B	614	CLA	C12-C13-C15-C16
25	C	505	CLA	C12-C13-C15-C16
25	C	506	CLA	C6-C7-C8-C10
25	C	506	CLA	C11-C12-C13-C15
25	C	506	CLA	C12-C13-C15-C16
25	C	507	CLA	C11-C10-C8-C7
25	C	509	CLA	C12-C13-C15-C16
25	C	512	CLA	C6-C7-C8-C10
25	C	512	CLA	C11-C12-C13-C15
25	C	513	CLA	C11-C12-C13-C15
25	a	609	CLA	C12-C13-C15-C16
25	b	604	CLA	C11-C12-C13-C15
25	b	606	CLA	C12-C13-C15-C16
25	b	613	CLA	C6-C7-C8-C10
25	b	614	CLA	C11-C10-C8-C7
25	b	614	CLA	C12-C13-C15-C16
25	c	504	CLA	C11-C10-C8-C7
25	c	505	CLA	C6-C7-C8-C10
25	c	506	CLA	C6-C7-C8-C10
25	c	506	CLA	C11-C12-C13-C15
25	c	510	CLA	C11-C12-C13-C15
25	d	403	CLA	C11-C12-C13-C15
25	d	404	CLA	C6-C7-C8-C10
28	A	612	LMG	C35-C36-C37-C38
29	L	101	LHG	C16-C17-C18-C19
30	a	613	SQD	C29-C30-C31-C32
32	b	623	STE	C10-C11-C12-C13

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Mol	Chain	Res	Type	Atoms
25	A	607	CLA	C6-C7-C8-C9
25	B	604	CLA	C11-C12-C13-C14
25	B	605	CLA	C11-C10-C8-C9
25	C	506	CLA	C11-C12-C13-C14
25	b	602	CLA	C6-C7-C8-C9
25	b	603	CLA	C11-C10-C8-C9
25	b	604	CLA	C11-C12-C13-C14
25	b	605	CLA	C6-C7-C8-C9
25	b	607	CLA	C6-C7-C8-C9
25	b	607	CLA	C11-C10-C8-C9
25	b	607	CLA	C11-C12-C13-C14
25	b	608	CLA	C11-C12-C13-C14
25	b	609	CLA	C14-C13-C15-C16
25	c	509	CLA	C11-C12-C13-C14
25	d	404	CLA	C11-C12-C13-C14
25	c	501	CLA	CBD-CGD-O2D-CED
28	A	612	LMG	C34-C35-C36-C37
31	c	515	DGD	C2B-C3B-C4B-C5B
25	C	501	CLA	C2A-CAA-CBA-CGA
28	b	624	LMG	C15-C16-C17-C18
31	c	516	DGD	CCB-CDB-CEB-CFB
32	C	520	STE	C6-C7-C8-C9
32	H	103	STE	C11-C12-C13-C14
32	l	102	STE	C13-C14-C15-C16
26	d	405	BCR	C7-C8-C9-C34
31	c	515	DGD	O6D-C5D-C6D-O5D
28	D	408	LMG	C35-C36-C37-C38
29	D	410	LHG	C13-C14-C15-C16
32	T	102	STE	C6-C7-C8-C9
25	c	506	CLA	C16-C17-C18-C20
29	l	101	LHG	O6-C4-C5-C6
32	M	102	STE	C3-C4-C5-C6
28	A	612	LMG	C10-C11-C12-C13
28	c	518	LMG	C40-C41-C42-C43
25	c	507	CLA	C8-C10-C11-C12
25	c	510	CLA	C15-C16-C17-C18
31	C	515	DGD	O1G-C1A-C2A-C3A
31	c	515	DGD	CAB-CBB-CCB-CDB
27	a	611	PL9	C15-C14-C16-C17
28	b	622	LMG	C28-C29-C30-C31
29	B	622	LHG	C18-C19-C20-C21
25	c	505	CLA	C10-C11-C12-C13

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Mol	Chain	Res	Type	Atoms
28	c	518	LMG	C11-C10-O7-C8
31	c	517	DGD	CDA-CEA-CFA-CGA
25	c	503	CLA	C16-C17-C18-C20
31	h	101	DGD	CAB-CBB-CCB-CDB
31	C	515	DGD	O6D-C5D-C6D-O5D
28	c	518	LMG	C35-C36-C37-C38
29	e	101	LHG	C11-C10-C9-C8
31	A	616	DGD	CFA-CGA-CHA-CIA
31	c	517	DGD	C9B-CAB-CBB-CCB
28	b	622	LMG	C21-C22-C23-C24
29	B	622	LHG	C25-C26-C27-C28
30	a	614	SQD	C9-C10-C11-C12
26	k	101	BCR	C13-C14-C15-C16
28	c	520	LMG	C33-C34-C35-C36
31	A	616	DGD	CBB-CCB-CDB-CEB
25	b	601	CLA	C10-C11-C12-C13
29	A	613	LHG	C11-C10-C9-C8
29	L	101	LHG	C12-C13-C14-C15
31	h	101	DGD	CAA-CBA-CCA-CDA
32	t	102	STE	C11-C10-C9-C8
25	B	602	CLA	C16-C17-C18-C19
25	B	609	CLA	C16-C17-C18-C19
25	B	612	CLA	C16-C17-C18-C19
31	c	517	DGD	C2A-C1A-O1G-C1G
25	A	611	CLA	C15-C16-C17-C18
25	B	612	CLA	C10-C11-C12-C13
28	A	612	LMG	O1-C7-C8-C9
28	C	518	LMG	O1-C7-C8-C9
28	M	101	LMG	C7-C8-C9-O8
28	c	522	LMG	C7-C8-C9-O8
30	a	614	SQD	C44-C45-C46-O48
31	c	515	DGD	O1G-C1G-C2G-C3G
28	d	410	LMG	C29-C30-C31-C32
29	A	613	LHG	C32-C33-C34-C35
32	l	102	STE	C15-C16-C17-C18
28	c	522	LMG	C40-C41-C42-C43
30	a	614	SQD	C31-C32-C33-C34
31	C	517	DGD	C7A-C8A-C9A-CAA
32	B	627	STE	C3-C4-C5-C6
30	A	615	SQD	C9-C10-C11-C12
32	l	102	STE	C5-C6-C7-C8
25	B	605	CLA	C4-C3-C5-C6

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Mol	Chain	Res	Type	Atoms
25	B	608	CLA	C16-C17-C18-C19
28	D	411	LMG	C34-C35-C36-C37
29	L	101	LHG	C32-C33-C34-C35
31	c	517	DGD	C3B-C4B-C5B-C6B
32	b	621	STE	C10-C11-C12-C13
29	e	101	LHG	O6-C4-C5-O7
29	l	101	LHG	O6-C4-C5-O7
28	M	101	LMG	C15-C16-C17-C18
28	d	410	LMG	C30-C31-C32-C33
27	D	407	PL9	C22-C23-C24-C25
27	d	406	PL9	C42-C43-C44-C45
30	a	613	SQD	O10-C23-O48-C46
25	A	611	CLA	C16-C17-C18-C19
25	a	608	CLA	C16-C17-C18-C20
28	b	624	LMG	C40-C41-C42-C43
25	a	609	CLA	C13-C15-C16-C17
25	b	603	CLA	C13-C15-C16-C17
31	c	517	DGD	C8B-C9B-CAB-CBB
28	C	518	LMG	O1-C7-C8-O7
28	M	101	LMG	O7-C8-C9-O8
28	b	624	LMG	O1-C7-C8-O7
28	c	522	LMG	O7-C8-C9-O8
29	e	101	LHG	O7-C5-C6-O8
30	A	614	SQD	O6-C44-C45-O47
25	b	607	CLA	CBA-CGA-O2A-C1
28	B	621	LMG	C32-C33-C34-C35
30	A	614	SQD	C32-C33-C34-C35
32	T	102	STE	C14-C15-C16-C17
28	D	408	LMG	C10-C11-C12-C13
31	H	102	DGD	C7A-C8A-C9A-CAA
32	b	623	STE	C7-C8-C9-C10
25	c	505	CLA	C15-C16-C17-C18
29	e	101	LHG	C28-C29-C30-C31
31	A	616	DGD	C8B-C9B-CAB-CBB
25	c	512	CLA	C4-C3-C5-C6
25	B	604	CLA	C11-C10-C8-C9
25	B	604	CLA	C14-C13-C15-C16
25	B	614	CLA	C11-C12-C13-C14
25	C	505	CLA	C14-C13-C15-C16
25	C	507	CLA	C11-C12-C13-C14
25	a	608	CLA	C14-C13-C15-C16
25	a	609	CLA	C14-C13-C15-C16

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Mol	Chain	Res	Type	Atoms
25	b	607	CLA	C14-C13-C15-C16
25	b	611	CLA	C14-C13-C15-C16
25	b	613	CLA	C11-C10-C8-C9
25	b	614	CLA	C14-C13-C15-C16
25	b	616	CLA	C6-C7-C8-C9
25	d	403	CLA	C11-C12-C13-C14
34	D	402	PHO	C14-C13-C15-C16
28	M	101	LMG	C36-C37-C38-C39
29	B	622	LHG	C14-C15-C16-C17
30	A	615	SQD	C10-C11-C12-C13
32	I	101	STE	C12-C13-C14-C15
32	d	412	STE	C12-C13-C14-C15
28	A	612	LMG	C17-C18-C19-C20
28	b	622	LMG	C20-C21-C22-C23
32	B	627	STE	C6-C7-C8-C9
25	B	602	CLA	C16-C17-C18-C20
25	B	608	CLA	C16-C17-C18-C20
25	c	503	CLA	C16-C17-C18-C19
26	B	617	BCR	C1-C6-C7-C8
26	Z	101	BCR	C1-C6-C7-C8
26	Z	101	BCR	C5-C6-C7-C8
26	c	514	BCR	C1-C6-C7-C8
26	c	514	BCR	C5-C6-C7-C8
26	d	405	BCR	C23-C24-C25-C26
26	d	405	BCR	C23-C24-C25-C30
26	k	101	BCR	C1-C6-C7-C8
26	k	101	BCR	C5-C6-C7-C8
25	C	502	CLA	C13-C15-C16-C17
25	b	607	CLA	C5-C6-C7-C8
28	B	621	LMG	C31-C32-C33-C34
26	K	102	BCR	C21-C22-C23-C24
29	e	101	LHG	C18-C19-C20-C21
29	d	408	LHG	O9-C7-O7-C5
29	d	407	LHG	C19-C20-C21-C22
30	b	620	SQD	C24-C25-C26-C27
29	D	410	LHG	C29-C30-C31-C32
31	c	515	DGD	C3A-C4A-C5A-C6A
32	H	103	STE	C2-C3-C4-C5
32	d	412	STE	C7-C8-C9-C10
28	M	101	LMG	C35-C36-C37-C38
32	c	519	STE	C7-C8-C9-C10
25	b	615	CLA	C5-C6-C7-C8

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Mol	Chain	Res	Type	Atoms
25	A	607	CLA	C11-C12-C13-C15
25	B	604	CLA	C12-C13-C15-C16
25	B	605	CLA	C11-C10-C8-C7
25	B	606	CLA	C11-C10-C8-C7
25	B	608	CLA	C6-C7-C8-C10
25	B	615	CLA	C6-C7-C8-C10
25	B	616	CLA	C6-C7-C8-C10
25	C	504	CLA	C11-C10-C8-C7
25	C	508	CLA	C11-C10-C8-C7
25	a	608	CLA	C11-C10-C8-C7
25	a	608	CLA	C12-C13-C15-C16
25	b	601	CLA	C12-C13-C15-C16
25	b	602	CLA	C6-C7-C8-C10
25	b	603	CLA	C11-C10-C8-C7
25	b	604	CLA	C12-C13-C15-C16
25	b	605	CLA	C6-C7-C8-C10
25	b	605	CLA	C11-C10-C8-C7
25	b	607	CLA	C6-C7-C8-C10
25	b	607	CLA	C11-C12-C13-C15
25	b	608	CLA	C11-C12-C13-C15
25	b	609	CLA	C12-C13-C15-C16
25	c	506	CLA	C11-C10-C8-C7
25	c	512	CLA	C2-C3-C5-C6
25	c	512	CLA	C6-C7-C8-C10
25	d	404	CLA	C12-C13-C15-C16
31	C	515	DGD	C4A-C5A-C6A-C7A
32	T	103	STE	C13-C14-C15-C16
30	a	614	SQD	O6-C44-C45-O47
26	k	103	BCR	C19-C20-C21-C22
28	D	411	LMG	C33-C34-C35-C36
28	c	522	LMG	C20-C21-C22-C23
30	f	102	SQD	C33-C34-C35-C36
32	t	103	STE	C5-C6-C7-C8
28	d	411	LMG	C14-C15-C16-C17
29	d	408	LHG	C25-C26-C27-C28
26	b	618	BCR	C16-C17-C18-C36
26	t	101	BCR	C20-C21-C22-C37
32	b	621	STE	C7-C8-C9-C10
32	b	623	STE	C11-C12-C13-C14
32	b	625	STE	C9-C10-C11-C12
25	c	511	CLA	C16-C17-C18-C19
25	b	603	CLA	CBA-CGA-O2A-C1

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Mol	Chain	Res	Type	Atoms
28	M	101	LMG	C30-C31-C32-C33
31	c	516	DGD	CCA-CDA-CEA-CFA
25	B	610	CLA	CAD-CBD-CGD-O2D
25	C	501	CLA	CAD-CBD-CGD-O2D
25	C	510	CLA	CAD-CBD-CGD-O2D
25	b	604	CLA	CAD-CBD-CGD-O2D
25	c	513	CLA	CAD-CBD-CGD-O2D
31	H	102	DGD	CAB-CBB-CCB-CDB
32	M	102	STE	C10-C11-C12-C13
25	B	602	CLA	C13-C15-C16-C17
25	B	610	CLA	C13-C15-C16-C17
25	C	512	CLA	C13-C15-C16-C17
25	b	602	CLA	C15-C16-C17-C18
25	b	613	CLA	C15-C16-C17-C18
31	c	515	DGD	CBA-CCA-CDA-CEA
26	D	406	BCR	C22-C23-C24-C25
26	d	405	BCR	C22-C23-C24-C25
25	b	602	CLA	C16-C17-C18-C19
25	B	604	CLA	C10-C11-C12-C13
25	C	505	CLA	C15-C16-C17-C18
28	M	101	LMG	O1-C7-C8-C9
28	b	624	LMG	O1-C7-C8-C9
30	A	614	SQD	O6-C44-C45-C46
30	B	623	SQD	O6-C44-C45-C46
31	A	616	DGD	O1G-C1G-C2G-C3G
34	d	402	PHO	CBD-CGD-O2D-CED
32	c	519	STE	C14-C15-C16-C17
35	f	101	HEM	C4B-C3B-CAB-CBB
26	T	101	BCR	C14-C15-C16-C17
25	c	512	CLA	C10-C11-C12-C13
29	l	101	LHG	C15-C16-C17-C18
25	b	603	CLA	C16-C17-C18-C20
25	c	509	CLA	C16-C17-C18-C19
31	C	515	DGD	C2B-C3B-C4B-C5B
25	B	601	CLA	CHA-CBD-CGD-O1D
25	B	607	CLA	CHA-CBD-CGD-O1D
25	B	612	CLA	CHA-CBD-CGD-O1D
25	C	502	CLA	CHA-CBD-CGD-O1D
25	C	503	CLA	CHA-CBD-CGD-O1D
25	C	509	CLA	CHA-CBD-CGD-O1D
25	C	509	CLA	CHA-CBD-CGD-O2D
25	c	502	CLA	CHA-CBD-CGD-O1D

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Mol	Chain	Res	Type	Atoms
25	c	502	CLA	CHA-CBD-CGD-O2D
28	c	522	LMG	C16-C17-C18-C19
27	A	610	PL9	C32-C33-C34-C36
26	B	618	BCR	C11-C10-C9-C8
26	t	101	BCR	C20-C21-C22-C23
28	C	518	LMG	C2-C1-O1-C7
31	C	516	DGD	CCA-CDA-CEA-CFA
31	c	516	DGD	CAA-CBA-CCA-CDA
31	C	515	DGD	O1G-C1G-C2G-O2G
31	c	515	DGD	O1G-C1G-C2G-O2G
28	b	624	LMG	C38-C39-C40-C41
29	D	410	LHG	C11-C10-C9-C8
25	b	607	CLA	O1A-CGA-O2A-C1
30	A	614	SQD	C31-C32-C33-C34
31	C	515	DGD	C6B-C7B-C8B-C9B
25	c	511	CLA	C16-C17-C18-C20
29	d	407	LHG	C29-C30-C31-C32
32	d	413	STE	C9-C10-C11-C12
25	D	405	CLA	C3-C5-C6-C7
28	M	101	LMG	C33-C34-C35-C36
29	d	407	LHG	C30-C31-C32-C33
29	d	408	LHG	C11-C12-C13-C14
31	A	616	DGD	CFB-CGB-CHB-CIB
27	A	610	PL9	C4-C3-C7-C8
27	a	611	PL9	C4-C3-C7-C8
25	B	615	CLA	C6-C7-C8-C9
25	a	608	CLA	C11-C10-C8-C9
30	B	623	SQD	C17-C18-C19-C20
30	b	620	SQD	C11-C12-C13-C14
25	b	603	CLA	O1A-CGA-O2A-C1
28	c	522	LMG	C31-C32-C33-C34
25	c	512	CLA	C15-C16-C17-C18
31	c	516	DGD	C7B-C8B-C9B-CAB
29	B	622	LHG	C7-C8-C9-C10
29	e	101	LHG	C25-C26-C27-C28
32	T	103	STE	C2-C3-C4-C5
32	j	101	STE	C7-C8-C9-C10
25	B	604	CLA	C13-C15-C16-C17
29	E	101	LHG	C25-C26-C27-C28
25	b	616	CLA	C11-C12-C13-C14
25	C	509	CLA	C2-C1-O2A-CGA
29	L	101	LHG	C4-O6-P-O3

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Mol	Chain	Res	Type	Atoms
32	B	627	STE	C7-C8-C9-C10
25	c	510	CLA	C3-C5-C6-C7
25	B	605	CLA	C2-C3-C5-C6
29	D	410	LHG	C4-O6-P-O5
29	d	408	LHG	C4-O6-P-O5
29	l	101	LHG	C4-O6-P-O5
25	B	613	CLA	C16-C17-C18-C20
25	a	612	CLA	C16-C17-C18-C19
25	b	608	CLA	C16-C17-C18-C19
25	b	613	CLA	C16-C17-C18-C20
25	c	506	CLA	C16-C17-C18-C19
25	c	512	CLA	C16-C17-C18-C19
30	b	620	SQD	O5-C1-O6-C44
28	c	518	LMG	C29-C28-O8-C9
29	e	101	LHG	O6-C4-C5-C6
27	A	610	PL9	C19-C21-C22-C23
30	A	615	SQD	C25-C26-C27-C28
32	X	101	STE	C13-C14-C15-C16
32	C	521	STE	C12-C13-C14-C15
32	T	103	STE	C15-C16-C17-C18
25	c	512	CLA	C8-C10-C11-C12
32	H	103	STE	C7-C8-C9-C10
32	l	102	STE	C9-C10-C11-C12
29	L	101	LHG	C15-C16-C17-C18
25	a	608	CLA	C16-C17-C18-C19
30	A	614	SQD	C14-C15-C16-C17
32	J	101	STE	C2-C3-C4-C5
25	B	612	CLA	CAD-CBD-CGD-O1D
25	C	502	CLA	CAD-CBD-CGD-O1D
25	c	502	CLA	CAD-CBD-CGD-O1D
25	c	506	CLA	CAD-CBD-CGD-O1D
30	b	620	SQD	O5-C5-C6-S
29	L	101	LHG	C7-C8-C9-C10
31	C	515	DGD	C4D-C5D-C6D-O5D
28	A	612	LMG	C12-C13-C14-C15
31	c	515	DGD	CBB-CCB-CDB-CEB
29	A	613	LHG	C17-C18-C19-C20
29	B	622	LHG	C19-C20-C21-C22
32	E	102	STE	C1-C2-C3-C4
32	a	615	STE	C1-C2-C3-C4
32	d	412	STE	C2-C3-C4-C5
31	c	515	DGD	C4D-C5D-C6D-O5D

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Mol	Chain	Res	Type	Atoms
31	A	616	DGD	O6D-C5D-C6D-O5D
25	b	610	CLA	C16-C17-C18-C20
25	B	606	CLA	C11-C12-C13-C15
25	B	610	CLA	C11-C12-C13-C15
25	b	602	CLA	C12-C13-C15-C16
25	b	608	CLA	C11-C10-C8-C7
25	b	615	CLA	C12-C13-C15-C16
25	c	507	CLA	C11-C10-C8-C7
25	c	511	CLA	C12-C13-C15-C16
25	d	404	CLA	C11-C12-C13-C15
32	B	626	STE	C1-C2-C3-C4
28	b	622	LMG	C32-C33-C34-C35
29	E	101	LHG	C16-C17-C18-C19
28	A	612	LMG	C14-C15-C16-C17
28	D	408	LMG	C11-C12-C13-C14
32	T	103	STE	C3-C4-C5-C6
30	A	614	SQD	C12-C13-C14-C15
31	c	517	DGD	C1B-C2B-C3B-C4B
32	B	624	STE	C1-C2-C3-C4
31	C	515	DGD	C4E-C5E-C6E-O5E
28	D	411	LMG	O7-C8-C9-O8
28	c	520	LMG	O7-C8-C9-O8
30	b	620	SQD	O6-C44-C45-O47
30	b	620	SQD	O47-C45-C46-O48
29	l	101	LHG	C17-C18-C19-C20
28	D	408	LMG	C30-C31-C32-C33
32	B	627	STE	C4-C5-C6-C7
29	L	101	LHG	O10-C23-O8-C6
25	c	513	CLA	C5-C6-C7-C8
29	E	101	LHG	C2-C3-O3-P
25	B	605	CLA	C8-C10-C11-C12
28	c	522	LMG	C37-C38-C39-C40
31	C	517	DGD	C2B-C3B-C4B-C5B
31	c	516	DGD	CAB-CBB-CCB-CDB
32	M	102	STE	C9-C10-C11-C12
29	L	101	LHG	C11-C12-C13-C14
25	C	512	CLA	C10-C11-C12-C13
25	C	513	CLA	C13-C15-C16-C17
25	b	608	CLA	C13-C15-C16-C17
25	A	607	CLA	C11-C12-C13-C14
25	B	606	CLA	C14-C13-C15-C16
25	B	608	CLA	C6-C7-C8-C9

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Mol	Chain	Res	Type	Atoms
25	B	614	CLA	C14-C13-C15-C16
25	B	616	CLA	C6-C7-C8-C9
25	C	504	CLA	C11-C10-C8-C9
25	C	508	CLA	C11-C10-C8-C9
25	C	509	CLA	C14-C13-C15-C16
25	C	512	CLA	C11-C12-C13-C14
25	b	604	CLA	C14-C13-C15-C16
25	b	615	CLA	C14-C13-C15-C16
25	c	506	CLA	C11-C10-C8-C9
31	C	517	DGD	C3B-C4B-C5B-C6B
27	A	610	PL9	C14-C16-C17-C18
32	B	620	STE	C10-C11-C12-C13
32	b	623	STE	C12-C13-C14-C15
25	c	509	CLA	CAA-CBA-CGA-O2A
25	B	606	CLA	C5-C6-C7-C8
25	c	512	CLA	C16-C17-C18-C20
31	C	515	DGD	C5B-C6B-C7B-C8B
32	X	101	STE	C14-C15-C16-C17
28	C	518	LMG	C19-C20-C21-C22
29	B	622	LHG	C32-C33-C34-C35
31	A	616	DGD	CDA-CEA-CFA-CGA
32	b	621	STE	C12-C13-C14-C15
30	D	409	SQD	O48-C23-C24-C25
28	d	411	LMG	C32-C33-C34-C35
31	c	515	DGD	C8A-C9A-CAA-CBA
27	D	407	PL9	C28-C29-C31-C32
25	A	608	CLA	C5-C6-C7-C8
29	l	101	LHG	C16-C17-C18-C19
25	B	612	CLA	C8-C10-C11-C12
31	c	517	DGD	CCB-CDB-CEB-CFB
31	H	102	DGD	O2G-C1B-C2B-C3B
31	c	515	DGD	O1G-C1A-C2A-C3A
29	L	101	LHG	C11-C10-C9-C8
29	d	407	LHG	C27-C28-C29-C30
28	A	612	LMG	C9-C8-O7-C10
31	o	301	DGD	C1G-C2G-O2G-C1B
25	c	501	CLA	C2A-CAA-CBA-CGA
32	J	101	STE	C4-C5-C6-C7
25	A	606	CLA	C2-C1-O2A-CGA
25	C	504	CLA	C2-C1-O2A-CGA
28	c	518	LMG	C39-C40-C41-C42
31	C	516	DGD	C7B-C8B-C9B-CAB

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Mol	Chain	Res	Type	Atoms
26	K	101	BCR	C14-C15-C16-C17
31	o	301	DGD	CAB-CBB-CCB-CDB
32	b	625	STE	C7-C8-C9-C10
29	e	101	LHG	C26-C27-C28-C29
25	B	613	CLA	CBD-CGD-O2D-CED
30	D	409	SQD	O6-C44-C45-C46
32	b	621	STE	C4-C5-C6-C7
25	d	404	CLA	C16-C17-C18-C19
29	d	408	LHG	C31-C32-C33-C34
26	H	101	BCR	C23-C24-C25-C26
26	x	101	BCR	C23-C24-C25-C30
25	C	508	CLA	O1D-CGD-O2D-CED
25	b	602	CLA	C16-C17-C18-C20
32	a	615	STE	C7-C8-C9-C10
26	B	619	BCR	C11-C10-C9-C8
26	H	101	BCR	C11-C10-C9-C8
29	E	101	LHG	O7-C5-C6-O8
30	B	623	SQD	C32-C33-C34-C35
29	A	613	LHG	C3-O3-P-O6
32	M	103	STE	C7-C8-C9-C10
25	C	508	CLA	C16-C17-C18-C19
29	B	622	LHG	C31-C32-C33-C34
31	C	517	DGD	C1B-C2B-C3B-C4B
27	a	611	PL9	C32-C33-C34-C35
31	C	517	DGD	CCB-CDB-CEB-CFB
25	B	601	CLA	C11-C10-C8-C7
25	B	604	CLA	C11-C10-C8-C7
25	b	611	CLA	C12-C13-C15-C16
25	b	613	CLA	C11-C10-C8-C7
25	B	605	CLA	C14-C13-C15-C16
25	b	602	CLA	C14-C13-C15-C16
25	b	608	CLA	C11-C10-C8-C9
25	b	614	CLA	C11-C10-C8-C9
25	c	505	CLA	C6-C7-C8-C9
25	c	507	CLA	C11-C10-C8-C9
34	d	402	PHO	C5-C6-C7-C8
32	d	412	STE	C11-C10-C9-C8
31	c	515	DGD	CDB-CEB-CFB-CGB
29	D	410	LHG	C35-C36-C37-C38
32	B	627	STE	C10-C11-C12-C13
32	b	621	STE	C3-C4-C5-C6
28	d	411	LMG	C39-C40-C41-C42

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Mol	Chain	Res	Type	Atoms
29	L	101	LHG	C29-C30-C31-C32
31	c	517	DGD	CBB-CCB-CDB-CEB
32	d	413	STE	C11-C12-C13-C14
32	l	102	STE	C4-C5-C6-C7
29	A	613	LHG	C2-C3-O3-P
28	c	520	LMG	C35-C36-C37-C38
28	M	101	LMG	C19-C20-C21-C22
27	d	406	PL9	C38-C39-C41-C42
25	a	612	CLA	C16-C17-C18-C20
29	l	101	LHG	C9-C10-C11-C12
34	d	402	PHO	O1D-CGD-O2D-CED
32	d	412	STE	O2-C1-C2-C3
32	b	626	STE	C1-C2-C3-C4
32	l	102	STE	C11-C12-C13-C14
25	B	601	CLA	CAA-CBA-CGA-O2A
25	b	605	CLA	C16-C17-C18-C20
26	K	101	BCR	C13-C14-C15-C16
26	a	610	BCR	C19-C20-C21-C22
31	A	616	DGD	CCB-CDB-CEB-CFB
30	a	613	SQD	C35-C36-C37-C38
31	A	616	DGD	C4D-C5D-C6D-O5D
29	d	408	LHG	C15-C16-C17-C18
31	o	301	DGD	C3A-C4A-C5A-C6A
25	c	509	CLA	C3-C5-C6-C7
27	a	611	PL9	C30-C29-C31-C32
35	F	101	HEM	CAD-CBD-CGD-O1D
30	D	409	SQD	C31-C32-C33-C34
30	a	614	SQD	C17-C18-C19-C20
25	B	613	CLA	O1D-CGD-O2D-CED
25	D	404	CLA	C2-C1-O2A-CGA
25	d	403	CLA	C2-C1-O2A-CGA
25	B	615	CLA	C8-C10-C11-C12
25	B	607	CLA	C10-C11-C12-C13
25	b	610	CLA	C2A-CAA-CBA-CGA
28	M	101	LMG	O1-C7-C8-O7
31	C	515	DGD	CAA-CBA-CCA-CDA
29	d	409	LHG	C2-C3-O3-P
31	H	102	DGD	C4A-C5A-C6A-C7A
25	B	601	CLA	C3A-C2A-CAA-CBA
29	E	101	LHG	C17-C18-C19-C20
32	j	101	STE	C6-C7-C8-C9
26	k	102	BCR	C19-C20-C21-C22

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Mol	Chain	Res	Type	Atoms
30	b	620	SQD	C14-C15-C16-C17
32	J	101	STE	C5-C6-C7-C8
32	T	103	STE	O2-C1-C2-C3
36	V	201	HEC	CAD-CBD-CGD-O2D
32	B	624	STE	C5-C6-C7-C8
32	H	103	STE	C4-C5-C6-C7
29	d	408	LHG	C11-C10-C9-C8
25	B	603	CLA	C11-C10-C8-C9
25	C	511	CLA	C11-C10-C8-C9
25	a	609	CLA	C6-C7-C8-C9
25	b	610	CLA	C14-C13-C15-C16
25	b	613	CLA	C16-C17-C18-C19
28	C	518	LMG	C38-C39-C40-C41
28	b	622	LMG	C31-C32-C33-C34
30	B	623	SQD	C9-C10-C11-C12
31	h	101	DGD	CCB-CDB-CEB-CFB
26	k	102	BCR	C16-C17-C18-C36
26	t	101	BCR	C35-C13-C14-C15
31	C	515	DGD	O1G-C1G-C2G-C3G
31	C	515	DGD	O1B-C1B-O2G-C2G
32	d	412	STE	O1-C1-C2-C3
29	E	101	LHG	C15-C16-C17-C18
31	C	516	DGD	CDA-CEA-CFA-CGA
32	M	103	STE	C6-C7-C8-C9
32	t	103	STE	C7-C8-C9-C10
30	a	613	SQD	C13-C14-C15-C16
31	C	515	DGD	CCB-CDB-CEB-CFB
25	C	505	CLA	C16-C17-C18-C19
31	C	516	DGD	O6D-C1D-O3G-C3G
31	A	616	DGD	C9B-CAB-CBB-CCB
31	o	301	DGD	C9B-CAB-CBB-CCB
28	d	410	LMG	O9-C10-C11-C12
32	b	623	STE	O1-C1-C2-C3
32	b	623	STE	O2-C1-C2-C3
32	B	626	STE	C3-C4-C5-C6
25	B	604	CLA	C16-C17-C18-C20
25	b	603	CLA	C6-C7-C8-C10
25	b	613	CLA	C12-C13-C15-C16
25	c	501	CLA	C11-C12-C13-C15
25	c	503	CLA	C11-C10-C8-C7
25	c	505	CLA	C12-C13-C15-C16
31	C	517	DGD	C9A-CAA-CBA-CCA

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Mol	Chain	Res	Type	Atoms
25	c	504	CLA	C8-C10-C11-C12
32	T	103	STE	O1-C1-C2-C3
31	c	517	DGD	C7A-C8A-C9A-CAA
29	A	613	LHG	C24-C25-C26-C27
30	A	614	SQD	C28-C29-C30-C31
25	b	613	CLA	C5-C6-C7-C8
25	b	603	CLA	C2A-CAA-CBA-CGA
32	b	623	STE	C3-C4-C5-C6
36	v	201	HEC	CAD-CBD-CGD-O1D
31	H	102	DGD	CCB-CDB-CEB-CFB
32	B	620	STE	C4-C5-C6-C7
25	D	404	CLA	C16-C17-C18-C19
30	b	620	SQD	C12-C13-C14-C15
25	c	510	CLA	C4-C3-C5-C6
28	b	624	LMG	O10-C28-O8-C9
31	o	301	DGD	C1A-C2A-C3A-C4A
35	F	101	HEM	CAD-CBD-CGD-O2D
32	C	520	STE	C4-C5-C6-C7
25	b	616	CLA	C3-C5-C6-C7
31	c	516	DGD	C4E-C5E-C6E-O5E
36	v	201	HEC	CAD-CBD-CGD-O2D
25	b	614	CLA	CBA-CGA-O2A-C1
28	B	621	LMG	C37-C38-C39-C40
26	k	101	BCR	C9-C10-C11-C12
25	b	614	CLA	O1A-CGA-O2A-C1
25	a	607	CLA	C2-C1-O2A-CGA
27	a	611	PL9	C13-C14-C16-C17
35	f	101	HEM	CAD-CBD-CGD-O1D
31	h	101	DGD	CDB-CEB-CFB-CGB
25	b	603	CLA	C14-C13-C15-C16
34	D	403	PHO	C14-C13-C15-C16
29	D	410	LHG	C28-C29-C30-C31
28	b	622	LMG	C40-C41-C42-C43
30	B	623	SQD	C24-C25-C26-C27
26	A	609	BCR	C23-C24-C25-C30
26	B	617	BCR	C5-C6-C7-C8
26	B	618	BCR	C23-C24-C25-C30
26	C	514	BCR	C23-C24-C25-C30
26	H	101	BCR	C23-C24-C25-C30
26	K	101	BCR	C1-C6-C7-C8
26	K	102	BCR	C23-C24-C25-C30
26	Z	101	BCR	C23-C24-C25-C30

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Mol	Chain	Res	Type	Atoms
26	b	618	BCR	C23-C24-C25-C30
26	k	101	BCR	C23-C24-C25-C26
26	k	101	BCR	C23-C24-C25-C30
26	k	102	BCR	C23-C24-C25-C30
26	k	103	BCR	C1-C6-C7-C8
26	k	103	BCR	C5-C6-C7-C8
26	k	103	BCR	C23-C24-C25-C30
26	x	101	BCR	C23-C24-C25-C26
25	C	512	CLA	C15-C16-C17-C18
27	d	406	PL9	C45-C44-C46-C47
28	d	411	LMG	C37-C38-C39-C40
25	c	510	CLA	C2-C3-C5-C6
32	B	624	STE	O2-C1-C2-C3
32	I	101	STE	C6-C7-C8-C9
25	b	610	CLA	C15-C16-C17-C18
31	C	516	DGD	C2G-C3G-O3G-C1D
28	d	411	LMG	C29-C30-C31-C32
31	C	517	DGD	C5B-C6B-C7B-C8B
32	c	519	STE	C4-C5-C6-C7
25	b	612	CLA	C16-C17-C18-C20
28	c	520	LMG	C34-C35-C36-C37
25	b	601	CLA	C2A-CAA-CBA-CGA
32	B	620	STE	C5-C6-C7-C8
25	c	504	CLA	C11-C12-C13-C15
28	b	624	LMG	C30-C31-C32-C33
28	C	518	LMG	C15-C16-C17-C18
31	C	515	DGD	C6A-C7A-C8A-C9A
25	c	506	CLA	C4-C3-C5-C6
28	b	622	LMG	C35-C36-C37-C38
25	B	606	CLA	C6-C7-C8-C10
25	B	614	CLA	C11-C12-C13-C15
25	C	510	CLA	C2-C3-C5-C6
25	b	607	CLA	C11-C10-C8-C7
30	a	614	SQD	C30-C31-C32-C33
32	b	626	STE	C6-C7-C8-C9
26	K	102	BCR	C13-C14-C15-C16
25	b	612	CLA	CAA-CBA-CGA-O2A
29	l	101	LHG	O7-C7-C8-C9
36	V	201	HEC	CAD-CBD-CGD-O1D
31	c	516	DGD	CDA-CEA-CFA-CGA
25	B	612	CLA	CAA-CBA-CGA-O2A
28	C	518	LMG	O10-C28-O8-C9

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Mol	Chain	Res	Type	Atoms
32	d	413	STE	C11-C10-C9-C8
26	B	617	BCR	C11-C10-C9-C34
26	K	101	BCR	C11-C10-C9-C34
26	d	405	BCR	C20-C21-C22-C37
34	d	402	PHO	C4C-C3C-CAC-CBC
31	H	102	DGD	C1A-C2A-C3A-C4A
28	D	408	LMG	O7-C10-C11-C12
25	B	601	CLA	C4-C3-C5-C6
25	C	512	CLA	C4-C3-C5-C6
25	c	508	CLA	C4-C3-C5-C6
25	B	610	CLA	C8-C10-C11-C12
25	A	611	CLA	C4C-C3C-CAC-CBC
31	c	517	DGD	O6D-C5D-C6D-O5D
31	H	102	DGD	C2B-C3B-C4B-C5B
25	B	601	CLA	C11-C10-C8-C9
25	B	606	CLA	C11-C12-C13-C14
25	B	610	CLA	C11-C12-C13-C14
25	b	601	CLA	C11-C10-C8-C9
25	b	603	CLA	C6-C7-C8-C9
25	b	614	CLA	C11-C12-C13-C14
25	c	511	CLA	C11-C12-C13-C14
32	c	519	STE	O2-C1-C2-C3
32	c	521	STE	C7-C8-C9-C10
28	M	101	LMG	C12-C13-C14-C15
32	C	521	STE	C10-C11-C12-C13
32	J	101	STE	O2-C1-C2-C3
25	B	603	CLA	CAD-CBD-CGD-O2D
25	B	604	CLA	CAD-CBD-CGD-O2D
25	C	503	CLA	CAD-CBD-CGD-O2D
25	C	506	CLA	CAD-CBD-CGD-O2D
25	C	512	CLA	CAD-CBD-CGD-O2D
25	C	513	CLA	CAD-CBD-CGD-O2D
25	b	609	CLA	CAD-CBD-CGD-O2D
25	b	610	CLA	CAD-CBD-CGD-O2D
25	c	503	CLA	CAD-CBD-CGD-O2D
25	c	505	CLA	CAD-CBD-CGD-O2D
25	c	510	CLA	CAD-CBD-CGD-O2D
25	c	512	CLA	CAD-CBD-CGD-O2D
34	d	401	PHO	CAD-CBD-CGD-O2D
25	B	613	CLA	C16-C17-C18-C19
25	A	606	CLA	C13-C15-C16-C17
29	B	622	LHG	O9-C7-O7-C5

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Mol	Chain	Res	Type	Atoms
31	C	516	DGD	C5B-C6B-C7B-C8B
25	b	609	CLA	C13-C15-C16-C17
25	b	613	CLA	C2-C1-O2A-CGA
28	d	410	LMG	O7-C10-C11-C12
28	C	518	LMG	C18-C19-C20-C21
31	c	515	DGD	O2G-C1B-C2B-C3B
25	c	508	CLA	C13-C15-C16-C17
32	d	413	STE	C4-C5-C6-C7
32	j	101	STE	C5-C6-C7-C8
27	d	406	PL9	C35-C34-C36-C37
28	M	101	LMG	C22-C23-C24-C25
28	d	411	LMG	C34-C35-C36-C37
31	c	516	DGD	O6D-C1D-O3G-C3G
25	C	507	CLA	C8-C10-C11-C12
27	d	406	PL9	C43-C44-C46-C47
31	A	616	DGD	CAA-CBA-CCA-CDA
32	m	101	STE	C3-C4-C5-C6
26	D	406	BCR	C21-C22-C23-C24
28	c	520	LMG	C7-C8-C9-O8
30	b	620	SQD	C44-C45-C46-O48
34	D	403	PHO	C2C-C3C-CAC-CBC
34	d	402	PHO	C2C-C3C-CAC-CBC
32	c	519	STE	O1-C1-C2-C3
32	H	103	STE	C14-C15-C16-C17
30	A	614	SQD	O47-C7-C8-C9
31	C	516	DGD	CDB-CEB-CFB-CGB
25	B	616	CLA	O2A-C1-C2-C3
25	C	512	CLA	O2A-C1-C2-C3
34	d	401	PHO	O2A-C1-C2-C3
32	M	103	STE	C1-C2-C3-C4
25	a	608	CLA	C13-C15-C16-C17
32	X	101	STE	C2-C3-C4-C5
32	b	623	STE	C15-C16-C17-C18
30	f	102	SQD	O48-C23-C24-C25
32	B	624	STE	O1-C1-C2-C3
32	J	101	STE	O1-C1-C2-C3
25	A	606	CLA	C16-C17-C18-C20
25	D	404	CLA	C16-C17-C18-C20
29	B	622	LHG	C1-C2-C3-O3
25	A	607	CLA	CHA-CBD-CGD-O1D
25	A	607	CLA	CHA-CBD-CGD-O2D
25	B	601	CLA	CHA-CBD-CGD-O2D

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Mol	Chain	Res	Type	Atoms
25	B	607	CLA	CHA-CBD-CGD-O2D
25	B	612	CLA	CHA-CBD-CGD-O2D
25	B	614	CLA	CHA-CBD-CGD-O1D
25	B	614	CLA	CHA-CBD-CGD-O2D
25	C	502	CLA	CHA-CBD-CGD-O2D
25	C	504	CLA	CHA-CBD-CGD-O1D
25	C	507	CLA	CHA-CBD-CGD-O1D
25	C	507	CLA	CHA-CBD-CGD-O2D
25	C	512	CLA	CHA-CBD-CGD-O2D
25	b	606	CLA	CHA-CBD-CGD-O2D
25	b	614	CLA	CHA-CBD-CGD-O1D
25	b	614	CLA	CHA-CBD-CGD-O2D
25	c	504	CLA	CHA-CBD-CGD-O1D
25	c	504	CLA	CHA-CBD-CGD-O2D
25	c	506	CLA	CHA-CBD-CGD-O1D
25	c	507	CLA	CHA-CBD-CGD-O1D
25	c	507	CLA	CHA-CBD-CGD-O2D
28	c	520	LMG	C17-C18-C19-C20
27	D	407	PL9	C18-C19-C21-C22
34	D	402	PHO	C2-C3-C5-C6
31	C	515	DGD	CCA-CDA-CEA-CFA
25	b	613	CLA	CAA-CBA-CGA-O2A
30	a	613	SQD	O47-C45-C46-O48
25	c	501	CLA	O1D-CGD-O2D-CED
32	c	521	STE	C4-C5-C6-C7
25	C	506	CLA	C13-C15-C16-C17
25	d	403	CLA	C10-C11-C12-C13
25	c	509	CLA	C16-C17-C18-C20
31	C	517	DGD	CBA-CCA-CDA-CEA
28	b	624	LMG	O7-C10-C11-C12
28	B	621	LMG	O7-C10-C11-C12
30	B	623	SQD	C29-C30-C31-C32
25	B	606	CLA	O1D-CGD-O2D-CED
31	C	516	DGD	C2A-C3A-C4A-C5A
32	B	626	STE	C5-C6-C7-C8
25	a	609	CLA	C6-C7-C8-C10
30	a	613	SQD	O47-C7-C8-C9
28	c	520	LMG	C32-C33-C34-C35
28	c	522	LMG	C18-C19-C20-C21
32	l	102	STE	C1-C2-C3-C4
25	c	503	CLA	C11-C10-C8-C9
25	d	404	CLA	C14-C13-C15-C16

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Mol	Chain	Res	Type	Atoms
26	B	617	BCR	C19-C20-C21-C22
32	B	625	STE	O2-C1-C2-C3
32	B	626	STE	O2-C1-C2-C3
28	D	408	LMG	C28-C29-C30-C31
25	B	604	CLA	C16-C17-C18-C19
29	E	101	LHG	C11-C12-C13-C14
29	d	407	LHG	C26-C27-C28-C29
35	f	101	HEM	CAD-CBD-CGD-O2D
25	B	610	CLA	C2A-CAA-CBA-CGA
27	D	407	PL9	C11-C12-C13-C14
27	D	407	PL9	C46-C47-C48-C49
25	B	613	CLA	CAA-CBA-CGA-O2A
28	D	408	LMG	C22-C23-C24-C25
31	h	101	DGD	C5A-C6A-C7A-C8A
25	b	603	CLA	C16-C17-C18-C19
31	c	515	DGD	O1A-C1A-O1G-C1G
25	C	507	CLA	C13-C15-C16-C17
28	c	518	LMG	C37-C38-C39-C40
25	B	602	CLA	C1A-C2A-CAA-CBA
31	o	301	DGD	C9A-CAA-CBA-CCA
30	A	614	SQD	O49-C7-C8-C9
30	f	102	SQD	O10-C23-C24-C25
27	A	610	PL9	C21-C22-C23-C24
25	B	612	CLA	CAA-CBA-CGA-O1A
25	b	612	CLA	CAA-CBA-CGA-O1A
30	A	614	SQD	C33-C34-C35-C36
32	m	101	STE	C7-C8-C9-C10
25	B	615	CLA	C16-C17-C18-C19
25	C	510	CLA	C16-C17-C18-C20
31	c	516	DGD	CBB-CCB-CDB-CEB
25	b	602	CLA	C4-C3-C5-C6
34	D	402	PHO	C4-C3-C5-C6
29	B	622	LHG	C24-C25-C26-C27
29	L	101	LHG	C4-O6-P-O5
32	j	101	STE	C1-C2-C3-C4
25	B	613	CLA	CAA-CBA-CGA-O1A
29	E	101	LHG	C35-C36-C37-C38
31	C	517	DGD	CDB-CEB-CFB-CGB
32	B	620	STE	C11-C10-C9-C8
26	K	101	BCR	C5-C6-C7-C8
26	b	618	BCR	C23-C24-C25-C26
26	k	103	BCR	C23-C24-C25-C26

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Mol	Chain	Res	Type	Atoms
28	b	624	LMG	O9-C10-C11-C12
31	c	516	DGD	O1B-C1B-C2B-C3B
26	T	101	BCR	C18-C19-C20-C21
30	a	613	SQD	O49-C7-C8-C9
32	B	625	STE	C7-C8-C9-C10
25	c	501	CLA	CAA-CBA-CGA-O2A
28	D	408	LMG	C15-C16-C17-C18
25	C	510	CLA	C4-C3-C5-C6
27	d	406	PL9	C20-C19-C21-C22
32	b	621	STE	C11-C12-C13-C14
32	B	626	STE	O1-C1-C2-C3
25	B	601	CLA	CAD-CBD-CGD-O1D
25	B	605	CLA	CAD-CBD-CGD-O1D
25	B	607	CLA	CAD-CBD-CGD-O1D
25	B	609	CLA	CAD-CBD-CGD-O1D
25	C	504	CLA	CAD-CBD-CGD-O1D
25	b	605	CLA	CAD-CBD-CGD-O1D
25	b	607	CLA	CAD-CBD-CGD-O1D
25	c	504	CLA	CAD-CBD-CGD-O1D
31	C	515	DGD	O1B-C1B-C2B-C3B
31	H	102	DGD	C9B-CAB-CBB-CCB
31	c	517	DGD	O6E-C5E-C6E-O5E
25	c	501	CLA	C11-C12-C13-C14
25	c	511	CLA	C11-C10-C8-C9
28	c	520	LMG	C40-C41-C42-C43
25	C	510	CLA	CAA-CBA-CGA-O2A
25	b	604	CLA	C15-C16-C17-C18
35	f	101	HEM	CAA-CBA-CGA-O2A
25	c	510	CLA	CAA-CBA-CGA-O2A
28	b	622	LMG	O7-C10-C11-C12
25	B	605	CLA	C10-C11-C12-C13
25	b	614	CLA	C8-C10-C11-C12
32	E	102	STE	O2-C1-C2-C3
27	A	610	PL9	C12-C11-C9-C10
27	A	610	PL9	C25-C24-C26-C27
32	M	103	STE	C2-C3-C4-C5
25	B	602	CLA	C3A-C2A-CAA-CBA
25	B	612	CLA	C6-C7-C8-C10
25	C	505	CLA	C6-C7-C8-C10
25	C	505	CLA	C11-C12-C13-C15
25	C	507	CLA	C6-C7-C8-C10
25	D	405	CLA	C12-C13-C15-C16

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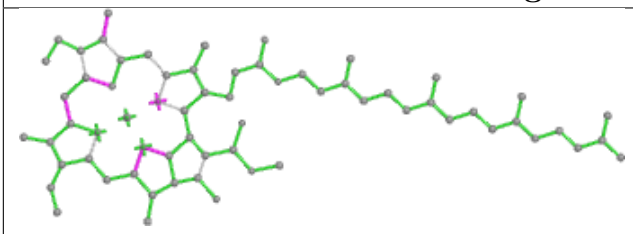
Mol	Chain	Res	Type	Atoms
25	a	607	CLA	C12-C13-C15-C16
25	c	505	CLA	C2-C3-C5-C6
25	c	509	CLA	C6-C7-C8-C10
27	D	407	PL9	C38-C39-C41-C42
34	D	403	PHO	C12-C13-C15-C16
32	b	625	STE	O1-C1-C2-C3
25	b	601	CLA	CAA-CBA-CGA-O2A
26	B	619	BCR	C21-C22-C23-C24
25	b	613	CLA	CAA-CBA-CGA-O1A
32	B	625	STE	O1-C1-C2-C3
26	T	101	BCR	C13-C14-C15-C16
25	b	606	CLA	C16-C17-C18-C19
25	c	504	CLA	C11-C12-C13-C14
31	C	515	DGD	C9A-CAA-CBA-CCA
25	a	607	CLA	O1D-CGD-O2D-CED
31	H	102	DGD	CDA-CEA-CFA-CGA
25	C	507	CLA	C5-C6-C7-C8
31	h	101	DGD	CDA-CEA-CFA-CGA
29	L	101	LHG	O7-C7-C8-C9
25	B	615	CLA	C10-C11-C12-C13
34	D	402	PHO	C10-C11-C12-C13
31	c	515	DGD	O1B-C1B-C2B-C3B
32	d	413	STE	O2-C1-C2-C3
28	c	522	LMG	C39-C40-C41-C42
25	B	603	CLA	C8-C10-C11-C12
28	A	612	LMG	C18-C19-C20-C21
25	C	509	CLA	C3-C5-C6-C7

There are no ring outliers.

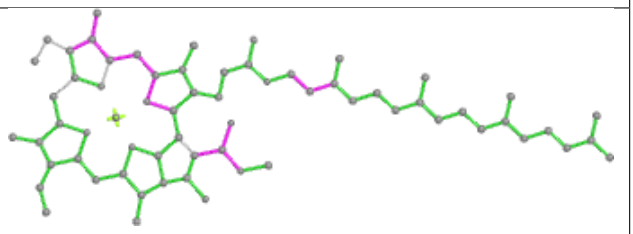
No monomer is involved in short contacts.

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

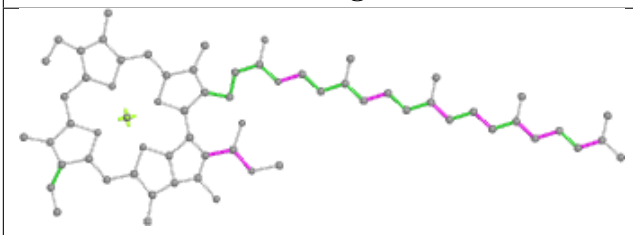
Ligand CLA C 509



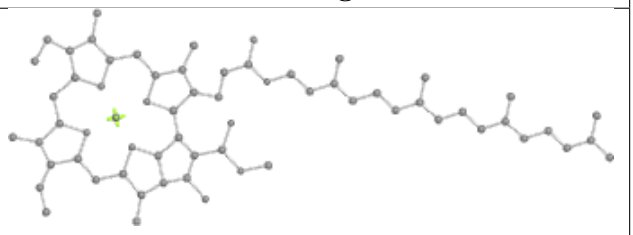
Bond lengths



Bond angles

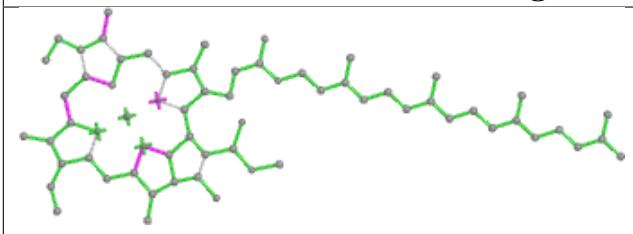


Torsions

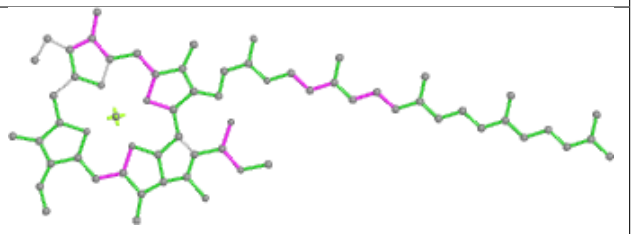


Rings

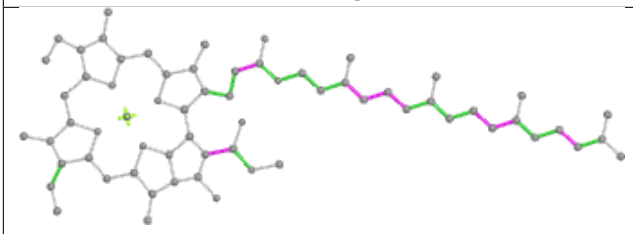
Ligand CLA c 510



Bond lengths



Bond angles



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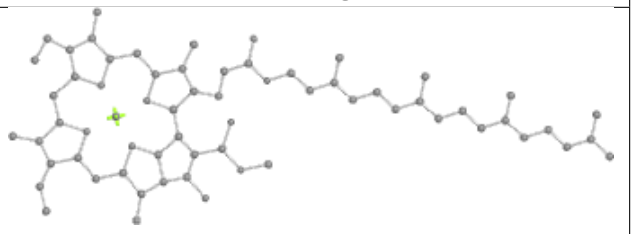
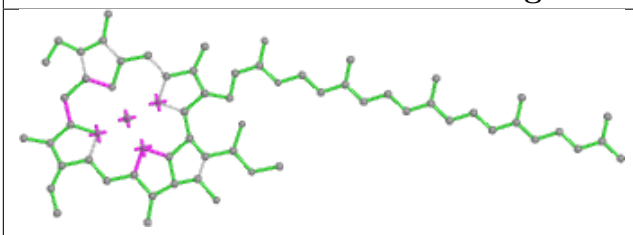
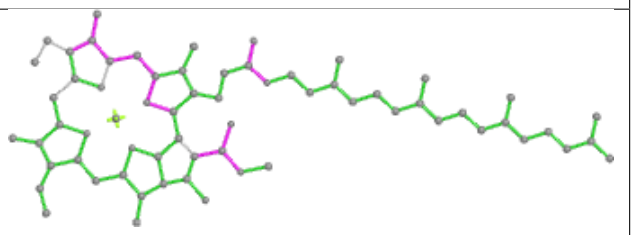


Rings

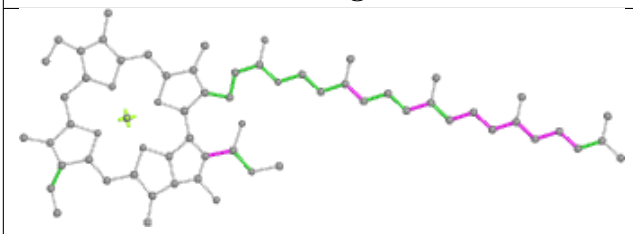
Ligand CLA C 506



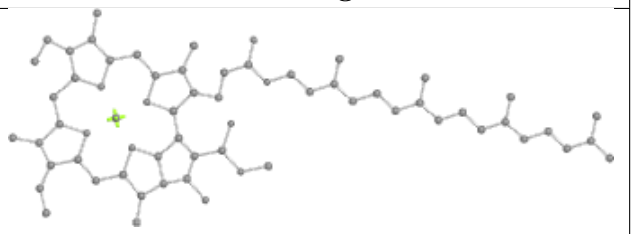
Bond lengths



Bond angles

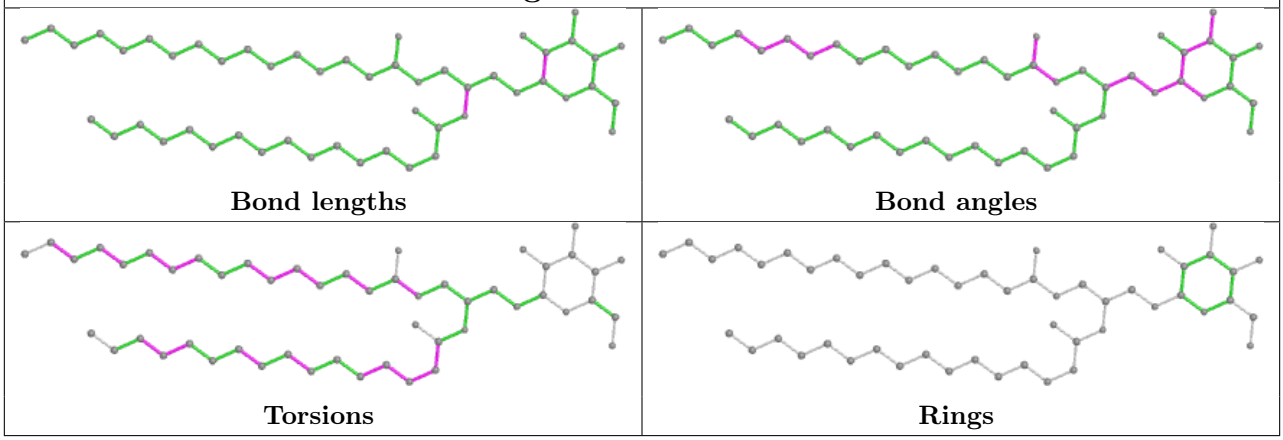


Torsions

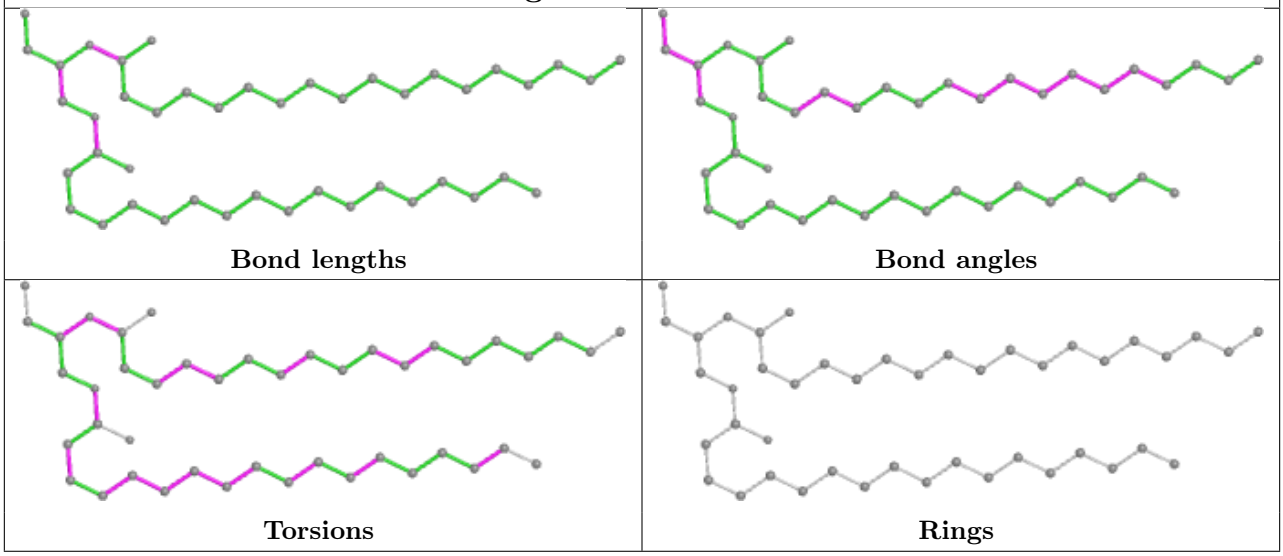


Rings

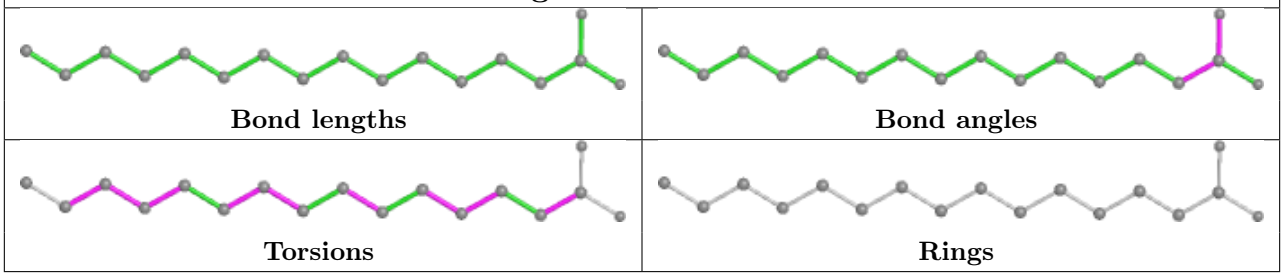
Ligand LMG b 622



Ligand DGD o 301



Ligand STE d 412



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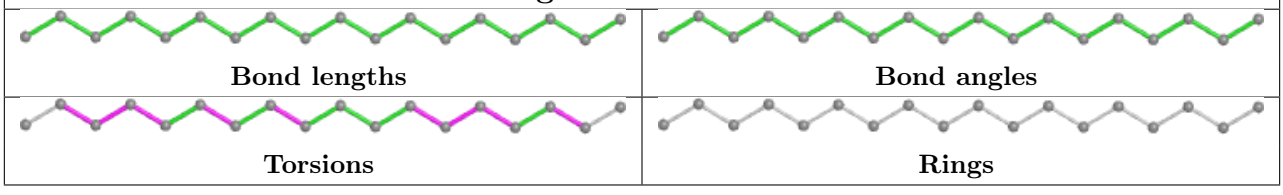
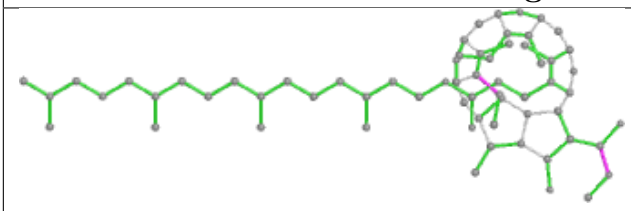
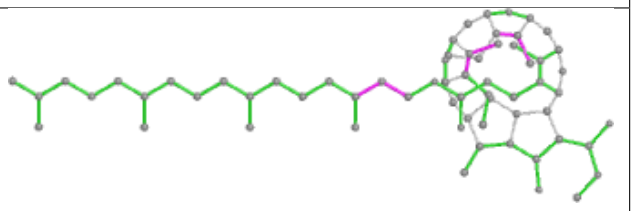


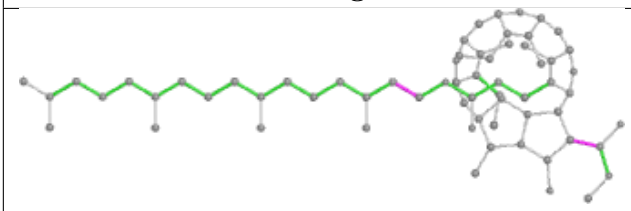
Ligand PHO d 401



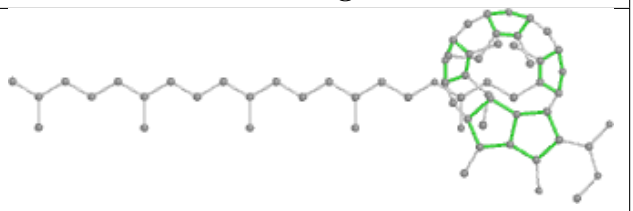
Bond lengths



Bond angles

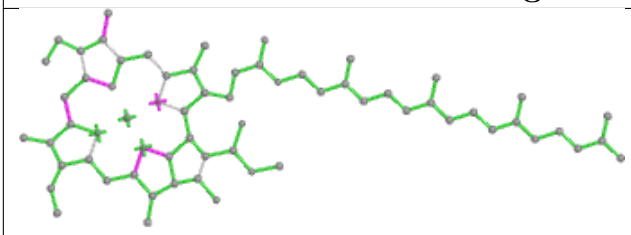


Torsions

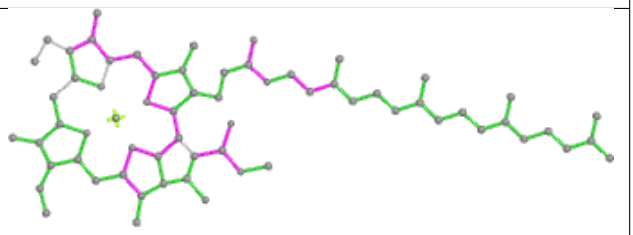


Rings

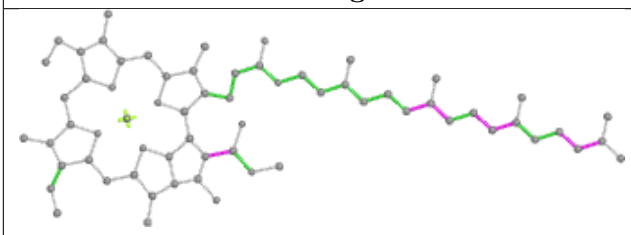
Ligand CLA A 607



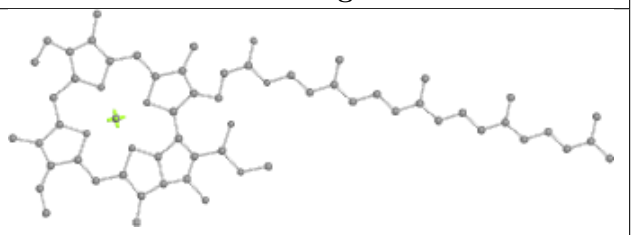
Bond lengths



Bond angles

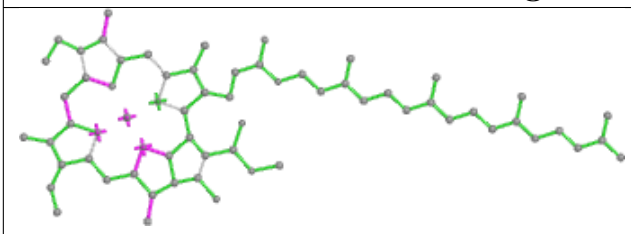


Torsions

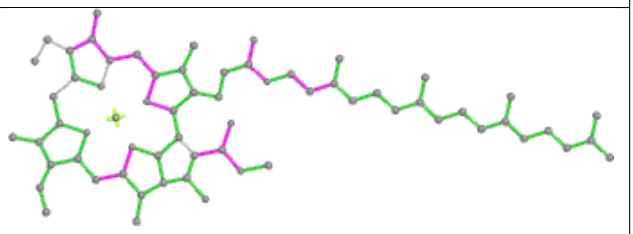


Rings

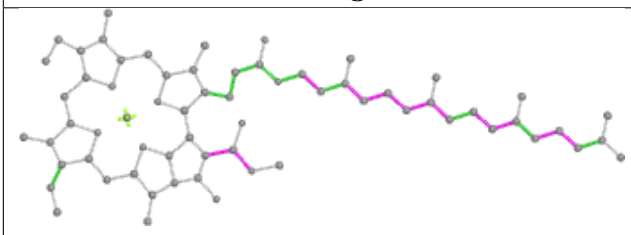
Ligand CLA C 512



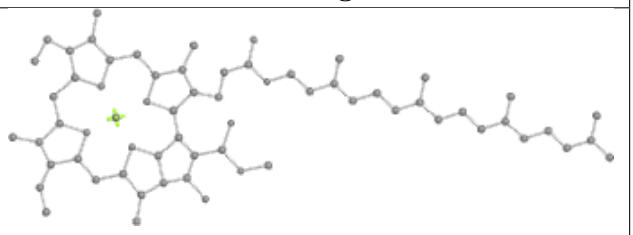
Bond lengths



Bond angles

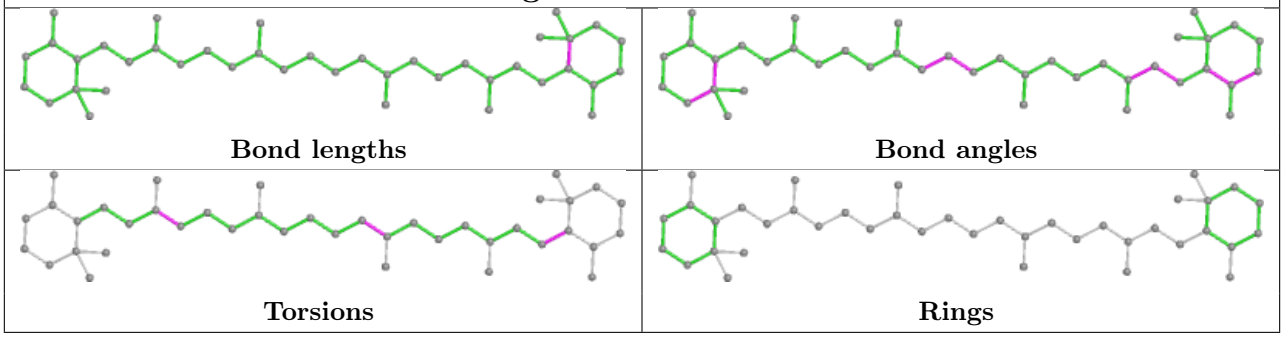


Torsions

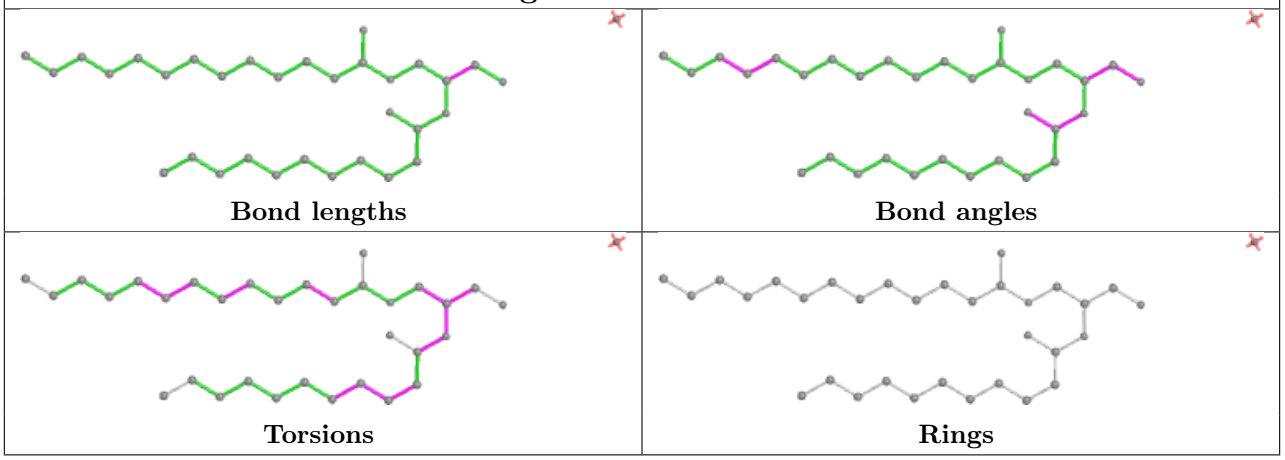


Rings

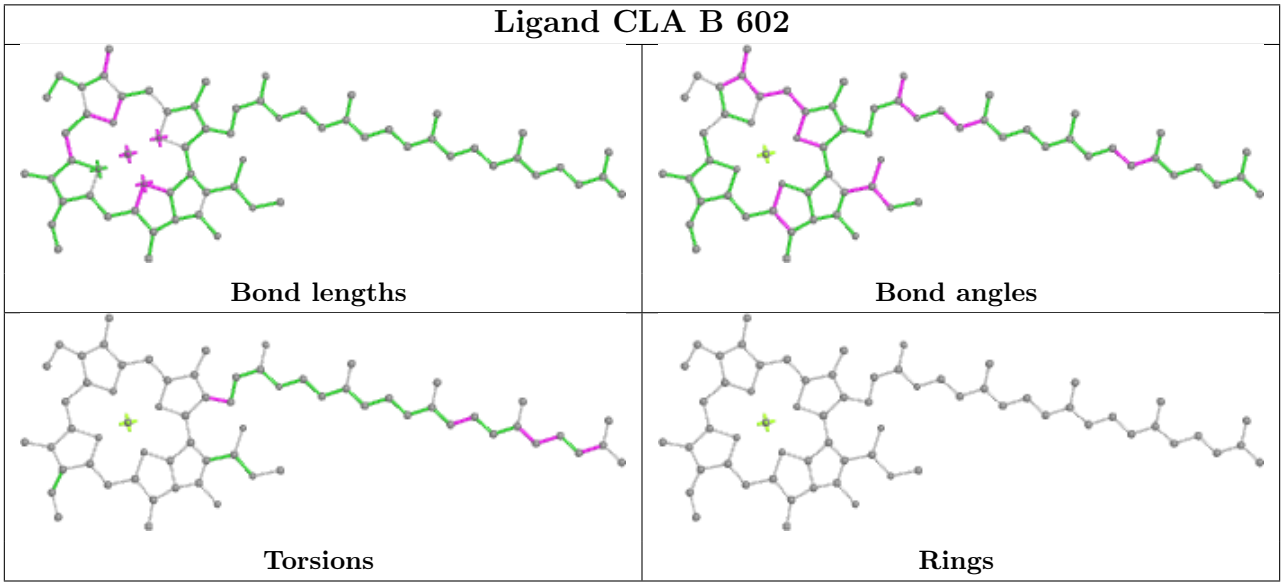
Ligand BCR H 101



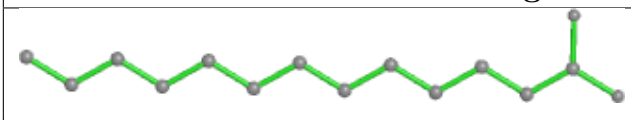
Ligand LMG D 411



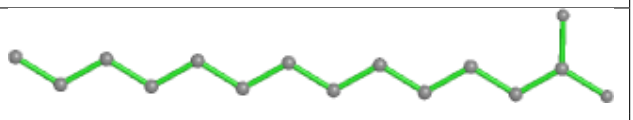
Ligand CLA B 602



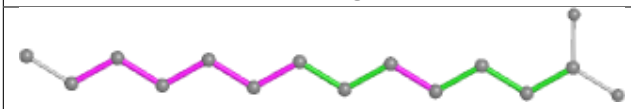
Ligand STE M 102



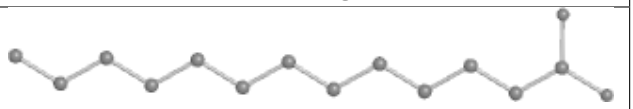
Bond lengths



Bond angles

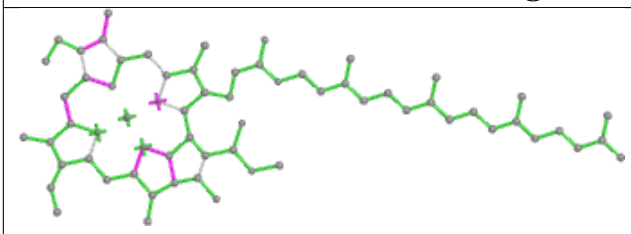


Torsions

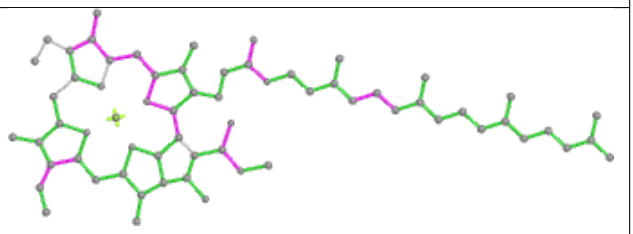


Rings

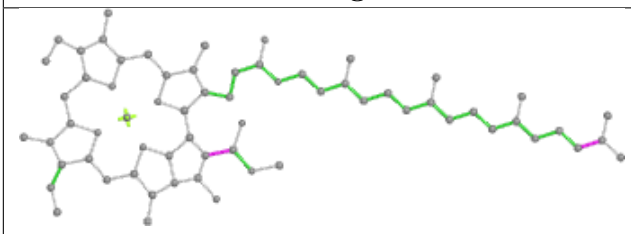
Ligand CLA B 609



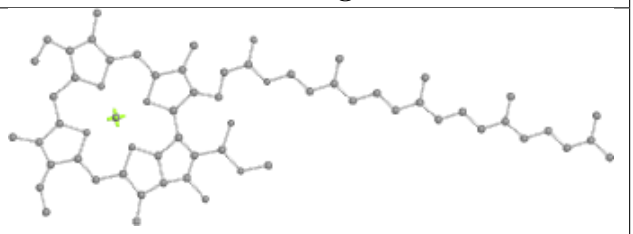
Bond lengths



Bond angles

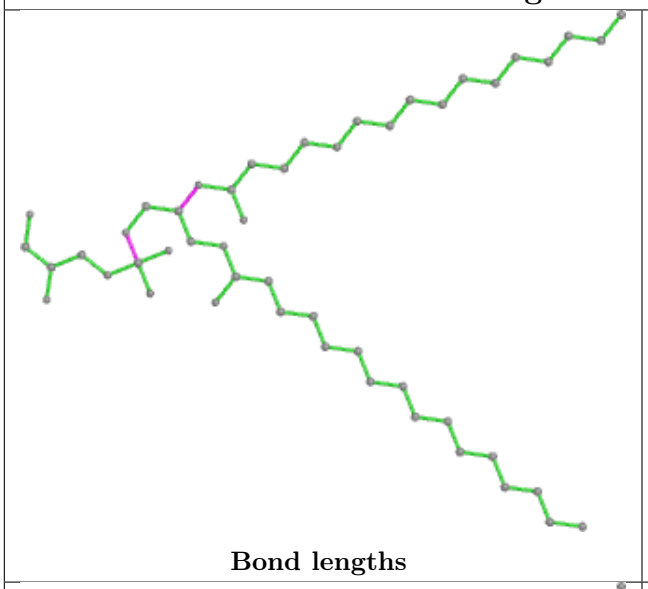


Torsions

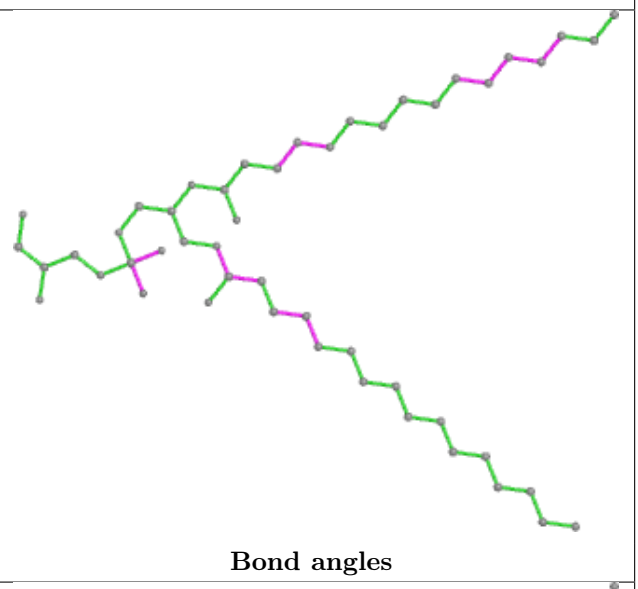


Rings

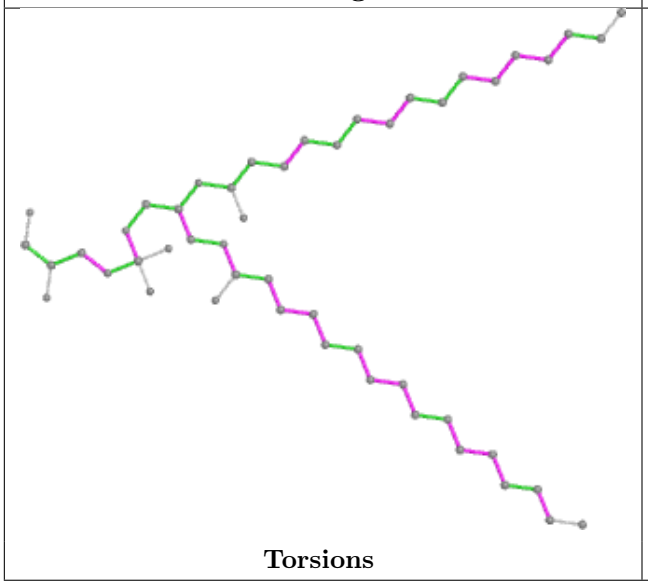
Ligand LHG E 101



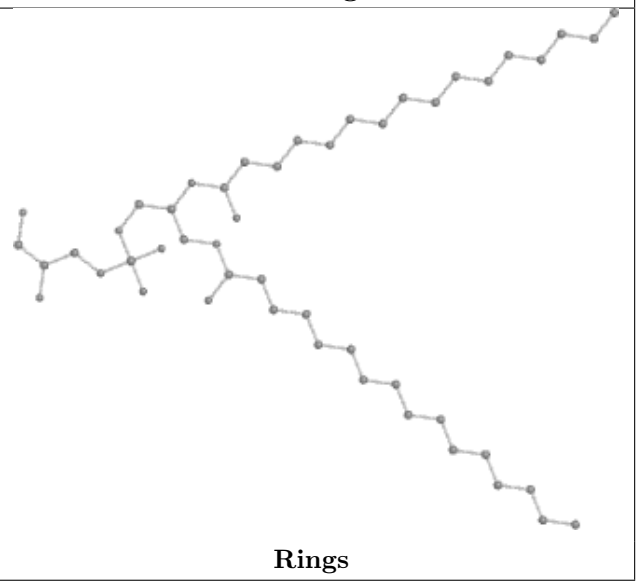
Bond lengths



Bond angles

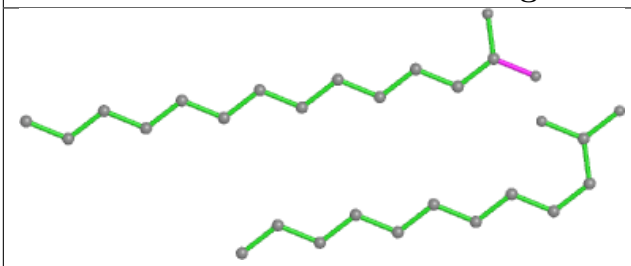


Torsions

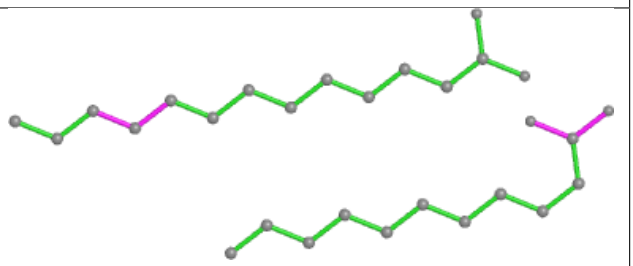


Rings

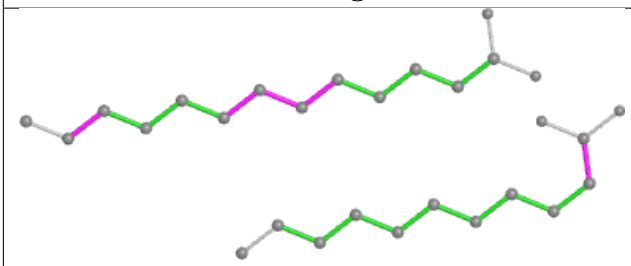
Ligand LMG B 621



Bond lengths



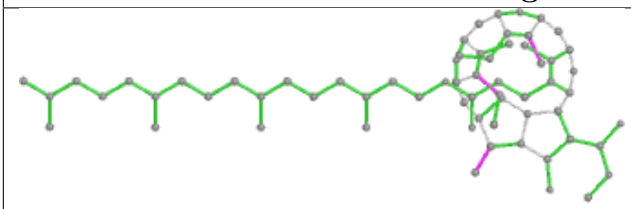
Bond angles



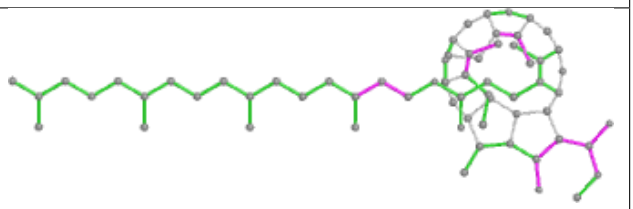
Torsions

Rings

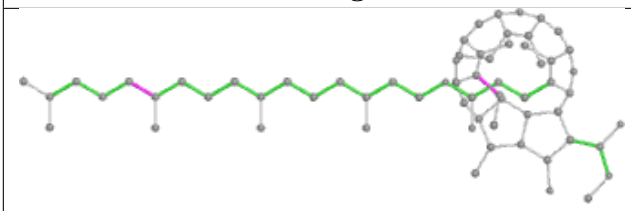
Ligand PHO D 403



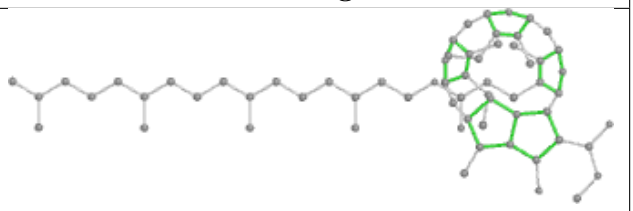
Bond lengths



Bond angles

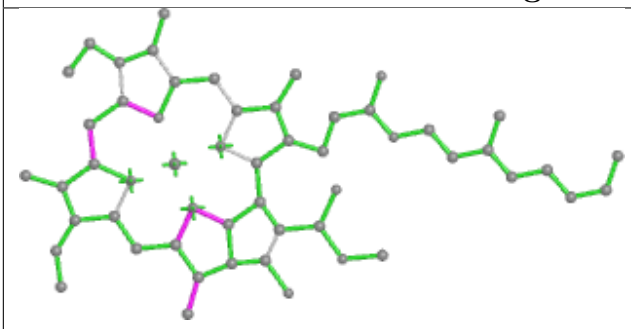


Torsions

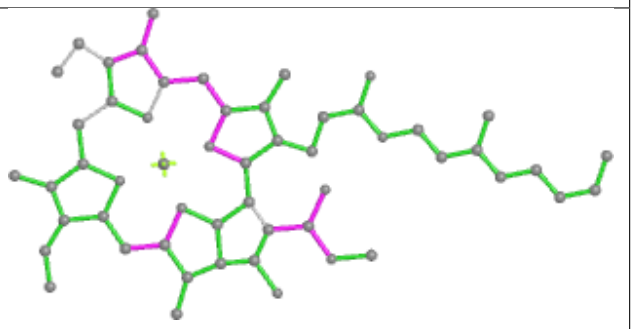


Rings

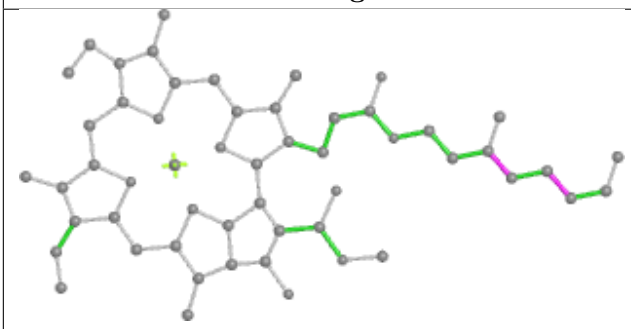
Ligand CLA A 608



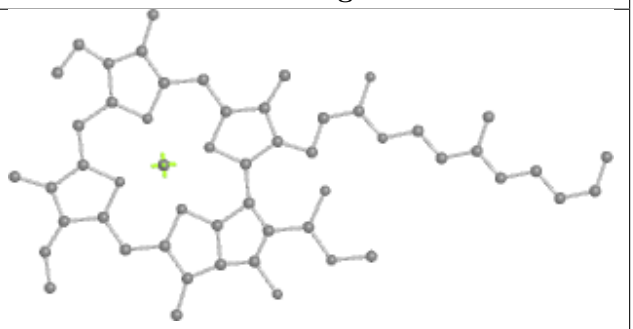
Bond lengths



Bond angles

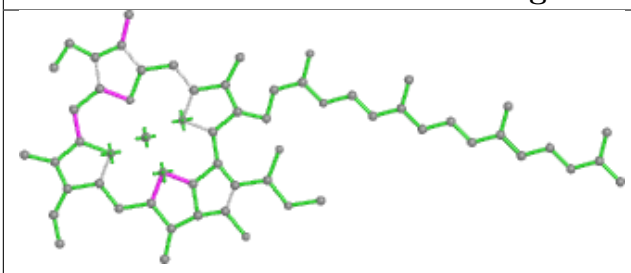


Torsions

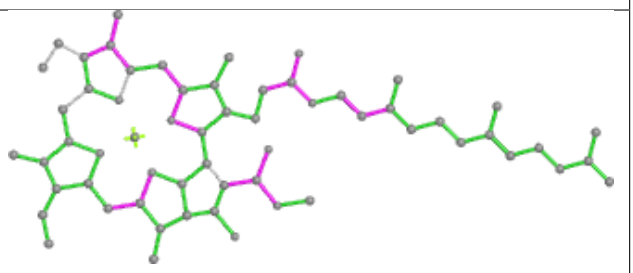


Rings

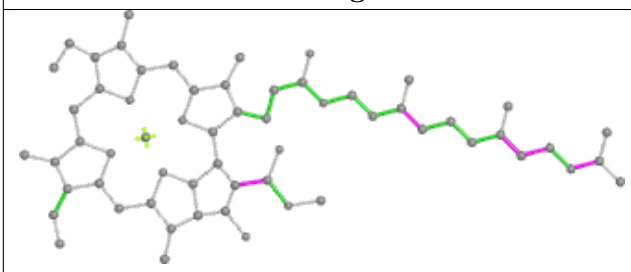
Ligand CLA c 504



Bond lengths



Bond angles



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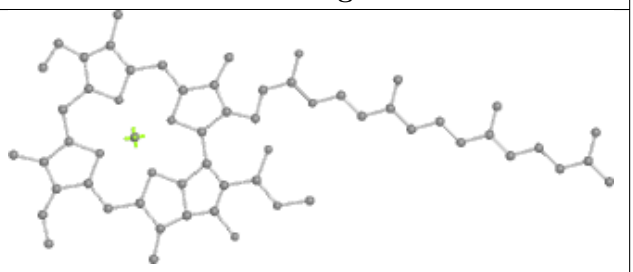
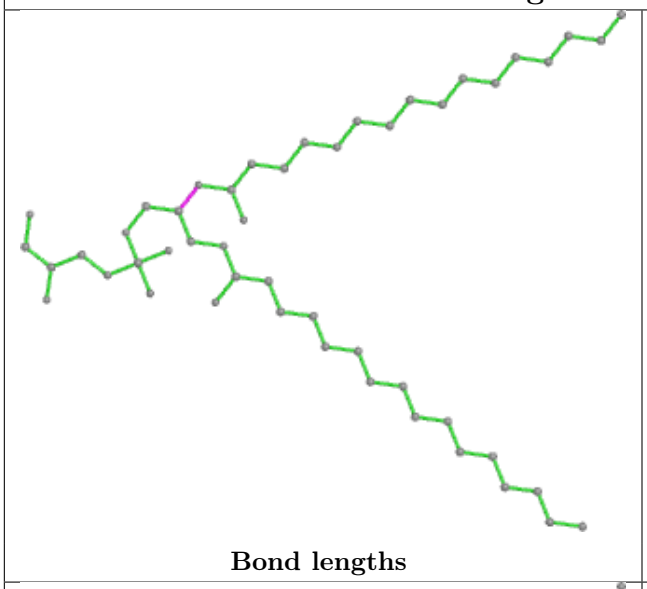


Rings

Ligand LHG d 408



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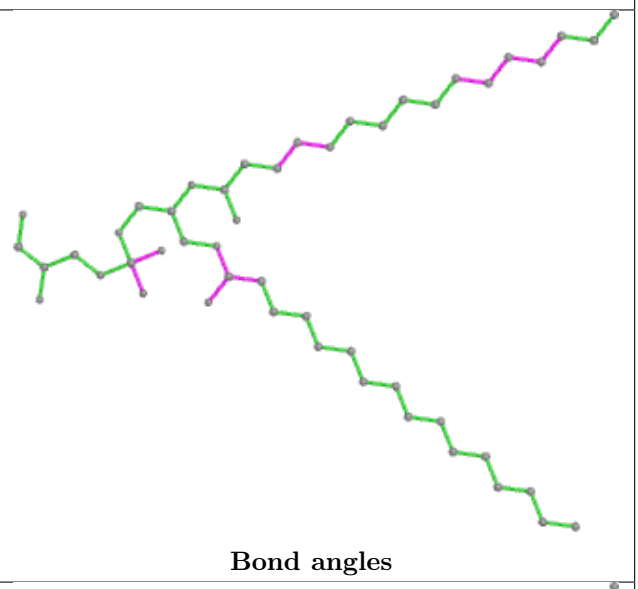
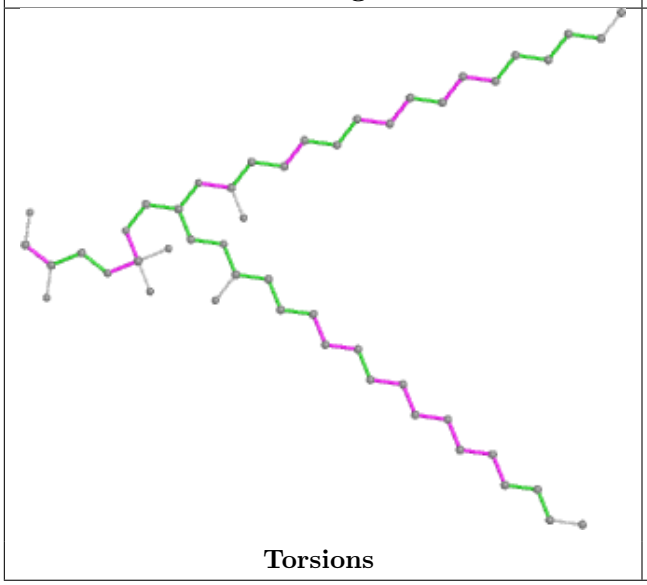


Bond angles



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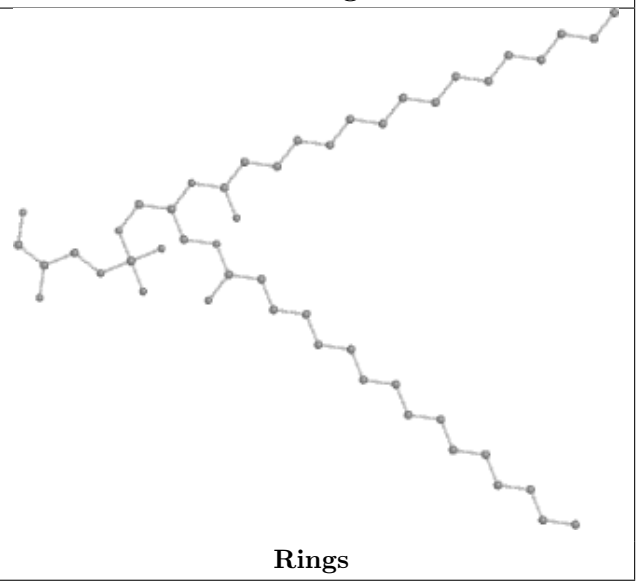
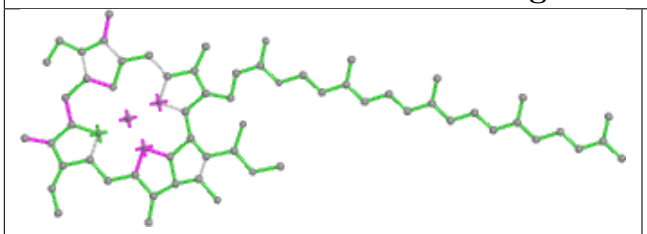
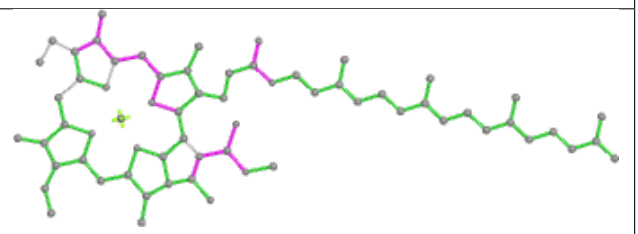


Rings

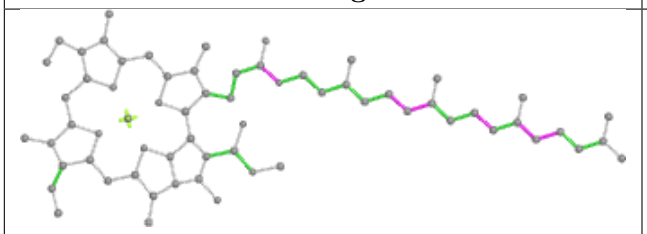
Ligand CLA a 609



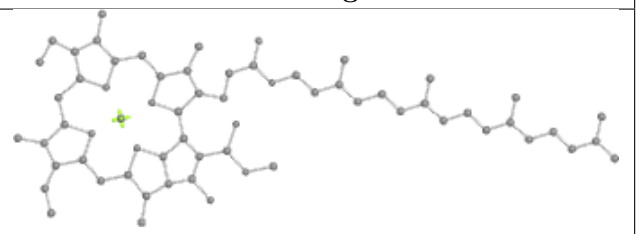
Bond lengths



Bond angles

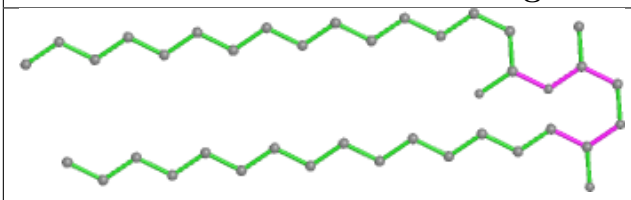


Torsions

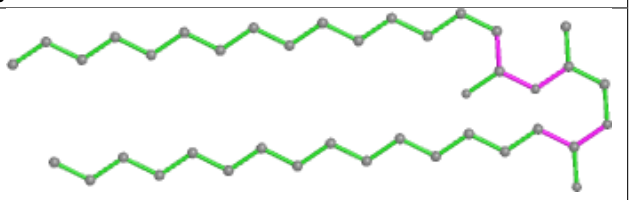


Rings

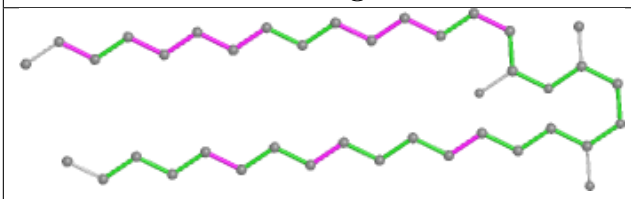
Ligand SQD A 615



Bond lengths



Bond angles



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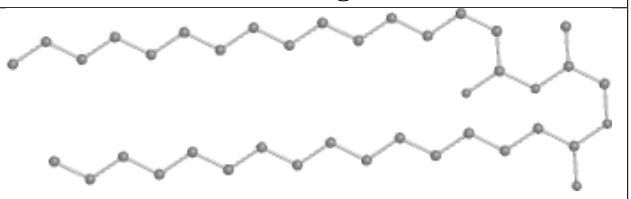
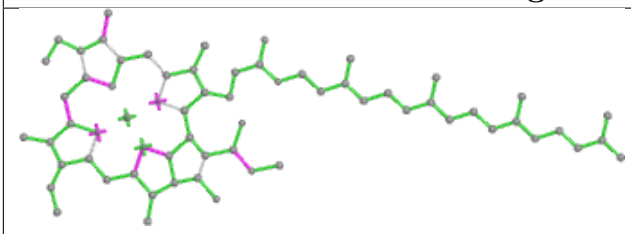
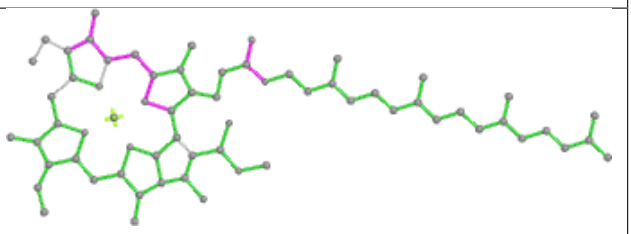


Rings

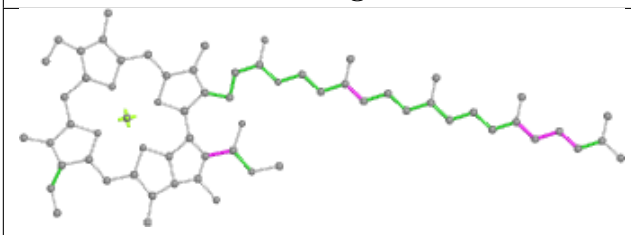
Ligand CLA b 609



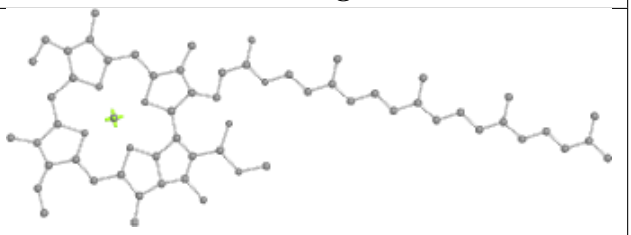
Bond lengths



Bond angles

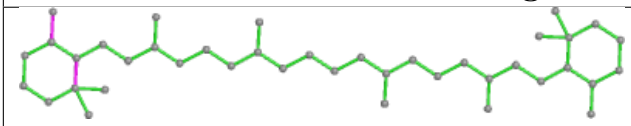


Torsions

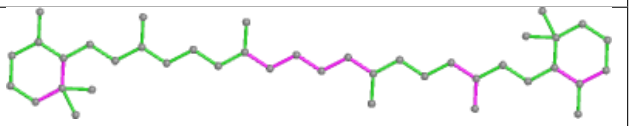


Rings

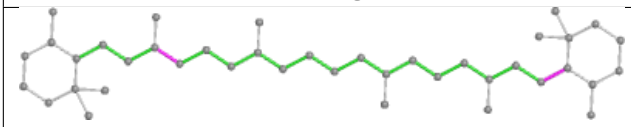
Ligand BCR A 609



Bond lengths



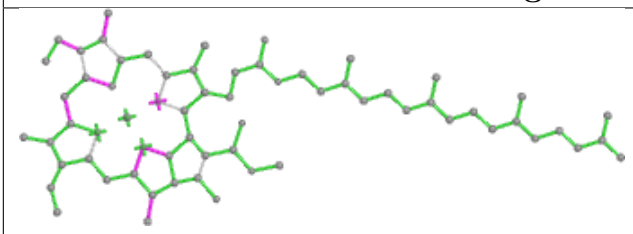
Bond angles



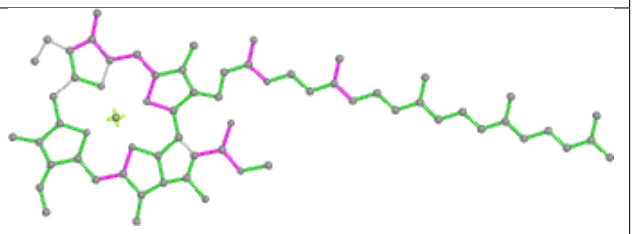
Torsions

Rings

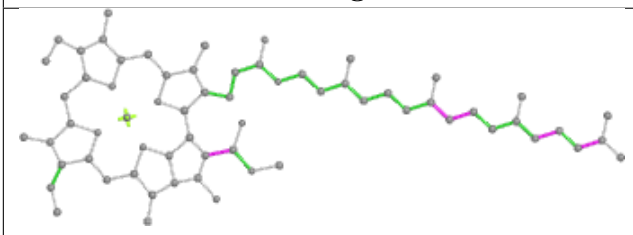
Ligand CLA B 603



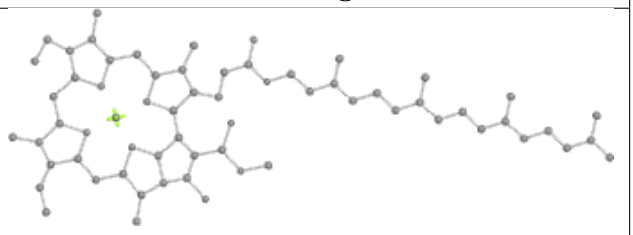
Bond lengths



Bond angles

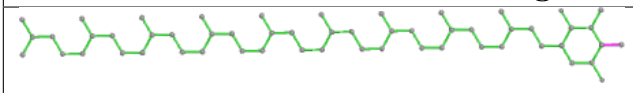


Torsions

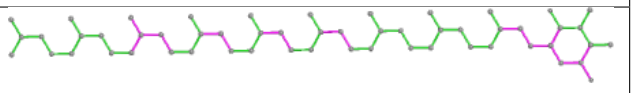


Rings

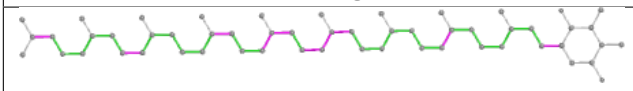
Ligand PL9 a 611



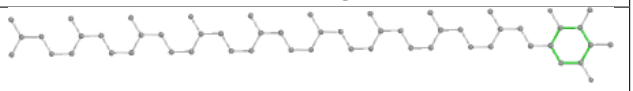
Bond lengths



Bond angles

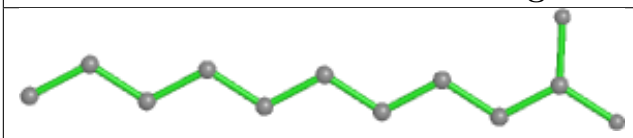


Torsions



Rings

Ligand STE B 626



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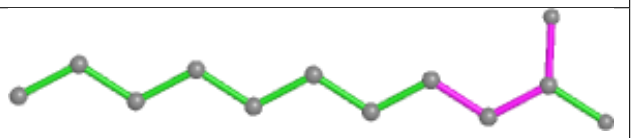
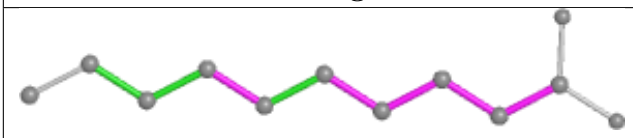


Bond angles



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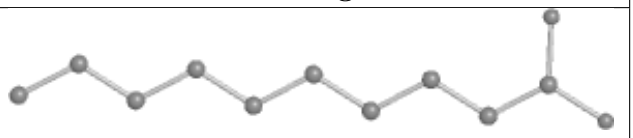
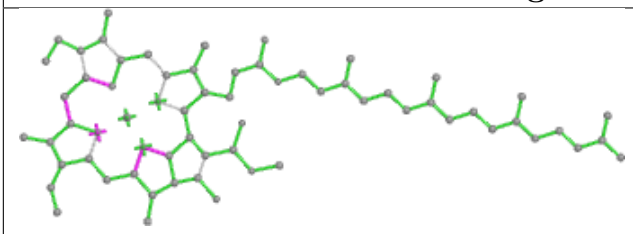
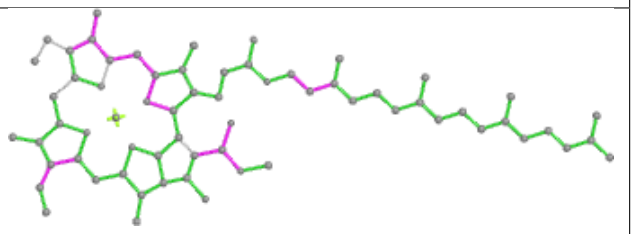


Rings

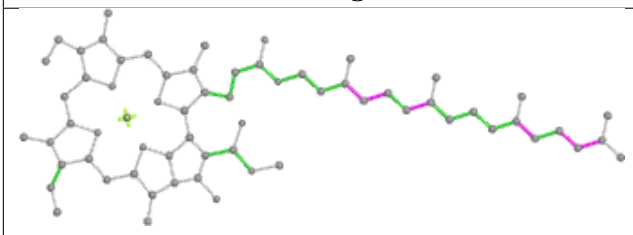
Ligand CLA b 602



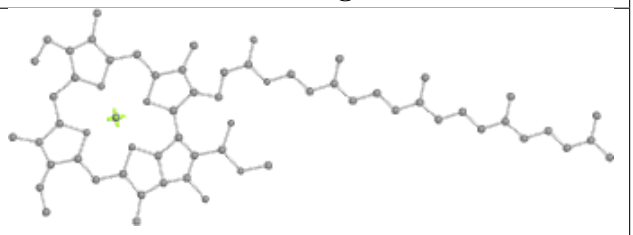
Bond lengths



Bond angles



Torsions



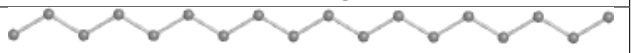
Rings

Ligand STE H 103

Bond lengths

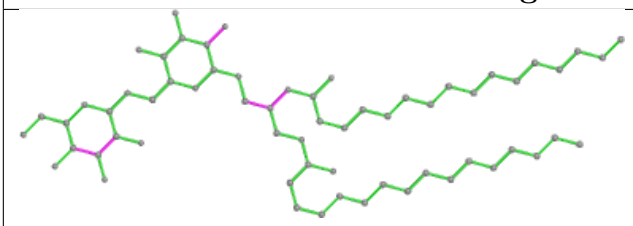
Bond angles

Torsions

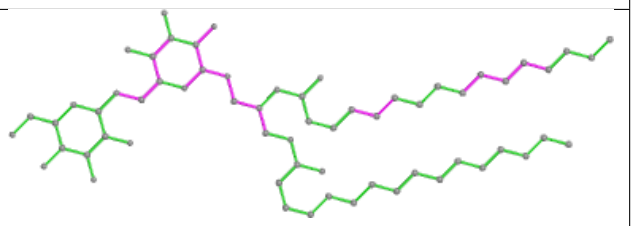


Rings

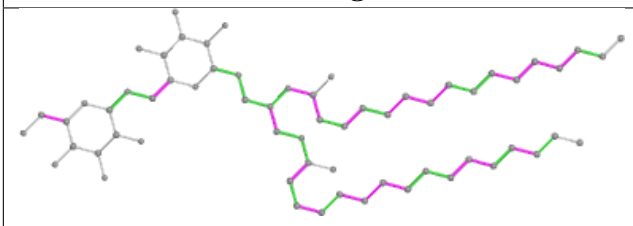
Ligand DGD C 515



Bond lengths



Bond angles



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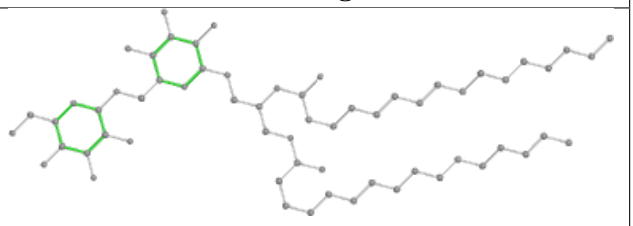
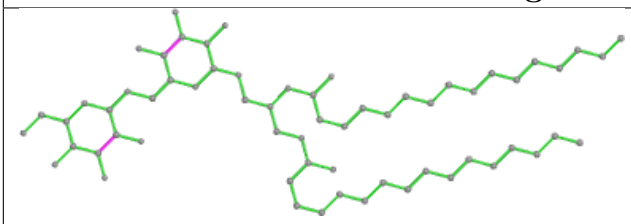


Rings

Ligand DGD c 516



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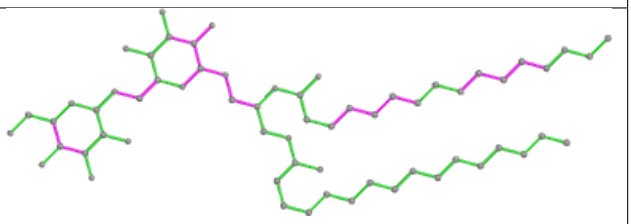
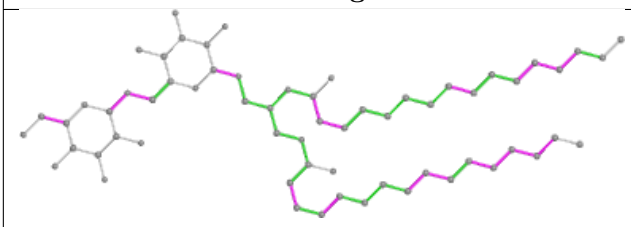


Bond angles



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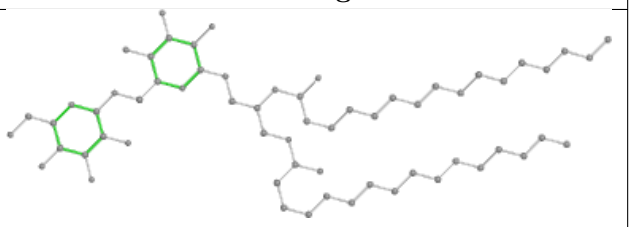
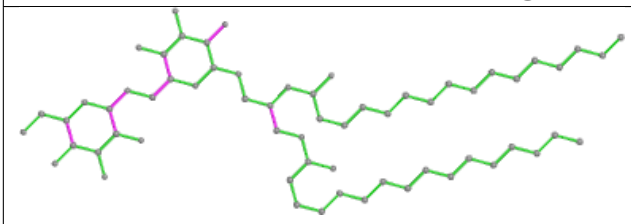
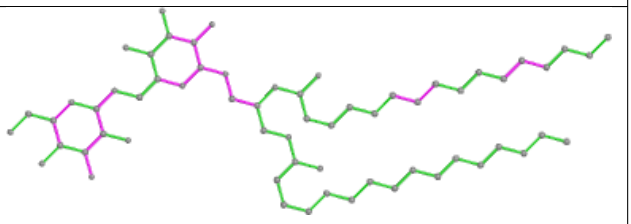


Rings

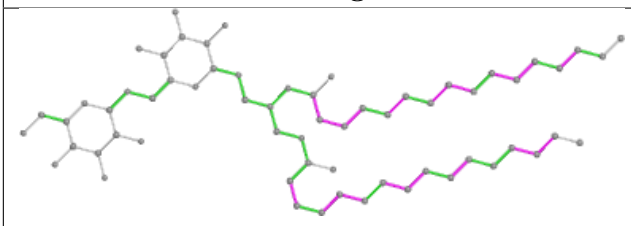
Ligand DGD H 102



Bond lengths



Bond angles



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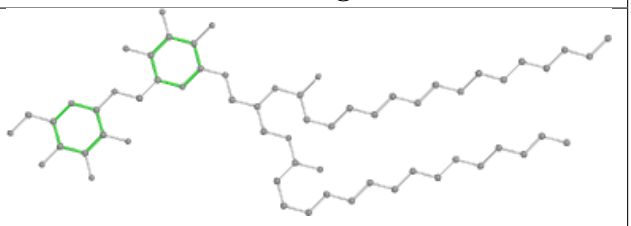
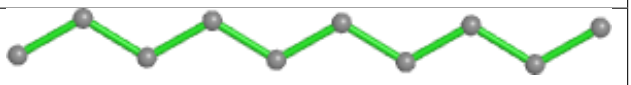


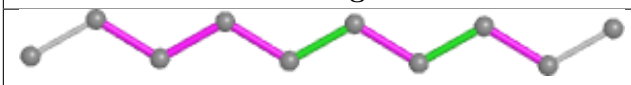
Rings

Ligand STE b 626

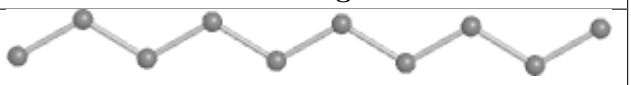
Bond lengths



Bond angles

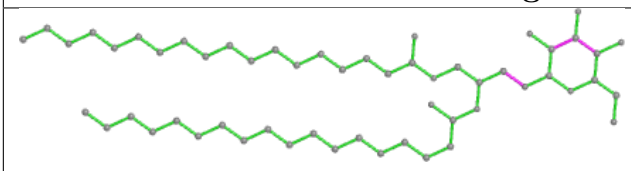


Torsions

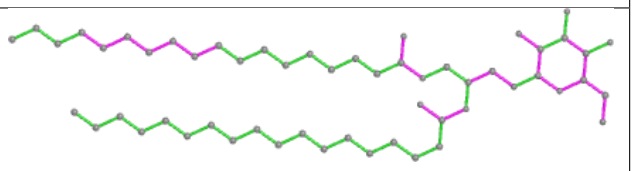


Rings

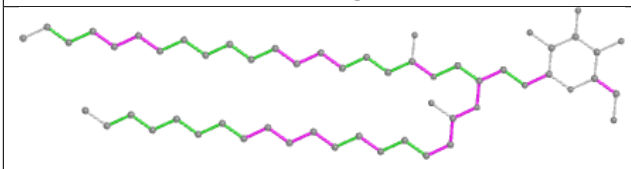
Ligand LMG b 624



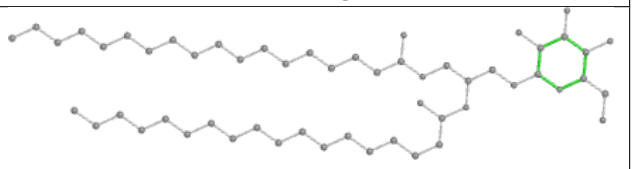
Bond lengths



Bond angles

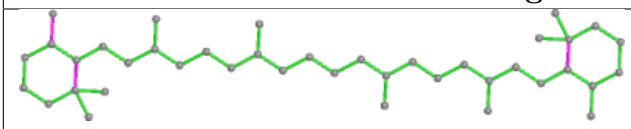


Torsions

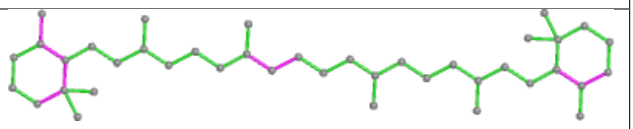


Rings

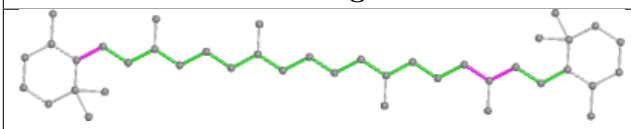
Ligand BCR b 617



Bond lengths



Bond angles



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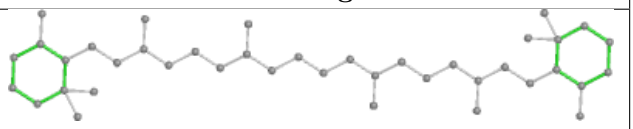
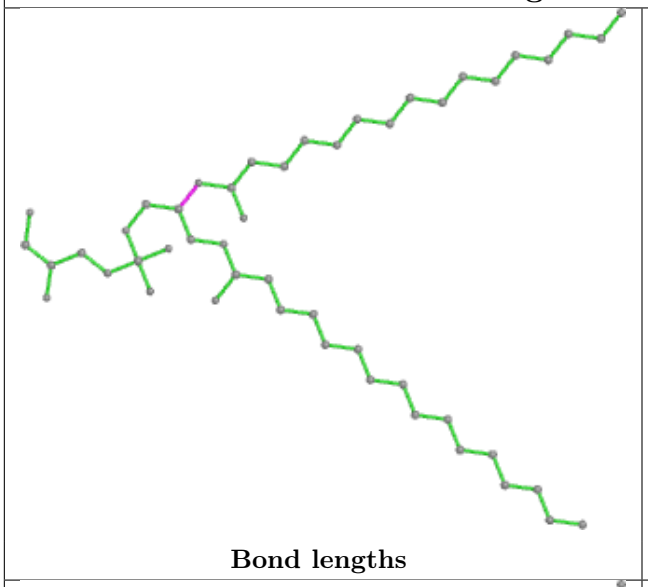
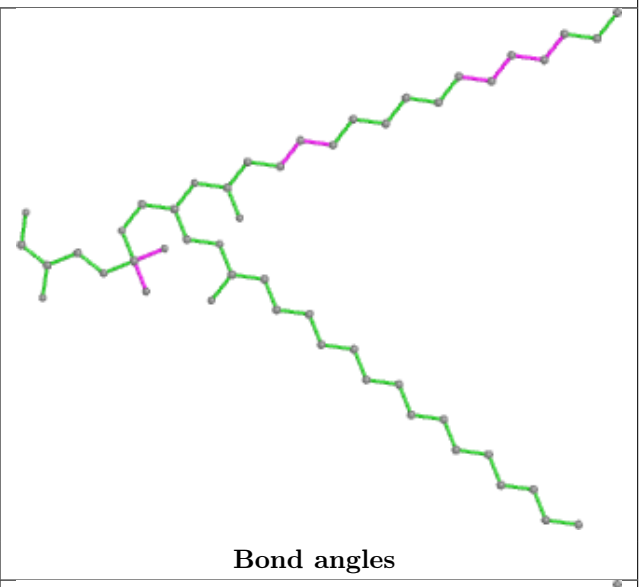


Rings

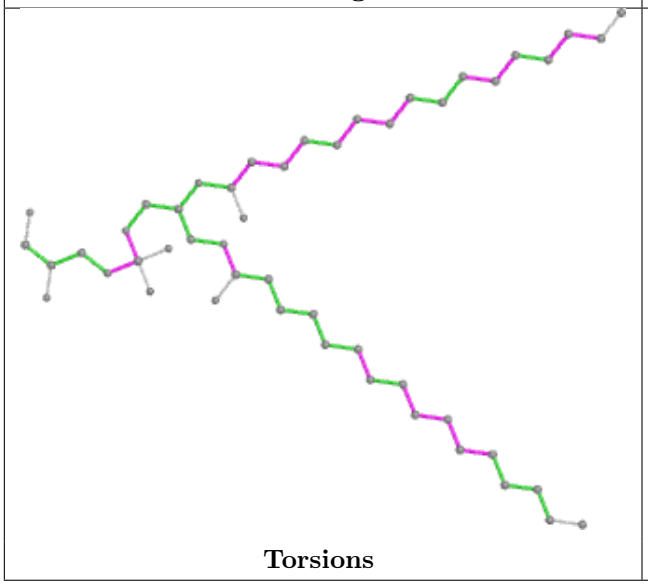
Ligand LHG L 101



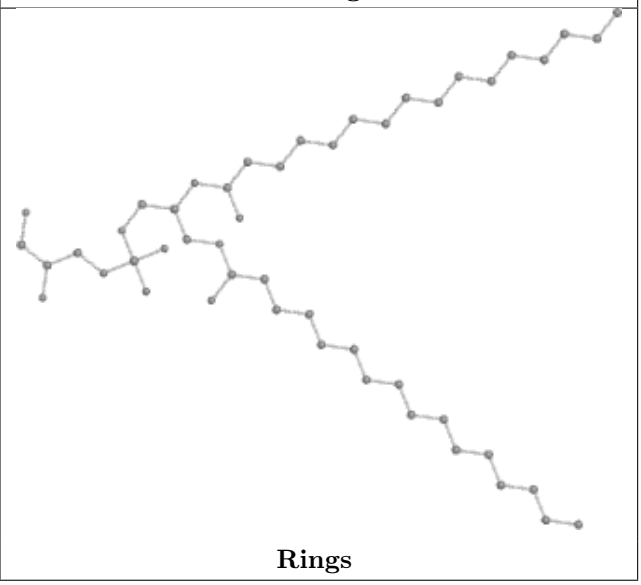
Bond lengths



Bond angles

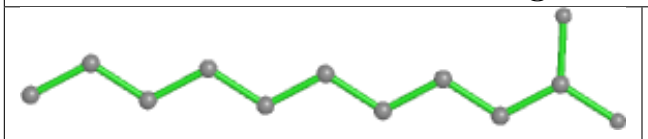


Torsions

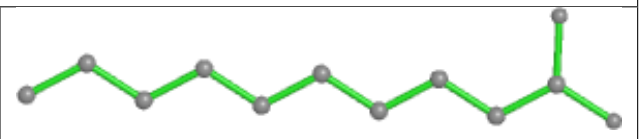


Rings

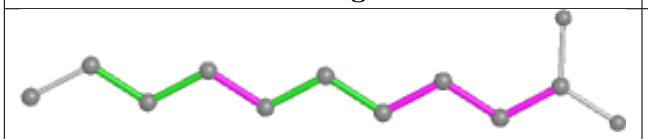
Ligand STE B 624



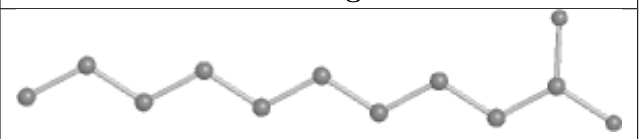
Bond lengths



Bond angles

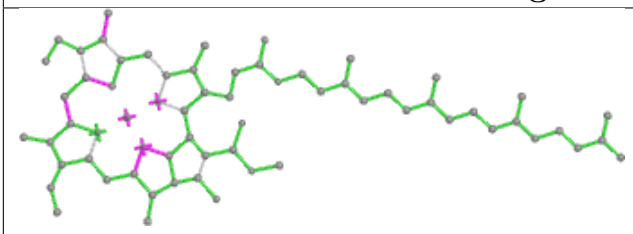


Torsions

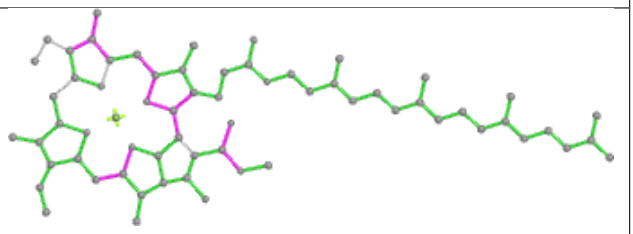


Rings

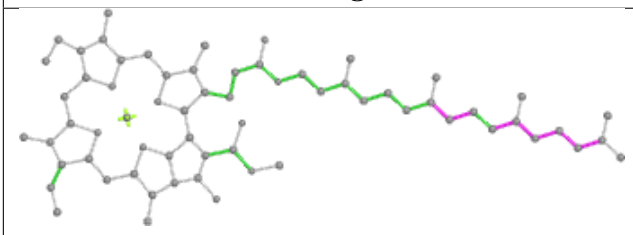
Ligand CLA c 511



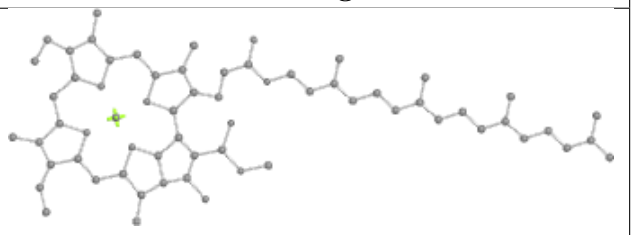
Bond lengths



Bond angles

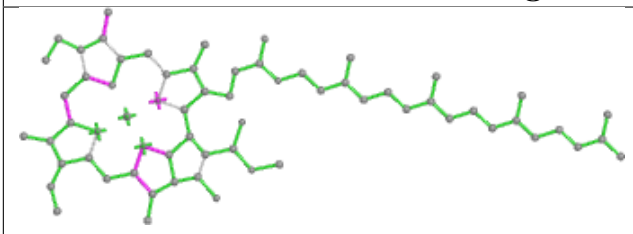


Torsions

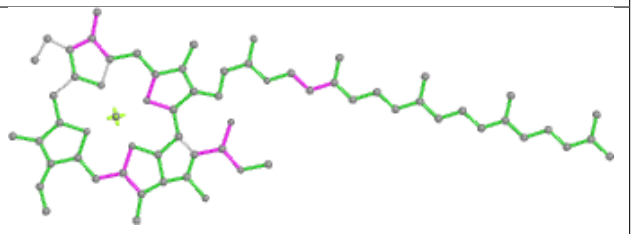


Rings

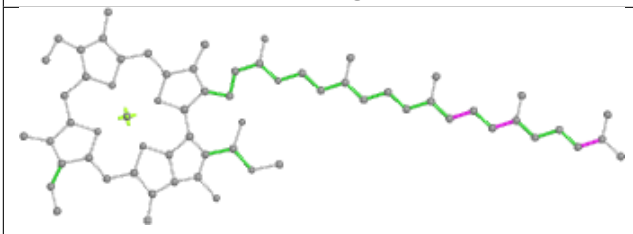
Ligand CLA B 611



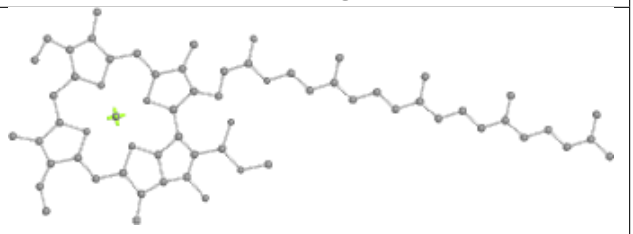
Bond lengths



Bond angles

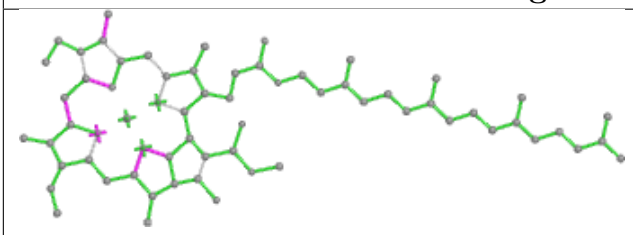


Torsions

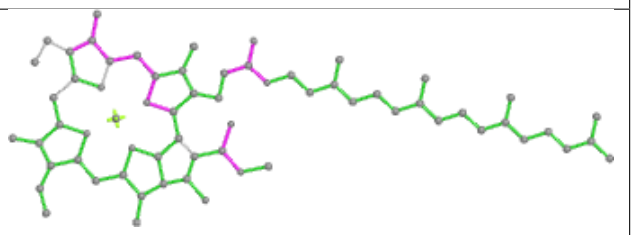


Rings

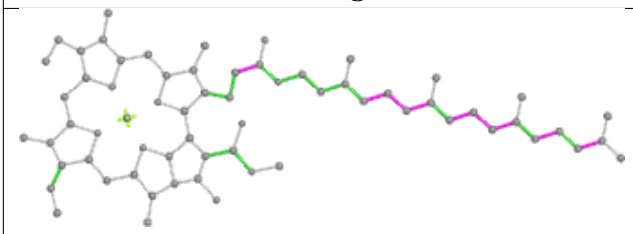
Ligand CLA c 509



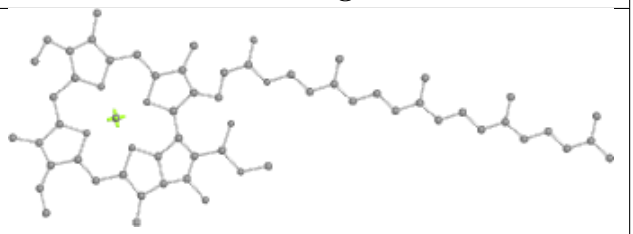
Bond lengths



Bond angles

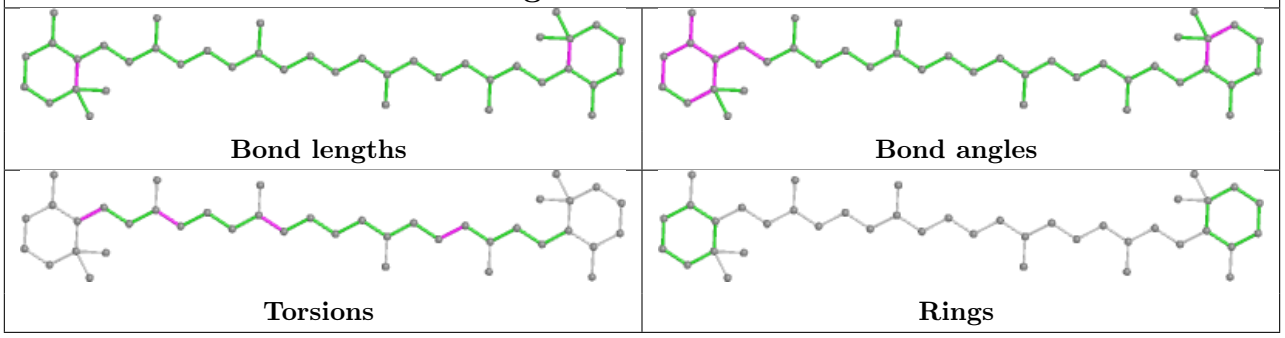


Torsions

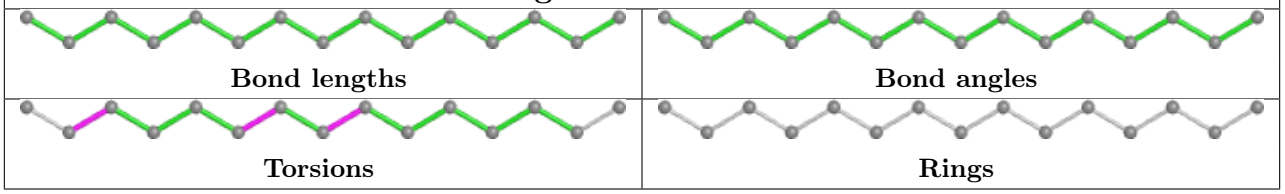


Rings

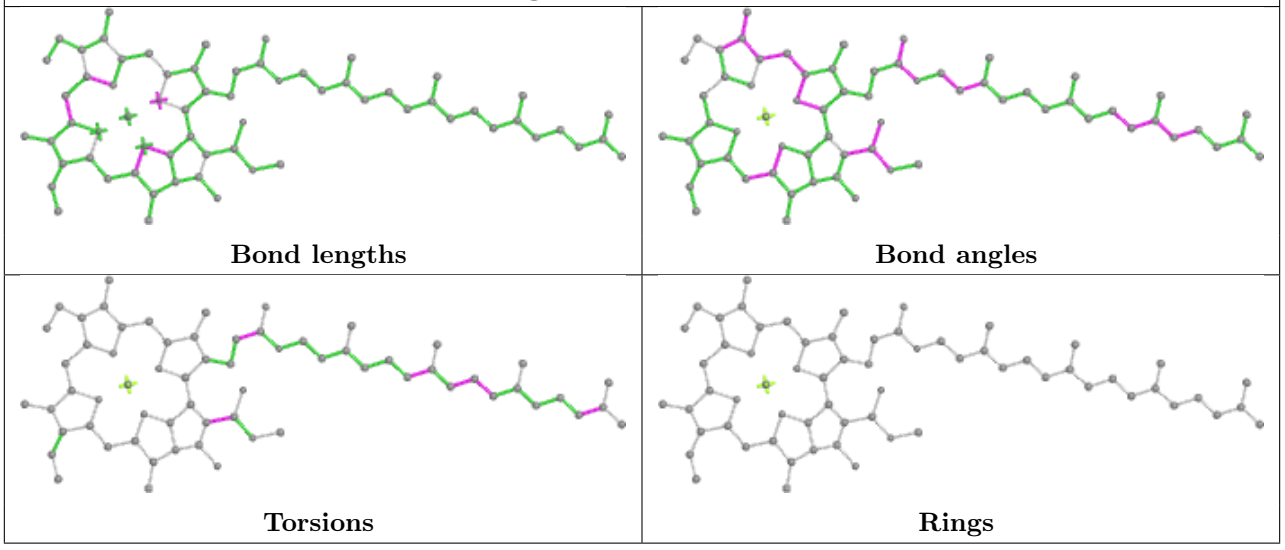
Ligand BCR B 617



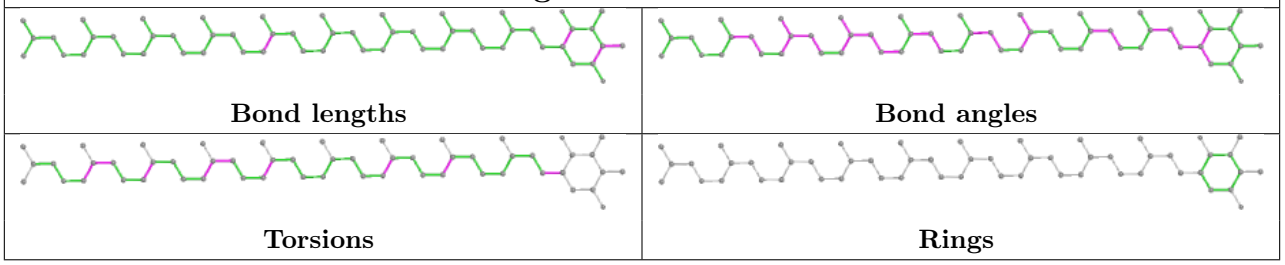
Ligand STE I 101



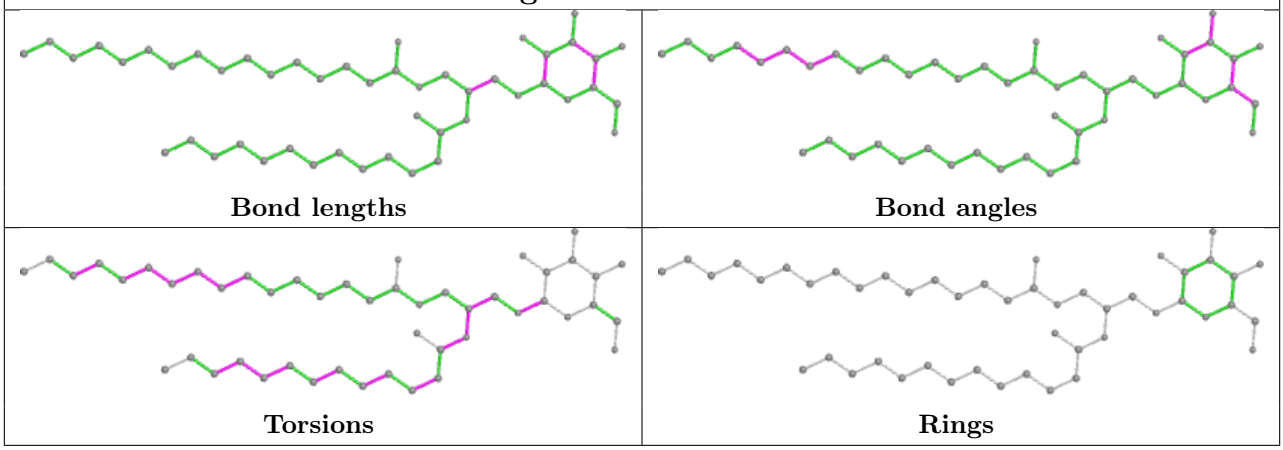
Ligand CLA B 612



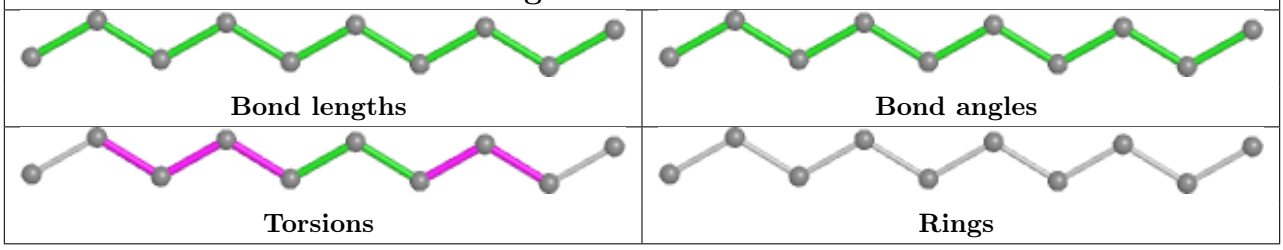
Ligand PL9 d 406



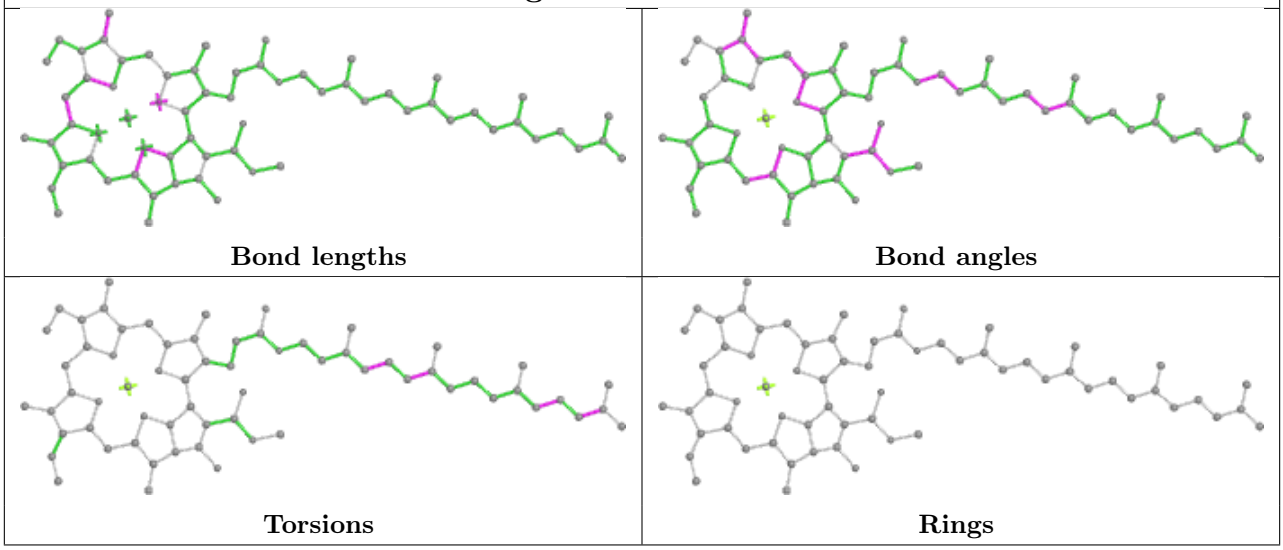
Ligand LMG A 612



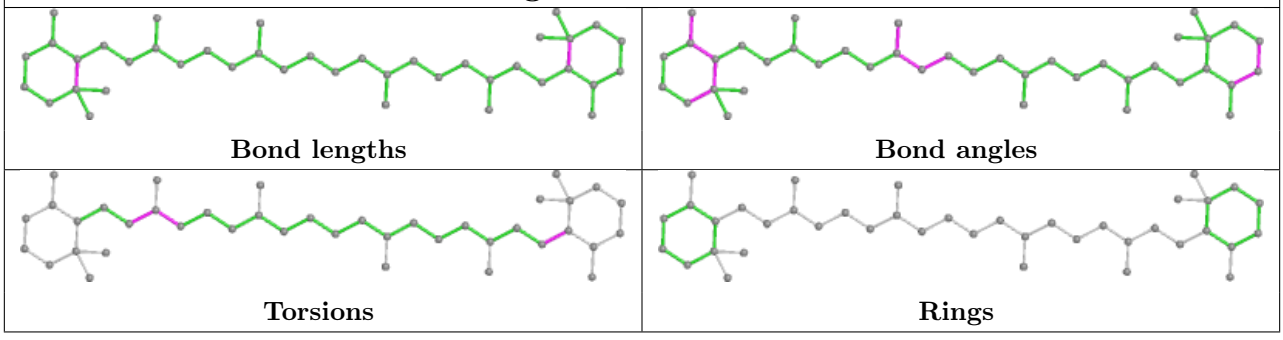
Ligand STE M 103



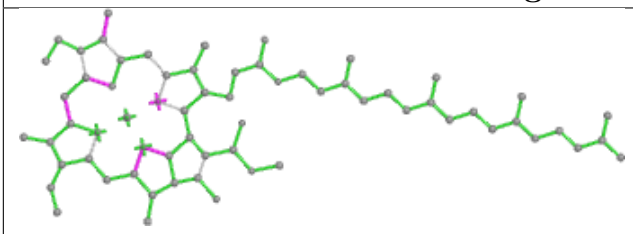
Ligand CLA B 608



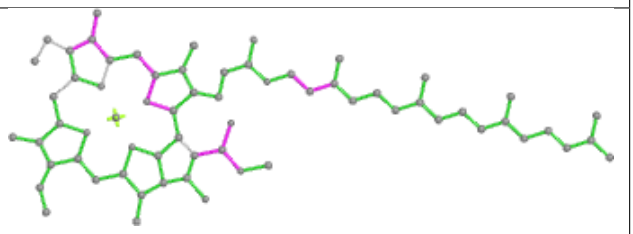
Ligand BCR B 618



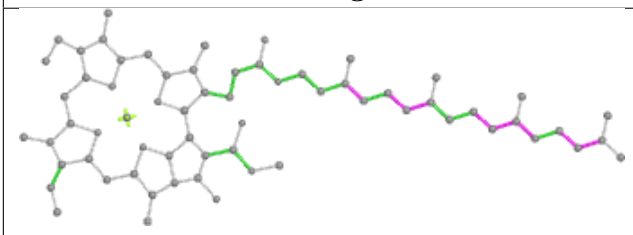
Ligand CLA C 505



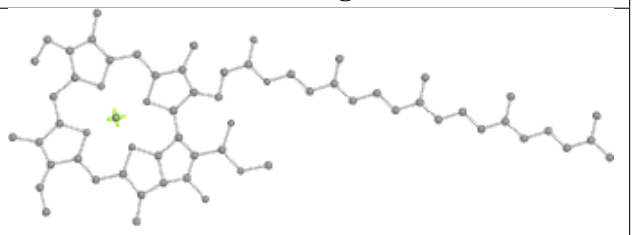
Bond lengths



Bond angles

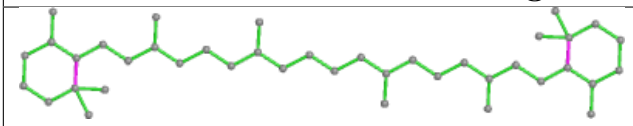


Torsions

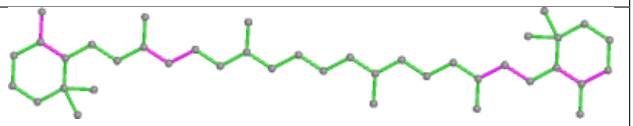


Rings

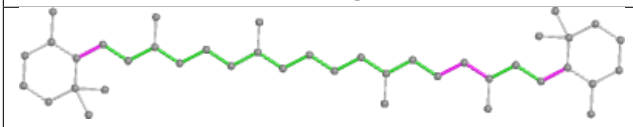
Ligand BCR k 103



Bond lengths



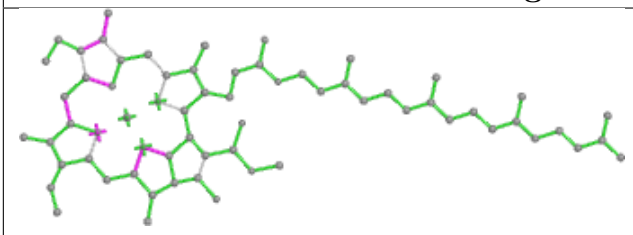
Bond angles



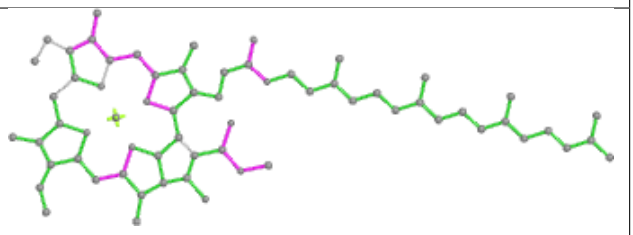
Torsions

Rings

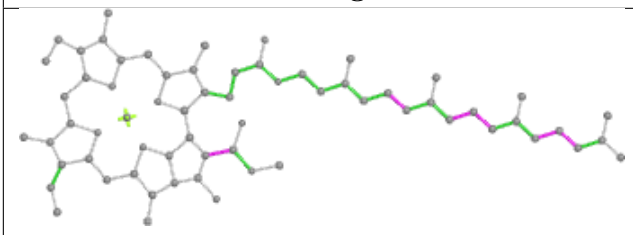
Ligand CLA B 607



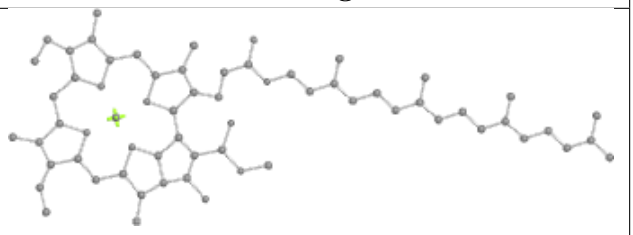
Bond lengths



Bond angles

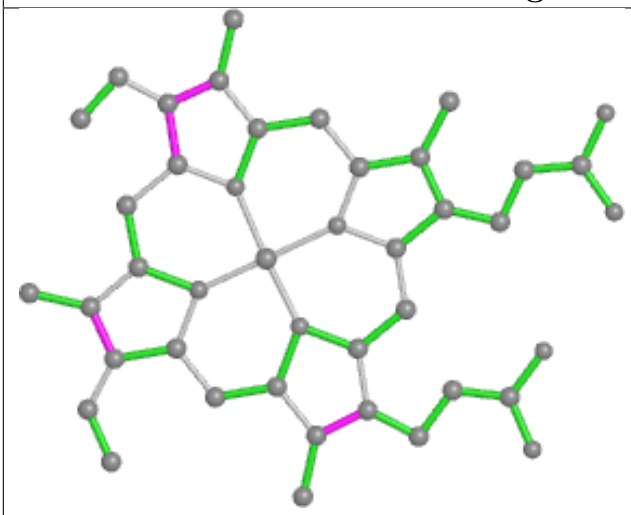


Torsions

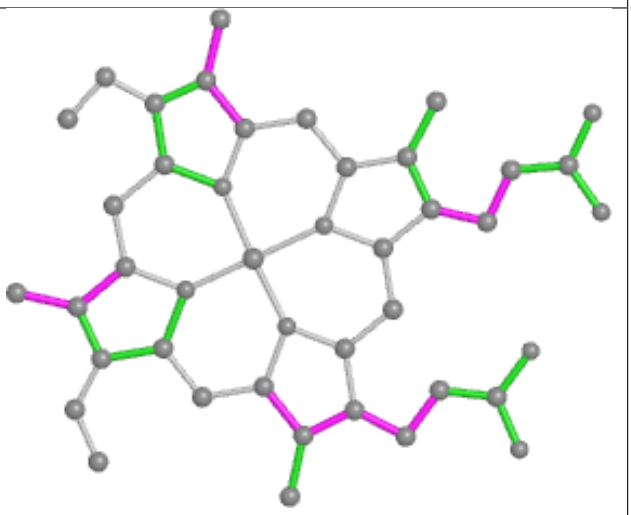


Rings

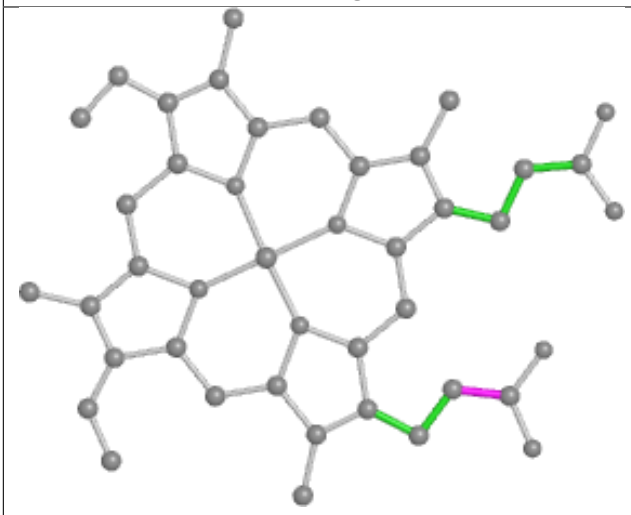
Ligand HEC v 201



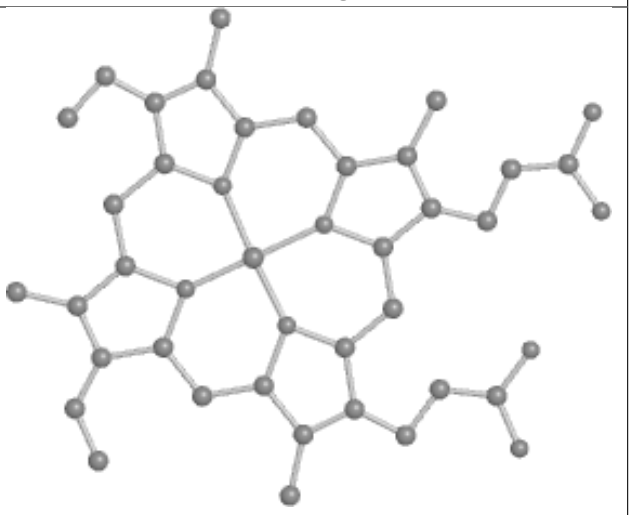
Bond lengths



Bond angles

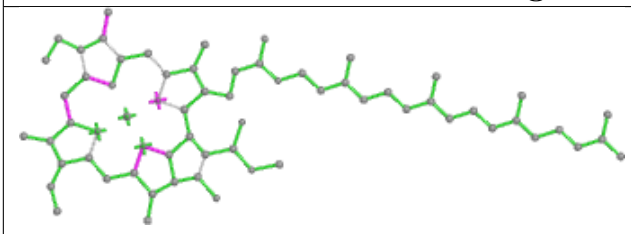


Torsions

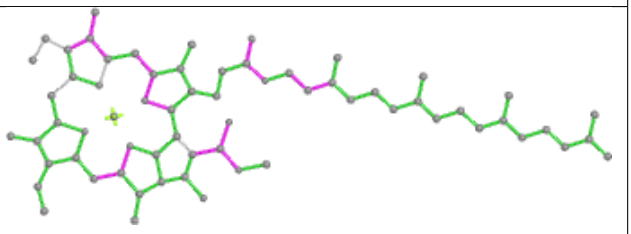


Rings

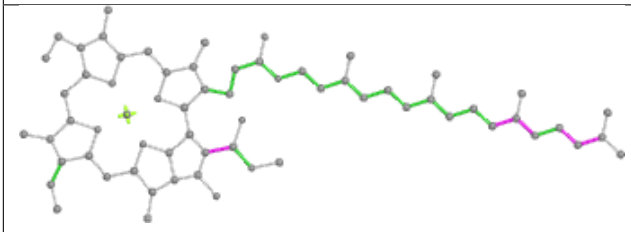
Ligand CLA b 604



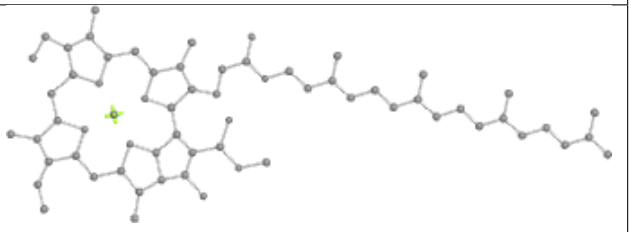
Bond lengths



Bond angles

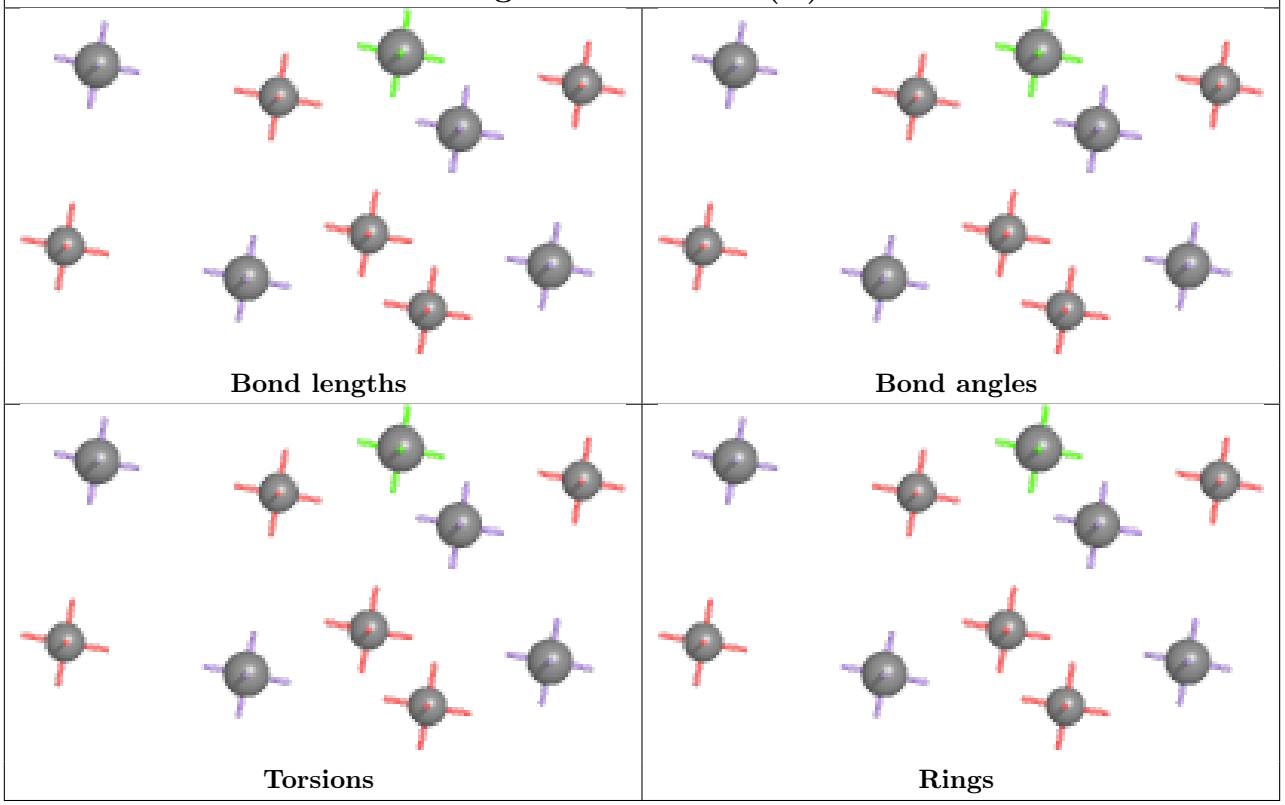


Torsions

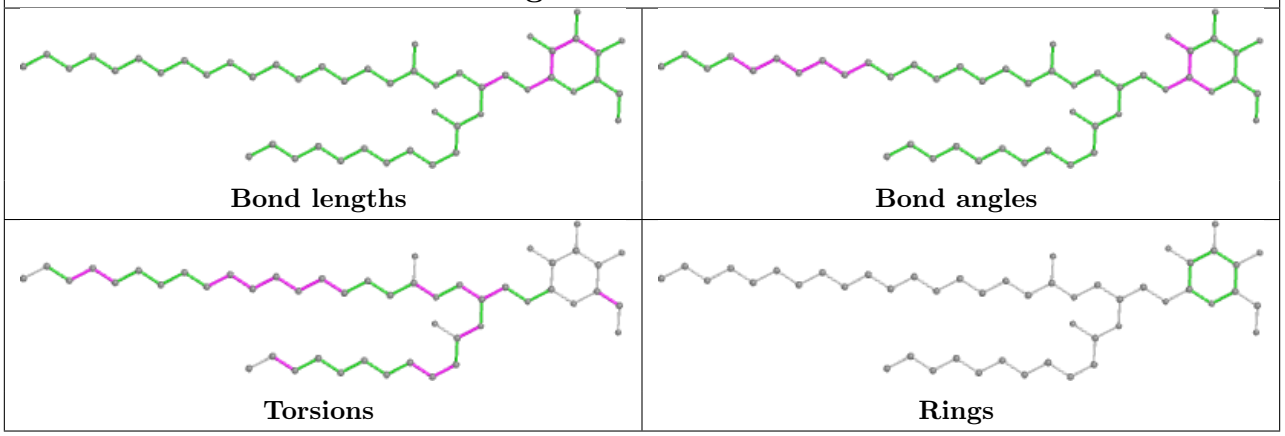


Rings

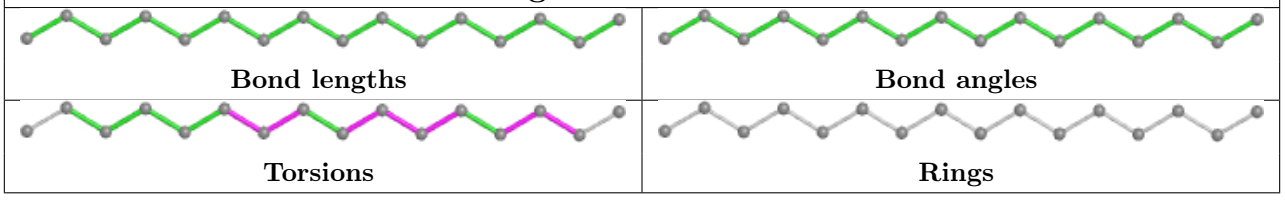
Ligand OEX a 602 (A)



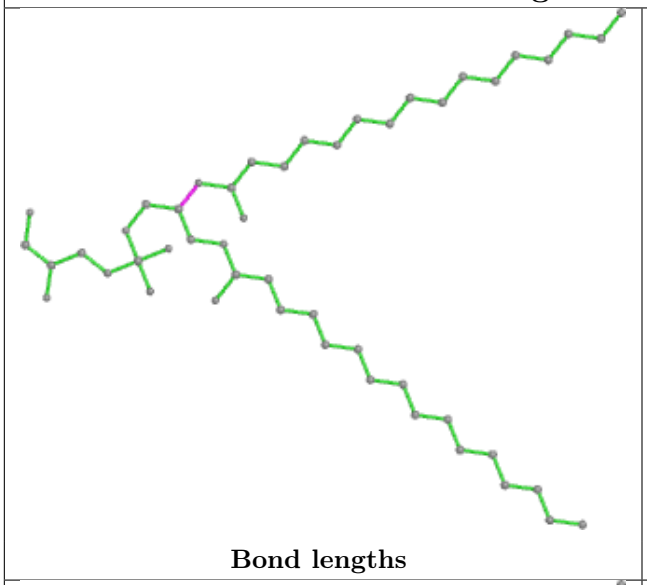
Ligand LMG c 520



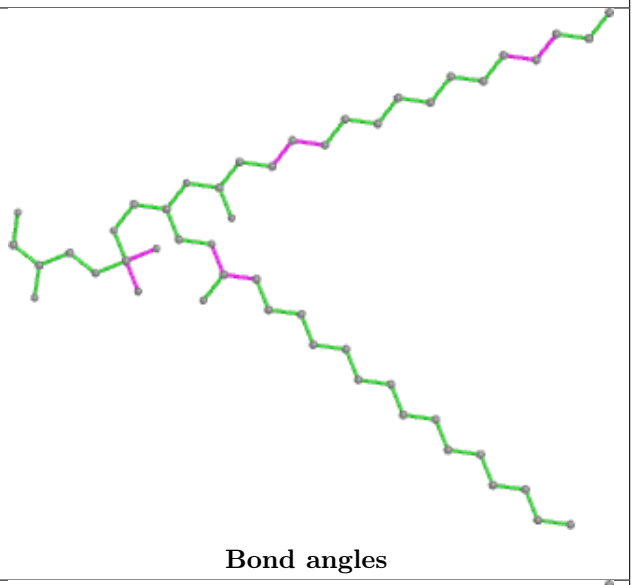
Ligand STE B 627



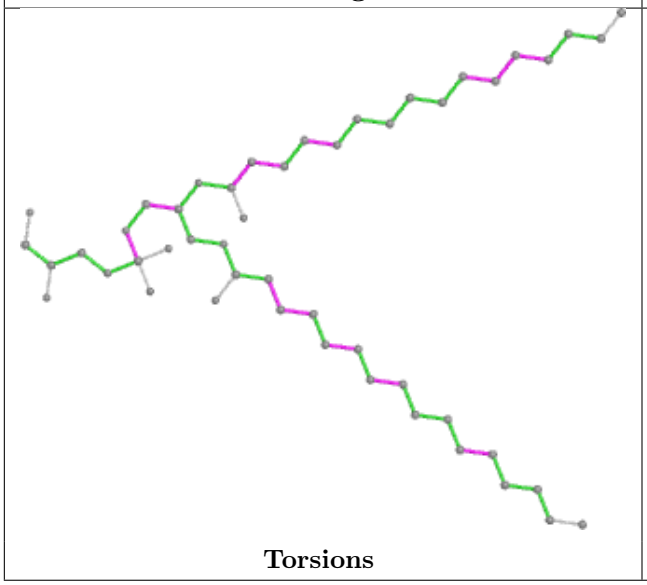
Ligand LHG l 101



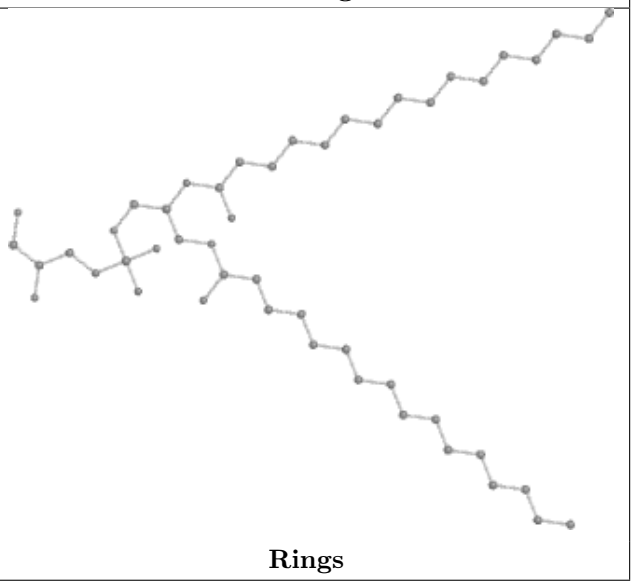
Bond lengths



Bond angles

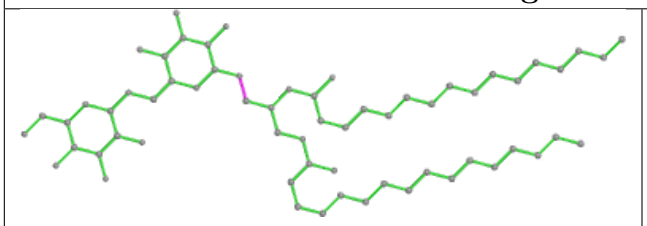


Torsions

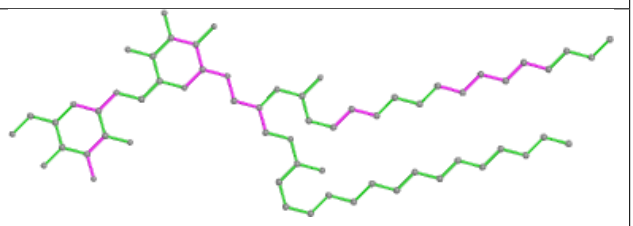


Rings

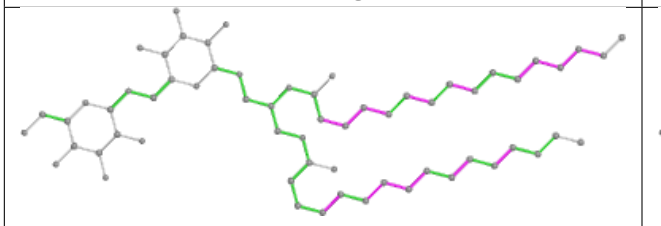
Ligand DGD C 517



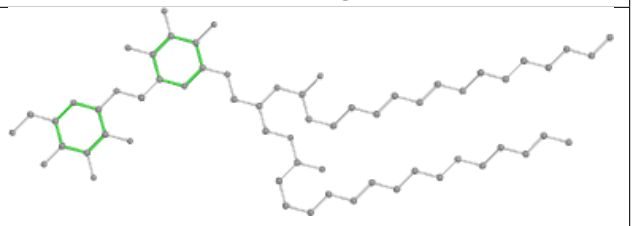
Bond lengths



Bond angles

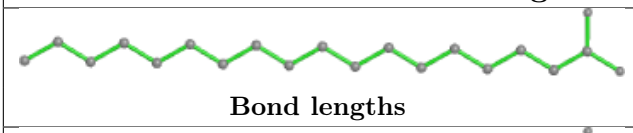


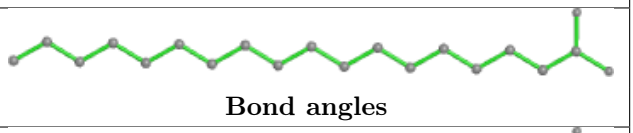
Torsions

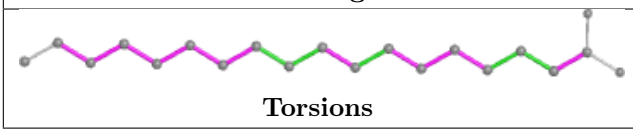


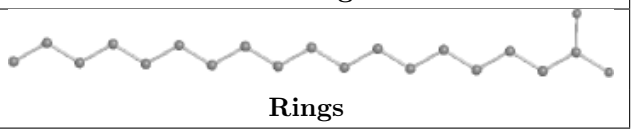
Rings

Ligand STE b 623

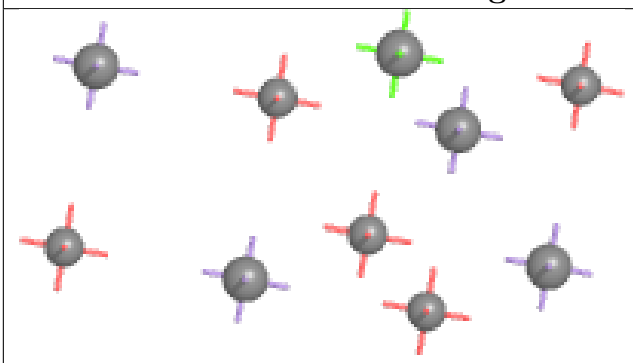

Bond lengths

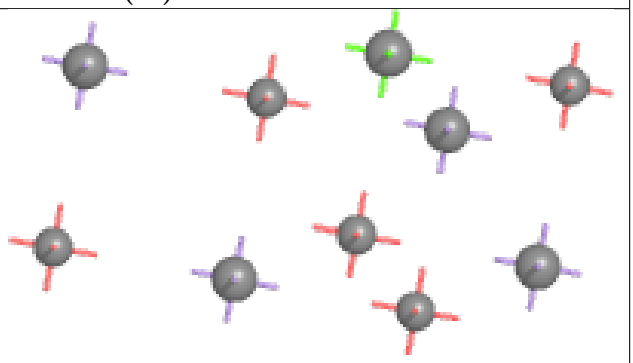

Bond angles

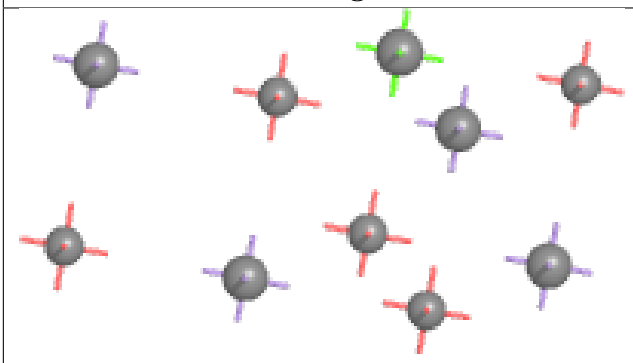

Torsions

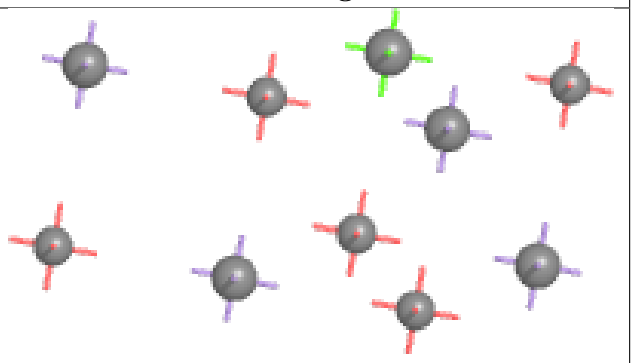

Rings

Ligand OEX A 602 (A)

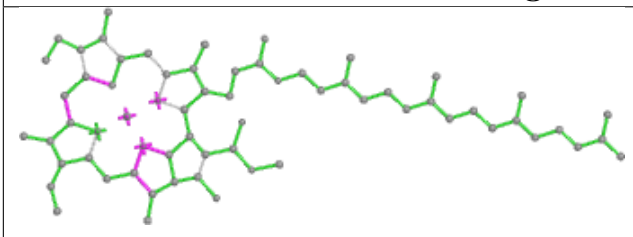

Bond lengths

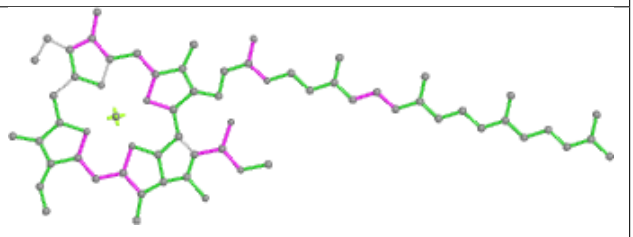

Bond angles

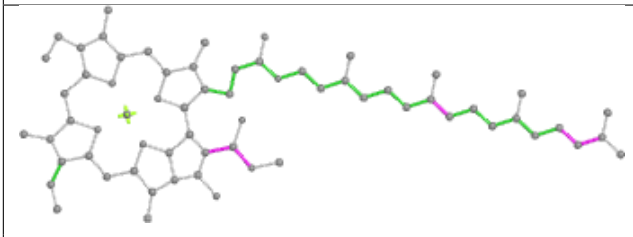

Torsions

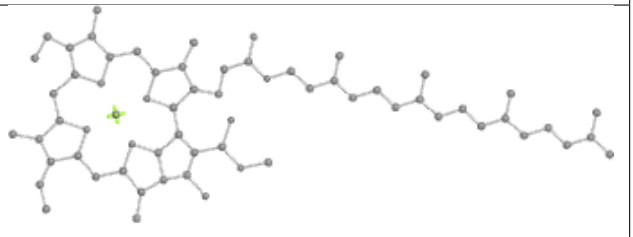

Rings

Ligand CLA C 508

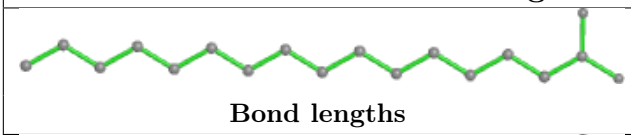

Bond lengths

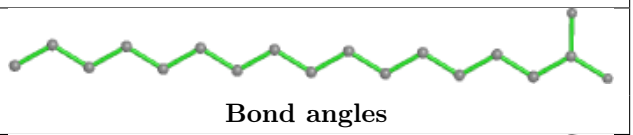

Bond angles

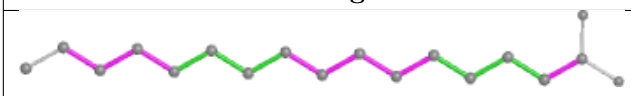

Torsions


Rings

Ligand STE B 625

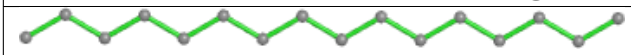

Bond lengths


Bond angles


Torsions


Rings

Ligand STE C 521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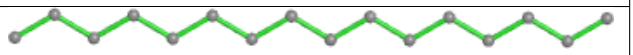
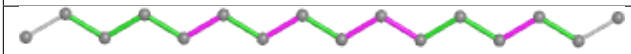
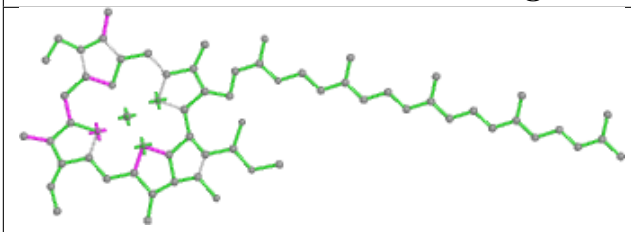

Bond angles


Torsions


Rings

Ligand CLA C 513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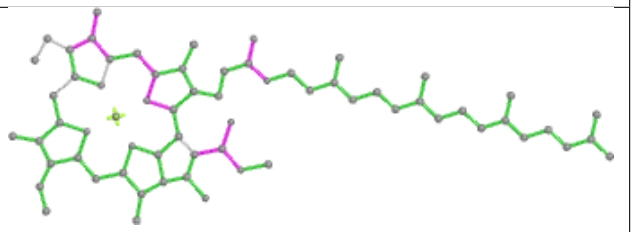
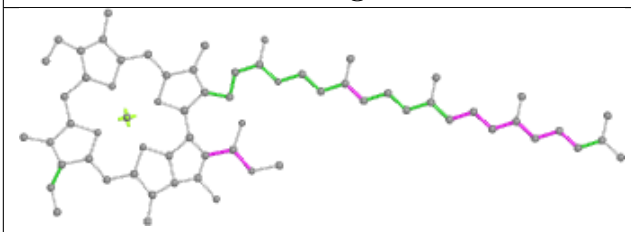
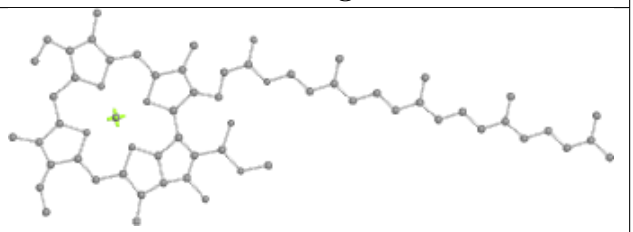
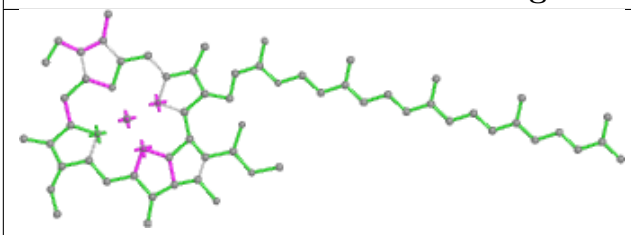

Bond angles


Torsions


Rings

Ligand CLA c 507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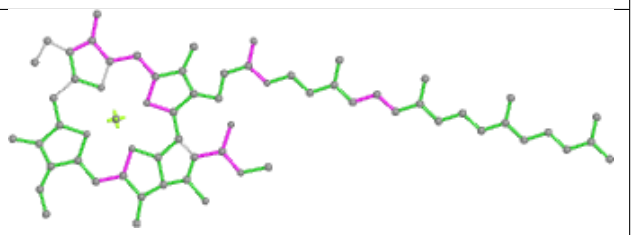
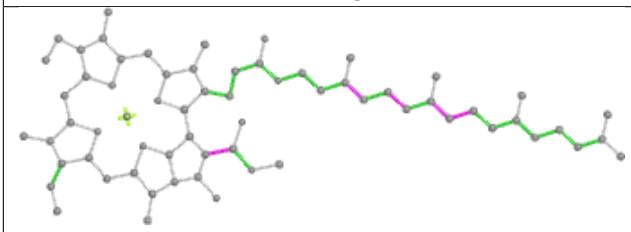
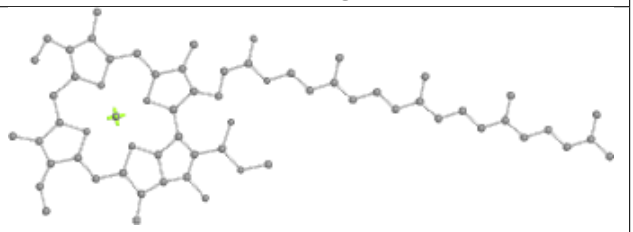
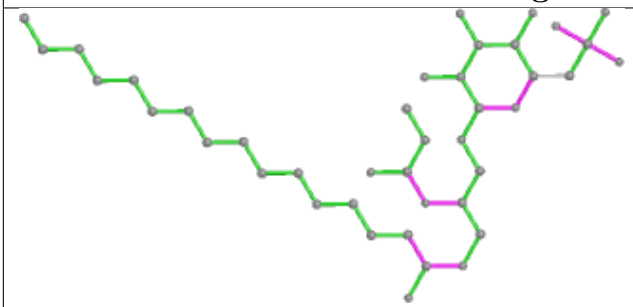

Bond angles


Torsions


Rings

Ligand SQD f 102



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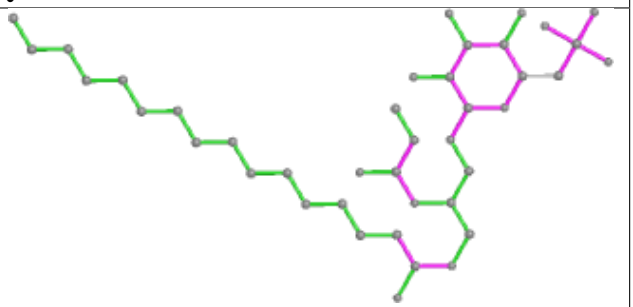
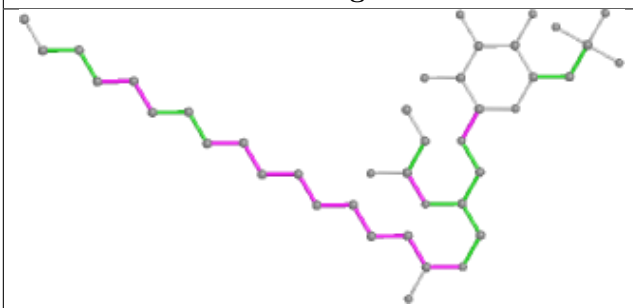
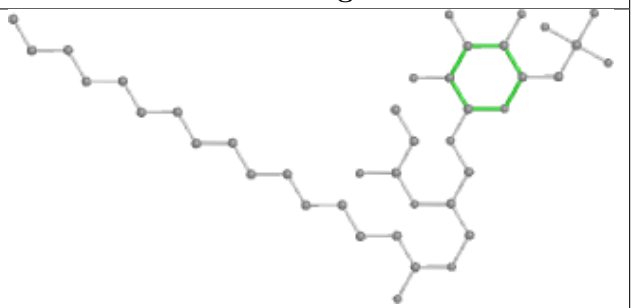


Bond angles

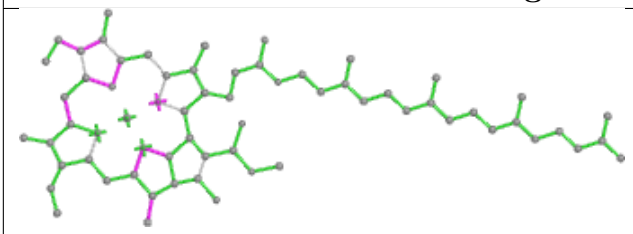


Torsions



Rings

Ligand CLA B 606



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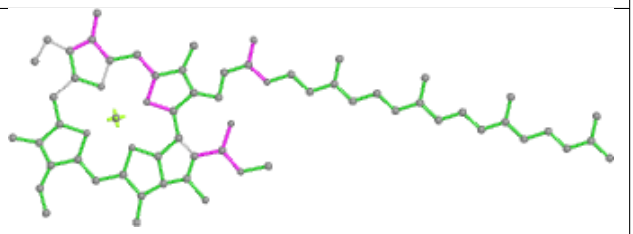
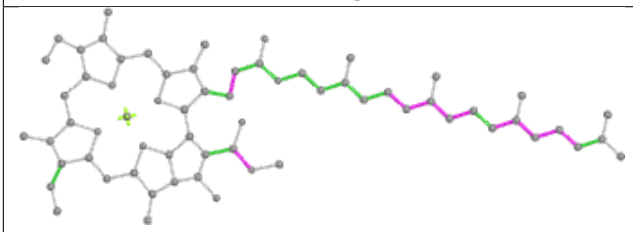


Bond angles



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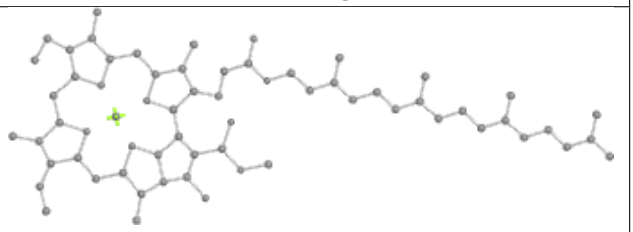
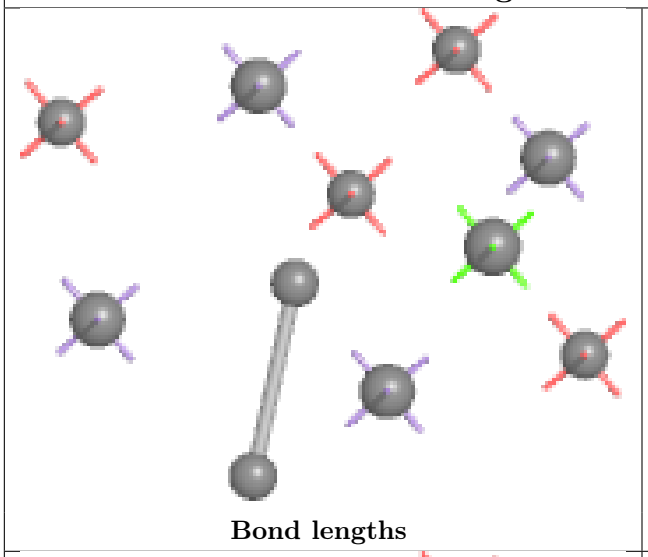


Rings

Ligand OEY a 601 (B)



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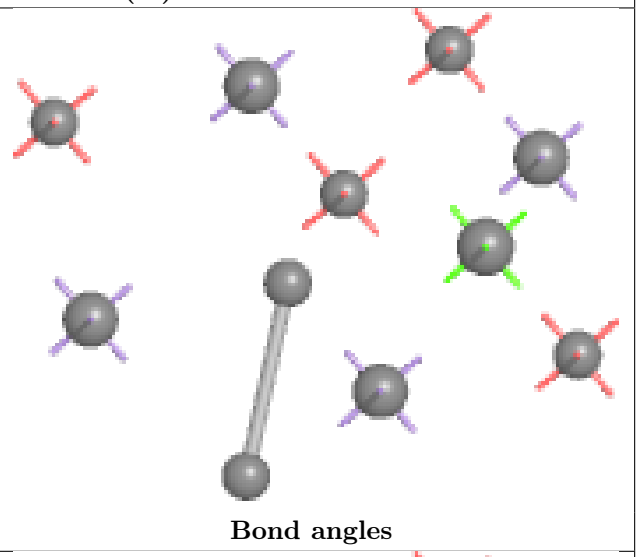
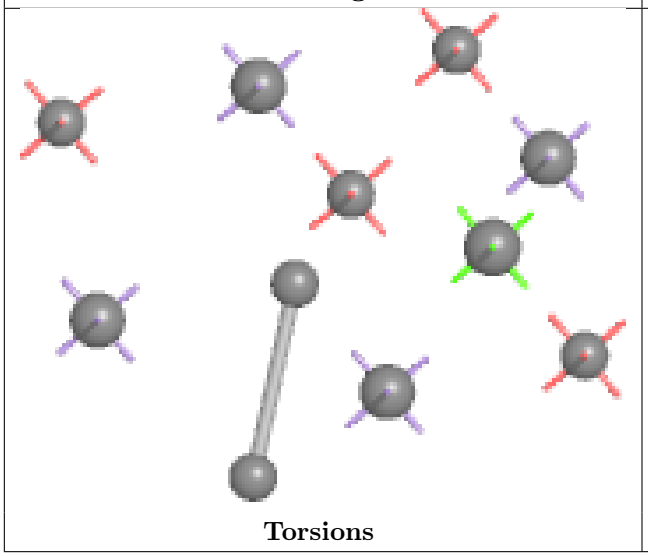


Bond angles



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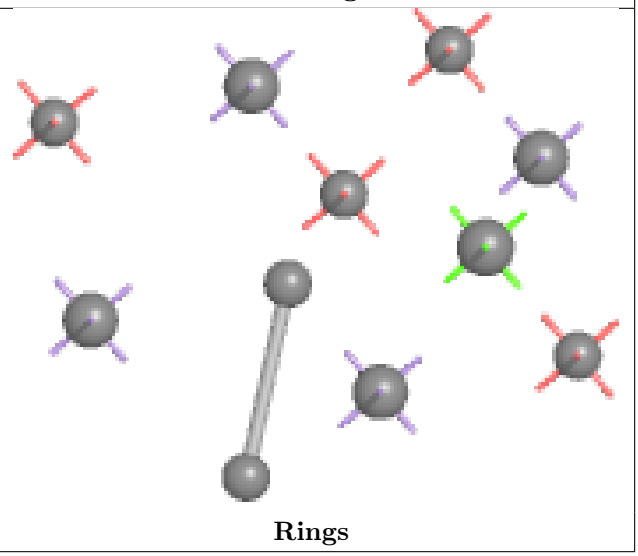
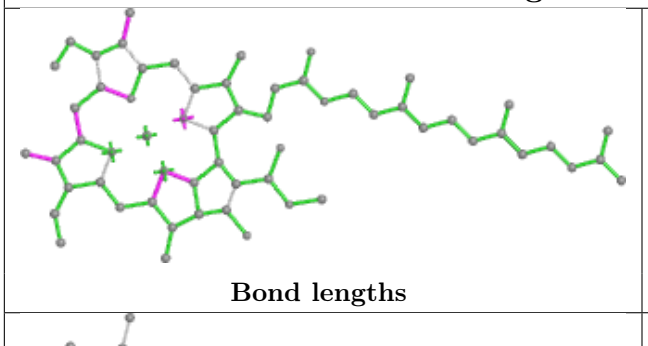


Rings

Ligand CLA B 616



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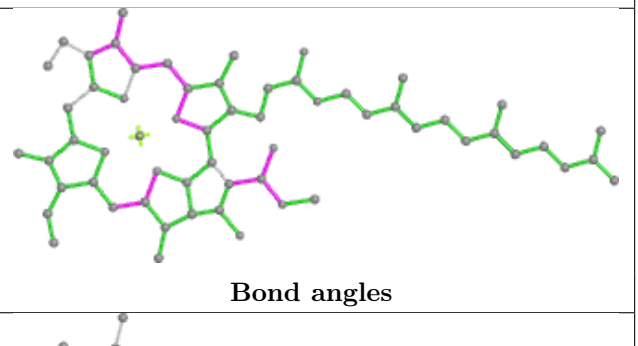
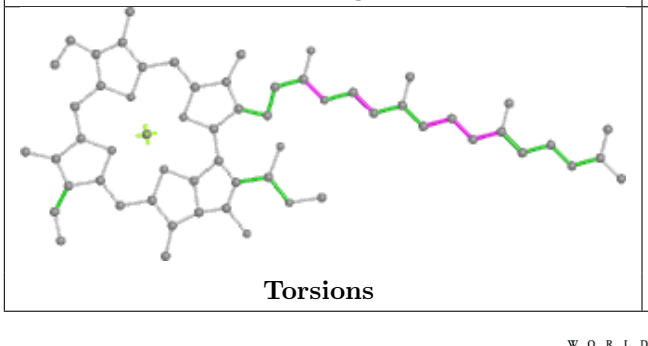


Bond angles



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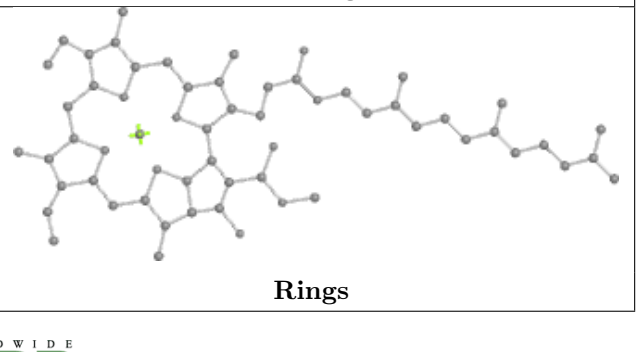
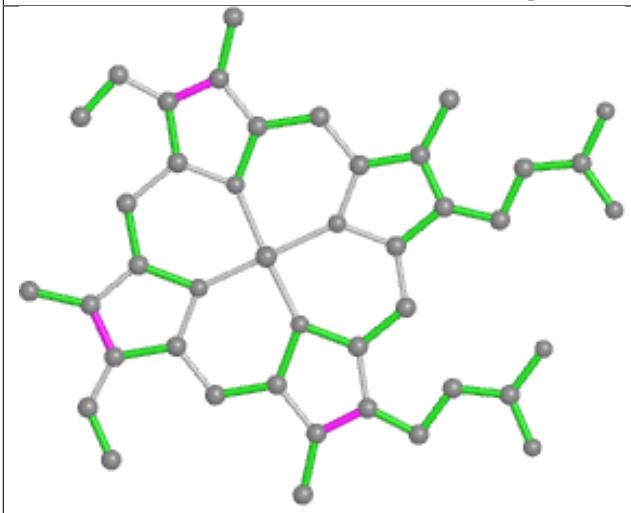


Rings

Ligand HEC V 201



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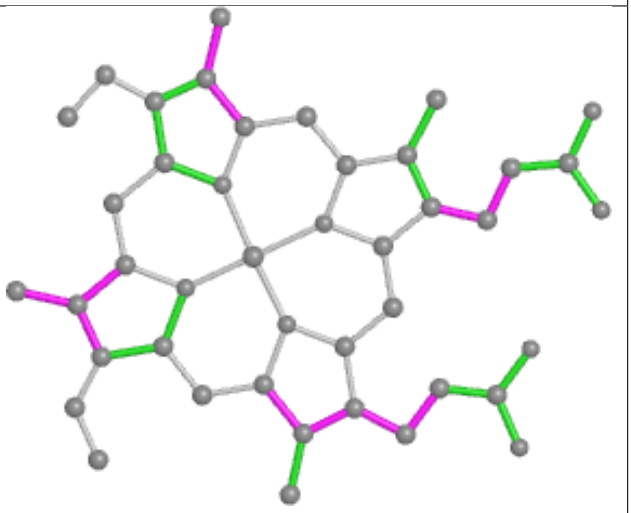
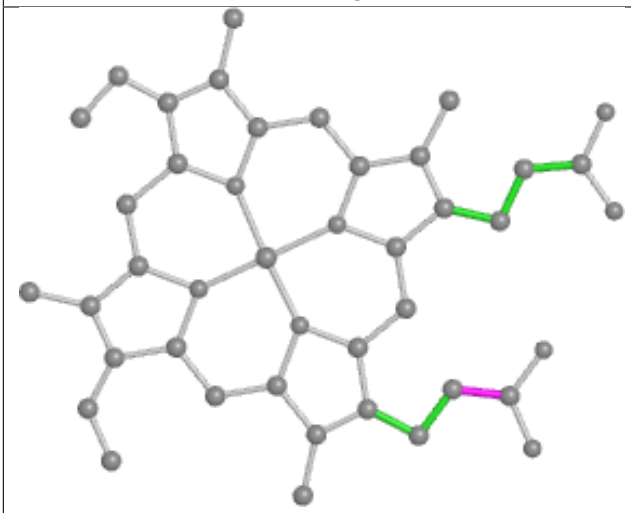


Bond angles



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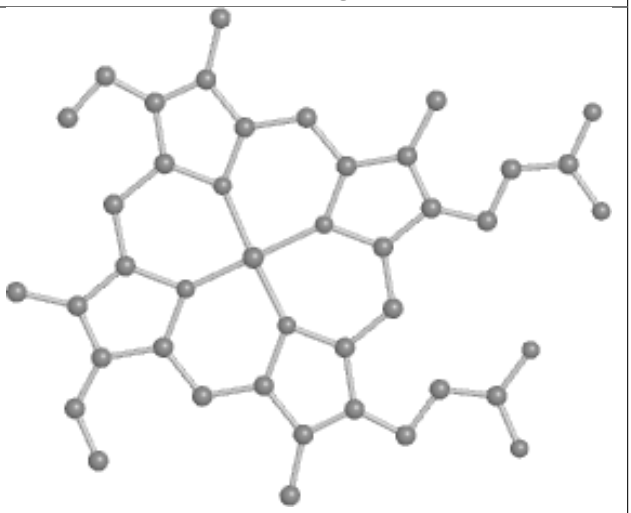
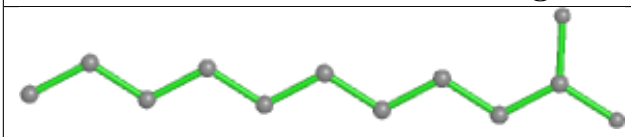


Rings

Ligand STE a 615



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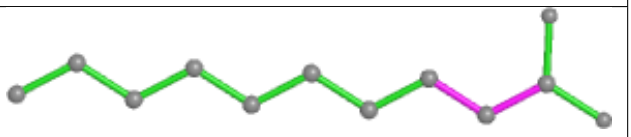
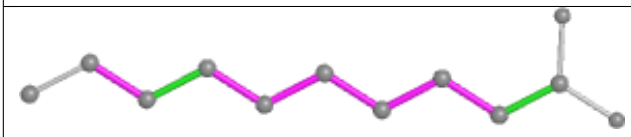


Bond angles



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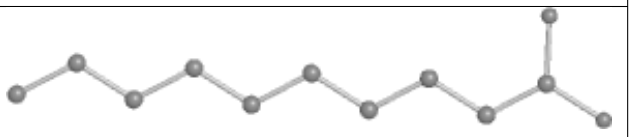
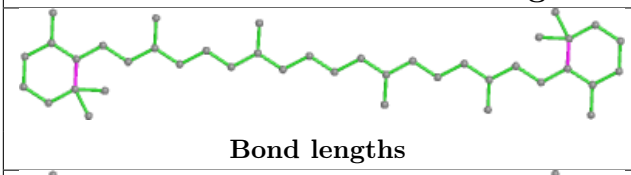


Rings

Ligand BCR t 101



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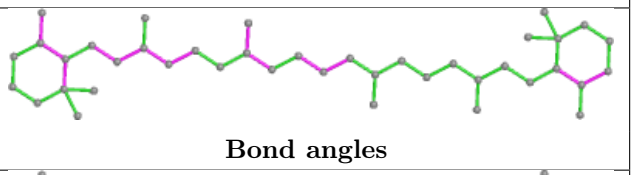
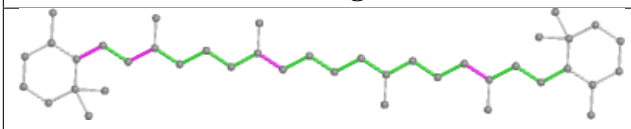
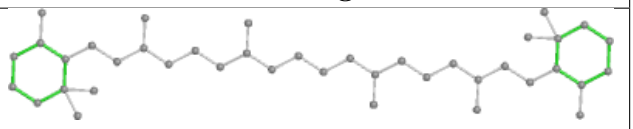


Bond angles

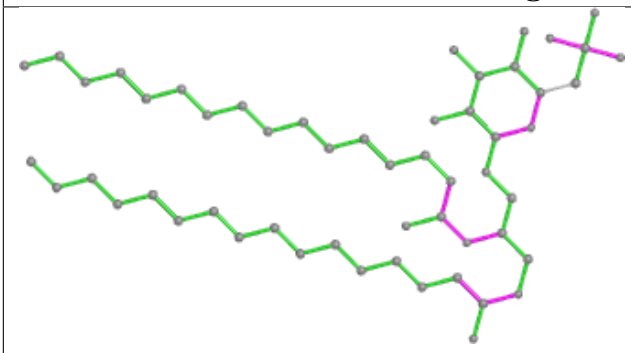


Torsions



Rings

Ligand SQD B 623



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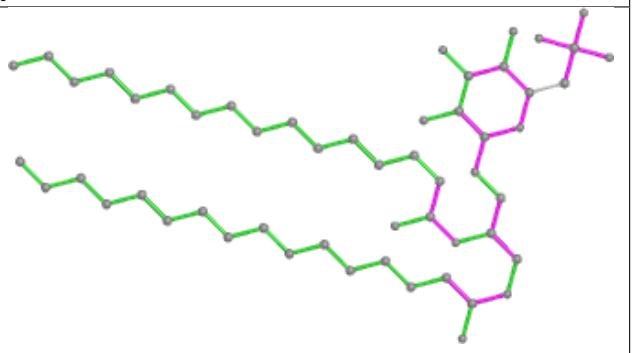
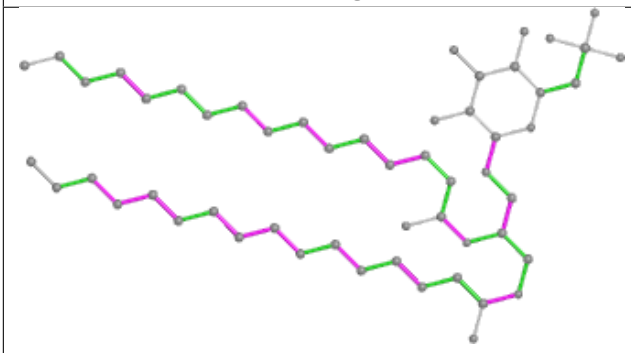


Bond angles



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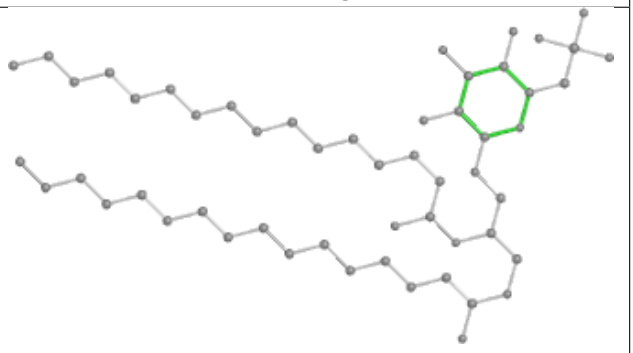
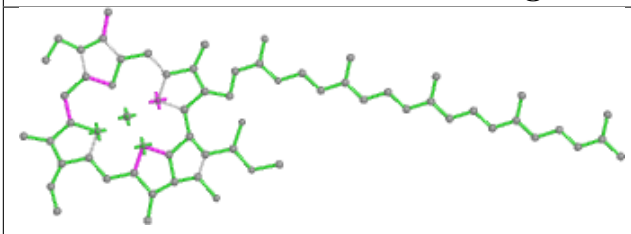
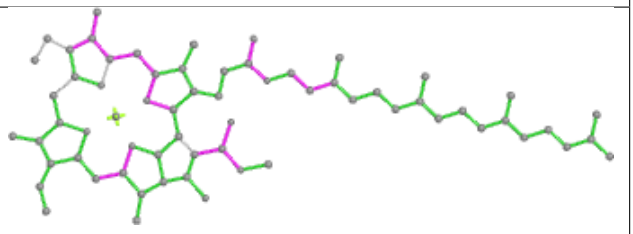


Rings

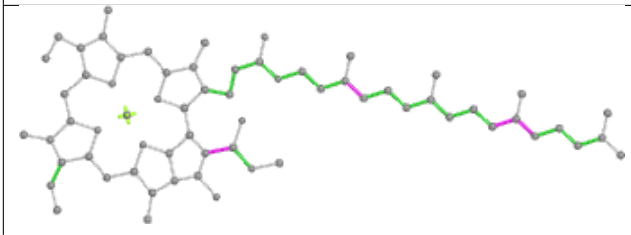
Ligand CLA B 614



Bond lengths



Bond angles



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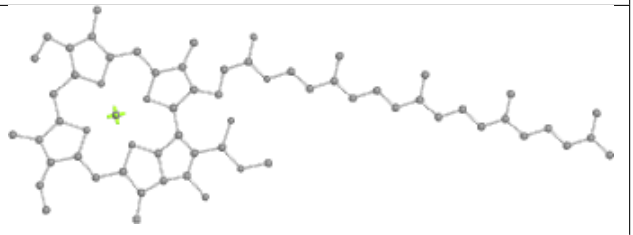
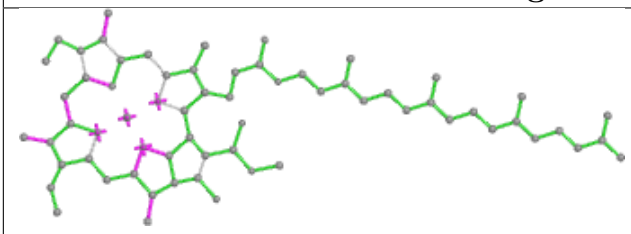
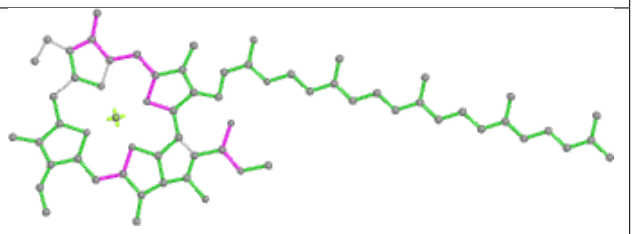


Rings

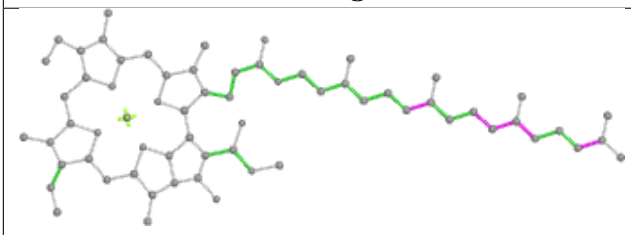
Ligand CLA d 404



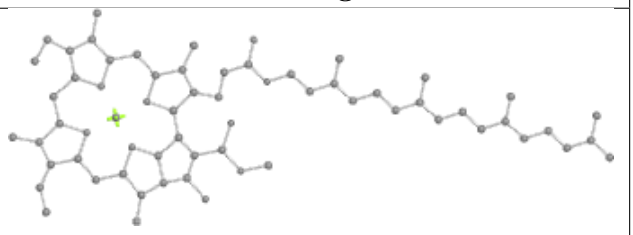
Bond lengths



Bond angles

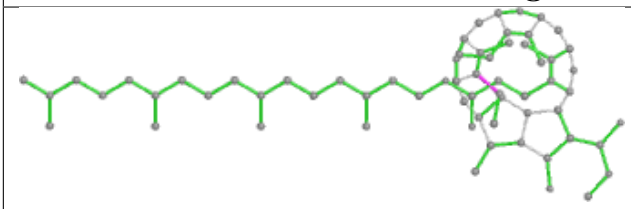


Torsions

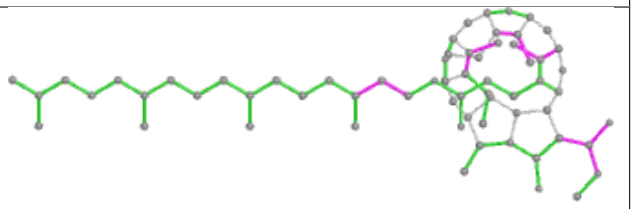


Rings

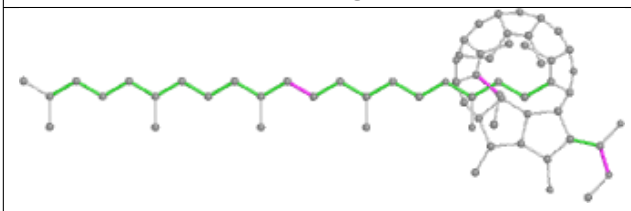
Ligand PHO d 402



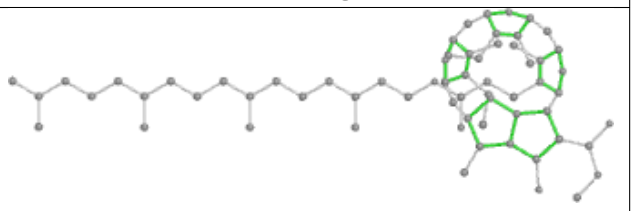
Bond lengths



Bond angles

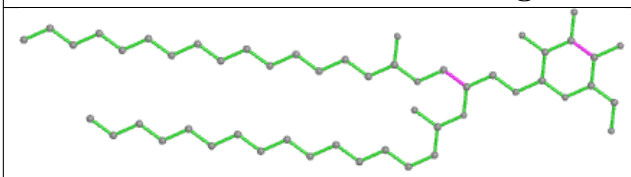


Torsions

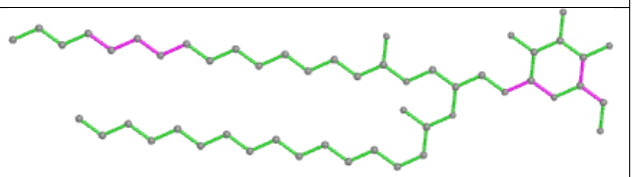


Rings

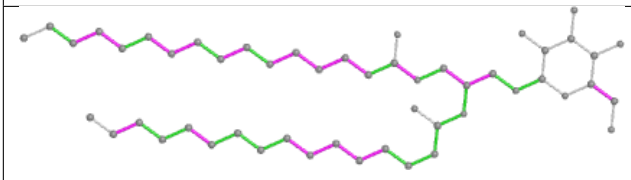
Ligand LMG M 101



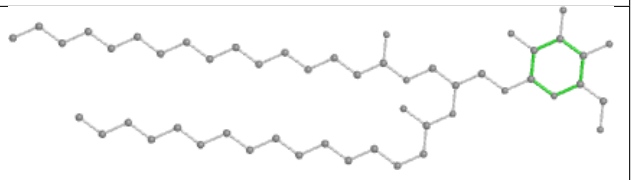
Bond lengths



Bond angles

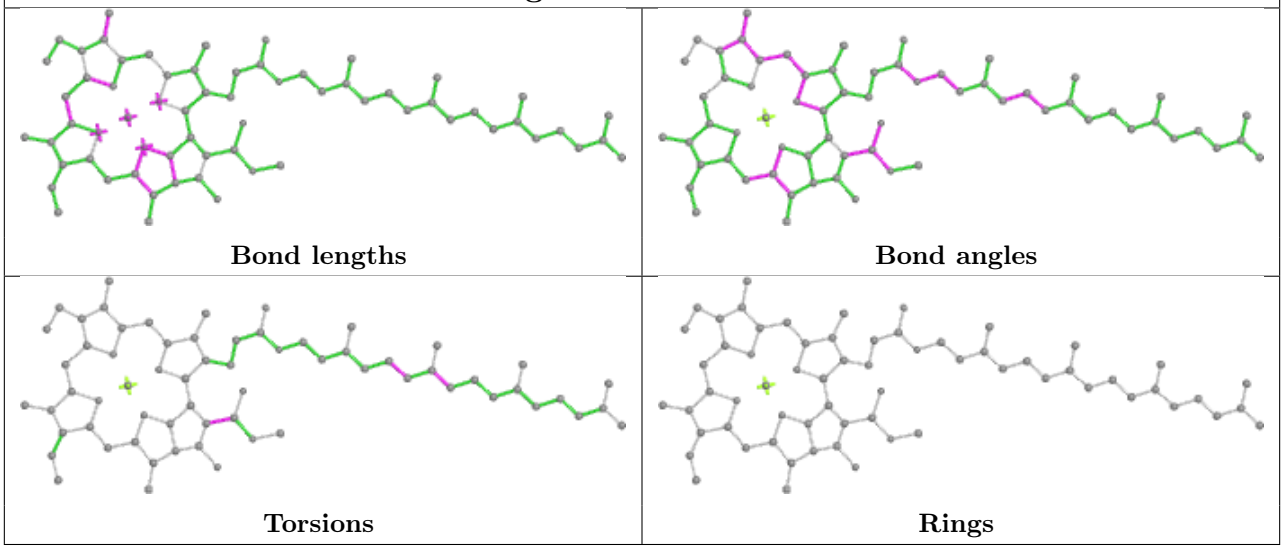


Torsions

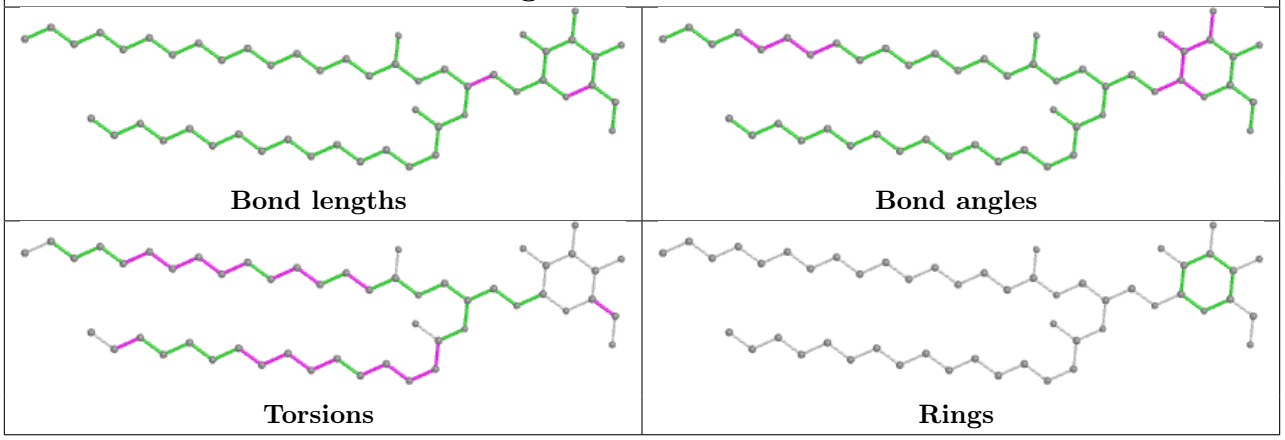


Rings

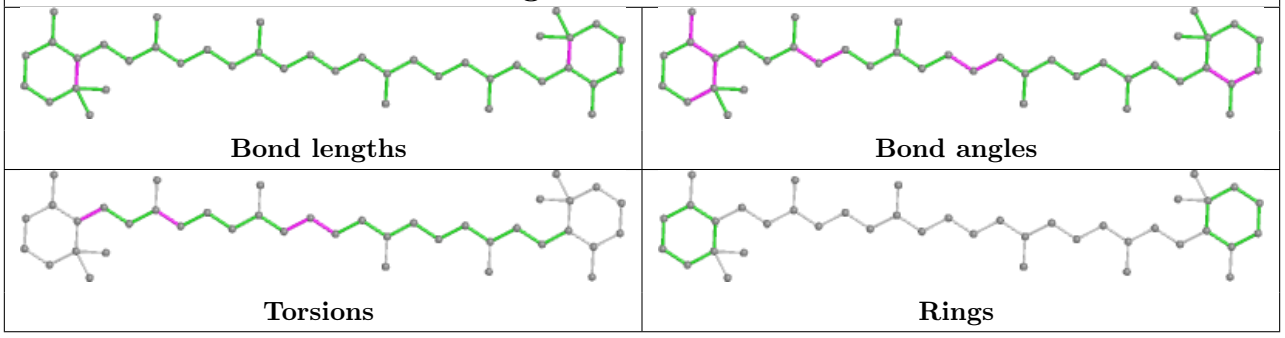
Ligand CLA C 503



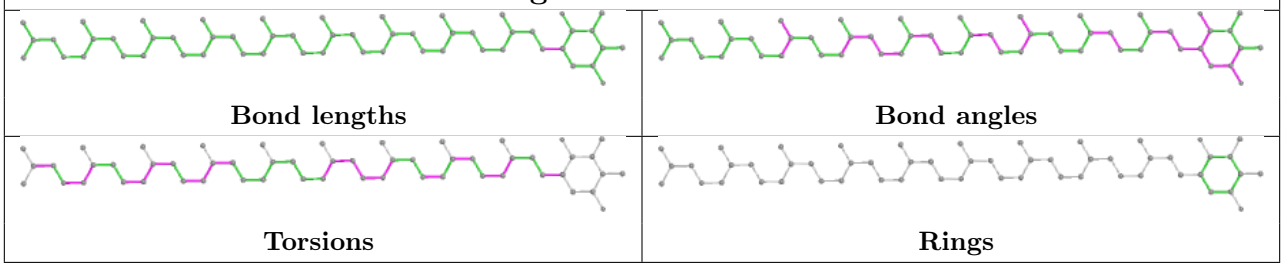
Ligand LMG D 408



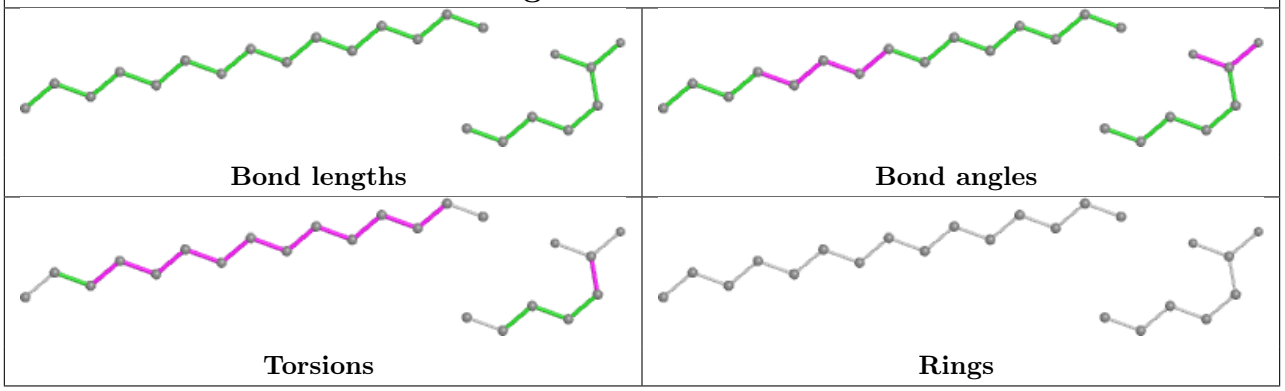
Ligand BCR K 101



Ligand PL9 A 610



Ligand LMG d 410



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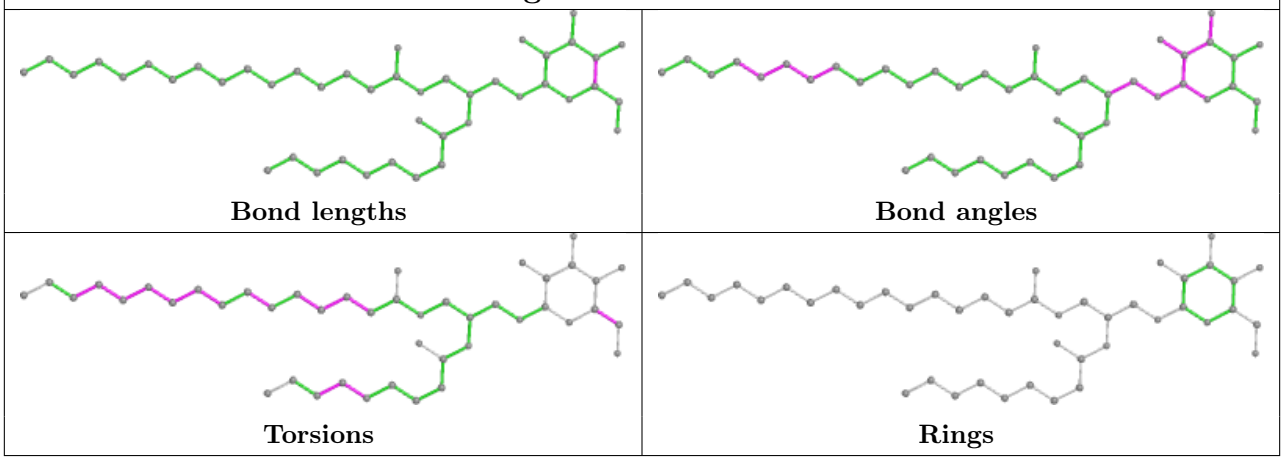
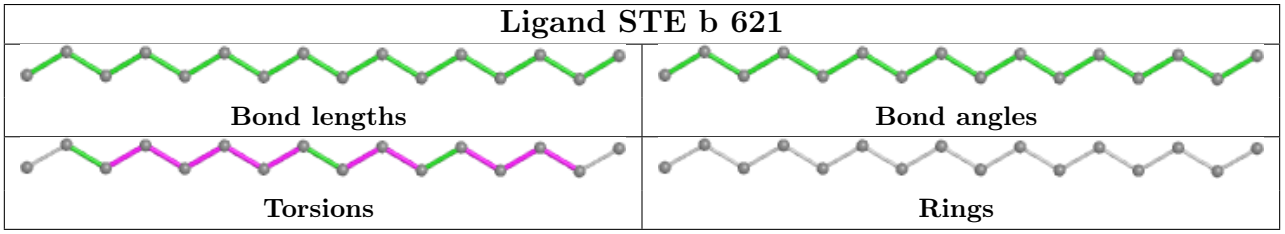
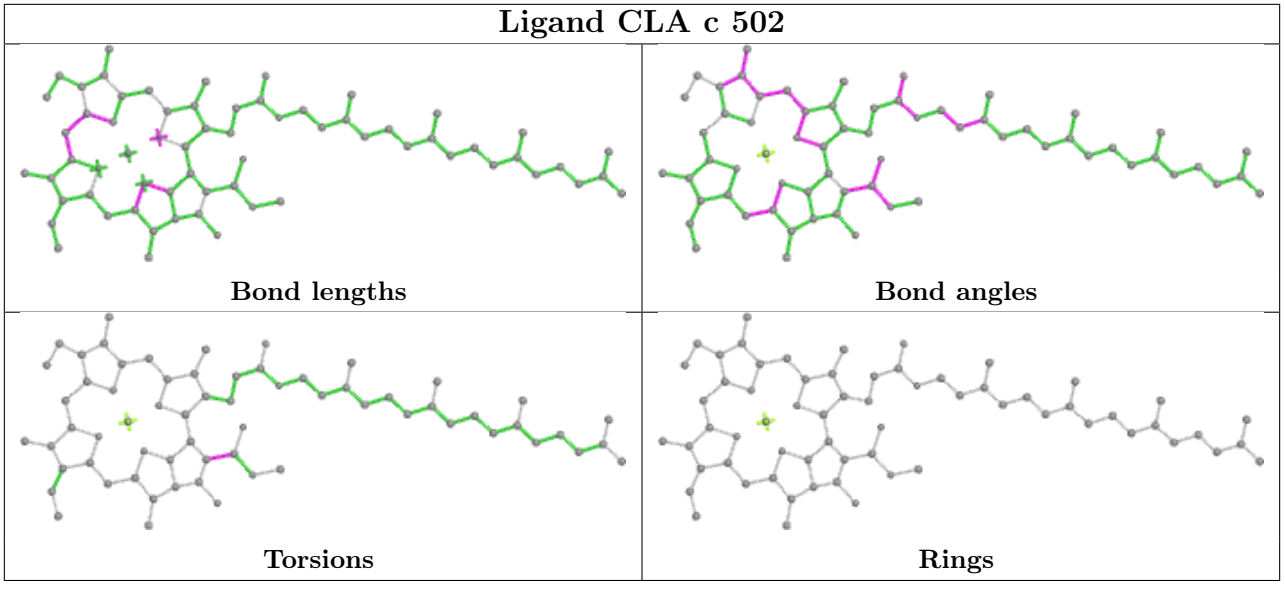


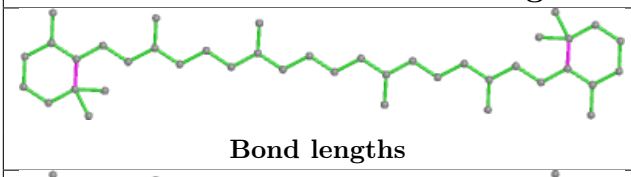
Ligand STE b 621

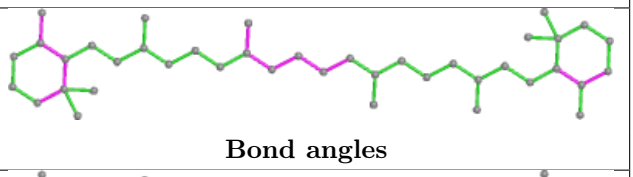


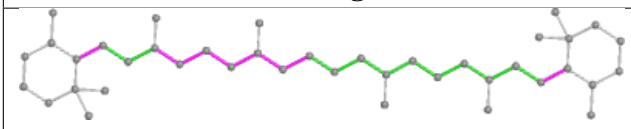
Ligand CLA c 502

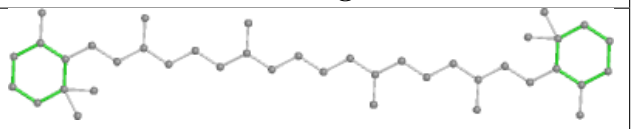


Ligand BCR k 101

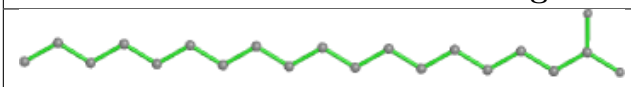

Bond lengths

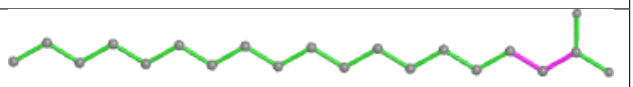

Bond angles

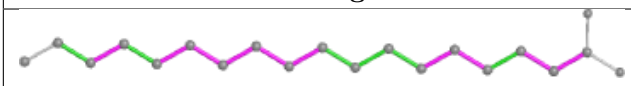

Torsions


Rings

Ligand STE d 413


Bond lengths


Bond angles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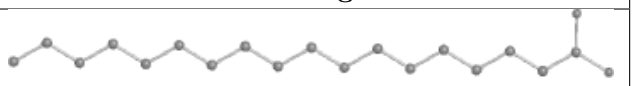
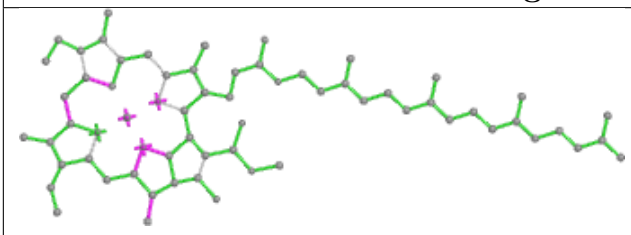
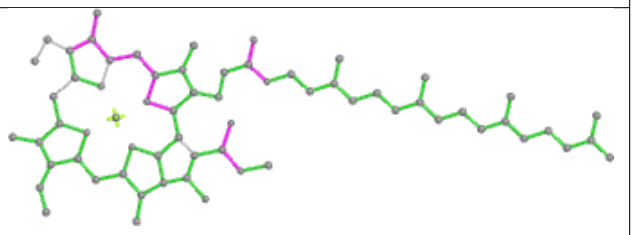
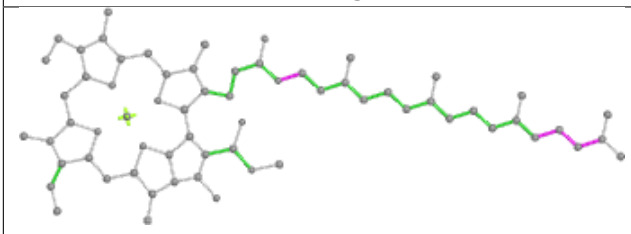
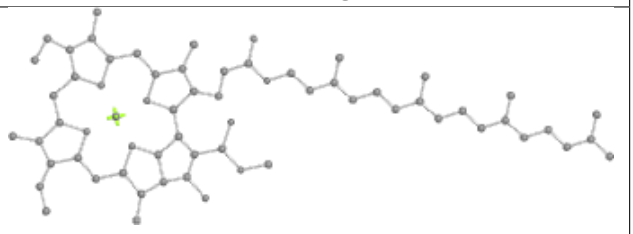

Rings

Ligand CLA A 606

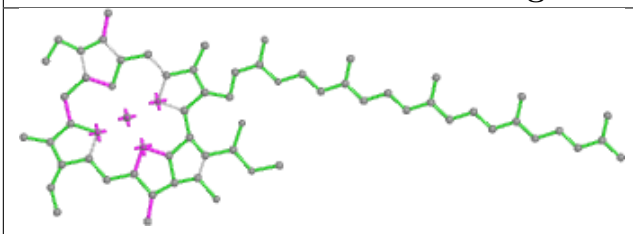

Bond lengths


Bond angles

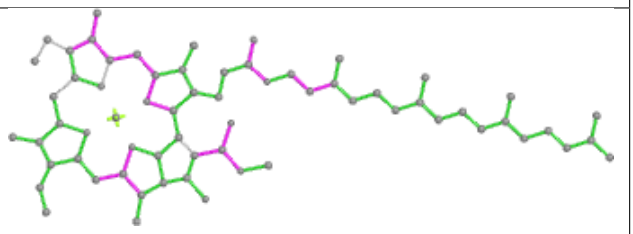

Torsions


Rings

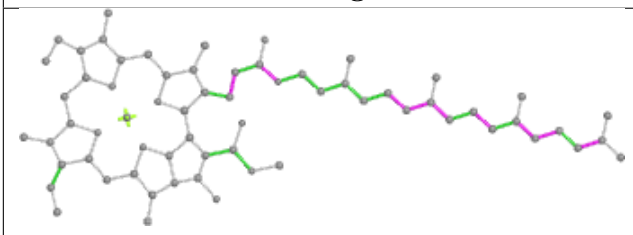
Ligand CLA b 603



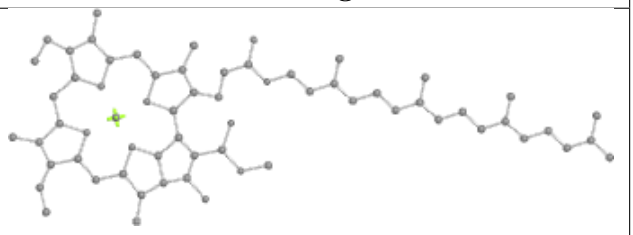
Bond lengths



Bond angles

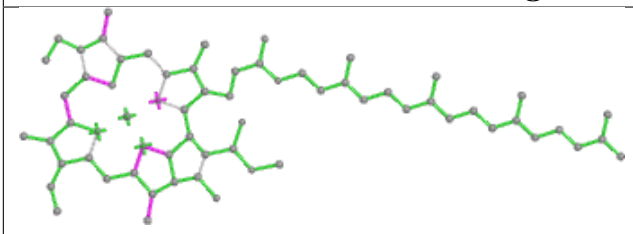


Torsions

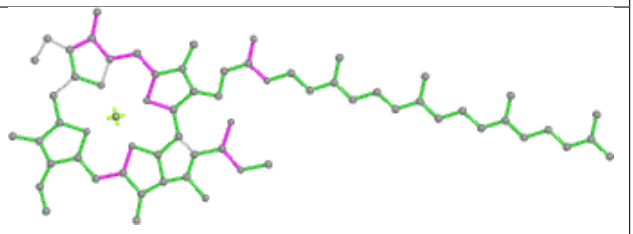


Rings

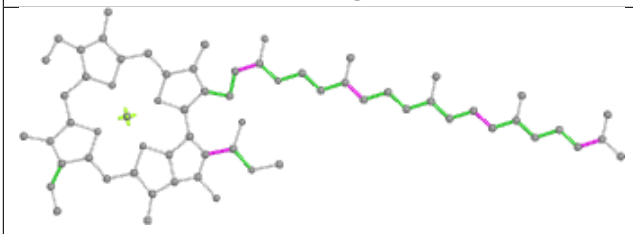
Ligand CLA C 510



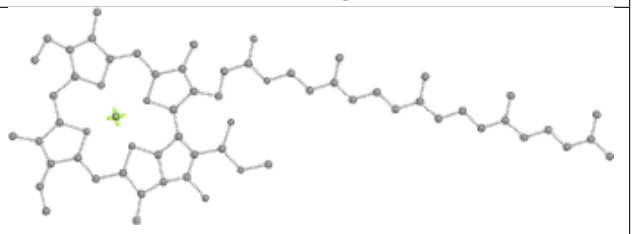
Bond lengths



Bond angles

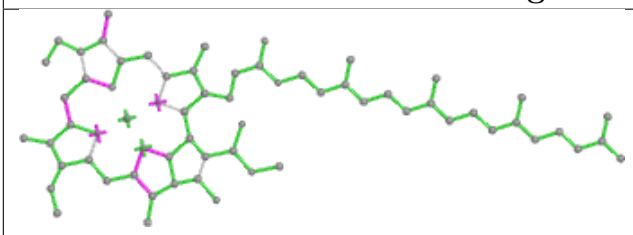


Torsions

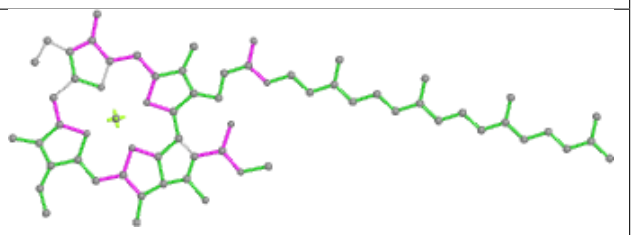


Rings

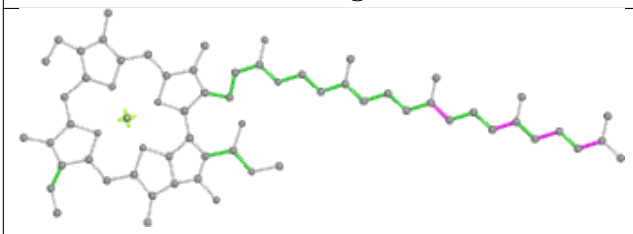
Ligand CLA b 608



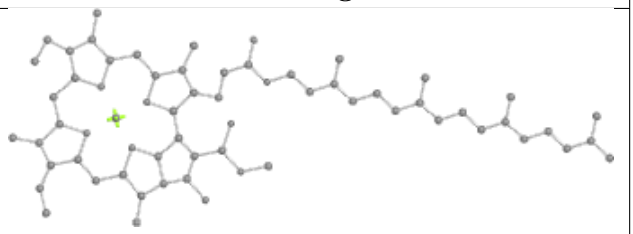
Bond lengths



Bond angles

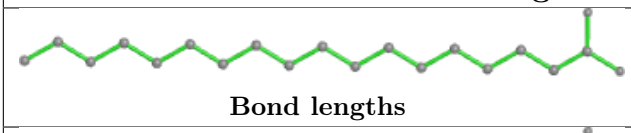


Torsions



Rings

Ligand STE c 519



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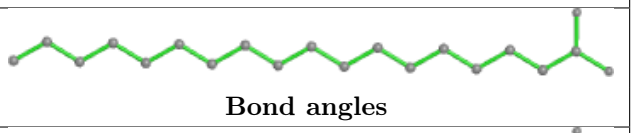
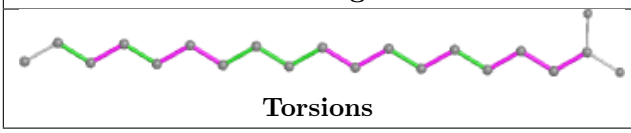
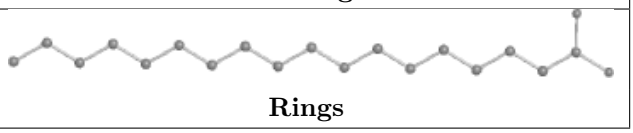


Bond angles

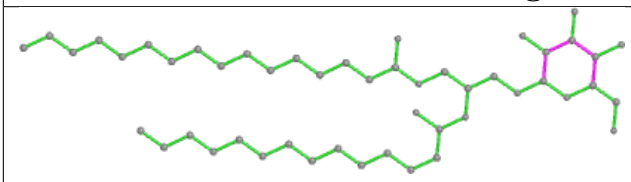


Torsions

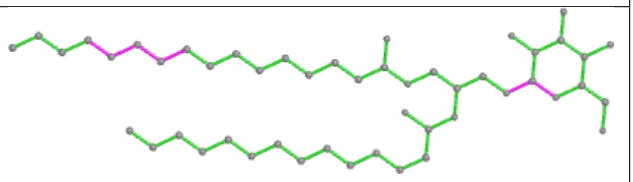


Rings

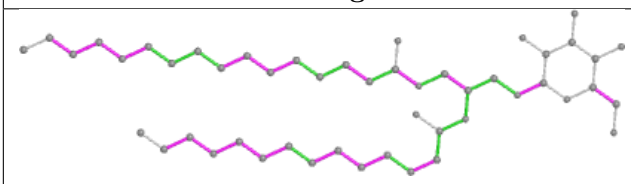
Ligand LMG c 522



Bond lengths



Bond angles



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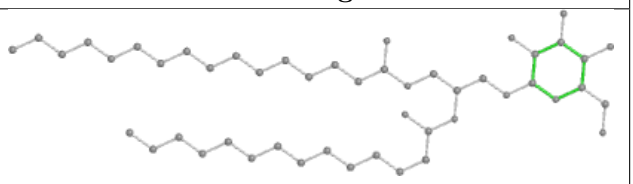
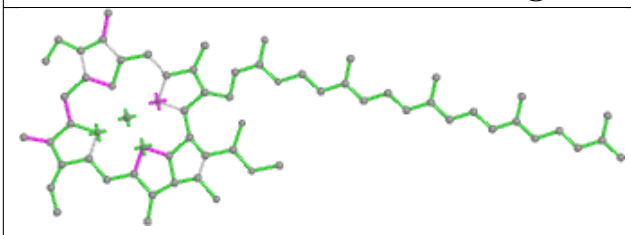


Rings

Ligand CLA b 601



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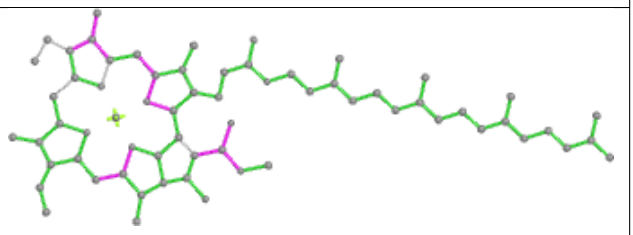
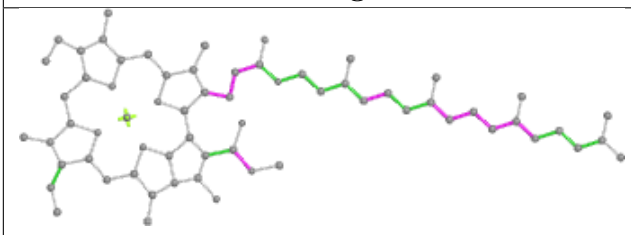
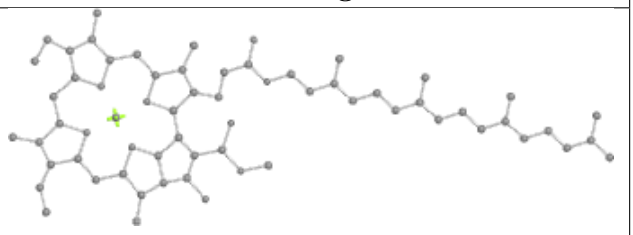


Bond angles

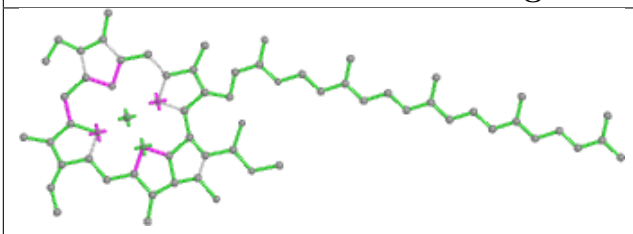


Torsions

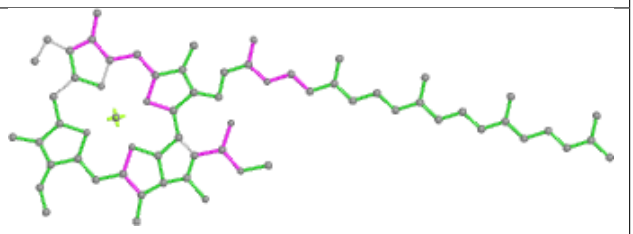


Rings

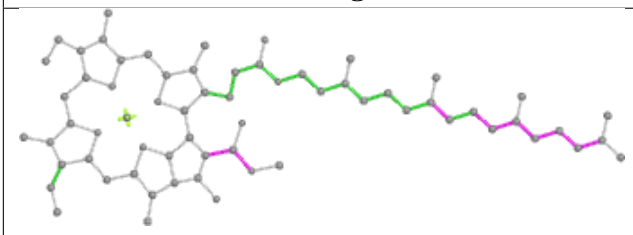
Ligand CLA B 604



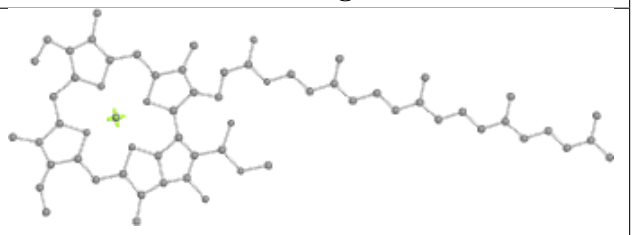
Bond lengths



Bond angles

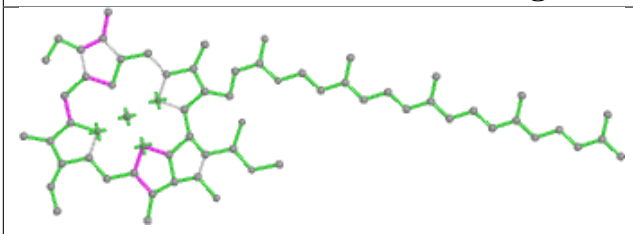


Torsions

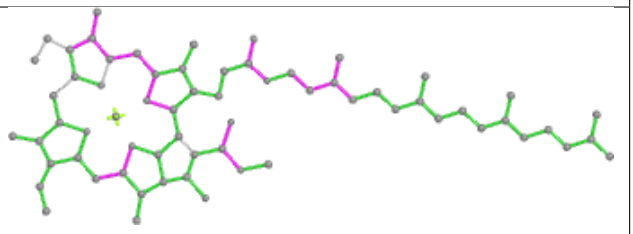


Rings

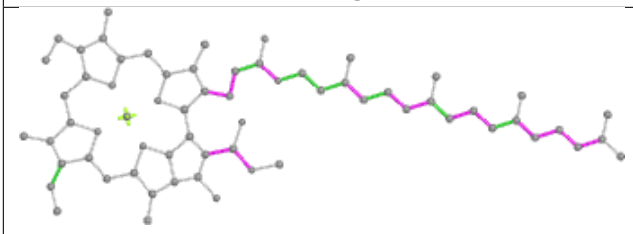
Ligand CLA c 512



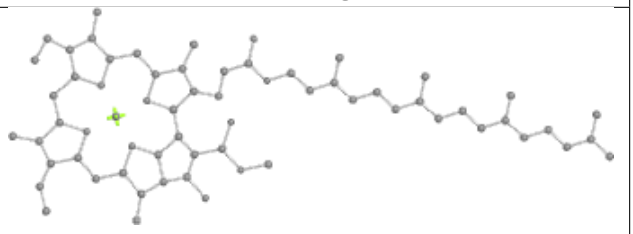
Bond lengths



Bond angles

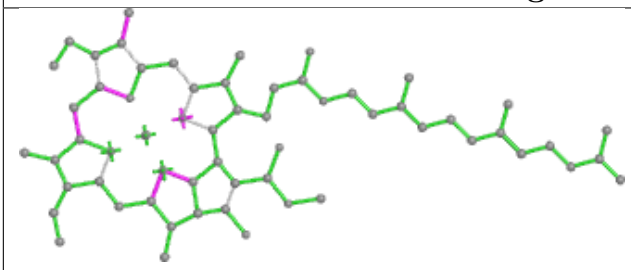


Torsions

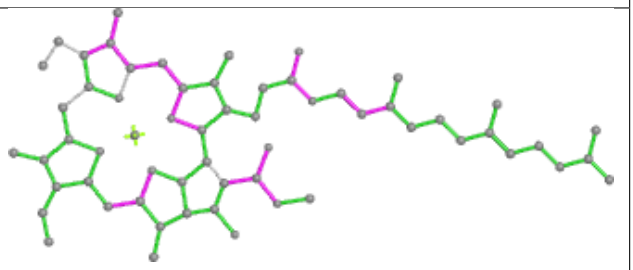


Rings

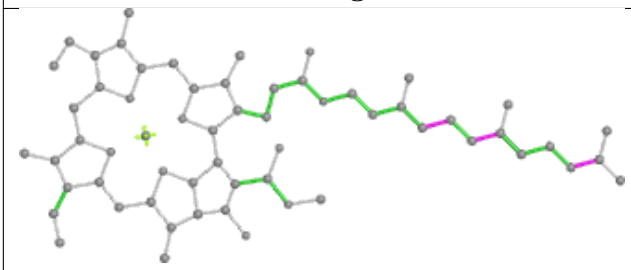
Ligand CLA b 616



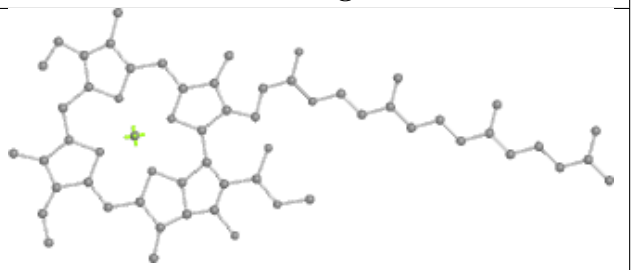
Bond lengths



Bond angles

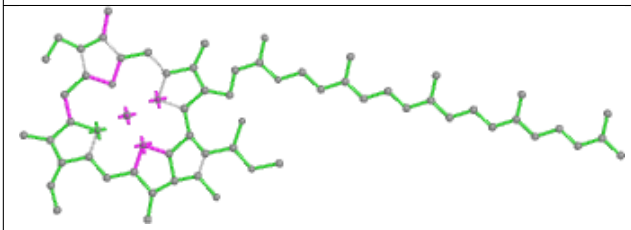


Torsions

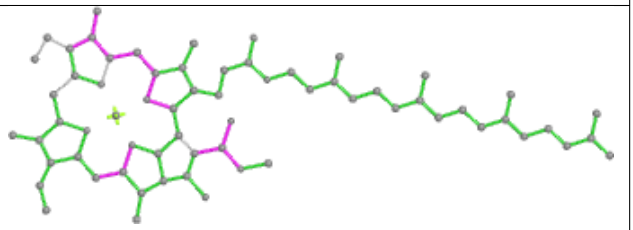


Rings

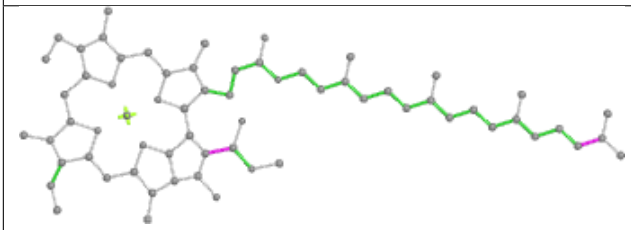
Ligand CLA a 612



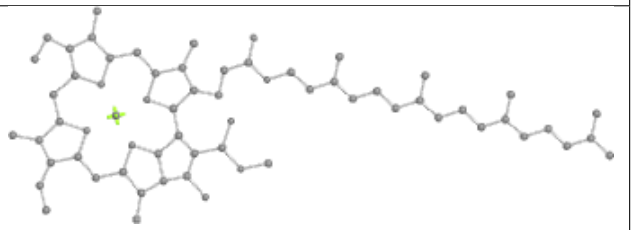
Bond lengths



Bond angles

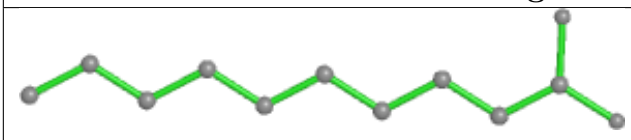


Torsions

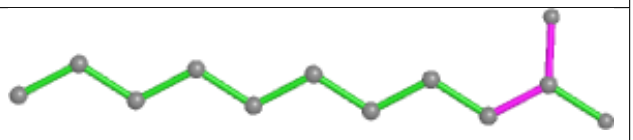


Rings

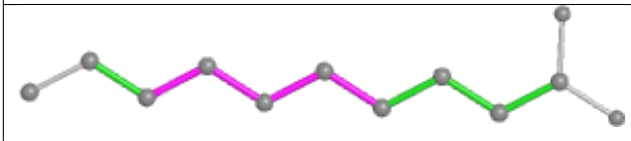
Ligand STE C 520



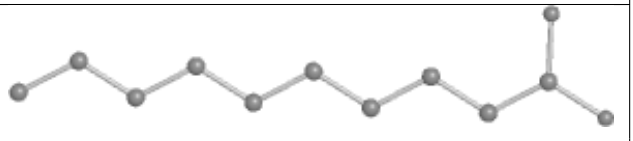
Bond lengths



Bond angles

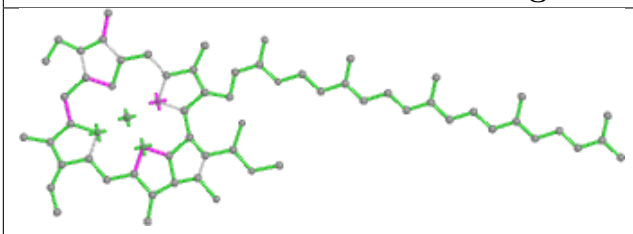


Torsions

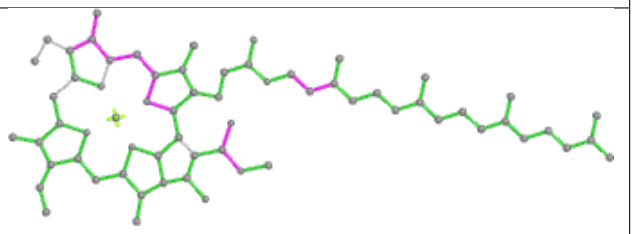


Rings

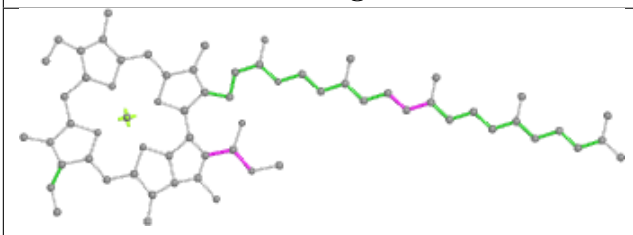
Ligand CLA c 513



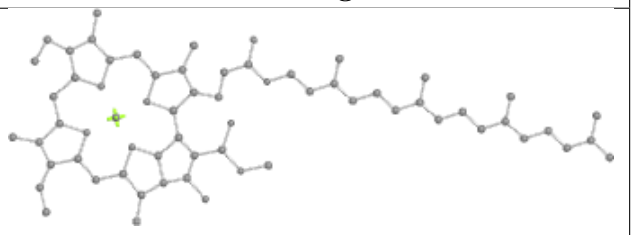
Bond lengths



Bond angles

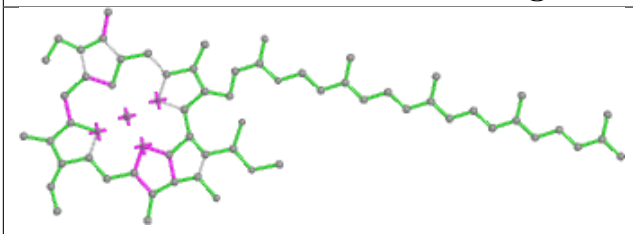


Torsions

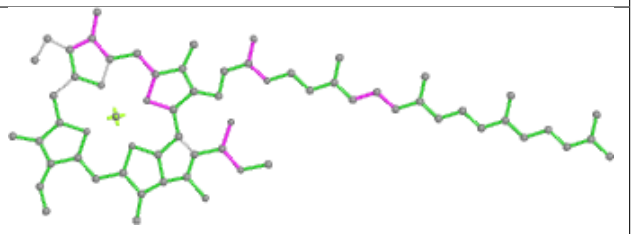


Rings

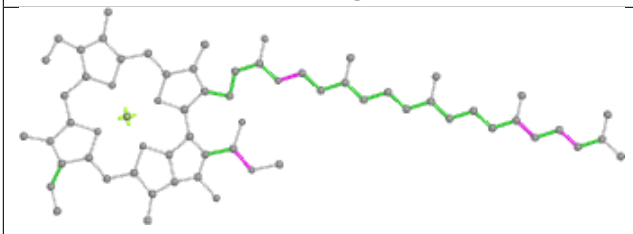
Ligand CLA a 607



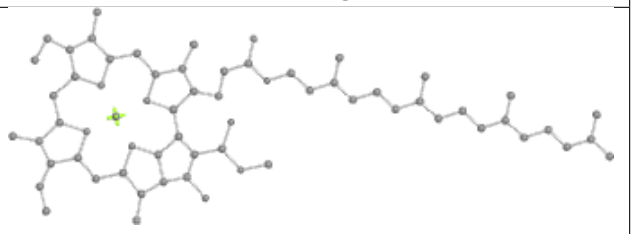
Bond lengths



Bond angles

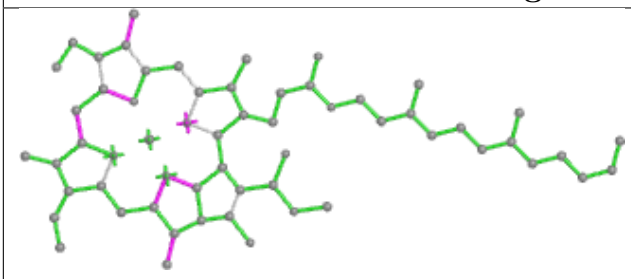


Torsions

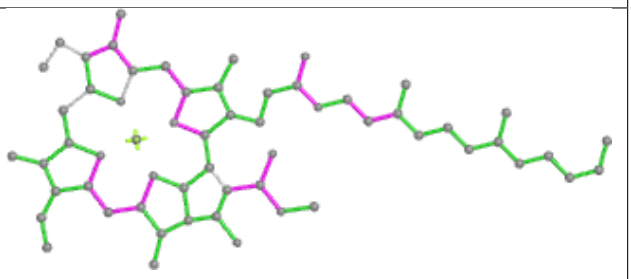


Rings

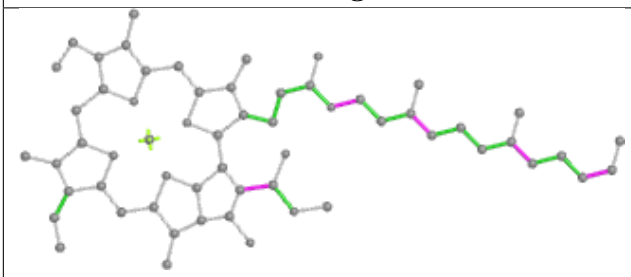
Ligand CLA C 504



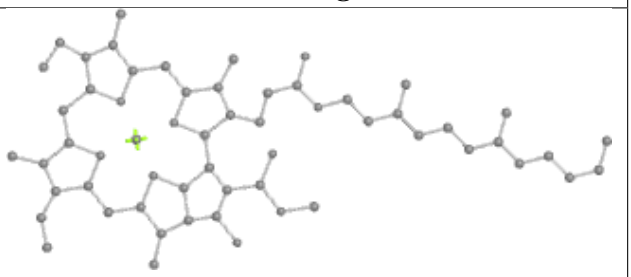
Bond lengths



Bond angles

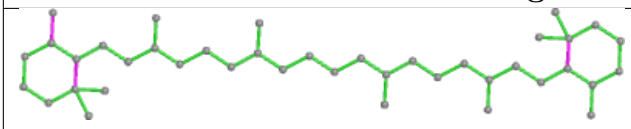


Torsions

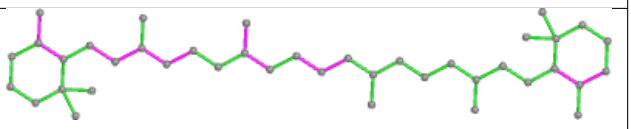


Rings

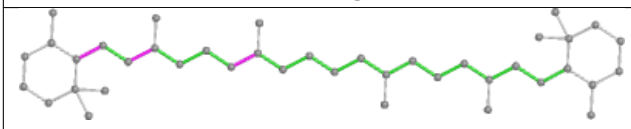
Ligand BCR c 514



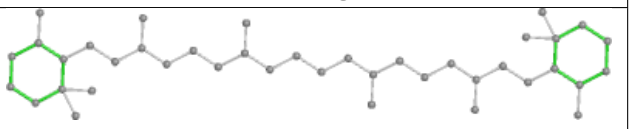
Bond lengths



Bond angles

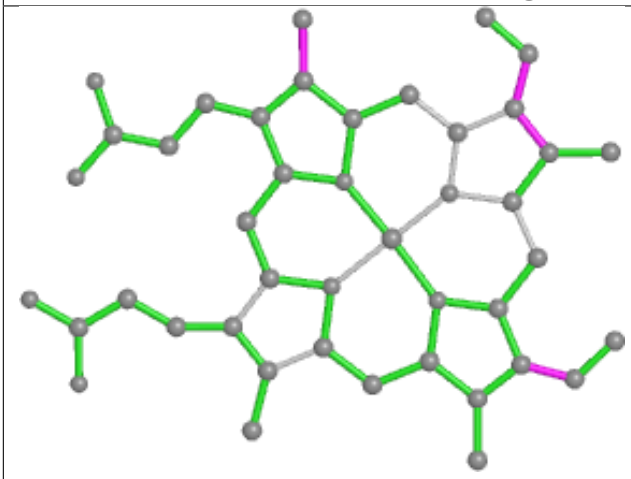


Torsions

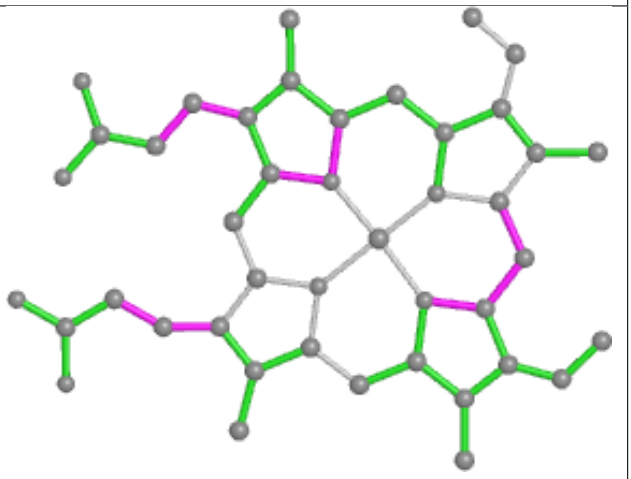


Rings

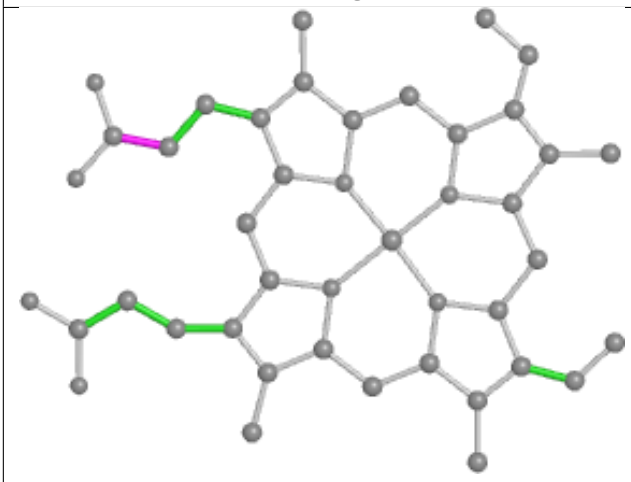
Ligand HEM F 101



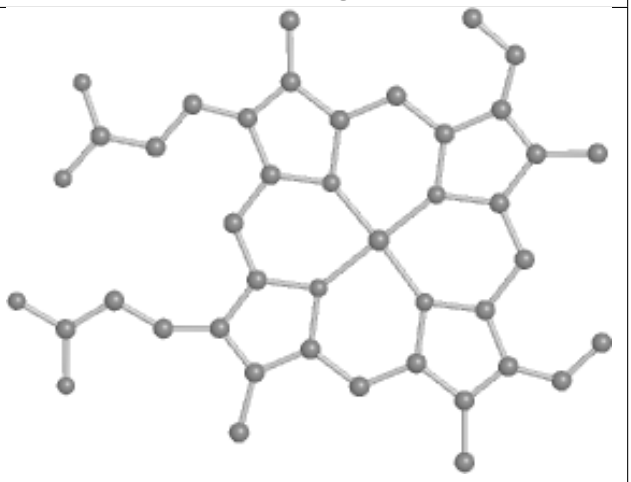
Bond lengths



Bond angles

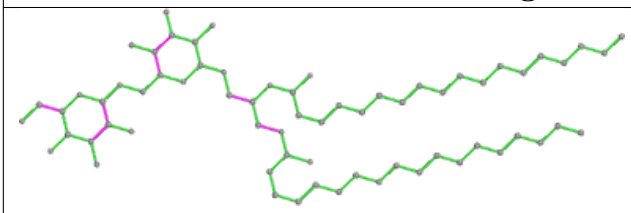


Torsions

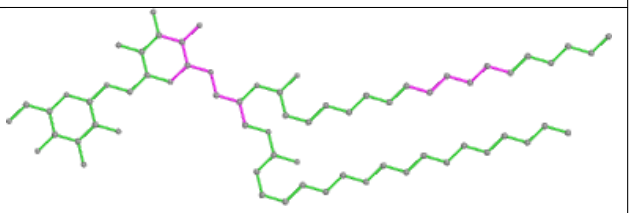


Rings

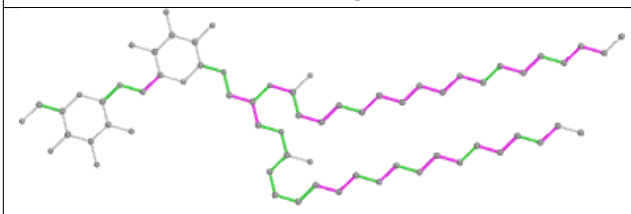
Ligand DGD A 616



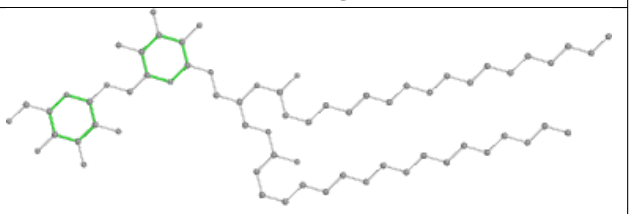
Bond lengths



Bond angles

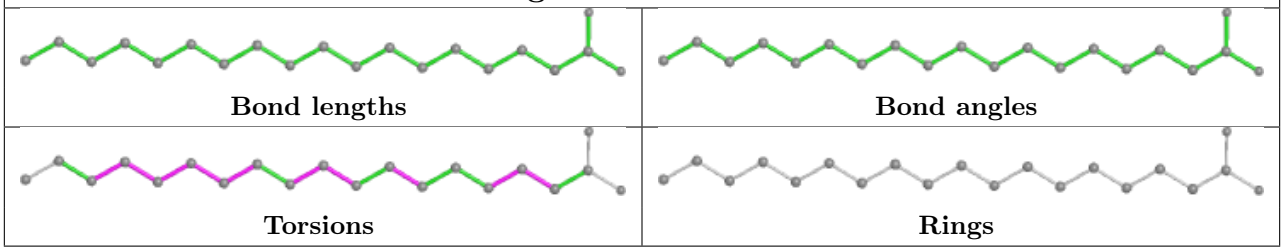


Torsions

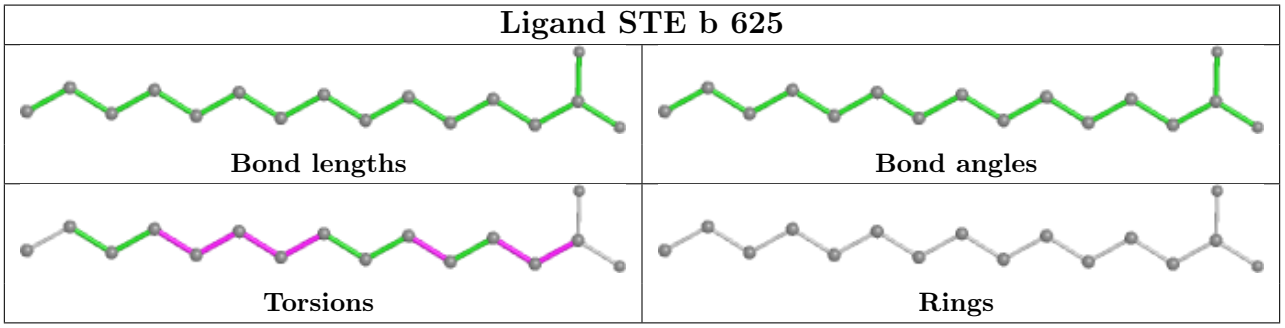


Rings

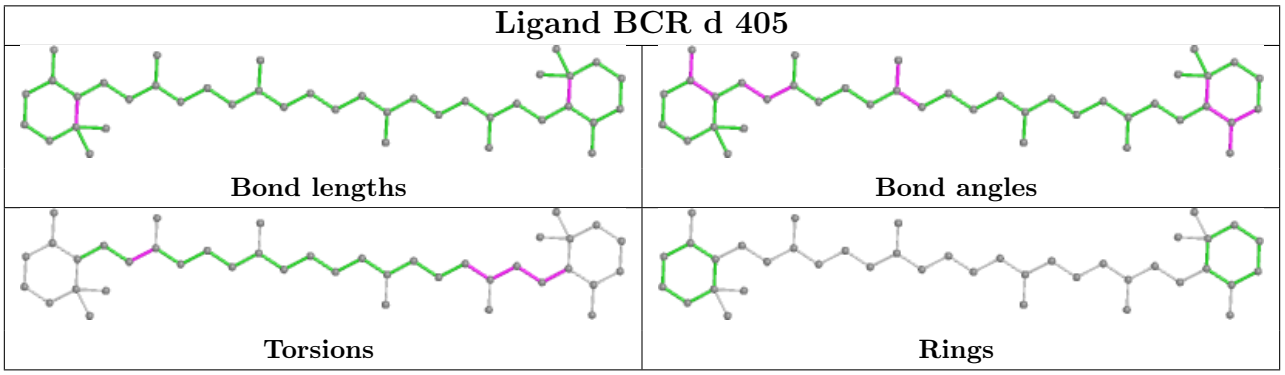
Ligand STE X 101



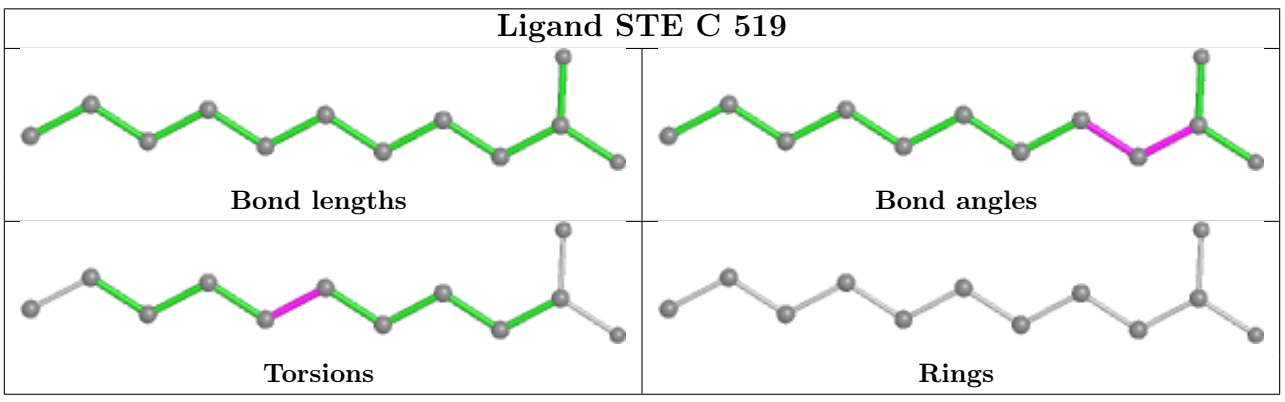
Ligand STE b 625



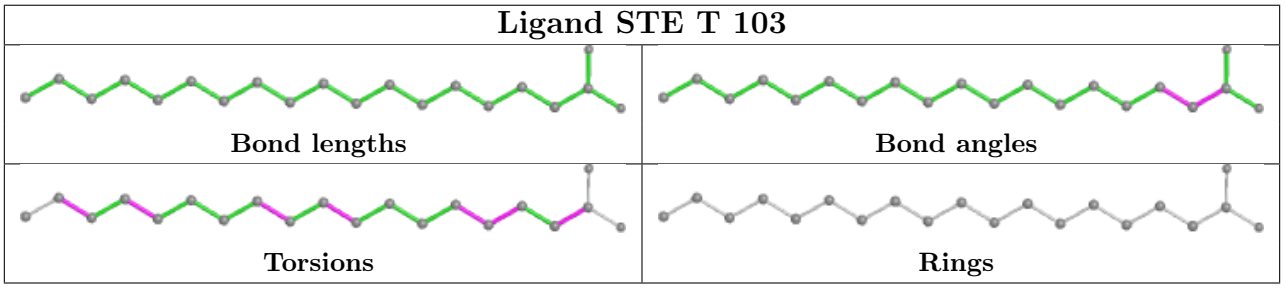
Ligand BCR d 405



Ligand STE C 519

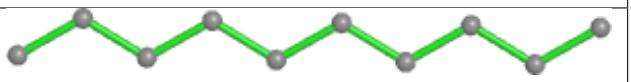


Ligand STE T 103



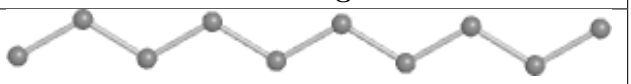
Ligand STE t 103

Bond lengths



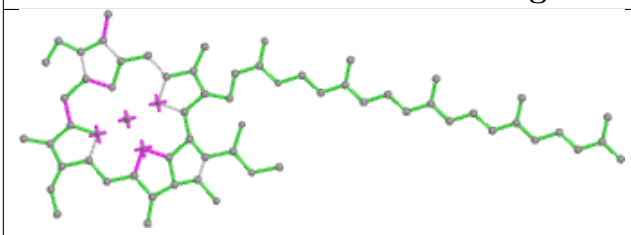
Bond angles

Torsions

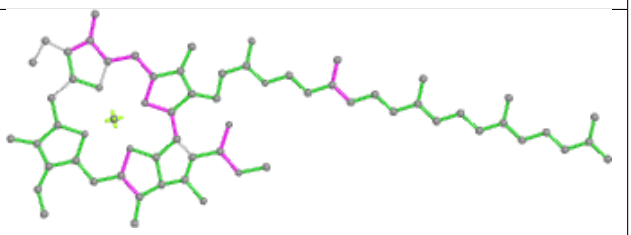


Rings

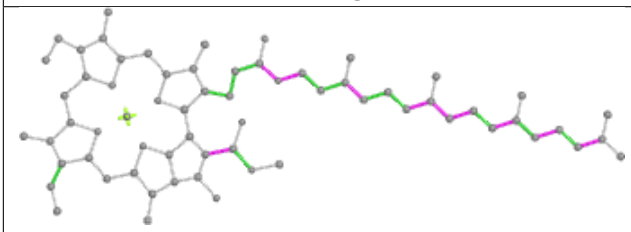
Ligand CLA c 506



Bond lengths



Bond angles



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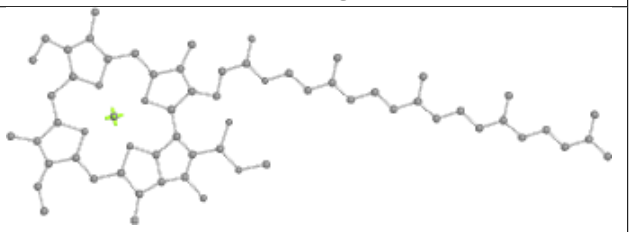
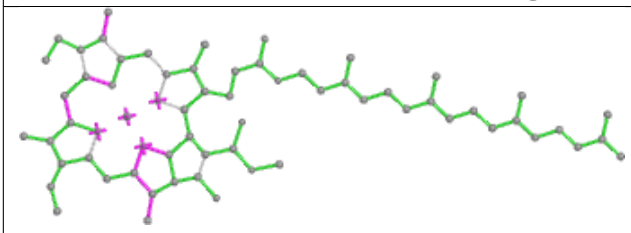
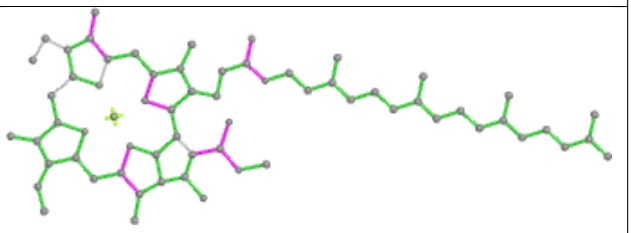


Rings

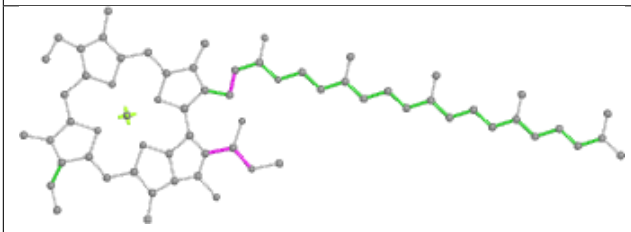
Ligand CLA C 501



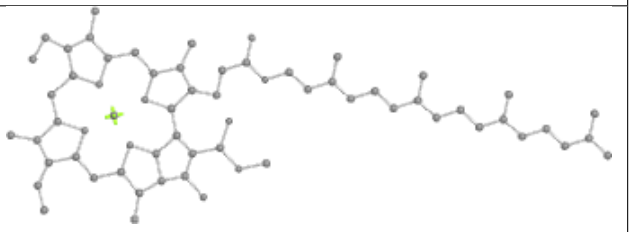
Bond lengths



Bond angles

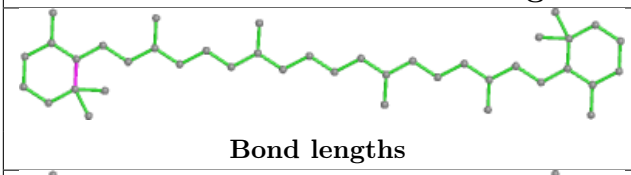


Torsions

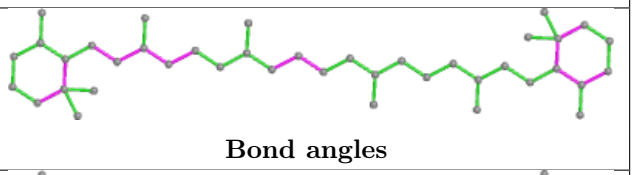


Rings

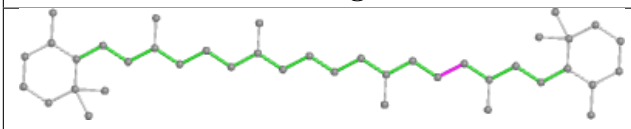
Ligand BCR a 610



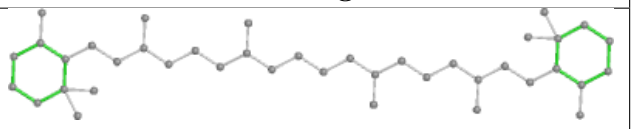
Bond lengths



Bond angles

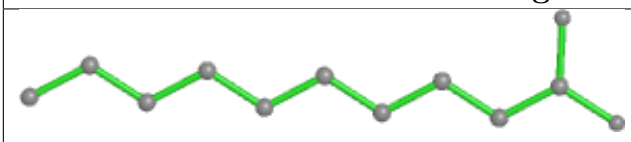


Torsions

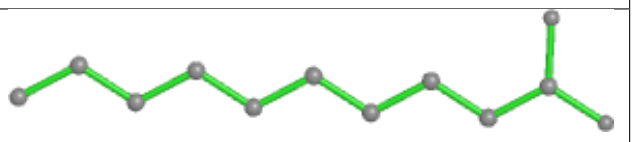


Rings

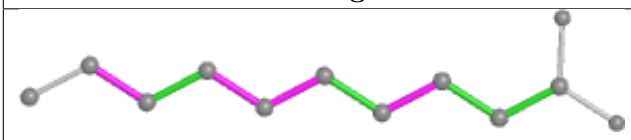
Ligand STE c 521



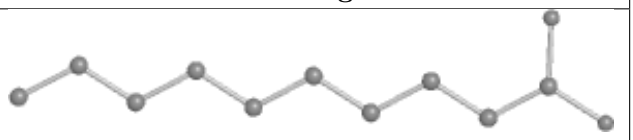
Bond lengths



Bond angles

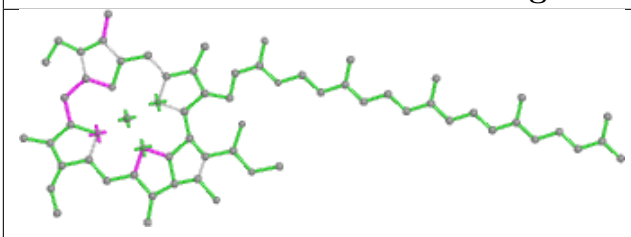


Torsions

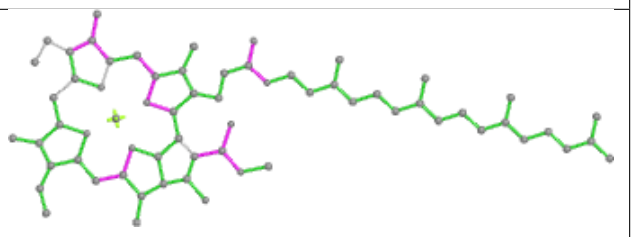


Rings

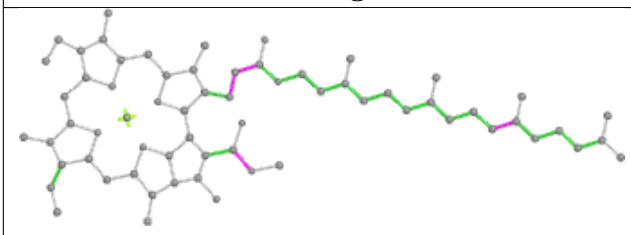
Ligand CLA c 501



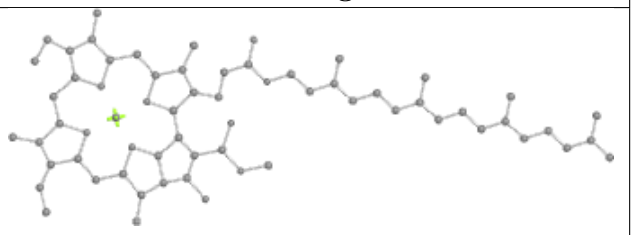
Bond lengths



Bond angles

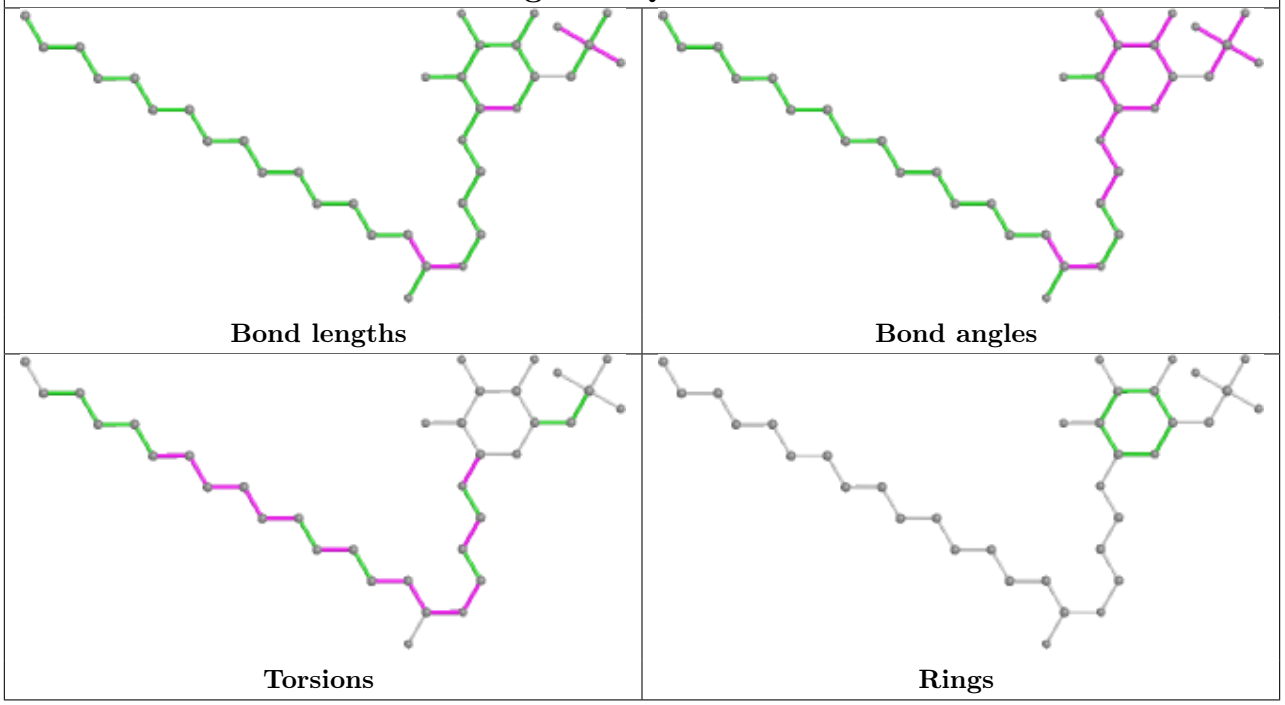


Torsions

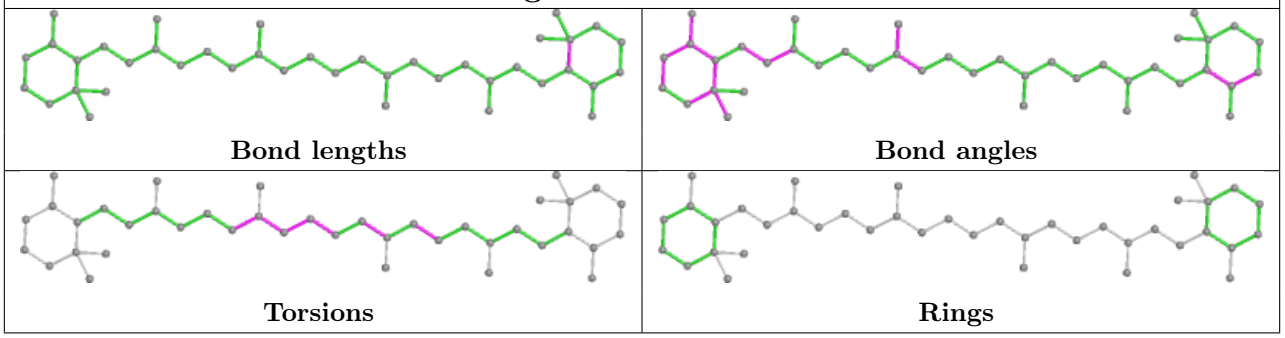


Rings

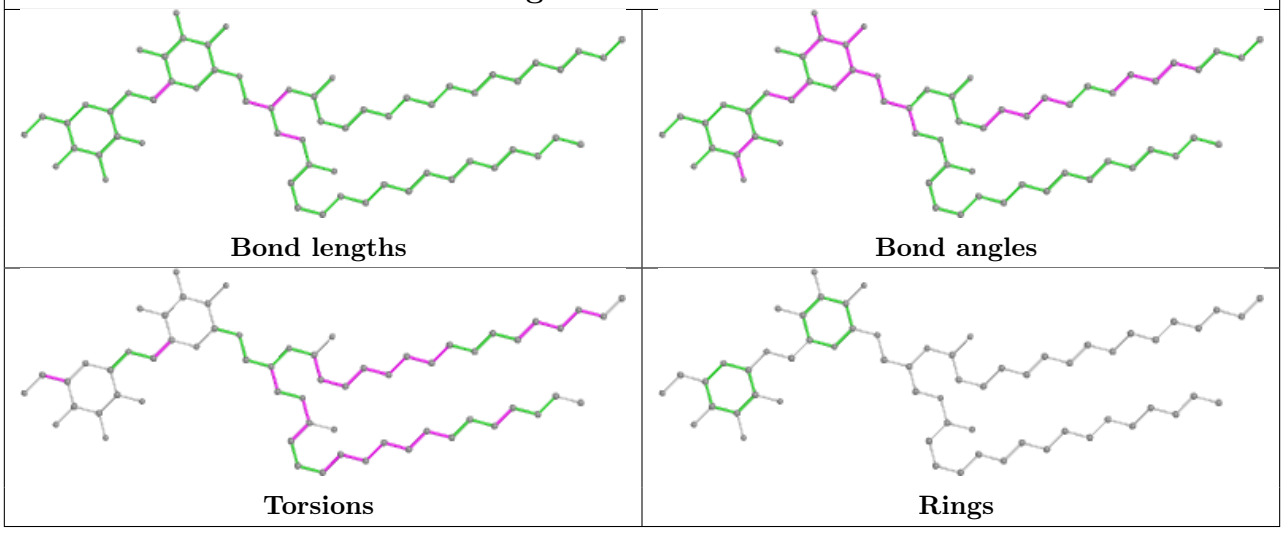
Ligand SQD D 409



Ligand BCR T 101



Ligand DGD c 515



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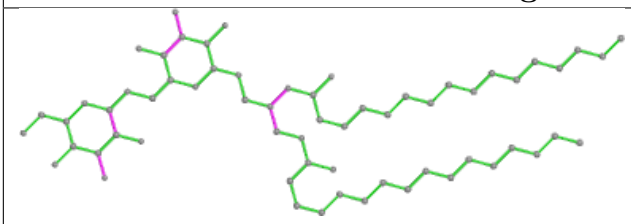
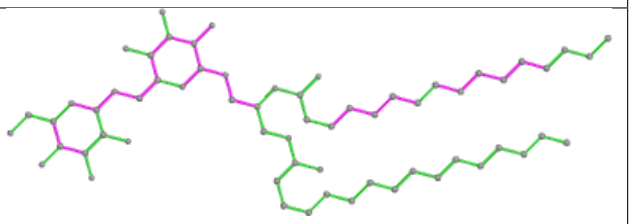
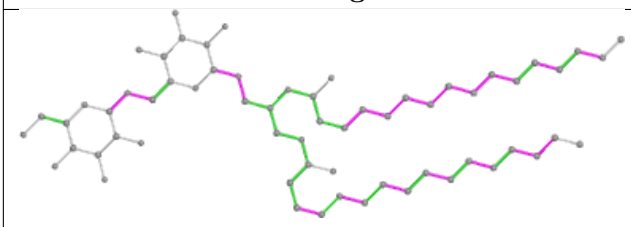


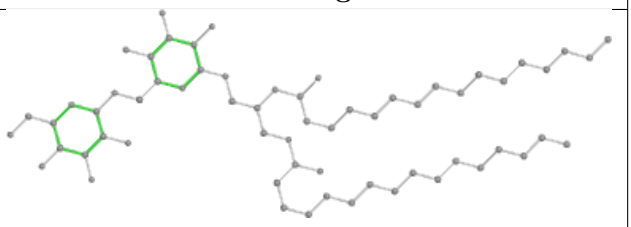
Bond lengths



Bond angles

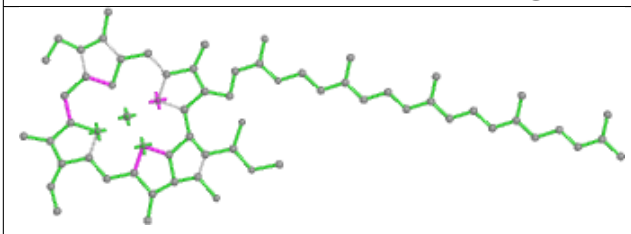


Torsions



Rings

Ligand CLA b 605



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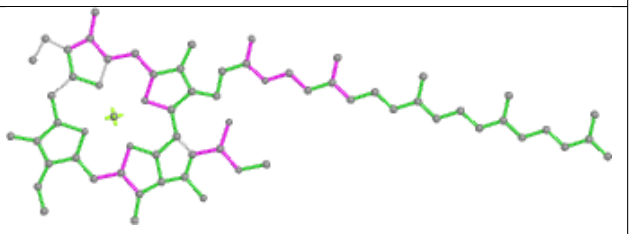
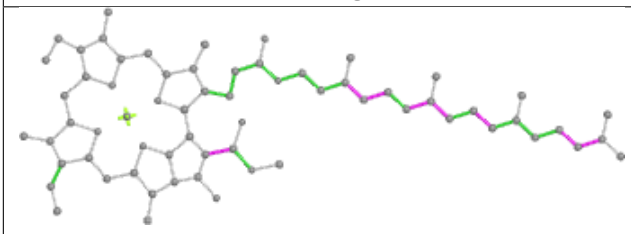
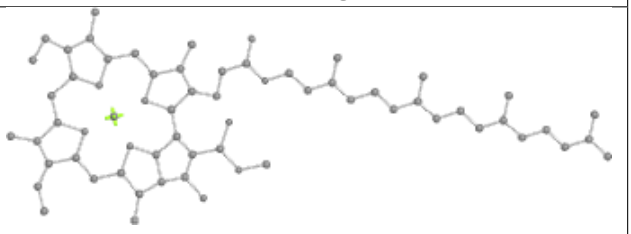


Bond angles

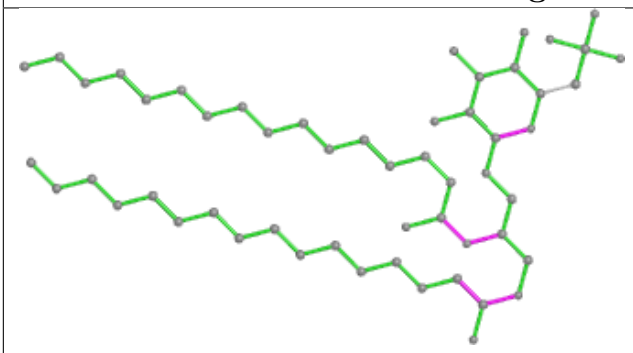


Torsions

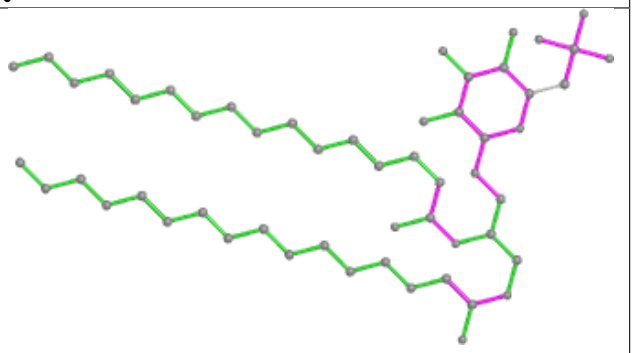


Rings

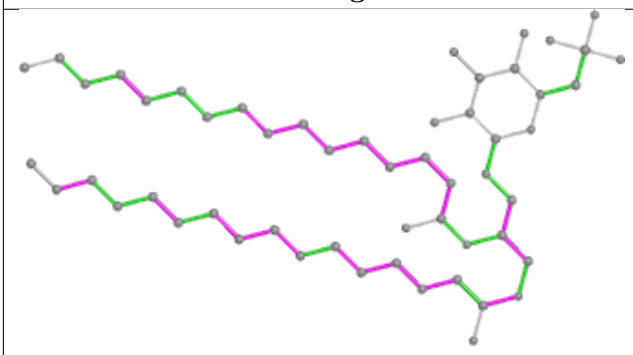
Ligand SQD a 613



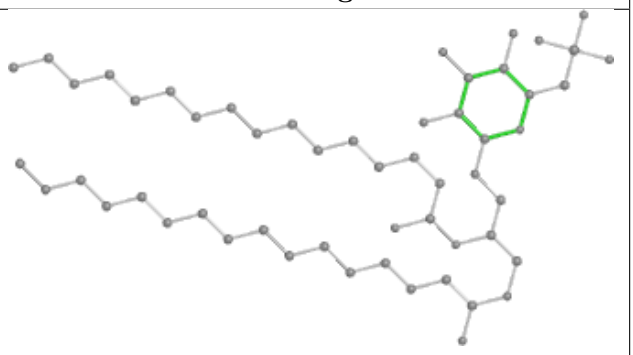
Bond lengths



Bond angles

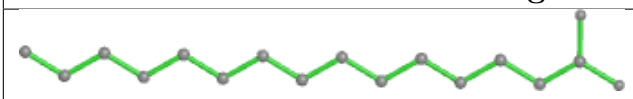


Torsions



Rings

Ligand STE B 620



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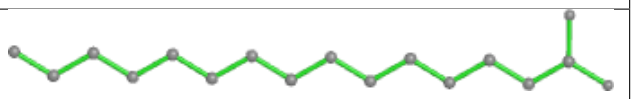
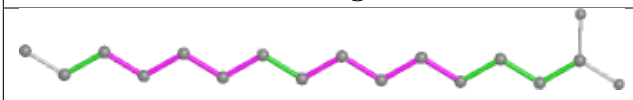


Bond angles



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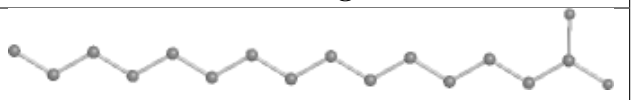
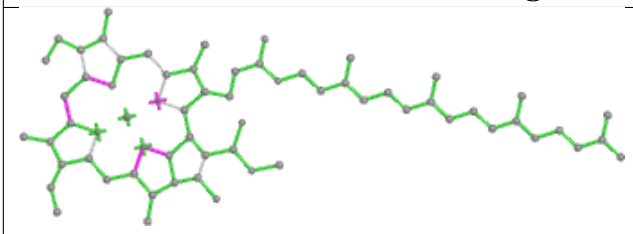


Rings

Ligand CLA B 605



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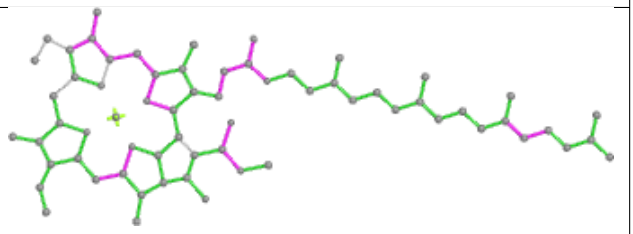
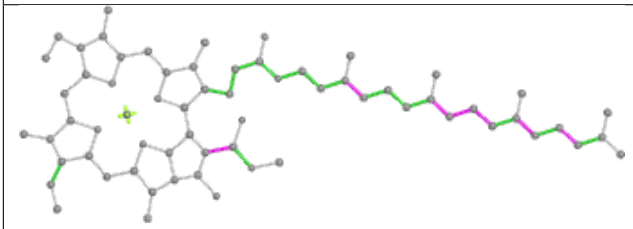
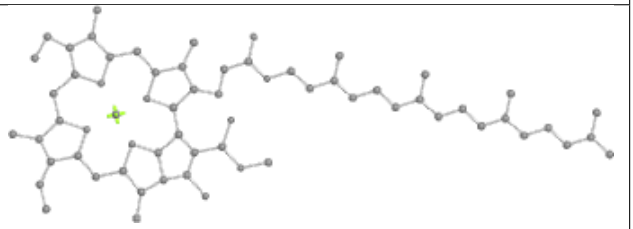


Bond angles

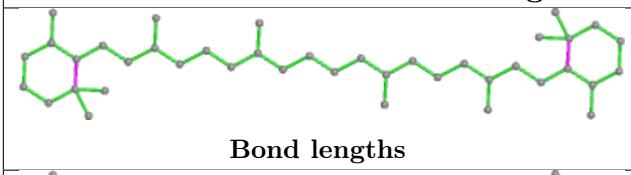


Torsions



Rings

Ligand BCR x 101



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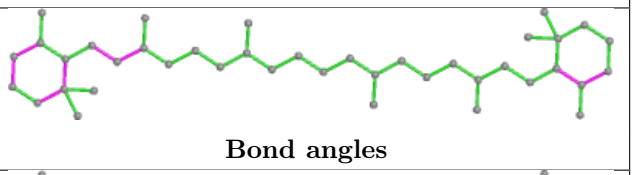
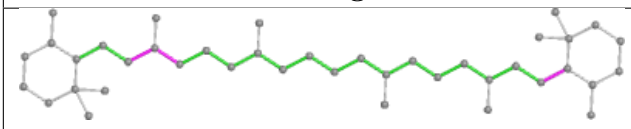


Bond angles



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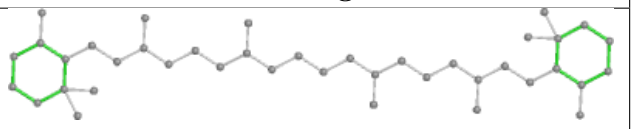
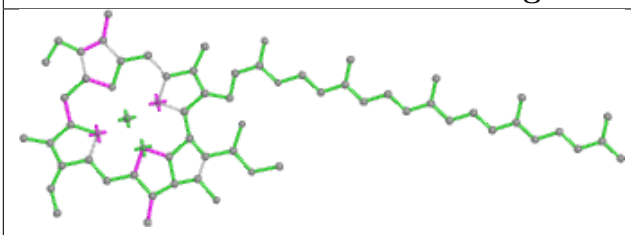


Rings

Ligand CLA D 405



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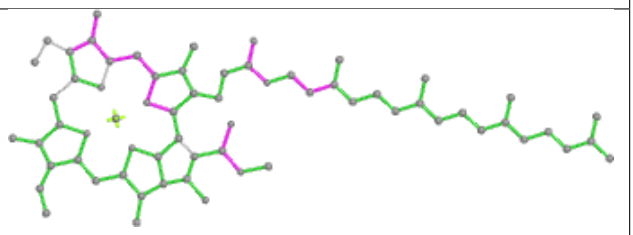
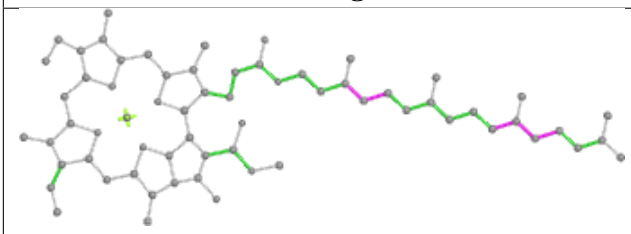
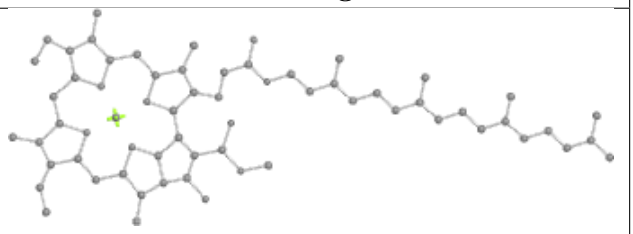


Bond angles

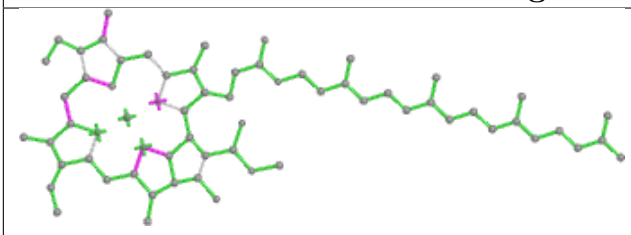


Torsions

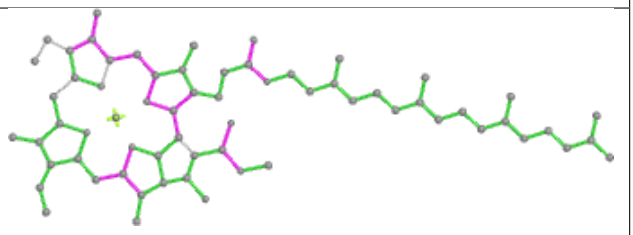


Rings

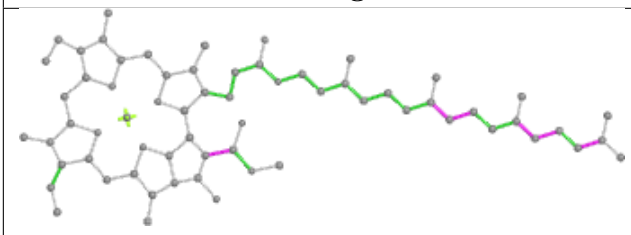
Ligand CLA a 608



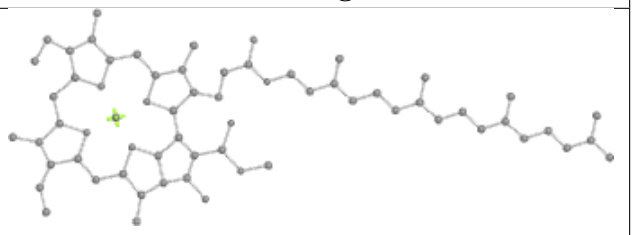
Bond lengths



Bond angles

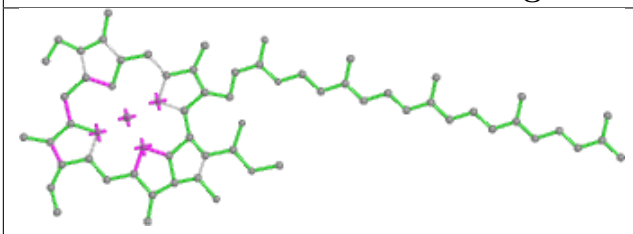


Torsions



Rings

Ligand CLA A 611



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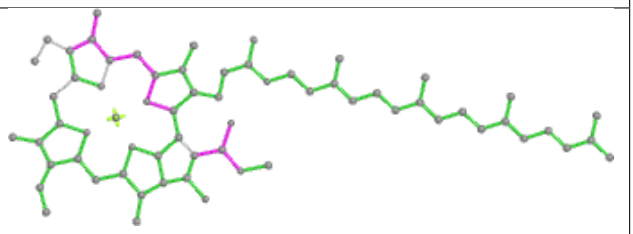
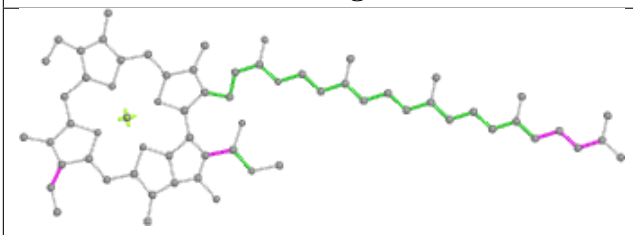
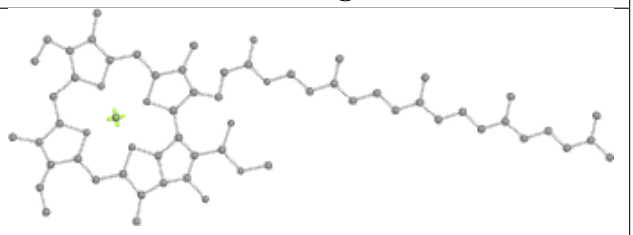


Bond angles

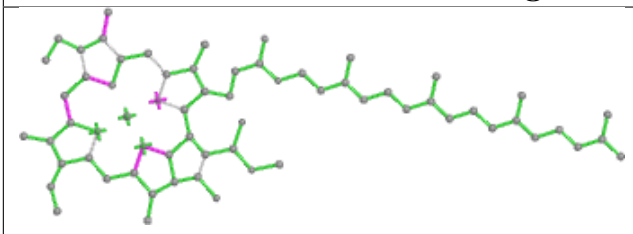


Torsions

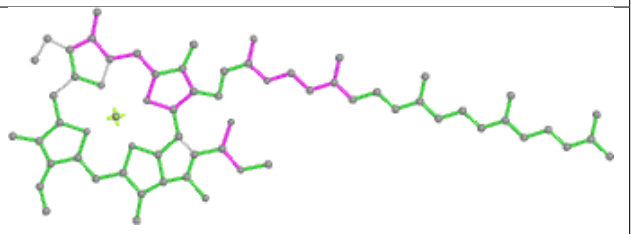


Rings

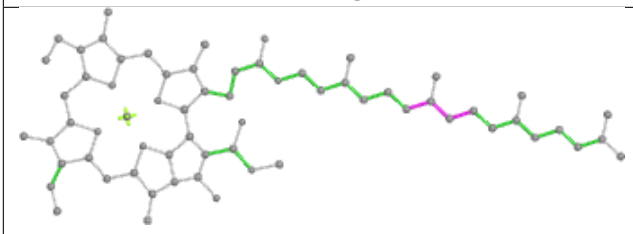
Ligand CLA C 511



Bond lengths



Bond angles



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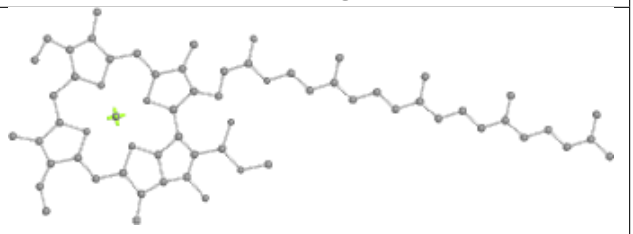
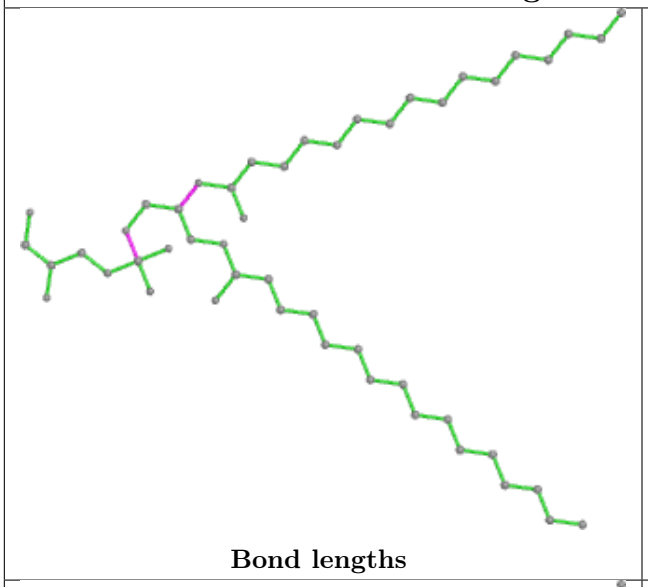
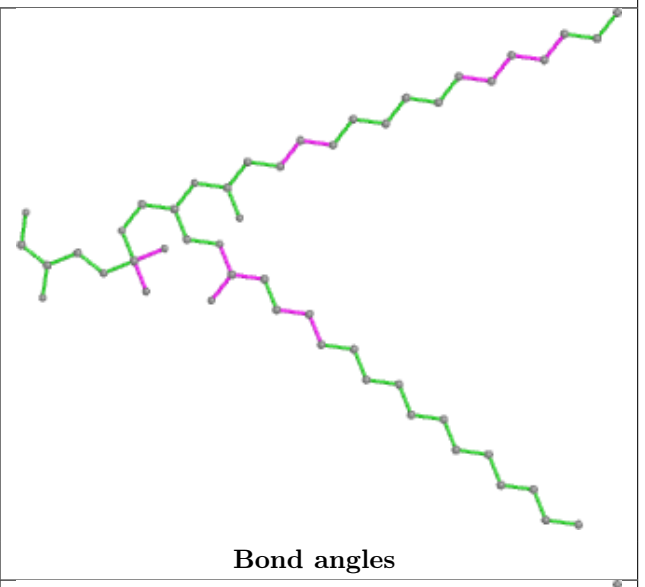


Rings

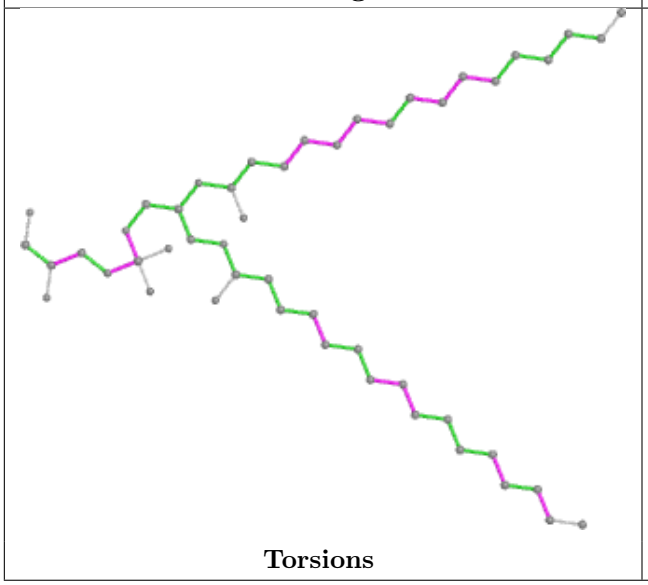
Ligand LHG D 410



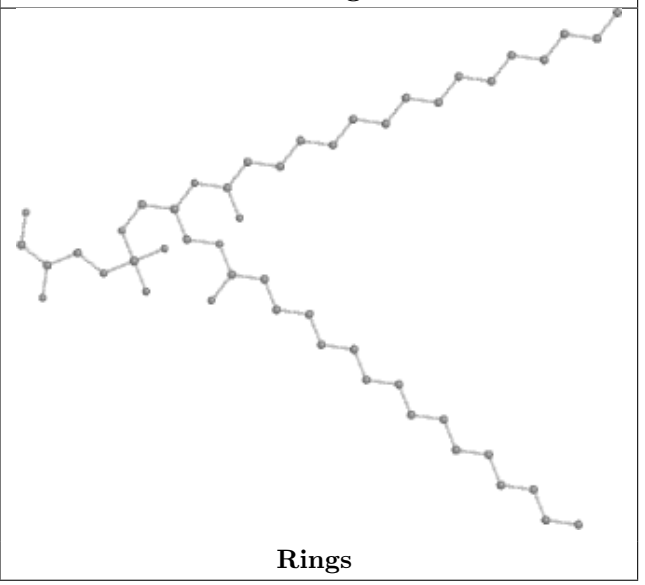
Bond lengths



Bond angles

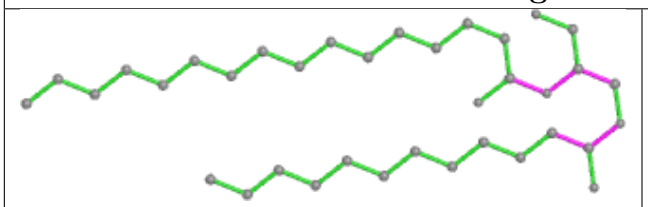


Torsions

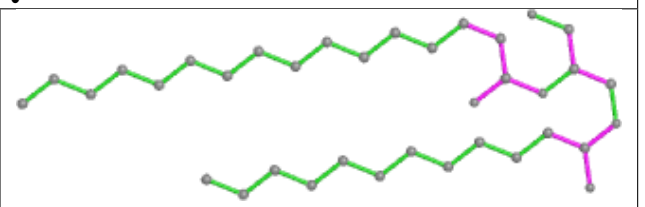


Rings

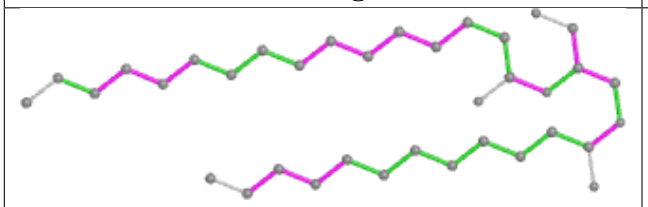
Ligand SQD a 614



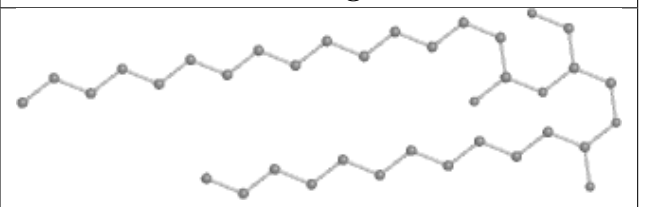
Bond lengths



Bond angles

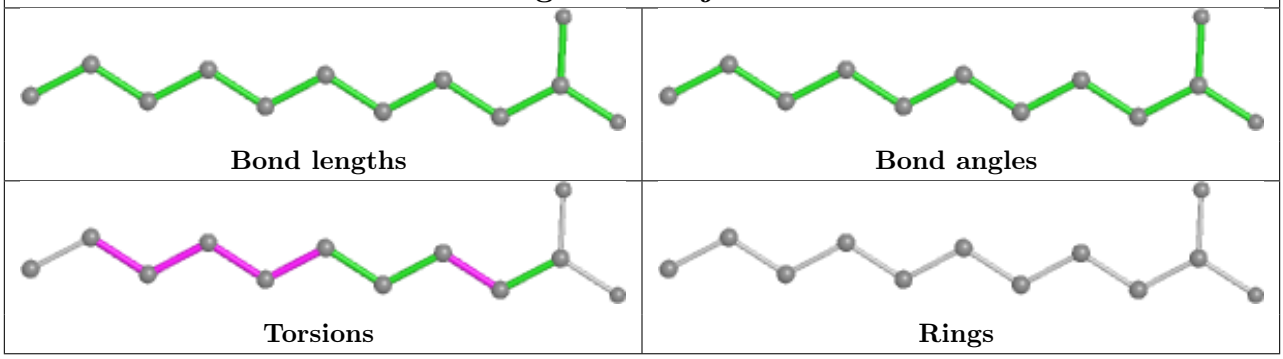


Torsions

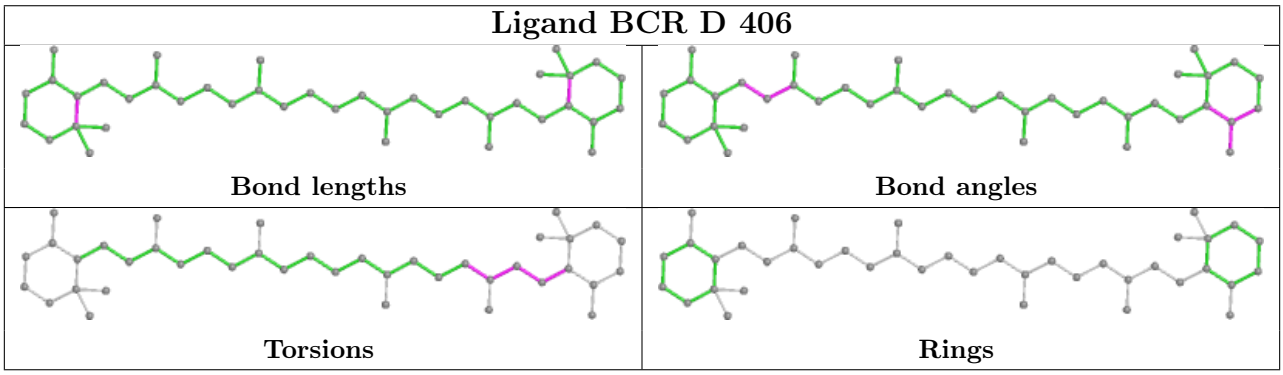


Rings

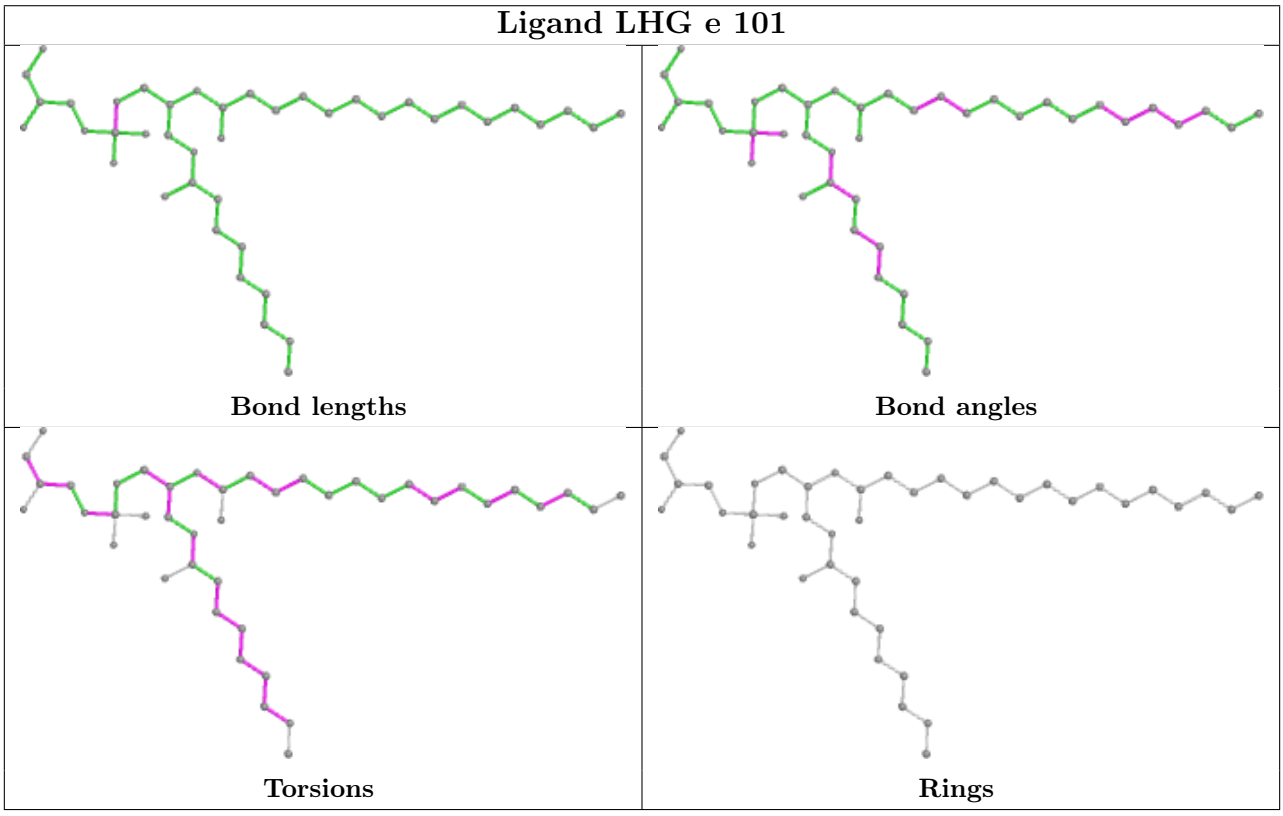
Ligand STE j 101



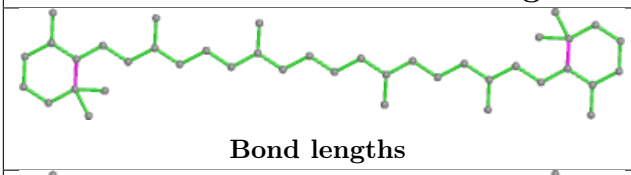
Ligand BCR D 406



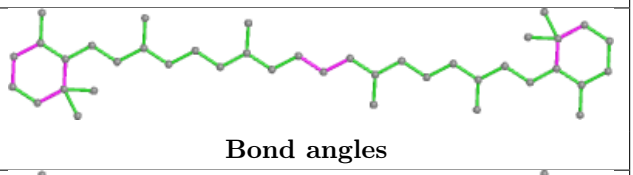
Ligand LHG e 101



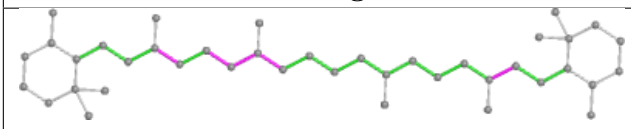
Ligand BCR B 619



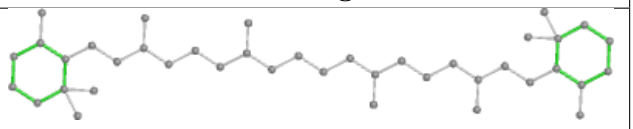
Bond lengths



Bond angles

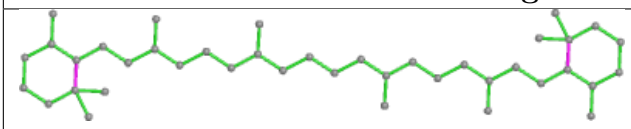


Torsions



Rings

Ligand BCR K 102



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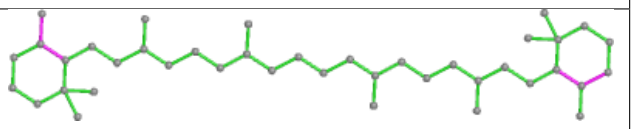

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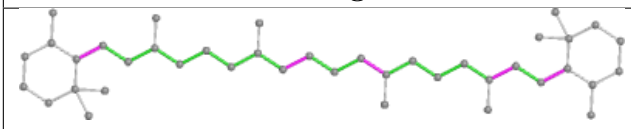

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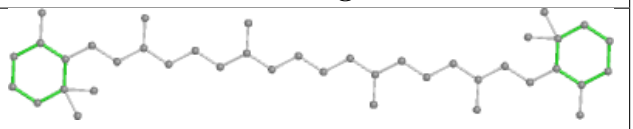
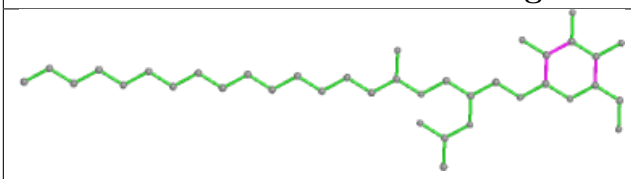


Rings

Ligand LMG c 518



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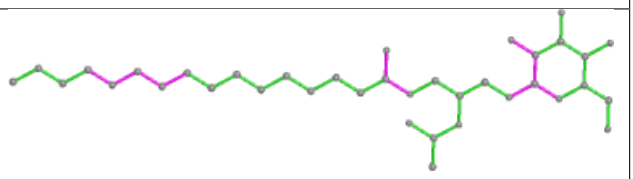
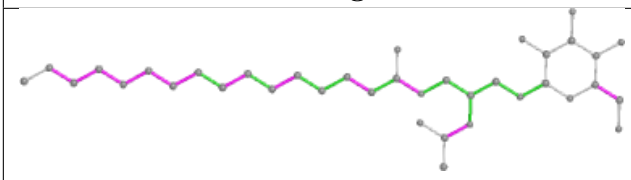


Bond angles



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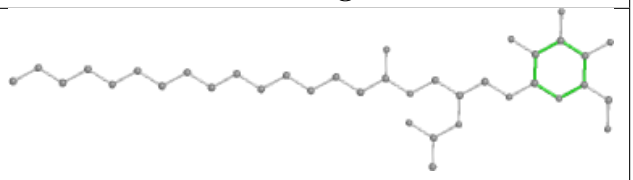
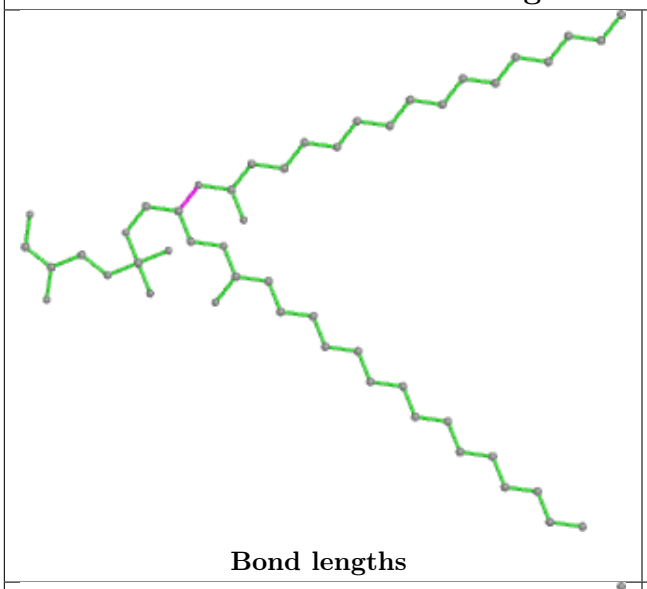


Rings

Ligand LHG B 622



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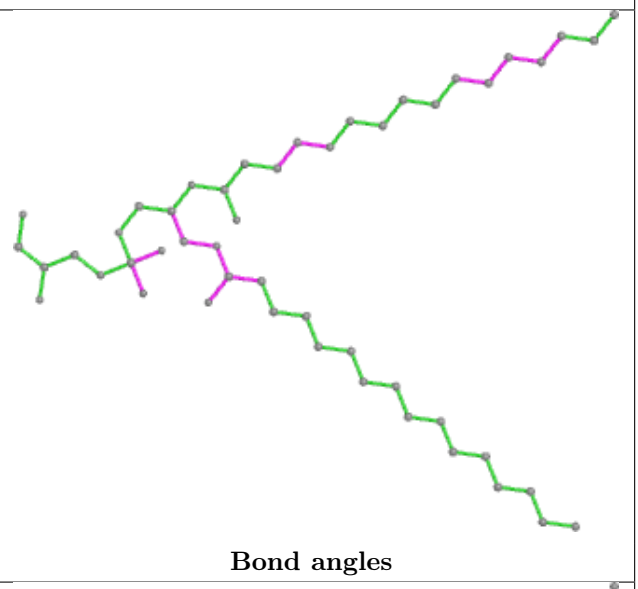
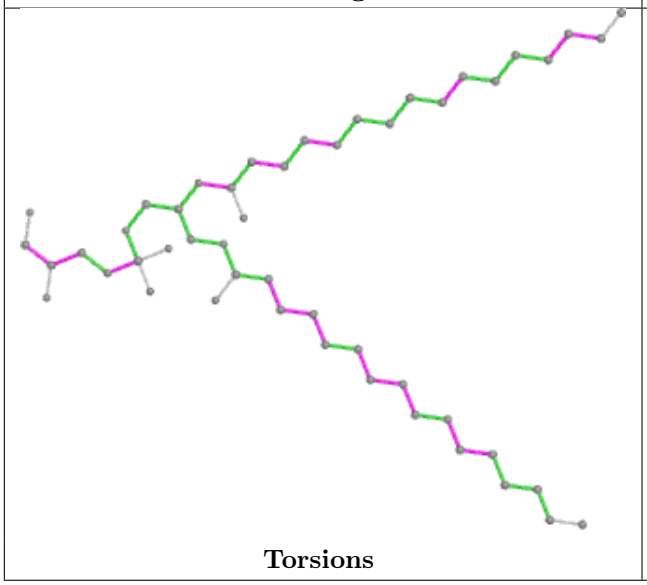
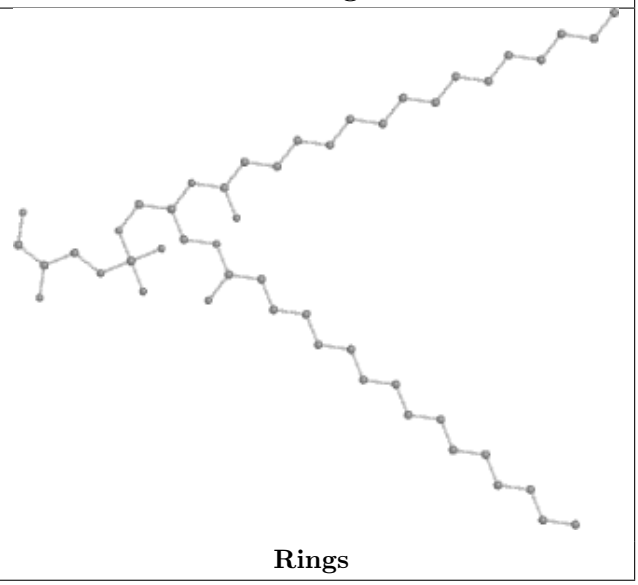


Bond angles

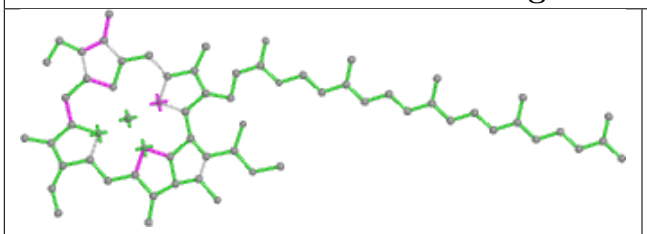


Torsions

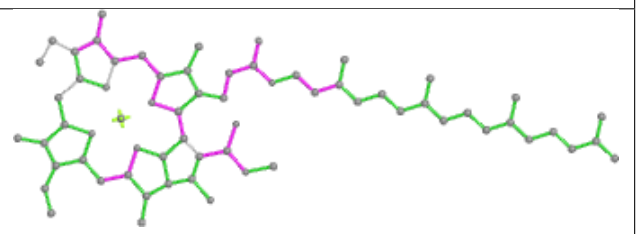


Rings

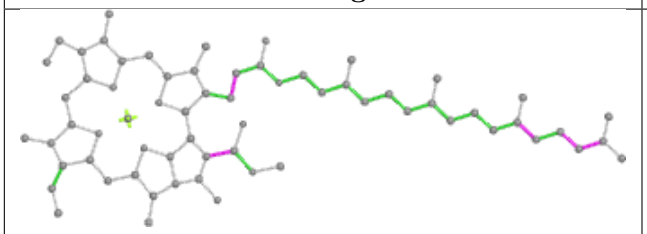
Ligand CLA b 610



Bond lengths



Bond angles



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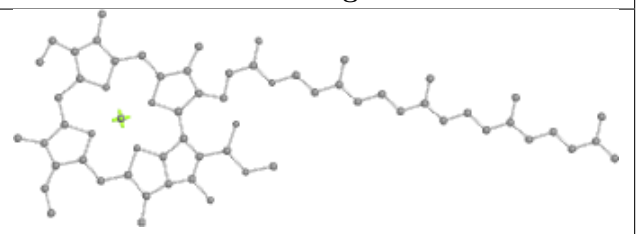
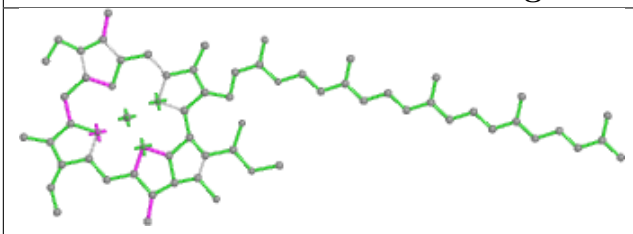


Rings

Ligand CLA B 613



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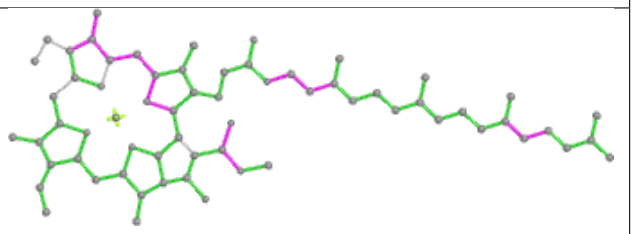
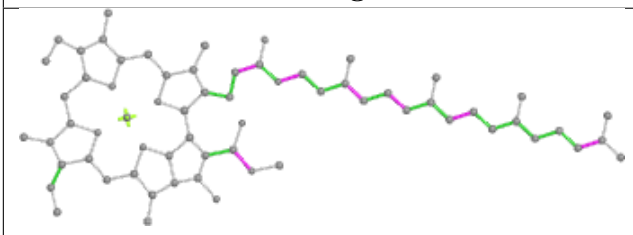


Bond angles



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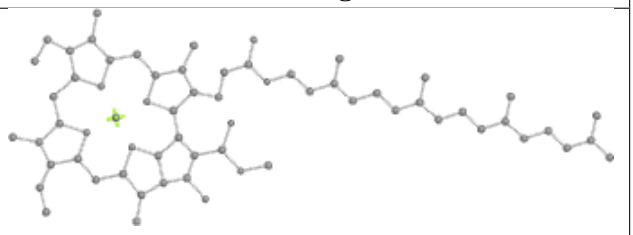
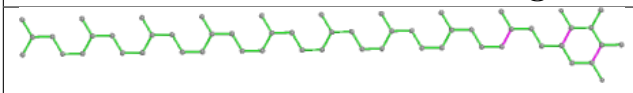
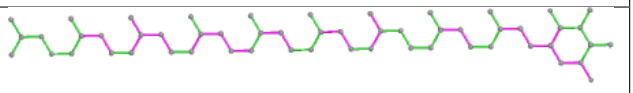


Rings

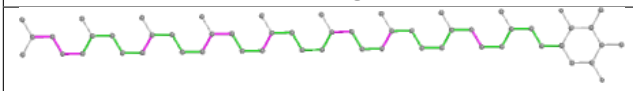
Ligand PL9 D 407



Bond lengths



Bond angles



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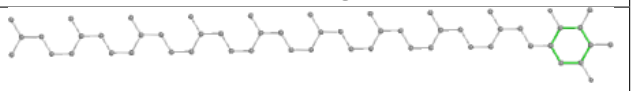
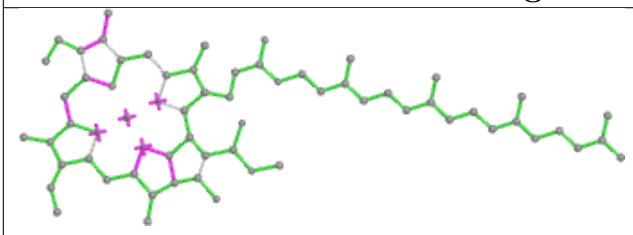
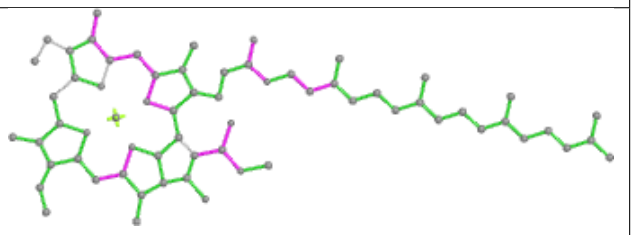


Rings

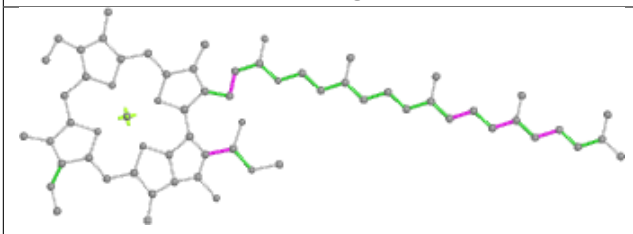
Ligand CLA B 610



Bond lengths



Bond angles



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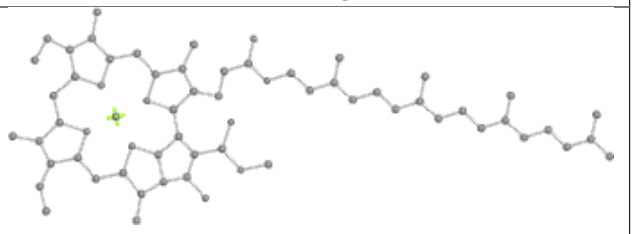
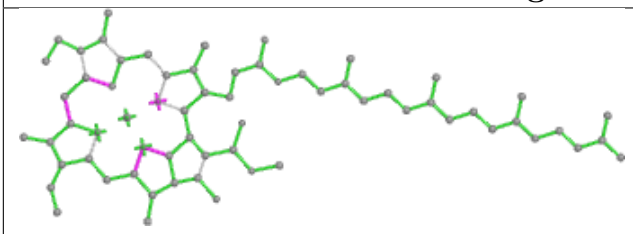


Rings

Ligand CLA b 611



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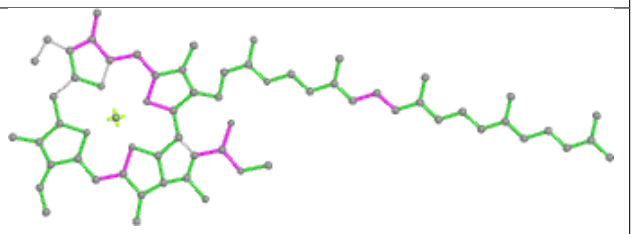
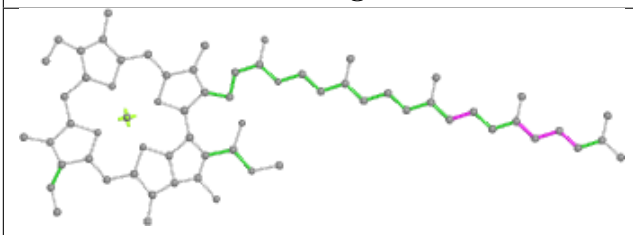


Bond angles



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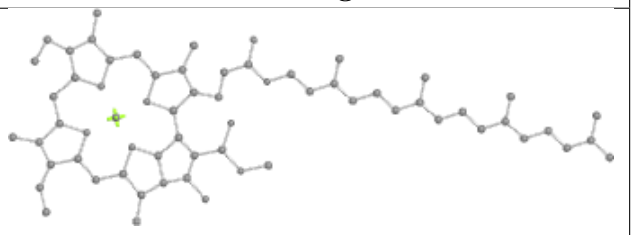
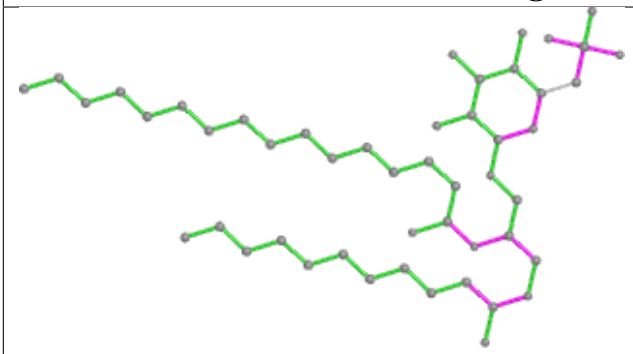
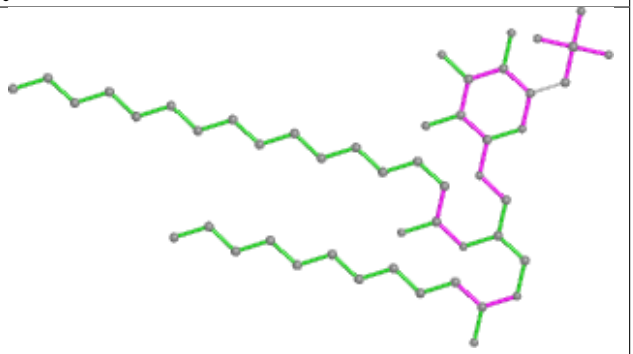


Rings

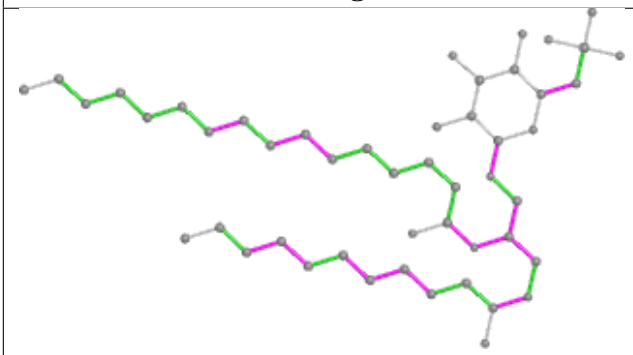
Ligand SQD b 620



Bond lengths



Bond angles



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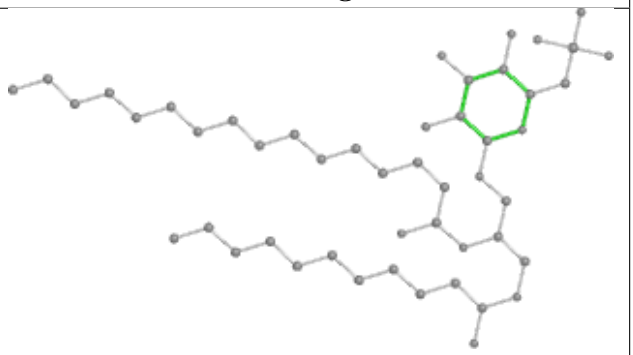
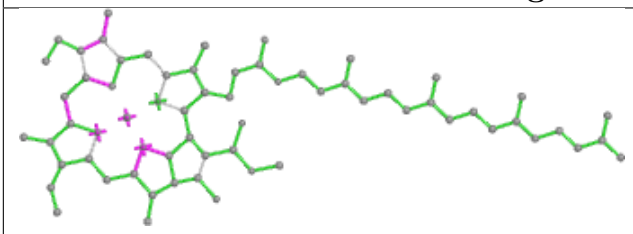


Rings

Ligand CLA d 403



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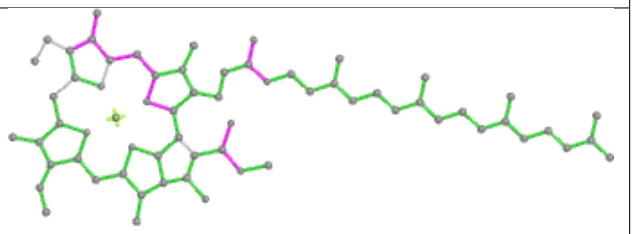
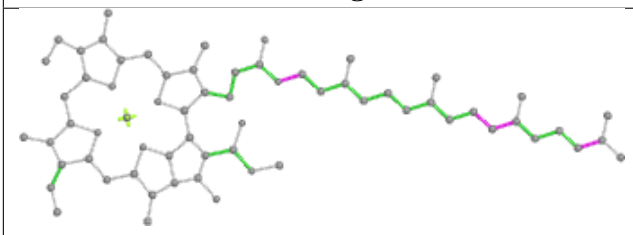


Bond angles



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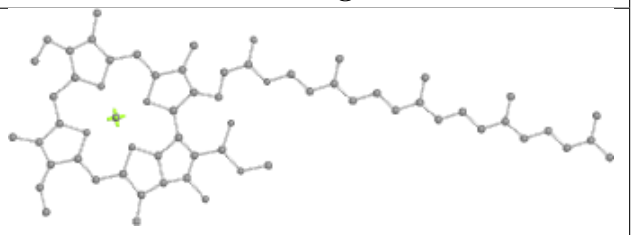
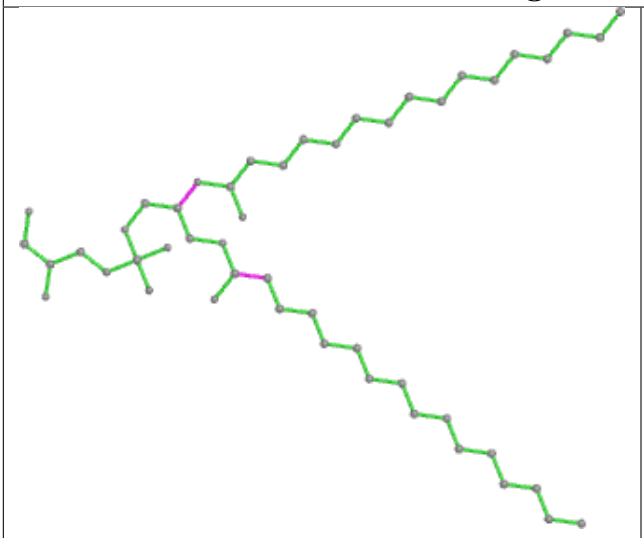


Rings

Ligand LHG d 407



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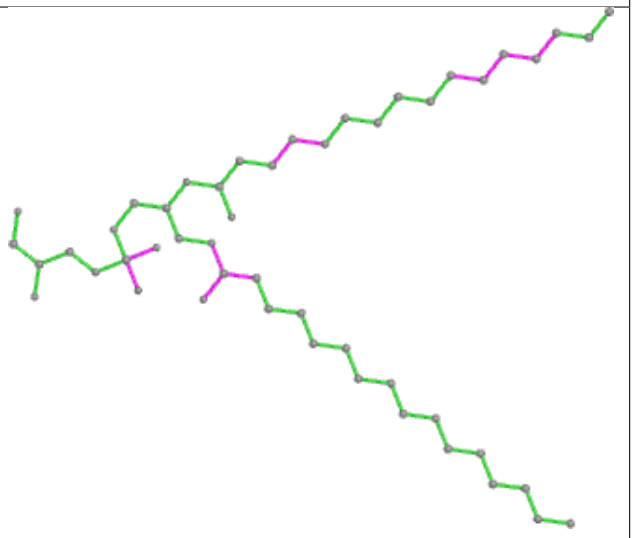
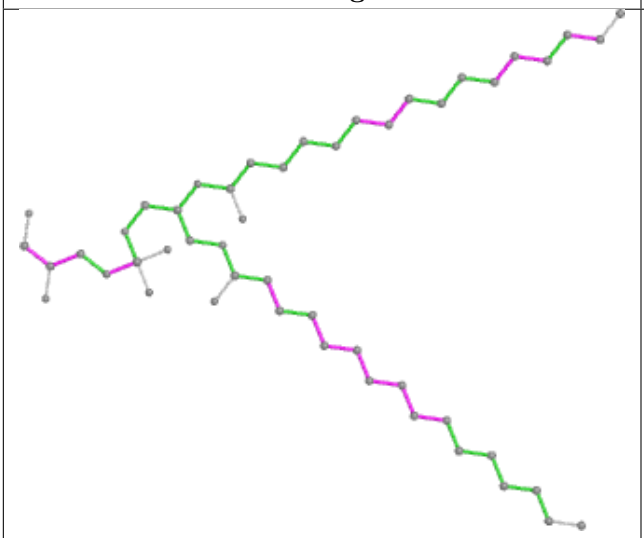


Bond angles



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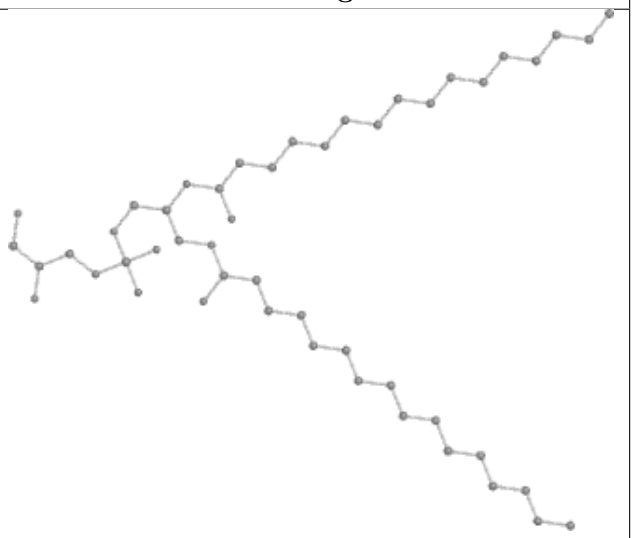
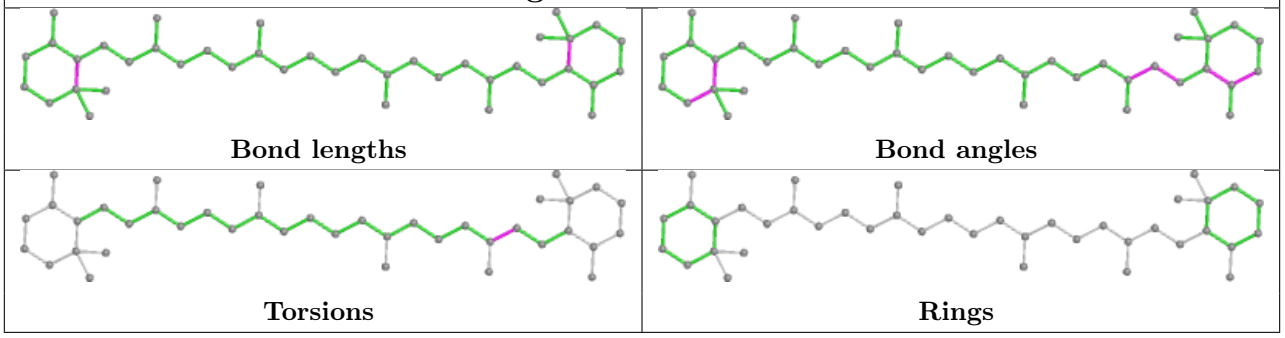
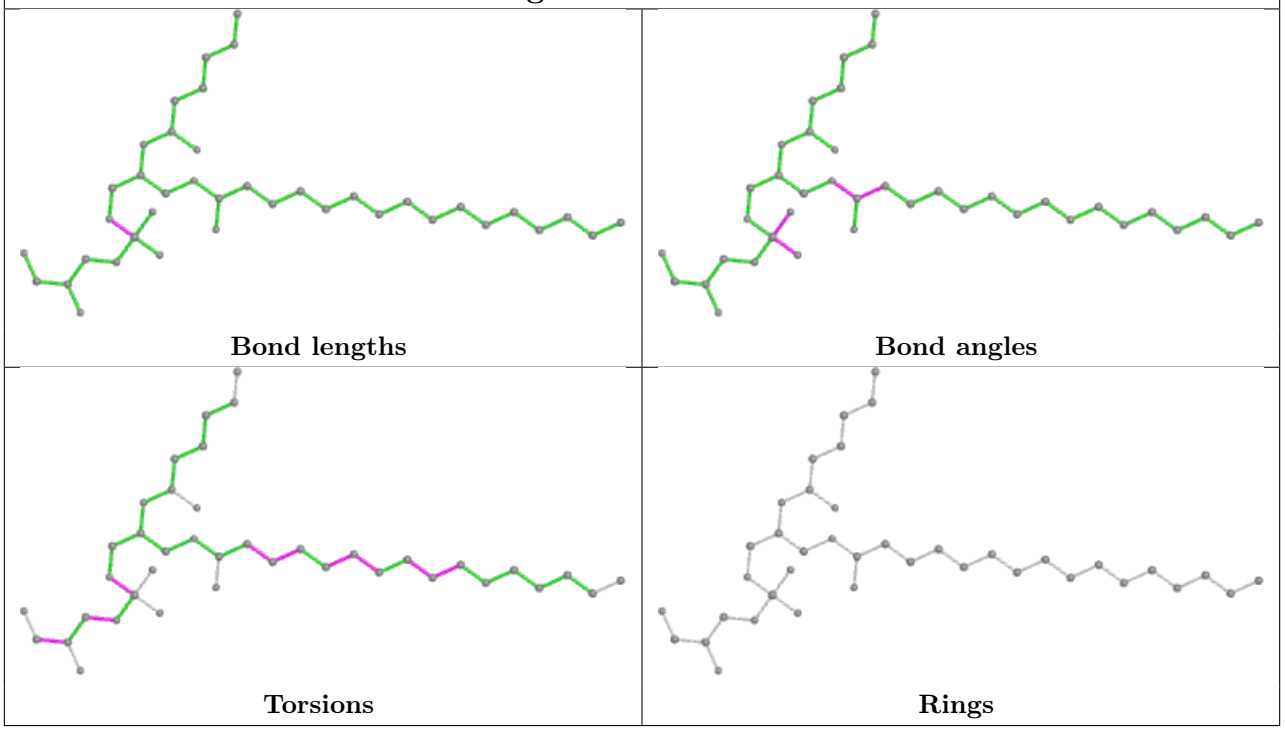


Rings

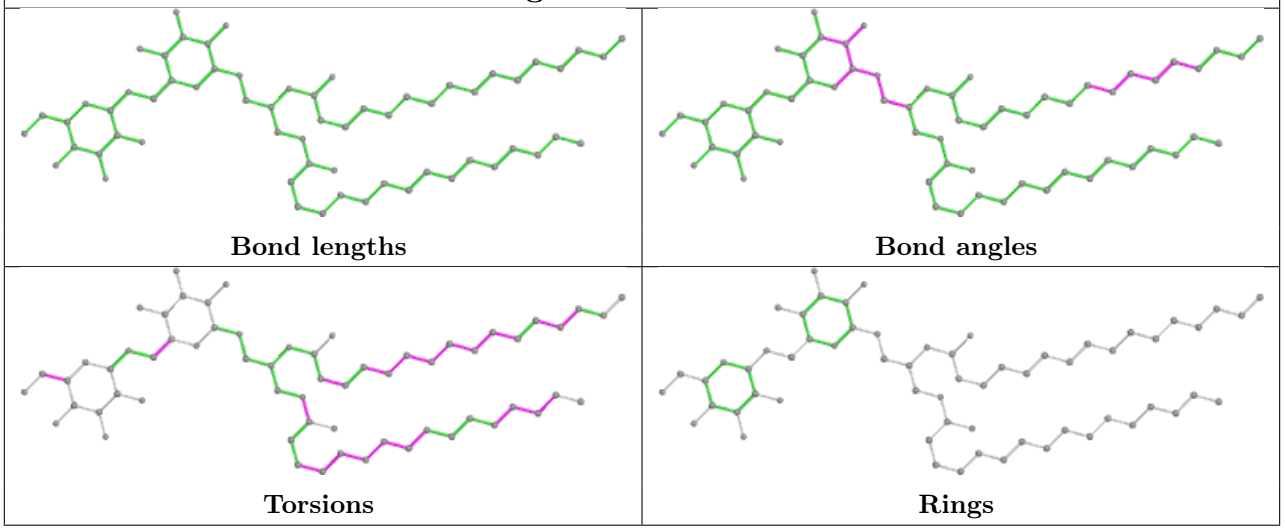
Ligand BCR b 619



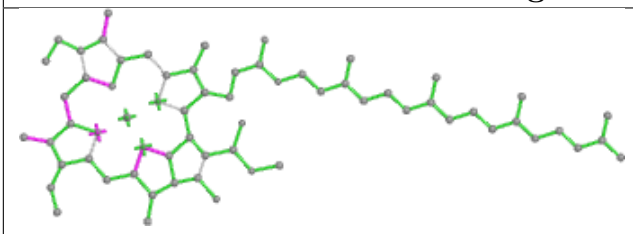
Ligand LHG d 409



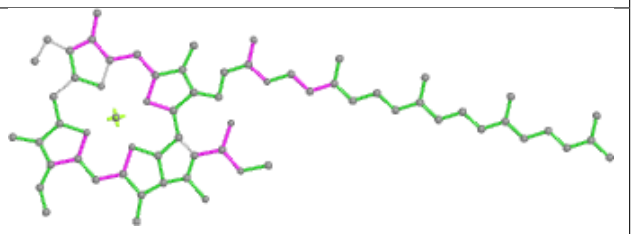
Ligand DGD c 517



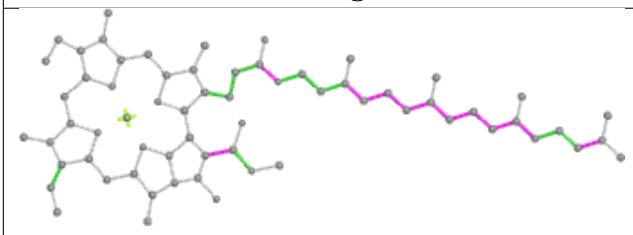
Ligand CLA b 614



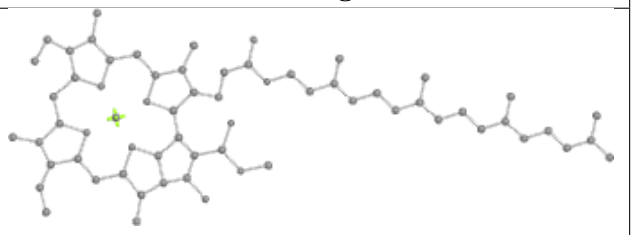
Bond lengths



Bond angles

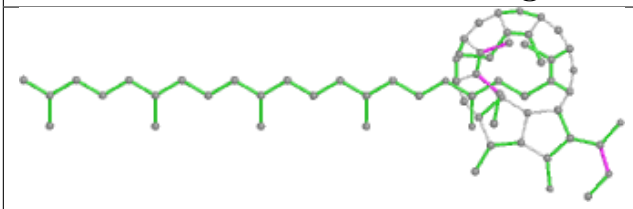


Torsions

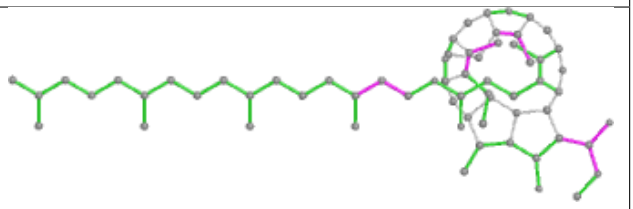


Rings

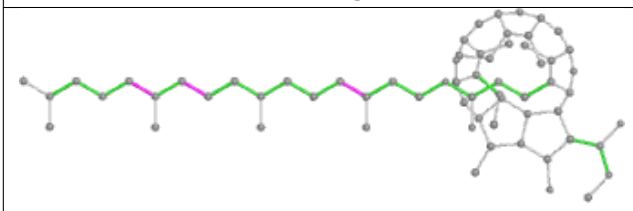
Ligand PHO D 402



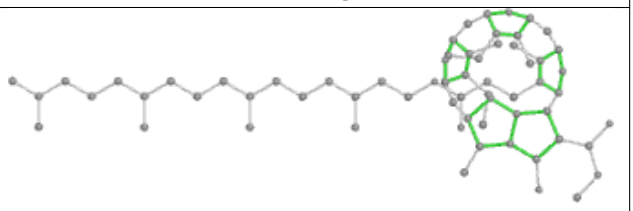
Bond lengths



Bond angles

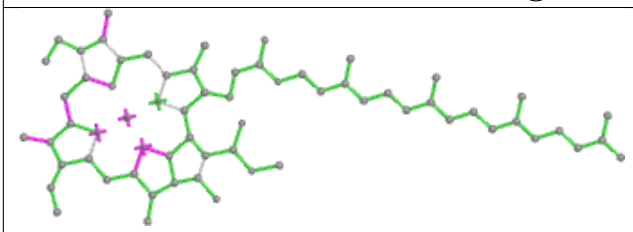


Torsions

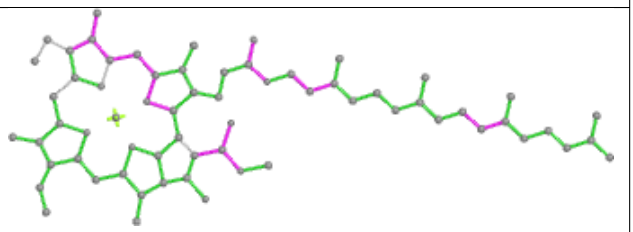


Rings

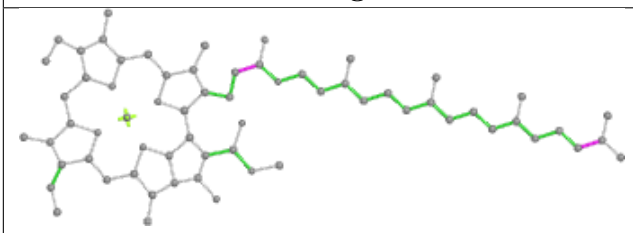
Ligand CLA b 612



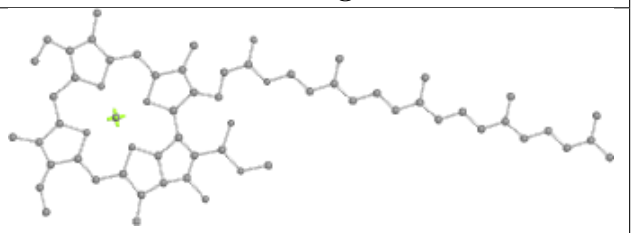
Bond lengths



Bond angles

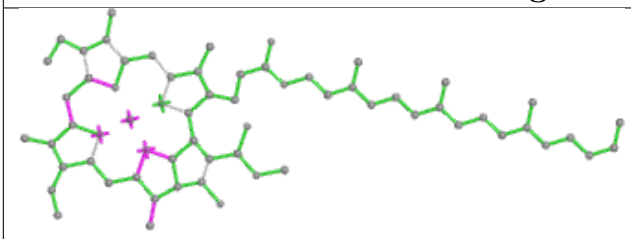


Torsions



Rings

Ligand CLA c 508



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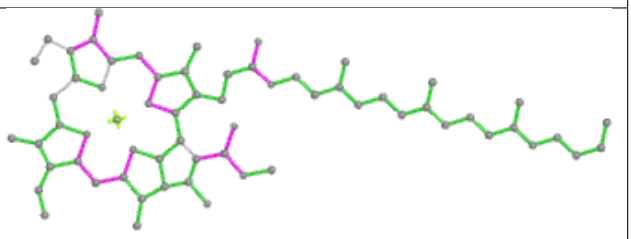
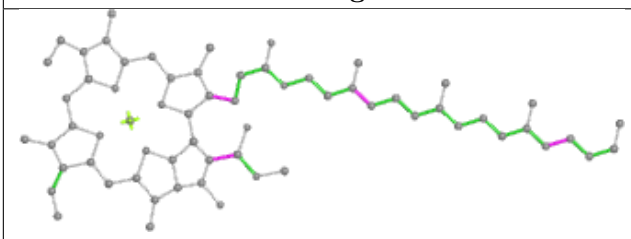
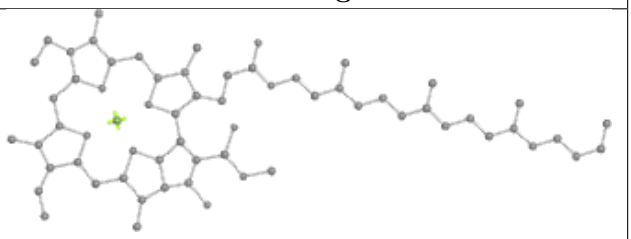


Bond angles



Torsions



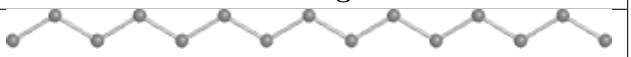
Rings

Ligand STE T 102

Bond lengths

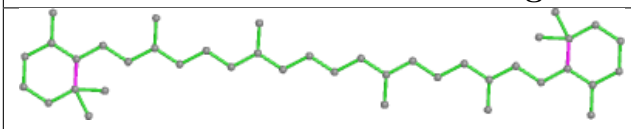
Bond angles

Torsions

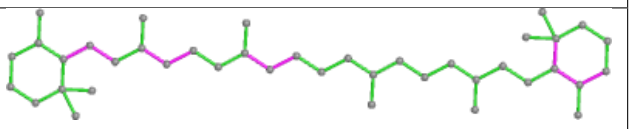


Rings

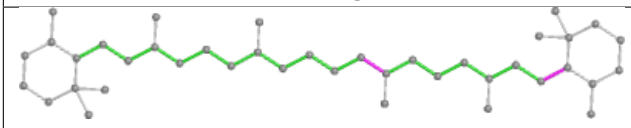
Ligand BCR b 618



Bond lengths



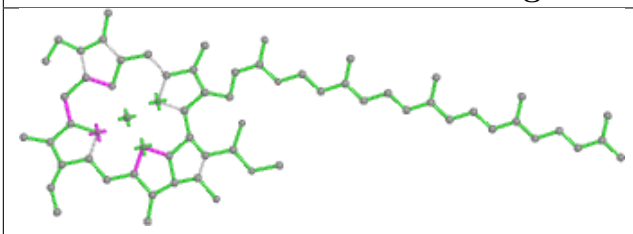
Bond angles



Torsions

Rings

Ligand CLA D 404



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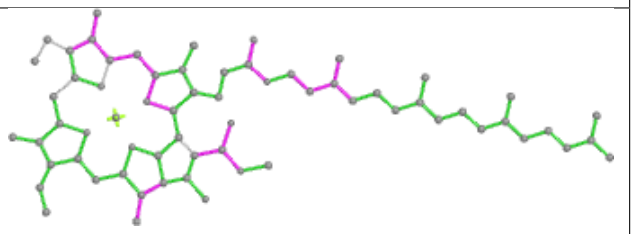
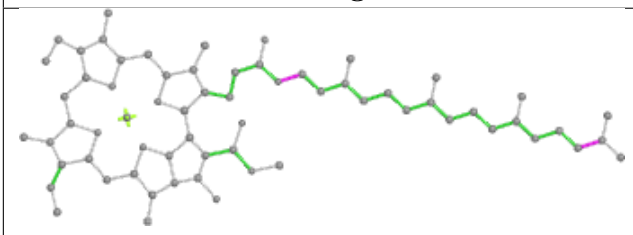
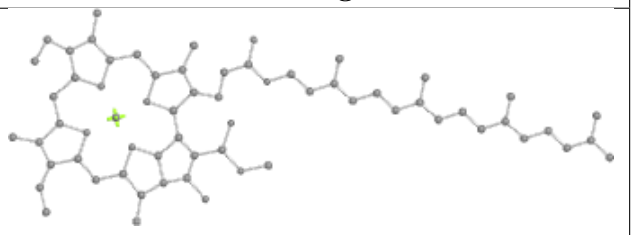


Bond angles

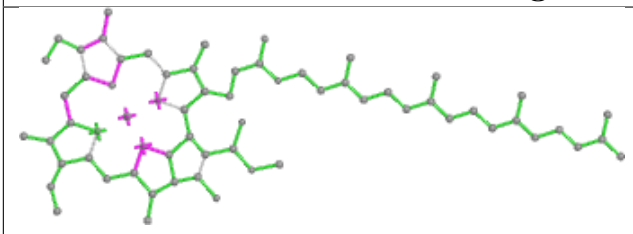


Torsions



Rings

Ligand CLA c 505



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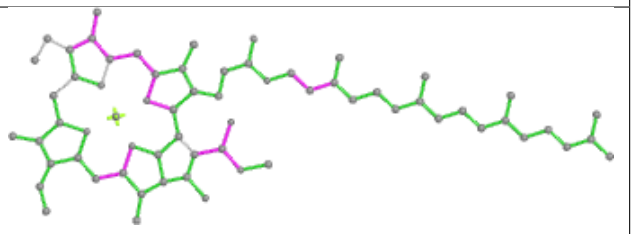
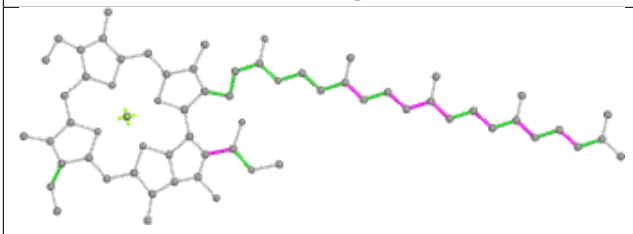


Bond angles



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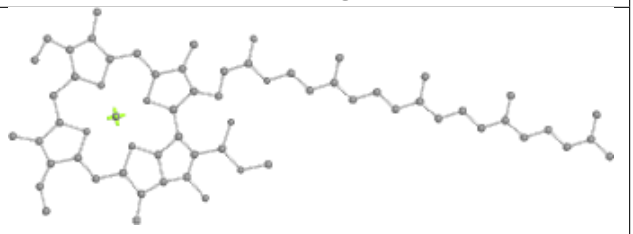
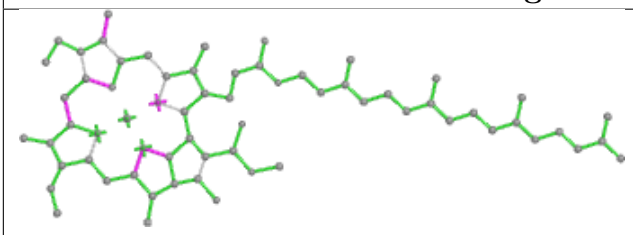
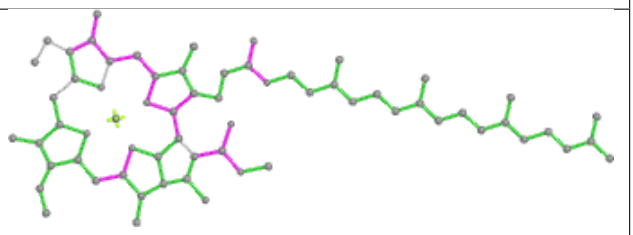


Rings

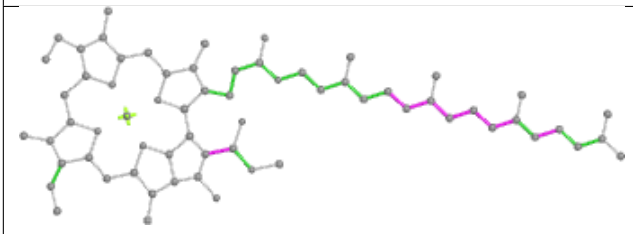
Ligand CLA C 507



Bond lengths



Bond angles



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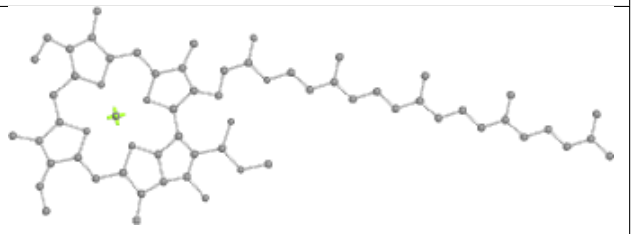
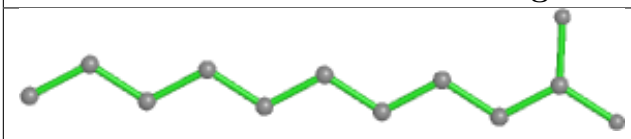


Rings

Ligand STE J 101



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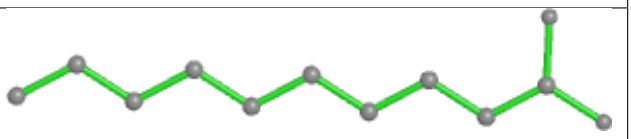
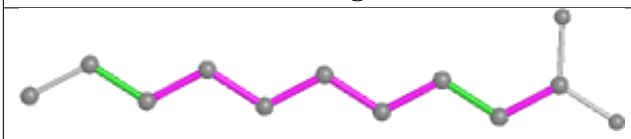


Bond angles



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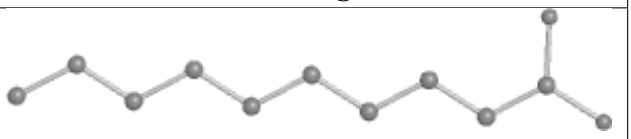
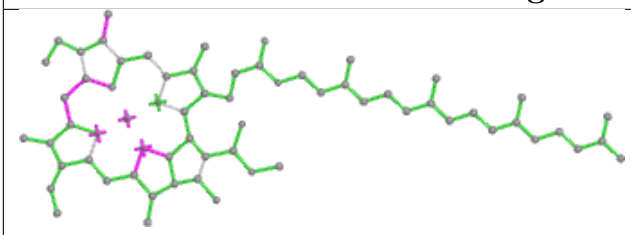
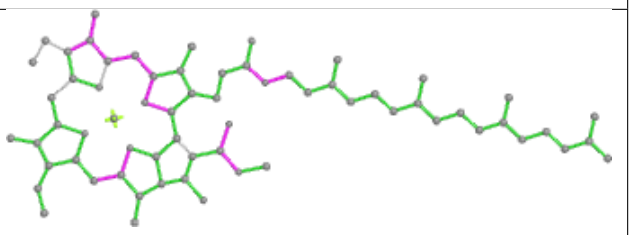


Rings

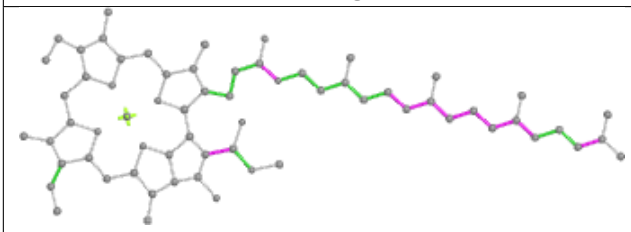
Ligand CLA b 607



Bond lengths



Bond angles



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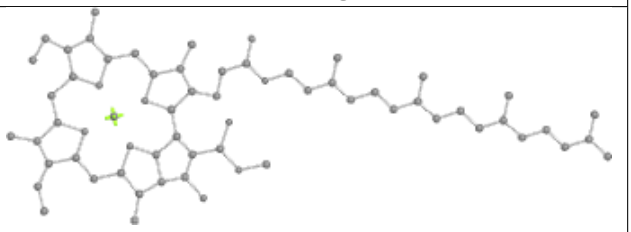
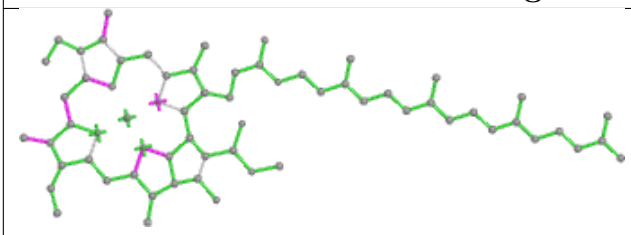


Rings

Ligand CLA C 502



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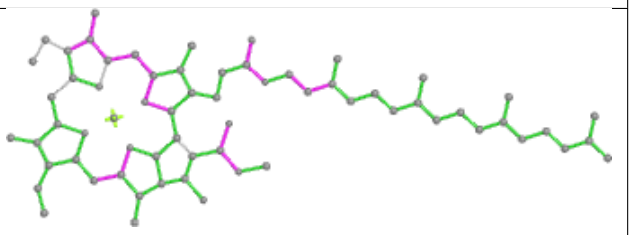
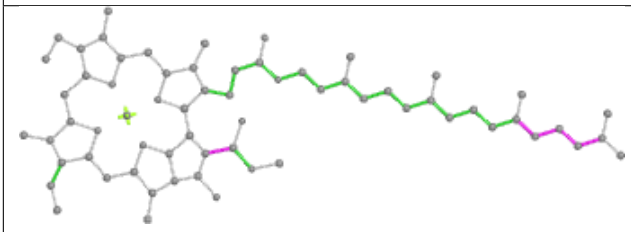
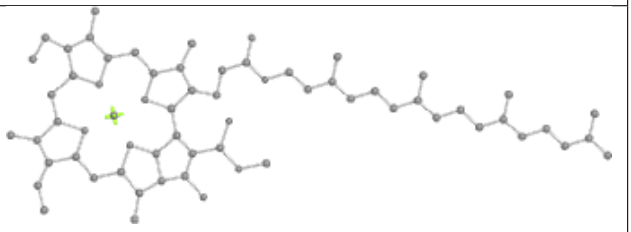


Bond angles

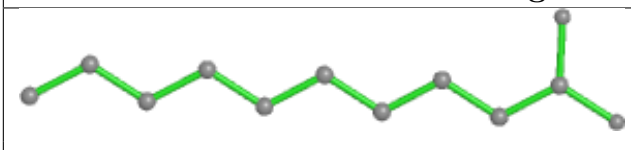


Torsions

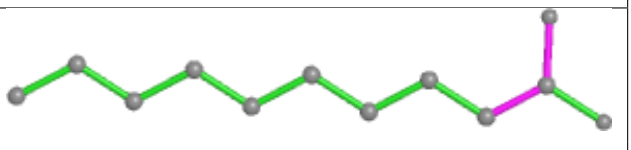


Rings

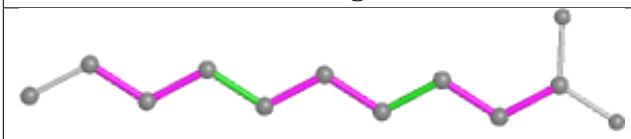
Ligand STE E 102



Bond lengths



Bond angles



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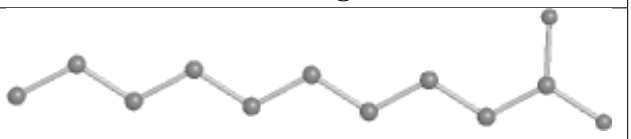
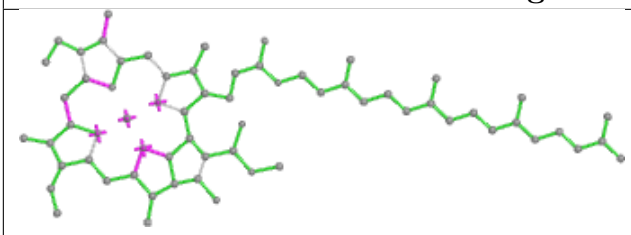
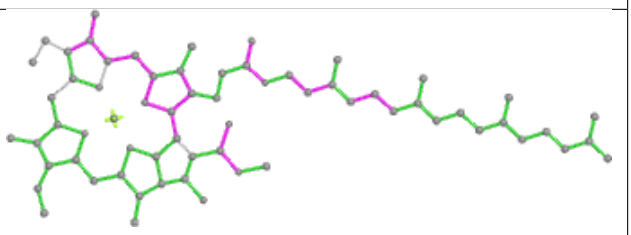


Rings

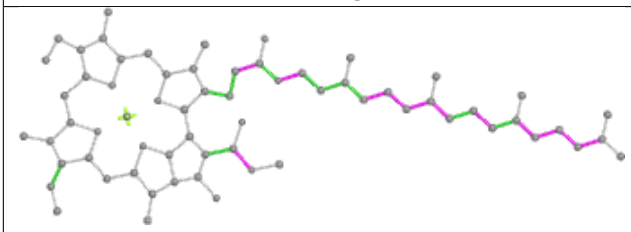
Ligand CLA b 613



Bond lengths



Bond angles



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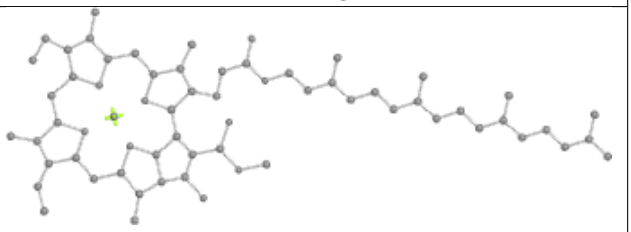
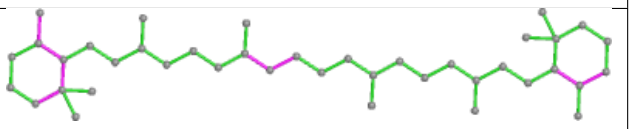


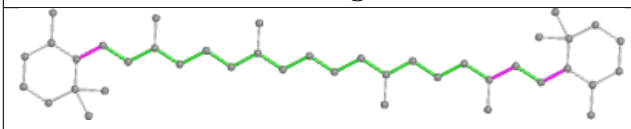
Rings

Ligand BCR Z 101

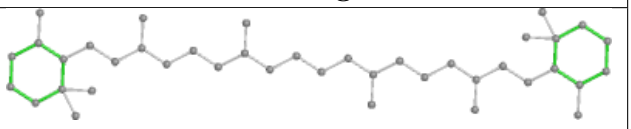
Bond lengths



Bond angles

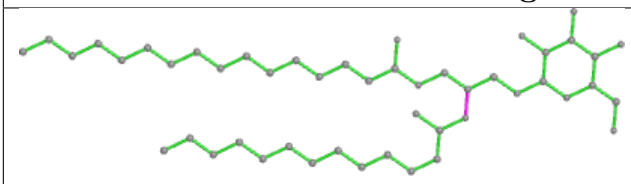


Torsions

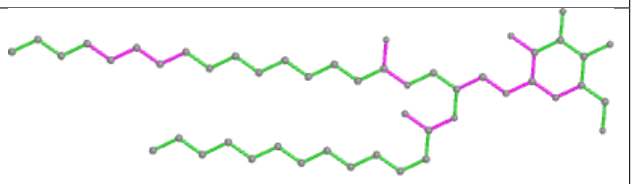


Rings

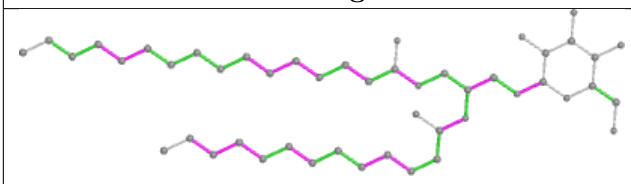
Ligand LMG C 518



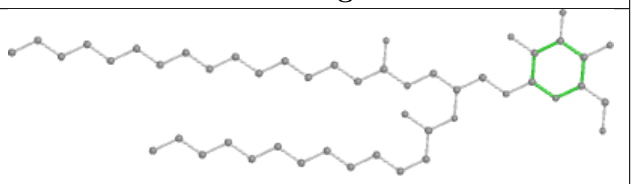
Bond lengths



Bond angles

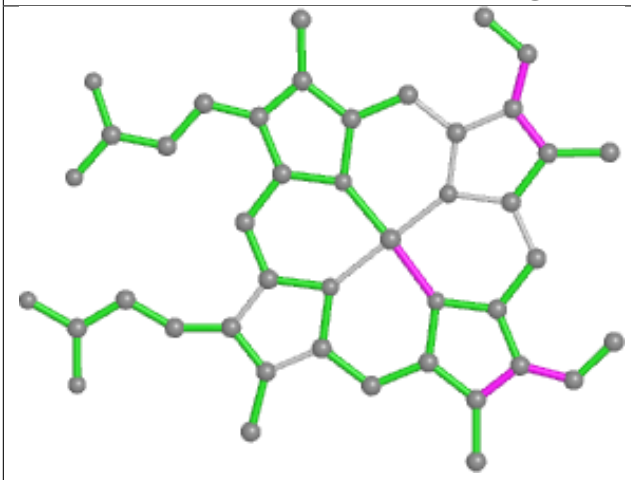


Torsions

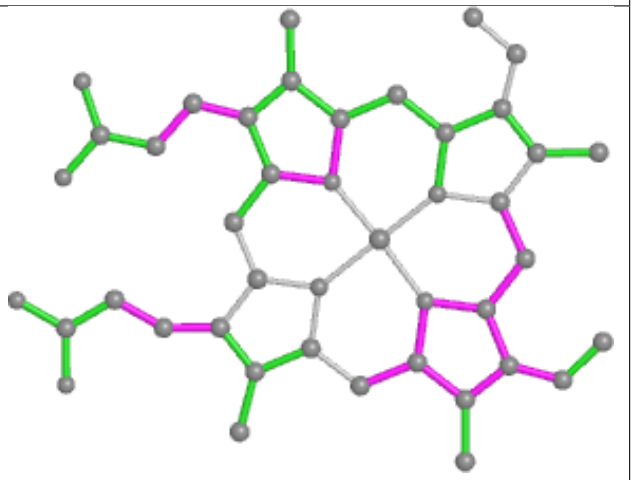


Rings

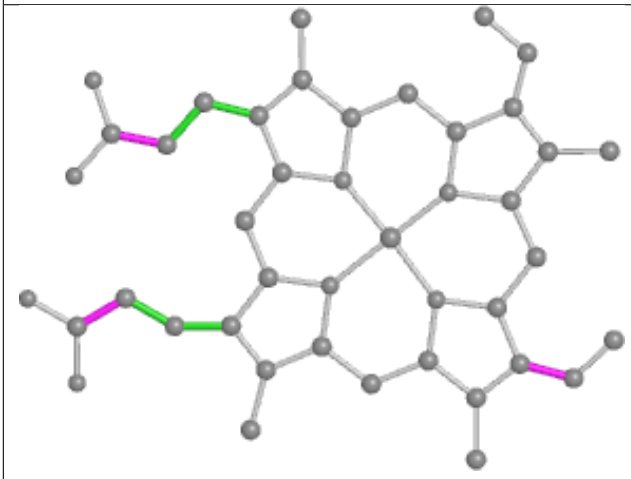
Ligand HEM f 101



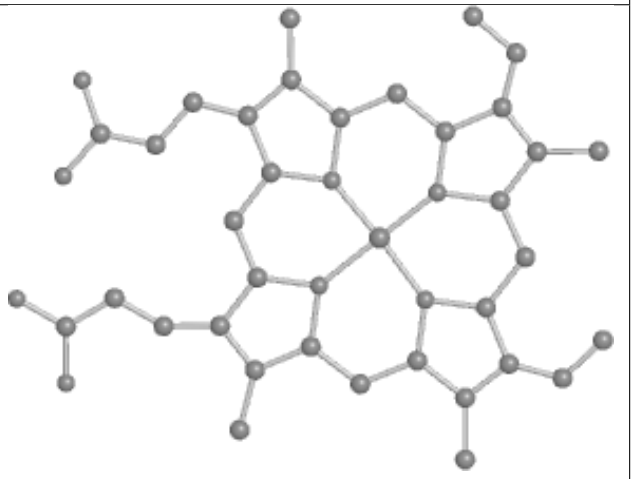
Bond lengths



Bond angles

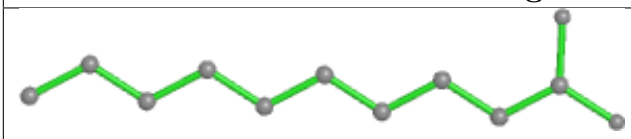


Torsions

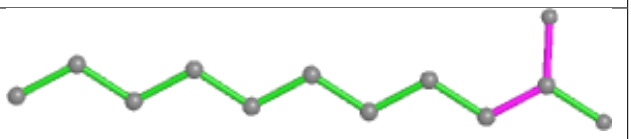


Rings

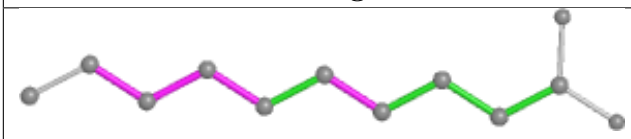
Ligand STE m 101



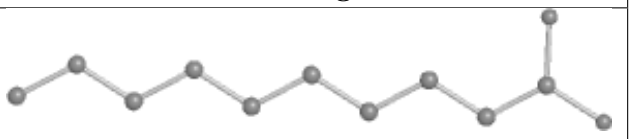
Bond lengths



Bond angles

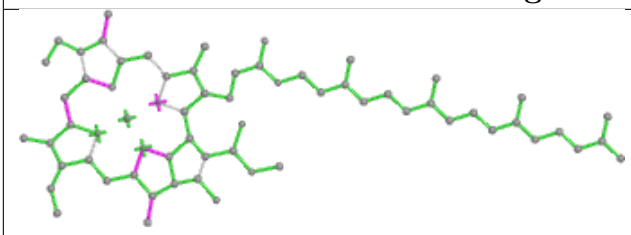


Torsions

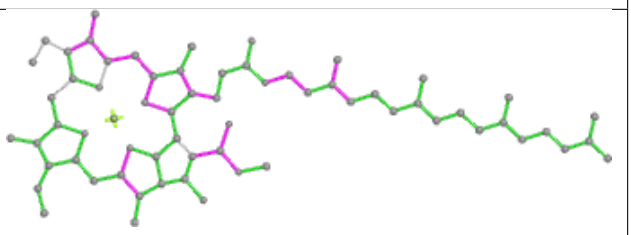


Rings

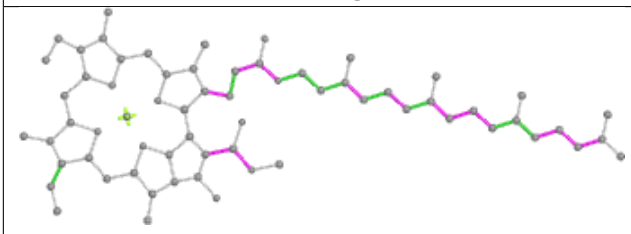
Ligand CLA B 601



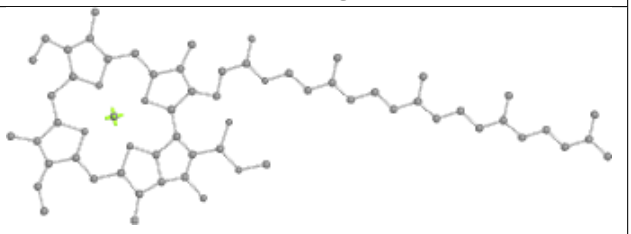
Bond lengths



Bond angles

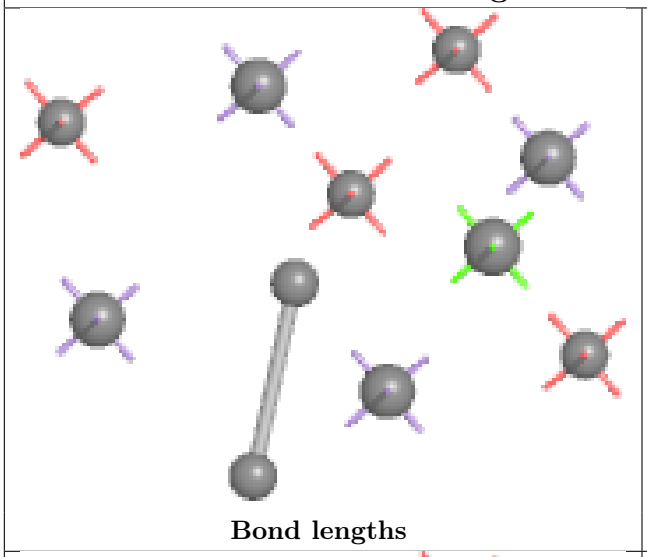


Torsions

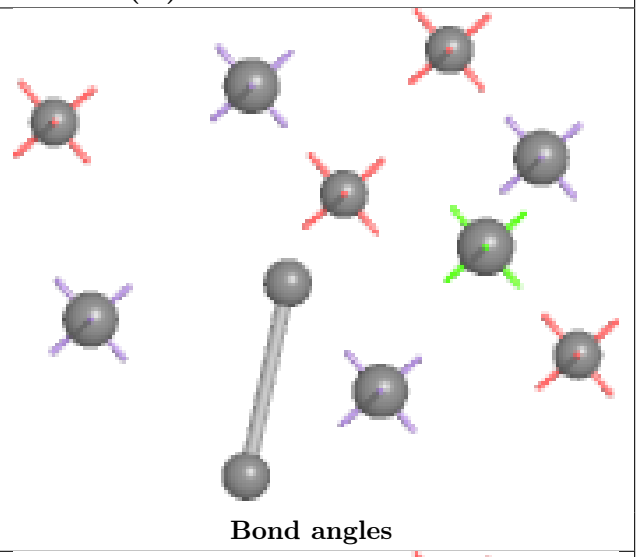


Rings

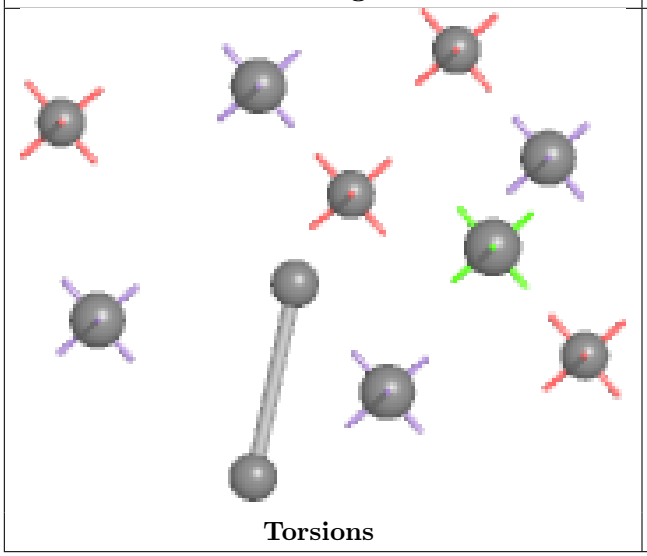
Ligand OEY A 601 (B)



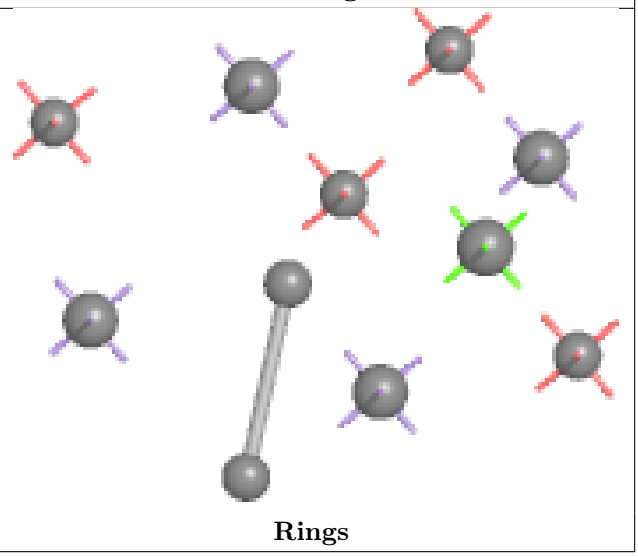
Bond lengths



Bond angles

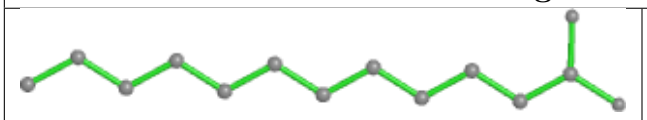


Torsions

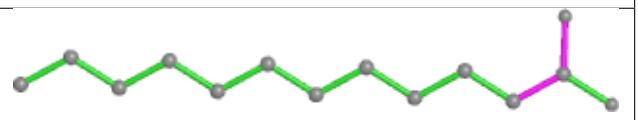


Rings

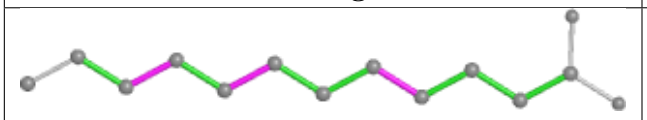
Ligand STE t 102



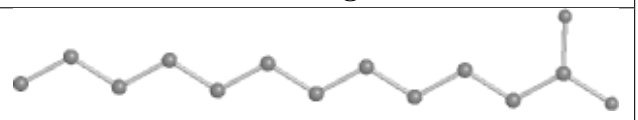
Bond lengths



Bond angles

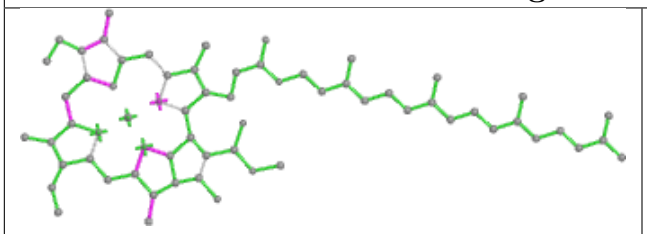


Torsions

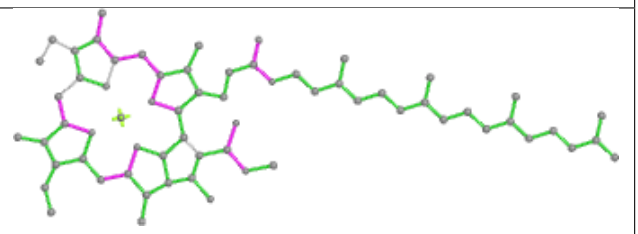


Rings

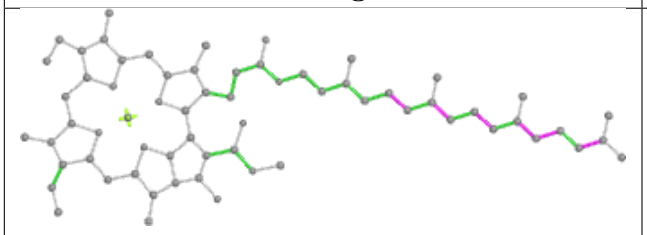
Ligand CLA b 615



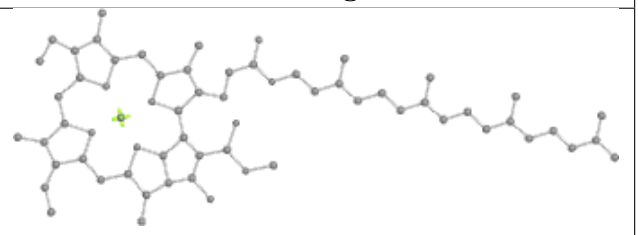
Bond lengths



Bond angles

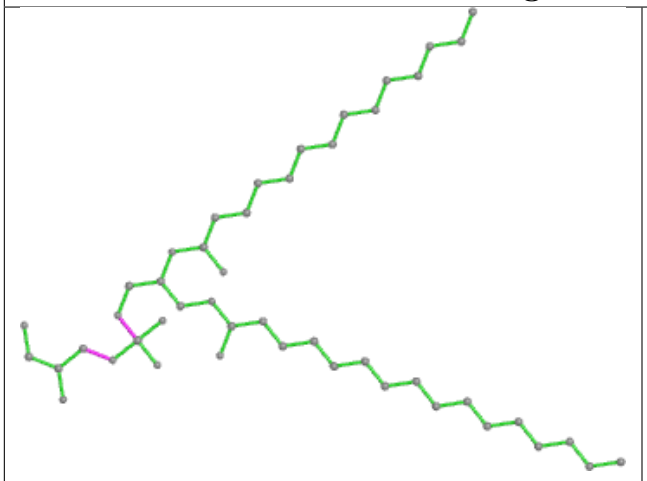


Torsions

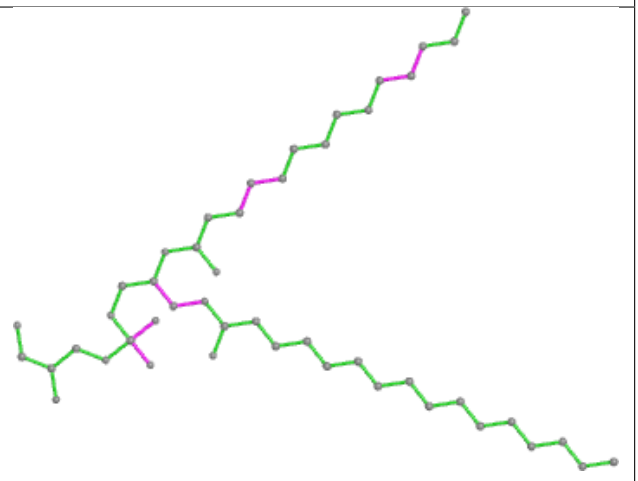


Rings

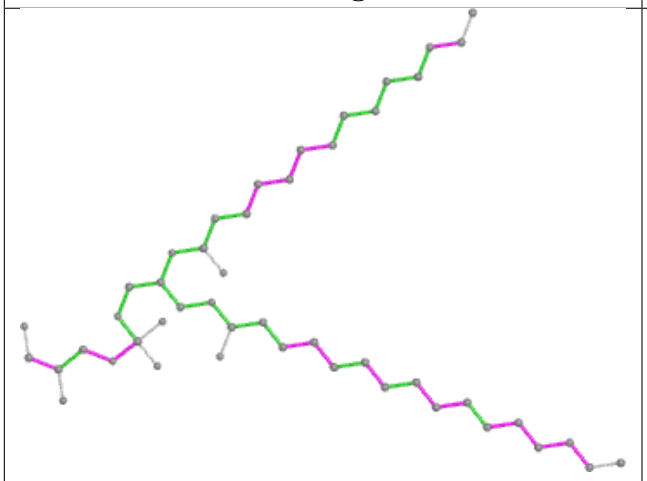
Ligand LHG A 613



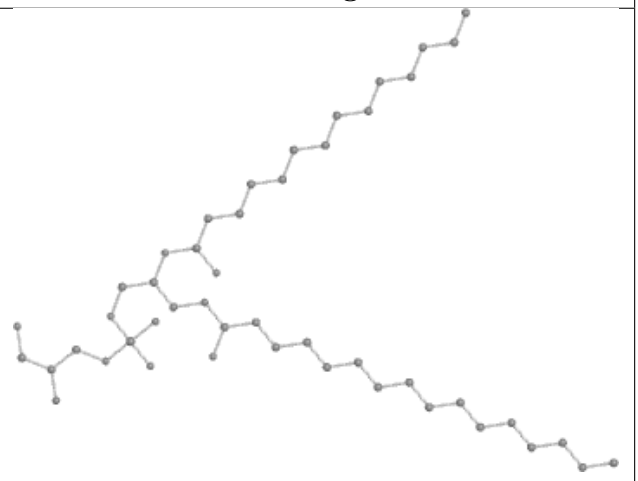
Bond lengths



Bond angles

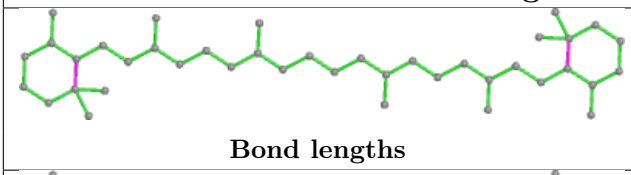


Torsions

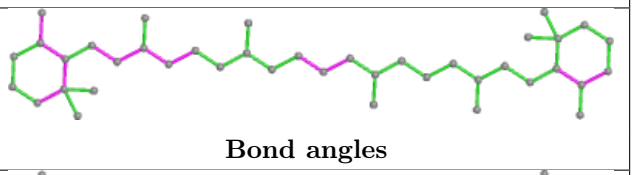


Rings

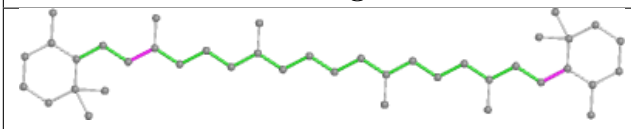
Ligand BCR C 514



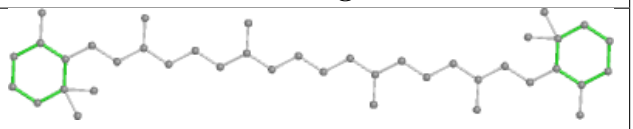
Bond lengths



Bond angles

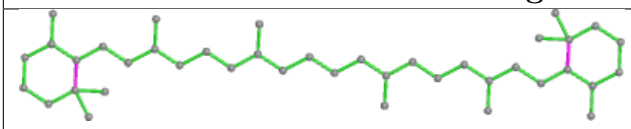


Torsions

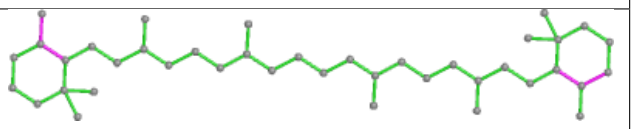


Rings

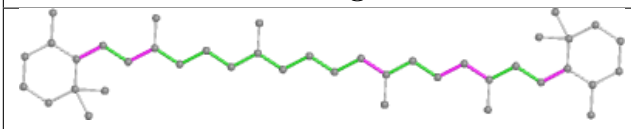
Ligand BCR k 102



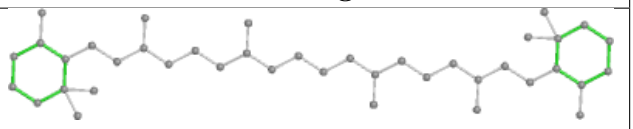
Bond lengths



Bond angles

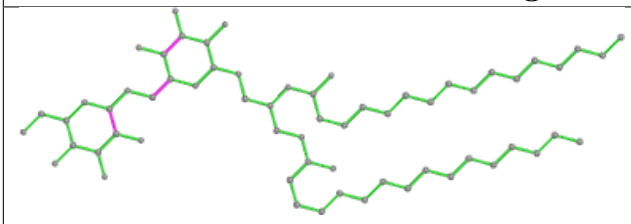


Torsions

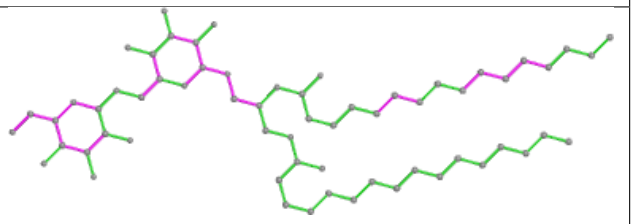


Rings

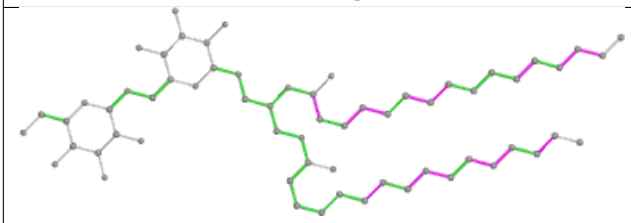
Ligand DGD h 101



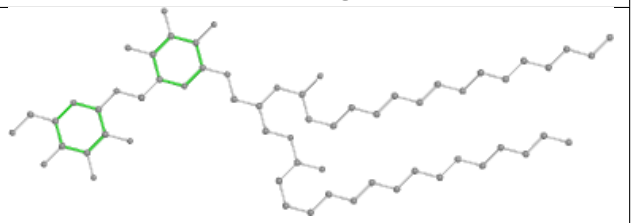
Bond lengths



Bond angles

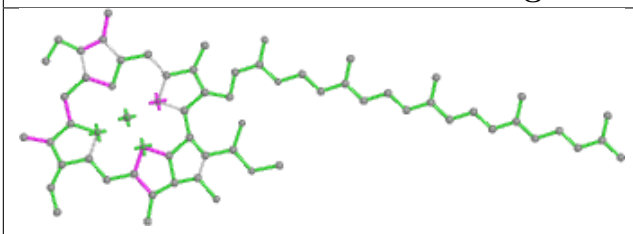


Torsions

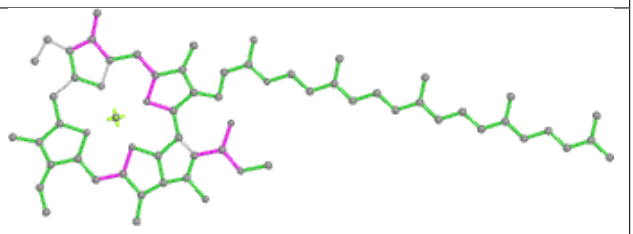


Rings

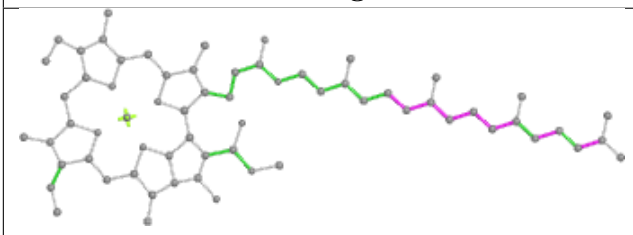
Ligand CLA B 615



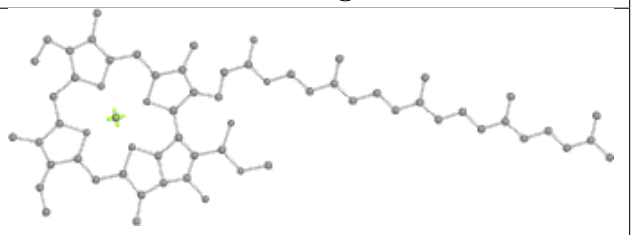
Bond lengths



Bond angles

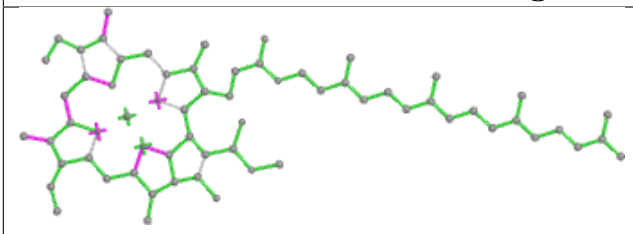


Torsions

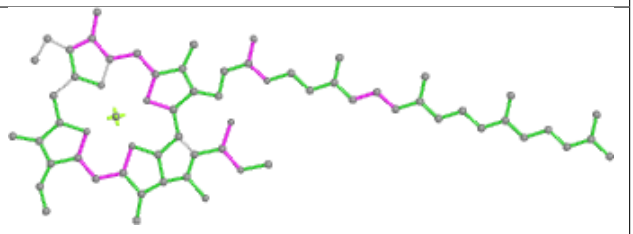


Rings

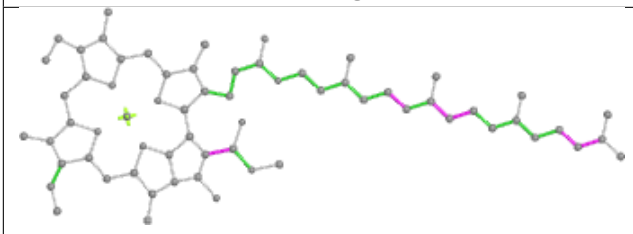
Ligand CLA c 503



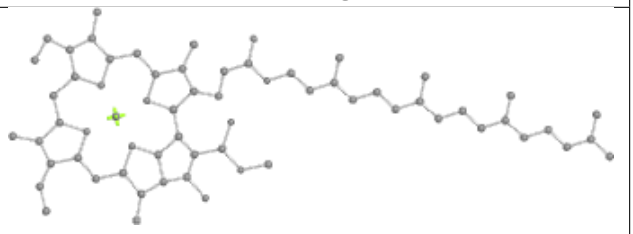
Bond lengths



Bond angles

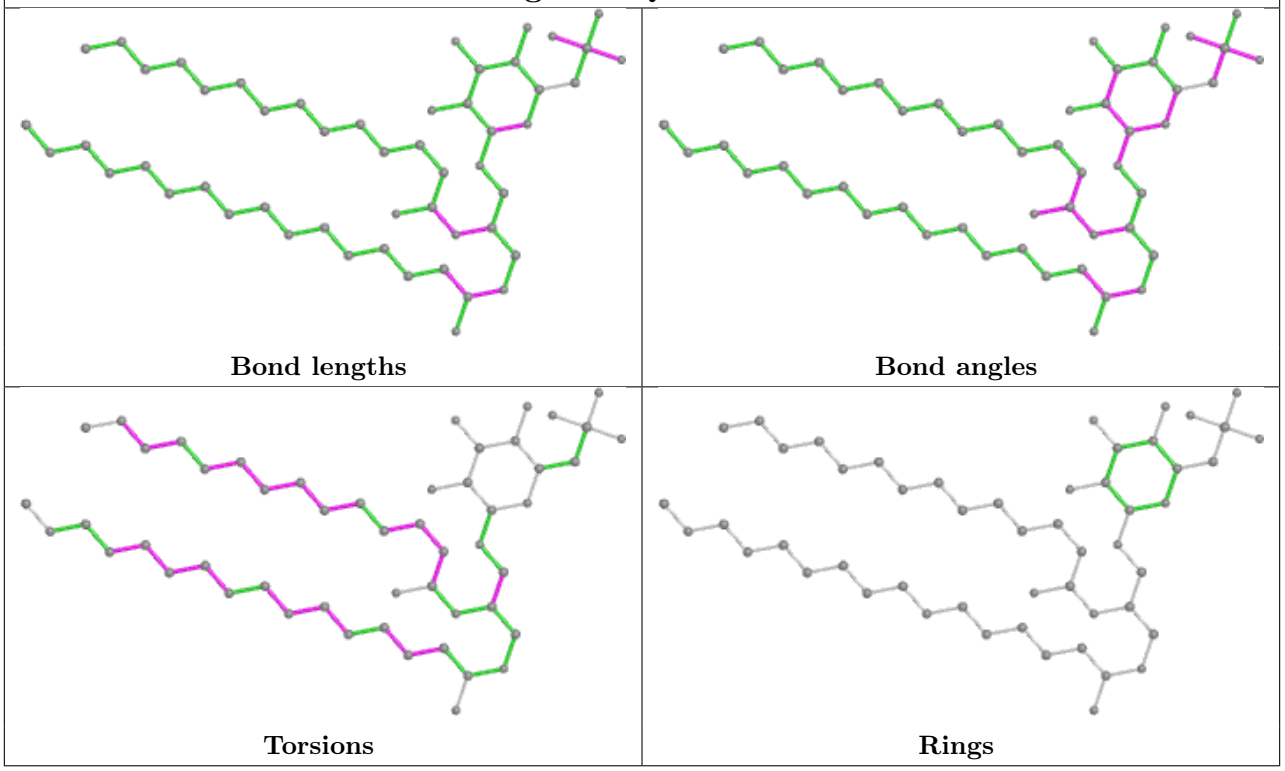


Torsions

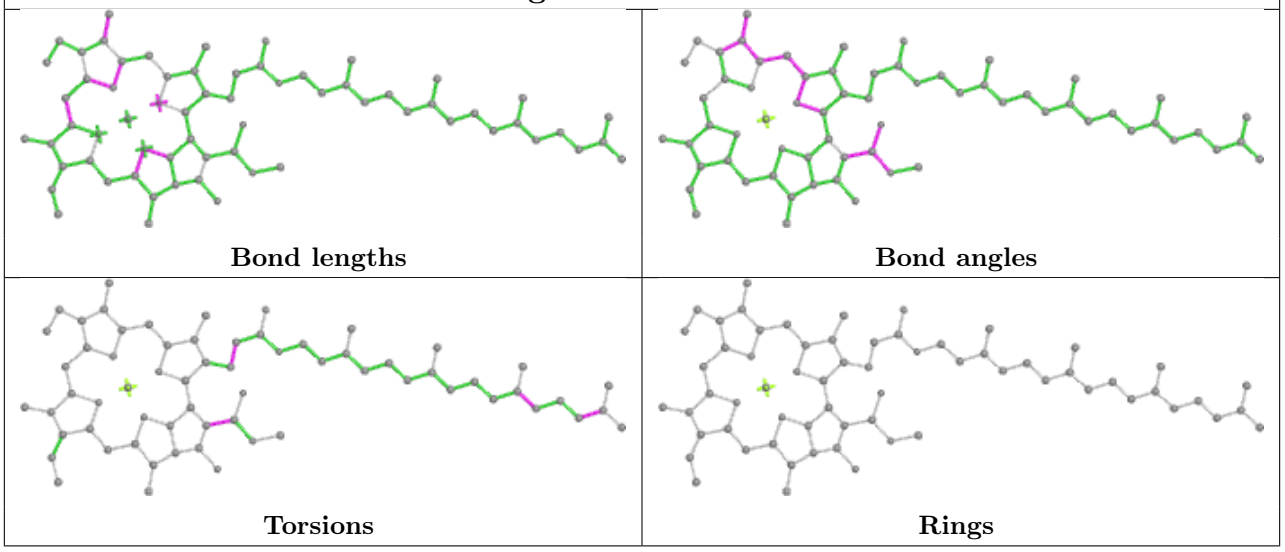


Rings

Ligand SQD A 614



Ligand CLA b 606



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%)	-0.59	2 (0%) 89 88	22, 28, 45, 75	0
1	a	334/344 (97%)	-0.56	2 (0%) 89 88	23, 30, 54, 72	0
2	B	505/510 (99%)	-0.44	7 (1%) 75 74	24, 32, 57, 88	0
2	b	505/510 (99%)	-0.37	11 (2%) 62 60	25, 35, 67, 99	0
3	C	442/461 (95%)	-0.52	1 (0%) 95 94	25, 34, 50, 69	0
3	c	451/461 (97%)	-0.42	7 (1%) 72 70	26, 38, 57, 93	0
4	D	341/352 (96%)	-0.58	1 (0%) 94 93	23, 29, 44, 72	0
4	d	341/352 (96%)	-0.50	3 (0%) 84 83	24, 33, 56, 79	0
5	E	82/84 (97%)	0.05	7 (8%) 10 10	34, 47, 66, 79	0
5	e	82/84 (97%)	0.18	5 (6%) 21 20	39, 54, 73, 84	0
6	F	34/45 (75%)	-0.11	2 (5%) 22 21	34, 42, 57, 87	0
6	f	34/45 (75%)	0.00	2 (5%) 22 21	39, 48, 76, 83	0
7	H	65/66 (98%)	-0.18	3 (4%) 32 31	32, 39, 54, 68	0
7	h	63/66 (95%)	-0.03	2 (3%) 47 46	38, 49, 58, 61	0
8	I	35/38 (92%)	-0.25	2 (5%) 23 23	33, 39, 62, 81	0
8	i	35/38 (92%)	-0.19	1 (2%) 51 50	32, 39, 68, 86	0
9	J	36/40 (90%)	-0.10	3 (8%) 11 10	32, 46, 70, 78	0
9	j	36/40 (90%)	0.15	3 (8%) 11 10	36, 51, 83, 93	0
10	K	37/46 (80%)	-0.09	1 (2%) 54 53	38, 46, 61, 67	0
10	k	37/46 (80%)	-0.23	0 100 100	44, 52, 66, 74	0
11	L	37/37 (100%)	-0.34	3 (8%) 12 11	25, 29, 59, 67	0
11	l	36/37 (97%)	-0.37	2 (5%) 24 23	26, 29, 61, 80	0
12	M	32/36 (88%)	-0.39	1 (3%) 49 48	27, 32, 57, 67	0
12	m	31/36 (86%)	-0.27	0 100 100	29, 34, 48, 61	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	O	244/272 (89%)	0.01	14 (5%) 23 23	26, 40, 75, 127	0
13	o	244/272 (89%)	-0.13	13 (5%) 26 25	26, 40, 76, 115	0
14	T	29/32 (90%)	-0.28	1 (3%) 45 44	27, 30, 56, 71	0
14	t	29/32 (90%)	-0.25	3 (10%) 6 6	26, 32, 68, 81	0
15	U	97/134 (72%)	-0.28	1 (1%) 82 81	32, 41, 65, 91	0
15	u	97/134 (72%)	-0.30	2 (2%) 63 62	30, 38, 54, 83	0
16	V	137/163 (84%)	-0.47	0 100 100	29, 38, 52, 71	0
16	v	137/163 (84%)	-0.28	0 100 100	34, 45, 63, 79	0
17	Y	27/46 (58%)	0.89	5 (18%) 1 1	49, 64, 79, 87	0
17	y	30/46 (65%)	0.54	4 (13%) 3 2	56, 66, 76, 90	0
18	X	38/41 (92%)	-0.06	3 (7%) 12 11	40, 48, 64, 71	0
18	x	39/41 (95%)	0.43	5 (12%) 3 3	47, 59, 79, 91	0
19	Z	62/62 (100%)	0.59	12 (19%) 1 0	48, 62, 100, 113	0
19	z	62/62 (100%)	0.59	11 (17%) 1 1	55, 64, 104, 112	0
20	R	34/41 (82%)	1.07	8 (23%) 0 0	56, 65, 78, 79	0
20	r	31/41 (75%)	1.90	12 (38%) 0 0	67, 81, 97, 101	0
All	All	5302/5700 (93%)	-0.31	165 (3%) 49 48	22, 36, 68, 127	0

All (165) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
13	O	3	GLN	9.1
13	O	4	THR	8.6
13	O	60	ARG	8.5
13	O	59	LYS	7.6
13	O	62	GLU	6.7
6	F	12	SER	6.6
13	o	58	ASN	5.9
13	o	60	ARG	5.7
13	o	3	GLN	5.6
13	o	56	PRO	5.3
20	R	3	TRP	5.3
20	r	26	TYR	5.2
19	z	33	TRP	5.2
2	b	86	ILE	5.1
20	r	3	TRP	5.1

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Mol	Chain	Res	Type	RSRZ
13	O	56	PRO	5.0
13	o	4	THR	5.0
13	O	61	GLN	4.9
3	c	23	ALA	4.9
9	J	5	GLY	4.8
20	r	28	VAL	4.8
14	t	30	THR	4.6
20	r	32	GLN	4.6
9	j	6	GLY	4.5
9	j	5	GLY	4.5
14	T	30	THR	4.5
2	b	495	PHE	4.4
13	o	246	ALA	4.4
13	o	62	GLU	4.4
6	F	13	TYR	4.3
19	Z	62	VAL	4.3
18	x	38	GLN	4.3
19	z	35	ARG	4.2
19	z	60	PHE	4.2
4	d	227[A]	GLU	4.1
13	o	61	GLN	4.1
2	b	127	ARG	4.0
20	r	18	TRP	4.0
19	Z	33	TRP	3.9
19	Z	35	ARG	3.9
15	U	8	GLU	3.8
20	r	29	LYS	3.8
8	i	36	ASP	3.7
20	r	25	PRO	3.7
18	X	2	THR	3.7
20	R	6	LEU	3.6
7	h	6	TRP	3.6
19	Z	41	PHE	3.5
4	D	12	ARG	3.5
5	E	3	GLY	3.5
20	r	2	ASP	3.4
8	I	34	ARG	3.4
7	H	66	GLY	3.4
18	X	39	ARG	3.3
20	R	21	ARG	3.3
17	Y	43	ARG	3.3
20	r	14	LEU	3.3

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Mol	Chain	Res	Type	RSRZ
13	O	58	ASN	3.2
17	y	19	ILE	3.2
2	b	485	GLU	3.2
11	l	2	GLU	3.1
2	B	127	ARG	3.1
19	Z	31	GLN	3.1
13	o	207	ARG	3.1
17	Y	25	ILE	3.1
2	B	506	ARG	3.0
13	O	5	LEU	3.0
1	a	11	ALA	3.0
19	z	30	PRO	3.0
19	Z	34	ASP	3.0
3	c	24	THR	2.9
9	J	7	ARG	2.9
19	Z	32	ASP	2.9
9	J	6	GLY	2.9
17	Y	21	GLN	2.9
5	e	4	THR	2.9
5	E	82	GLN	2.9
19	z	31	GLN	2.8
3	c	143	TYR	2.8
13	o	59	LYS	2.8
18	x	2	THR	2.8
9	j	7	ARG	2.8
11	l	3	PRO	2.8
5	e	84	LYS	2.8
18	x	34	ILE	2.8
19	Z	4	LEU	2.8
2	b	128	THR	2.7
19	Z	7	LEU	2.7
5	e	3	GLY	2.7
11	L	1	MET	2.7
19	Z	1	MET	2.7
13	o	89	SER	2.7
20	r	6	LEU	2.7
20	r	31	VAL	2.7
20	R	18	TRP	2.6
5	e	61	ARG	2.6
20	R	2	ASP	2.6
3	C	143	TYR	2.6
6	f	13	TYR	2.6

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Mol	Chain	Res	Type	RSRZ
4	d	237	PRO	2.6
14	t	29	ILE	2.5
2	b	505	ARG	2.5
2	b	506	ARG	2.5
20	r	24	LEU	2.5
3	c	29	GLU	2.5
18	x	40	SER	2.5
12	M	33	GLN	2.5
2	B	503	THR	2.5
5	E	4	THR	2.5
20	R	26	TYR	2.5
6	f	12	SER	2.5
19	z	3	ILE	2.5
1	a	16	ARG	2.4
2	B	495	PHE	2.4
2	B	85	GLY	2.4
18	X	3	ILE	2.4
19	Z	42	LEU	2.4
17	y	43	ARG	2.4
5	e	79	PHE	2.4
3	c	262	ARG	2.4
13	o	57	LYS	2.4
19	z	41	PHE	2.4
2	B	86	ILE	2.3
15	u	53	ALA	2.3
5	E	13	ILE	2.3
2	b	494	GLY	2.3
4	d	12	ARG	2.3
10	K	46	ARG	2.3
20	R	32	GLN	2.3
1	A	11	ALA	2.3
17	y	40	ALA	2.3
19	z	1	MET	2.3
17	Y	41	VAL	2.3
14	t	28	ARG	2.3
13	O	246	ALA	2.2
3	c	191	PRO	2.2
5	E	59	GLU	2.2
2	B	293	ALA	2.2
2	b	126	PRO	2.2
13	O	229[A]	GLU	2.2
17	Y	22	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
13	O	24	ASP	2.2
7	h	4	ARG	2.2
13	O	55	GLU	2.1
1	A	13	LEU	2.1
19	z	7	LEU	2.1
19	z	59	PHE	2.1
11	L	3	PRO	2.1
13	O	57	LYS	2.1
8	I	36	ASP	2.1
19	Z	3	ILE	2.1
7	H	65	LEU	2.1
3	c	142	GLU	2.1
11	L	2	GLU	2.1
19	z	39	LEU	2.1
2	b	85	GLY	2.1
15	u	75	LEU	2.0
18	x	3	ILE	2.0
17	y	37	PHE	2.0
2	b	374	ASN	2.0
5	E	83	LEU	2.0
20	R	13	LEU	2.0
13	o	54	GLU	2.0
5	E	61	ARG	2.0
7	H	6	TRP	2.0

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, 95^{th} 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
12	FME	M	1	10/11	0.92	0.16	36,46,59,62	0
14	FME	T	1	10/11	0.92	0.11	30,36,56,60	0
14	FME	t	1	10/11	0.92	0.10	31,38,52,59	0
12	FME	m	1	10/11	0.95	0.15	35,44,61,62	0
8	FME	I	1	10/11	0.97	0.10	38,44,50,50	0
8	FME	i	1	10/11	0.97	0.14	37,45,47,48	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, 95^{th} 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
32	STE	H	103	18/20	0.70	0.23	55,64,72,72	0
28	LMG	c	520	48/55	0.72	0.26	52,68,80,83	0
32	STE	a	615	12/20	0.74	0.23	51,57,70,73	0
32	STE	X	101	20/20	0.75	0.25	36,48,61,65	0
32	STE	B	620	17/20	0.75	0.20	36,47,60,64	0
32	STE	c	521	12/20	0.76	0.23	57,66,70,71	0
31	DGD	o	301	44/66	0.77	0.17	36,50,67,70	0
29	LHG	E	101	49/49	0.77	0.26	40,69,89,97	0
32	STE	B	625	18/20	0.77	0.20	42,52,76,82	0
32	STE	E	102	12/20	0.77	0.20	57,67,81,82	0
28	LMG	d	410	23/55	0.78	0.19	47,61,65,68	0
32	STE	b	625	16/20	0.78	0.15	49,56,68,71	0
28	LMG	D	411	33/55	0.78	0.15	38,51,70,71	0
32	STE	B	627	16/20	0.79	0.20	46,56,68,68	0
30	SQD	a	614	36/54	0.79	0.16	38,54,64,70	0
28	LMG	b	624	55/55	0.79	0.26	50,63,76,77	0
32	STE	c	519	20/20	0.79	0.15	40,49,80,81	0
32	STE	T	103	20/20	0.79	0.18	42,52,69,75	0
32	STE	b	623	20/20	0.81	0.20	37,49,67,69	0
32	STE	T	102	15/20	0.82	0.20	43,50,65,66	0
29	LHG	e	101	42/49	0.82	0.25	56,75,91,95	0
28	LMG	A	612	48/55	0.83	0.16	41,54,62,65	0
27	PL9	a	611	55/55	0.84	0.20	39,60,70,76	0
28	LMG	c	522	49/55	0.84	0.14	40,50,70,76	0
32	STE	B	624	12/20	0.84	0.15	44,53,58,60	0
32	STE	t	102	14/20	0.84	0.13	40,44,57,58	0
32	STE	d	413	20/20	0.85	0.18	43,50,57,58	0
32	STE	m	101	12/20	0.85	0.16	51,58,64,67	0
27	PL9	A	610	55/55	0.85	0.21	35,57,67,71	0
32	STE	C	519	12/20	0.86	0.14	39,44,58,59	0
31	DGD	A	616	66/66	0.86	0.17	45,55,63,68	0
28	LMG	D	408	51/55	0.86	0.18	28,42,67,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
25	CLA	b	601	65/65	0.86	0.17	45,61,78,84	0
30	SQD	B	623	54/54	0.86	0.17	36,56,72,80	0
32	STE	l	102	18/20	0.86	0.17	35,45,60,62	0
25	CLA	C	513	65/65	0.86	0.16	41,51,72,76	0
30	SQD	f	102	41/54	0.86	0.18	58,72,82,85	0
32	STE	t	103	10/20	0.86	0.15	44,53,60,61	0
28	LMG	B	621	28/55	0.87	0.13	38,45,59,69	0
30	SQD	b	620	49/54	0.87	0.15	41,50,73,78	0
32	STE	d	412	17/20	0.87	0.15	42,47,61,64	0
25	CLA	c	512	65/65	0.87	0.15	39,50,70,74	0
28	LMG	C	518	48/55	0.88	0.18	38,59,70,72	0
32	STE	J	101	12/20	0.88	0.13	46,52,61,63	0
25	CLA	c	513	65/65	0.88	0.16	38,53,79,85	0
26	BCR	D	406	40/40	0.88	0.12	32,40,68,75	0
32	STE	B	626	12/20	0.88	0.23	50,54,67,69	0
28	LMG	M	101	51/55	0.88	0.13	33,47,59,61	0
25	CLA	C	512	65/65	0.88	0.16	35,44,66,69	0
30	SQD	A	615	39/54	0.88	0.16	41,51,74,77	0
28	LMG	b	622	51/55	0.89	0.13	33,49,60,63	0
32	STE	C	520	12/20	0.89	0.14	43,49,53,54	0
25	CLA	b	616	60/65	0.89	0.14	29,37,77,79	0
28	LMG	c	518	37/55	0.89	0.17	43,57,68,69	0
25	CLA	B	616	60/65	0.89	0.15	25,33,69,74	0
32	STE	b	626	10/20	0.89	0.16	48,53,60,60	0
25	CLA	B	601	65/65	0.89	0.14	38,51,72,80	0
32	STE	j	101	12/20	0.90	0.12	46,52,58,58	0
32	STE	b	621	16/20	0.90	0.13	34,45,55,61	0
25	CLA	C	506	65/65	0.90	0.13	28,37,68,69	0
26	BCR	k	101	40/40	0.90	0.12	42,52,57,60	0
25	CLA	c	506	65/65	0.90	0.14	32,40,70,76	0
32	STE	M	103	10/20	0.91	0.14	40,43,49,51	0
28	LMG	d	411	44/55	0.91	0.15	34,43,71,73	0
25	CLA	D	405	65/65	0.91	0.14	27,33,74,84	0
25	CLA	a	609	65/65	0.91	0.16	22,28,62,68	0
32	STE	I	101	15/20	0.91	0.11	42,50,56,56	0
26	BCR	d	405	40/40	0.91	0.13	38,44,70,72	0
31	DGD	H	102	62/66	0.92	0.12	29,40,46,53	0
31	DGD	c	516	62/66	0.92	0.11	34,45,68,72	0
26	BCR	k	102	40/40	0.92	0.11	43,52,58,60	0
25	CLA	d	404	65/65	0.92	0.13	30,38,76,78	0
26	BCR	K	102	40/40	0.93	0.10	38,44,53,55	0
30	SQD	a	613	54/54	0.93	0.15	37,54,73,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
31	DGD	C	517	62/66	0.93	0.11	26,38,62,70	0
25	CLA	B	606	65/65	0.93	0.12	25,33,58,63	0
26	BCR	x	101	40/40	0.93	0.12	38,50,63,64	0
32	STE	M	102	15/20	0.93	0.10	36,44,54,63	0
31	DGD	c	517	62/66	0.93	0.12	29,44,64,76	0
31	DGD	h	101	62/66	0.93	0.11	35,45,52,57	0
30	SQD	A	614	52/54	0.94	0.14	33,47,67,69	0
32	STE	C	521	16/20	0.94	0.11	36,44,51,58	0
26	BCR	k	103	40/40	0.94	0.12	41,47,55,58	0
25	CLA	c	508	64/65	0.94	0.11	32,38,74,85	0
30	SQD	D	409	36/54	0.94	0.14	43,60,66,69	0
25	CLA	C	508	65/65	0.94	0.12	28,34,75,82	0
25	CLA	b	606	65/65	0.94	0.11	29,35,61,64	0
25	CLA	b	609	65/65	0.94	0.14	29,38,56,66	0
26	BCR	A	609	40/40	0.94	0.09	26,31,37,41	0
26	BCR	B	619	40/40	0.94	0.10	29,39,48,52	0
31	DGD	C	515	62/66	0.94	0.10	25,34,63,67	0
31	DGD	C	516	62/66	0.94	0.11	32,42,75,84	0
25	CLA	b	610	65/65	0.94	0.11	27,34,41,47	0
26	BCR	H	101	40/40	0.94	0.10	34,40,53,54	0
31	DGD	c	515	62/66	0.94	0.10	22,35,58,66	0
26	BCR	K	101	40/40	0.94	0.10	41,48,54,56	0
25	CLA	b	614	65/65	0.94	0.11	26,35,62,66	0
26	BCR	T	101	40/40	0.94	0.08	28,34,45,47	0
26	BCR	Z	101	40/40	0.94	0.11	34,42,53,54	0
26	BCR	a	610	40/40	0.94	0.09	22,30,38,41	0
26	BCR	b	618	40/40	0.94	0.10	25,34,45,50	0
26	BCR	c	514	40/40	0.94	0.10	31,40,48,51	0
25	CLA	C	511	65/65	0.94	0.11	30,41,54,56	0
25	CLA	B	609	65/65	0.94	0.12	27,34,47,54	0
25	CLA	c	507	65/65	0.94	0.11	29,37,46,49	0
26	BCR	B	617	40/40	0.95	0.09	27,33,42,44	0
27	PL9	d	406	55/55	0.95	0.08	25,31,36,38	0
26	BCR	B	618	40/40	0.95	0.07	24,34,44,46	0
25	CLA	A	608	54/65	0.95	0.12	21,26,53,57	0
25	CLA	a	608	65/65	0.95	0.10	27,34,72,79	0
25	CLA	A	607	65/65	0.95	0.09	22,28,73,79	0
25	CLA	c	502	65/65	0.95	0.10	25,35,47,51	0
25	CLA	c	503	65/65	0.95	0.09	31,39,43,50	0
25	CLA	c	505	65/65	0.95	0.10	29,35,56,65	0
25	CLA	B	614	65/65	0.95	0.12	20,32,57,62	0
25	CLA	b	602	65/65	0.95	0.11	29,36,49,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
25	CLA	b	604	65/65	0.95	0.11	24,29,65,75	0
26	BCR	b	619	40/40	0.95	0.10	30,40,53,56	0
25	CLA	c	510	65/65	0.95	0.10	32,40,51,53	0
25	CLA	c	511	65/65	0.95	0.11	36,47,58,62	0
29	LHG	A	613	47/49	0.95	0.12	27,39,64,68	0
29	LHG	B	622	49/49	0.95	0.11	30,39,53,55	0
25	CLA	B	604	65/65	0.95	0.10	22,28,57,59	0
29	LHG	d	407	49/49	0.95	0.11	33,44,58,66	0
25	CLA	b	607	65/65	0.95	0.10	23,30,54,57	0
25	CLA	d	403	65/65	0.95	0.10	22,29,47,56	0
25	CLA	b	608	65/65	0.95	0.10	27,36,53,59	0
25	CLA	C	505	65/65	0.95	0.09	26,35,56,62	0
34	PHO	d	402	64/64	0.95	0.10	23,35,40,43	0
25	CLA	B	608	65/65	0.96	0.09	25,30,46,53	0
25	CLA	C	507	65/65	0.96	0.10	25,34,47,50	0
26	BCR	C	514	40/40	0.96	0.10	29,36,47,47	0
25	CLA	B	603	65/65	0.96	0.10	21,27,50,56	0
25	CLA	b	611	65/65	0.96	0.09	25,30,43,50	0
25	CLA	b	612	65/65	0.96	0.09	23,30,38,45	0
25	CLA	b	613	65/65	0.96	0.09	19,28,60,65	0
25	CLA	C	509	65/65	0.96	0.10	24,33,50,54	0
25	CLA	b	615	65/65	0.96	0.10	28,36,50,57	0
25	CLA	C	510	65/65	0.96	0.09	27,35,46,51	0
26	BCR	b	617	40/40	0.96	0.09	29,36,44,44	0
29	LHG	d	409	39/49	0.96	0.09	33,38,53,55	0
25	CLA	c	501	65/65	0.96	0.10	29,35,45,52	0
29	LHG	l	101	49/49	0.96	0.10	32,39,46,52	0
25	CLA	B	610	65/65	0.96	0.09	23,29,36,39	0
25	CLA	B	612	65/65	0.96	0.09	21,27,37,42	0
25	CLA	c	504	60/65	0.96	0.09	29,38,70,72	0
25	CLA	B	613	65/65	0.96	0.10	21,26,55,61	0
25	CLA	A	611	65/65	0.96	0.09	21,25,40,46	0
25	CLA	a	607	65/65	0.96	0.09	21,27,37,45	0
26	BCR	t	101	40/40	0.96	0.09	25,36,46,48	0
25	CLA	B	615	65/65	0.96	0.09	23,32,52,60	0
25	CLA	c	509	65/65	0.96	0.10	31,38,52,55	0
27	PL9	D	407	55/55	0.96	0.08	22,28,37,39	0
25	CLA	B	602	65/65	0.96	0.10	24,32,47,50	0
25	CLA	C	501	65/65	0.96	0.10	26,31,43,47	0
25	CLA	C	502	65/65	0.96	0.09	26,32,44,50	0
25	CLA	b	603	65/65	0.96	0.09	26,31,52,61	0
25	CLA	C	503	65/65	0.96	0.09	30,36,40,48	0

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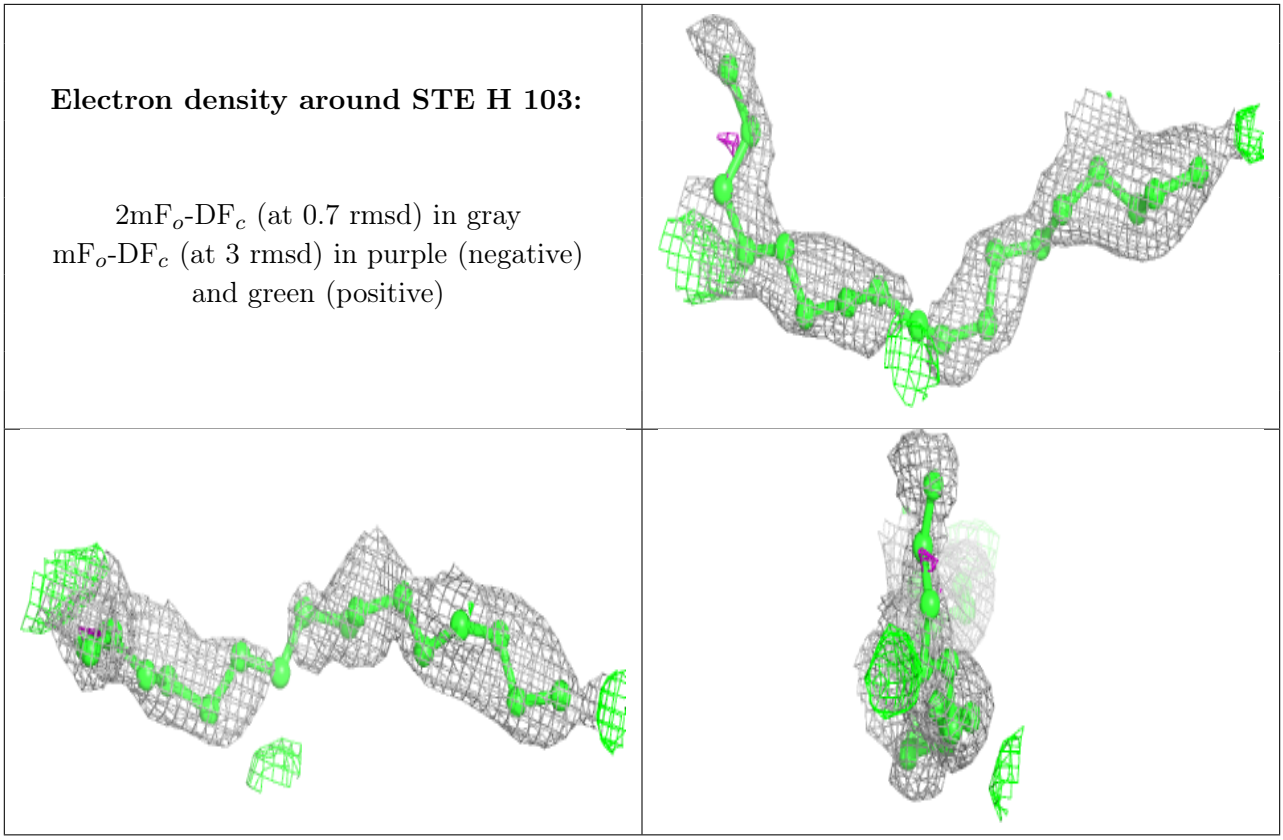
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
25	CLA	b	605	65/65	0.96	0.09	23,30,42,45	0
25	CLA	C	504	59/65	0.96	0.10	28,34,67,70	0
34	PHO	d	401	64/64	0.96	0.09	24,28,33,36	0
25	CLA	B	607	65/65	0.96	0.10	21,28,49,55	0
35	HEM	F	101	43/43	0.96	0.14	39,44,55,61	0
35	HEM	f	101	43/43	0.96	0.13	46,52,65,78	0
25	CLA	a	612	65/65	0.97	0.08	22,27,38,44	0
25	CLA	B	605	65/65	0.97	0.10	22,27,37,39	0
25	CLA	A	606	65/65	0.97	0.09	18,25,38,47	0
29	LHG	D	410	49/49	0.97	0.09	27,34,44,48	0
33	BCT	D	401	4/4	0.97	0.14	29,32,34,35	0
33	BCT	a	606	4/4	0.97	0.13	32,35,39,44	0
34	PHO	D	402	64/64	0.97	0.08	19,26,33,37	0
34	PHO	D	403	64/64	0.97	0.10	22,30,34,37	0
25	CLA	B	611	65/65	0.97	0.09	21,27,41,47	0
29	LHG	L	101	49/49	0.97	0.10	28,35,46,55	0
25	CLA	D	404	65/65	0.97	0.09	20,24,43,50	0
29	LHG	d	408	49/49	0.97	0.10	30,37,48,50	0
36	HEC	V	201	43/43	0.97	0.11	25,29,36,40	0
36	HEC	v	201	43/43	0.97	0.11	29,33,40,44	0
22	OEX	A	602[A]	10/10	0.98	0.10	21,29,33,33	10
23	FE2	a	603	1/1	0.99	0.04	33,33,33,33	0
24	CL	A	604	1/1	0.99	0.04	28,28,28,28	0
24	CL	A	605	1/1	0.99	0.06	29,29,29,29	0
24	CL	a	604	1/1	0.99	0.04	30,30,30,30	0
21	OEY	a	601[B]	11/11	0.99	0.09	26,29,32,32	11
21	OEY	A	601[B]	11/11	0.99	0.10	24,27,30,30	11
22	OEX	a	602[A]	10/10	0.99	0.09	24,28,31,31	10
23	FE2	A	603	1/1	1.00	0.05	27,27,27,27	0
24	CL	a	605	1/1	1.00	0.05	30,30,30,30	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.

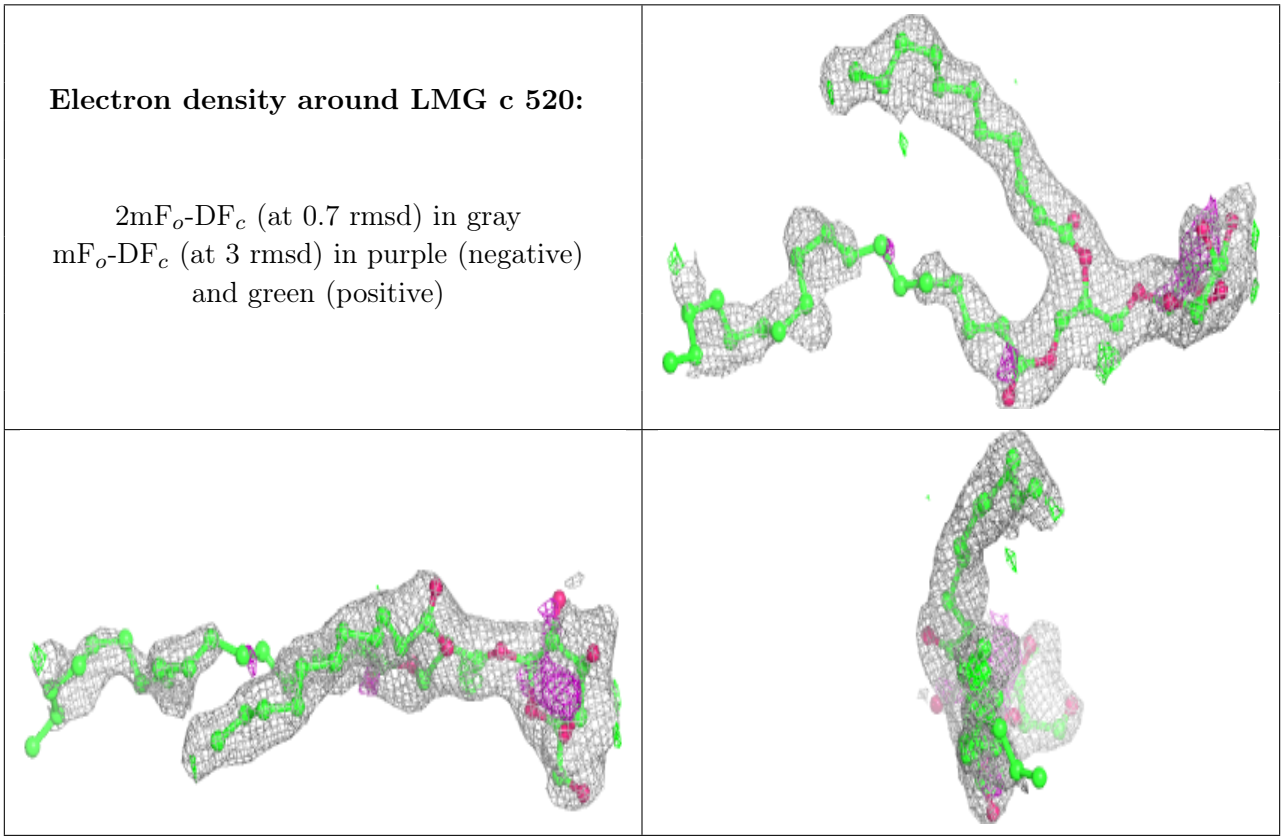
Electron density around STE H 103:

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



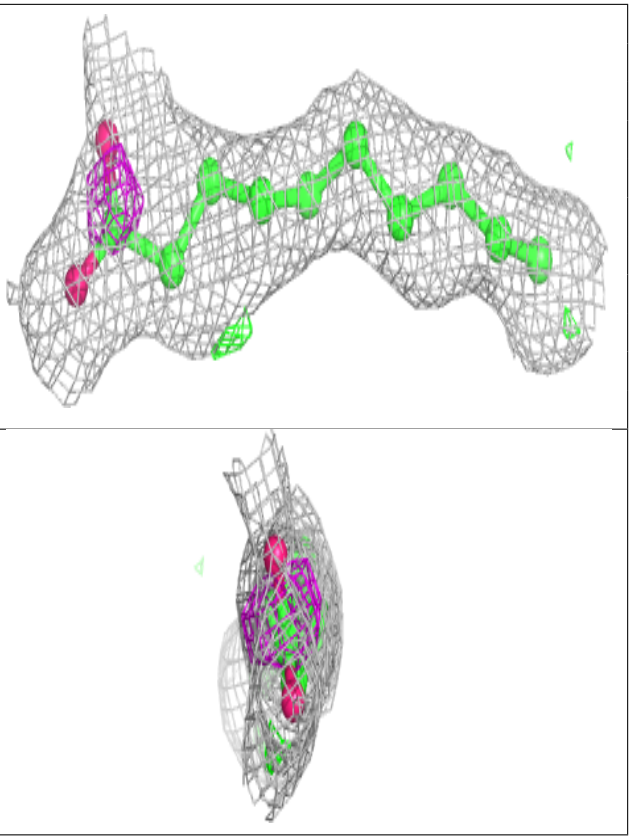
Electron density around LMG c 520:

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



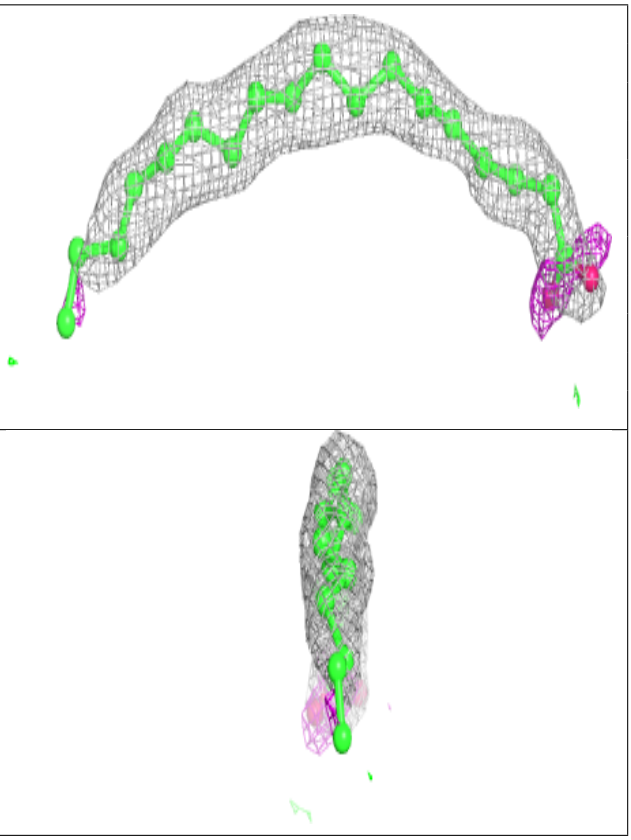
Electron density around STE a 615:

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



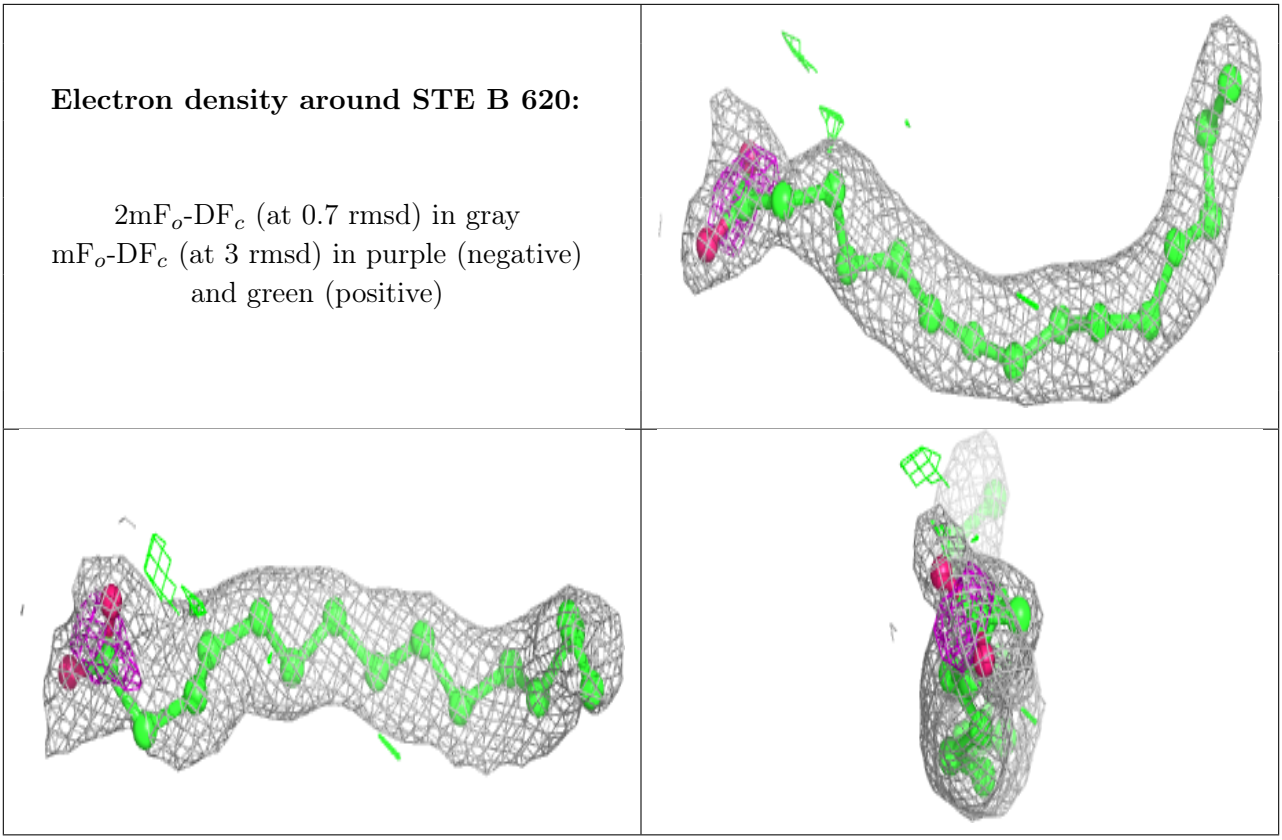
Electron density around STE X 101:

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



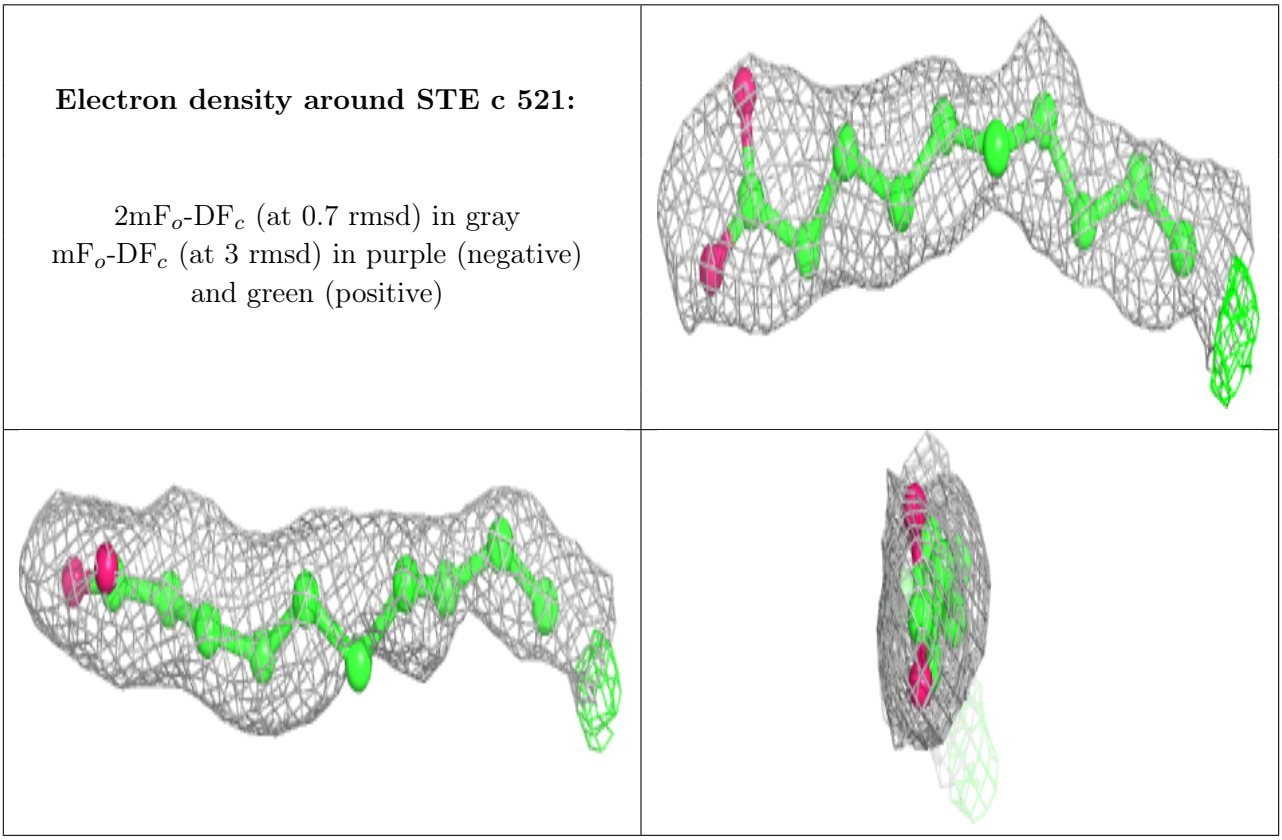
Electron density around STE B 620:

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



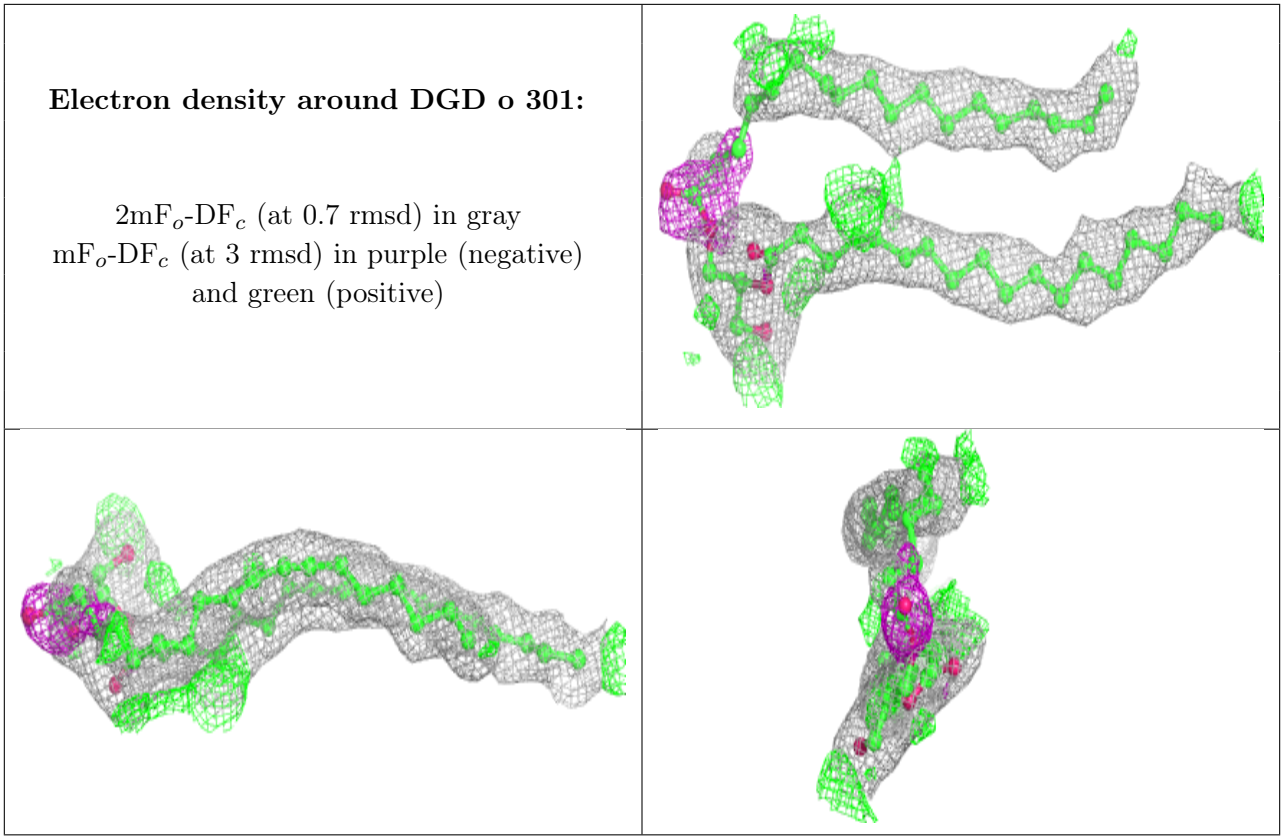
Electron density around STE c 521:

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



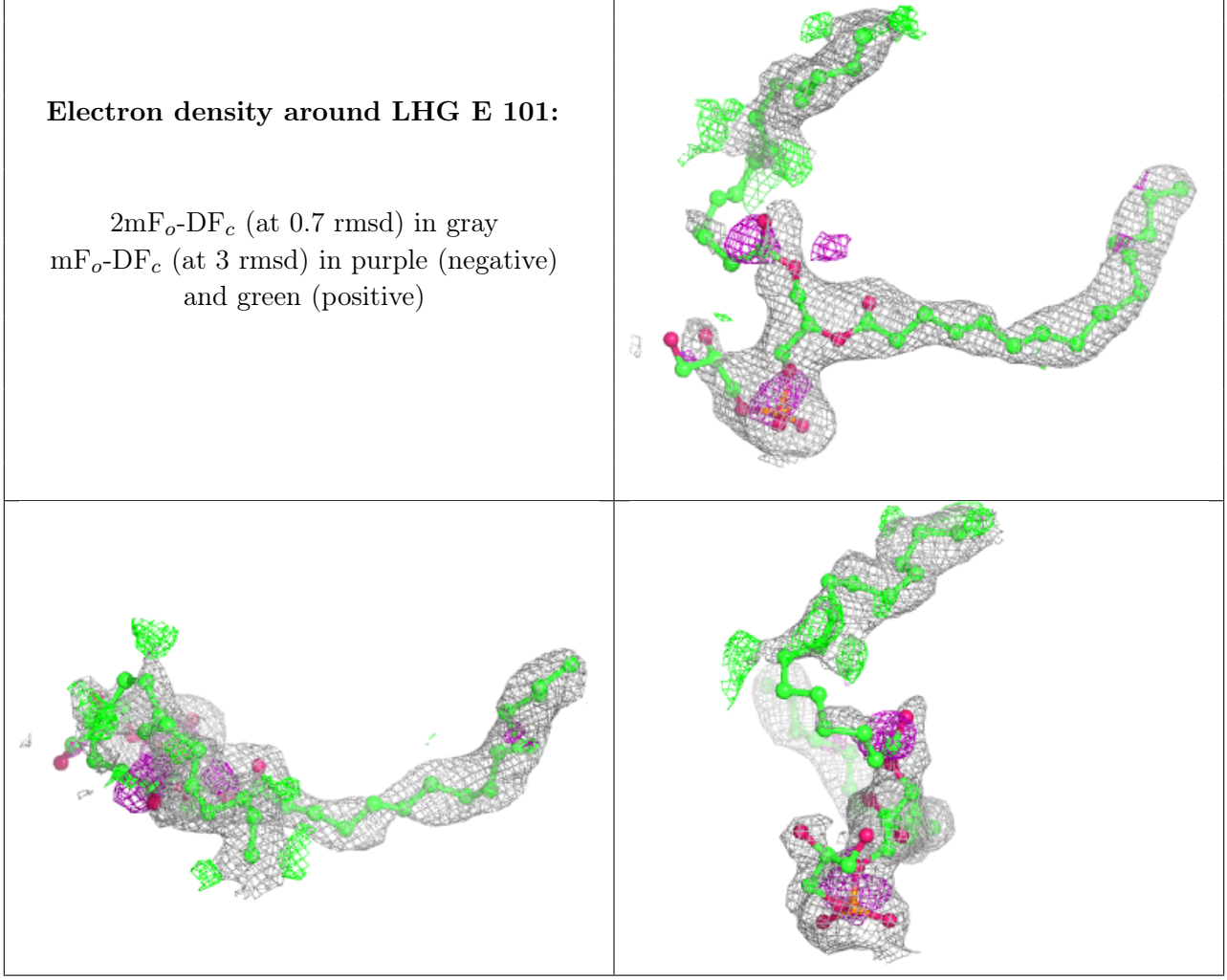
Electron density around DGD o 301:

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



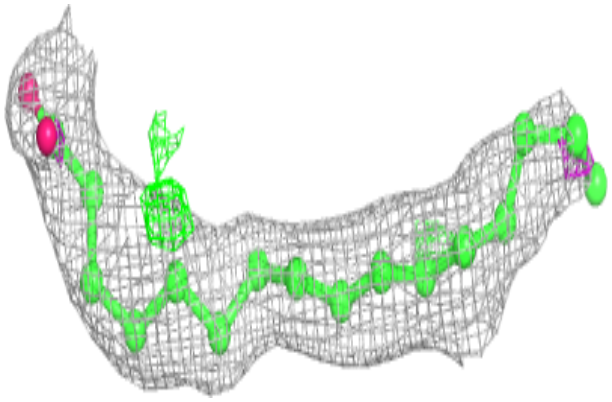
Electron density around LHG E 101:

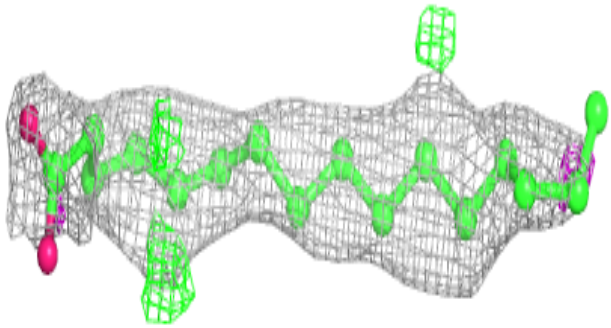
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

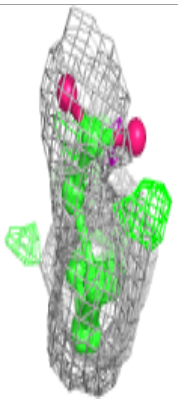


Electron density around STE B 625:

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

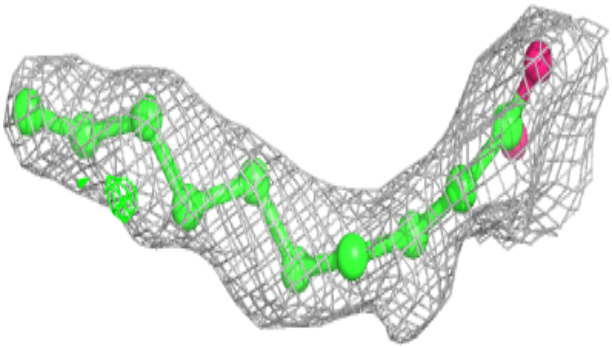


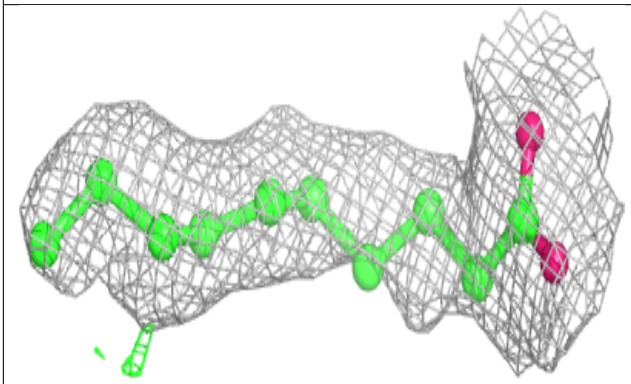


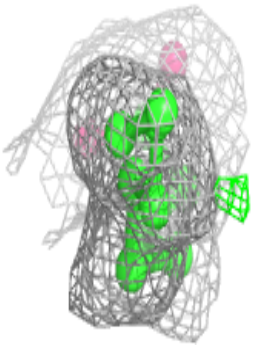


Electron density around STE E 102:

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

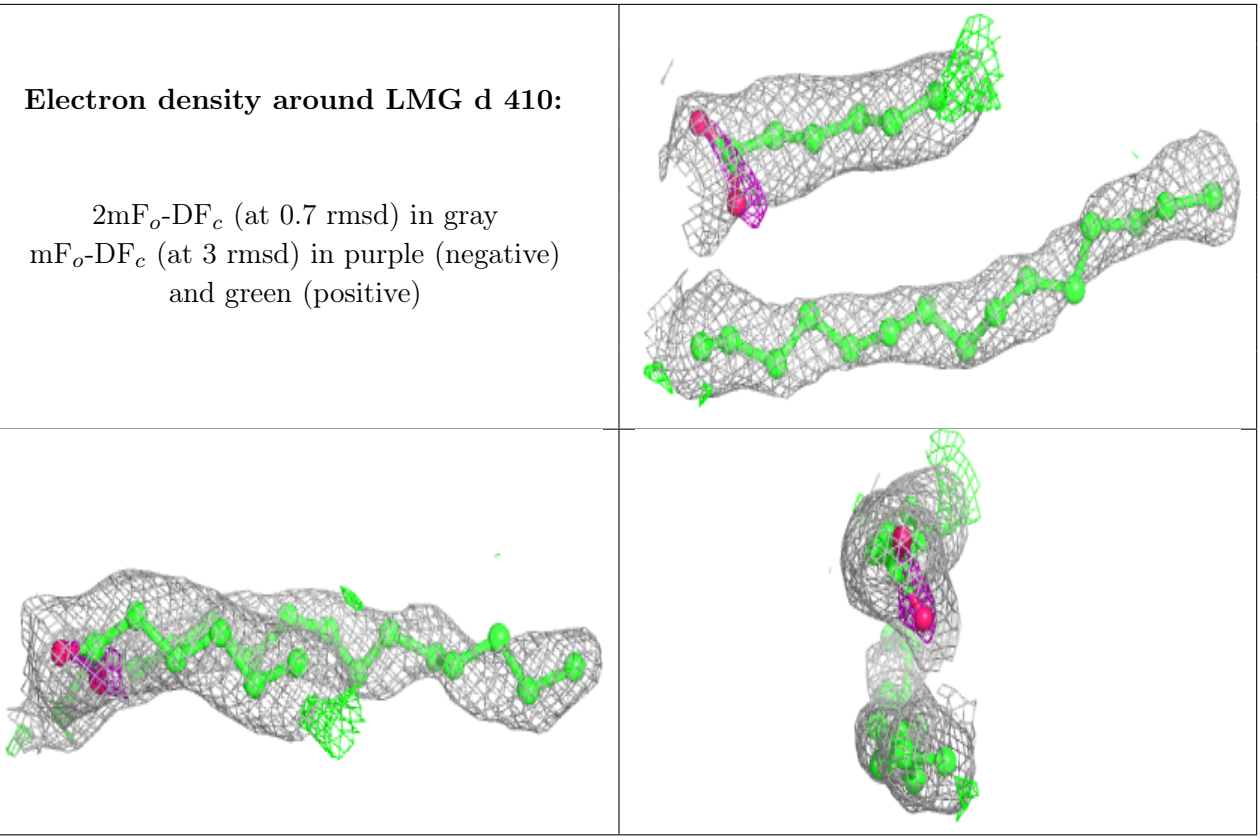






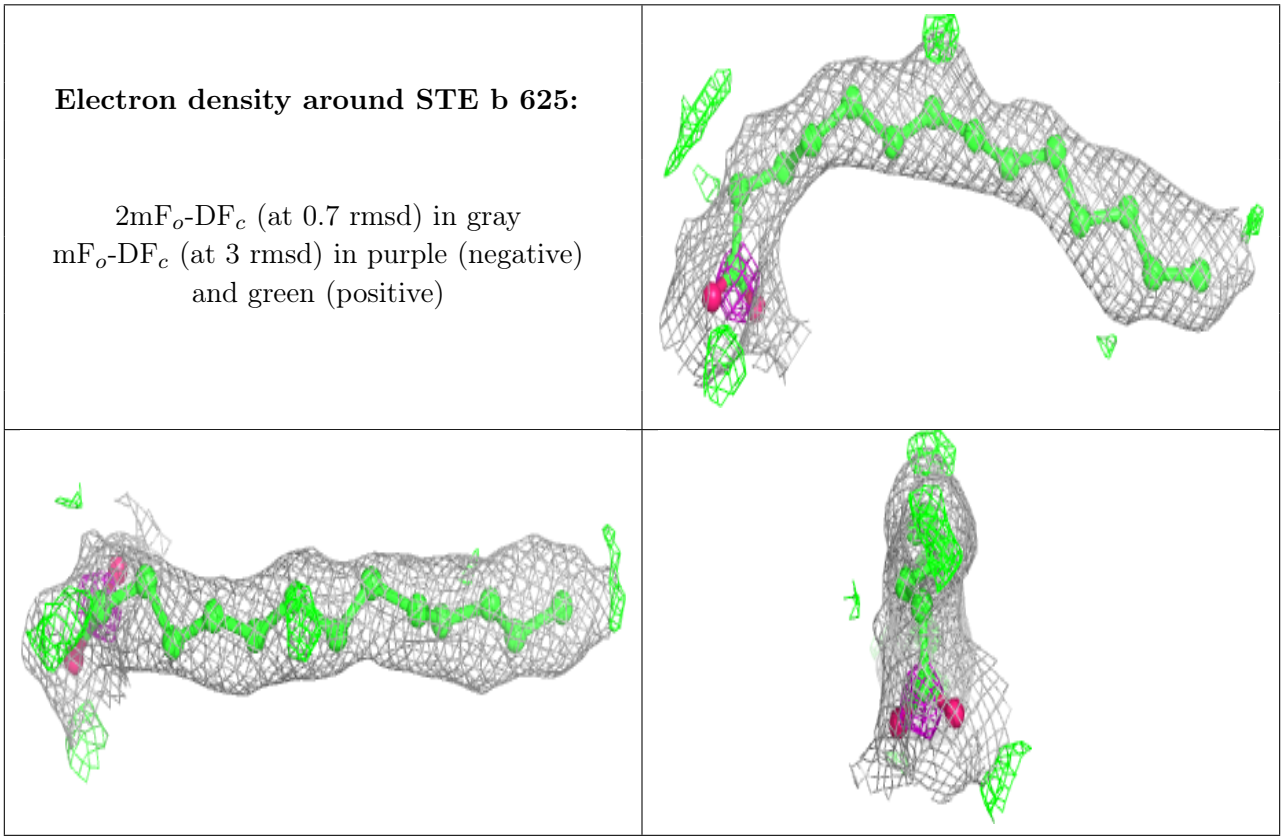
Electron density around LMG d 410:

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



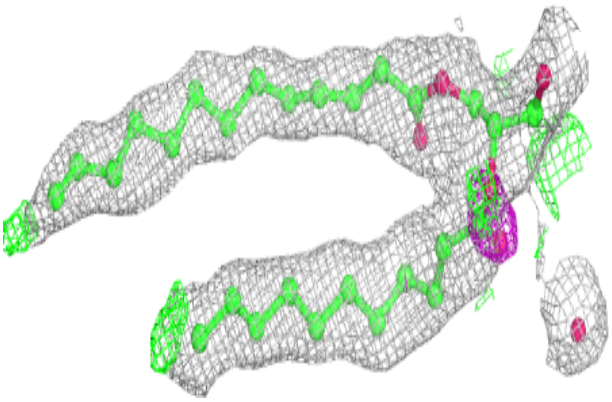
Electron density around STE b 625:

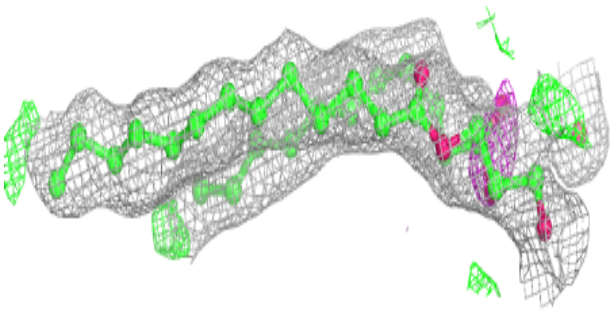
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

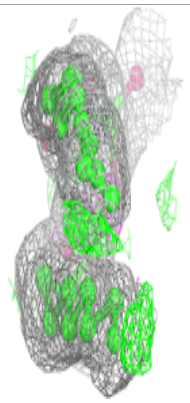


Electron density around LMG D 411:

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

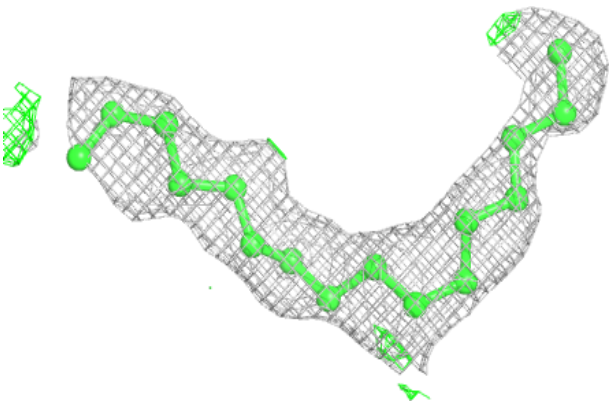


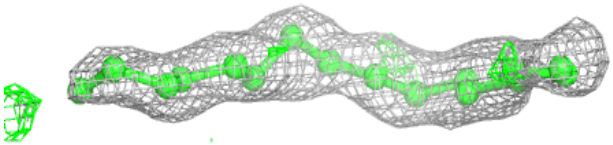


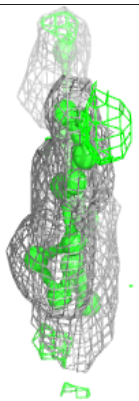


Electron density around STE B 627:

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

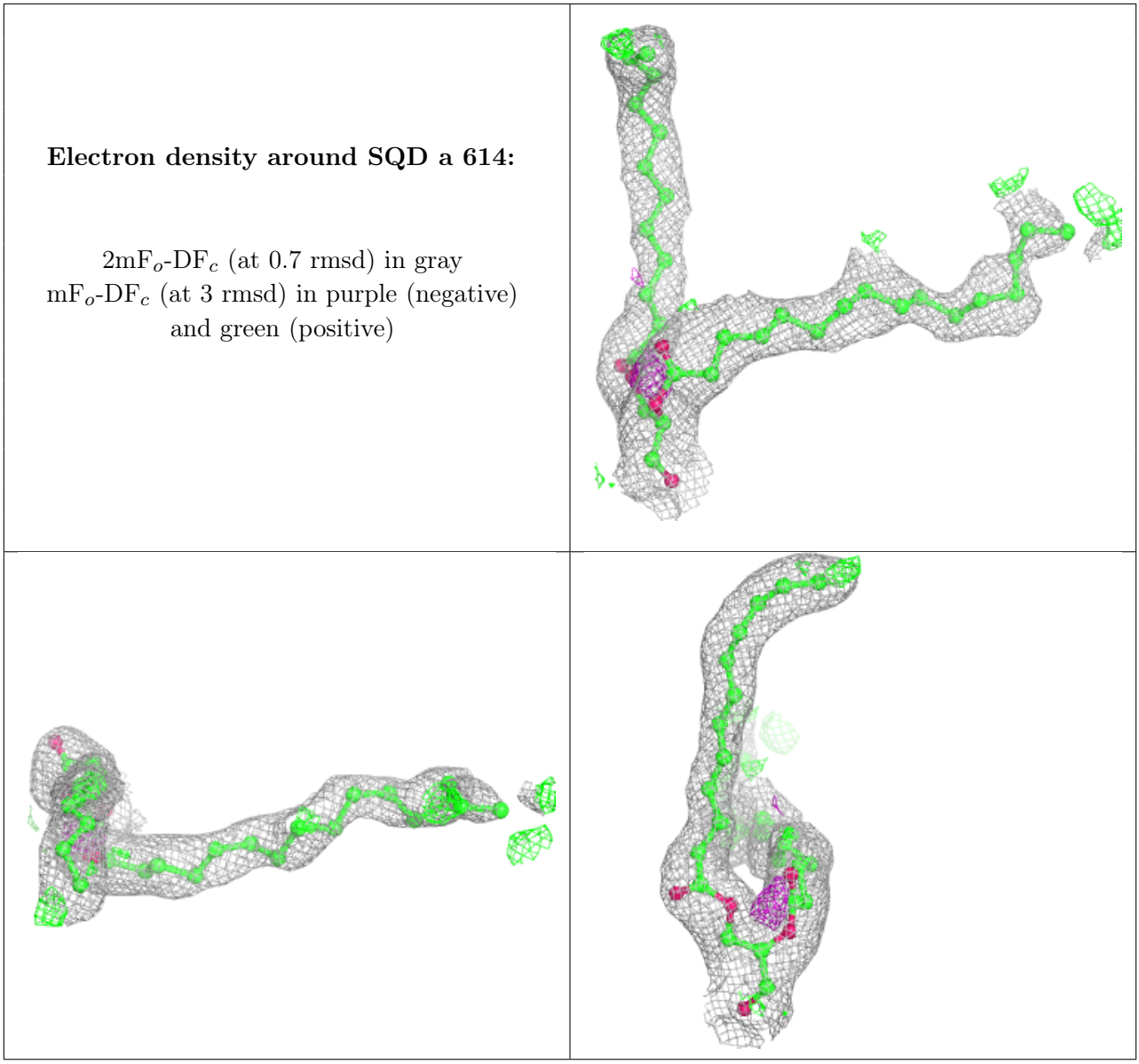






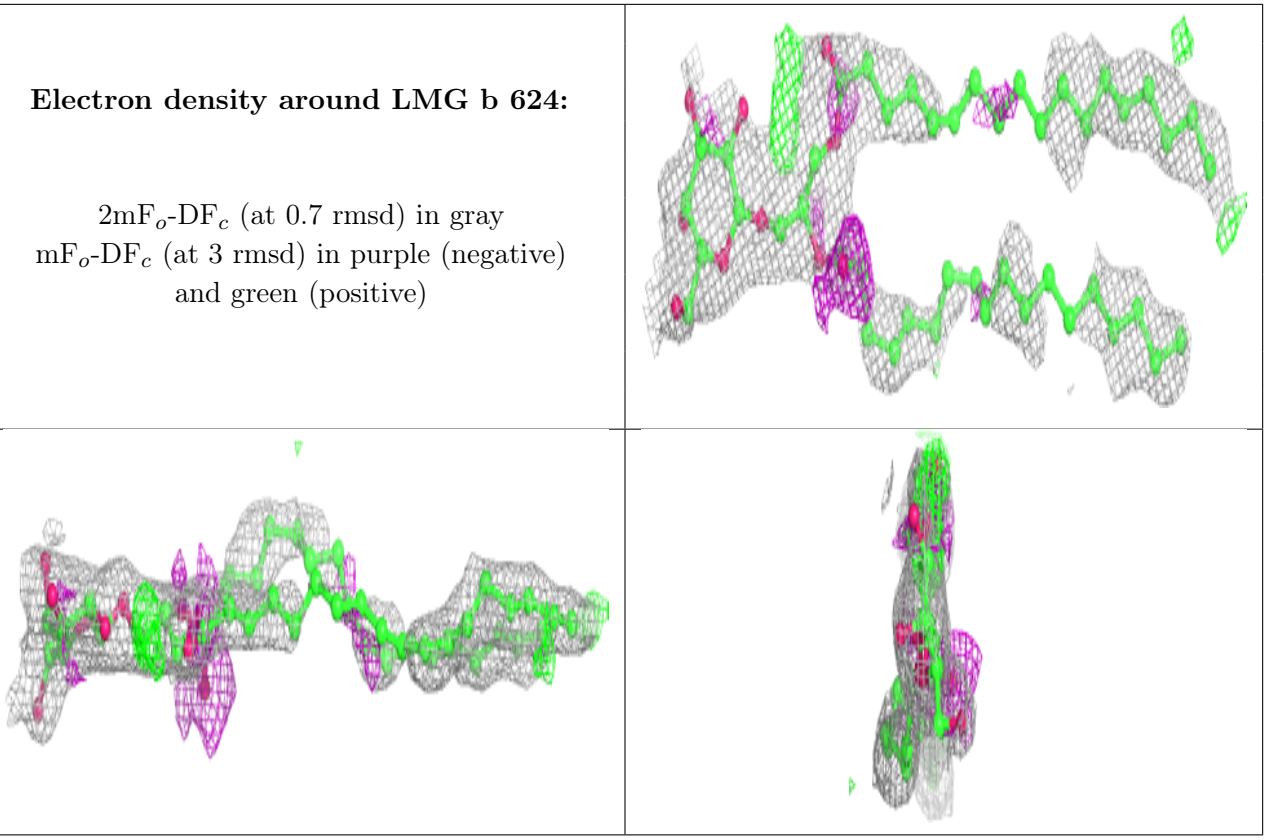
Electron density around SQD a 614:

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



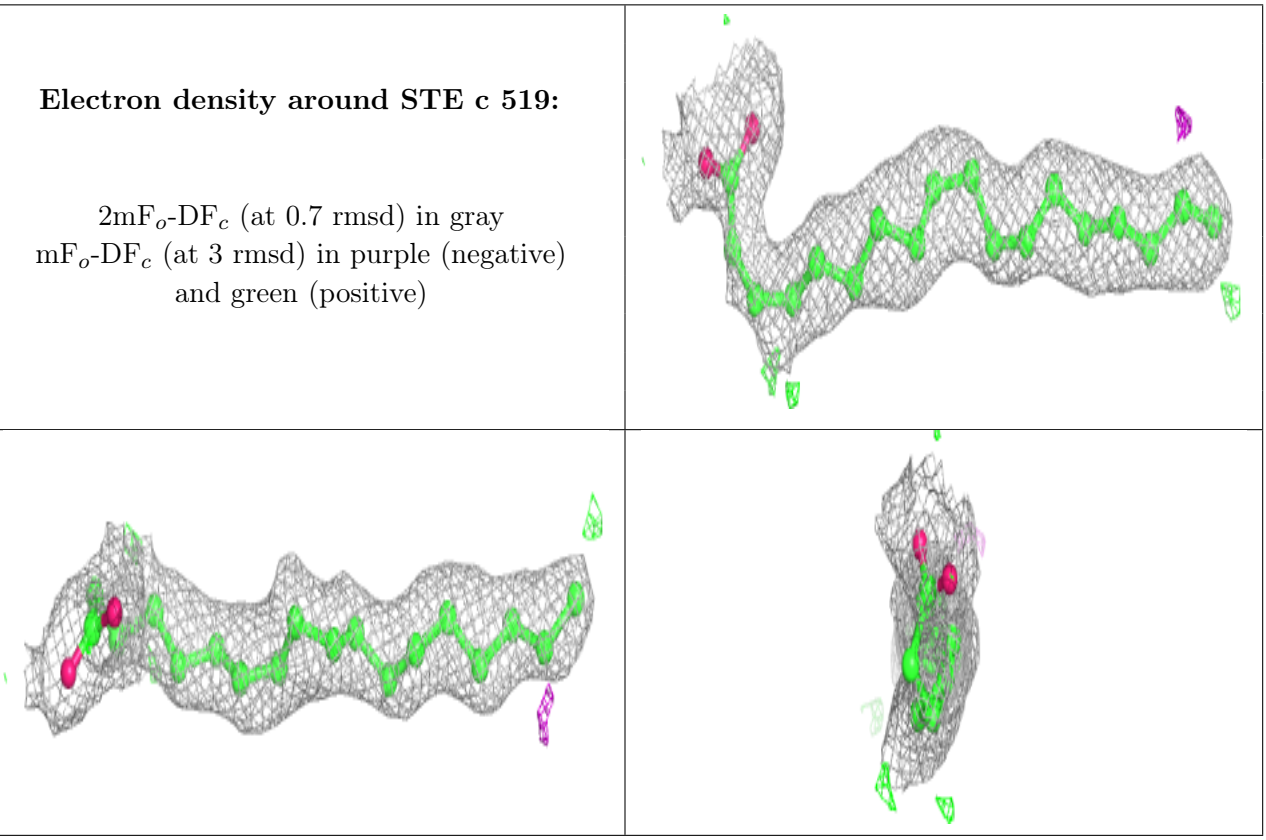
Electron density around LMG b 624:

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



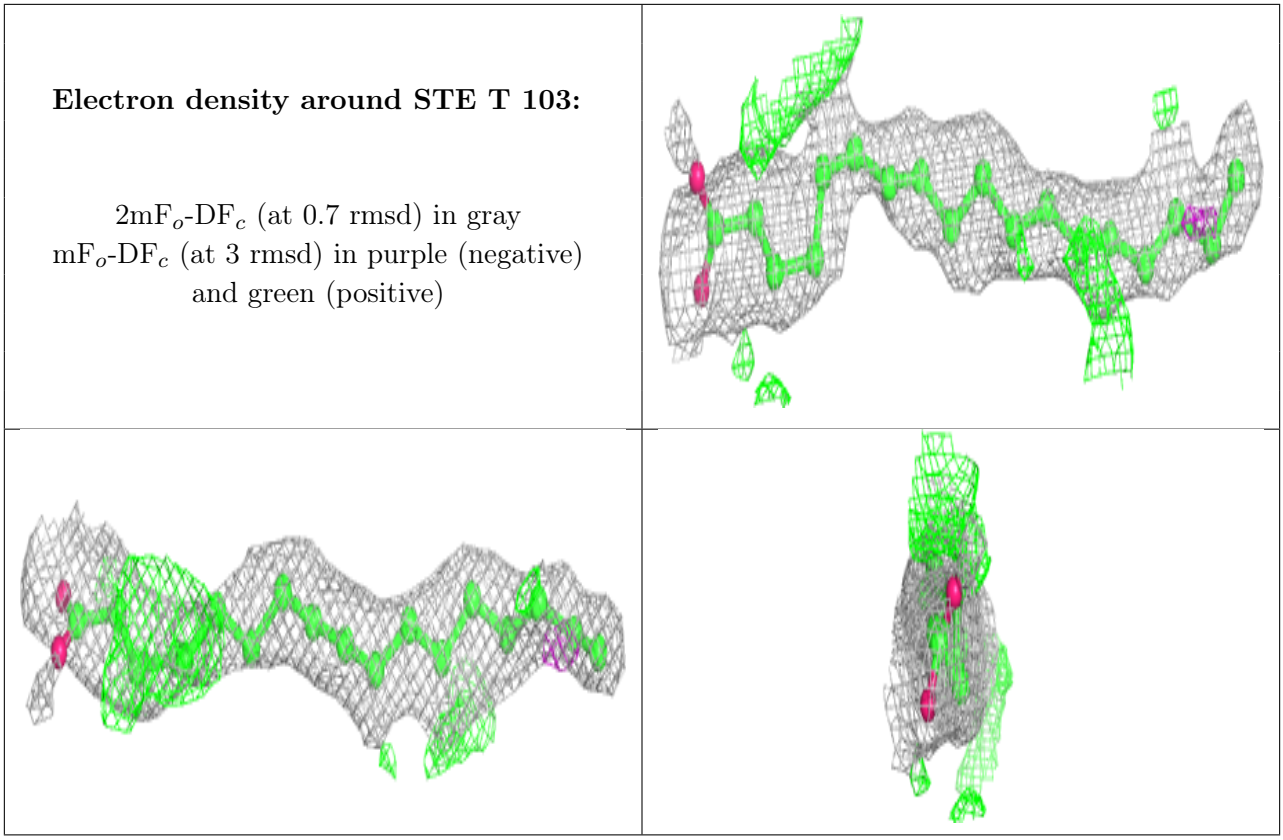
Electron density around STE c 519:

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



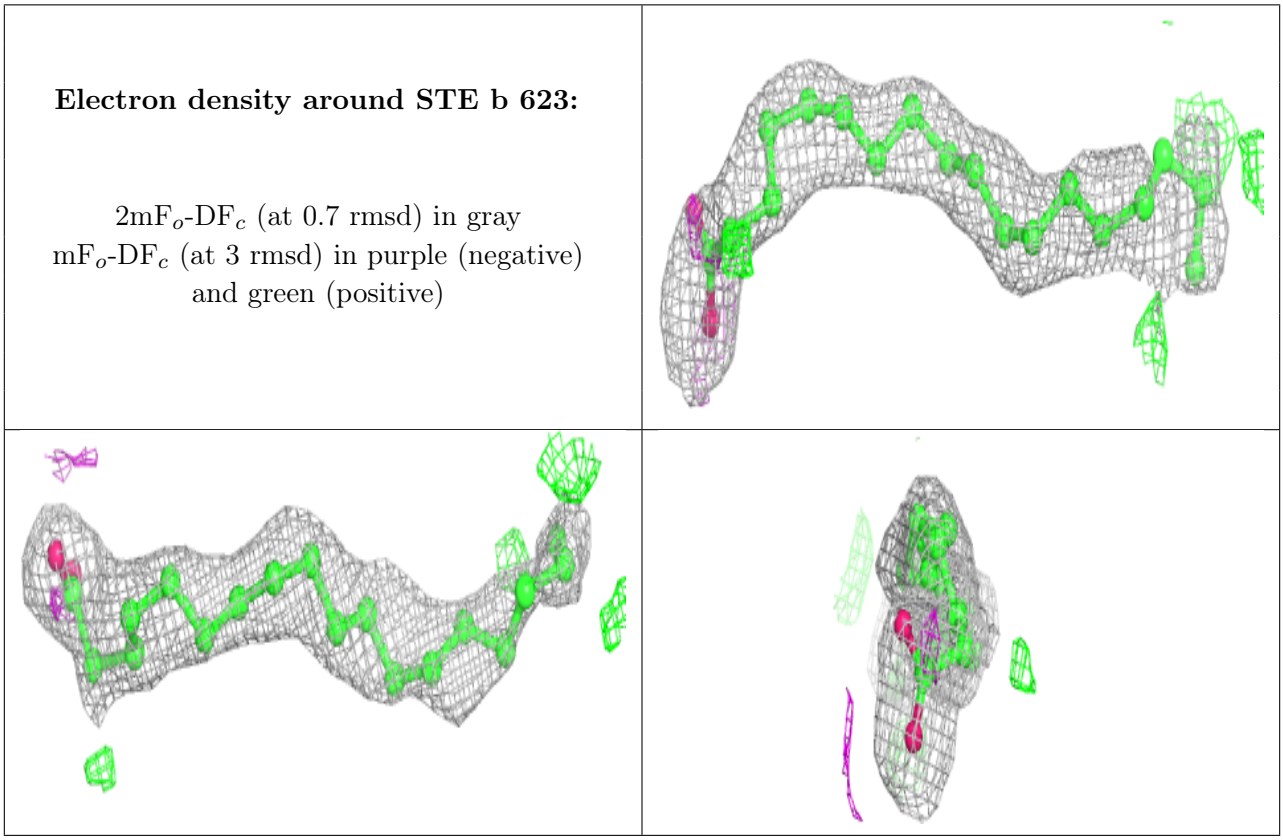
Electron density around STE T 103:

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



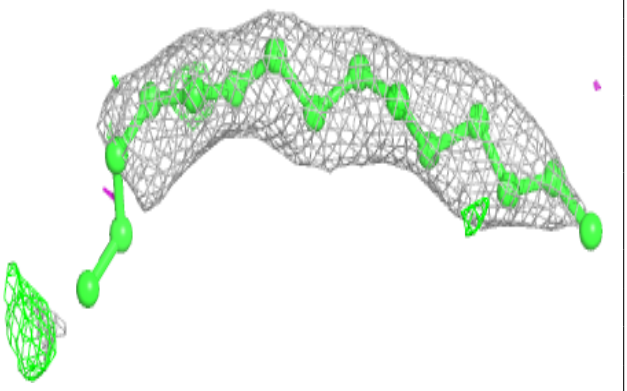
Electron density around STE b 623:

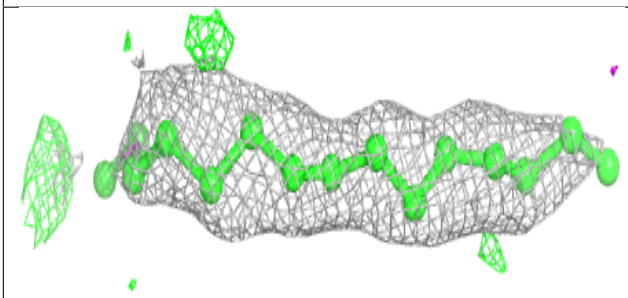
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

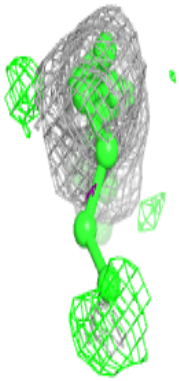


Electron density around STE T 102:

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

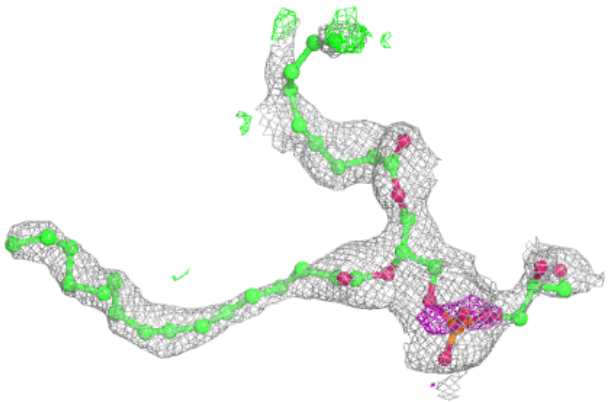


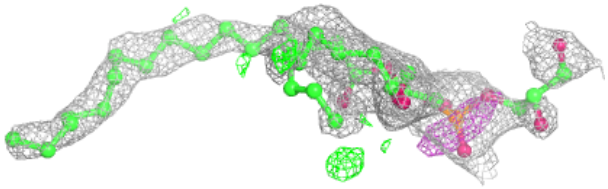


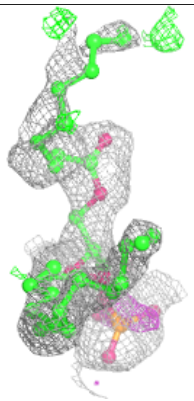


Electron density around LHG e 101:

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

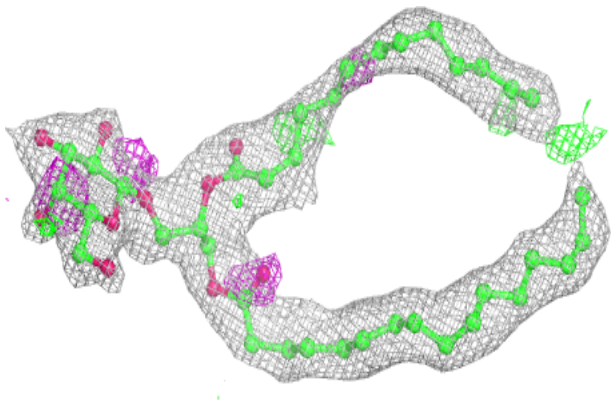


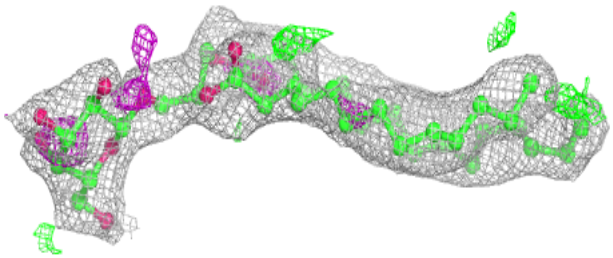


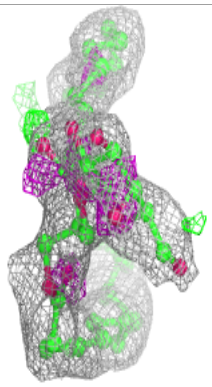


Electron density around LMG A 612:

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

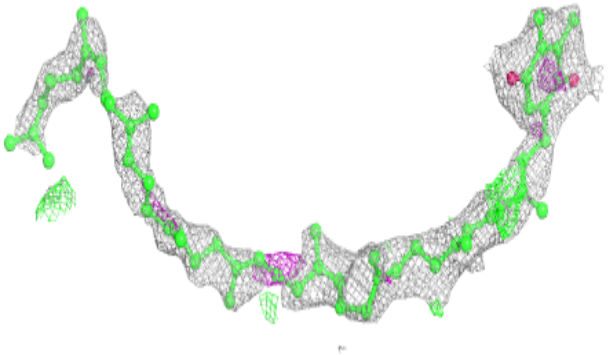


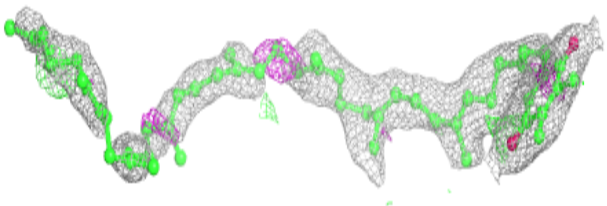


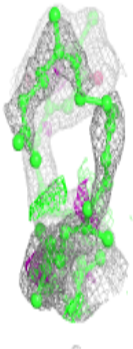


Electron density around PL9 a 611:

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

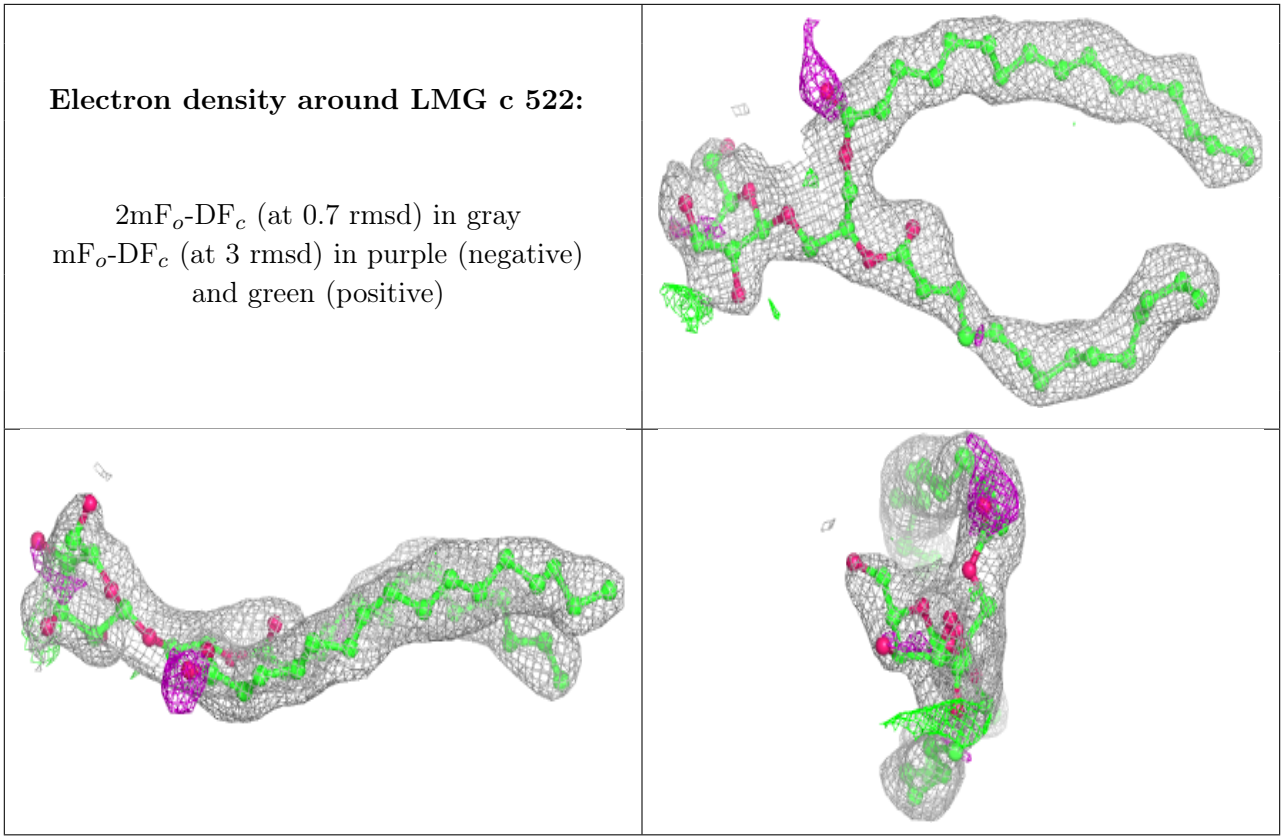






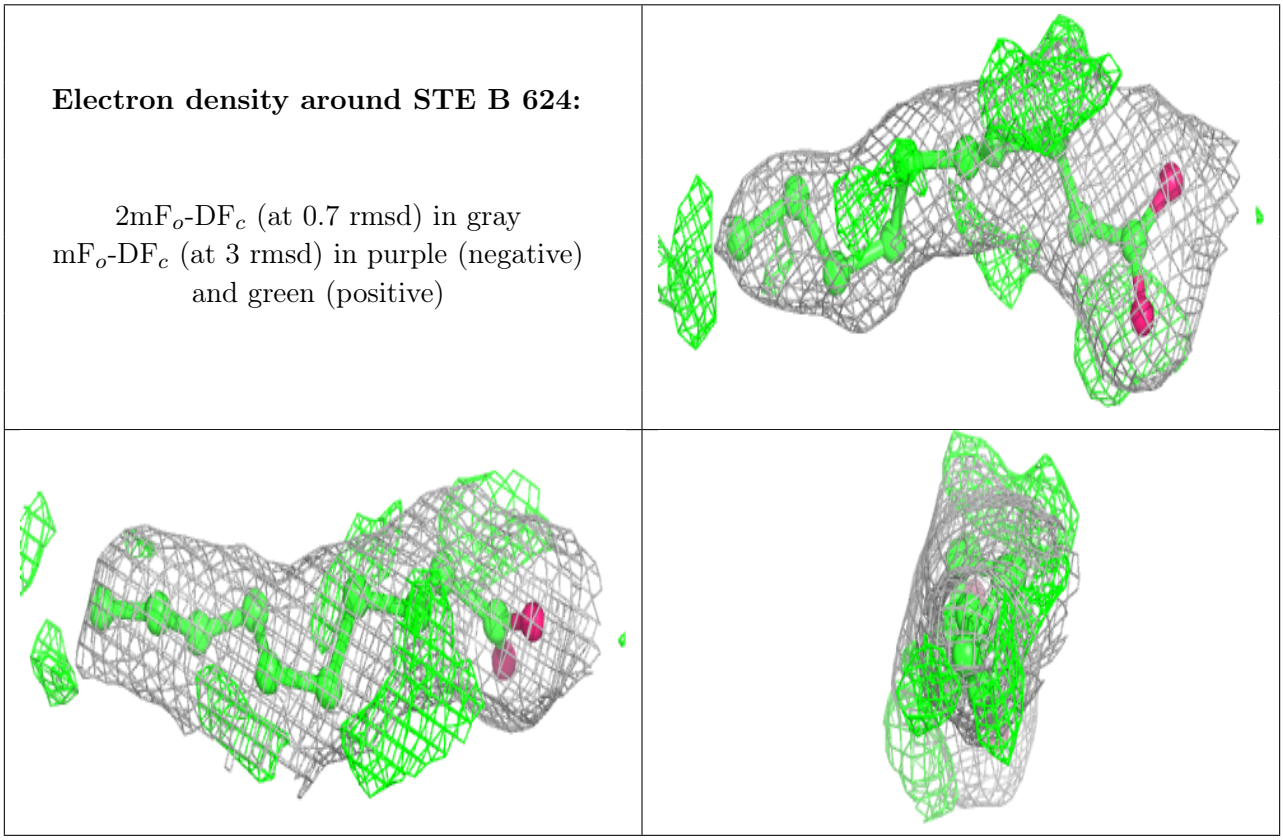
Electron density around LMG c 522:

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



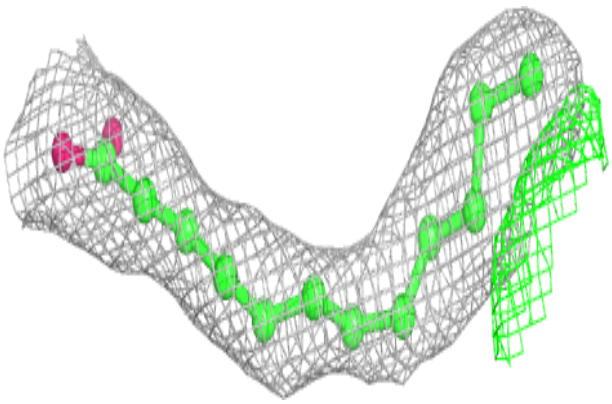
Electron density around STE B 624:

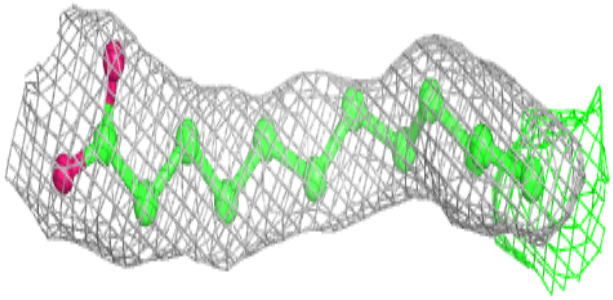
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

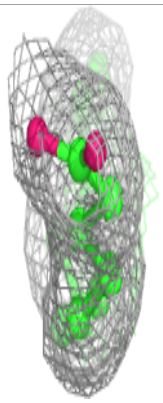


Electron density around STE t 102:

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

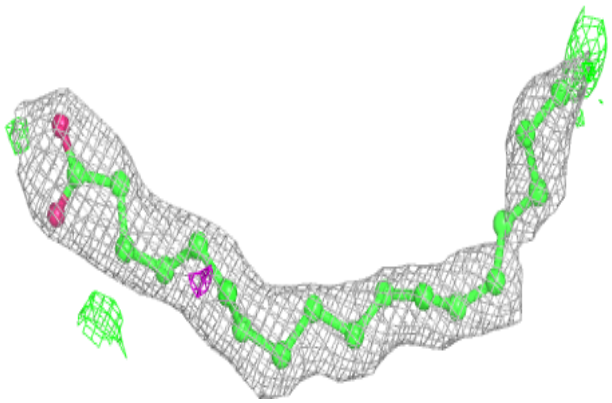


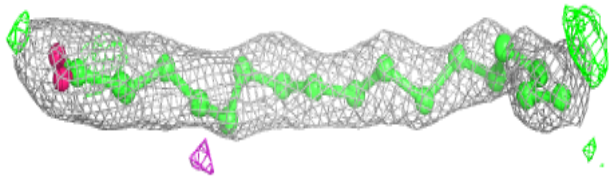


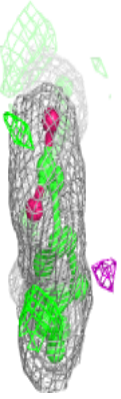


Electron density around STE d 413:

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

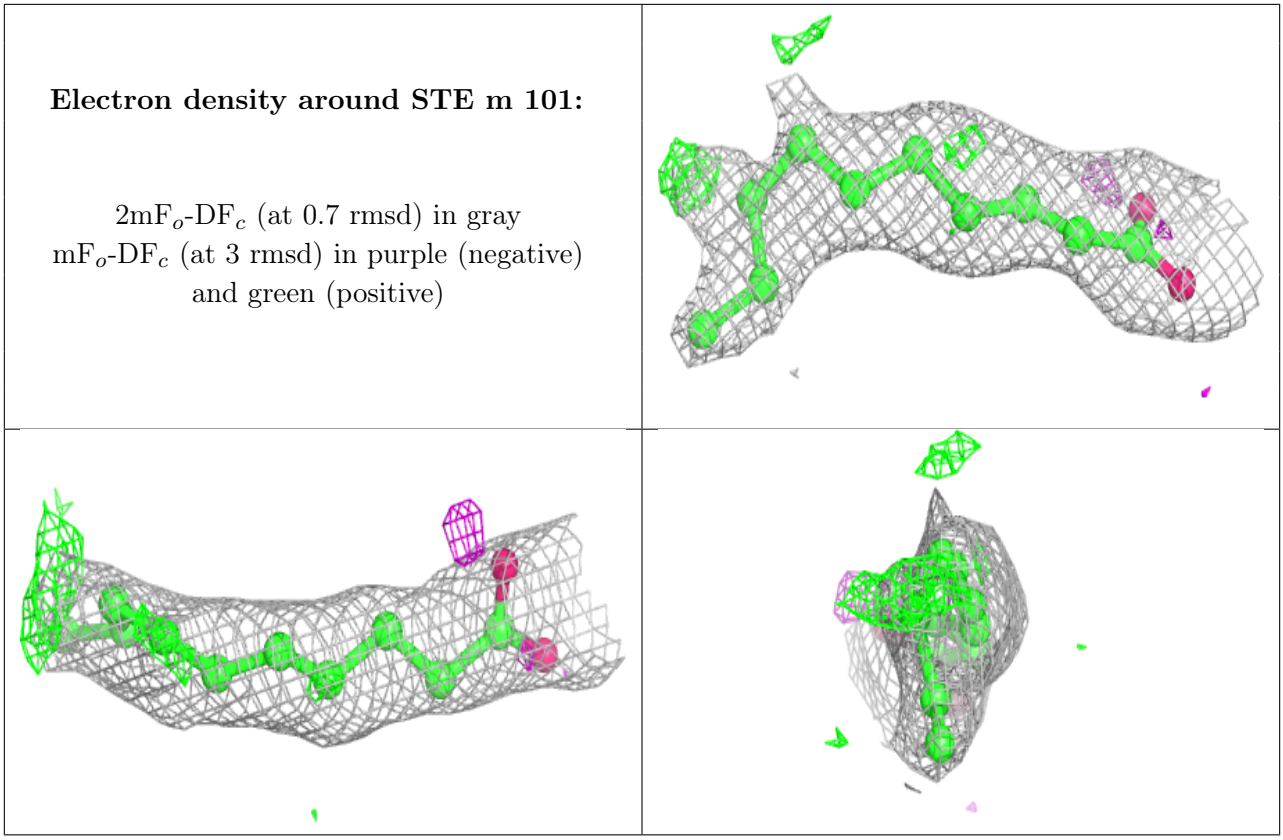






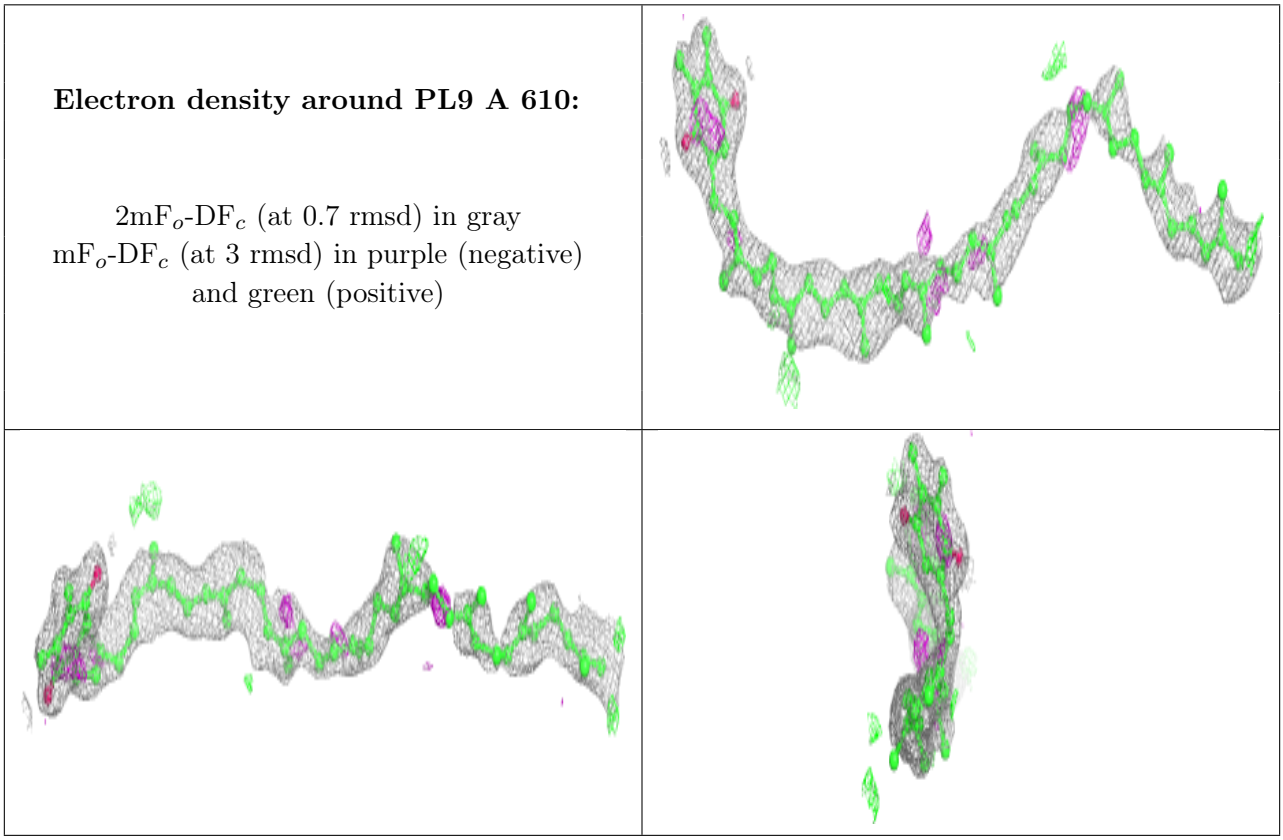
Electron density around STE m 101:

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



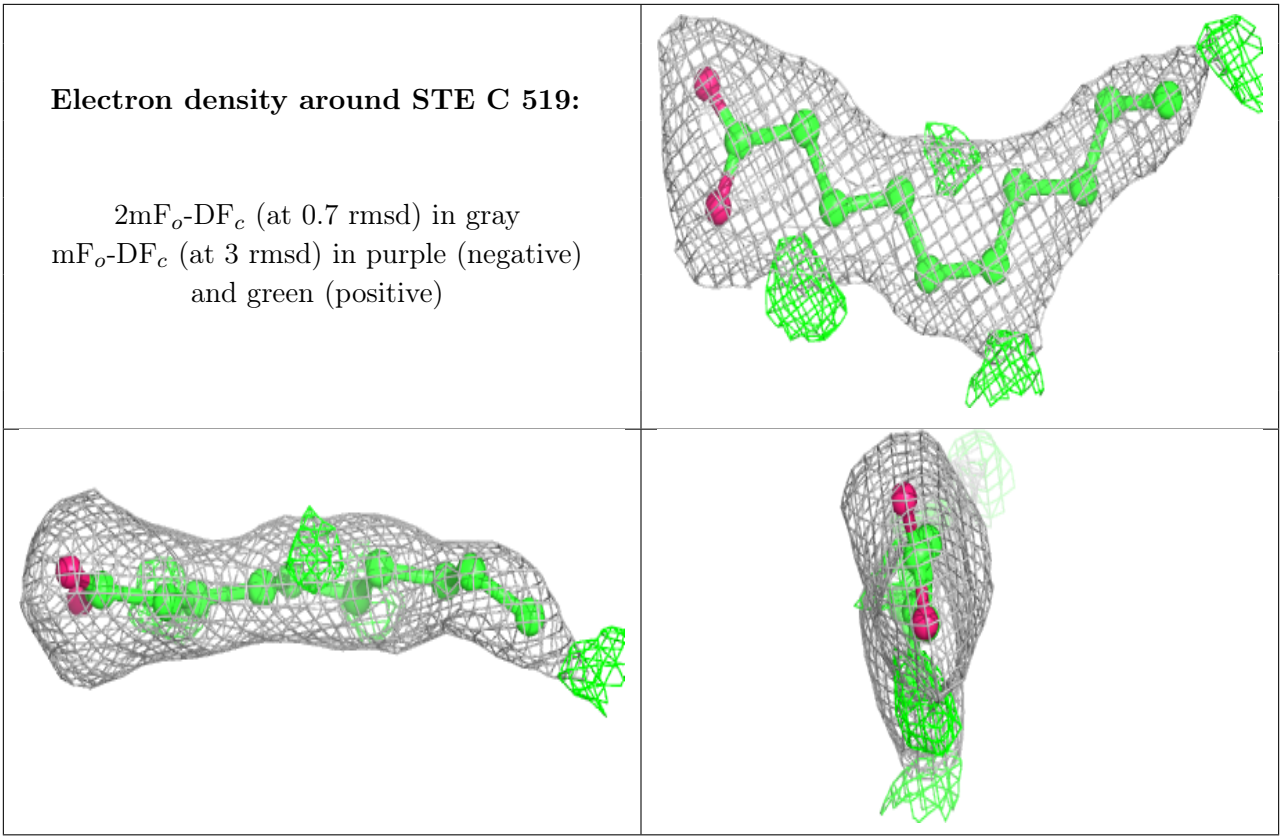
Electron density around PL9 A 610:

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



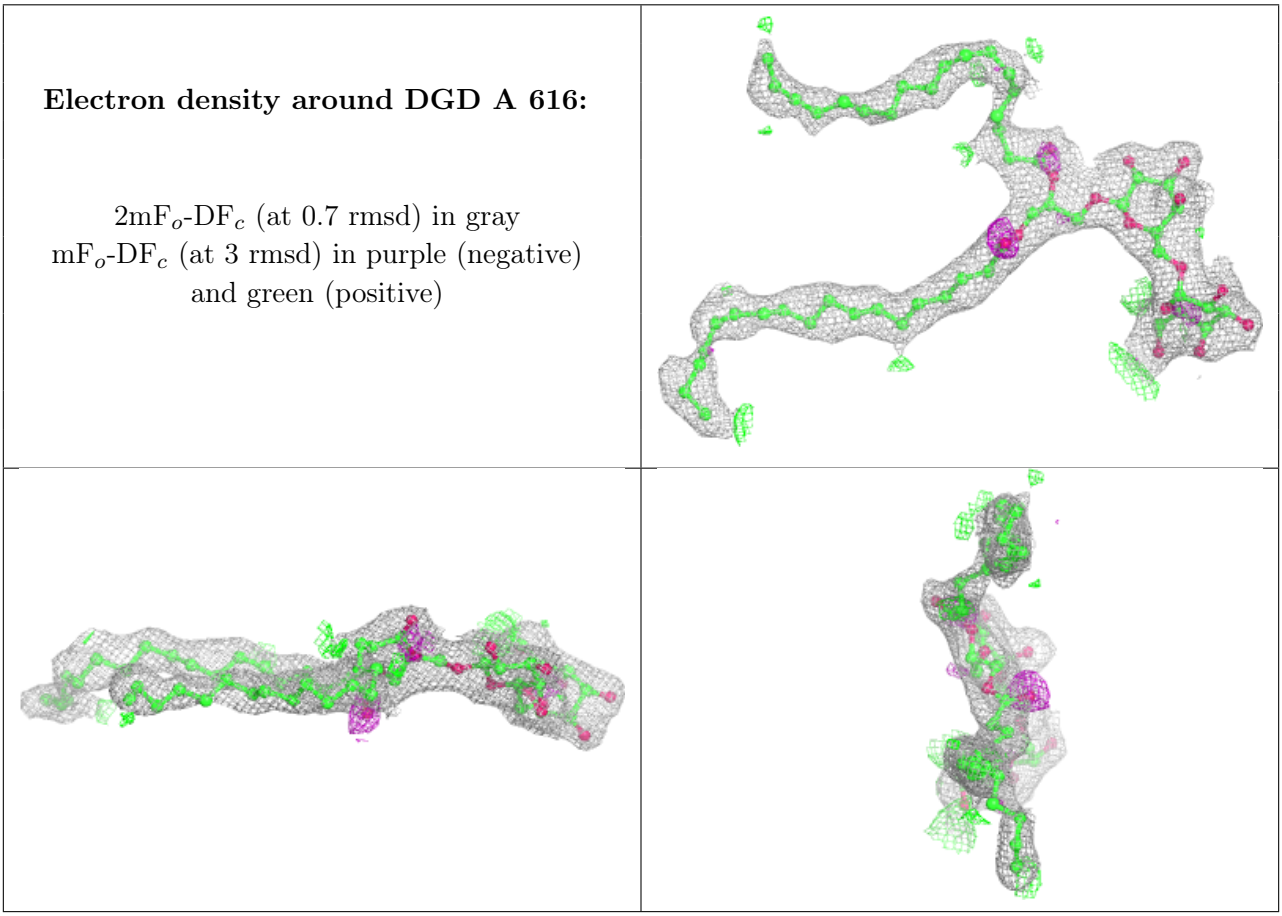
Electron density around STE C 519:

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



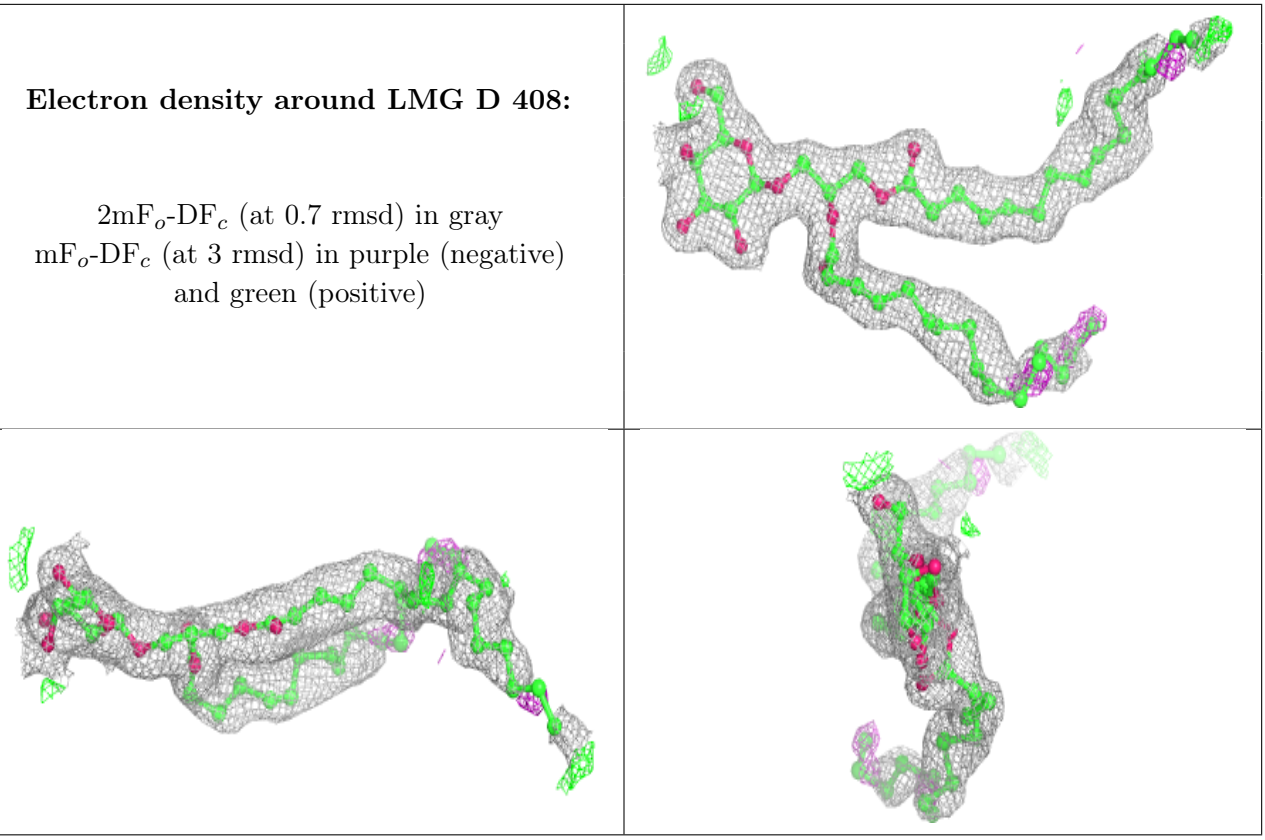
Electron density around DGD A 616:

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



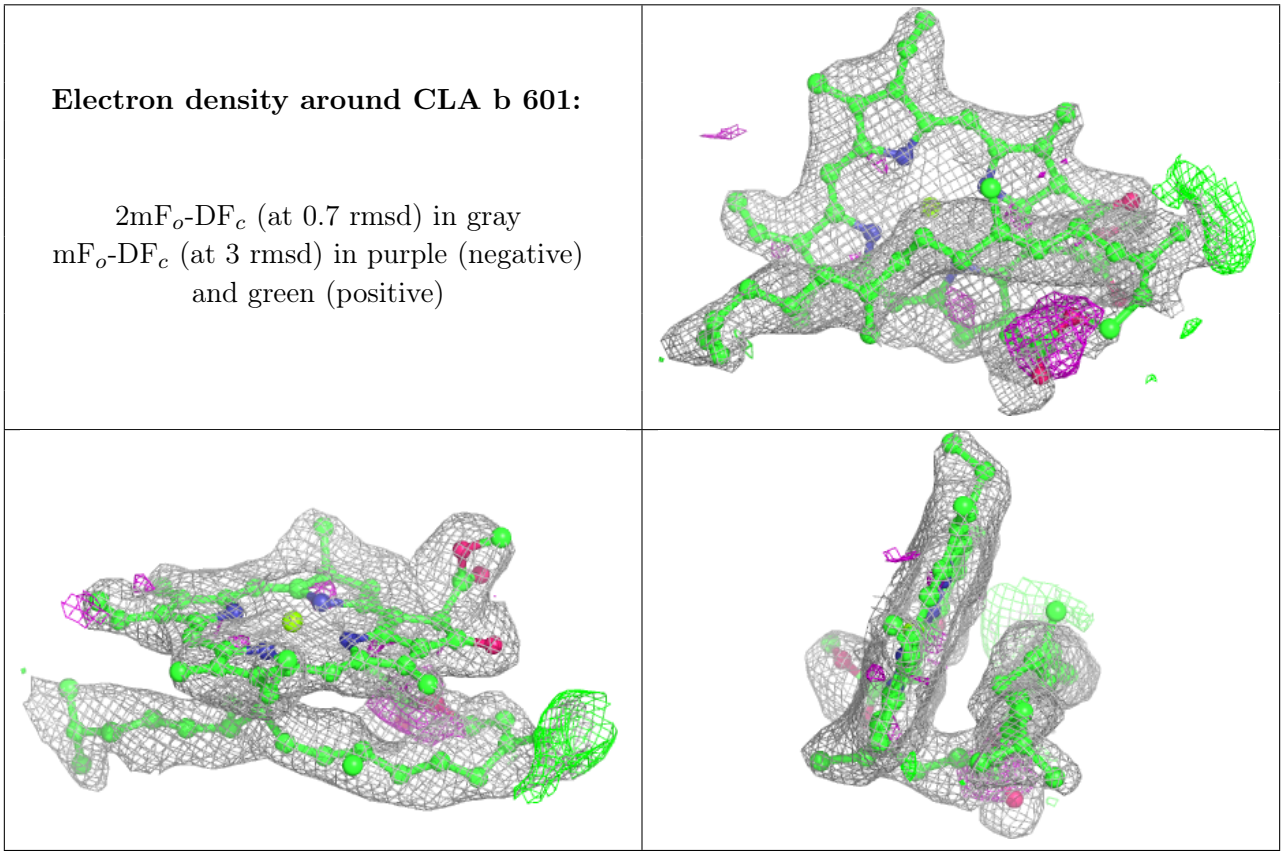
Electron density around LMG D 408:

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



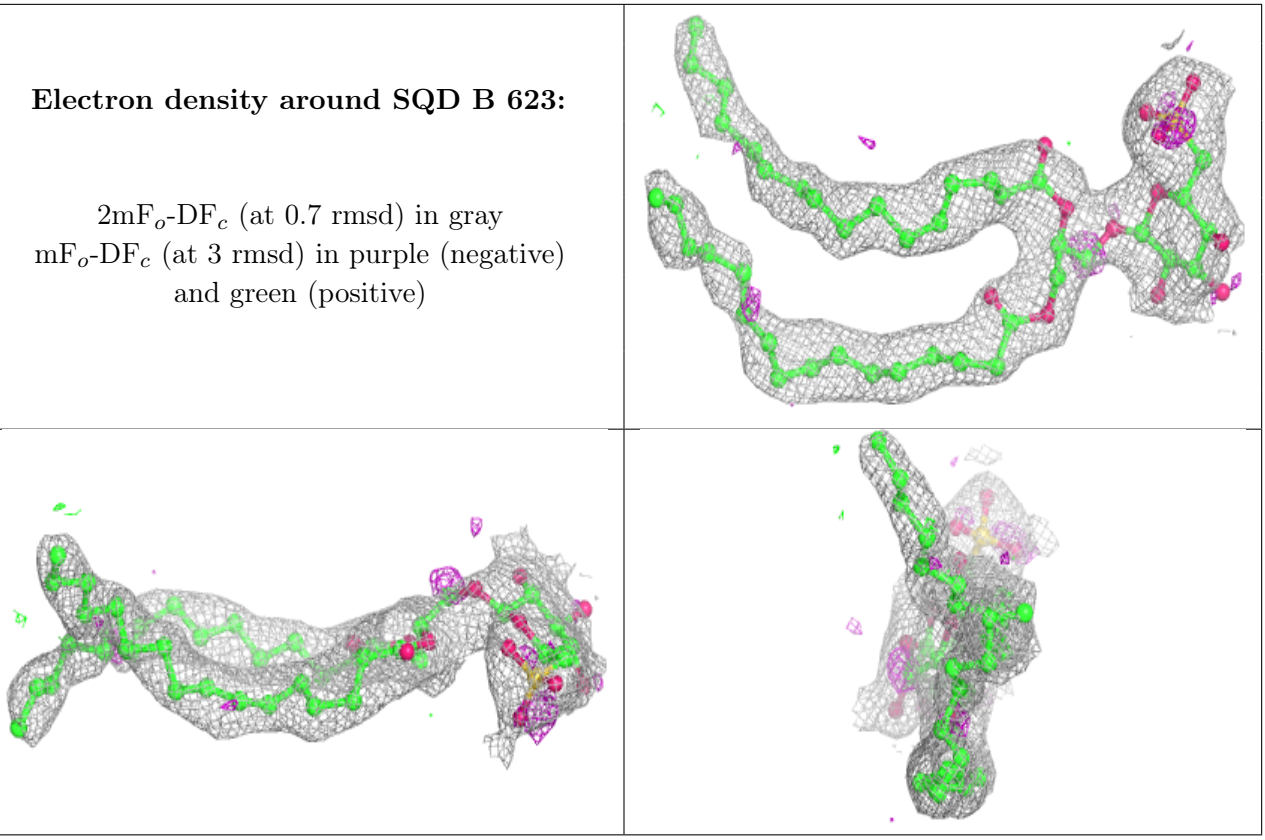
Electron density around CLA b 601:

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



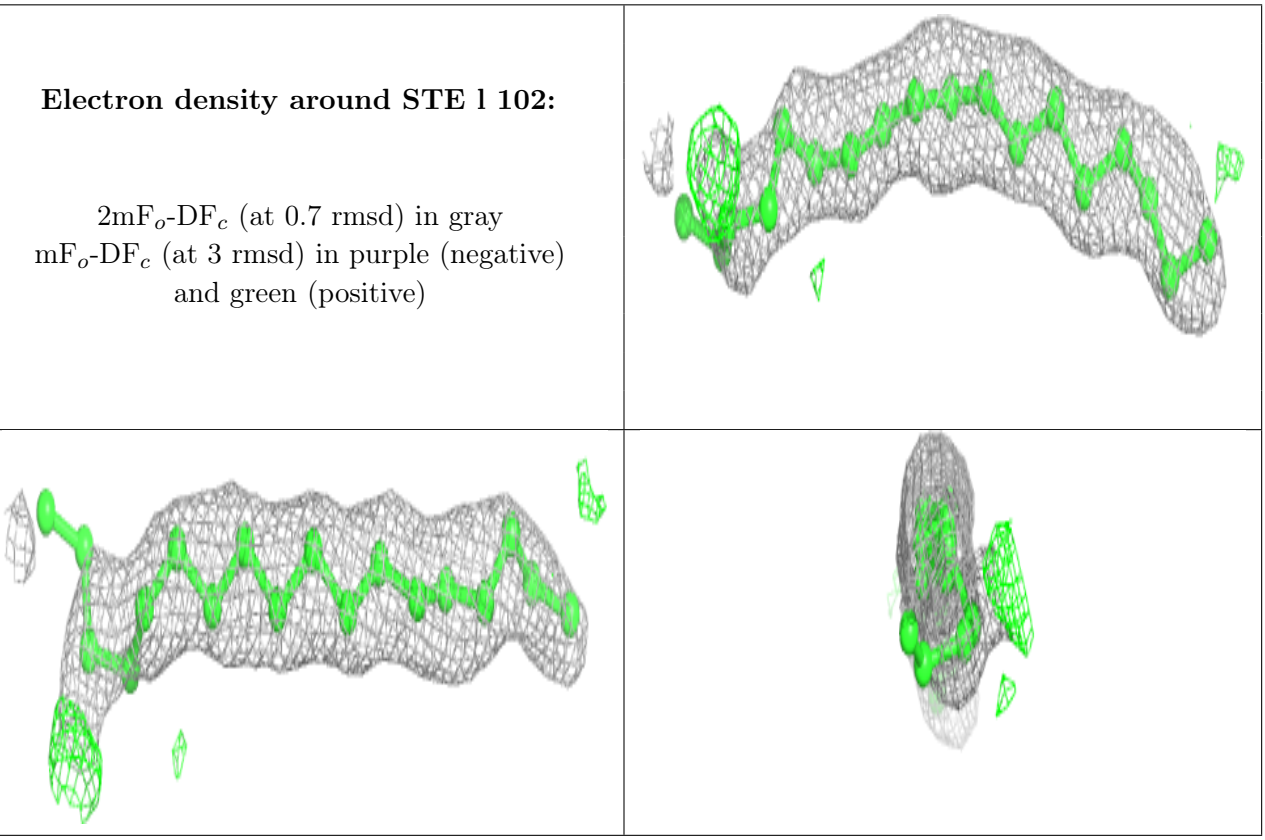
Electron density around SQD B 623:

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



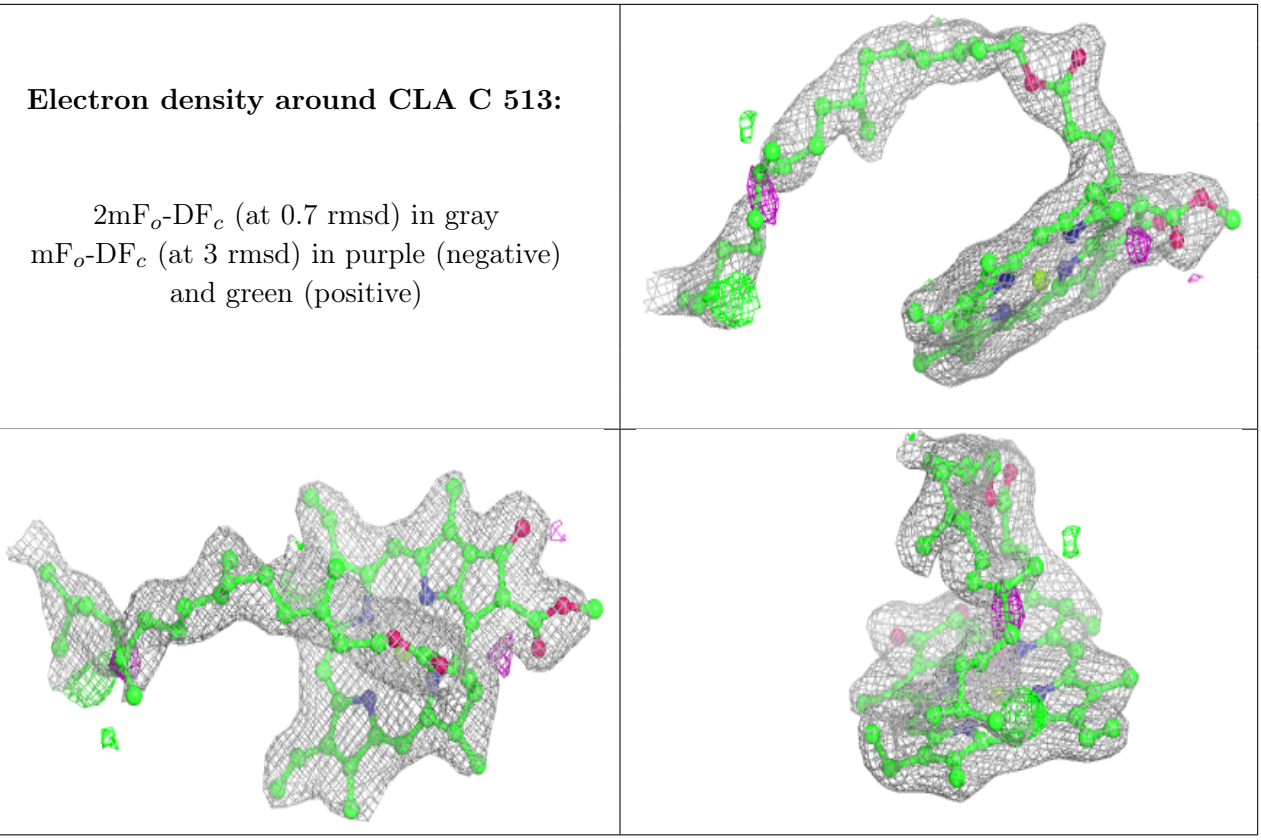
Electron density around STE l 102:

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



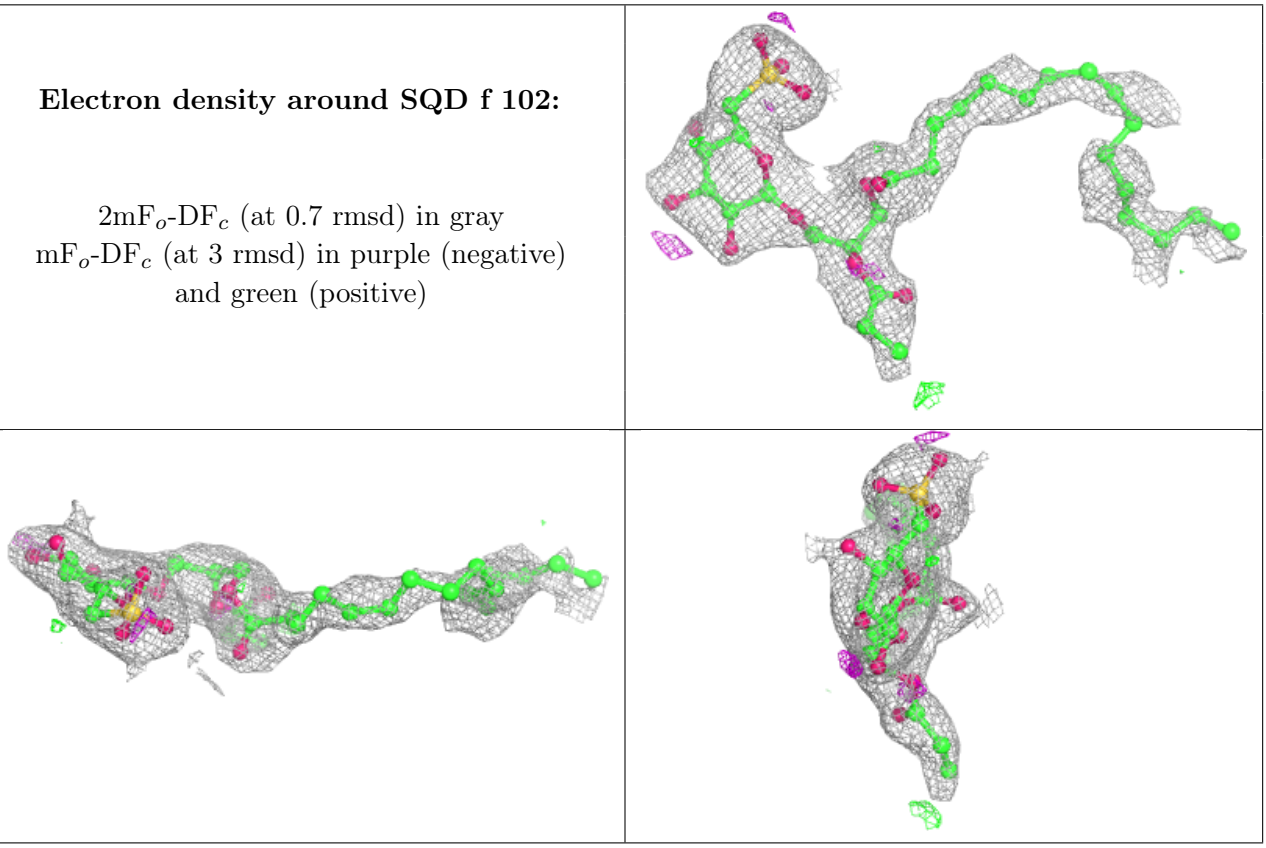
Electron density around CLA C 513:

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



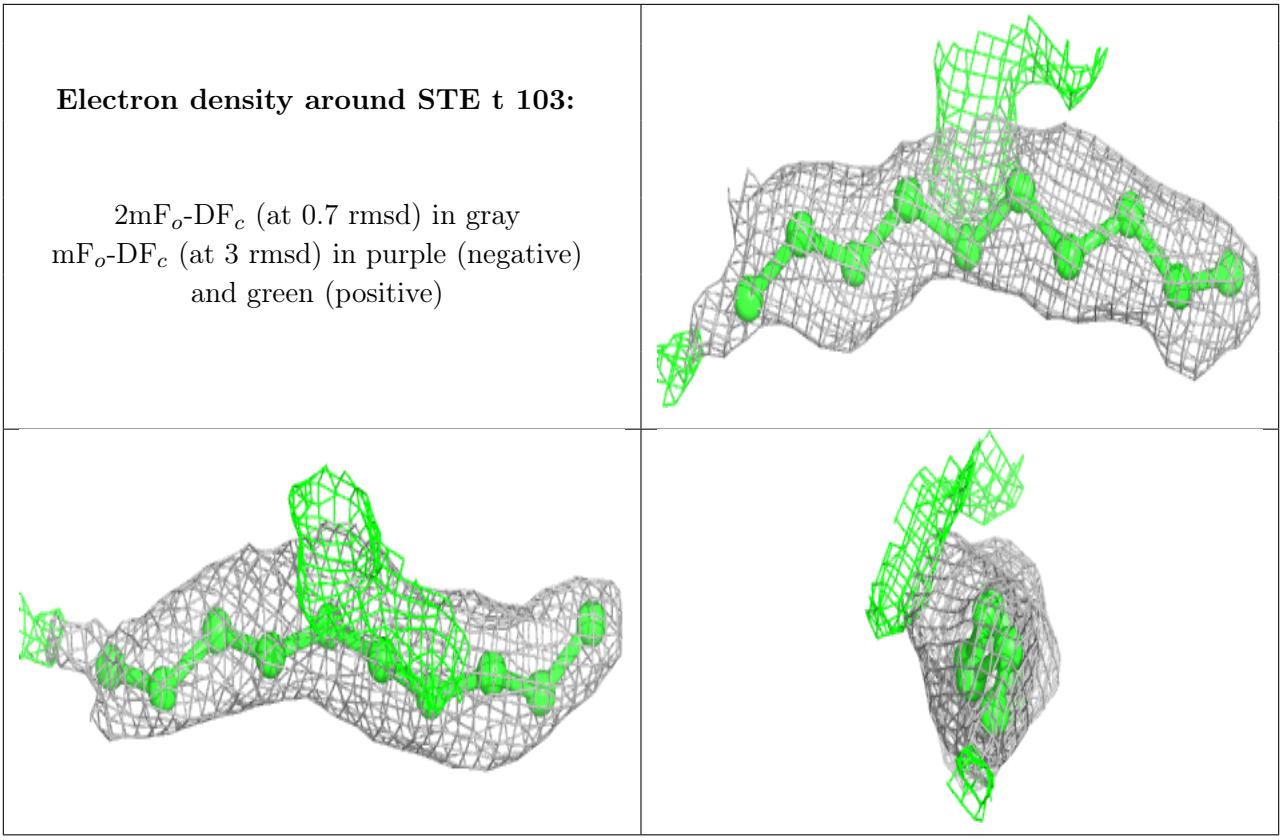
Electron density around SQD f 102:

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



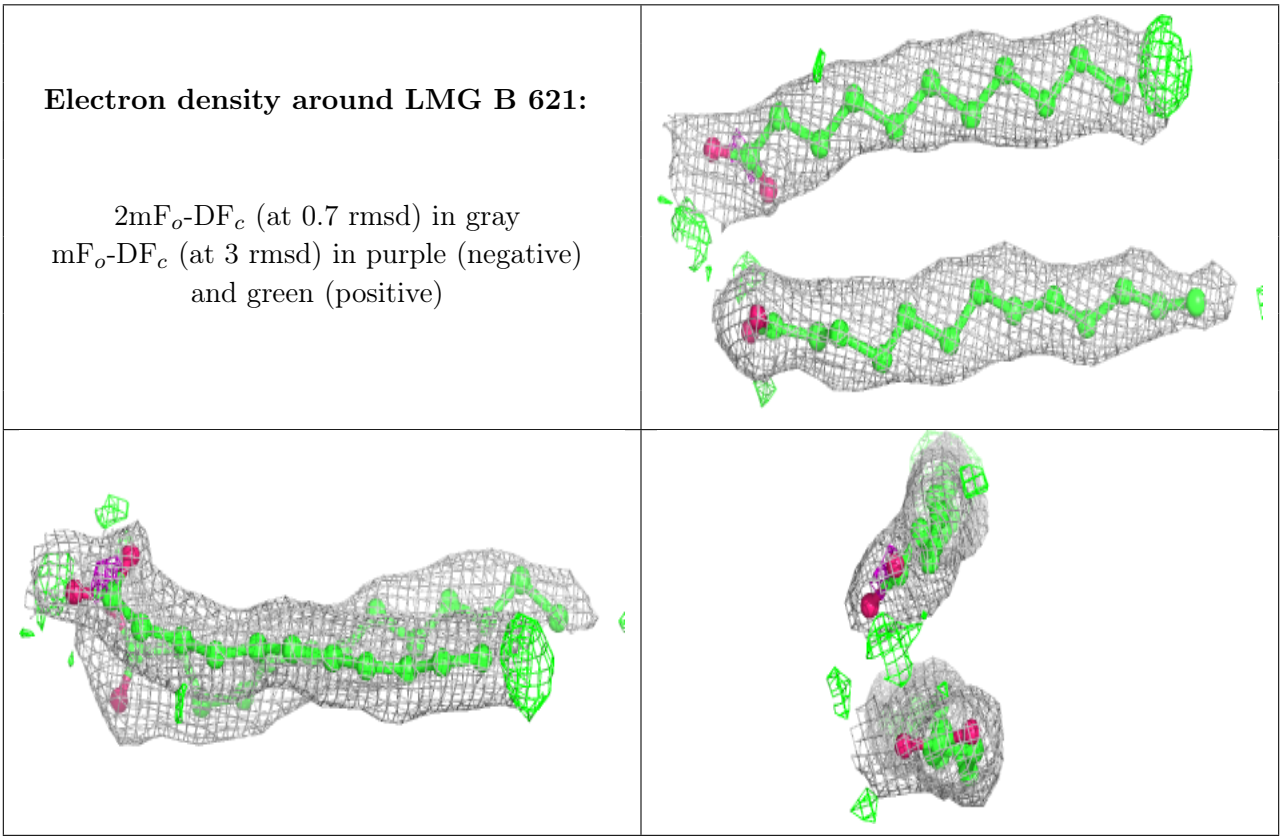
Electron density around STE t 103:

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



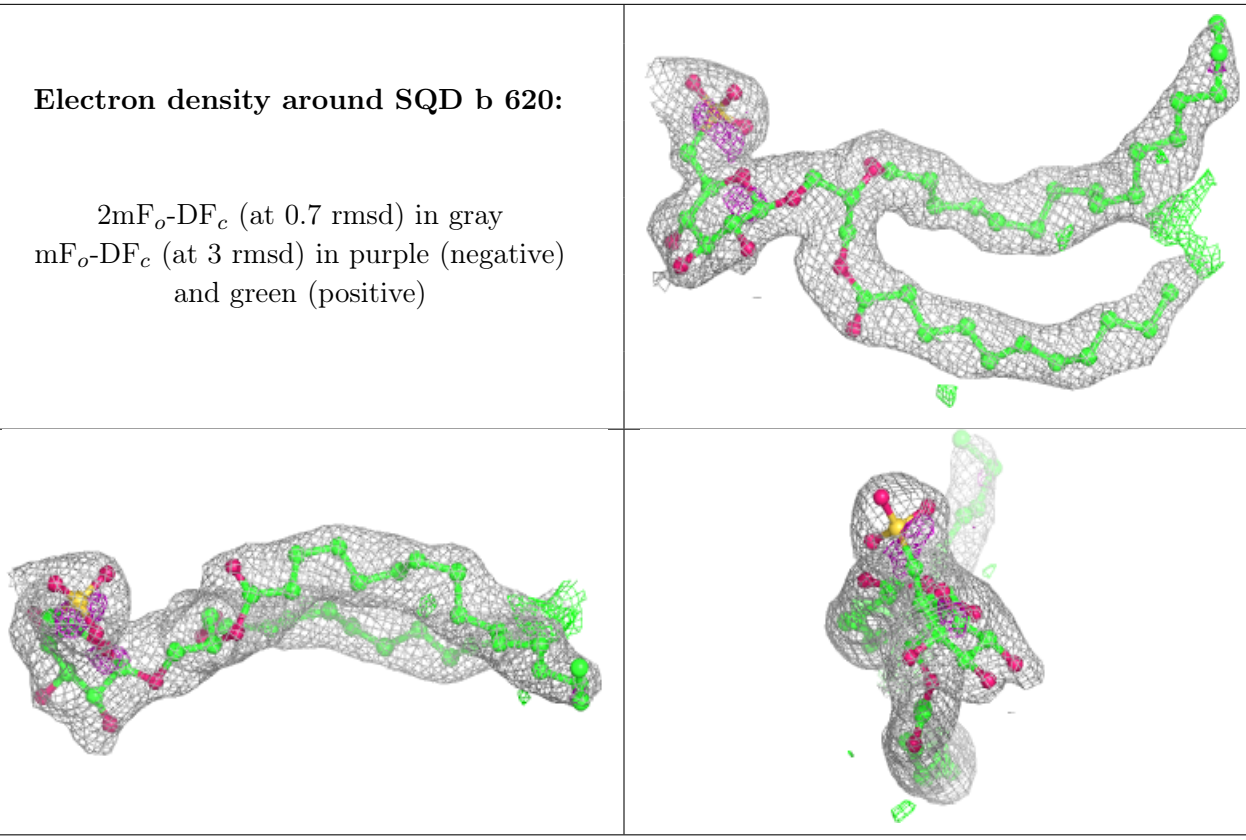
Electron density around LMG B 621:

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



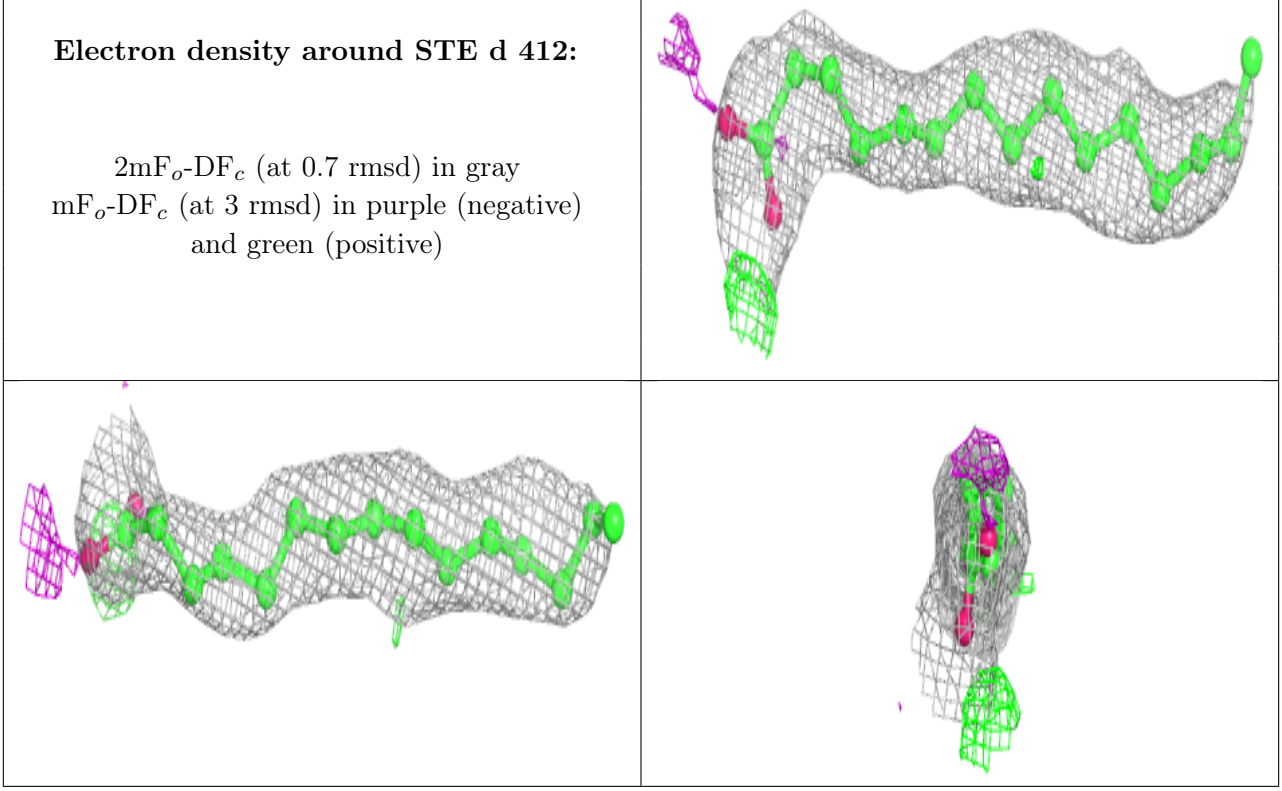
Electron density around SQD b 620:

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



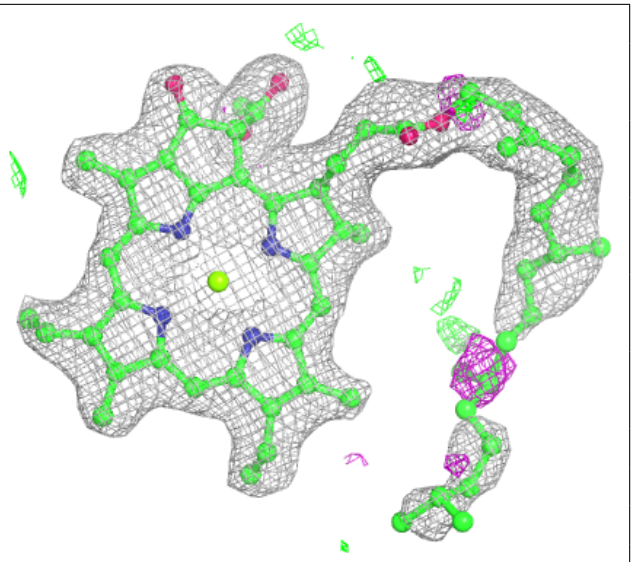
Electron density around STE d 412:

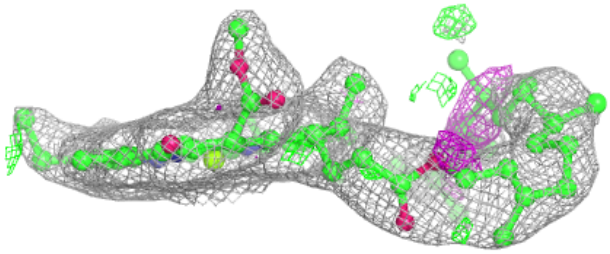
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

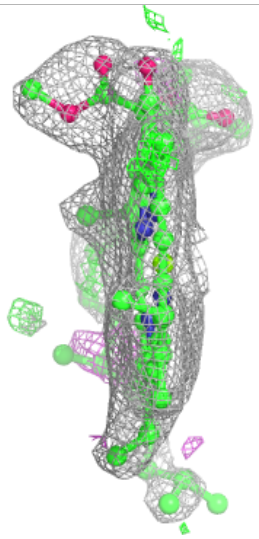


Electron density around CLA c 512:

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

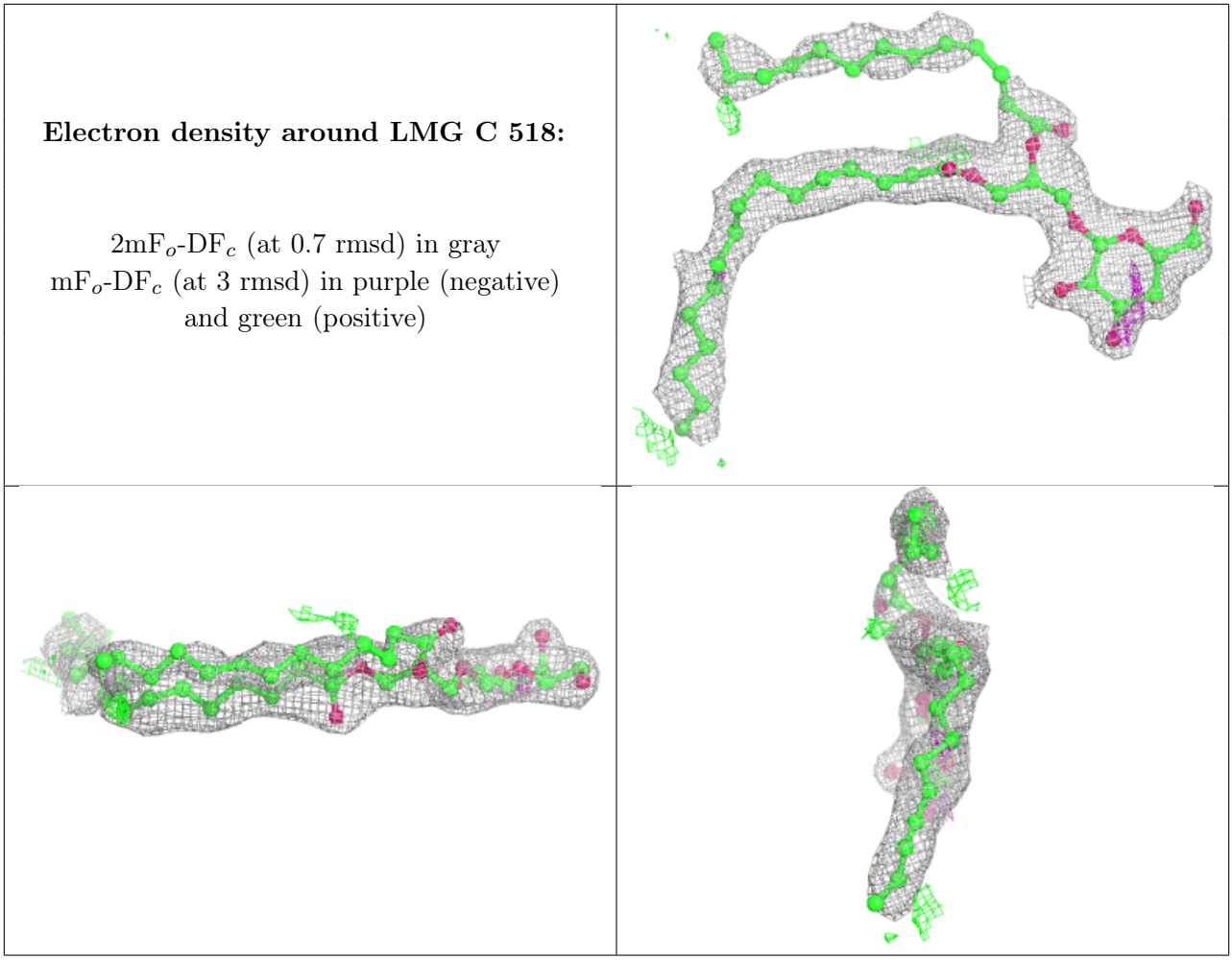






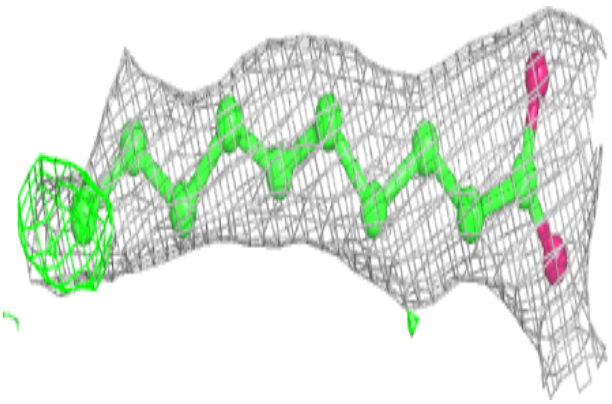
Electron density around LMG C 518:

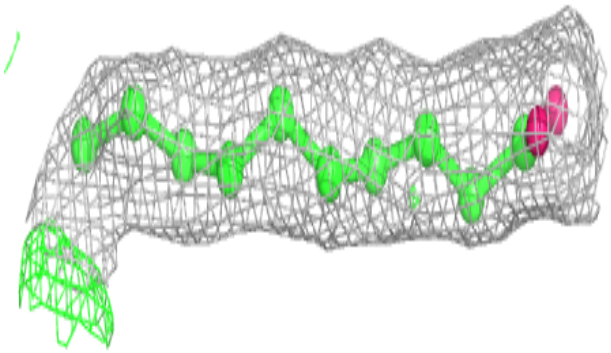
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

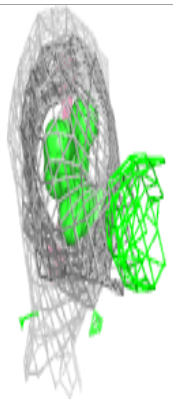


Electron density around STE J 101:

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

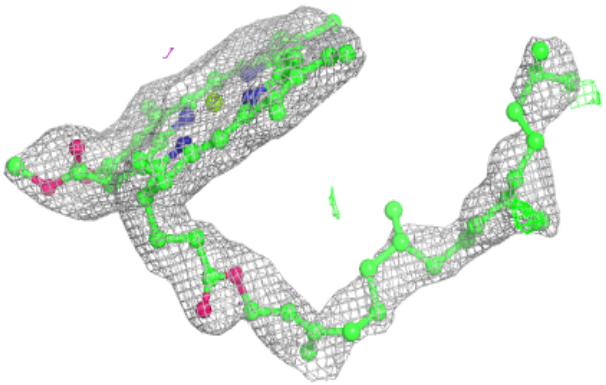


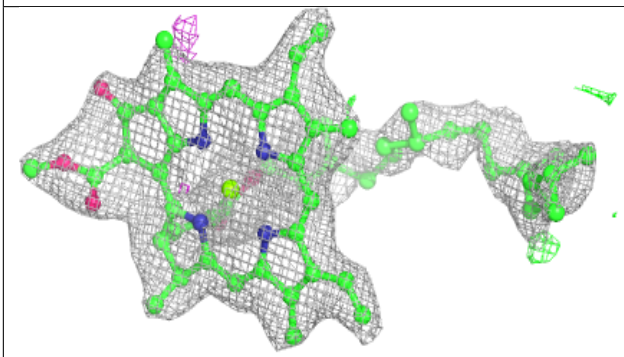


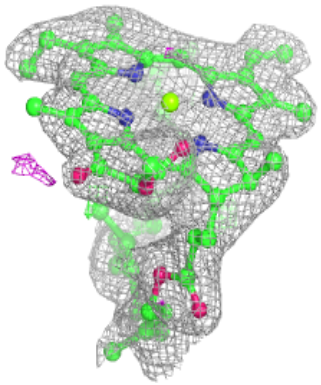


Electron density around CLA c 513:

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

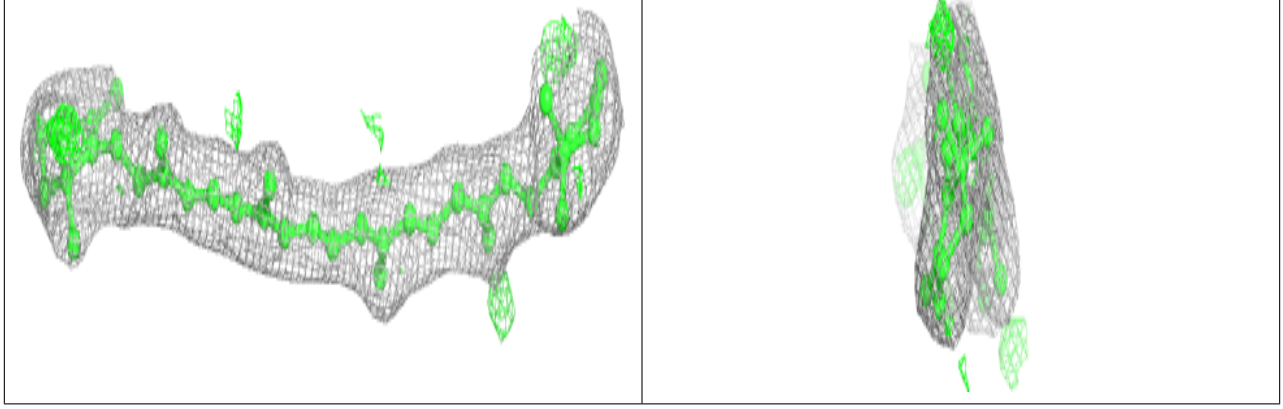






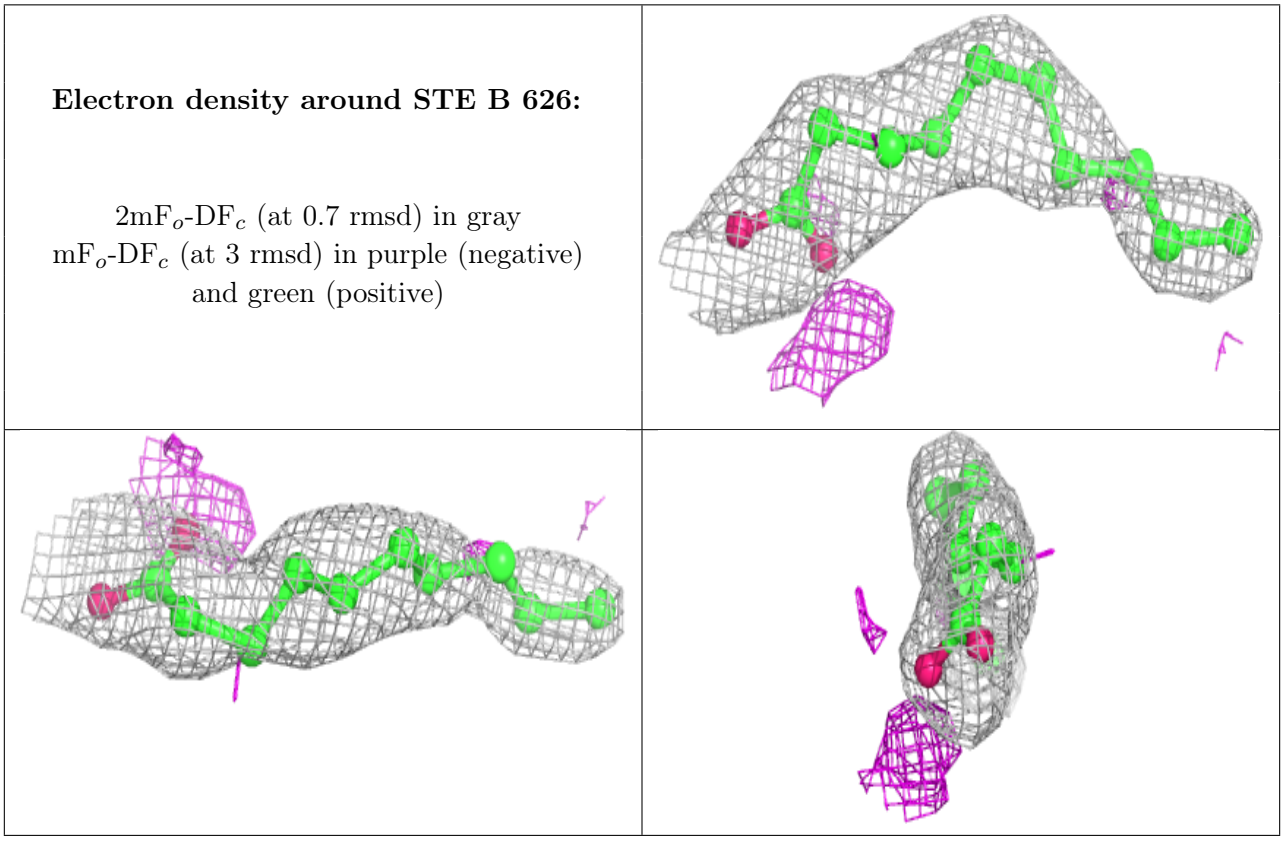
Electron density around BCR D 406:

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



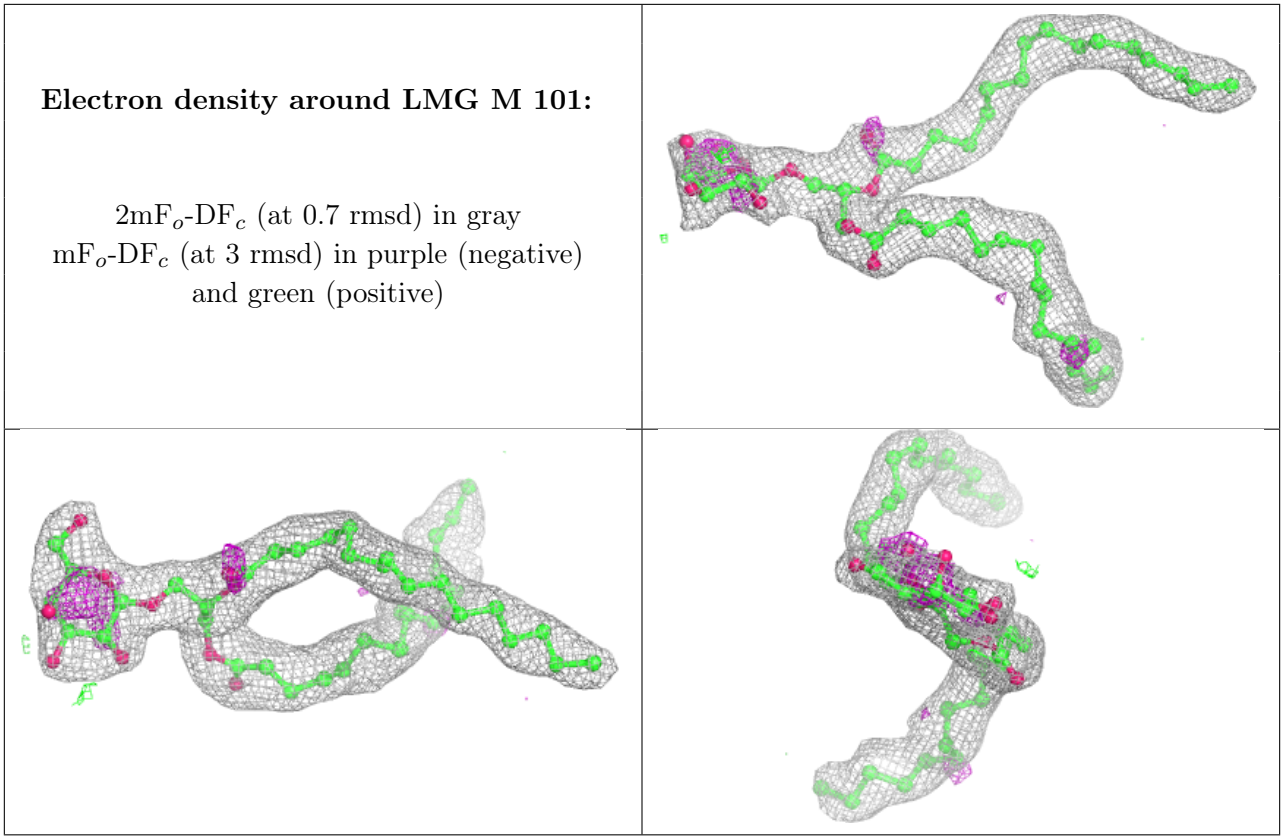
Electron density around STE B 626:

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



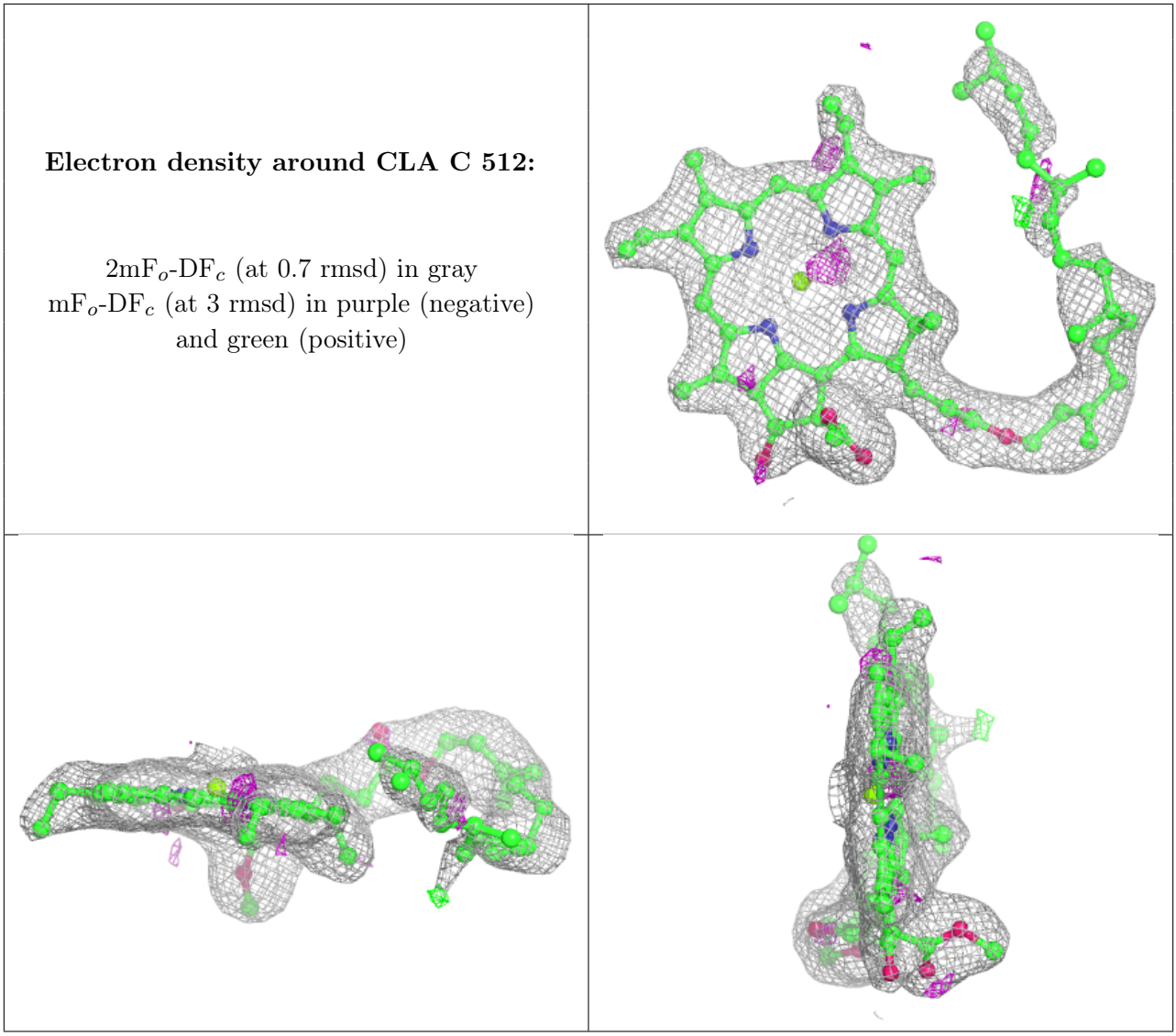
Electron density around LMG M 101:

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



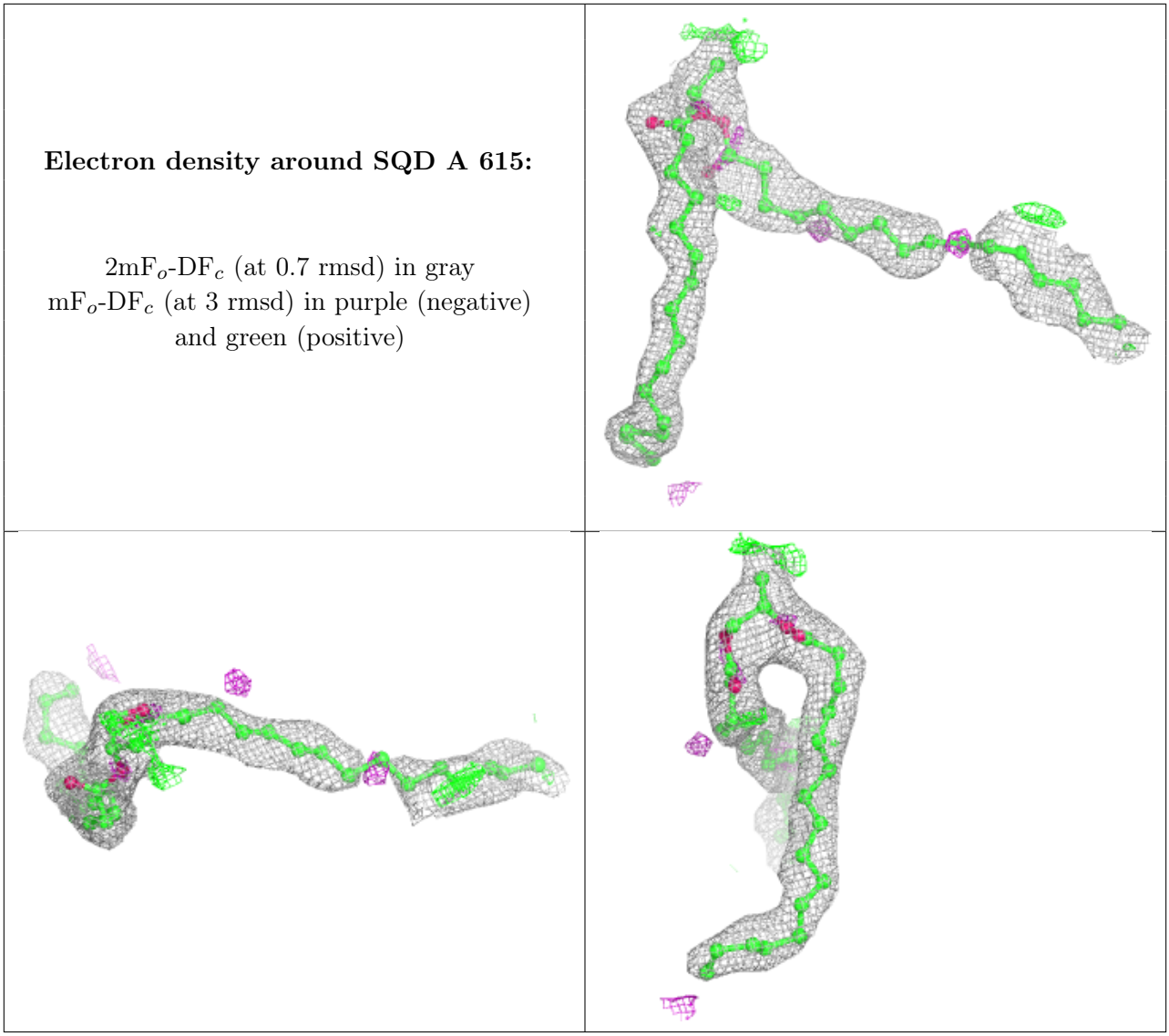
Electron density around CLA C 512:

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



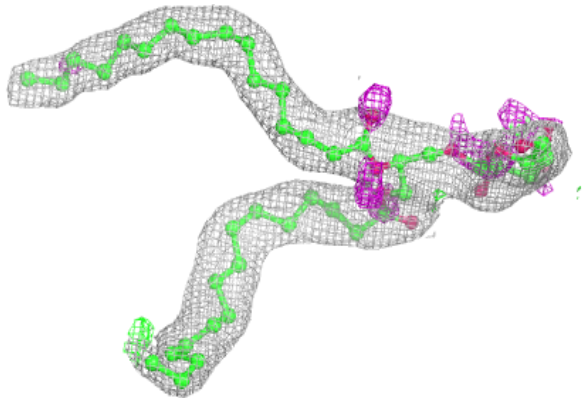
Electron density around SQD A 615:

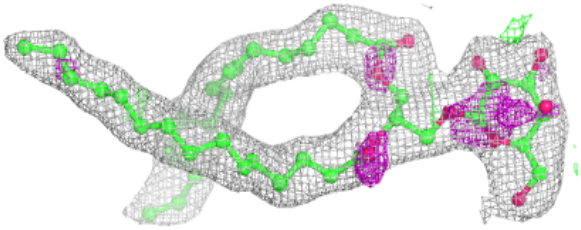
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

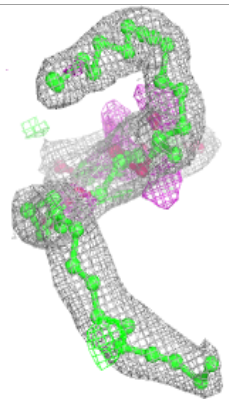


Electron density around LMG b 622:

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

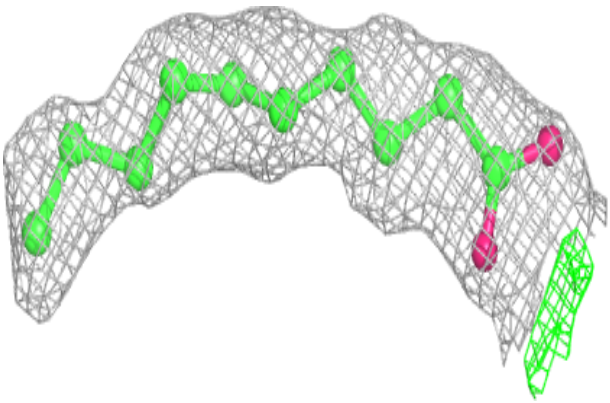


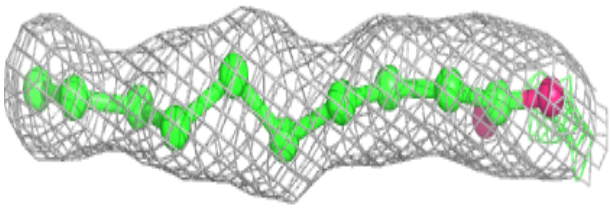


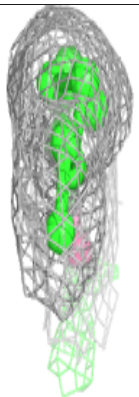


Electron density around STE C 520:

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

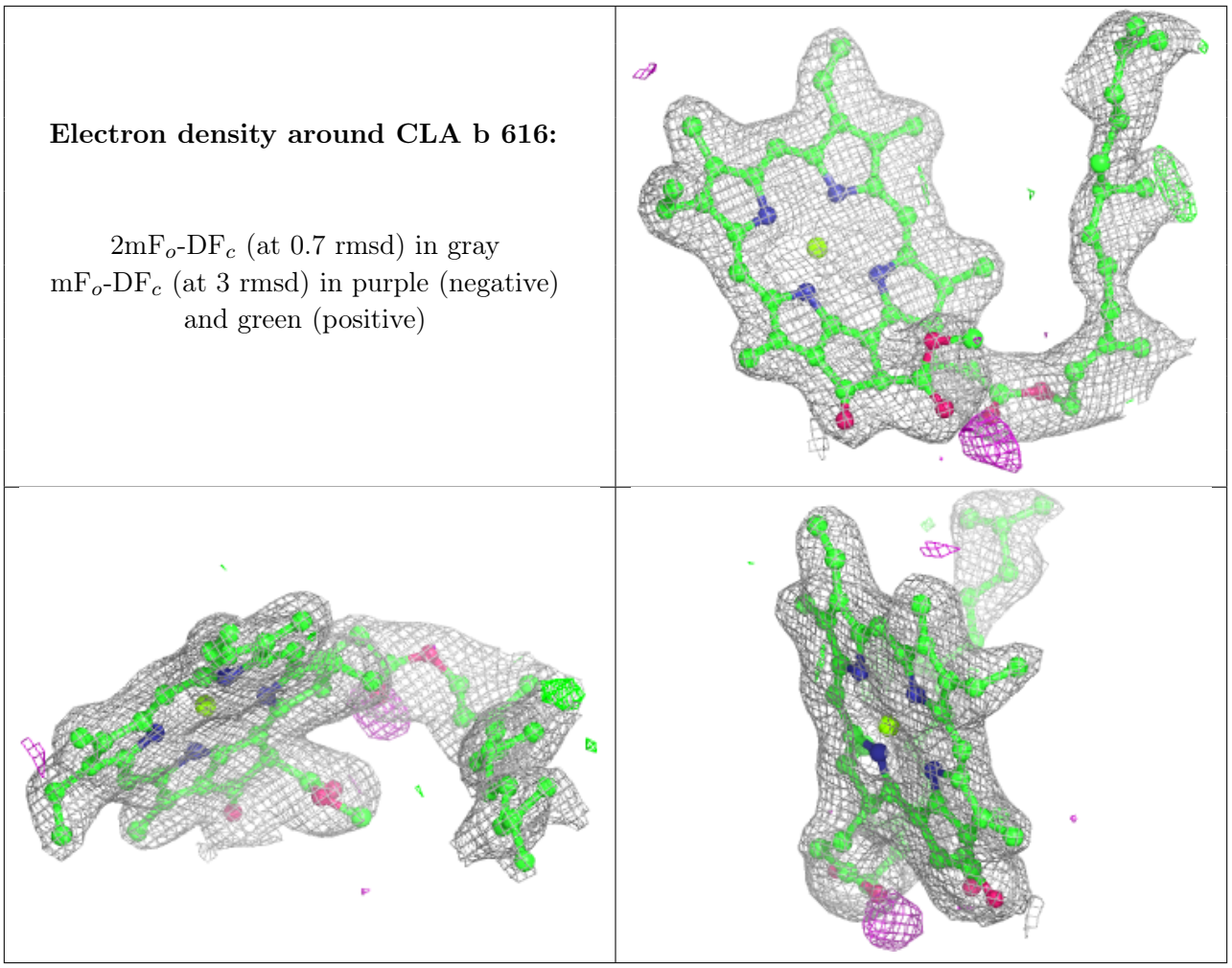






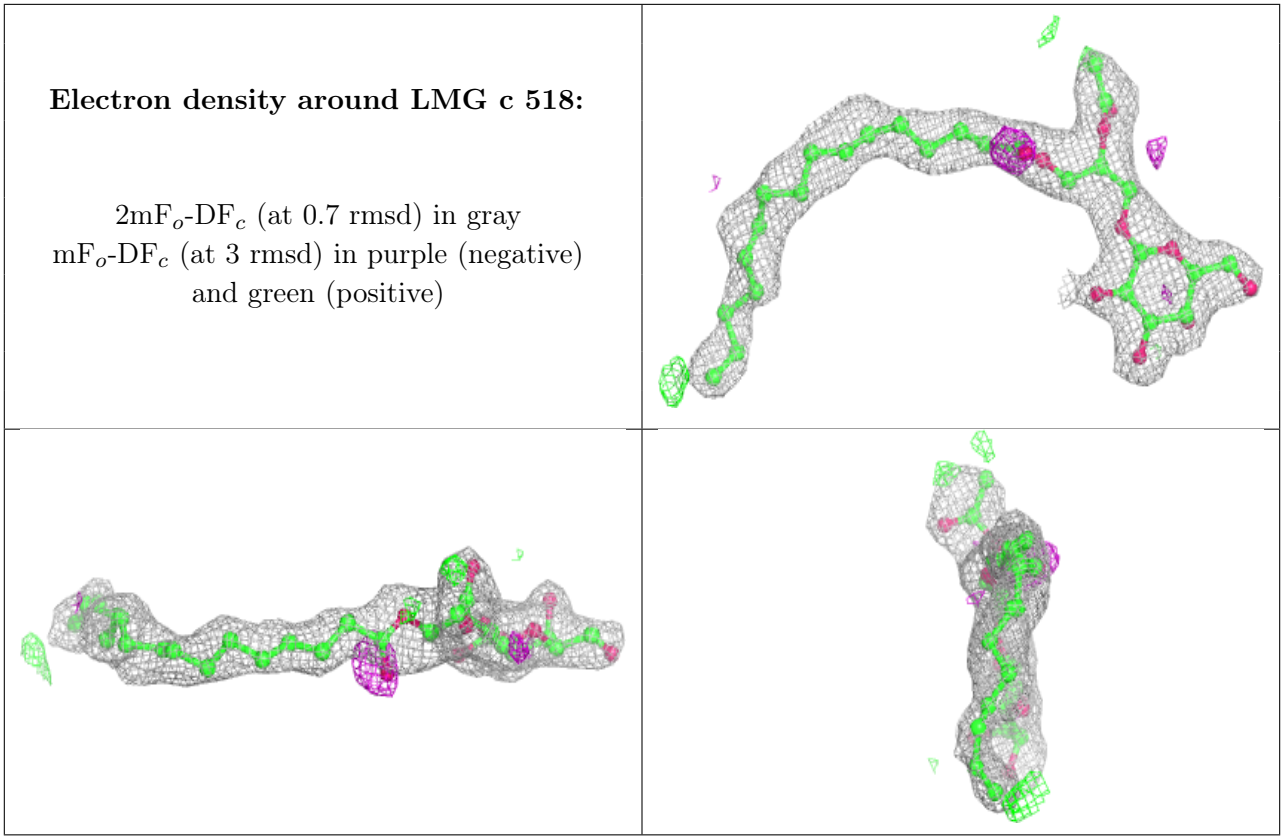
Electron density around CLA b 616:

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



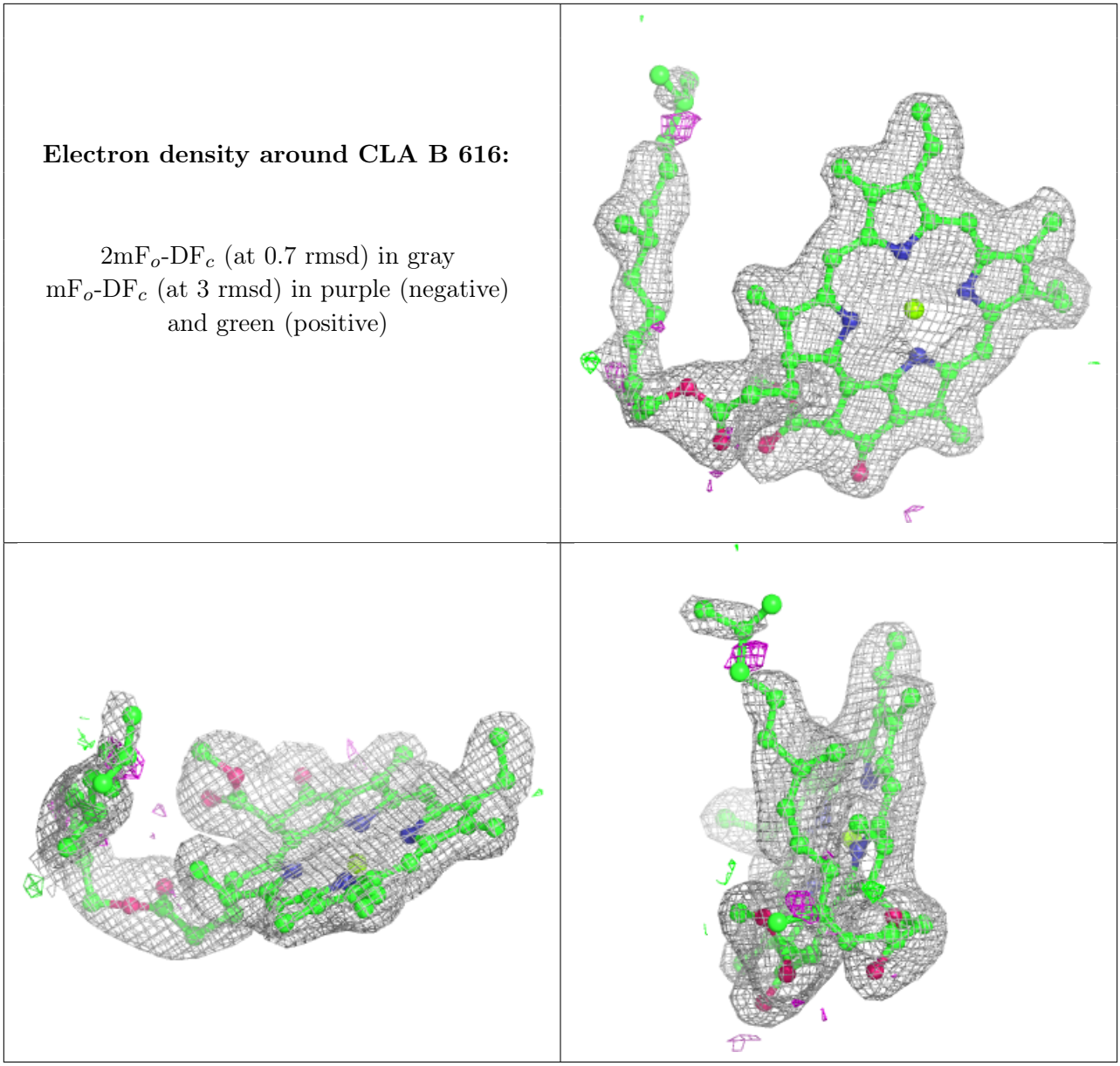
Electron density around LMG c 518:

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



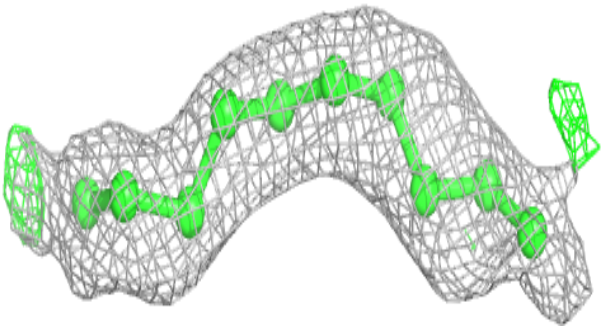
Electron density around CLA B 616:

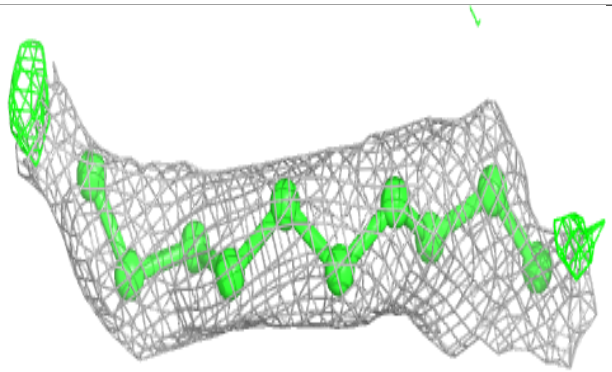
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

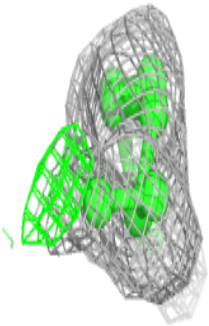


Electron density around STE b 626:

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

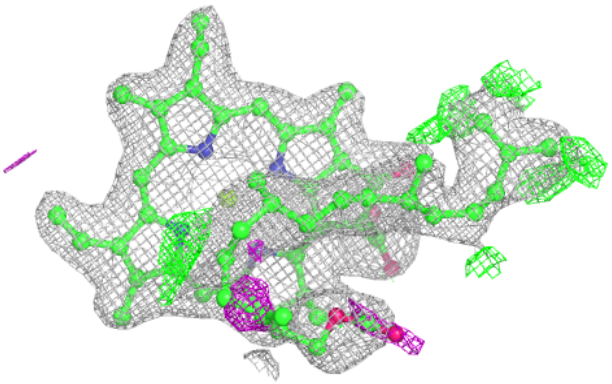


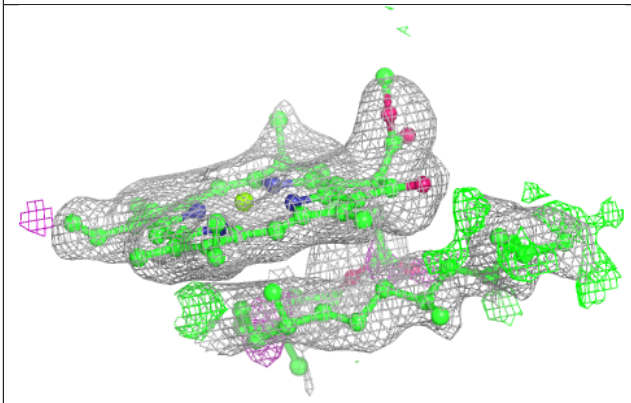


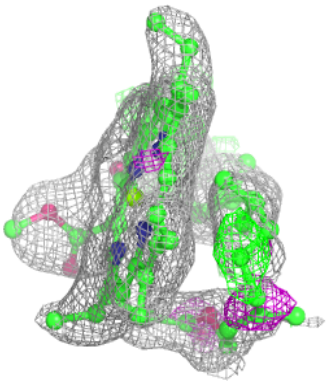


Electron density around CLA B 601:

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

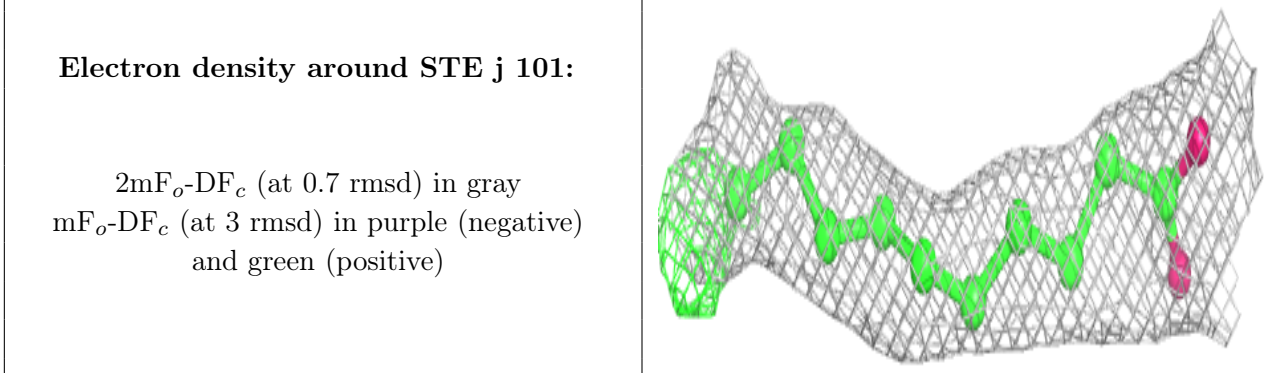


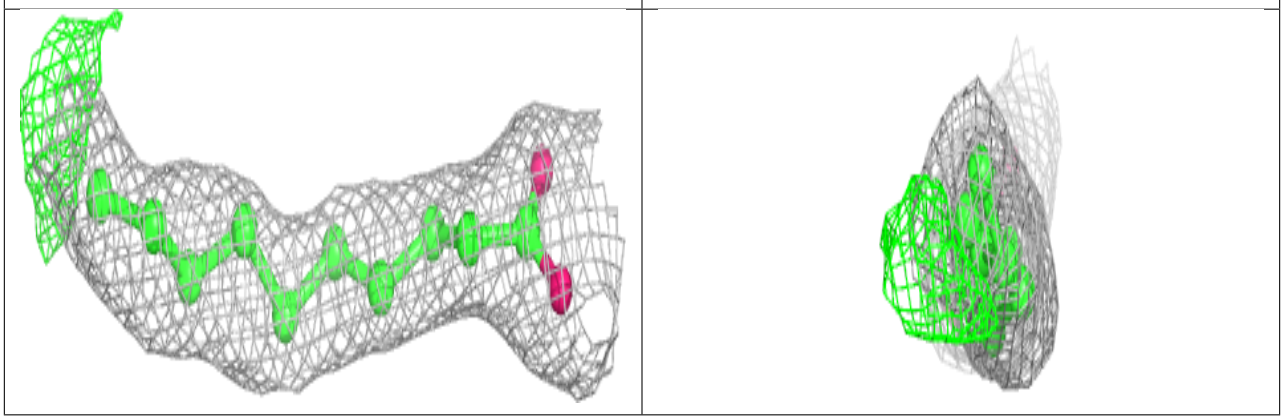




Electron density around STE j 101:

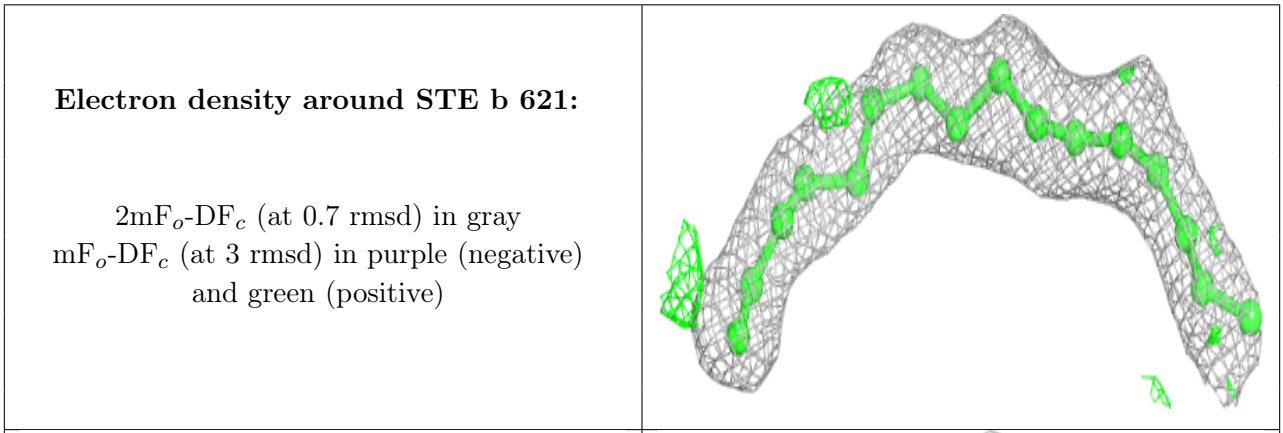
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

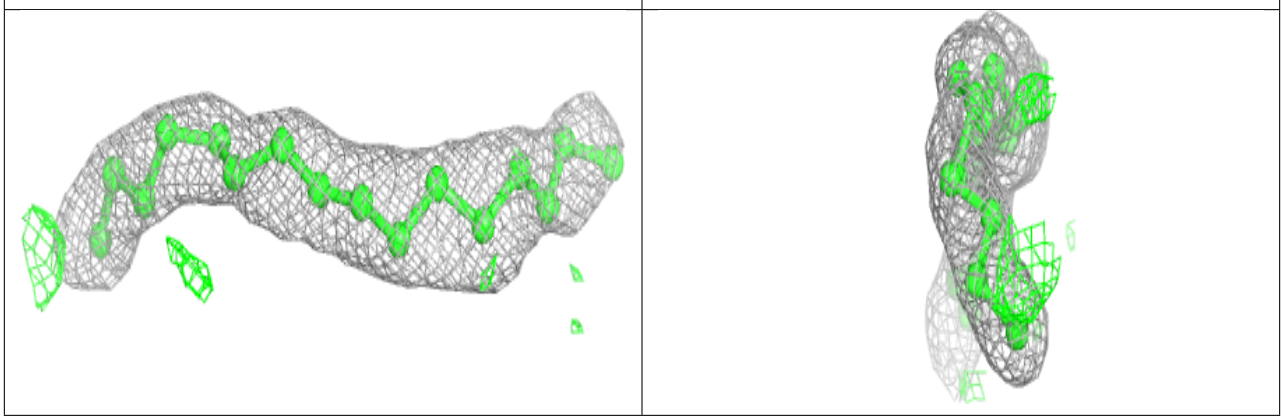




Electron density around STE b 621:

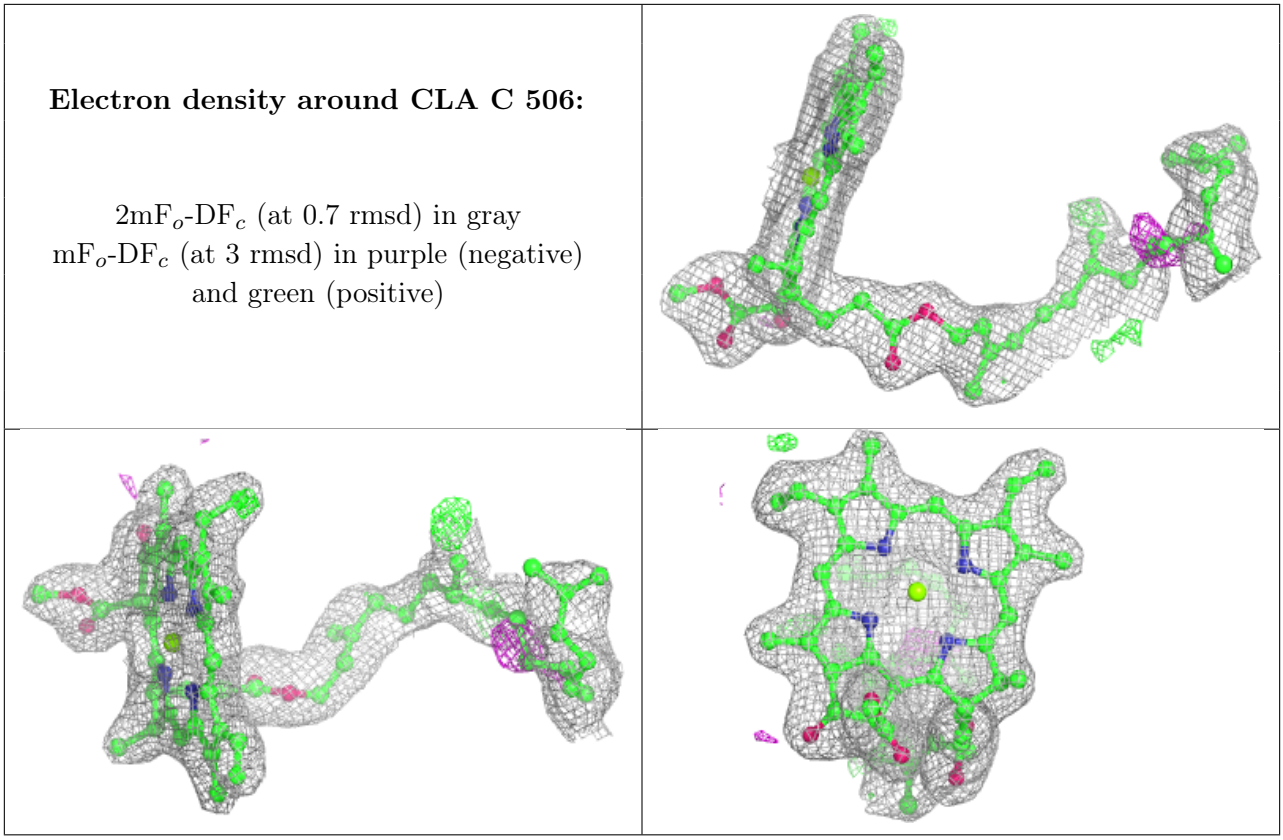
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





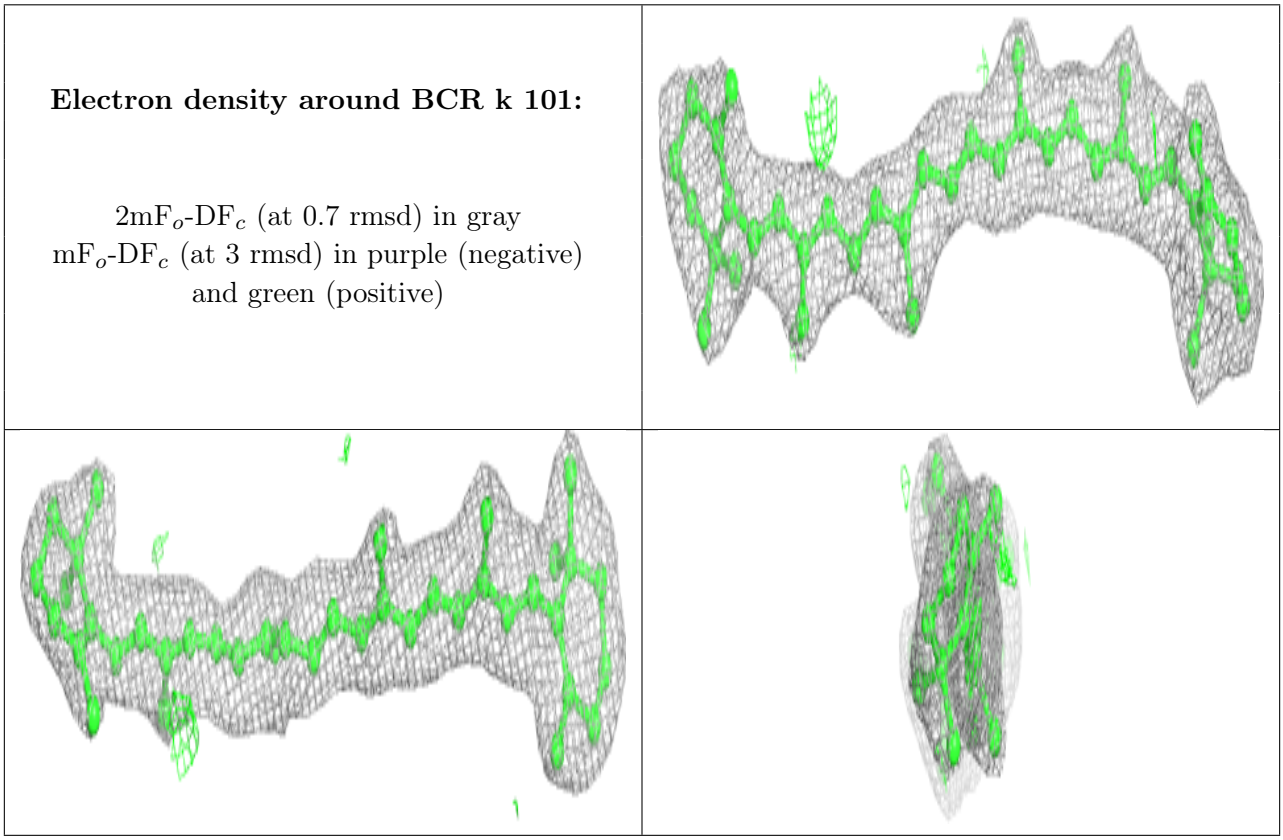
Electron density around CLA C 506:

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



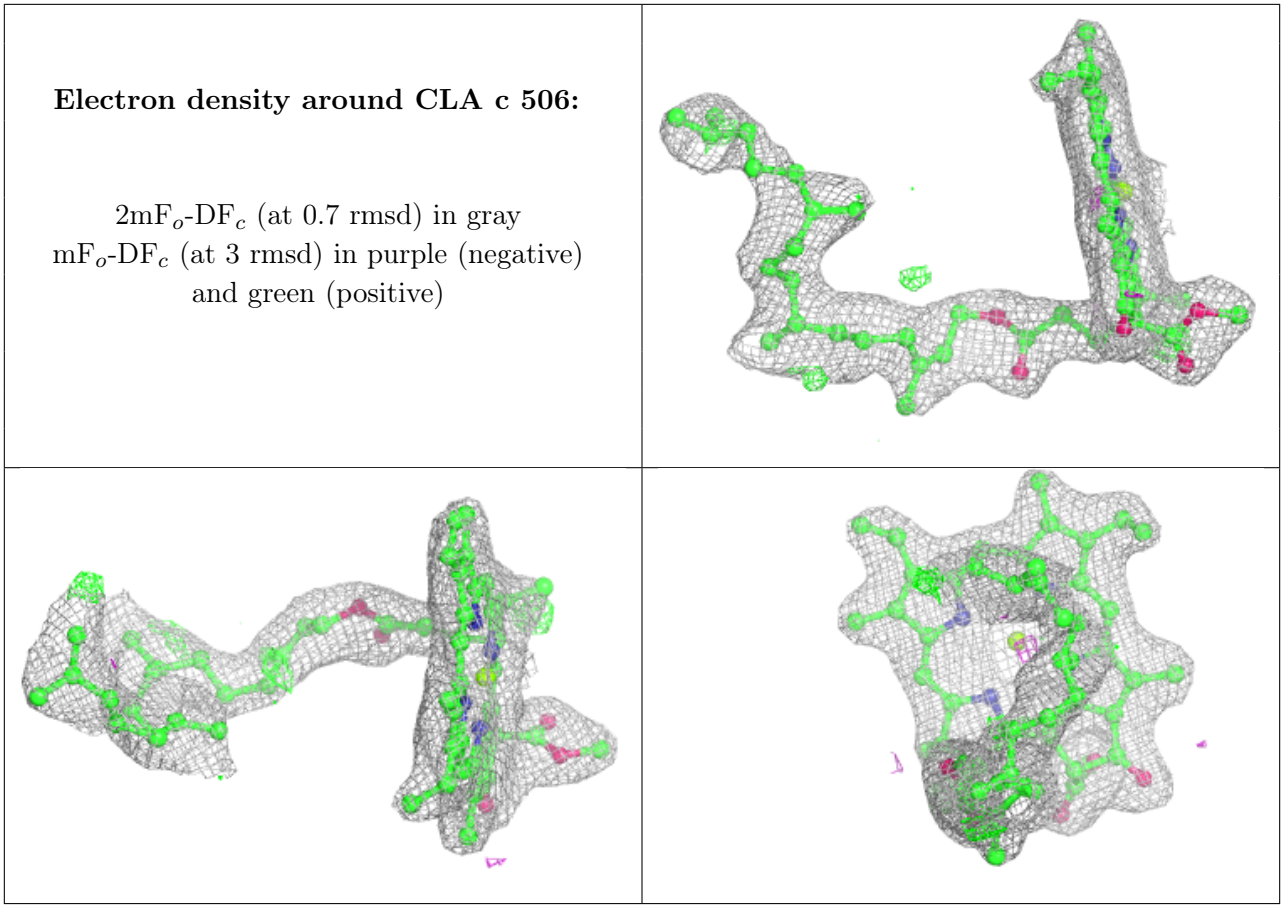
Electron density around BCR k 101:

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



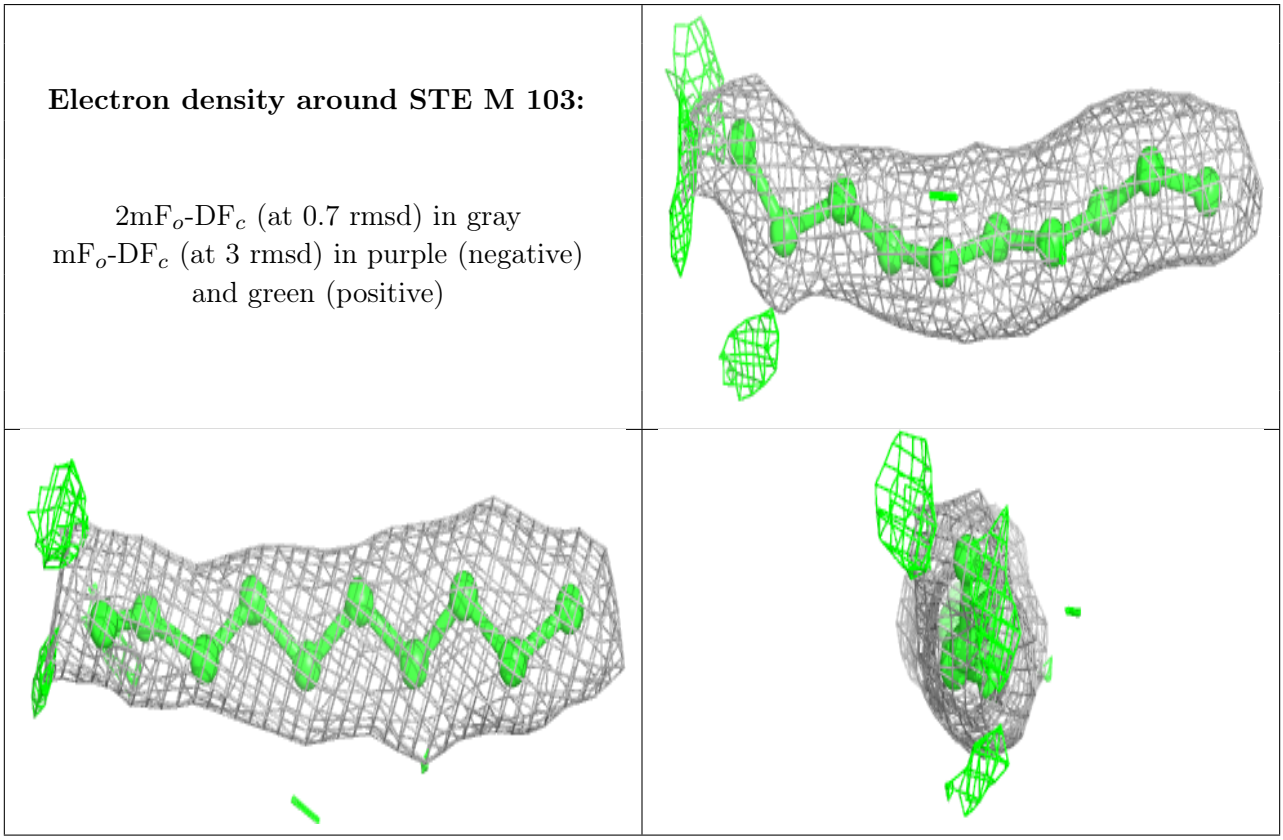
Electron density around CLA c 506:

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



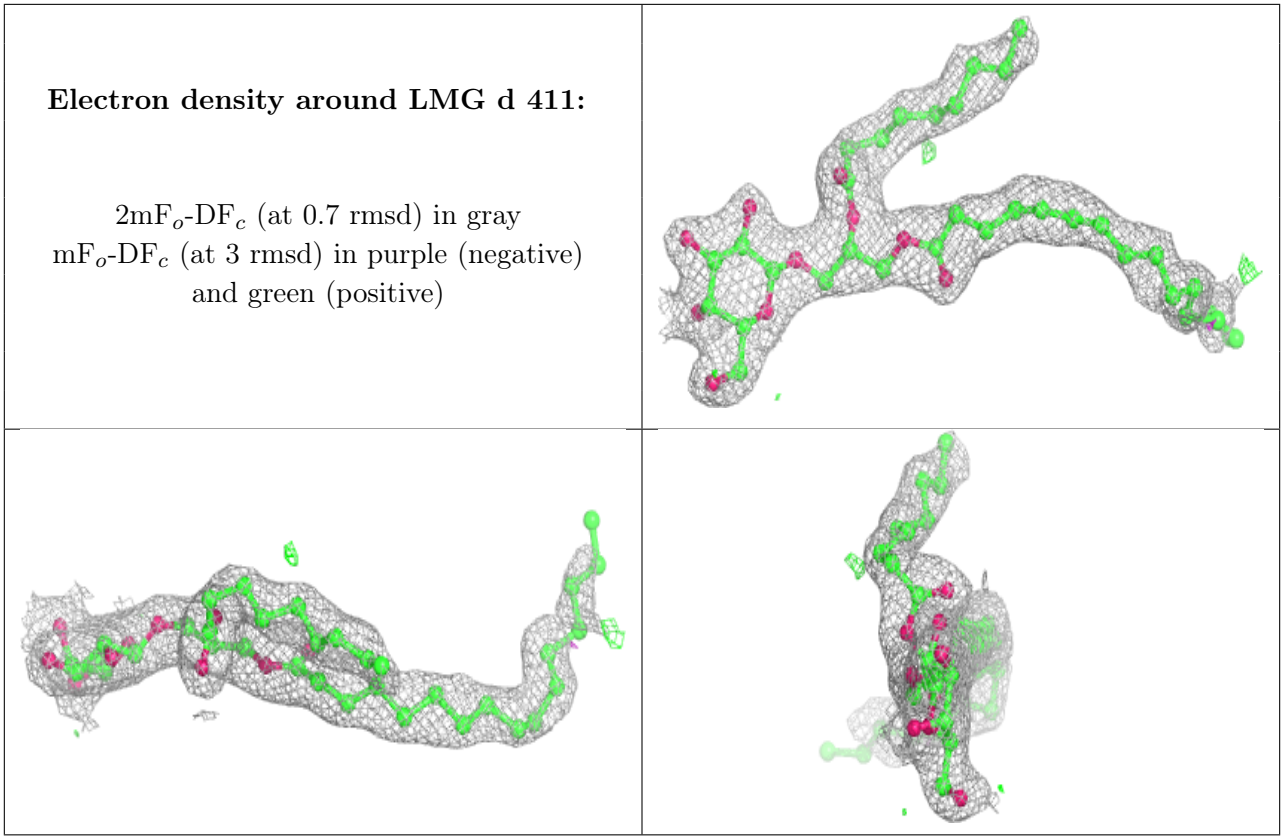
Electron density around STE M 103:

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



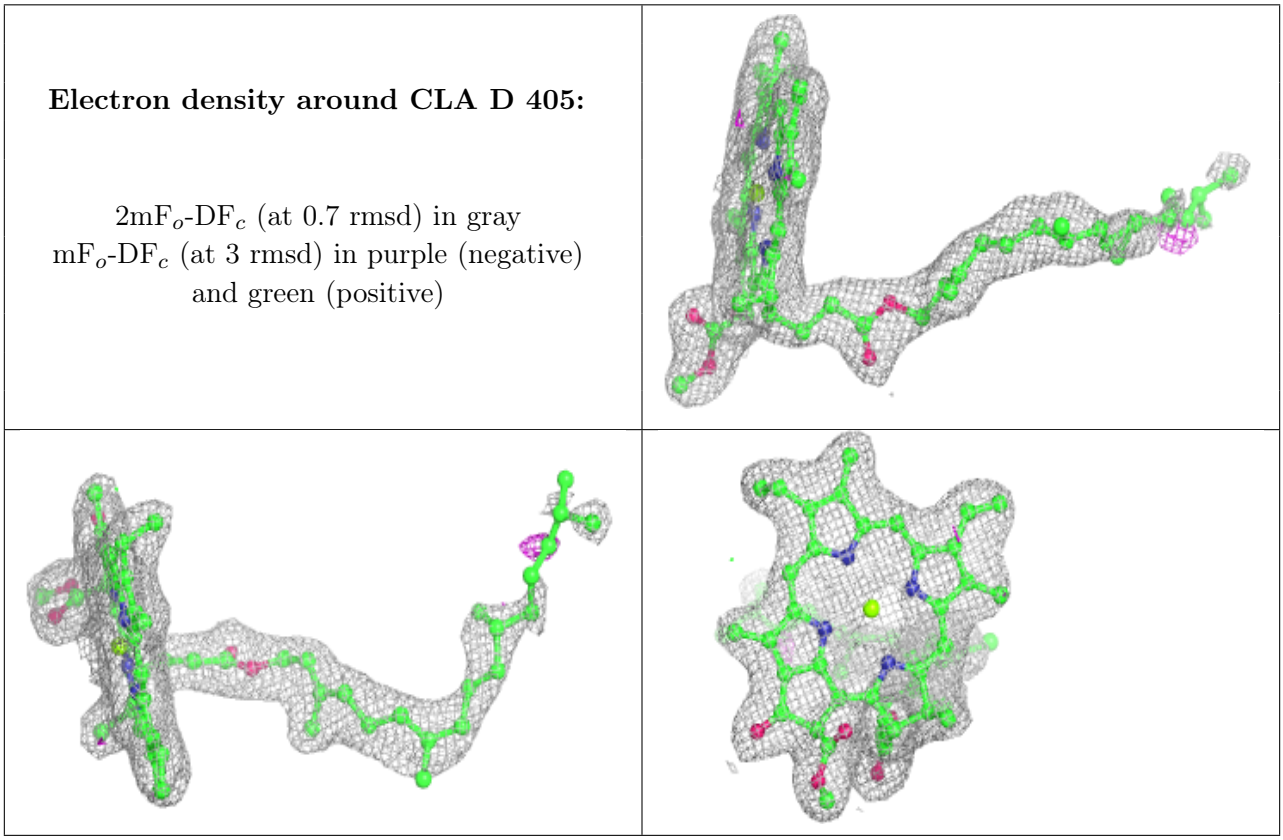
Electron density around LMG d 411:

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



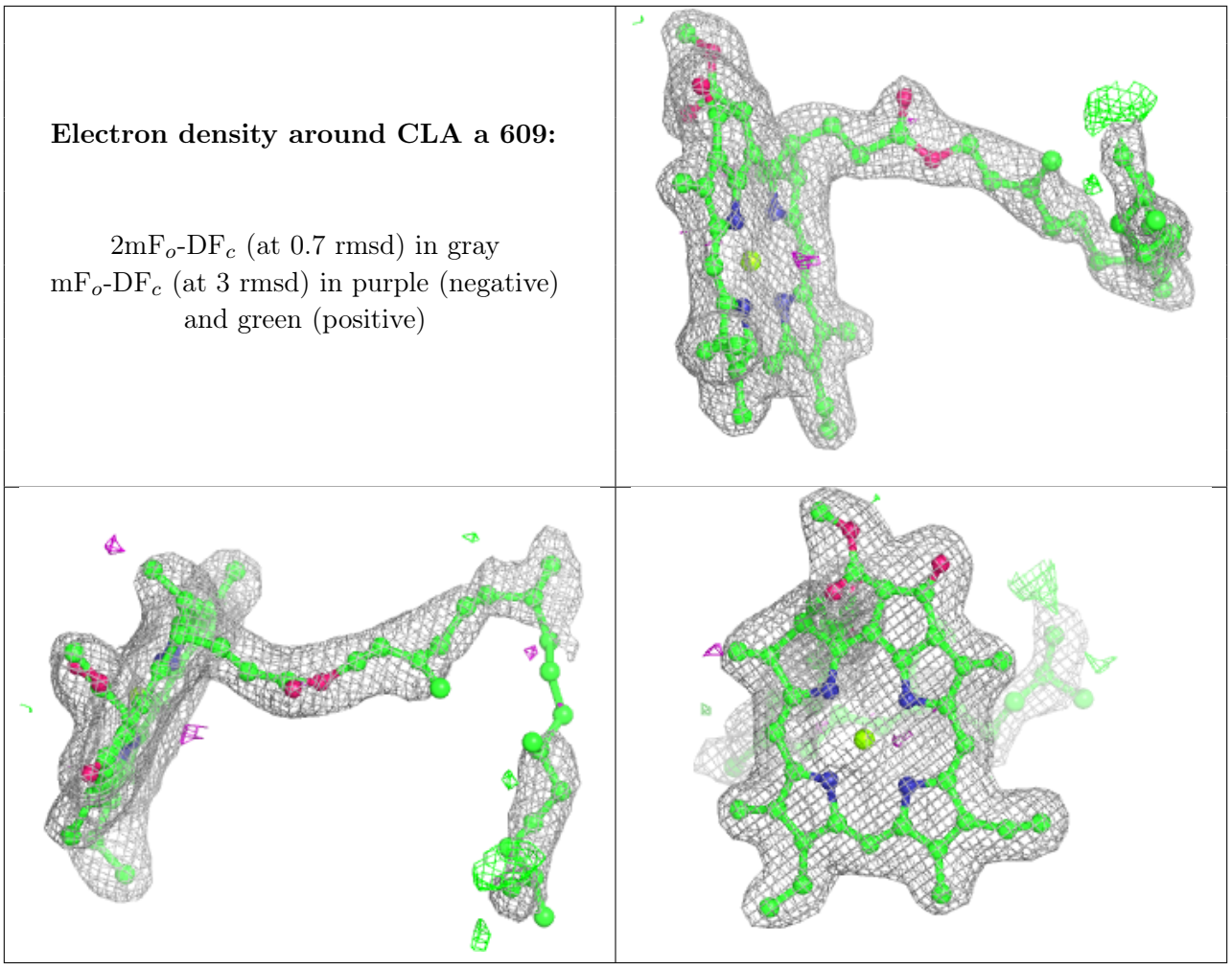
Electron density around CLA D 405:

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



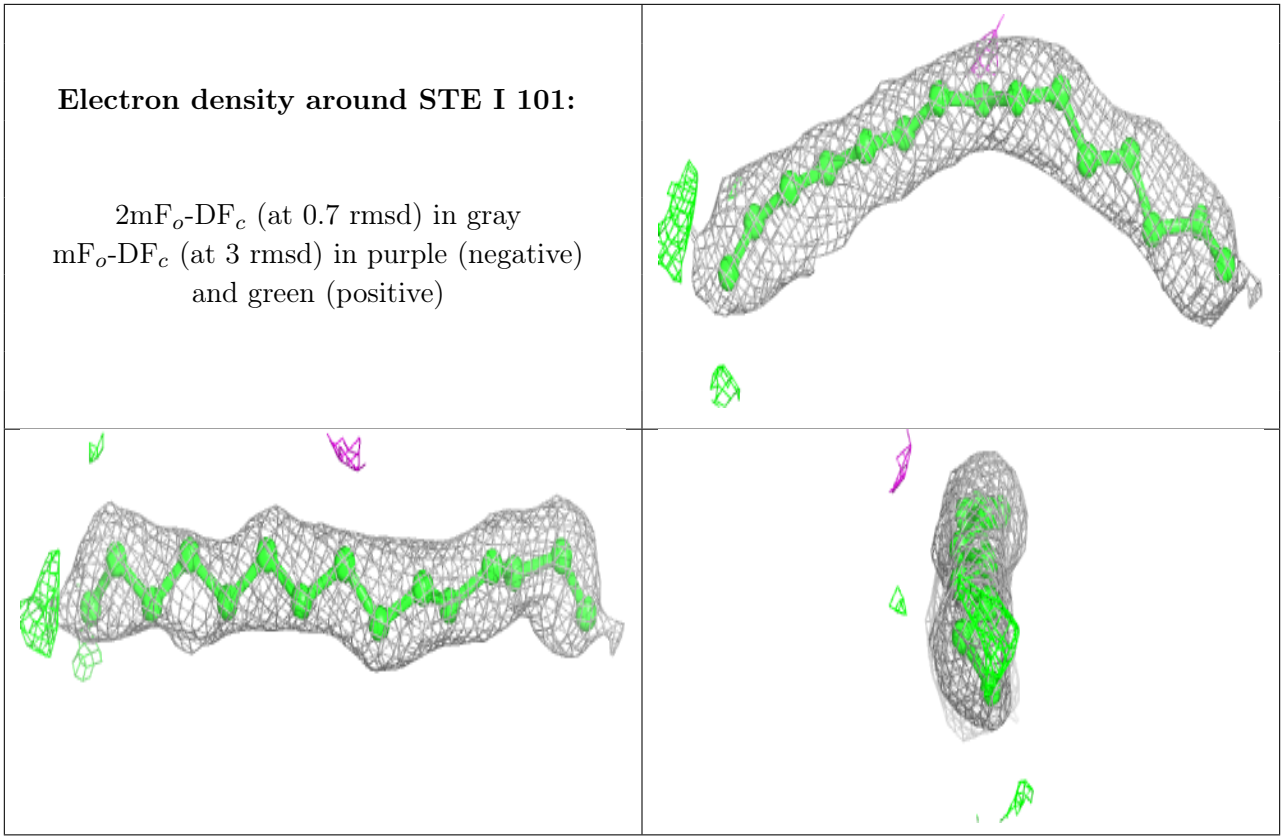
Electron density around CLA a 609:

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



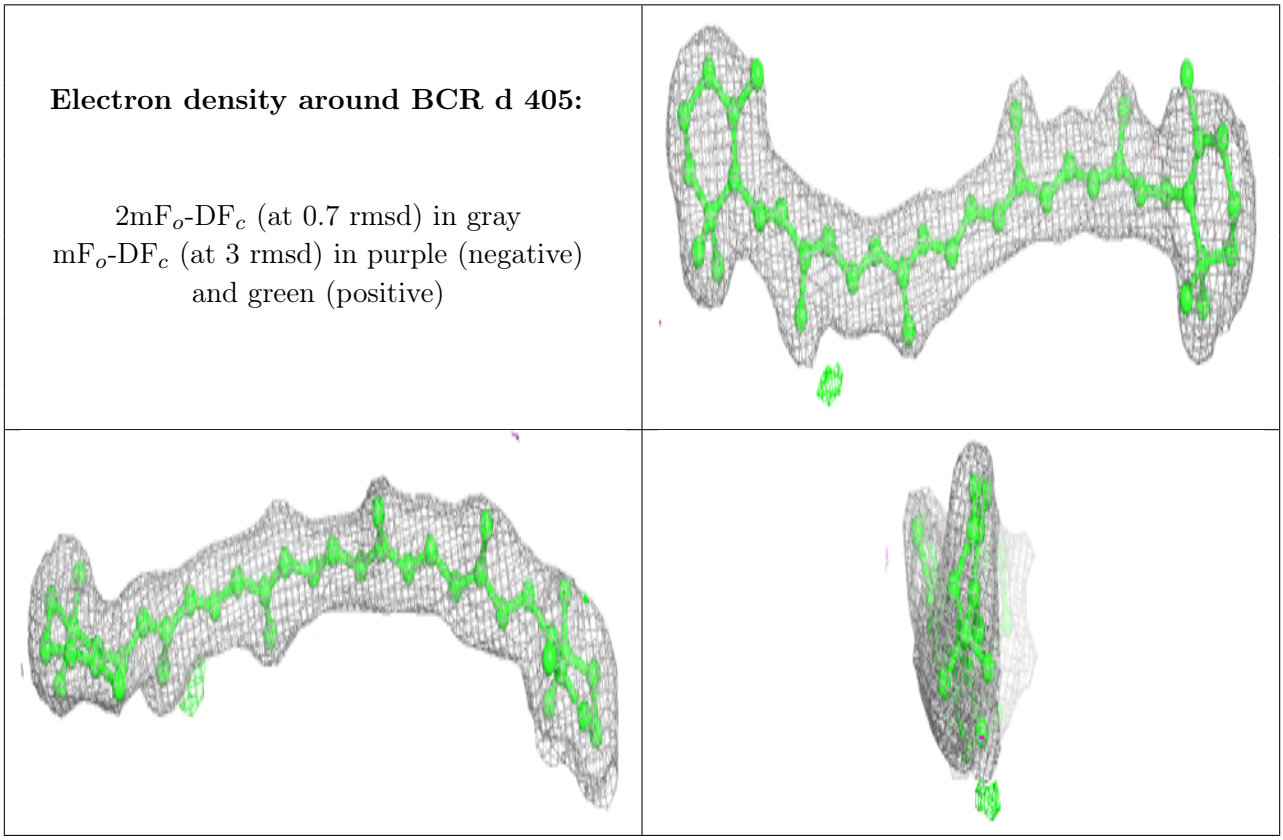
Electron density around STE I 101:

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



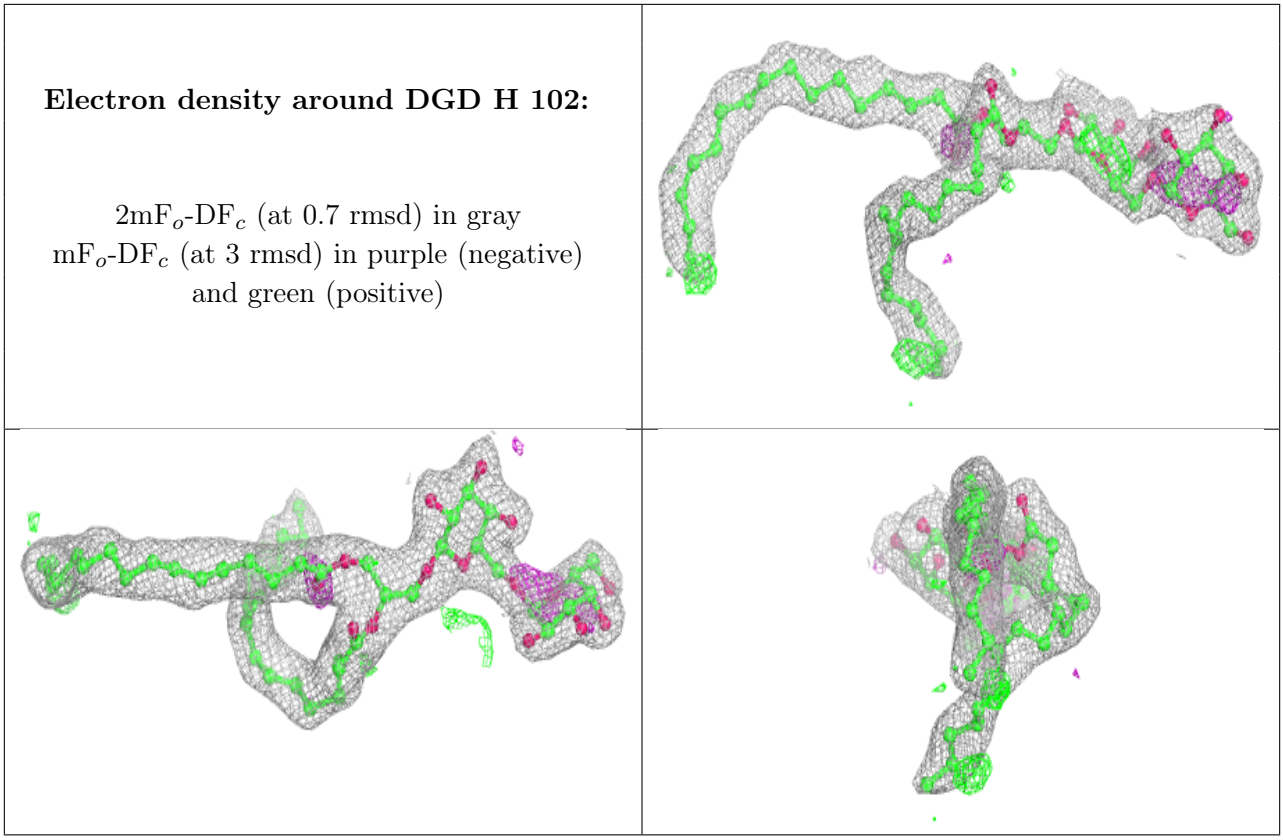
Electron density around BCR d 405:

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



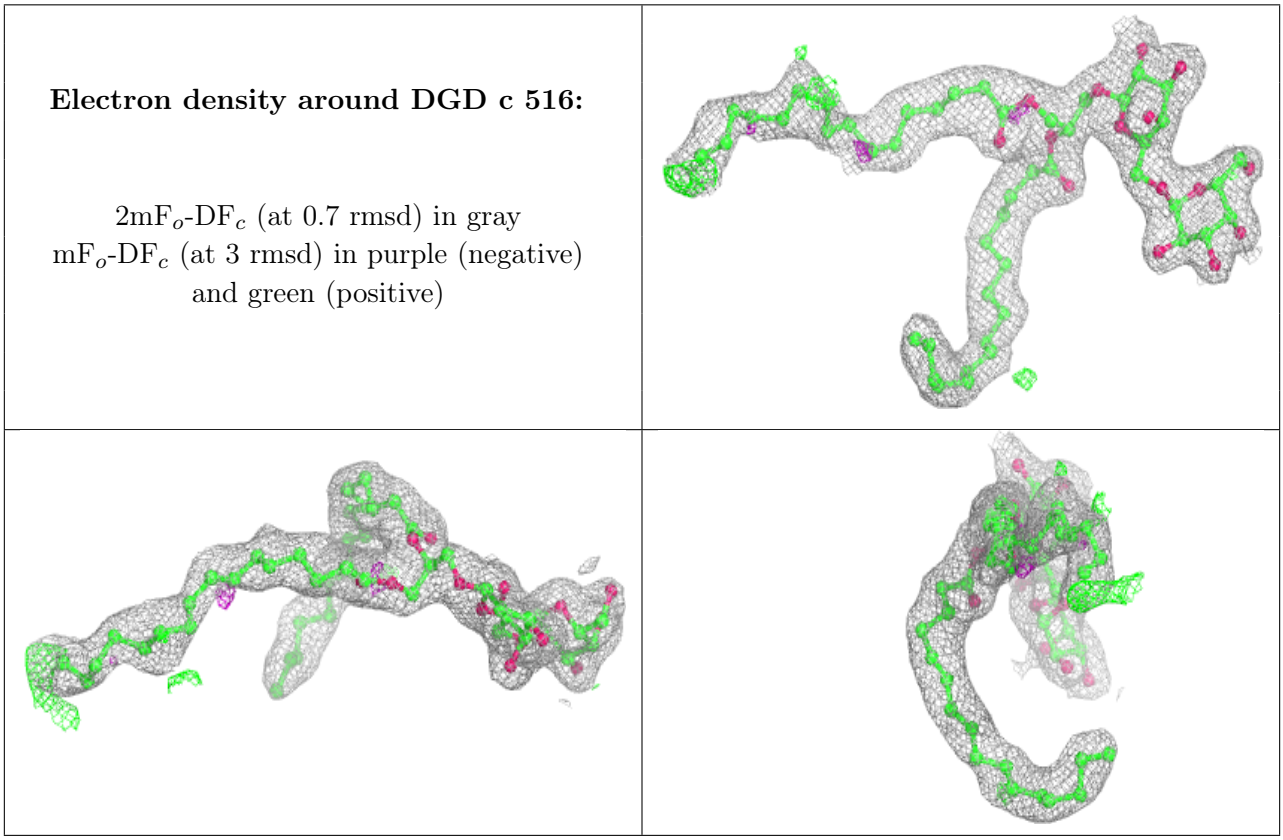
Electron density around DGD H 102:

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



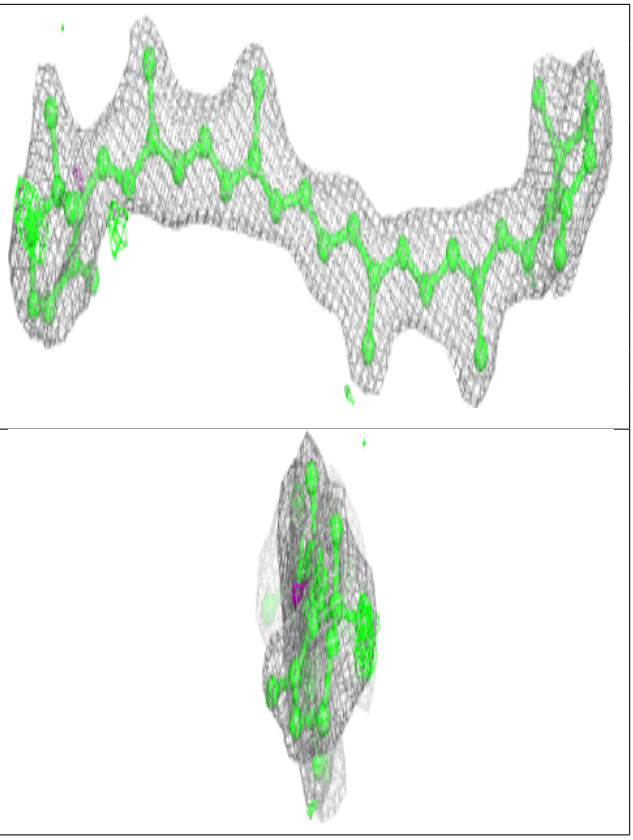
Electron density around DGD c 516:

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



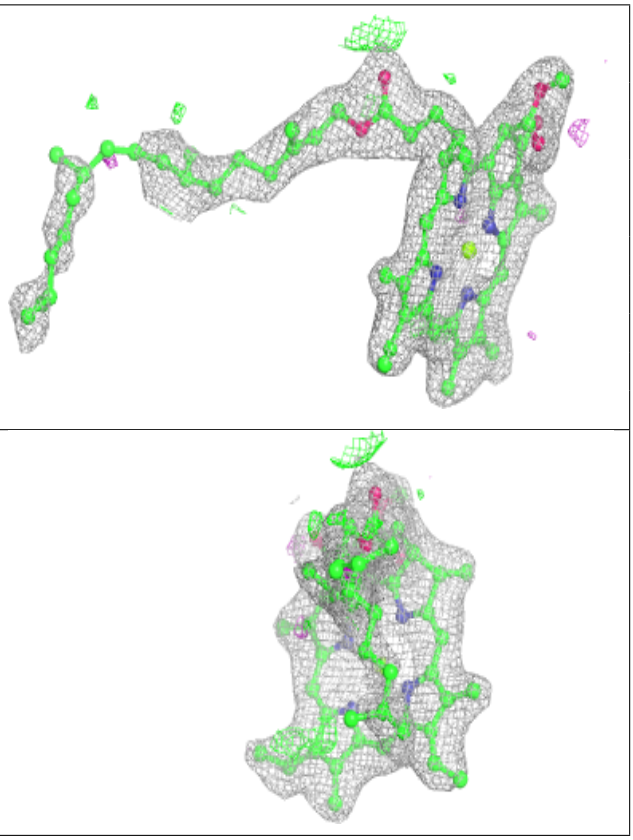
Electron density around BCR k 102:

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



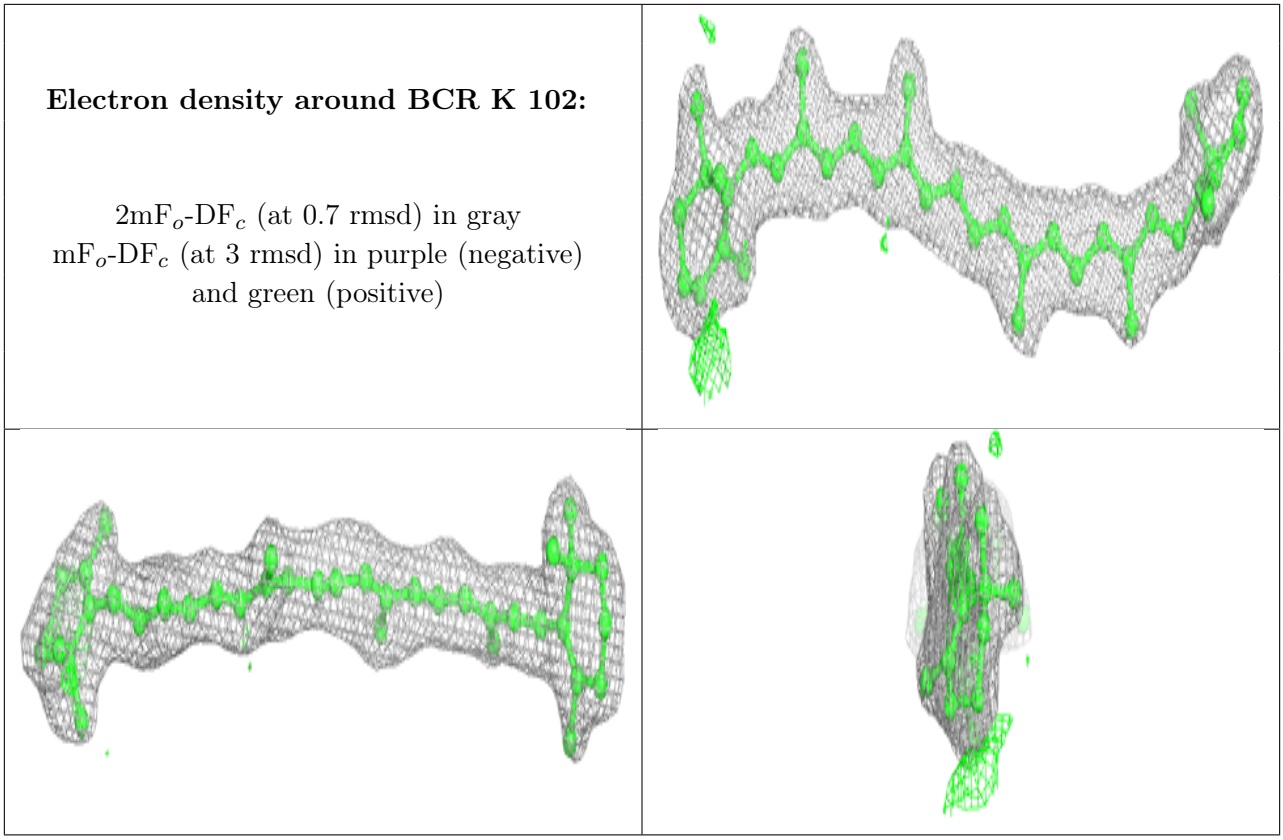
Electron density around CLA d 404:

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



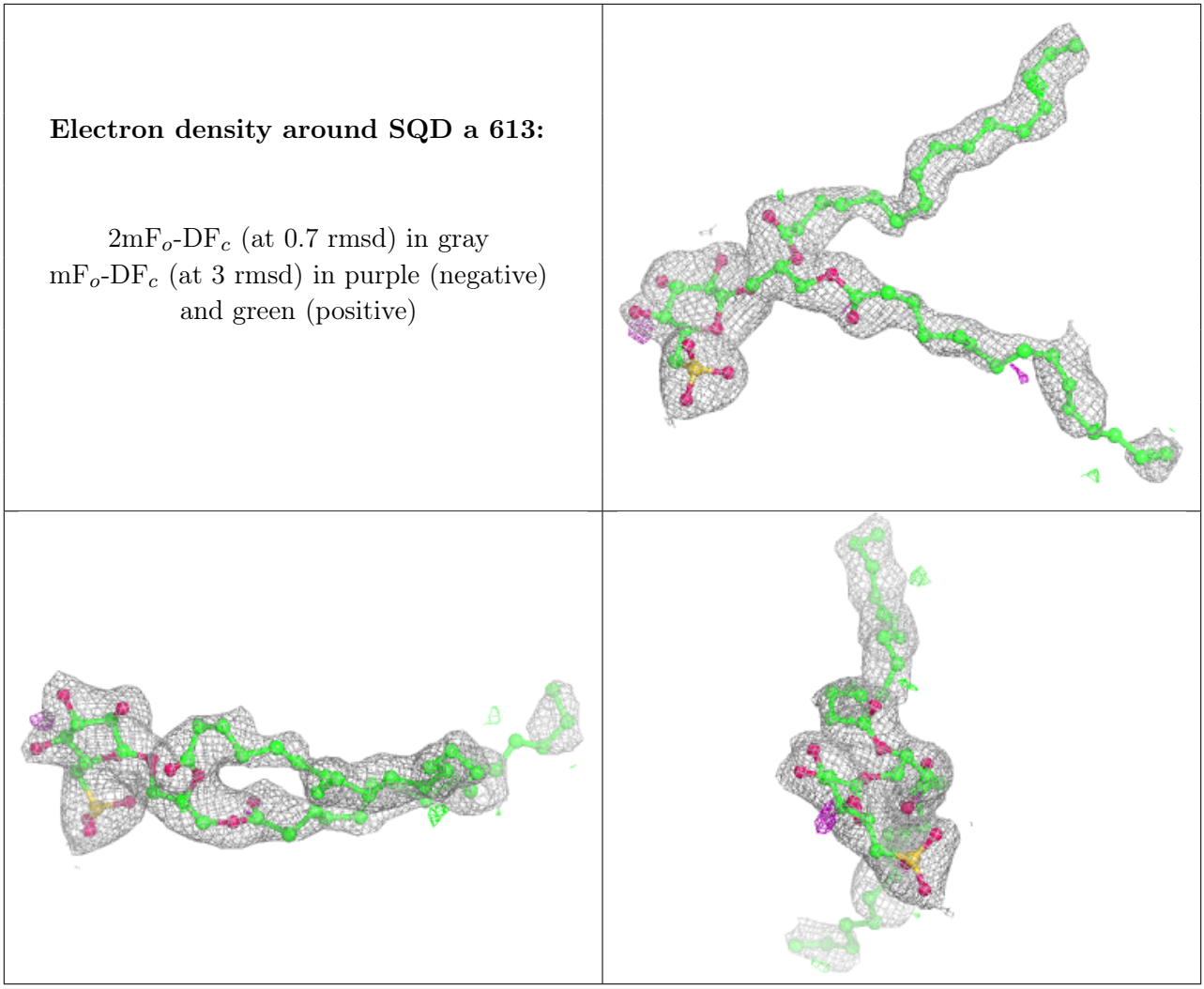
Electron density around BCR K 102:

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



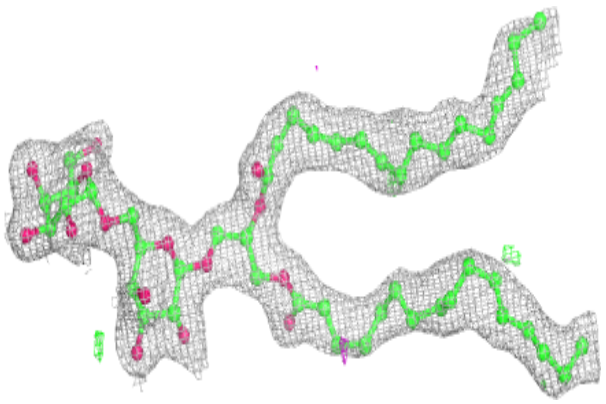
Electron density around SQD a 613:

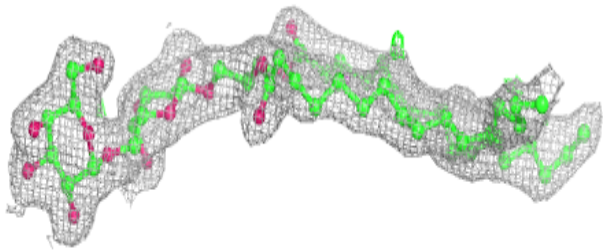
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

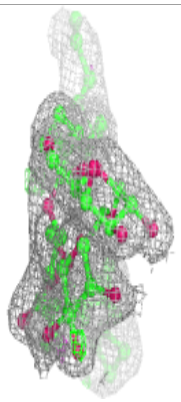


Electron density around DGD C 517:

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

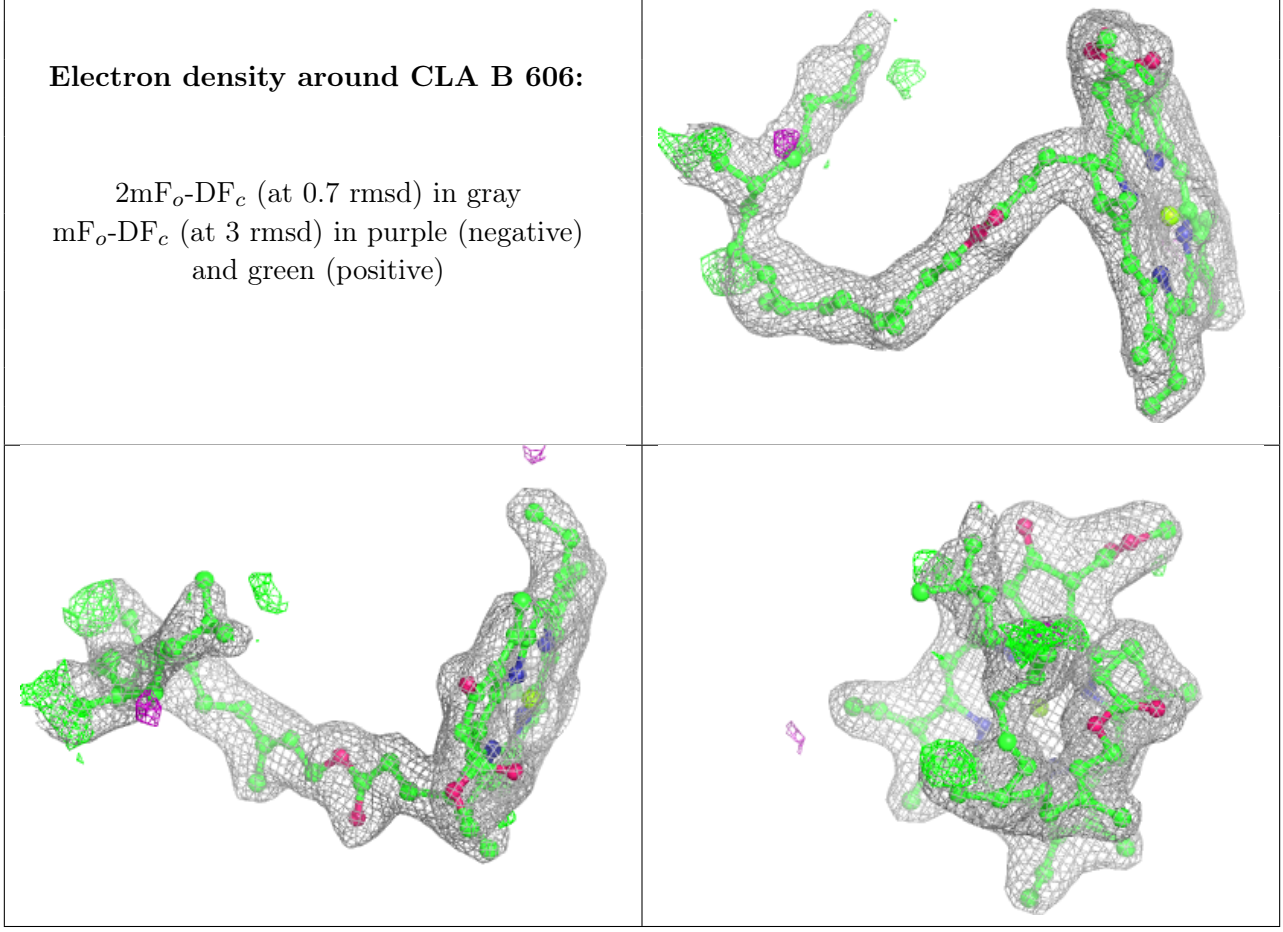






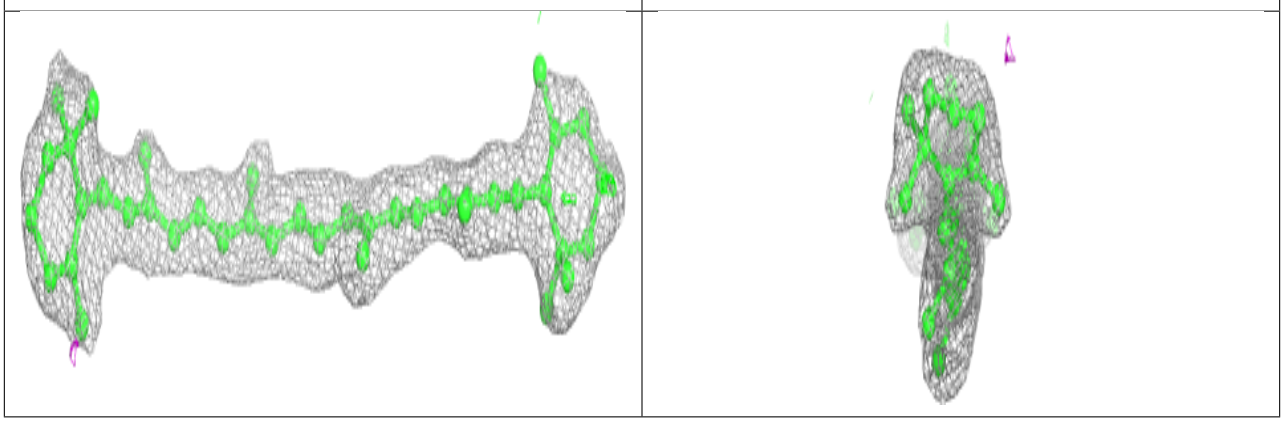
Electron density around CLA B 606:

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



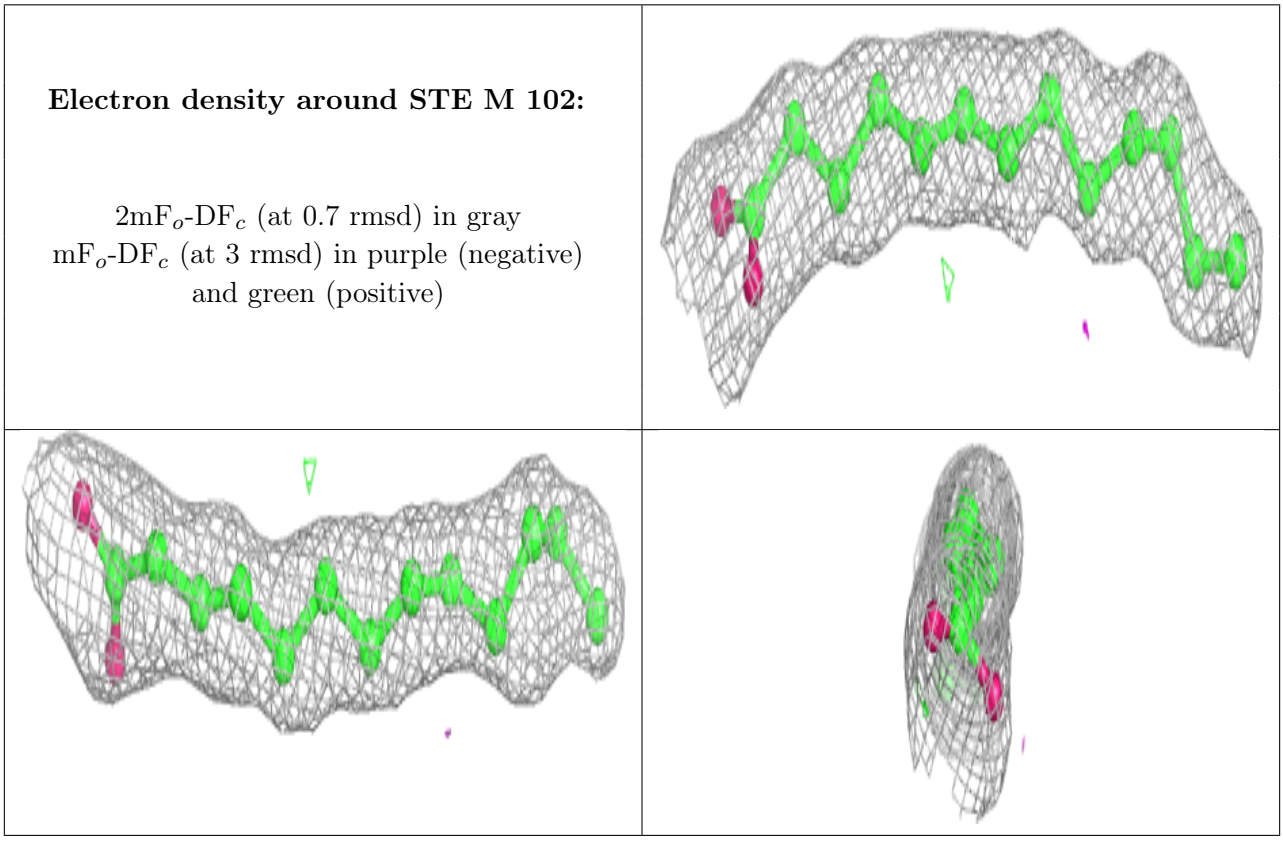
Electron density around BCR x 101:

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



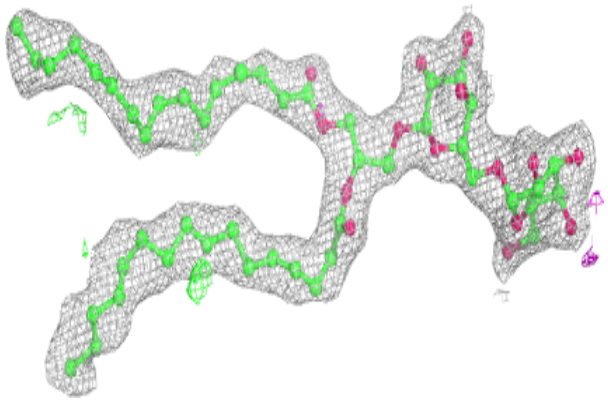
Electron density around STE M 102:

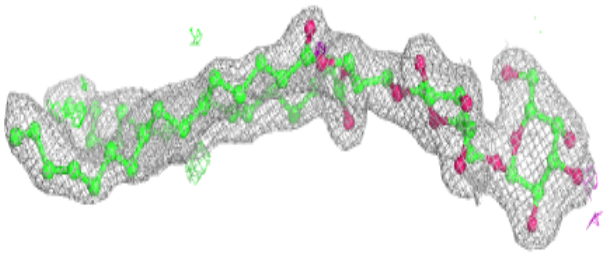
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

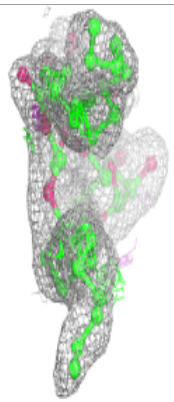


Electron density around DGD c 517:

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

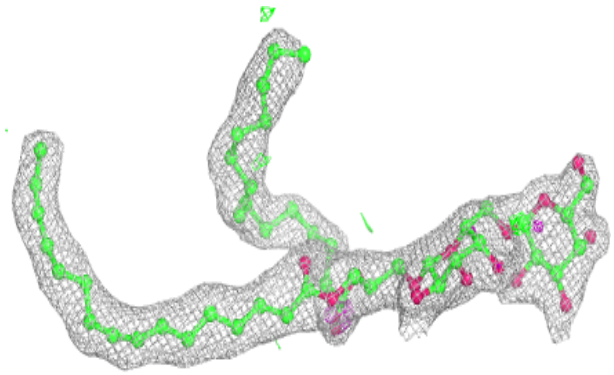


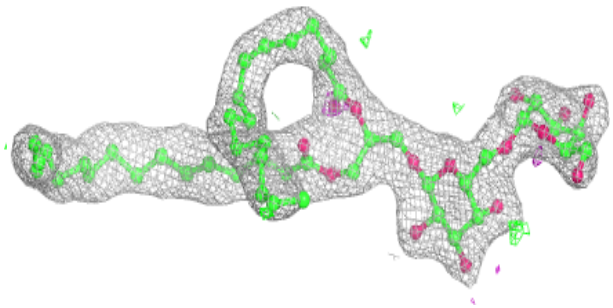


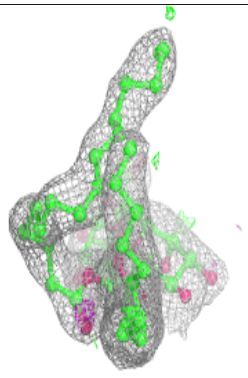


Electron density around DGD h 101:

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

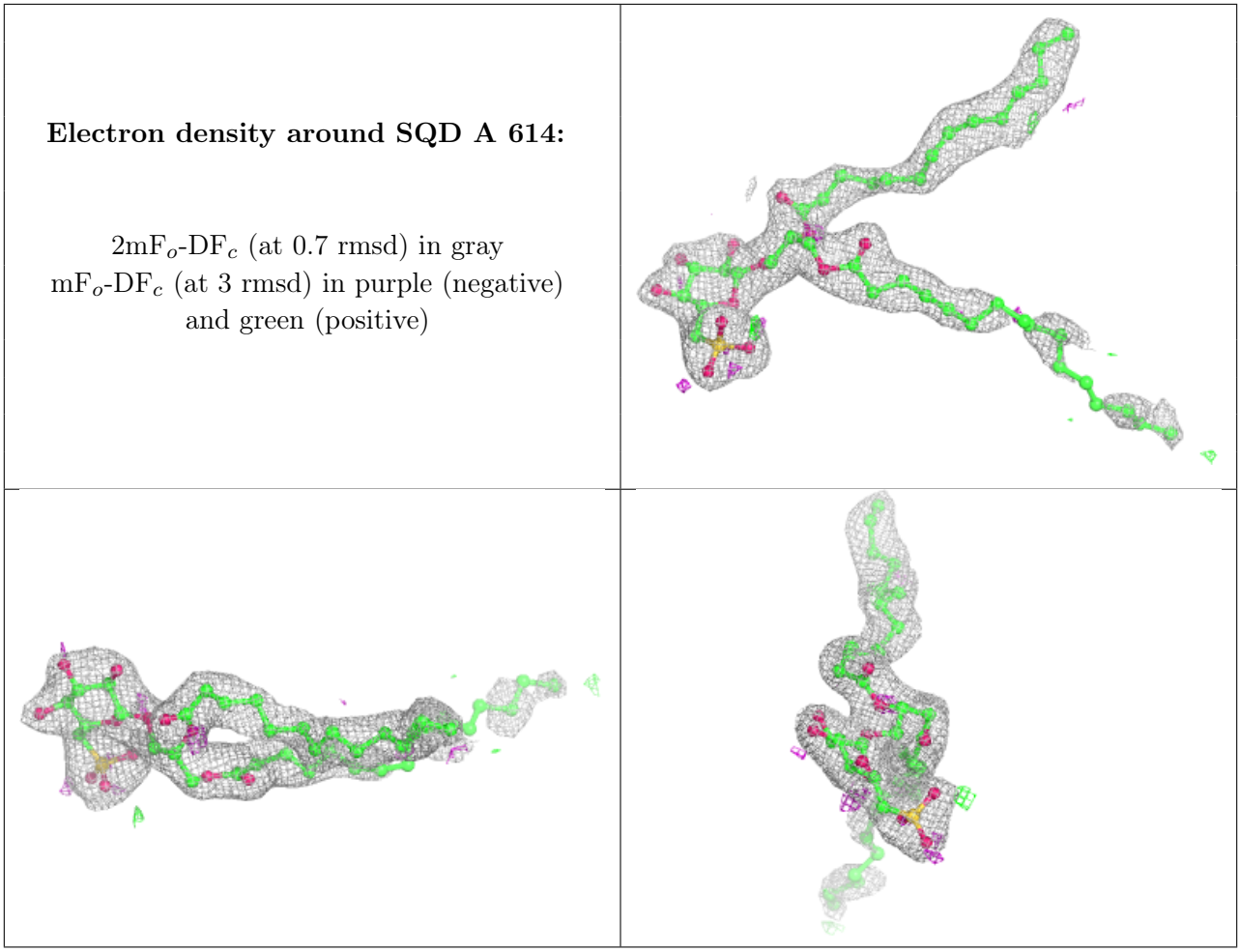






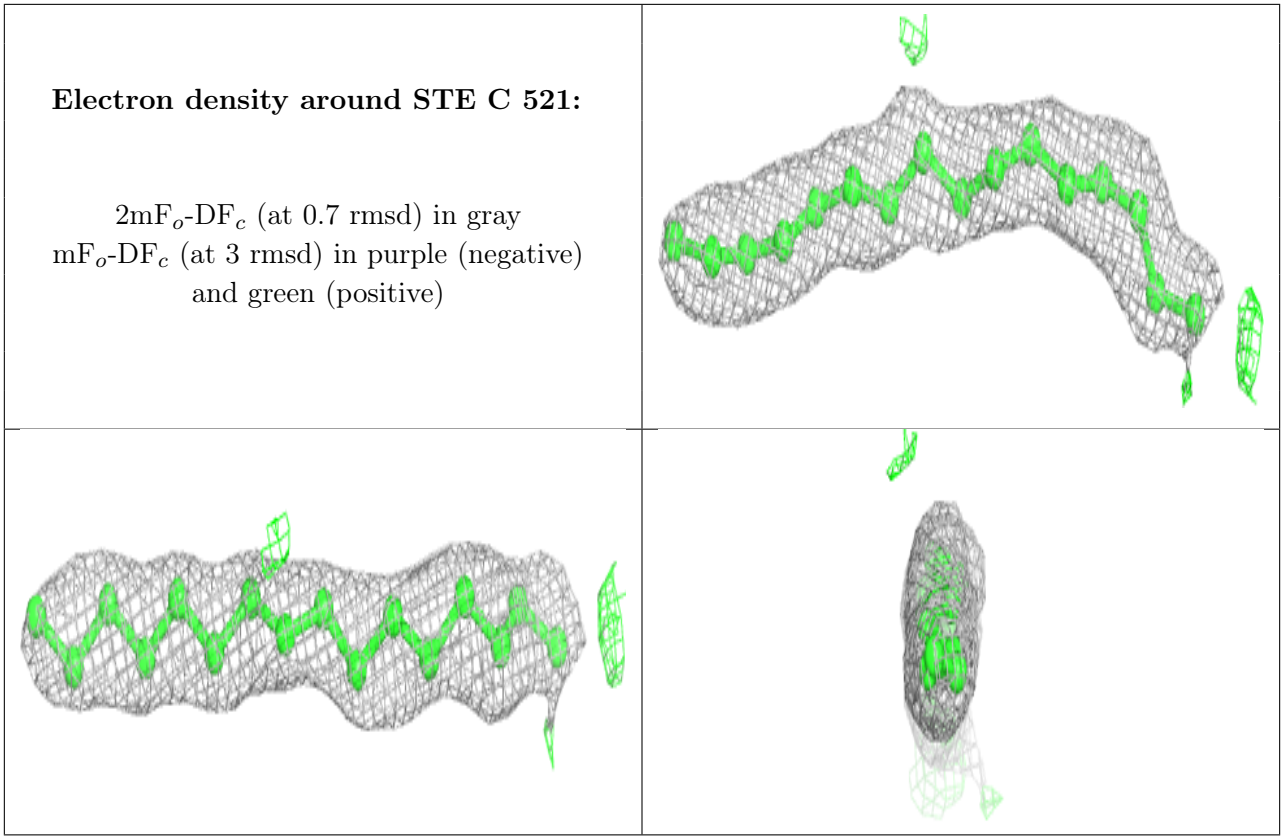
Electron density around SQD A 614:

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



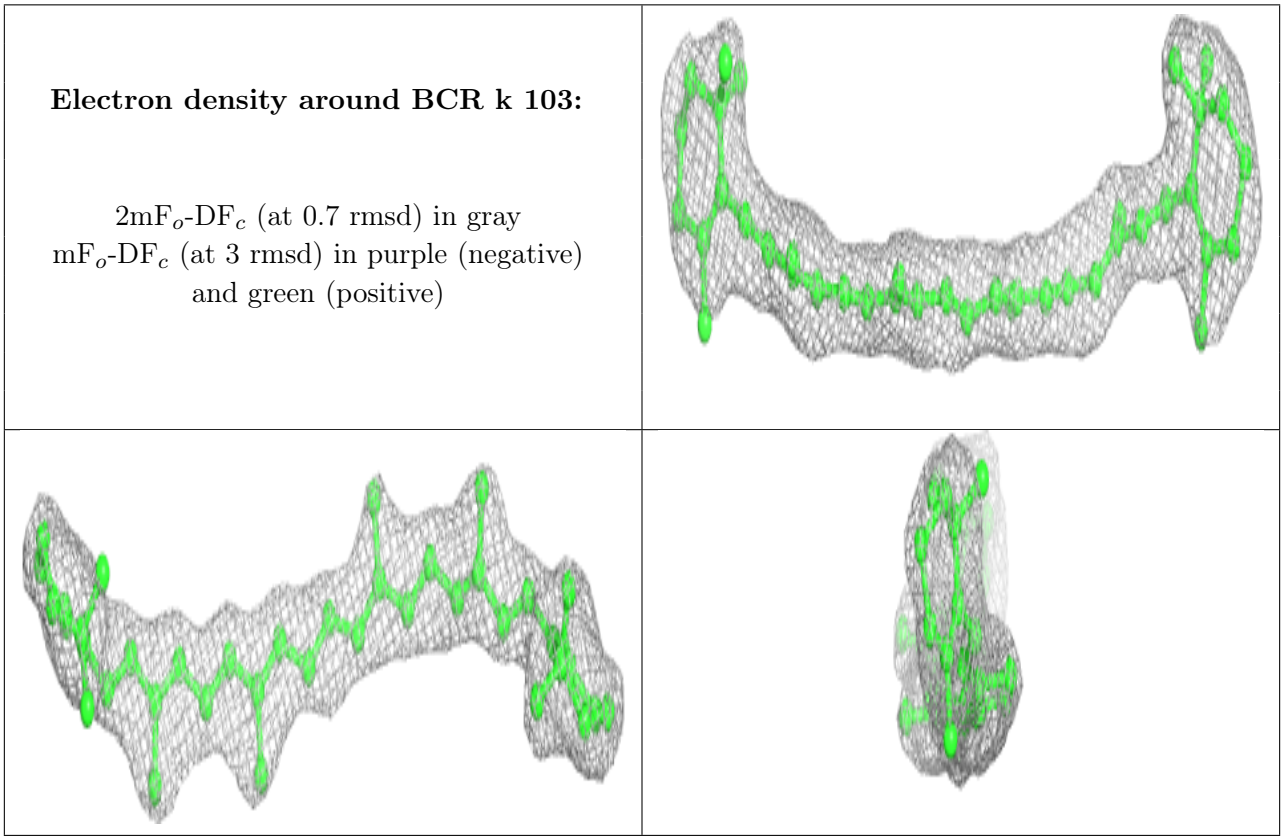
Electron density around STE C 521:

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



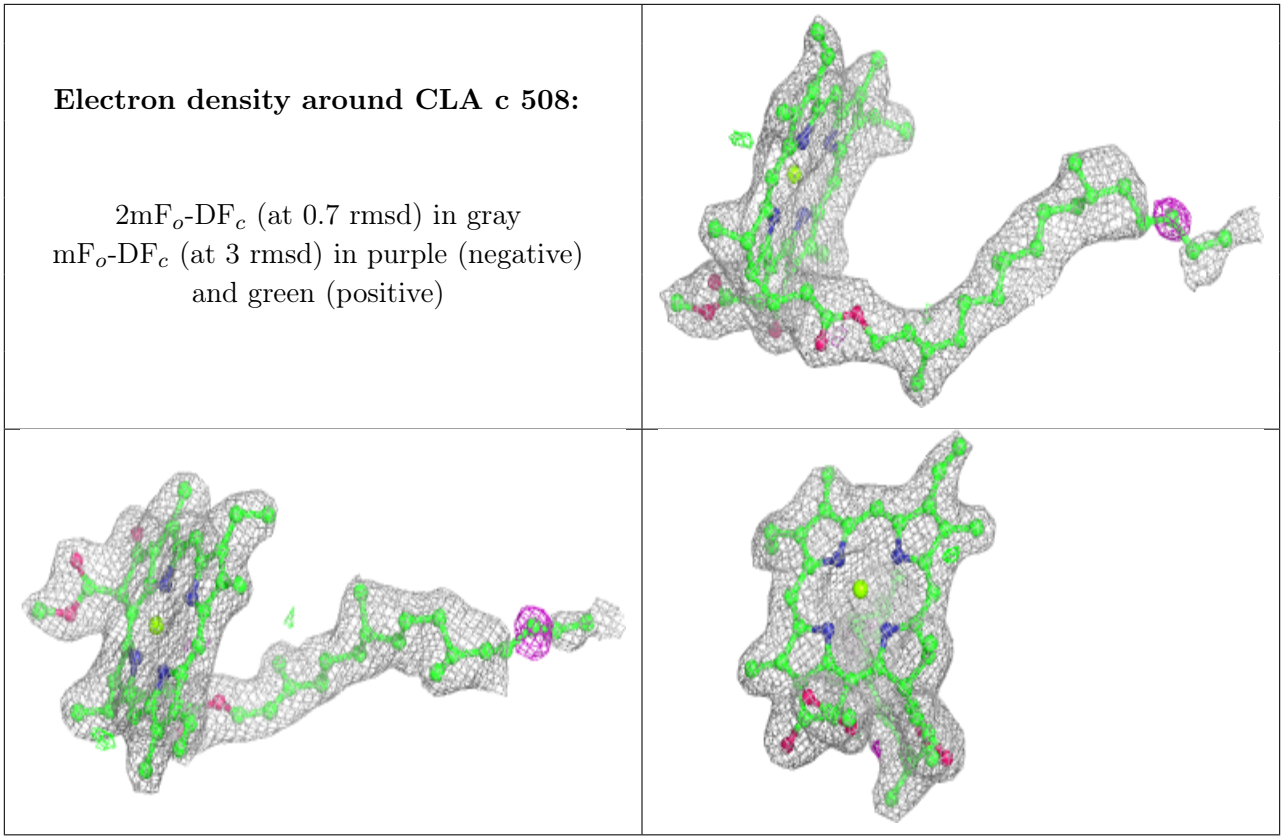
Electron density around BCR k 103:

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



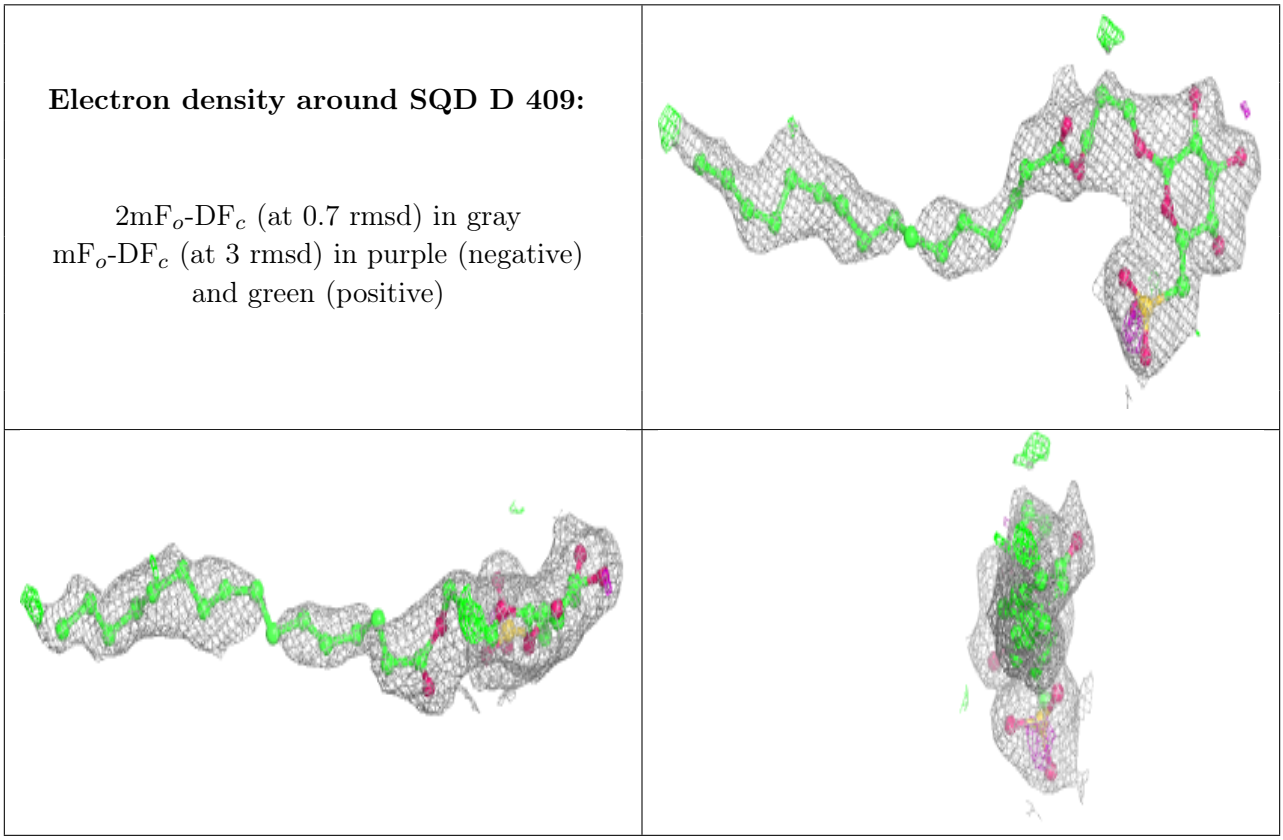
Electron density around CLA c 508:

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



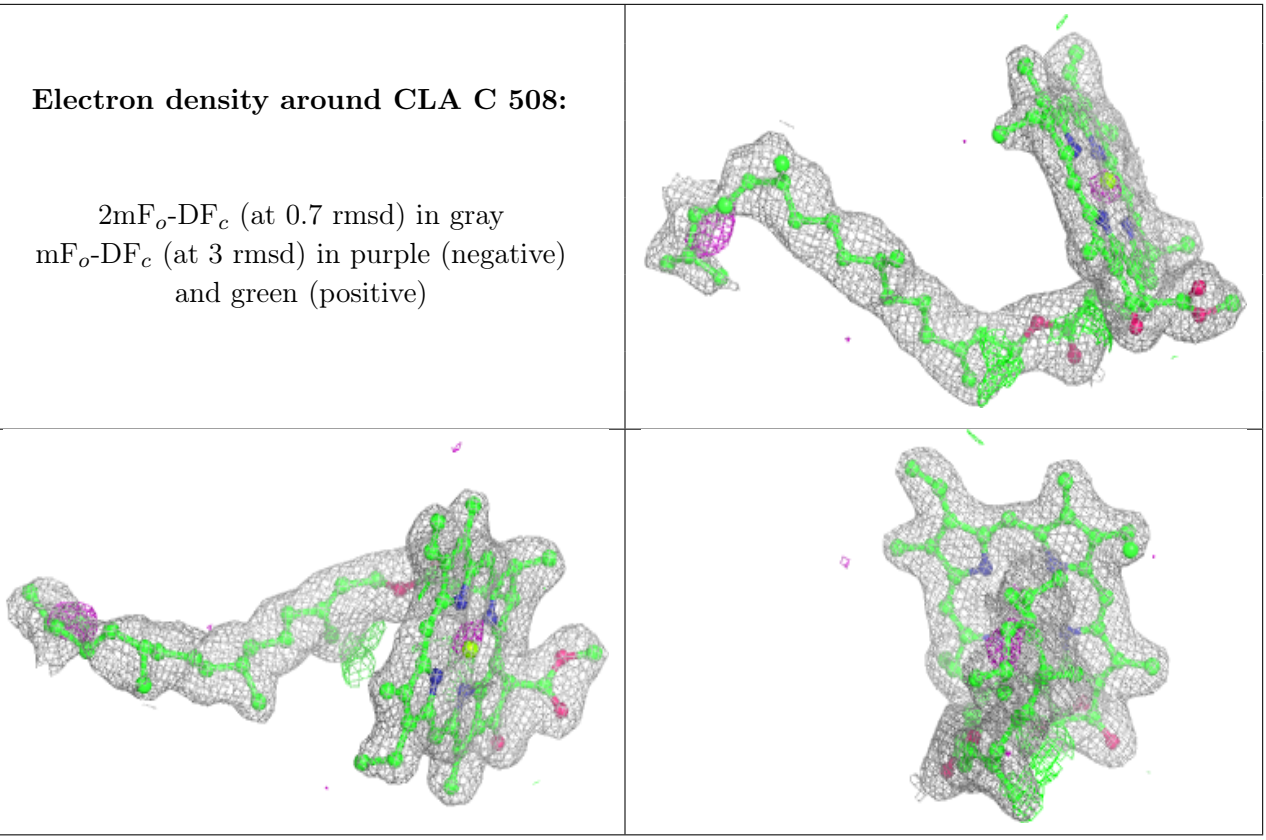
Electron density around SQD D 409:

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



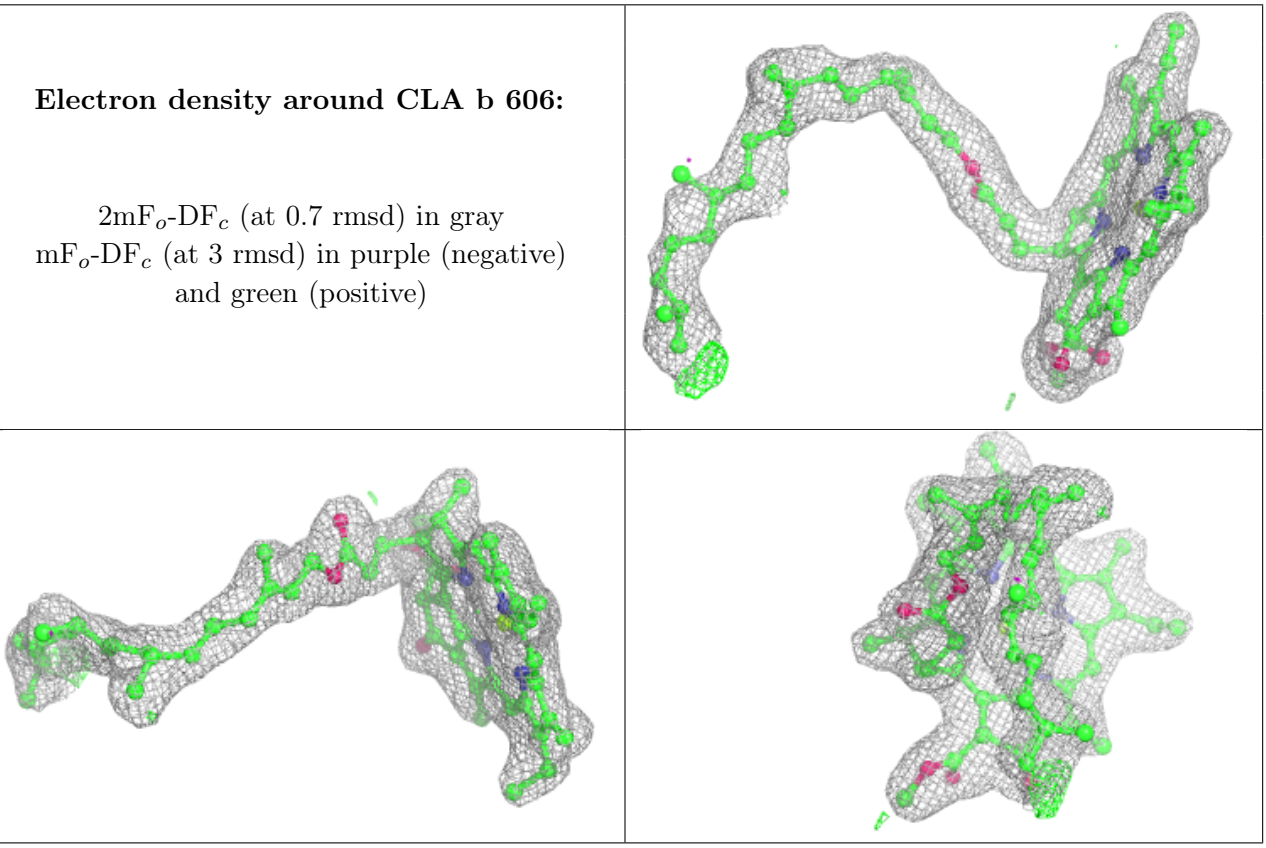
Electron density around CLA C 508:

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



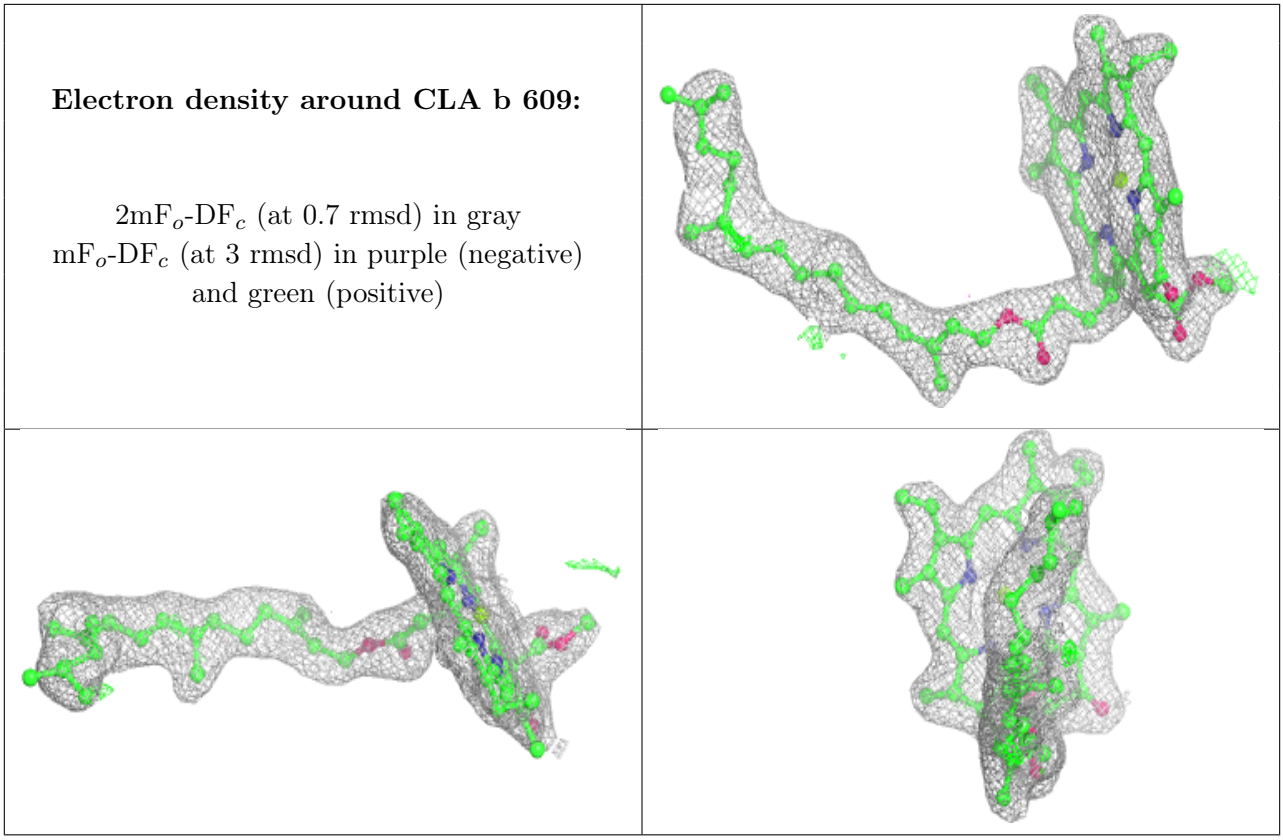
Electron density around CLA b 606:

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



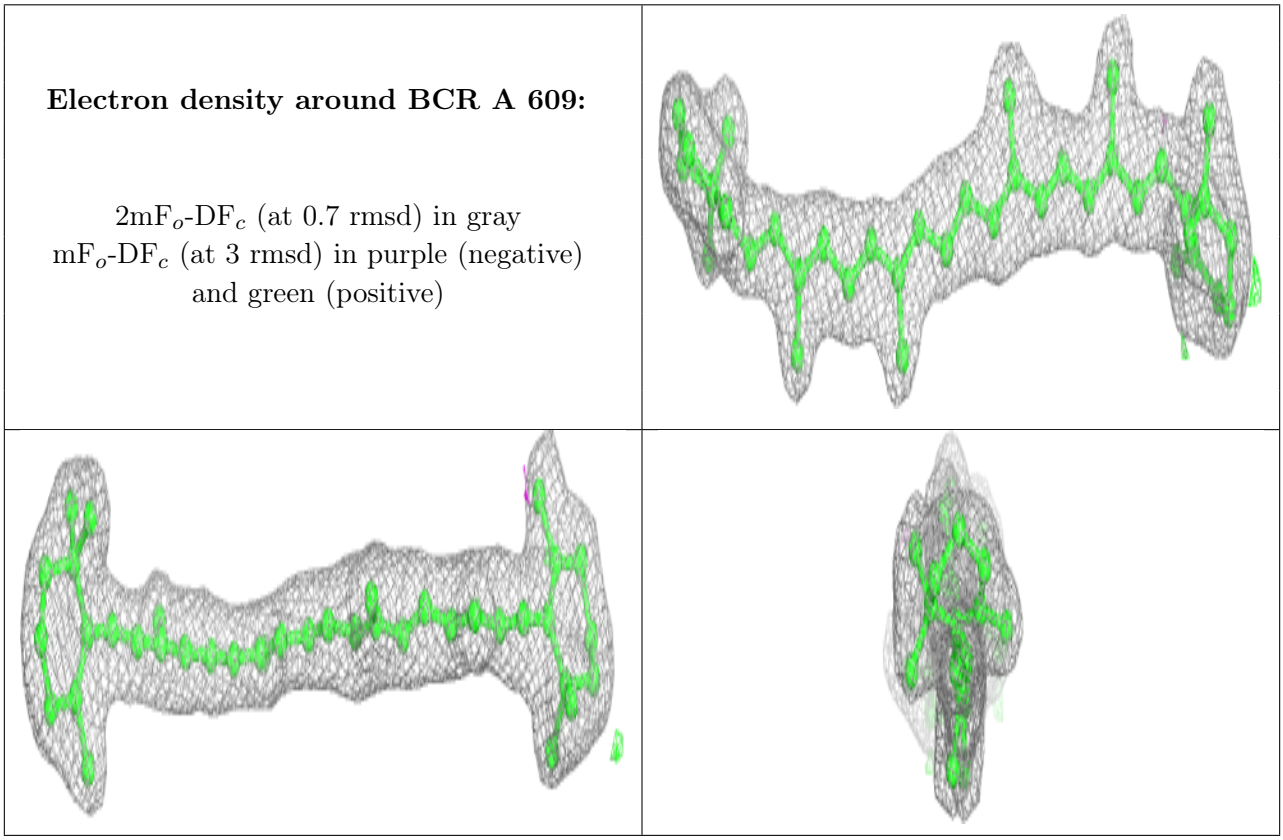
Electron density around CLA b 609:

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



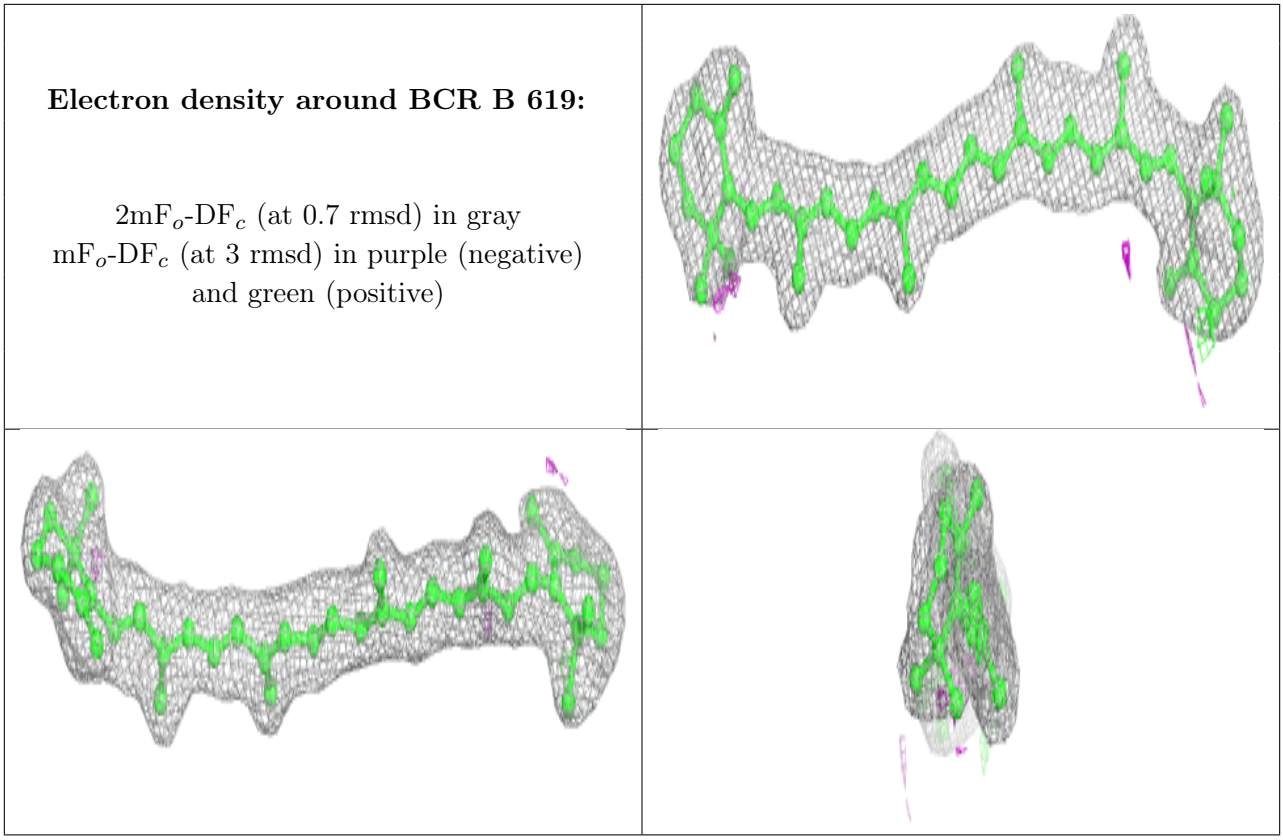
Electron density around BCR A 609:

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



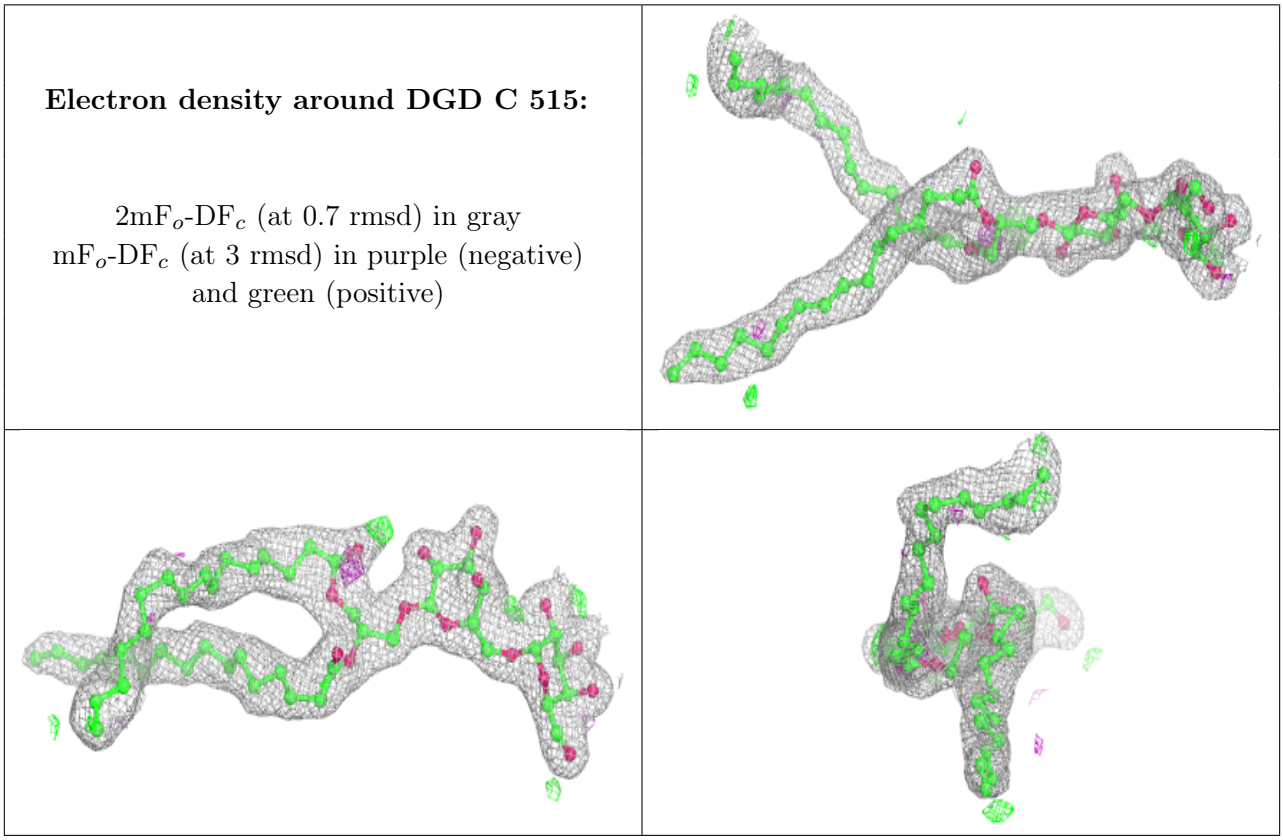
Electron density around BCR B 619:

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



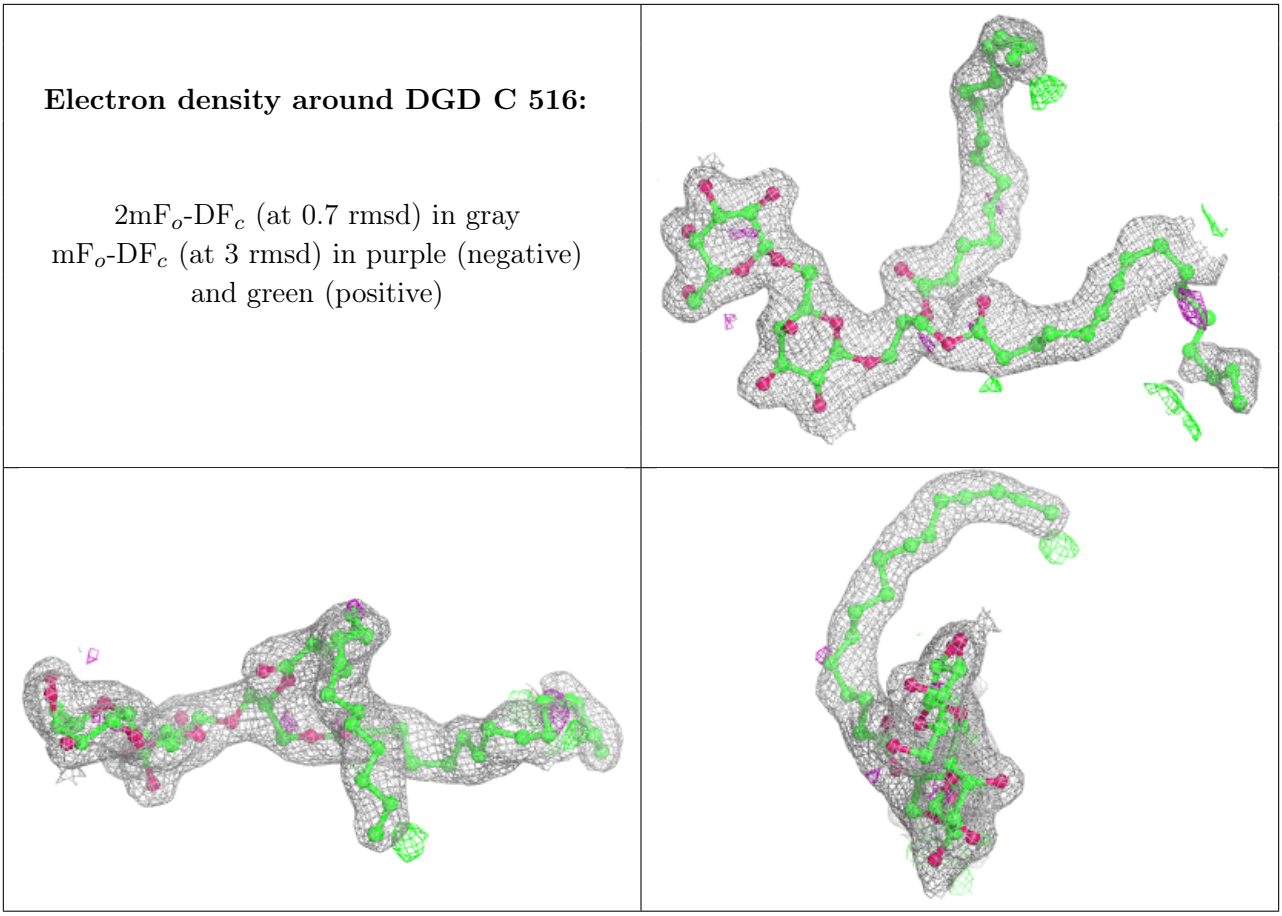
Electron density around DGD C 515:

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



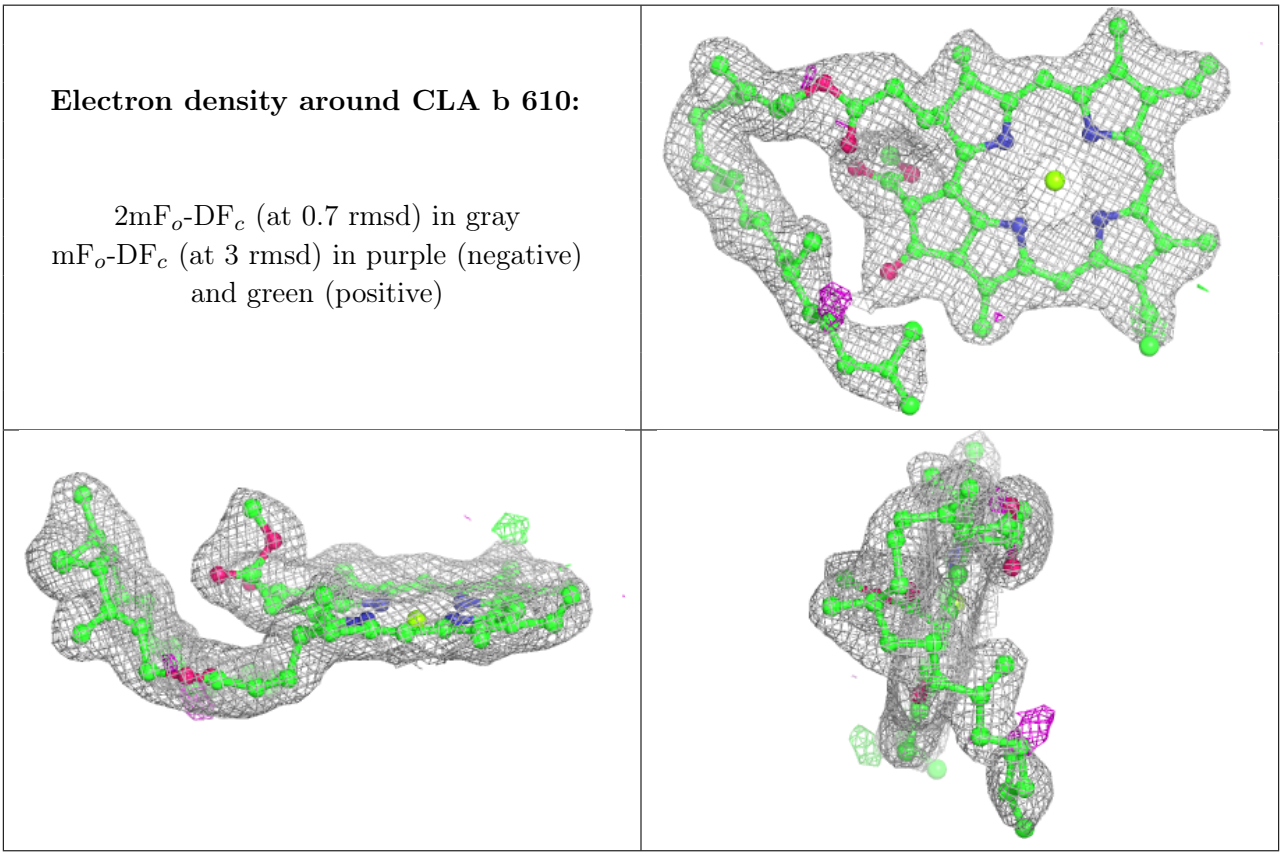
Electron density around DGD C 516:

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



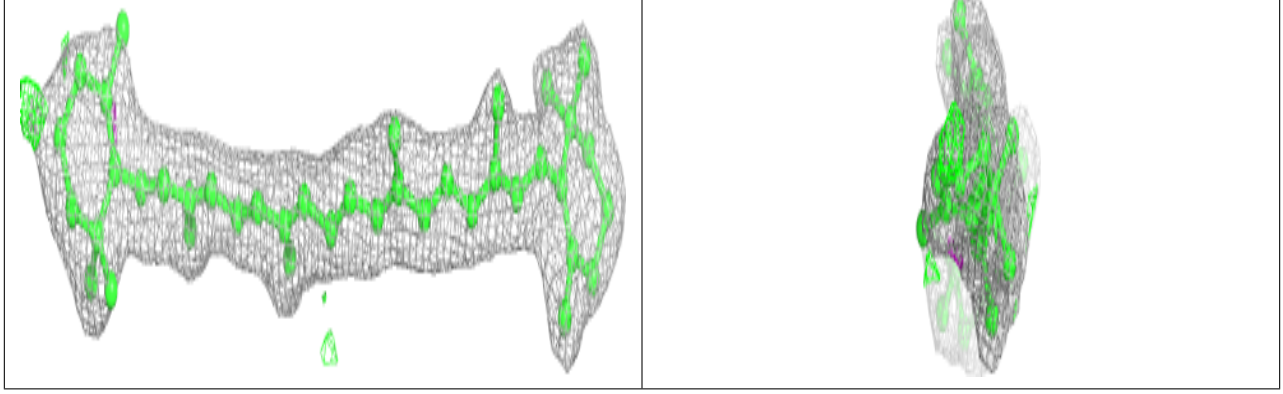
Electron density around CLA b 610:

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



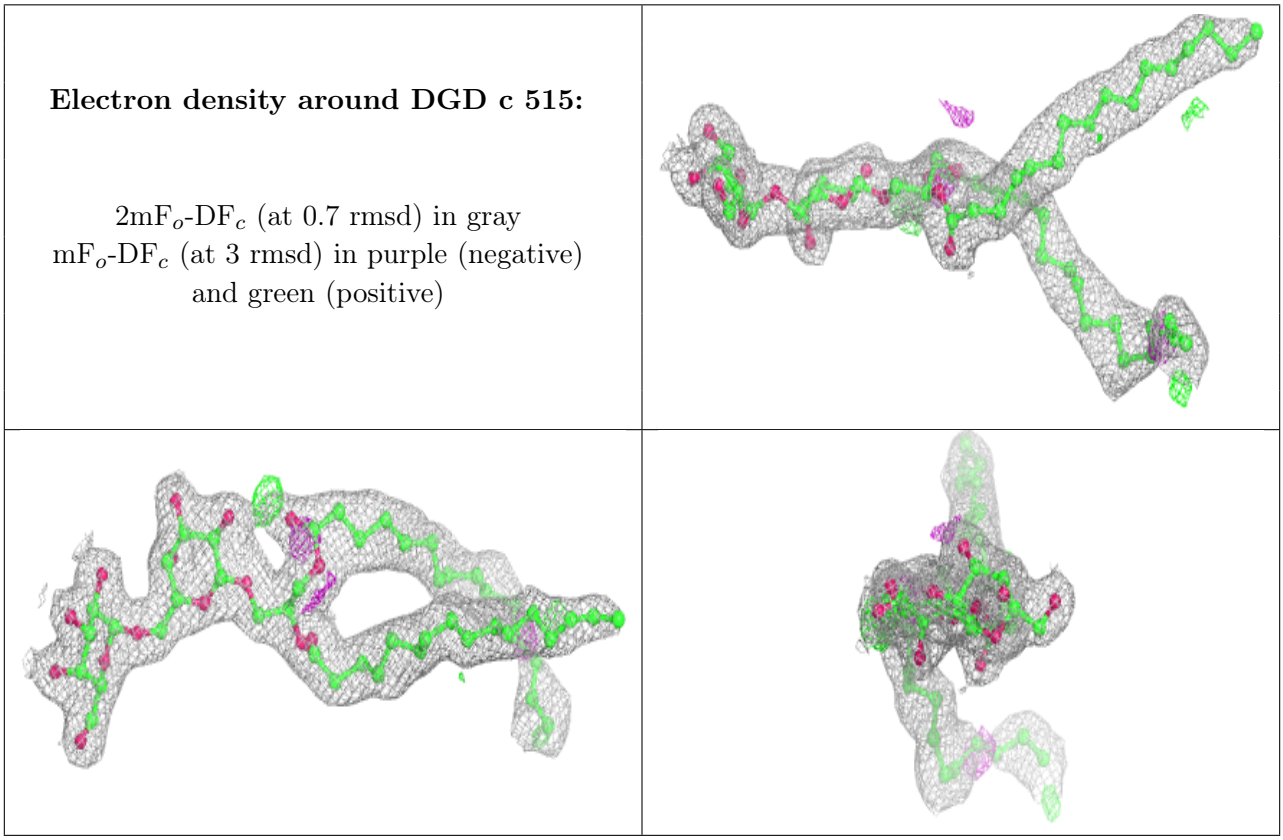
Electron density around BCR H 101:

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



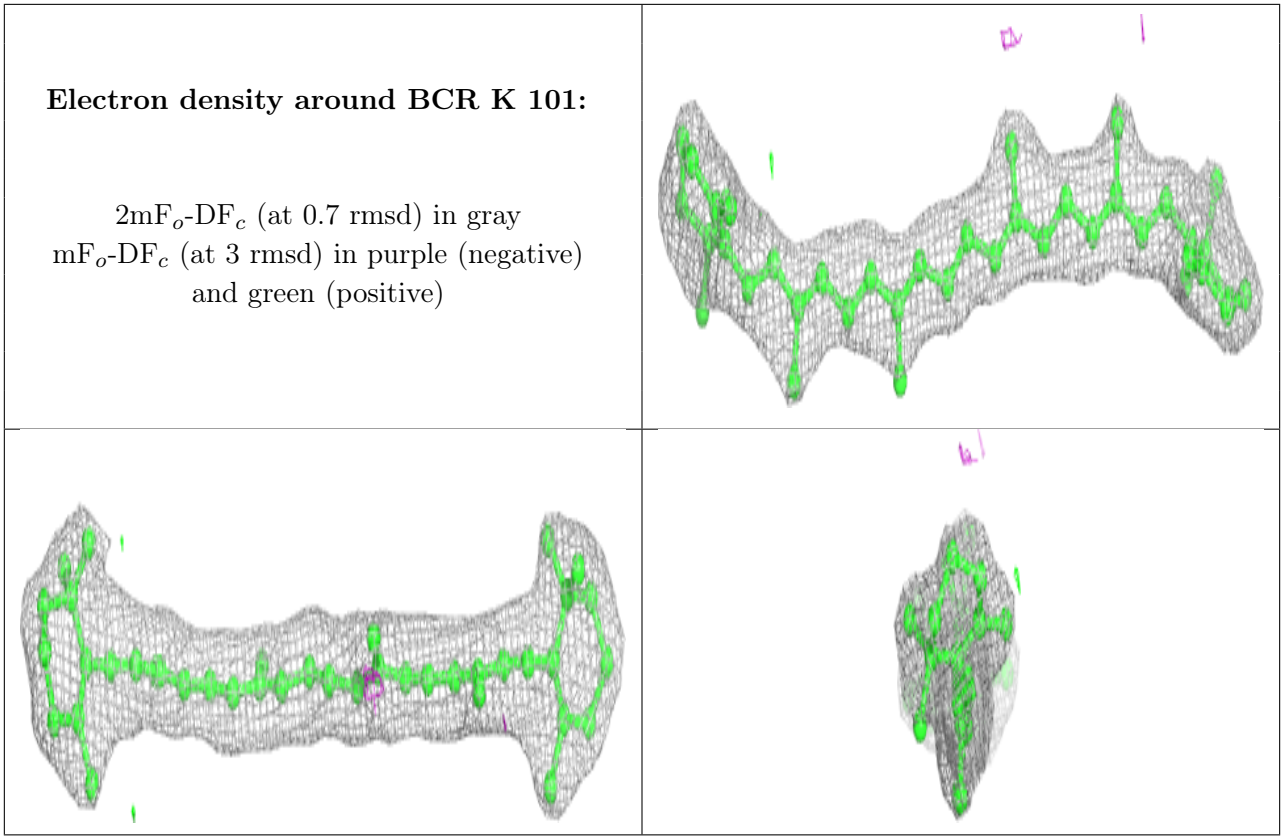
Electron density around DGD c 515:

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



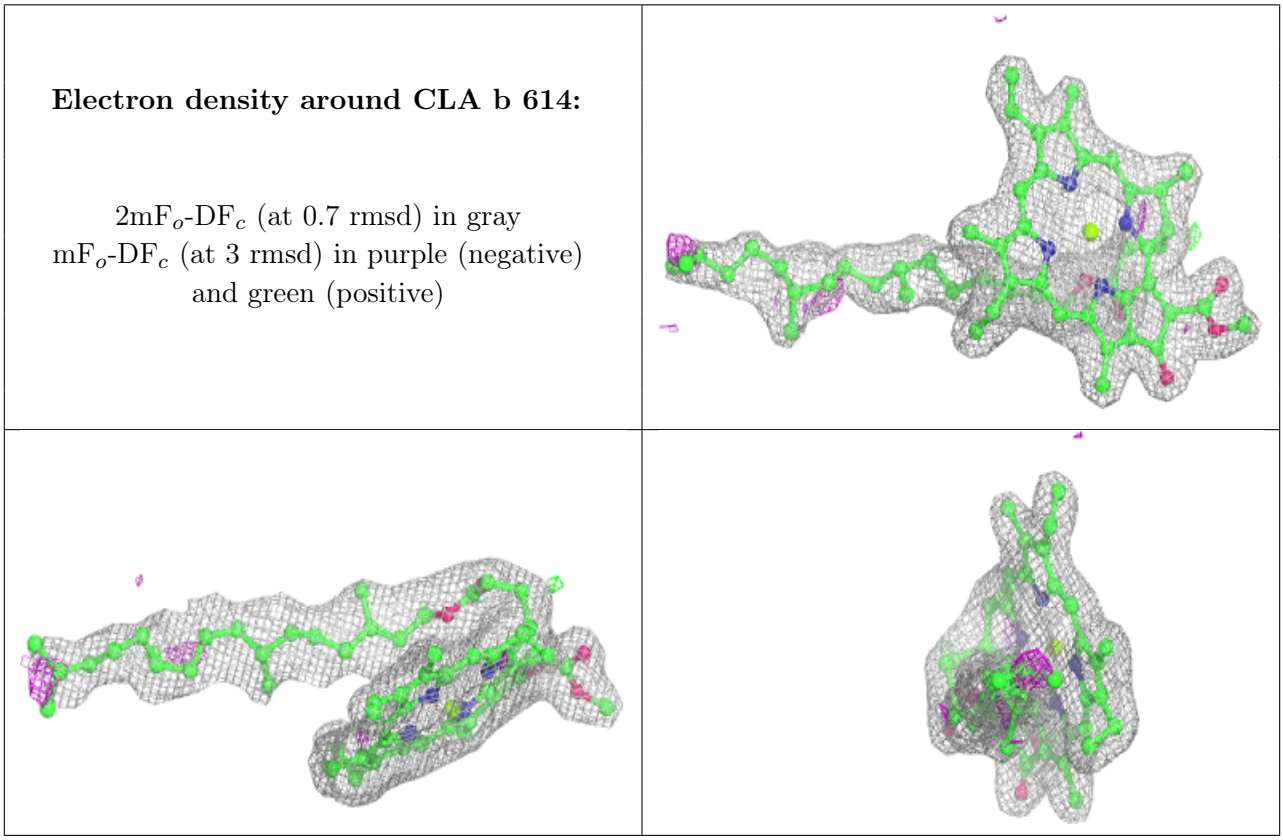
Electron density around BCR K 101:

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



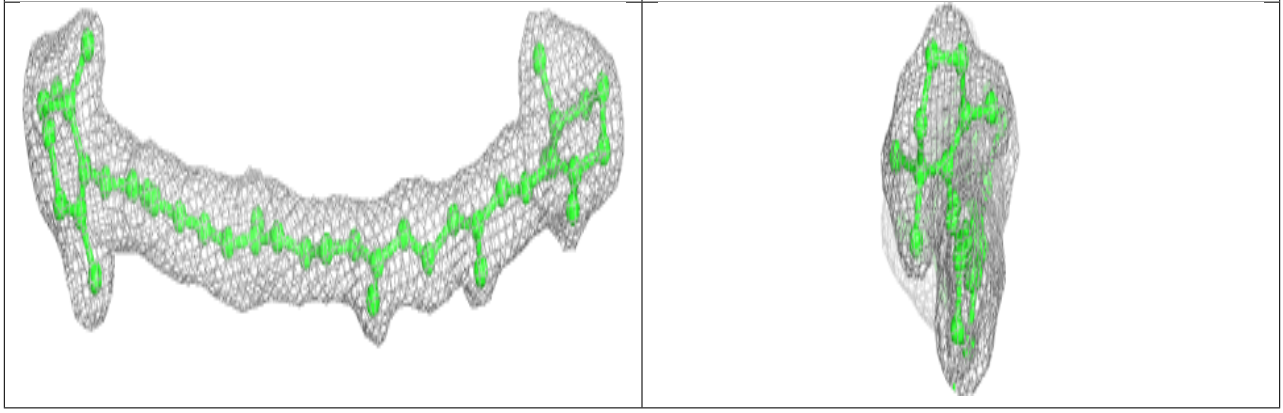
Electron density around CLA b 614:

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



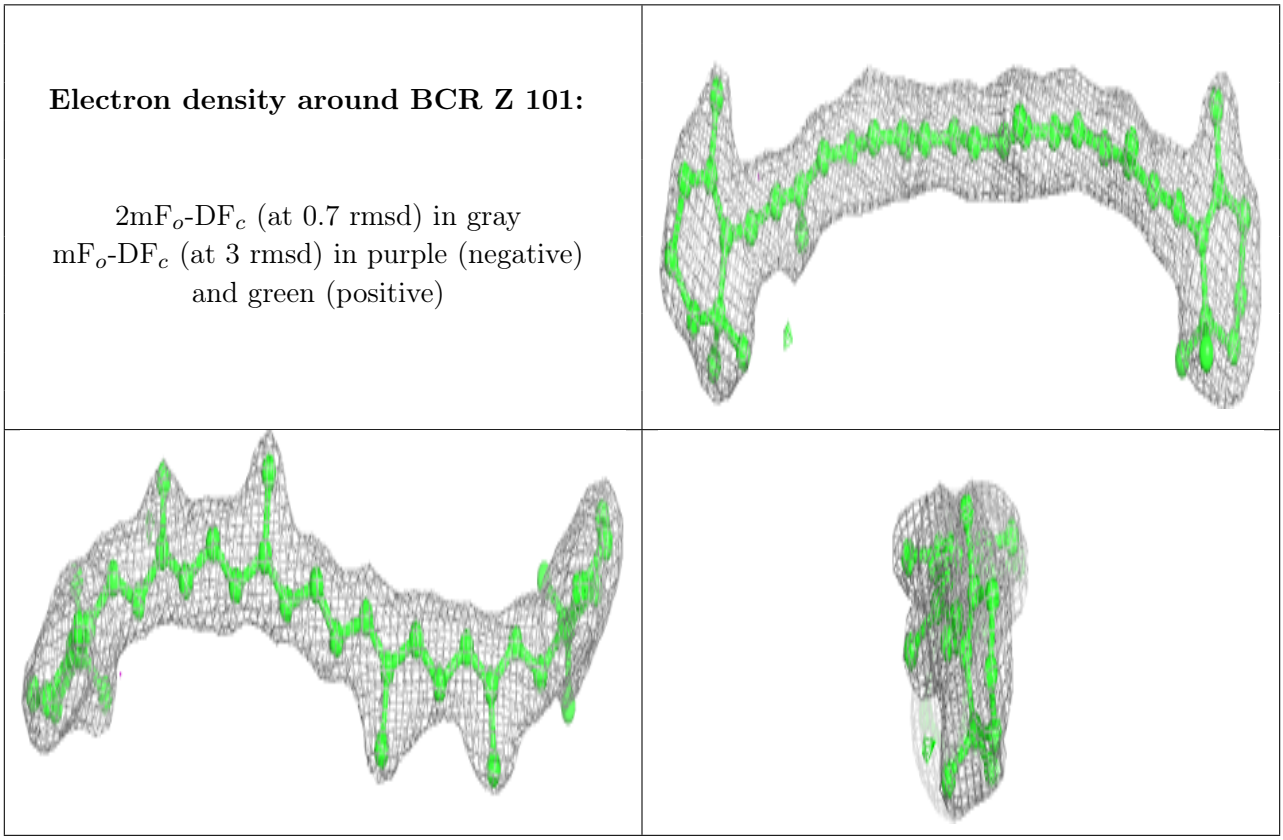
Electron density around BCR T 101:

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



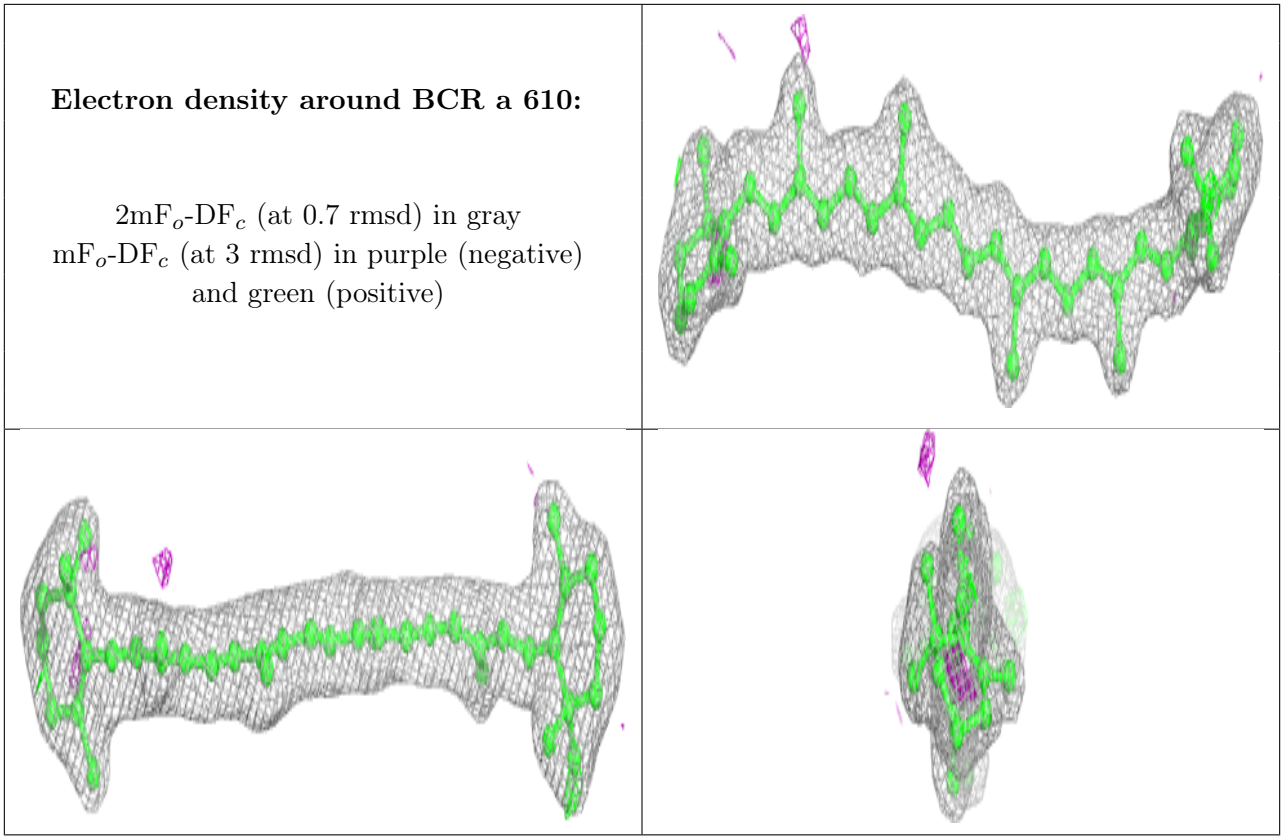
Electron density around BCR Z 101:

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



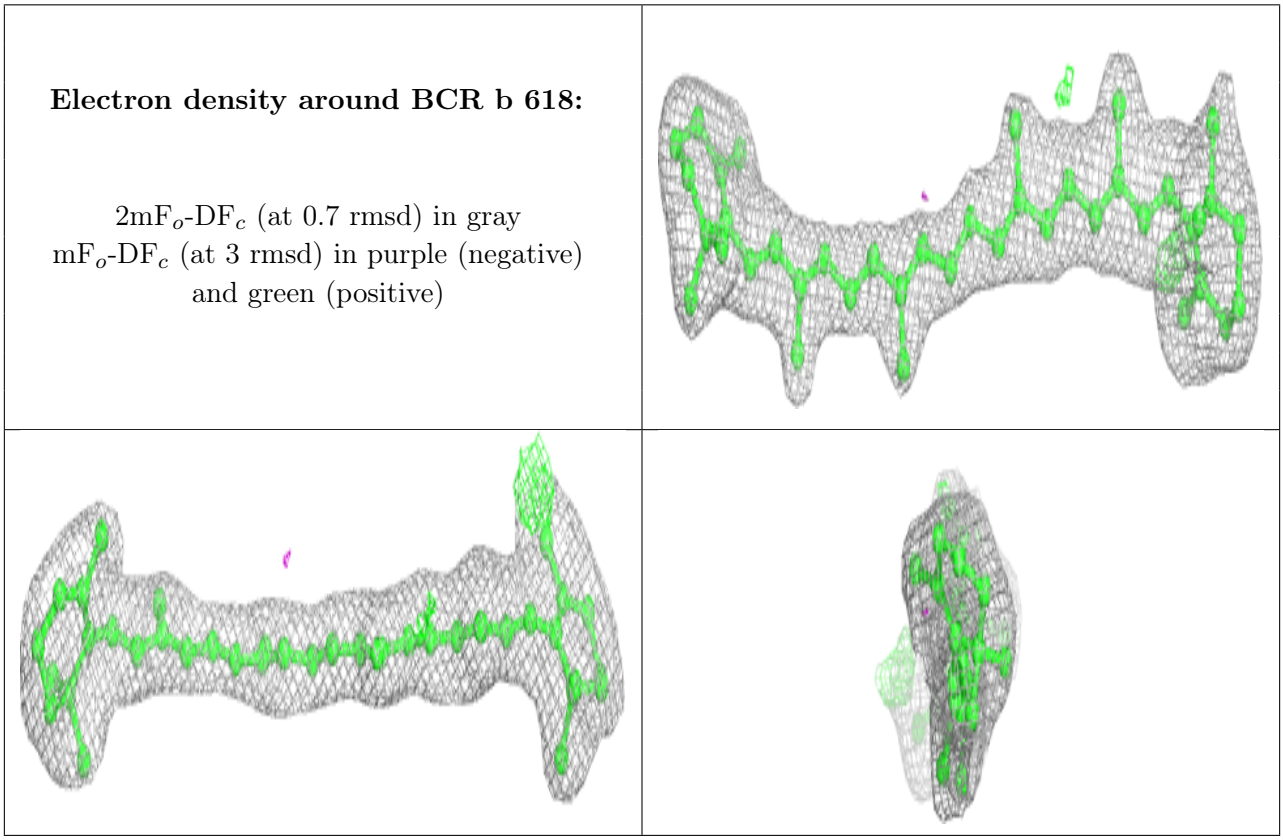
Electron density around BCR a 610:

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



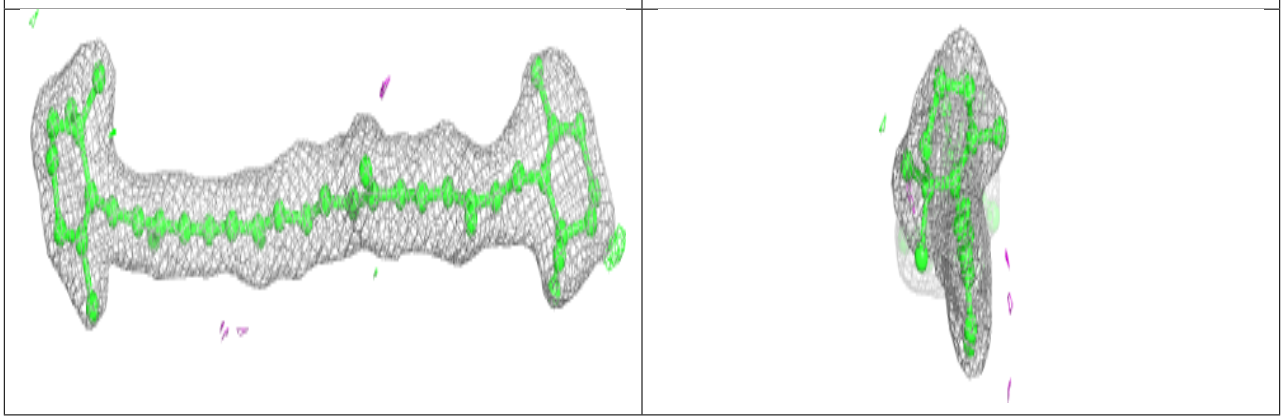
Electron density around BCR b 618:

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



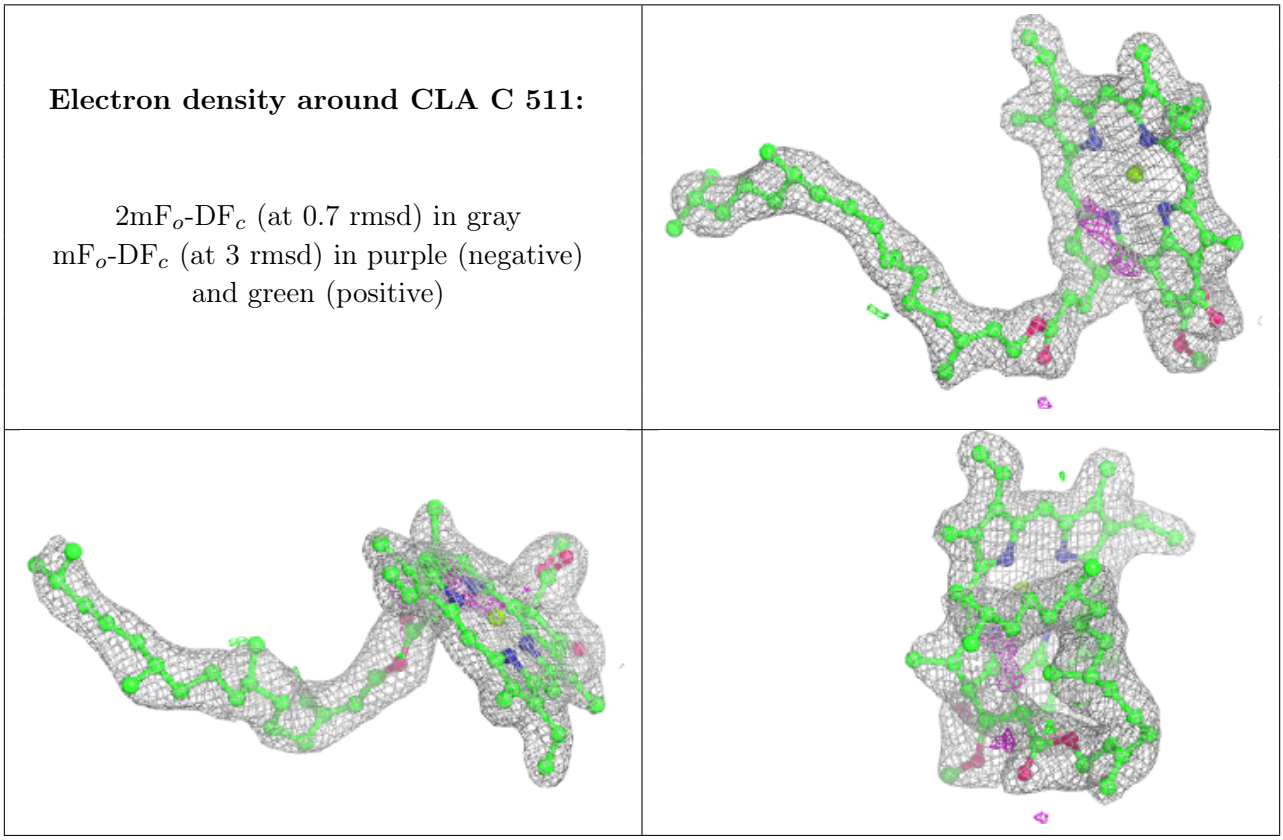
Electron density around BCR c 514:

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



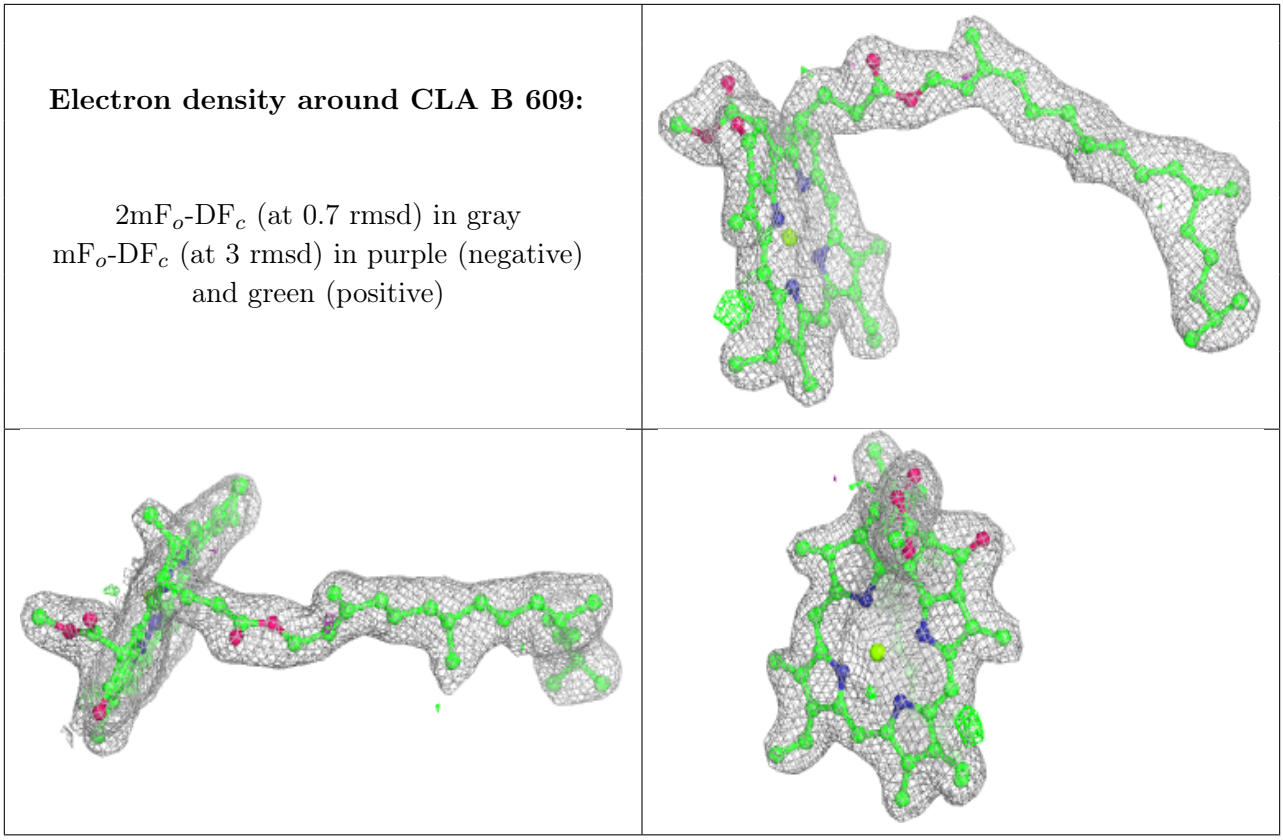
Electron density around CLA C 511:

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



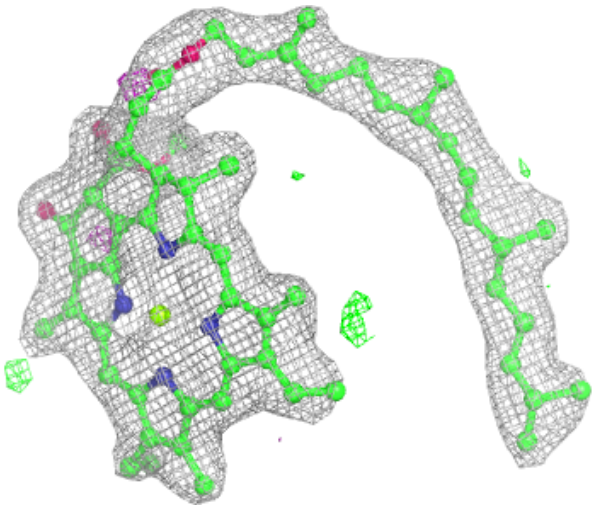
Electron density around CLA B 609:

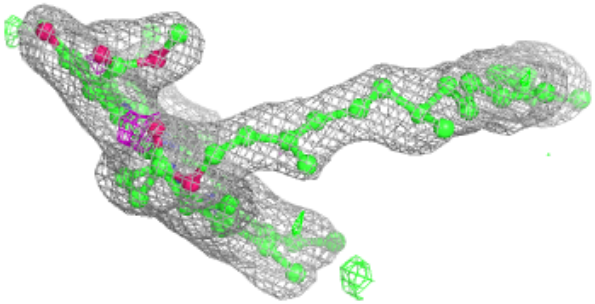
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

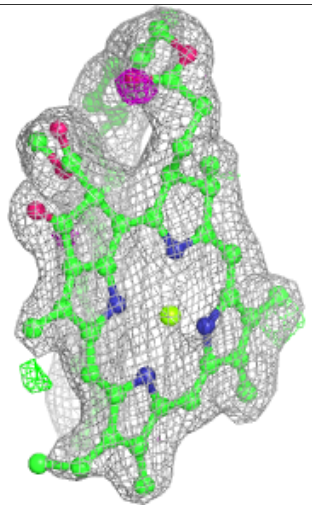


Electron density around CLA c 507:

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

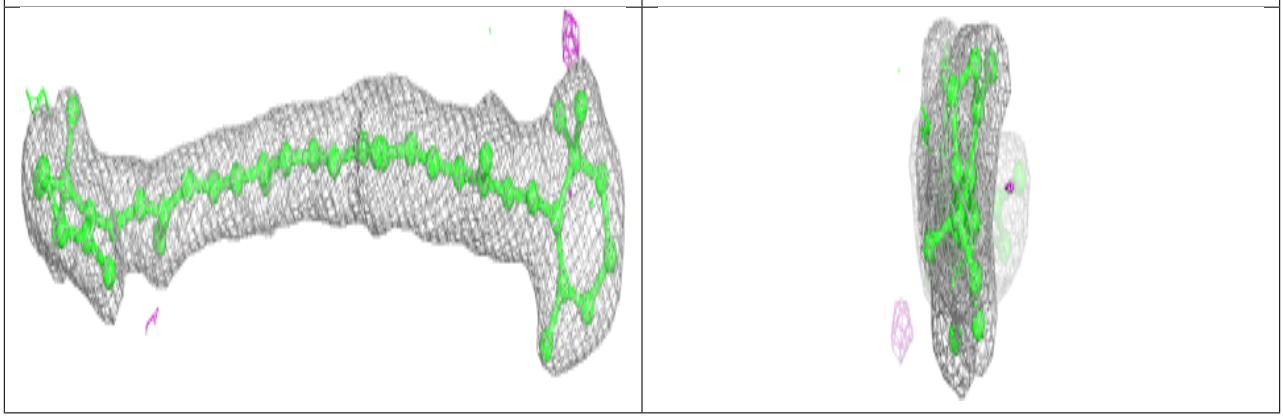






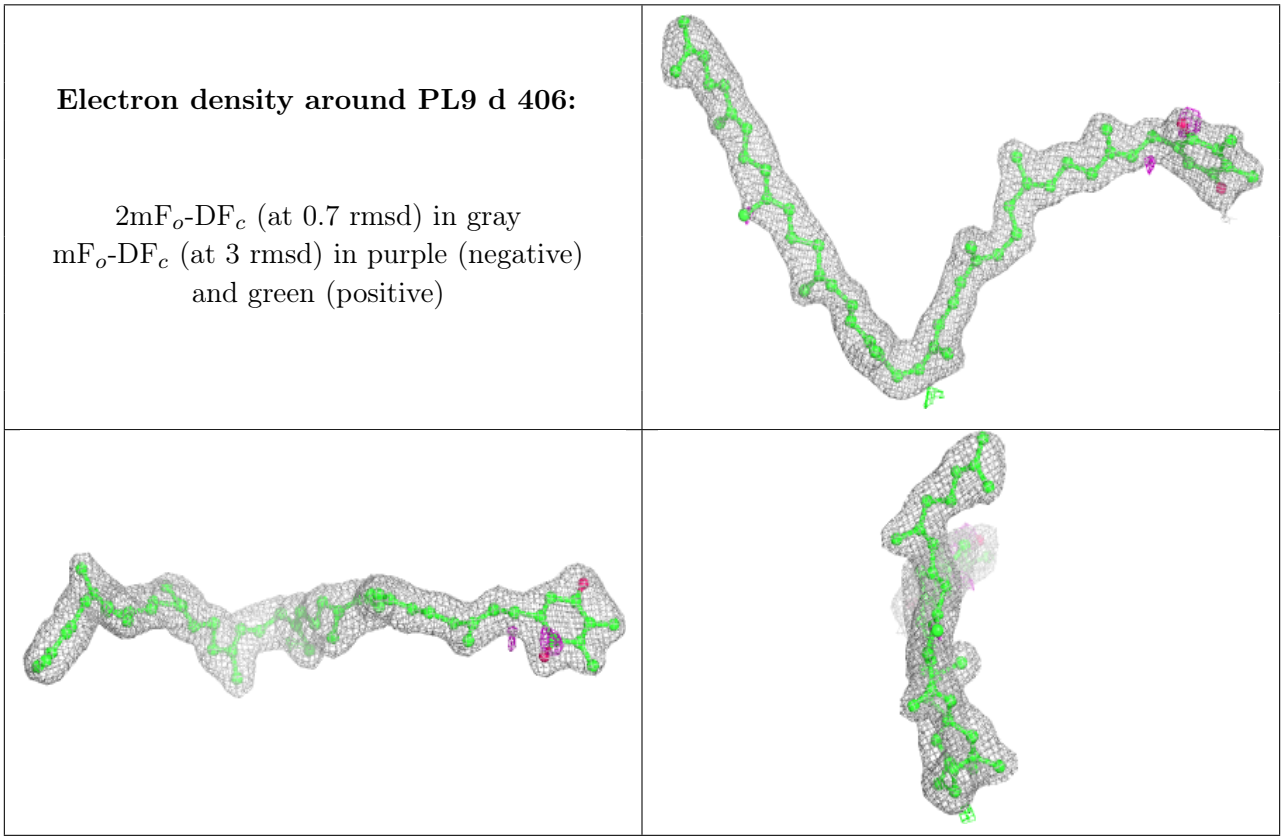
Electron density around BCR B 617:

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



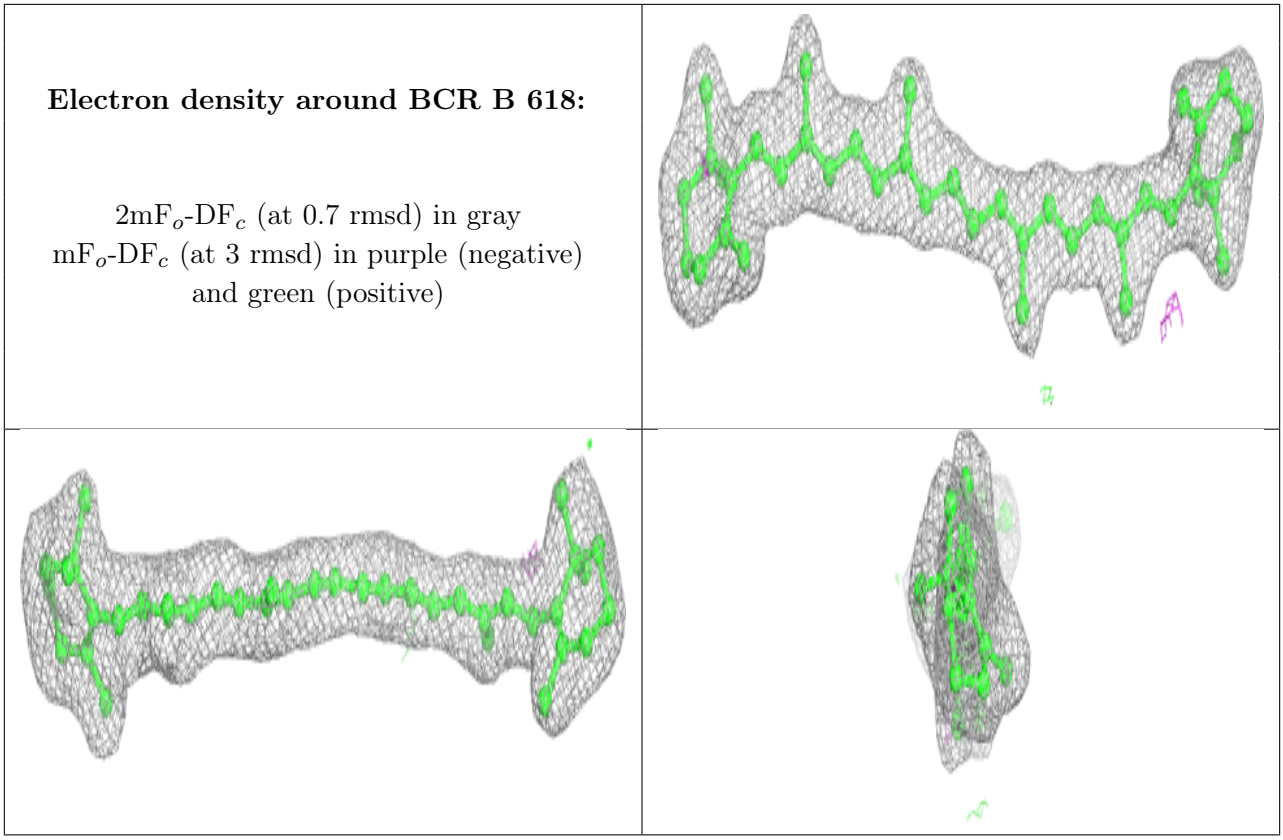
Electron density around PL9 d 406:

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



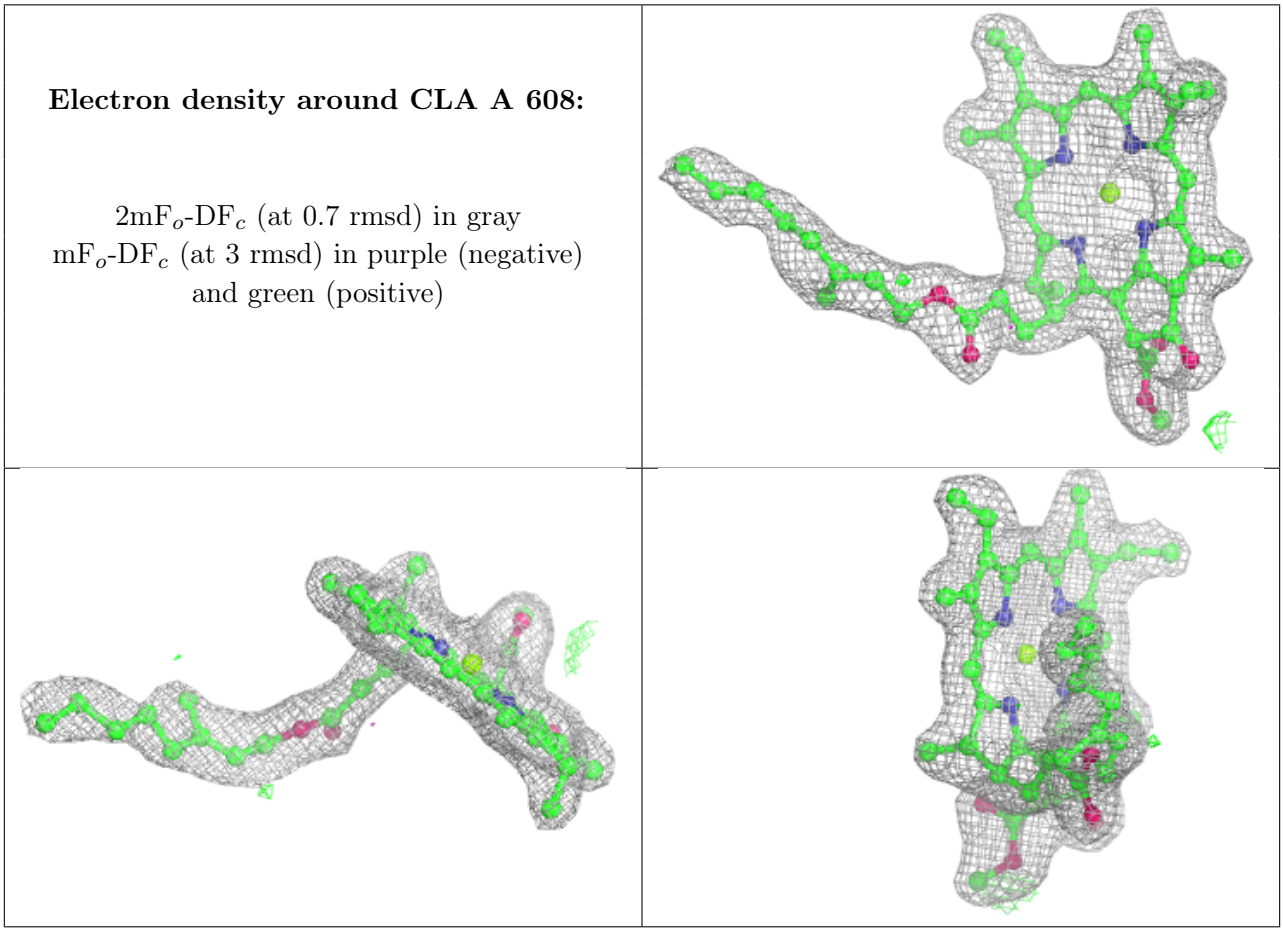
Electron density around BCR B 618:

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



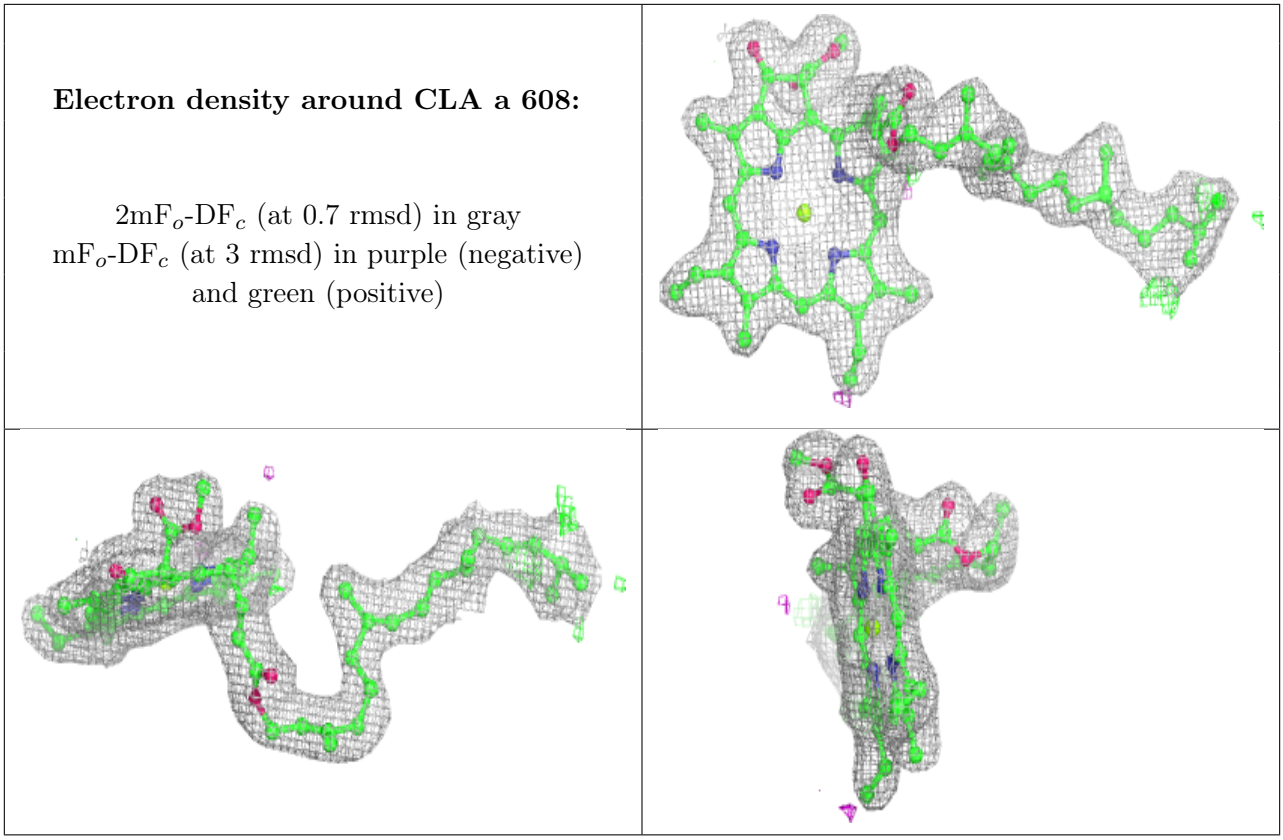
Electron density around CLA A 608:

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



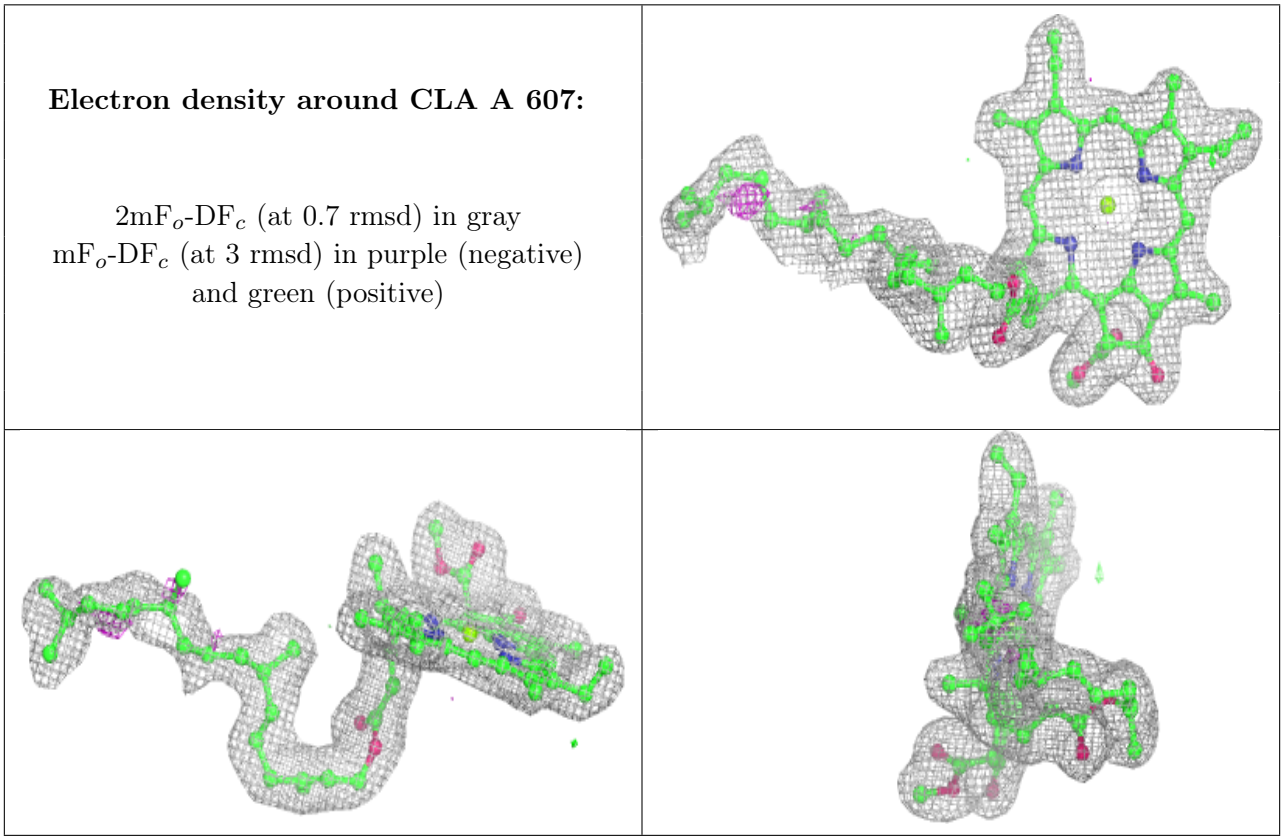
Electron density around CLA a 608:

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



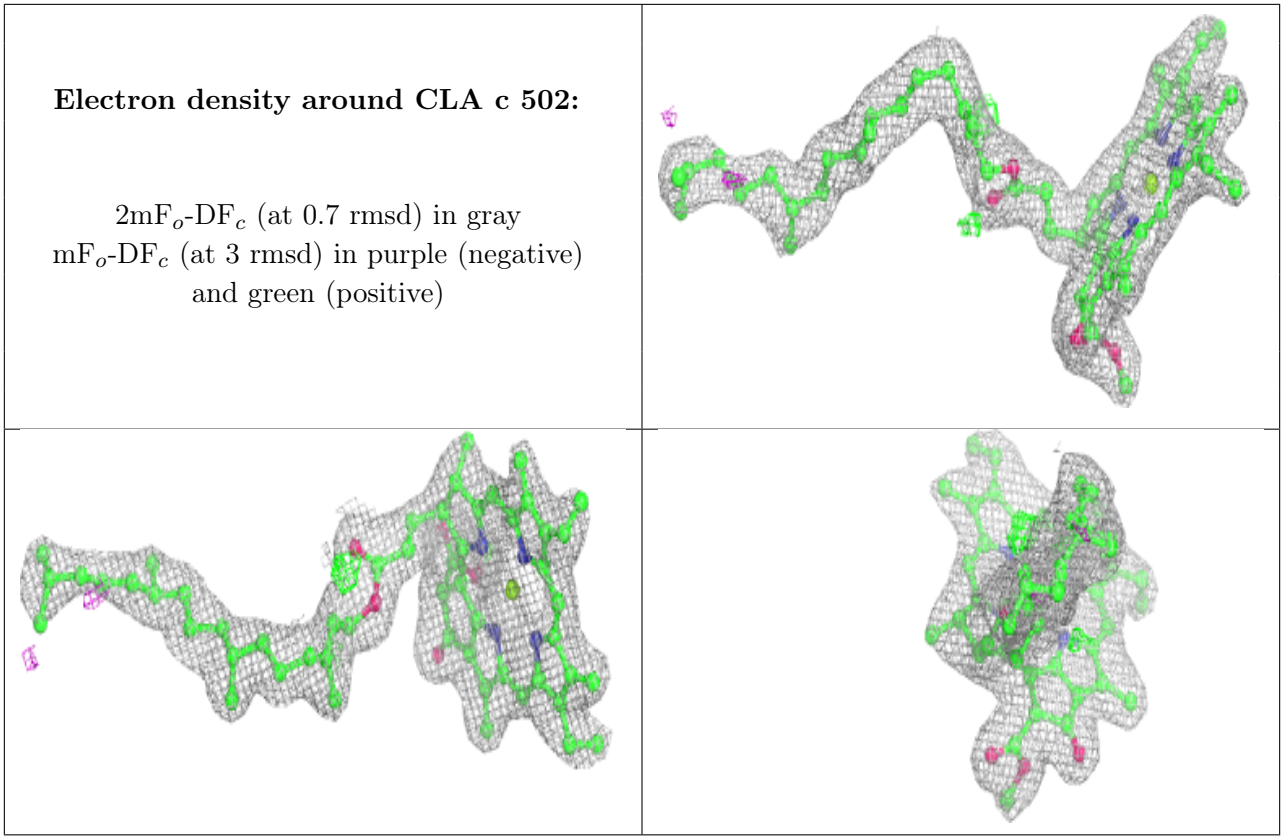
Electron density around CLA A 607:

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



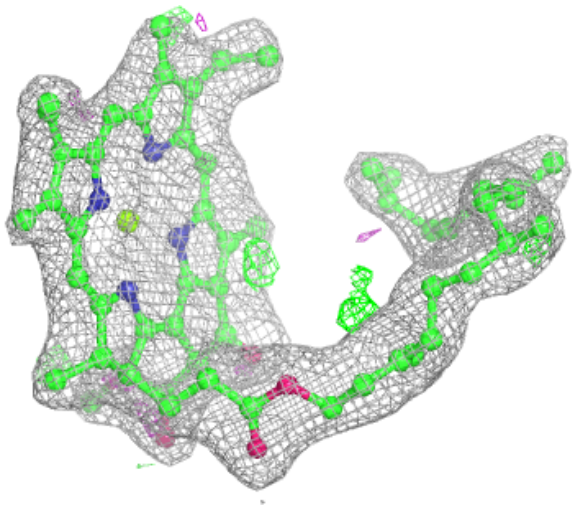
Electron density around CLA c 502:

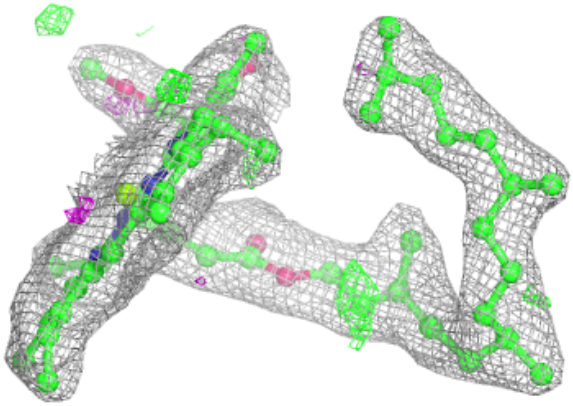
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

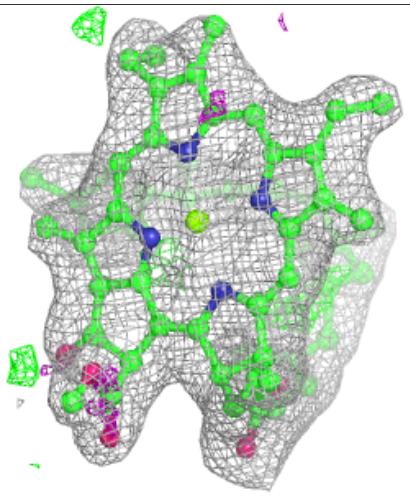


Electron density around CLA c 503:

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

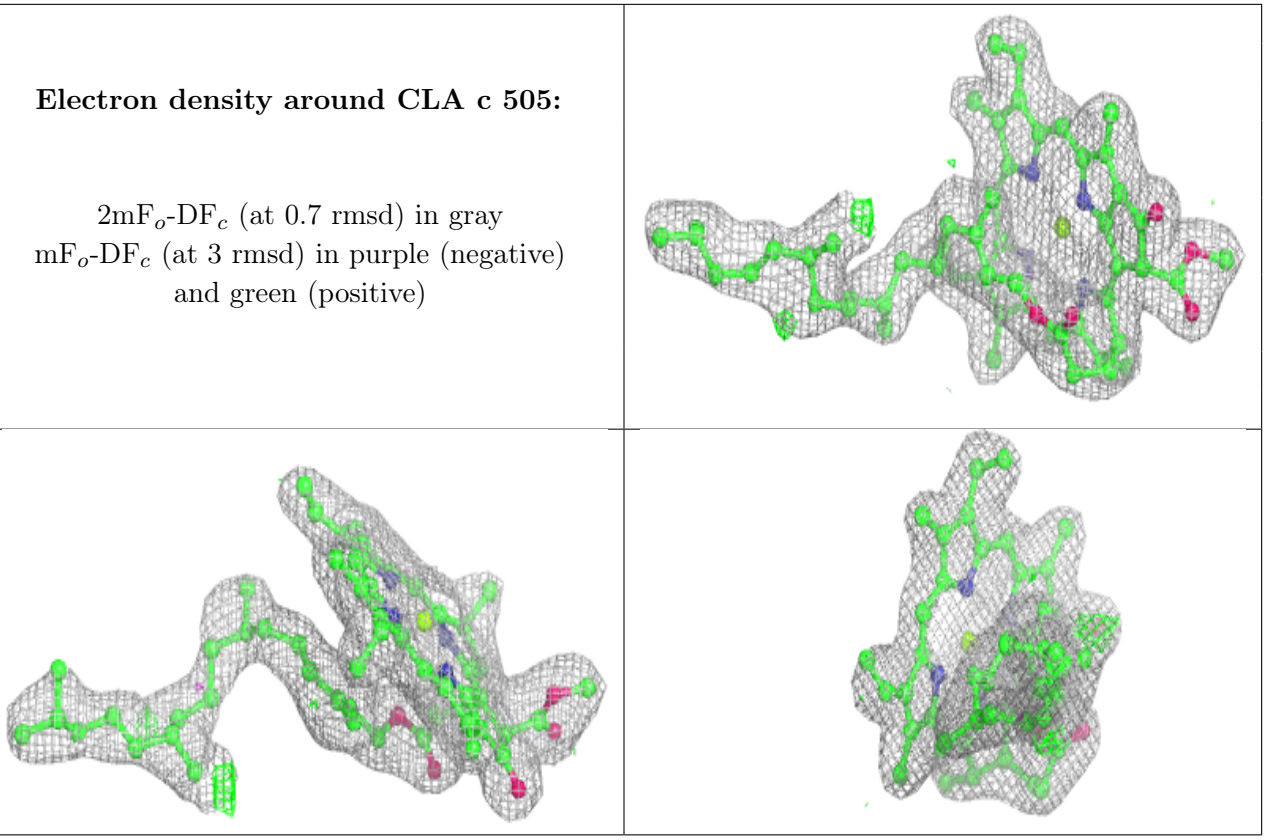






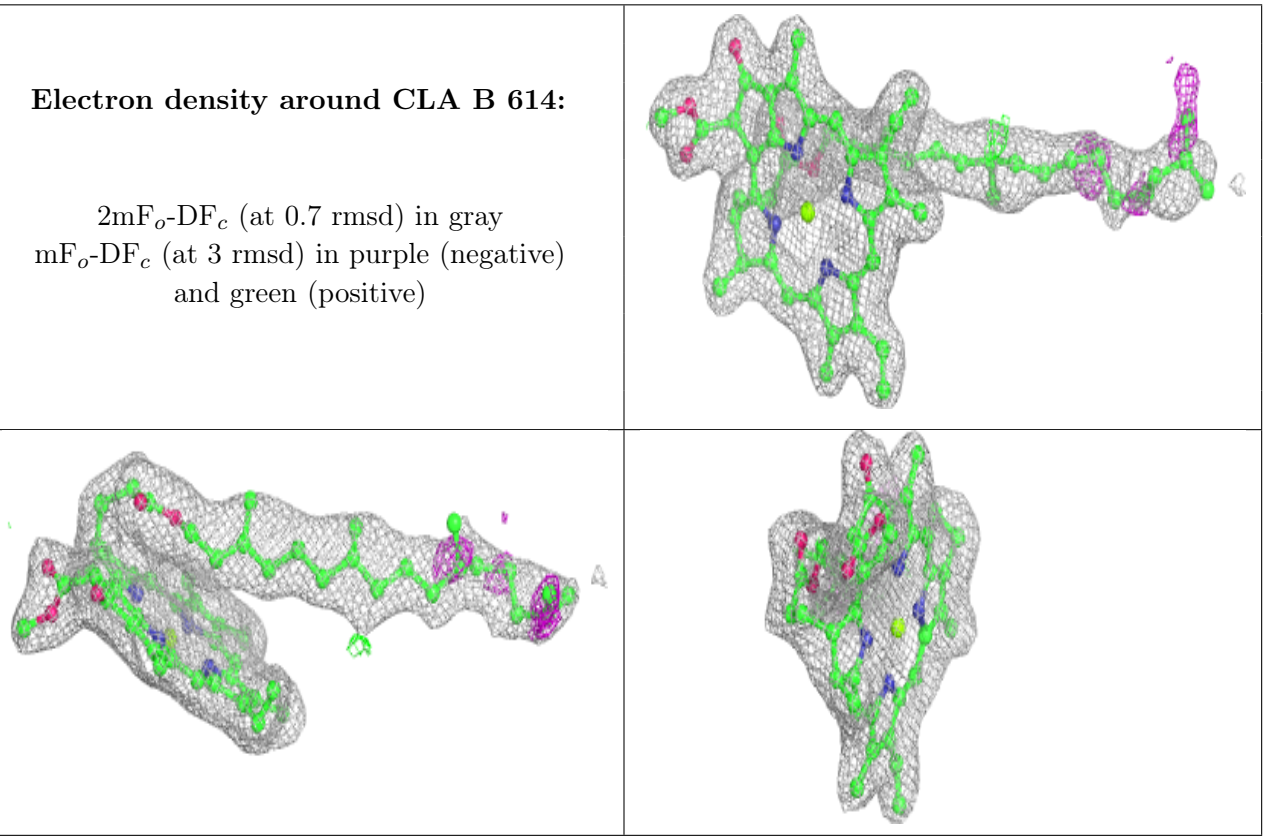
Electron density around CLA c 505:

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



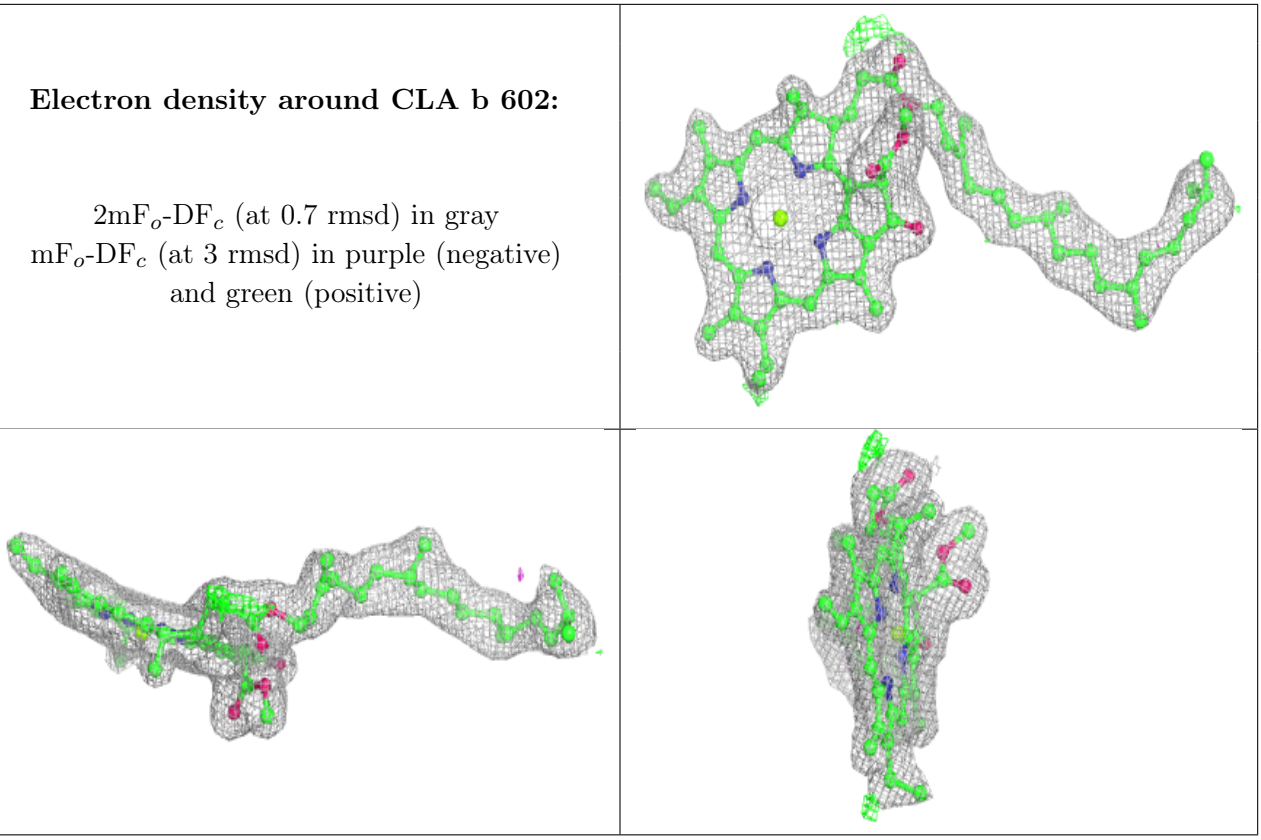
Electron density around CLA B 614:

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



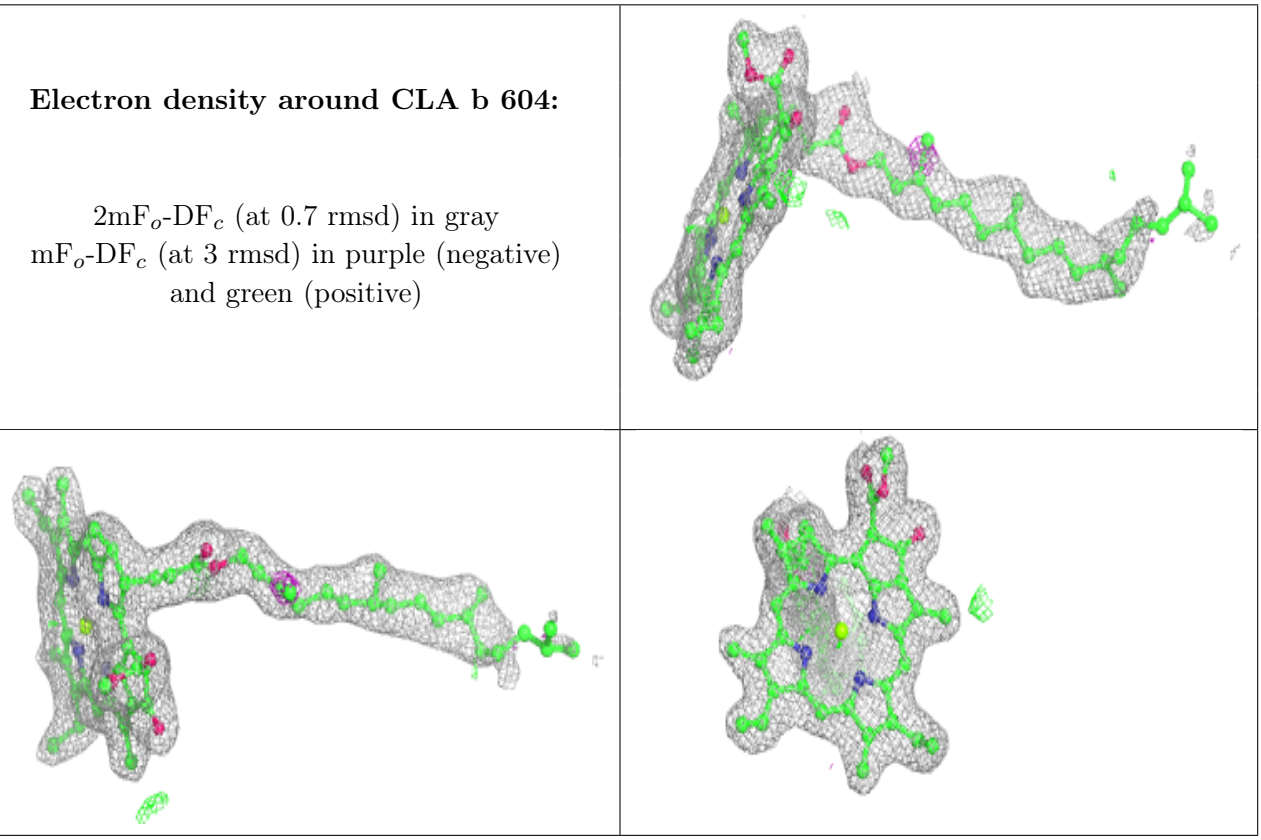
Electron density around CLA b 602:

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



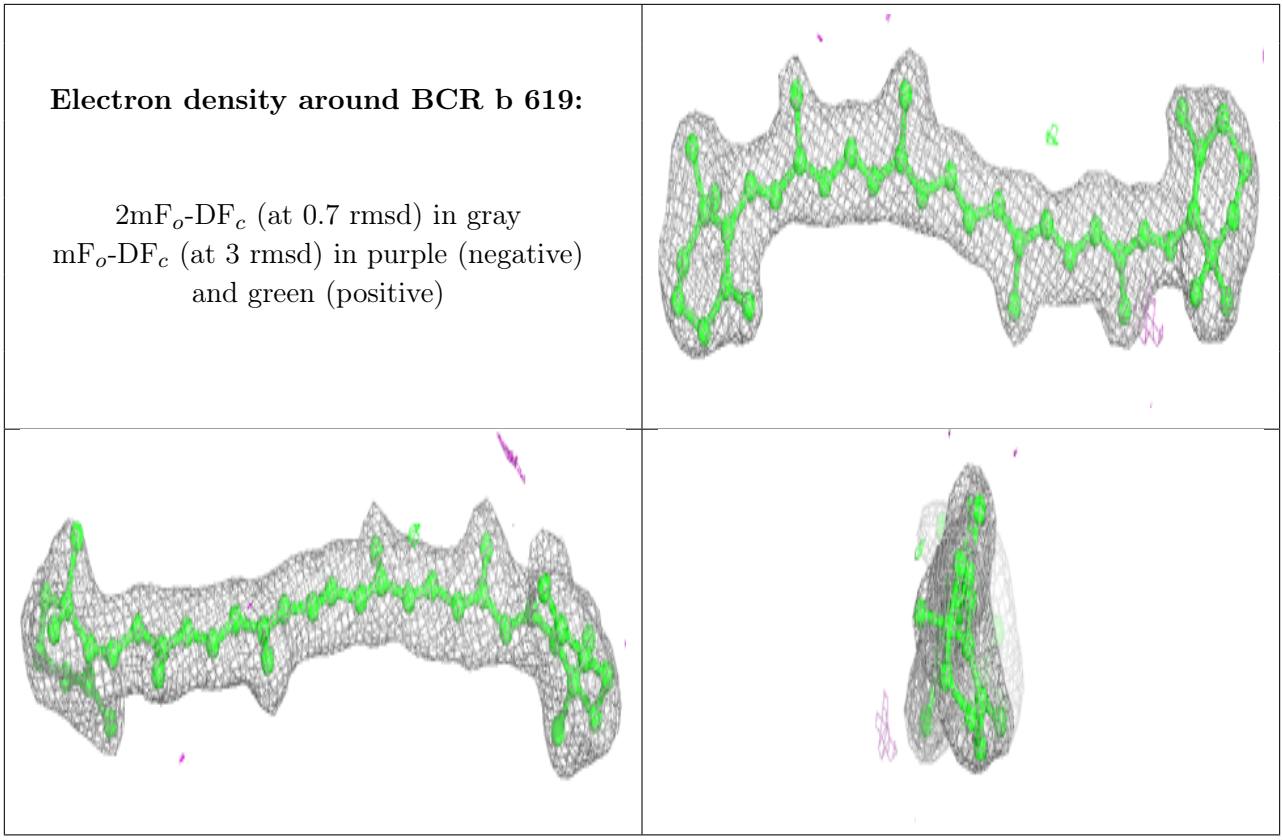
Electron density around CLA b 604:

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



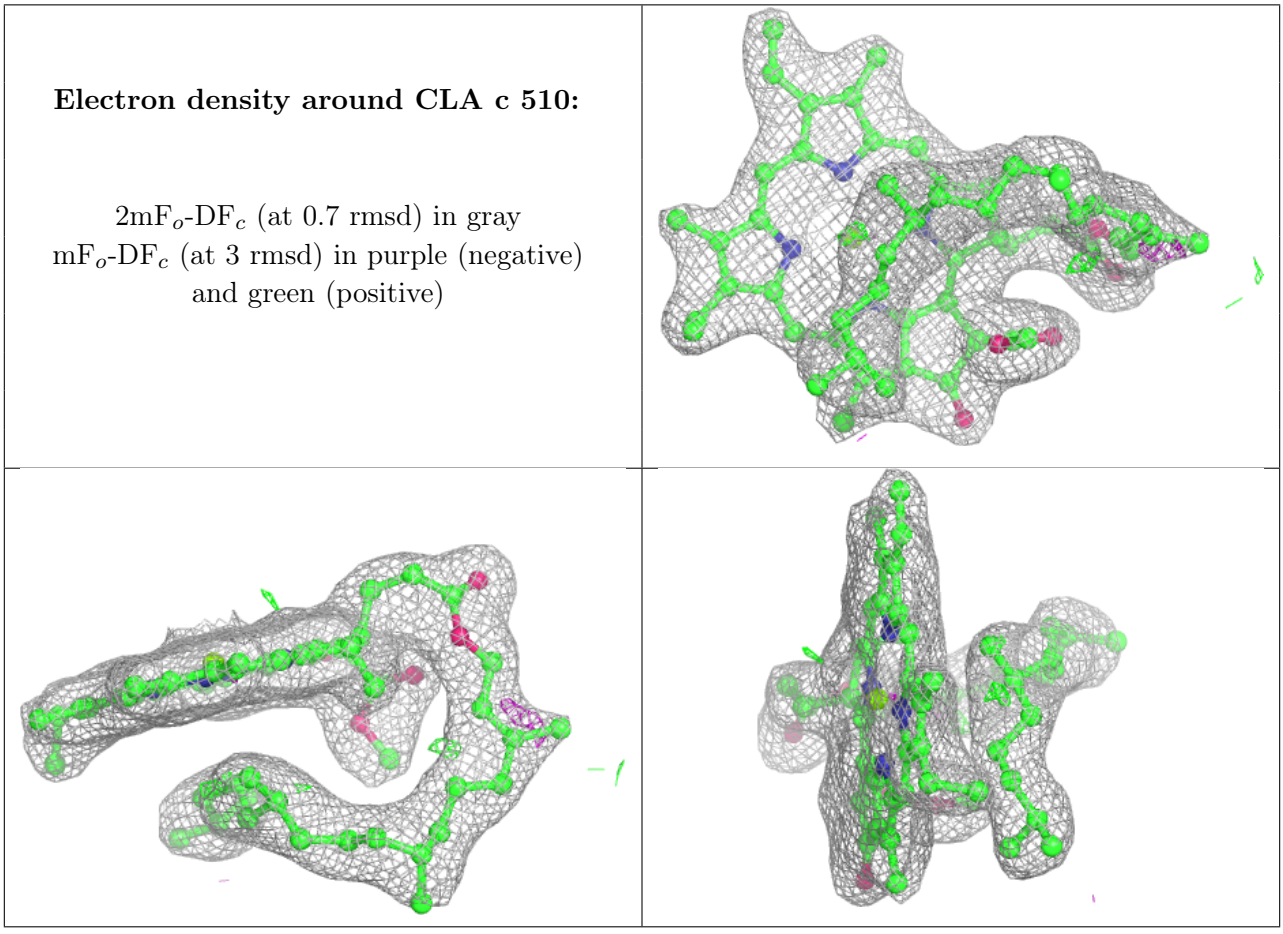
Electron density around BCR b 619:

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



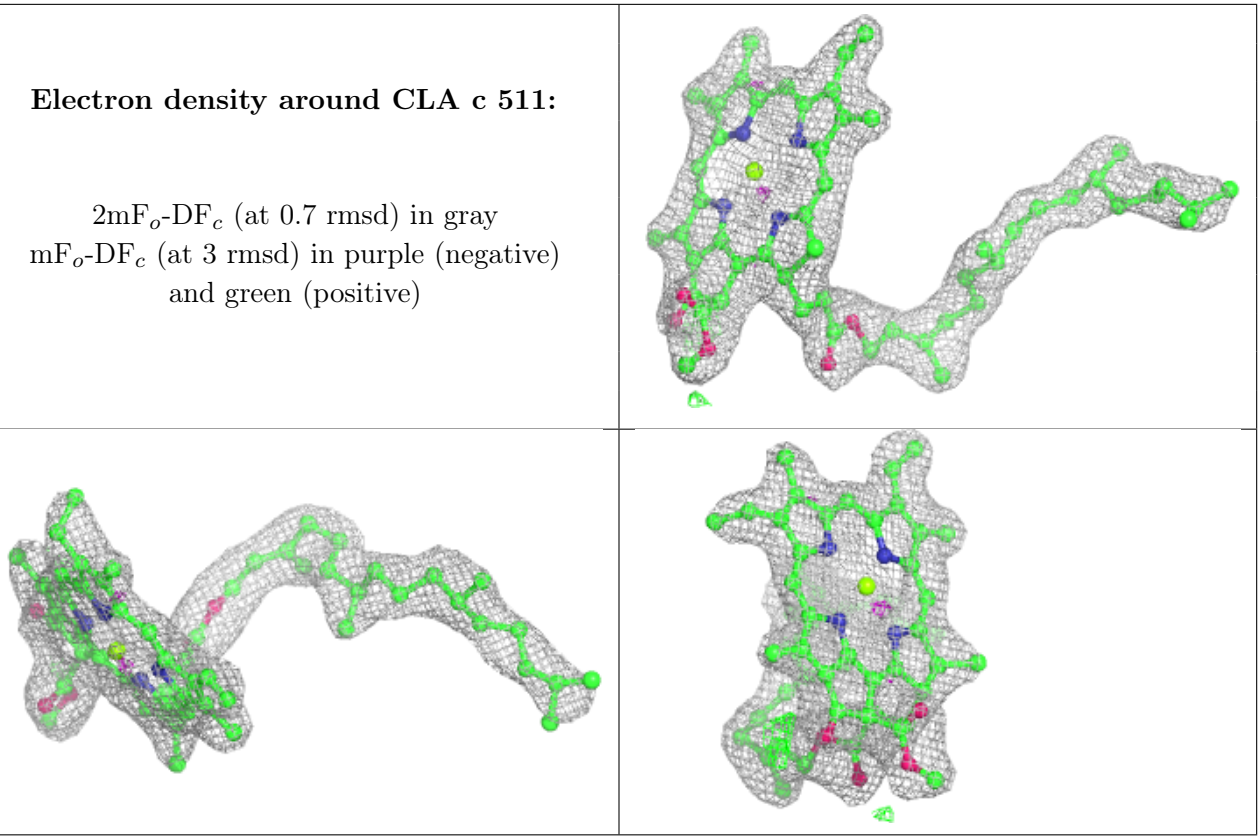
Electron density around CLA c 510:

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



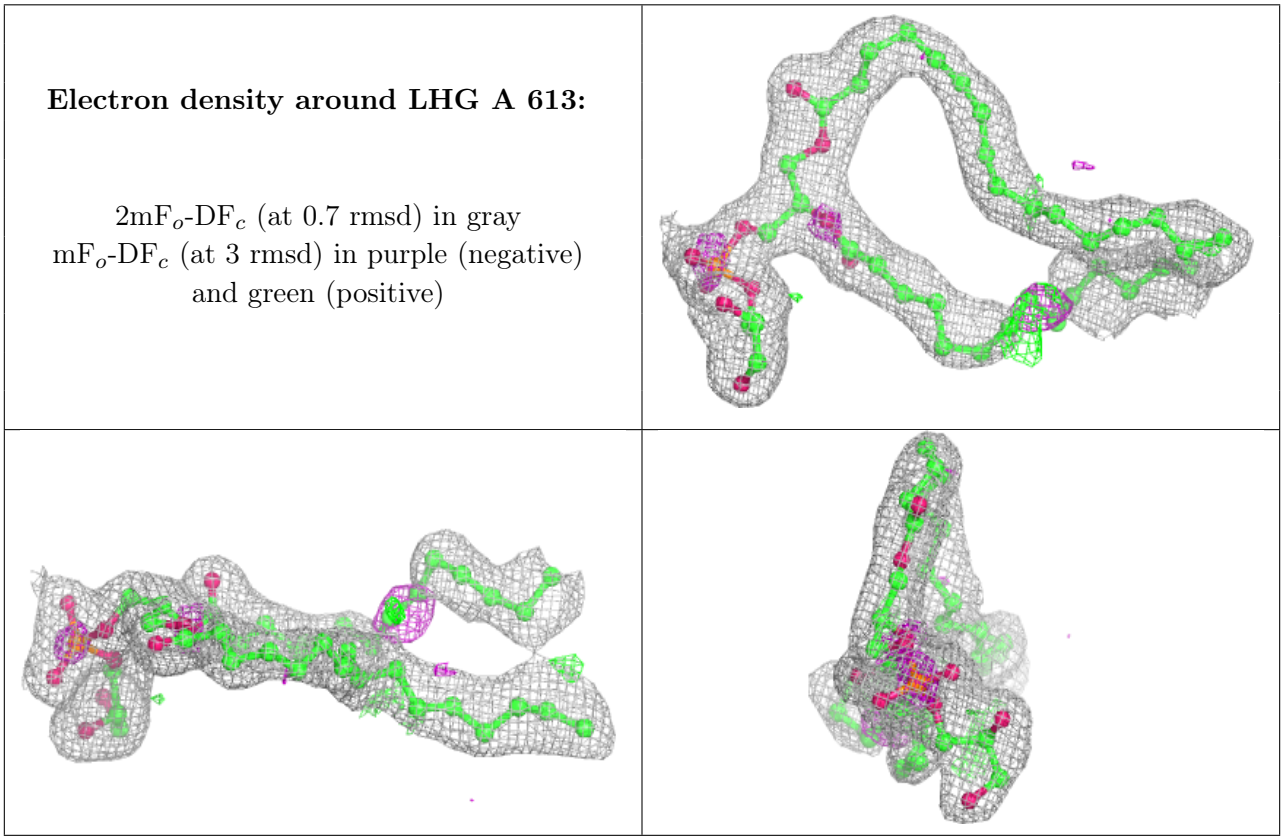
Electron density around CLA c 511:

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



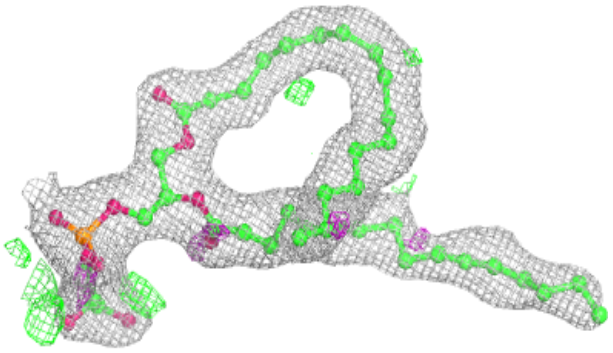
Electron density around LHG A 613:

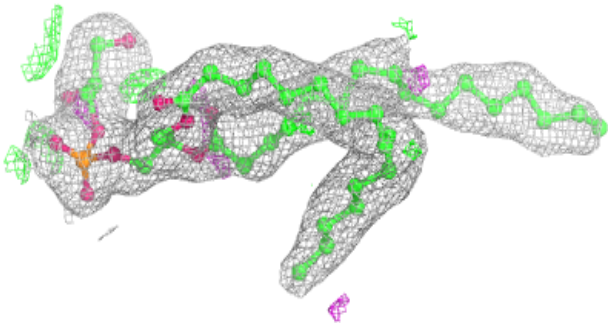
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

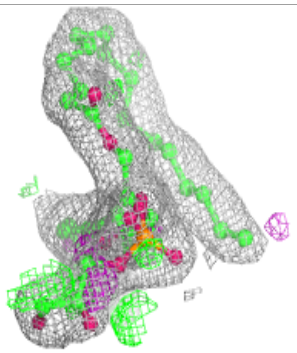


Electron density around LHG B 622:

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

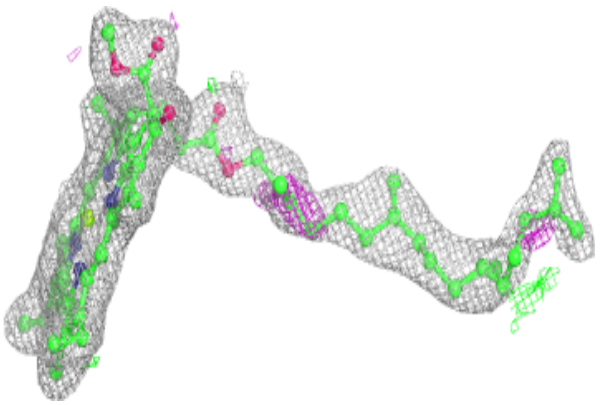


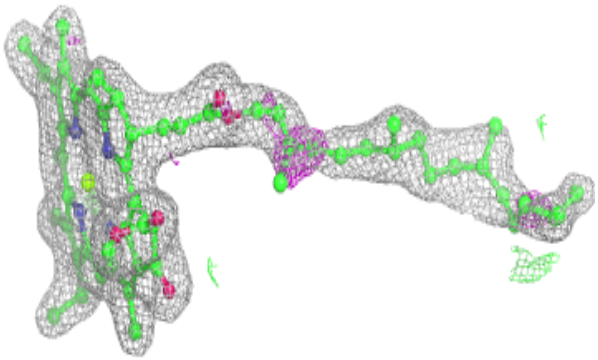


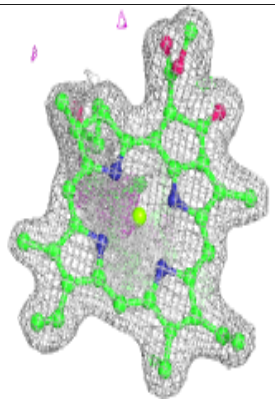


Electron density around CLA B 604:

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

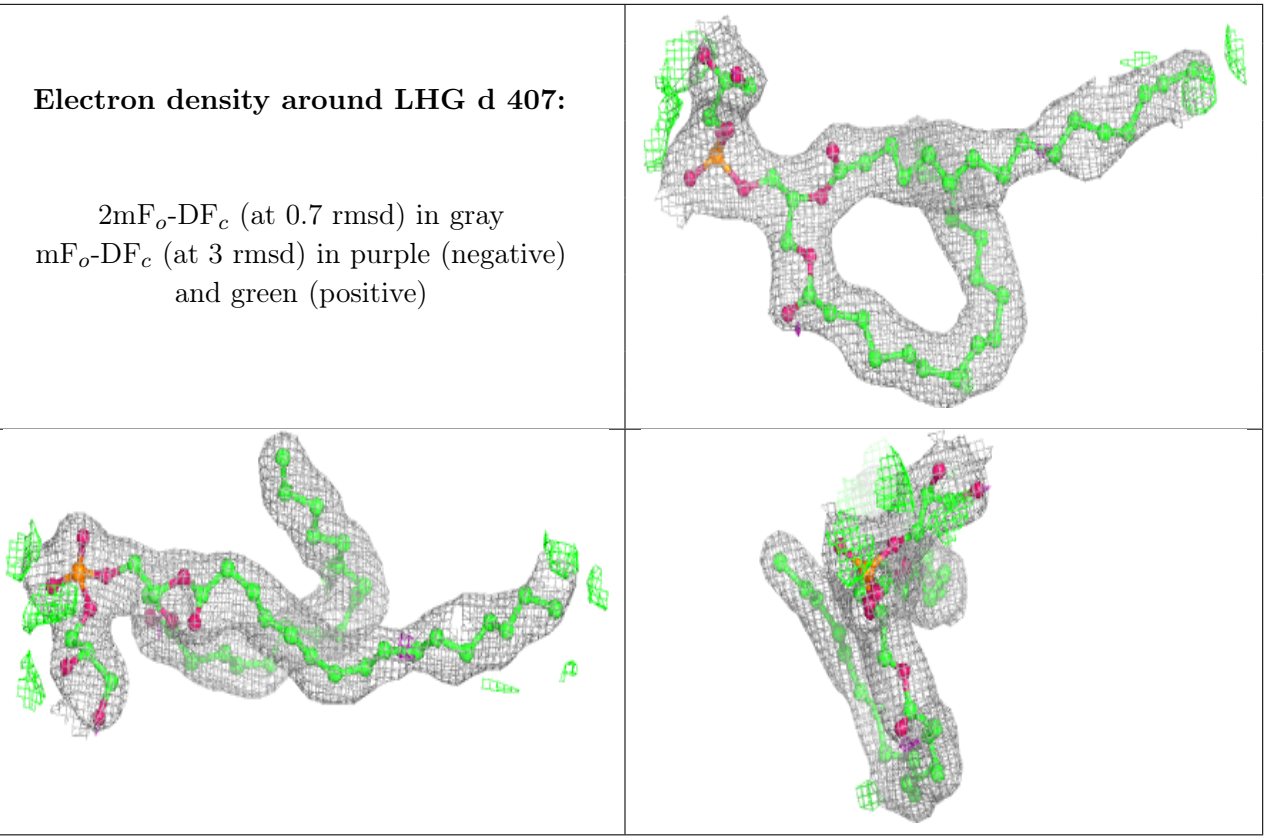






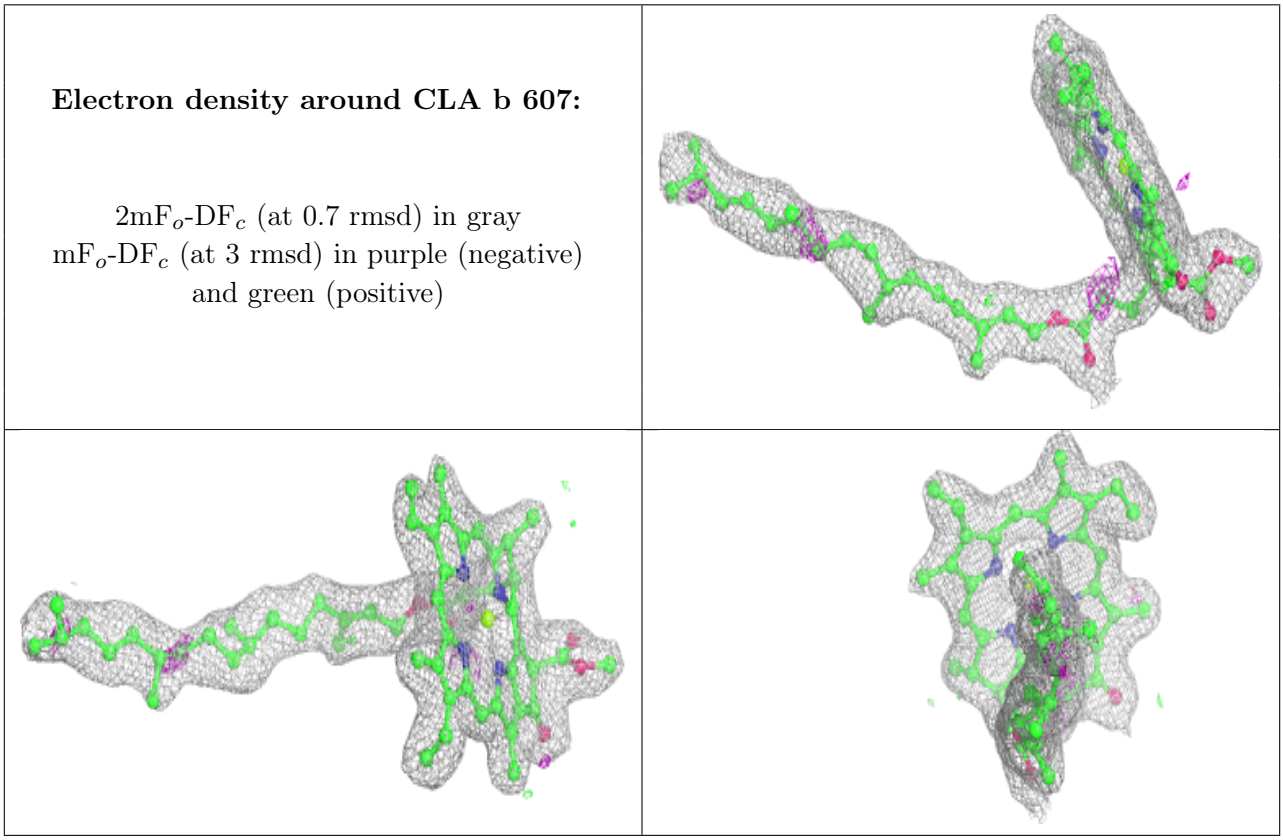
Electron density around LHG d 407:

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



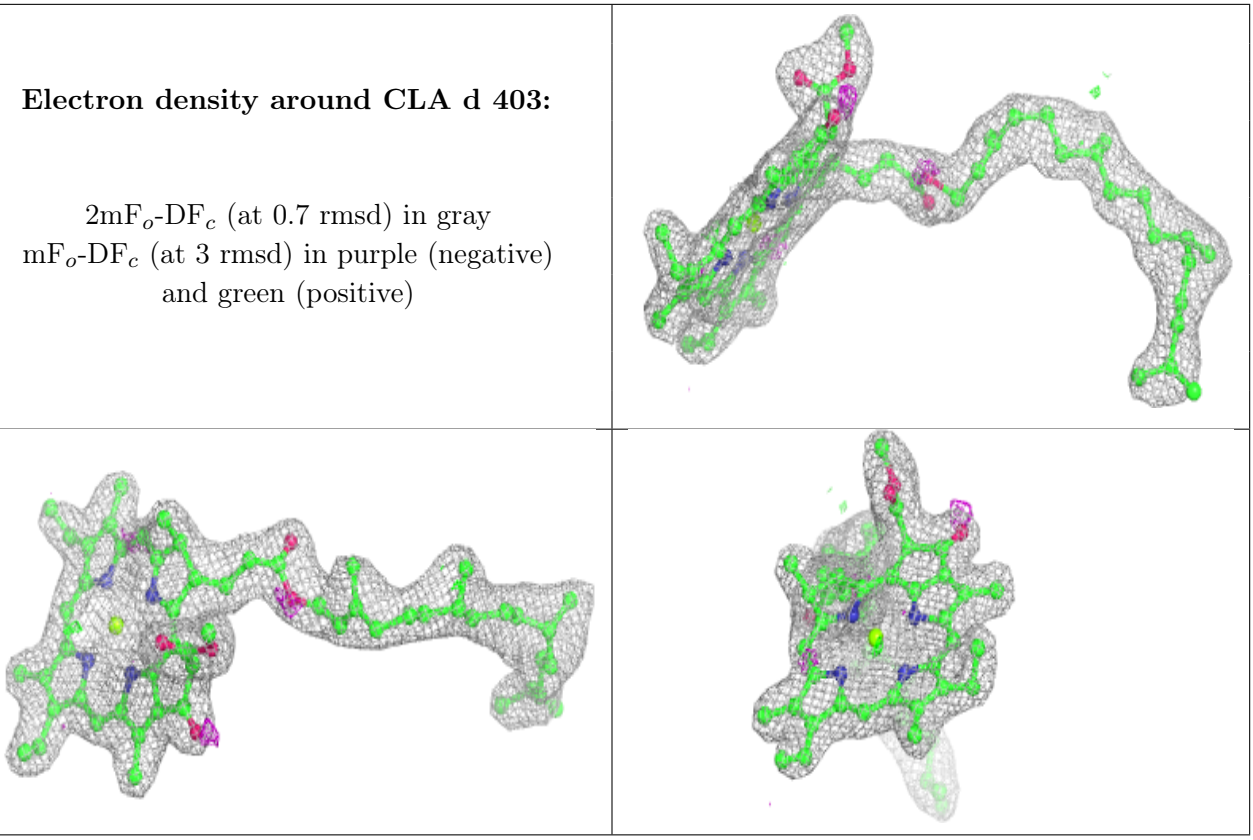
Electron density around CLA b 607:

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



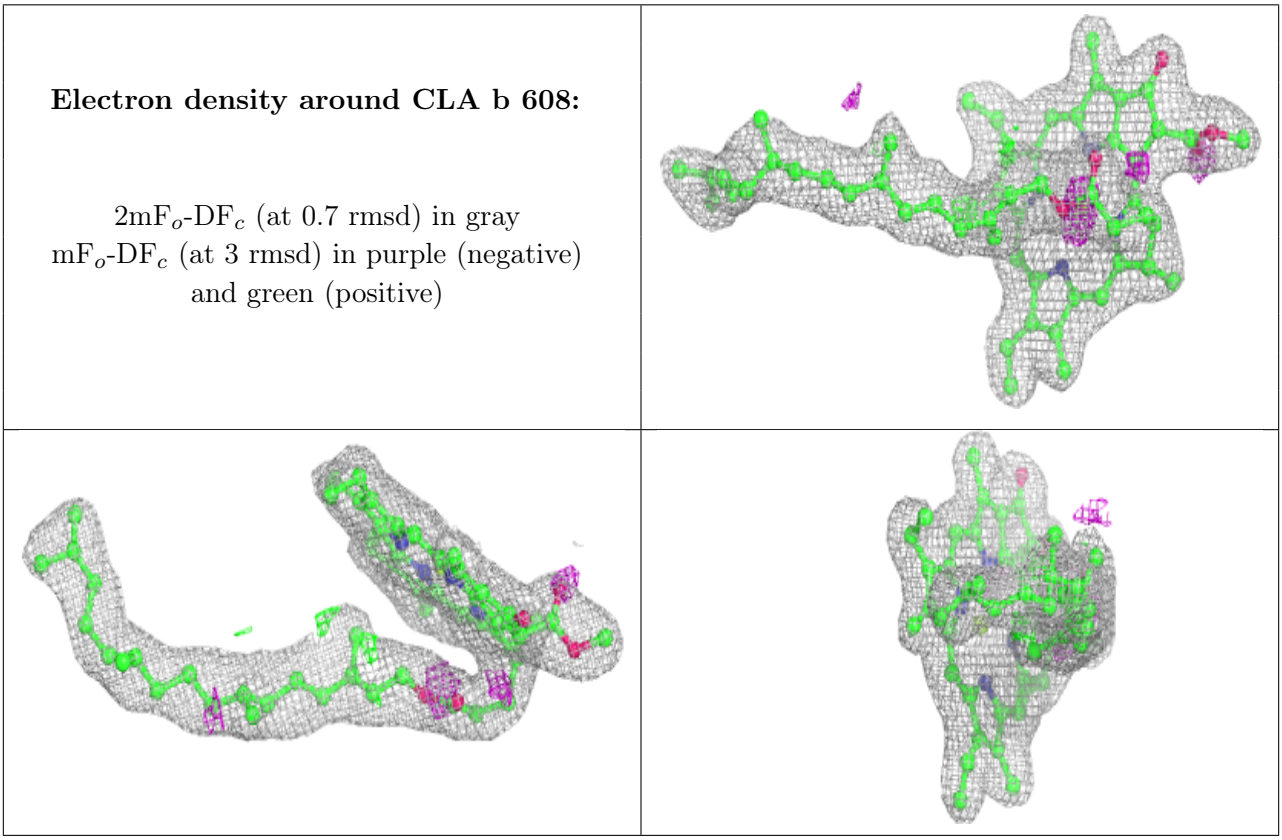
Electron density around CLA d 403:

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



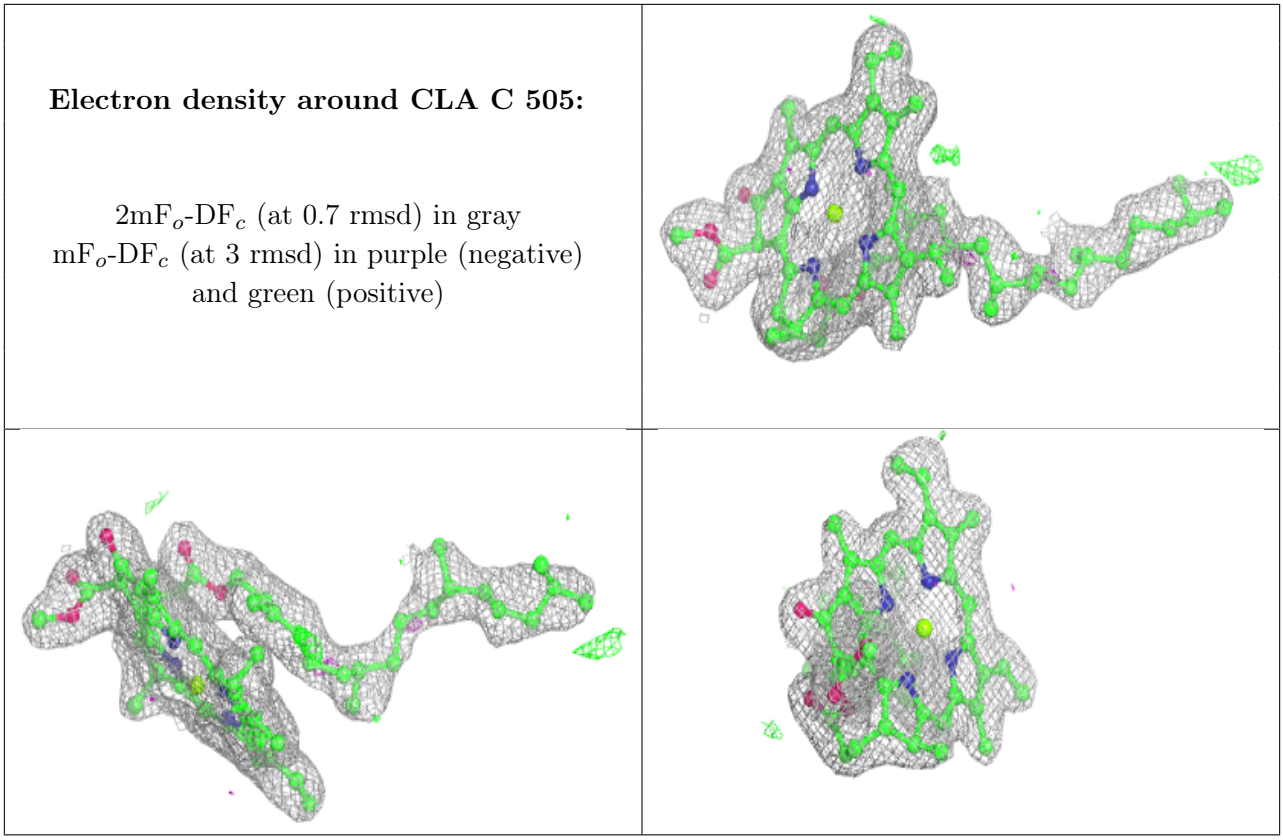
Electron density around CLA b 608:

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



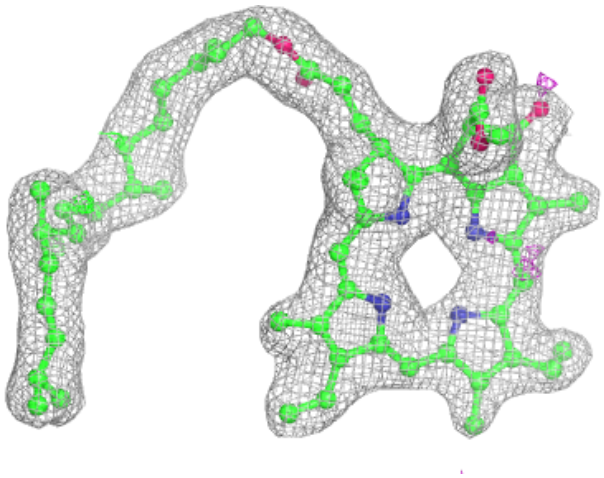
Electron density around CLA C 505:

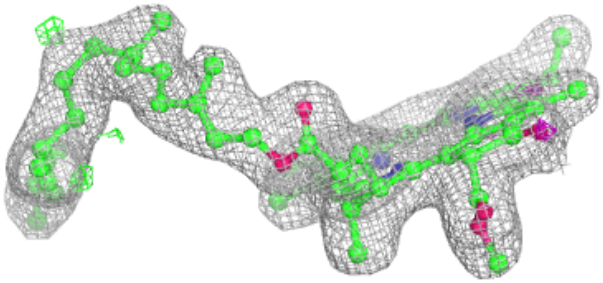
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around PHO d 402:

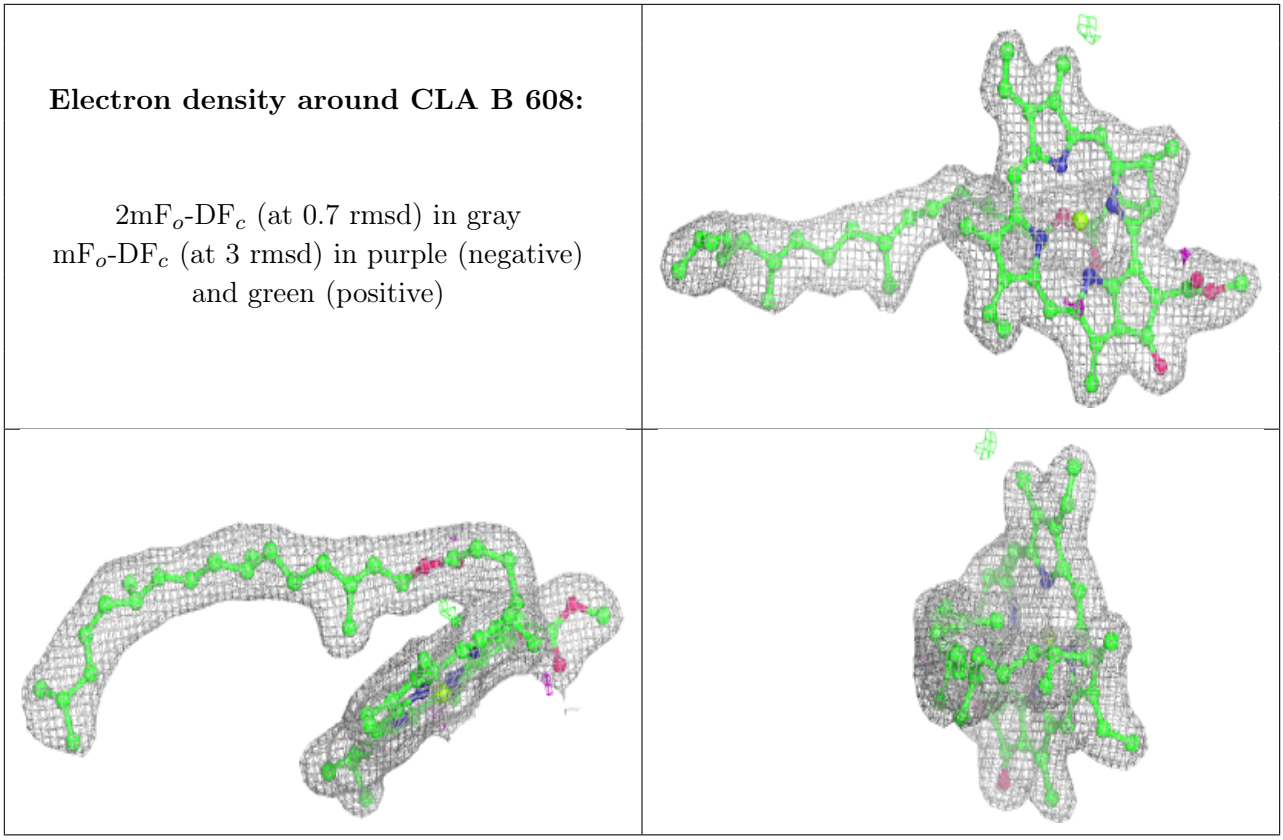
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





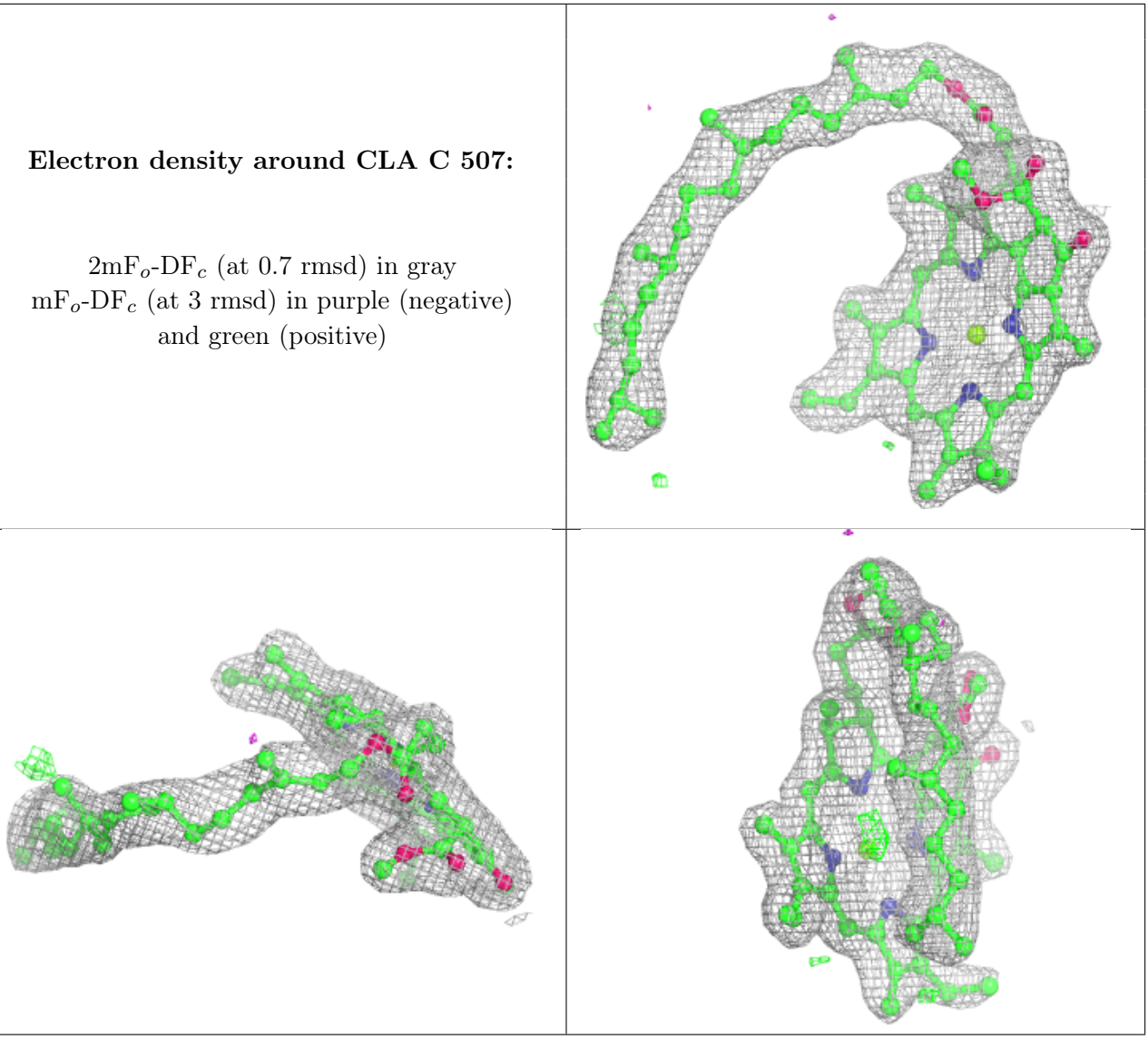
Electron density around CLA B 608:

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



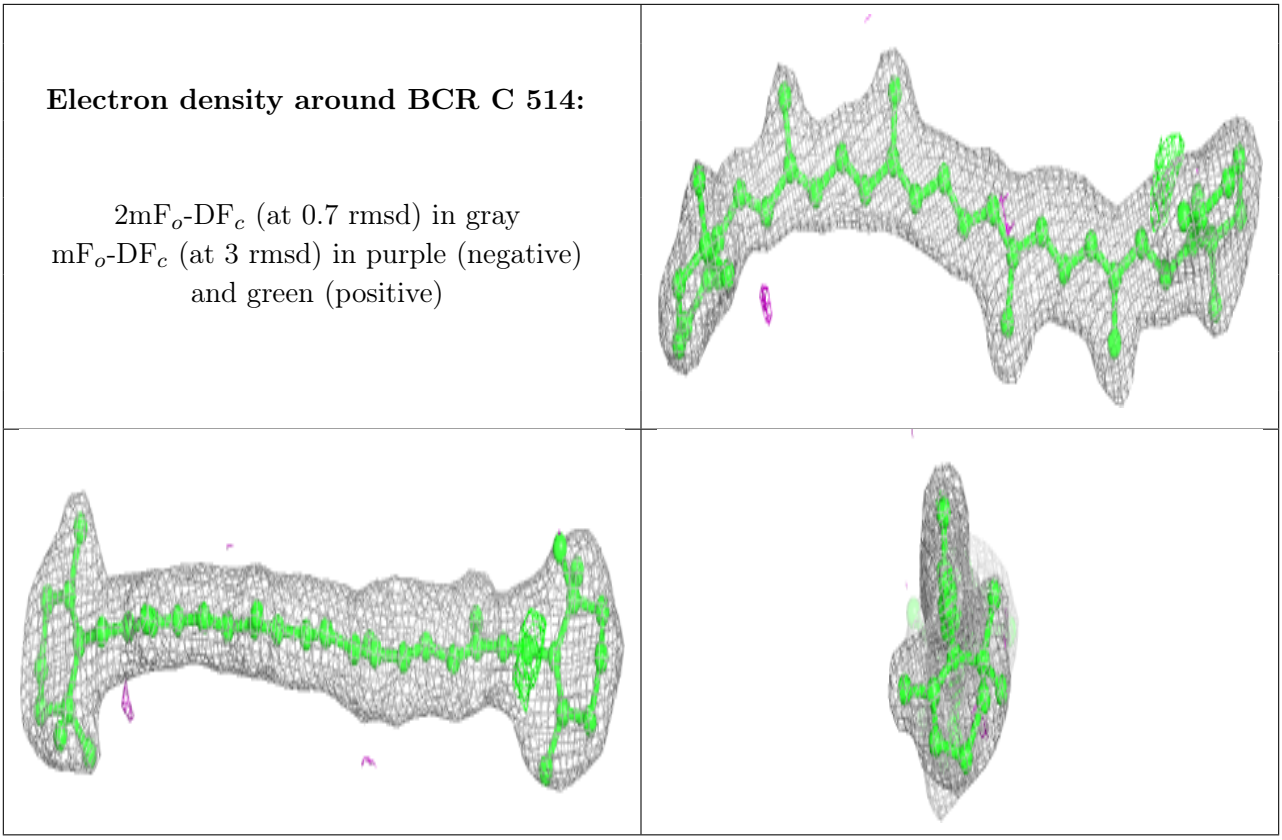
Electron density around CLA C 507:

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



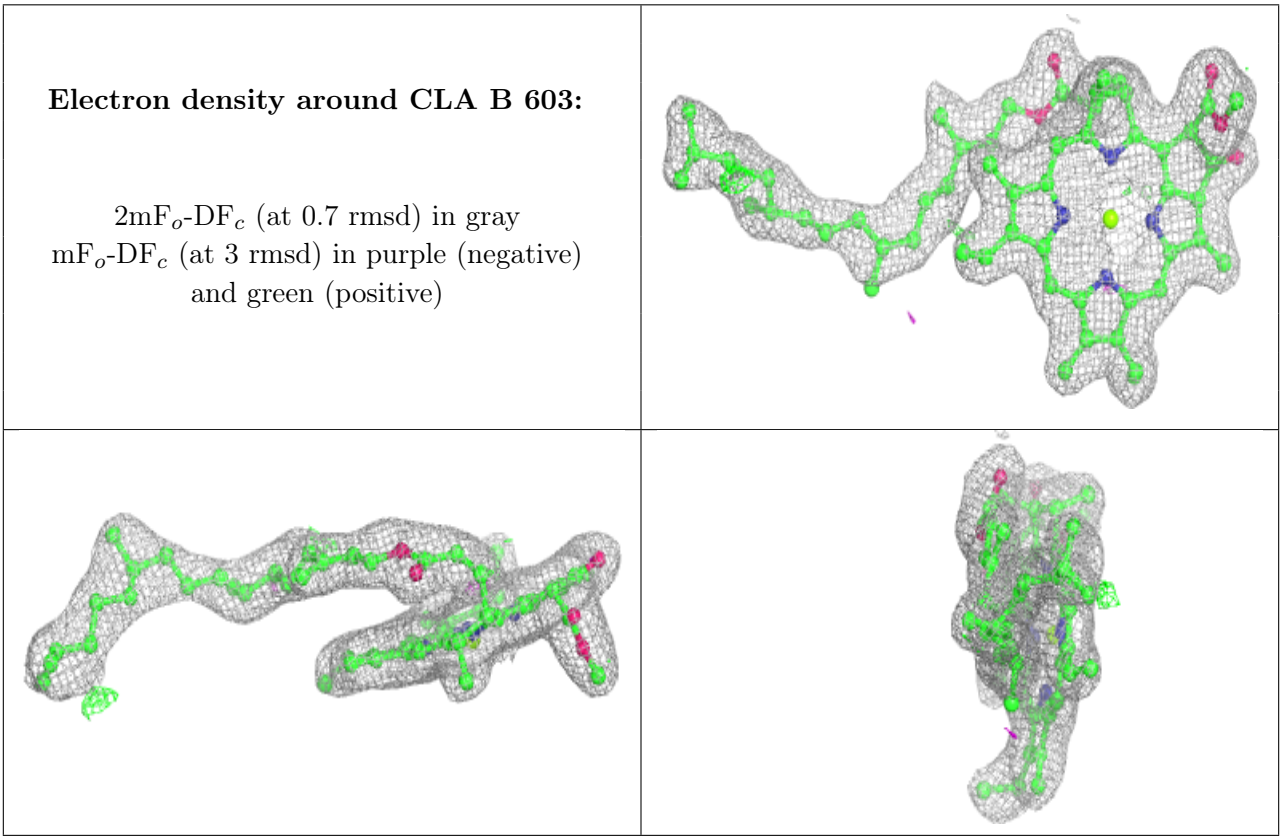
Electron density around BCR C 514:

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



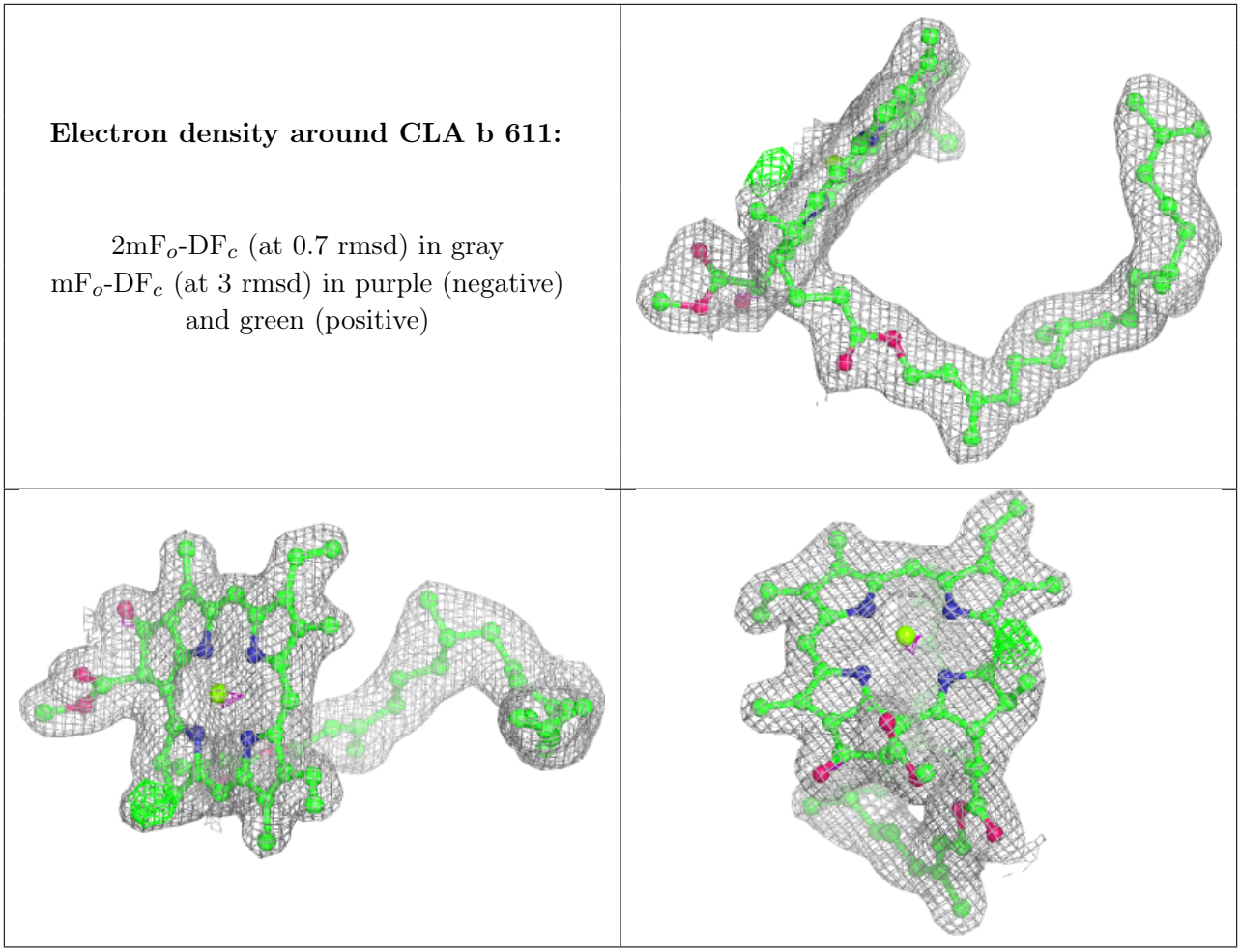
Electron density around CLA B 603:

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



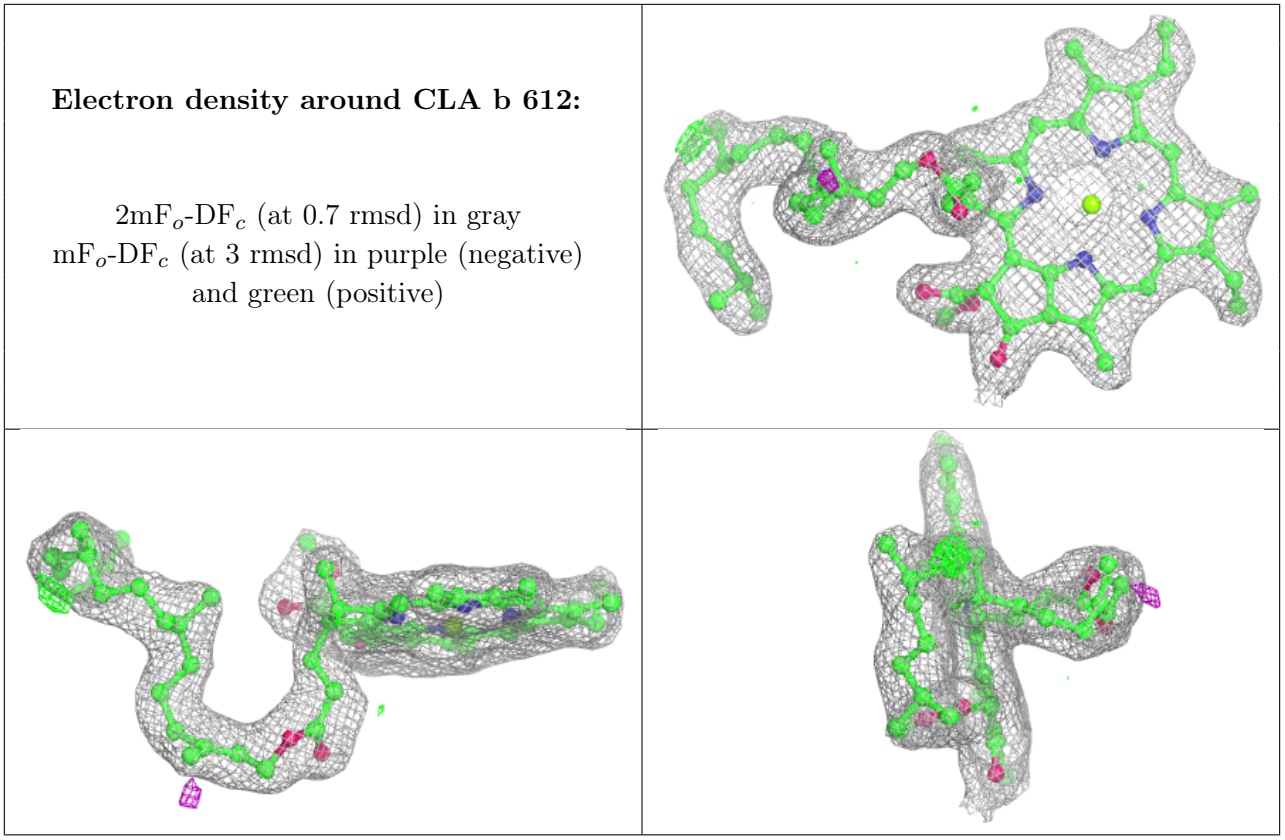
Electron density around CLA b 611:

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



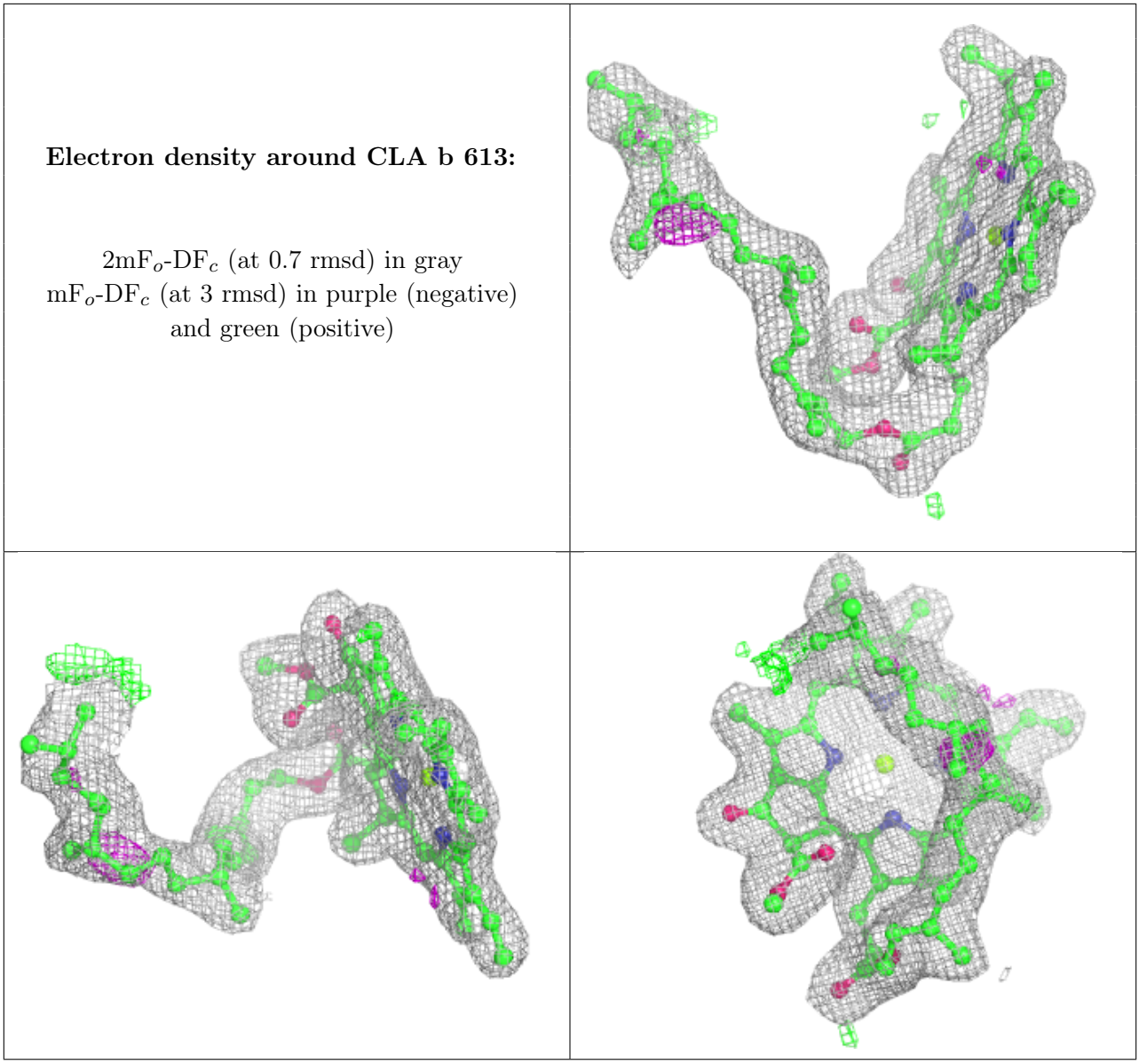
Electron density around CLA b 612:

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



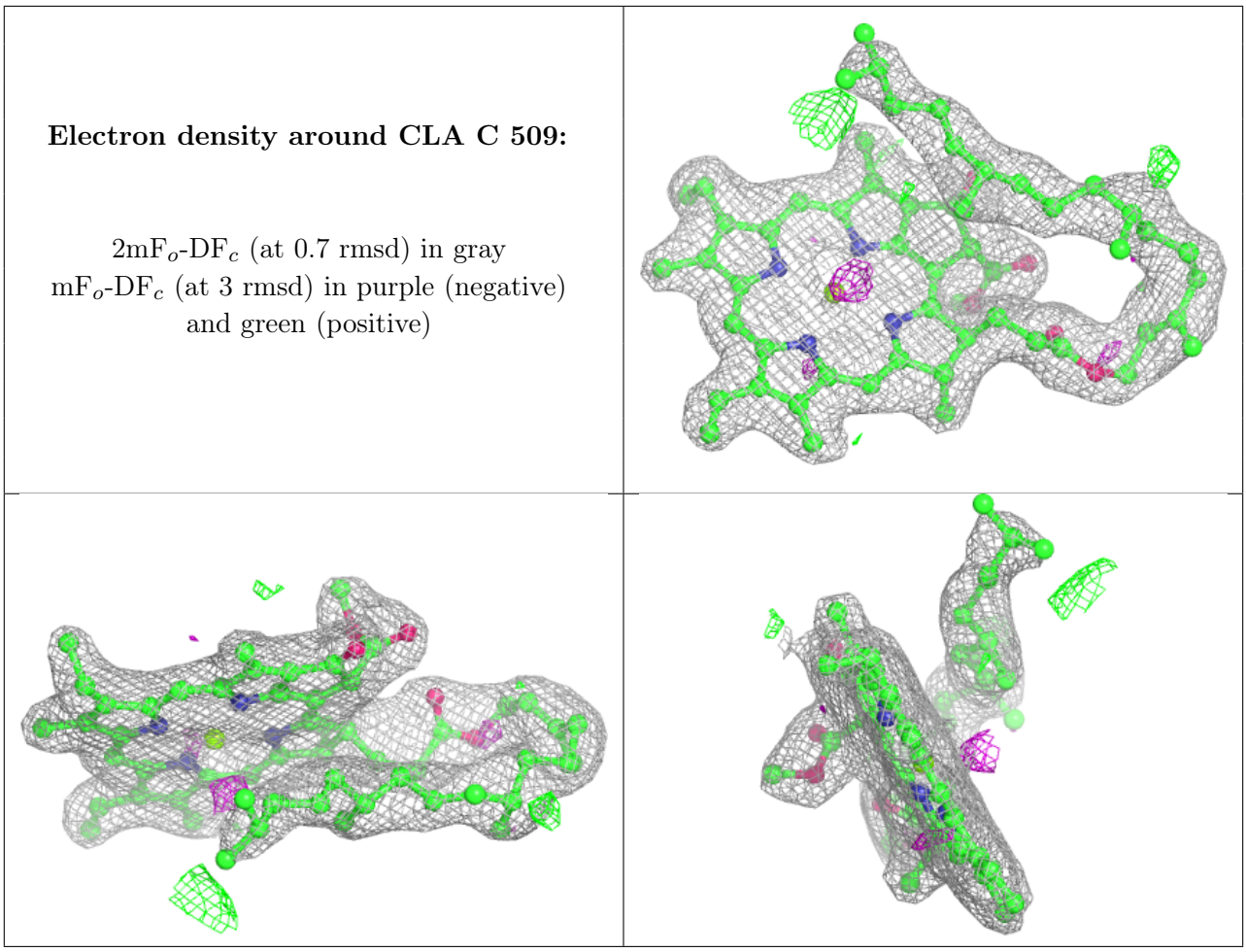
Electron density around CLA b 613:

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



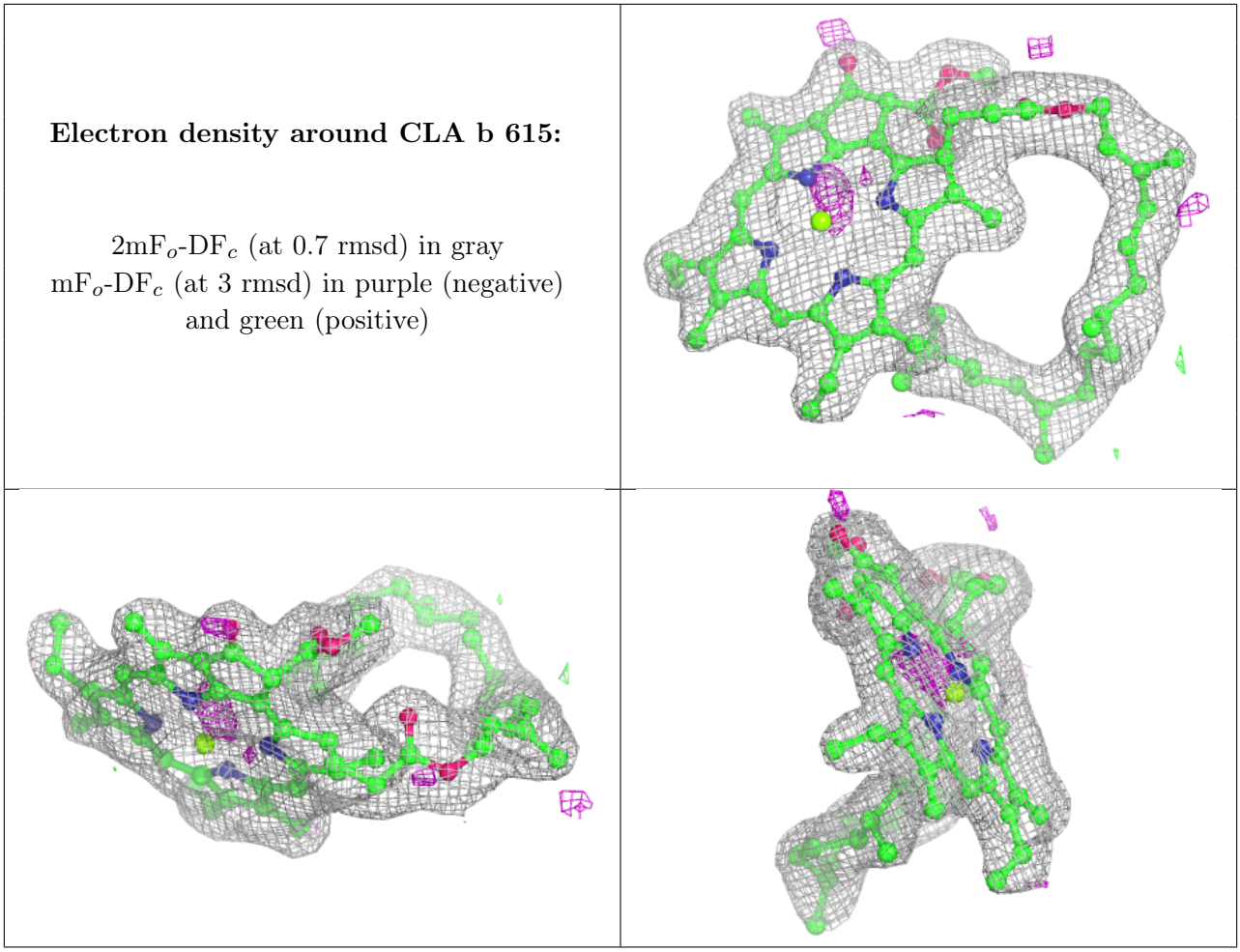
Electron density around CLA C 509:

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



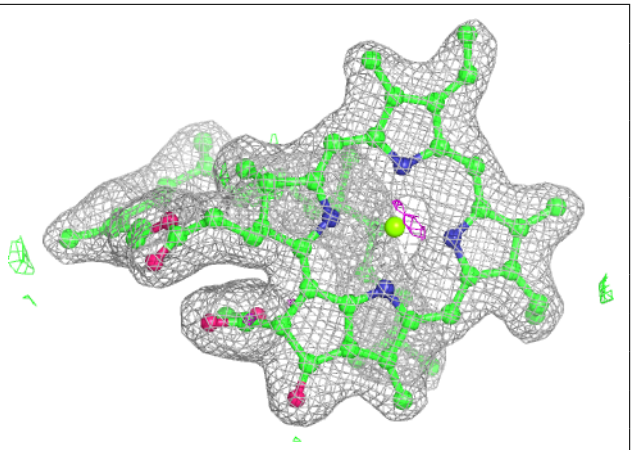
Electron density around CLA b 615:

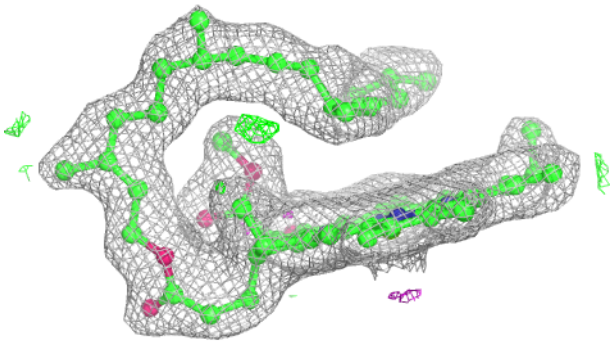
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

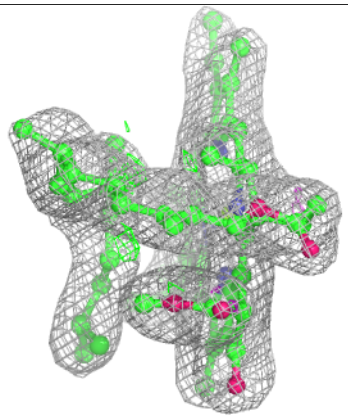


Electron density around CLA C 510:

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

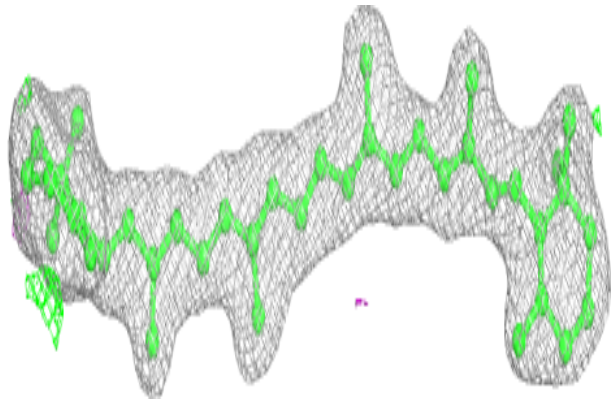


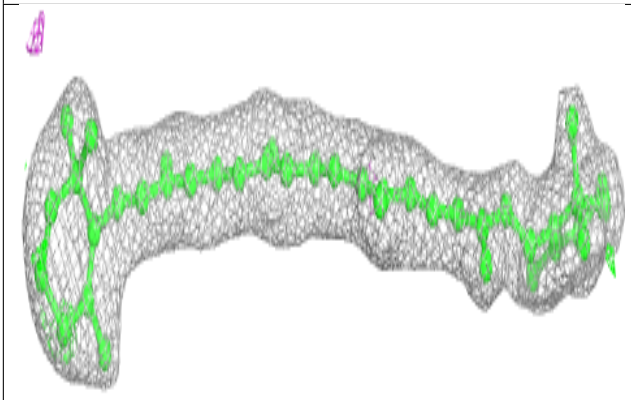


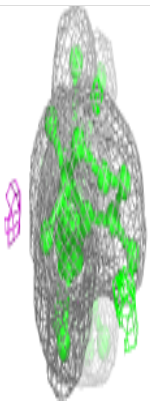


Electron density around BCR b 617:

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

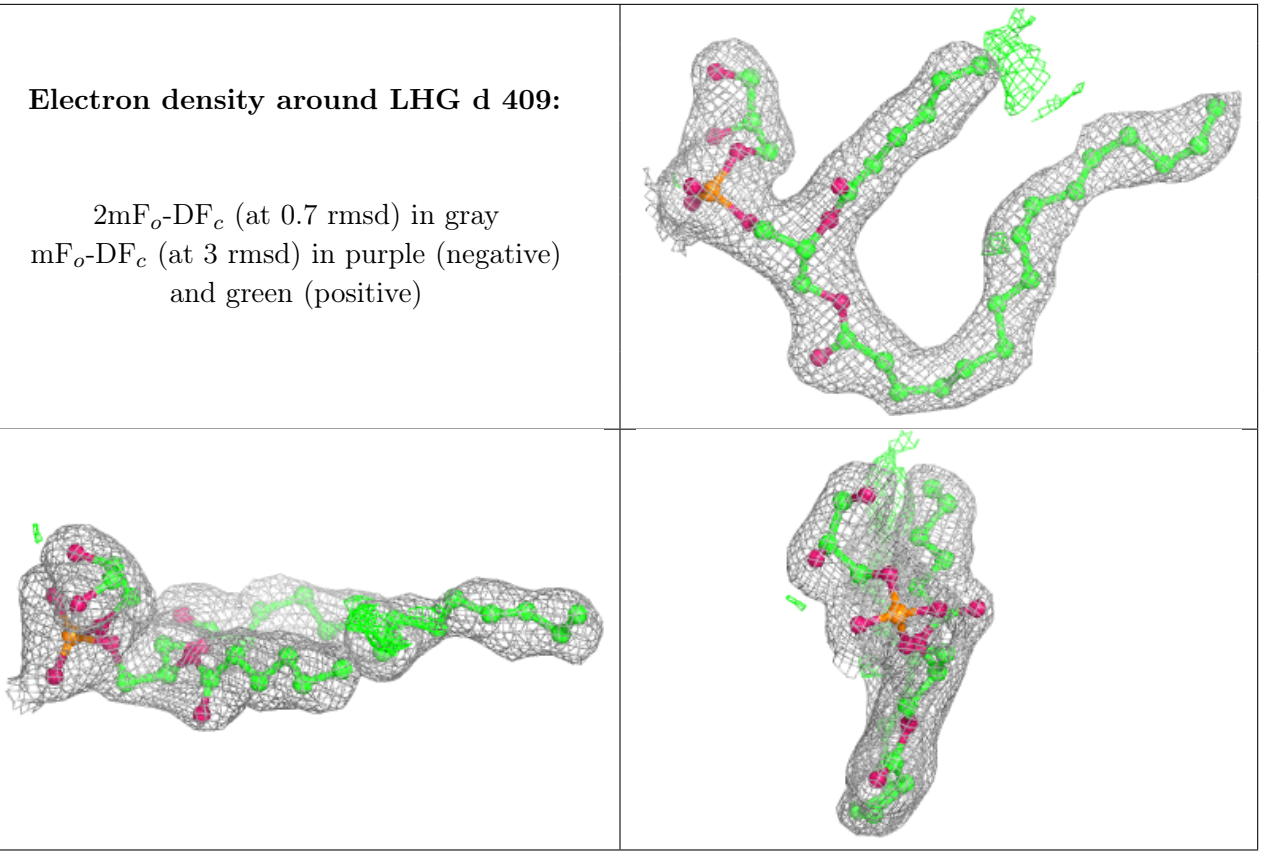






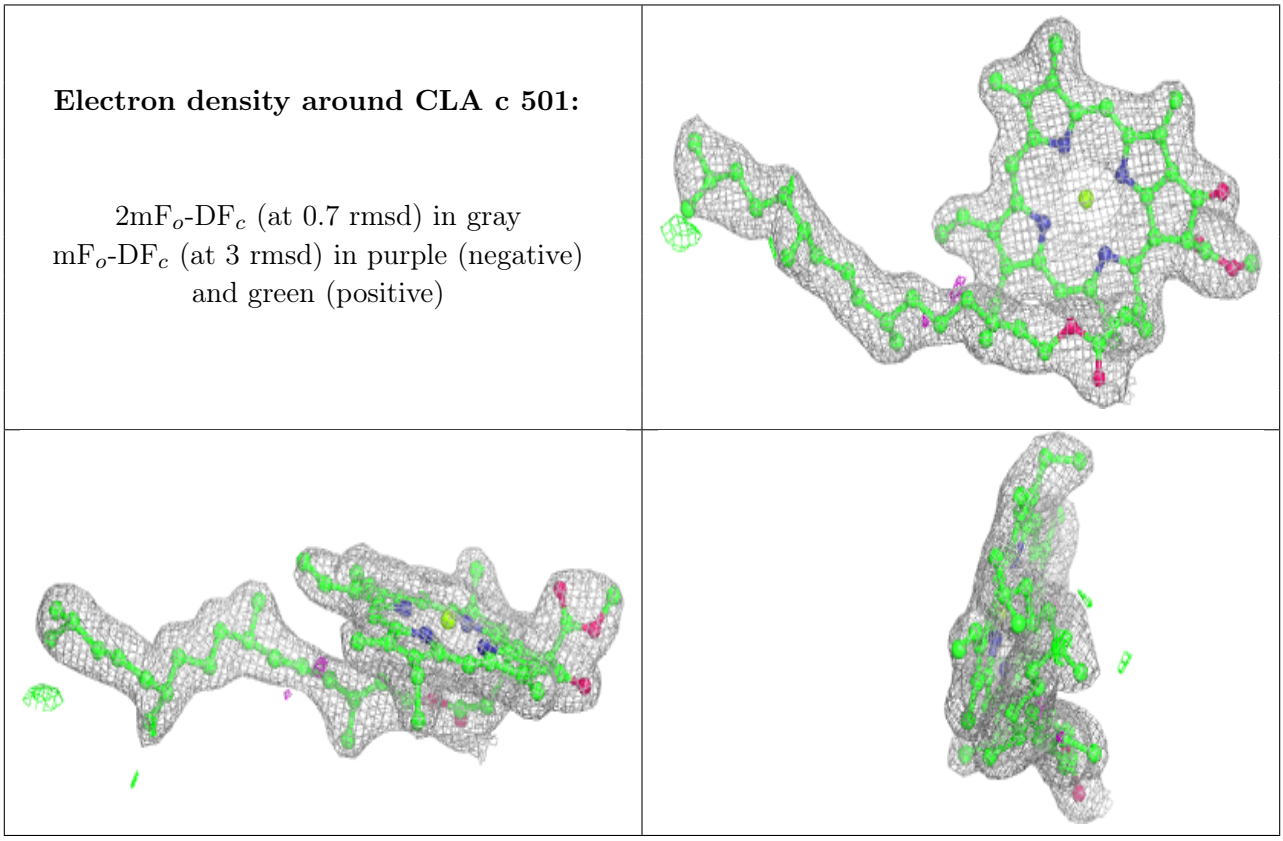
Electron density around LHG d 409:

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



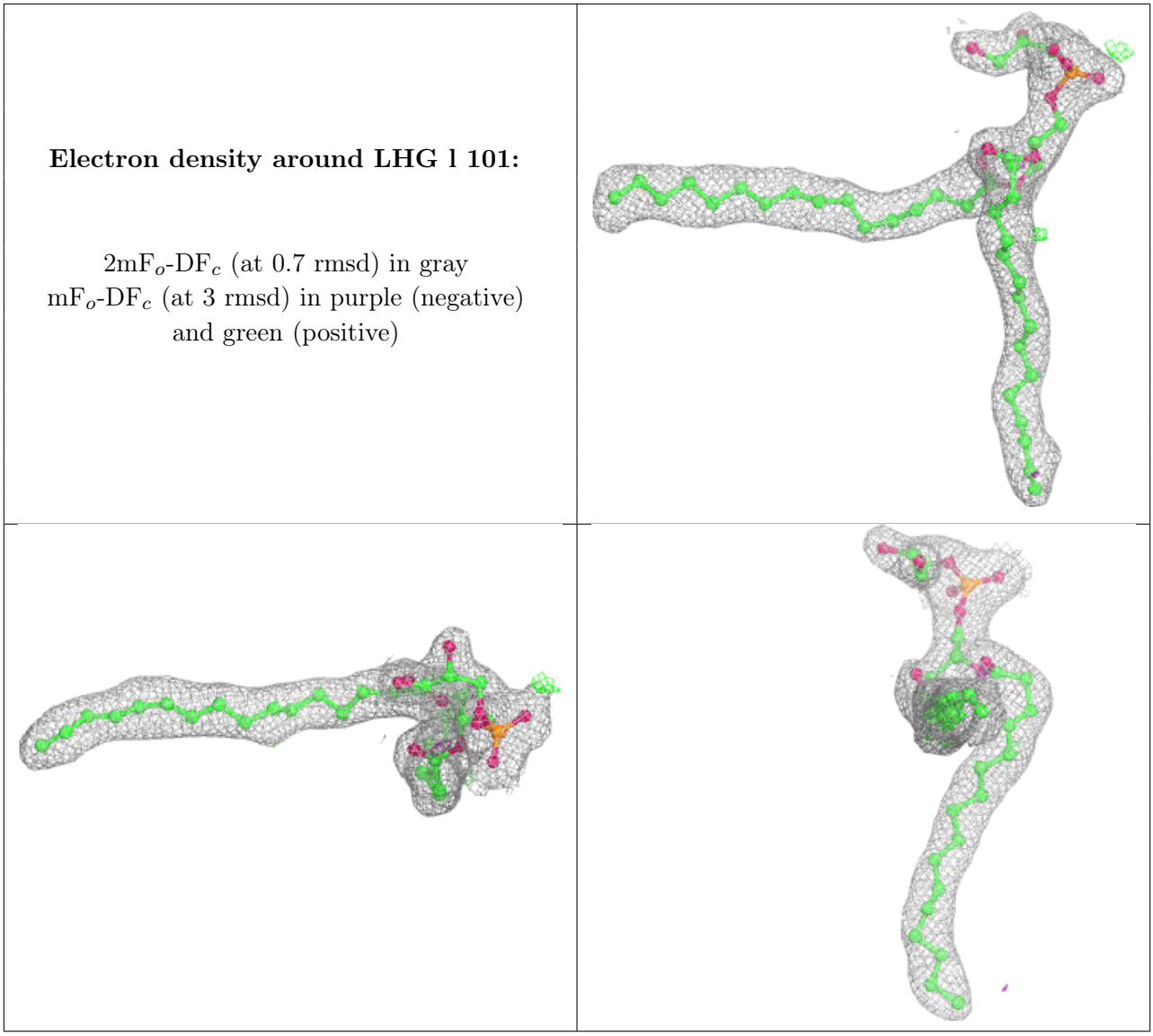
Electron density around CLA c 501:

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



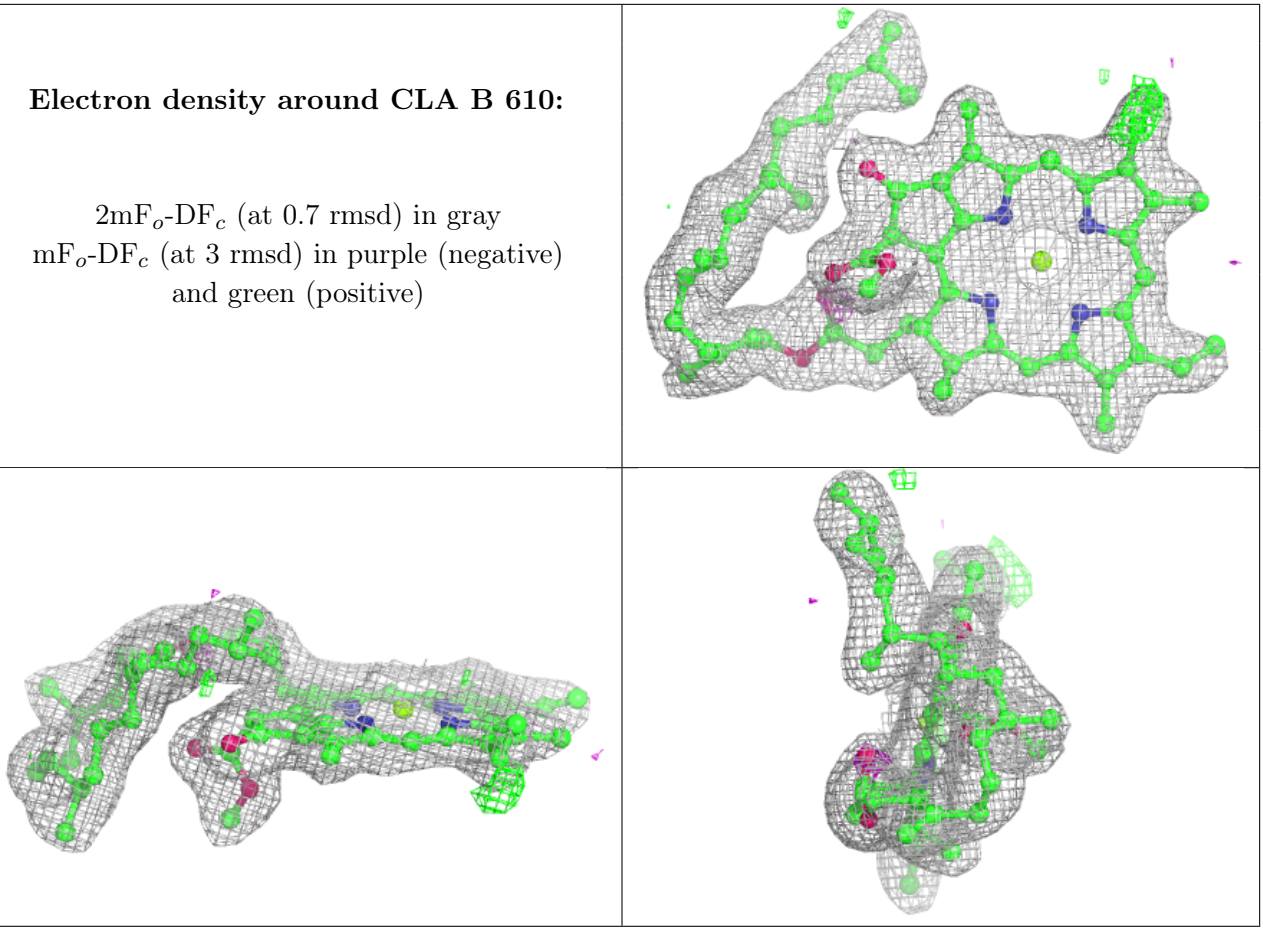
Electron density around LHG l 101:

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



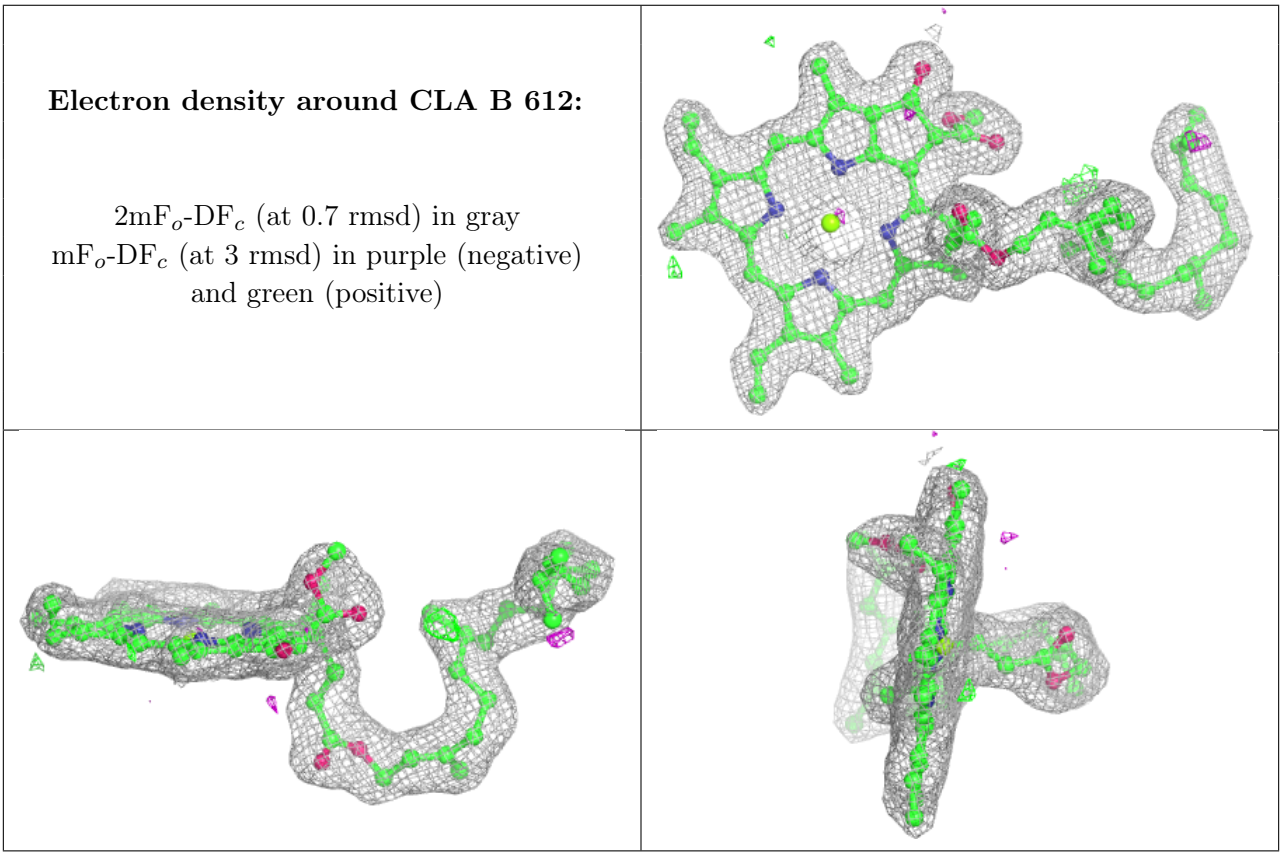
Electron density around CLA B 610:

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



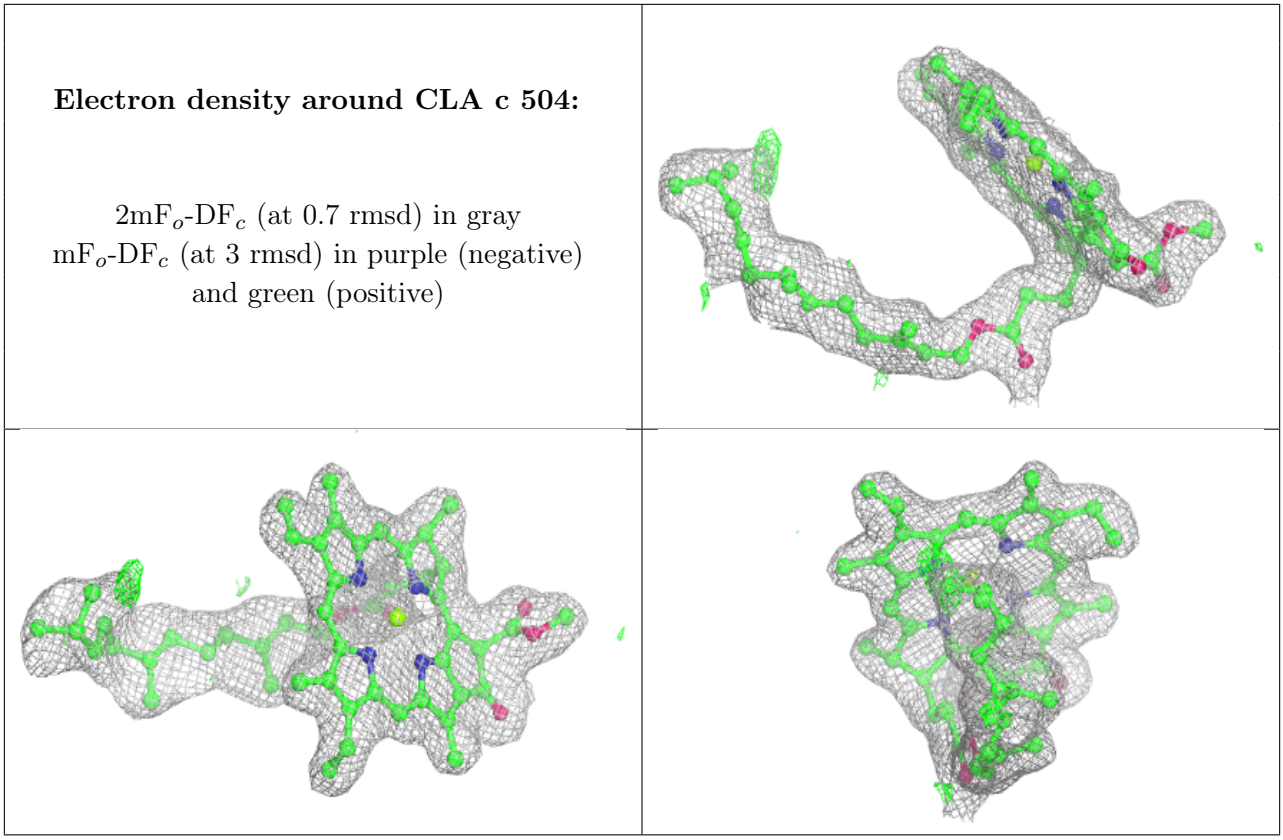
Electron density around CLA B 612:

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



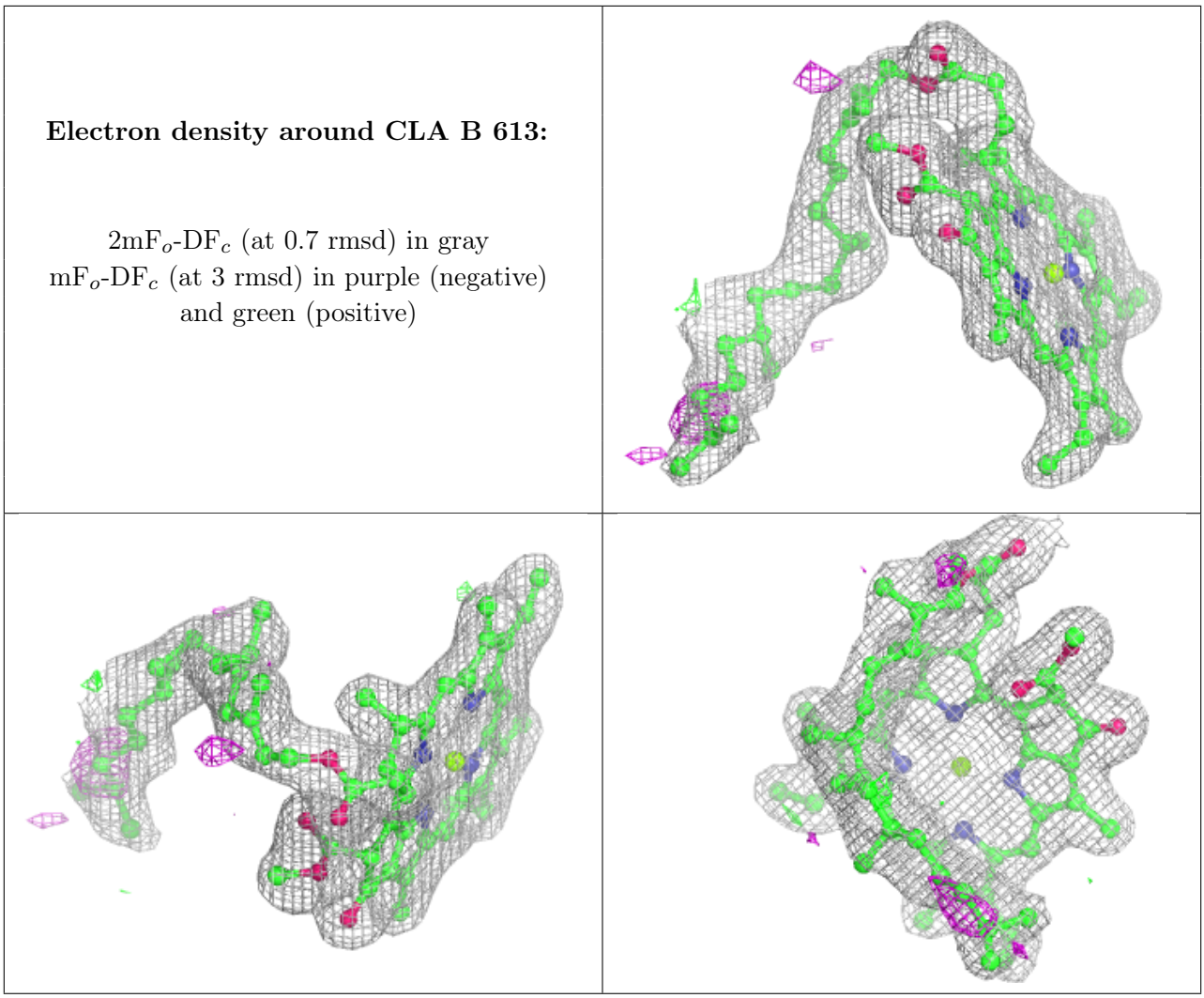
Electron density around CLA c 504:

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



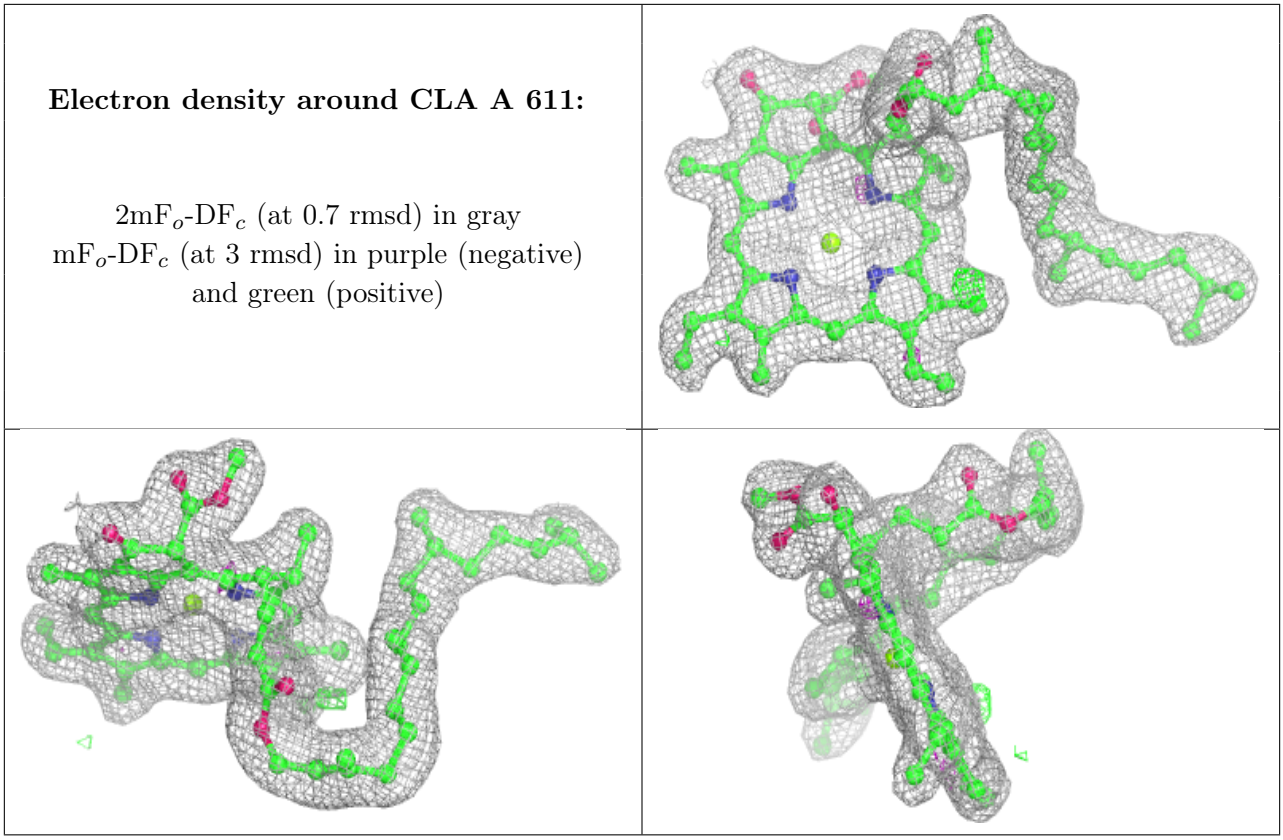
Electron density around CLA B 613:

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



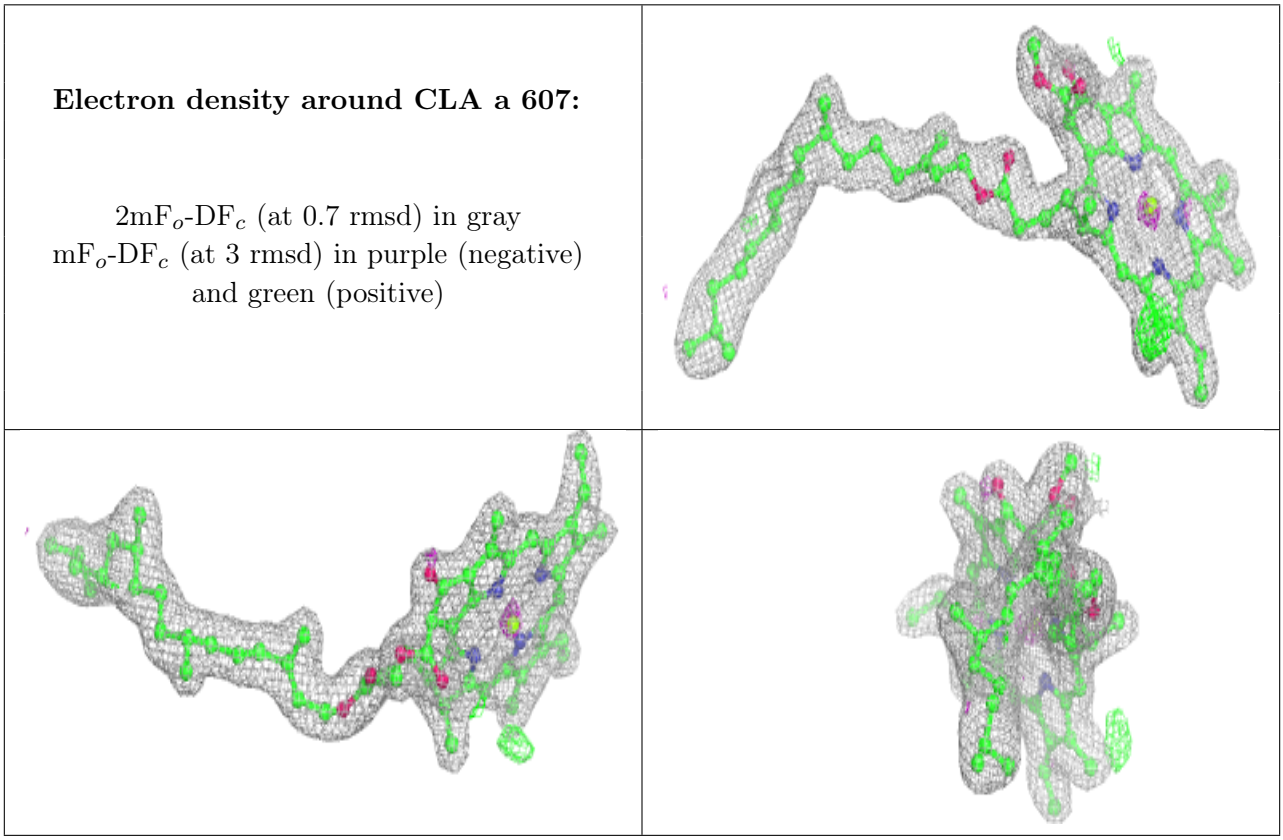
Electron density around CLA A 611:

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



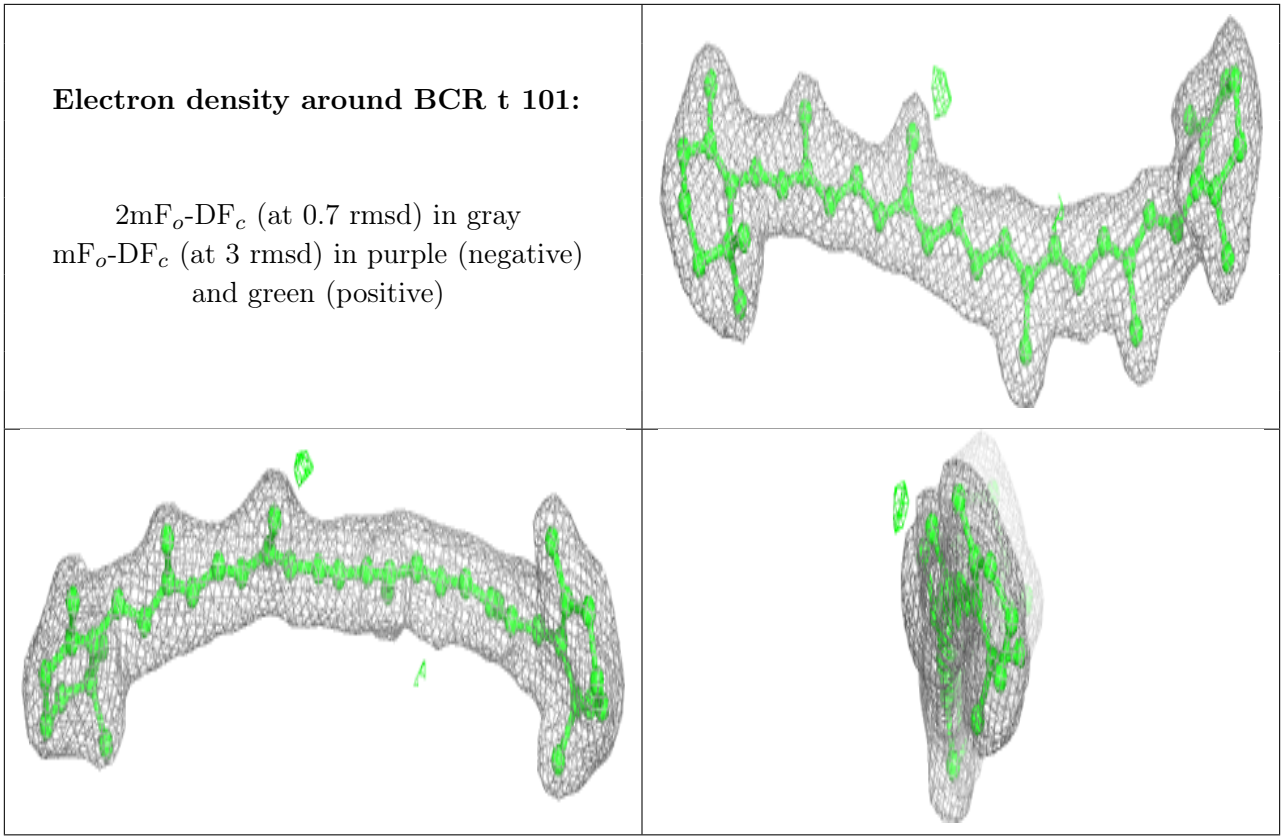
Electron density around CLA a 607:

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



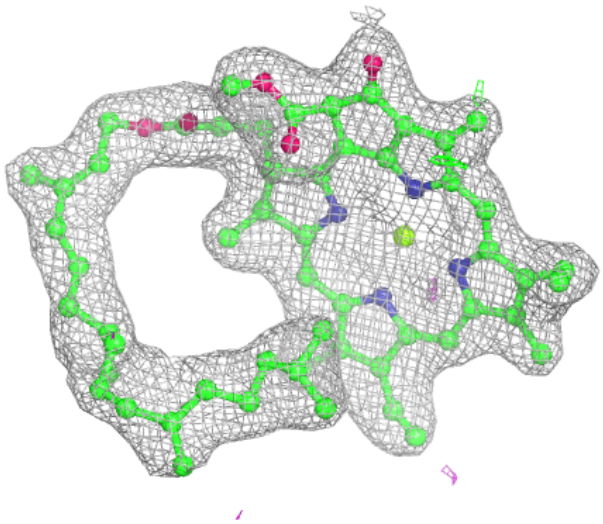
Electron density around BCR t 101:

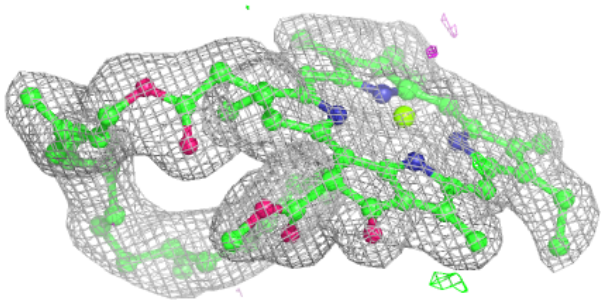
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

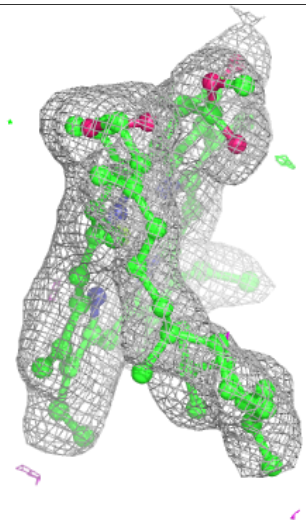


Electron density around CLA B 615:

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

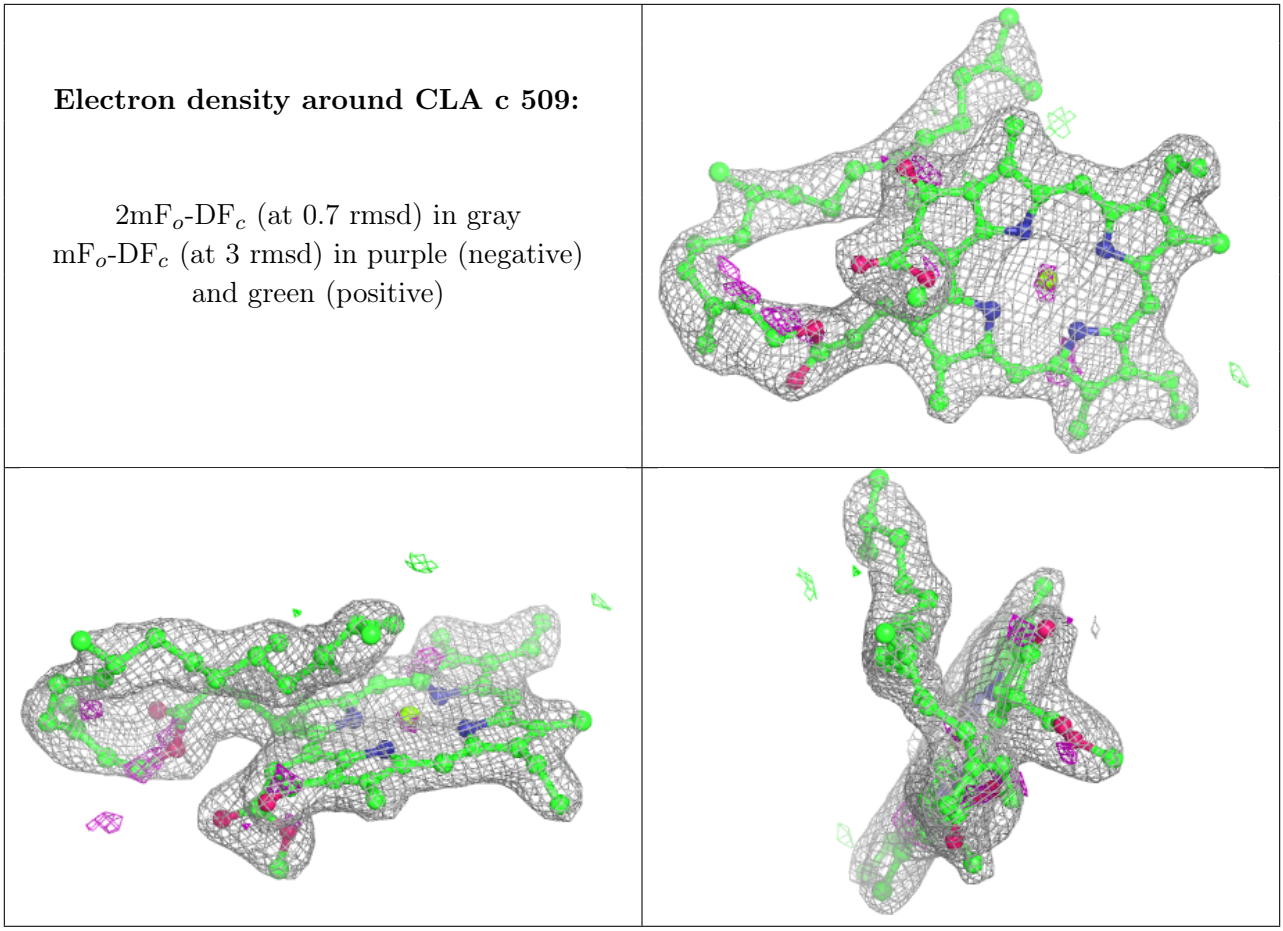






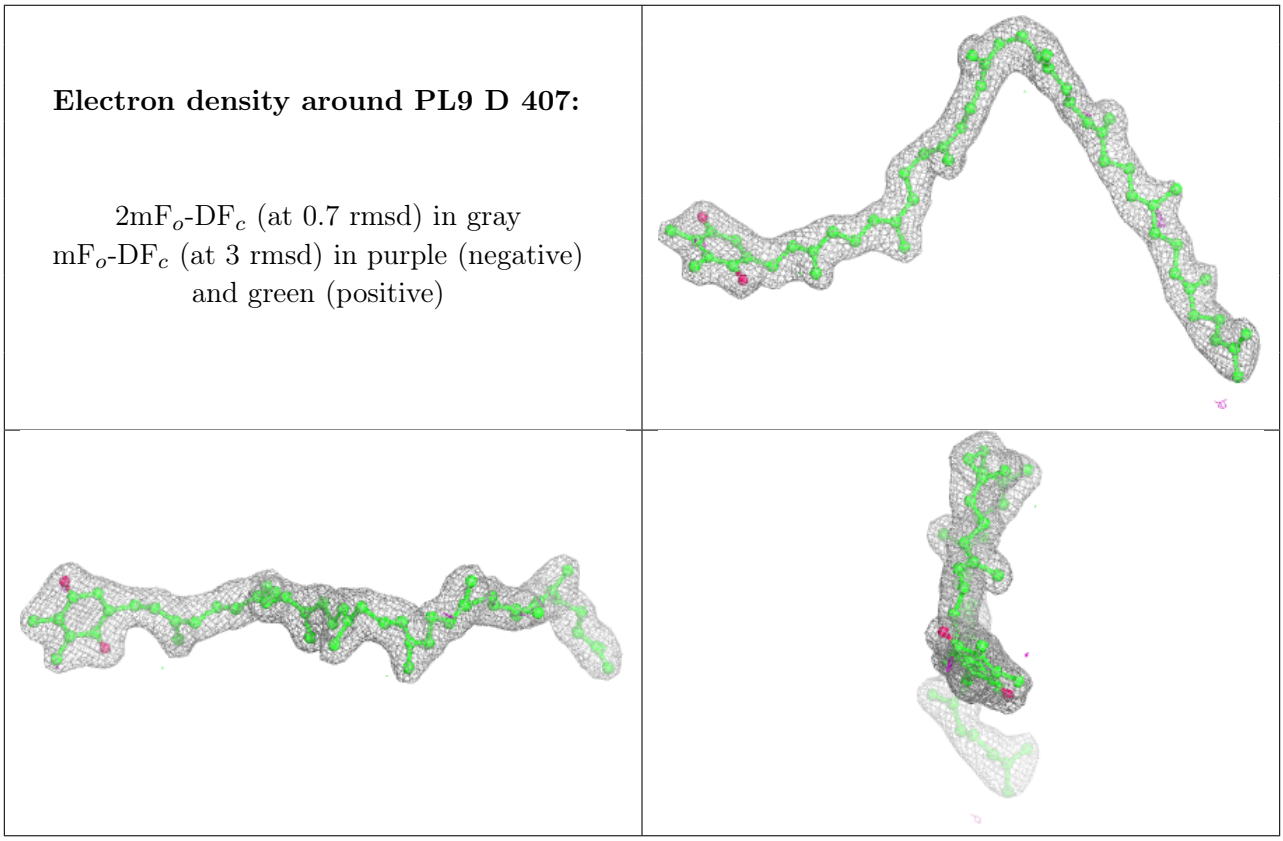
Electron density around CLA c 509:

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



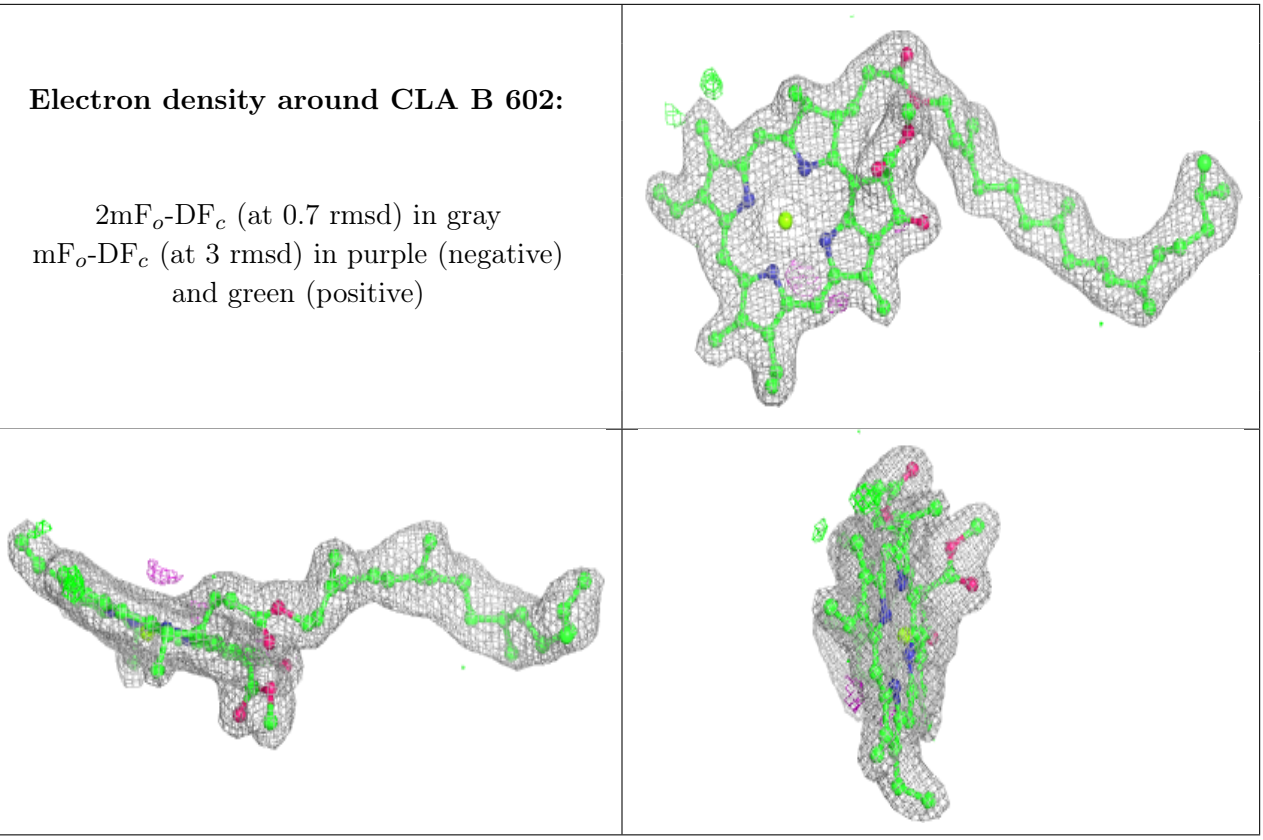
Electron density around PL9 D 407:

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



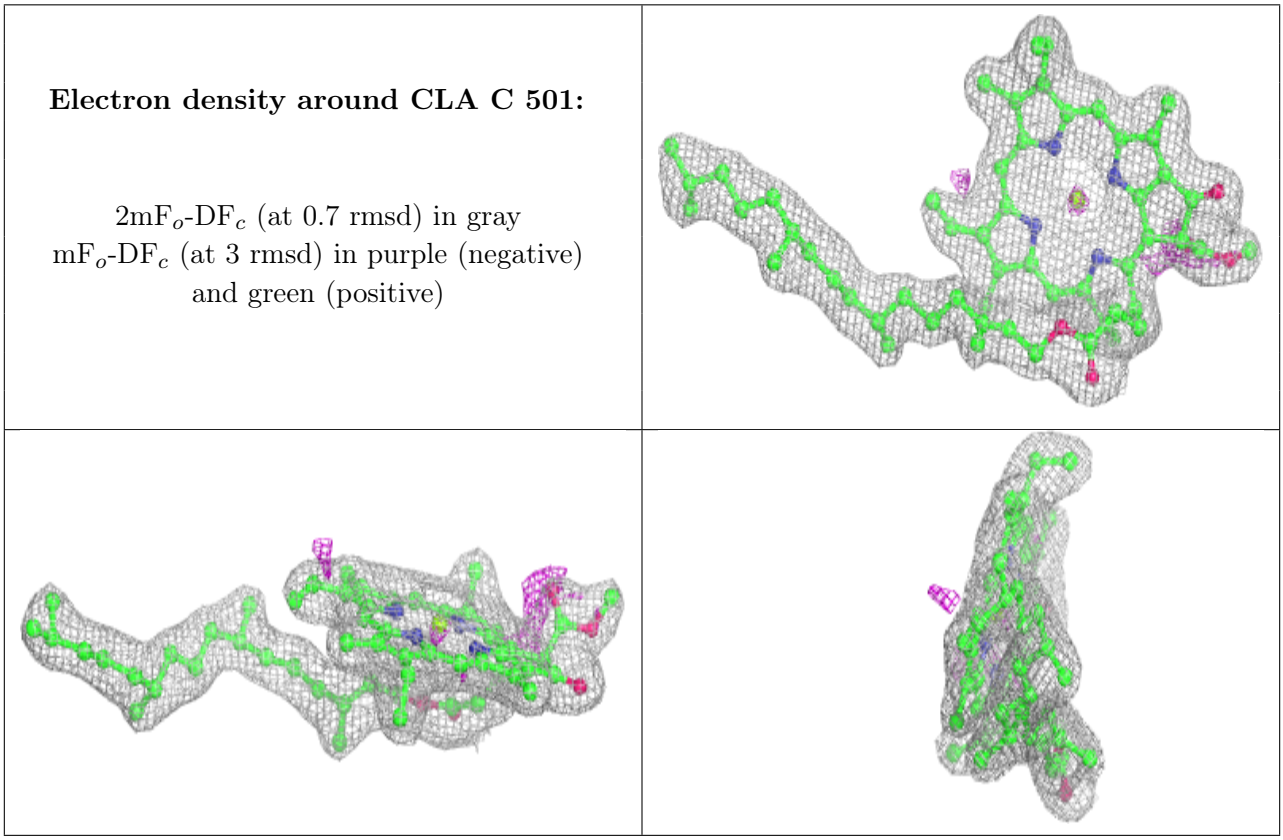
Electron density around CLA B 602:

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



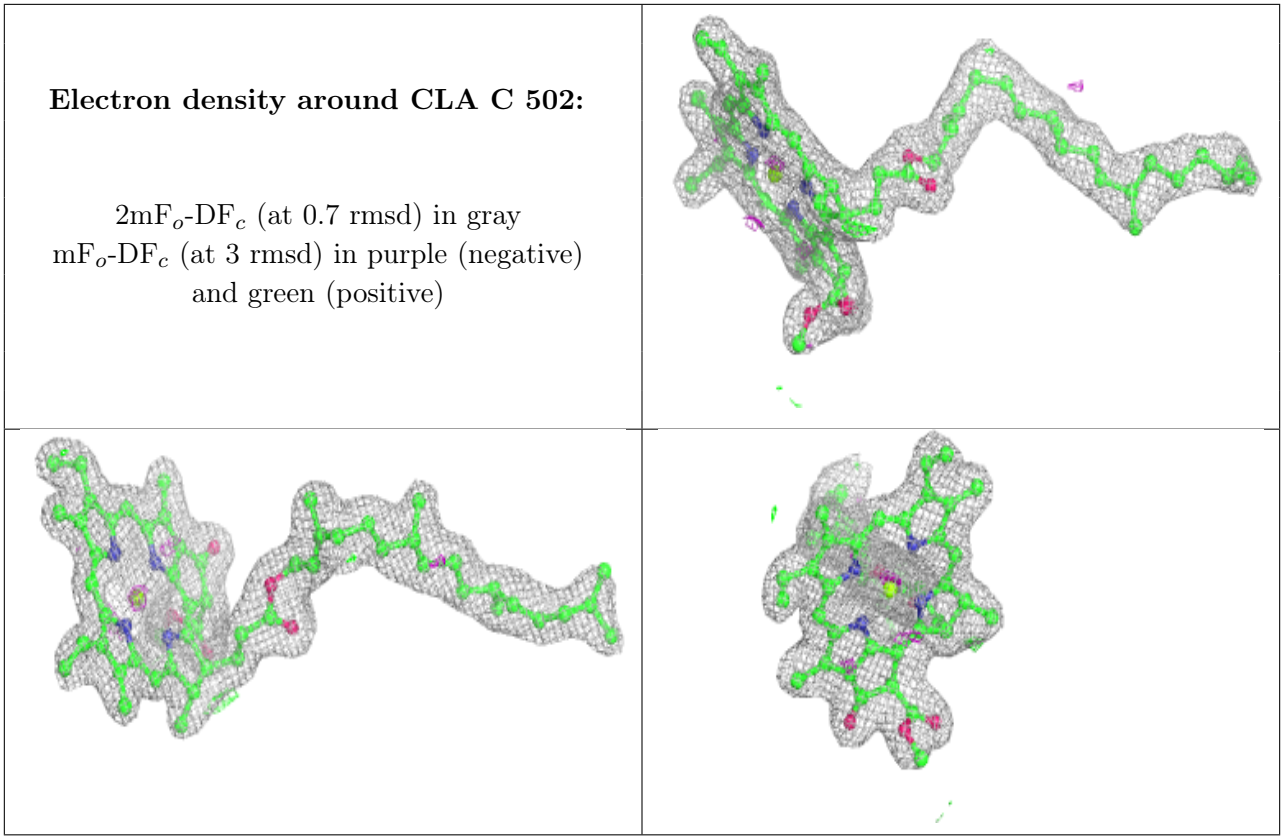
Electron density around CLA C 501:

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



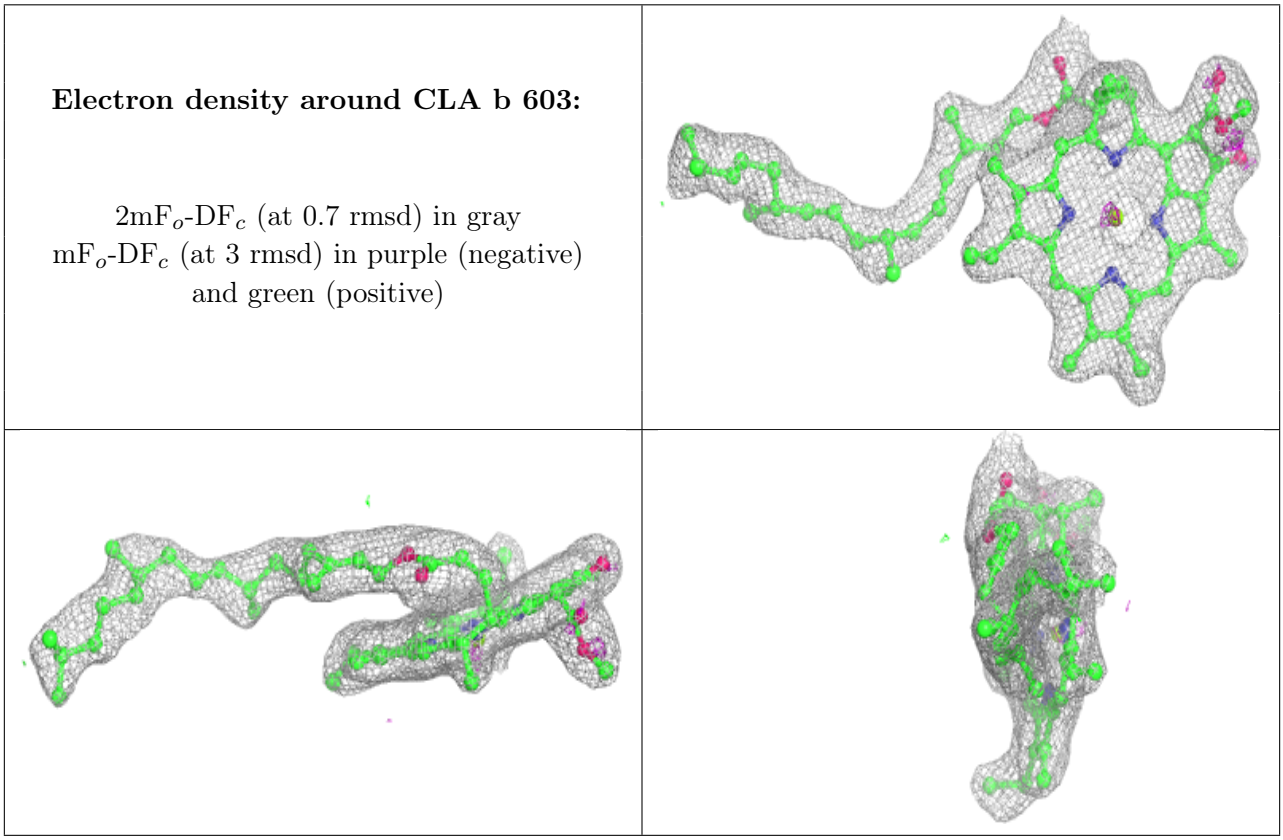
Electron density around CLA C 502:

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



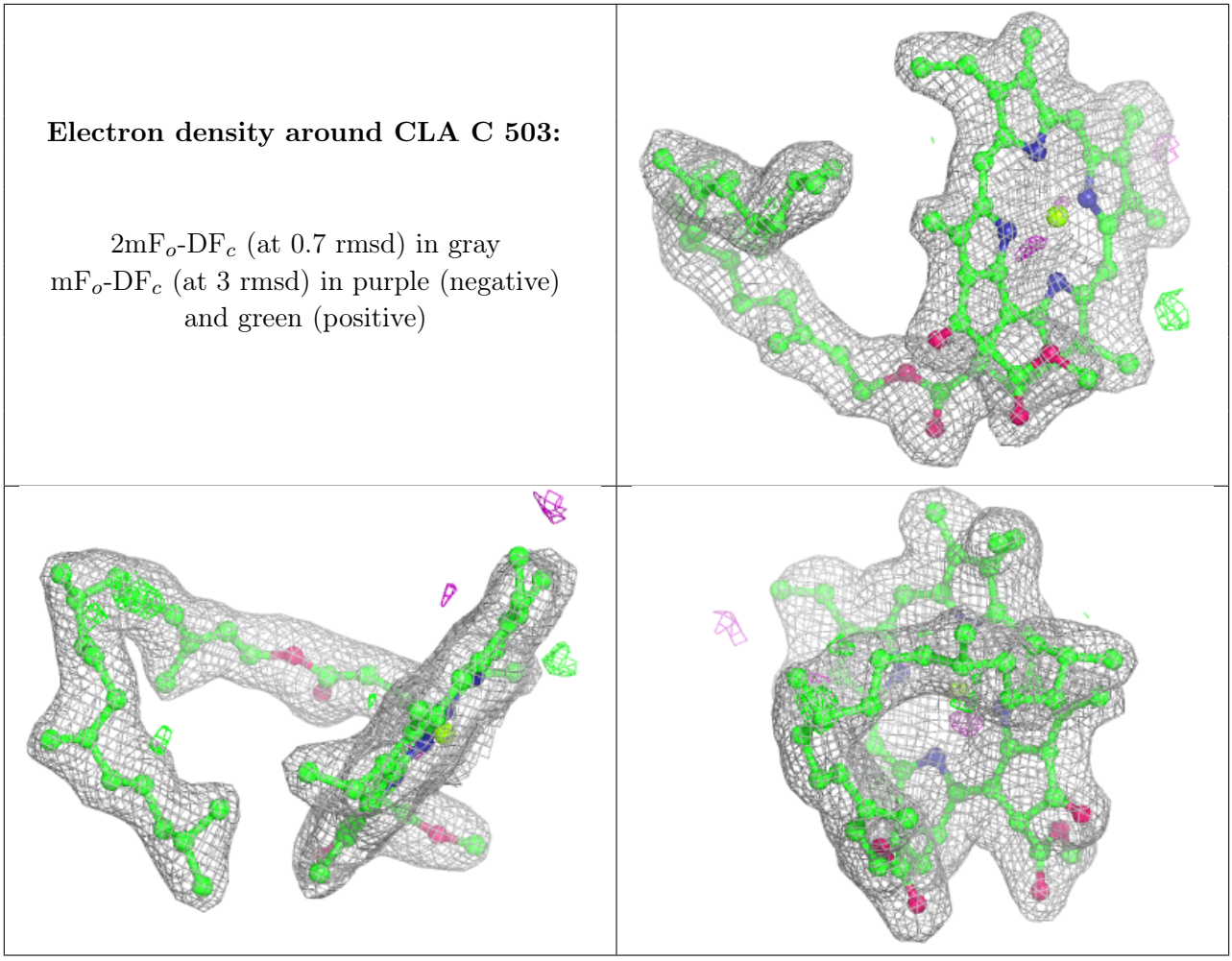
Electron density around CLA b 603:

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



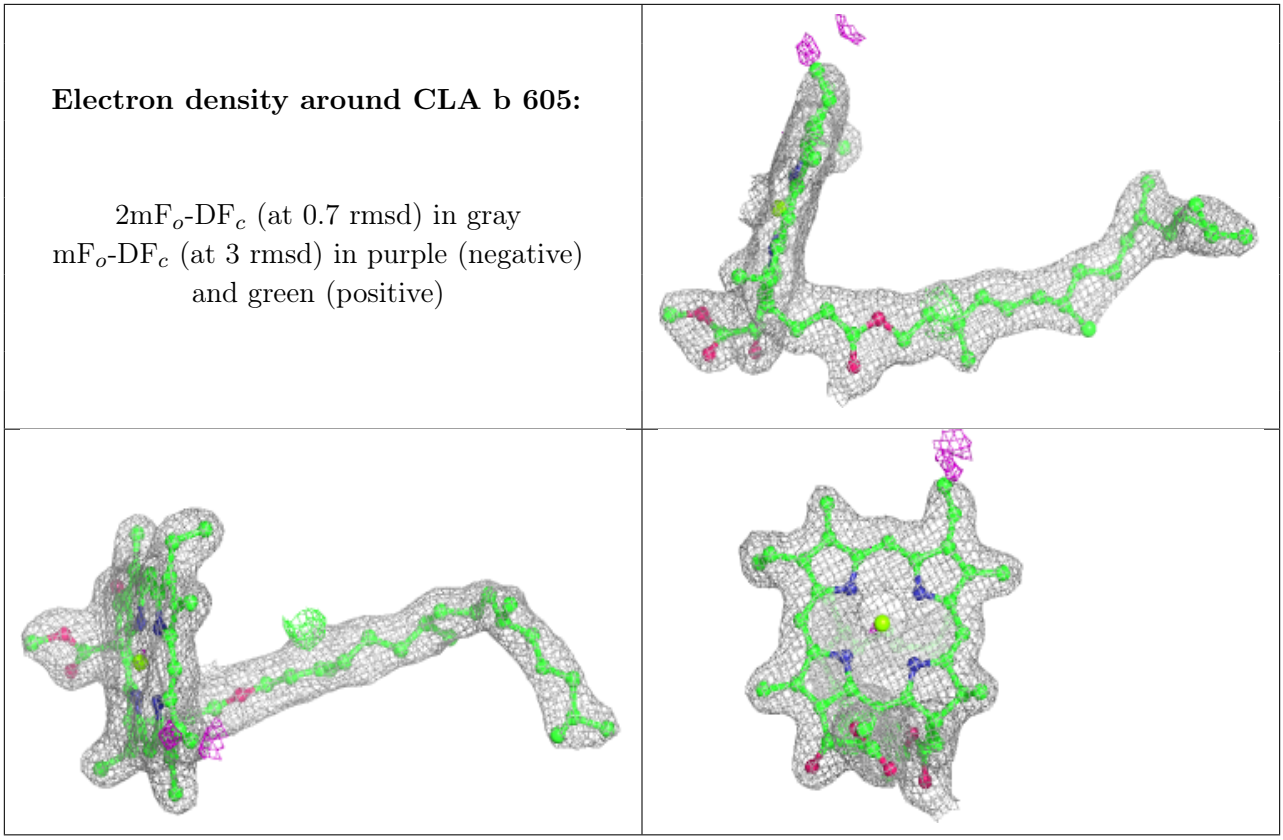
Electron density around CLA C 503:

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



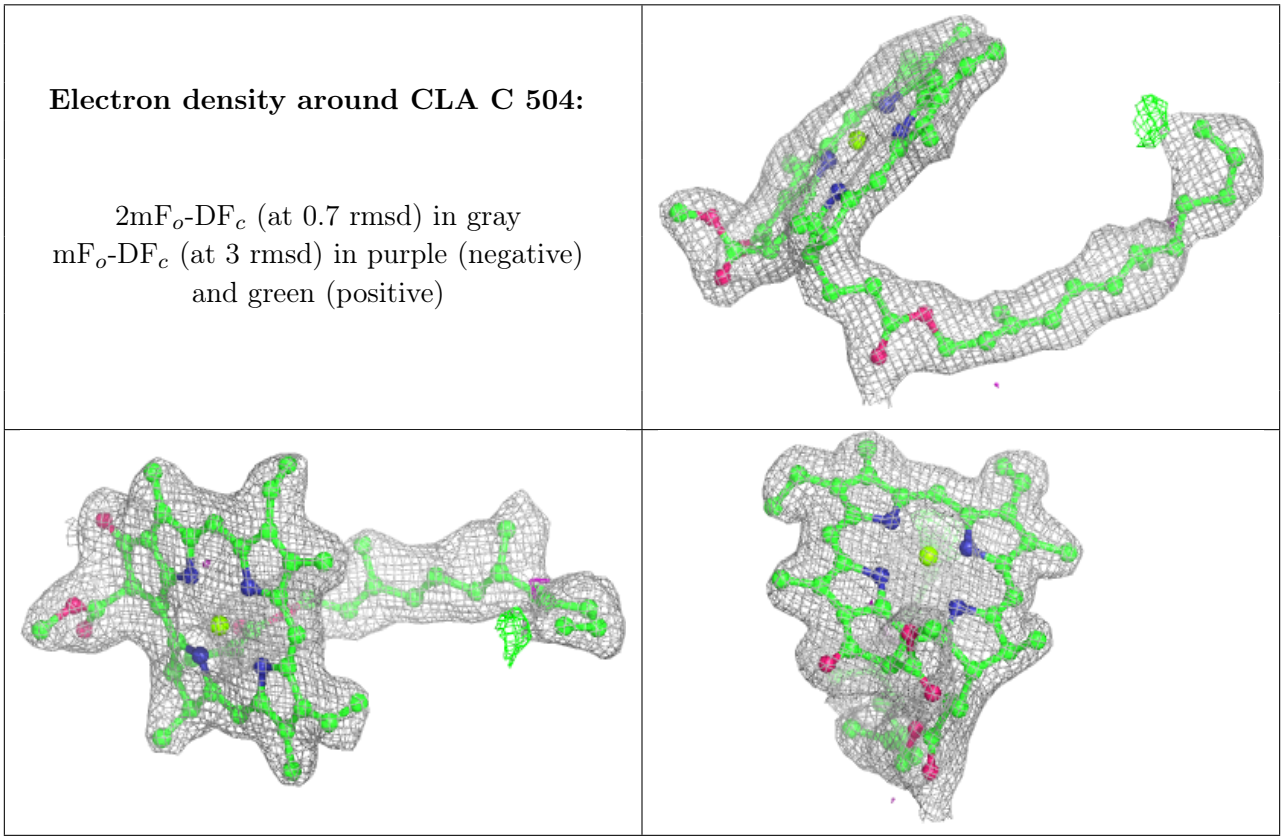
Electron density around CLA b 605:

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



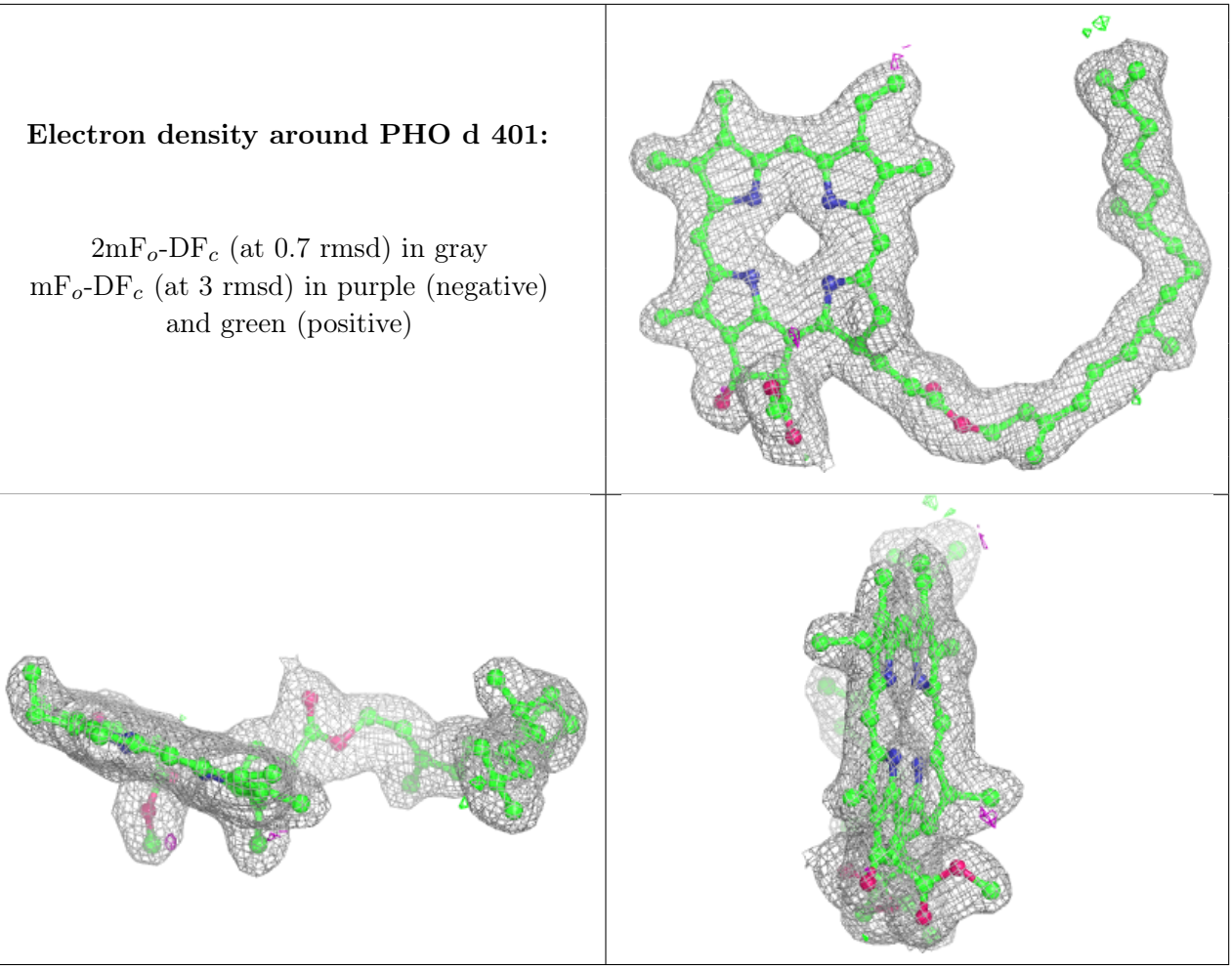
Electron density around CLA C 504:

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



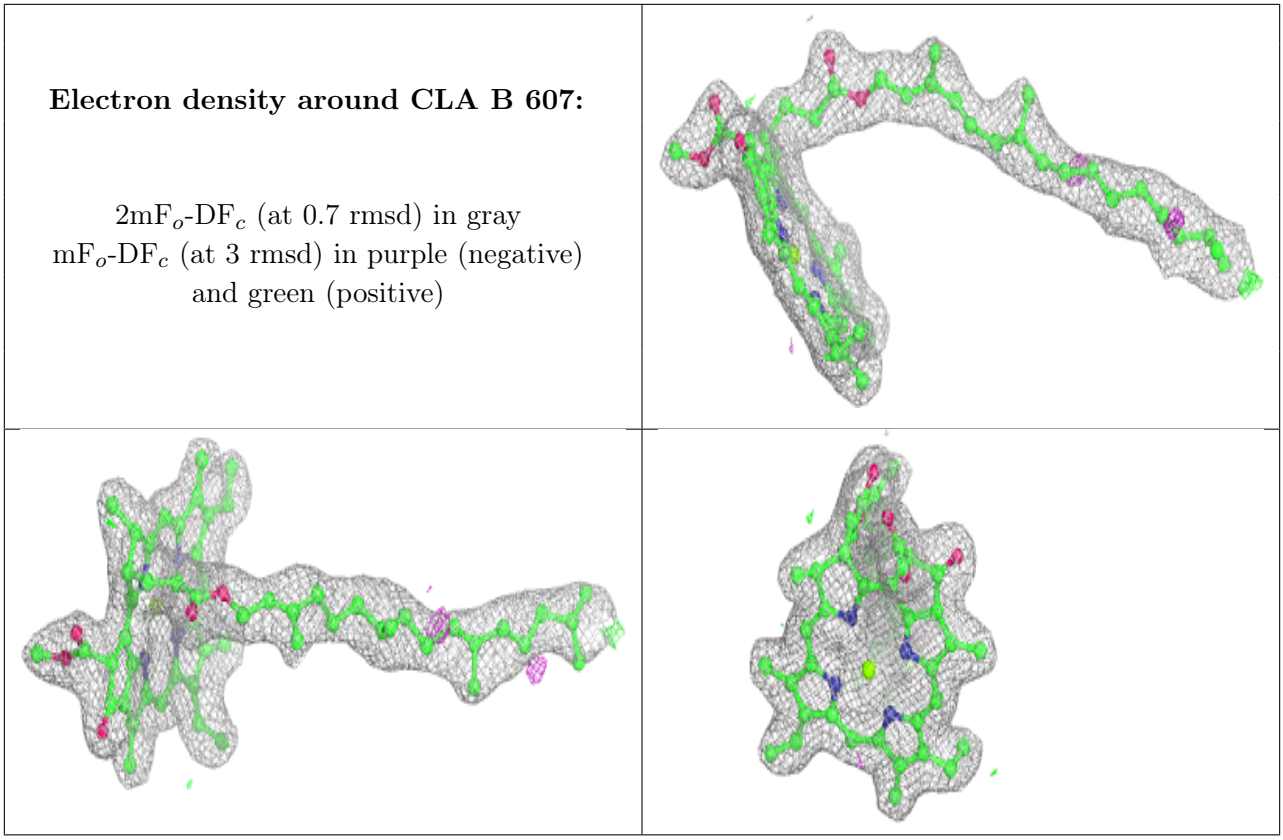
Electron density around PHO d 401:

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



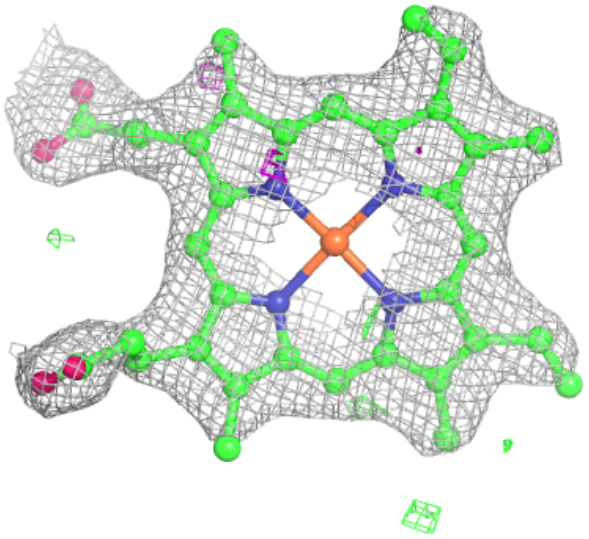
Electron density around CLA B 607:

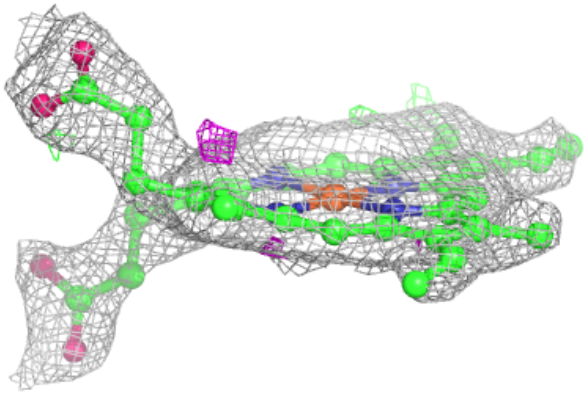
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

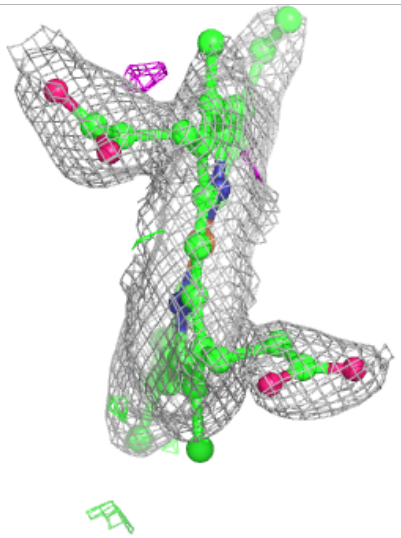


Electron density around HEM F 101:

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

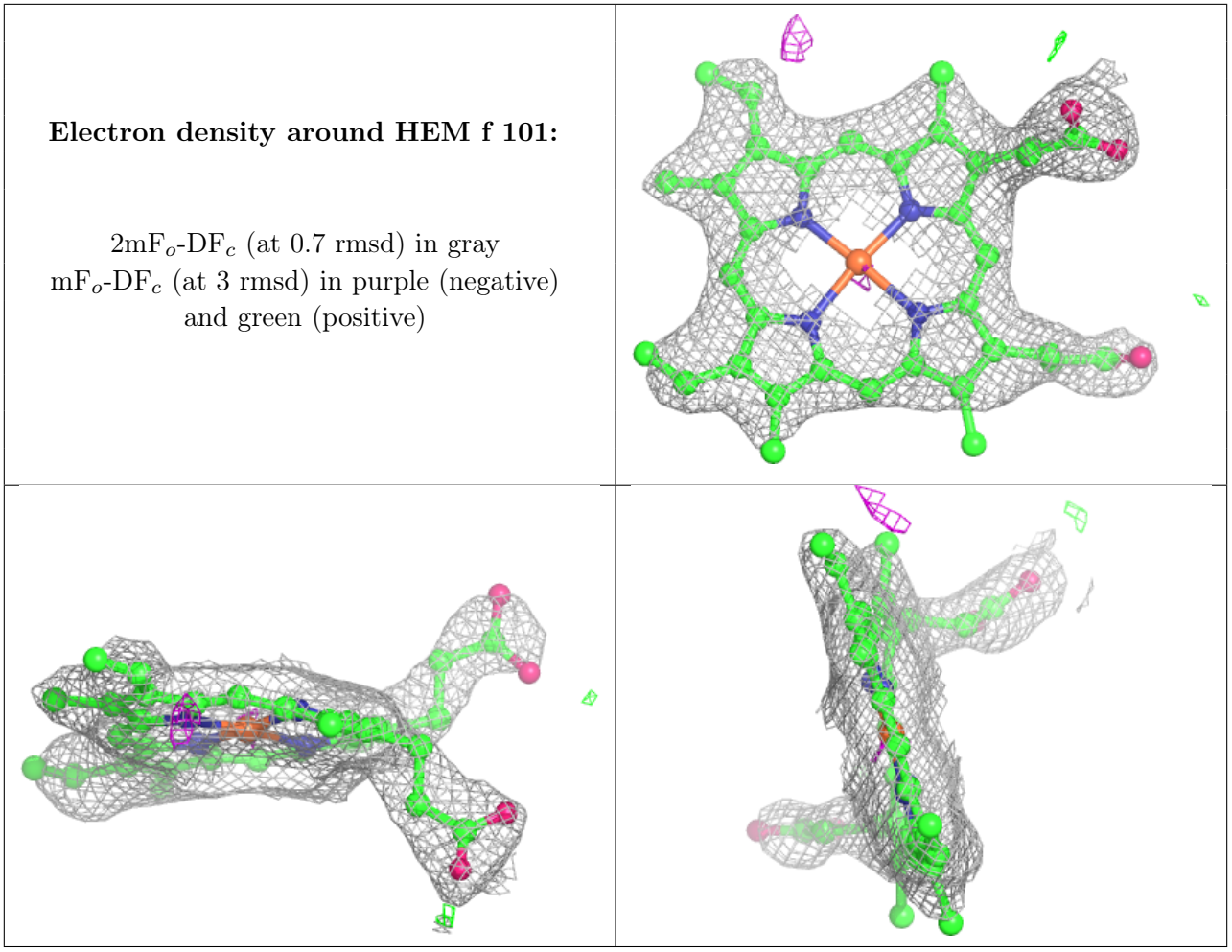






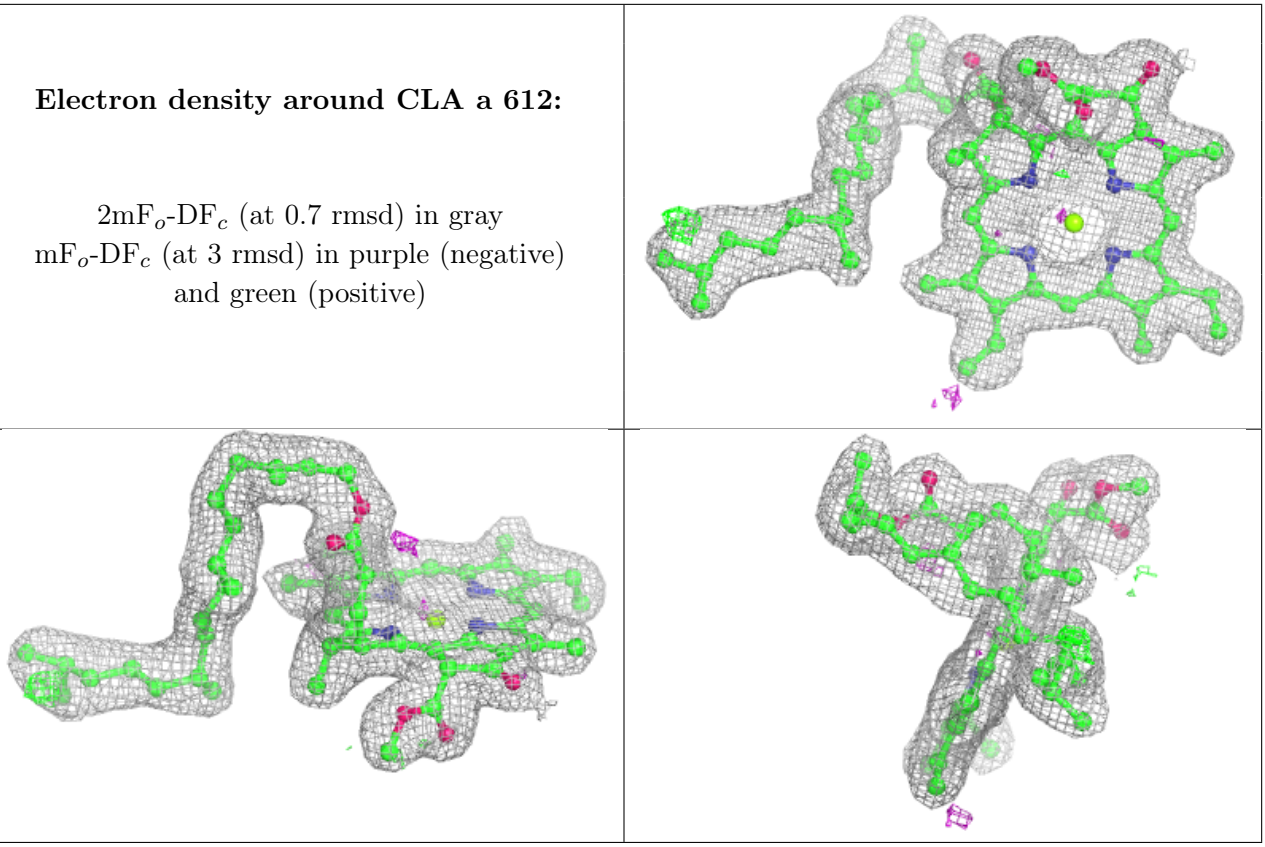
Electron density around HEM f 101:

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



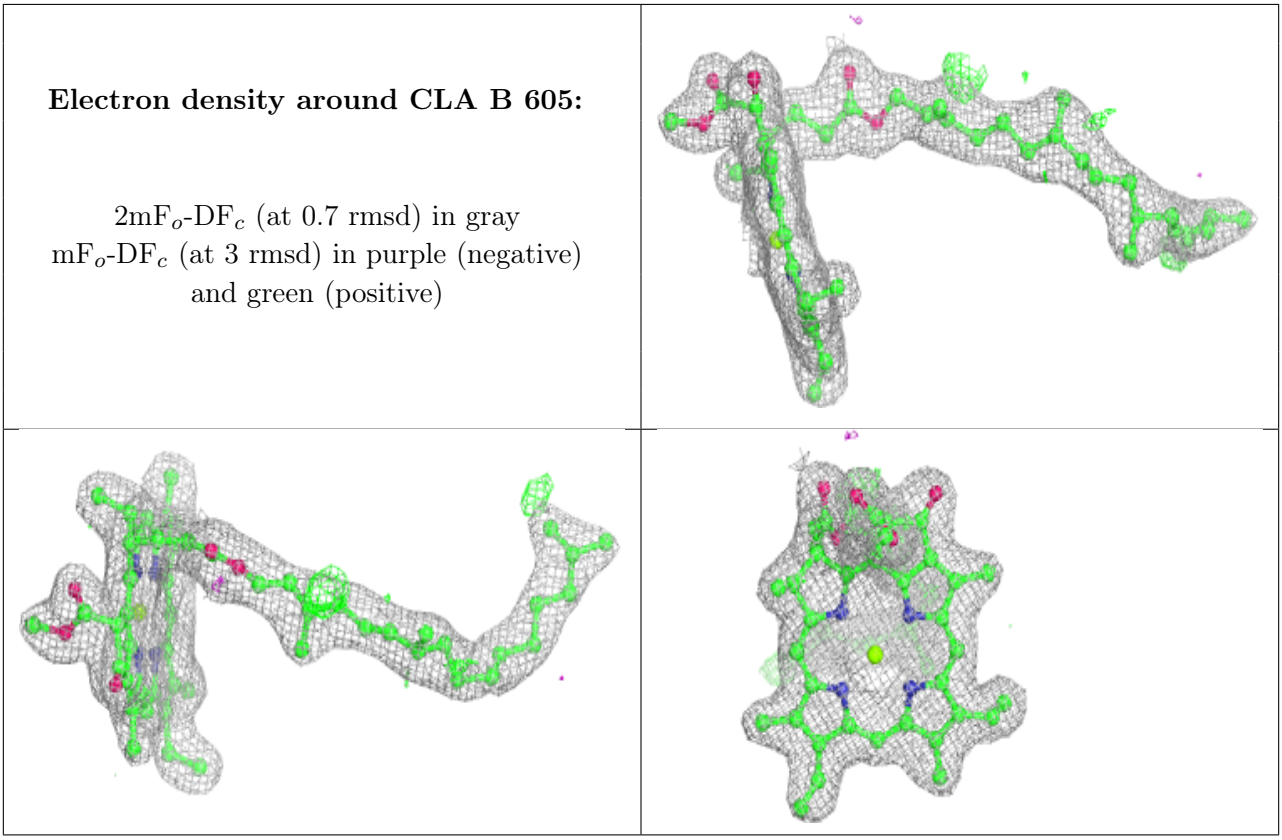
Electron density around CLA a 612:

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



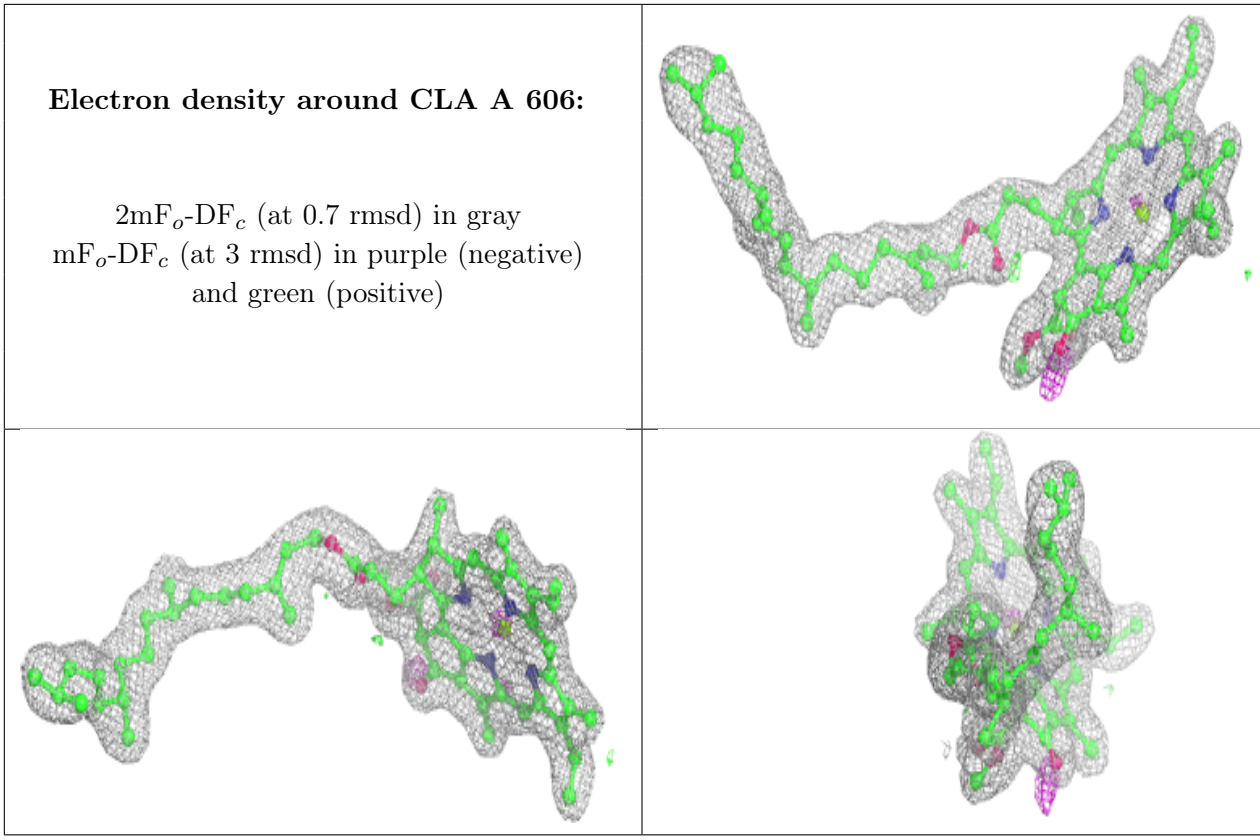
Electron density around CLA B 605:

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



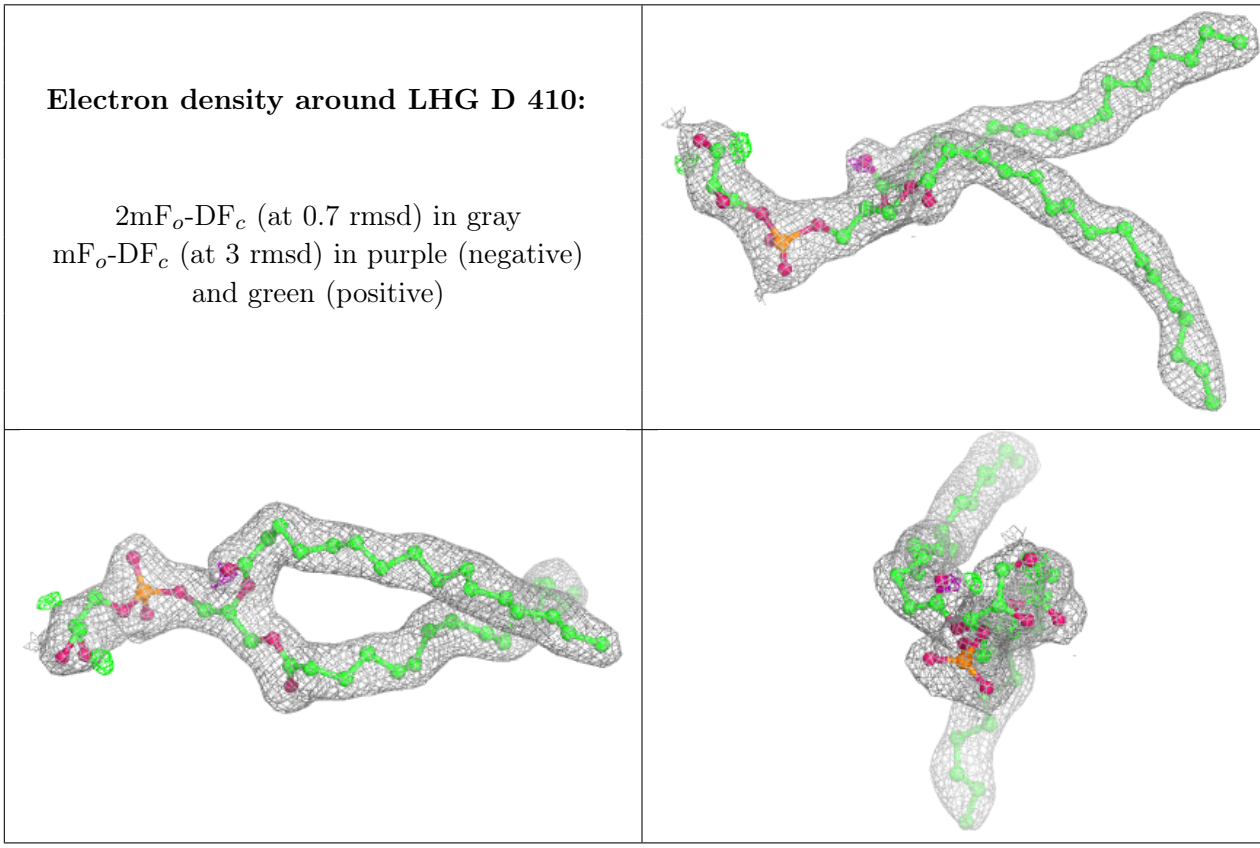
Electron density around CLA A 606:

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



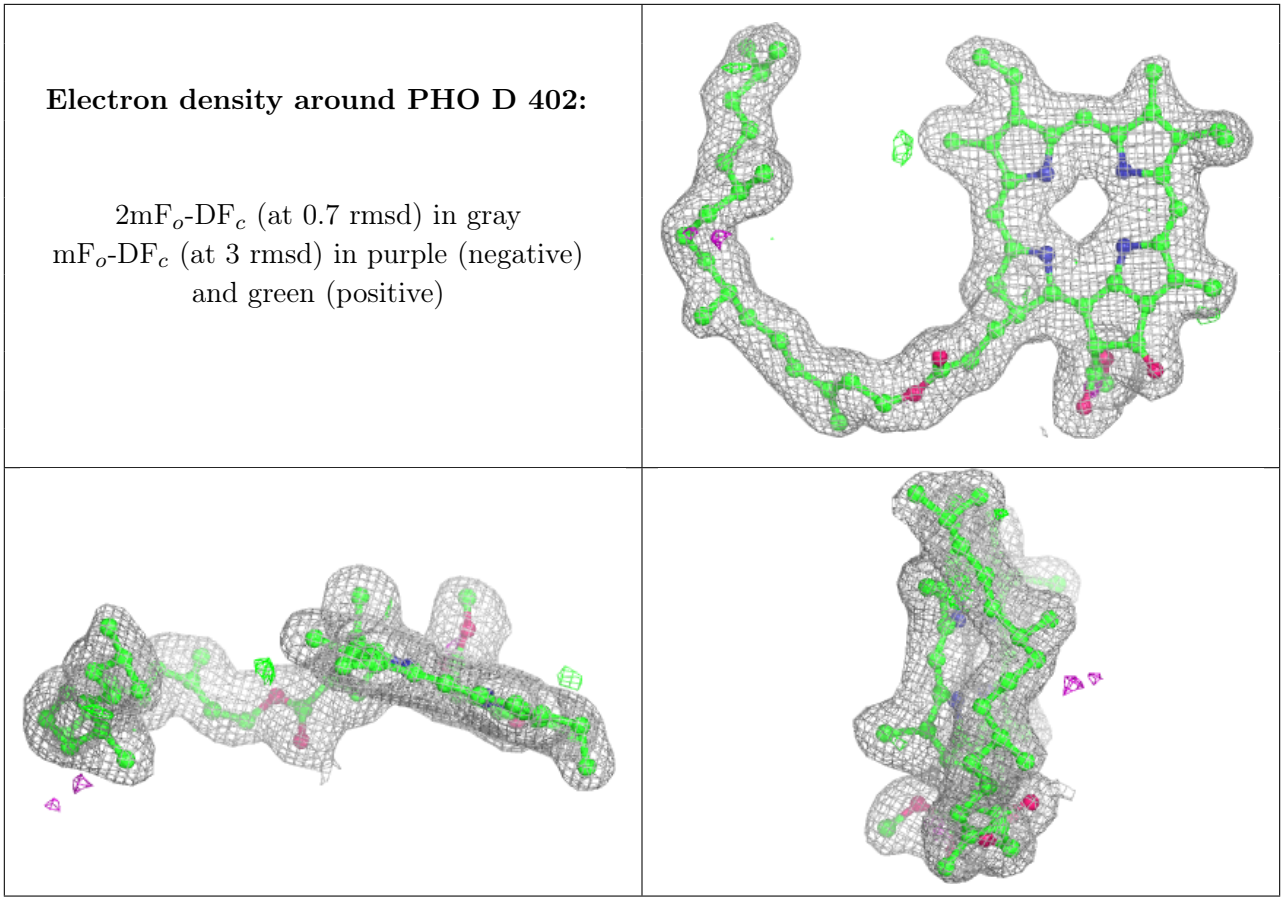
Electron density around LHG D 410:

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



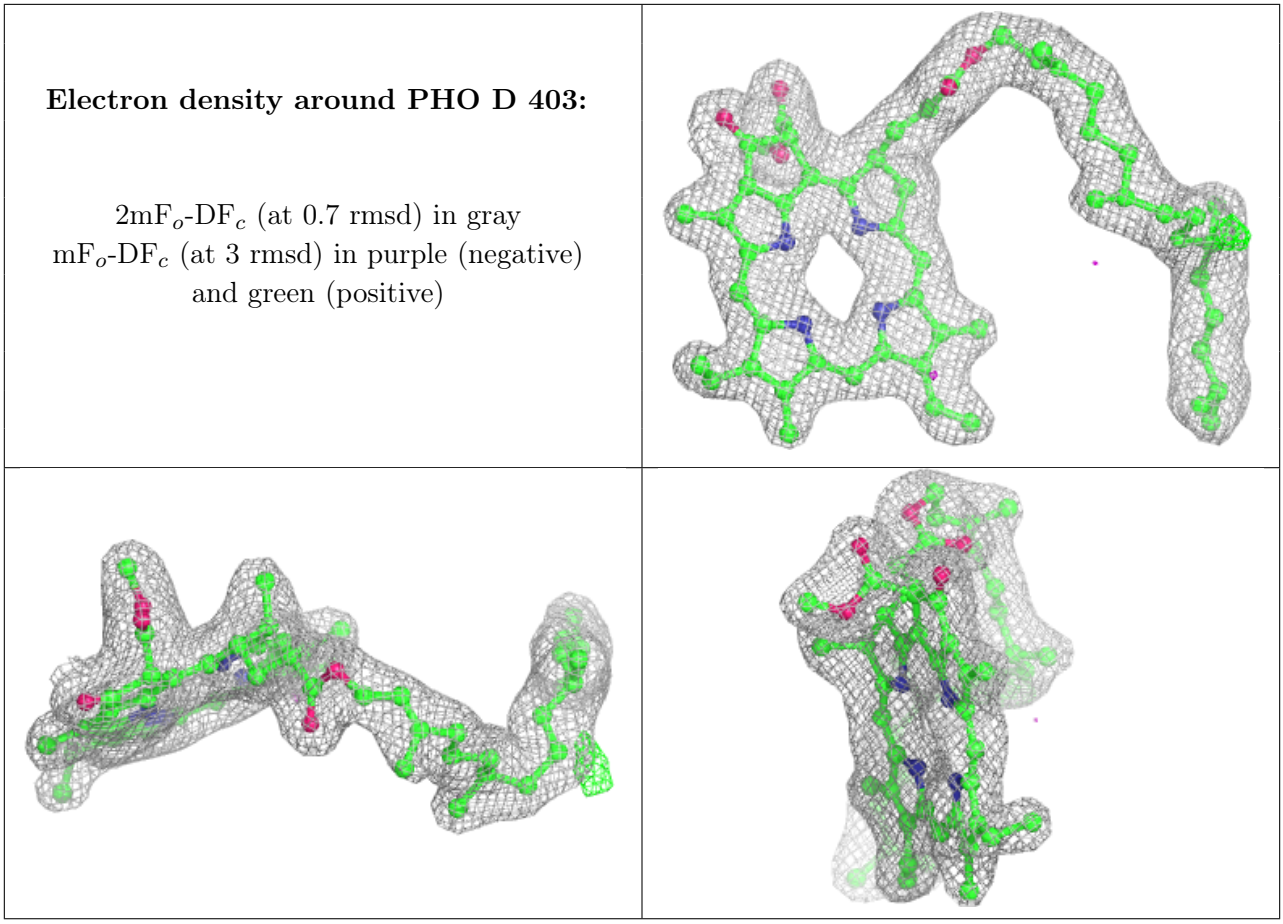
Electron density around PHO D 402:

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



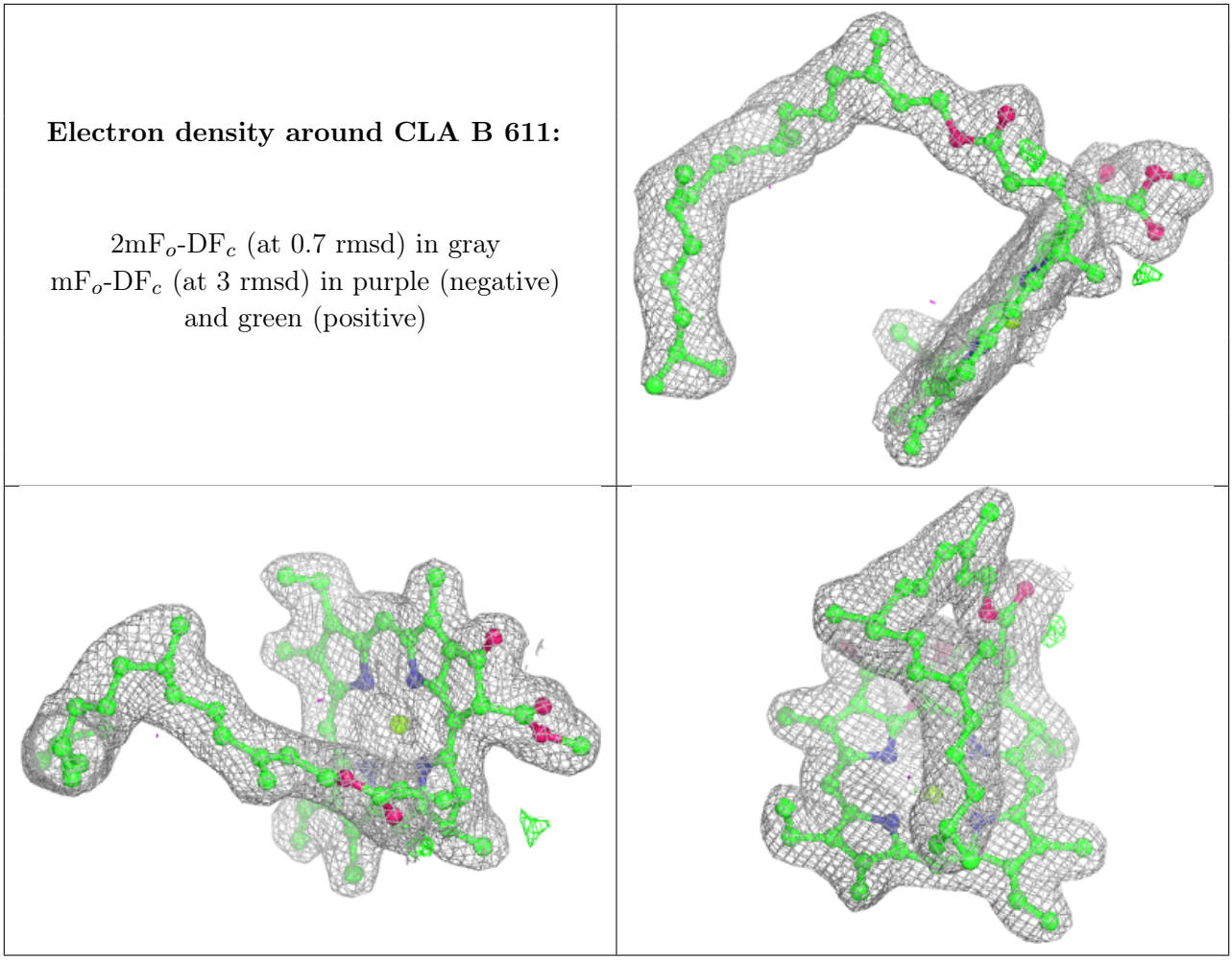
Electron density around PHO D 403:

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



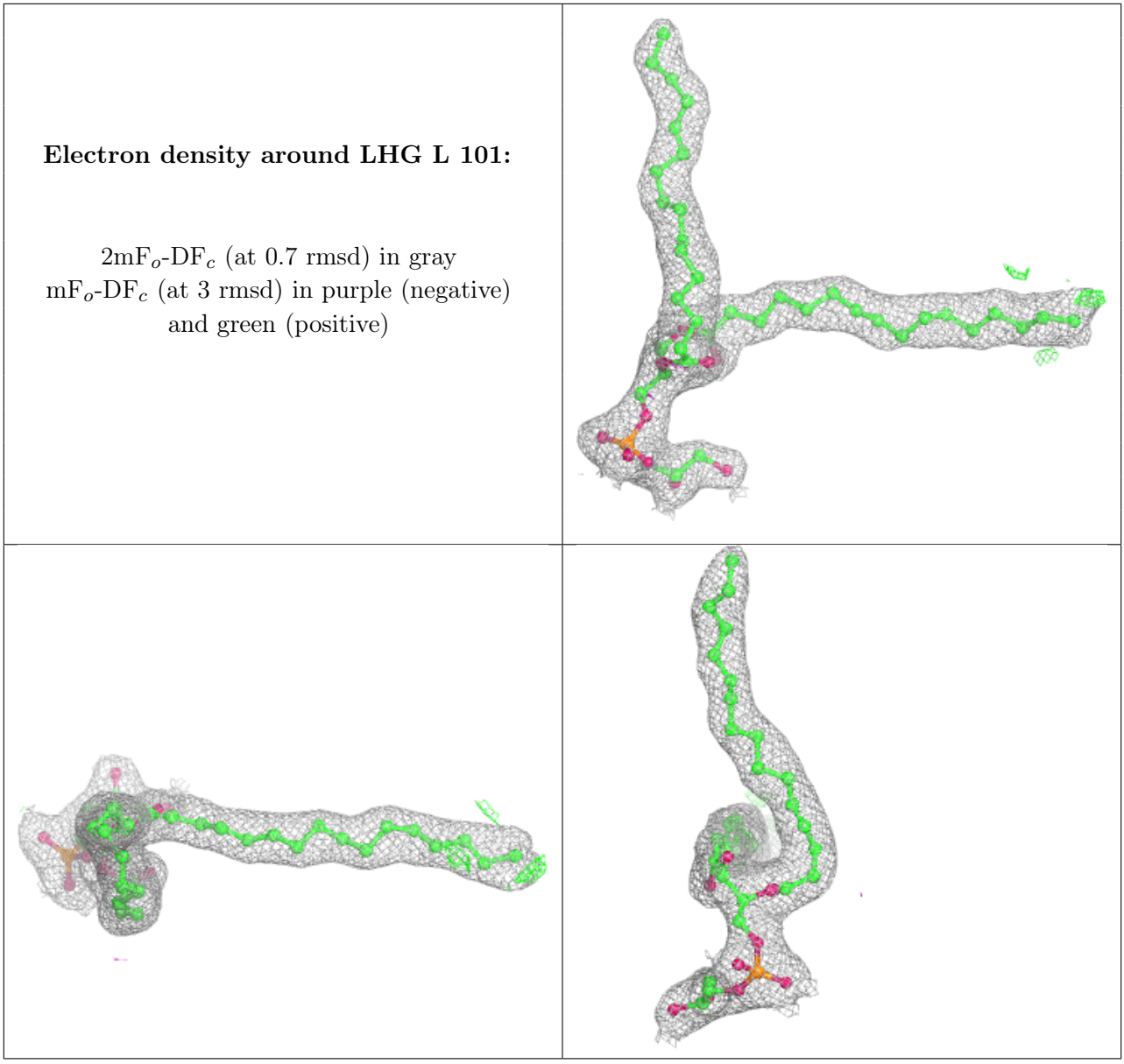
Electron density around CLA B 611:

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



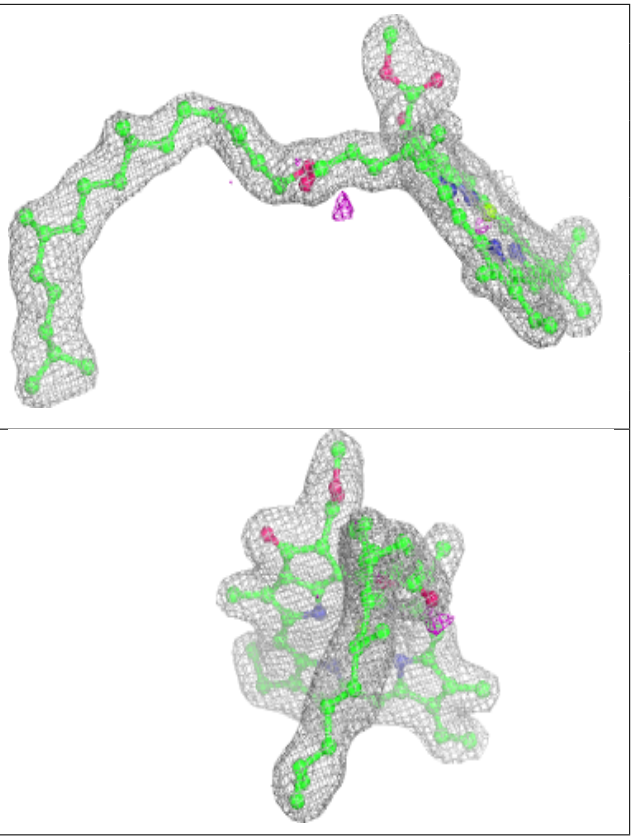
Electron density around LHG L 101:

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



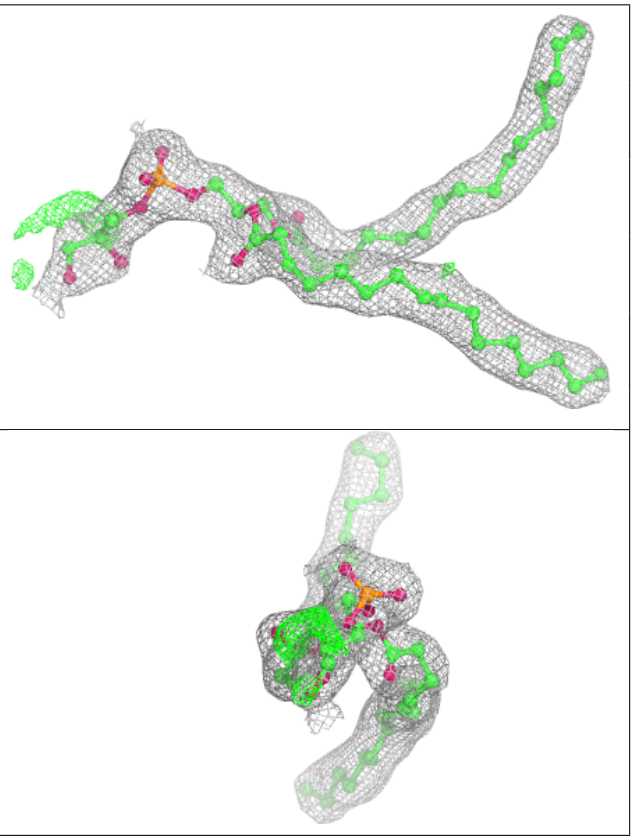
Electron density around CLA D 404:

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



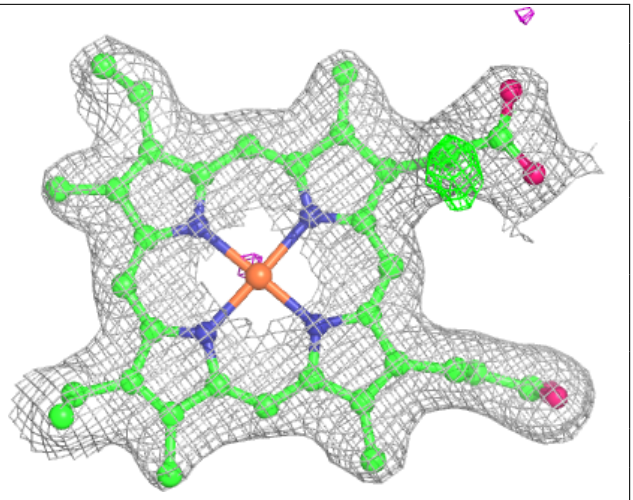
Electron density around LHG d 408:

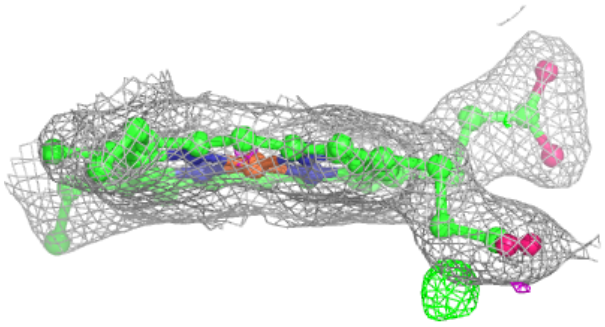
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

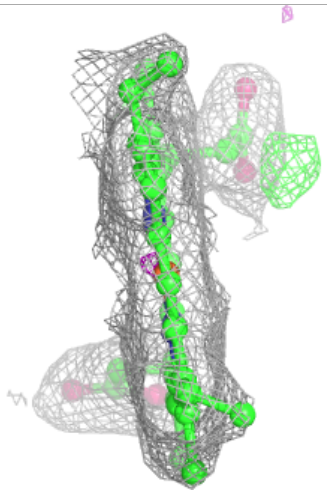


Electron density around HEC V 201:

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

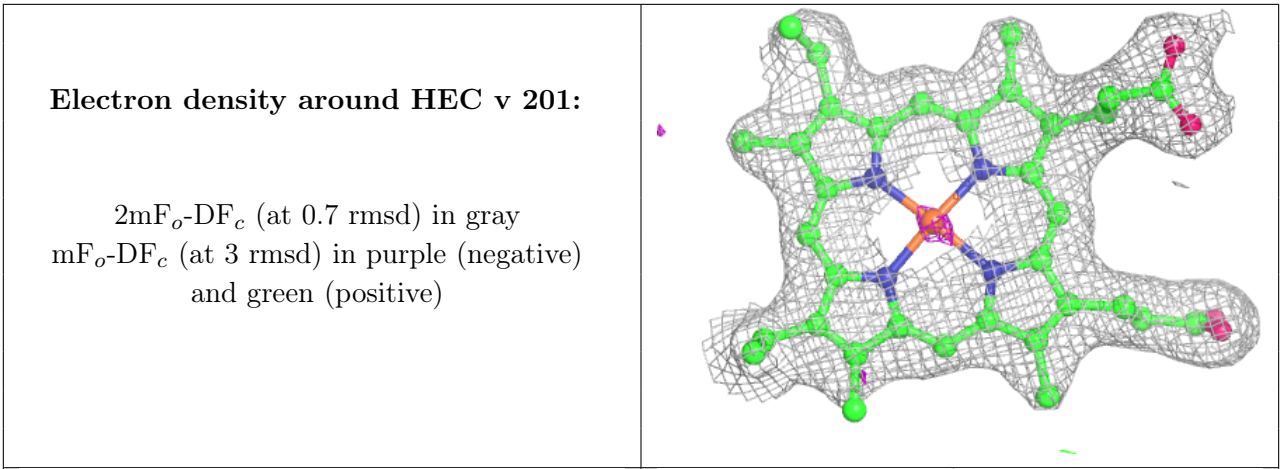


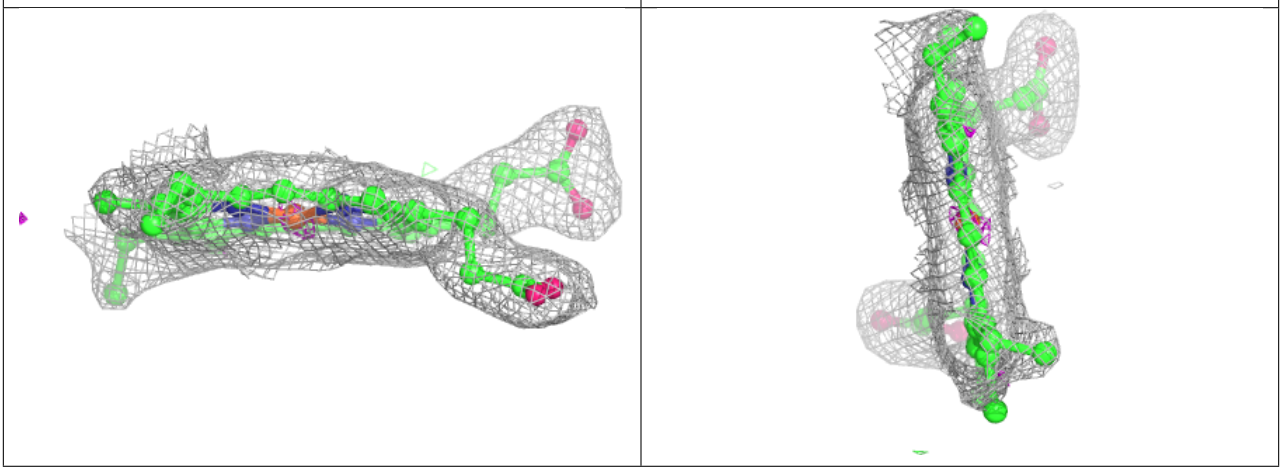




Electron density around HEC v 201:

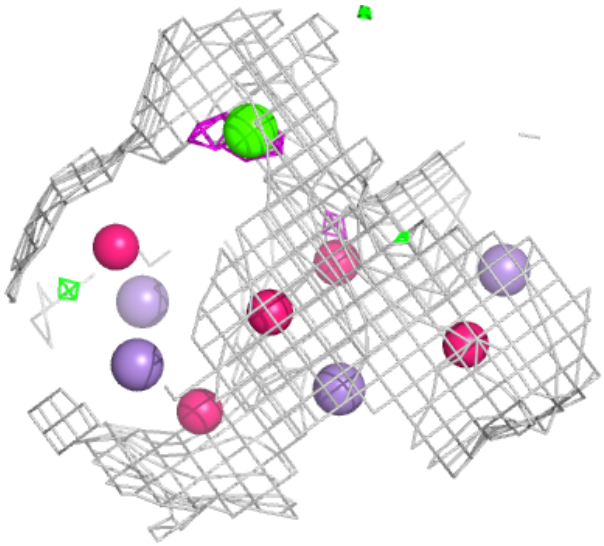
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

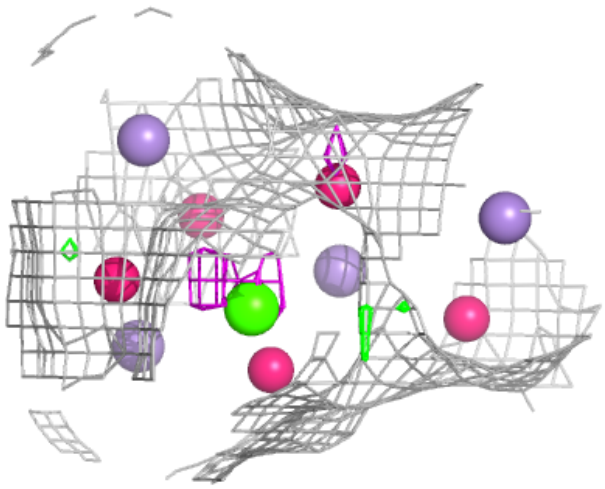


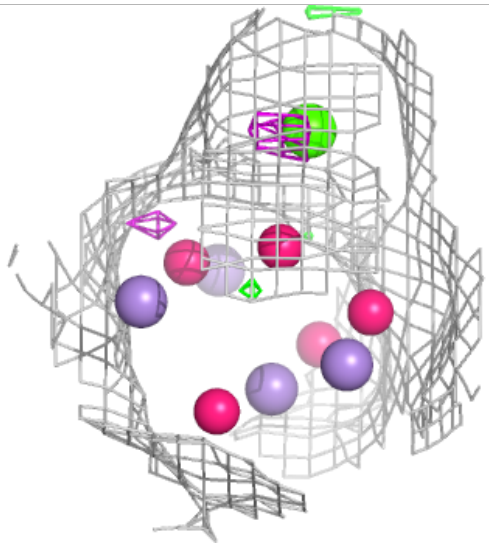


Electron density around OEX A 602 (A):

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

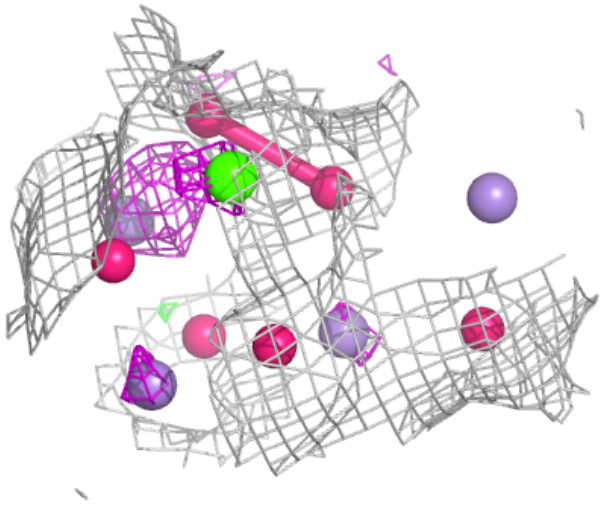


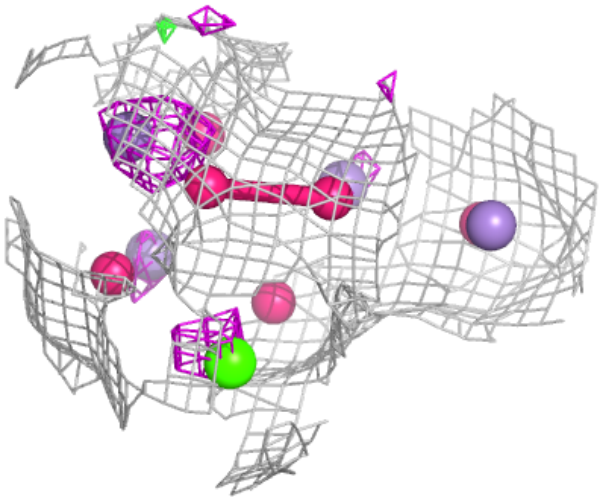


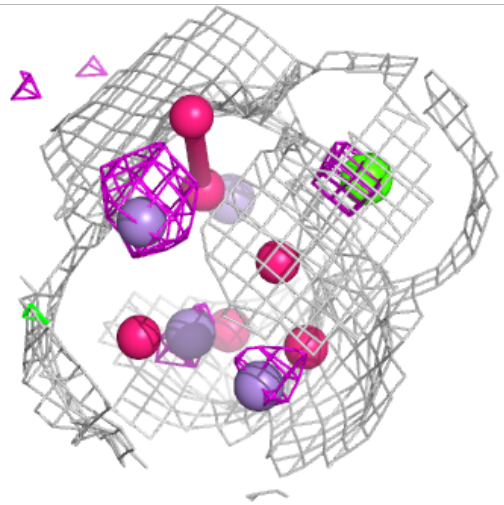


Electron density around OEY a 601 (B):

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

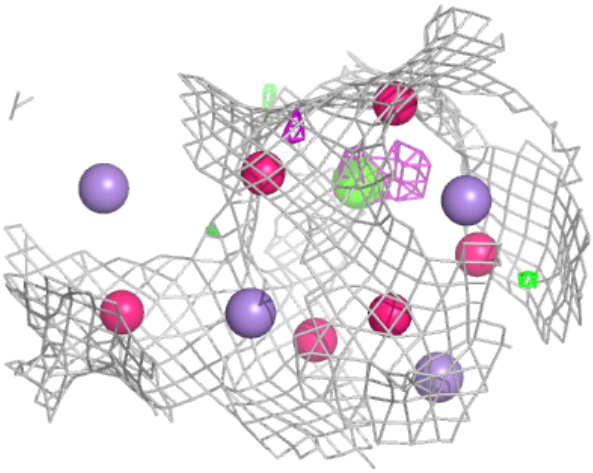


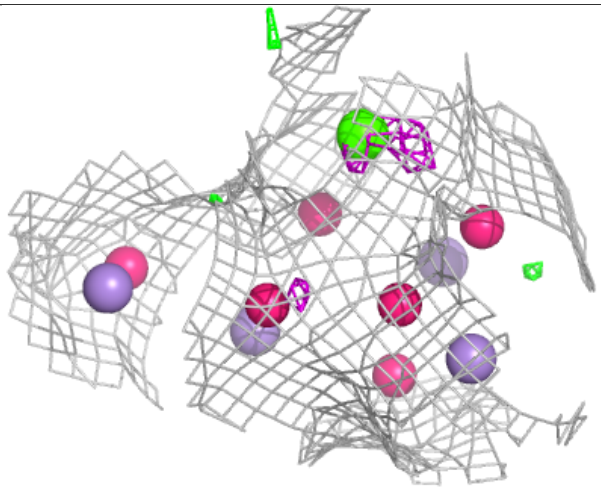


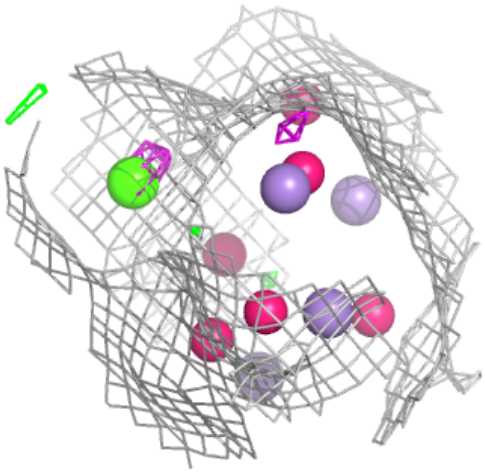


Electron density around OEY A 601 (B):

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

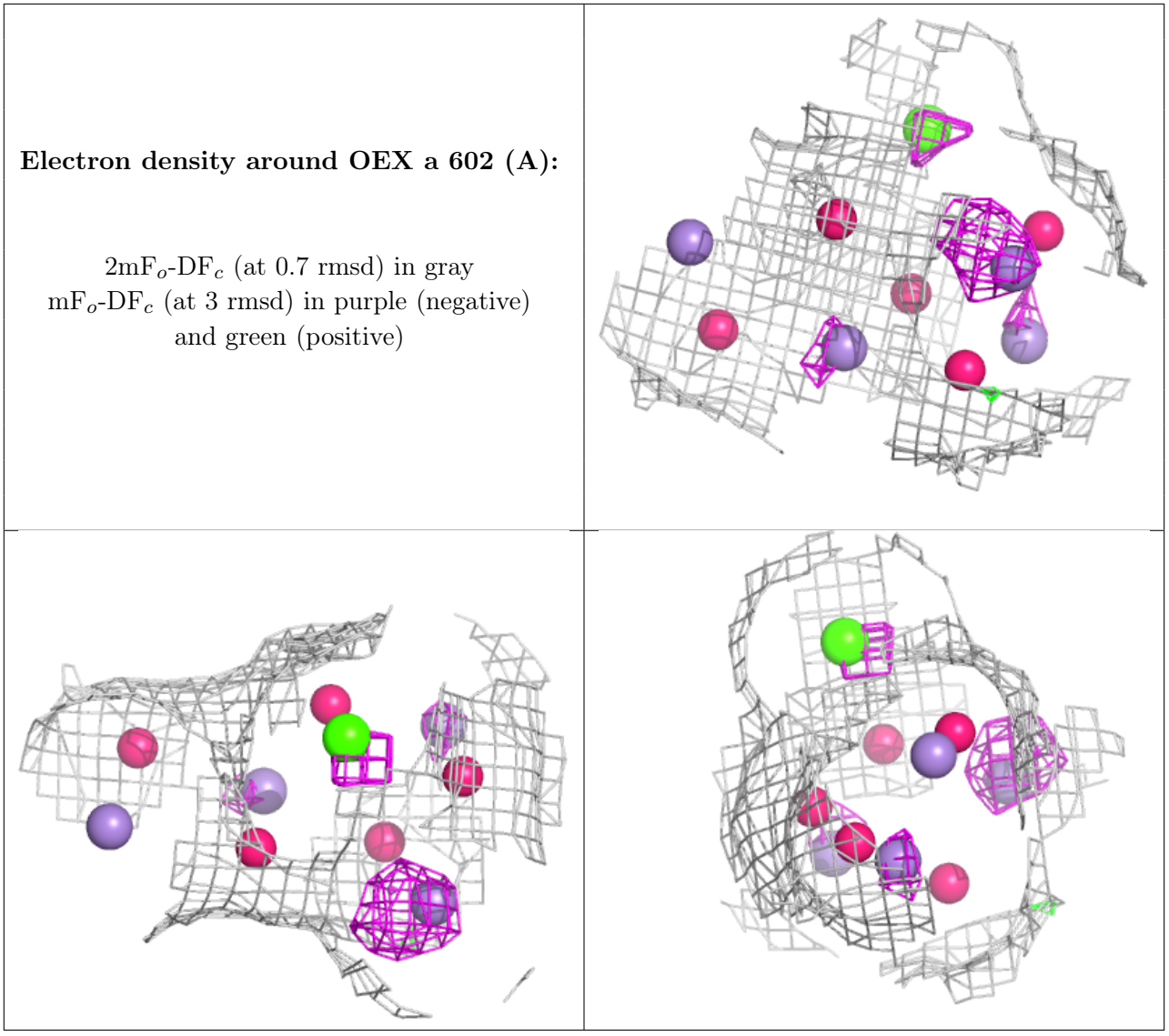






Electron density around OEX a 602 (A):

$2mF_o$-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

There are no such residues in this entry.