



# Full wwPDB X-ray Structure Validation Report ⓘ

Aug 9, 2023 – 03:48 PM EDT

PDB ID : 8F4G  
Title : RT XFEL structure of Photosystem II 730 microseconds after the third illumination at 2.03 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 : 2.03 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](mailto: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 ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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The following versions of software and data (see [references ⓘ](#)) 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

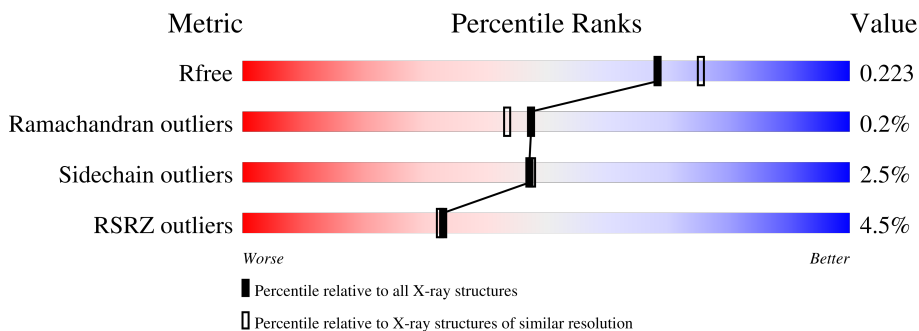
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

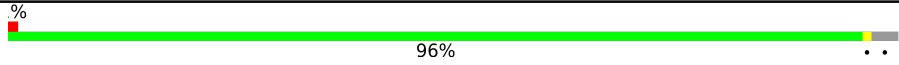
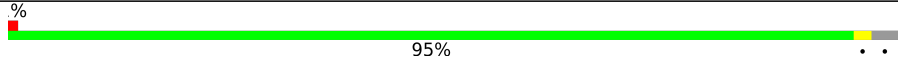
The reported resolution of this entry is 2.03 Å.

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	10434 (2.04-2.00)
Ramachandran outliers	138981	11493 (2.04-2.00)
Sidechain outliers	138945	11492 (2.04-2.00)
RSRZ outliers	127900	10220 (2.04-2.00)

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  $\geq 3$ , 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  $\leq 5\%$ . 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	 % 95% ..

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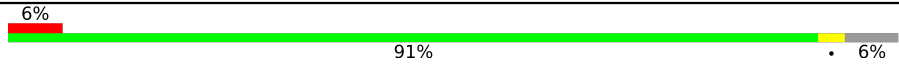
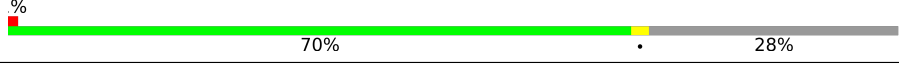
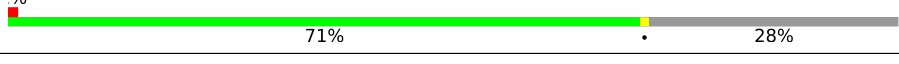


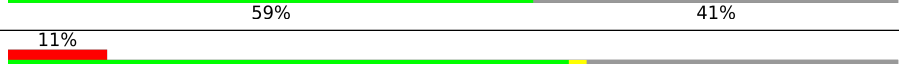
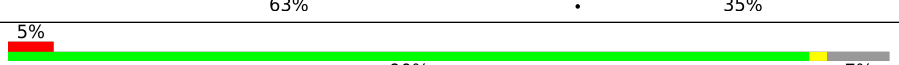
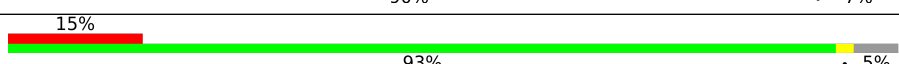
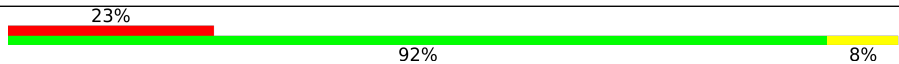
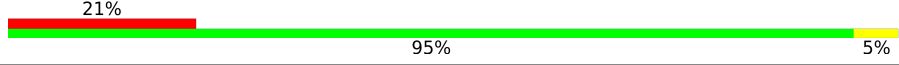

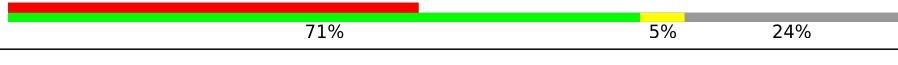

buster-report : 1.1.7 (2018)  
 Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
 Refmac : 5.8.0158  
 CCP4 : 7.0.044 (Gargrove)  
 Ideal geometry (proteins) : Engh & Huber (2001)  
 Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
 Validation Pipeline (wwPDB-VP) : 2.35

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Mol	Chain	Length	Quality of chain
2	B	510	3% 97%
2	b	510	4% 97%
3	C	461	95%
3	c	461	2% 95%
4	D	352	% 96%
4	d	352	% 94%
5	E	84	11% 96%
5	e	84	12% 94%
6	F	45	4% 73% 24%
6	f	45	4% 76% 24%
7	H	66	6% 95%
7	h	66	8% 91% 5% 5%
8	I	38	5% 89% 5% 5%
8	i	38	5% 92% 5%
9	J	40	15% 90% 10%
9	j	40	12% 85% 5% 10%
10	K	46	2% 78% 20%
10	k	46	76% 20%
11	L	37	3% 100%
11	l	37	5% 89% 8%
12	M	36	3% 83% 8% 8%
12	m	36	83% 6% 11%
13	O	272	6% 85% 10%
13	o	272	6% 88% 10%
14	T	32	6% 84% 9% 6%

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Mol	Chain	Length	Quality of chain
14	t	32	
15	U	134	
15	u	134	
16	V	163	
16	v	163	
17	Y	46	
17	y	46	
18	X	41	
18	x	41	
19	Z	62	
19	z	62	
20	R	41	
20	r	41	

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	609	X	-	-	-
25	CLA	A	612	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	609	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	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	-	-	-
25	CLA	C	511	X	-	-	-
25	CLA	C	512	X	-	-	-
25	CLA	C	513	X	-	-	-
25	CLA	H	101	X	-	-	-
25	CLA	a	606	X	-	-	-
25	CLA	a	607	X	-	-	-
25	CLA	a	609	X	-	-	-
25	CLA	a	612	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	609	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	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	-	-	-

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<b>Mol</b>	<b>Type</b>	<b>Chain</b>	<b>Res</b>	<b>Chirality</b>	<b>Geometry</b>	<b>Clashes</b>	<b>Electron density</b>
25	CLA	c	511	X	-	-	-
25	CLA	c	512	X	-	-	-
25	CLA	c	513	X	-	-	-
25	CLA	d	404	X	-	-	-
25	CLA	h	101	X	-	-	-

## 2 Entry composition

There are 37 unique types of molecules in this entry. The entry contains 54517 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
			Total	C	N	O	S			
1	A	334	Total 3604	C 2343	N 595	O 643	S 23	0	64	0
1	a	334	Total 3601	C 2340	N 595	O 643	S 23	0	64	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	C	442	Total 3592	C 2355	N 601	O 621	S 15	0	11	0
3	c	451	Total 3666	C 2396	N 617	O 638	S 15	0	12	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	D	341	Total 2745	C 1818	N 448	O 467	S 12	0	2	0
4	d	341	Total 2751	C 1822	N 448	O 469	S 12	0	3	0

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
5	E	82	Total	C	N	O	0	1	0
			666	436	107	123			
5	e	82	Total	C	N	O	0	0	0
			664	434	108	122			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	H	65	Total	C	N	O	S	0	0	0
			510	341	82	85	2			
7	h	63	Total	C	N	O	S	0	0	0
			498	333	80	83	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	I	36	Total	C	N	O	S	0	0	0
			296	200	46	49	1			
8	i	36	Total	C	N	O	S	0	0	0
			296	200	46	49	1			

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

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

- 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			

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 17 is a protein called Photosystem II reaction center protein 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	S	0	0	0
			281	188	45	48				
18	x	39	Total	C	N	O	S	0	0	0
			286	191	46	49				

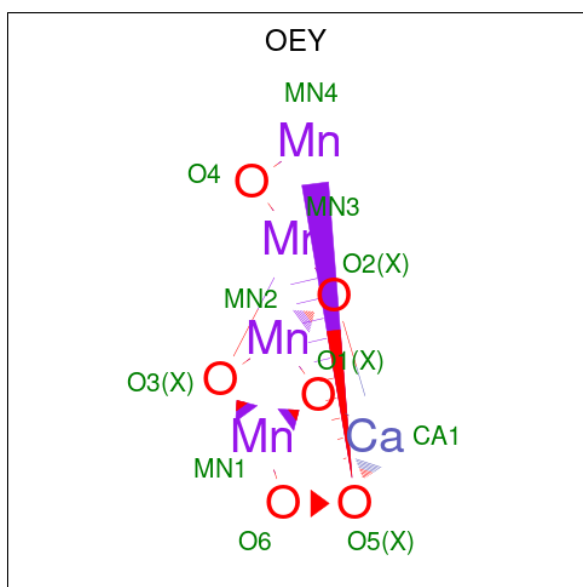
- Molecule 19 is a protein called Photosystem II reaction center protein Z.

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.

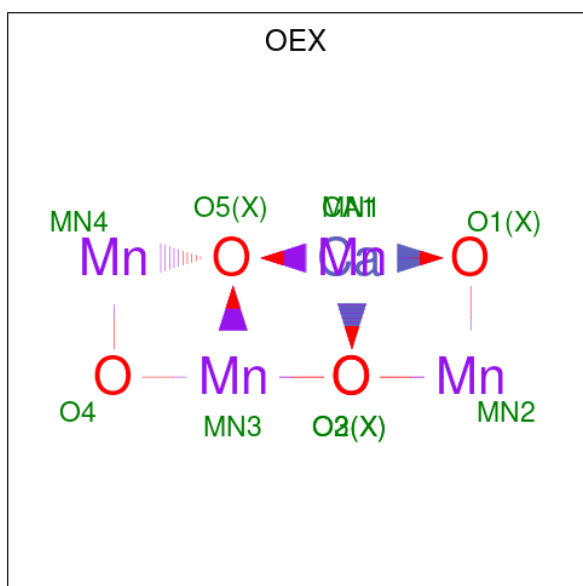
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	R	34	Total	C	N	O	S	0	0	0
			271	184	47	40				
20	r	31	Total	C	N	O	S	0	0	0
			246	166	43	37				

- Molecule 21 is CA-MN4-O6 CLUSTER (three-letter code: OEY) (formula: CaMn<sub>4</sub>O<sub>6</sub>) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	Ca	Mn	O		
21	A	1	22	2	8	12	0	1
21	a	1	22	2	8	12	0	1

- Molecule 22 is CA-MN4-O5 CLUSTER (three-letter code: OEX) (formula: CaMn<sub>4</sub>O<sub>5</sub>) (labeled as "Ligand of Interest" by depositor).



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

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

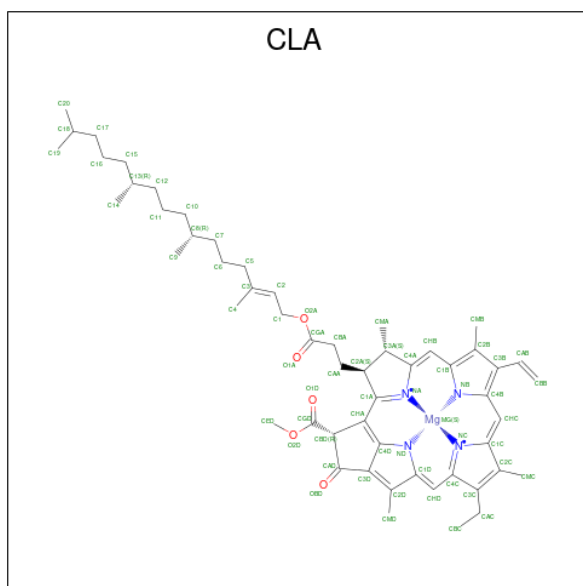
- Molecule 23 is FE (II) ION (three-letter code: FE2) (formula: Fe).

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<sub>55</sub>H<sub>72</sub>MgN<sub>4</sub>O<sub>5</sub>).



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

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
25	A	1	Total	C	Mg	N	O	0	0
			54	44	1	4	5		
25	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
25	C	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	C	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	C	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	C	1	Total	C	Mg	N	O	0	0
			59	49	1	4	5		

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

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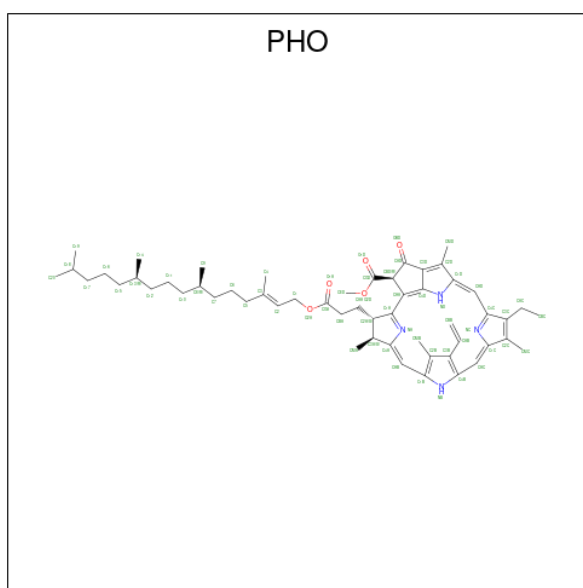
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
25	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5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

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

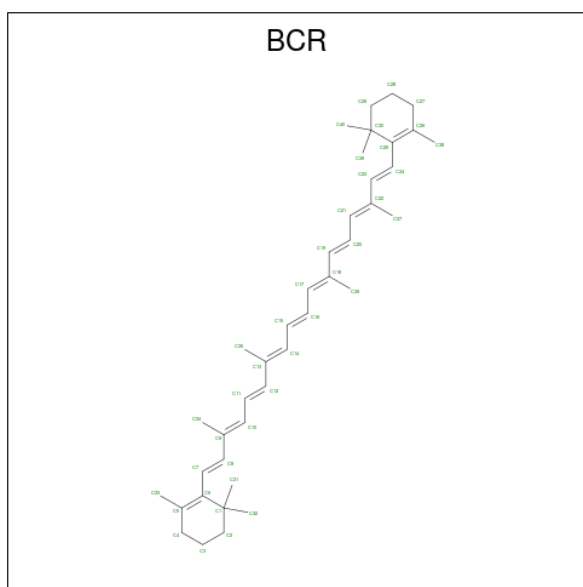
- Molecule 26 is PHEOPHYTIN A (three-letter code: PHO) (formula:  $C_{55}H_{74}N_4O_5$ ).



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

- Molecule 27 is BETA-CAROTENE (three-letter code: BCR) (formula:  $C_{40}H_{56}$ ).





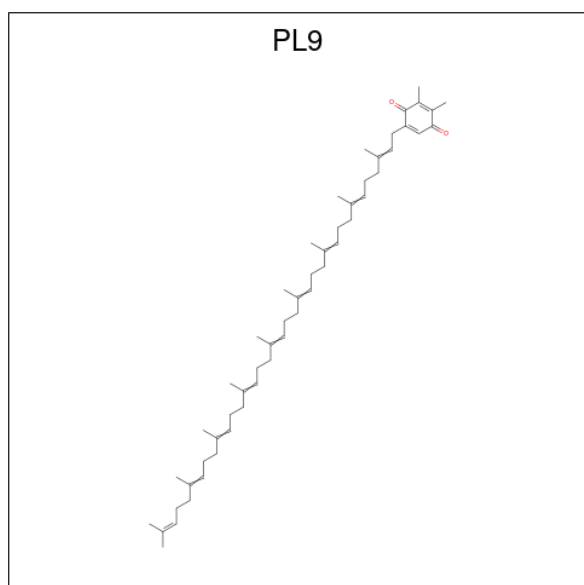
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
27	A	1	Total C 40 40	0	0
27	B	1	Total C 40 40	0	0
27	B	1	Total C 40 40	0	0
27	B	1	Total C 40 40	0	0
27	C	1	Total C 40 40	0	0
27	C	1	Total C 40 40	0	0
27	D	1	Total C 40 40	0	0
27	H	1	Total C 40 40	0	0
27	K	1	Total C 40 40	0	0
27	K	1	Total C 40 40	0	0
27	T	1	Total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

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

- Molecule 28 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:  $C_{53}H_{80}O_2$ ).



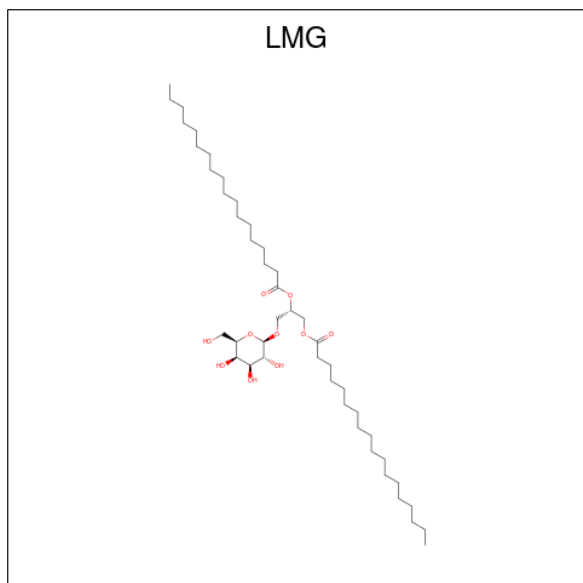
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
28	A	1	Total C O 55 53 2	0	0
28	D	1	Total C O 55 53 2	0	0

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

- Molecule 29 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula:  $C_{45}H_{86}O_{10}$ ).



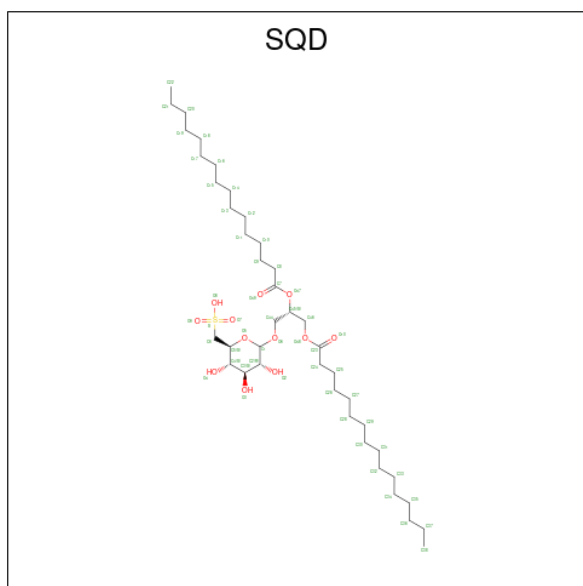
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
29	A	1	Total	C	O	0	0
			48	38	10		
29	B	1	Total	C	O	0	0
			28	24	4		
29	C	1	Total	C	O	0	0
			48	38	10		
29	D	1	Total	C	O	0	0
			51	41	10		
29	D	1	Total	C	O	0	0
			33	27	6		
29	M	1	Total	C	O	0	0
			51	41	10		
29	b	1	Total	C	O	0	0
			55	45	10		
29	c	1	Total	C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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
29	c	1	Total	C	O	0	0
			49	39	10		
29	d	1	Total	C	O	0	0
			23	21	2		
29	d	1	Total	C	O	0	0
			44	34	10		
29	m	1	Total	C	O	0	0
			51	41	10		

- 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<sub>41</sub>H<sub>78</sub>O<sub>12</sub>S).



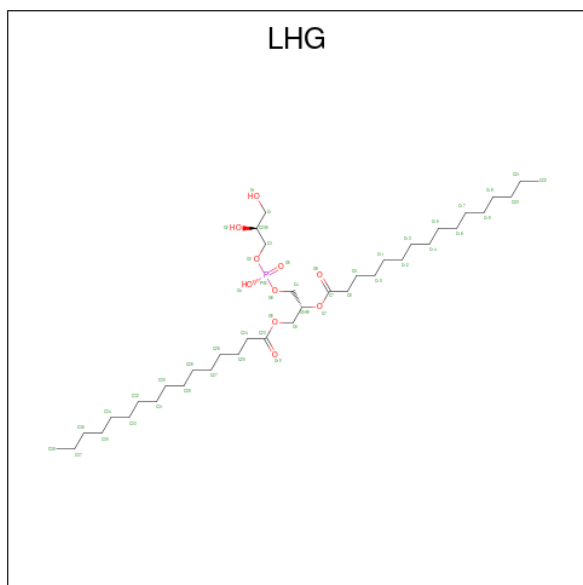
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
30	A	1	Total	C	O	S	0	0
			52	39	12	1		
30	A	1	Total	C	O		0	0
			39	35	4			
30	B	1	Total	C	O	S	0	0
			54	41	12	1		
30	F	1	Total	C	O	S	0	0
			36	25	10	1		
30	a	1	Total	C	O	S	0	0
			54	41	12	1		
30	a	1	Total	C	O		0	0
			36	31	5			
30	b	1	Total	C	O	S	0	0
			49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

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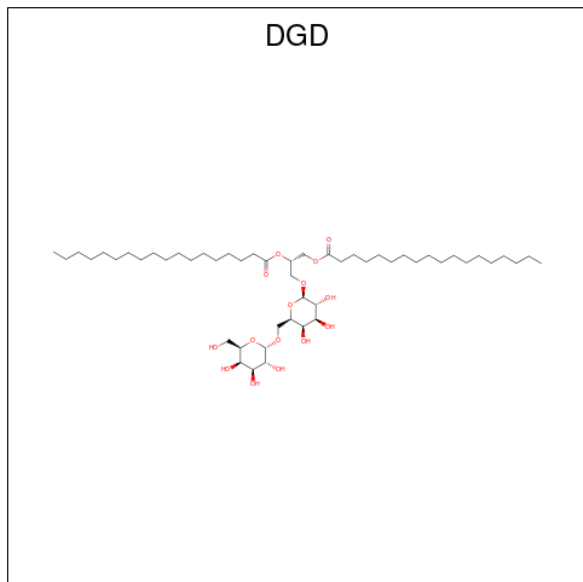
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	O	S		
30	f	1	41	28	12	1	0	0

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



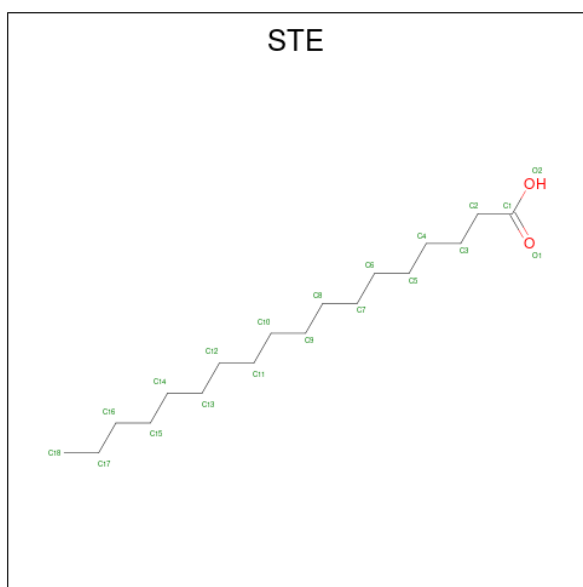
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	O	P		
31	A	1	49	38	10	1	0	0
31	D	1	49	38	10	1	0	0
31	D	1	47	36	10	1	0	0
31	D	1	49	38	10	1	0	0
31	L	1	49	38	10	1	0	0
31	b	1	49	38	10	1	0	0
31	d	1	49	38	10	1	0	0
31	d	1	49	38	10	1	0	0
31	d	1	39	28	10	1	0	0
31	e	1	42	31	10	1	0	0

- Molecule 32 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula:  $C_{51}H_{96}O_{15}$ ).



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

- Molecule 33 is STEARIC ACID (three-letter code: STE) (formula:  $C_{18}H_{36}O_2$ ).



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

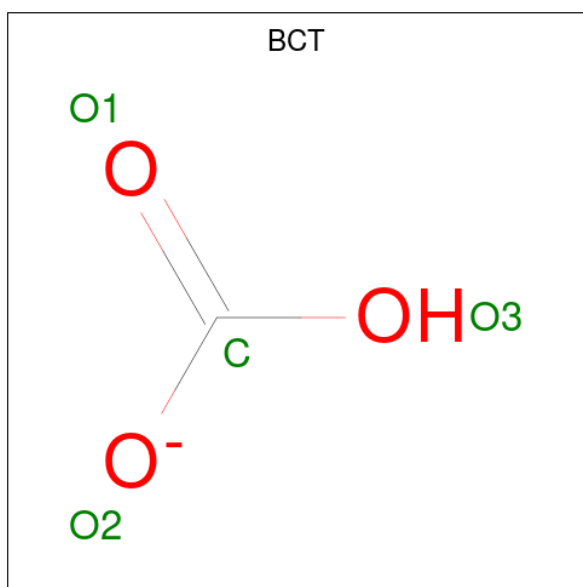
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
33	X	1	Total C O 20 18 2	0	0
33	a	1	Total C O 12 10 2	0	0
33	b	1	Total C 16 16	0	0
33	b	1	Total C O 20 18 2	0	0
33	b	1	Total C 15 15	0	0
33	b	1	Total C O 20 18 2	0	0
33	b	1	Total C 10 10	0	0
33	c	1	Total C O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

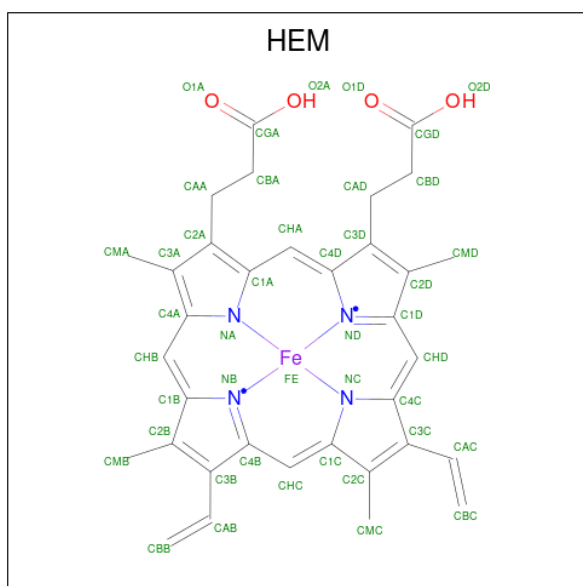
- Molecule 34 is BICARBONATE ION (three-letter code: BCT) (formula:  $\text{CHO}_3$ ).





Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
34	D	1	Total	C	O	0	0
			4	1	3		
34	d	1	Total	C	O	0	0
			4	1	3		

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



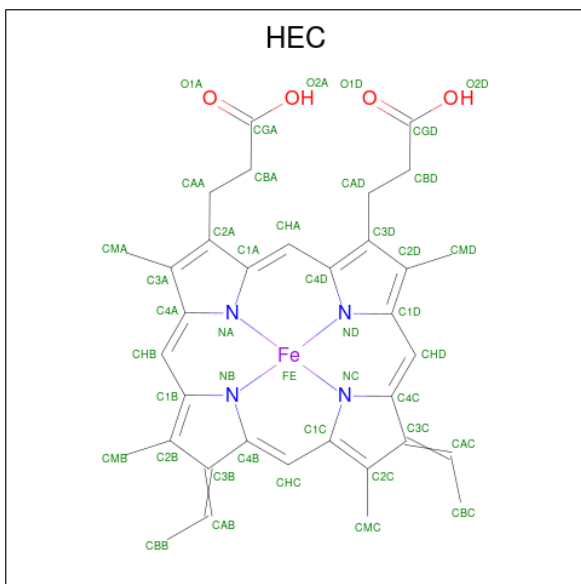
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
35	F	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	
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	142	Total	O	0	4
			150	150		
37	B	204	Total	O	0	0
			204	204		
37	C	184	Total	O	0	0
			184	184		
37	D	133	Total	O	0	0
			133	133		
37	E	21	Total	O	0	0
			21	21		
37	F	6	Total	O	0	0
			6	6		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
37	H	28	Total O 28 28	0	0
37	I	12	Total O 12 12	0	0
37	J	10	Total O 10 10	0	0
37	K	1	Total O 1 1	0	0
37	L	10	Total O 10 10	0	0
37	M	7	Total O 7 7	0	0
37	O	93	Total O 93 93	0	0
37	T	8	Total O 8 8	0	0
37	U	43	Total O 43 43	0	0
37	V	69	Total O 69 69	0	0
37	Y	3	Total O 3 3	0	0
37	X	15	Total O 15 15	0	0
37	Z	4	Total O 4 4	0	0
37	R	1	Total O 1 1	0	0
37	a	115	Total O 123 123	0	4
37	b	189	Total O 189 189	0	0
37	c	175	Total O 175 175	0	0
37	d	112	Total O 112 112	0	0
37	e	18	Total O 18 18	0	0
37	f	7	Total O 7 7	0	0
37	h	18	Total O 18 18	0	0

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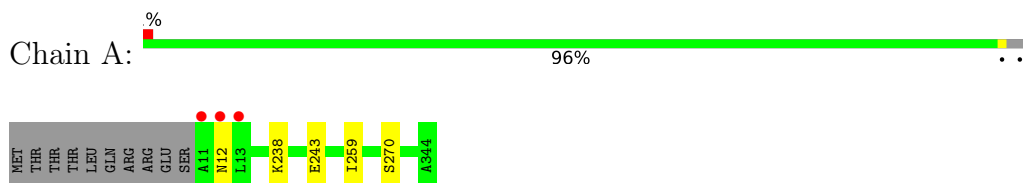
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
37	i	7	Total O 7 7	0	0
37	j	4	Total O 4 4	0	0
37	k	7	Total O 7 7	0	0
37	l	8	Total O 8 8	0	0
37	m	7	Total O 7 7	0	0
37	o	99	Total O 99 99	0	0
37	t	11	Total O 11 11	0	0
37	u	55	Total O 55 55	0	0
37	v	58	Total O 58 58	0	0
37	y	1	Total O 1 1	0	0
37	x	10	Total O 10 10	0	0
37	z	1	Total O 1 1	0	0

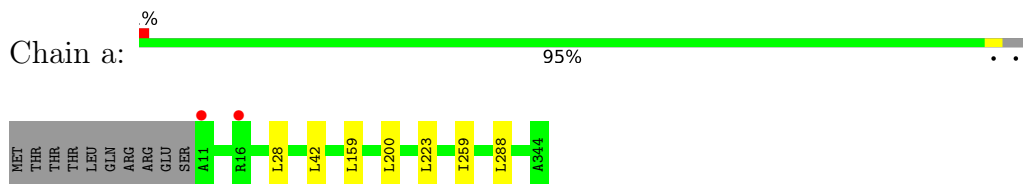
### 3 Residue-property plots [i](#)

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

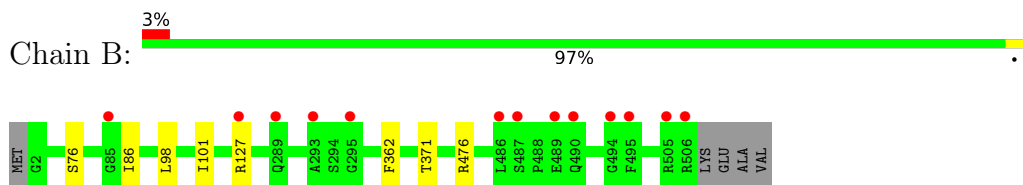
- Molecule 1: Photosystem II protein D1 1



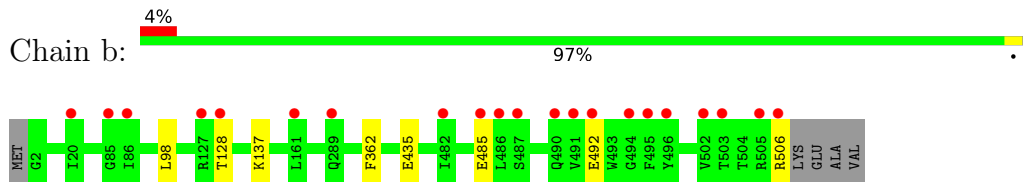
- Molecule 1: Photosystem II protein D1 1



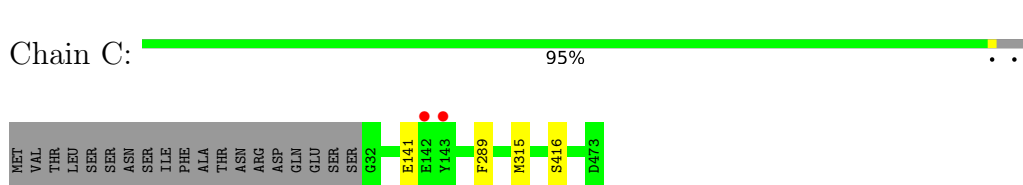
- Molecule 2: Photosystem II CP47 reaction center protein



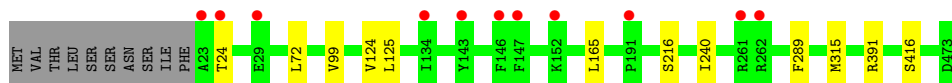
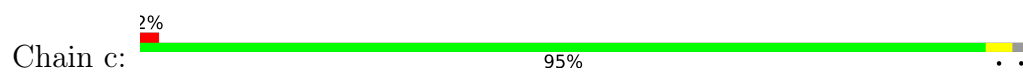
- Molecule 2: Photosystem II CP47 reaction center protein



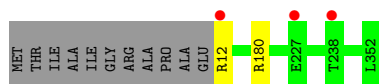
- Molecule 3: Photosystem II CP43 reaction center protein



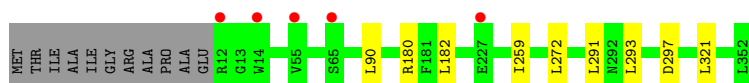
- Molecule 3: Photosystem II CP43 reaction center protein



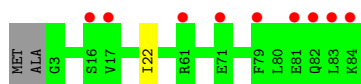
- Molecule 4: Photosystem II D2 protein



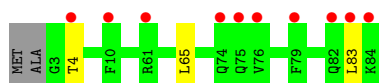
- Molecule 4: Photosystem II D2 protein



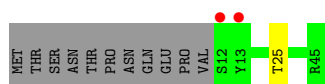
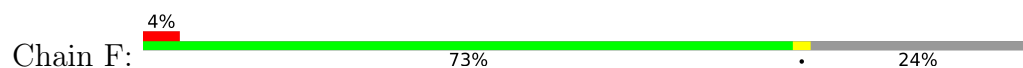
- Molecule 5: Cytochrome b559 subunit alpha



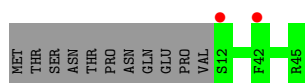
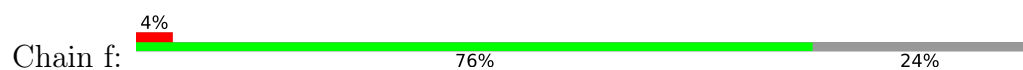
- Molecule 5: Cytochrome b559 subunit alpha



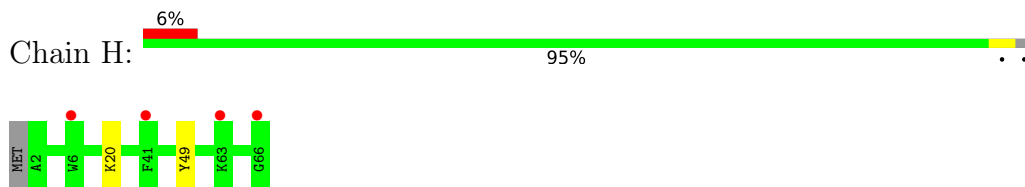
- Molecule 6: Cytochrome b559 subunit beta



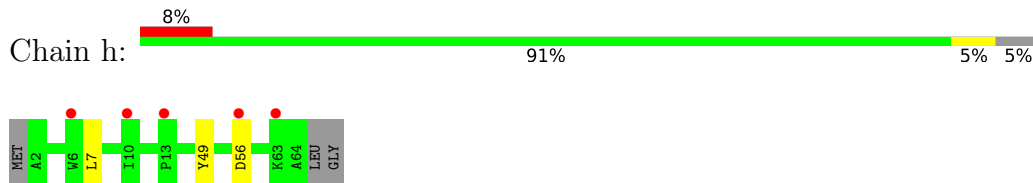
- Molecule 6: Cytochrome b559 subunit beta



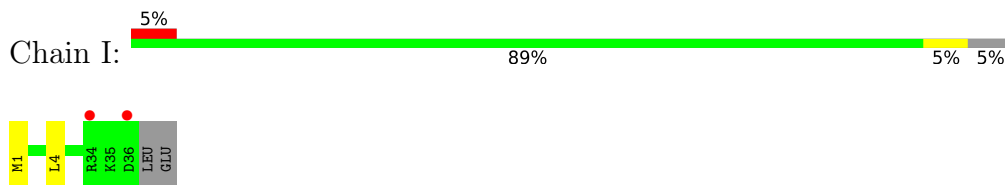
- Molecule 7: Photosystem II reaction center protein H



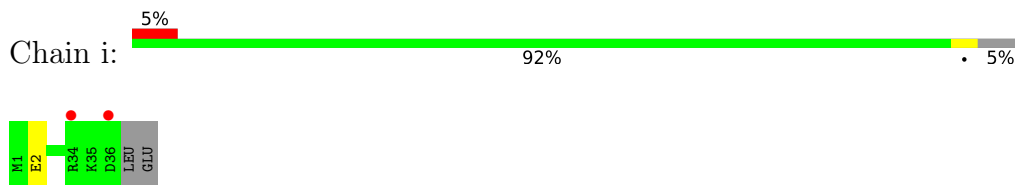
- Molecule 7: Photosystem II reaction center protein H



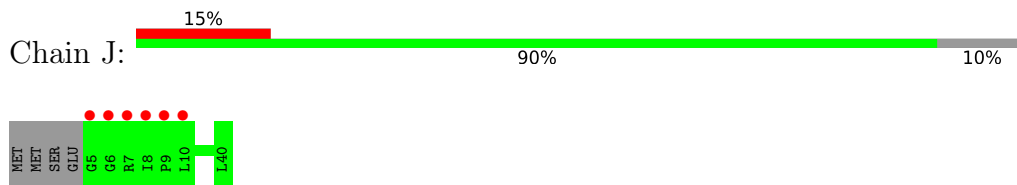
- Molecule 8: Photosystem II reaction center protein I



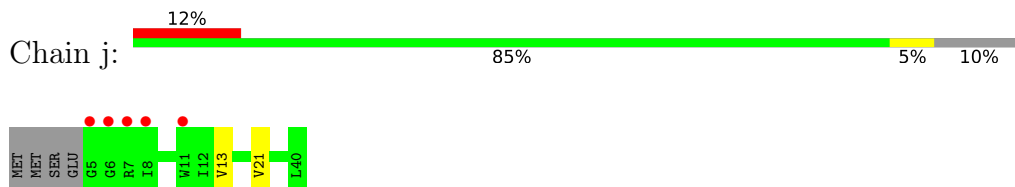
- Molecule 8: Photosystem II reaction center protein I



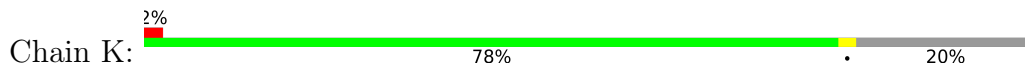
- Molecule 9: Photosystem II reaction center protein J

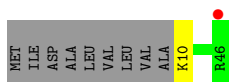


- Molecule 9: Photosystem II reaction center protein J

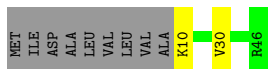
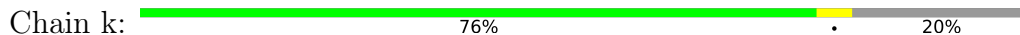


- Molecule 10: Photosystem II reaction center protein K





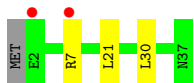
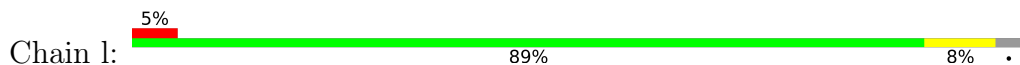
- Molecule 10: Photosystem II reaction center protein K



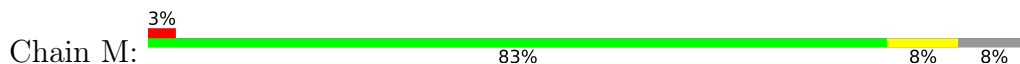
- Molecule 11: Photosystem II reaction center protein L



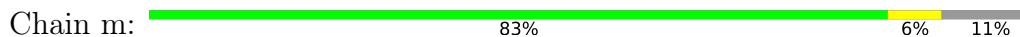
- Molecule 11: Photosystem II reaction center protein L



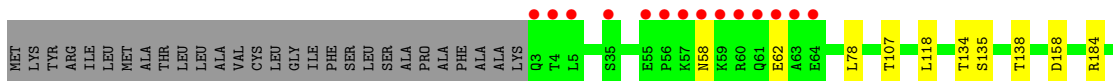
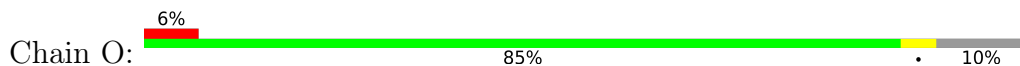
- Molecule 12: Photosystem II reaction center protein M



- Molecule 12: Photosystem II reaction center protein M

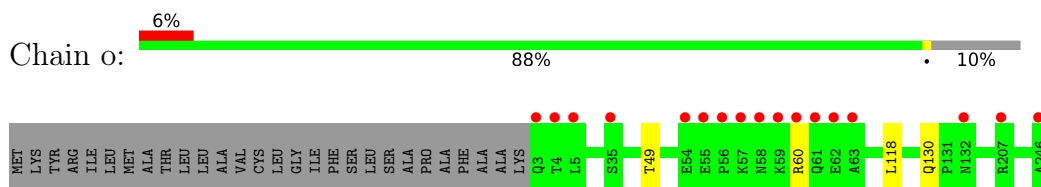


- Molecule 13: Photosystem II manganese-stabilizing polypeptide

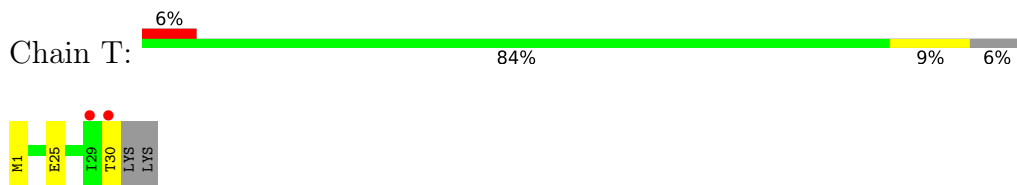




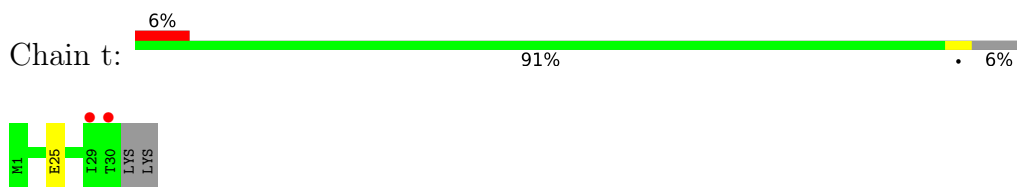
- Molecule 13: Photosystem II manganese-stabilizing polypeptide



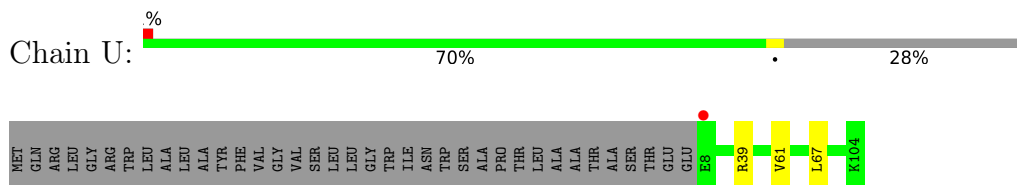
- Molecule 14: Photosystem II reaction center protein T



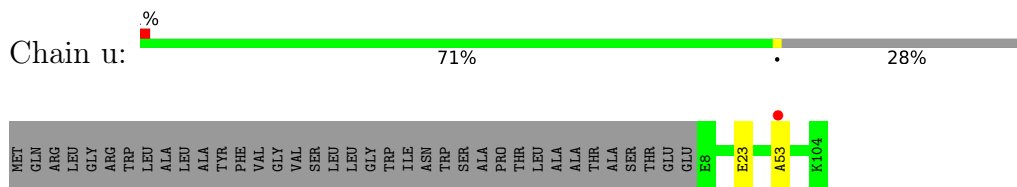
- Molecule 14: Photosystem II reaction center protein T



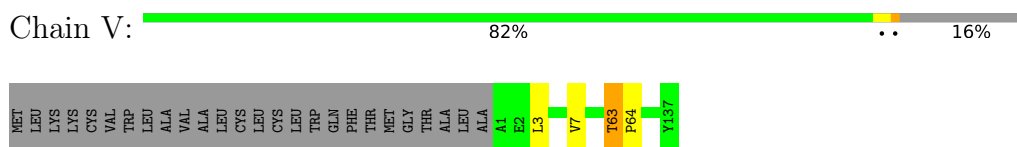
- Molecule 15: Photosystem II 12 kDa extrinsic protein



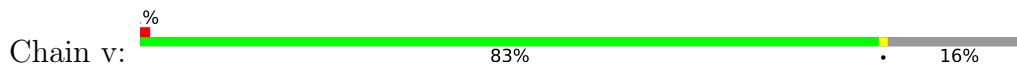
- Molecule 15: Photosystem II 12 kDa extrinsic protein

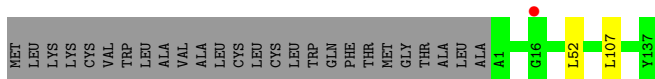


- Molecule 16: Cytochrome c-550

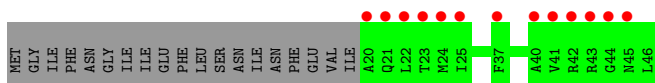


- Molecule 16: Cytochrome c-550

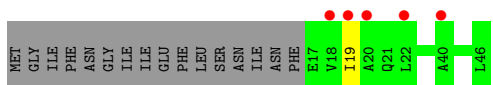




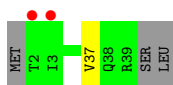
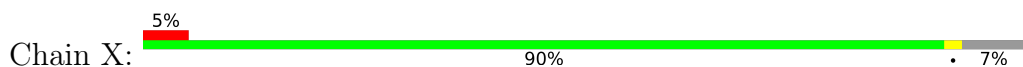
- Molecule 17: Photosystem II reaction center protein Ycf12



- Molecule 17: Photosystem II reaction center protein Ycf12



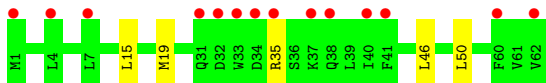
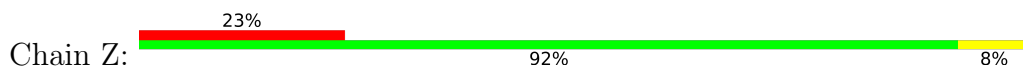
- Molecule 18: Photosystem II reaction center X protein



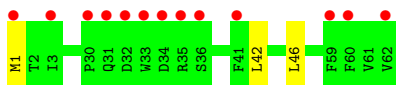
- Molecule 18: Photosystem II reaction center X protein



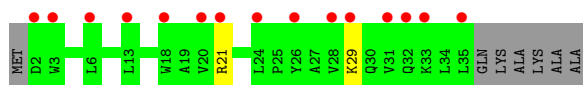
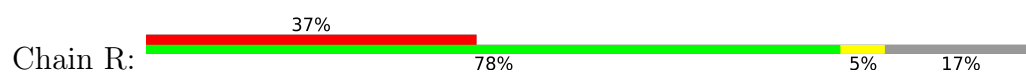
- Molecule 19: Photosystem II reaction center protein Z



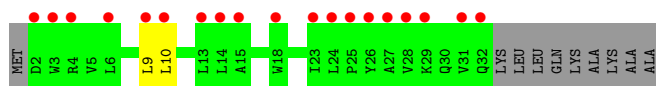
- Molecule 19: Photosystem II reaction center protein Z



- Molecule 20: Photosystem II protein Y



- Molecule 20: Photosystem II protein Y



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	117.57Å 222.91Å 310.00Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	29.87 – 2.03 29.87 – 2.03	Depositor EDS
% Data completeness (in resolution range)	99.0 (29.87-2.03) 87.3 (29.87-2.03)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	0.26 (at 2.03Å)	Xtrriage
Refinement program	PHENIX 1.19.2_4158	Depositor
R, $R_{free}$	0.180 , 0.223 0.180 , 0.223	Depositor DCC
$R_{free}$ test set	4628 reflections (0.89%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	29.1	Xtrriage
Anisotropy	0.221	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.29 , 69.2	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.45$ , $\langle L^2 \rangle = 0.28$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
$F_o, F_c$ correlation	0.96	EDS
Total number of atoms	54517	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	41.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.65% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

## 5 Model quality i

### 5.1 Standard geometry i

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

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	0.40	0/3717	0.55	0/5060
1	a	0.40	0/3714	0.56	0/5056
2	B	0.41	0/4155	0.57	0/5661
2	b	0.40	0/4118	0.56	0/5611
3	C	0.39	0/3711	0.54	0/5051
3	c	0.38	0/3791	0.55	0/5158
4	D	0.43	0/2838	0.56	0/3862
4	d	0.42	0/2847	0.59	2/3874 (0.1%)
5	E	0.35	0/688	0.52	0/940
5	e	0.33	0/683	0.53	0/932
6	F	0.35	0/284	0.46	0/387
6	f	0.32	0/284	0.55	0/387
7	H	0.39	0/523	0.53	0/713
7	h	0.37	0/511	0.58	0/697
8	I	0.38	0/293	0.55	0/396
8	i	0.38	0/293	0.54	0/396
9	J	0.37	0/263	0.54	0/356
9	j	0.33	0/263	0.55	0/356
10	K	0.33	0/303	0.48	0/416
10	k	0.32	0/303	0.51	0/416
11	L	0.39	0/311	0.55	0/422
11	l	0.42	0/303	0.56	0/412
12	M	0.35	0/249	0.50	0/341
12	m	0.42	0/244	0.50	0/334
13	O	0.37	0/1904	0.62	1/2585 (0.0%)
13	o	0.38	0/1905	0.62	0/2583
14	T	0.42	0/257	0.55	0/349
14	t	0.40	0/255	0.53	0/346
15	U	0.36	0/785	0.58	0/1064
15	u	0.36	0/785	0.59	0/1064
16	V	0.36	0/1085	0.58	1/1473 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
16	v	0.34	0/1085	0.54	0/1473
17	Y	0.29	0/197	0.56	0/264
17	y	0.27	0/219	0.46	0/294
18	X	0.33	0/284	0.53	0/384
18	x	0.29	0/289	0.45	0/391
19	Z	0.30	0/490	0.46	0/669
19	z	0.29	0/488	0.40	0/666
20	R	0.31	0/277	0.49	0/380
20	r	0.30	0/252	0.51	0/347
All	All	0.39	0/45246	0.56	4/61566 (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 (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	V	63	THR	C-N-CD	-5.25	109.05	120.60
13	O	158	ASP	CB-CG-OD1	5.23	123.01	118.30
4	d	297	ASP	CB-CG-OD1	5.19	122.97	118.30
4	d	272	LEU	CA-CB-CG	5.16	127.16	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

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	458/344 (133%)	448 (98%)	9 (2%)	1 (0%)	47	43
1	a	458/344 (133%)	448 (98%)	9 (2%)	1 (0%)	47	43
2	B	507/510 (99%)	500 (99%)	7 (1%)	0	100	100
2	b	503/510 (99%)	493 (98%)	10 (2%)	0	100	100
3	C	461/461 (100%)	452 (98%)	8 (2%)	1 (0%)	47	43
3	c	471/461 (102%)	454 (96%)	16 (3%)	1 (0%)	47	43
4	D	341/352 (97%)	331 (97%)	10 (3%)	0	100	100
4	d	342/352 (97%)	332 (97%)	10 (3%)	0	100	100
5	E	81/84 (96%)	81 (100%)	0	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%)	60 (95%)	3 (5%)	0	100	100
7	h	61/66 (92%)	56 (92%)	5 (8%)	0	100	100
8	I	34/38 (90%)	33 (97%)	1 (3%)	0	100	100
8	i	34/38 (90%)	32 (94%)	2 (6%)	0	100	100
9	J	34/40 (85%)	31 (91%)	3 (9%)	0	100	100
9	j	34/40 (85%)	34 (100%)	0	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%)	229 (94%)	10 (4%)	4 (2%)	9	4

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
13	o	242/272 (89%)	233 (96%)	9 (4%)	0	100	100
14	T	28/32 (88%)	27 (96%)	1 (4%)	0	100	100
14	t	28/32 (88%)	27 (96%)	1 (4%)	0	100	100
15	U	95/134 (71%)	92 (97%)	3 (3%)	0	100	100
15	u	95/134 (71%)	92 (97%)	2 (2%)	1 (1%)	14	7
16	V	135/163 (83%)	131 (97%)	3 (2%)	1 (1%)	22	15
16	v	135/163 (83%)	132 (98%)	3 (2%)	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%)	34 (94%)	2 (6%)	0	100	100
18	x	37/41 (90%)	36 (97%)	1 (3%)	0	100	100
19	Z	60/62 (97%)	58 (97%)	2 (3%)	0	100	100
19	z	60/62 (97%)	57 (95%)	3 (5%)	0	100	100
20	R	32/41 (78%)	30 (94%)	2 (6%)	0	100	100
20	r	29/41 (71%)	28 (97%)	1 (3%)	0	100	100
All	All	5534/5700 (97%)	5386 (97%)	138 (2%)	10 (0%)	47	43

All (10) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	C	416	SER
13	O	58	ASN
16	V	64	PRO
13	O	62	GLU
3	c	416	SER
15	u	53	ALA
13	O	134	THR
13	O	138	THR
1	A	259	ILE
1	a	259	ILE

### 5.3.2 Protein sidechains [i](#)

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



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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	374/280 (134%)	370 (99%)	4 (1%)	73	77
1	a	373/280 (133%)	365 (98%)	8 (2%)	53	55
2	B	407/407 (100%)	399 (98%)	8 (2%)	55	57
2	b	402/407 (99%)	394 (98%)	8 (2%)	55	57
3	C	361/362 (100%)	358 (99%)	3 (1%)	81	85
3	c	370/362 (102%)	358 (97%)	12 (3%)	39	37
4	D	278/283 (98%)	276 (99%)	2 (1%)	84	87
4	d	279/283 (99%)	272 (98%)	7 (2%)	47	48
5	E	72/73 (99%)	70 (97%)	2 (3%)	43	43
5	e	71/73 (97%)	68 (96%)	3 (4%)	30	26
6	F	28/39 (72%)	27 (96%)	1 (4%)	35	32
6	f	28/39 (72%)	28 (100%)	0	100	100
7	H	54/55 (98%)	52 (96%)	2 (4%)	34	31
7	h	53/55 (96%)	50 (94%)	3 (6%)	20	15
8	I	32/34 (94%)	31 (97%)	1 (3%)	40	38
8	i	32/34 (94%)	31 (97%)	1 (3%)	40	38
9	J	24/28 (86%)	24 (100%)	0	100	100
9	j	24/28 (86%)	22 (92%)	2 (8%)	11	6
10	K	30/37 (81%)	29 (97%)	1 (3%)	38	36
10	k	30/37 (81%)	28 (93%)	2 (7%)	16	11
11	L	35/35 (100%)	35 (100%)	0	100	100
11	l	34/35 (97%)	31 (91%)	3 (9%)	10	5
12	M	28/32 (88%)	26 (93%)	2 (7%)	14	9
12	m	28/32 (88%)	26 (93%)	2 (7%)	14	9
13	O	206/228 (90%)	199 (97%)	7 (3%)	37	35
13	o	207/228 (91%)	203 (98%)	4 (2%)	57	59
14	T	26/28 (93%)	24 (92%)	2 (8%)	13	8
14	t	25/28 (89%)	24 (96%)	1 (4%)	31	28
15	U	84/112 (75%)	81 (96%)	3 (4%)	35	32
15	u	84/112 (75%)	83 (99%)	1 (1%)	71	75

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
16	V	117/138 (85%)	115 (98%)	2 (2%)	60	63
16	v	117/138 (85%)	115 (98%)	2 (2%)	60	63
17	Y	19/37 (51%)	19 (100%)	0	100	100
17	y	22/37 (60%)	21 (96%)	1 (4%)	27	23
18	X	31/34 (91%)	30 (97%)	1 (3%)	39	37
18	x	31/34 (91%)	30 (97%)	1 (3%)	39	37
19	Z	52/52 (100%)	47 (90%)	5 (10%)	8	4
19	z	51/52 (98%)	48 (94%)	3 (6%)	19	14
20	R	28/33 (85%)	26 (93%)	2 (7%)	14	9
20	r	25/33 (76%)	23 (92%)	2 (8%)	12	7
All	All	4572/4654 (98%)	4458 (98%)	114 (2%)	47	48

All (114) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	12	ASN
1	A	238	LYS
1	A	243	GLU
1	A	270	SER
2	B	76	SER
2	B	86	ILE
2	B	98	LEU
2	B	101	ILE
2	B	127	ARG
2	B	362	PHE
2	B	371	THR
2	B	476	ARG
3	C	141	GLU
3	C	289	PHE
3	C	315	MET
4	D	12	ARG
4	D	180	ARG
5	E	22[A]	ILE
5	E	22[B]	ILE
6	F	25	THR
7	H	20	LYS
7	H	49	TYR
8	I	4	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
10	K	10	LYS
12	M	2	GLU
12	M	25	LEU
13	O	78	LEU
13	O	107	THR
13	O	118	LEU
13	O	135	SER
13	O	184	ARG
13	O	191	SER
13	O	214	THR
14	T	25	GLU
14	T	30	THR
15	U	39	ARG
15	U	61	VAL
15	U	67	LEU
16	V	3	LEU
16	V	7	VAL
18	X	37	VAL
19	Z	15	LEU
19	Z	19	MET
19	Z	35	ARG
19	Z	46	LEU
19	Z	50	LEU
20	R	21	ARG
20	R	29	LYS
1	a	28	LEU
1	a	42	LEU
1	a	159[A]	LEU
1	a	159[B]	LEU
1	a	159[C]	LEU
1	a	200	LEU
1	a	223	LEU
1	a	288	LEU
2	b	98	LEU
2	b	128	THR
2	b	137	LYS
2	b	362	PHE
2	b	435	GLU
2	b	485	GLU
2	b	492	GLU
2	b	506	ARG
3	c	24	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	c	72	LEU
3	c	99	VAL
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	391[A]	ARG
3	c	391[B]	ARG
4	d	90	LEU
4	d	180	ARG
4	d	182	LEU
4	d	259	ILE
4	d	291	LEU
4	d	293	LEU
4	d	321	LEU
5	e	4	THR
5	e	65	LEU
5	e	83	LEU
7	h	7	LEU
7	h	49	TYR
7	h	56	ASP
8	i	2	GLU
9	j	13	VAL
9	j	21	VAL
10	k	10	LYS
10	k	30	VAL
11	l	7	ARG
11	l	21	LEU
11	l	30	LEU
12	m	13	LEU
12	m	16	LEU
13	o	49	THR
13	o	60	ARG
13	o	118	LEU
13	o	130	GLN
14	t	25	GLU
15	u	23	GLU
16	v	52	LEU
16	v	107	LEU

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Mol	Chain	Res	Type
17	y	19	ILE
18	x	15	LEU
19	z	1	MET
19	z	42	LEU
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 (16) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	325	ASN
2	B	409	GLN
3	C	311	GLN
13	O	88	ASN
15	U	37	GLN
16	V	86	GLN
19	Z	31	GLN
19	Z	38	GLN
2	b	409	GLN
3	c	311	GLN
5	e	60	GLN
5	e	82	GLN
15	u	37	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	0.90	0	7,9,11	0.96	1 (14%)
8	FME	i	1	8	8,9,10	1.01	0	7,9,11	0.92	0
14	FME	T	1	14	8,9,10	1.10	1 (12%)	7,9,11	1.32	1 (14%)
12	FME	m	1	12	8,9,10	0.96	0	7,9,11	0.48	0
14	FME	t	1	14	8,9,10	0.88	0	7,9,11	0.91	0
12	FME	M	1	12	8,9,10	0.97	1 (12%)	7,9,11	1.25	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	-	2/7/9/11	-
8	FME	i	1	8	-	2/7/9/11	-
14	FME	T	1	14	-	2/7/9/11	-
12	FME	m	1	12	-	1/7/9/11	-
14	FME	t	1	14	-	2/7/9/11	-
12	FME	M	1	12	-	2/7/9/11	-

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	T	1	FME	CA-N	-2.09	1.43	1.46
12	M	1	FME	CA-N	-2.00	1.43	1.46

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	T	1	FME	C-CA-N	2.29	113.86	109.73
8	I	1	FME	C-CA-N	2.05	113.43	109.73

There are no chirality outliers.

All (11) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
14	T	1	FME	O-C-CA-CB

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Mol	Chain	Res	Type	Atoms
8	i	1	FME	O-C-CA-CB
12	m	1	FME	O-C-CA-CB
14	t	1	FME	O-C-CA-CB
14	t	1	FME	CB-CG-SD-CE
14	T	1	FME	CB-CG-SD-CE
12	M	1	FME	CA-CB-CG-SD
8	i	1	FME	CB-CG-SD-CE
8	I	1	FME	C-CA-CB-CG
8	I	1	FME	CA-CB-CG-SD
12	M	1	FME	CB-CA-N-CN

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 190 ligands modelled in this entry, 6 are monoatomic - leaving 184 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
33	STE	C	521	-	11,11,19	0.73	0	11,11,19	1.22	1 (9%)
25	CLA	c	506	-	65,73,73	1.60	8 (12%)	76,113,113	1.37	6 (7%)
29	LMG	C	519	-	48,48,55	0.87	2 (4%)	56,56,63	1.28	6 (10%)
33	STE	I	101	-	14,14,19	0.37	0	13,13,19	0.73	0
29	LMG	A	613	-	48,48,55	0.79	0	56,56,63	1.41	9 (16%)
25	CLA	c	508	-	64,72,73	1.62	8 (12%)	74,111,113	1.53	14 (18%)
25	CLA	b	601	-	65,73,73	1.42	6 (9%)	76,113,113	1.52	10 (13%)
25	CLA	B	615	-	60,68,73	1.77	8 (13%)	70,107,113	1.59	8 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
33	STE	t	103	-	9,9,19	0.34	0	8,8,19	0.80	0
25	CLA	D	403	-	65,73,73	1.40	7 (10%)	76,113,113	1.31	9 (11%)
25	CLA	c	510	-	65,73,73	1.54	8 (12%)	76,113,113	1.53	9 (11%)
25	CLA	C	501	-	65,73,73	1.76	8 (12%)	76,113,113	1.57	10 (13%)
27	BCR	T	101	-	41,41,41	0.95	2 (4%)	56,56,56	1.23	7 (12%)
31	LHG	D	408	-	48,48,48	0.66	1 (2%)	51,54,54	1.25	7 (13%)
27	BCR	b	617	-	41,41,41	1.03	2 (4%)	56,56,56	1.06	2 (3%)
33	STE	b	626	-	9,9,19	0.34	0	8,8,19	0.71	0
27	BCR	H	102	-	41,41,41	0.94	1 (2%)	56,56,56	1.18	7 (12%)
32	DGD	A	617	-	67,67,67	1.06	6 (8%)	81,81,81	1.32	12 (14%)
32	DGD	h	103	-	63,63,67	0.99	5 (7%)	77,77,81	1.45	12 (15%)
25	CLA	b	613	-	65,73,73	1.57	9 (13%)	76,113,113	1.46	10 (13%)
33	STE	M	102	-	14,14,19	0.61	0	14,14,19	1.25	1 (7%)
21	OEY	a	601[C]	3,37,1	0,16,16	-	-	-	-	-
25	CLA	B	611	-	65,73,73	1.45	8 (12%)	76,113,113	1.58	11 (14%)
29	LMG	d	410	-	21,21,55	0.54	1 (4%)	20,20,63	1.20	2 (10%)
25	CLA	C	508	-	65,73,73	1.61	7 (10%)	76,113,113	1.49	8 (10%)
31	LHG	A	615	-	48,48,48	0.79	3 (6%)	51,54,54	1.17	5 (9%)
25	CLA	b	605	-	65,73,73	1.61	7 (10%)	76,113,113	1.44	10 (13%)
30	SQD	a	614	-	35,35,54	1.68	6 (17%)	37,37,65	1.36	3 (8%)
27	BCR	k	101	-	41,41,41	0.99	2 (4%)	56,56,56	1.01	2 (3%)
31	LHG	d	408	-	48,48,48	0.62	0	51,54,54	1.18	4 (7%)
27	BCR	B	617	-	41,41,41	1.01	2 (4%)	56,56,56	1.15	4 (7%)
25	CLA	b	612	-	65,73,73	1.63	8 (12%)	76,113,113	1.42	10 (13%)
25	CLA	C	511	3	65,73,73	1.60	8 (12%)	76,113,113	1.47	5 (6%)
30	SQD	F	102	-	35,36,54	1.52	7 (20%)	42,45,65	1.85	10 (23%)
33	STE	B	625	-	15,15,19	0.35	0	14,14,19	0.80	0
25	CLA	C	505	-	65,73,73	1.51	6 (9%)	76,113,113	1.37	6 (7%)
25	CLA	A	609	-	54,62,73	1.59	5 (9%)	62,99,113	1.53	9 (14%)
27	BCR	A	610	-	41,41,41	0.93	1 (2%)	56,56,56	1.21	6 (10%)
27	BCR	c	514	-	41,41,41	1.01	2 (4%)	56,56,56	1.18	5 (8%)
33	STE	C	522	-	15,15,19	0.32	0	14,14,19	0.90	0
25	CLA	d	404	-	65,73,73	1.43	7 (10%)	76,113,113	1.35	8 (10%)
33	STE	j	101	-	11,11,19	0.78	0	11,11,19	1.00	0
35	HEM	F	101	6,5	41,50,50	1.50	4 (9%)	45,82,82	1.37	6 (13%)
29	LMG	m	101	-	51,51,55	0.73	1 (1%)	59,59,63	1.41	8 (13%)



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
25	CLA	b	606	37	65,73,73	1.33	6 (9%)	76,113,113	1.39	9 (11%)
27	BCR	k	102	-	41,41,41	0.99	2 (4%)	56,56,56	1.20	4 (7%)
33	STE	M	103	-	9,9,19	0.36	0	8,8,19	0.69	0
25	CLA	b	611	-	65,73,73	1.42	7 (10%)	76,113,113	1.51	12 (15%)
22	OEX	A	602[B]	3,37,1	0,15,15	-	-	-	-	-
25	CLA	c	511	3	65,73,73	1.78	7 (10%)	76,113,113	1.48	7 (9%)
25	CLA	B	614	-	65,73,73	1.77	8 (12%)	76,113,113	1.43	6 (7%)
27	BCR	C	515	-	41,41,41	1.02	2 (4%)	56,56,56	1.11	3 (5%)
26	PHO	A	608	-	51,69,69	0.95	2 (3%)	47,99,99	1.30	5 (10%)
25	CLA	b	603	-	65,73,73	1.63	7 (10%)	76,113,113	1.62	9 (11%)
25	CLA	B	608	-	65,73,73	1.61	8 (12%)	76,113,113	1.50	8 (10%)
25	CLA	B	604	-	65,73,73	1.42	5 (7%)	76,113,113	1.44	9 (11%)
27	BCR	K	101	-	41,41,41	1.02	2 (4%)	56,56,56	1.14	4 (7%)
25	CLA	A	606	-	65,73,73	1.48	5 (7%)	76,113,113	1.29	9 (11%)
33	STE	d	412	-	15,15,19	0.77	0	15,15,19	0.85	0
25	CLA	h	101	37	65,73,73	1.60	6 (9%)	76,113,113	1.43	9 (11%)
29	LMG	D	410	-	31,31,55	0.70	2 (6%)	33,33,63	1.19	3 (9%)
25	CLA	H	101	37	65,73,73	1.72	8 (12%)	76,113,113	1.57	12 (15%)
33	STE	X	101	-	19,19,19	0.54	0	19,19,19	1.20	1 (5%)
25	CLA	A	607	37	65,73,73	1.44	5 (7%)	76,113,113	1.29	11 (14%)
33	STE	k	103	-	11,11,19	0.71	0	11,11,19	1.21	0
25	CLA	B	601	-	65,73,73	1.58	7 (10%)	76,113,113	1.46	10 (13%)
25	CLA	c	505	-	65,73,73	1.51	7 (10%)	76,113,113	1.30	7 (9%)
33	STE	B	624	-	11,11,19	0.71	0	11,11,19	1.22	1 (9%)
31	LHG	e	101	-	41,41,48	0.77	1 (2%)	44,47,54	1.29	6 (13%)
25	CLA	B	613	-	65,73,73	1.59	7 (10%)	76,113,113	1.41	8 (10%)
33	STE	E	101	-	11,11,19	0.72	0	11,11,19	1.17	1 (9%)
33	STE	x	101	-	19,19,19	0.51	0	19,19,19	1.29	1 (5%)
27	BCR	d	405	-	41,41,41	1.01	2 (4%)	56,56,56	1.10	4 (7%)
31	LHG	D	411	-	48,48,48	0.78	1 (2%)	51,54,54	1.30	7 (13%)
21	OEY	A	601[C]	3,37,1	0,16,16	-	-	-	-	-
21	OEY	a	601[A]	3,37,1	0,16,16	-	-	-	-	-
25	CLA	a	606	-	65,73,73	1.53	8 (12%)	76,113,113	1.42	9 (11%)
25	CLA	d	403	-	65,73,73	1.56	7 (10%)	76,113,113	1.30	8 (10%)
27	BCR	B	616	-	41,41,41	1.00	3 (7%)	56,56,56	1.20	6 (10%)
25	CLA	B	612	-	65,73,73	1.48	7 (10%)	76,113,113	1.41	8 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
25	CLA	B	607	-	65,73,73	1.49	8 (12%)	76,113,113	1.38	7 (9%)
25	CLA	C	503	-	65,73,73	1.63	9 (13%)	76,113,113	1.59	10 (13%)
25	CLA	b	610	-	65,73,73	1.52	7 (10%)	76,113,113	1.40	10 (13%)
25	CLA	C	513	-	65,73,73	1.56	9 (13%)	76,113,113	1.50	8 (10%)
29	LMG	c	519	-	37,37,55	0.92	2 (5%)	45,45,63	1.33	6 (13%)
25	CLA	c	502	-	65,73,73	1.62	7 (10%)	76,113,113	1.48	8 (10%)
33	STE	B	619	-	16,16,19	0.66	0	16,16,19	1.08	0
34	BCT	D	401	23	2,3,3	1.38	0	2,3,3	2.90	1 (50%)
25	CLA	A	612	37	65,73,73	1.54	6 (9%)	76,113,113	1.39	6 (7%)
25	CLA	D	404	-	65,73,73	1.50	8 (12%)	76,113,113	1.37	9 (11%)
25	CLA	C	502	-	65,73,73	1.50	6 (9%)	76,113,113	1.37	7 (9%)
32	DGD	c	518	-	63,63,67	0.92	3 (4%)	77,77,81	1.42	11 (14%)
33	STE	l	101	-	17,17,19	0.30	0	16,16,19	0.95	0
35	HEM	f	101	6,5	41,50,50	1.46	4 (9%)	45,82,82	1.62	10 (22%)
32	DGD	C	518	-	63,63,67	0.88	1 (1%)	77,77,81	1.35	8 (10%)
33	STE	d	413	-	16,16,19	0.57	0	16,16,19	1.35	2 (12%)
22	OEX	a	602[B]	3,37,1	0,15,15	-	-	-	-	-
30	SQD	f	102	-	40,41,54	1.65	8 (20%)	49,52,65	1.88	12 (24%)
25	CLA	c	513	-	65,73,73	1.52	6 (9%)	76,113,113	1.42	9 (11%)
26	PHO	D	402	-	51,69,69	1.01	3 (5%)	47,99,99	1.13	5 (10%)
26	PHO	a	608	-	51,69,69	0.97	2 (3%)	47,99,99	1.16	6 (12%)
32	DGD	c	516	-	63,63,67	0.99	4 (6%)	77,77,81	1.48	14 (18%)
27	BCR	B	618	-	41,41,41	1.00	2 (4%)	56,56,56	1.16	3 (5%)
25	CLA	b	614	-	65,73,73	1.58	9 (13%)	76,113,113	1.43	7 (9%)
32	DGD	C	516	-	63,63,67	1.03	5 (7%)	77,77,81	1.32	11 (14%)
36	HEC	v	201	16	32,50,50	2.10	3 (9%)	24,82,82	1.78	5 (20%)
27	BCR	b	618	-	41,41,41	0.94	2 (4%)	56,56,56	1.13	3 (5%)
27	BCR	C	514	-	41,41,41	1.02	2 (4%)	56,56,56	1.23	7 (12%)
30	SQD	A	614	-	51,52,54	1.54	6 (11%)	60,63,65	1.97	11 (18%)
25	CLA	B	602	-	65,73,73	1.45	6 (9%)	76,113,113	1.48	8 (10%)
25	CLA	b	604	-	65,73,73	1.50	7 (10%)	76,113,113	1.50	11 (14%)
31	LHG	d	409	-	38,38,48	0.81	1 (2%)	41,44,54	1.14	3 (7%)
25	CLA	a	609	-	65,73,73	1.42	7 (10%)	76,113,113	1.42	8 (10%)
30	SQD	A	616	-	38,38,54	1.72	5 (13%)	40,40,65	1.12	2 (5%)
25	CLA	C	506	-	65,73,73	1.51	6 (9%)	76,113,113	1.36	9 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
25	CLA	C	509	-	65,73,73	1.50	7 (10%)	76,113,113	1.49	9 (11%)
25	CLA	a	607	37	65,73,73	1.54	7 (10%)	76,113,113	1.46	11 (14%)
27	BCR	h	102	-	41,41,41	0.97	2 (4%)	56,56,56	1.19	4 (7%)
33	STE	a	616	-	11,11,19	0.73	0	11,11,19	1.24	1 (9%)
25	CLA	c	501	-	65,73,73	1.46	8 (12%)	76,113,113	1.59	10 (13%)
25	CLA	C	507	37	65,73,73	1.53	6 (9%)	76,113,113	1.46	8 (10%)
27	BCR	D	405	-	41,41,41	1.02	2 (4%)	56,56,56	1.15	5 (8%)
25	CLA	B	609	37	65,73,73	1.61	9 (13%)	76,113,113	1.35	11 (14%)
25	CLA	C	510	-	65,73,73	1.53	8 (12%)	76,113,113	1.51	8 (10%)
25	CLA	b	615	-	60,68,73	1.41	5 (8%)	70,107,113	1.53	10 (14%)
33	STE	B	622	-	11,11,19	0.78	0	11,11,19	1.14	0
30	SQD	a	613	-	53,54,54	1.55	9 (16%)	62,65,65	1.91	12 (19%)
36	HEC	V	201	16	32,50,50	1.98	3 (9%)	24,82,82	1.90	6 (25%)
27	BCR	a	610	-	41,41,41	0.90	1 (2%)	56,56,56	1.13	5 (8%)
30	SQD	B	621	-	53,54,54	1.55	9 (16%)	62,65,65	1.73	11 (17%)
25	CLA	c	509	-	65,73,73	1.47	5 (7%)	76,113,113	1.51	7 (9%)
34	BCT	d	401	23	2,3,3	1.33	0	2,3,3	2.86	1 (50%)
27	BCR	t	101	-	41,41,41	0.91	2 (4%)	56,56,56	1.28	6 (10%)
33	STE	B	623	-	17,17,19	0.61	0	17,17,19	1.17	0
33	STE	b	625	-	19,19,19	0.59	0	19,19,19	1.01	0
25	CLA	C	512	-	65,73,73	1.52	8 (12%)	76,113,113	1.45	11 (14%)
33	STE	H	104	-	17,17,19	0.36	0	16,16,19	0.77	0
25	CLA	c	507	37	65,73,73	1.53	9 (13%)	76,113,113	1.46	8 (10%)
30	SQD	b	619	-	48,49,54	1.63	8 (16%)	57,60,65	1.52	8 (14%)
29	LMG	D	407	-	51,51,55	0.82	3 (5%)	59,59,63	1.34	5 (8%)
31	LHG	b	623	-	48,48,48	0.69	0	51,54,54	1.17	5 (9%)
25	CLA	b	607	-	65,73,73	1.53	7 (10%)	76,113,113	1.44	10 (13%)
21	OEY	A	601[A]	3,37,1	0,16,16	-	-	-	-	-
33	STE	b	624	-	14,14,19	0.31	0	13,13,19	0.90	0
32	DGD	H	103	-	63,63,67	1.07	8 (12%)	77,77,81	1.43	12 (15%)
33	STE	J	101	-	11,11,19	0.71	0	11,11,19	1.13	0
29	LMG	c	522	-	49,49,55	0.77	1 (2%)	57,57,63	1.33	6 (10%)
25	CLA	B	603	-	65,73,73	1.65	8 (12%)	76,113,113	1.66	10 (13%)
33	STE	b	620	-	15,15,19	0.36	0	14,14,19	0.85	0
28	PL9	A	611	-	55,55,55	1.11	3 (5%)	68,69,69	1.57	14 (20%)
29	LMG	b	622	-	55,55,55	0.78	3 (5%)	63,63,63	1.30	7 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
29	LMG	M	101	-	51,51,55	0.85	3 (5%)	59,59,63	1.45	8 (13%)
33	STE	c	520	-	19,19,19	0.60	0	19,19,19	0.98	0
25	CLA	c	503	-	65,73,73	1.54	7 (10%)	76,113,113	1.52	9 (11%)
31	LHG	L	101	-	48,48,48	0.74	1 (2%)	51,54,54	1.18	3 (5%)
25	CLA	c	512	-	65,73,73	1.51	7 (10%)	76,113,113	1.46	10 (13%)
33	STE	b	621	-	19,19,19	0.57	0	19,19,19	1.16	1 (5%)
29	LMG	B	620	-	26,26,55	0.71	2 (7%)	26,26,63	1.24	3 (11%)
33	STE	m	102	-	11,11,19	0.64	0	11,11,19	1.65	3 (27%)
25	CLA	a	612	37	65,73,73	1.69	8 (12%)	76,113,113	1.43	8 (10%)
33	STE	t	102	-	13,13,19	0.63	0	13,13,19	1.32	2 (15%)
28	PL9	D	406	-	55,55,55	1.05	5 (9%)	68,69,69	1.52	12 (17%)
25	CLA	b	602	-	65,73,73	1.62	7 (10%)	76,113,113	1.48	8 (10%)
25	CLA	b	608	-	65,73,73	1.54	7 (10%)	76,113,113	1.47	10 (13%)
28	PL9	d	406	-	55,55,55	1.04	3 (5%)	68,69,69	1.61	14 (20%)
29	LMG	c	521	-	48,48,55	0.90	2 (4%)	56,56,63	1.27	6 (10%)
25	CLA	B	605	-	65,73,73	1.80	10 (15%)	76,113,113	1.53	10 (13%)
26	PHO	d	402	-	51,69,69	0.93	1 (1%)	47,99,99	1.43	8 (17%)
27	BCR	c	515	-	41,41,41	1.09	2 (4%)	56,56,56	1.18	5 (8%)
25	CLA	B	610	-	65,73,73	1.55	7 (10%)	76,113,113	1.44	7 (9%)
27	BCR	K	102	-	41,41,41	1.00	2 (4%)	56,56,56	1.09	2 (3%)
31	LHG	D	409	-	46,46,48	0.86	3 (6%)	49,52,54	1.18	6 (12%)
33	STE	C	520	-	11,11,19	0.62	0	11,11,19	1.58	2 (18%)
25	CLA	b	609	37	65,73,73	1.54	9 (13%)	76,113,113	1.48	11 (14%)
28	PL9	a	611	-	55,55,55	0.68	1 (1%)	68,69,69	1.55	11 (16%)
25	CLA	c	504	37	60,68,73	1.54	5 (8%)	70,107,113	1.53	10 (14%)
25	CLA	C	504	37	59,67,73	1.54	8 (13%)	68,105,113	1.49	9 (13%)
31	LHG	d	407	-	48,48,48	0.87	3 (6%)	51,54,54	1.37	7 (13%)
25	CLA	B	606	37	65,73,73	1.62	8 (12%)	76,113,113	1.44	4 (5%)
32	DGD	c	517	-	63,63,67	0.99	4 (6%)	77,77,81	1.32	10 (12%)
27	BCR	b	616	-	41,41,41	0.95	2 (4%)	56,56,56	1.27	7 (12%)
29	LMG	d	411	-	44,44,55	0.85	1 (2%)	52,52,63	1.26	6 (11%)
32	DGD	C	517	-	63,63,67	1.03	5 (7%)	77,77,81	1.34	11 (14%)
32	DGD	a	615	-	43,43,67	0.67	1 (2%)	45,45,81	1.46	6 (13%)

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. '2' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
33	STE	C	521	-	-	6/9/9/17	-
25	CLA	c	506	-	1/1/15/20	14/37/115/115	-
29	LMG	C	519	-	-	19/43/63/70	0/1/1/1
33	STE	I	101	-	-	6/12/12/17	-
29	LMG	A	613	-	-	21/43/63/70	0/1/1/1
25	CLA	c	508	-	-	10/36/114/115	-
25	CLA	b	601	-	-	8/37/115/115	-
25	CLA	B	615	-	1/1/14/20	12/31/109/115	-
33	STE	t	103	-	-	3/7/7/17	-
25	CLA	c	510	-	1/1/15/20	15/37/115/115	-
25	CLA	D	403	-	-	7/37/115/115	-
25	CLA	C	501	-	1/1/15/20	5/37/115/115	-
27	BCR	T	101	-	-	7/29/63/63	0/2/2/2
31	LHG	D	408	-	-	27/53/53/53	-
27	BCR	b	617	-	-	3/29/63/63	0/2/2/2
33	STE	b	626	-	-	4/7/7/17	-
27	BCR	H	102	-	-	3/29/63/63	0/2/2/2
32	DGD	A	617	-	-	29/55/95/95	0/2/2/2
32	DGD	h	103	-	-	20/51/91/95	0/2/2/2
25	CLA	b	613	-	1/1/15/20	19/37/115/115	-
33	STE	M	102	-	-	5/12/12/17	-
25	CLA	B	611	-	1/1/15/20	11/37/115/115	-
29	LMG	d	410	-	-	10/17/17/70	-
25	CLA	C	508	-	-	10/37/115/115	-
31	LHG	A	615	-	-	21/53/53/53	-
25	CLA	b	605	-	1/1/15/20	9/37/115/115	-
30	SQD	a	614	-	-	22/37/37/69	-
27	BCR	k	101	-	-	10/29/63/63	0/2/2/2
31	LHG	d	408	-	-	16/53/53/53	-
27	BCR	B	617	-	-	4/29/63/63	0/2/2/2
25	CLA	b	612	-	1/1/15/20	11/37/115/115	-
25	CLA	C	511	3	1/1/15/20	7/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
30	SQD	F	102	-	-	14/28/48/69	0/1/1/1
33	STE	B	625	-	-	6/13/13/17	-
25	CLA	C	505	-	1/1/15/20	12/37/115/115	-
25	CLA	A	609	-	1/1/12/20	3/24/102/115	-
27	BCR	A	610	-	-	3/29/63/63	0/2/2/2
27	BCR	c	514	-	-	5/29/63/63	0/2/2/2
33	STE	C	522	-	-	9/13/13/17	-
25	CLA	d	404	-	1/1/15/20	8/37/115/115	-
33	STE	j	101	-	-	5/9/9/17	-
35	HEM	F	101	6,5	-	2/12/54/54	-
29	LMG	m	101	-	-	22/46/66/70	0/1/1/1
25	CLA	b	606	37	1/1/15/20	17/37/115/115	-
27	BCR	k	102	-	-	2/29/63/63	0/2/2/2
33	STE	M	103	-	-	2/7/7/17	-
25	CLA	b	611	-	1/1/15/20	9/37/115/115	-
25	CLA	c	511	3	1/1/15/20	9/37/115/115	-
25	CLA	B	614	-	1/1/15/20	12/37/115/115	-
27	BCR	C	515	-	-	2/29/63/63	0/2/2/2
26	PHO	A	608	-	-	1/37/103/103	0/5/6/6
25	CLA	b	603	-	1/1/15/20	9/37/115/115	-
25	CLA	B	608	-	-	5/37/115/115	-
25	CLA	B	604	-	1/1/15/20	9/37/115/115	-
27	BCR	K	101	-	-	7/29/63/63	0/2/2/2
25	CLA	A	606	-	1/1/15/20	8/37/115/115	-
33	STE	d	412	-	-	6/13/13/17	-
25	CLA	h	101	37	1/1/15/20	18/37/115/115	-
29	LMG	D	410	-	-	17/33/33/70	-
25	CLA	H	101	37	1/1/15/20	19/37/115/115	-
33	STE	X	101	-	-	12/17/17/17	-
25	CLA	A	607	37	1/1/15/20	11/37/115/115	-
33	STE	k	103	-	-	4/9/9/17	-
25	CLA	B	601	-	1/1/15/20	8/37/115/115	-
25	CLA	c	505	-	1/1/15/20	6/37/115/115	-
33	STE	B	624	-	-	1/9/9/17	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
31	LHG	e	101	-	-	23/46/46/53	-
25	CLA	B	613	-	1/1/15/20	12/37/115/115	-
33	STE	E	101	-	-	6/9/9/17	-
33	STE	x	101	-	-	10/17/17/17	-
27	BCR	d	405	-	-	8/29/63/63	0/2/2/2
31	LHG	D	411	-	-	18/53/53/53	-
25	CLA	a	606	-	1/1/15/20	1/37/115/115	-
25	CLA	d	403	-	-	5/37/115/115	-
27	BCR	B	616	-	-	3/29/63/63	0/2/2/2
25	CLA	B	612	-	1/1/15/20	15/37/115/115	-
25	CLA	B	607	-	1/1/15/20	5/37/115/115	-
25	CLA	C	503	-	1/1/15/20	5/37/115/115	-
25	CLA	b	610	-	1/1/15/20	6/37/115/115	-
25	CLA	C	513	-	1/1/15/20	11/37/115/115	-
29	LMG	c	519	-	-	12/31/51/70	0/1/1/1
25	CLA	c	502	-	-	3/37/115/115	-
33	STE	B	619	-	-	7/14/14/17	-
25	CLA	A	612	37	1/1/15/20	9/37/115/115	-
25	CLA	D	404	-	-	12/37/115/115	-
25	CLA	C	502	-	1/1/15/20	8/37/115/115	-
32	DGD	c	518	-	-	19/51/91/95	0/2/2/2
33	STE	l	101	-	-	8/15/15/17	-
35	HEM	f	101	6,5	-	5/12/54/54	-
32	DGD	C	518	-	-	16/51/91/95	0/2/2/2
33	STE	d	413	-	-	9/14/14/17	-
30	SQD	f	102	-	-	12/36/56/69	0/1/1/1
25	CLA	c	513	-	1/1/15/20	9/37/115/115	-
26	PHO	D	402	-	-	2/37/103/103	0/5/6/6
26	PHO	a	608	-	-	2/37/103/103	0/5/6/6
32	DGD	c	516	-	-	28/51/91/95	0/2/2/2
27	BCR	B	618	-	-	2/29/63/63	0/2/2/2
25	CLA	b	614	-	1/1/15/20	10/37/115/115	-
32	DGD	C	516	-	-	19/51/91/95	0/2/2/2
36	HEC	v	201	16	-	2/10/54/54	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
27	BCR	b	618	-	-	1/29/63/63	0/2/2/2
27	BCR	C	514	-	-	5/29/63/63	0/2/2/2
30	SQD	A	614	-	-	18/47/67/69	0/1/1/1
25	CLA	B	602	-	1/1/15/20	5/37/115/115	-
25	CLA	b	604	-	1/1/15/20	8/37/115/115	-
31	LHG	d	409	-	-	11/43/43/53	-
25	CLA	a	609	-	1/1/15/20	12/37/115/115	-
30	SQD	A	616	-	-	14/39/39/69	-
25	CLA	C	506	-	1/1/15/20	12/37/115/115	-
25	CLA	C	509	-	1/1/15/20	12/37/115/115	-
25	CLA	a	607	37	1/1/15/20	11/37/115/115	-
27	BCR	h	102	-	-	5/29/63/63	0/2/2/2
33	STE	a	616	-	-	3/9/9/17	-
25	CLA	c	501	-	1/1/15/20	5/37/115/115	-
25	CLA	C	507	37	1/1/15/20	10/37/115/115	-
27	BCR	D	405	-	-	6/29/63/63	0/2/2/2
25	CLA	B	609	37	1/1/15/20	7/37/115/115	-
25	CLA	C	510	-	1/1/15/20	10/37/115/115	-
25	CLA	b	615	-	1/1/14/20	6/31/109/115	-
33	STE	B	622	-	-	7/9/9/17	-
30	SQD	a	613	-	-	21/49/69/69	0/1/1/1
36	HEC	V	201	16	-	2/10/54/54	-
27	BCR	a	610	-	-	2/29/63/63	0/2/2/2
30	SQD	B	621	-	-	22/49/69/69	0/1/1/1
25	CLA	c	509	-	1/1/15/20	17/37/115/115	-
27	BCR	t	101	-	-	5/29/63/63	0/2/2/2
33	STE	B	623	-	-	7/15/15/17	-
33	STE	b	625	-	-	10/17/17/17	-
25	CLA	C	512	-	1/1/15/20	13/37/115/115	-
33	STE	H	104	-	-	12/15/15/17	-
25	CLA	c	507	37	1/1/15/20	12/37/115/115	-
30	SQD	b	619	-	-	18/44/64/69	0/1/1/1
29	LMG	D	407	-	-	16/46/66/70	0/1/1/1
31	LHG	b	623	-	-	13/53/53/53	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	b	607	-	1/1/15/20	5/37/115/115	-
33	STE	b	624	-	-	10/12/12/17	-
32	DGD	H	103	-	-	14/51/91/95	0/2/2/2
33	STE	J	101	-	-	4/9/9/17	-
29	LMG	c	522	-	-	22/44/64/70	0/1/1/1
25	CLA	B	603	-	1/1/15/20	9/37/115/115	-
33	STE	b	620	-	-	4/13/13/17	-
28	PL9	A	611	-	-	25/53/73/73	0/1/1/1
29	LMG	b	622	-	-	27/50/70/70	0/1/1/1
29	LMG	M	101	-	-	13/46/66/70	0/1/1/1
33	STE	c	520	-	-	8/17/17/17	-
25	CLA	c	503	-	1/1/15/20	8/37/115/115	-
31	LHG	L	101	-	-	19/53/53/53	-
25	CLA	c	512	-	1/1/15/20	18/37/115/115	-
33	STE	b	621	-	-	11/17/17/17	-
29	LMG	B	620	-	-	9/22/22/70	-
33	STE	m	102	-	-	5/9/9/17	-
25	CLA	a	612	37	1/1/15/20	4/37/115/115	-
33	STE	t	102	-	-	5/11/11/17	-
28	PL9	D	406	-	-	7/53/73/73	0/1/1/1
25	CLA	b	602	-	1/1/15/20	8/37/115/115	-
25	CLA	b	608	-	1/1/15/20	8/37/115/115	-
28	PL9	d	406	-	-	14/53/73/73	0/1/1/1
29	LMG	c	521	-	-	24/43/63/70	0/1/1/1
25	CLA	B	605	-	1/1/15/20	8/37/115/115	-
26	PHO	d	402	-	-	5/37/103/103	0/5/6/6
27	BCR	c	515	-	-	3/29/63/63	0/2/2/2
25	CLA	B	610	-	1/1/15/20	7/37/115/115	-
27	BCR	K	102	-	-	5/29/63/63	0/2/2/2
31	LHG	D	409	-	-	17/51/51/53	-
33	STE	C	520	-	-	5/9/9/17	-
25	CLA	b	609	37	1/1/15/20	6/37/115/115	-
28	PL9	a	611	-	-	24/53/73/73	0/1/1/1
25	CLA	c	504	37	1/1/14/20	12/31/109/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	C	504	37	1/1/13/20	8/30/108/115	-
31	LHG	d	407	-	-	17/53/53/53	-
25	CLA	B	606	37	1/1/15/20	11/37/115/115	-
32	DGD	c	517	-	-	17/51/91/95	0/2/2/2
27	BCR	b	616	-	-	5/29/63/63	0/2/2/2
29	LMG	d	411	-	-	14/39/59/70	0/1/1/1
32	DGD	C	517	-	-	17/51/91/95	0/2/2/2
32	DGD	a	615	-	-	22/45/45/95	-

All (717) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	B	614	CLA	C4B-NB	8.41	1.42	1.35
25	H	101	CLA	C4B-NB	8.34	1.42	1.35
25	B	609	CLA	C4B-NB	8.13	1.42	1.35
25	c	511	CLA	MG-NA	8.09	2.25	2.06
25	B	605	CLA	MG-NA	8.06	2.25	2.06
25	C	501	CLA	C4B-NB	8.06	1.42	1.35
25	b	612	CLA	C4B-NB	8.00	1.42	1.35
25	b	613	CLA	C4B-NB	7.93	1.42	1.35
25	h	101	CLA	C4B-NB	7.91	1.42	1.35
25	c	504	CLA	C4B-NB	7.90	1.42	1.35
25	c	506	CLA	C4B-NB	7.80	1.42	1.35
25	B	601	CLA	C4B-NB	7.74	1.42	1.35
25	B	613	CLA	C4B-NB	7.61	1.42	1.35
25	c	507	CLA	C4B-NB	7.58	1.42	1.35
25	b	602	CLA	C4B-NB	7.58	1.42	1.35
25	b	603	CLA	C4B-NB	7.58	1.42	1.35
25	b	604	CLA	C4B-NB	7.57	1.42	1.35
25	B	615	CLA	C4B-NB	7.55	1.41	1.35
25	C	508	CLA	C4B-NB	7.53	1.41	1.35
25	c	513	CLA	C4B-NB	7.53	1.41	1.35
25	a	607	CLA	C4B-NB	7.53	1.41	1.35
25	A	609	CLA	C4B-NB	7.51	1.41	1.35
25	C	507	CLA	C4B-NB	7.50	1.41	1.35
25	C	505	CLA	C4B-NB	7.48	1.41	1.35
25	b	607	CLA	C4B-NB	7.41	1.41	1.35
25	c	512	CLA	C4B-NB	7.38	1.41	1.35
25	c	502	CLA	C4B-NB	7.36	1.41	1.35
25	a	612	CLA	C4B-NB	7.35	1.41	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	c	505	CLA	C4B-NB	7.35	1.41	1.35
25	c	509	CLA	C4B-NB	7.31	1.41	1.35
25	d	403	CLA	C4B-NB	7.28	1.41	1.35
25	C	513	CLA	C4B-NB	7.26	1.41	1.35
25	C	511	CLA	C4B-NB	7.26	1.41	1.35
25	c	508	CLA	C4B-NB	7.22	1.41	1.35
25	b	609	CLA	C4B-NB	7.21	1.41	1.35
25	B	612	CLA	C4B-NB	7.16	1.41	1.35
25	a	609	CLA	C4B-NB	7.13	1.41	1.35
25	c	511	CLA	C4B-NB	7.11	1.41	1.35
25	C	503	CLA	C4B-NB	7.11	1.41	1.35
25	b	605	CLA	C4B-NB	7.11	1.41	1.35
25	b	608	CLA	C4B-NB	7.11	1.41	1.35
25	C	502	CLA	C4B-NB	7.00	1.41	1.35
25	A	606	CLA	C4B-NB	6.97	1.41	1.35
25	c	510	CLA	C4B-NB	6.97	1.41	1.35
25	c	503	CLA	C4B-NB	6.95	1.41	1.35
25	C	509	CLA	C4B-NB	6.95	1.41	1.35
25	A	607	CLA	C4B-NB	6.89	1.41	1.35
25	B	610	CLA	C4B-NB	6.87	1.41	1.35
25	B	605	CLA	C4B-NB	6.86	1.41	1.35
25	b	614	CLA	C4B-NB	6.86	1.41	1.35
25	d	404	CLA	C4B-NB	6.85	1.41	1.35
25	b	601	CLA	C4B-NB	6.81	1.41	1.35
25	a	612	CLA	MG-NA	6.81	2.22	2.06
25	C	506	CLA	C4B-NB	6.79	1.41	1.35
25	C	512	CLA	C4B-NB	6.76	1.41	1.35
25	B	608	CLA	C4B-NB	6.71	1.41	1.35
25	C	504	CLA	C4B-NB	6.65	1.41	1.35
25	a	606	CLA	C4B-NB	6.56	1.41	1.35
25	B	611	CLA	C4B-NB	6.55	1.41	1.35
25	B	607	CLA	C4B-NB	6.52	1.41	1.35
25	B	604	CLA	C4B-NB	6.52	1.41	1.35
25	b	615	CLA	C4B-NB	6.51	1.41	1.35
25	B	602	CLA	C4B-NB	6.49	1.41	1.35
25	D	404	CLA	C4B-NB	6.48	1.41	1.35
25	C	510	CLA	C4B-NB	6.41	1.40	1.35
25	b	606	CLA	C4B-NB	6.20	1.40	1.35
25	c	501	CLA	C4B-NB	6.17	1.40	1.35
25	B	606	CLA	C4B-NB	6.16	1.40	1.35
25	b	611	CLA	C4B-NB	6.16	1.40	1.35
25	D	403	CLA	C4B-NB	6.13	1.40	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	A	612	CLA	C4B-NB	6.01	1.40	1.35
25	b	610	CLA	C4B-NB	5.95	1.40	1.35
25	b	614	CLA	MG-NA	5.85	2.20	2.06
25	C	501	CLA	MG-NA	5.84	2.20	2.06
36	v	201	HEC	C2B-C3B	-5.81	1.34	1.40
25	B	603	CLA	C4B-NB	5.79	1.40	1.35
25	b	610	CLA	MG-NA	5.71	2.19	2.06
36	V	201	HEC	C2B-C3B	-5.70	1.34	1.40
25	B	603	CLA	MG-NC	5.55	2.19	2.06
36	v	201	HEC	C3C-C2C	-5.42	1.35	1.40
30	A	616	SQD	O47-C45	-5.38	1.37	1.47
25	B	614	CLA	MG-NC	5.31	2.18	2.06
28	A	611	PL9	C7-C3	-5.29	1.45	1.51
36	v	201	HEC	C3D-C2D	5.22	1.53	1.37
25	B	610	CLA	MG-NA	5.22	2.18	2.06
25	B	615	CLA	MG-NA	5.14	2.18	2.06
30	b	619	SQD	O48-C23	5.06	1.48	1.33
30	a	613	SQD	O48-C23	5.05	1.48	1.33
35	F	101	HEM	C3C-C2C	-5.03	1.33	1.40
25	H	101	CLA	MG-NA	4.99	2.18	2.06
36	V	201	HEC	C3C-C2C	-4.96	1.35	1.40
25	b	602	CLA	MG-NA	4.95	2.18	2.06
25	B	608	CLA	MG-NA	4.83	2.17	2.06
25	b	605	CLA	MG-NA	4.81	2.17	2.06
25	C	510	CLA	MG-NA	4.77	2.17	2.06
30	F	102	SQD	O48-C23	4.77	1.47	1.33
36	V	201	HEC	C3D-C2D	4.75	1.51	1.37
30	B	621	SQD	O48-C23	4.75	1.47	1.33
25	B	606	CLA	C1D-ND	4.75	1.43	1.37
25	B	608	CLA	C1D-ND	4.73	1.43	1.37
25	b	603	CLA	MG-NA	4.72	2.17	2.06
25	A	612	CLA	MG-NA	4.65	2.17	2.06
30	a	614	SQD	O48-C23	4.65	1.46	1.33
30	A	616	SQD	O48-C23	4.64	1.46	1.33
25	c	510	CLA	MG-NA	4.64	2.17	2.06
25	b	612	CLA	MG-NA	4.63	2.17	2.06
30	A	614	SQD	O48-C23	4.63	1.46	1.33
30	f	102	SQD	O48-C23	4.57	1.46	1.33
25	A	606	CLA	MG-NA	4.57	2.17	2.06
25	C	503	CLA	MG-NA	4.55	2.17	2.06
25	C	507	CLA	MG-NA	4.55	2.17	2.06
25	B	603	CLA	MG-NA	4.54	2.17	2.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	C	508	CLA	MG-NA	4.49	2.16	2.06
25	a	606	CLA	C1D-ND	4.47	1.43	1.37
25	B	614	CLA	MG-NA	4.45	2.16	2.06
25	B	615	CLA	C1D-ND	4.39	1.43	1.37
25	a	606	CLA	MG-NA	4.38	2.16	2.06
25	C	506	CLA	MG-NA	4.35	2.16	2.06
25	b	609	CLA	C1D-ND	4.34	1.43	1.37
25	c	502	CLA	MG-ND	4.33	2.14	2.05
25	A	612	CLA	C1D-ND	4.32	1.43	1.37
25	D	404	CLA	C1D-ND	4.32	1.43	1.37
25	C	511	CLA	MG-NA	4.31	2.16	2.06
25	B	601	CLA	MG-NA	4.28	2.16	2.06
25	h	101	CLA	MG-NA	4.25	2.16	2.06
25	c	502	CLA	MG-NA	4.23	2.16	2.06
25	C	513	CLA	C1D-ND	4.22	1.43	1.37
25	c	509	CLA	C1D-ND	4.21	1.43	1.37
25	C	509	CLA	C1D-ND	4.16	1.42	1.37
25	C	506	CLA	C1D-ND	4.15	1.42	1.37
25	H	101	CLA	C1D-ND	4.11	1.42	1.37
25	B	605	CLA	C1D-ND	4.11	1.42	1.37
25	B	604	CLA	C1D-ND	4.10	1.42	1.37
25	B	603	CLA	C1D-ND	4.09	1.42	1.37
25	c	508	CLA	C1D-ND	4.08	1.42	1.37
25	B	601	CLA	C1D-ND	4.07	1.42	1.37
25	b	613	CLA	C1D-ND	4.06	1.42	1.37
25	B	613	CLA	MG-NA	4.03	2.15	2.06
25	c	510	CLA	C1D-ND	4.03	1.42	1.37
25	b	602	CLA	C1D-ND	4.02	1.42	1.37
25	C	511	CLA	C1D-ND	4.02	1.42	1.37
25	C	501	CLA	MG-ND	-4.00	1.97	2.05
25	D	404	CLA	MG-NC	3.98	2.15	2.06
25	c	513	CLA	C1D-ND	3.95	1.42	1.37
25	b	611	CLA	C1D-ND	3.93	1.42	1.37
25	B	602	CLA	MG-NA	3.92	2.15	2.06
25	C	510	CLA	C1D-ND	3.92	1.42	1.37
25	C	501	CLA	C1D-ND	3.92	1.42	1.37
25	B	606	CLA	MG-NA	3.91	2.15	2.06
25	c	506	CLA	C1D-ND	3.91	1.42	1.37
25	b	605	CLA	C1D-ND	3.90	1.42	1.37
25	B	614	CLA	C1D-ND	3.90	1.42	1.37
25	b	606	CLA	C1D-ND	3.89	1.42	1.37
27	c	515	BCR	C1-C6	-3.87	1.48	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	C	505	CLA	MG-NA	3.86	2.15	2.06
25	a	607	CLA	C4D-ND	-3.85	1.32	1.37
25	b	612	CLA	C1D-ND	3.84	1.42	1.37
25	d	403	CLA	MG-NC	3.83	2.15	2.06
35	f	101	HEM	C3C-C2C	-3.82	1.35	1.40
25	C	502	CLA	MG-NA	3.81	2.15	2.06
25	c	507	CLA	C1D-ND	3.79	1.42	1.37
25	B	606	CLA	MG-NC	3.78	2.15	2.06
25	d	403	CLA	MG-NA	3.76	2.15	2.06
25	c	512	CLA	C1D-ND	3.76	1.42	1.37
25	c	501	CLA	C1D-ND	3.76	1.42	1.37
25	B	611	CLA	C4D-ND	-3.75	1.32	1.37
25	C	505	CLA	CHC-C1C	3.74	1.44	1.35
25	B	613	CLA	C1D-ND	3.72	1.42	1.37
25	B	607	CLA	MG-NA	3.72	2.15	2.06
25	b	608	CLA	C1D-ND	3.71	1.42	1.37
25	b	613	CLA	CHC-C1C	3.71	1.44	1.35
25	b	601	CLA	C1D-ND	3.70	1.42	1.37
25	b	603	CLA	C1D-ND	3.70	1.42	1.37
35	f	101	HEM	C3C-CAC	3.70	1.55	1.47
25	a	607	CLA	CHC-C1C	3.70	1.44	1.35
25	C	503	CLA	MG-ND	3.69	2.13	2.05
25	C	504	CLA	MG-ND	-3.69	1.98	2.05
25	c	511	CLA	C1D-ND	3.69	1.42	1.37
25	c	503	CLA	C1D-ND	3.67	1.42	1.37
25	b	607	CLA	MG-NA	3.67	2.15	2.06
30	a	614	SQD	O47-C7	3.66	1.44	1.34
25	a	609	CLA	C1D-ND	3.66	1.42	1.37
25	C	502	CLA	C1D-ND	3.65	1.42	1.37
25	A	612	CLA	C4D-ND	-3.65	1.32	1.37
25	B	602	CLA	C1D-ND	3.64	1.42	1.37
28	D	406	PL9	C3-C4	-3.64	1.43	1.49
25	B	611	CLA	C1D-ND	3.63	1.42	1.37
25	A	607	CLA	C1D-ND	3.63	1.42	1.37
25	C	512	CLA	C1D-ND	3.62	1.42	1.37
25	b	607	CLA	CHC-C1C	3.62	1.44	1.35
28	d	406	PL9	C3-C4	-3.61	1.43	1.49
30	B	621	SQD	O47-C7	3.61	1.44	1.34
30	A	614	SQD	O47-C45	-3.60	1.37	1.46
25	b	604	CLA	C1D-ND	3.59	1.42	1.37
25	h	101	CLA	C1D-ND	3.58	1.42	1.37
25	B	610	CLA	C1D-ND	3.58	1.42	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	C	508	CLA	C1D-ND	3.58	1.42	1.37
25	d	403	CLA	C1D-ND	3.58	1.42	1.37
25	A	612	CLA	CHC-C1C	3.57	1.44	1.35
25	a	612	CLA	CHC-C1C	3.57	1.44	1.35
25	c	505	CLA	MG-NA	3.56	2.14	2.06
25	c	508	CLA	CHC-C1C	3.56	1.44	1.35
25	b	605	CLA	C4D-ND	-3.56	1.32	1.37
25	B	604	CLA	CHC-C1C	3.55	1.44	1.35
31	D	409	LHG	P-O6	3.54	1.73	1.59
25	c	504	CLA	C4D-ND	-3.54	1.32	1.37
30	b	619	SQD	O5-C1	3.54	1.50	1.41
25	A	609	CLA	C1D-ND	3.54	1.42	1.37
25	A	607	CLA	C4D-ND	-3.54	1.32	1.37
25	B	609	CLA	C1D-ND	3.53	1.42	1.37
25	C	501	CLA	CHC-C1C	3.53	1.44	1.35
30	f	102	SQD	O47-C7	3.53	1.44	1.34
25	B	615	CLA	MG-ND	3.52	2.12	2.05
30	b	619	SQD	O47-C7	3.51	1.44	1.34
25	c	502	CLA	C1D-ND	3.50	1.42	1.37
25	C	504	CLA	C1D-ND	3.50	1.42	1.37
25	B	612	CLA	C1D-ND	3.49	1.42	1.37
25	c	503	CLA	C4D-ND	-3.49	1.32	1.37
25	B	609	CLA	MG-NA	3.48	2.14	2.06
25	B	606	CLA	C4D-ND	-3.48	1.32	1.37
25	B	614	CLA	CHC-C1C	3.48	1.43	1.35
25	b	615	CLA	C1D-ND	3.47	1.42	1.37
25	A	606	CLA	C1D-ND	3.46	1.42	1.37
35	F	101	HEM	C3C-CAC	3.46	1.54	1.47
30	a	613	SQD	O47-C7	3.44	1.44	1.34
31	d	407	LHG	O7-C5	-3.44	1.38	1.46
25	B	601	CLA	CHC-C1C	3.43	1.43	1.35
25	C	506	CLA	CHC-C1C	3.43	1.43	1.35
25	C	513	CLA	C4D-ND	-3.42	1.33	1.37
25	C	512	CLA	MG-ND	-3.41	1.99	2.05
25	b	604	CLA	CHC-C1C	3.41	1.43	1.35
25	b	614	CLA	C1D-ND	3.41	1.42	1.37
25	C	508	CLA	CHC-C1C	3.40	1.43	1.35
25	C	507	CLA	CHC-C1C	3.40	1.43	1.35
25	b	608	CLA	MG-NA	3.40	2.14	2.06
25	b	611	CLA	C4D-ND	-3.40	1.33	1.37
25	c	511	CLA	CHC-C1C	3.39	1.43	1.35
25	c	501	CLA	MG-NC	3.39	2.14	2.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	A	607	CLA	CHC-C1C	3.38	1.43	1.35
25	C	507	CLA	C1D-ND	3.38	1.41	1.37
25	B	605	CLA	CHC-C1C	3.36	1.43	1.35
25	H	101	CLA	CHC-C1C	3.35	1.43	1.35
25	b	609	CLA	MG-NA	3.35	2.14	2.06
25	b	603	CLA	MG-NC	3.35	2.14	2.06
25	C	510	CLA	C4D-ND	-3.34	1.33	1.37
25	c	504	CLA	CHC-C1C	3.34	1.43	1.35
25	b	604	CLA	C4D-ND	-3.34	1.33	1.37
25	c	503	CLA	MG-NA	3.33	2.14	2.06
25	b	607	CLA	C4D-ND	-3.33	1.33	1.37
25	B	609	CLA	CHC-C1C	3.32	1.43	1.35
30	A	616	SQD	O47-C7	3.31	1.43	1.34
25	a	612	CLA	C1D-ND	3.31	1.41	1.37
25	h	101	CLA	CHC-C1C	3.31	1.43	1.35
25	C	511	CLA	CHC-C1C	3.31	1.43	1.35
30	a	614	SQD	C24-C23	3.30	1.60	1.50
25	c	501	CLA	C4D-ND	-3.30	1.33	1.37
25	a	606	CLA	CHC-C1C	3.29	1.43	1.35
27	K	101	BCR	C1-C6	-3.29	1.49	1.53
25	b	610	CLA	C1D-ND	3.29	1.41	1.37
25	B	607	CLA	C1D-ND	3.28	1.41	1.37
27	b	617	BCR	C30-C25	-3.28	1.49	1.53
25	c	506	CLA	CHC-C1C	3.27	1.43	1.35
25	B	611	CLA	CHC-C1C	3.27	1.43	1.35
25	a	607	CLA	C1D-ND	3.27	1.41	1.37
25	C	509	CLA	C4D-ND	-3.26	1.33	1.37
25	b	611	CLA	CHC-C1C	3.26	1.43	1.35
25	B	613	CLA	MG-ND	-3.26	1.99	2.05
25	d	403	CLA	CHC-C1C	3.25	1.43	1.35
25	c	505	CLA	C4D-ND	-3.25	1.33	1.37
32	h	103	DGD	C4D-C3D	3.25	1.60	1.52
25	C	502	CLA	C4D-ND	-3.25	1.33	1.37
25	c	505	CLA	C1D-ND	3.23	1.41	1.37
25	C	503	CLA	CHC-C1C	3.23	1.43	1.35
25	c	513	CLA	CHC-C1C	3.23	1.43	1.35
25	b	612	CLA	MG-NC	3.23	2.13	2.06
27	B	618	BCR	C1-C6	-3.22	1.49	1.53
25	c	508	CLA	C4D-ND	-3.22	1.33	1.37
25	B	610	CLA	CHC-C1C	3.21	1.43	1.35
25	c	501	CLA	CHC-C1C	3.21	1.43	1.35
25	b	609	CLA	C4D-ND	-3.20	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	b	610	CLA	CHC-C1C	3.20	1.43	1.35
25	C	510	CLA	CHC-C1C	3.19	1.43	1.35
27	C	515	BCR	C1-C6	-3.19	1.49	1.53
30	F	102	SQD	C24-C23	3.19	1.60	1.50
25	b	614	CLA	CHC-C1C	3.18	1.43	1.35
25	c	512	CLA	CHC-C1C	3.18	1.43	1.35
25	c	508	CLA	MG-NC	3.18	2.13	2.06
30	a	613	SQD	O47-C45	-3.18	1.38	1.46
25	C	503	CLA	C4D-ND	-3.17	1.33	1.37
25	C	505	CLA	C1D-ND	3.16	1.41	1.37
25	B	605	CLA	C4D-ND	-3.16	1.33	1.37
30	f	102	SQD	O47-C45	-3.16	1.38	1.46
25	B	607	CLA	CHC-C1C	3.16	1.43	1.35
25	c	510	CLA	CHC-C1C	3.15	1.43	1.35
25	C	508	CLA	C4D-ND	-3.14	1.33	1.37
30	A	616	SQD	C24-C23	3.14	1.59	1.50
25	C	513	CLA	MG-NA	3.14	2.13	2.06
30	A	614	SQD	C24-C23	3.13	1.59	1.50
25	b	615	CLA	C4D-ND	-3.13	1.33	1.37
25	c	508	CLA	MG-NA	3.13	2.13	2.06
25	c	502	CLA	CHC-C1C	3.13	1.43	1.35
25	C	506	CLA	C4D-ND	-3.13	1.33	1.37
25	C	503	CLA	C1D-ND	3.12	1.41	1.37
25	c	509	CLA	CHC-C1C	3.11	1.42	1.35
25	B	612	CLA	CHC-C1C	3.11	1.42	1.35
25	C	509	CLA	CHC-C1C	3.11	1.42	1.35
25	C	512	CLA	CHC-C1C	3.10	1.42	1.35
25	D	403	CLA	CHC-C1C	3.10	1.42	1.35
25	b	601	CLA	CHC-C1C	3.10	1.42	1.35
25	B	608	CLA	MG-NC	3.10	2.13	2.06
25	B	603	CLA	CHC-C1C	3.08	1.42	1.35
25	c	505	CLA	CHC-C1C	3.08	1.42	1.35
25	B	615	CLA	CHC-C1C	3.08	1.42	1.35
30	a	614	SQD	O47-C45	-3.08	1.38	1.46
30	B	621	SQD	O5-C1	3.08	1.49	1.41
25	B	613	CLA	CHC-C1C	3.07	1.42	1.35
30	f	102	SQD	C24-C23	3.07	1.59	1.50
25	C	504	CLA	CHC-C1C	3.06	1.42	1.35
25	B	613	CLA	C4D-ND	-3.06	1.33	1.37
25	b	605	CLA	CHC-C1C	3.06	1.42	1.35
25	c	506	CLA	MG-ND	-3.06	1.99	2.05
25	D	403	CLA	C1D-ND	3.06	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	A	611	PL9	C3-C4	-3.05	1.44	1.49
25	b	608	CLA	C4D-ND	-3.05	1.33	1.37
25	A	609	CLA	C4D-ND	-3.05	1.33	1.37
30	f	102	SQD	O5-C1	3.04	1.49	1.41
25	b	603	CLA	C4D-ND	-3.03	1.33	1.37
30	B	621	SQD	O47-C45	-3.03	1.39	1.46
25	c	503	CLA	CHC-C1C	3.03	1.42	1.35
25	D	403	CLA	C4D-ND	-3.02	1.33	1.37
25	b	608	CLA	CHC-C1C	3.02	1.42	1.35
25	b	602	CLA	CHC-C1C	3.01	1.42	1.35
25	b	603	CLA	CHC-C1C	3.01	1.42	1.35
25	B	607	CLA	C4D-ND	-3.01	1.33	1.37
27	B	616	BCR	C1-C6	-3.00	1.49	1.53
25	C	512	CLA	MG-NA	3.00	2.13	2.06
28	A	611	PL9	C7-C8	-3.00	1.46	1.50
25	b	607	CLA	C1D-ND	3.00	1.41	1.37
25	c	507	CLA	MG-NA	2.99	2.13	2.06
30	F	102	SQD	O5-C1	2.99	1.49	1.41
32	A	617	DGD	C4D-C5D	2.99	1.59	1.53
25	b	613	CLA	MG-NC	2.98	2.13	2.06
25	b	610	CLA	C4D-ND	-2.98	1.33	1.37
30	a	613	SQD	C24-C23	2.98	1.59	1.50
25	B	606	CLA	CHC-C1C	2.97	1.42	1.35
25	A	606	CLA	CHC-C1C	2.96	1.42	1.35
25	c	506	CLA	MG-NC	2.96	2.13	2.06
25	b	615	CLA	CHC-C1C	2.96	1.42	1.35
27	d	405	BCR	C1-C6	-2.96	1.49	1.53
25	c	507	CLA	CHC-C1C	2.95	1.42	1.35
25	C	502	CLA	CHC-C1C	2.95	1.42	1.35
27	k	101	BCR	C1-C6	-2.94	1.49	1.53
25	b	612	CLA	CHC-C1C	2.94	1.42	1.35
25	d	404	CLA	C4D-ND	-2.94	1.33	1.37
31	d	409	LHG	P-O6	2.93	1.71	1.59
25	C	512	CLA	C4D-ND	-2.93	1.33	1.37
25	d	404	CLA	CHC-C1C	2.93	1.42	1.35
27	H	102	BCR	C30-C25	-2.92	1.49	1.53
25	B	610	CLA	MG-ND	2.92	2.11	2.05
25	C	511	CLA	MG-NC	2.92	2.13	2.06
25	B	611	CLA	MG-NA	2.92	2.13	2.06
25	D	404	CLA	C4D-ND	-2.91	1.33	1.37
25	C	501	CLA	C4D-ND	-2.90	1.33	1.37
25	c	509	CLA	C4D-ND	-2.89	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	c	521	LMG	C3-C2	2.89	1.59	1.52
26	a	608	PHO	CAC-C3C	-2.89	1.47	1.52
27	A	610	BCR	C1-C6	-2.89	1.49	1.53
25	B	602	CLA	CHC-C1C	2.89	1.42	1.35
25	C	513	CLA	CHC-C1C	2.89	1.42	1.35
27	C	514	BCR	C30-C25	-2.89	1.49	1.53
30	b	619	SQD	C24-C23	2.88	1.59	1.50
27	h	102	BCR	C30-C25	-2.88	1.49	1.53
30	B	621	SQD	C24-C23	2.88	1.59	1.50
25	D	403	CLA	MG-NC	2.88	2.13	2.06
25	B	603	CLA	C1B-NB	2.87	1.37	1.35
25	b	606	CLA	CHC-C1C	2.87	1.42	1.35
25	B	609	CLA	MG-ND	-2.87	2.00	2.05
30	A	614	SQD	O47-C7	2.87	1.42	1.34
30	A	614	SQD	O5-C1	2.87	1.49	1.41
25	b	601	CLA	C4D-ND	-2.86	1.33	1.37
32	c	516	DGD	C3G-C2G	2.86	1.59	1.50
32	c	516	DGD	O2G-C2G	-2.86	1.39	1.46
25	B	612	CLA	C4D-ND	-2.86	1.33	1.37
27	K	102	BCR	C1-C6	-2.86	1.49	1.53
32	A	617	DGD	C4D-C3D	2.86	1.59	1.52
25	A	606	CLA	C4D-ND	-2.85	1.33	1.37
25	c	503	CLA	MG-NC	2.85	2.13	2.06
25	b	613	CLA	C4D-ND	-2.85	1.33	1.37
25	b	602	CLA	C4D-ND	-2.85	1.33	1.37
25	c	512	CLA	C4D-ND	-2.84	1.33	1.37
25	c	513	CLA	C4D-ND	-2.84	1.33	1.37
27	c	514	BCR	C1-C6	-2.84	1.49	1.53
25	d	404	CLA	C1D-ND	2.84	1.41	1.37
25	B	615	CLA	C4D-ND	-2.83	1.33	1.37
27	c	515	BCR	C30-C25	-2.83	1.49	1.53
30	b	619	SQD	O47-C45	-2.83	1.39	1.46
25	c	502	CLA	C4D-ND	-2.83	1.33	1.37
31	A	615	LHG	P-O6	2.83	1.70	1.59
31	L	101	LHG	O7-C5	-2.83	1.39	1.46
25	c	513	CLA	MG-NA	2.82	2.13	2.06
25	B	606	CLA	MG-ND	-2.82	2.00	2.05
27	C	515	BCR	C30-C25	-2.81	1.49	1.53
25	B	604	CLA	MG-NA	2.81	2.12	2.06
27	b	618	BCR	C1-C6	-2.80	1.49	1.53
25	c	507	CLA	C4D-ND	-2.80	1.33	1.37
27	d	405	BCR	C30-C25	-2.80	1.49	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	a	613	SQD	O5-C1	2.79	1.49	1.41
25	c	510	CLA	C4D-ND	-2.78	1.33	1.37
27	D	405	BCR	C1-C6	-2.78	1.49	1.53
32	C	516	DGD	C4E-C3E	2.78	1.59	1.52
27	B	617	BCR	C30-C25	-2.78	1.49	1.53
32	C	518	DGD	O2G-C2G	-2.77	1.39	1.46
25	B	603	CLA	C4D-ND	-2.77	1.33	1.37
25	c	504	CLA	C1D-ND	2.77	1.41	1.37
25	B	605	CLA	C1B-NB	2.76	1.37	1.35
25	b	602	CLA	CMB-C2B	-2.74	1.45	1.51
28	d	406	PL9	C6-C1	-2.74	1.43	1.48
25	B	602	CLA	C4D-ND	-2.74	1.33	1.37
27	D	405	BCR	C30-C25	-2.74	1.50	1.53
27	K	101	BCR	C30-C25	-2.74	1.50	1.53
28	D	406	PL9	C6-C1	-2.73	1.43	1.48
25	C	503	CLA	MG-NC	2.73	2.12	2.06
31	D	411	LHG	O7-C5	-2.73	1.39	1.46
25	c	510	CLA	CMB-C2B	-2.73	1.46	1.51
27	K	102	BCR	C30-C25	-2.72	1.50	1.53
27	b	617	BCR	C1-C6	-2.72	1.50	1.53
35	F	101	HEM	CAB-C3B	2.72	1.54	1.47
25	a	612	CLA	C4D-ND	-2.71	1.34	1.37
25	b	606	CLA	C4D-ND	-2.71	1.34	1.37
29	b	622	LMG	C9-C8	2.71	1.59	1.50
25	b	605	CLA	C1B-NB	2.71	1.37	1.35
27	T	101	BCR	C30-C25	-2.70	1.50	1.53
25	a	609	CLA	CHC-C1C	2.70	1.41	1.35
25	b	601	CLA	MG-ND	2.70	2.11	2.05
25	b	610	CLA	MG-ND	2.70	2.11	2.05
27	C	514	BCR	C1-C6	-2.69	1.50	1.53
29	D	407	LMG	C4-C5	2.69	1.58	1.53
27	b	616	BCR	C1-C6	-2.69	1.50	1.53
30	A	616	SQD	C46-C45	2.68	1.56	1.50
31	d	407	LHG	C24-C23	2.68	1.58	1.50
25	B	608	CLA	C4D-ND	-2.67	1.34	1.37
25	a	606	CLA	C4D-ND	-2.67	1.34	1.37
32	c	518	DGD	O2G-C2G	-2.67	1.39	1.46
25	A	609	CLA	CHC-C1C	2.66	1.41	1.35
25	b	605	CLA	MG-NC	2.66	2.12	2.06
25	b	608	CLA	MG-NC	2.66	2.12	2.06
25	C	504	CLA	MG-NA	2.66	2.12	2.06
32	C	516	DGD	C3E-C2E	2.66	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	c	514	BCR	C30-C25	-2.65	1.50	1.53
25	B	604	CLA	C4D-ND	-2.65	1.34	1.37
32	c	518	DGD	C4D-C5D	2.64	1.58	1.53
27	k	101	BCR	C30-C25	-2.64	1.50	1.53
25	B	608	CLA	CHC-C1C	2.64	1.41	1.35
25	C	505	CLA	C4D-ND	-2.63	1.34	1.37
28	d	406	PL9	C53-C6	-2.63	1.45	1.50
25	B	609	CLA	C4D-ND	-2.63	1.34	1.37
25	b	612	CLA	C4D-ND	-2.63	1.34	1.37
26	D	402	PHO	C3B-C2B	-2.60	1.36	1.40
32	C	517	DGD	C1G-C2G	2.60	1.58	1.50
25	c	506	CLA	C4D-ND	-2.60	1.34	1.37
25	H	101	CLA	CMB-C2B	-2.60	1.46	1.51
25	c	512	CLA	MG-NA	2.60	2.12	2.06
27	B	617	BCR	C1-C6	-2.59	1.50	1.53
32	A	617	DGD	C1E-C2E	2.59	1.59	1.52
27	k	102	BCR	C1-C6	-2.58	1.50	1.53
25	b	611	CLA	MG-NA	2.58	2.12	2.06
35	f	101	HEM	CAB-C3B	2.58	1.54	1.47
32	C	517	DGD	C4D-C3D	2.57	1.58	1.52
25	c	511	CLA	C4D-ND	-2.57	1.34	1.37
25	C	511	CLA	C4D-ND	-2.57	1.34	1.37
25	C	504	CLA	C4D-ND	-2.56	1.34	1.37
25	d	404	CLA	MG-NA	2.56	2.12	2.06
27	B	616	BCR	C30-C25	-2.54	1.50	1.53
27	a	610	BCR	C1-C6	-2.54	1.50	1.53
26	A	608	PHO	CAC-C3C	-2.52	1.47	1.52
25	a	612	CLA	C1B-NB	2.52	1.37	1.35
25	B	609	CLA	C3B-C2B	-2.50	1.36	1.40
25	b	609	CLA	CHC-C1C	2.50	1.41	1.35
25	C	509	CLA	MG-ND	2.50	2.10	2.05
25	B	612	CLA	MG-NC	2.49	2.12	2.06
25	C	513	CLA	MG-NC	2.49	2.12	2.06
25	B	610	CLA	C4D-ND	-2.49	1.34	1.37
29	d	411	LMG	O7-C8	-2.49	1.40	1.46
25	B	605	CLA	C3B-C2B	-2.49	1.36	1.40
25	b	608	CLA	CMB-C2B	-2.48	1.46	1.51
25	h	101	CLA	C4D-ND	-2.48	1.34	1.37
30	A	614	SQD	O9-S	2.47	1.52	1.45
25	D	404	CLA	CHC-C1C	2.47	1.41	1.35
25	b	614	CLA	C4D-ND	-2.47	1.34	1.37
25	c	508	CLA	MG-ND	2.45	2.10	2.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	B	612	CLA	MG-NA	2.45	2.12	2.06
32	h	103	DGD	O2G-C2G	-2.45	1.40	1.46
25	d	404	CLA	MG-ND	-2.44	2.01	2.05
32	C	517	DGD	C1E-C2E	2.44	1.59	1.52
29	C	519	LMG	C4-C5	2.43	1.58	1.53
25	a	606	CLA	MG-NC	2.42	2.12	2.06
25	C	507	CLA	C4D-ND	-2.42	1.34	1.37
25	C	512	CLA	CMB-C2B	-2.42	1.46	1.51
25	H	101	CLA	C4D-ND	-2.41	1.34	1.37
27	t	101	BCR	C30-C25	-2.41	1.50	1.53
25	B	607	CLA	MG-ND	-2.41	2.01	2.05
27	B	618	BCR	C30-C25	-2.40	1.50	1.53
25	c	513	CLA	CMB-C2B	-2.40	1.46	1.51
29	b	622	LMG	C4-C5	2.40	1.58	1.53
25	c	501	CLA	CMB-C2B	-2.40	1.46	1.51
25	c	511	CLA	MG-ND	-2.40	2.01	2.05
25	B	612	CLA	MG-ND	-2.39	2.01	2.05
28	a	611	PL9	C53-C6	-2.39	1.45	1.50
25	C	508	CLA	C1D-C2D	2.39	1.50	1.45
25	B	601	CLA	C4D-ND	-2.38	1.34	1.37
25	C	501	CLA	C1D-C2D	2.38	1.50	1.45
25	C	502	CLA	CMB-C2B	-2.38	1.46	1.51
27	k	102	BCR	C30-C25	-2.38	1.50	1.53
25	B	607	CLA	MG-NC	2.38	2.11	2.06
25	a	609	CLA	C4D-ND	-2.38	1.34	1.37
29	D	407	LMG	C7-C8	2.37	1.58	1.50
25	c	512	CLA	CMB-C2B	-2.37	1.46	1.51
25	c	507	CLA	CMB-C2B	-2.37	1.46	1.51
32	A	617	DGD	C3G-C2G	2.35	1.57	1.50
25	b	609	CLA	CMB-C2B	-2.34	1.46	1.51
29	B	620	LMG	O8-C28	2.34	1.38	1.30
25	b	607	CLA	CMB-C2B	-2.34	1.46	1.51
32	H	103	DGD	O1G-C1G	-2.34	1.39	1.45
25	b	614	CLA	C3B-C2B	-2.33	1.37	1.40
32	H	103	DGD	C4D-C5D	2.33	1.57	1.53
27	b	616	BCR	C30-C25	-2.33	1.50	1.53
32	a	615	DGD	O1G-C1A	2.33	1.40	1.33
25	C	513	CLA	CMB-C2B	-2.33	1.46	1.51
27	T	101	BCR	C1-C6	-2.33	1.50	1.53
25	D	403	CLA	MG-NA	2.33	2.11	2.06
25	b	615	CLA	CMB-C2B	-2.32	1.46	1.51
31	e	101	LHG	P-O6	2.32	1.68	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	H	103	DGD	C4E-C5E	2.31	1.57	1.53
27	h	102	BCR	C1-C6	-2.31	1.50	1.53
25	C	510	CLA	CMB-C2B	-2.31	1.46	1.51
32	H	103	DGD	C1E-C2E	2.30	1.59	1.52
32	H	103	DGD	O2D-C2D	-2.30	1.37	1.43
25	C	509	CLA	CMB-C2B	-2.30	1.46	1.51
32	c	516	DGD	C4D-C3D	2.29	1.58	1.52
25	b	604	CLA	MG-NA	2.29	2.11	2.06
25	B	615	CLA	MG-NC	2.29	2.11	2.06
25	D	404	CLA	CMB-C2B	-2.29	1.46	1.51
25	B	607	CLA	CMD-C2D	-2.29	1.45	1.50
25	B	611	CLA	CMC-C2C	-2.29	1.45	1.50
25	B	608	CLA	C1B-NB	2.29	1.37	1.35
32	C	516	DGD	O1G-C1A	2.28	1.40	1.33
25	D	403	CLA	CMB-C2B	-2.28	1.46	1.51
25	c	507	CLA	C3D-C4D	2.27	1.49	1.44
25	B	605	CLA	C3B-CAB	-2.27	1.43	1.47
25	B	601	CLA	CMB-C2B	-2.27	1.46	1.51
25	h	101	CLA	CMB-C2B	-2.27	1.46	1.51
25	a	609	CLA	CMB-C2B	-2.27	1.46	1.51
25	B	605	CLA	CMB-C2B	-2.27	1.46	1.51
25	a	607	CLA	MG-NC	2.27	2.11	2.06
30	f	102	SQD	O7-S	2.26	1.51	1.45
30	b	619	SQD	O7-S	2.25	1.51	1.45
25	A	607	CLA	CMB-C2B	-2.25	1.47	1.51
25	B	609	CLA	CMB-C2B	-2.25	1.47	1.51
30	b	619	SQD	O9-S	2.25	1.51	1.45
32	c	517	DGD	C3D-C2D	2.24	1.58	1.52
28	D	406	PL9	C11-C9	-2.24	1.46	1.51
25	B	614	CLA	CMB-C2B	-2.24	1.47	1.51
32	A	617	DGD	C6E-C5E	2.24	1.59	1.51
29	b	622	LMG	C4-C3	2.24	1.58	1.52
25	C	504	CLA	CMB-C2B	-2.23	1.47	1.51
26	D	402	PHO	CMC-C2C	-2.23	1.46	1.51
25	b	612	CLA	CMB-C2B	-2.23	1.47	1.51
25	B	609	CLA	MG-NC	-2.23	2.01	2.06
30	B	621	SQD	O9-S	2.23	1.51	1.45
25	C	503	CLA	C1D-C2D	2.23	1.49	1.45
25	a	606	CLA	CMB-C2B	-2.23	1.47	1.51
31	D	409	LHG	O3-C3	-2.23	1.36	1.44
30	f	102	SQD	O9-S	2.22	1.51	1.45
28	D	406	PL9	C7-C3	-2.22	1.49	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	D	402	PHO	CAC-C3C	-2.22	1.48	1.52
25	c	505	CLA	CMB-C2B	-2.22	1.47	1.51
26	d	402	PHO	CAC-C3C	-2.22	1.48	1.52
29	c	522	LMG	C4-C5	2.21	1.57	1.53
25	C	511	CLA	CMB-C2B	-2.21	1.47	1.51
25	a	607	CLA	CMB-C2B	-2.21	1.47	1.51
25	A	609	CLA	C1D-C2D	2.21	1.49	1.45
32	A	617	DGD	C3E-C2E	2.21	1.57	1.52
25	b	604	CLA	CMD-C2D	-2.20	1.46	1.50
25	b	613	CLA	C1D-C2D	2.20	1.49	1.45
25	c	504	CLA	CMB-C2B	-2.19	1.47	1.51
25	b	609	CLA	C3D-C4D	2.19	1.49	1.44
30	B	621	SQD	C8-C7	2.19	1.57	1.50
32	c	516	DGD	C4E-C3E	2.19	1.57	1.52
25	c	503	CLA	CMB-C2B	-2.19	1.47	1.51
25	b	611	CLA	MG-ND	-2.18	2.01	2.05
25	b	604	CLA	MG-NC	2.18	2.11	2.06
25	b	602	CLA	CMD-C2D	-2.18	1.46	1.50
25	B	606	CLA	CMB-C2B	-2.18	1.47	1.51
27	t	101	BCR	C1-C6	-2.18	1.50	1.53
25	c	501	CLA	C1D-C2D	2.18	1.49	1.45
31	A	615	LHG	O8-C23	2.17	1.39	1.33
32	H	103	DGD	C6D-C5D	2.17	1.58	1.51
30	a	613	SQD	O7-S	2.17	1.51	1.45
35	f	101	HEM	C3B-C2B	-2.17	1.32	1.37
32	H	103	DGD	O5D-C1E	2.17	1.43	1.40
32	h	103	DGD	C1E-C2E	2.17	1.58	1.52
35	F	101	HEM	CMD-C2D	2.16	1.55	1.50
32	h	103	DGD	C4D-C5D	2.16	1.57	1.53
25	B	611	CLA	MG-ND	-2.16	2.01	2.05
32	c	517	DGD	C4D-C5D	2.16	1.57	1.53
30	a	614	SQD	C44-C45	2.16	1.56	1.51
25	C	512	CLA	CMD-C2D	-2.16	1.46	1.50
29	M	101	LMG	C9-C8	2.15	1.57	1.50
29	M	101	LMG	C1-C2	2.15	1.58	1.52
25	C	509	CLA	CMD-C2D	-2.15	1.46	1.50
30	B	621	SQD	O5-C5	2.15	1.49	1.44
32	c	517	DGD	O3E-C3E	-2.14	1.37	1.43
25	b	614	CLA	CMB-C2B	-2.14	1.47	1.51
30	F	102	SQD	O9-S	2.14	1.51	1.45
25	b	612	CLA	CMD-C2D	-2.14	1.46	1.50
25	b	614	CLA	CMD-C2D	-2.14	1.46	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	C	516	DGD	C4D-C5D	2.14	1.57	1.53
25	c	506	CLA	CMB-C2B	-2.14	1.47	1.51
28	D	406	PL9	C52-C5	-2.14	1.46	1.50
25	B	601	CLA	C3C-C2C	2.14	1.41	1.36
30	b	619	SQD	C46-C45	2.13	1.57	1.50
26	a	608	PHO	O2D-CGD	2.13	1.38	1.33
25	a	609	CLA	CMC-C2C	-2.13	1.46	1.50
30	a	613	SQD	C6-S	2.13	1.85	1.77
25	C	501	CLA	CMB-C2B	-2.13	1.47	1.51
25	c	508	CLA	CMB-C2B	-2.13	1.47	1.51
25	C	506	CLA	CMC-C2C	-2.13	1.46	1.50
29	B	620	LMG	O7-C10	2.12	1.37	1.30
25	c	507	CLA	C3B-CAB	-2.12	1.43	1.47
25	b	606	CLA	CMB-C2B	-2.12	1.47	1.51
32	h	103	DGD	C6D-C5D	2.12	1.58	1.51
25	d	403	CLA	CMB-C2B	-2.12	1.47	1.51
25	B	608	CLA	C3D-C4D	2.12	1.49	1.44
29	D	410	LMG	C7-C8	2.12	1.56	1.51
25	C	503	CLA	CMB-C2B	-2.12	1.47	1.51
31	d	407	LHG	P-O6	2.12	1.67	1.59
25	d	403	CLA	C4D-ND	-2.11	1.34	1.37
30	F	102	SQD	C6-S	2.11	1.85	1.77
31	A	615	LHG	O7-C5	-2.11	1.41	1.46
32	c	518	DGD	C6D-C5D	2.11	1.58	1.51
25	b	611	CLA	CMB-C2B	-2.11	1.47	1.51
25	c	509	CLA	CMB-C2B	-2.11	1.47	1.51
25	b	609	CLA	C3B-C2B	-2.11	1.37	1.40
25	b	601	CLA	CMB-C2B	-2.10	1.47	1.51
27	b	618	BCR	C30-C25	-2.10	1.50	1.53
31	D	409	LHG	O7-C7	2.10	1.40	1.34
25	b	613	CLA	CMC-C2C	-2.10	1.46	1.50
25	c	506	CLA	CMD-C2D	-2.10	1.46	1.50
25	B	603	CLA	CMB-C2B	-2.09	1.47	1.51
25	d	404	CLA	CMB-C2B	-2.09	1.47	1.51
29	m	101	LMG	C4-C5	2.09	1.57	1.53
25	C	504	CLA	CMD-C2D	-2.09	1.46	1.50
25	b	606	CLA	C1D-C2D	2.09	1.49	1.45
25	b	613	CLA	CMB-C2B	-2.09	1.47	1.51
32	C	517	DGD	C4D-C5D	2.09	1.57	1.53
25	a	609	CLA	MG-ND	-2.09	2.01	2.05
25	c	511	CLA	CMB-C2B	-2.09	1.47	1.51
25	b	613	CLA	MG-NA	2.08	2.11	2.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	B	613	CLA	CMB-C2B	-2.08	1.47	1.51
25	b	603	CLA	C1B-NB	2.08	1.37	1.35
31	D	408	LHG	O8-C6	-2.08	1.40	1.45
32	c	517	DGD	C6E-C5E	2.07	1.58	1.51
25	A	612	CLA	MG-NC	2.07	2.11	2.06
29	D	410	LMG	C9-C8	2.07	1.57	1.50
25	D	404	CLA	CMC-C2C	-2.07	1.46	1.50
29	d	410	LMG	O7-C10	2.07	1.37	1.30
25	B	615	CLA	CMC-C2C	-2.07	1.46	1.50
25	H	101	CLA	CMC-C2C	-2.07	1.46	1.50
25	c	502	CLA	CMC-C2C	-2.07	1.46	1.50
25	a	612	CLA	C1D-C2D	2.07	1.49	1.45
25	a	606	CLA	C3D-C4D	2.07	1.48	1.44
29	D	407	LMG	O3-C3	-2.07	1.38	1.43
30	a	614	SQD	C46-C45	2.07	1.57	1.50
25	c	505	CLA	C1B-NB	2.06	1.37	1.35
25	c	512	CLA	C1D-C2D	2.06	1.49	1.45
25	c	510	CLA	CMC-C2C	-2.06	1.46	1.50
25	b	609	CLA	C3B-CAB	-2.06	1.43	1.47
27	B	616	BCR	C33-C5	-2.06	1.47	1.50
25	C	505	CLA	CMB-C2B	-2.06	1.47	1.51
29	c	519	LMG	C4-C5	2.05	1.57	1.53
30	F	102	SQD	O7-S	2.05	1.51	1.45
30	a	613	SQD	C46-C45	2.05	1.57	1.50
25	B	614	CLA	C3B-CAB	-2.05	1.43	1.47
25	B	610	CLA	CMB-C2B	-2.05	1.47	1.51
25	D	404	CLA	CMD-C2D	-2.04	1.46	1.50
25	C	508	CLA	CMB-C2B	-2.04	1.47	1.51
29	M	101	LMG	O4-C4	-2.04	1.38	1.43
25	b	614	CLA	C3C-C2C	2.04	1.41	1.36
25	B	605	CLA	C3D-C4D	2.04	1.48	1.44
25	C	510	CLA	C3D-C4D	2.04	1.48	1.44
25	c	507	CLA	CMC-C2C	-2.04	1.46	1.50
32	C	517	DGD	C6E-C5E	2.04	1.58	1.51
30	a	613	SQD	C44-C45	2.04	1.56	1.50
26	A	608	PHO	CMD-C2D	-2.04	1.46	1.51
25	C	507	CLA	CMC-C2C	-2.04	1.46	1.50
29	C	519	LMG	O7-C8	-2.03	1.41	1.46
30	f	102	SQD	O5-C5	2.03	1.49	1.44
30	B	621	SQD	C44-C45	2.03	1.56	1.50
25	b	607	CLA	C3B-CAB	-2.03	1.43	1.47
25	c	501	CLA	CMC-C2C	-2.03	1.46	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	C	511	CLA	CMD-C2D	-2.03	1.46	1.50
32	C	516	DGD	C1D-C2D	2.02	1.58	1.52
32	H	103	DGD	O2G-C2G	-2.02	1.41	1.46
25	a	607	CLA	C3B-C2B	-2.02	1.37	1.40
25	C	510	CLA	CMD-C2D	-2.02	1.46	1.50
25	C	513	CLA	MG-ND	2.02	2.09	2.05
30	F	102	SQD	O5-C5	2.02	1.49	1.44
25	c	510	CLA	CMD-C2D	-2.01	1.46	1.50
25	B	614	CLA	C4D-ND	-2.01	1.34	1.37
29	c	521	LMG	C1-C2	2.01	1.58	1.52
29	c	519	LMG	C7-C8	2.01	1.56	1.50
25	C	513	CLA	CMD-C2D	-2.01	1.46	1.50
25	B	611	CLA	CMB-C2B	-2.00	1.47	1.51
25	a	612	CLA	CMB-C2B	-2.00	1.47	1.51
25	b	610	CLA	CMB-C2B	-2.00	1.47	1.51
25	H	101	CLA	C3D-C4D	2.00	1.48	1.44
25	B	602	CLA	C3C-C2C	2.00	1.41	1.36

All (1146) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	B	603	CLA	C4A-NA-C1A	9.70	111.07	106.71
25	B	615	CLA	C4A-NA-C1A	9.10	110.80	106.71
25	C	511	CLA	C4A-NA-C1A	8.77	110.65	106.71
25	b	603	CLA	C4A-NA-C1A	8.61	110.58	106.71
25	B	608	CLA	C4A-NA-C1A	8.54	110.54	106.71
25	H	101	CLA	C4A-NA-C1A	8.27	110.43	106.71
25	C	503	CLA	C4A-NA-C1A	8.14	110.36	106.71
25	B	605	CLA	C4A-NA-C1A	8.13	110.36	106.71
25	c	511	CLA	C4A-NA-C1A	8.09	110.34	106.71
25	c	509	CLA	C4A-NA-C1A	7.99	110.30	106.71
25	C	513	CLA	C4A-NA-C1A	7.94	110.28	106.71
25	c	507	CLA	C4A-NA-C1A	7.78	110.20	106.71
25	b	614	CLA	C4A-NA-C1A	7.75	110.19	106.71
25	C	501	CLA	C4A-NA-C1A	7.70	110.17	106.71
25	C	510	CLA	C4A-NA-C1A	7.66	110.15	106.71
25	B	606	CLA	C4A-NA-C1A	7.63	110.14	106.71
25	c	503	CLA	C4A-NA-C1A	7.63	110.14	106.71
25	B	614	CLA	C4A-NA-C1A	7.61	110.13	106.71
25	a	606	CLA	C4A-NA-C1A	7.45	110.05	106.71
25	C	507	CLA	C4A-NA-C1A	7.29	109.98	106.71
30	a	613	SQD	O6-C1-C2	7.22	119.57	108.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	c	510	CLA	C4A-NA-C1A	7.03	109.86	106.71
25	c	501	CLA	C4A-NA-C1A	6.92	109.82	106.71
25	c	504	CLA	C4A-NA-C1A	6.89	109.81	106.71
25	b	604	CLA	C4A-NA-C1A	6.88	109.80	106.71
25	c	506	CLA	C4A-NA-C1A	6.74	109.73	106.71
25	c	508	CLA	C4A-NA-C1A	6.71	109.72	106.71
25	C	508	CLA	C4A-NA-C1A	6.58	109.67	106.71
25	A	612	CLA	C4A-NA-C1A	6.56	109.66	106.71
25	B	610	CLA	C4A-NA-C1A	6.51	109.63	106.71
25	a	612	CLA	C4A-NA-C1A	6.48	109.62	106.71
25	h	101	CLA	C4A-NA-C1A	6.46	109.61	106.71
25	C	509	CLA	C4A-NA-C1A	6.45	109.61	106.71
25	b	605	CLA	C4A-NA-C1A	6.33	109.55	106.71
28	a	611	PL9	C7-C3-C4	6.32	122.01	116.88
30	A	614	SQD	O6-C1-C2	6.20	117.98	108.30
25	B	604	CLA	C4A-NA-C1A	6.15	109.47	106.71
25	b	615	CLA	C4A-NA-C1A	6.14	109.47	106.71
25	C	506	CLA	C4A-NA-C1A	6.10	109.45	106.71
25	d	403	CLA	C4A-NA-C1A	6.09	109.44	106.71
30	a	613	SQD	C1-O5-C5	-6.05	101.80	113.69
25	c	512	CLA	C4A-NA-C1A	6.00	109.41	106.71
25	B	612	CLA	C4A-NA-C1A	5.95	109.38	106.71
25	c	502	CLA	C4A-NA-C1A	5.92	109.37	106.71
25	b	610	CLA	C4A-NA-C1A	5.92	109.37	106.71
25	B	611	CLA	C4A-NA-C1A	5.86	109.34	106.71
25	a	609	CLA	C4A-NA-C1A	5.81	109.32	106.71
25	b	612	CLA	C4A-NA-C1A	5.80	109.31	106.71
25	C	505	CLA	C4A-NA-C1A	5.76	109.29	106.71
25	b	609	CLA	C4A-NA-C1A	5.74	109.29	106.71
25	a	607	CLA	C4A-NA-C1A	5.72	109.28	106.71
25	b	611	CLA	C4A-NA-C1A	5.69	109.27	106.71
25	b	608	CLA	C4A-NA-C1A	5.66	109.25	106.71
25	b	602	CLA	C4A-NA-C1A	5.66	109.25	106.71
25	b	601	CLA	C4A-NA-C1A	5.65	109.25	106.71
25	c	505	CLA	C4A-NA-C1A	5.63	109.24	106.71
25	C	502	CLA	C4A-NA-C1A	5.58	109.22	106.71
25	B	602	CLA	C4A-NA-C1A	5.57	109.21	106.71
25	B	607	CLA	C4A-NA-C1A	5.52	109.19	106.71
25	C	512	CLA	C4A-NA-C1A	5.45	109.16	106.71
30	f	102	SQD	O7-S-C6	5.36	113.31	106.94
25	A	606	CLA	C4A-NA-C1A	5.34	109.11	106.71
25	c	513	CLA	C4A-NA-C1A	5.34	109.11	106.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	B	613	CLA	C4A-NA-C1A	5.27	109.08	106.71
36	V	201	HEC	CBD-CAD-C3D	-5.16	103.81	112.62
25	C	504	CLA	C4A-NA-C1A	5.10	109.00	106.71
25	D	403	CLA	C4A-NA-C1A	5.07	108.98	106.71
25	b	613	CLA	C4A-NA-C1A	5.03	108.97	106.71
30	A	614	SQD	C1-C2-C3	-5.03	99.53	110.00
25	c	510	CLA	CMB-C2B-C1B	-4.93	120.89	128.46
25	B	601	CLA	C4A-NA-C1A	4.88	108.90	106.71
30	F	102	SQD	O6-C1-C2	4.83	115.84	108.30
25	b	606	CLA	CMB-C2B-C1B	-4.82	121.05	128.46
30	a	614	SQD	O47-C7-C8	4.81	121.87	111.50
28	d	406	PL9	C7-C3-C4	4.79	120.77	116.88
30	B	621	SQD	O47-C7-C8	4.74	121.72	111.50
30	f	102	SQD	O6-C1-C2	4.73	115.69	108.30
25	D	404	CLA	C4A-NA-C1A	4.71	108.82	106.71
25	A	609	CLA	CMB-C2B-C1B	-4.69	121.26	128.46
25	B	611	CLA	C1-C2-C3	-4.65	118.01	126.04
32	a	615	DGD	O3G-C3G-C2G	-4.64	99.47	111.78
30	F	102	SQD	C1-O5-C5	-4.63	104.60	113.69
25	c	501	CLA	O2D-CGD-O1D	-4.60	114.84	123.84
28	D	406	PL9	C7-C3-C4	4.59	120.61	116.88
25	B	601	CLA	CMB-C2B-C1B	-4.57	121.44	128.46
25	B	611	CLA	CMB-C2B-C1B	-4.56	121.46	128.46
25	b	611	CLA	CMB-C2B-C1B	-4.55	121.47	128.46
28	A	611	PL9	C7-C3-C4	4.53	120.56	116.88
25	b	612	CLA	CMB-C2B-C1B	-4.49	121.56	128.46
25	b	602	CLA	CMB-C2B-C1B	-4.48	121.58	128.46
25	b	608	CLA	CMB-C2B-C1B	-4.48	121.58	128.46
25	C	504	CLA	CMB-C2B-C1B	-4.47	121.59	128.46
25	A	612	CLA	CMB-C2B-C1B	-4.46	121.60	128.46
25	c	513	CLA	CMB-C2B-C1B	-4.46	121.60	128.46
25	C	509	CLA	CMB-C2B-C1B	-4.45	121.62	128.46
25	C	508	CLA	CMB-C2B-C1B	-4.45	121.63	128.46
30	A	614	SQD	O9-S-C6	4.44	112.21	106.94
25	C	510	CLA	CMB-C2B-C1B	-4.43	121.65	128.46
25	b	607	CLA	CMB-C2B-C1B	-4.42	121.67	128.46
25	d	404	CLA	CMB-C2B-C1B	-4.42	121.67	128.46
25	C	505	CLA	CMB-C2B-C1B	-4.40	121.70	128.46
32	H	103	DGD	O3G-C3G-C2G	-4.39	100.30	110.90
25	b	602	CLA	O2D-CGD-O1D	-4.37	115.29	123.84
30	b	619	SQD	O7-S-C6	4.32	112.07	106.94
25	c	502	CLA	CMB-C2B-C1B	-4.30	121.86	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	B	607	CLA	CMB-C2B-C1B	-4.29	121.87	128.46
25	A	609	CLA	CMB-C2B-C3B	4.29	132.70	124.68
32	C	518	DGD	O3G-C3G-C2G	-4.29	100.56	110.90
26	d	402	PHO	C1-C2-C3	-4.28	118.64	126.04
25	B	612	CLA	C1-C2-C3	-4.26	118.68	126.04
30	A	614	SQD	C1-O5-C5	-4.25	105.34	113.69
25	b	601	CLA	CMB-C2B-C1B	-4.25	121.93	128.46
25	D	404	CLA	CMB-C2B-C1B	-4.23	121.97	128.46
25	c	501	CLA	CMB-C2B-C1B	-4.22	121.97	128.46
30	A	614	SQD	O47-C7-C8	4.19	120.53	111.50
30	f	102	SQD	C1-O5-C5	-4.19	105.47	113.69
30	B	621	SQD	O6-C1-C2	4.19	114.84	108.30
25	c	504	CLA	CMB-C2B-C1B	-4.18	122.04	128.46
25	A	609	CLA	C4A-NA-C1A	4.18	108.58	106.71
31	d	408	LHG	O4-P-O5	4.18	132.90	112.24
25	b	615	CLA	O2D-CGD-O1D	-4.18	115.67	123.84
25	B	613	CLA	CMB-C2B-C1B	-4.16	122.07	128.46
25	A	612	CLA	CMB-C2B-C3B	4.16	132.46	124.68
25	b	613	CLA	CMB-C2B-C1B	-4.14	122.10	128.46
31	e	101	LHG	O4-P-O5	4.14	132.71	112.24
36	v	201	HEC	CBD-CAD-C3D	-4.13	105.57	112.62
35	f	101	HEM	CBA-CAA-C2A	-4.13	105.57	112.62
25	b	606	CLA	CMB-C2B-C3B	4.12	132.38	124.68
25	d	404	CLA	CMB-C2B-C3B	4.11	132.37	124.68
25	b	615	CLA	CMB-C2B-C1B	-4.11	122.15	128.46
30	F	102	SQD	O8-S-C6	4.10	112.28	105.74
31	b	623	LHG	O4-P-O5	4.10	132.50	112.24
32	c	516	DGD	O3G-C3G-C2G	-4.09	101.03	110.90
28	a	611	PL9	C7-C3-C2	-4.08	117.93	123.30
30	B	621	SQD	O7-S-C6	4.08	111.79	106.94
25	B	611	CLA	CMB-C2B-C3B	4.06	132.28	124.68
25	B	606	CLA	CMB-C2B-C1B	-4.05	122.23	128.46
30	f	102	SQD	O9-S-O7	-4.05	99.93	113.95
31	L	101	LHG	O4-P-O5	4.03	132.19	112.24
25	C	508	CLA	O2D-CGD-O1D	-4.02	115.98	123.84
30	A	614	SQD	O7-S-C6	4.01	111.70	106.94
28	d	406	PL9	C7-C8-C9	-4.00	120.14	126.79
31	d	407	LHG	O4-P-O5	4.00	132.00	112.24
31	A	615	LHG	O4-P-O5	3.99	131.97	112.24
32	c	518	DGD	O3G-C3G-C2G	-3.99	101.28	110.90
31	D	411	LHG	O4-P-O5	3.98	131.94	112.24
30	A	614	SQD	O9-S-O7	-3.98	100.17	113.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	d	404	CLA	C4A-NA-C1A	3.98	108.49	106.71
25	B	602	CLA	CMB-C2B-C1B	-3.97	122.36	128.46
30	a	613	SQD	O47-C7-C8	3.96	120.03	111.50
36	v	201	HEC	CMC-C2C-C1C	-3.95	122.40	128.46
25	B	601	CLA	CMB-C2B-C3B	3.95	132.06	124.68
31	D	409	LHG	O4-P-O5	3.94	131.74	112.24
25	C	509	CLA	CMB-C2B-C3B	3.94	132.05	124.68
25	b	611	CLA	CMB-C2B-C3B	3.94	132.04	124.68
25	b	609	CLA	O2D-CGD-O1D	-3.92	116.17	123.84
34	D	401	BCT	O2-C-O1	3.92	129.72	119.55
25	C	513	CLA	CMB-C2B-C1B	-3.92	122.44	128.46
25	c	511	CLA	CMB-C2B-C1B	-3.91	122.45	128.46
25	C	512	CLA	CMB-C2B-C1B	-3.88	122.50	128.46
25	c	502	CLA	CMB-C2B-C3B	3.88	131.94	124.68
25	C	510	CLA	CMB-C2B-C3B	3.87	131.92	124.68
25	D	404	CLA	CMB-C2B-C3B	3.87	131.91	124.68
25	C	506	CLA	CMB-C2B-C1B	-3.85	122.54	128.46
25	b	601	CLA	CMB-C2B-C3B	3.85	131.88	124.68
25	c	509	CLA	O2A-CGA-O1A	-3.84	113.90	123.59
25	A	609	CLA	O2D-CGD-O1D	-3.84	116.33	123.84
30	F	102	SQD	O9-S-C6	3.83	111.49	106.94
25	b	603	CLA	CMB-C2B-C1B	-3.82	122.59	128.46
25	b	601	CLA	O2D-CGD-O1D	-3.82	116.37	123.84
25	b	607	CLA	CMB-C2B-C3B	3.81	131.81	124.68
25	b	611	CLA	O2D-CGD-O1D	-3.81	116.39	123.84
25	b	605	CLA	CMB-C2B-C1B	-3.80	122.63	128.46
25	b	605	CLA	O2D-CGD-O1D	-3.79	116.42	123.84
31	d	409	LHG	O4-P-O5	3.79	131.00	112.24
31	D	408	LHG	O4-P-O5	3.79	130.99	112.24
25	a	612	CLA	CMB-C2B-C1B	-3.78	122.65	128.46
34	d	401	BCT	O2-C-O1	3.78	129.36	119.55
25	c	510	CLA	CMB-C2B-C3B	3.76	131.72	124.68
25	B	607	CLA	CMB-C2B-C3B	3.76	131.72	124.68
25	B	613	CLA	CMB-C2B-C3B	3.76	131.71	124.68
27	b	616	BCR	C2-C1-C6	3.76	116.26	110.48
25	C	505	CLA	CMB-C2B-C3B	3.75	131.70	124.68
25	C	503	CLA	CMB-C2B-C1B	-3.75	122.70	128.46
25	b	604	CLA	O2D-CGD-O1D	-3.75	116.51	123.84
30	B	621	SQD	C1-O5-C5	-3.74	106.35	113.69
25	C	501	CLA	O2D-CGD-O1D	-3.69	116.62	123.84
25	b	607	CLA	C4A-NA-C1A	3.68	108.36	106.71
25	c	509	CLA	CMB-C2B-C1B	-3.67	122.83	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	b	608	CLA	CMB-C2B-C3B	3.66	131.53	124.68
25	c	513	CLA	CMB-C2B-C3B	3.66	131.52	124.68
33	x	101	STE	C3-C2-C1	-3.66	105.26	114.47
25	B	608	CLA	CMB-C2B-C1B	-3.65	122.85	128.46
25	B	602	CLA	O2D-CGD-O1D	-3.65	116.71	123.84
32	C	516	DGD	O3G-C3G-C2G	-3.64	102.11	110.90
25	b	602	CLA	CMB-C2B-C3B	3.63	131.47	124.68
27	B	616	BCR	C2-C1-C6	3.62	116.06	110.48
25	b	601	CLA	CHB-C4A-NA	3.62	129.51	124.51
25	B	609	CLA	C4A-NA-C1A	3.61	108.33	106.71
25	b	613	CLA	C1-C2-C3	-3.61	119.79	126.04
25	B	606	CLA	CMB-C2B-C3B	3.61	131.44	124.68
25	b	606	CLA	C4A-NA-C1A	3.61	108.33	106.71
25	b	615	CLA	CMB-C2B-C3B	3.61	131.43	124.68
25	b	613	CLA	CHD-C1D-ND	-3.60	121.15	124.45
25	c	506	CLA	CMB-C2B-C1B	-3.60	122.93	128.46
25	B	602	CLA	CMB-C2B-C3B	3.59	131.40	124.68
25	B	609	CLA	O2D-CGD-O1D	-3.59	116.82	123.84
25	b	610	CLA	CHD-C1D-ND	-3.57	121.17	124.45
25	B	605	CLA	O2D-CGD-O1D	-3.57	116.86	123.84
25	D	403	CLA	CMB-C2B-C1B	-3.57	122.98	128.46
25	a	609	CLA	CMB-C2B-C1B	-3.56	122.99	128.46
25	c	512	CLA	O2D-CGD-O1D	-3.56	116.89	123.84
25	a	609	CLA	O2D-CGD-O1D	-3.55	116.89	123.84
26	A	608	PHO	C1-C2-C3	-3.55	119.90	126.04
25	c	512	CLA	C1-C2-C3	-3.55	119.91	126.04
25	C	501	CLA	CMB-C2B-C1B	-3.54	123.02	128.46
25	b	612	CLA	CMB-C2B-C3B	3.54	131.30	124.68
30	a	614	SQD	O48-C23-C24	3.54	123.00	111.91
25	C	508	CLA	CMB-C2B-C3B	3.53	131.29	124.68
28	A	611	PL9	C7-C3-C2	-3.53	118.66	123.30
25	h	101	CLA	CMB-C2B-C1B	-3.53	123.04	128.46
30	b	619	SQD	O48-C23-C24	3.52	122.96	111.91
25	c	505	CLA	CMB-C2B-C1B	-3.52	123.05	128.46
30	b	619	SQD	O47-C7-C8	3.51	119.07	111.50
25	B	604	CLA	O2D-CGD-O1D	-3.50	116.99	123.84
25	c	501	CLA	CMB-C2B-C3B	3.49	131.22	124.68
25	C	507	CLA	CMB-C2B-C1B	-3.47	123.13	128.46
25	B	612	CLA	CMB-C2B-C1B	-3.46	123.15	128.46
25	c	508	CLA	CMB-C2B-C1B	-3.45	123.16	128.46
26	d	402	PHO	CMB-C2B-C3B	3.45	131.13	124.68
25	C	502	CLA	CMB-C2B-C1B	-3.44	123.18	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	a	609	CLA	O2D-CGD-CBD	3.43	117.36	111.27
35	F	101	HEM	CBD-CAD-C3D	-3.43	103.10	112.63
25	C	501	CLA	CHD-C1D-ND	-3.43	121.30	124.45
30	B	621	SQD	C3-C4-C5	3.43	116.35	110.24
25	b	605	CLA	O2D-CGD-CBD	3.42	117.35	111.27
25	B	610	CLA	O2D-CGD-O1D	-3.42	117.15	123.84
30	b	619	SQD	O9-S-O7	-3.42	102.12	113.95
25	h	101	CLA	O2D-CGD-O1D	-3.40	117.18	123.84
25	d	403	CLA	O2D-CGD-O1D	-3.40	117.19	123.84
32	h	103	DGD	O6E-C5E-C4E	3.39	115.85	109.69
25	b	606	CLA	CHD-C1D-ND	-3.39	121.34	124.45
25	b	610	CLA	O2D-CGD-CBD	3.39	117.28	111.27
25	c	504	CLA	CMB-C2B-C3B	3.38	131.00	124.68
25	b	609	CLA	O1D-CGD-CBD	3.38	131.40	124.48
25	B	609	CLA	CHB-C4A-NA	3.37	129.18	124.51
25	b	613	CLA	CMB-C2B-C3B	3.37	130.98	124.68
25	B	610	CLA	CMB-C2B-C1B	-3.36	123.31	128.46
25	C	504	CLA	CMB-C2B-C3B	3.35	130.95	124.68
30	A	614	SQD	O5-C1-C2	-3.35	103.25	110.35
28	d	406	PL9	C40-C39-C41	3.35	120.90	115.27
25	B	613	CLA	O2D-CGD-O1D	-3.34	117.31	123.84
35	f	101	HEM	CBD-CAD-C3D	-3.34	103.35	112.63
30	A	616	SQD	O47-C7-C8	3.34	118.69	111.50
25	B	611	CLA	O2D-CGD-O1D	-3.33	117.33	123.84
26	A	608	PHO	CMB-C2B-C3B	3.33	130.91	124.68
25	C	513	CLA	CMB-C2B-C3B	3.33	130.91	124.68
25	b	605	CLA	CMB-C2B-C3B	3.32	130.90	124.68
25	A	606	CLA	CMB-C2B-C1B	-3.32	123.36	128.46
25	B	614	CLA	CMB-C2B-C1B	-3.32	123.36	128.46
25	a	607	CLA	CMB-C2B-C1B	-3.31	123.37	128.46
30	f	102	SQD	O9-S-C6	3.30	110.86	106.94
33	m	102	STE	C3-C2-C1	-3.30	106.15	114.47
25	C	503	CLA	CMB-C2B-C3B	3.30	130.84	124.68
25	C	512	CLA	CMB-C2B-C3B	3.29	130.84	124.68
25	c	502	CLA	C1-C2-C3	-3.29	120.35	126.04
36	V	201	HEC	C1D-C2D-C3D	-3.28	104.71	107.00
25	c	508	CLA	O2D-CGD-O1D	-3.27	117.44	123.84
25	c	510	CLA	O2D-CGD-O1D	-3.27	117.44	123.84
25	c	502	CLA	O2D-CGD-O1D	-3.27	117.44	123.84
25	B	607	CLA	O2D-CGD-O1D	-3.27	117.45	123.84
25	B	604	CLA	CHD-C1D-ND	-3.26	121.46	124.45
25	b	603	CLA	CMB-C2B-C3B	3.26	130.78	124.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	c	512	CLA	CHB-C4A-NA	3.26	129.01	124.51
25	B	601	CLA	O2D-CGD-O1D	-3.25	117.48	123.84
25	C	506	CLA	CMB-C2B-C3B	3.24	130.74	124.68
25	C	512	CLA	CHB-C4A-NA	3.24	128.99	124.51
28	D	406	PL9	C37-C38-C39	-3.24	119.87	127.66
25	B	613	CLA	C1-C2-C3	-3.24	120.45	126.04
30	a	613	SQD	O9-S-O7	-3.23	102.76	113.95
28	d	406	PL9	C7-C3-C2	-3.23	119.05	123.30
25	b	602	CLA	C1B-CHB-C4A	-3.23	123.72	130.12
30	B	621	SQD	O5-C5-C4	3.23	115.55	109.69
26	a	608	PHO	CMB-C2B-C3B	3.22	130.71	124.68
25	A	607	CLA	C1B-CHB-C4A	-3.22	123.73	130.12
25	b	610	CLA	O2D-CGD-O1D	-3.21	117.56	123.84
36	V	201	HEC	CMC-C2C-C1C	-3.21	123.53	128.46
25	B	608	CLA	CMB-C2B-C3B	3.20	130.67	124.68
28	A	611	PL9	O1-C4-C3	-3.20	117.19	120.72
30	a	613	SQD	O8-S-C6	3.20	110.84	105.74
30	B	621	SQD	O9-S-O7	-3.20	102.88	113.95
25	D	403	CLA	O2A-CGA-O1A	-3.20	115.53	123.59
25	C	503	CLA	CHD-C1D-ND	-3.19	121.52	124.45
33	M	102	STE	C3-C2-C1	-3.19	106.44	114.47
25	c	511	CLA	CMB-C2B-C3B	3.19	130.64	124.68
25	d	404	CLA	CHD-C1D-ND	-3.19	121.53	124.45
25	C	507	CLA	CMB-C2B-C3B	3.18	130.63	124.68
32	c	517	DGD	O6D-C1D-O3G	-3.18	102.44	109.97
25	C	512	CLA	O2D-CGD-O1D	-3.18	117.63	123.84
25	a	609	CLA	CMB-C2B-C3B	3.17	130.62	124.68
26	D	402	PHO	CMA-C3A-C4A	-3.17	107.43	114.38
30	A	614	SQD	O8-S-C6	3.17	110.80	105.74
28	D	406	PL9	C40-C39-C41	3.17	120.61	115.27
25	B	610	CLA	CMB-C2B-C3B	3.17	130.62	124.68
35	F	101	HEM	CBA-CAA-C2A	-3.17	107.21	112.62
36	v	201	HEC	CMB-C2B-C1B	-3.17	123.60	128.46
36	V	201	HEC	CMB-C2B-C1B	-3.17	123.60	128.46
25	H	101	CLA	O2D-CGD-O1D	-3.16	117.65	123.84
25	B	601	CLA	CHB-C4A-NA	3.15	128.87	124.51
30	f	102	SQD	O47-C7-C8	3.14	119.57	110.80
31	D	411	LHG	O8-C23-C24	3.14	121.77	111.91
32	c	516	DGD	O3E-C3E-C2E	-3.14	103.08	110.35
25	c	509	CLA	CMB-C2B-C3B	3.14	130.55	124.68
25	a	606	CLA	CHB-C4A-NA	3.14	128.85	124.51
25	a	607	CLA	CHB-C4A-NA	3.14	128.85	124.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	c	518	DGD	O6D-C1D-O3G	-3.13	102.55	109.97
25	B	615	CLA	O2D-CGD-O1D	-3.13	117.72	123.84
29	b	622	LMG	C1-O6-C5	-3.13	107.55	113.69
30	B	621	SQD	O48-C23-C24	3.13	121.72	111.91
30	b	619	SQD	C4-C3-C2	3.13	116.28	110.82
25	c	502	CLA	CHD-C1D-ND	-3.13	121.58	124.45
25	D	403	CLA	CMB-C2B-C3B	3.12	130.51	124.68
25	c	505	CLA	O2D-CGD-O1D	-3.12	117.74	123.84
25	a	607	CLA	CHD-C1D-ND	-3.12	121.59	124.45
25	c	507	CLA	CHB-C4A-NA	3.11	128.82	124.51
27	C	514	BCR	C24-C23-C22	-3.11	121.53	126.23
28	d	406	PL9	C36-C34-C33	-3.11	114.82	121.12
25	C	513	CLA	O2D-CGD-O1D	-3.11	117.76	123.84
25	c	513	CLA	O2D-CGD-O1D	-3.10	117.77	123.84
30	a	613	SQD	C1-C2-C3	-3.10	103.53	110.00
25	B	612	CLA	CMB-C2B-C3B	3.09	130.47	124.68
30	a	613	SQD	O48-C23-C24	3.09	121.61	111.91
27	B	618	BCR	C2-C1-C6	3.09	115.24	110.48
28	a	611	PL9	C40-C39-C41	3.08	120.46	115.27
26	A	608	PHO	O2D-CGD-O1D	-3.08	117.82	123.84
25	c	504	CLA	CHB-C4A-NA	3.07	128.76	124.51
25	c	507	CLA	CMB-C2B-C1B	-3.07	123.75	128.46
25	C	508	CLA	CHD-C1D-ND	-3.06	121.64	124.45
25	b	609	CLA	C1-C2-C3	-3.06	120.75	126.04
31	d	407	LHG	O8-C23-C24	3.05	121.49	111.91
25	C	502	CLA	CHD-C1D-ND	-3.05	121.65	124.45
29	c	522	LMG	O6-C1-O1	-3.05	102.75	109.97
25	c	501	CLA	O2D-CGD-CBD	3.05	116.68	111.27
25	B	605	CLA	C1B-CHB-C4A	-3.05	124.08	130.12
25	B	610	CLA	O2D-CGD-CBD	3.04	116.68	111.27
25	c	503	CLA	CMB-C2B-C1B	-3.04	123.79	128.46
26	A	608	PHO	O1D-CGD-CBD	3.04	129.81	124.74
25	b	609	CLA	CMB-C2B-C1B	-3.04	123.79	128.46
25	C	511	CLA	CMB-C2B-C1B	-3.03	123.81	128.46
33	C	520	STE	C3-C2-C1	-3.03	106.84	114.47
25	a	612	CLA	CMB-C2B-C3B	3.03	130.34	124.68
25	b	607	CLA	O2D-CGD-O1D	-3.02	117.93	123.84
25	H	101	CLA	CAA-C2A-C3A	-3.02	104.50	112.78
25	A	607	CLA	O2D-CGD-O1D	-3.02	117.93	123.84
25	B	609	CLA	CHD-C1D-ND	-3.02	121.68	124.45
25	D	404	CLA	O2D-CGD-O1D	-3.01	117.95	123.84
25	c	504	CLA	CHD-C1D-ND	-3.01	121.69	124.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	a	609	CLA	CHB-C4A-NA	3.00	128.67	124.51
25	H	101	CLA	CMB-C2B-C1B	-2.99	123.86	128.46
32	C	518	DGD	O6D-C1D-O3G	-2.99	102.90	109.97
25	B	607	CLA	O2D-CGD-CBD	2.98	116.57	111.27
30	a	613	SQD	O7-S-C6	2.98	110.48	106.94
25	B	603	CLA	O2D-CGD-O1D	-2.98	118.01	123.84
30	F	102	SQD	C44-O6-C1	-2.98	108.90	113.84
25	B	611	CLA	O2A-CGA-O1A	-2.98	116.08	123.59
25	B	603	CLA	CMB-C2B-C1B	-2.98	123.89	128.46
25	A	606	CLA	CMB-C2B-C3B	2.97	130.24	124.68
26	d	402	PHO	O1D-CGD-CBD	2.97	129.69	124.74
25	h	101	CLA	CMB-C2B-C3B	2.97	130.23	124.68
25	C	507	CLA	O2D-CGD-O1D	-2.96	118.05	123.84
25	B	610	CLA	CHD-C1D-ND	-2.96	121.73	124.45
32	A	617	DGD	C3G-C2G-C1G	-2.96	104.79	111.79
30	b	619	SQD	O9-S-C6	2.96	110.45	106.94
32	c	517	DGD	O3G-C3G-C2G	-2.95	103.77	110.90
26	d	402	PHO	CMC-C2C-C3C	2.95	130.51	124.94
36	v	201	HEC	CBA-CAA-C2A	-2.95	107.63	112.60
30	f	102	SQD	C1-C2-C3	-2.95	103.86	110.00
28	A	611	PL9	C22-C23-C24	-2.94	120.57	127.66
25	c	505	CLA	CMB-C2B-C3B	2.93	130.16	124.68
27	A	610	BCR	C27-C26-C25	2.93	126.99	122.73
25	b	610	CLA	CMB-C2B-C1B	-2.92	123.97	128.46
25	b	614	CLA	CMB-C2B-C1B	-2.92	123.97	128.46
26	D	402	PHO	CMB-C2B-C3B	2.92	130.14	124.68
25	c	501	CLA	CHD-C1D-ND	-2.92	121.77	124.45
25	h	101	CLA	CHD-C1D-ND	-2.91	121.78	124.45
25	c	508	CLA	CMB-C2B-C3B	2.91	130.12	124.68
31	d	409	LHG	O8-C23-C24	2.91	121.03	111.91
25	b	607	CLA	CHD-C1D-ND	-2.90	121.79	124.45
25	b	613	CLA	O2A-CGA-O1A	-2.90	116.27	123.59
25	b	606	CLA	O2D-CGD-O1D	-2.90	118.17	123.84
25	b	607	CLA	C1B-CHB-C4A	-2.90	124.38	130.12
25	a	607	CLA	O2D-CGD-O1D	-2.90	118.17	123.84
32	c	516	DGD	CDB-CCB-CBB	-2.89	99.73	114.42
27	d	405	BCR	C2-C1-C6	2.89	114.93	110.48
25	b	607	CLA	CHB-C4A-NA	2.89	128.50	124.51
25	C	501	CLA	O2D-CGD-CBD	2.89	116.40	111.27
27	D	405	BCR	C2-C1-C6	2.89	114.92	110.48
25	b	605	CLA	C1B-CHB-C4A	-2.89	124.40	130.12
33	m	102	STE	O2-C1-C2	2.89	123.30	114.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	c	508	CLA	C2D-C1D-ND	-2.88	107.98	110.10
25	B	603	CLA	C2D-C1D-ND	-2.88	107.98	110.10
25	C	502	CLA	O2D-CGD-O1D	-2.88	118.20	123.84
29	c	519	LMG	O6-C1-O1	-2.88	103.15	109.97
30	a	613	SQD	O9-S-C6	2.88	110.36	106.94
25	C	509	CLA	CHB-C4A-NA	2.88	128.49	124.51
25	B	609	CLA	O2A-CGA-O1A	-2.88	116.33	123.59
25	b	603	CLA	C1-C2-C3	-2.88	121.07	126.04
31	d	407	LHG	C11-C10-C9	-2.87	99.84	114.42
31	e	101	LHG	O8-C23-C24	2.87	120.92	111.91
25	B	609	CLA	C1B-CHB-C4A	-2.87	124.43	130.12
31	d	407	LHG	O8-C23-O10	-2.86	116.37	123.59
28	D	406	PL9	C7-C3-C2	-2.86	119.54	123.30
30	F	102	SQD	O9-S-O7	-2.86	104.06	113.95
32	h	103	DGD	C4E-C3E-C2E	-2.85	105.84	110.82
32	h	103	DGD	C1E-O6E-C5E	2.85	119.28	113.69
27	b	616	BCR	C11-C10-C9	-2.85	123.25	127.31
28	d	406	PL9	C22-C23-C24	-2.84	120.81	127.66
26	d	402	PHO	O2D-CGD-O1D	-2.84	118.28	123.84
25	c	512	CLA	CHD-C1D-ND	-2.84	121.84	124.45
32	a	615	DGD	CDB-CCB-CBB	-2.84	100.01	114.42
25	A	606	CLA	CHB-C4A-NA	2.84	128.44	124.51
25	B	604	CLA	CMB-C2B-C3B	2.84	129.99	124.68
25	D	404	CLA	C1B-CHB-C4A	-2.84	124.50	130.12
25	b	609	CLA	CMB-C2B-C3B	2.84	129.98	124.68
25	A	607	CLA	C4A-NA-C1A	2.83	107.98	106.71
25	a	607	CLA	CMB-C2B-C3B	2.83	129.97	124.68
25	h	101	CLA	CHB-C4A-NA	2.82	128.42	124.51
25	c	506	CLA	CMB-C2B-C3B	2.82	129.96	124.68
30	B	621	SQD	O8-S-C6	2.82	110.23	105.74
28	A	611	PL9	C20-C19-C21	2.82	120.01	115.27
32	h	103	DGD	O3G-C3G-C2G	-2.82	104.10	110.90
27	C	514	BCR	C11-C10-C9	-2.81	123.29	127.31
25	B	604	CLA	CMB-C2B-C1B	-2.81	124.14	128.46
27	c	515	BCR	C11-C10-C9	-2.81	123.30	127.31
25	C	512	CLA	C1-C2-C3	-2.81	121.18	126.04
27	B	617	BCR	C15-C14-C13	-2.81	123.30	127.31
27	T	101	BCR	C33-C5-C6	-2.80	121.38	124.53
25	B	610	CLA	CHB-C4A-NA	2.80	128.38	124.51
30	F	102	SQD	O48-C23-C24	2.80	120.69	111.91
25	c	503	CLA	CMB-C2B-C3B	2.80	129.91	124.68
27	K	101	BCR	C27-C26-C25	2.79	126.79	122.73

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	B	609	CLA	C1-C2-C3	-2.79	121.21	126.04
25	C	504	CLA	CHD-C1D-ND	-2.79	121.89	124.45
25	C	512	CLA	O2D-CGD-CBD	2.79	116.23	111.27
25	a	612	CLA	O2D-CGD-CBD	2.79	116.22	111.27
25	b	612	CLA	C1-C2-C3	-2.79	121.22	126.04
30	F	102	SQD	C1-C2-C3	-2.79	104.19	110.00
32	C	517	DGD	CDB-CCB-CBB	-2.79	100.28	114.42
32	c	517	DGD	CDB-CCB-CBB	-2.78	100.30	114.42
32	c	518	DGD	CDB-CCB-CBB	-2.78	100.30	114.42
25	A	607	CLA	CAC-C3C-C4C	2.78	128.42	124.81
25	a	606	CLA	O2D-CGD-O1D	-2.78	118.41	123.84
33	d	413	STE	C3-C2-C1	-2.77	107.48	114.47
25	c	504	CLA	O2D-CGD-O1D	-2.77	118.42	123.84
25	b	606	CLA	C1B-CHB-C4A	-2.77	124.63	130.12
25	b	602	CLA	O2D-CGD-CBD	2.77	116.19	111.27
32	C	517	DGD	C6D-O5D-C1E	2.77	119.14	113.74
25	b	609	CLA	C1B-CHB-C4A	-2.77	124.64	130.12
27	T	101	BCR	C7-C8-C9	-2.77	122.06	126.23
29	m	101	LMG	O1-C7-C8	-2.77	104.23	110.90
25	A	607	CLA	CMB-C2B-C1B	-2.76	124.22	128.46
25	C	504	CLA	CHB-C4A-NA	2.76	128.33	124.51
28	d	406	PL9	C37-C38-C39	-2.76	121.01	127.66
25	B	614	CLA	O2D-CGD-O1D	-2.75	118.46	123.84
29	d	411	LMG	O6-C1-O1	-2.75	103.46	109.97
25	b	609	CLA	CAA-CBA-CGA	-2.75	105.22	113.25
27	c	514	BCR	C27-C26-C25	2.75	126.72	122.73
25	c	508	CLA	O2D-CGD-CBD	2.74	116.14	111.27
25	C	504	CLA	O2D-CGD-O1D	-2.74	118.48	123.84
31	D	408	LHG	O8-C23-C24	2.74	120.51	111.91
25	d	403	CLA	CMB-C2B-C1B	-2.74	124.25	128.46
32	h	103	DGD	C1D-C2D-C3D	-2.73	104.30	110.00
25	C	505	CLA	O2D-CGD-O1D	-2.73	118.50	123.84
25	A	609	CLA	CHB-C4A-NA	2.73	128.29	124.51
27	a	610	BCR	C27-C26-C25	2.73	126.69	122.73
25	c	513	CLA	C1B-CHB-C4A	-2.73	124.72	130.12
25	A	606	CLA	C1B-CHB-C4A	-2.72	124.72	130.12
25	C	506	CLA	O2D-CGD-O1D	-2.72	118.52	123.84
25	B	611	CLA	CHB-C4A-NA	2.72	128.28	124.51
32	C	517	DGD	O3G-C3G-C2G	-2.72	104.34	110.90
25	b	611	CLA	C11-C12-C13	-2.72	107.14	115.92
25	B	605	CLA	CMB-C2B-C1B	-2.72	124.29	128.46
25	A	609	CLA	C1B-CHB-C4A	-2.71	124.74	130.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	b	621	STE	C3-C2-C1	-2.71	107.64	114.47
25	A	607	CLA	CMB-C2B-C3B	2.71	129.74	124.68
28	A	611	PL9	C27-C28-C29	-2.71	121.15	127.66
25	c	511	CLA	O2D-CGD-O1D	-2.70	118.56	123.84
27	c	515	BCR	C7-C8-C9	-2.70	122.16	126.23
25	h	101	CLA	O2D-CGD-CBD	2.70	116.06	111.27
35	f	101	HEM	C4B-CHC-C1C	2.70	126.12	122.56
25	C	502	CLA	CMB-C2B-C3B	2.69	129.72	124.68
25	B	608	CLA	O2D-CGD-O1D	-2.69	118.58	123.84
33	C	521	STE	C3-C2-C1	-2.69	107.70	114.47
25	A	609	CLA	O2D-CGD-CBD	2.68	116.03	111.27
35	f	101	HEM	C3B-C2B-C1B	2.68	108.47	106.49
25	b	608	CLA	C1B-CHB-C4A	-2.68	124.81	130.12
27	C	515	BCR	C2-C1-C6	2.68	114.61	110.48
32	H	103	DGD	C3E-C4E-C5E	-2.68	105.47	110.24
25	c	504	CLA	O2A-CGA-O1A	-2.68	116.84	123.59
25	b	603	CLA	CHB-C4A-NA	2.67	128.21	124.51
27	K	102	BCR	C27-C26-C25	2.67	126.60	122.73
25	C	502	CLA	O2A-CGA-O1A	-2.66	116.87	123.59
25	c	503	CLA	CHB-C4A-NA	2.66	128.19	124.51
25	b	613	CLA	C1B-CHB-C4A	-2.66	124.84	130.12
32	C	517	DGD	O6D-C1D-O3G	-2.66	103.67	109.97
25	C	503	CLA	O2D-CGD-O1D	-2.66	118.63	123.84
32	H	103	DGD	C4E-C3E-C2E	-2.66	106.18	110.82
25	a	607	CLA	O2D-CGD-CBD	2.65	115.98	111.27
25	b	614	CLA	CHB-C4A-NA	2.65	128.18	124.51
28	A	611	PL9	C7-C8-C9	-2.65	122.38	126.79
25	C	501	CLA	O2A-CGA-O1A	-2.65	116.91	123.59
25	d	404	CLA	CHB-C4A-NA	2.65	128.17	124.51
27	d	405	BCR	C27-C26-C25	2.65	126.58	122.73
25	C	507	CLA	CHB-C4A-NA	2.65	128.17	124.51
25	b	606	CLA	O1D-CGD-CBD	2.64	129.90	124.48
25	B	603	CLA	CMB-C2B-C3B	2.64	129.62	124.68
25	b	609	CLA	O2A-CGA-O1A	-2.64	116.93	123.59
27	h	102	BCR	C27-C26-C25	2.64	126.56	122.73
31	D	411	LHG	C20-C19-C18	-2.64	101.02	114.42
25	c	503	CLA	CHD-C1D-ND	-2.64	122.03	124.45
25	C	510	CLA	O2D-CGD-O1D	-2.64	118.68	123.84
25	b	615	CLA	CAA-CBA-CGA	-2.63	105.56	113.25
25	b	615	CLA	CHD-C1D-ND	-2.63	122.04	124.45
25	b	604	CLA	O1D-CGD-CBD	2.63	129.86	124.48
29	m	101	LMG	O3-C3-C2	-2.63	104.28	110.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	m	101	LMG	O7-C10-O9	-2.63	117.35	123.70
25	c	502	CLA	C1B-CHB-C4A	-2.62	124.92	130.12
25	a	606	CLA	CMB-C2B-C1B	-2.62	124.43	128.46
28	a	611	PL9	C37-C38-C39	-2.62	121.34	127.66
25	b	604	CLA	CHD-C1D-ND	-2.62	122.05	124.45
32	h	103	DGD	C6D-C5D-C4D	2.62	117.56	112.09
29	m	101	LMG	O1-C1-C2	-2.62	104.22	108.30
28	a	611	PL9	C22-C23-C24	-2.61	121.37	127.66
28	A	611	PL9	O2-C1-C6	2.61	125.11	120.59
27	t	101	BCR	C7-C8-C9	-2.61	122.29	126.23
25	b	611	CLA	C1B-CHB-C4A	-2.61	124.95	130.12
25	B	601	CLA	O2D-CGD-CBD	2.61	115.90	111.27
28	D	406	PL9	C22-C23-C24	-2.61	121.38	127.66
29	A	613	LMG	O7-C10-O9	-2.60	117.41	123.70
25	C	504	CLA	O2A-CGA-O1A	-2.60	117.02	123.59
35	f	101	HEM	C1B-NB-C4B	2.60	107.76	105.07
25	d	404	CLA	C1B-CHB-C4A	-2.60	124.97	130.12
25	B	614	CLA	CHB-C4A-NA	2.60	128.11	124.51
27	D	405	BCR	C27-C26-C25	2.60	126.50	122.73
27	k	102	BCR	C27-C26-C25	2.60	126.50	122.73
25	b	601	CLA	C1B-CHB-C4A	-2.60	124.97	130.12
32	A	617	DGD	CDB-CCB-CBB	-2.60	101.25	114.42
25	b	604	CLA	CMB-C2B-C1B	-2.59	124.48	128.46
27	A	610	BCR	C11-C10-C9	-2.59	123.61	127.31
25	a	612	CLA	CHD-C1D-ND	-2.59	122.07	124.45
25	C	503	CLA	O2A-C1-C2	-2.59	101.83	108.64
25	c	501	CLA	O2A-CGA-O1A	-2.59	117.05	123.59
32	C	516	DGD	O6D-C1D-O3G	-2.59	103.84	109.97
25	b	612	CLA	O2D-CGD-O1D	-2.59	118.78	123.84
25	c	507	CLA	CMB-C2B-C3B	2.59	129.52	124.68
25	b	603	CLA	O2D-CGD-O1D	-2.59	118.78	123.84
25	d	404	CLA	O2D-CGD-O1D	-2.59	118.78	123.84
31	D	411	LHG	C11-C10-C9	-2.59	101.30	114.42
27	k	102	BCR	C11-C10-C9	-2.58	123.63	127.31
32	C	518	DGD	CDB-CCB-CBB	-2.58	101.33	114.42
25	c	513	CLA	CHB-C4A-NA	2.58	128.08	124.51
27	D	405	BCR	C7-C8-C9	-2.58	122.34	126.23
32	c	516	DGD	CBB-CAB-C9B	-2.58	101.35	114.42
25	c	506	CLA	O2D-CGD-O1D	-2.58	118.80	123.84
25	c	507	CLA	O2D-CGD-O1D	-2.57	118.81	123.84
29	D	407	LMG	O3-C3-C2	-2.57	104.41	110.35
32	C	517	DGD	C1D-C2D-C3D	-2.57	104.65	110.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	b	604	CLA	CHB-C4A-NA	2.57	128.06	124.51
25	b	611	CLA	O1D-CGD-CBD	2.56	129.73	124.48
25	c	507	CLA	C1B-CHB-C4A	-2.56	125.04	130.12
25	B	614	CLA	CMB-C2B-C3B	2.56	129.47	124.68
25	C	506	CLA	CHB-C4A-NA	2.56	128.06	124.51
25	A	609	CLA	CHD-C1D-ND	-2.56	122.10	124.45
32	C	518	DGD	O3E-C3E-C2E	-2.56	104.43	110.35
25	A	607	CLA	O2A-CGA-O1A	-2.56	117.14	123.59
31	d	408	LHG	O8-C23-C24	2.56	119.93	111.91
29	M	101	LMG	O1-C1-C2	-2.55	104.32	108.30
25	b	609	CLA	CHB-C4A-NA	2.55	128.03	124.51
29	A	613	LMG	O6-C1-O1	-2.55	103.94	109.97
25	B	604	CLA	O1D-CGD-CBD	2.55	129.69	124.48
32	H	103	DGD	C1D-C2D-C3D	-2.54	104.70	110.00
25	c	508	CLA	C1-C2-C3	-2.54	121.64	126.04
31	D	408	LHG	C27-C26-C25	-2.54	101.51	114.42
25	b	608	CLA	CHD-C1D-ND	-2.54	122.12	124.45
25	b	607	CLA	O2D-CGD-CBD	2.54	115.78	111.27
27	B	616	BCR	C3-C4-C5	-2.54	109.55	114.08
27	B	618	BCR	C3-C4-C5	-2.54	109.55	114.08
32	c	516	DGD	C3G-C2G-C1G	-2.54	105.79	111.79
25	B	605	CLA	CHB-C4A-NA	2.54	128.02	124.51
30	f	102	SQD	O5-C5-C4	2.54	114.30	109.69
29	M	101	LMG	C40-C39-C38	-2.54	101.55	114.42
25	C	510	CLA	CHD-C1D-ND	-2.54	122.12	124.45
27	k	101	BCR	C33-C5-C6	-2.53	121.69	124.53
25	c	510	CLA	CHB-C4A-NA	2.53	128.01	124.51
30	A	614	SQD	O48-C23-C24	2.53	119.84	111.91
25	d	403	CLA	O2A-CGA-O1A	-2.52	117.22	123.59
25	c	508	CLA	CHD-C1D-ND	-2.52	122.14	124.45
25	B	603	CLA	O2A-CGA-O1A	-2.52	117.23	123.59
25	B	615	CLA	CMB-C2B-C1B	-2.52	124.59	128.46
29	m	101	LMG	O6-C1-O1	-2.52	104.00	109.97
25	A	607	CLA	C2D-C1D-ND	-2.52	108.25	110.10
25	b	604	CLA	C1-C2-C3	-2.52	121.69	126.04
25	a	612	CLA	CHB-C4A-NA	2.52	127.99	124.51
25	h	101	CLA	O2A-CGA-O1A	-2.52	117.24	123.59
25	b	601	CLA	CHD-C1D-ND	-2.51	122.14	124.45
25	b	615	CLA	CHB-C4A-NA	2.51	127.99	124.51
29	b	622	LMG	C40-C39-C38	-2.51	101.67	114.42
25	B	602	CLA	O2A-CGA-O1A	-2.51	117.25	123.59
25	B	601	CLA	C1B-CHB-C4A	-2.51	125.14	130.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	b	610	CLA	CHB-C4A-NA	2.51	127.98	124.51
32	A	617	DGD	C3E-C4E-C5E	-2.51	105.76	110.24
29	A	613	LMG	O1-C7-C8	-2.51	104.85	110.90
25	C	509	CLA	O2D-CGD-O1D	-2.50	118.94	123.84
25	B	601	CLA	O2A-CGA-O1A	-2.50	117.27	123.59
32	C	517	DGD	C3E-C4E-C5E	-2.50	105.78	110.24
29	m	101	LMG	O8-C28-O10	-2.50	117.28	123.59
33	t	102	STE	C3-C2-C1	-2.50	108.18	114.47
28	A	611	PL9	O2-C1-C2	-2.50	116.06	121.78
25	a	606	CLA	O2A-CGA-O1A	-2.50	117.29	123.59
27	B	616	BCR	C29-C30-C25	2.49	114.32	110.48
25	b	601	CLA	O2D-CGD-CBD	2.49	115.69	111.27
25	C	511	CLA	CMB-C2B-C3B	2.49	129.33	124.68
25	H	101	CLA	O2A-C1-C2	-2.49	102.10	108.64
27	H	102	BCR	C2-C1-C6	2.48	114.31	110.48
25	c	503	CLA	C1B-CHB-C4A	-2.48	125.20	130.12
25	c	502	CLA	O2A-CGA-O1A	-2.48	117.33	123.59
27	T	101	BCR	C35-C13-C14	-2.48	119.45	122.92
27	A	610	BCR	C7-C8-C9	-2.48	122.49	126.23
25	b	615	CLA	O1D-CGD-CBD	2.48	129.56	124.48
30	A	616	SQD	O48-C23-C24	2.48	119.68	111.91
25	C	501	CLA	CMB-C2B-C3B	2.47	129.31	124.68
25	c	512	CLA	O2A-CGA-O1A	-2.47	117.35	123.59
27	t	101	BCR	C11-C10-C9	-2.47	123.78	127.31
25	C	510	CLA	CHB-C4A-NA	2.47	127.93	124.51
32	h	103	DGD	CDB-CCB-CBB	-2.47	101.88	114.42
32	c	516	DGD	O6E-C5E-C4E	2.47	114.18	109.69
25	b	613	CLA	O2D-CGD-O1D	-2.47	119.01	123.84
29	A	613	LMG	C40-C39-C38	-2.47	101.90	114.42
27	B	617	BCR	C7-C8-C9	-2.47	122.51	126.23
25	D	403	CLA	C1B-CHB-C4A	-2.47	125.23	130.12
27	k	102	BCR	C24-C23-C22	-2.47	122.51	126.23
25	b	610	CLA	CMB-C2B-C3B	2.46	129.29	124.68
36	v	201	HEC	C1D-C2D-C3D	-2.46	105.28	107.00
27	d	405	BCR	C38-C26-C25	-2.46	121.77	124.53
25	c	509	CLA	C1B-CHB-C4A	-2.46	125.25	130.12
28	D	406	PL9	C36-C34-C33	-2.46	116.14	121.12
25	B	602	CLA	O2D-CGD-CBD	2.46	115.63	111.27
25	B	612	CLA	O2D-CGD-O1D	-2.45	119.04	123.84
27	C	514	BCR	C33-C5-C6	-2.45	121.77	124.53
25	B	615	CLA	CHB-C4A-NA	2.45	127.90	124.51
32	A	617	DGD	O6D-C1D-O3G	-2.45	104.17	109.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	d	411	LMG	C40-C39-C38	-2.45	101.98	114.42
25	B	605	CLA	O2D-CGD-CBD	2.45	115.62	111.27
27	H	102	BCR	C27-C26-C25	2.45	126.29	122.73
30	f	102	SQD	O5-C1-C2	-2.45	105.16	110.35
25	B	612	CLA	CAC-C3C-C4C	2.45	127.99	124.81
25	C	508	CLA	O1D-CGD-CBD	2.45	129.50	124.48
25	D	403	CLA	CHB-C4A-NA	2.45	127.90	124.51
25	b	608	CLA	O2A-CGA-O1A	-2.44	117.42	123.59
28	D	406	PL9	C50-C49-C48	-2.44	115.59	122.65
25	a	609	CLA	C1B-CHB-C4A	-2.44	125.28	130.12
28	a	611	PL9	O2-C1-C2	-2.44	116.19	121.78
32	a	615	DGD	C1G-C2G-C3G	-2.44	106.09	111.80
27	T	101	BCR	C27-C26-C25	2.44	126.27	122.73
25	B	605	CLA	CMB-C2B-C3B	2.44	129.24	124.68
25	C	511	CLA	O2D-CGD-O1D	-2.44	119.07	123.84
32	H	103	DGD	CDB-CCB-CBB	-2.44	102.05	114.42
25	C	512	CLA	O2A-CGA-O1A	-2.44	117.44	123.59
32	C	516	DGD	C3G-C2G-C1G	-2.44	106.03	111.79
30	a	613	SQD	C3-C4-C5	2.43	114.58	110.24
25	c	508	CLA	C1D-ND-C4D	2.43	108.06	106.33
25	B	609	CLA	CMB-C2B-C1B	-2.43	124.73	128.46
25	B	604	CLA	O2A-CGA-O1A	-2.43	117.45	123.59
25	A	606	CLA	CHD-C1D-ND	-2.43	122.22	124.45
25	B	603	CLA	CHB-C4A-NA	2.43	127.87	124.51
25	b	611	CLA	CHD-C1D-ND	-2.43	122.22	124.45
25	c	513	CLA	CHD-C1D-ND	-2.43	122.22	124.45
28	d	406	PL9	C20-C19-C21	2.43	119.35	115.27
32	c	516	DGD	O3G-C1D-C2D	-2.43	104.52	108.30
31	A	615	LHG	O8-C23-C24	2.42	119.51	111.91
29	D	407	LMG	O6-C1-O1	-2.42	104.24	109.97
32	h	103	DGD	O6D-C1D-O3G	-2.42	104.24	109.97
25	C	513	CLA	O2A-CGA-O1A	-2.42	117.49	123.59
32	c	517	DGD	O5D-C6D-C5D	-2.42	104.57	109.05
25	B	613	CLA	C1B-CHB-C4A	-2.42	125.33	130.12
27	t	101	BCR	C33-C5-C6	-2.42	121.81	124.53
30	b	619	SQD	O5-C5-C4	2.42	114.08	109.69
27	b	616	BCR	C27-C26-C25	2.41	126.24	122.73
25	B	603	CLA	O2A-C1-C2	2.41	114.98	108.64
27	C	514	BCR	C27-C26-C25	2.41	126.23	122.73
25	B	605	CLA	CGD-CBD-CAD	-2.41	102.94	110.73
27	B	618	BCR	C29-C30-C25	2.41	114.19	110.48
28	d	406	PL9	C27-C28-C29	-2.41	121.86	127.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	A	617	DGD	O3G-C3G-C2G	-2.41	105.09	110.90
28	d	406	PL9	C42-C43-C44	-2.41	121.87	127.66
27	A	610	BCR	C2-C1-C6	2.40	114.18	110.48
27	C	514	BCR	C2-C1-C6	2.40	114.18	110.48
27	c	514	BCR	C15-C14-C13	-2.40	123.88	127.31
32	H	103	DGD	O6D-C1D-O3G	-2.40	104.30	109.97
29	d	411	LMG	O3-C3-C2	-2.40	104.81	110.35
25	a	606	CLA	CMB-C2B-C3B	2.40	129.16	124.68
25	b	609	CLA	CHD-C1D-ND	-2.40	122.25	124.45
29	M	101	LMG	O6-C1-O1	-2.39	104.30	109.97
25	B	611	CLA	C1B-CHB-C4A	-2.39	125.38	130.12
32	c	518	DGD	C3G-C2G-C1G	-2.39	106.13	111.79
25	H	101	CLA	C2A-C1A-CHA	2.39	128.04	123.86
25	C	507	CLA	CHD-C1D-ND	-2.39	122.26	124.45
35	F	101	HEM	C4D-ND-C1D	2.39	107.54	105.07
29	c	521	LMG	C40-C39-C38	-2.39	102.31	114.42
31	e	101	LHG	C11-C10-C9	-2.39	102.31	114.42
32	h	103	DGD	CBB-CAB-C9B	-2.39	102.31	114.42
30	f	102	SQD	O48-C23-C24	2.38	119.38	111.91
27	k	101	BCR	C27-C26-C25	2.38	126.19	122.73
26	D	402	PHO	CMC-C2C-C3C	2.38	129.43	124.94
25	c	505	CLA	C1B-CHB-C4A	-2.38	125.41	130.12
27	b	618	BCR	C29-C30-C25	2.38	114.14	110.48
25	b	612	CLA	C7-C6-C5	-2.37	106.91	113.36
25	C	505	CLA	C1-C2-C3	-2.37	121.94	126.04
25	B	612	CLA	CHB-C4A-NA	2.37	127.79	124.51
25	b	614	CLA	CMB-C2B-C3B	2.37	129.11	124.68
25	c	501	CLA	CHB-C4A-NA	2.37	127.78	124.51
30	a	613	SQD	C44-O6-C1	-2.37	109.12	113.74
27	b	616	BCR	C29-C30-C25	2.36	114.12	110.48
32	C	516	DGD	C6D-O5D-C1E	2.36	118.36	113.74
25	C	511	CLA	CHB-C4A-NA	2.36	127.78	124.51
25	c	506	CLA	CHB-C4A-NA	2.36	127.78	124.51
27	t	101	BCR	C35-C13-C14	-2.36	119.61	122.92
29	c	519	LMG	C40-C39-C38	-2.36	102.44	114.42
30	A	614	SQD	O47-C7-O49	-2.36	118.00	123.70
25	b	611	CLA	C1-C2-C3	-2.36	121.96	126.04
25	b	602	CLA	O2A-CGA-O1A	-2.36	117.63	123.59
25	A	612	CLA	O2D-CGD-O1D	-2.36	119.22	123.84
32	c	518	DGD	C1D-C2D-C3D	-2.36	105.08	110.00
28	A	611	PL9	C12-C13-C14	-2.36	121.98	127.66
25	A	607	CLA	O2D-CGD-CBD	2.36	115.46	111.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	h	102	BCR	C24-C23-C22	-2.36	122.67	126.23
28	A	611	PL9	C31-C32-C33	-2.36	104.14	111.88
25	D	404	CLA	CHB-C4A-NA	2.35	127.77	124.51
25	b	611	CLA	O2A-CGA-O1A	-2.35	117.66	123.59
30	a	614	SQD	O48-C23-O10	-2.35	117.66	123.59
25	c	513	CLA	C2D-C1D-ND	-2.35	108.37	110.10
29	d	411	LMG	C38-C37-C36	-2.35	102.49	114.42
27	c	515	BCR	C27-C26-C25	2.35	126.14	122.73
27	D	405	BCR	C3-C4-C5	-2.35	109.89	114.08
31	L	101	LHG	C20-C19-C18	-2.35	102.52	114.42
27	K	101	BCR	C33-C5-C6	-2.34	121.89	124.53
25	B	602	CLA	C4-C3-C5	2.34	119.21	115.27
25	a	607	CLA	O2A-CGA-O1A	-2.34	117.69	123.59
25	C	509	CLA	C1B-CHB-C4A	-2.34	125.48	130.12
31	D	411	LHG	O8-C23-O10	-2.34	117.69	123.59
25	C	513	CLA	CHB-C4A-NA	2.34	127.74	124.51
29	C	519	LMG	O6-C1-O1	-2.34	104.44	109.97
33	C	520	STE	C4-C3-C2	-2.34	104.79	113.19
25	C	506	CLA	CHD-C1D-ND	-2.34	122.31	124.45
35	f	101	HEM	CAB-C3B-C2B	-2.33	120.91	128.60
33	t	102	STE	O2-C1-C2	2.33	121.53	114.03
25	B	605	CLA	O2A-CGA-O1A	-2.33	117.70	123.59
35	f	101	HEM	C4D-ND-C1D	2.33	107.48	105.07
25	B	603	CLA	O2D-CGD-CBD	2.33	115.41	111.27
26	d	402	PHO	CMA-C3A-C4A	-2.33	109.27	114.38
27	C	514	BCR	C15-C16-C17	-2.33	118.70	123.47
25	c	508	CLA	CHB-C4A-NA	2.33	127.73	124.51
29	d	411	LMG	O1-C7-C8	-2.33	105.28	110.90
32	A	617	DGD	CBB-CAB-C9B	-2.33	102.61	114.42
25	b	604	CLA	C4-C3-C5	2.32	119.18	115.27
25	b	612	CLA	CHA-C1A-NA	-2.32	121.08	126.40
29	D	407	LMG	C38-C37-C36	-2.32	102.63	114.42
25	a	612	CLA	O2D-CGD-O1D	-2.32	119.30	123.84
32	A	617	DGD	O2D-C2D-C1D	-2.32	104.41	110.05
25	B	608	CLA	C1B-CHB-C4A	-2.32	125.52	130.12
25	B	601	CLA	C2D-C1D-ND	-2.32	108.39	110.10
28	A	611	PL9	C40-C39-C41	2.32	119.17	115.27
25	a	607	CLA	C1B-CHB-C4A	-2.32	125.52	130.12
27	c	515	BCR	C33-C5-C6	-2.32	121.92	124.53
26	a	608	PHO	CMC-C2C-C3C	2.32	129.31	124.94
29	A	613	LMG	C38-C37-C36	-2.32	102.66	114.42
27	b	617	BCR	C27-C26-C25	2.32	126.09	122.73

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	D	402	PHO	O2A-CGA-O1A	-2.32	117.75	123.59
36	V	201	HEC	CMC-C2C-C3C	2.31	128.54	125.82
28	D	406	PL9	O1-C4-C3	-2.31	118.17	120.72
25	H	101	CLA	C4-C3-C5	2.31	119.16	115.27
25	c	503	CLA	O2D-CGD-O1D	-2.31	119.32	123.84
25	b	606	CLA	CHB-C4A-NA	2.31	127.71	124.51
25	B	615	CLA	C1B-CHB-C4A	-2.31	125.54	130.12
28	a	611	PL9	O2-C1-C6	2.31	124.59	120.59
33	d	413	STE	O2-C1-C2	2.31	121.44	114.03
27	C	514	BCR	C15-C14-C13	-2.31	124.02	127.31
25	C	509	CLA	CED-O2D-CGD	2.31	121.15	115.94
31	D	408	LHG	C11-C10-C9	-2.31	102.72	114.42
31	D	408	LHG	C20-C19-C18	-2.31	102.72	114.42
25	b	615	CLA	C1B-CHB-C4A	-2.31	125.55	130.12
27	c	514	BCR	C7-C8-C9	-2.31	122.75	126.23
30	a	613	SQD	O5-C1-C2	-2.30	105.47	110.35
25	A	607	CLA	CHB-C4A-NA	2.30	127.70	124.51
31	D	408	LHG	C18-C17-C16	-2.30	102.72	114.42
25	b	603	CLA	O2D-CGD-CBD	2.30	115.36	111.27
27	C	515	BCR	C27-C26-C25	2.30	126.07	122.73
29	M	101	LMG	C38-C37-C36	-2.30	102.74	114.42
31	d	408	LHG	C20-C19-C18	-2.30	102.74	114.42
28	D	406	PL9	C20-C19-C21	2.30	119.14	115.27
31	e	101	LHG	C20-C19-C18	-2.30	102.77	114.42
29	B	620	LMG	C38-C37-C36	-2.30	102.77	114.42
27	H	102	BCR	C16-C17-C18	-2.30	124.03	127.31
27	c	514	BCR	C2-C1-C6	2.29	114.01	110.48
29	b	622	LMG	C38-C37-C36	-2.29	102.78	114.42
32	c	517	DGD	O2D-C2D-C1D	-2.29	104.48	110.05
31	A	615	LHG	C20-C19-C18	-2.29	102.79	114.42
29	m	101	LMG	C38-C37-C36	-2.29	102.79	114.42
27	B	617	BCR	C27-C26-C25	2.29	126.06	122.73
26	D	402	PHO	O2D-CGD-O1D	-2.29	119.36	123.84
27	B	617	BCR	C35-C13-C14	-2.29	119.72	122.92
30	f	102	SQD	C46-C45-C44	-2.29	106.38	111.79
27	H	102	BCR	C16-C15-C14	-2.28	118.79	123.47
27	A	610	BCR	C33-C5-C6	-2.28	121.96	124.53
29	c	522	LMG	O1-C7-C8	-2.28	105.39	110.90
28	d	406	PL9	C8-C7-C3	2.28	118.43	111.98
25	a	609	CLA	O2A-CGA-O1A	-2.28	117.83	123.59
25	b	607	CLA	O2A-CGA-O1A	-2.28	117.84	123.59
32	c	518	DGD	CAB-C9B-C8B	-2.28	102.86	114.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	b	605	CLA	C1-C2-C3	-2.28	122.10	126.04
29	c	519	LMG	C38-C37-C36	-2.28	102.86	114.42
32	C	517	DGD	CBB-CAB-C9B	-2.28	102.86	114.42
27	b	618	BCR	C7-C8-C9	-2.28	122.79	126.23
27	k	102	BCR	C33-C5-C6	-2.28	121.97	124.53
25	b	604	CLA	O2A-CGA-O1A	-2.27	117.85	123.59
32	a	615	DGD	CBB-CAB-C9B	-2.27	102.88	114.42
31	d	407	LHG	C20-C19-C18	-2.27	102.89	114.42
29	c	519	LMG	O3-C3-C2	-2.27	105.10	110.35
27	t	101	BCR	C27-C26-C25	2.27	126.03	122.73
29	d	411	LMG	O2-C2-C1	-2.27	104.53	110.05
25	b	612	CLA	O2A-CGA-O1A	-2.27	117.86	123.59
25	c	512	CLA	O2D-CGD-CBD	2.27	115.29	111.27
27	A	610	BCR	C38-C26-C25	-2.26	121.98	124.53
25	a	612	CLA	C1B-CHB-C4A	-2.26	125.63	130.12
30	F	102	SQD	C3-C4-C5	2.26	114.28	110.24
33	a	616	STE	C3-C2-C1	-2.26	108.77	114.47
29	c	522	LMG	C38-C37-C36	-2.26	102.94	114.42
25	D	404	CLA	O2A-CGA-O1A	-2.26	117.89	123.59
25	c	503	CLA	O2A-CGA-O1A	-2.26	117.89	123.59
32	C	516	DGD	O5D-C6D-C5D	-2.26	104.87	109.05
25	c	512	CLA	CMB-C2B-C1B	-2.26	125.00	128.46
26	a	608	PHO	CMD-C2D-C3D	2.26	128.90	124.68
28	A	611	PL9	C31-C29-C28	2.26	125.68	121.12
25	d	403	CLA	CMB-C2B-C3B	2.25	128.89	124.68
25	c	510	CLA	O2A-CGA-O1A	-2.25	117.92	123.59
28	D	406	PL9	C12-C13-C14	-2.25	122.24	127.66
29	C	519	LMG	O7-C10-O9	-2.25	118.27	123.70
25	B	601	CLA	C1-C2-C3	-2.25	122.16	126.04
25	B	615	CLA	CMB-C2B-C3B	2.25	128.88	124.68
25	H	101	CLA	CHB-C4A-NA	2.25	127.62	124.51
25	C	506	CLA	O2A-CGA-O1A	-2.25	117.92	123.59
30	f	102	SQD	O8-S-C6	2.25	109.32	105.74
25	b	605	CLA	O2A-CGA-O1A	-2.25	117.93	123.59
25	C	513	CLA	CHD-C1D-ND	-2.24	122.39	124.45
25	c	510	CLA	C16-C15-C13	-2.24	108.68	115.92
25	b	613	CLA	CHB-C4A-NA	2.24	127.61	124.51
27	h	102	BCR	C2-C1-C6	2.24	113.93	110.48
25	c	509	CLA	CHB-C4A-NA	2.24	127.61	124.51
29	c	519	LMG	O1-C7-C8	-2.24	105.50	110.90
25	A	609	CLA	O2A-CGA-O1A	-2.24	117.95	123.59
32	c	517	DGD	O3D-C3D-C4D	-2.24	105.18	110.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	B	604	CLA	CHB-C4A-NA	2.24	127.60	124.51
25	B	611	CLA	CHD-C1D-ND	-2.24	122.40	124.45
25	b	603	CLA	O2A-CGA-O1A	-2.23	117.95	123.59
25	A	606	CLA	O2A-CGA-O1A	-2.23	117.96	123.59
25	c	507	CLA	CHD-C1D-ND	-2.23	122.41	124.45
25	B	604	CLA	C16-C15-C13	-2.22	108.73	115.92
32	C	516	DGD	C6B-C5B-C4B	-2.22	103.14	114.42
25	H	101	CLA	CAA-CBA-CGA	-2.22	106.77	113.25
29	C	519	LMG	O3-C3-C2	-2.22	105.22	110.35
25	B	607	CLA	C2D-C1D-ND	-2.22	108.47	110.10
25	c	501	CLA	C2D-C1D-ND	-2.22	108.47	110.10
25	h	101	CLA	C1B-CHB-C4A	-2.22	125.73	130.12
29	c	522	LMG	C40-C39-C38	-2.21	103.18	114.42
28	a	611	PL9	C7-C8-C9	-2.21	123.11	126.79
32	A	617	DGD	C1D-C2D-C3D	-2.21	105.39	110.00
31	A	615	LHG	C11-C10-C9	-2.21	103.20	114.42
25	C	512	CLA	C1B-CHB-C4A	-2.21	125.74	130.12
33	B	624	STE	O2-C1-C2	2.21	121.13	114.03
29	m	101	LMG	C9-C8-C7	-2.21	106.56	111.79
29	d	410	LMG	C38-C37-C36	-2.21	103.20	114.42
32	A	617	DGD	C4E-C3E-C2E	-2.21	106.97	110.82
25	B	609	CLA	CHA-C1A-NA	-2.21	121.34	126.40
25	b	610	CLA	C1B-CHB-C4A	-2.20	125.75	130.12
32	a	615	DGD	CFB-CEB-CDB	-2.20	103.25	114.42
25	a	606	CLA	O1D-CGD-CBD	2.20	128.99	124.48
25	b	611	CLA	CHB-C4A-NA	2.20	127.56	124.51
25	c	504	CLA	C1B-CHB-C4A	-2.20	125.76	130.12
25	a	606	CLA	C2D-C1D-ND	-2.20	108.48	110.10
25	b	612	CLA	C1B-CHB-C4A	-2.20	125.77	130.12
35	f	101	HEM	CHC-C4B-C3B	2.20	127.93	124.57
32	c	518	DGD	O6E-C1E-O5D	-2.19	104.78	109.97
25	B	607	CLA	CHB-C4A-NA	2.19	127.55	124.51
32	C	516	DGD	O1G-C1A-C2A	-2.19	105.02	111.91
29	M	101	LMG	O1-C7-C8	-2.19	105.60	110.90
25	c	511	CLA	C2A-C1A-CHA	2.19	127.69	123.86
32	H	103	DGD	C7B-C6B-C5B	-2.19	103.29	114.42
32	c	516	DGD	O5D-C6D-C5D	-2.19	104.99	109.05
29	D	410	LMG	O1-C7-C8	-2.19	105.97	111.78
32	C	516	DGD	CDB-CCB-CBB	-2.19	103.30	114.42
25	D	403	CLA	C4-C3-C5	2.19	118.96	115.27
27	B	616	BCR	C27-C26-C25	2.19	125.91	122.73
27	H	102	BCR	C35-C13-C14	-2.19	119.85	122.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	F	101	HEM	C4C-CHD-C1D	2.19	125.45	122.56
25	C	501	CLA	CHD-C1D-C2D	2.19	130.07	125.48
25	c	508	CLA	O2A-CGA-O1A	-2.18	118.08	123.59
25	B	614	CLA	C7-C6-C5	-2.18	107.43	113.36
32	H	103	DGD	CAB-C9B-C8B	-2.18	103.35	114.42
25	C	503	CLA	C1B-CHB-C4A	-2.18	125.80	130.12
25	c	503	CLA	C7-C6-C5	-2.18	107.43	113.36
35	F	101	HEM	CHC-C4B-NB	2.18	126.80	124.43
25	c	507	CLA	O2A-CGA-O1A	-2.18	118.09	123.59
25	B	615	CLA	O1D-CGD-CBD	2.18	128.94	124.48
31	d	407	LHG	C18-C17-C16	-2.18	103.38	114.42
29	M	101	LMG	O2-C2-C1	-2.18	104.76	110.05
25	C	509	CLA	C1-C2-C3	-2.18	122.28	126.04
31	D	411	LHG	C18-C17-C16	-2.18	103.38	114.42
25	B	611	CLA	O2D-CGD-CBD	2.17	115.13	111.27
28	d	406	PL9	O1-C4-C3	-2.17	118.33	120.72
25	c	506	CLA	C1B-CHB-C4A	-2.17	125.81	130.12
27	b	618	BCR	C27-C26-C25	2.17	125.88	122.73
25	B	611	CLA	C11-C12-C13	-2.17	108.91	115.92
25	A	612	CLA	CHB-C4A-NA	2.17	127.51	124.51
30	b	619	SQD	O8-S-C6	2.17	109.19	105.74
25	b	603	CLA	C2D-C1D-ND	-2.17	108.51	110.10
26	a	608	PHO	O2A-CGA-O1A	-2.16	118.13	123.59
25	b	614	CLA	C1B-CHB-C4A	-2.16	125.83	130.12
32	C	518	DGD	CAB-C9B-C8B	-2.16	103.45	114.42
31	D	409	LHG	O8-C23-C24	2.16	118.69	111.91
29	D	407	LMG	O1-C1-C2	-2.16	104.93	108.30
25	d	403	CLA	O2D-CGD-CBD	2.16	115.11	111.27
27	C	515	BCR	C15-C16-C17	-2.16	119.05	123.47
32	h	103	DGD	CAB-C9B-C8B	-2.16	103.47	114.42
29	b	622	LMG	O2-C2-C1	-2.16	104.81	110.05
27	K	101	BCR	C30-C25-C26	-2.16	119.58	122.61
32	c	516	DGD	C2G-O2G-C1B	2.15	123.09	117.79
31	e	101	LHG	C18-C17-C16	-2.15	103.51	114.42
31	d	408	LHG	C18-C17-C16	-2.15	103.52	114.42
27	K	101	BCR	C16-C15-C14	-2.15	119.08	123.47
27	T	101	BCR	C38-C26-C27	-2.15	109.49	113.62
29	A	613	LMG	O8-C28-O10	-2.15	118.18	123.59
32	a	615	DGD	C5B-C4B-C3B	-2.15	103.53	114.42
25	C	508	CLA	O2A-CGA-O1A	-2.14	118.18	123.59
32	H	103	DGD	C1D-O6D-C5D	-2.14	109.48	113.69
25	C	502	CLA	C1B-CHB-C4A	-2.14	125.87	130.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	D	409	LHG	O8-C6-C5	-2.14	102.20	108.43
25	c	511	CLA	CHA-C1A-NA	-2.14	121.50	126.40
25	d	404	CLA	CHA-C1A-NA	-2.14	121.50	126.40
25	C	503	CLA	C7-C6-C5	-2.14	107.55	113.36
27	a	610	BCR	C2-C1-C6	2.14	113.78	110.48
29	d	410	LMG	C40-C39-C38	-2.14	103.56	114.42
25	b	604	CLA	CHC-C1C-NC	2.14	127.45	124.20
28	d	406	PL9	O2-C1-C2	-2.14	116.88	121.78
32	H	103	DGD	C3G-C2G-C1G	-2.14	106.73	111.79
31	D	409	LHG	C11-C10-C9	-2.14	103.57	114.42
25	c	504	CLA	O2D-CGD-CBD	2.14	115.07	111.27
25	b	606	CLA	C6-C7-C8	-2.14	109.01	115.92
31	b	623	LHG	O8-C23-C24	2.14	118.61	111.91
25	C	504	CLA	CHC-C1C-NC	2.14	127.44	124.20
27	B	616	BCR	C15-C16-C17	-2.14	119.10	123.47
29	C	519	LMG	C40-C39-C38	-2.14	103.58	114.42
29	b	622	LMG	C42-C41-C40	-2.14	103.58	114.42
25	b	608	CLA	C6-C5-C3	2.13	119.05	113.45
25	c	509	CLA	CHD-C1D-ND	-2.13	122.50	124.45
32	c	518	DGD	C8B-C7B-C6B	-2.13	103.61	114.42
27	c	514	BCR	C33-C5-C6	-2.13	122.14	124.53
31	b	623	LHG	C20-C19-C18	-2.13	103.61	114.42
32	C	517	DGD	O3E-C3E-C2E	-2.13	105.43	110.35
27	a	610	BCR	C11-C10-C9	-2.13	124.27	127.31
25	D	403	CLA	O2D-CGD-O1D	-2.13	119.68	123.84
28	A	611	PL9	C36-C34-C33	-2.13	116.81	121.12
28	d	406	PL9	O2-C1-C6	2.13	124.27	120.59
25	c	512	CLA	CMB-C2B-C3B	2.13	128.66	124.68
28	D	406	PL9	C27-C28-C29	-2.13	122.54	127.66
31	d	407	LHG	O8-C6-C5	-2.13	102.25	108.43
27	a	610	BCR	C38-C26-C25	-2.12	122.14	124.53
27	b	617	BCR	C15-C14-C13	-2.12	124.28	127.31
25	C	503	CLA	CHB-C4A-NA	2.12	127.45	124.51
27	b	616	BCR	C24-C23-C22	-2.12	123.03	126.23
25	b	601	CLA	O2A-CGA-O1A	-2.12	118.24	123.59
32	c	516	DGD	C3D-C4D-C5D	-2.12	106.46	110.24
25	b	607	CLA	CHD-C4C-NC	2.12	127.54	124.20
35	f	101	HEM	CHB-C1B-NB	2.12	127.00	124.38
27	H	102	BCR	C24-C23-C22	-2.12	123.04	126.23
25	b	605	CLA	CHB-C4A-NA	2.12	127.44	124.51
32	C	518	DGD	O3D-C3D-C4D	-2.12	105.46	110.35
25	D	404	CLA	C2D-C1D-ND	-2.12	108.55	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	c	512	CLA	C2D-C1D-ND	-2.12	108.55	110.10
32	C	517	DGD	C5B-C4B-C3B	-2.11	103.69	114.42
27	b	616	BCR	C33-C5-C6	-2.11	122.16	124.53
25	b	602	CLA	CHB-C4A-NA	2.11	127.43	124.51
25	b	608	CLA	CHB-C4A-NA	2.11	127.43	124.51
25	d	403	CLA	CHA-C4D-ND	2.11	136.92	132.50
25	H	101	CLA	O2D-CGD-CBD	2.11	115.02	111.27
26	a	608	PHO	CMA-C3A-C4A	-2.11	109.76	114.38
25	b	610	CLA	CHD-C1D-C2D	2.11	129.90	125.48
25	B	613	CLA	O1D-CGD-CBD	2.11	128.80	124.48
25	d	403	CLA	C4-C3-C5	2.11	118.82	115.27
25	C	507	CLA	C1B-CHB-C4A	-2.11	125.94	130.12
26	d	402	PHO	C1B-NB-C4B	2.11	111.42	107.09
29	A	613	LMG	C1-C2-C3	-2.11	105.61	110.00
35	f	101	HEM	CMC-C2C-C3C	2.11	128.62	124.68
25	b	614	CLA	CAA-CBA-CGA	-2.11	107.10	113.25
31	b	623	LHG	C11-C10-C9	-2.10	103.74	114.42
25	b	605	CLA	C11-C12-C13	-2.10	109.12	115.92
31	D	409	LHG	C18-C17-C16	-2.10	103.75	114.42
25	B	613	CLA	CHB-C4A-NA	2.10	127.42	124.51
25	C	513	CLA	O2D-CGD-CBD	2.10	115.00	111.27
32	c	516	DGD	O6D-C1D-O3G	-2.10	105.00	109.97
25	c	508	CLA	CHD-C1D-C2D	2.10	129.88	125.48
25	B	615	CLA	CHD-C1D-ND	-2.10	122.53	124.45
29	B	620	LMG	O7-C10-O9	-2.10	118.08	123.30
27	b	616	BCR	C15-C14-C13	-2.10	124.32	127.31
25	A	607	CLA	C1D-ND-C4D	2.09	107.82	106.33
29	C	519	LMG	C38-C37-C36	-2.09	103.79	114.42
25	B	609	CLA	O1D-CGD-CBD	2.09	128.77	124.48
27	B	616	BCR	C11-C10-C9	-2.09	124.33	127.31
32	C	518	DGD	C3G-C2G-C1G	-2.09	106.84	111.79
32	h	103	DGD	O5E-C6E-C5E	-2.09	104.12	111.29
25	C	501	CLA	CHB-C4A-NA	2.09	127.40	124.51
25	C	506	CLA	O1D-CGD-CBD	2.09	128.76	124.48
32	h	103	DGD	C7B-C6B-C5B	-2.09	103.82	114.42
32	c	517	DGD	C5B-C4B-C3B	-2.09	103.82	114.42
25	c	504	CLA	CHD-C4C-NC	2.09	127.49	124.20
29	c	519	LMG	O8-C28-O10	-2.09	118.33	123.59
32	C	517	DGD	O5D-C6D-C5D	-2.08	105.19	109.05
32	c	516	DGD	C5B-C4B-C3B	-2.08	103.84	114.42
25	b	601	CLA	C16-C15-C13	-2.08	109.18	115.92
28	D	406	PL9	C35-C34-C36	2.08	118.77	115.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	H	101	CLA	CMB-C2B-C3B	2.08	128.57	124.68
25	c	508	CLA	C3C-C4C-NC	-2.08	108.24	110.57
25	b	610	CLA	O2A-CGA-O1A	-2.08	118.34	123.59
32	H	103	DGD	C3D-C4D-C5D	-2.08	106.53	110.24
32	c	517	DGD	C3D-C4D-C5D	-2.08	106.53	110.24
25	a	606	CLA	C2A-C1A-CHA	2.08	127.49	123.86
28	a	611	PL9	C27-C28-C29	-2.08	122.66	127.66
30	B	621	SQD	C1-C2-C3	-2.08	105.67	110.00
25	B	612	CLA	O2A-CGA-O1A	-2.08	118.35	123.59
25	B	606	CLA	CHA-C1A-NA	-2.08	121.64	126.40
25	A	606	CLA	O2D-CGD-O1D	-2.08	119.78	123.84
32	c	517	DGD	C8B-C7B-C6B	-2.08	103.89	114.42
25	B	603	CLA	CAA-CBA-CGA	-2.07	107.19	113.25
25	B	609	CLA	CHD-C4C-NC	2.07	127.47	124.20
33	X	101	STE	C3-C2-C1	-2.07	109.25	114.47
25	b	604	CLA	CMB-C2B-C3B	2.07	128.56	124.68
25	A	606	CLA	C7-C6-C5	-2.07	107.73	113.36
25	C	510	CLA	O2D-CGD-CBD	2.07	114.95	111.27
33	E	101	STE	O2-C1-C2	2.07	120.68	114.03
25	B	602	CLA	C2D-C1D-ND	-2.07	108.58	110.10
25	A	612	CLA	O2D-CGD-CBD	2.07	114.94	111.27
25	B	608	CLA	C1-C2-C3	-2.07	122.47	126.04
29	c	521	LMG	O6-C1-O1	-2.07	105.08	109.97
26	d	402	PHO	C11-C12-C13	-2.07	109.24	115.92
25	c	510	CLA	C1B-CHB-C4A	-2.07	126.03	130.12
25	C	503	CLA	O1D-CGD-CBD	2.06	128.71	124.48
25	c	505	CLA	CHD-C1D-ND	-2.06	122.56	124.45
35	F	101	HEM	O2D-CGD-CBD	2.06	120.66	114.03
25	C	506	CLA	C1B-CHB-C4A	-2.06	126.03	130.12
32	C	516	DGD	C8B-C7B-C6B	-2.06	103.96	114.42
31	d	409	LHG	C27-C26-C25	-2.06	103.96	114.42
29	C	519	LMG	O2-C2-C1	-2.06	105.04	110.05
29	M	101	LMG	C6-C5-C4	-2.06	108.18	113.00
29	A	613	LMG	C9-C8-C7	-2.06	106.91	111.79
25	C	505	CLA	CHB-C4A-NA	2.06	127.36	124.51
25	C	509	CLA	C2A-C1A-CHA	2.06	127.46	123.86
25	D	403	CLA	O2D-CGD-CBD	2.06	114.93	111.27
29	c	521	LMG	O2-C2-C1	-2.06	105.04	110.05
32	c	518	DGD	O5D-C6D-C5D	-2.06	105.24	109.05
32	c	516	DGD	C7B-C6B-C5B	-2.06	103.97	114.42
29	A	613	LMG	C4-C3-C2	-2.06	107.23	110.82
25	b	611	CLA	CAC-C3C-C4C	2.06	127.48	124.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	b	614	CLA	C2A-C1A-CHA	2.06	127.45	123.86
25	C	507	CLA	O2D-CGD-CBD	2.06	114.92	111.27
25	c	513	CLA	C1-C2-C3	-2.06	122.49	126.04
27	T	101	BCR	C1-C6-C5	-2.05	119.72	122.61
30	B	621	SQD	C9-C8-C7	-2.05	106.15	113.62
31	D	409	LHG	C27-C26-C25	-2.05	104.00	114.42
32	C	518	DGD	CBB-CAB-C9B	-2.05	104.01	114.42
29	c	521	LMG	C42-C41-C40	-2.05	104.01	114.42
25	C	504	CLA	C4-C3-C5	2.05	118.72	115.27
32	C	517	DGD	CAB-C9B-C8B	-2.05	104.02	114.42
28	a	611	PL9	C35-C34-C36	2.05	118.72	115.27
25	B	608	CLA	C7-C6-C5	-2.05	107.79	113.36
29	b	622	LMG	O8-C28-O10	-2.05	118.42	123.59
31	D	411	LHG	C15-C14-C13	-2.05	104.02	114.42
32	A	617	DGD	C8B-C7B-C6B	-2.05	104.03	114.42
32	C	516	DGD	O2D-C2D-C1D	-2.05	105.07	110.05
25	a	607	CLA	CHD-C1D-C2D	2.05	129.77	125.48
25	c	508	CLA	C1B-CHB-C4A	-2.05	126.07	130.12
25	b	608	CLA	O1D-CGD-CBD	2.04	128.67	124.48
33	m	102	STE	O1-C1-C2	-2.04	116.52	123.08
27	H	102	BCR	C1-C6-C5	-2.04	119.73	122.61
26	A	608	PHO	CMC-C2C-C3C	2.04	128.79	124.94
31	L	101	LHG	O8-C23-C24	2.04	118.32	111.91
32	c	518	DGD	CBB-CAB-C9B	-2.04	104.06	114.42
36	V	201	HEC	CBA-CAA-C2A	-2.04	109.16	112.60
32	H	103	DGD	CBB-CAB-C9B	-2.04	104.06	114.42
25	b	608	CLA	O2D-CGD-O1D	-2.04	119.85	123.84
25	b	615	CLA	C1-C2-C3	-2.04	122.52	126.04
25	C	510	CLA	O2A-CGA-O1A	-2.04	118.45	123.59
27	t	101	BCR	C1-C6-C5	-2.04	119.74	122.61
32	c	518	DGD	C3D-C4D-C5D	-2.04	106.61	110.24
29	M	101	LMG	O3-C3-C2	-2.03	105.65	110.35
25	c	501	CLA	CHD-C1D-C2D	2.03	129.75	125.48
29	c	521	LMG	O3-C3-C2	-2.03	105.65	110.35
29	c	522	LMG	O8-C28-O10	-2.03	118.46	123.59
32	c	516	DGD	C1D-C2D-C3D	-2.03	105.77	110.00
25	c	505	CLA	CHB-C4A-NA	2.03	127.32	124.51
26	a	608	PHO	OBD-CAD-CBD	-2.03	122.84	125.82
32	A	617	DGD	CAB-C9B-C8B	-2.03	104.12	114.42
29	D	410	LMG	O7-C10-O9	-2.03	118.80	123.70
27	c	515	BCR	C15-C16-C17	-2.03	119.32	123.47
25	c	511	CLA	CHB-C4A-NA	2.03	127.32	124.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	a	610	BCR	C3-C4-C5	-2.03	110.46	114.08
27	d	405	BCR	C3-C4-C5	-2.03	110.46	114.08
25	c	510	CLA	O2D-CGD-CBD	2.03	114.87	111.27
32	c	517	DGD	CBB-CAB-C9B	-2.03	104.14	114.42
31	b	623	LHG	C27-C26-C25	-2.03	104.14	114.42
25	b	613	CLA	CMD-C2D-C1D	2.03	128.28	124.71
31	D	408	LHG	O8-C23-O10	-2.02	118.49	123.59
29	B	620	LMG	O8-C28-O10	-2.02	118.27	123.30
25	C	512	CLA	C6-C5-C3	-2.02	108.17	113.45
25	C	508	CLA	CHD-C1D-C2D	2.02	129.71	125.48
29	c	521	LMG	O7-C10-O9	-2.01	118.84	123.70
25	B	608	CLA	O2A-CGA-O1A	-2.01	118.51	123.59
29	c	522	LMG	C9-C8-C7	-2.01	107.03	111.79
25	D	404	CLA	O2D-CGD-CBD	2.01	114.84	111.27
29	D	410	LMG	C38-C37-C36	-2.01	104.22	114.42
25	a	607	CLA	C2D-C1D-ND	-2.01	108.62	110.10
29	b	622	LMG	C8-O7-C10	2.01	122.74	117.79
25	C	512	CLA	CHA-C1A-NA	-2.01	121.80	126.40
25	C	501	CLA	C2D-C1D-ND	-2.01	108.62	110.10
31	e	101	LHG	C27-C26-C25	-2.01	104.23	114.42
31	A	615	LHG	C27-C26-C25	-2.01	104.24	114.42
25	b	612	CLA	C2A-C1A-CHA	2.01	127.37	123.86
32	A	617	DGD	CFB-CEB-CDB	-2.01	104.24	114.42
25	H	101	CLA	O2A-CGA-O1A	-2.01	118.53	123.59
30	F	102	SQD	O4-C4-C3	-2.00	105.72	110.35
27	h	102	BCR	C16-C17-C18	-2.00	124.45	127.31
32	C	516	DGD	CAB-C9B-C8B	-2.00	104.25	114.42
27	D	405	BCR	C38-C26-C25	-2.00	122.28	124.53
27	K	102	BCR	C2-C1-C6	2.00	113.56	110.48
29	D	407	LMG	O1-C7-C8	-2.00	106.06	110.90
28	a	611	PL9	C11-C12-C13	-2.00	105.30	111.88
25	B	605	CLA	C1-C2-C3	-2.00	122.58	126.04
27	T	101	BCR	C15-C14-C13	-2.00	124.45	127.31

All (62) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
25	A	606	CLA	ND
25	A	607	CLA	ND
25	A	609	CLA	ND
25	A	612	CLA	ND
25	B	601	CLA	ND

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Atom</b>
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	609	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	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
25	C	513	CLA	ND
25	H	101	CLA	ND
25	a	606	CLA	ND
25	a	607	CLA	ND
25	a	609	CLA	ND
25	a	612	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	609	CLA	ND
25	b	610	CLA	ND
25	b	611	CLA	ND
25	b	612	CLA	ND
25	b	613	CLA	ND

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Mol	Chain	Res	Type	Atom
25	b	614	CLA	ND
25	b	615	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	h	101	CLA	ND

All (1801) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
25	A	612	CLA	CHA-CBD-CGD-O1D
25	A	612	CLA	CHA-CBD-CGD-O2D
25	B	605	CLA	CHA-CBD-CGD-O1D
25	B	613	CLA	CHA-CBD-CGD-O1D
25	B	613	CLA	CHA-CBD-CGD-O2D
25	B	613	CLA	CAD-CBD-CGD-O1D
25	B	613	CLA	C4-C3-C5-C6
25	C	504	CLA	C2-C3-C5-C6
25	C	504	CLA	C4-C3-C5-C6
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	C11-C10-C8-C9
25	H	101	CLA	C1A-C2A-CAA-CBA
25	b	613	CLA	CHA-CBD-CGD-O1D
25	b	613	CLA	CHA-CBD-CGD-O2D
25	b	613	CLA	CAD-CBD-CGD-O1D
25	b	613	CLA	C2-C3-C5-C6
25	b	613	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-C12-C13-C14

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Mol	Chain	Res	Type	Atoms
25	c	512	CLA	C1A-C2A-CAA-CBA
25	c	513	CLA	CBD-CGD-O2D-CED
25	h	101	CLA	C1A-C2A-CAA-CBA
25	h	101	CLA	C11-C10-C8-C9
27	B	617	BCR	C7-C8-C9-C34
27	C	515	BCR	C11-C12-C13-C35
27	D	405	BCR	C37-C22-C23-C24
27	D	405	BCR	C23-C24-C25-C26
27	K	101	BCR	C16-C17-C18-C36
27	K	101	BCR	C20-C21-C22-C37
27	K	101	BCR	C37-C22-C23-C24
27	T	101	BCR	C7-C8-C9-C34
27	b	616	BCR	C1-C6-C7-C8
27	c	515	BCR	C11-C12-C13-C35
27	d	405	BCR	C21-C22-C23-C24
27	d	405	BCR	C37-C22-C23-C24
27	d	405	BCR	C22-C23-C24-C25
27	k	101	BCR	C5-C6-C7-C8
27	k	101	BCR	C7-C8-C9-C34
27	k	101	BCR	C17-C18-C19-C20
27	t	101	BCR	C7-C8-C9-C34
28	A	611	PL9	C18-C19-C21-C22
28	A	611	PL9	C32-C33-C34-C36
28	A	611	PL9	C35-C34-C36-C37
28	A	611	PL9	C37-C38-C39-C40
28	A	611	PL9	C37-C38-C39-C41
28	A	611	PL9	C40-C39-C41-C42
28	A	611	PL9	C43-C44-C46-C47
28	D	406	PL9	C32-C33-C34-C36
28	a	611	PL9	C12-C13-C14-C15
28	a	611	PL9	C22-C23-C24-C25
28	a	611	PL9	C22-C23-C24-C26
28	a	611	PL9	C24-C26-C27-C28
28	a	611	PL9	C32-C33-C34-C35
28	a	611	PL9	C33-C34-C36-C37
28	a	611	PL9	C35-C34-C36-C37
28	a	611	PL9	C47-C48-C49-C50
28	d	406	PL9	C38-C39-C41-C42
28	d	406	PL9	C40-C39-C41-C42
28	d	406	PL9	C42-C43-C44-C46
29	A	613	LMG	O6-C1-O1-C7
29	A	613	LMG	O9-C10-O7-C8

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Mol	Chain	Res	Type	Atoms
29	A	613	LMG	C11-C10-O7-C8
29	C	519	LMG	O9-C10-O7-C8
29	C	519	LMG	C11-C10-O7-C8
29	D	410	LMG	C11-C10-O7-C8
29	b	622	LMG	C2-C1-O1-C7
29	b	622	LMG	O6-C1-O1-C7
29	c	521	LMG	C11-C10-O7-C8
29	c	522	LMG	O6-C1-O1-C7
30	B	621	SQD	C2-C1-O6-C44
30	B	621	SQD	O5-C1-O6-C44
30	B	621	SQD	O6-C44-C45-O47
30	B	621	SQD	O49-C7-O47-C45
30	B	621	SQD	C8-C7-O47-C45
30	F	102	SQD	C45-C44-O6-C1
30	a	613	SQD	O6-C44-C45-O47
30	a	614	SQD	C8-C7-O47-C45
30	b	619	SQD	O5-C1-O6-C44
30	b	619	SQD	C8-C7-O47-C45
30	b	619	SQD	O10-C23-O48-C46
30	b	619	SQD	C24-C23-O48-C46
30	f	102	SQD	C2-C1-O6-C44
30	f	102	SQD	O5-C1-O6-C44
31	D	408	LHG	C1-C2-C3-O3
31	D	408	LHG	C3-O3-P-O4
31	D	408	LHG	C3-O3-P-O6
31	D	408	LHG	C4-O6-P-O4
31	D	411	LHG	C3-O3-P-O4
31	L	101	LHG	C4-O6-P-O4
31	L	101	LHG	C4-O6-P-O5
31	b	623	LHG	C4-O6-P-O5
31	d	407	LHG	O1-C1-C2-C3
31	d	407	LHG	C3-O3-P-O4
31	d	408	LHG	C4-O6-P-O4
31	e	101	LHG	C1-C2-C3-O3
31	e	101	LHG	C3-O3-P-O5
31	e	101	LHG	C3-O3-P-O6
31	e	101	LHG	C24-C23-O8-C6
32	A	617	DGD	C2B-C1B-O2G-C2G
32	A	617	DGD	O1B-C1B-O2G-C2G
32	A	617	DGD	O2G-C2G-C3G-O3G
25	h	101	CLA	O1D-CGD-O2D-CED
25	h	101	CLA	CBD-CGD-O2D-CED

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Mol	Chain	Res	Type	Atoms
30	f	102	SQD	O10-C23-O48-C46
31	e	101	LHG	O10-C23-O8-C6
30	f	102	SQD	C24-C23-O48-C46
28	a	611	PL9	C47-C48-C49-C51
25	c	510	CLA	CBD-CGD-O2D-CED
29	M	101	LMG	O10-C28-O8-C9
29	c	521	LMG	O10-C28-O8-C9
25	c	513	CLA	O1D-CGD-O2D-CED
25	c	512	CLA	CBD-CGD-O2D-CED
25	c	512	CLA	C15-C16-C17-C18
29	D	410	LMG	O9-C10-O7-C8
30	a	614	SQD	O49-C7-O47-C45
30	b	619	SQD	O49-C7-O47-C45
32	a	615	DGD	O1B-C1B-O2G-C2G
25	B	615	CLA	C3-C5-C6-C7
25	b	613	CLA	C3-C5-C6-C7
25	d	404	CLA	C3-C5-C6-C7
29	M	101	LMG	C29-C28-O8-C9
29	c	521	LMG	C29-C28-O8-C9
30	F	102	SQD	C24-C23-O48-C46
25	A	609	CLA	C4-C3-C5-C6
28	A	611	PL9	C20-C19-C21-C22
28	a	611	PL9	C30-C29-C31-C32
25	A	609	CLA	C2-C3-C5-C6
25	B	613	CLA	C2-C3-C5-C6
25	C	509	CLA	CBD-CGD-O2D-CED
25	H	101	CLA	CBD-CGD-O2D-CED
26	d	402	PHO	CBD-CGD-O2D-CED
25	b	605	CLA	C2A-CAA-CBA-CGA
31	A	615	LHG	C32-C33-C34-C35
28	D	406	PL9	C47-C48-C49-C51
28	A	611	PL9	C32-C33-C34-C35
28	d	406	PL9	C42-C43-C44-C45
25	C	511	CLA	CBD-CGD-O2D-CED
29	c	521	LMG	O9-C10-O7-C8
29	c	522	LMG	O10-C28-O8-C9
31	A	615	LHG	O10-C23-O8-C6
25	B	615	CLA	CBD-CGD-O2D-CED
25	D	404	CLA	CBD-CGD-O2D-CED
25	c	501	CLA	CBD-CGD-O2D-CED
25	c	508	CLA	CBD-CGD-O2D-CED
31	D	408	LHG	O2-C2-C3-O3

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Mol	Chain	Res	Type	Atoms
31	e	101	LHG	O2-C2-C3-O3
25	h	101	CLA	C3-C5-C6-C7
29	c	522	LMG	C29-C28-O8-C9
30	a	614	SQD	C24-C23-O48-C46
30	F	102	SQD	O10-C23-O48-C46
32	h	103	DGD	C4E-C5E-C6E-O5E
25	b	606	CLA	CBD-CGD-O2D-CED
29	c	519	LMG	O6-C5-C6-O5
30	A	614	SQD	C30-C31-C32-C33
25	C	513	CLA	CBD-CGD-O2D-CED
32	C	516	DGD	O6E-C5E-C6E-O5E
29	m	101	LMG	C38-C39-C40-C41
25	B	601	CLA	C15-C16-C17-C18
25	B	602	CLA	C4-C3-C5-C6
25	b	604	CLA	C4-C3-C5-C6
25	c	507	CLA	C4-C3-C5-C6
25	B	602	CLA	C2-C3-C5-C6
25	b	604	CLA	C2-C3-C5-C6
28	A	611	PL9	C33-C34-C36-C37
25	B	605	CLA	C2A-CAA-CBA-CGA
30	a	614	SQD	O10-C23-O48-C46
28	A	611	PL9	C34-C36-C37-C38
28	A	611	PL9	C44-C46-C47-C48
28	A	611	PL9	C12-C13-C14-C15
25	c	510	CLA	O1D-CGD-O2D-CED
25	C	501	CLA	CBD-CGD-O2D-CED
25	H	101	CLA	CBA-CGA-O2A-C1
25	c	506	CLA	CBA-CGA-O2A-C1
29	m	101	LMG	C29-C28-O8-C9
30	B	621	SQD	C24-C23-O48-C46
31	A	615	LHG	C24-C23-O8-C6
25	A	612	CLA	C15-C16-C17-C18
25	D	404	CLA	C10-C11-C12-C13
25	a	609	CLA	C5-C6-C7-C8
25	c	503	CLA	C8-C10-C11-C12
25	c	510	CLA	C15-C16-C17-C18
32	h	103	DGD	O6E-C5E-C6E-O5E
25	b	606	CLA	C8-C10-C11-C12
25	b	615	CLA	C5-C6-C7-C8
29	A	613	LMG	O1-C7-C8-O7
25	c	506	CLA	O1A-CGA-O2A-C1
25	c	507	CLA	C2-C3-C5-C6

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Mol	Chain	Res	Type	Atoms
25	A	607	CLA	C14-C13-C15-C16
25	B	606	CLA	C14-C13-C15-C16
25	B	614	CLA	C11-C10-C8-C9
25	C	503	CLA	C11-C10-C8-C9
25	C	507	CLA	C11-C10-C8-C9
25	C	512	CLA	C6-C7-C8-C9
25	b	605	CLA	C14-C13-C15-C16
25	b	606	CLA	C11-C10-C8-C9
25	b	606	CLA	C14-C13-C15-C16
25	b	609	CLA	C14-C13-C15-C16
25	b	610	CLA	C14-C13-C15-C16
25	b	613	CLA	C6-C7-C8-C9
25	c	509	CLA	C6-C7-C8-C9
25	c	511	CLA	C14-C13-C15-C16
25	c	512	CLA	C6-C7-C8-C9
25	d	404	CLA	C6-C7-C8-C9
25	h	101	CLA	C14-C13-C15-C16
25	H	101	CLA	C15-C16-C17-C18
27	d	405	BCR	C7-C8-C9-C34
31	d	407	LHG	C7-C8-C9-C10
31	e	101	LHG	C23-C24-C25-C26
32	H	103	DGD	C1A-C2A-C3A-C4A
25	A	612	CLA	C13-C15-C16-C17
25	a	607	CLA	C8-C10-C11-C12
25	b	613	CLA	C5-C6-C7-C8
25	c	512	CLA	CBA-CGA-O2A-C1
25	A	607	CLA	C10-C11-C12-C13
25	B	612	CLA	C8-C10-C11-C12
25	C	506	CLA	C8-C10-C11-C12
25	C	513	CLA	C15-C16-C17-C18
25	c	506	CLA	C8-C10-C11-C12
25	c	511	CLA	C13-C15-C16-C17
25	d	404	CLA	C15-C16-C17-C18
29	d	411	LMG	C28-C29-C30-C31
30	A	614	SQD	C7-C8-C9-C10
31	D	411	LHG	C7-C8-C9-C10
33	X	101	STE	C1-C2-C3-C4
33	x	101	STE	C1-C2-C3-C4
25	B	602	CLA	C13-C15-C16-C17
25	C	512	CLA	C5-C6-C7-C8
25	b	610	CLA	C13-C15-C16-C17
25	b	614	CLA	C5-C6-C7-C8

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Mol	Chain	Res	Type	Atoms
25	b	614	CLA	C15-C16-C17-C18
25	c	506	CLA	C13-C15-C16-C17
25	c	510	CLA	C10-C11-C12-C13
29	A	613	LMG	C10-C11-C12-C13
29	D	410	LMG	C28-C29-C30-C31
29	c	521	LMG	C10-C11-C12-C13
29	m	101	LMG	C10-C11-C12-C13
30	A	614	SQD	C23-C24-C25-C26
31	A	615	LHG	C7-C8-C9-C10
31	d	407	LHG	C23-C24-C25-C26
32	c	516	DGD	C1B-C2B-C3B-C4B
33	B	622	STE	C1-C2-C3-C4
33	b	621	STE	C1-C2-C3-C4
33	b	625	STE	C1-C2-C3-C4
29	b	622	LMG	O6-C5-C6-O5
25	c	511	CLA	CBD-CGD-O2D-CED
25	B	601	CLA	C13-C15-C16-C17
25	B	606	CLA	C5-C6-C7-C8
25	B	607	CLA	C15-C16-C17-C18
25	C	508	CLA	C15-C16-C17-C18
33	b	625	STE	C2-C3-C4-C5
25	c	509	CLA	C10-C11-C12-C13
29	D	407	LMG	C10-C11-C12-C13
30	f	102	SQD	C23-C24-C25-C26
25	B	613	CLA	C13-C15-C16-C17
25	B	614	CLA	C15-C16-C17-C18
25	C	504	CLA	C8-C10-C11-C12
25	C	509	CLA	C5-C6-C7-C8
25	c	509	CLA	C5-C6-C7-C8
25	c	506	CLA	C4-C3-C5-C6
25	B	610	CLA	C11-C10-C8-C7
25	B	610	CLA	C12-C13-C15-C16
25	B	614	CLA	C11-C10-C8-C7
25	C	506	CLA	C11-C12-C13-C15
25	C	506	CLA	C12-C13-C15-C16
25	b	610	CLA	C12-C13-C15-C16
25	b	614	CLA	C11-C12-C13-C15
25	c	506	CLA	C12-C13-C15-C16
25	c	510	CLA	C11-C10-C8-C7
25	c	511	CLA	C12-C13-C15-C16
25	H	101	CLA	O1A-CGA-O2A-C1
25	c	512	CLA	C2A-CAA-CBA-CGA

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Mol	Chain	Res	Type	Atoms
25	h	101	CLA	C2A-CAA-CBA-CGA
25	H	101	CLA	C5-C6-C7-C8
29	c	519	LMG	C4-C5-C6-O5
31	d	409	LHG	C24-C25-C26-C27
32	a	615	DGD	O1A-C1A-O1G-C1G
25	c	503	CLA	CBD-CGD-O2D-CED
25	H	101	CLA	C8-C10-C11-C12
28	a	611	PL9	C34-C36-C37-C38
28	a	611	PL9	C39-C41-C42-C43
30	B	621	SQD	C23-C24-C25-C26
32	A	617	DGD	C1B-C2B-C3B-C4B
33	c	520	STE	C1-C2-C3-C4
33	j	101	STE	C1-C2-C3-C4
27	d	405	BCR	C18-C19-C20-C21
25	c	512	CLA	O1D-CGD-O2D-CED
25	B	613	CLA	C8-C10-C11-C12
25	C	507	CLA	C5-C6-C7-C8
25	C	507	CLA	C10-C11-C12-C13
25	C	509	CLA	C13-C15-C16-C17
25	c	512	CLA	O1A-CGA-O2A-C1
30	B	621	SQD	O10-C23-O48-C46
32	c	518	DGD	O1A-C1A-O1G-C1G
25	B	610	CLA	C8-C10-C11-C12
25	C	503	CLA	C5-C6-C7-C8
25	c	507	CLA	C5-C6-C7-C8
25	c	508	CLA	C13-C15-C16-C17
25	c	509	CLA	C8-C10-C11-C12
25	c	510	CLA	C8-C10-C11-C12
25	H	101	CLA	O1D-CGD-O2D-CED
32	a	615	DGD	C2B-C1B-O2G-C2G
25	B	615	CLA	C5-C6-C7-C8
25	C	509	CLA	C10-C11-C12-C13
25	a	606	CLA	C15-C16-C17-C18
25	b	607	CLA	C13-C15-C16-C17
25	c	503	CLA	C5-C6-C7-C8
31	D	408	LHG	C4-O6-P-O3
31	D	409	LHG	C3-O3-P-O6
31	L	101	LHG	C4-O6-P-O3
31	d	408	LHG	C4-O6-P-O3
25	A	609	CLA	C3-C5-C6-C7
30	B	621	SQD	C29-C30-C31-C32
29	c	521	LMG	C41-C42-C43-C44

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Mol	Chain	Res	Type	Atoms
25	C	505	CLA	C5-C6-C7-C8
26	d	402	PHO	O1D-CGD-O2D-CED
31	d	407	LHG	C1-C2-C3-O3
25	b	603	CLA	C4-C3-C5-C6
33	c	520	STE	C2-C3-C4-C5
33	m	102	STE	C6-C7-C8-C9
25	B	611	CLA	C10-C11-C12-C13
32	a	615	DGD	C2A-C1A-O1G-C1G
25	B	606	CLA	C8-C10-C11-C12
25	C	509	CLA	C8-C10-C11-C12
29	B	620	LMG	C28-C29-C30-C31
32	c	517	DGD	C1A-C2A-C3A-C4A
32	A	617	DGD	CCA-CDA-CEA-CFA
27	B	616	BCR	C35-C13-C14-C15
27	C	514	BCR	C16-C17-C18-C36
27	C	514	BCR	C20-C21-C22-C37
27	D	405	BCR	C20-C21-C22-C37
27	K	102	BCR	C11-C10-C9-C34
27	a	610	BCR	C16-C17-C18-C36
27	b	616	BCR	C20-C21-C22-C37
27	b	617	BCR	C11-C10-C9-C34
27	b	618	BCR	C20-C21-C22-C37
27	k	101	BCR	C16-C17-C18-C36
29	A	613	LMG	O6-C5-C6-O5
29	B	620	LMG	C11-C12-C13-C14
29	D	407	LMG	C35-C36-C37-C38
29	d	410	LMG	C35-C36-C37-C38
30	a	613	SQD	C34-C35-C36-C37
30	a	614	SQD	C11-C12-C13-C14
31	D	408	LHG	C30-C31-C32-C33
31	d	407	LHG	C32-C33-C34-C35
31	d	409	LHG	C32-C33-C34-C35
32	A	617	DGD	CBA-CCA-CDA-CEA
32	A	617	DGD	C2B-C3B-C4B-C5B
32	C	516	DGD	C5A-C6A-C7A-C8A
32	C	517	DGD	C2A-C3A-C4A-C5A
32	C	517	DGD	C3A-C4A-C5A-C6A
32	c	518	DGD	CCB-CDB-CEB-CFB
32	h	103	DGD	C5B-C6B-C7B-C8B
33	B	623	STE	C5-C6-C7-C8
33	H	104	STE	C13-C14-C15-C16
33	I	101	STE	C11-C12-C13-C14

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Mol	Chain	Res	Type	Atoms
33	X	101	STE	C4-C5-C6-C7
33	a	616	STE	C5-C6-C7-C8
33	b	621	STE	C14-C15-C16-C17
25	C	509	CLA	O1D-CGD-O2D-CED
25	B	605	CLA	C16-C17-C18-C20
25	c	512	CLA	C16-C17-C18-C20
25	d	403	CLA	C16-C17-C18-C20
28	D	406	PL9	C47-C48-C49-C50
29	d	411	LMG	C32-C33-C34-C35
30	a	614	SQD	C14-C15-C16-C17
30	b	619	SQD	C18-C19-C20-C21
32	c	516	DGD	CCB-CDB-CEB-CFB
33	J	101	STE	C5-C6-C7-C8
33	x	101	STE	C6-C7-C8-C9
29	D	410	LMG	C9-C8-O7-C10
30	b	619	SQD	C46-C45-O47-C7
29	M	101	LMG	C12-C13-C14-C15
29	M	101	LMG	C37-C38-C39-C40
29	c	522	LMG	C18-C19-C20-C21
29	d	410	LMG	C37-C38-C39-C40
30	B	621	SQD	C11-C12-C13-C14
30	b	619	SQD	C16-C17-C18-C19
31	d	407	LHG	C11-C10-C9-C8
31	e	101	LHG	C16-C17-C18-C19
25	B	615	CLA	O1D-CGD-O2D-CED
29	A	613	LMG	C38-C39-C40-C41
29	C	519	LMG	C15-C16-C17-C18
30	A	616	SQD	C28-C29-C30-C31
31	D	411	LHG	C29-C30-C31-C32
31	L	101	LHG	C32-C33-C34-C35
33	B	625	STE	C5-C6-C7-C8
33	B	625	STE	C12-C13-C14-C15
33	C	522	STE	C4-C5-C6-C7
33	b	625	STE	C11-C12-C13-C14
33	d	413	STE	C5-C6-C7-C8
29	C	519	LMG	C17-C18-C19-C20
31	D	408	LHG	C12-C13-C14-C15
30	F	102	SQD	C23-C24-C25-C26
27	K	102	BCR	C11-C10-C9-C8
27	h	102	BCR	C11-C10-C9-C8
32	C	517	DGD	C2E-C1E-O5D-C6D
32	c	517	DGD	C2E-C1E-O5D-C6D

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Mol	Chain	Res	Type	Atoms
29	b	622	LMG	C32-C33-C34-C35
29	c	519	LMG	C36-C37-C38-C39
30	A	616	SQD	C11-C12-C13-C14
31	D	409	LHG	C28-C29-C30-C31
32	A	617	DGD	C8B-C9B-CAB-CBB
32	C	518	DGD	CBA-CCA-CDA-CEA
32	c	516	DGD	C9B-CAB-CBB-CCB
33	b	625	STE	C12-C13-C14-C15
33	j	101	STE	C5-C6-C7-C8
25	H	101	CLA	C10-C11-C12-C13
25	A	606	CLA	C16-C17-C18-C19
25	C	502	CLA	C16-C17-C18-C19
25	D	403	CLA	C16-C17-C18-C20
25	b	606	CLA	C16-C17-C18-C20
25	c	507	CLA	C16-C17-C18-C20
25	C	511	CLA	O1D-CGD-O2D-CED
25	B	608	CLA	C4-C3-C5-C6
28	D	406	PL9	C32-C33-C34-C35
29	A	613	LMG	C18-C19-C20-C21
29	D	407	LMG	C16-C17-C18-C19
29	D	407	LMG	C20-C21-C22-C23
29	D	407	LMG	C21-C22-C23-C24
29	c	519	LMG	C31-C32-C33-C34
29	m	101	LMG	C17-C18-C19-C20
30	A	614	SQD	C11-C10-C9-C8
30	A	616	SQD	C9-C10-C11-C12
30	a	614	SQD	C10-C11-C12-C13
30	f	102	SQD	C32-C33-C34-C35
31	L	101	LHG	C15-C16-C17-C18
31	e	101	LHG	C11-C10-C9-C8
32	A	617	DGD	C5B-C6B-C7B-C8B
33	B	622	STE	C5-C6-C7-C8
33	b	620	STE	C11-C12-C13-C14
25	B	614	CLA	C6-C7-C8-C9
25	C	505	CLA	C14-C13-C15-C16
25	D	404	CLA	C11-C10-C8-C9
25	c	509	CLA	C11-C10-C8-C9
29	b	622	LMG	C16-C17-C18-C19
29	b	622	LMG	C40-C41-C42-C43
29	c	519	LMG	C33-C34-C35-C36
29	c	519	LMG	C38-C39-C40-C41
29	c	521	LMG	C14-C15-C16-C17

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Mol	Chain	Res	Type	Atoms
29	c	522	LMG	C33-C34-C35-C36
29	d	410	LMG	C31-C32-C33-C34
30	A	614	SQD	C27-C28-C29-C30
30	A	616	SQD	C14-C15-C16-C17
31	D	408	LHG	C10-C11-C12-C13
31	L	101	LHG	C12-C13-C14-C15
31	d	408	LHG	C29-C30-C31-C32
32	A	617	DGD	C5A-C6A-C7A-C8A
32	C	517	DGD	CAB-CBB-CCB-CDB
33	X	101	STE	C9-C10-C11-C12
33	b	625	STE	C9-C10-C11-C12
33	k	103	STE	C2-C3-C4-C5
25	b	614	CLA	C10-C11-C12-C13
29	M	101	LMG	C13-C14-C15-C16
30	a	613	SQD	C12-C13-C14-C15
31	A	615	LHG	C24-C25-C26-C27
31	D	409	LHG	C9-C10-C11-C12
32	c	518	DGD	CBA-CCA-CDA-CEA
31	d	409	LHG	O1-C1-C2-C3
27	C	514	BCR	C21-C22-C23-C24
27	D	405	BCR	C7-C8-C9-C10
27	b	616	BCR	C21-C22-C23-C24
25	b	614	CLA	C8-C10-C11-C12
29	b	622	LMG	C11-C10-O7-C8
29	c	521	LMG	C36-C37-C38-C39
29	c	521	LMG	C39-C40-C41-C42
30	A	614	SQD	C10-C11-C12-C13
31	D	408	LHG	C16-C17-C18-C19
31	D	409	LHG	C11-C12-C13-C14
32	C	518	DGD	C5A-C6A-C7A-C8A
32	a	615	DGD	C6A-C7A-C8A-C9A
33	J	101	STE	C3-C4-C5-C6
33	c	520	STE	C7-C8-C9-C10
28	a	611	PL9	C16-C17-C18-C19
29	B	620	LMG	C36-C37-C38-C39
29	C	519	LMG	C30-C31-C32-C33
29	c	519	LMG	C39-C40-C41-C42
29	c	521	LMG	C34-C35-C36-C37
29	c	522	LMG	C15-C16-C17-C18
29	d	410	LMG	C32-C33-C34-C35
29	d	411	LMG	C33-C34-C35-C36
30	A	616	SQD	C15-C16-C17-C18

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Mol	Chain	Res	Type	Atoms
30	a	613	SQD	C13-C14-C15-C16
30	a	613	SQD	C29-C30-C31-C32
31	D	408	LHG	C32-C33-C34-C35
31	L	101	LHG	C27-C28-C29-C30
31	d	408	LHG	C15-C16-C17-C18
31	d	408	LHG	C32-C33-C34-C35
32	A	617	DGD	CEB-CFB-CGB-CHB
32	C	517	DGD	C6A-C7A-C8A-C9A
32	a	615	DGD	C2B-C3B-C4B-C5B
33	C	520	STE	C6-C7-C8-C9
33	b	624	STE	C12-C13-C14-C15
33	x	101	STE	C11-C12-C13-C14
25	H	101	CLA	C16-C17-C18-C20
25	c	512	CLA	C16-C17-C18-C19
25	d	403	CLA	C16-C17-C18-C19
32	c	517	DGD	O6E-C1E-O5D-C6D
25	B	613	CLA	C15-C16-C17-C18
28	a	611	PL9	C19-C21-C22-C23
30	a	613	SQD	C9-C10-C11-C12
31	A	615	LHG	C34-C35-C36-C37
31	D	408	LHG	C15-C16-C17-C18
31	L	101	LHG	C18-C19-C20-C21
31	d	407	LHG	C29-C30-C31-C32
31	d	409	LHG	C26-C27-C28-C29
32	A	617	DGD	C6B-C7B-C8B-C9B
33	I	101	STE	C11-C10-C9-C8
33	b	624	STE	C14-C15-C16-C17
33	j	101	STE	C2-C3-C4-C5
25	b	613	CLA	CBD-CGD-O2D-CED
29	C	519	LMG	C18-C19-C20-C21
30	A	616	SQD	C16-C17-C18-C19
31	D	408	LHG	C11-C12-C13-C14
31	d	408	LHG	C34-C35-C36-C37
32	c	516	DGD	C3B-C4B-C5B-C6B
33	l	101	STE	C12-C13-C14-C15
25	b	615	CLA	C10-C11-C12-C13
25	d	404	CLA	C8-C10-C11-C12
30	B	621	SQD	C28-C29-C30-C31
31	e	101	LHG	C27-C28-C29-C30
32	H	103	DGD	C7B-C8B-C9B-CAB
32	c	516	DGD	CBB-CCB-CDB-CEB
32	c	518	DGD	C9B-CAB-CBB-CCB

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Mol	Chain	Res	Type	Atoms
33	m	102	STE	C4-C5-C6-C7
25	b	608	CLA	C3-C5-C6-C7
30	a	614	SQD	C9-C10-C11-C12
30	f	102	SQD	C30-C31-C32-C33
31	D	409	LHG	C24-C25-C26-C27
31	L	101	LHG	C33-C34-C35-C36
32	A	617	DGD	C4B-C5B-C6B-C7B
32	c	518	DGD	C4A-C5A-C6A-C7A
25	c	512	CLA	C3A-C2A-CAA-CBA
25	h	101	CLA	C3A-C2A-CAA-CBA
25	A	606	CLA	C15-C16-C17-C18
32	a	615	DGD	C4A-C5A-C6A-C7A
33	C	522	STE	C11-C10-C9-C8
33	d	412	STE	C5-C6-C7-C8
33	k	103	STE	C3-C4-C5-C6
25	c	508	CLA	O1D-CGD-O2D-CED
25	B	605	CLA	C16-C17-C18-C19
25	D	403	CLA	C16-C17-C18-C19
29	d	410	LMG	C33-C34-C35-C36
32	c	516	DGD	C4A-C5A-C6A-C7A
33	B	624	STE	C2-C3-C4-C5
33	C	522	STE	C7-C8-C9-C10
33	b	621	STE	C5-C6-C7-C8
33	b	624	STE	C11-C10-C9-C8
33	d	413	STE	C10-C11-C12-C13
25	c	501	CLA	O1D-CGD-O2D-CED
33	H	104	STE	C11-C12-C13-C14
33	a	616	STE	C3-C4-C5-C6
32	A	617	DGD	C1A-C2A-C3A-C4A
32	H	103	DGD	C1B-C2B-C3B-C4B
32	a	615	DGD	C1A-C2A-C3A-C4A
31	D	411	LHG	C14-C15-C16-C17
33	X	101	STE	C11-C12-C13-C14
25	C	505	CLA	C4-C3-C5-C6
25	B	603	CLA	CBA-CGA-O2A-C1
25	C	505	CLA	C2-C3-C5-C6
28	d	406	PL9	C28-C29-C31-C32
33	H	104	STE	C14-C15-C16-C17
25	D	404	CLA	O1D-CGD-O2D-CED
31	d	407	LHG	O1-C1-C2-O2
29	A	613	LMG	C11-C12-C13-C14
29	A	613	LMG	C35-C36-C37-C38

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Mol	Chain	Res	Type	Atoms
29	c	522	LMG	C12-C13-C14-C15
30	b	619	SQD	C11-C12-C13-C14
31	A	615	LHG	C11-C10-C9-C8
31	d	408	LHG	C16-C17-C18-C19
32	C	516	DGD	C5B-C6B-C7B-C8B
32	C	516	DGD	CCB-CDB-CEB-CFB
32	c	516	DGD	CAA-CBA-CCA-CDA
29	b	622	LMG	C28-C29-C30-C31
29	D	410	LMG	C11-C12-C13-C14
32	h	103	DGD	C3B-C4B-C5B-C6B
25	B	606	CLA	C13-C15-C16-C17
25	b	605	CLA	C15-C16-C17-C18
30	A	614	SQD	C12-C13-C14-C15
29	B	620	LMG	C29-C30-C31-C32
32	c	516	DGD	C9A-CAA-CBA-CCA
33	X	101	STE	C10-C11-C12-C13
29	b	622	LMG	O9-C10-O7-C8
30	F	102	SQD	C26-C27-C28-C29
32	A	617	DGD	CAB-CBB-CCB-CDB
32	A	617	DGD	CBB-CCB-CDB-CEB
32	c	518	DGD	C3B-C4B-C5B-C6B
33	b	624	STE	C5-C6-C7-C8
29	M	101	LMG	O6-C5-C6-O5
25	C	508	CLA	C10-C11-C12-C13
29	A	613	LMG	C31-C32-C33-C34
30	f	102	SQD	C25-C26-C27-C28
33	B	623	STE	C10-C11-C12-C13
33	l	101	STE	C3-C4-C5-C6
27	D	405	BCR	C23-C24-C25-C30
27	K	101	BCR	C1-C6-C7-C8
27	K	101	BCR	C5-C6-C7-C8
27	k	101	BCR	C1-C6-C7-C8
29	C	519	LMG	C33-C34-C35-C36
33	B	622	STE	C6-C7-C8-C9
33	b	625	STE	C4-C5-C6-C7
25	b	610	CLA	C15-C16-C17-C18
31	A	615	LHG	C30-C31-C32-C33
31	d	408	LHG	C12-C13-C14-C15
33	c	520	STE	C9-C10-C11-C12
33	c	520	STE	C11-C12-C13-C14
25	b	608	CLA	CBD-CGD-O2D-CED
33	B	619	STE	C1-C2-C3-C4

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Mol	Chain	Res	Type	Atoms
33	C	520	STE	C1-C2-C3-C4
30	A	614	SQD	C14-C15-C16-C17
30	A	614	SQD	C24-C25-C26-C27
32	C	516	DGD	C4B-C5B-C6B-C7B
33	C	522	STE	C5-C6-C7-C8
25	B	604	CLA	C15-C16-C17-C18
29	D	407	LMG	C18-C19-C20-C21
28	d	406	PL9	C15-C14-C16-C17
25	B	614	CLA	C6-C7-C8-C10
25	C	502	CLA	C11-C12-C13-C15
25	C	505	CLA	C12-C13-C15-C16
25	C	508	CLA	C12-C13-C15-C16
25	C	510	CLA	C12-C13-C15-C16
25	D	404	CLA	C11-C10-C8-C7
25	b	611	CLA	C12-C13-C15-C16
25	c	504	CLA	C11-C10-C8-C7
25	c	506	CLA	C11-C12-C13-C15
25	h	101	CLA	C11-C12-C13-C15
25	h	101	CLA	C12-C13-C15-C16
28	a	611	PL9	C13-C14-C16-C17
28	d	406	PL9	C43-C44-C46-C47
30	a	613	SQD	C17-C18-C19-C20
31	D	409	LHG	C31-C32-C33-C34
33	C	520	STE	C3-C4-C5-C6
33	H	104	STE	C2-C3-C4-C5
25	B	612	CLA	C5-C6-C7-C8
25	b	606	CLA	C16-C17-C18-C19
29	C	519	LMG	C28-C29-C30-C31
29	D	407	LMG	C28-C29-C30-C31
29	c	519	LMG	C29-C28-O8-C9
29	c	521	LMG	C16-C17-C18-C19
31	d	409	LHG	C27-C28-C29-C30
33	H	104	STE	C3-C4-C5-C6
33	X	101	STE	C5-C6-C7-C8
25	B	615	CLA	C10-C11-C12-C13
30	A	614	SQD	C26-C27-C28-C29
30	A	616	SQD	C32-C33-C34-C35
31	D	408	LHG	C25-C26-C27-C28
32	h	103	DGD	C2B-C3B-C4B-C5B
33	X	101	STE	C6-C7-C8-C9
33	t	103	STE	C5-C6-C7-C8
29	D	407	LMG	C17-C18-C19-C20

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Mol	Chain	Res	Type	Atoms
30	a	614	SQD	C18-C19-C20-C21
32	H	103	DGD	C6B-C7B-C8B-C9B
33	H	104	STE	C9-C10-C11-C12
29	b	622	LMG	C10-C11-C12-C13
30	a	613	SQD	C7-C8-C9-C10
29	m	101	LMG	C15-C16-C17-C18
29	m	101	LMG	C34-C35-C36-C37
30	b	619	SQD	C14-C15-C16-C17
32	c	518	DGD	C5A-C6A-C7A-C8A
32	h	103	DGD	CBA-CCA-CDA-CEA
33	b	620	STE	C7-C8-C9-C10
30	B	621	SQD	C9-C10-C11-C12
31	d	407	LHG	C16-C17-C18-C19
25	c	511	CLA	C16-C17-C18-C20
32	C	517	DGD	O6E-C1E-O5D-C6D
29	D	407	LMG	C36-C37-C38-C39
29	m	101	LMG	C11-C12-C13-C14
30	a	613	SQD	C26-C27-C28-C29
30	b	619	SQD	C15-C16-C17-C18
31	A	615	LHG	C17-C18-C19-C20
31	e	101	LHG	C18-C19-C20-C21
32	c	518	DGD	C3A-C4A-C5A-C6A
32	c	518	DGD	CCA-CDA-CEA-CFA
33	B	625	STE	C6-C7-C8-C9
33	H	104	STE	C10-C11-C12-C13
33	j	101	STE	C4-C5-C6-C7
33	t	102	STE	C6-C7-C8-C9
27	t	101	BCR	C18-C19-C20-C21
29	b	622	LMG	C29-C30-C31-C32
31	d	409	LHG	C25-C26-C27-C28
25	c	506	CLA	C5-C6-C7-C8
25	B	603	CLA	O1A-CGA-O2A-C1
29	b	622	LMG	C13-C14-C15-C16
29	c	522	LMG	C36-C37-C38-C39
31	D	411	LHG	C31-C32-C33-C34
32	C	518	DGD	C7B-C8B-C9B-CAB
32	c	516	DGD	C4B-C5B-C6B-C7B
30	A	616	SQD	C19-C20-C21-C22
32	C	517	DGD	C6B-C7B-C8B-C9B
29	m	101	LMG	C14-C15-C16-C17
30	a	614	SQD	C11-C10-C9-C8
31	L	101	LHG	C17-C18-C19-C20

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Mol	Chain	Res	Type	Atoms
31	d	407	LHG	C17-C18-C19-C20
29	D	410	LMG	C33-C34-C35-C36
33	c	520	STE	C4-C5-C6-C7
25	C	508	CLA	C5-C6-C7-C8
25	B	608	CLA	C2-C3-C5-C6
28	A	611	PL9	C23-C24-C26-C27
30	B	621	SQD	C33-C34-C35-C36
32	H	103	DGD	C9A-CAA-CBA-CCA
25	B	601	CLA	C11-C12-C13-C14
25	C	502	CLA	C11-C12-C13-C14
25	C	505	CLA	C11-C10-C8-C9
25	C	506	CLA	C11-C12-C13-C14
25	C	506	CLA	C14-C13-C15-C16
25	C	508	CLA	C11-C10-C8-C9
25	C	513	CLA	C11-C10-C8-C9
25	a	607	CLA	C11-C10-C8-C9
25	c	504	CLA	C11-C10-C8-C9
25	c	506	CLA	C11-C12-C13-C14
25	c	506	CLA	C14-C13-C15-C16
25	c	510	CLA	C14-C13-C15-C16
25	c	511	CLA	C11-C10-C8-C9
25	h	101	CLA	C11-C12-C13-C14
29	D	407	LMG	O6-C5-C6-O5
31	D	411	LHG	C27-C28-C29-C30
32	C	518	DGD	C3A-C4A-C5A-C6A
29	D	407	LMG	C34-C35-C36-C37
29	M	101	LMG	C18-C19-C20-C21
32	C	517	DGD	C5A-C6A-C7A-C8A
33	d	413	STE	C3-C4-C5-C6
29	d	411	LMG	O6-C5-C6-O5
27	B	618	BCR	C11-C12-C13-C35
32	c	516	DGD	O6D-C5D-C6D-O5D
25	C	510	CLA	CBD-CGD-O2D-CED
29	b	622	LMG	C17-C18-C19-C20
29	c	519	LMG	C37-C38-C39-C40
33	C	521	STE	C4-C5-C6-C7
33	k	103	STE	C5-C6-C7-C8
25	a	609	CLA	C1A-C2A-CAA-CBA
25	c	508	CLA	C1A-C2A-CAA-CBA
25	c	513	CLA	C1A-C2A-CAA-CBA
25	C	502	CLA	C16-C17-C18-C20
25	H	101	CLA	C16-C17-C18-C19

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Mol	Chain	Res	Type	Atoms
25	c	511	CLA	C16-C17-C18-C19
29	c	522	LMG	C32-C33-C34-C35
29	d	410	LMG	C39-C40-C41-C42
30	F	102	SQD	C34-C35-C36-C37
32	c	516	DGD	CAB-CBB-CCB-CDB
33	b	624	STE	C7-C8-C9-C10
33	t	102	STE	C3-C4-C5-C6
31	D	411	LHG	C3-O3-P-O6
31	d	408	LHG	C3-O3-P-O6
30	b	619	SQD	C26-C27-C28-C29
32	h	103	DGD	CAB-CBB-CCB-CDB
33	X	101	STE	C3-C4-C5-C6
33	d	413	STE	C9-C10-C11-C12
31	b	623	LHG	O6-C4-C5-C6
32	A	617	DGD	CAA-CBA-CCA-CDA
32	h	103	DGD	C6B-C7B-C8B-C9B
33	b	621	STE	C15-C16-C17-C18
25	c	509	CLA	C16-C17-C18-C20
32	C	518	DGD	CAA-CBA-CCA-CDA
29	m	101	LMG	C30-C31-C32-C33
30	A	614	SQD	C16-C17-C18-C19
30	B	621	SQD	C14-C15-C16-C17
30	b	619	SQD	C25-C26-C27-C28
25	C	512	CLA	C10-C11-C12-C13
31	A	615	LHG	C23-C24-C25-C26
32	h	103	DGD	C9A-CAA-CBA-CCA
33	b	624	STE	C6-C7-C8-C9
33	x	101	STE	C11-C10-C9-C8
32	c	518	DGD	C2A-C1A-O1G-C1G
32	c	516	DGD	O6E-C5E-C6E-O5E
25	C	506	CLA	C4-C3-C5-C6
32	c	518	DGD	C6A-C7A-C8A-C9A
25	c	512	CLA	C10-C11-C12-C13
31	A	615	LHG	C27-C28-C29-C30
32	A	617	DGD	C2A-C3A-C4A-C5A
32	a	615	DGD	C5A-C6A-C7A-C8A
33	b	624	STE	C13-C14-C15-C16
33	l	101	STE	C11-C12-C13-C14
29	D	410	LMG	C10-C11-C12-C13
29	b	622	LMG	C39-C40-C41-C42
29	c	521	LMG	C15-C16-C17-C18
30	A	616	SQD	C10-C11-C12-C13

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Mol	Chain	Res	Type	Atoms
31	A	615	LHG	C13-C14-C15-C16
33	B	623	STE	C9-C10-C11-C12
25	b	601	CLA	C16-C17-C18-C20
25	c	507	CLA	C16-C17-C18-C19
25	C	513	CLA	O1D-CGD-O2D-CED
25	b	606	CLA	O1D-CGD-O2D-CED
25	c	503	CLA	O1D-CGD-O2D-CED
31	D	408	LHG	C35-C36-C37-C38
31	e	101	LHG	C4-C5-C6-O8
32	A	617	DGD	C1G-C2G-C3G-O3G
32	C	518	DGD	C7A-C8A-C9A-CAA
33	B	622	STE	C4-C5-C6-C7
33	b	621	STE	C12-C13-C14-C15
29	D	410	LMG	C30-C31-C32-C33
33	I	101	STE	C12-C13-C14-C15
32	C	517	DGD	C2G-C3G-O3G-C1D
32	C	517	DGD	C5D-C6D-O5D-C1E
32	c	517	DGD	C5D-C6D-O5D-C1E
30	F	102	SQD	C44-C45-C46-O48
29	d	411	LMG	C35-C36-C37-C38
32	H	103	DGD	C5A-C6A-C7A-C8A
32	c	518	DGD	C4B-C5B-C6B-C7B
33	I	101	STE	C4-C5-C6-C7
29	d	411	LMG	C38-C39-C40-C41
32	a	615	DGD	C3B-C4B-C5B-C6B
32	c	517	DGD	CAB-CBB-CCB-CDB
33	B	619	STE	C12-C13-C14-C15
33	H	104	STE	C7-C8-C9-C10
31	D	411	LHG	C23-C24-C25-C26
33	t	102	STE	C1-C2-C3-C4
29	d	410	LMG	C40-C41-C42-C43
31	D	408	LHG	C18-C19-C20-C21
31	e	101	LHG	C28-C29-C30-C31
25	C	510	CLA	C10-C11-C12-C13
30	A	614	SQD	C17-C18-C19-C20
33	t	103	STE	C7-C8-C9-C10
29	c	521	LMG	C30-C31-C32-C33
33	H	104	STE	C1-C2-C3-C4
32	c	516	DGD	C1A-C2A-C3A-C4A
32	a	615	DGD	C5B-C6B-C7B-C8B
32	a	615	DGD	C6B-C7B-C8B-C9B
32	h	103	DGD	CCA-CDA-CEA-CFA

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Mol	Chain	Res	Type	Atoms
33	b	626	STE	C5-C6-C7-C8
29	A	613	LMG	C39-C40-C41-C42
29	c	521	LMG	C32-C33-C34-C35
33	b	620	STE	C13-C14-C15-C16
25	a	609	CLA	C13-C15-C16-C17
27	C	515	BCR	C20-C21-C22-C37
28	d	406	PL9	C45-C44-C46-C47
29	M	101	LMG	C40-C41-C42-C43
29	d	410	LMG	C34-C35-C36-C37
30	A	614	SQD	C11-C12-C13-C14
31	D	411	LHG	C24-C25-C26-C27
33	b	626	STE	C7-C8-C9-C10
31	d	409	LHG	C35-C36-C37-C38
33	X	101	STE	C14-C15-C16-C17
29	b	622	LMG	C9-C8-O7-C10
25	C	501	CLA	O1D-CGD-O2D-CED
25	c	506	CLA	C2-C1-O2A-CGA
28	a	611	PL9	C32-C33-C34-C36
33	l	101	STE	C15-C16-C17-C18
25	D	403	CLA	C2C-C3C-CAC-CBC
29	d	411	LMG	C37-C38-C39-C40
31	d	408	LHG	C33-C34-C35-C36
32	c	517	DGD	CBB-CCB-CDB-CEB
33	m	102	STE	C3-C4-C5-C6
33	B	625	STE	C13-C14-C15-C16
25	B	609	CLA	C16-C17-C18-C19
25	B	611	CLA	C16-C17-C18-C20
31	b	623	LHG	C9-C10-C11-C12
32	C	518	DGD	C6A-C7A-C8A-C9A
31	A	615	LHG	C11-C12-C13-C14
25	c	511	CLA	O1D-CGD-O2D-CED
29	M	101	LMG	C29-C30-C31-C32
33	B	625	STE	C7-C8-C9-C10
33	m	102	STE	C7-C8-C9-C10
25	c	504	CLA	C5-C6-C7-C8
29	c	522	LMG	C2-C1-O1-C7
31	D	408	LHG	C29-C30-C31-C32
31	d	408	LHG	C14-C15-C16-C17
32	h	103	DGD	O2G-C1B-C2B-C3B
31	D	411	LHG	C28-C29-C30-C31
32	c	517	DGD	CAA-CBA-CCA-CDA
33	M	102	STE	C11-C10-C9-C8

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Mol	Chain	Res	Type	Atoms
32	A	617	DGD	O6D-C5D-C6D-O5D
29	m	101	LMG	O10-C28-O8-C9
31	L	101	LHG	C34-C35-C36-C37
31	d	409	LHG	C9-C10-C11-C12
31	e	101	LHG	C24-C25-C26-C27
32	c	516	DGD	C2B-C3B-C4B-C5B
33	J	101	STE	C7-C8-C9-C10
33	l	101	STE	C7-C8-C9-C10
29	d	411	LMG	C10-C11-C12-C13
28	A	611	PL9	C45-C44-C46-C47
28	d	406	PL9	C30-C29-C31-C32
30	F	102	SQD	C30-C31-C32-C33
32	C	518	DGD	CDA-CEA-CFA-CGA
32	H	103	DGD	CCA-CDA-CEA-CFA
25	b	601	CLA	C10-C11-C12-C13
25	A	607	CLA	C11-C10-C8-C7
25	A	607	CLA	C12-C13-C15-C16
25	B	601	CLA	C11-C12-C13-C15
25	B	603	CLA	C11-C12-C13-C15
25	B	604	CLA	C11-C10-C8-C7
25	B	607	CLA	C11-C12-C13-C15
25	B	612	CLA	C12-C13-C15-C16
25	B	614	CLA	C11-C12-C13-C15
25	C	503	CLA	C11-C10-C8-C7
25	C	505	CLA	C11-C10-C8-C7
25	C	506	CLA	C2-C3-C5-C6
25	C	508	CLA	C11-C10-C8-C7
25	C	509	CLA	C11-C10-C8-C7
25	C	511	CLA	C6-C7-C8-C10
25	C	512	CLA	C6-C7-C8-C10
25	C	513	CLA	C11-C10-C8-C7
25	H	101	CLA	C11-C10-C8-C7
25	a	607	CLA	C11-C10-C8-C7
25	b	601	CLA	C12-C13-C15-C16
25	b	602	CLA	C6-C7-C8-C10
25	b	605	CLA	C12-C13-C15-C16
25	b	606	CLA	C11-C10-C8-C7
25	b	612	CLA	C12-C13-C15-C16
25	c	508	CLA	C12-C13-C15-C16
25	c	510	CLA	C6-C7-C8-C10
25	c	510	CLA	C12-C13-C15-C16
25	c	512	CLA	C6-C7-C8-C10

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Mol	Chain	Res	Type	Atoms
25	d	404	CLA	C6-C7-C8-C10
25	A	612	CLA	C11-C12-C13-C14
25	B	603	CLA	C11-C12-C13-C14
25	B	603	CLA	C14-C13-C15-C16
25	B	610	CLA	C14-C13-C15-C16
25	B	614	CLA	C11-C12-C13-C14
25	C	511	CLA	C6-C7-C8-C9
25	D	404	CLA	C6-C7-C8-C9
25	a	609	CLA	C14-C13-C15-C16
25	b	601	CLA	C14-C13-C15-C16
25	b	606	CLA	C6-C7-C8-C9
25	b	611	CLA	C14-C13-C15-C16
25	b	614	CLA	C11-C12-C13-C14
25	c	508	CLA	C14-C13-C15-C16
25	c	510	CLA	C6-C7-C8-C9
29	C	519	LMG	C31-C32-C33-C34
32	C	518	DGD	C2B-C3B-C4B-C5B
33	C	521	STE	C6-C7-C8-C9
33	C	522	STE	C9-C10-C11-C12
25	B	615	CLA	CBA-CGA-O2A-C1
25	c	512	CLA	C5-C6-C7-C8
27	b	616	BCR	C37-C22-C23-C24
33	B	619	STE	C7-C8-C9-C10
31	D	409	LHG	O1-C1-C2-C3
29	c	522	LMG	C40-C41-C42-C43
25	B	607	CLA	C13-C15-C16-C17
31	b	623	LHG	C19-C20-C21-C22
32	C	517	DGD	CDA-CEA-CFA-CGA
25	B	605	CLA	C10-C11-C12-C13
25	a	609	CLA	C10-C11-C12-C13
29	m	101	LMG	C21-C22-C23-C24
32	H	103	DGD	C8A-C9A-CAA-CBA
25	B	610	CLA	C16-C17-C18-C20
29	b	622	LMG	C37-C38-C39-C40
32	a	615	DGD	C8A-C9A-CAA-CBA
33	a	616	STE	C2-C3-C4-C5
33	C	521	STE	C2-C3-C4-C5
30	a	613	SQD	C24-C23-O48-C46
32	A	617	DGD	C2A-C1A-O1G-C1G
33	M	102	STE	C6-C7-C8-C9
28	d	406	PL9	C13-C14-C16-C17
25	b	608	CLA	O1D-CGD-O2D-CED

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Mol	Chain	Res	Type	Atoms
25	C	506	CLA	C13-C15-C16-C17
31	d	407	LHG	C12-C13-C14-C15
33	l	101	STE	C14-C15-C16-C17
25	A	607	CLA	C16-C17-C18-C20
32	h	103	DGD	CCB-CDB-CEB-CFB
25	b	602	CLA	C13-C15-C16-C17
29	D	407	LMG	C30-C31-C32-C33
30	a	613	SQD	C11-C12-C13-C14
31	b	623	LHG	C10-C11-C12-C13
33	M	102	STE	C10-C11-C12-C13
33	x	101	STE	C9-C10-C11-C12
30	f	102	SQD	C31-C32-C33-C34
31	L	101	LHG	C13-C14-C15-C16
31	L	101	LHG	C25-C26-C27-C28
32	a	615	DGD	CFB-CGB-CHB-CIB
33	C	521	STE	C7-C8-C9-C10
33	M	102	STE	C3-C4-C5-C6
29	b	622	LMG	C18-C19-C20-C21
30	F	102	SQD	C27-C28-C29-C30
31	A	615	LHG	C14-C15-C16-C17
32	A	617	DGD	CFA-CGA-CHA-CIA
32	a	615	DGD	CCB-CDB-CEB-CFB
33	k	103	STE	C6-C7-C8-C9
33	B	625	STE	C4-C5-C6-C7
32	C	518	DGD	O6D-C5D-C6D-O5D
31	D	409	LHG	C35-C36-C37-C38
29	A	613	LMG	O1-C7-C8-C9
29	b	622	LMG	O1-C7-C8-C9
29	c	521	LMG	O1-C7-C8-C9
29	c	521	LMG	C7-C8-C9-O8
30	a	613	SQD	O6-C44-C45-C46
30	a	614	SQD	C44-C45-C46-O48
31	A	615	LHG	C4-C5-C6-O8
32	A	617	DGD	O1G-C1G-C2G-C3G
31	d	407	LHG	C33-C34-C35-C36
32	h	103	DGD	C4A-C5A-C6A-C7A
33	b	621	STE	C6-C7-C8-C9
32	C	518	DGD	C6B-C7B-C8B-C9B
29	D	410	LMG	C34-C35-C36-C37
25	B	615	CLA	O1A-CGA-O2A-C1
25	B	604	CLA	C8-C10-C11-C12
25	B	611	CLA	C16-C17-C18-C19

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Mol	Chain	Res	Type	Atoms
25	c	506	CLA	C2-C3-C5-C6
32	c	516	DGD	C4D-C5D-C6D-O5D
31	D	408	LHG	O1-C1-C2-O2
30	a	614	SQD	C19-C20-C21-C22
31	e	101	LHG	O6-C4-C5-O7
32	c	517	DGD	C5B-C6B-C7B-C8B
28	d	406	PL9	C37-C38-C39-C40
25	b	601	CLA	C16-C17-C18-C19
25	b	612	CLA	C16-C17-C18-C20
25	c	509	CLA	C16-C17-C18-C19
31	d	407	LHG	O2-C2-C3-O3
29	C	519	LMG	C37-C38-C39-C40
29	d	411	LMG	C40-C41-C42-C43
25	B	611	CLA	C13-C15-C16-C17
25	c	511	CLA	C15-C16-C17-C18
25	c	512	CLA	C8-C10-C11-C12
25	h	101	CLA	C10-C11-C12-C13
31	e	101	LHG	C14-C15-C16-C17
29	M	101	LMG	O7-C8-C9-O8
29	b	622	LMG	O1-C7-C8-O7
29	c	522	LMG	O7-C8-C9-O8
30	a	613	SQD	O47-C45-C46-O48
30	f	102	SQD	O6-C44-C45-O47
32	A	617	DGD	O1G-C1G-C2G-O2G
25	C	505	CLA	C15-C16-C17-C18
25	b	613	CLA	O1D-CGD-O2D-CED
31	e	101	LHG	C11-C12-C13-C14
33	b	620	STE	C11-C10-C9-C8
25	B	613	CLA	C16-C17-C18-C20
29	d	411	LMG	C30-C31-C32-C33
33	t	103	STE	C3-C4-C5-C6
25	c	505	CLA	C10-C11-C12-C13
28	d	406	PL9	C34-C36-C37-C38
29	b	622	LMG	C30-C31-C32-C33
30	a	613	SQD	C11-C10-C9-C8
32	A	617	DGD	CCB-CDB-CEB-CFB
33	d	412	STE	C3-C4-C5-C6
31	A	615	LHG	C26-C27-C28-C29
31	D	408	LHG	C28-C29-C30-C31
31	L	101	LHG	C30-C31-C32-C33
25	A	607	CLA	C11-C10-C8-C9
25	C	504	CLA	C11-C10-C8-C9

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Mol	Chain	Res	Type	Atoms
25	C	510	CLA	C6-C7-C8-C9
25	b	603	CLA	C11-C12-C13-C14
25	b	604	CLA	C11-C10-C8-C9
25	b	606	CLA	C11-C12-C13-C14
25	b	608	CLA	C14-C13-C15-C16
25	b	612	CLA	C11-C12-C13-C14
25	b	612	CLA	C14-C13-C15-C16
29	b	622	LMG	C36-C37-C38-C39
32	H	103	DGD	C4B-C5B-C6B-C7B
25	b	606	CLA	C5-C6-C7-C8
25	b	609	CLA	C15-C16-C17-C18
29	c	521	LMG	C17-C18-C19-C20
25	B	610	CLA	C16-C17-C18-C19
25	b	615	CLA	C11-C12-C13-C15
27	B	616	BCR	C1-C6-C7-C8
27	B	616	BCR	C5-C6-C7-C8
27	H	102	BCR	C23-C24-C25-C26
27	H	102	BCR	C23-C24-C25-C30
27	K	102	BCR	C1-C6-C7-C8
27	K	102	BCR	C5-C6-C7-C8
27	b	616	BCR	C5-C6-C7-C8
27	b	617	BCR	C23-C24-C25-C26
27	b	617	BCR	C23-C24-C25-C30
27	c	514	BCR	C23-C24-C25-C26
27	t	101	BCR	C1-C6-C7-C8
29	c	522	LMG	C31-C32-C33-C34
32	C	516	DGD	CDB-CEB-CFB-CGB
27	T	101	BCR	C11-C12-C13-C35
29	c	521	LMG	C29-C30-C31-C32
31	D	411	LHG	C25-C26-C27-C28
29	b	622	LMG	C24-C25-C26-C27
32	a	615	DGD	CFA-CGA-CHA-CIA
27	k	101	BCR	C14-C15-C16-C17
25	C	513	CLA	C13-C15-C16-C17
32	c	516	DGD	C2A-C3A-C4A-C5A
25	A	606	CLA	C16-C17-C18-C20
25	B	609	CLA	C16-C17-C18-C20
25	a	607	CLA	C16-C17-C18-C20
32	c	518	DGD	C1B-C2B-C3B-C4B
33	C	521	STE	C1-C2-C3-C4
29	B	620	LMG	C35-C36-C37-C38
33	X	101	STE	C13-C14-C15-C16

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Mol	Chain	Res	Type	Atoms
25	B	612	CLA	C15-C16-C17-C18
25	C	506	CLA	C15-C16-C17-C18
33	b	621	STE	C7-C8-C9-C10
33	t	102	STE	C9-C10-C11-C12
25	C	504	CLA	C11-C12-C13-C14
30	a	614	SQD	C25-C26-C27-C28
25	C	505	CLA	C10-C11-C12-C13
31	D	411	LHG	C11-C10-C9-C8
31	e	101	LHG	C17-C18-C19-C20
33	B	623	STE	C11-C10-C9-C8
33	I	101	STE	C6-C7-C8-C9
25	A	612	CLA	C11-C12-C13-C15
25	B	603	CLA	C12-C13-C15-C16
25	B	615	CLA	C6-C7-C8-C10
25	C	504	CLA	C11-C10-C8-C7
25	C	509	CLA	C12-C13-C15-C16
25	C	510	CLA	C6-C7-C8-C10
25	D	404	CLA	C6-C7-C8-C10
25	a	607	CLA	C12-C13-C15-C16
25	a	609	CLA	C12-C13-C15-C16
25	b	603	CLA	C12-C13-C15-C16
25	b	606	CLA	C6-C7-C8-C10
25	b	606	CLA	C11-C12-C13-C15
25	b	608	CLA	C12-C13-C15-C16
25	b	610	CLA	C11-C12-C13-C15
25	b	613	CLA	C6-C7-C8-C10
25	c	509	CLA	C11-C12-C13-C15
25	c	513	CLA	C11-C12-C13-C15
28	a	611	PL9	C28-C29-C31-C32
25	c	513	CLA	C3-C5-C6-C7
29	D	410	LMG	C36-C37-C38-C39
25	D	404	CLA	CBA-CGA-O2A-C1
32	C	516	DGD	CAA-CBA-CCA-CDA
25	b	608	CLA	C15-C16-C17-C18
25	c	509	CLA	CAA-CBA-CGA-O2A
32	C	518	DGD	C3B-C4B-C5B-C6B
33	C	520	STE	C5-C6-C7-C8
32	A	617	DGD	C4D-C5D-C6D-O5D
25	c	505	CLA	C15-C16-C17-C18
27	D	405	BCR	C11-C10-C9-C34
27	T	101	BCR	C20-C21-C22-C37
27	d	405	BCR	C11-C10-C9-C34

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Mol	Chain	Res	Type	Atoms
27	k	101	BCR	C35-C13-C14-C15
27	k	101	BCR	C20-C21-C22-C37
27	t	101	BCR	C35-C13-C14-C15
25	C	509	CLA	C3-C5-C6-C7
32	h	103	DGD	C9B-CAB-CBB-CCB
33	d	413	STE	C11-C12-C13-C14
25	c	504	CLA	CBA-CGA-O2A-C1
32	c	517	DGD	C6A-C7A-C8A-C9A
30	B	621	SQD	C25-C26-C27-C28
25	B	608	CLA	C13-C15-C16-C17
25	B	613	CLA	CAD-CBD-CGD-O2D
25	C	503	CLA	CAD-CBD-CGD-O2D
25	C	510	CLA	CAD-CBD-CGD-O2D
25	b	609	CLA	CAD-CBD-CGD-O2D
25	b	613	CLA	CAD-CBD-CGD-O2D
25	c	501	CLA	CAD-CBD-CGD-O2D
25	c	503	CLA	CAD-CBD-CGD-O2D
25	c	513	CLA	CAD-CBD-CGD-O2D
30	a	614	SQD	C46-C45-O47-C7
32	a	615	DGD	C1G-C2G-O2G-C1B
29	A	613	LMG	C29-C30-C31-C32
30	a	614	SQD	C24-C25-C26-C27
32	A	617	DGD	CDB-CEB-CFB-CGB
32	H	103	DGD	C3A-C4A-C5A-C6A
30	A	616	SQD	C17-C18-C19-C20
30	a	614	SQD	C17-C18-C19-C20
25	A	607	CLA	C16-C17-C18-C19
32	A	617	DGD	CEA-CFA-CGA-CHA
32	c	518	DGD	C7A-C8A-C9A-CAA
33	E	101	STE	C4-C5-C6-C7
29	C	519	LMG	O1-C7-C8-C9
29	M	101	LMG	C7-C8-C9-O8
30	B	621	SQD	O6-C44-C45-C46
31	d	409	LHG	C2-C3-O3-P
32	C	516	DGD	O1G-C1G-C2G-C3G
25	b	612	CLA	CBD-CGD-O2D-CED
32	C	518	DGD	O1A-C1A-O1G-C1G
30	A	616	SQD	C11-C10-C9-C8
32	C	517	DGD	CDB-CEB-CFB-CGB
25	B	603	CLA	C15-C16-C17-C18
25	C	512	CLA	C13-C15-C16-C17
25	b	606	CLA	C13-C15-C16-C17

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Mol	Chain	Res	Type	Atoms
32	C	516	DGD	O1G-C1A-C2A-C3A
35	f	101	HEM	C4B-C3B-CAB-CBB
25	C	501	CLA	C2A-CAA-CBA-CGA
25	B	609	CLA	C13-C15-C16-C17
29	C	519	LMG	C32-C33-C34-C35
31	A	615	LHG	C28-C29-C30-C31
25	C	511	CLA	C16-C17-C18-C19
25	a	607	CLA	C16-C17-C18-C19
25	b	609	CLA	C16-C17-C18-C20
33	M	102	STE	C5-C6-C7-C8
25	B	605	CLA	CHA-CBD-CGD-O2D
25	B	606	CLA	CHA-CBD-CGD-O1D
25	B	611	CLA	CHA-CBD-CGD-O1D
25	C	502	CLA	CHA-CBD-CGD-O1D
25	H	101	CLA	CHA-CBD-CGD-O1D
25	a	607	CLA	CHA-CBD-CGD-O2D
25	b	603	CLA	CHA-CBD-CGD-O1D
25	c	502	CLA	CHA-CBD-CGD-O1D
25	c	502	CLA	CHA-CBD-CGD-O2D
33	E	101	STE	C6-C7-C8-C9
25	D	404	CLA	O1A-CGA-O2A-C1
30	a	613	SQD	O10-C23-O48-C46
33	b	625	STE	C14-C15-C16-C17
33	x	101	STE	C12-C13-C14-C15
29	c	521	LMG	O7-C8-C9-O8
30	a	614	SQD	O47-C45-C46-O48
31	A	615	LHG	O7-C5-C6-O8
32	C	516	DGD	O1G-C1G-C2G-O2G
25	C	512	CLA	C15-C16-C17-C18
31	L	101	LHG	C28-C29-C30-C31
32	H	103	DGD	CDB-CEB-CFB-CGB
25	b	612	CLA	C16-C17-C18-C19
25	C	510	CLA	O1D-CGD-O2D-CED
33	B	619	STE	C9-C10-C11-C12
33	C	521	STE	C3-C4-C5-C6
33	b	625	STE	C15-C16-C17-C18
25	c	510	CLA	C4-C3-C5-C6
28	a	611	PL9	C15-C14-C16-C17
29	m	101	LMG	C37-C38-C39-C40
32	c	518	DGD	C2B-C3B-C4B-C5B
25	b	603	CLA	C2-C3-C5-C6
28	A	611	PL9	C4-C3-C7-C8

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Mol	Chain	Res	Type	Atoms
28	a	611	PL9	C4-C3-C7-C8
31	D	408	LHG	O9-C7-O7-C5
25	a	607	CLA	C14-C13-C15-C16
25	b	602	CLA	C11-C10-C8-C9
25	b	614	CLA	C11-C10-C8-C9
31	D	409	LHG	C11-C10-C9-C8
33	j	101	STE	C3-C4-C5-C6
25	B	612	CLA	C16-C17-C18-C19
25	C	513	CLA	C8-C10-C11-C12
32	a	615	DGD	C7B-C8B-C9B-CAB
32	c	517	DGD	C2A-C3A-C4A-C5A
32	C	516	DGD	C7A-C8A-C9A-CAA
28	A	611	PL9	C28-C29-C31-C32
28	A	611	PL9	C38-C39-C41-C42
31	D	408	LHG	C3-O3-P-O5
31	D	408	LHG	C4-O6-P-O5
31	D	409	LHG	C3-O3-P-O5
31	D	411	LHG	C3-O3-P-O5
31	d	408	LHG	C3-O3-P-O4
31	d	408	LHG	C4-O6-P-O5
31	e	101	LHG	C3-O3-P-O4
25	B	613	CLA	C16-C17-C18-C19
30	A	616	SQD	C23-C24-C25-C26
32	C	517	DGD	C8B-C9B-CAB-CBB
29	C	519	LMG	O6-C1-O1-C7
25	C	502	CLA	C13-C15-C16-C17
25	a	609	CLA	CBA-CGA-O2A-C1
31	e	101	LHG	O6-C4-C5-C6
29	A	613	LMG	C13-C14-C15-C16
31	L	101	LHG	C11-C12-C13-C14
32	C	518	DGD	C4A-C5A-C6A-C7A
32	c	516	DGD	C6B-C7B-C8B-C9B
32	h	103	DGD	C6A-C7A-C8A-C9A
29	M	101	LMG	C20-C21-C22-C23
30	F	102	SQD	C25-C26-C27-C28
31	D	408	LHG	C14-C15-C16-C17
31	D	411	LHG	C32-C33-C34-C35
33	x	101	STE	C13-C14-C15-C16
25	C	505	CLA	C16-C17-C18-C19
25	b	604	CLA	C16-C17-C18-C20
25	b	615	CLA	C11-C12-C13-C14
29	b	622	LMG	C34-C35-C36-C37

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Mol	Chain	Res	Type	Atoms
33	t	102	STE	C7-C8-C9-C10
25	C	502	CLA	CAD-CBD-CGD-O1D
25	C	504	CLA	CAD-CBD-CGD-O1D
25	c	502	CLA	CAD-CBD-CGD-O1D
29	m	101	LMG	C40-C41-C42-C43
33	b	626	STE	C4-C5-C6-C7
25	B	606	CLA	C10-C11-C12-C13
32	a	615	DGD	CDB-CEB-CFB-CGB
30	F	102	SQD	C32-C33-C34-C35
25	B	609	CLA	C5-C6-C7-C8
31	D	411	LHG	C26-C27-C28-C29
32	a	615	DGD	CBA-CCA-CDA-CEA
25	c	512	CLA	C4-C3-C5-C6
28	a	611	PL9	C42-C43-C44-C46
25	A	607	CLA	C11-C12-C13-C15
25	A	612	CLA	C12-C13-C15-C16
25	B	609	CLA	C12-C13-C15-C16
25	B	612	CLA	C6-C7-C8-C10
25	C	510	CLA	C11-C10-C8-C7
25	b	602	CLA	C11-C10-C8-C7
25	b	605	CLA	C11-C10-C8-C7
25	b	606	CLA	C12-C13-C15-C16
25	b	613	CLA	C11-C10-C8-C7
25	b	613	CLA	C12-C13-C15-C16
25	b	614	CLA	C11-C10-C8-C7
25	c	505	CLA	C6-C7-C8-C10
25	d	404	CLA	C12-C13-C15-C16
31	b	623	LHG	O6-C4-C5-O7
29	d	410	LMG	C36-C37-C38-C39
33	E	101	STE	C5-C6-C7-C8
25	c	504	CLA	O1A-CGA-O2A-C1
32	h	103	DGD	C8A-C9A-CAA-CBA
30	A	614	SQD	C33-C34-C35-C36
29	A	613	LMG	C7-C8-C9-O8
29	c	522	LMG	O1-C7-C8-C9
29	c	522	LMG	C7-C8-C9-O8
29	C	519	LMG	O1-C7-C8-O7
30	A	616	SQD	C13-C14-C15-C16
31	b	623	LHG	C14-C15-C16-C17
29	c	521	LMG	C42-C43-C44-C45
29	m	101	LMG	C16-C17-C18-C19
32	C	518	DGD	C8B-C9B-CAB-CBB

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Mol	Chain	Res	Type	Atoms
32	c	516	DGD	C5B-C6B-C7B-C8B
33	b	624	STE	C11-C12-C13-C14
33	d	413	STE	C2-C3-C4-C5
25	C	513	CLA	C16-C17-C18-C19
30	a	614	SQD	C16-C17-C18-C19
31	d	407	LHG	C25-C26-C27-C28
29	C	519	LMG	C29-C28-O8-C9
29	m	101	LMG	C22-C23-C24-C25
33	b	625	STE	C13-C14-C15-C16
28	d	406	PL9	C33-C34-C36-C37
25	A	607	CLA	C11-C12-C13-C14
25	B	604	CLA	C11-C10-C8-C9
25	B	607	CLA	C11-C12-C13-C14
25	B	610	CLA	C11-C10-C8-C9
25	B	612	CLA	C11-C12-C13-C14
25	B	615	CLA	C6-C7-C8-C9
25	a	609	CLA	C6-C7-C8-C9
25	b	602	CLA	C6-C7-C8-C9
25	b	603	CLA	C14-C13-C15-C16
25	b	605	CLA	C11-C10-C8-C9
25	b	610	CLA	C11-C12-C13-C14
25	b	613	CLA	C14-C13-C15-C16
25	c	513	CLA	C11-C12-C13-C14
26	a	608	PHO	C14-C13-C15-C16
25	a	609	CLA	O1A-CGA-O2A-C1
32	c	518	DGD	C2A-C3A-C4A-C5A
25	B	612	CLA	C16-C17-C18-C20
29	D	407	LMG	C32-C33-C34-C35
29	c	519	LMG	O9-C10-O7-C8
29	d	410	LMG	C38-C39-C40-C41
25	b	603	CLA	C13-C15-C16-C17
30	b	619	SQD	C30-C31-C32-C33
27	c	515	BCR	C7-C8-C9-C34
27	h	102	BCR	C7-C8-C9-C34
29	C	519	LMG	C11-C12-C13-C14
25	C	508	CLA	C16-C17-C18-C19
25	a	609	CLA	C16-C17-C18-C20
27	T	101	BCR	C11-C12-C13-C14
32	H	103	DGD	C9B-CAB-CBB-CCB
29	D	410	LMG	C37-C38-C39-C40
27	a	610	BCR	C20-C21-C22-C37
31	b	623	LHG	C34-C35-C36-C37

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Mol	Chain	Res	Type	Atoms
25	C	512	CLA	C16-C17-C18-C19
32	c	517	DGD	C9A-CAA-CBA-CCA
32	C	516	DGD	O6D-C5D-C6D-O5D
31	d	407	LHG	C26-C27-C28-C29
33	C	520	STE	C4-C5-C6-C7
29	d	411	LMG	C15-C16-C17-C18
33	H	104	STE	C6-C7-C8-C9
25	C	506	CLA	C2-C1-O2A-CGA
25	D	403	CLA	C2-C1-O2A-CGA
30	F	102	SQD	C24-C25-C26-C27
33	M	103	STE	C1-C2-C3-C4
25	B	614	CLA	C16-C17-C18-C20
32	H	103	DGD	O2G-C1B-C2B-C3B
25	c	505	CLA	C3-C5-C6-C7
29	d	411	LMG	C14-C15-C16-C17
29	c	522	LMG	C14-C15-C16-C17
33	x	101	STE	C2-C3-C4-C5
25	B	605	CLA	C15-C16-C17-C18
28	A	611	PL9	C30-C29-C31-C32
25	d	404	CLA	O1D-CGD-O2D-CED
27	c	514	BCR	C23-C24-C25-C30
27	d	405	BCR	C23-C24-C25-C26
27	d	405	BCR	C23-C24-C25-C30
27	k	102	BCR	C23-C24-C25-C26
27	t	101	BCR	C5-C6-C7-C8
29	D	407	LMG	C38-C39-C40-C41
30	b	619	SQD	C29-C30-C31-C32
32	C	516	DGD	C4E-C5E-C6E-O5E
33	b	624	STE	C15-C16-C17-C18
31	e	101	LHG	O7-C5-C6-O8
32	c	516	DGD	O1G-C1G-C2G-O2G
31	b	623	LHG	C4-O6-P-O3
33	x	101	STE	C5-C6-C7-C8
25	A	612	CLA	C16-C17-C18-C19
26	d	402	PHO	CHA-CBD-CGD-O2D
29	c	522	LMG	C34-C35-C36-C37
33	b	626	STE	C1-C2-C3-C4
29	D	410	LMG	C7-C8-C9-O8
30	a	613	SQD	C44-C45-C46-O48
31	D	408	LHG	C11-C10-C9-C8
33	b	621	STE	C4-C5-C6-C7
25	C	512	CLA	C11-C10-C8-C7

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Mol	Chain	Res	Type	Atoms
25	a	609	CLA	C6-C7-C8-C10
25	b	607	CLA	C11-C12-C13-C15
25	b	612	CLA	C11-C12-C13-C15
25	c	507	CLA	C11-C10-C8-C7
25	c	509	CLA	C11-C10-C8-C7
25	c	509	CLA	C12-C13-C15-C16
25	c	510	CLA	C2-C3-C5-C6
25	h	101	CLA	C6-C7-C8-C10
30	B	621	SQD	C35-C36-C37-C38
32	C	516	DGD	C1B-C2B-C3B-C4B
25	a	612	CLA	C2C-C3C-CAC-CBC
29	D	410	LMG	C31-C32-C33-C34
29	d	411	LMG	C11-C12-C13-C14
33	l	101	STE	C9-C10-C11-C12
25	A	612	CLA	C14-C13-C15-C16
25	B	612	CLA	C14-C13-C15-C16
25	C	508	CLA	C14-C13-C15-C16
25	C	509	CLA	C14-C13-C15-C16
25	C	510	CLA	C14-C13-C15-C16
25	H	101	CLA	C11-C10-C8-C9
25	b	613	CLA	C11-C10-C8-C9
25	c	510	CLA	C11-C10-C8-C9
33	I	101	STE	C1-C2-C3-C4
25	b	611	CLA	C10-C11-C12-C13
29	c	522	LMG	C29-C30-C31-C32
31	d	407	LHG	C27-C28-C29-C30
32	c	516	DGD	CBA-CCA-CDA-CEA
32	c	518	DGD	C7B-C8B-C9B-CAB
25	B	612	CLA	C13-C15-C16-C17
30	b	619	SQD	C28-C29-C30-C31
25	b	605	CLA	C16-C17-C18-C20
30	F	102	SQD	O48-C23-C24-C25
35	f	101	HEM	CAD-CBD-CGD-O1D
25	B	614	CLA	C13-C15-C16-C17
31	L	101	LHG	C10-C11-C12-C13
25	B	614	CLA	C16-C17-C18-C19
25	D	404	CLA	C16-C17-C18-C20
25	b	605	CLA	C16-C17-C18-C19
32	C	516	DGD	C6A-C7A-C8A-C9A
32	c	517	DGD	C1B-C2B-C3B-C4B
33	B	619	STE	C10-C11-C12-C13
25	c	501	CLA	C2A-CAA-CBA-CGA

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Mol	Chain	Res	Type	Atoms
29	B	620	LMG	O7-C10-C11-C12
29	D	407	LMG	C15-C16-C17-C18
33	B	622	STE	C7-C8-C9-C10
25	c	513	CLA	C8-C10-C11-C12
31	d	408	LHG	C28-C29-C30-C31
32	c	517	DGD	C9B-CAB-CBB-CCB
32	C	516	DGD	C4D-C5D-C6D-O5D
32	h	103	DGD	C1A-C2A-C3A-C4A
31	L	101	LHG	C19-C20-C21-C22
33	d	412	STE	C10-C11-C12-C13
25	B	612	CLA	C2-C1-O2A-CGA
25	d	403	CLA	C2-C1-O2A-CGA
25	c	504	CLA	C8-C10-C11-C12
33	x	101	STE	C10-C11-C12-C13
25	b	609	CLA	C2A-CAA-CBA-CGA
29	c	521	LMG	O1-C7-C8-O7
29	c	522	LMG	O1-C7-C8-O7
30	A	614	SQD	O6-C44-C45-O47
33	d	413	STE	C6-C7-C8-C9
30	a	614	SQD	C13-C14-C15-C16
31	d	409	LHG	C11-C10-C9-C8
33	J	101	STE	C4-C5-C6-C7
31	D	411	LHG	C30-C31-C32-C33
25	c	503	CLA	C15-C16-C17-C18
31	b	623	LHG	C27-C28-C29-C30
33	H	104	STE	C11-C10-C9-C8
25	B	607	CLA	C14-C13-C15-C16
25	B	608	CLA	C11-C10-C8-C9
25	B	609	CLA	C11-C12-C13-C14
25	H	101	CLA	C14-C13-C15-C16
25	b	602	CLA	C14-C13-C15-C16
25	b	615	CLA	C11-C10-C8-C9
25	c	508	CLA	C11-C12-C13-C14
25	c	513	CLA	C6-C7-C8-C9
25	b	602	CLA	C16-C17-C18-C20
35	F	101	HEM	CAD-CBD-CGD-O1D
33	B	619	STE	C5-C6-C7-C8
33	B	623	STE	C3-C4-C5-C6
25	D	403	CLA	C15-C16-C17-C18
32	c	516	DGD	O1G-C1G-C2G-C3G
28	d	406	PL9	C32-C33-C34-C36
33	c	520	STE	C10-C11-C12-C13

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Mol	Chain	Res	Type	Atoms
25	B	615	CLA	O2A-C1-C2-C3
26	D	402	PHO	O2A-C1-C2-C3
26	a	608	PHO	O2A-C1-C2-C3
32	C	516	DGD	O6E-C1E-O5D-C6D
30	B	621	SQD	C24-C25-C26-C27
33	d	413	STE	O1-C1-C2-C3
36	v	201	HEC	CAD-CBD-CGD-O1D
30	B	621	SQD	C46-C45-O47-C7
28	D	406	PL9	C15-C14-C16-C17
25	B	601	CLA	C1A-C2A-CAA-CBA
25	C	503	CLA	C1A-C2A-CAA-CBA
25	B	604	CLA	C12-C13-C15-C16
25	B	606	CLA	C12-C13-C15-C16
25	C	507	CLA	C11-C10-C8-C7
25	b	607	CLA	C11-C10-C8-C7
25	b	611	CLA	C11-C10-C8-C7
25	d	403	CLA	C6-C7-C8-C10
35	f	101	HEM	CAD-CBD-CGD-O2D
32	h	103	DGD	CAA-CBA-CCA-CDA
30	a	613	SQD	C10-C11-C12-C13
29	B	620	LMG	O10-C28-C29-C30
30	b	619	SQD	C19-C20-C21-C22
32	c	517	DGD	C5A-C6A-C7A-C8A
25	c	512	CLA	C13-C15-C16-C17
29	c	521	LMG	C12-C13-C14-C15
29	B	620	LMG	O9-C10-C11-C12
33	d	412	STE	O1-C1-C2-C3
31	D	409	LHG	C25-C26-C27-C28
25	b	601	CLA	C15-C16-C17-C18
29	D	410	LMG	C13-C14-C15-C16
32	H	103	DGD	CBB-CCB-CDB-CEB
25	D	404	CLA	C16-C17-C18-C19
25	c	504	CLA	C11-C12-C13-C15
25	b	612	CLA	C8-C10-C11-C12
25	B	604	CLA	C4-C3-C5-C6
25	b	605	CLA	C13-C15-C16-C17
25	c	512	CLA	C2-C3-C5-C6
31	e	101	LHG	C15-C16-C17-C18
30	A	614	SQD	C35-C36-C37-C38
25	A	606	CLA	C13-C15-C16-C17
29	D	407	LMG	C33-C34-C35-C36
29	A	613	LMG	C4-C5-C6-O5

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Mol	Chain	Res	Type	Atoms
27	K	101	BCR	C16-C17-C18-C19
27	T	101	BCR	C20-C21-C22-C23
35	F	101	HEM	CAD-CBD-CGD-O2D
29	D	410	LMG	O7-C8-C9-O8
33	C	522	STE	C15-C16-C17-C18
33	m	102	STE	C5-C6-C7-C8
36	v	201	HEC	CAD-CBD-CGD-O2D
29	A	613	LMG	C15-C16-C17-C18
29	c	519	LMG	C34-C35-C36-C37
33	B	619	STE	C2-C3-C4-C5
28	A	611	PL9	C9-C11-C12-C13
29	D	410	LMG	O1-C7-C8-C9
33	d	413	STE	O2-C1-C2-C3
35	f	101	HEM	CAA-CBA-CGA-O2A
25	B	614	CLA	C4-C3-C5-C6
25	A	606	CLA	C2-C1-O2A-CGA
32	c	516	DGD	O1A-C1A-O1G-C1G
29	c	522	LMG	C20-C21-C22-C23
25	B	611	CLA	O1A-CGA-O2A-C1
31	D	409	LHG	C2-C3-O3-P
30	a	614	SQD	C15-C16-C17-C18
32	a	615	DGD	C3A-C4A-C5A-C6A
32	h	103	DGD	CDB-CEB-CFB-CGB
33	H	104	STE	C5-C6-C7-C8
25	b	612	CLA	O1D-CGD-O2D-CED
33	b	625	STE	C3-C4-C5-C6
25	a	612	CLA	C4C-C3C-CAC-CBC
32	C	517	DGD	C2B-C3B-C4B-C5B
27	A	610	BCR	C1-C6-C7-C8
27	A	610	BCR	C23-C24-C25-C26
27	A	610	BCR	C23-C24-C25-C30
27	B	617	BCR	C23-C24-C25-C30
27	C	514	BCR	C1-C6-C7-C8
27	K	101	BCR	C23-C24-C25-C30
27	K	102	BCR	C23-C24-C25-C30
27	T	101	BCR	C1-C6-C7-C8
27	c	514	BCR	C1-C6-C7-C8
27	c	514	BCR	C5-C6-C7-C8
27	h	102	BCR	C23-C24-C25-C26
27	h	102	BCR	C23-C24-C25-C30
27	k	101	BCR	C23-C24-C25-C30
27	k	102	BCR	C23-C24-C25-C30

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Mol	Chain	Res	Type	Atoms
29	m	101	LMG	C7-C8-C9-O8
32	h	103	DGD	C1G-C2G-C3G-O3G
27	k	101	BCR	C19-C20-C21-C22
28	A	611	PL9	C12-C11-C9-C10
25	C	513	CLA	C16-C17-C18-C20
25	b	613	CLA	C10-C11-C12-C13
30	A	616	SQD	C7-C8-C9-C10
31	A	615	LHG	C10-C11-C12-C13
32	c	516	DGD	C5D-C6D-O5D-C1E
32	c	517	DGD	C2G-C3G-O3G-C1D
33	M	103	STE	C7-C8-C9-C10
29	B	620	LMG	O8-C28-C29-C30
33	B	622	STE	O2-C1-C2-C3
32	a	615	DGD	CEB-CFB-CGB-CHB
25	C	511	CLA	C8-C10-C11-C12
29	d	411	LMG	C36-C37-C38-C39
30	f	102	SQD	C27-C28-C29-C30
25	B	603	CLA	C13-C15-C16-C17
30	a	613	SQD	C30-C31-C32-C33
33	b	621	STE	O2-C1-C2-C3
32	c	516	DGD	O6E-C1E-O5D-C6D
28	A	611	PL9	C15-C14-C16-C17
25	A	606	CLA	C12-C13-C15-C16
25	B	602	CLA	C11-C12-C13-C15
25	C	512	CLA	C11-C12-C13-C15
25	C	512	CLA	C12-C13-C15-C16
25	D	403	CLA	C12-C13-C15-C16
25	b	603	CLA	C11-C12-C13-C15
25	b	604	CLA	C11-C12-C13-C15
25	B	611	CLA	CBA-CGA-O2A-C1
25	c	506	CLA	C10-C11-C12-C13
30	b	619	SQD	C12-C13-C14-C15
29	D	410	LMG	O1-C7-C8-O7
30	a	614	SQD	O6-C44-C45-O47
29	C	519	LMG	C2-C1-O1-C7
29	c	521	LMG	C11-C12-C13-C14
32	c	516	DGD	C3A-C4A-C5A-C6A
33	B	623	STE	C11-C12-C13-C14
32	C	517	DGD	C8A-C9A-CAA-CBA
33	b	621	STE	C10-C11-C12-C13
35	f	101	HEM	CAA-CBA-CGA-O1A
29	m	101	LMG	O8-C28-C29-C30

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Mol	Chain	Res	Type	Atoms
32	c	518	DGD	CBB-CCB-CDB-CEB
25	a	609	CLA	C16-C17-C18-C19
33	b	621	STE	O1-C1-C2-C3
27	B	617	BCR	C20-C21-C22-C37
27	h	102	BCR	C20-C21-C22-C37
28	a	611	PL9	C40-C39-C41-C42
26	d	402	PHO	C5-C6-C7-C8
33	d	412	STE	C6-C7-C8-C9
25	B	604	CLA	C2-C3-C5-C6
25	B	614	CLA	C2-C3-C5-C6
25	b	611	CLA	CAA-CBA-CGA-O2A
25	B	606	CLA	C11-C10-C8-C9
25	B	609	CLA	C14-C13-C15-C16
25	B	612	CLA	C6-C7-C8-C9
25	C	501	CLA	C14-C13-C15-C16
25	C	505	CLA	C6-C7-C8-C9
25	C	510	CLA	C11-C10-C8-C9
25	D	403	CLA	C11-C10-C8-C9
25	b	607	CLA	C11-C10-C8-C9
25	b	607	CLA	C11-C12-C13-C14
25	b	611	CLA	C11-C10-C8-C9
25	c	504	CLA	C6-C7-C8-C9
25	c	505	CLA	C6-C7-C8-C9
25	c	507	CLA	C6-C7-C8-C9
25	c	507	CLA	C11-C10-C8-C9
33	d	412	STE	O2-C1-C2-C3
33	X	101	STE	C7-C8-C9-C10
25	B	601	CLA	C3A-C2A-CAA-CBA
32	c	516	DGD	O2G-C1B-C2B-C3B
29	A	613	LMG	C17-C18-C19-C20
25	B	603	CLA	CAD-CBD-CGD-O2D
25	B	608	CLA	CAD-CBD-CGD-O2D
25	B	615	CLA	CAD-CBD-CGD-O2D
25	C	506	CLA	CAD-CBD-CGD-O2D
25	C	513	CLA	CAD-CBD-CGD-O2D
25	b	603	CLA	CAD-CBD-CGD-O2D
25	b	604	CLA	CAD-CBD-CGD-O2D
25	c	510	CLA	CAD-CBD-CGD-O2D
25	h	101	CLA	CAD-CBD-CGD-O2D
30	B	621	SQD	C44-C45-O47-C7
31	b	623	LHG	C11-C12-C13-C14
30	a	613	SQD	O47-C7-C8-C9

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Mol	Chain	Res	Type	Atoms
25	H	101	CLA	C4-C3-C5-C6
32	A	617	DGD	O6E-C1E-O5D-C6D
28	a	611	PL9	C38-C39-C41-C42
32	C	518	DGD	C5B-C6B-C7B-C8B
27	H	102	BCR	C11-C12-C13-C14
27	c	515	BCR	C7-C8-C9-C10
28	A	611	PL9	C14-C16-C17-C18
31	D	409	LHG	C17-C18-C19-C20
26	d	402	PHO	C2C-C3C-CAC-CBC
30	f	102	SQD	O6-C44-C45-C46
33	B	622	STE	O1-C1-C2-C3
32	c	516	DGD	O1G-C1A-C2A-C3A
29	b	622	LMG	C4-C5-C6-O5
31	A	615	LHG	C16-C17-C18-C19
29	A	613	LMG	C33-C34-C35-C36
33	C	522	STE	C3-C4-C5-C6
25	B	601	CLA	O2A-C1-C2-C3
25	C	512	CLA	O2A-C1-C2-C3
25	C	513	CLA	O2A-C1-C2-C3
25	D	404	CLA	O2A-C1-C2-C3
25	h	101	CLA	O2A-C1-C2-C3
29	c	519	LMG	O10-C28-O8-C9
33	C	522	STE	C12-C13-C14-C15
36	V	201	HEC	CAD-CBD-CGD-O2D
31	D	409	LHG	C12-C13-C14-C15
25	c	509	CLA	CAA-CBA-CGA-O1A
25	A	607	CLA	CHA-CBD-CGD-O2D
25	B	606	CLA	CHA-CBD-CGD-O2D
25	B	611	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	509	CLA	CHA-CBD-CGD-O2D
25	H	101	CLA	CHA-CBD-CGD-O2D
25	a	607	CLA	CHA-CBD-CGD-O1D
25	a	612	CLA	CHA-CBD-CGD-O1D
25	a	612	CLA	CHA-CBD-CGD-O2D
25	b	615	CLA	CHA-CBD-CGD-O2D
25	c	503	CLA	CHA-CBD-CGD-O2D
25	c	504	CLA	CHA-CBD-CGD-O1D
25	c	504	CLA	CHA-CBD-CGD-O2D

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Mol	Chain	Res	Type	Atoms
25	c	507	CLA	CHA-CBD-CGD-O1D
25	c	507	CLA	CHA-CBD-CGD-O2D
28	D	406	PL9	C30-C29-C31-C32
25	A	606	CLA	C2C-C3C-CAC-CBC
33	b	624	STE	C9-C10-C11-C12
25	B	605	CLA	C8-C10-C11-C12
27	B	618	BCR	C12-C13-C14-C15
30	a	613	SQD	C27-C28-C29-C30
25	B	611	CLA	CAA-CBA-CGA-O2A
31	b	623	LHG	C25-C26-C27-C28
29	A	613	LMG	O7-C8-C9-O8
29	b	622	LMG	O7-C8-C9-O8
36	V	201	HEC	CAD-CBD-CGD-O1D
31	D	411	LHG	C10-C11-C12-C13
25	b	601	CLA	C2A-CAA-CBA-CGA
26	D	402	PHO	CHA-CBD-CGD-O1D
33	E	101	STE	O1-C1-C2-C3
29	C	519	LMG	O9-C10-C11-C12
30	F	102	SQD	C31-C32-C33-C34
25	C	507	CLA	C6-C7-C8-C10
25	c	501	CLA	C11-C12-C13-C15
28	D	406	PL9	C38-C39-C41-C42
25	b	609	CLA	C16-C17-C18-C19
31	A	615	LHG	C2-C3-O3-P
32	c	518	DGD	O1B-C1B-O2G-C2G
25	b	612	CLA	CAA-CBA-CGA-O2A
29	b	622	LMG	O7-C10-C11-C12
25	c	509	CLA	C3-C5-C6-C7
25	A	606	CLA	C14-C13-C15-C16
25	B	604	CLA	C14-C13-C15-C16
25	b	604	CLA	C11-C12-C13-C14
25	c	509	CLA	C14-C13-C15-C16
25	d	403	CLA	C6-C7-C8-C9
25	h	101	CLA	C6-C7-C8-C9
31	d	409	LHG	C23-C24-C25-C26
31	D	409	LHG	C29-C30-C31-C32
31	D	408	LHG	C17-C18-C19-C20
25	B	612	CLA	CAA-CBA-CGA-O2A
25	B	615	CLA	C11-C12-C13-C14
29	c	521	LMG	C35-C36-C37-C38
25	B	602	CLA	C2A-CAA-CBA-CGA
25	B	613	CLA	C2A-CAA-CBA-CGA

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Mol	Chain	Res	Type	Atoms
32	c	516	DGD	O1B-C1B-C2B-C3B
26	A	608	PHO	C8-C10-C11-C12
31	d	408	LHG	C25-C26-C27-C28
25	B	612	CLA	C10-C11-C12-C13
25	h	101	CLA	C13-C15-C16-C17
25	C	511	CLA	C16-C17-C18-C20
25	c	504	CLA	C11-C12-C13-C14
25	d	404	CLA	C16-C17-C18-C19
25	C	512	CLA	C4-C3-C5-C6
33	c	520	STE	C11-C10-C9-C8
31	D	408	LHG	O1-C1-C2-C3
32	c	517	DGD	CCB-CDB-CEB-CFB
33	X	101	STE	C2-C3-C4-C5
25	c	503	CLA	C1A-C2A-CAA-CBA
25	b	611	CLA	CAA-CBA-CGA-O1A
29	M	101	LMG	C33-C34-C35-C36
33	C	522	STE	C11-C12-C13-C14
30	A	614	SQD	O6-C44-C45-C46
25	c	509	CLA	C2A-CAA-CBA-CGA
33	B	623	STE	C4-C5-C6-C7
25	A	607	CLA	C15-C16-C17-C18
29	m	101	LMG	C33-C34-C35-C36
31	D	411	LHG	C33-C34-C35-C36
25	b	611	CLA	C3-C5-C6-C7
29	c	522	LMG	C19-C20-C21-C22
29	c	522	LMG	C11-C12-C13-C14
33	E	101	STE	C7-C8-C9-C10
25	C	501	CLA	C16-C17-C18-C20
29	m	101	LMG	O9-C10-C11-C12
27	c	514	BCR	C16-C17-C18-C36
29	C	519	LMG	C16-C17-C18-C19
28	a	611	PL9	C17-C18-C19-C20
27	B	617	BCR	C23-C24-C25-C26
27	C	514	BCR	C5-C6-C7-C8
27	T	101	BCR	C5-C6-C7-C8
30	a	614	SQD	C12-C13-C14-C15
33	l	101	STE	C13-C14-C15-C16
25	b	604	CLA	C10-C11-C12-C13
28	a	611	PL9	C23-C24-C26-C27
33	E	101	STE	O2-C1-C2-C3
25	B	604	CLA	CAD-CBD-CGD-O1D
25	B	606	CLA	CAD-CBD-CGD-O1D

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Mol	Chain	Res	Type	Atoms
25	B	611	CLA	CAD-CBD-CGD-O1D
25	H	101	CLA	CAD-CBD-CGD-O1D
25	b	606	CLA	CAD-CBD-CGD-O1D
25	b	608	CLA	CAD-CBD-CGD-O1D
25	c	504	CLA	CAD-CBD-CGD-O1D
25	c	506	CLA	CAD-CBD-CGD-O1D
30	a	613	SQD	O49-C7-C8-C9
31	D	409	LHG	O2-C2-C3-O3
25	C	506	CLA	C11-C10-C8-C9
25	C	507	CLA	C6-C7-C8-C9
25	C	512	CLA	C11-C12-C13-C14
25	a	607	CLA	C6-C7-C8-C9
25	c	507	CLA	C14-C13-C15-C16
29	m	101	LMG	C12-C13-C14-C15
25	b	608	CLA	C13-C15-C16-C17
29	m	101	LMG	O7-C10-C11-C12
32	C	516	DGD	O2G-C1B-C2B-C3B
29	m	101	LMG	C29-C30-C31-C32
30	B	621	SQD	C13-C14-C15-C16
31	L	101	LHG	O7-C7-C8-C9
25	B	601	CLA	C8-C10-C11-C12
31	b	623	LHG	C28-C29-C30-C31
25	b	614	CLA	C16-C17-C18-C19
25	b	614	CLA	C16-C17-C18-C20
28	A	611	PL9	C25-C24-C26-C27
25	c	505	CLA	C13-C15-C16-C17
30	A	614	SQD	C34-C35-C36-C37
32	C	517	DGD	C9A-CAA-CBA-CCA
25	B	606	CLA	C11-C10-C8-C7
25	C	505	CLA	C6-C7-C8-C10
25	a	607	CLA	C6-C7-C8-C10
25	b	601	CLA	C11-C10-C8-C7
25	b	611	CLA	C6-C7-C8-C10
25	c	507	CLA	C12-C13-C15-C16
25	c	509	CLA	C6-C7-C8-C10
25	h	101	CLA	C11-C10-C8-C7
31	e	101	LHG	O8-C23-C24-C25
25	B	612	CLA	CAA-CBA-CGA-O1A
25	b	612	CLA	CAA-CBA-CGA-O1A
29	b	622	LMG	O9-C10-C11-C12
25	c	510	CLA	CAA-CBA-CGA-O2A
32	C	517	DGD	O6D-C1D-O3G-C3G

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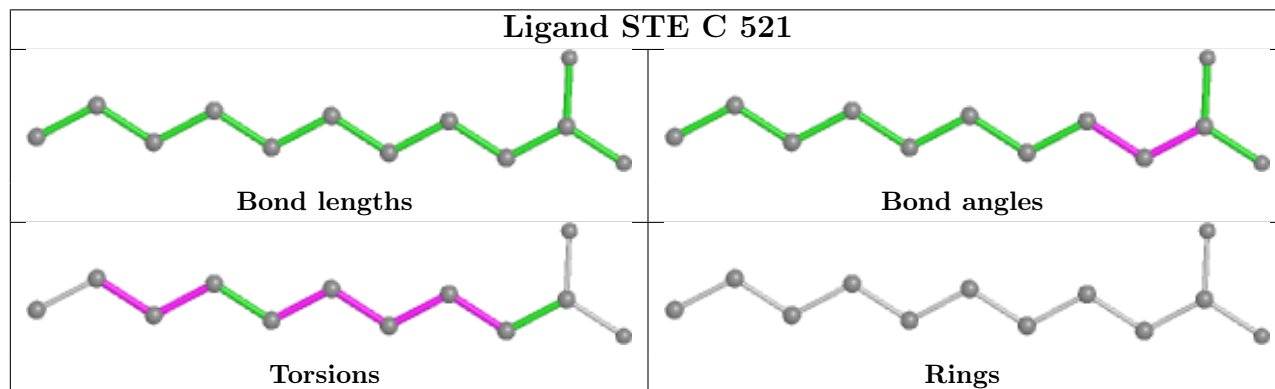
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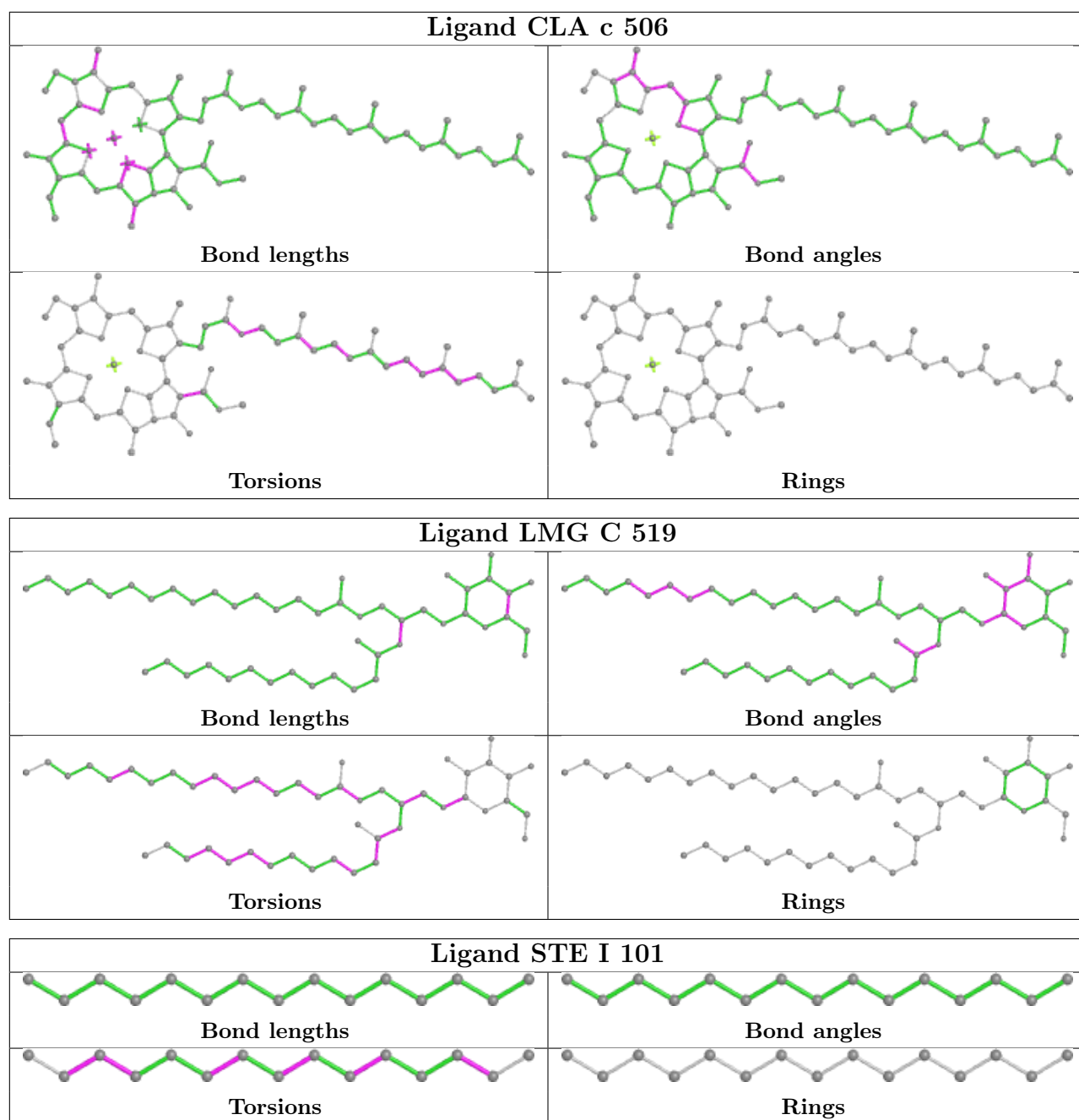
Mol	Chain	Res	Type	Atoms
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31	D	408	LHG	O9-C7-C8-C9
28	A	611	PL9	C39-C41-C42-C43
25	c	508	CLA	C10-C11-C12-C13
25	b	602	CLA	C10-C11-C12-C13
25	b	613	CLA	C8-C10-C11-C12
25	b	613	CLA	C13-C15-C16-C17
25	B	611	CLA	CAA-CBA-CGA-O1A
32	C	516	DGD	O1B-C1B-C2B-C3B
31	D	409	LHG	C33-C34-C35-C36
25	b	606	CLA	C10-C11-C12-C13
30	B	621	SQD	C27-C28-C29-C30
31	d	408	LHG	C9-C10-C11-C12
25	H	101	CLA	CAA-CBA-CGA-O2A

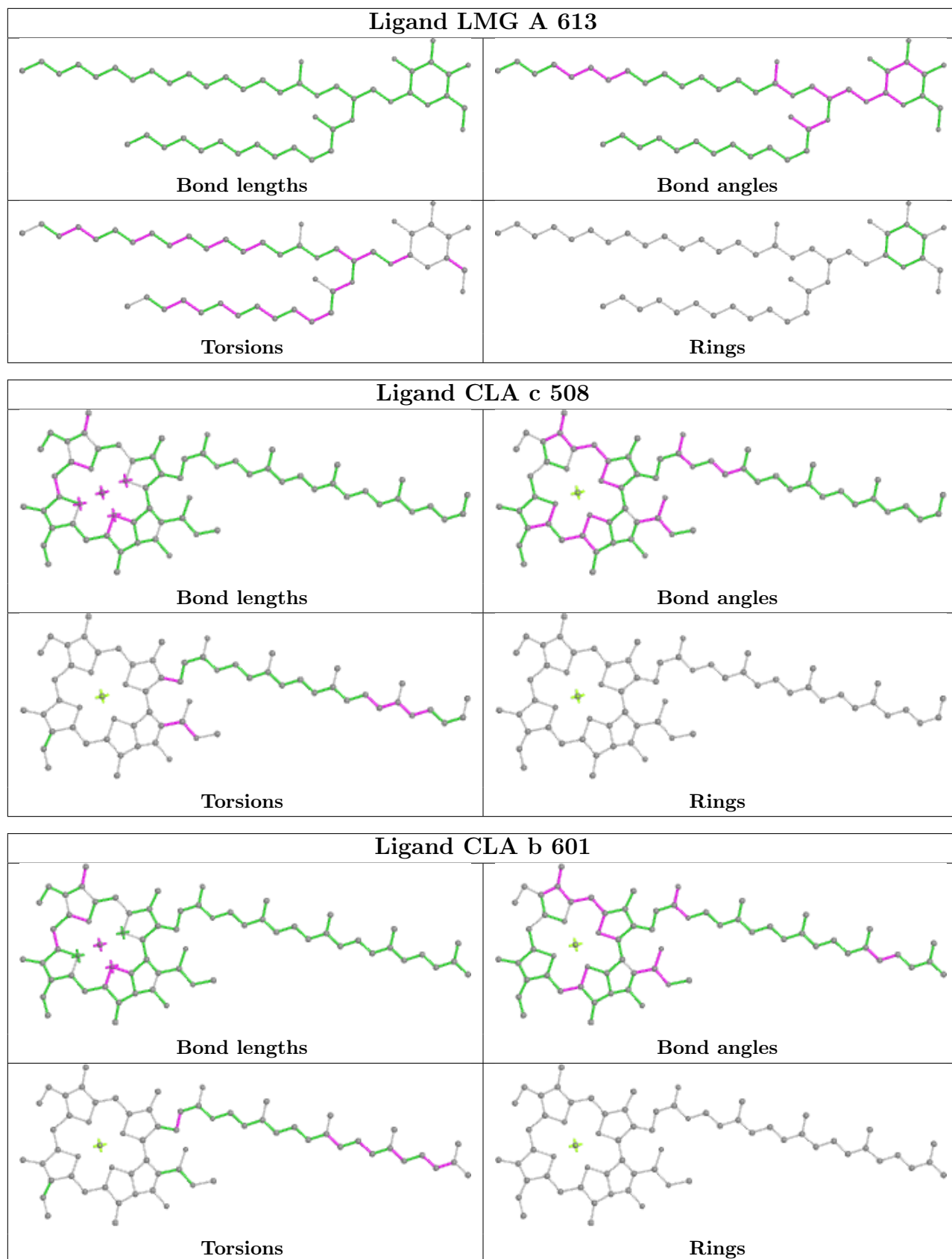
There are no ring outliers.

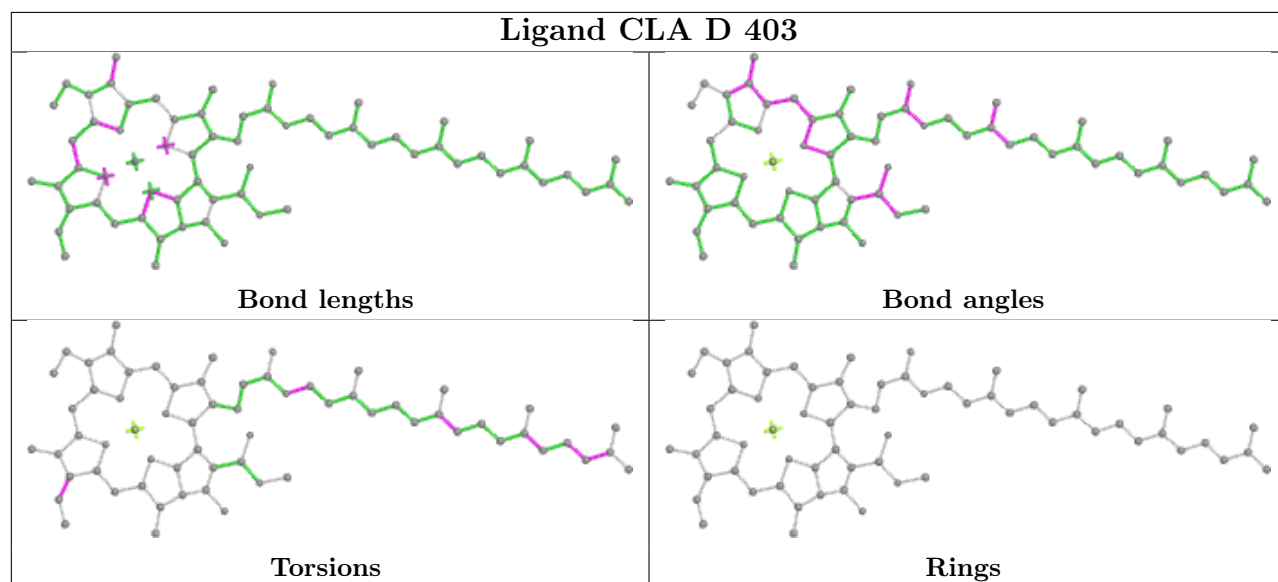
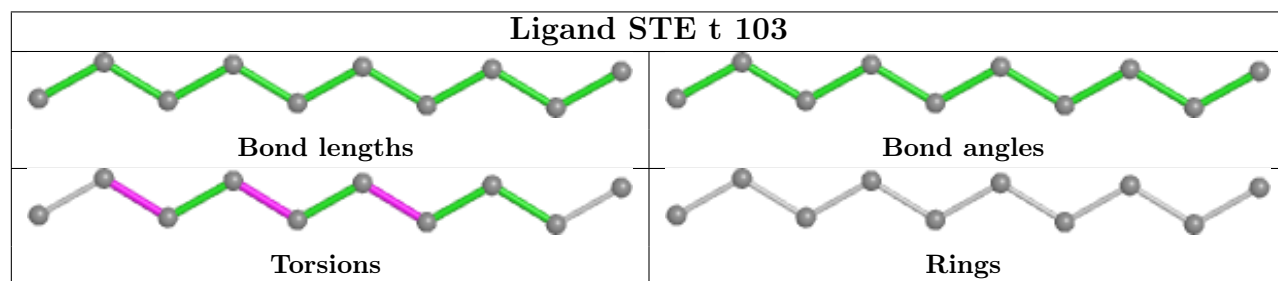
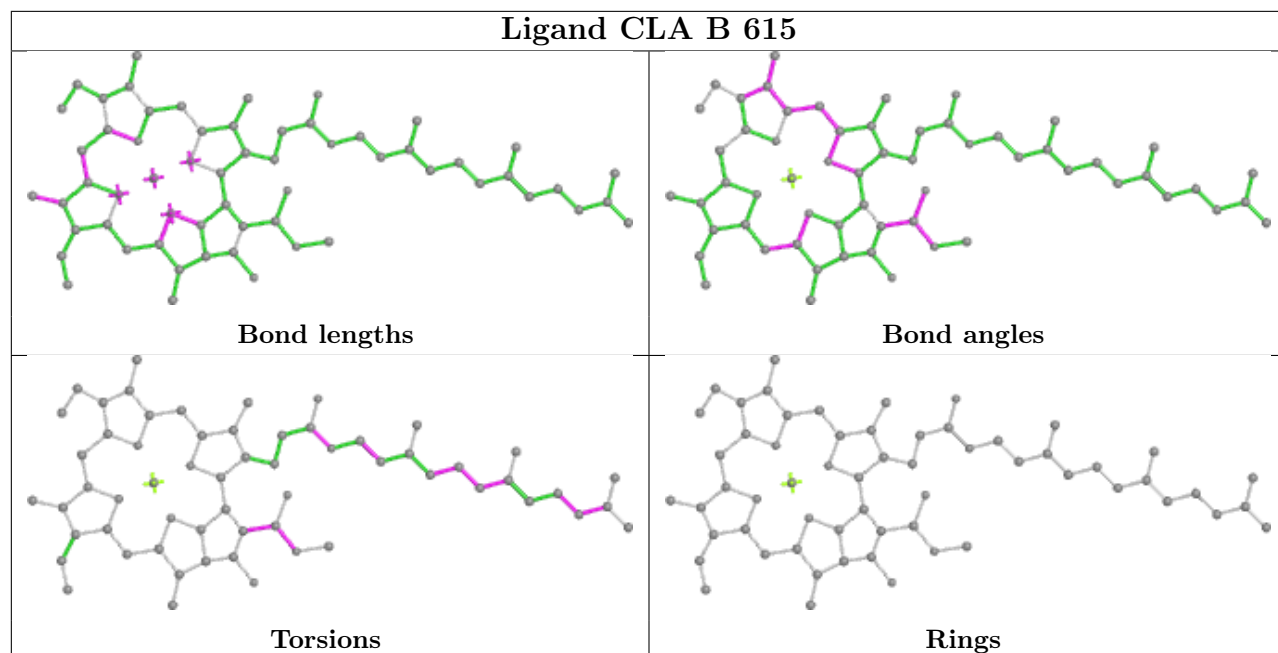
No monomer is involved in short contacts.

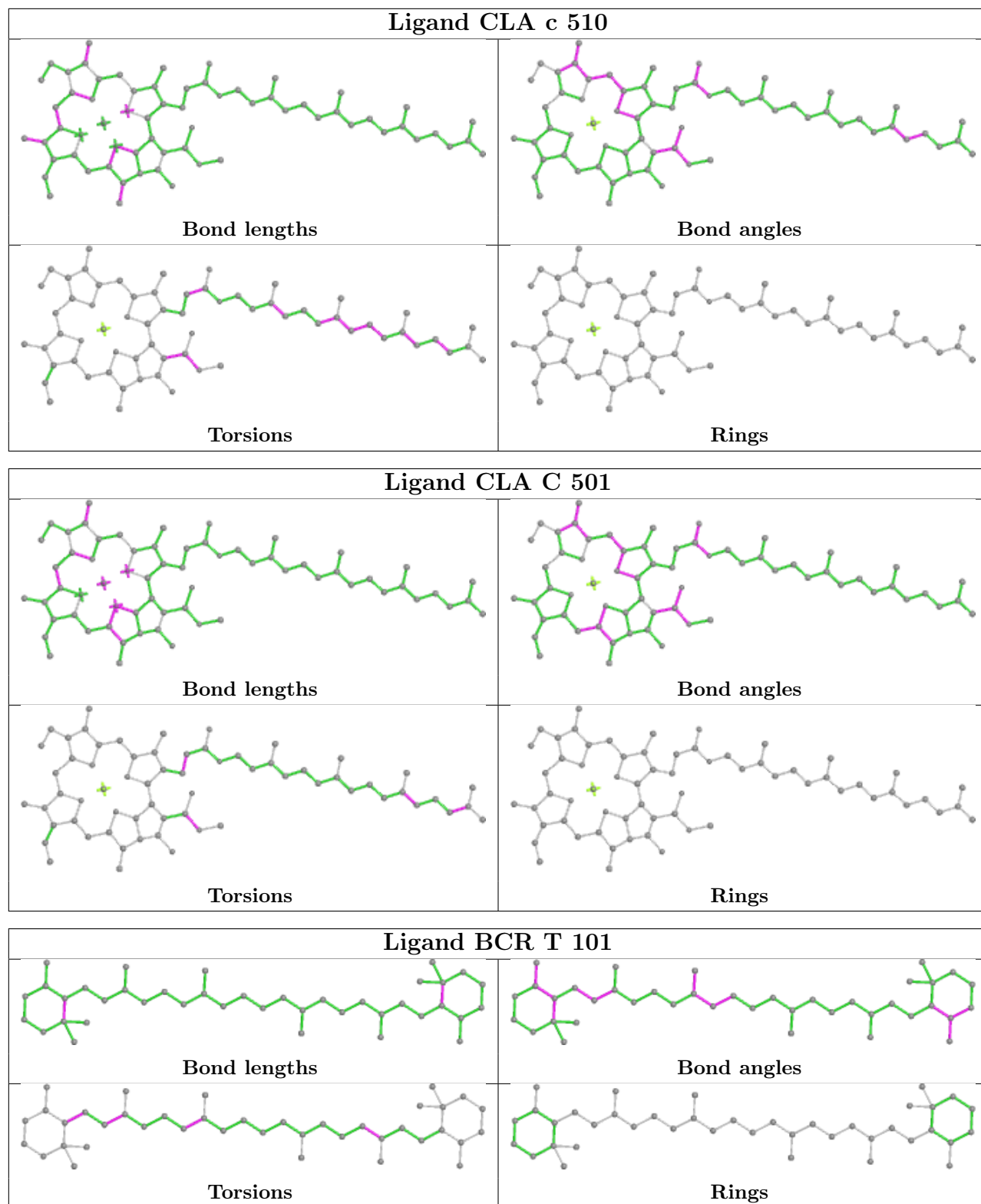
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

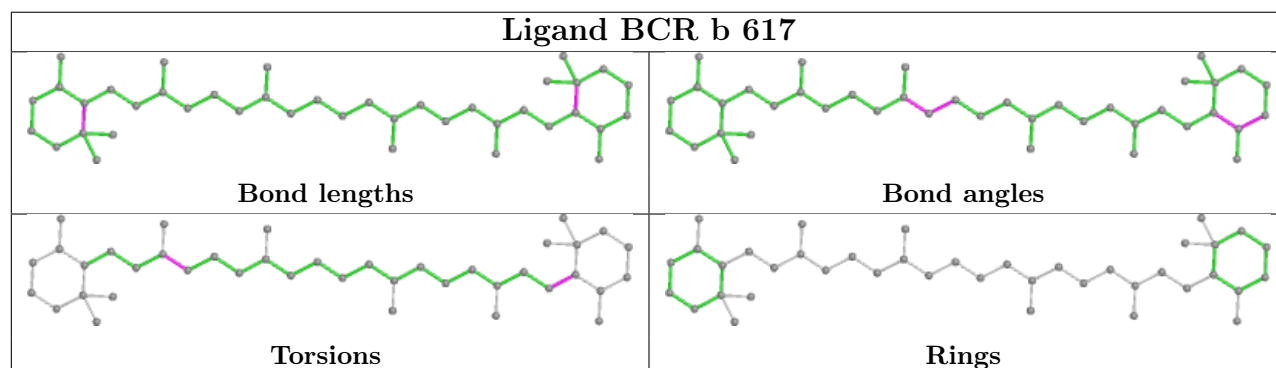
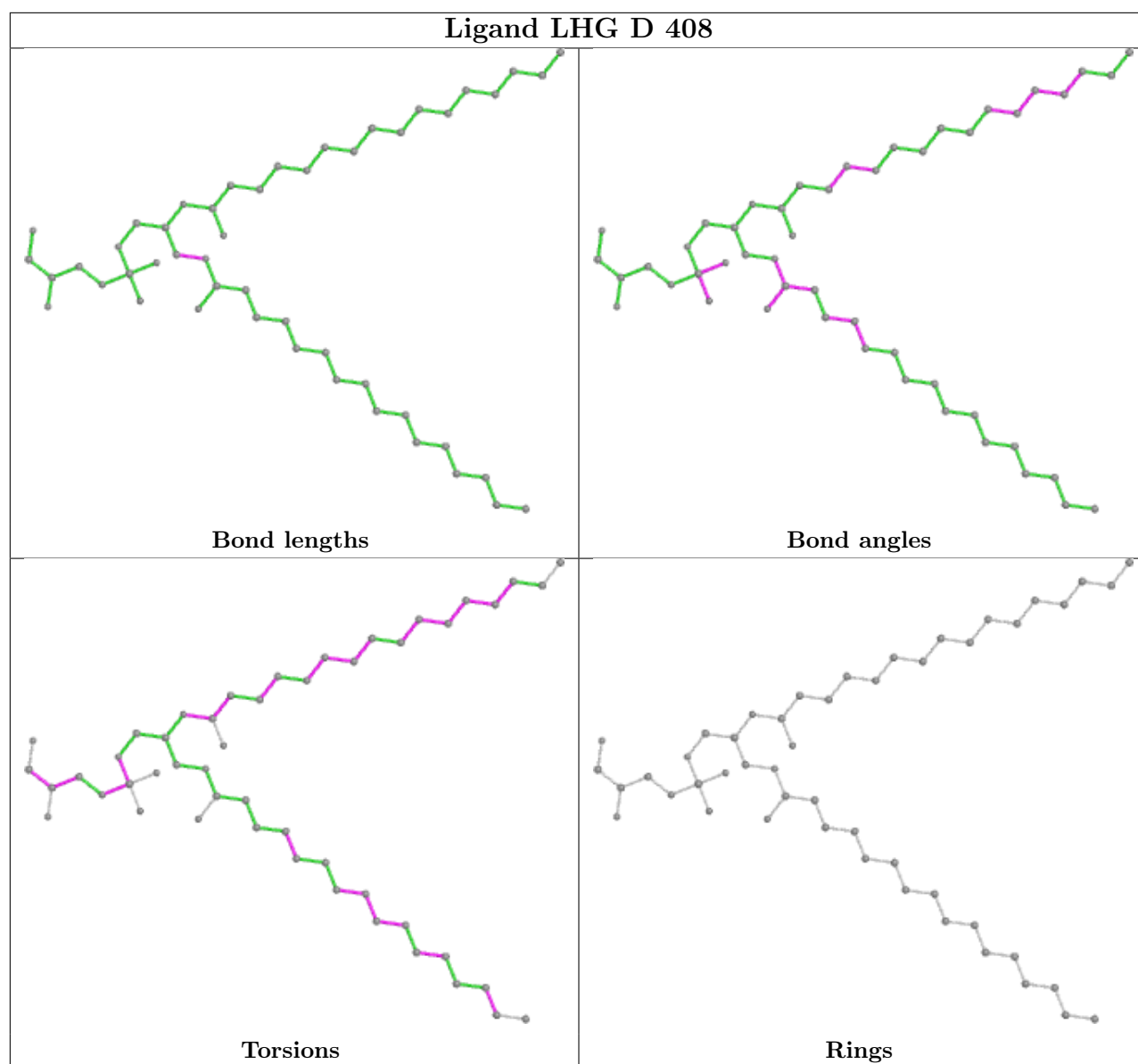




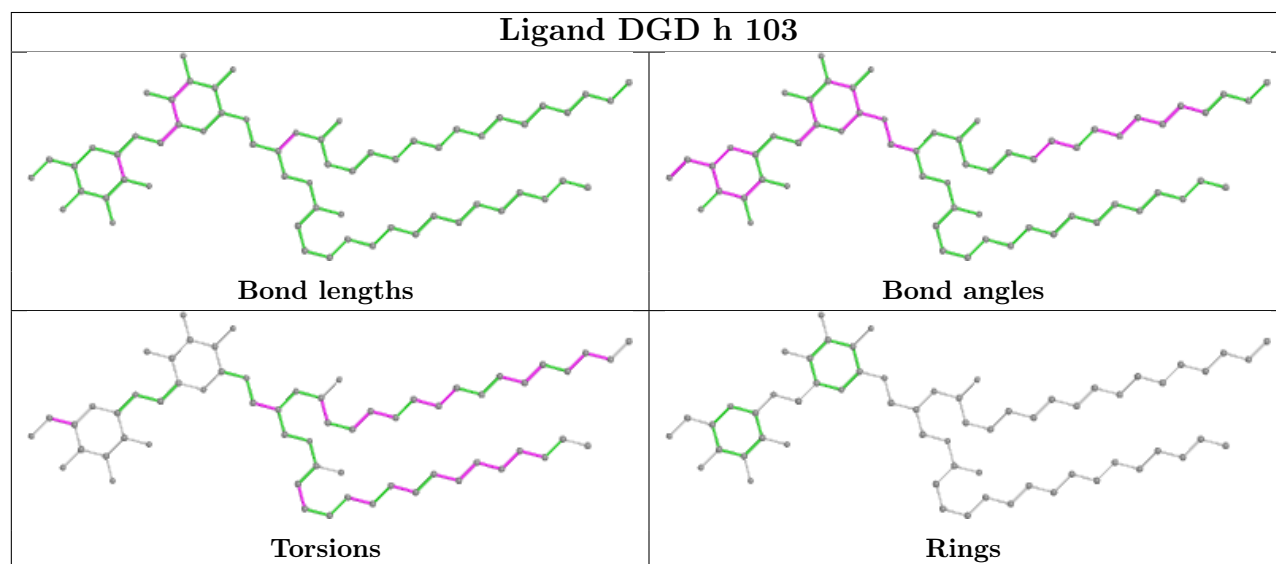
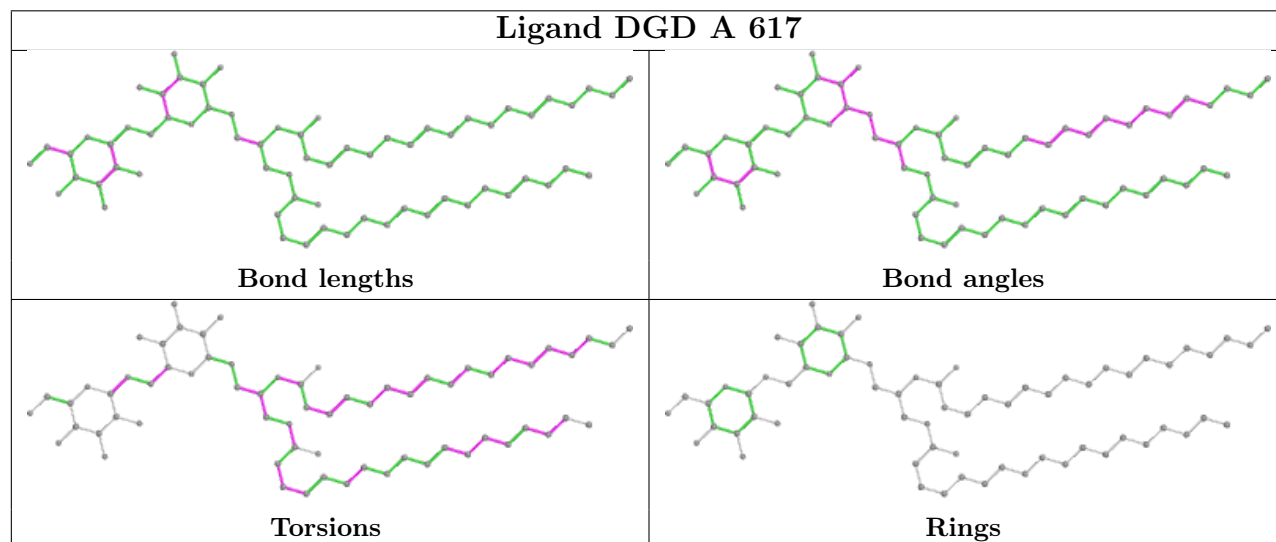
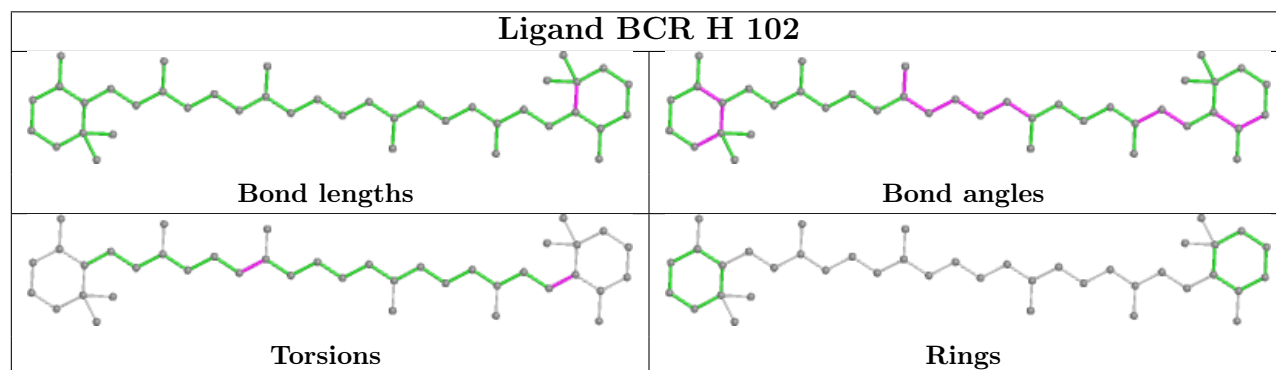
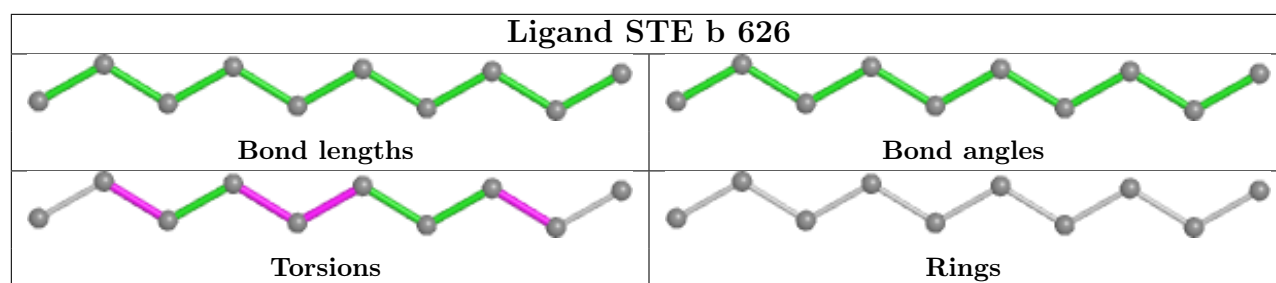


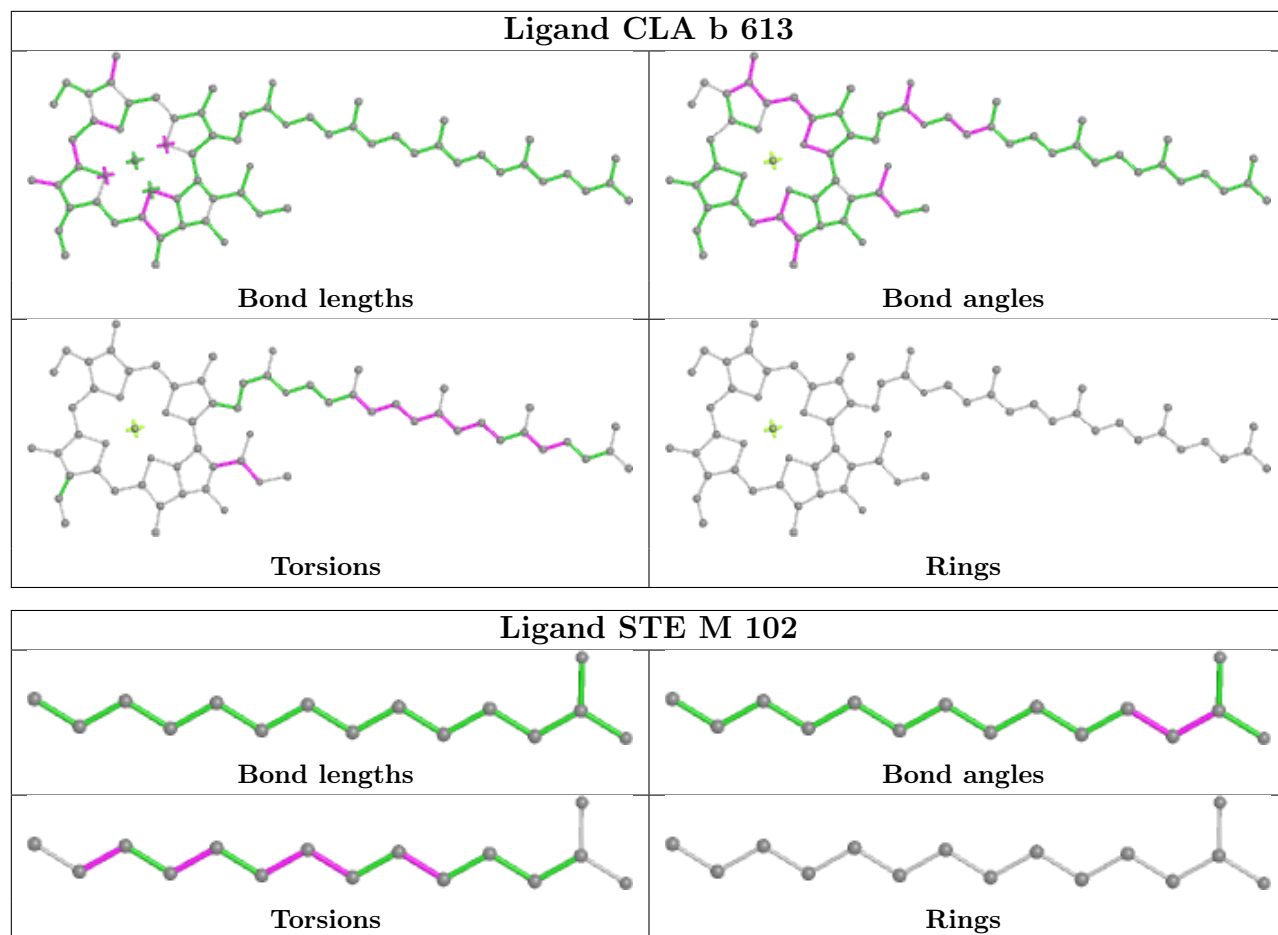


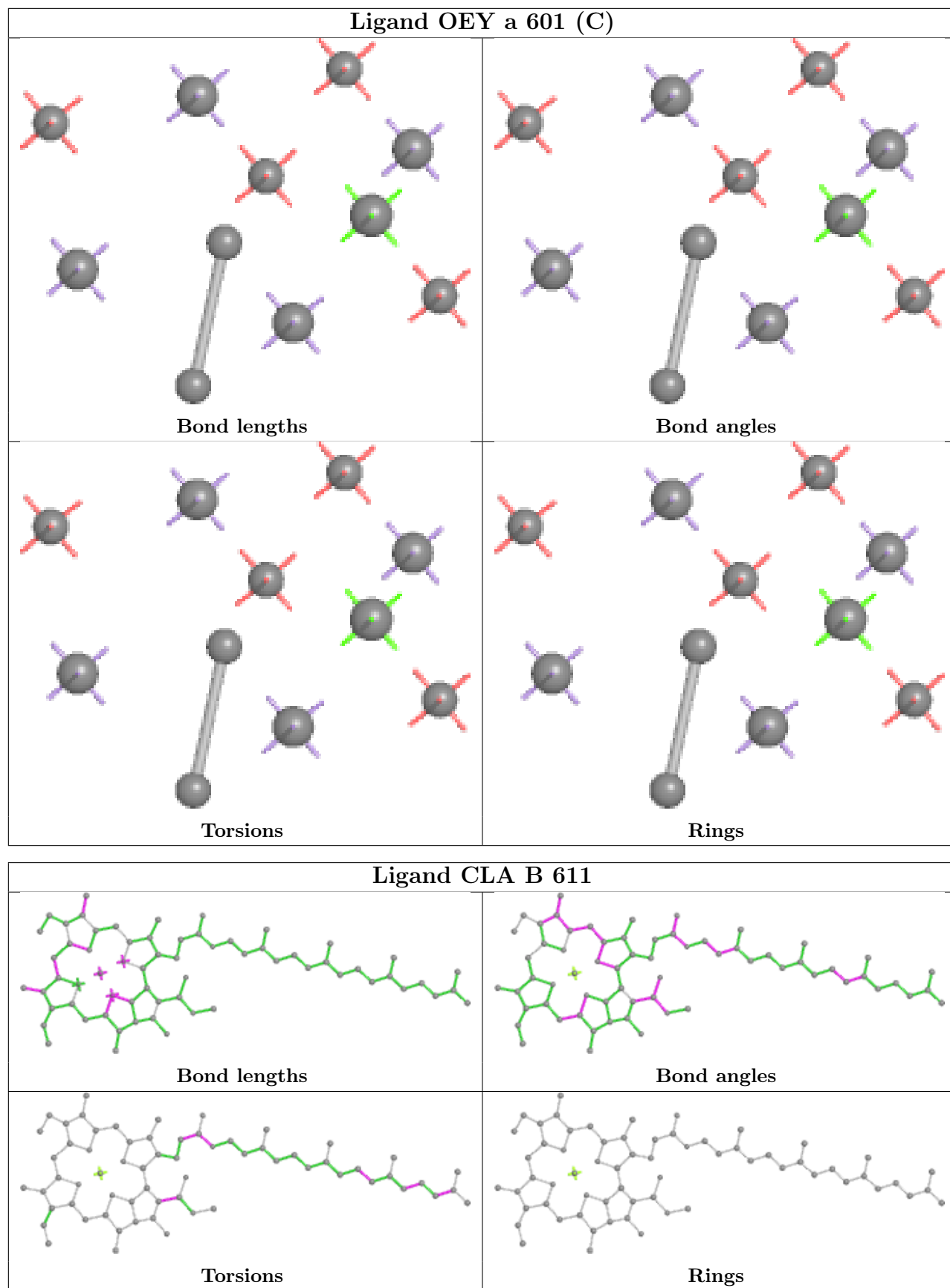


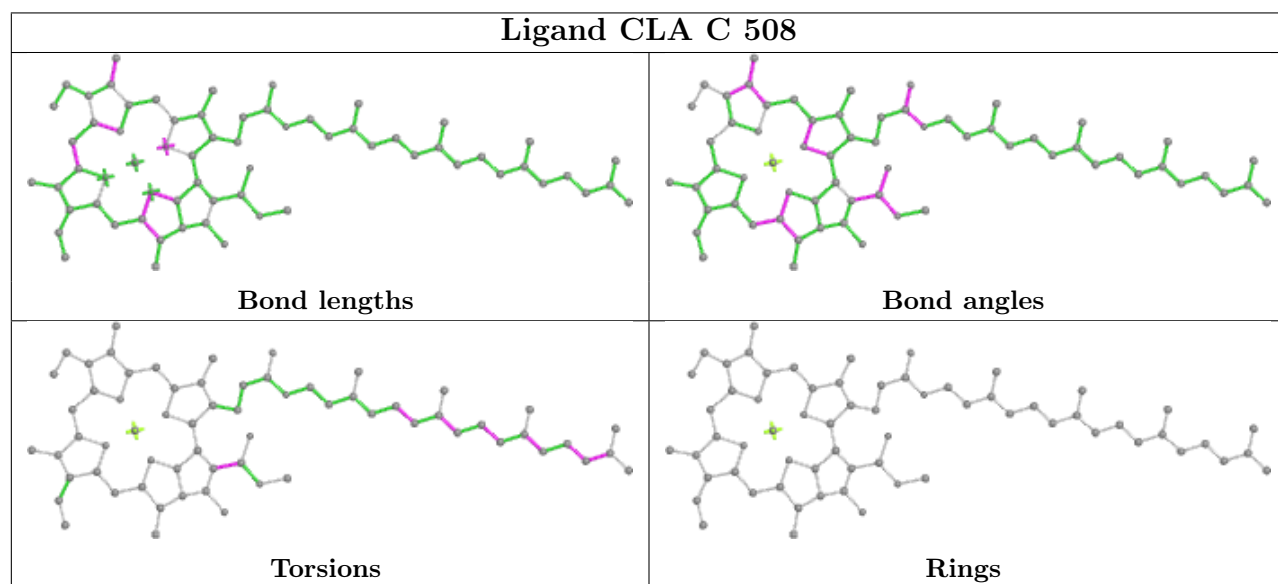
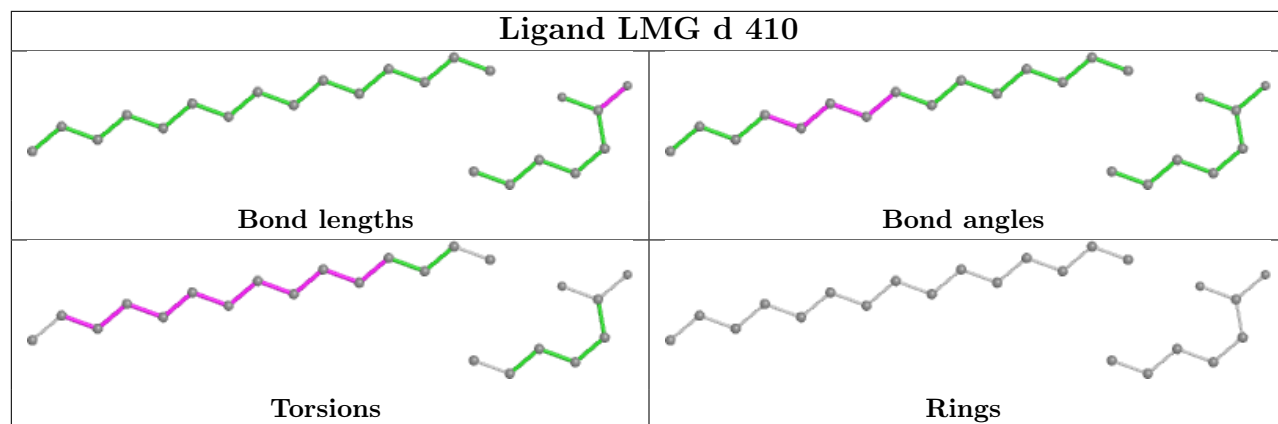


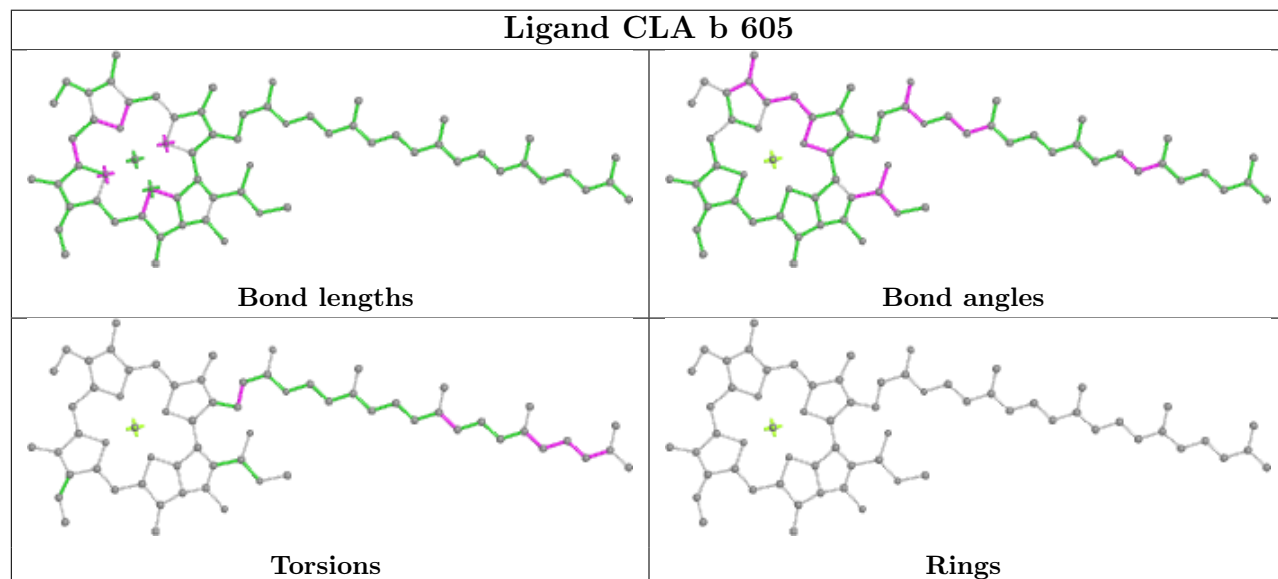
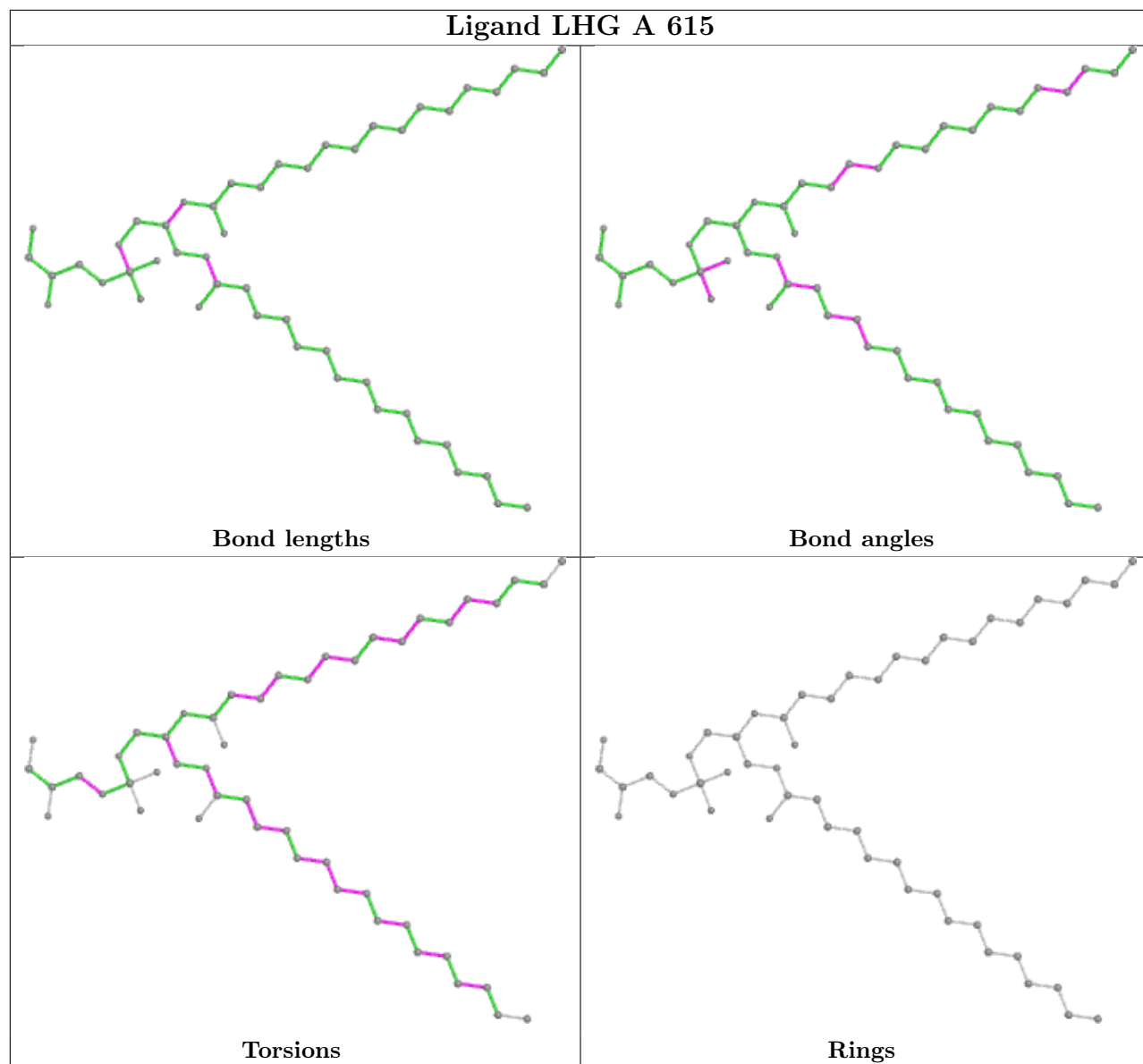


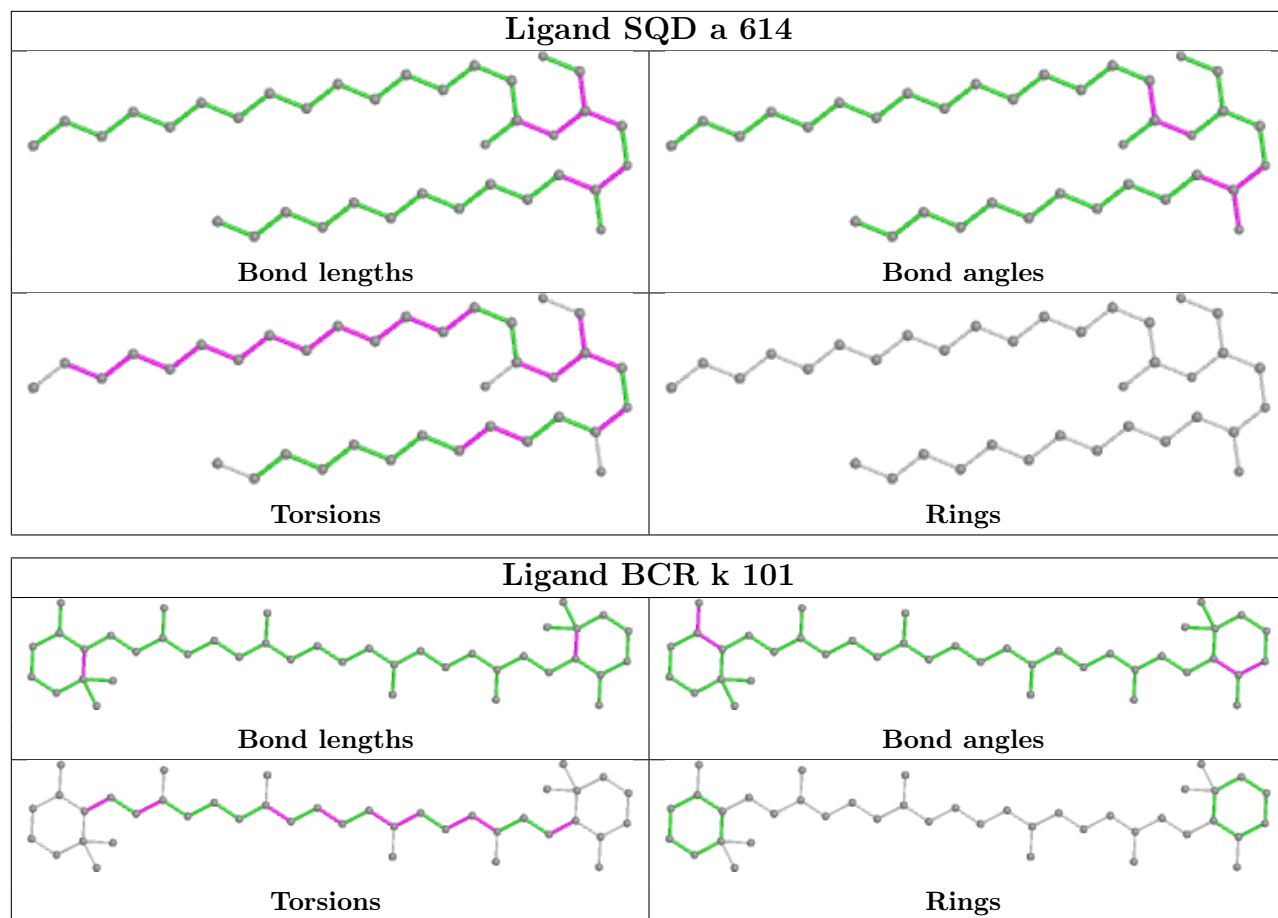


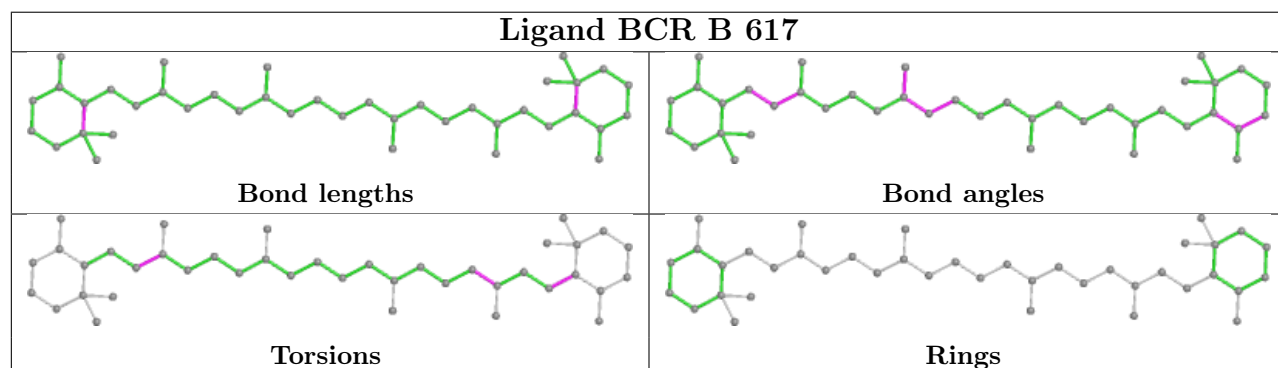
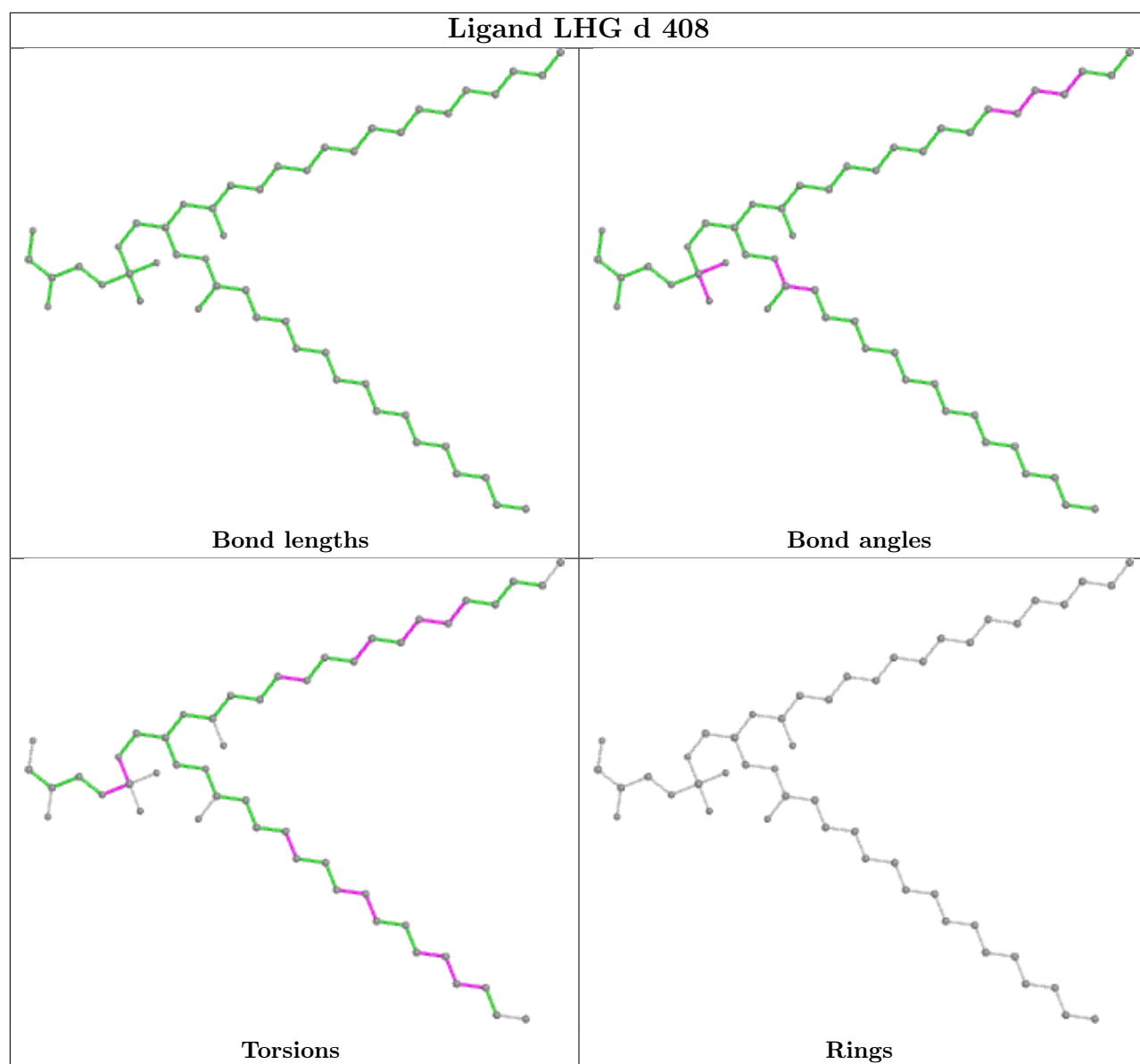


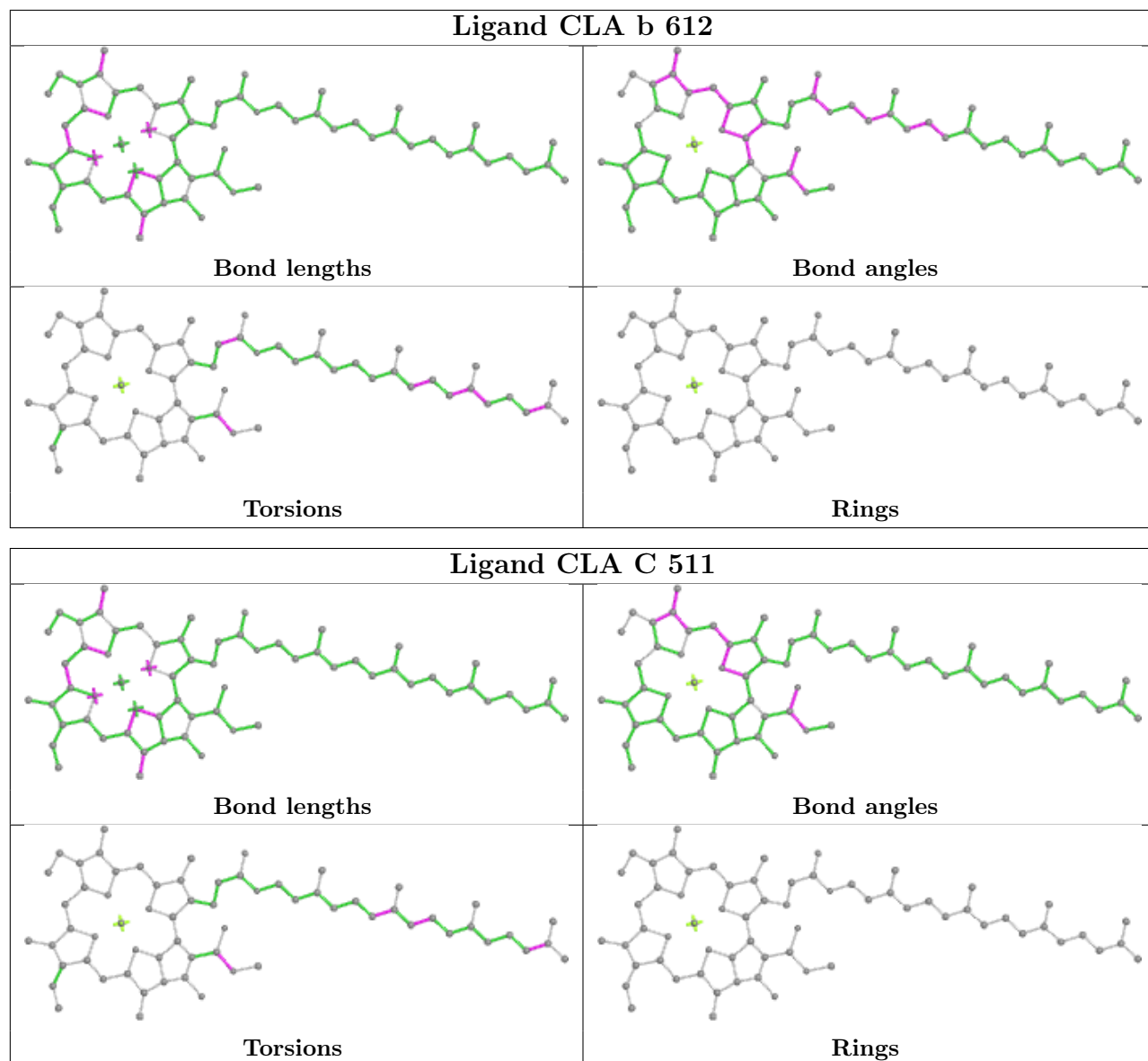




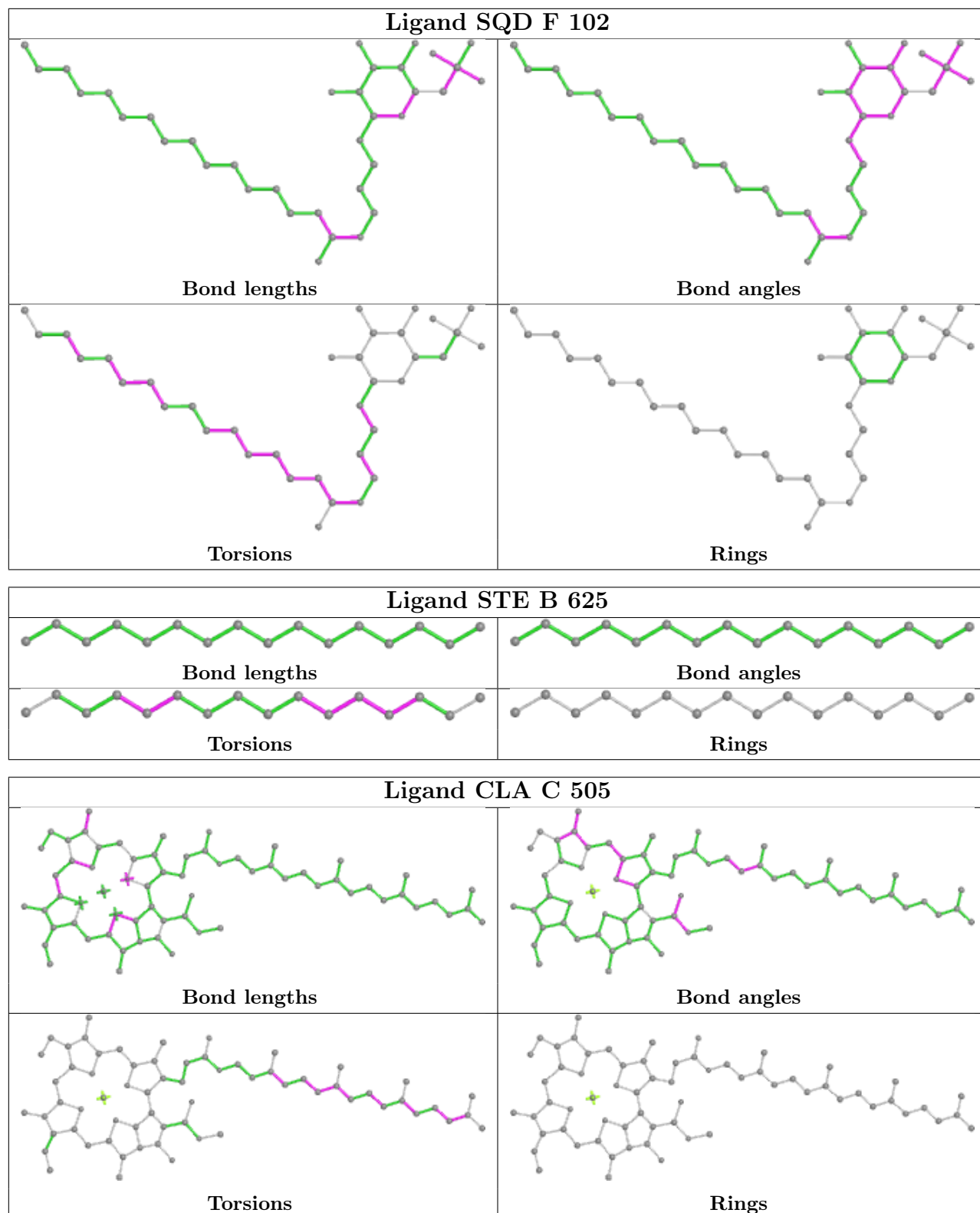


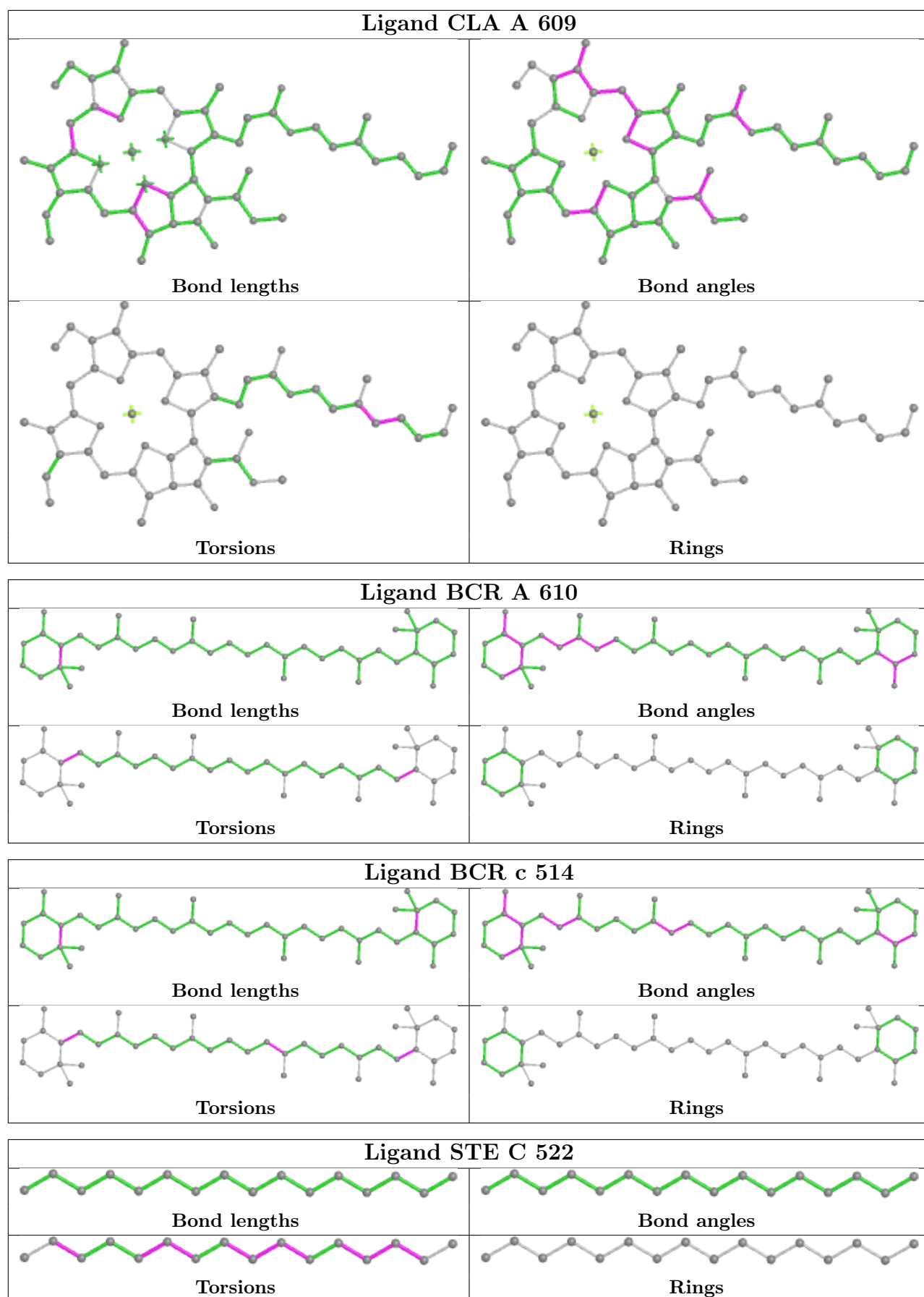


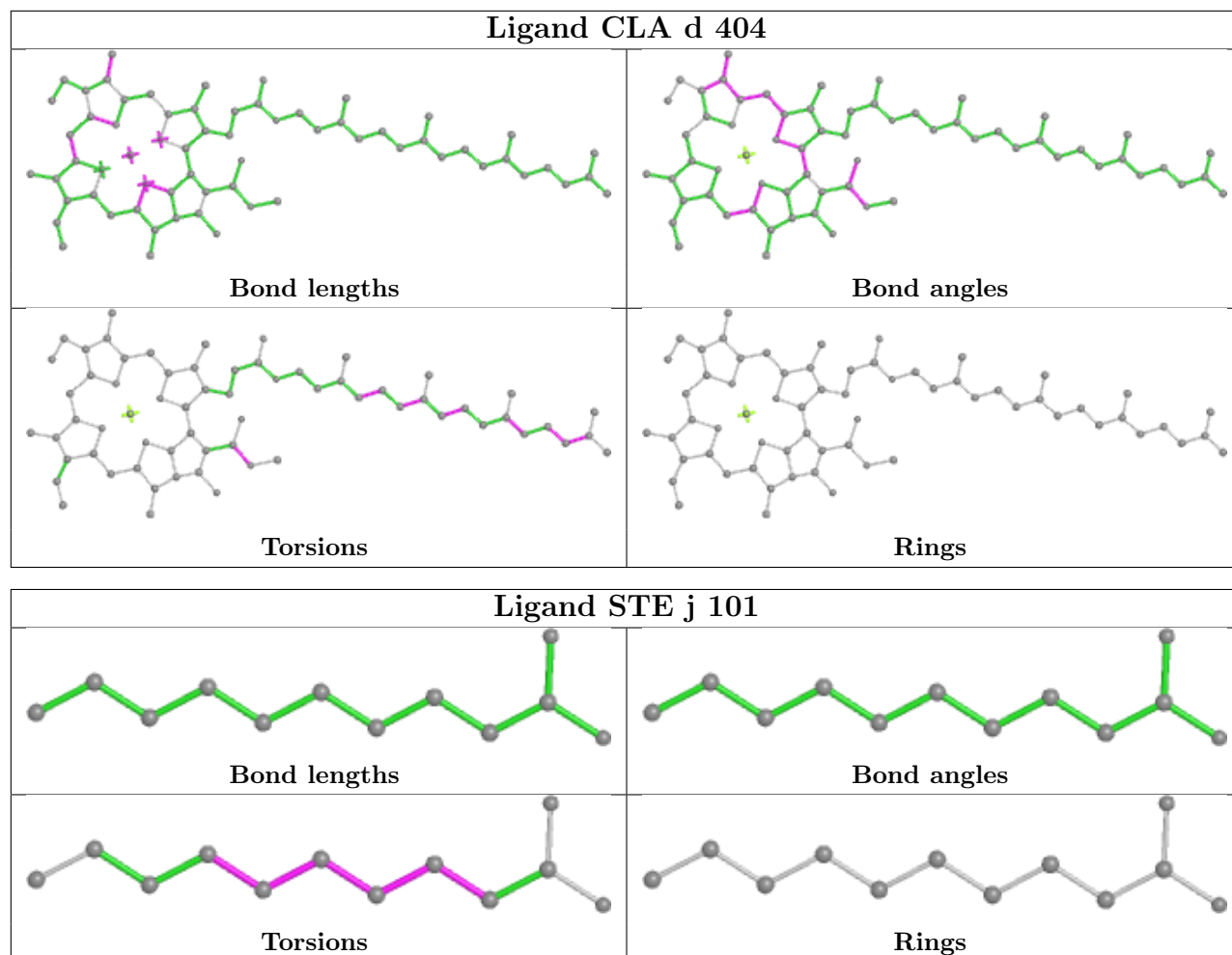


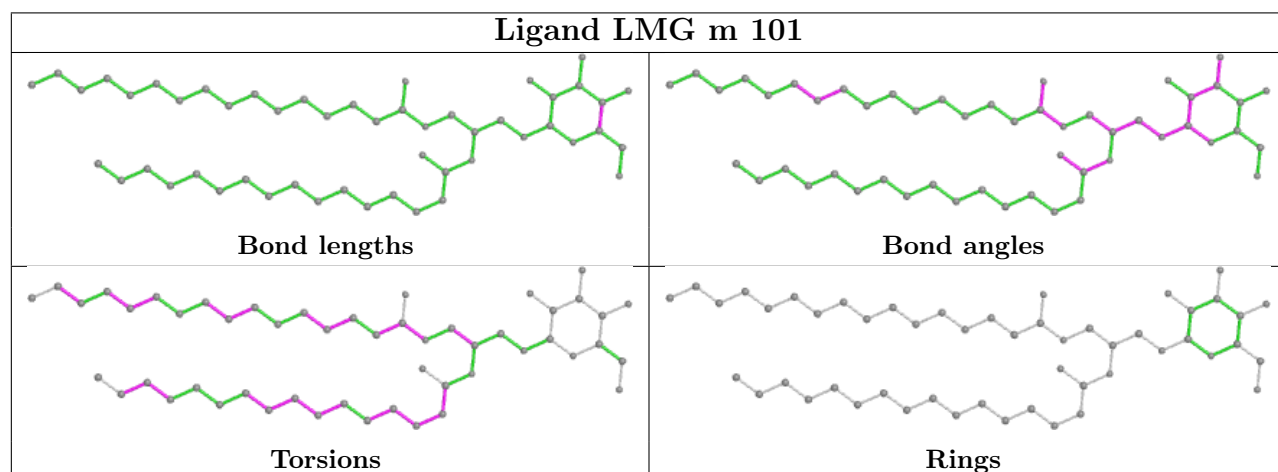
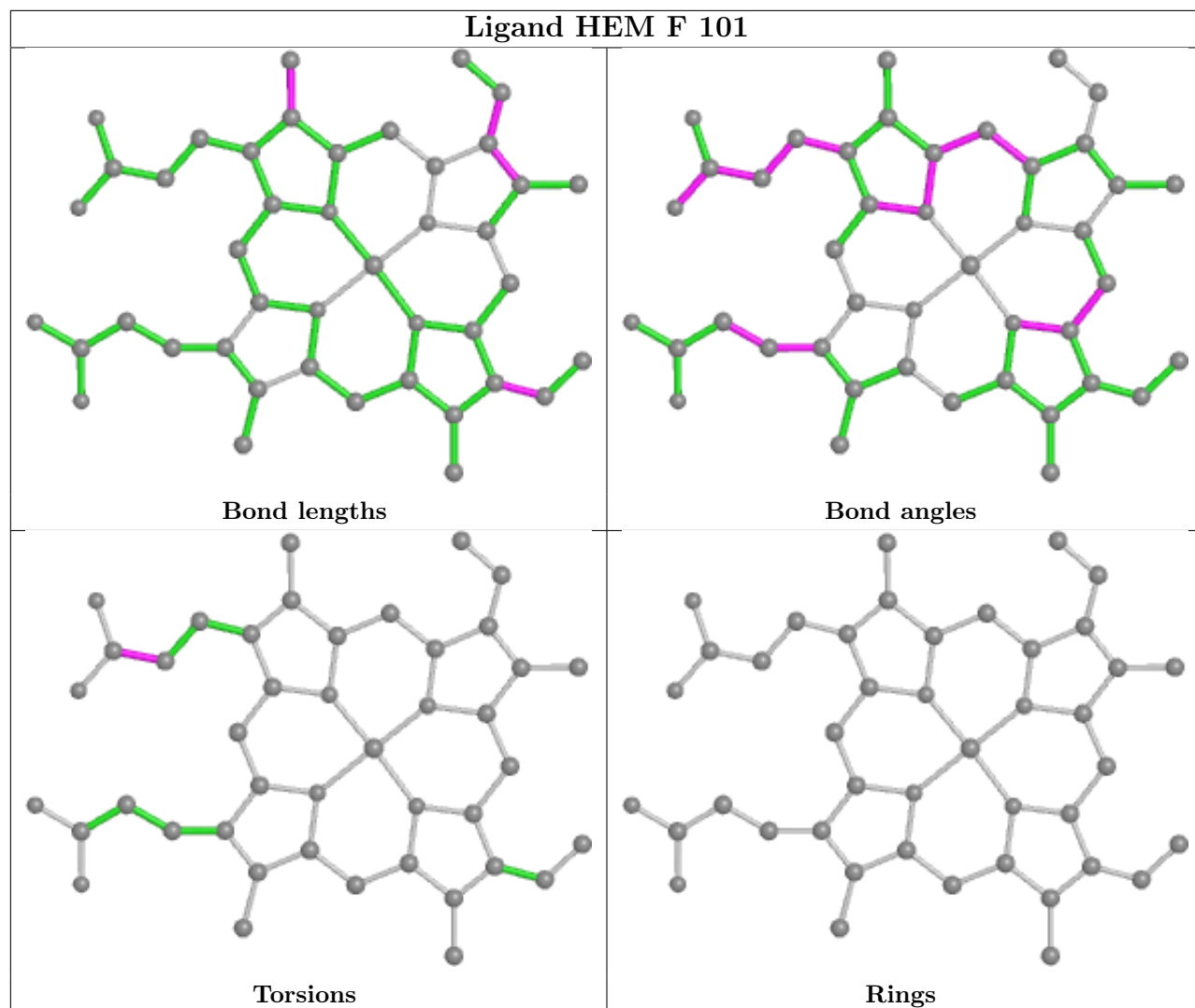


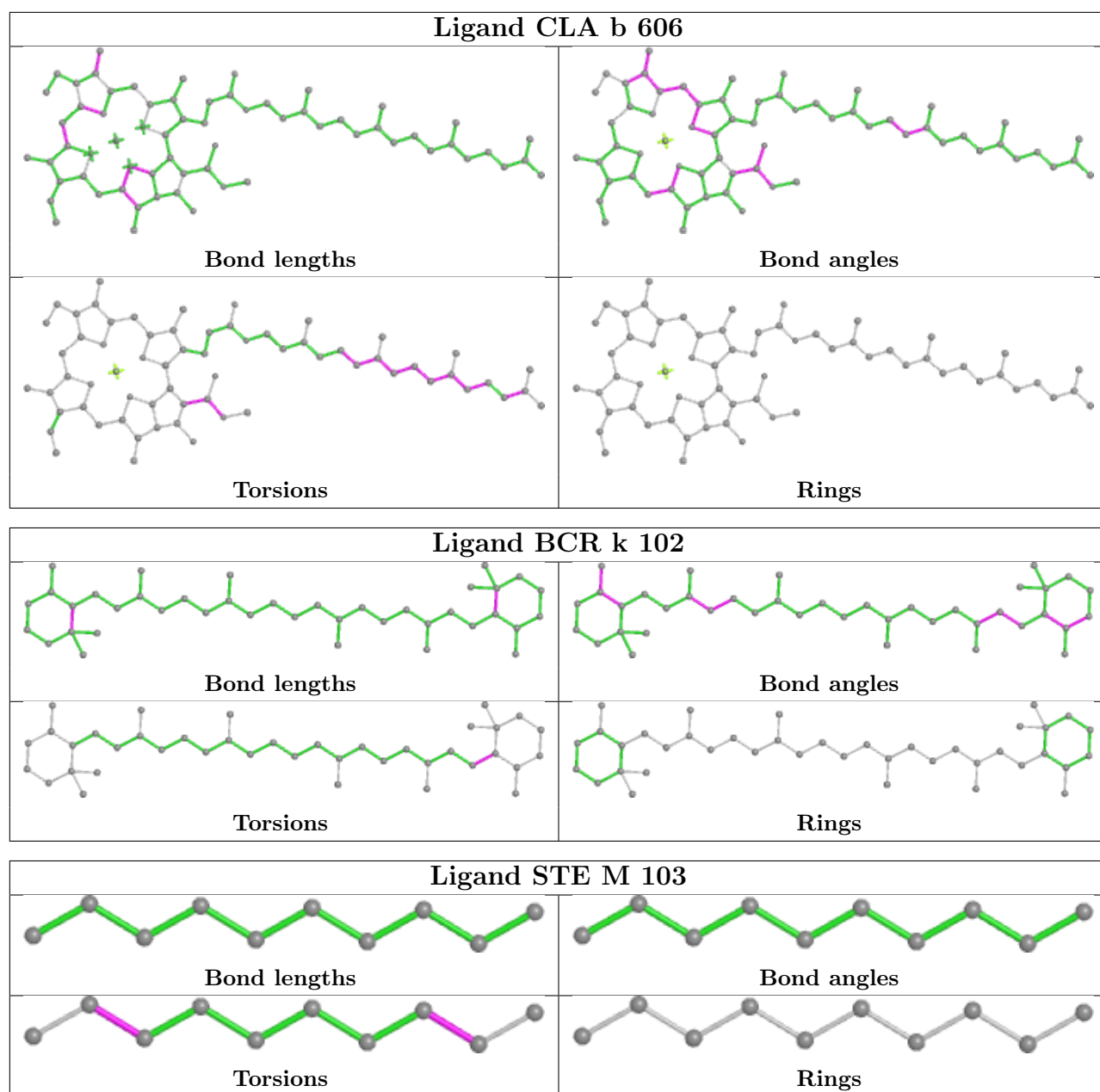


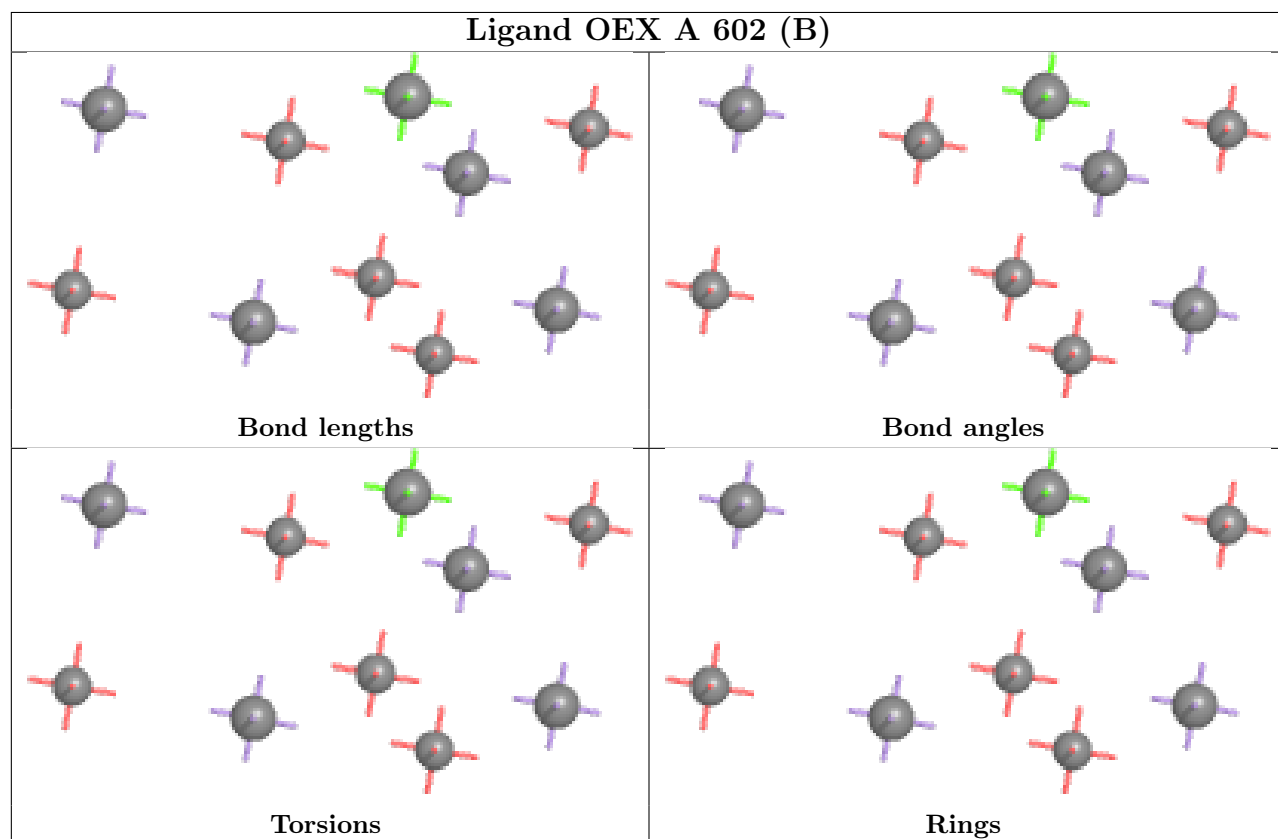
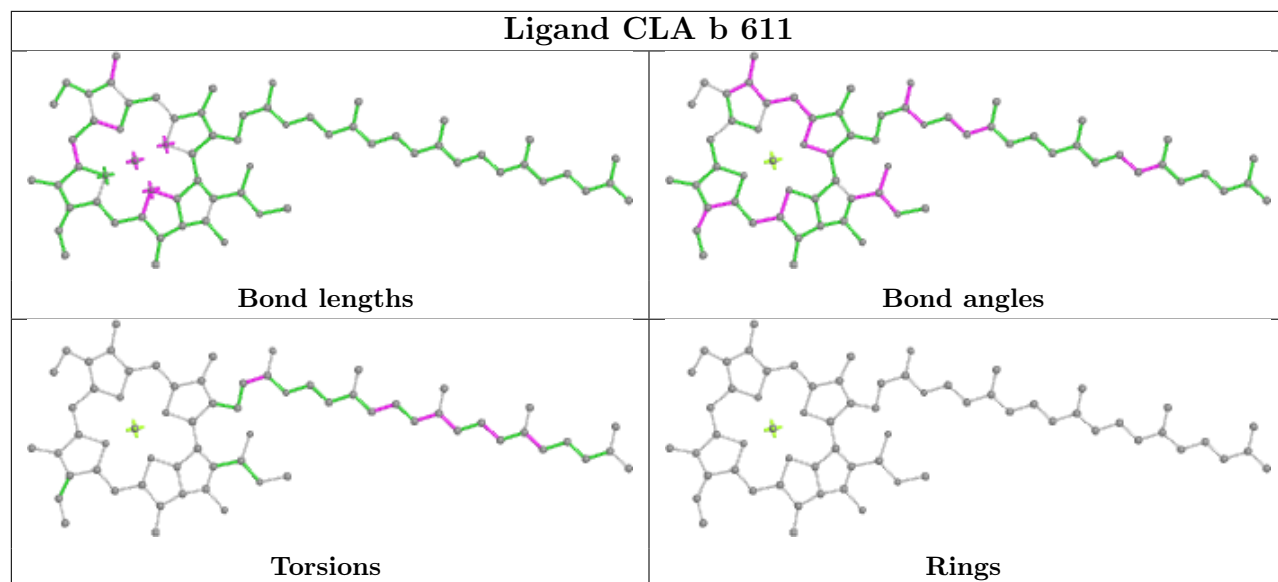


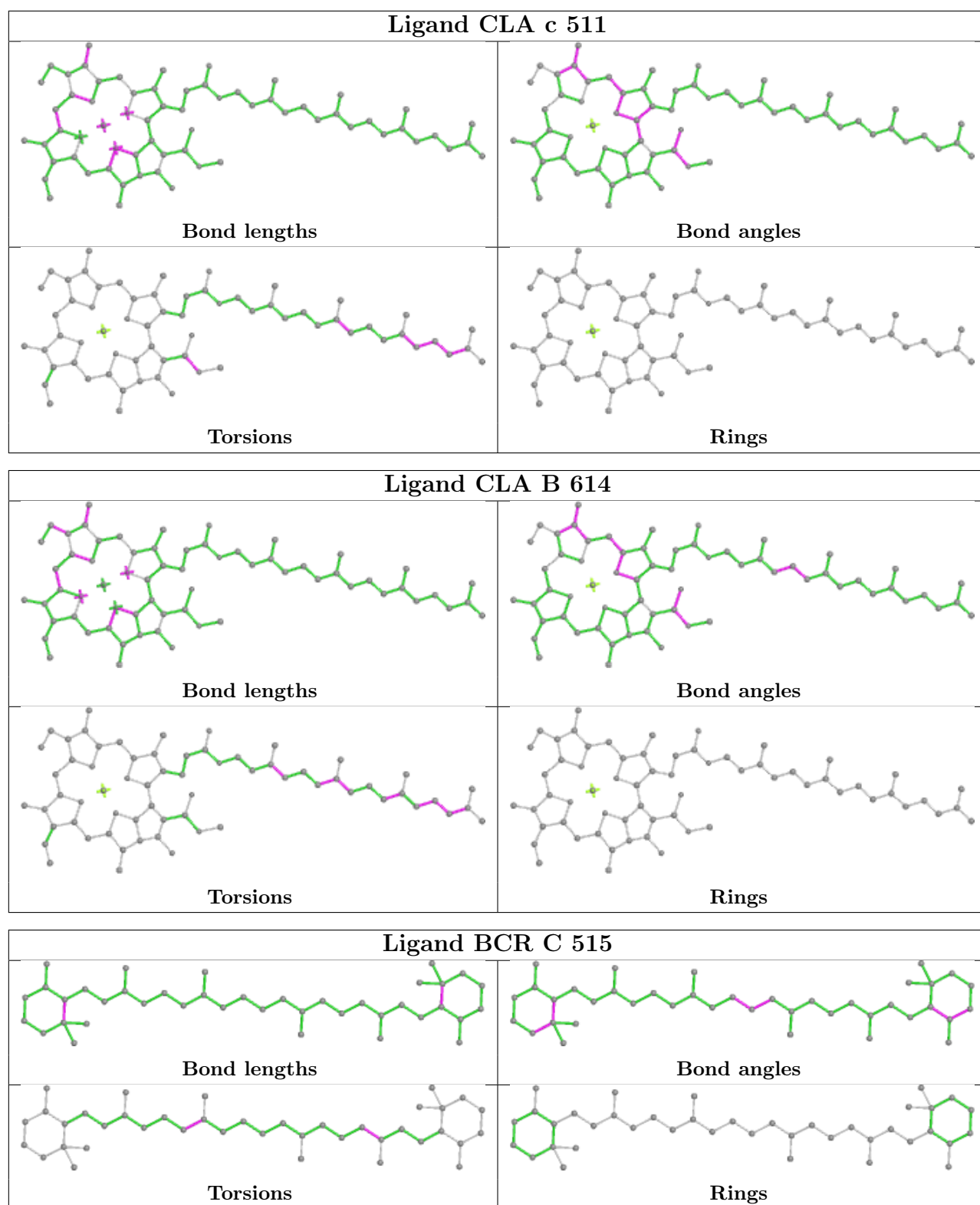


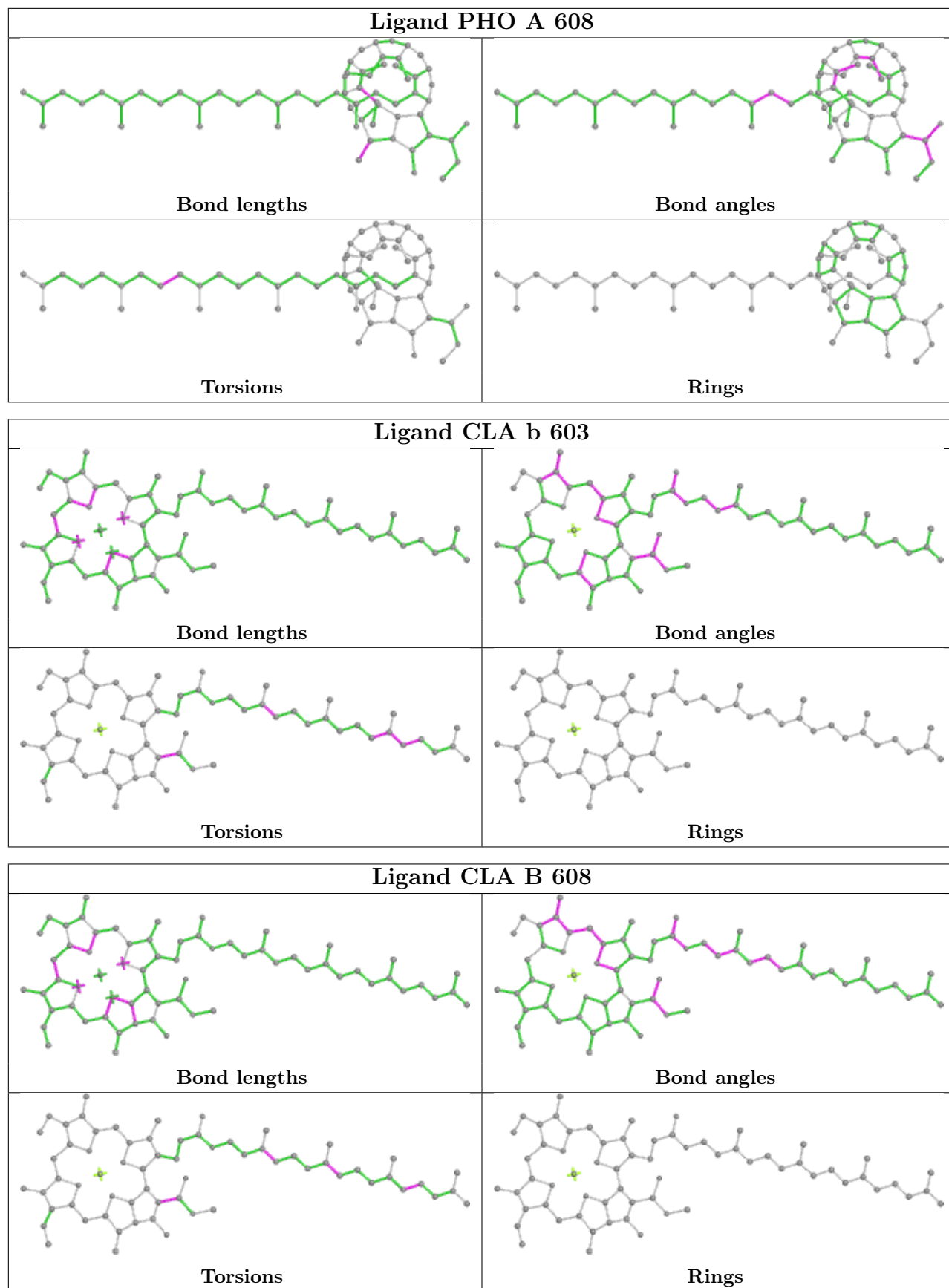




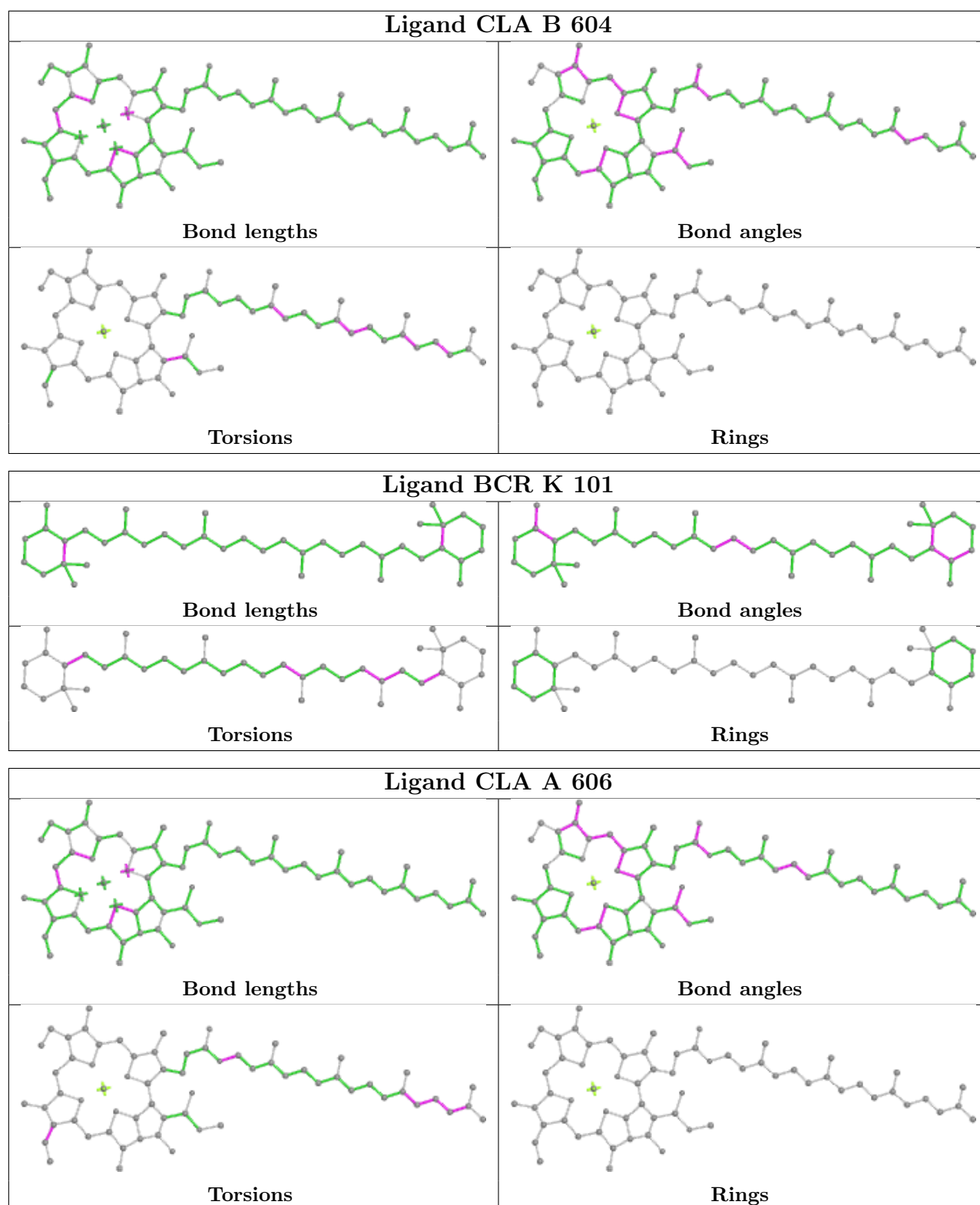


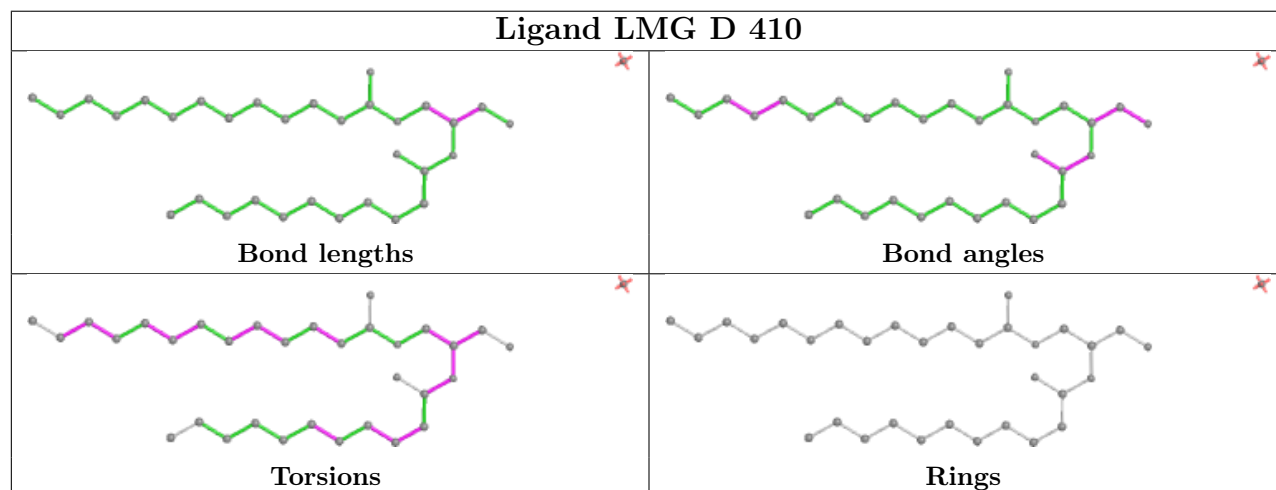
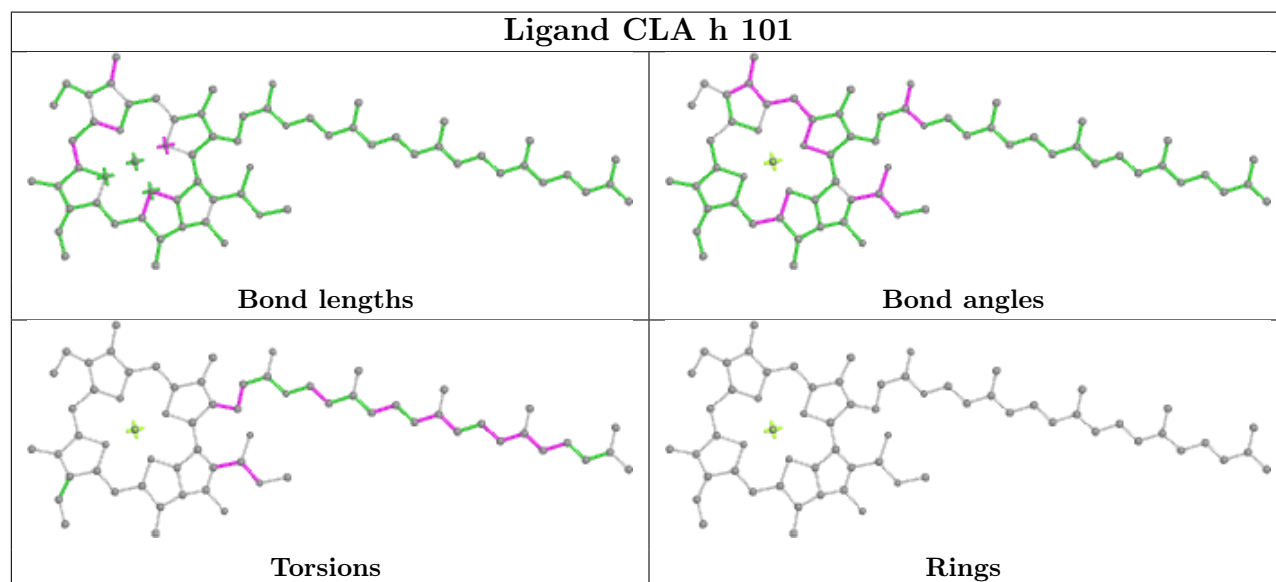
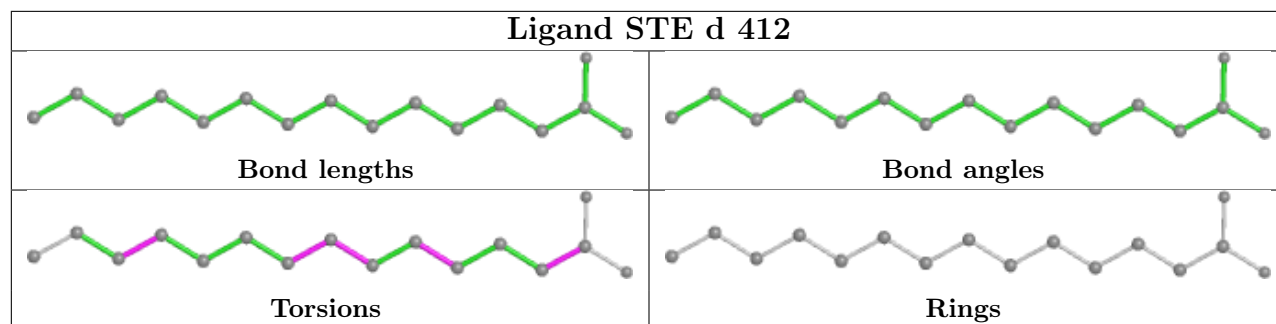


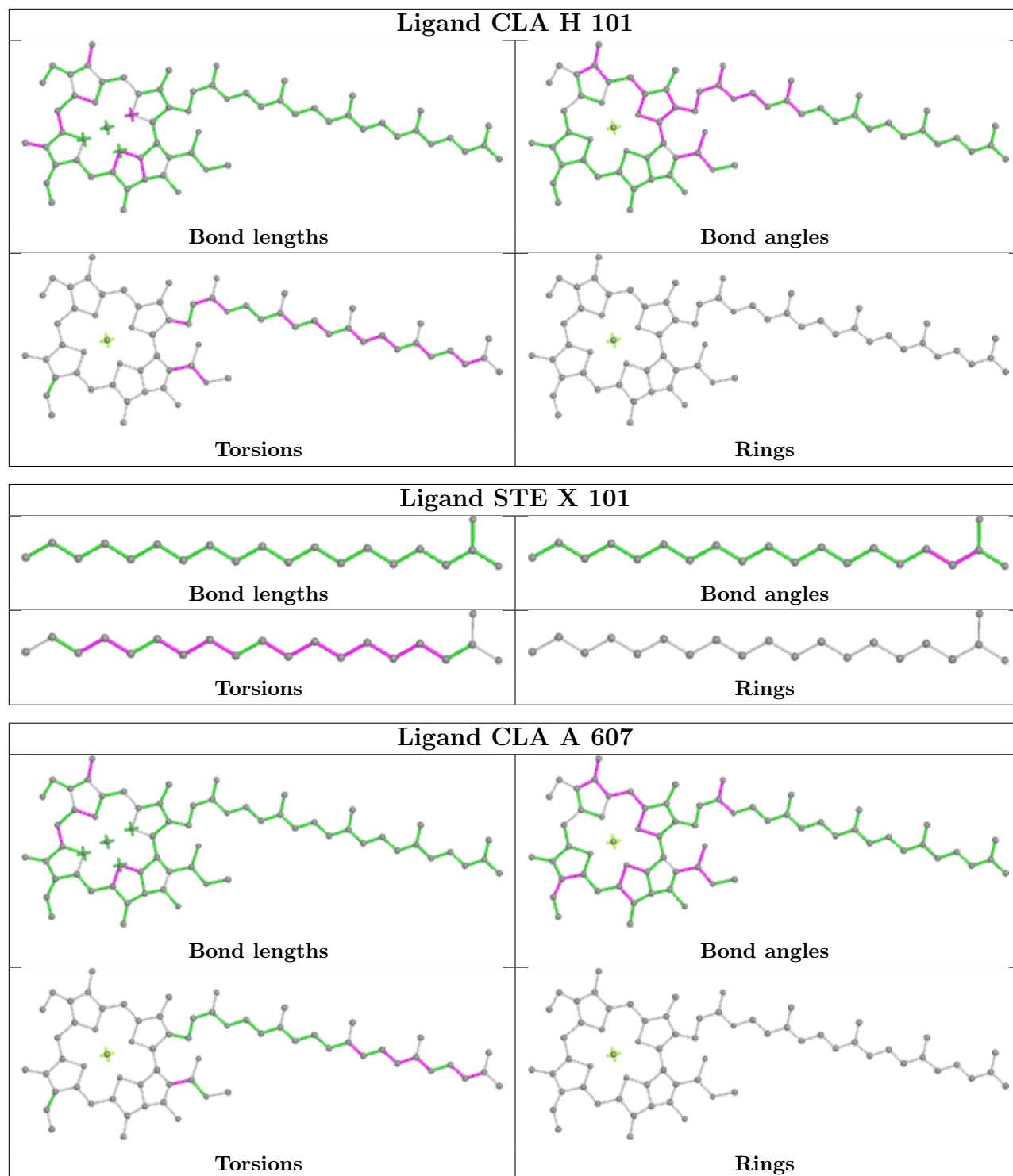


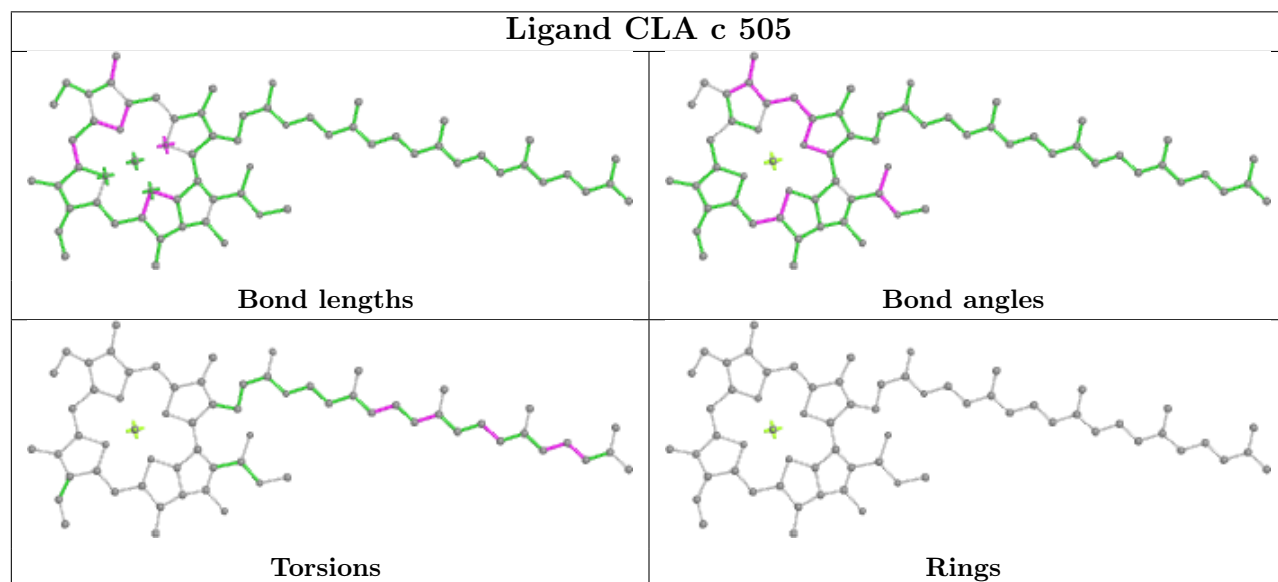
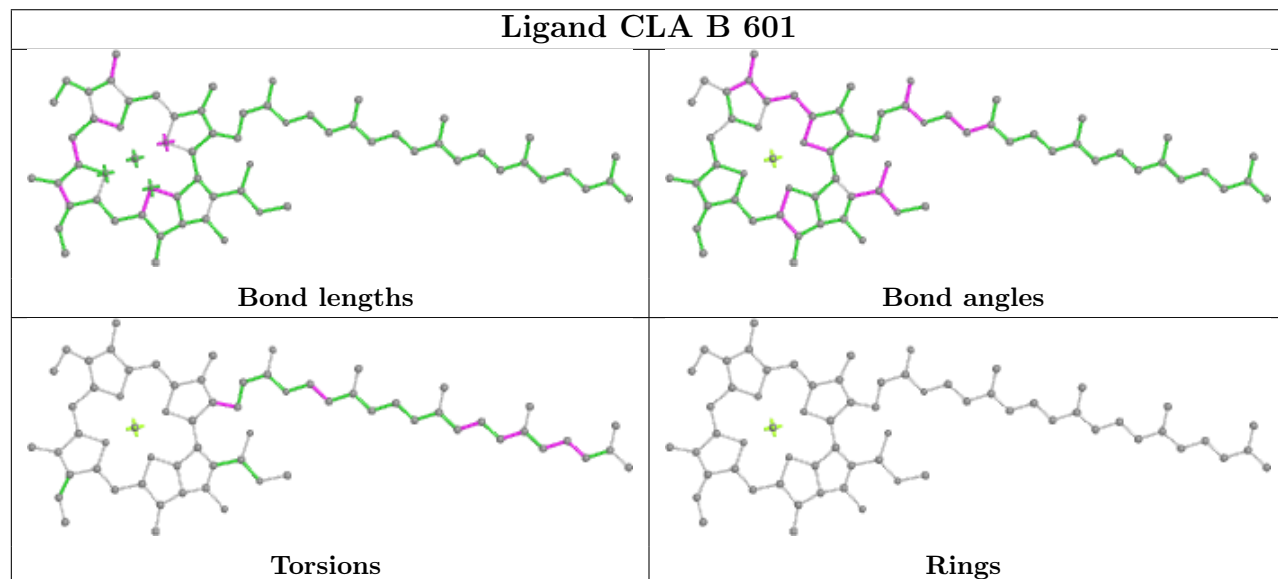
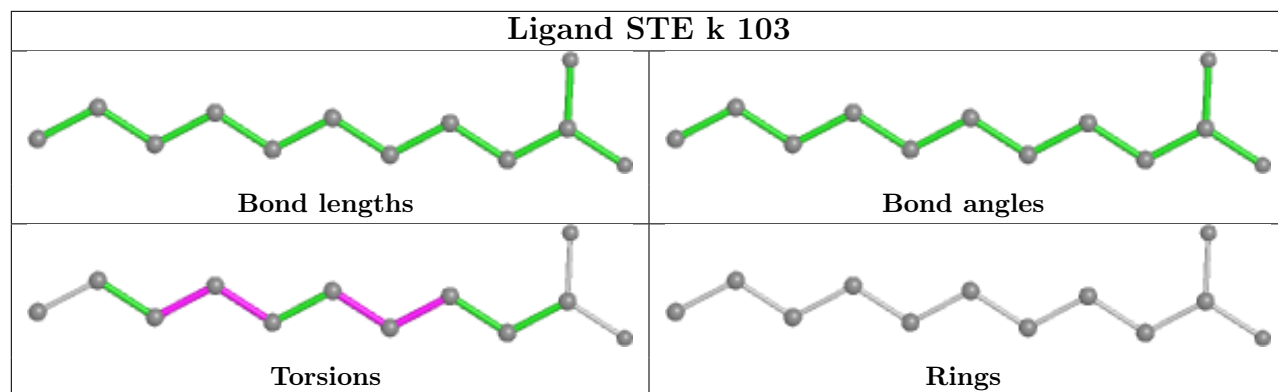


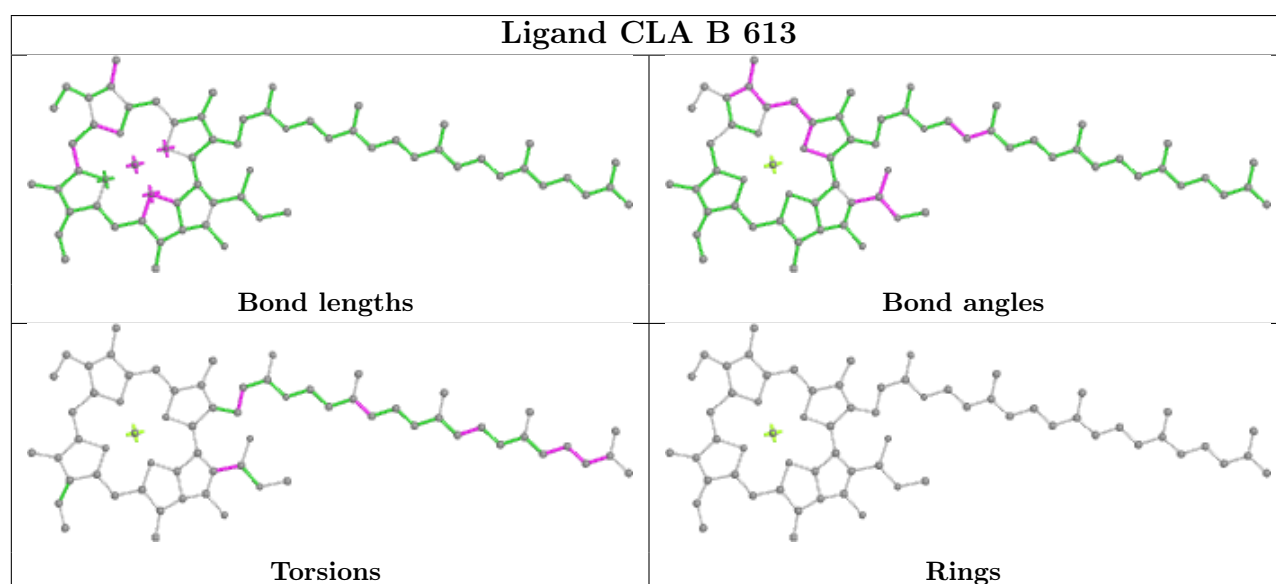
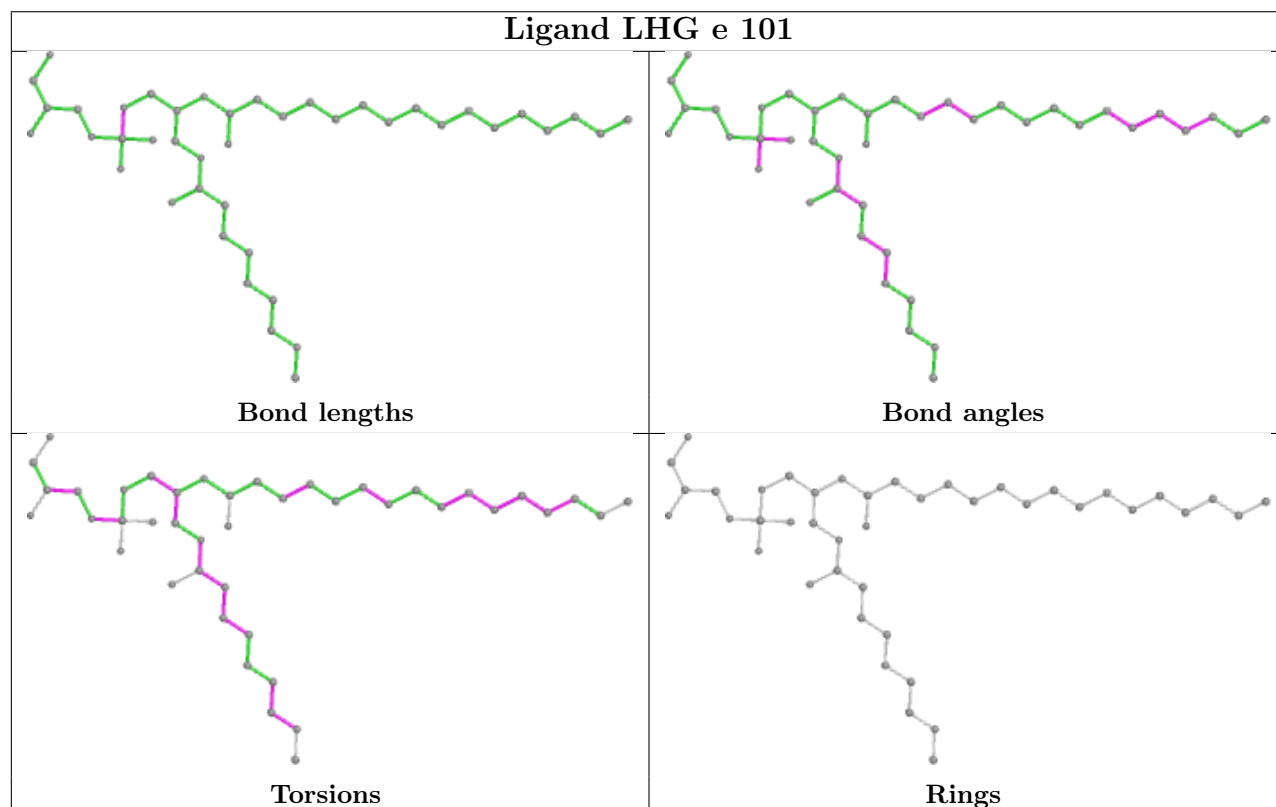
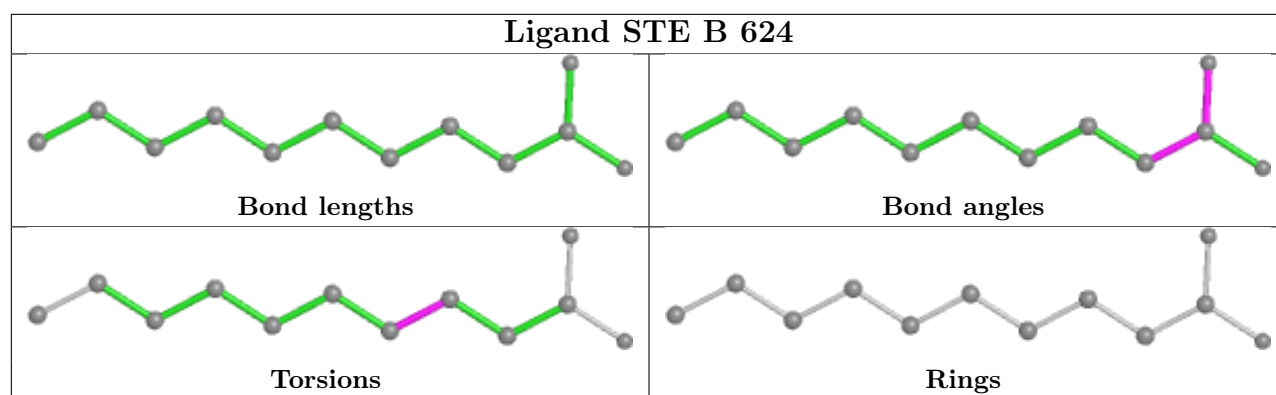


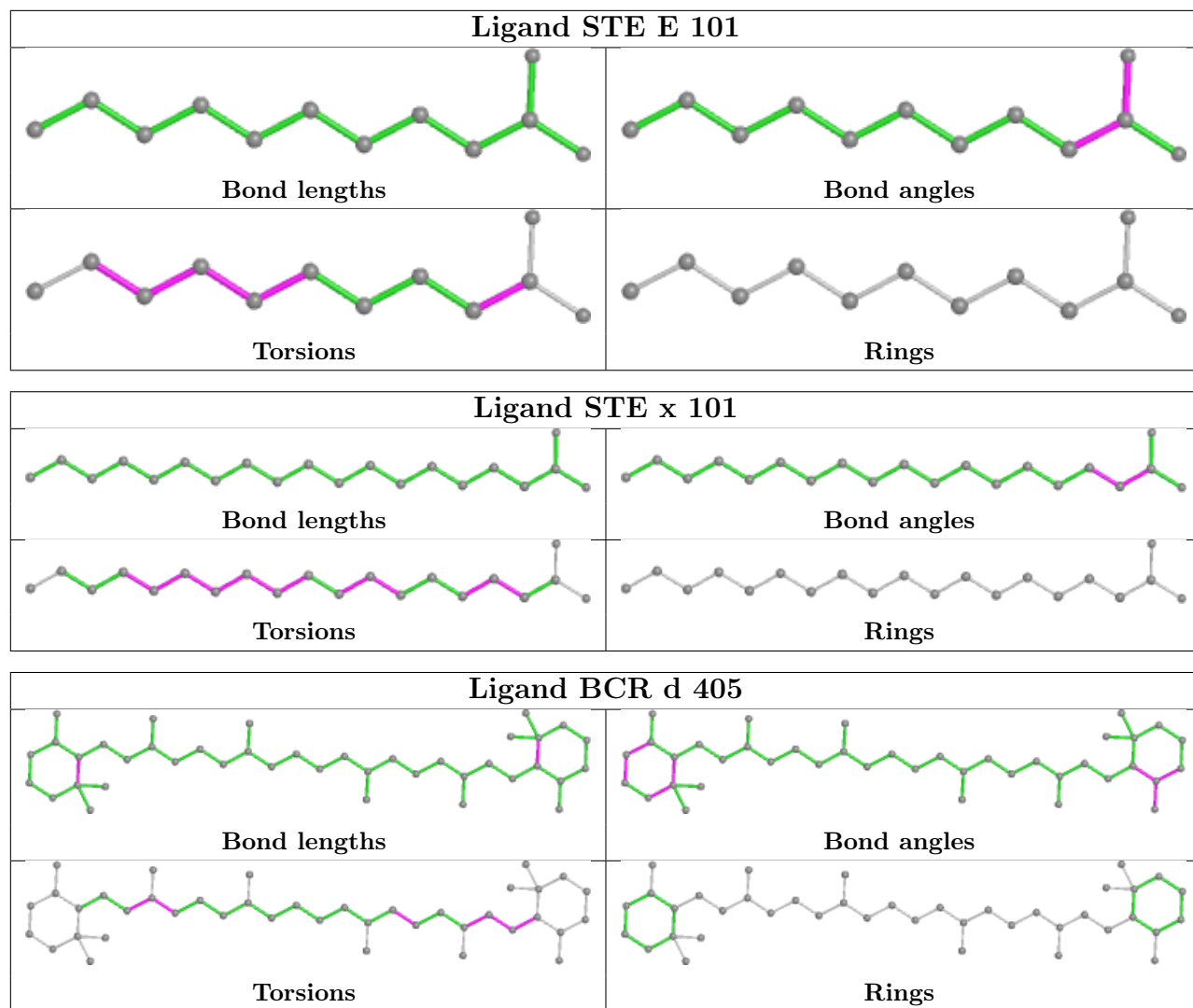


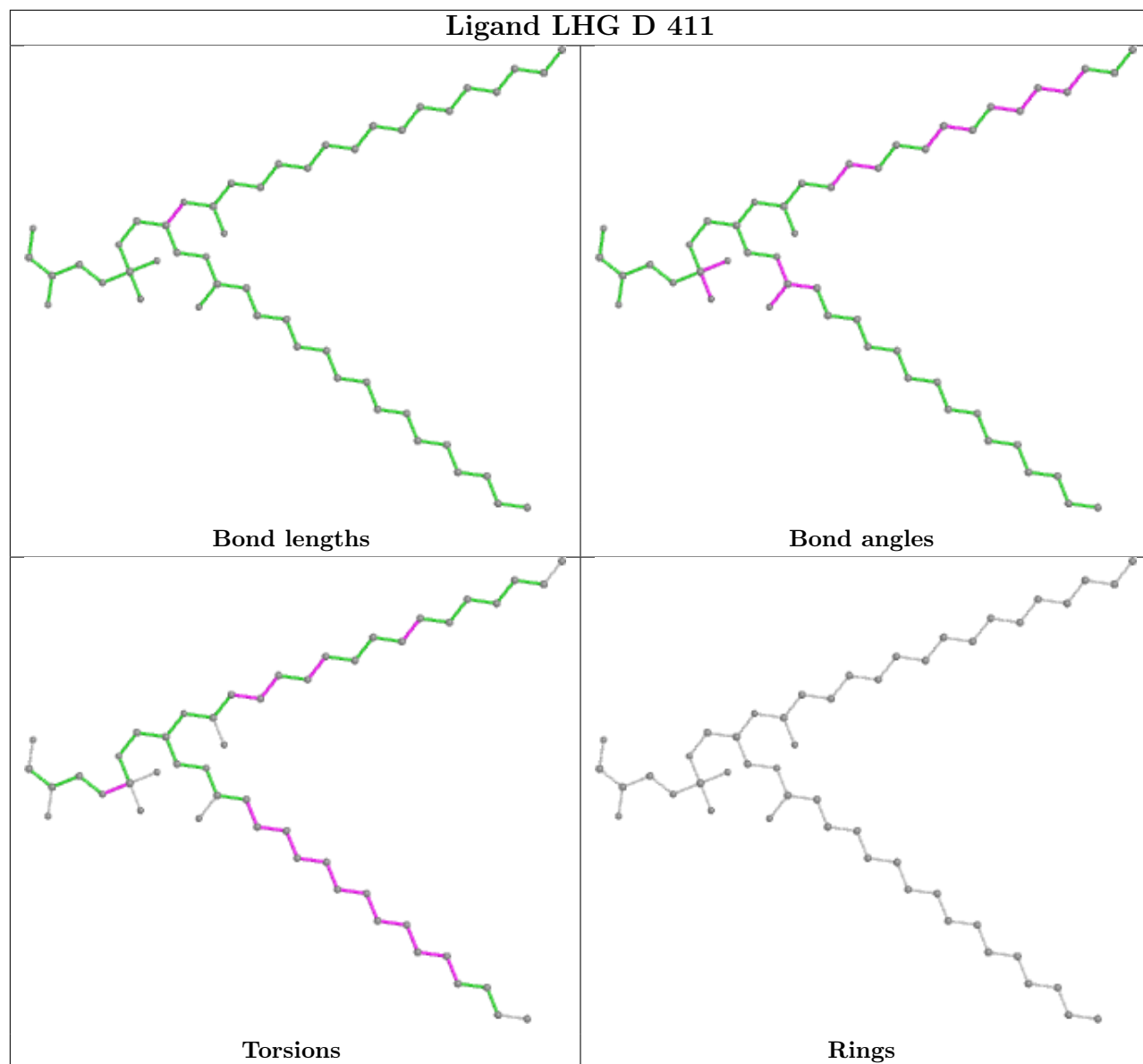


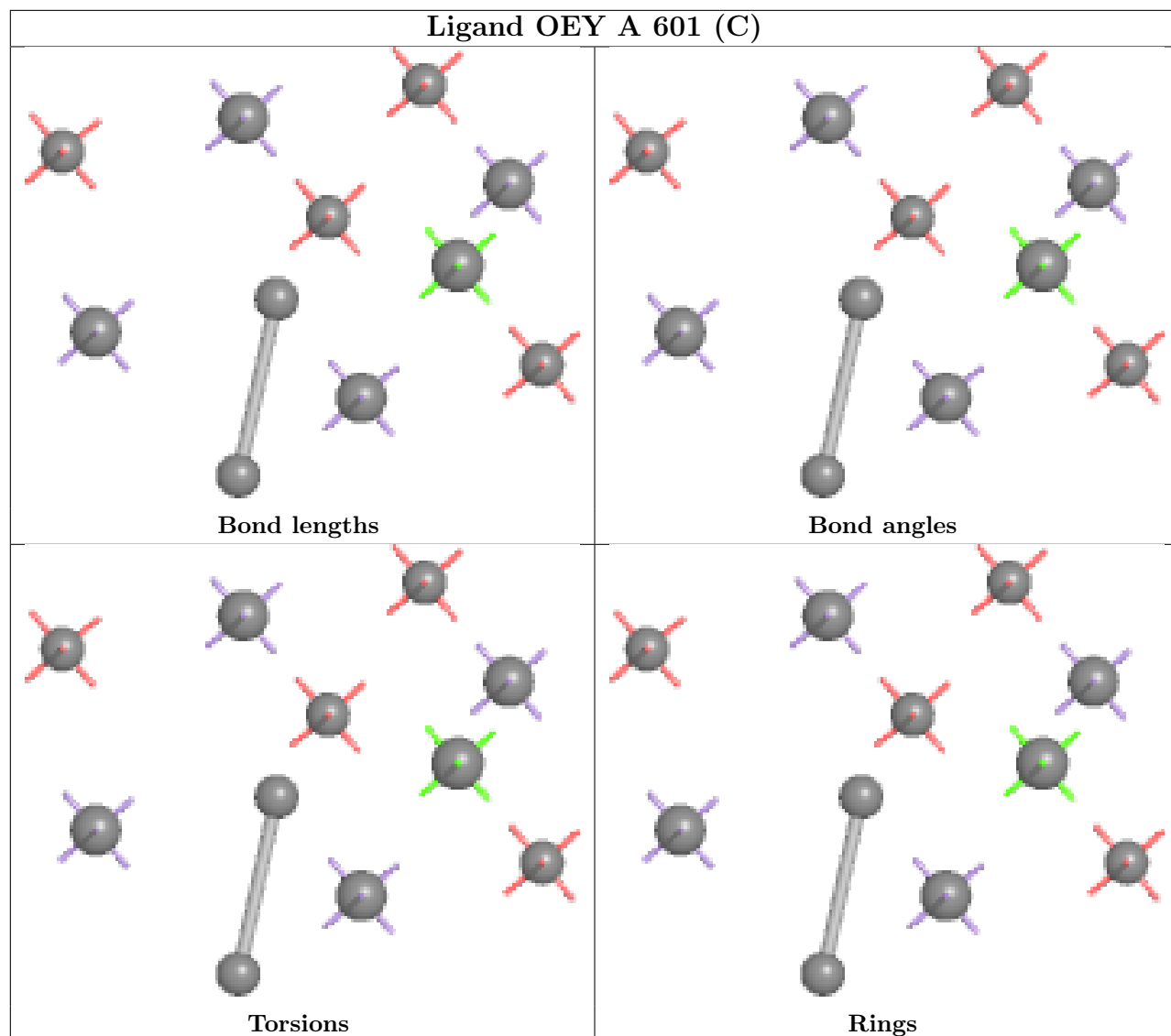




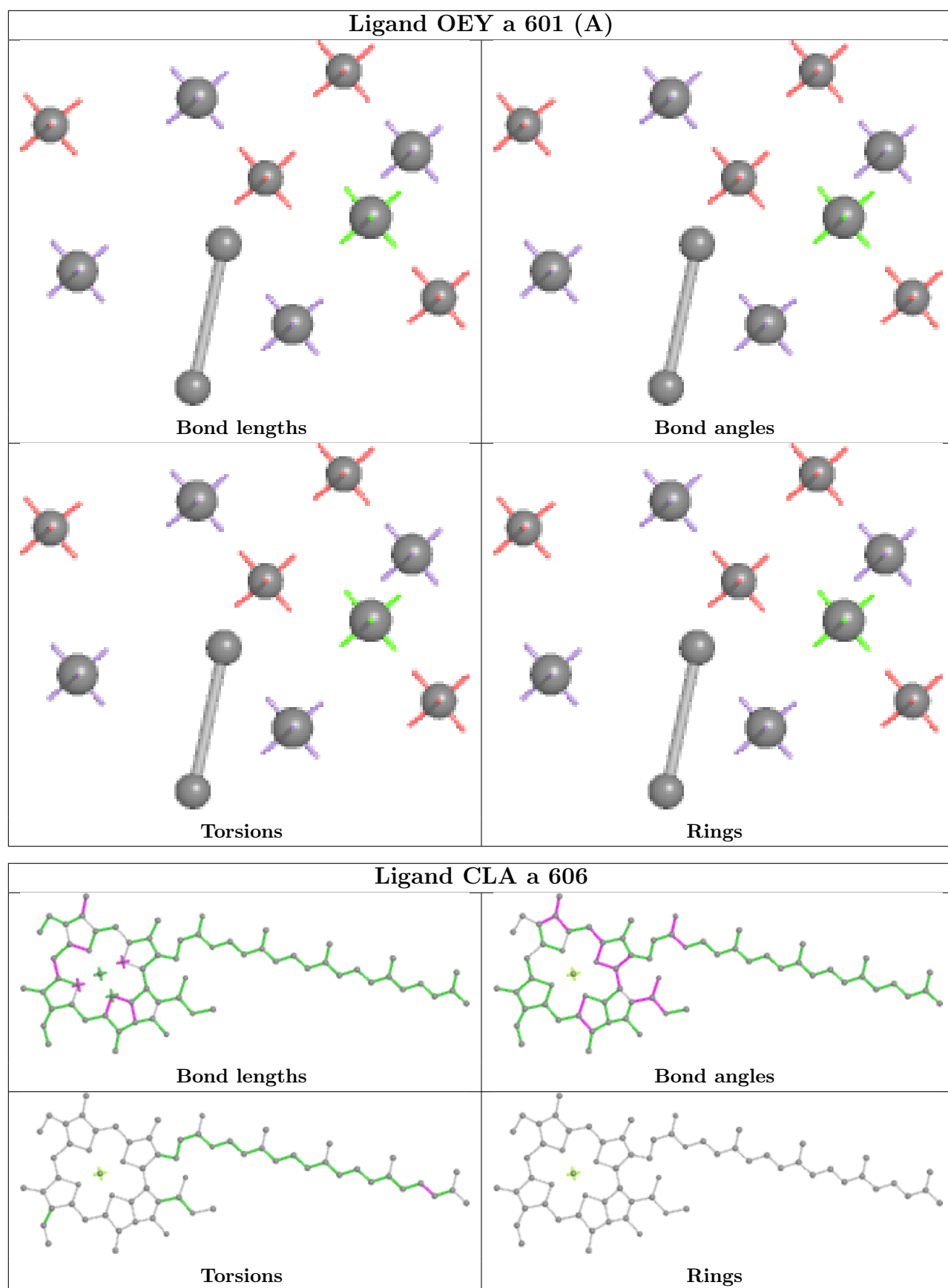


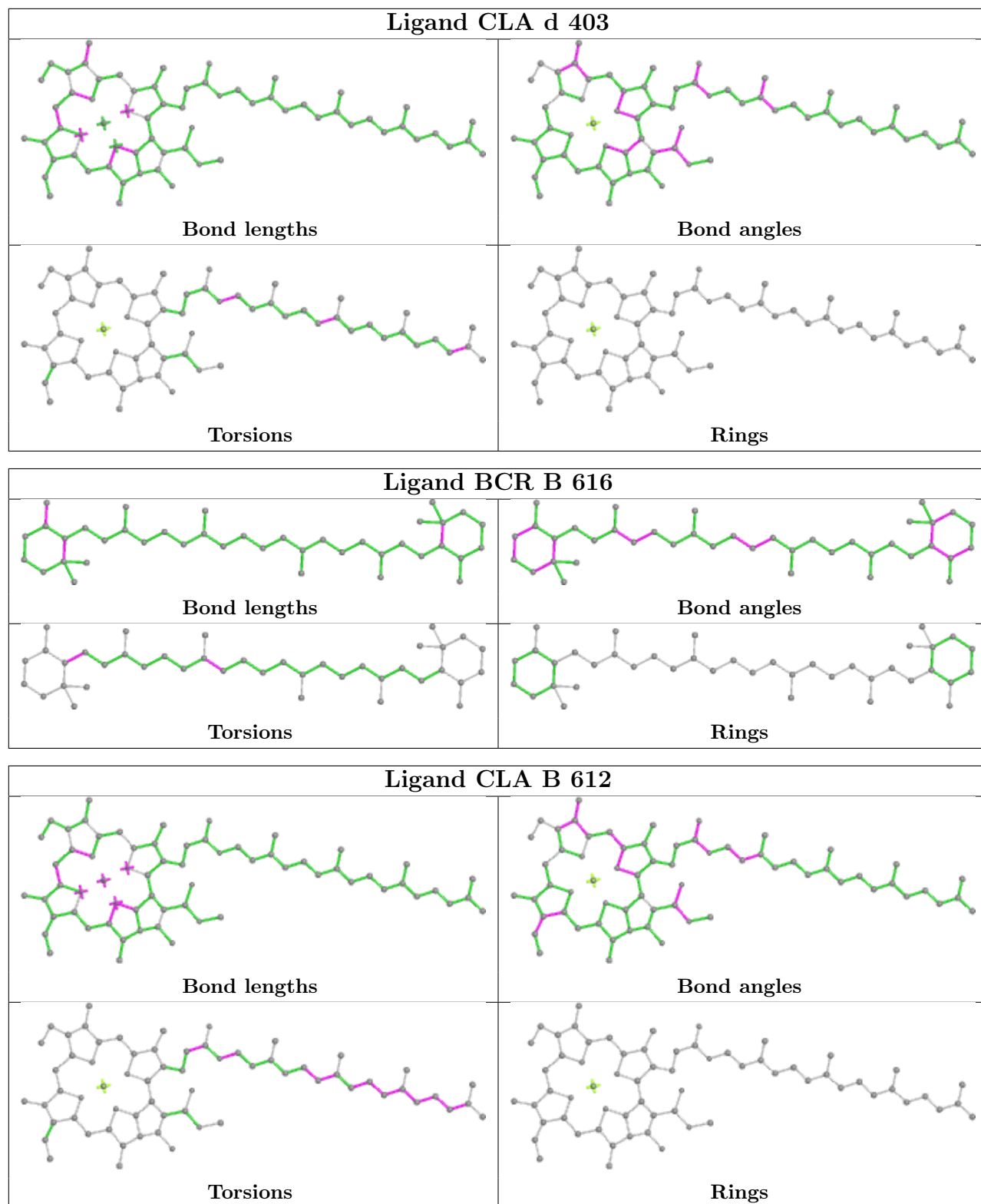


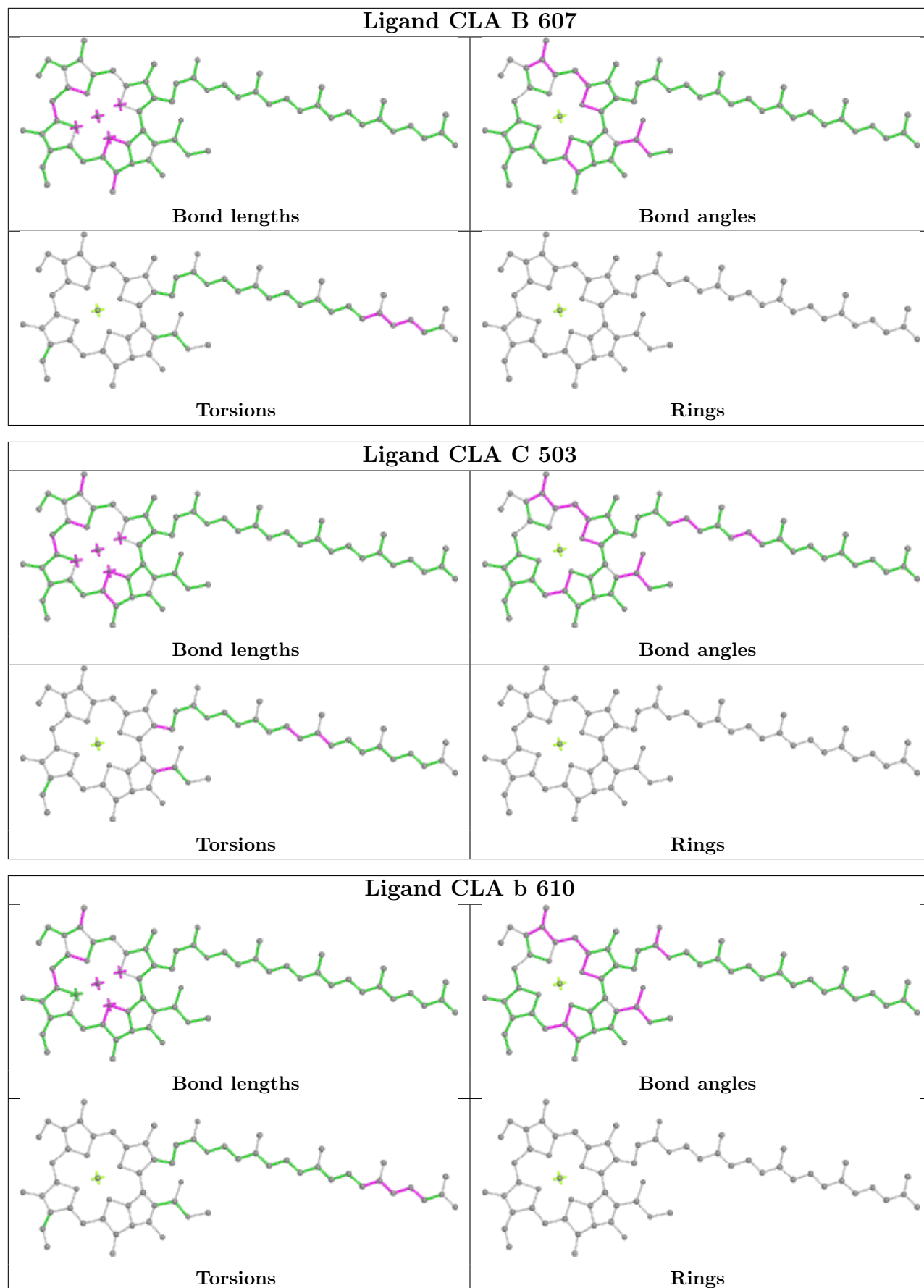


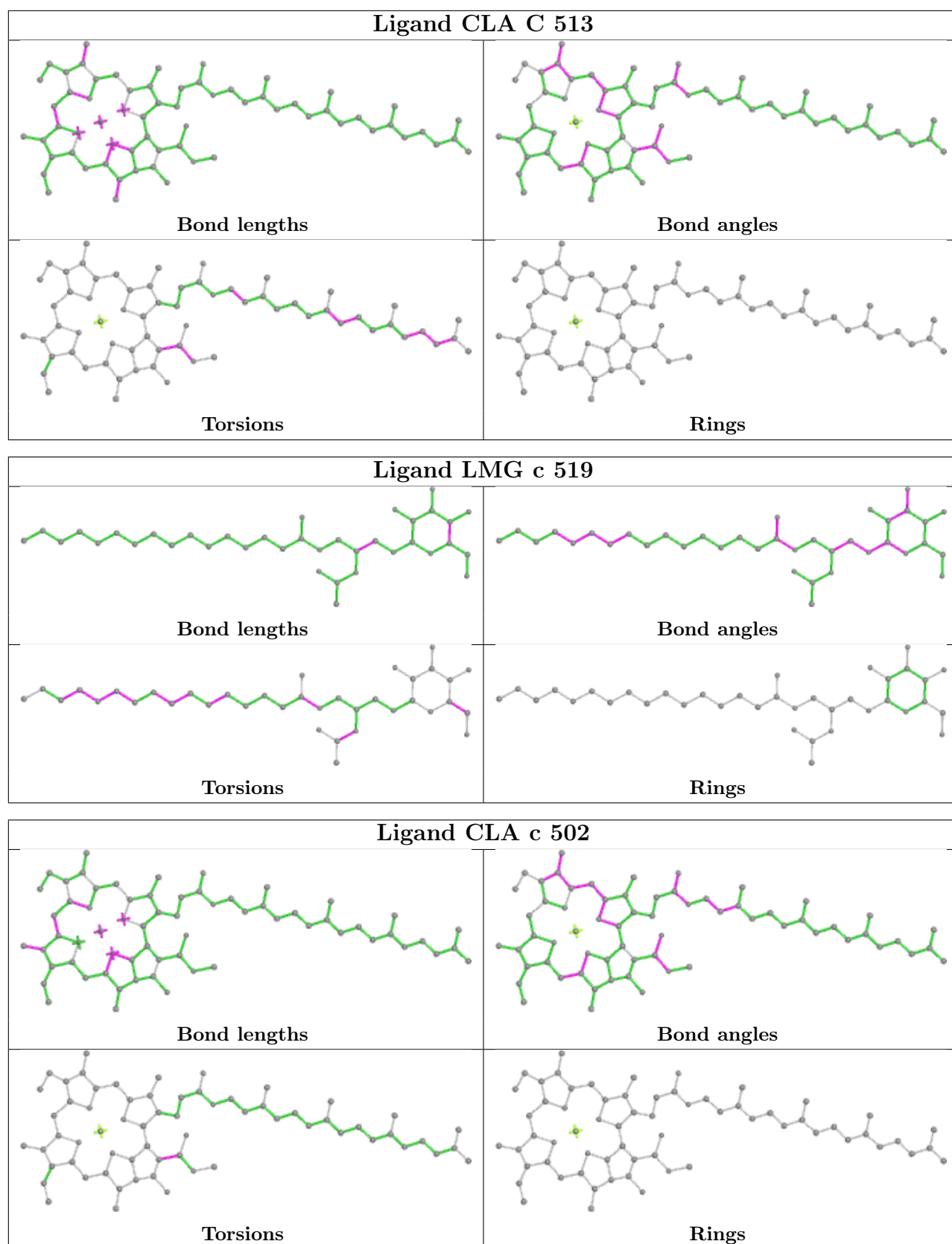


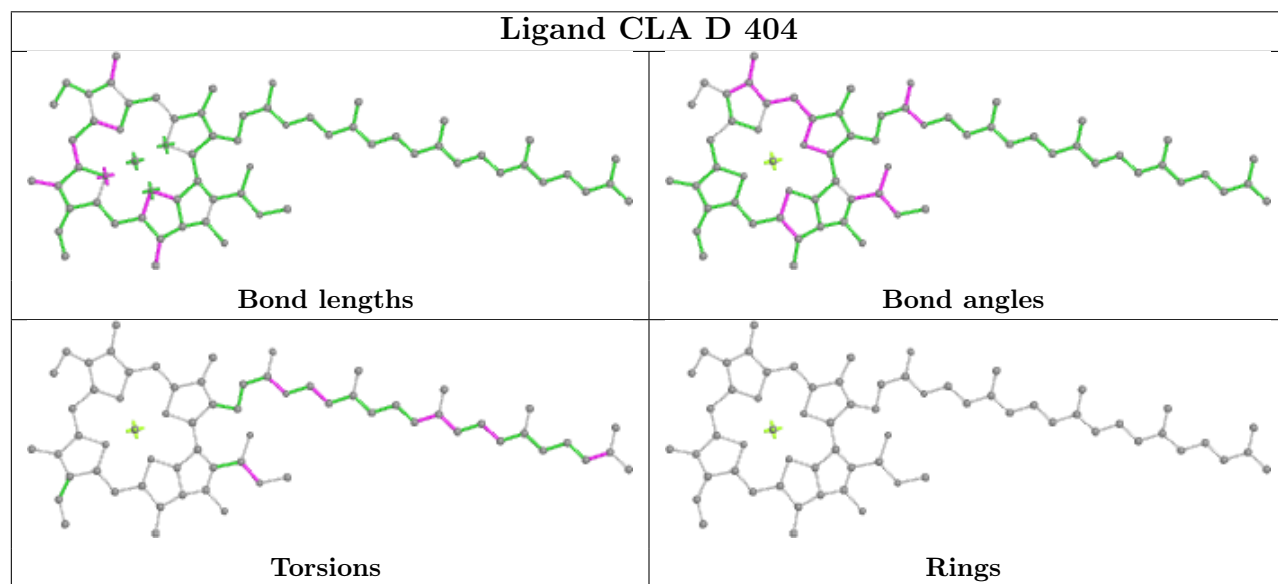
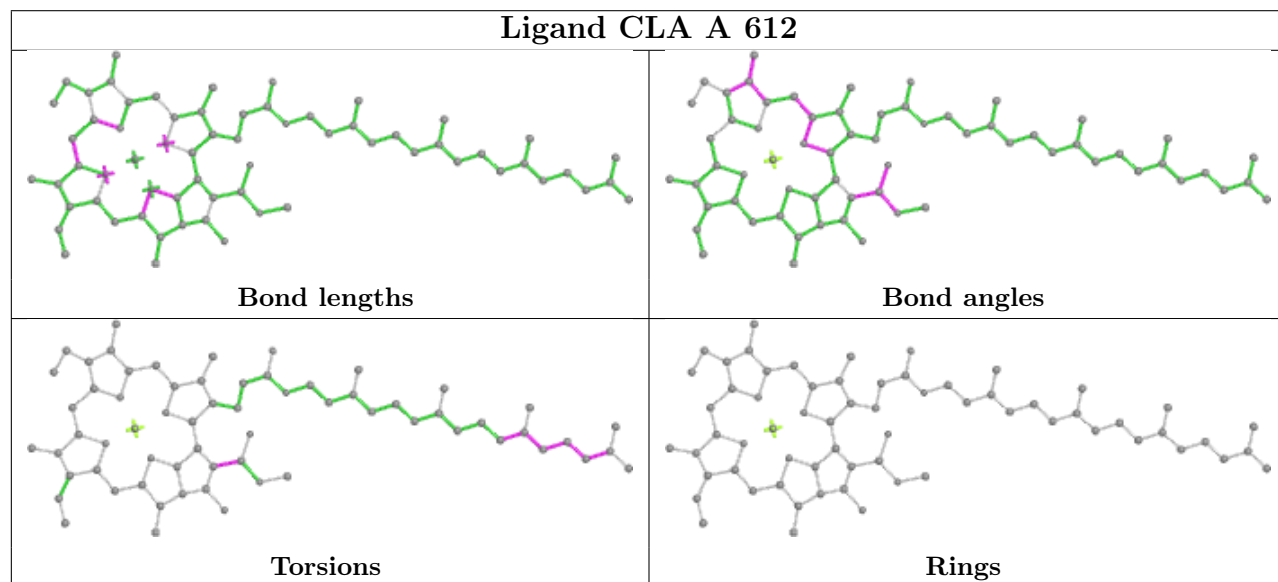
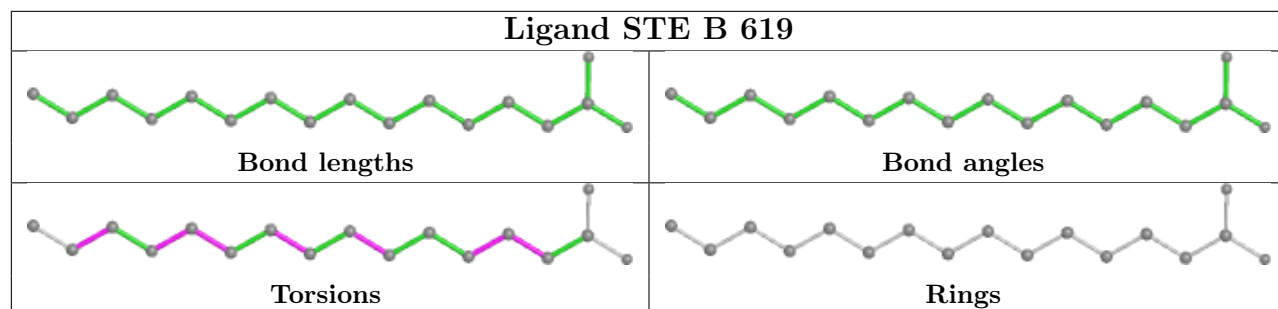


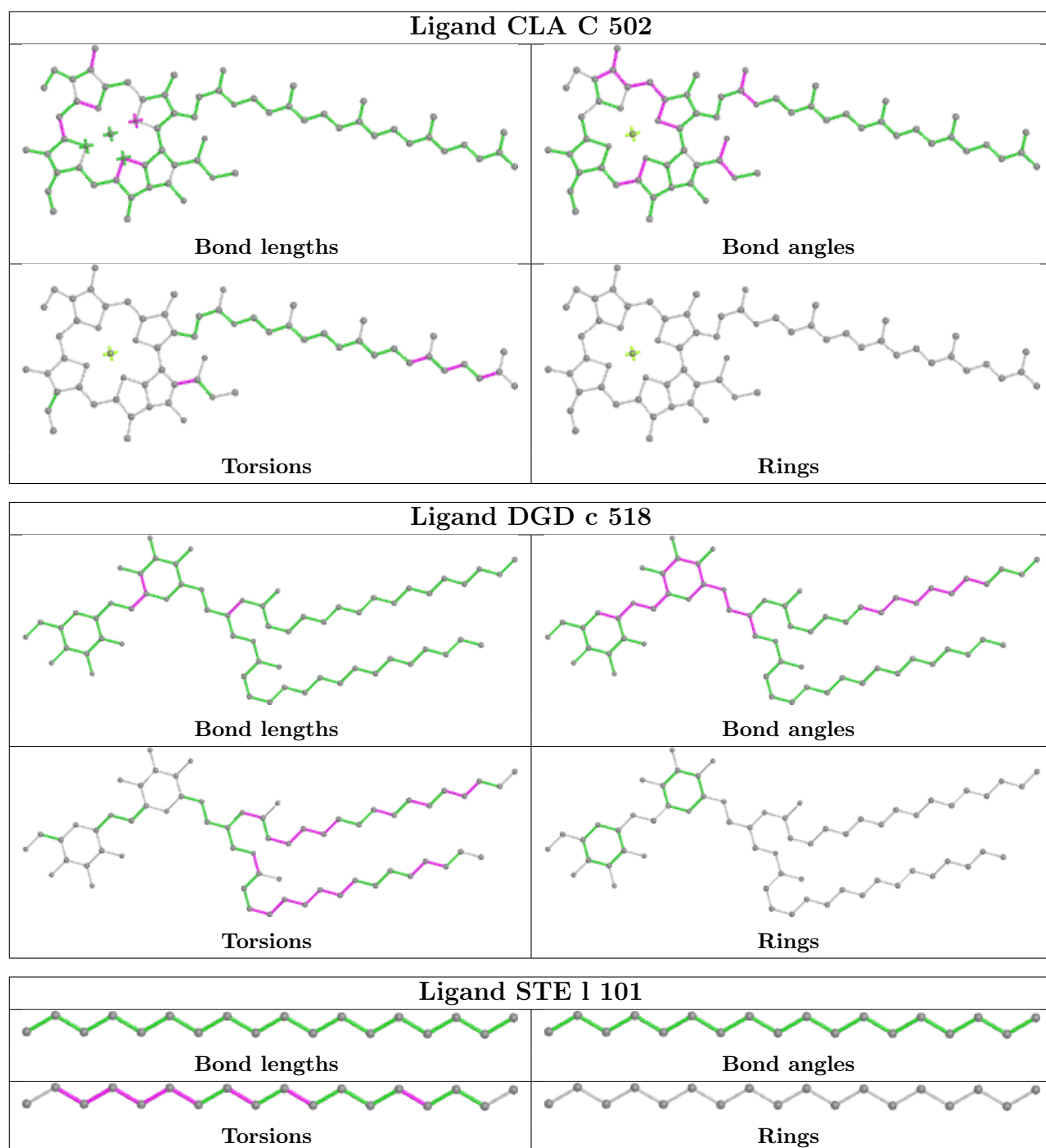


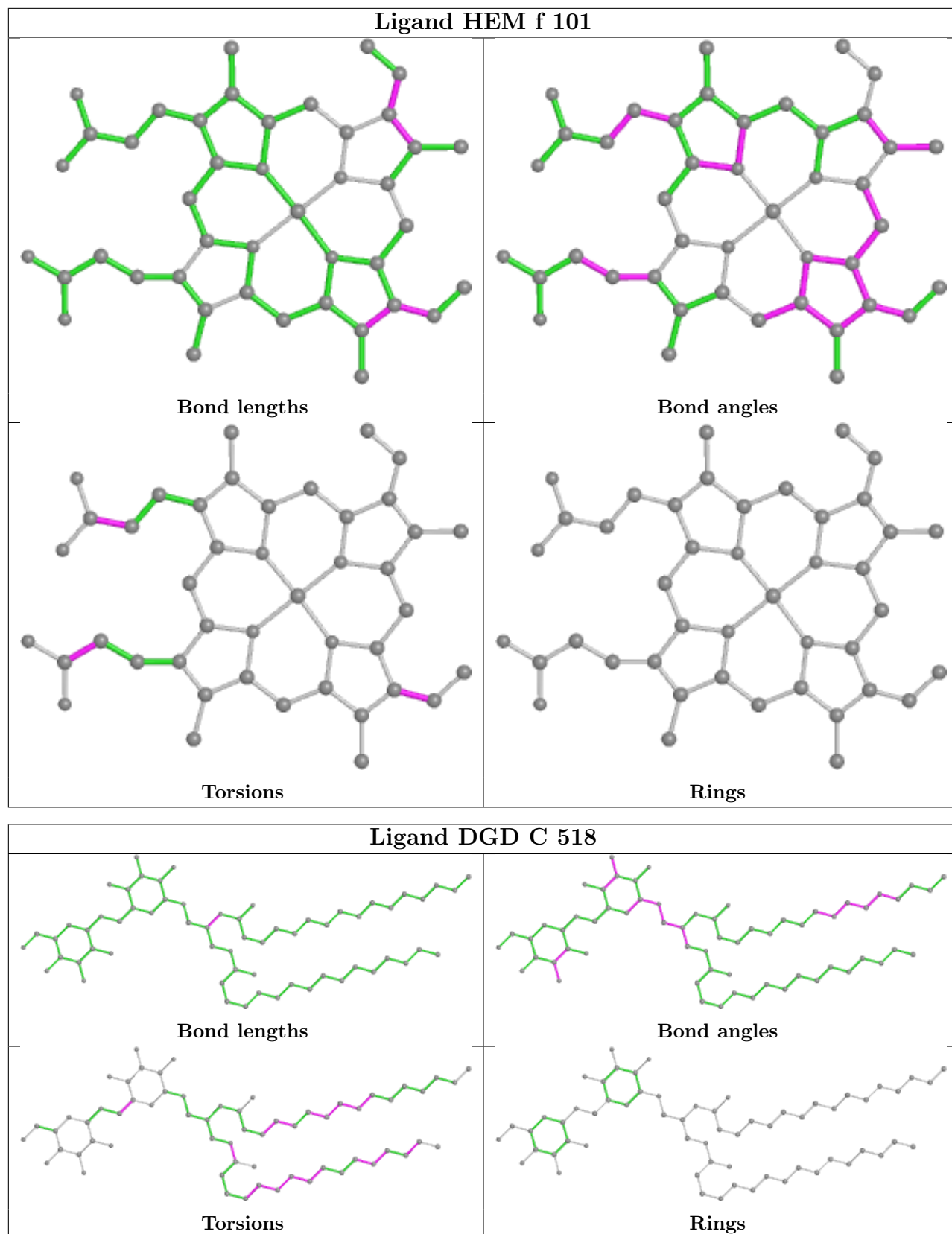


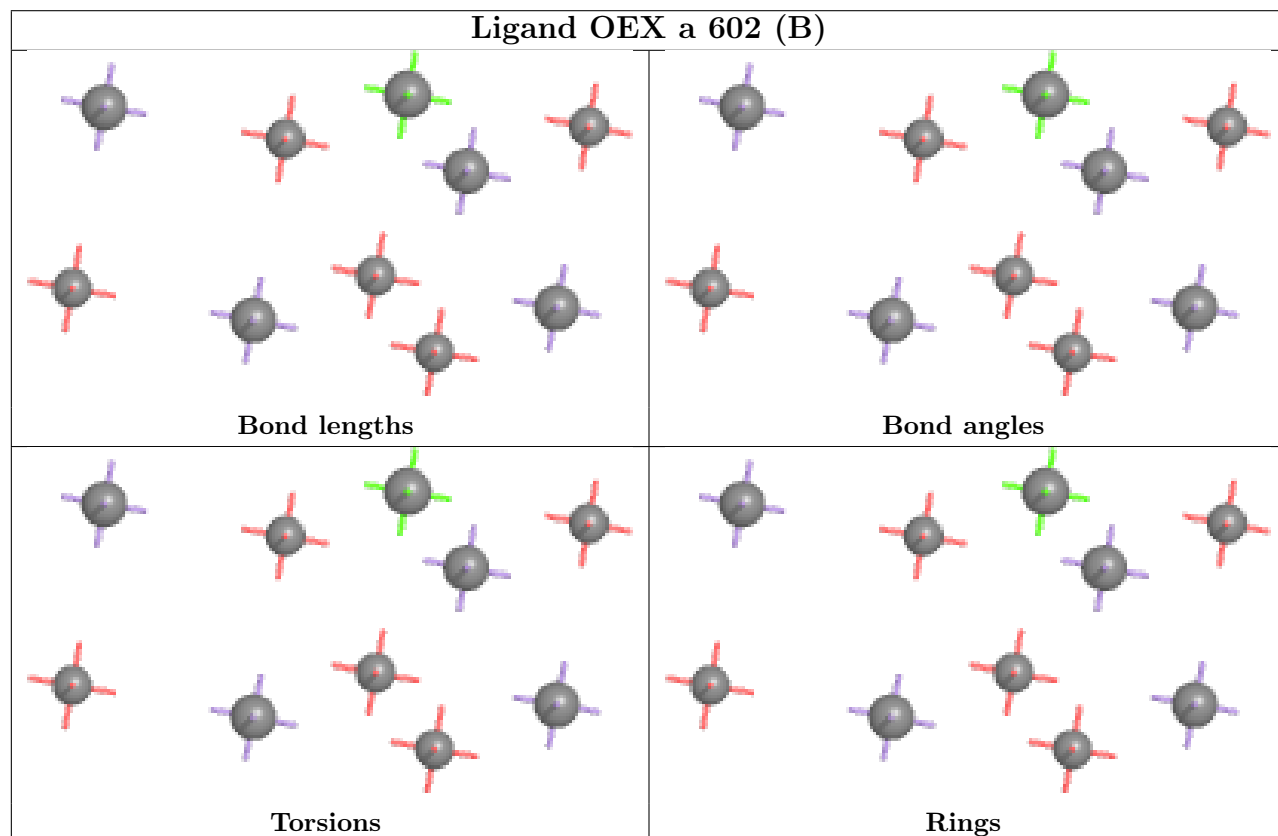
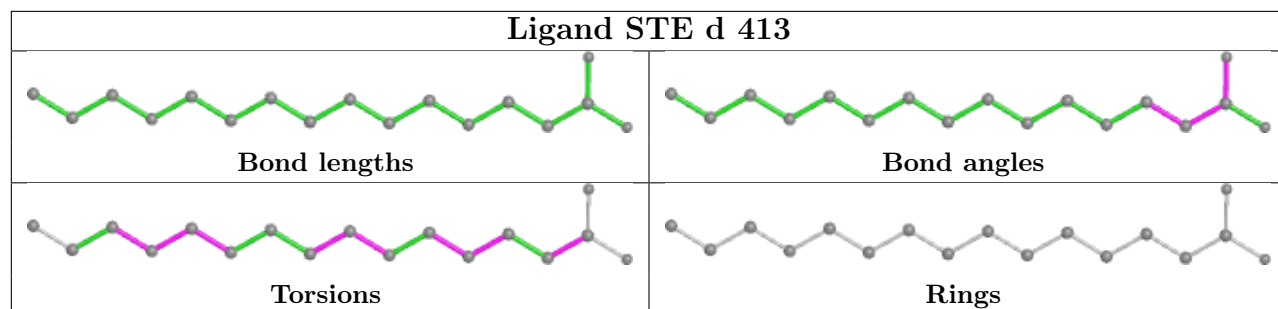




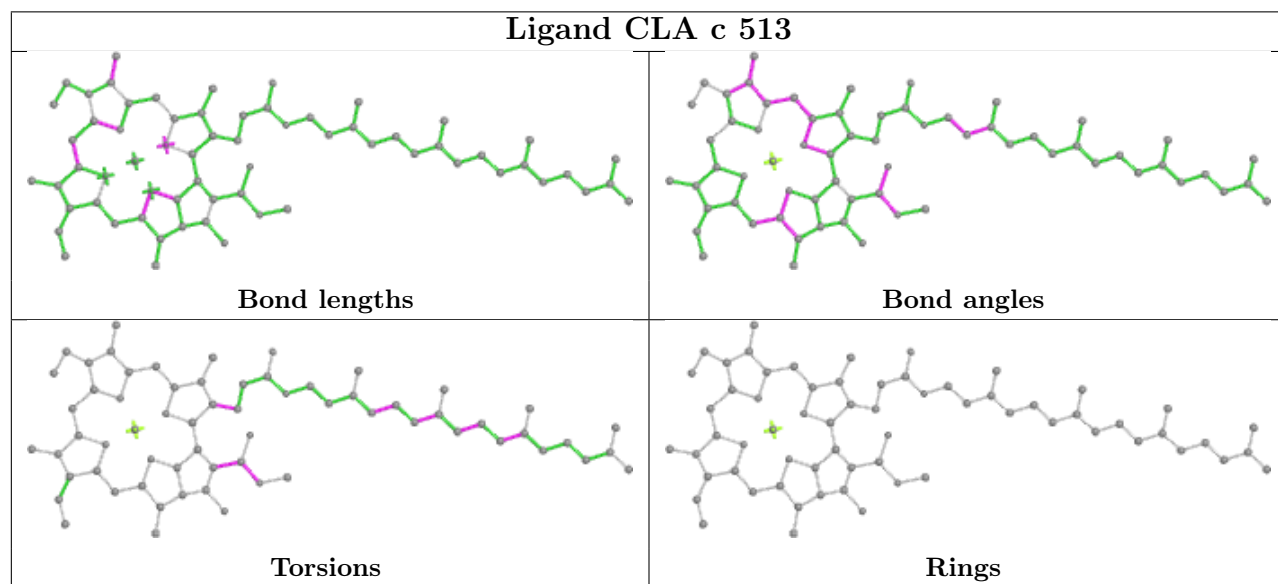
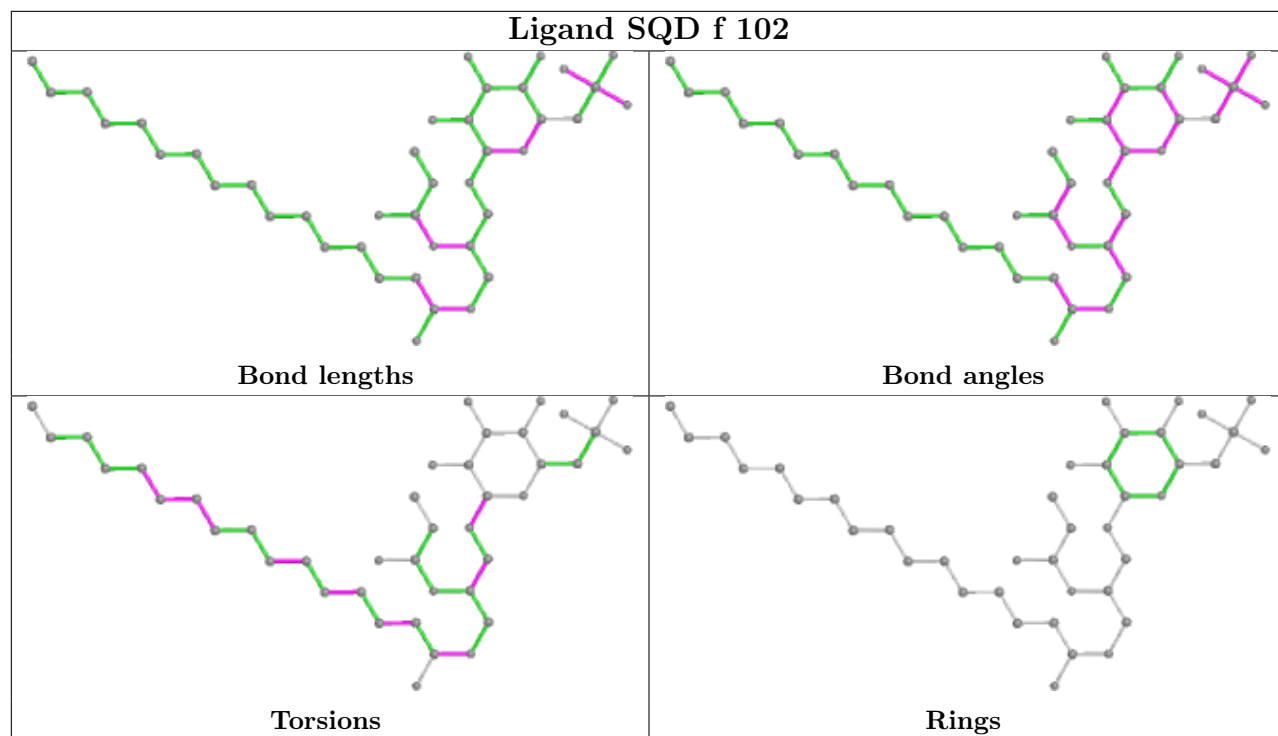


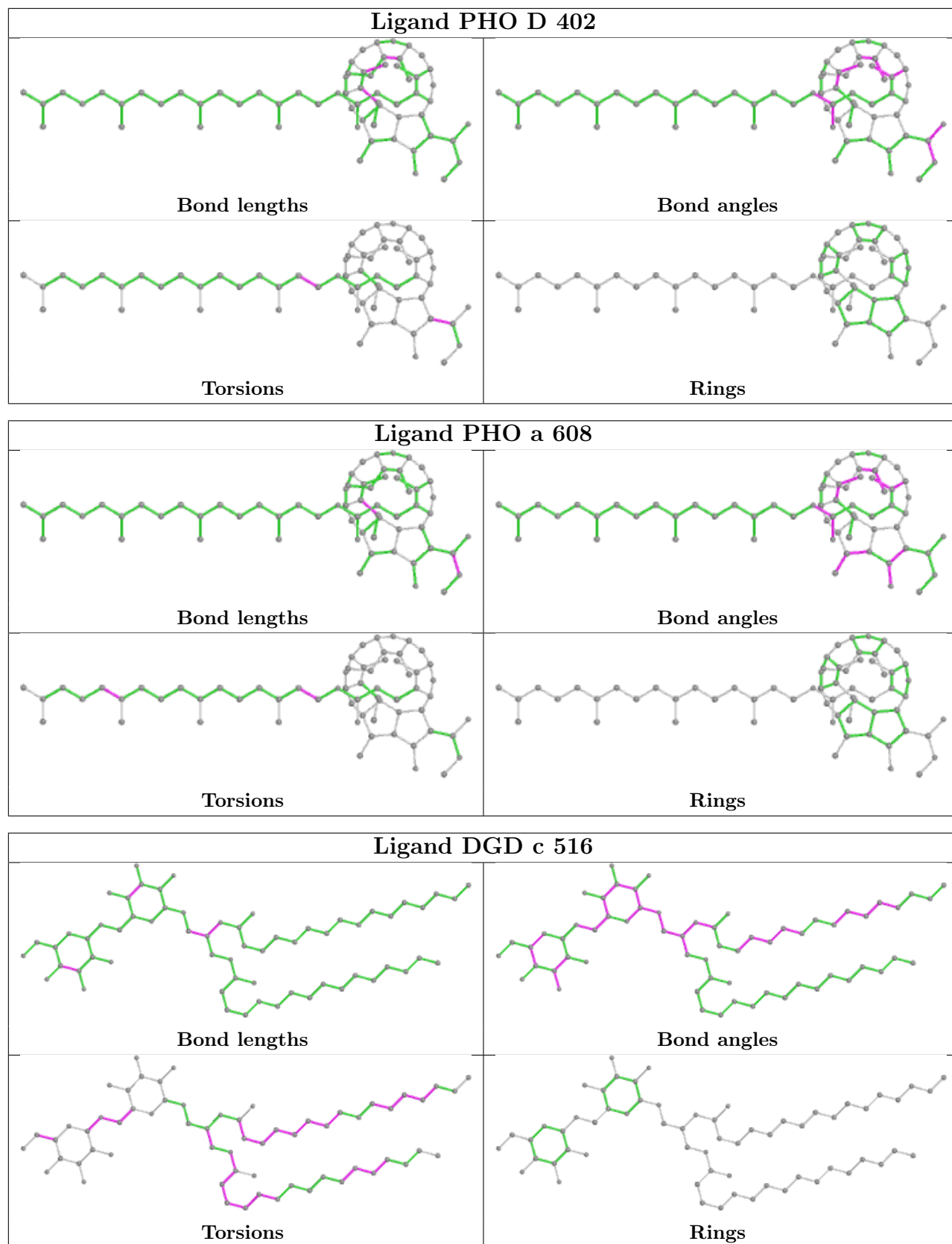


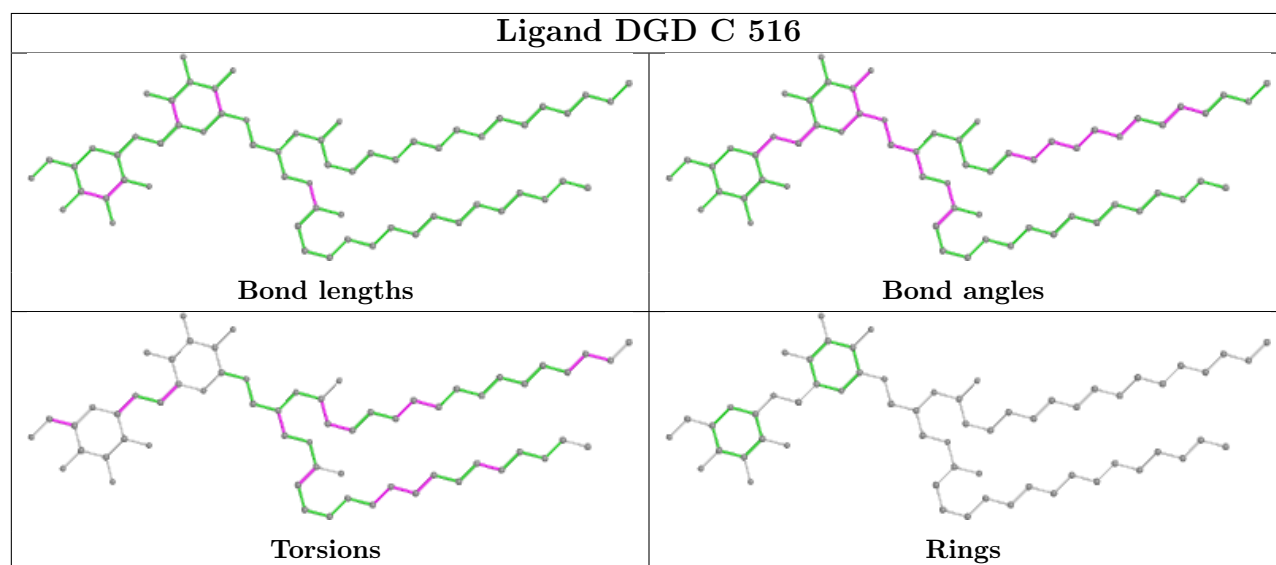
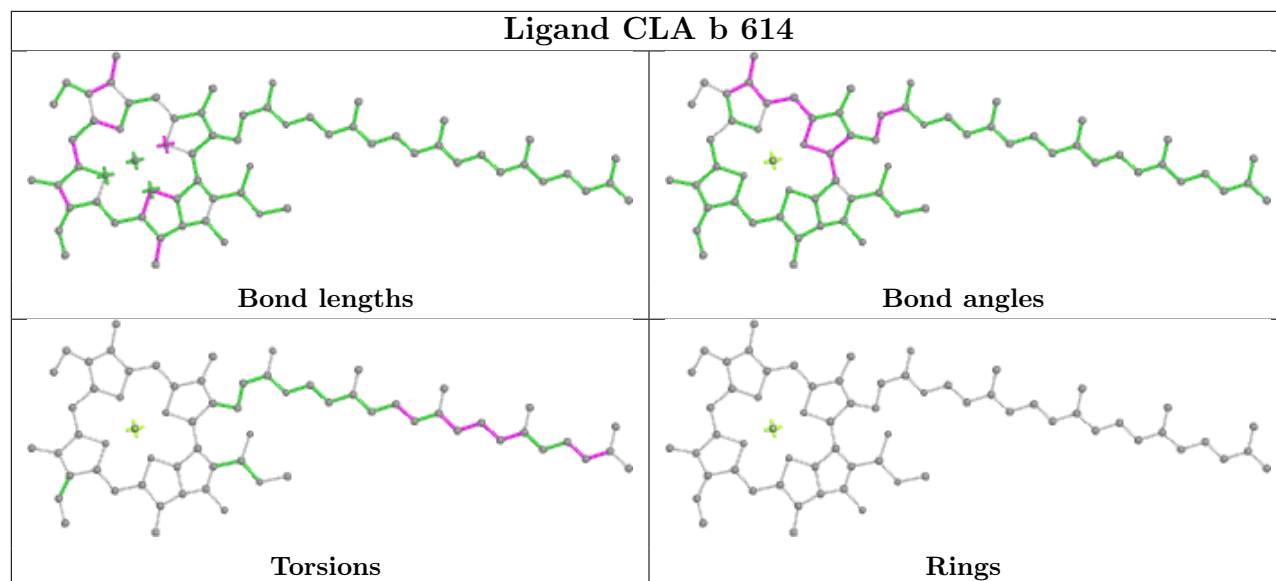
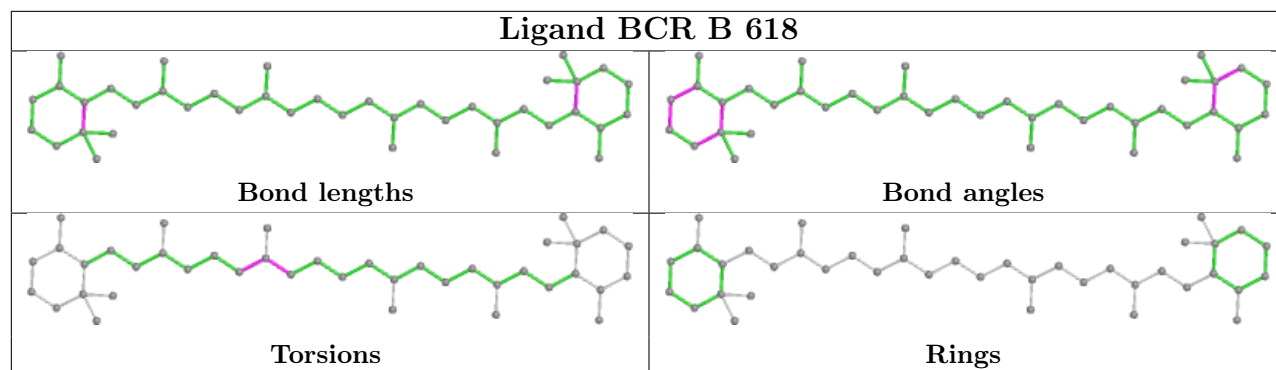


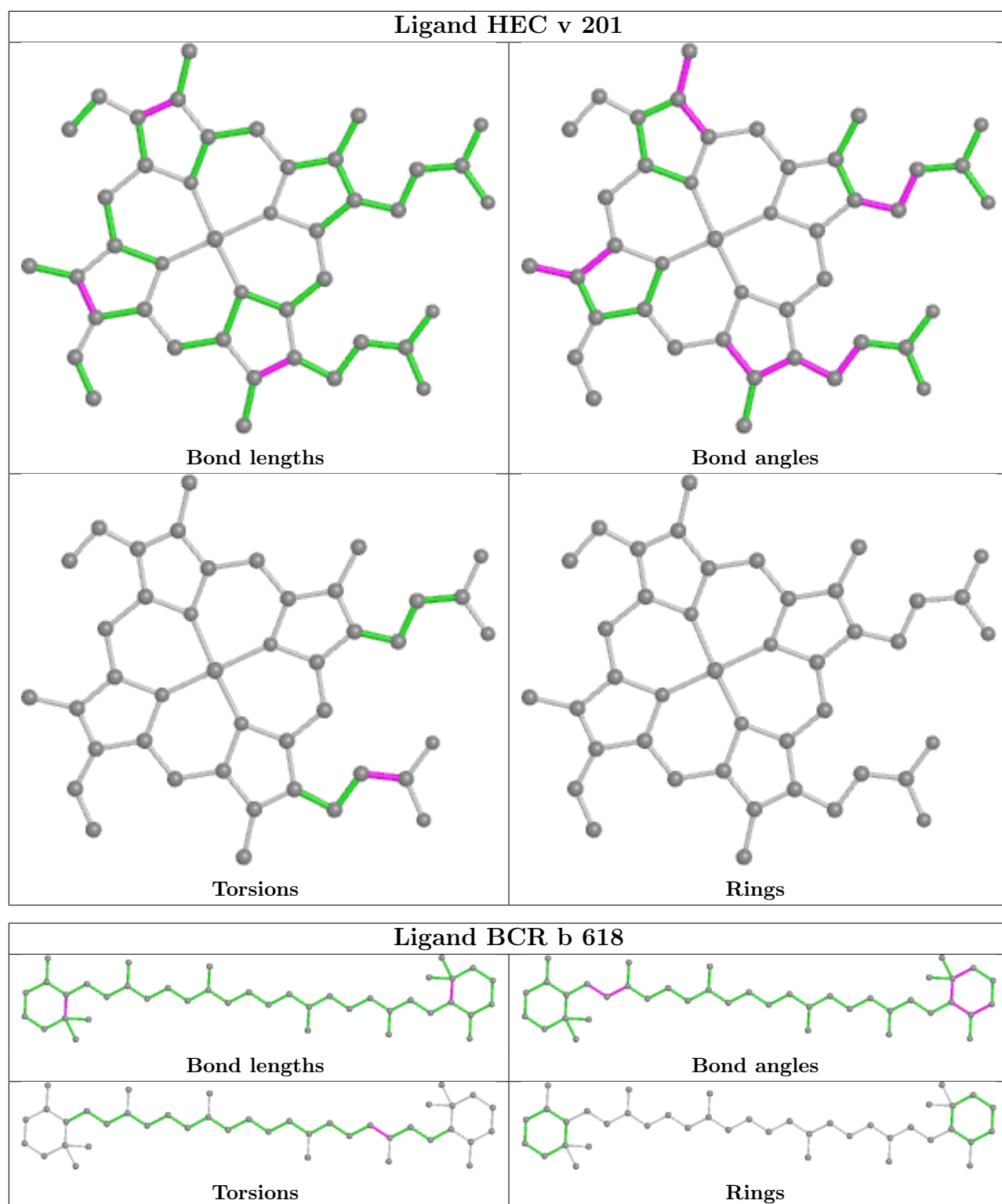


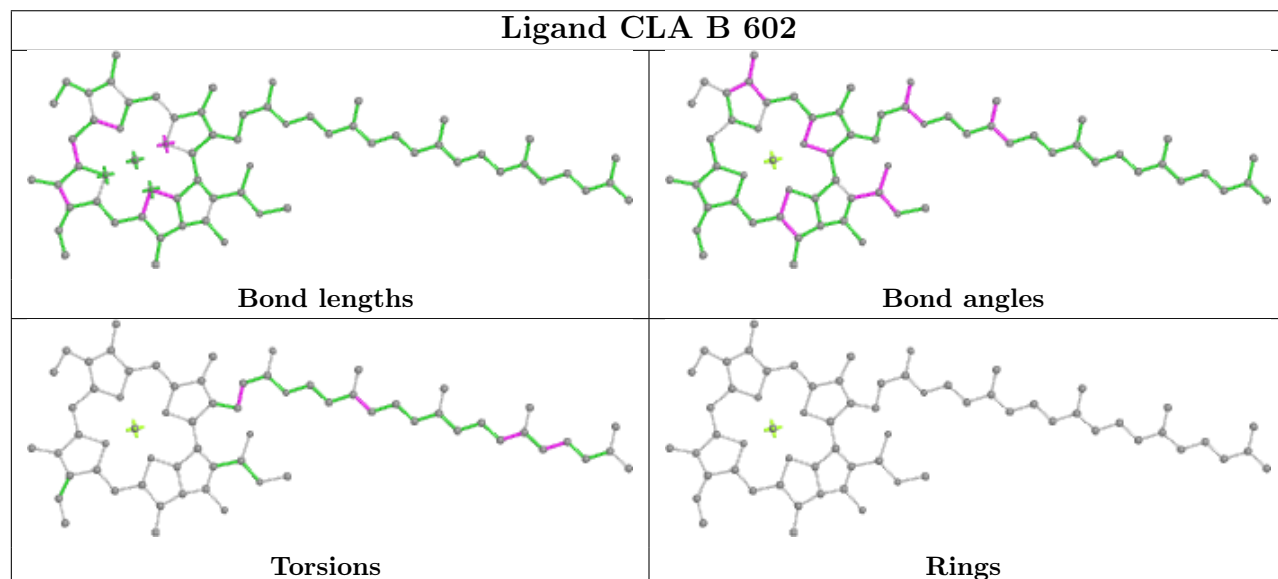
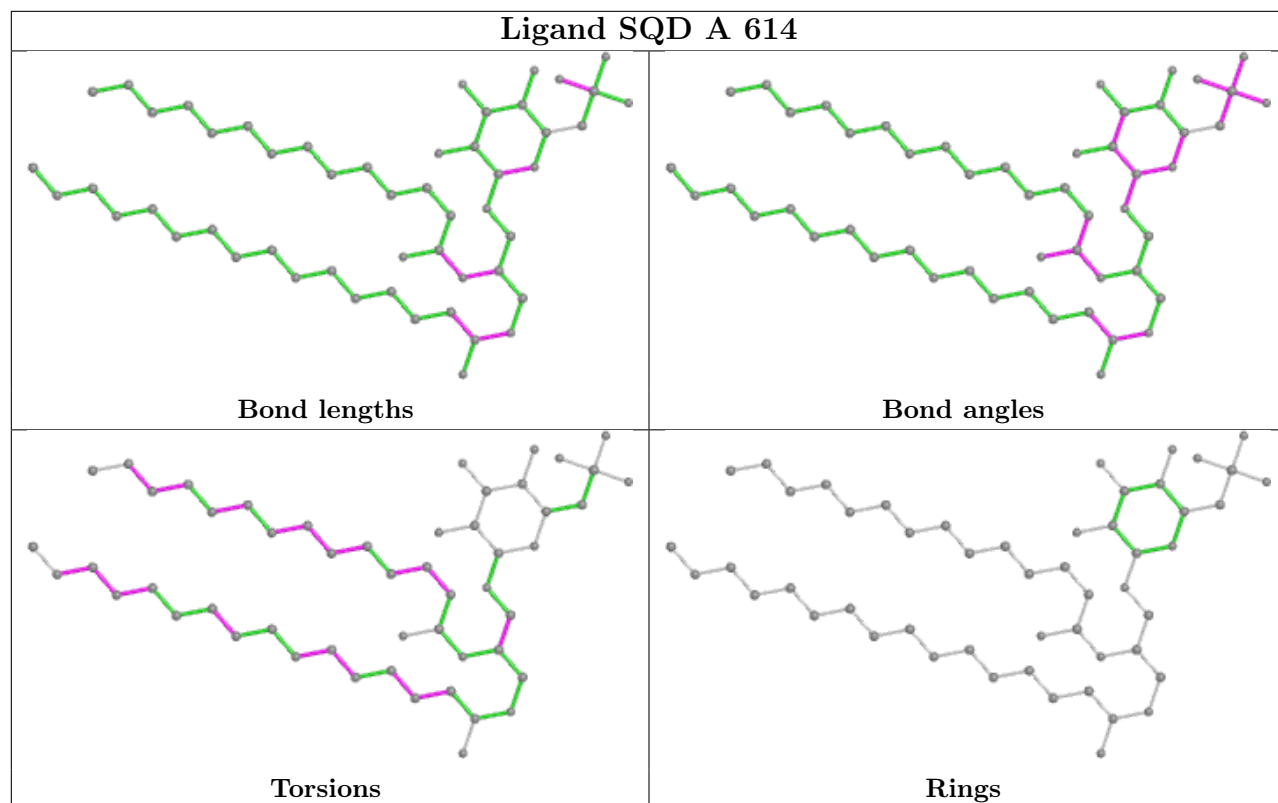
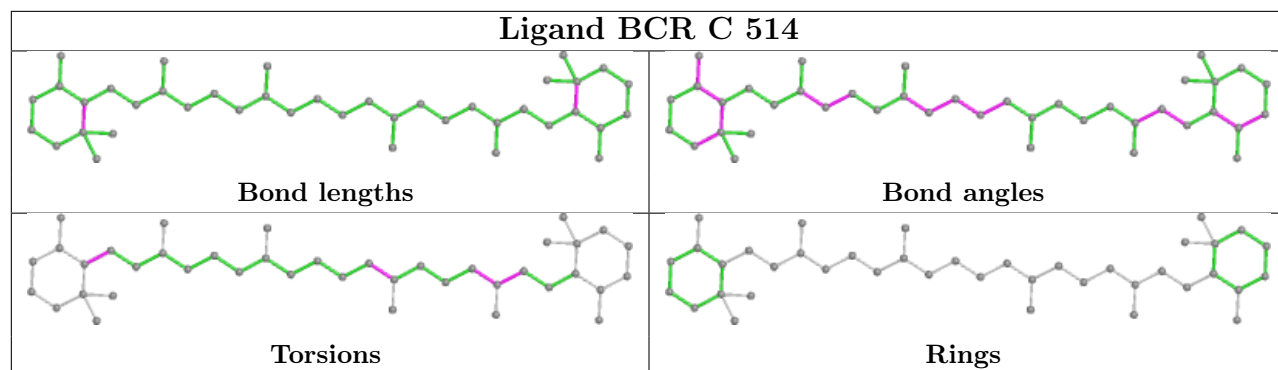


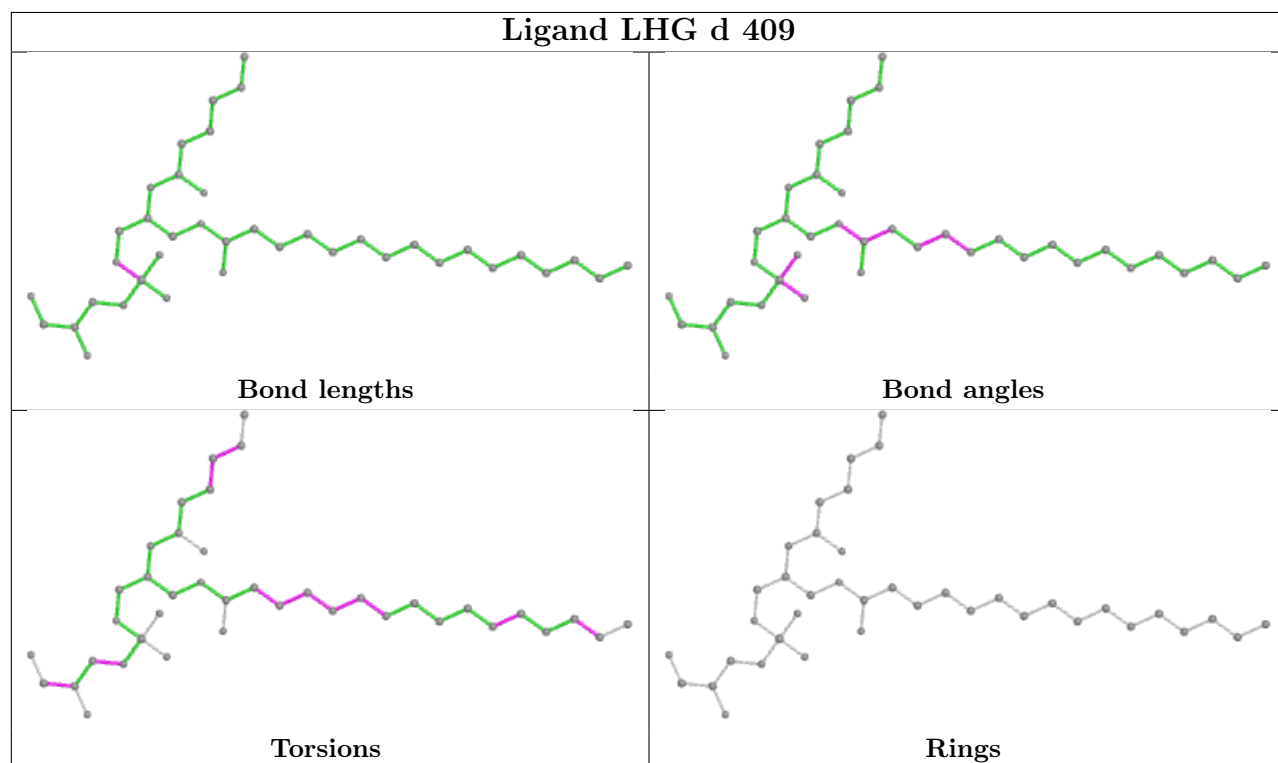
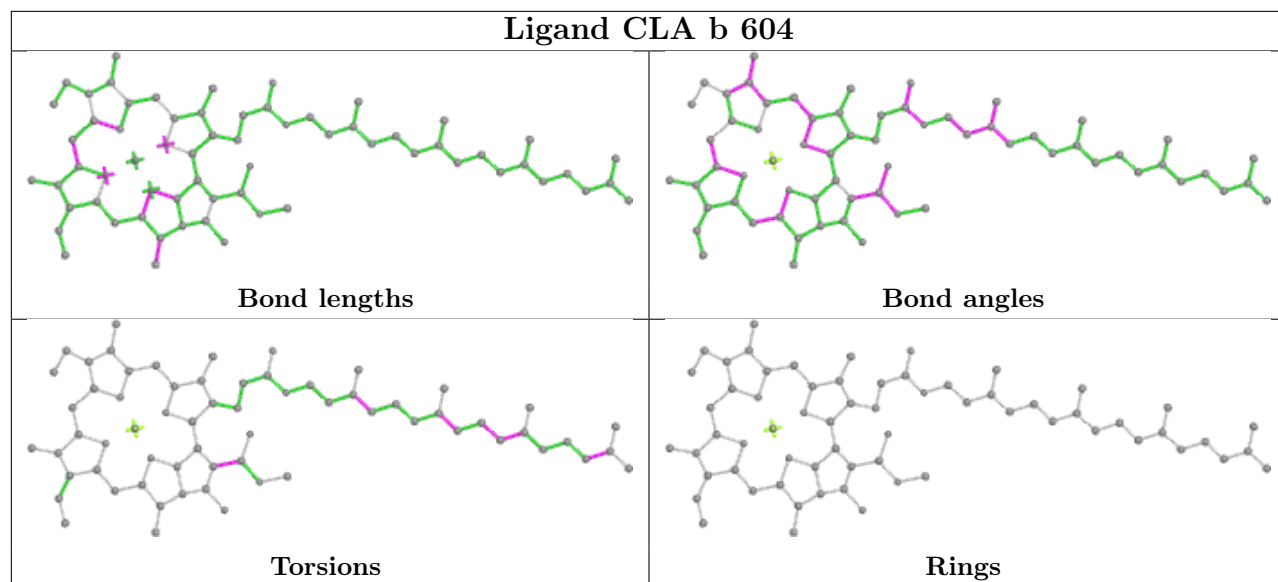


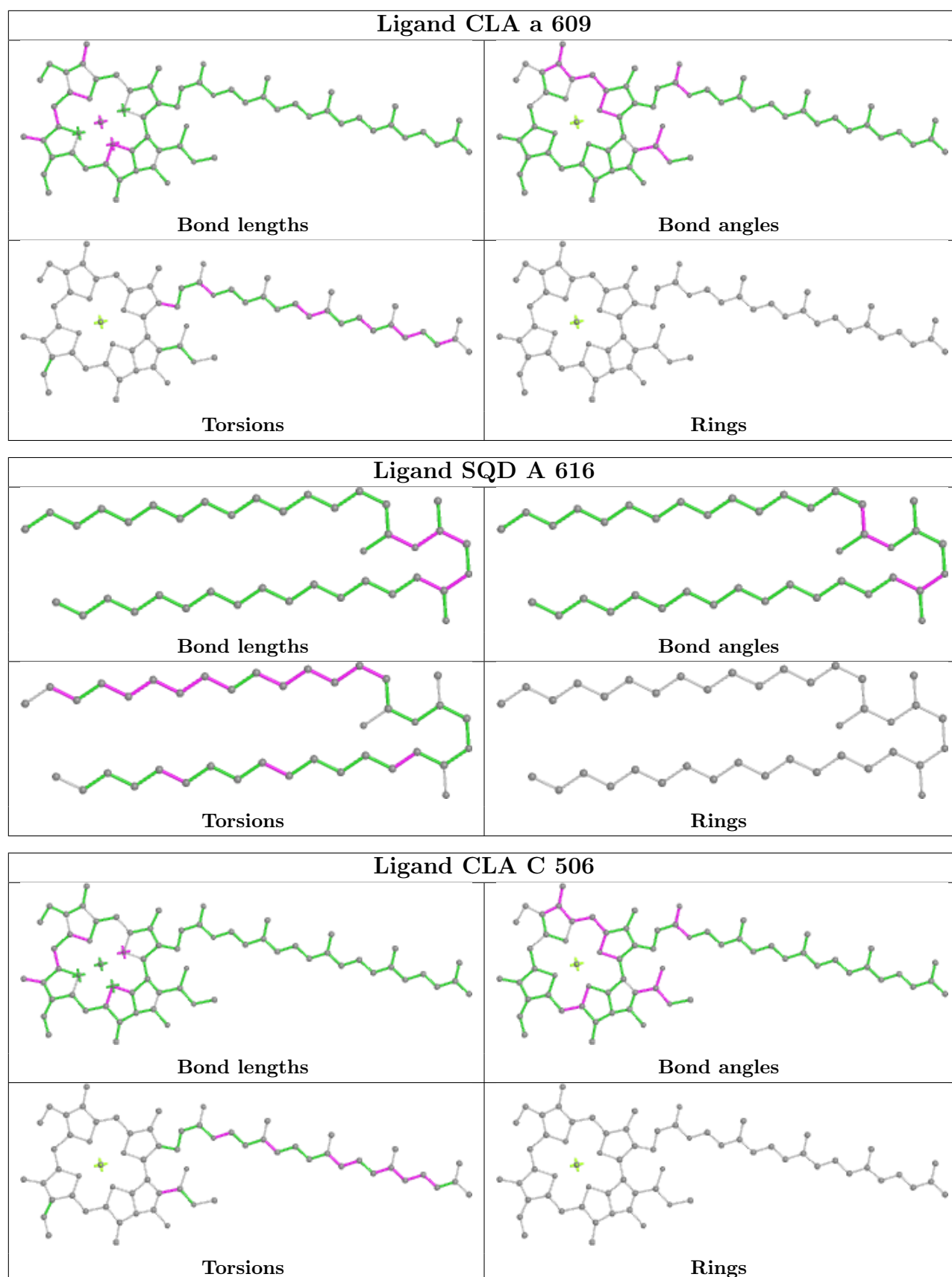


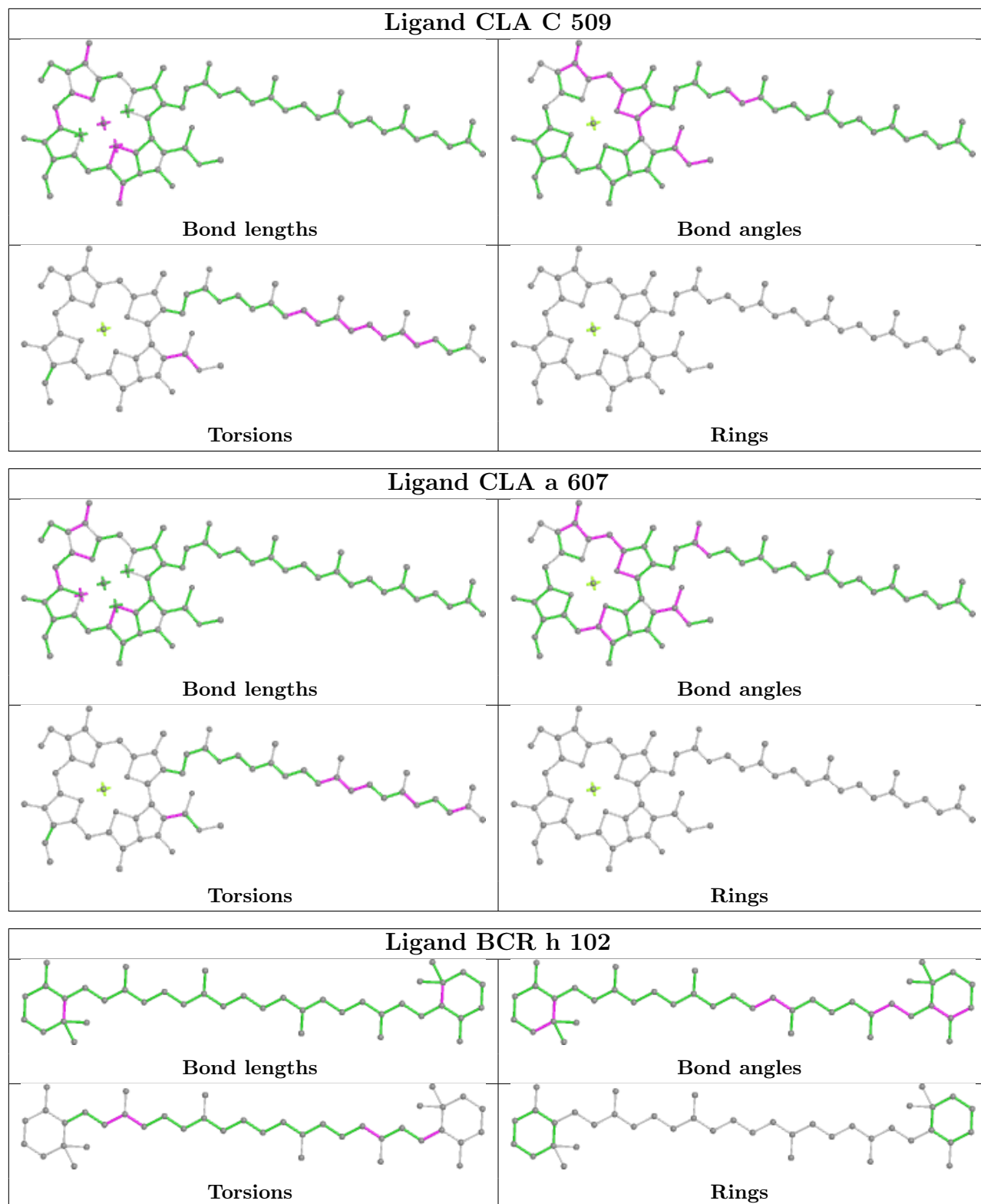




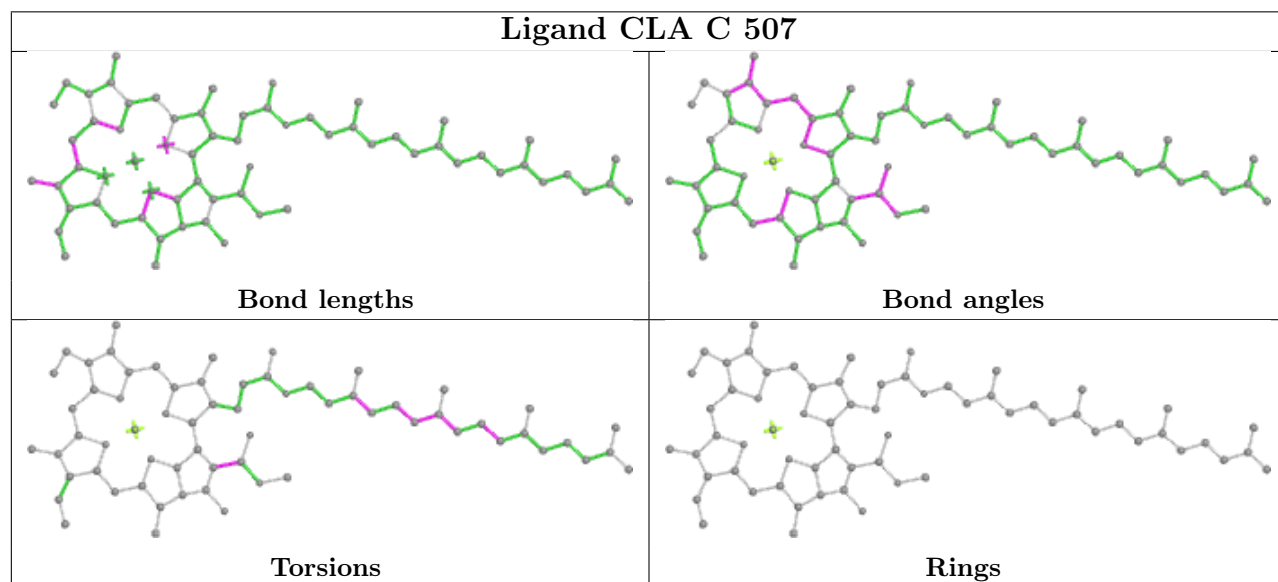
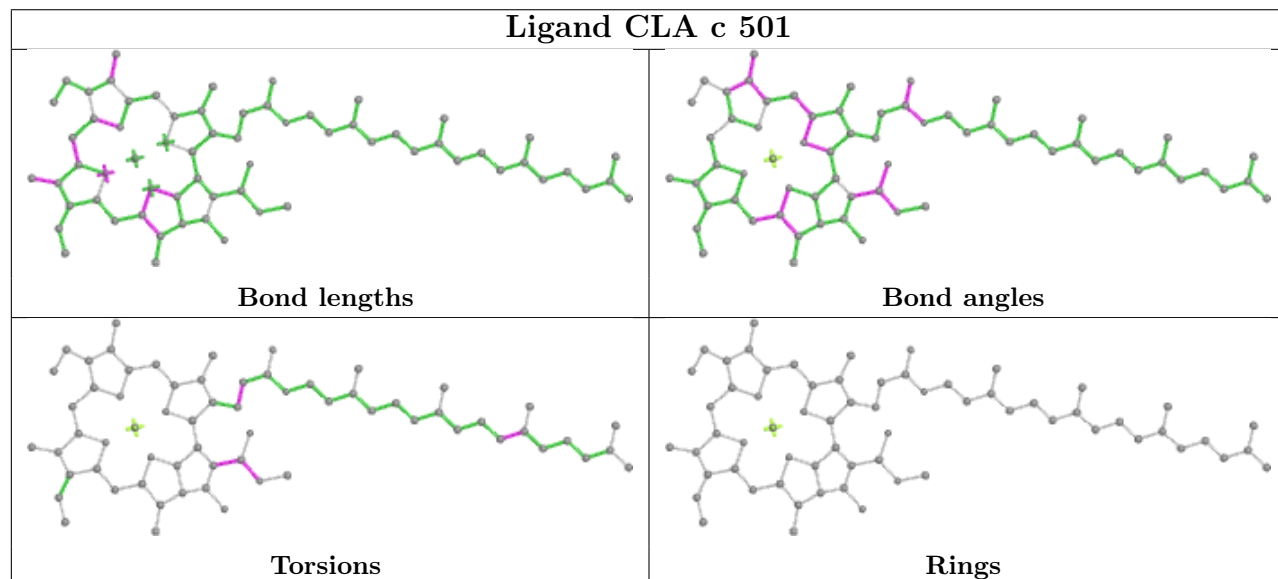
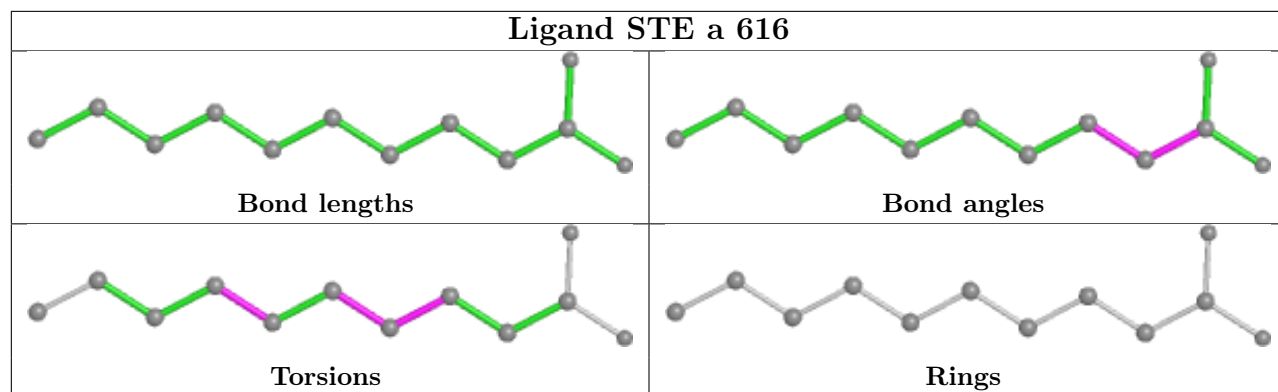


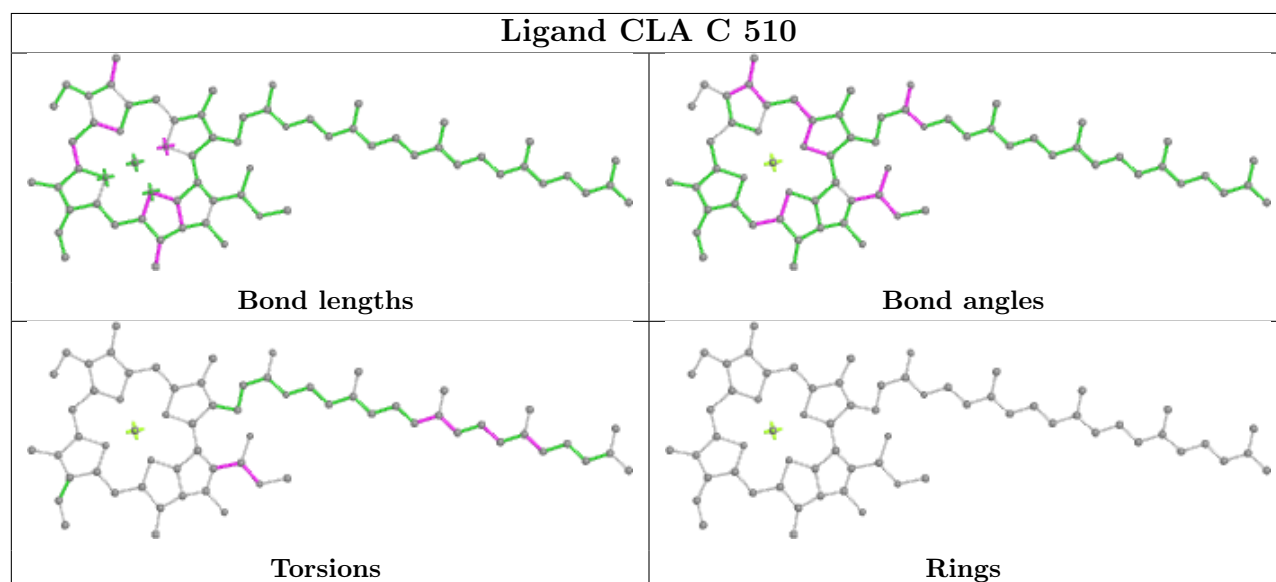
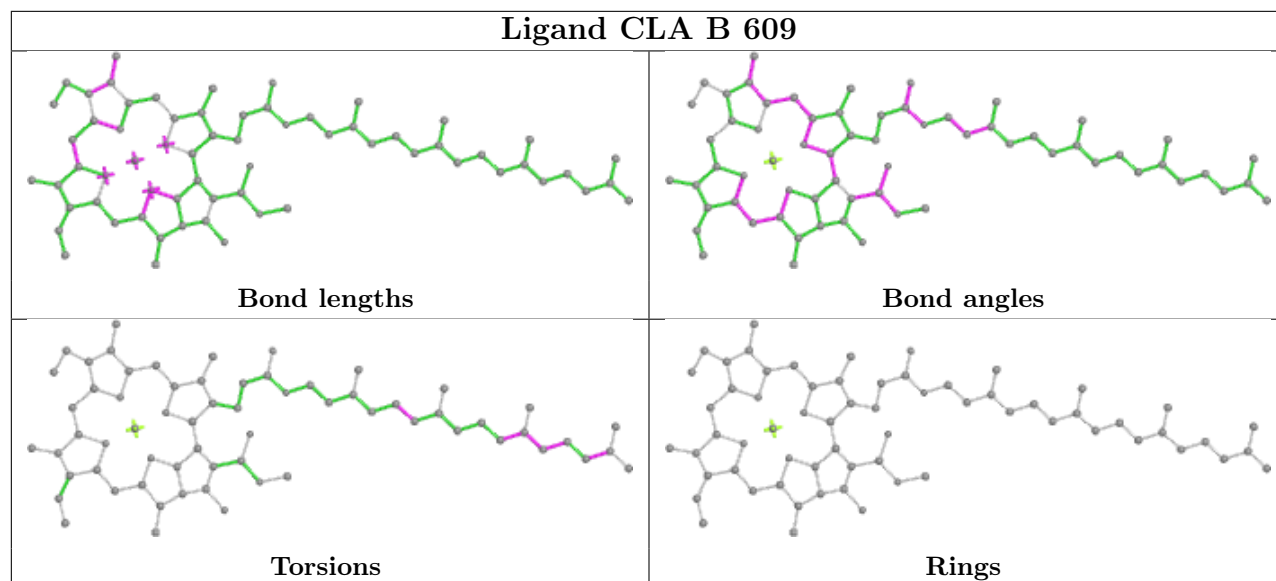
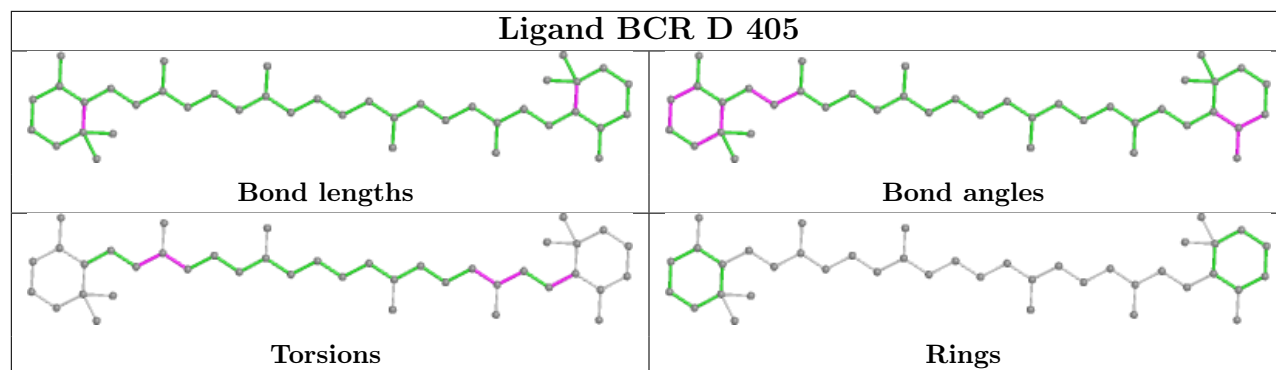


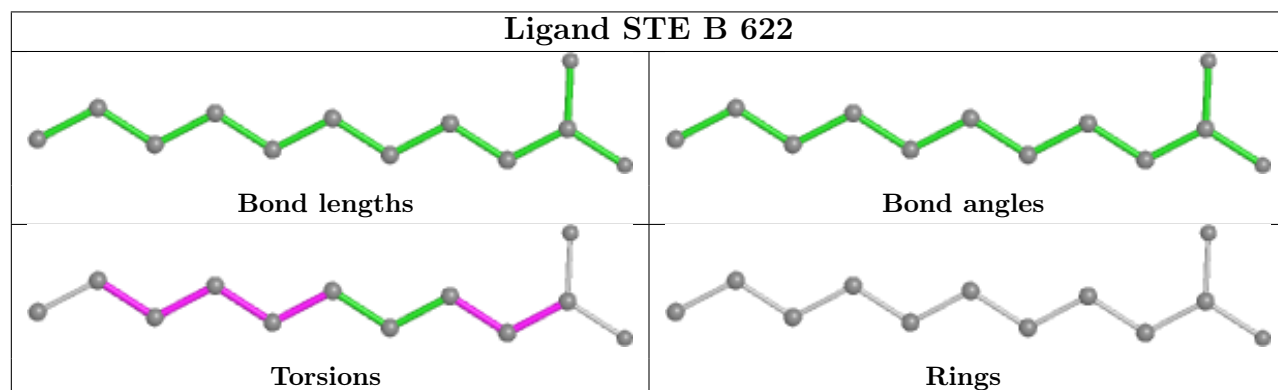
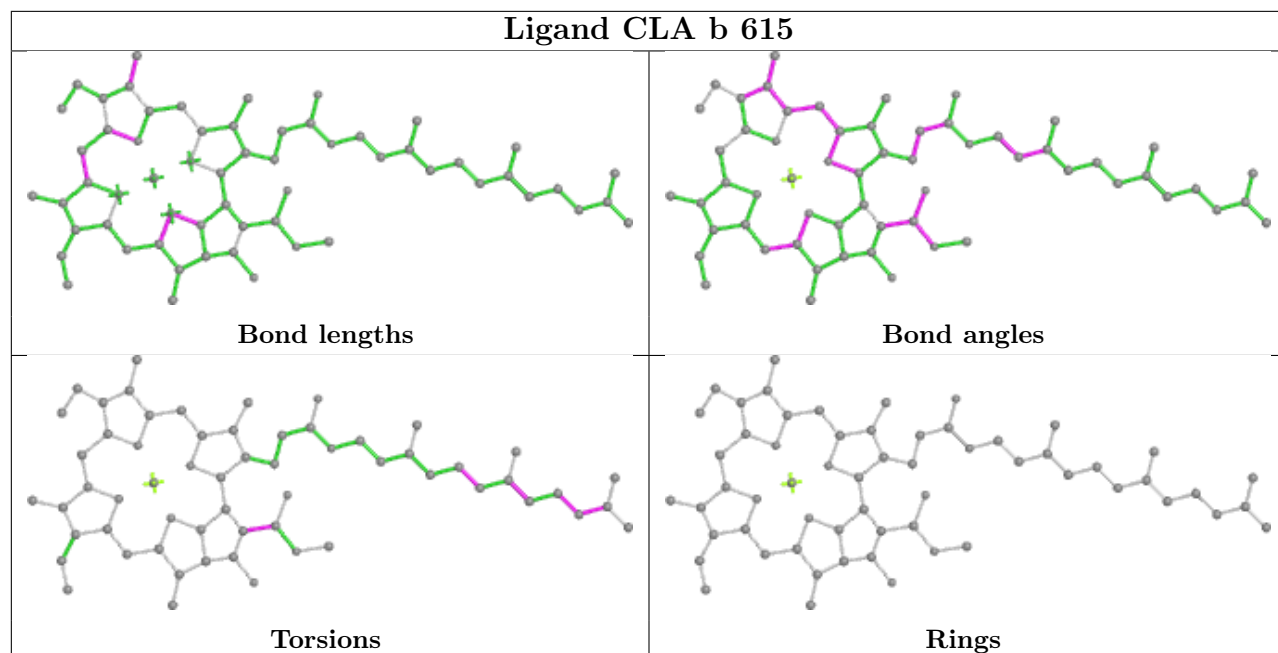


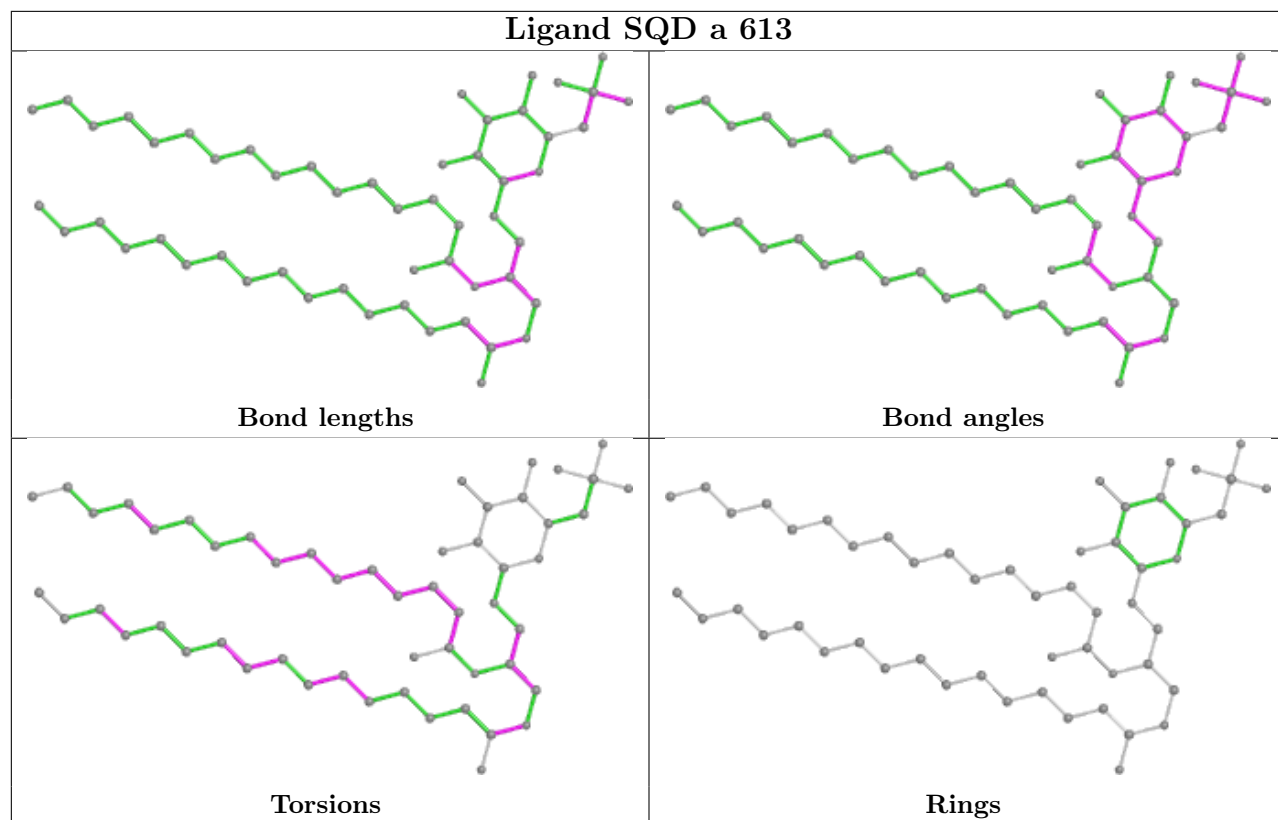


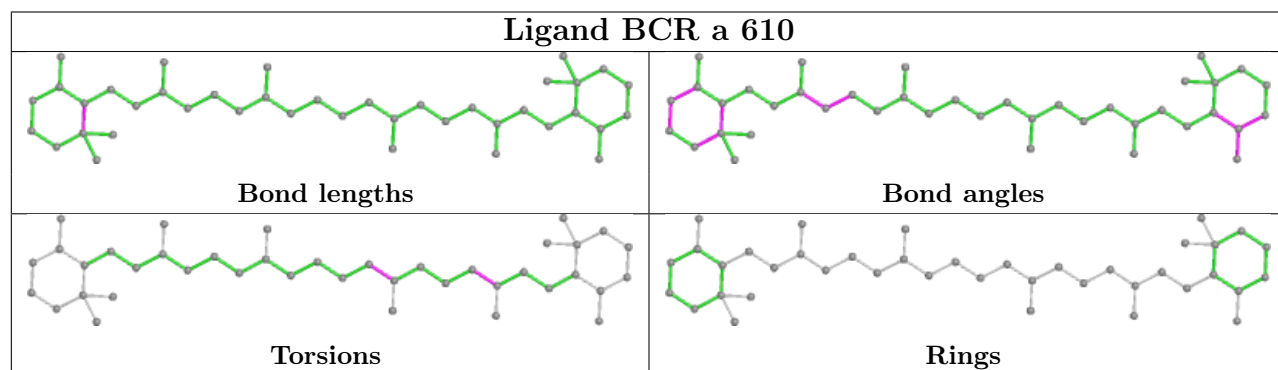
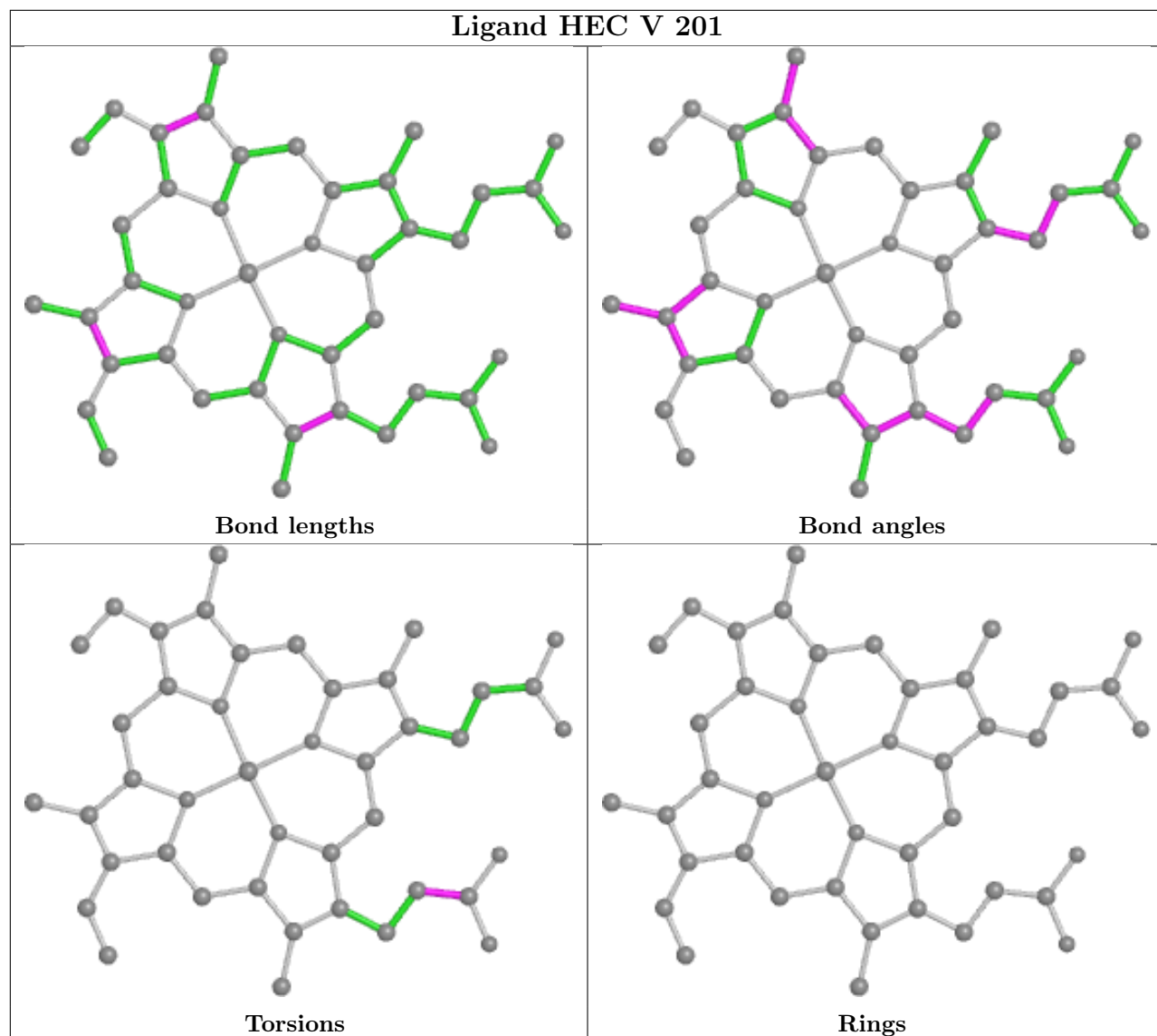


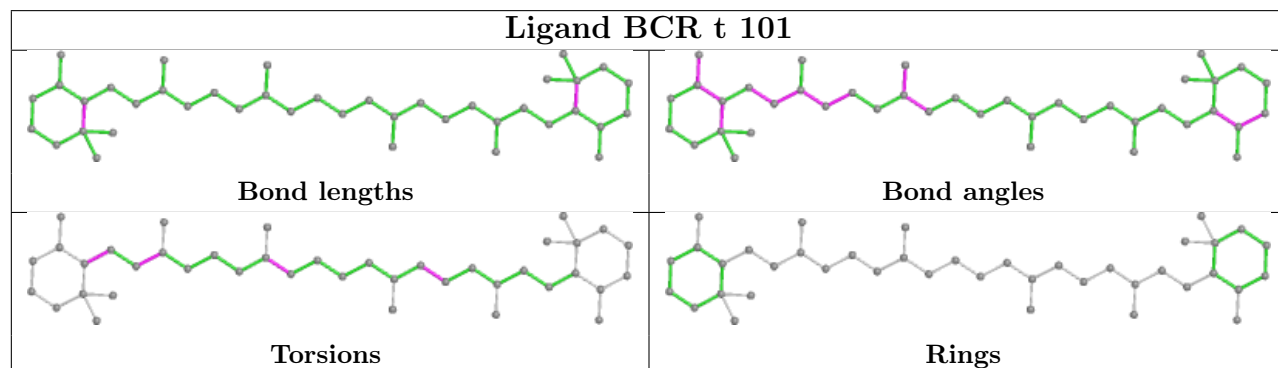
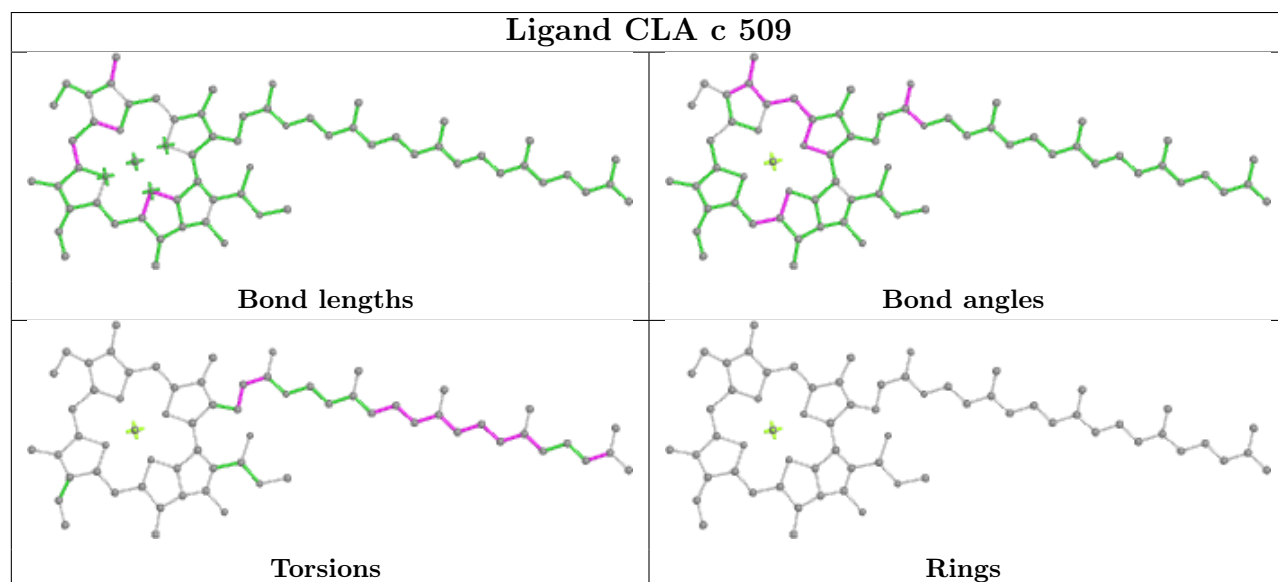
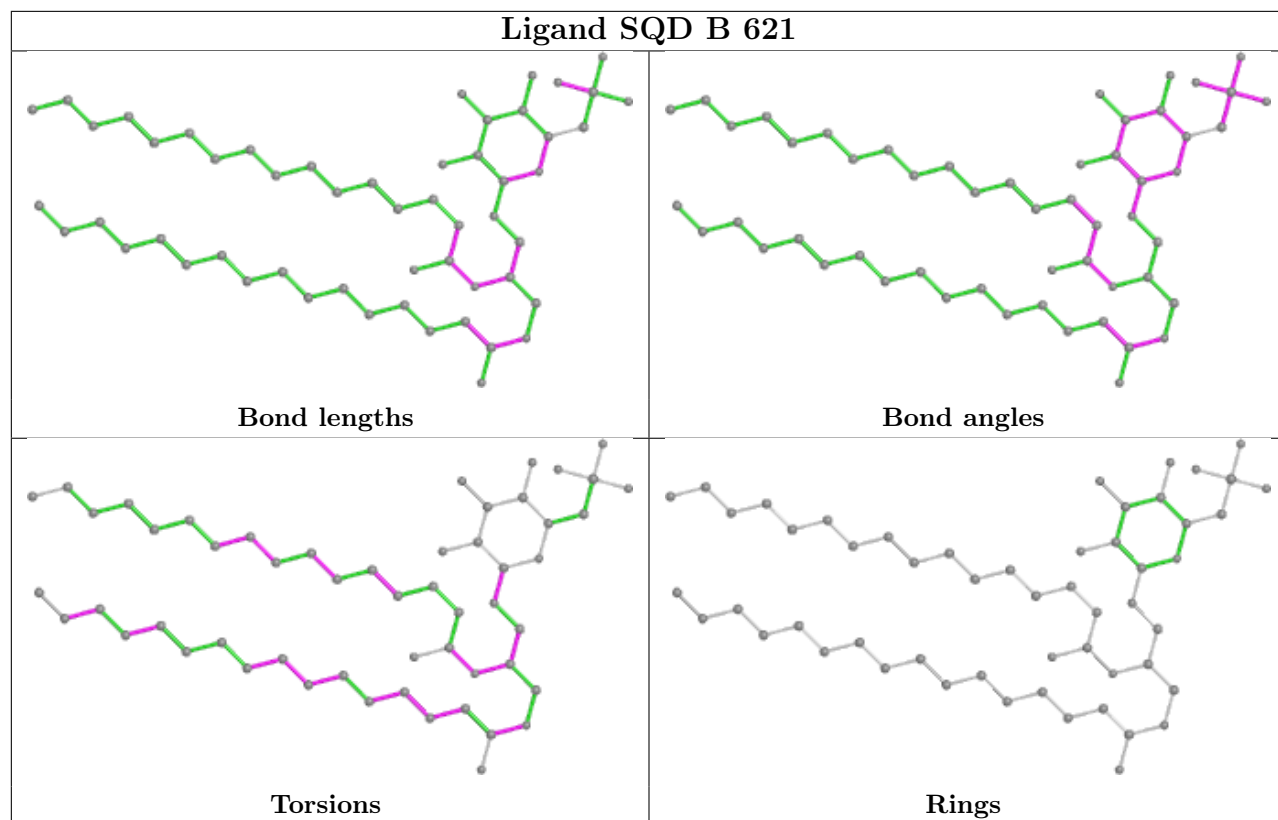


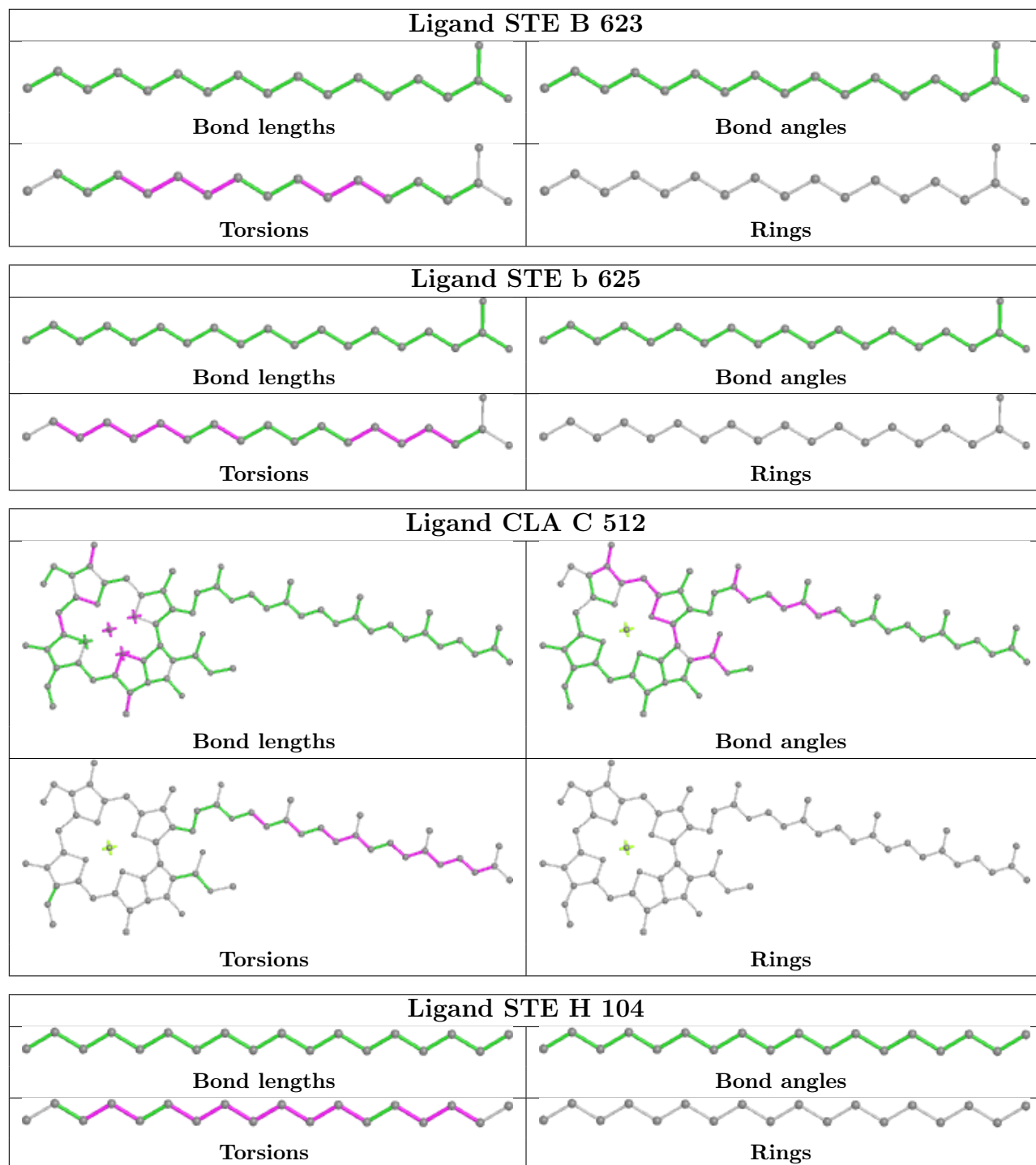


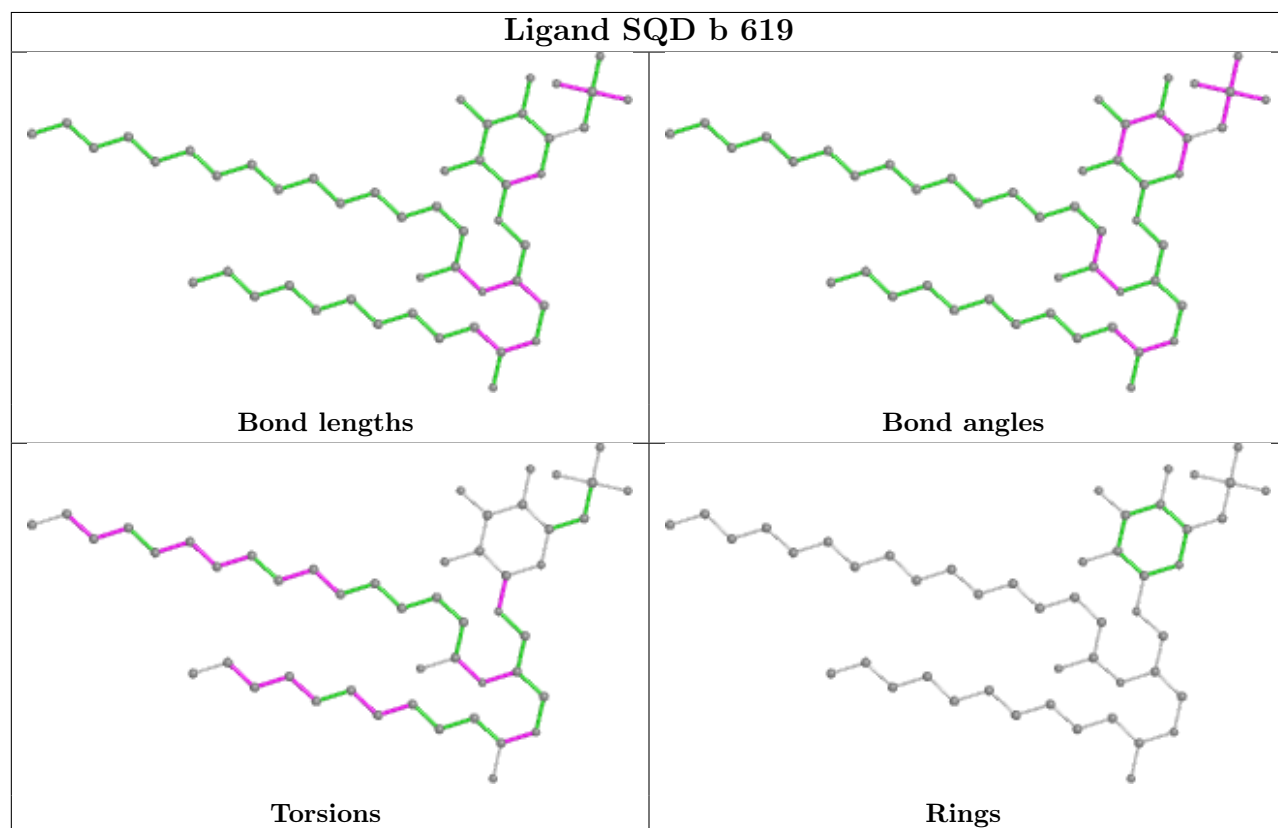
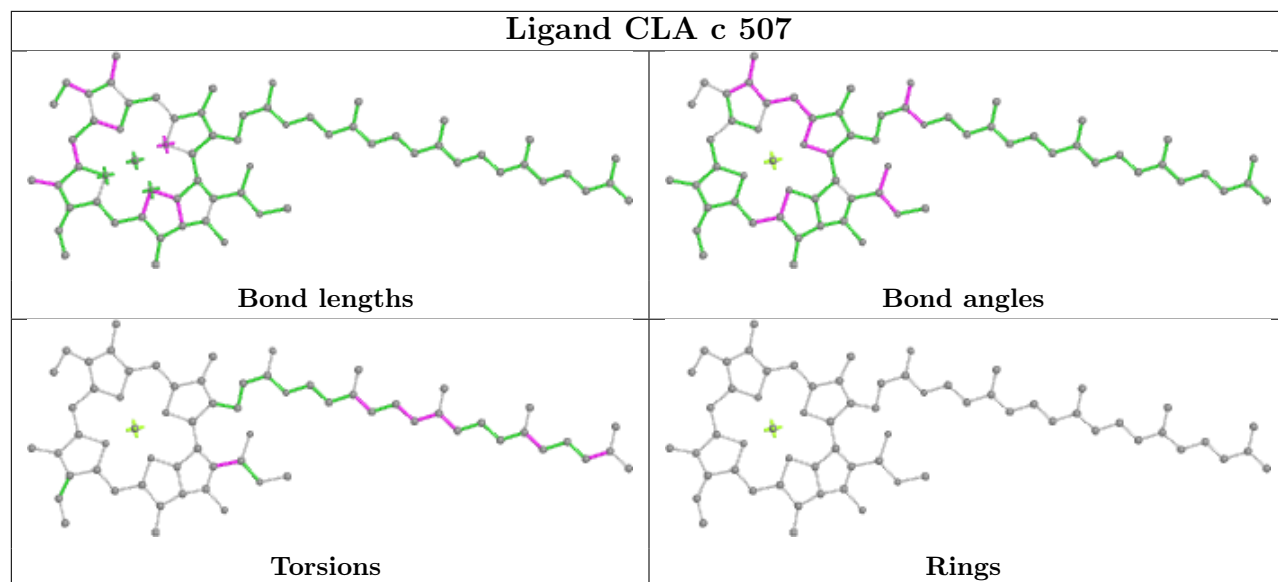




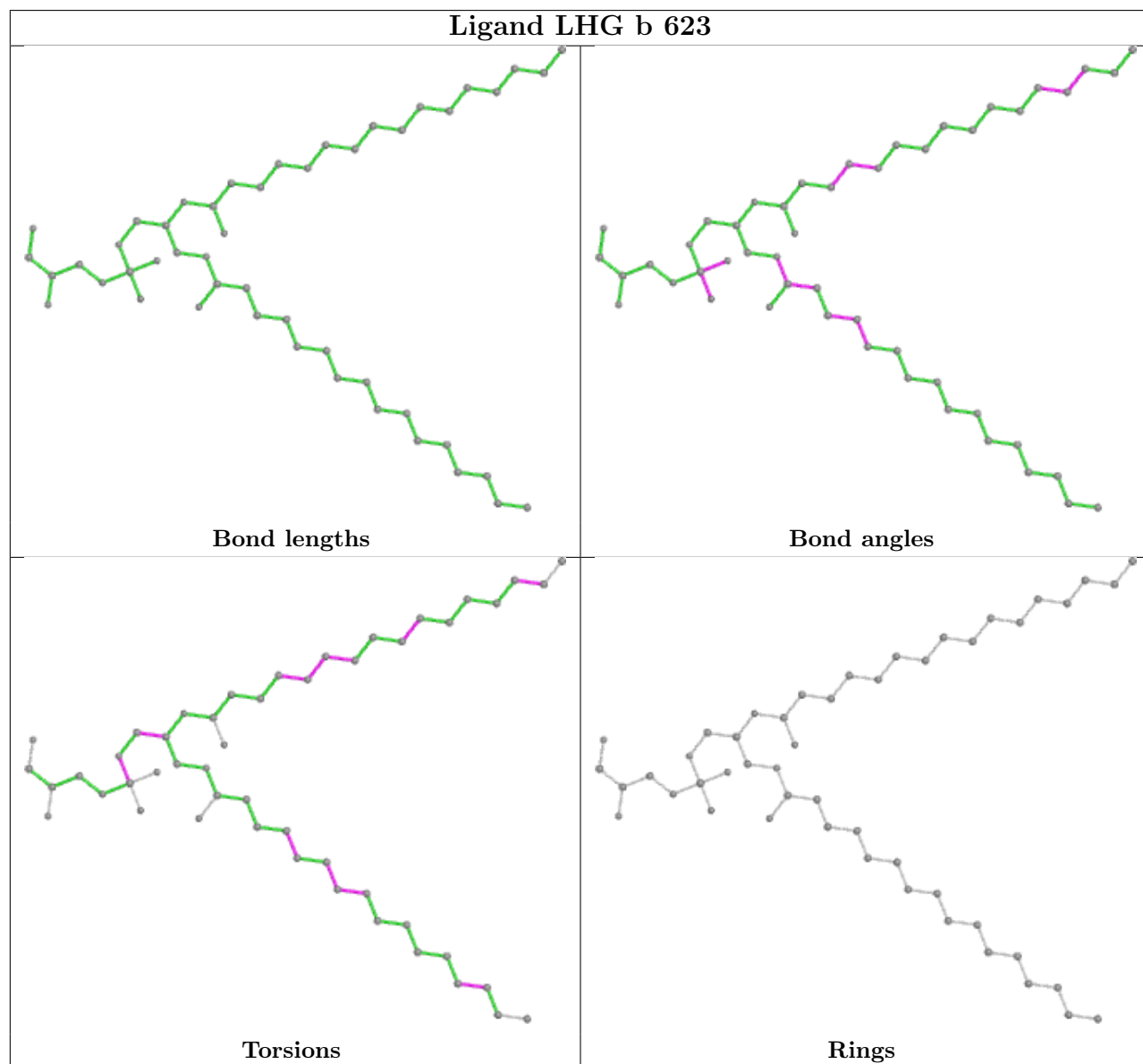
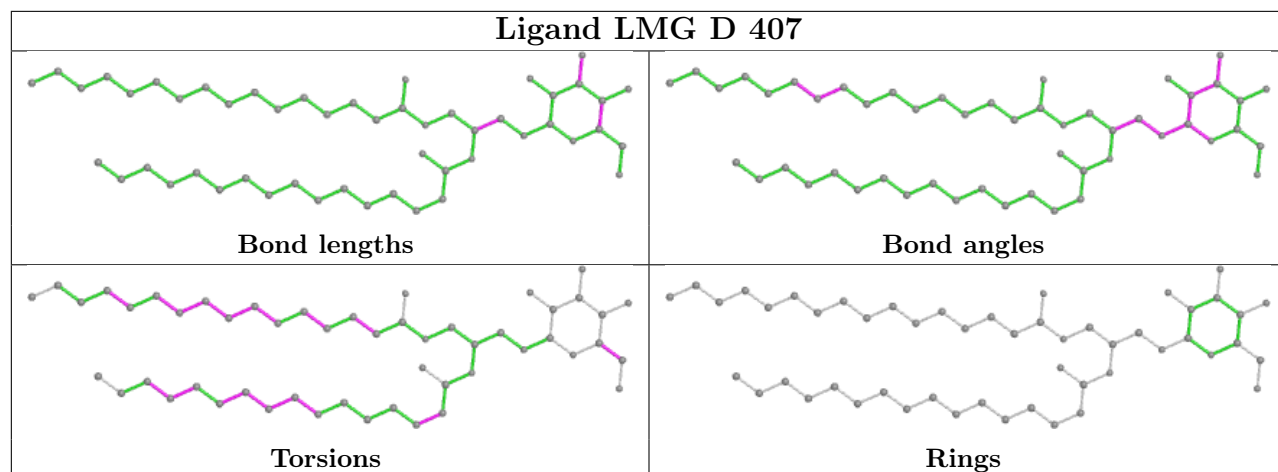


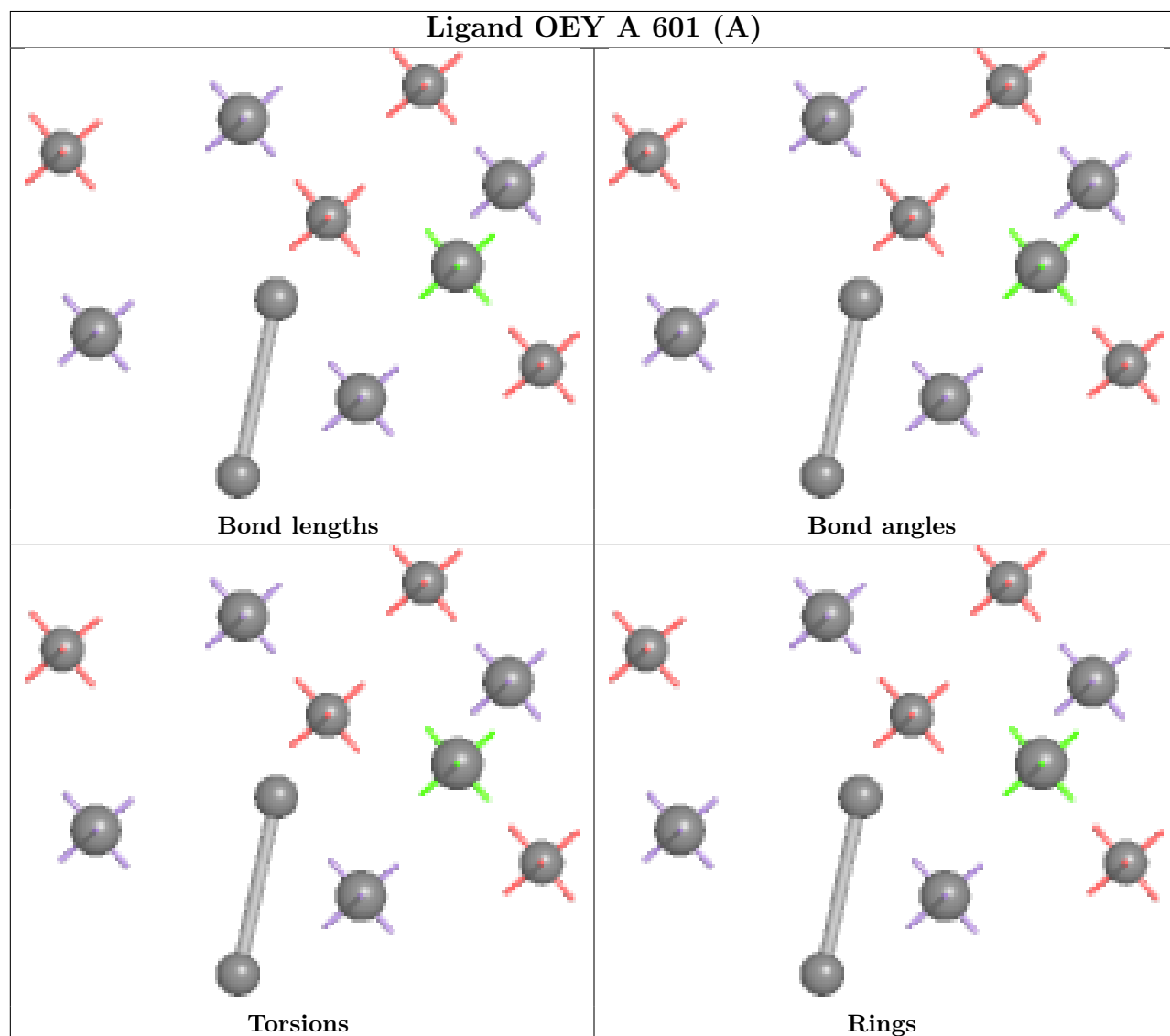
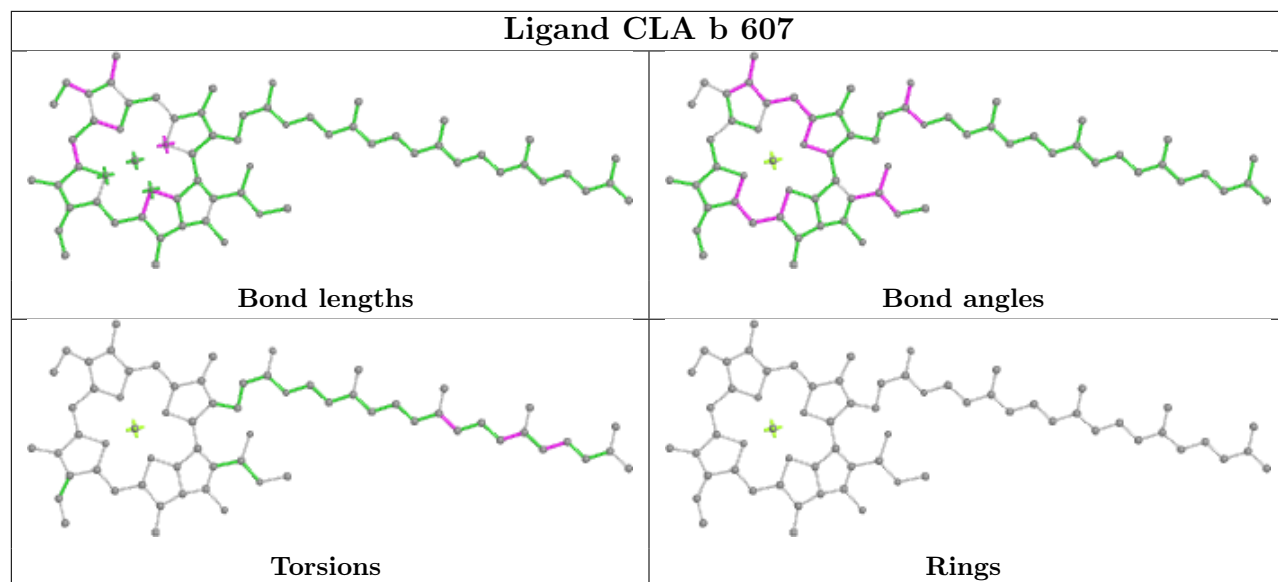


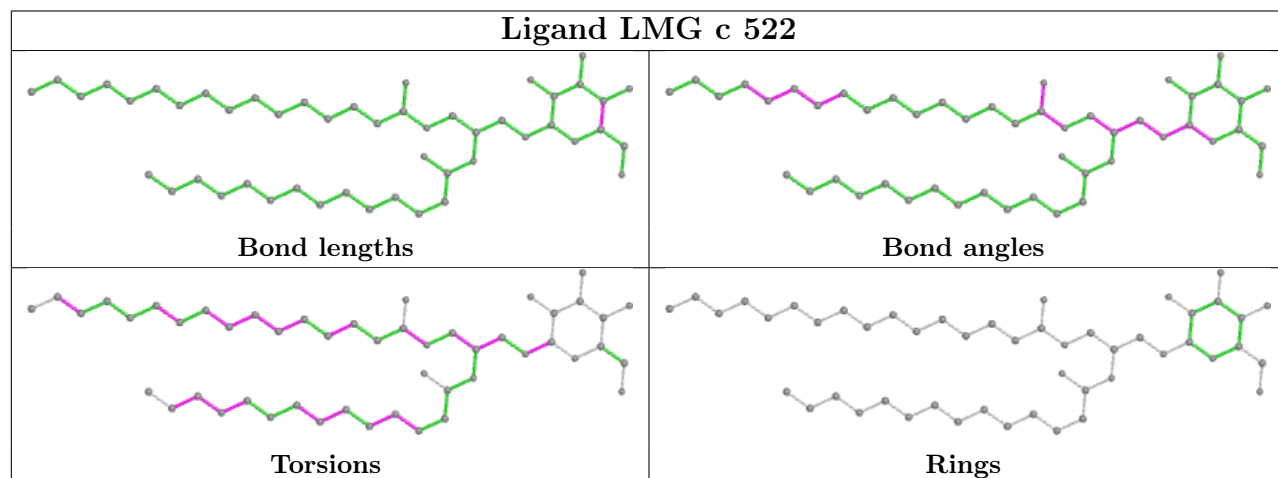
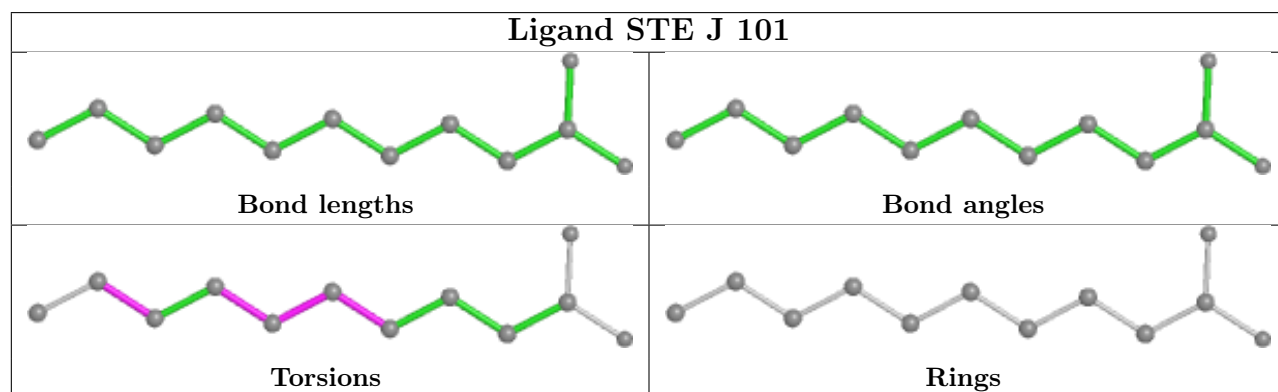
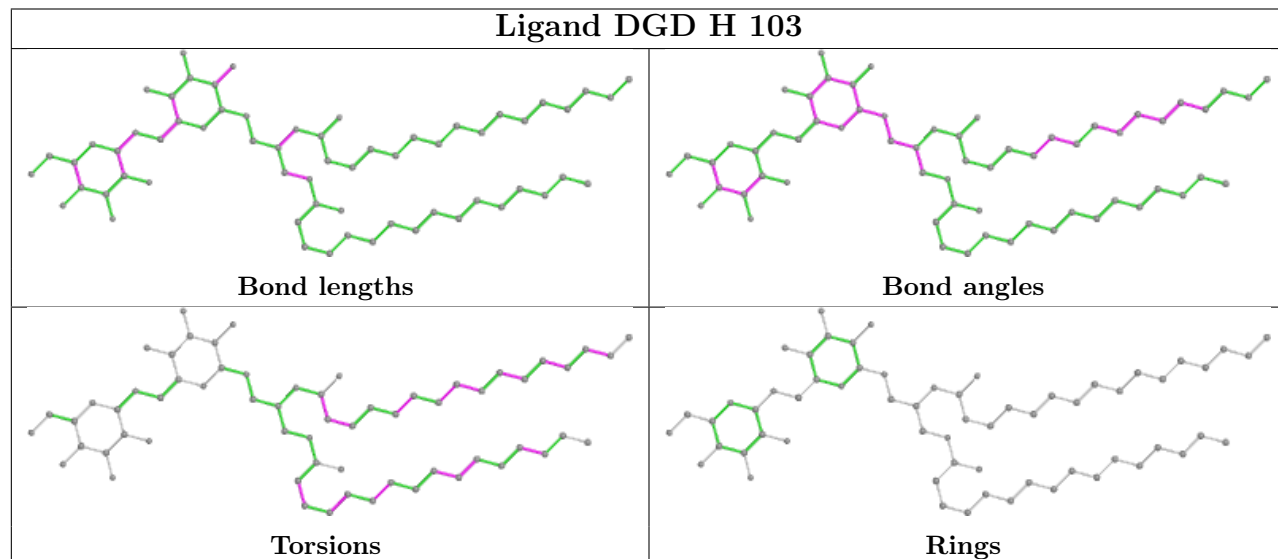
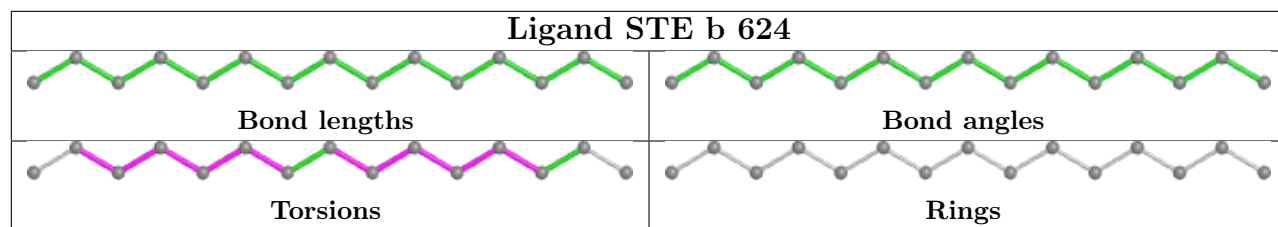


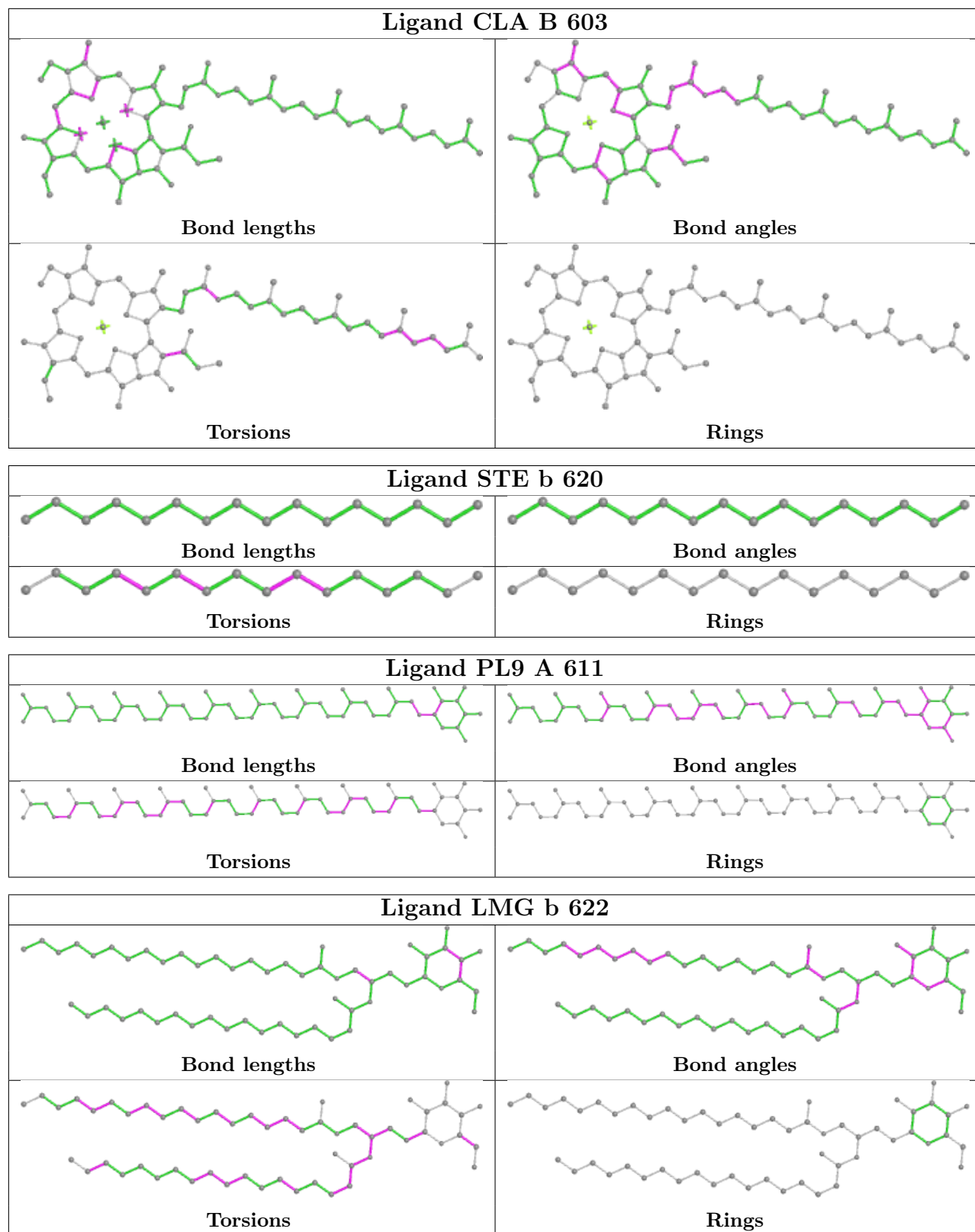


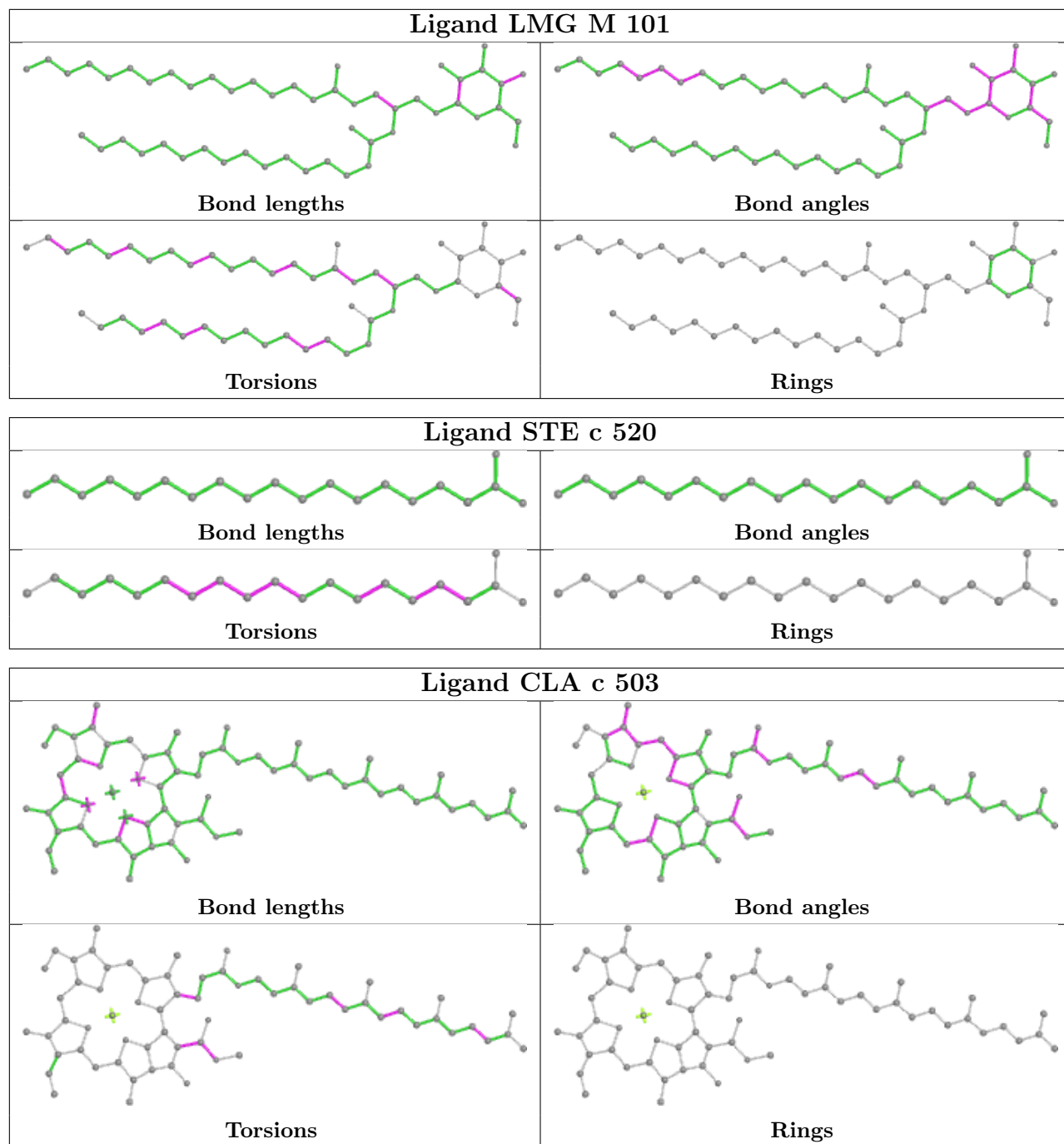


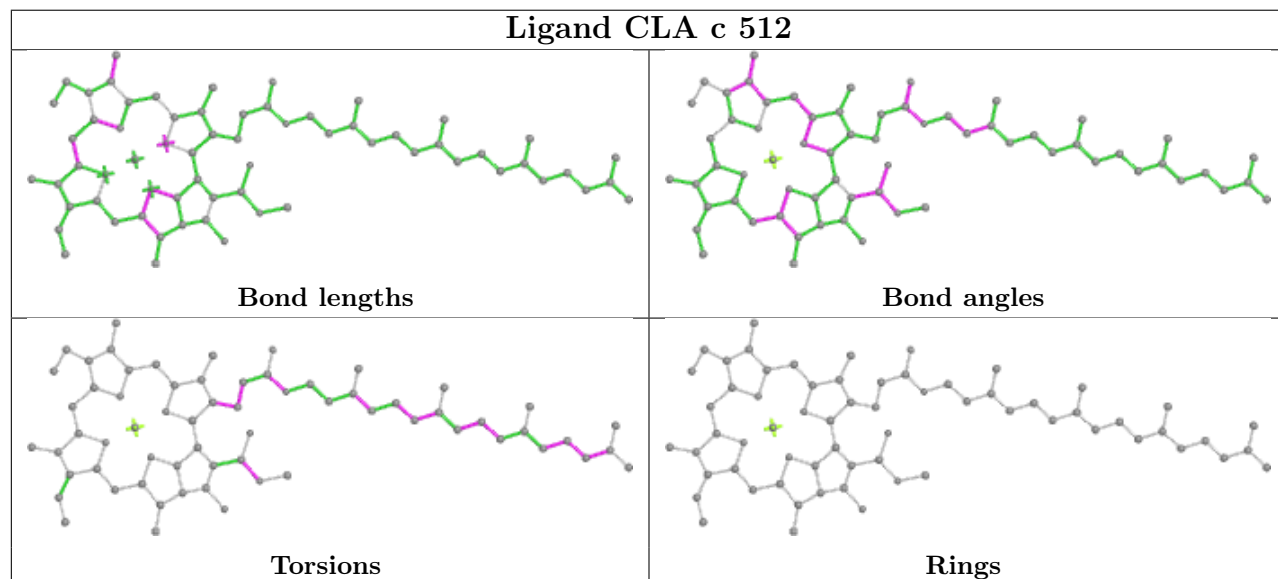
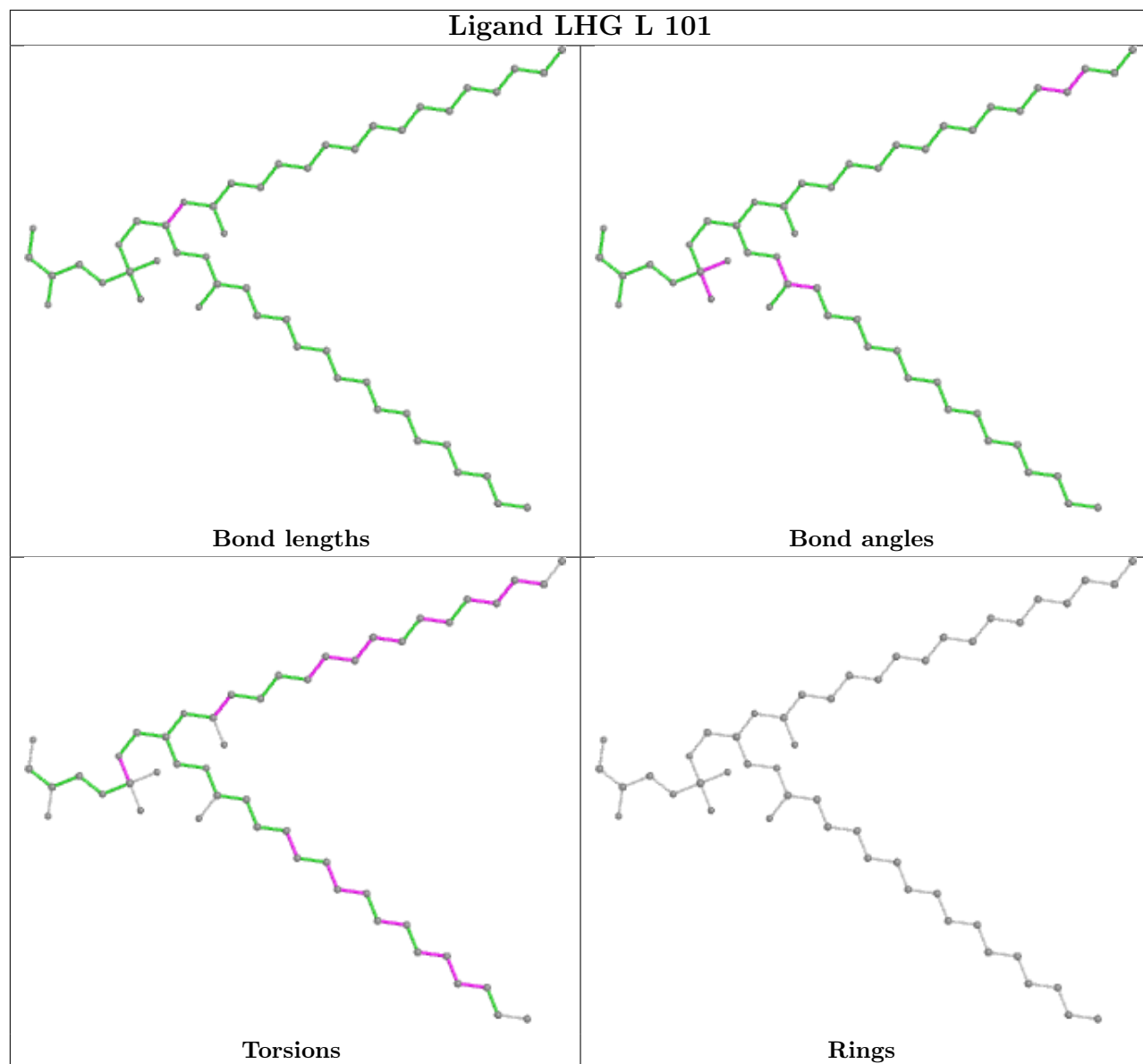


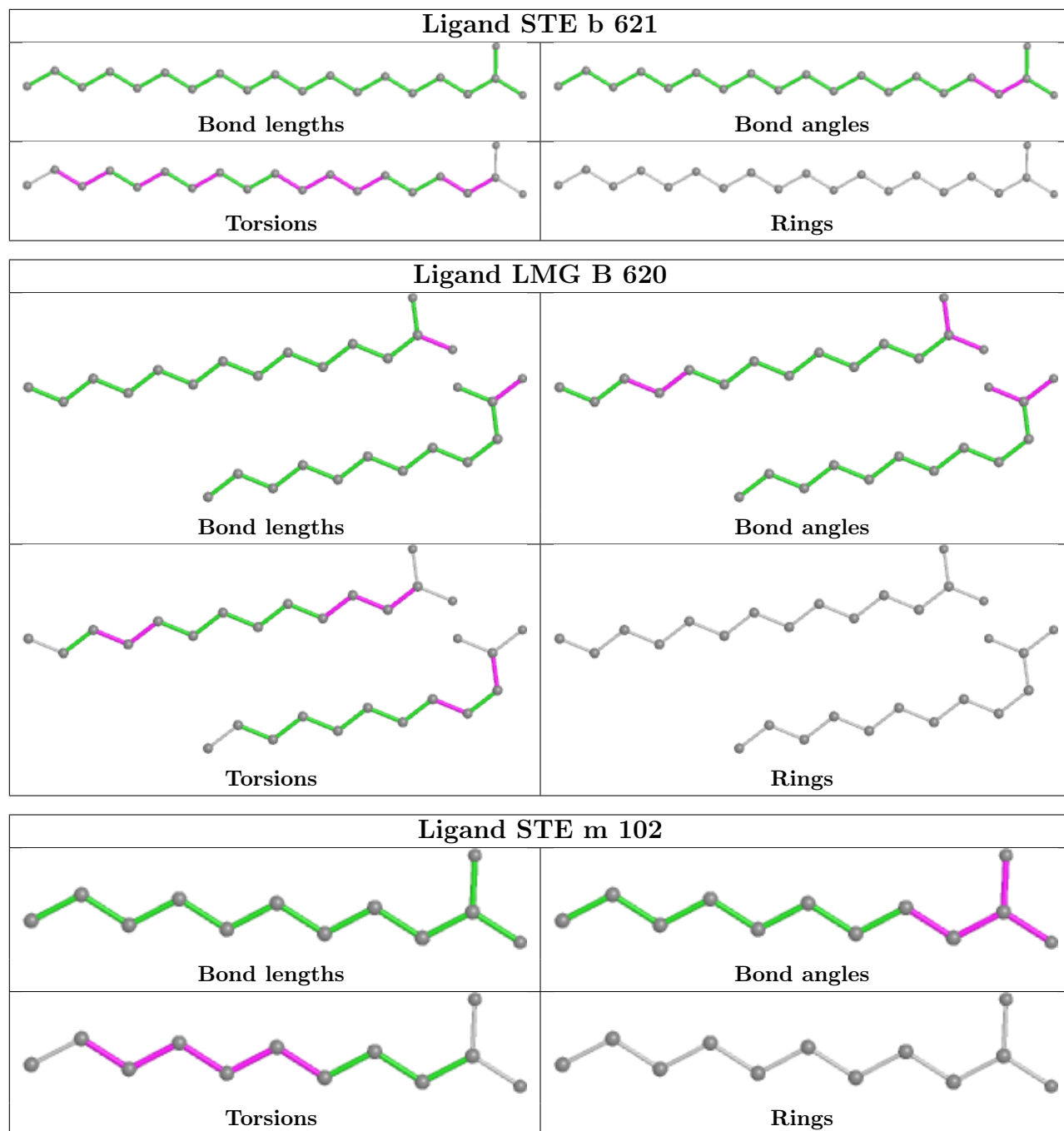


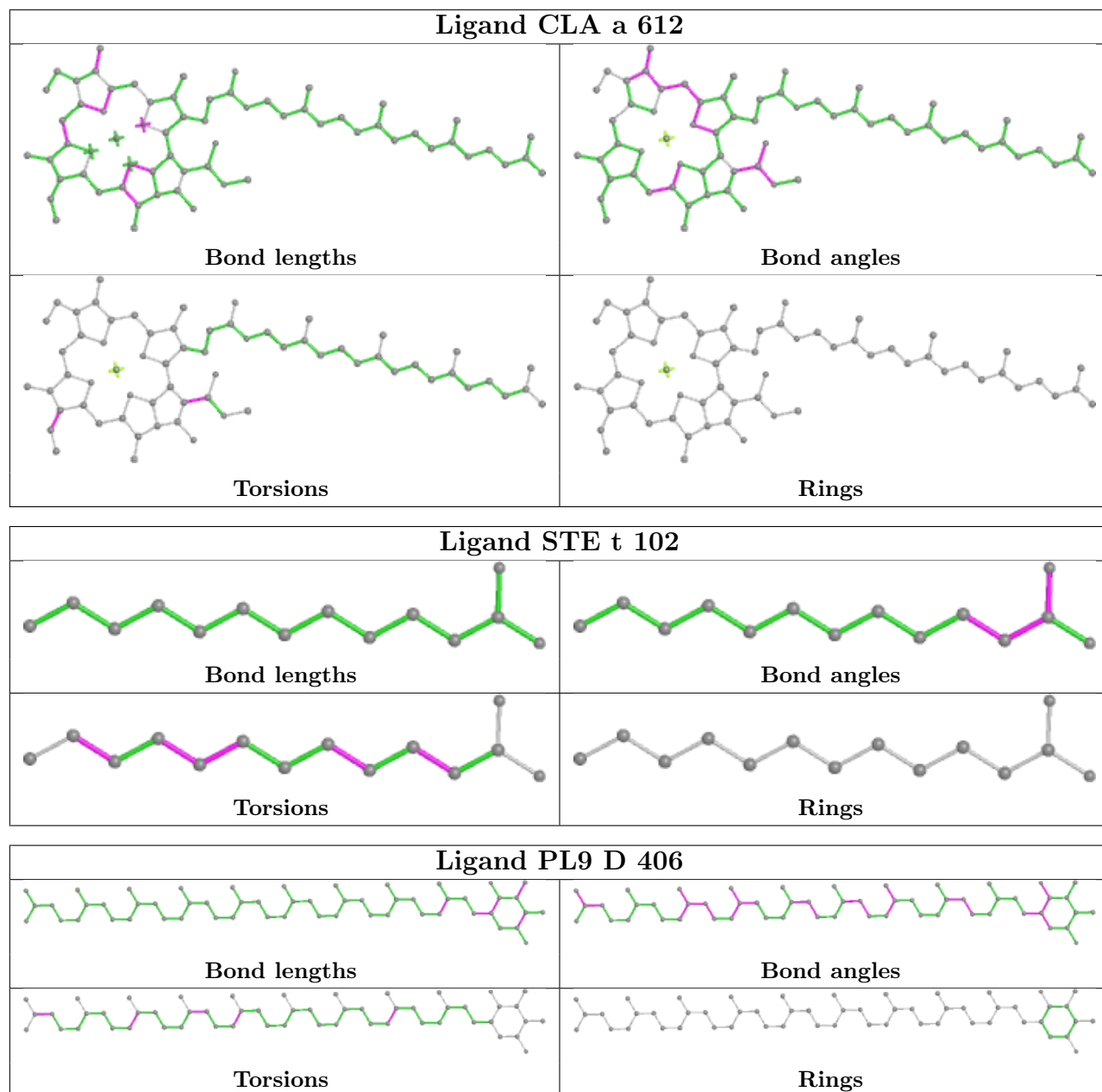




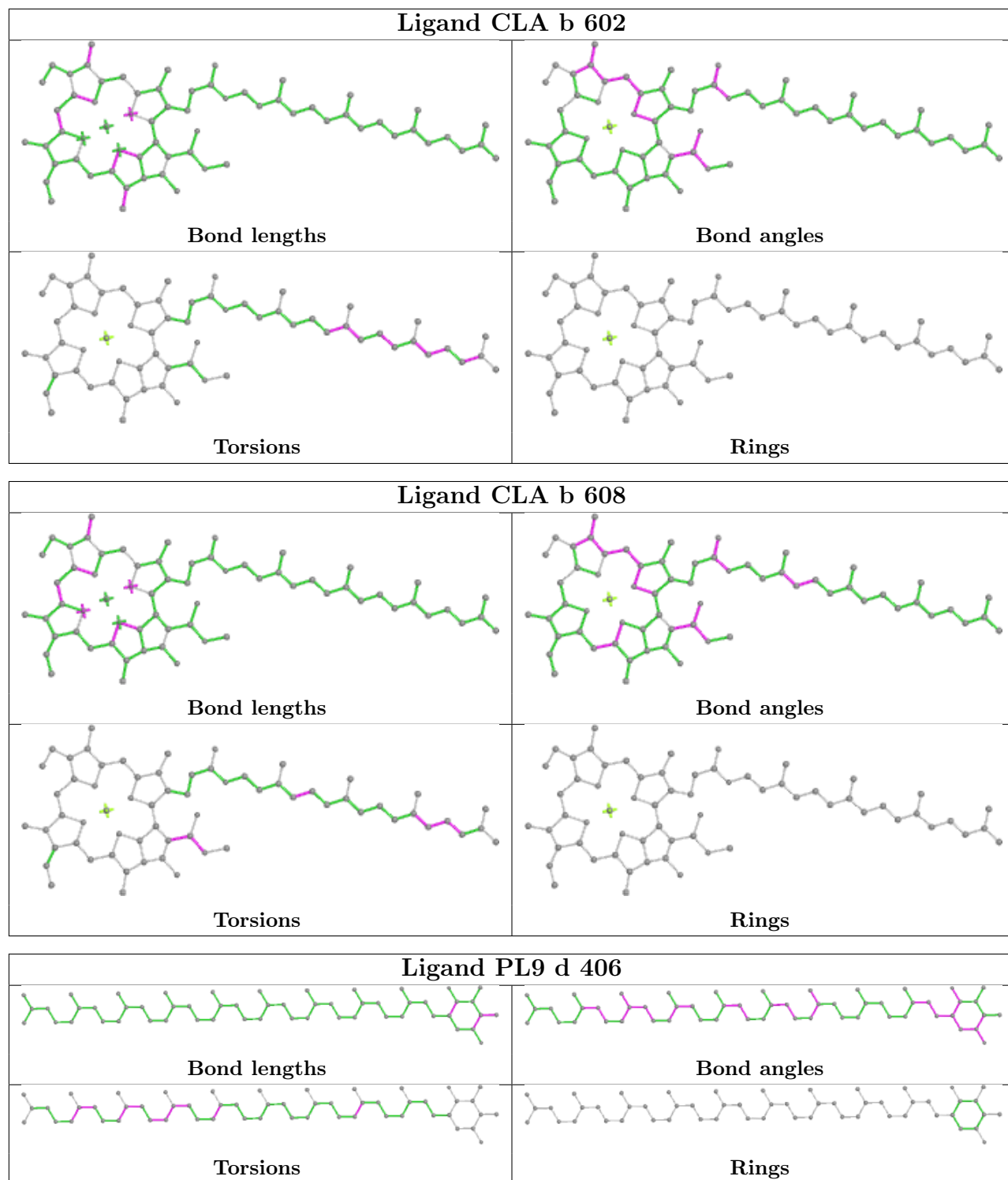


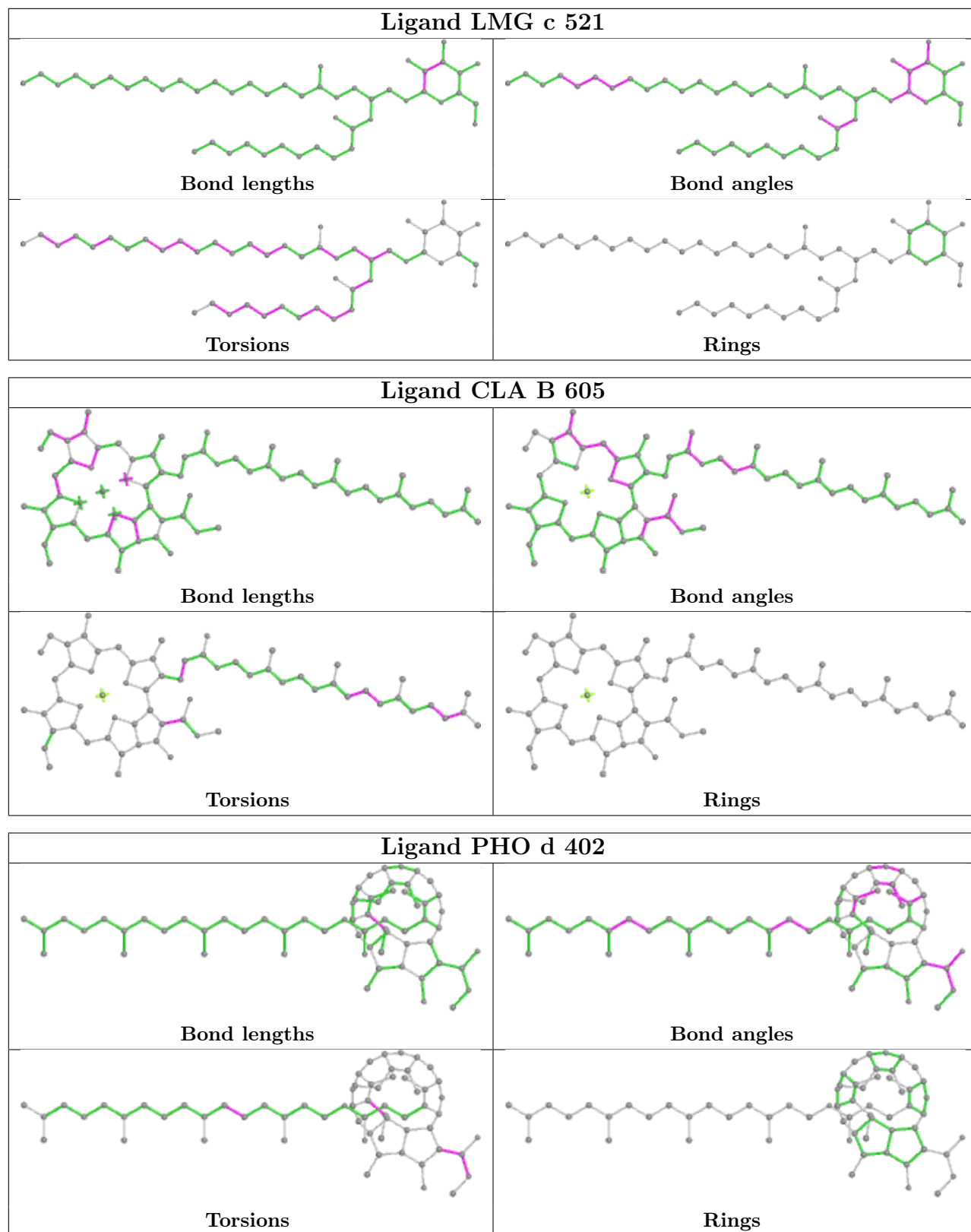


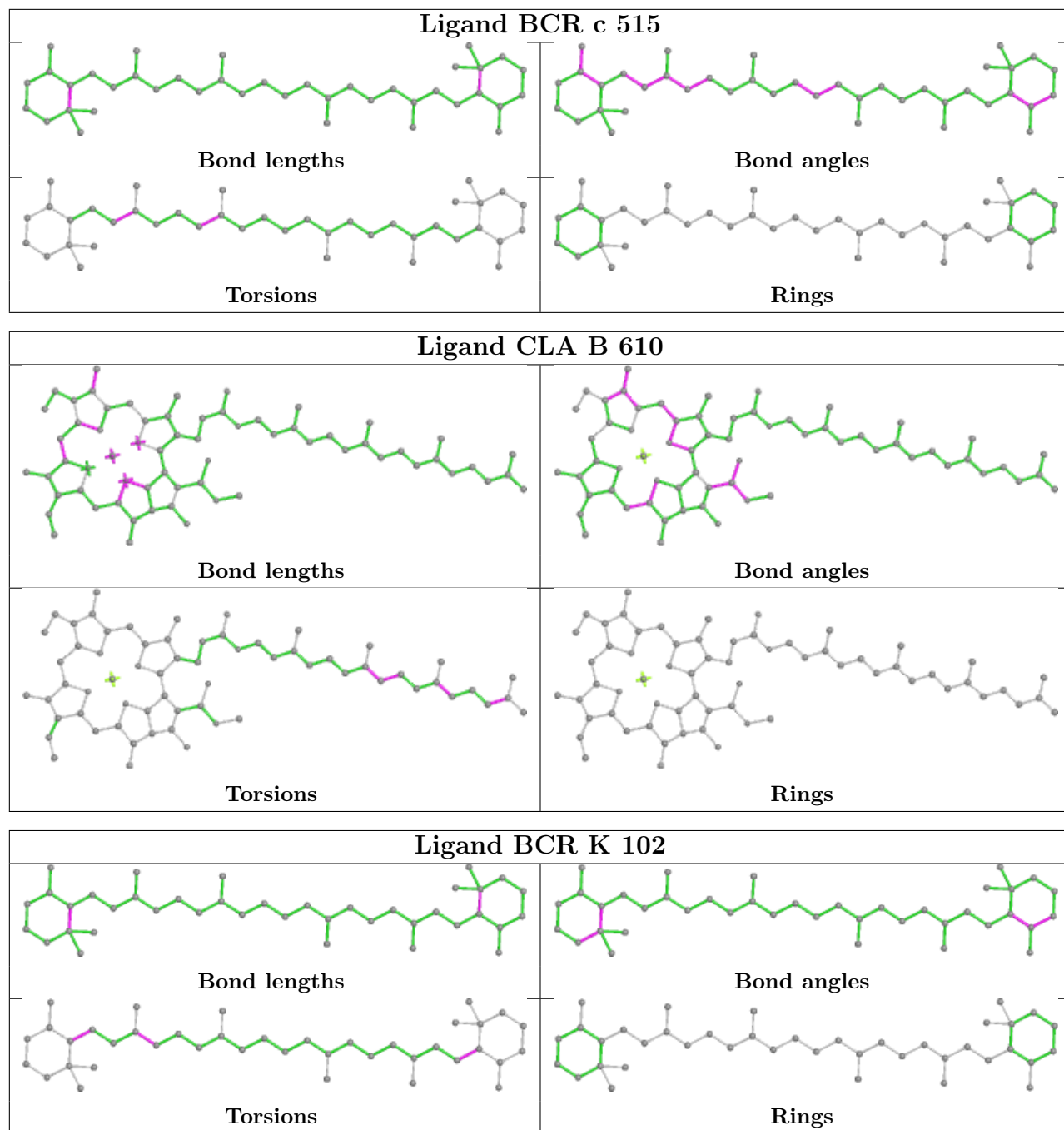


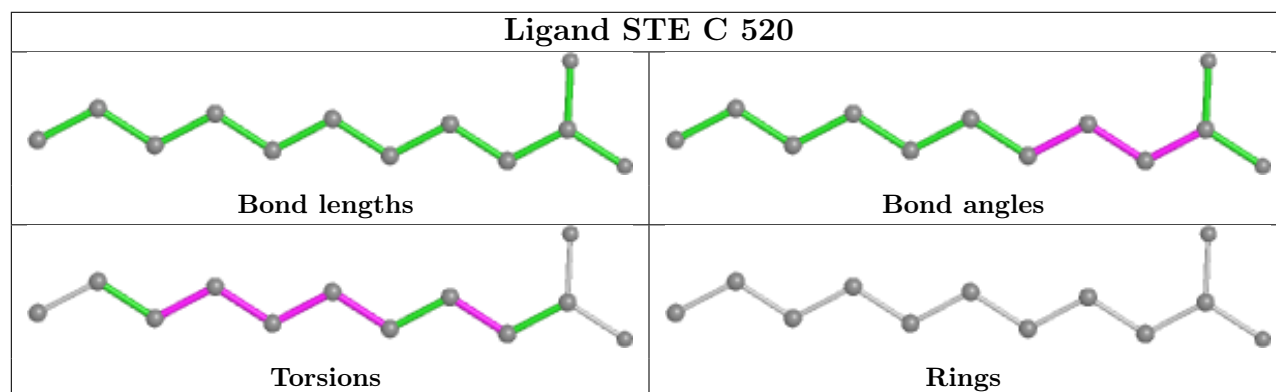
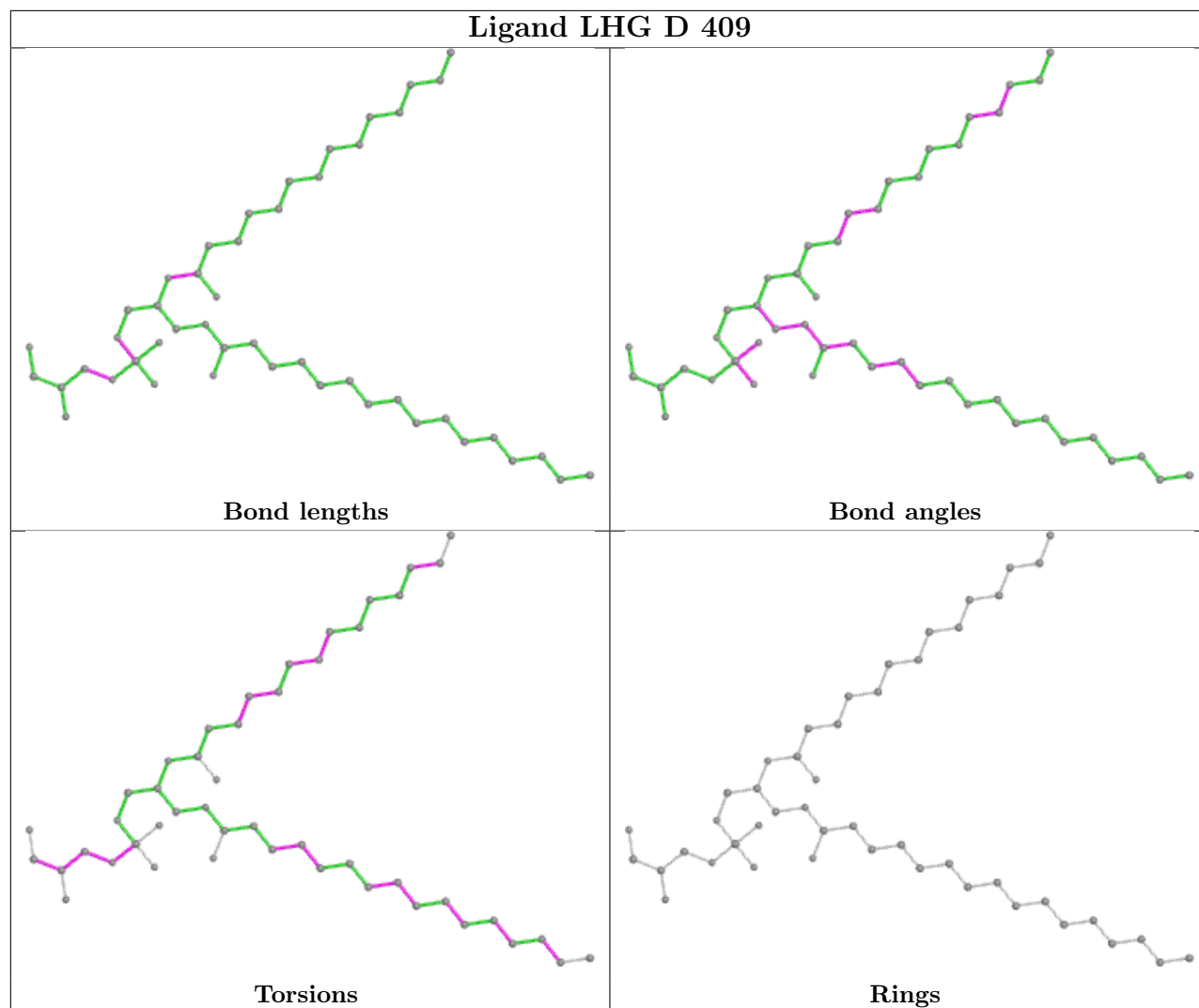


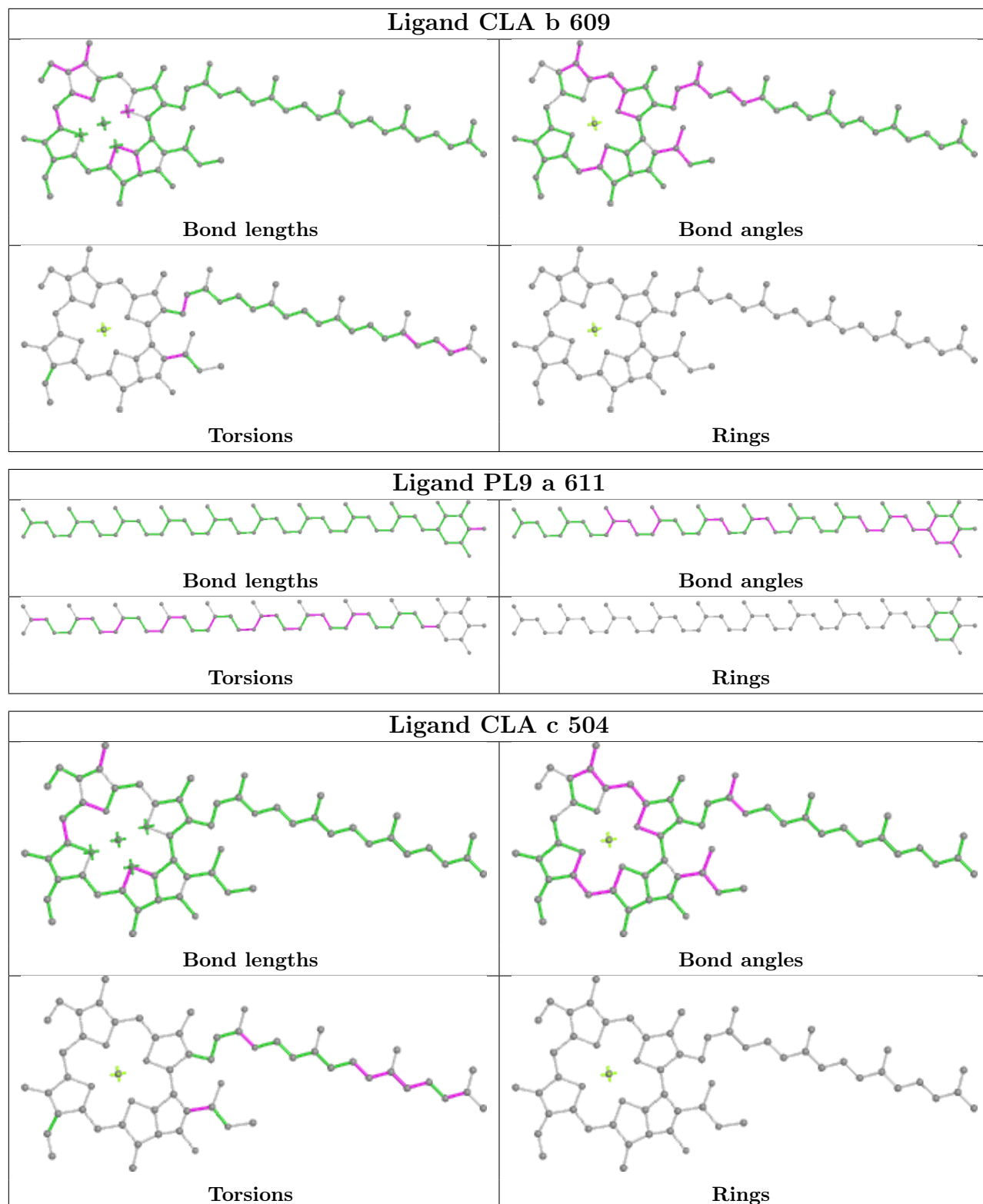


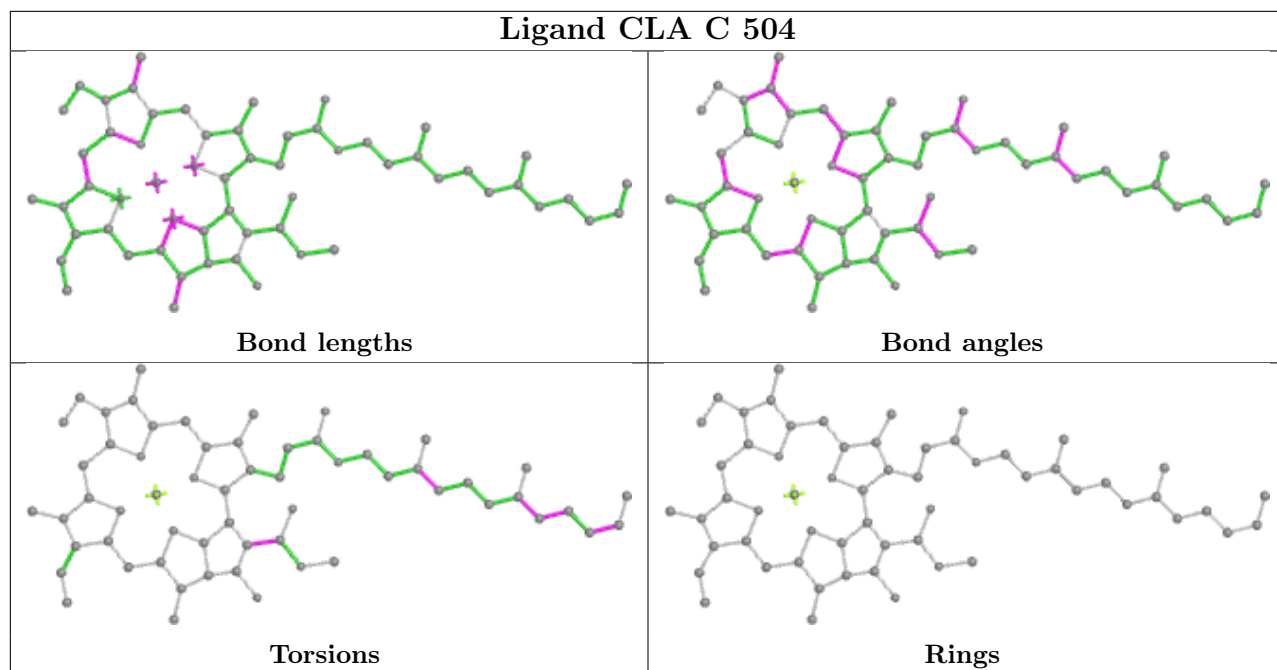


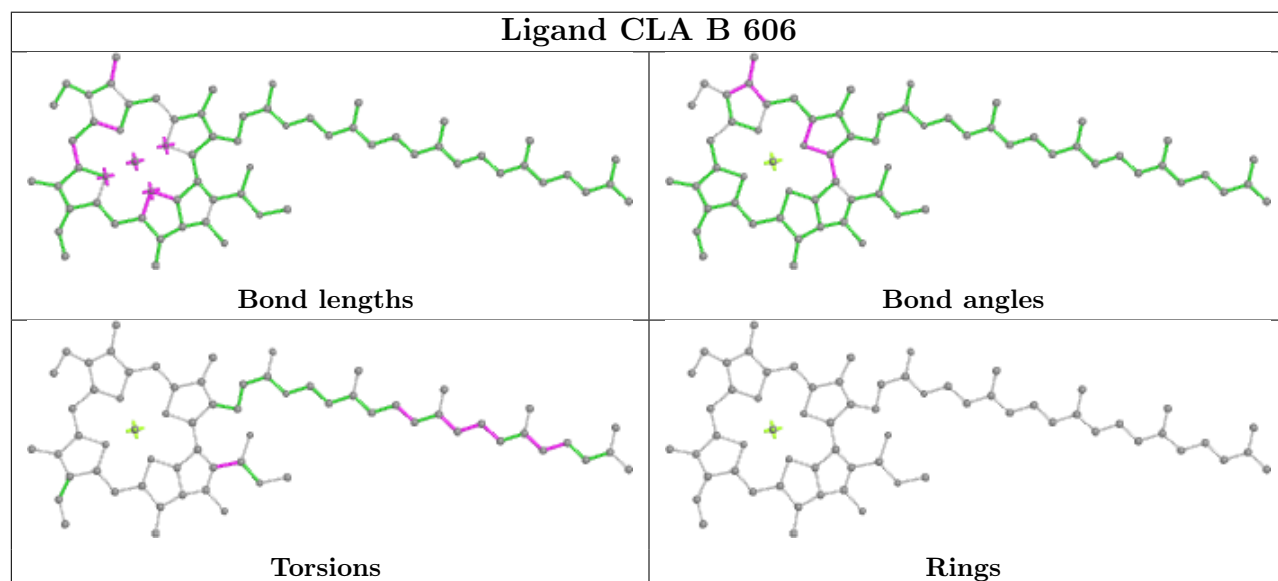
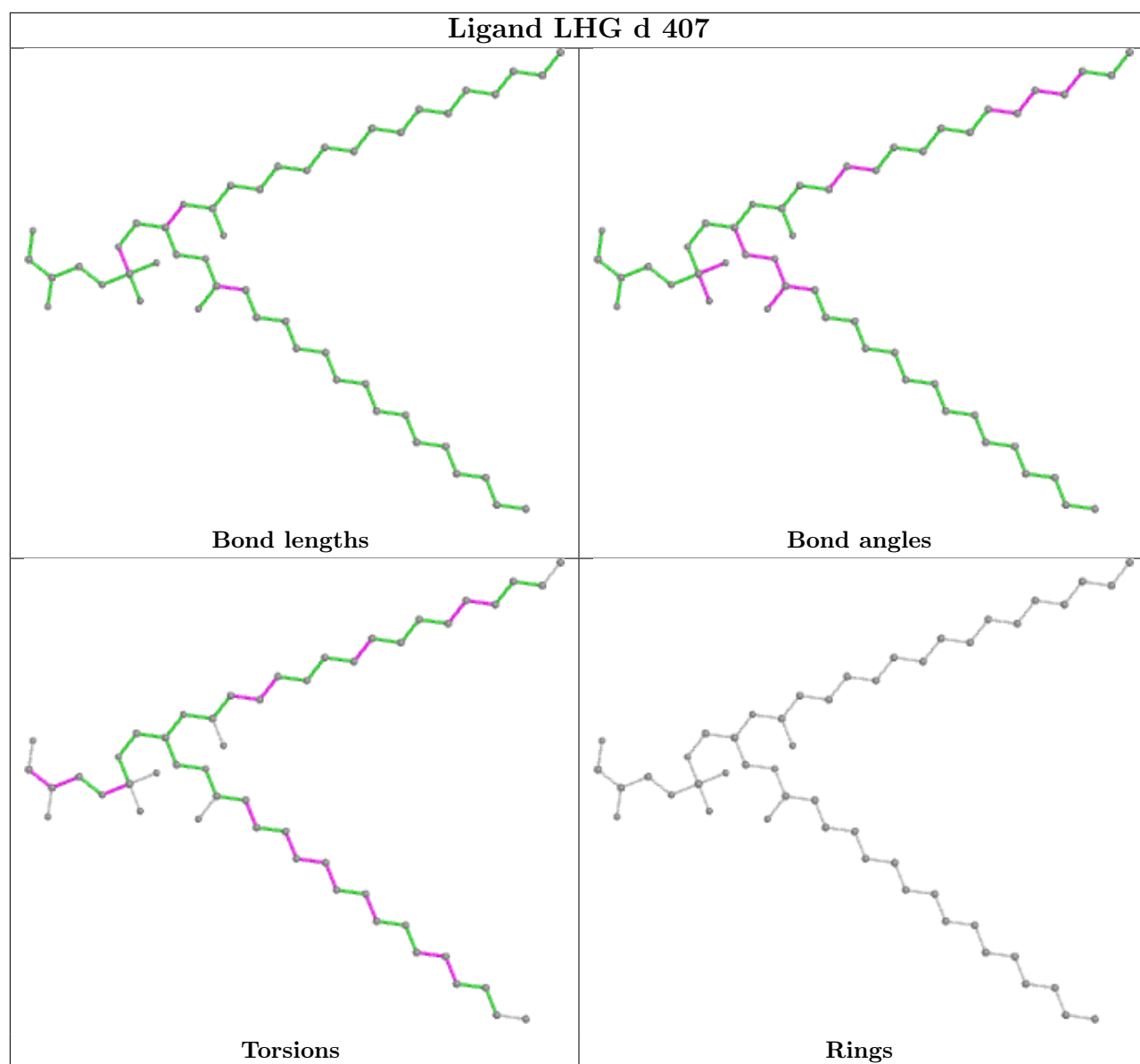


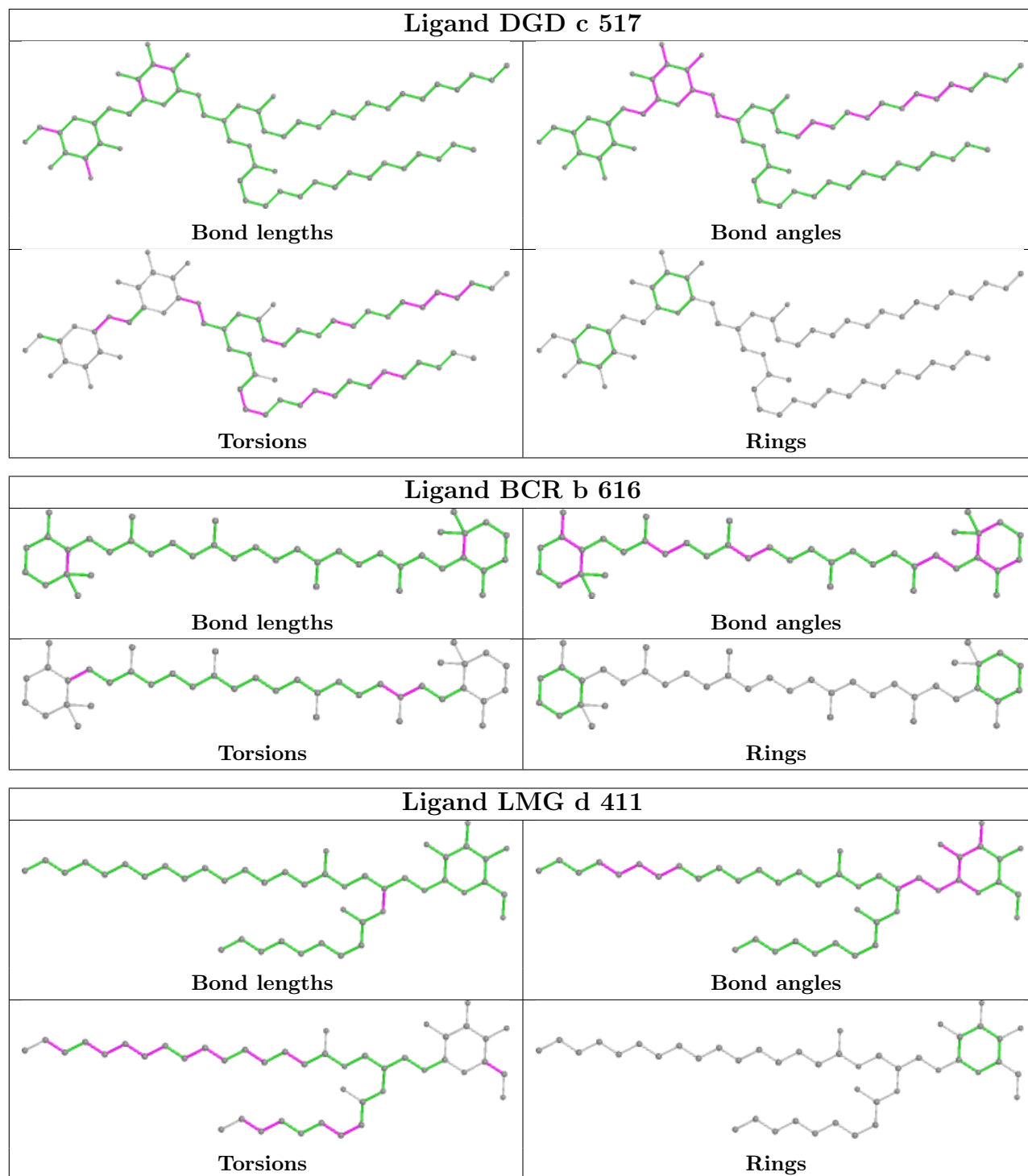




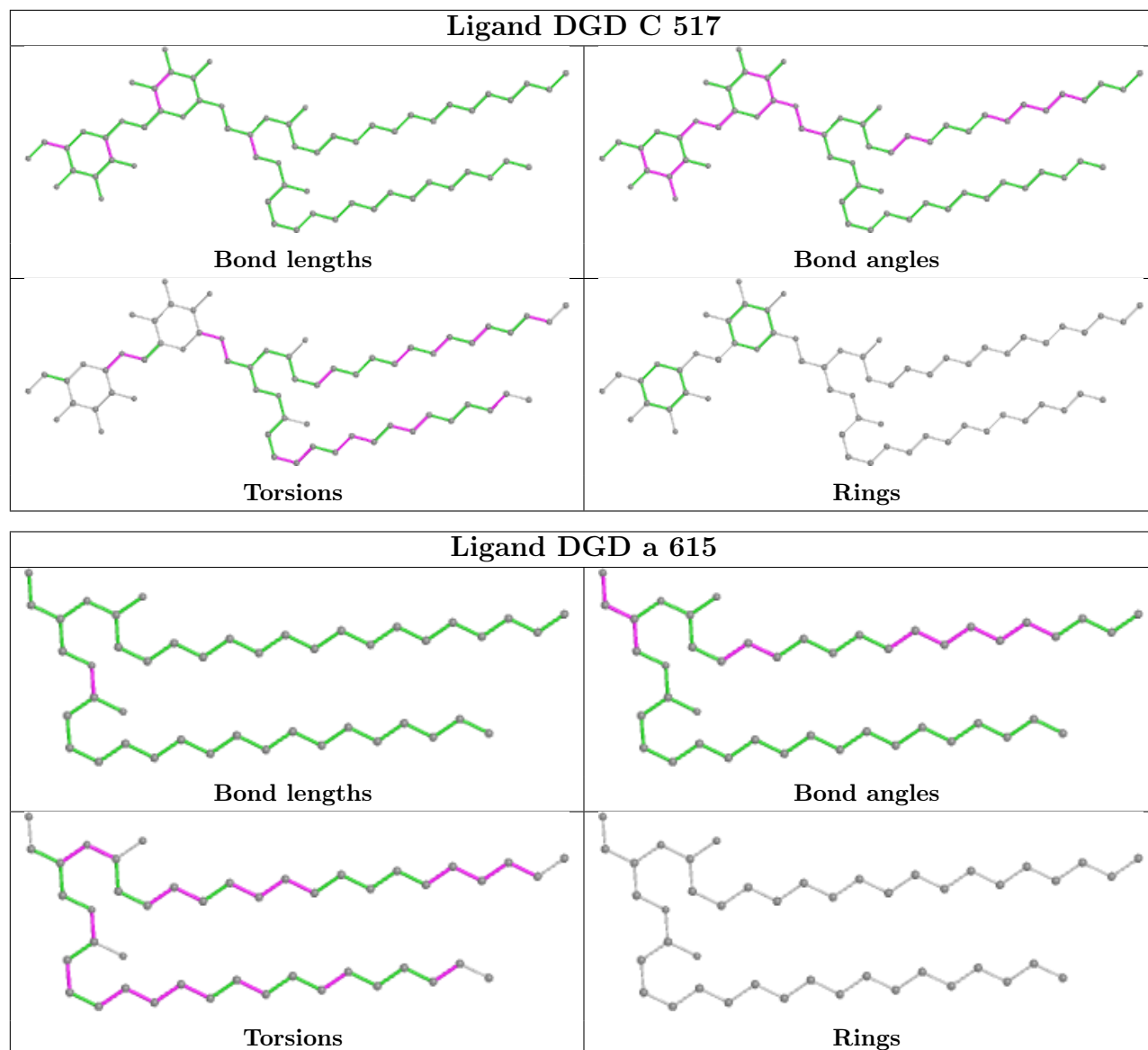












## 5.7 Other polymers [i](#)

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 [i](#)

### 6.1 Protein, DNA and RNA chains [i](#)

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<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	A	334/344 (97%)	-0.31	3 (0%) 84 83	23, 28, 48, 77	0
1	a	334/344 (97%)	-0.26	2 (0%) 89 89	23, 30, 55, 76	0
2	B	505/510 (99%)	-0.29	13 (2%) 56 55	24, 32, 60, 83	0
2	b	505/510 (99%)	-0.14	21 (4%) 36 35	23, 35, 67, 104	0
3	C	442/461 (95%)	-0.24	2 (0%) 91 91	24, 35, 51, 71	0
3	c	451/461 (97%)	-0.15	11 (2%) 59 58	24, 39, 60, 91	0
4	D	341/352 (96%)	-0.29	3 (0%) 84 83	22, 30, 48, 74	0
4	d	341/352 (96%)	-0.20	5 (1%) 73 73	23, 33, 57, 78	0
5	E	82/84 (97%)	0.31	9 (10%) 5 5	34, 49, 66, 78	0
5	e	82/84 (97%)	0.46	10 (12%) 4 3	39, 56, 73, 84	0
6	F	34/45 (75%)	-0.23	2 (5%) 22 21	37, 44, 57, 78	0
6	f	34/45 (75%)	-0.07	2 (5%) 22 21	40, 49, 73, 88	0
7	H	65/66 (98%)	0.13	4 (6%) 20 19	34, 41, 55, 67	0
7	h	63/66 (95%)	0.26	5 (7%) 12 12	40, 51, 60, 62	0
8	I	35/38 (92%)	-0.14	2 (5%) 23 23	32, 39, 61, 78	0
8	i	35/38 (92%)	-0.11	2 (5%) 23 23	29, 38, 69, 84	0
9	J	36/40 (90%)	0.33	6 (16%) 1 1	35, 49, 77, 86	0
9	j	36/40 (90%)	0.43	5 (13%) 2 2	41, 54, 87, 93	0
10	K	37/46 (80%)	-0.11	1 (2%) 54 54	42, 50, 65, 72	0
10	k	37/46 (80%)	-0.13	0 100 100	48, 55, 72, 80	0
11	L	37/37 (100%)	-0.02	1 (2%) 54 54	24, 29, 58, 64	0
11	l	36/37 (97%)	-0.00	2 (5%) 24 23	26, 30, 62, 73	0
12	M	32/36 (88%)	-0.15	1 (3%) 49 48	28, 32, 53, 66	0
12	m	31/36 (86%)	-0.22	0 100 100	29, 32, 48, 63	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
13	O	244/272 (89%)	0.07	16 (6%) 18 17	24, 40, 74, 124	0
13	o	244/272 (89%)	-0.01	17 (6%) 16 15	25, 39, 73, 109	0
14	T	29/32 (90%)	-0.28	2 (6%) 16 16	27, 31, 55, 70	0
14	t	29/32 (90%)	-0.23	2 (6%) 16 16	27, 31, 66, 82	0
15	U	97/134 (72%)	-0.20	1 (1%) 82 82	32, 41, 65, 83	0
15	u	97/134 (72%)	-0.29	1 (1%) 82 82	32, 39, 55, 80	0
16	V	137/163 (84%)	-0.41	0 100 100	29, 39, 54, 70	0
16	v	137/163 (84%)	-0.06	1 (0%) 87 87	33, 47, 67, 83	0
17	Y	27/46 (58%)	1.86	13 (48%) 0 0	50, 67, 94, 100	0
17	y	30/46 (65%)	1.03	5 (16%) 1 1	61, 74, 94, 99	0
18	X	38/41 (92%)	0.20	2 (5%) 26 26	40, 50, 68, 75	0
18	x	39/41 (95%)	0.74	6 (15%) 2 1	50, 59, 81, 92	0
19	Z	62/62 (100%)	0.87	14 (22%) 0 0	53, 67, 100, 114	0
19	z	62/62 (100%)	1.10	13 (20%) 1 0	60, 72, 105, 111	0
20	R	34/41 (82%)	1.86	15 (44%) 0 0	56, 64, 74, 79	0
20	r	31/41 (75%)	2.77	19 (61%) 0 0	64, 77, 93, 97	0
All	All	5302/5700 (93%)	-0.08	239 (4%) 33 32	22, 37, 70, 124	0

All (239) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
13	O	60	ARG	7.6
17	Y	25	ILE	7.3
19	z	33	TRP	7.2
1	A	13	LEU	7.1
17	y	19	ILE	6.6
13	O	59	LYS	6.5
13	O	56	PRO	6.5
19	Z	33	TRP	6.4
17	Y	20	ALA	6.4
18	X	2	THR	6.4
13	O	3	GLN	6.2
14	T	30	THR	5.9
13	o	58	ASN	5.8
19	Z	32	ASP	5.8
13	O	61	GLN	5.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
13	o	3	GLN	5.6
20	r	28	VAL	5.6
2	b	495	PHE	5.4
13	O	62	GLU	5.3
9	j	5	GLY	5.1
20	r	26	TYR	5.1
19	z	35	ARG	5.0
19	Z	62	VAL	5.0
20	r	3	TRP	5.0
13	O	4	THR	4.9
9	J	6	GLY	4.9
14	T	29	ILE	4.9
13	o	60	ARG	4.9
13	o	61	GLN	4.9
20	R	3	TRP	4.9
20	r	24	LEU	4.9
2	b	496	TYR	4.8
20	r	14	LEU	4.8
19	z	3	ILE	4.8
8	i	36	ASP	4.7
3	c	23	ALA	4.6
17	Y	22	LEU	4.6
6	F	12	SER	4.6
19	Z	35	ARG	4.5
20	R	6	LEU	4.5
20	R	28	VAL	4.5
18	X	3	ILE	4.5
14	t	30	THR	4.5
5	e	79	PHE	4.5
6	f	12	SER	4.4
17	Y	21	GLN	4.4
20	r	6	LEU	4.4
20	r	29	LYS	4.4
17	Y	41	VAL	4.3
9	j	6	GLY	4.3
3	c	143	TYR	4.2
9	J	5	GLY	4.2
20	R	33	LYS	4.2
20	r	13	LEU	4.2
13	o	4	THR	4.2
20	r	2	ASP	4.1
17	y	18	VAL	4.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
19	Z	1	MET	4.1
2	b	502	VAL	4.0
9	J	8	ILE	4.0
9	J	7	ARG	4.0
20	r	18	TRP	4.0
17	Y	40	ALA	3.9
19	z	30	PRO	3.9
20	r	25	PRO	3.9
18	x	2	THR	3.8
3	c	24	THR	3.8
19	Z	4	LEU	3.8
7	H	66	GLY	3.8
2	b	127	ARG	3.7
5	E	83	LEU	3.7
20	r	9	LEU	3.7
1	A	11	ALA	3.7
13	o	56	PRO	3.7
20	R	26	TYR	3.7
19	z	62	VAL	3.7
13	o	62	GLU	3.7
13	o	5	LEU	3.7
20	R	32	GLN	3.6
13	o	246	ALA	3.6
20	r	27	ALA	3.6
19	z	60	PHE	3.6
2	B	295	GLY	3.5
2	b	486	LEU	3.5
9	j	7	ARG	3.5
5	E	79	PHE	3.5
14	t	29	ILE	3.5
13	o	54	GLU	3.5
19	z	31	GLN	3.5
2	b	487	SER	3.5
18	x	3	ILE	3.4
20	r	32	GLN	3.4
15	U	8	GLU	3.4
19	Z	7	LEU	3.3
5	E	17	VAL	3.3
3	c	262	ARG	3.3
7	h	6	TRP	3.3
19	Z	34	ASP	3.2
20	R	21	ARG	3.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
13	o	207	ARG	3.2
17	Y	43	ARG	3.2
1	a	11	ALA	3.2
19	z	59	PHE	3.2
19	Z	40	ILE	3.1
4	D	12	ARG	3.1
2	b	161	LEU	3.1
5	e	76	VAL	3.1
16	v	16	GLY	3.1
2	b	128	THR	3.1
2	b	506	ARG	3.1
3	C	143	TYR	3.1
19	z	41	PHE	3.1
3	c	29	GLU	3.1
2	B	85	GLY	3.1
7	H	6	TRP	3.1
13	o	57	LYS	3.1
20	r	10	LEU	3.1
20	R	29	LYS	3.0
17	Y	42	ARG	3.0
20	r	4	ARG	3.0
5	E	84	LYS	3.0
13	o	63	ALA	3.0
4	d	227[A]	GLU	3.0
4	D	227	GLU	2.9
2	B	487	SER	2.9
4	d	14	TRP	2.9
2	b	505	ARG	2.9
17	y	22	LEU	2.9
5	E	61	ARG	2.8
20	R	2	ASP	2.8
13	O	5	LEU	2.8
2	B	490	GLN	2.8
18	x	38	GLN	2.8
9	J	9	PRO	2.8
20	r	31	VAL	2.7
9	j	8	ILE	2.7
11	l	2	GLU	2.7
2	B	505	ARG	2.7
13	o	59	LYS	2.7
11	l	7	ARG	2.7
7	H	63	LYS	2.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
2	b	86	ILE	2.7
7	h	63	LYS	2.7
8	I	36	ASP	2.7
4	d	12	ARG	2.7
7	H	41	PHE	2.6
5	e	74	GLN	2.6
13	o	132	ASN	2.6
20	R	18	TRP	2.6
12	M	33	GLN	2.6
2	B	506	ARG	2.6
13	O	246	ALA	2.6
3	c	152	LYS	2.6
5	E	71	GLU	2.6
19	z	1	MET	2.6
2	B	127	ARG	2.5
2	B	486	LEU	2.6
19	z	34	ASP	2.5
20	R	20	VAL	2.5
20	R	31	VAL	2.5
2	B	494	GLY	2.5
19	Z	37	LYS	2.5
3	c	191	PRO	2.5
13	o	35	SER	2.5
13	O	58	ASN	2.5
15	u	53	ALA	2.5
17	y	40	ALA	2.5
5	e	82	GLN	2.5
17	Y	37	PHE	2.5
2	b	289	GLN	2.5
17	Y	45	ASN	2.5
13	O	63	ALA	2.5
2	b	490	GLN	2.4
18	x	39	ARG	2.4
17	Y	44	GLY	2.4
2	b	485	GLU	2.4
5	e	4	THR	2.4
17	y	20	ALA	2.4
2	b	494	GLY	2.4
20	R	13	LEU	2.4
5	e	61	ARG	2.4
8	I	34	ARG	2.4
19	Z	41	PHE	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
4	d	55	VAL	2.3
5	e	84	LYS	2.3
5	E	81	GLU	2.3
18	x	23	LEU	2.3
13	o	55	GLU	2.3
1	a	16	ARG	2.3
5	e	10	PHE	2.3
6	f	42	PHE	2.3
7	h	56	ASP	2.3
5	E	16	SER	2.3
17	Y	24	MET	2.3
3	c	147	PHE	2.3
1	A	12	ASN	2.3
20	r	23	ILE	2.3
19	Z	60	PHE	2.2
2	b	503	THR	2.2
3	C	142	GLU	2.2
3	c	146	PHE	2.2
19	Z	31	GLN	2.2
5	E	82	GLN	2.2
2	B	495	PHE	2.2
2	b	492	GLU	2.2
4	D	238	THR	2.2
5	e	83	LEU	2.2
18	x	15	LEU	2.2
6	F	13	TYR	2.2
9	J	10	LEU	2.2
11	L	7	ARG	2.2
2	B	293	ALA	2.2
2	b	85	GLY	2.2
20	R	35	LEU	2.1
19	z	32	ASP	2.1
9	j	11	TRP	2.1
5	e	75	GLN	2.1
17	Y	23	THR	2.1
13	O	57	LYS	2.1
3	c	261	ARG	2.1
13	O	55	GLU	2.1
8	i	34	ARG	2.1
2	b	20	ILE	2.1
2	b	482	ILE	2.1
13	O	35	SER	2.1

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Mol	Chain	Res	Type	RSRZ
19	z	36	SER	2.1
2	b	491	VAL	2.1
3	c	134	ILE	2.1
2	B	489	GLU	2.1
2	B	289	GLN	2.1
4	d	65	SER	2.0
13	O	64	GLU	2.0
7	h	10	ILE	2.0
7	h	13	PRO	2.0
13	O	207	ARG	2.0
20	R	24	LEU	2.0
20	r	15	ALA	2.0
10	K	46	ARG	2.0
19	Z	38	GLN	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<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
14	FME	t	1	10/11	0.90	0.12	29,35,51,61	0
12	FME	M	1	10/11	0.93	0.14	38,44,61,66	0
14	FME	T	1	10/11	0.95	0.13	33,37,56,65	0
8	FME	I	1	10/11	0.96	0.14	36,45,50,52	0
12	FME	m	1	10/11	0.97	0.14	31,44,62,63	0
8	FME	i	1	10/11	0.97	0.15	35,47,49,49	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<sup>th</sup> 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( $\text{\AA}^2$ )	Q<0.9
29	LMG	d	410	23/55	0.67	0.34	45,65,73,75	0
33	STE	d	412	16/20	0.67	0.30	51,58,80,82	0
33	STE	b	625	20/20	0.70	0.30	46,55,63,71	0
33	STE	a	616	12/20	0.72	0.38	52,58,69,73	0
33	STE	H	104	18/20	0.73	0.30	56,64,68,70	0
31	LHG	A	615	49/49	0.75	0.29	51,71,91,96	0
32	DGD	a	615	44/66	0.76	0.19	36,49,61,69	0
33	STE	c	520	20/20	0.77	0.21	47,53,76,77	0
29	LMG	D	410	33/55	0.77	0.22	31,53,76,77	0
29	LMG	b	622	55/55	0.78	0.30	49,63,72,77	0
29	LMG	c	521	48/55	0.78	0.27	53,68,79,83	0
33	STE	k	103	12/20	0.78	0.20	59,71,78,80	0
33	STE	E	101	12/20	0.79	0.32	57,62,76,78	0
29	LMG	A	613	48/55	0.81	0.20	38,52,65,68	0
33	STE	C	520	12/20	0.81	0.20	40,44,52,55	0
28	PL9	a	611	55/55	0.81	0.26	42,61,73,74	0
33	STE	B	623	18/20	0.82	0.17	43,53,74,75	0
33	STE	b	621	20/20	0.82	0.21	40,51,61,68	0
33	STE	B	625	16/20	0.82	0.33	41,51,62,64	0
29	LMG	B	620	28/55	0.82	0.21	40,48,58,70	0
31	LHG	e	101	42/49	0.82	0.32	57,76,89,100	0
30	SQD	a	614	36/54	0.82	0.19	36,55,67,70	0
33	STE	m	102	12/20	0.83	0.20	49,57,62,65	0
33	STE	X	101	20/20	0.84	0.21	40,49,63,69	0
25	CLA	h	101	65/65	0.84	0.18	47,62,78,88	0
29	LMG	C	519	48/55	0.85	0.21	43,63,75,78	0
33	STE	B	619	17/20	0.85	0.15	35,48,63,64	0
32	DGD	A	617	66/66	0.85	0.22	49,58,64,67	0
30	SQD	b	619	49/54	0.86	0.17	40,53,77,85	0
33	STE	J	101	12/20	0.86	0.18	49,56,60,63	0
30	SQD	A	616	39/54	0.86	0.21	42,52,70,72	0
33	STE	j	101	12/20	0.86	0.15	50,55,58,58	0
28	PL9	A	611	55/55	0.86	0.32	43,60,70,73	0
33	STE	B	622	12/20	0.86	0.17	45,50,58,62	0
25	CLA	c	512	65/65	0.87	0.16	43,55,73,79	0
33	STE	B	624	12/20	0.87	0.28	49,54,68,72	0
29	LMG	c	522	49/55	0.87	0.16	39,51,74,79	0
33	STE	l	101	18/20	0.87	0.17	35,43,59,61	0
30	SQD	f	102	41/54	0.87	0.20	61,73,84,90	0
29	LMG	m	101	51/55	0.88	0.14	34,47,59,65	0
33	STE	d	413	17/20	0.88	0.18	46,50,60,62	0
25	CLA	C	513	65/65	0.88	0.19	45,54,76,81	0
33	STE	b	624	15/20	0.88	0.21	44,48,58,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
30	SQD	B	621	54/54	0.88	0.16	33,55,73,75	0
29	LMG	M	101	51/55	0.88	0.15	31,46,60,64	0
33	STE	t	103	10/20	0.88	0.17	43,55,61,62	0
33	STE	x	101	20/20	0.88	0.20	41,51,60,61	0
25	CLA	b	615	60/65	0.89	0.15	29,38,75,78	0
32	DGD	h	103	62/66	0.89	0.17	38,48,56,60	0
33	STE	I	101	15/20	0.89	0.16	43,49,56,57	0
29	LMG	c	519	37/55	0.89	0.20	48,63,75,76	0
32	DGD	H	103	62/66	0.89	0.15	35,44,51,57	0
33	STE	C	521	12/20	0.89	0.15	45,52,57,59	0
27	BCR	d	405	40/40	0.90	0.13	38,46,77,84	0
25	CLA	B	615	60/65	0.90	0.15	26,34,65,70	0
29	LMG	D	407	51/55	0.90	0.18	29,48,68,74	0
25	CLA	c	513	65/65	0.90	0.20	47,60,81,87	0
25	CLA	C	512	65/65	0.90	0.15	38,46,68,74	0
33	STE	b	620	16/20	0.90	0.18	39,44,53,54	0
25	CLA	a	609	65/65	0.91	0.15	21,28,63,67	0
33	STE	M	102	15/20	0.91	0.14	34,40,52,63	0
33	STE	M	103	10/20	0.91	0.25	44,47,53,56	0
27	BCR	D	405	40/40	0.91	0.13	34,41,69,77	0
27	BCR	H	102	40/40	0.91	0.11	33,45,51,56	0
27	BCR	c	514	40/40	0.91	0.19	49,55,61,62	0
25	CLA	d	404	65/65	0.91	0.14	28,40,75,79	0
27	BCR	h	102	40/40	0.91	0.11	40,50,61,63	0
27	BCR	k	101	40/40	0.91	0.12	48,57,64,65	0
25	CLA	D	404	65/65	0.92	0.14	29,33,83,88	0
33	STE	b	626	10/20	0.92	0.23	45,51,59,61	0
25	CLA	H	101	65/65	0.92	0.15	36,51,74,82	0
29	LMG	d	411	44/55	0.92	0.14	35,45,66,71	0
27	BCR	K	101	40/40	0.92	0.11	44,48,57,61	0
25	CLA	B	614	65/65	0.92	0.14	24,33,51,60	0
32	DGD	C	517	62/66	0.92	0.12	36,45,80,87	0
25	CLA	C	506	65/65	0.92	0.14	27,40,71,75	0
27	BCR	C	515	40/40	0.92	0.12	28,38,46,52	0
33	STE	t	102	14/20	0.92	0.16	35,42,51,54	0
33	STE	C	522	16/20	0.92	0.12	42,46,50,51	0
32	DGD	c	517	62/66	0.92	0.12	37,47,73,75	0
25	CLA	b	614	65/65	0.93	0.14	25,36,48,51	0
27	BCR	B	618	40/40	0.93	0.11	27,37,49,51	0
27	BCR	b	618	40/40	0.93	0.11	31,40,56,58	0
25	CLA	c	502	65/65	0.93	0.13	30,37,49,54	0
30	SQD	F	102	36/54	0.93	0.16	45,64,68,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
32	DGD	C	516	62/66	0.93	0.13	24,34,63,68	0
25	CLA	c	503	65/65	0.93	0.14	33,41,49,54	0
25	CLA	c	511	65/65	0.94	0.12	36,50,61,66	0
25	CLA	b	613	65/65	0.94	0.13	25,33,59,69	0
25	CLA	C	507	65/65	0.94	0.13	26,34,46,49	0
25	CLA	C	502	65/65	0.94	0.11	27,35,45,50	0
32	DGD	c	516	62/66	0.94	0.12	25,35,59,68	0
25	CLA	a	607	65/65	0.94	0.13	27,34,78,86	0
27	BCR	k	102	40/40	0.94	0.17	43,51,59,64	0
30	SQD	A	614	52/54	0.94	0.14	32,49,67,71	0
25	CLA	B	605	65/65	0.94	0.10	24,32,57,61	0
27	BCR	C	514	40/40	0.94	0.12	44,51,58,60	0
25	CLA	c	506	65/65	0.94	0.12	33,41,72,76	0
30	SQD	a	613	54/54	0.94	0.13	37,55,72,75	0
25	CLA	c	508	64/65	0.94	0.12	33,41,71,84	0
25	CLA	c	509	65/65	0.94	0.15	36,42,54,56	0
25	CLA	c	510	65/65	0.94	0.12	31,43,52,56	0
27	BCR	K	102	40/40	0.94	0.14	39,47,56,60	0
31	LHG	d	407	49/49	0.94	0.14	31,44,60,64	0
27	BCR	b	616	40/40	0.94	0.11	27,38,45,46	0
27	BCR	b	617	40/40	0.94	0.10	27,35,44,47	0
25	CLA	C	508	65/65	0.95	0.11	29,36,84,88	0
25	CLA	b	603	65/65	0.95	0.13	23,29,61,72	0
27	BCR	c	515	40/40	0.95	0.12	33,42,48,54	0
25	CLA	b	605	65/65	0.95	0.11	27,35,60,64	0
25	CLA	b	608	65/65	0.95	0.12	32,40,57,63	0
25	CLA	b	609	65/65	0.95	0.13	26,33,40,45	0
25	CLA	d	403	65/65	0.95	0.10	23,29,48,56	0
27	BCR	t	101	40/40	0.95	0.09	29,35,45,46	0
25	CLA	b	611	65/65	0.95	0.14	25,31,40,46	0
28	PL9	D	406	55/55	0.95	0.12	23,29,36,38	0
31	LHG	D	409	47/49	0.95	0.12	30,38,65,73	0
31	LHG	D	411	49/49	0.95	0.13	30,39,57,64	0
31	LHG	b	623	49/49	0.95	0.13	31,40,46,50	0
25	CLA	C	510	65/65	0.95	0.11	30,38,49,52	0
27	BCR	B	616	40/40	0.95	0.10	28,36,42,46	0
27	BCR	B	617	40/40	0.95	0.10	26,34,44,50	0
25	CLA	C	511	65/65	0.95	0.11	36,45,54,56	0
25	CLA	B	613	65/65	0.95	0.14	23,30,61,68	0
32	DGD	C	518	62/66	0.95	0.12	29,41,66,72	0
25	CLA	C	503	65/65	0.95	0.10	34,39,45,51	0
25	CLA	C	505	65/65	0.95	0.14	26,34,53,60	0

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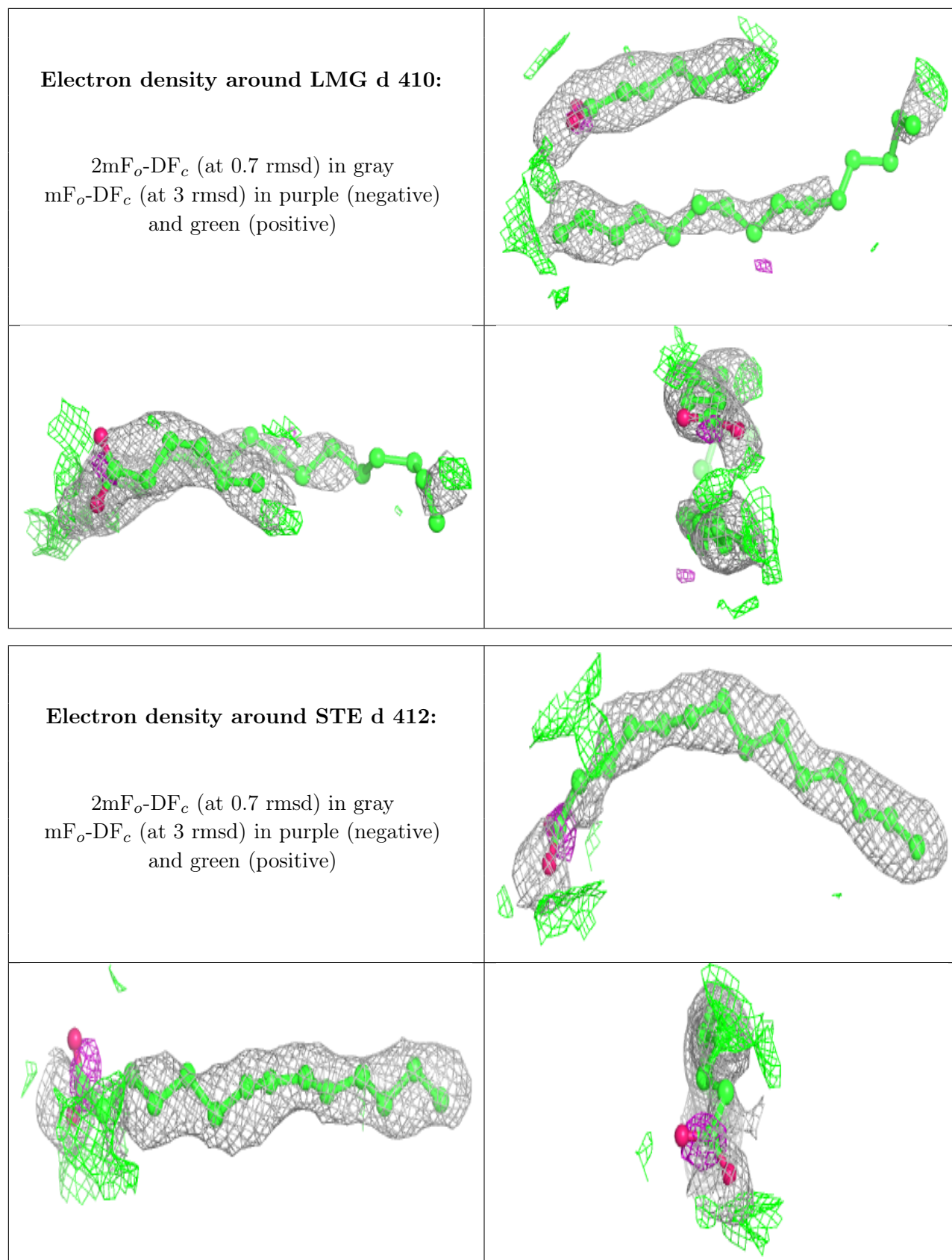
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
25	CLA	c	504	60/65	0.95	0.10	31,43,64,68	0
25	CLA	c	505	65/65	0.95	0.15	30,37,51,56	0
32	DGD	c	518	62/66	0.95	0.11	31,45,64,69	0
25	CLA	B	603	65/65	0.95	0.11	24,28,58,65	0
27	BCR	T	101	40/40	0.95	0.10	29,35,45,49	0
25	CLA	c	507	65/65	0.95	0.12	29,38,48,54	0
25	CLA	A	609	54/65	0.95	0.13	20,27,54,60	0
25	CLA	B	609	65/65	0.96	0.14	21,29,35,37	0
25	CLA	B	610	65/65	0.96	0.12	23,28,40,44	0
25	CLA	b	612	65/65	0.96	0.11	22,28,55,66	0
25	CLA	C	509	65/65	0.96	0.13	29,36,53,58	0
25	CLA	B	611	65/65	0.96	0.15	21,29,38,41	0
25	CLA	B	612	65/65	0.96	0.12	20,27,55,62	0
25	CLA	c	501	65/65	0.96	0.12	30,35,45,49	0
25	CLA	B	601	65/65	0.96	0.10	26,32,48,54	0
25	CLA	B	602	65/65	0.96	0.12	22,28,50,53	0
25	CLA	D	403	65/65	0.96	0.10	19,26,44,51	0
25	CLA	A	607	65/65	0.96	0.10	21,30,74,81	0
25	CLA	C	501	65/65	0.96	0.11	25,32,44,46	0
25	CLA	a	606	65/65	0.96	0.09	21,27,38,49	0
25	CLA	B	604	65/65	0.96	0.12	22,27,38,41	0
25	CLA	A	612	65/65	0.96	0.10	18,25,38,47	0
25	CLA	a	612	65/65	0.96	0.10	22,27,35,42	0
25	CLA	b	601	65/65	0.96	0.13	31,36,52,57	0
31	LHG	L	101	49/49	0.96	0.14	27,36,47,52	0
25	CLA	b	602	65/65	0.96	0.12	25,31,52,63	0
25	CLA	C	504	59/65	0.96	0.10	32,39,66,70	0
31	LHG	d	408	49/49	0.96	0.13	28,37,44,50	0
31	LHG	d	409	39/49	0.96	0.10	32,41,54,59	0
25	CLA	b	604	65/65	0.96	0.11	23,32,41,43	0
25	CLA	B	606	65/65	0.96	0.11	17,27,50,54	0
28	PL9	d	406	55/55	0.96	0.11	23,30,36,38	0
25	CLA	b	606	65/65	0.96	0.11	22,31,51,57	0
26	PHO	A	608	64/64	0.96	0.09	24,30,36,38	0
26	PHO	D	402	64/64	0.96	0.10	20,26,32,36	0
26	PHO	d	402	64/64	0.96	0.10	29,35,40,44	0
27	BCR	A	610	40/40	0.96	0.09	25,31,35,37	0
25	CLA	b	607	65/65	0.96	0.11	32,37,52,54	0
25	CLA	B	608	65/65	0.96	0.10	23,34,47,52	0
34	BCT	d	401	4/4	0.96	0.19	34,37,41,47	0
35	HEM	F	101	43/43	0.96	0.13	39,45,54,59	0
35	HEM	f	101	43/43	0.96	0.13	51,55,67,76	0

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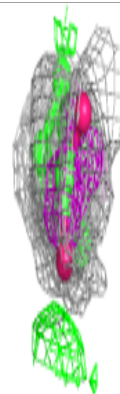
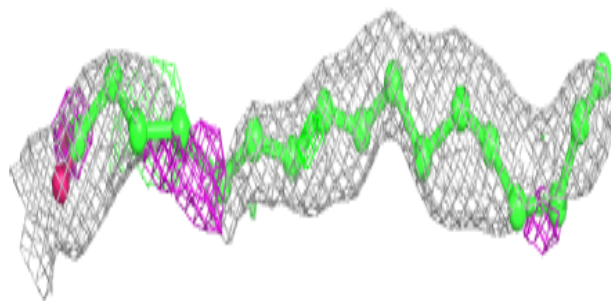
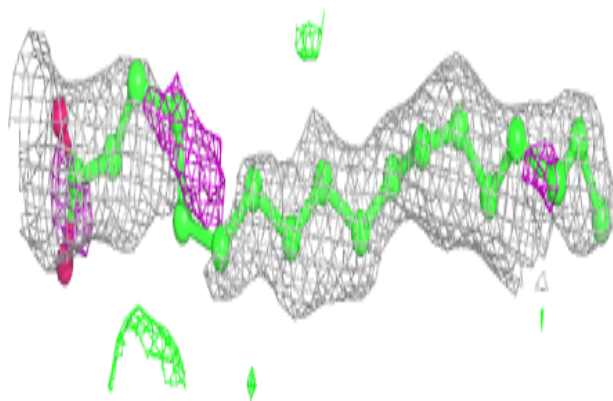
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
25	CLA	b	610	65/65	0.97	0.09	24,31,44,51	0
31	LHG	D	408	49/49	0.97	0.12	25,34,44,50	0
25	CLA	B	607	65/65	0.97	0.10	23,30,47,52	0
25	CLA	A	606	65/65	0.97	0.10	18,25,38,41	0
26	PHO	a	608	64/64	0.97	0.09	23,28,34,36	0
27	BCR	a	610	40/40	0.97	0.08	22,29,41,43	0
36	HEC	V	201	43/43	0.97	0.11	24,30,37,41	0
36	HEC	v	201	43/43	0.97	0.13	28,36,41,45	0
22	OEX	a	602[B]	10/10	0.98	0.11	25,29,31,32	10
21	OEY	a	601[A]	11/11	0.98	0.11	27,31,33,34	11
34	BCT	D	401	4/4	0.98	0.19	33,34,35,38	0
21	OEY	a	601[C]	11/11	0.98	0.11	24,27,32,32	11
24	CL	a	604	1/1	0.99	0.04	29,29,29,29	0
24	CL	a	605	1/1	0.99	0.04	30,30,30,30	0
21	OEY	A	601[C]	11/11	0.99	0.10	24,26,30,31	11
22	OEX	A	602[B]	10/10	0.99	0.10	25,29,32,32	10
21	OEY	A	601[A]	11/11	0.99	0.10	28,31,33,34	11
23	FE2	A	603	1/1	0.99	0.07	30,30,30,30	0
23	FE2	a	603	1/1	0.99	0.04	32,32,32,32	0
24	CL	A	604	1/1	0.99	0.04	27,27,27,27	0
24	CL	A	605	1/1	0.99	0.04	28,28,28,28	0

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

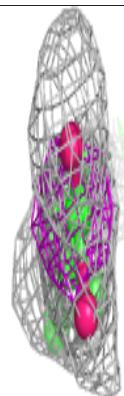
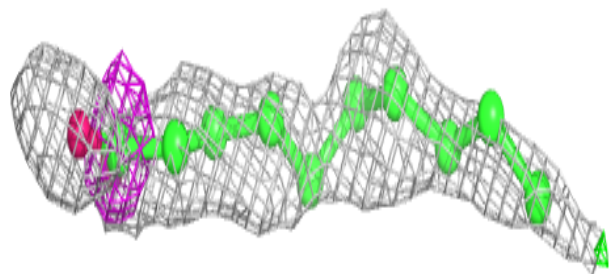
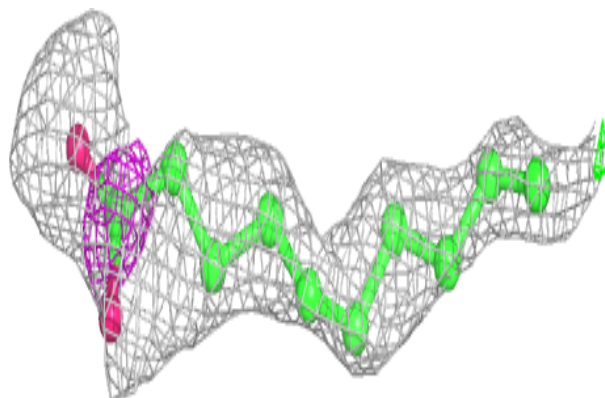


**Electron density around STE b 625:**

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

**Electron density around STE a 616:**

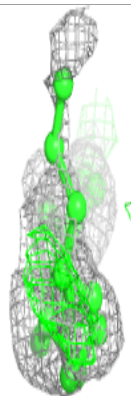
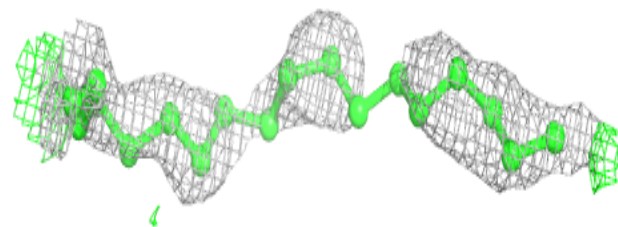
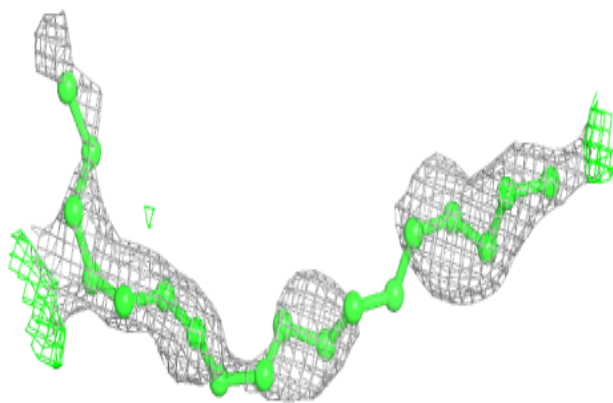
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





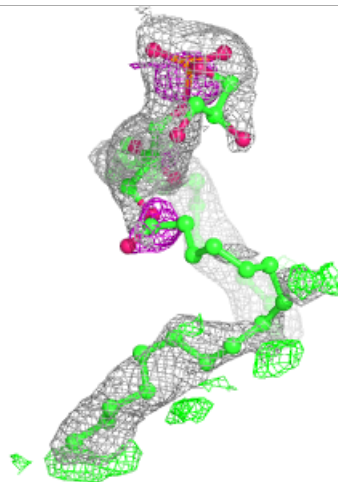
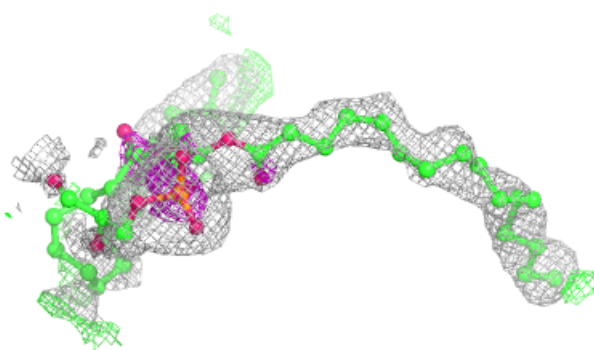
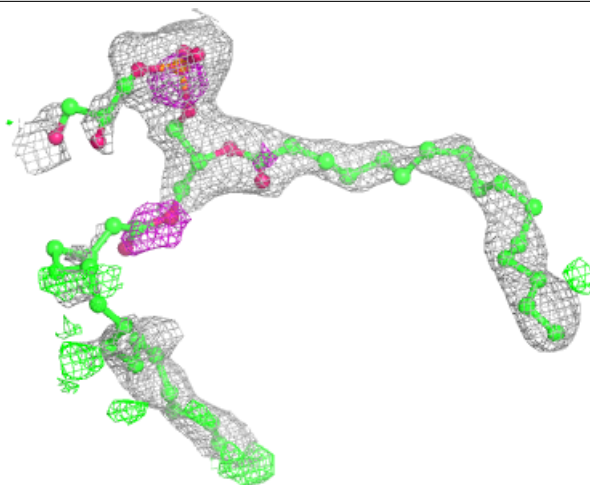
**Electron density around STE H 104:**

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



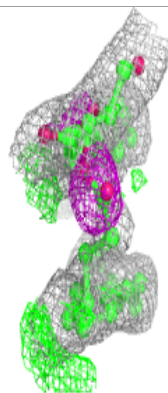
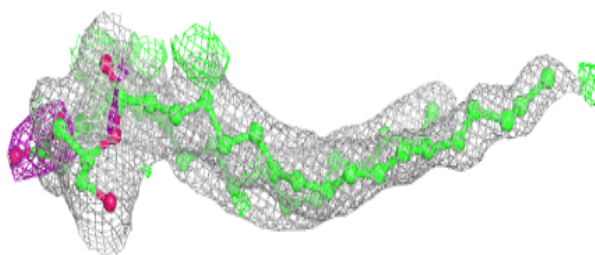
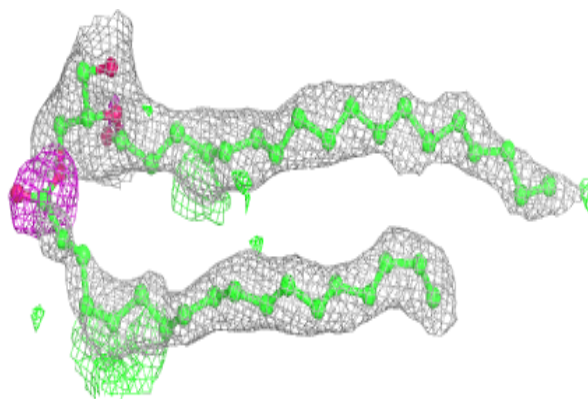
**Electron density around LHG A 615:**

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

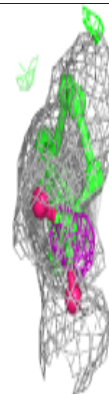
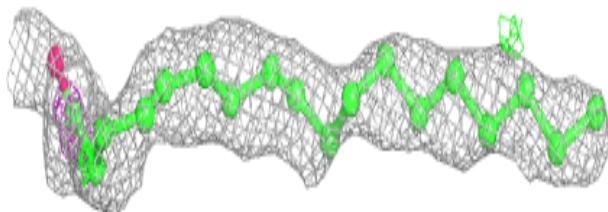
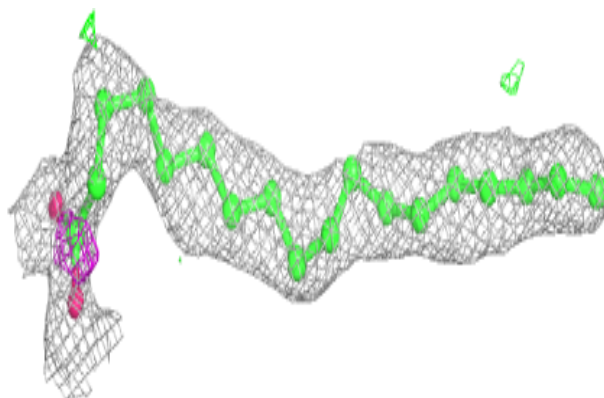


**Electron density around DGD a 615:**

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

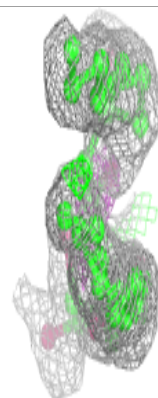
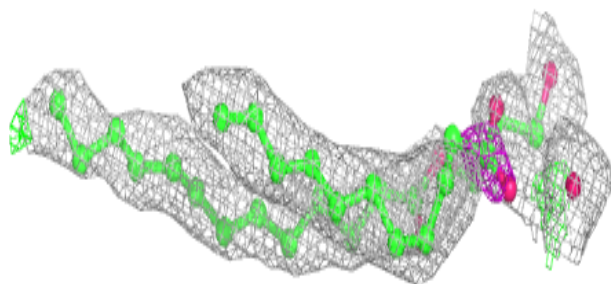
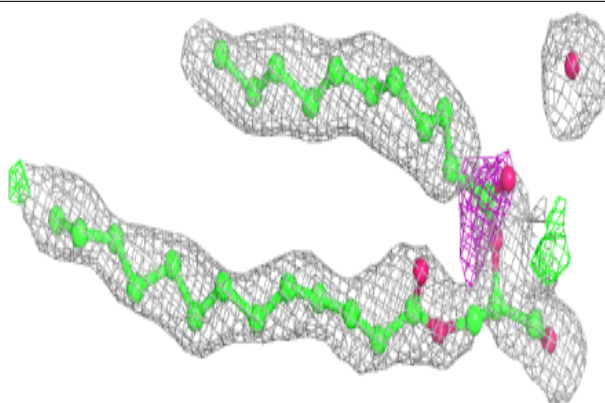
**Electron density around STE c 520:**

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

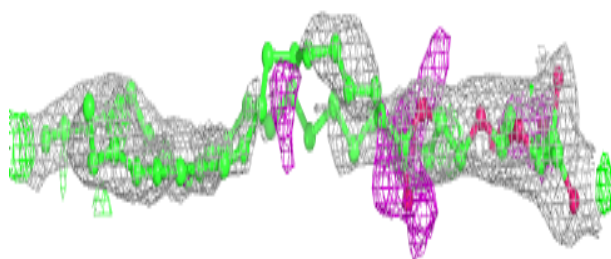
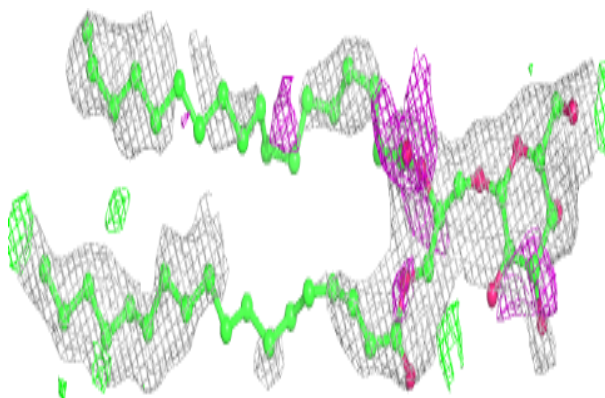


**Electron density around LMG D 410:**

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

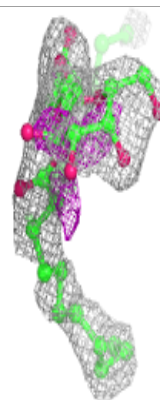
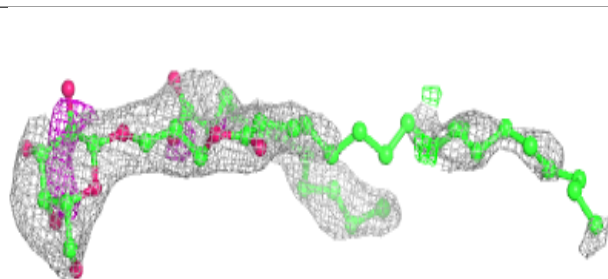
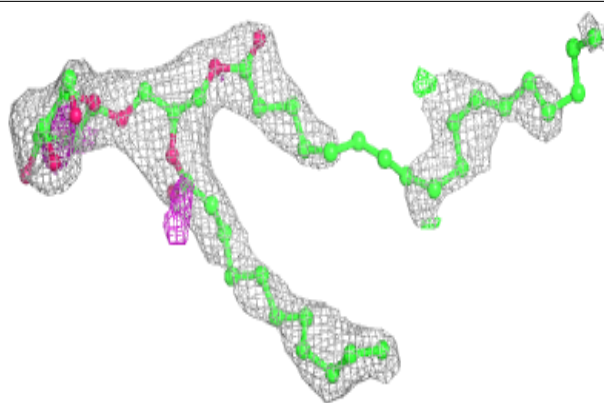
**Electron density around LMG b 622:**

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

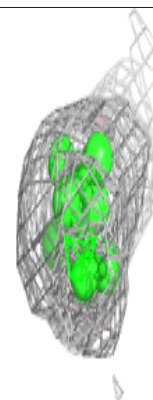
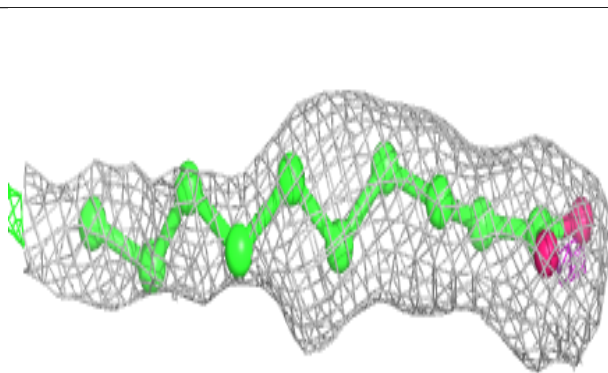
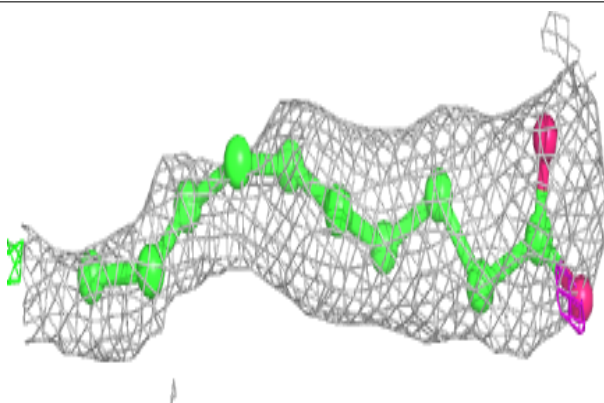


**Electron density around LMG c 521:**

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

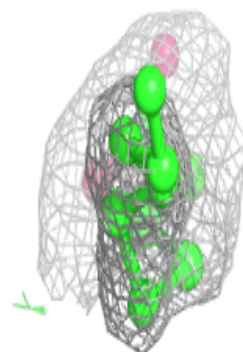
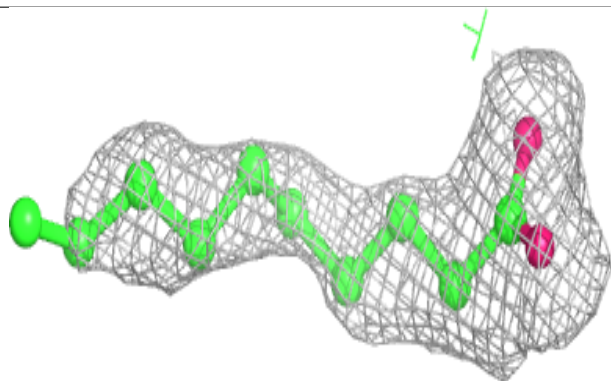
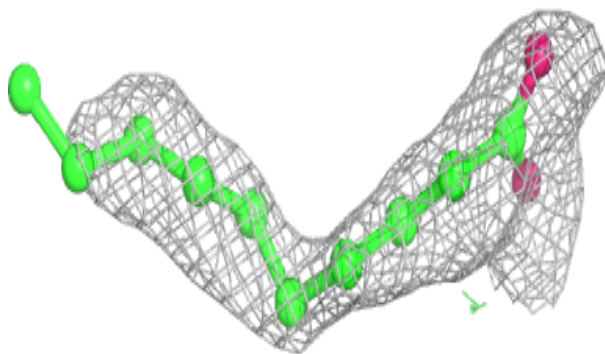
**Electron density around STE k 103:**

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

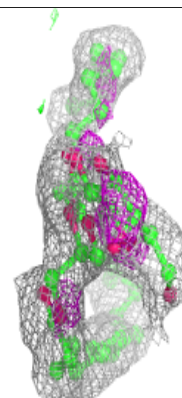
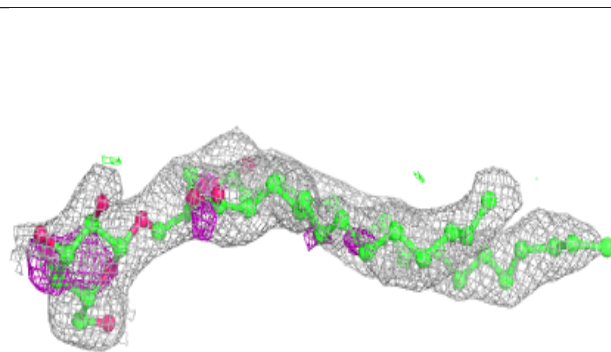
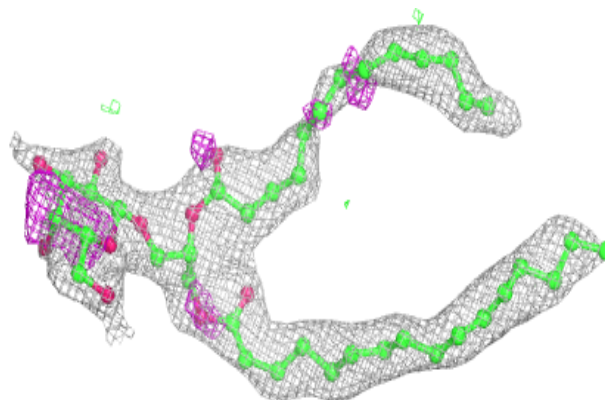


**Electron density around STE E 101:**

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

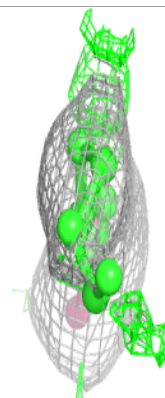
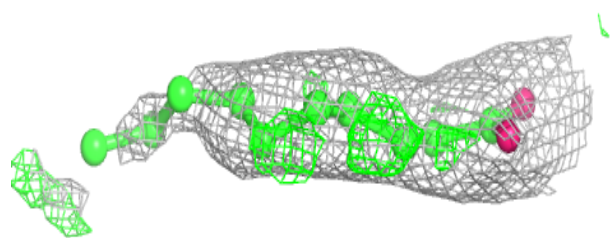
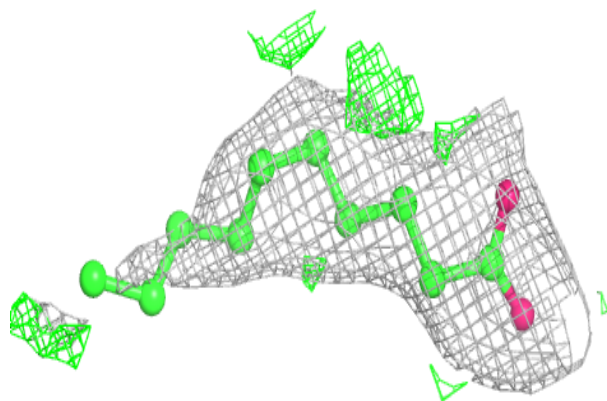
**Electron density around LMG A 613:**

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

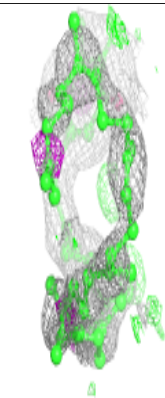
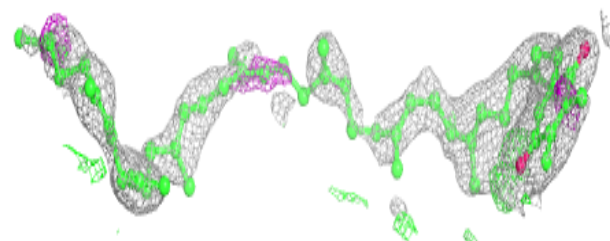
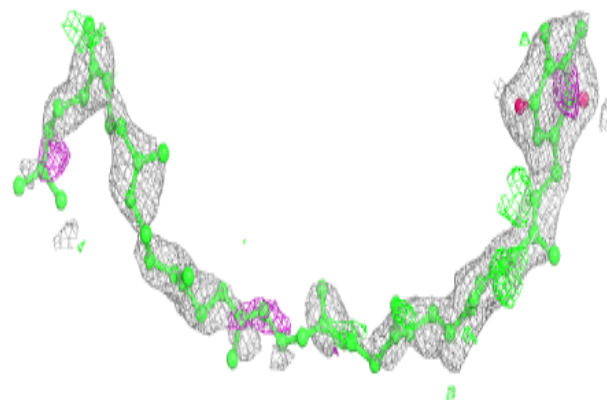


**Electron density around STE C 520:**

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

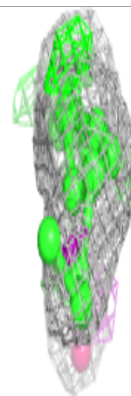
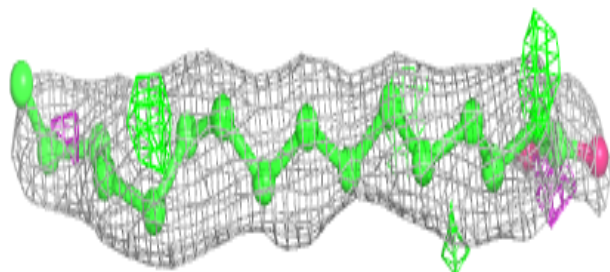
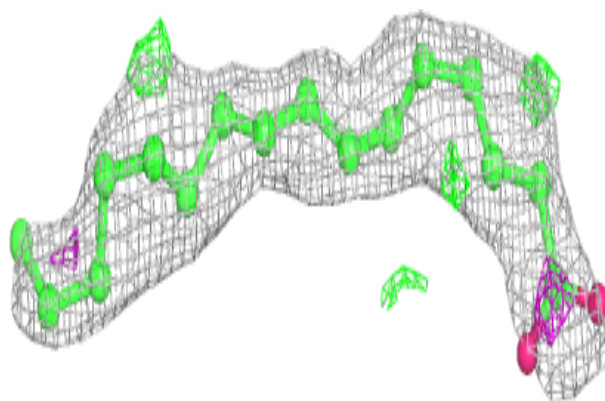
**Electron density around PL9 a 611:**

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

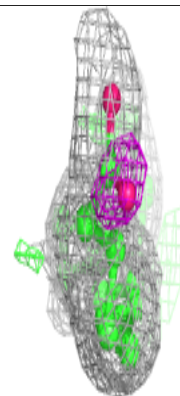
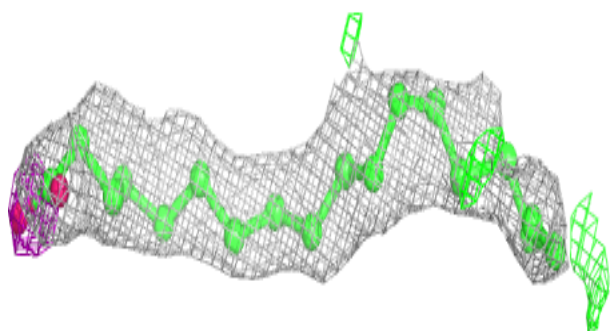
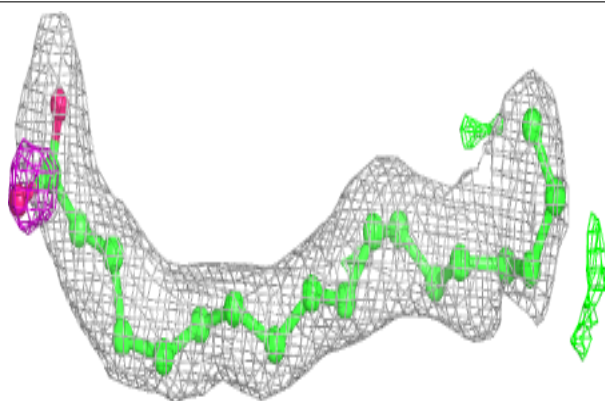


**Electron density around STE B 623:**

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

**Electron density around STE b 621:**

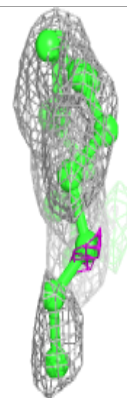
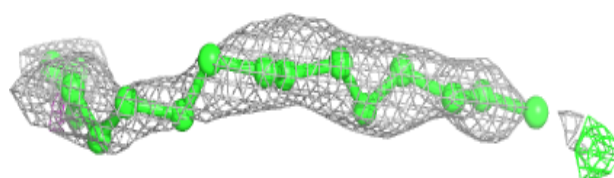
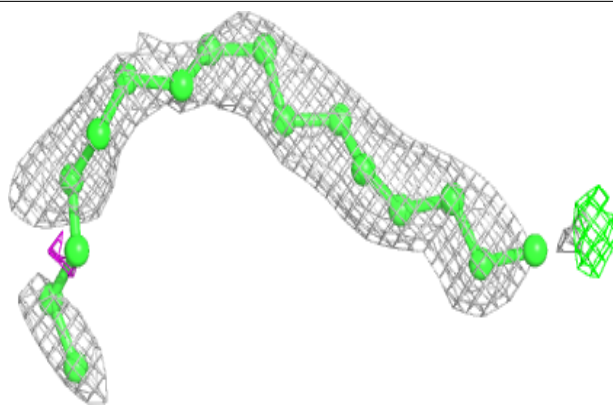
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



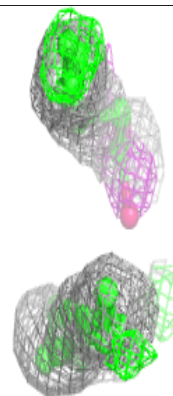
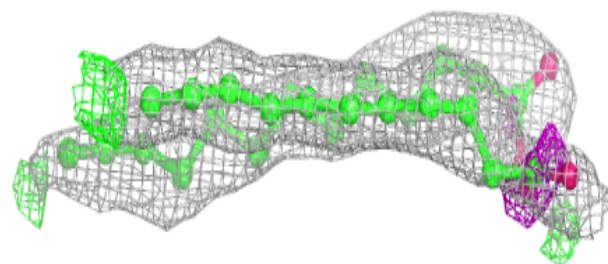
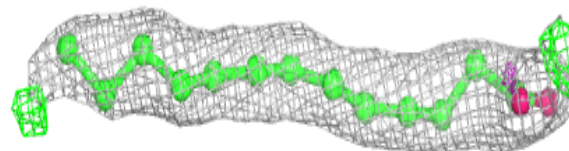
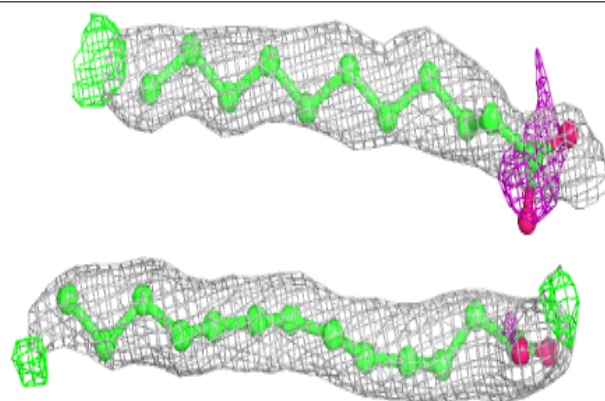


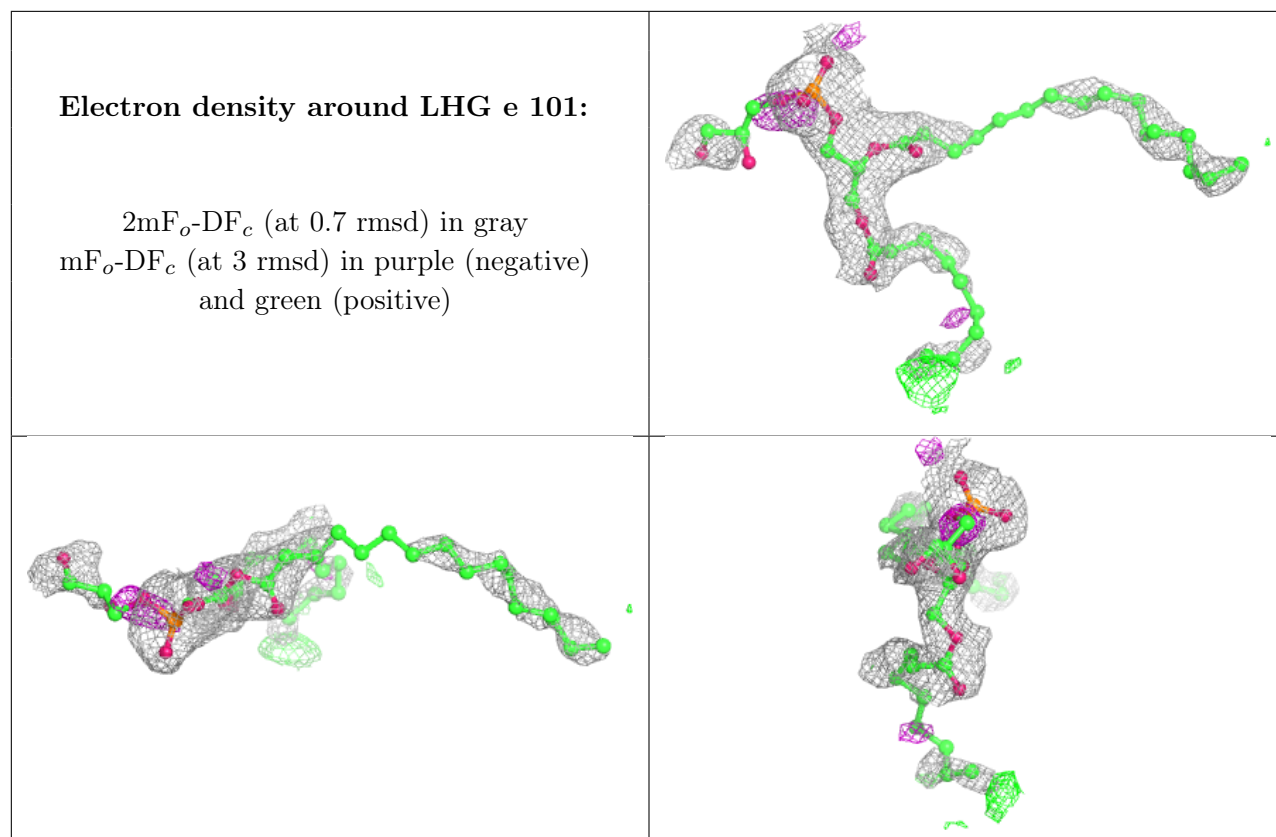
**Electron density around STE B 625:**

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

**Electron density around LMG B 620:**

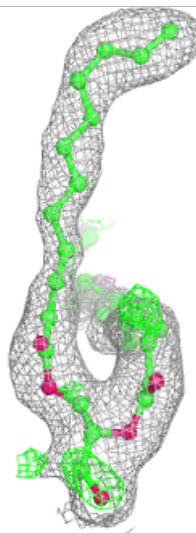
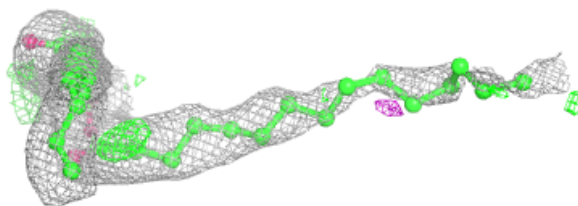
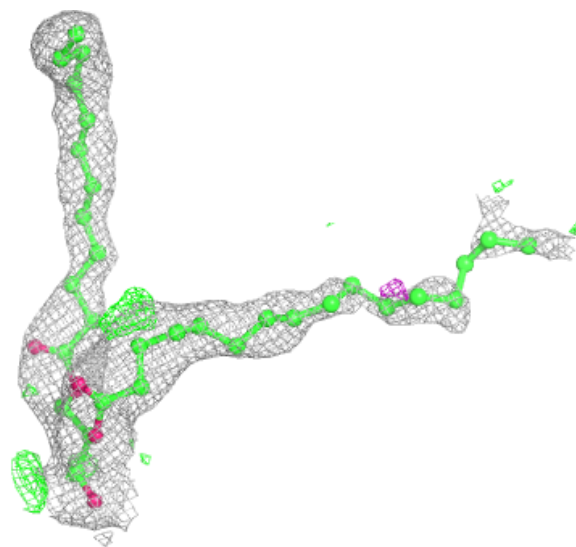
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





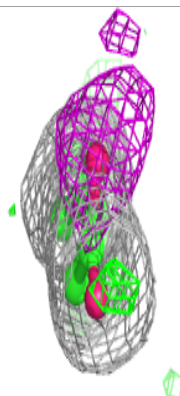
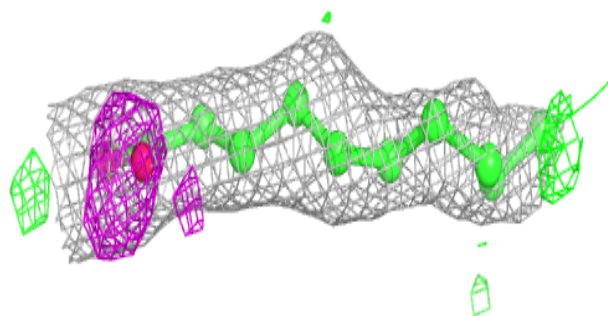
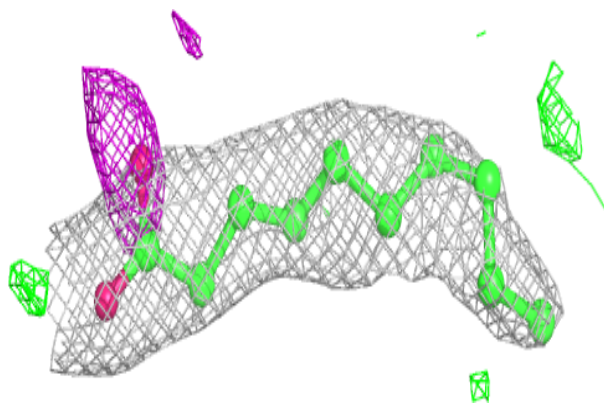
**Electron density around SQD a 614:**

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

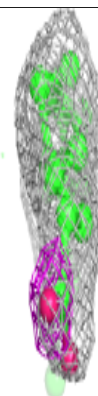
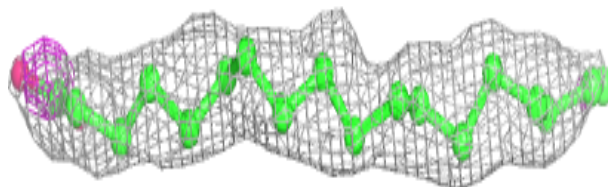
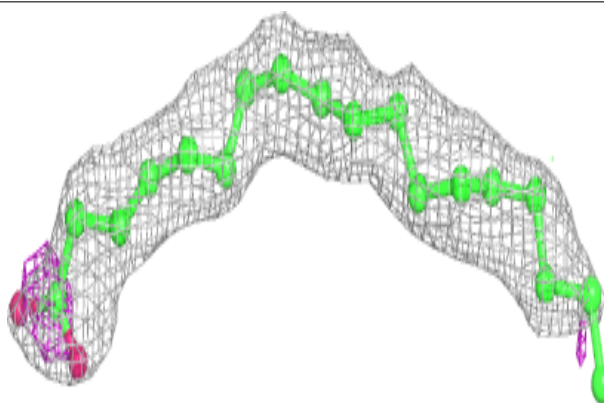


**Electron density around STE m 102:**

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

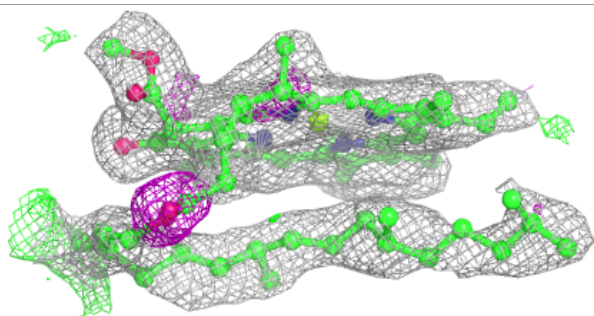
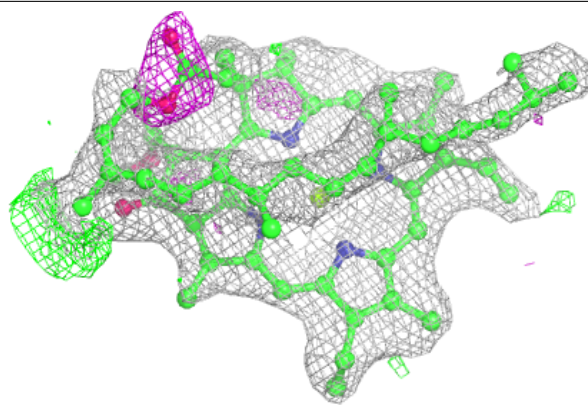
**Electron density around STE X 101:**

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



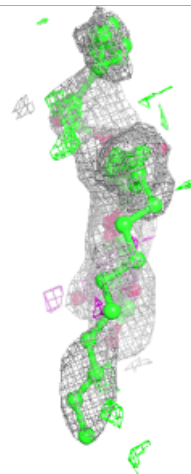
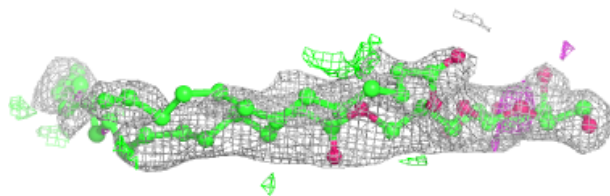
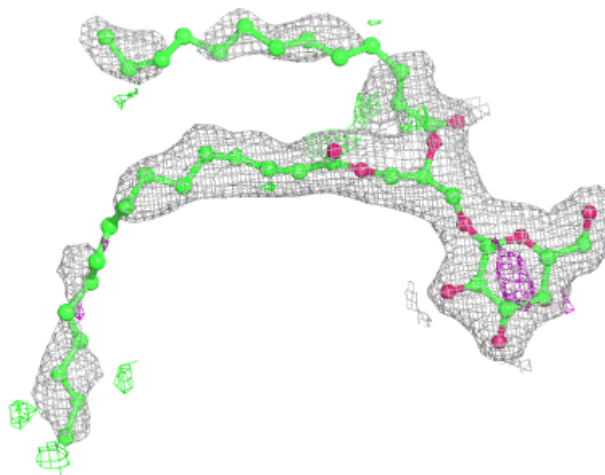
**Electron density around CLA h 101:**

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



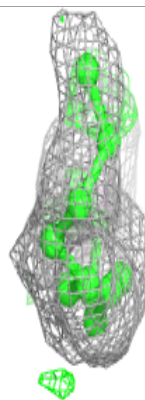
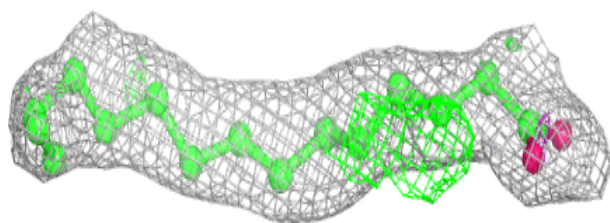
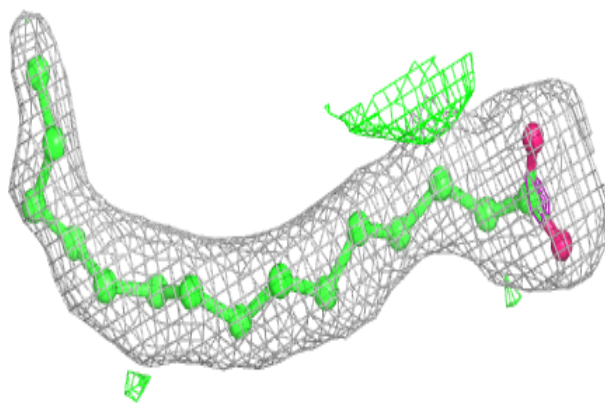
**Electron density around LMG C 519:**

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

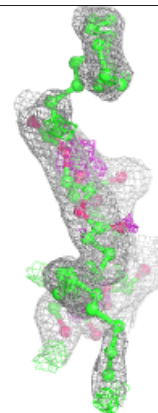
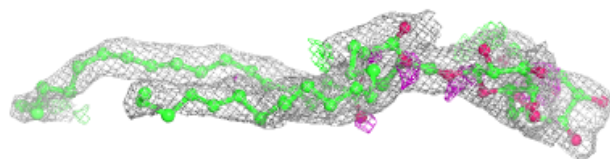
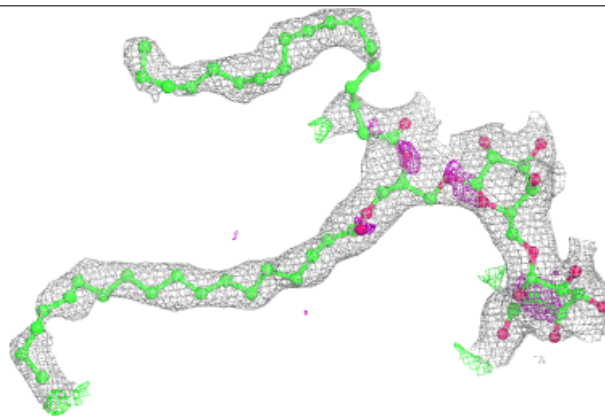


**Electron density around STE B 619:**

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

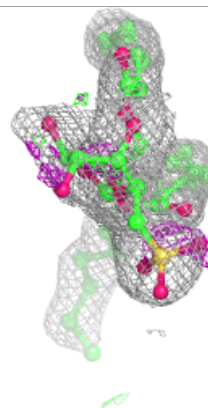
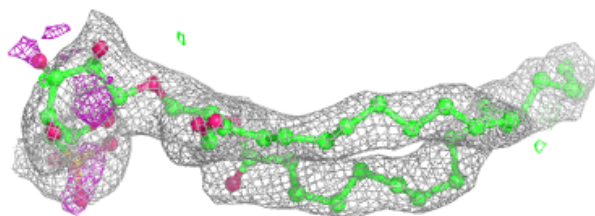
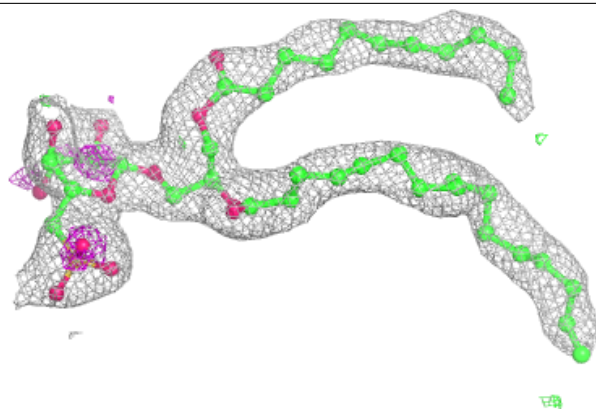
**Electron density around DGD A 617:**

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

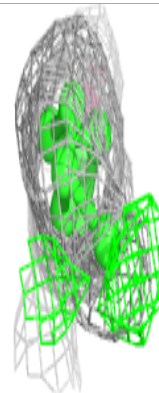
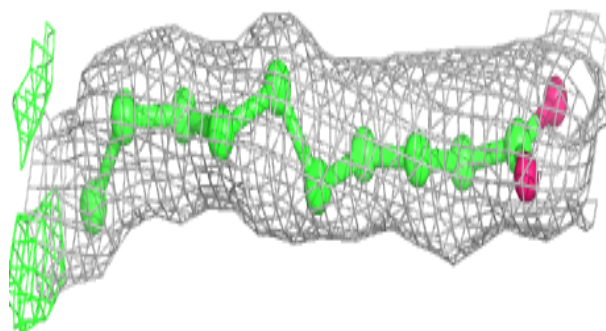
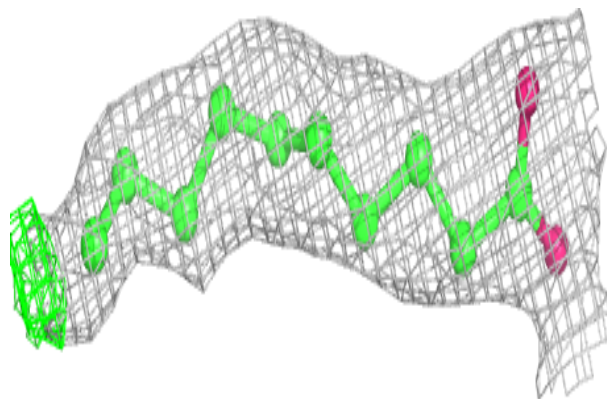


**Electron density around SQD b 619:**

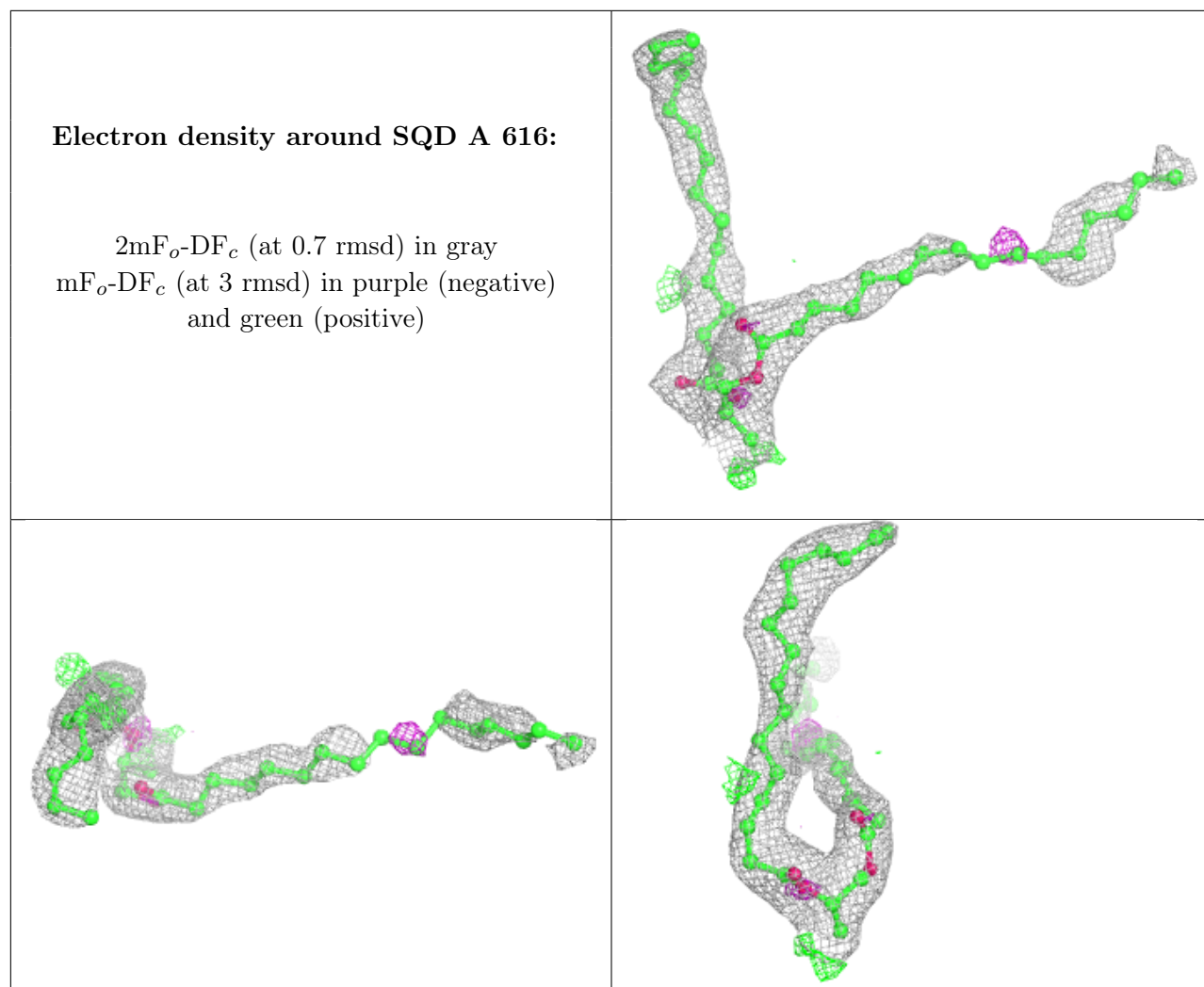
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around 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)

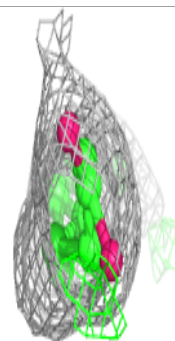
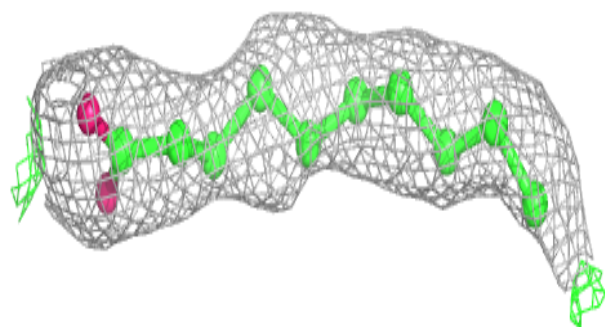
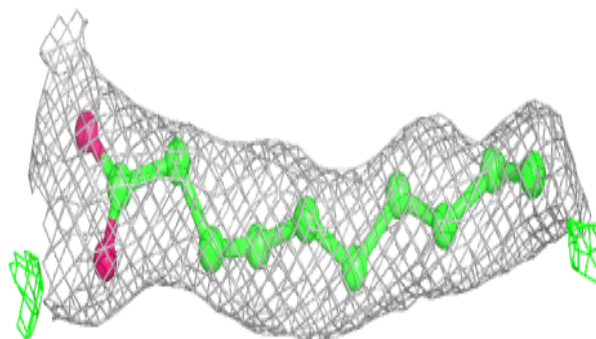




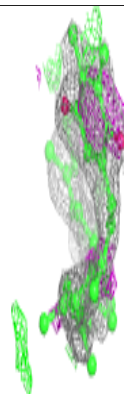
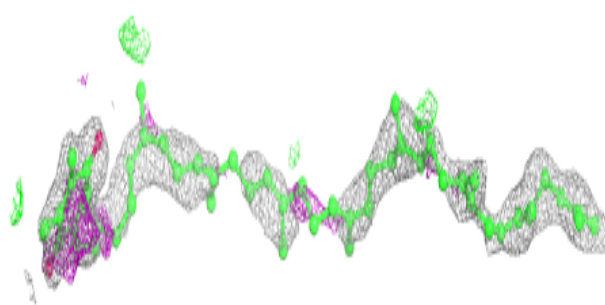
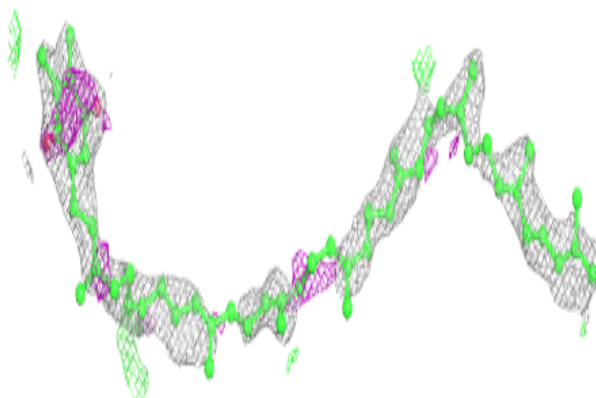


**Electron density around STE j 101:**

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

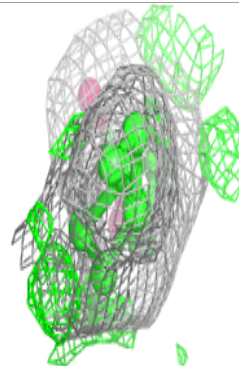
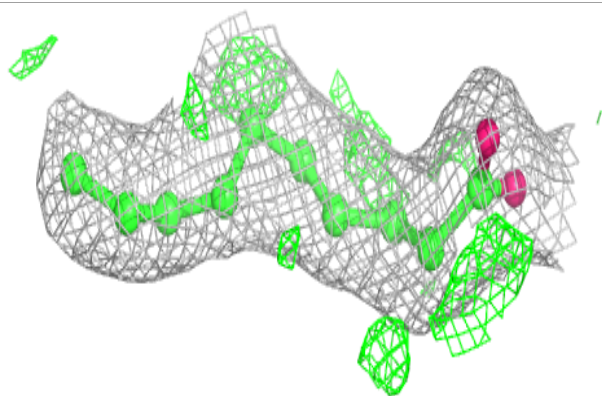
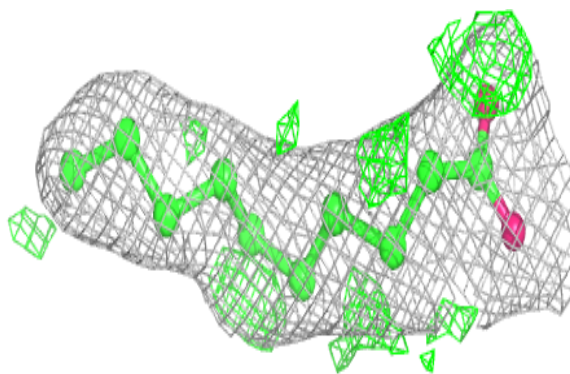
**Electron density around PL9 A 611:**

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



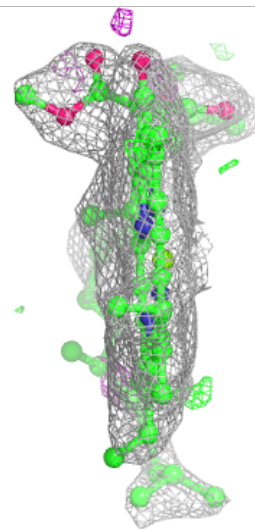
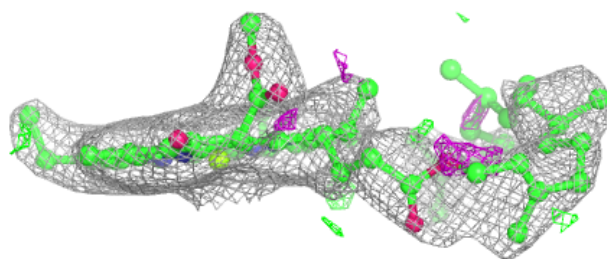
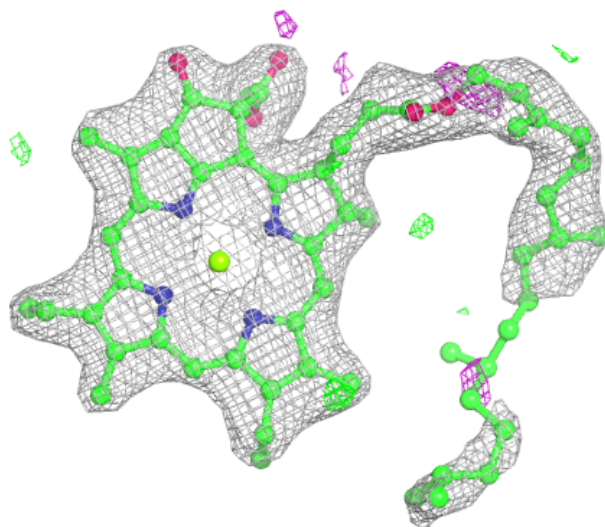
**Electron density around STE B 622:**

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



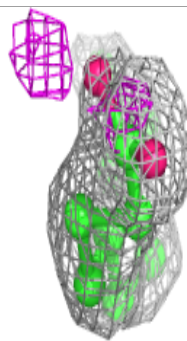
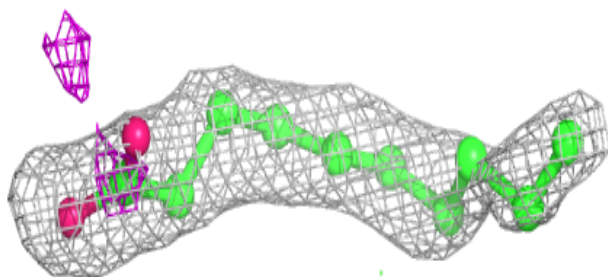
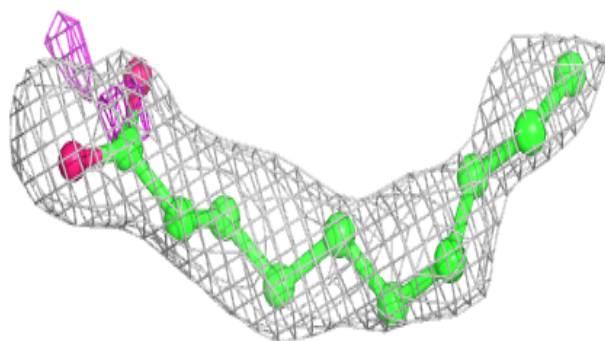
**Electron density around CLA c 512:**

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

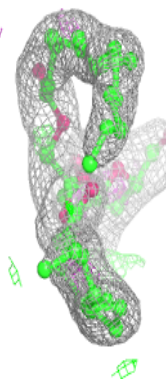
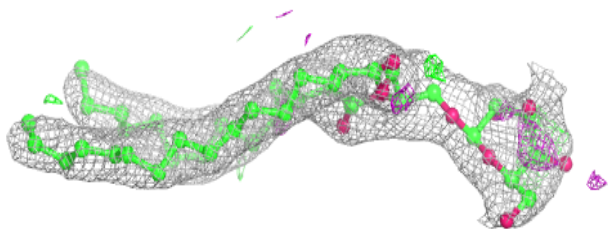
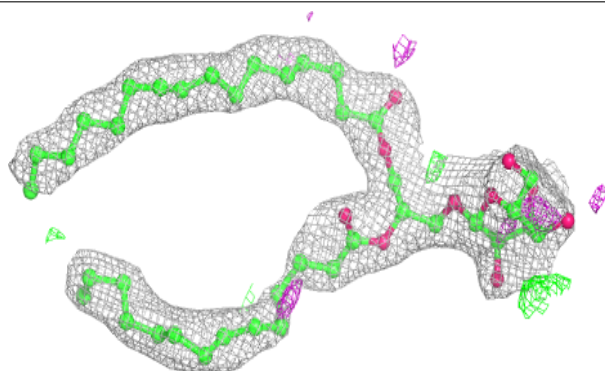


**Electron density around STE B 624:**

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

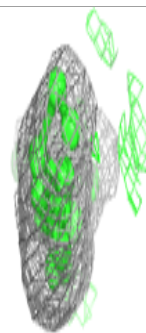
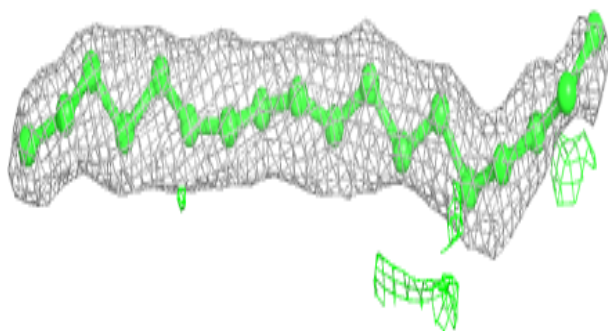
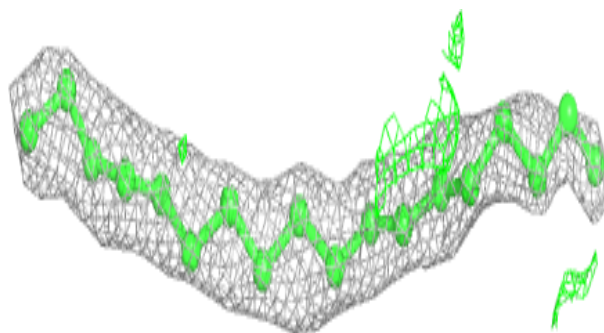
**Electron density around LMG c 522:**

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

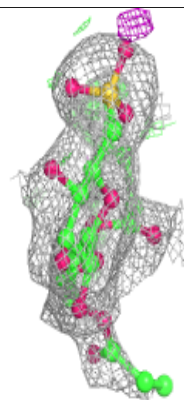
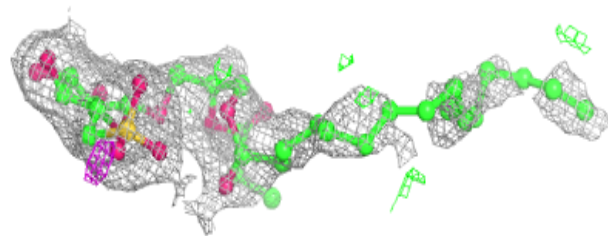
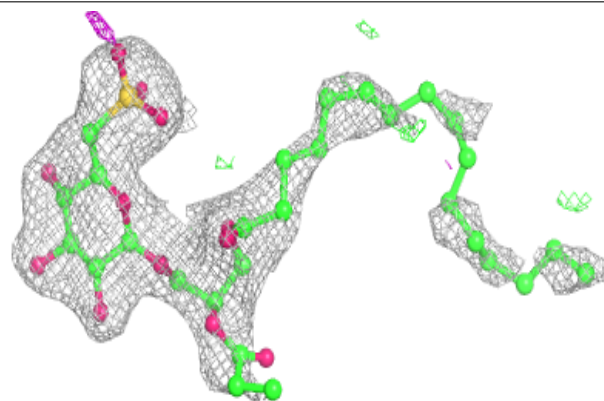


**Electron density around STE I 101:**

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

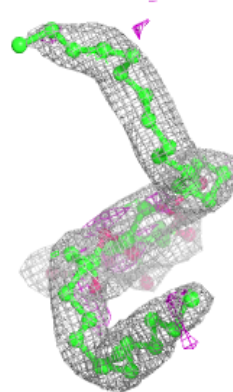
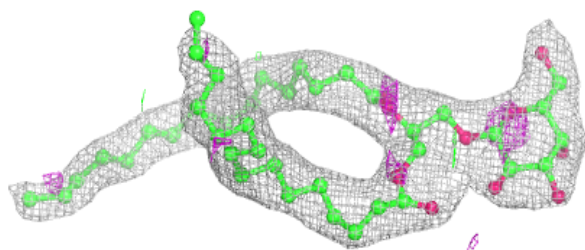
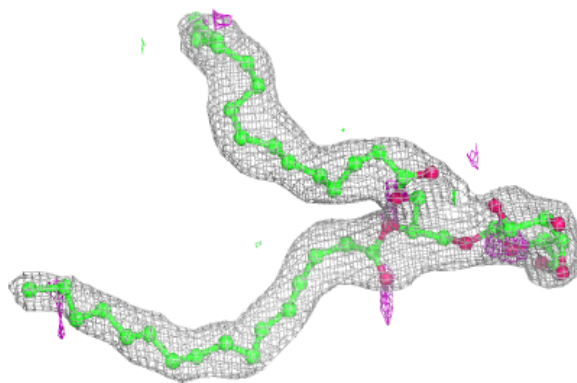
**Electron density around SQD f 102:**

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

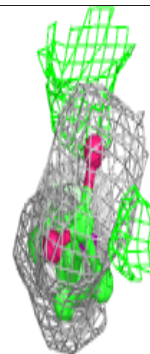
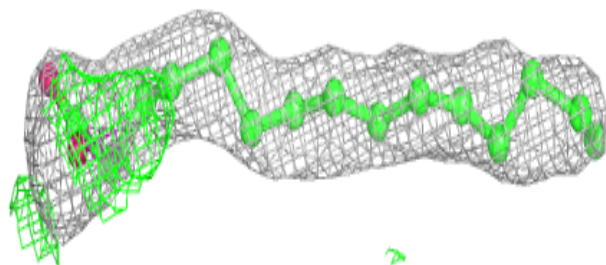
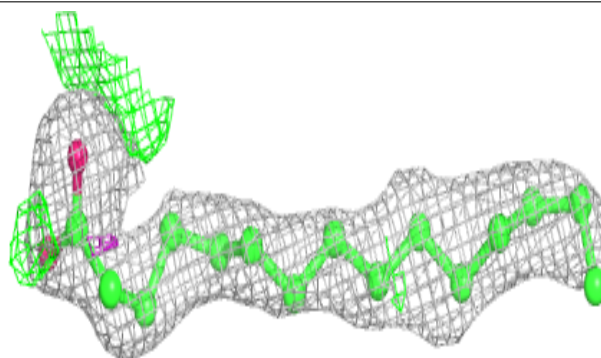


**Electron density around LMG m 101:**

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

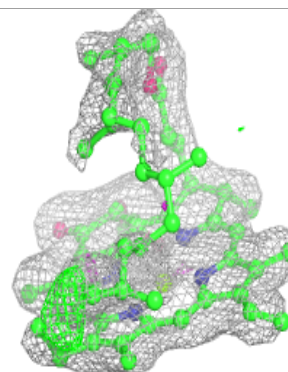
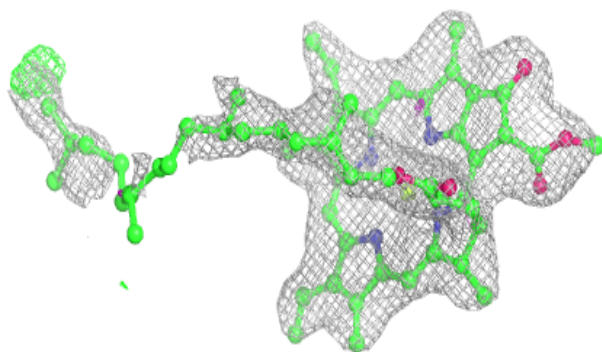
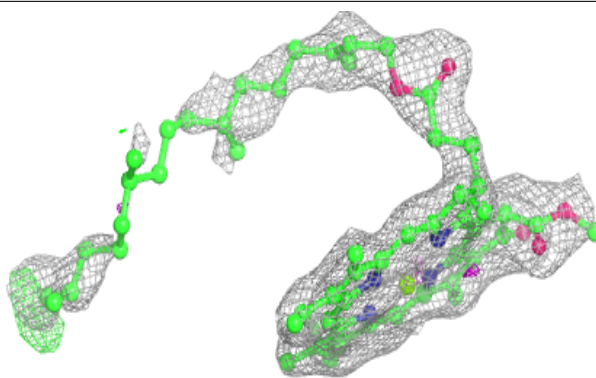
**Electron density around STE d 413:**

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

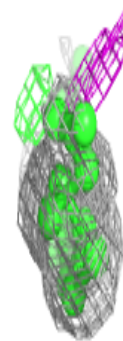
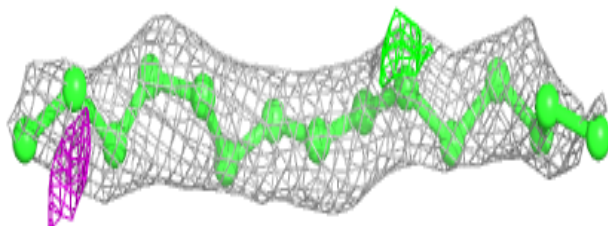
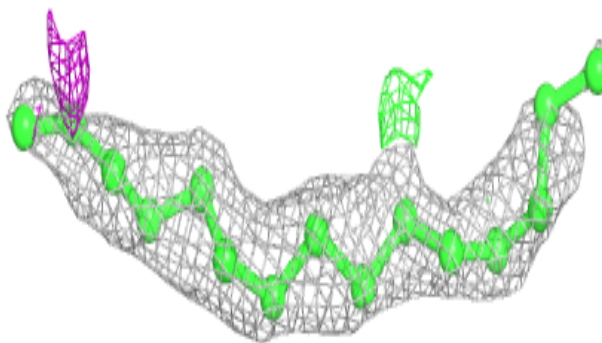


**Electron density around CLA C 513:**

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

**Electron density around STE b 624:**

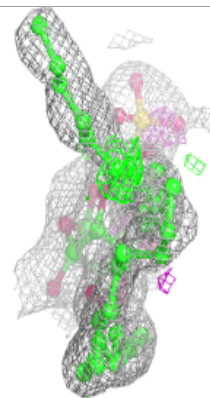
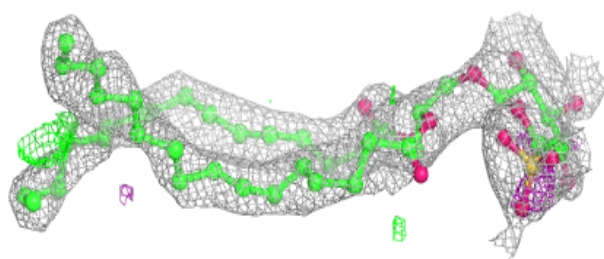
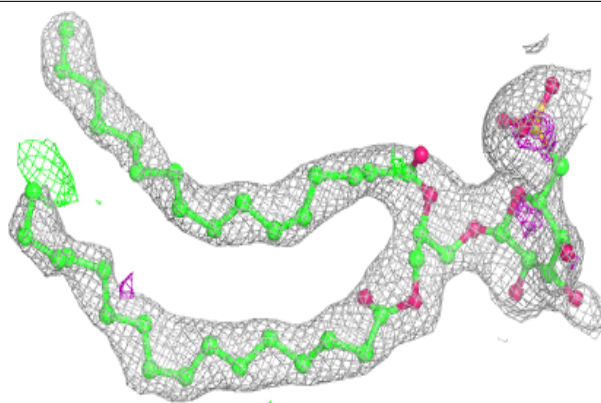
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



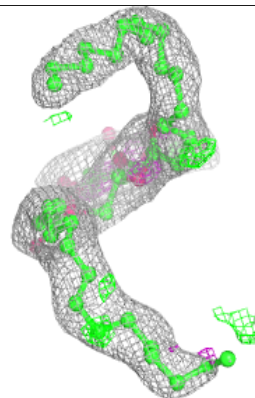
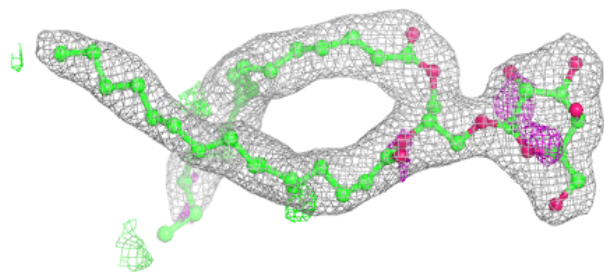
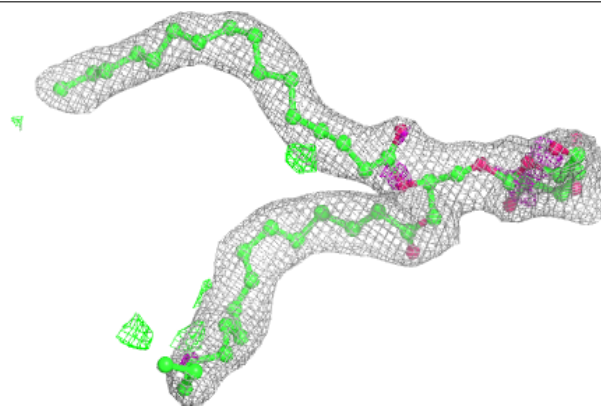


**Electron density around SQD B 621:**

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

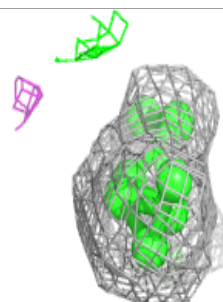
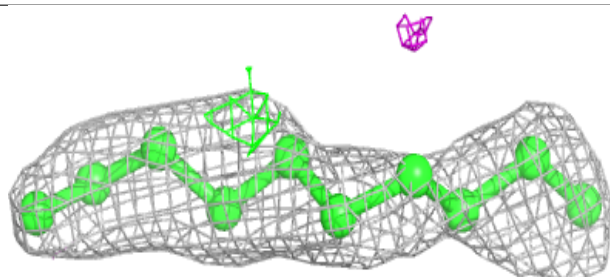
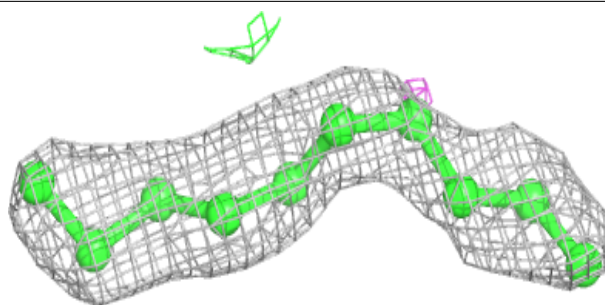
**Electron density around LMG M 101:**

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

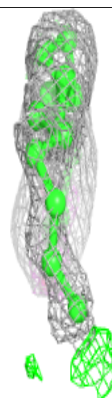
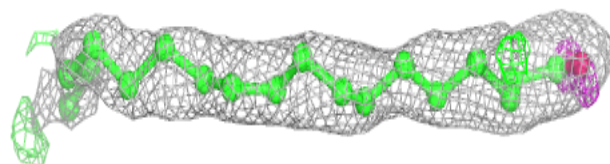
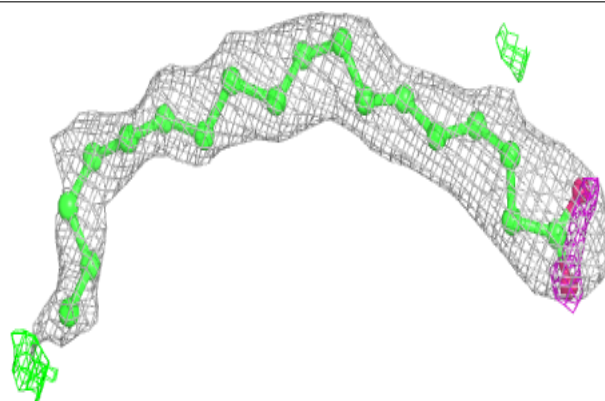


**Electron density around STE t 103:**

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

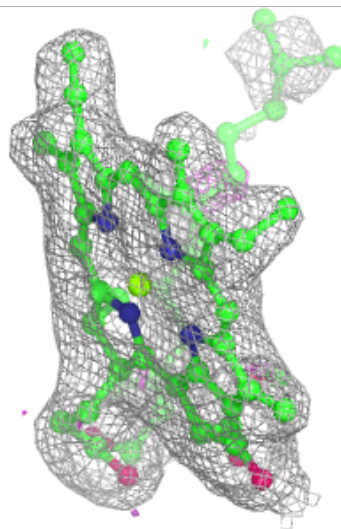
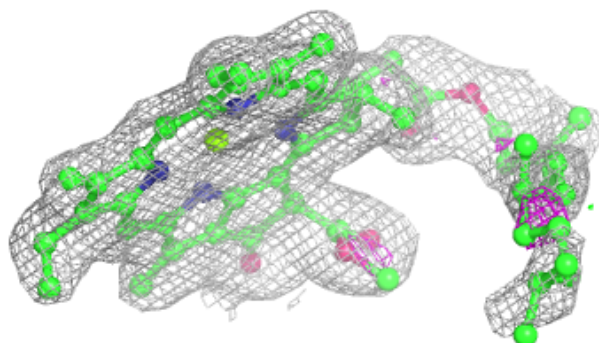
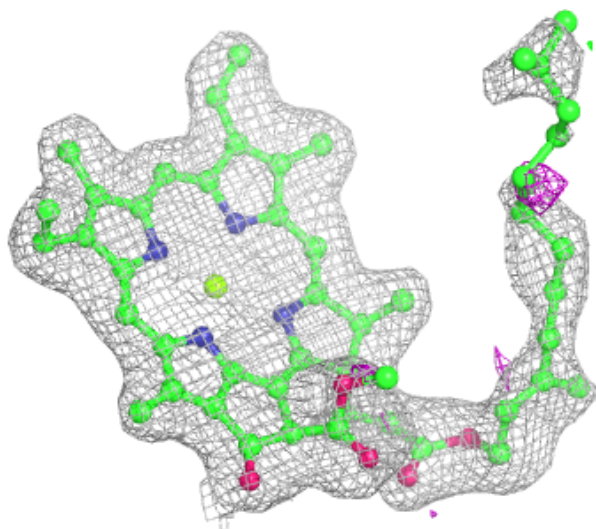
**Electron density around STE x 101:**

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



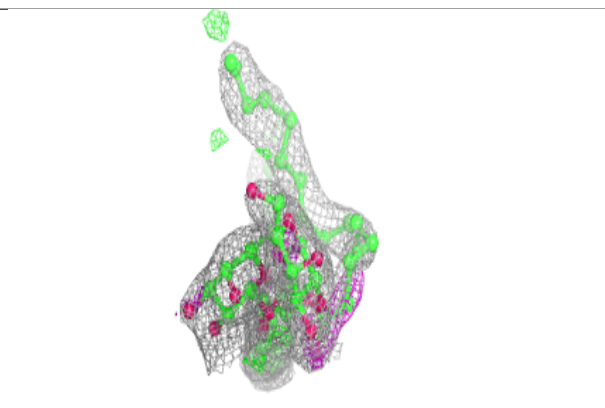
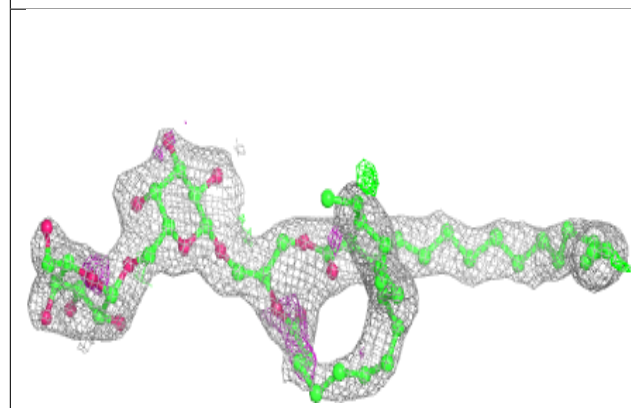
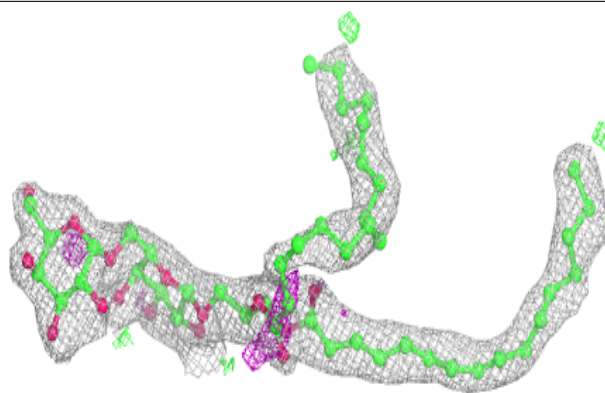
**Electron density around CLA b 615:**

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

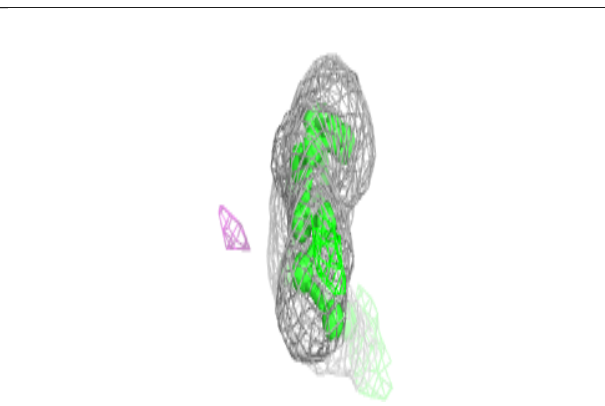
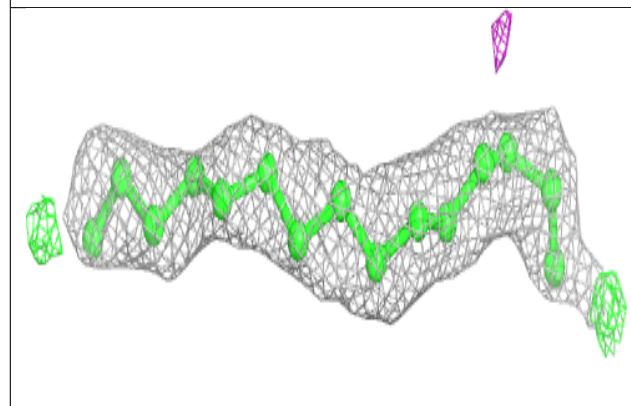
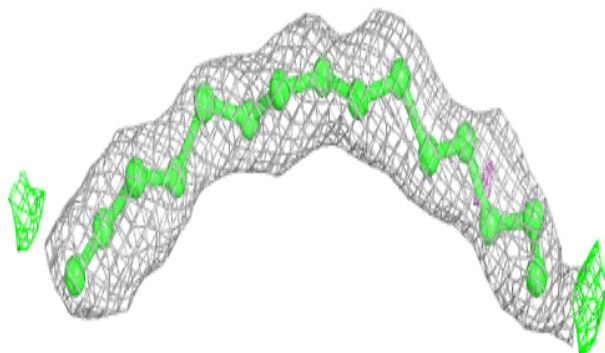


**Electron density around DGD h 103:**

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

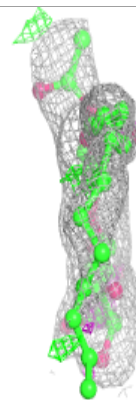
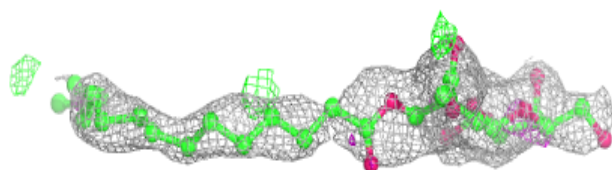
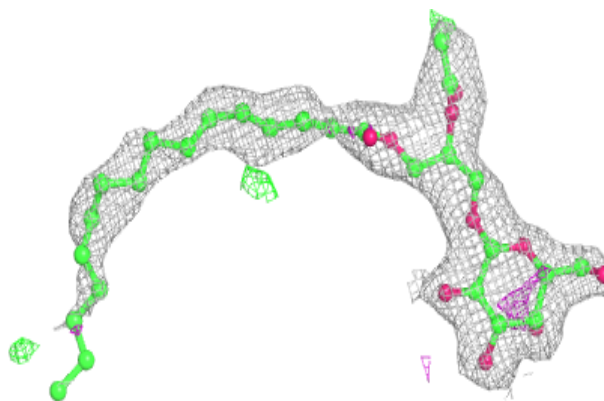
**Electron density around STE I 101:**

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

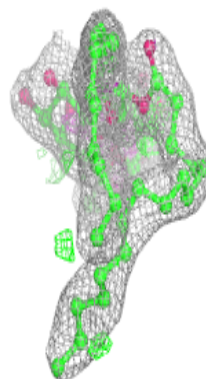
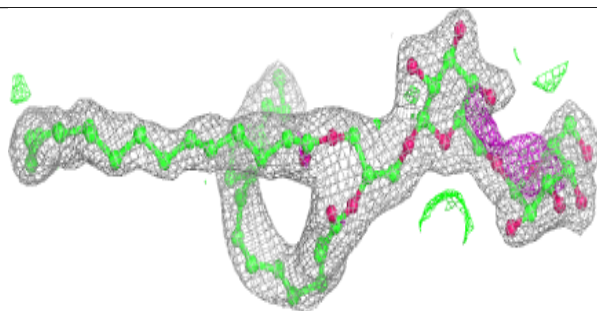
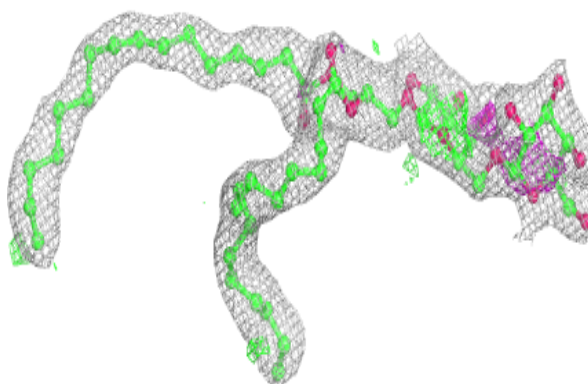


**Electron density around LMG c 519:**

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

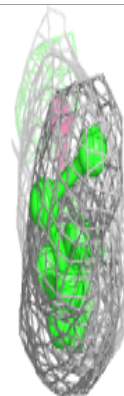
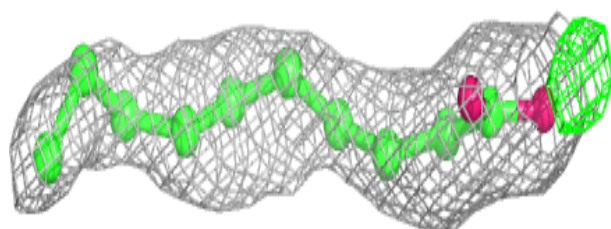
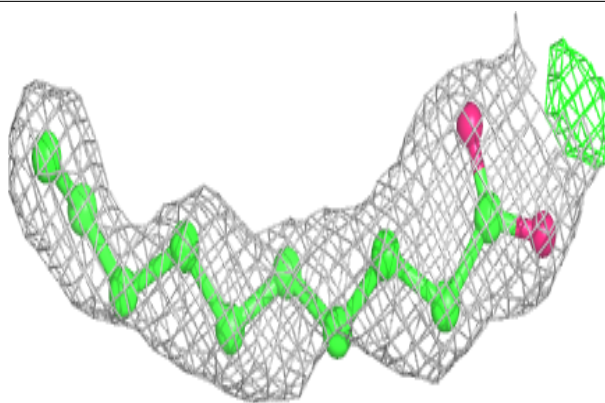
**Electron density around DGD H 103:**

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

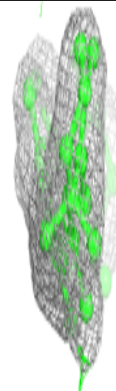
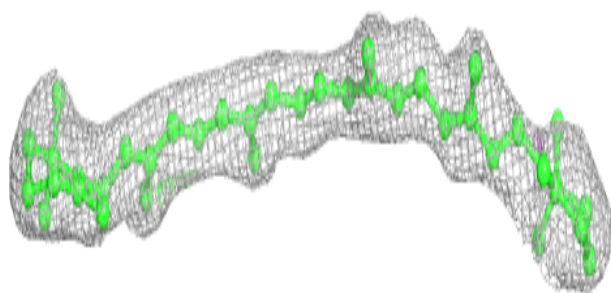
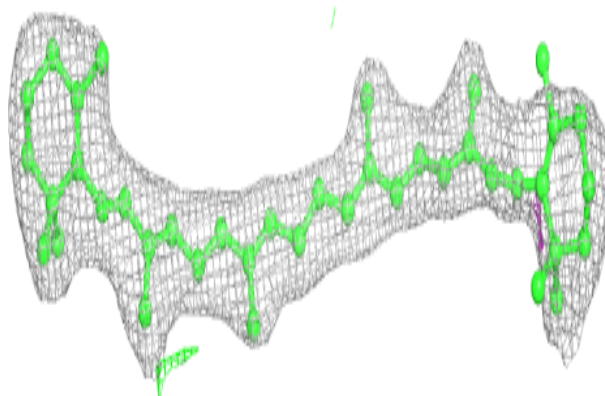


**Electron density around STE C 521:**

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

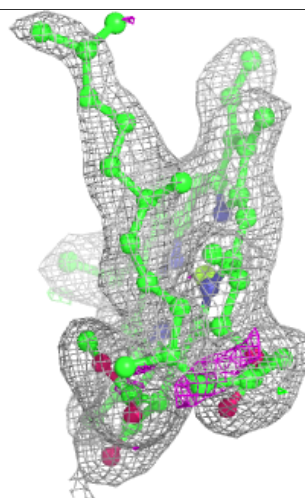
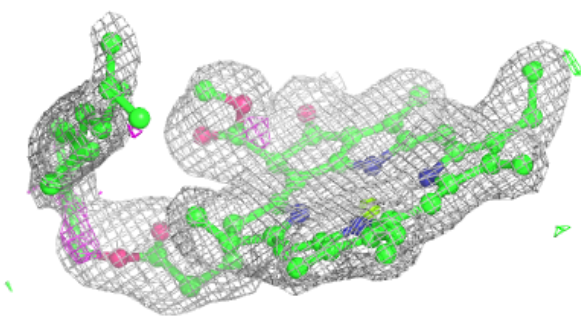
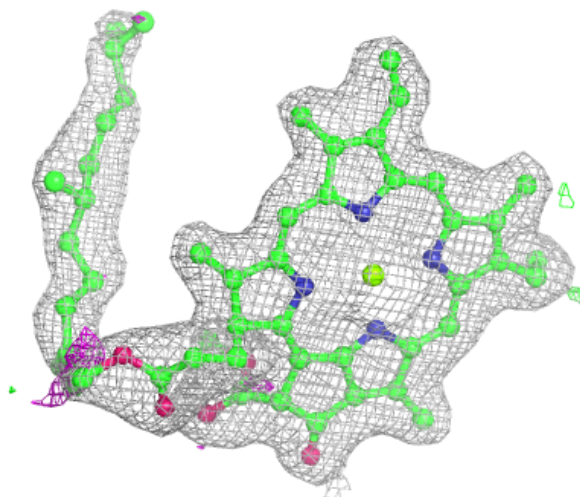
**Electron density around BCR d 405:**

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



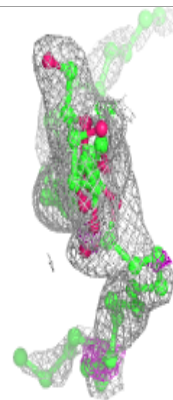
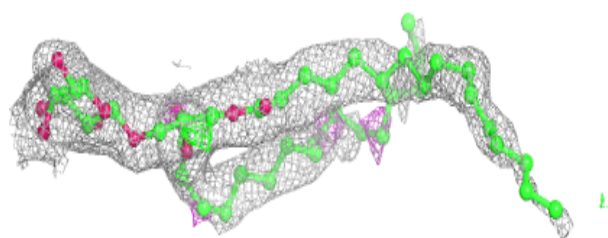
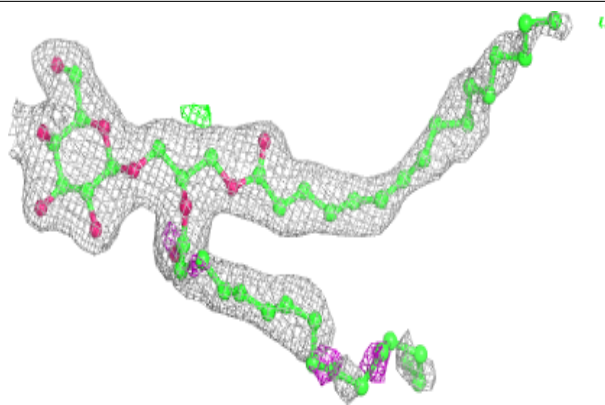
**Electron density around CLA B 615:**

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

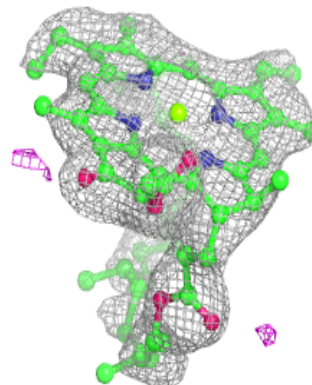
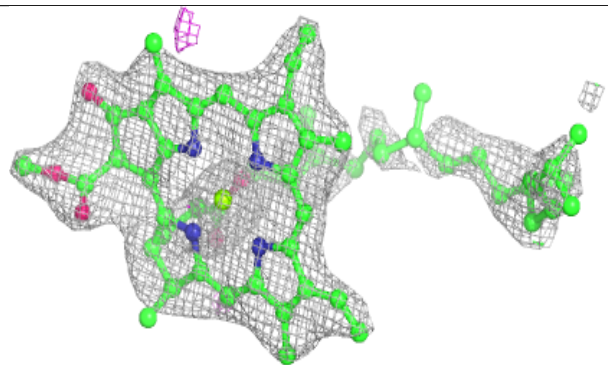
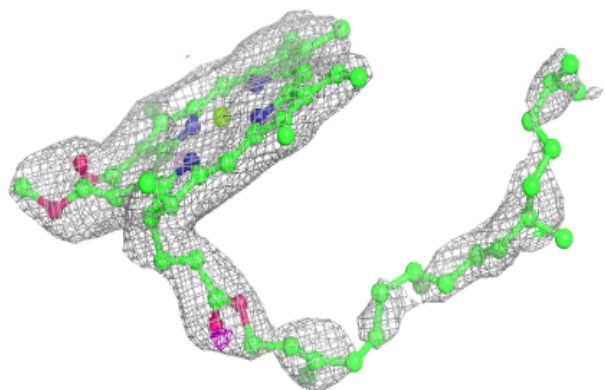


**Electron density around LMG D 407:**

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

**Electron density around CLA c 513:**

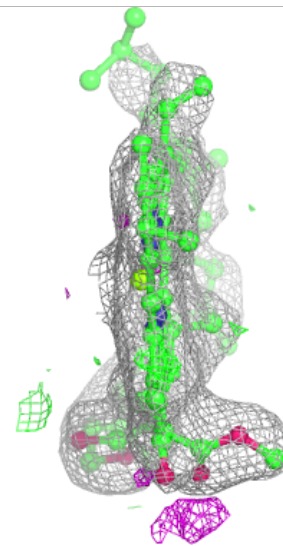
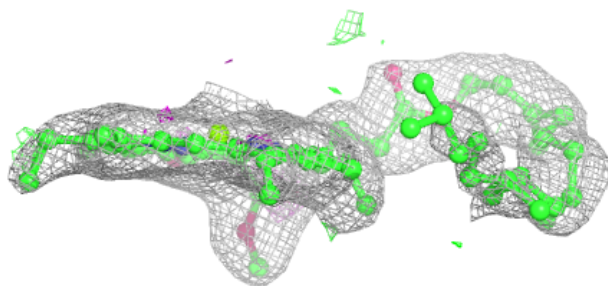
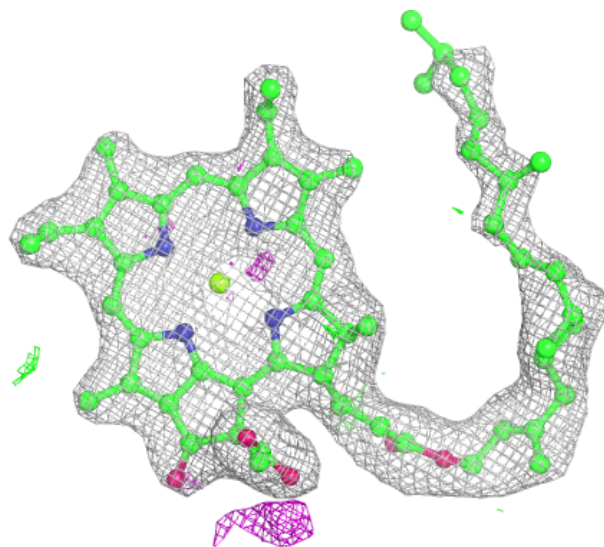
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

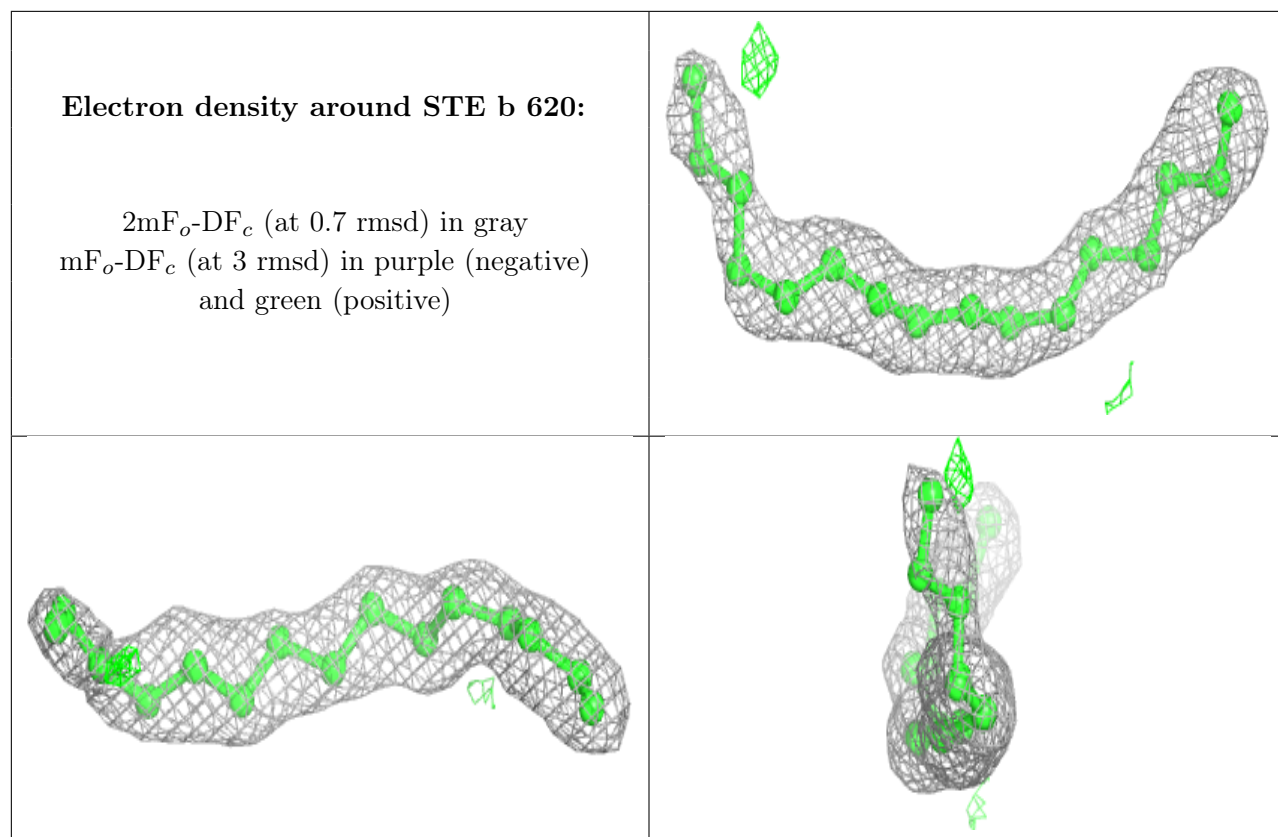




**Electron density around CLA C 512:**

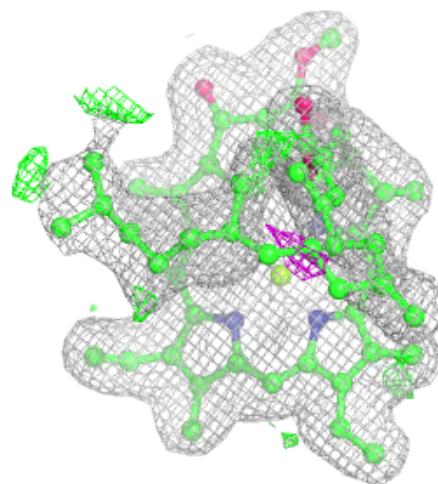
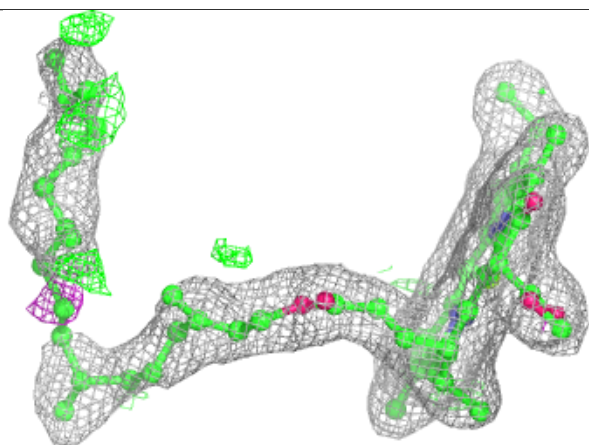
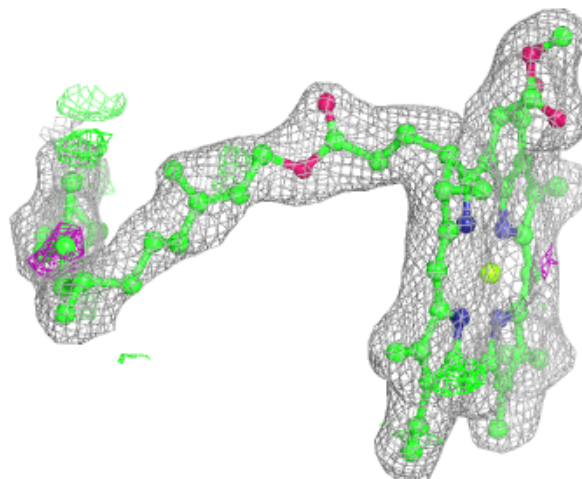
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

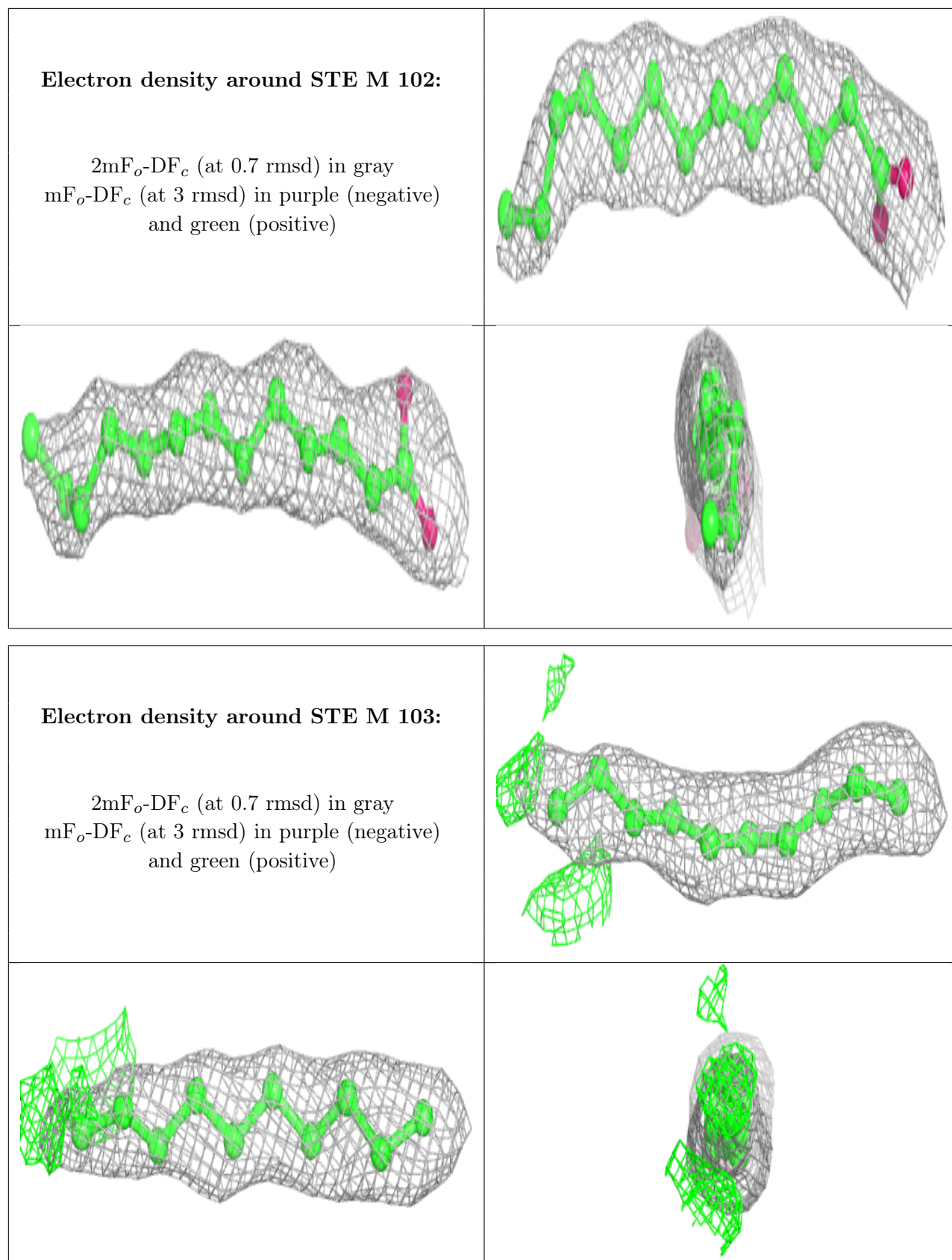


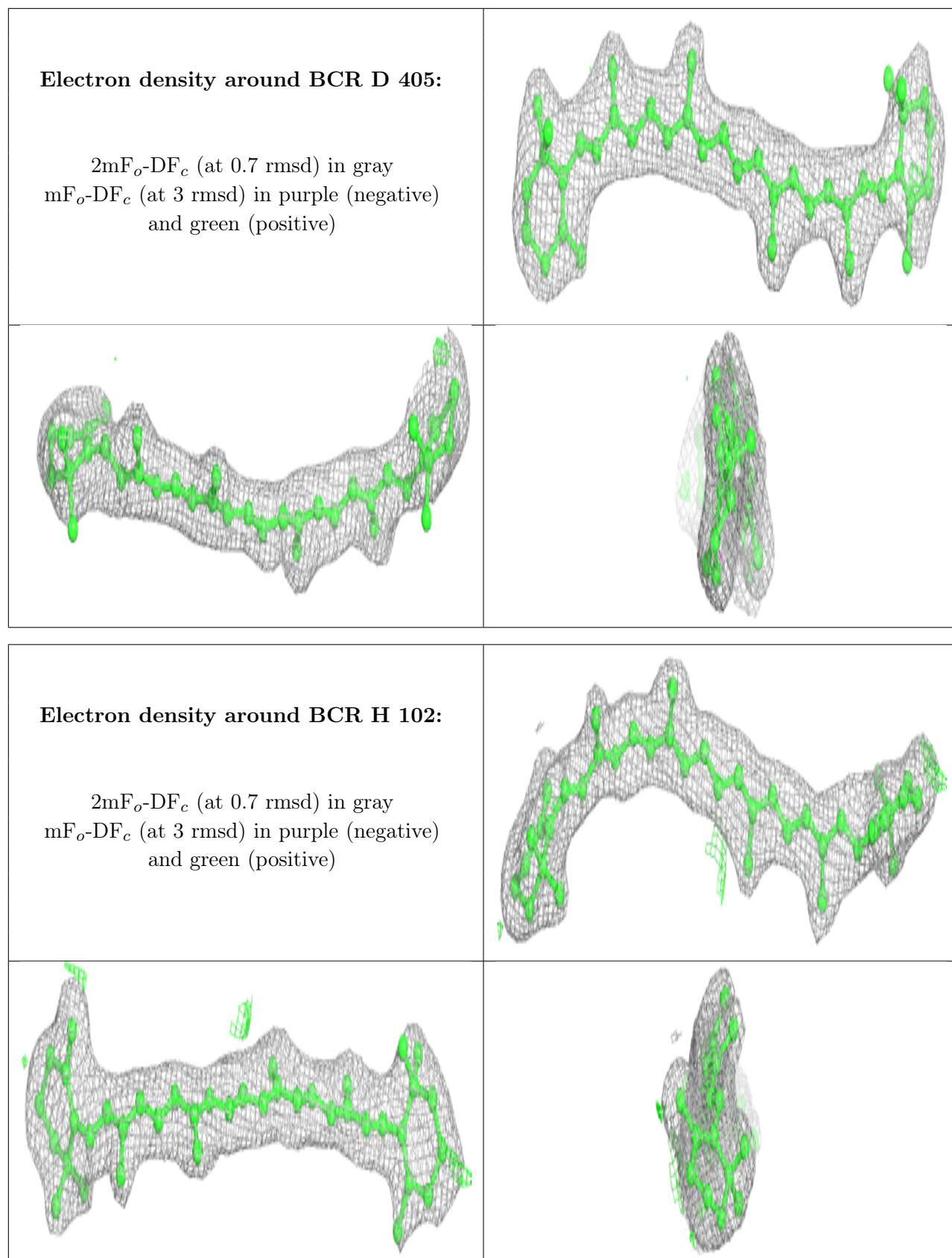


**Electron density around CLA a 609:**

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

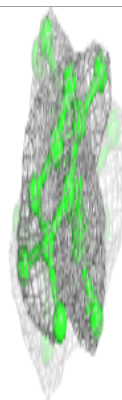
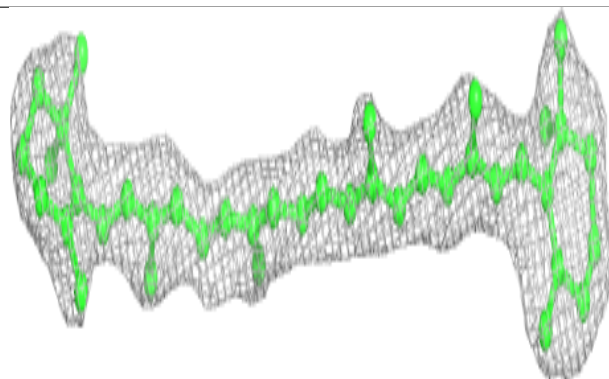
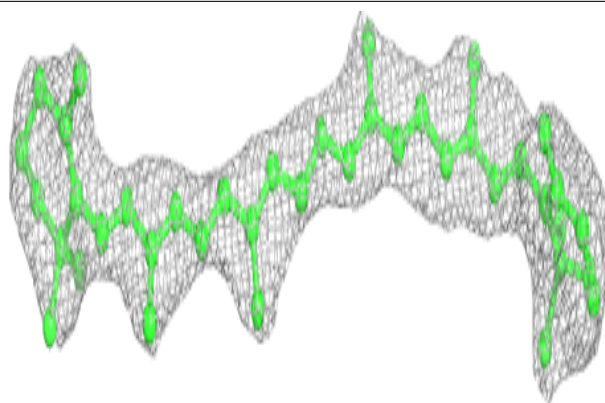




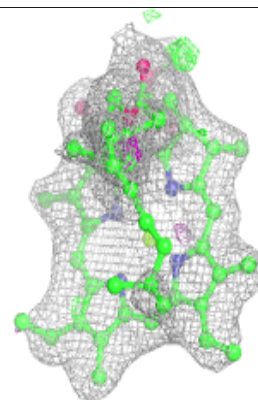
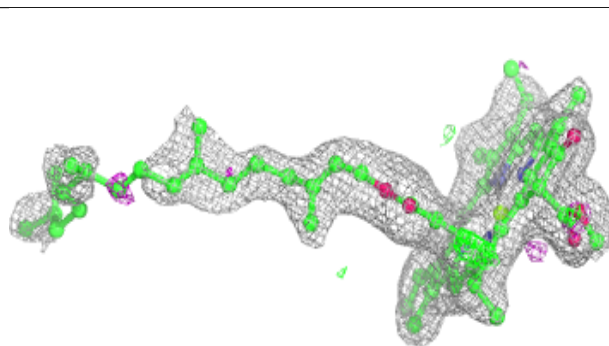
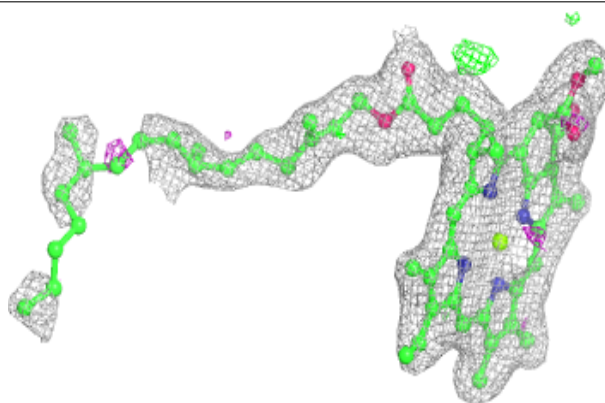


**Electron density around BCR c 514:**

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

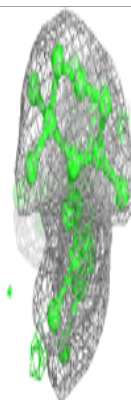
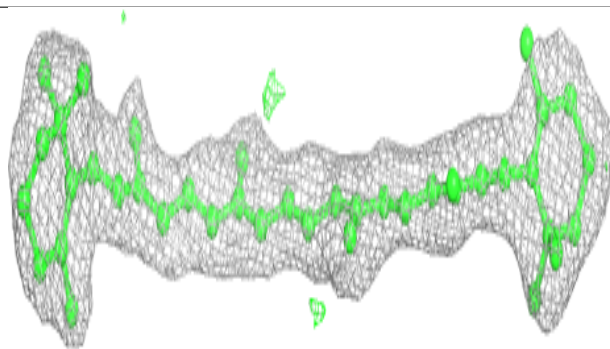
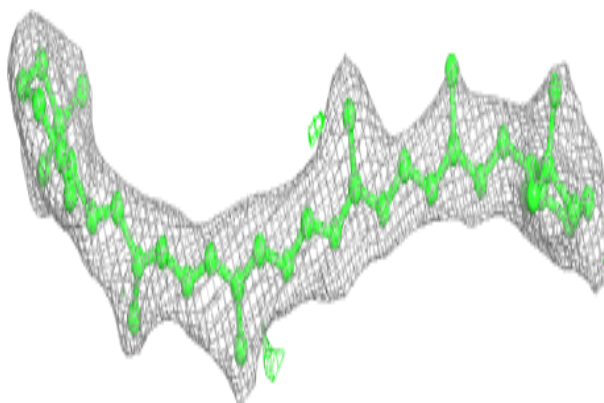
**Electron density around CLA d 404:**

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

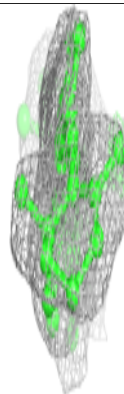
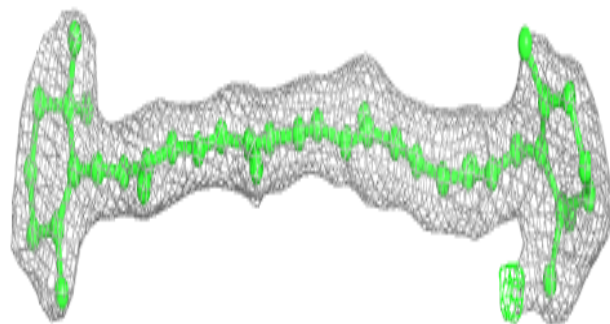
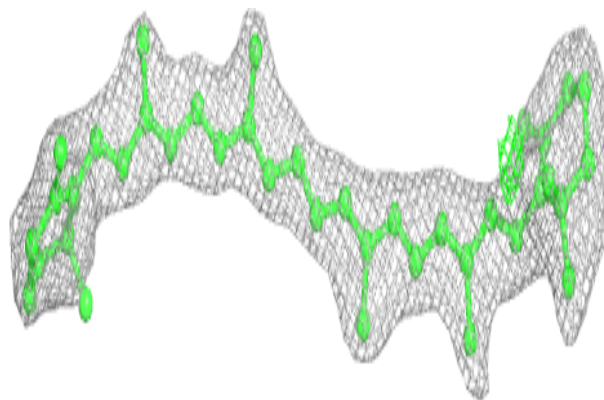


**Electron density around BCR h 102:**

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

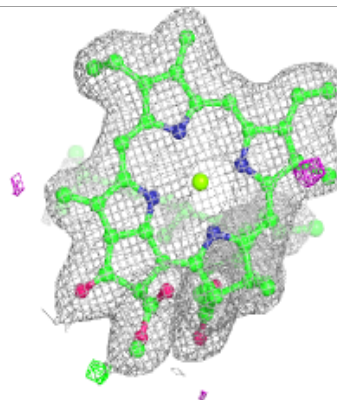
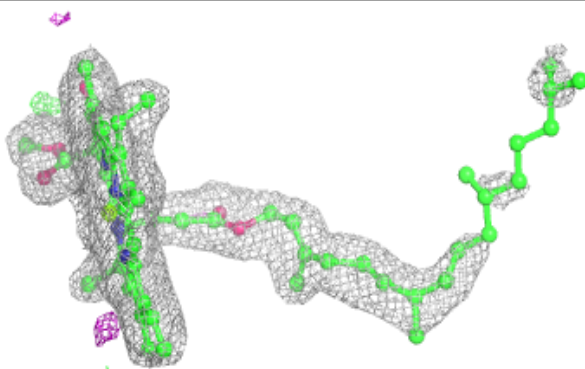
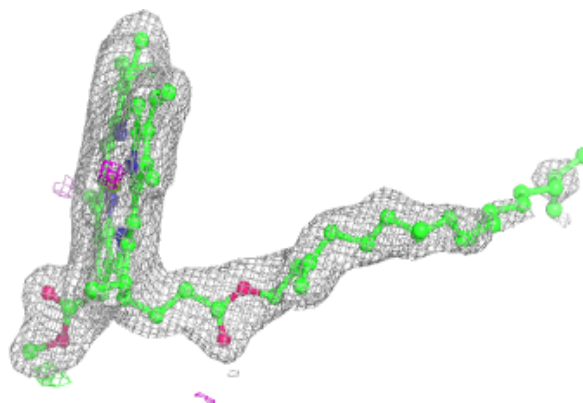
**Electron density around BCR k 101:**

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

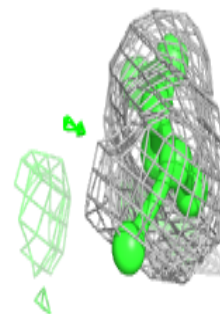
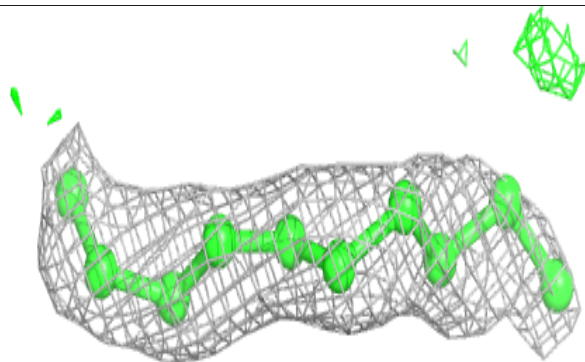
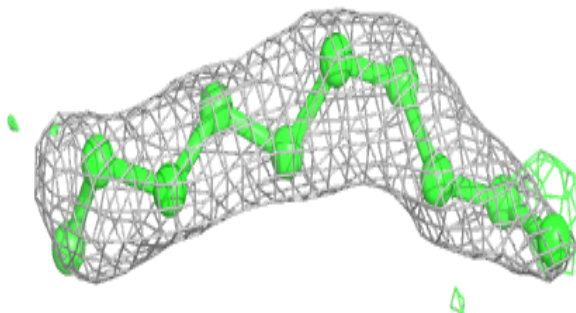


**Electron density around CLA D 404:**

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

**Electron density around STE b 626:**

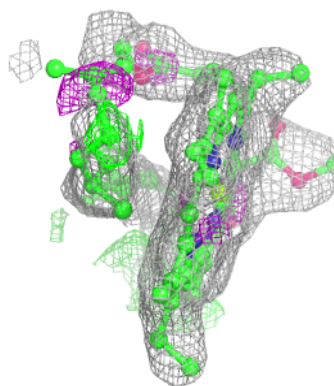
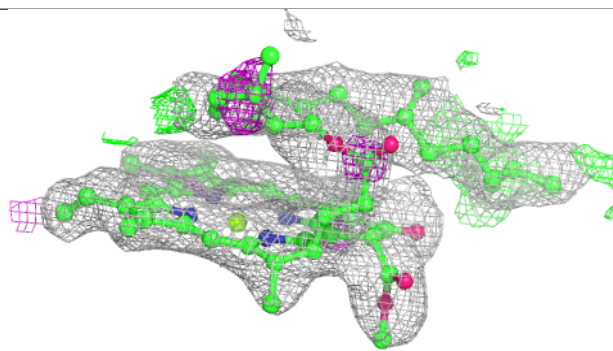
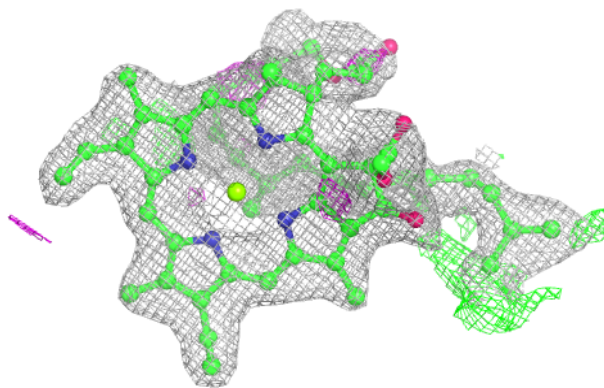
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



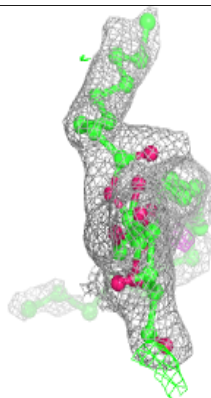
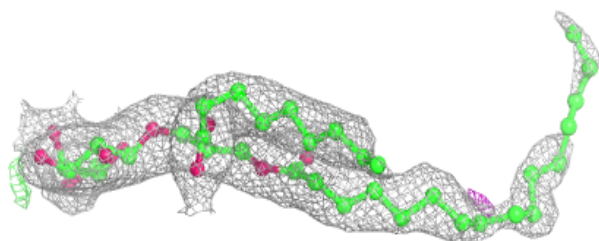
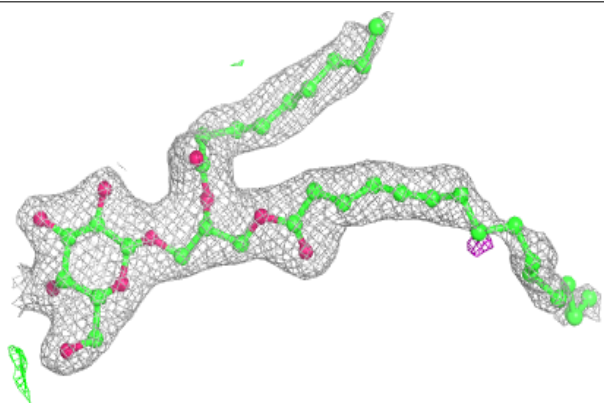


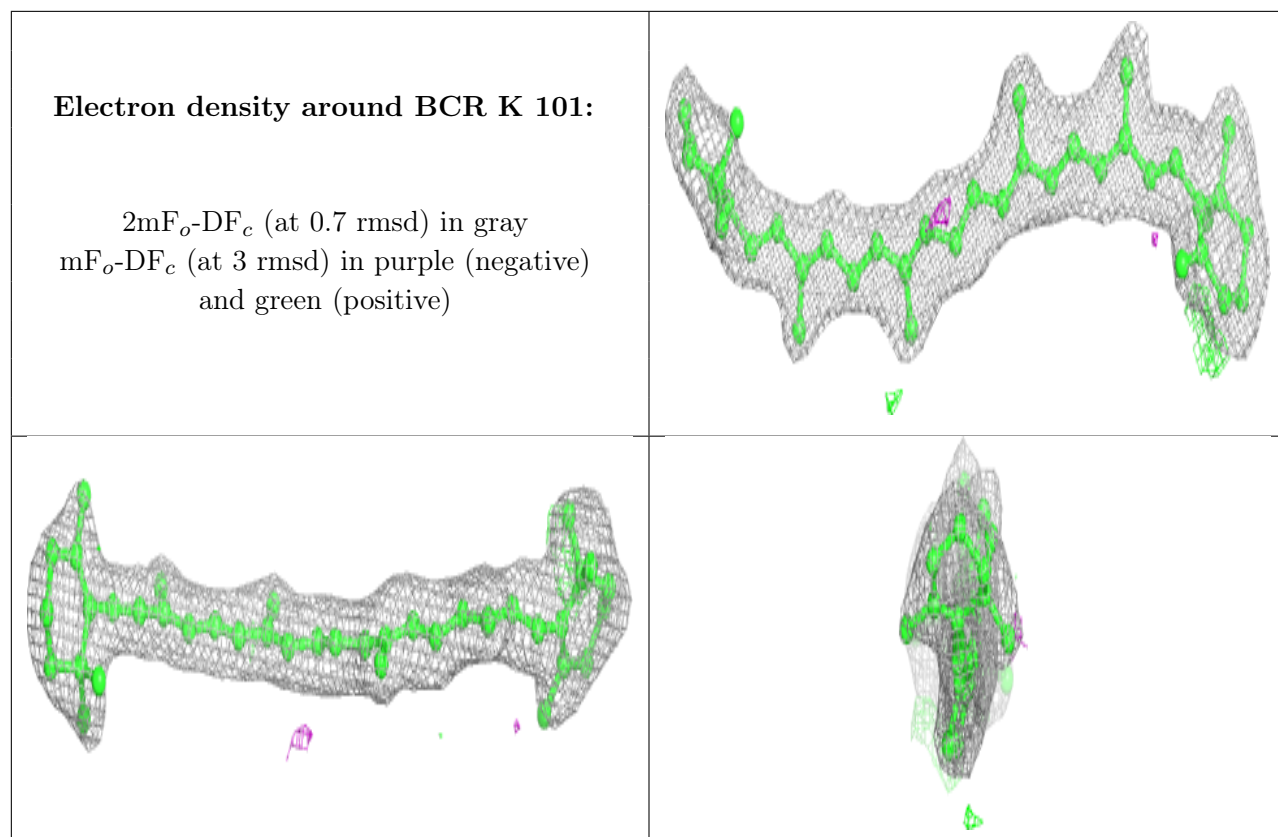
**Electron density around CLA H 101:**

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

**Electron density around LMG d 411:**

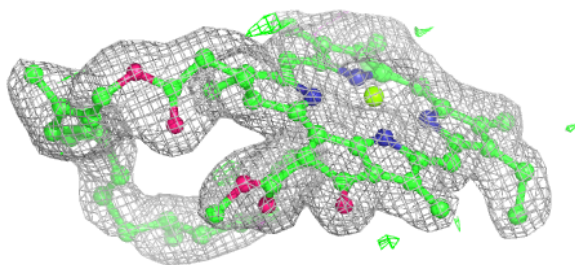
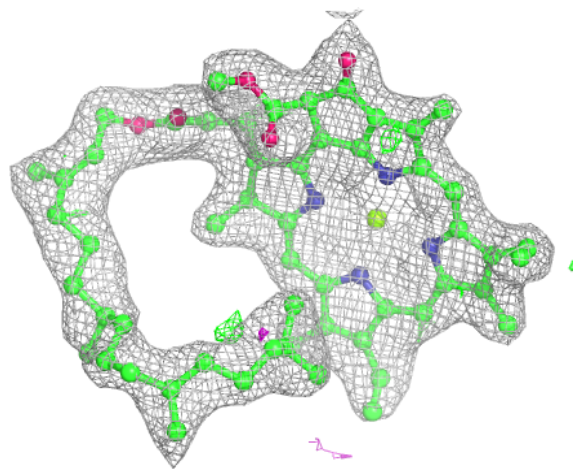
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





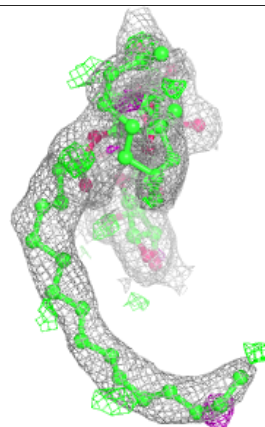
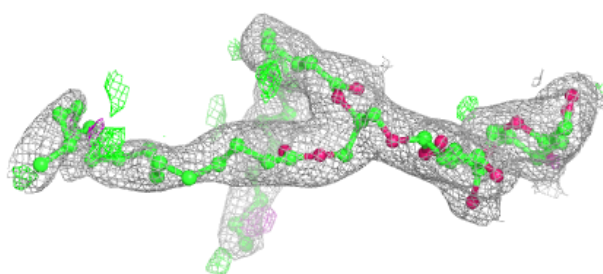
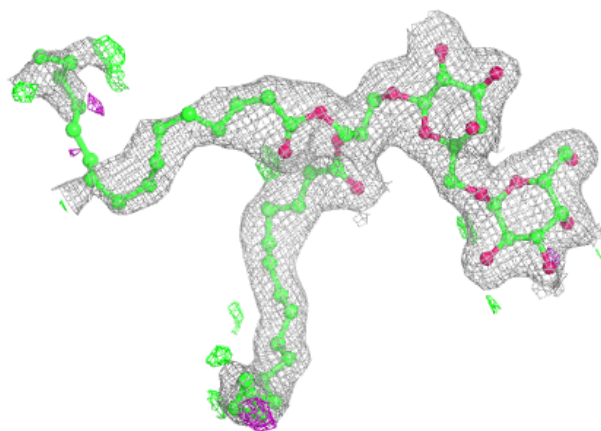
**Electron density around CLA B 614:**

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

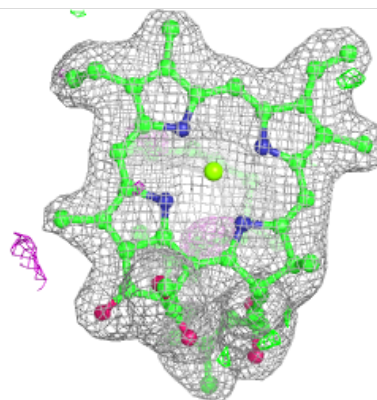
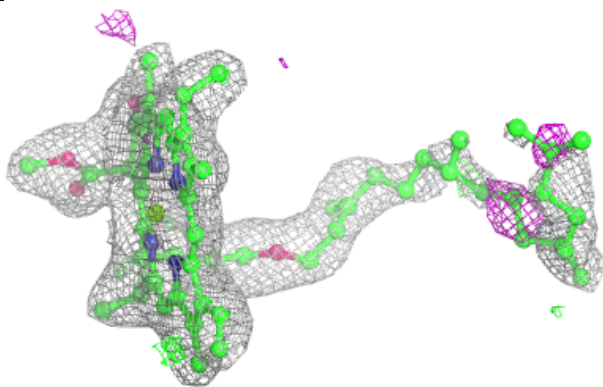
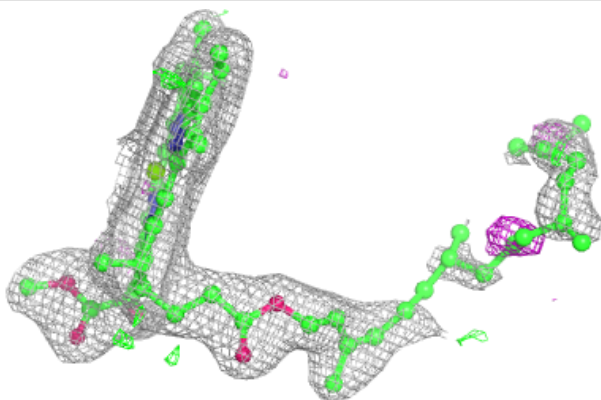


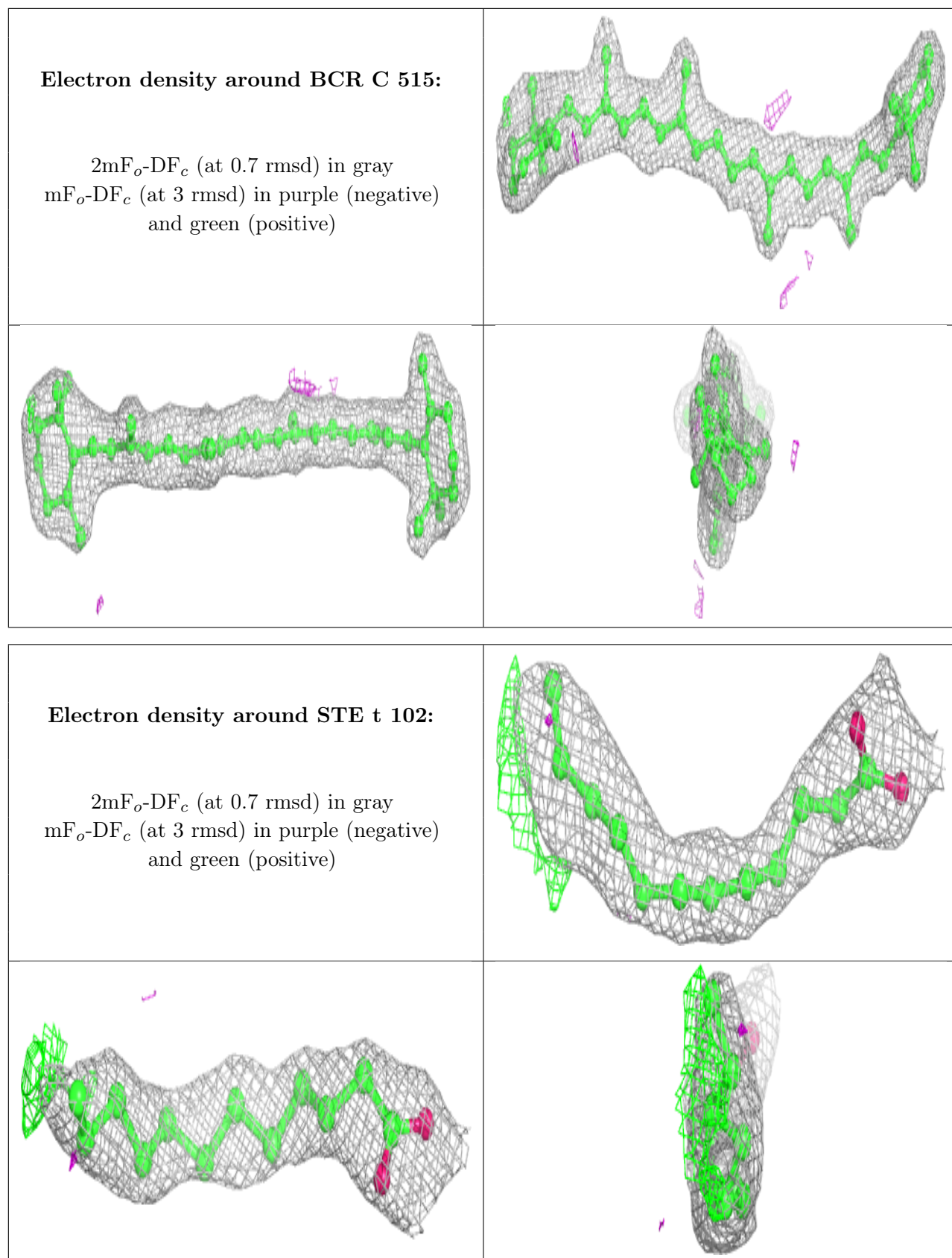
**Electron density around DGD C 517:**

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

**Electron density around CLA C 506:**

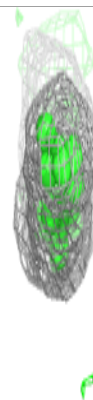
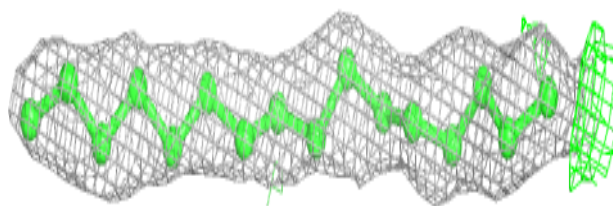
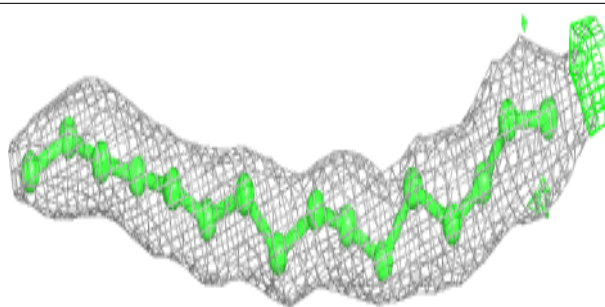
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



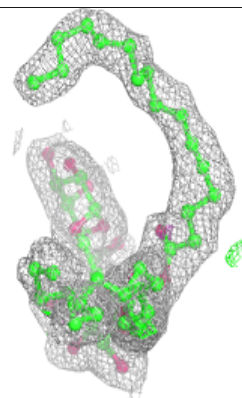
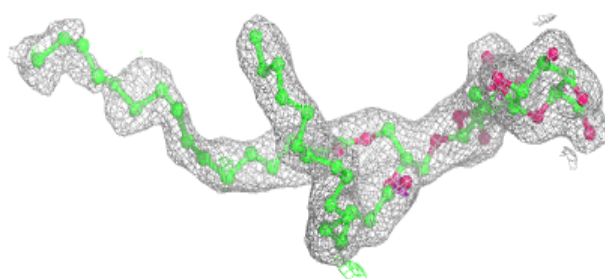
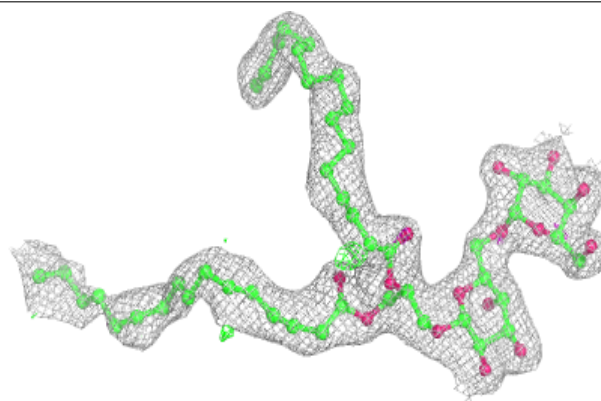


**Electron density around STE C 522:**

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

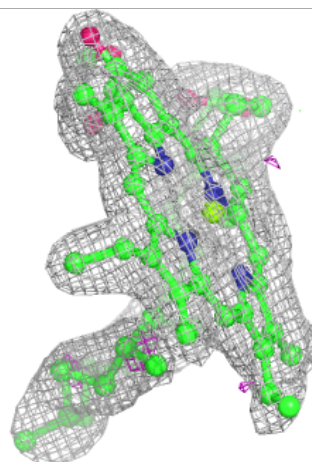
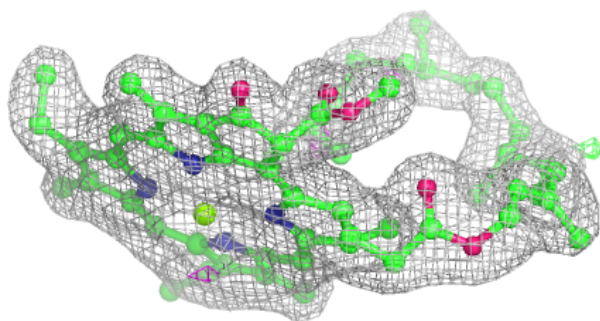
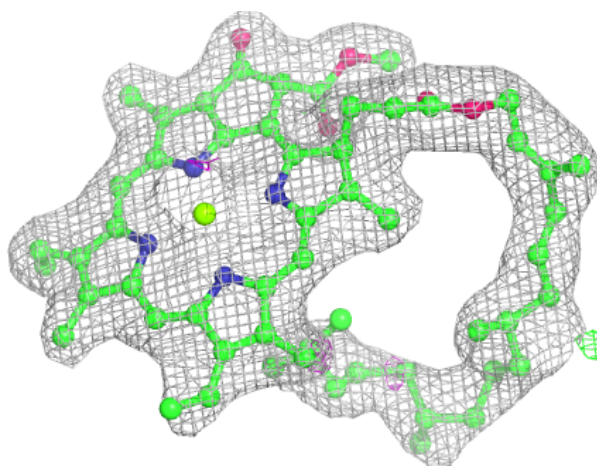
**Electron density around DGD c 517:**

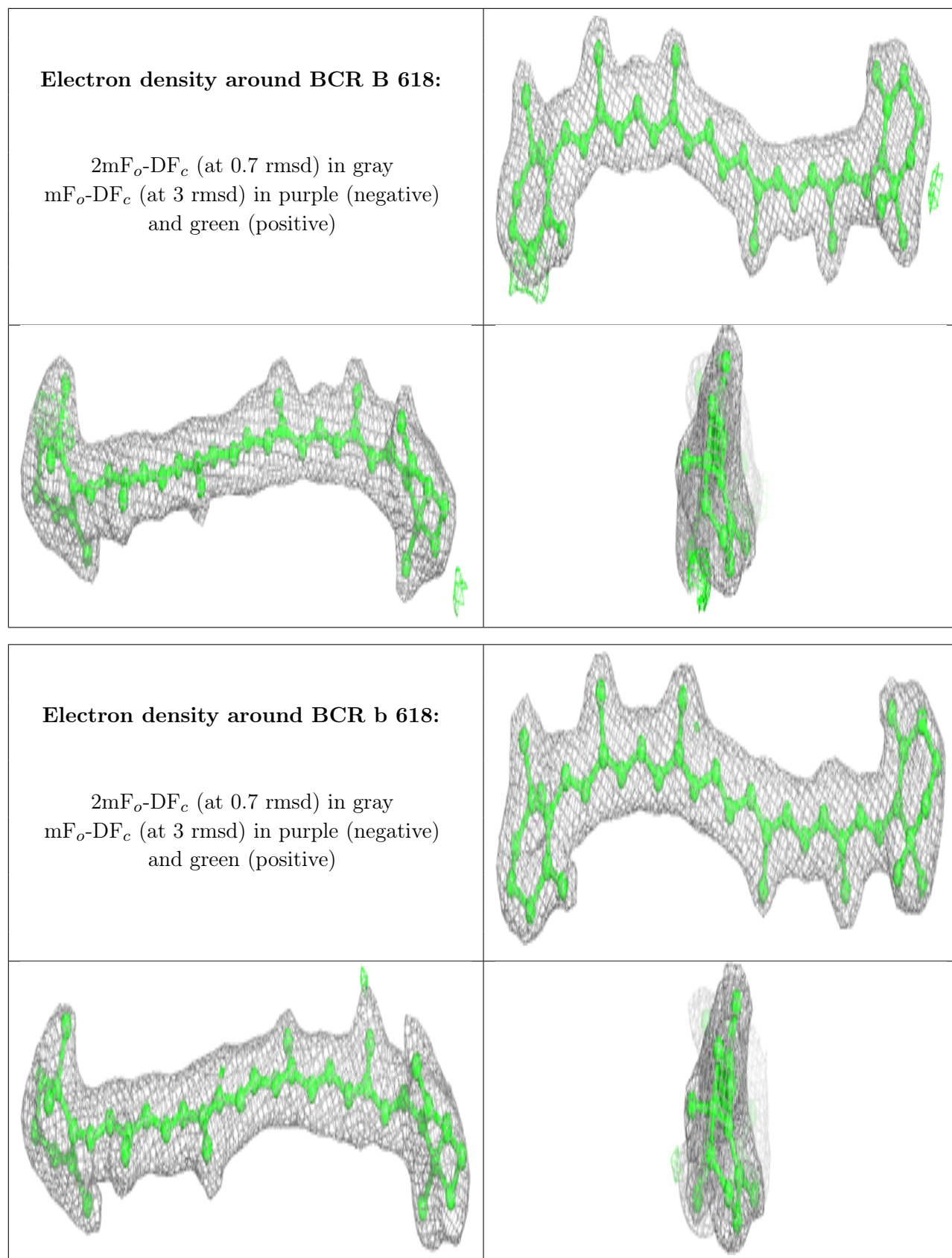
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA b 614:**

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

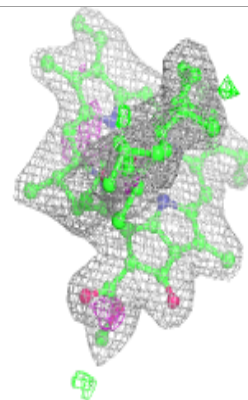
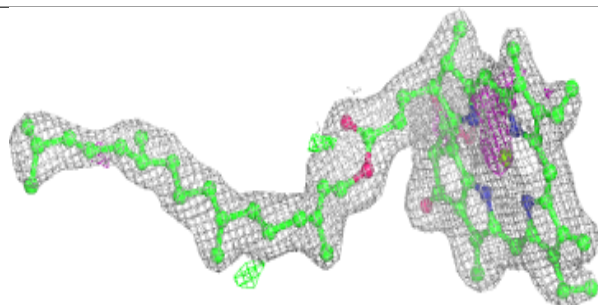
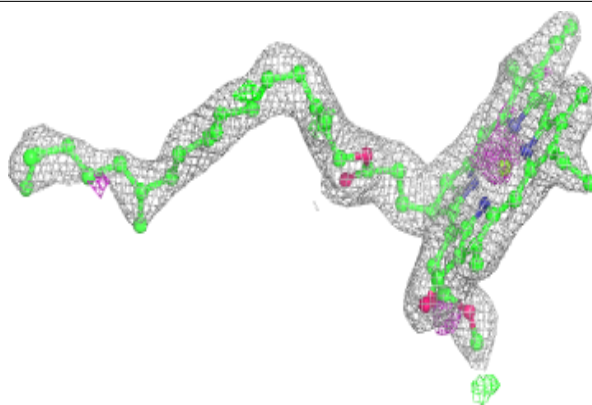




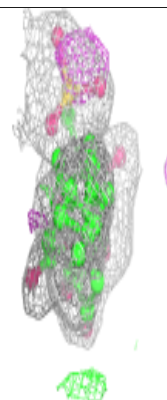
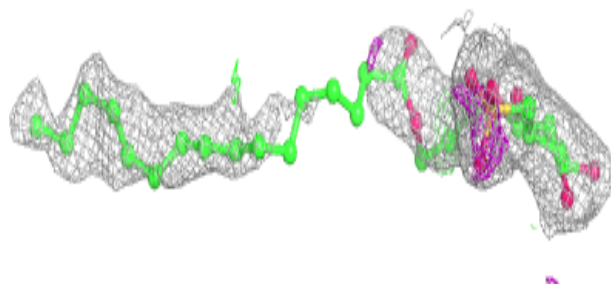
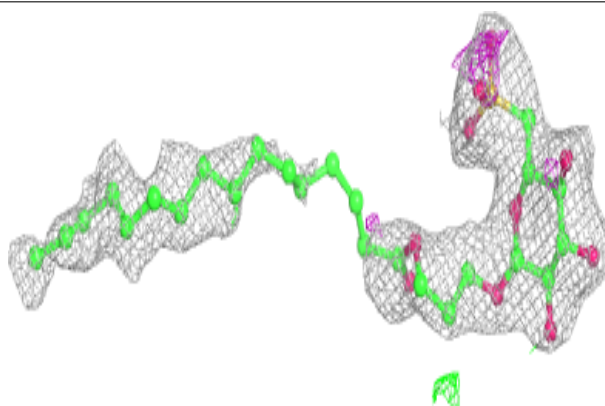


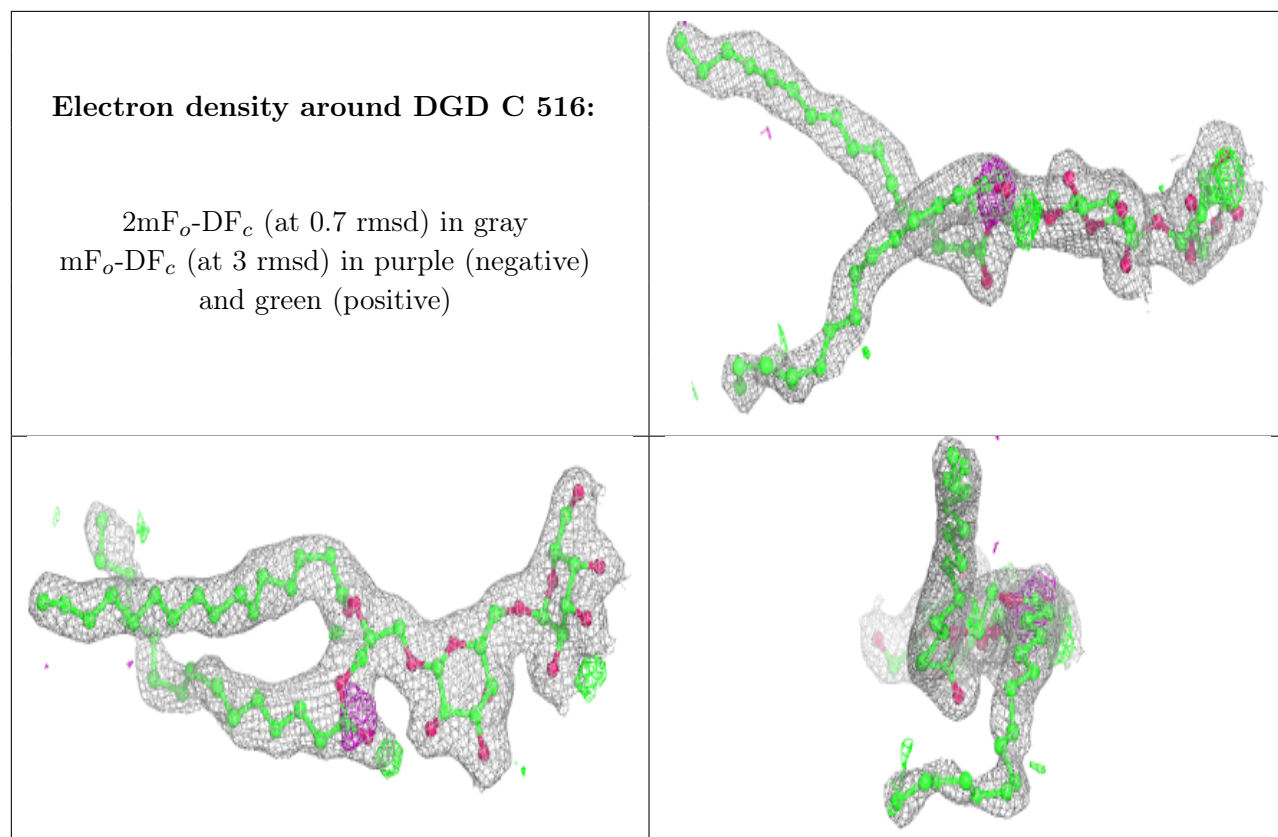
**Electron density around CLA c 502:**

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

**Electron density around SQD F 102:**

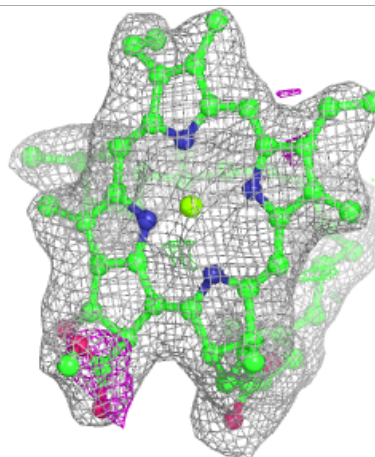
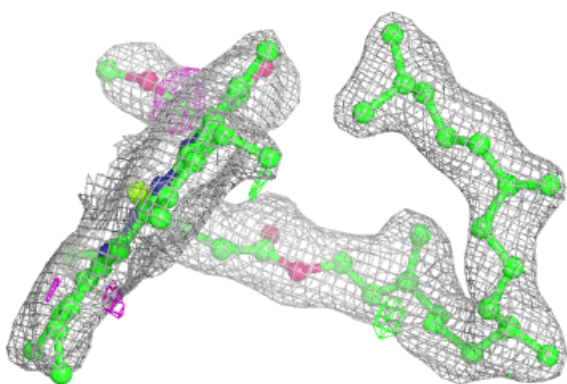
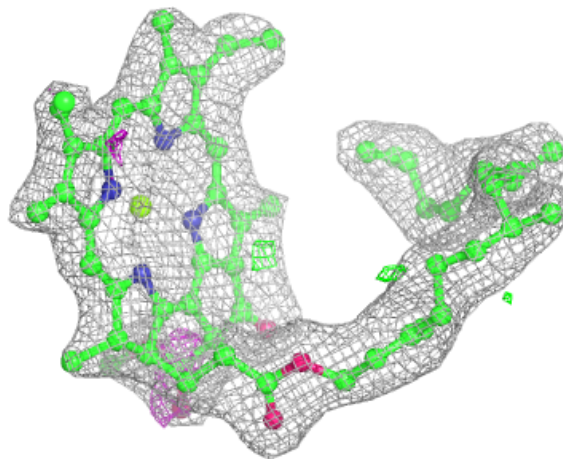
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





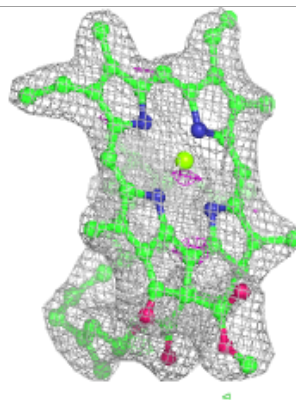
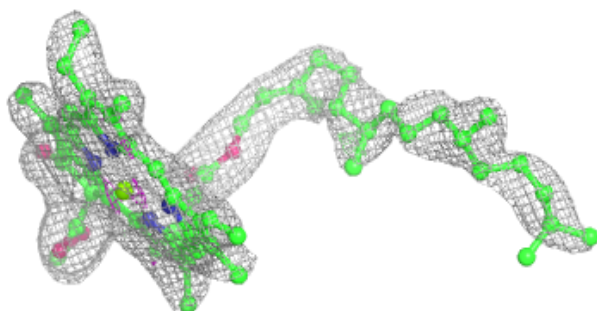
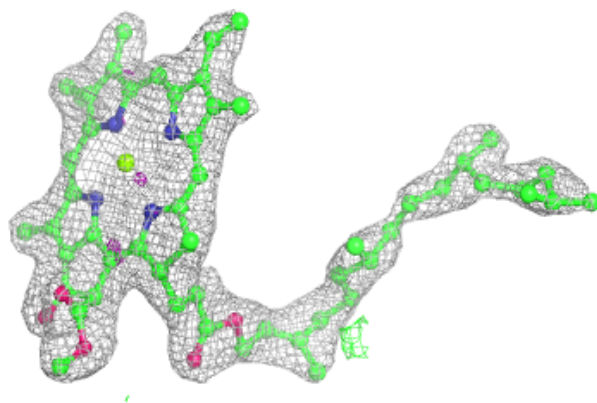
**Electron density around CLA c 503:**

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

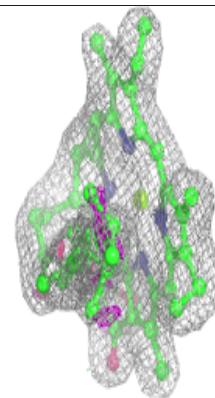
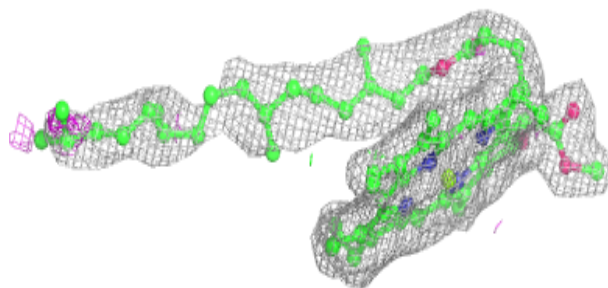
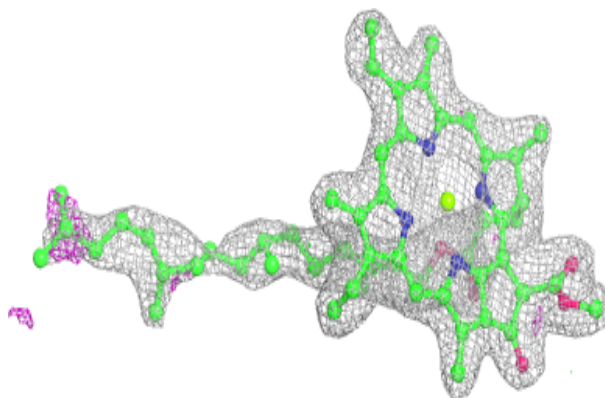


**Electron density around CLA c 511:**

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

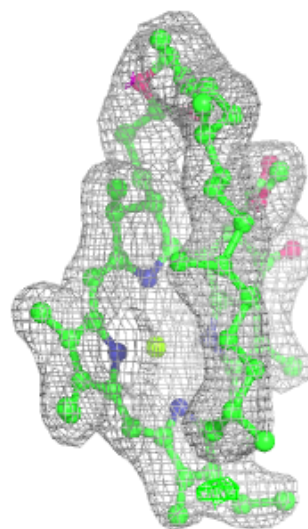
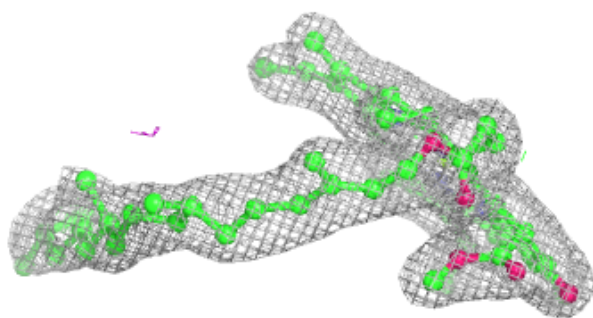
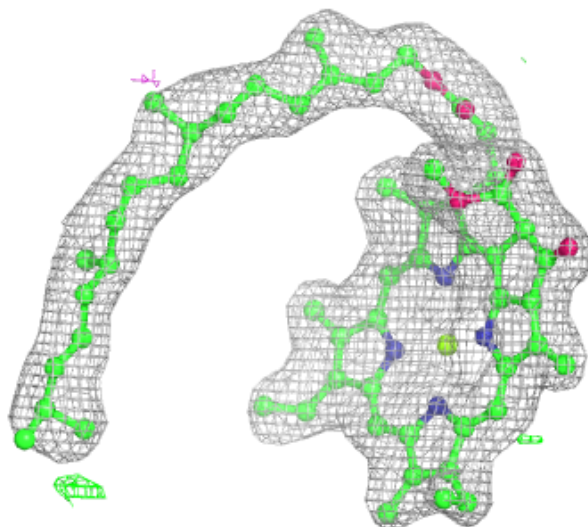
**Electron density around CLA b 613:**

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



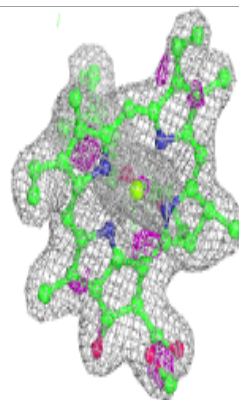
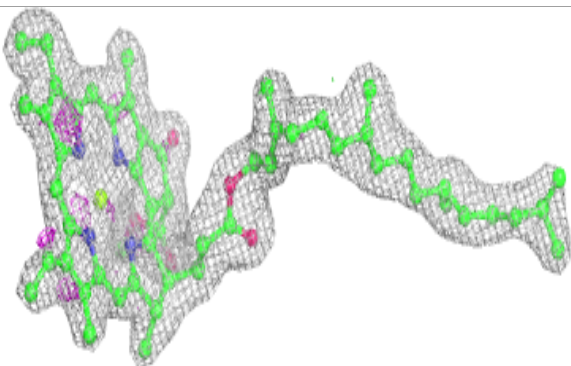
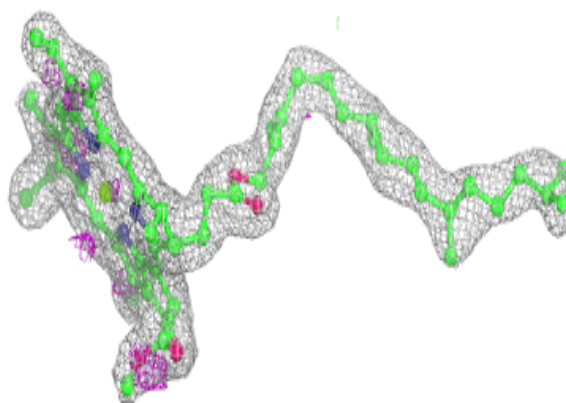
**Electron density around CLA C 507:**

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

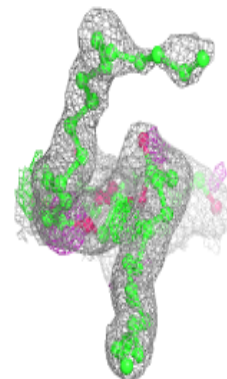
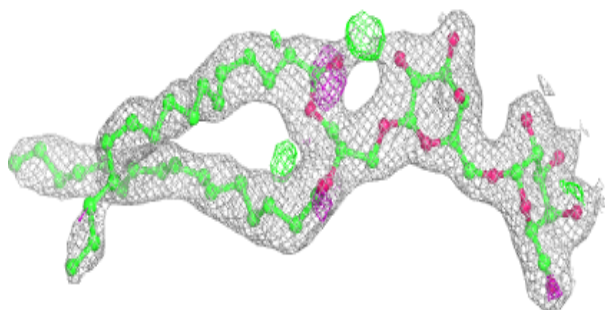
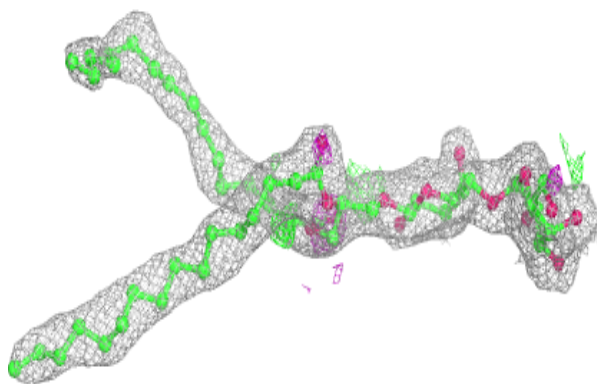


**Electron density around CLA C 502:**

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

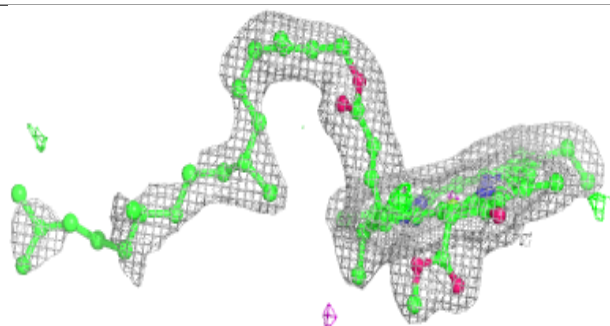
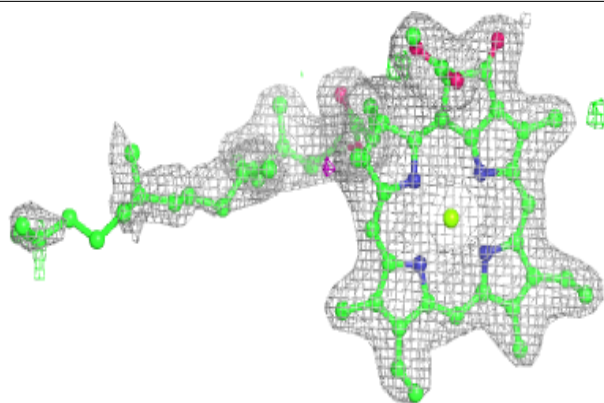
**Electron density around DGD c 516:**

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

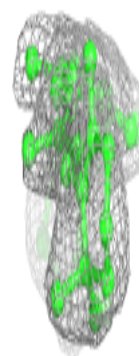
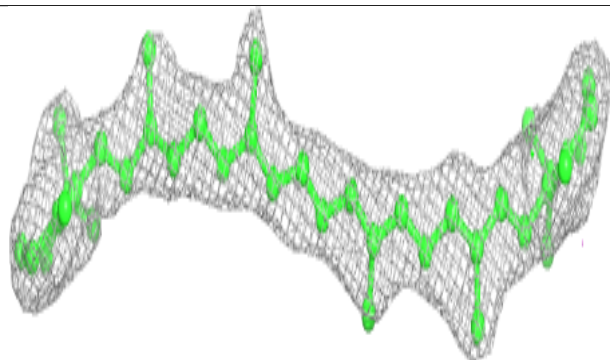
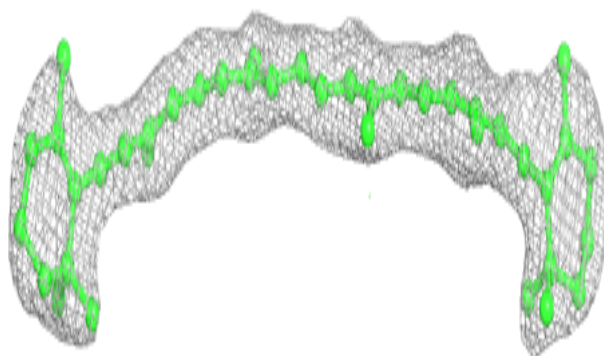


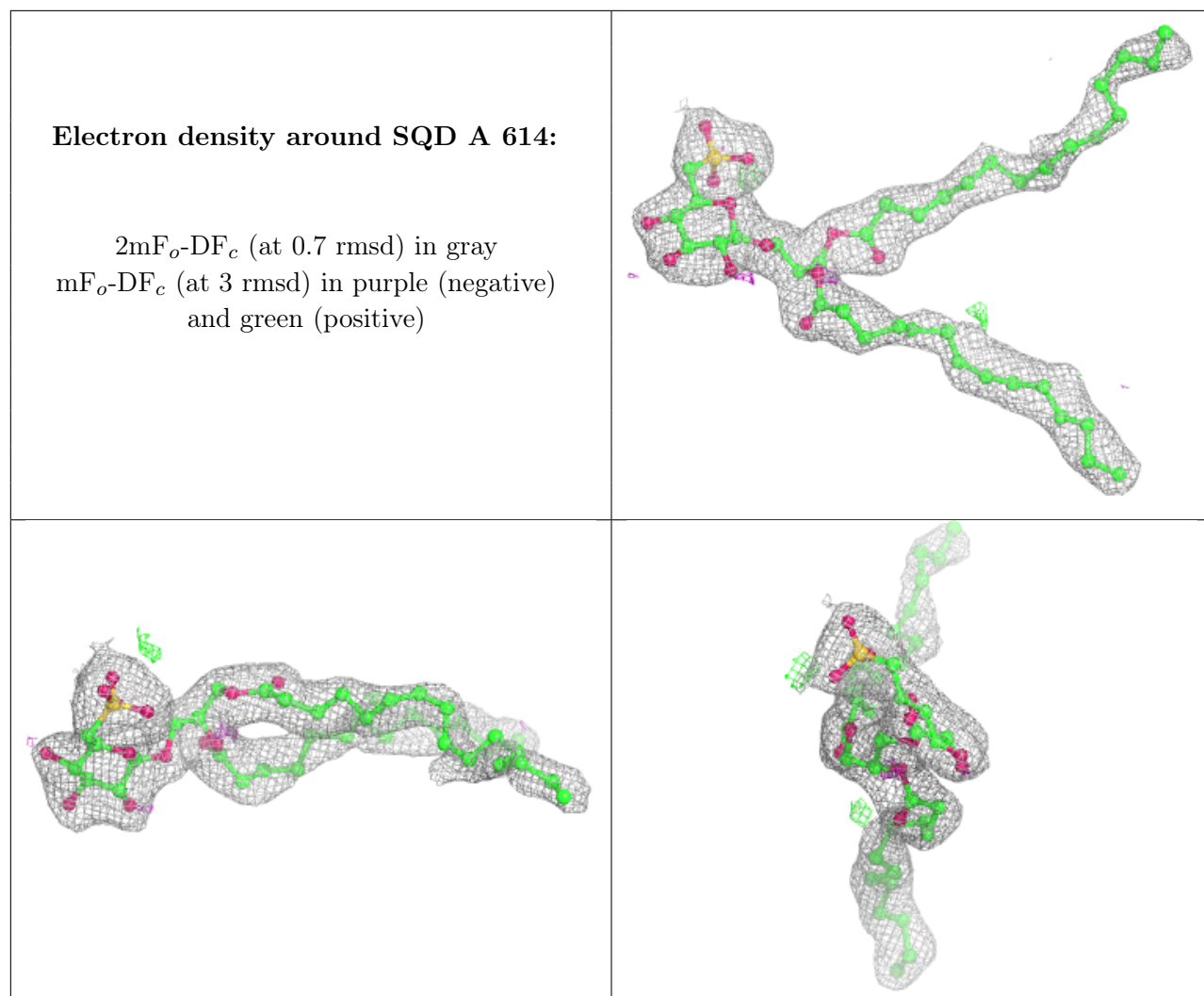
**Electron density around CLA a 607:**

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

**Electron density around BCR 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)

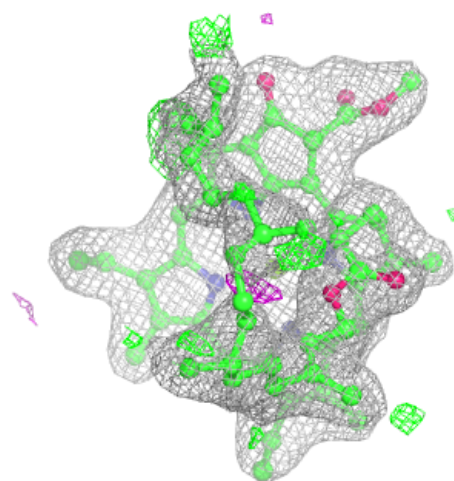
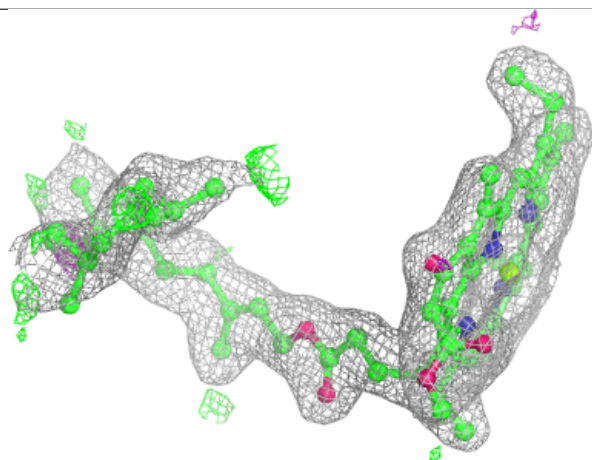
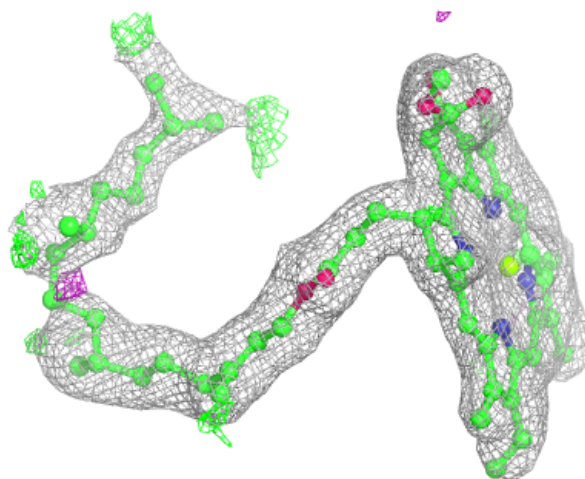


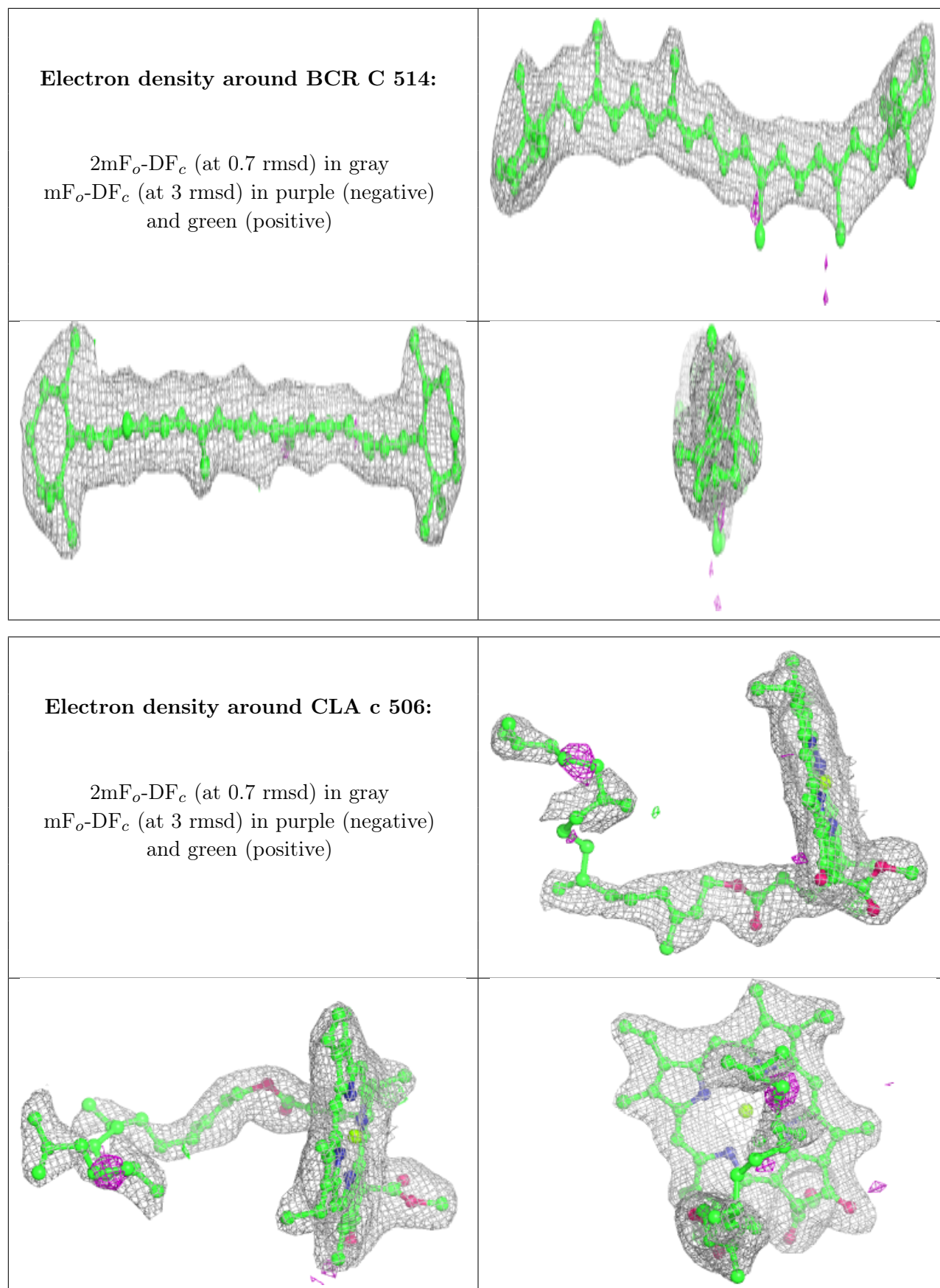




**Electron density around CLA B 605:**

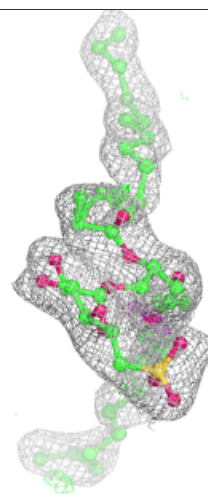
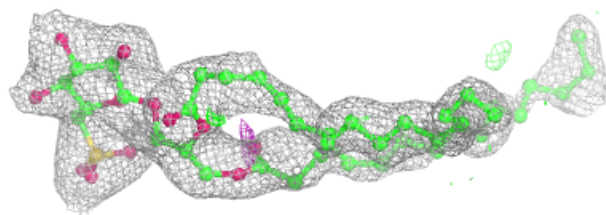
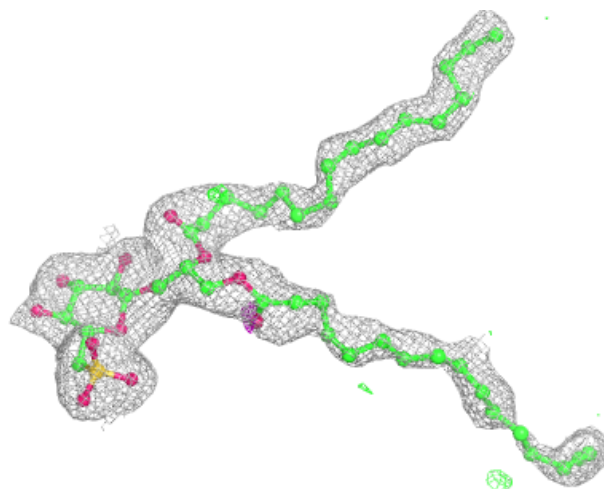
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





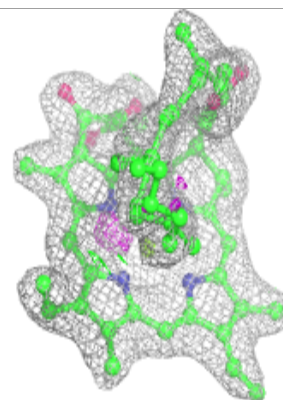
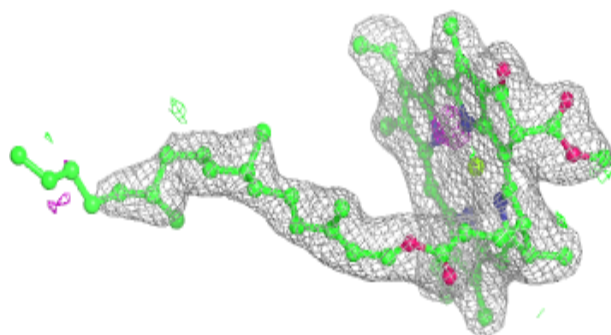
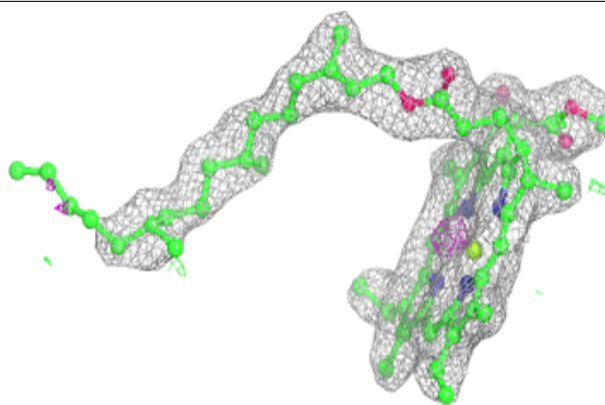
**Electron density around SQD a 613:**

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

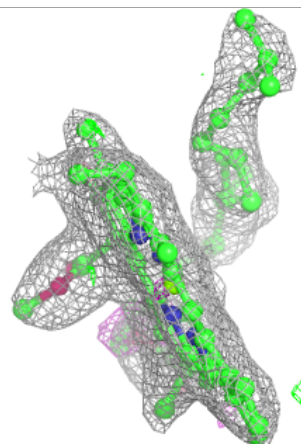
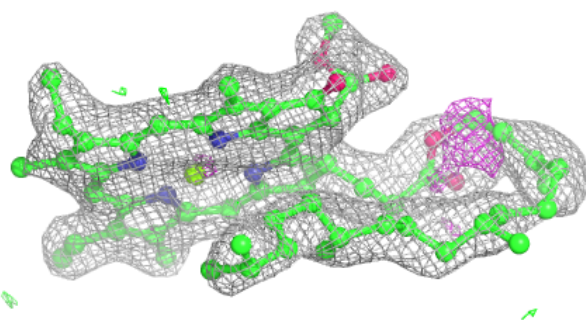
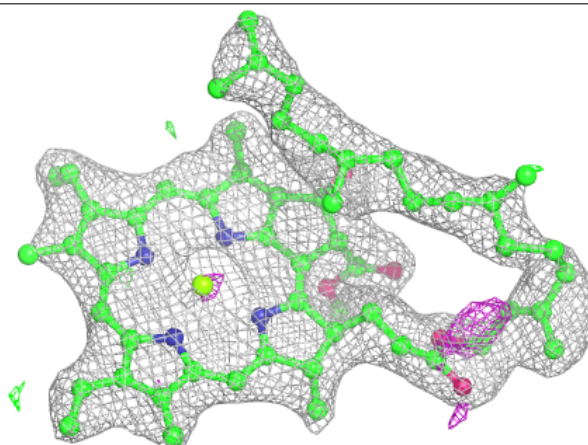


**Electron density around CLA c 508:**

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

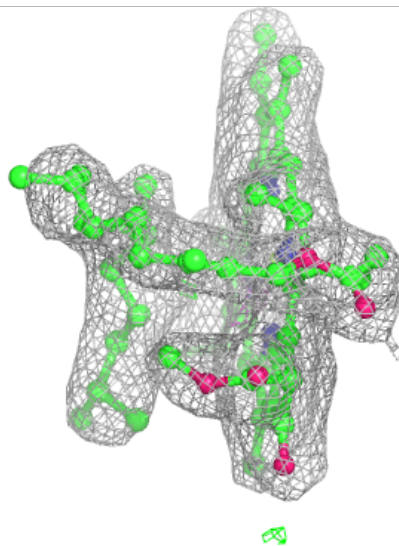
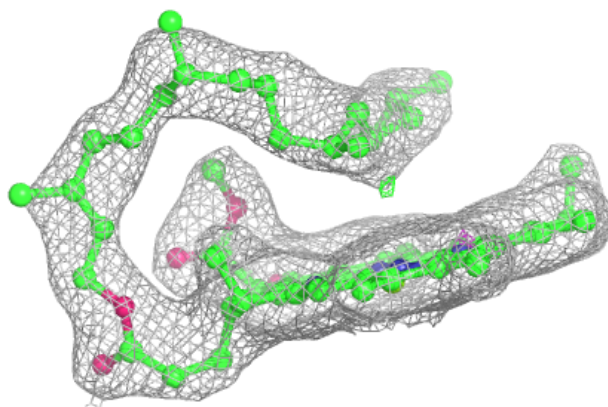
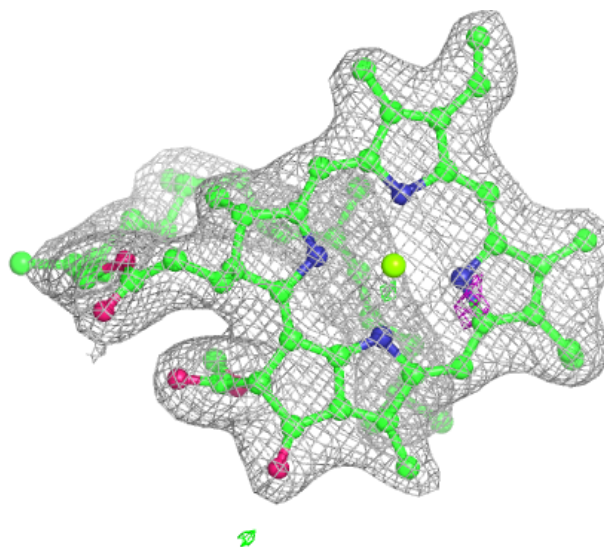
**Electron density around CLA c 509:**

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



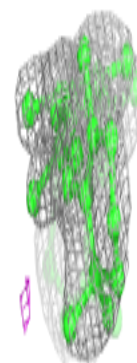
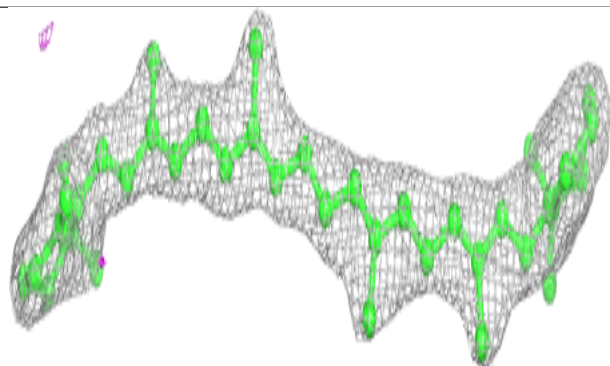
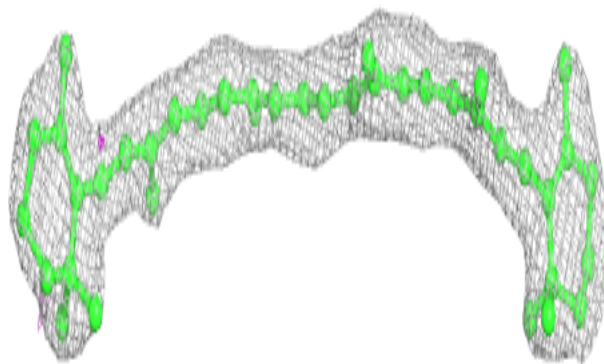
**Electron density around CLA c 510:**

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

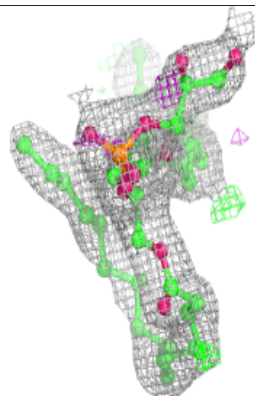
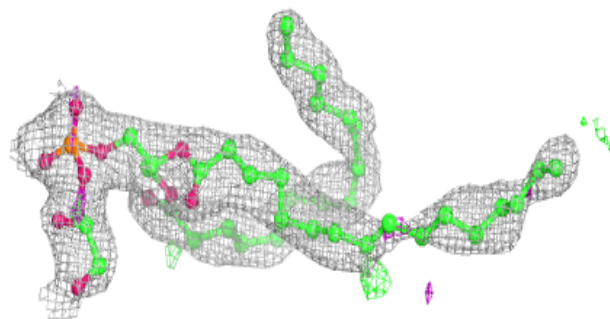
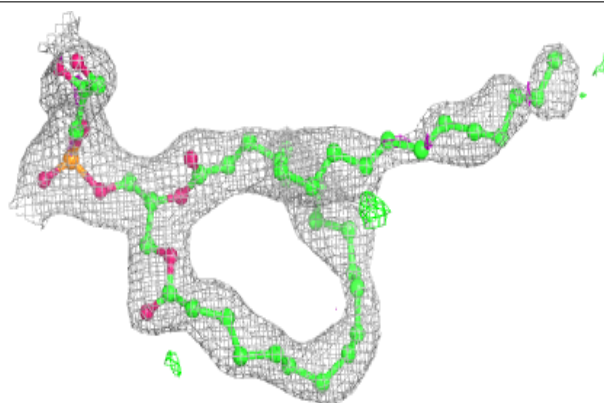


**Electron density around BCR K 102:**

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

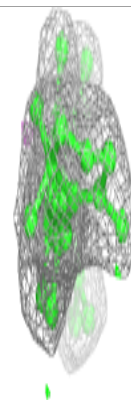
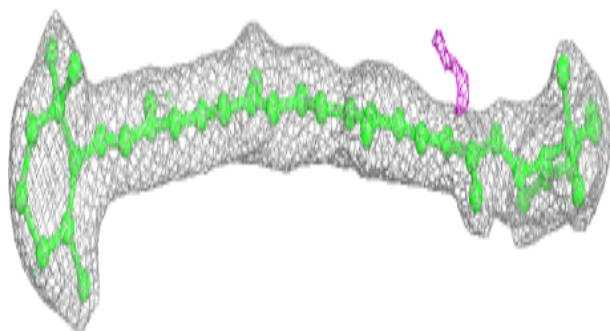
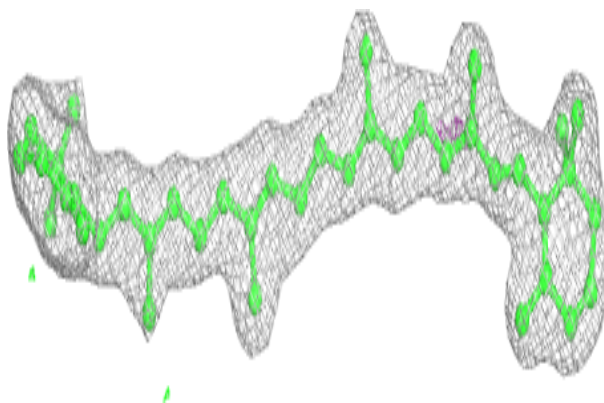
**Electron density around LHG d 407:**

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

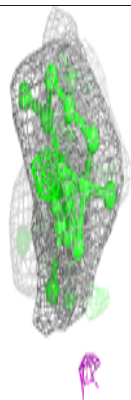
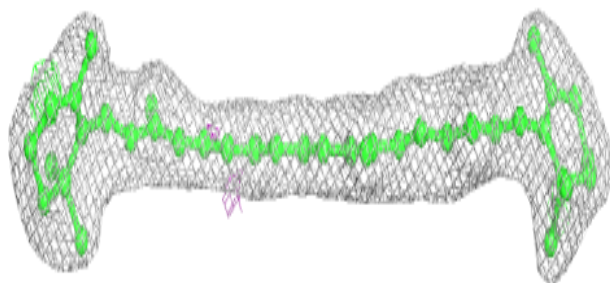
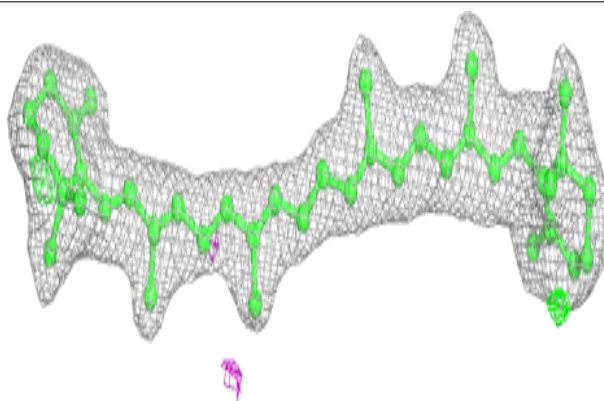


**Electron density around BCR b 616:**

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

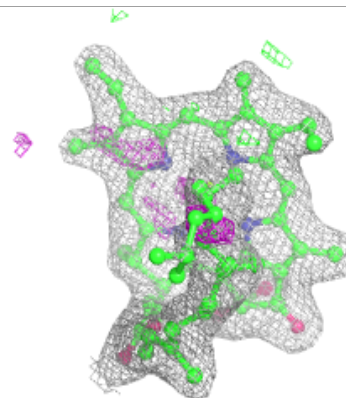
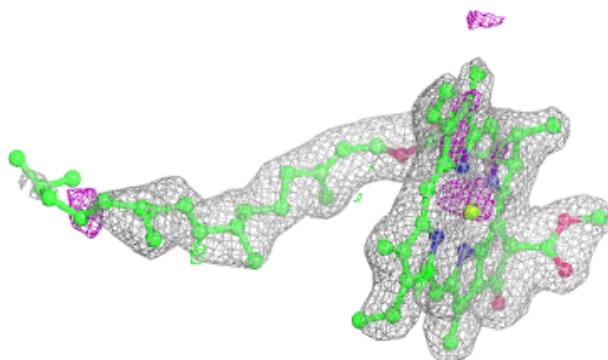
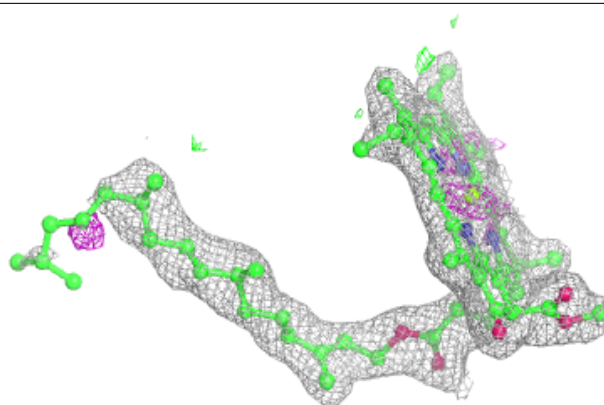
**Electron density around BCR b 617:**

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

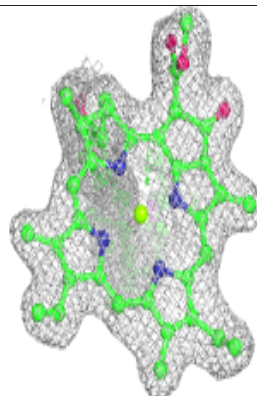
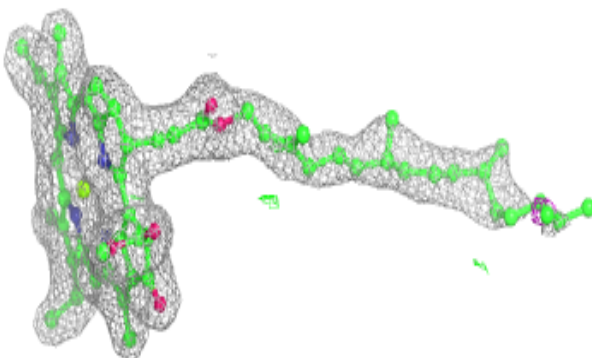
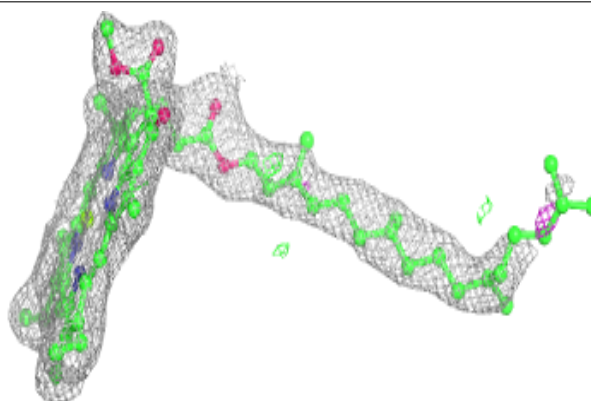


**Electron density around CLA C 508:**

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

**Electron density around CLA b 603:**

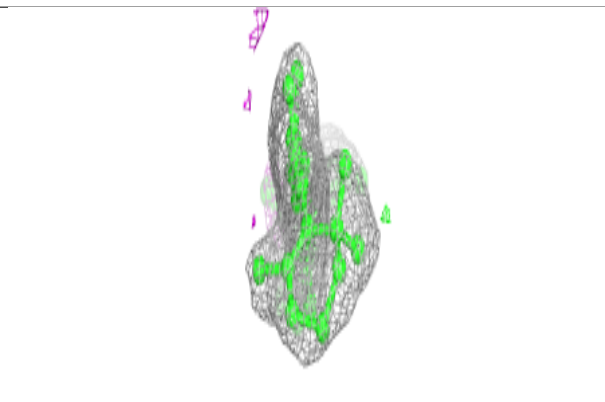
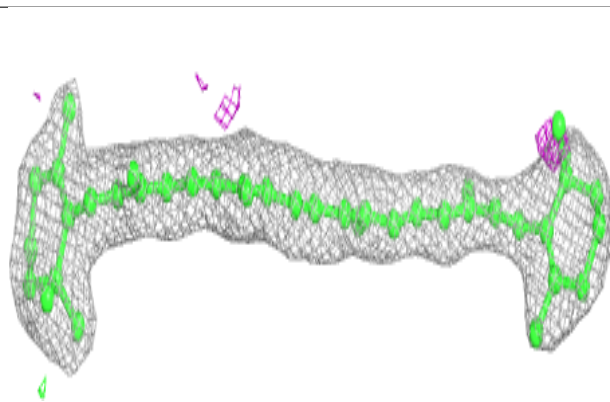
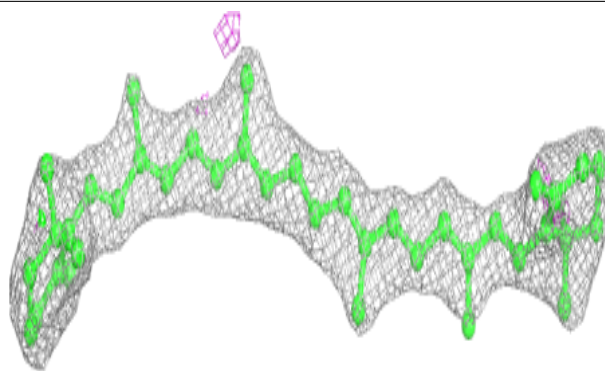
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



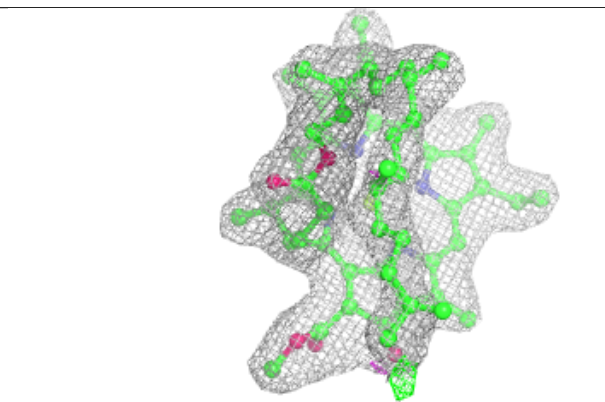
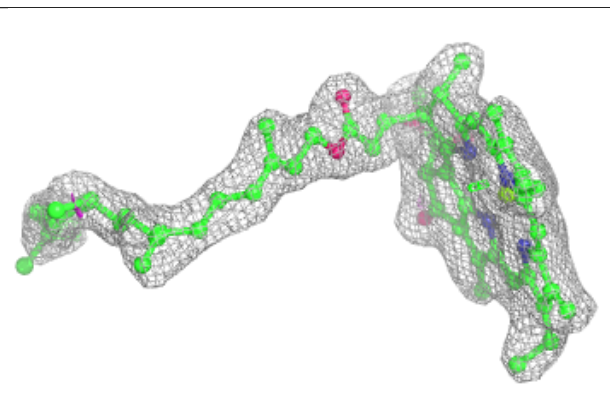
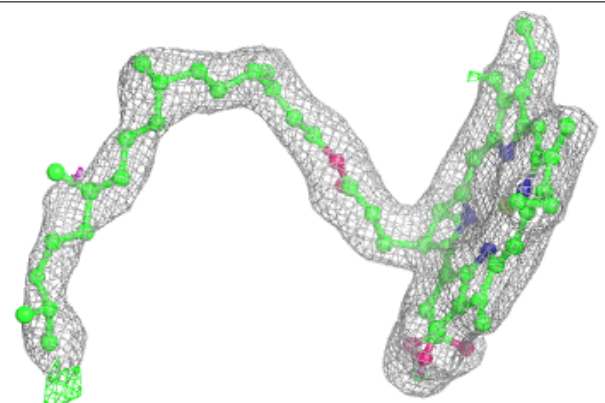


**Electron density around BCR c 515:**

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

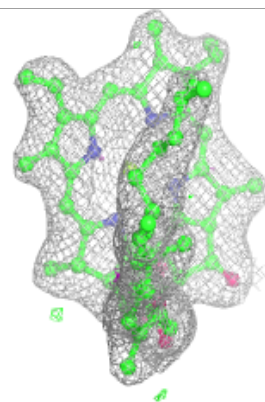
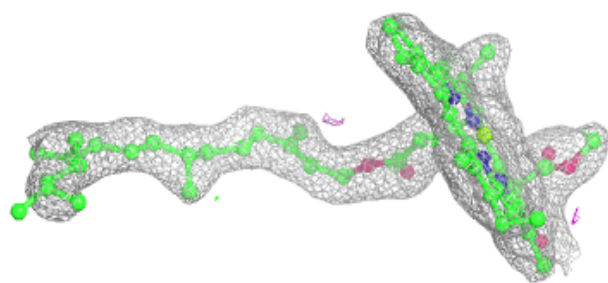
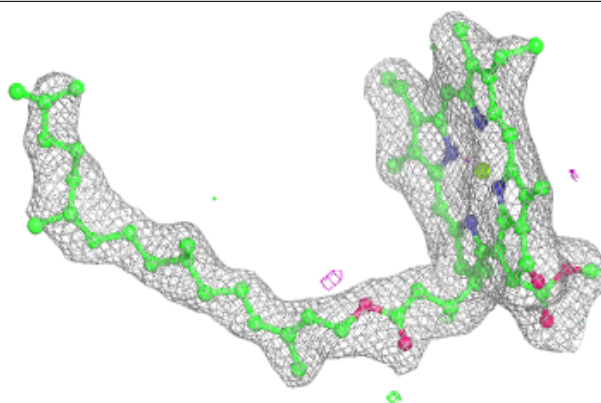
**Electron density around CLA b 605:**

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

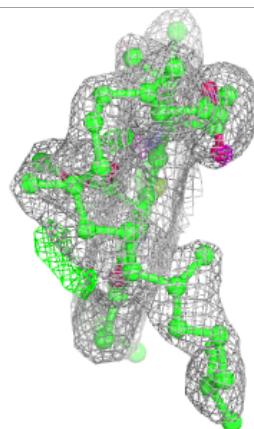
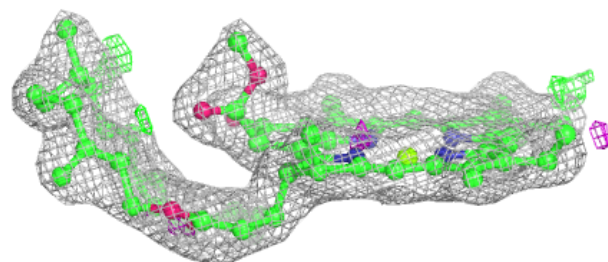
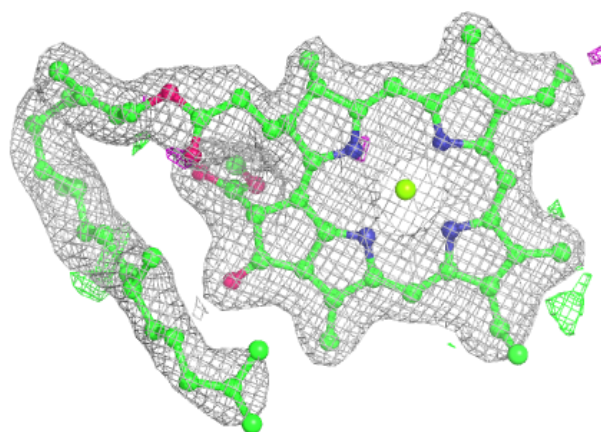


**Electron density around CLA b 608:**

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

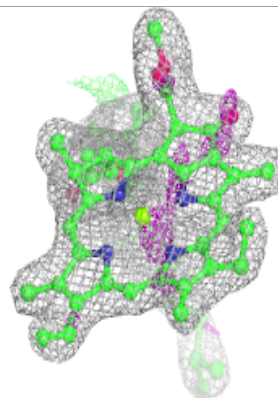
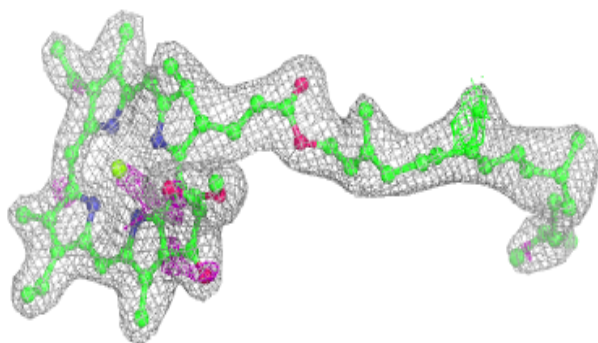
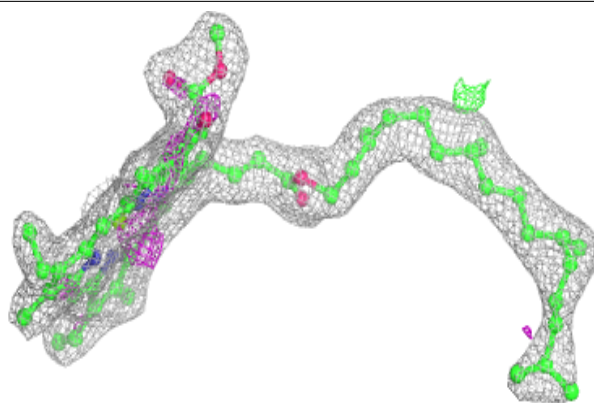
**Electron density around CLA b 609:**

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

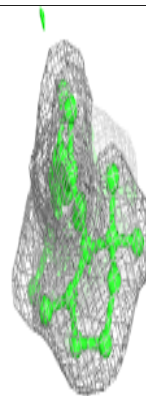
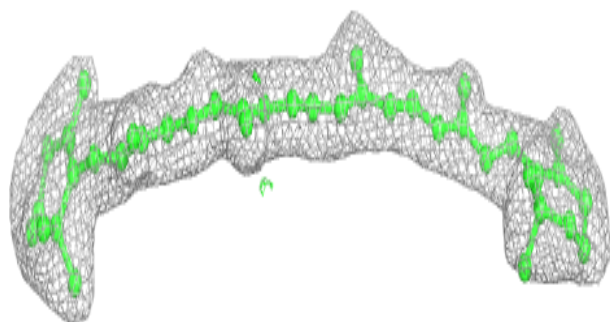
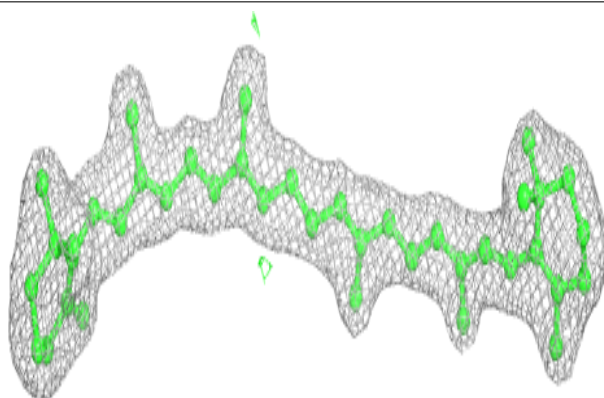


**Electron density around CLA d 403:**

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

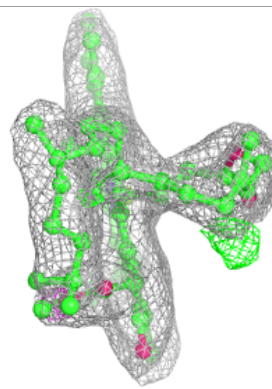
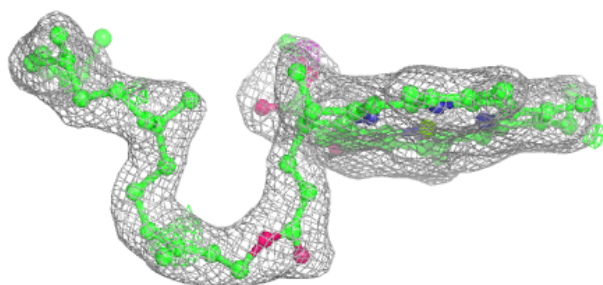
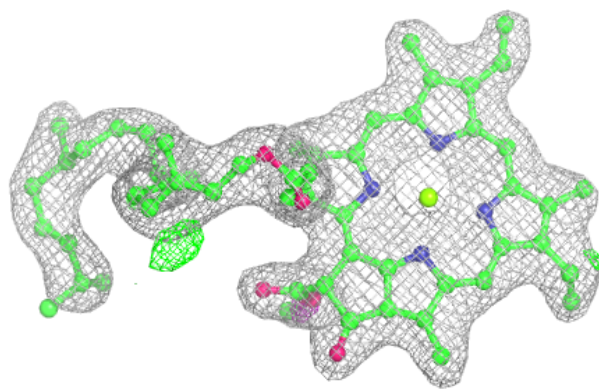
**Electron density around BCR t 101:**

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

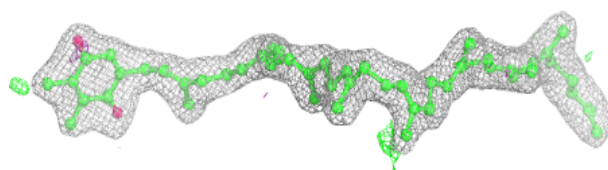
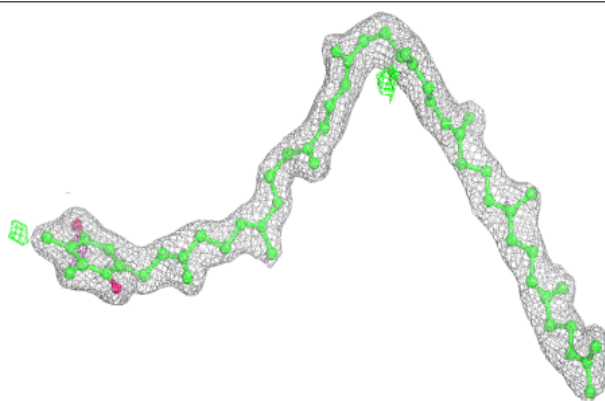


**Electron density around CLA b 611:**

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

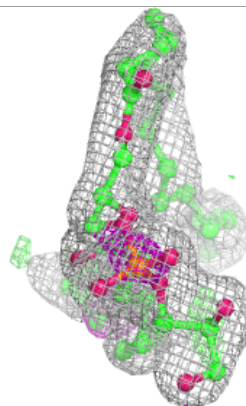
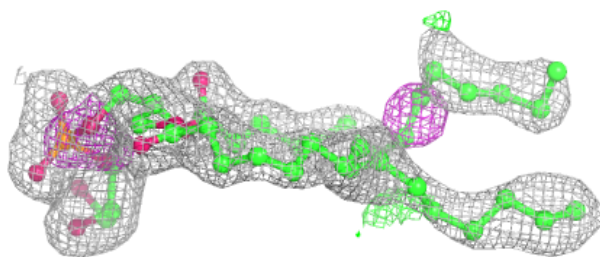
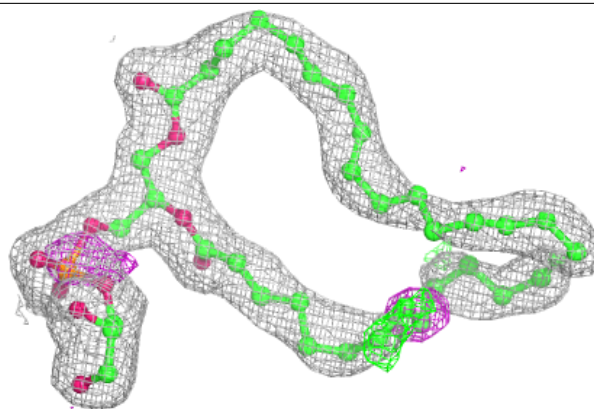
**Electron density around PL9 D 406:**

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

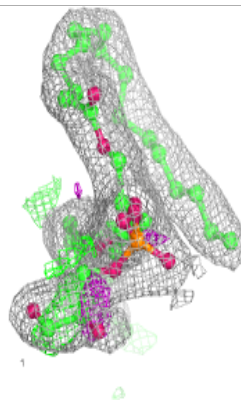
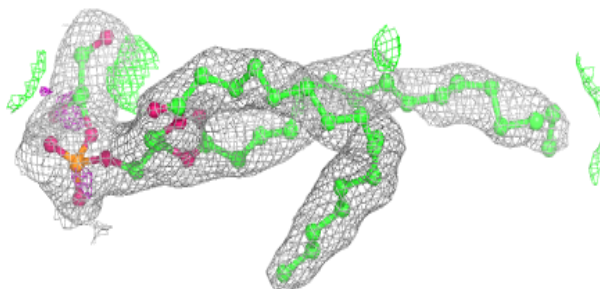
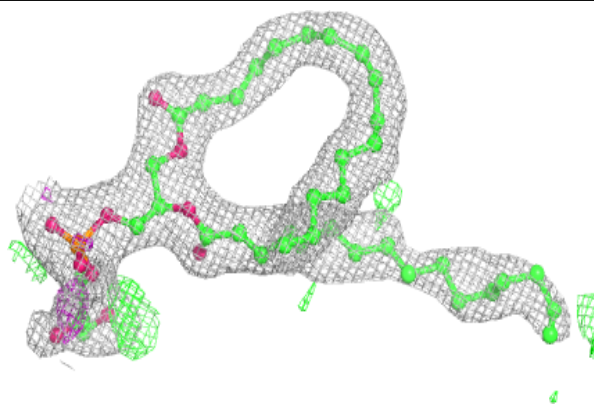


**Electron density around LHG D 409:**

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

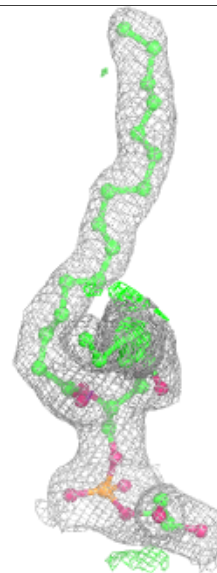
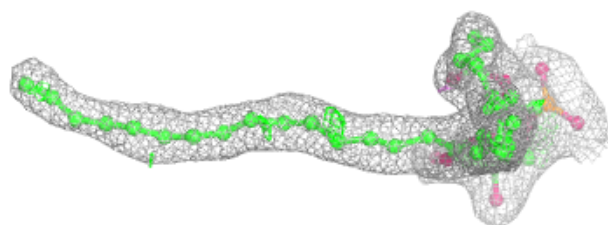
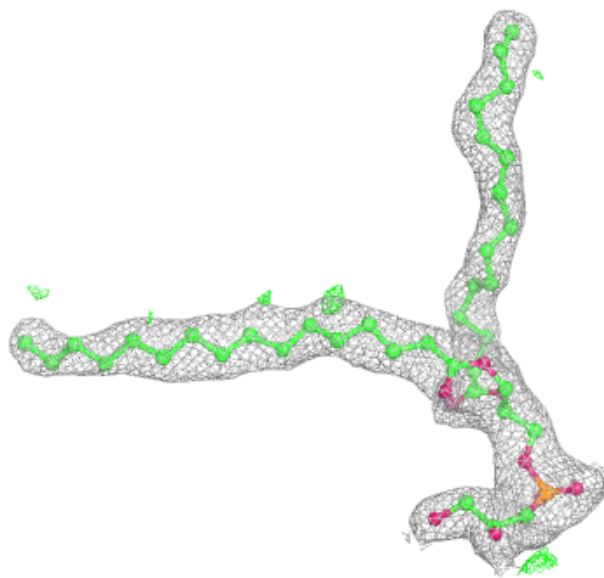
**Electron density around LHG D 411:**

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



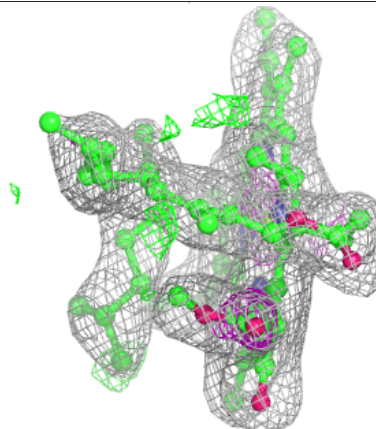
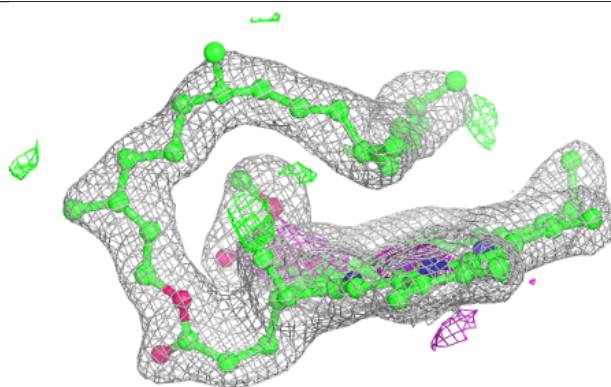
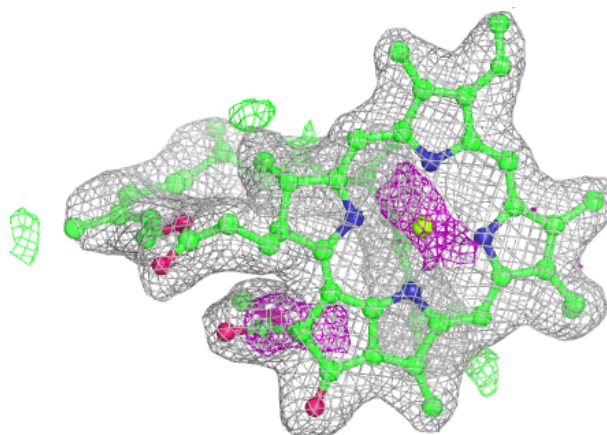
**Electron density around LHG b 623:**

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

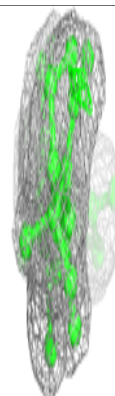
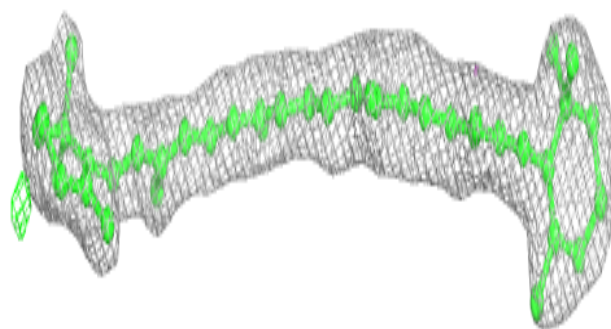
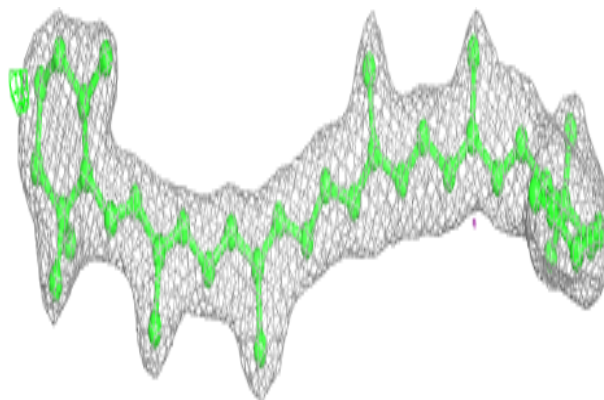


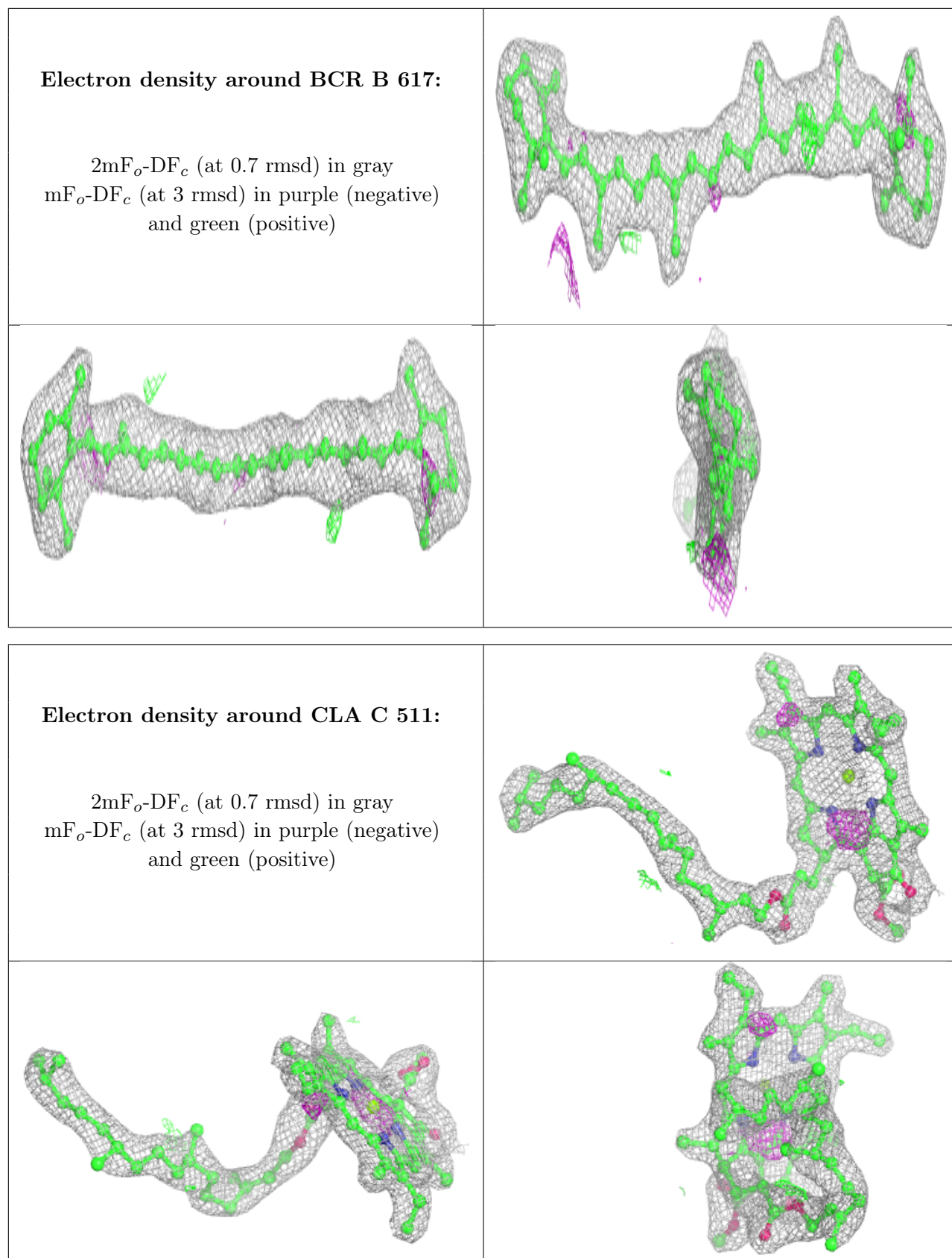
**Electron density around CLA C 510:**

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

**Electron density around BCR B 616:**

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

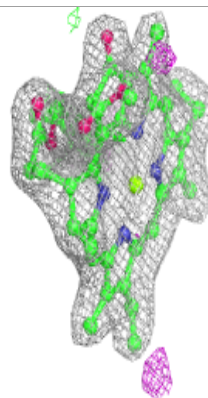
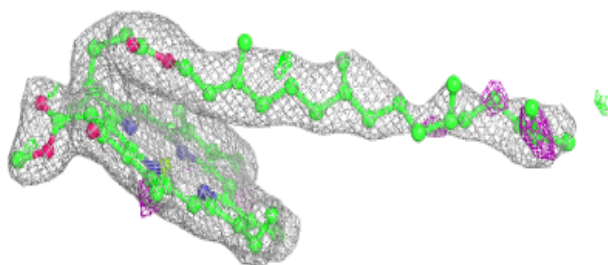
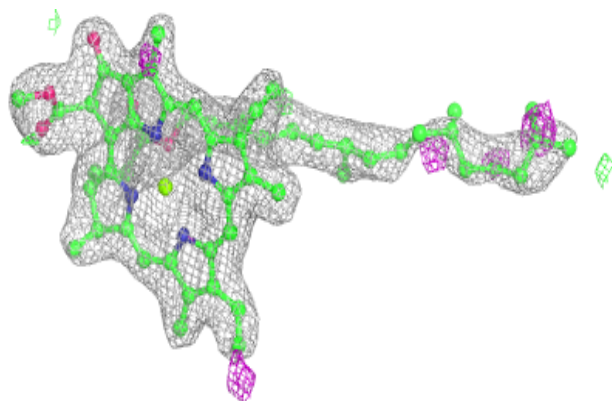




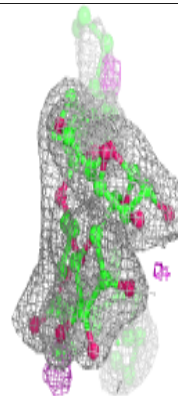
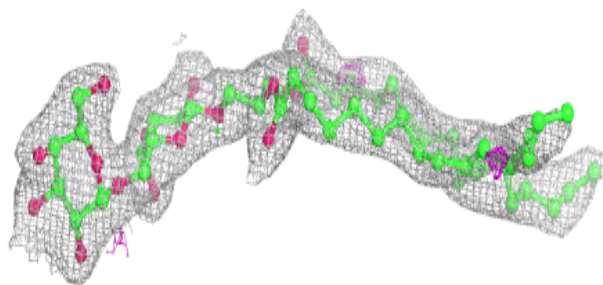
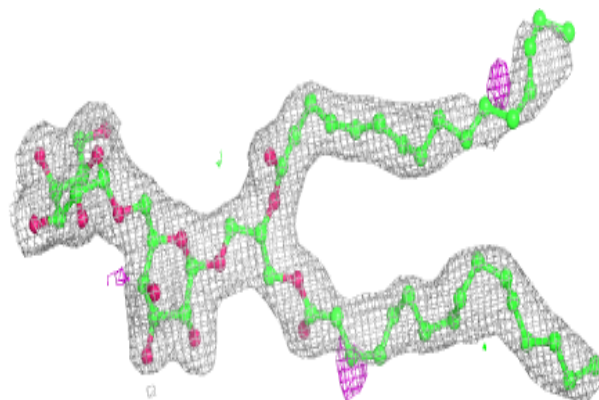


**Electron density around CLA B 613:**

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

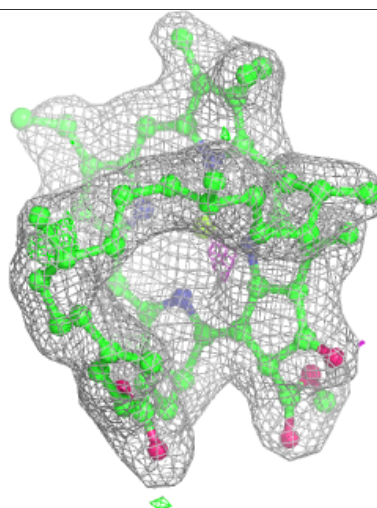
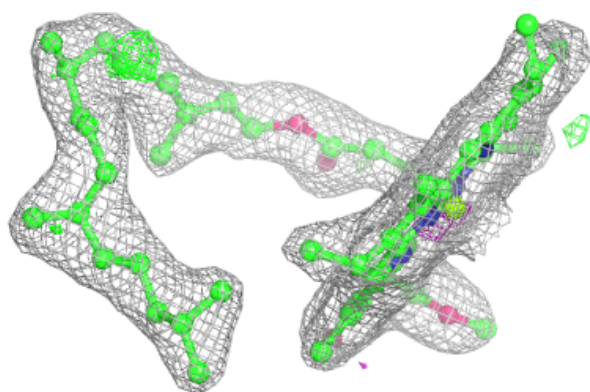
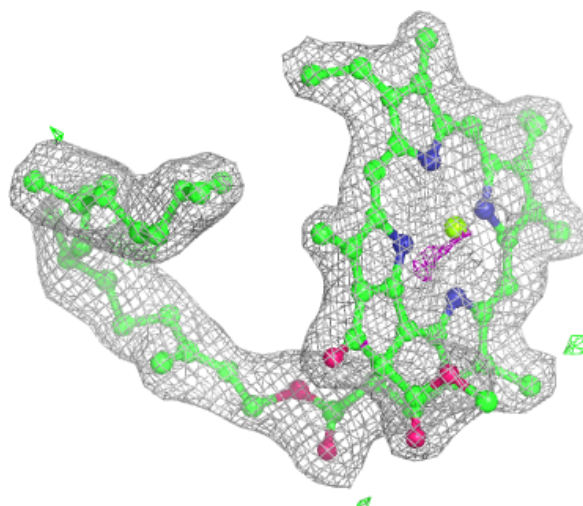
**Electron density around DGD C 518:**

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



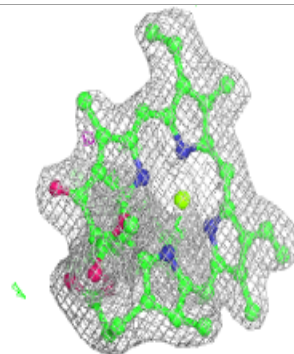
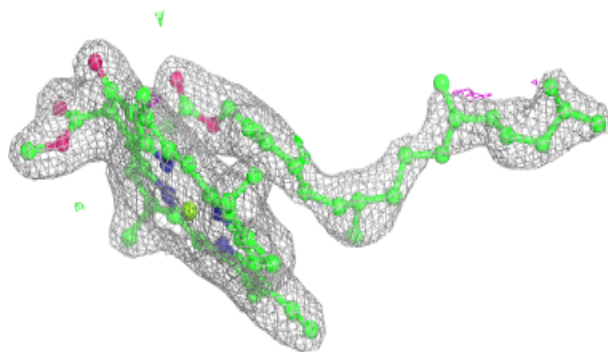
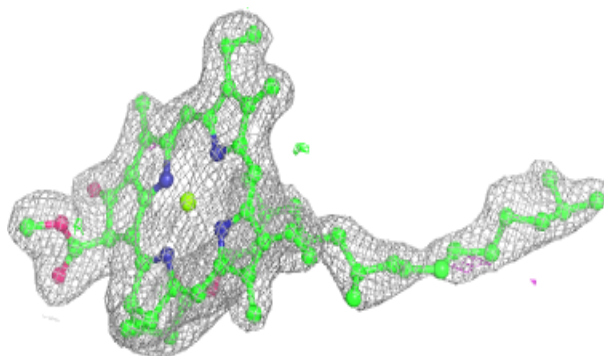
**Electron density around CLA C 503:**

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

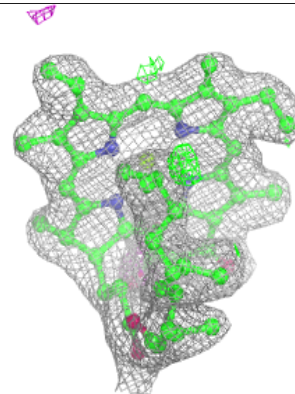
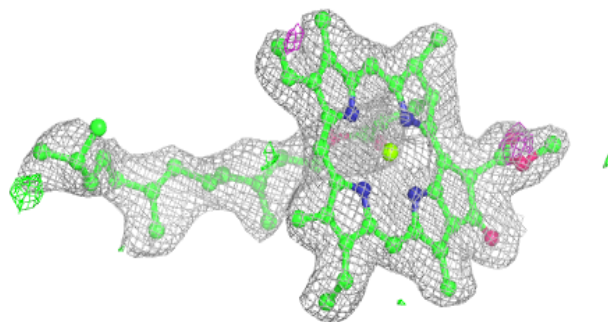
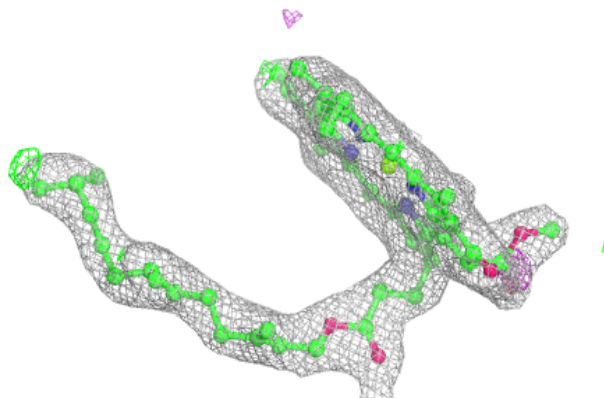


**Electron density around CLA C 505:**

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

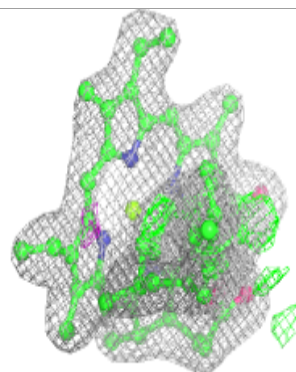
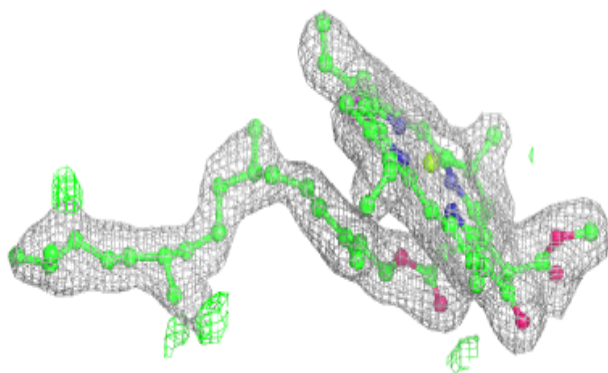
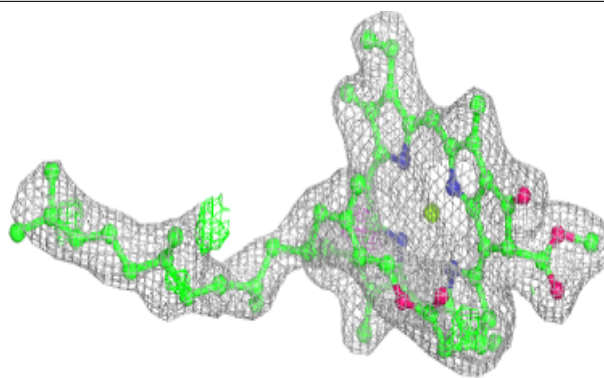
**Electron density around CLA c 504:**

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

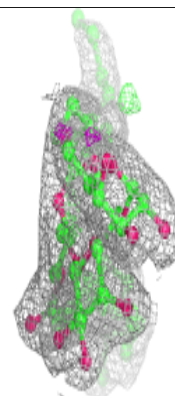
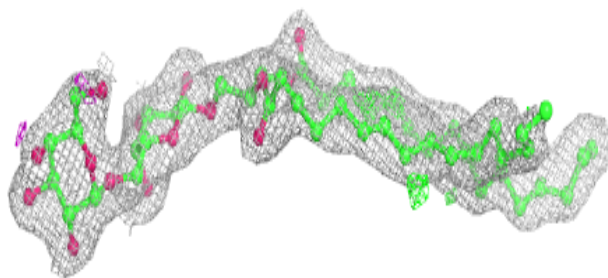
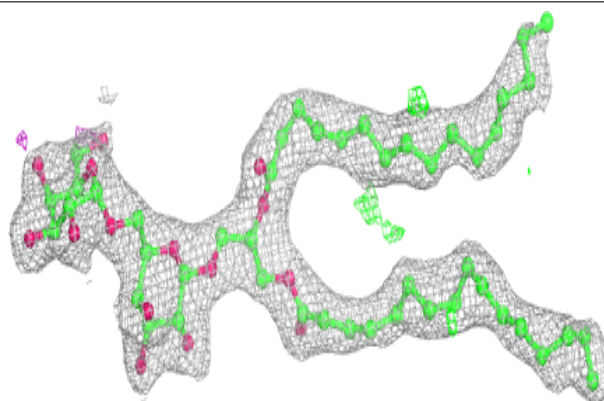


**Electron density around CLA c 505:**

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

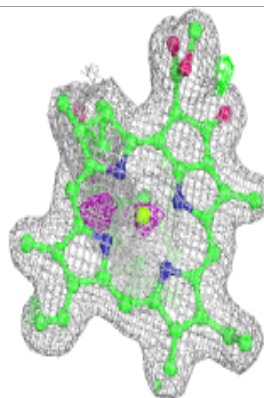
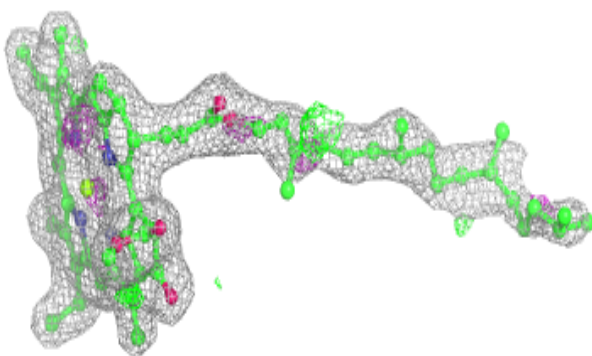
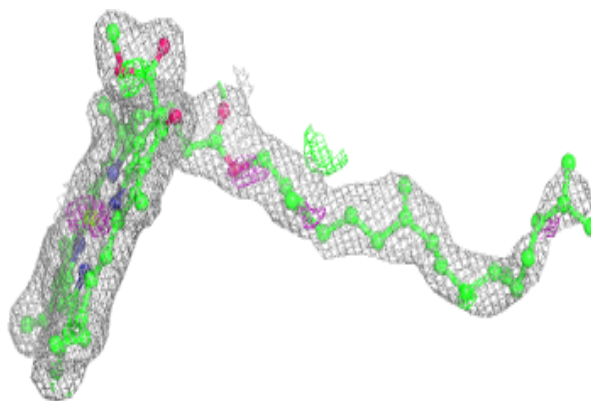
**Electron density around DGD c 518:**

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

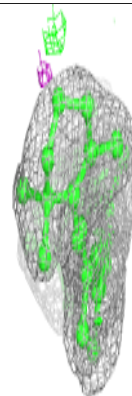
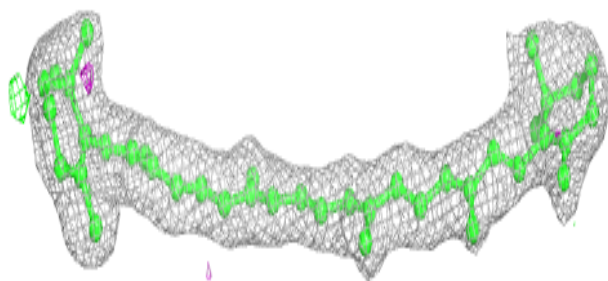
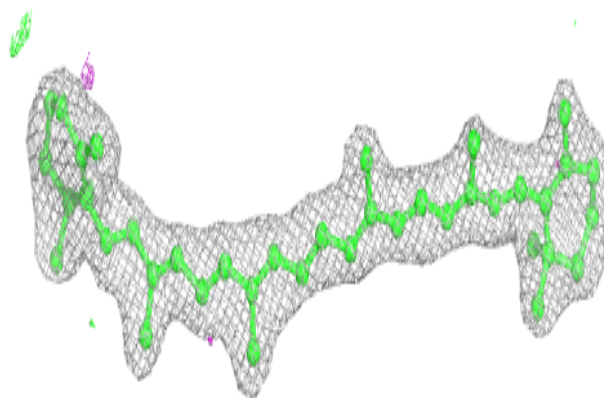


**Electron density around CLA B 603:**

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

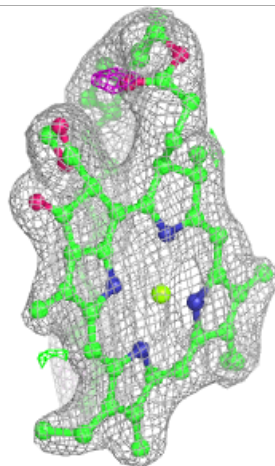
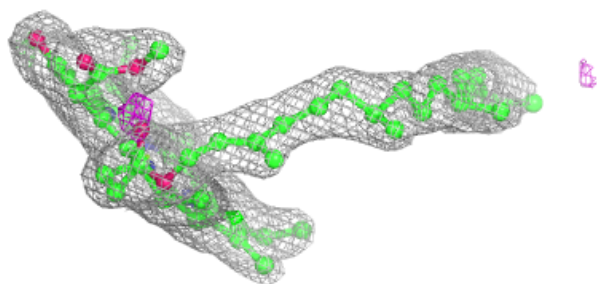
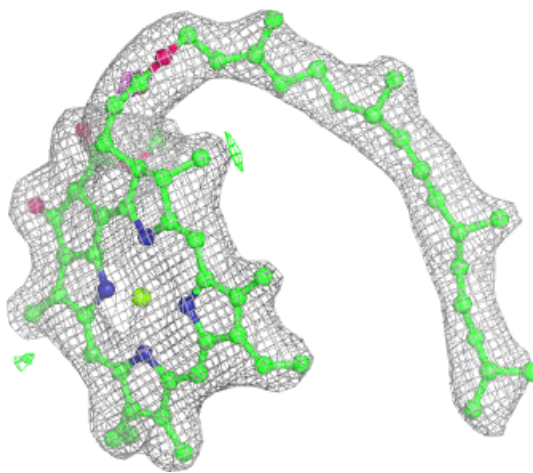
**Electron density around BCR T 101:**

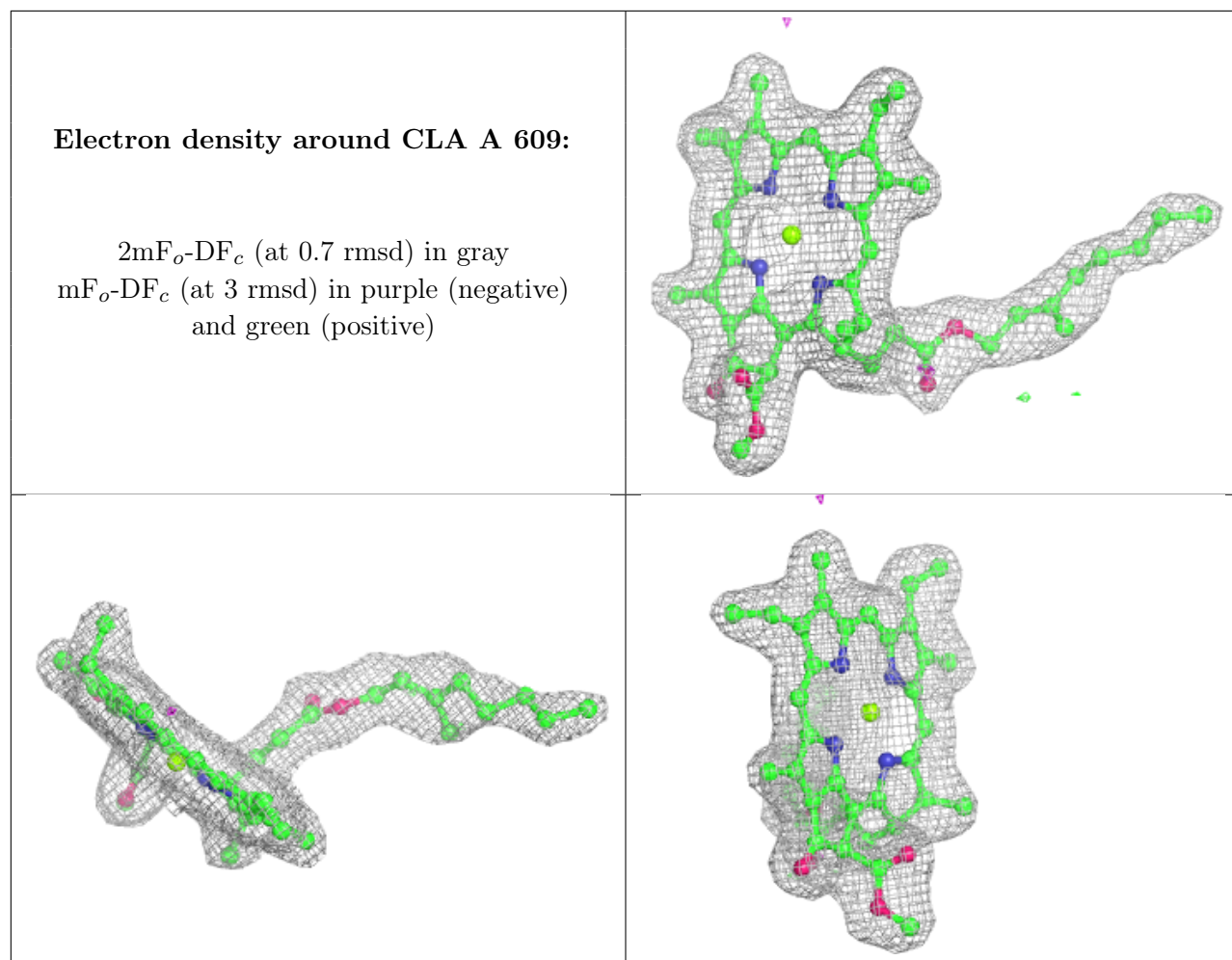
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA c 507:**

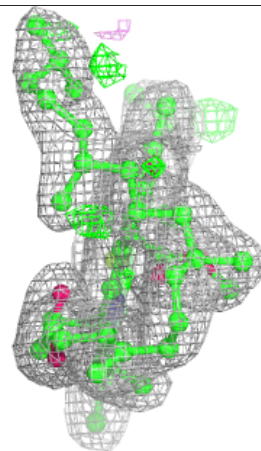
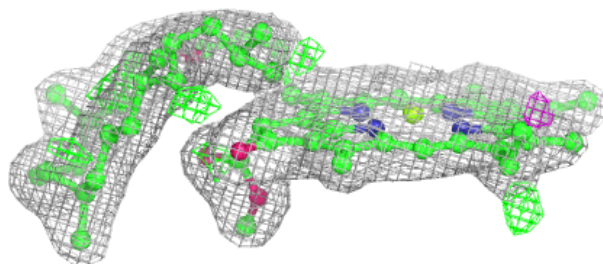
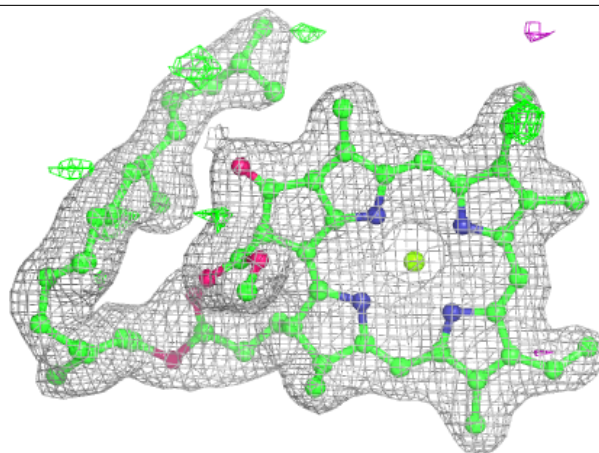
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





**Electron density around CLA B 609:**

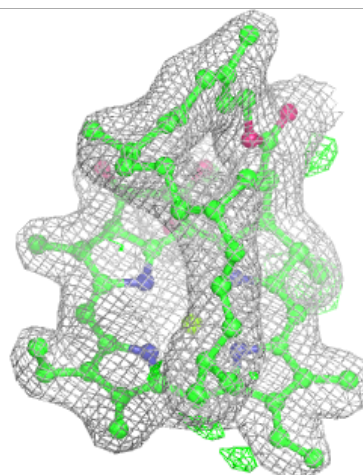
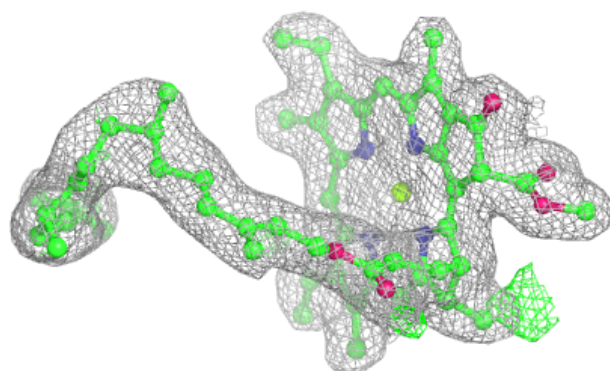
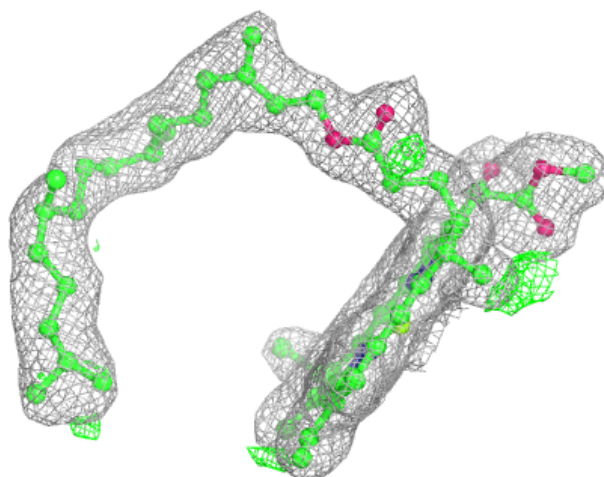
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





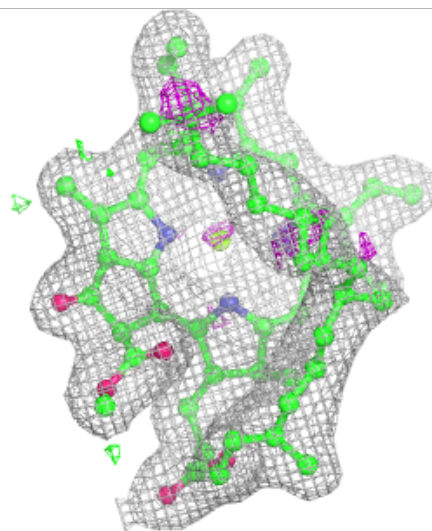
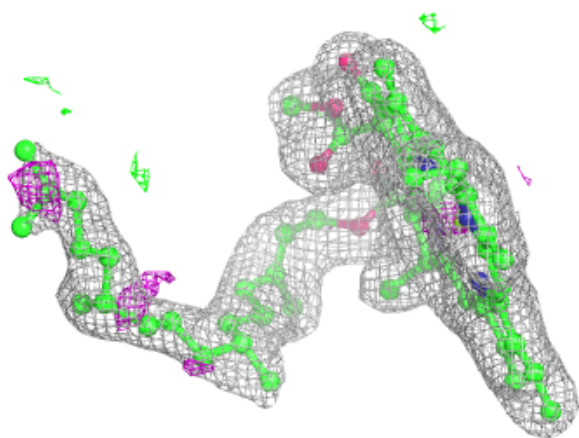
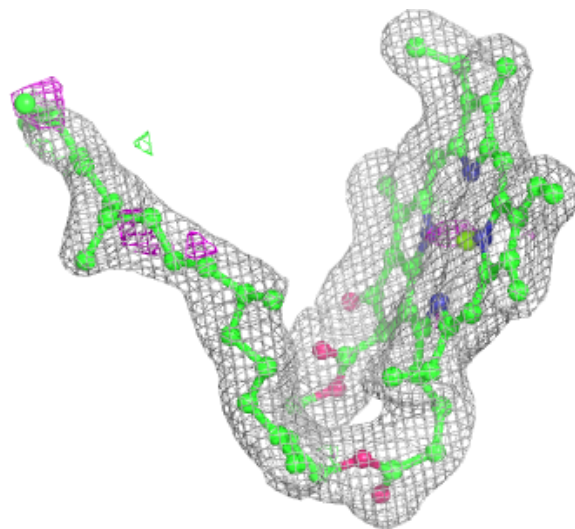
**Electron density around CLA B 610:**

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



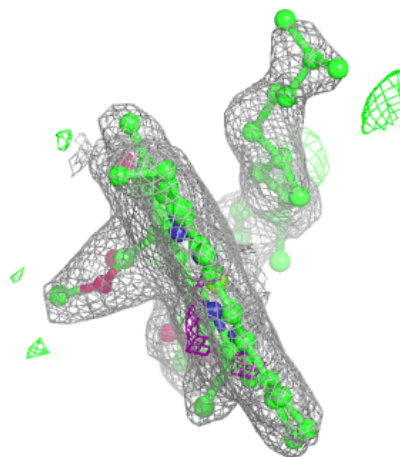
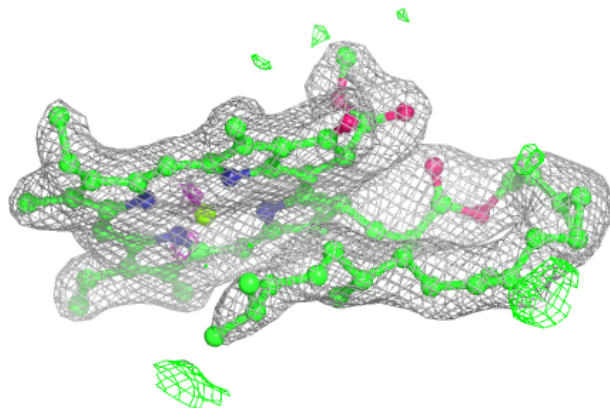
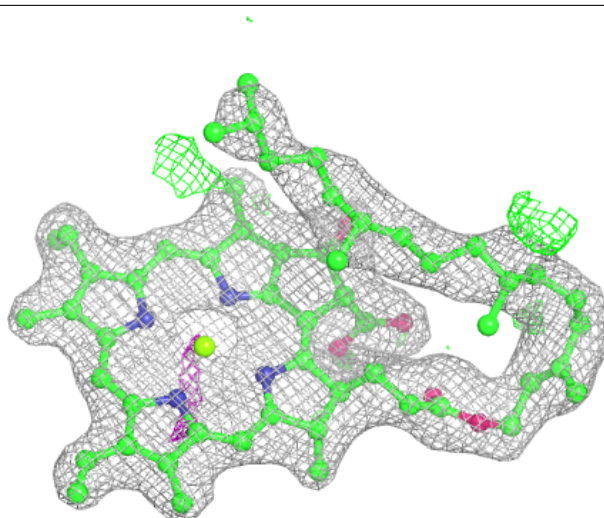
**Electron density around CLA b 612:**

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



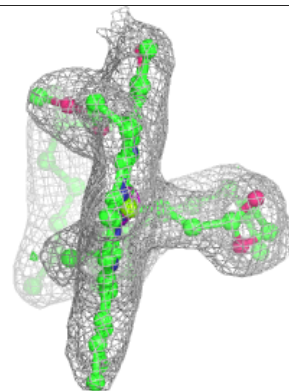
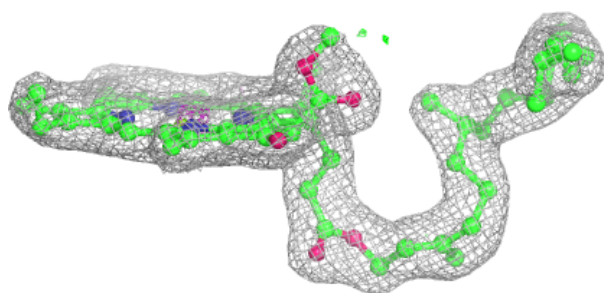
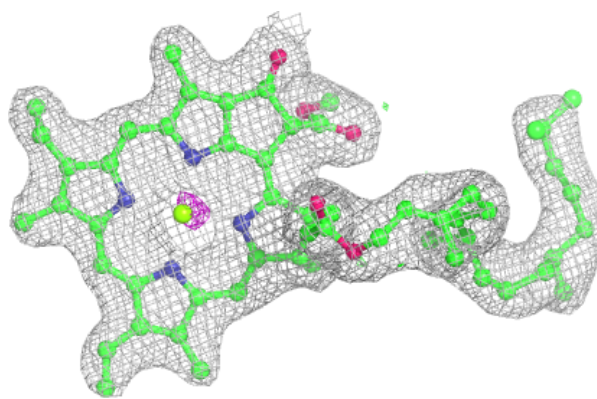
**Electron density around CLA C 509:**

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



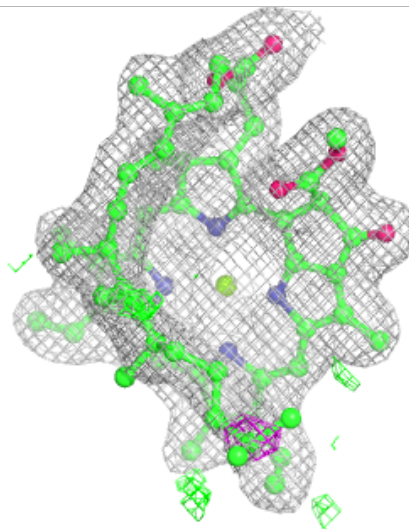
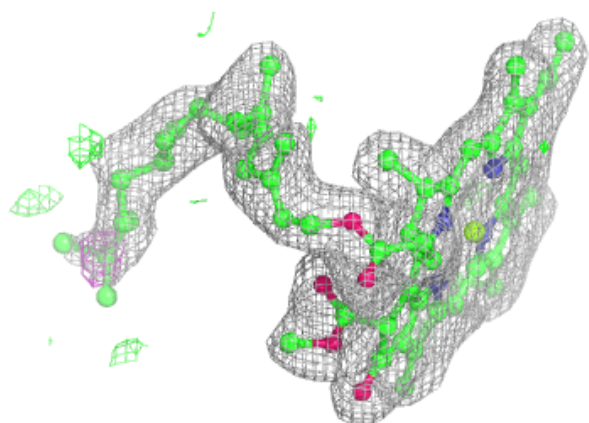
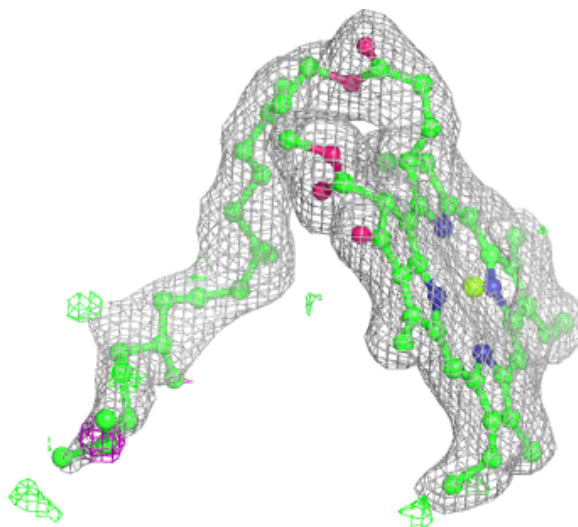
**Electron density around CLA B 611:**

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



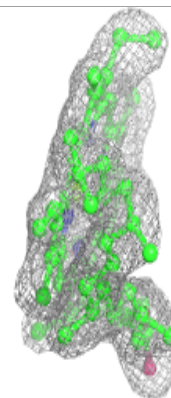
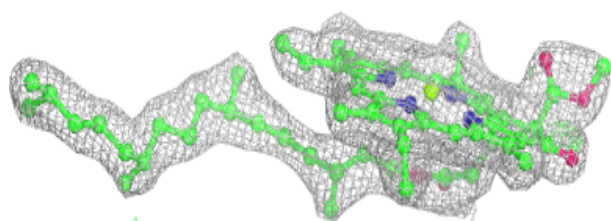
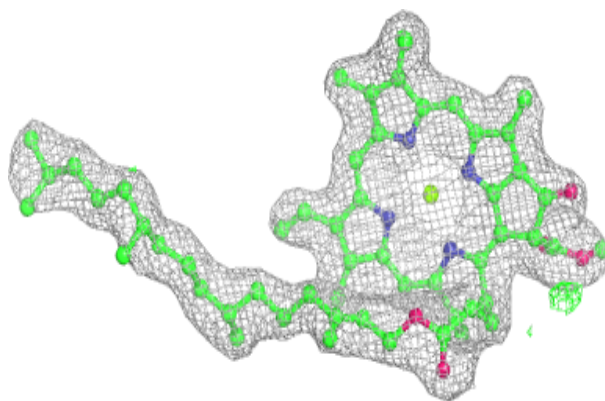
**Electron density around CLA B 612:**

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

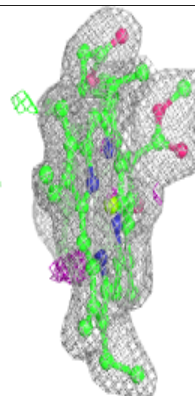
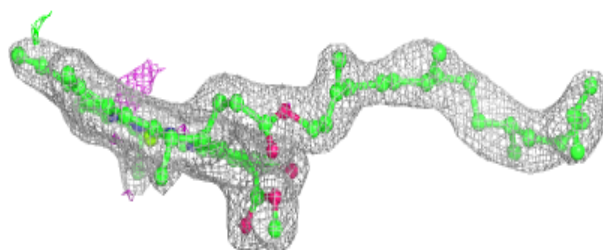
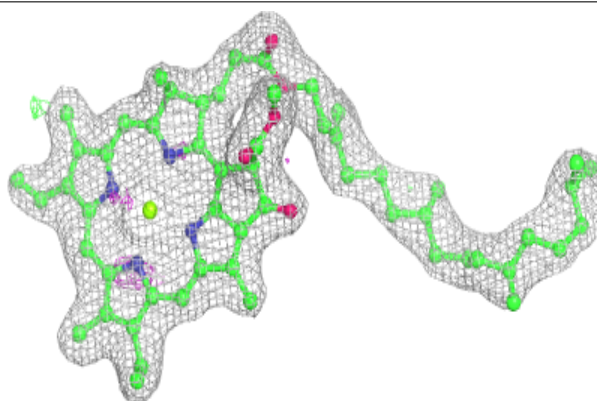


**Electron density around CLA c 501:**

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

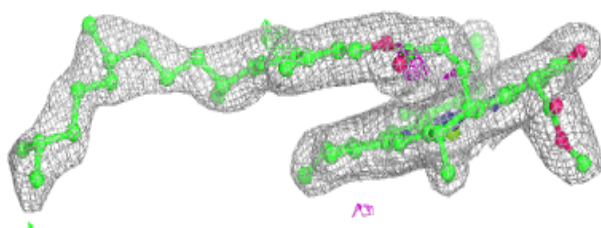
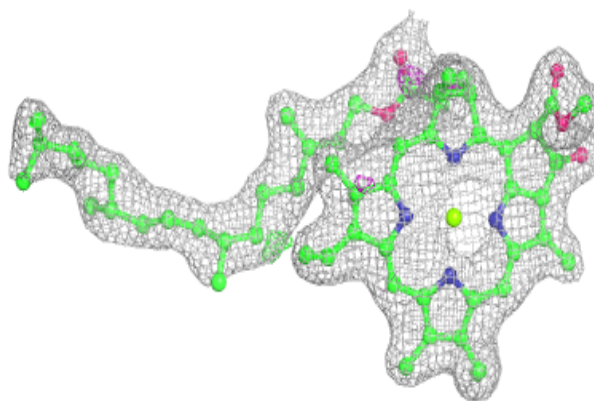
**Electron density around CLA B 601:**

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

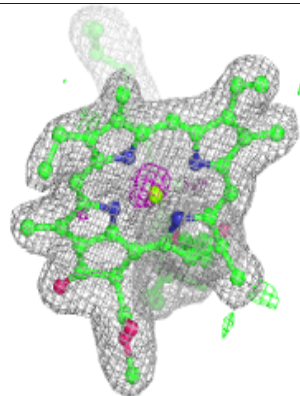
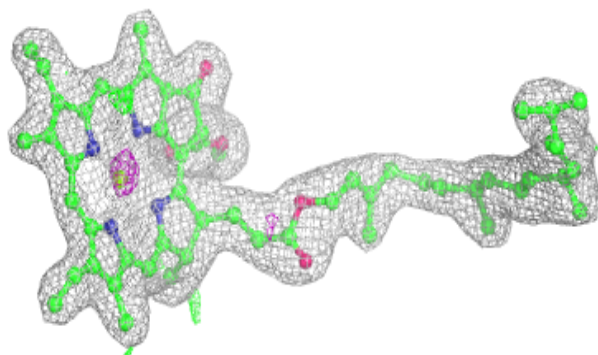
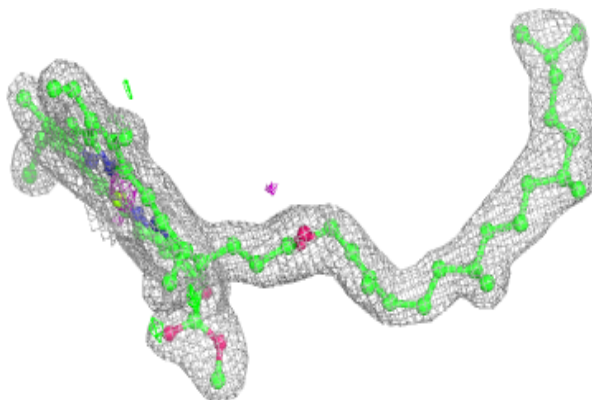


**Electron density around CLA B 602:**

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

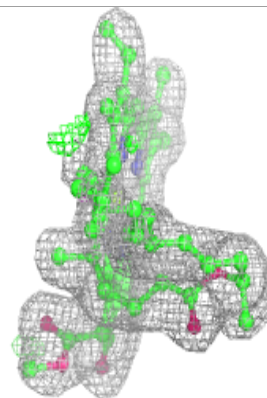
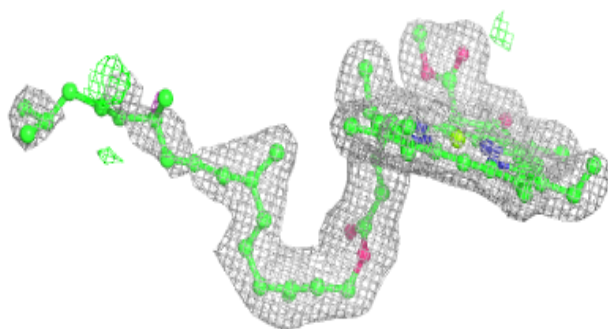
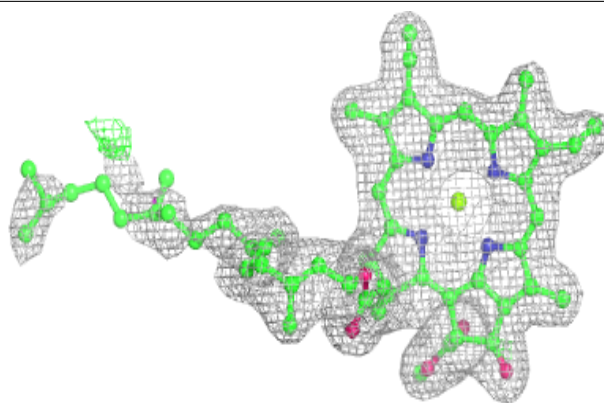
**Electron density around CLA D 403:**

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

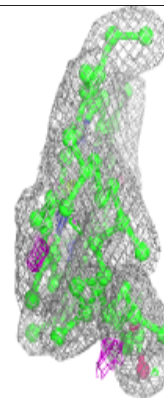
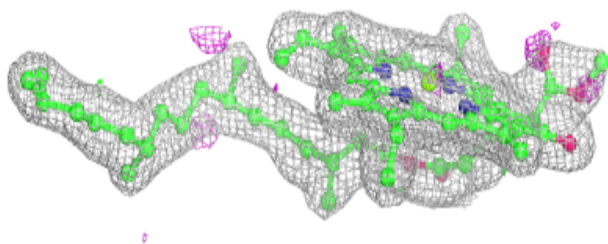
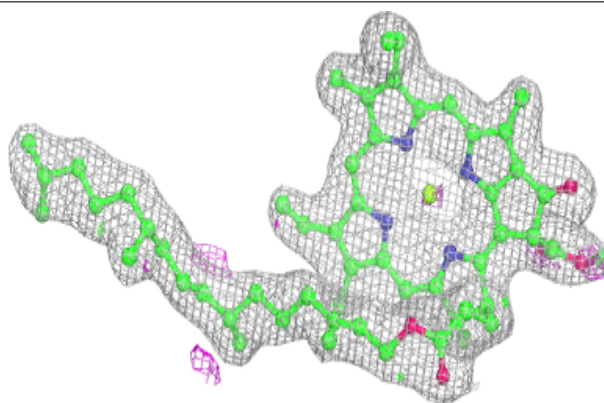


**Electron density around CLA A 607:**

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

**Electron density around CLA C 501:**

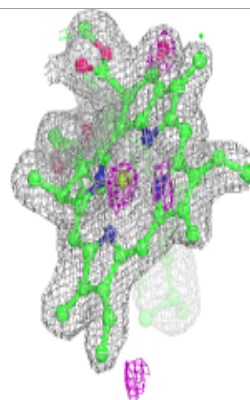
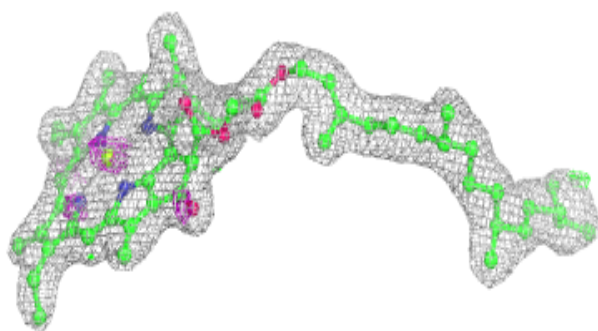
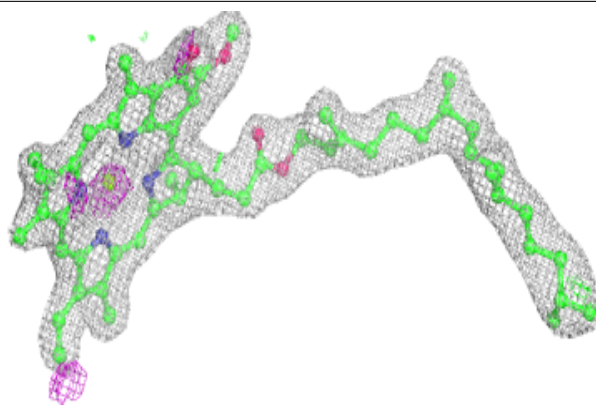
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



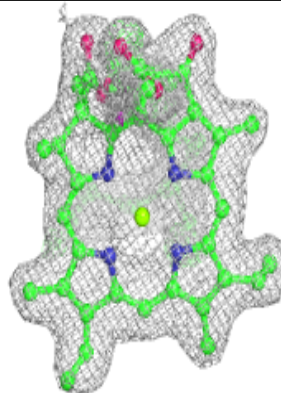
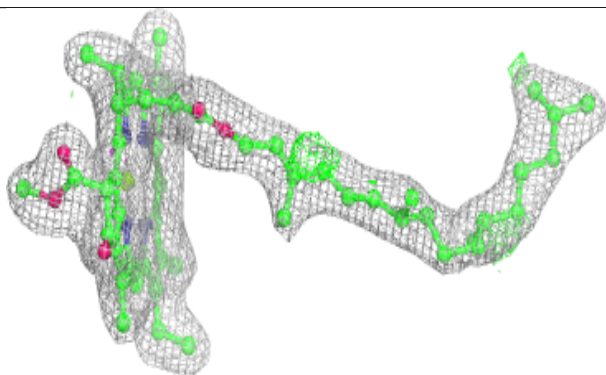
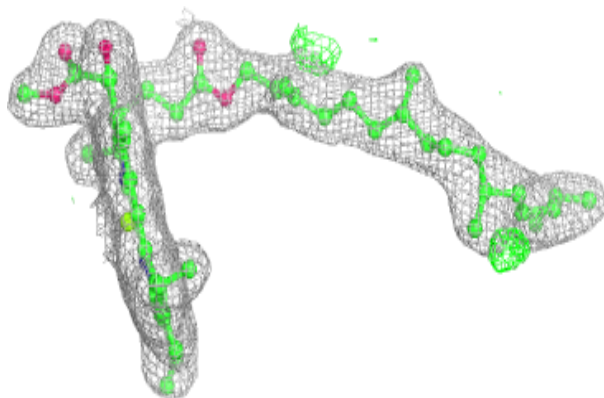


**Electron density around CLA a 606:**

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

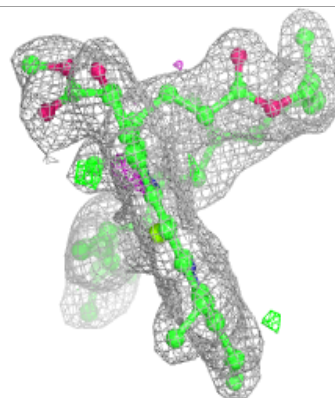
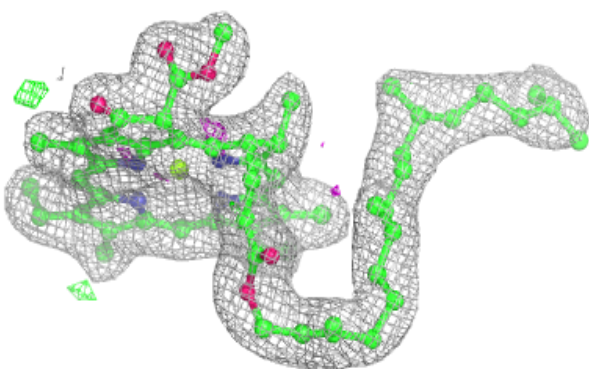
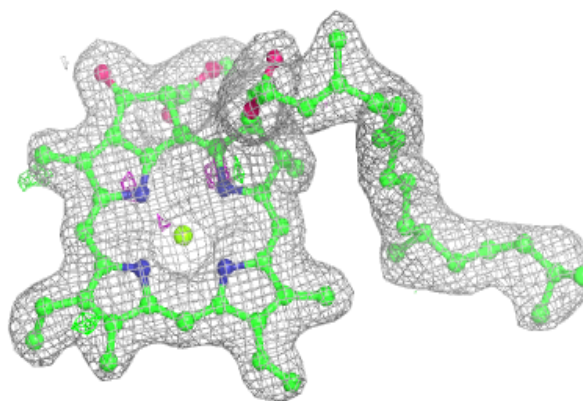
**Electron density around CLA B 604:**

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

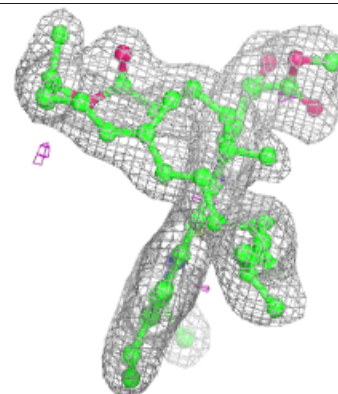
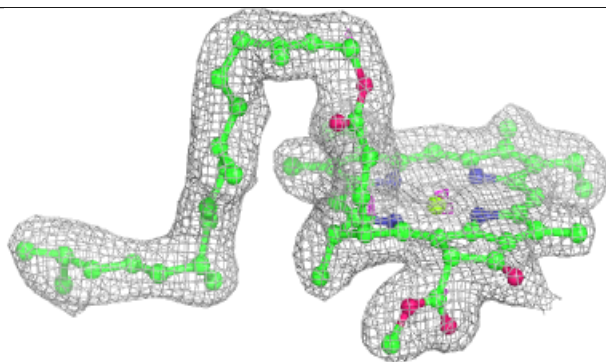
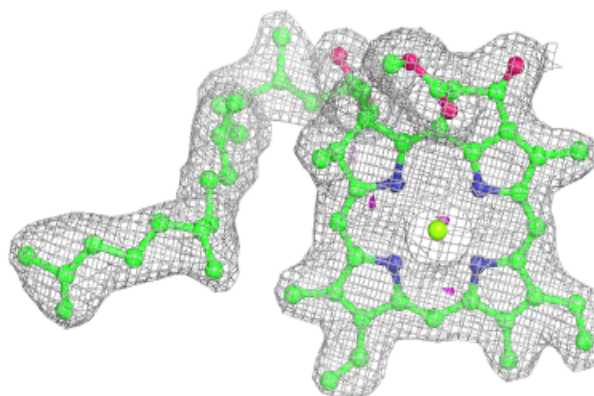


**Electron density around CLA A 612:**

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

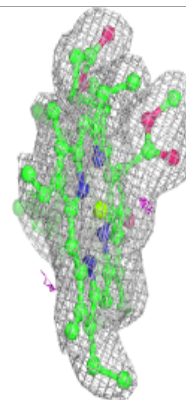
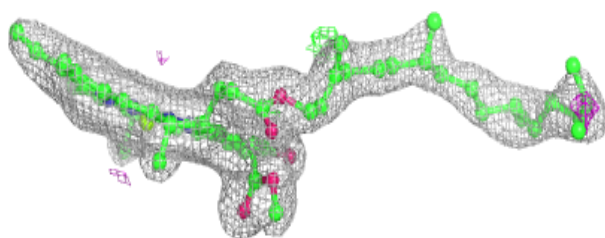
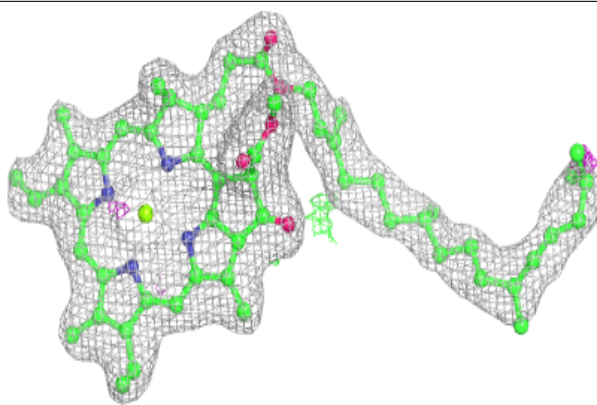
**Electron density around CLA a 612:**

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



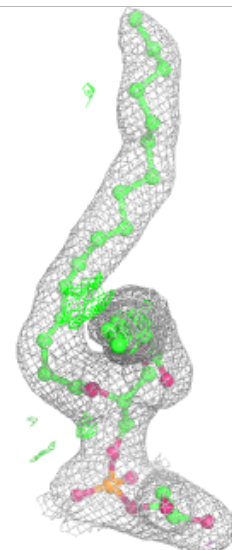
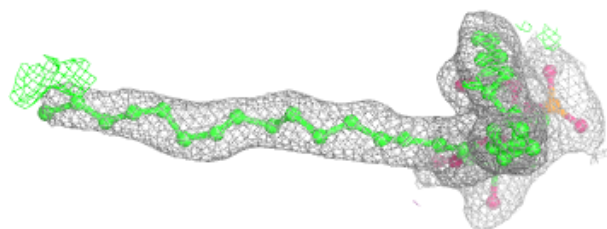
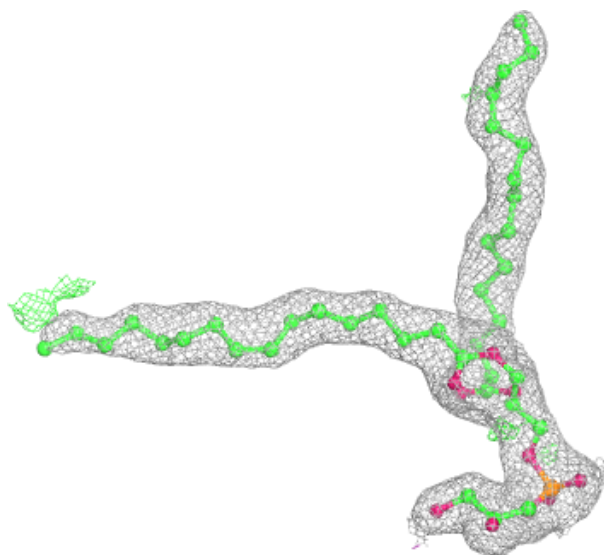
**Electron density around CLA b 601:**

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



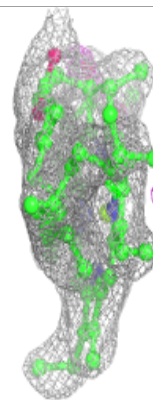
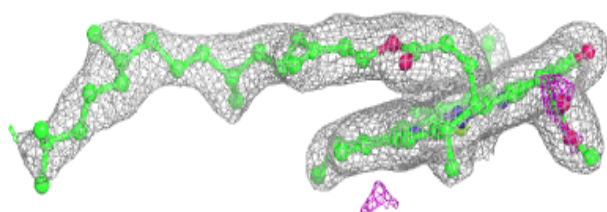
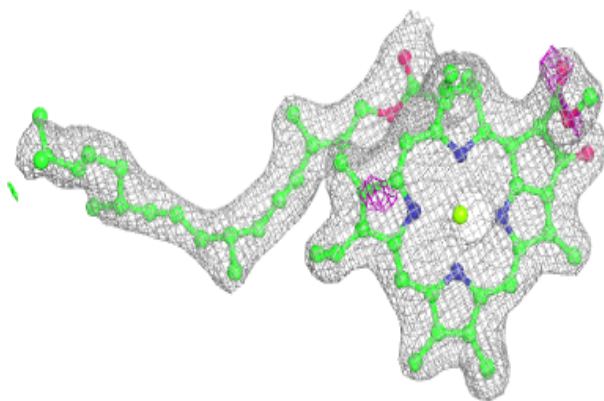
**Electron density around LHG L 101:**

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

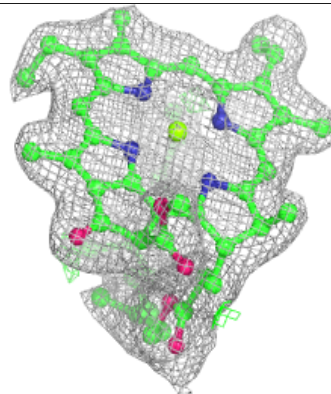
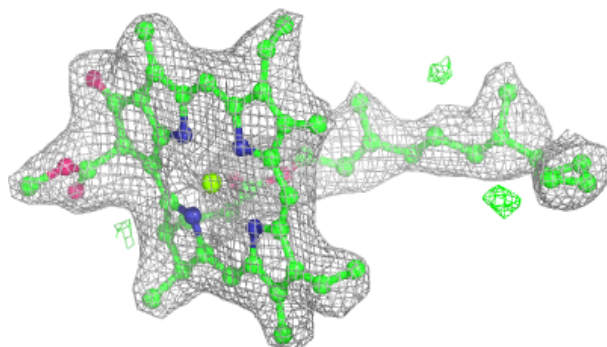
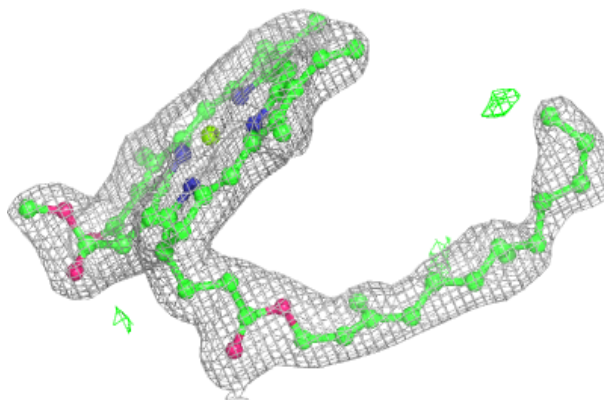


**Electron density around CLA b 602:**

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

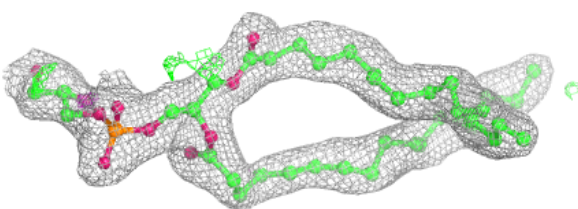
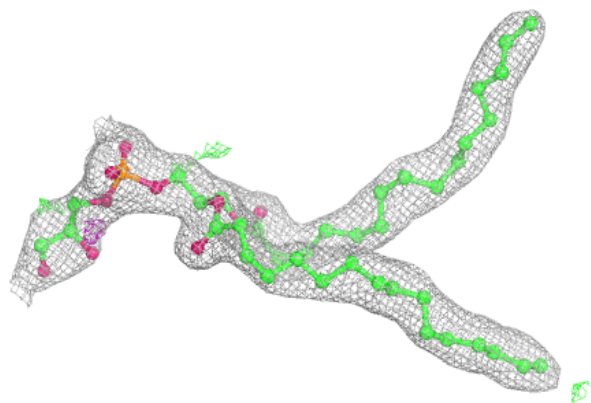
**Electron density around CLA C 504:**

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

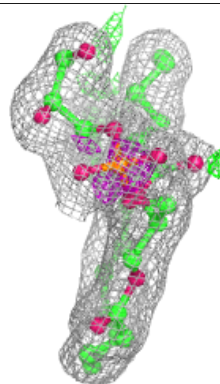
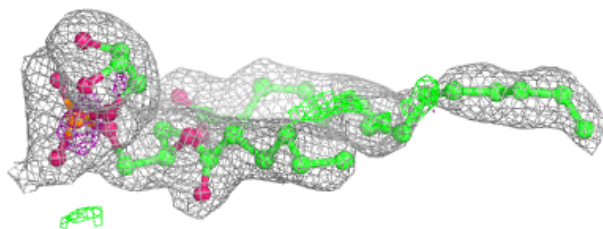
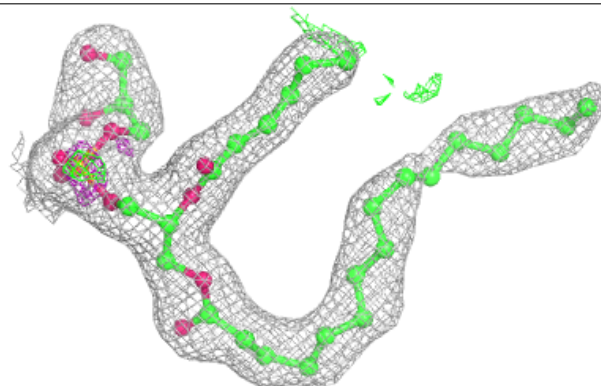


**Electron density around LHG d 408:**

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

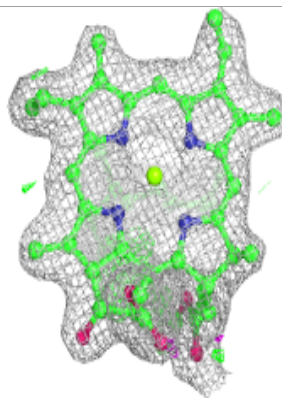
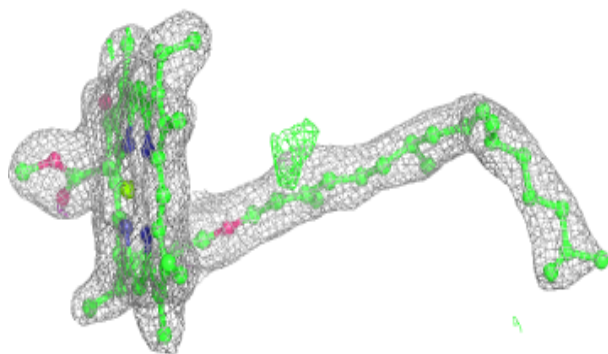
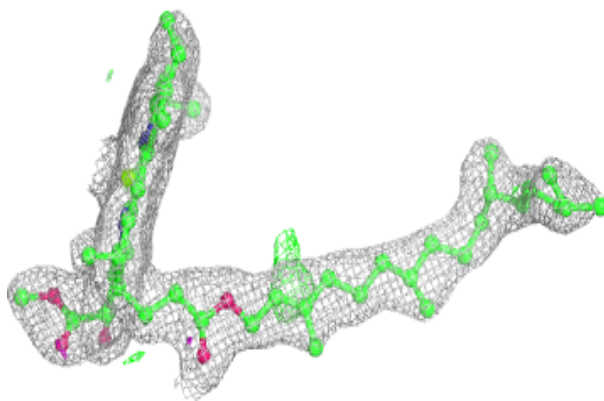
**Electron density around LHG d 409:**

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

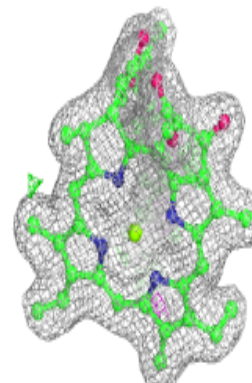
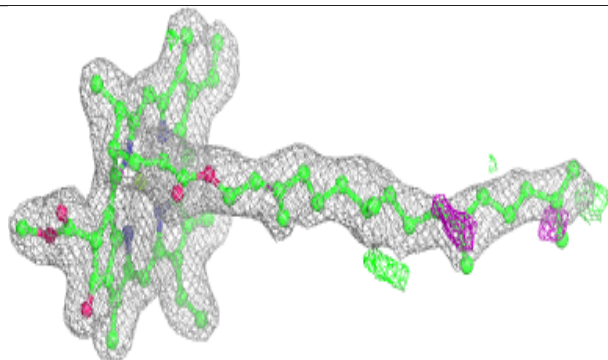
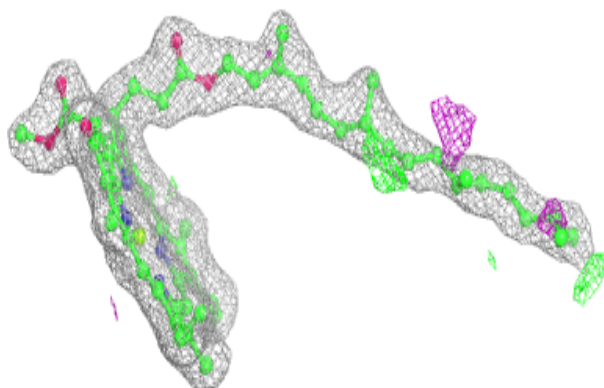


**Electron density around CLA b 604:**

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

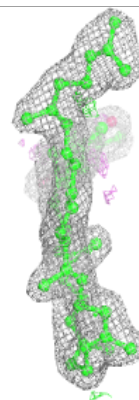
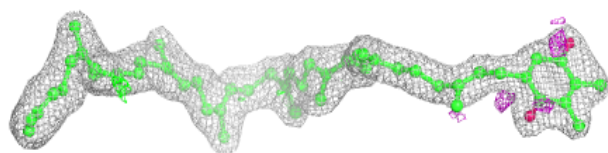
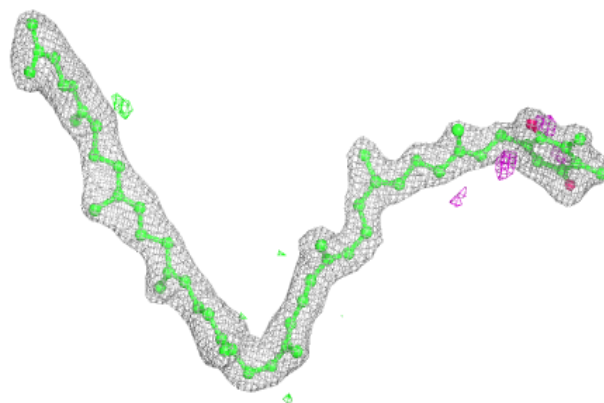
**Electron density around CLA B 606:**

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

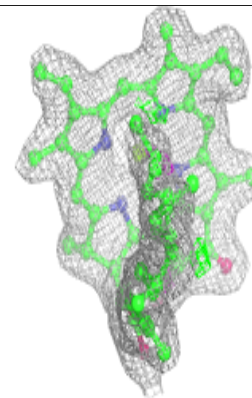
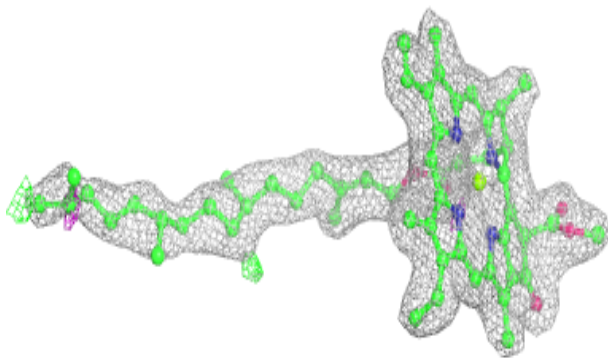
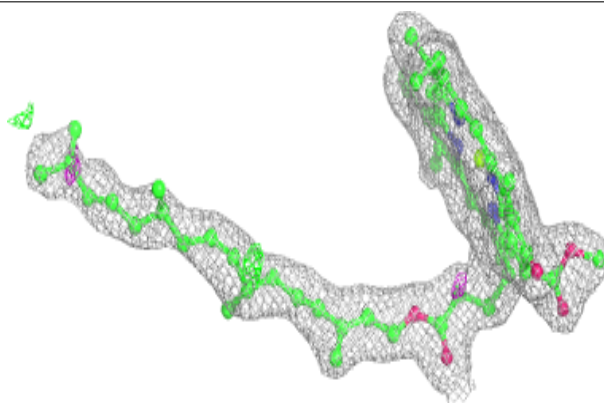


**Electron density around PL9 d 406:**

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

**Electron density around CLA b 606:**

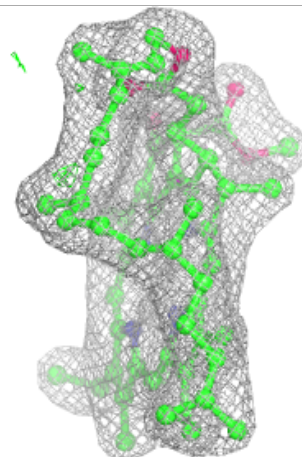
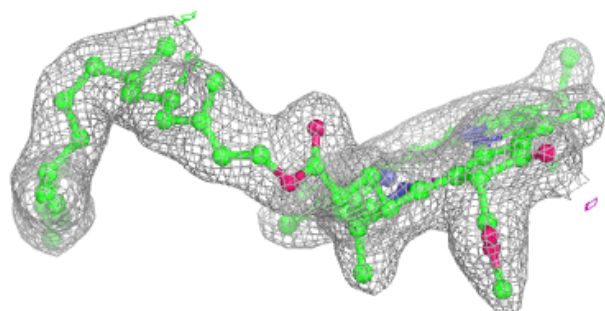
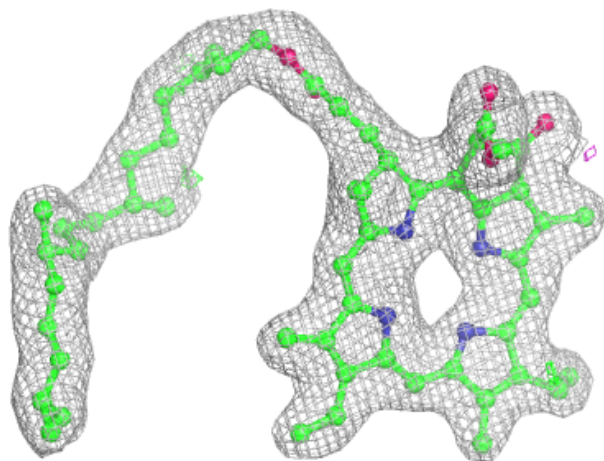
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





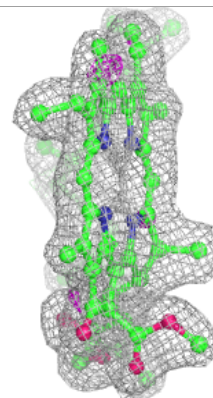
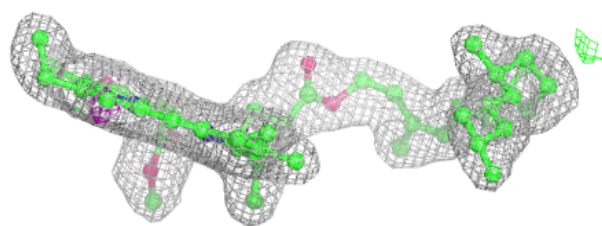
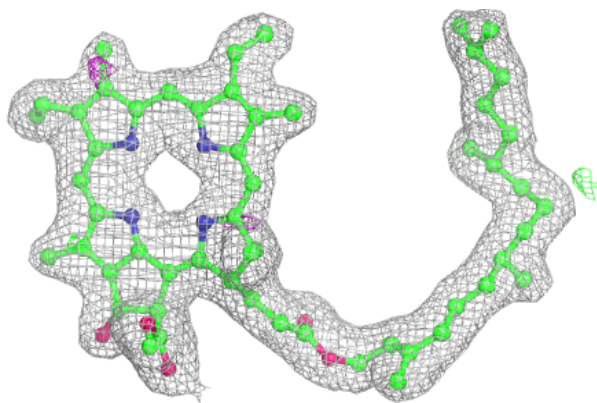
**Electron density around PHO A 608:**

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

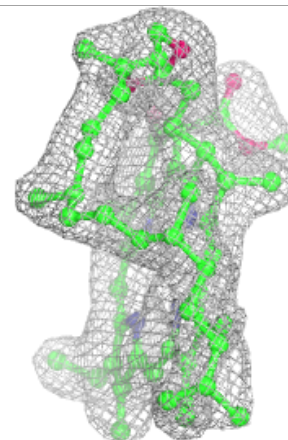
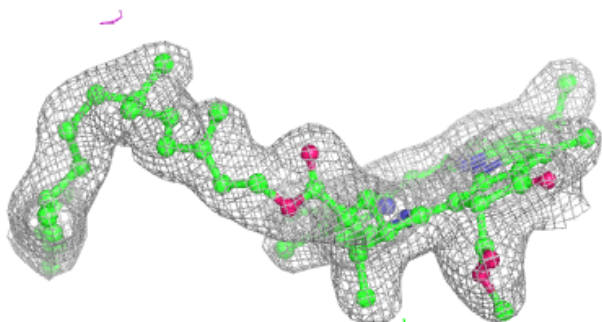
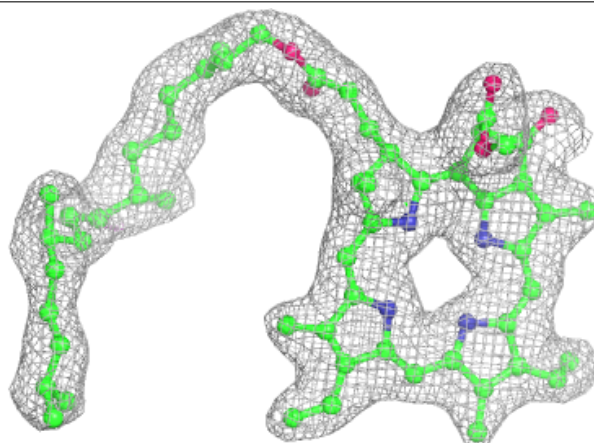


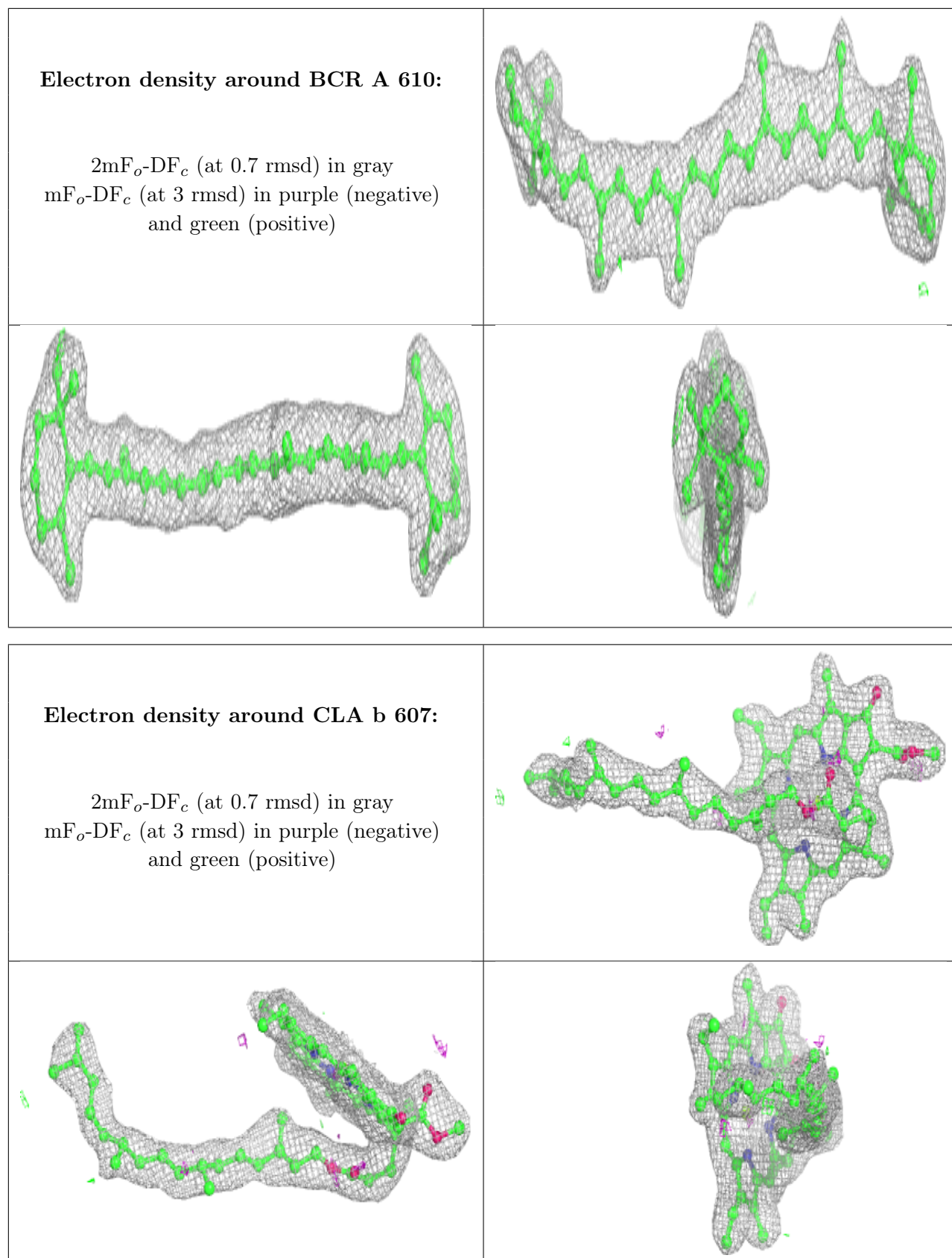
**Electron density around PHO D 402:**

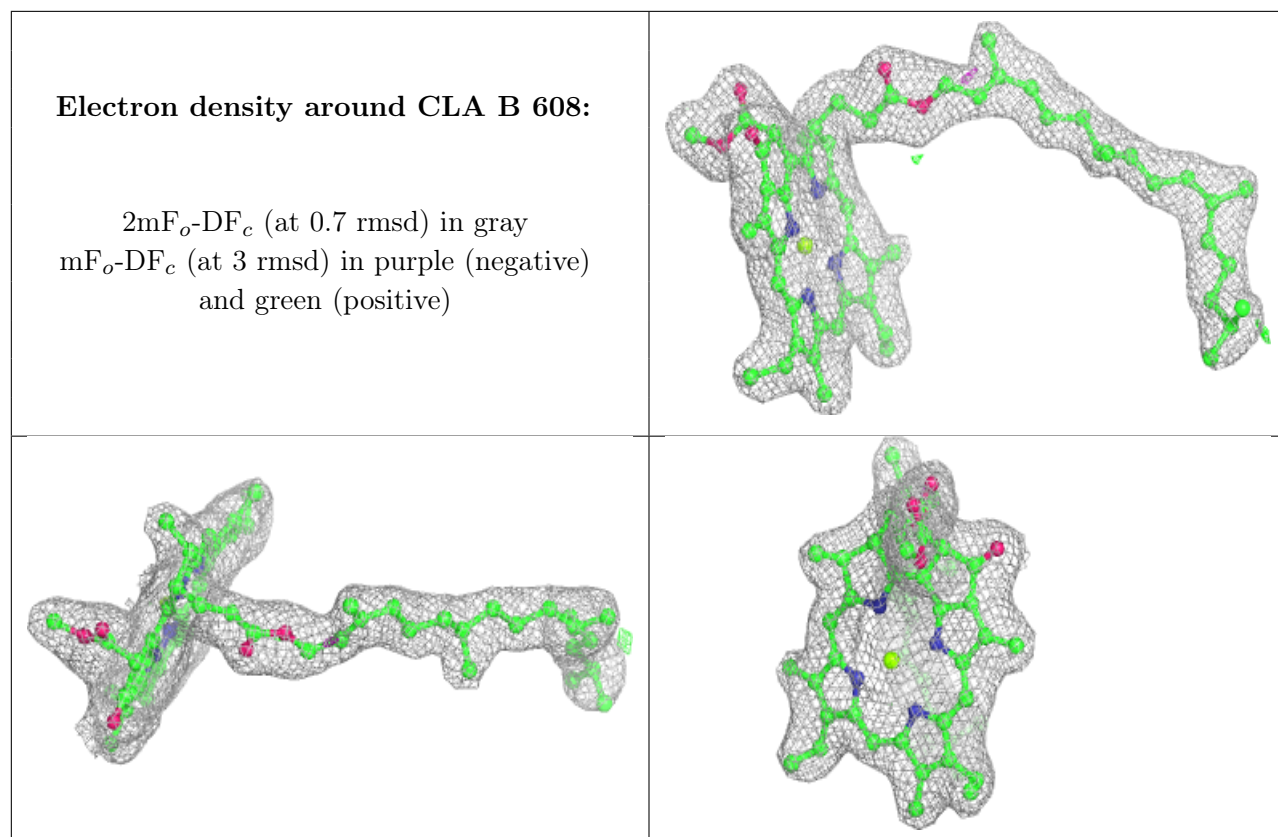
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around PHO d 402:**

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

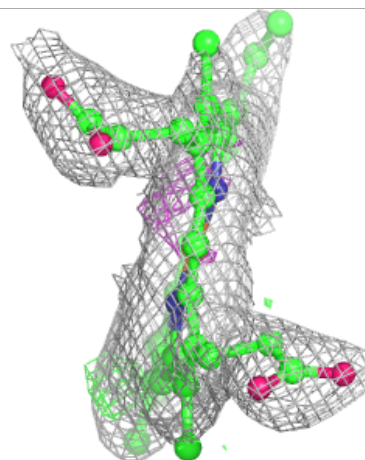
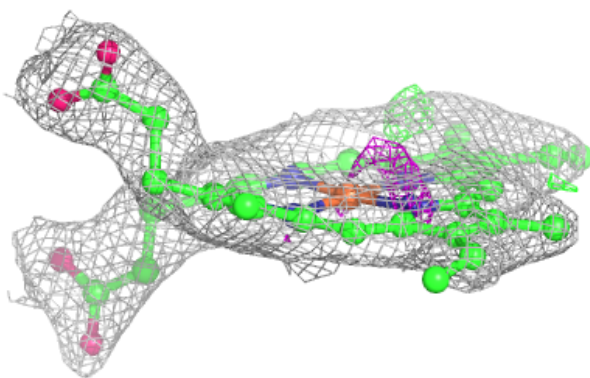
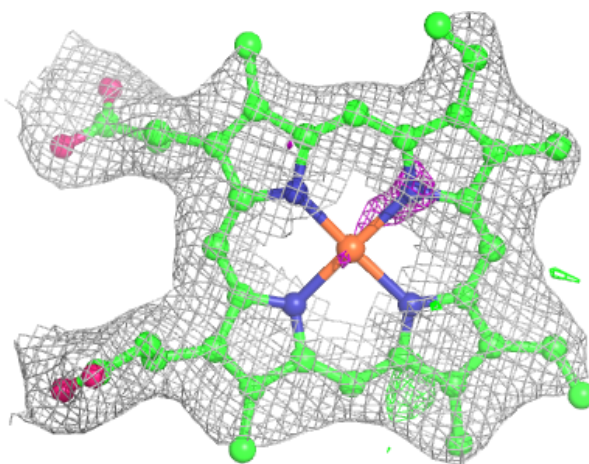






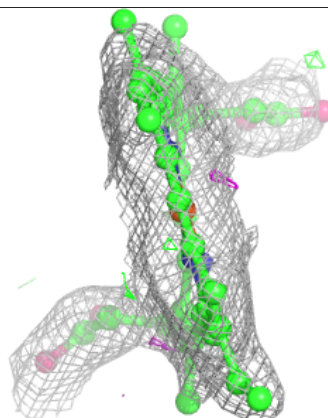
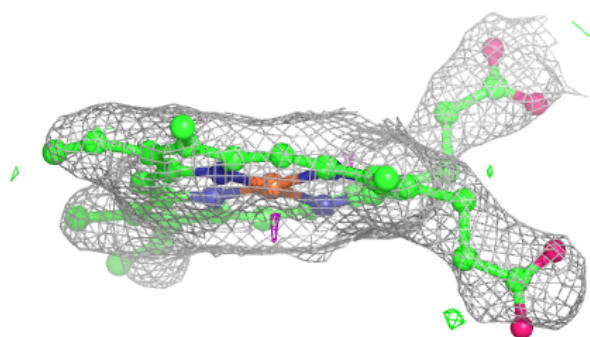
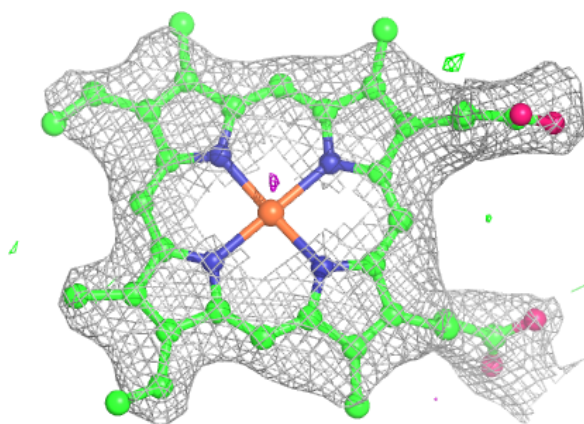
**Electron density around HEM F 101:**

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



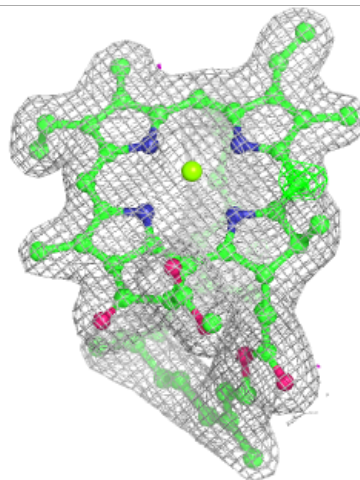
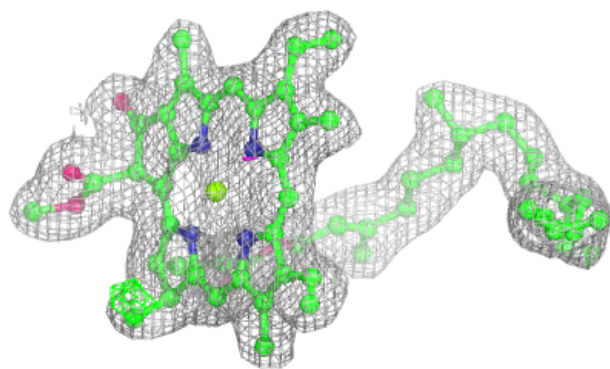
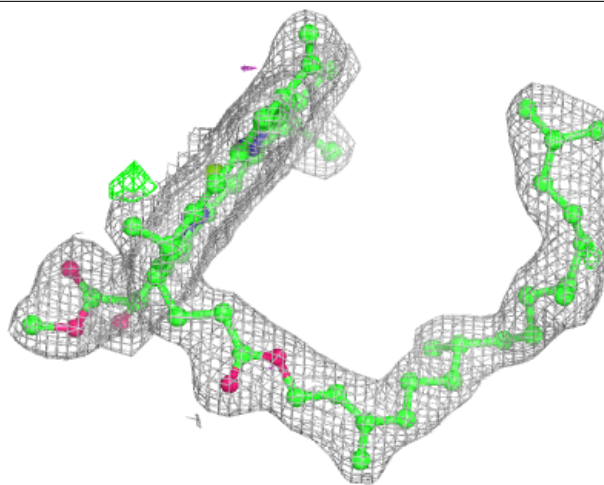
**Electron density around HEM f 101:**

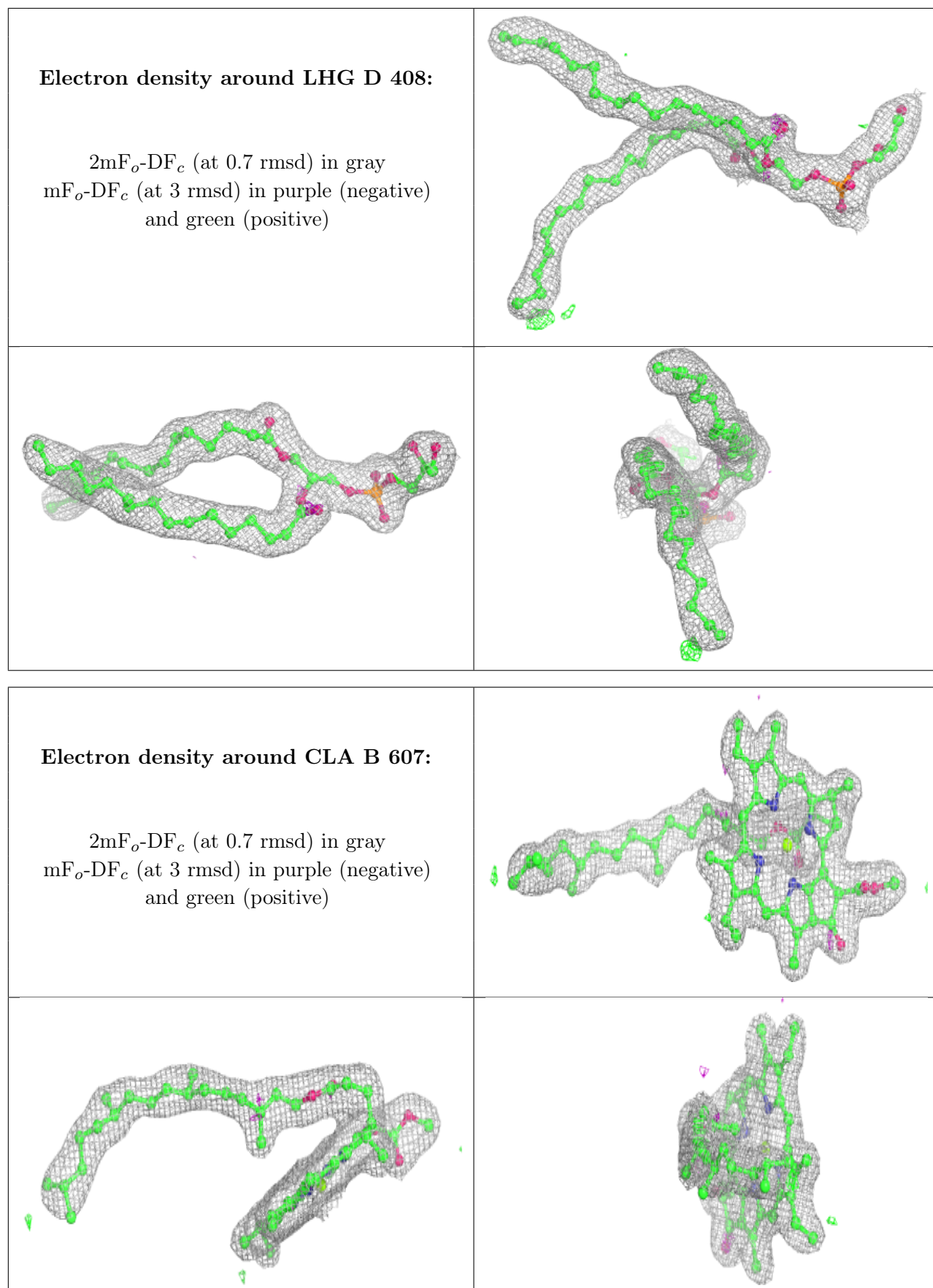
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



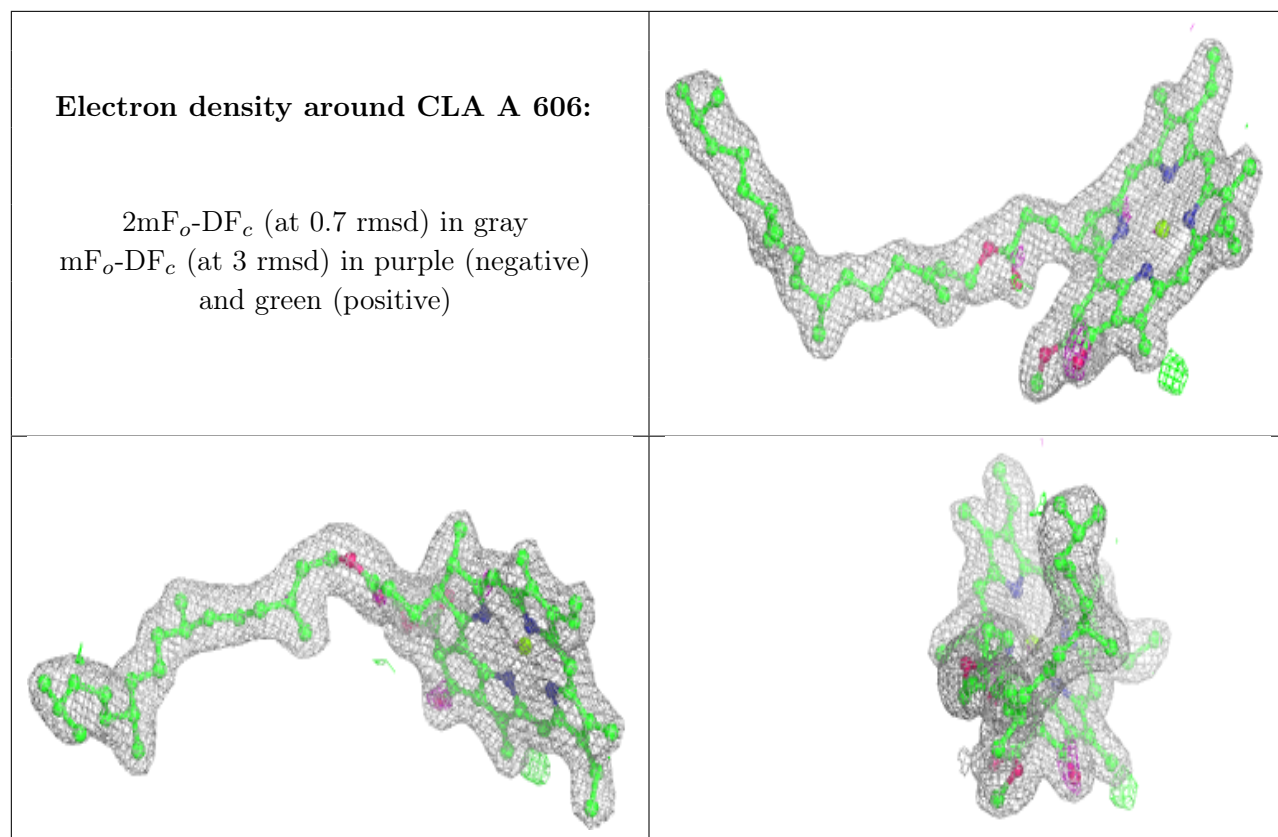
**Electron density around CLA b 610:**

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



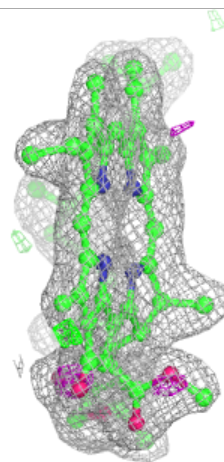
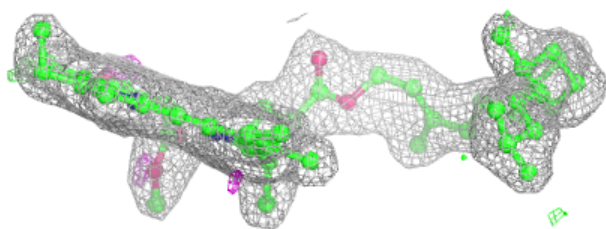
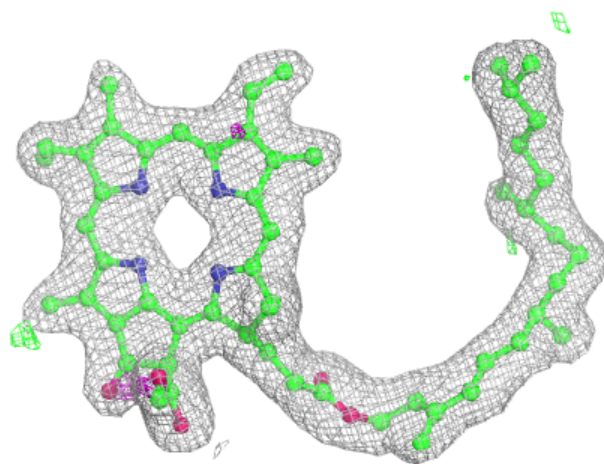






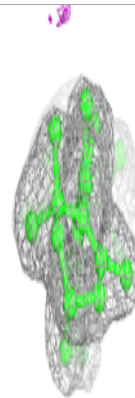
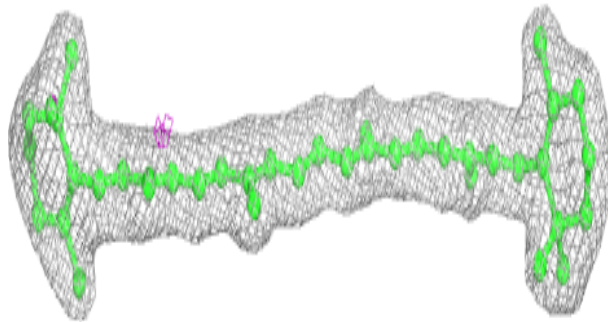
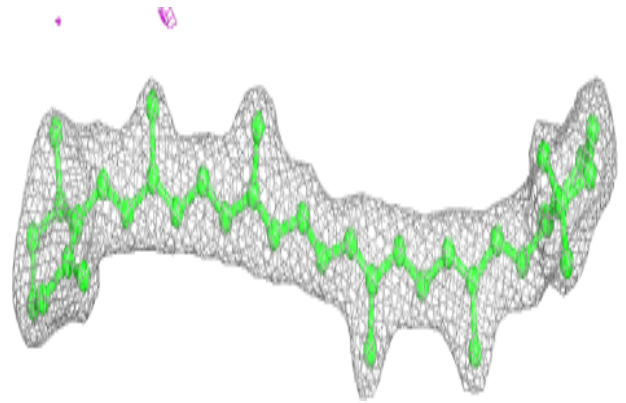
**Electron density around PHO a 608:**

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



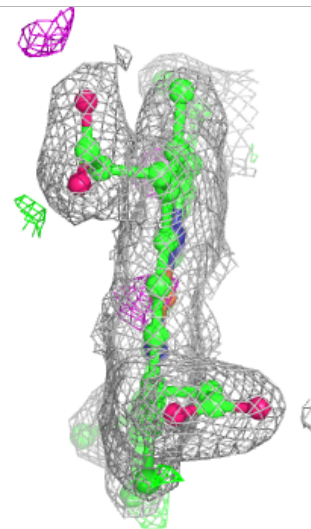
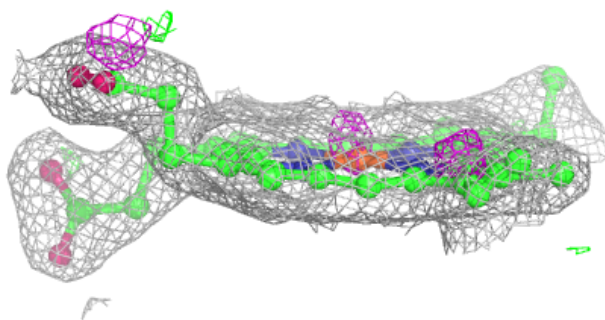
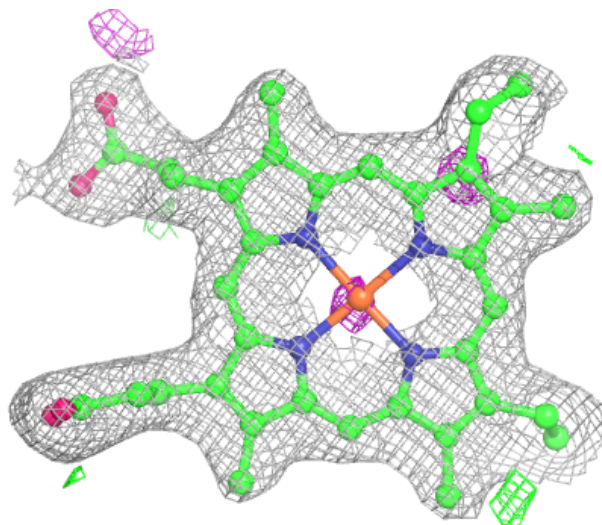
**Electron density around BCR a 610:**

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



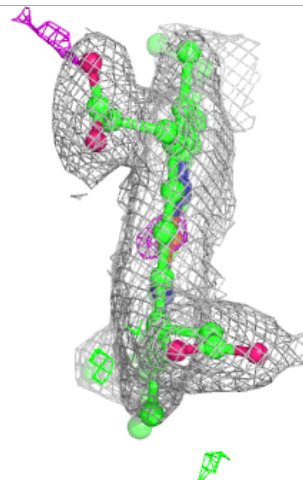
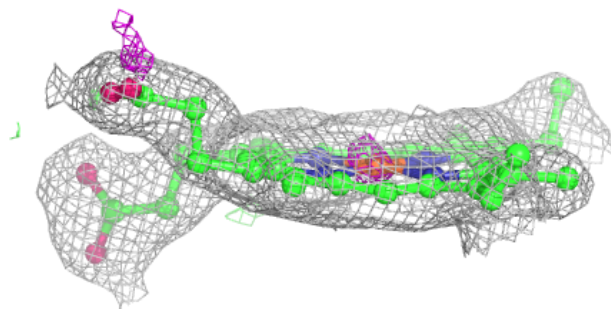
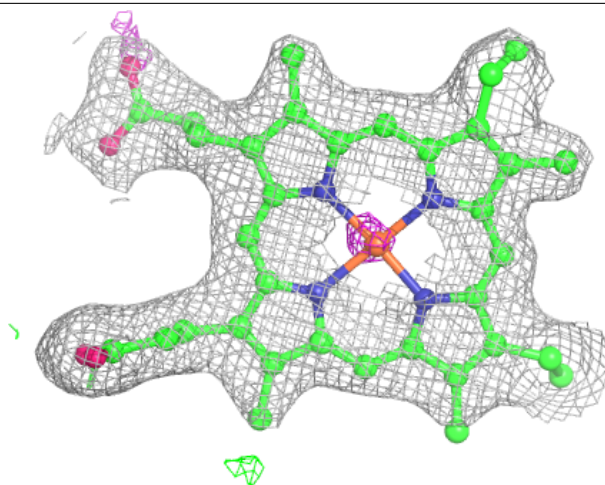
**Electron density around HEC V 201:**

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



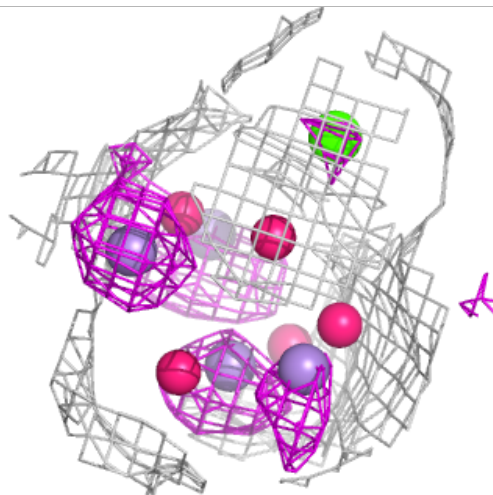
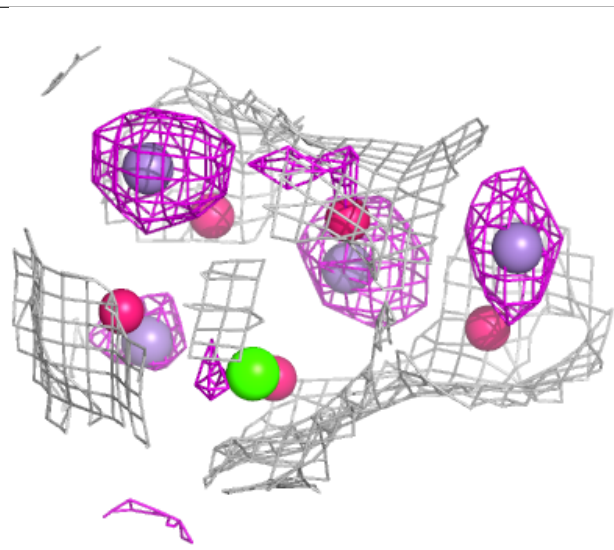
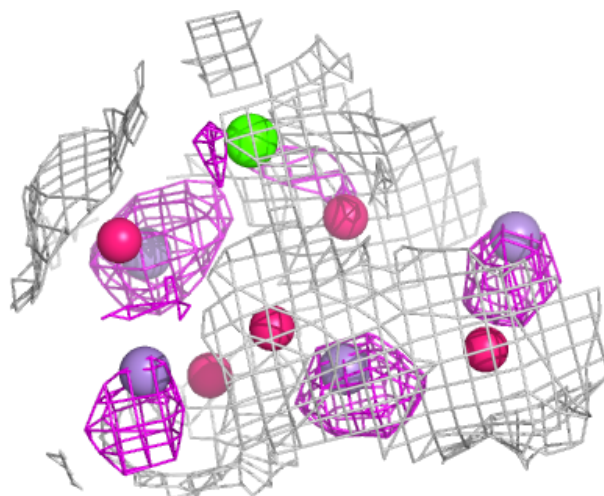
**Electron density around HEC v 201:**

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



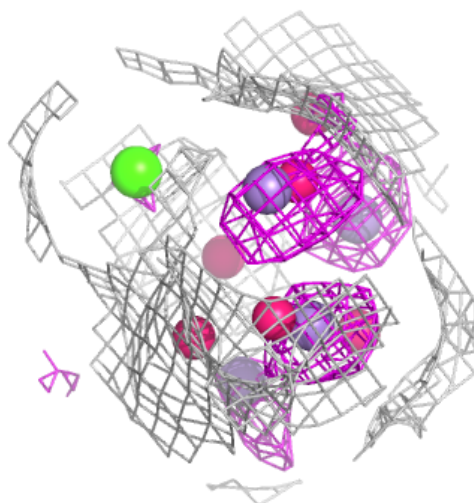
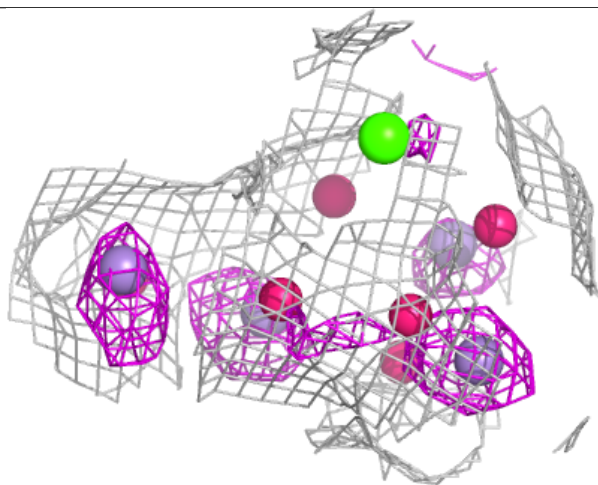
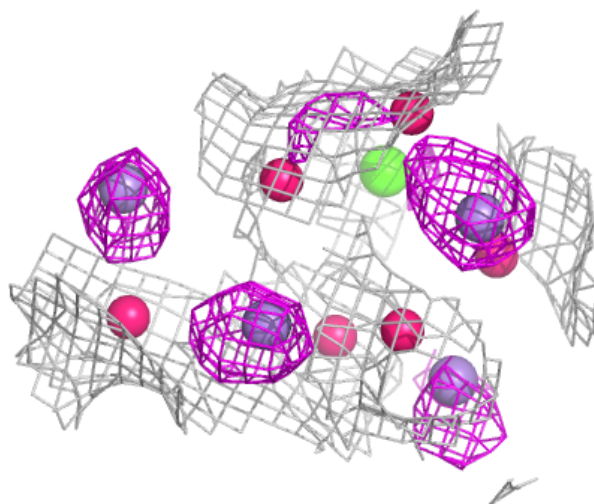
**Electron density around OEX a 602 (B):**

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



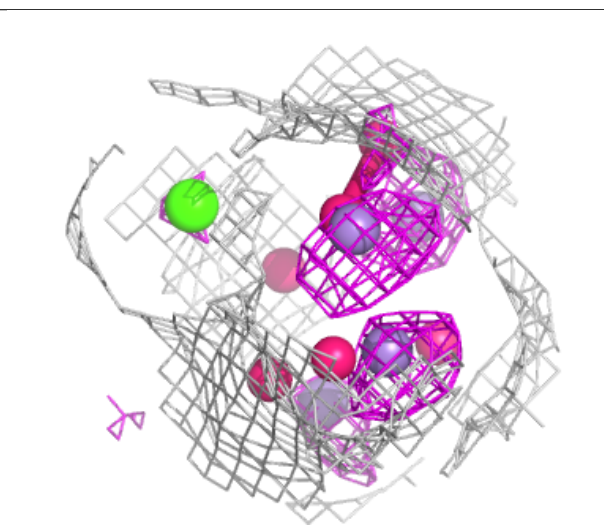
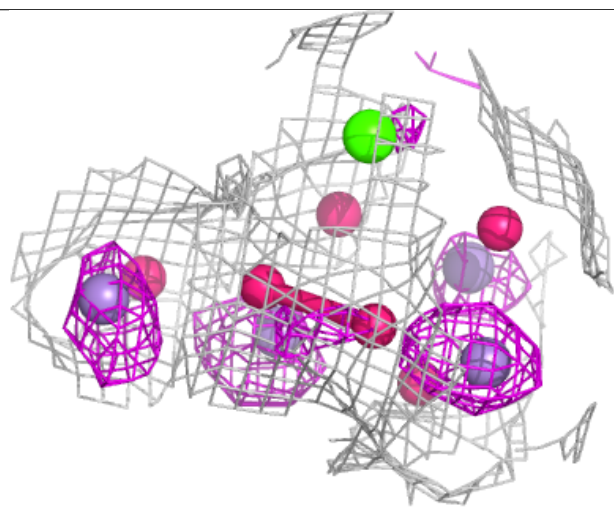
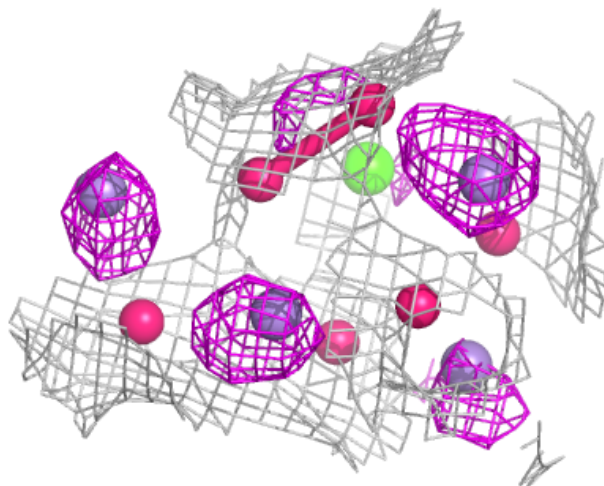
**Electron density around OEY a 601 (A):**

$2mF_o-DF_c$  (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 (C):**

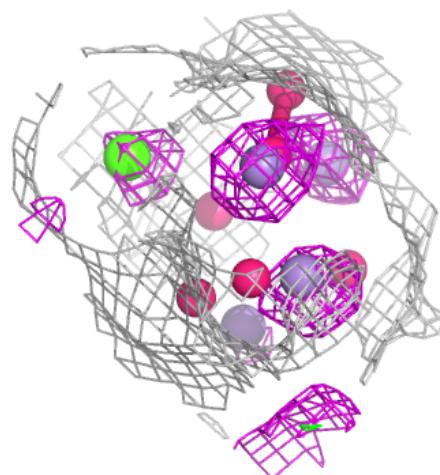
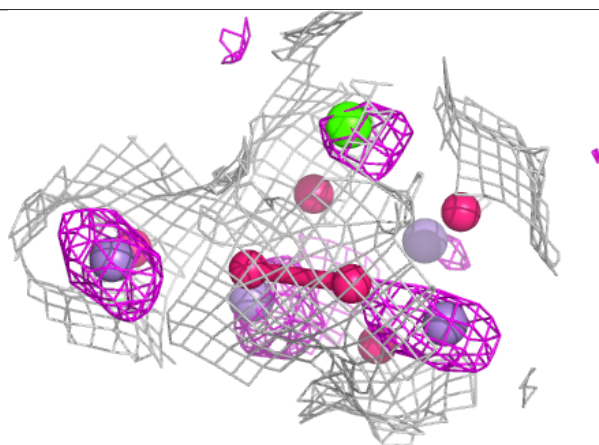
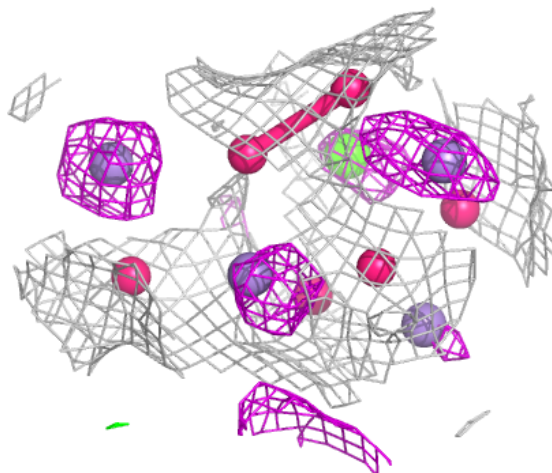
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





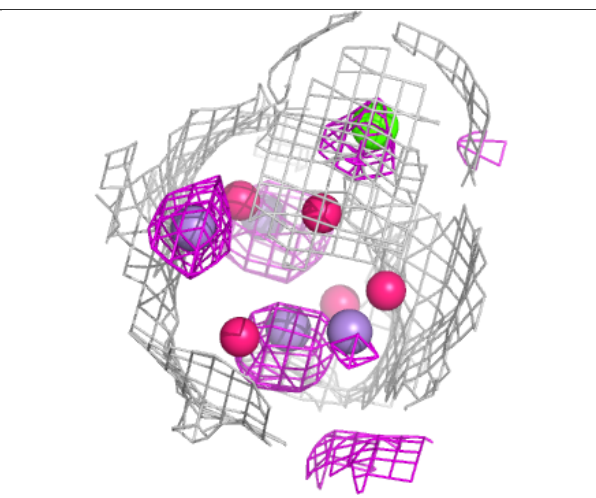
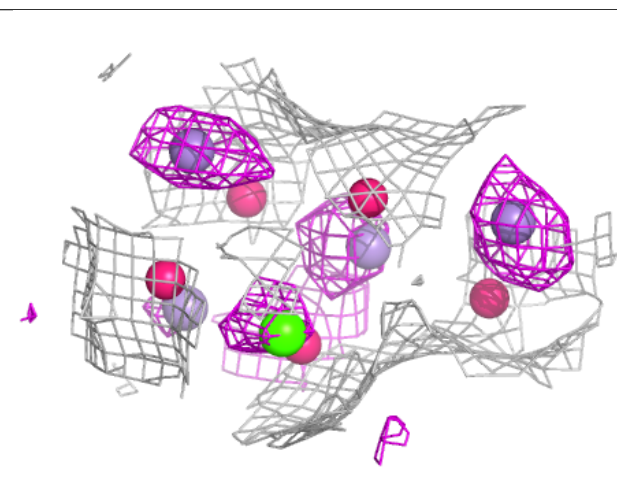
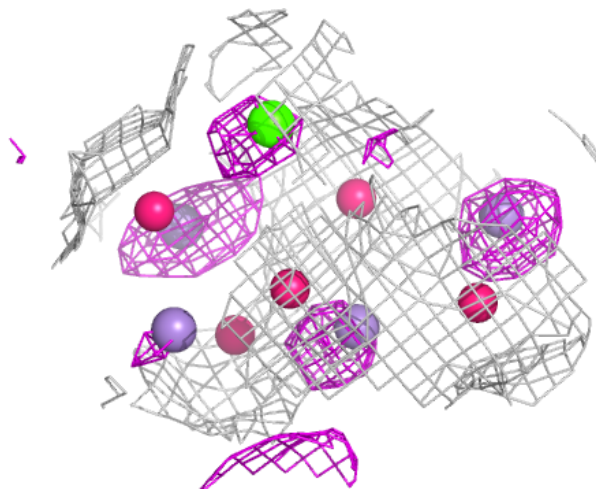
**Electron density around OEY A 601 (C):**

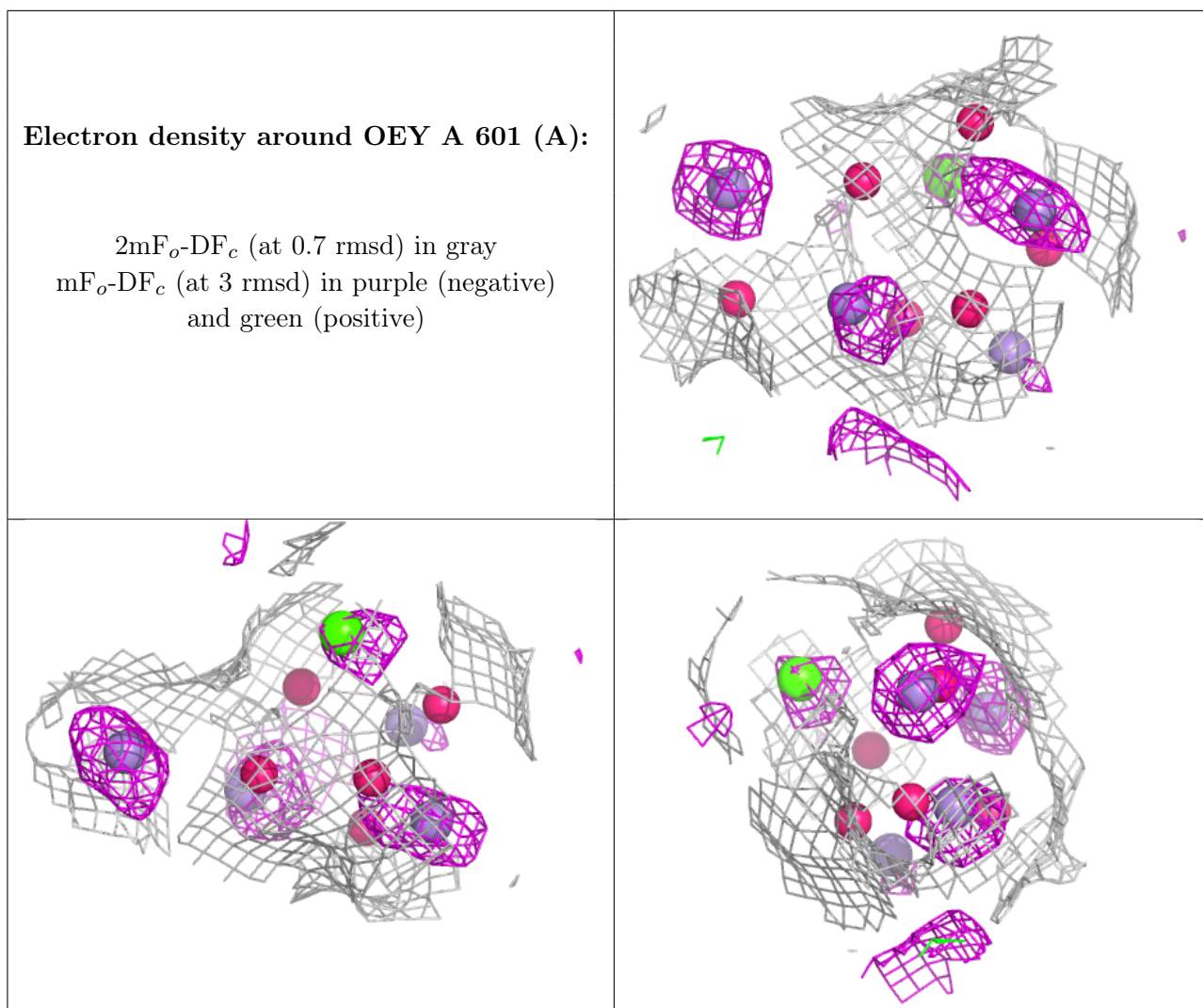
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around OEX A 602 (B):**

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





## 6.5 Other polymers [i](#)

There are no such residues in this entry.