



Full wwPDB EM Validation Report ⓘ

Sep 14, 2026 – 11:03 AM JST

PDB ID : 9W5B / pdb_00009w5b
EMDB ID : EMD-65652
Title : cryo-EM structure of PSII D1-S264V from *Thermosynechococcus vestitus* BP-1
Authors : Fan, S.B.; Jiang, H.W.; Kato, K.; Tsai, P.-C.; Jia, A.Q.; Nakajima, Y.; Sug-iura, M.; Shen, J.-R.
Deposited on : 2025-08-01
Resolution : 1.96 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

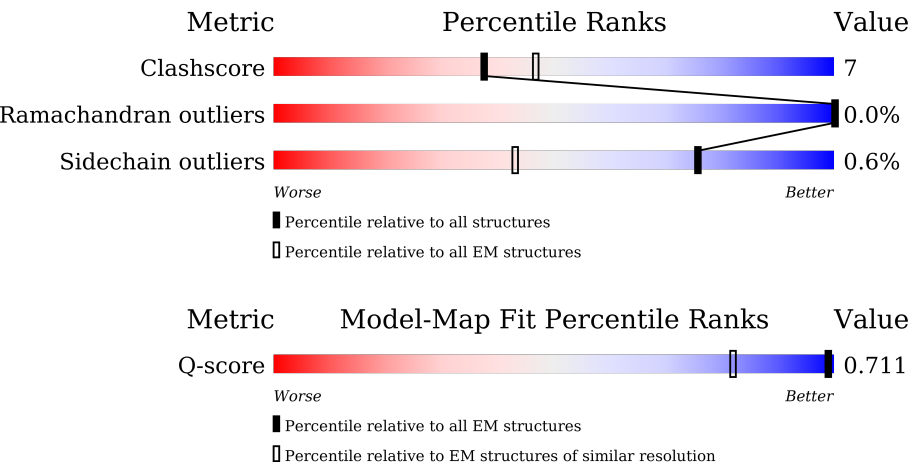
EMDB validation analysis : 0.0.1.dev133
Mogul : 1.8.5 (274361), CSD as541be (2020)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.50

1 Overall quality at a glance i

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

The reported resolution of this entry is 1.96 Å.

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



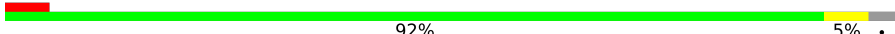
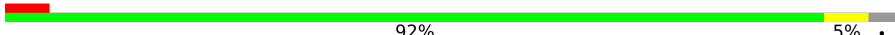
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	1340 (1.46 - 2.46)

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

Mol	Chain	Length	Quality of chain
1	A	360	
1	a	360	
2	B	510	
2	b	510	

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Mol	Chain	Length	Quality of chain
3	C	461	
3	c	461	
4	D	352	
4	d	352	
5	E	84	
5	e	84	
6	F	45	
6	f	45	
7	H	66	
7	h	66	
8	I	38	
8	i	38	
9	J	40	
9	j	40	
10	K	46	
10	k	46	
11	L	37	
11	l	37	
12	M	36	
12	m	36	
13	O	272	
13	o	272	
14	T	32	
14	t	32	
15	U	134	

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Mol	Chain	Length	Quality of chain
15	u	134	
16	V	163	
16	v	163	
17	X	41	
17	x	41	
18	Y	46	
18	y	46	
19	Z	62	
19	z	62	

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
20	OEX	A	401	-	-	X	-
20	OEX	a	401	-	-	X	-
36	HEC	V	201	X	-	-	-
36	HEC	v	201	X	-	-	-

2 Entry composition [i](#)

There are 38 unique types of molecules in this entry. The entry contains 47744 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Photosystem II protein D1 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	334	Total	C	N	O	S	0	1
			2575	1694	426	441	14		
1	a	334	Total	C	N	O	S	0	1
			2575	1694	426	441	14		

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	264	VAL	SER	variant	UNP Q8DIV4
a	264	VAL	SER	variant	UNP Q8DIV4

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

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	504	Total	C	N	O	S	1	0
			3838	2537	645	643	13		
2	b	504	Total	C	N	O	S	1	0
			3838	2537	645	643	13		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	450	Total	C	N	O	S	0	0
			3415	2244	577	581	13		
3	c	450	Total	C	N	O	S	0	0
			3415	2244	577	581	13		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
4	D	341	Total	C	N	O	S	0	0
			2686	1786	442	446	12		

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Mol	Chain	Residues	Atoms					AltConf	Trace
4	d	341	Total	C	N	O	S	0	0
			2686	1786	442	446	12		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
5	E	80	Total	C	N	O		0	0
			609	405	99	105			
5	e	80	Total	C	N	O		0	0
			609	405	99	105			

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

Mol	Chain	Residues	Atoms					AltConf	Trace
6	F	33	Total	C	N	O	S	0	0
			263	182	43	37	1		
6	f	33	Total	C	N	O	S	0	0
			263	182	43	37	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
7	H	61	Total	C	N	O	S	1	0
			495	330	81	82	2		
7	h	61	Total	C	N	O	S	1	0
			495	330	81	82	2		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
8	I	36	Total	C	N	O	S	0	0
			275	188	41	45	1		
8	i	36	Total	C	N	O	S	0	0
			275	188	41	45	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
9	J	34	Total	C	N	O	S	0	0
			241	166	35	39	1		
9	j	34	Total	C	N	O	S	0	0
			241	166	35	39	1		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
10	K	37	Total	C	N	O	0	0
			275	193	42	40		
10	k	37	Total	C	N	O	0	0
			275	193	42	40		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
11	L	36	Total	C	N	O	1	0
			284	194	44	46		
11	l	36	Total	C	N	O	1	0
			284	194	44	46		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
12	M	34	Total	C	N	O	S	0	0
			252	170	37	44	1		
12	m	34	Total	C	N	O	S	0	0
			252	170	37	44	1		

- Molecule 13 is a protein called Photosystem II extrinsic protein O.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	O	243	Total	C	N	O	S	1	1
			1677	1069	289	314	5		
13	o	243	Total	C	N	O	S	1	1
			1677	1069	289	314	5		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
14	T	29	Total	C	N	O	S	0	0
			236	168	32	34	2		
14	t	29	Total	C	N	O	S	0	0
			236	168	32	34	2		

- Molecule 15 is a protein called Photosystem II extrinsic protein U.

Mol	Chain	Residues	Atoms				AltConf	Trace
15	U	97	Total	C	N	O	0	0
			702	456	123	123		
15	u	97	Total	C	N	O	0	0
			702	456	123	123		

- Molecule 16 is a protein called Photosystem II extrinsic protein V.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	V	137	Total	C	N	O	S	0	0
			975	632	168	171	4		
16	v	137	Total	C	N	O	S	0	0
			975	632	168	171	4		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
17	X	37	Total	C	N	O	0	0
			248	168	38	42		
17	x	37	Total	C	N	O	0	0
			248	168	38	42		

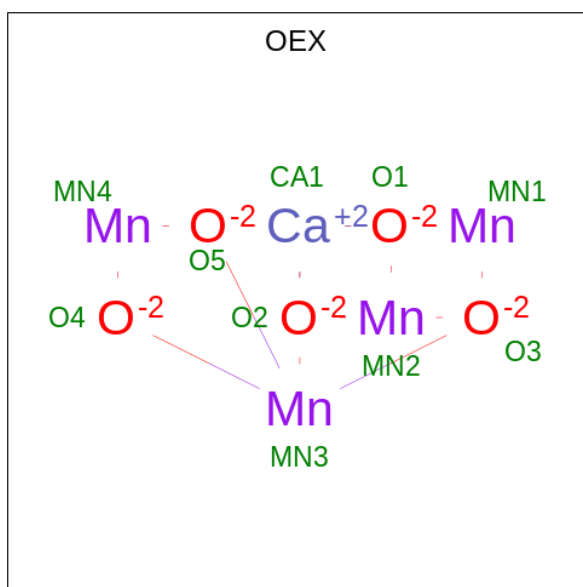
- Molecule 18 is a protein called Photosystem II reaction center protein Psb30.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	Y	29	Total	C	N	O	S	0	0
			177	118	30	28	1		
18	y	29	Total	C	N	O	S	0	0
			177	118	30	28	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
19	Z	61	Total	C	N	O	S	0	0
			387	258	63	65	1		
19	z	61	Total	C	N	O	S	0	0
			387	258	63	65	1		

- Molecule 20 is CA-MN4-O5 CLUSTER (CCD ID: OEX) (formula: CaMn_4O_5).



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

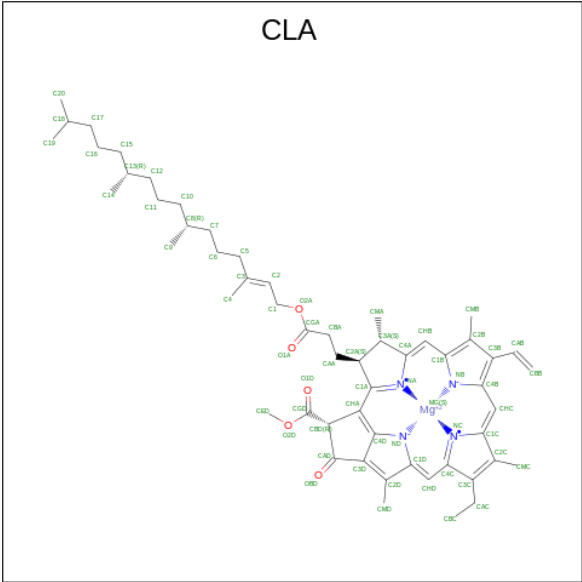
- Molecule 21 is FE (II) ION (CCD ID: FE2) (formula: Fe).

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

- Molecule 22 is CHLORIDE ION (CCD ID: CL) (formula: Cl).

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

- Molecule 23 is CHLOROPHYLL A (CCD ID: CLA) (formula: C₅₅H₇₂MgN₄O₅).



Mol	Chain	Residues	Atoms					AltConf
23	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	A	1	Total	C	Mg	N	O	0
			56	46	1	4	5	
23	A	1	Total	C	Mg	N	O	0
			51	41	1	4	5	
23	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	B	1	Total	C	Mg	N	O	0
			42	34	1	4	3	
23	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
23	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	B	1	Total	C	Mg	N	O	0
			54	44	1	4	5	
23	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	B	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
23	B	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	C	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	C	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	C	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	C	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
23	C	1	Total	C	Mg	N	O	0
			46	36	1	4	5	
23	C	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	C	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
23	C	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	C	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	C	1	Total	C	Mg	N	O	0
			52	42	1	4	5	
23	C	1	Total	C	Mg	N	O	0
			42	34	1	4	3	
23	C	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	D	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	D	1	Total	C	Mg	N	O	0
			45	35	1	4	5	

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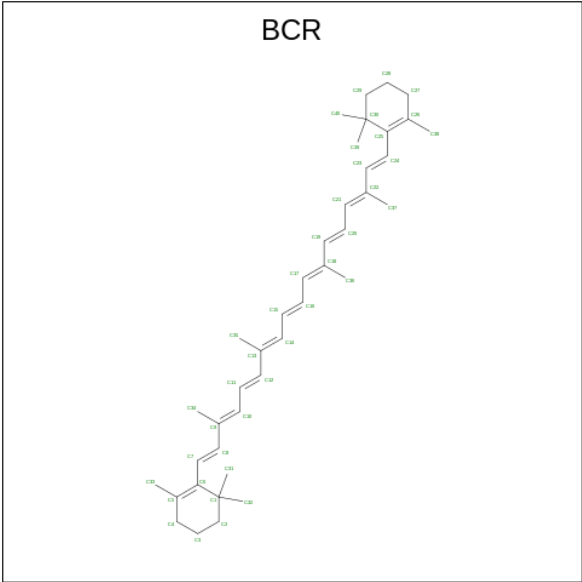
Mol	Chain	Residues	Atoms					AltConf
23	a	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	a	1	Total 56	C 46	Mg 1	N 4	O 5	0
23	a	1	Total 51	C 41	Mg 1	N 4	O 5	0
23	a	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	b	1	Total 42	C 34	Mg 1	N 4	O 3	0
23	b	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	b	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	b	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	b	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	b	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	b	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	b	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	b	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	b	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	b	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	b	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	b	1	Total 54	C 44	Mg 1	N 4	O 5	0
23	b	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	b	1	Total 45	C 35	Mg 1	N 4	O 5	0
23	b	1	Total 65	C 55	Mg 1	N 4	O 5	0
23	c	1	Total 65	C 55	Mg 1	N 4	O 5	0

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Mol	Chain	Residues	Atoms					AltConf
23	c	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	c	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	c	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
23	c	1	Total	C	Mg	N	O	0
			46	36	1	4	5	
23	c	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	c	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
23	c	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	c	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	c	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	c	1	Total	C	Mg	N	O	0
			52	42	1	4	5	
23	c	1	Total	C	Mg	N	O	0
			42	34	1	4	3	
23	c	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	d	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
23	d	1	Total	C	Mg	N	O	0
			45	35	1	4	5	

- Molecule 24 is BETA-CAROTENE (CCD ID: BCR) (formula: C₄₀H₅₆).



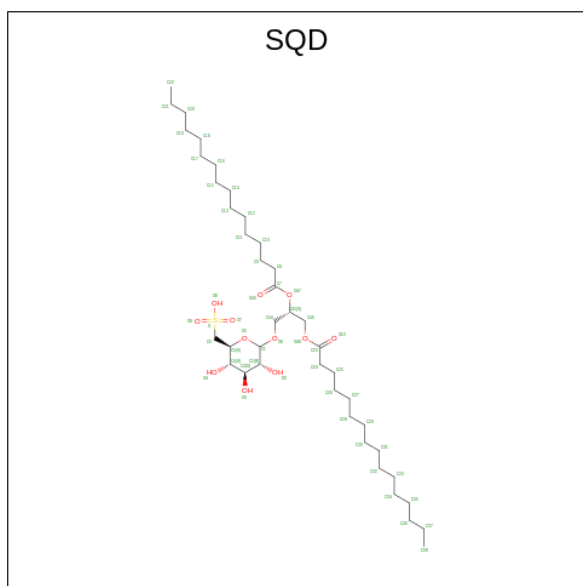
Mol	Chain	Residues	Atoms		AltConf
24	A	1	Total	C	0
			40	40	
24	B	1	Total	C	0
			40	40	
24	B	1	Total	C	0
			40	40	
24	B	1	Total	C	0
			40	40	
24	C	1	Total	C	0
			40	40	
24	C	1	Total	C	0
			40	40	
24	D	1	Total	C	0
			40	40	
24	K	1	Total	C	0
			40	40	
24	K	1	Total	C	0
			40	40	
24	T	1	Total	C	0
			40	40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

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Mol	Chain	Residues	Atoms	AltConf
24	c	1	Total C 40 40	0
24	c	1	Total C 40 40	0
24	d	1	Total C 40 40	0
24	k	1	Total C 40 40	0
24	k	1	Total C 40 40	0
24	t	1	Total C 40 40	0

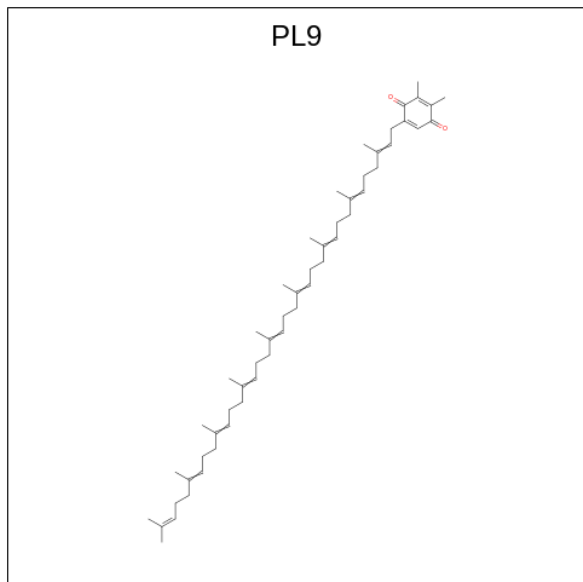
- Molecule 25 is 1,2-DI-O-ACYL-3-O-[6-DEOXY-6-SULFO-ALPHA-D-GLUCOPYRANOSYL]-SN-GLYCEROL (CCD ID: SQD) (formula: $C_{41}H_{78}O_{12}S$).



Mol	Chain	Residues	Atoms	AltConf
25	A	1	Total C O S 32 19 12 1	0
25	F	1	Total C O S 23 11 11 1	0
25	a	1	Total C O S 32 19 12 1	0
25	f	1	Total C O S 23 11 11 1	0

- Molecule 26 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 (CCD ID: PL9) (formula: $C_{53}H_{80}O_2$).



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

- Molecule 27 is UNKNOWN LIGAND (CCD ID: UNL) (formula:).

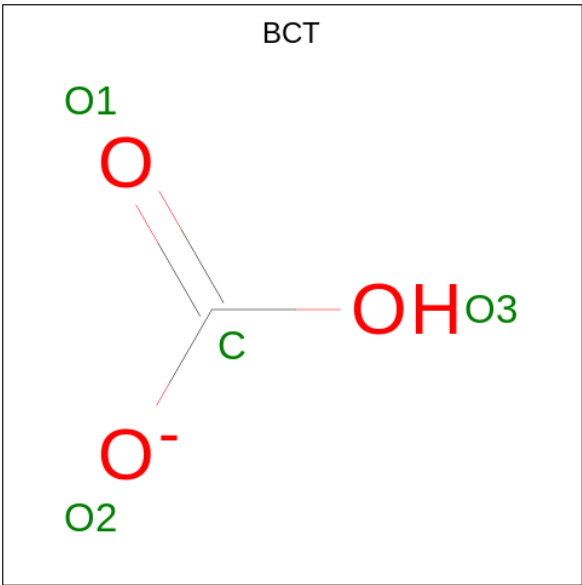
Mol	Chain	Residues	Atoms		AltConf
27	A	1	Total	C	0
			8	8	
27	B	2	Total	C	0
			21	21	
27	C	1	Total	C	0
			14	14	
27	D	2	Total	C	0
			19	19	
27	E	1	Total	C	0
			6	6	
27	H	1	Total	C	0
			6	6	

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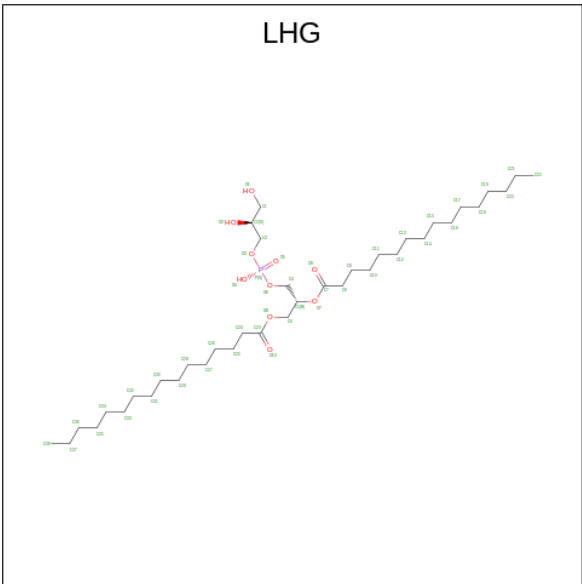
Mol	Chain	Residues	Atoms	AltConf
27	I	1	Total C 6 6	0
27	K	1	Total C 13 13	0
27	T	1	Total C 5 5	0
27	X	1	Total C 9 9	0
27	a	1	Total C 8 8	0
27	b	2	Total C 21 21	0
27	c	1	Total C 14 14	0
27	d	2	Total C 19 19	0
27	e	1	Total C 6 6	0
27	h	1	Total C 6 6	0
27	i	1	Total C 6 6	0
27	k	1	Total C 13 13	0
27	t	1	Total C 5 5	0
27	x	1	Total C 9 9	0

- Molecule 28 is BICARBONATE ION (CCD ID: BCT) (formula: CHO_3).



Mol	Chain	Residues	Atoms			AltConf
28	A	1	Total	C	O	1
			4	1	3	
28	a	1	Total	C	O	1
			4	1	3	

- Molecule 29 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (CCD ID: LHG) (formula: C₃₈H₇₅O₁₀P).



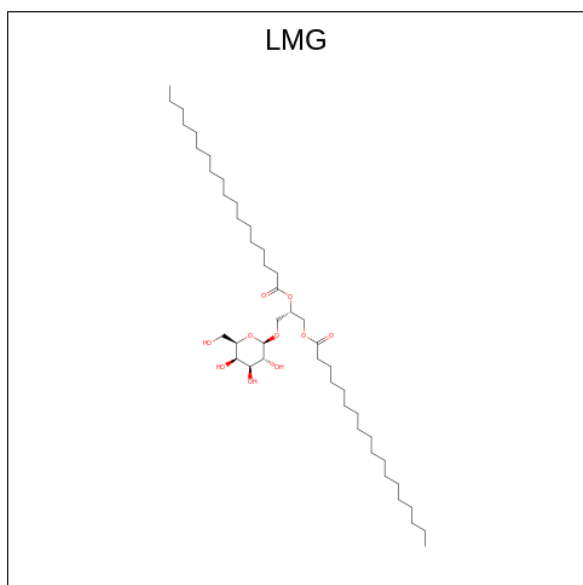
Mol	Chain	Residues	Atoms				AltConf
29	A	1	Total	C	O	P	0
			39	28	10	1	

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Mol	Chain	Residues	Atoms				AltConf
29	A	1	Total	C	O	P	0
			31	22	8	1	
29	B	1	Total	C	O	P	0
			49	38	10	1	
29	D	1	Total	C	O	P	0
			49	38	10	1	
29	L	1	Total	C	O	P	0
			49	38	10	1	
29	a	1	Total	C	O	P	0
			39	28	10	1	
29	a	1	Total	C	O	P	0
			31	22	8	1	
29	b	1	Total	C	O	P	0
			49	38	10	1	
29	d	1	Total	C	O	P	0
			49	38	10	1	
29	l	1	Total	C	O	P	0
			49	38	10	1	

- Molecule 30 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (CCD ID: LMG) (formula: $C_{45}H_{86}O_{10}$).



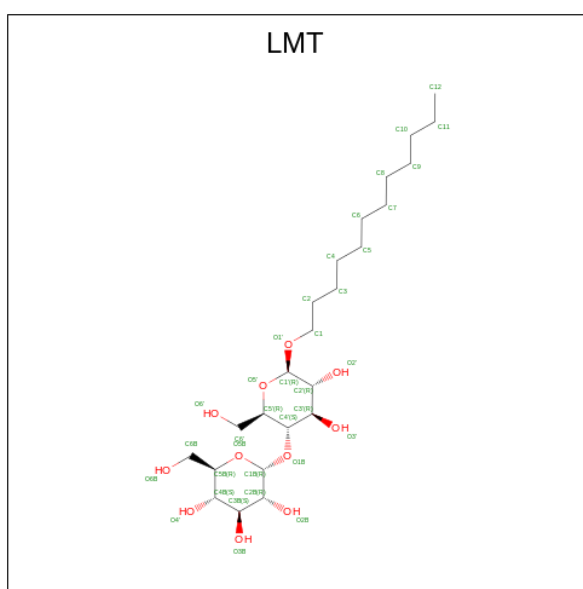
Mol	Chain	Residues	Atoms			AltConf
30	B	1	Total	C	O	0
			45	35	10	
30	C	1	Total	C	O	0
			47	37	10	

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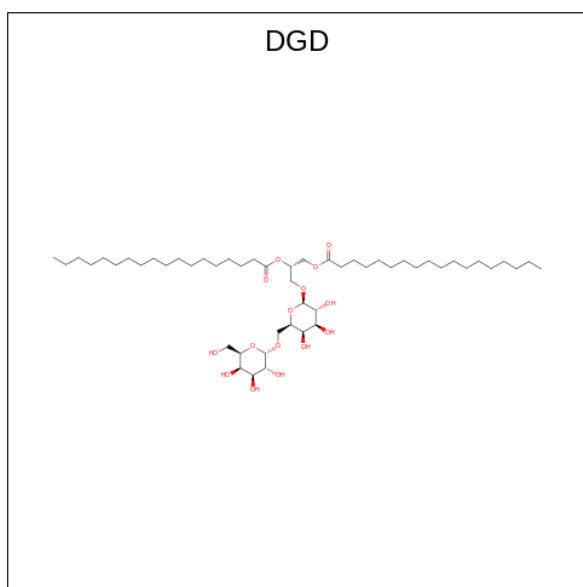
Mol	Chain	Residues	Atoms			AltConf
30	J	1	Total	C	O	0
			38	28	10	
30	b	1	Total	C	O	0
			45	35	10	
30	c	1	Total	C	O	0
			47	37	10	
30	j	1	Total	C	O	0
			38	28	10	

- Molecule 31 is DODECYL-BETA-D-MALTOSE (CCD ID: LMT) (formula: $C_{24}H_{46}O_{11}$).



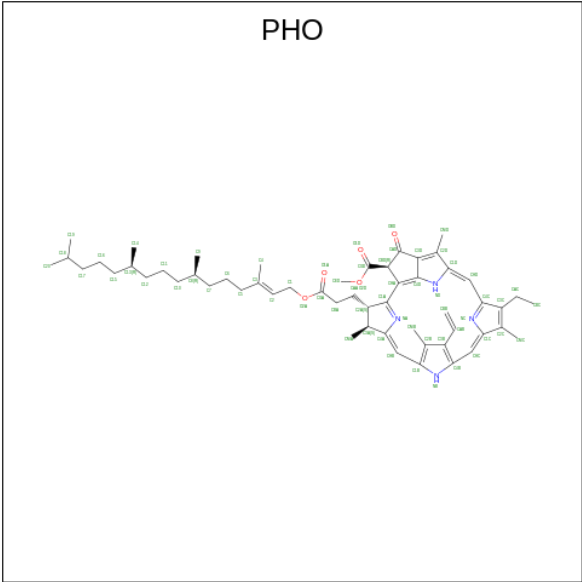
Mol	Chain	Residues	Atoms			AltConf
31	B	1	Total	C	O	0
			35	24	11	
31	J	1	Total	C	O	0
			24	18	6	
31	M	1	Total	C	O	0
			35	24	11	
31	M	1	Total	C	O	0
			35	24	11	
31	j	1	Total	C	O	0
			24	18	6	
31	m	1	Total	C	O	0
			35	24	11	

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



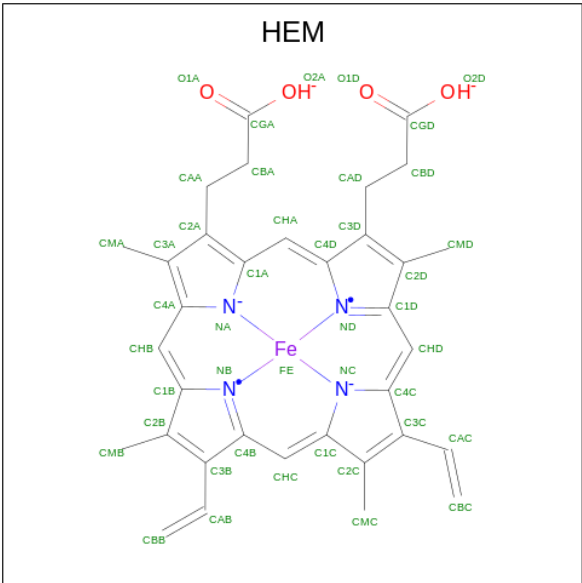
Mol	Chain	Residues	Atoms			AltConf
32	C	1	Total	C	O	0
			52	37	15	
32	C	1	Total	C	O	0
			50	35	15	
32	C	1	Total	C	O	0
			53	38	15	
32	H	1	Total	C	O	0
			62	47	15	
32	c	1	Total	C	O	0
			52	37	15	
32	c	1	Total	C	O	0
			50	35	15	
32	c	1	Total	C	O	0
			53	38	15	
32	h	1	Total	C	O	0
			62	47	15	

- Molecule 33 is PHEOPHYTIN A (CCD ID: PHO) (formula: $C_{55}H_{74}N_4O_5$).



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

- Molecule 34 is PROTOPORPHYRIN IX CONTAINING FE (CCD ID: HEM) (formula: $C_{34}H_{32}FeN_4O_4$).

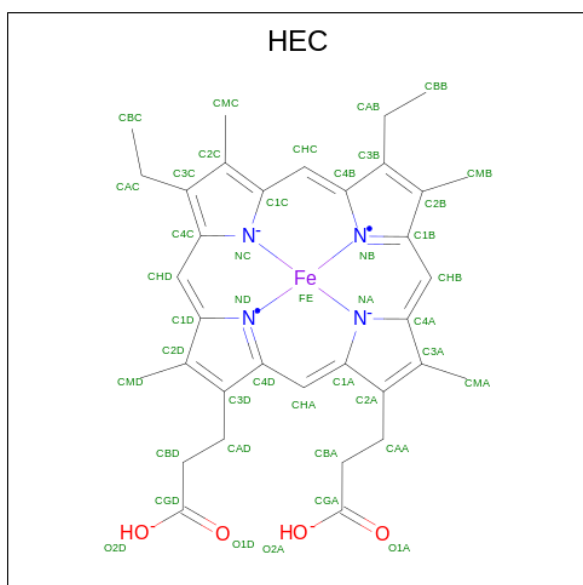


Mol	Chain	Residues	Atoms					AltConf
34	F	1	Total 43	C 34	Fe 1	N 4	O 4	0
34	f	1	Total 43	C 34	Fe 1	N 4	O 4	0

- Molecule 35 is CALCIUM ION (CCD ID: CA) (formula: Ca).

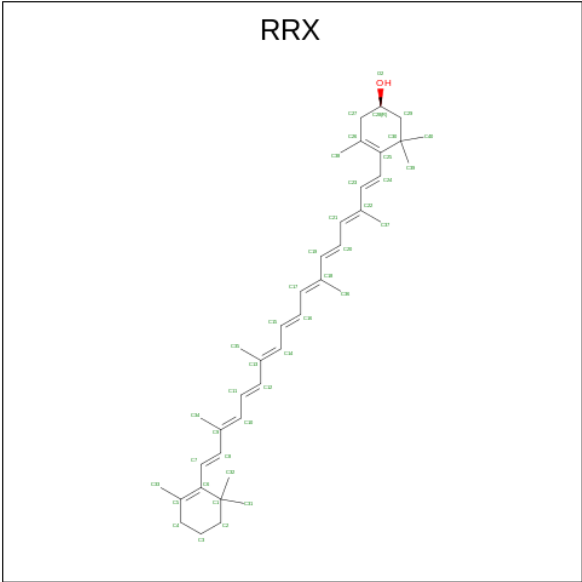
Mol	Chain	Residues	Atoms	AltConf
35	O	1	Total Ca 1 1	0
35	o	1	Total Ca 1 1	0

- Molecule 36 is HEME C (CCD ID: HEC) (formula: $\text{C}_{34}\text{H}_{36}\text{FeN}_4\text{O}_4$).



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

- Molecule 37 is (3R)-beta,beta-caroten-3-ol (CCD ID: RRX) (formula: C₄₀H₅₆O).



Mol	Chain	Residues	Atoms			AltConf
37	X	1	Total	C	O	0
			41	40	1	
37	x	1	Total	C	O	0
			41	40	1	

- Molecule 38 is water.

Mol	Chain	Residues	Atoms		AltConf
38	A	104	Total	O	2
			105	105	
38	B	152	Total	O	1
			153	153	
38	C	89	Total	O	2
			91	91	
38	D	91	Total	O	1
			92	92	
38	E	6	Total	O	0
			6	6	
38	H	16	Total	O	0
			16	16	
38	I	4	Total	O	0
			4	4	
38	J	3	Total	O	0
			3	3	
38	K	2	Total	O	0
			2	2	
38	L	8	Total	O	0
			8	8	

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Mol	Chain	Residues	Atoms	AltConf
38	M	6	Total O 6 6	0
38	O	38	Total O 38 38	1
38	T	4	Total O 4 4	0
38	U	7	Total O 7 7	0
38	V	13	Total O 13 13	0
38	X	4	Total O 4 4	0
38	a	105	Total O 106 106	2
38	b	151	Total O 152 152	1
38	c	89	Total O 91 91	2
38	d	91	Total O 92 92	1
38	e	6	Total O 6 6	0
38	h	16	Total O 16 16	0
38	i	4	Total O 4 4	0
38	j	3	Total O 3 3	0
38	k	2	Total O 2 2	0
38	l	8	Total O 8 8	0
38	m	5	Total O 5 5	0
38	o	38	Total O 38 38	1
38	t	4	Total O 4 4	0
38	u	7	Total O 7 7	0
38	v	12	Total O 12 12	0

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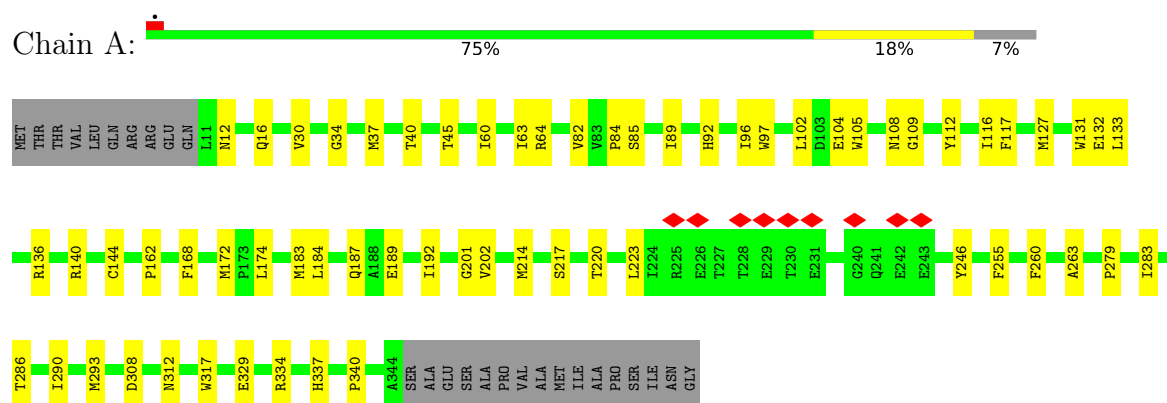
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Mol	Chain	Residues	Atoms		AltConf
38	x	4	Total	O	0
			4	4	

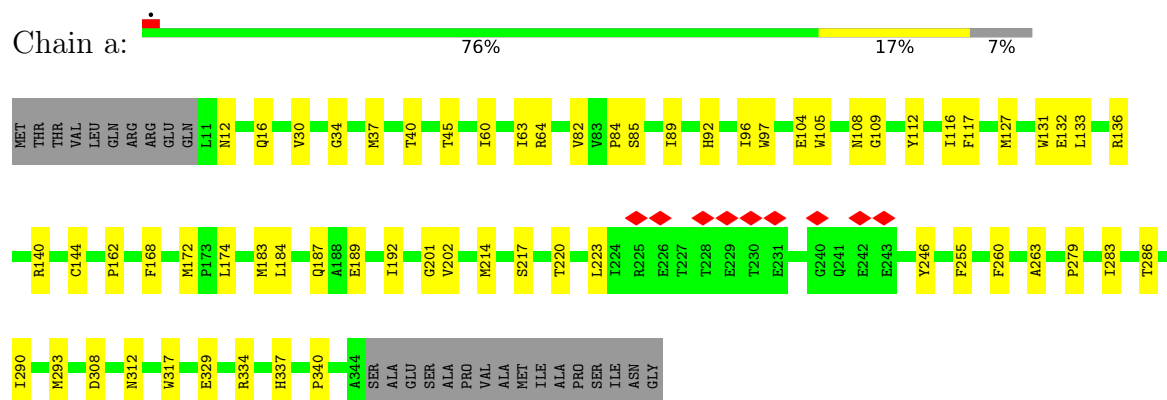
3 Residue-property plots [i](#)

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

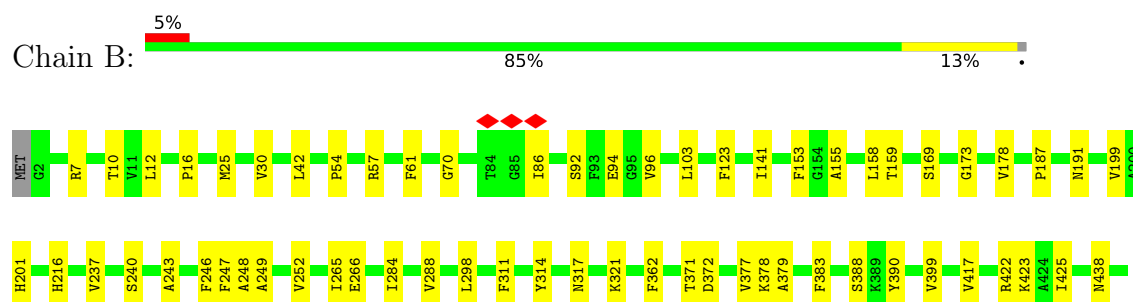
• Molecule 1: Photosystem II protein D1 3

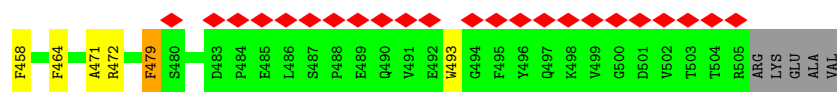


• Molecule 1: Photosystem II protein D1 3

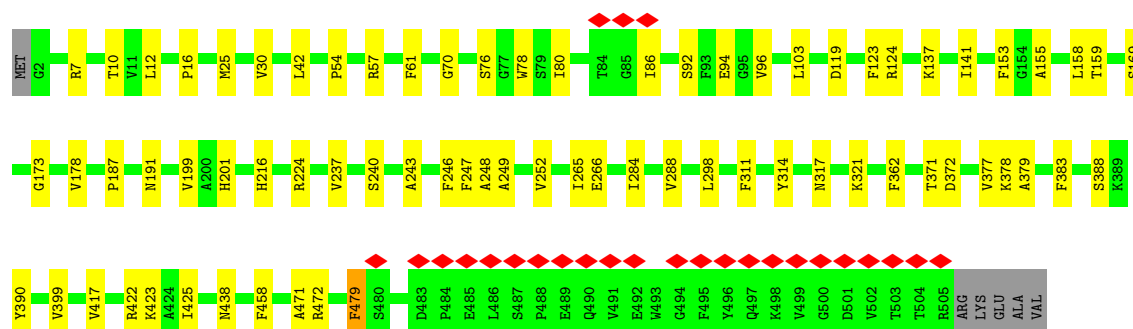
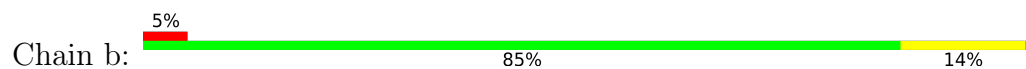


• Molecule 2: Photosystem II CP47 reaction center protein

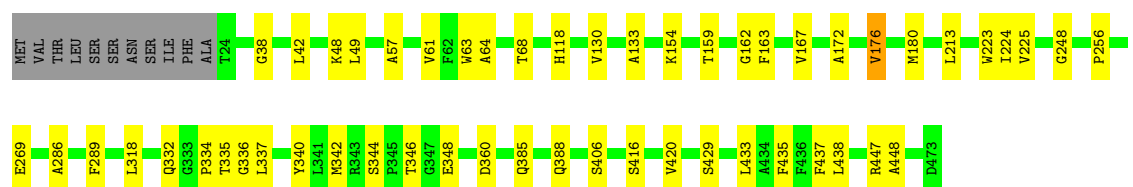
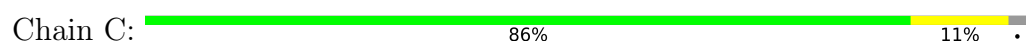




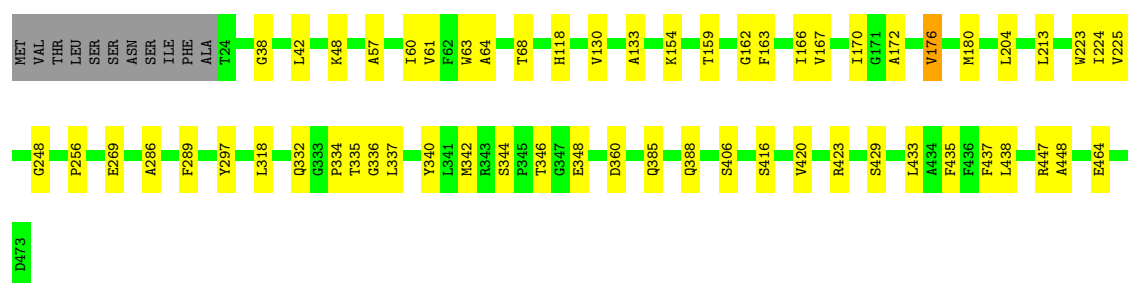
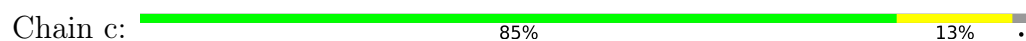
• Molecule 2: Photosystem II CP47 reaction center protein



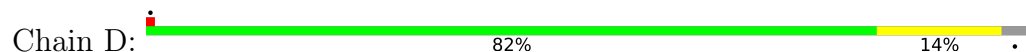
• Molecule 3: Photosystem II CP43 reaction center protein



• Molecule 3: Photosystem II CP43 reaction center protein

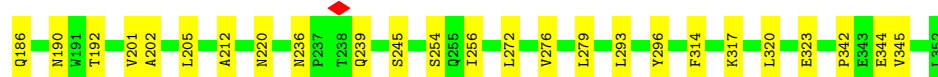
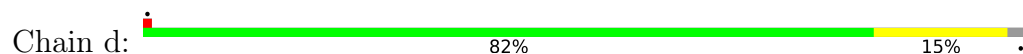


• Molecule 4: Photosystem II D2 protein

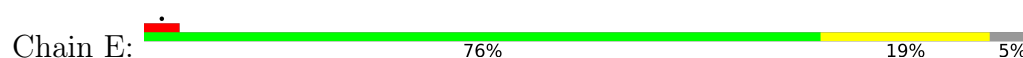




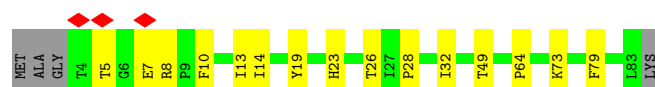
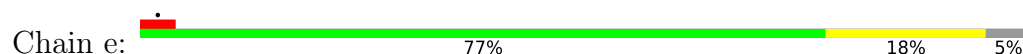
• Molecule 4: Photosystem II D2 protein



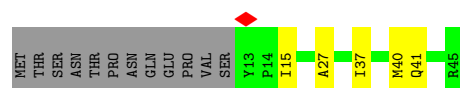
• Molecule 5: Cytochrome b559 subunit alpha



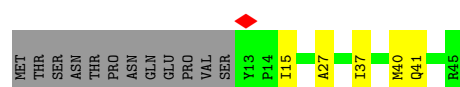
• Molecule 5: Cytochrome b559 subunit alpha



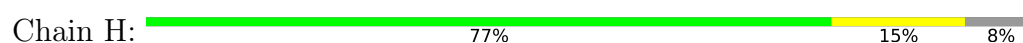
• Molecule 6: Cytochrome b559 subunit beta



• Molecule 6: Cytochrome b559 subunit beta

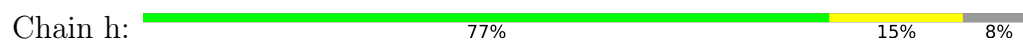


• Molecule 7: Photosystem II reaction center protein H

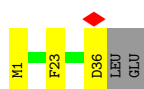
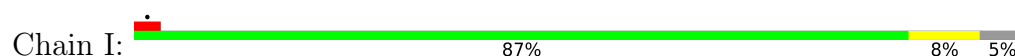




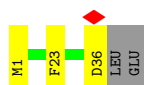
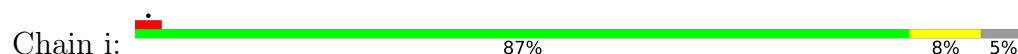
- Molecule 7: Photosystem II reaction center protein H



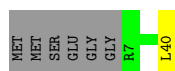
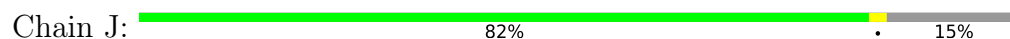
- Molecule 8: Photosystem II reaction center protein I



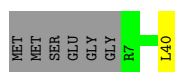
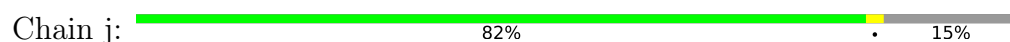
- Molecule 8: Photosystem II reaction center protein I



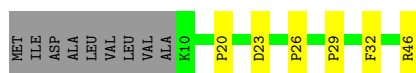
- Molecule 9: Photosystem II reaction center protein J



- Molecule 9: Photosystem II reaction center protein J

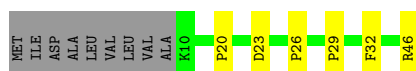


- Molecule 10: Photosystem II reaction center protein K

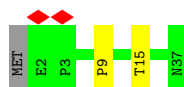
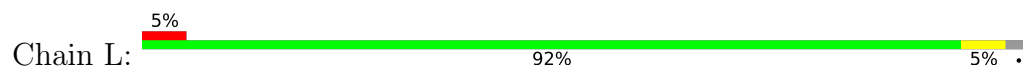


- Molecule 10: Photosystem II reaction center protein K

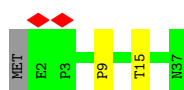
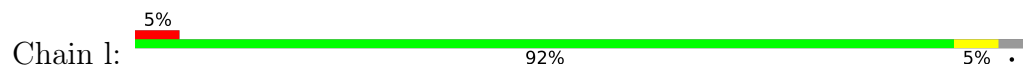




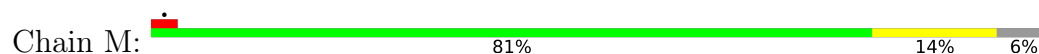
- Molecule 11: Photosystem II reaction center protein L



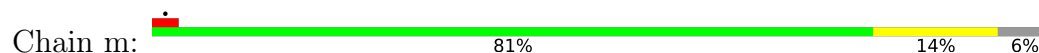
- Molecule 11: Photosystem II reaction center protein L



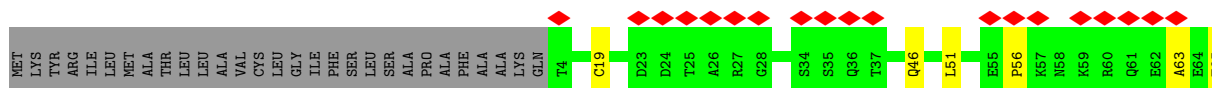
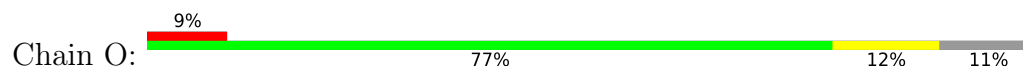
- Molecule 12: Photosystem II reaction center protein M



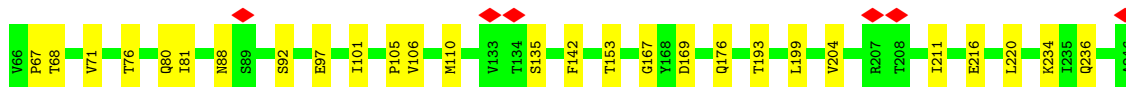
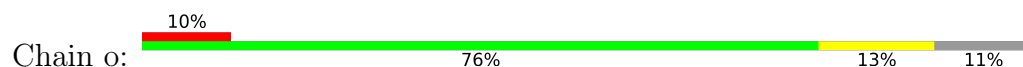
- Molecule 12: Photosystem II reaction center protein M

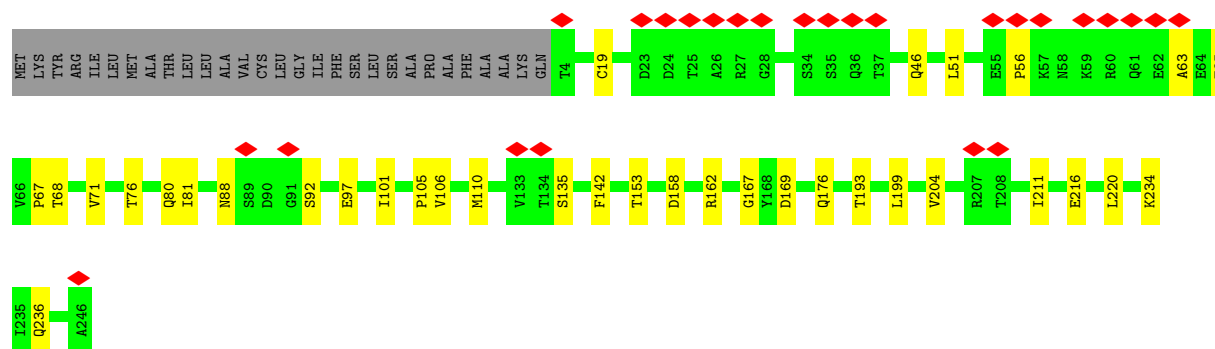


- Molecule 13: Photosystem II extrinsic protein O

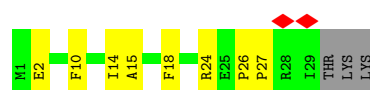


- Molecule 13: Photosystem II extrinsic protein O

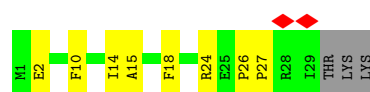




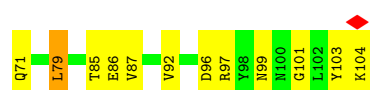
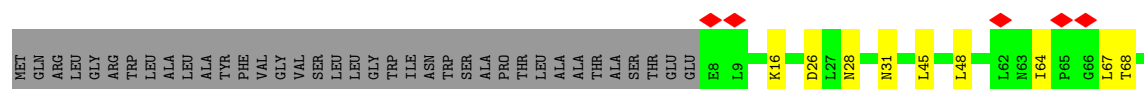
- Molecule 14: Photosystem II reaction center protein T



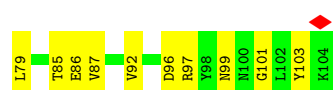
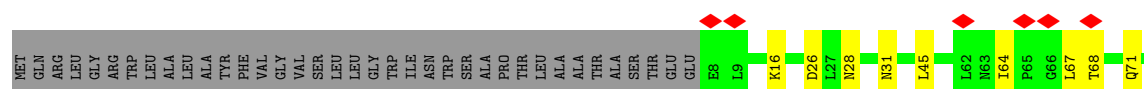
- Molecule 14: Photosystem II reaction center protein T



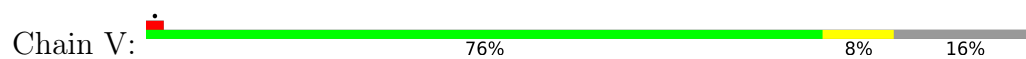
- Molecule 15: Photosystem II extrinsic protein U



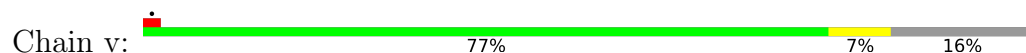
- Molecule 15: Photosystem II extrinsic protein U



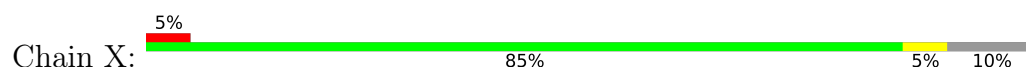
- Molecule 16: Photosystem II extrinsic protein V



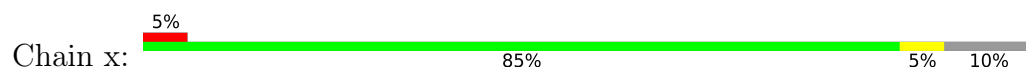
• Molecule 16: Photosystem II extrinsic protein V



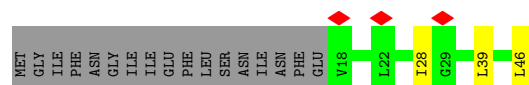
• Molecule 17: Photosystem II reaction center protein X



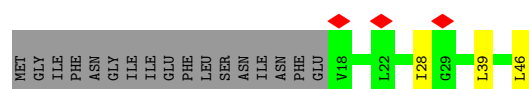
• Molecule 17: Photosystem II reaction center protein X



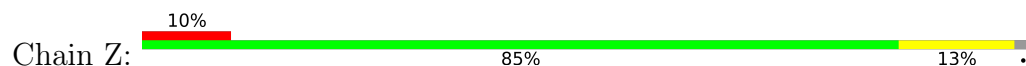
• Molecule 18: Photosystem II reaction center protein Psb30



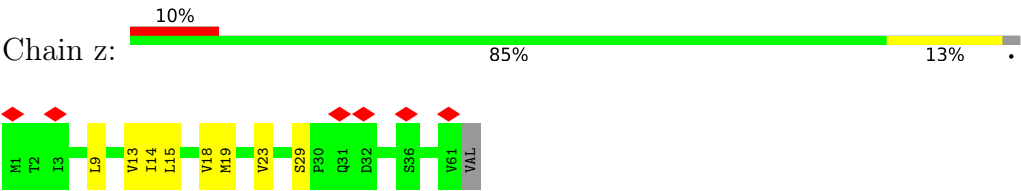
• Molecule 18: Photosystem II reaction center protein Psb30



• Molecule 19: Photosystem II reaction center protein Z



● Molecule 19: Photosystem II reaction center protein Z



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	93573	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	200	Depositor
Maximum defocus (nm)	1000	Depositor
Magnification	Not provided	
Image detector	FEI FALCON IV (4k x 4k)	Depositor
Maximum map value	0.018	Depositor
Minimum map value	-0.005	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.001	Depositor
Recommended contour level	0.003	Depositor
Map size (Å)	290.56, 290.56, 290.56	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.5675, 0.5675, 0.5675	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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	0.13	0/2660	0.29	0/3637
1	a	0.13	0/2660	0.29	0/3637
2	B	0.13	0/3981	0.28	0/5440
2	b	0.13	0/3981	0.28	0/5440
3	C	0.12	0/3528	0.28	0/4813
3	c	0.12	0/3528	0.28	0/4813
4	D	0.13	0/2781	0.30	0/3794
4	d	0.13	0/2781	0.30	0/3794
5	E	0.12	0/628	0.27	0/862
5	e	0.12	0/628	0.27	0/862
6	F	0.11	0/272	0.28	0/373
6	f	0.11	0/272	0.28	0/373
7	H	0.12	0/508	0.26	0/693
7	h	0.11	0/508	0.25	0/693
8	I	0.12	0/282	0.26	0/385
8	i	0.12	0/282	0.26	0/385
9	J	0.09	0/247	0.22	0/338
9	j	0.09	0/247	0.22	0/338
10	K	0.15	0/285	0.33	0/395
10	k	0.15	0/285	0.33	0/395
11	L	0.09	0/294	0.23	0/402
11	l	0.10	0/294	0.23	0/402
12	M	0.14	0/255	0.26	0/349
12	m	0.14	0/255	0.27	0/349
13	O	0.11	0/1711	0.30	0/2340
13	o	0.11	0/1711	0.30	0/2340
14	T	0.13	0/245	0.23	0/333
14	t	0.13	0/245	0.23	0/333
15	U	0.09	0/713	0.25	0/974
15	u	0.09	0/713	0.25	0/974
16	V	0.09	0/996	0.29	0/1365

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	v	0.09	0/996	0.29	0/1365
17	X	0.11	0/251	0.19	0/341
17	x	0.11	0/251	0.19	0/341
18	Y	0.09	0/178	0.24	0/243
18	y	0.10	0/178	0.24	0/243
19	Z	0.10	0/396	0.25	0/547
19	z	0.10	0/396	0.25	0/547
All	All	0.12	0/40422	0.28	0/55248

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2575	0	2451	54	0
1	a	2575	0	2451	52	0
2	B	3838	0	3623	50	0
2	b	3838	0	3623	52	0
3	C	3415	0	3302	38	0
3	c	3415	0	3302	42	0
4	D	2686	0	2586	43	0
4	d	2686	0	2586	45	0
5	E	609	0	580	10	0
5	e	609	0	580	9	0
6	F	263	0	271	6	0
6	f	263	0	271	6	0
7	H	495	0	512	6	0
7	h	495	0	512	7	0
8	I	275	0	275	2	0
8	i	275	0	275	2	0
9	J	241	0	246	1	0
9	j	241	0	246	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	K	275	0	272	3	0
10	k	275	0	272	3	0
11	L	284	0	295	2	0
11	l	284	0	295	2	0
12	M	252	0	264	5	0
12	m	252	0	264	5	0
13	O	1677	0	1540	23	0
13	o	1677	0	1540	24	0
14	T	236	0	231	10	0
14	t	236	0	231	10	0
15	U	702	0	685	13	0
15	u	702	0	685	10	0
16	V	975	0	956	9	0
16	v	975	0	956	7	0
17	X	248	0	252	1	0
17	x	248	0	252	1	0
18	Y	177	0	164	3	0
18	y	177	0	164	3	0
19	Z	387	0	313	5	0
19	z	387	0	313	6	0
20	A	10	0	0	4	0
20	a	10	0	0	4	0
21	A	1	0	0	0	0
21	a	1	0	0	0	0
22	A	2	0	0	0	0
22	a	2	0	0	0	0
23	A	237	0	236	14	0
23	B	986	0	1048	45	0
23	C	775	0	791	41	0
23	D	110	0	105	4	0
23	a	237	0	236	14	0
23	b	986	0	1048	45	0
23	c	775	0	791	41	0
23	d	110	0	105	4	0
24	A	40	0	56	0	0
24	B	120	0	168	10	0
24	C	80	0	112	6	0
24	D	40	0	56	3	0
24	K	80	0	112	8	0
24	T	40	0	56	7	0
24	a	40	0	56	3	0
24	b	120	0	168	11	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
24	c	80	0	112	7	0
24	d	40	0	56	2	0
24	k	80	0	112	6	0
24	t	40	0	56	8	0
25	A	32	0	28	0	0
25	F	23	0	16	0	0
25	a	32	0	28	0	0
25	f	23	0	16	0	0
26	A	55	0	80	3	0
26	D	55	0	80	3	0
26	a	55	0	80	2	0
26	d	55	0	80	2	0
27	A	8	0	0	0	0
27	B	21	0	0	0	0
27	C	14	0	0	0	0
27	D	19	0	0	0	0
27	E	6	0	0	0	0
27	H	6	0	0	0	0
27	I	6	0	0	0	0
27	K	13	0	0	0	0
27	T	5	0	0	0	0
27	X	9	0	0	0	0
27	a	8	0	0	0	0
27	b	21	0	0	0	0
27	c	14	0	0	0	0
27	d	19	0	0	0	0
27	e	6	0	0	0	0
27	h	6	0	0	0	0
27	i	6	0	0	0	0
27	k	13	0	0	0	0
27	t	5	0	0	0	0
27	x	9	0	0	0	0
28	A	4	0	0	0	0
28	a	4	0	0	0	0
29	A	70	0	84	3	0
29	B	49	0	74	2	0
29	D	49	0	74	1	0
29	L	49	0	74	2	0
29	a	70	0	84	3	0
29	b	49	0	74	3	0
29	d	49	0	74	1	0
29	l	49	0	74	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
30	B	45	0	60	0	0
30	C	47	0	64	1	0
30	J	38	0	46	0	0
30	b	45	0	60	0	0
30	c	47	0	64	1	0
30	j	38	0	46	0	0
31	B	35	0	46	1	0
31	J	24	0	35	0	0
31	M	70	0	92	5	0
31	j	24	0	35	0	0
31	m	35	0	46	4	0
32	C	155	0	184	6	0
32	H	62	0	82	1	0
32	c	155	0	184	6	0
32	h	62	0	82	1	0
33	D	128	0	148	4	0
33	d	128	0	148	5	0
34	F	43	0	30	3	0
34	f	43	0	30	3	0
35	O	1	0	0	0	0
35	o	1	0	0	0	0
36	V	43	0	32	0	0
36	v	43	0	32	0	0
37	X	41	0	56	2	0
37	x	41	0	56	0	0
38	A	105	0	0	1	0
38	B	153	0	0	1	0
38	C	91	0	0	0	0
38	D	92	0	0	0	0
38	E	6	0	0	0	0
38	H	16	0	0	0	0
38	I	4	0	0	0	0
38	J	3	0	0	0	0
38	K	2	0	0	0	0
38	L	8	0	0	0	0
38	M	6	0	0	0	0
38	O	38	0	0	0	0
38	T	4	0	0	0	0
38	U	7	0	0	0	0
38	V	13	0	0	0	0
38	X	4	0	0	0	0
38	a	106	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
38	b	152	0	0	1	0
38	c	91	0	0	0	0
38	d	92	0	0	0	0
38	e	6	0	0	0	0
38	h	16	0	0	0	0
38	i	4	0	0	0	0
38	j	3	0	0	0	0
38	k	2	0	0	0	0
38	l	8	0	0	0	0
38	m	5	0	0	0	0
38	o	38	0	0	0	0
38	t	4	0	0	0	0
38	u	7	0	0	0	0
38	v	12	0	0	0	0
38	x	4	0	0	0	0
All	All	47744	0	45794	691	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 7.

All (691) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:189:GLU:OE2	20:A:401:OEX:O1	1.91	0.87
1:a:189:GLU:OE2	20:a:401:OEX:O1	1.91	0.87
23:A:412:CLA:HHC	23:A:412:CLA:HBB1	1.63	0.81
23:a:412:CLA:HHC	23:a:412:CLA:HBB1	1.63	0.80
5:e:19:TYR:O	5:e:23:HIS:ND1	2.12	0.79
4:D:192:THR:HG23	23:D:403:CLA:HBC2	1.67	0.77
23:b:615:CLA:HHC	23:b:615:CLA:HBB1	1.67	0.76
14:t:18:PHE:HB2	24:t:102:BCR:H21C	1.68	0.76
23:B:615:CLA:HHC	23:B:615:CLA:HBB1	1.67	0.76
4:d:192:THR:HG23	23:d:403:CLA:HBC2	1.67	0.75
14:T:18:PHE:HB2	24:T:102:BCR:H21C	1.68	0.75
5:E:19:TYR:O	5:E:23:HIS:ND1	2.12	0.74
23:B:606:CLA:HHC	23:B:606:CLA:HBB1	1.70	0.74
7:h:17:GLU:HG2	7:h:20:LYS:HE3	1.70	0.73
7:H:17:GLU:HG2	7:H:20:LYS:HE3	1.70	0.72
23:b:604:CLA:H101	23:b:614:CLA:H42	1.71	0.72
23:B:604:CLA:H101	23:B:614:CLA:H42	1.71	0.71
23:b:606:CLA:HHC	23:b:606:CLA:HBB1	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:279:LEU:HD22	33:D:402:PHO:HBC3	1.72	0.70
1:A:40:THR:HG23	23:A:407:CLA:HBB1	1.73	0.70
1:a:40:THR:HG23	23:a:407:CLA:HBB1	1.73	0.70
4:d:279:LEU:HD22	33:d:402:PHO:HBC3	1.72	0.70
24:B:620:BCR:H363	24:t:102:BCR:H12C	1.75	0.69
4:d:186:GLN:HB2	23:d:403:CLA:HBC1	1.74	0.69
24:T:102:BCR:H12C	24:b:620:BCR:H363	1.75	0.68
4:D:186:GLN:HB2	23:D:403:CLA:HBC1	1.74	0.68
1:A:192:ILE:HG13	1:A:293:MET:HE1	1.77	0.66
13:O:19:CYS:H	13:O:46:GLN:HE21	1.42	0.66
23:B:605:CLA:HHC	23:B:605:CLA:HBB1	1.79	0.65
1:a:192:ILE:HG13	1:a:293:MET:HE1	1.77	0.65
13:o:19:CYS:H	13:o:46:GLN:HE21	1.42	0.65
6:F:15:ILE:HG23	34:F:102:HEM:HAA1	1.78	0.65
4:d:54:PHE:O	5:e:49:THR:OG1	2.13	0.65
23:C:511:CLA:HMB1	24:K:103:BCR:H382	1.79	0.65
12:M:18:PRO:O	12:M:21:PHE:HB3	1.97	0.65
12:m:18:PRO:O	12:m:21:PHE:HB3	1.97	0.65
1:a:183:MET:HB3	23:a:405:CLA:HBC2	1.79	0.65
6:f:15:ILE:HG23	34:f:102:HEM:HAA1	1.78	0.65
3:c:385:GLN:H	3:c:388:GLN:HE21	1.44	0.65
23:c:511:CLA:HMB1	24:k:103:BCR:H382	1.79	0.65
23:b:605:CLA:HHC	23:b:605:CLA:HBB1	1.79	0.64
1:A:183:MET:HB3	23:A:405:CLA:HBC2	1.79	0.64
3:C:385:GLN:H	3:C:388:GLN:HE21	1.45	0.64
23:C:505:CLA:HMD1	23:C:507:CLA:HAB	1.80	0.64
1:a:184:LEU:HD21	4:d:186:GLN:HG2	1.80	0.64
2:b:30:VAL:HG12	23:b:605:CLA:HHD	1.79	0.63
1:A:184:LEU:HD21	4:D:186:GLN:HG2	1.80	0.63
2:B:30:VAL:HG12	23:B:605:CLA:HHD	1.80	0.62
23:C:509:CLA:HMB1	23:C:511:CLA:HBB1	1.82	0.62
23:b:612:CLA:HHC	23:b:612:CLA:HBB1	1.82	0.62
23:c:509:CLA:HMB1	23:c:511:CLA:HBB1	1.82	0.62
15:u:26:ASP:OD2	15:u:85:THR:OG1	2.18	0.62
23:b:609:CLA:HHC	23:b:609:CLA:HBB1	1.82	0.61
4:D:54:PHE:O	5:E:49:THR:OG1	2.13	0.61
23:B:609:CLA:HHC	23:B:609:CLA:HBB1	1.82	0.61
29:a:414:LHG:O2	3:c:447:ARG:NE	2.33	0.61
29:A:414:LHG:O2	3:C:447:ARG:NE	2.33	0.61
1:A:189:GLU:OE2	20:A:401:OEX:MN1	1.59	0.61
1:a:189:GLU:OE2	20:a:401:OEX:MN1	1.59	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:u:68:THR:H	15:u:71:GLN:HE21	1.50	0.60
2:B:458:PHE:HB3	23:B:604:CLA:HBC2	1.83	0.60
23:B:611:CLA:H142	29:L:101:LHG:H361	1.83	0.60
23:B:612:CLA:HHC	23:B:612:CLA:HBB1	1.82	0.60
23:b:611:CLA:H142	29:l:101:LHG:H361	1.83	0.60
15:U:26:ASP:OD2	15:U:85:THR:OG1	2.18	0.59
2:b:458:PHE:HB3	23:b:604:CLA:HBC2	1.83	0.59
23:c:506:CLA:HBB2	23:c:507:CLA:H52	1.85	0.59
23:C:506:CLA:HBB2	23:C:507:CLA:H52	1.85	0.59
23:b:614:CLA:HHC	23:b:614:CLA:HBB1	1.84	0.59
1:A:84:PRO:HA	1:A:112:TYR:CG	2.38	0.58
15:U:68:THR:H	15:U:71:GLN:HE21	1.50	0.58
1:A:133:LEU:HD23	4:D:256:ILE:HG12	1.85	0.58
29:B:622:LHG:O5	4:D:141:TYR:OH	2.21	0.58
23:B:614:CLA:HHC	23:B:614:CLA:HBB1	1.84	0.58
3:C:416:SER:HB3	16:V:42:VAL:HG23	1.86	0.58
1:a:84:PRO:HA	1:a:112:TYR:CG	2.38	0.58
24:T:102:BCR:H20C	24:b:620:BCR:H382	1.86	0.58
1:a:133:LEU:HD23	4:d:256:ILE:HG12	1.85	0.58
1:a:214:MET:HB3	26:a:410:PL9:H103	1.85	0.58
4:d:172:SER:HB2	4:d:177:ALA:HB1	1.84	0.58
1:A:214:MET:HB3	26:A:410:PL9:H103	1.85	0.58
1:a:131:TRP:CH2	23:c:505:CLA:HAA2	2.39	0.58
13:o:142:PHE:HB2	13:o:199:LEU:HB2	1.86	0.58
2:B:7:ARG:O	2:B:10:THR:OG1	2.18	0.57
3:C:64:ALA:O	3:C:68:THR:OG1	2.21	0.57
4:D:172:SER:HB2	4:D:177:ALA:HB1	1.84	0.57
2:b:7:ARG:O	2:b:10:THR:OG1	2.18	0.57
4:d:148:ALA:HB2	4:d:276:VAL:HG13	1.86	0.57
2:b:399:VAL:HG12	2:b:417:VAL:HG22	1.87	0.57
2:B:399:VAL:HG12	2:B:417:VAL:HG22	1.87	0.57
13:O:51:LEU:HB3	13:O:65:PHE:HB3	1.86	0.57
3:c:64:ALA:O	3:c:68:THR:OG1	2.21	0.57
2:b:216:HIS:HE1	23:b:609:CLA:C1A	2.18	0.57
29:b:622:LHG:O5	4:d:141:TYR:OH	2.21	0.57
23:C:508:CLA:H143	23:C:519:CLA:H151	1.87	0.57
4:D:148:ALA:HB2	4:D:276:VAL:HG13	1.86	0.57
4:D:236:ASN:O	4:D:239:GLN:HG2	2.05	0.57
4:d:236:ASN:O	4:d:239:GLN:HG2	2.05	0.57
1:A:131:TRP:CH2	23:C:505:CLA:HAA2	2.39	0.57
15:U:16:LYS:NZ	15:U:86:GLU:O	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:c:416:SER:HB3	16:v:42:VAL:HG23	1.86	0.57
1:a:92:HIS:NE2	3:c:360:ASP:OD2	2.34	0.56
4:d:205:LEU:HD13	33:d:401:PHO:HAB	1.88	0.56
3:c:318:LEU:HD12	3:c:340:TYR:HB3	1.87	0.56
24:B:620:BCR:H382	24:t:102:BCR:H20C	1.86	0.56
13:o:51:LEU:HB3	13:o:65:PHE:HB3	1.86	0.56
2:B:216:HIS:HE1	23:B:609:CLA:C1A	2.18	0.56
12:m:3:VAL:HG11	14:t:2:GLU:HG2	1.88	0.56
15:u:16:LYS:NZ	15:u:86:GLU:O	2.38	0.56
23:B:614:CLA:H161	7:H:7:LEU:HD21	1.87	0.56
13:O:142:PHE:HB2	13:O:199:LEU:HB2	1.86	0.56
4:D:205:LEU:HD13	33:D:401:PHO:HAB	1.88	0.56
12:M:3:VAL:HG11	14:T:2:GLU:HG2	1.88	0.56
3:C:318:LEU:HD12	3:C:340:TYR:HB3	1.87	0.56
23:B:608:CLA:HAB	4:D:123:ILE:HG12	1.88	0.55
3:c:225:VAL:HG13	3:c:289:PHE:HA	1.88	0.55
23:b:608:CLA:HAB	4:d:123:ILE:HG12	1.88	0.55
23:b:603:CLA:HBB2	23:b:605:CLA:H193	1.88	0.55
3:c:332:GLN:HE21	3:c:336:GLY:HA2	1.72	0.55
23:c:508:CLA:H143	23:c:519:CLA:H151	1.87	0.55
13:o:19:CYS:HB2	13:o:46:GLN:HB2	1.89	0.55
3:C:225:VAL:HG13	3:C:289:PHE:HA	1.88	0.55
1:a:63:ILE:HB	3:c:335:THR:HG21	1.88	0.55
4:d:23:LYS:HB3	4:d:135:LEU:HD21	1.89	0.55
23:b:614:CLA:H161	7:h:7:LEU:HD21	1.87	0.55
3:C:332:GLN:HE21	3:C:336:GLY:HA2	1.72	0.54
13:O:19:CYS:HB2	13:O:46:GLN:HB2	1.89	0.54
23:a:406:CLA:HMD3	4:d:182:LEU:HD11	1.88	0.54
3:c:286:ALA:HB2	23:c:503:CLA:HMD1	1.89	0.54
1:A:132:GLU:O	1:A:136:ARG:HG2	2.07	0.54
26:A:410:PL9:H261	29:A:415:LHG:H202	1.90	0.54
3:C:286:ALA:HB2	23:C:503:CLA:HMD1	1.89	0.54
4:D:23:LYS:HB3	4:D:135:LEU:HD21	1.89	0.54
23:c:508:CLA:HBC3	23:c:510:CLA:H71	1.89	0.54
1:A:63:ILE:HB	3:C:335:THR:HG21	1.88	0.54
23:B:603:CLA:HBB2	23:B:605:CLA:H193	1.88	0.54
26:a:410:PL9:H261	29:a:415:LHG:H202	1.90	0.54
3:C:42:LEU:HD21	23:C:511:CLA:H2A	1.89	0.54
23:C:503:CLA:HBB2	23:C:510:CLA:H151	1.90	0.54
1:a:132:GLU:O	1:a:136:ARG:HG2	2.07	0.54
23:c:505:CLA:CMD	23:c:507:CLA:HAB	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:8:ARG:HB3	5:E:13:ILE:HD11	1.89	0.53
2:b:314:TYR:OH	13:o:176:GLN:NE2	2.36	0.53
2:B:237:VAL:HG22	23:B:610:CLA:HBC2	1.90	0.53
4:D:53:THR:HG22	6:F:40:MET:HE1	1.91	0.53
14:T:15:ALA:HA	24:T:102:BCR:H19C	1.90	0.53
2:b:155:ALA:O	2:b:159:THR:OG1	2.23	0.53
2:B:103:LEU:HB2	23:B:606:CLA:H62	1.90	0.53
2:B:314:TYR:OH	13:O:176:GLN:NE2	2.36	0.53
14:t:15:ALA:HA	24:t:102:BCR:H19C	1.90	0.53
23:C:505:CLA:CMD	23:C:507:CLA:HAB	2.38	0.53
23:C:508:CLA:HBC3	23:C:510:CLA:H71	1.89	0.53
2:b:103:LEU:HB2	23:b:606:CLA:H62	1.90	0.53
24:k:102:BCR:H10C	18:y:28:ILE:HG23	1.89	0.53
2:b:237:VAL:HG22	23:b:610:CLA:HBC2	1.90	0.53
24:K:102:BCR:H10C	18:Y:28:ILE:HG23	1.89	0.52
3:c:42:LEU:HD21	23:c:511:CLA:H2A	1.89	0.52
23:c:505:CLA:HMD3	23:c:507:CLA:HAB	1.90	0.52
5:e:8:ARG:HB3	5:e:13:ILE:HD11	1.89	0.52
29:d:407:LHG:HC62	11:l:15:THR:HG23	1.92	0.52
1:A:162:PRO:HB3	1:A:168:PHE:HA	1.91	0.52
23:B:602:CLA:H101	23:B:609:CLA:H193	1.91	0.52
32:C:518:DGD:HB32	23:C:519:CLA:H43	1.92	0.52
3:C:172:ALA:O	3:C:176:VAL:HG13	2.10	0.52
23:c:503:CLA:HBB2	23:c:510:CLA:H151	1.90	0.52
23:b:621:CLA:HBB1	23:b:621:CLA:HMB1	1.92	0.52
32:c:518:DGD:HB32	23:c:519:CLA:H43	1.92	0.52
4:d:53:THR:HG22	6:f:40:MET:HE1	1.91	0.52
23:B:621:CLA:HBB1	23:B:621:CLA:HMB1	1.92	0.52
30:C:501:LMG:H382	32:C:515:DGD:HB52	1.92	0.52
29:D:407:LHG:HC62	11:L:15:THR:HG23	1.92	0.52
1:A:64:ARG:NH1	13:O:105:PRO:O	2.42	0.51
13:O:88:ASN:ND2	13:O:92:SER:O	2.36	0.51
4:d:103:ARG:HG3	5:e:73:LYS:HG3	1.92	0.51
2:B:153:PHE:HB2	23:B:606:CLA:HBB1	1.92	0.51
1:a:162:PRO:HB3	1:a:168:PHE:HA	1.91	0.51
23:c:513:CLA:HBB1	24:c:520:BCR:H24C	1.92	0.51
2:B:54:PRO:HD2	2:B:57:ARG:HG3	1.92	0.51
12:M:8:LEU:HD11	31:M:102:LMT:H82	1.92	0.51
1:a:217:SER:HA	4:d:272:LEU:HD12	1.92	0.51
3:c:172:ALA:O	3:c:176:VAL:HG13	2.10	0.51
2:B:187:PRO:HG3	23:B:601:CLA:HMD3	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:184:LEU:HD23	23:A:405:CLA:HBC1	1.93	0.51
23:A:412:CLA:HED1	26:D:406:PL9:H362	1.93	0.51
3:C:437:PHE:HA	23:C:508:CLA:HMC2	1.92	0.51
13:o:88:ASN:ND2	13:o:92:SER:O	2.36	0.51
2:B:42:LEU:HD13	2:B:94:GLU:HG3	1.93	0.51
4:D:103:ARG:HG3	5:E:73:LYS:HG3	1.92	0.51
3:c:437:PHE:HA	23:c:508:CLA:HMC2	1.92	0.51
30:c:501:LMG:H382	32:c:515:DGD:HB52	1.92	0.51
2:b:153:PHE:HB2	23:b:606:CLA:HBB1	1.92	0.51
2:b:187:PRO:HG3	23:b:601:CLA:HMD3	1.91	0.51
23:b:602:CLA:H101	23:b:609:CLA:H193	1.91	0.51
23:C:513:CLA:HBB1	24:C:520:BCR:H24C	1.92	0.51
1:A:217:SER:HA	4:D:272:LEU:HD12	1.92	0.50
33:d:402:PHO:H3A	23:d:403:CLA:H142	1.93	0.50
19:z:29:SER:O	19:z:29:SER:OG	2.29	0.50
23:a:412:CLA:HED1	26:d:406:PL9:H362	1.93	0.50
2:b:54:PRO:HD2	2:b:57:ARG:HG3	1.92	0.50
1:A:92:HIS:NE2	3:C:360:ASP:OD2	2.34	0.50
2:B:70:GLY:HA2	2:B:178:VAL:HG21	1.92	0.50
3:c:435:PHE:HD1	32:c:515:DGD:HBH2	1.76	0.50
5:e:23:HIS:HA	5:e:26:THR:OG1	2.11	0.50
3:C:406:SER:HA	3:C:420:VAL:HG23	1.94	0.50
33:D:402:PHO:H3A	23:D:403:CLA:H142	1.93	0.50
2:b:383:PHE:CZ	13:o:167:GLY:HA2	2.46	0.50
2:B:247:PHE:HB2	23:B:608:CLA:HBC1	1.93	0.50
2:b:76:SER:HG	2:b:78:TRP:CD1	2.29	0.50
23:C:511:CLA:H72	24:K:103:BCR:H282	1.94	0.50
2:b:42:LEU:HD13	2:b:94:GLU:HG3	1.93	0.50
2:b:70:GLY:HA2	2:b:178:VAL:HG21	1.92	0.50
2:B:383:PHE:CZ	13:O:167:GLY:HA2	2.46	0.50
3:C:223:TRP:CG	3:C:224:ILE:H	2.30	0.50
5:E:23:HIS:HA	5:E:26:THR:OG1	2.11	0.50
2:b:311:PHE:O	2:b:317:ASN:ND2	2.45	0.50
31:B:623:LMT:H82	12:m:8:LEU:HD11	1.92	0.50
2:b:438:ASN:ND2	38:b:721:HOH:O	2.45	0.50
1:a:64:ARG:NH1	13:o:105:PRO:O	2.42	0.49
2:b:201:HIS:HB2	23:b:602:CLA:C1B	2.42	0.49
3:c:223:TRP:CG	3:c:224:ILE:H	2.30	0.49
3:C:435:PHE:HD1	32:C:515:DGD:HBH2	1.76	0.49
1:A:290:ILE:HG13	23:A:405:CLA:HED2	1.95	0.49
2:B:311:PHE:O	2:B:317:ASN:ND2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:27:ALA:HB1	34:F:102:HEM:HAC	1.94	0.49
1:A:34:GLY:HA2	1:A:37:MET:HB3	1.95	0.49
1:a:34:GLY:HA2	1:a:37:MET:HB3	1.95	0.49
1:a:60:ILE:HD12	1:a:84:PRO:HD2	1.95	0.49
1:a:184:LEU:HD23	23:a:405:CLA:HBC1	1.93	0.49
3:c:406:SER:HA	3:c:420:VAL:HG23	1.94	0.49
13:O:169:ASP:OD1	13:O:169:ASP:N	2.41	0.49
3:c:213:LEU:HD11	24:c:514:BCR:H373	1.95	0.49
2:B:284:ILE:O	2:B:288:VAL:HG23	2.13	0.49
23:C:508:CLA:HMB3	23:C:508:CLA:HBB1	1.94	0.49
5:E:28:PRO:O	5:E:32:ILE:HG12	2.13	0.49
4:d:314:PHE:HA	4:d:317:LYS:HD3	1.94	0.49
1:A:60:ILE:HD12	1:A:84:PRO:HD2	1.95	0.49
13:O:216:GLU:HG3	13:O:236:GLN:HG2	1.94	0.49
4:D:78:VAL:HG11	4:D:114:ILE:HD12	1.95	0.48
13:o:216:GLU:HG3	13:o:236:GLN:HG2	1.94	0.48
2:B:169:SER:OG	2:B:266:GLU:OE2	2.30	0.48
3:C:269:GLU:HG2	3:C:448:ALA:HB2	1.95	0.48
1:a:82:VAL:HB	1:a:174:LEU:HB2	1.94	0.48
2:b:247:PHE:HB2	23:b:608:CLA:HBC1	1.93	0.48
3:c:429:SER:HB3	32:c:516:DGD:HBT2	1.94	0.48
6:f:27:ALA:HB1	34:f:102:HEM:HAC	1.94	0.48
32:C:518:DGD:HE4	9:J:40:LEU:HD21	1.95	0.48
3:c:269:GLU:HG2	3:c:448:ALA:HB2	1.95	0.48
23:c:502:CLA:H162	23:c:507:CLA:HMB3	1.94	0.48
4:d:202:ALA:HB2	26:d:406:PL9:H353	1.96	0.48
1:A:340:PRO:HG3	15:U:103:TYR:CG	2.48	0.48
2:B:321:LYS:HE3	2:B:321:LYS:HB3	1.58	0.48
3:C:429:SER:HB3	32:C:516:DGD:HBT2	1.94	0.48
1:a:290:ILE:HG13	23:a:405:CLA:HED2	1.95	0.48
1:a:337:HIS:NE2	20:a:401:OEX:O3	2.43	0.48
1:a:340:PRO:HG3	15:u:103:TYR:CG	2.48	0.48
23:c:508:CLA:HMB3	23:c:508:CLA:HBB1	1.94	0.48
23:c:511:CLA:H72	24:k:103:BCR:H282	1.94	0.48
1:A:89:ILE:HD11	1:A:108:ASN:HB3	1.96	0.48
2:B:155:ALA:O	2:B:159:THR:OG1	2.23	0.48
2:B:201:HIS:HB2	23:B:602:CLA:C1B	2.42	0.48
5:e:28:PRO:O	5:e:32:ILE:HG12	2.13	0.48
1:A:85:SER:HA	1:A:109:GLY:HA3	1.95	0.48
2:B:438:ASN:ND2	38:B:721:HOH:O	2.45	0.48
3:C:213:LEU:HD11	24:C:514:BCR:H373	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:C:502:CLA:H162	23:C:507:CLA:HMB3	1.94	0.48
4:D:314:PHE:HA	4:D:317:LYS:HD3	1.94	0.48
2:b:61:PHE:CZ	23:b:607:CLA:HBB1	2.48	0.48
1:A:82:VAL:HB	1:A:174:LEU:HB2	1.94	0.48
1:A:317:TRP:CZ3	4:D:180:ARG:HD2	2.49	0.48
3:C:385:GLN:H	3:C:388:GLN:NE2	2.10	0.48
3:c:48:LYS:NZ	3:c:133:ALA:O	2.43	0.48
23:c:511:CLA:H41	18:y:39:LEU:HD13	1.96	0.48
2:B:103:LEU:HD21	23:B:605:CLA:HMC3	1.96	0.48
4:D:161:PRO:HB3	4:D:170:ALA:HB2	1.96	0.48
23:B:613:CLA:HHC	23:B:621:CLA:OBD	2.14	0.48
1:a:85:SER:HA	1:a:109:GLY:HA3	1.95	0.48
2:B:12:LEU:HD12	23:B:612:CLA:HBB1	1.96	0.48
23:C:519:CLA:H41	23:C:519:CLA:H62	1.60	0.48
2:b:284:ILE:O	2:b:288:VAL:HG23	2.13	0.48
14:t:15:ALA:HB2	24:t:102:BCR:H17C	1.95	0.48
16:v:126:LEU:HB3	16:v:129:LYS:HB2	1.96	0.48
2:b:16:PRO:HG2	2:b:123:PHE:HB3	1.96	0.47
3:c:344:SER:OG	3:c:348:GLU:OE1	2.32	0.47
3:C:344:SER:OG	3:C:348:GLU:OE1	2.32	0.47
2:b:103:LEU:HD21	23:b:605:CLA:HMC3	1.96	0.47
23:C:512:CLA:HBA1	23:C:512:CLA:H3A	1.50	0.47
1:a:317:TRP:CZ3	4:d:180:ARG:HD2	2.49	0.47
2:B:61:PHE:CZ	23:B:607:CLA:HBB1	2.48	0.47
29:B:622:LHG:HC91	29:L:101:LHG:HC81	1.95	0.47
23:C:502:CLA:ND	23:C:504:CLA:H52	2.29	0.47
13:O:19:CYS:H	13:O:46:GLN:NE2	2.11	0.47
1:a:201:GLY:HA3	1:a:286:THR:HB	1.95	0.47
29:b:622:LHG:HC91	29:l:101:LHG:HC81	1.95	0.47
23:c:502:CLA:ND	23:c:504:CLA:H52	2.29	0.47
23:c:506:CLA:HBB1	23:c:507:CLA:H102	1.97	0.47
32:c:518:DGD:HE4	9:j:40:LEU:HD21	1.95	0.47
23:B:610:CLA:HHC	23:B:610:CLA:HBB1	1.96	0.47
4:D:144:ILE:O	4:D:147:SER:OG	2.22	0.47
14:T:15:ALA:HB2	24:T:102:BCR:H17C	1.95	0.47
1:a:89:ILE:HD11	1:a:108:ASN:HB3	1.96	0.47
16:v:102:PRO:HA	16:v:105:ARG:HG3	1.97	0.47
16:V:126:LEU:HB3	16:V:129:LYS:HB2	1.96	0.47
4:d:78:VAL:HG11	4:d:114:ILE:HD12	1.95	0.47
4:d:161:PRO:HB3	4:d:170:ALA:HB2	1.96	0.47
1:A:201:GLY:HA3	1:A:286:THR:HB	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:16:PRO:HG2	2:B:123:PHE:HB3	1.96	0.47
3:C:48:LYS:NZ	3:C:133:ALA:O	2.43	0.47
3:C:130:VAL:HG22	23:C:511:CLA:H91	1.97	0.47
2:b:12:LEU:HD12	23:b:612:CLA:HBB1	1.95	0.47
23:B:621:CLA:H121	23:B:621:CLA:H162	1.75	0.47
33:d:401:PHO:H61	33:d:401:PHO:H2	1.63	0.47
4:D:202:ALA:HB2	26:D:406:PL9:H353	1.96	0.47
23:b:613:CLA:HHC	23:b:621:CLA:OBD	2.14	0.47
3:c:167:VAL:HG11	23:c:512:CLA:HBA1	1.97	0.47
3:c:385:GLN:H	3:c:388:GLN:NE2	2.10	0.47
15:U:45:LEU:HD21	15:U:71:GLN:HB3	1.97	0.47
19:Z:14:ILE:O	19:Z:18:VAL:HG13	2.14	0.47
2:b:191:ASN:ND2	7:h:59:ASN:O	2.47	0.47
2:b:422:ARG:O	2:b:425:ILE:HG12	2.15	0.47
29:b:622:LHG:H302	29:b:622:LHG:H331	1.75	0.47
3:c:130:VAL:HG22	23:c:511:CLA:H91	1.97	0.47
23:C:506:CLA:HBB1	23:C:507:CLA:H102	1.97	0.46
23:b:602:CLA:H92	32:h:101:DGD:HB71	1.97	0.46
23:B:605:CLA:H62	23:B:605:CLA:H41	1.70	0.46
23:C:511:CLA:H41	18:Y:39:LEU:HD13	1.96	0.46
16:V:41:HIS:HA	16:V:45:ILE:O	2.15	0.46
1:a:97:TRP:HA	8:i:1:MET:HB3	1.97	0.46
1:A:97:TRP:HA	8:I:1:MET:HB3	1.97	0.46
16:v:41:HIS:HA	16:v:45:ILE:O	2.15	0.46
3:C:167:VAL:HG11	23:C:512:CLA:HBA1	1.97	0.46
2:b:25:MET:HG2	24:b:616:BCR:H23C	1.97	0.46
19:z:14:ILE:O	19:z:18:VAL:HG13	2.14	0.46
5:e:5:THR:OG1	5:e:7:GLU:OE1	2.29	0.46
2:B:422:ARG:NH1	13:O:169:ASP:OD2	2.49	0.46
3:C:159:THR:HG22	3:C:163:PHE:CE2	2.50	0.46
4:D:320:LEU:O	4:D:323:GLU:HG2	2.16	0.46
1:a:96:ILE:HG12	1:a:105:TRP:CE2	2.51	0.46
24:c:520:BCR:H15C	24:c:520:BCR:H351	1.73	0.46
16:V:102:PRO:HA	16:V:105:ARG:HG3	1.97	0.46
2:b:371:THR:HG22	2:b:377:VAL:HA	1.98	0.46
23:B:602:CLA:H92	32:H:101:DGD:HB71	1.97	0.46
3:C:162:GLY:HA2	3:C:248:GLY:HA2	1.97	0.46
3:c:159:THR:HG22	3:c:163:PHE:CE2	2.50	0.46
2:B:92:SER:O	2:B:96:VAL:HG23	2.16	0.46
4:D:320:LEU:HD23	4:D:323:GLU:OE2	2.16	0.46
2:b:224:ARG:NH2	4:d:16:ASP:OD1	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:d:320:LEU:HD23	4:d:323:GLU:OE2	2.16	0.46
2:b:422:ARG:NH1	13:o:169:ASP:OD2	2.49	0.46
23:b:610:CLA:HHC	23:b:610:CLA:HBB1	1.96	0.46
7:H:6:TRP:CE2	7:H:10:ILE:HD11	2.51	0.45
1:a:260:PHE:CZ	1:a:263:ALA:HB2	2.51	0.45
2:b:92:SER:O	2:b:96:VAL:HG23	2.16	0.45
7:h:6:TRP:CE2	7:h:10:ILE:HD11	2.51	0.45
1:A:96:ILE:HG12	1:A:105:TRP:CE2	2.51	0.45
1:A:127:MET:HG3	1:A:144:CYS:HB2	1.98	0.45
1:A:260:PHE:CZ	1:A:263:ALA:HB2	2.51	0.45
2:B:25:MET:HG2	24:B:616:BCR:H23C	1.97	0.45
2:B:191:ASN:ND2	7:H:59:ASN:O	2.47	0.45
2:B:248:ALA:HA	23:B:603:CLA:H42	1.99	0.45
2:b:248:ALA:HA	23:b:603:CLA:H42	1.98	0.45
10:k:26:PRO:O	10:k:29:PRO:HD2	2.16	0.45
1:A:104:GLU:HB2	13:O:71:VAL:HA	1.98	0.45
2:B:422:ARG:O	2:B:425:ILE:HG12	2.15	0.45
23:B:613:CLA:OBD	31:m:101:LMT:H12	2.17	0.45
24:b:620:BCR:H24C	24:b:620:BCR:H371	1.76	0.45
3:C:176:VAL:O	3:C:180:MET:HG3	2.16	0.45
23:C:506:CLA:HAB	23:C:507:CLA:HED1	1.98	0.45
23:c:506:CLA:HAB	23:c:507:CLA:HED1	1.98	0.45
13:o:169:ASP:OD1	13:o:169:ASP:N	2.41	0.45
13:o:204:VAL:HG13	13:o:211:ILE:HG22	1.99	0.45
3:C:38:GLY:HA3	23:C:511:CLA:HMD2	1.99	0.45
23:b:613:CLA:H41	23:b:613:CLA:H62	1.55	0.45
3:c:464:GLU:OE2	4:d:245:SER:OG	2.30	0.45
23:c:519:CLA:H41	23:c:519:CLA:H62	1.60	0.45
13:O:204:VAL:HG13	13:O:211:ILE:HG22	1.99	0.45
23:b:604:CLA:HBA2	23:b:612:CLA:H152	1.99	0.45
4:d:129:GLN:NE2	33:d:402:PHO:OBD	2.50	0.45
15:u:45:LEU:HD21	15:u:71:GLN:HB3	1.97	0.45
2:B:371:THR:HG22	2:B:377:VAL:HA	1.98	0.45
4:D:190:ASN:HB2	4:D:296:TYR:CD2	2.52	0.45
2:b:383:PHE:N	4:d:344:GLU:O	2.47	0.45
3:c:38:GLY:HA3	23:c:511:CLA:HMD2	1.99	0.45
2:B:141:ILE:HG21	23:B:614:CLA:HBB1	1.99	0.45
3:c:162:GLY:HA2	3:c:248:GLY:HA2	1.97	0.45
26:A:410:PL9:HC8	26:A:410:PL9:HC2	1.71	0.45
24:K:103:BCR:H11C	24:K:103:BCR:H341	1.88	0.45
24:K:103:BCR:H24C	24:K:103:BCR:H371	1.62	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:M:24:ILE:HG21	31:m:101:LMT:H62	1.99	0.45
31:M:101:LMT:H12	23:b:613:CLA:OBD	2.17	0.45
4:d:190:ASN:HB2	4:d:296:TYR:CD2	2.52	0.45
2:B:173:GLY:HA3	2:B:265:ILE:HD11	1.99	0.44
24:B:620:BCR:H11C	24:B:620:BCR:H341	1.86	0.44
31:M:101:LMT:H62	12:m:24:ILE:HG21	1.99	0.44
2:b:173:GLY:HA3	2:b:265:ILE:HD11	1.99	0.44
23:B:602:CLA:H41	7:H:46:LEU:HA	2.00	0.44
31:M:101:LMT:H82	12:m:24:ILE:HD13	1.99	0.44
24:b:620:BCR:H15C	24:b:620:BCR:H351	1.77	0.44
6:f:27:ALA:HB1	34:f:102:HEM:CAC	2.47	0.44
23:B:611:CLA:HHC	23:B:611:CLA:HBB1	1.98	0.44
4:D:129:GLN:NE2	33:D:402:PHO:OBD	2.50	0.44
13:O:76:THR:HG22	13:O:106:VAL:HG22	1.99	0.44
15:U:92:VAL:HG12	15:U:97:ARG:HD2	2.00	0.44
2:b:169:SER:OG	2:b:266:GLU:OE2	2.30	0.44
2:b:298:LEU:HD23	2:b:298:LEU:HA	1.83	0.44
23:b:605:CLA:H41	23:b:605:CLA:H62	1.70	0.44
4:d:320:LEU:O	4:d:323:GLU:HG2	2.16	0.44
4:d:342:PRO:O	4:d:345:VAL:HG22	2.18	0.44
24:D:405:BCR:H11C	24:D:405:BCR:H341	1.83	0.44
24:D:405:BCR:H15C	24:D:405:BCR:H351	1.78	0.44
24:K:103:BCR:H15C	24:K:103:BCR:H351	1.78	0.44
3:c:176:VAL:O	3:c:180:MET:HG3	2.16	0.44
23:c:505:CLA:HBD	23:c:505:CLA:HAA1	2.00	0.44
10:k:29:PRO:O	10:k:32:PHE:HB2	2.17	0.44
13:o:76:THR:HG22	13:o:106:VAL:HG22	1.99	0.44
12:M:24:ILE:HD13	31:m:101:LMT:H82	1.99	0.44
1:a:116:ILE:HG13	1:a:117:PHE:N	2.33	0.44
23:b:611:CLA:HHC	23:b:611:CLA:HBB1	1.98	0.44
23:c:503:CLA:HBA2	23:c:504:CLA:H171	2.00	0.44
24:c:514:BCR:H24C	24:c:514:BCR:H371	1.77	0.44
19:z:9:LEU:O	19:z:13:VAL:HG23	2.17	0.44
13:O:56:PRO:HD3	13:O:63:ALA:HB2	1.99	0.44
13:o:158:ASP:OD1	13:o:162:ARG:N	2.40	0.44
15:u:99:ASN:HD22	15:u:101:GLY:H	1.66	0.44
1:A:30:VAL:O	1:A:34:GLY:HA3	2.18	0.44
1:A:334:ARG:NH2	38:A:518:HOH:O	2.51	0.44
1:A:337:HIS:NE2	20:A:401:OEX:O3	2.43	0.44
6:F:27:ALA:HB1	34:F:102:HEM:CAC	2.47	0.44
10:K:26:PRO:O	10:K:29:PRO:HD2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:Z:9:LEU:O	19:Z:13:VAL:HG23	2.17	0.44
2:b:141:ILE:HG21	23:b:614:CLA:HBB1	1.99	0.44
23:b:621:CLA:H121	23:b:621:CLA:H162	1.75	0.44
3:c:154:LYS:HB3	3:c:256:PRO:HG2	1.99	0.44
24:c:514:BCR:HC31	8:i:23:PHE:HB3	2.00	0.44
14:t:10:PHE:O	14:t:14:ILE:HG12	2.18	0.44
23:B:604:CLA:HBA2	23:B:612:CLA:H152	1.99	0.44
1:a:104:GLU:HB2	13:o:71:VAL:HA	1.98	0.44
13:o:19:CYS:H	13:o:46:GLN:NE2	2.11	0.44
13:o:68:THR:HG22	13:o:110[B]:MET:HG2	2.00	0.44
2:B:158:LEU:HB3	2:B:199:VAL:HG22	2.00	0.44
2:B:243:ALA:HA	2:B:246:PHE:CE2	2.53	0.44
23:C:505:CLA:HAA1	23:C:505:CLA:HBD	2.00	0.44
14:T:10:PHE:O	14:T:14:ILE:HG12	2.18	0.44
1:a:127:MET:HG3	1:a:144:CYS:HB2	1.98	0.44
29:a:414:LHG:H321	29:a:414:LHG:H132	2.00	0.44
23:b:604:CLA:H111	23:b:604:CLA:H152	1.92	0.44
24:k:103:BCR:H15C	24:k:103:BCR:H351	1.78	0.44
10:K:29:PRO:O	10:K:32:PHE:HB2	2.17	0.43
13:O:68:THR:HG22	13:O:110[B]:MET:HG2	2.00	0.43
2:b:379:ALA:HA	2:b:390:TYR:HB3	2.00	0.43
1:A:187:GLN:HB2	23:A:405:CLA:HAC2	2.01	0.43
23:C:503:CLA:HBB2	23:C:510:CLA:C15	2.48	0.43
23:c:519:CLA:H92	23:c:519:CLA:H61	1.79	0.43
4:d:55:VAL:HG21	4:d:110:LEU:HD12	2.00	0.43
19:z:15:LEU:O	19:z:19:MET:HG2	2.18	0.43
1:a:189:GLU:CD	20:a:401:OEX:O1	2.58	0.43
24:a:408:BCR:H11C	24:a:408:BCR:H341	1.86	0.43
13:o:80:GLN:HB2	13:o:101:ILE:HD12	2.01	0.43
24:t:102:BCR:H15C	24:t:102:BCR:H351	1.93	0.43
1:A:189:GLU:CD	20:A:401:OEX:O1	2.58	0.43
1:A:202:VAL:HG11	23:A:406:CLA:C3D	2.49	0.43
2:B:243:ALA:HA	2:B:246:PHE:CD2	2.53	0.43
2:B:379:ALA:HA	2:B:390:TYR:HB3	2.00	0.43
23:C:519:CLA:H112	23:C:519:CLA:H91	1.72	0.43
1:a:283:ILE:HA	1:a:286:THR:HG22	2.00	0.43
23:b:602:CLA:H41	7:h:46:LEU:HA	2.00	0.43
15:u:92:VAL:HG12	15:u:97:ARG:HD2	2.00	0.43
23:b:605:CLA:H192	23:b:609:CLA:HBB2	2.01	0.43
23:b:608:CLA:H3A	23:b:608:CLA:HBA2	1.76	0.43
24:b:616:BCR:H15C	24:b:616:BCR:H351	1.80	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:t:2:GLU:H	14:t:2:GLU:CD	2.27	0.43
1:A:116:ILE:HG13	1:A:117:PHE:N	2.33	0.43
24:B:616:BCR:H15C	24:B:616:BCR:H351	1.80	0.43
23:C:519:CLA:H92	23:C:519:CLA:H61	1.79	0.43
15:U:99:ASN:HD22	15:U:101:GLY:H	1.66	0.43
1:a:334:ARG:NH2	38:a:518:HOH:O	2.51	0.43
2:b:243:ALA:HA	2:b:246:PHE:CE2	2.53	0.43
3:c:334:PRO:HA	13:o:153:THR:OG1	2.19	0.43
1:A:183:MET:HA	23:A:405:CLA:HMD1	2.01	0.43
23:A:405:CLA:H72	23:A:405:CLA:H111	1.76	0.43
17:X:3:ILE:HA	17:X:7:LEU:HD23	2.01	0.43
1:a:140:ARG:HB2	4:d:220:ASN:HA	2.00	0.43
2:b:243:ALA:HA	2:b:246:PHE:CD2	2.53	0.43
13:o:56:PRO:HD3	13:o:63:ALA:HB2	1.99	0.43
23:A:405:CLA:CAB	23:A:406:CLA:HMD1	2.49	0.43
3:C:154:LYS:HB3	3:C:256:PRO:HG2	1.99	0.43
17:x:3:ILE:HA	17:x:7:LEU:HD23	2.01	0.43
2:B:298:LEU:HD23	2:B:298:LEU:HA	1.83	0.43
2:B:372:ASP:OD2	2:B:378:LYS:HD3	2.19	0.43
3:C:334:PRO:HA	13:O:153:THR:OG1	2.19	0.43
3:C:337:LEU:HD22	3:C:342:MET:HE3	2.00	0.43
4:D:342:PRO:O	4:D:345:VAL:HG22	2.18	0.43
19:Z:29:SER:O	19:Z:29:SER:OG	2.29	0.43
24:b:617:BCR:H11C	24:b:617:BCR:H341	1.88	0.43
1:A:102:LEU:HD23	1:A:102:LEU:HA	1.89	0.43
1:A:223:LEU:HD23	1:A:246:TYR:HB3	2.01	0.43
1:A:308:ASP:OD2	1:A:312:ASN:N	2.52	0.43
2:b:321:LYS:HB3	2:b:321:LYS:HE3	1.58	0.43
2:b:372:ASP:OD2	2:b:378:LYS:HD3	2.19	0.43
23:c:503:CLA:HBB2	23:c:510:CLA:C15	2.48	0.43
24:d:405:BCR:H15C	24:d:405:BCR:H351	1.78	0.43
2:B:471:ALA:HB1	4:D:140:PRO:HG2	2.01	0.42
13:O:80:GLN:HB2	13:O:101:ILE:HD12	2.01	0.42
2:b:158:LEU:HB3	2:b:199:VAL:HG22	2.00	0.42
3:c:63:TRP:HB2	23:c:510:CLA:HAC2	2.01	0.42
24:C:514:BCR:HC31	8:I:23:PHE:HB3	2.00	0.42
4:D:55:VAL:HG21	4:D:110:LEU:HD12	2.00	0.42
6:F:37:ILE:HG22	6:F:41:GLN:HE21	1.84	0.42
19:Z:15:LEU:O	19:Z:19:MET:HG2	2.18	0.42
1:a:30:VAL:O	1:a:34:GLY:HA3	2.18	0.42
1:a:172:MET:HE1	23:a:412:CLA:CHC	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:c:507:CLA:H41	23:c:507:CLA:H62	1.74	0.42
4:d:201:VAL:HG22	23:d:403:CLA:C1B	2.50	0.42
24:k:103:BCR:H24C	24:k:103:BCR:H371	1.62	0.42
1:A:172:MET:HE1	23:A:412:CLA:CHC	2.49	0.42
2:B:383:PHE:N	4:D:344:GLU:O	2.47	0.42
4:D:178:ILE:O	4:D:182:LEU:HG	2.19	0.42
5:E:10:PHE:O	5:E:14:ILE:HG12	2.20	0.42
24:K:102:BCR:H15C	24:K:102:BCR:H351	1.86	0.42
14:T:2:GLU:H	14:T:2:GLU:CD	2.27	0.42
1:a:187:GLN:HB2	23:a:405:CLA:HAC2	2.01	0.42
2:b:80:ILE:H	2:b:80:ILE:HG13	1.61	0.42
24:c:514:BCR:H11C	24:c:514:BCR:H341	1.88	0.42
4:d:178:ILE:O	4:d:182:LEU:HG	2.19	0.42
4:d:293:LEU:HD23	4:d:293:LEU:HA	1.84	0.42
16:v:5:PRO:O	16:v:9:THR:OG1	2.35	0.42
29:A:414:LHG:H321	29:A:414:LHG:H132	2.00	0.42
1:a:183:MET:HA	23:a:405:CLA:HMD1	2.01	0.42
23:b:603:CLA:H62	23:b:603:CLA:H41	1.90	0.42
3:c:337:LEU:HD22	3:c:342:MET:HE3	2.00	0.42
1:A:140:ARG:HB2	4:D:220:ASN:HA	2.00	0.42
23:B:605:CLA:H192	23:B:609:CLA:HBB2	2.01	0.42
23:C:503:CLA:HBA2	23:C:504:CLA:H171	2.00	0.42
5:E:36:LEU:O	5:E:40:THR:OG1	2.25	0.42
13:O:216:GLU:CD	13:O:234:LYS:HD2	2.44	0.42
24:a:408:BCR:H15C	24:a:408:BCR:H351	1.78	0.42
24:a:408:BCR:H371	24:a:408:BCR:H24C	1.74	0.42
23:c:502:CLA:C3D	23:c:504:CLA:H2	2.50	0.42
24:B:620:BCR:H24C	24:B:620:BCR:H371	1.76	0.42
3:C:438:LEU:HD23	32:C:515:DGD:HBH1	2.02	0.42
23:C:502:CLA:C3D	23:C:504:CLA:H2	2.50	0.42
4:D:201:VAL:HG22	23:D:403:CLA:C1B	2.50	0.42
15:U:64:ILE:HB	15:U:67:LEU:HD11	2.01	0.42
16:V:5:PRO:O	16:V:9:THR:OG1	2.35	0.42
37:X:101:RRX:H26	37:X:101:RRX:H22	1.90	0.42
15:u:28:ASN:HB3	15:u:87:VAL:HG22	2.01	0.42
1:A:131:TRP:CZ3	23:C:505:CLA:HAA2	2.55	0.42
15:U:28:ASN:HB3	15:U:87:VAL:HG22	2.01	0.42
16:V:3:LEU:HD12	16:V:3:LEU:HA	1.93	0.42
2:b:471:ALA:HB1	4:d:140:PRO:HG2	2.01	0.42
23:c:502:CLA:H142	23:c:502:CLA:H112	1.84	0.42
5:e:10:PHE:O	5:e:14:ILE:HG12	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:B:620:BCR:H15C	24:B:620:BCR:H351	1.77	0.42
23:C:502:CLA:H192	23:C:507:CLA:H122	2.02	0.42
13:O:193:THR:HG21	13:O:220:LEU:HD12	2.01	0.42
14:T:18:PHE:HD1	24:T:102:BCR:H23C	1.85	0.42
24:b:620:BCR:H11C	24:b:620:BCR:H341	1.86	0.42
3:c:204:LEU:HD23	3:c:204:LEU:HA	1.91	0.42
4:d:178:ILE:HD13	4:d:178:ILE:HA	1.95	0.42
4:d:254:SER:OG	14:t:24:ARG:NH1	2.43	0.42
2:B:249:ALA:HA	2:B:252:VAL:HG22	2.02	0.42
4:D:49:LEU:O	4:D:53:THR:OG1	2.35	0.42
37:X:101:RRX:H32	37:X:101:RRX:H28	1.90	0.42
1:a:279:PRO:HG2	4:d:212:ALA:HB2	2.02	0.42
3:c:223:TRP:CE3	3:c:224:ILE:HG12	2.55	0.42
3:c:438:LEU:HD23	32:c:515:DGD:HBH1	2.02	0.42
4:D:296:TYR:OH	4:D:326:ARG:NH1	2.41	0.42
26:D:406:PL9:H221	26:D:406:PL9:H201	1.89	0.42
15:U:79:LEU:HD12	15:U:79:LEU:HA	1.91	0.42
1:a:202:VAL:HG11	23:a:406:CLA:C3D	2.49	0.42
1:a:220:THR:HA	1:a:223:LEU:HG	2.02	0.42
23:b:614:CLA:H13	23:b:614:CLA:H172	1.82	0.42
4:d:79:SER:HA	4:d:172:SER:HB3	2.02	0.42
14:t:26:PRO:HA	14:t:27:PRO:HD3	1.96	0.42
1:A:279:PRO:HG2	4:D:212:ALA:HB2	2.02	0.41
2:B:472:ARG:HA	2:B:479:PHE:CE2	2.55	0.41
31:M:101:LMT:H6'1	11:l:9:PRO:HB3	2.02	0.41
2:b:249:ALA:HA	2:b:252:VAL:HG22	2.02	0.41
2:b:423:LYS:HA	2:b:423:LYS:HD3	1.87	0.41
16:v:28:GLU:O	16:v:32:LEU:HD12	2.20	0.41
23:B:611:CLA:HMA3	23:B:612:CLA:HMC2	2.02	0.41
11:L:9:PRO:HB3	31:m:101:LMT:H6'1	2.02	0.41
24:d:405:BCR:H11C	24:d:405:BCR:H341	1.83	0.41
24:k:102:BCR:H15C	24:k:102:BCR:H351	1.86	0.41
13:o:51:LEU:HD23	13:o:67:PRO:HA	2.03	0.41
13:o:193:THR:HG21	13:o:220:LEU:HD12	2.01	0.41
13:o:216:GLU:CD	13:o:234:LYS:HD2	2.44	0.41
15:u:64:ILE:HB	15:u:67:LEU:HD11	2.01	0.41
1:a:131:TRP:CZ3	23:c:505:CLA:HAA2	2.55	0.41
1:a:308:ASP:OD2	1:a:312:ASN:N	2.52	0.41
23:b:607:CLA:C4A	23:b:607:CLA:HBA2	2.51	0.41
18:y:46:LEU:HD23	18:y:46:LEU:HA	1.95	0.41
1:A:220:THR:HA	1:A:223:LEU:HG	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B:605:CLA:HMA3	23:B:606:CLA:H3A	2.02	0.41
23:C:513:CLA:HBB1	24:C:520:BCR:H371	2.02	0.41
23:b:605:CLA:HMA3	23:b:606:CLA:H3A	2.02	0.41
24:b:616:BCR:H11C	24:b:616:BCR:H341	1.83	0.41
3:c:433:LEU:HD22	23:c:503:CLA:HMC3	2.03	0.41
6:f:37:ILE:HG22	6:f:41:GLN:HE21	1.84	0.41
1:A:260:PHE:CE2	1:A:263:ALA:HB2	2.56	0.41
1:A:283:ILE:HA	1:A:286:THR:HG22	2.00	0.41
23:B:607:CLA:C4A	23:B:607:CLA:HBA2	2.51	0.41
3:C:49:LEU:HD11	23:C:509:CLA:C1C	2.51	0.41
13:O:51:LEU:HD23	13:O:67:PRO:HA	2.03	0.41
1:a:223:LEU:HD23	1:a:246:TYR:HB3	2.01	0.41
1:a:260:PHE:CE2	1:a:263:ALA:HB2	2.56	0.41
2:b:119:ASP:OD1	2:b:124:ARG:NH2	2.37	0.41
2:b:246:PHE:CD1	2:b:246:PHE:C	2.98	0.41
23:c:502:CLA:HHC	23:c:502:CLA:HBB1	2.03	0.41
3:C:63:TRP:HB2	23:C:510:CLA:HAC2	2.01	0.41
3:C:433:LEU:HD22	23:C:503:CLA:HMC3	2.03	0.41
23:C:507:CLA:H62	23:C:507:CLA:H41	1.74	0.41
4:D:51:GLY:HA2	4:D:55:VAL:HB	2.03	0.41
23:a:412:CLA:H92	23:a:412:CLA:H62	1.91	0.41
23:b:612:CLA:CMB	23:b:613:CLA:HBB1	2.51	0.41
4:d:49:LEU:O	4:d:53:THR:OG1	2.35	0.41
2:B:464:PHE:HB2	4:D:280:TRP:CZ2	2.56	0.41
23:B:614:CLA:H172	23:B:614:CLA:H13	1.82	0.41
24:B:616:BCR:H11C	24:B:616:BCR:H341	1.83	0.41
24:B:617:BCR:H11C	24:B:617:BCR:H341	1.88	0.41
24:B:617:BCR:H351	24:B:617:BCR:H15C	1.80	0.41
3:C:57:ALA:O	3:C:61:VAL:HG23	2.20	0.41
24:C:514:BCR:H24C	24:C:514:BCR:H371	1.77	0.41
15:U:31:ASN:ND2	15:U:96:ASP:O	2.54	0.41
13:o:81:ILE:HG23	13:o:97:GLU:HG3	2.02	0.41
6:F:37:ILE:O	6:F:41:GLN:HG2	2.21	0.41
10:K:20:PRO:O	10:K:23:ASP:HB2	2.20	0.41
13:O:81:ILE:HG23	13:O:97:GLU:HG3	2.02	0.41
24:b:620:BCR:H20C	24:b:620:BCR:H361	1.95	0.41
4:d:51:GLY:HA3	4:d:78:VAL:HG22	2.03	0.41
1:A:329:GLU:OE1	16:V:134:LYS:HE2	2.21	0.41
23:C:507:CLA:O1A	23:C:509:CLA:H61	2.21	0.41
24:C:520:BCR:H11C	24:C:520:BCR:H341	1.88	0.41
4:D:51:GLY:HA3	4:D:78:VAL:HG22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:79:SER:HA	4:D:172:SER:HB3	2.02	0.41
14:T:26:PRO:HA	14:T:27:PRO:HD3	1.96	0.41
15:U:48:LEU:HD23	15:U:48:LEU:HA	1.89	0.41
15:U:104:LYS:HD2	16:V:45:ILE:HG22	2.03	0.41
1:a:45:THR:HG23	23:a:412:CLA:H201	2.03	0.41
23:a:405:CLA:H72	23:a:405:CLA:H111	1.76	0.41
2:b:137:LYS:NZ	7:h:17:GLU:OE1	2.34	0.41
3:c:57:ALA:O	3:c:61:VAL:HG23	2.20	0.41
23:c:502:CLA:H192	23:c:507:CLA:H122	2.02	0.41
6:f:37:ILE:O	6:f:41:GLN:HG2	2.21	0.41
19:z:19:MET:O	19:z:23:VAL:HG23	2.21	0.41
3:C:223:TRP:CE3	3:C:224:ILE:HG12	2.55	0.41
5:E:64:PRO:HB2	5:E:79:PHE:CD1	2.55	0.41
7:H:43:LEU:O	7:H:47:GLU:HG3	2.21	0.41
18:Y:46:LEU:HD23	18:Y:46:LEU:HA	1.95	0.41
2:b:472:ARG:HA	2:b:479:PHE:CE2	2.55	0.41
5:e:64:PRO:HB2	5:e:79:PHE:CD1	2.55	0.41
2:B:246:PHE:CD1	2:B:246:PHE:C	2.98	0.40
23:B:604:CLA:H111	23:B:604:CLA:H152	1.92	0.40
4:D:178:ILE:HD13	4:D:178:ILE:HA	1.95	0.40
24:K:102:BCR:H11C	24:K:102:BCR:H341	1.94	0.40
16:V:28:GLU:O	16:V:32:LEU:HD12	2.20	0.40
19:Z:19:MET:O	19:Z:23:VAL:HG23	2.21	0.40
1:a:329:GLU:OE1	16:v:134:LYS:HE2	2.21	0.40
3:c:166:ILE:O	3:c:170:ILE:HG13	2.21	0.40
3:c:297:TYR:O	3:c:423:ARG:NH2	2.48	0.40
23:c:513:CLA:HBB1	24:c:520:BCR:H371	2.02	0.40
4:d:135:LEU:HD12	4:d:135:LEU:HA	1.90	0.40
1:A:12:ASN:O	1:A:16:GLN:HG3	2.21	0.40
3:C:61:VAL:HG12	3:C:118:HIS:O	2.21	0.40
23:C:502:CLA:H142	23:C:502:CLA:H112	1.84	0.40
4:D:49:LEU:HD13	24:D:405:BCR:C15	2.51	0.40
4:D:254:SER:OG	14:T:24:ARG:NH1	2.43	0.40
14:T:18:PHE:CD1	24:T:102:BCR:H23C	2.57	0.40
1:a:12:ASN:O	1:a:16:GLN:HG3	2.21	0.40
3:c:61:VAL:HG12	3:c:118:HIS:O	2.21	0.40
4:d:51:GLY:HA2	4:d:55:VAL:HB	2.03	0.40
1:A:45:THR:HG23	23:A:412:CLA:H201	2.03	0.40
2:B:493:TRP:HB3	5:E:5:THR:HG23	2.03	0.40
23:B:613:CLA:H41	23:B:613:CLA:H62	1.55	0.40
23:B:621:CLA:H111	23:B:621:CLA:H143	1.82	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:b:616:BCR:H24C	24:b:616:BCR:H371	1.87	0.40
3:c:60:ILE:HG22	23:c:504:CLA:HHD	2.04	0.40
15:u:31:ASN:ND2	15:u:96:ASP:O	2.54	0.40
1:A:112:TYR:O	1:A:116:ILE:HG12	2.22	0.40
1:a:214:MET:HE2	1:a:255:PHE:CE1	2.56	0.40
23:c:507:CLA:H142	23:c:507:CLA:H112	1.91	0.40
7:h:43:LEU:O	7:h:47:GLU:HG3	2.21	0.40
14:t:18:PHE:CD1	24:t:102:BCR:H23C	2.57	0.40
19:z:15:LEU:O	19:z:18:VAL:HG22	2.21	0.40
1:A:214:MET:HE2	1:A:255:PHE:CE1	2.56	0.40
23:A:412:CLA:HBB1	23:A:412:CLA:CHC	2.44	0.40
2:B:247:PHE:CE1	23:B:602:CLA:H121	2.57	0.40
2:B:423:LYS:HD3	2:B:423:LYS:HA	1.87	0.40
23:c:507:CLA:O1A	23:c:509:CLA:H61	2.21	0.40
4:d:80:THR:HG22	4:d:111:TRP:CE2	2.57	0.40
10:k:20:PRO:O	10:k:23:ASP:HB2	2.20	0.40
14:t:18:PHE:HD1	24:t:102:BCR:H23C	1.85	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	332/360 (92%)	328 (99%)	4 (1%)	0	100	100
1	a	332/360 (92%)	328 (99%)	4 (1%)	0	100	100
2	B	503/510 (99%)	498 (99%)	4 (1%)	1 (0%)	43	36
2	b	503/510 (99%)	498 (99%)	4 (1%)	1 (0%)	43	36
3	C	448/461 (97%)	441 (98%)	7 (2%)	0	100	100
3	c	448/461 (97%)	441 (98%)	7 (2%)	0	100	100
4	D	339/352 (96%)	334 (98%)	5 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	d	339/352 (96%)	334 (98%)	5 (2%)	0	100	100
5	E	78/84 (93%)	78 (100%)	0	0	100	100
5	e	78/84 (93%)	78 (100%)	0	0	100	100
6	F	31/45 (69%)	31 (100%)	0	0	100	100
6	f	31/45 (69%)	31 (100%)	0	0	100	100
7	H	60/66 (91%)	59 (98%)	1 (2%)	0	100	100
7	h	60/66 (91%)	59 (98%)	1 (2%)	0	100	100
8	I	34/38 (90%)	32 (94%)	2 (6%)	0	100	100
8	i	34/38 (90%)	32 (94%)	2 (6%)	0	100	100
9	J	32/40 (80%)	32 (100%)	0	0	100	100
9	j	32/40 (80%)	32 (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	35/37 (95%)	35 (100%)	0	0	100	100
12	M	32/36 (89%)	31 (97%)	1 (3%)	0	100	100
12	m	32/36 (89%)	31 (97%)	1 (3%)	0	100	100
13	O	242/272 (89%)	228 (94%)	14 (6%)	0	100	100
13	o	242/272 (89%)	228 (94%)	14 (6%)	0	100	100
14	T	27/32 (84%)	27 (100%)	0	0	100	100
14	t	27/32 (84%)	27 (100%)	0	0	100	100
15	U	95/134 (71%)	94 (99%)	1 (1%)	0	100	100
15	u	95/134 (71%)	94 (99%)	1 (1%)	0	100	100
16	V	135/163 (83%)	134 (99%)	1 (1%)	0	100	100
16	v	135/163 (83%)	134 (99%)	1 (1%)	0	100	100
17	X	35/41 (85%)	35 (100%)	0	0	100	100
17	x	35/41 (85%)	35 (100%)	0	0	100	100
18	Y	27/46 (59%)	27 (100%)	0	0	100	100
18	y	27/46 (59%)	27 (100%)	0	0	100	100
19	Z	59/62 (95%)	59 (100%)	0	0	100	100
19	z	59/62 (95%)	59 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
All	All	5158/5650 (91%)	5076 (98%)	80 (2%)	2 (0%)	100	100

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	86	ILE
2	b	86	ILE

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	257/291 (88%)	257 (100%)	0	100	100
1	a	257/291 (88%)	257 (100%)	0	100	100
2	B	364/407 (89%)	360 (99%)	4 (1%)	65	64
2	b	364/407 (89%)	360 (99%)	4 (1%)	65	64
3	C	330/362 (91%)	328 (99%)	2 (1%)	78	79
3	c	330/362 (91%)	328 (99%)	2 (1%)	78	79
4	D	267/283 (94%)	267 (100%)	0	100	100
4	d	267/283 (94%)	267 (100%)	0	100	100
5	E	60/73 (82%)	60 (100%)	0	100	100
5	e	60/73 (82%)	60 (100%)	0	100	100
6	F	26/39 (67%)	26 (100%)	0	100	100
6	f	26/39 (67%)	26 (100%)	0	100	100
7	H	53/55 (96%)	51 (96%)	2 (4%)	29	19
7	h	53/55 (96%)	51 (96%)	2 (4%)	29	19
8	I	29/35 (83%)	28 (97%)	1 (3%)	32	23
8	i	29/35 (83%)	28 (97%)	1 (3%)	32	23
9	J	22/28 (79%)	22 (100%)	0	100	100
9	j	22/28 (79%)	22 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
10	K	25/37 (68%)	24 (96%)	1 (4%)	28	17
10	k	25/37 (68%)	24 (96%)	1 (4%)	28	17
11	L	32/35 (91%)	32 (100%)	0	100	100
11	l	32/35 (91%)	32 (100%)	0	100	100
12	M	27/33 (82%)	27 (100%)	0	100	100
12	m	27/33 (82%)	27 (100%)	0	100	100
13	O	151/228 (66%)	150 (99%)	1 (1%)	76	76
13	o	151/228 (66%)	150 (99%)	1 (1%)	76	76
14	T	23/29 (79%)	23 (100%)	0	100	100
14	t	23/29 (79%)	23 (100%)	0	100	100
15	U	65/112 (58%)	64 (98%)	1 (2%)	57	54
15	u	65/112 (58%)	64 (98%)	1 (2%)	57	54
16	V	92/138 (67%)	92 (100%)	0	100	100
16	v	92/138 (67%)	92 (100%)	0	100	100
17	X	23/34 (68%)	23 (100%)	0	100	100
17	x	23/34 (68%)	23 (100%)	0	100	100
18	Y	11/37 (30%)	11 (100%)	0	100	100
18	y	11/37 (30%)	11 (100%)	0	100	100
19	Z	24/52 (46%)	24 (100%)	0	100	100
19	z	24/52 (46%)	24 (100%)	0	100	100
All	All	3762/4616 (82%)	3738 (99%)	24 (1%)	76	79

All (24) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	B	240	SER
2	B	362	PHE
2	B	388	SER
2	B	479	PHE
3	C	176	VAL
3	C	346	THR
7	H	3[A]	ARG
7	H	3[B]	ARG
8	I	36	ASP
10	K	46	ARG

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Mol	Chain	Res	Type
13	O	135	SER
15	U	79	LEU
2	b	240	SER
2	b	362	PHE
2	b	388	SER
2	b	479	PHE
3	c	176	VAL
3	c	346	THR
7	h	3[A]	ARG
7	h	3[B]	ARG
8	i	36	ASP
10	k	46	ARG
13	o	135	SER
15	u	79	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (65) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	25	ASN
1	A	165	GLN
1	A	234	ASN
1	A	247	ASN
1	A	296	ASN
2	B	179	GLN
2	B	194	ASN
2	B	282	GLN
2	B	343	HIS
3	C	25	ASN
3	C	74	HIS
3	C	155	ASN
3	C	311	GLN
3	C	322	GLN
3	C	332	GLN
3	C	388	GLN
4	D	338	ASN
4	D	350	ASN
5	E	82	GLN
7	H	59	ASN
11	L	6	ASN
11	L	8	GLN
12	M	32	GLN
13	O	46	GLN

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Mol	Chain	Res	Type
13	O	228	HIS
13	O	231	HIS
15	U	71	GLN
15	U	78	ASN
15	U	81	HIS
15	U	99	ASN
17	X	33	GLN
19	Z	58	ASN
1	a	25	ASN
1	a	165	GLN
1	a	234	ASN
1	a	247	ASN
1	a	296	ASN
2	b	179	GLN
2	b	194	ASN
2	b	282	GLN
2	b	343	HIS
3	c	25	ASN
3	c	74	HIS
3	c	155	ASN
3	c	311	GLN
3	c	322	GLN
3	c	332	GLN
3	c	388	GLN
4	d	350	ASN
5	e	82	GLN
7	h	59	ASN
11	l	6	ASN
11	l	8	GLN
12	m	32	GLN
13	o	46	GLN
13	o	124	ASN
13	o	228	HIS
13	o	231	HIS
15	u	71	GLN
15	u	78	ASN
15	u	81	HIS
15	u	99	ASN
16	v	49	ASN
17	x	33	GLN
19	z	58	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 174 ligands modelled in this entry, 8 are monoatomic and 24 are unknown - leaving 142 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$
23	CLA	b	610	38	69,73,73	2.06	20 (28%)	83,113,113	2.82	29 (34%)
24	BCR	t	102	-	41,41,41	1.08	1 (2%)	56,56,56	1.97	19 (33%)
23	CLA	c	508	3	64,68,73	2.14	20 (31%)	77,107,113	2.93	30 (38%)
26	PL9	D	406	-	55,55,55	0.58	1 (1%)	68,69,69	1.75	19 (27%)
32	DGD	H	101	-	63,63,67	0.85	2 (3%)	77,77,81	0.91	3 (3%)
26	PL9	d	406	-	55,55,55	0.58	1 (1%)	68,69,69	1.75	19 (27%)
23	CLA	C	504	3	69,73,73	2.06	20 (28%)	83,113,113	2.85	28 (33%)
24	BCR	K	102	-	41,41,41	1.10	1 (2%)	56,56,56	1.75	14 (25%)
34	HEM	F	102	5,6	50,50,50	1.53	6 (12%)	66,82,82	1.70	12 (18%)
23	CLA	B	604	2	69,73,73	2.03	19 (27%)	83,113,113	2.78	31 (37%)
23	CLA	c	513	3	46,50,73	2.45	20 (43%)	55,85,113	3.38	27 (49%)
23	CLA	C	519	38	69,73,73	2.07	21 (30%)	83,113,113	2.84	31 (37%)
32	DGD	h	101	-	63,63,67	0.85	2 (3%)	77,77,81	0.91	3 (3%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
24	BCR	C	520	-	41,41,41	1.09	1 (2%)	56,56,56	1.97	19 (33%)
25	SQD	A	409	-	31,32,54	1.29	3 (9%)	40,43,65	1.48	6 (15%)
23	CLA	B	610	38	69,73,73	2.06	20 (28%)	83,113,113	2.82	29 (34%)
23	CLA	b	602	2	69,73,73	2.06	20 (28%)	83,113,113	2.83	31 (37%)
23	CLA	c	502	3	69,73,73	2.07	20 (28%)	83,113,113	2.79	28 (33%)
23	CLA	A	407	1	55,59,73	2.32	20 (36%)	66,96,113	3.18	31 (46%)
30	LMG	B	618	-	45,45,55	0.98	2 (4%)	53,53,63	1.07	3 (5%)
23	CLA	d	403	4	69,73,73	2.02	20 (28%)	83,113,113	2.87	30 (36%)
23	CLA	C	508	3	64,68,73	2.14	20 (31%)	77,107,113	2.93	30 (38%)
23	CLA	B	602	2	69,73,73	2.06	20 (28%)	83,113,113	2.83	31 (37%)
25	SQD	F	101	-	22,23,54	1.02	2 (9%)	30,33,65	1.08	2 (6%)
20	OEX	a	401	38,1,3	0,14,14	-	-	-	-	-
24	BCR	c	514	-	41,41,41	1.08	1 (2%)	56,56,56	1.82	17 (30%)
23	CLA	B	609	2	69,73,73	2.04	20 (28%)	83,113,113	2.82	30 (36%)
29	LHG	D	407	-	48,48,48	0.92	2 (4%)	51,54,54	1.06	3 (5%)
23	CLA	c	519	38	69,73,73	2.07	21 (30%)	83,113,113	2.84	31 (37%)
32	DGD	c	518	-	54,54,67	0.91	2 (3%)	68,68,81	1.03	3 (4%)
30	LMG	C	501	-	47,47,55	0.97	2 (4%)	55,55,63	1.19	5 (9%)
23	CLA	b	601	38	46,50,73	2.45	19 (41%)	55,85,113	3.34	28 (50%)
24	BCR	K	103	-	41,41,41	1.07	1 (2%)	56,56,56	1.99	15 (26%)
20	OEX	A	401	38,1,3	0,14,14	-	-	-	-	-
23	CLA	b	613	2	58,62,73	2.23	20 (34%)	69,99,113	3.05	30 (43%)
26	PL9	A	410	-	55,55,55	0.61	1 (1%)	68,69,69	1.82	21 (30%)
23	CLA	C	513	3	46,50,73	2.45	20 (43%)	55,85,113	3.38	27 (49%)
23	CLA	C	506	3	50,54,73	2.41	21 (42%)	60,90,113	3.18	27 (45%)
24	BCR	b	616	-	41,41,41	1.08	1 (2%)	56,56,56	1.75	12 (21%)
23	CLA	A	405	1	69,73,73	2.04	20 (28%)	83,113,113	2.85	32 (38%)
23	CLA	C	512	3	56,60,73	2.28	20 (35%)	67,97,113	3.13	30 (44%)
23	CLA	C	510	3	69,73,73	2.06	20 (28%)	83,113,113	2.82	31 (37%)
23	CLA	C	503	3	69,73,73	2.05	20 (28%)	83,113,113	2.78	29 (34%)
23	CLA	a	412	38	69,73,73	2.08	21 (30%)	83,113,113	2.84	30 (36%)
23	CLA	c	510	3	69,73,73	2.06	20 (28%)	83,113,113	2.82	31 (37%)
23	CLA	B	601	38	46,50,73	2.45	19 (41%)	55,85,113	3.34	28 (50%)
25	SQD	f	101	-	22,23,54	1.02	2 (9%)	30,33,65	1.08	2 (6%)
29	LHG	b	622	-	48,48,48	0.93	2 (4%)	51,54,54	1.04	3 (5%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
29	LHG	d	407	-	48,48,48	0.92	2 (4%)	51,54,54	1.06	3 (5%)
24	BCR	b	620	-	41,41,41	1.04	1 (2%)	56,56,56	1.77	13 (23%)
23	CLA	C	502	3	69,73,73	2.07	20 (28%)	83,113,113	2.79	28 (33%)
24	BCR	T	102	-	41,41,41	1.08	1 (2%)	56,56,56	1.97	19 (33%)
23	CLA	b	606	2	69,73,73	2.06	20 (28%)	83,113,113	2.83	32 (38%)
23	CLA	b	605	2	69,73,73	2.05	20 (28%)	83,113,113	2.86	28 (33%)
33	PHO	D	402	-	58,69,69	2.77	15 (25%)	56,99,99	2.83	15 (26%)
23	CLA	B	607	38	69,73,73	2.05	20 (28%)	83,113,113	2.80	31 (37%)
23	CLA	c	507	38	69,73,73	2.05	20 (28%)	83,113,113	2.81	28 (33%)
31	LMT	M	101	-	36,36,36	0.15	0	47,47,47	0.35	0
37	RRX	X	101	-	42,42,42	1.62	8 (19%)	57,58,58	1.43	10 (17%)
29	LHG	A	414	-	38,38,48	1.05	2 (5%)	41,44,54	1.15	4 (9%)
30	LMG	j	101	-	38,38,55	1.06	2 (5%)	46,46,63	1.12	4 (8%)
23	CLA	c	505	3	59,63,73	2.20	20 (33%)	71,101,113	3.03	30 (42%)
23	CLA	C	509	3	69,73,73	2.08	20 (28%)	83,113,113	2.77	30 (36%)
26	PL9	a	410	-	55,55,55	0.61	1 (1%)	68,69,69	1.82	21 (30%)
37	RRX	x	101	-	42,42,42	1.62	8 (19%)	57,58,58	1.43	10 (17%)
23	CLA	B	606	2	69,73,73	2.06	20 (28%)	83,113,113	2.83	32 (38%)
24	BCR	C	514	-	41,41,41	1.08	1 (2%)	56,56,56	1.82	17 (30%)
36	HEC	v	201	16	50,50,50	1.72	7 (14%)	68,82,82	1.42	5 (7%)
31	LMT	m	101	-	36,36,36	0.15	0	47,47,47	0.35	0
23	CLA	B	614	2	69,73,73	2.06	20 (28%)	83,113,113	2.82	29 (34%)
24	BCR	A	408	-	41,41,41	1.07	1 (2%)	56,56,56	1.78	15 (26%)
24	BCR	k	102	-	41,41,41	1.10	1 (2%)	56,56,56	1.75	14 (25%)
23	CLA	a	406	38	60,64,73	2.23	21 (35%)	72,102,113	3.01	31 (43%)
23	CLA	a	407	1	55,59,73	2.32	20 (36%)	66,96,113	3.18	31 (46%)
30	LMG	c	501	-	47,47,55	0.97	2 (4%)	55,55,63	1.19	5 (9%)
23	CLA	d	404	4	49,53,73	2.45	20 (40%)	59,89,113	3.25	27 (45%)
23	CLA	B	615	2	49,53,73	2.43	20 (40%)	59,89,113	3.25	25 (42%)
23	CLA	B	608	2	69,73,73	2.05	20 (28%)	83,113,113	2.79	28 (33%)
31	LMT	J	102	-	24,24,36	0.15	0	29,29,47	0.29	0
32	DGD	C	515	-	53,53,67	0.92	2 (3%)	67,67,81	1.03	3 (4%)
23	CLA	B	611	2	69,73,73	2.05	20 (28%)	83,113,113	2.84	28 (33%)
23	CLA	b	609	2	69,73,73	2.04	20 (28%)	83,113,113	2.83	30 (36%)
32	DGD	c	516	-	51,51,67	0.94	2 (3%)	65,65,81	1.08	4 (6%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
23	CLA	b	607	38	69,73,73	2.05	20 (28%)	83,113,113	2.80	31 (37%)
23	CLA	D	404	4	49,53,73	2.45	20 (40%)	59,89,113	3.25	27 (45%)
28	BCT	a	413[A]	21	2,3,3	0.70	0	2,3,3	0.67	0
23	CLA	B	613	2	58,62,73	2.23	20 (34%)	69,99,113	3.05	30 (43%)
24	BCR	D	405	-	41,41,41	1.08	1 (2%)	56,56,56	2.02	11 (19%)
23	CLA	a	405	1	69,73,73	2.04	20 (28%)	83,113,113	2.85	32 (38%)
23	CLA	b	612	2	69,73,73	2.04	19 (27%)	83,113,113	2.75	29 (34%)
23	CLA	b	615	2	49,53,73	2.43	20 (40%)	59,89,113	3.25	25 (42%)
23	CLA	b	608	2	69,73,73	2.05	20 (28%)	83,113,113	2.79	28 (33%)
24	BCR	B	616	-	41,41,41	1.08	1 (2%)	56,56,56	1.75	12 (21%)
24	BCR	d	405	-	41,41,41	1.08	1 (2%)	56,56,56	2.02	11 (19%)
23	CLA	A	406	38	60,64,73	2.23	21 (35%)	72,102,113	3.01	31 (43%)
33	PHO	D	401	-	58,69,69	2.74	15 (25%)	56,99,99	2.86	17 (30%)
33	PHO	d	401	-	58,69,69	2.74	15 (25%)	56,99,99	2.86	17 (30%)
29	LHG	a	414	-	38,38,48	1.05	2 (5%)	41,44,54	1.15	4 (9%)
32	DGD	C	518	-	54,54,67	0.91	2 (3%)	68,68,81	1.03	3 (4%)
23	CLA	D	403	4	69,73,73	2.02	20 (28%)	83,113,113	2.87	30 (36%)
23	CLA	B	605	2	69,73,73	2.05	20 (28%)	83,113,113	2.86	28 (33%)
23	CLA	C	507	38	69,73,73	2.05	20 (28%)	83,113,113	2.81	28 (33%)
28	BCT	A	413[A]	21	2,3,3	0.70	0	2,3,3	0.67	0
29	LHG	L	101	-	48,48,48	0.92	2 (4%)	51,54,54	1.05	3 (5%)
23	CLA	B	603	2	69,73,73	2.05	20 (28%)	83,113,113	2.79	32 (38%)
23	CLA	c	509	3	69,73,73	2.08	20 (28%)	83,113,113	2.77	30 (36%)
24	BCR	a	408	-	41,41,41	1.07	1 (2%)	56,56,56	1.78	15 (26%)
23	CLA	b	604	2	69,73,73	2.03	19 (27%)	83,113,113	2.78	31 (37%)
24	BCR	c	520	-	41,41,41	1.09	1 (2%)	56,56,56	1.97	19 (33%)
25	SQD	a	409	-	31,32,54	1.29	3 (9%)	40,43,65	1.48	6 (15%)
24	BCR	B	620	-	41,41,41	1.05	1 (2%)	56,56,56	1.76	13 (23%)
29	LHG	l	101	-	48,48,48	0.92	2 (4%)	51,54,54	1.05	3 (5%)
24	BCR	k	103	-	41,41,41	1.07	1 (2%)	56,56,56	1.99	15 (26%)
23	CLA	C	511	3	69,73,73	2.05	20 (28%)	83,113,113	2.81	28 (33%)
23	CLA	c	503	3	69,73,73	2.05	20 (28%)	83,113,113	2.78	29 (34%)
23	CLA	B	621	2	69,73,73	2.04	20 (28%)	83,113,113	2.77	29 (34%)
32	DGD	C	516	-	51,51,67	0.94	2 (3%)	65,65,81	1.08	4 (6%)
30	LMG	J	101	-	38,38,55	1.06	2 (5%)	46,46,63	1.12	4 (8%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
23	CLA	c	511	3	69,73,73	2.05	20 (28%)	83,113,113	2.81	28 (33%)
23	CLA	b	614	2	69,73,73	2.05	20 (28%)	83,113,113	2.82	29 (34%)
36	HEC	V	201	16	50,50,50	1.72	6 (12%)	68,82,82	1.42	5 (7%)
30	LMG	b	618	-	45,45,55	0.98	2 (4%)	53,53,63	1.07	3 (5%)
23	CLA	c	512	3	56,60,73	2.28	20 (35%)	67,97,113	3.13	30 (44%)
34	HEM	f	102	5,6	50,50,50	1.53	6 (12%)	66,82,82	1.70	12 (18%)
33	PHO	d	402	-	58,69,69	2.77	15 (25%)	56,99,99	2.83	15 (26%)
23	CLA	c	504	3	69,73,73	2.06	20 (28%)	83,113,113	2.85	28 (33%)
32	DGD	c	515	-	53,53,67	0.92	2 (3%)	67,67,81	1.03	3 (4%)
23	CLA	b	603	2	69,73,73	2.05	20 (28%)	83,113,113	2.80	32 (38%)
24	BCR	b	617	-	41,41,41	1.07	1 (2%)	56,56,56	1.76	13 (23%)
23	CLA	b	611	2	69,73,73	2.05	20 (28%)	83,113,113	2.84	28 (33%)
23	CLA	A	412	38	69,73,73	2.07	21 (30%)	83,113,113	2.84	30 (36%)
23	CLA	C	505	3	59,63,73	2.20	20 (33%)	71,101,113	3.03	30 (42%)
24	BCR	B	617	-	41,41,41	1.07	1 (2%)	56,56,56	1.76	14 (25%)
23	CLA	B	612	2	69,73,73	2.04	19 (27%)	83,113,113	2.75	28 (33%)
29	LHG	A	415	-	30,30,48	0.99	2 (6%)	33,35,54	1.15	2 (6%)
31	LMT	M	102	-	36,36,36	0.15	0	47,47,47	0.29	0
29	LHG	B	622	-	48,48,48	0.94	2 (4%)	51,54,54	1.04	3 (5%)
31	LMT	j	102	-	24,24,36	0.15	0	29,29,47	0.29	0
23	CLA	b	621	2	69,73,73	2.04	20 (28%)	83,113,113	2.77	28 (33%)
29	LHG	a	415	-	30,30,48	0.99	2 (6%)	33,35,54	1.15	2 (6%)
23	CLA	c	506	3	50,54,73	2.41	21 (42%)	60,90,113	3.18	27 (45%)
31	LMT	B	623	-	36,36,36	0.15	0	47,47,47	0.29	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
23	CLA	b	610	38	-	4/39/115/115	-
24	BCR	t	102	-	-	7/29/63/63	0/2/2/2
23	CLA	c	508	3	-	8/33/109/115	-
26	PL9	D	406	-	-	14/53/73/73	0/1/1/1
32	DGD	H	101	-	-	6/51/91/95	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
26	PL9	d	406	-	-	14/53/73/73	0/1/1/1
23	CLA	C	504	3	-	2/39/115/115	-
24	BCR	K	102	-	-	5/29/63/63	0/2/2/2
34	HEM	F	102	5,6	-	8/14/54/54	-
23	CLA	B	604	2	-	8/39/115/115	-
23	CLA	c	513	3	-	0/12/88/115	-
23	CLA	C	519	38	-	12/39/115/115	-
32	DGD	h	101	-	-	6/51/91/95	0/2/2/2
24	BCR	C	520	-	-	2/29/63/63	0/2/2/2
25	SQD	A	409	-	-	3/27/47/69	0/1/1/1
23	CLA	B	610	38	-	4/39/115/115	-
23	CLA	b	602	2	-	5/39/115/115	-
23	CLA	c	502	3	-	7/39/115/115	-
23	CLA	A	407	1	-	4/23/99/115	-
30	LMG	B	618	-	-	2/40/60/70	0/1/1/1
23	CLA	d	403	4	-	2/39/115/115	-
23	CLA	C	508	3	-	8/33/109/115	-
23	CLA	B	602	2	-	5/39/115/115	-
25	SQD	F	101	-	-	2/15/35/69	0/1/1/1
24	BCR	c	514	-	-	2/29/63/63	0/2/2/2
23	CLA	B	609	2	-	4/39/115/115	-
29	LHG	D	407	-	-	10/53/53/53	-
23	CLA	c	519	38	-	12/39/115/115	-
32	DGD	c	518	-	-	3/42/82/95	0/2/2/2
30	LMG	C	501	-	-	5/42/62/70	0/1/1/1
23	CLA	b	601	38	-	3/12/88/115	-
24	BCR	K	103	-	-	0/29/63/63	0/2/2/2
23	CLA	b	613	2	-	12/26/102/115	-
26	PL9	A	410	-	-	14/53/73/73	0/1/1/1
23	CLA	C	513	3	-	0/12/88/115	-
23	CLA	C	506	3	-	6/17/93/115	-
24	BCR	b	616	-	-	2/29/63/63	0/2/2/2
23	CLA	A	405	1	-	5/39/115/115	-
23	CLA	C	512	3	-	10/24/100/115	-
23	CLA	C	510	3	-	8/39/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	CLA	C	503	3	-	7/39/115/115	-
23	CLA	a	412	38	-	7/39/115/115	-
23	CLA	c	510	3	-	8/39/115/115	-
23	CLA	B	601	38	-	3/12/88/115	-
25	SQD	f	101	-	-	2/15/35/69	0/1/1/1
29	LHG	b	622	-	-	22/53/53/53	-
29	LHG	d	407	-	-	10/53/53/53	-
24	BCR	b	620	-	-	0/29/63/63	0/2/2/2
23	CLA	C	502	3	-	7/39/115/115	-
24	BCR	T	102	-	-	7/29/63/63	0/2/2/2
23	CLA	b	606	2	-	10/39/115/115	-
23	CLA	b	605	2	-	6/39/115/115	-
33	PHO	D	402	-	-	0/37/103/103	0/5/6/6
23	CLA	B	607	38	-	13/39/115/115	-
23	CLA	c	507	38	-	9/39/115/115	-
31	LMT	M	101	-	-	1/21/61/61	0/2/2/2
37	RRX	X	101	-	-	9/29/65/65	0/2/2/2
29	LHG	A	414	-	-	10/43/43/53	-
30	LMG	j	101	-	-	3/33/53/70	0/1/1/1
23	CLA	c	505	3	-	9/27/103/115	-
23	CLA	C	509	3	-	10/39/115/115	-
26	PL9	a	410	-	-	14/53/73/73	0/1/1/1
37	RRX	x	101	-	-	9/29/65/65	0/2/2/2
23	CLA	B	606	2	-	10/39/115/115	-
24	BCR	C	514	-	-	2/29/63/63	0/2/2/2
36	HEC	v	201	16	1/1/3/7	2/14/54/54	-
31	LMT	m	101	-	-	1/21/61/61	0/2/2/2
23	CLA	B	614	2	-	9/39/115/115	-
24	BCR	A	408	-	-	3/29/63/63	0/2/2/2
24	BCR	k	102	-	-	5/29/63/63	0/2/2/2
23	CLA	a	406	38	-	2/29/105/115	-
23	CLA	a	407	1	-	4/23/99/115	-
30	LMG	c	501	-	-	5/42/62/70	0/1/1/1
23	CLA	d	404	4	-	0/15/91/115	-
23	CLA	B	615	2	-	3/15/91/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	CLA	B	608	2	-	4/39/115/115	-
31	LMT	J	102	-	-	0/15/35/61	0/1/1/2
32	DGD	C	515	-	-	9/41/81/95	0/2/2/2
23	CLA	B	611	2	-	7/39/115/115	-
23	CLA	b	609	2	-	4/39/115/115	-
32	DGD	c	516	-	-	6/39/79/95	0/2/2/2
23	CLA	b	607	38	-	13/39/115/115	-
23	CLA	D	404	4	-	0/15/91/115	-
23	CLA	B	613	2	-	12/26/102/115	-
24	BCR	D	405	-	-	8/29/63/63	0/2/2/2
23	CLA	a	405	1	-	5/39/115/115	-
23	CLA	b	612	2	-	10/39/115/115	-
23	CLA	b	615	2	-	3/15/91/115	-
23	CLA	b	608	2	-	4/39/115/115	-
24	BCR	B	616	-	-	2/29/63/63	0/2/2/2
24	BCR	d	405	-	-	8/29/63/63	0/2/2/2
23	CLA	A	406	38	-	2/29/105/115	-
33	PHO	D	401	-	-	6/37/103/103	0/5/6/6
33	PHO	d	401	-	-	6/37/103/103	0/5/6/6
29	LHG	a	414	-	-	10/43/43/53	-
32	DGD	C	518	-	-	3/42/82/95	0/2/2/2
23	CLA	D	403	4	-	2/39/115/115	-
23	CLA	B	605	2	-	6/39/115/115	-
23	CLA	C	507	38	-	9/39/115/115	-
29	LHG	L	101	-	-	14/53/53/53	-
23	CLA	B	603	2	-	7/39/115/115	-
23	CLA	c	509	3	-	10/39/115/115	-
24	BCR	a	408	-	-	4/29/63/63	0/2/2/2
23	CLA	b	604	2	-	8/39/115/115	-
24	BCR	c	520	-	-	2/29/63/63	0/2/2/2
25	SQD	a	409	-	-	3/27/47/69	0/1/1/1
24	BCR	B	620	-	-	0/29/63/63	0/2/2/2
29	LHG	l	101	-	-	14/53/53/53	-
24	BCR	k	103	-	-	0/29/63/63	0/2/2/2
23	CLA	C	511	3	-	5/39/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	CLA	c	503	3	-	7/39/115/115	-
23	CLA	B	621	2	-	5/39/115/115	-
32	DGD	C	516	-	-	6/39/79/95	0/2/2/2
30	LMG	J	101	-	-	3/33/53/70	0/1/1/1
36	HEC	V	201	16	1/1/3/7	2/14/54/54	-
23	CLA	b	614	2	-	9/39/115/115	-
23	CLA	c	511	3	-	5/39/115/115	-
30	LMG	b	618	-	-	2/40/60/70	0/1/1/1
23	CLA	c	512	3	-	10/24/100/115	-
34	HEM	f	102	5,6	-	8/14/54/54	-
33	PHO	d	402	-	-	0/37/103/103	0/5/6/6
23	CLA	c	504	3	-	2/39/115/115	-
32	DGD	c	515	-	-	9/41/81/95	0/2/2/2
23	CLA	b	603	2	-	7/39/115/115	-
24	BCR	b	617	-	-	4/29/63/63	0/2/2/2
23	CLA	b	611	2	-	7/39/115/115	-
23	CLA	A	412	38	-	7/39/115/115	-
23	CLA	C	505	3	-	9/27/103/115	-
24	BCR	B	617	-	-	4/29/63/63	0/2/2/2
23	CLA	B	612	2	-	10/39/115/115	-
29	LHG	A	415	-	-	7/33/33/53	-
31	LMT	M	102	-	-	2/21/61/61	0/2/2/2
29	LHG	B	622	-	-	22/53/53/53	-
31	LMT	j	102	-	-	0/15/35/61	0/1/1/2
23	CLA	b	621	2	-	5/39/115/115	-
29	LHG	a	415	-	-	7/33/33/53	-
23	CLA	c	506	3	-	6/17/93/115	-
31	LMT	B	623	-	-	2/21/61/61	0/2/2/2

All (1585) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	D	402	PHO	C1D-C2D	8.79	1.49	1.39
33	d	402	PHO	C1D-C2D	8.79	1.49	1.39
33	D	401	PHO	C1D-C2D	8.74	1.49	1.39
33	d	401	PHO	C1D-C2D	8.74	1.49	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	D	401	PHO	C1B-C2B	8.71	1.49	1.39
33	d	401	PHO	C1B-C2B	8.71	1.49	1.39
33	D	402	PHO	C1B-C2B	8.68	1.49	1.39
33	d	402	PHO	C1B-C2B	8.68	1.49	1.39
36	V	201	HEC	C3D-C2D	8.00	1.53	1.36
36	v	201	HEC	C3D-C2D	8.00	1.53	1.36
33	D	402	PHO	C3B-C4B	6.84	1.49	1.41
33	d	402	PHO	C3B-C4B	6.84	1.49	1.41
33	D	401	PHO	C3B-C4B	6.53	1.49	1.41
33	d	401	PHO	C3B-C4B	6.53	1.49	1.41
33	D	402	PHO	C3B-C2B	6.48	1.49	1.40
33	d	402	PHO	C3B-C2B	6.48	1.49	1.40
33	D	401	PHO	C3B-C2B	6.29	1.49	1.40
33	d	401	PHO	C3B-C2B	6.29	1.49	1.40
33	D	401	PHO	C4D-CHA	6.08	1.49	1.39
33	d	401	PHO	C4D-CHA	6.08	1.49	1.39
33	D	402	PHO	C4D-CHA	6.04	1.49	1.39
33	d	402	PHO	C4D-CHA	6.04	1.49	1.39
33	D	402	PHO	C3C-C2C	5.68	1.48	1.36
33	d	402	PHO	C3C-C2C	5.68	1.48	1.36
33	D	401	PHO	C3C-C2C	5.64	1.48	1.36
33	d	401	PHO	C3C-C2C	5.64	1.48	1.36
24	C	520	BCR	C23-C22	-5.49	1.34	1.45
24	c	520	BCR	C23-C22	-5.49	1.34	1.45
24	K	103	BCR	C23-C22	-5.48	1.34	1.45
24	k	103	BCR	C23-C22	-5.48	1.34	1.45
24	B	616	BCR	C23-C22	-5.42	1.34	1.45
24	b	616	BCR	C23-C22	-5.42	1.34	1.45
23	A	406	CLA	C3C-C2C	5.42	1.48	1.36
23	a	406	CLA	C3C-C2C	5.42	1.48	1.36
24	T	102	BCR	C23-C22	-5.42	1.34	1.45
24	C	514	BCR	C23-C22	-5.42	1.34	1.45
24	c	514	BCR	C23-C22	-5.42	1.34	1.45
24	t	102	BCR	C23-C22	-5.41	1.34	1.45
24	K	102	BCR	C23-C22	-5.41	1.34	1.45
24	k	102	BCR	C23-C22	-5.41	1.34	1.45
23	A	412	CLA	C3C-C2C	5.40	1.48	1.36
23	a	412	CLA	C3C-C2C	5.40	1.48	1.36
24	D	405	BCR	C23-C22	-5.40	1.34	1.45
24	B	617	BCR	C23-C22	-5.38	1.34	1.45
24	b	617	BCR	C23-C22	-5.38	1.34	1.45
23	A	407	CLA	C3C-C2C	5.37	1.48	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	a	407	CLA	C3C-C2C	5.37	1.48	1.36
24	d	405	BCR	C23-C22	-5.36	1.34	1.45
23	C	509	CLA	C3C-C2C	5.36	1.48	1.36
23	c	509	CLA	C3C-C2C	5.36	1.48	1.36
23	B	603	CLA	C3C-C2C	5.34	1.48	1.36
23	b	603	CLA	C3C-C2C	5.34	1.48	1.36
24	A	408	BCR	C23-C22	-5.34	1.34	1.45
24	a	408	BCR	C23-C22	-5.34	1.34	1.45
23	C	507	CLA	C3C-C2C	5.34	1.48	1.36
23	c	507	CLA	C3C-C2C	5.34	1.48	1.36
23	B	602	CLA	C3C-C2C	5.34	1.48	1.36
23	D	404	CLA	C3C-C2C	5.32	1.48	1.36
23	d	404	CLA	C3C-C2C	5.32	1.48	1.36
23	C	506	CLA	C3C-C2C	5.32	1.48	1.36
23	c	506	CLA	C3C-C2C	5.32	1.48	1.36
23	C	513	CLA	C3C-C2C	5.32	1.48	1.36
23	c	513	CLA	C3C-C2C	5.32	1.48	1.36
23	C	508	CLA	C3C-C2C	5.32	1.48	1.36
23	c	508	CLA	C3C-C2C	5.32	1.48	1.36
23	C	511	CLA	C3C-C2C	5.32	1.48	1.36
23	c	511	CLA	C3C-C2C	5.32	1.48	1.36
23	C	510	CLA	C3C-C2C	5.31	1.48	1.36
23	c	510	CLA	C3C-C2C	5.31	1.48	1.36
23	b	602	CLA	C3C-C2C	5.31	1.48	1.36
23	B	608	CLA	C3C-C2C	5.31	1.48	1.36
23	b	608	CLA	C3C-C2C	5.31	1.48	1.36
23	C	504	CLA	C3C-C2C	5.31	1.48	1.36
23	c	504	CLA	C3C-C2C	5.31	1.48	1.36
23	C	519	CLA	C3C-C2C	5.30	1.48	1.36
23	c	519	CLA	C3C-C2C	5.30	1.48	1.36
23	B	601	CLA	C3C-C2C	5.30	1.48	1.36
23	b	601	CLA	C3C-C2C	5.30	1.48	1.36
23	B	607	CLA	C3C-C2C	5.30	1.48	1.36
23	b	607	CLA	C3C-C2C	5.30	1.48	1.36
23	B	606	CLA	C3C-C2C	5.30	1.48	1.36
23	b	606	CLA	C3C-C2C	5.30	1.48	1.36
23	C	502	CLA	C3C-C2C	5.29	1.48	1.36
23	c	502	CLA	C3C-C2C	5.29	1.48	1.36
23	C	512	CLA	C3C-C2C	5.29	1.48	1.36
23	c	512	CLA	C3C-C2C	5.29	1.48	1.36
23	B	612	CLA	C3C-C2C	5.29	1.48	1.36
23	b	612	CLA	C3C-C2C	5.29	1.48	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	c	504	CLA	C1D-ND	5.29	1.44	1.37
23	B	610	CLA	C3C-C2C	5.27	1.47	1.36
23	b	610	CLA	C3C-C2C	5.27	1.47	1.36
23	B	605	CLA	C3C-C2C	5.27	1.47	1.36
23	b	605	CLA	C3C-C2C	5.27	1.47	1.36
23	D	403	CLA	C3C-C2C	5.26	1.47	1.36
23	d	403	CLA	C3C-C2C	5.26	1.47	1.36
23	B	621	CLA	C3C-C2C	5.25	1.47	1.36
23	b	621	CLA	C3C-C2C	5.25	1.47	1.36
23	C	503	CLA	C3C-C2C	5.24	1.47	1.36
23	c	503	CLA	C3C-C2C	5.24	1.47	1.36
23	C	504	CLA	C1D-ND	5.24	1.44	1.37
24	B	620	BCR	C23-C22	-5.24	1.34	1.45
23	b	611	CLA	C3C-C2C	5.24	1.47	1.36
23	C	502	CLA	C1D-ND	5.23	1.44	1.37
23	c	502	CLA	C1D-ND	5.23	1.44	1.37
23	A	405	CLA	C3C-C2C	5.23	1.47	1.36
23	a	405	CLA	C3C-C2C	5.23	1.47	1.36
23	B	615	CLA	C3C-C2C	5.23	1.47	1.36
23	b	615	CLA	C3C-C2C	5.23	1.47	1.36
23	C	505	CLA	C3C-C2C	5.23	1.47	1.36
23	c	505	CLA	C3C-C2C	5.23	1.47	1.36
23	B	614	CLA	C3C-C2C	5.23	1.47	1.36
23	b	614	CLA	C3C-C2C	5.23	1.47	1.36
23	A	412	CLA	C1D-ND	5.22	1.44	1.37
23	a	412	CLA	C1D-ND	5.22	1.44	1.37
23	C	513	CLA	C1D-ND	5.21	1.44	1.37
23	c	513	CLA	C1D-ND	5.21	1.44	1.37
24	b	620	BCR	C23-C22	-5.21	1.34	1.45
23	B	604	CLA	C3C-C2C	5.21	1.47	1.36
23	b	604	CLA	C3C-C2C	5.21	1.47	1.36
23	C	513	CLA	O2D-CGD	5.20	1.45	1.33
23	c	513	CLA	O2D-CGD	5.20	1.45	1.33
23	B	613	CLA	C3C-C2C	5.20	1.47	1.36
23	b	613	CLA	C3C-C2C	5.20	1.47	1.36
23	D	404	CLA	C1D-ND	5.20	1.44	1.37
23	d	404	CLA	C1D-ND	5.20	1.44	1.37
23	B	611	CLA	C3C-C2C	5.19	1.47	1.36
23	B	610	CLA	C1D-ND	5.19	1.44	1.37
23	b	610	CLA	C1D-ND	5.19	1.44	1.37
23	C	506	CLA	C1D-ND	5.18	1.44	1.37
23	c	506	CLA	C1D-ND	5.18	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	B	601	CLA	C1D-ND	5.18	1.44	1.37
23	b	601	CLA	C1D-ND	5.18	1.44	1.37
33	D	402	PHO	O2D-CGD	5.17	1.45	1.33
33	d	402	PHO	O2D-CGD	5.17	1.45	1.33
33	D	402	PHO	C3D-C2D	5.17	1.48	1.39
33	d	402	PHO	C3D-C2D	5.17	1.48	1.39
23	B	614	CLA	O2D-CGD	5.17	1.45	1.33
23	b	614	CLA	O2D-CGD	5.17	1.45	1.33
23	C	519	CLA	C1D-ND	5.16	1.44	1.37
23	c	519	CLA	C1D-ND	5.16	1.44	1.37
23	B	609	CLA	O2D-CGD	5.16	1.45	1.33
23	b	609	CLA	O2D-CGD	5.16	1.45	1.33
23	B	615	CLA	C1D-ND	5.16	1.44	1.37
33	D	401	PHO	C3D-C2D	5.16	1.48	1.39
33	d	401	PHO	C3D-C2D	5.16	1.48	1.39
23	C	509	CLA	O2D-CGD	5.16	1.45	1.33
23	c	509	CLA	O2D-CGD	5.16	1.45	1.33
23	b	609	CLA	C3C-C2C	5.15	1.47	1.36
23	B	611	CLA	O2D-CGD	5.15	1.45	1.33
23	b	611	CLA	O2D-CGD	5.15	1.45	1.33
23	c	502	CLA	O2D-CGD	5.15	1.45	1.33
34	F	102	HEM	FE-NB	5.15	2.10	1.94
34	f	102	HEM	FE-NB	5.15	2.10	1.94
23	C	503	CLA	O2D-CGD	5.15	1.45	1.33
23	c	503	CLA	O2D-CGD	5.15	1.45	1.33
23	b	615	CLA	C1D-ND	5.15	1.44	1.37
23	B	609	CLA	C3C-C2C	5.15	1.47	1.36
23	A	406	CLA	C1D-ND	5.14	1.44	1.37
23	B	606	CLA	C1D-ND	5.14	1.44	1.37
23	C	511	CLA	C1D-ND	5.14	1.44	1.37
23	a	406	CLA	C1D-ND	5.14	1.44	1.37
23	b	606	CLA	C1D-ND	5.14	1.44	1.37
23	c	511	CLA	C1D-ND	5.14	1.44	1.37
23	B	608	CLA	O2D-CGD	5.14	1.45	1.33
23	b	608	CLA	O2D-CGD	5.14	1.45	1.33
23	C	502	CLA	O2D-CGD	5.14	1.45	1.33
23	A	407	CLA	O2D-CGD	5.14	1.45	1.33
23	a	407	CLA	O2D-CGD	5.14	1.45	1.33
23	a	412	CLA	O2D-CGD	5.14	1.45	1.33
23	B	621	CLA	C1D-ND	5.14	1.44	1.37
23	b	621	CLA	C1D-ND	5.14	1.44	1.37
23	b	602	CLA	C1D-ND	5.13	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	C	508	CLA	O2D-CGD	5.13	1.45	1.33
23	c	508	CLA	O2D-CGD	5.13	1.45	1.33
23	C	505	CLA	O2D-CGD	5.12	1.45	1.33
23	c	505	CLA	O2D-CGD	5.12	1.45	1.33
33	D	401	PHO	O2D-CGD	5.12	1.45	1.33
33	d	401	PHO	O2D-CGD	5.12	1.45	1.33
23	b	615	CLA	O2D-CGD	5.12	1.45	1.33
23	B	612	CLA	O2D-CGD	5.12	1.45	1.33
23	b	612	CLA	O2D-CGD	5.12	1.45	1.33
23	A	412	CLA	O2D-CGD	5.12	1.45	1.33
23	C	506	CLA	O2D-CGD	5.12	1.45	1.33
23	c	506	CLA	O2D-CGD	5.12	1.45	1.33
23	B	614	CLA	C1D-ND	5.12	1.44	1.37
23	b	614	CLA	C1D-ND	5.12	1.44	1.37
23	B	609	CLA	C1D-ND	5.12	1.44	1.37
23	b	609	CLA	C1D-ND	5.12	1.44	1.37
23	A	406	CLA	O2D-CGD	5.12	1.45	1.33
23	C	507	CLA	C1D-ND	5.11	1.44	1.37
23	c	507	CLA	C1D-ND	5.11	1.44	1.37
23	B	602	CLA	C1D-ND	5.11	1.44	1.37
23	b	613	CLA	O2D-CGD	5.11	1.45	1.33
23	B	607	CLA	O2D-CGD	5.10	1.45	1.33
23	b	607	CLA	O2D-CGD	5.10	1.45	1.33
23	C	511	CLA	O2D-CGD	5.10	1.45	1.33
23	c	511	CLA	O2D-CGD	5.10	1.45	1.33
23	a	406	CLA	O2D-CGD	5.10	1.45	1.33
23	C	510	CLA	C1D-ND	5.10	1.44	1.37
23	c	510	CLA	C1D-ND	5.10	1.44	1.37
23	B	602	CLA	O2D-CGD	5.10	1.45	1.33
23	b	602	CLA	O2D-CGD	5.10	1.45	1.33
23	B	605	CLA	C1D-ND	5.10	1.44	1.37
23	b	605	CLA	C1D-ND	5.10	1.44	1.37
23	B	615	CLA	O2D-CGD	5.09	1.45	1.33
23	B	605	CLA	O2D-CGD	5.09	1.45	1.33
23	b	605	CLA	O2D-CGD	5.09	1.45	1.33
23	C	519	CLA	O2D-CGD	5.09	1.45	1.33
23	c	519	CLA	O2D-CGD	5.09	1.45	1.33
23	B	601	CLA	O2D-CGD	5.09	1.45	1.33
23	B	606	CLA	O2D-CGD	5.09	1.45	1.33
23	b	601	CLA	O2D-CGD	5.09	1.45	1.33
23	b	606	CLA	O2D-CGD	5.09	1.45	1.33
23	C	508	CLA	C1D-ND	5.09	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	c	508	CLA	C1D-ND	5.09	1.44	1.37
23	D	404	CLA	O2D-CGD	5.08	1.45	1.33
23	d	404	CLA	O2D-CGD	5.08	1.45	1.33
23	B	613	CLA	O2D-CGD	5.07	1.45	1.33
23	b	604	CLA	O2D-CGD	5.07	1.45	1.33
23	B	611	CLA	C1D-ND	5.07	1.44	1.37
23	b	611	CLA	C1D-ND	5.07	1.44	1.37
23	A	405	CLA	O2D-CGD	5.07	1.45	1.33
23	D	403	CLA	O2D-CGD	5.07	1.45	1.33
23	d	403	CLA	O2D-CGD	5.07	1.45	1.33
23	C	510	CLA	O2D-CGD	5.07	1.45	1.33
23	c	510	CLA	O2D-CGD	5.07	1.45	1.33
23	C	503	CLA	C1D-ND	5.06	1.44	1.37
23	c	503	CLA	C1D-ND	5.06	1.44	1.37
23	B	604	CLA	O2D-CGD	5.06	1.45	1.33
23	a	405	CLA	O2D-CGD	5.06	1.45	1.33
23	B	603	CLA	O2D-CGD	5.05	1.45	1.33
23	b	603	CLA	O2D-CGD	5.05	1.45	1.33
23	C	512	CLA	O2D-CGD	5.04	1.45	1.33
23	c	512	CLA	O2D-CGD	5.04	1.45	1.33
23	A	405	CLA	C1D-ND	5.04	1.44	1.37
23	a	405	CLA	C1D-ND	5.04	1.44	1.37
23	C	507	CLA	O2D-CGD	5.03	1.45	1.33
23	c	507	CLA	O2D-CGD	5.03	1.45	1.33
23	B	613	CLA	C1D-ND	5.03	1.44	1.37
23	b	613	CLA	C1D-ND	5.03	1.44	1.37
23	A	407	CLA	C1D-ND	5.02	1.44	1.37
23	a	407	CLA	C1D-ND	5.02	1.44	1.37
23	C	512	CLA	C1D-ND	5.02	1.44	1.37
23	B	621	CLA	O2D-CGD	5.01	1.45	1.33
23	B	608	CLA	C1D-ND	5.00	1.43	1.37
23	b	608	CLA	C1D-ND	5.00	1.43	1.37
23	C	509	CLA	C1D-ND	4.99	1.43	1.37
23	c	509	CLA	C1D-ND	4.99	1.43	1.37
23	B	610	CLA	O2D-CGD	4.98	1.45	1.33
23	b	610	CLA	O2D-CGD	4.98	1.45	1.33
23	b	621	CLA	O2D-CGD	4.98	1.45	1.33
23	c	512	CLA	C1D-ND	4.97	1.43	1.37
23	B	604	CLA	C1D-ND	4.97	1.43	1.37
23	b	604	CLA	C1D-ND	4.97	1.43	1.37
23	B	603	CLA	C1D-ND	4.97	1.43	1.37
23	B	607	CLA	C1D-ND	4.95	1.43	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	b	607	CLA	C1D-ND	4.95	1.43	1.37
23	b	603	CLA	C1D-ND	4.95	1.43	1.37
23	C	504	CLA	O2D-CGD	4.92	1.45	1.33
23	c	504	CLA	O2D-CGD	4.92	1.45	1.33
23	C	505	CLA	C1D-ND	4.90	1.43	1.37
23	B	612	CLA	C1D-ND	4.85	1.43	1.37
23	b	612	CLA	C1D-ND	4.85	1.43	1.37
23	c	505	CLA	C1D-ND	4.83	1.43	1.37
23	A	407	CLA	CHC-C1C	4.75	1.48	1.38
23	a	407	CLA	CHC-C1C	4.75	1.48	1.38
23	B	611	CLA	CHC-C1C	4.73	1.48	1.38
23	b	611	CLA	CHC-C1C	4.73	1.48	1.38
23	B	603	CLA	CHC-C1C	4.73	1.48	1.38
23	b	603	CLA	CHC-C1C	4.73	1.48	1.38
23	A	406	CLA	CHC-C1C	4.71	1.48	1.38
23	a	406	CLA	CHC-C1C	4.71	1.48	1.38
23	C	511	CLA	CHC-C1C	4.71	1.48	1.38
23	c	511	CLA	CHC-C1C	4.71	1.48	1.38
23	B	602	CLA	CHC-C1C	4.70	1.48	1.38
23	C	513	CLA	CHC-C1C	4.70	1.48	1.38
23	c	513	CLA	CHC-C1C	4.70	1.48	1.38
23	D	403	CLA	C1D-ND	4.69	1.43	1.37
23	d	403	CLA	C1D-ND	4.69	1.43	1.37
23	b	602	CLA	CHC-C1C	4.69	1.48	1.38
23	B	601	CLA	CHC-C1C	4.68	1.48	1.38
23	b	601	CLA	CHC-C1C	4.68	1.48	1.38
23	D	403	CLA	CHC-C1C	4.67	1.48	1.38
23	d	403	CLA	CHC-C1C	4.67	1.48	1.38
23	C	512	CLA	CHC-C1C	4.67	1.48	1.38
23	c	512	CLA	CHC-C1C	4.67	1.48	1.38
23	A	405	CLA	CHC-C1C	4.66	1.48	1.38
23	a	405	CLA	CHC-C1C	4.66	1.48	1.38
23	B	612	CLA	CHC-C1C	4.66	1.48	1.38
23	b	612	CLA	CHC-C1C	4.66	1.48	1.38
23	C	509	CLA	CHC-C1C	4.65	1.48	1.38
23	c	509	CLA	CHC-C1C	4.65	1.48	1.38
23	C	502	CLA	CHC-C1C	4.63	1.47	1.38
23	c	502	CLA	CHC-C1C	4.63	1.47	1.38
23	C	507	CLA	CHC-C1C	4.63	1.47	1.38
23	c	507	CLA	CHC-C1C	4.63	1.47	1.38
23	B	607	CLA	CHC-C1C	4.62	1.47	1.38
23	b	607	CLA	CHC-C1C	4.62	1.47	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	D	402	PHO	OBD-CAD	4.62	1.28	1.22
33	d	402	PHO	OBD-CAD	4.62	1.28	1.22
23	C	504	CLA	CHC-C1C	4.61	1.47	1.38
23	c	504	CLA	CHC-C1C	4.61	1.47	1.38
23	B	605	CLA	CHC-C1C	4.61	1.47	1.38
23	b	605	CLA	CHC-C1C	4.61	1.47	1.38
23	C	506	CLA	CHC-C1C	4.61	1.47	1.38
23	c	506	CLA	CHC-C1C	4.61	1.47	1.38
23	C	510	CLA	CHC-C1C	4.60	1.47	1.38
23	c	510	CLA	CHC-C1C	4.60	1.47	1.38
23	C	508	CLA	CHC-C1C	4.60	1.47	1.38
23	c	508	CLA	CHC-C1C	4.60	1.47	1.38
23	C	519	CLA	CHC-C1C	4.59	1.47	1.38
23	c	519	CLA	CHC-C1C	4.59	1.47	1.38
23	B	615	CLA	CHC-C1C	4.58	1.47	1.38
23	b	615	CLA	CHC-C1C	4.58	1.47	1.38
23	D	404	CLA	CHC-C1C	4.57	1.47	1.38
23	d	404	CLA	CHC-C1C	4.57	1.47	1.38
23	B	608	CLA	CHC-C1C	4.57	1.47	1.38
23	b	608	CLA	CHC-C1C	4.57	1.47	1.38
23	B	613	CLA	CHC-C1C	4.56	1.47	1.38
23	B	614	CLA	CHC-C1C	4.56	1.47	1.38
23	b	614	CLA	CHC-C1C	4.56	1.47	1.38
23	B	604	CLA	CHC-C1C	4.56	1.47	1.38
23	b	604	CLA	CHC-C1C	4.56	1.47	1.38
23	b	613	CLA	CHC-C1C	4.55	1.47	1.38
23	B	606	CLA	CHC-C1C	4.54	1.47	1.38
23	b	606	CLA	CHC-C1C	4.54	1.47	1.38
23	B	610	CLA	CHC-C1C	4.53	1.47	1.38
23	b	610	CLA	CHC-C1C	4.53	1.47	1.38
23	C	505	CLA	CHC-C1C	4.52	1.47	1.38
23	c	505	CLA	CHC-C1C	4.52	1.47	1.38
23	D	404	CLA	O2A-CGA	4.50	1.45	1.30
23	d	404	CLA	O2A-CGA	4.50	1.45	1.30
23	B	621	CLA	CHC-C1C	4.49	1.47	1.38
23	b	621	CLA	CHC-C1C	4.49	1.47	1.38
33	D	401	PHO	OBD-CAD	4.49	1.28	1.22
23	C	503	CLA	CHC-C1C	4.49	1.47	1.38
23	c	503	CLA	CHC-C1C	4.49	1.47	1.38
23	B	615	CLA	O2A-CGA	4.48	1.45	1.30
23	b	615	CLA	O2A-CGA	4.48	1.45	1.30
23	C	509	CLA	O2A-CGA	4.48	1.46	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	c	509	CLA	O2A-CGA	4.48	1.46	1.33
23	A	412	CLA	CHC-C1C	4.47	1.47	1.38
23	a	412	CLA	CHC-C1C	4.47	1.47	1.38
23	B	601	CLA	CHD-C1D	4.45	1.47	1.38
23	b	601	CLA	CHD-C1D	4.45	1.47	1.38
23	A	412	CLA	CHD-C1D	4.44	1.47	1.38
23	a	412	CLA	CHD-C1D	4.44	1.47	1.38
33	d	401	PHO	OBD-CAD	4.43	1.28	1.22
23	A	406	CLA	CHD-C1D	4.42	1.47	1.38
23	a	406	CLA	CHD-C1D	4.42	1.47	1.38
23	b	608	CLA	CHD-C1D	4.41	1.46	1.38
23	B	608	CLA	CHD-C1D	4.40	1.46	1.38
23	C	506	CLA	CHD-C1D	4.40	1.46	1.38
23	c	506	CLA	CHD-C1D	4.40	1.46	1.38
23	C	509	CLA	CHD-C1D	4.40	1.46	1.38
23	c	509	CLA	CHD-C1D	4.40	1.46	1.38
23	D	404	CLA	CHD-C1D	4.39	1.46	1.38
23	d	404	CLA	CHD-C1D	4.39	1.46	1.38
23	B	602	CLA	CHD-C1D	4.39	1.46	1.38
23	b	602	CLA	CHD-C1D	4.39	1.46	1.38
23	A	407	CLA	CHD-C1D	4.38	1.46	1.38
23	a	407	CLA	CHD-C1D	4.38	1.46	1.38
23	C	502	CLA	CHD-C1D	4.38	1.46	1.38
23	c	502	CLA	CHD-C1D	4.38	1.46	1.38
23	B	609	CLA	CHC-C1C	4.36	1.47	1.38
23	b	609	CLA	CHC-C1C	4.36	1.47	1.38
23	C	513	CLA	CHD-C1D	4.36	1.46	1.38
23	c	513	CLA	CHD-C1D	4.36	1.46	1.38
23	C	510	CLA	CHD-C1D	4.36	1.46	1.38
23	c	510	CLA	CHD-C1D	4.36	1.46	1.38
23	B	607	CLA	O2A-CGA	4.35	1.46	1.33
23	b	607	CLA	O2A-CGA	4.35	1.46	1.33
23	C	519	CLA	O2A-CGA	4.35	1.46	1.33
23	c	519	CLA	O2A-CGA	4.35	1.46	1.33
23	C	519	CLA	CHD-C1D	4.35	1.46	1.38
23	c	519	CLA	CHD-C1D	4.35	1.46	1.38
23	B	607	CLA	CHD-C1D	4.35	1.46	1.38
23	b	607	CLA	CHD-C1D	4.35	1.46	1.38
23	a	412	CLA	O2A-CGA	4.34	1.46	1.33
23	B	609	CLA	CHD-C1D	4.34	1.46	1.38
23	b	609	CLA	CHD-C1D	4.34	1.46	1.38
23	B	603	CLA	O2A-CGA	4.33	1.46	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	b	603	CLA	O2A-CGA	4.33	1.46	1.33
23	C	505	CLA	CHD-C1D	4.33	1.46	1.38
23	c	505	CLA	CHD-C1D	4.33	1.46	1.38
23	B	604	CLA	CHD-C1D	4.32	1.46	1.38
23	b	604	CLA	CHD-C1D	4.32	1.46	1.38
23	C	503	CLA	CHD-C1D	4.32	1.46	1.38
23	c	503	CLA	CHD-C1D	4.32	1.46	1.38
23	C	507	CLA	O2A-CGA	4.32	1.46	1.33
23	c	507	CLA	O2A-CGA	4.32	1.46	1.33
23	A	412	CLA	O2A-CGA	4.31	1.45	1.33
23	B	614	CLA	CHD-C1D	4.31	1.46	1.38
23	b	614	CLA	CHD-C1D	4.31	1.46	1.38
23	B	613	CLA	O2A-CGA	4.31	1.45	1.33
23	b	613	CLA	O2A-CGA	4.31	1.45	1.33
23	A	405	CLA	CHD-C1D	4.31	1.46	1.38
23	a	405	CLA	CHD-C1D	4.31	1.46	1.38
23	B	610	CLA	CHD-C1D	4.31	1.46	1.38
23	C	511	CLA	CHD-C1D	4.31	1.46	1.38
23	b	610	CLA	CHD-C1D	4.31	1.46	1.38
23	c	511	CLA	CHD-C1D	4.31	1.46	1.38
23	B	605	CLA	O2A-CGA	4.31	1.45	1.33
23	b	605	CLA	O2A-CGA	4.31	1.45	1.33
23	A	406	CLA	O2A-CGA	4.31	1.45	1.33
23	a	406	CLA	O2A-CGA	4.31	1.45	1.33
23	B	611	CLA	O2A-CGA	4.30	1.45	1.33
23	b	611	CLA	O2A-CGA	4.30	1.45	1.33
23	B	621	CLA	CHD-C1D	4.30	1.46	1.38
23	b	621	CLA	CHD-C1D	4.30	1.46	1.38
23	B	613	CLA	CHD-C1D	4.28	1.46	1.38
23	b	613	CLA	CHD-C1D	4.28	1.46	1.38
23	B	606	CLA	CHD-C1D	4.28	1.46	1.38
23	C	508	CLA	CHD-C1D	4.28	1.46	1.38
23	b	606	CLA	CHD-C1D	4.28	1.46	1.38
23	c	508	CLA	CHD-C1D	4.28	1.46	1.38
23	b	614	CLA	O2A-CGA	4.28	1.45	1.33
23	C	512	CLA	CHD-C1D	4.28	1.46	1.38
23	c	512	CLA	CHD-C1D	4.28	1.46	1.38
23	C	507	CLA	CHD-C1D	4.28	1.46	1.38
23	c	507	CLA	CHD-C1D	4.28	1.46	1.38
23	C	504	CLA	O2A-CGA	4.28	1.45	1.33
23	c	504	CLA	O2A-CGA	4.28	1.45	1.33
23	A	407	CLA	O2A-CGA	4.27	1.45	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	a	407	CLA	O2A-CGA	4.27	1.45	1.33
23	B	614	CLA	O2A-CGA	4.27	1.45	1.33
23	C	508	CLA	O2A-CGA	4.27	1.45	1.33
23	c	508	CLA	O2A-CGA	4.27	1.45	1.33
23	B	602	CLA	O2A-CGA	4.26	1.45	1.33
23	B	608	CLA	O2A-CGA	4.26	1.45	1.33
23	b	602	CLA	O2A-CGA	4.26	1.45	1.33
23	b	608	CLA	O2A-CGA	4.26	1.45	1.33
29	B	622	LHG	O8-C23	4.25	1.45	1.33
29	b	622	LHG	O8-C23	4.25	1.45	1.33
23	C	502	CLA	O2A-CGA	4.25	1.45	1.33
23	C	512	CLA	O2A-CGA	4.25	1.45	1.33
23	c	502	CLA	O2A-CGA	4.25	1.45	1.33
23	c	512	CLA	O2A-CGA	4.25	1.45	1.33
23	C	503	CLA	O2A-CGA	4.25	1.45	1.33
23	c	503	CLA	O2A-CGA	4.25	1.45	1.33
23	B	615	CLA	CHD-C1D	4.25	1.46	1.38
23	b	615	CLA	CHD-C1D	4.25	1.46	1.38
23	C	504	CLA	CHD-C1D	4.24	1.46	1.38
23	B	609	CLA	O2A-CGA	4.24	1.45	1.33
23	b	609	CLA	O2A-CGA	4.24	1.45	1.33
23	C	505	CLA	O2A-CGA	4.24	1.45	1.33
23	c	505	CLA	O2A-CGA	4.24	1.45	1.33
30	C	501	LMG	O8-C28	4.23	1.45	1.33
30	c	501	LMG	O8-C28	4.23	1.45	1.33
23	B	603	CLA	CHD-C1D	4.23	1.46	1.38
23	b	603	CLA	CHD-C1D	4.23	1.46	1.38
23	B	610	CLA	O2A-CGA	4.23	1.45	1.33
23	b	610	CLA	O2A-CGA	4.23	1.45	1.33
23	B	621	CLA	O2A-CGA	4.22	1.45	1.33
23	b	621	CLA	O2A-CGA	4.22	1.45	1.33
30	B	618	LMG	O8-C28	4.22	1.45	1.33
30	b	618	LMG	O8-C28	4.22	1.45	1.33
29	A	414	LHG	O8-C23	4.21	1.45	1.33
29	a	414	LHG	O8-C23	4.21	1.45	1.33
23	B	612	CLA	CHD-C1D	4.21	1.46	1.38
23	b	612	CLA	CHD-C1D	4.21	1.46	1.38
30	J	101	LMG	O8-C28	4.21	1.45	1.33
30	j	101	LMG	O8-C28	4.21	1.45	1.33
23	B	611	CLA	CHD-C1D	4.21	1.46	1.38
23	b	611	CLA	CHD-C1D	4.21	1.46	1.38
23	B	605	CLA	CHD-C1D	4.20	1.46	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	b	605	CLA	CHD-C1D	4.20	1.46	1.38
23	C	511	CLA	O2A-CGA	4.20	1.45	1.33
23	c	511	CLA	O2A-CGA	4.20	1.45	1.33
23	C	510	CLA	O2A-CGA	4.20	1.45	1.33
36	V	201	HEC	FE-ND	4.19	2.07	1.94
36	v	201	HEC	FE-ND	4.19	2.07	1.94
23	c	510	CLA	O2A-CGA	4.19	1.45	1.33
23	c	504	CLA	CHD-C1D	4.19	1.46	1.38
23	A	405	CLA	O2A-CGA	4.19	1.45	1.33
23	a	405	CLA	O2A-CGA	4.19	1.45	1.33
25	A	409	SQD	O48-C23	4.19	1.45	1.33
25	a	409	SQD	O48-C23	4.19	1.45	1.33
29	L	101	LHG	O8-C23	4.18	1.45	1.33
29	l	101	LHG	O8-C23	4.18	1.45	1.33
23	D	403	CLA	O2A-CGA	4.17	1.45	1.33
23	d	403	CLA	O2A-CGA	4.17	1.45	1.33
32	C	518	DGD	O1G-C1A	4.17	1.45	1.33
32	c	518	DGD	O1G-C1A	4.17	1.45	1.33
23	b	606	CLA	O2A-CGA	4.17	1.45	1.33
23	B	606	CLA	O2A-CGA	4.17	1.45	1.33
29	A	414	LHG	O7-C7	4.16	1.46	1.34
29	a	414	LHG	O7-C7	4.16	1.46	1.34
32	C	516	DGD	O1G-C1A	4.16	1.45	1.33
32	c	516	DGD	O1G-C1A	4.16	1.45	1.33
23	A	406	CLA	CHD-C4C	4.15	1.48	1.39
23	a	406	CLA	CHD-C4C	4.15	1.48	1.39
32	H	101	DGD	O1G-C1A	4.14	1.45	1.33
32	h	101	DGD	O1G-C1A	4.14	1.45	1.33
30	C	501	LMG	O7-C10	4.14	1.46	1.34
30	c	501	LMG	O7-C10	4.14	1.46	1.34
33	D	402	PHO	O2A-CGA	4.13	1.45	1.33
33	d	402	PHO	O2A-CGA	4.13	1.45	1.33
29	D	407	LHG	O8-C23	4.13	1.45	1.33
29	d	407	LHG	O8-C23	4.13	1.45	1.33
23	B	612	CLA	O2A-CGA	4.12	1.45	1.33
23	b	612	CLA	O2A-CGA	4.12	1.45	1.33
23	D	403	CLA	CHD-C1D	4.11	1.46	1.38
23	d	403	CLA	CHD-C1D	4.11	1.46	1.38
23	B	604	CLA	O2A-CGA	4.11	1.45	1.33
23	b	604	CLA	O2A-CGA	4.11	1.45	1.33
32	C	515	DGD	O1G-C1A	4.11	1.45	1.33
32	c	515	DGD	O1G-C1A	4.11	1.45	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	A	415	LHG	O7-C7	4.11	1.45	1.34
29	a	415	LHG	O7-C7	4.11	1.45	1.34
23	A	412	CLA	CHD-C4C	4.09	1.48	1.39
23	a	412	CLA	CHD-C4C	4.09	1.48	1.39
23	a	407	CLA	CHD-C4C	4.09	1.48	1.39
23	A	407	CLA	CHD-C4C	4.09	1.48	1.39
23	C	502	CLA	CHD-C4C	4.09	1.48	1.39
23	c	502	CLA	CHD-C4C	4.09	1.48	1.39
30	B	618	LMG	O7-C10	4.09	1.45	1.34
30	b	618	LMG	O7-C10	4.09	1.45	1.34
23	C	506	CLA	CHD-C4C	4.09	1.48	1.39
23	c	506	CLA	CHD-C4C	4.09	1.48	1.39
30	J	101	LMG	O7-C10	4.09	1.45	1.34
30	j	101	LMG	O7-C10	4.09	1.45	1.34
23	d	404	CLA	CHD-C4C	4.08	1.48	1.39
23	D	404	CLA	CHD-C4C	4.08	1.48	1.39
23	C	519	CLA	CHD-C4C	4.08	1.48	1.39
23	c	519	CLA	CHD-C4C	4.08	1.48	1.39
32	C	518	DGD	O2G-C1B	4.08	1.45	1.34
32	c	518	DGD	O2G-C1B	4.08	1.45	1.34
23	B	602	CLA	CHD-C4C	4.07	1.48	1.39
23	b	602	CLA	CHD-C4C	4.07	1.48	1.39
23	C	509	CLA	CHD-C4C	4.07	1.48	1.39
23	c	509	CLA	CHD-C4C	4.07	1.48	1.39
23	B	601	CLA	CHD-C4C	4.06	1.48	1.39
23	b	601	CLA	CHD-C4C	4.06	1.48	1.39
33	D	401	PHO	O2A-CGA	4.06	1.45	1.33
33	d	401	PHO	O2A-CGA	4.06	1.45	1.33
32	C	515	DGD	O2G-C1B	4.05	1.45	1.34
32	c	515	DGD	O2G-C1B	4.05	1.45	1.34
23	B	603	CLA	CHD-C4C	4.05	1.48	1.39
23	b	603	CLA	CHD-C4C	4.05	1.48	1.39
23	c	506	CLA	O2A-CGA	4.05	1.45	1.33
23	C	506	CLA	O2A-CGA	4.04	1.45	1.33
23	B	607	CLA	CHD-C4C	4.04	1.48	1.39
23	b	607	CLA	CHD-C4C	4.04	1.48	1.39
23	A	405	CLA	CHD-C4C	4.04	1.48	1.39
23	a	405	CLA	CHD-C4C	4.04	1.48	1.39
32	C	516	DGD	O2G-C1B	4.04	1.45	1.34
32	c	516	DGD	O2G-C1B	4.04	1.45	1.34
23	C	510	CLA	CHD-C4C	4.04	1.48	1.39
23	c	510	CLA	CHD-C4C	4.04	1.48	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	L	101	LHG	O7-C7	4.04	1.45	1.34
29	l	101	LHG	O7-C7	4.04	1.45	1.34
23	C	513	CLA	CHD-C4C	4.03	1.48	1.39
23	c	513	CLA	CHD-C4C	4.03	1.48	1.39
23	B	614	CLA	CHD-C4C	4.03	1.48	1.39
23	b	614	CLA	CHD-C4C	4.03	1.48	1.39
32	H	101	DGD	O2G-C1B	4.02	1.45	1.34
32	h	101	DGD	O2G-C1B	4.02	1.45	1.34
29	D	407	LHG	O7-C7	4.02	1.45	1.34
29	d	407	LHG	O7-C7	4.02	1.45	1.34
23	B	608	CLA	CHD-C4C	4.02	1.48	1.39
23	b	608	CLA	CHD-C4C	4.02	1.48	1.39
25	A	409	SQD	O47-C7	4.01	1.45	1.34
25	a	409	SQD	O47-C7	4.01	1.45	1.34
23	C	504	CLA	CHD-C4C	4.01	1.48	1.39
23	c	504	CLA	CHD-C4C	4.01	1.48	1.39
23	B	604	CLA	CHD-C4C	4.01	1.48	1.39
23	b	604	CLA	CHD-C4C	4.01	1.48	1.39
23	C	503	CLA	CHD-C4C	4.01	1.48	1.39
23	c	503	CLA	CHD-C4C	4.01	1.48	1.39
23	C	508	CLA	CHD-C4C	4.01	1.48	1.39
29	B	622	LHG	O7-C7	4.00	1.45	1.34
29	b	622	LHG	O7-C7	4.00	1.45	1.34
23	C	511	CLA	CHD-C4C	3.99	1.48	1.39
23	c	511	CLA	CHD-C4C	3.99	1.48	1.39
23	B	609	CLA	CHD-C4C	3.99	1.48	1.39
23	b	609	CLA	CHD-C4C	3.99	1.48	1.39
23	C	507	CLA	CHD-C4C	3.99	1.48	1.39
23	c	507	CLA	CHD-C4C	3.99	1.48	1.39
23	B	606	CLA	CHD-C4C	3.98	1.48	1.39
23	b	606	CLA	CHD-C4C	3.98	1.48	1.39
23	c	508	CLA	CHD-C4C	3.97	1.48	1.39
23	C	512	CLA	CHD-C4C	3.97	1.48	1.39
23	c	512	CLA	CHD-C4C	3.97	1.48	1.39
23	B	605	CLA	CHD-C4C	3.97	1.48	1.39
23	b	605	CLA	CHD-C4C	3.97	1.48	1.39
23	C	505	CLA	CHD-C4C	3.96	1.48	1.39
23	c	505	CLA	CHD-C4C	3.96	1.48	1.39
23	B	610	CLA	CHD-C4C	3.96	1.48	1.39
23	b	610	CLA	CHD-C4C	3.96	1.48	1.39
23	B	621	CLA	CHD-C4C	3.95	1.48	1.39
23	b	621	CLA	CHD-C4C	3.95	1.48	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	F	102	HEM	FE-NC	3.95	2.08	1.95
34	f	102	HEM	FE-NC	3.95	2.08	1.95
23	B	612	CLA	CHD-C4C	3.95	1.48	1.39
23	b	612	CLA	CHD-C4C	3.95	1.48	1.39
23	B	613	CLA	CHD-C4C	3.93	1.48	1.39
23	b	613	CLA	CHD-C4C	3.93	1.48	1.39
23	B	615	CLA	CHD-C4C	3.93	1.48	1.39
23	D	403	CLA	CHD-C4C	3.93	1.48	1.39
23	d	403	CLA	CHD-C4C	3.93	1.48	1.39
23	B	611	CLA	CHD-C4C	3.93	1.48	1.39
23	b	611	CLA	CHD-C4C	3.93	1.48	1.39
23	b	615	CLA	CHD-C4C	3.92	1.48	1.39
23	C	508	CLA	C3D-C2D	3.85	1.49	1.39
23	c	508	CLA	C3D-C2D	3.85	1.49	1.39
23	C	512	CLA	C3D-C2D	3.85	1.49	1.39
23	c	512	CLA	C3D-C2D	3.85	1.49	1.39
23	C	503	CLA	C3D-C2D	3.85	1.49	1.39
23	c	503	CLA	C3D-C2D	3.85	1.49	1.39
23	B	602	CLA	C3D-C2D	3.81	1.49	1.39
23	C	506	CLA	C3D-C2D	3.80	1.49	1.39
23	B	614	CLA	C3D-C2D	3.80	1.49	1.39
23	b	614	CLA	C3D-C2D	3.80	1.49	1.39
23	b	602	CLA	C3D-C2D	3.80	1.49	1.39
23	A	407	CLA	C3D-C2D	3.79	1.49	1.39
23	B	609	CLA	C3D-C2D	3.79	1.49	1.39
23	a	407	CLA	C3D-C2D	3.79	1.49	1.39
23	b	609	CLA	C3D-C2D	3.79	1.49	1.39
23	B	607	CLA	C3D-C2D	3.79	1.49	1.39
23	B	608	CLA	C3D-C2D	3.79	1.49	1.39
23	b	607	CLA	C3D-C2D	3.79	1.49	1.39
23	b	608	CLA	C3D-C2D	3.79	1.49	1.39
23	C	513	CLA	C3D-C2D	3.79	1.49	1.39
23	c	513	CLA	C3D-C2D	3.79	1.49	1.39
23	B	615	CLA	C3D-C2D	3.79	1.49	1.39
23	b	615	CLA	C3D-C2D	3.79	1.49	1.39
23	c	506	CLA	C3D-C2D	3.78	1.49	1.39
23	C	510	CLA	C3D-C2D	3.78	1.49	1.39
23	c	510	CLA	C3D-C2D	3.78	1.49	1.39
23	C	507	CLA	C3D-C2D	3.78	1.49	1.39
23	c	507	CLA	C3D-C2D	3.78	1.49	1.39
23	C	502	CLA	C3D-C2D	3.78	1.49	1.39
23	c	502	CLA	C3D-C2D	3.78	1.49	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	C	519	CLA	C3D-C2D	3.77	1.49	1.39
23	c	519	CLA	C3D-C2D	3.77	1.49	1.39
23	B	601	CLA	C3D-C2D	3.77	1.49	1.39
23	b	601	CLA	C3D-C2D	3.77	1.49	1.39
23	C	509	CLA	C3D-C2D	3.76	1.49	1.39
23	c	509	CLA	C3D-C2D	3.76	1.49	1.39
23	D	404	CLA	C3D-C2D	3.76	1.49	1.39
23	d	404	CLA	C3D-C2D	3.76	1.49	1.39
23	B	621	CLA	C3D-C2D	3.76	1.49	1.39
23	b	621	CLA	C3D-C2D	3.76	1.49	1.39
23	B	610	CLA	C3D-C2D	3.76	1.49	1.39
23	b	610	CLA	C3D-C2D	3.76	1.49	1.39
23	B	613	CLA	C3D-C2D	3.75	1.49	1.39
23	b	613	CLA	C3D-C2D	3.75	1.49	1.39
23	B	612	CLA	CHC-C4B	3.75	1.47	1.39
23	b	612	CLA	CHC-C4B	3.75	1.47	1.39
23	c	513	CLA	CHC-C4B	3.74	1.47	1.39
23	B	611	CLA	C3D-C2D	3.74	1.49	1.39
23	b	611	CLA	C3D-C2D	3.74	1.49	1.39
23	A	412	CLA	C3D-C2D	3.73	1.49	1.39
23	a	412	CLA	C3D-C2D	3.73	1.49	1.39
23	C	511	CLA	C3D-C2D	3.73	1.49	1.39
23	c	511	CLA	C3D-C2D	3.73	1.49	1.39
23	B	611	CLA	CHC-C4B	3.73	1.47	1.39
23	b	611	CLA	CHC-C4B	3.73	1.47	1.39
23	B	606	CLA	C3D-C2D	3.73	1.49	1.39
23	b	606	CLA	C3D-C2D	3.73	1.49	1.39
23	B	605	CLA	CHC-C4B	3.72	1.47	1.39
23	b	605	CLA	CHC-C4B	3.72	1.47	1.39
23	C	513	CLA	CHC-C4B	3.72	1.47	1.39
23	B	601	CLA	OBD-CAD	3.72	1.28	1.22
23	b	601	CLA	OBD-CAD	3.72	1.28	1.22
23	A	406	CLA	C3D-C2D	3.72	1.49	1.39
23	a	406	CLA	C3D-C2D	3.72	1.49	1.39
23	C	505	CLA	OBD-CAD	3.72	1.28	1.22
23	c	505	CLA	OBD-CAD	3.72	1.28	1.22
23	C	503	CLA	OBD-CAD	3.71	1.28	1.22
23	c	503	CLA	OBD-CAD	3.71	1.28	1.22
23	C	504	CLA	C3D-C2D	3.71	1.49	1.39
23	c	504	CLA	C3D-C2D	3.71	1.49	1.39
23	A	406	CLA	CHC-C4B	3.70	1.47	1.39
23	a	406	CLA	CHC-C4B	3.70	1.47	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	B	609	CLA	OBD-CAD	3.69	1.28	1.22
23	b	609	CLA	OBD-CAD	3.69	1.28	1.22
23	C	512	CLA	CHC-C4B	3.69	1.47	1.39
23	c	512	CLA	CHC-C4B	3.69	1.47	1.39
23	B	612	CLA	C3D-C2D	3.69	1.49	1.39
23	b	612	CLA	C3D-C2D	3.69	1.49	1.39
23	B	605	CLA	C3D-C2D	3.69	1.49	1.39
23	b	605	CLA	C3D-C2D	3.69	1.49	1.39
23	C	504	CLA	CHC-C4B	3.69	1.47	1.39
23	c	504	CLA	CHC-C4B	3.69	1.47	1.39
23	A	407	CLA	OBD-CAD	3.69	1.28	1.22
23	C	511	CLA	OBD-CAD	3.69	1.28	1.22
23	a	407	CLA	OBD-CAD	3.69	1.28	1.22
23	c	511	CLA	OBD-CAD	3.69	1.28	1.22
23	c	519	CLA	OBD-CAD	3.69	1.28	1.22
23	B	606	CLA	OBD-CAD	3.68	1.28	1.22
23	b	606	CLA	OBD-CAD	3.68	1.28	1.22
23	B	614	CLA	OBD-CAD	3.68	1.28	1.22
23	b	614	CLA	OBD-CAD	3.68	1.28	1.22
23	C	519	CLA	CHC-C4B	3.68	1.47	1.39
23	c	519	CLA	CHC-C4B	3.68	1.47	1.39
23	C	502	CLA	CHC-C4B	3.67	1.47	1.39
23	c	502	CLA	CHC-C4B	3.67	1.47	1.39
23	C	512	CLA	OBD-CAD	3.67	1.28	1.22
23	c	512	CLA	OBD-CAD	3.67	1.28	1.22
23	C	511	CLA	CHC-C4B	3.67	1.47	1.39
23	C	508	CLA	OBD-CAD	3.67	1.28	1.22
23	C	513	CLA	OBD-CAD	3.67	1.28	1.22
23	c	508	CLA	OBD-CAD	3.67	1.28	1.22
23	c	513	CLA	OBD-CAD	3.67	1.28	1.22
23	C	502	CLA	OBD-CAD	3.67	1.28	1.22
23	c	502	CLA	OBD-CAD	3.67	1.28	1.22
23	B	602	CLA	CHC-C4B	3.66	1.47	1.39
23	b	602	CLA	CHC-C4B	3.66	1.47	1.39
34	F	102	HEM	C4D-ND	-3.66	1.34	1.40
34	f	102	HEM	C4D-ND	-3.66	1.34	1.40
23	B	603	CLA	C3D-C2D	3.66	1.49	1.39
23	b	603	CLA	C3D-C2D	3.66	1.49	1.39
23	B	608	CLA	OBD-CAD	3.66	1.28	1.22
23	b	608	CLA	OBD-CAD	3.66	1.28	1.22
23	A	407	CLA	CHC-C4B	3.66	1.47	1.39
23	a	407	CLA	CHC-C4B	3.66	1.47	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	A	412	CLA	OBD-CAD	3.66	1.28	1.22
23	c	511	CLA	CHC-C4B	3.66	1.47	1.39
23	C	519	CLA	OBD-CAD	3.66	1.28	1.22
23	a	406	CLA	OBD-CAD	3.66	1.28	1.22
23	b	605	CLA	OBD-CAD	3.66	1.28	1.22
23	C	507	CLA	OBD-CAD	3.66	1.28	1.22
23	c	507	CLA	OBD-CAD	3.66	1.28	1.22
23	B	601	CLA	CHC-C4B	3.65	1.47	1.39
23	b	601	CLA	CHC-C4B	3.65	1.47	1.39
23	B	607	CLA	OBD-CAD	3.65	1.28	1.22
23	B	612	CLA	OBD-CAD	3.65	1.28	1.22
23	b	607	CLA	OBD-CAD	3.65	1.28	1.22
23	b	612	CLA	OBD-CAD	3.65	1.28	1.22
23	C	506	CLA	CHC-C4B	3.65	1.47	1.39
23	c	506	CLA	CHC-C4B	3.65	1.47	1.39
23	B	602	CLA	OBD-CAD	3.65	1.28	1.22
23	b	602	CLA	OBD-CAD	3.65	1.28	1.22
23	C	505	CLA	CHC-C4B	3.64	1.47	1.39
23	c	505	CLA	CHC-C4B	3.64	1.47	1.39
23	a	412	CLA	OBD-CAD	3.64	1.28	1.22
23	C	510	CLA	CHC-C4B	3.64	1.47	1.39
23	c	510	CLA	CHC-C4B	3.64	1.47	1.39
23	B	605	CLA	OBD-CAD	3.64	1.28	1.22
23	A	406	CLA	OBD-CAD	3.63	1.28	1.22
23	B	615	CLA	CHC-C4B	3.63	1.47	1.39
23	b	615	CLA	CHC-C4B	3.63	1.47	1.39
23	B	610	CLA	CHC-C4B	3.63	1.47	1.39
23	b	610	CLA	CHC-C4B	3.63	1.47	1.39
23	B	604	CLA	C3D-C2D	3.63	1.49	1.39
23	b	604	CLA	C3D-C2D	3.63	1.49	1.39
23	C	509	CLA	CHC-C4B	3.63	1.47	1.39
23	c	509	CLA	CHC-C4B	3.63	1.47	1.39
23	B	610	CLA	OBD-CAD	3.63	1.28	1.22
23	b	610	CLA	OBD-CAD	3.63	1.28	1.22
23	A	405	CLA	C3D-C2D	3.62	1.49	1.39
23	a	405	CLA	C3D-C2D	3.62	1.49	1.39
23	C	507	CLA	CHC-C4B	3.62	1.47	1.39
23	c	507	CLA	CHC-C4B	3.62	1.47	1.39
23	C	506	CLA	OBD-CAD	3.62	1.28	1.22
23	c	506	CLA	OBD-CAD	3.62	1.28	1.22
23	A	405	CLA	OBD-CAD	3.62	1.28	1.22
23	a	405	CLA	OBD-CAD	3.62	1.28	1.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	B	603	CLA	OBD-CAD	3.61	1.28	1.22
23	b	603	CLA	OBD-CAD	3.61	1.28	1.22
23	c	509	CLA	OBD-CAD	3.61	1.28	1.22
23	B	614	CLA	CHC-C4B	3.61	1.47	1.39
23	D	403	CLA	OBD-CAD	3.61	1.28	1.22
23	d	403	CLA	OBD-CAD	3.61	1.28	1.22
23	B	603	CLA	CHC-C4B	3.61	1.47	1.39
23	b	603	CLA	CHC-C4B	3.61	1.47	1.39
23	B	604	CLA	OBD-CAD	3.61	1.28	1.22
23	b	604	CLA	OBD-CAD	3.61	1.28	1.22
23	D	403	CLA	C3D-C2D	3.61	1.49	1.39
23	d	403	CLA	C3D-C2D	3.61	1.49	1.39
23	B	611	CLA	OBD-CAD	3.60	1.28	1.22
23	b	611	CLA	OBD-CAD	3.60	1.28	1.22
23	B	612	CLA	C1B-NB	-3.60	1.33	1.37
23	b	612	CLA	C1B-NB	-3.60	1.33	1.37
23	C	510	CLA	OBD-CAD	3.60	1.28	1.22
23	c	510	CLA	OBD-CAD	3.60	1.28	1.22
23	C	509	CLA	OBD-CAD	3.60	1.28	1.22
23	D	404	CLA	OBD-CAD	3.59	1.28	1.22
23	d	404	CLA	OBD-CAD	3.59	1.28	1.22
23	A	405	CLA	CHC-C4B	3.59	1.47	1.39
23	a	405	CLA	CHC-C4B	3.59	1.47	1.39
23	b	604	CLA	CHB-C1B	3.59	1.47	1.39
23	D	404	CLA	CHC-C4B	3.59	1.47	1.39
23	d	404	CLA	CHC-C4B	3.59	1.47	1.39
23	C	504	CLA	OBD-CAD	3.59	1.28	1.22
23	c	504	CLA	OBD-CAD	3.59	1.28	1.22
23	C	508	CLA	CHC-C4B	3.59	1.47	1.39
23	c	508	CLA	CHC-C4B	3.59	1.47	1.39
23	b	621	CLA	OBD-CAD	3.59	1.28	1.22
23	B	606	CLA	CHC-C4B	3.58	1.47	1.39
23	b	606	CLA	CHC-C4B	3.58	1.47	1.39
23	b	615	CLA	OBD-CAD	3.58	1.28	1.22
23	B	609	CLA	C1B-NB	-3.58	1.33	1.37
23	b	609	CLA	C1B-NB	-3.58	1.33	1.37
23	C	510	CLA	CHB-C1B	3.57	1.47	1.39
23	c	510	CLA	CHB-C1B	3.57	1.47	1.39
23	b	614	CLA	CHC-C4B	3.57	1.47	1.39
23	D	403	CLA	CHC-C4B	3.57	1.47	1.39
23	d	403	CLA	CHC-C4B	3.57	1.47	1.39
23	A	412	CLA	CHC-C4B	3.56	1.47	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	B	607	CLA	CHC-C4B	3.56	1.47	1.39
23	b	607	CLA	CHC-C4B	3.56	1.47	1.39
23	B	604	CLA	CHB-C1B	3.56	1.47	1.39
23	B	621	CLA	OBD-CAD	3.55	1.28	1.22
23	B	606	CLA	C1B-NB	-3.55	1.33	1.37
23	B	613	CLA	C1B-NB	-3.55	1.33	1.37
23	b	613	CLA	C1B-NB	-3.55	1.33	1.37
37	X	101	RRX	C8-C9	-3.54	1.38	1.45
23	b	613	CLA	OBD-CAD	3.54	1.28	1.22
23	b	606	CLA	C1B-NB	-3.54	1.33	1.37
23	a	412	CLA	C1B-NB	-3.54	1.33	1.37
23	B	615	CLA	OBD-CAD	3.53	1.28	1.22
23	a	412	CLA	CHC-C4B	3.52	1.47	1.39
23	B	608	CLA	CHC-C4B	3.52	1.47	1.39
23	b	608	CLA	CHC-C4B	3.52	1.47	1.39
23	B	604	CLA	CHC-C4B	3.52	1.47	1.39
23	b	604	CLA	CHC-C4B	3.52	1.47	1.39
23	B	610	CLA	CHB-C1B	3.52	1.47	1.39
23	b	610	CLA	CHB-C1B	3.52	1.47	1.39
23	B	613	CLA	CHC-C4B	3.52	1.47	1.39
23	C	503	CLA	CHC-C4B	3.52	1.47	1.39
23	b	613	CLA	CHC-C4B	3.52	1.47	1.39
23	c	503	CLA	CHC-C4B	3.52	1.47	1.39
23	B	621	CLA	CHC-C4B	3.52	1.47	1.39
23	b	621	CLA	CHC-C4B	3.52	1.47	1.39
23	B	609	CLA	CHC-C4B	3.52	1.47	1.39
23	b	609	CLA	CHC-C4B	3.52	1.47	1.39
23	B	604	CLA	C1B-NB	-3.51	1.33	1.37
23	b	604	CLA	C1B-NB	-3.51	1.33	1.37
23	B	613	CLA	OBD-CAD	3.51	1.28	1.22
23	A	405	CLA	C1B-NB	-3.51	1.33	1.37
23	a	405	CLA	C1B-NB	-3.51	1.33	1.37
37	x	101	RRX	C8-C9	-3.50	1.38	1.45
23	B	603	CLA	C1B-NB	-3.50	1.33	1.37
23	b	603	CLA	C1B-NB	-3.50	1.33	1.37
23	C	503	CLA	CHB-C1B	3.49	1.47	1.39
23	C	519	CLA	CHB-C1B	3.49	1.47	1.39
23	c	503	CLA	CHB-C1B	3.49	1.47	1.39
23	c	519	CLA	CHB-C1B	3.49	1.47	1.39
23	B	621	CLA	CHB-C1B	3.49	1.47	1.39
23	b	621	CLA	CHB-C1B	3.49	1.47	1.39
23	C	509	CLA	CHB-C1B	3.49	1.47	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	c	509	CLA	CHB-C1B	3.49	1.47	1.39
23	B	605	CLA	CHB-C1B	3.48	1.47	1.39
23	C	502	CLA	CHB-C1B	3.48	1.47	1.39
23	c	502	CLA	CHB-C1B	3.48	1.47	1.39
23	a	412	CLA	CHB-C1B	3.48	1.47	1.39
23	A	412	CLA	CHB-C1B	3.48	1.47	1.39
23	b	605	CLA	CHB-C1B	3.48	1.47	1.39
23	C	505	CLA	C3D-C2D	3.48	1.48	1.39
23	c	505	CLA	C3D-C2D	3.48	1.48	1.39
23	B	621	CLA	C1B-NB	-3.48	1.33	1.37
23	b	621	CLA	C1B-NB	-3.48	1.33	1.37
23	B	608	CLA	C1B-NB	-3.47	1.33	1.37
23	C	511	CLA	CHB-C1B	3.47	1.47	1.39
23	c	511	CLA	CHB-C1B	3.47	1.47	1.39
23	B	615	CLA	CHB-C1B	3.47	1.47	1.39
23	b	615	CLA	CHB-C1B	3.47	1.47	1.39
23	C	512	CLA	CHB-C1B	3.47	1.47	1.39
23	c	512	CLA	CHB-C1B	3.47	1.47	1.39
23	A	412	CLA	C1B-NB	-3.47	1.33	1.37
23	B	601	CLA	CHB-C1B	3.47	1.47	1.39
23	b	601	CLA	CHB-C1B	3.47	1.47	1.39
23	B	611	CLA	C1B-NB	-3.45	1.33	1.37
23	b	611	CLA	C1B-NB	-3.45	1.33	1.37
23	C	504	CLA	CHB-C1B	3.45	1.47	1.39
23	c	504	CLA	CHB-C1B	3.45	1.47	1.39
23	C	506	CLA	C1B-NB	-3.45	1.33	1.37
23	c	506	CLA	C1B-NB	-3.45	1.33	1.37
23	C	509	CLA	C1B-NB	-3.45	1.33	1.37
23	B	614	CLA	C1B-NB	-3.45	1.33	1.37
23	b	614	CLA	C1B-NB	-3.45	1.33	1.37
23	B	605	CLA	C1B-NB	-3.44	1.33	1.37
23	b	605	CLA	C1B-NB	-3.44	1.33	1.37
23	B	615	CLA	C1B-NB	-3.44	1.33	1.37
23	b	615	CLA	C1B-NB	-3.44	1.33	1.37
23	A	406	CLA	CHB-C1B	3.44	1.47	1.39
23	a	406	CLA	CHB-C1B	3.44	1.47	1.39
34	F	102	HEM	C1B-NB	-3.44	1.34	1.40
23	C	505	CLA	CHB-C1B	3.43	1.47	1.39
23	c	505	CLA	CHB-C1B	3.43	1.47	1.39
23	B	608	CLA	CHB-C1B	3.43	1.47	1.39
23	b	608	CLA	CHB-C1B	3.43	1.47	1.39
23	C	513	CLA	CHB-C1B	3.43	1.47	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	c	513	CLA	CHB-C1B	3.43	1.47	1.39
23	D	403	CLA	CHB-C1B	3.43	1.47	1.39
23	d	403	CLA	CHB-C1B	3.43	1.47	1.39
23	D	404	CLA	CHB-C1B	3.43	1.47	1.39
23	d	404	CLA	CHB-C1B	3.43	1.47	1.39
37	x	101	RRX	C21-C22	3.43	1.40	1.35
23	c	509	CLA	C1B-NB	-3.43	1.33	1.37
23	B	609	CLA	CHB-C1B	3.42	1.47	1.39
23	b	609	CLA	CHB-C1B	3.42	1.47	1.39
23	b	608	CLA	C1B-NB	-3.42	1.33	1.37
23	C	509	CLA	C4B-NB	-3.42	1.33	1.37
23	c	509	CLA	C4B-NB	-3.42	1.33	1.37
23	C	506	CLA	CHB-C1B	3.42	1.47	1.39
34	f	102	HEM	C1B-NB	-3.42	1.34	1.40
23	B	611	CLA	CHB-C1B	3.42	1.47	1.39
23	b	611	CLA	CHB-C1B	3.42	1.47	1.39
23	c	506	CLA	CHB-C1B	3.41	1.47	1.39
36	V	201	HEC	FE-NB	3.41	2.05	1.94
36	v	201	HEC	FE-NB	3.41	2.05	1.94
23	C	505	CLA	C1B-NB	-3.41	1.33	1.37
23	c	505	CLA	C1B-NB	-3.41	1.33	1.37
23	B	607	CLA	C1B-NB	-3.41	1.33	1.37
23	b	607	CLA	C1B-NB	-3.41	1.33	1.37
23	C	502	CLA	C1B-NB	-3.40	1.33	1.37
23	c	502	CLA	C1B-NB	-3.40	1.33	1.37
23	B	612	CLA	CHB-C1B	3.40	1.47	1.39
23	b	612	CLA	CHB-C1B	3.40	1.47	1.39
23	A	407	CLA	C1B-NB	-3.40	1.33	1.37
23	C	504	CLA	C1B-NB	-3.40	1.33	1.37
23	a	407	CLA	C1B-NB	-3.40	1.33	1.37
23	c	504	CLA	C1B-NB	-3.40	1.33	1.37
23	C	508	CLA	CHB-C1B	3.40	1.47	1.39
23	c	508	CLA	CHB-C1B	3.40	1.47	1.39
23	D	403	CLA	C1B-NB	-3.39	1.33	1.37
23	d	403	CLA	C1B-NB	-3.39	1.33	1.37
23	C	508	CLA	C1B-NB	-3.39	1.33	1.37
23	c	508	CLA	C1B-NB	-3.39	1.33	1.37
23	C	519	CLA	C1B-NB	-3.39	1.33	1.37
23	c	519	CLA	C1B-NB	-3.39	1.33	1.37
37	X	101	RRX	C21-C22	3.39	1.40	1.35
23	B	602	CLA	CHB-C1B	3.38	1.47	1.39
23	b	602	CLA	CHB-C1B	3.38	1.47	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	D	404	CLA	C1B-NB	-3.38	1.33	1.37
23	d	404	CLA	C1B-NB	-3.38	1.33	1.37
23	B	606	CLA	CHB-C1B	3.38	1.47	1.39
23	b	606	CLA	CHB-C1B	3.38	1.47	1.39
23	C	503	CLA	C1B-NB	-3.37	1.33	1.37
23	c	503	CLA	C1B-NB	-3.37	1.33	1.37
23	B	603	CLA	CHB-C1B	3.37	1.47	1.39
23	C	507	CLA	C1B-NB	-3.36	1.33	1.37
23	C	510	CLA	C1B-NB	-3.36	1.33	1.37
23	c	507	CLA	C1B-NB	-3.36	1.33	1.37
23	c	510	CLA	C1B-NB	-3.36	1.33	1.37
23	b	603	CLA	CHB-C1B	3.35	1.46	1.39
23	B	613	CLA	CHB-C1B	3.35	1.46	1.39
23	b	613	CLA	CHB-C1B	3.35	1.46	1.39
23	B	614	CLA	CHB-C1B	3.35	1.46	1.39
23	b	614	CLA	CHB-C1B	3.35	1.46	1.39
23	A	406	CLA	C1B-NB	-3.34	1.33	1.37
23	C	512	CLA	C1B-NB	-3.34	1.33	1.37
23	a	406	CLA	C1B-NB	-3.34	1.33	1.37
23	c	512	CLA	C1B-NB	-3.34	1.33	1.37
23	B	613	CLA	C4B-NB	-3.33	1.33	1.37
23	b	613	CLA	C4B-NB	-3.33	1.33	1.37
23	c	508	CLA	C4B-NB	-3.33	1.33	1.37
23	A	407	CLA	CHB-C1B	3.33	1.46	1.39
23	B	607	CLA	CHB-C1B	3.33	1.46	1.39
23	a	407	CLA	CHB-C1B	3.33	1.46	1.39
23	b	607	CLA	CHB-C1B	3.33	1.46	1.39
23	C	513	CLA	C1B-NB	-3.32	1.33	1.37
23	c	513	CLA	C1B-NB	-3.32	1.33	1.37
23	C	507	CLA	CHB-C1B	3.32	1.46	1.39
23	c	507	CLA	CHB-C1B	3.32	1.46	1.39
23	B	602	CLA	C1B-NB	-3.31	1.33	1.37
23	b	602	CLA	C1B-NB	-3.31	1.33	1.37
23	B	601	CLA	C1B-NB	-3.30	1.33	1.37
23	b	601	CLA	C1B-NB	-3.30	1.33	1.37
37	X	101	RRX	C23-C22	-3.30	1.38	1.45
23	C	508	CLA	C4B-NB	-3.30	1.33	1.37
23	B	610	CLA	C1B-NB	-3.30	1.33	1.37
23	b	610	CLA	C1B-NB	-3.30	1.33	1.37
23	B	621	CLA	C4B-NB	-3.30	1.33	1.37
23	b	621	CLA	C4B-NB	-3.30	1.33	1.37
37	x	101	RRX	C23-C22	-3.29	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	X	101	RRX	C10-C9	3.27	1.40	1.35
23	A	405	CLA	CHB-C1B	3.27	1.46	1.39
23	a	405	CLA	CHB-C1B	3.27	1.46	1.39
37	x	101	RRX	C10-C9	3.25	1.40	1.35
23	C	507	CLA	C4B-NB	-3.24	1.33	1.37
23	C	511	CLA	C1B-NB	-3.23	1.33	1.37
23	c	511	CLA	C1B-NB	-3.23	1.33	1.37
23	C	510	CLA	C4B-NB	-3.22	1.33	1.37
23	c	510	CLA	C4B-NB	-3.22	1.33	1.37
23	C	503	CLA	C4B-NB	-3.22	1.33	1.37
23	c	503	CLA	C4B-NB	-3.22	1.33	1.37
23	c	507	CLA	C4B-NB	-3.22	1.33	1.37
23	B	607	CLA	C4B-NB	-3.17	1.33	1.37
23	b	607	CLA	C4B-NB	-3.17	1.33	1.37
37	x	101	RRX	C17-C18	3.16	1.40	1.35
37	X	101	RRX	C17-C18	3.16	1.40	1.35
23	C	511	CLA	C4B-NB	-3.16	1.33	1.37
23	c	511	CLA	C4B-NB	-3.16	1.33	1.37
23	A	412	CLA	C3B-C4B	3.15	1.50	1.42
23	a	412	CLA	C3B-C4B	3.15	1.50	1.42
23	B	608	CLA	C4B-NB	-3.13	1.33	1.37
23	b	608	CLA	C4B-NB	-3.13	1.33	1.37
23	B	615	CLA	C3B-C4B	3.13	1.50	1.42
23	b	615	CLA	C3B-C4B	3.13	1.50	1.42
23	B	604	CLA	C4B-NB	-3.12	1.33	1.37
23	b	604	CLA	C4B-NB	-3.12	1.33	1.37
23	B	610	CLA	C4B-NB	-3.12	1.33	1.37
23	b	610	CLA	C4B-NB	-3.12	1.33	1.37
23	A	406	CLA	C4B-NB	-3.12	1.33	1.37
23	a	406	CLA	C4B-NB	-3.12	1.33	1.37
23	B	603	CLA	C4B-NB	-3.11	1.34	1.37
23	b	603	CLA	C4B-NB	-3.11	1.34	1.37
23	B	606	CLA	C3B-C4B	3.11	1.50	1.42
23	C	512	CLA	C4B-NB	-3.10	1.34	1.37
23	A	407	CLA	C4B-NB	-3.10	1.34	1.37
23	a	407	CLA	C4B-NB	-3.10	1.34	1.37
23	B	605	CLA	C3B-C4B	3.10	1.50	1.42
23	b	605	CLA	C3B-C4B	3.10	1.50	1.42
23	B	611	CLA	C3B-C4B	3.10	1.50	1.42
23	b	611	CLA	C3B-C4B	3.10	1.50	1.42
23	C	519	CLA	C4B-NB	-3.09	1.34	1.37
23	c	519	CLA	C4B-NB	-3.09	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	b	606	CLA	C3B-C4B	3.09	1.50	1.42
23	a	405	CLA	C3B-C4B	3.09	1.50	1.42
23	C	505	CLA	C4B-NB	-3.09	1.34	1.37
23	c	505	CLA	C4B-NB	-3.09	1.34	1.37
23	B	601	CLA	C4B-NB	-3.08	1.34	1.37
23	b	601	CLA	C4B-NB	-3.08	1.34	1.37
23	D	404	CLA	C4B-NB	-3.07	1.34	1.37
23	d	404	CLA	C4B-NB	-3.07	1.34	1.37
23	C	506	CLA	C4B-NB	-3.07	1.34	1.37
23	c	506	CLA	C4B-NB	-3.07	1.34	1.37
23	B	602	CLA	C4B-NB	-3.06	1.34	1.37
23	B	612	CLA	C3B-C4B	3.06	1.49	1.42
23	b	612	CLA	C3B-C4B	3.06	1.49	1.42
23	C	502	CLA	C4B-NB	-3.06	1.34	1.37
23	c	502	CLA	C4B-NB	-3.06	1.34	1.37
23	A	405	CLA	C3B-C4B	3.06	1.49	1.42
23	C	513	CLA	C4B-NB	-3.05	1.34	1.37
23	c	513	CLA	C4B-NB	-3.05	1.34	1.37
37	X	101	RRX	C14-C13	3.05	1.39	1.35
23	c	512	CLA	C4B-NB	-3.05	1.34	1.37
23	C	513	CLA	C3B-C4B	3.05	1.49	1.42
23	c	513	CLA	C3B-C4B	3.05	1.49	1.42
23	b	602	CLA	C4B-NB	-3.03	1.34	1.37
23	B	614	CLA	C3B-C4B	3.03	1.49	1.42
23	b	614	CLA	C3B-C4B	3.03	1.49	1.42
23	B	615	CLA	C4B-NB	-3.02	1.34	1.37
23	b	615	CLA	C4B-NB	-3.02	1.34	1.37
23	D	403	CLA	C4B-NB	-3.01	1.34	1.37
23	d	403	CLA	C4B-NB	-3.01	1.34	1.37
23	B	611	CLA	C4B-NB	-3.01	1.34	1.37
23	b	611	CLA	C4B-NB	-3.01	1.34	1.37
23	C	504	CLA	C4B-NB	-2.99	1.34	1.37
23	c	504	CLA	C4B-NB	-2.99	1.34	1.37
23	b	606	CLA	C4B-NB	-2.99	1.34	1.37
23	A	406	CLA	C3B-C4B	2.98	1.49	1.42
23	a	406	CLA	C3B-C4B	2.98	1.49	1.42
37	x	101	RRX	C14-C13	2.98	1.39	1.35
23	C	502	CLA	C3B-C4B	2.98	1.49	1.42
23	c	502	CLA	C3B-C4B	2.98	1.49	1.42
23	C	504	CLA	C3B-C4B	2.98	1.49	1.42
23	c	504	CLA	C3B-C4B	2.98	1.49	1.42
23	B	606	CLA	C4B-NB	-2.98	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	A	405	CLA	C4B-NB	-2.98	1.34	1.37
23	a	405	CLA	C4B-NB	-2.98	1.34	1.37
23	B	602	CLA	C3B-C4B	2.97	1.49	1.42
23	b	602	CLA	C3B-C4B	2.97	1.49	1.42
23	A	412	CLA	C4B-NB	-2.97	1.34	1.37
23	B	612	CLA	C4B-NB	-2.96	1.34	1.37
23	b	612	CLA	C4B-NB	-2.96	1.34	1.37
23	D	404	CLA	C3B-C4B	2.95	1.49	1.42
23	d	404	CLA	C3B-C4B	2.95	1.49	1.42
23	c	519	CLA	C3B-C4B	2.95	1.49	1.42
23	C	519	CLA	C3B-C4B	2.94	1.49	1.42
23	B	601	CLA	C3B-C4B	2.94	1.49	1.42
23	b	601	CLA	C3B-C4B	2.94	1.49	1.42
23	C	505	CLA	C3B-C4B	2.94	1.49	1.42
23	c	505	CLA	C3B-C4B	2.94	1.49	1.42
23	a	412	CLA	C4B-NB	-2.93	1.34	1.37
23	B	609	CLA	C3B-C4B	2.92	1.49	1.42
23	A	407	CLA	C3B-C4B	2.91	1.49	1.42
23	B	610	CLA	C3B-C4B	2.91	1.49	1.42
23	a	407	CLA	C3B-C4B	2.91	1.49	1.42
23	b	610	CLA	C3B-C4B	2.91	1.49	1.42
23	B	614	CLA	C4B-NB	-2.90	1.34	1.37
25	F	101	SQD	C6-S	-2.90	1.66	1.77
25	f	101	SQD	C6-S	-2.90	1.66	1.77
23	b	609	CLA	C3B-C4B	2.89	1.49	1.42
23	B	609	CLA	C4B-NB	-2.88	1.34	1.37
23	b	609	CLA	C4B-NB	-2.88	1.34	1.37
23	C	512	CLA	C3B-C4B	2.88	1.49	1.42
25	A	409	SQD	C6-S	-2.87	1.66	1.77
25	a	409	SQD	C6-S	-2.87	1.66	1.77
23	B	605	CLA	C4B-NB	-2.86	1.34	1.37
23	b	605	CLA	C4B-NB	-2.86	1.34	1.37
23	C	506	CLA	C3B-C4B	2.86	1.49	1.42
23	c	506	CLA	C3B-C4B	2.86	1.49	1.42
23	b	614	CLA	C4B-NB	-2.85	1.34	1.37
23	c	512	CLA	C3B-C4B	2.85	1.49	1.42
23	C	511	CLA	C3B-C4B	2.80	1.49	1.42
23	c	511	CLA	C3B-C4B	2.78	1.49	1.42
23	C	508	CLA	C3B-C4B	2.75	1.49	1.42
23	c	508	CLA	C3B-C4B	2.75	1.49	1.42
23	D	403	CLA	C3B-C4B	2.74	1.49	1.42
23	B	603	CLA	C3B-C4B	2.73	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	b	603	CLA	C3B-C4B	2.73	1.49	1.42
23	C	503	CLA	C3B-C4B	2.73	1.49	1.42
23	c	503	CLA	C3B-C4B	2.73	1.49	1.42
23	d	403	CLA	C3B-C4B	2.71	1.49	1.42
23	c	507	CLA	C3B-C4B	2.70	1.49	1.42
23	C	507	CLA	C3B-C4B	2.69	1.49	1.42
23	B	607	CLA	C3B-C4B	2.69	1.49	1.42
23	b	607	CLA	C3B-C4B	2.69	1.49	1.42
36	V	201	HEC	FE-NA	2.69	2.04	1.95
36	v	201	HEC	FE-NA	2.69	2.04	1.95
37	x	101	RRX	C19-C18	-2.68	1.40	1.45
23	C	510	CLA	C3B-C4B	2.67	1.49	1.42
23	c	510	CLA	C3B-C4B	2.67	1.49	1.42
23	B	608	CLA	C3B-C4B	2.67	1.49	1.42
23	b	608	CLA	C3B-C4B	2.67	1.49	1.42
37	X	101	RRX	C19-C18	-2.64	1.40	1.45
23	B	604	CLA	C3B-C4B	2.64	1.48	1.42
23	b	604	CLA	C3B-C4B	2.64	1.48	1.42
23	C	509	CLA	C3B-C4B	2.63	1.48	1.42
23	c	509	CLA	C3B-C4B	2.63	1.48	1.42
23	B	613	CLA	C3B-C4B	2.61	1.48	1.42
23	b	613	CLA	C3B-C4B	2.61	1.48	1.42
37	X	101	RRX	C12-C13	-2.61	1.40	1.45
37	x	101	RRX	C12-C13	-2.61	1.40	1.45
23	B	621	CLA	C1B-C2B	2.61	1.49	1.43
23	b	621	CLA	C1B-C2B	2.61	1.49	1.43
26	A	410	PL9	C6-C5	2.60	1.48	1.35
26	a	410	PL9	C6-C5	2.60	1.48	1.35
23	D	403	CLA	C1B-C2B	2.59	1.49	1.43
23	d	403	CLA	C1B-C2B	2.59	1.49	1.43
23	B	621	CLA	C4D-CHA	2.59	1.47	1.38
23	b	621	CLA	C4D-CHA	2.59	1.47	1.38
23	c	509	CLA	C4D-CHA	2.56	1.47	1.38
23	C	509	CLA	C4D-CHA	2.56	1.47	1.38
23	b	604	CLA	C4D-CHA	2.56	1.47	1.38
23	C	510	CLA	C4D-CHA	2.56	1.47	1.38
23	c	510	CLA	C4D-CHA	2.56	1.47	1.38
23	B	604	CLA	C4D-CHA	2.55	1.47	1.38
23	C	510	CLA	C1B-C2B	2.55	1.49	1.43
23	c	510	CLA	C1B-C2B	2.55	1.49	1.43
23	B	601	CLA	C4D-CHA	2.54	1.47	1.38
23	b	601	CLA	C4D-CHA	2.54	1.47	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	C	511	CLA	C4D-CHA	2.54	1.47	1.38
23	C	504	CLA	C4D-CHA	2.54	1.47	1.38
23	c	504	CLA	C4D-CHA	2.54	1.47	1.38
23	B	610	CLA	C4D-CHA	2.53	1.47	1.38
23	b	610	CLA	C4D-CHA	2.53	1.47	1.38
23	B	607	CLA	C4D-CHA	2.53	1.47	1.38
23	b	607	CLA	C4D-CHA	2.53	1.47	1.38
23	B	613	CLA	C4D-CHA	2.53	1.47	1.38
23	b	613	CLA	C4D-CHA	2.53	1.47	1.38
23	B	621	CLA	C3B-C4B	2.53	1.48	1.42
23	b	621	CLA	C3B-C4B	2.53	1.48	1.42
23	B	614	CLA	C4D-CHA	2.53	1.47	1.38
23	b	614	CLA	C4D-CHA	2.53	1.47	1.38
26	D	406	PL9	C6-C5	2.53	1.48	1.35
26	d	406	PL9	C6-C5	2.53	1.48	1.35
23	C	507	CLA	C4D-CHA	2.53	1.47	1.38
23	c	507	CLA	C4D-CHA	2.53	1.47	1.38
23	B	606	CLA	C4D-CHA	2.53	1.47	1.38
23	b	606	CLA	C4D-CHA	2.53	1.47	1.38
23	c	511	CLA	C4D-CHA	2.53	1.47	1.38
33	d	402	PHO	CHA-CBD	-2.53	1.48	1.51
23	B	615	CLA	C4D-CHA	2.52	1.47	1.38
23	b	615	CLA	C4D-CHA	2.52	1.47	1.38
23	B	613	CLA	C1B-C2B	2.52	1.49	1.43
23	b	613	CLA	C1B-C2B	2.52	1.49	1.43
25	F	101	SQD	O48-C23	2.51	1.45	1.33
25	f	101	SQD	O48-C23	2.51	1.45	1.33
23	C	509	CLA	C1B-C2B	2.51	1.49	1.43
23	C	503	CLA	C4D-CHA	2.51	1.47	1.38
23	C	512	CLA	C4D-CHA	2.51	1.47	1.38
23	c	503	CLA	C4D-CHA	2.51	1.47	1.38
23	c	512	CLA	C4D-CHA	2.51	1.47	1.38
23	C	519	CLA	C1B-C2B	2.51	1.49	1.43
23	B	608	CLA	C4D-CHA	2.51	1.47	1.38
23	b	608	CLA	C4D-CHA	2.51	1.47	1.38
23	C	513	CLA	C4D-CHA	2.51	1.47	1.38
23	c	513	CLA	C4D-CHA	2.51	1.47	1.38
23	C	519	CLA	C4D-CHA	2.51	1.47	1.38
23	c	519	CLA	C4D-CHA	2.51	1.47	1.38
23	C	511	CLA	C1B-C2B	2.51	1.49	1.43
23	c	511	CLA	C1B-C2B	2.51	1.49	1.43
23	B	609	CLA	C4D-CHA	2.50	1.47	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	b	609	CLA	C4D-CHA	2.50	1.47	1.38
23	C	508	CLA	C4D-CHA	2.50	1.47	1.38
23	c	508	CLA	C4D-CHA	2.50	1.47	1.38
23	B	601	CLA	C1B-C2B	2.50	1.49	1.43
23	b	601	CLA	C1B-C2B	2.50	1.49	1.43
29	A	415	LHG	O8-C23	2.50	1.45	1.33
29	a	415	LHG	O8-C23	2.50	1.45	1.33
23	B	610	CLA	C1B-C2B	2.50	1.49	1.43
23	b	610	CLA	C1B-C2B	2.50	1.49	1.43
23	c	506	CLA	C4D-CHA	2.50	1.47	1.38
23	C	503	CLA	C1B-C2B	2.50	1.49	1.43
23	c	503	CLA	C1B-C2B	2.50	1.49	1.43
23	B	603	CLA	C4D-CHA	2.50	1.47	1.38
23	b	603	CLA	C4D-CHA	2.50	1.47	1.38
36	V	201	HEC	FE-NC	2.50	2.03	1.95
36	v	201	HEC	FE-NC	2.50	2.03	1.95
23	c	519	CLA	C1B-C2B	2.50	1.49	1.43
33	D	402	PHO	CHA-CBD	-2.49	1.48	1.51
23	D	404	CLA	C4D-CHA	2.49	1.47	1.38
23	d	404	CLA	C4D-CHA	2.49	1.47	1.38
23	C	512	CLA	C1B-C2B	2.49	1.49	1.43
23	B	605	CLA	C1B-C2B	2.49	1.49	1.43
23	b	605	CLA	C1B-C2B	2.49	1.49	1.43
33	D	402	PHO	C3A-C2A	-2.48	1.52	1.54
33	d	402	PHO	C3A-C2A	-2.48	1.52	1.54
23	c	512	CLA	C1B-C2B	2.48	1.49	1.43
23	C	504	CLA	C1B-C2B	2.48	1.49	1.43
23	c	504	CLA	C1B-C2B	2.48	1.49	1.43
23	c	509	CLA	C1B-C2B	2.48	1.49	1.43
23	A	406	CLA	C3D-C4D	-2.48	1.38	1.44
23	a	406	CLA	C3D-C4D	-2.48	1.38	1.44
23	C	506	CLA	C4D-CHA	2.48	1.47	1.38
23	C	502	CLA	C4D-CHA	2.48	1.47	1.38
23	c	502	CLA	C4D-CHA	2.48	1.47	1.38
23	A	412	CLA	C4D-CHA	2.48	1.47	1.38
23	a	412	CLA	C4D-CHA	2.48	1.47	1.38
23	B	602	CLA	C4D-CHA	2.48	1.47	1.38
23	b	602	CLA	C4D-CHA	2.48	1.47	1.38
23	C	505	CLA	C1B-C2B	2.48	1.49	1.43
23	c	505	CLA	C1B-C2B	2.48	1.49	1.43
23	B	609	CLA	C1B-C2B	2.47	1.49	1.43
23	b	609	CLA	C1B-C2B	2.47	1.49	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	D	401	PHO	C3A-C2A	-2.47	1.52	1.54
33	d	401	PHO	C3A-C2A	-2.47	1.52	1.54
23	A	407	CLA	C4D-CHA	2.47	1.47	1.38
23	a	407	CLA	C4D-CHA	2.47	1.47	1.38
34	F	102	HEM	C1C-C2C	-2.47	1.40	1.45
34	f	102	HEM	C1C-C2C	-2.47	1.40	1.45
23	B	604	CLA	C1B-C2B	2.47	1.49	1.43
23	b	604	CLA	C1B-C2B	2.47	1.49	1.43
23	A	405	CLA	C4D-CHA	2.47	1.47	1.38
23	a	405	CLA	C4D-CHA	2.47	1.47	1.38
23	D	404	CLA	C1B-C2B	2.46	1.49	1.43
23	d	404	CLA	C1B-C2B	2.46	1.49	1.43
23	b	614	CLA	C1B-C2B	2.46	1.49	1.43
23	B	614	CLA	C1B-C2B	2.46	1.49	1.43
23	b	605	CLA	C4D-CHA	2.45	1.47	1.38
23	a	412	CLA	C1B-C2B	2.45	1.49	1.43
23	C	507	CLA	C1B-C2B	2.45	1.49	1.43
23	c	507	CLA	C1B-C2B	2.45	1.49	1.43
23	B	612	CLA	C4D-CHA	2.44	1.47	1.38
23	b	612	CLA	C4D-CHA	2.44	1.47	1.38
23	C	505	CLA	C3D-C4D	-2.44	1.38	1.44
23	c	505	CLA	C3D-C4D	-2.44	1.38	1.44
23	B	605	CLA	C4D-CHA	2.44	1.47	1.38
23	B	611	CLA	C4D-CHA	2.44	1.47	1.38
23	b	611	CLA	C4D-CHA	2.44	1.47	1.38
23	C	502	CLA	C1B-C2B	2.43	1.49	1.43
23	c	502	CLA	C1B-C2B	2.43	1.49	1.43
23	B	607	CLA	C1B-C2B	2.43	1.49	1.43
23	b	607	CLA	C1B-C2B	2.43	1.49	1.43
23	b	606	CLA	C1B-C2B	2.43	1.49	1.43
23	C	505	CLA	C4D-CHA	2.42	1.47	1.38
23	c	505	CLA	C4D-CHA	2.42	1.47	1.38
23	C	508	CLA	C1B-C2B	2.41	1.48	1.43
23	c	508	CLA	C1B-C2B	2.41	1.48	1.43
23	A	406	CLA	C4D-CHA	2.41	1.47	1.38
23	a	406	CLA	C4D-CHA	2.41	1.47	1.38
23	C	513	CLA	C1B-C2B	2.41	1.48	1.43
23	c	513	CLA	C1B-C2B	2.41	1.48	1.43
23	A	412	CLA	C1B-C2B	2.41	1.48	1.43
23	B	606	CLA	C1B-C2B	2.40	1.48	1.43
23	C	519	CLA	C4C-C3C	2.40	1.49	1.45
23	c	519	CLA	C4C-C3C	2.40	1.49	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	C	509	CLA	C3D-C4D	-2.40	1.38	1.44
23	c	509	CLA	C3D-C4D	-2.40	1.38	1.44
23	A	407	CLA	C3D-C4D	-2.40	1.38	1.44
23	B	612	CLA	C3D-C4D	-2.40	1.38	1.44
23	a	407	CLA	C3D-C4D	-2.40	1.38	1.44
23	b	612	CLA	C3D-C4D	-2.40	1.38	1.44
23	B	608	CLA	C1B-C2B	2.39	1.48	1.43
23	D	403	CLA	C3D-C4D	-2.39	1.38	1.44
23	d	403	CLA	C3D-C4D	-2.39	1.38	1.44
23	B	602	CLA	C3D-C4D	-2.39	1.38	1.44
23	b	602	CLA	C3D-C4D	-2.39	1.38	1.44
23	D	403	CLA	C4D-CHA	2.38	1.46	1.38
23	d	403	CLA	C4D-CHA	2.38	1.46	1.38
23	A	412	CLA	C3D-C4D	-2.38	1.38	1.44
23	a	412	CLA	C3D-C4D	-2.38	1.38	1.44
23	C	506	CLA	C4C-C3C	2.37	1.49	1.45
23	c	506	CLA	C4C-C3C	2.37	1.49	1.45
23	A	405	CLA	C3D-C4D	-2.37	1.38	1.44
23	a	405	CLA	C3D-C4D	-2.37	1.38	1.44
23	B	602	CLA	C1B-C2B	2.37	1.48	1.43
23	c	513	CLA	C4C-C3C	2.37	1.49	1.45
23	B	615	CLA	C1B-C2B	2.37	1.48	1.43
23	b	615	CLA	C1B-C2B	2.37	1.48	1.43
23	A	407	CLA	C1B-C2B	2.37	1.48	1.43
23	a	407	CLA	C1B-C2B	2.37	1.48	1.43
23	B	612	CLA	C1C-C2C	2.37	1.49	1.44
23	b	612	CLA	C1C-C2C	2.37	1.49	1.44
23	b	615	CLA	C3D-C4D	-2.37	1.38	1.44
23	C	502	CLA	C4C-C3C	2.37	1.49	1.45
23	c	502	CLA	C4C-C3C	2.37	1.49	1.45
23	C	507	CLA	C1C-C2C	2.37	1.49	1.44
23	c	507	CLA	C1C-C2C	2.37	1.49	1.44
23	C	510	CLA	C3D-C4D	-2.37	1.38	1.44
23	c	510	CLA	C3D-C4D	-2.37	1.38	1.44
23	B	609	CLA	C3D-C4D	-2.37	1.38	1.44
23	b	609	CLA	C3D-C4D	-2.37	1.38	1.44
33	D	401	PHO	C4B-NB	-2.37	1.34	1.38
33	d	401	PHO	C4B-NB	-2.37	1.34	1.38
23	C	504	CLA	C1C-C2C	2.36	1.49	1.44
23	b	608	CLA	C1B-C2B	2.36	1.48	1.43
23	B	608	CLA	C3D-C4D	-2.36	1.38	1.44
23	B	613	CLA	C3D-C4D	-2.36	1.38	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	b	608	CLA	C3D-C4D	-2.36	1.38	1.44
23	b	613	CLA	C3D-C4D	-2.36	1.38	1.44
23	B	605	CLA	C1C-C2C	2.36	1.49	1.44
23	b	605	CLA	C1C-C2C	2.36	1.49	1.44
23	C	513	CLA	C3D-C4D	-2.36	1.38	1.44
23	c	513	CLA	C3D-C4D	-2.36	1.38	1.44
23	C	506	CLA	C3D-C4D	-2.36	1.38	1.44
23	c	506	CLA	C3D-C4D	-2.36	1.38	1.44
23	D	404	CLA	C3D-C4D	-2.36	1.38	1.44
23	d	404	CLA	C3D-C4D	-2.36	1.38	1.44
23	b	602	CLA	C1B-C2B	2.36	1.48	1.43
23	C	513	CLA	C4C-C3C	2.36	1.49	1.45
23	B	604	CLA	C3D-C4D	-2.36	1.38	1.44
23	b	604	CLA	C3D-C4D	-2.36	1.38	1.44
33	D	402	PHO	C4B-NB	-2.35	1.34	1.38
33	d	402	PHO	C4B-NB	-2.35	1.34	1.38
23	B	615	CLA	C3D-C4D	-2.35	1.38	1.44
23	c	504	CLA	C1C-C2C	2.35	1.49	1.44
23	B	611	CLA	C1B-C2B	2.35	1.48	1.43
23	b	611	CLA	C1B-C2B	2.35	1.48	1.43
23	D	404	CLA	C4C-C3C	2.35	1.49	1.45
23	d	404	CLA	C4C-C3C	2.35	1.49	1.45
23	A	406	CLA	C1B-C2B	2.35	1.48	1.43
23	a	406	CLA	C1B-C2B	2.35	1.48	1.43
23	B	603	CLA	C3D-C4D	-2.34	1.38	1.44
23	b	603	CLA	C3D-C4D	-2.34	1.38	1.44
23	C	512	CLA	C1C-C2C	2.34	1.49	1.44
23	c	512	CLA	C1C-C2C	2.34	1.49	1.44
23	C	508	CLA	C3D-C4D	-2.34	1.38	1.44
23	c	508	CLA	C3D-C4D	-2.34	1.38	1.44
23	C	503	CLA	C3D-C4D	-2.34	1.38	1.44
23	c	503	CLA	C3D-C4D	-2.34	1.38	1.44
23	C	513	CLA	C1C-C2C	2.34	1.49	1.44
23	c	513	CLA	C1C-C2C	2.34	1.49	1.44
23	B	603	CLA	C1B-C2B	2.34	1.48	1.43
23	b	603	CLA	C1B-C2B	2.34	1.48	1.43
23	A	412	CLA	C4C-C3C	2.34	1.49	1.45
23	a	412	CLA	C4C-C3C	2.34	1.49	1.45
23	B	603	CLA	C1C-C2C	2.34	1.49	1.44
23	b	603	CLA	C1C-C2C	2.34	1.49	1.44
23	B	610	CLA	C4C-C3C	2.34	1.49	1.45
23	b	610	CLA	C4C-C3C	2.34	1.49	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	A	407	CLA	C1C-C2C	2.34	1.49	1.44
23	a	407	CLA	C1C-C2C	2.34	1.49	1.44
23	B	607	CLA	C3D-C4D	-2.33	1.38	1.44
23	b	607	CLA	C3D-C4D	-2.33	1.38	1.44
23	c	504	CLA	C4C-C3C	2.33	1.49	1.45
23	B	610	CLA	C3D-C4D	-2.33	1.38	1.44
23	b	610	CLA	C3D-C4D	-2.33	1.38	1.44
23	B	606	CLA	C4C-C3C	2.32	1.49	1.45
23	A	406	CLA	C4C-C3C	2.32	1.49	1.45
23	a	406	CLA	C4C-C3C	2.32	1.49	1.45
23	B	605	CLA	C3D-C4D	-2.32	1.38	1.44
23	b	605	CLA	C3D-C4D	-2.32	1.38	1.44
23	C	511	CLA	C1C-C2C	2.32	1.49	1.44
23	c	511	CLA	C1C-C2C	2.32	1.49	1.44
23	C	502	CLA	C3D-C4D	-2.32	1.38	1.44
23	c	502	CLA	C3D-C4D	-2.32	1.38	1.44
23	A	405	CLA	C1C-C2C	2.32	1.49	1.44
23	a	405	CLA	C1C-C2C	2.32	1.49	1.44
23	C	504	CLA	C4C-C3C	2.32	1.49	1.45
23	B	611	CLA	C3D-C4D	-2.32	1.38	1.44
23	b	611	CLA	C3D-C4D	-2.32	1.38	1.44
23	C	509	CLA	C4C-C3C	2.32	1.49	1.45
23	c	509	CLA	C4C-C3C	2.32	1.49	1.45
23	C	506	CLA	C1B-C2B	2.31	1.48	1.43
23	c	506	CLA	C1B-C2B	2.31	1.48	1.43
23	C	508	CLA	C4C-C3C	2.31	1.49	1.45
23	c	508	CLA	C4C-C3C	2.31	1.49	1.45
23	c	506	CLA	C1C-C2C	2.31	1.49	1.44
23	A	405	CLA	C1B-C2B	2.31	1.48	1.43
23	a	405	CLA	C1B-C2B	2.31	1.48	1.43
23	B	606	CLA	C3D-C4D	-2.31	1.39	1.44
23	b	606	CLA	C3D-C4D	-2.31	1.39	1.44
23	B	607	CLA	C4C-C3C	2.31	1.49	1.45
23	b	607	CLA	C4C-C3C	2.31	1.49	1.45
23	B	614	CLA	C3D-C4D	-2.30	1.39	1.44
23	b	614	CLA	C3D-C4D	-2.30	1.39	1.44
23	C	509	CLA	C3B-C2B	2.30	1.49	1.41
23	c	509	CLA	C3B-C2B	2.30	1.49	1.41
23	B	609	CLA	C4C-C3C	2.30	1.49	1.45
23	B	601	CLA	C1C-C2C	2.30	1.49	1.44
23	b	601	CLA	C1C-C2C	2.30	1.49	1.44
23	A	407	CLA	C4C-C3C	2.30	1.49	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	a	407	CLA	C4C-C3C	2.30	1.49	1.45
23	C	509	CLA	C1C-C2C	2.30	1.49	1.44
23	c	509	CLA	C1C-C2C	2.30	1.49	1.44
23	B	601	CLA	C4C-C3C	2.30	1.49	1.45
23	b	601	CLA	C4C-C3C	2.30	1.49	1.45
23	c	508	CLA	C3B-C2B	2.30	1.49	1.41
23	b	606	CLA	C4C-C3C	2.30	1.49	1.45
23	C	511	CLA	C3D-C4D	-2.30	1.39	1.44
23	c	511	CLA	C3D-C4D	-2.30	1.39	1.44
23	b	602	CLA	C1C-C2C	2.30	1.49	1.44
23	B	601	CLA	C3D-C4D	-2.29	1.39	1.44
23	b	601	CLA	C3D-C4D	-2.29	1.39	1.44
23	C	508	CLA	C3B-C2B	2.29	1.49	1.41
23	C	505	CLA	C1C-C2C	2.29	1.49	1.44
23	c	505	CLA	C1C-C2C	2.29	1.49	1.44
23	B	604	CLA	C4C-C3C	2.29	1.49	1.45
23	b	604	CLA	C4C-C3C	2.29	1.49	1.45
23	B	614	CLA	C1C-C2C	2.28	1.49	1.44
23	b	614	CLA	C1C-C2C	2.28	1.49	1.44
23	B	621	CLA	C3B-C2B	2.28	1.48	1.41
23	b	621	CLA	C3B-C2B	2.28	1.48	1.41
23	b	611	CLA	C1C-C2C	2.28	1.49	1.44
23	C	507	CLA	C3D-C4D	-2.27	1.39	1.44
23	D	403	CLA	C1C-C2C	2.27	1.49	1.44
23	d	403	CLA	C1C-C2C	2.27	1.49	1.44
23	B	621	CLA	C3D-C4D	-2.27	1.39	1.44
23	b	621	CLA	C3D-C4D	-2.27	1.39	1.44
23	B	602	CLA	C4C-C3C	2.27	1.49	1.45
23	b	602	CLA	C4C-C3C	2.27	1.49	1.45
23	C	506	CLA	C1C-C2C	2.27	1.49	1.44
23	C	510	CLA	C1C-C2C	2.27	1.49	1.44
23	c	510	CLA	C1C-C2C	2.27	1.49	1.44
23	C	519	CLA	C3D-C4D	-2.26	1.39	1.44
23	c	519	CLA	C3D-C4D	-2.26	1.39	1.44
23	B	614	CLA	C4C-C3C	2.26	1.48	1.45
23	b	614	CLA	C4C-C3C	2.26	1.48	1.45
23	A	406	CLA	C1C-C2C	2.26	1.48	1.44
23	a	406	CLA	C1C-C2C	2.26	1.48	1.44
23	c	507	CLA	C3D-C4D	-2.26	1.39	1.44
23	B	608	CLA	C4C-C3C	2.26	1.48	1.45
23	b	608	CLA	C4C-C3C	2.26	1.48	1.45
23	A	405	CLA	C4C-C3C	2.26	1.48	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	a	405	CLA	C4C-C3C	2.26	1.48	1.45
23	b	609	CLA	C4C-C3C	2.26	1.48	1.45
23	C	503	CLA	C4C-C3C	2.25	1.48	1.45
23	C	511	CLA	C4C-C3C	2.25	1.48	1.45
23	c	511	CLA	C4C-C3C	2.25	1.48	1.45
23	B	611	CLA	C1C-C2C	2.25	1.48	1.44
23	C	512	CLA	C3D-C4D	-2.25	1.39	1.44
23	c	512	CLA	C3D-C4D	-2.25	1.39	1.44
23	B	613	CLA	C1C-C2C	2.25	1.48	1.44
23	b	613	CLA	C1C-C2C	2.25	1.48	1.44
23	B	603	CLA	C4C-C3C	2.25	1.48	1.45
23	b	603	CLA	C4C-C3C	2.25	1.48	1.45
23	B	602	CLA	C1C-C2C	2.25	1.48	1.44
23	B	606	CLA	C1C-C2C	2.25	1.48	1.44
23	C	519	CLA	C1C-C2C	2.25	1.48	1.44
23	b	606	CLA	C1C-C2C	2.25	1.48	1.44
23	c	519	CLA	C1C-C2C	2.25	1.48	1.44
23	C	504	CLA	C3D-C4D	-2.25	1.39	1.44
23	B	610	CLA	C1C-C2C	2.25	1.48	1.44
23	b	610	CLA	C1C-C2C	2.25	1.48	1.44
23	b	609	CLA	C1C-C2C	2.24	1.48	1.44
23	c	504	CLA	C3D-C4D	-2.24	1.39	1.44
23	C	502	CLA	C1C-C2C	2.24	1.48	1.44
23	c	502	CLA	C1C-C2C	2.24	1.48	1.44
33	D	402	PHO	C1B-NB	-2.23	1.34	1.38
33	d	402	PHO	C1B-NB	-2.23	1.34	1.38
23	C	505	CLA	C4C-C3C	2.23	1.48	1.45
23	c	505	CLA	C4C-C3C	2.23	1.48	1.45
23	c	503	CLA	C4C-C3C	2.23	1.48	1.45
23	B	604	CLA	C1C-C2C	2.23	1.48	1.44
23	b	604	CLA	C1C-C2C	2.23	1.48	1.44
23	B	621	CLA	C1C-C2C	2.23	1.48	1.44
23	b	621	CLA	C1C-C2C	2.23	1.48	1.44
23	B	608	CLA	C1C-C2C	2.23	1.48	1.44
23	b	608	CLA	C1C-C2C	2.23	1.48	1.44
23	D	404	CLA	C1C-C2C	2.23	1.48	1.44
23	d	404	CLA	C1C-C2C	2.23	1.48	1.44
23	B	613	CLA	C4C-C3C	2.22	1.48	1.45
23	b	613	CLA	C4C-C3C	2.22	1.48	1.45
23	B	607	CLA	C1C-C2C	2.21	1.48	1.44
23	b	607	CLA	C1C-C2C	2.21	1.48	1.44
34	F	102	HEM	C1D-ND	-2.21	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	f	102	HEM	C1D-ND	-2.21	1.34	1.38
23	B	601	CLA	C3B-C2B	2.21	1.48	1.41
23	b	601	CLA	C3B-C2B	2.21	1.48	1.41
23	C	505	CLA	C3B-C2B	2.21	1.48	1.41
23	c	505	CLA	C3B-C2B	2.21	1.48	1.41
23	B	610	CLA	C3B-C2B	2.21	1.48	1.41
23	b	610	CLA	C3B-C2B	2.21	1.48	1.41
23	B	609	CLA	C1C-C2C	2.20	1.48	1.44
33	D	401	PHO	CHA-CBD	-2.20	1.49	1.51
33	d	401	PHO	CHA-CBD	-2.20	1.49	1.51
23	C	502	CLA	C3B-C2B	2.20	1.48	1.41
23	c	502	CLA	C3B-C2B	2.20	1.48	1.41
23	B	613	CLA	C3B-C2B	2.19	1.48	1.41
23	b	613	CLA	C3B-C2B	2.19	1.48	1.41
23	C	519	CLA	C3B-C2B	2.19	1.48	1.41
23	c	519	CLA	C3B-C2B	2.19	1.48	1.41
23	C	508	CLA	C1C-C2C	2.19	1.48	1.44
23	D	404	CLA	C3B-C2B	2.19	1.48	1.41
23	d	404	CLA	C3B-C2B	2.19	1.48	1.41
23	B	615	CLA	C4C-C3C	2.19	1.48	1.45
23	b	615	CLA	C4C-C3C	2.19	1.48	1.45
23	B	621	CLA	C4C-C3C	2.18	1.48	1.45
23	b	621	CLA	C4C-C3C	2.18	1.48	1.45
23	C	512	CLA	C4C-C3C	2.18	1.48	1.45
23	c	512	CLA	C4C-C3C	2.18	1.48	1.45
23	B	612	CLA	C1B-C2B	2.17	1.48	1.43
23	b	612	CLA	C1B-C2B	2.17	1.48	1.43
23	B	615	CLA	C3B-C2B	2.17	1.48	1.41
23	b	615	CLA	C3B-C2B	2.17	1.48	1.41
33	D	401	PHO	C1B-NB	-2.17	1.34	1.38
33	d	401	PHO	C1B-NB	-2.17	1.34	1.38
23	A	412	CLA	C3B-C2B	2.17	1.48	1.41
23	C	510	CLA	C3B-C2B	2.17	1.48	1.41
23	c	510	CLA	C3B-C2B	2.17	1.48	1.41
23	C	504	CLA	C3B-C2B	2.16	1.48	1.41
23	c	504	CLA	C3B-C2B	2.16	1.48	1.41
23	C	512	CLA	C3B-C2B	2.16	1.48	1.41
23	c	512	CLA	C3B-C2B	2.16	1.48	1.41
23	a	412	CLA	C3B-C2B	2.16	1.48	1.41
23	C	513	CLA	C3B-C2B	2.15	1.48	1.41
23	c	513	CLA	C3B-C2B	2.15	1.48	1.41
23	B	605	CLA	C3B-C2B	2.15	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	b	605	CLA	C3B-C2B	2.15	1.48	1.41
23	C	507	CLA	C4C-C3C	2.15	1.48	1.45
23	c	507	CLA	C4C-C3C	2.15	1.48	1.45
23	c	508	CLA	C1C-C2C	2.15	1.48	1.44
23	B	605	CLA	C4C-C3C	2.14	1.48	1.45
23	b	605	CLA	C4C-C3C	2.14	1.48	1.45
23	B	611	CLA	C4C-C3C	2.14	1.48	1.45
23	b	611	CLA	C4C-C3C	2.14	1.48	1.45
23	A	406	CLA	C3B-C2B	2.14	1.48	1.41
23	a	406	CLA	C3B-C2B	2.14	1.48	1.41
23	C	510	CLA	C4C-C3C	2.13	1.48	1.45
23	c	510	CLA	C4C-C3C	2.13	1.48	1.45
23	B	602	CLA	C3B-C2B	2.12	1.48	1.41
23	B	606	CLA	C3B-C2B	2.12	1.48	1.41
23	b	602	CLA	C3B-C2B	2.12	1.48	1.41
23	b	606	CLA	C3B-C2B	2.12	1.48	1.41
23	C	503	CLA	C1C-C2C	2.11	1.48	1.44
23	B	612	CLA	C4C-C3C	2.11	1.48	1.45
23	b	612	CLA	C4C-C3C	2.11	1.48	1.45
23	c	503	CLA	C1C-C2C	2.11	1.48	1.44
23	B	614	CLA	C3B-C2B	2.11	1.48	1.41
23	b	614	CLA	C3B-C2B	2.11	1.48	1.41
23	d	403	CLA	C3B-C2B	2.10	1.48	1.41
23	c	511	CLA	C3B-C2B	2.09	1.48	1.41
23	B	608	CLA	C3B-C2B	2.09	1.48	1.41
23	b	608	CLA	C3B-C2B	2.09	1.48	1.41
23	A	412	CLA	C1D-C2D	2.09	1.49	1.45
23	a	412	CLA	C1D-C2D	2.09	1.49	1.45
23	B	611	CLA	C3B-C2B	2.08	1.48	1.41
23	b	611	CLA	C3B-C2B	2.08	1.48	1.41
33	D	402	PHO	C1D-ND	-2.08	1.34	1.38
33	d	402	PHO	C1D-ND	-2.08	1.34	1.38
23	A	407	CLA	C3B-C2B	2.08	1.48	1.41
23	a	407	CLA	C3B-C2B	2.08	1.48	1.41
23	D	403	CLA	C3B-C2B	2.08	1.48	1.41
23	b	609	CLA	C3B-C2B	2.08	1.48	1.41
23	C	511	CLA	C3B-C2B	2.07	1.48	1.41
23	B	607	CLA	C3B-C2B	2.07	1.48	1.41
23	b	607	CLA	C3B-C2B	2.07	1.48	1.41
23	C	506	CLA	C3B-C2B	2.07	1.48	1.41
23	c	506	CLA	C3B-C2B	2.07	1.48	1.41
23	B	615	CLA	C1C-NC	-2.06	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	b	615	CLA	C1C-NC	-2.06	1.34	1.37
23	A	412	CLA	C1C-C2C	2.06	1.48	1.44
23	a	412	CLA	C1C-C2C	2.06	1.48	1.44
23	C	503	CLA	C3B-C2B	2.06	1.48	1.41
23	c	503	CLA	C3B-C2B	2.06	1.48	1.41
33	D	401	PHO	C1D-ND	-2.05	1.34	1.38
33	d	401	PHO	C1D-ND	-2.05	1.34	1.38
23	B	609	CLA	C3B-C2B	2.05	1.48	1.41
23	C	507	CLA	C3B-C2B	2.05	1.48	1.41
23	c	507	CLA	C3B-C2B	2.05	1.48	1.41
23	A	406	CLA	C1D-C2D	2.04	1.49	1.45
23	a	406	CLA	C1D-C2D	2.04	1.49	1.45
23	A	405	CLA	C3B-C2B	2.03	1.48	1.41
23	C	513	CLA	C1D-C2D	2.03	1.49	1.45
23	c	513	CLA	C1D-C2D	2.03	1.49	1.45
36	V	201	HEC	CMB-C2B	2.02	1.55	1.50
36	v	201	HEC	CMB-C2B	2.02	1.55	1.50
23	D	403	CLA	C4C-C3C	2.02	1.48	1.45
23	d	403	CLA	C4C-C3C	2.02	1.48	1.45
23	C	519	CLA	C1D-C2D	2.01	1.49	1.45
23	c	519	CLA	C1D-C2D	2.01	1.49	1.45
23	a	405	CLA	C3B-C2B	2.01	1.48	1.41
23	C	506	CLA	C1D-C2D	2.00	1.49	1.45
23	c	506	CLA	C1D-C2D	2.00	1.49	1.45
23	B	603	CLA	C3B-C2B	2.00	1.48	1.41
23	b	603	CLA	C3B-C2B	2.00	1.48	1.41
36	v	201	HEC	CMC-C2C	2.00	1.55	1.50

All (2645) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	D	401	PHO	C2D-C1D-ND	11.32	117.34	109.53
33	d	401	PHO	C2D-C1D-ND	11.32	117.34	109.53
33	D	402	PHO	C2D-C1D-ND	11.29	117.32	109.53
33	d	402	PHO	C2D-C1D-ND	11.29	117.32	109.53
23	B	605	CLA	C1D-ND-C4D	-9.84	99.35	106.33
23	b	605	CLA	C1D-ND-C4D	-9.84	99.35	106.33
23	B	611	CLA	C1D-ND-C4D	-9.69	99.45	106.33
23	b	611	CLA	C1D-ND-C4D	-9.69	99.45	106.33
23	C	513	CLA	C1D-ND-C4D	-9.65	99.48	106.33
23	c	513	CLA	C1D-ND-C4D	-9.65	99.48	106.33
23	A	406	CLA	C1D-ND-C4D	-9.52	99.57	106.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	a	406	CLA	C1D-ND-C4D	-9.52	99.57	106.33
23	C	519	CLA	C1D-ND-C4D	-9.51	99.58	106.33
23	c	519	CLA	C1D-ND-C4D	-9.51	99.58	106.33
23	A	407	CLA	C1D-ND-C4D	-9.48	99.60	106.33
23	a	407	CLA	C1D-ND-C4D	-9.48	99.60	106.33
23	C	504	CLA	C1D-ND-C4D	-9.47	99.61	106.33
23	c	504	CLA	C1D-ND-C4D	-9.43	99.64	106.33
23	D	404	CLA	C1D-ND-C4D	-9.42	99.65	106.33
23	d	404	CLA	C1D-ND-C4D	-9.42	99.65	106.33
23	A	412	CLA	C1D-ND-C4D	-9.41	99.65	106.33
23	a	412	CLA	C1D-ND-C4D	-9.41	99.65	106.33
23	D	403	CLA	C1D-ND-C4D	-9.41	99.65	106.33
23	d	403	CLA	C1D-ND-C4D	-9.41	99.65	106.33
23	B	609	CLA	C1D-ND-C4D	-9.39	99.66	106.33
23	b	609	CLA	C1D-ND-C4D	-9.39	99.66	106.33
23	C	512	CLA	C1D-ND-C4D	-9.38	99.67	106.33
23	c	512	CLA	C1D-ND-C4D	-9.34	99.70	106.33
23	C	511	CLA	C1D-ND-C4D	-9.32	99.71	106.33
23	c	511	CLA	C1D-ND-C4D	-9.32	99.71	106.33
23	B	614	CLA	C1D-ND-C4D	-9.32	99.71	106.33
23	b	614	CLA	C1D-ND-C4D	-9.32	99.71	106.33
23	C	502	CLA	C1D-ND-C4D	-9.32	99.72	106.33
23	c	502	CLA	C1D-ND-C4D	-9.32	99.72	106.33
23	B	606	CLA	C1D-ND-C4D	-9.25	99.76	106.33
23	b	606	CLA	C1D-ND-C4D	-9.25	99.76	106.33
23	B	615	CLA	C1D-ND-C4D	-9.25	99.76	106.33
23	C	508	CLA	C1D-ND-C4D	-9.25	99.76	106.33
23	c	508	CLA	C1D-ND-C4D	-9.25	99.76	106.33
23	B	610	CLA	C1D-ND-C4D	-9.24	99.77	106.33
23	b	610	CLA	C1D-ND-C4D	-9.24	99.77	106.33
23	B	608	CLA	C1D-ND-C4D	-9.24	99.77	106.33
23	b	608	CLA	C1D-ND-C4D	-9.24	99.77	106.33
23	b	615	CLA	C1D-ND-C4D	-9.23	99.78	106.33
23	B	612	CLA	C1D-ND-C4D	-9.20	99.80	106.33
23	b	612	CLA	C1D-ND-C4D	-9.20	99.80	106.33
23	b	602	CLA	C1D-ND-C4D	-9.19	99.81	106.33
23	c	506	CLA	C1D-ND-C4D	-9.18	99.81	106.33
23	C	503	CLA	C1D-ND-C4D	-9.15	99.83	106.33
23	c	503	CLA	C1D-ND-C4D	-9.15	99.83	106.33
23	B	602	CLA	C1D-ND-C4D	-9.13	99.85	106.33
23	C	506	CLA	C1D-ND-C4D	-9.13	99.85	106.33
23	C	505	CLA	C1D-ND-C4D	-9.10	99.87	106.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	c	505	CLA	C1D-ND-C4D	-9.08	99.89	106.33
23	A	405	CLA	C1D-ND-C4D	-9.06	99.90	106.33
23	a	405	CLA	C1D-ND-C4D	-9.06	99.90	106.33
23	C	507	CLA	C1D-ND-C4D	-9.04	99.91	106.33
23	c	507	CLA	C1D-ND-C4D	-9.02	99.93	106.33
23	B	601	CLA	C1D-ND-C4D	-9.01	99.93	106.33
23	b	601	CLA	C1D-ND-C4D	-9.01	99.93	106.33
23	B	607	CLA	C1D-ND-C4D	-9.00	99.94	106.33
23	b	607	CLA	C1D-ND-C4D	-9.00	99.94	106.33
23	B	613	CLA	C1D-ND-C4D	-8.97	99.97	106.33
23	b	613	CLA	C1D-ND-C4D	-8.97	99.97	106.33
23	C	510	CLA	C1D-ND-C4D	-8.95	99.98	106.33
23	c	510	CLA	C1D-ND-C4D	-8.95	99.98	106.33
23	b	603	CLA	C1D-ND-C4D	-8.92	100.00	106.33
23	B	603	CLA	C1D-ND-C4D	-8.90	100.02	106.33
23	C	509	CLA	C1D-ND-C4D	-8.85	100.05	106.33
23	c	509	CLA	C1D-ND-C4D	-8.85	100.05	106.33
23	B	604	CLA	C1D-ND-C4D	-8.83	100.06	106.33
23	b	604	CLA	C1D-ND-C4D	-8.83	100.06	106.33
23	B	621	CLA	C1D-ND-C4D	-8.83	100.06	106.33
23	b	621	CLA	C1D-ND-C4D	-8.83	100.06	106.33
23	A	405	CLA	C2B-C1B-NB	8.37	115.84	110.23
23	a	405	CLA	C2B-C1B-NB	8.37	115.84	110.23
23	A	407	CLA	C2B-C1B-NB	8.21	115.74	110.23
23	a	407	CLA	C2B-C1B-NB	8.21	115.74	110.23
23	B	614	CLA	C2B-C1B-NB	8.20	115.73	110.23
23	b	614	CLA	C2B-C1B-NB	8.14	115.69	110.23
23	C	508	CLA	C2B-C1B-NB	8.12	115.67	110.23
23	c	508	CLA	C2B-C1B-NB	8.12	115.67	110.23
23	B	605	CLA	C2D-C1D-ND	8.08	116.06	110.10
23	b	605	CLA	C2D-C1D-ND	8.08	116.06	110.10
23	B	611	CLA	C2D-C1D-ND	8.05	116.04	110.10
23	b	611	CLA	C2D-C1D-ND	8.05	116.04	110.10
23	c	519	CLA	C2B-C1B-NB	8.04	115.62	110.23
23	a	412	CLA	C2B-C1B-NB	8.02	115.61	110.23
23	A	412	CLA	C2B-C1B-NB	8.02	115.61	110.23
23	C	513	CLA	C2B-C1B-NB	8.00	115.60	110.23
23	c	513	CLA	C2B-C1B-NB	8.00	115.60	110.23
23	C	519	CLA	C2B-C1B-NB	7.99	115.59	110.23
23	C	504	CLA	C2B-C1B-NB	7.95	115.56	110.23
23	c	504	CLA	C2B-C1B-NB	7.95	115.56	110.23
23	C	504	CLA	C2D-C1D-ND	7.94	115.95	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	B	602	CLA	C2B-C1B-NB	7.91	115.53	110.23
33	D	401	PHO	O2D-CGD-CBD	7.90	121.01	111.00
23	c	504	CLA	C2D-C1D-ND	7.90	115.92	110.10
23	C	510	CLA	C2B-C1B-NB	7.89	115.52	110.23
23	c	510	CLA	C2B-C1B-NB	7.89	115.52	110.23
23	C	512	CLA	C2D-C1D-ND	7.89	115.92	110.10
33	d	401	PHO	O2D-CGD-CBD	7.87	120.97	111.00
23	c	512	CLA	C2B-C1B-NB	7.87	115.51	110.23
23	C	511	CLA	C2D-C1D-ND	7.85	115.89	110.10
23	c	511	CLA	C2D-C1D-ND	7.85	115.89	110.10
23	b	602	CLA	C2B-C1B-NB	7.85	115.50	110.23
23	B	610	CLA	C2B-C1B-NB	7.85	115.49	110.23
23	b	610	CLA	C2B-C1B-NB	7.85	115.49	110.23
23	c	512	CLA	C2D-C1D-ND	7.85	115.89	110.10
23	B	615	CLA	C2B-C1B-NB	7.84	115.49	110.23
23	b	615	CLA	C2B-C1B-NB	7.84	115.49	110.23
23	D	404	CLA	C2B-C1B-NB	7.83	115.48	110.23
23	d	404	CLA	C2B-C1B-NB	7.83	115.48	110.23
23	D	403	CLA	C2B-C1B-NB	7.82	115.48	110.23
23	d	403	CLA	C2B-C1B-NB	7.82	115.48	110.23
23	A	406	CLA	C2B-C1B-NB	7.82	115.47	110.23
23	B	606	CLA	C2B-C1B-NB	7.82	115.47	110.23
23	C	512	CLA	C2B-C1B-NB	7.82	115.47	110.23
23	a	406	CLA	C2B-C1B-NB	7.82	115.47	110.23
23	b	606	CLA	C2B-C1B-NB	7.81	115.47	110.23
23	C	513	CLA	C2D-C1D-ND	7.81	115.86	110.10
23	c	513	CLA	C2D-C1D-ND	7.81	115.86	110.10
23	B	613	CLA	C2B-C1B-NB	7.81	115.47	110.23
23	b	613	CLA	C2B-C1B-NB	7.81	115.47	110.23
23	D	403	CLA	C2D-C1D-ND	7.80	115.85	110.10
23	d	403	CLA	C2D-C1D-ND	7.80	115.85	110.10
23	C	507	CLA	C2B-C1B-NB	7.80	115.46	110.23
23	c	507	CLA	C2B-C1B-NB	7.80	115.46	110.23
23	c	509	CLA	C2B-C1B-NB	7.79	115.45	110.23
23	B	611	CLA	C2B-C1B-NB	7.78	115.44	110.23
23	b	611	CLA	C2B-C1B-NB	7.78	115.44	110.23
23	C	519	CLA	C2D-C1D-ND	7.77	115.83	110.10
23	c	519	CLA	C2D-C1D-ND	7.77	115.83	110.10
23	B	601	CLA	C2B-C1B-NB	7.77	115.44	110.23
23	b	601	CLA	C2B-C1B-NB	7.77	115.44	110.23
23	B	609	CLA	C2D-C1D-ND	7.76	115.83	110.10
23	b	609	CLA	C2D-C1D-ND	7.76	115.83	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	B	621	CLA	C2B-C1B-NB	7.75	115.43	110.23
23	b	621	CLA	C2B-C1B-NB	7.75	115.43	110.23
23	C	509	CLA	C2B-C1B-NB	7.74	115.42	110.23
23	B	614	CLA	C2D-C1D-ND	7.74	115.81	110.10
23	b	614	CLA	C2D-C1D-ND	7.74	115.81	110.10
23	C	508	CLA	C2D-C1D-ND	7.73	115.80	110.10
23	c	508	CLA	C2D-C1D-ND	7.73	115.80	110.10
23	A	407	CLA	C2D-C1D-ND	7.72	115.79	110.10
23	a	407	CLA	C2D-C1D-ND	7.72	115.79	110.10
23	C	505	CLA	C2B-C1B-NB	7.71	115.40	110.23
23	c	505	CLA	C2B-C1B-NB	7.71	115.40	110.23
23	B	615	CLA	C2D-C1D-ND	7.70	115.78	110.10
23	B	605	CLA	C2B-C1B-NB	7.70	115.39	110.23
23	b	605	CLA	C2B-C1B-NB	7.70	115.39	110.23
23	B	607	CLA	C2B-C1B-NB	7.70	115.39	110.23
23	b	607	CLA	C2B-C1B-NB	7.70	115.39	110.23
23	b	615	CLA	C2D-C1D-ND	7.68	115.77	110.10
23	C	503	CLA	C2D-C1D-ND	7.66	115.75	110.10
23	c	503	CLA	C2D-C1D-ND	7.66	115.75	110.10
23	C	507	CLA	C2D-C1D-ND	7.66	115.75	110.10
23	c	507	CLA	C2D-C1D-ND	7.66	115.75	110.10
23	B	606	CLA	C2D-C1D-ND	7.65	115.74	110.10
23	b	606	CLA	C2D-C1D-ND	7.65	115.74	110.10
23	B	621	CLA	C2D-C1D-ND	7.63	115.73	110.10
23	b	621	CLA	C2D-C1D-ND	7.63	115.73	110.10
23	D	404	CLA	C2D-C1D-ND	7.61	115.72	110.10
23	d	404	CLA	C2D-C1D-ND	7.61	115.72	110.10
23	b	608	CLA	C2B-C1B-NB	7.61	115.33	110.23
23	B	608	CLA	C2B-C1B-NB	7.60	115.33	110.23
23	B	610	CLA	C2D-C1D-ND	7.60	115.70	110.10
23	b	610	CLA	C2D-C1D-ND	7.60	115.70	110.10
23	B	613	CLA	C2D-C1D-ND	7.59	115.70	110.10
23	b	613	CLA	C2D-C1D-ND	7.59	115.70	110.10
23	C	511	CLA	C2B-C1B-NB	7.58	115.32	110.23
23	c	511	CLA	C2B-C1B-NB	7.58	115.32	110.23
23	B	607	CLA	C2D-C1D-ND	7.58	115.69	110.10
23	b	607	CLA	C2D-C1D-ND	7.58	115.69	110.10
23	C	502	CLA	C2B-C1B-NB	7.58	115.31	110.23
23	c	502	CLA	C2B-C1B-NB	7.58	115.31	110.23
23	B	609	CLA	C2B-C1B-NB	7.57	115.30	110.23
23	b	609	CLA	C2B-C1B-NB	7.57	115.30	110.23
23	A	412	CLA	C2D-C1D-ND	7.54	115.66	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	a	412	CLA	C2D-C1D-ND	7.54	115.66	110.10
23	C	506	CLA	C2D-C1D-ND	7.52	115.65	110.10
23	c	506	CLA	C2D-C1D-ND	7.52	115.65	110.10
23	B	612	CLA	C2B-C1B-NB	7.52	115.27	110.23
23	b	612	CLA	C2B-C1B-NB	7.52	115.27	110.23
23	B	608	CLA	C2D-C1D-ND	7.51	115.64	110.10
23	b	608	CLA	C2D-C1D-ND	7.51	115.64	110.10
23	B	603	CLA	C2B-C1B-NB	7.50	115.26	110.23
23	b	603	CLA	C2B-C1B-NB	7.50	115.26	110.23
23	C	506	CLA	C2B-C1B-NB	7.49	115.26	110.23
23	c	506	CLA	C2B-C1B-NB	7.49	115.26	110.23
23	b	602	CLA	C2D-C1D-ND	7.49	115.62	110.10
23	C	502	CLA	C2D-C1D-ND	7.46	115.60	110.10
23	c	502	CLA	C2D-C1D-ND	7.46	115.60	110.10
23	B	602	CLA	C2D-C1D-ND	7.44	115.58	110.10
23	A	406	CLA	C2D-C1D-ND	7.43	115.58	110.10
23	a	406	CLA	C2D-C1D-ND	7.43	115.58	110.10
23	C	510	CLA	C2D-C1D-ND	7.43	115.58	110.10
23	c	510	CLA	C2D-C1D-ND	7.43	115.58	110.10
23	B	601	CLA	C2D-C1D-ND	7.38	115.54	110.10
23	b	601	CLA	C2D-C1D-ND	7.38	115.54	110.10
23	b	603	CLA	C2D-C1D-ND	7.35	115.52	110.10
23	B	612	CLA	C2D-C1D-ND	7.34	115.52	110.10
23	b	612	CLA	C2D-C1D-ND	7.34	115.52	110.10
23	C	503	CLA	C2B-C1B-NB	7.34	115.15	110.23
23	c	503	CLA	C2B-C1B-NB	7.34	115.15	110.23
23	B	603	CLA	C2D-C1D-ND	7.31	115.49	110.10
23	C	509	CLA	C2D-C1D-ND	7.23	115.44	110.10
23	c	509	CLA	C2D-C1D-ND	7.23	115.44	110.10
33	D	402	PHO	O2D-CGD-CBD	7.23	120.15	111.00
33	d	402	PHO	O2D-CGD-CBD	7.23	120.15	111.00
23	B	604	CLA	C2D-C1D-ND	7.18	115.39	110.10
23	b	604	CLA	C2D-C1D-ND	7.18	115.39	110.10
23	A	405	CLA	C2D-C1D-ND	7.17	115.39	110.10
23	a	405	CLA	C2D-C1D-ND	7.17	115.39	110.10
23	A	406	CLA	CMD-C2D-C1D	7.08	137.19	124.71
23	a	406	CLA	CMD-C2D-C1D	7.08	137.19	124.71
23	A	405	CLA	CMD-C2D-C1D	7.05	137.15	124.71
23	a	405	CLA	CMD-C2D-C1D	7.05	137.15	124.71
23	c	505	CLA	CMD-C2D-C1D	7.04	137.12	124.71
23	C	505	CLA	CMD-C2D-C1D	7.02	137.09	124.71
23	c	505	CLA	C2D-C1D-ND	6.94	115.22	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	C	505	CLA	C2D-C1D-ND	6.93	115.21	110.10
23	A	412	CLA	CMD-C2D-C1D	6.91	136.88	124.71
23	a	412	CLA	CMD-C2D-C1D	6.91	136.88	124.71
23	B	601	CLA	CMD-C2D-C1D	6.83	136.76	124.71
23	b	601	CLA	CMD-C2D-C1D	6.83	136.76	124.71
23	c	510	CLA	CMD-C2D-C1D	6.82	136.73	124.71
23	C	510	CLA	CMD-C2D-C1D	6.80	136.69	124.71
23	B	604	CLA	CMD-C2D-C1D	6.79	136.69	124.71
23	b	604	CLA	CMD-C2D-C1D	6.79	136.69	124.71
23	b	605	CLA	CMD-C2D-C1D	6.79	136.68	124.71
23	B	605	CLA	CMD-C2D-C1D	6.77	136.65	124.71
23	C	502	CLA	CMD-C2D-C1D	6.77	136.64	124.71
23	c	502	CLA	CMD-C2D-C1D	6.77	136.64	124.71
23	C	506	CLA	CMD-C2D-C1D	6.76	136.62	124.71
23	c	506	CLA	CMD-C2D-C1D	6.76	136.62	124.71
23	B	602	CLA	CMD-C2D-C1D	6.75	136.61	124.71
23	b	602	CLA	CMD-C2D-C1D	6.75	136.61	124.71
33	D	402	PHO	C4D-ND-C1D	-6.75	101.96	108.83
33	d	402	PHO	C4D-ND-C1D	-6.75	101.96	108.83
33	D	401	PHO	C4D-ND-C1D	-6.74	101.97	108.83
33	d	401	PHO	C4D-ND-C1D	-6.74	101.97	108.83
23	D	403	CLA	CMD-C2D-C1D	6.72	136.56	124.71
23	d	403	CLA	CMD-C2D-C1D	6.72	136.56	124.71
23	C	509	CLA	CMD-C2D-C1D	6.72	136.56	124.71
23	c	509	CLA	CMD-C2D-C1D	6.72	136.56	124.71
23	C	504	CLA	CMD-C2D-C1D	6.72	136.56	124.71
23	c	504	CLA	CMD-C2D-C1D	6.72	136.56	124.71
23	b	603	CLA	CMD-C2D-C1D	6.72	136.56	124.71
23	B	603	CLA	CMD-C2D-C1D	6.71	136.54	124.71
23	C	519	CLA	CMD-C2D-C1D	6.70	136.53	124.71
23	c	519	CLA	CMD-C2D-C1D	6.70	136.53	124.71
23	b	607	CLA	CMD-C2D-C1D	6.70	136.52	124.71
23	C	513	CLA	CMD-C2D-C1D	6.68	136.49	124.71
23	c	513	CLA	CMD-C2D-C1D	6.68	136.49	124.71
23	B	607	CLA	CMD-C2D-C1D	6.68	136.49	124.71
23	B	606	CLA	CMD-C2D-C1D	6.68	136.48	124.71
23	b	606	CLA	CMD-C2D-C1D	6.68	136.48	124.71
23	C	511	CLA	CMD-C2D-C1D	6.67	136.47	124.71
23	c	511	CLA	CMD-C2D-C1D	6.67	136.47	124.71
23	B	604	CLA	C2B-C1B-NB	6.67	114.70	110.23
23	b	604	CLA	C2B-C1B-NB	6.67	114.70	110.23
23	D	404	CLA	CMD-C2D-C1D	6.66	136.46	124.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	d	404	CLA	CMD-C2D-C1D	6.66	136.46	124.71
33	D	402	PHO	C2B-C1B-NB	6.65	114.12	109.53
33	d	402	PHO	C2B-C1B-NB	6.65	114.12	109.53
23	A	407	CLA	CMD-C2D-C1D	6.65	136.43	124.71
23	C	507	CLA	CMD-C2D-C1D	6.65	136.43	124.71
23	a	407	CLA	CMD-C2D-C1D	6.65	136.43	124.71
23	c	507	CLA	CMD-C2D-C1D	6.65	136.43	124.71
23	B	610	CLA	CMD-C2D-C1D	6.63	136.39	124.71
23	b	610	CLA	CMD-C2D-C1D	6.63	136.39	124.71
23	A	406	CLA	CHD-C1D-ND	-6.60	118.39	124.45
23	a	406	CLA	CHD-C1D-ND	-6.60	118.39	124.45
33	D	401	PHO	C1C-C2C-C3C	-6.58	103.14	108.61
33	d	401	PHO	C1C-C2C-C3C	-6.58	103.14	108.61
23	A	407	CLA	CHD-C1D-ND	-6.55	118.43	124.45
23	a	407	CLA	CHD-C1D-ND	-6.55	118.43	124.45
23	B	614	CLA	CMD-C2D-C1D	6.55	136.25	124.71
23	b	614	CLA	CMD-C2D-C1D	6.55	136.25	124.71
23	B	613	CLA	CMD-C2D-C1D	6.54	136.24	124.71
23	b	613	CLA	CMD-C2D-C1D	6.54	136.24	124.71
23	B	621	CLA	CMD-C2D-C1D	6.53	136.21	124.71
23	b	621	CLA	CMD-C2D-C1D	6.53	136.21	124.71
23	B	611	CLA	CMD-C2D-C1D	6.51	136.18	124.71
23	b	611	CLA	CMD-C2D-C1D	6.51	136.18	124.71
23	A	412	CLA	CHD-C1D-ND	-6.50	118.48	124.45
23	a	412	CLA	CHD-C1D-ND	-6.50	118.48	124.45
23	C	513	CLA	CHD-C1D-ND	-6.49	118.49	124.45
23	C	519	CLA	CHD-C1D-ND	-6.49	118.49	124.45
23	c	513	CLA	CHD-C1D-ND	-6.49	118.49	124.45
23	c	519	CLA	CHD-C1D-ND	-6.49	118.49	124.45
23	B	609	CLA	CMD-C2D-C1D	6.49	136.15	124.71
23	b	609	CLA	CMD-C2D-C1D	6.49	136.15	124.71
33	D	401	PHO	C2B-C1B-NB	6.47	113.99	109.53
33	d	401	PHO	C2B-C1B-NB	6.47	113.99	109.53
23	B	615	CLA	CMD-C2D-C1D	6.46	136.11	124.71
23	b	615	CLA	CMD-C2D-C1D	6.46	136.11	124.71
23	B	608	CLA	CMD-C2D-C1D	6.45	136.08	124.71
23	b	608	CLA	CMD-C2D-C1D	6.45	136.08	124.71
23	b	602	CLA	CHD-C1D-ND	-6.45	118.53	124.45
23	B	605	CLA	CHD-C1D-ND	-6.44	118.54	124.45
23	b	605	CLA	CHD-C1D-ND	-6.44	118.54	124.45
23	B	602	CLA	CHD-C1D-ND	-6.41	118.57	124.45
23	C	507	CLA	CHD-C1D-ND	-6.38	118.59	124.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	c	507	CLA	CHD-C1D-ND	-6.38	118.59	124.45
36	V	201	HEC	C1D-ND-C4D	6.37	111.66	105.07
36	v	201	HEC	C1D-ND-C4D	6.37	111.66	105.07
23	C	502	CLA	CHD-C1D-ND	-6.37	118.60	124.45
23	c	502	CLA	CHD-C1D-ND	-6.37	118.60	124.45
23	C	506	CLA	CHD-C1D-ND	-6.37	118.60	124.45
23	c	506	CLA	CHD-C1D-ND	-6.37	118.60	124.45
23	C	504	CLA	CHD-C1D-ND	-6.35	118.61	124.45
23	D	404	CLA	CHD-C1D-ND	-6.35	118.62	124.45
23	d	404	CLA	CHD-C1D-ND	-6.35	118.62	124.45
23	B	607	CLA	CHD-C1D-ND	-6.34	118.62	124.45
23	b	607	CLA	CHD-C1D-ND	-6.34	118.62	124.45
23	A	405	CLA	CHD-C1D-ND	-6.34	118.62	124.45
23	a	405	CLA	CHD-C1D-ND	-6.34	118.62	124.45
24	T	102	BCR	C24-C23-C22	-6.34	116.65	126.23
23	B	614	CLA	CHD-C1D-ND	-6.33	118.64	124.45
23	b	614	CLA	CHD-C1D-ND	-6.33	118.64	124.45
23	c	504	CLA	CHD-C1D-ND	-6.33	118.64	124.45
24	t	102	BCR	C24-C23-C22	-6.32	116.68	126.23
23	A	405	CLA	C4A-NA-C1A	-6.32	103.86	106.71
23	a	405	CLA	C4A-NA-C1A	-6.32	103.86	106.71
23	C	508	CLA	CMD-C2D-C1D	6.31	135.83	124.71
23	c	508	CLA	CMD-C2D-C1D	6.31	135.83	124.71
23	D	403	CLA	CHD-C1D-ND	-6.31	118.66	124.45
23	d	403	CLA	CHD-C1D-ND	-6.31	118.66	124.45
23	B	606	CLA	CHD-C1D-ND	-6.27	118.70	124.45
23	b	606	CLA	CHD-C1D-ND	-6.27	118.70	124.45
33	D	402	PHO	C1C-C2C-C3C	-6.26	103.40	108.61
33	d	402	PHO	C1C-C2C-C3C	-6.26	103.40	108.61
23	B	608	CLA	CHD-C1D-ND	-6.26	118.70	124.45
23	C	503	CLA	CMD-C2D-C1D	6.24	135.71	124.71
23	c	503	CLA	CMD-C2D-C1D	6.24	135.71	124.71
23	C	508	CLA	CHD-C1D-ND	-6.24	118.72	124.45
23	c	508	CLA	CHD-C1D-ND	-6.24	118.72	124.45
23	B	601	CLA	CHD-C1D-ND	-6.23	118.73	124.45
23	b	601	CLA	CHD-C1D-ND	-6.23	118.73	124.45
23	B	611	CLA	CHD-C1D-ND	-6.23	118.73	124.45
23	b	611	CLA	CHD-C1D-ND	-6.23	118.73	124.45
23	b	608	CLA	CHD-C1D-ND	-6.22	118.74	124.45
23	C	510	CLA	CHD-C1D-ND	-6.20	118.75	124.45
23	c	510	CLA	CHD-C1D-ND	-6.20	118.75	124.45
23	B	609	CLA	CHD-C1D-ND	-6.19	118.77	124.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	b	609	CLA	CHD-C1D-ND	-6.19	118.77	124.45
23	C	511	CLA	CHD-C1D-ND	-6.16	118.80	124.45
23	c	511	CLA	CHD-C1D-ND	-6.16	118.80	124.45
23	C	512	CLA	CMD-C2D-C1D	6.15	135.56	124.71
23	c	512	CLA	CMD-C2D-C1D	6.15	135.56	124.71
23	B	610	CLA	CHD-C1D-ND	-6.13	118.82	124.45
23	b	610	CLA	CHD-C1D-ND	-6.13	118.82	124.45
23	B	612	CLA	CMD-C2D-C1D	6.13	135.51	124.71
23	b	612	CLA	CMD-C2D-C1D	6.13	135.51	124.71
23	C	509	CLA	CHD-C1D-ND	-6.08	118.86	124.45
23	c	509	CLA	CHD-C1D-ND	-6.08	118.86	124.45
23	B	621	CLA	CHD-C1D-ND	-6.08	118.87	124.45
23	b	621	CLA	CHD-C1D-ND	-6.08	118.87	124.45
23	C	512	CLA	CHD-C1D-ND	-6.03	118.91	124.45
23	b	603	CLA	CHD-C1D-ND	-6.02	118.93	124.45
23	C	512	CLA	O2D-CGD-CBD	6.01	121.95	111.27
23	c	512	CLA	O2D-CGD-CBD	6.01	121.95	111.27
23	C	503	CLA	CHD-C1D-ND	-6.01	118.93	124.45
23	c	503	CLA	CHD-C1D-ND	-6.01	118.93	124.45
23	B	603	CLA	CHD-C1D-ND	-6.00	118.94	124.45
23	B	613	CLA	CHD-C1D-ND	-5.99	118.94	124.45
23	b	613	CLA	CHD-C1D-ND	-5.99	118.94	124.45
23	c	512	CLA	CHD-C1D-ND	-5.99	118.94	124.45
23	B	615	CLA	CHD-C1D-ND	-5.95	118.98	124.45
23	b	615	CLA	CHD-C1D-ND	-5.94	119.00	124.45
23	D	403	CLA	CHD-C4C-C3C	-5.93	116.13	124.84
23	d	403	CLA	CHD-C4C-C3C	-5.93	116.13	124.84
23	b	604	CLA	O2D-CGD-CBD	5.91	121.77	111.27
23	B	604	CLA	O2D-CGD-CBD	5.89	121.73	111.27
23	B	605	CLA	CHD-C4C-C3C	-5.85	116.24	124.84
23	b	605	CLA	CHD-C4C-C3C	-5.85	116.24	124.84
23	C	505	CLA	CHD-C1D-ND	-5.82	119.10	124.45
23	c	505	CLA	CHD-C1D-ND	-5.81	119.12	124.45
23	C	507	CLA	CHD-C4C-C3C	-5.80	116.31	124.84
23	c	507	CLA	CHD-C4C-C3C	-5.80	116.31	124.84
23	B	611	CLA	CHD-C4C-C3C	-5.78	116.35	124.84
23	b	611	CLA	CHD-C4C-C3C	-5.78	116.35	124.84
23	B	621	CLA	CHD-C4C-C3C	-5.75	116.39	124.84
23	b	621	CLA	CHD-C4C-C3C	-5.75	116.39	124.84
23	C	511	CLA	CHD-C4C-C3C	-5.75	116.39	124.84
23	c	511	CLA	CHD-C4C-C3C	-5.75	116.39	124.84
23	C	512	CLA	CHD-C4C-C3C	-5.74	116.40	124.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	c	512	CLA	CHD-C4C-C3C	-5.74	116.40	124.84
23	B	612	CLA	CHD-C1D-ND	-5.73	119.19	124.45
23	b	612	CLA	CHD-C1D-ND	-5.73	119.19	124.45
23	B	612	CLA	CHD-C4C-C3C	-5.71	116.44	124.84
23	b	612	CLA	CHD-C4C-C3C	-5.71	116.44	124.84
23	B	615	CLA	CHD-C4C-C3C	-5.71	116.45	124.84
23	b	615	CLA	CHD-C4C-C3C	-5.71	116.45	124.84
23	B	604	CLA	CHD-C1D-ND	-5.70	119.22	124.45
23	b	604	CLA	CHD-C1D-ND	-5.70	119.22	124.45
23	B	603	CLA	O2D-CGD-CBD	5.66	121.33	111.27
23	b	603	CLA	O2D-CGD-CBD	5.66	121.33	111.27
23	c	503	CLA	CHD-C4C-C3C	-5.64	116.54	124.84
23	B	603	CLA	CHD-C4C-C3C	-5.64	116.55	124.84
23	B	610	CLA	CHD-C4C-C3C	-5.64	116.55	124.84
23	b	603	CLA	CHD-C4C-C3C	-5.64	116.55	124.84
23	b	610	CLA	CHD-C4C-C3C	-5.64	116.55	124.84
23	C	510	CLA	CHD-C4C-C3C	-5.63	116.56	124.84
23	c	510	CLA	CHD-C4C-C3C	-5.63	116.56	124.84
23	C	505	CLA	CHD-C4C-C3C	-5.63	116.56	124.84
23	c	505	CLA	CHD-C4C-C3C	-5.63	116.56	124.84
23	C	503	CLA	CHD-C4C-C3C	-5.63	116.57	124.84
23	B	601	CLA	CHD-C4C-C3C	-5.62	116.58	124.84
23	B	614	CLA	CHD-C4C-C3C	-5.62	116.58	124.84
23	b	601	CLA	CHD-C4C-C3C	-5.62	116.58	124.84
23	b	614	CLA	CHD-C4C-C3C	-5.62	116.58	124.84
23	b	609	CLA	CHD-C4C-C3C	-5.60	116.61	124.84
23	C	504	CLA	CHD-C4C-C3C	-5.59	116.62	124.84
23	B	609	CLA	CHD-C4C-C3C	-5.59	116.62	124.84
23	B	608	CLA	CHD-C4C-C3C	-5.58	116.64	124.84
23	b	608	CLA	CHD-C4C-C3C	-5.58	116.64	124.84
23	c	504	CLA	CHD-C4C-C3C	-5.57	116.65	124.84
23	A	407	CLA	CHD-C4C-C3C	-5.56	116.67	124.84
23	a	407	CLA	CHD-C4C-C3C	-5.56	116.67	124.84
23	B	613	CLA	CHD-C4C-C3C	-5.56	116.67	124.84
23	b	613	CLA	CHD-C4C-C3C	-5.56	116.67	124.84
23	B	603	CLA	C4A-NA-C1A	-5.55	104.21	106.71
23	b	603	CLA	C4A-NA-C1A	-5.55	104.21	106.71
23	A	405	CLA	CHD-C4C-C3C	-5.55	116.68	124.84
23	a	405	CLA	CHD-C4C-C3C	-5.55	116.68	124.84
23	B	604	CLA	CHD-C4C-C3C	-5.53	116.71	124.84
23	b	604	CLA	CHD-C4C-C3C	-5.53	116.71	124.84
23	B	602	CLA	CHD-C4C-C3C	-5.52	116.73	124.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	b	602	CLA	CHD-C4C-C3C	-5.52	116.73	124.84
23	C	506	CLA	CHD-C4C-C3C	-5.51	116.73	124.84
23	c	506	CLA	CHD-C4C-C3C	-5.51	116.73	124.84
23	C	505	CLA	O2D-CGD-CBD	5.51	121.06	111.27
23	c	505	CLA	O2D-CGD-CBD	5.51	121.06	111.27
23	C	508	CLA	CHD-C4C-C3C	-5.50	116.75	124.84
23	B	615	CLA	C4A-NA-C1A	-5.49	104.24	106.71
23	b	615	CLA	C4A-NA-C1A	-5.49	104.24	106.71
23	c	508	CLA	CHD-C4C-C3C	-5.49	116.77	124.84
23	B	601	CLA	O2D-CGD-CBD	5.47	120.99	111.27
23	b	601	CLA	O2D-CGD-CBD	5.47	120.99	111.27
23	D	404	CLA	CHD-C4C-C3C	-5.46	116.81	124.84
23	d	404	CLA	CHD-C4C-C3C	-5.46	116.81	124.84
23	B	608	CLA	C4A-NA-C1A	-5.46	104.25	106.71
23	b	608	CLA	C4A-NA-C1A	-5.46	104.25	106.71
23	B	621	CLA	C2C-C1C-NC	5.46	115.08	109.97
23	b	621	CLA	C2C-C1C-NC	5.46	115.08	109.97
23	B	606	CLA	CHD-C4C-C3C	-5.45	116.83	124.84
23	C	504	CLA	C4A-NA-C1A	-5.45	104.26	106.71
23	c	504	CLA	C4A-NA-C1A	-5.45	104.26	106.71
23	C	503	CLA	C2C-C1C-NC	5.44	115.07	109.97
23	C	509	CLA	CHD-C4C-C3C	-5.44	116.85	124.84
23	c	509	CLA	CHD-C4C-C3C	-5.44	116.85	124.84
23	B	607	CLA	CHD-C4C-C3C	-5.43	116.85	124.84
23	b	607	CLA	CHD-C4C-C3C	-5.43	116.85	124.84
23	B	609	CLA	C2C-C1C-NC	5.43	115.06	109.97
23	c	513	CLA	CHD-C4C-C3C	-5.43	116.86	124.84
23	b	606	CLA	CHD-C4C-C3C	-5.42	116.87	124.84
23	C	513	CLA	CHD-C4C-C3C	-5.42	116.87	124.84
23	C	519	CLA	O2D-CGD-CBD	5.42	120.90	111.27
23	c	519	CLA	O2D-CGD-CBD	5.42	120.90	111.27
23	b	609	CLA	C2C-C1C-NC	5.42	115.05	109.97
23	D	403	CLA	C4A-NA-C1A	-5.42	104.27	106.71
23	d	403	CLA	C4A-NA-C1A	-5.42	104.27	106.71
23	c	503	CLA	C2C-C1C-NC	5.41	115.04	109.97
23	C	508	CLA	O2D-CGD-CBD	5.40	120.87	111.27
23	c	508	CLA	O2D-CGD-CBD	5.40	120.87	111.27
23	B	612	CLA	O2D-CGD-CBD	5.37	120.82	111.27
23	b	612	CLA	O2D-CGD-CBD	5.37	120.82	111.27
23	C	505	CLA	C4A-NA-C1A	-5.37	104.29	106.71
23	c	505	CLA	C4A-NA-C1A	-5.37	104.29	106.71
23	C	505	CLA	C2C-C1C-NC	5.34	114.98	109.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	c	505	CLA	C2C-C1C-NC	5.34	114.98	109.97
23	A	412	CLA	C2C-C1C-NC	5.34	114.97	109.97
23	a	412	CLA	C2C-C1C-NC	5.34	114.97	109.97
23	c	504	CLA	C2C-C1C-NC	5.33	114.97	109.97
23	C	502	CLA	CHD-C4C-C3C	-5.32	117.02	124.84
23	c	502	CLA	CHD-C4C-C3C	-5.32	117.02	124.84
24	D	405	BCR	C7-C8-C9	-5.32	118.20	126.23
24	d	405	BCR	C7-C8-C9	-5.32	118.20	126.23
23	B	610	CLA	C4A-NA-C1A	-5.31	104.32	106.71
23	b	610	CLA	C4A-NA-C1A	-5.31	104.32	106.71
23	B	601	CLA	C2C-C1C-NC	5.31	114.95	109.97
23	b	601	CLA	C2C-C1C-NC	5.31	114.95	109.97
23	B	606	CLA	O2D-CGD-CBD	5.31	120.69	111.27
23	b	606	CLA	O2D-CGD-CBD	5.31	120.69	111.27
23	b	615	CLA	O2D-CGD-CBD	5.30	120.68	111.27
23	A	406	CLA	CHD-C4C-C3C	-5.30	117.06	124.84
23	a	406	CLA	CHD-C4C-C3C	-5.30	117.06	124.84
23	C	504	CLA	C2C-C1C-NC	5.30	114.93	109.97
23	B	615	CLA	O2D-CGD-CBD	5.29	120.67	111.27
23	C	507	CLA	O2D-CGD-CBD	5.29	120.66	111.27
23	c	507	CLA	O2D-CGD-CBD	5.29	120.66	111.27
23	B	602	CLA	C4A-NA-C1A	-5.28	104.33	106.71
23	b	602	CLA	C4A-NA-C1A	-5.28	104.33	106.71
23	B	610	CLA	C2C-C1C-NC	5.28	114.92	109.97
23	b	610	CLA	C2C-C1C-NC	5.28	114.92	109.97
23	B	606	CLA	C2C-C1C-NC	5.28	114.92	109.97
23	B	602	CLA	O2D-CGD-CBD	5.27	120.63	111.27
23	b	602	CLA	O2D-CGD-CBD	5.27	120.63	111.27
23	C	519	CLA	CHD-C4C-C3C	-5.26	117.11	124.84
23	c	519	CLA	CHD-C4C-C3C	-5.26	117.11	124.84
23	A	412	CLA	CHD-C4C-C3C	-5.25	117.12	124.84
23	a	412	CLA	CHD-C4C-C3C	-5.25	117.12	124.84
23	B	604	CLA	C2C-C1C-NC	5.24	114.88	109.97
23	b	604	CLA	C2C-C1C-NC	5.24	114.88	109.97
23	b	606	CLA	C2C-C1C-NC	5.24	114.88	109.97
23	B	608	CLA	C2C-C1C-NC	5.23	114.87	109.97
23	b	608	CLA	C2C-C1C-NC	5.23	114.87	109.97
23	b	606	CLA	C4A-NA-C1A	-5.23	104.36	106.71
23	c	506	CLA	C2C-C1C-NC	5.23	114.87	109.97
23	B	609	CLA	C4A-NA-C1A	-5.23	104.36	106.71
23	b	609	CLA	C4A-NA-C1A	-5.23	104.36	106.71
23	D	404	CLA	C2C-C1C-NC	5.23	114.87	109.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	d	404	CLA	C2C-C1C-NC	5.23	114.87	109.97
23	A	407	CLA	C4A-NA-C1A	-5.22	104.36	106.71
23	a	407	CLA	C4A-NA-C1A	-5.22	104.36	106.71
23	C	506	CLA	C2C-C1C-NC	5.22	114.86	109.97
23	B	607	CLA	C2C-C1C-NC	5.21	114.85	109.97
23	b	607	CLA	C2C-C1C-NC	5.21	114.85	109.97
23	C	510	CLA	C2C-C1C-NC	5.21	114.85	109.97
23	c	510	CLA	C2C-C1C-NC	5.21	114.85	109.97
23	C	504	CLA	O2D-CGD-CBD	5.20	120.51	111.27
23	c	504	CLA	O2D-CGD-CBD	5.20	120.51	111.27
23	B	607	CLA	O2D-CGD-CBD	5.20	120.50	111.27
23	b	607	CLA	O2D-CGD-CBD	5.20	120.50	111.27
23	C	513	CLA	C4A-NA-C1A	-5.20	104.37	106.71
23	c	513	CLA	C4A-NA-C1A	-5.20	104.37	106.71
23	B	614	CLA	C4A-NA-C1A	-5.19	104.37	106.71
23	b	614	CLA	C4A-NA-C1A	-5.19	104.37	106.71
23	C	510	CLA	O2D-CGD-CBD	5.17	120.46	111.27
23	c	510	CLA	O2D-CGD-CBD	5.17	120.46	111.27
23	B	612	CLA	C4A-NA-C1A	-5.17	104.38	106.71
23	b	612	CLA	C4A-NA-C1A	-5.17	104.38	106.71
23	C	512	CLA	C2C-C1C-NC	5.17	114.81	109.97
23	c	512	CLA	C2C-C1C-NC	5.17	114.81	109.97
23	B	606	CLA	C4A-NA-C1A	-5.16	104.39	106.71
23	C	507	CLA	C2C-C1C-NC	5.16	114.80	109.97
23	c	507	CLA	C2C-C1C-NC	5.16	114.80	109.97
23	C	512	CLA	C4A-NA-C1A	-5.14	104.39	106.71
23	c	512	CLA	C4A-NA-C1A	-5.14	104.39	106.71
23	B	613	CLA	C2C-C1C-NC	5.14	114.79	109.97
23	b	613	CLA	C2C-C1C-NC	5.14	114.79	109.97
23	D	403	CLA	C2C-C1C-NC	5.14	114.78	109.97
23	d	403	CLA	C2C-C1C-NC	5.14	114.78	109.97
23	C	509	CLA	C2C-C1C-NC	5.13	114.78	109.97
23	c	509	CLA	C2C-C1C-NC	5.13	114.78	109.97
24	d	405	BCR	C15-C14-C13	-5.13	119.98	127.31
23	C	507	CLA	C3B-C2B-C1B	-5.13	100.97	107.16
23	c	507	CLA	C3B-C2B-C1B	-5.13	100.97	107.16
23	C	502	CLA	C2C-C1C-NC	5.13	114.78	109.97
23	c	502	CLA	C2C-C1C-NC	5.13	114.78	109.97
23	B	614	CLA	C2C-C1C-NC	5.12	114.77	109.97
23	b	614	CLA	C2C-C1C-NC	5.12	114.77	109.97
23	D	404	CLA	C4A-NA-C1A	-5.12	104.41	106.71
24	D	405	BCR	C15-C14-C13	-5.11	120.02	127.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	d	404	CLA	C4A-NA-C1A	-5.10	104.41	106.71
23	C	519	CLA	C2C-C1C-NC	5.09	114.74	109.97
23	c	519	CLA	C2C-C1C-NC	5.09	114.74	109.97
33	D	402	PHO	C3D-C4D-ND	5.08	114.64	107.72
33	d	402	PHO	C3D-C4D-ND	5.08	114.64	107.72
23	A	406	CLA	C4A-NA-C1A	-5.06	104.43	106.71
23	a	406	CLA	C4A-NA-C1A	-5.06	104.43	106.71
23	c	513	CLA	C2C-C1C-NC	5.06	114.71	109.97
23	b	613	CLA	O2D-CGD-CBD	5.05	120.24	111.27
23	C	513	CLA	C2C-C1C-NC	5.04	114.70	109.97
23	B	602	CLA	C2C-C1C-NC	5.04	114.69	109.97
23	b	611	CLA	C4A-NA-C1A	-5.04	104.44	106.71
23	B	603	CLA	C2C-C1C-NC	5.04	114.69	109.97
23	b	603	CLA	C2C-C1C-NC	5.04	114.69	109.97
24	K	102	BCR	C33-C5-C6	-5.03	118.87	124.53
24	k	102	BCR	C33-C5-C6	-5.03	118.87	124.53
33	D	401	PHO	C3D-C4D-ND	5.03	114.58	107.72
33	d	401	PHO	C3D-C4D-ND	5.03	114.58	107.72
23	A	407	CLA	C3B-C2B-C1B	-5.03	101.09	107.16
23	a	407	CLA	C3B-C2B-C1B	-5.03	101.09	107.16
23	b	602	CLA	C2C-C1C-NC	5.03	114.68	109.97
23	B	613	CLA	O2D-CGD-CBD	5.03	120.20	111.27
23	c	508	CLA	C4A-NA-C1A	-5.02	104.45	106.71
23	A	405	CLA	C2C-C1C-NC	5.02	114.68	109.97
23	a	405	CLA	C2C-C1C-NC	5.02	114.68	109.97
23	c	508	CLA	C3B-C2B-C1B	-5.02	101.10	107.16
23	c	509	CLA	C3B-C2B-C1B	-5.02	101.10	107.16
23	C	509	CLA	C3B-C2B-C1B	-5.02	101.10	107.16
23	B	613	CLA	C3B-C2B-C1B	-5.01	101.12	107.16
23	b	613	CLA	C3B-C2B-C1B	-5.01	101.12	107.16
23	c	508	CLA	C2C-C1C-NC	5.01	114.66	109.97
23	C	508	CLA	C2C-C1C-NC	5.00	114.66	109.97
23	C	508	CLA	C3B-C2B-C1B	-5.00	101.13	107.16
24	c	520	BCR	C15-C14-C13	-5.00	120.18	127.31
23	B	621	CLA	C3B-C2B-C1B	-4.99	101.14	107.16
23	b	621	CLA	C3B-C2B-C1B	-4.99	101.14	107.16
23	C	509	CLA	O2D-CGD-CBD	4.99	120.14	111.27
23	c	509	CLA	O2D-CGD-CBD	4.99	120.14	111.27
23	C	510	CLA	C3B-C2B-C1B	-4.99	101.14	107.16
23	c	510	CLA	C3B-C2B-C1B	-4.99	101.14	107.16
23	A	412	CLA	O2D-CGD-CBD	4.98	120.12	111.27
23	C	502	CLA	O2D-CGD-CBD	4.98	120.12	111.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	C	503	CLA	O2D-CGD-CBD	4.98	120.12	111.27
23	c	503	CLA	O2D-CGD-CBD	4.98	120.12	111.27
23	B	615	CLA	C2C-C1C-NC	4.98	114.64	109.97
23	b	615	CLA	C2C-C1C-NC	4.98	114.64	109.97
23	C	508	CLA	C4A-NA-C1A	-4.98	104.47	106.71
24	C	520	BCR	C15-C14-C13	-4.98	120.21	127.31
23	B	613	CLA	C4A-NA-C1A	-4.97	104.47	106.71
23	b	613	CLA	C4A-NA-C1A	-4.97	104.47	106.71
23	a	406	CLA	O2D-CGD-CBD	4.97	120.10	111.27
23	B	605	CLA	C4A-NA-C1A	-4.97	104.47	106.71
23	b	605	CLA	C4A-NA-C1A	-4.97	104.47	106.71
23	d	403	CLA	C3B-C2B-C1B	-4.97	101.17	107.16
23	c	502	CLA	O2D-CGD-CBD	4.96	120.09	111.27
23	a	412	CLA	O2D-CGD-CBD	4.96	120.09	111.27
23	A	406	CLA	O2D-CGD-CBD	4.96	120.07	111.27
23	c	512	CLA	C3B-C2B-C1B	-4.95	101.18	107.16
23	B	611	CLA	C4A-NA-C1A	-4.95	104.48	106.71
23	D	403	CLA	C3B-C2B-C1B	-4.95	101.18	107.16
23	B	605	CLA	O2D-CGD-CBD	4.95	120.06	111.27
23	b	605	CLA	O2D-CGD-CBD	4.95	120.06	111.27
23	A	406	CLA	C2C-C1C-NC	4.94	114.60	109.97
23	a	406	CLA	C2C-C1C-NC	4.94	114.60	109.97
34	F	102	HEM	CHC-C4B-NB	4.94	129.78	124.42
34	f	102	HEM	CHC-C4B-NB	4.94	129.78	124.42
23	C	511	CLA	C2C-C1C-NC	4.93	114.59	109.97
23	c	511	CLA	C2C-C1C-NC	4.93	114.59	109.97
23	C	511	CLA	C4A-NA-C1A	-4.93	104.49	106.71
23	c	511	CLA	C4A-NA-C1A	-4.93	104.49	106.71
23	C	512	CLA	C3B-C2B-C1B	-4.92	101.22	107.16
23	c	519	CLA	C3B-C2B-C1B	-4.92	101.22	107.16
23	B	605	CLA	C2C-C1C-NC	4.92	114.58	109.97
23	b	605	CLA	C2C-C1C-NC	4.92	114.58	109.97
23	c	511	CLA	C3B-C2B-C1B	-4.91	101.23	107.16
23	B	612	CLA	C2C-C1C-NC	4.90	114.56	109.97
23	b	612	CLA	C2C-C1C-NC	4.90	114.56	109.97
23	C	511	CLA	C3B-C2B-C1B	-4.90	101.25	107.16
23	C	506	CLA	C4A-NA-C1A	-4.89	104.51	106.71
23	c	506	CLA	C4A-NA-C1A	-4.89	104.51	106.71
23	C	519	CLA	C3B-C2B-C1B	-4.89	101.26	107.16
24	K	103	BCR	C20-C21-C22	-4.89	120.33	127.31
24	k	103	BCR	C20-C21-C22	-4.89	120.33	127.31
23	B	602	CLA	C3B-C2B-C1B	-4.89	101.26	107.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	A	410	PL9	C7-C3-C4	4.88	120.85	116.88
26	a	410	PL9	C7-C3-C4	4.88	120.85	116.88
23	B	601	CLA	C4A-NA-C1A	-4.87	104.52	106.71
23	b	601	CLA	C4A-NA-C1A	-4.87	104.52	106.71
23	C	502	CLA	C4A-NA-C1A	-4.87	104.52	106.71
23	c	502	CLA	C4A-NA-C1A	-4.87	104.52	106.71
23	B	607	CLA	C3B-C2B-C1B	-4.87	101.28	107.16
23	b	607	CLA	C3B-C2B-C1B	-4.87	101.28	107.16
23	B	607	CLA	C4A-NA-C1A	-4.86	104.52	106.71
23	b	607	CLA	C4A-NA-C1A	-4.86	104.52	106.71
23	b	611	CLA	C2C-C1C-NC	4.86	114.53	109.97
23	b	602	CLA	C3B-C2B-C1B	-4.86	101.30	107.16
30	C	501	LMG	O7-C10-C11	4.85	121.95	111.50
30	c	501	LMG	O7-C10-C11	4.85	121.95	111.50
23	C	513	CLA	C3B-C2B-C1B	-4.84	101.31	107.16
23	c	513	CLA	C3B-C2B-C1B	-4.84	101.31	107.16
23	B	601	CLA	C3B-C2B-C1B	-4.84	101.32	107.16
23	b	601	CLA	C3B-C2B-C1B	-4.84	101.32	107.16
23	A	407	CLA	C2C-C1C-NC	4.84	114.50	109.97
23	a	407	CLA	C2C-C1C-NC	4.84	114.50	109.97
23	A	407	CLA	O2D-CGD-CBD	4.84	119.86	111.27
23	a	407	CLA	O2D-CGD-CBD	4.84	119.86	111.27
23	B	611	CLA	C2C-C1C-NC	4.83	114.50	109.97
23	C	513	CLA	O2D-CGD-CBD	4.83	119.86	111.27
23	c	513	CLA	O2D-CGD-CBD	4.83	119.86	111.27
23	C	504	CLA	C3B-C2B-C1B	-4.81	101.35	107.16
23	c	504	CLA	C3B-C2B-C1B	-4.81	101.35	107.16
23	A	405	CLA	C3B-C2B-C1B	-4.81	101.36	107.16
23	B	614	CLA	C3B-C2B-C1B	-4.80	101.36	107.16
23	a	405	CLA	C3B-C2B-C1B	-4.79	101.37	107.16
23	C	507	CLA	C4A-NA-C1A	-4.79	104.55	106.71
23	c	507	CLA	C4A-NA-C1A	-4.79	104.55	106.71
23	B	610	CLA	C3B-C2B-C1B	-4.78	101.39	107.16
23	b	610	CLA	C3B-C2B-C1B	-4.78	101.39	107.16
23	D	404	CLA	C3B-C2B-C1B	-4.78	101.39	107.16
23	d	404	CLA	C3B-C2B-C1B	-4.78	101.39	107.16
23	b	614	CLA	C3B-C2B-C1B	-4.77	101.40	107.16
23	D	404	CLA	O2D-CGD-CBD	4.77	119.74	111.27
23	d	404	CLA	O2D-CGD-CBD	4.77	119.74	111.27
23	A	406	CLA	C3B-C2B-C1B	-4.77	101.41	107.16
23	a	406	CLA	C3B-C2B-C1B	-4.77	101.41	107.16
23	C	519	CLA	C4A-NA-C1A	-4.76	104.57	106.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	c	519	CLA	C4A-NA-C1A	-4.76	104.57	106.71
23	B	610	CLA	O2D-CGD-CBD	4.75	119.72	111.27
23	b	610	CLA	O2D-CGD-CBD	4.75	119.72	111.27
23	C	505	CLA	C3B-C2B-C1B	-4.75	101.43	107.16
23	c	505	CLA	C3B-C2B-C1B	-4.75	101.43	107.16
23	C	509	CLA	C4A-NA-C1A	-4.74	104.57	106.71
23	c	509	CLA	C4A-NA-C1A	-4.74	104.57	106.71
23	B	603	CLA	C3B-C2B-C1B	-4.72	101.46	107.16
23	b	603	CLA	C3B-C2B-C1B	-4.72	101.46	107.16
23	A	406	CLA	C3D-C4D-ND	4.71	117.86	110.24
23	a	406	CLA	C3D-C4D-ND	4.71	117.86	110.24
23	B	621	CLA	C4A-NA-C1A	-4.71	104.59	106.71
23	b	621	CLA	C4A-NA-C1A	-4.71	104.59	106.71
23	C	503	CLA	C3B-C2B-C1B	-4.70	101.48	107.16
23	c	503	CLA	C3B-C2B-C1B	-4.70	101.48	107.16
23	B	608	CLA	C3B-C2B-C1B	-4.69	101.49	107.16
23	b	608	CLA	C3B-C2B-C1B	-4.68	101.51	107.16
24	C	514	BCR	C15-C14-C13	-4.67	120.64	127.31
24	c	514	BCR	C15-C14-C13	-4.67	120.64	127.31
23	B	611	CLA	O2D-CGD-CBD	4.67	119.56	111.27
23	b	611	CLA	O2D-CGD-CBD	4.67	119.56	111.27
23	C	513	CLA	C3D-C4D-ND	4.66	117.78	110.24
23	c	513	CLA	C3D-C4D-ND	4.66	117.78	110.24
23	C	502	CLA	C3B-C2B-C1B	-4.66	101.53	107.16
23	c	502	CLA	C3B-C2B-C1B	-4.66	101.53	107.16
23	C	511	CLA	O2D-CGD-CBD	4.66	119.54	111.27
23	c	511	CLA	O2D-CGD-CBD	4.66	119.54	111.27
23	B	605	CLA	C3D-C4D-ND	4.66	117.77	110.24
23	b	605	CLA	C3D-C4D-ND	4.66	117.77	110.24
23	C	510	CLA	C4A-NA-C1A	-4.65	104.62	106.71
23	c	510	CLA	C4A-NA-C1A	-4.65	104.62	106.71
23	A	407	CLA	C3D-C4D-ND	4.64	117.75	110.24
23	a	407	CLA	C3D-C4D-ND	4.64	117.75	110.24
23	C	504	CLA	C3D-C2D-C1D	-4.64	99.50	105.83
23	c	504	CLA	C3D-C2D-C1D	-4.64	99.50	105.83
23	B	611	CLA	C3B-C2B-C1B	-4.64	101.56	107.16
23	b	611	CLA	C3B-C2B-C1B	-4.64	101.56	107.16
23	C	511	CLA	C3D-C2D-C1D	-4.63	99.51	105.83
23	c	511	CLA	C3D-C2D-C1D	-4.63	99.51	105.83
23	B	605	CLA	C3B-C2B-C1B	-4.63	101.58	107.16
23	b	605	CLA	C3B-C2B-C1B	-4.63	101.58	107.16
23	B	621	CLA	C3D-C2D-C1D	-4.60	99.55	105.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	b	621	CLA	C3D-C2D-C1D	-4.60	99.55	105.83
23	A	412	CLA	C3D-C4D-ND	4.60	117.68	110.24
23	a	412	CLA	C3D-C4D-ND	4.60	117.68	110.24
23	D	404	CLA	C3D-C4D-ND	4.59	117.67	110.24
23	d	404	CLA	C3D-C4D-ND	4.59	117.67	110.24
23	C	506	CLA	C3B-C2B-C1B	-4.59	101.62	107.16
23	c	506	CLA	C3B-C2B-C1B	-4.59	101.62	107.16
23	C	507	CLA	C3D-C2D-C1D	-4.59	99.56	105.83
23	c	507	CLA	C3D-C2D-C1D	-4.59	99.56	105.83
23	B	611	CLA	C3D-C4D-ND	4.59	117.66	110.24
23	b	611	CLA	C3D-C4D-ND	4.59	117.66	110.24
23	B	605	CLA	C3D-C2D-C1D	-4.58	99.58	105.83
23	b	605	CLA	C3D-C2D-C1D	-4.58	99.58	105.83
23	B	611	CLA	C3D-C2D-C1D	-4.58	99.58	105.83
23	b	611	CLA	C3D-C2D-C1D	-4.58	99.58	105.83
23	C	519	CLA	C3D-C4D-ND	4.58	117.64	110.24
23	c	519	CLA	C3D-C4D-ND	4.58	117.64	110.24
23	B	608	CLA	O2D-CGD-CBD	4.58	119.40	111.27
23	b	608	CLA	O2D-CGD-CBD	4.58	119.40	111.27
23	C	502	CLA	C3D-C4D-ND	4.58	117.64	110.24
23	c	502	CLA	C3D-C4D-ND	4.58	117.64	110.24
23	c	506	CLA	O2D-CGD-CBD	4.57	119.40	111.27
23	B	615	CLA	C3D-C2D-C1D	-4.57	99.60	105.83
23	b	615	CLA	C3D-C2D-C1D	-4.57	99.60	105.83
23	B	604	CLA	C4A-NA-C1A	-4.57	104.65	106.71
23	b	604	CLA	C4A-NA-C1A	-4.57	104.65	106.71
23	B	609	CLA	C3D-C2D-C1D	-4.57	99.60	105.83
23	b	609	CLA	C3D-C2D-C1D	-4.57	99.60	105.83
23	C	506	CLA	O2D-CGD-CBD	4.56	119.38	111.27
23	B	614	CLA	O2D-CGD-CBD	4.56	119.37	111.27
23	b	614	CLA	O2D-CGD-CBD	4.56	119.37	111.27
23	C	508	CLA	C3D-C2D-C1D	-4.56	99.61	105.83
23	c	508	CLA	C3D-C2D-C1D	-4.56	99.61	105.83
23	B	608	CLA	C3D-C4D-ND	4.55	117.60	110.24
23	b	608	CLA	C3D-C4D-ND	4.55	117.60	110.24
23	b	606	CLA	C3B-C2B-C1B	-4.55	101.67	107.16
23	B	607	CLA	C3D-C2D-C1D	-4.55	99.62	105.83
23	b	607	CLA	C3D-C2D-C1D	-4.55	99.62	105.83
23	B	612	CLA	C3D-C4D-ND	4.55	117.59	110.24
23	b	612	CLA	C3D-C4D-ND	4.55	117.59	110.24
23	C	506	CLA	C3D-C2D-C1D	-4.55	99.62	105.83
23	C	513	CLA	C3D-C2D-C1D	-4.55	99.63	105.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	c	513	CLA	C3D-C2D-C1D	-4.55	99.63	105.83
23	B	609	CLA	O2D-CGD-CBD	4.54	119.34	111.27
23	b	609	CLA	O2D-CGD-CBD	4.54	119.34	111.27
23	a	412	CLA	C3B-C2B-C1B	-4.54	101.68	107.16
23	B	615	CLA	C3B-C2B-C1B	-4.54	101.68	107.16
23	b	615	CLA	C3B-C2B-C1B	-4.54	101.68	107.16
23	B	609	CLA	C3D-C4D-ND	4.53	117.57	110.24
23	b	609	CLA	C3D-C4D-ND	4.53	117.57	110.24
23	c	506	CLA	C3D-C2D-C1D	-4.53	99.65	105.83
23	B	606	CLA	C3B-C2B-C1B	-4.53	101.70	107.16
23	B	613	CLA	C3D-C2D-C1D	-4.53	99.65	105.83
23	b	613	CLA	C3D-C2D-C1D	-4.53	99.65	105.83
23	A	412	CLA	C3D-C2D-C1D	-4.52	99.66	105.83
23	a	412	CLA	C3D-C2D-C1D	-4.52	99.66	105.83
23	B	610	CLA	C3D-C2D-C1D	-4.52	99.66	105.83
23	b	610	CLA	C3D-C2D-C1D	-4.52	99.66	105.83
23	B	604	CLA	C1-C2-C3	-4.52	118.22	126.04
23	b	604	CLA	C1-C2-C3	-4.52	118.22	126.04
23	A	412	CLA	C3B-C2B-C1B	-4.52	101.70	107.16
23	C	508	CLA	C3D-C4D-ND	4.51	117.54	110.24
23	c	508	CLA	C3D-C4D-ND	4.51	117.54	110.24
24	K	103	BCR	C7-C8-C9	-4.51	119.42	126.23
24	k	103	BCR	C7-C8-C9	-4.51	119.42	126.23
23	B	614	CLA	C3D-C2D-C1D	-4.50	99.68	105.83
23	b	614	CLA	C3D-C2D-C1D	-4.50	99.68	105.83
23	C	512	CLA	C3D-C4D-ND	4.50	117.52	110.24
23	c	512	CLA	C3D-C4D-ND	4.50	117.52	110.24
23	A	407	CLA	C3D-C2D-C1D	-4.50	99.69	105.83
23	a	407	CLA	C3D-C2D-C1D	-4.50	99.69	105.83
23	B	606	CLA	C3D-C2D-C1D	-4.50	99.69	105.83
23	b	606	CLA	C3D-C2D-C1D	-4.50	99.69	105.83
23	C	503	CLA	C3D-C2D-C1D	-4.50	99.69	105.83
23	c	503	CLA	C3D-C2D-C1D	-4.50	99.69	105.83
23	C	510	CLA	C3D-C2D-C1D	-4.50	99.69	105.83
23	c	510	CLA	C3D-C2D-C1D	-4.50	99.69	105.83
23	D	403	CLA	C3D-C4D-ND	4.49	117.51	110.24
23	d	403	CLA	C3D-C4D-ND	4.49	117.51	110.24
23	C	519	CLA	C3D-C2D-C1D	-4.49	99.70	105.83
23	c	519	CLA	C3D-C2D-C1D	-4.49	99.70	105.83
24	D	405	BCR	C24-C23-C22	-4.49	119.45	126.23
23	B	602	CLA	C3D-C4D-ND	4.49	117.50	110.24
23	b	602	CLA	C3D-C4D-ND	4.49	117.50	110.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	D	404	CLA	C3D-C2D-C1D	-4.49	99.70	105.83
23	d	404	CLA	C3D-C2D-C1D	-4.49	99.70	105.83
23	A	405	CLA	C3D-C4D-ND	4.48	117.49	110.24
23	a	405	CLA	C3D-C4D-ND	4.48	117.49	110.24
24	d	405	BCR	C24-C23-C22	-4.48	119.46	126.23
23	b	602	CLA	C3D-C2D-C1D	-4.48	99.72	105.83
23	C	505	CLA	C3D-C4D-ND	4.48	117.48	110.24
23	c	505	CLA	C3D-C4D-ND	4.48	117.48	110.24
23	c	506	CLA	C3D-C4D-ND	4.47	117.47	110.24
23	B	614	CLA	C3D-C4D-ND	4.47	117.47	110.24
23	b	614	CLA	C3D-C4D-ND	4.47	117.47	110.24
23	B	610	CLA	C3D-C4D-ND	4.47	117.47	110.24
23	b	610	CLA	C3D-C4D-ND	4.47	117.47	110.24
23	C	503	CLA	C3D-C4D-ND	4.46	117.46	110.24
23	c	503	CLA	C3D-C4D-ND	4.46	117.46	110.24
23	B	602	CLA	C3D-C2D-C1D	-4.45	99.75	105.83
23	B	615	CLA	C3D-C4D-ND	4.45	117.44	110.24
23	D	403	CLA	C3D-C2D-C1D	-4.45	99.76	105.83
23	d	403	CLA	C3D-C2D-C1D	-4.45	99.76	105.83
23	C	512	CLA	C3D-C2D-C1D	-4.45	99.76	105.83
23	C	506	CLA	C3D-C4D-ND	4.45	117.43	110.24
23	b	615	CLA	C3D-C4D-ND	4.45	117.43	110.24
23	C	504	CLA	C3D-C4D-ND	4.43	117.40	110.24
23	c	512	CLA	C3D-C2D-C1D	-4.42	99.80	105.83
24	T	102	BCR	C28-C27-C26	-4.41	106.21	114.08
24	t	102	BCR	C28-C27-C26	-4.41	106.21	114.08
23	A	406	CLA	C3D-C2D-C1D	-4.41	99.82	105.83
23	a	406	CLA	C3D-C2D-C1D	-4.41	99.82	105.83
24	B	620	BCR	C15-C14-C13	-4.41	121.02	127.31
24	b	620	BCR	C15-C14-C13	-4.41	121.02	127.31
23	c	504	CLA	C3D-C4D-ND	4.40	117.36	110.24
23	b	609	CLA	C3B-C2B-C1B	-4.40	101.85	107.16
23	B	601	CLA	C3D-C2D-C1D	-4.40	99.82	105.83
23	b	601	CLA	C3D-C2D-C1D	-4.40	99.82	105.83
23	C	511	CLA	C3D-C4D-ND	4.40	117.36	110.24
23	c	511	CLA	C3D-C4D-ND	4.40	117.36	110.24
23	B	606	CLA	C3D-C4D-ND	4.40	117.35	110.24
23	b	606	CLA	C3D-C4D-ND	4.40	117.35	110.24
24	a	408	BCR	C15-C14-C13	-4.40	121.04	127.31
23	B	601	CLA	C3D-C4D-ND	4.39	117.35	110.24
23	b	601	CLA	C3D-C4D-ND	4.39	117.35	110.24
23	C	502	CLA	C3D-C2D-C1D	-4.39	99.83	105.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	c	502	CLA	C3D-C2D-C1D	-4.39	99.83	105.83
23	B	609	CLA	C3B-C2B-C1B	-4.39	101.87	107.16
23	B	604	CLA	C3B-C2B-C1B	-4.38	101.87	107.16
23	b	604	CLA	C3B-C2B-C1B	-4.38	101.87	107.16
24	A	408	BCR	C15-C14-C13	-4.38	121.06	127.31
23	C	509	CLA	C3D-C2D-C1D	-4.37	99.87	105.83
23	c	509	CLA	C3D-C2D-C1D	-4.37	99.87	105.83
23	C	509	CLA	C3D-C4D-ND	4.37	117.30	110.24
23	c	509	CLA	C3D-C4D-ND	4.37	117.30	110.24
23	B	612	CLA	C3B-C2B-C1B	-4.37	101.89	107.16
23	b	612	CLA	C3B-C2B-C1B	-4.37	101.89	107.16
23	C	503	CLA	C4A-NA-C1A	-4.37	104.74	106.71
23	c	503	CLA	C4A-NA-C1A	-4.37	104.74	106.71
23	B	607	CLA	C3D-C4D-ND	4.37	117.30	110.24
23	b	607	CLA	C3D-C4D-ND	4.37	117.30	110.24
23	D	403	CLA	O2D-CGD-CBD	4.37	119.03	111.27
23	d	403	CLA	O2D-CGD-CBD	4.37	119.03	111.27
23	C	510	CLA	C3D-C4D-ND	4.36	117.29	110.24
23	c	510	CLA	C3D-C4D-ND	4.36	117.29	110.24
23	B	608	CLA	C3D-C2D-C1D	-4.36	99.88	105.83
23	b	608	CLA	C3D-C2D-C1D	-4.36	99.88	105.83
25	A	409	SQD	O47-C7-C8	4.36	120.89	111.50
25	a	409	SQD	O47-C7-C8	4.36	120.89	111.50
23	A	412	CLA	C4A-NA-C1A	-4.34	104.75	106.71
24	D	405	BCR	C33-C5-C6	-4.34	119.66	124.53
24	d	405	BCR	C33-C5-C6	-4.34	119.66	124.53
23	b	603	CLA	C3D-C2D-C1D	-4.33	99.93	105.83
23	C	507	CLA	C3D-C4D-ND	4.32	117.22	110.24
23	B	603	CLA	C3D-C2D-C1D	-4.31	99.94	105.83
23	c	507	CLA	C3D-C4D-ND	4.30	117.20	110.24
23	B	603	CLA	C3D-C4D-ND	4.30	117.20	110.24
23	b	603	CLA	C3D-C4D-ND	4.30	117.20	110.24
23	B	604	CLA	C3D-C4D-ND	4.29	117.18	110.24
23	b	604	CLA	C3D-C4D-ND	4.29	117.18	110.24
24	K	103	BCR	C15-C14-C13	-4.29	121.19	127.31
24	k	103	BCR	C15-C14-C13	-4.29	121.19	127.31
23	A	405	CLA	C3D-C2D-C1D	-4.28	99.99	105.83
23	a	405	CLA	C3D-C2D-C1D	-4.28	99.99	105.83
23	a	412	CLA	C4A-NA-C1A	-4.26	104.79	106.71
23	B	613	CLA	C3D-C4D-ND	4.26	117.13	110.24
23	b	613	CLA	C3D-C4D-ND	4.26	117.13	110.24
23	B	604	CLA	C3D-C2D-C1D	-4.24	100.05	105.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	b	604	CLA	C3D-C2D-C1D	-4.24	100.05	105.83
24	K	103	BCR	C24-C23-C22	-4.23	119.84	126.23
24	k	103	BCR	C24-C23-C22	-4.23	119.84	126.23
24	c	520	BCR	C28-C27-C26	-4.21	106.55	114.08
24	B	617	BCR	C15-C14-C13	-4.21	121.30	127.31
24	b	617	BCR	C15-C14-C13	-4.21	121.30	127.31
24	C	520	BCR	C28-C27-C26	-4.21	106.56	114.08
24	T	102	BCR	C16-C17-C18	-4.19	121.33	127.31
24	t	102	BCR	C16-C17-C18	-4.19	121.33	127.31
23	B	621	CLA	C3D-C4D-ND	4.16	116.97	110.24
23	b	621	CLA	C3D-C4D-ND	4.16	116.97	110.24
33	D	402	PHO	C1-C2-C3	-4.14	118.88	126.04
33	d	402	PHO	C1-C2-C3	-4.14	118.88	126.04
26	D	406	PL9	C7-C8-C9	-4.14	119.91	126.79
26	d	406	PL9	C7-C8-C9	-4.14	119.91	126.79
32	C	518	DGD	O2G-C1B-C2B	4.13	120.39	111.50
32	c	518	DGD	O2G-C1B-C2B	4.13	120.39	111.50
23	B	612	CLA	C3D-C2D-C1D	-4.12	100.21	105.83
23	b	612	CLA	C3D-C2D-C1D	-4.12	100.21	105.83
24	K	103	BCR	C3-C4-C5	-4.12	106.72	114.08
24	k	103	BCR	C3-C4-C5	-4.12	106.72	114.08
29	L	101	LHG	O7-C7-C8	4.11	120.36	111.50
29	l	101	LHG	O7-C7-C8	4.11	120.36	111.50
29	A	414	LHG	O7-C7-C8	4.10	120.35	111.50
29	a	414	LHG	O7-C7-C8	4.10	120.35	111.50
34	f	102	HEM	C1B-NB-C4B	4.10	109.31	105.07
32	C	516	DGD	O2G-C1B-C2B	4.10	120.33	111.50
32	c	516	DGD	O2G-C1B-C2B	4.09	120.32	111.50
24	D	405	BCR	C11-C10-C9	-4.07	121.50	127.31
24	d	405	BCR	C11-C10-C9	-4.07	121.50	127.31
34	F	102	HEM	C1B-NB-C4B	4.06	109.27	105.07
24	K	102	BCR	C16-C17-C18	-4.05	121.52	127.31
24	k	102	BCR	C16-C17-C18	-4.05	121.52	127.31
24	B	616	BCR	C15-C14-C13	-4.05	121.53	127.31
30	J	101	LMG	O7-C10-C11	4.04	120.20	111.50
30	j	101	LMG	O7-C10-C11	4.04	120.20	111.50
26	A	410	PL9	C7-C3-C2	-4.04	117.99	123.30
26	a	410	PL9	C7-C3-C2	-4.04	117.99	123.30
24	b	616	BCR	C15-C14-C13	-4.04	121.55	127.31
37	x	101	RRX	C37-C22-C21	-4.03	117.28	122.92
29	A	415	LHG	O7-C7-C8	4.02	120.17	111.50
29	a	415	LHG	O7-C7-C8	4.02	120.17	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	B	616	BCR	C33-C5-C6	-4.02	120.02	124.53
24	b	616	BCR	C33-C5-C6	-4.02	120.02	124.53
37	X	101	RRX	C37-C22-C21	-4.02	117.30	122.92
24	B	617	BCR	C16-C17-C18	-4.01	121.59	127.31
24	b	617	BCR	C16-C17-C18	-4.01	121.59	127.31
32	C	515	DGD	O2G-C1B-C2B	4.00	120.11	111.50
32	c	515	DGD	O2G-C1B-C2B	4.00	120.11	111.50
29	B	622	LHG	O7-C7-C8	3.99	120.10	111.50
29	b	622	LHG	O7-C7-C8	3.99	120.10	111.50
23	c	505	CLA	C3D-C2D-C1D	-3.99	100.39	105.83
24	K	103	BCR	C11-C10-C9	-3.98	121.63	127.31
24	k	103	BCR	C11-C10-C9	-3.98	121.63	127.31
23	C	505	CLA	C3D-C2D-C1D	-3.97	100.41	105.83
23	A	405	CLA	C1D-CHD-C4C	-3.97	117.50	126.06
23	a	405	CLA	C1D-CHD-C4C	-3.97	117.50	126.06
23	B	611	CLA	C1D-CHD-C4C	-3.95	117.53	126.06
23	b	611	CLA	C1D-CHD-C4C	-3.95	117.53	126.06
24	D	405	BCR	C16-C17-C18	-3.94	121.69	127.31
24	d	405	BCR	C16-C17-C18	-3.94	121.69	127.31
23	b	609	CLA	C1C-C2C-C3C	-3.93	102.83	106.96
23	b	615	CLA	C1D-CHD-C4C	-3.92	117.60	126.06
23	B	615	CLA	C1D-CHD-C4C	-3.92	117.60	126.06
24	A	408	BCR	C16-C17-C18	-3.91	121.72	127.31
23	A	412	CLA	C1C-C2C-C3C	-3.91	102.85	106.96
23	a	412	CLA	C1C-C2C-C3C	-3.91	102.85	106.96
23	c	505	CLA	C1-C2-C3	-3.90	119.29	126.04
23	C	505	CLA	C1-C2-C3	-3.90	119.31	126.04
23	C	510	CLA	C1C-C2C-C3C	-3.89	102.86	106.96
23	c	510	CLA	C1C-C2C-C3C	-3.89	102.86	106.96
24	a	408	BCR	C16-C17-C18	-3.89	121.75	127.31
23	B	609	CLA	C1C-C2C-C3C	-3.89	102.87	106.96
23	B	621	CLA	C1C-C2C-C3C	-3.89	102.87	106.96
23	b	621	CLA	C1C-C2C-C3C	-3.89	102.87	106.96
23	B	613	CLA	C1D-CHD-C4C	-3.89	117.67	126.06
23	b	613	CLA	C1D-CHD-C4C	-3.89	117.67	126.06
23	C	504	CLA	C1D-CHD-C4C	-3.88	117.68	126.06
29	D	407	LHG	O7-C7-C8	3.88	119.87	111.50
29	d	407	LHG	O7-C7-C8	3.88	119.87	111.50
23	c	504	CLA	C1D-CHD-C4C	-3.88	117.69	126.06
24	C	520	BCR	C20-C21-C22	-3.87	121.78	127.31
24	c	520	BCR	C20-C21-C22	-3.87	121.78	127.31
23	C	507	CLA	C1C-C2C-C3C	-3.87	102.89	106.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	c	507	CLA	C1C-C2C-C3C	-3.87	102.89	106.96
23	B	612	CLA	C1D-CHD-C4C	-3.87	117.71	126.06
23	b	612	CLA	C1D-CHD-C4C	-3.87	117.71	126.06
23	C	507	CLA	C1D-CHD-C4C	-3.87	117.72	126.06
23	c	507	CLA	C1D-CHD-C4C	-3.87	117.72	126.06
23	C	503	CLA	C1D-CHD-C4C	-3.87	117.72	126.06
23	c	503	CLA	C1D-CHD-C4C	-3.87	117.72	126.06
37	X	101	RRX	C34-C9-C10	-3.85	117.53	122.92
24	B	616	BCR	C16-C17-C18	-3.85	121.82	127.31
24	b	616	BCR	C16-C17-C18	-3.85	121.82	127.31
23	C	505	CLA	C1D-CHD-C4C	-3.84	117.78	126.06
23	c	505	CLA	C1D-CHD-C4C	-3.84	117.78	126.06
26	A	410	PL9	C7-C8-C9	-3.83	120.42	126.79
26	a	410	PL9	C7-C8-C9	-3.83	120.42	126.79
30	B	618	LMG	O7-C10-C11	3.81	119.71	111.50
30	b	618	LMG	O7-C10-C11	3.81	119.71	111.50
37	x	101	RRX	C34-C9-C10	-3.81	117.59	122.92
23	B	606	CLA	C1D-CHD-C4C	-3.80	117.86	126.06
23	b	606	CLA	C1D-CHD-C4C	-3.80	117.86	126.06
23	B	604	CLA	C1D-CHD-C4C	-3.80	117.86	126.06
23	b	604	CLA	C1D-CHD-C4C	-3.80	117.86	126.06
23	c	503	CLA	C3C-C4C-NC	3.80	114.83	110.57
23	B	608	CLA	C1C-C2C-C3C	-3.79	102.97	106.96
23	b	608	CLA	C1C-C2C-C3C	-3.79	102.97	106.96
23	C	512	CLA	C1C-C2C-C3C	-3.79	102.97	106.96
23	c	512	CLA	C1C-C2C-C3C	-3.79	102.97	106.96
23	B	611	CLA	C1-C2-C3	-3.79	119.49	126.04
23	b	611	CLA	C1-C2-C3	-3.79	119.49	126.04
34	F	102	HEM	C4C-NC-C1C	3.78	109.05	105.35
34	f	102	HEM	C4C-NC-C1C	3.78	109.05	105.35
23	D	403	CLA	C1C-C2C-C3C	-3.78	102.98	106.96
23	d	403	CLA	C1C-C2C-C3C	-3.78	102.98	106.96
24	C	520	BCR	C16-C17-C18	-3.78	121.92	127.31
24	c	520	BCR	C16-C17-C18	-3.78	121.92	127.31
23	C	503	CLA	C3C-C4C-NC	3.77	114.80	110.57
23	B	609	CLA	C1D-CHD-C4C	-3.77	117.92	126.06
23	b	609	CLA	C1D-CHD-C4C	-3.77	117.92	126.06
23	C	504	CLA	C3C-C4C-NC	3.77	114.80	110.57
23	C	509	CLA	C1D-CHD-C4C	-3.77	117.93	126.06
23	c	509	CLA	C1D-CHD-C4C	-3.77	117.93	126.06
23	B	614	CLA	C1D-CHD-C4C	-3.77	117.93	126.06
23	b	614	CLA	C1D-CHD-C4C	-3.77	117.93	126.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	B	606	CLA	C1C-C2C-C3C	-3.77	103.00	106.96
23	B	607	CLA	C1C-C2C-C3C	-3.77	103.00	106.96
23	b	606	CLA	C1C-C2C-C3C	-3.77	103.00	106.96
23	b	607	CLA	C1C-C2C-C3C	-3.77	103.00	106.96
23	C	511	CLA	C1D-CHD-C4C	-3.77	117.93	126.06
23	c	511	CLA	C1D-CHD-C4C	-3.77	117.93	126.06
23	B	604	CLA	C1C-C2C-C3C	-3.76	103.01	106.96
23	b	604	CLA	C1C-C2C-C3C	-3.76	103.01	106.96
23	C	505	CLA	C3C-C4C-NC	3.76	114.78	110.57
23	c	505	CLA	C3C-C4C-NC	3.76	114.78	110.57
23	C	519	CLA	C1D-CHD-C4C	-3.75	117.96	126.06
23	c	519	CLA	C1D-CHD-C4C	-3.75	117.96	126.06
23	B	610	CLA	C1D-CHD-C4C	-3.75	117.96	126.06
23	b	610	CLA	C1D-CHD-C4C	-3.75	117.96	126.06
23	D	403	CLA	C3C-C4C-NC	3.75	114.78	110.57
23	d	403	CLA	C3C-C4C-NC	3.75	114.78	110.57
23	C	513	CLA	C1D-CHD-C4C	-3.75	117.96	126.06
23	c	513	CLA	C1D-CHD-C4C	-3.75	117.96	126.06
23	B	603	CLA	C1D-CHD-C4C	-3.75	117.97	126.06
23	C	510	CLA	C1D-CHD-C4C	-3.75	117.97	126.06
23	b	603	CLA	C1D-CHD-C4C	-3.75	117.97	126.06
23	c	510	CLA	C1D-CHD-C4C	-3.75	117.97	126.06
23	C	502	CLA	C1C-C2C-C3C	-3.75	103.02	106.96
23	c	502	CLA	C1C-C2C-C3C	-3.75	103.02	106.96
23	c	504	CLA	C1C-C2C-C3C	-3.74	103.02	106.96
23	C	505	CLA	C1C-C2C-C3C	-3.74	103.02	106.96
23	c	505	CLA	C1C-C2C-C3C	-3.74	103.02	106.96
23	B	601	CLA	C1C-C2C-C3C	-3.74	103.02	106.96
23	b	601	CLA	C1C-C2C-C3C	-3.74	103.02	106.96
23	c	504	CLA	C3C-C4C-NC	3.74	114.77	110.57
23	B	621	CLA	C1D-CHD-C4C	-3.74	117.99	126.06
23	b	621	CLA	C1D-CHD-C4C	-3.74	117.99	126.06
23	C	512	CLA	C1D-CHD-C4C	-3.74	117.99	126.06
23	c	512	CLA	C1D-CHD-C4C	-3.74	117.99	126.06
23	A	412	CLA	C1D-CHD-C4C	-3.73	118.01	126.06
23	a	412	CLA	C1D-CHD-C4C	-3.73	118.01	126.06
23	C	519	CLA	C1C-C2C-C3C	-3.73	103.04	106.96
23	c	519	CLA	C1C-C2C-C3C	-3.73	103.04	106.96
23	C	509	CLA	C1C-C2C-C3C	-3.72	103.04	106.96
23	c	509	CLA	C1C-C2C-C3C	-3.72	103.04	106.96
23	C	508	CLA	C1D-CHD-C4C	-3.72	118.03	126.06
23	B	605	CLA	C1D-CHD-C4C	-3.72	118.03	126.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	b	605	CLA	C1D-CHD-C4C	-3.72	118.03	126.06
23	c	508	CLA	C1D-CHD-C4C	-3.72	118.04	126.06
24	b	616	BCR	C7-C8-C9	-3.71	120.62	126.23
23	B	621	CLA	C3C-C4C-NC	3.71	114.74	110.57
23	b	621	CLA	C3C-C4C-NC	3.71	114.74	110.57
23	C	504	CLA	C1C-C2C-C3C	-3.71	103.06	106.96
23	B	607	CLA	C1D-CHD-C4C	-3.71	118.06	126.06
23	b	607	CLA	C1D-CHD-C4C	-3.71	118.06	126.06
23	b	608	CLA	C1D-CHD-C4C	-3.71	118.06	126.06
23	A	412	CLA	C1-C2-C3	-3.70	119.64	126.04
23	a	412	CLA	C1-C2-C3	-3.70	119.64	126.04
23	B	612	CLA	C3C-C4C-NC	3.70	114.72	110.57
23	b	612	CLA	C3C-C4C-NC	3.70	114.72	110.57
23	C	502	CLA	C1D-CHD-C4C	-3.70	118.07	126.06
23	c	502	CLA	C1D-CHD-C4C	-3.70	118.07	126.06
23	c	506	CLA	C1C-C2C-C3C	-3.70	103.07	106.96
24	B	616	BCR	C7-C8-C9	-3.69	120.65	126.23
23	B	603	CLA	C1C-C2C-C3C	-3.69	103.07	106.96
23	b	603	CLA	C1C-C2C-C3C	-3.69	103.07	106.96
23	C	506	CLA	C1D-CHD-C4C	-3.69	118.09	126.06
23	c	506	CLA	C1D-CHD-C4C	-3.69	118.09	126.06
23	b	621	CLA	O2D-CGD-CBD	3.69	117.83	111.27
23	D	404	CLA	C1D-CHD-C4C	-3.69	118.10	126.06
23	B	608	CLA	C1D-CHD-C4C	-3.69	118.10	126.06
23	C	511	CLA	C3C-C4C-NC	3.69	114.71	110.57
23	c	511	CLA	C3C-C4C-NC	3.69	114.71	110.57
23	d	404	CLA	C1D-CHD-C4C	-3.69	118.10	126.06
23	B	615	CLA	C3C-C4C-NC	3.69	114.71	110.57
23	b	615	CLA	C3C-C4C-NC	3.69	114.71	110.57
23	B	621	CLA	O2D-CGD-CBD	3.69	117.82	111.27
24	B	616	BCR	C11-C10-C9	-3.69	122.05	127.31
24	b	616	BCR	C11-C10-C9	-3.69	122.05	127.31
23	B	601	CLA	C1D-CHD-C4C	-3.69	118.11	126.06
23	b	601	CLA	C1D-CHD-C4C	-3.69	118.11	126.06
23	C	506	CLA	C1C-C2C-C3C	-3.68	103.08	106.96
23	D	404	CLA	C1C-C2C-C3C	-3.68	103.09	106.96
23	d	404	CLA	C1C-C2C-C3C	-3.68	103.09	106.96
32	H	101	DGD	O2G-C1B-C2B	3.68	119.43	111.50
32	h	101	DGD	O2G-C1B-C2B	3.68	119.43	111.50
23	b	602	CLA	C1C-C2C-C3C	-3.68	103.09	106.96
23	B	605	CLA	C1C-C2C-C3C	-3.67	103.10	106.96
23	B	614	CLA	C1C-C2C-C3C	-3.67	103.10	106.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	b	605	CLA	C1C-C2C-C3C	-3.67	103.10	106.96
23	b	614	CLA	C1C-C2C-C3C	-3.67	103.10	106.96
23	A	405	CLA	C1C-C2C-C3C	-3.66	103.10	106.96
23	a	405	CLA	C1C-C2C-C3C	-3.66	103.10	106.96
23	B	610	CLA	C3C-C4C-NC	3.66	114.68	110.57
23	C	512	CLA	C3C-C4C-NC	3.66	114.68	110.57
23	b	610	CLA	C3C-C4C-NC	3.66	114.68	110.57
23	c	512	CLA	C3C-C4C-NC	3.66	114.68	110.57
23	D	403	CLA	C1D-CHD-C4C	-3.66	118.16	126.06
23	d	403	CLA	C1D-CHD-C4C	-3.66	118.16	126.06
23	C	511	CLA	C1-C2-C3	-3.66	119.71	126.04
23	A	406	CLA	C1C-C2C-C3C	-3.66	103.11	106.96
23	a	406	CLA	C1C-C2C-C3C	-3.66	103.11	106.96
23	B	621	CLA	C3B-C4B-NB	3.66	113.91	110.52
23	b	621	CLA	C3B-C4B-NB	3.66	113.91	110.52
23	B	611	CLA	C3C-C4C-NC	3.66	114.68	110.57
23	b	611	CLA	C3C-C4C-NC	3.66	114.68	110.57
23	B	610	CLA	C1C-C2C-C3C	-3.66	103.11	106.96
23	C	503	CLA	C1C-C2C-C3C	-3.66	103.11	106.96
23	b	610	CLA	C1C-C2C-C3C	-3.66	103.11	106.96
23	B	602	CLA	C1C-C2C-C3C	-3.66	103.11	106.96
23	A	406	CLA	C1D-CHD-C4C	-3.66	118.17	126.06
23	a	406	CLA	C1D-CHD-C4C	-3.66	118.17	126.06
23	c	511	CLA	C1-C2-C3	-3.66	119.72	126.04
23	B	601	CLA	C3C-C4C-NC	3.65	114.67	110.57
23	b	601	CLA	C3C-C4C-NC	3.65	114.67	110.57
23	B	603	CLA	C3C-C4C-NC	3.65	114.66	110.57
23	b	603	CLA	C3C-C4C-NC	3.65	114.66	110.57
24	C	514	BCR	C3-C4-C5	-3.64	107.57	114.08
24	c	514	BCR	C3-C4-C5	-3.64	107.57	114.08
24	B	617	BCR	C24-C23-C22	-3.64	120.73	126.23
24	b	617	BCR	C24-C23-C22	-3.64	120.73	126.23
23	B	613	CLA	C1C-C2C-C3C	-3.64	103.13	106.96
23	b	613	CLA	C1C-C2C-C3C	-3.64	103.13	106.96
23	B	602	CLA	C1D-CHD-C4C	-3.64	118.20	126.06
23	b	602	CLA	C1D-CHD-C4C	-3.64	118.20	126.06
23	c	503	CLA	C1C-C2C-C3C	-3.63	103.14	106.96
23	B	613	CLA	C3C-C4C-NC	3.62	114.63	110.57
23	b	613	CLA	C3C-C4C-NC	3.62	114.63	110.57
23	A	407	CLA	C1C-C2C-C3C	-3.61	103.16	106.96
23	a	407	CLA	C1C-C2C-C3C	-3.61	103.16	106.96
23	C	513	CLA	C1C-C2C-C3C	-3.59	103.18	106.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	c	513	CLA	C1C-C2C-C3C	-3.59	103.18	106.96
23	B	605	CLA	C3C-C4C-NC	3.59	114.60	110.57
23	b	605	CLA	C3C-C4C-NC	3.59	114.60	110.57
23	B	612	CLA	C1C-C2C-C3C	-3.59	103.18	106.96
23	b	612	CLA	C1C-C2C-C3C	-3.59	103.18	106.96
23	B	604	CLA	C3C-C4C-NC	3.58	114.58	110.57
23	b	604	CLA	C3C-C4C-NC	3.58	114.58	110.57
34	F	102	HEM	CAD-CBD-CGD	3.58	121.30	113.60
34	f	102	HEM	CAD-CBD-CGD	3.58	121.30	113.60
23	C	507	CLA	C3C-C4C-NC	3.57	114.58	110.57
23	c	507	CLA	C3C-C4C-NC	3.57	114.58	110.57
23	a	407	CLA	C1D-CHD-C4C	-3.57	118.36	126.06
23	A	407	CLA	C1D-CHD-C4C	-3.57	118.36	126.06
25	A	409	SQD	O8-S-C6	3.56	111.42	105.74
23	B	614	CLA	C3C-C4C-NC	3.56	114.56	110.57
23	b	614	CLA	C3C-C4C-NC	3.56	114.56	110.57
23	B	606	CLA	C3C-C4C-NC	3.56	114.56	110.57
23	D	403	CLA	C1-C2-C3	-3.55	119.90	126.04
23	d	403	CLA	C1-C2-C3	-3.55	119.90	126.04
23	c	506	CLA	C3C-C4C-NC	3.55	114.55	110.57
23	c	513	CLA	C3C-C4C-NC	3.55	114.55	110.57
24	C	520	BCR	C3-C4-C5	-3.54	107.75	114.08
24	c	520	BCR	C3-C4-C5	-3.54	107.75	114.08
23	C	513	CLA	C3C-C4C-NC	3.54	114.54	110.57
25	a	409	SQD	O8-S-C6	3.54	111.38	105.74
23	b	606	CLA	C3C-C4C-NC	3.53	114.53	110.57
24	t	102	BCR	C20-C21-C22	-3.52	122.28	127.31
23	C	506	CLA	C3C-C4C-NC	3.52	114.52	110.57
24	K	103	BCR	C16-C17-C18	-3.52	122.29	127.31
24	k	103	BCR	C16-C17-C18	-3.52	122.29	127.31
24	B	617	BCR	C38-C26-C25	-3.52	120.58	124.53
24	b	617	BCR	C38-C26-C25	-3.52	120.58	124.53
24	B	620	BCR	C28-C27-C26	-3.52	107.80	114.08
24	b	620	BCR	C28-C27-C26	-3.52	107.80	114.08
23	C	509	CLA	C3C-C4C-NC	3.51	114.51	110.57
23	c	509	CLA	C3C-C4C-NC	3.51	114.51	110.57
23	C	508	CLA	C3C-C4C-NC	3.51	114.51	110.57
23	c	508	CLA	C3C-C4C-NC	3.51	114.51	110.57
23	B	608	CLA	C3C-C4C-NC	3.51	114.50	110.57
23	b	608	CLA	C3C-C4C-NC	3.51	114.50	110.57
23	a	407	CLA	C1-C2-C3	-3.50	119.98	126.04
24	T	102	BCR	C20-C21-C22	-3.50	122.31	127.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	D	404	CLA	C3C-C4C-NC	3.50	114.49	110.57
23	d	404	CLA	C3C-C4C-NC	3.50	114.49	110.57
23	A	407	CLA	C1-C2-C3	-3.50	120.00	126.04
23	C	508	CLA	C1C-C2C-C3C	-3.50	103.28	106.96
23	C	510	CLA	C3C-C4C-NC	3.50	114.49	110.57
23	c	510	CLA	C3C-C4C-NC	3.50	114.49	110.57
23	b	609	CLA	C3B-C4B-NB	3.49	113.75	110.52
23	b	609	CLA	C3C-C4C-NC	3.48	114.48	110.57
23	C	502	CLA	C1-C2-C3	-3.48	120.02	126.04
23	c	502	CLA	C1-C2-C3	-3.48	120.02	126.04
23	C	511	CLA	C1C-C2C-C3C	-3.48	103.30	106.96
23	c	511	CLA	C1C-C2C-C3C	-3.48	103.30	106.96
23	c	508	CLA	C1C-C2C-C3C	-3.48	103.30	106.96
24	D	405	BCR	C20-C21-C22	-3.47	122.36	127.31
23	A	405	CLA	C3C-C4C-NC	3.47	114.46	110.57
23	a	405	CLA	C3C-C4C-NC	3.47	114.46	110.57
23	B	609	CLA	C3C-C4C-NC	3.47	114.46	110.57
24	d	405	BCR	C20-C21-C22	-3.46	122.36	127.31
23	B	609	CLA	C3B-C4B-NB	3.46	113.72	110.52
23	B	607	CLA	C3C-C4C-NC	3.46	114.45	110.57
23	b	607	CLA	C3C-C4C-NC	3.46	114.45	110.57
24	T	102	BCR	C16-C15-C14	-3.46	116.39	123.47
24	t	102	BCR	C16-C15-C14	-3.46	116.39	123.47
23	B	621	CLA	C1-C2-C3	-3.45	120.07	126.04
23	b	621	CLA	C1-C2-C3	-3.45	120.07	126.04
24	K	102	BCR	C15-C14-C13	-3.45	122.38	127.31
24	k	102	BCR	C15-C14-C13	-3.45	122.38	127.31
23	a	405	CLA	O2D-CGD-CBD	3.45	117.40	111.27
23	A	405	CLA	C1-C2-C3	-3.45	120.08	126.04
23	a	405	CLA	C1-C2-C3	-3.45	120.08	126.04
23	B	602	CLA	C3C-C4C-NC	3.43	114.42	110.57
23	b	602	CLA	C3C-C4C-NC	3.43	114.42	110.57
23	A	405	CLA	O2D-CGD-CBD	3.43	117.36	111.27
23	b	611	CLA	C1C-C2C-C3C	-3.42	103.36	106.96
23	C	508	CLA	C3B-C4B-NB	3.41	113.68	110.52
24	B	620	BCR	C16-C17-C18	-3.41	122.44	127.31
24	b	620	BCR	C16-C17-C18	-3.41	122.44	127.31
23	C	510	CLA	C3B-C4B-NB	3.40	113.67	110.52
23	c	510	CLA	C3B-C4B-NB	3.40	113.67	110.52
23	C	503	CLA	C1-C2-C3	-3.40	120.16	126.04
23	c	503	CLA	C1-C2-C3	-3.40	120.16	126.04
23	A	407	CLA	C3C-C4C-NC	3.39	114.38	110.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	a	407	CLA	C3C-C4C-NC	3.39	114.38	110.57
24	c	514	BCR	C33-C5-C6	-3.39	120.72	124.53
23	C	510	CLA	C1-C2-C3	-3.39	120.19	126.04
23	A	412	CLA	C3B-C4B-NB	3.39	113.66	110.52
24	C	514	BCR	C33-C5-C6	-3.38	120.73	124.53
23	C	509	CLA	C3B-C4B-NB	3.38	113.65	110.52
23	c	508	CLA	C3B-C4B-NB	3.38	113.65	110.52
23	c	509	CLA	C3B-C4B-NB	3.38	113.65	110.52
23	c	510	CLA	C1-C2-C3	-3.38	120.20	126.04
23	B	611	CLA	C1C-C2C-C3C	-3.37	103.41	106.96
23	B	604	CLA	CMB-C2B-C1B	3.37	130.50	125.37
23	b	604	CLA	CMB-C2B-C1B	3.37	130.50	125.37
37	x	101	RRX	C36-C18-C17	-3.36	118.22	122.92
37	X	101	RRX	C35-C13-C14	-3.35	118.22	122.92
23	a	412	CLA	C3B-C4B-NB	3.35	113.62	110.52
37	x	101	RRX	C35-C13-C14	-3.35	118.23	122.92
34	F	102	HEM	CHD-C4C-NC	3.35	128.06	124.44
34	f	102	HEM	CHD-C4C-NC	3.35	128.06	124.44
23	B	605	CLA	C1-C2-C3	-3.34	120.26	126.04
24	A	408	BCR	C11-C10-C9	-3.34	122.54	127.31
24	a	408	BCR	C11-C10-C9	-3.34	122.54	127.31
23	B	613	CLA	C3B-C4B-NB	3.34	113.61	110.52
23	b	613	CLA	C3B-C4B-NB	3.34	113.61	110.52
23	B	610	CLA	C3B-C4B-NB	3.34	113.61	110.52
23	b	610	CLA	C3B-C4B-NB	3.34	113.61	110.52
23	b	605	CLA	C1-C2-C3	-3.34	120.27	126.04
37	X	101	RRX	C15-C16-C17	3.33	130.30	123.47
37	X	101	RRX	C36-C18-C17	-3.32	118.27	122.92
24	D	405	BCR	C38-C26-C25	-3.32	120.80	124.53
23	C	502	CLA	C3C-C4C-NC	3.32	114.29	110.57
23	c	502	CLA	C3C-C4C-NC	3.32	114.29	110.57
37	x	101	RRX	C15-C16-C17	3.32	130.27	123.47
23	B	613	CLA	C1-C2-C3	-3.31	120.32	126.04
23	b	613	CLA	C1-C2-C3	-3.31	120.32	126.04
23	A	406	CLA	C3C-C4C-NC	3.30	114.27	110.57
23	a	406	CLA	C3C-C4C-NC	3.30	114.27	110.57
24	d	405	BCR	C38-C26-C25	-3.30	120.83	124.53
23	B	608	CLA	C3B-C4B-NB	3.29	113.57	110.52
23	b	608	CLA	C3B-C4B-NB	3.29	113.57	110.52
23	B	604	CLA	O2A-CGA-CBA	3.29	122.24	111.91
23	b	604	CLA	O2A-CGA-CBA	3.29	122.24	111.91
23	B	608	CLA	C1-C2-C3	-3.29	120.36	126.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	C	519	CLA	C1-C2-C3	-3.29	120.36	126.04
23	c	519	CLA	C1-C2-C3	-3.29	120.36	126.04
23	b	608	CLA	C1-C2-C3	-3.28	120.38	126.04
34	f	102	HEM	CHB-C1B-NB	3.26	128.40	124.37
23	A	407	CLA	C4-C3-C5	3.26	119.71	115.98
24	A	408	BCR	C20-C21-C22	-3.26	122.66	127.31
24	a	408	BCR	C20-C21-C22	-3.26	122.66	127.31
23	C	519	CLA	C3C-C4C-NC	3.26	114.22	110.57
23	c	519	CLA	C3C-C4C-NC	3.26	114.22	110.57
23	B	610	CLA	C1-C2-C3	-3.26	120.41	126.04
23	b	610	CLA	C1-C2-C3	-3.26	120.41	126.04
34	F	102	HEM	C4D-ND-C1D	3.24	108.42	105.07
34	f	102	HEM	C4D-ND-C1D	3.24	108.42	105.07
23	a	407	CLA	C4-C3-C5	3.23	119.68	115.98
34	F	102	HEM	CHB-C1B-NB	3.23	128.36	124.37
24	C	514	BCR	C16-C17-C18	-3.23	122.70	127.31
24	c	514	BCR	C16-C17-C18	-3.23	122.70	127.31
23	B	615	CLA	C1C-C2C-C3C	-3.22	103.57	106.96
23	b	615	CLA	C1C-C2C-C3C	-3.22	103.57	106.96
24	B	617	BCR	C3-C4-C5	-3.20	108.36	114.08
24	b	617	BCR	C3-C4-C5	-3.20	108.36	114.08
24	B	620	BCR	C11-C10-C9	-3.20	122.74	127.31
24	b	620	BCR	C11-C10-C9	-3.20	122.74	127.31
26	D	406	PL9	C37-C38-C39	-3.19	119.97	127.66
26	d	406	PL9	C37-C38-C39	-3.19	119.97	127.66
24	C	520	BCR	C8-C7-C6	-3.19	118.25	127.20
24	c	520	BCR	C8-C7-C6	-3.19	118.25	127.20
23	B	609	CLA	C1-C2-C3	-3.18	120.54	126.04
23	C	503	CLA	CMB-C2B-C1B	3.18	130.21	125.37
23	c	503	CLA	CMB-C2B-C1B	3.18	130.21	125.37
24	C	514	BCR	C11-C10-C9	-3.17	122.78	127.31
24	c	514	BCR	C11-C10-C9	-3.17	122.78	127.31
23	B	614	CLA	C1-C2-C3	-3.17	120.55	126.04
23	b	614	CLA	C1-C2-C3	-3.17	120.55	126.04
23	b	606	CLA	C3B-C4B-NB	3.17	113.45	110.52
23	b	609	CLA	C1-C2-C3	-3.16	120.57	126.04
34	F	102	HEM	CHD-C1D-ND	3.16	127.85	124.42
23	A	412	CLA	C3C-C4C-NC	3.16	114.11	110.57
23	a	412	CLA	C3C-C4C-NC	3.16	114.11	110.57
24	C	520	BCR	C11-C10-C9	-3.15	122.81	127.31
24	c	520	BCR	C11-C10-C9	-3.15	122.81	127.31
23	B	615	CLA	C3B-C4B-NB	3.15	113.44	110.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	b	615	CLA	C3B-C4B-NB	3.15	113.44	110.52
24	C	514	BCR	C7-C8-C9	-3.15	121.47	126.23
24	c	514	BCR	C7-C8-C9	-3.15	121.47	126.23
26	A	410	PL9	C10-C9-C11	3.15	120.57	115.27
26	a	410	PL9	C10-C9-C11	3.15	120.57	115.27
23	B	606	CLA	C3B-C4B-NB	3.15	113.43	110.52
23	A	406	CLA	C1-C2-C3	-3.14	120.61	126.04
23	a	406	CLA	C1-C2-C3	-3.14	120.61	126.04
23	B	605	CLA	CHD-C4C-NC	3.14	129.16	124.20
23	b	605	CLA	CHD-C4C-NC	3.14	129.16	124.20
23	C	519	CLA	C3B-C4B-NB	3.14	113.43	110.52
23	d	403	CLA	C3B-C4B-NB	3.14	113.43	110.52
23	B	612	CLA	C1-C2-C3	-3.14	120.61	126.04
23	C	503	CLA	C3B-C4B-NB	3.14	113.43	110.52
23	c	503	CLA	C3B-C4B-NB	3.14	113.43	110.52
34	f	102	HEM	CHD-C1D-ND	3.14	127.83	124.42
33	D	401	PHO	C4-C3-C5	3.14	120.55	115.27
33	d	401	PHO	C4-C3-C5	3.14	120.55	115.27
23	C	508	CLA	C1-C2-C3	-3.14	120.62	126.04
23	c	508	CLA	C1-C2-C3	-3.14	120.62	126.04
23	b	612	CLA	C1-C2-C3	-3.13	120.62	126.04
26	A	410	PL9	C37-C38-C39	-3.13	120.13	127.66
23	b	611	CLA	CAC-C3C-C4C	3.13	128.87	124.81
23	B	614	CLA	C3B-C4B-NB	3.12	113.41	110.52
26	a	410	PL9	C37-C38-C39	-3.12	120.14	127.66
24	b	620	BCR	C3-C4-C5	-3.12	108.51	114.08
23	C	507	CLA	CHD-C4C-NC	3.11	129.11	124.20
23	c	507	CLA	CHD-C4C-NC	3.11	129.11	124.20
23	A	405	CLA	CAC-C3C-C4C	3.11	128.85	124.81
23	a	405	CLA	CAC-C3C-C4C	3.11	128.85	124.81
23	C	505	CLA	C3B-C4B-NB	3.11	113.40	110.52
23	D	403	CLA	C3B-C4B-NB	3.11	113.40	110.52
23	c	505	CLA	C3B-C4B-NB	3.11	113.40	110.52
23	A	412	CLA	CHC-C1C-C2C	-3.11	118.09	126.73
23	a	412	CLA	CHC-C1C-C2C	-3.11	118.09	126.73
23	B	611	CLA	CAC-C3C-C4C	3.11	128.84	124.81
23	D	404	CLA	C3B-C4B-NB	3.11	113.40	110.52
23	d	404	CLA	C3B-C4B-NB	3.11	113.40	110.52
23	D	403	CLA	CHD-C4C-NC	3.10	129.09	124.20
23	d	403	CLA	CHD-C4C-NC	3.10	129.09	124.20
23	C	511	CLA	CMB-C2B-C1B	3.10	130.09	125.37
23	c	511	CLA	CMB-C2B-C1B	3.10	130.09	125.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	c	519	CLA	C3B-C4B-NB	3.10	113.39	110.52
24	B	620	BCR	C3-C4-C5	-3.10	108.54	114.08
24	B	620	BCR	C20-C21-C22	-3.10	122.89	127.31
24	b	620	BCR	C20-C21-C22	-3.10	122.89	127.31
24	A	408	BCR	C38-C26-C25	-3.10	121.05	124.53
24	a	408	BCR	C38-C26-C25	-3.10	121.05	124.53
23	B	603	CLA	O2A-CGA-CBA	3.09	121.62	111.91
23	b	603	CLA	O2A-CGA-CBA	3.09	121.62	111.91
23	B	613	CLA	CAC-C3C-C4C	3.09	128.82	124.81
23	b	613	CLA	CAC-C3C-C4C	3.09	128.82	124.81
23	B	615	CLA	C4C-C3C-C2C	-3.09	102.39	106.90
23	b	615	CLA	C4C-C3C-C2C	-3.09	102.39	106.90
23	b	614	CLA	C3B-C4B-NB	3.09	113.38	110.52
23	B	610	CLA	CAC-C3C-C4C	3.09	128.82	124.81
23	b	610	CLA	CAC-C3C-C4C	3.09	128.82	124.81
23	d	403	CLA	CMB-C2B-C1B	3.09	130.07	125.37
26	D	406	PL9	C20-C19-C21	3.08	120.46	115.27
26	d	406	PL9	C20-C19-C21	3.08	120.46	115.27
26	d	406	PL9	C15-C14-C16	3.07	120.43	115.27
23	B	607	CLA	C3B-C4B-NB	3.07	113.36	110.52
23	b	607	CLA	C3B-C4B-NB	3.07	113.36	110.52
23	D	403	CLA	CMB-C2B-C1B	3.06	130.04	125.37
23	C	504	CLA	C3B-C4B-NB	3.06	113.36	110.52
23	c	504	CLA	C3B-C4B-NB	3.06	113.36	110.52
26	D	406	PL9	C15-C14-C16	3.06	120.42	115.27
26	A	410	PL9	C17-C18-C19	-3.05	120.32	127.66
23	C	503	CLA	CHC-C1C-C2C	-3.05	118.26	126.73
24	C	520	BCR	C23-C24-C25	-3.05	118.64	127.20
24	c	520	BCR	C23-C24-C25	-3.05	118.64	127.20
24	T	102	BCR	C38-C26-C25	-3.04	121.11	124.53
24	t	102	BCR	C38-C26-C25	-3.04	121.11	124.53
23	c	503	CLA	CHC-C1C-C2C	-3.04	118.29	126.73
26	a	410	PL9	C17-C18-C19	-3.04	120.35	127.66
23	B	611	CLA	CHD-C4C-NC	3.03	128.97	124.20
23	b	611	CLA	CHD-C4C-NC	3.03	128.97	124.20
23	B	609	CLA	CHC-C1C-C2C	-3.02	118.34	126.73
33	D	402	PHO	C1A-C2A-C3A	-3.02	99.96	102.84
33	d	402	PHO	C1A-C2A-C3A	-3.02	99.96	102.84
23	b	609	CLA	CAC-C3C-C4C	3.02	128.73	124.81
23	B	601	CLA	C3B-C4B-NB	3.02	113.32	110.52
23	b	601	CLA	C3B-C4B-NB	3.02	113.32	110.52
23	b	609	CLA	CHC-C1C-C2C	-3.02	118.35	126.73

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	A	407	CLA	CHD-C4C-NC	3.02	128.96	124.20
23	a	407	CLA	CHD-C4C-NC	3.02	128.96	124.20
24	T	102	BCR	C38-C26-C27	3.01	119.41	113.62
24	t	102	BCR	C38-C26-C27	3.01	119.41	113.62
23	C	510	CLA	CHD-C4C-NC	3.01	128.94	124.20
23	c	510	CLA	CHD-C4C-NC	3.01	128.94	124.20
23	B	604	CLA	CHC-C1C-C2C	-3.01	118.38	126.73
23	b	604	CLA	CHC-C1C-C2C	-3.01	118.38	126.73
23	B	609	CLA	CAC-C3C-C4C	3.01	128.71	124.81
23	B	604	CLA	C3B-C4B-NB	3.01	113.30	110.52
23	b	604	CLA	C3B-C4B-NB	3.01	113.30	110.52
23	B	615	CLA	CAC-C3C-C4C	3.00	128.70	124.81
23	b	615	CLA	CAC-C3C-C4C	3.00	128.70	124.81
23	C	512	CLA	CHD-C4C-NC	3.00	128.92	124.20
23	c	512	CLA	CHD-C4C-NC	3.00	128.92	124.20
23	c	503	CLA	CAC-C3C-C4C	2.99	128.69	124.81
23	B	609	CLA	CHD-C4C-NC	2.99	128.91	124.20
23	b	609	CLA	CHD-C4C-NC	2.99	128.91	124.20
23	c	506	CLA	CHC-C1C-C2C	-2.99	118.44	126.73
23	C	519	CLA	CAC-C3C-C4C	2.98	128.68	124.81
23	c	519	CLA	CAC-C3C-C4C	2.98	128.68	124.81
23	C	506	CLA	CHC-C1C-C2C	-2.98	118.45	126.73
23	C	511	CLA	CHD-C4C-NC	2.98	128.90	124.20
23	c	511	CLA	CHD-C4C-NC	2.98	128.90	124.20
24	b	617	BCR	C11-C10-C9	-2.98	123.06	127.31
23	C	504	CLA	CAC-C3C-C4C	2.97	128.67	124.81
23	C	503	CLA	CAC-C3C-C4C	2.97	128.67	124.81
33	D	401	PHO	C1A-C2A-C3A	-2.97	100.01	102.84
33	d	401	PHO	C1A-C2A-C3A	-2.97	100.01	102.84
23	C	505	CLA	CAC-C3C-C4C	2.97	128.66	124.81
23	c	505	CLA	CAC-C3C-C4C	2.97	128.66	124.81
23	B	604	CLA	CAC-C3C-C4C	2.97	128.66	124.81
23	b	604	CLA	CAC-C3C-C4C	2.97	128.66	124.81
23	C	502	CLA	C3B-C4B-NB	2.97	113.27	110.52
23	c	502	CLA	C3B-C4B-NB	2.97	113.27	110.52
24	B	617	BCR	C11-C10-C9	-2.97	123.08	127.31
23	B	607	CLA	C1-C2-C3	-2.97	120.91	126.04
23	b	607	CLA	C1-C2-C3	-2.97	120.91	126.04
23	A	405	CLA	C3B-C4B-NB	2.97	113.27	110.52
23	B	621	CLA	CHD-C4C-NC	2.96	128.88	124.20
23	b	621	CLA	CHD-C4C-NC	2.96	128.88	124.20
23	B	610	CLA	O2A-CGA-CBA	2.96	121.21	111.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	b	610	CLA	O2A-CGA-CBA	2.96	121.21	111.91
23	C	502	CLA	CAC-C3C-C4C	2.96	128.65	124.81
23	c	502	CLA	CAC-C3C-C4C	2.96	128.65	124.81
23	b	606	CLA	O2A-CGA-CBA	2.96	121.19	111.91
23	B	609	CLA	O2A-CGA-CBA	2.96	121.19	111.91
23	b	609	CLA	O2A-CGA-CBA	2.96	121.19	111.91
26	A	410	PL9	C32-C33-C34	-2.96	120.54	127.66
26	a	410	PL9	C32-C33-C34	-2.96	120.54	127.66
23	B	606	CLA	O2A-CGA-CBA	2.96	121.18	111.91
23	B	608	CLA	CHD-C4C-NC	2.96	128.86	124.20
23	b	608	CLA	CHD-C4C-NC	2.96	128.86	124.20
23	A	405	CLA	CHD-C4C-NC	2.95	128.86	124.20
23	a	405	CLA	CHD-C4C-NC	2.95	128.86	124.20
23	B	606	CLA	C1-C2-C3	-2.95	120.94	126.04
23	b	606	CLA	C1-C2-C3	-2.95	120.94	126.04
24	A	408	BCR	C7-C8-C9	-2.95	121.78	126.23
23	B	607	CLA	CHC-C1C-C2C	-2.95	118.54	126.73
23	b	607	CLA	CHC-C1C-C2C	-2.95	118.54	126.73
23	B	602	CLA	CHD-C4C-NC	2.95	128.85	124.20
23	B	614	CLA	CHD-C4C-NC	2.95	128.85	124.20
23	b	602	CLA	CHD-C4C-NC	2.95	128.85	124.20
23	b	614	CLA	CHD-C4C-NC	2.95	128.85	124.20
34	F	102	HEM	CHA-C4D-ND	2.95	128.01	124.37
23	c	504	CLA	CAC-C3C-C4C	2.95	128.63	124.81
23	B	615	CLA	CHC-C1C-C2C	-2.95	118.55	126.73
23	b	615	CLA	CHC-C1C-C2C	-2.95	118.55	126.73
23	B	615	CLA	CHD-C4C-NC	2.95	128.84	124.20
23	b	615	CLA	CHD-C4C-NC	2.94	128.84	124.20
26	D	406	PL9	C10-C9-C11	2.94	120.22	115.27
26	d	406	PL9	C10-C9-C11	2.94	120.22	115.27
23	B	606	CLA	CHC-C1C-C2C	-2.94	118.56	126.73
23	b	606	CLA	CHC-C1C-C2C	-2.94	118.56	126.73
23	D	404	CLA	CAC-C3C-C4C	2.94	128.62	124.81
23	d	404	CLA	CAC-C3C-C4C	2.94	128.62	124.81
23	B	612	CLA	CHD-C4C-NC	2.94	128.83	124.20
23	b	612	CLA	CHD-C4C-NC	2.94	128.83	124.20
23	a	405	CLA	C3B-C4B-NB	2.94	113.24	110.52
23	c	503	CLA	C4C-C3C-C2C	-2.93	102.62	106.90
24	b	620	BCR	C24-C23-C22	-2.93	121.80	126.23
23	B	621	CLA	CHC-C1C-C2C	-2.93	118.58	126.73
23	b	621	CLA	CHC-C1C-C2C	-2.93	118.58	126.73
24	a	408	BCR	C7-C8-C9	-2.93	121.81	126.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	B	611	CLA	O2A-CGA-CBA	2.93	121.11	111.91
23	b	611	CLA	O2A-CGA-CBA	2.93	121.11	111.91
34	f	102	HEM	CHA-C4D-ND	2.93	127.98	124.37
23	B	601	CLA	CHC-C1C-C2C	-2.93	118.60	126.73
23	b	601	CLA	CHC-C1C-C2C	-2.93	118.60	126.73
24	B	620	BCR	C24-C23-C22	-2.93	121.81	126.23
29	A	414	LHG	O8-C23-C24	2.92	121.09	111.91
29	a	414	LHG	O8-C23-C24	2.92	121.09	111.91
32	C	518	DGD	O1G-C1A-C2A	2.92	121.08	111.91
32	c	518	DGD	O1G-C1A-C2A	2.92	121.08	111.91
23	C	512	CLA	C3B-C4B-NB	2.92	113.23	110.52
23	b	611	CLA	C4C-C3C-C2C	-2.92	102.64	106.90
23	c	513	CLA	CAC-C3C-C4C	2.92	128.60	124.81
23	C	508	CLA	CAC-C3C-C4C	2.92	128.59	124.81
23	c	508	CLA	CAC-C3C-C4C	2.92	128.59	124.81
23	B	611	CLA	C4C-C3C-C2C	-2.92	102.65	106.90
23	D	404	CLA	CHC-C1C-C2C	-2.92	118.63	126.73
23	d	404	CLA	CHC-C1C-C2C	-2.92	118.63	126.73
23	C	513	CLA	CAC-C3C-C4C	2.91	128.59	124.81
23	C	503	CLA	C4C-C3C-C2C	-2.91	102.65	106.90
23	B	603	CLA	CHD-C4C-NC	2.91	128.79	124.20
23	b	603	CLA	CHD-C4C-NC	2.91	128.79	124.20
23	B	602	CLA	C4-C3-C5	2.91	120.17	115.27
23	b	602	CLA	C4-C3-C5	2.91	120.17	115.27
23	B	606	CLA	CAC-C3C-C4C	2.91	128.59	124.81
23	C	502	CLA	CHC-C1C-C2C	-2.91	118.65	126.73
23	c	502	CLA	CHC-C1C-C2C	-2.91	118.65	126.73
23	B	605	CLA	C3B-C4B-NB	2.91	113.21	110.52
23	b	605	CLA	C3B-C4B-NB	2.91	113.21	110.52
24	A	408	BCR	C33-C5-C6	-2.90	121.27	124.53
24	a	408	BCR	C33-C5-C6	-2.90	121.27	124.53
23	C	519	CLA	CHC-C1C-C2C	-2.90	118.67	126.73
23	c	519	CLA	CHC-C1C-C2C	-2.90	118.67	126.73
23	C	507	CLA	CMB-C2B-C1B	2.90	129.79	125.37
23	c	507	CLA	CMB-C2B-C1B	2.90	129.79	125.37
23	B	610	CLA	CHD-C4C-NC	2.90	128.78	124.20
23	b	610	CLA	CHD-C4C-NC	2.90	128.78	124.20
23	C	511	CLA	CAC-C3C-C4C	2.90	128.57	124.81
23	c	511	CLA	CAC-C3C-C4C	2.90	128.57	124.81
23	C	508	CLA	CHC-C1C-C2C	-2.90	118.67	126.73
23	c	512	CLA	C3B-C4B-NB	2.90	113.21	110.52
23	B	614	CLA	CAC-C3C-C4C	2.90	128.57	124.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	K	102	BCR	C38-C26-C25	-2.90	121.28	124.53
23	C	506	CLA	C3B-C4B-NB	2.90	113.20	110.52
23	c	506	CLA	C3B-C4B-NB	2.90	113.20	110.52
23	c	508	CLA	CHC-C1C-C2C	-2.89	118.69	126.73
23	C	509	CLA	CHC-C1C-C2C	-2.89	118.69	126.73
23	b	602	CLA	CHC-C1C-C2C	-2.89	118.69	126.73
23	c	509	CLA	CHC-C1C-C2C	-2.89	118.69	126.73
23	A	412	CLA	CHD-C4C-NC	2.89	128.76	124.20
23	a	412	CLA	CHD-C4C-NC	2.89	128.76	124.20
26	D	406	PL9	C12-C13-C14	-2.89	120.70	127.66
26	d	406	PL9	C12-C13-C14	-2.89	120.70	127.66
23	C	505	CLA	CHC-C1C-C2C	-2.89	118.70	126.73
23	c	505	CLA	CHC-C1C-C2C	-2.89	118.70	126.73
24	A	408	BCR	C24-C23-C22	-2.89	121.87	126.23
24	a	408	BCR	C24-C23-C22	-2.89	121.87	126.23
23	C	511	CLA	C4C-C3C-C2C	-2.89	102.69	106.90
23	c	511	CLA	C4C-C3C-C2C	-2.89	102.69	106.90
23	c	511	CLA	C3B-C4B-NB	2.89	113.19	110.52
23	b	606	CLA	CAC-C3C-C4C	2.89	128.56	124.81
23	B	601	CLA	CHD-C4C-NC	2.89	128.75	124.20
23	b	601	CLA	CHD-C4C-NC	2.89	128.75	124.20
23	B	614	CLA	CHC-C1C-C2C	-2.88	118.72	126.73
23	b	614	CLA	CHC-C1C-C2C	-2.88	118.72	126.73
26	D	406	PL9	C30-C29-C31	2.88	120.12	115.27
26	d	406	PL9	C30-C29-C31	2.88	120.12	115.27
23	B	612	CLA	C4C-C3C-C2C	-2.88	102.70	106.90
23	b	612	CLA	C4C-C3C-C2C	-2.88	102.70	106.90
24	k	102	BCR	C38-C26-C25	-2.88	121.29	124.53
23	C	506	CLA	CHD-C4C-NC	2.88	128.74	124.20
23	C	510	CLA	CHC-C1C-C2C	-2.88	118.73	126.73
23	c	510	CLA	CHC-C1C-C2C	-2.88	118.73	126.73
23	B	610	CLA	C4C-C3C-C2C	-2.88	102.70	106.90
23	b	610	CLA	C4C-C3C-C2C	-2.88	102.70	106.90
23	C	508	CLA	CHD-C4C-NC	2.88	128.74	124.20
23	C	509	CLA	O2A-CGA-CBA	2.88	120.94	111.91
23	c	509	CLA	O2A-CGA-CBA	2.88	120.94	111.91
23	B	602	CLA	CHC-C1C-C2C	-2.88	118.74	126.73
23	B	612	CLA	C4-C3-C5	2.88	120.11	115.27
23	b	612	CLA	C4-C3-C5	2.88	120.11	115.27
23	A	405	CLA	CHC-C1C-C2C	-2.88	118.74	126.73
23	A	406	CLA	CHC-C1C-C2C	-2.88	118.74	126.73
23	a	405	CLA	CHC-C1C-C2C	-2.88	118.74	126.73

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	a	406	CLA	CHC-C1C-C2C	-2.88	118.74	126.73
23	C	513	CLA	C3B-C4B-NB	2.87	113.18	110.52
23	c	513	CLA	C3B-C4B-NB	2.87	113.18	110.52
23	C	508	CLA	C4C-C3C-C2C	-2.87	102.71	106.90
23	c	508	CLA	C4C-C3C-C2C	-2.87	102.71	106.90
23	A	406	CLA	CAC-C3C-C4C	2.87	128.54	124.81
23	a	406	CLA	CAC-C3C-C4C	2.87	128.54	124.81
23	b	614	CLA	CAC-C3C-C4C	2.87	128.54	124.81
23	B	610	CLA	CHC-C1C-C2C	-2.87	118.76	126.73
23	b	610	CLA	CHC-C1C-C2C	-2.87	118.76	126.73
23	c	508	CLA	CHD-C4C-NC	2.87	128.73	124.20
23	C	507	CLA	CHC-C1C-C2C	-2.87	118.76	126.73
23	c	507	CLA	CHC-C1C-C2C	-2.87	118.76	126.73
23	C	511	CLA	C3B-C4B-NB	2.87	113.17	110.52
23	c	506	CLA	CHD-C4C-NC	2.86	128.71	124.20
23	c	504	CLA	CHC-C1C-C2C	-2.86	118.79	126.73
23	B	604	CLA	CHD-C4C-NC	2.86	128.71	124.20
23	b	604	CLA	CHD-C4C-NC	2.86	128.71	124.20
23	A	406	CLA	C3B-C4B-NB	2.86	113.17	110.52
23	a	406	CLA	C3B-C4B-NB	2.86	113.17	110.52
23	B	608	CLA	CHC-C1C-C2C	-2.85	118.80	126.73
23	b	608	CLA	CHC-C1C-C2C	-2.85	118.80	126.73
23	C	511	CLA	CHC-C1C-C2C	-2.85	118.80	126.73
23	c	511	CLA	CHC-C1C-C2C	-2.85	118.80	126.73
26	a	410	PL9	C42-C43-C44	-2.85	120.79	127.66
23	B	613	CLA	CHC-C1C-C2C	-2.85	118.80	126.73
23	C	509	CLA	CAC-C3C-C4C	2.85	128.51	124.81
23	c	509	CLA	CAC-C3C-C4C	2.85	128.51	124.81
23	C	504	CLA	C4C-C3C-C2C	-2.85	102.74	106.90
23	B	605	CLA	CMC-C2C-C1C	2.85	129.38	125.04
23	b	605	CLA	CMC-C2C-C1C	2.85	129.38	125.04
23	D	404	CLA	CHD-C4C-NC	2.85	128.70	124.20
23	B	607	CLA	CMB-C2B-C1B	2.85	129.71	125.37
23	b	607	CLA	CMB-C2B-C1B	2.85	129.71	125.37
23	d	404	CLA	CHD-C4C-NC	2.85	128.70	124.20
23	B	607	CLA	CHD-C4C-NC	2.85	128.69	124.20
23	b	607	CLA	CHD-C4C-NC	2.85	128.69	124.20
23	B	613	CLA	CHD-C4C-NC	2.85	128.69	124.20
23	b	613	CLA	CHD-C4C-NC	2.85	128.69	124.20
23	C	504	CLA	CHC-C1C-C2C	-2.85	118.82	126.73
23	C	502	CLA	CHD-C4C-NC	2.85	128.69	124.20
23	c	502	CLA	CHD-C4C-NC	2.85	128.69	124.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	C	507	CLA	C1-C2-C3	-2.84	121.13	126.04
23	c	507	CLA	C1-C2-C3	-2.84	121.13	126.04
23	C	512	CLA	CHC-C1C-C2C	-2.84	118.84	126.73
23	c	512	CLA	CHC-C1C-C2C	-2.84	118.84	126.73
23	b	613	CLA	CHC-C1C-C2C	-2.84	118.84	126.73
23	A	406	CLA	CHD-C4C-NC	2.84	128.68	124.20
23	a	406	CLA	CHD-C4C-NC	2.84	128.68	124.20
26	A	410	PL9	C42-C43-C44	-2.84	120.83	127.66
23	C	519	CLA	CHD-C4C-NC	2.83	128.66	124.20
23	c	519	CLA	CHD-C4C-NC	2.83	128.66	124.20
23	B	607	CLA	O2A-CGA-CBA	2.83	120.79	111.91
23	b	607	CLA	O2A-CGA-CBA	2.83	120.79	111.91
23	C	509	CLA	C4-C3-C5	2.83	120.03	115.27
23	c	509	CLA	C4-C3-C5	2.83	120.03	115.27
23	c	504	CLA	C4C-C3C-C2C	-2.83	102.77	106.90
33	D	402	PHO	CMB-C2B-C3B	2.83	129.97	124.68
33	d	402	PHO	CMB-C2B-C3B	2.83	129.97	124.68
33	D	401	PHO	O1D-CGD-CBD	-2.83	120.03	124.74
37	x	101	RRX	C19-C18-C17	2.83	123.28	118.94
23	C	505	CLA	CHD-C4C-NC	2.82	128.65	124.20
23	c	505	CLA	CHD-C4C-NC	2.82	128.65	124.20
24	B	620	BCR	C29-C30-C25	2.82	114.83	110.48
24	b	620	BCR	C29-C30-C25	2.82	114.83	110.48
23	C	504	CLA	C1-C2-C3	-2.82	121.16	126.04
23	c	504	CLA	C1-C2-C3	-2.82	121.16	126.04
23	C	506	CLA	CAC-C3C-C4C	2.82	128.47	124.81
23	c	506	CLA	CAC-C3C-C4C	2.82	128.47	124.81
33	d	401	PHO	O1D-CGD-CBD	-2.82	120.05	124.74
23	C	511	CLA	O2A-CGA-CBA	2.82	120.75	111.91
23	c	511	CLA	O2A-CGA-CBA	2.82	120.75	111.91
23	C	512	CLA	O2D-CGD-O1D	-2.82	118.33	123.84
23	c	512	CLA	O2D-CGD-O1D	-2.82	118.33	123.84
23	c	513	CLA	C4C-C3C-C2C	-2.81	102.80	106.90
23	C	509	CLA	CHD-C4C-NC	2.81	128.64	124.20
23	c	509	CLA	CHD-C4C-NC	2.81	128.64	124.20
23	D	403	CLA	C4-C3-C5	2.81	120.00	115.27
23	B	601	CLA	CAC-C3C-C4C	2.81	128.46	124.81
23	C	513	CLA	CHC-C1C-C2C	-2.81	118.92	126.73
23	c	513	CLA	CHC-C1C-C2C	-2.81	118.92	126.73
24	C	520	BCR	C15-C16-C17	-2.81	117.72	123.47
24	c	520	BCR	C15-C16-C17	-2.81	117.72	123.47
23	C	505	CLA	C4C-C3C-C2C	-2.81	102.80	106.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	C	513	CLA	C4C-C3C-C2C	-2.81	102.80	106.90
23	c	505	CLA	C4C-C3C-C2C	-2.81	102.80	106.90
23	A	405	CLA	CAA-C2A-C3A	-2.81	105.09	112.78
23	a	405	CLA	CAA-C2A-C3A	-2.81	105.09	112.78
23	C	503	CLA	CHD-C4C-NC	2.81	128.63	124.20
23	c	503	CLA	CHD-C4C-NC	2.81	128.63	124.20
23	C	507	CLA	C4-C3-C5	2.81	119.99	115.27
23	c	507	CLA	C4-C3-C5	2.81	119.99	115.27
37	X	101	RRX	C19-C18-C17	2.81	123.25	118.94
23	b	611	CLA	CHC-C1C-C2C	-2.81	118.94	126.73
26	D	406	PL9	C45-C44-C46	2.80	119.99	115.27
26	d	406	PL9	C45-C44-C46	2.80	119.99	115.27
23	B	603	CLA	CMB-C2B-C1B	2.80	129.64	125.37
23	b	603	CLA	CMB-C2B-C1B	2.80	129.64	125.37
30	B	618	LMG	O8-C28-C29	2.80	120.70	111.91
30	b	618	LMG	O8-C28-C29	2.80	120.70	111.91
23	B	603	CLA	C3B-C4B-NB	2.80	113.11	110.52
23	b	603	CLA	C3B-C4B-NB	2.80	113.11	110.52
23	b	601	CLA	CAC-C3C-C4C	2.80	128.44	124.81
23	d	403	CLA	C4-C3-C5	2.79	119.97	115.27
23	c	510	CLA	O2A-CGA-CBA	2.79	120.67	111.91
23	B	606	CLA	CHD-C4C-NC	2.79	128.60	124.20
23	b	606	CLA	CHD-C4C-NC	2.79	128.60	124.20
24	A	408	BCR	C3-C4-C5	-2.79	109.09	114.08
24	a	408	BCR	C3-C4-C5	-2.79	109.09	114.08
23	C	502	CLA	O2A-CGA-CBA	2.79	120.67	111.91
23	c	502	CLA	O2A-CGA-CBA	2.79	120.67	111.91
23	B	603	CLA	C4-C3-C5	2.79	119.96	115.27
23	b	603	CLA	C4-C3-C5	2.79	119.96	115.27
23	C	506	CLA	C4C-C3C-C2C	-2.79	102.83	106.90
23	c	506	CLA	C4C-C3C-C2C	-2.79	102.83	106.90
23	B	611	CLA	CHC-C1C-C2C	-2.79	118.99	126.73
23	B	613	CLA	C4C-C3C-C2C	-2.79	102.83	106.90
23	b	613	CLA	C4C-C3C-C2C	-2.79	102.83	106.90
26	D	406	PL9	C32-C33-C34	-2.79	120.95	127.66
26	d	406	PL9	C32-C33-C34	-2.79	120.95	127.66
23	C	510	CLA	O2A-CGA-CBA	2.78	120.65	111.91
23	A	407	CLA	CHC-C1C-C2C	-2.78	119.00	126.73
23	a	407	CLA	CHC-C1C-C2C	-2.78	119.00	126.73
23	B	606	CLA	C4C-C3C-C2C	-2.78	102.84	106.90
23	C	513	CLA	CHD-C4C-NC	2.78	128.59	124.20
23	c	513	CLA	CHD-C4C-NC	2.78	128.59	124.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	B	603	CLA	CAC-C3C-C4C	2.78	128.42	124.81
23	b	603	CLA	CAC-C3C-C4C	2.78	128.42	124.81
23	B	607	CLA	CAC-C3C-C4C	2.78	128.42	124.81
23	b	607	CLA	CAC-C3C-C4C	2.78	128.42	124.81
23	B	603	CLA	C4C-C3C-C2C	-2.78	102.85	106.90
23	b	603	CLA	C4C-C3C-C2C	-2.78	102.85	106.90
23	B	609	CLA	CMB-C2B-C1B	2.78	129.60	125.37
23	b	609	CLA	CMB-C2B-C1B	2.78	129.60	125.37
23	C	504	CLA	CHD-C4C-NC	2.78	128.58	124.20
23	c	504	CLA	CHD-C4C-NC	2.78	128.58	124.20
23	B	603	CLA	CHC-C1C-C2C	-2.78	119.02	126.73
23	b	603	CLA	CHC-C1C-C2C	-2.78	119.02	126.73
23	B	611	CLA	C3B-C4B-NB	2.78	113.09	110.52
23	b	611	CLA	C3B-C4B-NB	2.78	113.09	110.52
36	V	201	HEC	C4A-NA-C1A	2.78	108.07	105.35
36	v	201	HEC	C4A-NA-C1A	2.78	108.07	105.35
23	B	612	CLA	CHC-C1C-C2C	-2.78	119.02	126.73
23	b	612	CLA	CHC-C1C-C2C	-2.78	119.02	126.73
26	D	406	PL9	C25-C24-C26	2.77	119.94	115.27
26	d	406	PL9	C25-C24-C26	2.77	119.94	115.27
23	A	407	CLA	C3B-C4B-NB	2.77	113.09	110.52
23	a	407	CLA	C3B-C4B-NB	2.77	113.09	110.52
26	D	406	PL9	C53-C6-C1	2.77	120.66	114.99
26	d	406	PL9	C53-C6-C1	2.77	120.66	114.99
23	B	602	CLA	CAC-C3C-C4C	2.77	128.41	124.81
23	b	602	CLA	CAC-C3C-C4C	2.77	128.41	124.81
23	B	601	CLA	C4C-C3C-C2C	-2.77	102.86	106.90
23	b	601	CLA	C4C-C3C-C2C	-2.77	102.86	106.90
37	x	101	RRX	C16-C15-C14	2.77	129.15	123.47
23	C	509	CLA	C4C-C3C-C2C	-2.77	102.86	106.90
23	c	509	CLA	C4C-C3C-C2C	-2.77	102.86	106.90
23	B	614	CLA	C4C-C3C-C2C	-2.77	102.86	106.90
23	D	404	CLA	C4C-C3C-C2C	-2.77	102.86	106.90
23	b	614	CLA	C4C-C3C-C2C	-2.77	102.86	106.90
23	d	404	CLA	C4C-C3C-C2C	-2.77	102.86	106.90
37	X	101	RRX	C16-C15-C14	2.77	129.14	123.47
32	c	516	DGD	O1G-C1A-C2A	2.77	120.59	111.91
24	B	616	BCR	C28-C27-C26	-2.77	109.14	114.08
24	b	616	BCR	C28-C27-C26	-2.77	109.14	114.08
23	D	403	CLA	C4C-C3C-C2C	-2.76	102.87	106.90
23	d	403	CLA	C4C-C3C-C2C	-2.76	102.87	106.90
23	B	605	CLA	CMB-C2B-C1B	2.76	129.58	125.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	b	605	CLA	CMB-C2B-C1B	2.76	129.58	125.37
23	B	605	CLA	C4C-C3C-C2C	-2.76	102.87	106.90
23	b	605	CLA	C4C-C3C-C2C	-2.76	102.87	106.90
23	b	606	CLA	C4C-C3C-C2C	-2.76	102.87	106.90
23	B	602	CLA	CMB-C2B-C1B	2.76	129.57	125.37
32	C	516	DGD	O1G-C1A-C2A	2.76	120.57	111.91
23	D	403	CLA	CBC-CAC-C3C	-2.76	104.83	112.43
23	d	403	CLA	CBC-CAC-C3C	-2.76	104.83	112.43
23	b	613	CLA	O2D-CGD-O1D	-2.75	118.45	123.84
24	d	405	BCR	C28-C27-C26	-2.75	109.16	114.08
23	B	613	CLA	O2D-CGD-O1D	-2.75	118.46	123.84
23	C	512	CLA	C4C-C3C-C2C	-2.75	102.89	106.90
23	c	512	CLA	C4C-C3C-C2C	-2.75	102.89	106.90
24	b	620	BCR	C7-C8-C9	-2.75	122.08	126.23
23	B	608	CLA	CAC-C3C-C4C	2.75	128.37	124.81
23	b	608	CLA	CAC-C3C-C4C	2.75	128.37	124.81
26	D	406	PL9	C27-C28-C29	-2.75	121.05	127.66
26	d	406	PL9	C27-C28-C29	-2.75	121.05	127.66
23	B	602	CLA	O2D-CGD-O1D	-2.74	118.47	123.84
23	b	602	CLA	O2D-CGD-O1D	-2.74	118.47	123.84
24	D	405	BCR	C28-C27-C26	-2.74	109.18	114.08
23	B	602	CLA	C4C-C3C-C2C	-2.74	102.90	106.90
23	A	412	CLA	CAA-C2A-C3A	-2.74	105.28	112.78
23	a	412	CLA	CAA-C2A-C3A	-2.74	105.28	112.78
23	b	602	CLA	CMB-C2B-C1B	2.73	129.53	125.37
23	B	621	CLA	C4C-C3C-C2C	-2.73	102.91	106.90
23	b	621	CLA	C4C-C3C-C2C	-2.73	102.91	106.90
26	A	410	PL9	C30-C29-C31	2.73	119.86	115.27
26	a	410	PL9	C30-C29-C31	2.73	119.86	115.27
24	B	620	BCR	C7-C8-C9	-2.73	122.11	126.23
23	B	604	CLA	C4C-C3C-C2C	-2.73	102.92	106.90
23	b	604	CLA	C4C-C3C-C2C	-2.73	102.92	106.90
23	A	407	CLA	C4C-C3C-C2C	-2.73	102.92	106.90
23	a	407	CLA	C4C-C3C-C2C	-2.73	102.92	106.90
23	D	403	CLA	CHC-C1C-C2C	-2.73	119.16	126.73
23	d	403	CLA	CHC-C1C-C2C	-2.73	119.16	126.73
23	B	611	CLA	CMB-C2B-C1B	2.73	129.52	125.37
23	b	611	CLA	CMB-C2B-C1B	2.73	129.52	125.37
26	A	410	PL9	C45-C44-C46	2.72	119.85	115.27
23	B	621	CLA	C4-C3-C5	2.72	119.85	115.27
23	b	621	CLA	C4-C3-C5	2.72	119.85	115.27
23	B	605	CLA	CHC-C1C-C2C	-2.72	119.17	126.73

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	b	605	CLA	CHC-C1C-C2C	-2.72	119.17	126.73
23	B	605	CLA	O2A-CGA-CBA	2.72	120.44	111.91
23	b	605	CLA	O2A-CGA-CBA	2.72	120.44	111.91
23	A	406	CLA	C4C-C3C-C2C	-2.72	102.94	106.90
23	a	406	CLA	C4C-C3C-C2C	-2.72	102.94	106.90
23	b	602	CLA	C4C-C3C-C2C	-2.72	102.94	106.90
23	B	605	CLA	CAC-C3C-C4C	2.72	128.34	124.81
23	b	605	CLA	CAC-C3C-C4C	2.72	128.34	124.81
29	B	622	LHG	O8-C23-C24	2.71	120.43	111.91
29	b	622	LHG	O8-C23-C24	2.71	120.43	111.91
23	C	504	CLA	O2A-CGA-CBA	2.71	120.42	111.91
23	c	504	CLA	O2A-CGA-CBA	2.71	120.42	111.91
23	B	606	CLA	C4-C3-C5	2.71	119.83	115.27
23	b	606	CLA	C4-C3-C5	2.71	119.83	115.27
24	B	616	BCR	C20-C21-C22	-2.71	123.44	127.31
24	b	616	BCR	C20-C21-C22	-2.71	123.44	127.31
23	C	508	CLA	C4-C3-C5	2.71	119.83	115.27
26	a	410	PL9	C45-C44-C46	2.71	119.83	115.27
23	B	607	CLA	C4C-C3C-C2C	-2.71	102.95	106.90
23	b	607	CLA	C4C-C3C-C2C	-2.71	102.95	106.90
23	c	512	CLA	CMB-C2B-C1B	2.71	129.49	125.37
23	C	512	CLA	C1-C2-C3	-2.70	121.36	126.04
23	c	512	CLA	C1-C2-C3	-2.70	121.36	126.04
23	B	602	CLA	C3B-C4B-NB	2.70	113.02	110.52
23	B	609	CLA	C4-C3-C5	2.70	119.82	115.27
23	b	609	CLA	C4-C3-C5	2.70	119.82	115.27
23	A	407	CLA	CMB-C2B-C1B	2.70	129.48	125.37
23	a	407	CLA	CMB-C2B-C1B	2.70	129.48	125.37
23	B	612	CLA	CAC-C3C-C4C	2.69	128.31	124.81
23	b	612	CLA	CAC-C3C-C4C	2.69	128.31	124.81
23	A	405	CLA	C4C-C3C-C2C	-2.69	102.97	106.90
23	a	405	CLA	C4C-C3C-C2C	-2.69	102.97	106.90
23	C	508	CLA	O2A-CGA-CBA	2.69	120.36	111.91
23	c	508	CLA	O2A-CGA-CBA	2.69	120.36	111.91
23	A	405	CLA	O2A-CGA-CBA	2.69	120.35	111.91
23	D	403	CLA	O2A-CGA-CBA	2.69	120.35	111.91
23	d	403	CLA	O2A-CGA-CBA	2.69	120.35	111.91
23	B	602	CLA	C1-C2-C3	-2.69	121.39	126.04
23	b	602	CLA	C1-C2-C3	-2.69	121.39	126.04
23	C	511	CLA	C4-C3-C5	2.69	119.80	115.27
23	c	508	CLA	C4-C3-C5	2.69	119.79	115.27
26	d	406	PL9	C17-C18-C19	-2.69	121.19	127.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	B	614	CLA	CMB-C2B-C1B	2.69	129.46	125.37
23	A	407	CLA	CAC-C3C-C4C	2.69	128.29	124.81
23	a	407	CLA	CAC-C3C-C4C	2.69	128.29	124.81
23	A	407	CLA	O2A-CGA-CBA	2.68	120.33	111.91
23	a	407	CLA	O2A-CGA-CBA	2.68	120.33	111.91
23	a	405	CLA	O2A-CGA-CBA	2.68	120.33	111.91
23	C	512	CLA	CMB-C2B-C1B	2.68	129.45	125.37
23	D	403	CLA	CMC-C2C-C1C	2.68	129.12	125.04
23	d	403	CLA	CMC-C2C-C1C	2.68	129.12	125.04
33	D	401	PHO	C1-C2-C3	-2.68	121.41	126.04
33	d	401	PHO	C1-C2-C3	-2.68	121.41	126.04
26	D	406	PL9	C17-C18-C19	-2.68	121.21	127.66
23	c	511	CLA	C4-C3-C5	2.68	119.77	115.27
23	C	513	CLA	CMB-C2B-C1B	2.67	129.44	125.37
23	c	513	CLA	CMB-C2B-C1B	2.67	129.44	125.37
23	B	608	CLA	C4C-C3C-C2C	-2.67	103.00	106.90
23	b	608	CLA	C4C-C3C-C2C	-2.67	103.00	106.90
23	C	519	CLA	C4C-C3C-C2C	-2.67	103.00	106.90
23	c	519	CLA	C4C-C3C-C2C	-2.67	103.00	106.90
23	B	612	CLA	C3B-C4B-NB	2.67	112.99	110.52
23	b	612	CLA	C3B-C4B-NB	2.67	112.99	110.52
25	A	409	SQD	C45-O47-C7	-2.67	111.22	117.79
25	a	409	SQD	C45-O47-C7	-2.67	111.22	117.79
37	x	101	RRX	C12-C13-C14	2.67	123.04	118.94
26	A	410	PL9	C25-C24-C26	2.66	119.75	115.27
26	a	410	PL9	C25-C24-C26	2.66	119.75	115.27
23	A	405	CLA	CMC-C2C-C1C	2.66	129.10	125.04
23	B	612	CLA	CMB-C2B-C1B	2.66	129.43	125.37
23	b	612	CLA	CMB-C2B-C1B	2.66	129.43	125.37
23	A	406	CLA	C4-C3-C5	2.66	119.75	115.27
23	a	406	CLA	C4-C3-C5	2.66	119.75	115.27
23	C	510	CLA	CMB-C2B-C1B	2.66	129.43	125.37
23	c	510	CLA	CMB-C2B-C1B	2.66	129.43	125.37
23	C	507	CLA	C4C-C3C-C2C	-2.66	103.02	106.90
23	c	507	CLA	C4C-C3C-C2C	-2.66	103.02	106.90
23	A	405	CLA	CMB-C2B-C1B	2.66	129.42	125.37
23	b	614	CLA	CMB-C2B-C1B	2.66	129.42	125.37
23	C	507	CLA	C3B-C4B-NB	2.66	112.98	110.52
23	b	602	CLA	C3B-C4B-NB	2.66	112.98	110.52
37	X	101	RRX	C12-C13-C14	2.66	123.02	118.94
26	D	406	PL9	C22-C23-C24	-2.66	121.26	127.66
25	A	409	SQD	O48-C23-C24	2.66	120.25	111.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	a	409	SQD	O48-C23-C24	2.66	120.25	111.91
23	a	405	CLA	CMB-C2B-C1B	2.65	129.41	125.37
29	L	101	LHG	C5-O7-C7	-2.65	111.26	117.79
29	l	101	LHG	C5-O7-C7	-2.65	111.26	117.79
29	D	407	LHG	O8-C23-C24	2.65	120.23	111.91
29	d	407	LHG	O8-C23-C24	2.65	120.23	111.91
26	d	406	PL9	C22-C23-C24	-2.65	121.28	127.66
23	C	502	CLA	C4C-C3C-C2C	-2.65	103.03	106.90
23	c	502	CLA	C4C-C3C-C2C	-2.65	103.03	106.90
24	T	102	BCR	C11-C10-C9	-2.65	123.53	127.31
26	a	410	PL9	C53-C6-C1	2.65	120.40	114.99
36	V	201	HEC	C2A-C1A-NA	-2.65	107.75	110.32
36	v	201	HEC	C2A-C1A-NA	-2.65	107.75	110.32
26	A	410	PL9	C53-C6-C1	2.64	120.39	114.99
23	a	405	CLA	CMC-C2C-C1C	2.64	129.06	125.04
30	C	501	LMG	C8-O7-C10	-2.64	111.29	117.79
30	c	501	LMG	C8-O7-C10	-2.64	111.29	117.79
23	c	512	CLA	C4-C3-C5	2.64	119.71	115.27
23	B	609	CLA	C4C-C3C-C2C	-2.64	103.05	106.90
23	c	507	CLA	C3B-C4B-NB	2.64	112.96	110.52
23	B	613	CLA	O2A-CGA-CBA	2.64	120.18	111.91
23	b	613	CLA	O2A-CGA-CBA	2.64	120.18	111.91
24	C	514	BCR	C20-C21-C22	-2.64	123.55	127.31
24	c	514	BCR	C20-C21-C22	-2.64	123.55	127.31
24	t	102	BCR	C11-C10-C9	-2.63	123.55	127.31
23	b	601	CLA	CMB-C2B-C1B	2.63	129.38	125.37
23	A	412	CLA	C4-C3-C5	2.63	119.69	115.27
23	C	512	CLA	C4-C3-C5	2.63	119.69	115.27
23	a	412	CLA	C4-C3-C5	2.63	119.69	115.27
33	D	402	PHO	C4-C3-C5	2.63	119.69	115.27
33	d	402	PHO	C4-C3-C5	2.63	119.69	115.27
23	C	503	CLA	O2A-CGA-CBA	2.62	120.14	111.91
23	c	503	CLA	O2A-CGA-CBA	2.62	120.14	111.91
23	A	412	CLA	C4C-C3C-C2C	-2.62	103.07	106.90
23	a	412	CLA	C4C-C3C-C2C	-2.62	103.07	106.90
32	H	101	DGD	O1G-C1A-C2A	2.62	120.12	111.91
32	h	101	DGD	O1G-C1A-C2A	2.62	120.12	111.91
23	b	608	CLA	CMB-C2B-C1B	2.62	129.35	125.37
23	b	604	CLA	O2D-CGD-O1D	-2.61	118.73	123.84
23	b	609	CLA	C4C-C3C-C2C	-2.61	103.09	106.90
24	k	102	BCR	C8-C7-C6	-2.61	119.86	127.20
23	B	609	CLA	CMC-C2C-C1C	2.61	129.02	125.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	B	601	CLA	CMB-C2B-C1B	2.61	129.34	125.37
23	B	601	CLA	O2D-CGD-O1D	-2.61	118.74	123.84
23	b	601	CLA	O2D-CGD-O1D	-2.61	118.74	123.84
23	b	609	CLA	CMC-C2C-C1C	2.61	129.01	125.04
23	C	510	CLA	C4C-C3C-C2C	-2.60	103.10	106.90
23	c	510	CLA	C4C-C3C-C2C	-2.60	103.10	106.90
23	A	407	CLA	CAA-C2A-C3A	-2.60	105.65	112.78
23	a	407	CLA	CAA-C2A-C3A	-2.60	105.65	112.78
26	a	410	PL9	C20-C19-C21	2.60	119.65	115.27
23	C	505	CLA	O2D-CGD-O1D	-2.60	118.75	123.84
23	c	505	CLA	O2D-CGD-O1D	-2.60	118.75	123.84
23	B	603	CLA	CAA-C2A-C3A	-2.60	105.66	112.78
23	b	603	CLA	CAA-C2A-C3A	-2.60	105.66	112.78
24	K	102	BCR	C8-C7-C6	-2.60	119.90	127.20
23	B	608	CLA	O2A-CGA-CBA	2.60	120.06	111.91
23	b	608	CLA	O2A-CGA-CBA	2.60	120.06	111.91
23	C	505	CLA	O2A-CGA-CBA	2.60	120.06	111.91
23	c	505	CLA	O2A-CGA-CBA	2.60	120.06	111.91
26	A	410	PL9	C15-C14-C16	2.60	119.64	115.27
26	a	410	PL9	C15-C14-C16	2.60	119.64	115.27
23	B	612	CLA	O2D-CGD-O1D	-2.60	118.76	123.84
23	B	604	CLA	O2D-CGD-O1D	-2.60	118.76	123.84
23	B	608	CLA	CMB-C2B-C1B	2.59	129.32	125.37
23	B	621	CLA	O2A-CGA-CBA	2.59	120.05	111.91
23	b	621	CLA	O2A-CGA-CBA	2.59	120.05	111.91
23	C	504	CLA	CMB-C2B-C1B	2.59	129.32	125.37
23	c	504	CLA	CMB-C2B-C1B	2.59	129.32	125.37
23	C	505	CLA	CMB-C2B-C1B	2.59	129.32	125.37
23	c	505	CLA	CMB-C2B-C1B	2.59	129.32	125.37
25	f	101	SQD	O7-S-C6	2.59	110.02	106.94
24	C	514	BCR	C15-C16-C17	-2.59	118.17	123.47
24	c	514	BCR	C15-C16-C17	-2.59	118.17	123.47
23	C	507	CLA	CBC-CAC-C3C	-2.59	105.29	112.43
23	c	507	CLA	CBC-CAC-C3C	-2.59	105.29	112.43
23	B	605	CLA	C4-C3-C5	2.59	119.63	115.27
24	K	103	BCR	C15-C16-C17	-2.59	118.17	123.47
24	k	103	BCR	C15-C16-C17	-2.59	118.17	123.47
29	L	101	LHG	O8-C23-C24	2.59	120.03	111.91
29	l	101	LHG	O8-C23-C24	2.59	120.03	111.91
23	b	605	CLA	C4-C3-C5	2.59	119.62	115.27
29	D	407	LHG	C5-O7-C7	-2.58	111.43	117.79
29	d	407	LHG	C5-O7-C7	-2.58	111.43	117.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	A	410	PL9	C20-C19-C21	2.58	119.61	115.27
23	b	612	CLA	O2D-CGD-O1D	-2.58	118.79	123.84
37	X	101	RRX	C8-C9-C10	2.58	122.90	118.94
23	B	613	CLA	CMC-C2C-C1C	2.58	128.96	125.04
23	b	613	CLA	CMC-C2C-C1C	2.58	128.96	125.04
36	V	201	HEC	C4B-NB-C1B	2.58	107.73	105.07
36	v	201	HEC	C4B-NB-C1B	2.58	107.73	105.07
26	A	410	PL9	C27-C28-C29	-2.58	121.46	127.66
26	a	410	PL9	C27-C28-C29	-2.58	121.46	127.66
23	D	403	CLA	CAA-C2A-C3A	-2.58	105.72	112.78
23	d	403	CLA	CAA-C2A-C3A	-2.58	105.73	112.78
26	D	406	PL9	C35-C34-C36	2.58	119.60	115.27
26	d	406	PL9	C35-C34-C36	2.58	119.60	115.27
23	B	612	CLA	O2A-CGA-CBA	2.57	119.99	111.91
23	c	519	CLA	CMB-C2B-C1B	2.57	129.29	125.37
30	J	101	LMG	C8-O7-C10	-2.57	111.45	117.79
23	C	506	CLA	CMB-C2B-C1B	2.57	129.28	125.37
23	c	506	CLA	CMB-C2B-C1B	2.57	129.28	125.37
26	A	410	PL9	C40-C39-C41	2.57	119.59	115.27
26	a	410	PL9	C40-C39-C41	2.57	119.59	115.27
24	C	514	BCR	C21-C20-C19	-2.57	115.21	123.22
24	c	514	BCR	C21-C20-C19	-2.57	115.21	123.22
23	c	510	CLA	C4-C3-C5	2.57	119.59	115.27
30	j	101	LMG	C8-O7-C10	-2.57	111.47	117.79
23	C	504	CLA	C4-C3-C5	2.57	119.59	115.27
23	c	504	CLA	C4-C3-C5	2.57	119.59	115.27
23	b	612	CLA	O2A-CGA-CBA	2.56	119.96	111.91
23	B	609	CLA	CBC-CAC-C3C	-2.56	105.36	112.43
23	b	609	CLA	CBC-CAC-C3C	-2.56	105.36	112.43
25	F	101	SQD	O7-S-C6	2.56	109.98	106.94
23	B	601	CLA	CAA-C2A-C3A	-2.56	107.87	114.26
23	b	601	CLA	CAA-C2A-C3A	-2.56	107.87	114.26
23	B	608	CLA	C4-C3-C5	2.56	119.57	115.27
23	b	608	CLA	C4-C3-C5	2.56	119.57	115.27
23	C	510	CLA	C4-C3-C5	2.55	119.57	115.27
33	D	401	PHO	CMB-C2B-C3B	2.55	129.45	124.68
33	d	401	PHO	CMB-C2B-C3B	2.55	129.45	124.68
23	C	519	CLA	CMB-C2B-C1B	2.55	129.25	125.37
23	B	607	CLA	C4-C3-C5	2.55	119.56	115.27
23	b	607	CLA	C4-C3-C5	2.55	119.56	115.27
23	C	510	CLA	CBC-CAC-C3C	-2.55	105.40	112.43
23	C	508	CLA	O2D-CGD-O1D	-2.55	118.85	123.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	c	508	CLA	O2D-CGD-O1D	-2.55	118.85	123.84
23	B	602	CLA	O2A-CGA-CBA	2.55	119.91	111.91
23	b	602	CLA	O2A-CGA-CBA	2.55	119.91	111.91
37	x	101	RRX	C8-C9-C10	2.55	122.85	118.94
23	c	510	CLA	CBC-CAC-C3C	-2.55	105.41	112.43
23	C	502	CLA	CMB-C2B-C1B	2.54	129.24	125.37
23	c	502	CLA	CMB-C2B-C1B	2.54	129.24	125.37
23	B	621	CLA	CAC-C3C-C4C	2.54	128.11	124.81
23	b	621	CLA	CAC-C3C-C4C	2.54	128.11	124.81
33	d	402	PHO	O2A-CGA-CBA	2.54	119.88	111.91
33	D	402	PHO	O2A-CGA-CBA	2.54	119.88	111.91
24	T	102	BCR	C10-C11-C12	-2.54	115.29	123.22
24	t	102	BCR	C10-C11-C12	-2.54	115.29	123.22
23	C	503	CLA	C4-C3-C5	2.54	119.54	115.27
23	c	503	CLA	C4-C3-C5	2.54	119.54	115.27
23	C	507	CLA	O2D-CGD-O1D	-2.53	118.89	123.84
23	c	507	CLA	O2D-CGD-O1D	-2.53	118.89	123.84
26	A	410	PL9	C22-C23-C24	-2.53	121.57	127.66
26	a	410	PL9	C22-C23-C24	-2.53	121.57	127.66
23	B	608	CLA	CBC-CAC-C3C	-2.53	105.46	112.43
23	b	608	CLA	CBC-CAC-C3C	-2.53	105.46	112.43
23	C	512	CLA	CBC-CAC-C3C	-2.52	105.47	112.43
23	c	512	CLA	CBC-CAC-C3C	-2.52	105.47	112.43
23	C	509	CLA	O2D-CGD-O1D	-2.52	118.90	123.84
23	c	509	CLA	O2D-CGD-O1D	-2.52	118.90	123.84
23	D	404	CLA	CMB-C2B-C1B	2.52	129.21	125.37
23	d	404	CLA	CMB-C2B-C1B	2.52	129.21	125.37
23	b	607	CLA	CBC-CAC-C3C	-2.52	105.48	112.43
23	B	610	CLA	C4-C3-C5	2.52	119.51	115.27
23	b	610	CLA	C4-C3-C5	2.52	119.51	115.27
23	b	611	CLA	CMC-C2C-C1C	2.52	128.87	125.04
23	B	607	CLA	CBC-CAC-C3C	-2.52	105.50	112.43
23	B	606	CLA	O2D-CGD-O1D	-2.52	118.92	123.84
23	C	519	CLA	O2D-CGD-O1D	-2.52	118.92	123.84
23	b	606	CLA	O2D-CGD-O1D	-2.52	118.92	123.84
23	c	519	CLA	O2D-CGD-O1D	-2.52	118.92	123.84
23	B	603	CLA	O2D-CGD-O1D	-2.51	118.93	123.84
23	b	603	CLA	O2D-CGD-O1D	-2.51	118.93	123.84
23	b	606	CLA	CMB-C2B-C1B	2.51	129.19	125.37
23	b	601	CLA	CMC-C2C-C1C	2.51	128.86	125.04
24	K	103	BCR	C2-C1-C6	2.51	114.34	110.48
24	k	103	BCR	C2-C1-C6	2.51	114.34	110.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	C	501	LMG	O8-C28-C29	2.50	119.77	111.91
30	c	501	LMG	O8-C28-C29	2.50	119.77	111.91
26	D	406	PL9	C42-C43-C44	-2.50	121.63	127.66
26	d	406	PL9	C42-C43-C44	-2.50	121.63	127.66
23	B	605	CLA	C2A-C1A-CHA	-2.50	119.48	123.86
23	b	605	CLA	C2A-C1A-CHA	-2.50	119.48	123.86
24	K	102	BCR	C21-C20-C19	-2.50	115.41	123.22
24	k	102	BCR	C21-C20-C19	-2.50	115.41	123.22
23	B	615	CLA	CMB-C2B-C1B	2.50	129.18	125.37
23	b	615	CLA	CMB-C2B-C1B	2.50	129.18	125.37
23	A	412	CLA	CAC-C3C-C4C	2.50	128.06	124.81
23	a	412	CLA	CAC-C3C-C4C	2.50	128.06	124.81
23	A	406	CLA	O2A-CGA-CBA	2.50	119.75	111.91
23	a	406	CLA	O2A-CGA-CBA	2.50	119.75	111.91
23	B	612	CLA	CMC-C2C-C1C	2.50	128.84	125.04
23	b	612	CLA	CMC-C2C-C1C	2.50	128.84	125.04
33	D	401	PHO	O2D-CGD-O1D	-2.50	118.95	123.84
23	b	614	CLA	CMC-C2C-C1C	2.50	128.84	125.04
23	B	610	CLA	CMB-C2B-C1B	2.50	129.17	125.37
23	b	610	CLA	CMB-C2B-C1B	2.50	129.17	125.37
23	B	611	CLA	CMC-C2C-C1C	2.49	128.84	125.04
24	C	514	BCR	C24-C23-C22	-2.49	122.47	126.23
24	c	514	BCR	C24-C23-C22	-2.49	122.47	126.23
23	B	601	CLA	CMC-C2C-C1C	2.49	128.83	125.04
24	T	102	BCR	C15-C14-C13	-2.49	123.75	127.31
24	t	102	BCR	C15-C14-C13	-2.49	123.75	127.31
24	B	617	BCR	C20-C21-C22	-2.49	123.76	127.31
24	b	617	BCR	C20-C21-C22	-2.49	123.76	127.31
23	C	502	CLA	CBC-CAC-C3C	-2.49	105.57	112.43
23	c	502	CLA	CBC-CAC-C3C	-2.49	105.57	112.43
23	B	606	CLA	CMB-C2B-C1B	2.49	129.16	125.37
33	d	401	PHO	O2D-CGD-O1D	-2.49	118.98	123.84
23	C	507	CLA	O2A-CGA-CBA	2.48	119.71	111.91
23	c	507	CLA	O2A-CGA-CBA	2.48	119.71	111.91
23	B	608	CLA	CMC-C2C-C1C	2.48	128.82	125.04
23	b	608	CLA	CMC-C2C-C1C	2.48	128.82	125.04
23	c	504	CLA	CMC-C2C-C1C	2.48	128.82	125.04
23	B	602	CLA	CAA-C2A-C3A	-2.48	105.98	112.78
23	b	602	CLA	CAA-C2A-C3A	-2.48	105.98	112.78
23	B	614	CLA	CMC-C2C-C1C	2.48	128.82	125.04
23	A	412	CLA	CMB-C2B-C1B	2.48	129.14	125.37
23	B	621	CLA	CBC-CAC-C3C	-2.48	105.60	112.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	b	621	CLA	CBC-CAC-C3C	-2.48	105.60	112.43
23	C	512	CLA	CMC-C2C-C1C	2.48	128.81	125.04
23	c	512	CLA	CMC-C2C-C1C	2.48	128.81	125.04
23	C	504	CLA	O2D-CGD-O1D	-2.48	119.00	123.84
23	c	504	CLA	O2D-CGD-O1D	-2.48	119.00	123.84
23	A	412	CLA	CBC-CAC-C3C	-2.48	105.61	112.43
23	a	412	CLA	CBC-CAC-C3C	-2.48	105.61	112.43
26	A	410	PL9	C35-C34-C36	2.47	119.43	115.27
26	a	410	PL9	C35-C34-C36	2.47	119.43	115.27
23	a	412	CLA	CMB-C2B-C1B	2.47	129.14	125.37
23	C	505	CLA	CMC-C2C-C1C	2.47	128.80	125.04
23	c	505	CLA	CMC-C2C-C1C	2.47	128.80	125.04
23	A	405	CLA	C4-C3-C5	2.47	119.43	115.27
23	a	405	CLA	C4-C3-C5	2.47	119.43	115.27
23	B	603	CLA	CMC-C2C-C1C	2.47	128.80	125.04
23	b	603	CLA	CMC-C2C-C1C	2.47	128.80	125.04
23	D	403	CLA	C2A-C1A-CHA	-2.46	119.55	123.86
23	d	403	CLA	C2A-C1A-CHA	-2.46	119.55	123.86
23	B	613	CLA	C4-C3-C5	2.46	119.41	115.27
23	b	613	CLA	C4-C3-C5	2.46	119.41	115.27
29	B	622	LHG	C5-O7-C7	-2.46	111.73	117.79
23	C	504	CLA	CMC-C2C-C1C	2.46	128.78	125.04
23	B	612	CLA	C2A-C1A-CHA	-2.46	119.56	123.86
23	b	612	CLA	C2A-C1A-CHA	-2.46	119.56	123.86
23	B	614	CLA	C4-C3-C5	2.46	119.41	115.27
23	b	614	CLA	C4-C3-C5	2.46	119.41	115.27
24	K	102	BCR	C16-C15-C14	-2.46	118.44	123.47
24	k	102	BCR	C16-C15-C14	-2.46	118.44	123.47
23	B	604	CLA	CMC-C2C-C1C	2.46	128.78	125.04
23	b	604	CLA	CMC-C2C-C1C	2.46	128.78	125.04
23	C	512	CLA	CAC-C3C-C4C	2.46	128.00	124.81
23	c	512	CLA	CAC-C3C-C4C	2.46	128.00	124.81
24	c	520	BCR	C29-C30-C25	2.45	114.25	110.48
24	C	514	BCR	C38-C26-C25	-2.45	121.78	124.53
24	c	514	BCR	C38-C26-C25	-2.45	121.78	124.53
23	B	604	CLA	O1D-CGD-CBD	-2.45	119.47	124.48
23	b	604	CLA	O1D-CGD-CBD	-2.45	119.47	124.48
29	b	622	LHG	C5-O7-C7	-2.45	111.76	117.79
23	C	502	CLA	C4-C3-C5	2.45	119.39	115.27
23	A	406	CLA	CMB-C2B-C1B	2.45	129.09	125.37
23	B	613	CLA	CBC-CAC-C3C	-2.44	105.69	112.43
23	b	613	CLA	CBC-CAC-C3C	-2.44	105.69	112.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	A	407	CLA	CMC-C2C-C1C	2.44	128.75	125.04
23	a	407	CLA	CMC-C2C-C1C	2.44	128.75	125.04
24	C	520	BCR	C29-C30-C25	2.44	114.24	110.48
24	K	102	BCR	C28-C27-C26	-2.44	109.72	114.08
24	k	102	BCR	C28-C27-C26	-2.44	109.72	114.08
23	c	510	CLA	CMC-C2C-C1C	2.44	128.75	125.04
33	D	402	PHO	O1D-CGD-CBD	-2.44	120.68	124.74
33	d	402	PHO	O1D-CGD-CBD	-2.44	120.68	124.74
23	b	615	CLA	O2D-CGD-O1D	-2.44	119.08	123.84
23	C	513	CLA	CAA-C2A-C3A	-2.43	108.18	114.26
23	c	513	CLA	CAA-C2A-C3A	-2.43	108.18	114.26
24	C	520	BCR	C33-C5-C6	-2.43	121.80	124.53
24	c	520	BCR	C33-C5-C6	-2.43	121.80	124.53
23	A	412	CLA	O2A-CGA-CBA	2.43	119.53	111.91
30	C	501	LMG	O6-C5-C4	2.43	114.10	109.69
30	c	501	LMG	O6-C5-C4	2.43	114.10	109.69
24	B	620	BCR	C2-C1-C6	2.43	114.22	110.48
24	b	620	BCR	C2-C1-C6	2.43	114.22	110.48
23	C	505	CLA	CBC-CAC-C3C	-2.43	105.74	112.43
23	c	505	CLA	CBC-CAC-C3C	-2.43	105.74	112.43
23	c	502	CLA	C4-C3-C5	2.43	119.35	115.27
32	C	516	DGD	C2G-O2G-C1B	-2.43	111.82	117.79
32	c	516	DGD	C2G-O2G-C1B	-2.43	111.82	117.79
23	C	510	CLA	CMC-C2C-C1C	2.43	128.73	125.04
23	a	412	CLA	O2A-CGA-CBA	2.43	119.52	111.91
33	D	402	PHO	CMA-C3A-C4A	-2.42	109.07	114.38
33	d	402	PHO	CMA-C3A-C4A	-2.42	109.07	114.38
23	B	615	CLA	O2D-CGD-O1D	-2.42	119.10	123.84
23	B	621	CLA	CMC-C2C-C1C	2.42	128.73	125.04
23	b	621	CLA	CMC-C2C-C1C	2.42	128.73	125.04
23	a	406	CLA	CMB-C2B-C1B	2.42	129.06	125.37
23	C	505	CLA	C4-C3-C5	2.42	119.35	115.27
23	c	505	CLA	C4-C3-C5	2.42	119.35	115.27
26	D	406	PL9	C40-C39-C41	2.42	119.35	115.27
26	d	406	PL9	C40-C39-C41	2.42	119.35	115.27
23	C	503	CLA	O2D-CGD-O1D	-2.42	119.11	123.84
23	c	503	CLA	O2D-CGD-O1D	-2.42	119.11	123.84
37	x	101	RRX	C23-C22-C21	2.42	122.65	118.94
23	A	406	CLA	CAA-C2A-C3A	-2.42	106.15	112.78
23	B	607	CLA	CAA-C2A-C3A	-2.42	106.16	112.78
23	b	604	CLA	CAA-CBA-CGA	-2.42	106.19	113.25
24	k	102	BCR	C10-C11-C12	-2.41	115.68	123.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	C	507	CLA	CMC-C2C-C1C	2.41	128.72	125.04
23	c	507	CLA	CMC-C2C-C1C	2.41	128.72	125.04
23	b	607	CLA	CAA-C2A-C3A	-2.41	106.17	112.78
24	K	102	BCR	C10-C11-C12	-2.41	115.69	123.22
32	C	515	DGD	C2G-O2G-C1B	-2.41	111.85	117.79
32	c	515	DGD	C2G-O2G-C1B	-2.41	111.85	117.79
23	A	407	CLA	C2A-C1A-CHA	-2.41	119.64	123.86
23	a	407	CLA	C2A-C1A-CHA	-2.41	119.64	123.86
23	C	513	CLA	CMC-C2C-C1C	2.41	128.71	125.04
23	c	513	CLA	CMC-C2C-C1C	2.41	128.71	125.04
23	a	406	CLA	CAA-C2A-C3A	-2.41	106.18	112.78
23	C	519	CLA	O2A-CGA-CBA	2.41	119.46	111.91
23	c	519	CLA	O2A-CGA-CBA	2.41	119.46	111.91
24	K	103	BCR	C10-C11-C12	-2.41	115.71	123.22
24	k	103	BCR	C10-C11-C12	-2.41	115.71	123.22
23	B	604	CLA	CAA-CBA-CGA	-2.41	106.22	113.25
24	k	102	BCR	C11-C10-C9	-2.40	123.88	127.31
23	A	406	CLA	C2A-C1A-CHA	-2.40	119.66	123.86
23	a	406	CLA	C2A-C1A-CHA	-2.40	119.66	123.86
26	D	406	PL9	C51-C49-C50	2.40	119.91	114.60
26	d	406	PL9	C51-C49-C50	2.40	119.91	114.60
24	K	102	BCR	C11-C10-C9	-2.40	123.88	127.31
23	c	511	CLA	CMC-C2C-C1C	2.40	128.69	125.04
24	c	514	BCR	C8-C7-C6	-2.40	120.47	127.20
23	D	404	CLA	CBC-CAC-C3C	-2.40	105.82	112.43
23	d	404	CLA	CBC-CAC-C3C	-2.40	105.82	112.43
23	C	502	CLA	O2D-CGD-O1D	-2.40	119.15	123.84
24	t	102	BCR	C3-C4-C5	-2.40	109.80	114.08
23	C	502	CLA	CMC-C2C-C1C	2.40	128.69	125.04
23	c	502	CLA	CMC-C2C-C1C	2.40	128.69	125.04
24	T	102	BCR	C3-C4-C5	-2.40	109.80	114.08
33	D	402	PHO	O2D-CGD-O1D	-2.39	119.17	123.84
33	d	402	PHO	O2D-CGD-O1D	-2.39	119.17	123.84
24	K	103	BCR	C28-C27-C26	-2.39	109.81	114.08
24	k	103	BCR	C28-C27-C26	-2.39	109.81	114.08
23	B	614	CLA	O2A-CGA-CBA	2.39	119.40	111.91
24	K	102	BCR	C23-C24-C25	-2.39	120.50	127.20
24	k	102	BCR	C23-C24-C25	-2.39	120.50	127.20
24	C	514	BCR	C8-C7-C6	-2.39	120.50	127.20
37	X	101	RRX	C23-C22-C21	2.38	122.60	118.94
24	B	616	BCR	C23-C24-C25	-2.38	120.52	127.20
24	b	616	BCR	C23-C24-C25	-2.38	120.52	127.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	c	502	CLA	O2D-CGD-O1D	-2.38	119.18	123.84
23	C	510	CLA	CAC-C3C-C4C	2.38	127.90	124.81
23	c	510	CLA	CAC-C3C-C4C	2.38	127.90	124.81
23	B	610	CLA	CMC-C2C-C1C	2.38	128.66	125.04
23	b	610	CLA	CMC-C2C-C1C	2.38	128.66	125.04
26	A	410	PL9	C12-C13-C14	-2.38	121.93	127.66
26	a	410	PL9	C12-C13-C14	-2.38	121.93	127.66
23	b	614	CLA	O2A-CGA-CBA	2.38	119.37	111.91
23	C	511	CLA	CMC-C2C-C1C	2.38	128.66	125.04
23	B	601	CLA	CBC-CAC-C3C	-2.38	105.88	112.43
23	B	607	CLA	O2D-CGD-O1D	-2.38	119.19	123.84
23	b	607	CLA	O2D-CGD-O1D	-2.38	119.19	123.84
23	C	519	CLA	C2A-C1A-CHA	-2.38	119.71	123.86
23	C	519	CLA	CMC-C2C-C1C	2.37	128.66	125.04
23	c	519	CLA	CMC-C2C-C1C	2.37	128.66	125.04
23	D	404	CLA	CMC-C2C-C1C	2.37	128.65	125.04
23	d	404	CLA	CMC-C2C-C1C	2.37	128.65	125.04
23	B	605	CLA	CBC-CAC-C3C	-2.37	105.89	112.43
23	b	605	CLA	CBC-CAC-C3C	-2.37	105.89	112.43
23	c	519	CLA	C2A-C1A-CHA	-2.37	119.71	123.86
23	b	601	CLA	CBC-CAC-C3C	-2.37	105.90	112.43
24	C	520	BCR	C2-C1-C6	2.37	114.13	110.48
24	c	520	BCR	C2-C1-C6	2.37	114.13	110.48
33	D	401	PHO	CMA-C3A-C4A	-2.37	109.19	114.38
33	d	401	PHO	CMA-C3A-C4A	-2.37	109.19	114.38
23	A	406	CLA	CBC-CAC-C3C	-2.37	105.91	112.43
23	a	406	CLA	CBC-CAC-C3C	-2.37	105.91	112.43
32	C	515	DGD	O1G-C1A-C2A	2.36	119.32	111.91
32	c	515	DGD	O1G-C1A-C2A	2.36	119.32	111.91
26	A	410	PL9	C51-C49-C50	2.36	119.82	114.60
26	a	410	PL9	C51-C49-C50	2.36	119.82	114.60
23	b	606	CLA	O2A-CGA-O1A	-2.36	117.63	123.59
23	B	613	CLA	CMB-C2B-C1B	2.36	128.96	125.37
23	b	613	CLA	CMB-C2B-C1B	2.36	128.96	125.37
23	A	407	CLA	O2D-CGD-O1D	-2.36	119.22	123.84
23	a	407	CLA	O2D-CGD-O1D	-2.36	119.22	123.84
24	K	103	BCR	C29-C30-C25	2.36	114.11	110.48
24	T	102	BCR	C8-C7-C6	-2.36	120.58	127.20
23	C	519	CLA	C4-C3-C5	2.35	119.23	115.27
24	C	514	BCR	C28-C27-C26	-2.35	109.88	114.08
24	c	514	BCR	C28-C27-C26	-2.35	109.88	114.08
23	A	407	CLA	CBC-CAC-C3C	-2.35	105.95	112.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	a	407	CLA	CBC-CAC-C3C	-2.35	105.95	112.43
24	K	102	BCR	C24-C23-C22	-2.35	122.68	126.23
24	k	102	BCR	C24-C23-C22	-2.35	122.68	126.23
24	k	103	BCR	C29-C30-C25	2.35	114.09	110.48
23	C	509	CLA	CBC-CAC-C3C	-2.35	105.96	112.43
23	c	509	CLA	CBC-CAC-C3C	-2.35	105.96	112.43
23	B	606	CLA	O2A-CGA-O1A	-2.35	117.67	123.59
23	A	412	CLA	O2D-CGD-O1D	-2.35	119.25	123.84
24	t	102	BCR	C8-C7-C6	-2.34	120.62	127.20
23	c	519	CLA	C4-C3-C5	2.34	119.21	115.27
23	C	505	CLA	C2A-C1A-CHA	-2.34	119.77	123.86
23	c	505	CLA	C2A-C1A-CHA	-2.34	119.77	123.86
23	b	611	CLA	CBC-CAC-C3C	-2.34	105.98	112.43
25	A	409	SQD	O9-S-C6	2.34	109.72	106.94
25	a	409	SQD	O9-S-C6	2.34	109.72	106.94
23	B	605	CLA	O2D-CGD-O1D	-2.33	119.28	123.84
23	b	605	CLA	O2D-CGD-O1D	-2.33	119.28	123.84
24	T	102	BCR	C7-C8-C9	-2.33	122.71	126.23
24	t	102	BCR	C7-C8-C9	-2.33	122.71	126.23
23	C	509	CLA	CMC-C2C-C1C	2.33	128.59	125.04
23	c	509	CLA	CMC-C2C-C1C	2.33	128.59	125.04
23	C	513	CLA	O2D-CGD-O1D	-2.33	119.28	123.84
23	c	513	CLA	O2D-CGD-O1D	-2.33	119.28	123.84
23	B	603	CLA	O1D-CGD-CBD	-2.33	119.71	124.48
23	b	603	CLA	O1D-CGD-CBD	-2.33	119.71	124.48
23	B	611	CLA	CBC-CAC-C3C	-2.33	106.00	112.43
23	C	512	CLA	O1D-CGD-CBD	-2.33	119.72	124.48
23	c	512	CLA	O1D-CGD-CBD	-2.33	119.72	124.48
29	A	415	LHG	C5-O7-C7	-2.33	112.06	117.79
29	a	415	LHG	C5-O7-C7	-2.33	112.06	117.79
23	B	608	CLA	O2D-CGD-O1D	-2.33	119.29	123.84
23	b	608	CLA	O2D-CGD-O1D	-2.33	119.29	123.84
23	A	405	CLA	C2A-C1A-CHA	-2.33	119.79	123.86
23	a	405	CLA	C2A-C1A-CHA	-2.33	119.79	123.86
23	a	412	CLA	O2D-CGD-O1D	-2.33	119.29	123.84
24	B	620	BCR	C15-C16-C17	-2.33	118.71	123.47
24	b	620	BCR	C15-C16-C17	-2.33	118.71	123.47
23	C	510	CLA	CAA-C2A-C3A	-2.32	106.41	112.78
23	c	510	CLA	CAA-C2A-C3A	-2.32	106.41	112.78
23	B	606	CLA	CMC-C2C-C1C	2.32	128.57	125.04
23	b	606	CLA	CMC-C2C-C1C	2.32	128.57	125.04
23	D	403	CLA	CAC-C3C-C4C	2.32	127.82	124.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	d	403	CLA	CAC-C3C-C4C	2.32	127.82	124.81
24	K	102	BCR	C37-C22-C23	2.32	121.73	118.08
24	k	102	BCR	C37-C22-C23	2.32	121.73	118.08
23	C	510	CLA	O2D-CGD-O1D	-2.32	119.30	123.84
23	c	510	CLA	O2D-CGD-O1D	-2.32	119.30	123.84
23	C	519	CLA	CBC-CAC-C3C	-2.32	106.04	112.43
23	c	519	CLA	CBC-CAC-C3C	-2.32	106.04	112.43
23	C	502	CLA	C2A-C1A-CHA	-2.32	119.81	123.86
23	c	502	CLA	C2A-C1A-CHA	-2.32	119.81	123.86
23	C	513	CLA	C2A-C1A-CHA	-2.31	119.81	123.86
23	c	513	CLA	C2A-C1A-CHA	-2.31	119.81	123.86
23	B	610	CLA	O2D-CGD-O1D	-2.31	119.32	123.84
23	b	610	CLA	O2D-CGD-O1D	-2.31	119.32	123.84
23	C	506	CLA	CBC-CAC-C3C	-2.31	106.06	112.43
23	c	506	CLA	CBC-CAC-C3C	-2.31	106.06	112.43
23	C	511	CLA	CBC-CAC-C3C	-2.31	106.06	112.43
23	c	511	CLA	CBC-CAC-C3C	-2.31	106.06	112.43
23	D	404	CLA	O2D-CGD-O1D	-2.31	119.33	123.84
23	d	404	CLA	O2D-CGD-O1D	-2.31	119.33	123.84
23	B	615	CLA	CBC-CAC-C3C	-2.31	106.07	112.43
23	b	615	CLA	CBC-CAC-C3C	-2.31	106.07	112.43
23	b	614	CLA	CBC-CAC-C3C	-2.30	106.08	112.43
23	B	606	CLA	CBC-CAC-C3C	-2.30	106.09	112.43
23	B	614	CLA	CBC-CAC-C3C	-2.30	106.09	112.43
23	b	606	CLA	CBC-CAC-C3C	-2.30	106.09	112.43
23	C	503	CLA	CBC-CAC-C3C	-2.30	106.09	112.43
23	c	503	CLA	CBC-CAC-C3C	-2.30	106.09	112.43
23	B	602	CLA	CMC-C2C-C1C	2.30	128.54	125.04
23	B	603	CLA	CBC-CAC-C3C	-2.30	106.09	112.43
23	b	603	CLA	CBC-CAC-C3C	-2.30	106.09	112.43
23	C	512	CLA	O2A-CGA-CBA	2.30	119.12	111.91
23	c	512	CLA	O2A-CGA-CBA	2.30	119.12	111.91
32	C	518	DGD	C2G-O2G-C1B	-2.30	112.13	117.79
23	B	611	CLA	C2A-C1A-CHA	-2.30	119.84	123.86
23	b	611	CLA	C2A-C1A-CHA	-2.30	119.84	123.86
25	f	101	SQD	O8-S-C6	2.30	109.40	105.74
23	C	513	CLA	CBC-CAC-C3C	-2.29	106.11	112.43
23	c	513	CLA	CBC-CAC-C3C	-2.29	106.11	112.43
36	V	201	HEC	C4C-NC-C1C	2.29	107.59	105.35
36	v	201	HEC	C4C-NC-C1C	2.29	107.59	105.35
23	b	602	CLA	CMC-C2C-C1C	2.29	128.53	125.04
24	c	514	BCR	C33-C5-C4	2.29	118.01	113.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	C	514	BCR	C33-C5-C4	2.29	118.01	113.62
32	c	518	DGD	C2G-O2G-C1B	-2.29	112.16	117.79
25	F	101	SQD	O8-S-C6	2.28	109.38	105.74
24	B	617	BCR	C7-C8-C9	-2.28	122.79	126.23
24	b	617	BCR	C7-C8-C9	-2.28	122.79	126.23
24	c	520	BCR	C38-C26-C27	2.28	118.00	113.62
23	C	508	CLA	C2A-C1A-CHA	-2.28	119.88	123.86
23	c	508	CLA	C2A-C1A-CHA	-2.28	119.88	123.86
24	C	520	BCR	C38-C26-C27	2.27	117.99	113.62
23	D	404	CLA	C2A-C1A-CHA	-2.27	119.89	123.86
23	d	404	CLA	C2A-C1A-CHA	-2.27	119.89	123.86
23	B	606	CLA	CAA-C2A-C3A	-2.27	106.57	112.78
23	C	509	CLA	C1-C2-C3	-2.26	122.13	126.04
23	b	606	CLA	CAA-C2A-C3A	-2.26	106.59	112.78
23	B	606	CLA	C2A-C1A-CHA	-2.26	119.91	123.86
23	b	606	CLA	C2A-C1A-CHA	-2.26	119.91	123.86
34	f	102	HEM	CHA-C1A-NA	2.26	128.00	123.85
23	c	506	CLA	CMC-C2C-C1C	2.26	128.48	125.04
34	F	102	HEM	CHA-C1A-NA	2.26	128.00	123.85
24	T	102	BCR	C20-C19-C18	-2.26	120.08	126.42
24	t	102	BCR	C20-C19-C18	-2.26	120.08	126.42
23	b	607	CLA	CMC-C2C-C1C	2.25	128.47	125.04
23	a	406	CLA	O2D-CGD-O1D	-2.25	119.43	123.84
23	c	509	CLA	C1-C2-C3	-2.25	122.15	126.04
23	C	506	CLA	CMC-C2C-C1C	2.25	128.47	125.04
24	B	616	BCR	C29-C30-C25	2.25	113.94	110.48
24	b	616	BCR	C29-C30-C25	2.25	113.94	110.48
30	J	101	LMG	O8-C28-C29	2.25	118.96	111.91
30	j	101	LMG	O8-C28-C29	2.25	118.96	111.91
23	b	604	CLA	O2A-CGA-O1A	-2.25	117.92	123.59
23	B	607	CLA	CMC-C2C-C1C	2.25	128.46	125.04
23	B	614	CLA	O2D-CGD-O1D	-2.24	119.46	123.84
23	b	614	CLA	O2D-CGD-O1D	-2.24	119.46	123.84
23	B	602	CLA	C2A-C1A-CHA	-2.24	119.94	123.86
23	b	602	CLA	C2A-C1A-CHA	-2.24	119.94	123.86
23	C	507	CLA	CAC-C3C-C4C	2.24	127.72	124.81
23	c	507	CLA	CAC-C3C-C4C	2.24	127.72	124.81
23	A	406	CLA	O2D-CGD-O1D	-2.24	119.46	123.84
24	T	102	BCR	C27-C26-C25	-2.24	119.48	122.73
24	t	102	BCR	C27-C26-C25	-2.24	119.48	122.73
23	B	615	CLA	C2A-C1A-CHA	-2.24	119.95	123.86
23	b	615	CLA	C2A-C1A-CHA	-2.24	119.95	123.86

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	C	506	CLA	C2A-C1A-CHA	-2.23	119.95	123.86
23	c	506	CLA	C2A-C1A-CHA	-2.23	119.95	123.86
23	B	604	CLA	O2A-CGA-O1A	-2.23	117.96	123.59
23	C	508	CLA	CBC-CAC-C3C	-2.23	106.28	112.43
23	c	508	CLA	CBC-CAC-C3C	-2.23	106.28	112.43
23	C	512	CLA	C2A-C1A-CHA	-2.23	119.96	123.86
23	c	512	CLA	C2A-C1A-CHA	-2.23	119.96	123.86
23	C	505	CLA	CMD-C2D-C3D	-2.23	122.49	127.61
23	c	505	CLA	CMD-C2D-C3D	-2.23	122.49	127.61
24	B	620	BCR	C33-C5-C6	-2.23	122.03	124.53
24	b	620	BCR	C33-C5-C6	-2.23	122.03	124.53
24	T	102	BCR	C36-C18-C17	-2.22	119.82	122.92
24	t	102	BCR	C36-C18-C17	-2.22	119.82	122.92
24	C	520	BCR	C21-C20-C19	-2.21	116.31	123.22
24	c	520	BCR	C21-C20-C19	-2.21	116.31	123.22
23	c	509	CLA	CHB-C1B-NB	-2.21	121.91	124.26
24	B	617	BCR	C21-C20-C19	-2.21	116.32	123.22
24	b	617	BCR	C21-C20-C19	-2.21	116.32	123.22
23	B	607	CLA	C2A-C1A-CHA	-2.20	120.00	123.86
23	b	607	CLA	C2A-C1A-CHA	-2.20	120.00	123.86
23	C	509	CLA	CHB-C4A-NA	2.20	127.56	124.51
23	c	509	CLA	CHB-C4A-NA	2.20	127.56	124.51
23	B	604	CLA	C4-C3-C5	2.20	118.97	115.27
23	b	604	CLA	C4-C3-C5	2.20	118.97	115.27
23	B	608	CLA	C2A-C1A-CHA	-2.20	120.01	123.86
23	b	608	CLA	C2A-C1A-CHA	-2.20	120.01	123.86
23	B	609	CLA	O2D-CGD-O1D	-2.20	119.54	123.84
23	b	609	CLA	O2D-CGD-O1D	-2.20	119.54	123.84
24	C	520	BCR	C37-C22-C23	2.20	121.54	118.08
24	c	520	BCR	C37-C22-C23	2.20	121.54	118.08
24	C	514	BCR	C23-C24-C25	-2.20	121.03	127.20
24	c	514	BCR	C23-C24-C25	-2.20	121.03	127.20
23	B	610	CLA	CBC-CAC-C3C	-2.19	106.39	112.43
23	b	610	CLA	CBC-CAC-C3C	-2.19	106.39	112.43
23	c	506	CLA	O2D-CGD-O1D	-2.19	119.56	123.84
24	A	408	BCR	C15-C16-C17	-2.19	118.99	123.47
24	a	408	BCR	C15-C16-C17	-2.19	118.99	123.47
23	C	509	CLA	CHB-C1B-NB	-2.19	121.94	124.26
23	B	613	CLA	CHB-C4A-NA	2.19	127.53	124.51
23	b	613	CLA	CHB-C4A-NA	2.19	127.53	124.51
23	B	610	CLA	C2A-C1A-CHA	-2.18	120.04	123.86
23	b	610	CLA	C2A-C1A-CHA	-2.18	120.04	123.86

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	B	603	CLA	O2A-CGA-O1A	-2.18	118.09	123.59
23	b	603	CLA	O2A-CGA-O1A	-2.18	118.09	123.59
23	B	621	CLA	CMB-C2B-C1B	2.18	128.69	125.37
23	b	621	CLA	CMB-C2B-C1B	2.18	128.69	125.37
23	B	612	CLA	CBC-CAC-C3C	-2.18	106.42	112.43
23	b	612	CLA	CBC-CAC-C3C	-2.18	106.42	112.43
23	C	506	CLA	O2D-CGD-O1D	-2.18	119.58	123.84
24	B	617	BCR	C2-C1-C6	2.18	113.83	110.48
24	b	617	BCR	C2-C1-C6	2.18	113.83	110.48
23	D	403	CLA	CED-O2D-CGD	2.17	120.86	115.94
23	d	403	CLA	CED-O2D-CGD	2.17	120.86	115.94
23	C	504	CLA	CBC-CAC-C3C	-2.17	106.44	112.43
23	c	504	CLA	CBC-CAC-C3C	-2.17	106.44	112.43
23	B	613	CLA	C2A-C1A-CHA	-2.17	120.06	123.86
24	K	103	BCR	C33-C5-C4	2.17	117.78	113.62
24	k	103	BCR	C33-C5-C4	2.17	117.78	113.62
23	A	412	CLA	C2A-C1A-CHA	-2.17	120.07	123.86
23	B	621	CLA	CHB-C1B-NB	-2.16	121.97	124.26
23	b	621	CLA	CHB-C1B-NB	-2.16	121.97	124.26
23	B	611	CLA	O2D-CGD-O1D	-2.16	119.61	123.84
23	b	611	CLA	O2D-CGD-O1D	-2.16	119.61	123.84
33	D	401	PHO	C6-C5-C3	-2.16	107.79	113.45
33	d	401	PHO	C6-C5-C3	-2.16	107.79	113.45
26	D	406	PL9	C7-C3-C2	-2.16	120.47	123.30
26	d	406	PL9	C7-C3-C2	-2.16	120.47	123.30
33	D	402	PHO	C6-C5-C3	-2.15	107.81	113.45
33	d	402	PHO	C6-C5-C3	-2.15	107.81	113.45
23	C	503	CLA	C2A-C1A-CHA	-2.15	120.09	123.86
23	c	503	CLA	C2A-C1A-CHA	-2.15	120.09	123.86
23	b	613	CLA	C2A-C1A-CHA	-2.15	120.10	123.86
23	A	406	CLA	CMC-C2C-C1C	2.15	128.31	125.04
23	a	406	CLA	CMC-C2C-C1C	2.15	128.31	125.04
24	b	617	BCR	C10-C11-C12	-2.15	116.51	123.22
30	C	501	LMG	O7-C10-O9	-2.15	118.51	123.70
30	c	501	LMG	O7-C10-O9	-2.15	118.51	123.70
23	A	405	CLA	CBC-CAC-C3C	-2.15	106.51	112.43
23	a	405	CLA	CBC-CAC-C3C	-2.15	106.51	112.43
24	B	616	BCR	C38-C26-C25	-2.15	122.11	124.53
24	b	616	BCR	C38-C26-C25	-2.15	122.11	124.53
24	T	102	BCR	C29-C30-C25	2.15	113.79	110.48
24	t	102	BCR	C29-C30-C25	2.15	113.79	110.48
23	a	412	CLA	C2A-C1A-CHA	-2.15	120.11	123.86

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	K	103	BCR	C4-C5-C6	-2.15	119.61	122.73
24	c	520	BCR	C27-C26-C25	-2.15	119.61	122.73
24	k	103	BCR	C4-C5-C6	-2.15	119.61	122.73
23	B	602	CLA	CBC-CAC-C3C	-2.15	106.52	112.43
23	b	602	CLA	CBC-CAC-C3C	-2.15	106.52	112.43
23	C	519	CLA	CHB-C4A-NA	2.14	127.48	124.51
23	c	519	CLA	CHB-C4A-NA	2.14	127.48	124.51
24	B	617	BCR	C10-C11-C12	-2.14	116.52	123.22
24	t	102	BCR	C33-C5-C6	-2.14	122.12	124.53
23	B	606	CLA	CHB-C4A-NA	2.14	127.47	124.51
24	b	616	BCR	C8-C7-C6	-2.14	121.20	127.20
24	C	520	BCR	C27-C26-C25	-2.14	119.63	122.73
24	T	102	BCR	C33-C5-C6	-2.14	122.13	124.53
23	C	511	CLA	O2D-CGD-O1D	-2.14	119.66	123.84
23	c	511	CLA	O2D-CGD-O1D	-2.14	119.66	123.84
23	B	610	CLA	CAA-C2A-C3A	-2.14	106.93	112.78
24	C	520	BCR	C34-C9-C8	2.13	121.44	118.08
24	c	520	BCR	C34-C9-C8	2.13	121.44	118.08
23	B	607	CLA	CHB-C4A-NA	2.13	127.45	124.51
23	b	607	CLA	CHB-C4A-NA	2.13	127.45	124.51
24	A	408	BCR	C28-C27-C26	-2.13	110.28	114.08
25	A	409	SQD	O47-C7-O49	-2.13	118.56	123.70
25	a	409	SQD	O47-C7-O49	-2.13	118.56	123.70
24	B	616	BCR	C8-C7-C6	-2.13	121.23	127.20
23	B	602	CLA	CHB-C4A-NA	2.13	127.45	124.51
23	b	602	CLA	CHB-C4A-NA	2.13	127.45	124.51
24	D	405	BCR	C16-C15-C14	-2.12	119.12	123.47
24	d	405	BCR	C16-C15-C14	-2.12	119.12	123.47
23	B	614	CLA	CHB-C4A-NA	2.12	127.45	124.51
23	b	614	CLA	CHB-C4A-NA	2.12	127.45	124.51
23	B	603	CLA	C2A-C1A-CHA	-2.12	120.15	123.86
23	b	603	CLA	C2A-C1A-CHA	-2.12	120.15	123.86
32	C	516	DGD	O1G-C1A-O1A	-2.12	118.24	123.59
32	c	516	DGD	O1G-C1A-O1A	-2.12	118.24	123.59
24	A	408	BCR	C23-C24-C25	-2.12	121.25	127.20
24	a	408	BCR	C23-C24-C25	-2.12	121.25	127.20
23	B	614	CLA	O2A-CGA-O1A	-2.12	118.25	123.59
23	b	606	CLA	CHB-C4A-NA	2.12	127.44	124.51
23	b	610	CLA	CAA-C2A-C3A	-2.12	106.98	112.78
30	J	101	LMG	O6-C5-C4	2.11	113.53	109.69
23	B	603	CLA	C1-C2-C3	-2.11	122.39	126.04
24	C	514	BCR	C2-C1-C6	2.11	113.73	110.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	c	514	BCR	C2-C1-C6	2.11	113.73	110.48
24	B	617	BCR	C8-C7-C6	-2.11	121.27	127.20
24	b	617	BCR	C8-C7-C6	-2.11	121.27	127.20
24	C	520	BCR	C10-C11-C12	-2.11	116.63	123.22
24	c	520	BCR	C10-C11-C12	-2.11	116.63	123.22
23	C	512	CLA	CHB-C4A-NA	2.11	127.43	124.51
23	c	512	CLA	CHB-C4A-NA	2.11	127.43	124.51
23	a	407	CLA	CHB-C4A-NA	2.11	127.43	124.51
23	C	510	CLA	C2A-C1A-CHA	-2.11	120.17	123.86
23	c	510	CLA	C2A-C1A-CHA	-2.11	120.17	123.86
23	A	407	CLA	CHB-C4A-NA	2.11	127.43	124.51
23	b	614	CLA	O2A-CGA-O1A	-2.11	118.27	123.59
23	D	403	CLA	O2D-CGD-O1D	-2.11	119.72	123.84
23	d	403	CLA	O2D-CGD-O1D	-2.11	119.72	123.84
24	a	408	BCR	C28-C27-C26	-2.11	110.31	114.08
23	C	505	CLA	O1D-CGD-CBD	-2.11	120.17	124.48
23	c	505	CLA	O1D-CGD-CBD	-2.11	120.17	124.48
23	C	519	CLA	O1D-CGD-CBD	-2.11	120.18	124.48
23	c	519	CLA	O1D-CGD-CBD	-2.11	120.18	124.48
23	a	405	CLA	CED-O2D-CGD	2.11	120.70	115.94
23	b	603	CLA	C1-C2-C3	-2.10	122.41	126.04
24	B	620	BCR	C38-C26-C25	-2.10	122.17	124.53
24	b	620	BCR	C38-C26-C25	-2.10	122.17	124.53
23	C	508	CLA	CHB-C4A-NA	2.10	127.42	124.51
23	c	508	CLA	CHB-C4A-NA	2.10	127.42	124.51
23	C	507	CLA	CHB-C4A-NA	2.10	127.41	124.51
23	c	507	CLA	CHB-C4A-NA	2.10	127.41	124.51
34	F	102	HEM	C4A-NA-C1A	2.10	107.40	105.35
23	B	601	CLA	C2A-C1A-CHA	-2.10	120.19	123.86
23	b	601	CLA	C2A-C1A-CHA	-2.10	120.19	123.86
30	B	618	LMG	O6-C5-C4	2.10	113.50	109.69
24	B	617	BCR	C16-C15-C14	-2.10	119.18	123.47
24	b	617	BCR	C16-C15-C14	-2.10	119.18	123.47
23	a	412	CLA	CHB-C4A-NA	2.09	127.41	124.51
23	A	412	CLA	CHB-C1B-NB	-2.09	122.04	124.26
30	j	101	LMG	O6-C5-C4	2.09	113.49	109.69
23	A	405	CLA	CED-O2D-CGD	2.09	120.67	115.94
23	C	508	CLA	CMC-C2C-C1C	2.09	128.22	125.04
33	D	401	PHO	O2A-CGA-CBA	2.08	118.45	111.91
33	d	401	PHO	O2A-CGA-CBA	2.08	118.45	111.91
23	A	405	CLA	CHB-C1B-C2B	-2.08	121.35	127.24
23	a	405	CLA	CHB-C1B-C2B	-2.08	121.35	127.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	B	615	CLA	O1D-CGD-CBD	-2.08	120.23	124.48
30	b	618	LMG	O6-C5-C4	2.08	113.47	109.69
23	A	407	CLA	CHB-C1B-C2B	-2.08	121.37	127.24
23	a	407	CLA	CHB-C1B-C2B	-2.08	121.37	127.24
23	D	404	CLA	CAA-C2A-C3A	-2.08	107.09	112.78
23	d	404	CLA	CAA-C2A-C3A	-2.08	107.09	112.78
23	C	506	CLA	CHB-C4A-NA	2.08	127.39	124.51
23	c	506	CLA	CHB-C4A-NA	2.08	127.39	124.51
23	C	510	CLA	O1D-CGD-CBD	-2.08	120.24	124.48
23	b	615	CLA	O1D-CGD-CBD	-2.08	120.24	124.48
23	c	510	CLA	O1D-CGD-CBD	-2.08	120.24	124.48
23	c	508	CLA	CMC-C2C-C1C	2.07	128.20	125.04
23	C	508	CLA	CAA-C2A-C3A	-2.07	107.11	112.78
23	c	508	CLA	CAA-C2A-C3A	-2.07	107.11	112.78
23	A	412	CLA	CHB-C4A-NA	2.07	127.37	124.51
23	A	405	CLA	CMD-C2D-C3D	-2.07	122.86	127.61
23	a	405	CLA	CMD-C2D-C3D	-2.07	122.86	127.61
23	B	601	CLA	CHB-C4A-NA	2.06	127.37	124.51
23	C	513	CLA	CHB-C4A-NA	2.06	127.37	124.51
23	b	601	CLA	CHB-C4A-NA	2.06	127.37	124.51
23	c	513	CLA	CHB-C4A-NA	2.06	127.37	124.51
24	D	405	BCR	C21-C20-C19	-2.06	116.78	123.22
24	d	405	BCR	C21-C20-C19	-2.06	116.79	123.22
34	F	102	HEM	O2A-CGA-CBA	2.06	120.64	114.03
34	f	102	HEM	O2A-CGA-CBA	2.06	120.64	114.03
29	A	414	LHG	C5-O7-C7	-2.06	112.72	117.79
29	a	414	LHG	C5-O7-C7	-2.06	112.72	117.79
23	B	601	CLA	O1D-CGD-CBD	-2.06	120.27	124.48
23	b	601	CLA	O1D-CGD-CBD	-2.06	120.27	124.48
23	C	508	CLA	O1D-CGD-CBD	-2.06	120.27	124.48
23	c	508	CLA	O1D-CGD-CBD	-2.06	120.27	124.48
23	a	412	CLA	CHB-C1B-NB	-2.06	122.08	124.26
34	f	102	HEM	C4A-NA-C1A	2.05	107.36	105.35
24	K	103	BCR	C36-C18-C19	2.05	121.31	118.08
24	k	103	BCR	C36-C18-C19	2.05	121.31	118.08
23	C	504	CLA	C2A-C1A-CHA	-2.05	120.27	123.86
23	c	504	CLA	C2A-C1A-CHA	-2.05	120.27	123.86
32	H	101	DGD	C2G-O2G-C1B	-2.05	112.74	117.79
32	h	101	DGD	C2G-O2G-C1B	-2.05	112.74	117.79
23	B	611	CLA	O2A-CGA-O1A	-2.05	118.41	123.59
23	b	611	CLA	O2A-CGA-O1A	-2.05	118.41	123.59
23	B	609	CLA	CED-O2D-CGD	2.05	120.57	115.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	b	609	CLA	CED-O2D-CGD	2.05	120.57	115.94
23	C	509	CLA	C2A-C1A-CHA	-2.05	120.28	123.86
23	c	509	CLA	C2A-C1A-CHA	-2.05	120.28	123.86
23	B	609	CLA	O2A-CGA-O1A	-2.05	118.42	123.59
23	b	609	CLA	O2A-CGA-O1A	-2.05	118.42	123.59
24	T	102	BCR	C35-C13-C12	2.05	121.30	118.08
24	t	102	BCR	C35-C13-C12	2.05	121.30	118.08
23	B	607	CLA	O1D-CGD-CBD	-2.05	120.30	124.48
23	b	607	CLA	O1D-CGD-CBD	-2.05	120.30	124.48
23	d	404	CLA	CHB-C4A-NA	2.04	127.34	124.51
23	C	510	CLA	CHB-C1B-NB	-2.04	122.09	124.26
23	c	510	CLA	CHB-C1B-NB	-2.04	122.09	124.26
26	A	410	PL9	C47-C48-C49	-2.04	120.77	127.75
26	a	410	PL9	C47-C48-C49	-2.04	120.77	127.75
24	A	408	BCR	C2-C1-C6	2.04	113.63	110.48
24	a	408	BCR	C2-C1-C6	2.04	113.63	110.48
24	C	514	BCR	C37-C22-C23	2.04	121.29	118.08
24	c	514	BCR	C37-C22-C23	2.04	121.29	118.08
23	C	503	CLA	CHB-C4A-NA	2.04	127.33	124.51
23	c	503	CLA	CHB-C4A-NA	2.04	127.33	124.51
23	D	404	CLA	CHB-C4A-NA	2.04	127.33	124.51
23	B	602	CLA	C1-O2A-CGA	2.04	121.79	116.44
23	b	602	CLA	C1-O2A-CGA	2.04	121.79	116.44
33	D	401	PHO	CBC-CAC-C3C	-2.03	109.90	112.88
33	d	401	PHO	CBC-CAC-C3C	-2.03	109.90	112.88
24	A	408	BCR	C8-C7-C6	-2.03	121.49	127.20
23	C	519	CLA	CHB-C1B-NB	-2.03	122.10	124.26
23	c	519	CLA	CHB-C1B-NB	-2.03	122.10	124.26
33	D	401	PHO	C4A-C3A-C2A	-2.03	100.90	102.84
33	d	401	PHO	C4A-C3A-C2A	-2.03	100.90	102.84
23	A	405	CLA	CHB-C4A-NA	2.03	127.32	124.51
23	a	405	CLA	CHB-C4A-NA	2.03	127.32	124.51
23	B	621	CLA	CAA-C2A-C3A	-2.03	107.22	112.78
23	b	621	CLA	CAA-C2A-C3A	-2.03	107.22	112.78
23	B	609	CLA	C2A-C1A-CHA	-2.03	120.31	123.86
23	b	609	CLA	C2A-C1A-CHA	-2.03	120.31	123.86
23	C	506	CLA	CAA-C2A-C3A	-2.03	107.22	112.78
23	c	506	CLA	CAA-C2A-C3A	-2.03	107.22	112.78
23	B	606	CLA	O1D-CGD-CBD	-2.03	120.34	124.48
23	b	606	CLA	O1D-CGD-CBD	-2.03	120.34	124.48
23	B	604	CLA	C2A-C1A-CHA	-2.03	120.32	123.86
23	b	604	CLA	C2A-C1A-CHA	-2.03	120.32	123.86

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	a	408	BCR	C8-C7-C6	-2.02	121.52	127.20
23	C	503	CLA	CMC-C2C-C1C	2.02	128.12	125.04
23	A	406	CLA	CHB-C4A-NA	2.02	127.31	124.51
23	a	406	CLA	CHB-C4A-NA	2.02	127.31	124.51
24	A	408	BCR	C21-C20-C19	-2.02	116.91	123.22
24	a	408	BCR	C21-C20-C19	-2.02	116.91	123.22
24	K	102	BCR	C33-C5-C4	2.02	117.49	113.62
24	k	102	BCR	C33-C5-C4	2.02	117.49	113.62
24	B	617	BCR	C28-C27-C26	-2.02	110.48	114.08
24	B	616	BCR	C21-C20-C19	-2.01	116.94	123.22
24	b	616	BCR	C21-C20-C19	-2.01	116.94	123.22
24	C	520	BCR	C33-C5-C4	2.01	117.48	113.62
24	c	520	BCR	C33-C5-C4	2.01	117.48	113.62
23	B	621	CLA	O2D-CGD-O1D	-2.01	119.91	123.84
23	B	603	CLA	CHB-C4A-NA	2.01	127.29	124.51
23	b	603	CLA	CHB-C4A-NA	2.01	127.29	124.51
23	C	509	CLA	CAA-C2A-C3A	-2.01	107.28	112.78
23	c	509	CLA	CAA-C2A-C3A	-2.01	107.28	112.78
23	A	406	CLA	CMD-C2D-C3D	-2.01	123.00	127.61
23	a	406	CLA	CMD-C2D-C3D	-2.01	123.00	127.61
23	B	604	CLA	C6-C7-C8	-2.01	109.43	115.92
23	b	604	CLA	C6-C7-C8	-2.01	109.43	115.92
23	C	511	CLA	CHB-C4A-NA	2.01	127.29	124.51
23	c	511	CLA	CHB-C4A-NA	2.01	127.29	124.51
23	B	613	CLA	CAA-C2A-C3A	-2.01	107.28	112.78
23	b	613	CLA	CAA-C2A-C3A	-2.01	107.28	112.78
23	c	503	CLA	CMC-C2C-C1C	2.00	128.09	125.04
23	b	612	CLA	O1D-CGD-CBD	-2.00	120.39	124.48
29	A	414	LHG	O8-C23-O10	-2.00	118.54	123.59
29	a	414	LHG	O8-C23-O10	-2.00	118.54	123.59

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
36	V	201	HEC	NA
36	v	201	HEC	NA

All (829) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
23	A	407	CLA	C2B-C3B-CAB-CBB
23	A	407	CLA	C4B-C3B-CAB-CBB

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Mol	Chain	Res	Type	Atoms
23	A	412	CLA	CHA-CBD-CGD-O1D
23	A	412	CLA	CHA-CBD-CGD-O2D
23	B	604	CLA	C2B-C3B-CAB-CBB
23	B	604	CLA	C4B-C3B-CAB-CBB
23	B	605	CLA	C4-C3-C5-C6
23	B	606	CLA	CHA-CBD-CGD-O1D
23	B	606	CLA	CHA-CBD-CGD-O2D
23	B	613	CLA	CHA-CBD-CGD-O1D
23	B	613	CLA	CHA-CBD-CGD-O2D
23	B	613	CLA	CAD-CBD-CGD-O1D
23	B	613	CLA	CAD-CBD-CGD-O2D
23	B	613	CLA	C2-C3-C5-C6
23	B	613	CLA	C4-C3-C5-C6
23	C	508	CLA	CHA-CBD-CGD-O1D
23	C	508	CLA	CHA-CBD-CGD-O2D
23	C	511	CLA	C2B-C3B-CAB-CBB
23	C	511	CLA	C4B-C3B-CAB-CBB
23	C	519	CLA	C2-C3-C5-C6
23	C	519	CLA	C4-C3-C5-C6
23	D	403	CLA	C2B-C3B-CAB-CBB
23	D	403	CLA	C4B-C3B-CAB-CBB
23	a	407	CLA	C2B-C3B-CAB-CBB
23	a	407	CLA	C4B-C3B-CAB-CBB
23	a	412	CLA	CHA-CBD-CGD-O1D
23	a	412	CLA	CHA-CBD-CGD-O2D
23	b	604	CLA	C2B-C3B-CAB-CBB
23	b	604	CLA	C4B-C3B-CAB-CBB
23	b	605	CLA	C4-C3-C5-C6
23	b	606	CLA	CHA-CBD-CGD-O1D
23	b	606	CLA	CHA-CBD-CGD-O2D
23	b	613	CLA	CHA-CBD-CGD-O1D
23	b	613	CLA	CHA-CBD-CGD-O2D
23	b	613	CLA	CAD-CBD-CGD-O1D
23	b	613	CLA	CAD-CBD-CGD-O2D
23	b	613	CLA	C2-C3-C5-C6
23	b	613	CLA	C4-C3-C5-C6
23	c	508	CLA	CHA-CBD-CGD-O1D
23	c	508	CLA	CHA-CBD-CGD-O2D
23	c	511	CLA	C2B-C3B-CAB-CBB
23	c	511	CLA	C4B-C3B-CAB-CBB
23	c	519	CLA	C2-C3-C5-C6
23	c	519	CLA	C4-C3-C5-C6

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Mol	Chain	Res	Type	Atoms
23	d	403	CLA	C2B-C3B-CAB-CBB
23	d	403	CLA	C4B-C3B-CAB-CBB
24	B	616	BCR	C1-C6-C7-C8
24	C	514	BCR	C1-C6-C7-C8
24	D	405	BCR	C7-C8-C9-C10
24	D	405	BCR	C7-C8-C9-C34
24	D	405	BCR	C21-C22-C23-C24
24	D	405	BCR	C37-C22-C23-C24
24	K	102	BCR	C5-C6-C7-C8
24	K	102	BCR	C21-C22-C23-C24
24	K	102	BCR	C37-C22-C23-C24
24	T	102	BCR	C17-C18-C19-C20
24	T	102	BCR	C36-C18-C19-C20
24	T	102	BCR	C21-C22-C23-C24
24	T	102	BCR	C37-C22-C23-C24
24	T	102	BCR	C23-C24-C25-C30
24	b	616	BCR	C1-C6-C7-C8
24	c	514	BCR	C1-C6-C7-C8
24	d	405	BCR	C7-C8-C9-C10
24	d	405	BCR	C7-C8-C9-C34
24	d	405	BCR	C21-C22-C23-C24
24	d	405	BCR	C37-C22-C23-C24
24	k	102	BCR	C5-C6-C7-C8
24	k	102	BCR	C21-C22-C23-C24
24	k	102	BCR	C37-C22-C23-C24
24	t	102	BCR	C17-C18-C19-C20
24	t	102	BCR	C36-C18-C19-C20
24	t	102	BCR	C21-C22-C23-C24
24	t	102	BCR	C37-C22-C23-C24
24	t	102	BCR	C23-C24-C25-C30
25	A	409	SQD	O5-C5-C6-S
25	a	409	SQD	O5-C5-C6-S
26	D	406	PL9	C18-C19-C21-C22
26	d	406	PL9	C18-C19-C21-C22
29	A	414	LHG	C3-O3-P-O4
29	A	414	LHG	C4-O6-P-O3
29	A	414	LHG	C4-O6-P-O4
29	A	414	LHG	C4-O6-P-O5
29	A	415	LHG	C4-O6-P-O3
29	A	415	LHG	C4-O6-P-O5
29	B	622	LHG	C1-C2-C3-O3
29	B	622	LHG	C3-O3-P-O4

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Mol	Chain	Res	Type	Atoms
29	B	622	LHG	C3-O3-P-O5
29	B	622	LHG	C3-O3-P-O6
29	B	622	LHG	C4-O6-P-O4
29	B	622	LHG	C4-O6-P-O5
29	B	622	LHG	O7-C5-C6-O8
29	D	407	LHG	C4-O6-P-O3
29	D	407	LHG	C4-O6-P-O4
29	D	407	LHG	C4-O6-P-O5
29	L	101	LHG	C3-O3-P-O4
29	L	101	LHG	C3-O3-P-O5
29	L	101	LHG	C4-O6-P-O4
29	L	101	LHG	C4-O6-P-O5
29	a	414	LHG	C3-O3-P-O4
29	a	414	LHG	C4-O6-P-O3
29	a	414	LHG	C4-O6-P-O4
29	a	414	LHG	C4-O6-P-O5
29	a	415	LHG	C4-O6-P-O3
29	a	415	LHG	C4-O6-P-O5
29	b	622	LHG	C1-C2-C3-O3
29	b	622	LHG	C3-O3-P-O4
29	b	622	LHG	C3-O3-P-O5
29	b	622	LHG	C3-O3-P-O6
29	b	622	LHG	C4-O6-P-O4
29	b	622	LHG	C4-O6-P-O5
29	b	622	LHG	O7-C5-C6-O8
29	d	407	LHG	C4-O6-P-O3
29	d	407	LHG	C4-O6-P-O4
29	d	407	LHG	C4-O6-P-O5
29	l	101	LHG	C3-O3-P-O4
29	l	101	LHG	C3-O3-P-O5
29	l	101	LHG	C4-O6-P-O4
29	l	101	LHG	C4-O6-P-O5
30	C	501	LMG	C11-C10-O7-C8
30	c	501	LMG	C11-C10-O7-C8
32	C	515	DGD	C2E-C1E-O5D-C6D
32	c	515	DGD	C2E-C1E-O5D-C6D
34	F	102	HEM	C2B-C3B-CAB-CBB
34	F	102	HEM	C2C-C3C-CAC-CBC
34	F	102	HEM	C4C-C3C-CAC-CBC
34	f	102	HEM	C2B-C3B-CAB-CBB
34	f	102	HEM	C2C-C3C-CAC-CBC
34	f	102	HEM	C4C-C3C-CAC-CBC

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Mol	Chain	Res	Type	Atoms
37	X	101	RRX	C11-C12-C13-C35
37	X	101	RRX	C7-C8-C9-C10
37	X	101	RRX	C7-C8-C9-C34
37	x	101	RRX	C11-C12-C13-C35
37	x	101	RRX	C7-C8-C9-C10
37	x	101	RRX	C7-C8-C9-C34
29	B	622	LHG	C24-C23-O8-C6
29	b	622	LHG	C24-C23-O8-C6
23	A	405	CLA	CBD-CGD-O2D-CED
23	a	405	CLA	CBD-CGD-O2D-CED
29	B	622	LHG	O10-C23-O8-C6
29	b	622	LHG	O10-C23-O8-C6
30	C	501	LMG	O9-C10-O7-C8
30	c	501	LMG	O9-C10-O7-C8
23	B	613	CLA	C3-C5-C6-C7
23	b	613	CLA	C3-C5-C6-C7
23	C	507	CLA	C4-C3-C5-C6
23	c	507	CLA	C4-C3-C5-C6
23	B	605	CLA	C2-C3-C5-C6
23	b	605	CLA	C2-C3-C5-C6
23	C	509	CLA	CBA-CGA-O2A-C1
23	c	509	CLA	CBA-CGA-O2A-C1
29	A	414	LHG	C24-C23-O8-C6
29	a	414	LHG	C24-C23-O8-C6
23	B	613	CLA	CBD-CGD-O2D-CED
23	b	613	CLA	CBD-CGD-O2D-CED
23	B	614	CLA	C3-C5-C6-C7
23	C	519	CLA	C3-C5-C6-C7
23	b	614	CLA	C3-C5-C6-C7
23	c	519	CLA	C3-C5-C6-C7
23	C	509	CLA	O1A-CGA-O2A-C1
23	c	509	CLA	O1A-CGA-O2A-C1
23	B	610	CLA	CBD-CGD-O2D-CED
23	b	610	CLA	CBD-CGD-O2D-CED
29	A	414	LHG	O10-C23-O8-C6
29	a	414	LHG	O10-C23-O8-C6
23	B	603	CLA	C4-C3-C5-C6
23	b	603	CLA	C4-C3-C5-C6
23	B	603	CLA	C2-C3-C5-C6
23	C	507	CLA	C2-C3-C5-C6
23	b	603	CLA	C2-C3-C5-C6
23	c	507	CLA	C2-C3-C5-C6

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Mol	Chain	Res	Type	Atoms
23	B	606	CLA	C2A-CAA-CBA-CGA
23	B	610	CLA	C2A-CAA-CBA-CGA
23	b	606	CLA	C2A-CAA-CBA-CGA
23	b	610	CLA	C2A-CAA-CBA-CGA
32	C	515	DGD	O6E-C1E-O5D-C6D
32	c	515	DGD	O6E-C1E-O5D-C6D
26	A	410	PL9	C14-C16-C17-C18
26	A	410	PL9	C24-C26-C27-C28
26	D	406	PL9	C39-C41-C42-C43
26	a	410	PL9	C14-C16-C17-C18
26	a	410	PL9	C24-C26-C27-C28
26	d	406	PL9	C39-C41-C42-C43
23	C	509	CLA	C3-C5-C6-C7
23	c	509	CLA	C3-C5-C6-C7
23	A	405	CLA	O1D-CGD-O2D-CED
23	a	405	CLA	O1D-CGD-O2D-CED
29	B	622	LHG	O2-C2-C3-O3
29	b	622	LHG	O2-C2-C3-O3
24	B	617	BCR	C37-C22-C23-C24
24	b	617	BCR	C37-C22-C23-C24
23	B	607	CLA	C3-C5-C6-C7
23	b	607	CLA	C3-C5-C6-C7
29	D	407	LHG	C24-C23-O8-C6
29	d	407	LHG	C24-C23-O8-C6
32	C	515	DGD	O6D-C5D-C6D-O5D
32	c	515	DGD	O6D-C5D-C6D-O5D
23	C	509	CLA	C2-C1-O2A-CGA
23	c	509	CLA	C2-C1-O2A-CGA
23	C	512	CLA	C3-C5-C6-C7
23	c	512	CLA	C3-C5-C6-C7
23	C	503	CLA	C3-C5-C6-C7
23	c	503	CLA	C3-C5-C6-C7
29	D	407	LHG	O10-C23-O8-C6
29	d	407	LHG	O10-C23-O8-C6
32	C	515	DGD	C4D-C5D-C6D-O5D
32	c	515	DGD	C4D-C5D-C6D-O5D
23	B	614	CLA	C8-C10-C11-C12
23	b	614	CLA	C8-C10-C11-C12
25	F	101	SQD	O47-C45-C46-O48
25	f	101	SQD	O47-C45-C46-O48
29	A	414	LHG	C3-O3-P-O6
29	B	622	LHG	C4-O6-P-O3

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Mol	Chain	Res	Type	Atoms
29	L	101	LHG	C3-O3-P-O6
29	L	101	LHG	C4-O6-P-O3
29	a	414	LHG	C3-O3-P-O6
29	b	622	LHG	C4-O6-P-O3
29	l	101	LHG	C3-O3-P-O6
29	l	101	LHG	C4-O6-P-O3
23	B	606	CLA	C3-C5-C6-C7
23	b	606	CLA	C3-C5-C6-C7
23	B	614	CLA	C16-C17-C18-C19
23	b	614	CLA	C16-C17-C18-C19
25	F	101	SQD	C44-C45-C46-O48
25	f	101	SQD	C44-C45-C46-O48
32	C	515	DGD	CBB-CCB-CDB-CEB
32	c	515	DGD	CBB-CCB-CDB-CEB
32	C	516	DGD	C2E-C1E-O5D-C6D
32	c	516	DGD	C2E-C1E-O5D-C6D
23	B	611	CLA	C4-C3-C5-C6
23	C	510	CLA	C4-C3-C5-C6
23	b	611	CLA	C4-C3-C5-C6
23	c	510	CLA	C4-C3-C5-C6
33	D	401	PHO	C4-C3-C5-C6
33	d	401	PHO	C4-C3-C5-C6
30	J	101	LMG	O6-C5-C6-O5
30	j	101	LMG	O6-C5-C6-O5
23	A	405	CLA	C2A-CAA-CBA-CGA
23	C	507	CLA	C2A-CAA-CBA-CGA
23	a	405	CLA	C2A-CAA-CBA-CGA
23	c	507	CLA	C2A-CAA-CBA-CGA
23	B	603	CLA	C4B-C3B-CAB-CBB
23	B	607	CLA	C4B-C3B-CAB-CBB
23	B	608	CLA	C4B-C3B-CAB-CBB
23	b	603	CLA	C4B-C3B-CAB-CBB
23	b	607	CLA	C4B-C3B-CAB-CBB
23	b	608	CLA	C4B-C3B-CAB-CBB
32	C	516	DGD	O6E-C1E-O5D-C6D
32	c	516	DGD	O6E-C1E-O5D-C6D
29	B	622	LHG	C13-C14-C15-C16
29	b	622	LHG	C13-C14-C15-C16
29	B	622	LHG	C7-C8-C9-C10
29	b	622	LHG	C7-C8-C9-C10
23	C	508	CLA	CBD-CGD-O2D-CED
23	c	508	CLA	CBD-CGD-O2D-CED

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Mol	Chain	Res	Type	Atoms
23	C	507	CLA	C3-C5-C6-C7
23	c	507	CLA	C3-C5-C6-C7
26	D	406	PL9	C20-C19-C21-C22
26	d	406	PL9	C20-C19-C21-C22
23	B	611	CLA	C2-C3-C5-C6
23	C	505	CLA	C2-C3-C5-C6
23	C	510	CLA	C2-C3-C5-C6
23	b	611	CLA	C2-C3-C5-C6
23	c	505	CLA	C2-C3-C5-C6
23	c	510	CLA	C2-C3-C5-C6
33	D	401	PHO	C2-C3-C5-C6
33	d	401	PHO	C2-C3-C5-C6
23	B	603	CLA	C2B-C3B-CAB-CBB
23	B	607	CLA	C2B-C3B-CAB-CBB
23	B	608	CLA	C2B-C3B-CAB-CBB
23	b	603	CLA	C2B-C3B-CAB-CBB
23	b	607	CLA	C2B-C3B-CAB-CBB
23	b	608	CLA	C2B-C3B-CAB-CBB
23	C	511	CLA	CBA-CGA-O2A-C1
23	c	511	CLA	CBA-CGA-O2A-C1
29	B	622	LHG	C12-C13-C14-C15
29	b	622	LHG	C12-C13-C14-C15
29	A	415	LHG	C24-C23-O8-C6
29	a	415	LHG	C24-C23-O8-C6
24	B	616	BCR	C5-C6-C7-C8
24	C	514	BCR	C5-C6-C7-C8
24	D	405	BCR	C1-C6-C7-C8
24	D	405	BCR	C5-C6-C7-C8
24	K	102	BCR	C1-C6-C7-C8
24	T	102	BCR	C23-C24-C25-C26
24	b	616	BCR	C5-C6-C7-C8
24	c	514	BCR	C5-C6-C7-C8
24	d	405	BCR	C1-C6-C7-C8
24	d	405	BCR	C5-C6-C7-C8
24	k	102	BCR	C1-C6-C7-C8
24	t	102	BCR	C23-C24-C25-C26
23	C	508	CLA	C5-C6-C7-C8
23	c	508	CLA	C5-C6-C7-C8
23	B	609	CLA	C3-C5-C6-C7
23	b	609	CLA	C3-C5-C6-C7
23	C	511	CLA	O1A-CGA-O2A-C1
23	c	511	CLA	O1A-CGA-O2A-C1

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Mol	Chain	Res	Type	Atoms
37	X	101	RRX	C9-C10-C11-C12
37	x	101	RRX	C9-C10-C11-C12
23	C	502	CLA	C2A-CAA-CBA-CGA
23	c	502	CLA	C2A-CAA-CBA-CGA
23	C	509	CLA	C15-C16-C17-C18
23	c	509	CLA	C15-C16-C17-C18
29	A	415	LHG	C10-C11-C12-C13
29	a	415	LHG	C10-C11-C12-C13
23	B	607	CLA	CBA-CGA-O2A-C1
23	b	607	CLA	CBA-CGA-O2A-C1
34	F	102	HEM	C4B-C3B-CAB-CBB
34	f	102	HEM	C4B-C3B-CAB-CBB
29	A	414	LHG	O7-C5-C6-O8
29	a	414	LHG	O7-C5-C6-O8
23	C	505	CLA	C4-C3-C5-C6
23	c	505	CLA	C4-C3-C5-C6
23	C	519	CLA	C6-C7-C8-C9
23	c	519	CLA	C6-C7-C8-C9
23	A	412	CLA	C2A-CAA-CBA-CGA
23	a	412	CLA	C2A-CAA-CBA-CGA
37	X	101	RRX	C11-C12-C13-C14
37	x	101	RRX	C11-C12-C13-C14
23	A	406	CLA	C1A-C2A-CAA-CBA
23	A	412	CLA	C1A-C2A-CAA-CBA
23	C	512	CLA	C1A-C2A-CAA-CBA
23	a	406	CLA	C1A-C2A-CAA-CBA
23	a	412	CLA	C1A-C2A-CAA-CBA
23	c	512	CLA	C1A-C2A-CAA-CBA
23	C	509	CLA	C10-C11-C12-C13
23	c	509	CLA	C10-C11-C12-C13
23	B	605	CLA	CBA-CGA-O2A-C1
23	b	605	CLA	CBA-CGA-O2A-C1
23	B	610	CLA	O1D-CGD-O2D-CED
23	b	610	CLA	O1D-CGD-O2D-CED
23	B	607	CLA	O1A-CGA-O2A-C1
23	b	607	CLA	O1A-CGA-O2A-C1
23	B	614	CLA	C16-C17-C18-C20
23	b	614	CLA	C16-C17-C18-C20
23	b	613	CLA	O1D-CGD-O2D-CED
29	A	415	LHG	O10-C23-O8-C6
29	a	415	LHG	O10-C23-O8-C6
23	B	613	CLA	O1D-CGD-O2D-CED

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Mol	Chain	Res	Type	Atoms
23	C	506	CLA	CBA-CGA-O2A-C1
23	c	506	CLA	CBA-CGA-O2A-C1
32	C	515	DGD	O6E-C5E-C6E-O5E
32	c	515	DGD	O6E-C5E-C6E-O5E
23	B	603	CLA	CBA-CGA-O2A-C1
23	b	603	CLA	CBA-CGA-O2A-C1
23	C	509	CLA	C13-C15-C16-C17
23	c	509	CLA	C13-C15-C16-C17
23	B	605	CLA	O1A-CGA-O2A-C1
23	b	605	CLA	O1A-CGA-O2A-C1
30	B	618	LMG	C10-C11-C12-C13
30	b	618	LMG	C10-C11-C12-C13
23	C	512	CLA	C4-C3-C5-C6
23	c	512	CLA	C4-C3-C5-C6
26	D	406	PL9	C30-C29-C31-C32
26	d	406	PL9	C30-C29-C31-C32
23	B	606	CLA	C11-C12-C13-C15
23	b	606	CLA	C11-C12-C13-C15
26	D	406	PL9	C28-C29-C31-C32
26	d	406	PL9	C28-C29-C31-C32
23	C	505	CLA	CBA-CGA-O2A-C1
23	c	505	CLA	CBA-CGA-O2A-C1
29	B	622	LHG	C28-C29-C30-C31
29	b	622	LHG	C28-C29-C30-C31
29	L	101	LHG	C27-C28-C29-C30
29	l	101	LHG	C27-C28-C29-C30
23	B	606	CLA	CBA-CGA-O2A-C1
23	C	502	CLA	CBA-CGA-O2A-C1
23	C	519	CLA	CBA-CGA-O2A-C1
23	b	606	CLA	CBA-CGA-O2A-C1
23	c	502	CLA	CBA-CGA-O2A-C1
23	c	519	CLA	CBA-CGA-O2A-C1
29	D	407	LHG	O6-C4-C5-C6
29	L	101	LHG	O6-C4-C5-C6
29	d	407	LHG	O6-C4-C5-C6
29	l	101	LHG	O6-C4-C5-C6
26	A	410	PL9	C39-C41-C42-C43
26	a	410	PL9	C39-C41-C42-C43
23	B	612	CLA	CBA-CGA-O2A-C1
23	b	612	CLA	CBA-CGA-O2A-C1
23	B	613	CLA	C6-C7-C8-C9
23	b	613	CLA	C6-C7-C8-C9

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Mol	Chain	Res	Type	Atoms
23	B	614	CLA	C4-C3-C5-C6
23	b	614	CLA	C4-C3-C5-C6
23	B	614	CLA	C2-C3-C5-C6
23	C	512	CLA	C2-C3-C5-C6
23	b	614	CLA	C2-C3-C5-C6
23	c	512	CLA	C2-C3-C5-C6
23	B	609	CLA	CBA-CGA-O2A-C1
23	b	609	CLA	CBA-CGA-O2A-C1
32	H	101	DGD	O2G-C1B-C2B-C3B
32	h	101	DGD	O2G-C1B-C2B-C3B
23	B	607	CLA	C3A-C2A-CAA-CBA
23	C	512	CLA	C3A-C2A-CAA-CBA
23	b	607	CLA	C3A-C2A-CAA-CBA
23	c	512	CLA	C3A-C2A-CAA-CBA
32	H	101	DGD	CBB-CCB-CDB-CEB
32	h	101	DGD	CBB-CCB-CDB-CEB
31	M	101	LMT	C2-C1-O1'-C1'
31	m	101	LMT	C2-C1-O1'-C1'
23	B	603	CLA	O1A-CGA-O2A-C1
23	b	603	CLA	O1A-CGA-O2A-C1
29	A	414	LHG	C4-C5-C6-O8
29	a	414	LHG	C4-C5-C6-O8
23	C	505	CLA	O1A-CGA-O2A-C1
23	c	505	CLA	O1A-CGA-O2A-C1
30	C	501	LMG	C13-C14-C15-C16
30	c	501	LMG	C13-C14-C15-C16
23	B	606	CLA	O1A-CGA-O2A-C1
23	b	606	CLA	O1A-CGA-O2A-C1
29	B	622	LHG	C25-C26-C27-C28
29	b	622	LHG	C25-C26-C27-C28
26	A	410	PL9	C19-C21-C22-C23
26	a	410	PL9	C19-C21-C22-C23
23	B	605	CLA	C2-C1-O2A-CGA
23	B	607	CLA	C2-C1-O2A-CGA
23	C	505	CLA	C2-C1-O2A-CGA
23	C	508	CLA	C2-C1-O2A-CGA
23	b	605	CLA	C2-C1-O2A-CGA
23	b	607	CLA	C2-C1-O2A-CGA
23	c	505	CLA	C2-C1-O2A-CGA
23	c	508	CLA	C2-C1-O2A-CGA
23	A	407	CLA	C4-C3-C5-C6
23	a	407	CLA	C4-C3-C5-C6

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Mol	Chain	Res	Type	Atoms
24	B	617	BCR	C23-C24-C25-C26
24	B	617	BCR	C23-C24-C25-C30
24	D	405	BCR	C23-C24-C25-C26
24	D	405	BCR	C23-C24-C25-C30
24	b	617	BCR	C23-C24-C25-C26
24	b	617	BCR	C23-C24-C25-C30
24	d	405	BCR	C23-C24-C25-C26
24	d	405	BCR	C23-C24-C25-C30
37	X	101	RRX	C23-C24-C25-C30
37	x	101	RRX	C23-C24-C25-C30
23	C	519	CLA	C13-C15-C16-C17
23	c	519	CLA	C13-C15-C16-C17
23	A	412	CLA	C2C-C3C-CAC-CBC
23	a	412	CLA	C2C-C3C-CAC-CBC
24	B	617	BCR	C21-C22-C23-C24
24	b	617	BCR	C21-C22-C23-C24
23	C	519	CLA	C5-C6-C7-C8
23	c	519	CLA	C5-C6-C7-C8
29	B	622	LHG	C29-C30-C31-C32
29	b	622	LHG	C29-C30-C31-C32
23	C	502	CLA	O1A-CGA-O2A-C1
23	C	519	CLA	O1A-CGA-O2A-C1
23	c	502	CLA	O1A-CGA-O2A-C1
23	c	519	CLA	O1A-CGA-O2A-C1
26	A	410	PL9	C12-C11-C9-C10
26	a	410	PL9	C12-C11-C9-C10
23	B	604	CLA	C12-C13-C15-C16
23	b	604	CLA	C12-C13-C15-C16
37	X	101	RRX	C13-C14-C15-C16
37	x	101	RRX	C13-C14-C15-C16
23	B	611	CLA	CBA-CGA-O2A-C1
23	b	611	CLA	CBA-CGA-O2A-C1
23	b	611	CLA	C13-C15-C16-C17
23	c	519	CLA	C8-C10-C11-C12
23	B	611	CLA	C13-C15-C16-C17
23	C	519	CLA	C8-C10-C11-C12
23	B	615	CLA	CAD-CBD-CGD-O2D
23	C	502	CLA	CAD-CBD-CGD-O2D
23	C	504	CLA	CAD-CBD-CGD-O2D
23	b	615	CLA	CAD-CBD-CGD-O2D
23	c	502	CLA	CAD-CBD-CGD-O2D
23	c	504	CLA	CAD-CBD-CGD-O2D

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Mol	Chain	Res	Type	Atoms
33	D	401	PHO	CAD-CBD-CGD-O2D
33	d	401	PHO	CAD-CBD-CGD-O2D
23	C	510	CLA	C3-C5-C6-C7
23	c	510	CLA	C3-C5-C6-C7
23	B	621	CLA	C5-C6-C7-C8
23	b	621	CLA	C5-C6-C7-C8
30	B	618	LMG	C28-C29-C30-C31
30	b	618	LMG	C28-C29-C30-C31
23	B	612	CLA	O1A-CGA-O2A-C1
23	b	612	CLA	O1A-CGA-O2A-C1
32	C	518	DGD	O6D-C1D-O3G-C3G
32	c	518	DGD	O6D-C1D-O3G-C3G
29	B	622	LHG	C4-C5-C6-O8
29	b	622	LHG	C4-C5-C6-O8
29	D	407	LHG	O6-C4-C5-O7
29	L	101	LHG	O6-C4-C5-O7
29	d	407	LHG	O6-C4-C5-O7
29	l	101	LHG	O6-C4-C5-O7
23	C	512	CLA	CBA-CGA-O2A-C1
23	c	512	CLA	CBA-CGA-O2A-C1
23	C	508	CLA	O1D-CGD-O2D-CED
23	c	508	CLA	O1D-CGD-O2D-CED
23	B	601	CLA	CHA-CBD-CGD-O1D
23	B	604	CLA	CHA-CBD-CGD-O1D
23	B	604	CLA	CHA-CBD-CGD-O2D
23	C	503	CLA	CHA-CBD-CGD-O1D
23	C	506	CLA	CHA-CBD-CGD-O1D
23	b	601	CLA	CHA-CBD-CGD-O1D
23	b	604	CLA	CHA-CBD-CGD-O1D
23	c	503	CLA	CHA-CBD-CGD-O1D
23	c	506	CLA	CHA-CBD-CGD-O1D
23	B	609	CLA	O1A-CGA-O2A-C1
23	b	609	CLA	O1A-CGA-O2A-C1
23	B	602	CLA	O1A-CGA-O2A-C1
23	b	602	CLA	O1A-CGA-O2A-C1
32	C	515	DGD	C2A-C3A-C4A-C5A
32	c	515	DGD	C2A-C3A-C4A-C5A
23	B	611	CLA	O1A-CGA-O2A-C1
23	b	611	CLA	O1A-CGA-O2A-C1
23	C	502	CLA	C1A-C2A-CAA-CBA
23	c	502	CLA	C1A-C2A-CAA-CBA
23	B	602	CLA	CBA-CGA-O2A-C1

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Mol	Chain	Res	Type	Atoms
23	b	602	CLA	CBA-CGA-O2A-C1
26	D	406	PL9	C15-C14-C16-C17
26	d	406	PL9	C15-C14-C16-C17
23	A	405	CLA	C3-C5-C6-C7
23	a	405	CLA	C3-C5-C6-C7
23	C	507	CLA	C4B-C3B-CAB-CBB
23	c	507	CLA	C4B-C3B-CAB-CBB
23	B	604	CLA	C13-C15-C16-C17
23	b	604	CLA	C13-C15-C16-C17
29	l	101	LHG	C28-C29-C30-C31
29	L	101	LHG	C28-C29-C30-C31
23	B	601	CLA	CAD-CBD-CGD-O1D
23	B	604	CLA	CAD-CBD-CGD-O1D
23	B	605	CLA	CAD-CBD-CGD-O1D
23	B	607	CLA	CAD-CBD-CGD-O1D
23	B	609	CLA	CAD-CBD-CGD-O1D
23	C	503	CLA	CAD-CBD-CGD-O1D
23	C	506	CLA	CAD-CBD-CGD-O1D
23	b	601	CLA	CAD-CBD-CGD-O1D
23	b	604	CLA	CAD-CBD-CGD-O1D
23	b	605	CLA	CAD-CBD-CGD-O1D
23	b	607	CLA	CAD-CBD-CGD-O1D
23	b	609	CLA	CAD-CBD-CGD-O1D
23	c	503	CLA	CAD-CBD-CGD-O1D
23	c	506	CLA	CAD-CBD-CGD-O1D
23	C	512	CLA	O1A-CGA-O2A-C1
23	c	512	CLA	O1A-CGA-O2A-C1
29	B	622	LHG	C16-C17-C18-C19
29	b	622	LHG	C16-C17-C18-C19
23	B	614	CLA	C12-C13-C15-C16
23	C	509	CLA	C12-C13-C15-C16
23	C	519	CLA	C12-C13-C15-C16
23	b	614	CLA	C12-C13-C15-C16
23	c	509	CLA	C12-C13-C15-C16
23	c	519	CLA	C12-C13-C15-C16
23	B	606	CLA	CBD-CGD-O2D-CED
23	b	606	CLA	CBD-CGD-O2D-CED
23	C	512	CLA	C2A-CAA-CBA-CGA
23	c	512	CLA	C2A-CAA-CBA-CGA
32	C	516	DGD	C5D-C6D-O5D-C1E
32	c	516	DGD	C5D-C6D-O5D-C1E
26	D	406	PL9	C45-C44-C46-C47

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Mol	Chain	Res	Type	Atoms
26	d	406	PL9	C45-C44-C46-C47
23	B	604	CLA	C14-C13-C15-C16
23	b	604	CLA	C14-C13-C15-C16
29	L	101	LHG	C30-C31-C32-C33
29	l	101	LHG	C30-C31-C32-C33
23	C	508	CLA	O1A-CGA-O2A-C1
23	c	508	CLA	O1A-CGA-O2A-C1
33	D	401	PHO	C2-C1-O2A-CGA
33	d	401	PHO	C2-C1-O2A-CGA
29	A	415	LHG	C11-C12-C13-C14
29	a	415	LHG	C11-C12-C13-C14
37	X	101	RRX	C23-C24-C25-C26
37	x	101	RRX	C23-C24-C25-C26
26	D	406	PL9	C13-C14-C16-C17
26	d	406	PL9	C13-C14-C16-C17
23	C	508	CLA	CBA-CGA-O2A-C1
23	c	508	CLA	CBA-CGA-O2A-C1
30	C	501	LMG	C29-C28-O8-C9
30	c	501	LMG	C29-C28-O8-C9
23	C	506	CLA	O1A-CGA-O2A-C1
32	C	516	DGD	C3B-C4B-C5B-C6B
32	c	516	DGD	C3B-C4B-C5B-C6B
32	C	518	DGD	C2D-C1D-O3G-C3G
32	c	518	DGD	C2D-C1D-O3G-C3G
30	C	501	LMG	O10-C28-O8-C9
30	c	501	LMG	O10-C28-O8-C9
29	D	407	LHG	C3-O3-P-O6
29	d	407	LHG	C3-O3-P-O6
29	A	415	LHG	C3-O3-P-O5
29	a	415	LHG	C3-O3-P-O5
23	c	506	CLA	O1A-CGA-O2A-C1
23	B	606	CLA	C11-C12-C13-C14
23	B	614	CLA	C14-C13-C15-C16
23	C	509	CLA	C14-C13-C15-C16
23	b	606	CLA	C11-C12-C13-C14
23	b	614	CLA	C14-C13-C15-C16
23	c	509	CLA	C14-C13-C15-C16
23	B	611	CLA	C15-C16-C17-C18
23	b	611	CLA	C15-C16-C17-C18
23	B	621	CLA	C13-C15-C16-C17
23	b	621	CLA	C13-C15-C16-C17
23	B	602	CLA	C2A-CAA-CBA-CGA

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Mol	Chain	Res	Type	Atoms
23	C	505	CLA	C2A-CAA-CBA-CGA
23	b	602	CLA	C2A-CAA-CBA-CGA
23	c	505	CLA	C2A-CAA-CBA-CGA
34	F	102	HEM	CAD-CBD-CGD-O1D
34	f	102	HEM	CAD-CBD-CGD-O1D
26	D	406	PL9	C9-C11-C12-C13
26	d	406	PL9	C9-C11-C12-C13
34	F	102	HEM	CAA-CBA-CGA-O1A
34	f	102	HEM	CAA-CBA-CGA-O1A
26	A	410	PL9	C30-C29-C31-C32
26	a	410	PL9	C30-C29-C31-C32
23	B	621	CLA	C10-C11-C12-C13
23	b	621	CLA	C10-C11-C12-C13
23	C	502	CLA	C2-C1-O2A-CGA
23	c	502	CLA	C2-C1-O2A-CGA
23	B	603	CLA	C2A-CAA-CBA-CGA
23	b	603	CLA	C2A-CAA-CBA-CGA
23	B	608	CLA	C3A-C2A-CAA-CBA
23	b	608	CLA	C3A-C2A-CAA-CBA
26	A	410	PL9	C12-C11-C9-C8
26	D	406	PL9	C43-C44-C46-C47
26	a	410	PL9	C12-C11-C9-C8
26	d	406	PL9	C43-C44-C46-C47
26	A	410	PL9	C4-C3-C7-C8
26	a	410	PL9	C4-C3-C7-C8
23	C	502	CLA	C11-C12-C13-C14
23	C	519	CLA	C14-C13-C15-C16
23	c	502	CLA	C11-C12-C13-C14
23	c	519	CLA	C14-C13-C15-C16
32	C	518	DGD	O6E-C1E-O5D-C6D
32	c	518	DGD	O6E-C1E-O5D-C6D
32	C	516	DGD	C1A-C2A-C3A-C4A
34	F	102	HEM	CAA-CBA-CGA-O2A
34	f	102	HEM	CAA-CBA-CGA-O2A
23	A	412	CLA	C4C-C3C-CAC-CBC
23	a	412	CLA	C4C-C3C-CAC-CBC
32	c	516	DGD	C1A-C2A-C3A-C4A
23	C	511	CLA	C1A-C2A-CAA-CBA
23	c	511	CLA	C1A-C2A-CAA-CBA
24	T	102	BCR	C15-C16-C17-C18
24	t	102	BCR	C15-C16-C17-C18
23	b	612	CLA	C13-C15-C16-C17

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Mol	Chain	Res	Type	Atoms
23	B	612	CLA	C13-C15-C16-C17
31	M	102	LMT	C5'-C4'-O1B-C1B
31	B	623	LMT	C5'-C4'-O1B-C1B
23	B	612	CLA	C4-C3-C5-C6
23	b	612	CLA	C4-C3-C5-C6
26	A	410	PL9	C45-C44-C46-C47
26	a	410	PL9	C45-C44-C46-C47
26	A	410	PL9	C28-C29-C31-C32
26	a	410	PL9	C28-C29-C31-C32
23	C	507	CLA	C2B-C3B-CAB-CBB
23	c	507	CLA	C2B-C3B-CAB-CBB
29	L	101	LHG	O2-C2-C3-O3
29	l	101	LHG	O2-C2-C3-O3
34	F	102	HEM	CAD-CBD-CGD-O2D
34	f	102	HEM	CAD-CBD-CGD-O2D
23	B	607	CLA	C2A-CAA-CBA-CGA
23	b	607	CLA	C2A-CAA-CBA-CGA
31	B	623	LMT	C3'-C4'-O1B-C1B
31	M	102	LMT	C3'-C4'-O1B-C1B
32	H	101	DGD	O1B-C1B-C2B-C3B
32	h	101	DGD	O1B-C1B-C2B-C3B
23	B	602	CLA	C4-C3-C5-C6
23	b	602	CLA	C4-C3-C5-C6
23	A	407	CLA	C2-C1-O2A-CGA
23	a	407	CLA	C2-C1-O2A-CGA
23	C	507	CLA	C6-C7-C8-C9
23	c	507	CLA	C6-C7-C8-C9
24	A	408	BCR	C1-C6-C7-C8
24	A	408	BCR	C23-C24-C25-C30
24	C	520	BCR	C1-C6-C7-C8
24	K	102	BCR	C23-C24-C25-C30
24	a	408	BCR	C1-C6-C7-C8
24	a	408	BCR	C23-C24-C25-C30
24	c	520	BCR	C1-C6-C7-C8
24	k	102	BCR	C23-C24-C25-C30
23	B	606	CLA	C10-C11-C12-C13
23	b	606	CLA	C10-C11-C12-C13
23	B	602	CLA	CAA-CBA-CGA-O2A
23	b	602	CLA	CAA-CBA-CGA-O2A
23	B	607	CLA	C4-C3-C5-C6
23	b	607	CLA	C4-C3-C5-C6
23	B	614	CLA	C10-C11-C12-C13

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Mol	Chain	Res	Type	Atoms
23	b	614	CLA	C10-C11-C12-C13
25	A	409	SQD	C45-C44-O6-C1
25	a	409	SQD	C45-C44-O6-C1
29	A	414	LHG	O6-C4-C5-O7
29	a	414	LHG	O6-C4-C5-O7
29	B	622	LHG	C30-C31-C32-C33
29	L	101	LHG	C17-C18-C19-C20
29	b	622	LHG	C30-C31-C32-C33
29	l	101	LHG	C17-C18-C19-C20
23	C	504	CLA	C3-C5-C6-C7
23	c	504	CLA	C3-C5-C6-C7
23	C	510	CLA	O1A-CGA-O2A-C1
23	c	510	CLA	O1A-CGA-O2A-C1
29	L	101	LHG	C1-C2-C3-O3
29	l	101	LHG	C1-C2-C3-O3
25	A	409	SQD	O6-C44-C45-O47
25	a	409	SQD	O6-C44-C45-O47
37	X	101	RRX	C16-C17-C18-C36
37	x	101	RRX	C16-C17-C18-C36
26	D	406	PL9	C40-C39-C41-C42
26	d	406	PL9	C40-C39-C41-C42
23	B	612	CLA	C2-C3-C5-C6
23	b	612	CLA	C2-C3-C5-C6
23	B	610	CLA	C14-C13-C15-C16
23	b	610	CLA	C14-C13-C15-C16
23	C	506	CLA	C3A-C2A-CAA-CBA
23	c	506	CLA	C3A-C2A-CAA-CBA
23	B	615	CLA	CAA-CBA-CGA-O2A
23	b	615	CLA	CAA-CBA-CGA-O2A
23	B	612	CLA	CAA-CBA-CGA-O2A
23	b	612	CLA	CAA-CBA-CGA-O2A
29	B	622	LHG	O8-C23-C24-C25
29	b	622	LHG	O8-C23-C24-C25
26	A	410	PL9	C43-C44-C46-C47
26	a	410	PL9	C43-C44-C46-C47
23	C	512	CLA	O2A-C1-C2-C3
23	c	512	CLA	O2A-C1-C2-C3
23	C	510	CLA	CBA-CGA-O2A-C1
23	c	510	CLA	CBA-CGA-O2A-C1
23	B	615	CLA	CAA-CBA-CGA-O1A
23	b	615	CLA	CAA-CBA-CGA-O1A
23	B	601	CLA	CHA-CBD-CGD-O2D

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Mol	Chain	Res	Type	Atoms
23	B	607	CLA	CHA-CBD-CGD-O1D
23	C	503	CLA	CHA-CBD-CGD-O2D
23	C	506	CLA	CHA-CBD-CGD-O2D
23	C	507	CLA	CHA-CBD-CGD-O2D
23	b	601	CLA	CHA-CBD-CGD-O2D
23	b	604	CLA	CHA-CBD-CGD-O2D
23	b	607	CLA	CHA-CBD-CGD-O1D
23	c	503	CLA	CHA-CBD-CGD-O2D
23	c	506	CLA	CHA-CBD-CGD-O2D
23	c	507	CLA	CHA-CBD-CGD-O2D
30	J	101	LMG	O7-C10-C11-C12
30	j	101	LMG	O7-C10-C11-C12
32	C	515	DGD	O2G-C1B-C2B-C3B
32	c	515	DGD	O2G-C1B-C2B-C3B
29	D	407	LHG	O7-C5-C6-O8
29	d	407	LHG	O7-C5-C6-O8
36	V	201	HEC	C2C-C3C-CAC-CBC
36	v	201	HEC	C2C-C3C-CAC-CBC
23	C	505	CLA	CAA-CBA-CGA-O2A
23	c	505	CLA	CAA-CBA-CGA-O2A
33	D	401	PHO	C2A-CAA-CBA-CGA
33	d	401	PHO	C2A-CAA-CBA-CGA
36	V	201	HEC	C2B-C3B-CAB-CBB
36	v	201	HEC	C2B-C3B-CAB-CBB
23	C	503	CLA	C11-C12-C13-C15
23	c	503	CLA	C11-C12-C13-C15
26	D	406	PL9	C4-C3-C7-C8
26	d	406	PL9	C4-C3-C7-C8
23	B	621	CLA	CAA-CBA-CGA-O2A
23	b	621	CLA	CAA-CBA-CGA-O2A
23	C	503	CLA	C11-C12-C13-C14
23	c	503	CLA	C11-C12-C13-C14
23	A	406	CLA	C2A-CAA-CBA-CGA
23	a	406	CLA	C2A-CAA-CBA-CGA
26	A	410	PL9	C16-C17-C18-C19
26	A	410	PL9	C46-C47-C48-C49
26	a	410	PL9	C16-C17-C18-C19
26	a	410	PL9	C46-C47-C48-C49
23	b	612	CLA	C8-C10-C11-C12
23	B	612	CLA	C8-C10-C11-C12
23	A	405	CLA	C4-C3-C5-C6
23	a	405	CLA	C4-C3-C5-C6

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Mol	Chain	Res	Type	Atoms
23	B	607	CLA	C1A-C2A-CAA-CBA
23	B	608	CLA	C1A-C2A-CAA-CBA
23	b	607	CLA	C1A-C2A-CAA-CBA
23	b	608	CLA	C1A-C2A-CAA-CBA
23	B	612	CLA	CAA-CBA-CGA-O1A
23	b	612	CLA	CAA-CBA-CGA-O1A
23	B	613	CLA	C2A-CAA-CBA-CGA
23	b	613	CLA	C2A-CAA-CBA-CGA
23	B	611	CLA	C16-C17-C18-C20
23	b	611	CLA	C16-C17-C18-C20
26	D	406	PL9	C35-C34-C36-C37
26	d	406	PL9	C35-C34-C36-C37
23	A	412	CLA	C4B-C3B-CAB-CBB
23	C	503	CLA	C4B-C3B-CAB-CBB
23	C	512	CLA	C4B-C3B-CAB-CBB
23	a	412	CLA	C4B-C3B-CAB-CBB
23	c	503	CLA	C4B-C3B-CAB-CBB
23	c	512	CLA	C4B-C3B-CAB-CBB
29	D	407	LHG	C3-O3-P-O5
29	d	407	LHG	C3-O3-P-O5
23	C	505	CLA	CAA-CBA-CGA-O1A
23	c	505	CLA	CAA-CBA-CGA-O1A
29	B	622	LHG	O10-C23-C24-C25
29	b	622	LHG	O10-C23-C24-C25
32	C	515	DGD	O1B-C1B-C2B-C3B
32	c	515	DGD	O1B-C1B-C2B-C3B
24	A	408	BCR	C23-C24-C25-C26
24	C	520	BCR	C23-C24-C25-C30
24	a	408	BCR	C5-C6-C7-C8
24	a	408	BCR	C23-C24-C25-C26
24	c	520	BCR	C23-C24-C25-C30
30	J	101	LMG	O9-C10-C11-C12
30	j	101	LMG	O9-C10-C11-C12
23	B	612	CLA	CAD-CBD-CGD-O1D
23	C	505	CLA	CAD-CBD-CGD-O1D
23	C	519	CLA	CAD-CBD-CGD-O1D
23	b	612	CLA	CAD-CBD-CGD-O1D
23	c	505	CLA	CAD-CBD-CGD-O1D
23	c	519	CLA	CAD-CBD-CGD-O1D
23	B	621	CLA	CAA-CBA-CGA-O1A
23	b	621	CLA	CAA-CBA-CGA-O1A
26	D	406	PL9	C11-C12-C13-C14

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Mol	Chain	Res	Type	Atoms
26	d	406	PL9	C11-C12-C13-C14
32	h	101	DGD	C6A-C7A-C8A-C9A
32	H	101	DGD	C6A-C7A-C8A-C9A
32	H	101	DGD	CAB-CBB-CCB-CDB
32	h	101	DGD	CAB-CBB-CCB-CDB
23	B	607	CLA	C2-C3-C5-C6
23	C	507	CLA	C6-C7-C8-C10
23	b	607	CLA	C2-C3-C5-C6
23	c	507	CLA	C6-C7-C8-C10
33	D	401	PHO	C3A-C2A-CAA-CBA
33	d	401	PHO	C3A-C2A-CAA-CBA
23	C	510	CLA	CAA-CBA-CGA-O2A
23	c	510	CLA	CAA-CBA-CGA-O2A
32	C	516	DGD	CBB-CCB-CDB-CEB
32	H	101	DGD	C6B-C7B-C8B-C9B
32	c	516	DGD	CBB-CCB-CDB-CEB
32	h	101	DGD	C6B-C7B-C8B-C9B
23	B	613	CLA	CAA-CBA-CGA-O2A
23	b	613	CLA	CAA-CBA-CGA-O2A
26	A	410	PL9	C9-C11-C12-C13
26	a	410	PL9	C9-C11-C12-C13
23	B	612	CLA	C10-C11-C12-C13
23	C	509	CLA	C8-C10-C11-C12
23	b	612	CLA	C10-C11-C12-C13
23	c	509	CLA	C8-C10-C11-C12
23	C	510	CLA	C8-C10-C11-C12
23	c	510	CLA	C8-C10-C11-C12
23	C	510	CLA	CAA-CBA-CGA-O1A
23	c	510	CLA	CAA-CBA-CGA-O1A

There are no ring outliers.

124 monomers are involved in 327 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	b	610	CLA	2	0
24	t	102	BCR	8	0
23	c	508	CLA	4	0
26	D	406	PL9	3	0
32	H	101	DGD	1	0
26	d	406	PL9	2	0
23	C	504	CLA	3	0
24	K	102	BCR	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
34	F	102	HEM	3	0
23	B	604	CLA	4	0
23	c	513	CLA	2	0
23	C	519	CLA	5	0
32	h	101	DGD	1	0
24	C	520	BCR	3	0
23	B	610	CLA	2	0
23	b	602	CLA	4	0
23	c	502	CLA	6	0
23	A	407	CLA	1	0
23	d	403	CLA	4	0
23	C	508	CLA	4	0
23	B	602	CLA	5	0
20	a	401	OEX	4	0
24	c	514	BCR	4	0
23	B	609	CLA	4	0
29	D	407	LHG	1	0
23	c	519	CLA	4	0
32	c	518	DGD	2	0
30	C	501	LMG	1	0
23	b	601	CLA	1	0
24	K	103	BCR	5	0
20	A	401	OEX	4	0
23	b	613	CLA	4	0
26	A	410	PL9	3	0
23	C	513	CLA	2	0
23	C	506	CLA	3	0
24	b	616	BCR	4	0
23	A	405	CLA	7	0
23	C	512	CLA	2	0
23	C	510	CLA	4	0
23	C	503	CLA	5	0
23	a	412	CLA	5	0
23	c	510	CLA	4	0
23	B	601	CLA	1	0
29	b	622	LHG	3	0
29	d	407	LHG	1	0
24	b	620	BCR	6	0
23	C	502	CLA	5	0
24	T	102	BCR	7	0
23	b	606	CLA	4	0
23	b	605	CLA	7	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
33	D	402	PHO	3	0
23	B	607	CLA	2	0
23	c	507	CLA	10	0
31	M	101	LMT	4	0
37	X	101	RRX	2	0
29	A	414	LHG	2	0
23	c	505	CLA	5	0
23	C	509	CLA	3	0
26	a	410	PL9	2	0
23	B	606	CLA	4	0
24	C	514	BCR	3	0
31	m	101	LMT	4	0
23	B	614	CLA	5	0
24	k	102	BCR	2	0
23	a	406	CLA	2	0
23	a	407	CLA	1	0
30	c	501	LMG	1	0
23	B	615	CLA	1	0
23	B	608	CLA	2	0
32	C	515	DGD	3	0
23	B	611	CLA	3	0
23	b	609	CLA	4	0
32	c	516	DGD	1	0
23	b	607	CLA	2	0
23	B	613	CLA	3	0
24	D	405	BCR	3	0
23	a	405	CLA	6	0
23	b	612	CLA	4	0
23	b	615	CLA	1	0
23	b	608	CLA	3	0
24	B	616	BCR	3	0
24	d	405	BCR	2	0
23	A	406	CLA	2	0
33	D	401	PHO	1	0
33	d	401	PHO	2	0
29	a	414	LHG	2	0
32	C	518	DGD	2	0
23	D	403	CLA	4	0
23	B	605	CLA	7	0
23	C	507	CLA	9	0
29	L	101	LHG	2	0
23	B	603	CLA	2	0

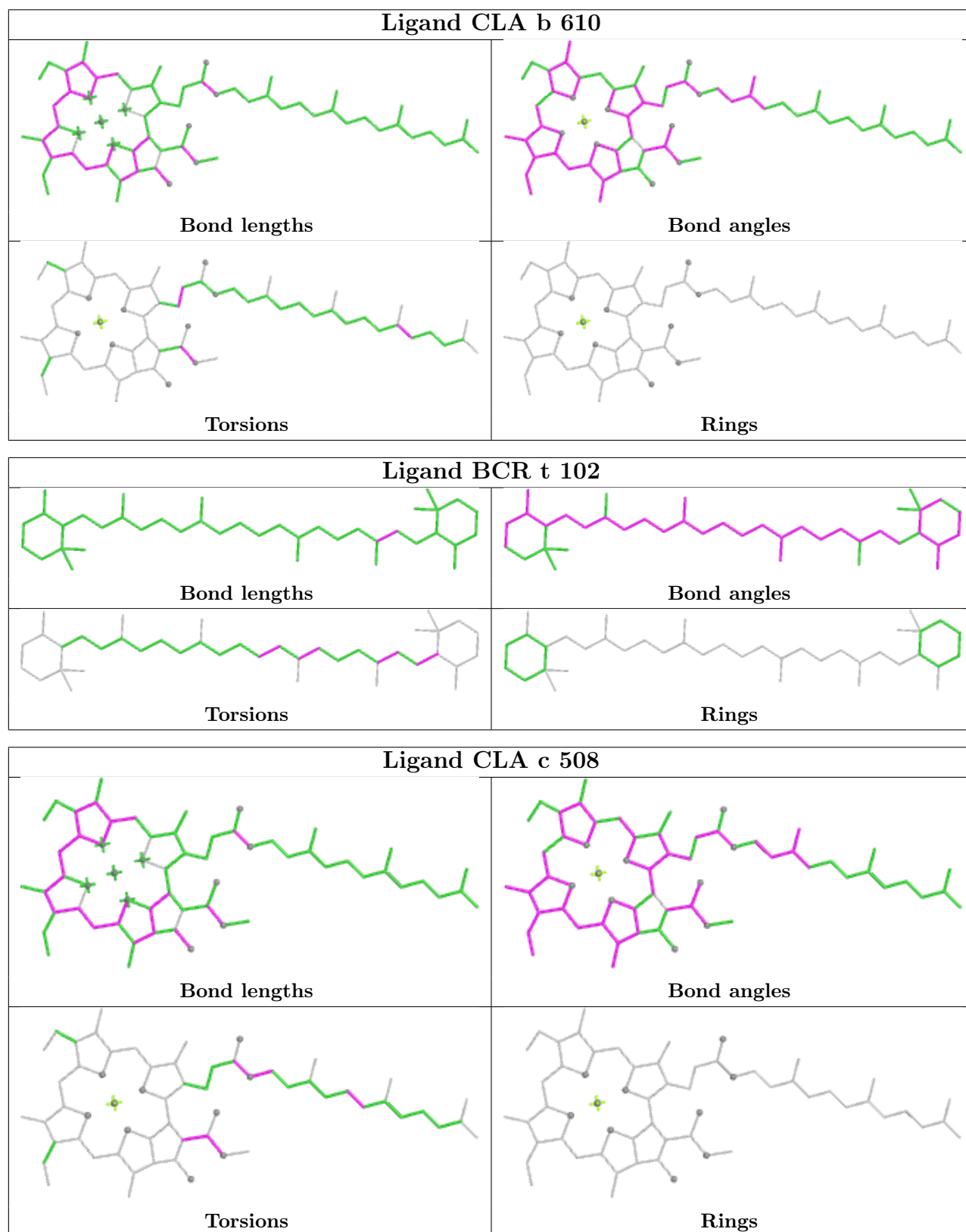
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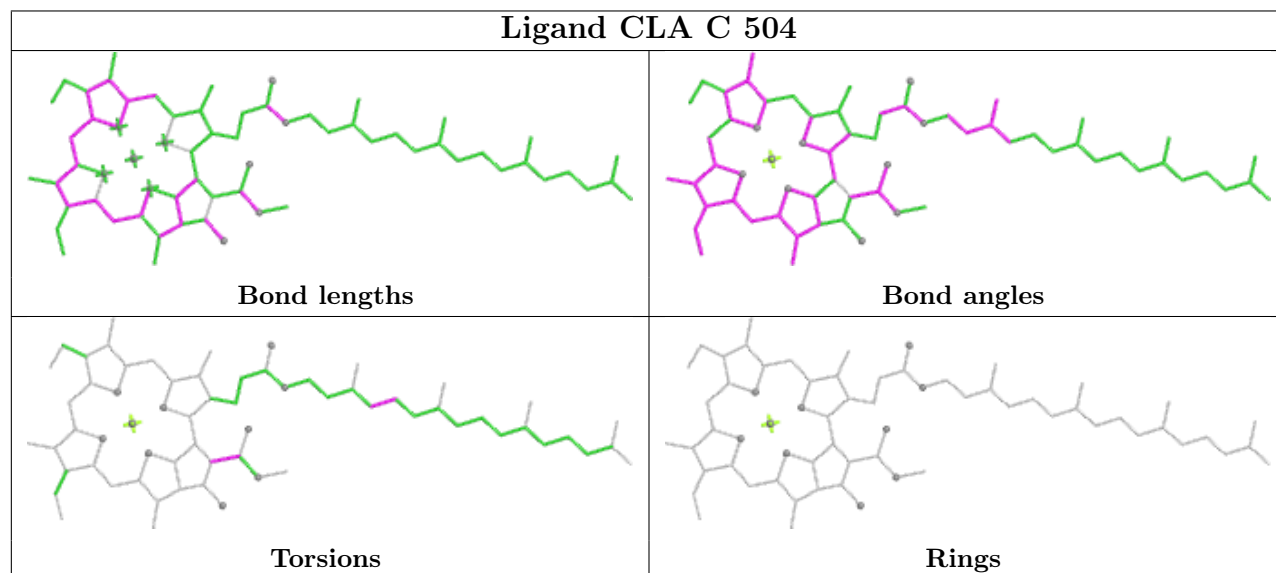
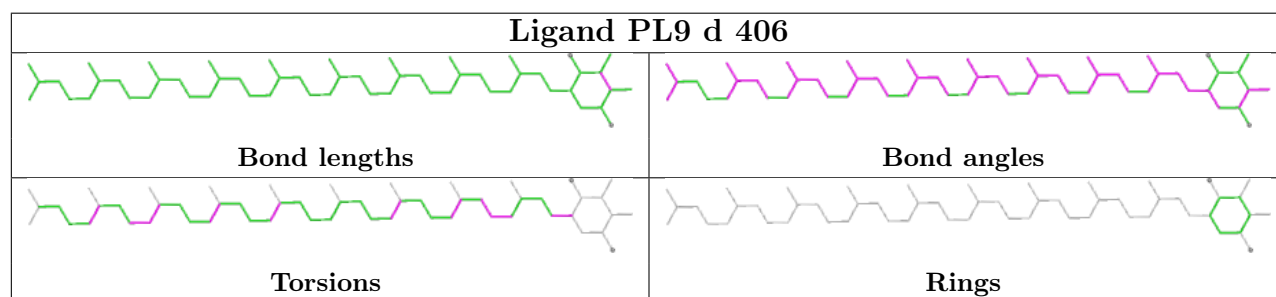
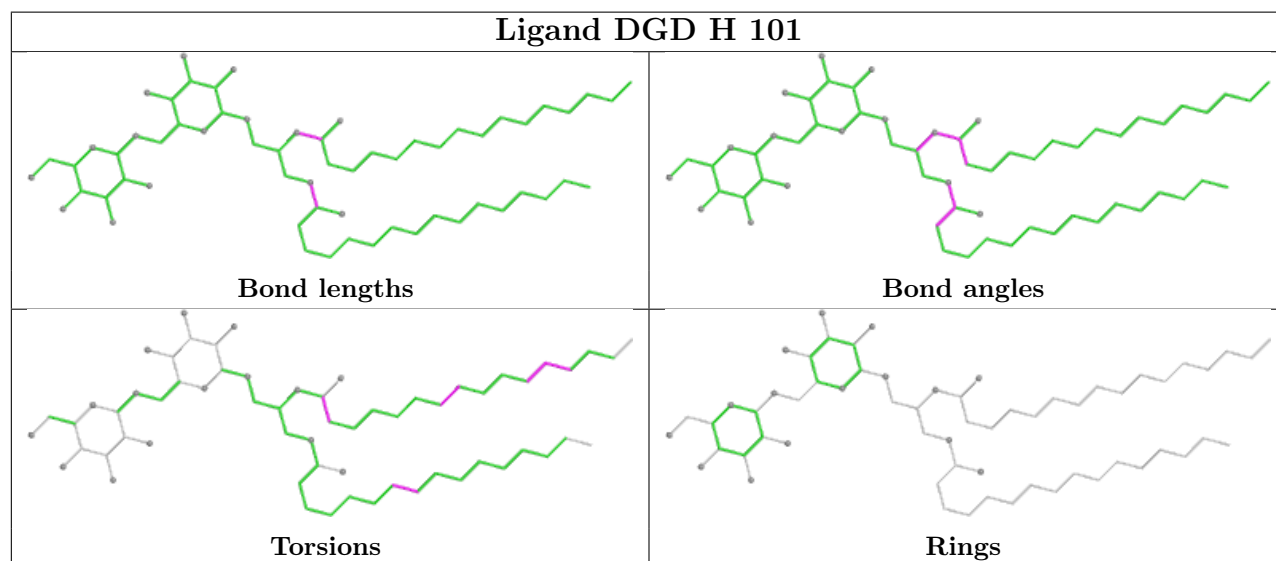
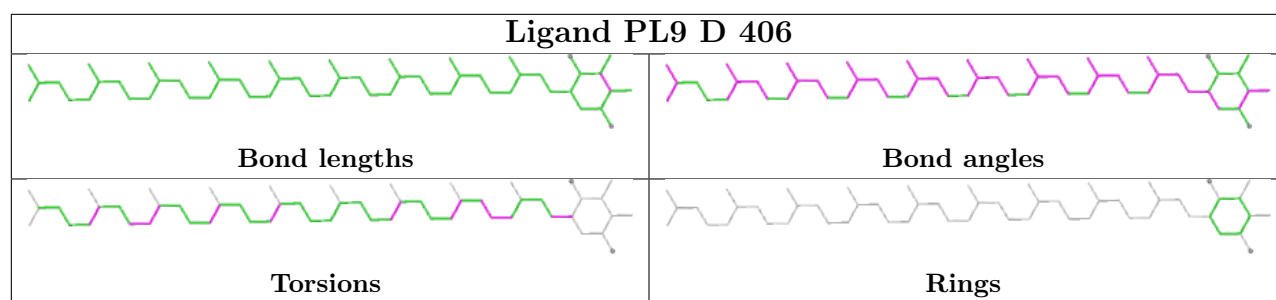
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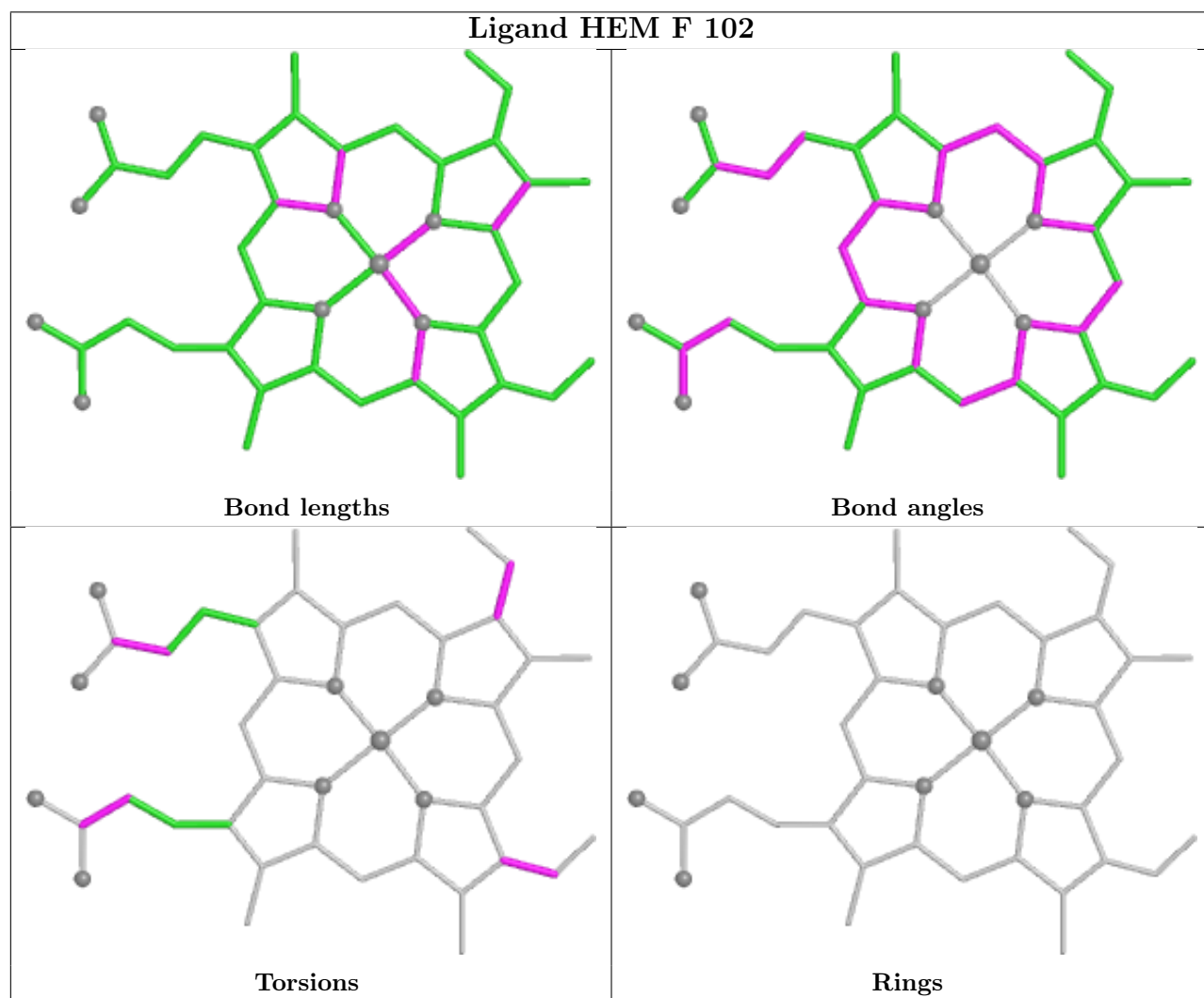
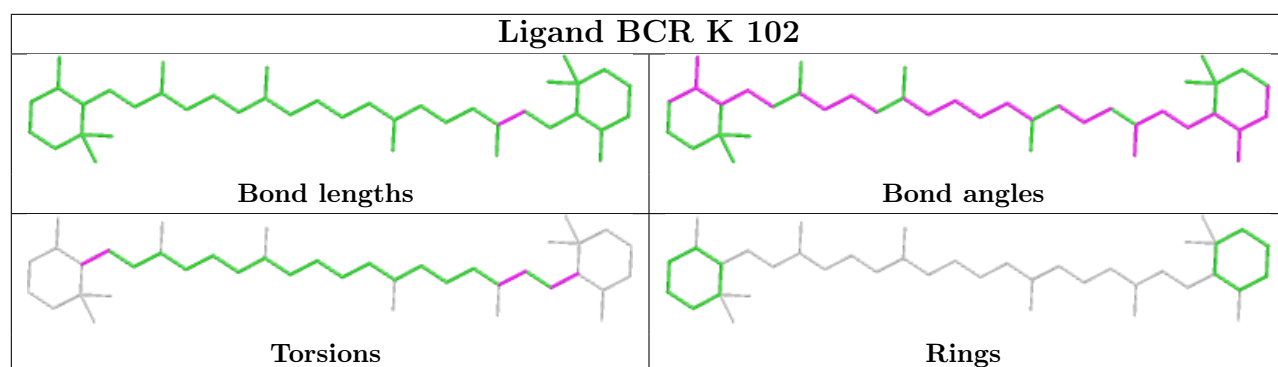
Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	c	509	CLA	2	0
24	a	408	BCR	3	0
23	b	604	CLA	4	0
24	c	520	BCR	3	0
24	B	620	BCR	5	0
29	l	101	LHG	2	0
24	k	103	BCR	4	0
23	C	511	CLA	7	0
23	c	503	CLA	5	0
23	B	621	CLA	4	0
32	C	516	DGD	1	0
23	c	511	CLA	7	0
23	b	614	CLA	5	0
23	c	512	CLA	1	0
34	f	102	HEM	3	0
33	d	402	PHO	3	0
23	c	504	CLA	4	0
32	c	515	DGD	3	0
23	b	603	CLA	3	0
24	b	617	BCR	1	0
23	b	611	CLA	2	0
23	A	412	CLA	5	0
23	C	505	CLA	5	0
24	B	617	BCR	2	0
23	B	612	CLA	4	0
29	A	415	LHG	1	0
31	M	102	LMT	1	0
29	B	622	LHG	2	0
23	b	621	CLA	3	0
29	a	415	LHG	1	0
23	c	506	CLA	3	0
31	B	623	LMT	1	0

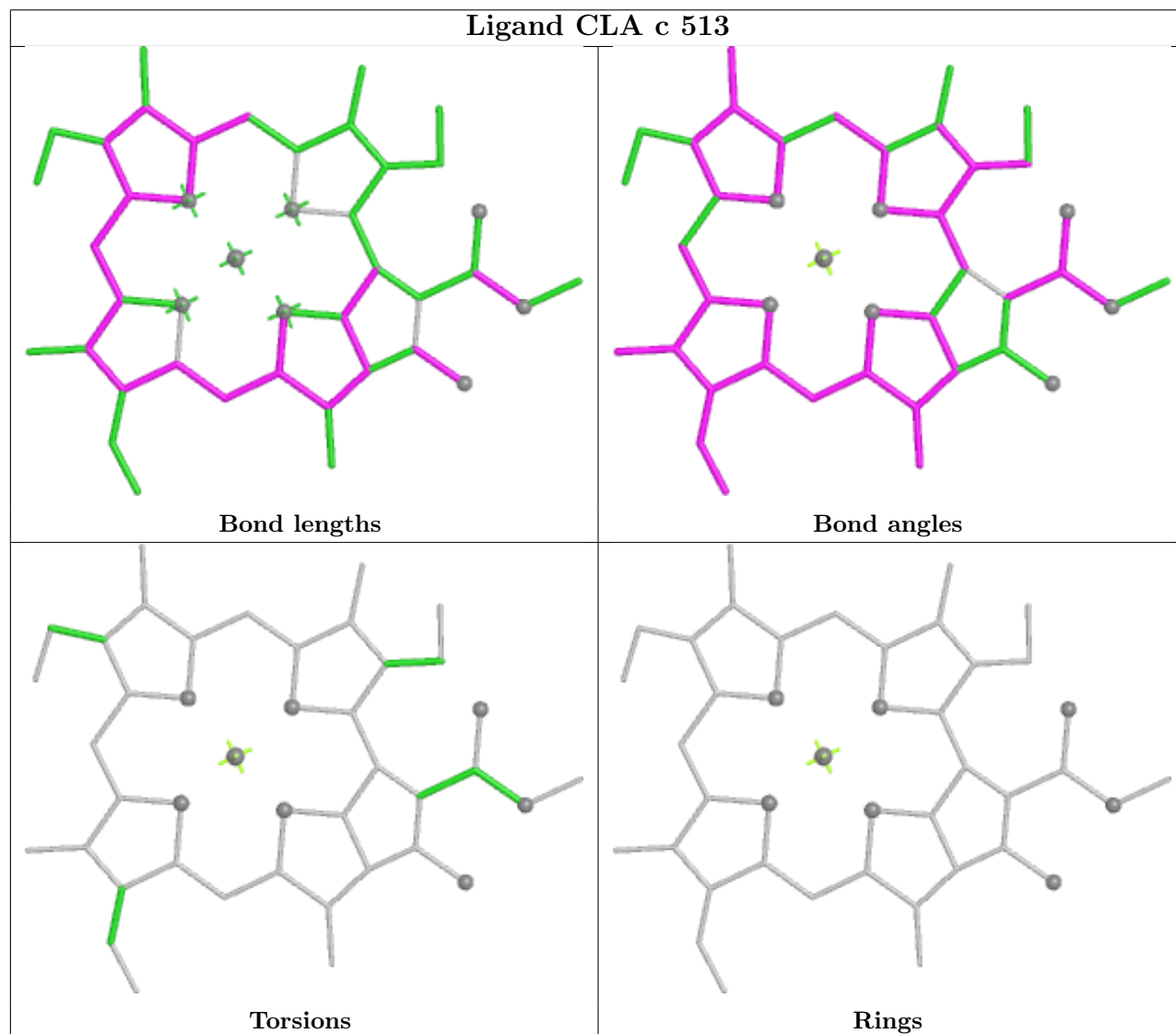
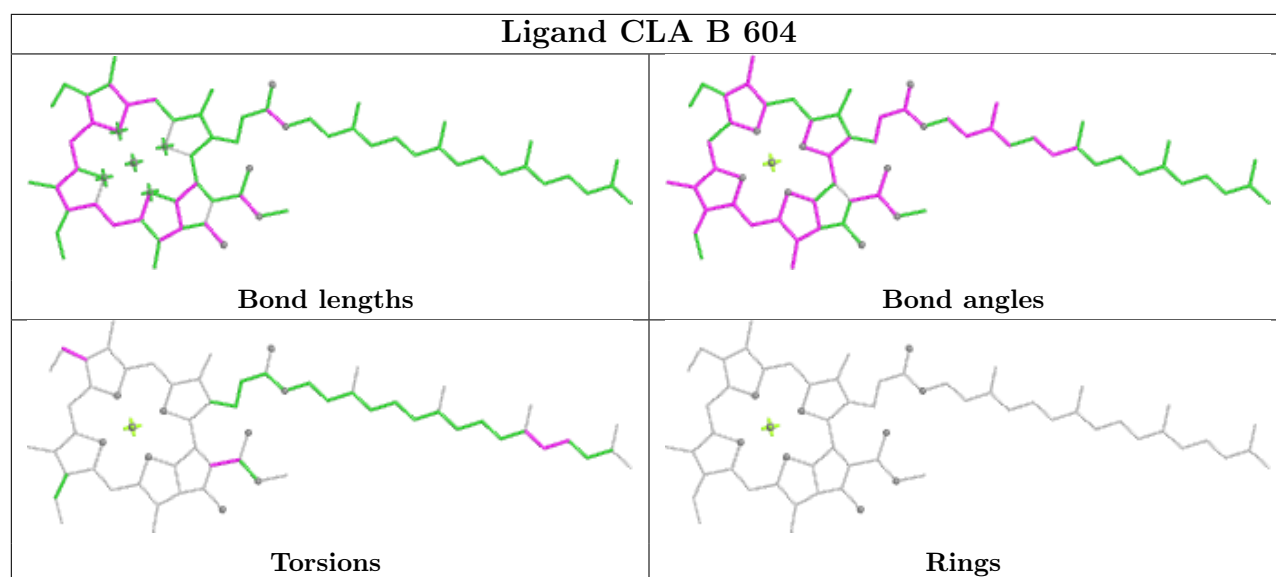
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

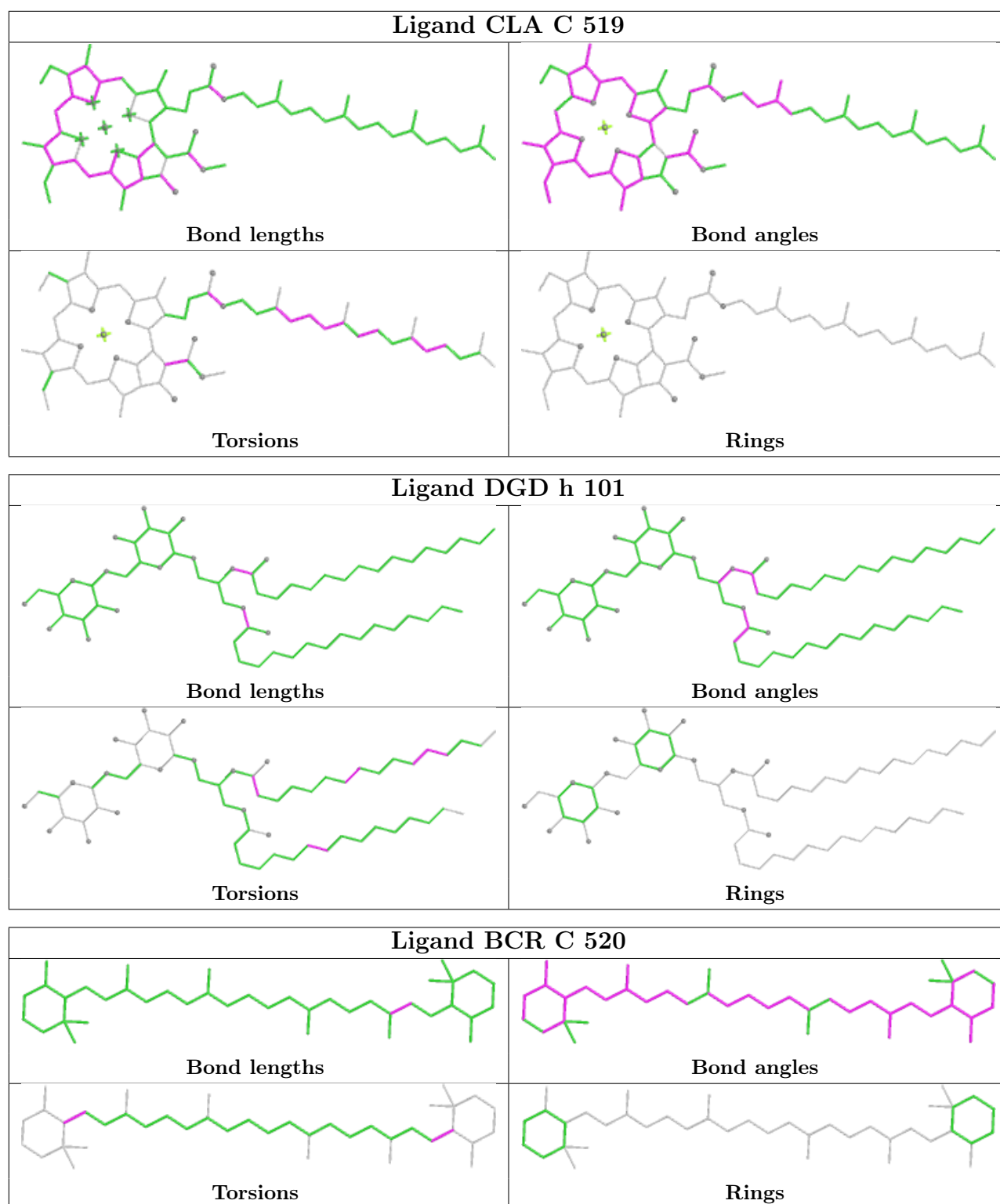
The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

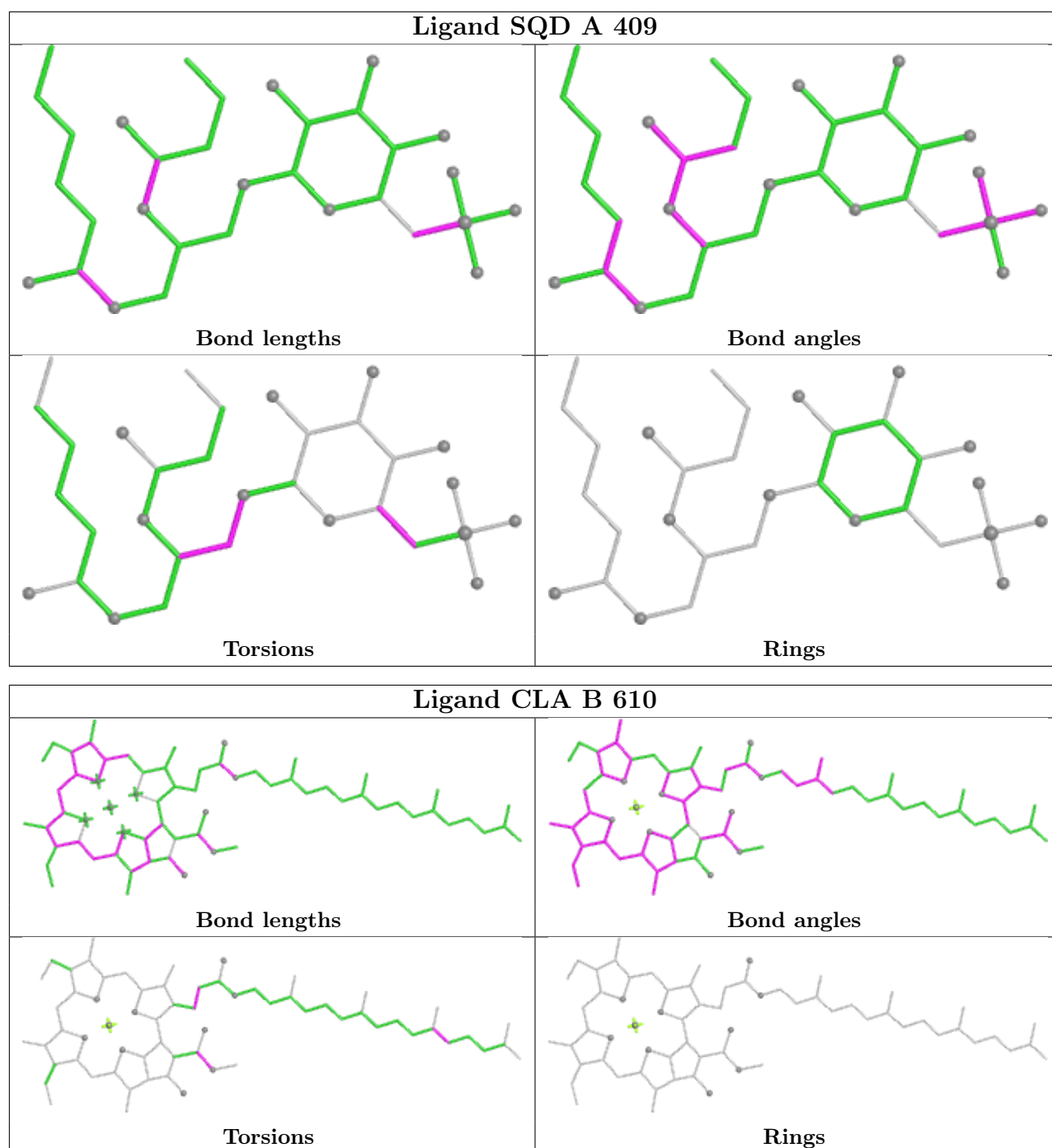


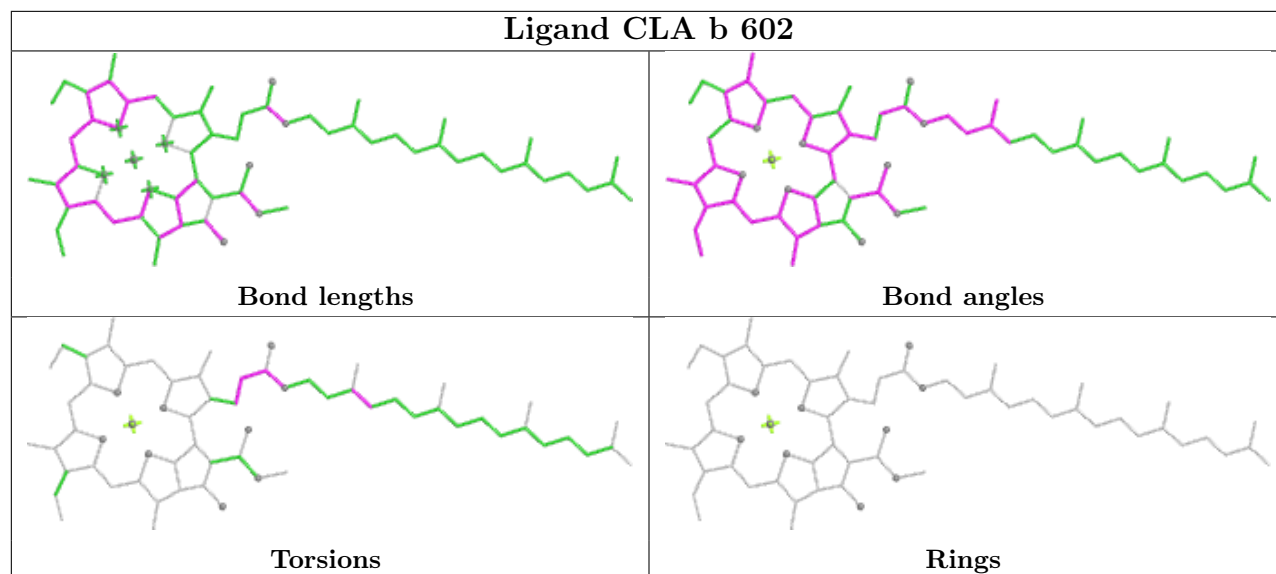
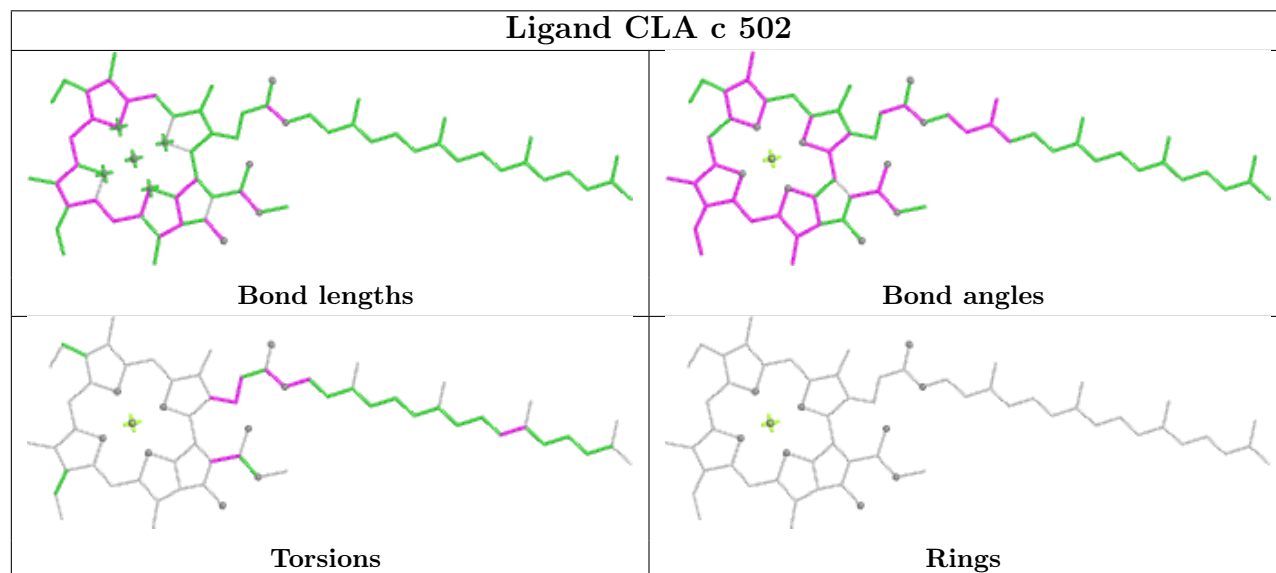




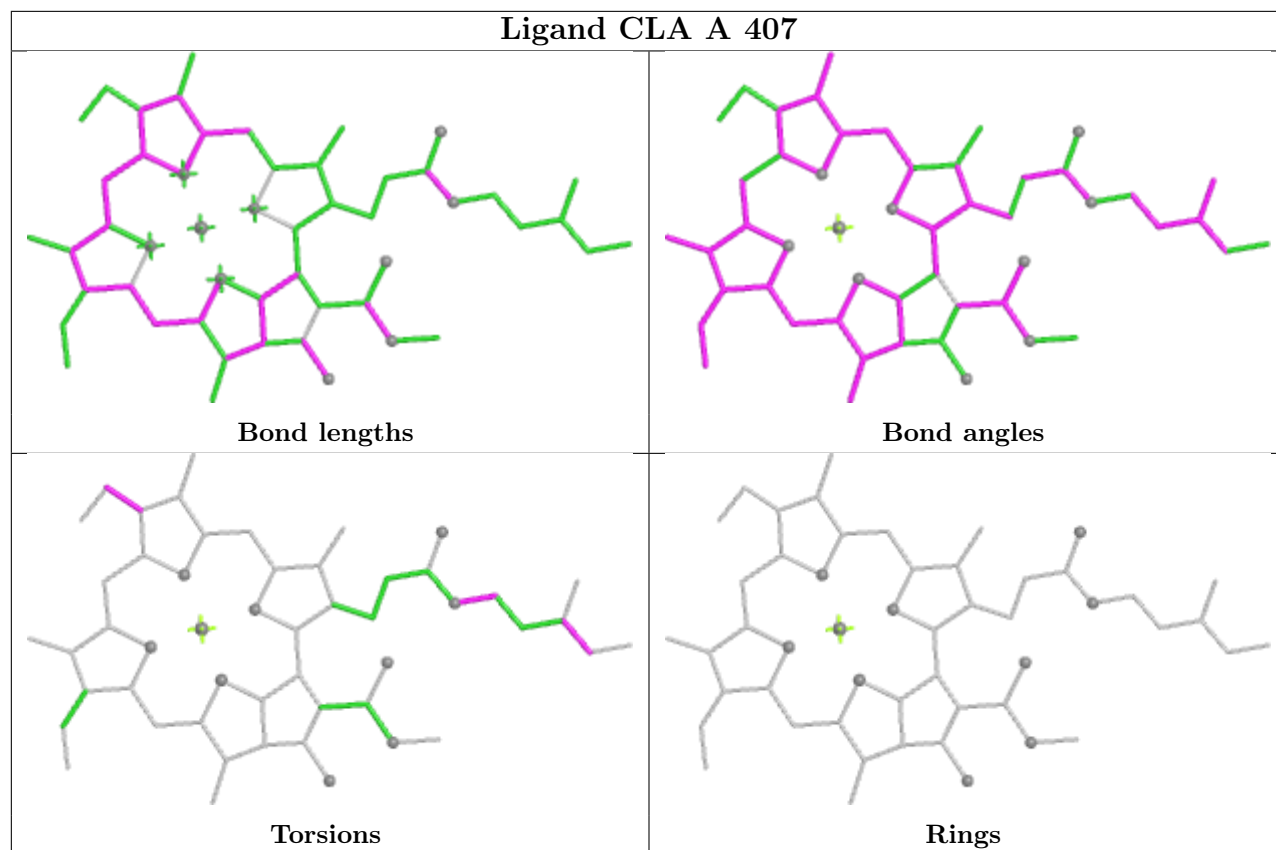




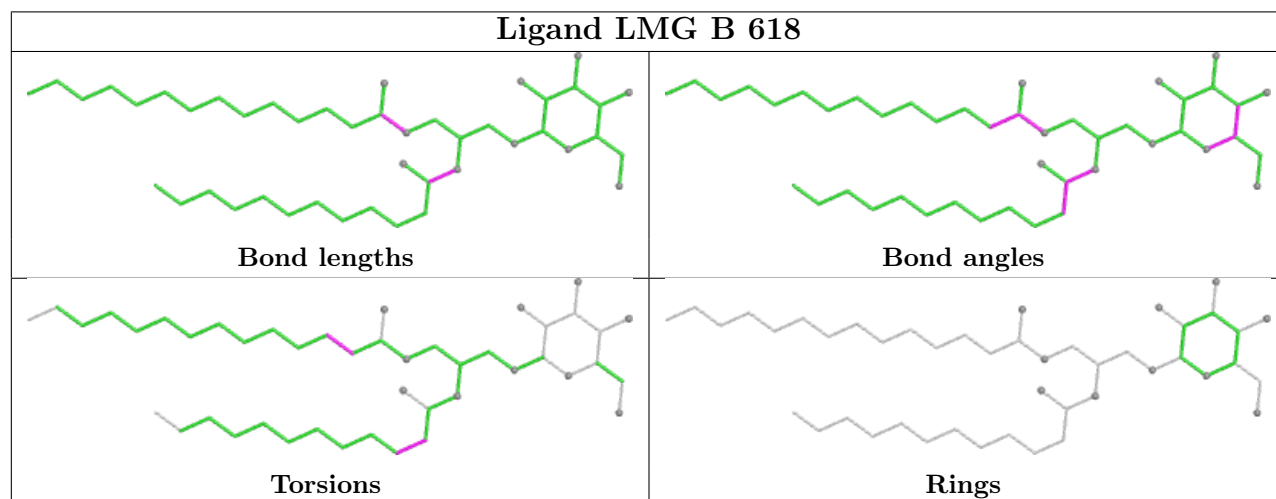


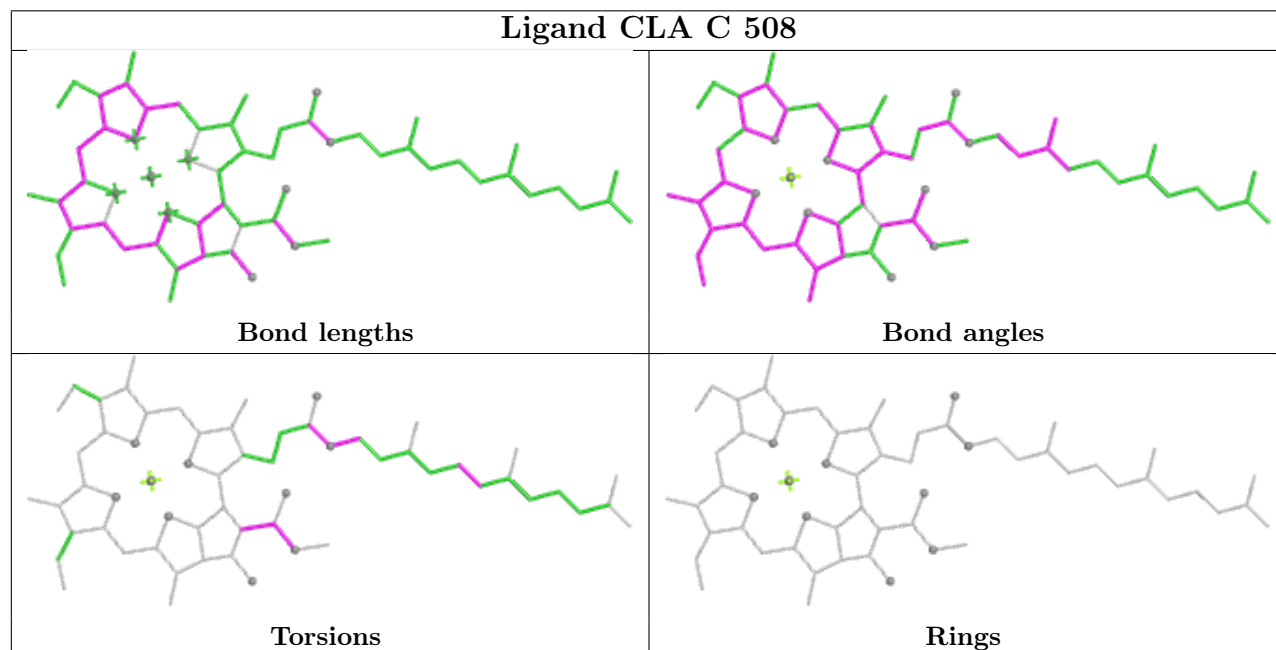
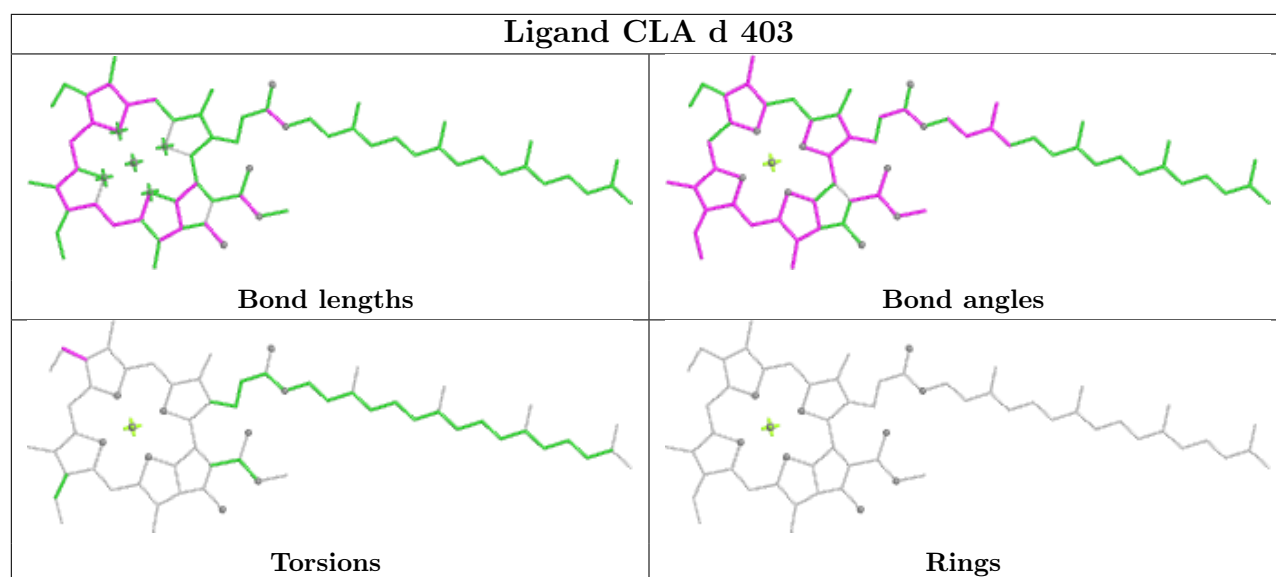
Ligand CLA b 602**Ligand CLA c 502**

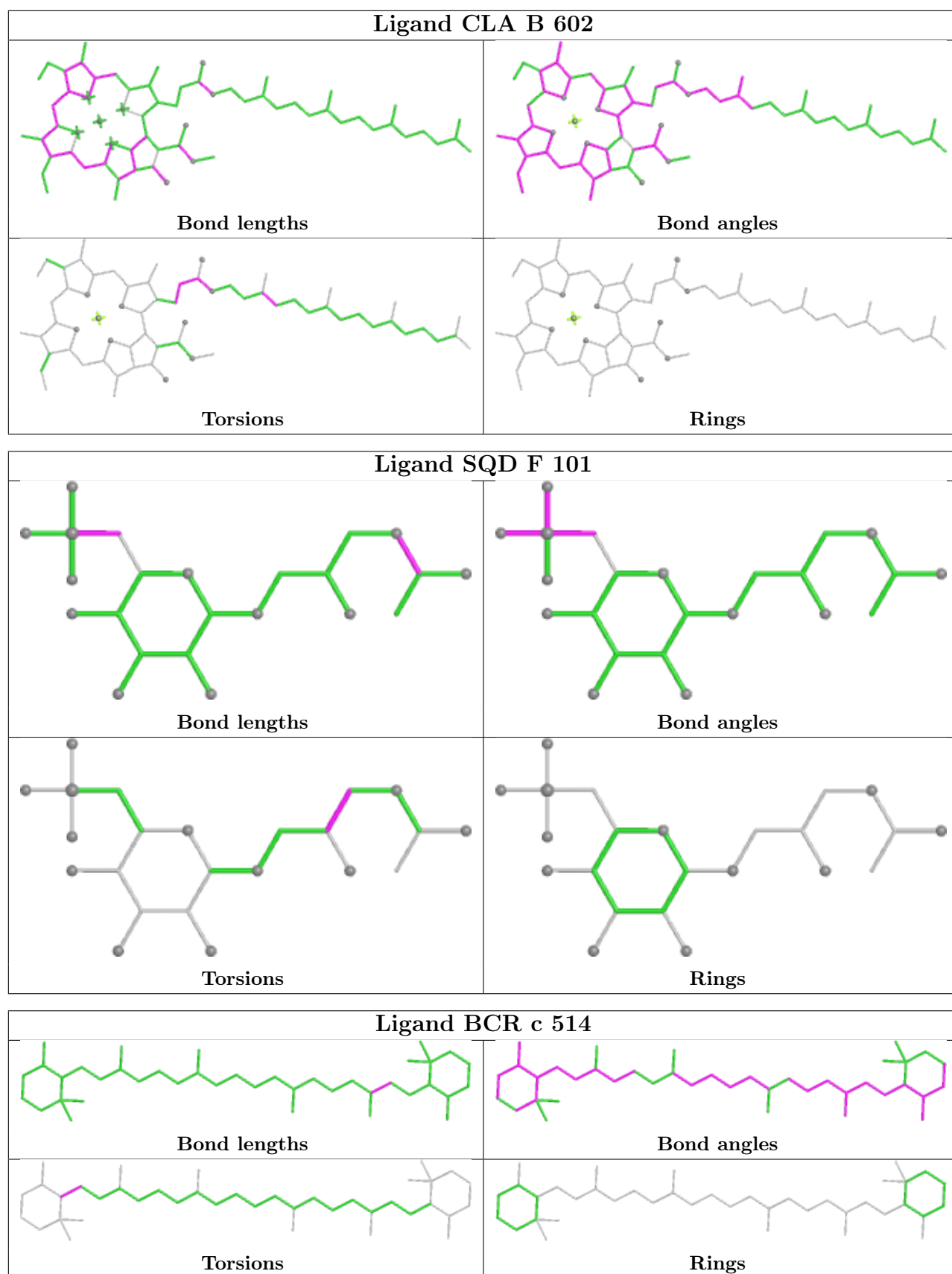
Ligand CLA A 407

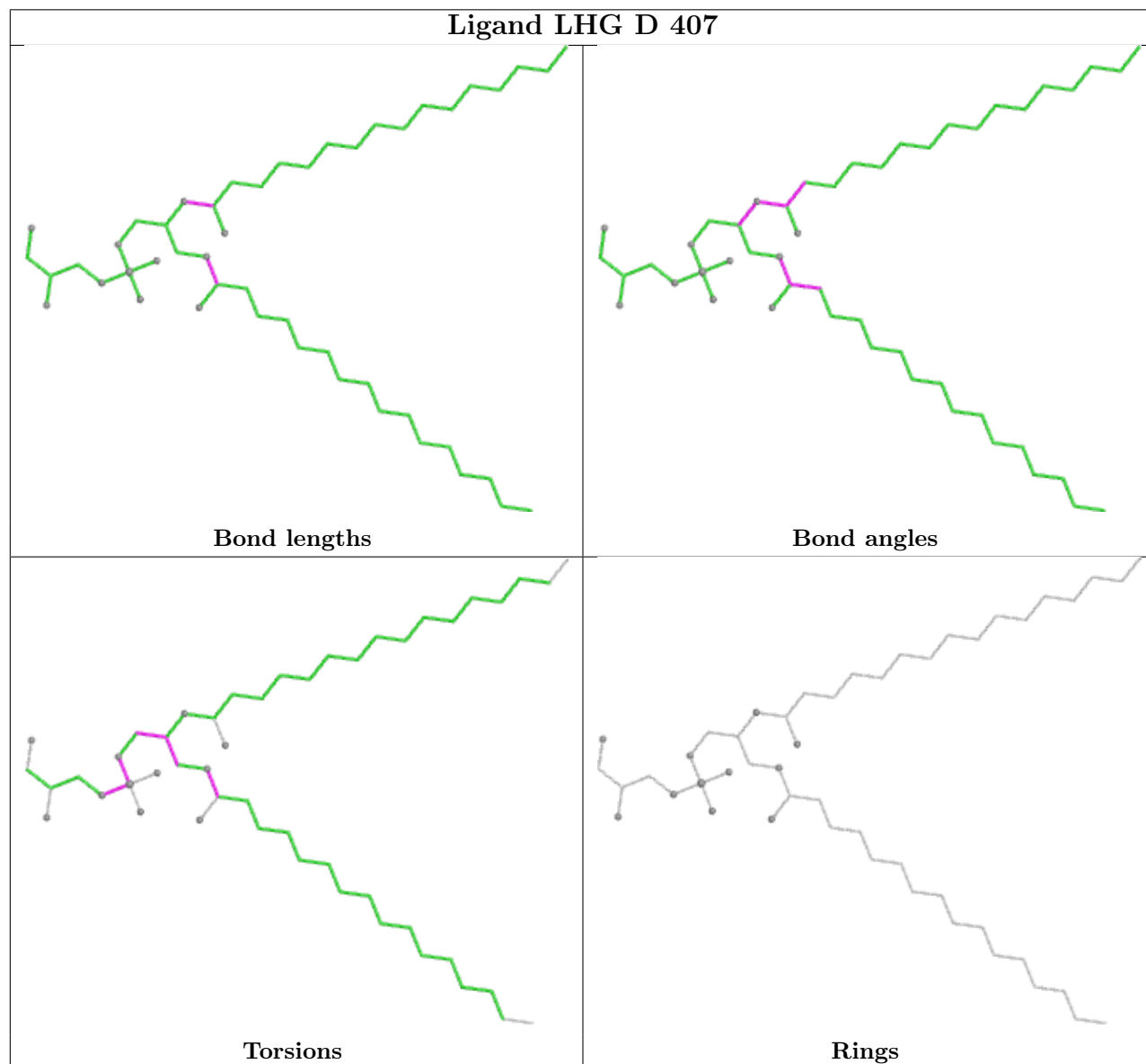
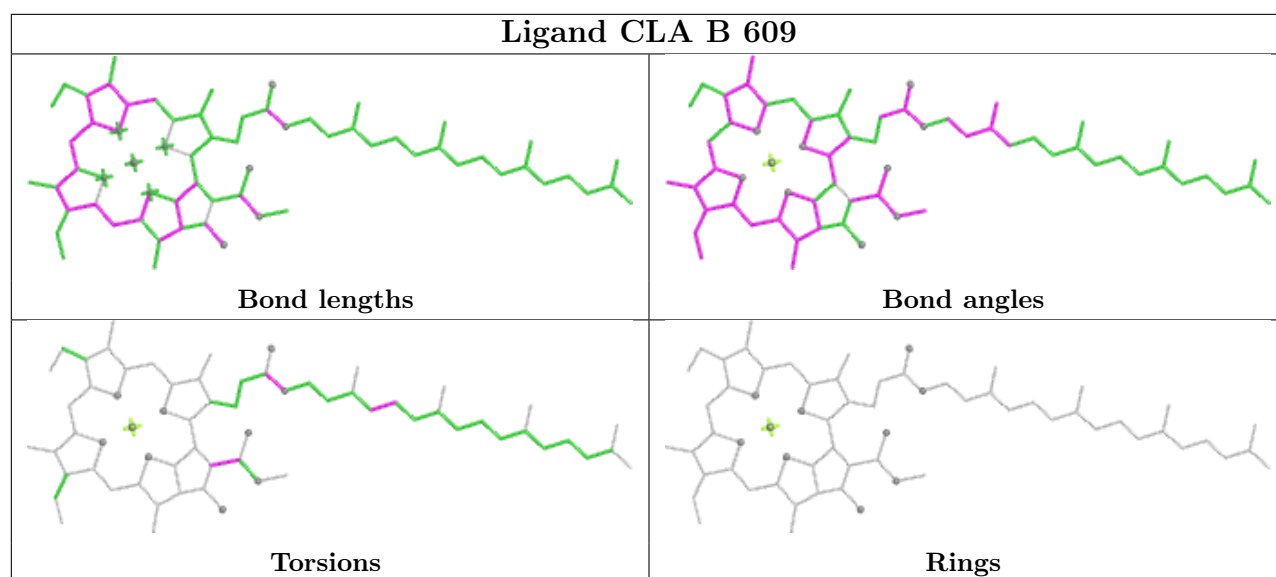


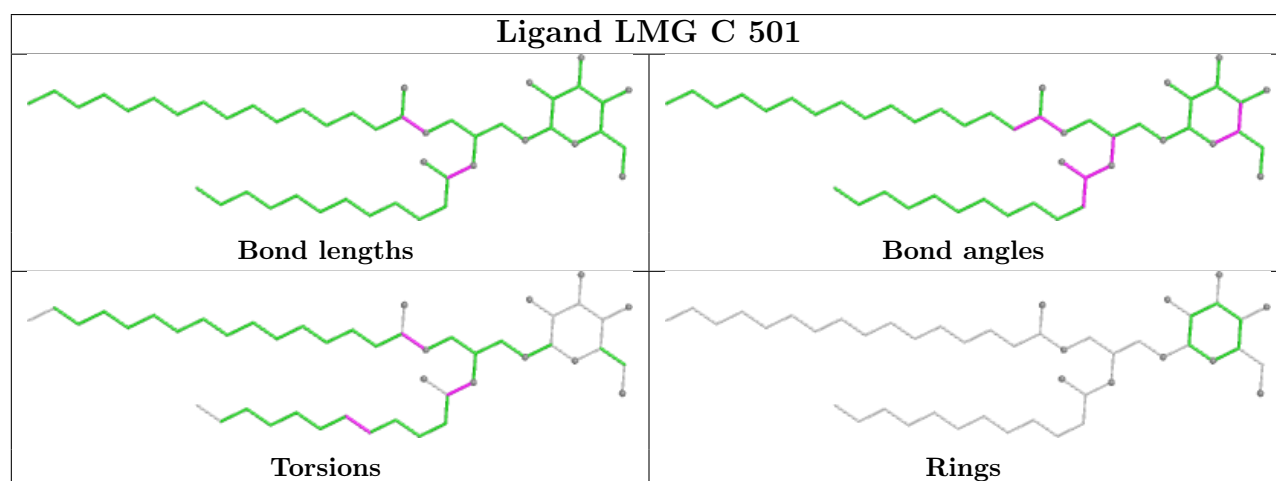
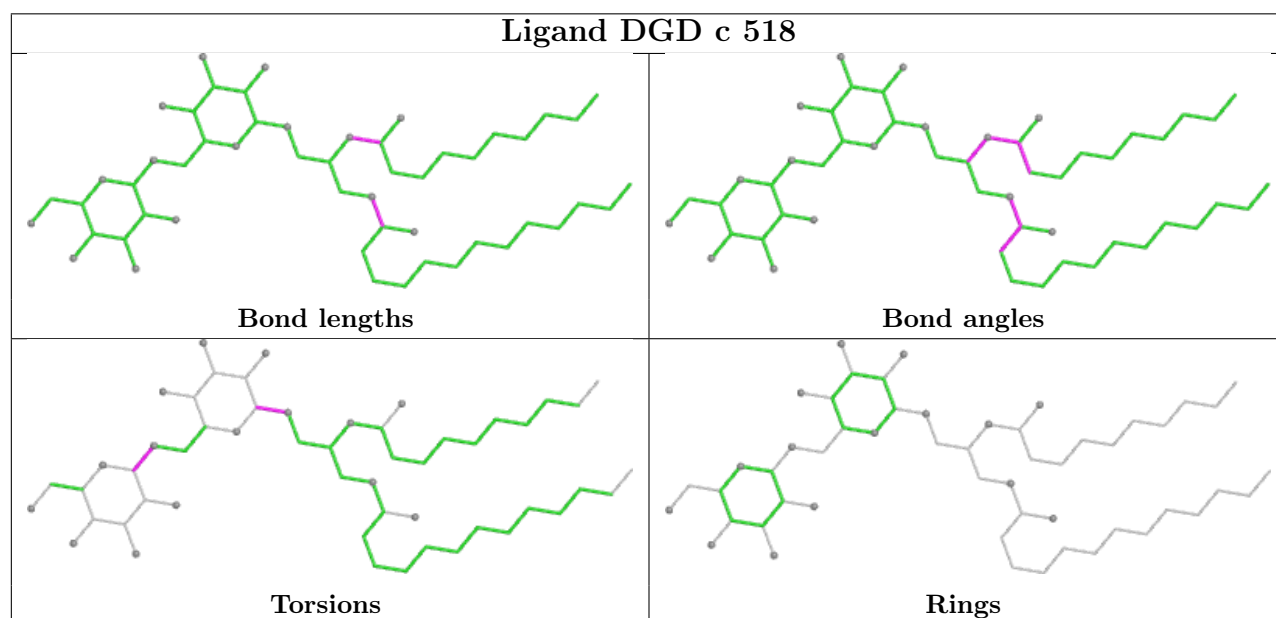
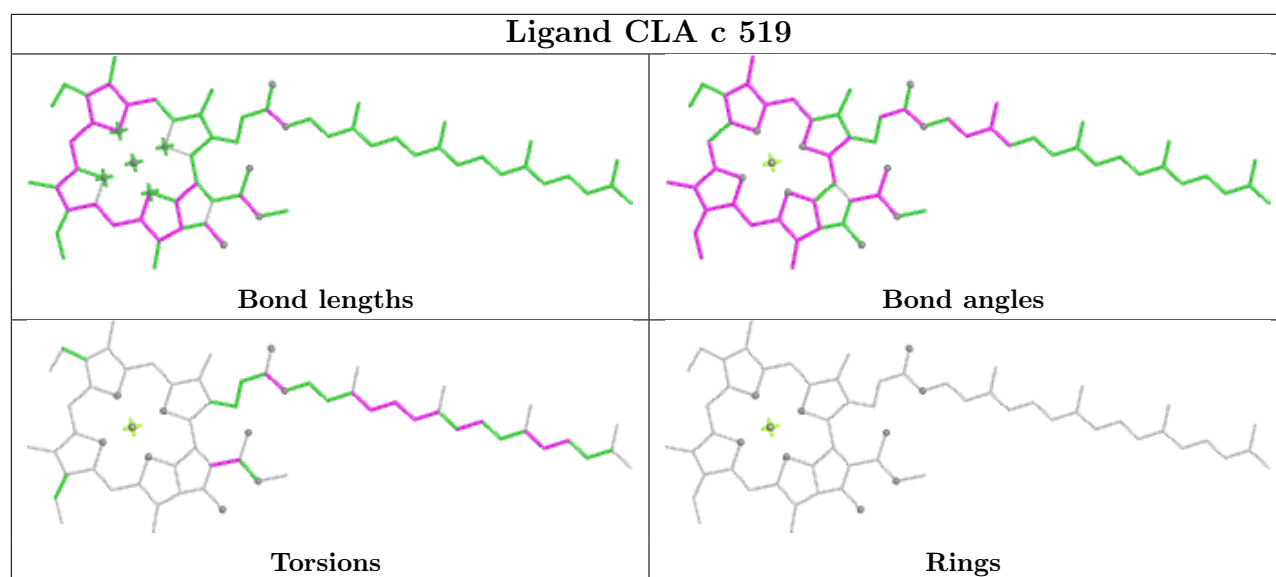
Ligand LMG B 618



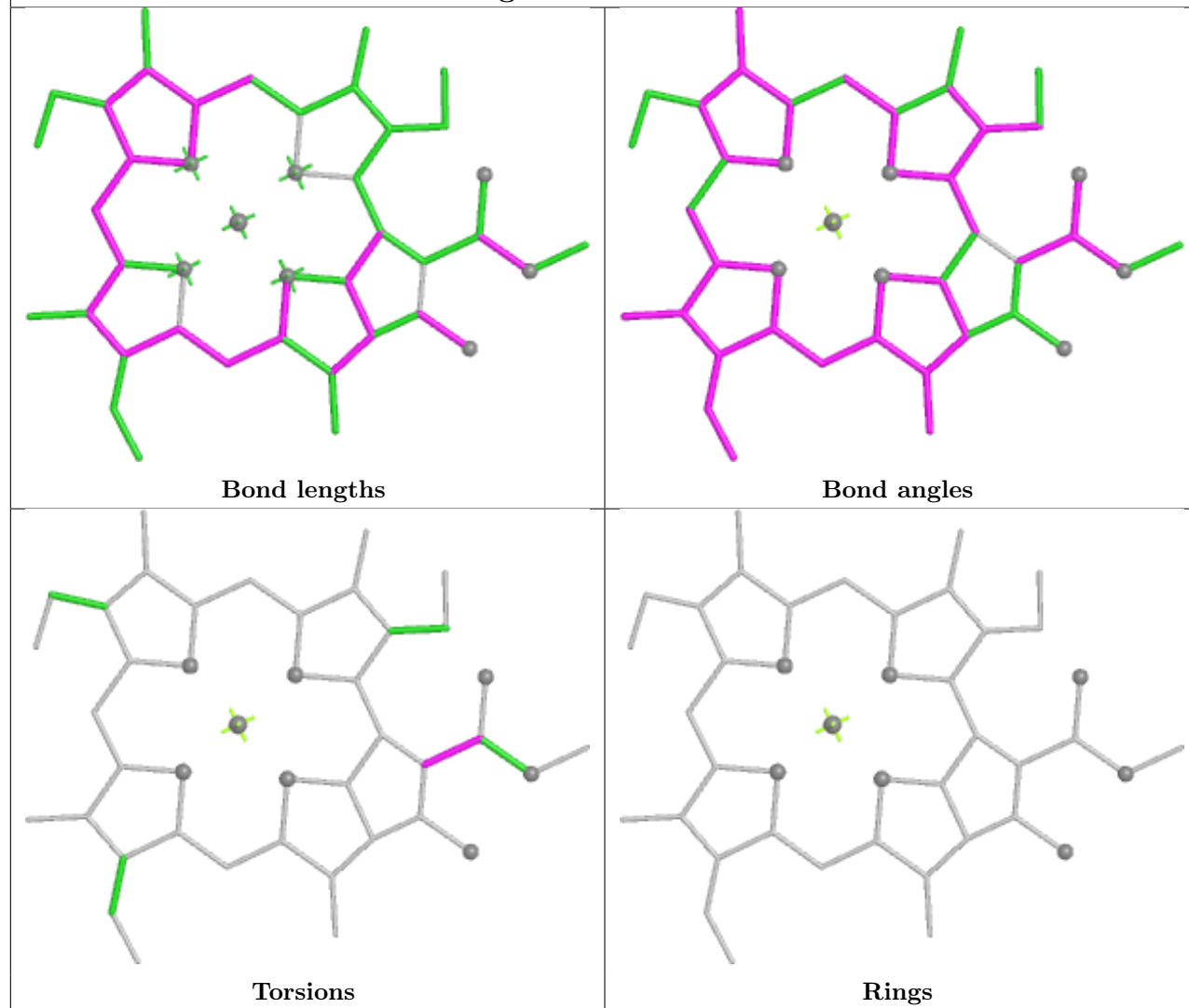




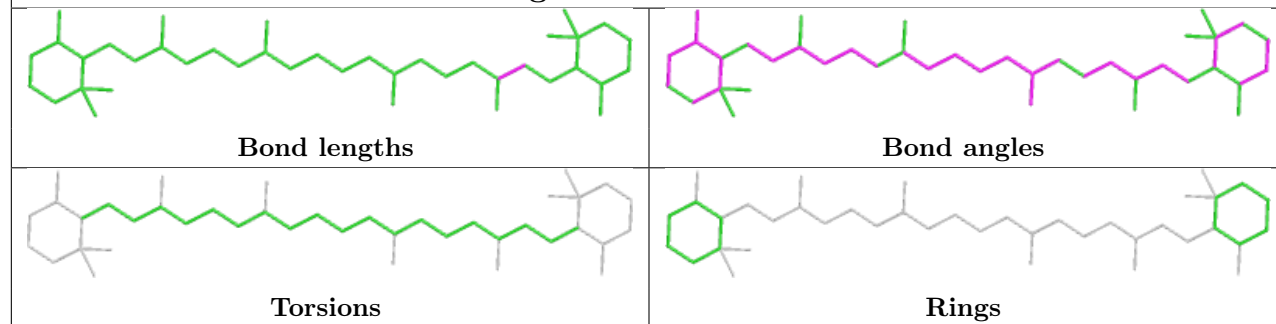


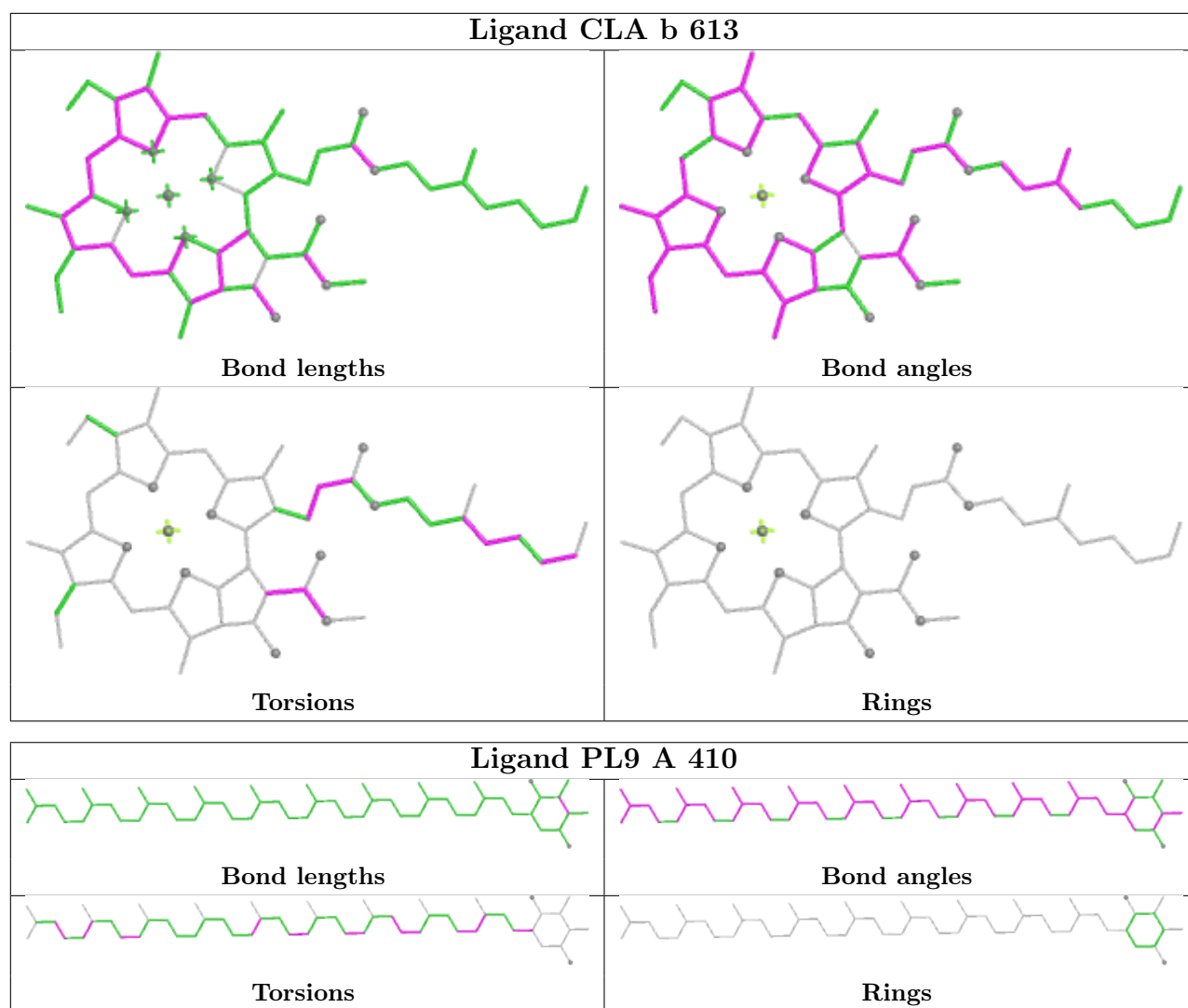


Ligand CLA b 601

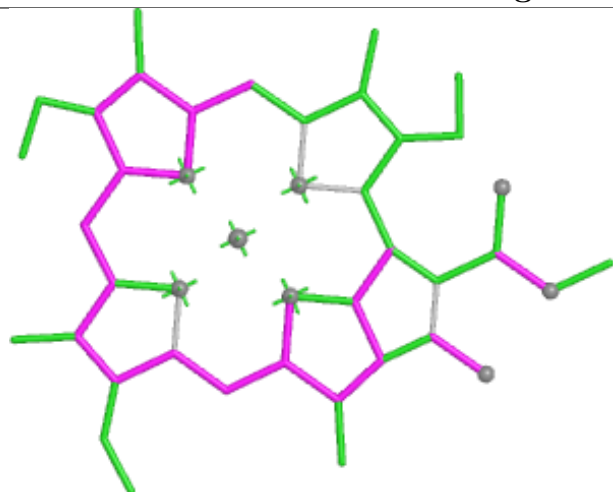


Ligand BCR K 103

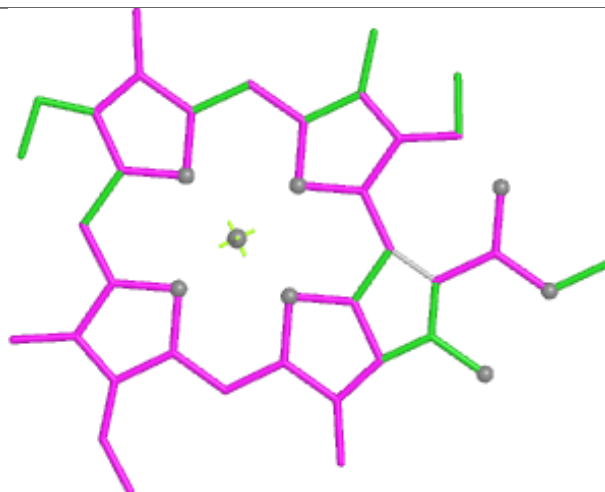




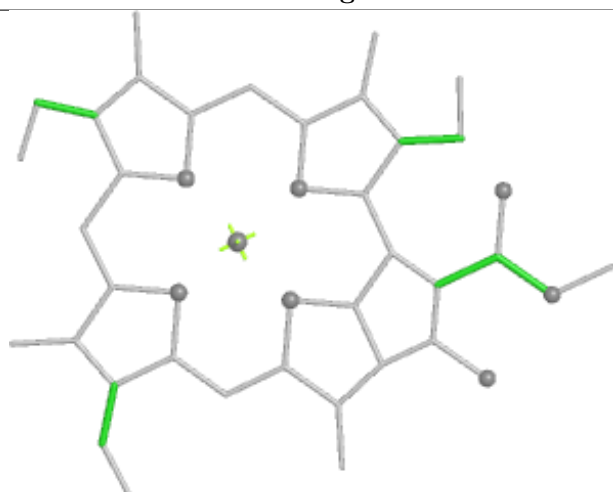
Ligand CLA C 513



Bond lengths



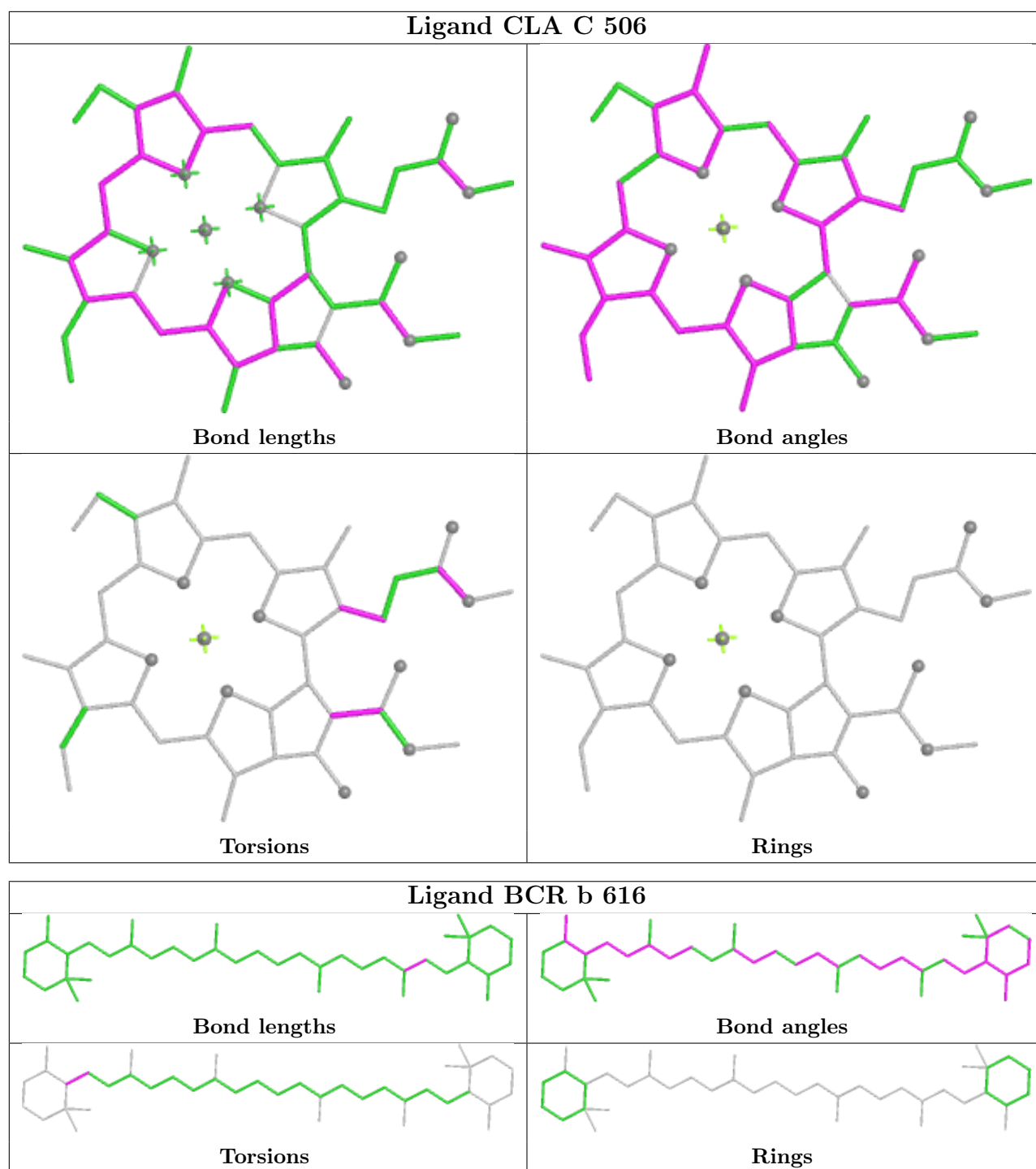
Bond angles

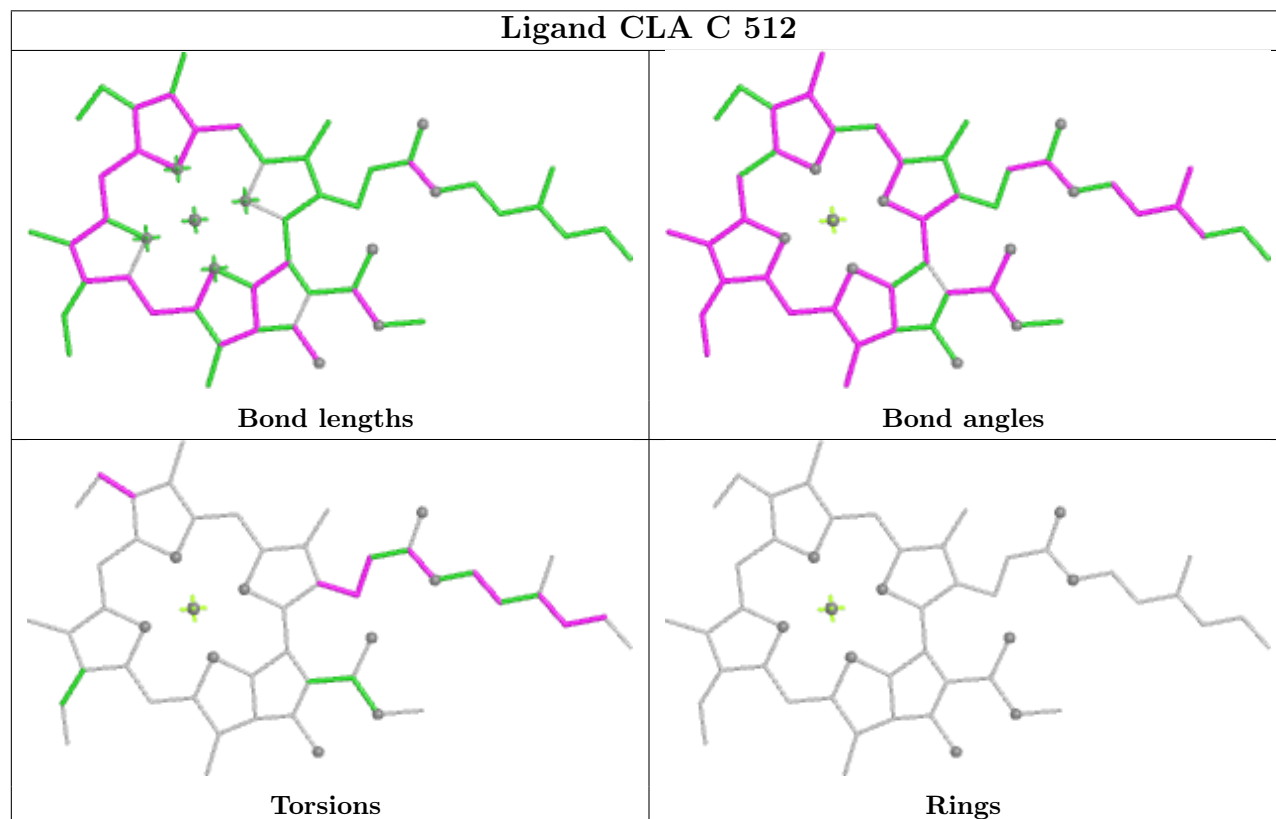
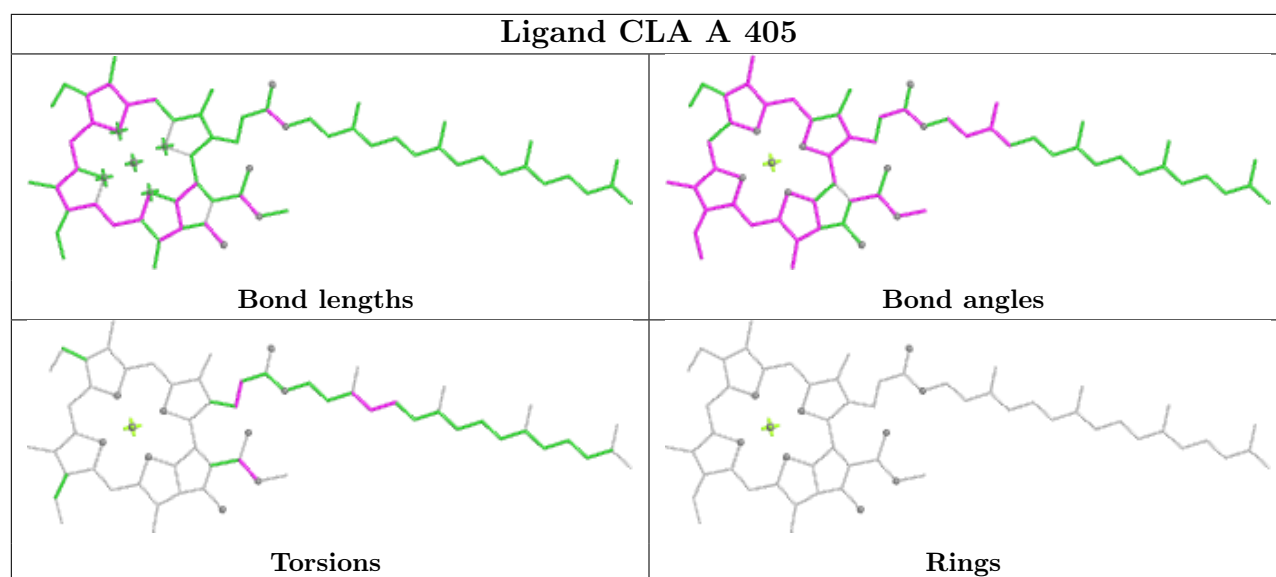


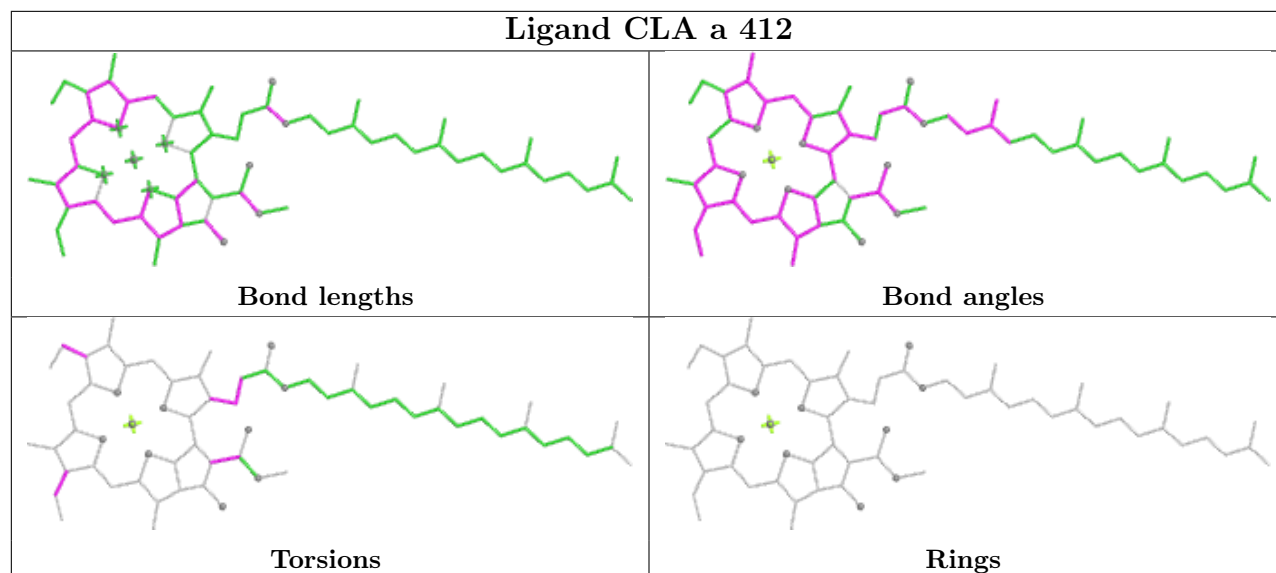
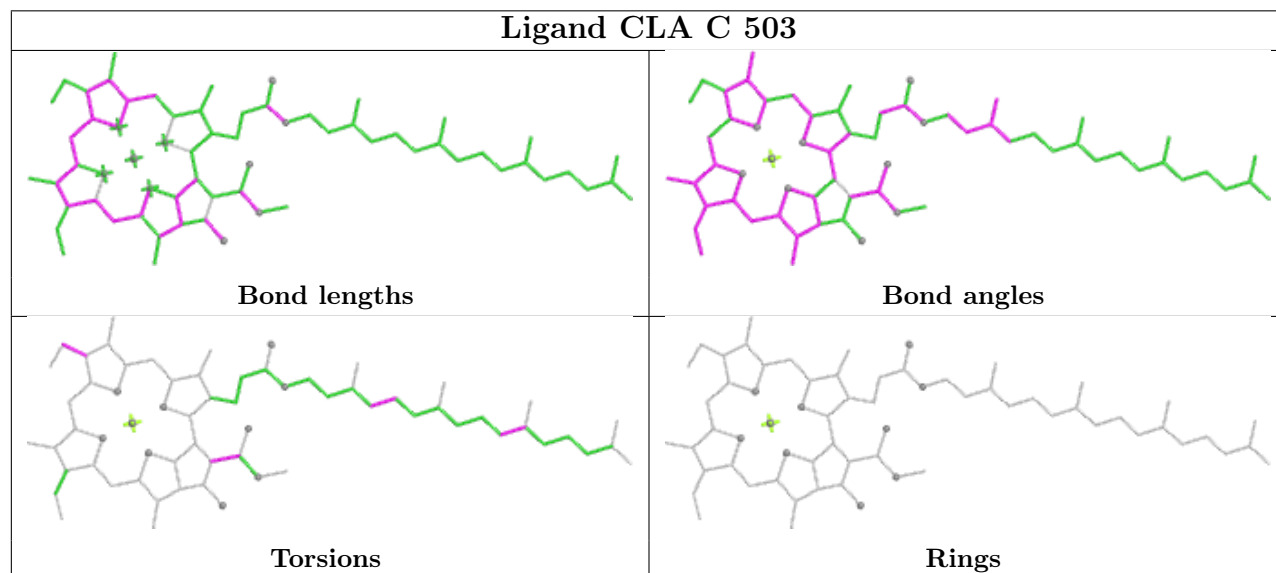
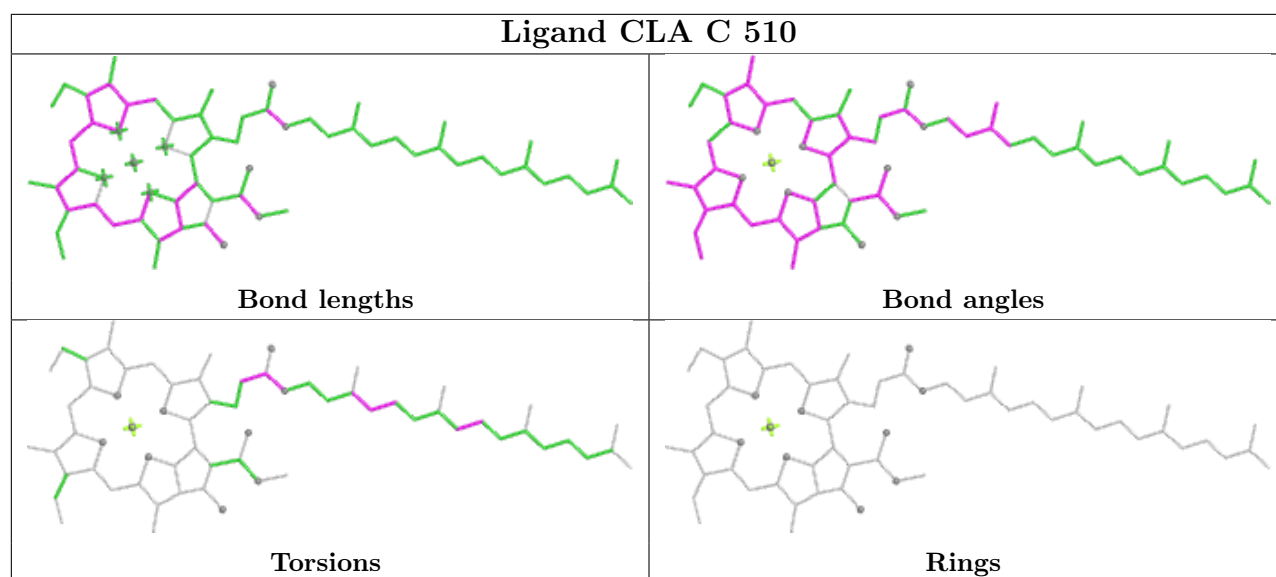
Torsions



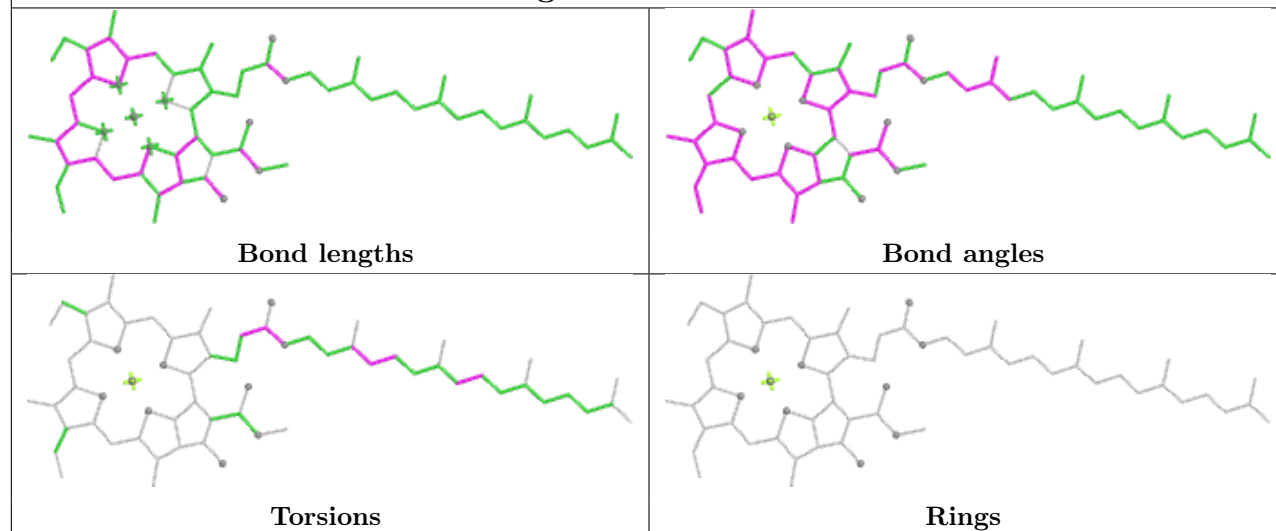
Rings



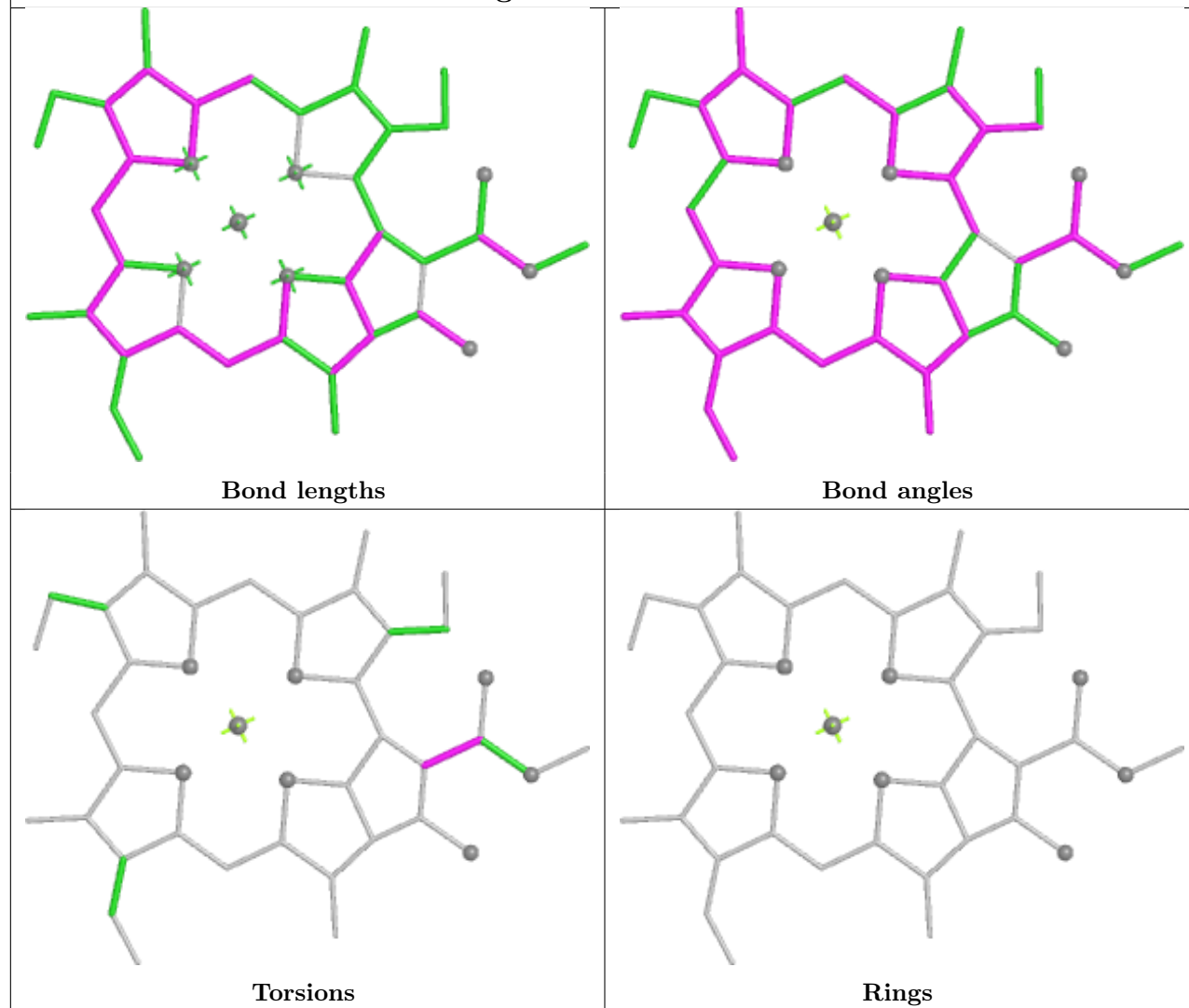


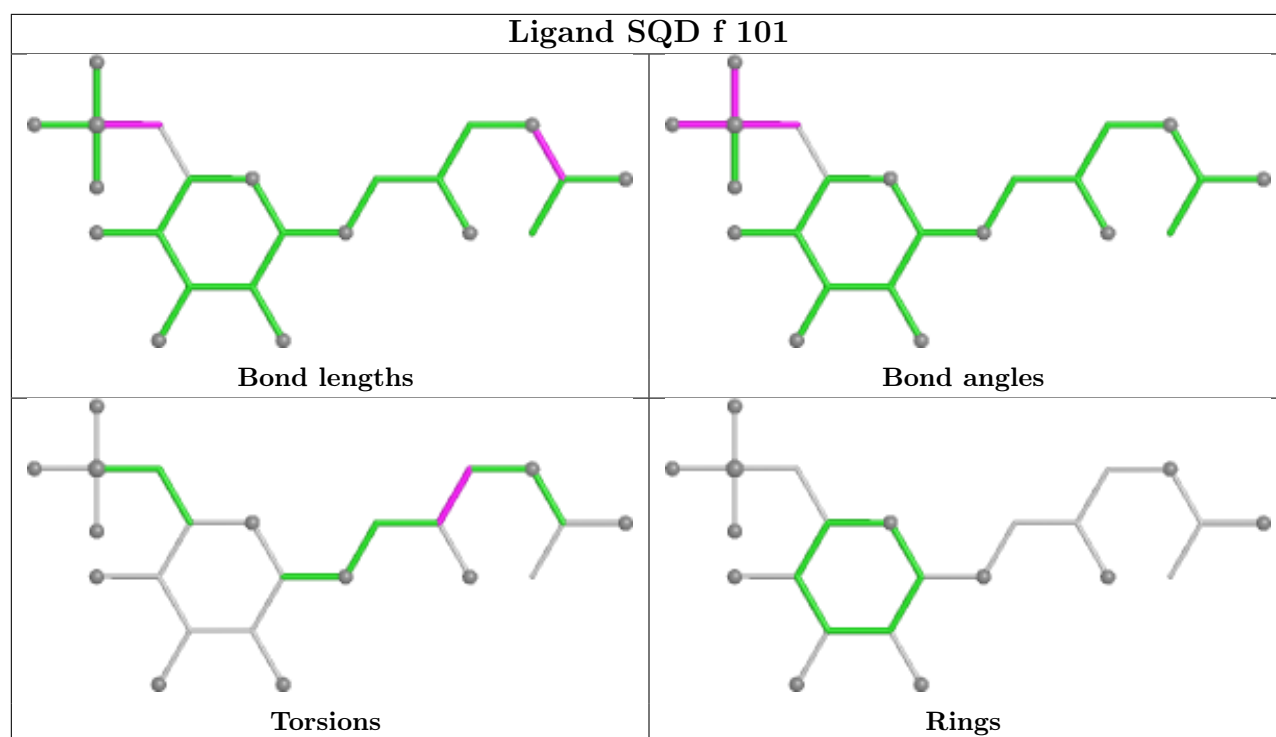


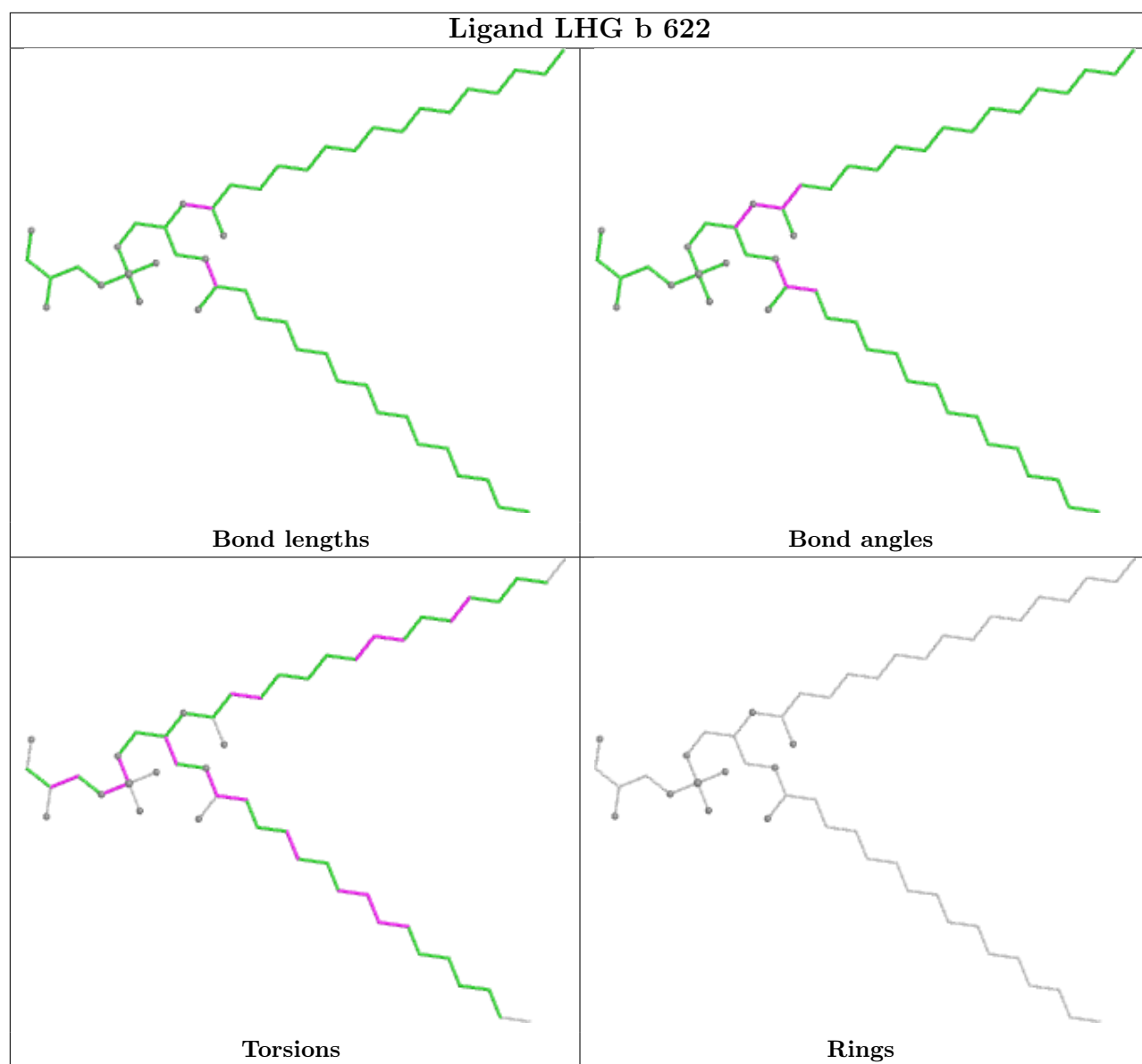
Ligand CLA c 510

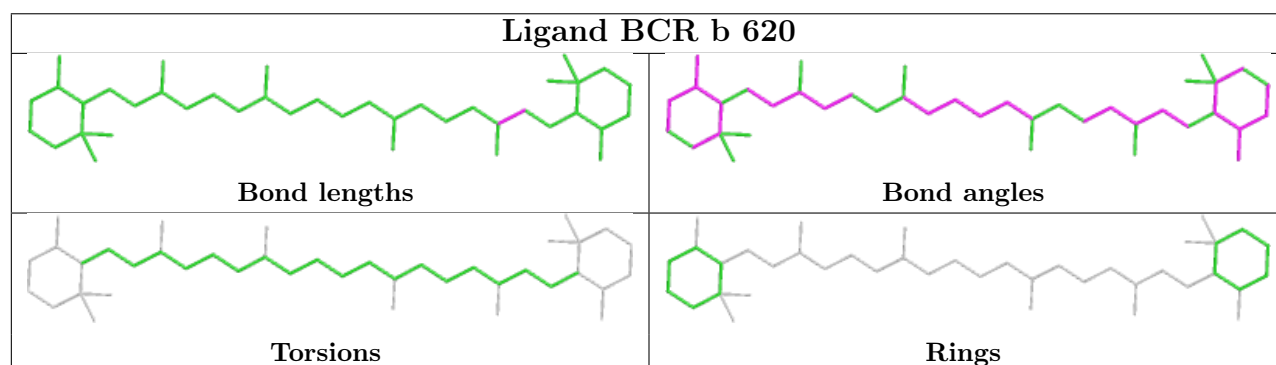
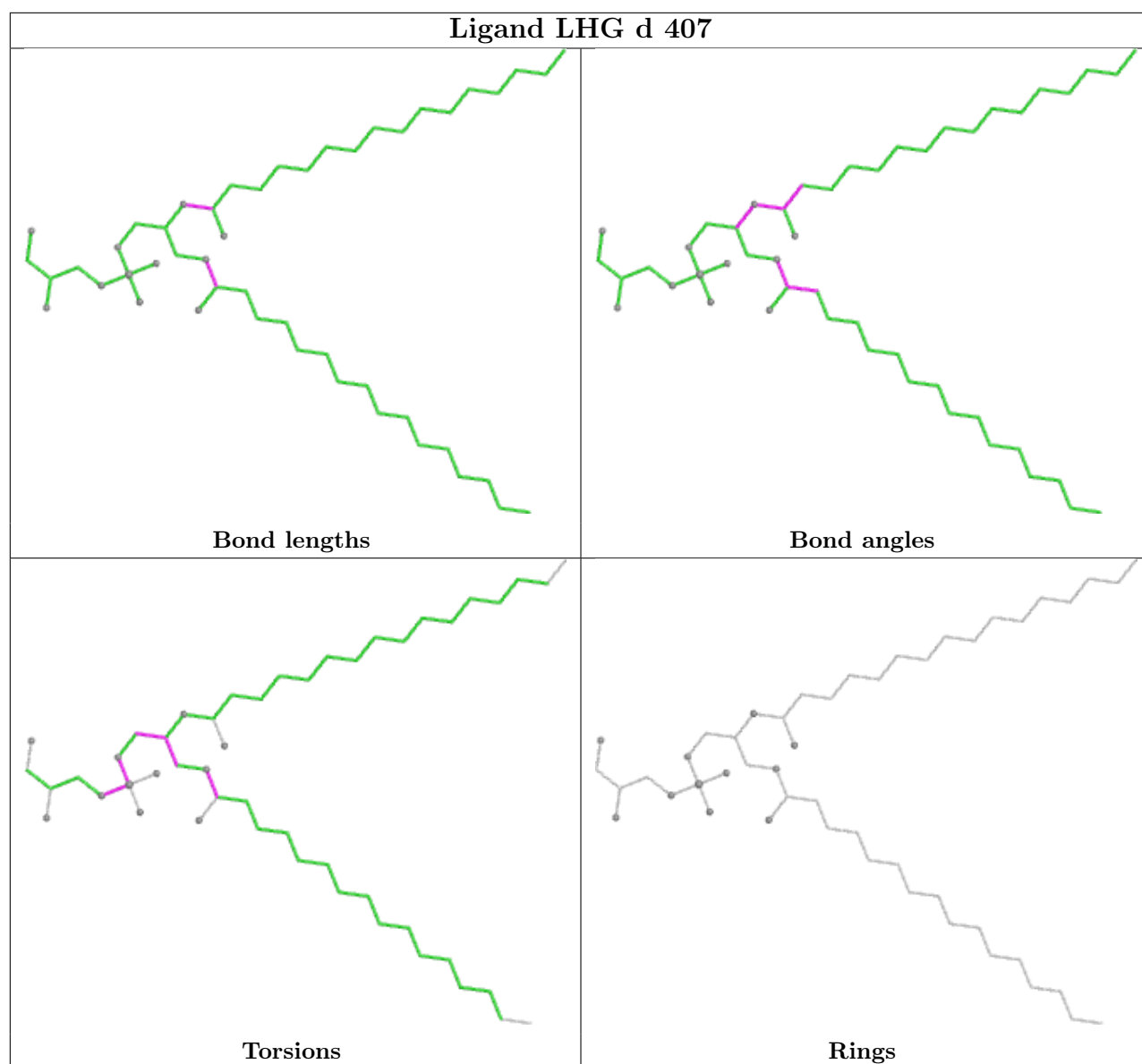


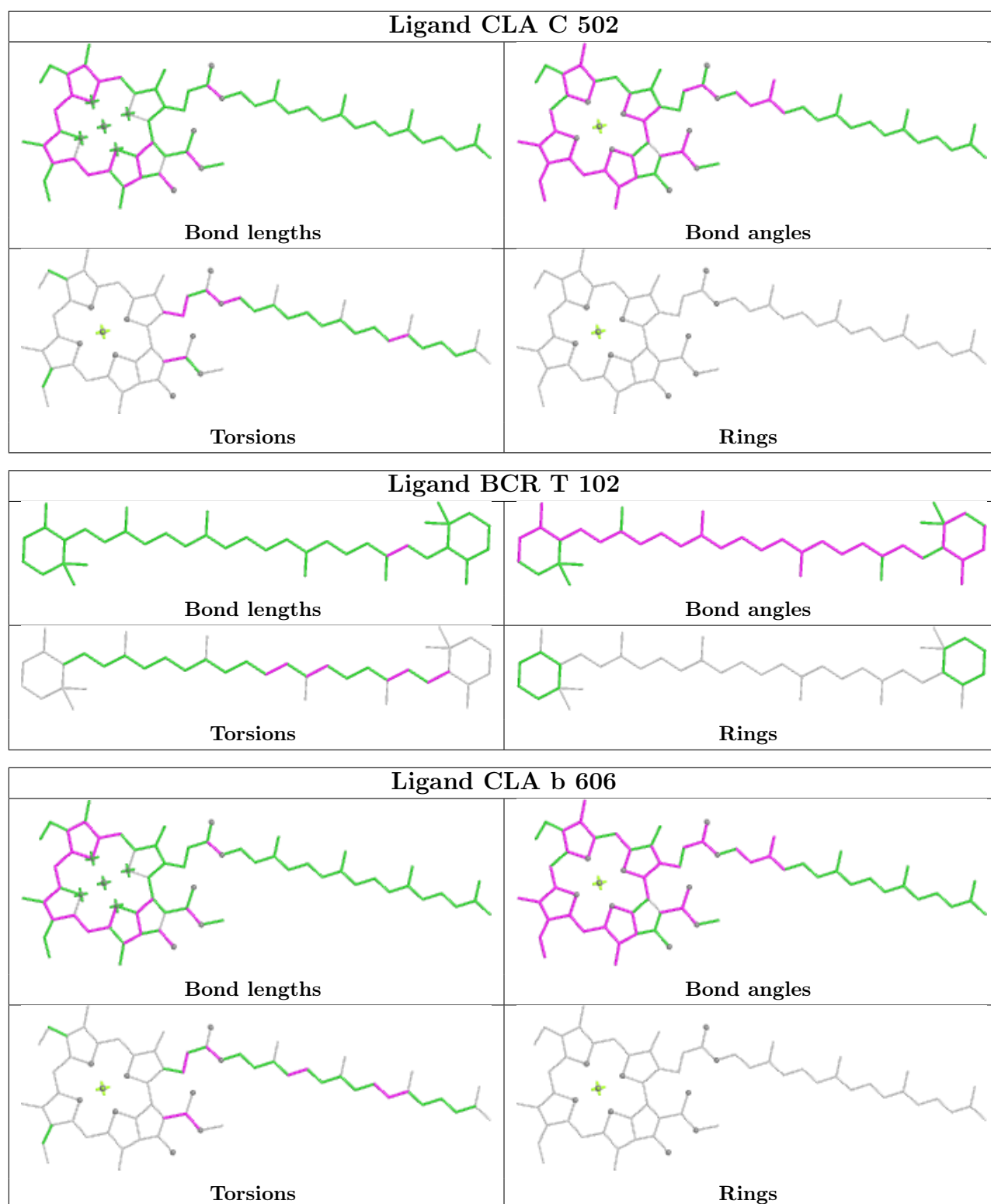
Ligand CLA B 601

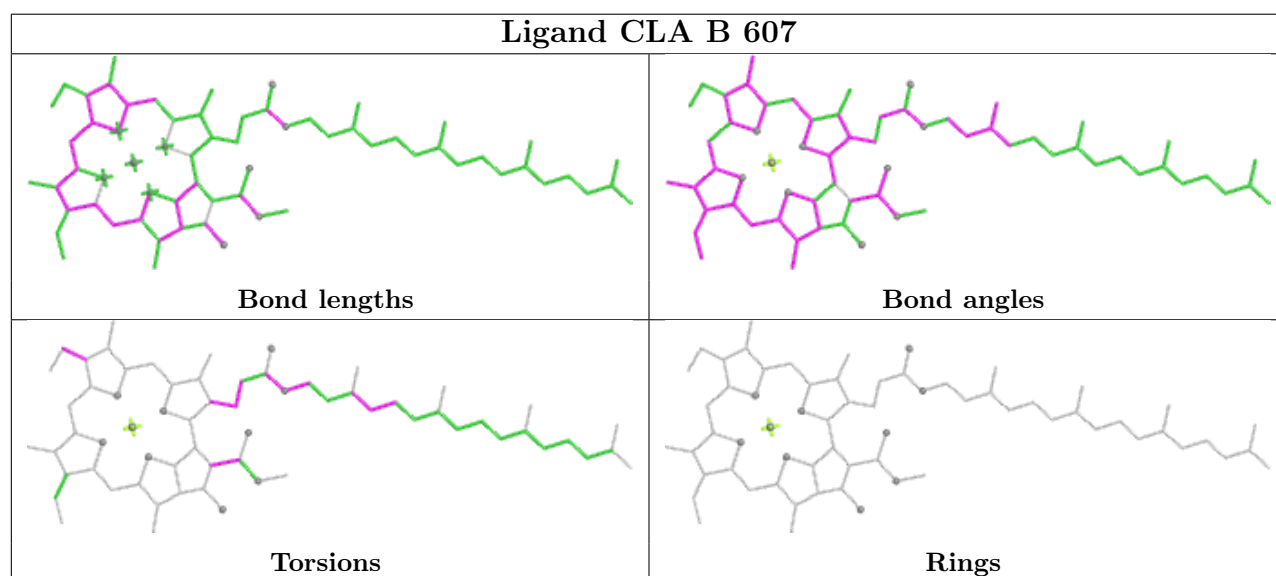
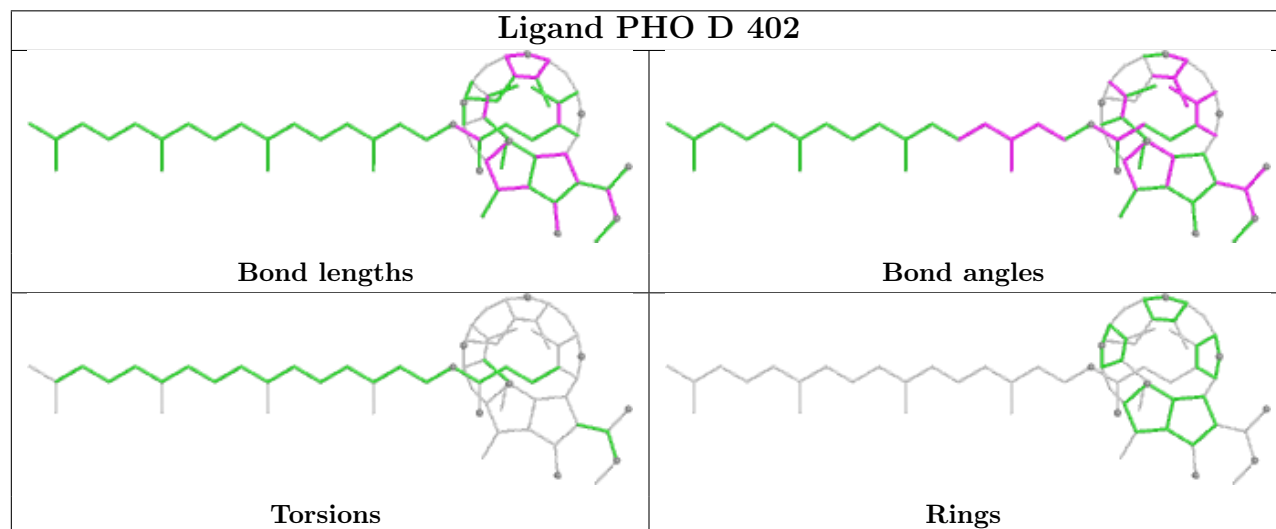
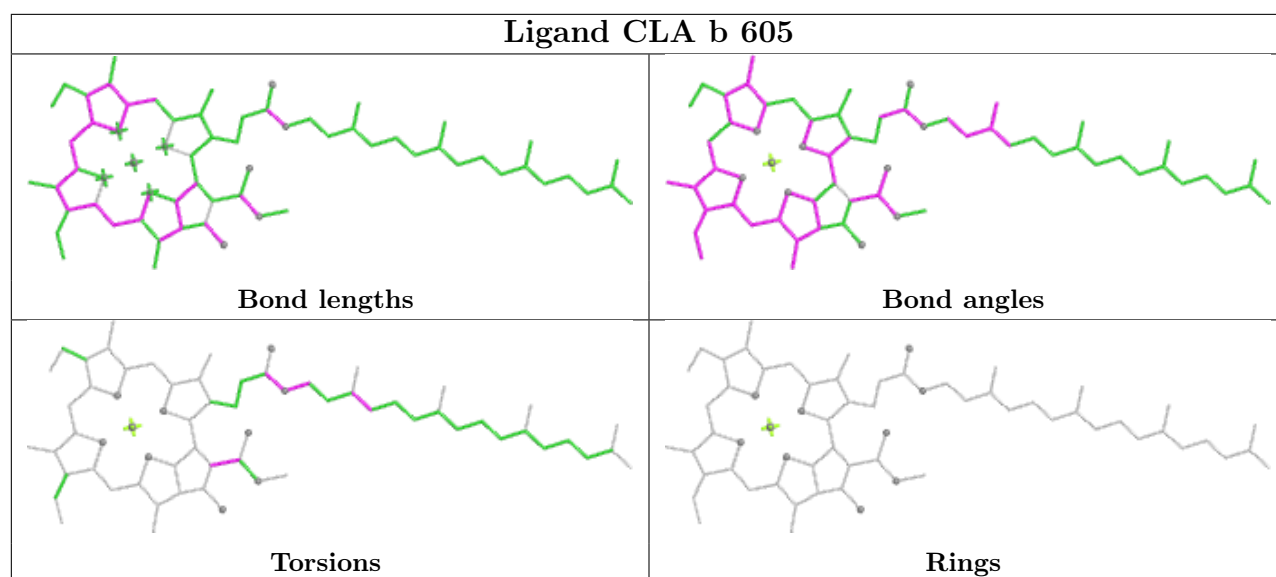


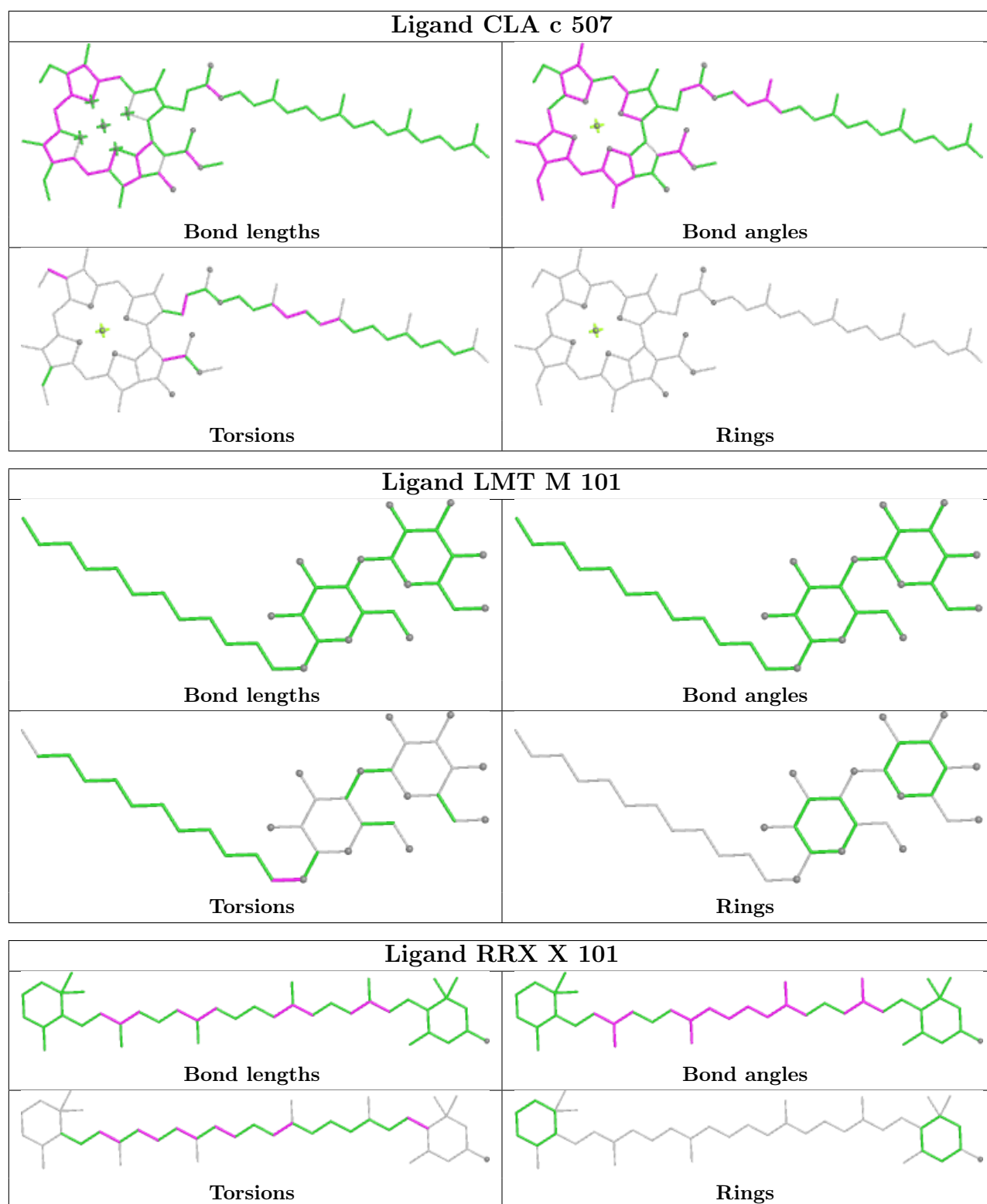


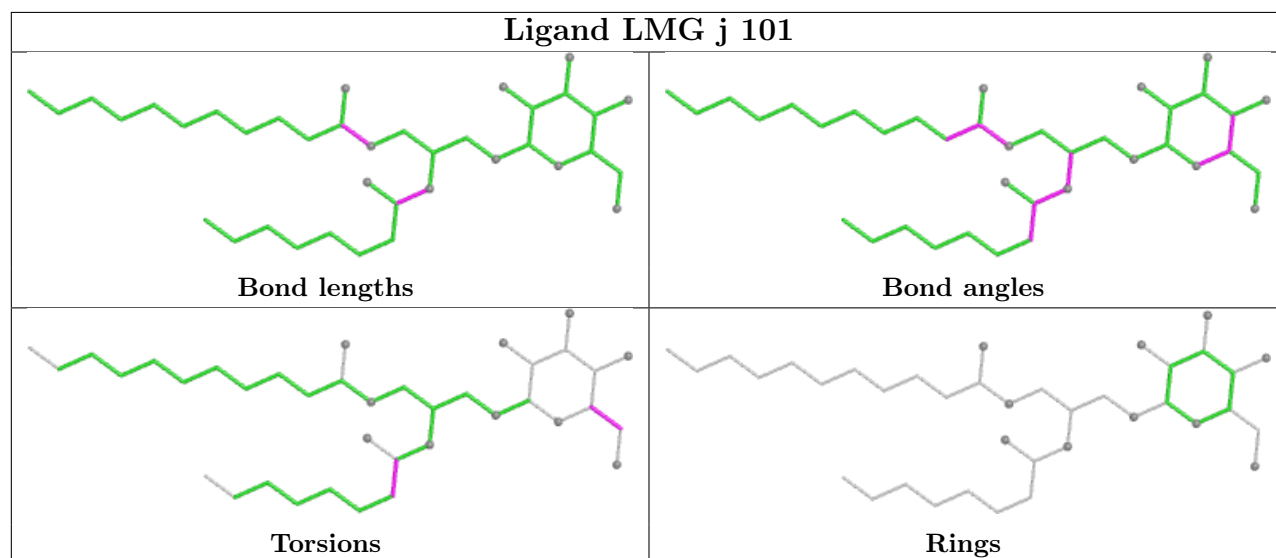
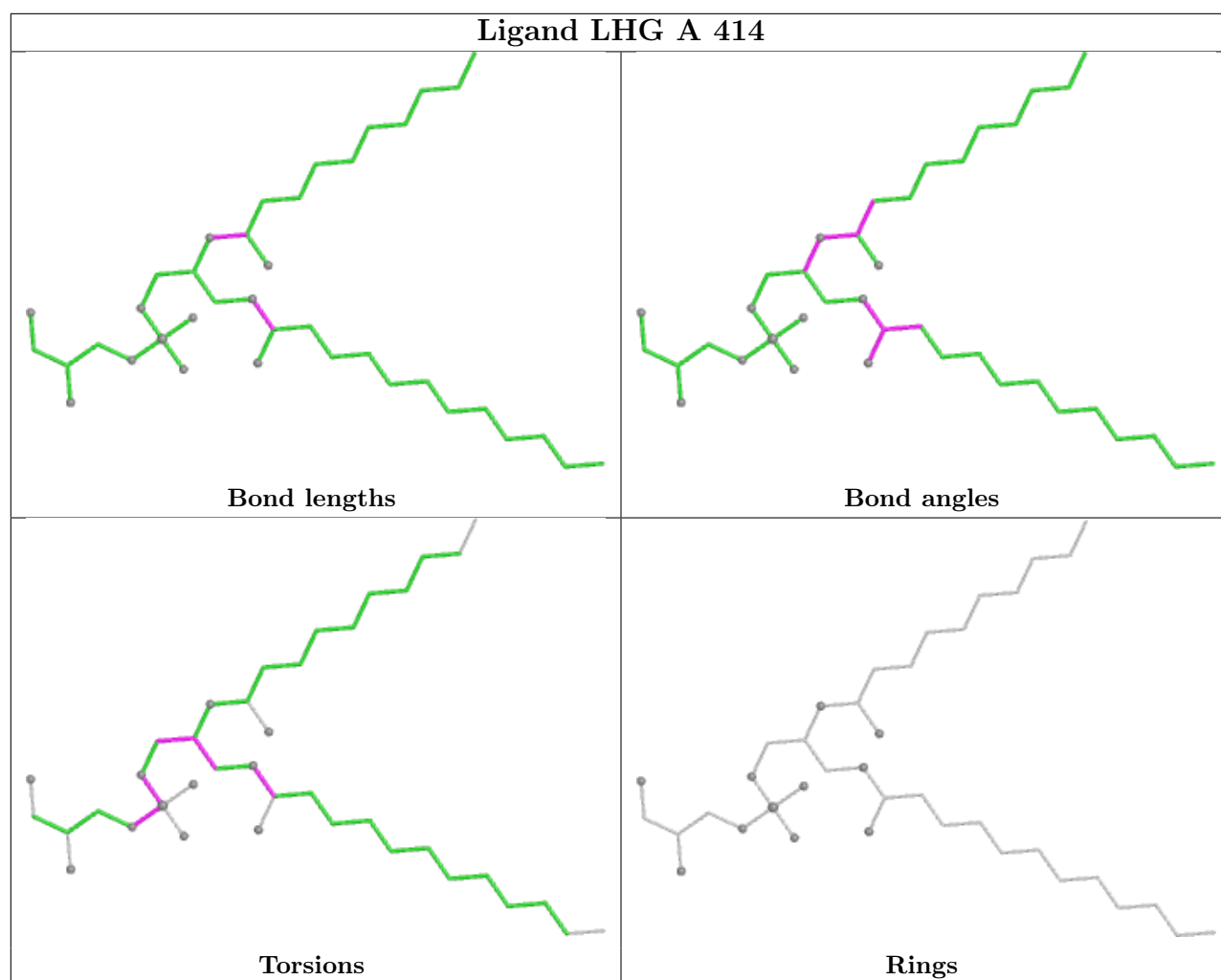


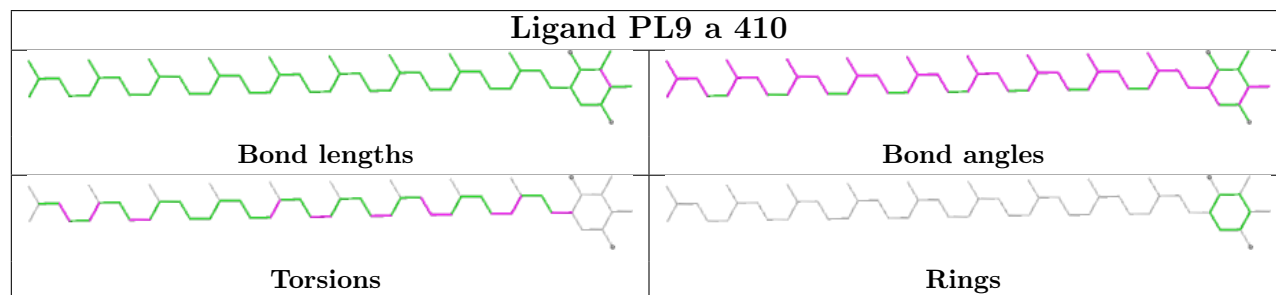
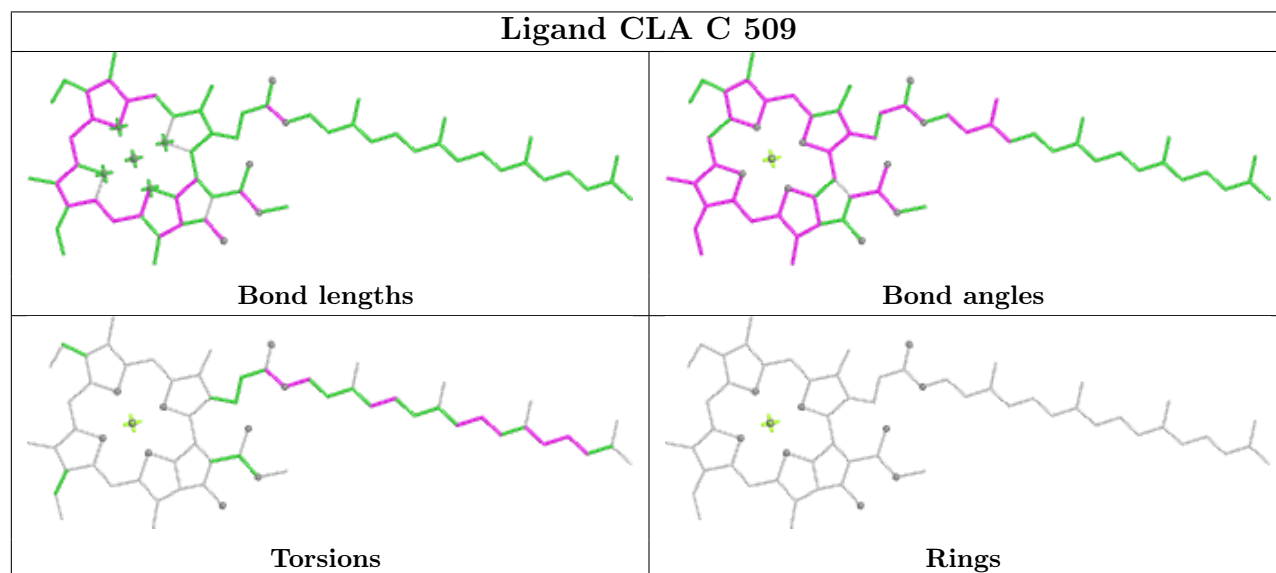
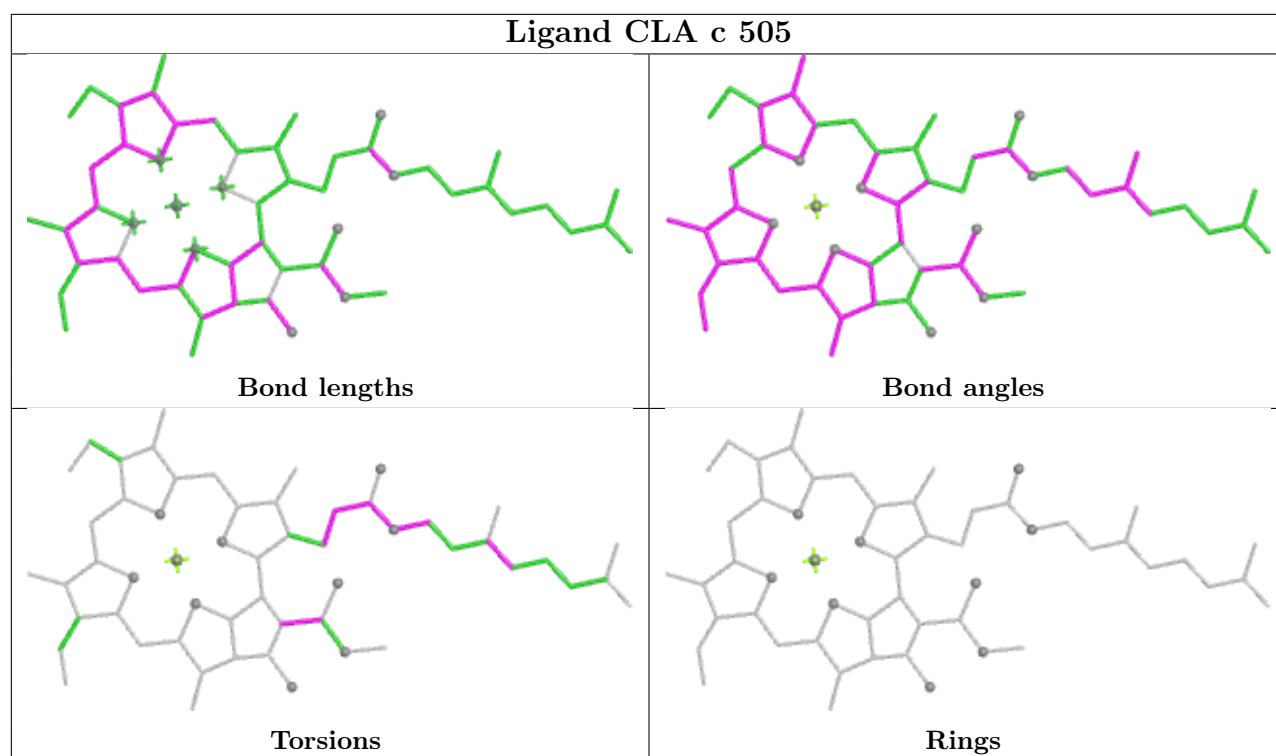


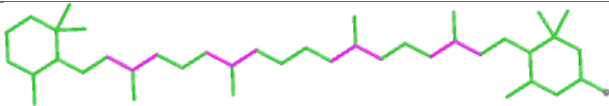
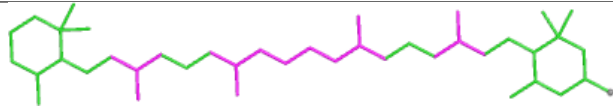
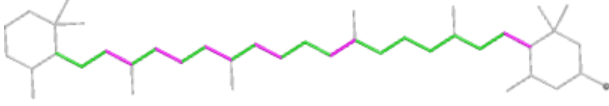
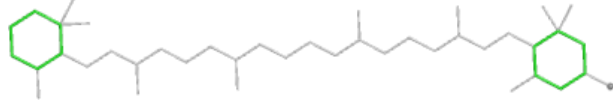
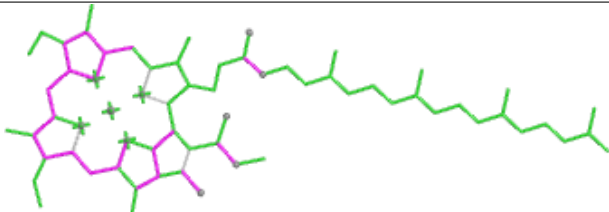
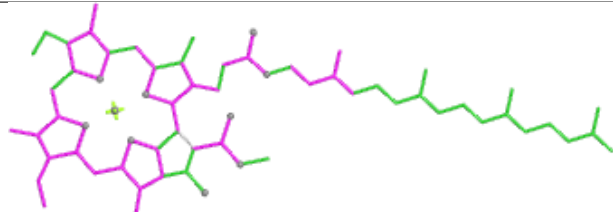
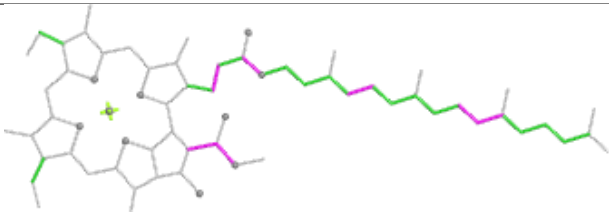
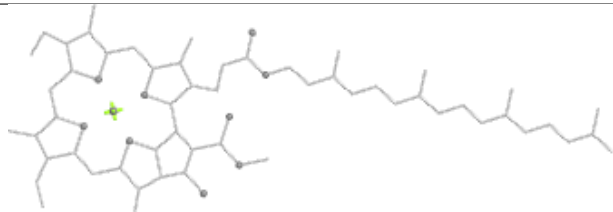
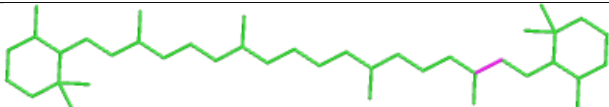
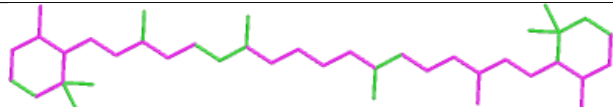
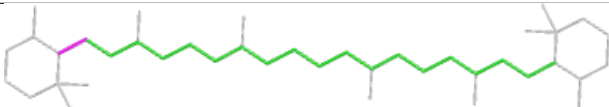
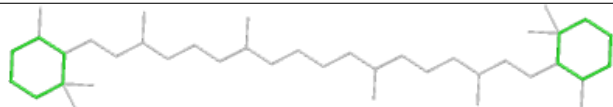




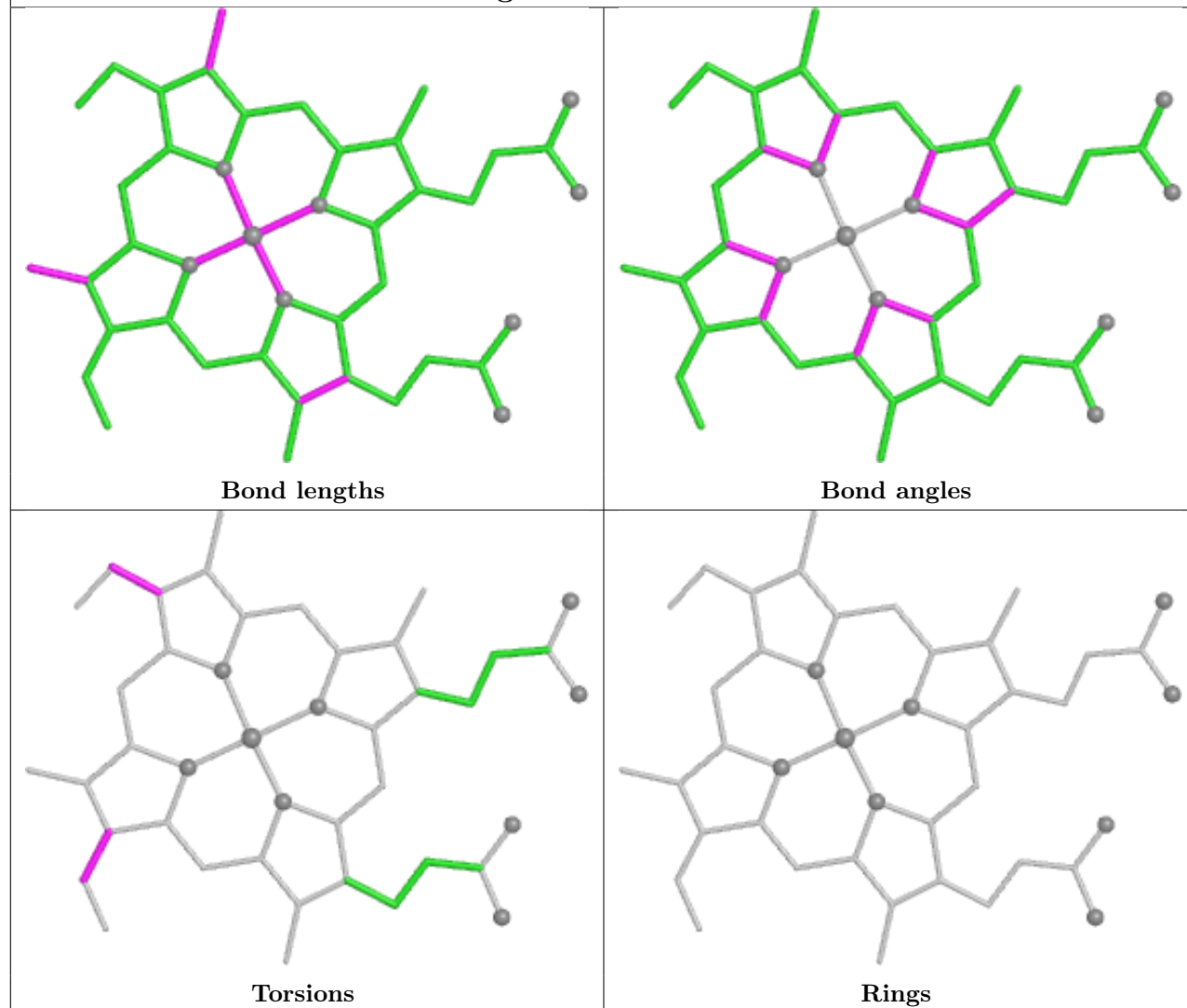




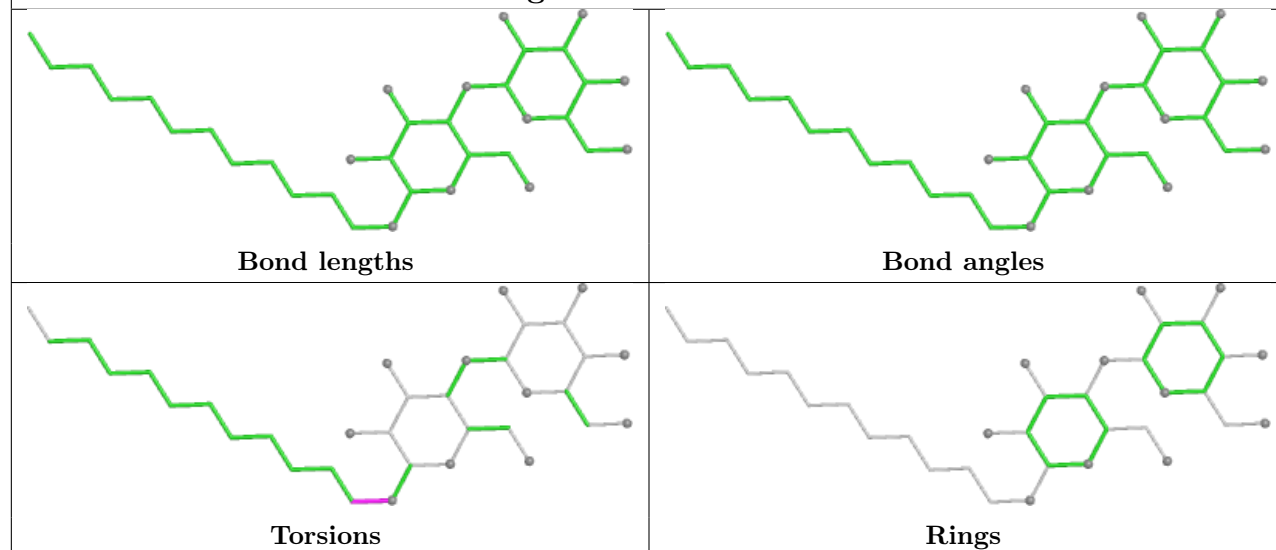


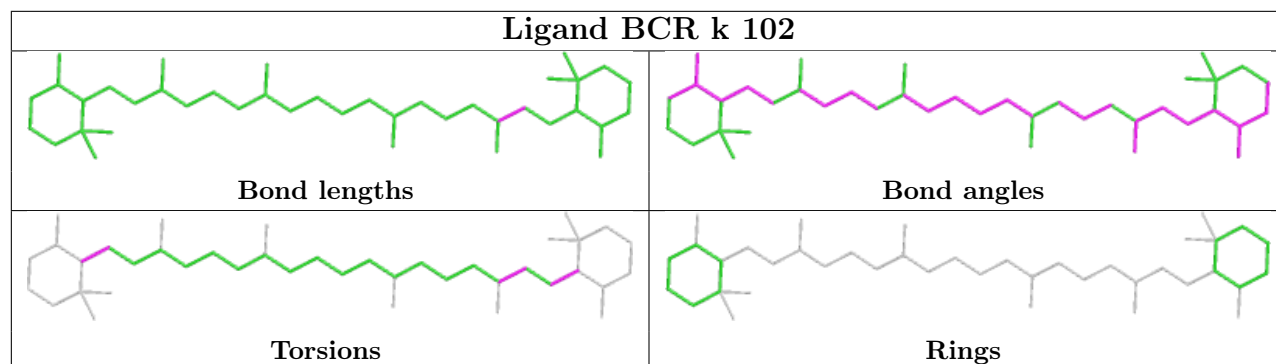
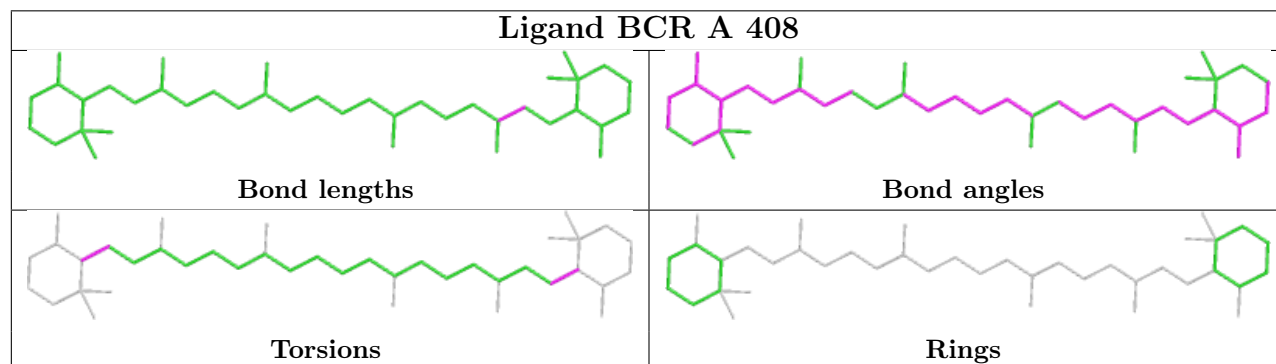
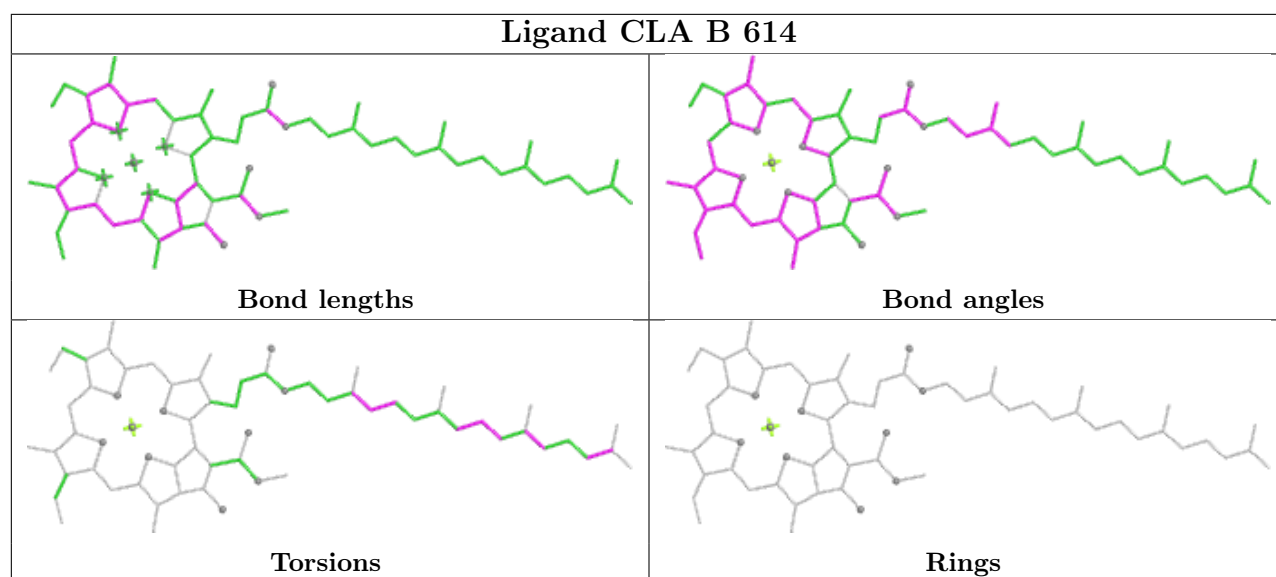
Ligand RRX x 101	
 Bond lengths	 Bond angles
 Torsions	 Rings
Ligand CLA B 606	
 Bond lengths	 Bond angles
 Torsions	 Rings
Ligand BCR C 514	
 Bond lengths	 Bond angles
 Torsions	 Rings

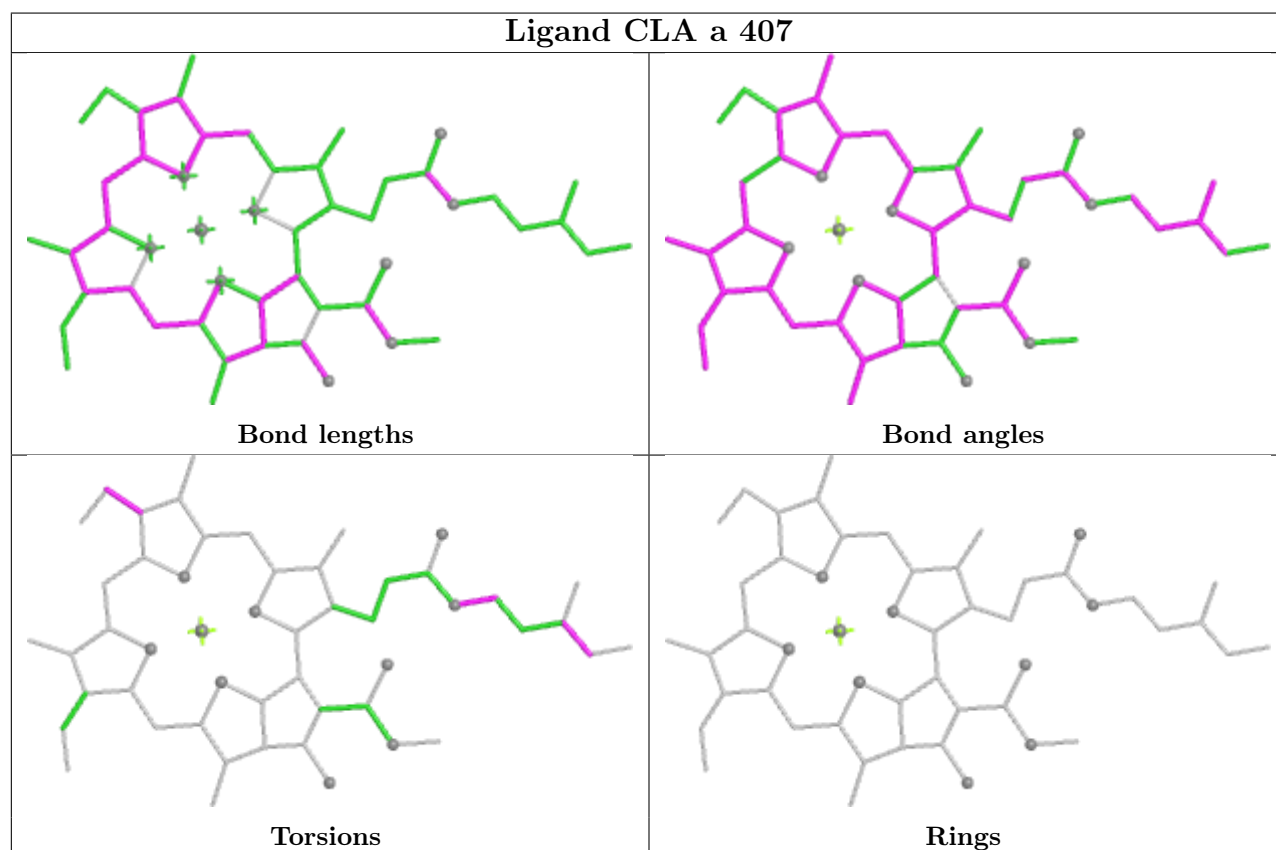
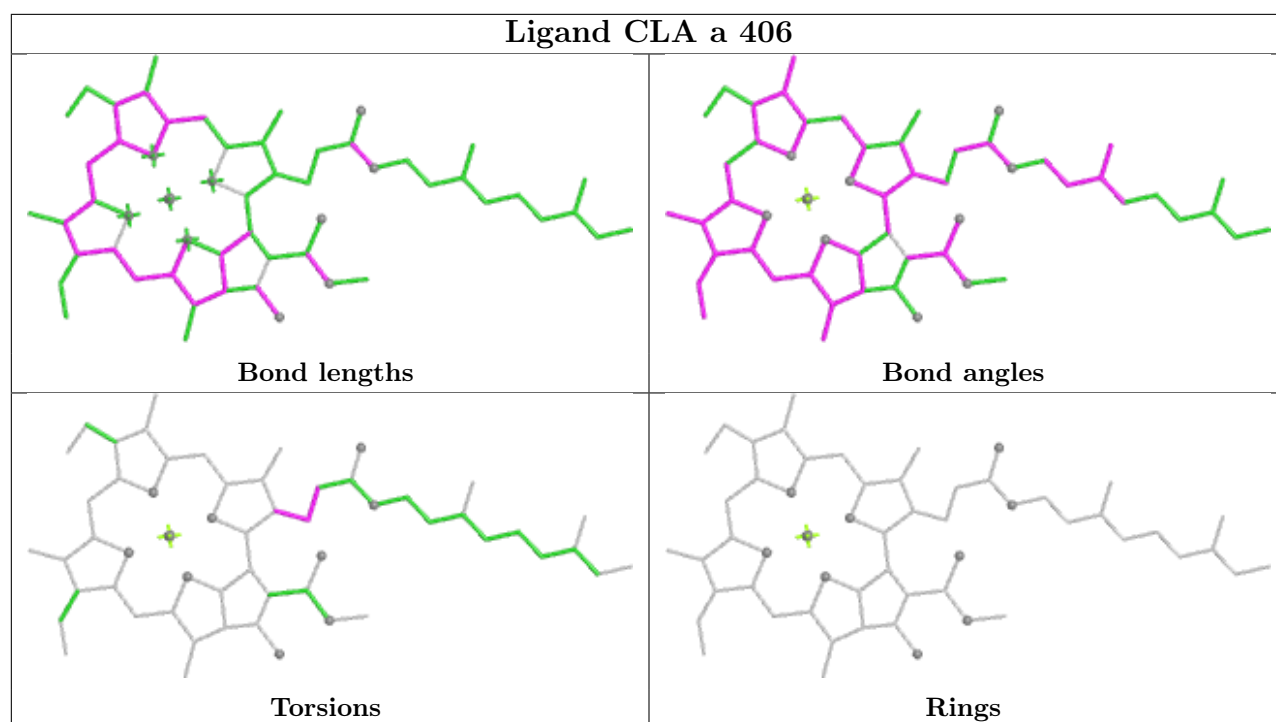
Ligand HEC v 201

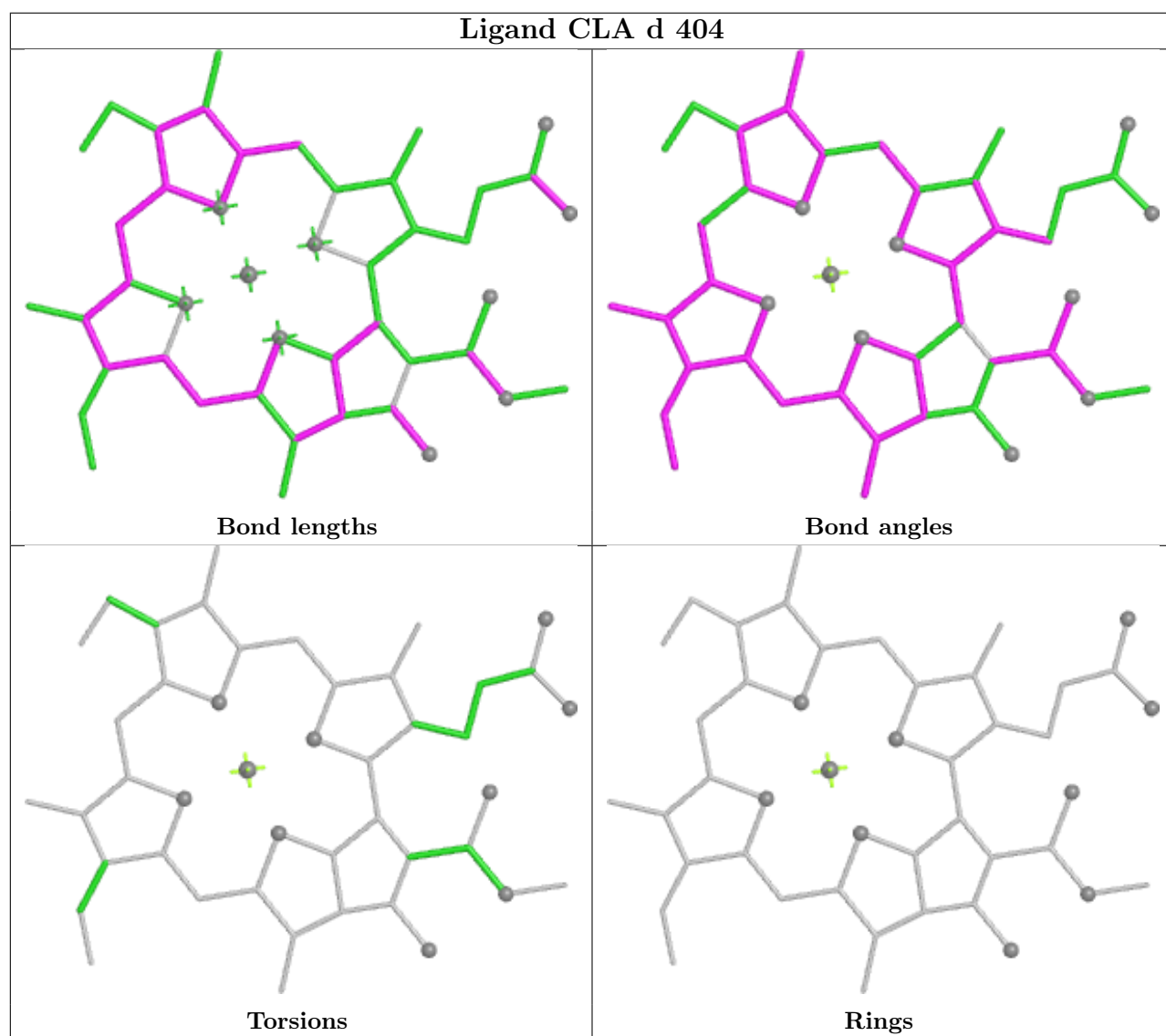
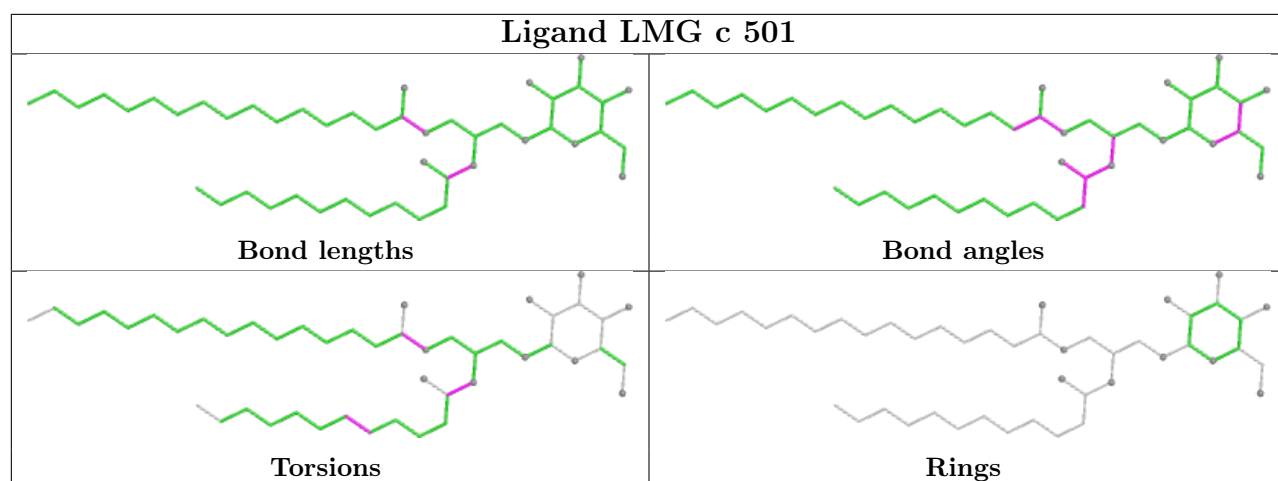


Ligand LMT m 101

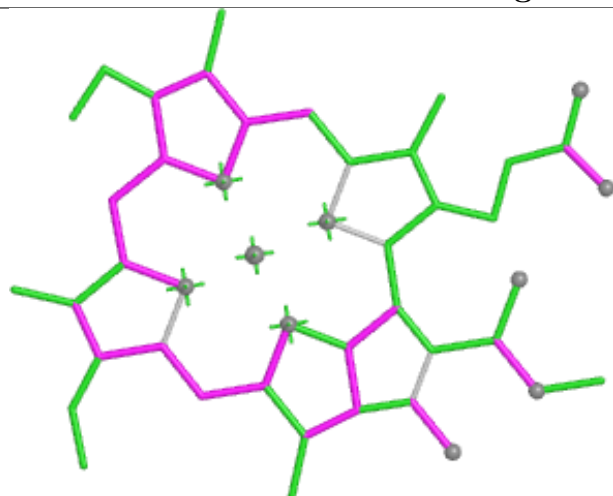




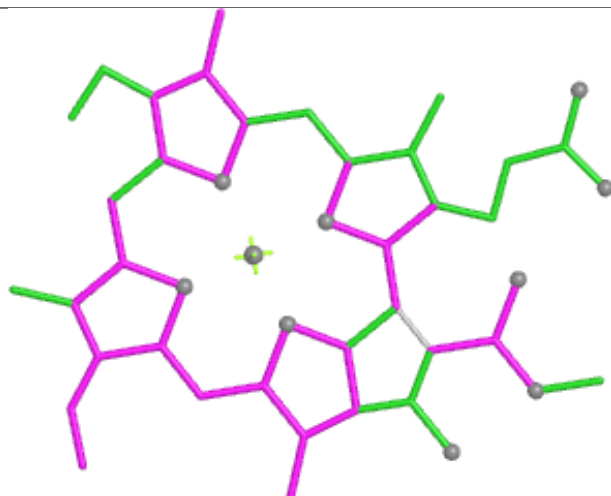




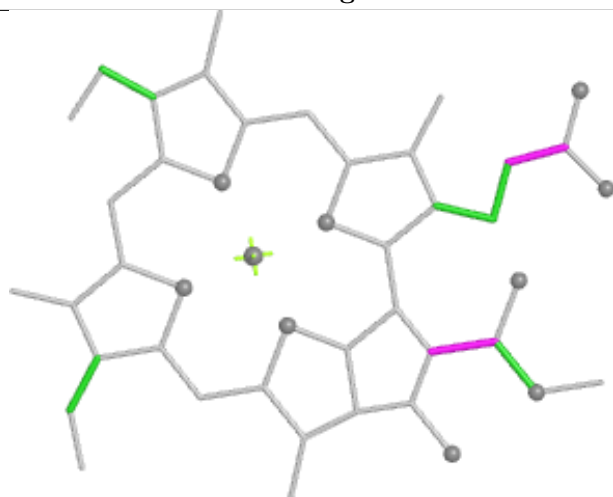
Ligand CLA B 615



Bond lengths



Bond angles

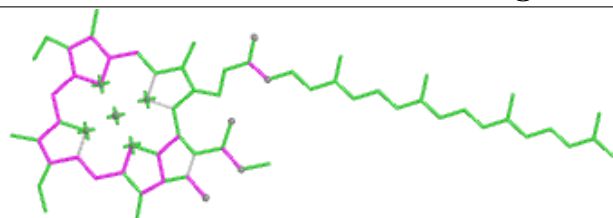


Torsions

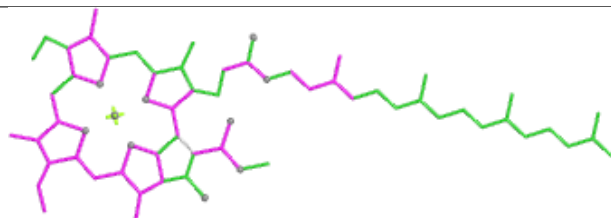


Rings

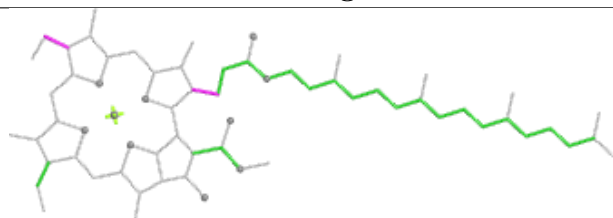
Ligand CLA B 608



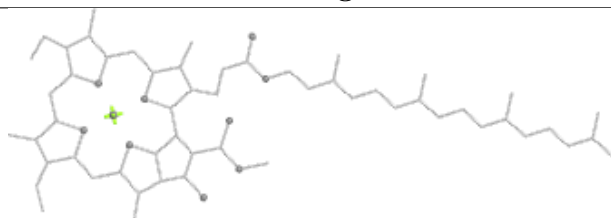
Bond lengths



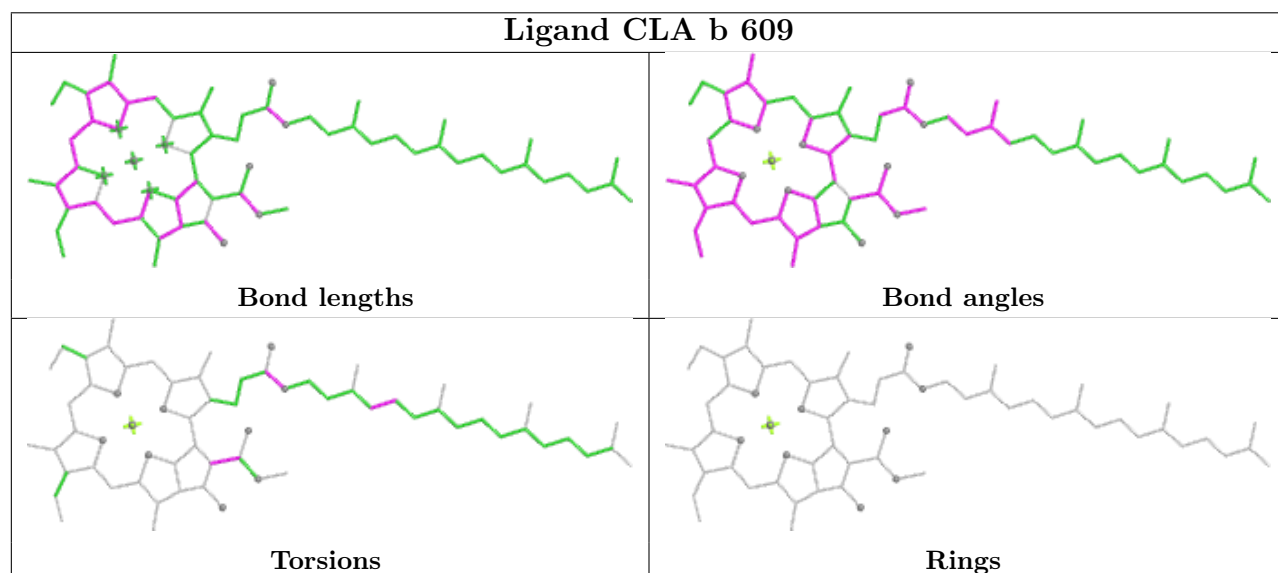
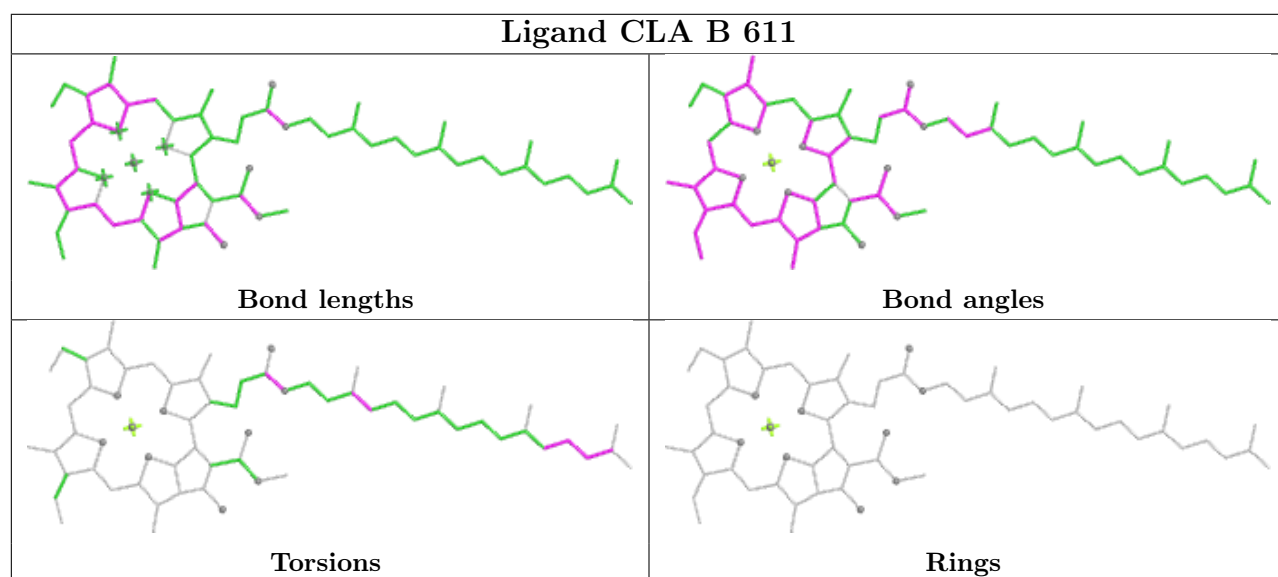
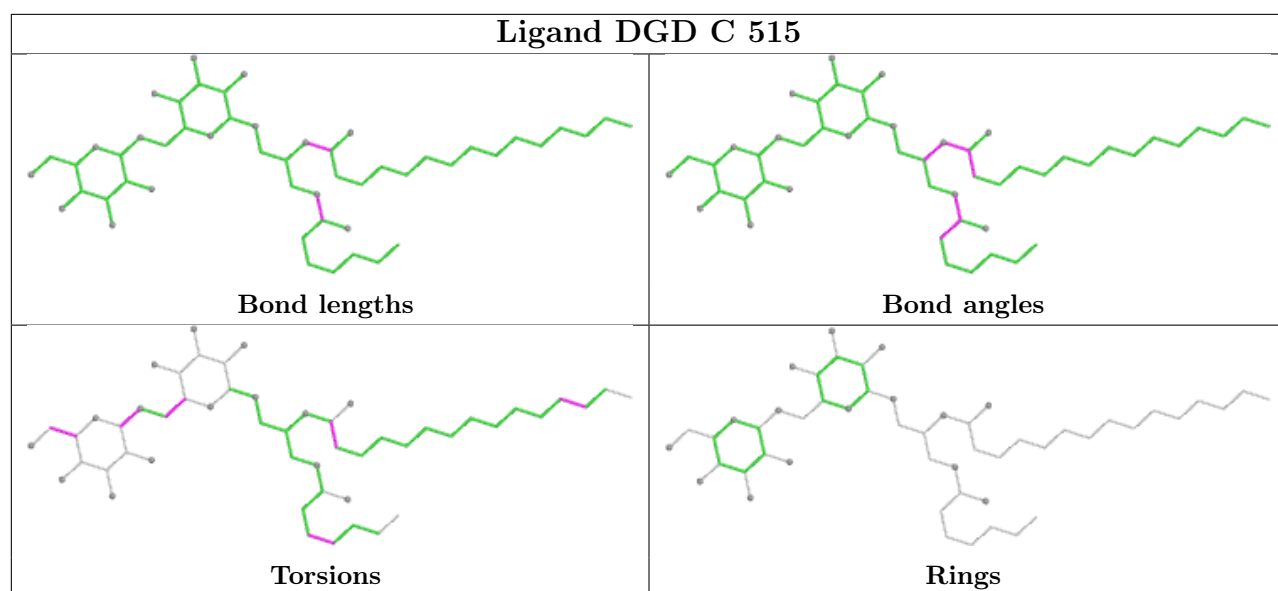
Bond angles

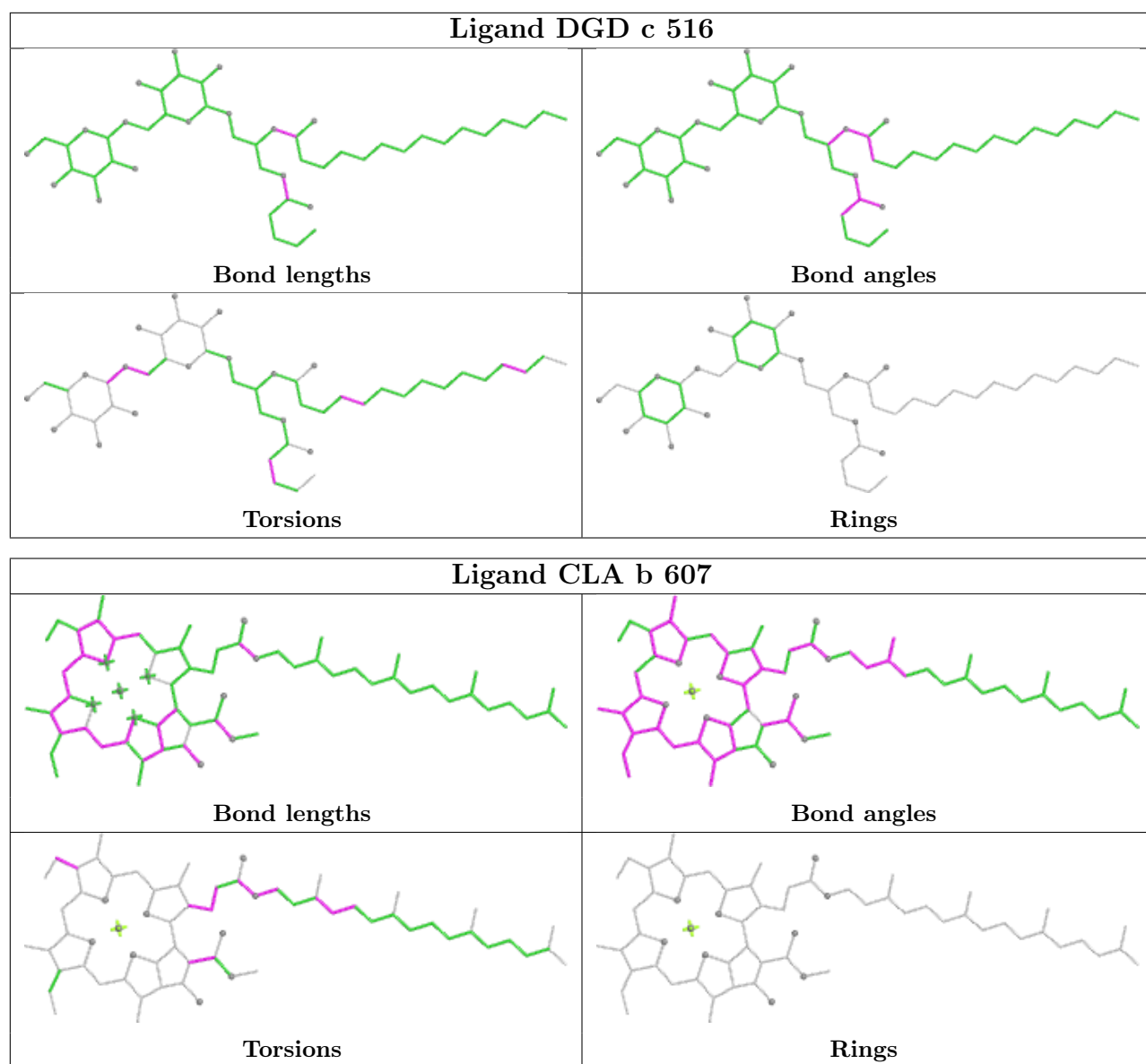


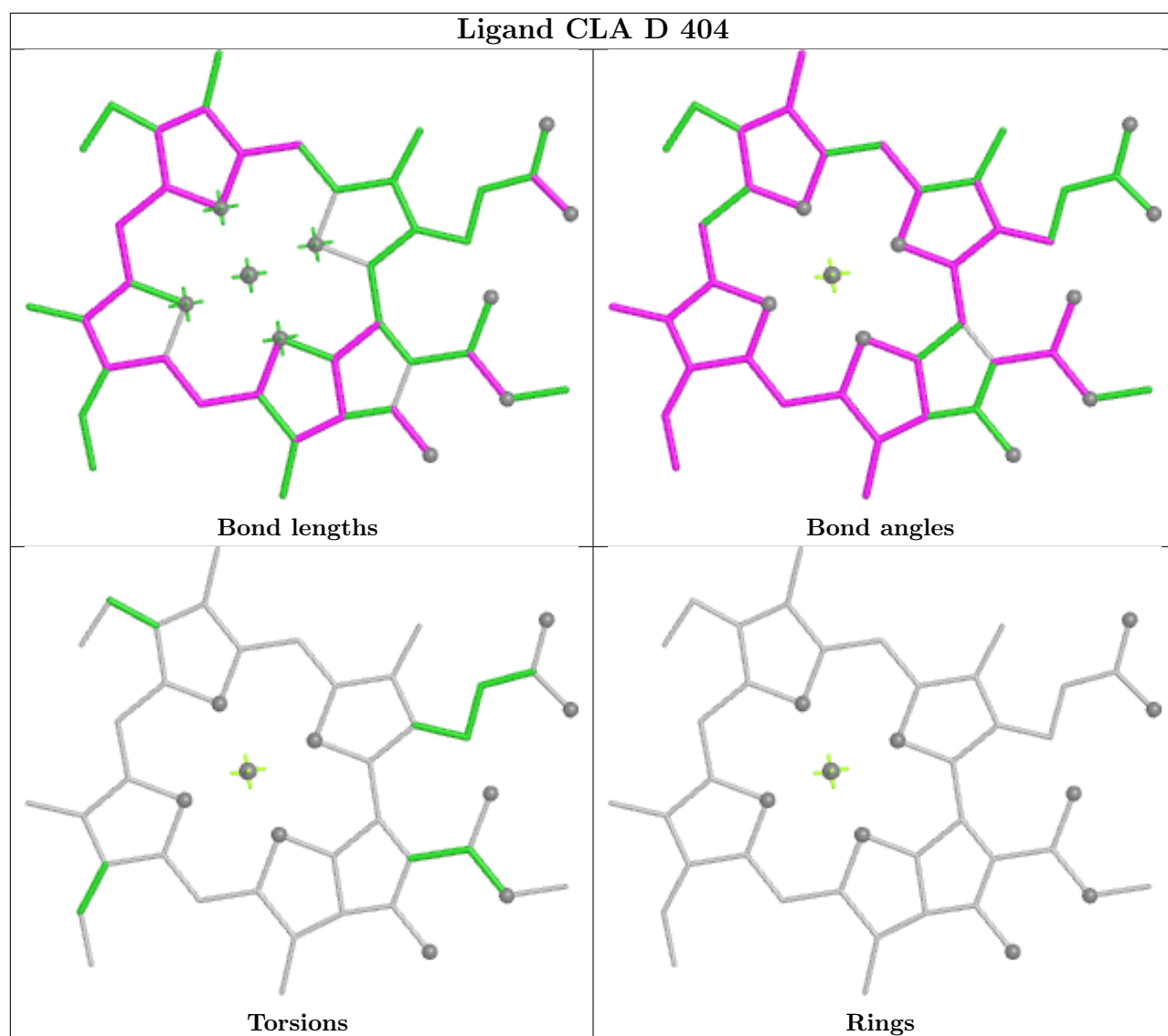
Torsions

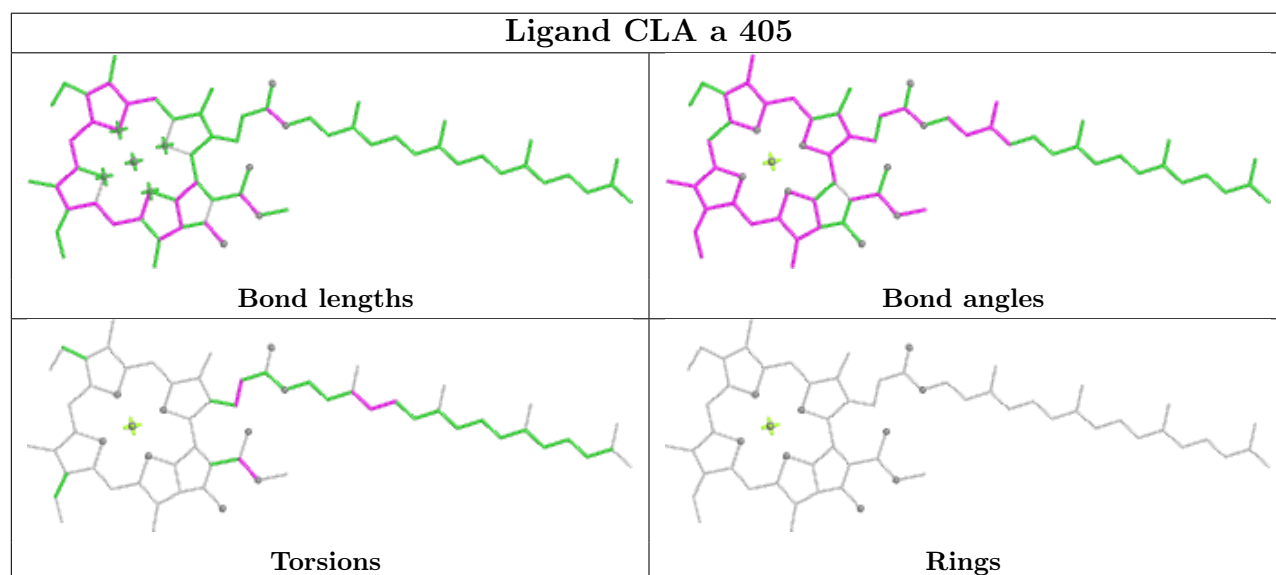
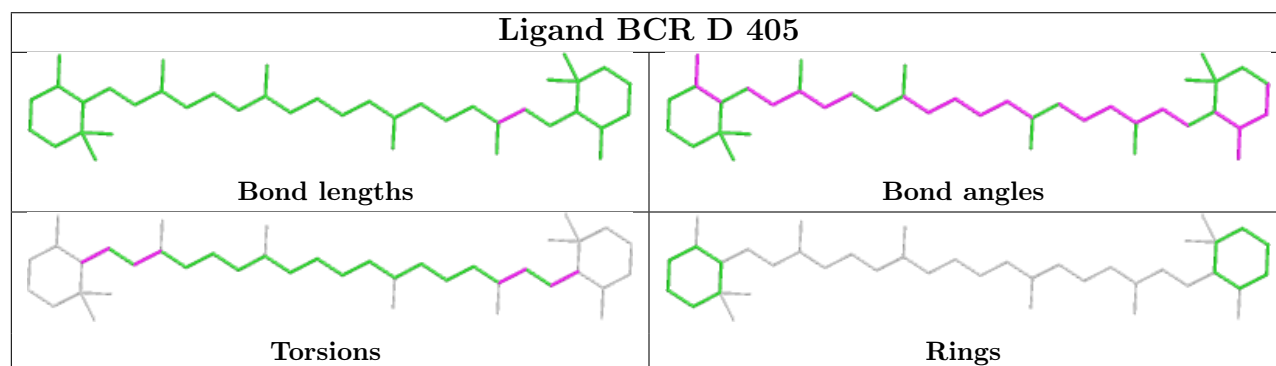
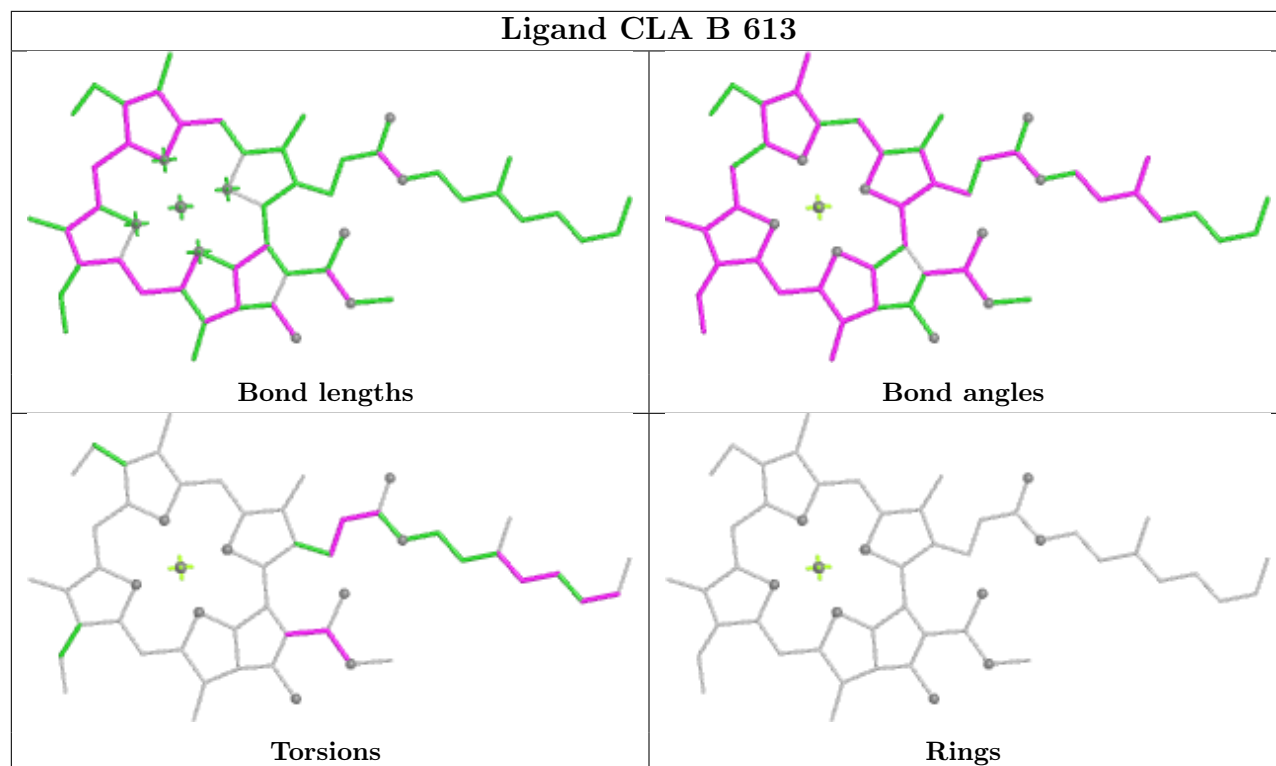


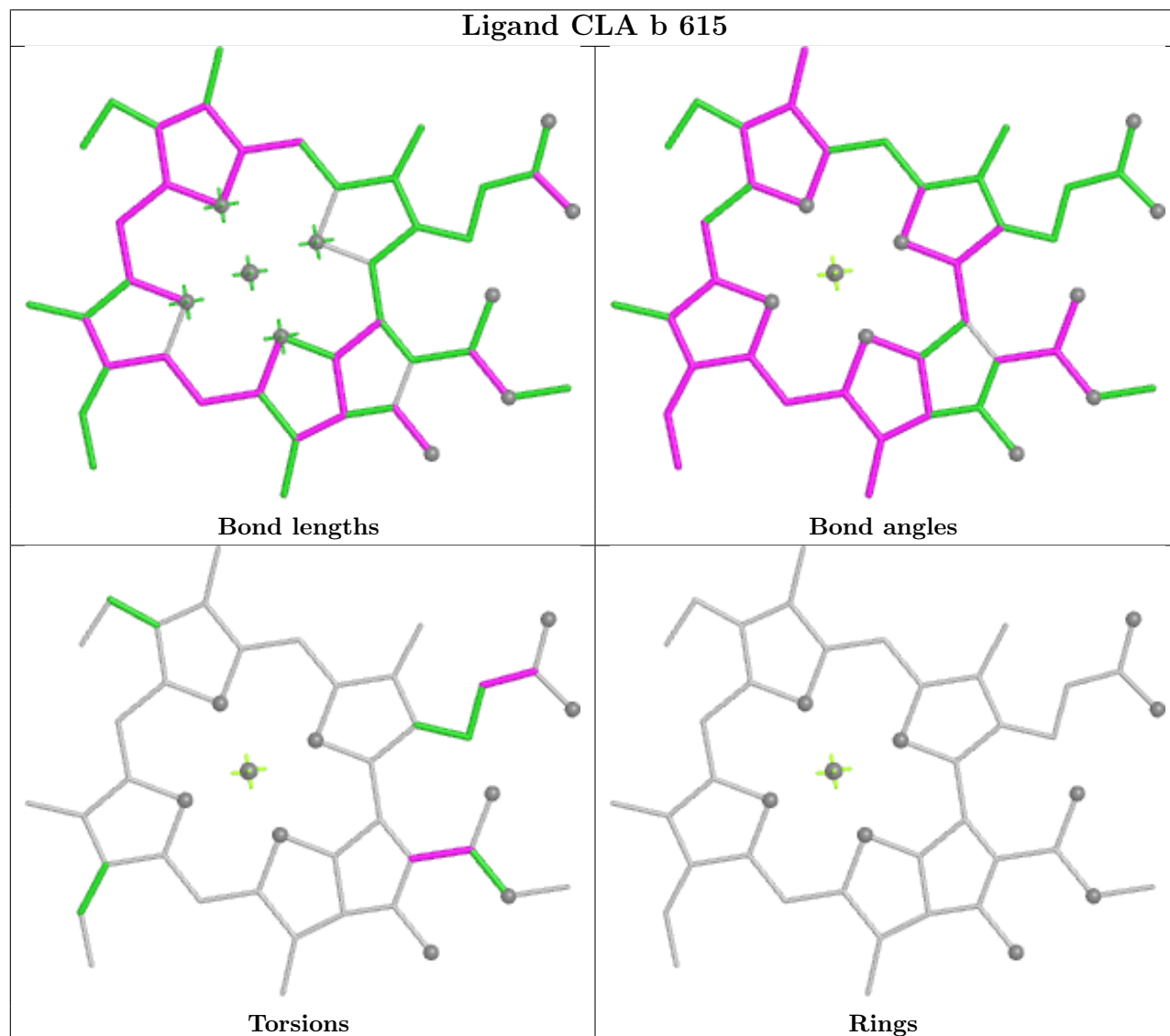
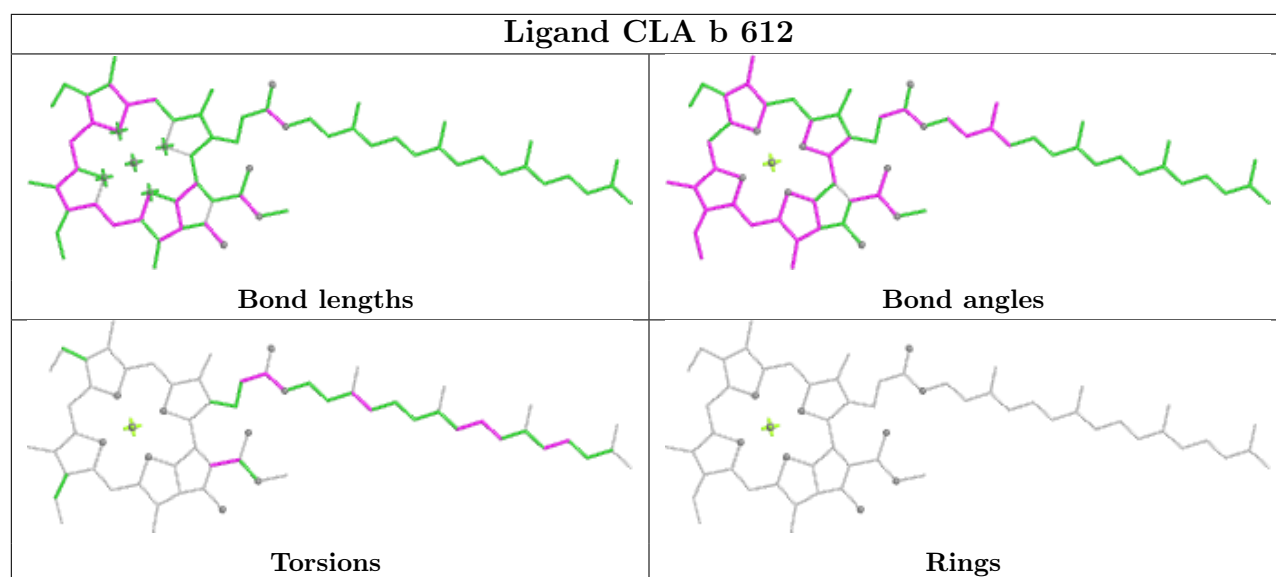
Rings

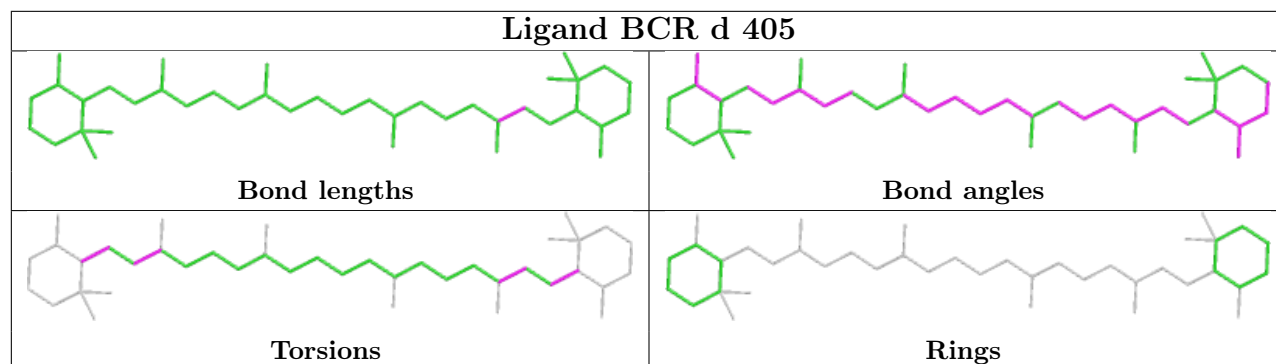
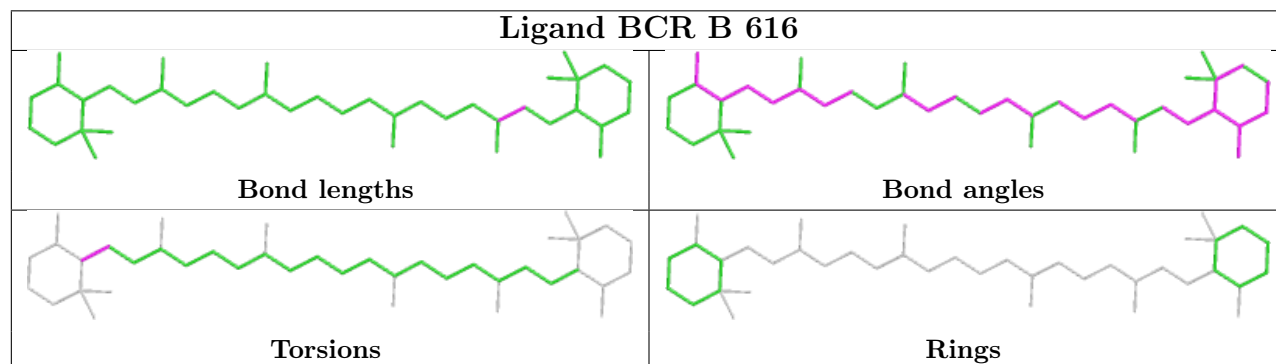
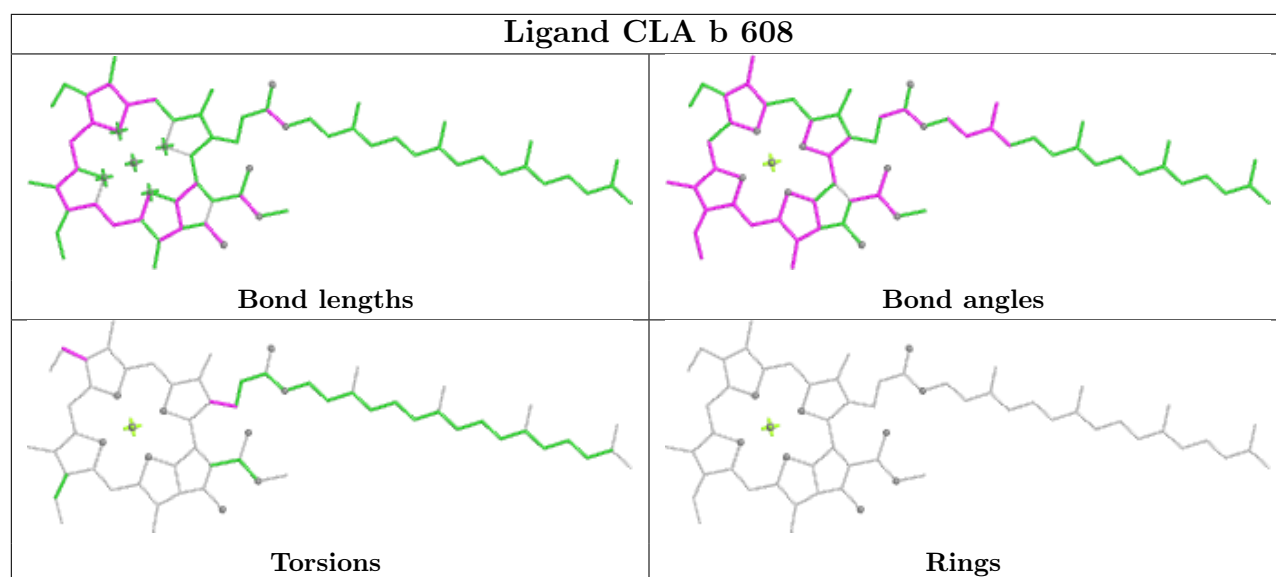


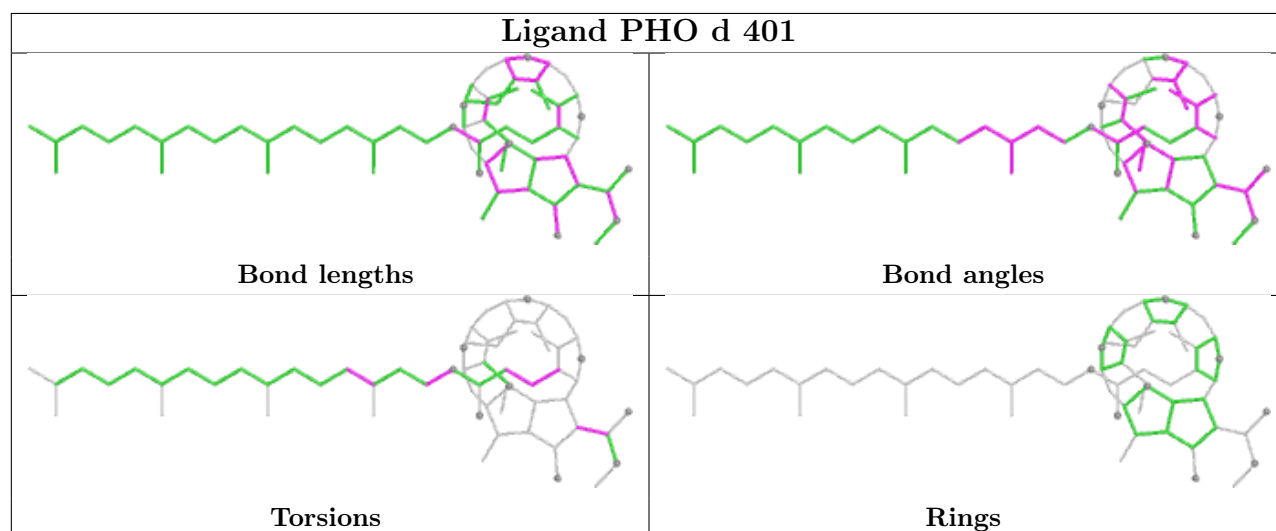
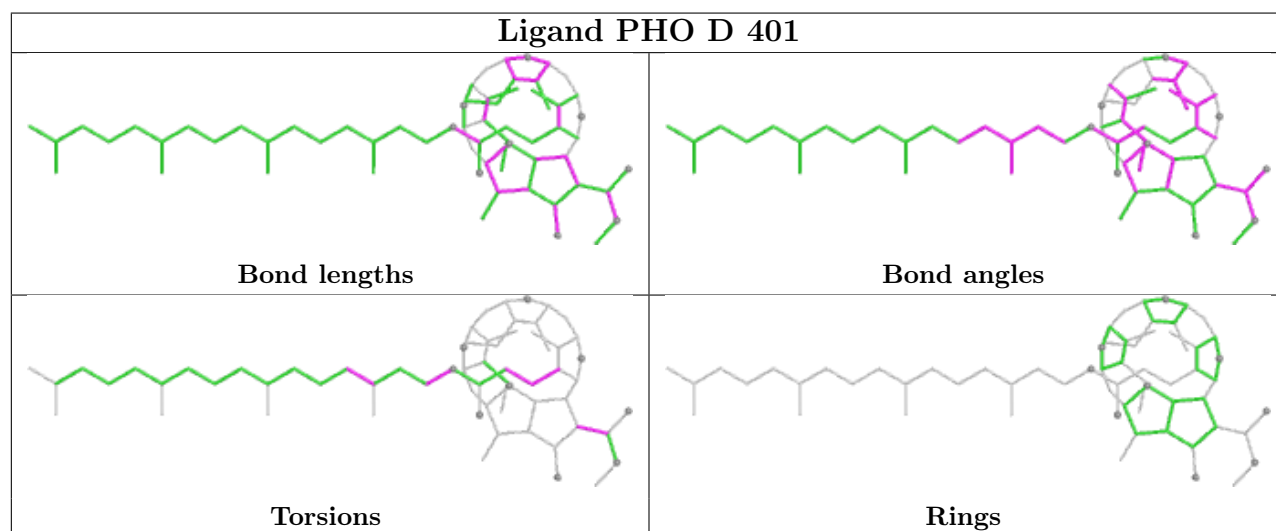
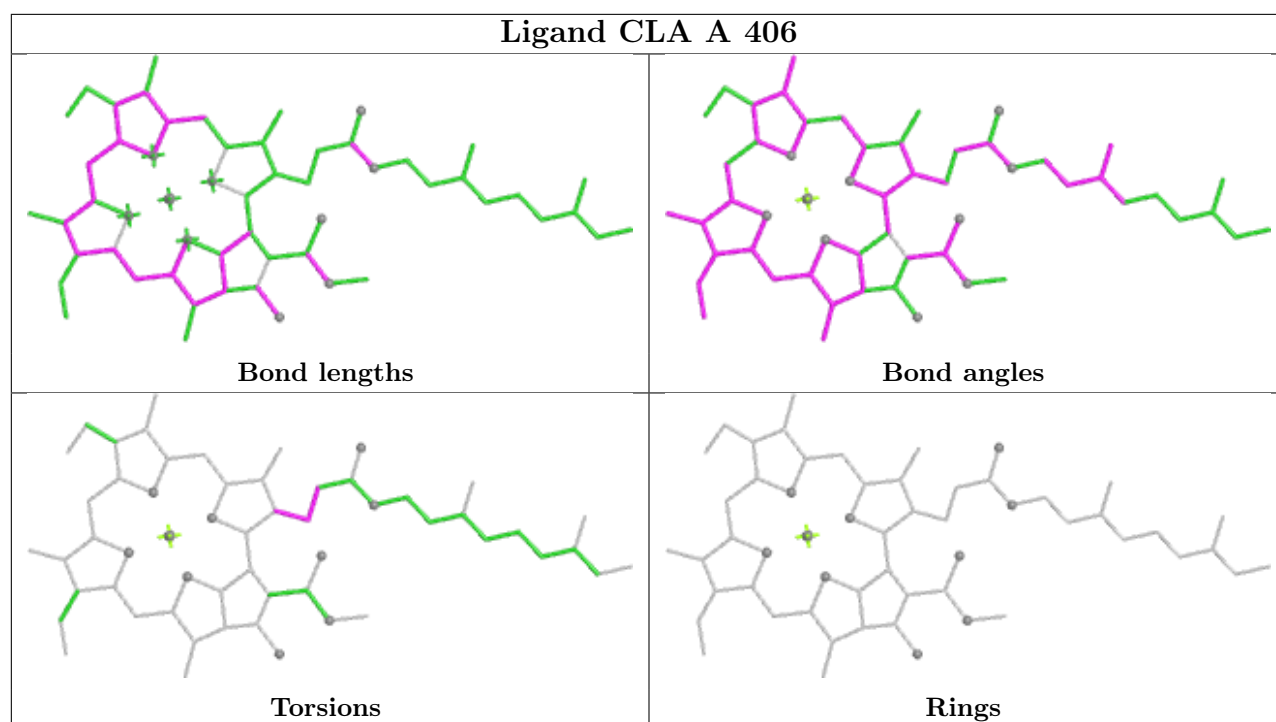




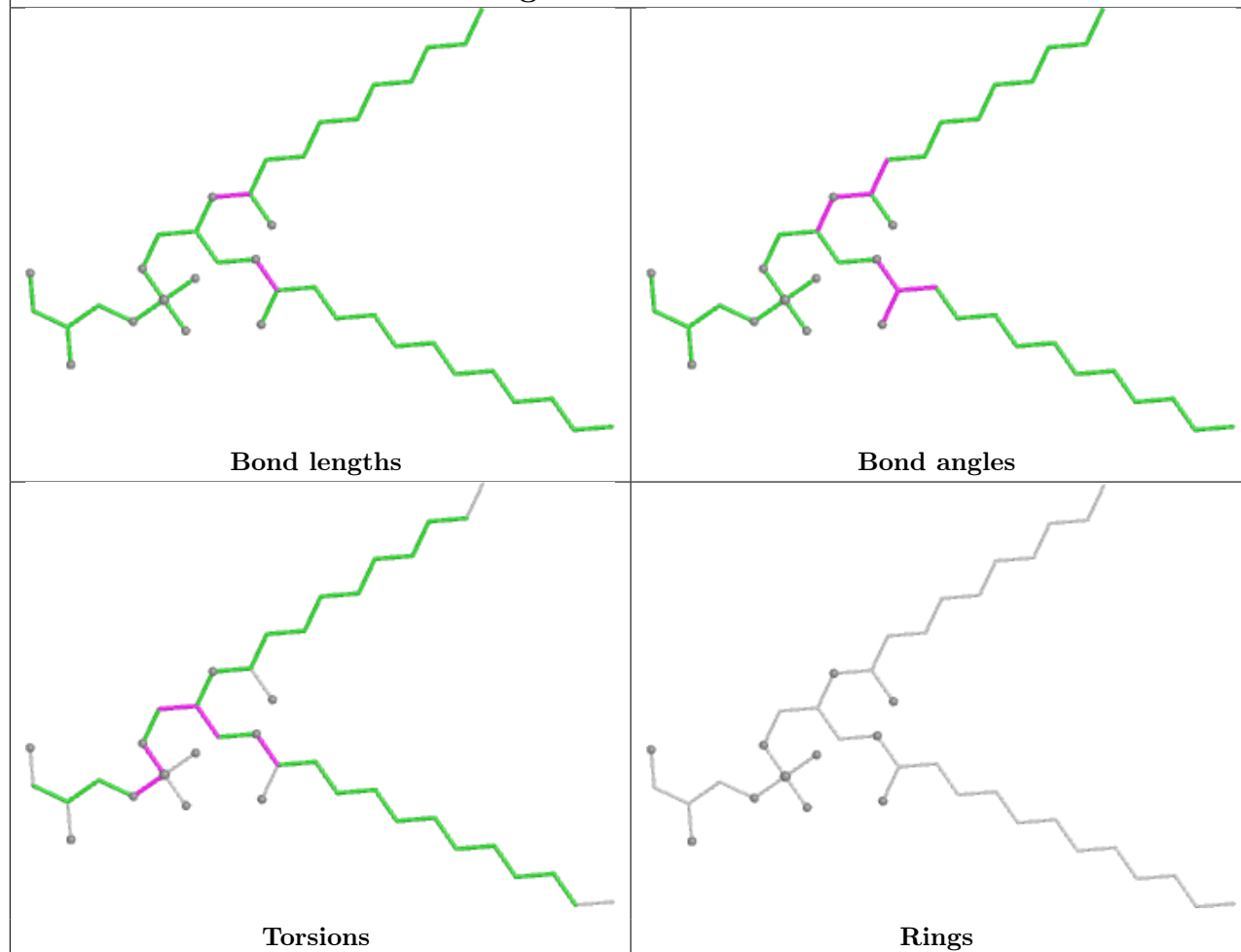




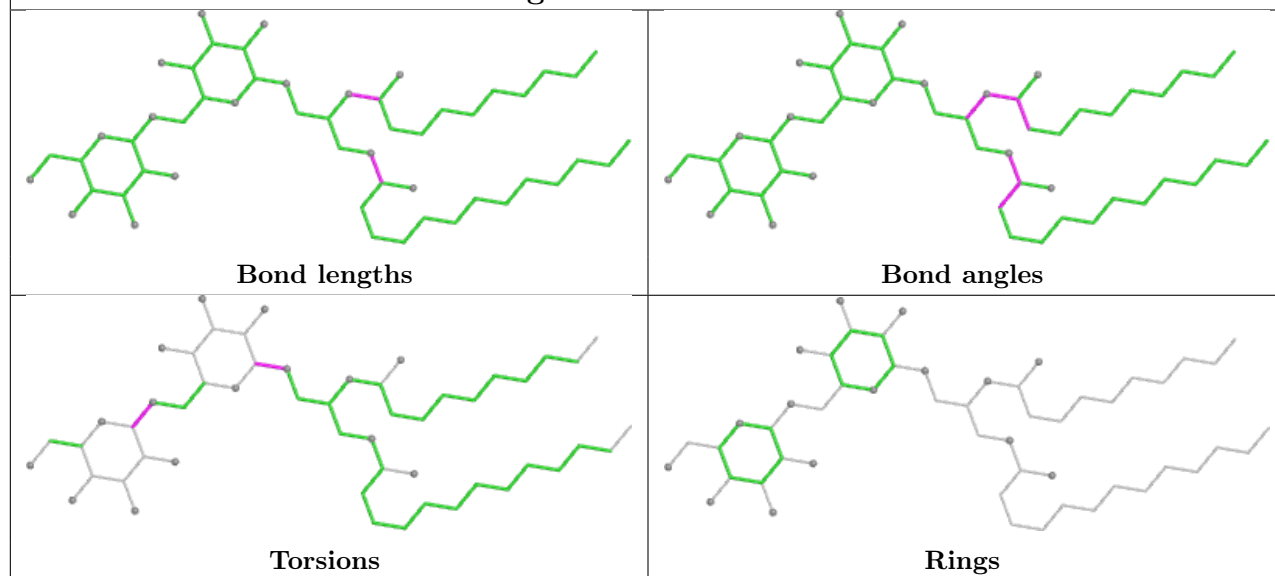


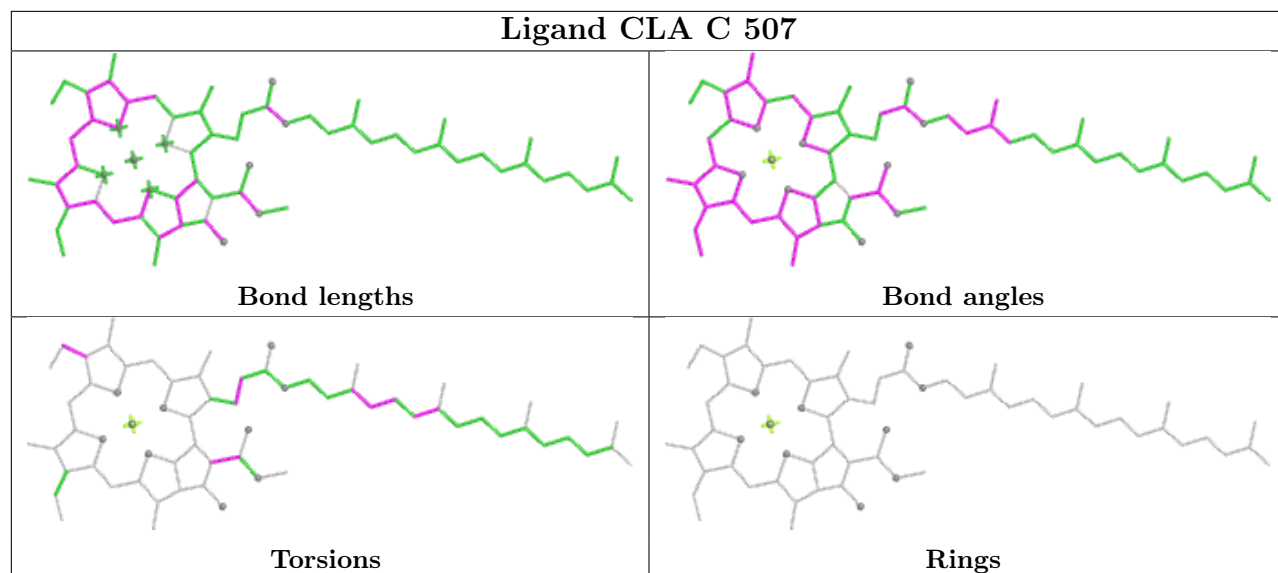
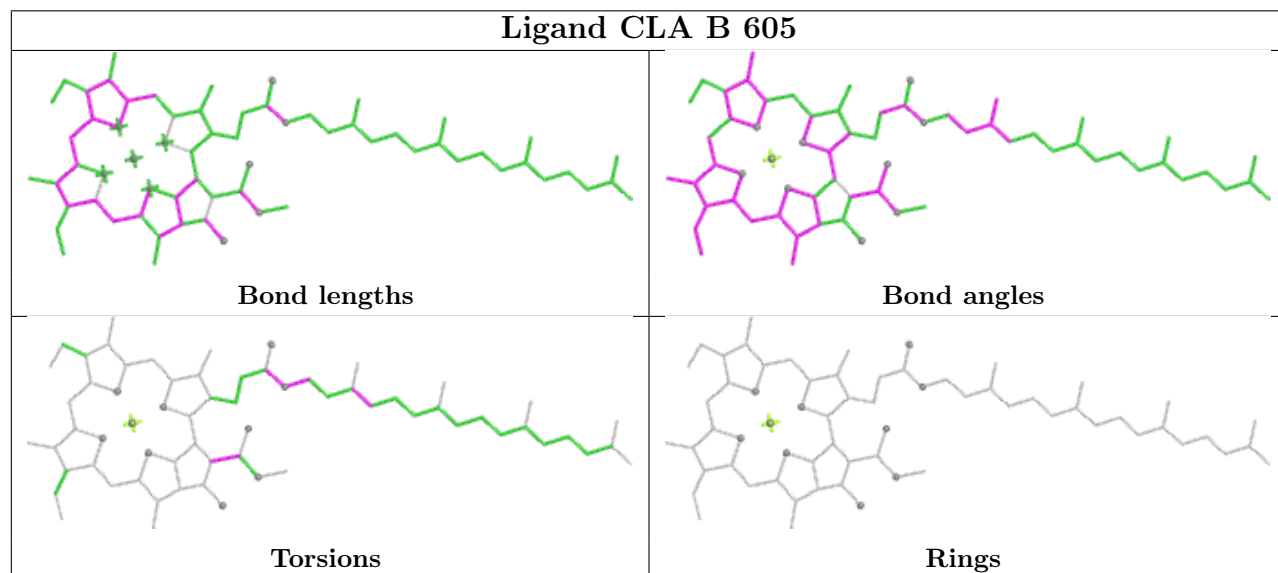
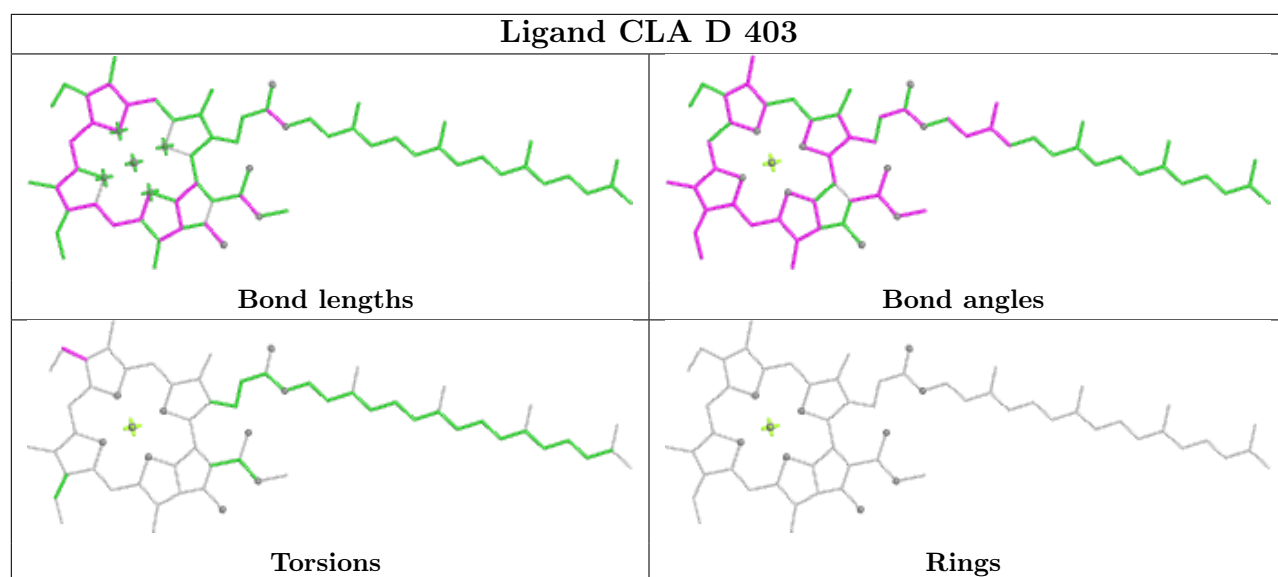


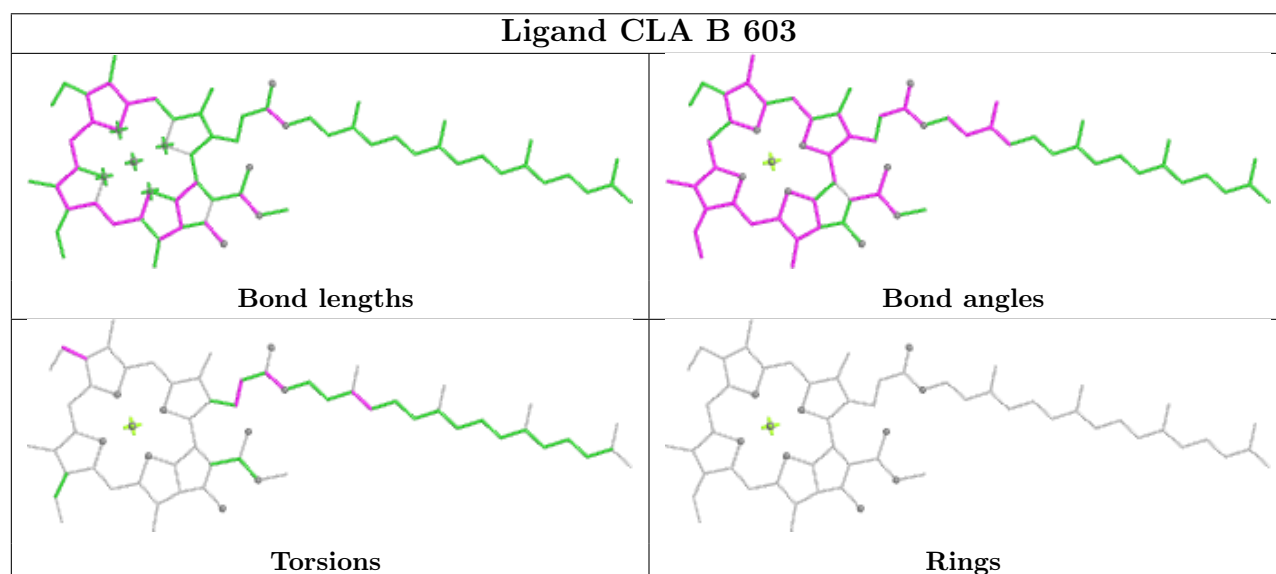
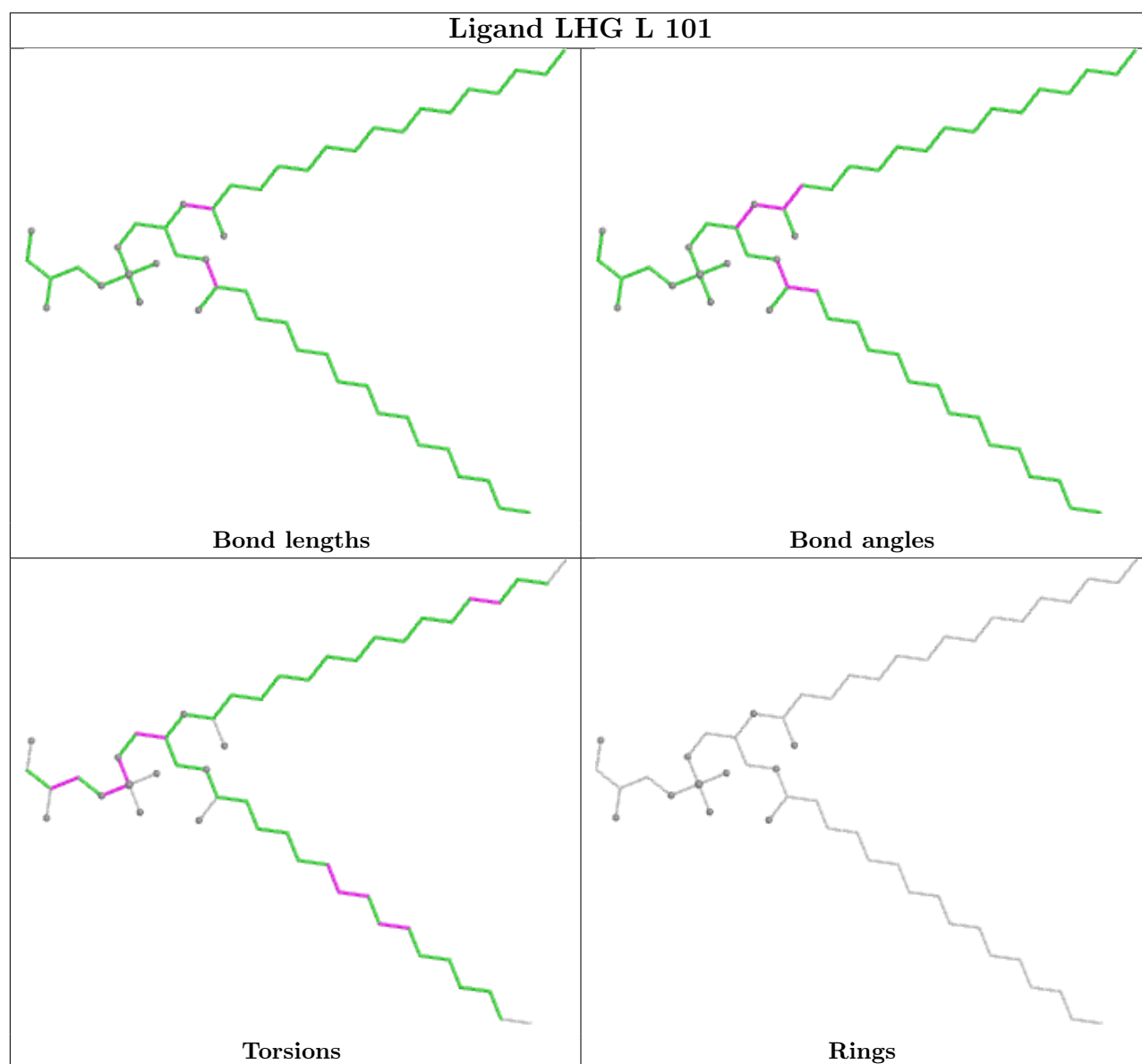
Ligand LHG a 414

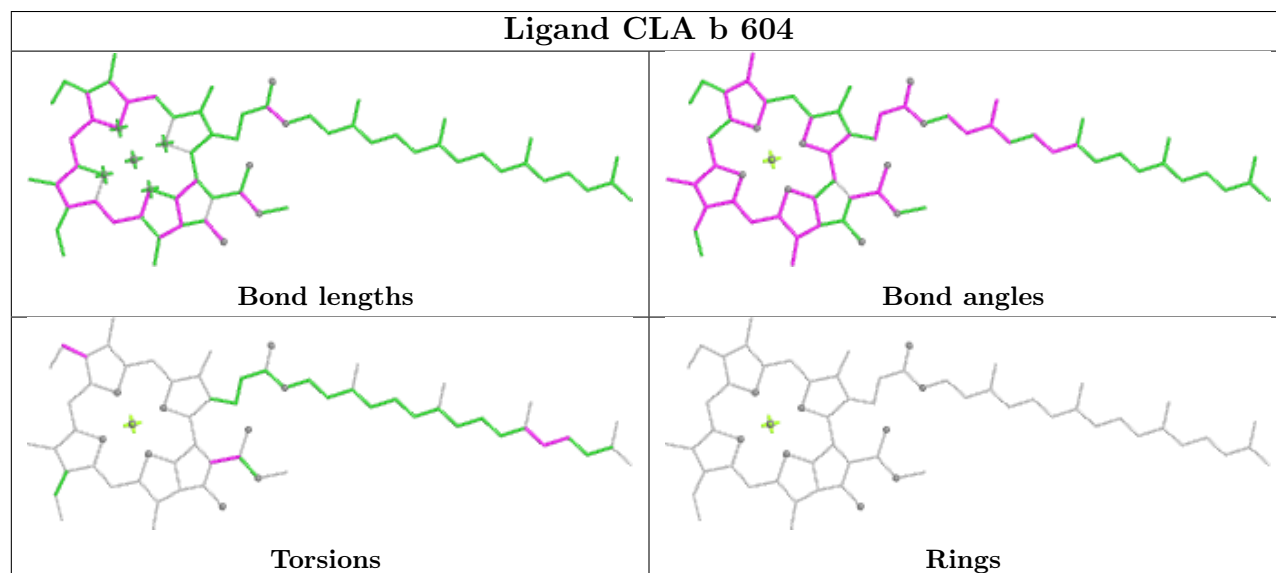
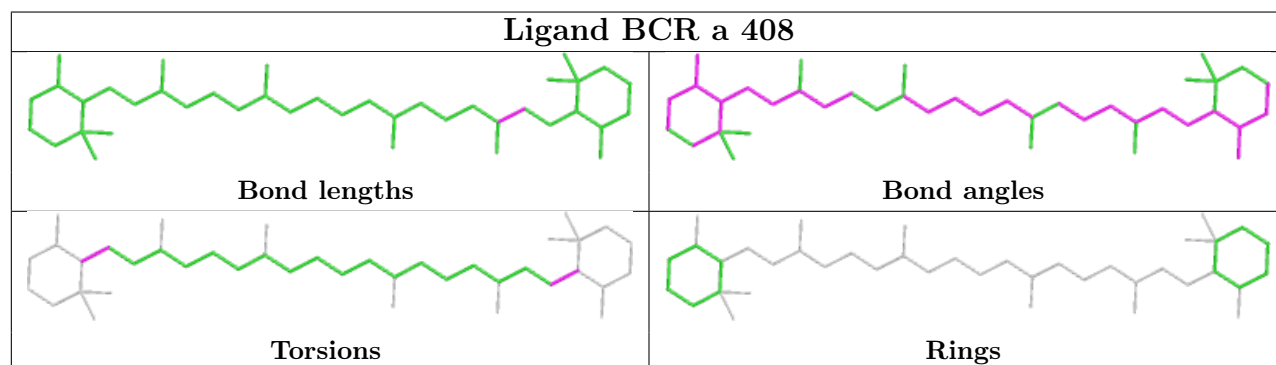
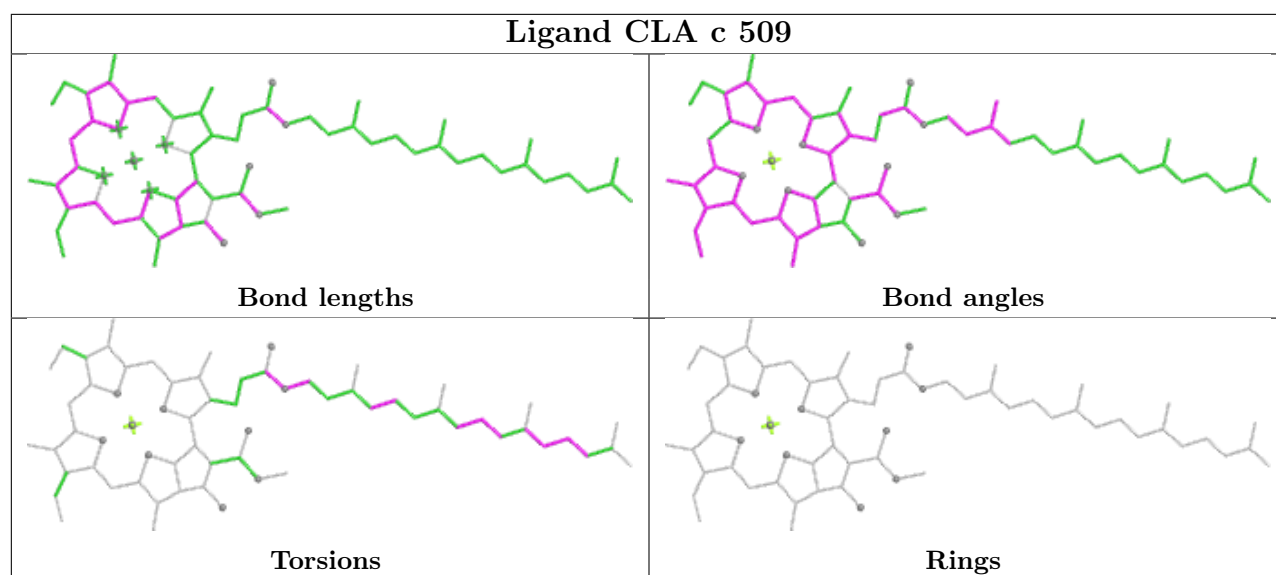


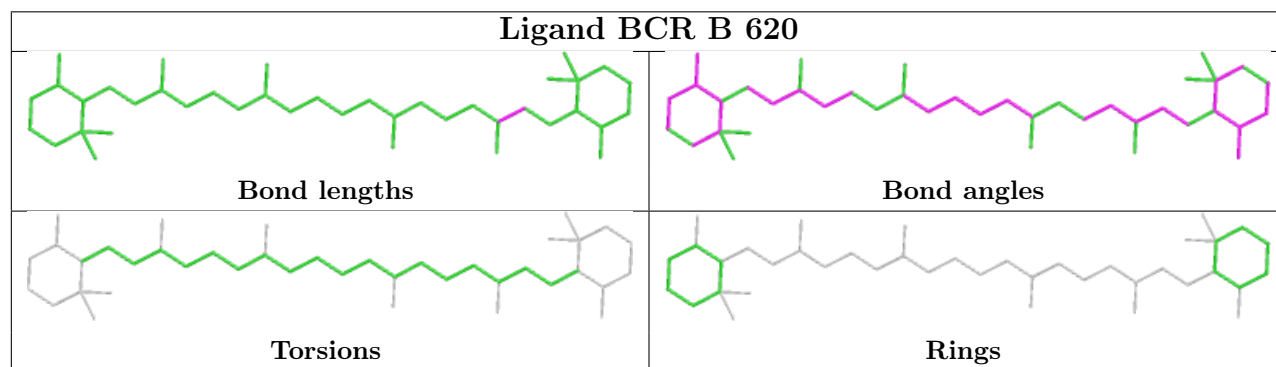
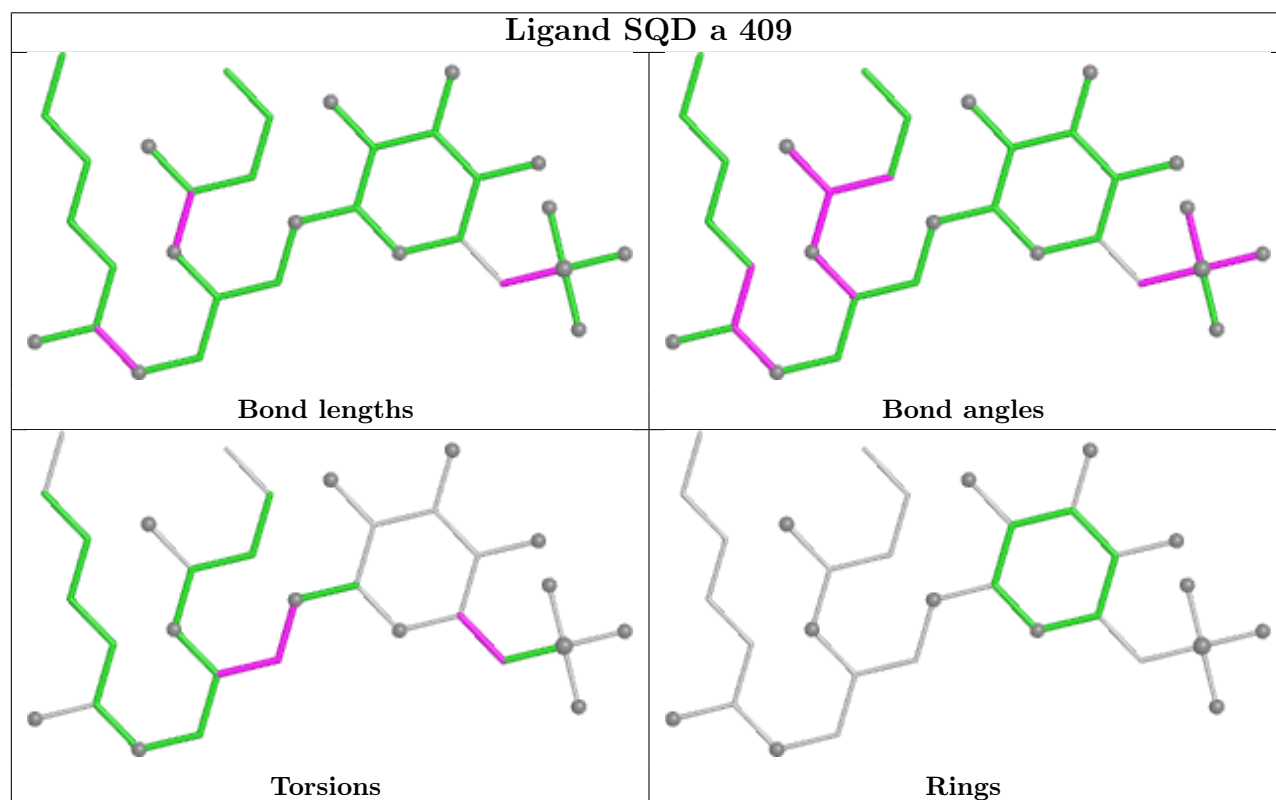
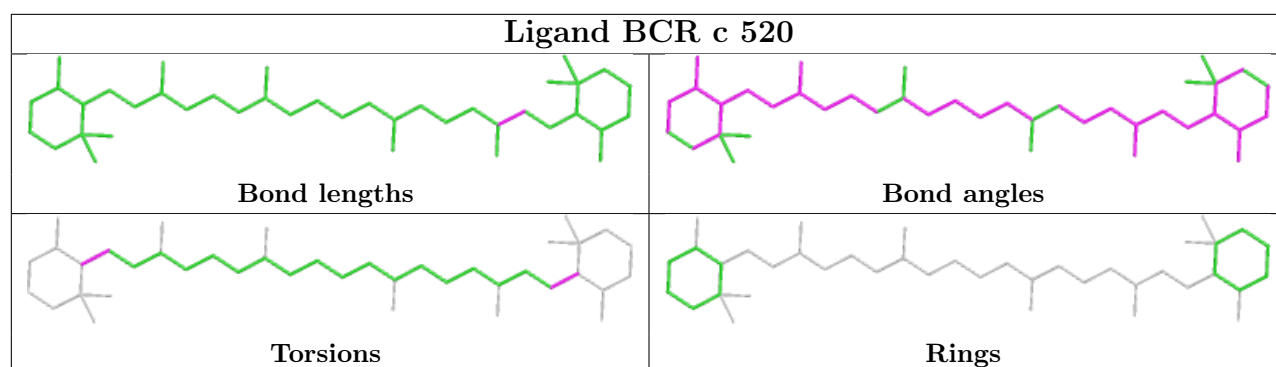
Ligand DGD C 518

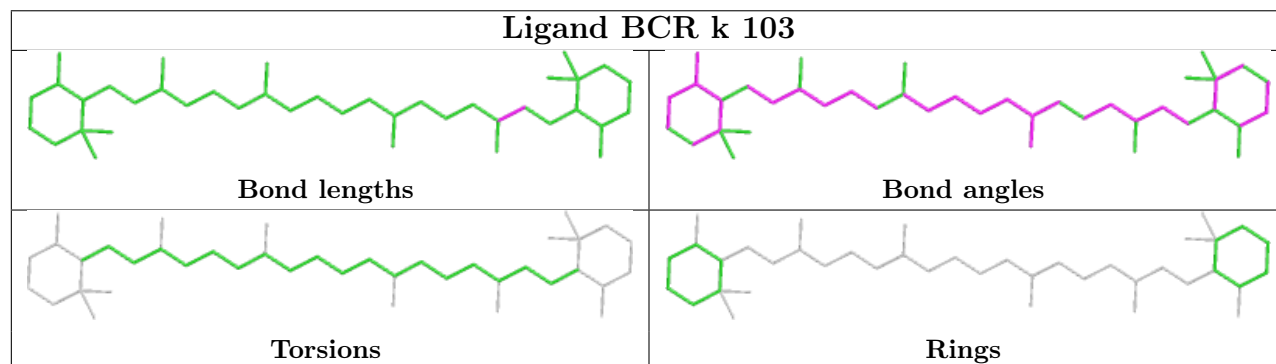
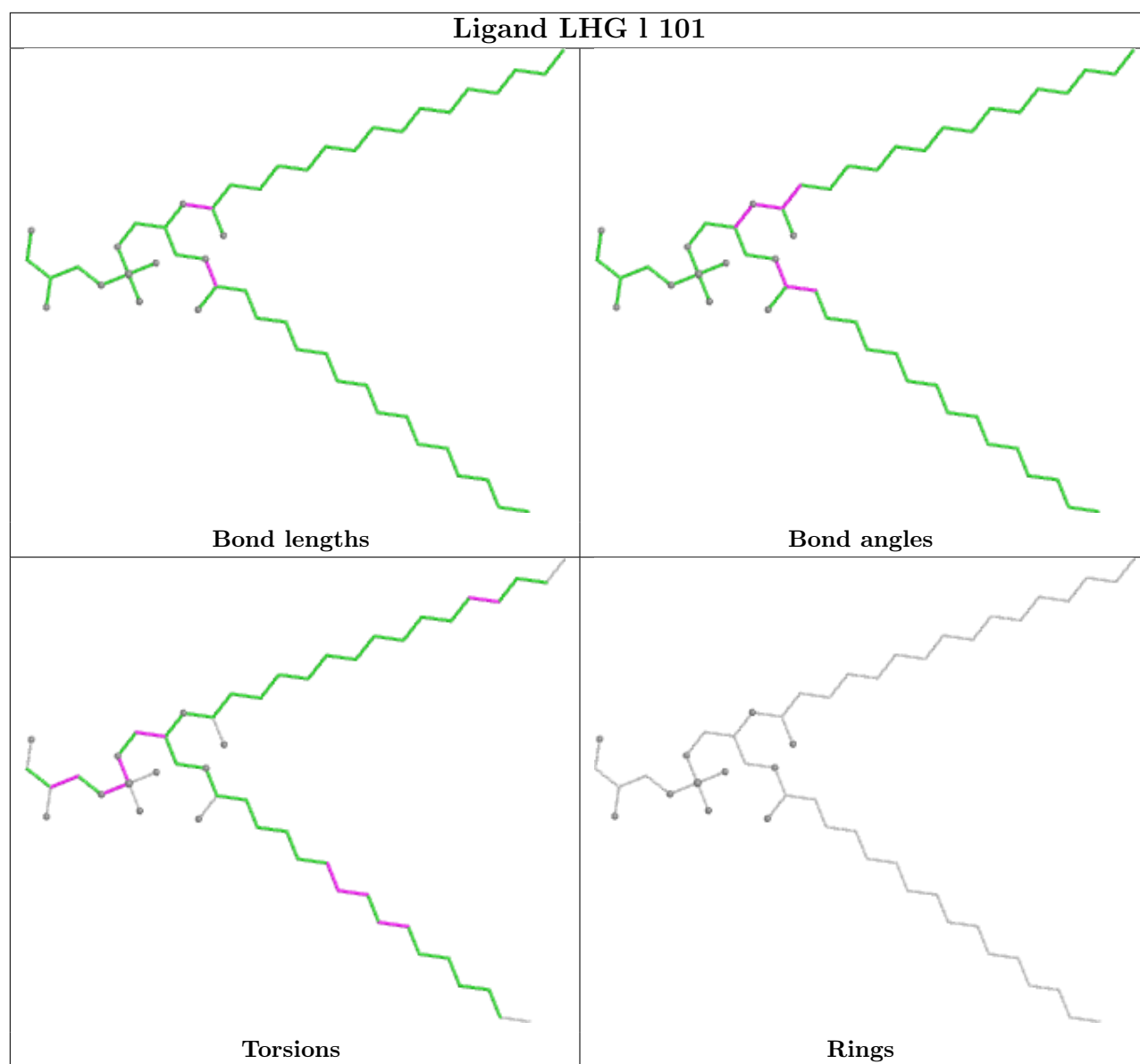


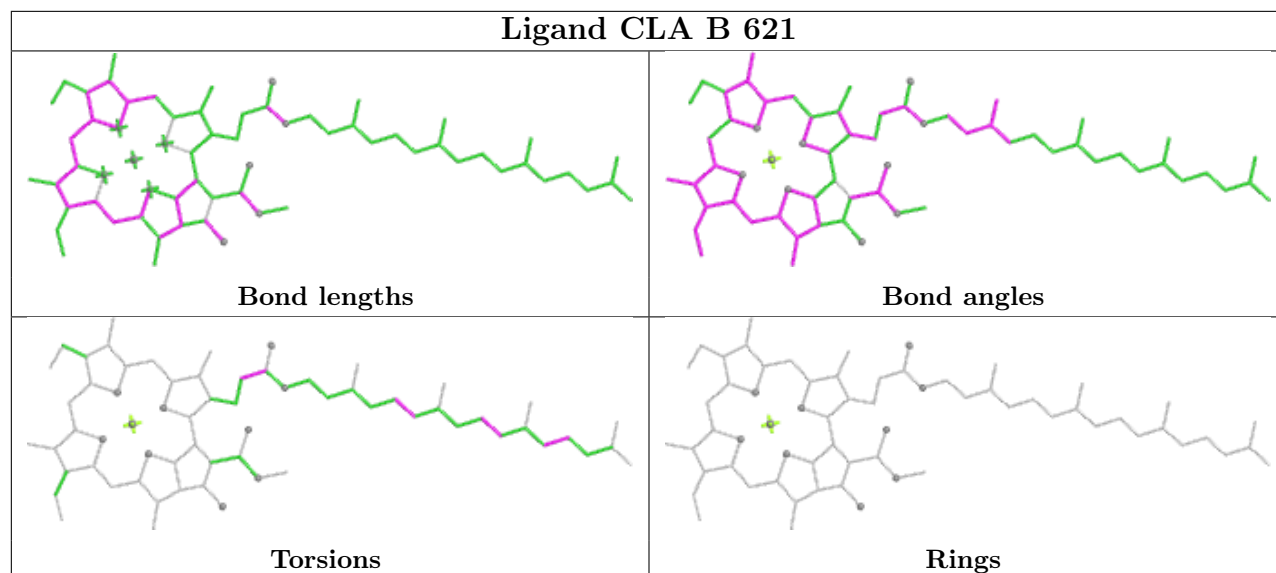
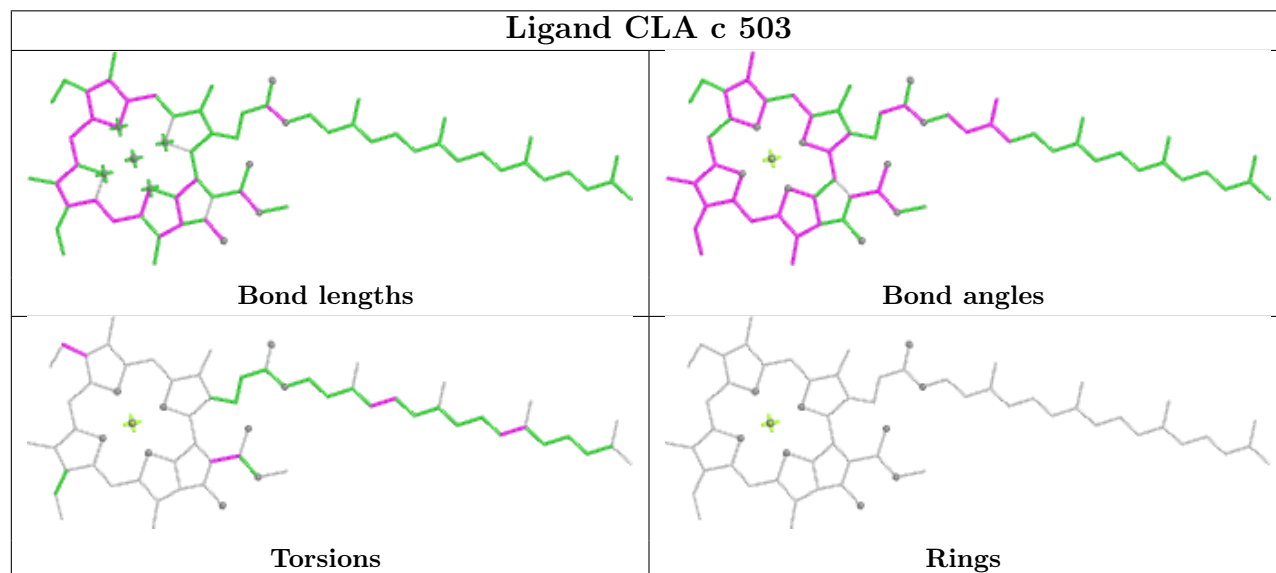
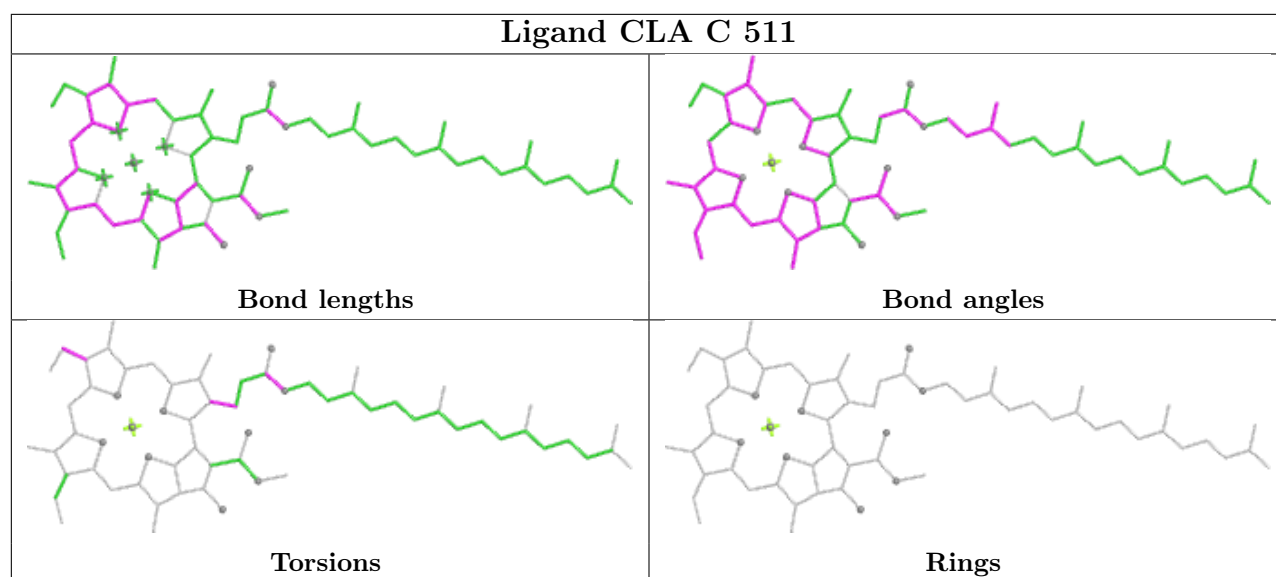


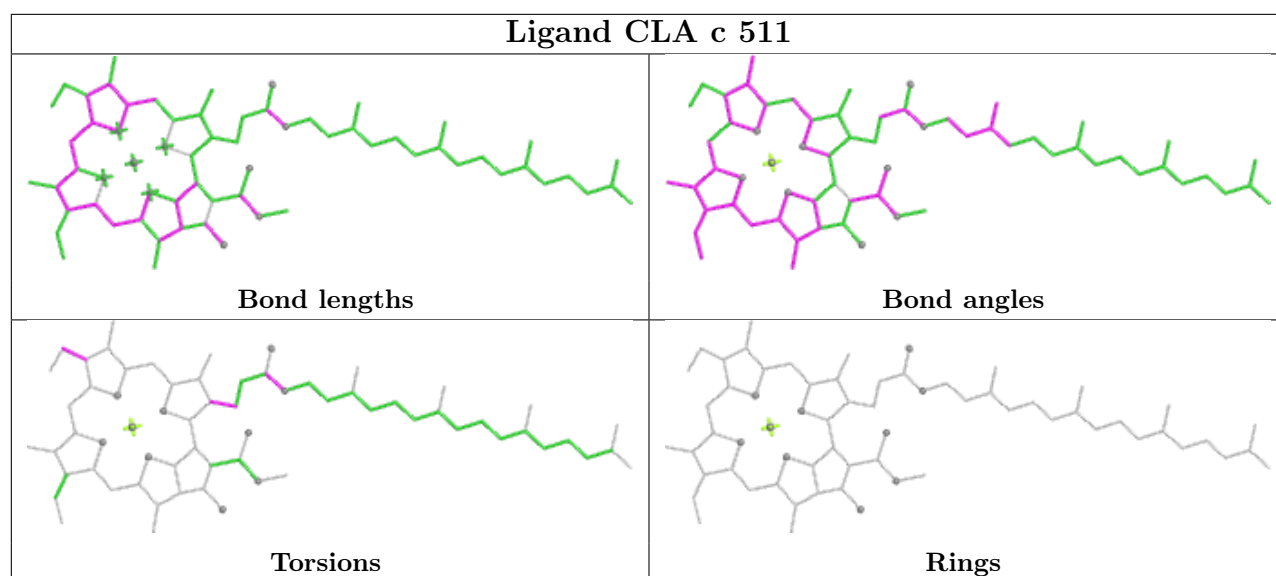
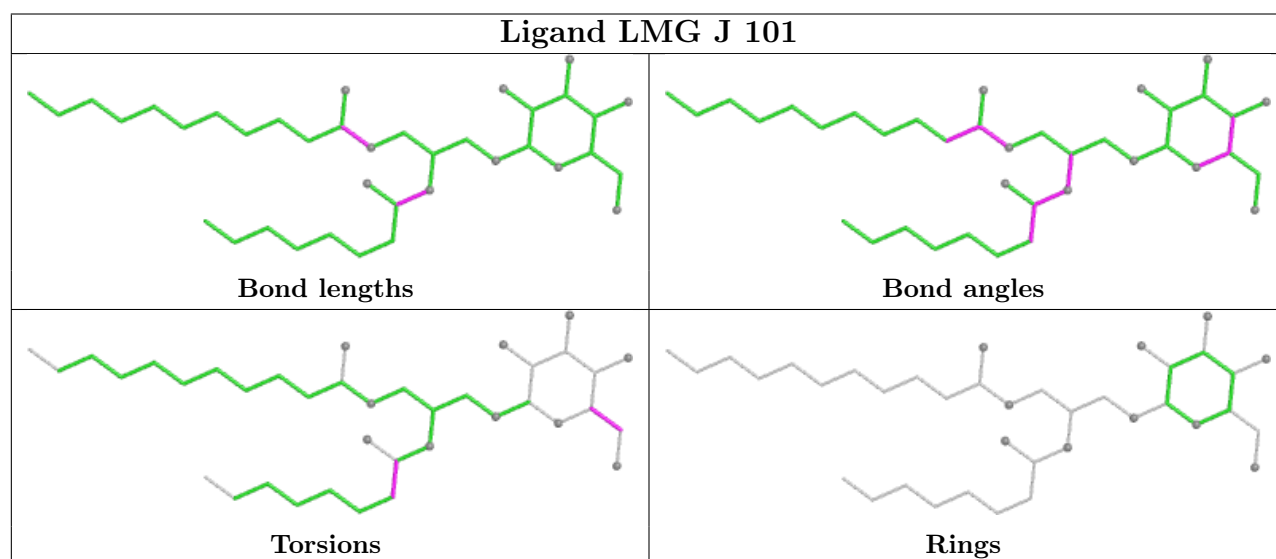
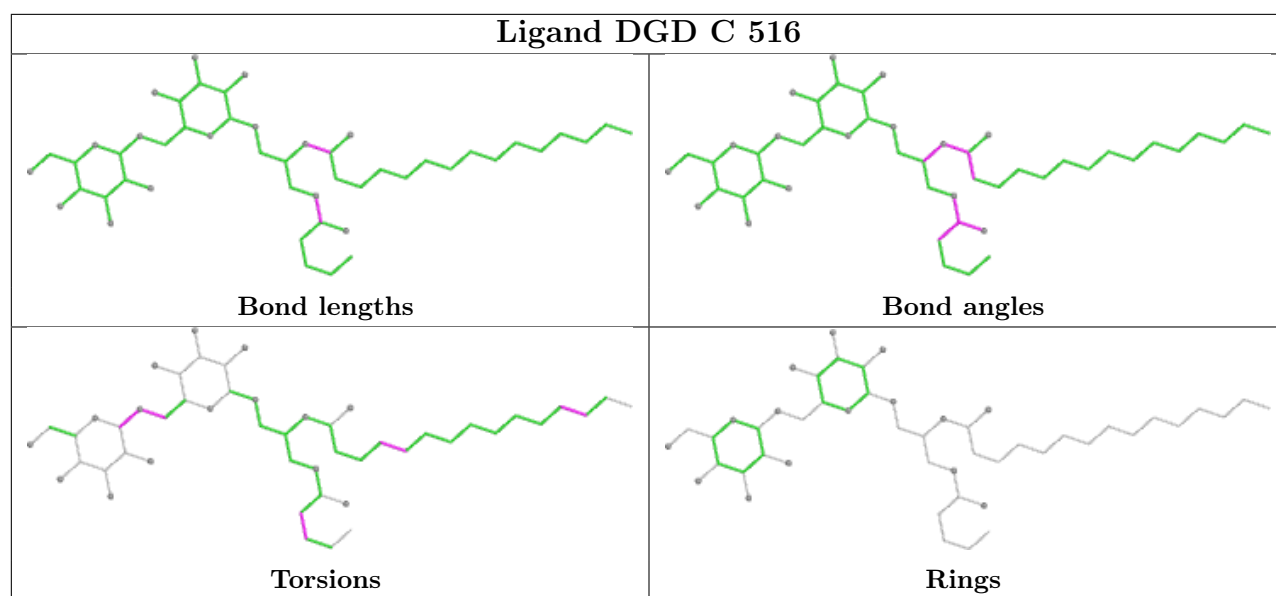




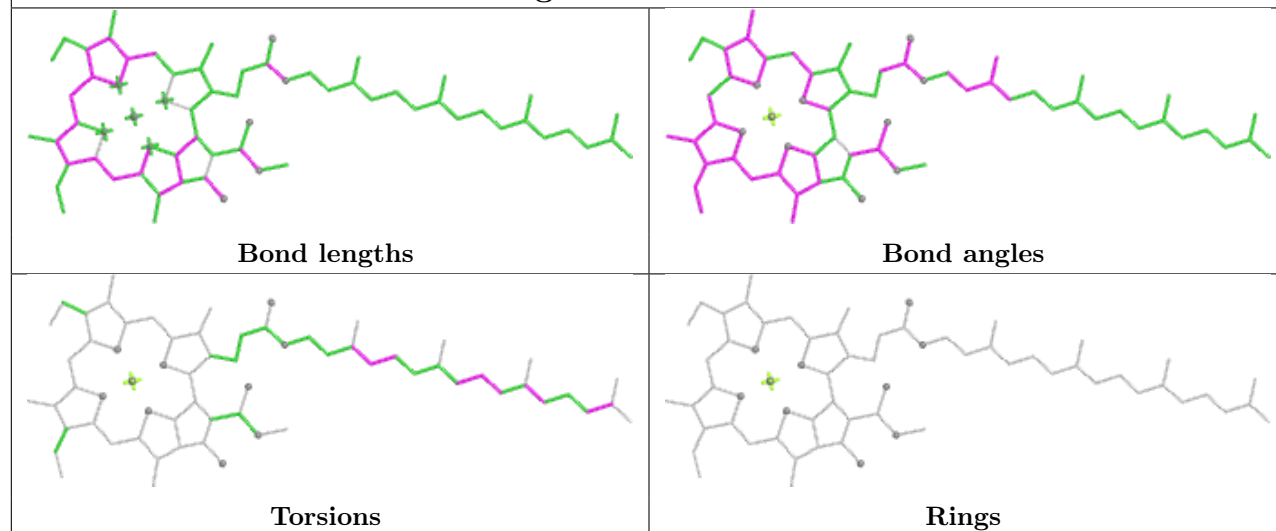




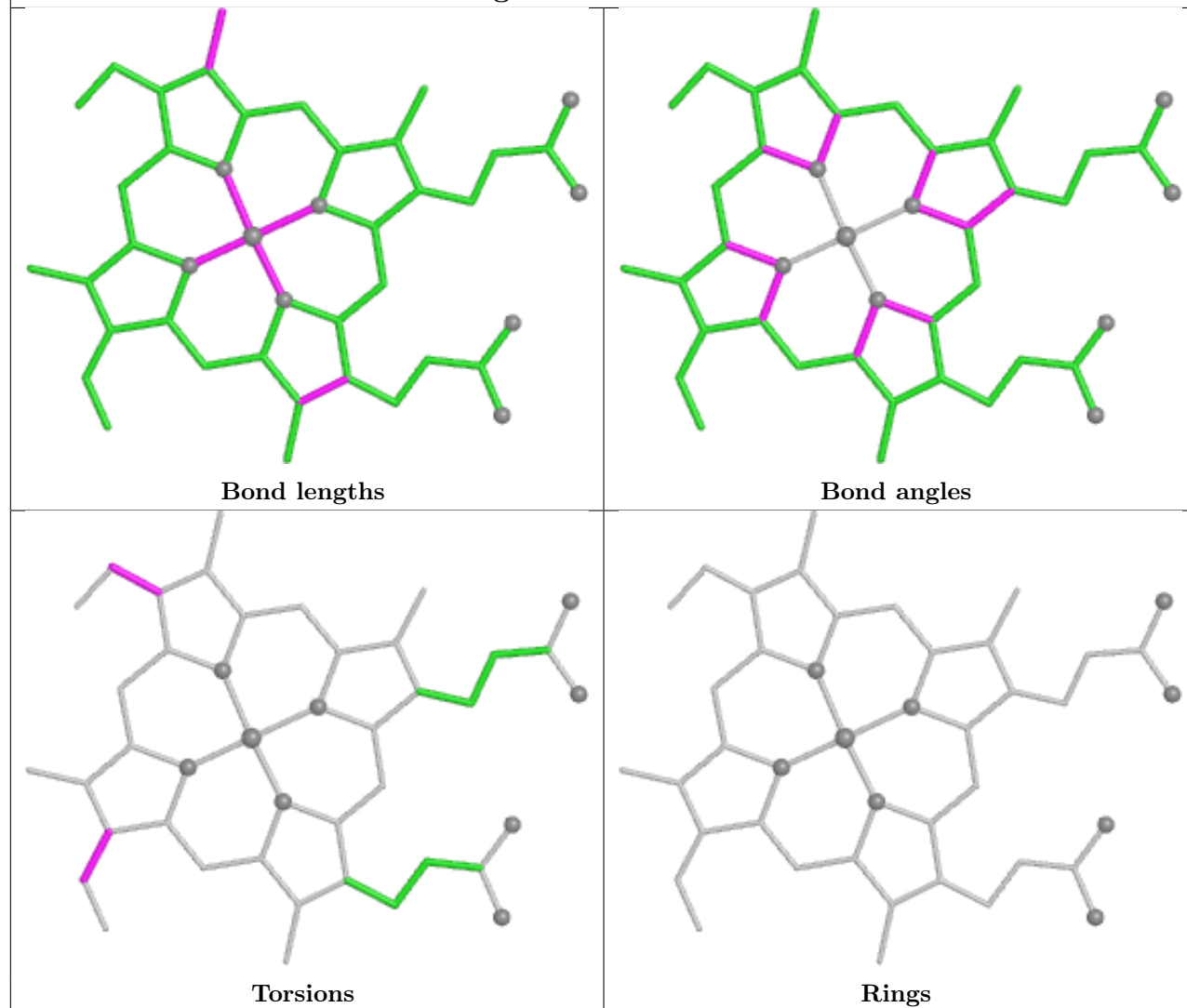


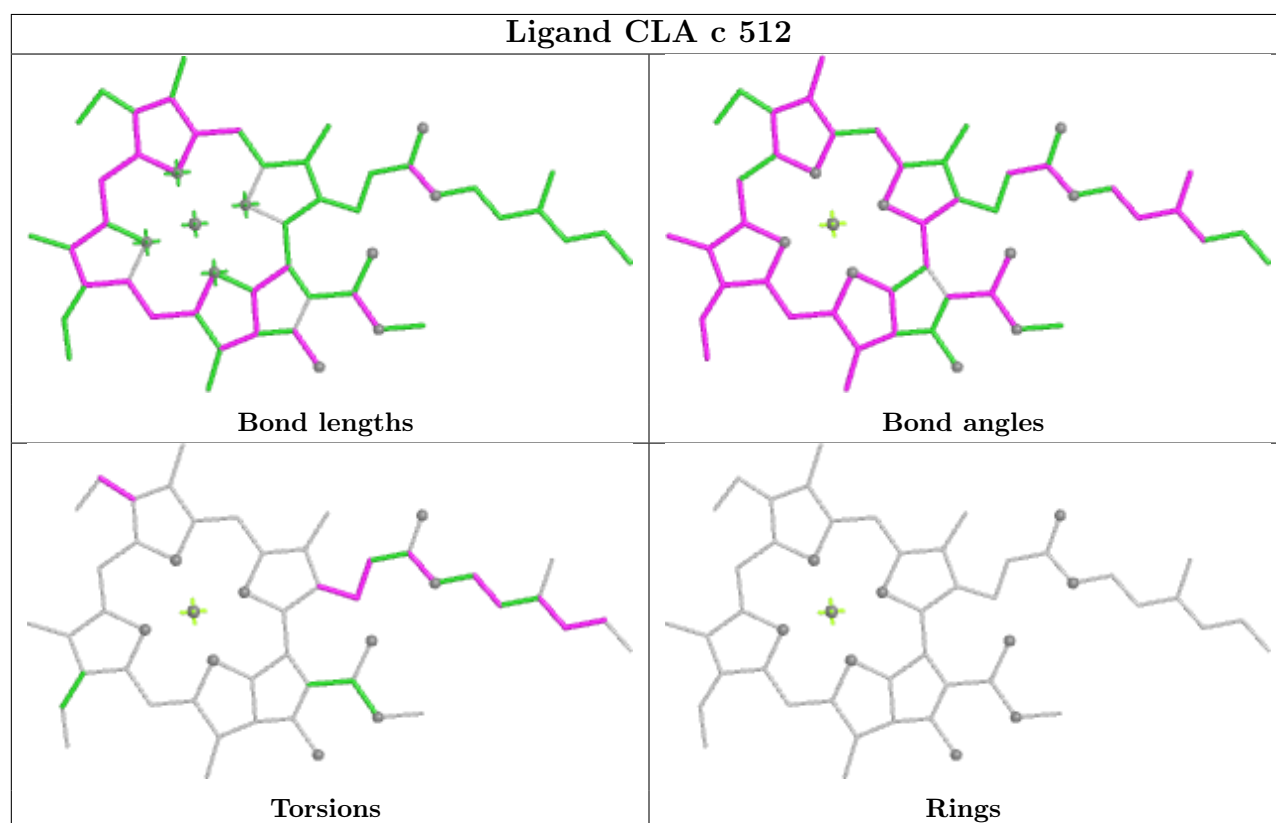
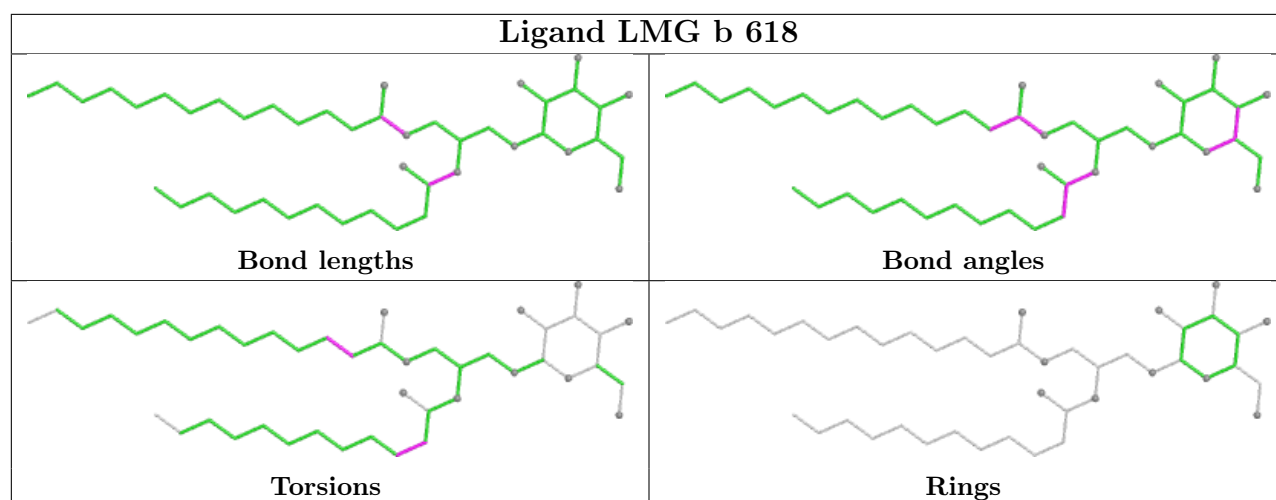


Ligand CLA b 614

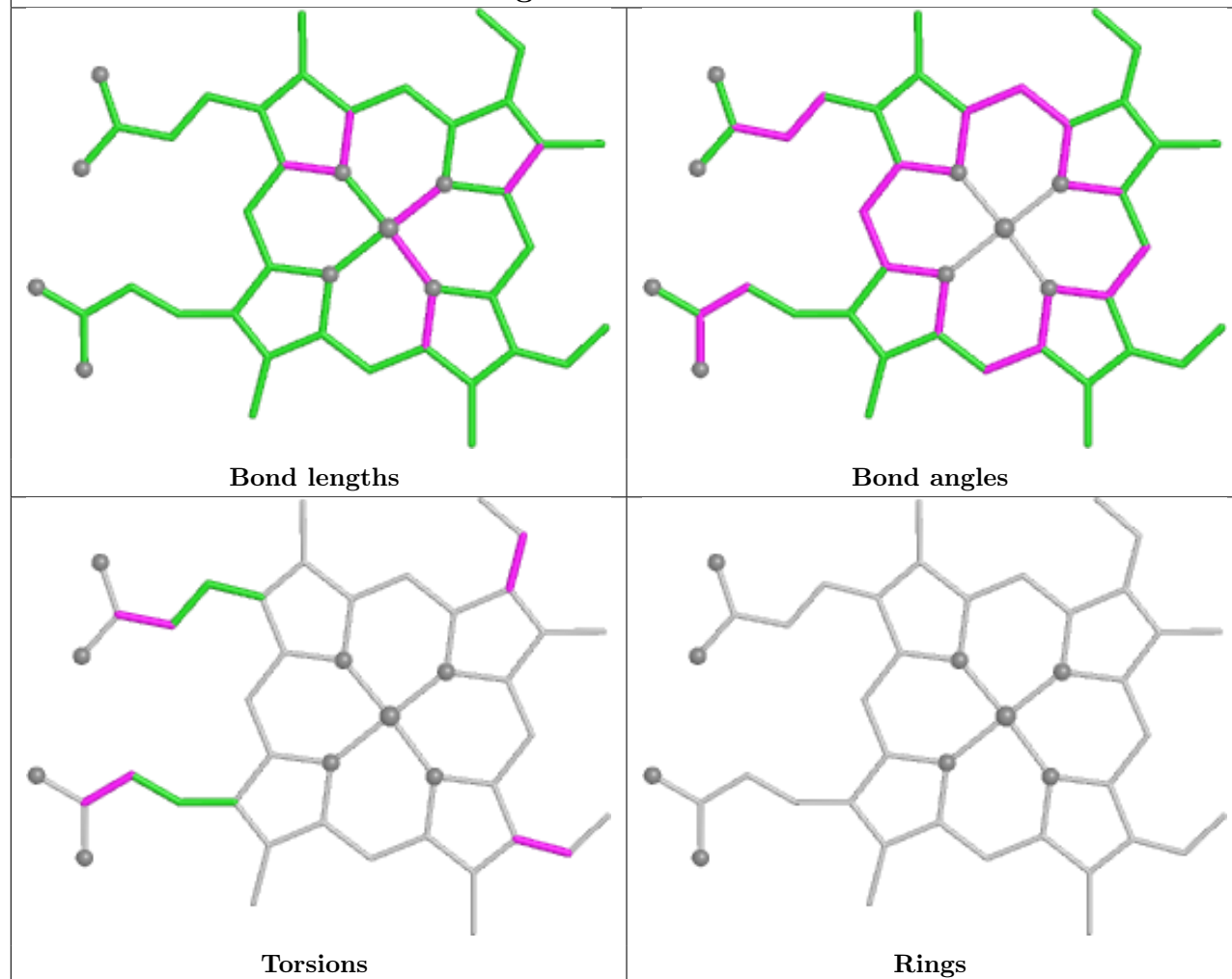


Ligand HEC V 201

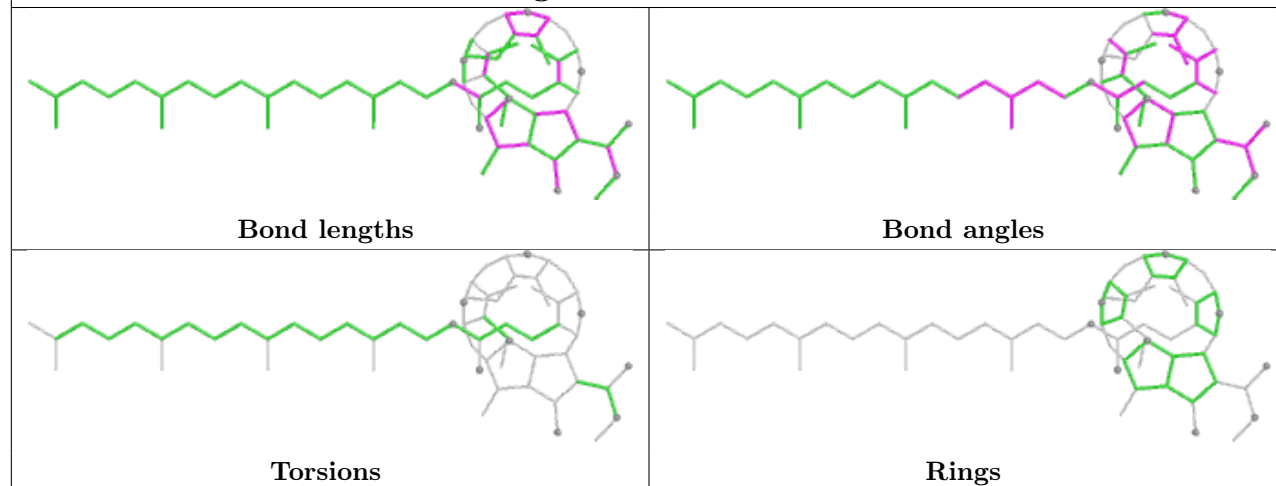


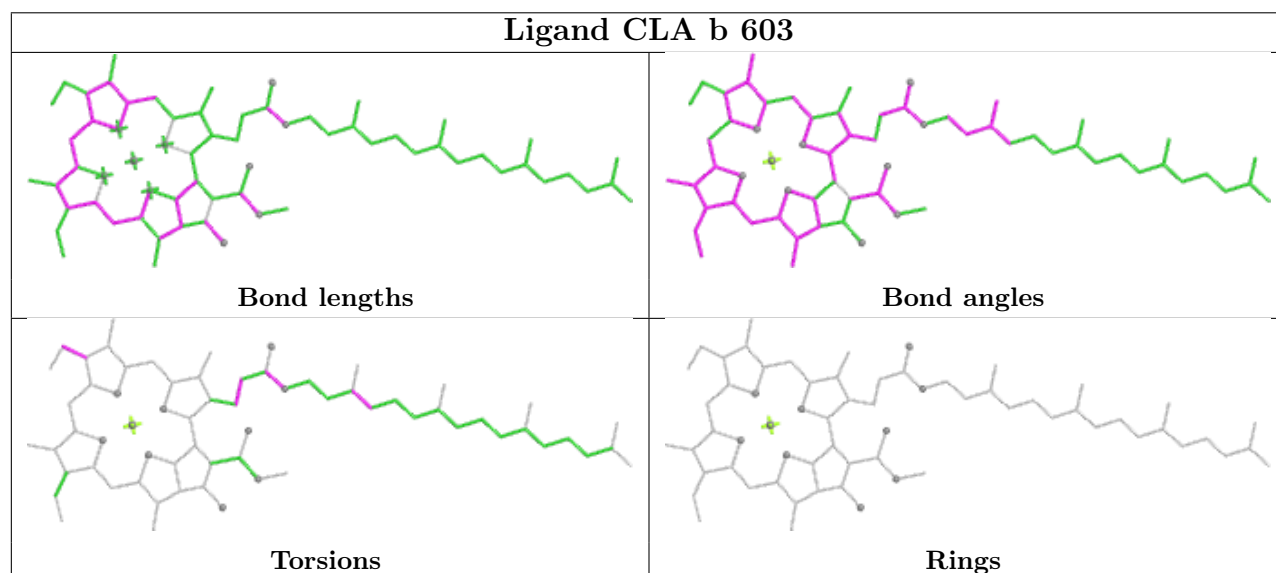
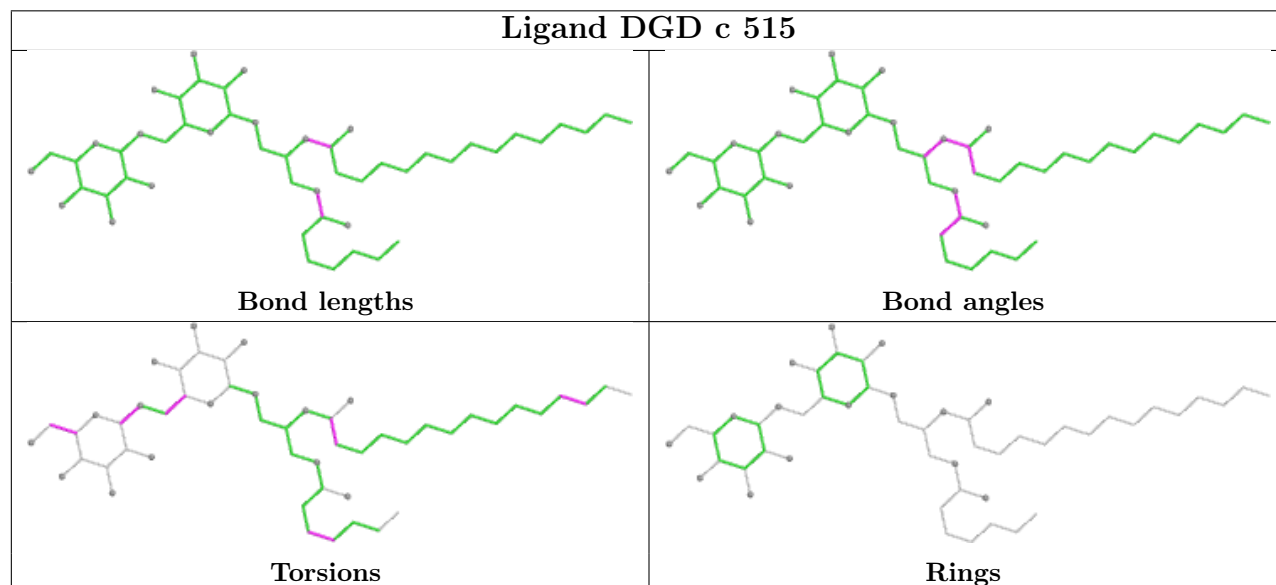
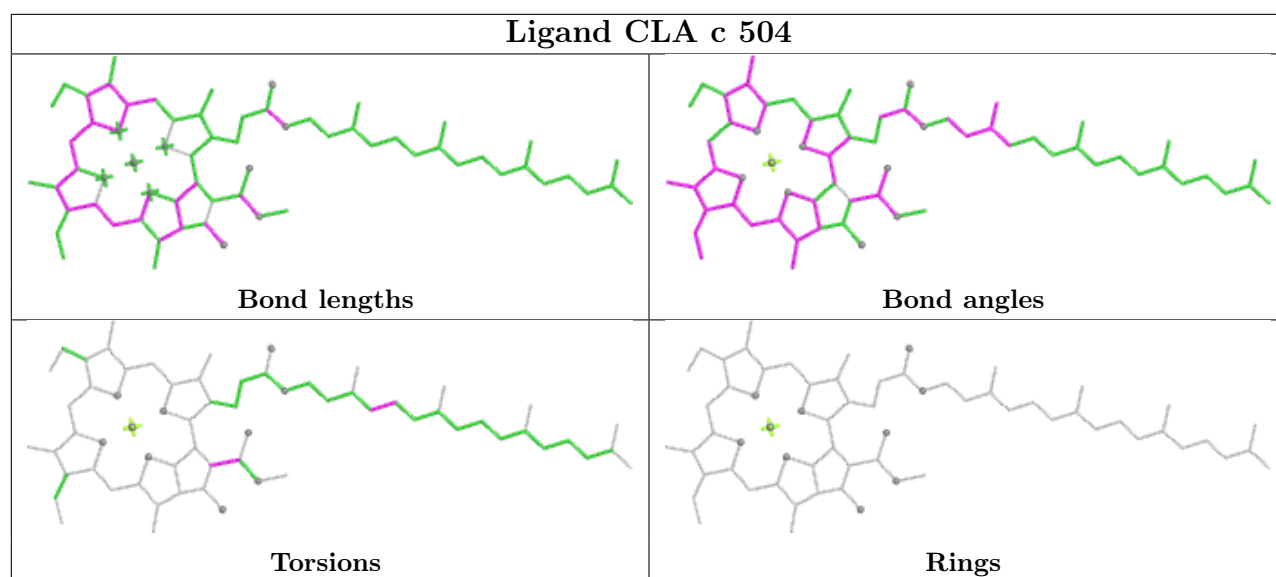


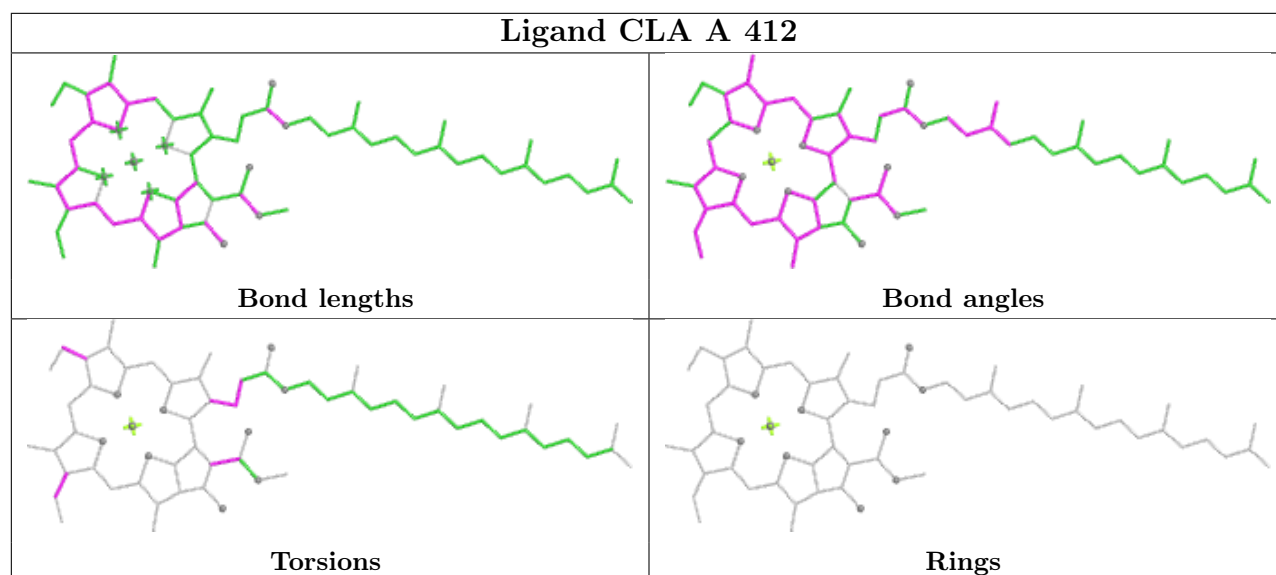
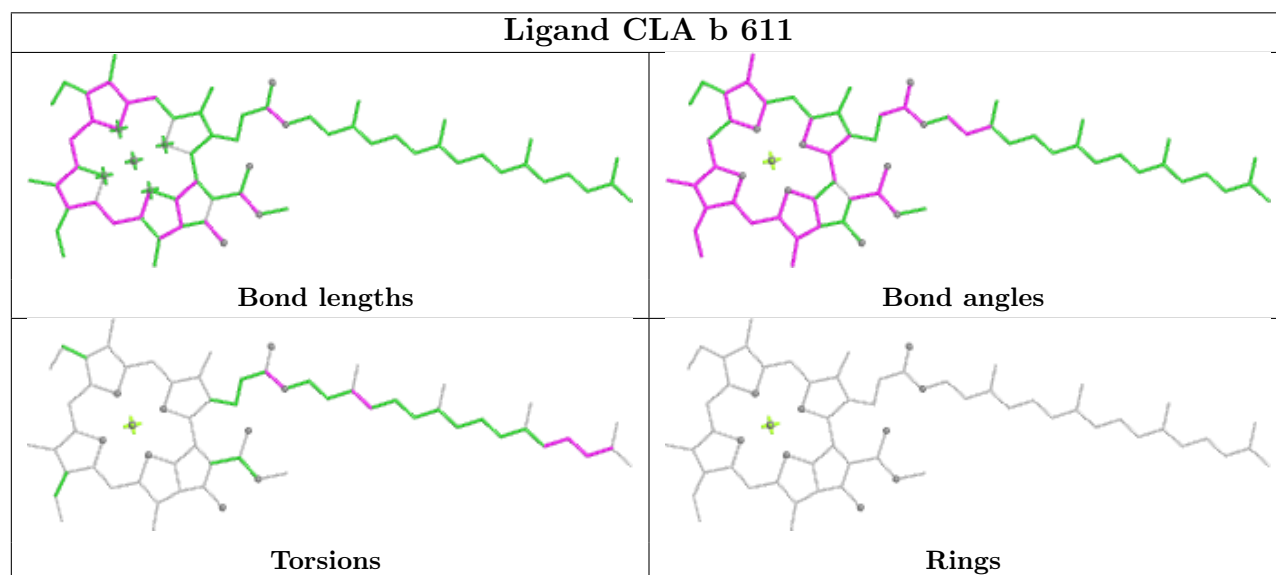
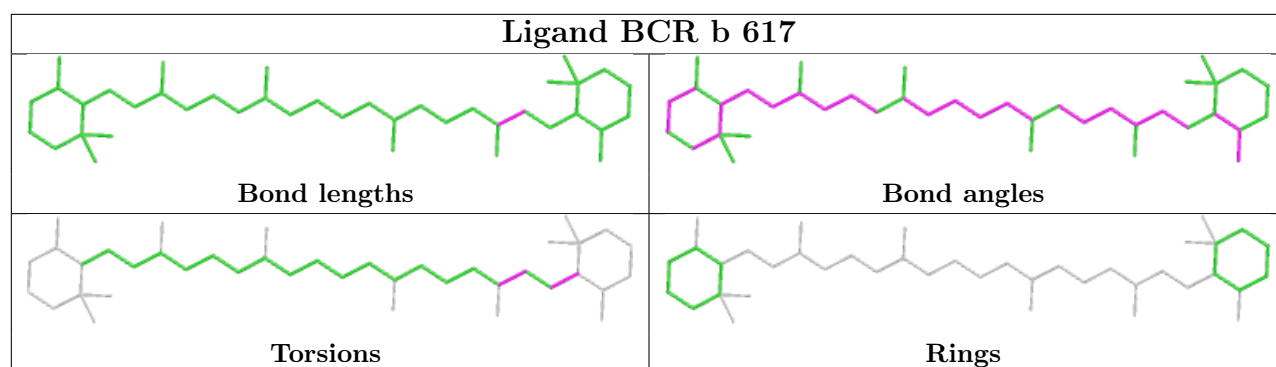
Ligand HEM f 102

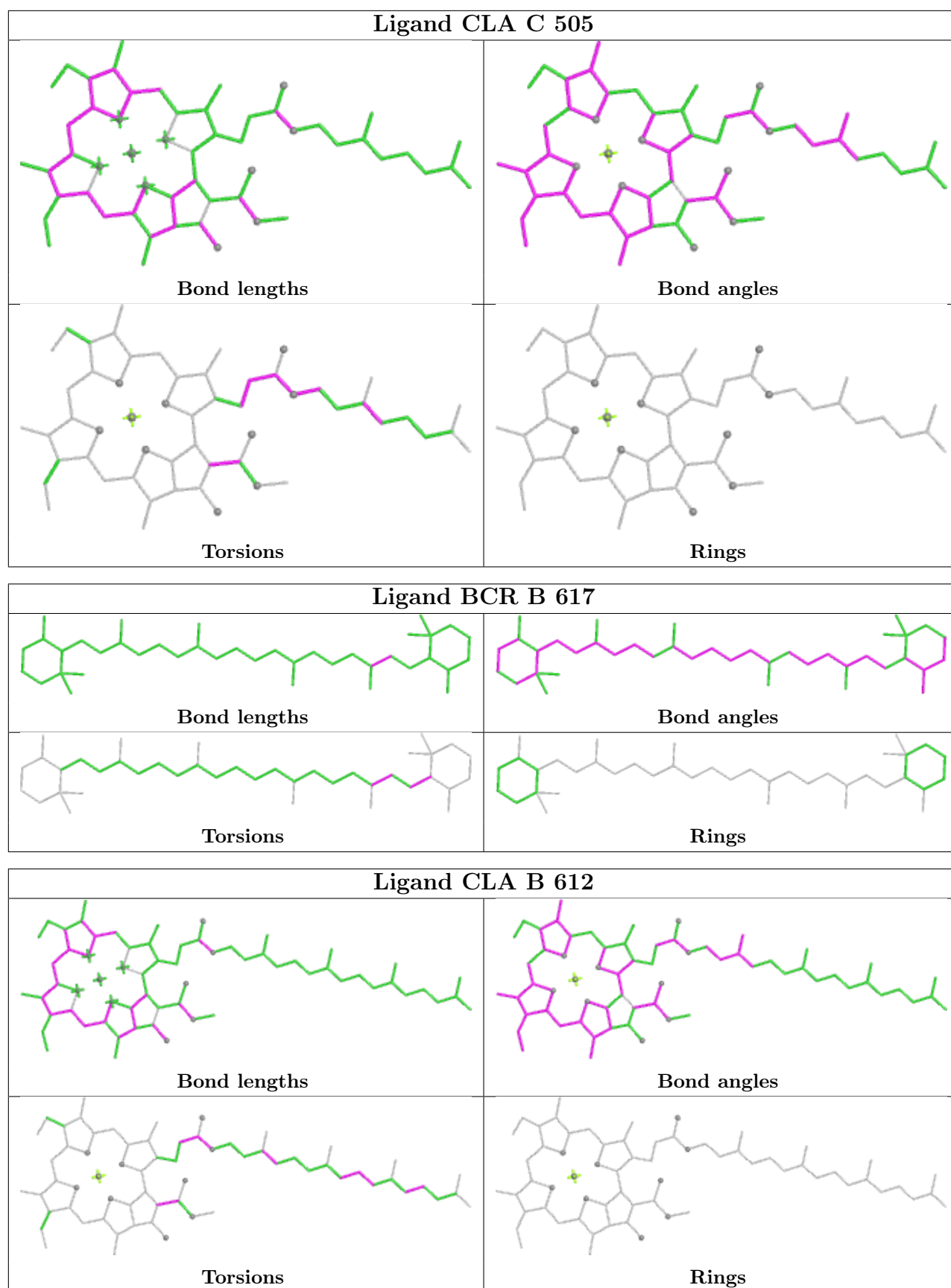


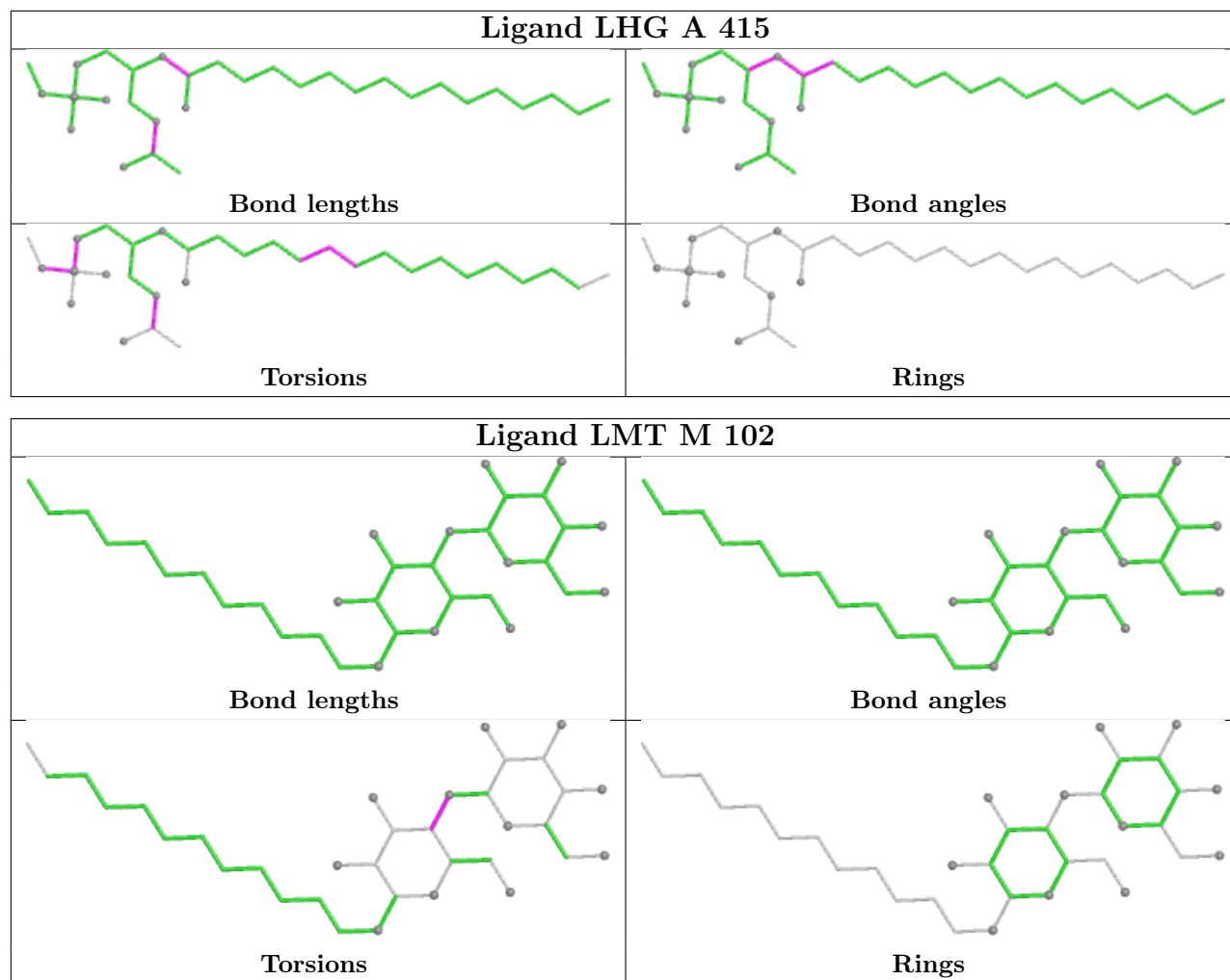
Ligand PHO d 402

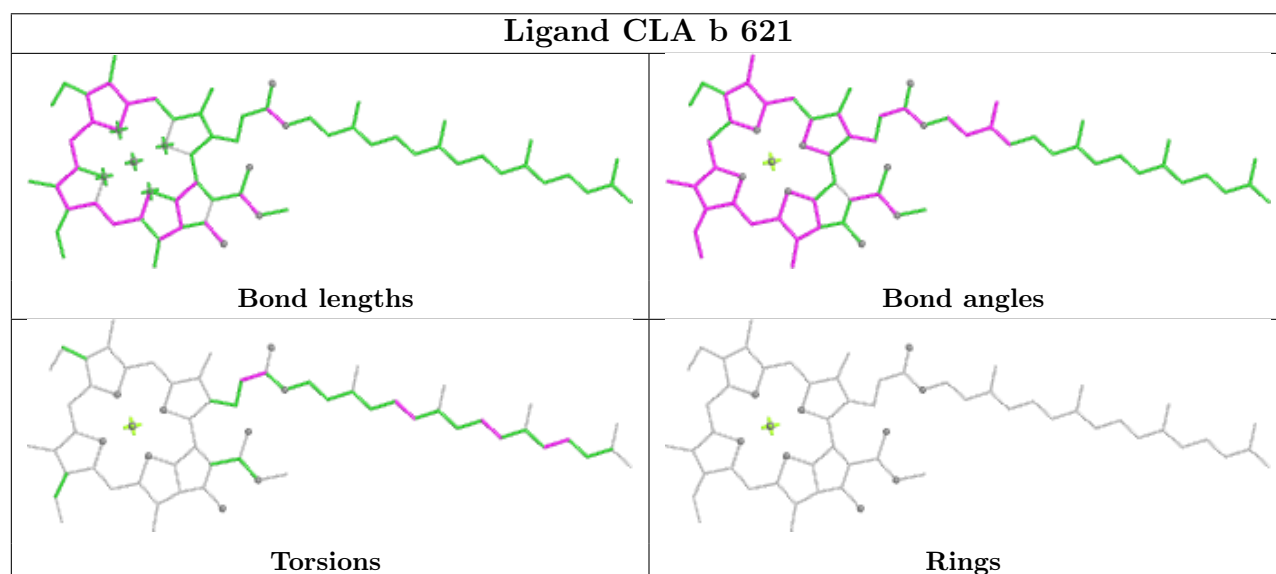
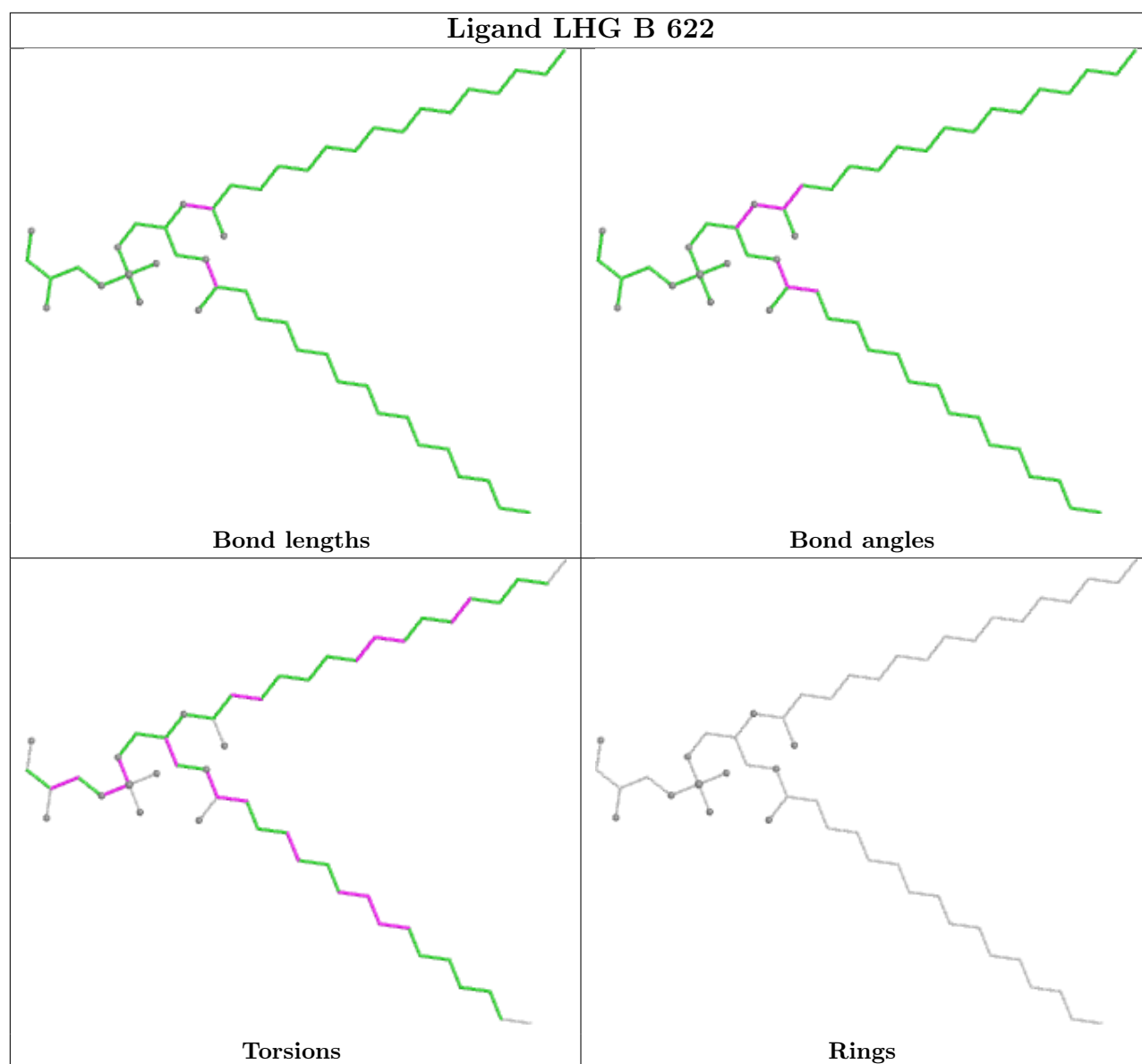


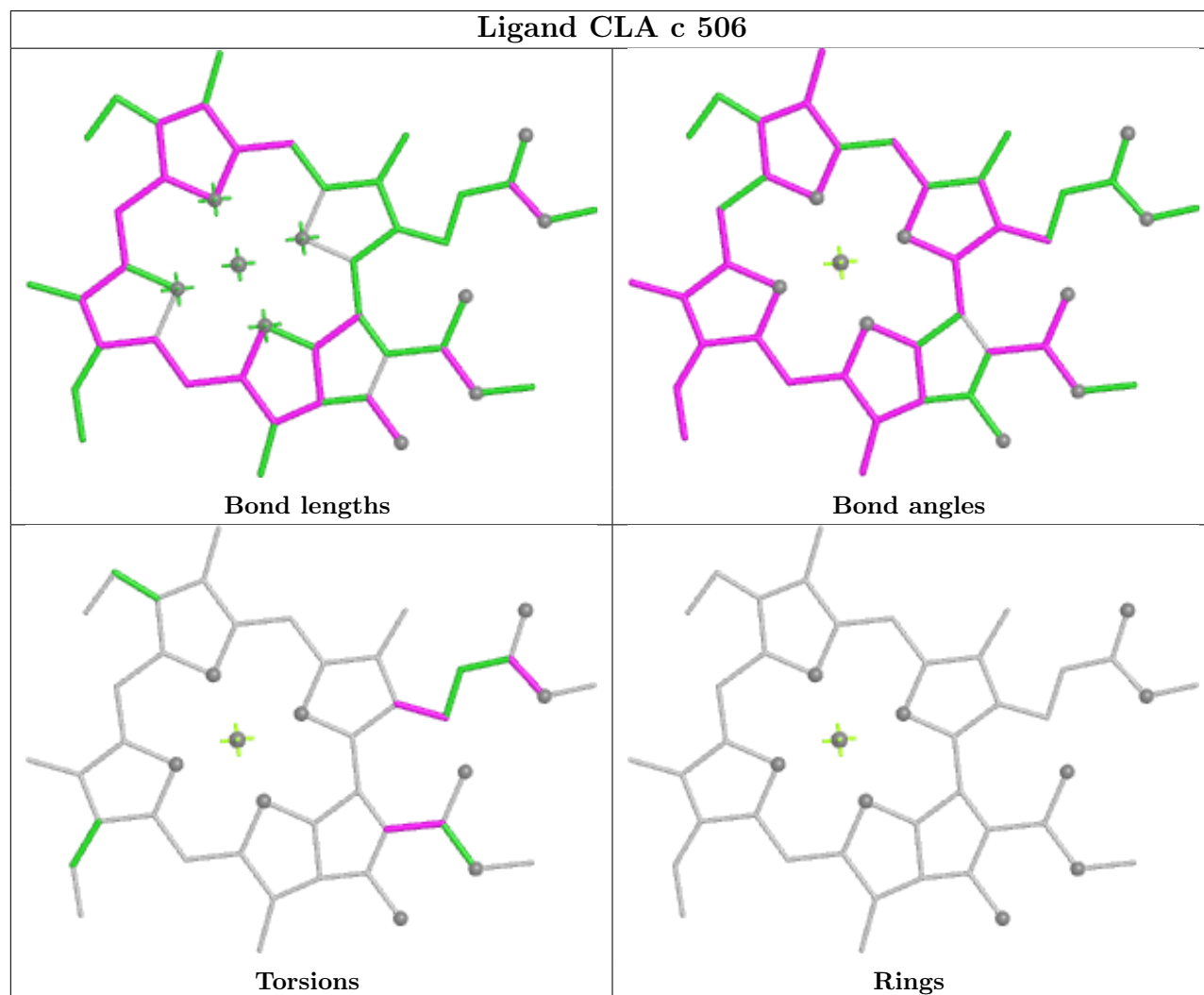
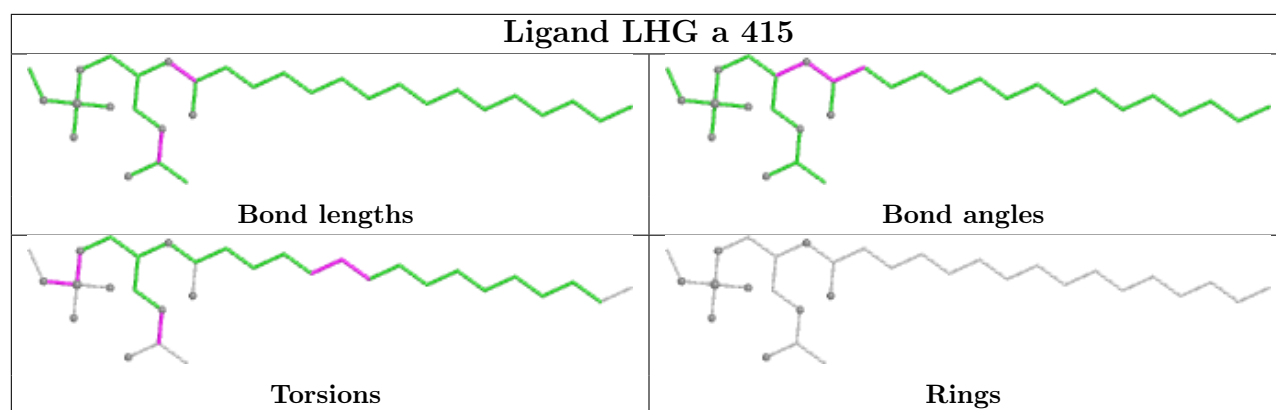


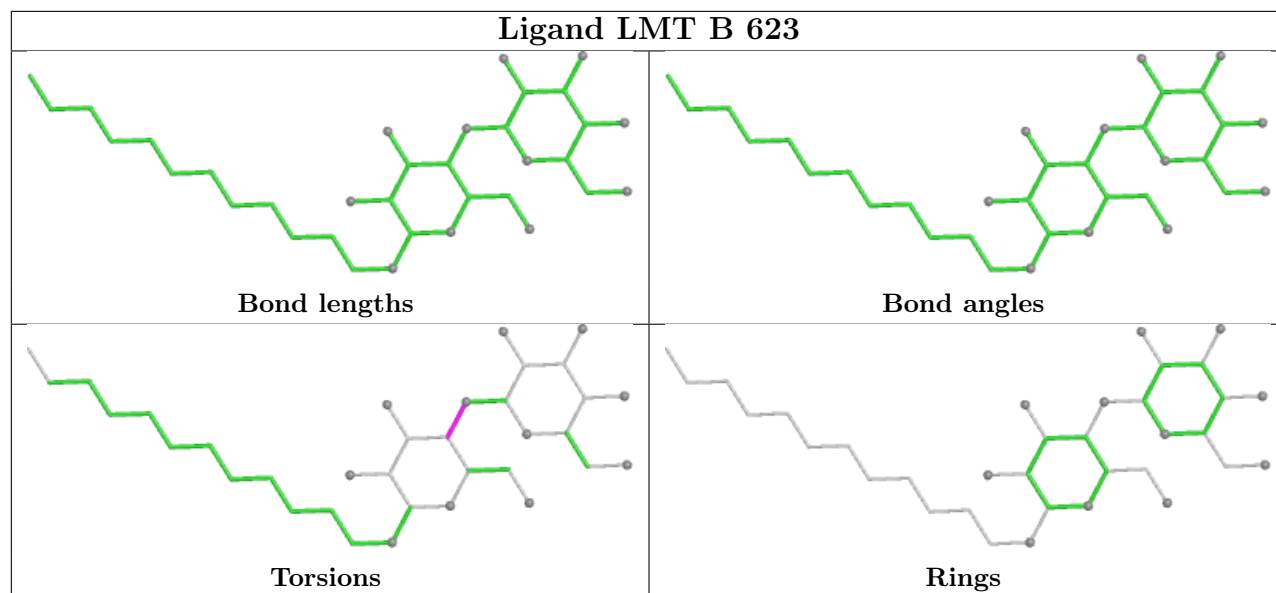












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

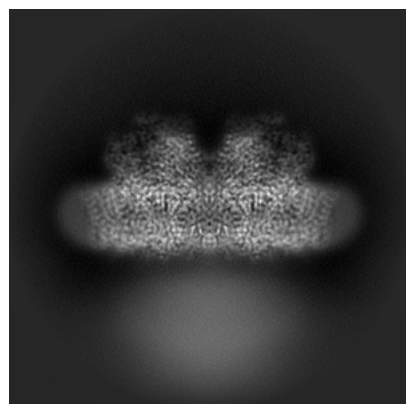
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-65652. These allow visual inspection of the internal detail of the map and identification of artifacts.

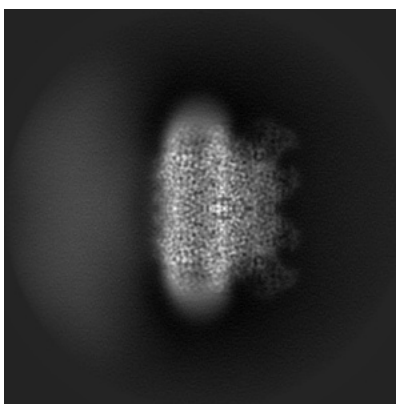
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

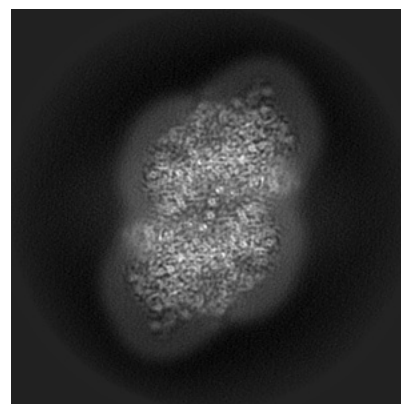
6.1.1 Primary map



X

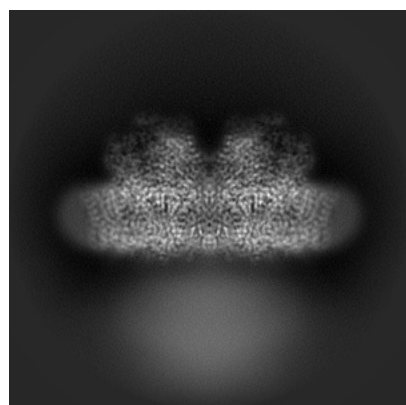


Y

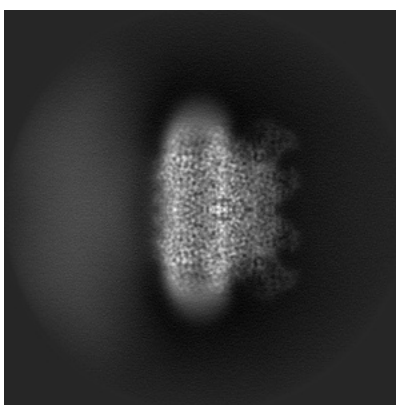


Z

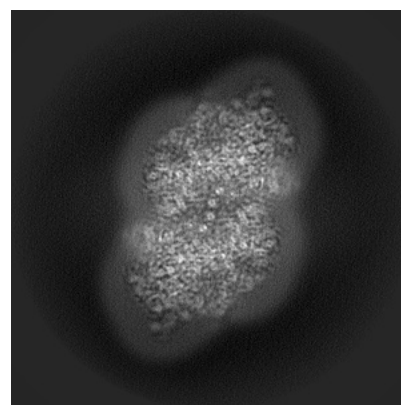
6.1.2 Raw map



X



Y

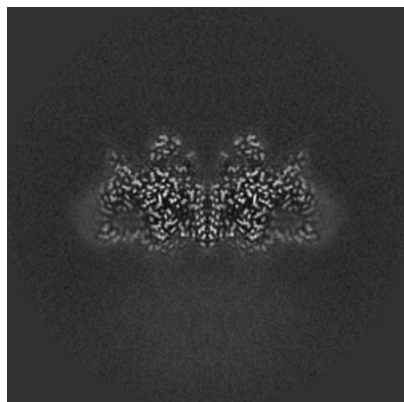


Z

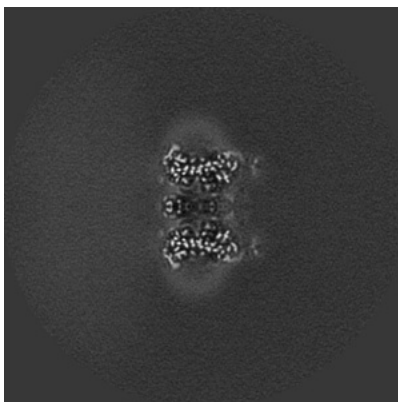
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

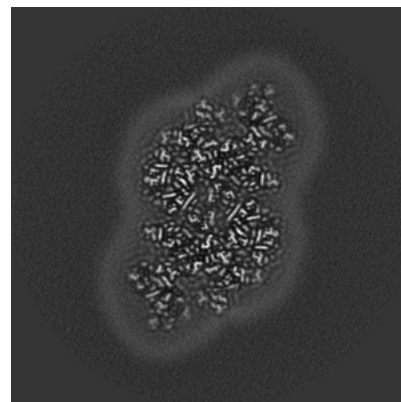
6.2.1 Primary map



X Index: 256

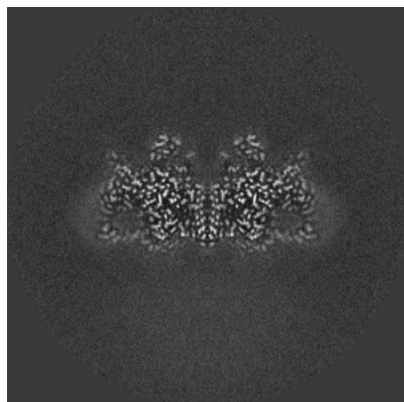


Y Index: 256

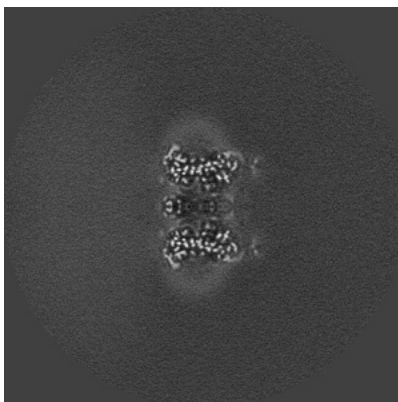


Z Index: 256

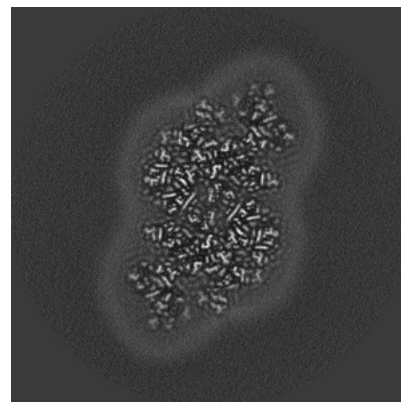
6.2.2 Raw map



X Index: 256



Y Index: 256

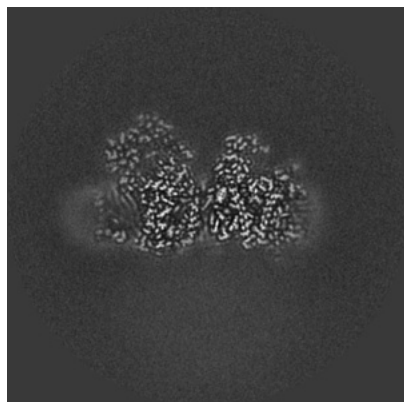


Z Index: 256

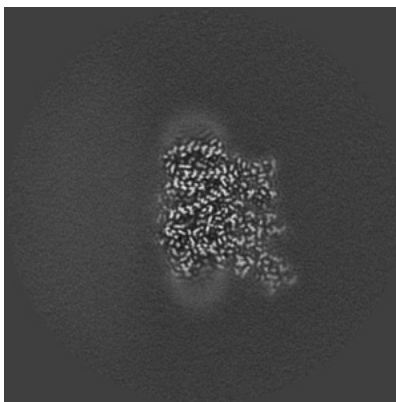
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

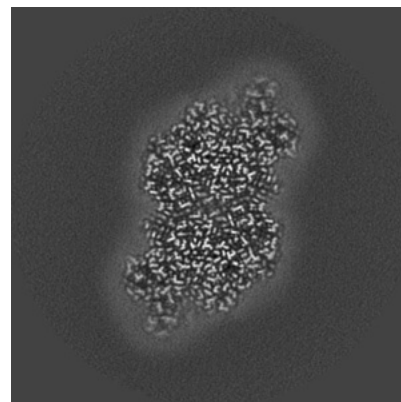
6.3.1 Primary map



X Index: 230

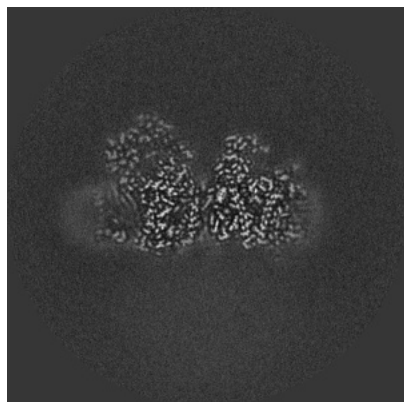


Y Index: 209

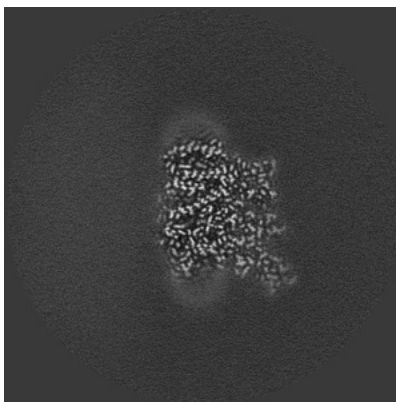


Z Index: 275

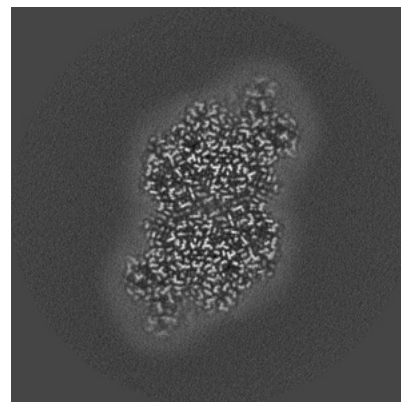
6.3.2 Raw map



X Index: 230



Y Index: 209

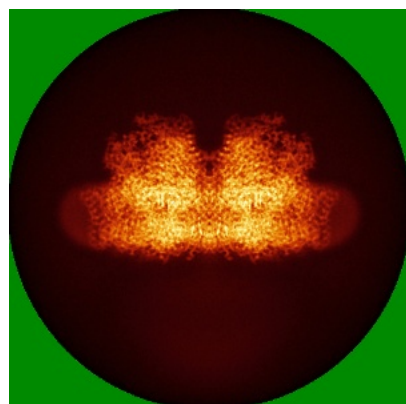


Z Index: 275

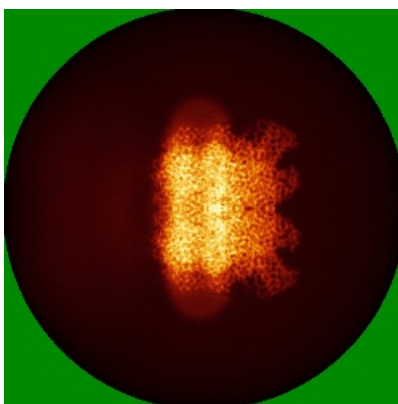
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

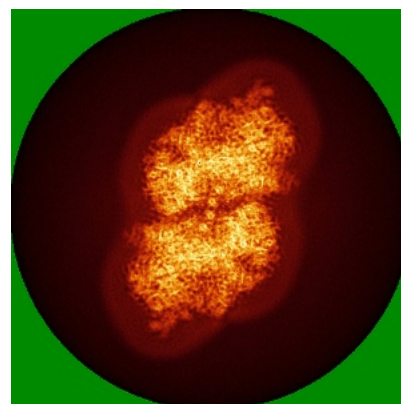
6.4.1 Primary map



X

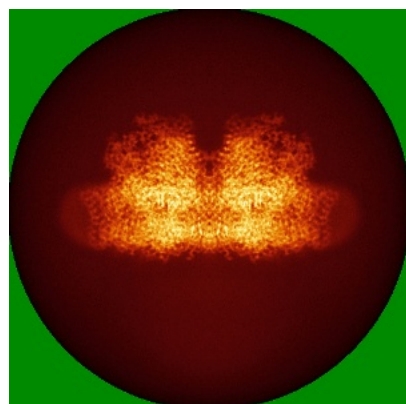


Y

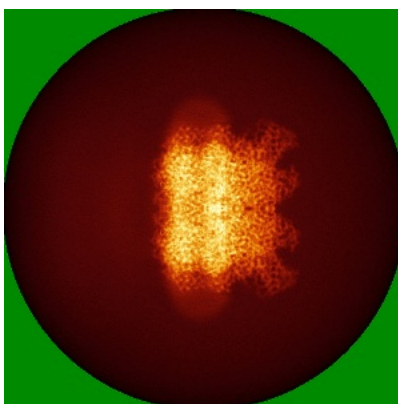


Z

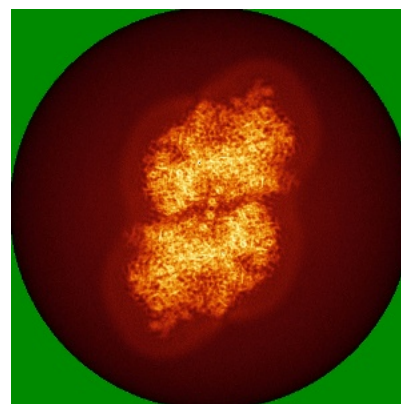
6.4.2 Raw map



X



Y



Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

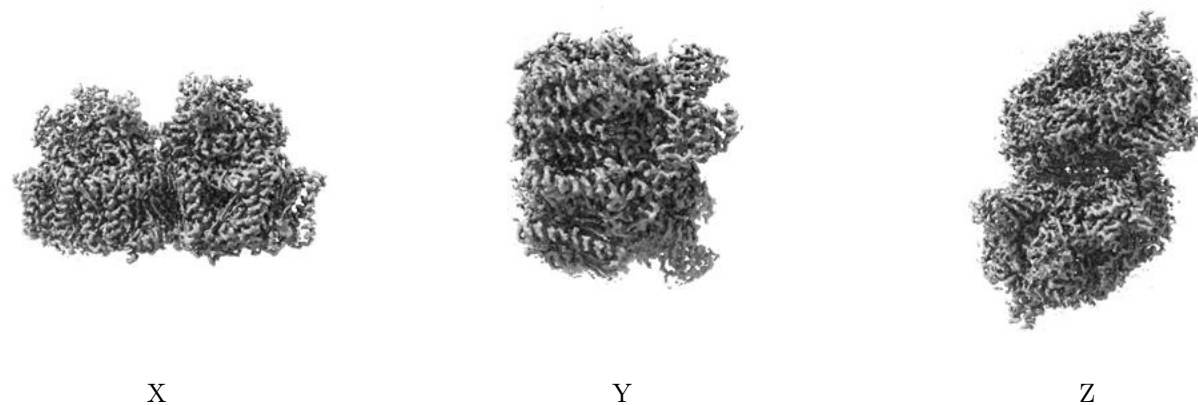
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.003. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

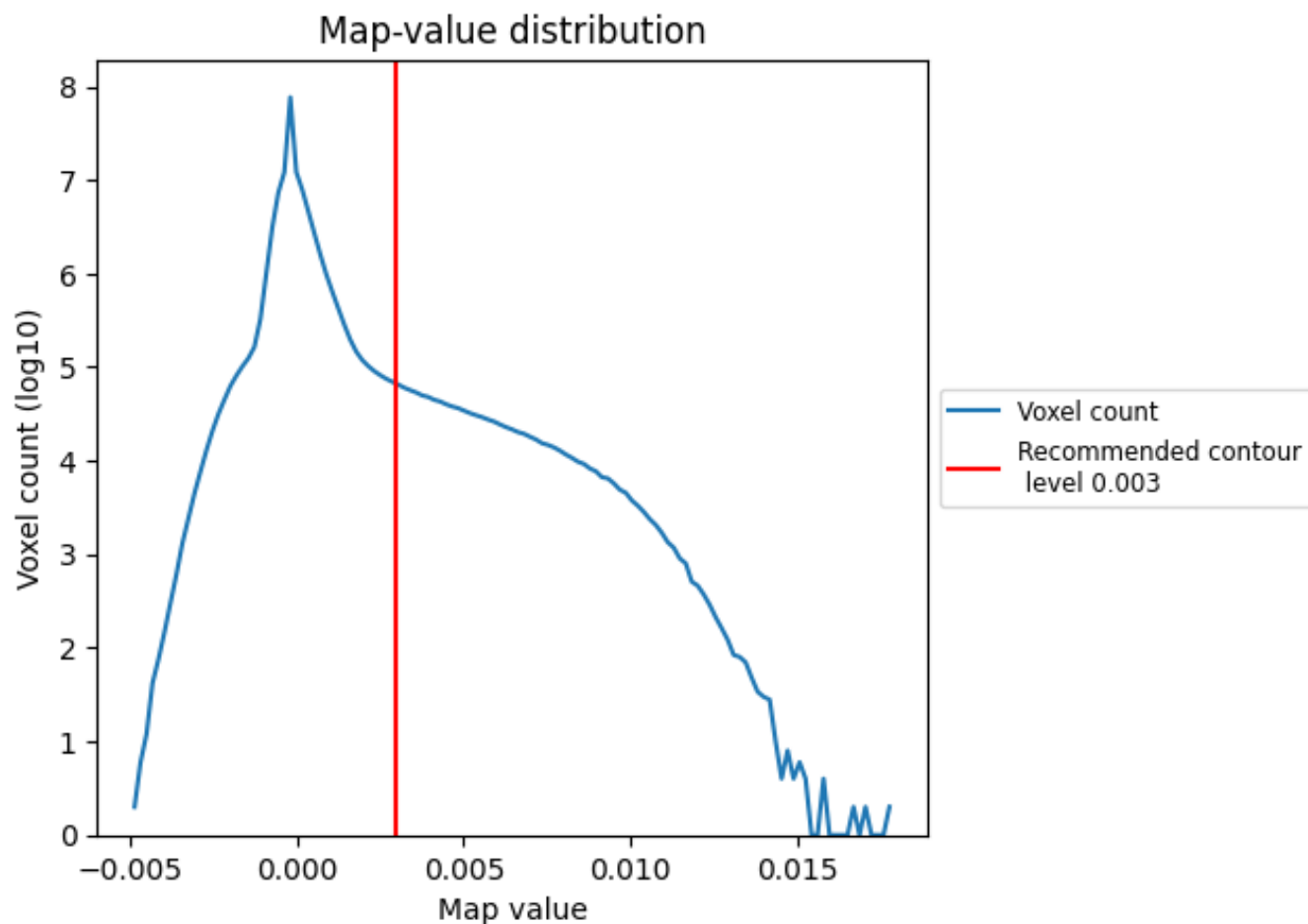
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

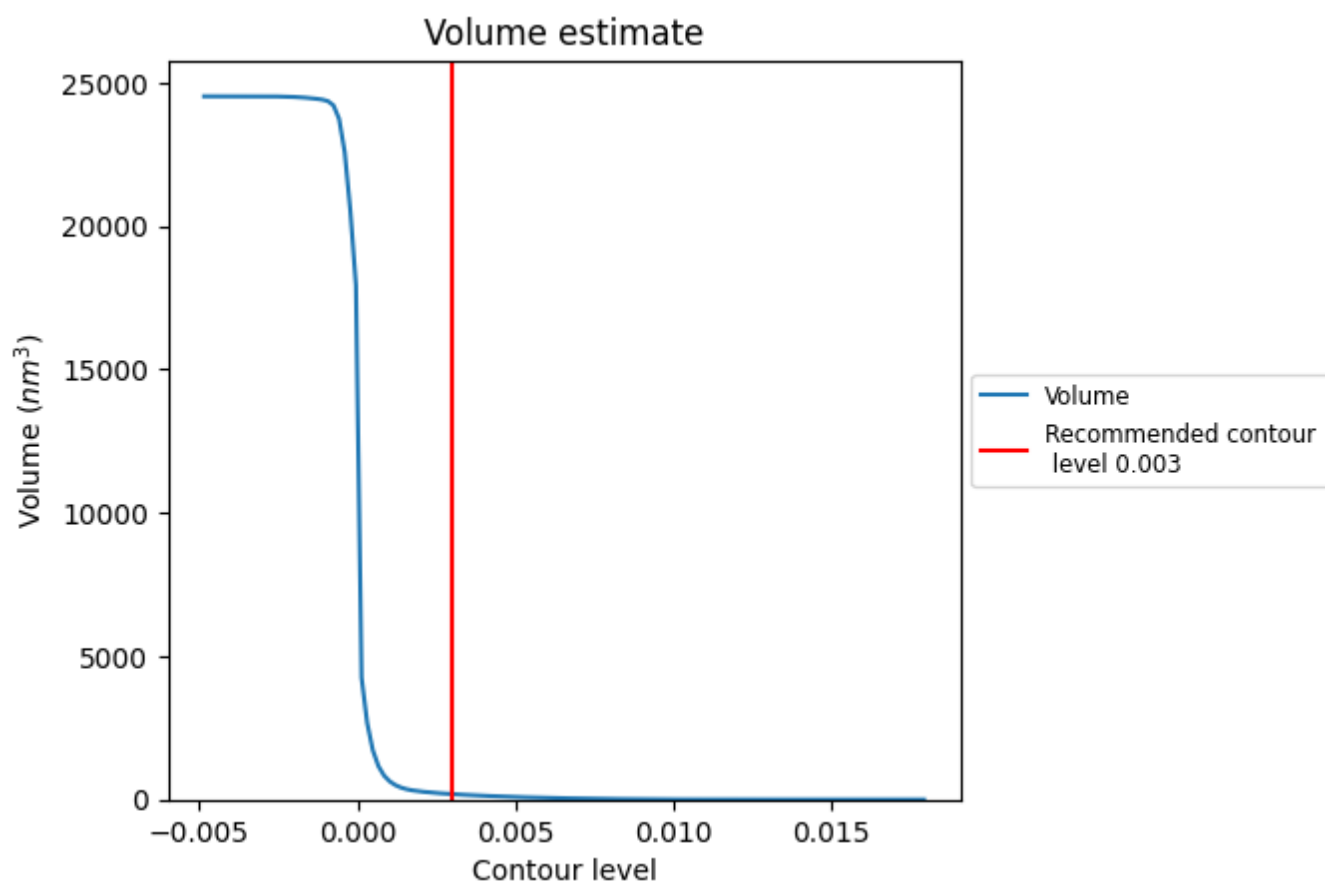
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

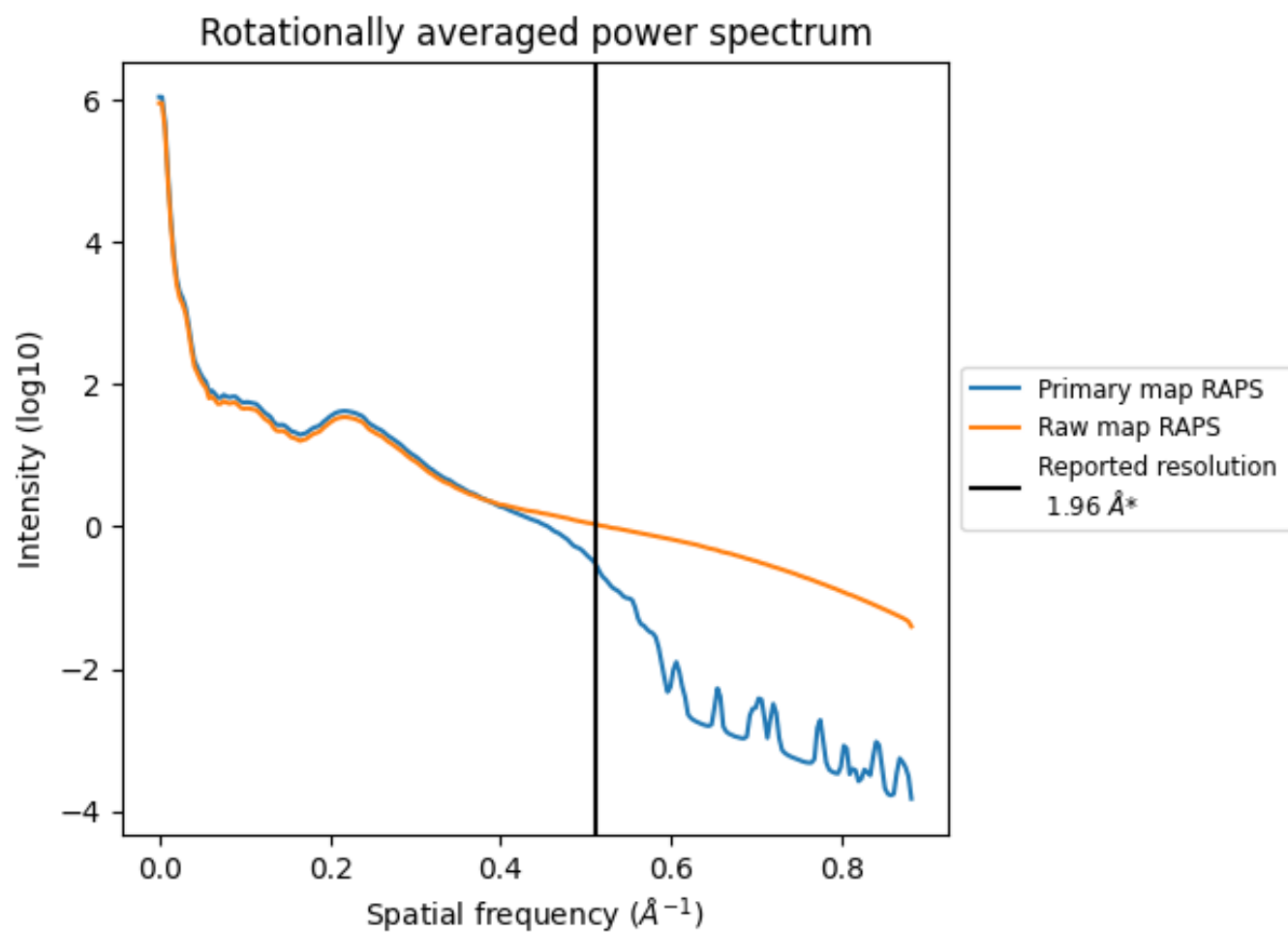
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 191 nm³; this corresponds to an approximate mass of 172 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum [i](#)

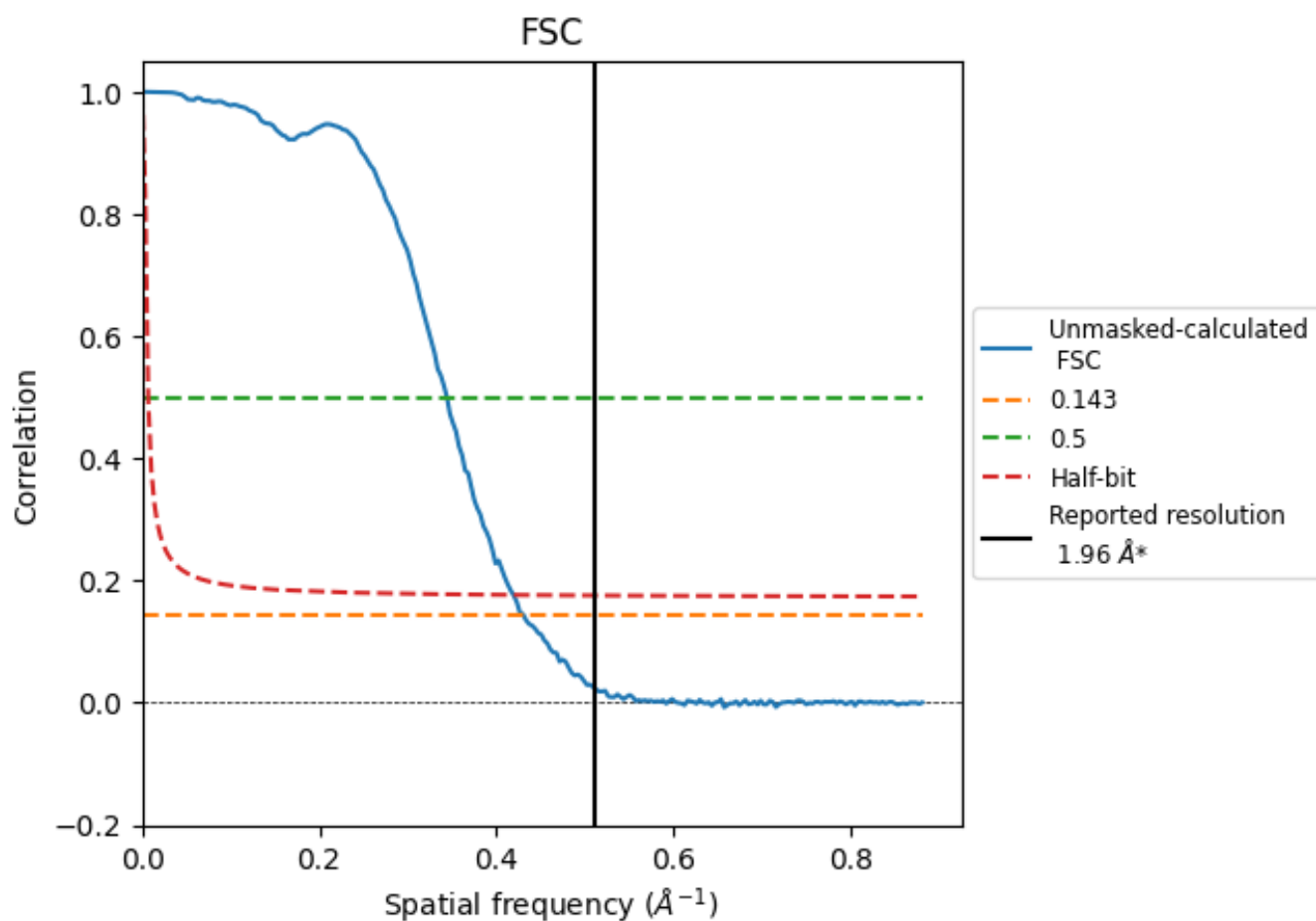


*Reported resolution corresponds to spatial frequency of 0.510 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.510 Å⁻¹

8.2 Resolution estimates [i](#)

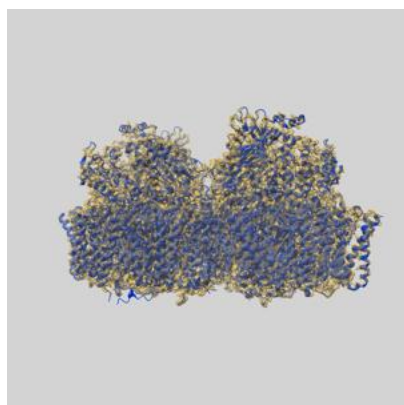
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	1.96	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	2.32	2.91	2.38

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 2.32 differs from the reported value 1.96 by more than 10 %

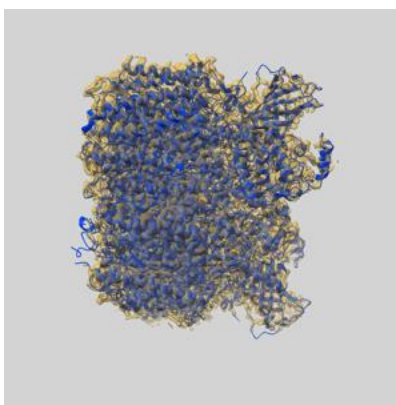
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-65652 and PDB model 9W5B. Per-residue inclusion information can be found in [section 3](#) on [page 27](#).

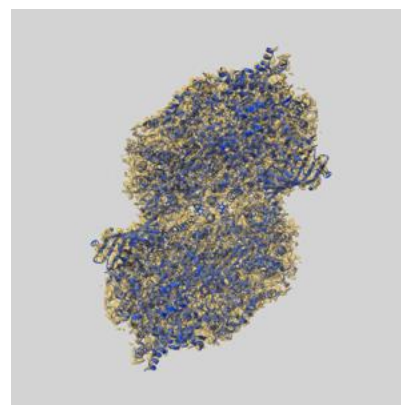
9.1 Map-model overlay [i](#)



X



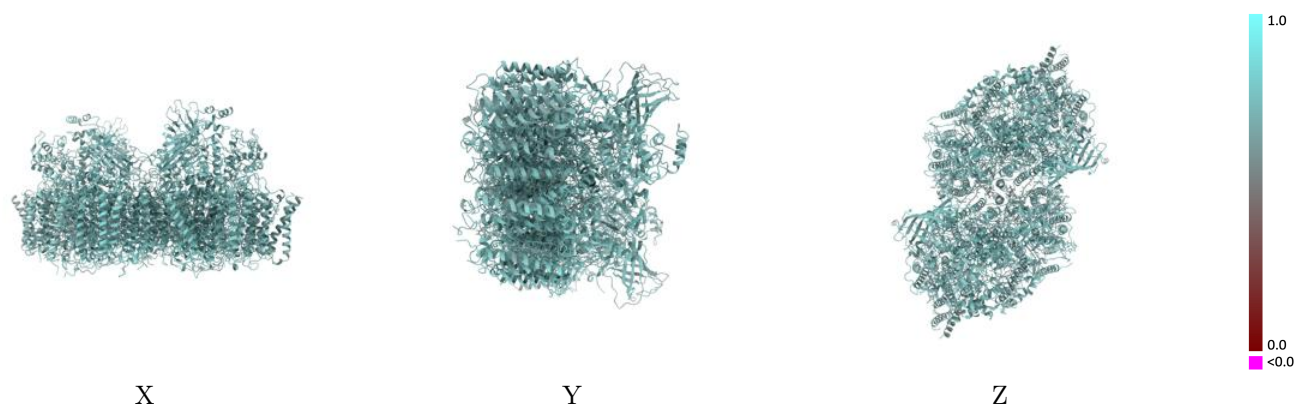
Y



Z

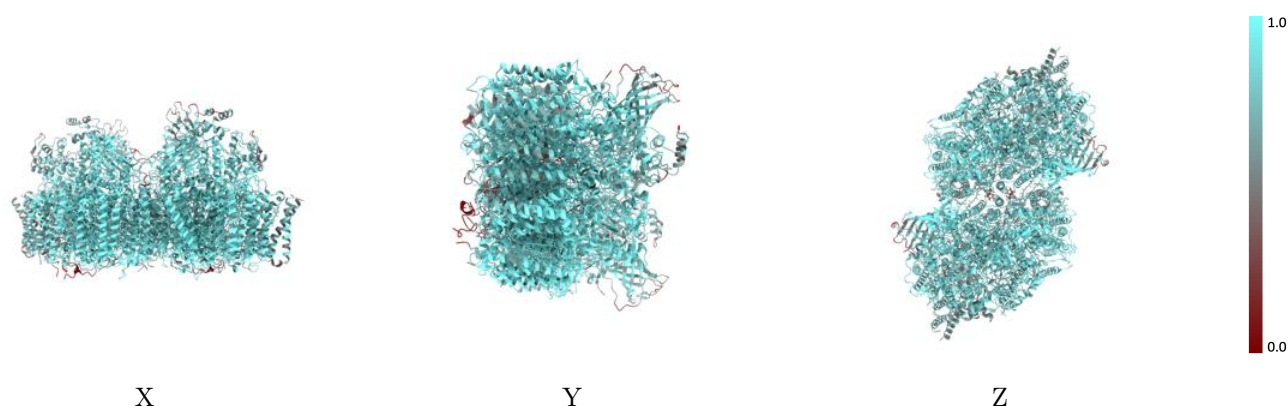
The images above show the 3D surface view of the map at the recommended contour level 0.003 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



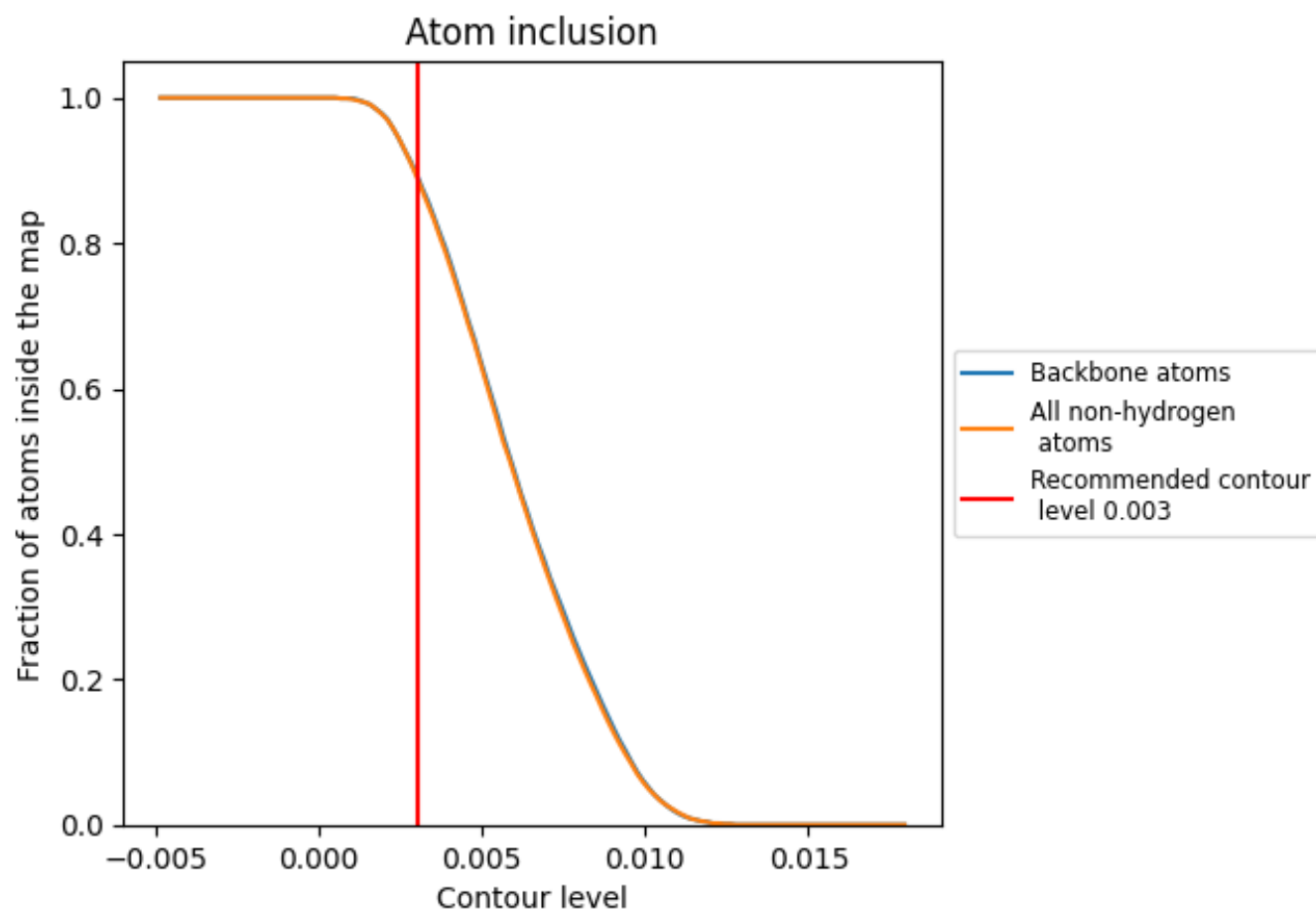
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.003).

9.4 Atom inclusion [i](#)



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

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.003) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8910	 0.7110
A	 0.9260	 0.7300
B	 0.9260	 0.7230
C	 0.9170	 0.7020
D	 0.9650	 0.7370
E	 0.8250	 0.6820
F	 0.8310	 0.6800
H	 0.9480	 0.7110
I	 0.9320	 0.6960
J	 0.7870	 0.6860
K	 0.8540	 0.6750
L	 0.9230	 0.7380
M	 0.8440	 0.6980
O	 0.8020	 0.6910
T	 0.9390	 0.7370
U	 0.7170	 0.6950
V	 0.7730	 0.6860
X	 0.8420	 0.6920
Y	 0.6550	 0.6500
Z	 0.6520	 0.6290
a	 0.9260	 0.7300
b	 0.9300	 0.7240
c	 0.9170	 0.7020
d	 0.9650	 0.7360
e	 0.8250	 0.6820
f	 0.8310	 0.6760
h	 0.9480	 0.7090
i	 0.9320	 0.7010
j	 0.7870	 0.6870
k	 0.8540	 0.6820
l	 0.9230	 0.7380
m	 0.9130	 0.7210
o	 0.8020	 0.6910
t	 0.9390	 0.7350
u	 0.7160	 0.6930



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Chain	Atom inclusion	Q-score
v	 0.7730	 0.6860
x	 0.8420	 0.6910
y	 0.6550	 0.6480
z	 0.6520	 0.6290