



Full wwPDB EM Validation Report ⓘ

Oct 19, 2026 – 06:30 PM JST

PDB ID : 25YS / pdb_000025ys
EMDB ID : EMD-80481
Title : Cryo-EM structure of the Vo domain of Concanamycin A-bound V-ATPase on rat synaptic vesicles, state 3
Authors : Nishida, Y.; Yokoyama, K.
Deposited on : 2026-04-23
Resolution : 3.00 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:

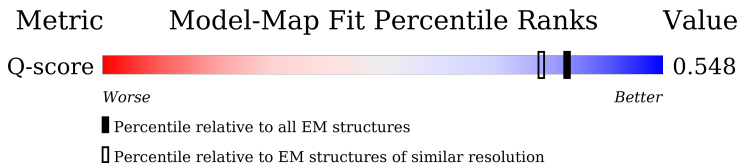
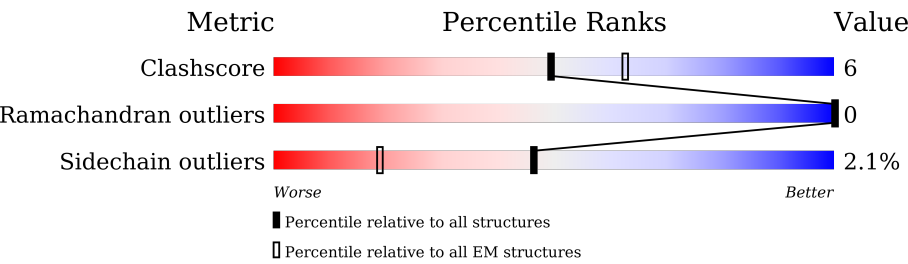
EMDB validation analysis : 0.0.1.dev133
Mogul : 1.8.5 (274361), CSD as541be (2020)
MolProbity : 4-5-2 with Phenix2.2
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using 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) : 2.51

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 3.00 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	14081 (2.50 - 3.50)

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	P	463	41% 56%
2	b	205	87% 11%
3	d	351	92% 7%
4	e	81	77% 21%

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Mol	Chain	Length	Quality of chain
5	f	98	
6	h	155	
6	i	155	
6	j	155	
6	k	155	
6	l	155	
6	m	155	
6	n	155	
6	o	155	
6	r	155	
7	p	350	
8	H	226	
9	a	838	
10	Z	9	

2 Entry composition

There are 16 unique types of molecules in this entry. The entry contains 23318 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 V-type proton ATPase subunit S1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	P	204	Total	C	N	O	S	0	0
			1652	1087	259	297	9		

- Molecule 2 is a protein called V-type proton ATPase 21 kDa proteolipid subunit c^{''}.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	b	203	Total	C	N	O	S	0	0
			1503	996	237	259	11		

- Molecule 3 is a protein called V-type proton ATPase subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	d	350	Total	C	N	O	S	0	0
			2833	1829	460	530	14		

- Molecule 4 is a protein called V-type proton ATPase subunit e 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	e	80	Total	C	N	O	S	0	0
			644	443	100	98	3		

- Molecule 5 is a protein called Ribonuclease K.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	f	83	Total	C	N	O	S	0	0
			646	428	100	113	5		

- Molecule 6 is a protein called V-type proton ATPase 16 kDa proteolipid subunit c.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	h	150	Total	C	N	O	S	0	0
			1068	699	171	190	8		

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Mol	Chain	Residues	Atoms					AltConf	Trace
6	i	150	Total	C	N	O	S	0	0
			1068	699	171	190	8		
6	j	150	Total	C	N	O	S	0	0
			1068	699	171	190	8		
6	k	150	Total	C	N	O	S	0	0
			1068	699	171	190	8		
6	l	150	Total	C	N	O	S	0	0
			1068	699	171	190	8		
6	m	150	Total	C	N	O	S	0	0
			1068	699	171	190	8		
6	n	150	Total	C	N	O	S	0	0
			1068	699	171	190	8		
6	o	150	Total	C	N	O	S	0	0
			1068	699	171	190	8		
6	r	150	Total	C	N	O	S	0	0
			1068	699	171	190	8		

- Molecule 7 is a protein called Renin receptor.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	p	52	Total	C	N	O	S	0	0
			432	290	63	76	3		

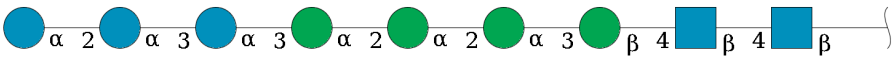
- Molecule 8 is a protein called V-type proton ATPase subunit D.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	H	57	Total	C	N	O		0	0
			431	270	74	87			

- Molecule 9 is a protein called V-type proton ATPase 116 kDa subunit a 1.

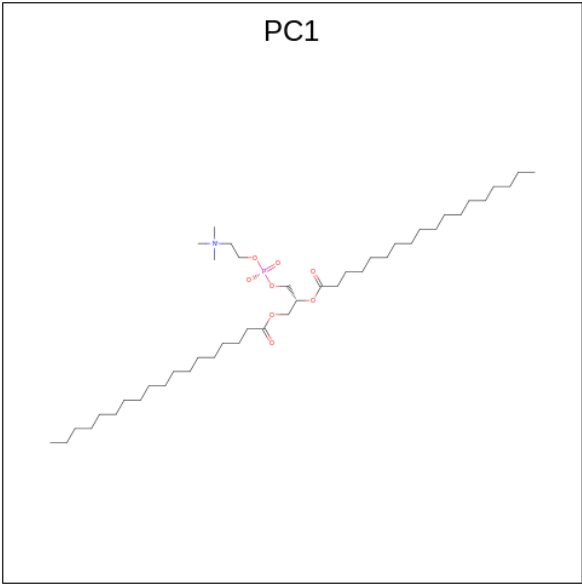
Mol	Chain	Residues	Atoms					AltConf	Trace
9	a	415	Total	C	N	O	S	0	0
			3343	2244	525	551	23		

- Molecule 10 is an oligosaccharide called alpha-D-glucopyranose-(1-2)-alpha-D-glucopyranose-(1-3)-alpha-D-glucopyranose-(1-3)-alpha-D-mannopyranose-(1-2)-alpha-D-mannopyranose-(1-2)-alpha-D-mannopyranose-(1-3)-beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.



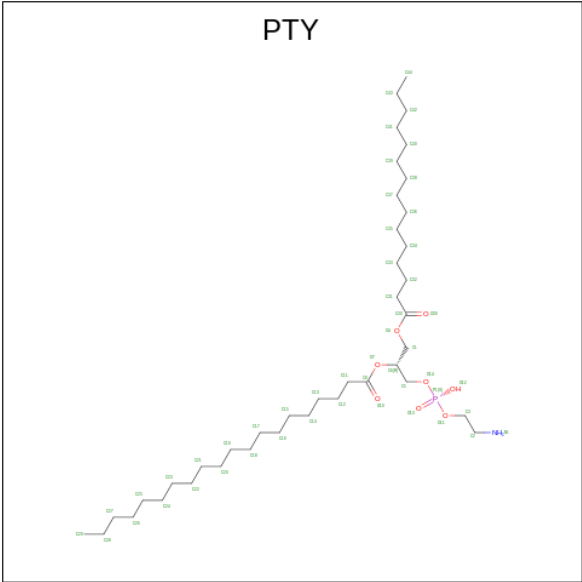
Mol	Chain	Residues	Atoms				AltConf	Trace
10	Z	9	Total	C	N	O	0	0
			105	58	2	45		

- Molecule 11 is 1,2-DIACYL-SN-GLYCERO-3-PHOSPHOCHOLINE (CCD ID: PC1) (formula: C₄₄H₈₈NO₈P).



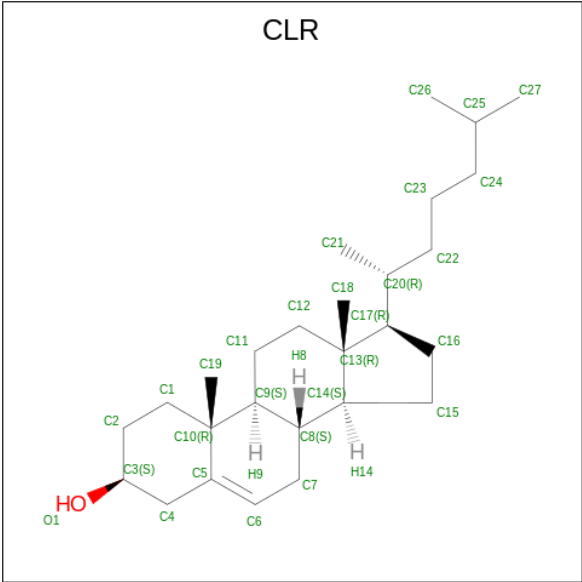
Mol	Chain	Residues	Atoms					AltConf
11	P	1	Total	C	N	O	P	0
			54	44	1	8	1	
11	b	1	Total	C	N	O	P	0
			54	44	1	8	1	
11	b	1	Total	C	N	O	P	0
			54	44	1	8	1	
11	k	1	Total	C	N	O	P	0
			54	44	1	8	1	
11	a	1	Total	C	N	O	P	0
			54	44	1	8	1	

- Molecule 12 is PHOSPHATIDYLETHANOLAMINE (CCD ID: PTY) (formula: C₄₀H₈₀NO₈P).



Mol	Chain	Residues	Atoms					AltConf
12	b	1	Total	C	N	O	P	0
			50	40	1	8	1	
12	b	1	Total	C	N	O	P	0
			50	40	1	8	1	
12	b	1	Total	C	N	O	P	0
			50	40	1	8	1	
12	e	1	Total	C	N	O	P	0
			50	40	1	8	1	
12	j	1	Total	C	N	O	P	0
			50	40	1	8	1	
12	p	1	Total	C	N	O	P	0
			50	40	1	8	1	
12	p	1	Total	C	N	O	P	0
			50	40	1	8	1	
12	a	1	Total	C	N	O	P	0
			50	40	1	8	1	
12	a	1	Total	C	N	O	P	0
			50	40	1	8	1	

- Molecule 13 is CHOLESTEROL (CCD ID: CLR) (formula: C₂₇H₄₆O).



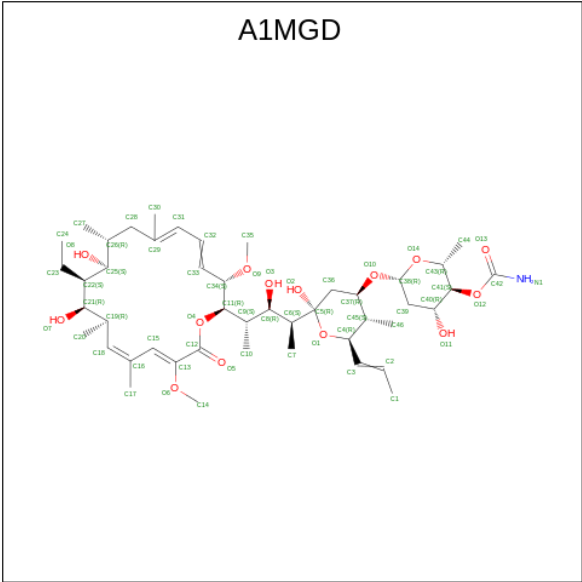
Mol	Chain	Residues	Atoms			AltConf
13	b	1	Total	C	O	0
			28	27	1	
13	h	1	Total	C	O	0
			28	27	1	
13	h	1	Total	C	O	0
			28	27	1	
13	i	1	Total	C	O	0
			28	27	1	
13	i	1	Total	C	O	0
			28	27	1	
13	i	1	Total	C	O	0
			28	27	1	
13	i	1	Total	C	O	0
			28	27	1	
13	j	1	Total	C	O	0
			28	27	1	
13	j	1	Total	C	O	0
			28	27	1	
13	j	1	Total	C	O	0
			28	27	1	
13	j	1	Total	C	O	0
			28	27	1	
13	k	1	Total	C	O	0
			28	27	1	
13	k	1	Total	C	O	0
			28	27	1	
13	k	1	Total	C	O	0
			28	27	1	

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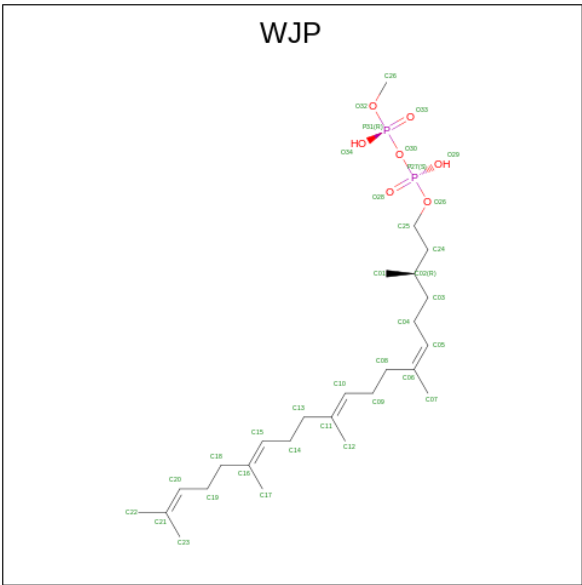
Mol	Chain	Residues	Atoms			AltConf
13	l	1	Total	C	O	0
			28	27	1	
13	l	1	Total	C	O	0
			28	27	1	
13	l	1	Total	C	O	0
			28	27	1	
13	l	1	Total	C	O	0
			28	27	1	
13	m	1	Total	C	O	0
			28	27	1	
13	m	1	Total	C	O	0
			28	27	1	
13	m	1	Total	C	O	0
			28	27	1	
13	m	1	Total	C	O	0
			28	27	1	
13	n	1	Total	C	O	0
			28	27	1	
13	n	1	Total	C	O	0
			28	27	1	
13	n	1	Total	C	O	0
			28	27	1	
13	n	1	Total	C	O	0
			28	27	1	
13	o	1	Total	C	O	0
			28	27	1	
13	o	1	Total	C	O	0
			28	27	1	
13	o	1	Total	C	O	0
			28	27	1	
13	o	1	Total	C	O	0
			28	27	1	

- Molecule 14 is concanamycin A (CCD ID: A1MGD) (formula: $C_{46}H_{75}NO_{14}$).



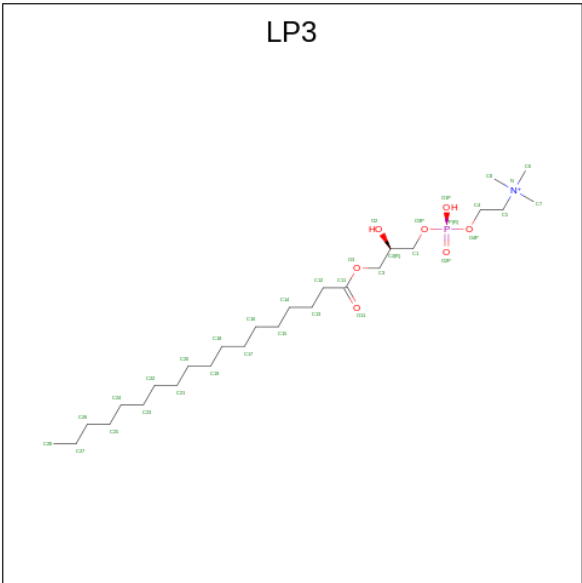
Mol	Chain	Residues	Atoms				AltConf
14	h	1	Total	C	N	O	0
			61	46	1	14	
14	i	1	Total	C	N	O	0
			61	46	1	14	
14	k	1	Total	C	N	O	0
			61	46	1	14	
14	l	1	Total	C	N	O	0
			61	46	1	14	
14	l	1	Total	C	N	O	0
			61	46	1	14	
14	n	1	Total	C	N	O	0
			61	46	1	14	
14	n	1	Total	C	N	O	0
			61	46	1	14	
14	a	1	Total	C	N	O	0
			61	46	1	14	

- Molecule 15 is methyl (3R,6Z,10E,14E)-3,7,11,15,19-pentamethylicos-6,10,14,18-tetraen-1-yl dihydrogen diphosphate (CCD ID: WJP) (formula: C₂₆H₄₈O₇P₂).



Mol	Chain	Residues	Atoms				AltConf
15	a	1	Total	C	O	P	0
			34	25	7	2	

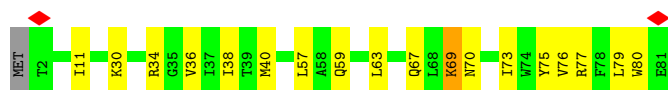
- Molecule 16 is (7R)-4,7-DIHYDROXY-N,N,N-TRIMETHYL-10-OXO-3,5,9-TRIOXA-4-PHOSPHAHEPTACOSAN-1-AMINIUM 4-OXIDE (CCD ID: LP3) (formula: C₂₆H₅₅NO₇P).



Mol	Chain	Residues	Atoms					AltConf
16	a	1	Total	C	N	O	P	0
			35	26	1	7	1	

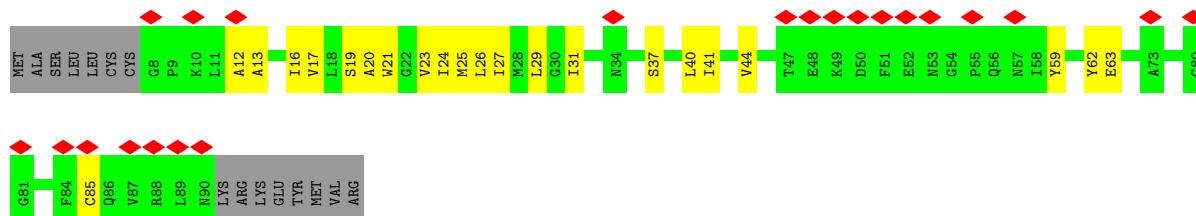
- Molecule 4: V-type proton ATPase subunit e 2

Chain e:  77% 21% ..



- Molecule 5: Ribonuclease K

Chain f:  22% 62% 22% 15%



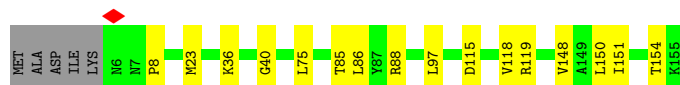
- Molecule 6: V-type proton ATPase 16 kDa proteolipid subunit c

Chain h:  85% 11% ..

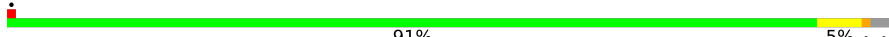


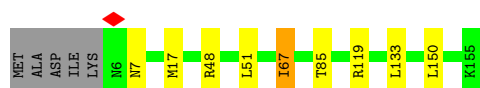
- Molecule 6: V-type proton ATPase 16 kDa proteolipid subunit c

Chain i:  86% 10% .



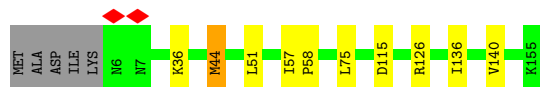
- Molecule 6: V-type proton ATPase 16 kDa proteolipid subunit c

Chain j:  91% 5% ..

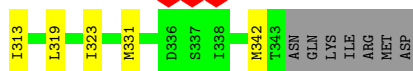


- Molecule 6: V-type proton ATPase 16 kDa proteolipid subunit c

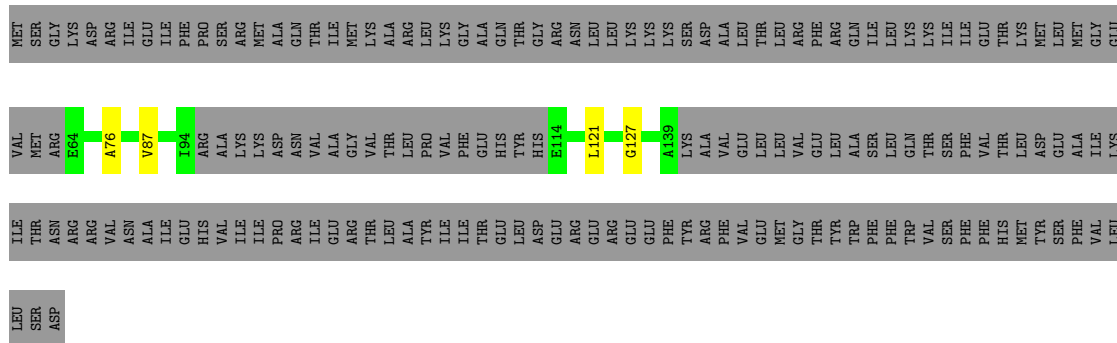
Chain k:  90% 6% ..



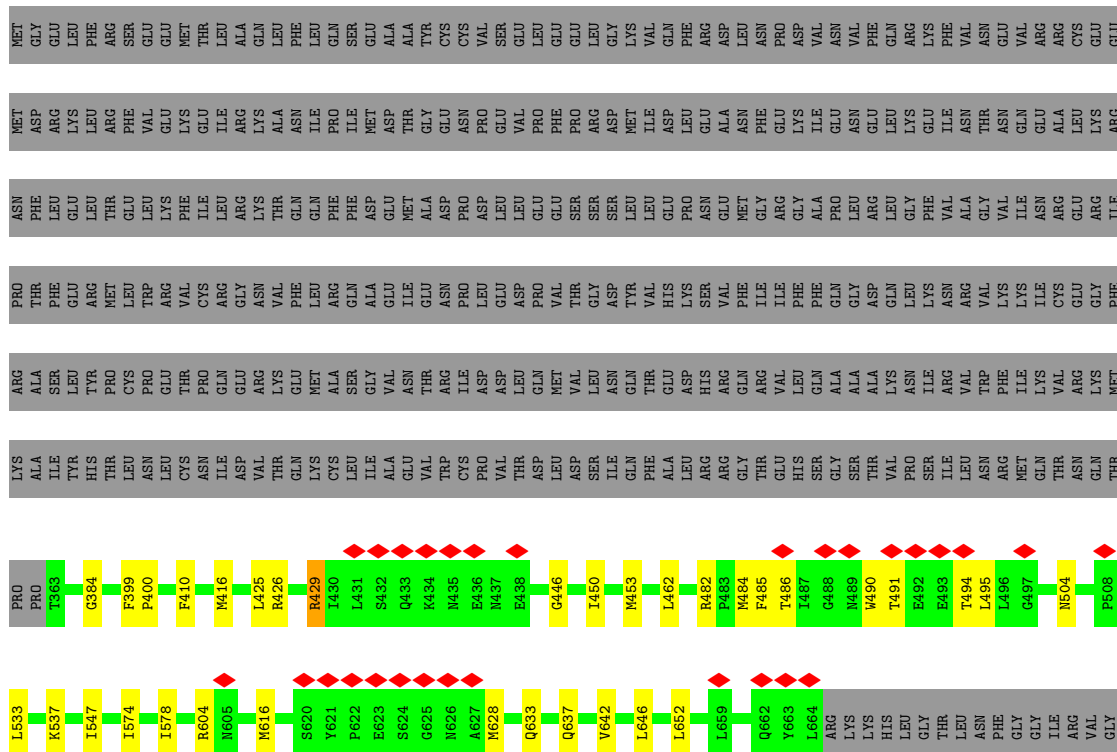
- Molecule 6: V-type proton ATPase 16 kDa proteolipid subunit c

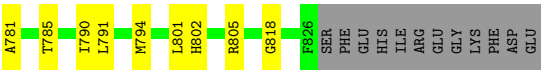


- Molecule 8: V-type proton ATPase subunit D

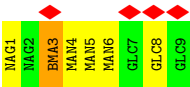


- Molecule 9: V-type proton ATPase 116 kDa subunit a 1





● Molecule 10: alpha-D-glucopyranose-(1-2)-alpha-D-glucopyranose-(1-3)-alpha-D-glucopyranose-(1-3)-alpha-D-mannopyranose-(1-2)-alpha-D-mannopyranose-(1-2)-alpha-D-mannopyranose-(1-3)-beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	84902	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)	800	Depositor
Maximum defocus (nm)	2000	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	1.189	Depositor
Minimum map value	-0.715	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.033	Depositor
Recommended contour level	0.15	Depositor
Map size (Å)	425.0, 425.0, 425.0	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.0625, 1.0625, 1.0625	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: PTY, BMA, WJP, CLR, PC1, A1MGD, LP3, MAN, GLC, NAG

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	P	0.16	0/1707	0.28	0/2324
2	b	0.20	0/1537	0.33	0/2088
3	d	0.19	0/2899	0.30	0/3927
4	e	0.18	0/669	0.35	0/920
5	f	0.19	0/662	0.50	0/899
6	h	0.22	0/1083	0.37	0/1466
6	i	0.21	0/1083	0.33	0/1466
6	j	0.22	0/1083	0.34	0/1466
6	k	0.20	0/1083	0.36	0/1466
6	l	0.22	0/1083	0.32	0/1466
6	m	0.20	0/1083	0.30	0/1466
6	n	0.20	0/1083	0.32	0/1466
6	o	0.21	0/1083	0.34	0/1466
6	r	0.22	0/1083	0.33	0/1466
7	p	0.20	0/445	0.37	0/609
8	H	0.21	0/434	0.34	0/581
9	a	0.16	0/3450	0.30	0/4683
All	All	0.19	0/21550	0.33	0/29225

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 [i](#)

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	P	1652	0	1584	10	0
2	b	1503	0	1551	15	0
3	d	2833	0	2770	20	0
4	e	644	0	659	16	0
5	f	646	0	642	15	0
6	h	1068	0	1136	10	0
6	i	1068	0	1136	11	0
6	j	1068	0	1136	7	0
6	k	1068	0	1136	5	0
6	l	1068	0	1136	15	0
6	m	1068	0	1136	9	0
6	n	1068	0	1136	13	0
6	o	1068	0	1136	13	0
6	r	1068	0	1136	12	0
7	p	432	0	428	8	0
8	H	431	0	428	2	0
9	a	3343	0	3361	43	0
10	Z	105	0	88	3	0
11	P	54	0	88	7	0
11	a	54	0	88	1	0
11	b	108	0	176	5	0
11	k	54	0	88	4	0
12	a	100	0	158	3	0
12	b	150	0	237	4	0
12	e	50	0	79	3	0
12	j	50	0	79	3	0
12	p	100	0	158	3	0
13	b	28	0	46	2	0
13	h	56	0	92	8	0
13	i	112	0	184	11	0
13	j	112	0	184	11	0
13	k	84	0	138	4	0
13	l	112	0	184	8	0
13	m	112	0	184	7	0
13	n	112	0	184	10	0
13	o	112	0	184	4	0
14	a	61	0	0	1	0
14	h	61	0	0	5	0
14	i	61	0	0	1	0
14	k	61	0	0	0	0
14	l	122	0	0	5	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
14	n	122	0	0	1	0
15	a	34	0	0	0	0
16	a	35	0	54	1	0
All	All	23318	0	24320	271	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 6.

All (271) 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)
14:h:201:A1MGD:N1	14:h:201:A1MGD:C44	1.80	1.43
14:h:201:A1MGD:N1	14:h:201:A1MGD:C43	1.89	1.23
14:h:201:A1MGD:C44	14:h:201:A1MGD:C42	2.56	0.83
4:e:76:VAL:HG13	4:e:80:TRP:HB2	1.65	0.79
9:a:484:MET:HE1	9:a:504:ASN:HB3	1.66	0.78
3:d:179:GLU:HG2	8:H:121:LEU:O	1.90	0.70
5:f:27:ILE:O	5:f:31:ILE:HD12	1.91	0.70
6:l:150:LEU:HD23	13:l:206:CLR:H152	1.74	0.70
5:f:12:ALA:O	5:f:16:ILE:HD12	1.93	0.68
6:h:54:LYS:HG3	14:h:201:A1MGD:O11	1.94	0.68
14:l:202:A1MGD:C17	6:m:137:PHE:CD1	2.76	0.68
4:e:77:ARG:HH21	9:a:485:PHE:HD2	1.41	0.67
6:j:150:LEU:HD23	13:j:205:CLR:H72	1.74	0.67
9:a:722:ALA:O	9:a:726:ILE:HG13	1.98	0.64
13:i:202:CLR:H25	13:i:203:CLR:H273	1.81	0.63
3:d:126:VAL:HG23	3:d:127:PRO:HD3	1.80	0.63
6:i:8:PRO:HG2	6:i:86:LEU:HD11	1.79	0.63
6:n:71:VAL:HG22	13:n:204:CLR:H161	1.80	0.63
6:n:147:ILE:HD13	13:n:206:CLR:H182	1.80	0.63
13:h:202:CLR:H162	13:h:202:CLR:H272	1.81	0.63
6:l:72:VAL:HG11	6:l:99:VAL:HG21	1.81	0.62
9:a:384:GLY:HA2	9:a:818:GLY:HA2	1.82	0.61
7:p:306:VAL:O	7:p:310:VAL:HG23	2.00	0.61
2:b:107:MET:HE3	2:b:107:MET:HA	1.82	0.61
5:f:23:VAL:O	5:f:27:ILE:HG22	2.01	0.61
3:d:339:ARG:NH1	3:d:339:ARG:HB3	2.15	0.61
9:a:485:PHE:HE1	9:a:490:TRP:HE3	1.49	0.61
6:i:40:GLY:HA2	6:i:119:ARG:HH21	1.65	0.60
6:l:74:VAL:HG12	13:l:204:CLR:H72	1.83	0.60
9:a:450:ILE:HA	9:a:453:MET:HE2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:a:767:VAL:HG11	9:a:772:GLY:HA3	1.83	0.60
3:d:137:GLN:HG3	3:d:157:ASP:HB3	1.83	0.60
6:l:150:LEU:HD21	13:l:205:CLR:H122	1.82	0.59
3:d:250:GLU:HG2	6:m:123:GLN:HG2	1.84	0.59
13:i:202:CLR:H213	13:j:205:CLR:H122	1.84	0.59
5:f:24:ILE:HD12	5:f:24:ILE:H	1.68	0.58
6:k:57:ILE:HG12	6:k:58:PRO:HD3	1.85	0.58
14:l:202:A1MGD:C17	6:m:137:PHE:CE1	2.85	0.58
13:h:202:CLR:H211	13:h:203:CLR:H25	1.84	0.57
6:h:71:VAL:HG22	13:h:203:CLR:H181	1.87	0.57
8:H:76:ALA:HB2	8:H:127:GLY:HA3	1.86	0.57
4:e:59:GLN:HE22	9:a:519:ILE:HA	1.71	0.56
6:h:53:MET:HB3	14:h:201:A1MGD:C39	2.36	0.56
6:r:136:ILE:HG13	9:a:801:LEU:HD13	1.87	0.55
6:n:16:VAL:HG23	6:n:17:MET:HE2	1.87	0.55
3:d:137:GLN:CD	3:d:137:GLN:H	2.14	0.55
6:m:95:ALA:O	6:m:99:VAL:HG12	2.07	0.55
6:h:85:THR:HG22	6:h:87:TYR:H	1.72	0.55
3:d:273:GLU:HG3	6:n:47:MET:HE2	1.88	0.54
6:n:151:ILE:HD12	13:n:203:CLR:H41	1.88	0.54
2:b:107:MET:HG3	2:b:144:VAL:HG21	1.88	0.54
2:b:59:SER:HB3	6:r:101:LEU:HD23	1.90	0.54
6:o:17:MET:HA	6:o:17:MET:HE3	1.90	0.54
6:o:71:VAL:HG22	13:o:204:CLR:H183	1.90	0.54
1:P:429:MET:HE3	11:P:501:PC1:H3H1	1.90	0.54
6:h:47:MET:HE2	6:h:47:MET:HA	1.88	0.54
6:i:36:LYS:HD2	7:p:331:MET:HE3	1.89	0.54
6:j:17:MET:HG3	12:p:401:PTY:H221	1.90	0.54
4:e:36:VAL:O	4:e:40:MET:HG3	2.08	0.53
6:o:72:VAL:HG11	6:o:99:VAL:HG11	1.91	0.53
6:j:7:ASN:HD21	6:j:85:THR:HG22	1.72	0.53
6:n:44:MET:HG3	6:n:122:ALA:HB2	1.90	0.53
12:j:201:PTY:H352	12:p:401:PTY:H211	1.91	0.53
6:m:81:THR:HG22	6:m:84:ILE:HG23	1.90	0.53
6:k:44:MET:HE1	6:k:51:LEU:HB2	1.91	0.52
6:n:75:LEU:HD11	13:n:205:CLR:H193	1.91	0.52
9:a:410:PHE:CE1	9:a:462:LEU:HD13	2.45	0.52
9:a:805:ARG:HH11	9:a:805:ARG:HG2	1.75	0.52
13:l:204:CLR:H12	13:l:205:CLR:H6	1.91	0.52
1:P:369:SER:HB2	1:P:389:THR:HA	1.91	0.52
5:f:13:ALA:O	5:f:17:VAL:HG13	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:l:57:ILE:O	6:l:61:MET:HG2	2.10	0.51
6:h:57:ILE:HG22	6:h:61:MET:HE2	1.92	0.51
6:m:86:LEU:HD22	6:m:90:PHE:CZ	2.45	0.51
13:h:202:CLR:H71	13:i:205:CLR:H191	1.93	0.51
9:a:574:ILE:O	9:a:578:ILE:HD12	2.10	0.51
13:j:202:CLR:H6	13:k:204:CLR:H9	1.93	0.51
4:e:67:GLN:HB3	9:a:528:ASN:HD21	1.75	0.50
9:a:761:ILE:HG23	9:a:765:LEU:HD12	1.93	0.50
6:h:129:VAL:O	6:h:133:LEU:HG	2.11	0.50
13:i:205:CLR:H262	13:i:205:CLR:H162	1.93	0.50
6:o:150:LEU:O	6:o:154:THR:HG22	2.11	0.50
6:r:60:VAL:HG21	14:a:901:A1MGD:C2	2.40	0.50
6:r:147:ILE:O	6:r:151:ILE:HG22	2.10	0.50
13:j:202:CLR:H211	13:j:203:CLR:H222	1.94	0.50
6:o:81:THR:HG23	6:o:83:GLY:H	1.77	0.50
4:e:63:LEU:HD12	10:Z:1:NAG:H2	1.93	0.49
4:e:69:LYS:O	4:e:73:ILE:HG22	2.12	0.49
6:o:75:LEU:HD13	13:o:204:CLR:H192	1.93	0.49
13:m:201:CLR:H183	13:n:203:CLR:H9	1.93	0.49
2:b:164:LEU:HD13	3:d:21:ARG:HD2	1.95	0.49
6:r:143:LEU:HD11	9:a:748:ALA:HB2	1.95	0.49
6:l:95:ALA:O	6:l:99:VAL:HG23	2.12	0.49
9:a:781:ALA:O	9:a:785:THR:HG22	2.12	0.49
6:i:150:LEU:O	6:i:154:THR:HG22	2.13	0.49
9:a:482:ARG:O	9:a:486:THR:HG22	2.13	0.49
6:i:40:GLY:HA2	6:i:119:ARG:NH2	2.28	0.48
5:f:59:TYR:O	5:f:63:GLU:HG2	2.13	0.48
9:a:604:ARG:HE	10:Z:3:BMA:H62	1.79	0.48
9:a:642:VAL:O	9:a:646:LEU:HG	2.13	0.48
9:a:616:MET:HG3	9:a:637:GLN:HB3	1.94	0.48
3:d:135:PHE:HB3	3:d:137:GLN:NE2	2.29	0.48
4:e:59:GLN:NE2	9:a:519:ILE:HA	2.29	0.48
6:l:71:VAL:HG22	13:l:204:CLR:H161	1.95	0.48
6:h:44:MET:HE3	6:h:118:VAL:HG13	1.96	0.48
3:d:23:LEU:HD12	3:d:85:MET:HE1	1.95	0.48
6:h:67:ILE:HD12	13:h:203:CLR:H242	1.96	0.47
13:n:203:CLR:H181	13:n:206:CLR:H261	1.96	0.47
2:b:26:TYR:HB3	11:b:301:PC1:H331	1.96	0.47
2:b:68:GLY:O	2:b:72:THR:HG22	2.14	0.47
4:e:34:ARG:O	4:e:38:ILE:HG12	2.14	0.47
4:e:77:ARG:NH2	9:a:485:PHE:HD2	2.11	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:i:154:THR:HG21	13:i:205:CLR:H21	1.96	0.47
1:P:271:ALA:HB3	1:P:387:GLN:HB2	1.97	0.47
4:e:67:GLN:HB3	9:a:528:ASN:ND2	2.30	0.47
13:h:203:CLR:H222	13:h:203:CLR:H162	1.60	0.47
9:a:805:ARG:HG2	9:a:805:ARG:NH1	2.30	0.47
6:j:48:ARG:HG2	6:j:51:LEU:HG	1.97	0.46
5:f:37:SER:OG	5:f:40:LEU:HD12	2.15	0.46
9:a:604:ARG:NE	10:Z:3:BMA:H62	2.29	0.46
11:P:501:PC1:H291	7:p:312:TRP:HB2	1.98	0.46
6:i:85:THR:HG22	6:i:88:ARG:HG3	1.96	0.46
14:l:202:A1MGD:C33	6:m:137:PHE:HZ	2.29	0.46
3:d:69:VAL:O	3:d:73:LYS:HG2	2.15	0.46
5:f:44:VAL:HG21	5:f:62:TYR:CE1	2.50	0.46
13:j:203:CLR:H222	13:j:203:CLR:H162	1.69	0.46
2:b:36:ASP:HB3	2:b:39:TRP:HB3	1.97	0.46
6:j:119:ARG:HE	7:p:342:MET:HG2	1.81	0.46
13:k:204:CLR:H221	13:k:204:CLR:H162	1.57	0.46
5:f:29:LEU:HD23	5:f:29:LEU:HA	1.80	0.46
13:n:203:CLR:H162	13:n:203:CLR:H221	1.53	0.46
9:a:533:LEU:HD12	9:a:537:LYS:HE3	1.98	0.46
6:l:76:ILE:HG23	6:l:92:GLN:HG2	1.98	0.45
3:d:146:THR:HB	3:d:149:GLU:CD	2.41	0.45
3:d:195:LYS:HE3	3:d:195:LYS:HB2	1.75	0.45
2:b:51:ASN:HD21	6:r:91:LEU:HD23	1.81	0.45
4:e:30:LYS:H	4:e:30:LYS:HD3	1.81	0.45
1:P:290:ASN:HB3	1:P:306:THR:HB	1.99	0.45
3:d:248:TYR:HB3	3:d:249:PRO:HD3	1.98	0.45
14:l:202:A1MGD:O8	6:m:137:PHE:HE1	1.99	0.45
6:o:35:ALA:O	6:o:39:THR:HG22	2.17	0.45
11:P:501:PC1:H222	7:p:305:VAL:HG13	1.98	0.45
6:i:115:ASP:OD1	6:i:115:ASP:C	2.60	0.45
14:i:201:A1MGD:O10	14:i:201:A1MGD:O11	2.35	0.45
6:n:48:ARG:HA	6:n:48:ARG:HD3	1.79	0.45
9:a:491:THR:HG22	9:a:494:THR:HG23	1.98	0.45
13:o:203:CLR:H221	13:o:203:CLR:H162	1.50	0.45
13:i:202:CLR:H272	13:i:202:CLR:H231	1.88	0.44
9:a:399:PHE:HB3	9:a:400:PRO:HD3	2.00	0.44
12:a:905:PTY:H311	12:a:905:PTY:H341	1.83	0.44
1:P:277:LYS:HB2	1:P:277:LYS:HE3	1.70	0.44
6:l:57:ILE:HG22	6:l:61:MET:HE2	2.00	0.44
6:r:155:LYS:HB2	6:r:155:LYS:HE2	1.69	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:a:446:GLY:O	9:a:450:ILE:HG12	2.17	0.44
4:e:70:ASN:HB2	9:a:495:LEU:HD23	1.98	0.44
6:n:147:ILE:O	6:n:151:ILE:HG22	2.18	0.44
12:e:101:PTY:HC31	12:e:101:PTY:H112	1.99	0.44
13:i:203:CLR:H162	13:i:203:CLR:H222	1.69	0.44
3:d:339:ARG:HB3	3:d:339:ARG:HH11	1.80	0.44
11:P:501:PC1:H132	11:P:501:PC1:H111	1.81	0.43
11:k:205:PC1:H361	11:k:205:PC1:H272	2.00	0.43
6:r:72:VAL:HG11	6:r:99:VAL:HG11	1.99	0.43
1:P:419:ILE:HD11	11:P:501:PC1:H221	1.99	0.43
9:a:794:MET:HB3	9:a:794:MET:HE3	1.71	0.43
1:P:373:LYS:HA	1:P:373:LYS:HD3	1.74	0.43
13:m:203:CLR:H222	13:m:203:CLR:H162	1.72	0.43
6:r:140:VAL:HG21	9:a:802:HIS:CE1	2.53	0.43
1:P:273:LYS:HZ3	1:P:385:LEU:HB3	1.84	0.43
2:b:62:VAL:HG13	6:r:141:LEU:HB3	2.00	0.43
6:n:150:LEU:HD21	13:n:205:CLR:H152	2.00	0.43
13:b:305:CLR:H152	12:j:201:PTY:H331	2.01	0.43
13:h:202:CLR:H20	13:h:202:CLR:H241	1.73	0.43
1:P:447:ASP:OD1	1:P:447:ASP:N	2.52	0.43
11:P:501:PC1:H3H1	11:P:501:PC1:H3E1	1.79	0.43
2:b:46:PRO:HA	2:b:49:TRP:HD1	1.82	0.43
11:b:302:PC1:H2F1	13:b:305:CLR:H273	2.00	0.43
13:j:202:CLR:H41	13:k:204:CLR:H3	2.00	0.43
13:l:203:CLR:H151	13:l:206:CLR:H17	2.00	0.43
11:b:301:PC1:H3B1	11:b:301:PC1:H2A1	2.01	0.43
13:j:203:CLR:H12	13:j:204:CLR:H21	1.99	0.43
13:j:204:CLR:H241	13:j:204:CLR:H211	2.01	0.43
12:a:905:PTY:H392	12:a:905:PTY:H362	1.91	0.43
2:b:178:ILE:H	2:b:178:ILE:HG13	1.66	0.43
12:b:306:PTY:H252	12:p:402:PTY:H391	2.01	0.43
12:e:101:PTY:H402	12:e:101:PTY:H371	1.75	0.43
6:i:23:MET:HE3	6:i:23:MET:HA	2.01	0.43
6:o:22:ALA:HB2	6:o:96:GLY:HA2	2.01	0.43
7:p:309:LEU:O	7:p:313:ILE:HG13	2.19	0.42
2:b:129:ARG:HH12	2:b:202:LYS:HG2	1.83	0.42
12:b:303:PTY:H172	12:b:303:PTY:H402	2.01	0.42
12:e:101:PTY:HC31	12:e:101:PTY:HC6	2.01	0.42
6:k:136:ILE:O	6:k:140:VAL:HG23	2.18	0.42
14:n:202:A1MGD:O8	6:o:137:PHE:HE1	2.02	0.42
6:o:7:ASN:OD1	6:o:7:ASN:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:21:TRP:NE1	5:f:25:MET:HE2	2.34	0.42
9:a:719:VAL:O	9:a:723:ILE:HG23	2.19	0.42
2:b:85:ARG:H	2:b:85:ARG:HG3	1.65	0.42
13:i:202:CLR:H263	13:i:202:CLR:H20	2.01	0.42
6:m:74:VAL:HG11	13:m:201:CLR:H152	2.01	0.42
9:a:628:MET:HG3	9:a:633:GLN:OE1	2.19	0.42
9:a:790:ILE:HG22	9:a:791:LEU:HD23	2.00	0.42
4:e:57:LEU:HD23	4:e:57:LEU:HA	1.81	0.42
6:l:131:MET:HB3	6:l:131:MET:HE3	1.71	0.42
6:r:147:ILE:HD12	9:a:747:LEU:HD23	2.01	0.42
1:P:273:LYS:NZ	1:P:385:LEU:HB3	2.34	0.42
12:b:306:PTY:H141	7:p:323:ILE:HG12	2.00	0.42
6:k:36:LYS:HD2	6:k:36:LYS:HA	1.77	0.42
3:d:70:ILE:O	3:d:74:LEU:HG	2.20	0.42
13:h:202:CLR:H231	13:h:203:CLR:H271	2.01	0.42
11:k:205:PC1:H3D2	11:k:205:PC1:H2A2	2.01	0.42
16:a:903:LP3:H191	16:a:903:LP3:H161	1.90	0.42
13:j:202:CLR:H162	13:j:202:CLR:H221	1.76	0.42
11:k:205:PC1:H2F2	6:l:17:MET:HG3	2.01	0.42
6:l:8:PRO:HB3	6:l:10:TYR:CE1	2.55	0.42
6:o:82:ASP:C	6:o:82:ASP:OD1	2.63	0.42
9:a:426:ARG:HE	9:a:429:ARG:HE	1.67	0.42
2:b:86:ILE:N	2:b:86:ILE:HD13	2.35	0.42
11:b:301:PC1:H351	11:b:301:PC1:H321	1.87	0.42
6:h:7:ASN:OD1	6:h:85:THR:HA	2.20	0.42
6:n:88:ARG:O	6:n:92:GLN:HG3	2.20	0.42
12:a:906:PTY:H172	12:a:906:PTY:H312	2.02	0.42
4:e:79:LEU:HD12	4:e:79:LEU:HA	1.88	0.41
13:i:204:CLR:H221	13:i:204:CLR:H162	1.69	0.41
6:k:126:ARG:HE	6:k:126:ARG:HB3	1.68	0.41
9:a:462:LEU:HD12	9:a:462:LEU:HA	1.78	0.41
13:m:201:CLR:H213	13:m:201:CLR:H231	1.90	0.41
13:m:203:CLR:H273	13:m:203:CLR:H232	1.86	0.41
6:o:21:SER:HA	6:o:24:VAL:HG12	2.02	0.41
11:b:302:PC1:H352	11:b:302:PC1:H321	1.88	0.41
12:b:304:PTY:H172	12:b:304:PTY:H141	1.82	0.41
3:d:105:MET:HE2	3:d:105:MET:HB2	1.87	0.41
5:f:19:SER:O	5:f:23:VAL:HG23	2.20	0.41
13:i:204:CLR:H273	13:i:204:CLR:H232	1.92	0.41
7:p:319:LEU:HA	7:p:319:LEU:HD23	1.78	0.41
9:a:547:ILE:HD13	9:a:547:ILE:HA	1.87	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:j:204:CLR:H212	13:j:204:CLR:H162	1.79	0.41
6:n:143:LEU:O	6:n:147:ILE:HG22	2.21	0.41
3:d:38:GLN:H	3:d:38:GLN:HG2	1.67	0.41
5:f:59:TYR:O	5:f:62:TYR:HB2	2.20	0.41
6:j:7:ASN:ND2	6:j:85:THR:HG22	2.35	0.41
6:l:61:MET:HB3	6:l:139:GLU:OE1	2.21	0.41
6:l:43:ALA:HB3	6:l:119:ARG:HE	1.85	0.41
6:r:75:LEU:HD12	6:r:75:LEU:O	2.20	0.41
11:P:501:PC1:H352	11:P:501:PC1:H251	2.02	0.41
4:e:75:TYR:CD2	5:f:41:ILE:HD13	2.56	0.41
13:i:202:CLR:H72	13:i:203:CLR:H71	2.02	0.41
13:k:202:CLR:H12	13:k:203:CLR:H6	2.03	0.41
6:n:82:ASP:OD1	6:n:82:ASP:C	2.62	0.41
13:o:203:CLR:H213	13:o:203:CLR:H231	1.86	0.41
9:a:425:LEU:HD23	9:a:425:LEU:HA	1.94	0.41
9:a:485:PHE:HE1	9:a:490:TRP:CE3	2.32	0.41
9:a:716:ASP:O	9:a:719:VAL:HG12	2.21	0.41
9:a:790:ILE:HA	9:a:790:ILE:HD13	1.84	0.41
13:l:205:CLR:H213	13:l:205:CLR:H231	1.93	0.41
5:f:26:LEU:HD23	5:f:26:LEU:HA	1.88	0.40
6:j:67:ILE:HG21	13:j:204:CLR:H242	2.02	0.40
6:l:56:ILE:HD11	14:l:202:A1MGD:C6	2.51	0.40
13:m:201:CLR:H162	13:m:201:CLR:H221	1.78	0.40
13:m:202:CLR:H211	13:m:202:CLR:H232	1.80	0.40
5:f:20:ALA:O	5:f:24:ILE:HD12	2.21	0.40
11:k:205:PC1:H2A1	11:k:205:PC1:H271	1.84	0.40
11:a:904:PC1:H332	11:a:904:PC1:H362	1.79	0.40
13:l:206:CLR:H222	13:l:206:CLR:H162	1.86	0.40
3:d:23:LEU:HD23	3:d:23:LEU:HA	1.92	0.40
3:d:65:LEU:HD13	3:d:65:LEU:HA	1.93	0.40
6:i:148:VAL:O	6:i:151:ILE:HG22	2.21	0.40
6:i:150:LEU:HD12	6:i:150:LEU:HA	1.87	0.40
2:b:128:HIS:CD2	6:o:9:GLU:HA	2.56	0.40
12:j:201:PTY:H311	12:j:201:PTY:H132	2.03	0.40
13:n:203:CLR:H213	13:n:203:CLR:H232	1.97	0.40
13:n:206:CLR:H20	13:n:206:CLR:H241	1.79	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	P	202/463 (44%)	190 (94%)	12 (6%)	0	100	100
2	b	201/205 (98%)	200 (100%)	1 (0%)	0	100	100
3	d	348/351 (99%)	333 (96%)	15 (4%)	0	100	100
4	e	78/81 (96%)	77 (99%)	1 (1%)	0	100	100
5	f	81/98 (83%)	78 (96%)	3 (4%)	0	100	100
6	h	148/155 (96%)	148 (100%)	0	0	100	100
6	i	148/155 (96%)	148 (100%)	0	0	100	100
6	j	148/155 (96%)	148 (100%)	0	0	100	100
6	k	148/155 (96%)	147 (99%)	1 (1%)	0	100	100
6	l	148/155 (96%)	147 (99%)	1 (1%)	0	100	100
6	m	148/155 (96%)	148 (100%)	0	0	100	100
6	n	148/155 (96%)	147 (99%)	1 (1%)	0	100	100
6	o	148/155 (96%)	147 (99%)	1 (1%)	0	100	100
6	r	148/155 (96%)	148 (100%)	0	0	100	100
7	p	50/350 (14%)	47 (94%)	3 (6%)	0	100	100
8	H	53/226 (24%)	52 (98%)	1 (2%)	0	100	100
9	a	411/838 (49%)	402 (98%)	9 (2%)	0	100	100
All	All	2756/4007 (69%)	2707 (98%)	49 (2%)	0	100	100

There are no Ramachandran outliers to report.

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	P	182/395 (46%)	181 (100%)	1 (0%)	81	89
2	b	156/158 (99%)	150 (96%)	6 (4%)	29	63
3	d	305/306 (100%)	299 (98%)	6 (2%)	48	76
4	e	67/68 (98%)	65 (97%)	2 (3%)	36	69
5	f	69/83 (83%)	68 (99%)	1 (1%)	59	80
6	h	109/113 (96%)	104 (95%)	5 (5%)	24	58
6	i	109/113 (96%)	106 (97%)	3 (3%)	38	70
6	j	109/113 (96%)	107 (98%)	2 (2%)	51	77
6	k	109/113 (96%)	106 (97%)	3 (3%)	38	70
6	l	109/113 (96%)	107 (98%)	2 (2%)	51	77
6	m	109/113 (96%)	105 (96%)	4 (4%)	30	64
6	n	109/113 (96%)	106 (97%)	3 (3%)	38	70
6	o	109/113 (96%)	108 (99%)	1 (1%)	70	85
6	r	109/113 (96%)	106 (97%)	3 (3%)	38	70
7	p	47/313 (15%)	47 (100%)	0	100	100
8	H	43/195 (22%)	42 (98%)	1 (2%)	44	74
9	a	360/743 (48%)	356 (99%)	4 (1%)	65	83
All	All	2210/3278 (67%)	2163 (98%)	47 (2%)	46	75

All (47) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	P	400	VAL
2	b	6	LEU
2	b	26	TYR
2	b	91	LEU
2	b	114	MET
2	b	196	LEU
2	b	200	ARG
3	d	99	PHE
3	d	126	VAL
3	d	138	MET
3	d	149	GLU
3	d	199	LEU

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Mol	Chain	Res	Type
3	d	340	HIS
4	e	11	ILE
4	e	69	LYS
5	f	85	CYS
6	h	53	MET
6	h	75	LEU
6	h	92	GLN
6	h	140	VAL
6	h	143	LEU
6	i	75	LEU
6	i	97	LEU
6	i	118	VAL
6	j	67	ILE
6	j	133	LEU
6	k	44	MET
6	k	75	LEU
6	k	115	ASP
6	l	85	THR
6	l	131	MET
6	m	45	SER
6	m	50	GLU
6	m	75	LEU
6	m	140	VAL
6	n	44	MET
6	n	131	MET
6	n	150	LEU
6	o	153	SER
6	r	44	MET
6	r	74	VAL
6	r	92	GLN
8	H	87	VAL
9	a	416	MET
9	a	429	ARG
9	a	652	LEU
9	a	732	CYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (16) such sidechains are listed below:

Mol	Chain	Res	Type
2	b	51	ASN
3	d	137	GLN
3	d	254	GLN

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Mol	Chain	Res	Type
4	e	33	ASN
4	e	59	GLN
4	e	67	GLN
6	h	6	ASN
6	j	78	ASN
6	j	124	GLN
6	l	7	ASN
6	l	124	GLN
6	m	124	GLN
7	p	330	ASN
8	H	86	ASN
9	a	504	ASN
9	a	528	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 ⓘ

9 monosaccharides are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
10	NAG	Z	1	10	14,14,15	0.80	0	17,19,21	0.76	0
10	NAG	Z	2	10	14,14,15	0.75	0	17,19,21	0.86	0
10	BMA	Z	3	10	11,11,12	0.86	0	15,15,17	2.08	4 (26%)
10	MAN	Z	4	10	11,11,12	0.75	0	15,15,17	1.06	1 (6%)
10	MAN	Z	5	10	11,11,12	0.82	1 (9%)	15,15,17	1.08	1 (6%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
10	MAN	Z	6	10	11,11,12	0.86	1 (9%)	15,15,17	0.96	0
10	GLC	Z	7	10	11,11,12	0.63	0	15,15,17	0.67	0
10	GLC	Z	8	10	11,11,12	0.58	0	15,15,17	1.02	1 (6%)
10	GLC	Z	9	10	11,11,12	0.58	0	15,15,17	0.86	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
10	NAG	Z	1	10	-	0/6/23/26	0/1/1/1
10	NAG	Z	2	10	-	0/6/23/26	0/1/1/1
10	BMA	Z	3	10	-	0/2/19/22	0/1/1/1
10	MAN	Z	4	10	-	2/2/19/22	0/1/1/1
10	MAN	Z	5	10	-	0/2/19/22	0/1/1/1
10	MAN	Z	6	10	-	1/2/19/22	0/1/1/1
10	GLC	Z	7	10	-	0/2/19/22	0/1/1/1
10	GLC	Z	8	10	-	0/2/19/22	0/1/1/1
10	GLC	Z	9	10	-	0/2/19/22	0/1/1/1

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	Z	6	MAN	O5-C1	-2.18	1.40	1.43
10	Z	5	MAN	O5-C1	-2.08	1.40	1.43

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	Z	3	BMA	C1-O5-C5	5.73	119.95	112.19
10	Z	4	MAN	C1-O5-C5	2.74	115.91	112.19
10	Z	3	BMA	C3-C4-C5	2.73	115.12	110.24
10	Z	5	MAN	C1-O5-C5	2.48	115.56	112.19
10	Z	3	BMA	C2-C3-C4	2.33	114.93	110.89
10	Z	8	GLC	C1-C2-C3	2.14	112.30	109.67
10	Z	3	BMA	O4-C4-C3	-2.04	105.63	110.35

There are no chirality outliers.

All (3) torsion outliers are listed below:

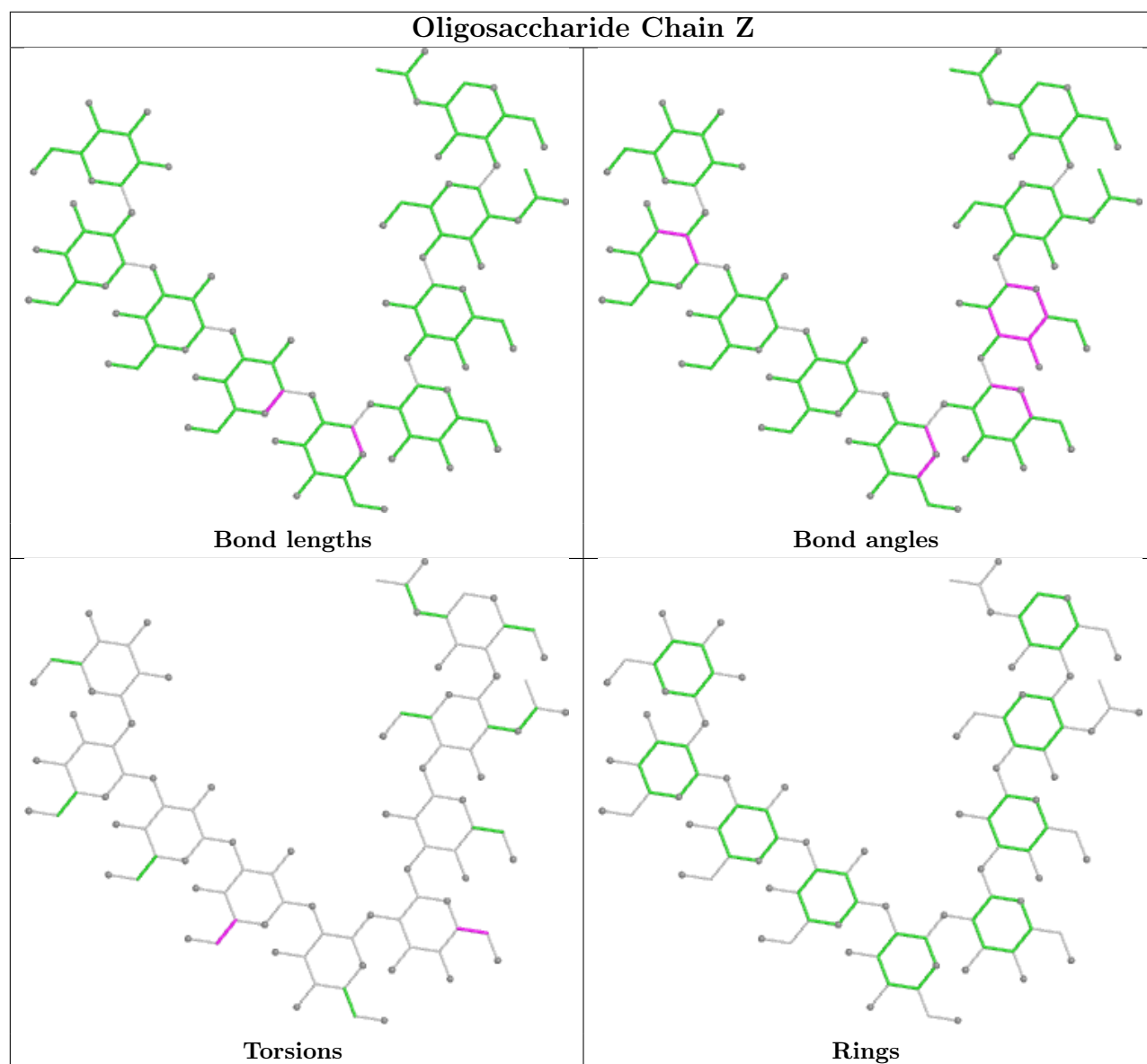
Mol	Chain	Res	Type	Atoms
10	Z	4	MAN	O5-C5-C6-O6
10	Z	4	MAN	C4-C5-C6-O6
10	Z	6	MAN	O5-C5-C6-O6

There are no ring outliers.

2 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
10	Z	1	NAG	1	0
10	Z	3	BMA	2	0

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



5.6 Ligand geometry

54 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# $ Z > 2$	Counts	RMSZ	# $ Z > 2$
12	PTY	b	306	-	49,49,49	0.46	0	52,54,54	0.45	0
13	CLR	n	205	-	31,31,31	0.35	0	48,48,48	0.58	0
13	CLR	o	203	-	31,31,31	0.37	0	48,48,48	0.52	0
11	PC1	b	302	-	53,53,53	0.49	0	59,61,61	0.55	1 (1%)
13	CLR	i	205	-	31,31,31	0.38	0	48,48,48	0.58	0
13	CLR	o	202	-	31,31,31	0.39	0	48,48,48	0.60	0
11	PC1	P	501	-	53,53,53	0.49	0	59,61,61	0.50	1 (1%)
12	PTY	e	101	-	49,49,49	0.45	0	52,54,54	0.42	0
13	CLR	n	206	-	31,31,31	0.36	0	48,48,48	0.56	0
14	A1MGD	l	201	-	60,63,63	0.72	2 (3%)	63,90,90	0.96	4 (6%)
14	A1MGD	n	202	-	60,63,63	0.69	2 (3%)	63,90,90	1.16	6 (9%)
15	WJP	a	902	-	31,33,34	0.48	0	39,43,44	0.54	1 (2%)
13	CLR	l	206	-	31,31,31	0.37	0	48,48,48	0.52	0
13	CLR	n	203	-	31,31,31	0.40	0	48,48,48	0.56	0
13	CLR	o	201	-	31,31,31	0.37	0	48,48,48	0.62	0
13	CLR	l	204	-	31,31,31	0.38	0	48,48,48	0.67	0
12	PTY	a	906	-	49,49,49	0.46	0	52,54,54	0.40	0
11	PC1	b	301	-	53,53,53	0.50	0	59,61,61	0.52	1 (1%)
13	CLR	h	203	-	31,31,31	0.38	0	48,48,48	0.49	0
13	CLR	j	203	-	31,31,31	0.36	0	48,48,48	0.50	0
13	CLR	k	203	-	31,31,31	0.38	0	48,48,48	0.67	0
14	A1MGD	i	201	-	60,63,63	0.68	2 (3%)	63,90,90	1.18	6 (9%)
14	A1MGD	l	202	-	60,63,63	0.68	2 (3%)	63,90,90	1.01	4 (6%)
13	CLR	l	205	-	31,31,31	0.37	0	48,48,48	0.48	0
12	PTY	p	401	-	49,49,49	0.47	0	52,54,54	0.41	0
12	PTY	a	905	-	49,49,49	0.46	0	52,54,54	0.40	0
13	CLR	k	202	-	31,31,31	0.36	0	48,48,48	0.57	0
13	CLR	o	204	-	31,31,31	0.38	0	48,48,48	0.50	0
16	LP3	a	903	-	34,34,34	0.52	0	39,41,41	0.52	0
11	PC1	a	904	-	53,53,53	0.48	0	59,61,61	0.49	1 (1%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
13	CLR	i	203	-	31,31,31	0.36	0	48,48,48	0.57	0
12	PTY	p	402	-	49,49,49	0.46	0	52,54,54	0.40	0
13	CLR	m	201	-	31,31,31	0.37	0	48,48,48	0.56	0
12	PTY	b	304	-	49,49,49	0.47	0	52,54,54	0.45	0
13	CLR	i	202	-	31,31,31	0.37	0	48,48,48	0.55	0
13	CLR	m	203	-	31,31,31	0.39	0	48,48,48	0.52	0
14	A1MGD	h	201	-	60,63,63	0.68	2 (3%)	63,90,90	1.22	5 (7%)
13	CLR	n	204	-	31,31,31	0.36	0	48,48,48	0.61	0
13	CLR	m	202	-	31,31,31	0.36	0	48,48,48	0.51	0
13	CLR	h	202	-	31,31,31	0.38	0	48,48,48	0.61	0
11	PC1	k	205	-	53,53,53	0.49	0	59,61,61	0.50	1 (1%)
13	CLR	j	204	-	31,31,31	0.44	0	48,48,48	0.86	1 (2%)
12	PTY	b	303	-	49,49,49	0.49	0	52,54,54	0.45	0
12	PTY	j	201	-	49,49,49	0.46	0	52,54,54	0.43	0
14	A1MGD	k	201	-	60,63,63	0.70	2 (3%)	63,90,90	1.18	7 (11%)
13	CLR	k	204	-	31,31,31	0.38	0	48,48,48	0.54	0
13	CLR	m	204	-	31,31,31	0.38	0	48,48,48	0.68	1 (2%)
14	A1MGD	n	201	-	60,63,63	0.73	2 (3%)	63,90,90	1.22	5 (7%)
13	CLR	b	305	-	31,31,31	0.44	0	48,48,48	0.56	0
13	CLR	l	203	-	31,31,31	0.37	0	48,48,48	0.63	0
14	A1MGD	a	901	-	60,63,63	0.69	2 (3%)	63,90,90	0.96	3 (4%)
13	CLR	j	202	-	31,31,31	0.36	0	48,48,48	0.56	0
13	CLR	j	205	-	31,31,31	0.36	0	48,48,48	0.66	0
13	CLR	i	204	-	31,31,31	0.38	0	48,48,48	0.54	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
12	PTY	b	306	-	-	20/53/53/53	-
13	CLR	n	205	-	-	1/10/68/68	0/4/4/4
13	CLR	o	203	-	-	9/10/68/68	0/4/4/4
11	PC1	b	302	-	-	25/57/57/57	-
13	CLR	i	205	-	-	4/10/68/68	0/4/4/4
13	CLR	o	202	-	-	2/10/68/68	0/4/4/4
11	PC1	P	501	-	-	19/57/57/57	-
12	PTY	e	101	-	-	21/53/53/53	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
13	CLR	n	206	-	-	5/10/68/68	0/4/4/4
14	A1MGD	l	201	-	-	47/81/115/115	0/2/3/3
14	A1MGD	n	202	-	-	40/81/115/115	1/2/3/3
15	WJP	a	902	-	-	3/37/37/40	-
13	CLR	l	206	-	-	4/10/68/68	0/4/4/4
13	CLR	n	203	-	-	10/10/68/68	0/4/4/4
13	CLR	o	201	-	-	0/10/68/68	0/4/4/4
13	CLR	l	204	-	-	2/10/68/68	0/4/4/4
12	PTY	a	906	-	-	20/53/53/53	-
11	PC1	b	301	-	-	18/57/57/57	-
13	CLR	h	203	-	-	8/10/68/68	0/4/4/4
13	CLR	j	203	-	-	7/10/68/68	0/4/4/4
13	CLR	k	203	-	-	3/10/68/68	0/4/4/4
14	A1MGD	i	201	-	-	40/81/115/115	1/2/3/3
14	A1MGD	l	202	-	-	38/81/115/115	1/2/3/3
13	CLR	l	205	-	-	6/10/68/68	0/4/4/4
12	PTY	p	401	-	-	16/53/53/53	-
12	PTY	a	905	-	-	21/53/53/53	-
13	CLR	k	202	-	-	2/10/68/68	0/4/4/4
13	CLR	o	204	-	-	5/10/68/68	0/4/4/4
16	LP3	a	903	-	-	8/36/36/36	-
11	PC1	a	904	-	-	32/57/57/57	-
13	CLR	i	203	-	-	6/10/68/68	0/4/4/4
12	PTY	p	402	-	-	24/53/53/53	-
13	CLR	m	201	-	-	8/10/68/68	0/4/4/4
12	PTY	b	304	-	-	19/53/53/53	-
13	CLR	i	202	-	-	2/10/68/68	0/4/4/4
13	CLR	m	203	-	-	6/10/68/68	0/4/4/4
14	A1MGD	h	201	-	-	49/81/115/115	0/2/3/3
13	CLR	n	204	-	-	2/10/68/68	0/4/4/4
13	CLR	m	202	-	-	6/10/68/68	0/4/4/4
13	CLR	h	202	-	-	4/10/68/68	0/4/4/4
11	PC1	k	205	-	-	25/57/57/57	-
13	CLR	j	204	-	-	8/10/68/68	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
12	PTY	b	303	-	-	26/53/53/53	-
12	PTY	j	201	-	-	23/53/53/53	-
14	A1MGD	k	201	-	-	45/81/115/115	0/2/3/3
13	CLR	k	204	-	-	5/10/68/68	0/4/4/4
13	CLR	m	204	-	-	6/10/68/68	0/4/4/4
14	A1MGD	n	201	-	-	36/81/115/115	0/2/3/3
13	CLR	b	305	-	-	1/10/68/68	0/4/4/4
13	CLR	l	203	-	-	1/10/68/68	0/4/4/4
14	A1MGD	a	901	-	-	32/81/115/115	0/2/3/3
13	CLR	j	202	-	-	10/10/68/68	0/4/4/4
13	CLR	j	205	-	-	4/10/68/68	0/4/4/4
13	CLR	i	204	-	-	5/10/68/68	0/4/4/4

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	k	201	A1MGD	C15-C16	-3.69	1.38	1.45
14	n	202	A1MGD	C15-C16	-3.61	1.38	1.45
14	a	901	A1MGD	C15-C16	-3.58	1.38	1.45
14	h	201	A1MGD	C15-C16	-3.54	1.38	1.45
14	l	202	A1MGD	C15-C16	-3.50	1.38	1.45
14	n	201	A1MGD	C15-C16	-3.34	1.39	1.45
14	l	201	A1MGD	C15-C16	-3.30	1.39	1.45
14	i	201	A1MGD	C15-C16	-3.26	1.39	1.45
14	l	201	A1MGD	C15-C13	2.67	1.39	1.34
14	i	201	A1MGD	C15-C13	2.60	1.39	1.34
14	n	201	A1MGD	C15-C13	2.54	1.39	1.34
14	a	901	A1MGD	C15-C13	2.45	1.39	1.34
14	h	201	A1MGD	C15-C13	2.43	1.39	1.34
14	l	202	A1MGD	C15-C13	2.41	1.39	1.34
14	k	201	A1MGD	C15-C13	2.30	1.38	1.34
14	n	202	A1MGD	C15-C13	2.25	1.38	1.34

All (48) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	h	201	A1MGD	C19-C21-C22	5.87	126.88	114.95
14	k	201	A1MGD	C19-C21-C22	5.24	125.59	114.95
14	n	202	A1MGD	C19-C21-C22	5.12	125.36	114.95
14	l	202	A1MGD	C19-C21-C22	5.05	125.20	114.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	i	201	A1MGD	C19-C21-C22	4.92	124.95	114.95
14	n	201	A1MGD	C19-C21-C22	4.87	124.85	114.95
14	i	201	A1MGD	C9-C8-C6	4.42	120.73	114.51
14	a	901	A1MGD	C19-C21-C22	4.34	123.76	114.95
14	l	201	A1MGD	C19-C21-C22	4.33	123.75	114.95
14	n	202	A1MGD	C9-C8-C6	4.17	120.39	114.51
14	k	201	A1MGD	C9-C8-C6	3.99	120.13	114.51
14	h	201	A1MGD	C9-C8-C6	3.66	119.67	114.51
13	j	204	CLR	C13-C17-C20	3.59	125.11	119.49
14	n	201	A1MGD	C9-C8-C6	3.54	119.50	114.51
14	a	901	A1MGD	C9-C8-C6	3.51	119.46	114.51
14	n	201	A1MGD	O11-C40-C39	-2.93	102.67	109.94
14	l	202	A1MGD	C9-C8-C6	2.86	118.54	114.51
14	h	201	A1MGD	C25-C22-C21	2.83	118.32	112.40
14	h	201	A1MGD	O8-C25-C26	-2.72	104.71	109.83
14	l	201	A1MGD	C9-C8-C6	2.70	118.31	114.51
14	i	201	A1MGD	O11-C40-C41	-2.70	103.68	110.07
14	n	202	A1MGD	O12-C42-O13	2.63	126.35	123.69
14	k	201	A1MGD	C24-C23-C22	2.47	119.81	114.24
11	b	302	PC1	O12-P-O14	2.45	124.34	112.24
11	P	501	PC1	O12-P-O14	2.44	124.28	112.24
14	k	201	A1MGD	O12-C42-O13	2.41	126.12	123.69
14	k	201	A1MGD	O12-C41-C40	2.35	112.12	107.99
14	n	201	A1MGD	O14-C43-C41	2.35	113.52	109.13
11	a	904	PC1	O12-P-O14	2.35	123.86	112.24
14	n	202	A1MGD	O8-C25-C26	-2.33	105.45	109.83
11	k	205	PC1	O12-P-O14	2.32	123.70	112.24
14	i	201	A1MGD	C24-C23-C22	2.30	119.44	114.24
14	k	201	A1MGD	C21-C19-C18	2.30	115.86	110.56
14	i	201	A1MGD	C21-C19-C18	2.27	115.79	110.56
15	a	902	WJP	O34-P31-O33	2.23	119.40	110.68
14	l	202	A1MGD	C21-C19-C18	2.22	115.69	110.56
14	l	201	A1MGD	C21-C19-C18	2.21	115.66	110.56
14	n	201	A1MGD	C21-C19-C18	2.19	115.61	110.56
14	n	202	A1MGD	O7-C21-C22	-2.18	104.50	109.02
11	b	301	PC1	O12-P-O14	2.18	123.00	112.24
14	h	201	A1MGD	O7-C21-C22	-2.16	104.54	109.02
14	l	202	A1MGD	O7-C21-C22	-2.15	104.56	109.02
14	l	201	A1MGD	C38-O10-C37	2.10	121.08	116.27
14	k	201	A1MGD	O7-C21-C22	-2.09	104.69	109.02
14	a	901	A1MGD	C21-C19-C18	2.05	115.29	110.56
14	n	202	A1MGD	C21-C19-C18	2.04	115.27	110.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	i	201	A1MGD	C38-C39-C40	-2.04	106.08	110.98
13	m	204	CLR	C13-C17-C20	2.01	122.63	119.49

There are no chirality outliers.

All (789) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
11	P	501	PC1	C11-O13-P-O12
11	P	501	PC1	C11-O13-P-O14
11	P	501	PC1	C11-O13-P-O11
11	P	501	PC1	C22-C21-O21-C2
11	b	301	PC1	C11-O13-P-O12
11	b	301	PC1	C22-C21-O21-C2
11	b	302	PC1	C11-O13-P-O12
11	b	302	PC1	C11-O13-P-O14
11	b	302	PC1	C11-O13-P-O11
11	b	302	PC1	O13-C11-C12-N
11	b	302	PC1	O22-C21-O21-C2
11	b	302	PC1	C22-C21-O21-C2
11	k	205	PC1	C11-O13-P-O12
11	k	205	PC1	C1-O11-P-O12
11	k	205	PC1	O22-C21-O21-C2
11	k	205	PC1	C22-C21-O21-C2
11	a	904	PC1	C11-O13-P-O12
11	a	904	PC1	C11-O13-P-O14
11	a	904	PC1	C11-O13-P-O11
11	a	904	PC1	C1-O11-P-O12
11	a	904	PC1	C1-O11-P-O14
11	a	904	PC1	O22-C21-O21-C2
12	b	303	PTY	N1-C2-C3-O11
12	b	303	PTY	C5-O14-P1-O11
12	b	304	PTY	N1-C2-C3-O11
12	b	304	PTY	C11-C8-O7-C6
12	b	304	PTY	C3-O11-P1-O13
12	b	306	PTY	C3-O11-P1-O13
12	b	306	PTY	C5-O14-P1-O12
12	e	101	PTY	N1-C2-C3-O11
12	e	101	PTY	O10-C8-O7-C6
12	e	101	PTY	C11-C8-O7-C6
12	j	201	PTY	N1-C2-C3-O11
12	j	201	PTY	C11-C8-O7-C6
12	j	201	PTY	C3-O11-P1-O12

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Mol	Chain	Res	Type	Atoms
12	j	201	PTY	C3-O11-P1-O13
12	j	201	PTY	C3-O11-P1-O14
12	j	201	PTY	C5-O14-P1-O13
12	p	401	PTY	N1-C2-C3-O11
12	p	401	PTY	C2-C3-O11-P1
12	p	402	PTY	C5-O14-P1-O13
12	a	905	PTY	C3-O11-P1-O12
12	a	905	PTY	C5-O14-P1-O12
12	a	906	PTY	O14-C5-C6-O7
12	a	906	PTY	C3-O11-P1-O12
12	a	906	PTY	C3-O11-P1-O14
13	j	203	CLR	C13-C17-C20-C21
13	j	203	CLR	C16-C17-C20-C22
13	j	204	CLR	C13-C17-C20-C22
13	o	203	CLR	C13-C17-C20-C21
13	o	203	CLR	C13-C17-C20-C22
13	o	203	CLR	C16-C17-C20-C22
14	h	201	A1MGD	C1-C2-C3-C4
14	h	201	A1MGD	C9-C11-C34-C33
14	h	201	A1MGD	C9-C11-C34-O9
14	h	201	A1MGD	O4-C11-C34-C33
14	h	201	A1MGD	O4-C11-C34-O9
14	h	201	A1MGD	C34-C11-C9-C10
14	h	201	A1MGD	C13-C12-O4-C11
14	h	201	A1MGD	C12-C13-C15-C16
14	h	201	A1MGD	O6-C13-C15-C16
14	h	201	A1MGD	C15-C16-C18-C19
14	h	201	A1MGD	C17-C16-C18-C19
14	h	201	A1MGD	C16-C18-C19-C20
14	h	201	A1MGD	C16-C18-C19-C21
14	h	201	A1MGD	C18-C19-C21-C22
14	h	201	A1MGD	C18-C19-C21-O7
14	h	201	A1MGD	C20-C19-C21-C22
14	h	201	A1MGD	C20-C19-C21-O7
14	h	201	A1MGD	C25-C22-C23-C24
14	h	201	A1MGD	C28-C29-C31-C32
14	h	201	A1MGD	C30-C29-C31-C32
14	h	201	A1MGD	C31-C32-C33-C34
14	h	201	A1MGD	C11-C34-O9-C35
14	h	201	A1MGD	C33-C34-O9-C35
14	h	201	A1MGD	C43-C41-O12-C42
14	h	201	A1MGD	N1-C42-O12-C41

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Mol	Chain	Res	Type	Atoms
14	h	201	A1MGD	O13-C42-O12-C41
14	h	201	A1MGD	C5-C6-C8-C9
14	h	201	A1MGD	C7-C6-C8-O3
14	i	201	A1MGD	C1-C2-C3-C4
14	i	201	A1MGD	C9-C11-C34-O9
14	i	201	A1MGD	C13-C12-O4-C11
14	i	201	A1MGD	C12-C13-C15-C16
14	i	201	A1MGD	O6-C13-C15-C16
14	i	201	A1MGD	C15-C16-C18-C19
14	i	201	A1MGD	C17-C16-C18-C19
14	i	201	A1MGD	C20-C19-C21-O7
14	i	201	A1MGD	C25-C22-C23-C24
14	i	201	A1MGD	O8-C25-C26-C27
14	i	201	A1MGD	O8-C25-C26-C28
14	i	201	A1MGD	C31-C32-C33-C34
14	i	201	A1MGD	C39-C38-O10-C37
14	i	201	A1MGD	O14-C38-O10-C37
14	i	201	A1MGD	N1-C42-O12-C41
14	i	201	A1MGD	O13-C42-O12-C41
14	k	201	A1MGD	C1-C2-C3-C4
14	k	201	A1MGD	C9-C11-C34-O9
14	k	201	A1MGD	C34-C11-C9-C10
14	k	201	A1MGD	C34-C11-C9-C8
14	k	201	A1MGD	O4-C11-C9-C10
14	k	201	A1MGD	O4-C11-C9-C8
14	k	201	A1MGD	C13-C12-O4-C11
14	k	201	A1MGD	C12-C13-C15-C16
14	k	201	A1MGD	O6-C13-C15-C16
14	k	201	A1MGD	C15-C13-O6-C14
14	k	201	A1MGD	C15-C16-C18-C19
14	k	201	A1MGD	C17-C16-C18-C19
14	k	201	A1MGD	C20-C19-C21-O7
14	k	201	A1MGD	O8-C25-C26-C27
14	k	201	A1MGD	O8-C25-C26-C28
14	k	201	A1MGD	C29-C31-C32-C33
14	k	201	A1MGD	C31-C32-C33-C34
14	k	201	A1MGD	C36-C37-O10-C38
14	k	201	A1MGD	C45-C37-O10-C38
14	k	201	A1MGD	C40-C41-O12-C42
14	k	201	A1MGD	N1-C42-O12-C41
14	k	201	A1MGD	O13-C42-O12-C41
14	l	201	A1MGD	C1-C2-C3-C4

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Mol	Chain	Res	Type	Atoms
14	l	201	A1MGD	C34-C11-C9-C10
14	l	201	A1MGD	C34-C11-C9-C8
14	l	201	A1MGD	O4-C11-C9-C10
14	l	201	A1MGD	O4-C11-C9-C8
14	l	201	A1MGD	C12-C13-C15-C16
14	l	201	A1MGD	O6-C13-C15-C16
14	l	201	A1MGD	C20-C19-C21-O7
14	l	201	A1MGD	O8-C25-C26-C27
14	l	201	A1MGD	O8-C25-C26-C28
14	l	201	A1MGD	C28-C29-C31-C32
14	l	201	A1MGD	C30-C29-C31-C32
14	l	201	A1MGD	C31-C32-C33-C34
14	l	201	A1MGD	C32-C33-C34-O9
14	l	201	A1MGD	N1-C42-O12-C41
14	l	201	A1MGD	O13-C42-O12-C41
14	l	202	A1MGD	C1-C2-C3-C4
14	l	202	A1MGD	C13-C12-O4-C11
14	l	202	A1MGD	C12-C13-C15-C16
14	l	202	A1MGD	O6-C13-C15-C16
14	l	202	A1MGD	C15-C16-C18-C19
14	l	202	A1MGD	C17-C16-C18-C19
14	l	202	A1MGD	C20-C19-C21-O7
14	l	202	A1MGD	C25-C22-C23-C24
14	l	202	A1MGD	C28-C29-C31-C32
14	l	202	A1MGD	C30-C29-C31-C32
14	l	202	A1MGD	C31-C32-C33-C34
14	l	202	A1MGD	N1-C42-O12-C41
14	l	202	A1MGD	O13-C42-O12-C41
14	l	202	A1MGD	O1-C5-C6-C7
14	l	202	A1MGD	O1-C5-C6-C8
14	l	202	A1MGD	O2-C5-C6-C7
14	l	202	A1MGD	O2-C5-C6-C8
14	l	202	A1MGD	C36-C5-C6-C7
14	l	202	A1MGD	C36-C5-C6-C8
14	l	202	A1MGD	C5-C6-C8-C9
14	n	201	A1MGD	C34-C11-C9-C10
14	n	201	A1MGD	C13-C12-O4-C11
14	n	201	A1MGD	C12-C13-C15-C16
14	n	201	A1MGD	O6-C13-C15-C16
14	n	201	A1MGD	C15-C16-C18-C19
14	n	201	A1MGD	C17-C16-C18-C19
14	n	201	A1MGD	C20-C19-C21-O7

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Mol	Chain	Res	Type	Atoms
14	n	201	A1MGD	C25-C22-C23-C24
14	n	201	A1MGD	C28-C29-C31-C32
14	n	201	A1MGD	C30-C29-C31-C32
14	n	201	A1MGD	C31-C32-C33-C34
14	n	201	A1MGD	C32-C33-C34-O9
14	n	201	A1MGD	C39-C38-O10-C37
14	n	201	A1MGD	C40-C41-O12-C42
14	n	201	A1MGD	N1-C42-O12-C41
14	n	201	A1MGD	O13-C42-O12-C41
14	n	202	A1MGD	C1-C2-C3-C4
14	n	202	A1MGD	C9-C11-C34-C33
14	n	202	A1MGD	C9-C11-C34-O9
14	n	202	A1MGD	O4-C11-C34-C33
14	n	202	A1MGD	C13-C12-O4-C11
14	n	202	A1MGD	C12-C13-C15-C16
14	n	202	A1MGD	O6-C13-C15-C16
14	n	202	A1MGD	C15-C16-C18-C19
14	n	202	A1MGD	C17-C16-C18-C19
14	n	202	A1MGD	C20-C19-C21-O7
14	n	202	A1MGD	C25-C22-C23-C24
14	n	202	A1MGD	C23-C22-C25-C26
14	n	202	A1MGD	C23-C22-C25-O8
14	n	202	A1MGD	C31-C32-C33-C34
14	n	202	A1MGD	C43-C41-O12-C42
14	n	202	A1MGD	N1-C42-O12-C41
14	n	202	A1MGD	O13-C42-O12-C41
14	n	202	A1MGD	C5-C6-C8-C9
14	n	202	A1MGD	C7-C6-C8-C9
14	n	202	A1MGD	C7-C6-C8-O3
14	a	901	A1MGD	C1-C2-C3-C4
14	a	901	A1MGD	C20-C19-C21-O7
14	a	901	A1MGD	C31-C32-C33-C34
14	a	901	A1MGD	C43-C41-O12-C42
14	a	901	A1MGD	N1-C42-O12-C41
14	a	901	A1MGD	O13-C42-O12-C41
11	b	302	PC1	O32-C31-O31-C3
12	b	303	PTY	O30-C30-O4-C1
12	b	306	PTY	O30-C30-O4-C1
12	a	905	PTY	O30-C30-O4-C1
13	i	203	CLR	C16-C17-C20-C21
13	j	203	CLR	C16-C17-C20-C21
13	m	202	CLR	C16-C17-C20-C21

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Mol	Chain	Res	Type	Atoms
13	o	203	CLR	C16-C17-C20-C21
13	i	203	CLR	C13-C17-C20-C21
13	m	202	CLR	C13-C17-C20-C21
13	n	203	CLR	C13-C17-C20-C21
13	j	203	CLR	C13-C17-C20-C22
13	m	202	CLR	C13-C17-C20-C22
11	b	301	PC1	O22-C21-O21-C2
12	b	304	PTY	O10-C8-O7-C6
12	j	201	PTY	O10-C8-O7-C6
12	b	303	PTY	C31-C30-O4-C1
12	b	306	PTY	C31-C30-O4-C1
12	p	402	PTY	C31-C30-O4-C1
12	a	905	PTY	C31-C30-O4-C1
11	a	904	PC1	C22-C21-O21-C2
13	h	203	CLR	C16-C17-C20-C21
13	i	204	CLR	C16-C17-C20-C21
13	l	206	CLR	C16-C17-C20-C21
13	m	203	CLR	C16-C17-C20-C21
13	n	203	CLR	C16-C17-C20-C21
13	h	203	CLR	C13-C17-C20-C21
13	i	204	CLR	C13-C17-C20-C21
13	l	206	CLR	C13-C17-C20-C21
13	m	202	CLR	C16-C17-C20-C22
13	n	203	CLR	C16-C17-C20-C22
13	i	203	CLR	C13-C17-C20-C22
13	i	204	CLR	C13-C17-C20-C22
13	n	203	CLR	C13-C17-C20-C22
14	i	201	A1MGD	O5-C12-O4-C11
14	k	201	A1MGD	O5-C12-O4-C11
14	l	202	A1MGD	O5-C12-O4-C11
14	n	201	A1MGD	O5-C12-O4-C11
14	n	202	A1MGD	O5-C12-O4-C11
14	a	901	A1MGD	O5-C12-O4-C11
11	b	301	PC1	C32-C31-O31-C3
11	b	302	PC1	C32-C31-O31-C3
11	P	501	PC1	O22-C21-O21-C2
13	o	204	CLR	C21-C20-C22-C23
13	h	203	CLR	C16-C17-C20-C22
13	i	203	CLR	C16-C17-C20-C22
13	i	204	CLR	C16-C17-C20-C22
13	l	206	CLR	C16-C17-C20-C22
14	i	201	A1MGD	C29-C31-C32-C33

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Mol	Chain	Res	Type	Atoms
14	a	901	A1MGD	C29-C31-C32-C33
13	h	203	CLR	C13-C17-C20-C22
13	l	206	CLR	C13-C17-C20-C22
13	m	203	CLR	C13-C17-C20-C22
11	b	301	PC1	O32-C31-O31-C3
12	p	402	PTY	O30-C30-O4-C1
12	b	303	PTY	C11-C8-O7-C6
12	b	306	PTY	C11-C8-O7-C6
14	l	201	A1MGD	O7-C21-C22-C25
14	n	202	A1MGD	C21-C22-C25-O8
14	a	901	A1MGD	O7-C21-C22-C25
14	l	201	A1MGD	O3-C8-C9-C11
13	m	203	CLR	C13-C17-C20-C21
13	j	204	CLR	C16-C17-C20-C22
13	m	203	CLR	C16-C17-C20-C22
11	a	904	PC1	C32-C31-O31-C3
14	h	201	A1MGD	O5-C12-O4-C11
13	l	204	CLR	C21-C20-C22-C23
13	o	203	CLR	C21-C20-C22-C23
13	l	204	CLR	C17-C20-C22-C23
13	n	203	CLR	C17-C20-C22-C23
11	a	904	PC1	O32-C31-O31-C3
14	n	201	A1MGD	O14-C38-O10-C37
12	b	303	PTY	O10-C8-O7-C6
12	b	306	PTY	O10-C8-O7-C6
12	b	304	PTY	C31-C30-O4-C1
13	j	204	CLR	C16-C17-C20-C21
13	k	204	CLR	C13-C17-C20-C22
13	m	201	CLR	C13-C17-C20-C22
13	m	204	CLR	C13-C17-C20-C22
13	j	202	CLR	C17-C20-C22-C23
13	m	201	CLR	C17-C20-C22-C23
13	o	203	CLR	C17-C20-C22-C23
13	h	203	CLR	C20-C22-C23-C24
13	o	203	CLR	C20-C22-C23-C24
13	n	203	CLR	C21-C20-C22-C23
12	b	304	PTY	O30-C30-O4-C1
14	n	202	A1MGD	O4-C11-C34-O9
13	k	204	CLR	C16-C17-C20-C21
12	a	906	PTY	C19-C20-C21-C22
13	b	305	CLR	C20-C22-C23-C24
13	m	202	CLR	C20-C22-C23-C24

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Mol	Chain	Res	Type	Atoms
11	k	205	PC1	C31-C32-C33-C34
13	j	202	CLR	C20-C22-C23-C24
13	m	204	CLR	C16-C17-C20-C21
11	P	501	PC1	C21-C22-C23-C24
11	a	904	PC1	C21-C22-C23-C24
12	b	304	PTY	C8-C11-C12-C13
12	b	306	PTY	C30-C31-C32-C33
12	j	201	PTY	C8-C11-C12-C13
12	p	402	PTY	C8-C11-C12-C13
13	i	203	CLR	C20-C22-C23-C24
14	n	201	A1MGD	O4-C11-C9-C10
14	l	201	A1MGD	C29-C31-C32-C33
14	l	202	A1MGD	C29-C31-C32-C33
14	n	201	A1MGD	O4-C11-C9-C8
13	m	203	CLR	C22-C23-C24-C25
13	k	204	CLR	C13-C17-C20-C21
13	m	204	CLR	C13-C17-C20-C21
14	l	201	A1MGD	O3-C8-C9-C10
13	i	202	CLR	C20-C22-C23-C24
13	i	202	CLR	C22-C23-C24-C25
13	i	204	CLR	C22-C23-C24-C25
13	k	202	CLR	C22-C23-C24-C25
13	l	205	CLR	C22-C23-C24-C25
13	j	204	CLR	C17-C20-C22-C23
13	o	204	CLR	C17-C20-C22-C23
11	k	205	PC1	C11-O13-P-O11
11	k	205	PC1	C1-O11-P-O13
11	a	904	PC1	C1-O11-P-O13
12	b	303	PTY	C3-O11-P1-O14
12	b	306	PTY	C5-O14-P1-O11
12	e	101	PTY	C5-O14-P1-O11
12	p	401	PTY	C3-O11-P1-O14
12	p	402	PTY	C3-O11-P1-O14
12	p	402	PTY	C5-O14-P1-O11
12	a	905	PTY	C3-O11-P1-O14
12	a	905	PTY	C5-O14-P1-O11
14	k	201	A1MGD	C39-C38-O10-C37
14	l	201	A1MGD	C39-C38-O10-C37
12	a	905	PTY	C16-C17-C18-C19
12	a	905	PTY	C39-C40-C41-C42
12	a	906	PTY	C39-C40-C41-C42
14	k	201	A1MGD	O3-C8-C9-C11

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Mol	Chain	Res	Type	Atoms
12	b	304	PTY	C20-C21-C22-C23
14	l	202	A1MGD	C6-C8-C9-C10
14	k	201	A1MGD	C18-C19-C21-O7
14	l	201	A1MGD	C18-C19-C21-O7
14	a	901	A1MGD	C18-C19-C21-O7
14	l	202	A1MGD	C6-C8-C9-C11
14	n	201	A1MGD	C29-C31-C32-C33
12	p	401	PTY	C21-C22-C23-C24
13	k	203	CLR	C23-C24-C25-C27
12	a	906	PTY	C34-C35-C36-C37
14	h	201	A1MGD	C7-C6-C8-C9
13	n	203	CLR	C20-C22-C23-C24
12	e	101	PTY	C30-C31-C32-C33
12	b	303	PTY	C22-C23-C24-C25
12	b	303	PTY	C16-C17-C18-C19
12	p	401	PTY	C12-C13-C14-C15
14	i	201	A1MGD	C20-C19-C21-C22
14	k	201	A1MGD	C18-C19-C21-C22
14	k	201	A1MGD	C20-C19-C21-C22
14	l	201	A1MGD	C20-C19-C21-C22
14	l	202	A1MGD	C20-C19-C21-C22
14	n	201	A1MGD	C20-C19-C21-C22
14	n	202	A1MGD	C20-C19-C21-C22
14	a	901	A1MGD	C18-C19-C21-C22
14	a	901	A1MGD	C20-C19-C21-C22
16	a	903	LP3	C12-C13-C14-C15
12	b	303	PTY	C30-C31-C32-C33
12	a	906	PTY	C31-C30-O4-C1
13	n	204	CLR	C17-C20-C22-C23
13	k	203	CLR	C23-C24-C25-C26
14	a	901	A1MGD	O8-C25-C26-C27
11	b	301	PC1	C2E-C2F-C2G-C2H
14	l	202	A1MGD	O3-C8-C9-C10
12	b	304	PTY	C17-C18-C19-C20
13	h	202	CLR	C20-C22-C23-C24
13	k	203	CLR	C20-C22-C23-C24
14	h	201	A1MGD	O4-C11-C9-C8
12	b	304	PTY	C39-C40-C41-C42
12	a	906	PTY	C11-C12-C13-C14
12	a	906	PTY	C33-C34-C35-C36
13	h	203	CLR	C23-C24-C25-C27
13	i	205	CLR	C23-C24-C25-C26

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Mol	Chain	Res	Type	Atoms
13	l	205	CLR	C17-C20-C22-C23
12	b	306	PTY	N1-C2-C3-O11
14	n	202	A1MGD	O7-C21-C22-C25
12	b	304	PTY	C33-C34-C35-C36
14	h	201	A1MGD	O3-C8-C9-C11
12	p	402	PTY	C33-C34-C35-C36
13	h	203	CLR	C23-C24-C25-C26
13	i	205	CLR	C23-C24-C25-C27
11	P	501	PC1	C38-C39-C3A-C3B
11	a	904	PC1	C28-C29-C2A-C2B
12	j	201	PTY	C24-C25-C26-C27
14	l	201	A1MGD	C6-C8-C9-C11
12	p	402	PTY	C11-C8-O7-C6
14	a	901	A1MGD	O8-C25-C26-C28
12	b	303	PTY	C40-C41-C42-C43
14	l	201	A1MGD	O5-C12-O4-C11
12	j	201	PTY	C35-C36-C37-C38
13	j	202	CLR	C22-C23-C24-C25
13	m	201	CLR	C13-C17-C20-C21
13	m	204	CLR	C16-C17-C20-C22
12	b	303	PTY	C17-C18-C19-C20
11	a	904	PC1	C31-C32-C33-C34
11	b	302	PC1	C23-C24-C25-C26
12	a	906	PTY	O30-C30-O4-C1
14	h	201	A1MGD	O4-C11-C9-C10
14	n	201	A1MGD	C34-C11-C9-C8
11	k	205	PC1	C3D-C3E-C3F-C3G
13	j	204	CLR	C13-C17-C20-C21
12	e	101	PTY	C12-C13-C14-C15
12	a	905	PTY	C20-C21-C22-C23
13	k	204	CLR	C16-C17-C20-C22
14	n	202	A1MGD	C29-C31-C32-C33
12	p	402	PTY	O10-C8-O7-C6
12	p	402	PTY	C21-C22-C23-C24
11	b	302	PC1	C3A-C3B-C3C-C3D
11	a	904	PC1	C36-C37-C38-C39
11	a	904	PC1	C3B-C3C-C3D-C3E
12	p	402	PTY	C23-C24-C25-C26
14	a	901	A1MGD	C22-C25-C26-C27
14	i	201	A1MGD	O4-C11-C9-C8
14	n	201	A1MGD	O3-C8-C9-C11
14	a	901	A1MGD	O3-C8-C9-C11

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Mol	Chain	Res	Type	Atoms
12	b	306	PTY	C12-C13-C14-C15
14	a	901	A1MGD	C13-C12-O4-C11
14	l	201	A1MGD	C6-C8-C9-C10
13	o	204	CLR	C20-C22-C23-C24
11	b	301	PC1	C22-C23-C24-C25
12	e	101	PTY	C40-C41-C42-C43
11	P	501	PC1	C26-C27-C28-C29
11	b	302	PC1	C3C-C3D-C3E-C3F
14	k	201	A1MGD	C6-C8-C9-C11
14	i	201	A1MGD	C7-C6-C8-O3
14	a	901	A1MGD	C7-C6-C8-O3
13	m	201	CLR	C21-C20-C22-C23
12	a	905	PTY	C30-C31-C32-C33
11	k	205	PC1	C2B-C2C-C2D-C2E
13	m	201	CLR	C16-C17-C20-C21
11	P	501	PC1	C22-C23-C24-C25
11	P	501	PC1	C2A-C2B-C2C-C2D
13	k	202	CLR	C20-C22-C23-C24
11	b	301	PC1	C31-C32-C33-C34
14	k	201	A1MGD	O3-C8-C9-C10
14	k	201	A1MGD	O4-C11-C34-O9
13	j	202	CLR	C23-C24-C25-C26
12	b	306	PTY	C3-O11-P1-O14
12	j	201	PTY	C5-O14-P1-O11
13	l	203	CLR	C22-C23-C24-C25
12	b	306	PTY	O14-C5-C6-C1
12	p	402	PTY	O14-C5-C6-C1
11	k	205	PC1	C26-C27-C28-C29
12	j	201	PTY	C38-C39-C40-C41
14	k	201	A1MGD	O14-C38-O10-C37
14	n	202	A1MGD	O14-C38-O10-C37
14	h	201	A1MGD	C21-C22-C25-O8
14	i	201	A1MGD	O7-C21-C22-C25
11	a	904	PC1	C32-C33-C34-C35
11	P	501	PC1	C34-C35-C36-C37
12	b	306	PTY	C31-C32-C33-C34
16	a	903	LP3	C13-C14-C15-C16
12	p	401	PTY	C8-C11-C12-C13
14	n	201	A1MGD	C22-C25-C26-C28
14	a	901	A1MGD	C22-C25-C26-C28
12	a	906	PTY	C23-C24-C25-C26
11	b	301	PC1	C1-C2-C3-O31

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Mol	Chain	Res	Type	Atoms
11	b	302	PC1	C1-C2-C3-O31
13	m	201	CLR	C16-C17-C20-C22
13	n	206	CLR	C13-C17-C20-C22
14	h	201	A1MGD	C6-C8-C9-C11
13	m	204	CLR	C21-C20-C22-C23
11	P	501	PC1	C25-C26-C27-C28
11	b	302	PC1	C34-C35-C36-C37
12	p	402	PTY	C32-C33-C34-C35
12	p	402	PTY	C31-C32-C33-C34
13	n	203	CLR	C23-C24-C25-C26
11	b	302	PC1	C3-C2-O21-C21
13	j	205	CLR	C22-C23-C24-C25
14	h	201	A1MGD	O7-C21-C22-C25
11	b	301	PC1	C3E-C3F-C3G-C3H
14	i	201	A1MGD	C27-C26-C28-C29
14	k	201	A1MGD	C27-C26-C28-C29
14	a	901	A1MGD	C27-C26-C28-C29
14	l	201	A1MGD	C18-C19-C21-C22
14	l	202	A1MGD	O3-C8-C9-C11
14	n	202	A1MGD	O3-C8-C9-C11
11	a	904	PC1	C3C-C3D-C3E-C3F
14	h	201	A1MGD	C34-C11-C9-C8
14	i	201	A1MGD	O4-C11-C9-C10
14	i	201	A1MGD	O4-C11-C34-C33
14	k	201	A1MGD	O4-C11-C34-C33
11	P	501	PC1	C35-C36-C37-C38
14	h	201	A1MGD	O3-C8-C9-C10
14	n	201	A1MGD	O3-C8-C9-C10
14	a	901	A1MGD	O3-C8-C9-C10
14	l	201	A1MGD	O14-C38-O10-C37
14	i	201	A1MGD	C25-C26-C28-C29
14	k	201	A1MGD	C25-C26-C28-C29
14	a	901	A1MGD	C25-C26-C28-C29
14	n	201	A1MGD	C6-C8-C9-C11
14	a	901	A1MGD	C6-C8-C9-C11
13	n	204	CLR	C21-C20-C22-C23
11	a	904	PC1	C29-C2A-C2B-C2C
12	b	303	PTY	C19-C20-C21-C22
11	a	904	PC1	C3D-C3E-C3F-C3G
12	b	304	PTY	C23-C24-C25-C26
12	b	303	PTY	O14-C5-C6-C1
12	a	905	PTY	O14-C5-C6-C1

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Mol	Chain	Res	Type	Atoms
11	b	302	PC1	C37-C38-C39-C3A
13	n	206	CLR	C13-C17-C20-C21
12	a	905	PTY	C12-C13-C14-C15
14	n	201	A1MGD	O7-C21-C22-C25
13	h	202	CLR	C22-C23-C24-C25
13	n	206	CLR	C20-C22-C23-C24
12	a	905	PTY	C13-C14-C15-C16
14	i	201	A1MGD	O3-C8-C9-C11
14	i	201	A1MGD	C5-C6-C8-C9
14	k	201	A1MGD	C33-C34-O9-C35
12	j	201	PTY	C37-C38-C39-C40
14	k	201	A1MGD	C6-C8-C9-C10
11	k	205	PC1	C1-C2-C3-O31
12	b	303	PTY	C18-C19-C20-C21
13	j	202	CLR	C23-C24-C25-C27
14	n	201	A1MGD	O8-C25-C26-C28
12	e	101	PTY	C22-C23-C24-C25
12	p	402	PTY	O14-C5-C6-O7
13	h	203	CLR	C22-C23-C24-C25
11	b	301	PC1	O21-C2-C3-O31
12	b	303	PTY	O4-C1-C6-O7
12	e	101	PTY	O4-C1-C6-O7
13	n	203	CLR	C23-C24-C25-C27
13	k	204	CLR	C21-C20-C22-C23
12	e	101	PTY	C6-C5-O14-P1
13	n	206	CLR	C16-C17-C20-C22
11	b	302	PC1	C26-C27-C28-C29
13	h	202	CLR	C23-C24-C25-C27
14	h	201	A1MGD	C6-C8-C9-C10
14	n	201	A1MGD	C6-C8-C9-C10
14	a	901	A1MGD	C6-C8-C9-C10
11	b	302	PC1	C33-C34-C35-C36
14	n	202	A1MGD	C18-C19-C21-O7
11	b	301	PC1	C3D-C3E-C3F-C3G
13	l	205	CLR	C20-C22-C23-C24
12	e	101	PTY	O14-C5-C6-C1
12	a	906	PTY	O14-C5-C6-C1
12	p	401	PTY	C33-C34-C35-C36
12	e	101	PTY	C13-C14-C15-C16
13	j	203	CLR	C23-C24-C25-C27
12	p	401	PTY	C31-C30-O4-C1
16	a	903	LP3	C12-C11-O3-C3

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Mol	Chain	Res	Type	Atoms
14	i	201	A1MGD	C22-C25-C26-C27
14	l	201	A1MGD	C22-C25-C26-C27
13	j	202	CLR	C13-C17-C20-C22
12	b	306	PTY	C5-C6-O7-C8
11	k	205	PC1	C2-C1-O11-P
11	a	904	PC1	C2-C1-O11-P
12	e	101	PTY	O4-C1-C6-C5
12	a	906	PTY	O4-C1-C6-C5
14	h	201	A1MGD	C13-C15-C16-C17
14	k	201	A1MGD	C13-C15-C16-C17
14	l	201	A1MGD	C13-C15-C16-C17
14	n	202	A1MGD	C13-C15-C16-C17
12	b	306	PTY	O14-C5-C6-O7
12	e	101	PTY	O14-C5-C6-O7
12	p	401	PTY	O14-C5-C6-O7
12	a	905	PTY	O14-C5-C6-O7
11	k	205	PC1	C25-C26-C27-C28
14	i	201	A1MGD	C18-C19-C21-C22
14	l	202	A1MGD	C18-C19-C21-C22
14	n	201	A1MGD	C18-C19-C21-C22
14	n	202	A1MGD	C18-C19-C21-C22
13	j	203	CLR	C23-C24-C25-C26
14	h	201	A1MGD	C15-C13-O6-C14
14	h	201	A1MGD	C13-C15-C16-C18
14	i	201	A1MGD	C15-C13-O6-C14
14	l	201	A1MGD	C15-C13-O6-C14
14	l	201	A1MGD	C13-C15-C16-C18
14	l	202	A1MGD	C15-C13-O6-C14
14	n	201	A1MGD	C15-C13-O6-C14
14	n	202	A1MGD	C15-C13-O6-C14
14	n	202	A1MGD	C13-C15-C16-C18
14	h	201	A1MGD	O7-C21-C22-C23
14	l	202	A1MGD	O7-C21-C22-C25
14	l	202	A1MGD	C21-C22-C25-O8
13	h	202	CLR	C23-C24-C25-C26
11	b	301	PC1	C3C-C3D-C3E-C3F
12	b	304	PTY	C13-C14-C15-C16
12	a	905	PTY	C8-C11-C12-C13
11	P	501	PC1	C3D-C3E-C3F-C3G
14	h	201	A1MGD	C32-C33-C34-O9
14	i	201	A1MGD	C34-C11-C9-C10
14	i	201	A1MGD	O4-C11-C34-O9

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Mol	Chain	Res	Type	Atoms
14	l	201	A1MGD	O5-C12-C13-O6
14	a	901	A1MGD	O5-C12-C13-O6
12	p	402	PTY	C39-C40-C41-C42
12	p	402	PTY	C15-C16-C17-C18
12	a	905	PTY	C35-C36-C37-C38
12	a	906	PTY	C6-C5-O14-P1
12	a	906	PTY	C12-C13-C14-C15
16	a	903	LP3	O11-C11-O3-C3
11	k	205	PC1	C11-O13-P-O14
12	b	303	PTY	C3-O11-P1-O13
12	b	303	PTY	C5-O14-P1-O12
12	b	306	PTY	C3-O11-P1-O12
12	e	101	PTY	C5-O14-P1-O13
12	j	201	PTY	C5-O14-P1-O12
12	p	401	PTY	C3-O11-P1-O13
12	p	402	PTY	C3-O11-P1-O13
12	p	402	PTY	C5-O14-P1-O12
12	a	905	PTY	C3-O11-P1-O13
12	a	906	PTY	C3-O11-P1-O13
12	p	401	PTY	O14-C5-C6-C1
12	p	401	PTY	O30-C30-O4-C1
13	l	205	CLR	C13-C17-C20-C22
13	j	202	CLR	C13-C17-C20-C21
12	j	201	PTY	C14-C15-C16-C17
14	h	201	A1MGD	C12-C13-O6-C14
14	i	201	A1MGD	C12-C13-O6-C14
14	l	201	A1MGD	O4-C12-C13-C15
14	l	201	A1MGD	O4-C12-C13-O6
14	l	201	A1MGD	O5-C12-C13-C15
14	l	201	A1MGD	C12-C13-O6-C14
14	l	202	A1MGD	C12-C13-O6-C14
14	n	201	A1MGD	C12-C13-O6-C14
14	n	202	A1MGD	C12-C13-O6-C14
14	n	202	A1MGD	C5-C6-C8-O3
11	b	302	PC1	C35-C36-C37-C38
12	b	303	PTY	O14-C5-C6-O7
12	b	304	PTY	C30-C31-C32-C33
12	j	201	PTY	O14-C5-C6-O7
13	j	202	CLR	C16-C17-C20-C22
14	i	201	A1MGD	C22-C25-C26-C28
14	k	201	A1MGD	C22-C25-C26-C28
14	l	201	A1MGD	C22-C25-C26-C28

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Mol	Chain	Res	Type	Atoms
12	j	201	PTY	C19-C20-C21-C22
14	n	201	A1MGD	C7-C6-C8-O3
13	n	206	CLR	C16-C17-C20-C21
12	a	906	PTY	C16-C17-C18-C19
11	a	904	PC1	C11-C12-N-C13
13	o	204	CLR	C23-C24-C25-C26
14	n	202	A1MGD	C6-C8-C9-C10
11	k	205	PC1	O13-C11-C12-N
14	k	201	A1MGD	C9-C11-C34-C33
14	l	201	A1MGD	C40-C41-O12-C42
14	l	201	A1MGD	C43-C41-O12-C42
11	b	302	PC1	O21-C2-C3-O31
14	n	202	A1MGD	O4-C11-C9-C8
16	a	903	LP3	C19-C20-C21-C22
11	P	501	PC1	C28-C29-C2A-C2B
12	b	303	PTY	C39-C40-C41-C42
14	i	201	A1MGD	C34-C11-C9-C8
12	b	304	PTY	C22-C23-C24-C25
13	l	205	CLR	C13-C17-C20-C21
11	P	501	PC1	C37-C38-C39-C3A
12	b	306	PTY	C21-C22-C23-C24
12	e	101	PTY	C14-C15-C16-C17
11	b	301	PC1	C3-C2-O21-C21
14	i	201	A1MGD	C7-C6-C8-C9
12	j	201	PTY	O14-C5-C6-C1
14	a	901	A1MGD	O4-C11-C9-C8
11	a	904	PC1	C11-C12-N-C14
13	j	203	CLR	C22-C23-C24-C25
11	b	301	PC1	C11-O13-P-O11
11	b	302	PC1	C1-O11-P-O13
12	b	304	PTY	C3-O11-P1-O14
13	j	204	CLR	C21-C20-C22-C23
11	b	302	PC1	C2A-C2B-C2C-C2D
12	e	101	PTY	C36-C37-C38-C39
12	j	201	PTY	C36-C37-C38-C39
11	P	501	PC1	C23-C24-C25-C26
14	l	201	A1MGD	C32-C33-C34-C11
14	n	201	A1MGD	C32-C33-C34-C11
13	l	205	CLR	C16-C17-C20-C22
14	h	201	A1MGD	C29-C31-C32-C33
13	o	202	CLR	C23-C24-C25-C26
14	n	202	A1MGD	C6-C8-C9-C11

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Mol	Chain	Res	Type	Atoms
12	p	401	PTY	C18-C19-C20-C21
14	k	201	A1MGD	O7-C21-C22-C25
12	p	402	PTY	C16-C17-C18-C19
13	o	204	CLR	C23-C24-C25-C27
11	k	205	PC1	C3B-C3C-C3D-C3E
11	b	302	PC1	C2-C1-O11-P
14	k	201	A1MGD	C22-C25-C26-C27
11	a	904	PC1	C2C-C2D-C2E-C2F
11	k	205	PC1	C29-C2A-C2B-C2C
13	j	204	CLR	C20-C22-C23-C24
12	b	306	PTY	C34-C35-C36-C37
14	i	201	A1MGD	C18-C19-C21-O7
13	j	202	CLR	C21-C20-C22-C23
13	o	203	CLR	C23-C24-C25-C26
11	k	205	PC1	C23-C24-C25-C26
13	i	203	CLR	C22-C23-C24-C25
12	b	303	PTY	C14-C15-C16-C17
11	b	302	PC1	C2D-C2E-C2F-C2G
12	b	303	PTY	C36-C37-C38-C39
11	k	205	PC1	C27-C28-C29-C2A
12	a	905	PTY	C31-C32-C33-C34
12	p	402	PTY	O4-C1-C6-C5
14	l	201	A1MGD	C26-C28-C29-C30
12	a	906	PTY	O10-C8-O7-C6
14	l	202	A1MGD	O4-C11-C34-O9
11	b	301	PC1	C3F-C3G-C3H-C3I
11	a	904	PC1	C11-C12-N-C15
12	b	303	PTY	C12-C13-C14-C15
13	j	204	CLR	C22-C23-C24-C25
13	j	205	CLR	C13-C17-C20-C21
12	b	306	PTY	C15-C16-C17-C18
12	j	201	PTY	C34-C35-C36-C37
13	j	205	CLR	C13-C17-C20-C22
12	a	906	PTY	C11-C8-O7-C6
12	e	101	PTY	C34-C35-C36-C37
12	e	101	PTY	C11-C12-C13-C14
14	h	201	A1MGD	C23-C22-C25-O8
14	a	901	A1MGD	O2-C5-C6-C8
11	k	205	PC1	O21-C2-C3-O31
11	a	904	PC1	C2E-C2F-C2G-C2H
12	p	402	PTY	C26-C27-C28-C29
14	n	202	A1MGD	O3-C8-C9-C10

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Mol	Chain	Res	Type	Atoms
13	n	205	CLR	C22-C23-C24-C25
11	P	501	PC1	C3E-C3F-C3G-C3H
12	p	402	PTY	C18-C19-C20-C21
14	l	201	A1MGD	C26-C28-C29-C31
14	l	202	A1MGD	C18-C19-C21-O7
14	n	201	A1MGD	C18-C19-C21-O7
13	i	205	CLR	C13-C17-C20-C21
12	b	304	PTY	C31-C32-C33-C34
11	a	904	PC1	C33-C34-C35-C36
11	b	302	PC1	C39-C3A-C3B-C3C
15	a	902	WJP	C17-C16-C18-C19
12	b	303	PTY	C24-C25-C26-C27
13	o	202	CLR	C23-C24-C25-C27
15	a	902	WJP	C07-C06-C08-C09
11	k	205	PC1	C2E-C2F-C2G-C2H
13	j	205	CLR	C16-C17-C20-C22
11	k	205	PC1	O31-C31-C32-C33
13	j	202	CLR	C16-C17-C20-C21
11	P	501	PC1	C2F-C2G-C2H-C2I
16	a	903	LP3	C16-C17-C18-C19
11	a	904	PC1	C35-C36-C37-C38
12	e	101	PTY	C37-C38-C39-C40
14	l	201	A1MGD	C13-C12-O4-C11
13	o	203	CLR	C23-C24-C25-C27
16	a	903	LP3	C24-C25-C26-C27
12	b	303	PTY	C38-C39-C40-C41
12	j	201	PTY	C20-C21-C22-C23
11	a	904	PC1	O31-C31-C32-C33
12	b	304	PTY	C12-C13-C14-C15
16	a	903	LP3	C18-C19-C20-C21
12	a	905	PTY	C12-C11-C8-O7
14	l	201	A1MGD	C27-C26-C28-C29
14	l	202	A1MGD	C13-C15-C16-C17
11	a	904	PC1	C39-C3A-C3B-C3C
11	a	904	PC1	C3A-C3B-C3C-C3D
13	m	201	CLR	C20-C22-C23-C24
14	k	201	A1MGD	C25-C22-C23-C24
13	m	201	CLR	C22-C23-C24-C25
11	a	904	PC1	C23-C24-C25-C26
12	j	201	PTY	C39-C40-C41-C42
14	k	201	A1MGD	C13-C15-C16-C18
14	l	202	A1MGD	C13-C15-C16-C18

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Mol	Chain	Res	Type	Atoms
15	a	902	WJP	C15-C16-C18-C19
11	b	301	PC1	O11-C1-C2-C3
11	k	205	PC1	C22-C23-C24-C25
11	b	302	PC1	C25-C26-C27-C28
12	a	905	PTY	C41-C42-C43-C44
14	n	202	A1MGD	O4-C11-C9-C10
11	k	205	PC1	C34-C35-C36-C37
14	l	202	A1MGD	O4-C11-C34-C33
12	p	402	PTY	C30-C31-C32-C33
12	b	306	PTY	C11-C12-C13-C14
14	h	201	A1MGD	C32-C33-C34-C11
14	l	201	A1MGD	C25-C26-C28-C29
14	i	201	A1MGD	C2-C3-C4-O1
11	k	205	PC1	O32-C31-C32-C33
13	m	203	CLR	C23-C24-C25-C27
12	p	401	PTY	O4-C30-C31-C32
12	a	906	PTY	C37-C38-C39-C40
13	m	202	CLR	C21-C20-C22-C23
14	a	901	A1MGD	O4-C11-C9-C10
11	a	904	PC1	O32-C31-C32-C33
12	b	303	PTY	O4-C1-C6-C5
13	m	204	CLR	C23-C24-C25-C27
12	e	101	PTY	C31-C32-C33-C34
12	p	401	PTY	C6-C5-O14-P1
11	b	301	PC1	C11-O13-P-O14
14	h	201	A1MGD	C19-C21-C22-C23
14	l	201	A1MGD	C19-C21-C22-C23
12	b	304	PTY	C37-C38-C39-C40
12	a	905	PTY	C12-C11-C8-O10
13	i	205	CLR	C20-C22-C23-C24
14	k	201	A1MGD	C12-C13-O6-C14
14	l	202	A1MGD	C5-C6-C8-O3
14	a	901	A1MGD	O4-C12-C13-C15
14	a	901	A1MGD	O4-C12-C13-O6
14	a	901	A1MGD	O5-C12-C13-C15
12	j	201	PTY	C12-C13-C14-C15
14	a	901	A1MGD	C5-C6-C8-C9
12	p	401	PTY	O30-C30-C31-C32
13	n	203	CLR	C22-C23-C24-C25
14	i	201	A1MGD	C6-C8-C9-C10

All (3) ring outliers are listed below:

Mol	Chain	Res	Type	Atoms
14	n	202	A1MGD	C38-C39-C40-C41-C43-O14
14	l	202	A1MGD	C38-C39-C40-C41-C43-O14
14	i	201	A1MGD	C38-C39-C40-C41-C43-O14

47 monomers are involved in 103 short contacts:

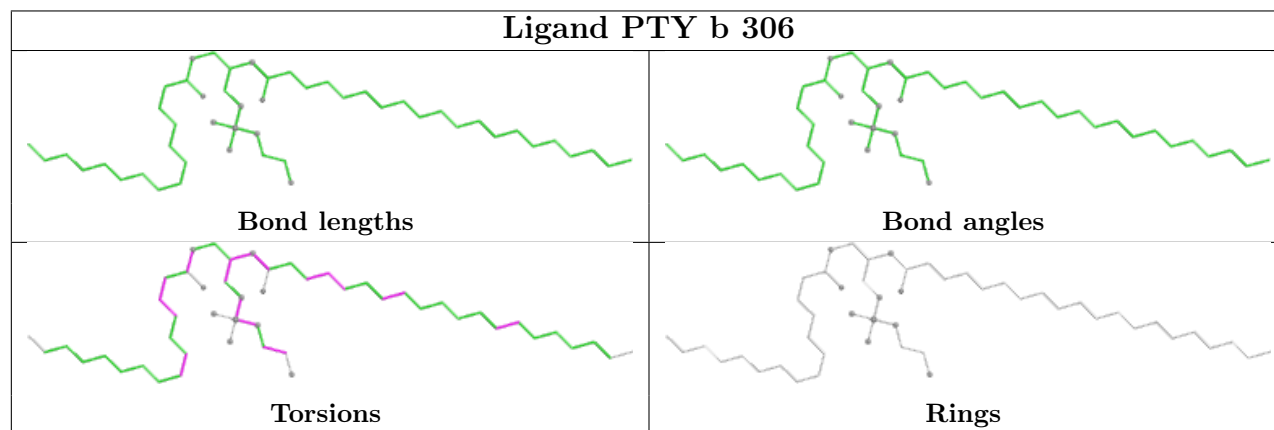
Mol	Chain	Res	Type	Clashes	Symm-Clashes
12	b	306	PTY	2	0
13	n	205	CLR	2	0
13	o	203	CLR	2	0
11	b	302	PC1	2	0
13	i	205	CLR	3	0
11	P	501	PC1	7	0
12	e	101	PTY	3	0
13	n	206	CLR	3	0
14	n	202	A1MGD	1	0
13	l	206	CLR	3	0
13	n	203	CLR	5	0
13	l	204	CLR	3	0
12	a	906	PTY	1	0
11	b	301	PC1	3	0
13	h	203	CLR	5	0
13	j	203	CLR	3	0
13	k	203	CLR	1	0
14	i	201	A1MGD	1	0
14	l	202	A1MGD	5	0
13	l	205	CLR	3	0
12	p	401	PTY	2	0
12	a	905	PTY	2	0
13	k	202	CLR	1	0
13	o	204	CLR	2	0
16	a	903	LP3	1	0
11	a	904	PC1	1	0
13	i	203	CLR	3	0
12	p	402	PTY	1	0
13	m	201	CLR	4	0
12	b	304	PTY	1	0
13	i	202	CLR	5	0
13	m	203	CLR	2	0
14	h	201	A1MGD	5	0
13	n	204	CLR	1	0
13	m	202	CLR	1	0
13	h	202	CLR	5	0
11	k	205	PC1	4	0

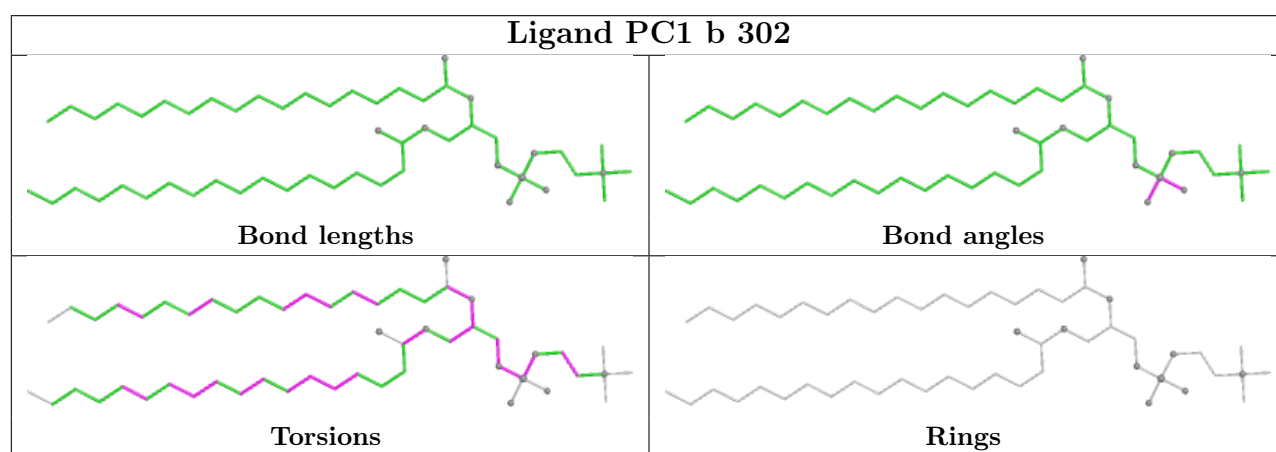
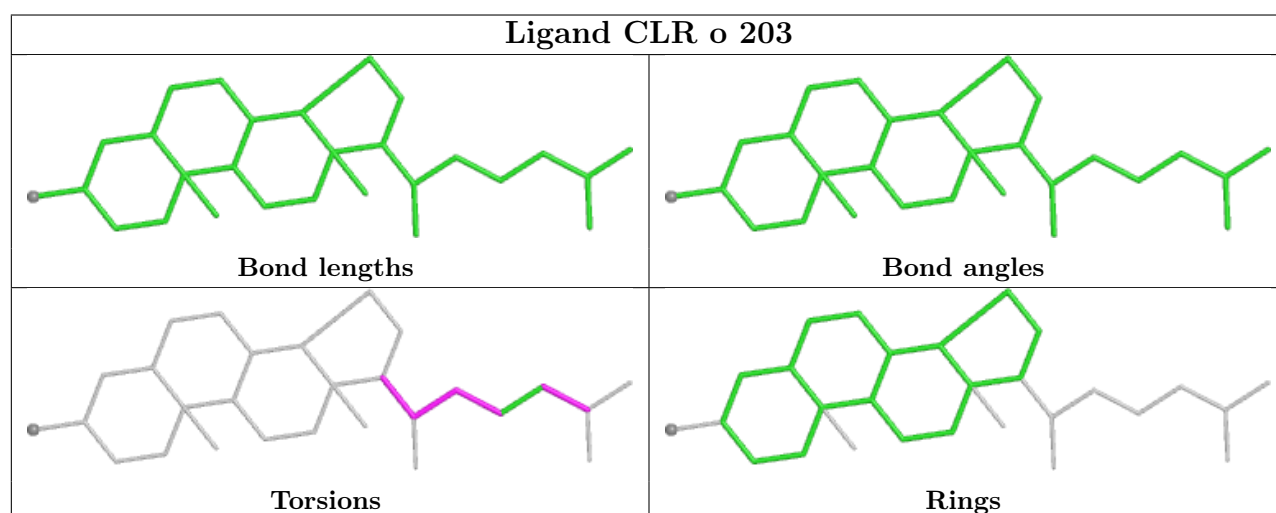
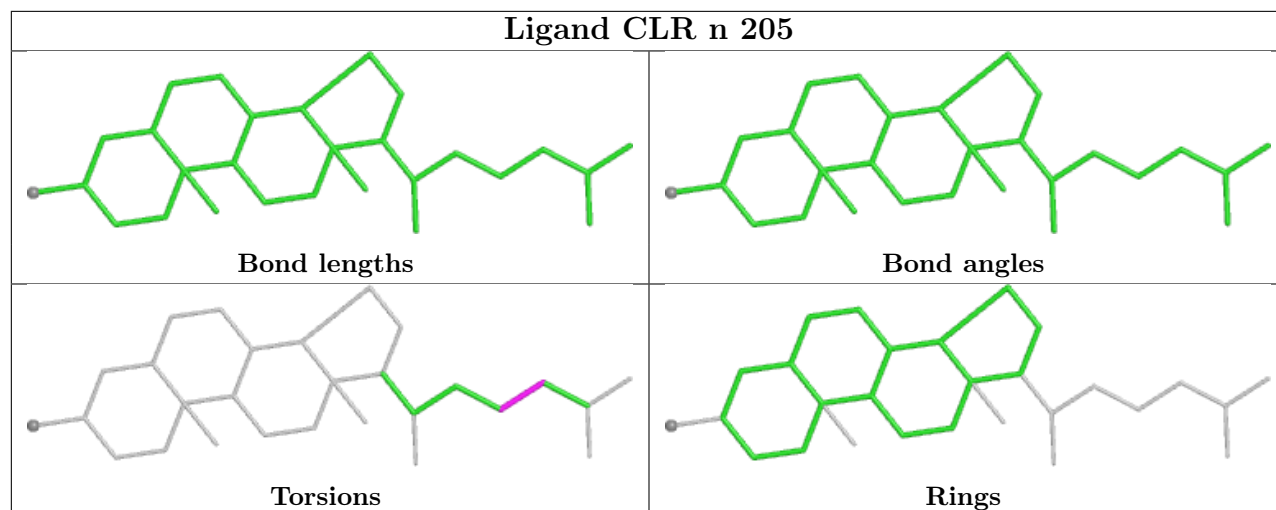
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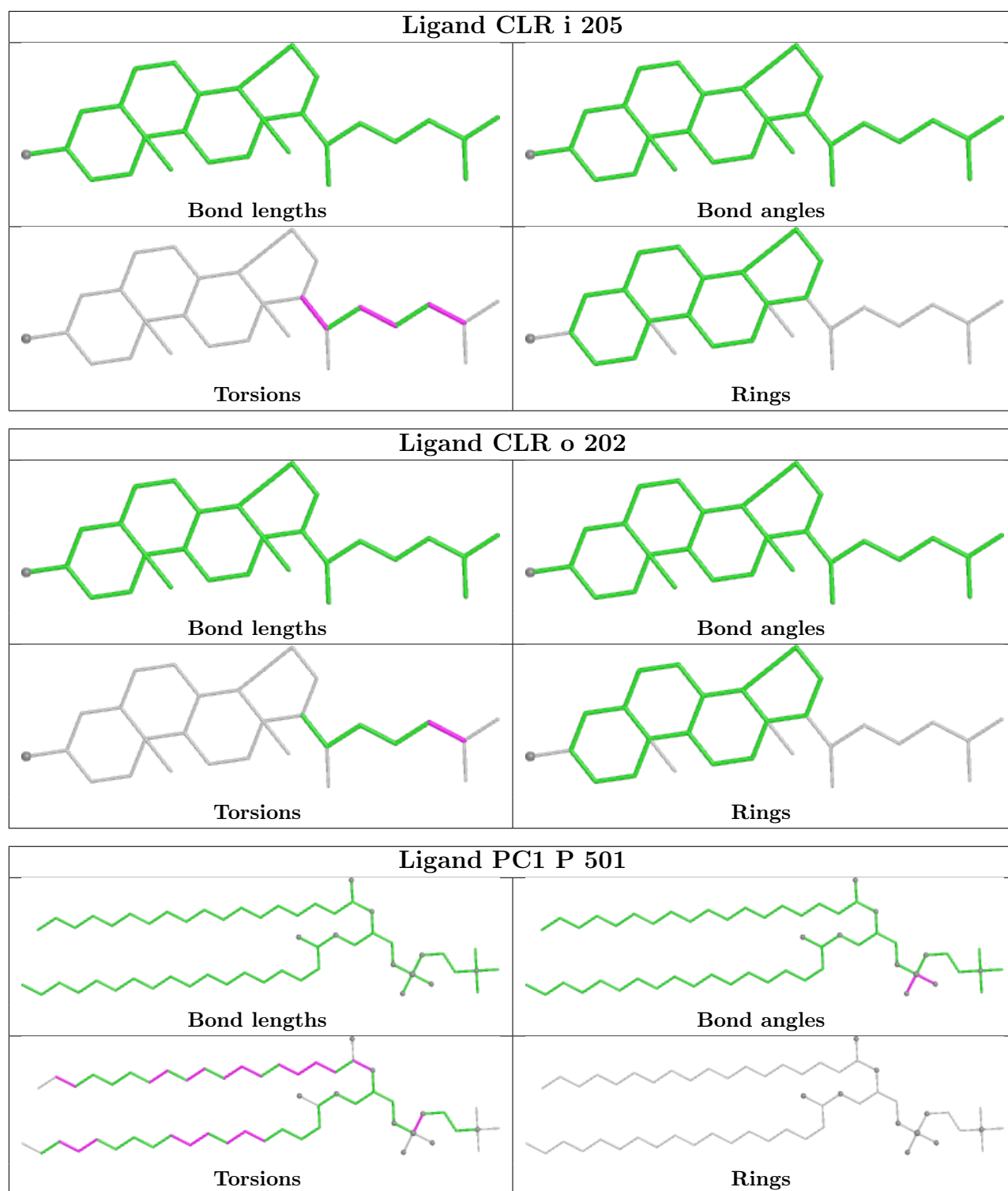
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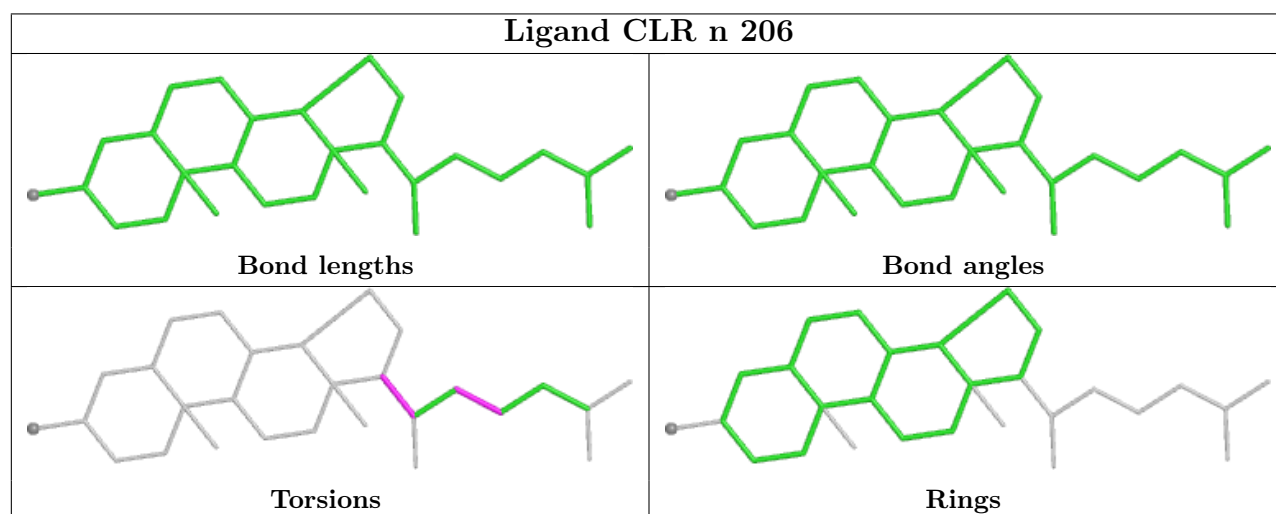
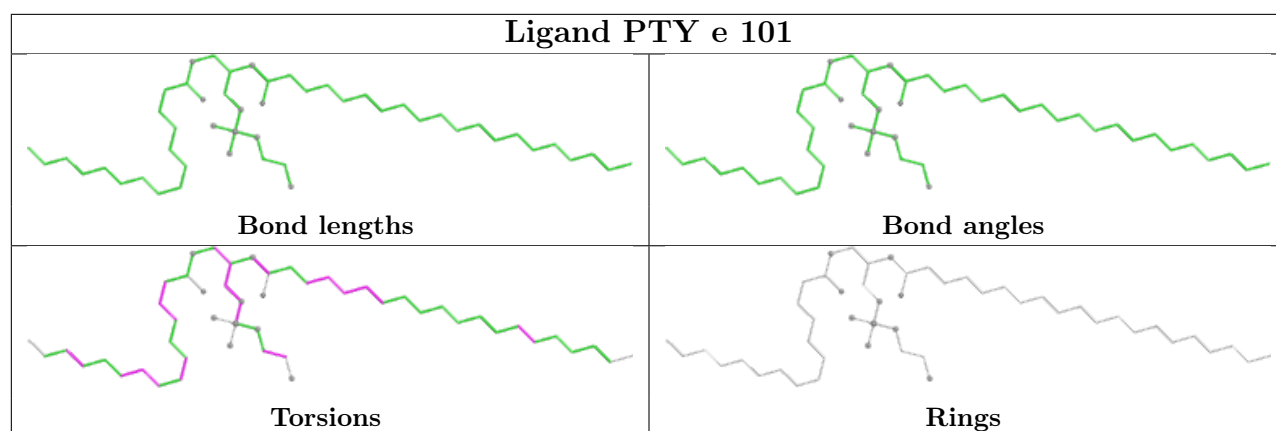
Mol	Chain	Res	Type	Clashes	Symm-Clashes
13	j	204	CLR	4	0
12	b	303	PTY	1	0
12	j	201	PTY	3	0
13	k	204	CLR	3	0
13	b	305	CLR	2	0
13	l	203	CLR	1	0
14	a	901	A1MGD	1	0
13	j	202	CLR	4	0
13	j	205	CLR	2	0
13	i	204	CLR	2	0

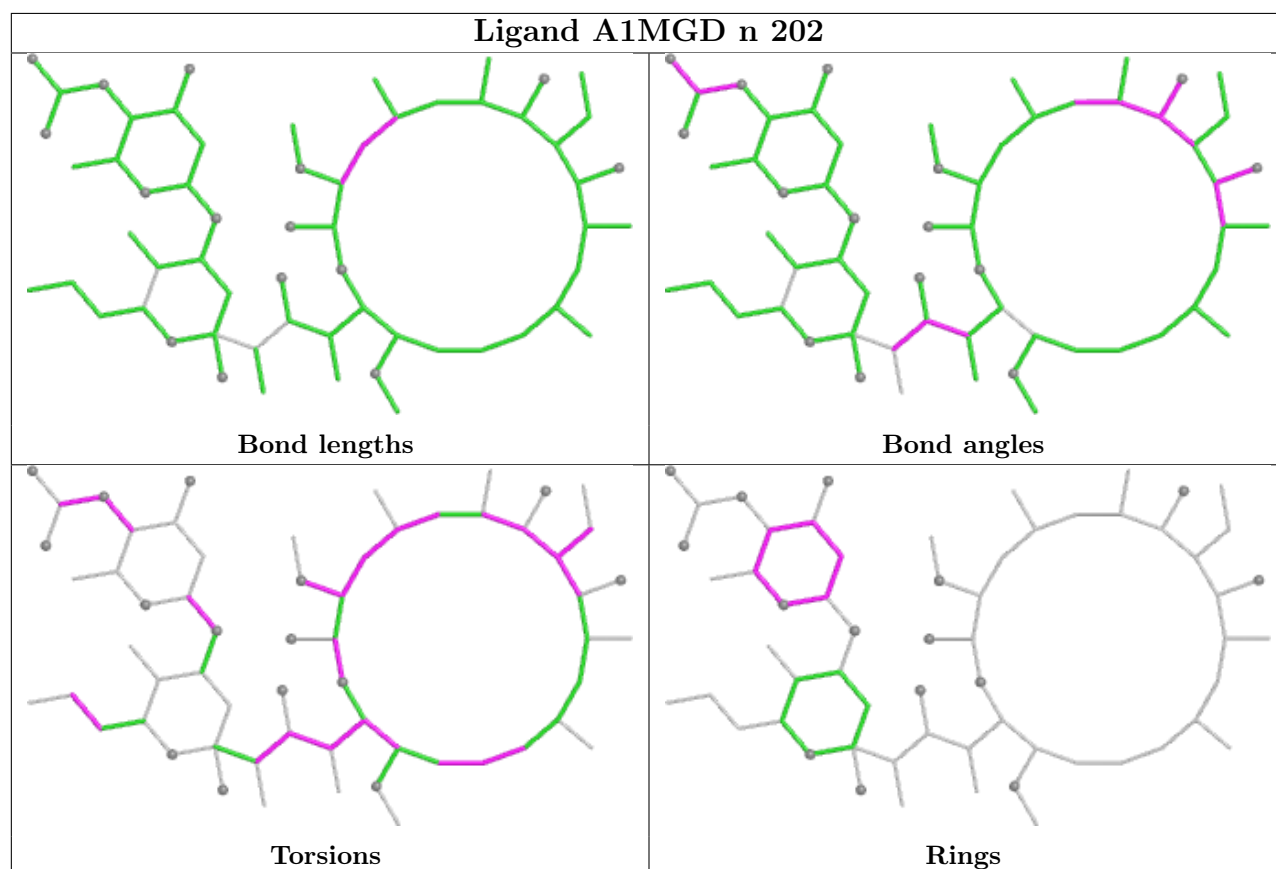
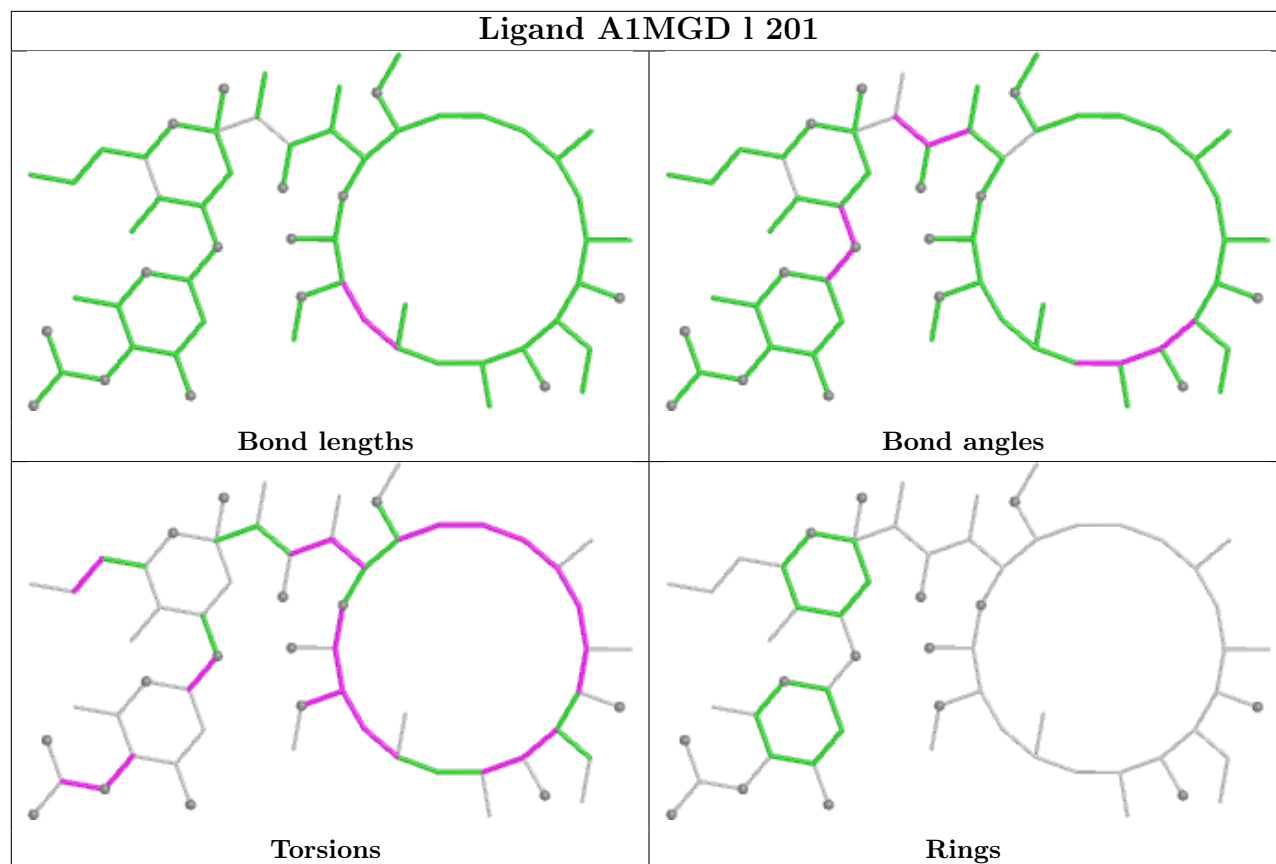
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

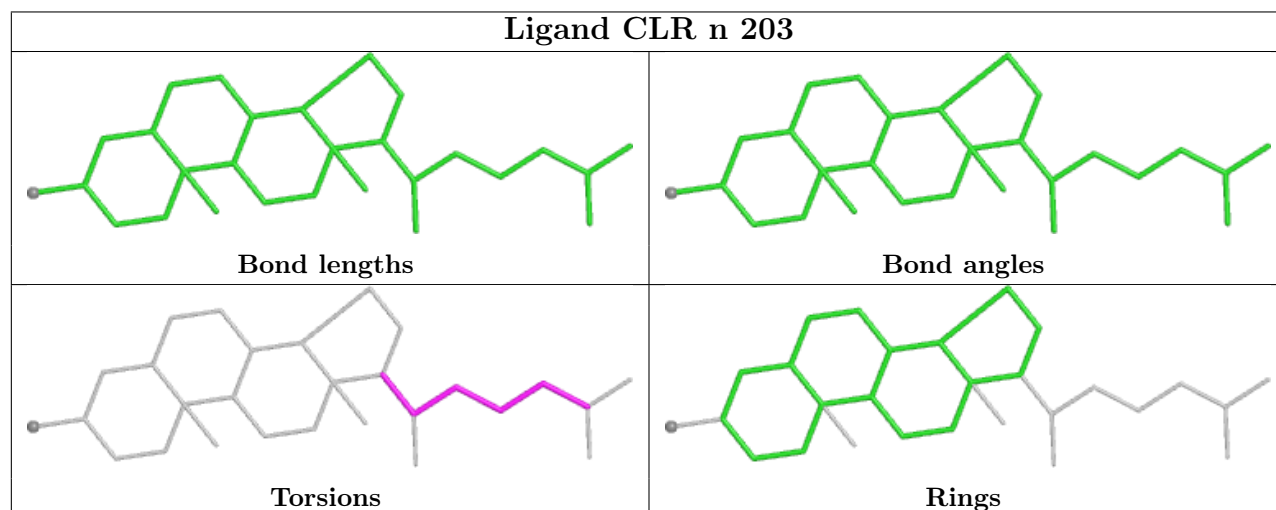
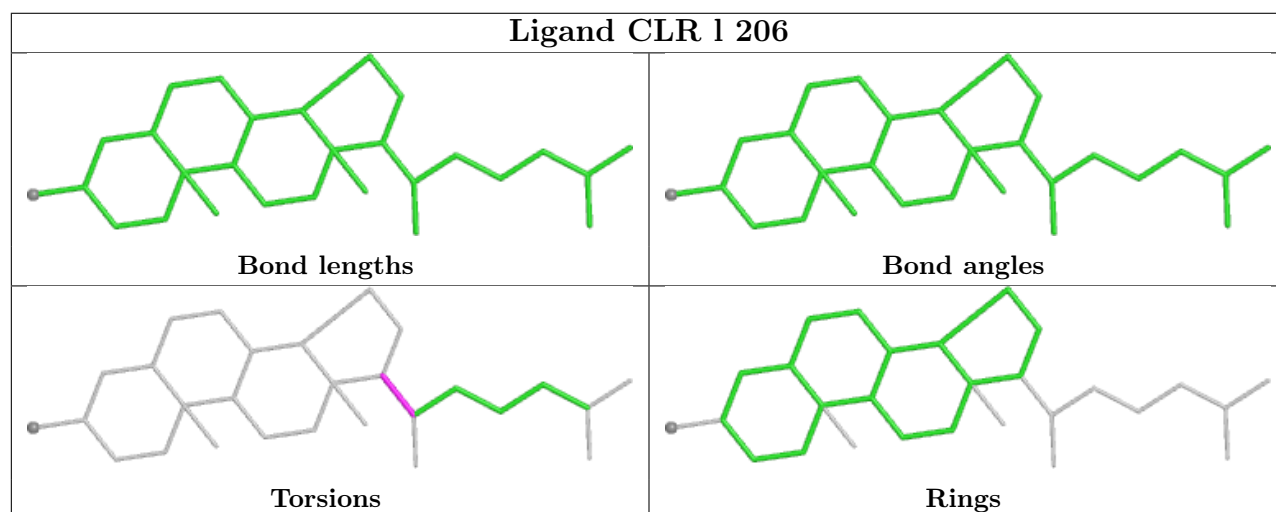
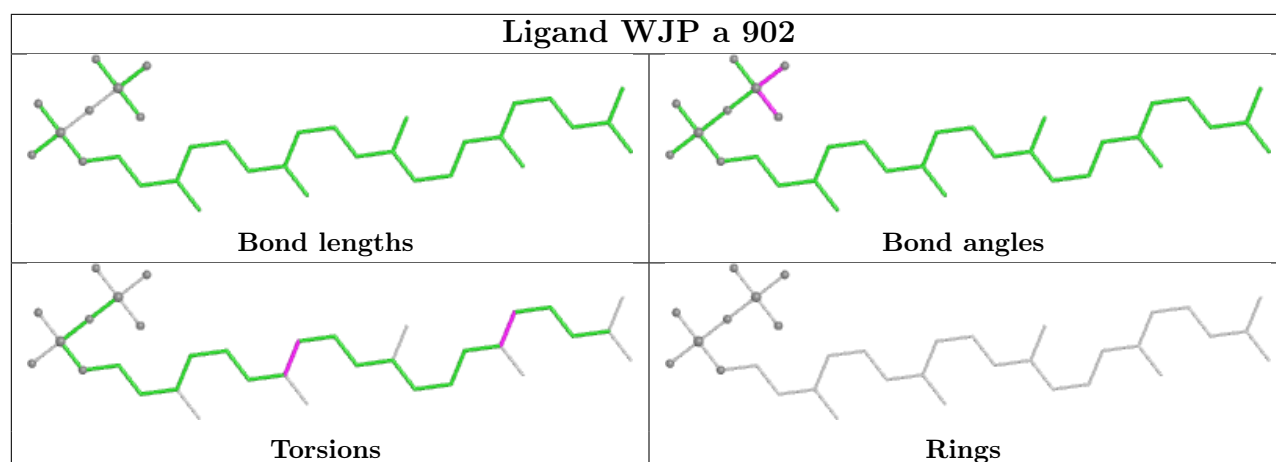


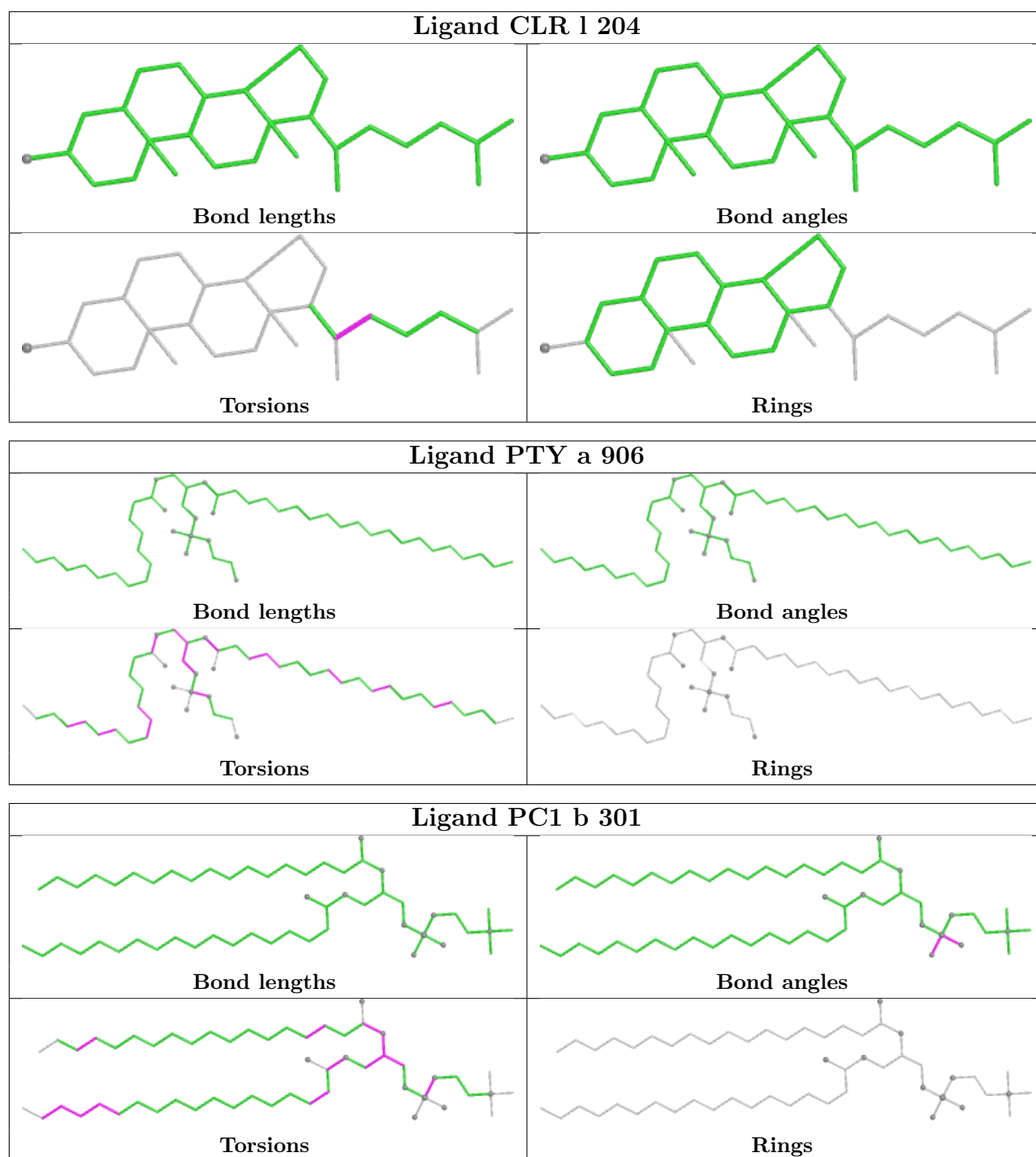


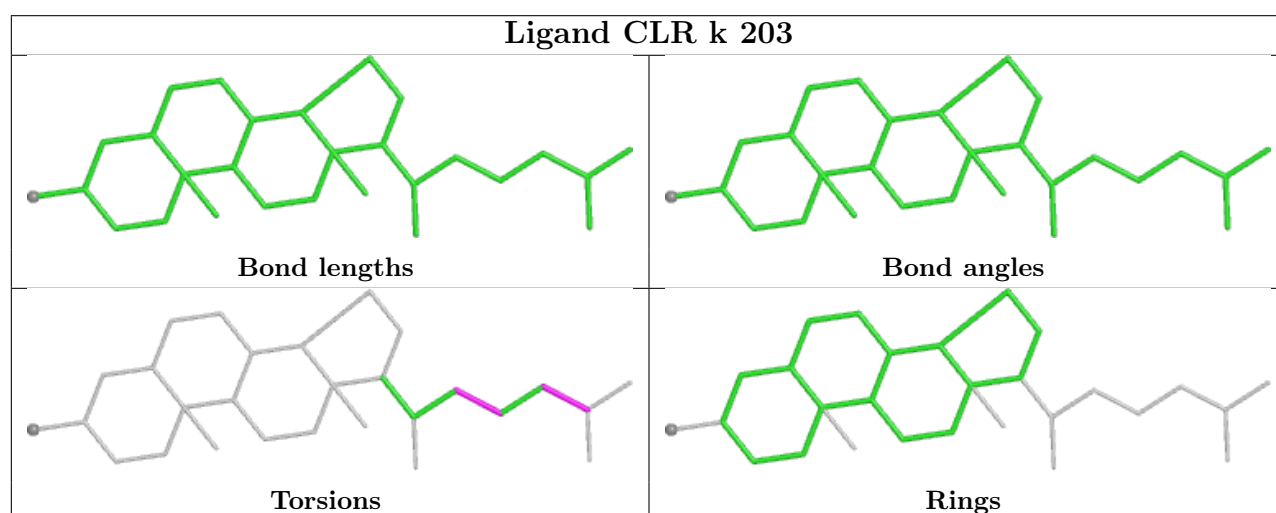
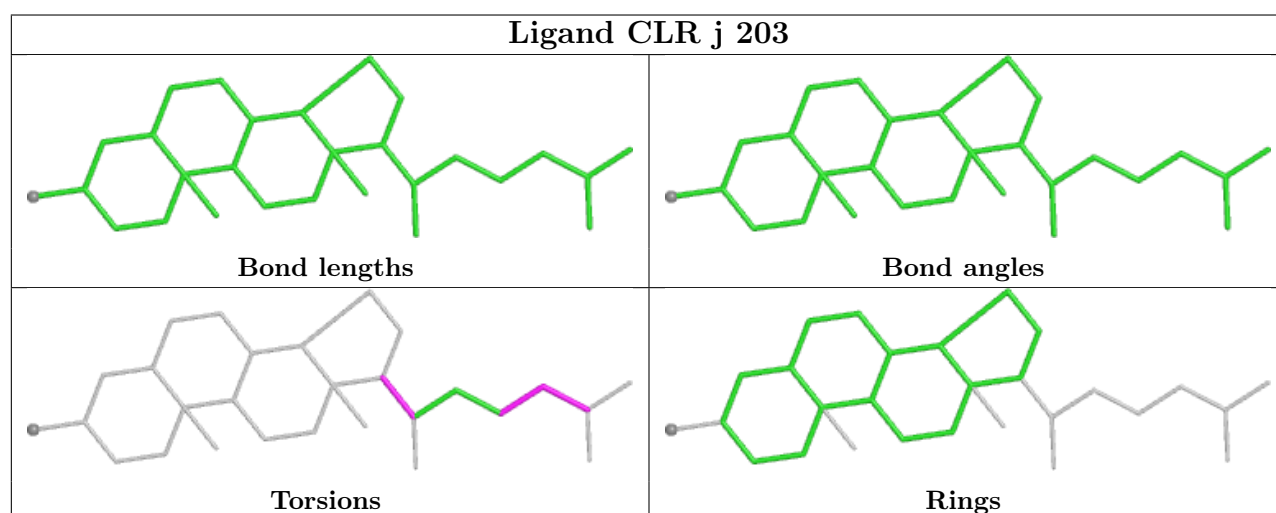
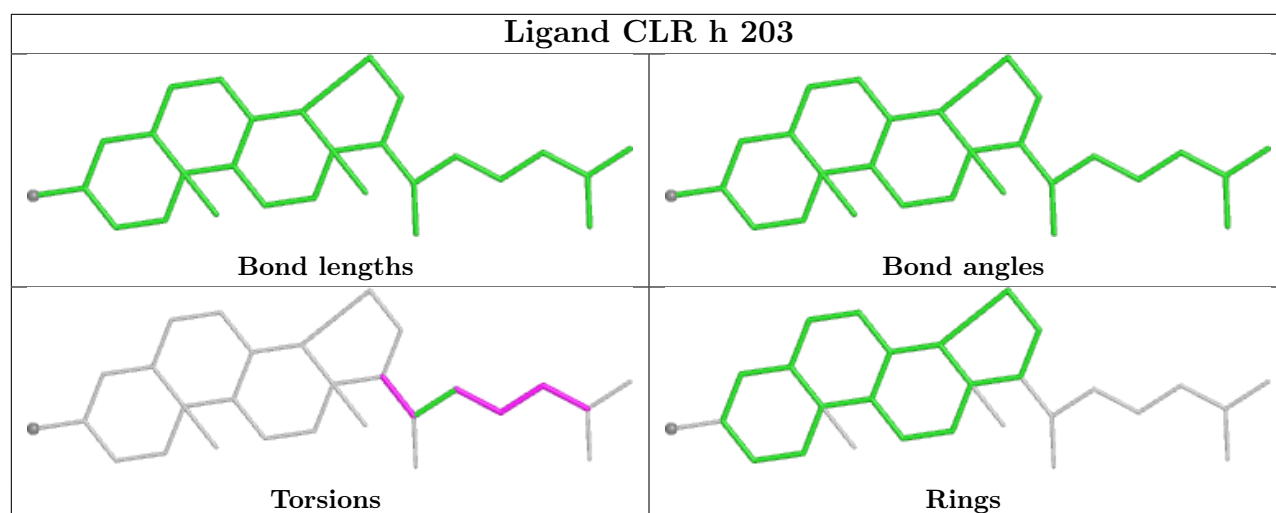


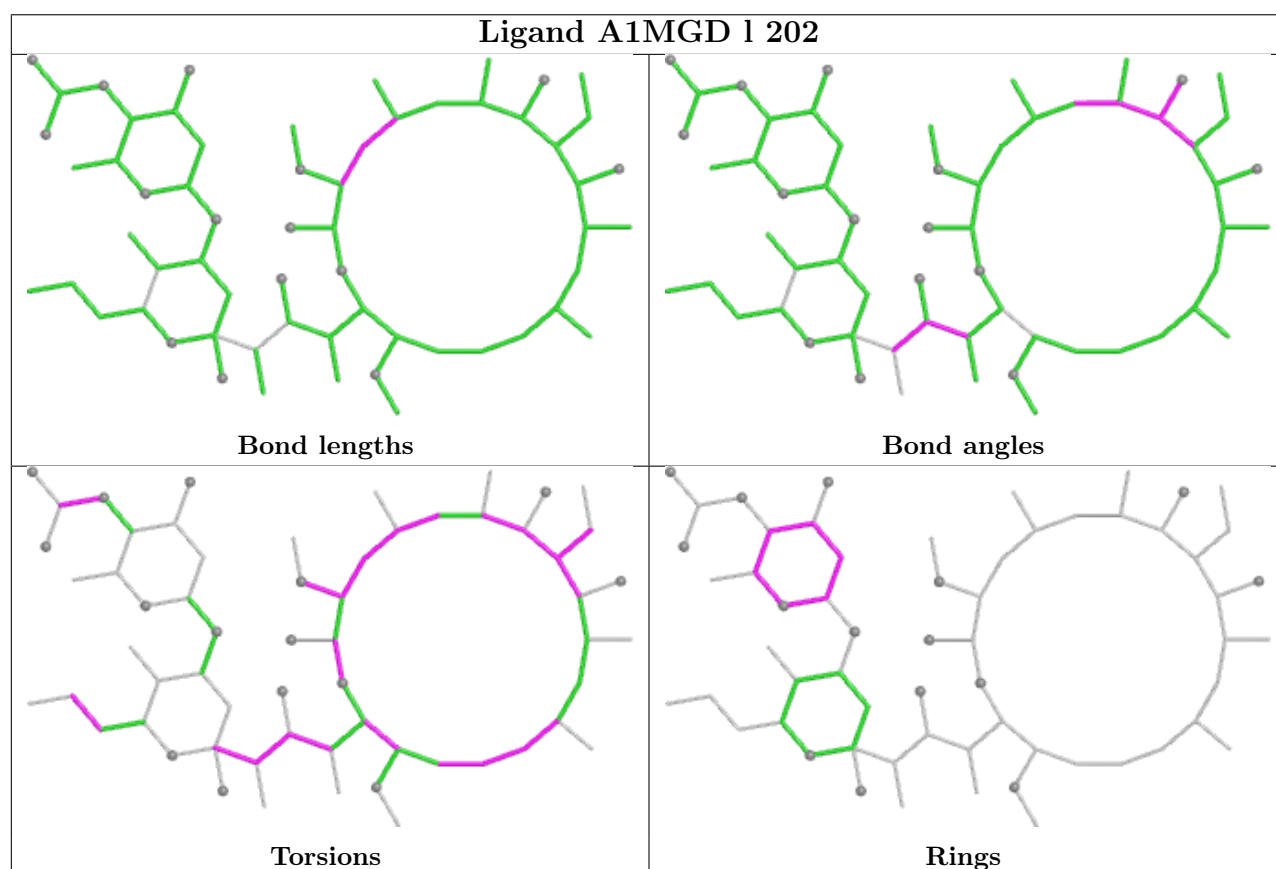
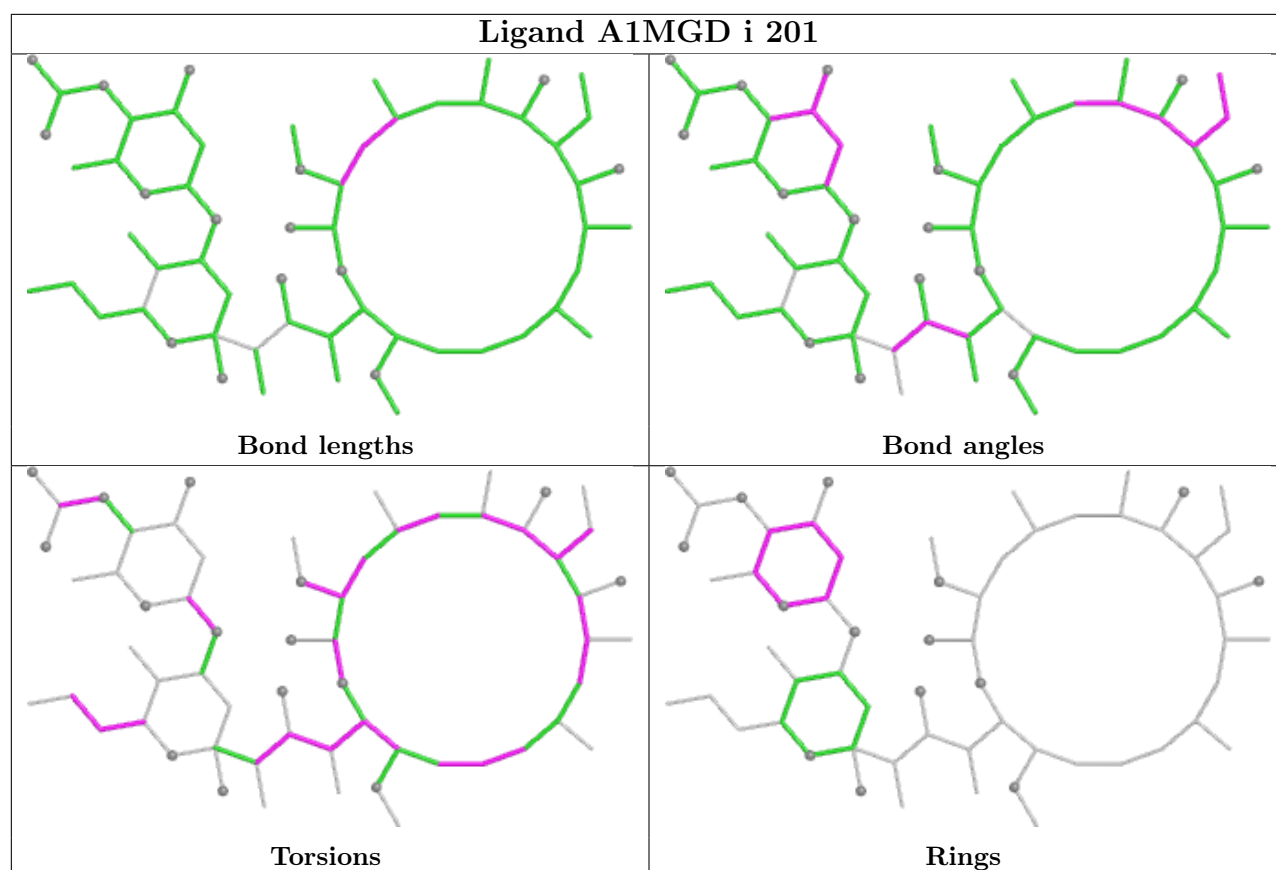


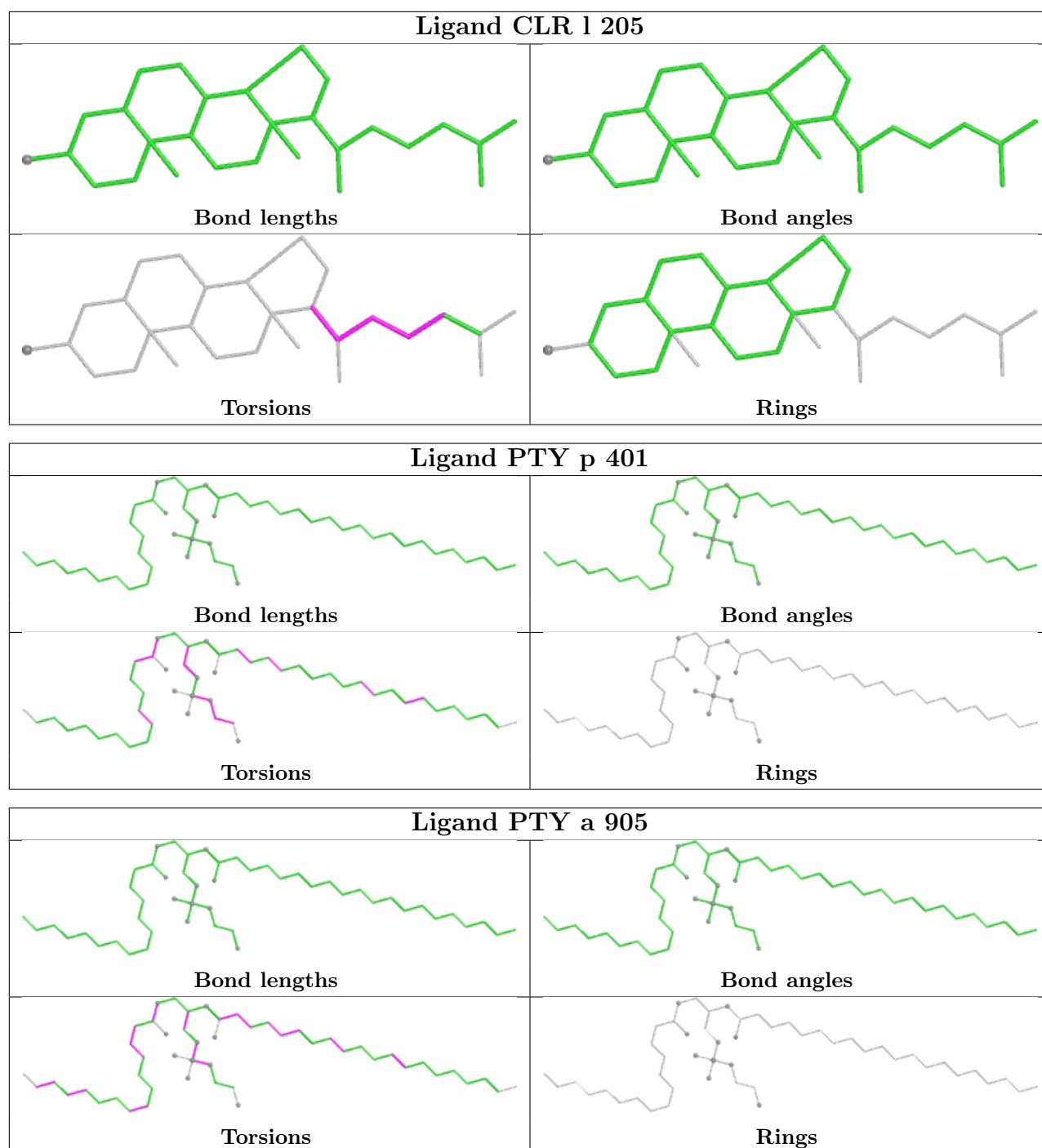


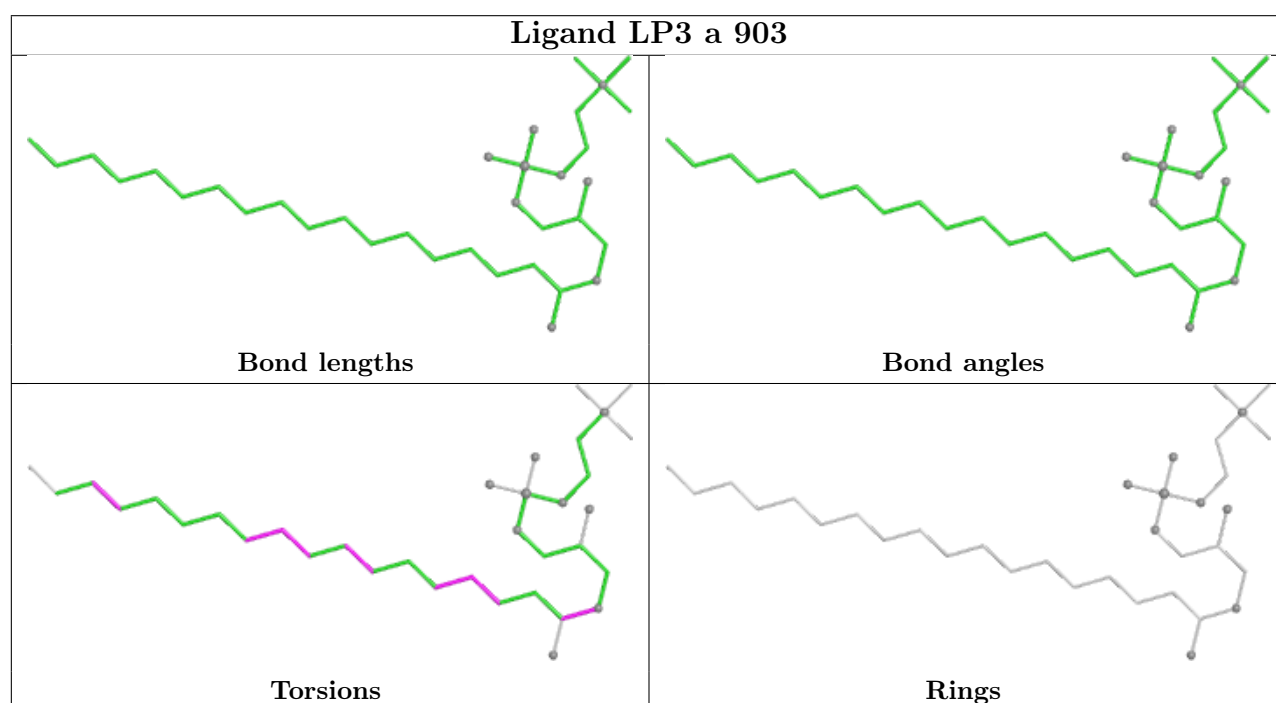
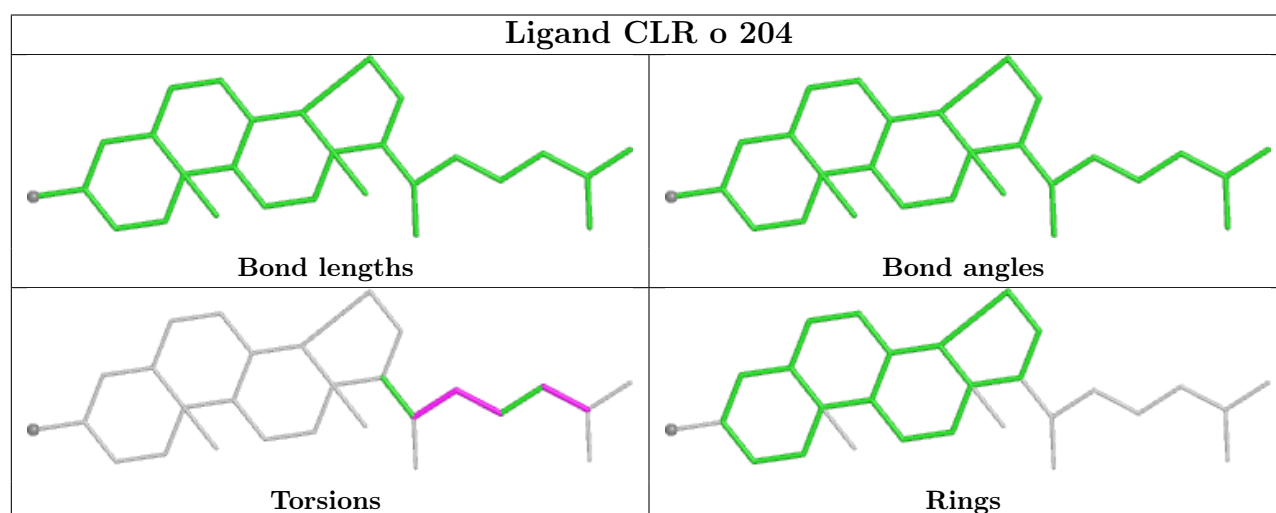
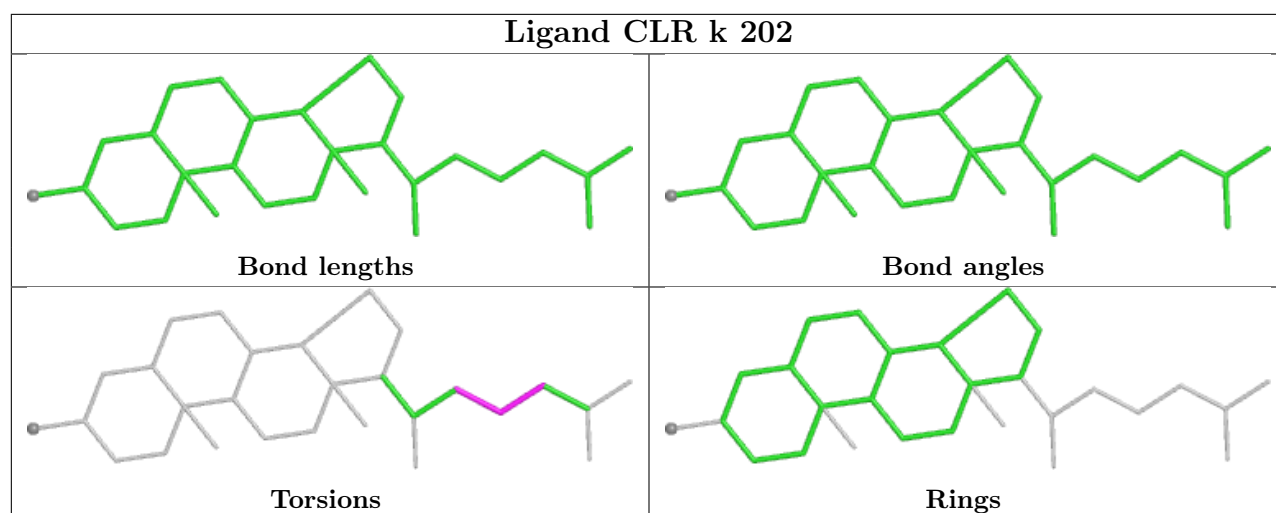


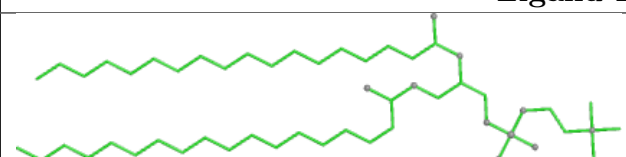
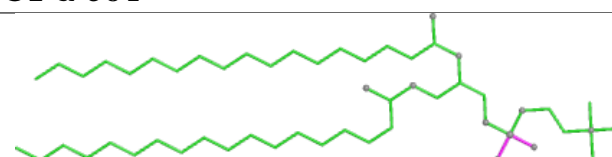
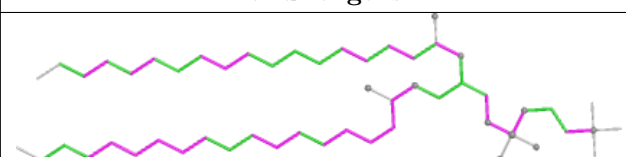
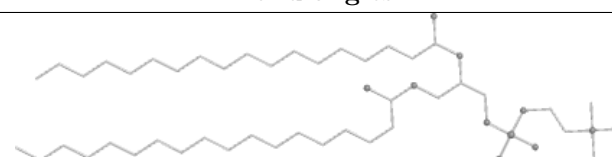
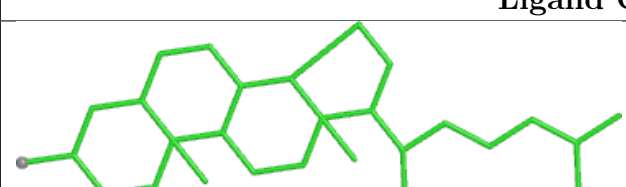
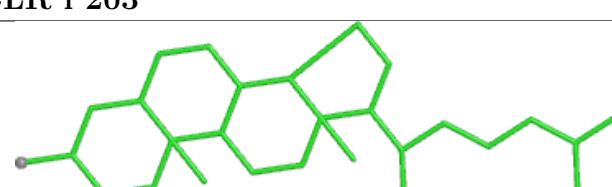
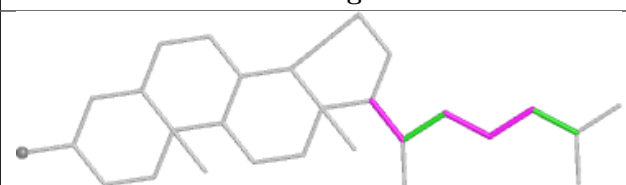
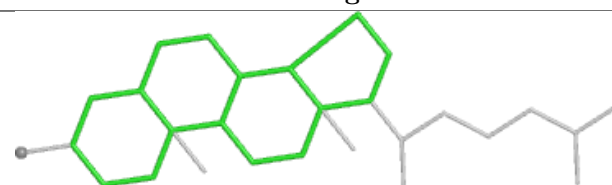
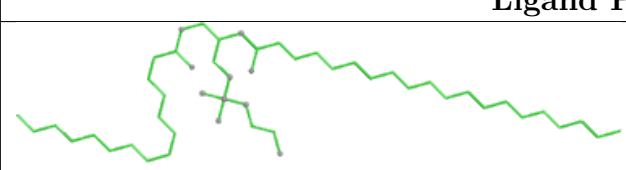
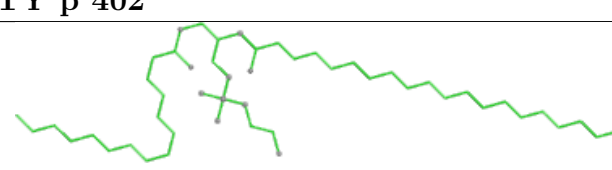
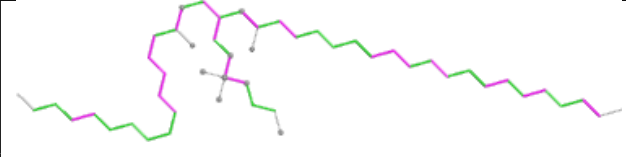
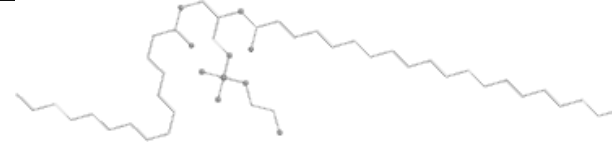


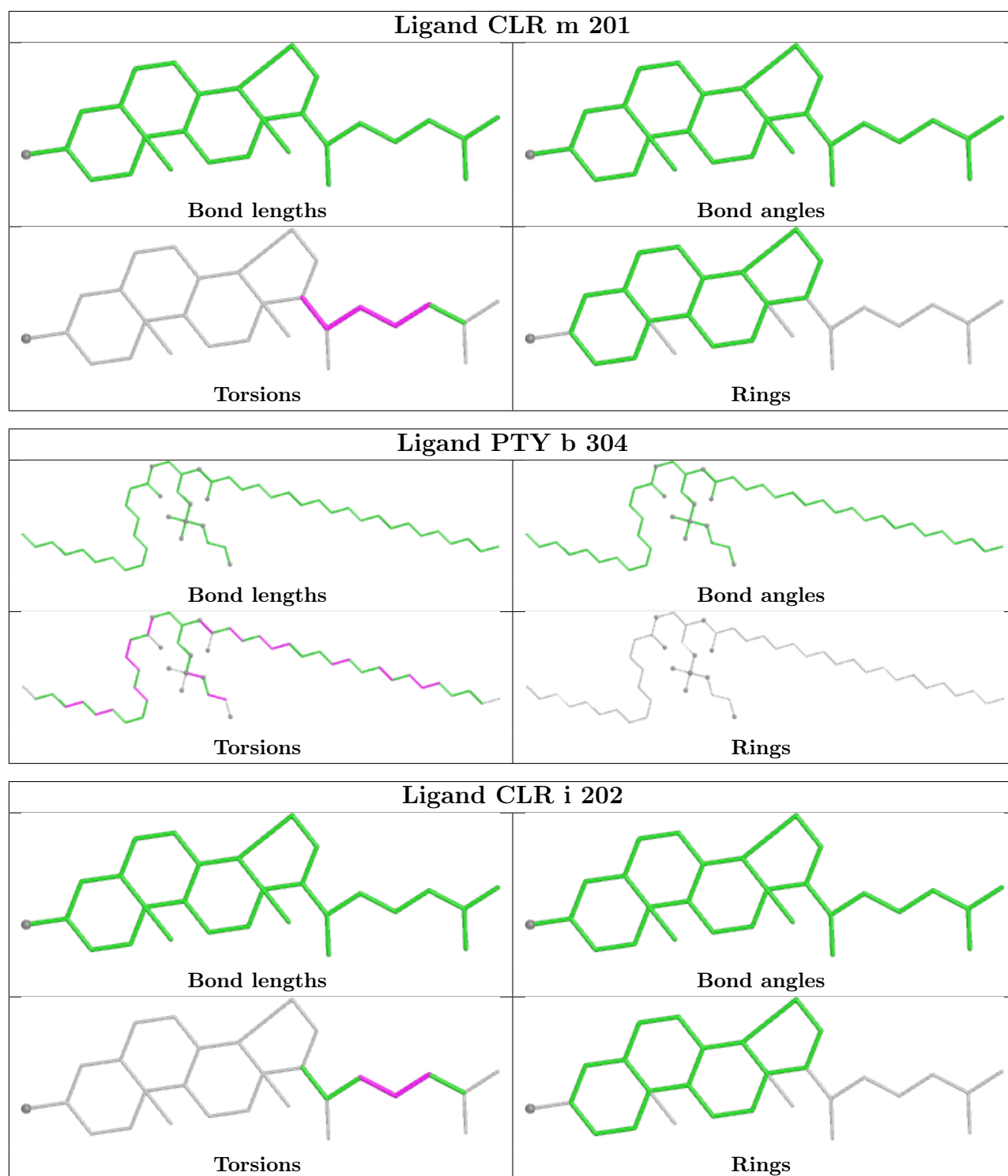


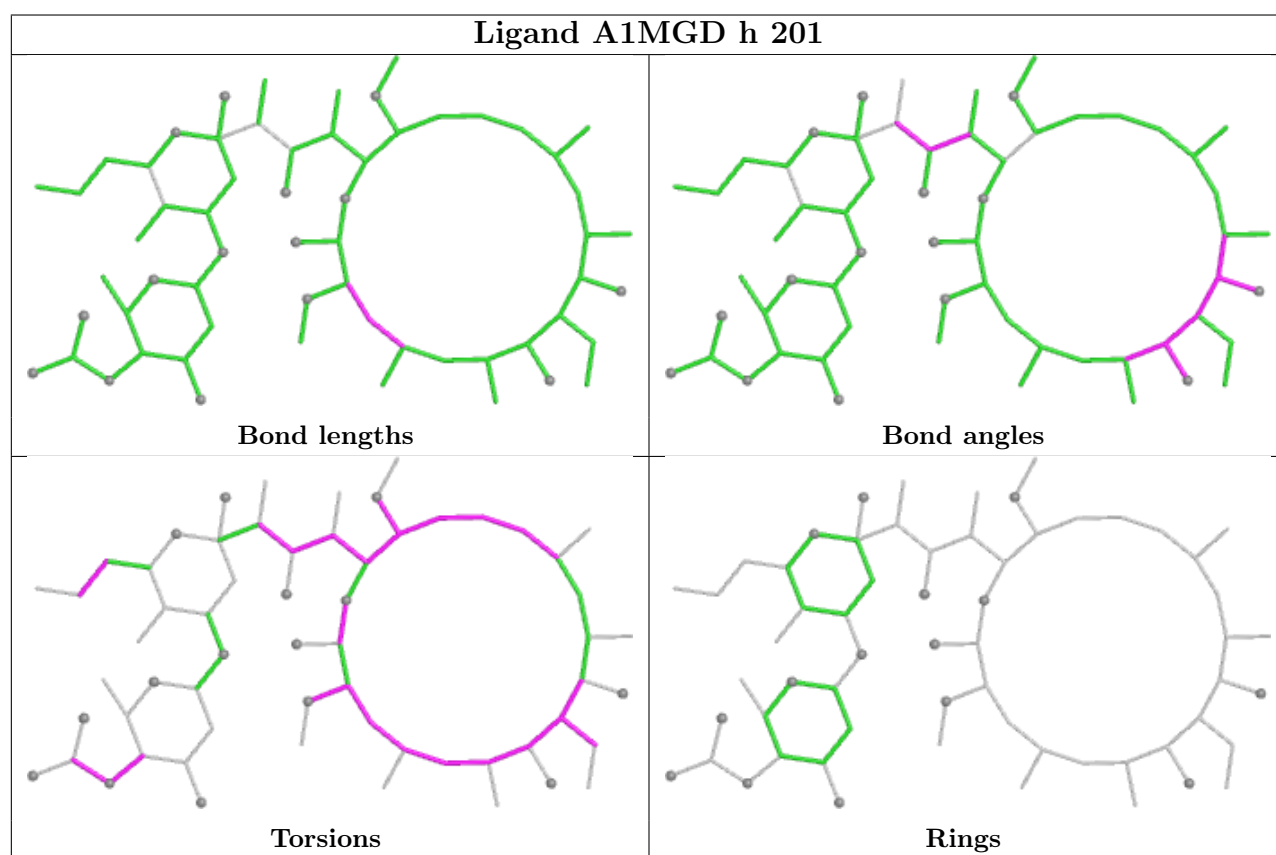
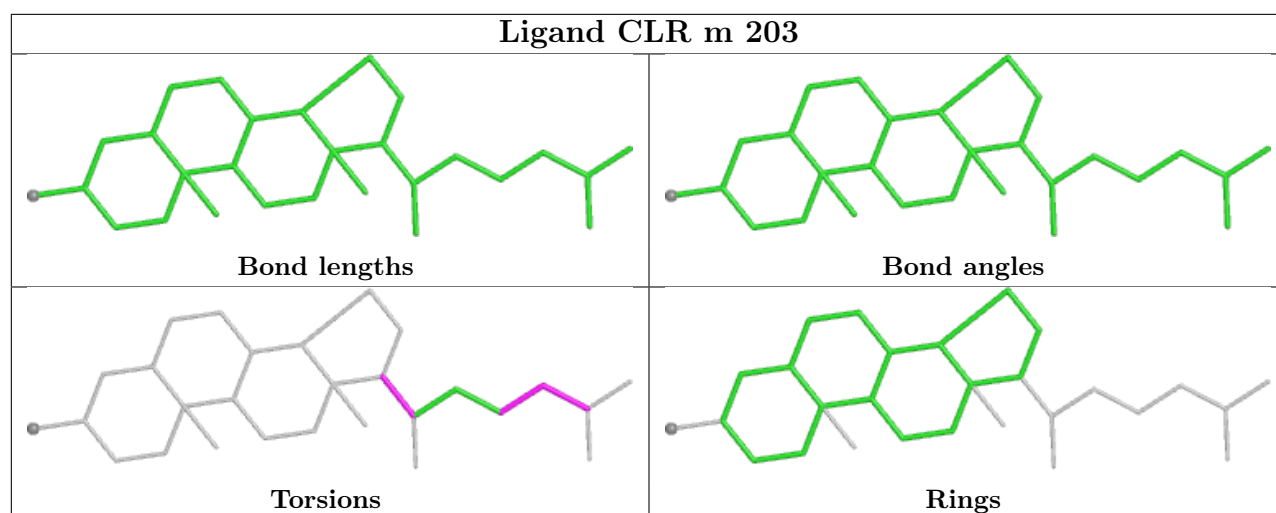


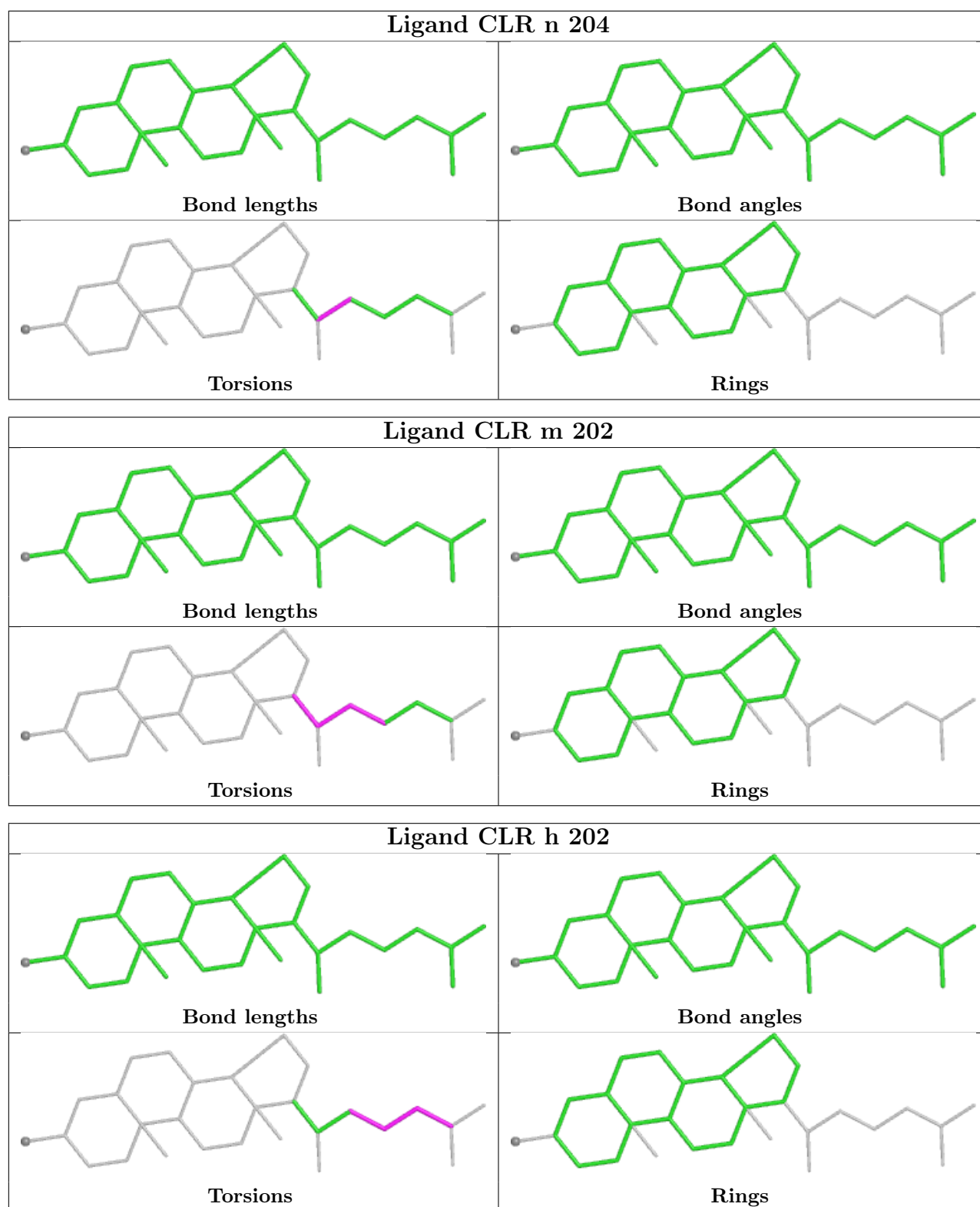


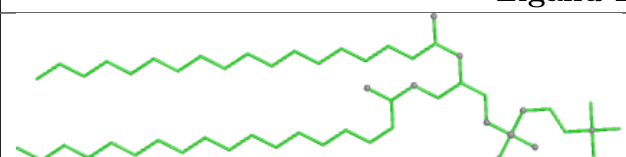
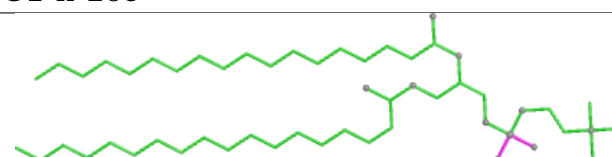
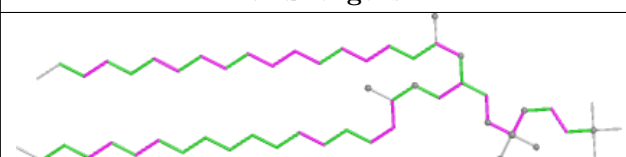
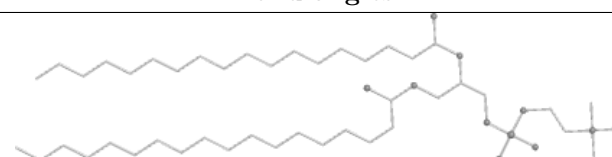


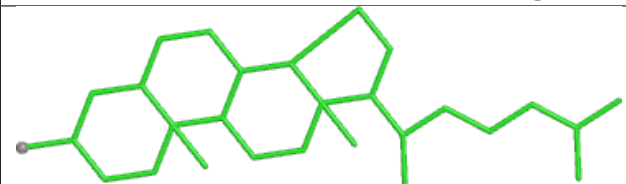
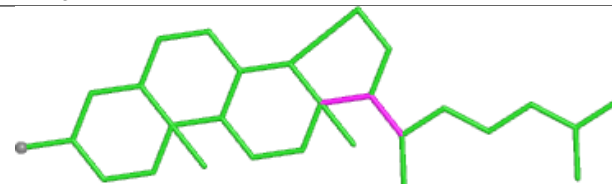
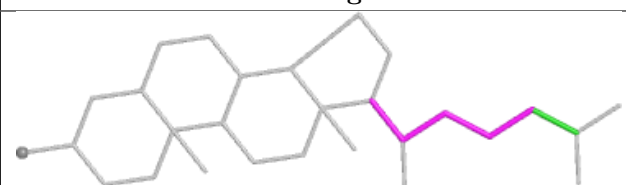
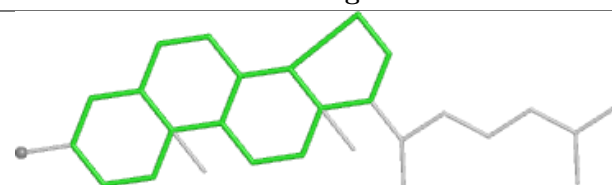
Ligand PC1 a 904	
 Bond lengths	 Bond angles
 Torsions	 Rings
Ligand CLR i 203	
 Bond lengths	 Bond angles
 Torsions	 Rings
Ligand PTY p 402	
 Bond lengths	 Bond angles
 Torsions	 Rings

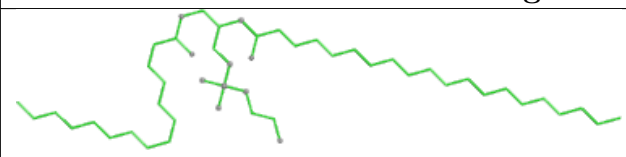
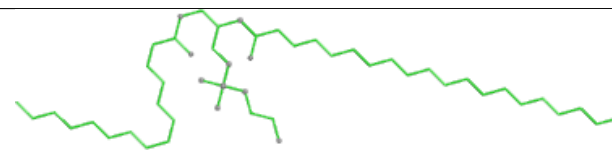
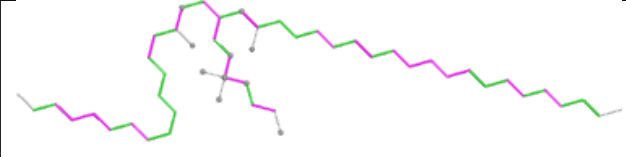
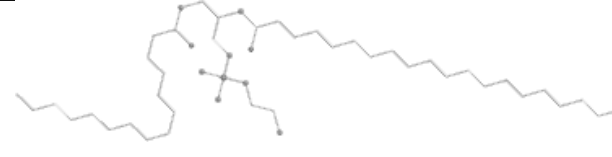


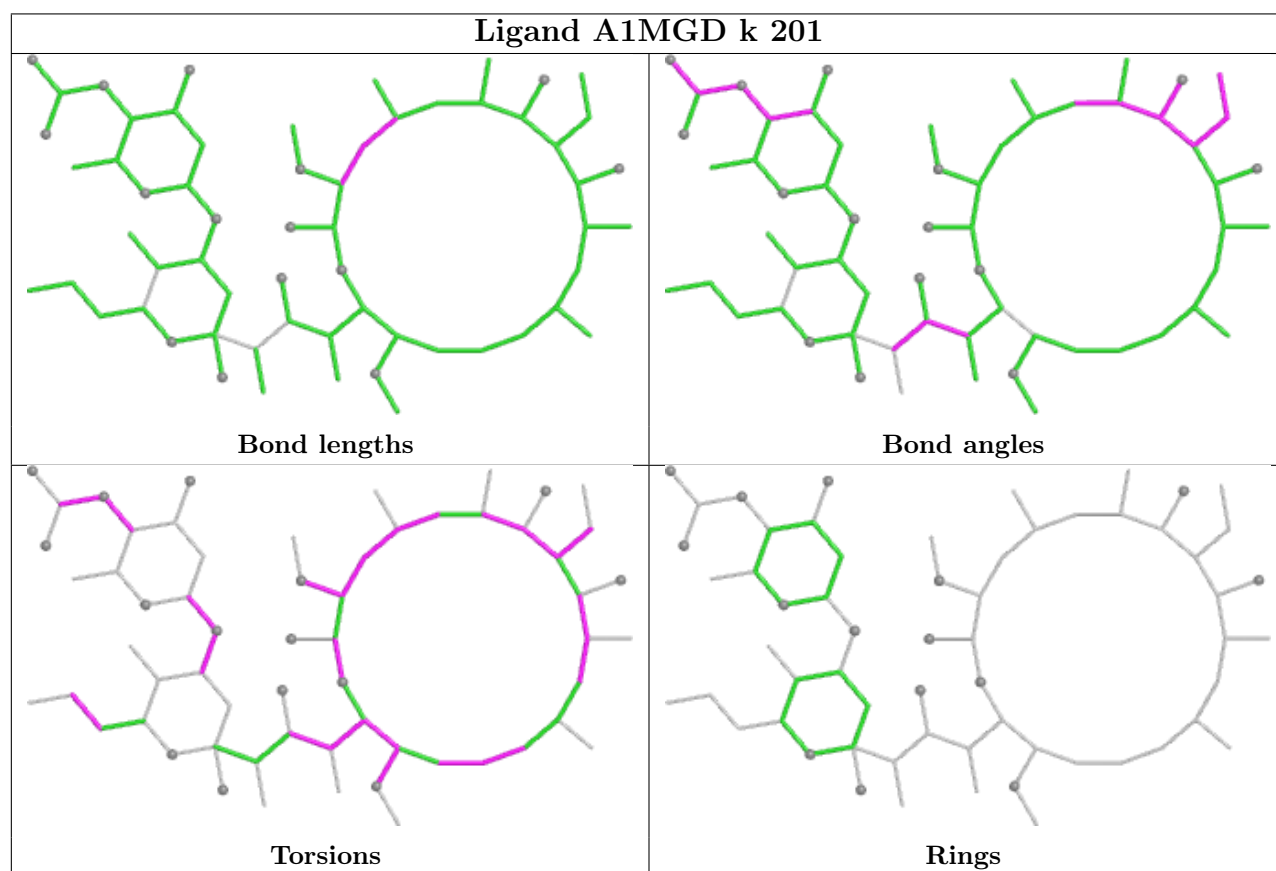
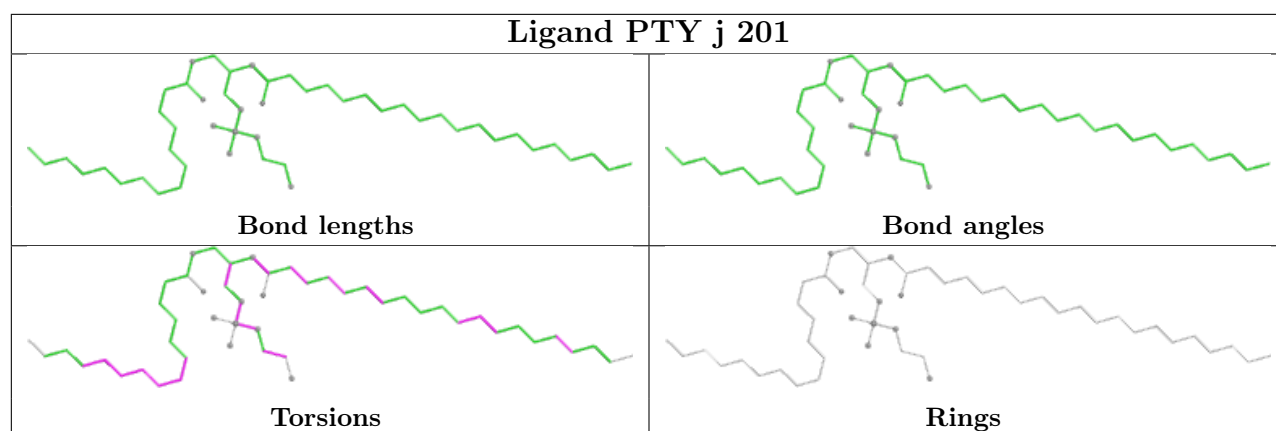


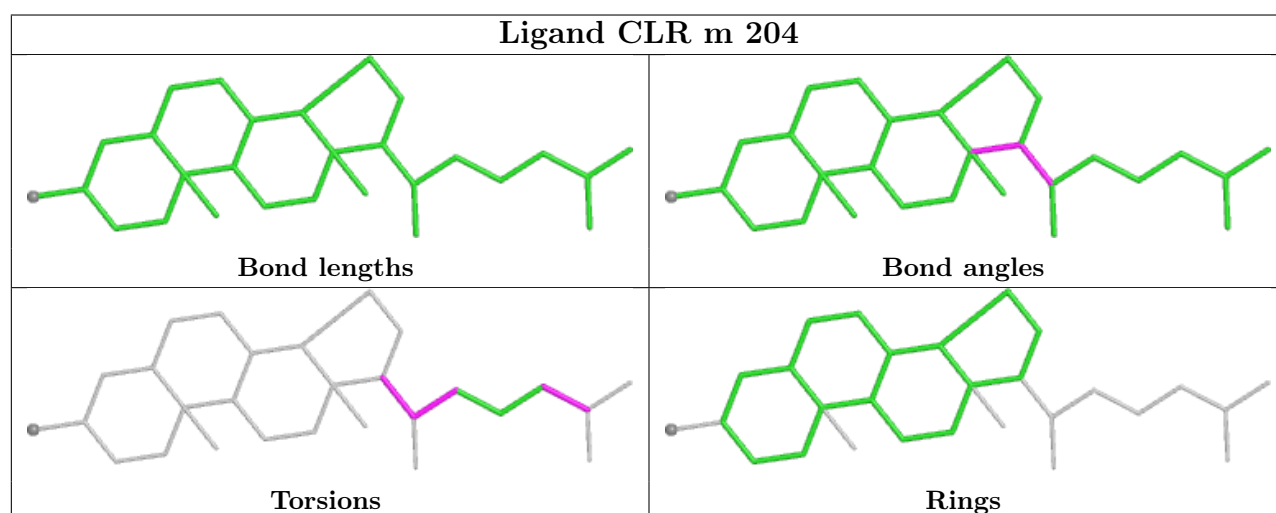
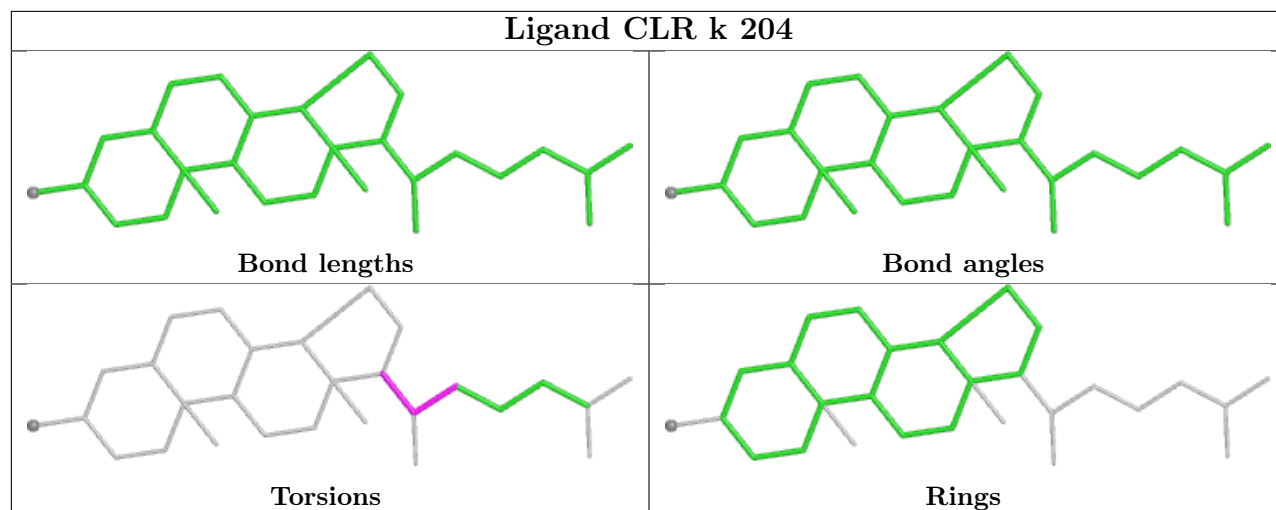


Ligand PC1 k 205	
	
Bond lengths	Bond angles
	
Torsions	Rings

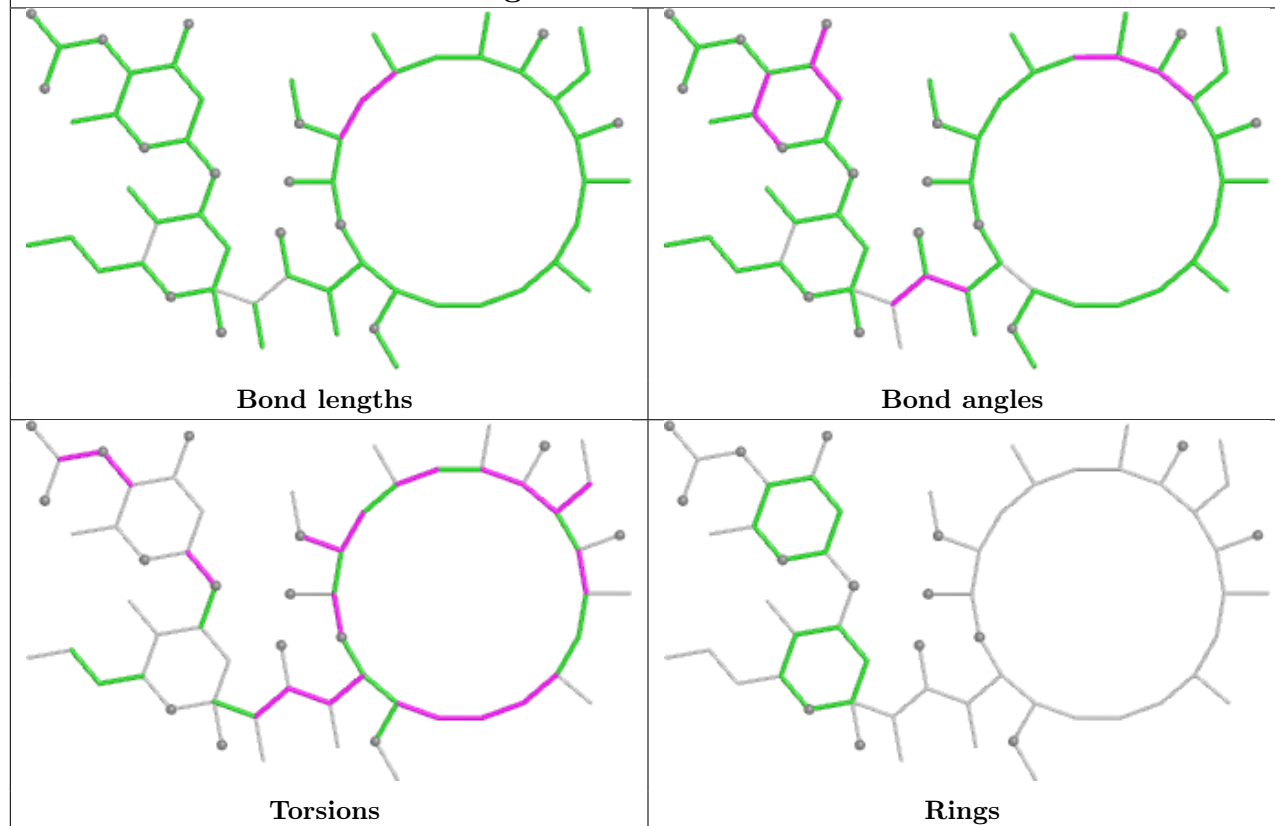
Ligand CLR j 204	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand PTY b 303	
	
Bond lengths	Bond angles
	
Torsions	Rings

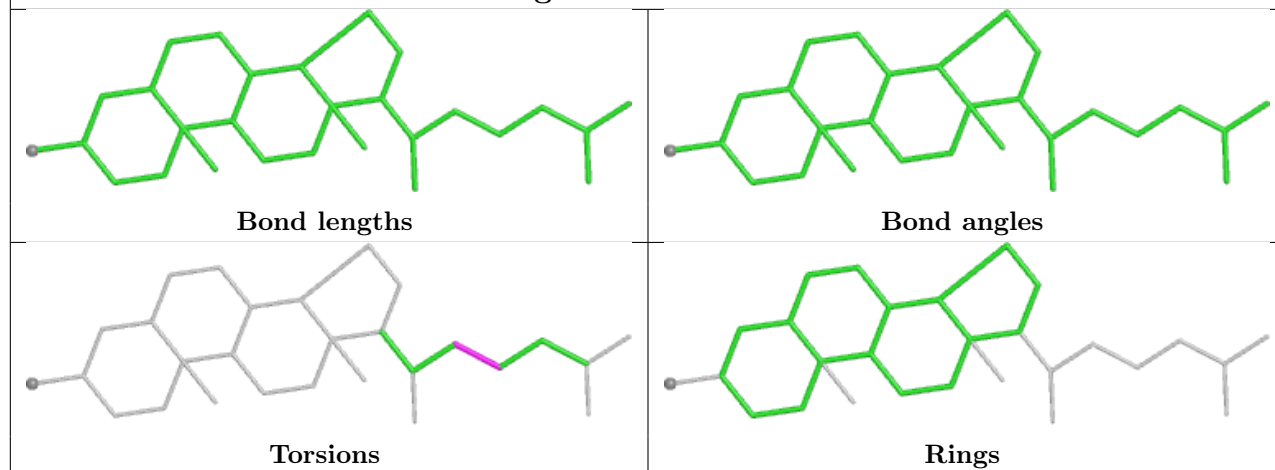


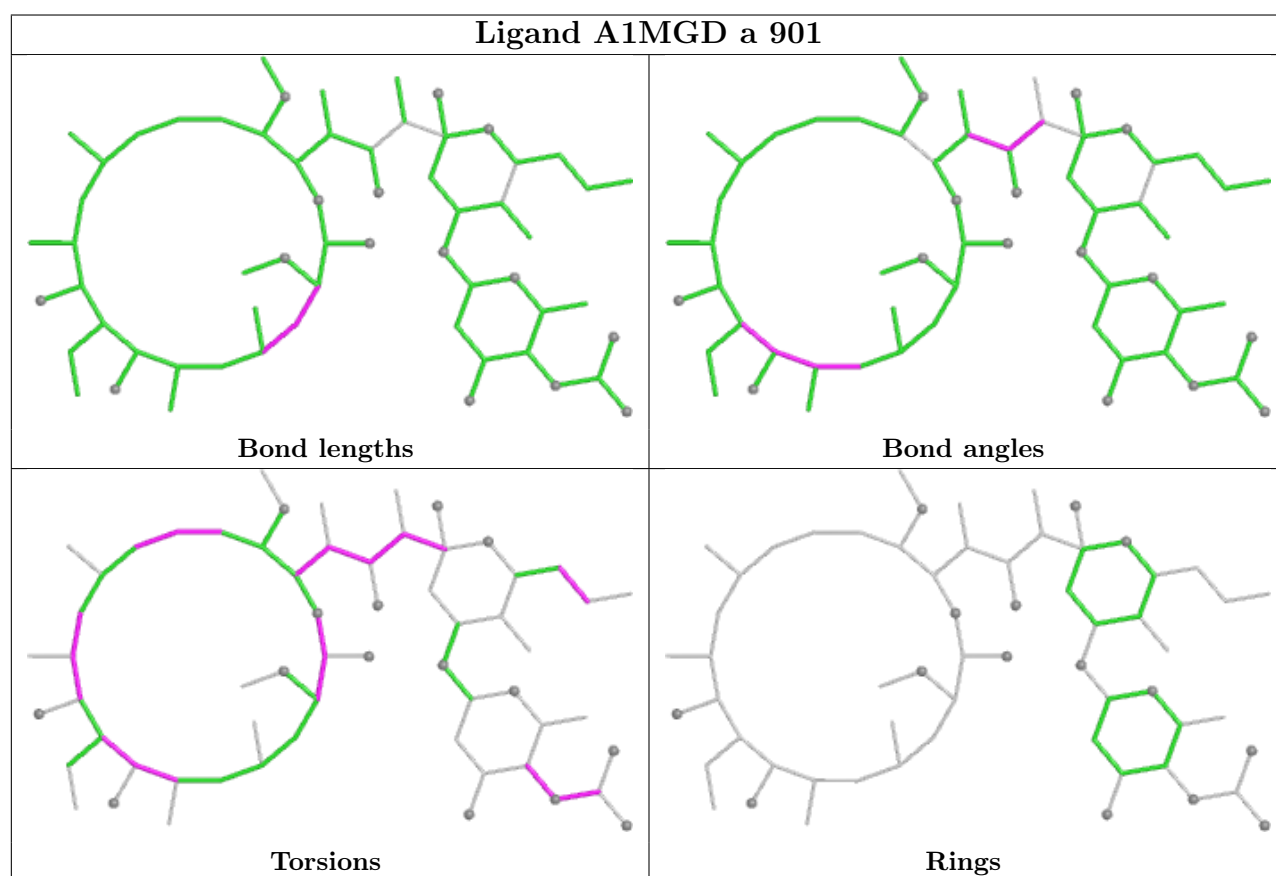
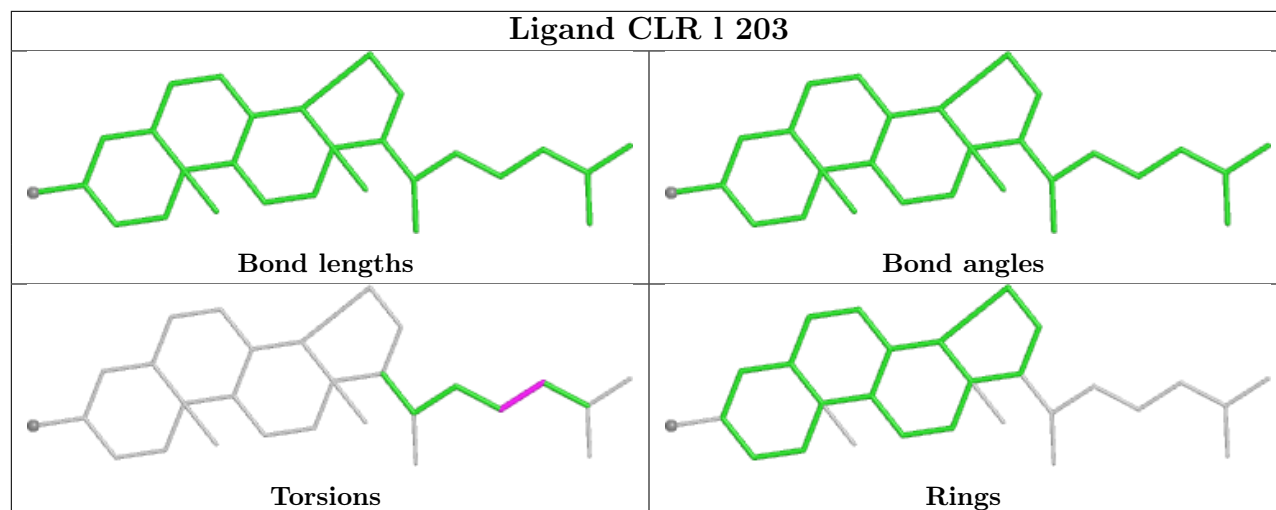


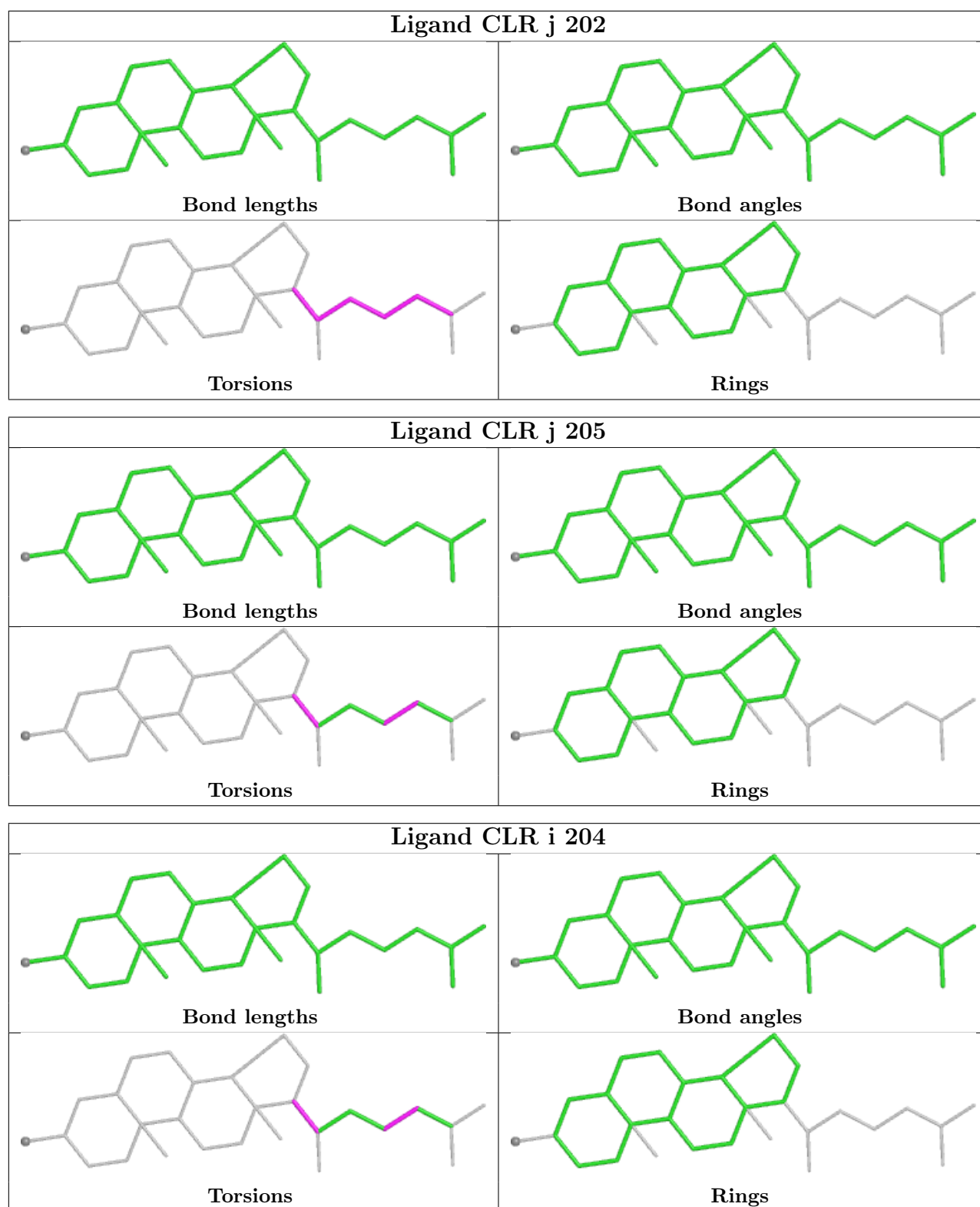
Ligand A1MGD n 201



Ligand CLR b 305







5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

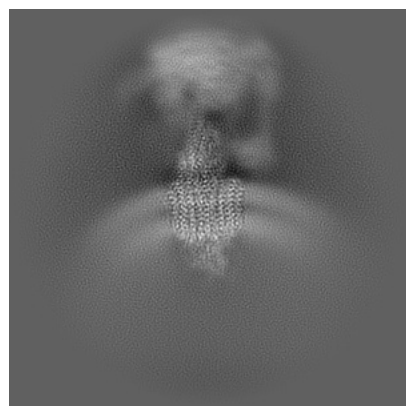
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-80481. These allow visual inspection of the internal detail of the map and identification of artifacts.

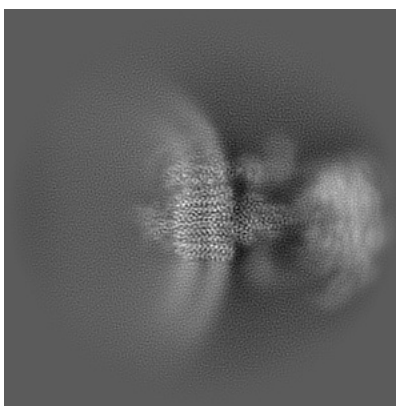
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

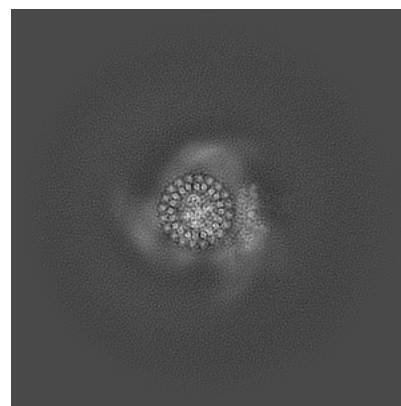
6.1.1 Primary map



X

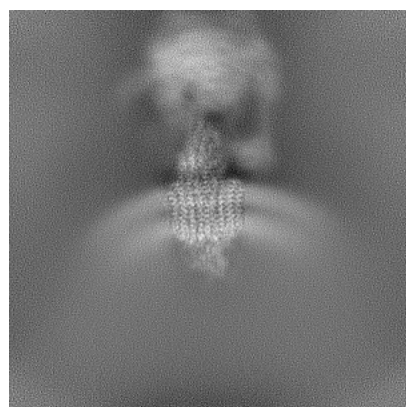


Y

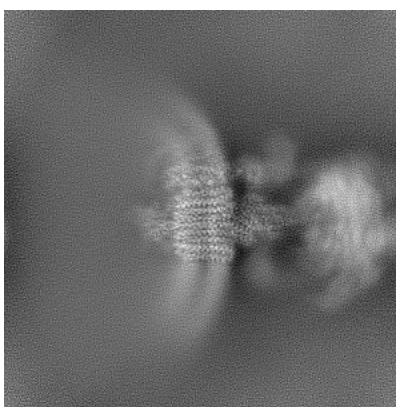


Z

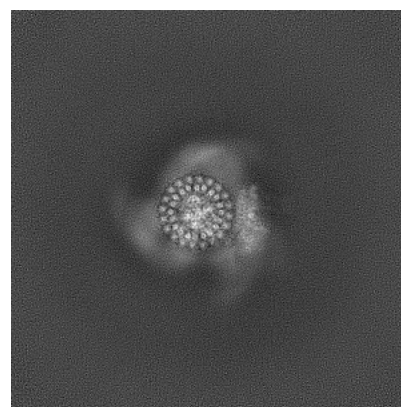
6.1.2 Raw map



X



Y

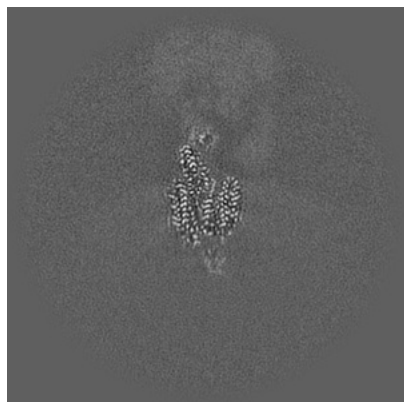


Z

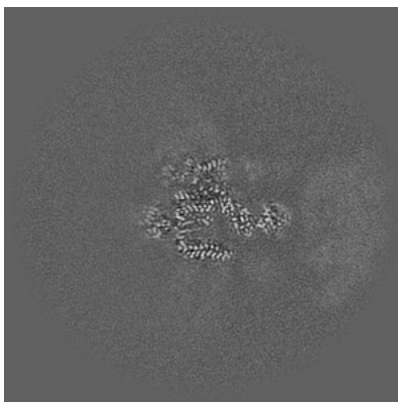
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

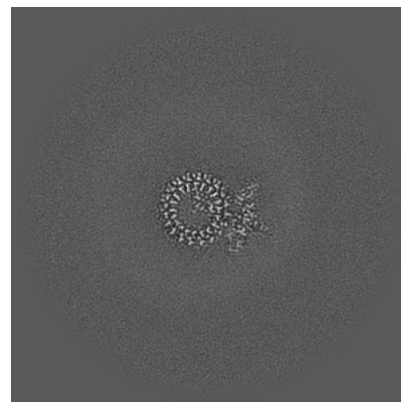
6.2.1 Primary map



X Index: 200

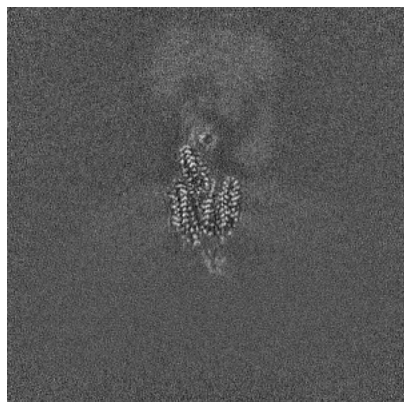


Y Index: 200

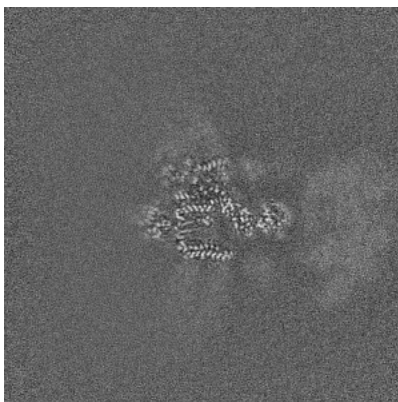


Z Index: 200

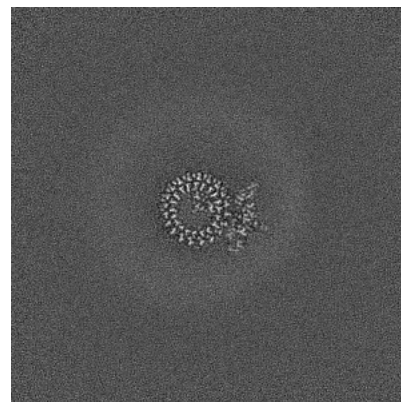
6.2.2 Raw map



X Index: 200



Y Index: 200

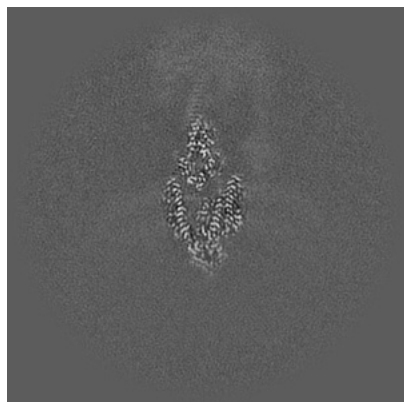


Z Index: 200

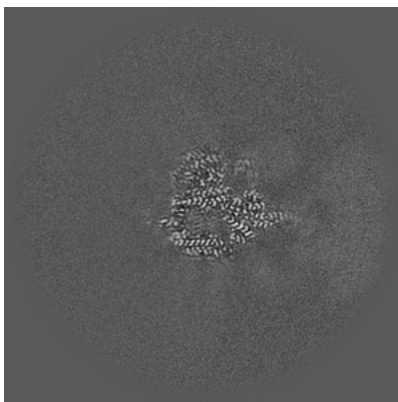
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

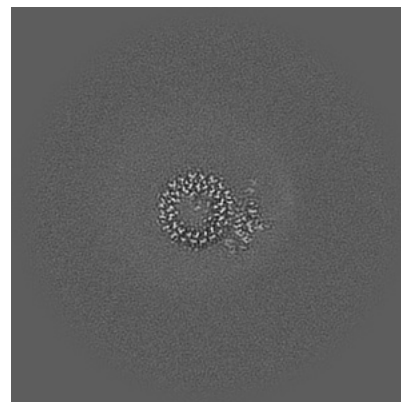
6.3.1 Primary map



X Index: 185

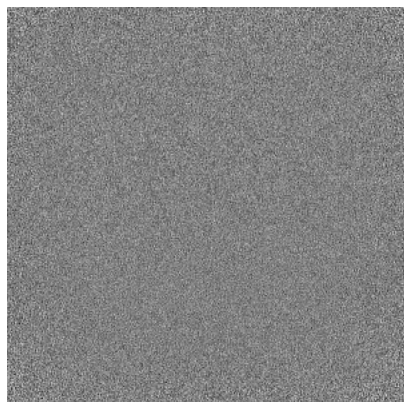


Y Index: 182

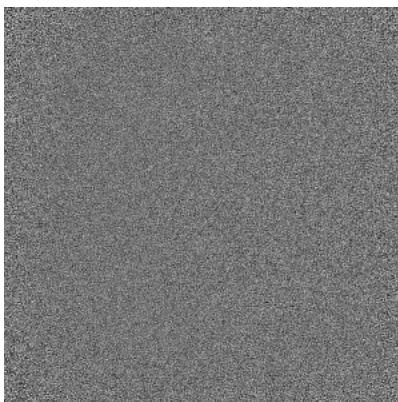


Z Index: 208

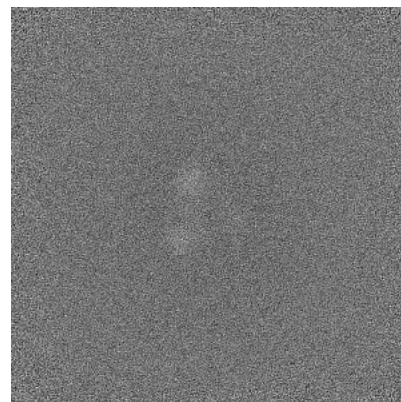
6.3.2 Raw map



X Index: 0



Y Index: 0

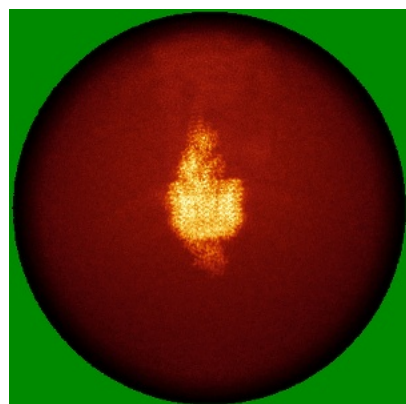


Z Index: 0

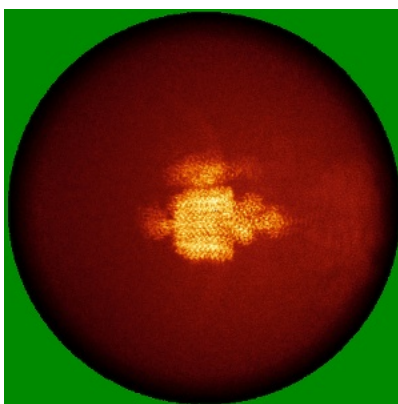
The images above show the largest variance slices of the map in three orthogonal directions.

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

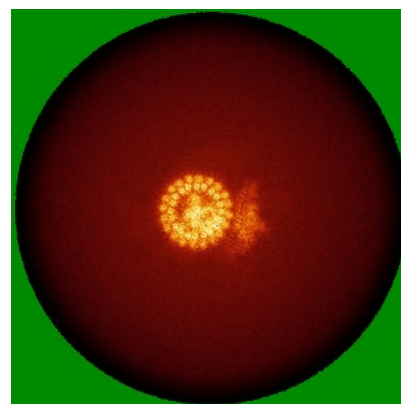
6.4.1 Primary map



X

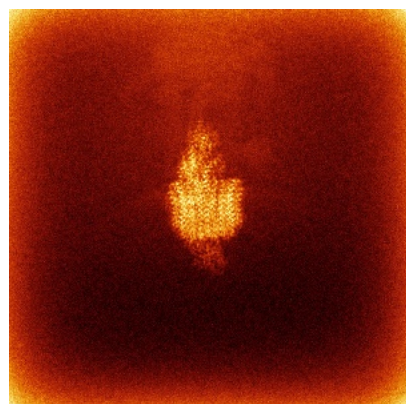


Y

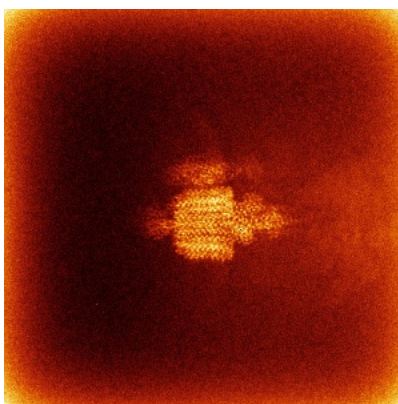


Z

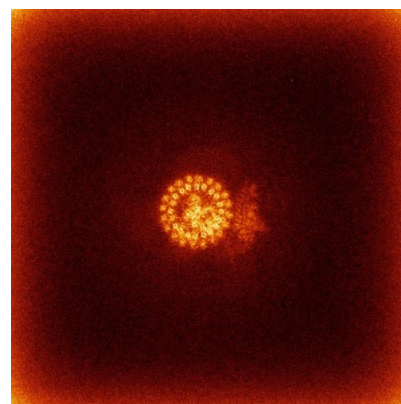
6.4.2 Raw map



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.

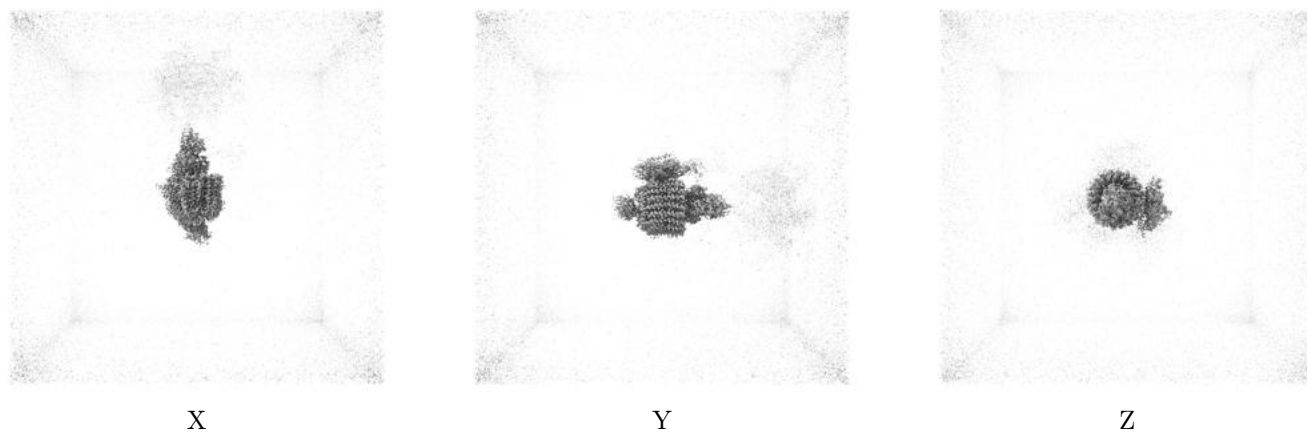
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.15. 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.

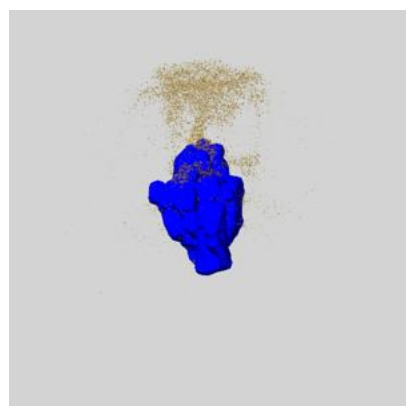
6.6 Mask visualisation [i](#)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

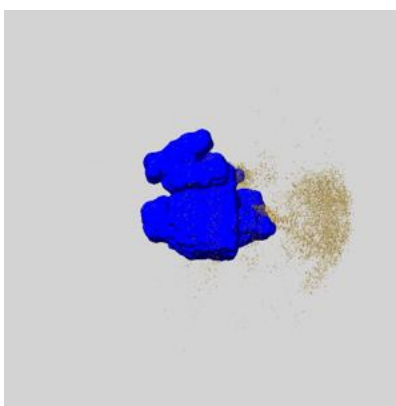
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

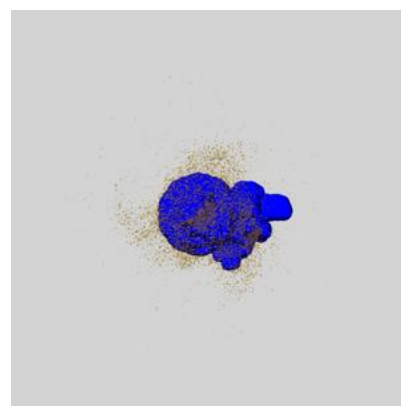
6.6.1 emd_80481_msk_1.map [i](#)



X



Y

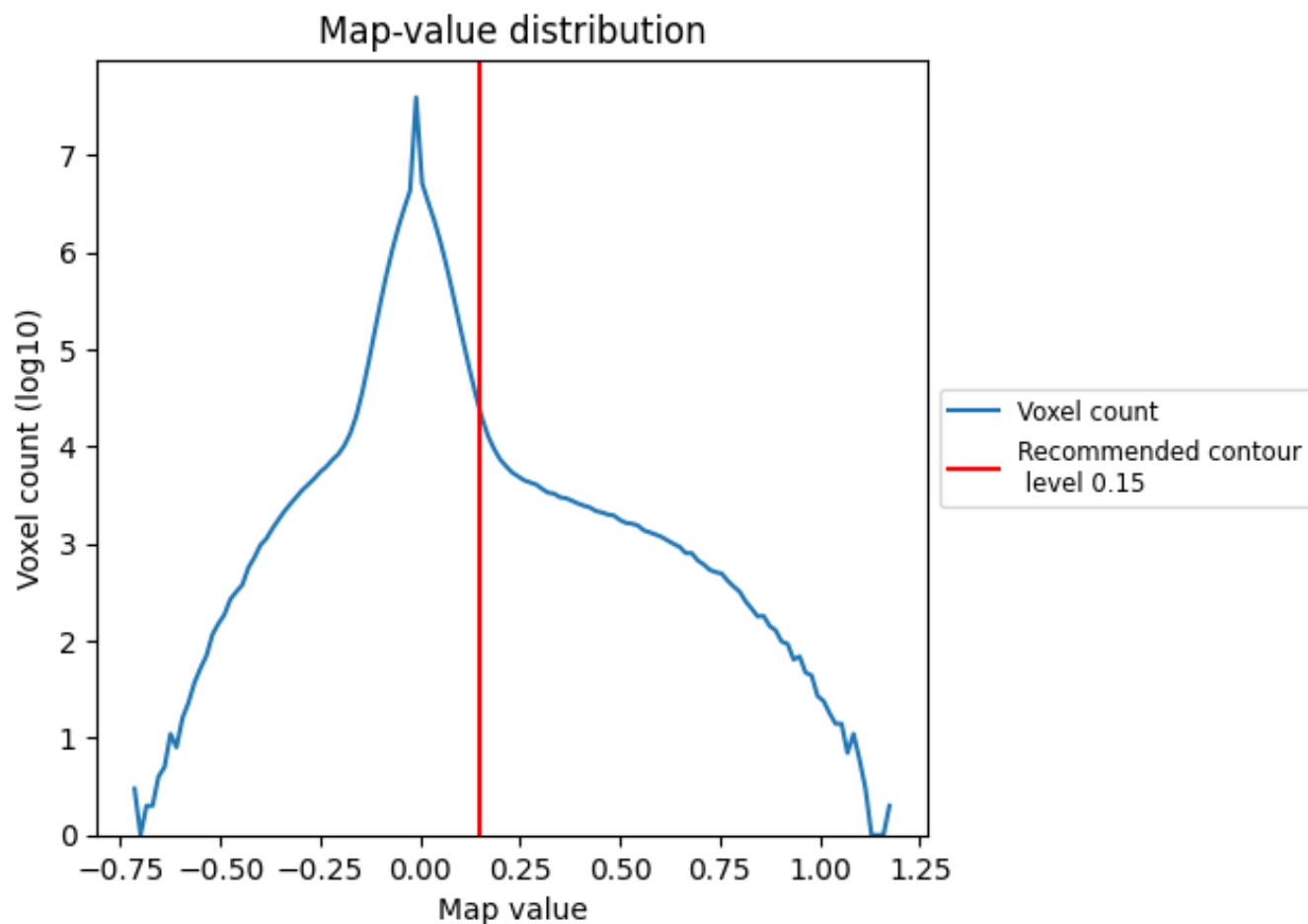


Z

7 Map analysis [i](#)

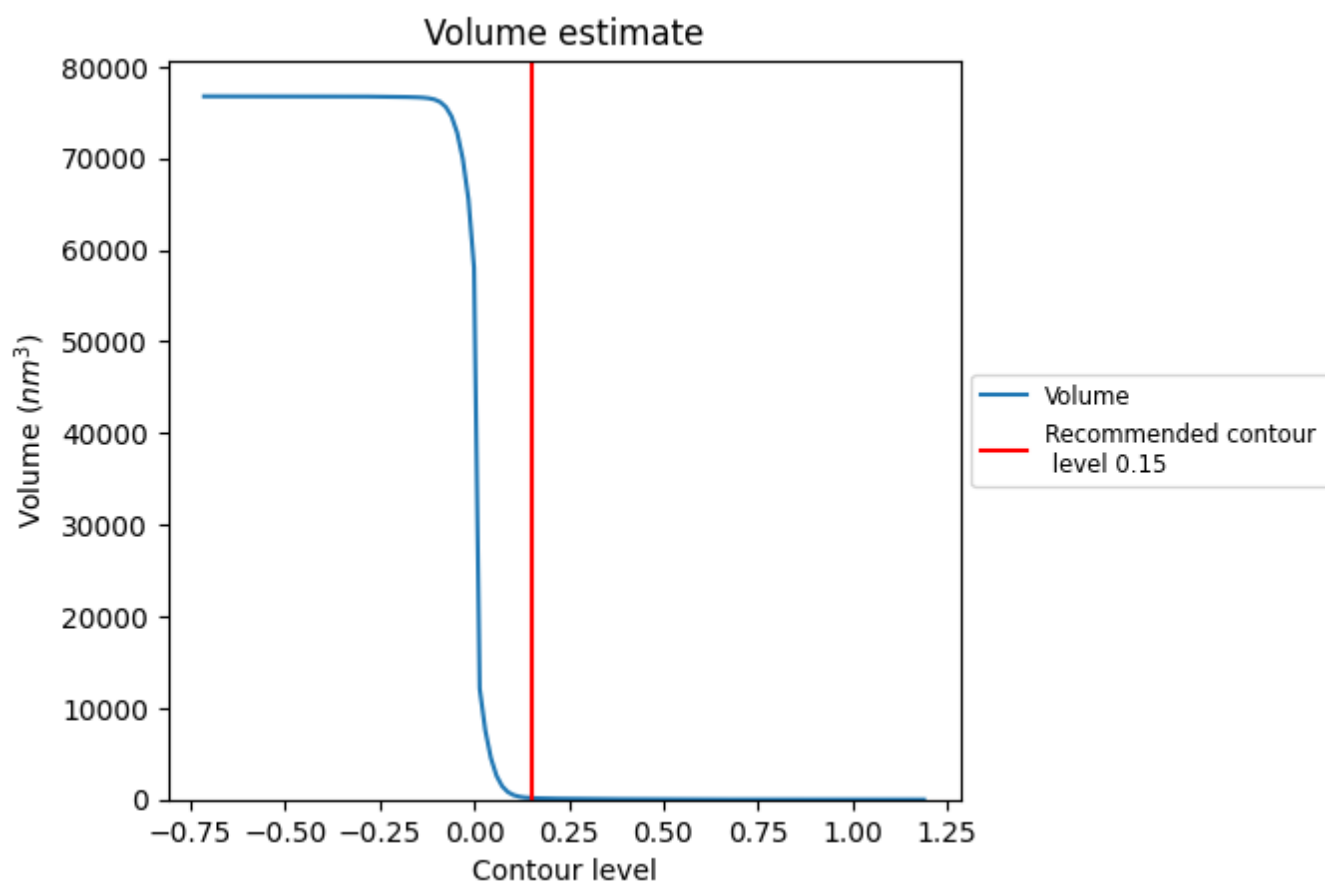
This section contains the results of statistical analysis of the map.

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.

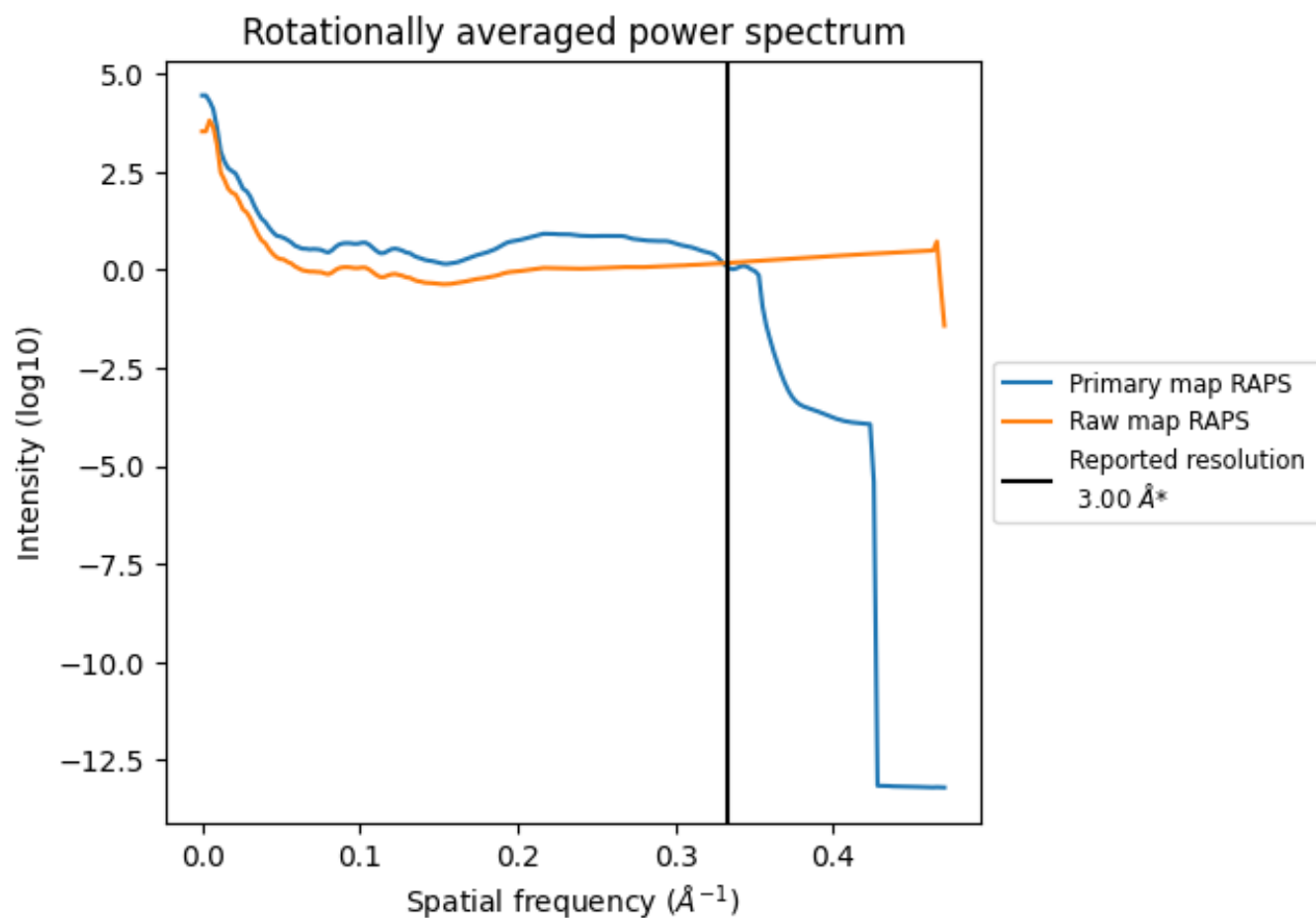
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 173 nm³; this corresponds to an approximate mass of 156 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 ⓘ

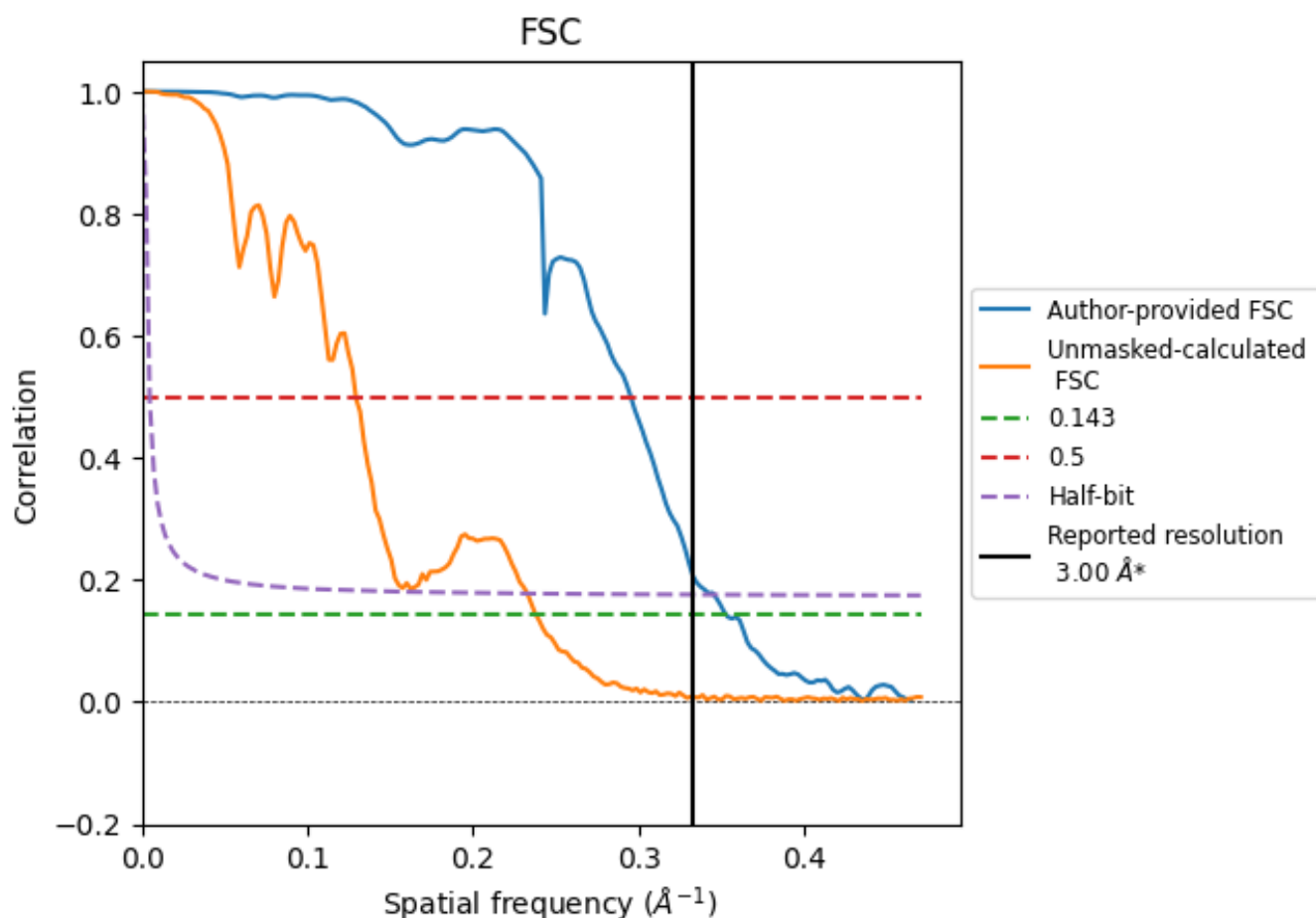


*Reported resolution corresponds to spatial frequency of 0.333 Å⁻¹

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 0.333 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

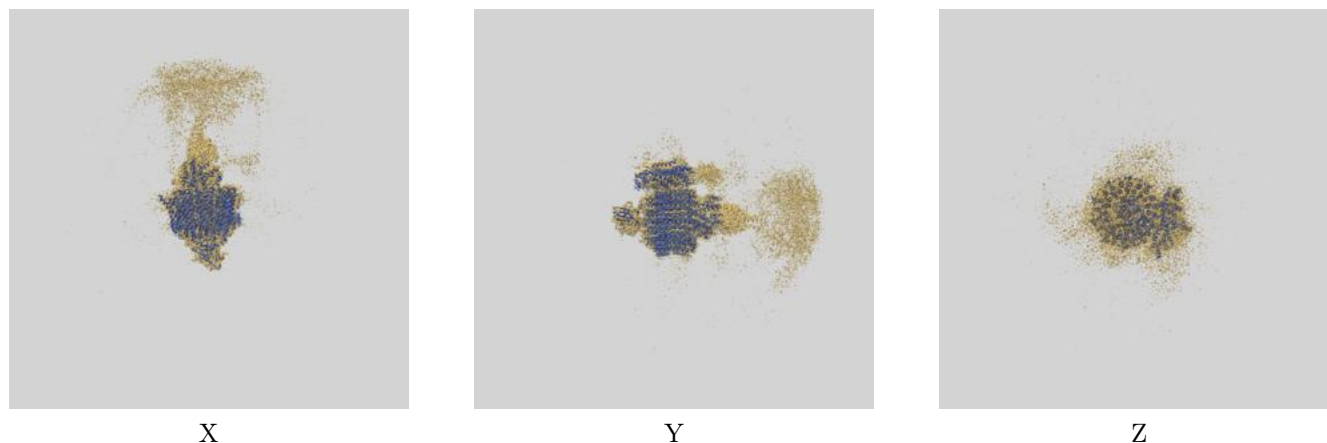
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.00	-	-
Author-provided FSC curve	2.83	3.39	2.89
Unmasked-calculated*	4.20	7.74	4.29

*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 4.20 differs from the reported value 3.0 by more than 10 %

9 Map-model fit [i](#)

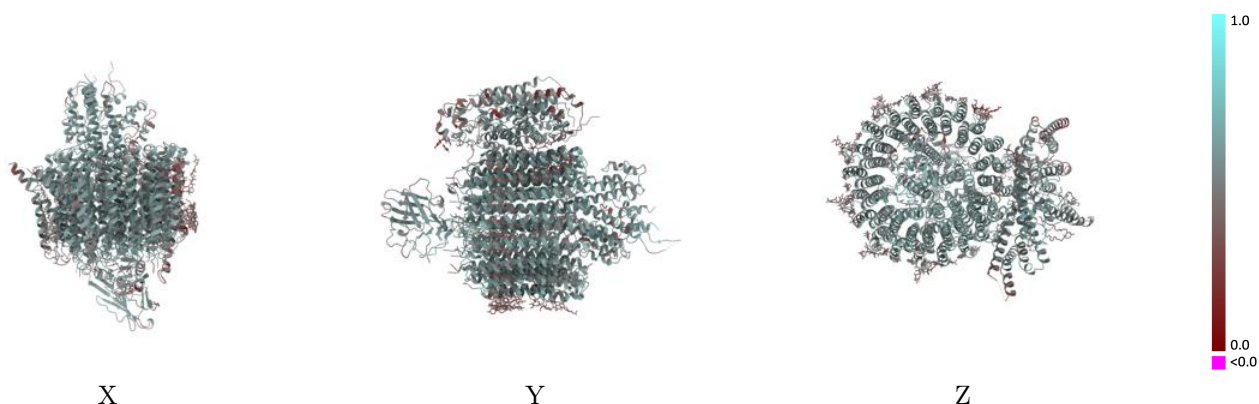
This section contains information regarding the fit between EMDB map EMD-80481 and PDB model 25YS. Per-residue inclusion information can be found in section [3](#) on page [12](#).

9.1 Map-model overlay [i](#)



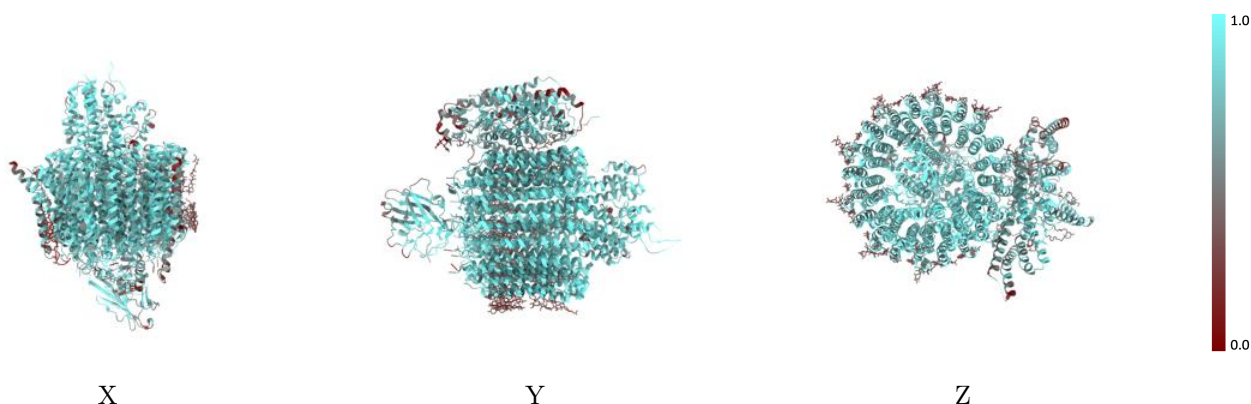
The images above show the 3D surface view of the map at the recommended contour level 0.15 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



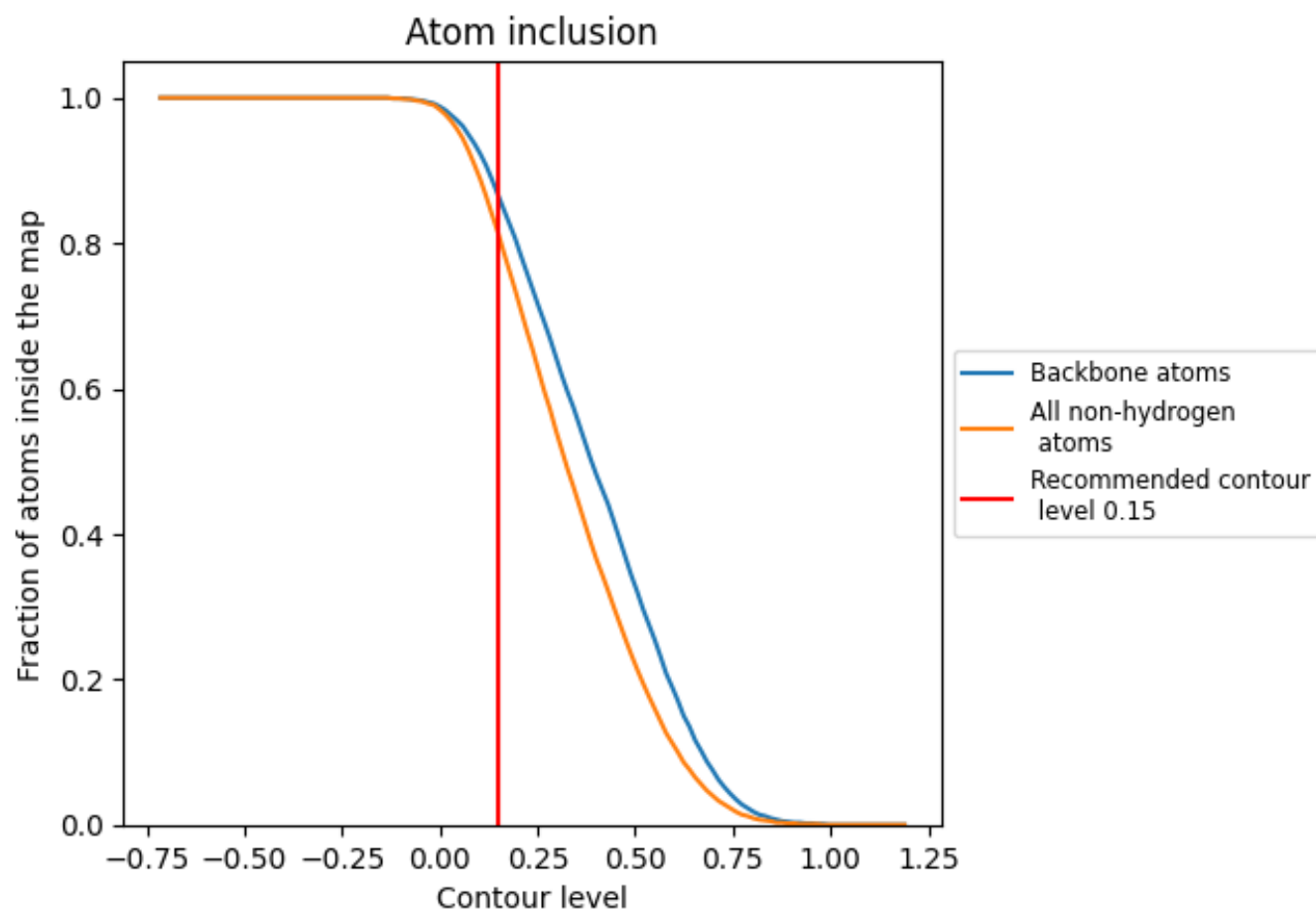
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.15).

9.4 Atom inclusion [i](#)



At the recommended contour level, 86% of all backbone atoms, 81% 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 (0.15) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8130	0.5480
H	0.9360	0.5840
P	0.8180	0.5550
Z	0.4480	0.4150
a	0.7240	0.5250
b	0.8870	0.5870
d	0.8650	0.5670
e	0.7370	0.5070
f	0.5840	0.4510
h	0.8380	0.5460
i	0.8210	0.5460
j	0.8390	0.5550
k	0.8180	0.5520
l	0.7840	0.5260
m	0.8480	0.5630
n	0.8070	0.5420
o	0.8440	0.5590
p	0.8330	0.5450
r	0.9030	0.5780

