Full wwPDB EM Validation Report ⓘ

Jan 7, 2025 – 10:22 PM EST

PDB ID	:	9CL2
EMDB ID	:	EMD-45659
Title	:	Particulate methane monooxygenase in washed native membranes
Authors	:	Tucci, F.J.; Rosenzweig, A.C.
Deposited on	:	2024-07-10
Resolution	:	2.42 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:

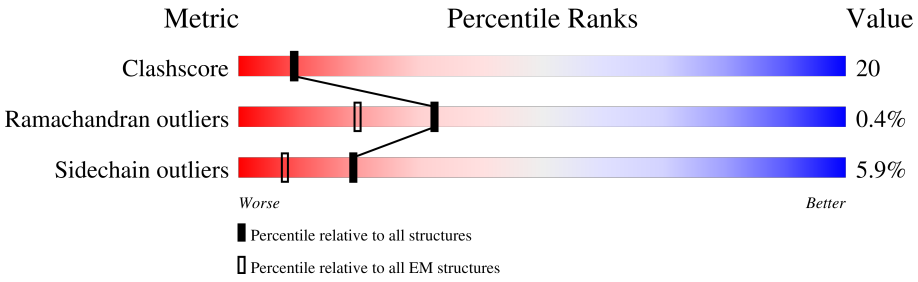
EMDB validation analysis	:	0.0.1.dev113
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.40

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 2.42 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)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

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 <=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	Ba	239	98%
1	Bb	239	98%
1	Bc	239	98%
2	Ca	241	98%
2	Cb	241	98%
2	Cc	241	98%
3	Aa	382	89% 10%
3	Ab	382	89% 10%

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Mol	Chain	Length	Quality of chain
3	Ac	382	

2 Entry composition (i)

There are 6 unique types of molecules in this entry. The entry contains 28437 atoms, of which 4161 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 Particulate methane monooxygenase gamma subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	Ba	239	Total	C	N	O	S	0	0
			1993	1352	302	334	5		
1	Bb	239	Total	C	N	O	S	0	0
			1993	1352	302	334	5		
1	Bc	239	Total	C	N	O	S	0	0
			1993	1352	302	334	5		

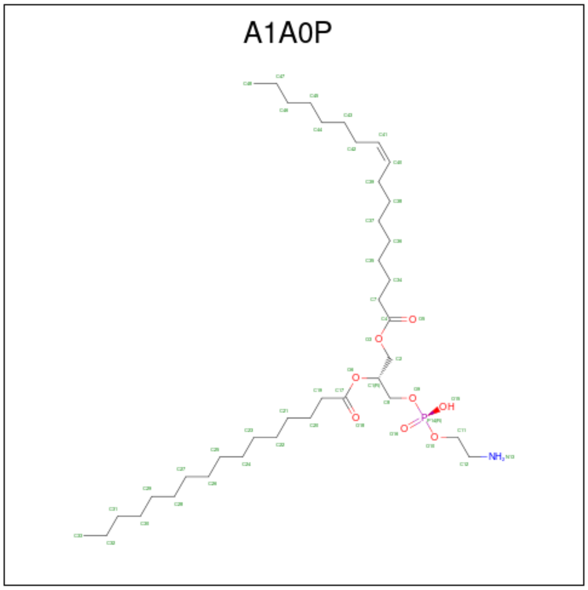
- Molecule 2 is a protein called Particulate methane monooxygenase beta subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	Ca	241	Total	C	N	O	S	0	0
			1976	1328	315	322	11		
2	Cb	241	Total	C	N	O	S	0	0
			1976	1328	315	322	11		
2	Cc	241	Total	C	N	O	S	0	0
			1976	1328	315	322	11		

- Molecule 3 is a protein called Particulate methane monooxygenase alpha subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	Aa	382	Total	C	N	O	S	0	0
			3017	1938	513	551	15		
3	Ab	382	Total	C	N	O	S	0	0
			3017	1938	513	551	15		
3	Ac	382	Total	C	N	O	S	0	0
			3017	1938	513	551	15		

- Molecule 4 is (2R)-3-{[(R)-(2-aminoethoxy)(hydroxy)phosphoryl]oxy}-2-(hexadecanoyloxy) propyl (9Z)-heptadec-9-enoate (three-letter code: A1A0P) (formula: $C_{38}H_{74}NO_8P$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms						AltConf
4	Ba	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ba	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ba	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ba	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ba	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ba	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ba	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ca	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ca	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ca	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ca	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ca	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ca	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ca	1	Total 121	C 38	H 73	N 1	O 8	P 1	0

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Mol	Chain	Residues	Atoms	AltConf
4	Ca	1	Total C H N O P 121 38 73 1 8 1	0
4	Ca	1	Total C H N O P 121 38 73 1 8 1	0
4	Ca	1	Total C H N O P 121 38 73 1 8 1	0
4	Ca	1	Total C H N O P 121 38 73 1 8 1	0
4	Aa	1	Total C H N O P 121 38 73 1 8 1	0
4	Cb	1	Total C H N O P 121 38 73 1 8 1	0
4	Cb	1	Total C H N O P 121 38 73 1 8 1	0
4	Cb	1	Total C H N O P 121 38 73 1 8 1	0
4	Cb	1	Total C H N O P 121 38 73 1 8 1	0
4	Cb	1	Total C H N O P 121 38 73 1 8 1	0
4	Cb	1	Total C H N O P 121 38 73 1 8 1	0
4	Cb	1	Total C H N O P 121 38 73 1 8 1	0
4	Cb	1	Total C H N O P 121 38 73 1 8 1	0
4	Cb	1	Total C H N O P 121 38 73 1 8 1	0
4	Cb	1	Total C H N O P 121 38 73 1 8 1	0
4	Cb	1	Total C H N O P 121 38 73 1 8 1	0
4	Cc	1	Total C H N O P 121 38 73 1 8 1	0
4	Cc	1	Total C H N O P 121 38 73 1 8 1	0
4	Cc	1	Total C H N O P 121 38 73 1 8 1	0
4	Cc	1	Total C H N O P 121 38 73 1 8 1	0
4	Cc	1	Total C H N O P 121 38 73 1 8 1	0

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Mol	Chain	Residues	Atoms						AltConf
4	Cc	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Cc	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Cc	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Cc	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Cc	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Cc	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ab	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Ac	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Bb	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Bb	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Bb	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Bb	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Bb	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Bb	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Bb	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Bc	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Bc	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Bc	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Bc	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Bc	1	Total 121	C 38	H 73	N 1	O 8	P 1	0
4	Bc	1	Total 121	C 38	H 73	N 1	O 8	P 1	0

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Mol	Chain	Residues	Atoms						AltConf
4	Bc	1	Total	C	H	N	O	P	0
			121	38	73	1	8	1	

- Molecule 5 is COPPER (II) ION (three-letter code: CU) (formula: Cu) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
5	Ba	1	Total	Cu	0
			1	1	
5	Aa	2	Total	Cu	0
			2	2	
5	Ab	2	Total	Cu	0
			2	2	
5	Ac	2	Total	Cu	0
			2	2	
5	Bb	1	Total	Cu	0
			1	1	
5	Bc	1	Total	Cu	0
			1	1	

- Molecule 6 is water.

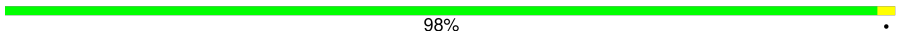
Mol	Chain	Residues	Atoms		AltConf
6	Ba	27	Total	O	0
			27	27	
6	Ca	45	Total	O	0
			45	45	
6	Aa	119	Total	O	0
			119	119	
6	Cb	45	Total	O	0
			45	45	
6	Cc	45	Total	O	0
			45	45	
6	Ab	119	Total	O	0
			119	119	
6	Ac	119	Total	O	0
			119	119	
6	Bb	27	Total	O	0
			27	27	
6	Bc	27	Total	O	0
			27	27	

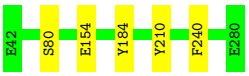
3 Residue-property plots (i)

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

- Molecule 1: Particulate methane monooxygenase gamma subunit

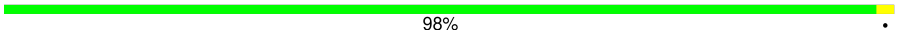
Chain Ba:

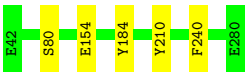




- Molecule 1: Particulate methane monooxygenase gamma subunit

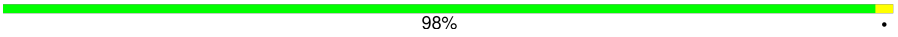
Chain Bb:

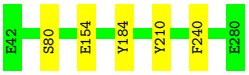




- Molecule 1: Particulate methane monooxygenase gamma subunit

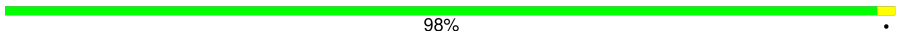
Chain Bc:





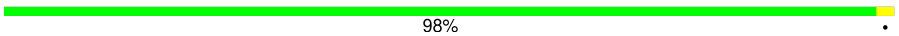
- Molecule 2: Particulate methane monooxygenase beta subunit

Chain Ca:



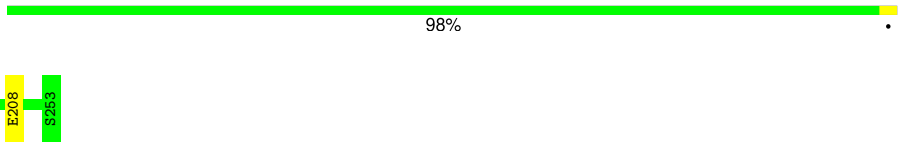
- Molecule 2: Particulate methane monooxygenase beta subunit

Chain Cb:



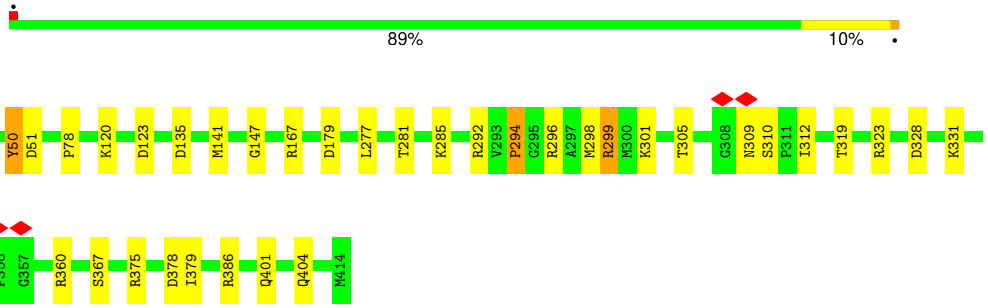
- Molecule 2: Particulate methane monooxygenase beta subunit

Chain Cc:



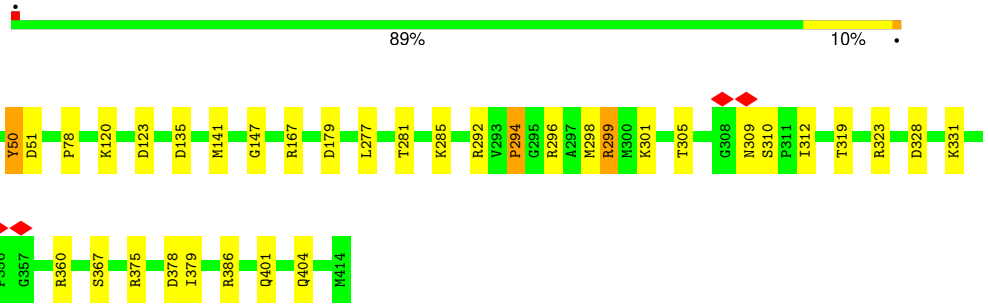
• Molecule 3: Particulate methane monooxygenase alpha subunit

Chain Aa:



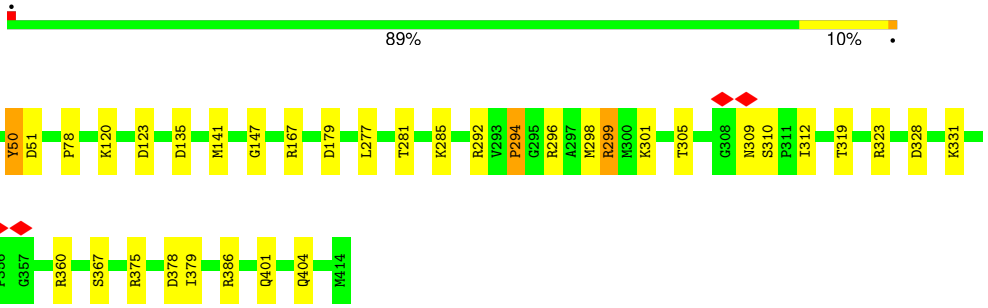
• Molecule 3: Particulate methane monooxygenase alpha subunit

Chain Ab:



• Molecule 3: Particulate methane monooxygenase alpha subunit

Chain Ac:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	129495	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 ($e^-/Å^2$)	50	Depositor
Minimum defocus (nm)	600	Depositor
Maximum defocus (nm)	2000	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.835	Depositor
Minimum map value	-0.468	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.026	Depositor
Recommended contour level	0.06	Depositor
Map size (Å)	265.6, 265.6, 265.6	wwPDB
Map dimensions	320, 320, 320	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.83000004, 0.83000004, 0.83000004	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: A1A0P, CU

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	Ba	0.27	0/2073	0.45	0/2841
1	Bb	0.27	0/2073	0.45	0/2841
1	Bc	0.27	0/2073	0.45	0/2841
2	Ca	0.26	0/2052	0.47	0/2808
2	Cb	0.26	0/2052	0.48	0/2808
2	Cc	0.26	0/2052	0.48	0/2808
3	Aa	0.44	0/3099	0.64	2/4215 (0.0%)
3	Ab	0.44	0/3099	0.64	2/4215 (0.0%)
3	Ac	0.44	0/3099	0.64	2/4215 (0.0%)
All	All	0.35	0/21672	0.55	6/29592 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
3	Aa	0	8
3	Ab	0	8
3	Ac	0	8
All	All	0	24

There are no bond length outliers.

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	Ab	50	TYR	N-CA-CB	6.72	122.70	110.60
3	Ac	50	TYR	N-CA-CB	6.71	122.69	110.60
3	Aa	50	TYR	N-CA-CB	6.71	122.68	110.60
3	Aa	50	TYR	CA-CB-CG	6.33	125.44	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	Ab	50	TYR	CA-CB-CG	6.33	125.44	113.40
3	Ac	50	TYR	CA-CB-CG	6.33	125.42	113.40

There are no chirality outliers.

All (24) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	Aa	292	ARG	Sidechain
3	Aa	294	PRO	Peptide
3	Aa	296	ARG	Sidechain
3	Aa	299	ARG	Sidechain
3	Aa	323	ARG	Sidechain
3	Aa	360	ARG	Sidechain
3	Aa	375	ARG	Sidechain
3	Aa	386	ARG	Sidechain
3	Ab	292	ARG	Sidechain
3	Ab	294	PRO	Peptide
3	Ab	296	ARG	Sidechain
3	Ab	299	ARG	Sidechain
3	Ab	323	ARG	Sidechain
3	Ab	360	ARG	Sidechain
3	Ab	375	ARG	Sidechain
3	Ab	386	ARG	Sidechain
3	Ac	292	ARG	Sidechain
3	Ac	294	PRO	Peptide
3	Ac	296	ARG	Sidechain
3	Ac	299	ARG	Sidechain
3	Ac	323	ARG	Sidechain
3	Ac	360	ARG	Sidechain
3	Ac	375	ARG	Sidechain
3	Ac	386	ARG	Sidechain

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	Ba	1993	0	1922	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	Bb	1993	0	1922	0	0
1	Bc	1993	0	1922	0	0
2	Ca	1976	0	1934	0	0
2	Cb	1976	0	1934	0	0
2	Cc	1976	0	1934	0	0
3	Aa	3017	0	2980	0	0
3	Ab	3017	0	2980	0	0
3	Ac	3017	0	2980	0	0
4	Aa	48	73	0	0	0
4	Ab	48	73	0	0	0
4	Ac	48	73	0	0	0
4	Ba	336	511	0	0	0
4	Bb	336	511	0	0	0
4	Bc	336	511	0	0	0
4	Ca	528	803	0	0	0
4	Cb	528	803	0	0	0
4	Cc	528	803	0	0	0
5	Aa	2	0	0	0	0
5	Ab	2	0	0	0	0
5	Ac	2	0	0	0	0
5	Ba	1	0	0	0	0
5	Bb	1	0	0	0	0
5	Bc	1	0	0	0	0
6	Aa	119	0	0	0	0
6	Ab	119	0	0	0	0
6	Ac	119	0	0	0	0
6	Ba	27	0	0	0	0
6	Bb	27	0	0	0	0
6	Bc	27	0	0	0	0
6	Ca	45	0	0	0	0
6	Cb	45	0	0	0	0
6	Cc	45	0	0	0	0
All	All	24276	4161	20508	0	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 20.

There are no clashes within the asymmetric unit.

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	Ba	237/239 (99%)	228 (96%)	9 (4%)	0	100	100
1	Bb	237/239 (99%)	228 (96%)	9 (4%)	0	100	100
1	Bc	237/239 (99%)	228 (96%)	9 (4%)	0	100	100
2	Ca	239/241 (99%)	229 (96%)	10 (4%)	0	100	100
2	Cb	239/241 (99%)	229 (96%)	10 (4%)	0	100	100
2	Cc	239/241 (99%)	229 (96%)	10 (4%)	0	100	100
3	Aa	380/382 (100%)	359 (94%)	18 (5%)	3 (1%)	16	24
3	Ab	380/382 (100%)	359 (94%)	18 (5%)	3 (1%)	16	24
3	Ac	380/382 (100%)	359 (94%)	18 (5%)	3 (1%)	16	24
All	All	2568/2586 (99%)	2448 (95%)	111 (4%)	9 (0%)	32	42

All (9) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	Aa	281	THR
3	Aa	294	PRO
3	Ab	281	THR
3	Ab	294	PRO
3	Ac	281	THR
3	Ac	294	PRO
3	Aa	147	GLY
3	Ab	147	GLY
3	Ac	147	GLY

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	Ba	202/202 (100%)	197 (98%)	5 (2%)	42	61
1	Bb	202/202 (100%)	197 (98%)	5 (2%)	42	61
1	Bc	202/202 (100%)	197 (98%)	5 (2%)	42	61
2	Ca	206/206 (100%)	202 (98%)	4 (2%)	52	70
2	Cb	206/206 (100%)	202 (98%)	4 (2%)	52	70
2	Cc	206/206 (100%)	202 (98%)	4 (2%)	52	70
3	Aa	323/323 (100%)	289 (90%)	34 (10%)	5	8
3	Ab	323/323 (100%)	289 (90%)	34 (10%)	5	8
3	Ac	323/323 (100%)	289 (90%)	34 (10%)	5	8
All	All	2193/2193 (100%)	2064 (94%)	129 (6%)	19	27

All (129) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	Ba	80	SER
1	Ba	154	GLU
1	Ba	184	TYR
1	Ba	210	TYR
1	Ba	240	PHE
2	Ca	52	MET
2	Ca	130	SER
2	Ca	179	GLU
2	Ca	208	GLU
3	Aa	33	HIS
3	Aa	37	SER
3	Aa	42	MET
3	Aa	46	THR
3	Aa	50	TYR
3	Aa	51	ASP
3	Aa	78	PRO
3	Aa	120	LYS
3	Aa	123	ASP
3	Aa	135	ASP
3	Aa	141	MET
3	Aa	167	ARG
3	Aa	179	ASP
3	Aa	277	LEU

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Mol	Chain	Res	Type
3	Aa	285	LYS
3	Aa	298	MET
3	Aa	299	ARG
3	Aa	301	LYS
3	Aa	305	THR
3	Aa	309	ASN
3	Aa	310	SER
3	Aa	312	ILE
3	Aa	319	THR
3	Aa	328	ASP
3	Aa	331	LYS
3	Aa	337	PRO
3	Aa	338	GLU
3	Aa	344	ASP
3	Aa	347	SER
3	Aa	367	SER
3	Aa	378	ASP
3	Aa	379	ILE
3	Aa	401	GLN
3	Aa	404	GLN
2	Cb	52	MET
2	Cb	130	SER
2	Cb	179	GLU
2	Cb	208	GLU
2	Cc	52	MET
2	Cc	130	SER
2	Cc	179	GLU
2	Cc	208	GLU
3	Ab	33	HIS
3	Ab	37	SER
3	Ab	42	MET
3	Ab	46	THR
3	Ab	50	TYR
3	Ab	51	ASP
3	Ab	78	PRO
3	Ab	120	LYS
3	Ab	123	ASP
3	Ab	135	ASP
3	Ab	141	MET
3	Ab	167	ARG
3	Ab	179	ASP
3	Ab	277	LEU

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Mol	Chain	Res	Type
3	Ab	285	LYS
3	Ab	298	MET
3	Ab	299	ARG
3	Ab	301	LYS
3	Ab	305	THR
3	Ab	309	ASN
3	Ab	310	SER
3	Ab	312	ILE
3	Ab	319	THR
3	Ab	328	ASP
3	Ab	331	LYS
3	Ab	337	PRO
3	Ab	338	GLU
3	Ab	344	ASP
3	Ab	347	SER
3	Ab	367	SER
3	Ab	378	ASP
3	Ab	379	ILE
3	Ab	401	GLN
3	Ab	404	GLN
3	Ac	33	HIS
3	Ac	37	SER
3	Ac	42	MET
3	Ac	46	THR
3	Ac	50	TYR
3	Ac	51	ASP
3	Ac	78	PRO
3	Ac	120	LYS
3	Ac	123	ASP
3	Ac	135	ASP
3	Ac	141	MET
3	Ac	167	ARG
3	Ac	179	ASP
3	Ac	277	LEU
3	Ac	285	LYS
3	Ac	298	MET
3	Ac	299	ARG
3	Ac	301	LYS
3	Ac	305	THR
3	Ac	309	ASN
3	Ac	310	SER
3	Ac	312	ILE

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Mol	Chain	Res	Type
3	Ac	319	THR
3	Ac	328	ASP
3	Ac	331	LYS
3	Ac	337	PRO
3	Ac	338	GLU
3	Ac	344	ASP
3	Ac	347	SER
3	Ac	367	SER
3	Ac	378	ASP
3	Ac	379	ILE
3	Ac	401	GLN
3	Ac	404	GLN
1	Bb	80	SER
1	Bb	154	GLU
1	Bb	184	TYR
1	Bb	210	TYR
1	Bb	240	PHE
1	Bc	80	SER
1	Bc	154	GLU
1	Bc	184	TYR
1	Bc	210	TYR
1	Bc	240	PHE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (9) such sidechains are listed below:

Mol	Chain	Res	Type
1	Ba	173	HIS
3	Aa	306	ASN
3	Aa	309	ASN
3	Ab	306	ASN
3	Ab	309	ASN
3	Ac	306	ASN
3	Ac	309	ASN
1	Bb	173	HIS
1	Bc	173	HIS

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 66 ligands modelled in this entry, 9 are monoatomic - leaving 57 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
4	A1A0P	Bb	313	-	47,47,47	0.33	0	50,52,52	0.45	0
4	A1A0P	Cb	303	-	47,47,47	0.36	0	50,52,52	0.77	3 (6%)
4	A1A0P	Cb	313	-	47,47,47	0.41	0	50,52,52	0.82	2 (4%)
4	A1A0P	Bb	309	-	47,47,47	0.34	0	50,52,52	0.52	0
4	A1A0P	Cc	303	-	47,47,47	0.36	0	50,52,52	0.77	3 (6%)
4	A1A0P	Ba	311	-	47,47,47	0.32	0	50,52,52	0.50	1 (2%)
4	A1A0P	Ca	303	-	47,47,47	0.36	0	50,52,52	0.77	3 (6%)
4	A1A0P	Ba	314	-	47,47,47	0.30	0	50,52,52	0.35	0
4	A1A0P	Cc	310	-	47,47,47	0.33	0	50,52,52	0.37	0
4	A1A0P	Cc	314	-	47,47,47	0.68	1 (2%)	50,52,52	0.44	0
4	A1A0P	Ba	310	-	47,47,47	0.37	0	50,52,52	0.46	0
4	A1A0P	Ab	537	-	47,47,47	0.32	0	50,52,52	0.51	1 (2%)
4	A1A0P	Cb	309	-	47,47,47	0.39	0	50,52,52	0.51	1 (2%)
4	A1A0P	Bc	309	-	47,47,47	0.34	0	50,52,52	0.52	0
4	A1A0P	Ca	310	-	47,47,47	0.33	0	50,52,52	0.37	0
4	A1A0P	Bb	311	-	47,47,47	0.32	0	50,52,52	0.50	1 (2%)
4	A1A0P	Cb	308	-	47,47,47	0.77	0	50,52,52	1.22	2 (4%)
4	A1A0P	Ba	313	-	47,47,47	0.33	0	50,52,52	0.45	0
4	A1A0P	Ca	307	-	47,47,47	0.31	0	50,52,52	0.49	0
4	A1A0P	Ca	314	-	47,47,47	0.68	1 (2%)	50,52,52	0.44	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
4	A1A0P	Cb	305	-	47,47,47	0.31	0	50,52,52	0.34	0
4	A1A0P	Cc	309	-	47,47,47	0.39	0	50,52,52	0.51	1 (2%)
4	A1A0P	Cc	305	-	47,47,47	0.31	0	50,52,52	0.34	0
4	A1A0P	Ac	537	-	47,47,47	0.32	0	50,52,52	0.51	1 (2%)
4	A1A0P	Ca	306	-	47,47,47	0.81	3 (6%)	50,52,52	1.24	6 (12%)
4	A1A0P	Bb	308	-	47,47,47	0.30	0	50,52,52	0.33	0
4	A1A0P	Bb	312	-	47,47,47	0.31	0	50,52,52	0.43	0
4	A1A0P	Ba	308	-	47,47,47	0.31	0	50,52,52	0.33	0
4	A1A0P	Ca	304	-	47,47,47	0.45	0	50,52,52	0.73	1 (2%)
4	A1A0P	Ca	312	-	47,47,47	0.39	0	50,52,52	0.63	1 (2%)
4	A1A0P	Ca	308	-	47,47,47	0.77	0	50,52,52	1.22	2 (4%)
4	A1A0P	Ba	312	-	47,47,47	0.31	0	50,52,52	0.42	0
4	A1A0P	Ba	309	-	47,47,47	0.34	0	50,52,52	0.52	0
4	A1A0P	Bc	312	-	47,47,47	0.31	0	50,52,52	0.43	0
4	A1A0P	Bc	308	-	47,47,47	0.31	0	50,52,52	0.33	0
4	A1A0P	Cc	307	-	47,47,47	0.31	0	50,52,52	0.49	0
4	A1A0P	Ca	305	-	47,47,47	0.30	0	50,52,52	0.34	0
4	A1A0P	Cb	310	-	47,47,47	0.33	0	50,52,52	0.37	0
4	A1A0P	Bb	314	-	47,47,47	0.30	0	50,52,52	0.35	0
4	A1A0P	Bc	311	-	47,47,47	0.32	0	50,52,52	0.50	1 (2%)
4	A1A0P	Cb	304	-	47,47,47	0.45	0	50,52,52	0.73	1 (2%)
4	A1A0P	Cb	312	-	47,47,47	0.39	0	50,52,52	0.63	1 (2%)
4	A1A0P	Cc	306	-	47,47,47	0.82	3 (6%)	50,52,52	1.24	6 (12%)
4	A1A0P	Bb	310	-	47,47,47	0.37	0	50,52,52	0.45	0
4	A1A0P	Cc	304	-	47,47,47	0.45	0	50,52,52	0.73	1 (2%)
4	A1A0P	Cc	313	-	47,47,47	0.41	0	50,52,52	0.83	2 (4%)
4	A1A0P	Cc	308	-	47,47,47	0.77	0	50,52,52	1.22	2 (4%)
4	A1A0P	Ca	309	-	47,47,47	0.39	0	50,52,52	0.51	1 (2%)
4	A1A0P	Ca	313	-	47,47,47	0.41	0	50,52,52	0.82	2 (4%)
4	A1A0P	Bc	314	-	47,47,47	0.30	0	50,52,52	0.35	0
4	A1A0P	Aa	537	-	47,47,47	0.32	0	50,52,52	0.51	1 (2%)
4	A1A0P	Cb	306	-	47,47,47	0.82	3 (6%)	50,52,52	1.24	6 (12%)
4	A1A0P	Bc	310	-	47,47,47	0.37	0	50,52,52	0.46	0
4	A1A0P	Cc	312	-	47,47,47	0.39	0	50,52,52	0.63	1 (2%)
4	A1A0P	Bc	313	-	47,47,47	0.33	0	50,52,52	0.45	0
4	A1A0P	Cb	314	-	47,47,47	0.68	1 (2%)	50,52,52	0.44	0
4	A1A0P	Cb	307	-	47,47,47	0.31	0	50,52,52	0.49	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
4	A1A0P	Bb	313	-	-	24/51/51/51	-
4	A1A0P	Cb	303	-	-	28/51/51/51	-
4	A1A0P	Cb	313	-	-	26/51/51/51	-
4	A1A0P	Bb	309	-	-	26/51/51/51	-
4	A1A0P	Cc	303	-	-	28/51/51/51	-
4	A1A0P	Ba	311	-	-	21/51/51/51	-
4	A1A0P	Ca	303	-	-	28/51/51/51	-
4	A1A0P	Ba	314	-	-	23/51/51/51	-
4	A1A0P	Cc	310	-	-	16/51/51/51	-
4	A1A0P	Cc	314	-	-	22/51/51/51	-
4	A1A0P	Ba	310	-	-	25/51/51/51	-
4	A1A0P	Ab	537	-	-	21/51/51/51	-
4	A1A0P	Cb	309	-	-	25/51/51/51	-
4	A1A0P	Bc	309	-	-	26/51/51/51	-
4	A1A0P	Ca	310	-	-	16/51/51/51	-
4	A1A0P	Bb	311	-	-	21/51/51/51	-
4	A1A0P	Cb	308	-	-	26/51/51/51	-
4	A1A0P	Ba	313	-	-	24/51/51/51	-
4	A1A0P	Ca	307	-	-	27/51/51/51	-
4	A1A0P	Ca	314	-	-	22/51/51/51	-
4	A1A0P	Cb	305	-	-	24/51/51/51	-
4	A1A0P	Cc	309	-	-	26/51/51/51	-
4	A1A0P	Cc	305	-	-	24/51/51/51	-
4	A1A0P	Ac	537	-	-	21/51/51/51	-
4	A1A0P	Ca	306	-	-	28/51/51/51	-
4	A1A0P	Bb	308	-	-	17/51/51/51	-
4	A1A0P	Bb	312	-	-	22/51/51/51	-
4	A1A0P	Ba	308	-	-	17/51/51/51	-
4	A1A0P	Ca	304	-	-	25/51/51/51	-
4	A1A0P	Ca	312	-	-	25/51/51/51	-
4	A1A0P	Ca	308	-	-	26/51/51/51	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	A1A0P	Ba	312	-	-	22/51/51/51	-
4	A1A0P	Ba	309	-	-	26/51/51/51	-
4	A1A0P	Bc	312	-	-	22/51/51/51	-
4	A1A0P	Bc	308	-	-	17/51/51/51	-
4	A1A0P	Cc	307	-	-	27/51/51/51	-
4	A1A0P	Ca	305	-	-	24/51/51/51	-
4	A1A0P	Cb	310	-	-	16/51/51/51	-
4	A1A0P	Bb	314	-	-	23/51/51/51	-
4	A1A0P	Bc	311	-	-	21/51/51/51	-
4	A1A0P	Cb	304	-	-	25/51/51/51	-
4	A1A0P	Cb	312	-	-	25/51/51/51	-
4	A1A0P	Cc	306	-	-	28/51/51/51	-
4	A1A0P	Bb	310	-	-	25/51/51/51	-
4	A1A0P	Cc	304	-	-	25/51/51/51	-
4	A1A0P	Cc	313	-	-	26/51/51/51	-
4	A1A0P	Cc	308	-	-	26/51/51/51	-
4	A1A0P	Ca	309	-	-	25/51/51/51	-
4	A1A0P	Ca	313	-	-	26/51/51/51	-
4	A1A0P	Bc	314	-	-	23/51/51/51	-
4	A1A0P	Aa	537	-	-	21/51/51/51	-
4	A1A0P	Cb	306	-	-	28/51/51/51	-
4	A1A0P	Bc	310	-	-	25/51/51/51	-
4	A1A0P	Cc	312	-	-	25/51/51/51	-
4	A1A0P	Bc	313	-	-	24/51/51/51	-
4	A1A0P	Cb	314	-	-	22/51/51/51	-
4	A1A0P	Cb	307	-	-	27/51/51/51	-

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	Cc	306	A1A0P	P14-O10	3.40	1.72	1.59
4	Cb	306	A1A0P	P14-O10	3.40	1.72	1.59
4	Ca	306	A1A0P	P14-O10	3.39	1.72	1.59
4	Cb	306	A1A0P	O10-C11	2.73	1.55	1.44
4	Ca	306	A1A0P	O10-C11	2.73	1.55	1.44
4	Cc	306	A1A0P	O10-C11	2.72	1.55	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	Cc	314	A1A0P	C33-C32	2.72	1.69	1.50
4	Cb	314	A1A0P	C33-C32	2.72	1.69	1.50
4	Ca	314	A1A0P	C33-C32	2.72	1.69	1.50
4	Cb	306	A1A0P	C12-N13	2.31	1.63	1.46
4	Cc	306	A1A0P	C12-N13	2.31	1.63	1.46
4	Ca	306	A1A0P	C12-N13	2.30	1.63	1.46

All (54) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	Cb	308	A1A0P	O3-C2-C1	-5.12	93.63	108.40
4	Cc	308	A1A0P	O3-C2-C1	-5.11	93.65	108.40
4	Ca	308	A1A0P	O3-C2-C1	-5.11	93.66	108.40
4	Cc	308	A1A0P	C8-C1-C2	-4.22	101.95	111.78
4	Cb	308	A1A0P	C8-C1-C2	-4.22	101.96	111.78
4	Ca	308	A1A0P	C8-C1-C2	-4.21	101.96	111.78
4	Cc	306	A1A0P	O3-C2-C1	-4.10	96.57	108.40
4	Ca	306	A1A0P	O3-C2-C1	-4.09	96.59	108.40
4	Cb	306	A1A0P	O3-C2-C1	-4.09	96.60	108.40
4	Ca	303	A1A0P	O10-P14-O16	-3.80	93.87	108.94
4	Cb	303	A1A0P	O10-P14-O16	-3.80	93.87	108.94
4	Cc	303	A1A0P	O10-P14-O16	-3.80	93.88	108.94
4	Cb	306	A1A0P	P14-O10-C11	3.67	138.74	121.26
4	Cc	306	A1A0P	P14-O10-C11	3.67	138.73	121.26
4	Ca	306	A1A0P	P14-O10-C11	3.67	138.72	121.26
4	Ca	306	A1A0P	O15-P14-O9	-3.41	92.13	107.57
4	Cc	306	A1A0P	O15-P14-O9	-3.40	92.15	107.57
4	Cb	306	A1A0P	O15-P14-O9	-3.39	92.19	107.57
4	Cc	313	A1A0P	C8-C1-C2	3.22	119.29	111.78
4	Cb	313	A1A0P	C8-C1-C2	3.20	119.26	111.78
4	Ca	313	A1A0P	C8-C1-C2	3.20	119.25	111.78
4	Cb	313	A1A0P	O3-C2-C1	3.15	117.48	108.40
4	Ca	313	A1A0P	O3-C2-C1	3.14	117.46	108.40
4	Cc	313	A1A0P	O3-C2-C1	3.14	117.45	108.40
4	Ca	306	A1A0P	C8-C1-C2	3.00	118.78	111.78
4	Cb	306	A1A0P	C8-C1-C2	2.99	118.77	111.78
4	Cc	306	A1A0P	C8-C1-C2	2.99	118.75	111.78
4	Ca	306	A1A0P	O15-P14-O10	2.45	118.66	107.57
4	Cc	306	A1A0P	O15-P14-O10	2.44	118.65	107.57
4	Cb	306	A1A0P	O15-P14-O10	2.44	118.63	107.57
4	Cb	309	A1A0P	O3-C2-C1	2.23	114.81	108.40
4	Cc	309	A1A0P	O3-C2-C1	2.22	114.81	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	Ca	309	A1A0P	O3-C2-C1	2.21	114.77	108.40
4	Ac	537	A1A0P	C1-O6-C17	2.21	123.09	117.80
4	Aa	537	A1A0P	C1-O6-C17	2.20	123.07	117.80
4	Ca	304	A1A0P	C8-C1-C2	2.19	116.90	111.78
4	Cb	304	A1A0P	C8-C1-C2	2.19	116.89	111.78
4	Ab	537	A1A0P	C1-O6-C17	2.19	123.04	117.80
4	Cc	304	A1A0P	C8-C1-C2	2.18	116.86	111.78
4	Cc	312	A1A0P	C1-O6-C17	2.17	122.98	117.80
4	Cb	312	A1A0P	C1-O6-C17	2.16	122.98	117.80
4	Ca	312	A1A0P	C1-O6-C17	2.16	122.97	117.80
4	Ca	303	A1A0P	O9-P14-O16	2.13	117.37	108.94
4	Cc	303	A1A0P	O9-P14-O16	2.13	117.36	108.94
4	Cb	303	A1A0P	O9-P14-O16	2.12	117.33	108.94
4	Bc	311	A1A0P	C1-O6-C17	2.10	122.83	117.80
4	Ba	311	A1A0P	C1-O6-C17	2.10	122.83	117.80
4	Bb	311	A1A0P	C1-O6-C17	2.10	122.82	117.80
4	Cb	306	A1A0P	O15-P14-O16	2.04	121.94	112.44
4	Cc	306	A1A0P	O15-P14-O16	2.04	121.93	112.44
4	Ca	306	A1A0P	O15-P14-O16	2.03	121.89	112.44
4	Cc	303	A1A0P	O15-P14-O16	2.03	121.88	112.44
4	Ca	303	A1A0P	O15-P14-O16	2.02	121.83	112.44
4	Cb	303	A1A0P	O15-P14-O16	2.02	121.82	112.44

There are no chirality outliers.

All (1354) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	Ba	308	A1A0P	C11-O10-P14-O9
4	Ba	308	A1A0P	C11-O10-P14-O15
4	Ba	308	A1A0P	O10-C11-C12-N13
4	Ba	309	A1A0P	O5-C4-O3-C2
4	Ba	309	A1A0P	C7-C4-O3-C2
4	Ba	309	A1A0P	O6-C1-C8-O9
4	Ba	309	A1A0P	C8-O9-P14-O16
4	Ba	309	A1A0P	C11-O10-P14-O16
4	Ba	309	A1A0P	O10-C11-C12-N13
4	Ba	310	A1A0P	C11-O10-P14-O9
4	Ba	310	A1A0P	C11-O10-P14-O16
4	Ba	311	A1A0P	O18-C17-O6-C1
4	Ba	311	A1A0P	C19-C17-O6-C1
4	Ba	311	A1A0P	O10-C11-C12-N13
4	Ba	312	A1A0P	C11-O10-P14-O9

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Mol	Chain	Res	Type	Atoms
4	Ba	312	A1A0P	C11-O10-P14-O16
4	Ba	312	A1A0P	O10-C11-C12-N13
4	Ba	313	A1A0P	O5-C4-O3-C2
4	Ba	313	A1A0P	C7-C4-O3-C2
4	Ba	313	A1A0P	C8-O9-P14-O10
4	Ba	313	A1A0P	C8-O9-P14-O15
4	Ba	313	A1A0P	O10-C11-C12-N13
4	Ba	314	A1A0P	C8-O9-P14-O10
4	Ba	314	A1A0P	C8-O9-P14-O15
4	Ba	314	A1A0P	C8-O9-P14-O16
4	Ca	303	A1A0P	C11-O10-P14-O9
4	Ca	303	A1A0P	C11-O10-P14-O15
4	Ca	303	A1A0P	C11-O10-P14-O16
4	Ca	304	A1A0P	O5-C4-O3-C2
4	Ca	304	A1A0P	C7-C4-O3-C2
4	Ca	304	A1A0P	C11-O10-P14-O9
4	Ca	304	A1A0P	C11-O10-P14-O15
4	Ca	304	A1A0P	C11-O10-P14-O16
4	Ca	304	A1A0P	C37-C38-C39-C40
4	Ca	305	A1A0P	C11-O10-P14-O15
4	Ca	305	A1A0P	C11-O10-P14-O16
4	Ca	305	A1A0P	O10-C11-C12-N13
4	Ca	306	A1A0P	C7-C4-O3-C2
4	Ca	306	A1A0P	C1-C8-O9-P14
4	Ca	306	A1A0P	C11-O10-P14-O16
4	Ca	307	A1A0P	O18-C17-O6-C1
4	Ca	307	A1A0P	C19-C17-O6-C1
4	Ca	307	A1A0P	C1-C8-O9-P14
4	Ca	307	A1A0P	C8-O9-P14-O15
4	Ca	307	A1A0P	C11-O10-P14-O9
4	Ca	307	A1A0P	C11-O10-P14-O15
4	Ca	307	A1A0P	C11-O10-P14-O16
4	Ca	307	A1A0P	O10-C11-C12-N13
4	Ca	308	A1A0P	C8-O9-P14-O10
4	Ca	308	A1A0P	C12-C11-O10-P14
4	Ca	308	A1A0P	C11-O10-P14-O9
4	Ca	308	A1A0P	C11-O10-P14-O15
4	Ca	308	A1A0P	O10-C11-C12-N13
4	Ca	309	A1A0P	C8-O9-P14-O10
4	Ca	309	A1A0P	C8-O9-P14-O16
4	Ca	309	A1A0P	O10-C11-C12-N13
4	Ca	310	A1A0P	C8-O9-P14-O15

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Mol	Chain	Res	Type	Atoms
4	Ca	310	A1A0P	O10-C11-C12-N13
4	Ca	312	A1A0P	O18-C17-O6-C1
4	Ca	312	A1A0P	C19-C17-O6-C1
4	Ca	312	A1A0P	C11-O10-P14-O9
4	Ca	312	A1A0P	C11-O10-P14-O16
4	Ca	313	A1A0P	O5-C4-O3-C2
4	Ca	313	A1A0P	C7-C4-O3-C2
4	Ca	313	A1A0P	C1-C8-O9-P14
4	Ca	313	A1A0P	C12-C11-O10-P14
4	Ca	313	A1A0P	C11-O10-P14-O9
4	Ca	313	A1A0P	C11-O10-P14-O15
4	Ca	313	A1A0P	O10-C11-C12-N13
4	Ca	314	A1A0P	C8-O9-P14-O10
4	Ca	314	A1A0P	C8-O9-P14-O15
4	Ca	314	A1A0P	C8-O9-P14-O16
4	Ca	314	A1A0P	C12-C11-O10-P14
4	Ca	314	A1A0P	C11-O10-P14-O9
4	Ca	314	A1A0P	O10-C11-C12-N13
4	Aa	537	A1A0P	O18-C17-O6-C1
4	Aa	537	A1A0P	C19-C17-O6-C1
4	Aa	537	A1A0P	C8-O9-P14-O10
4	Aa	537	A1A0P	C8-O9-P14-O15
4	Cb	303	A1A0P	C11-O10-P14-O9
4	Cb	303	A1A0P	C11-O10-P14-O15
4	Cb	303	A1A0P	C11-O10-P14-O16
4	Cb	304	A1A0P	O5-C4-O3-C2
4	Cb	304	A1A0P	C7-C4-O3-C2
4	Cb	304	A1A0P	C11-O10-P14-O9
4	Cb	304	A1A0P	C11-O10-P14-O15
4	Cb	304	A1A0P	C11-O10-P14-O16
4	Cb	304	A1A0P	C37-C38-C39-C40
4	Cb	305	A1A0P	C11-O10-P14-O15
4	Cb	305	A1A0P	C11-O10-P14-O16
4	Cb	305	A1A0P	O10-C11-C12-N13
4	Cb	306	A1A0P	C7-C4-O3-C2
4	Cb	306	A1A0P	C1-C8-O9-P14
4	Cb	306	A1A0P	C11-O10-P14-O16
4	Cb	307	A1A0P	O18-C17-O6-C1
4	Cb	307	A1A0P	C19-C17-O6-C1
4	Cb	307	A1A0P	C1-C8-O9-P14
4	Cb	307	A1A0P	C8-O9-P14-O15
4	Cb	307	A1A0P	C11-O10-P14-O9

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Mol	Chain	Res	Type	Atoms
4	Cb	307	A1A0P	C11-O10-P14-O15
4	Cb	307	A1A0P	C11-O10-P14-O16
4	Cb	307	A1A0P	O10-C11-C12-N13
4	Cb	308	A1A0P	C8-O9-P14-O10
4	Cb	308	A1A0P	C12-C11-O10-P14
4	Cb	308	A1A0P	C11-O10-P14-O9
4	Cb	308	A1A0P	C11-O10-P14-O15
4	Cb	308	A1A0P	O10-C11-C12-N13
4	Cb	309	A1A0P	C8-O9-P14-O10
4	Cb	309	A1A0P	C8-O9-P14-O16
4	Cb	309	A1A0P	O10-C11-C12-N13
4	Cb	310	A1A0P	C8-O9-P14-O15
4	Cb	310	A1A0P	O10-C11-C12-N13
4	Cb	312	A1A0P	O18-C17-O6-C1
4	Cb	312	A1A0P	C19-C17-O6-C1
4	Cb	312	A1A0P	C11-O10-P14-O9
4	Cb	312	A1A0P	C11-O10-P14-O16
4	Cb	313	A1A0P	O5-C4-O3-C2
4	Cb	313	A1A0P	C7-C4-O3-C2
4	Cb	313	A1A0P	C1-C8-O9-P14
4	Cb	313	A1A0P	C12-C11-O10-P14
4	Cb	313	A1A0P	C11-O10-P14-O9
4	Cb	313	A1A0P	C11-O10-P14-O15
4	Cb	313	A1A0P	O10-C11-C12-N13
4	Cb	314	A1A0P	C8-O9-P14-O10
4	Cb	314	A1A0P	C8-O9-P14-O15
4	Cb	314	A1A0P	C8-O9-P14-O16
4	Cb	314	A1A0P	C12-C11-O10-P14
4	Cb	314	A1A0P	C11-O10-P14-O9
4	Cb	314	A1A0P	C11-O10-P14-O16
4	Cb	314	A1A0P	O10-C11-C12-N13
4	Cc	303	A1A0P	C11-O10-P14-O9
4	Cc	303	A1A0P	C11-O10-P14-O15
4	Cc	303	A1A0P	C11-O10-P14-O16
4	Cc	304	A1A0P	O5-C4-O3-C2
4	Cc	304	A1A0P	C7-C4-O3-C2
4	Cc	304	A1A0P	C11-O10-P14-O9
4	Cc	304	A1A0P	C11-O10-P14-O15
4	Cc	304	A1A0P	C11-O10-P14-O16
4	Cc	304	A1A0P	C37-C38-C39-C40
4	Cc	305	A1A0P	C11-O10-P14-O15
4	Cc	305	A1A0P	C11-O10-P14-O16

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Mol	Chain	Res	Type	Atoms
4	Cc	305	A1A0P	O10-C11-C12-N13
4	Cc	306	A1A0P	C7-C4-O3-C2
4	Cc	306	A1A0P	C1-C8-O9-P14
4	Cc	306	A1A0P	C11-O10-P14-O16
4	Cc	307	A1A0P	O18-C17-O6-C1
4	Cc	307	A1A0P	C19-C17-O6-C1
4	Cc	307	A1A0P	C1-C8-O9-P14
4	Cc	307	A1A0P	C8-O9-P14-O15
4	Cc	307	A1A0P	C11-O10-P14-O9
4	Cc	307	A1A0P	C11-O10-P14-O15
4	Cc	307	A1A0P	C11-O10-P14-O16
4	Cc	307	A1A0P	O10-C11-C12-N13
4	Cc	308	A1A0P	C8-O9-P14-O10
4	Cc	308	A1A0P	C12-C11-O10-P14
4	Cc	308	A1A0P	C11-O10-P14-O9
4	Cc	308	A1A0P	C11-O10-P14-O15
4	Cc	308	A1A0P	O10-C11-C12-N13
4	Cc	309	A1A0P	C8-O9-P14-O10
4	Cc	309	A1A0P	C8-O9-P14-O16
4	Cc	309	A1A0P	O10-C11-C12-N13
4	Cc	310	A1A0P	C8-O9-P14-O15
4	Cc	310	A1A0P	O10-C11-C12-N13
4	Cc	312	A1A0P	O18-C17-O6-C1
4	Cc	312	A1A0P	C19-C17-O6-C1
4	Cc	312	A1A0P	C11-O10-P14-O9
4	Cc	312	A1A0P	C11-O10-P14-O16
4	Cc	313	A1A0P	O5-C4-O3-C2
4	Cc	313	A1A0P	C7-C4-O3-C2
4	Cc	313	A1A0P	C1-C8-O9-P14
4	Cc	313	A1A0P	C12-C11-O10-P14
4	Cc	313	A1A0P	C11-O10-P14-O9
4	Cc	313	A1A0P	C11-O10-P14-O15
4	Cc	313	A1A0P	O10-C11-C12-N13
4	Cc	314	A1A0P	C8-O9-P14-O10
4	Cc	314	A1A0P	C8-O9-P14-O15
4	Cc	314	A1A0P	C8-O9-P14-O16
4	Cc	314	A1A0P	C12-C11-O10-P14
4	Cc	314	A1A0P	C11-O10-P14-O9
4	Cc	314	A1A0P	O10-C11-C12-N13
4	Ab	537	A1A0P	O18-C17-O6-C1
4	Ab	537	A1A0P	C19-C17-O6-C1
4	Ab	537	A1A0P	C8-O9-P14-O10

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Mol	Chain	Res	Type	Atoms
4	Ab	537	A1A0P	C8-O9-P14-O15
4	Ac	537	A1A0P	O18-C17-O6-C1
4	Ac	537	A1A0P	C19-C17-O6-C1
4	Ac	537	A1A0P	C8-O9-P14-O10
4	Ac	537	A1A0P	C8-O9-P14-O15
4	Bb	308	A1A0P	C11-O10-P14-O9
4	Bb	308	A1A0P	C11-O10-P14-O15
4	Bb	308	A1A0P	O10-C11-C12-N13
4	Bb	309	A1A0P	O5-C4-O3-C2
4	Bb	309	A1A0P	C7-C4-O3-C2
4	Bb	309	A1A0P	O6-C1-C8-O9
4	Bb	309	A1A0P	C8-O9-P14-O16
4	Bb	309	A1A0P	C11-O10-P14-O16
4	Bb	309	A1A0P	O10-C11-C12-N13
4	Bb	310	A1A0P	C11-O10-P14-O9
4	Bb	310	A1A0P	C11-O10-P14-O16
4	Bb	311	A1A0P	O18-C17-O6-C1
4	Bb	311	A1A0P	C19-C17-O6-C1
4	Bb	311	A1A0P	O10-C11-C12-N13
4	Bb	312	A1A0P	C11-O10-P14-O9
4	Bb	312	A1A0P	C11-O10-P14-O16
4	Bb	312	A1A0P	O10-C11-C12-N13
4	Bb	313	A1A0P	O5-C4-O3-C2
4	Bb	313	A1A0P	C7-C4-O3-C2
4	Bb	313	A1A0P	C8-O9-P14-O10
4	Bb	313	A1A0P	C8-O9-P14-O15
4	Bb	313	A1A0P	O10-C11-C12-N13
4	Bb	314	A1A0P	C8-O9-P14-O10
4	Bb	314	A1A0P	C8-O9-P14-O15
4	Bb	314	A1A0P	C8-O9-P14-O16
4	Bc	308	A1A0P	C11-O10-P14-O9
4	Bc	308	A1A0P	C11-O10-P14-O15
4	Bc	308	A1A0P	O10-C11-C12-N13
4	Bc	309	A1A0P	O5-C4-O3-C2
4	Bc	309	A1A0P	C7-C4-O3-C2
4	Bc	309	A1A0P	O6-C1-C8-O9
4	Bc	309	A1A0P	C8-O9-P14-O16
4	Bc	309	A1A0P	C11-O10-P14-O16
4	Bc	309	A1A0P	O10-C11-C12-N13
4	Bc	310	A1A0P	C11-O10-P14-O9
4	Bc	310	A1A0P	C11-O10-P14-O16
4	Bc	311	A1A0P	O18-C17-O6-C1

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Mol	Chain	Res	Type	Atoms
4	Bc	311	A1A0P	C19-C17-O6-C1
4	Bc	311	A1A0P	O10-C11-C12-N13
4	Bc	312	A1A0P	C11-O10-P14-O9
4	Bc	312	A1A0P	C11-O10-P14-O16
4	Bc	312	A1A0P	O10-C11-C12-N13
4	Bc	313	A1A0P	O5-C4-O3-C2
4	Bc	313	A1A0P	C7-C4-O3-C2
4	Bc	313	A1A0P	C8-O9-P14-O10
4	Bc	313	A1A0P	C8-O9-P14-O15
4	Bc	313	A1A0P	O10-C11-C12-N13
4	Bc	314	A1A0P	C8-O9-P14-O10
4	Bc	314	A1A0P	C8-O9-P14-O15
4	Bc	314	A1A0P	C8-O9-P14-O16
4	Ca	306	A1A0P	O5-C4-O3-C2
4	Cb	306	A1A0P	O5-C4-O3-C2
4	Cc	306	A1A0P	O5-C4-O3-C2
4	Ca	310	A1A0P	C19-C20-C21-C22
4	Cb	310	A1A0P	C19-C20-C21-C22
4	Cc	310	A1A0P	C19-C20-C21-C22
4	Ca	308	A1A0P	C1-C8-O9-P14
4	Cb	308	A1A0P	C1-C8-O9-P14
4	Cc	308	A1A0P	C1-C8-O9-P14
4	Ba	309	A1A0P	C35-C34-C7-C4
4	Ba	314	A1A0P	C35-C34-C7-C4
4	Bb	309	A1A0P	C35-C34-C7-C4
4	Bb	314	A1A0P	C35-C34-C7-C4
4	Bc	309	A1A0P	C35-C34-C7-C4
4	Bc	314	A1A0P	C35-C34-C7-C4
4	Ca	313	A1A0P	C19-C20-C21-C22
4	Cb	313	A1A0P	C19-C20-C21-C22
4	Cc	313	A1A0P	C19-C20-C21-C22
4	Ca	312	A1A0P	C41-C42-C43-C44
4	Cb	312	A1A0P	C41-C42-C43-C44
4	Cc	312	A1A0P	C41-C42-C43-C44
4	Ca	312	A1A0P	C44-C45-C46-C47
4	Cc	312	A1A0P	C44-C45-C46-C47
4	Cb	312	A1A0P	C44-C45-C46-C47
4	Ba	311	A1A0P	C35-C34-C7-C4
4	Bb	311	A1A0P	C35-C34-C7-C4
4	Bc	311	A1A0P	C35-C34-C7-C4
4	Ba	311	A1A0P	C17-C19-C20-C21
4	Bb	311	A1A0P	C17-C19-C20-C21

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Mol	Chain	Res	Type	Atoms
4	Bc	311	A1A0P	C17-C19-C20-C21
4	Ba	308	A1A0P	O6-C1-C2-O3
4	Bb	308	A1A0P	O6-C1-C2-O3
4	Bc	308	A1A0P	O6-C1-C2-O3
4	Ca	303	A1A0P	C35-C34-C7-C4
4	Cb	303	A1A0P	C35-C34-C7-C4
4	Cc	303	A1A0P	C35-C34-C7-C4
4	Ca	314	A1A0P	C1-C8-O9-P14
4	Cb	314	A1A0P	C1-C8-O9-P14
4	Cc	314	A1A0P	C1-C8-O9-P14
4	Ba	309	A1A0P	C17-C19-C20-C21
4	Ca	312	A1A0P	C35-C34-C7-C4
4	Cb	312	A1A0P	C35-C34-C7-C4
4	Cc	312	A1A0P	C35-C34-C7-C4
4	Bb	309	A1A0P	C17-C19-C20-C21
4	Bc	309	A1A0P	C17-C19-C20-C21
4	Bc	311	A1A0P	C35-C36-C37-C38
4	Bb	311	A1A0P	C35-C36-C37-C38
4	Ba	311	A1A0P	C35-C36-C37-C38
4	Cb	314	A1A0P	C29-C30-C31-C32
4	Ca	314	A1A0P	C29-C30-C31-C32
4	Cc	314	A1A0P	C29-C30-C31-C32
4	Ca	306	A1A0P	C34-C35-C36-C37
4	Cb	306	A1A0P	C34-C35-C36-C37
4	Cc	306	A1A0P	C34-C35-C36-C37
4	Ca	313	A1A0P	C37-C38-C39-C40
4	Cb	313	A1A0P	C37-C38-C39-C40
4	Cc	313	A1A0P	C37-C38-C39-C40
4	Ca	313	A1A0P	C35-C34-C7-C4
4	Cb	313	A1A0P	C35-C34-C7-C4
4	Cc	313	A1A0P	C35-C34-C7-C4
4	Ca	307	A1A0P	C17-C19-C20-C21
4	Cb	307	A1A0P	C17-C19-C20-C21
4	Cc	307	A1A0P	C17-C19-C20-C21
4	Ba	314	A1A0P	C43-C44-C45-C46
4	Ba	308	A1A0P	C24-C25-C26-C27
4	Ba	310	A1A0P	C20-C21-C22-C23
4	Aa	537	A1A0P	C28-C29-C30-C31
4	Ab	537	A1A0P	C28-C29-C30-C31
4	Bb	308	A1A0P	C24-C25-C26-C27
4	Bb	310	A1A0P	C20-C21-C22-C23
4	Bb	314	A1A0P	C43-C44-C45-C46

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Mol	Chain	Res	Type	Atoms
4	Bc	310	A1A0P	C20-C21-C22-C23
4	Bc	314	A1A0P	C43-C44-C45-C46
4	Ba	312	A1A0P	C27-C28-C29-C30
4	Ba	312	A1A0P	C36-C37-C38-C39
4	Ac	537	A1A0P	C28-C29-C30-C31
4	Bb	312	A1A0P	C27-C28-C29-C30
4	Bc	308	A1A0P	C24-C25-C26-C27
4	Bc	312	A1A0P	C27-C28-C29-C30
4	Bc	312	A1A0P	C36-C37-C38-C39
4	Ba	308	A1A0P	C21-C22-C23-C24
4	Ca	304	A1A0P	C26-C27-C28-C29
4	Ca	304	A1A0P	C43-C44-C45-C46
4	Ca	305	A1A0P	C19-C20-C21-C22
4	Ca	306	A1A0P	C21-C22-C23-C24
4	Ca	308	A1A0P	C42-C43-C44-C45
4	Ca	313	A1A0P	C23-C24-C25-C26
4	Cb	304	A1A0P	C26-C27-C28-C29
4	Cb	304	A1A0P	C43-C44-C45-C46
4	Cb	305	A1A0P	C19-C20-C21-C22
4	Cb	306	A1A0P	C21-C22-C23-C24
4	Cc	304	A1A0P	C26-C27-C28-C29
4	Cc	304	A1A0P	C43-C44-C45-C46
4	Cc	305	A1A0P	C19-C20-C21-C22
4	Cc	306	A1A0P	C21-C22-C23-C24
4	Cc	313	A1A0P	C23-C24-C25-C26
4	Bb	308	A1A0P	C21-C22-C23-C24
4	Bb	314	A1A0P	C23-C24-C25-C26
4	Bc	308	A1A0P	C21-C22-C23-C24
4	Bc	314	A1A0P	C23-C24-C25-C26
4	Ba	309	A1A0P	C35-C36-C37-C38
4	Ba	309	A1A0P	C36-C37-C38-C39
4	Ba	312	A1A0P	C19-C20-C21-C22
4	Ba	314	A1A0P	C23-C24-C25-C26
4	Cb	308	A1A0P	C42-C43-C44-C45
4	Cb	313	A1A0P	C22-C23-C24-C25
4	Cb	313	A1A0P	C23-C24-C25-C26
4	Cc	308	A1A0P	C42-C43-C44-C45
4	Bb	309	A1A0P	C35-C36-C37-C38
4	Bb	309	A1A0P	C36-C37-C38-C39
4	Bb	312	A1A0P	C19-C20-C21-C22
4	Bb	312	A1A0P	C36-C37-C38-C39
4	Bc	309	A1A0P	C35-C36-C37-C38

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Mol	Chain	Res	Type	Atoms
4	Bc	309	A1A0P	C36-C37-C38-C39
4	Bc	312	A1A0P	C19-C20-C21-C22
4	Ba	308	A1A0P	C22-C23-C24-C25
4	Ca	304	A1A0P	C7-C34-C35-C36
4	Ca	313	A1A0P	C22-C23-C24-C25
4	Cb	303	A1A0P	C44-C45-C46-C47
4	Cc	304	A1A0P	C7-C34-C35-C36
4	Cc	313	A1A0P	C22-C23-C24-C25
4	Bb	308	A1A0P	C22-C23-C24-C25
4	Bc	308	A1A0P	C22-C23-C24-C25
4	Ba	310	A1A0P	C1-C2-O3-C4
4	Bb	310	A1A0P	C1-C2-O3-C4
4	Bc	310	A1A0P	C1-C2-O3-C4
4	Ca	303	A1A0P	C44-C45-C46-C47
4	Cb	304	A1A0P	C7-C34-C35-C36
4	Cc	303	A1A0P	C44-C45-C46-C47
4	Ba	313	A1A0P	C43-C44-C45-C46
4	Bb	309	A1A0P	C24-C25-C26-C27
4	Bb	313	A1A0P	C43-C44-C45-C46
4	Bc	313	A1A0P	C43-C44-C45-C46
4	Ba	309	A1A0P	C24-C25-C26-C27
4	Bc	309	A1A0P	C24-C25-C26-C27
4	Cb	314	A1A0P	C42-C43-C44-C45
4	Ca	314	A1A0P	C42-C43-C44-C45
4	Cc	305	A1A0P	C24-C25-C26-C27
4	Cc	314	A1A0P	C42-C43-C44-C45
4	Ca	303	A1A0P	C21-C22-C23-C24
4	Ca	303	A1A0P	C36-C37-C38-C39
4	Ca	305	A1A0P	C24-C25-C26-C27
4	Ca	312	A1A0P	C23-C24-C25-C26
4	Cb	303	A1A0P	C21-C22-C23-C24
4	Cb	303	A1A0P	C36-C37-C38-C39
4	Cb	305	A1A0P	C24-C25-C26-C27
4	Cb	312	A1A0P	C23-C24-C25-C26
4	Cc	303	A1A0P	C36-C37-C38-C39
4	Cc	312	A1A0P	C23-C24-C25-C26
4	Ba	308	A1A0P	C35-C34-C7-C4
4	Bb	308	A1A0P	C35-C34-C7-C4
4	Bc	308	A1A0P	C35-C34-C7-C4
4	Ba	311	A1A0P	C25-C26-C27-C28
4	Ca	303	A1A0P	C25-C26-C27-C28
4	Ca	307	A1A0P	C20-C21-C22-C23

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Mol	Chain	Res	Type	Atoms
4	Ca	308	A1A0P	C26-C27-C28-C29
4	Ca	310	A1A0P	C23-C24-C25-C26
4	Ca	310	A1A0P	C42-C43-C44-C45
4	Ca	314	A1A0P	C20-C21-C22-C23
4	Cb	307	A1A0P	C20-C21-C22-C23
4	Cb	308	A1A0P	C26-C27-C28-C29
4	Cb	310	A1A0P	C23-C24-C25-C26
4	Cb	310	A1A0P	C42-C43-C44-C45
4	Cb	314	A1A0P	C20-C21-C22-C23
4	Cc	308	A1A0P	C26-C27-C28-C29
4	Cc	308	A1A0P	C36-C37-C38-C39
4	Cc	310	A1A0P	C23-C24-C25-C26
4	Cc	310	A1A0P	C42-C43-C44-C45
4	Cc	314	A1A0P	C20-C21-C22-C23
4	Ca	308	A1A0P	C36-C37-C38-C39
4	Cb	303	A1A0P	C25-C26-C27-C28
4	Cb	308	A1A0P	C36-C37-C38-C39
4	Cc	303	A1A0P	C21-C22-C23-C24
4	Cc	307	A1A0P	C20-C21-C22-C23
4	Bb	311	A1A0P	C25-C26-C27-C28
4	Bc	311	A1A0P	C25-C26-C27-C28
4	Cc	303	A1A0P	C25-C26-C27-C28
4	Ba	308	A1A0P	C27-C28-C29-C30
4	Ca	309	A1A0P	C21-C22-C23-C24
4	Cb	309	A1A0P	C21-C22-C23-C24
4	Bb	308	A1A0P	C27-C28-C29-C30
4	Bc	308	A1A0P	C27-C28-C29-C30
4	Ba	308	A1A0P	C34-C35-C36-C37
4	Ba	308	A1A0P	C42-C43-C44-C45
4	Ca	303	A1A0P	C28-C29-C30-C31
4	Cb	303	A1A0P	C28-C29-C30-C31
4	Cc	303	A1A0P	C28-C29-C30-C31
4	Cc	309	A1A0P	C21-C22-C23-C24
4	Bb	308	A1A0P	C34-C35-C36-C37
4	Bc	308	A1A0P	C34-C35-C36-C37
4	Bc	308	A1A0P	C42-C43-C44-C45
4	Ca	309	A1A0P	C7-C34-C35-C36
4	Cb	309	A1A0P	C7-C34-C35-C36
4	Cc	309	A1A0P	C7-C34-C35-C36
4	Ca	306	A1A0P	C23-C24-C25-C26
4	Cb	306	A1A0P	C23-C24-C25-C26
4	Cc	306	A1A0P	C23-C24-C25-C26

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Mol	Chain	Res	Type	Atoms
4	Bb	308	A1A0P	C42-C43-C44-C45
4	Ba	313	A1A0P	C35-C34-C7-C4
4	Bb	313	A1A0P	C35-C34-C7-C4
4	Bc	313	A1A0P	C35-C34-C7-C4
4	Ca	309	A1A0P	C20-C21-C22-C23
4	Ca	313	A1A0P	C35-C36-C37-C38
4	Ca	314	A1A0P	C43-C44-C45-C46
4	Cb	309	A1A0P	C20-C21-C22-C23
4	Cb	313	A1A0P	C35-C36-C37-C38
4	Cc	309	A1A0P	C20-C21-C22-C23
4	Cc	313	A1A0P	C35-C36-C37-C38
4	Cb	314	A1A0P	C43-C44-C45-C46
4	Bb	312	A1A0P	C35-C36-C37-C38
4	Ba	312	A1A0P	C35-C36-C37-C38
4	Ba	314	A1A0P	C26-C27-C28-C29
4	Cb	303	A1A0P	C29-C30-C31-C32
4	Cc	303	A1A0P	C29-C30-C31-C32
4	Cc	314	A1A0P	C43-C44-C45-C46
4	Bb	314	A1A0P	C26-C27-C28-C29
4	Bc	312	A1A0P	C35-C36-C37-C38
4	Bc	314	A1A0P	C26-C27-C28-C29
4	Ca	303	A1A0P	C29-C30-C31-C32
4	Cc	307	A1A0P	C26-C27-C28-C29
4	Cc	313	A1A0P	C27-C28-C29-C30
4	Ba	311	A1A0P	C43-C44-C45-C46
4	Ca	313	A1A0P	C27-C28-C29-C30
4	Cb	313	A1A0P	C27-C28-C29-C30
4	Bb	311	A1A0P	C43-C44-C45-C46
4	Bc	311	A1A0P	C43-C44-C45-C46
4	Ba	312	A1A0P	C42-C43-C44-C45
4	Ca	305	A1A0P	C28-C29-C30-C31
4	Ca	307	A1A0P	C26-C27-C28-C29
4	Cb	305	A1A0P	C28-C29-C30-C31
4	Cb	307	A1A0P	C26-C27-C28-C29
4	Cc	305	A1A0P	C28-C29-C30-C31
4	Bb	312	A1A0P	C42-C43-C44-C45
4	Bc	312	A1A0P	C42-C43-C44-C45
4	Ba	312	A1A0P	C21-C22-C23-C24
4	Bb	312	A1A0P	C21-C22-C23-C24
4	Bc	312	A1A0P	C21-C22-C23-C24
4	Ba	310	A1A0P	C43-C44-C45-C46
4	Bb	310	A1A0P	C43-C44-C45-C46

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Mol	Chain	Res	Type	Atoms
4	Bc	310	A1A0P	C43-C44-C45-C46
4	Cb	307	A1A0P	C34-C35-C36-C37
4	Cc	307	A1A0P	C34-C35-C36-C37
4	Ca	304	A1A0P	C34-C35-C36-C37
4	Ca	307	A1A0P	C34-C35-C36-C37
4	Cb	304	A1A0P	C34-C35-C36-C37
4	Cc	304	A1A0P	C34-C35-C36-C37
4	Ba	310	A1A0P	C29-C30-C31-C32
4	Aa	537	A1A0P	C22-C23-C24-C25
4	Ab	537	A1A0P	C22-C23-C24-C25
4	Ac	537	A1A0P	C22-C23-C24-C25
4	Bb	310	A1A0P	C29-C30-C31-C32
4	Ba	308	A1A0P	C44-C45-C46-C47
4	Ca	304	A1A0P	C23-C24-C25-C26
4	Cb	304	A1A0P	C23-C24-C25-C26
4	Cc	304	A1A0P	C23-C24-C25-C26
4	Bb	308	A1A0P	C44-C45-C46-C47
4	Bc	308	A1A0P	C44-C45-C46-C47
4	Bc	310	A1A0P	C29-C30-C31-C32
4	Ca	314	A1A0P	C26-C27-C28-C29
4	Cb	314	A1A0P	C26-C27-C28-C29
4	Bc	311	A1A0P	C20-C21-C22-C23
4	Ba	311	A1A0P	C20-C21-C22-C23
4	Cc	314	A1A0P	C26-C27-C28-C29
4	Bb	311	A1A0P	C20-C21-C22-C23
4	Aa	537	A1A0P	C35-C34-C7-C4
4	Ab	537	A1A0P	C35-C34-C7-C4
4	Ac	537	A1A0P	C35-C34-C7-C4
4	Ca	303	A1A0P	C19-C20-C21-C22
4	Cb	303	A1A0P	C19-C20-C21-C22
4	Ca	310	A1A0P	C37-C38-C39-C40
4	Cb	310	A1A0P	C37-C38-C39-C40
4	Cc	310	A1A0P	C37-C38-C39-C40
4	Cc	303	A1A0P	C19-C20-C21-C22
4	Ca	307	A1A0P	C27-C28-C29-C30
4	Cc	307	A1A0P	C27-C28-C29-C30
4	Cb	307	A1A0P	C27-C28-C29-C30
4	Cc	312	A1A0P	C35-C36-C37-C38
4	Ca	304	A1A0P	C40-C41-C42-C43
4	Cb	304	A1A0P	C40-C41-C42-C43
4	Cc	304	A1A0P	C40-C41-C42-C43
4	Ba	310	A1A0P	C28-C29-C30-C31

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Mol	Chain	Res	Type	Atoms
4	Ba	310	A1A0P	C7-C34-C35-C36
4	Ba	313	A1A0P	C21-C22-C23-C24
4	Ca	303	A1A0P	C34-C35-C36-C37
4	Ca	312	A1A0P	C35-C36-C37-C38
4	Cb	303	A1A0P	C34-C35-C36-C37
4	Cb	312	A1A0P	C35-C36-C37-C38
4	Cc	303	A1A0P	C34-C35-C36-C37
4	Bb	310	A1A0P	C28-C29-C30-C31
4	Bb	313	A1A0P	C21-C22-C23-C24
4	Bc	310	A1A0P	C28-C29-C30-C31
4	Bc	310	A1A0P	C7-C34-C35-C36
4	Bc	313	A1A0P	C21-C22-C23-C24
4	Ba	313	A1A0P	C20-C21-C22-C23
4	Ca	310	A1A0P	C21-C22-C23-C24
4	Cb	310	A1A0P	C21-C22-C23-C24
4	Cc	310	A1A0P	C21-C22-C23-C24
4	Bb	310	A1A0P	C7-C34-C35-C36
4	Bb	313	A1A0P	C20-C21-C22-C23
4	Bc	313	A1A0P	C20-C21-C22-C23
4	Cc	303	A1A0P	C23-C24-C25-C26
4	Ca	303	A1A0P	C23-C24-C25-C26
4	Cb	303	A1A0P	C23-C24-C25-C26
4	Cb	306	A1A0P	C27-C28-C29-C30
4	Cc	306	A1A0P	C27-C28-C29-C30
4	Ca	306	A1A0P	C27-C28-C29-C30
4	Ca	304	A1A0P	C35-C36-C37-C38
4	Cb	304	A1A0P	C35-C36-C37-C38
4	Cc	304	A1A0P	C35-C36-C37-C38
4	Ba	312	A1A0P	C37-C38-C39-C40
4	Ca	309	A1A0P	C37-C38-C39-C40
4	Ca	313	A1A0P	C41-C42-C43-C44
4	Cb	309	A1A0P	C37-C38-C39-C40
4	Cb	313	A1A0P	C41-C42-C43-C44
4	Cc	309	A1A0P	C37-C38-C39-C40
4	Cc	313	A1A0P	C41-C42-C43-C44
4	Bb	312	A1A0P	C37-C38-C39-C40
4	Bc	312	A1A0P	C37-C38-C39-C40
4	Ca	307	A1A0P	C36-C37-C38-C39
4	Cc	307	A1A0P	C36-C37-C38-C39
4	Ba	309	A1A0P	C2-C1-C8-O9
4	Bb	309	A1A0P	C2-C1-C8-O9
4	Bc	309	A1A0P	C2-C1-C8-O9

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Mol	Chain	Res	Type	Atoms
4	Ba	310	A1A0P	C44-C45-C46-C47
4	Ca	303	A1A0P	C20-C21-C22-C23
4	Cb	303	A1A0P	C20-C21-C22-C23
4	Cb	307	A1A0P	C36-C37-C38-C39
4	Cc	303	A1A0P	C20-C21-C22-C23
4	Bb	310	A1A0P	C44-C45-C46-C47
4	Bc	310	A1A0P	C44-C45-C46-C47
4	Ba	310	A1A0P	C26-C27-C28-C29
4	Bb	310	A1A0P	C26-C27-C28-C29
4	Bc	314	A1A0P	C20-C21-C22-C23
4	Ba	314	A1A0P	C20-C21-C22-C23
4	Bb	314	A1A0P	C20-C21-C22-C23
4	Bc	310	A1A0P	C26-C27-C28-C29
4	Ba	311	A1A0P	C42-C43-C44-C45
4	Cb	306	A1A0P	C44-C45-C46-C47
4	Cc	306	A1A0P	C44-C45-C46-C47
4	Bb	311	A1A0P	C42-C43-C44-C45
4	Bc	311	A1A0P	C42-C43-C44-C45
4	Ca	306	A1A0P	C44-C45-C46-C47
4	Bb	313	A1A0P	C24-C25-C26-C27
4	Ba	313	A1A0P	C24-C25-C26-C27
4	Bc	313	A1A0P	C24-C25-C26-C27
4	Ca	312	A1A0P	C17-C19-C20-C21
4	Cb	312	A1A0P	C17-C19-C20-C21
4	Cc	312	A1A0P	C17-C19-C20-C21
4	Ca	312	A1A0P	C8-C1-C2-O3
4	Ca	314	A1A0P	C8-C1-C2-O3
4	Aa	537	A1A0P	C8-C1-C2-O3
4	Cb	312	A1A0P	C8-C1-C2-O3
4	Cb	314	A1A0P	C8-C1-C2-O3
4	Cc	312	A1A0P	C8-C1-C2-O3
4	Cc	314	A1A0P	C8-C1-C2-O3
4	Ab	537	A1A0P	C8-C1-C2-O3
4	Ac	537	A1A0P	C8-C1-C2-O3
4	Ba	309	A1A0P	C41-C42-C43-C44
4	Ba	313	A1A0P	C37-C38-C39-C40
4	Ca	303	A1A0P	C37-C38-C39-C40
4	Aa	537	A1A0P	C41-C42-C43-C44
4	Cb	303	A1A0P	C37-C38-C39-C40
4	Cc	303	A1A0P	C37-C38-C39-C40
4	Ab	537	A1A0P	C41-C42-C43-C44
4	Ac	537	A1A0P	C41-C42-C43-C44

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Mol	Chain	Res	Type	Atoms
4	Bb	309	A1A0P	C41-C42-C43-C44
4	Bb	313	A1A0P	C37-C38-C39-C40
4	Bc	309	A1A0P	C41-C42-C43-C44
4	Bc	313	A1A0P	C37-C38-C39-C40
4	Ba	313	A1A0P	C42-C43-C44-C45
4	Bb	313	A1A0P	C42-C43-C44-C45
4	Bc	313	A1A0P	C42-C43-C44-C45
4	Ca	304	A1A0P	C44-C45-C46-C47
4	Cb	304	A1A0P	C44-C45-C46-C47
4	Cc	304	A1A0P	C44-C45-C46-C47
4	Ac	537	A1A0P	C7-C34-C35-C36
4	Aa	537	A1A0P	C7-C34-C35-C36
4	Cb	309	A1A0P	C19-C20-C21-C22
4	Ab	537	A1A0P	C7-C34-C35-C36
4	Ca	309	A1A0P	C19-C20-C21-C22
4	Cc	309	A1A0P	C19-C20-C21-C22
4	Ca	309	A1A0P	C35-C34-C7-C4
4	Cb	309	A1A0P	C35-C34-C7-C4
4	Cc	309	A1A0P	C35-C34-C7-C4
4	Ca	306	A1A0P	C38-C39-C40-C41
4	Cb	306	A1A0P	C38-C39-C40-C41
4	Cc	306	A1A0P	C38-C39-C40-C41
4	Ba	313	A1A0P	C28-C29-C30-C31
4	Ca	306	A1A0P	C26-C27-C28-C29
4	Cb	306	A1A0P	C26-C27-C28-C29
4	Cc	306	A1A0P	C26-C27-C28-C29
4	Bb	313	A1A0P	C28-C29-C30-C31
4	Bc	313	A1A0P	C28-C29-C30-C31
4	Ca	304	A1A0P	C21-C22-C23-C24
4	Cb	304	A1A0P	C21-C22-C23-C24
4	Cc	304	A1A0P	C21-C22-C23-C24
4	Ca	308	A1A0P	C28-C29-C30-C31
4	Ca	312	A1A0P	C21-C22-C23-C24
4	Cb	312	A1A0P	C21-C22-C23-C24
4	Ca	303	A1A0P	C41-C42-C43-C44
4	Ca	304	A1A0P	C41-C42-C43-C44
4	Ca	310	A1A0P	C41-C42-C43-C44
4	Cb	303	A1A0P	C41-C42-C43-C44
4	Cb	304	A1A0P	C41-C42-C43-C44
4	Cb	310	A1A0P	C41-C42-C43-C44
4	Cc	303	A1A0P	C41-C42-C43-C44
4	Cc	304	A1A0P	C41-C42-C43-C44

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Mol	Chain	Res	Type	Atoms
4	Cc	310	A1A0P	C41-C42-C43-C44
4	Cb	308	A1A0P	C28-C29-C30-C31
4	Cc	308	A1A0P	C28-C29-C30-C31
4	Cc	312	A1A0P	C21-C22-C23-C24
4	Ca	306	A1A0P	C43-C44-C45-C46
4	Ba	311	A1A0P	C22-C23-C24-C25
4	Cb	306	A1A0P	C43-C44-C45-C46
4	Cc	306	A1A0P	C43-C44-C45-C46
4	Ba	311	A1A0P	O6-C1-C8-O9
4	Ca	303	A1A0P	O6-C1-C8-O9
4	Cb	303	A1A0P	O6-C1-C8-O9
4	Cc	303	A1A0P	O6-C1-C8-O9
4	Bb	311	A1A0P	O6-C1-C8-O9
4	Bc	311	A1A0P	O6-C1-C8-O9
4	Bb	311	A1A0P	C22-C23-C24-C25
4	Bc	311	A1A0P	C22-C23-C24-C25
4	Ca	312	A1A0P	C25-C26-C27-C28
4	Cb	312	A1A0P	C25-C26-C27-C28
4	Cc	312	A1A0P	C25-C26-C27-C28
4	Bb	314	A1A0P	C45-C46-C47-C48
4	Bc	314	A1A0P	C45-C46-C47-C48
4	Ba	314	A1A0P	C45-C46-C47-C48
4	Ba	313	A1A0P	C22-C23-C24-C25
4	Cc	310	A1A0P	C34-C35-C36-C37
4	Bb	313	A1A0P	C22-C23-C24-C25
4	Bc	313	A1A0P	C22-C23-C24-C25
4	Ba	309	A1A0P	C29-C30-C31-C32
4	Ba	312	A1A0P	C43-C44-C45-C46
4	Ca	310	A1A0P	C34-C35-C36-C37
4	Bb	312	A1A0P	C43-C44-C45-C46
4	Bc	309	A1A0P	C29-C30-C31-C32
4	Bc	312	A1A0P	C43-C44-C45-C46
4	Ca	303	A1A0P	C17-C19-C20-C21
4	Cb	303	A1A0P	C17-C19-C20-C21
4	Cc	303	A1A0P	C17-C19-C20-C21
4	Cb	310	A1A0P	C34-C35-C36-C37
4	Ba	314	A1A0P	O6-C1-C2-O3
4	Bb	314	A1A0P	O6-C1-C2-O3
4	Bc	314	A1A0P	O6-C1-C2-O3
4	Ca	308	A1A0P	C35-C36-C37-C38
4	Cb	308	A1A0P	C35-C36-C37-C38
4	Cc	308	A1A0P	C35-C36-C37-C38

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Mol	Chain	Res	Type	Atoms
4	Bb	309	A1A0P	C29-C30-C31-C32
4	Ca	310	A1A0P	C45-C46-C47-C48
4	Cb	310	A1A0P	C45-C46-C47-C48
4	Cc	310	A1A0P	C45-C46-C47-C48
4	Ca	306	A1A0P	C28-C29-C30-C31
4	Cb	306	A1A0P	C28-C29-C30-C31
4	Cc	306	A1A0P	C28-C29-C30-C31
4	Cc	308	A1A0P	C22-C23-C24-C25
4	Ca	308	A1A0P	C22-C23-C24-C25
4	Cb	306	A1A0P	C35-C36-C37-C38
4	Cb	308	A1A0P	C22-C23-C24-C25
4	Ca	306	A1A0P	C35-C36-C37-C38
4	Ca	307	A1A0P	C37-C38-C39-C40
4	Cb	307	A1A0P	C37-C38-C39-C40
4	Cc	307	A1A0P	C37-C38-C39-C40
4	Bc	309	A1A0P	C45-C46-C47-C48
4	Cc	306	A1A0P	C35-C36-C37-C38
4	Bc	314	A1A0P	C36-C37-C38-C39
4	Bb	309	A1A0P	C45-C46-C47-C48
4	Bb	314	A1A0P	C36-C37-C38-C39
4	Ba	309	A1A0P	C45-C46-C47-C48
4	Ba	314	A1A0P	C36-C37-C38-C39
4	Bb	314	A1A0P	C34-C35-C36-C37
4	Ba	314	A1A0P	C34-C35-C36-C37
4	Bc	314	A1A0P	C34-C35-C36-C37
4	Ca	312	A1A0P	C24-C25-C26-C27
4	Cb	312	A1A0P	C24-C25-C26-C27
4	Cc	312	A1A0P	C24-C25-C26-C27
4	Cb	307	A1A0P	C22-C23-C24-C25
4	Ca	305	A1A0P	C42-C43-C44-C45
4	Ca	307	A1A0P	C22-C23-C24-C25
4	Cb	305	A1A0P	C42-C43-C44-C45
4	Cc	305	A1A0P	C42-C43-C44-C45
4	Cc	307	A1A0P	C22-C23-C24-C25
4	Ca	305	A1A0P	C38-C39-C40-C41
4	Cb	305	A1A0P	C38-C39-C40-C41
4	Cc	305	A1A0P	C38-C39-C40-C41
4	Aa	537	A1A0P	C23-C24-C25-C26
4	Ac	537	A1A0P	C23-C24-C25-C26
4	Ab	537	A1A0P	C23-C24-C25-C26
4	Ba	311	A1A0P	C2-C1-C8-O9
4	Ca	308	A1A0P	C2-C1-C8-O9

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Mol	Chain	Res	Type	Atoms
4	Ca	309	A1A0P	C2-C1-C8-O9
4	Cb	308	A1A0P	C2-C1-C8-O9
4	Cb	309	A1A0P	C2-C1-C8-O9
4	Cc	308	A1A0P	C2-C1-C8-O9
4	Cc	309	A1A0P	C2-C1-C8-O9
4	Bb	311	A1A0P	C2-C1-C8-O9
4	Bc	311	A1A0P	C2-C1-C8-O9
4	Ba	313	A1A0P	C26-C27-C28-C29
4	Ca	314	A1A0P	C35-C34-C7-C4
4	Cb	314	A1A0P	C35-C34-C7-C4
4	Cc	314	A1A0P	C35-C34-C7-C4
4	Ca	310	A1A0P	C25-C26-C27-C28
4	Cb	310	A1A0P	C25-C26-C27-C28
4	Cc	310	A1A0P	C25-C26-C27-C28
4	Bb	313	A1A0P	C26-C27-C28-C29
4	Bc	313	A1A0P	C26-C27-C28-C29
4	Ca	304	A1A0P	C30-C31-C32-C33
4	Ca	312	A1A0P	C45-C46-C47-C48
4	Cb	304	A1A0P	C30-C31-C32-C33
4	Cb	312	A1A0P	C45-C46-C47-C48
4	Cc	304	A1A0P	C30-C31-C32-C33
4	Cc	312	A1A0P	C45-C46-C47-C48
4	Ca	308	A1A0P	C38-C39-C40-C41
4	Cb	308	A1A0P	C38-C39-C40-C41
4	Cc	308	A1A0P	C38-C39-C40-C41
4	Bb	308	A1A0P	C36-C37-C38-C39
4	Ba	308	A1A0P	C36-C37-C38-C39
4	Ca	305	A1A0P	C35-C36-C37-C38
4	Cb	305	A1A0P	C35-C36-C37-C38
4	Cb	309	A1A0P	C28-C29-C30-C31
4	Cb	312	A1A0P	C28-C29-C30-C31
4	Cc	305	A1A0P	C35-C36-C37-C38
4	Bc	308	A1A0P	C36-C37-C38-C39
4	Ca	306	A1A0P	C37-C38-C39-C40
4	Cb	306	A1A0P	C37-C38-C39-C40
4	Cc	306	A1A0P	C37-C38-C39-C40
4	Ca	309	A1A0P	C28-C29-C30-C31
4	Ca	312	A1A0P	C28-C29-C30-C31
4	Cc	309	A1A0P	C28-C29-C30-C31
4	Bb	309	A1A0P	C30-C31-C32-C33
4	Cc	312	A1A0P	C28-C29-C30-C31
4	Ca	303	A1A0P	C42-C43-C44-C45

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Mol	Chain	Res	Type	Atoms
4	Ba	308	A1A0P	C8-C1-C2-O3
4	Ba	314	A1A0P	C8-C1-C2-O3
4	Ca	305	A1A0P	C8-C1-C2-O3
4	Ca	306	A1A0P	C8-C1-C2-O3
4	Ca	308	A1A0P	C8-C1-C2-O3
4	Cb	305	A1A0P	C8-C1-C2-O3
4	Cb	306	A1A0P	C8-C1-C2-O3
4	Cb	308	A1A0P	C8-C1-C2-O3
4	Cc	305	A1A0P	C8-C1-C2-O3
4	Cc	306	A1A0P	C8-C1-C2-O3
4	Cc	308	A1A0P	C8-C1-C2-O3
4	Bb	308	A1A0P	C8-C1-C2-O3
4	Bb	314	A1A0P	C8-C1-C2-O3
4	Bc	308	A1A0P	C8-C1-C2-O3
4	Bc	314	A1A0P	C8-C1-C2-O3
4	Cc	303	A1A0P	C42-C43-C44-C45
4	Ba	309	A1A0P	C30-C31-C32-C33
4	Ca	306	A1A0P	C30-C31-C32-C33
4	Cb	306	A1A0P	C30-C31-C32-C33
4	Cc	306	A1A0P	C30-C31-C32-C33
4	Bc	309	A1A0P	C30-C31-C32-C33
4	Cb	303	A1A0P	C42-C43-C44-C45
4	Cb	309	A1A0P	C22-C23-C24-C25
4	Ca	309	A1A0P	C22-C23-C24-C25
4	Cc	309	A1A0P	C22-C23-C24-C25
4	Ca	308	A1A0P	O6-C1-C8-O9
4	Ca	309	A1A0P	O6-C1-C8-O9
4	Cb	308	A1A0P	O6-C1-C8-O9
4	Cb	309	A1A0P	O6-C1-C8-O9
4	Cc	308	A1A0P	O6-C1-C8-O9
4	Cc	309	A1A0P	O6-C1-C8-O9
4	Ca	310	A1A0P	C28-C29-C30-C31
4	Cb	310	A1A0P	C28-C29-C30-C31
4	Cc	310	A1A0P	C28-C29-C30-C31
4	Ba	309	A1A0P	C19-C20-C21-C22
4	Bb	309	A1A0P	C19-C20-C21-C22
4	Bc	309	A1A0P	C19-C20-C21-C22
4	Ba	312	A1A0P	C1-C8-O9-P14
4	Bb	312	A1A0P	C1-C8-O9-P14
4	Bc	312	A1A0P	C1-C8-O9-P14
4	Aa	537	A1A0P	C19-C20-C21-C22
4	Ab	537	A1A0P	C19-C20-C21-C22

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Mol	Chain	Res	Type	Atoms
4	Ac	537	A1A0P	C19-C20-C21-C22
4	Ca	305	A1A0P	O6-C1-C2-O3
4	Ca	306	A1A0P	O6-C1-C2-O3
4	Ca	308	A1A0P	O6-C1-C2-O3
4	Ca	309	A1A0P	O6-C1-C2-O3
4	Ca	314	A1A0P	O6-C1-C2-O3
4	Cb	305	A1A0P	O6-C1-C2-O3
4	Cb	306	A1A0P	O6-C1-C2-O3
4	Cb	308	A1A0P	O6-C1-C2-O3
4	Cb	309	A1A0P	O6-C1-C2-O3
4	Cb	314	A1A0P	O6-C1-C2-O3
4	Cc	305	A1A0P	O6-C1-C2-O3
4	Cc	306	A1A0P	O6-C1-C2-O3
4	Cc	308	A1A0P	O6-C1-C2-O3
4	Cc	309	A1A0P	O6-C1-C2-O3
4	Cc	314	A1A0P	O6-C1-C2-O3
4	Ca	303	A1A0P	C45-C46-C47-C48
4	Cb	303	A1A0P	C45-C46-C47-C48
4	Cc	303	A1A0P	C45-C46-C47-C48
4	Ca	312	A1A0P	C38-C39-C40-C41
4	Cb	312	A1A0P	C38-C39-C40-C41
4	Cc	312	A1A0P	C38-C39-C40-C41
4	Bc	310	A1A0P	C42-C43-C44-C45
4	Bb	310	A1A0P	C42-C43-C44-C45
4	Ba	310	A1A0P	C41-C42-C43-C44
4	Bb	310	A1A0P	C41-C42-C43-C44
4	Bc	310	A1A0P	C41-C42-C43-C44
4	Ba	310	A1A0P	C42-C43-C44-C45
4	Ca	314	A1A0P	C38-C39-C40-C41
4	Cc	314	A1A0P	C38-C39-C40-C41
4	Ca	312	A1A0P	C20-C21-C22-C23
4	Cb	312	A1A0P	C20-C21-C22-C23
4	Cc	312	A1A0P	C20-C21-C22-C23
4	Cb	304	A1A0P	C19-C20-C21-C22
4	Cb	314	A1A0P	C38-C39-C40-C41
4	Ba	309	A1A0P	C44-C45-C46-C47
4	Ca	304	A1A0P	C19-C20-C21-C22
4	Cc	304	A1A0P	C19-C20-C21-C22
4	Bb	309	A1A0P	C44-C45-C46-C47
4	Bc	309	A1A0P	C44-C45-C46-C47
4	Ca	303	A1A0P	C7-C34-C35-C36
4	Ca	305	A1A0P	C34-C35-C36-C37

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Mol	Chain	Res	Type	Atoms
4	Cb	303	A1A0P	C7-C34-C35-C36
4	Cb	305	A1A0P	C34-C35-C36-C37
4	Cb	307	A1A0P	C43-C44-C45-C46
4	Cc	303	A1A0P	C7-C34-C35-C36
4	Ca	307	A1A0P	C43-C44-C45-C46
4	Cc	305	A1A0P	C34-C35-C36-C37
4	Ca	314	A1A0P	C25-C26-C27-C28
4	Cb	314	A1A0P	C25-C26-C27-C28
4	Cc	307	A1A0P	C43-C44-C45-C46
4	Cc	314	A1A0P	C25-C26-C27-C28
4	Ca	308	A1A0P	C41-C42-C43-C44
4	Cb	308	A1A0P	C41-C42-C43-C44
4	Cc	308	A1A0P	C41-C42-C43-C44
4	Ba	309	A1A0P	C25-C26-C27-C28
4	Cc	306	A1A0P	C29-C30-C31-C32
4	Bc	309	A1A0P	C25-C26-C27-C28
4	Ca	306	A1A0P	C29-C30-C31-C32
4	Cb	306	A1A0P	C29-C30-C31-C32
4	Bb	309	A1A0P	C25-C26-C27-C28
4	Bb	314	A1A0P	C30-C31-C32-C33
4	Bc	314	A1A0P	C30-C31-C32-C33
4	Ba	314	A1A0P	C30-C31-C32-C33
4	Cc	309	A1A0P	C23-C24-C25-C26
4	Ba	312	A1A0P	C20-C21-C22-C23
4	Ca	309	A1A0P	C23-C24-C25-C26
4	Cb	309	A1A0P	C23-C24-C25-C26
4	Bb	312	A1A0P	C20-C21-C22-C23
4	Bc	312	A1A0P	C20-C21-C22-C23
4	Ca	305	A1A0P	C12-C11-O10-P14
4	Aa	537	A1A0P	C12-C11-O10-P14
4	Cb	305	A1A0P	C12-C11-O10-P14
4	Cc	305	A1A0P	C12-C11-O10-P14
4	Ab	537	A1A0P	C12-C11-O10-P14
4	Ac	537	A1A0P	C12-C11-O10-P14
4	Ca	313	A1A0P	O6-C1-C2-O3
4	Cb	313	A1A0P	O6-C1-C2-O3
4	Cc	313	A1A0P	O6-C1-C2-O3
4	Cb	304	A1A0P	C24-C25-C26-C27
4	Cc	304	A1A0P	C24-C25-C26-C27
4	Ca	304	A1A0P	C24-C25-C26-C27
4	Ca	306	A1A0P	C42-C43-C44-C45
4	Cb	306	A1A0P	C42-C43-C44-C45

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Mol	Chain	Res	Type	Atoms
4	Cc	306	A1A0P	C42-C43-C44-C45
4	Ca	305	A1A0P	C45-C46-C47-C48
4	Cb	305	A1A0P	C45-C46-C47-C48
4	Cc	305	A1A0P	C45-C46-C47-C48
4	Cb	308	A1A0P	C21-C22-C23-C24
4	Cc	308	A1A0P	C21-C22-C23-C24
4	Ca	308	A1A0P	C21-C22-C23-C24
4	Ca	309	A1A0P	C29-C30-C31-C32
4	Cb	309	A1A0P	C29-C30-C31-C32
4	Cc	309	A1A0P	C29-C30-C31-C32
4	Ca	313	A1A0P	C36-C37-C38-C39
4	Cb	313	A1A0P	C36-C37-C38-C39
4	Cc	313	A1A0P	C36-C37-C38-C39
4	Ca	307	A1A0P	C38-C39-C40-C41
4	Cb	307	A1A0P	C38-C39-C40-C41
4	Ba	310	A1A0P	C2-C1-C8-O9
4	Ca	303	A1A0P	C2-C1-C8-O9
4	Cb	303	A1A0P	C2-C1-C8-O9
4	Cc	303	A1A0P	C2-C1-C8-O9
4	Bb	310	A1A0P	C2-C1-C8-O9
4	Bc	310	A1A0P	C2-C1-C8-O9
4	Cb	309	A1A0P	C26-C27-C28-C29
4	Cc	309	A1A0P	C26-C27-C28-C29
4	Ca	309	A1A0P	C26-C27-C28-C29
4	Ba	309	A1A0P	C20-C21-C22-C23
4	Ca	305	A1A0P	C26-C27-C28-C29
4	Cc	305	A1A0P	C26-C27-C28-C29
4	Bb	309	A1A0P	C20-C21-C22-C23
4	Cc	307	A1A0P	C38-C39-C40-C41
4	Cb	305	A1A0P	C26-C27-C28-C29
4	Bc	309	A1A0P	C20-C21-C22-C23
4	Ca	304	A1A0P	C1-C8-O9-P14
4	Cb	304	A1A0P	C1-C8-O9-P14
4	Cc	304	A1A0P	C1-C8-O9-P14
4	Ba	310	A1A0P	O6-C1-C8-O9
4	Bb	310	A1A0P	O6-C1-C8-O9
4	Bc	310	A1A0P	O6-C1-C8-O9
4	Cb	305	A1A0P	C23-C24-C25-C26
4	Ca	305	A1A0P	C23-C24-C25-C26
4	Ca	306	A1A0P	C19-C20-C21-C22
4	Cb	306	A1A0P	C19-C20-C21-C22
4	Cc	305	A1A0P	C23-C24-C25-C26

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Mol	Chain	Res	Type	Atoms
4	Cc	306	A1A0P	C19-C20-C21-C22
4	Bb	312	A1A0P	C28-C29-C30-C31
4	Ba	309	A1A0P	O6-C1-C2-O3
4	Ca	304	A1A0P	O6-C1-C2-O3
4	Ca	307	A1A0P	O6-C1-C2-O3
4	Aa	537	A1A0P	O6-C1-C2-O3
4	Cb	304	A1A0P	O6-C1-C2-O3
4	Cb	307	A1A0P	O6-C1-C2-O3
4	Cc	304	A1A0P	O6-C1-C2-O3
4	Cc	307	A1A0P	O6-C1-C2-O3
4	Ab	537	A1A0P	O6-C1-C2-O3
4	Ac	537	A1A0P	O6-C1-C2-O3
4	Bb	309	A1A0P	O6-C1-C2-O3
4	Bc	309	A1A0P	O6-C1-C2-O3
4	Bc	312	A1A0P	C28-C29-C30-C31
4	Ba	312	A1A0P	C28-C29-C30-C31
4	Cb	307	A1A0P	C7-C34-C35-C36
4	Ca	304	A1A0P	C8-C1-C2-O3
4	Ca	309	A1A0P	C8-C1-C2-O3
4	Cb	304	A1A0P	C8-C1-C2-O3
4	Cb	309	A1A0P	C8-C1-C2-O3
4	Cc	304	A1A0P	C8-C1-C2-O3
4	Cc	309	A1A0P	C8-C1-C2-O3
4	Ba	313	A1A0P	C45-C46-C47-C48
4	Bb	313	A1A0P	C45-C46-C47-C48
4	Bc	313	A1A0P	C45-C46-C47-C48
4	Ca	307	A1A0P	C7-C34-C35-C36
4	Cc	307	A1A0P	C7-C34-C35-C36
4	Ba	310	A1A0P	C17-C19-C20-C21
4	Bb	310	A1A0P	C17-C19-C20-C21
4	Bc	310	A1A0P	C17-C19-C20-C21
4	Ca	310	A1A0P	C30-C31-C32-C33
4	Cb	310	A1A0P	C30-C31-C32-C33
4	Cc	310	A1A0P	C30-C31-C32-C33
4	Aa	537	A1A0P	C27-C28-C29-C30
4	Ab	537	A1A0P	C27-C28-C29-C30
4	Ca	306	A1A0P	C36-C37-C38-C39
4	Cb	306	A1A0P	C36-C37-C38-C39
4	Cb	306	A1A0P	C20-C21-C22-C23
4	Ac	537	A1A0P	C27-C28-C29-C30
4	Cc	306	A1A0P	C20-C21-C22-C23
4	Ba	310	A1A0P	C11-O10-P14-O15

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Mol	Chain	Res	Type	Atoms
4	Ba	311	A1A0P	C11-O10-P14-O16
4	Ba	312	A1A0P	C11-O10-P14-O15
4	Ba	313	A1A0P	C8-O9-P14-O16
4	Ba	314	A1A0P	C11-O10-P14-O16
4	Ca	305	A1A0P	C11-O10-P14-O9
4	Ca	307	A1A0P	C8-O9-P14-O10
4	Ca	308	A1A0P	C8-O9-P14-O16
4	Ca	309	A1A0P	C8-O9-P14-O15
4	Ca	310	A1A0P	C8-O9-P14-O10
4	Ca	312	A1A0P	C11-O10-P14-O15
4	Ca	313	A1A0P	C8-O9-P14-O16
4	Ca	314	A1A0P	C11-O10-P14-O16
4	Aa	537	A1A0P	C8-O9-P14-O16
4	Cb	305	A1A0P	C11-O10-P14-O9
4	Cb	307	A1A0P	C8-O9-P14-O10
4	Cb	308	A1A0P	C8-O9-P14-O16
4	Cb	309	A1A0P	C8-O9-P14-O15
4	Cb	310	A1A0P	C8-O9-P14-O10
4	Cb	312	A1A0P	C11-O10-P14-O15
4	Cb	313	A1A0P	C8-O9-P14-O16
4	Cc	305	A1A0P	C11-O10-P14-O9
4	Cc	307	A1A0P	C8-O9-P14-O10
4	Cc	308	A1A0P	C8-O9-P14-O16
4	Cc	309	A1A0P	C8-O9-P14-O15
4	Cc	310	A1A0P	C8-O9-P14-O10
4	Cc	312	A1A0P	C11-O10-P14-O15
4	Cc	313	A1A0P	C8-O9-P14-O16
4	Cc	314	A1A0P	C11-O10-P14-O16
4	Ab	537	A1A0P	C8-O9-P14-O16
4	Ac	537	A1A0P	C8-O9-P14-O16
4	Bb	310	A1A0P	C11-O10-P14-O15
4	Bb	311	A1A0P	C11-O10-P14-O16
4	Bb	312	A1A0P	C11-O10-P14-O15
4	Bb	313	A1A0P	C8-O9-P14-O16
4	Bb	314	A1A0P	C11-O10-P14-O16
4	Bc	310	A1A0P	C11-O10-P14-O15
4	Bc	311	A1A0P	C11-O10-P14-O16
4	Bc	312	A1A0P	C11-O10-P14-O15
4	Bc	313	A1A0P	C8-O9-P14-O16
4	Bc	314	A1A0P	C11-O10-P14-O16
4	Cc	306	A1A0P	C36-C37-C38-C39
4	Ca	306	A1A0P	C20-C21-C22-C23

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Mol	Chain	Res	Type	Atoms
4	Ca	303	A1A0P	C40-C41-C42-C43
4	Cb	303	A1A0P	C40-C41-C42-C43
4	Cc	303	A1A0P	C40-C41-C42-C43
4	Ba	309	A1A0P	C2-C1-O6-C17
4	Bb	309	A1A0P	C2-C1-O6-C17
4	Bc	309	A1A0P	C2-C1-O6-C17
4	Bc	314	A1A0P	C17-C19-C20-C21
4	Ca	308	A1A0P	C24-C25-C26-C27
4	Cb	308	A1A0P	C24-C25-C26-C27
4	Cc	308	A1A0P	C24-C25-C26-C27
4	Ba	314	A1A0P	C17-C19-C20-C21
4	Bb	314	A1A0P	C17-C19-C20-C21
4	Ba	312	A1A0P	C23-C24-C25-C26
4	Bb	312	A1A0P	C23-C24-C25-C26
4	Bc	312	A1A0P	C23-C24-C25-C26
4	Ca	306	A1A0P	O6-C17-C19-C20
4	Cb	306	A1A0P	O6-C17-C19-C20
4	Cc	306	A1A0P	O6-C17-C19-C20
4	Ba	312	A1A0P	C29-C30-C31-C32
4	Bb	312	A1A0P	C29-C30-C31-C32
4	Bc	312	A1A0P	C29-C30-C31-C32
4	Cb	312	A1A0P	C19-C20-C21-C22
4	Ba	313	A1A0P	C34-C35-C36-C37
4	Ca	312	A1A0P	C19-C20-C21-C22
4	Bb	313	A1A0P	C34-C35-C36-C37
4	Cc	312	A1A0P	C19-C20-C21-C22
4	Bc	313	A1A0P	C34-C35-C36-C37
4	Ca	312	A1A0P	O6-C1-C2-O3
4	Cb	312	A1A0P	O6-C1-C2-O3
4	Cc	312	A1A0P	O6-C1-C2-O3
4	Ba	313	A1A0P	C17-C19-C20-C21
4	Bc	313	A1A0P	C17-C19-C20-C21
4	Aa	537	A1A0P	C36-C37-C38-C39
4	Cc	305	A1A0P	C21-C22-C23-C24
4	Ab	537	A1A0P	C36-C37-C38-C39
4	Ac	537	A1A0P	C36-C37-C38-C39
4	Ca	305	A1A0P	C21-C22-C23-C24
4	Ca	313	A1A0P	C8-C1-C2-O3
4	Cb	313	A1A0P	C8-C1-C2-O3
4	Cc	313	A1A0P	C8-C1-C2-O3
4	Bb	313	A1A0P	C17-C19-C20-C21
4	Cb	305	A1A0P	C21-C22-C23-C24

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Mol	Chain	Res	Type	Atoms
4	Bc	314	A1A0P	C44-C45-C46-C47
4	Bb	314	A1A0P	C44-C45-C46-C47
4	Ba	314	A1A0P	C44-C45-C46-C47
4	Ba	310	A1A0P	C30-C31-C32-C33
4	Aa	537	A1A0P	C45-C46-C47-C48
4	Ab	537	A1A0P	C45-C46-C47-C48
4	Ac	537	A1A0P	C45-C46-C47-C48
4	Bb	310	A1A0P	C30-C31-C32-C33
4	Bc	310	A1A0P	C30-C31-C32-C33
4	Ba	314	A1A0P	C35-C36-C37-C38
4	Bc	314	A1A0P	C35-C36-C37-C38
4	Cb	307	A1A0P	C30-C31-C32-C33
4	Ca	307	A1A0P	C44-C45-C46-C47
4	Cc	307	A1A0P	C44-C45-C46-C47
4	Bb	314	A1A0P	C35-C36-C37-C38
4	Cb	307	A1A0P	C44-C45-C46-C47
4	Cc	307	A1A0P	C30-C31-C32-C33
4	Ca	307	A1A0P	C30-C31-C32-C33
4	Ca	314	A1A0P	C24-C25-C26-C27
4	Cb	314	A1A0P	C24-C25-C26-C27
4	Cc	314	A1A0P	C24-C25-C26-C27
4	Ba	311	A1A0P	C38-C39-C40-C41
4	Ca	306	A1A0P	C40-C41-C42-C43
4	Cb	306	A1A0P	C40-C41-C42-C43
4	Cb	308	A1A0P	C40-C41-C42-C43
4	Cc	306	A1A0P	C40-C41-C42-C43
4	Bb	311	A1A0P	C38-C39-C40-C41
4	Bc	311	A1A0P	C38-C39-C40-C41
4	Bb	311	A1A0P	C45-C46-C47-C48
4	Bc	311	A1A0P	C45-C46-C47-C48
4	Ba	311	A1A0P	C45-C46-C47-C48
4	Ca	308	A1A0P	C40-C41-C42-C43
4	Cc	308	A1A0P	C40-C41-C42-C43
4	Ba	309	A1A0P	C34-C35-C36-C37
4	Ba	314	A1A0P	C1-C8-O9-P14
4	Bb	314	A1A0P	C1-C8-O9-P14
4	Bc	314	A1A0P	C1-C8-O9-P14
4	Bb	309	A1A0P	C34-C35-C36-C37
4	Bc	309	A1A0P	C34-C35-C36-C37
4	Ca	307	A1A0P	C8-C1-C2-O3
4	Ca	310	A1A0P	C40-C41-C42-C43
4	Cb	307	A1A0P	C8-C1-C2-O3

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Mol	Chain	Res	Type	Atoms
4	Cb	310	A1A0P	C40-C41-C42-C43
4	Cc	307	A1A0P	C8-C1-C2-O3
4	Cc	310	A1A0P	C40-C41-C42-C43
4	Ba	312	A1A0P	C2-C1-O6-C17
4	Ca	306	A1A0P	C2-C1-O6-C17
4	Cb	306	A1A0P	C2-C1-O6-C17
4	Cc	306	A1A0P	C2-C1-O6-C17
4	Bb	312	A1A0P	C2-C1-O6-C17
4	Bc	312	A1A0P	C2-C1-O6-C17
4	Bb	308	A1A0P	C29-C30-C31-C32
4	Ca	305	A1A0P	C40-C41-C42-C43
4	Cb	305	A1A0P	C40-C41-C42-C43
4	Cc	305	A1A0P	C40-C41-C42-C43
4	Ba	308	A1A0P	C29-C30-C31-C32
4	Bc	308	A1A0P	C29-C30-C31-C32
4	Ca	313	A1A0P	C40-C41-C42-C43
4	Cb	313	A1A0P	C40-C41-C42-C43
4	Cc	313	A1A0P	C40-C41-C42-C43
4	Ba	314	A1A0P	C21-C22-C23-C24
4	Cc	310	A1A0P	C26-C27-C28-C29
4	Bb	314	A1A0P	C21-C22-C23-C24
4	Ca	310	A1A0P	C26-C27-C28-C29
4	Cb	310	A1A0P	C26-C27-C28-C29
4	Bc	314	A1A0P	C21-C22-C23-C24
4	Ca	303	A1A0P	O6-C1-C2-O3
4	Cb	303	A1A0P	O6-C1-C2-O3
4	Cc	303	A1A0P	O6-C1-C2-O3
4	Bc	313	A1A0P	C29-C30-C31-C32
4	Bb	313	A1A0P	C29-C30-C31-C32
4	Cb	305	A1A0P	C30-C31-C32-C33
4	Ba	313	A1A0P	C29-C30-C31-C32
4	Ca	305	A1A0P	C30-C31-C32-C33
4	Cc	305	A1A0P	C30-C31-C32-C33
4	Ca	306	A1A0P	C24-C25-C26-C27
4	Ba	313	A1A0P	C36-C37-C38-C39
4	Cb	306	A1A0P	C24-C25-C26-C27
4	Cc	306	A1A0P	C24-C25-C26-C27
4	Bb	313	A1A0P	C36-C37-C38-C39
4	Bc	313	A1A0P	C36-C37-C38-C39
4	Ba	314	A1A0P	C38-C39-C40-C41
4	Bb	314	A1A0P	C38-C39-C40-C41
4	Bc	314	A1A0P	C38-C39-C40-C41

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Mol	Chain	Res	Type	Atoms
4	Ca	309	A1A0P	C27-C28-C29-C30
4	Cb	309	A1A0P	C27-C28-C29-C30
4	Cc	309	A1A0P	C27-C28-C29-C30
4	Cc	308	A1A0P	C23-C24-C25-C26
4	Ca	308	A1A0P	C23-C24-C25-C26
4	Cb	308	A1A0P	C23-C24-C25-C26
4	Cc	314	A1A0P	C34-C35-C36-C37
4	Ca	314	A1A0P	C34-C35-C36-C37
4	Cb	314	A1A0P	C34-C35-C36-C37
4	Ca	312	A1A0P	O6-C1-C8-O9
4	Cb	312	A1A0P	O6-C1-C8-O9
4	Cc	312	A1A0P	O6-C1-C8-O9
4	Cc	314	A1A0P	C36-C37-C38-C39
4	Ca	314	A1A0P	C36-C37-C38-C39
4	Cb	314	A1A0P	C36-C37-C38-C39
4	Cc	304	A1A0P	C27-C28-C29-C30
4	Ab	537	A1A0P	C30-C31-C32-C33
4	Ac	537	A1A0P	C30-C31-C32-C33
4	Cb	304	A1A0P	C27-C28-C29-C30
4	Aa	537	A1A0P	C30-C31-C32-C33
4	Ca	304	A1A0P	C27-C28-C29-C30
4	Bb	310	A1A0P	C35-C36-C37-C38
4	Bc	310	A1A0P	C35-C36-C37-C38
4	Ba	310	A1A0P	C35-C36-C37-C38
4	Ba	310	A1A0P	C40-C41-C42-C43
4	Aa	537	A1A0P	C40-C41-C42-C43
4	Ab	537	A1A0P	C40-C41-C42-C43
4	Ac	537	A1A0P	C40-C41-C42-C43
4	Bb	310	A1A0P	C40-C41-C42-C43
4	Bc	310	A1A0P	C40-C41-C42-C43
4	Ca	313	A1A0P	C42-C43-C44-C45
4	Cb	313	A1A0P	C42-C43-C44-C45
4	Cc	313	A1A0P	C42-C43-C44-C45
4	Cc	303	A1A0P	C30-C31-C32-C33
4	Ca	303	A1A0P	C30-C31-C32-C33
4	Bc	309	A1A0P	C40-C41-C42-C43
4	Cb	303	A1A0P	C30-C31-C32-C33
4	Bb	311	A1A0P	C28-C29-C30-C31
4	Ba	311	A1A0P	C28-C29-C30-C31
4	Ba	312	A1A0P	O6-C17-C19-C20
4	Bb	312	A1A0P	O6-C17-C19-C20
4	Bc	312	A1A0P	O6-C17-C19-C20

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Mol	Chain	Res	Type	Atoms
4	Bc	311	A1A0P	C28-C29-C30-C31
4	Ca	308	A1A0P	C8-C1-O6-C17
4	Cb	308	A1A0P	C8-C1-O6-C17
4	Cc	308	A1A0P	C8-C1-O6-C17
4	Ba	309	A1A0P	C40-C41-C42-C43
4	Aa	537	A1A0P	C38-C39-C40-C41
4	Cc	309	A1A0P	C38-C39-C40-C41
4	Bb	309	A1A0P	C40-C41-C42-C43
4	Ca	309	A1A0P	C41-C42-C43-C44
4	Cb	309	A1A0P	C41-C42-C43-C44
4	Cc	309	A1A0P	C41-C42-C43-C44
4	Ca	309	A1A0P	C38-C39-C40-C41
4	Cb	309	A1A0P	C38-C39-C40-C41
4	Ab	537	A1A0P	C38-C39-C40-C41
4	Ac	537	A1A0P	C38-C39-C40-C41
4	Ba	313	A1A0P	O6-C1-C8-O9
4	Bb	313	A1A0P	O6-C1-C8-O9
4	Bc	313	A1A0P	O6-C1-C8-O9
4	Ba	310	A1A0P	C25-C26-C27-C28
4	Bc	310	A1A0P	C25-C26-C27-C28
4	Bb	310	A1A0P	C25-C26-C27-C28
4	Ba	310	A1A0P	O6-C1-C2-O3
4	Bb	310	A1A0P	O6-C1-C2-O3
4	Bc	310	A1A0P	O6-C1-C2-O3
4	Bc	308	A1A0P	C23-C24-C25-C26
4	Ba	310	A1A0P	C38-C39-C40-C41
4	Bb	310	A1A0P	C38-C39-C40-C41
4	Ca	307	A1A0P	O6-C17-C19-C20
4	Cb	307	A1A0P	O6-C17-C19-C20
4	Cc	307	A1A0P	O6-C17-C19-C20
4	Ba	310	A1A0P	C19-C20-C21-C22
4	Ba	308	A1A0P	C23-C24-C25-C26
4	Bb	310	A1A0P	C19-C20-C21-C22
4	Bc	310	A1A0P	C19-C20-C21-C22
4	Cc	308	A1A0P	C43-C44-C45-C46
4	Ba	311	A1A0P	O6-C17-C19-C20
4	Bb	311	A1A0P	O6-C17-C19-C20
4	Bc	311	A1A0P	O6-C17-C19-C20
4	Bb	308	A1A0P	C23-C24-C25-C26
4	Bc	312	A1A0P	C34-C35-C36-C37
4	Ca	308	A1A0P	C43-C44-C45-C46
4	Cc	303	A1A0P	C35-C36-C37-C38

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Mol	Chain	Res	Type	Atoms
4	Bb	312	A1A0P	C34-C35-C36-C37
4	Cb	308	A1A0P	C43-C44-C45-C46
4	Ca	313	A1A0P	O6-C17-C19-C20
4	Cb	313	A1A0P	O6-C17-C19-C20
4	Cc	313	A1A0P	O6-C17-C19-C20
4	Ca	303	A1A0P	C38-C39-C40-C41
4	Cb	303	A1A0P	C38-C39-C40-C41
4	Cc	303	A1A0P	C38-C39-C40-C41
4	Bc	310	A1A0P	C38-C39-C40-C41
4	Cb	303	A1A0P	C35-C36-C37-C38
4	Ba	312	A1A0P	C34-C35-C36-C37
4	Ca	303	A1A0P	C35-C36-C37-C38
4	Ca	305	A1A0P	C44-C45-C46-C47
4	Cc	305	A1A0P	C44-C45-C46-C47
4	Cb	305	A1A0P	C44-C45-C46-C47
4	Bb	308	A1A0P	C19-C20-C21-C22
4	Ba	308	A1A0P	C19-C20-C21-C22
4	Bc	308	A1A0P	C19-C20-C21-C22
4	Ca	308	A1A0P	C34-C35-C36-C37
4	Cc	308	A1A0P	C34-C35-C36-C37
4	Ca	309	A1A0P	O6-C17-C19-C20
4	Cc	309	A1A0P	O6-C17-C19-C20
4	Cb	308	A1A0P	C34-C35-C36-C37
4	Ca	309	A1A0P	C17-C19-C20-C21
4	Cb	309	A1A0P	C17-C19-C20-C21
4	Ba	314	A1A0P	C28-C29-C30-C31
4	Bc	314	A1A0P	C28-C29-C30-C31
4	Cb	309	A1A0P	O6-C17-C19-C20
4	Bb	314	A1A0P	C28-C29-C30-C31
4	Cc	309	A1A0P	C17-C19-C20-C21
4	Ba	310	A1A0P	O6-C17-C19-C20
4	Bb	310	A1A0P	O6-C17-C19-C20
4	Bc	310	A1A0P	O6-C17-C19-C20
4	Bc	311	A1A0P	O3-C4-C7-C34
4	Ba	309	A1A0P	C8-C1-C2-O3
4	Bb	309	A1A0P	C8-C1-C2-O3
4	Bc	309	A1A0P	C8-C1-C2-O3
4	Ba	311	A1A0P	O3-C4-C7-C34
4	Bb	311	A1A0P	O3-C4-C7-C34
4	Ca	303	A1A0P	C27-C28-C29-C30
4	Ba	313	A1A0P	O6-C17-C19-C20
4	Ca	304	A1A0P	O3-C4-C7-C34

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Mol	Chain	Res	Type	Atoms
4	Cb	304	A1A0P	O3-C4-C7-C34
4	Cc	304	A1A0P	O3-C4-C7-C34
4	Bb	313	A1A0P	O6-C17-C19-C20
4	Bc	313	A1A0P	O6-C17-C19-C20
4	Cb	303	A1A0P	C27-C28-C29-C30
4	Ca	314	A1A0P	C37-C38-C39-C40
4	Cb	314	A1A0P	C37-C38-C39-C40
4	Cc	314	A1A0P	C37-C38-C39-C40
4	Cc	303	A1A0P	C27-C28-C29-C30
4	Cc	313	A1A0P	C28-C29-C30-C31
4	Ba	314	A1A0P	C2-C1-C8-O9
4	Bb	314	A1A0P	C2-C1-C8-O9
4	Bc	314	A1A0P	C2-C1-C8-O9
4	Cb	305	A1A0P	C7-C34-C35-C36
4	Ca	313	A1A0P	C28-C29-C30-C31
4	Ca	305	A1A0P	C7-C34-C35-C36
4	Cb	313	A1A0P	C28-C29-C30-C31
4	Cc	305	A1A0P	C7-C34-C35-C36
4	Cb	312	A1A0P	C22-C23-C24-C25
4	Cc	312	A1A0P	C22-C23-C24-C25
4	Ca	312	A1A0P	C22-C23-C24-C25
4	Ca	312	A1A0P	C26-C27-C28-C29
4	Cb	312	A1A0P	C26-C27-C28-C29
4	Cc	312	A1A0P	C26-C27-C28-C29
4	Ca	313	A1A0P	O18-C17-C19-C20
4	Cb	313	A1A0P	O18-C17-C19-C20
4	Ba	312	A1A0P	C35-C34-C7-C4
4	Ca	307	A1A0P	O18-C17-C19-C20
4	Cc	313	A1A0P	O18-C17-C19-C20
4	Ca	313	A1A0P	O6-C1-C8-O9
4	Cb	313	A1A0P	O6-C1-C8-O9
4	Cc	313	A1A0P	O6-C1-C8-O9
4	Bb	312	A1A0P	C35-C34-C7-C4
4	Bc	312	A1A0P	C35-C34-C7-C4
4	Cb	307	A1A0P	O18-C17-C19-C20
4	Cc	307	A1A0P	O18-C17-C19-C20
4	Ca	305	A1A0P	C20-C21-C22-C23
4	Cb	305	A1A0P	C20-C21-C22-C23
4	Ca	309	A1A0P	O18-C17-C19-C20
4	Bc	311	A1A0P	O5-C4-C7-C34
4	Cc	305	A1A0P	C20-C21-C22-C23
4	Cb	307	A1A0P	O3-C4-C7-C34

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Mol	Chain	Res	Type	Atoms
4	Ba	311	A1A0P	O5-C4-C7-C34
4	Cb	309	A1A0P	O18-C17-C19-C20
4	Cc	309	A1A0P	O18-C17-C19-C20
4	Bb	311	A1A0P	O5-C4-C7-C34
4	Bb	311	A1A0P	O18-C17-C19-C20
4	Ca	313	A1A0P	C30-C31-C32-C33
4	Cb	313	A1A0P	C30-C31-C32-C33
4	Cc	313	A1A0P	C30-C31-C32-C33
4	Cc	307	A1A0P	O3-C4-C7-C34
4	Ba	311	A1A0P	O18-C17-C19-C20
4	Bc	311	A1A0P	O18-C17-C19-C20
4	Ba	312	A1A0P	O6-C1-C2-O3
4	Bb	312	A1A0P	O6-C1-C2-O3
4	Bc	312	A1A0P	O6-C1-C2-O3
4	Cb	306	A1A0P	C1-C2-O3-C4
4	Cc	306	A1A0P	C1-C2-O3-C4
4	Ca	304	A1A0P	O5-C4-C7-C34
4	Cb	304	A1A0P	O5-C4-C7-C34
4	Cc	304	A1A0P	O5-C4-C7-C34
4	Ca	307	A1A0P	O3-C4-C7-C34
4	Ba	310	A1A0P	O18-C17-C19-C20
4	Ba	313	A1A0P	O18-C17-C19-C20
4	Bb	310	A1A0P	O18-C17-C19-C20
4	Bc	310	A1A0P	O18-C17-C19-C20
4	Bc	313	A1A0P	O18-C17-C19-C20
4	Ca	312	A1A0P	O6-C17-C19-C20
4	Cb	312	A1A0P	O6-C17-C19-C20
4	Cc	312	A1A0P	O6-C17-C19-C20
4	Ca	306	A1A0P	C1-C2-O3-C4
4	Bb	313	A1A0P	O18-C17-C19-C20
4	Ba	309	A1A0P	C38-C39-C40-C41
4	Bb	309	A1A0P	C38-C39-C40-C41
4	Bc	309	A1A0P	C38-C39-C40-C41
4	Ca	305	A1A0P	O6-C17-C19-C20
4	Cb	305	A1A0P	O6-C17-C19-C20
4	Cc	305	A1A0P	O6-C17-C19-C20
4	Cc	309	A1A0P	C24-C25-C26-C27

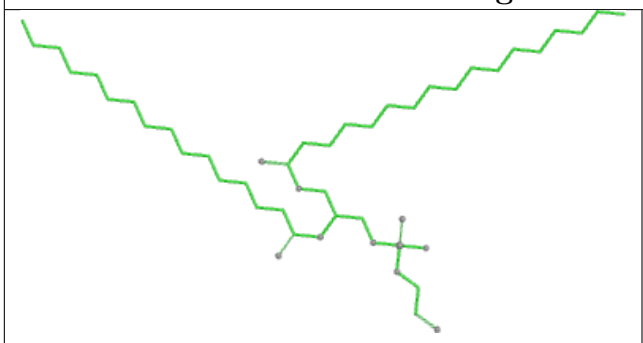
There are no ring outliers.

No monomer is involved in short contacts.

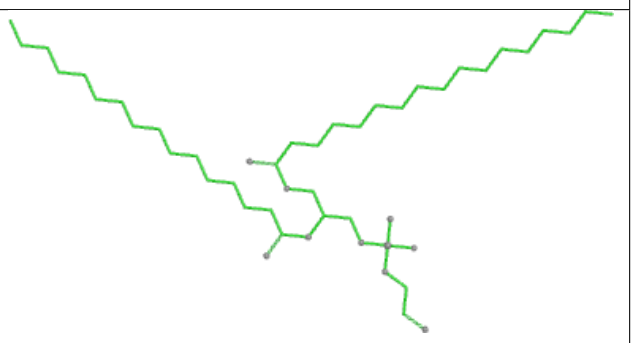
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In

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

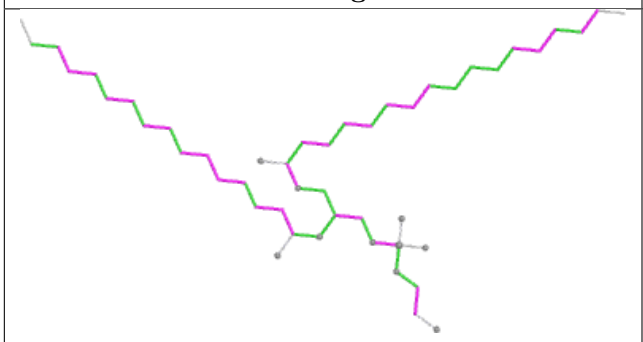
Ligand A1A0P Bb 313



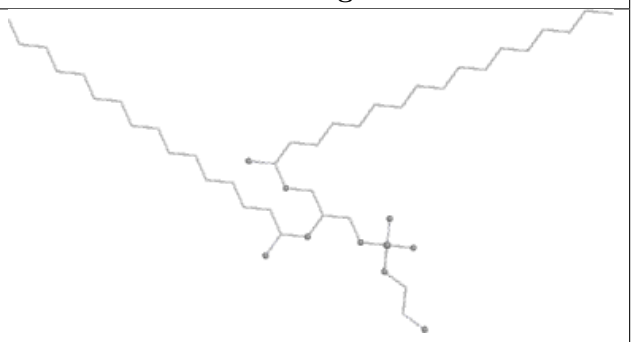
Bond lengths



Bond angles

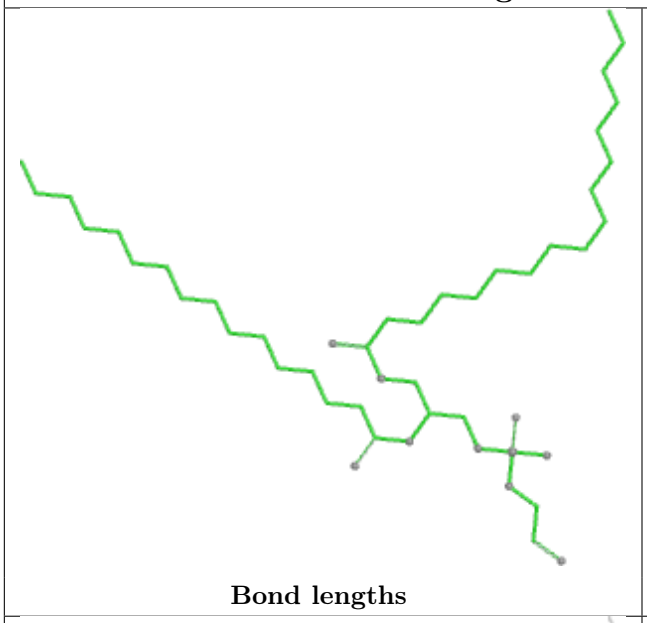


Torsions

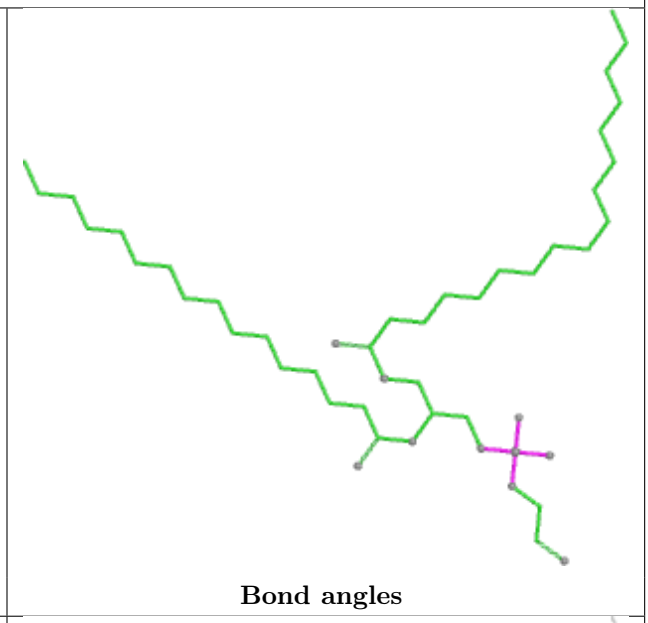


Rings

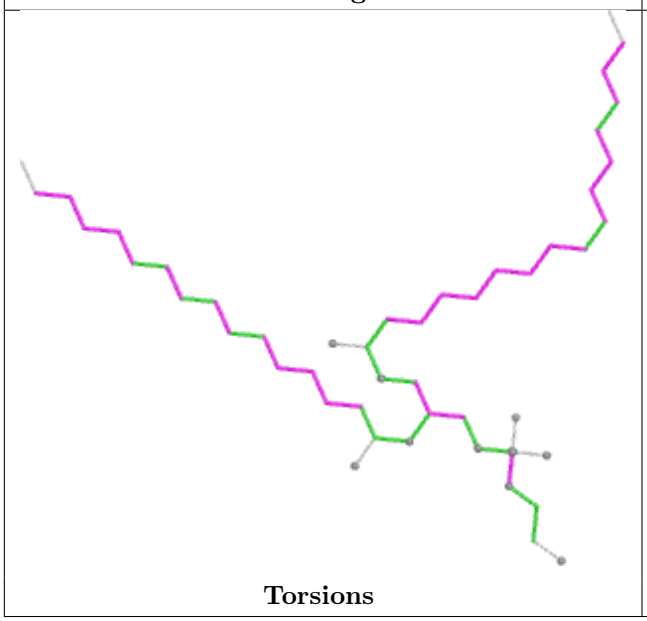
Ligand A1A0P Cb 303



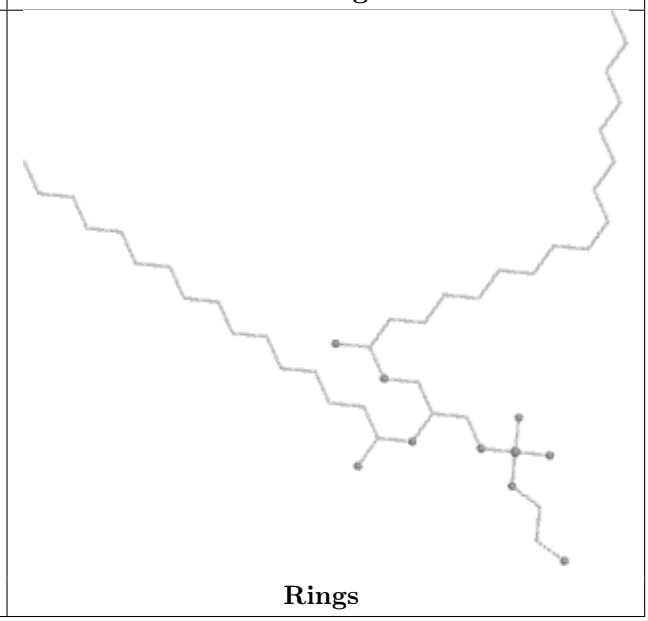
Bond lengths



Bond angles

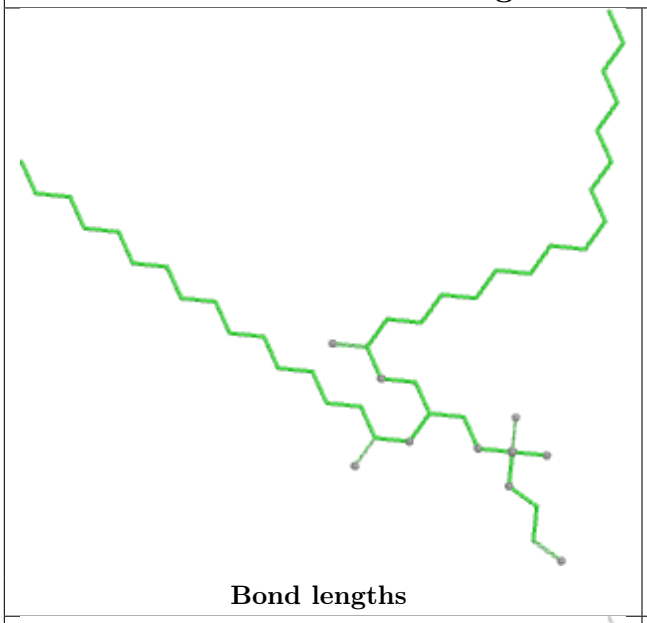


Torsions

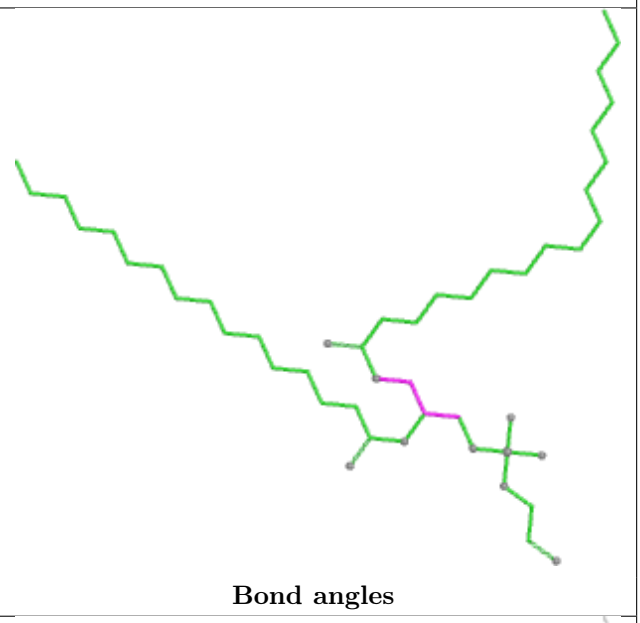


Rings

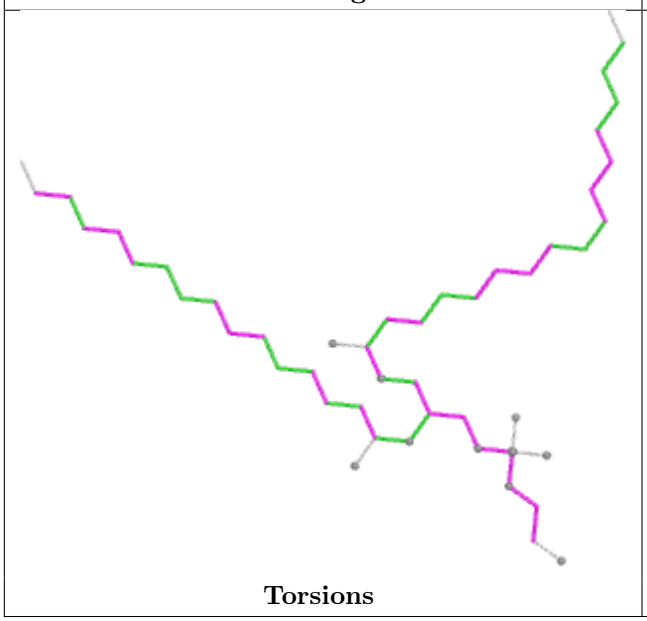
Ligand A1A0P Cb 313



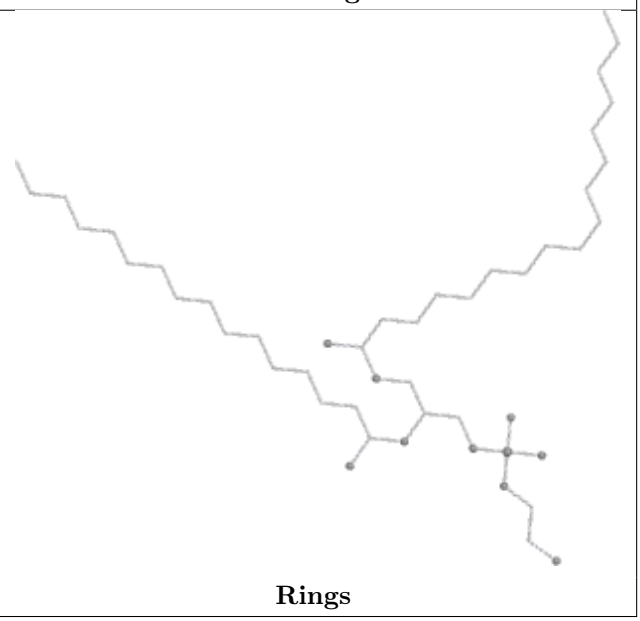
Bond lengths



Bond angles

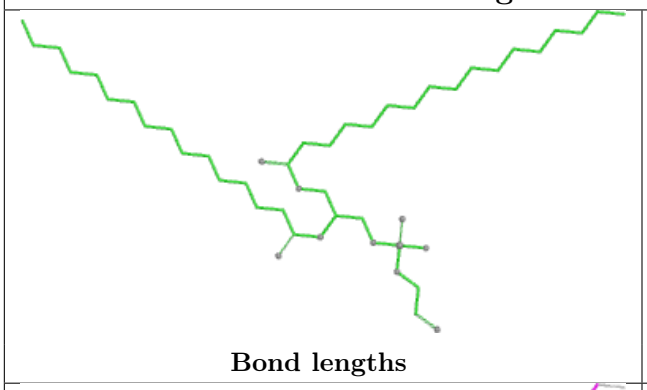


Torsions

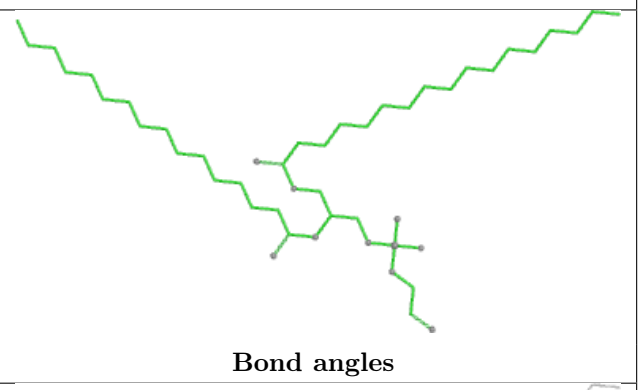


Rings

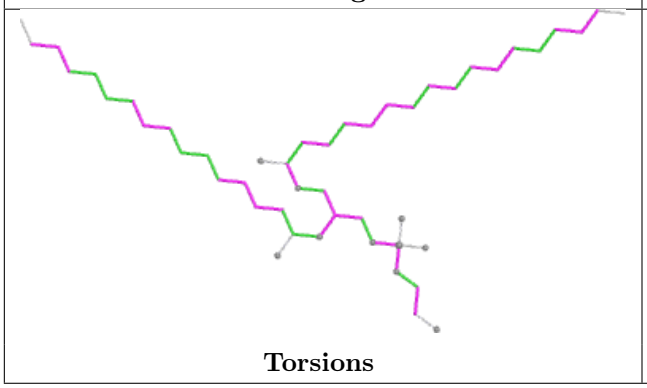
Ligand A1A0P Bb 309



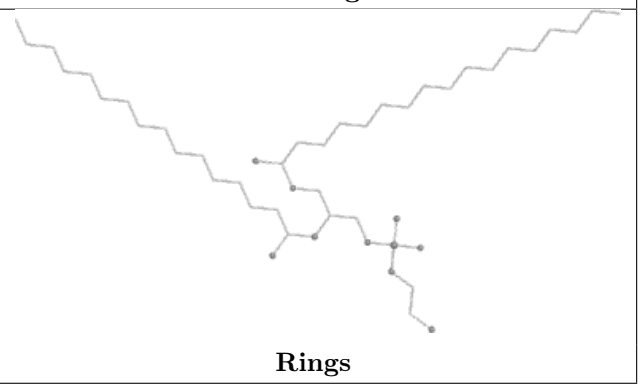
Bond lengths



Bond angles

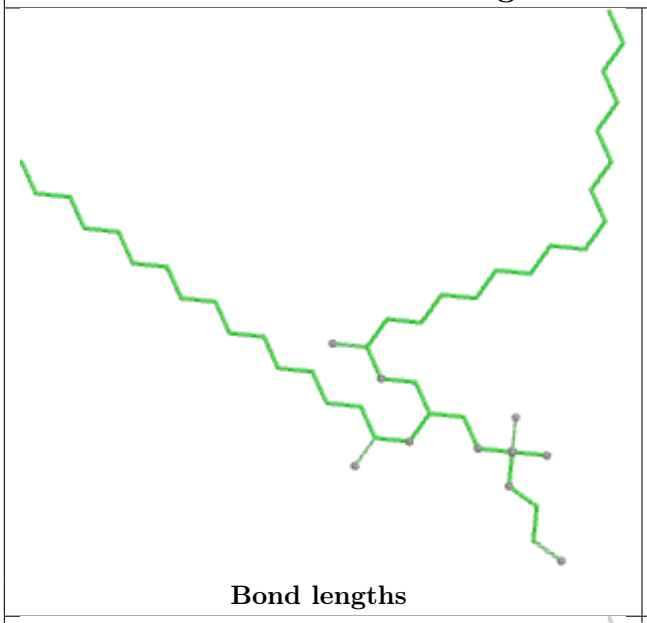


Torsions

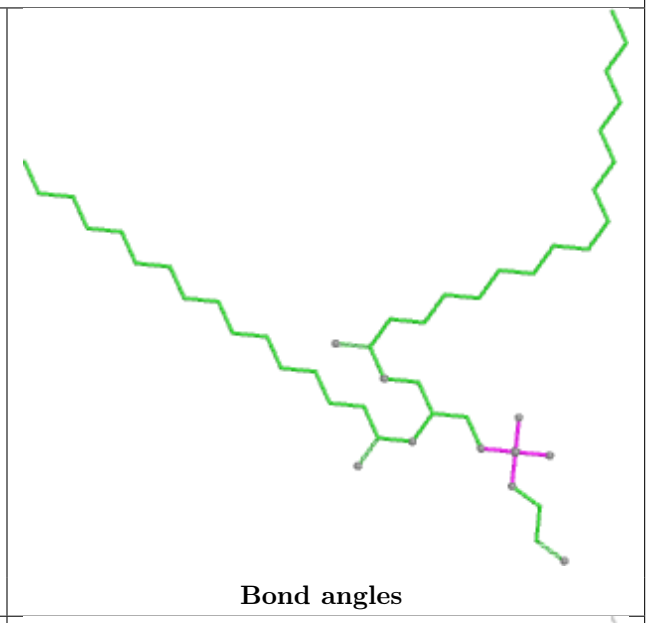


Rings

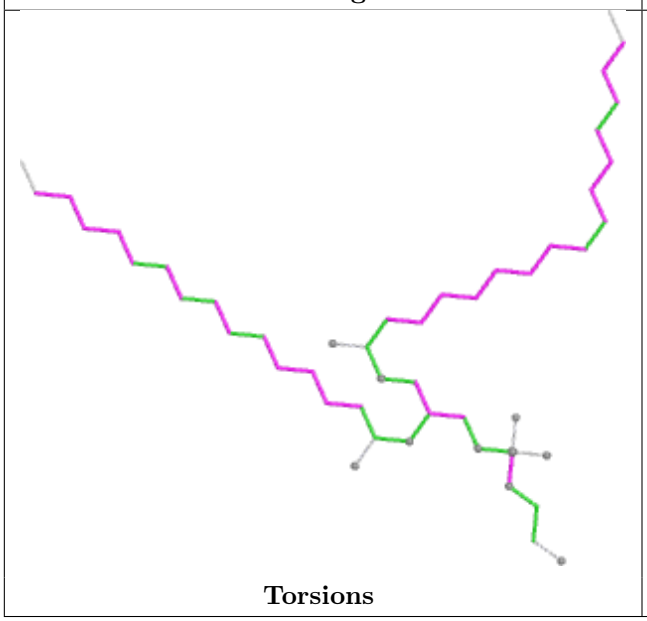
Ligand A1A0P Cc 303



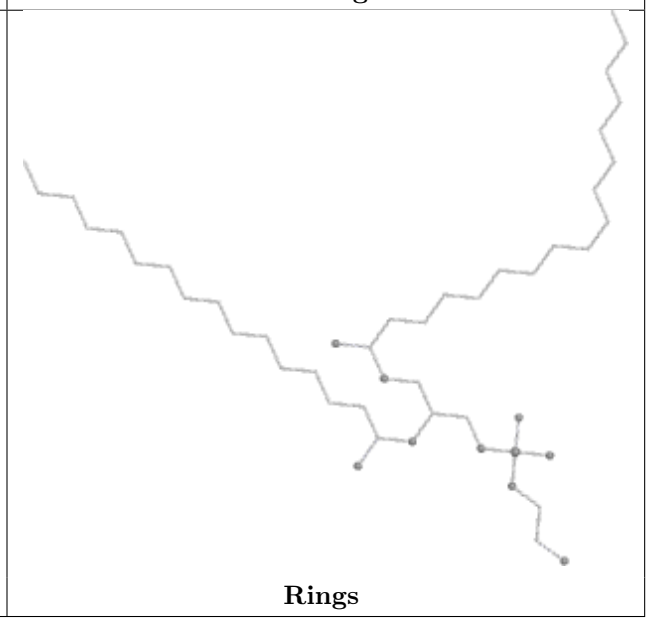
Bond lengths



Bond angles

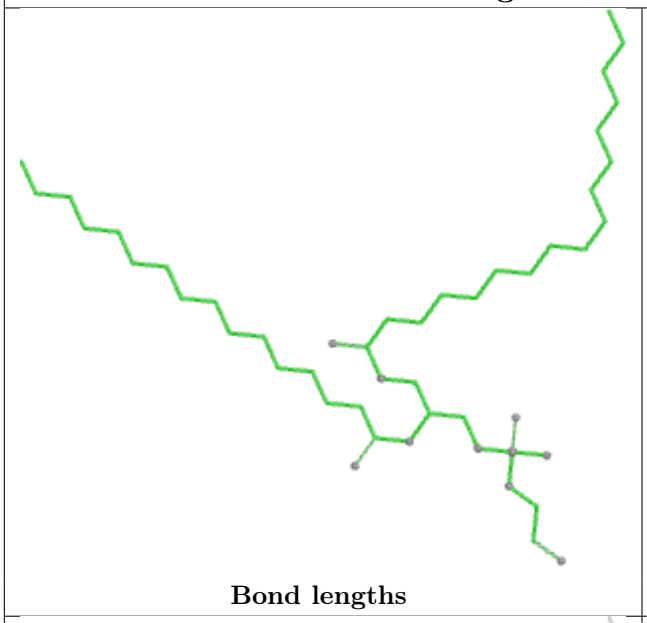


Torsions

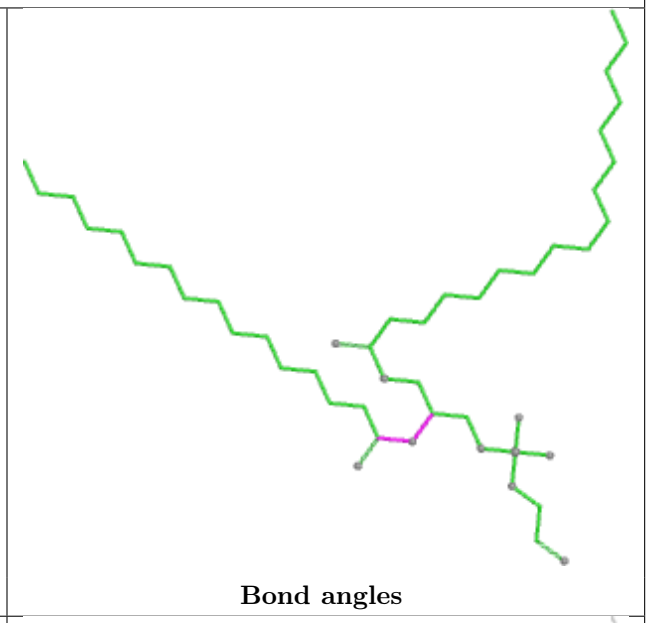


Rings

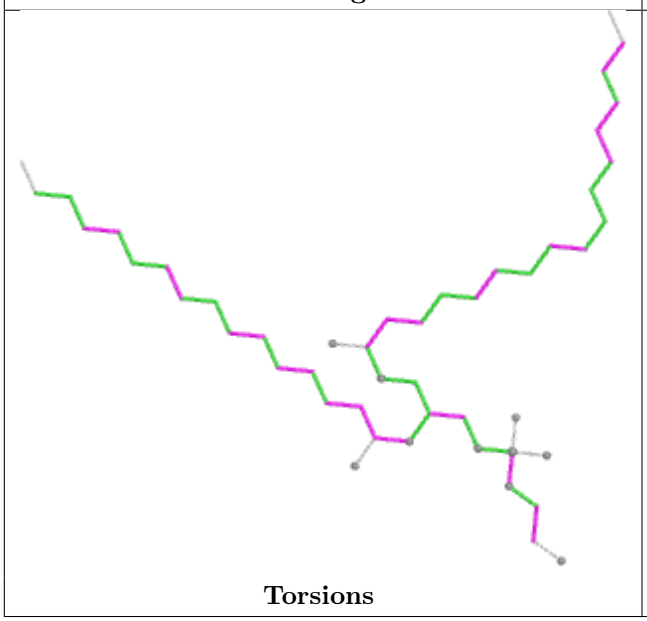
Ligand A1A0P Ba 311



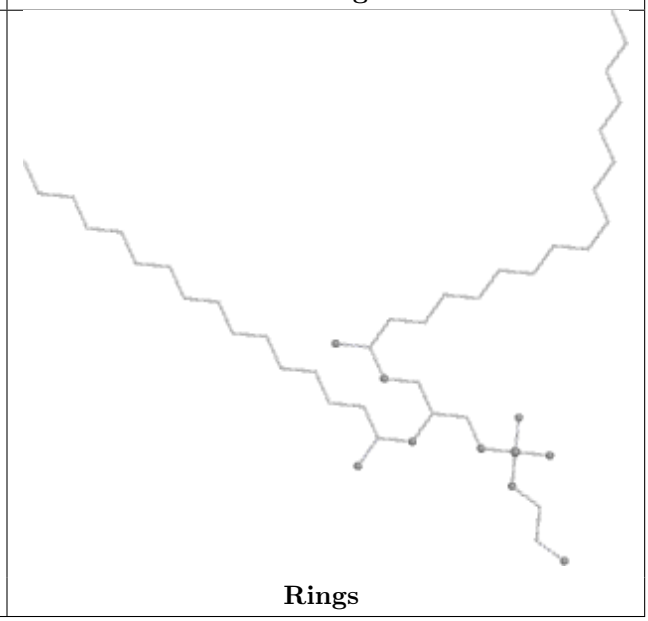
Bond lengths



Bond angles

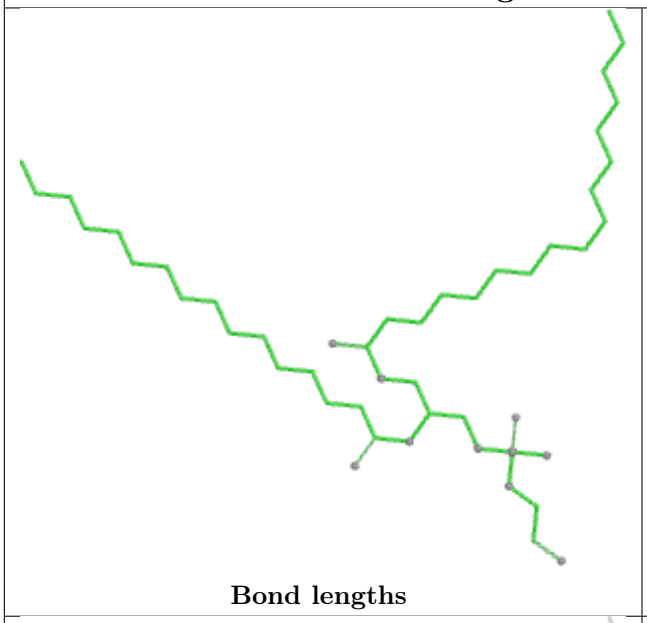


Torsions

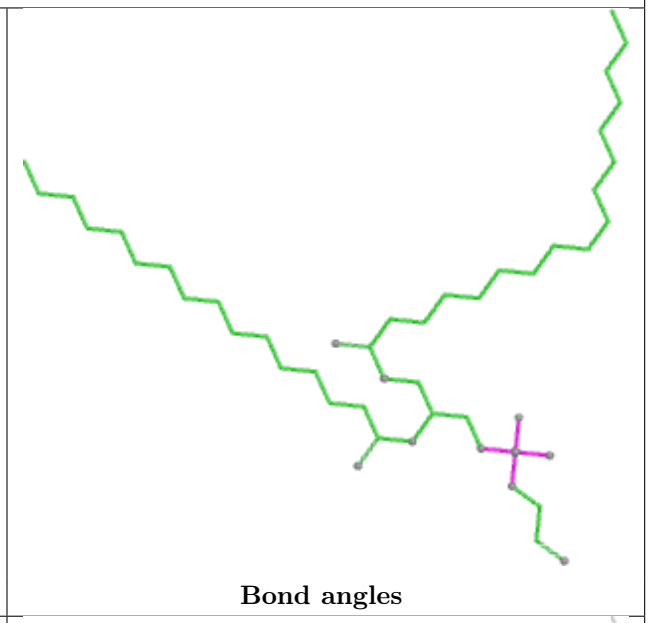


Rings

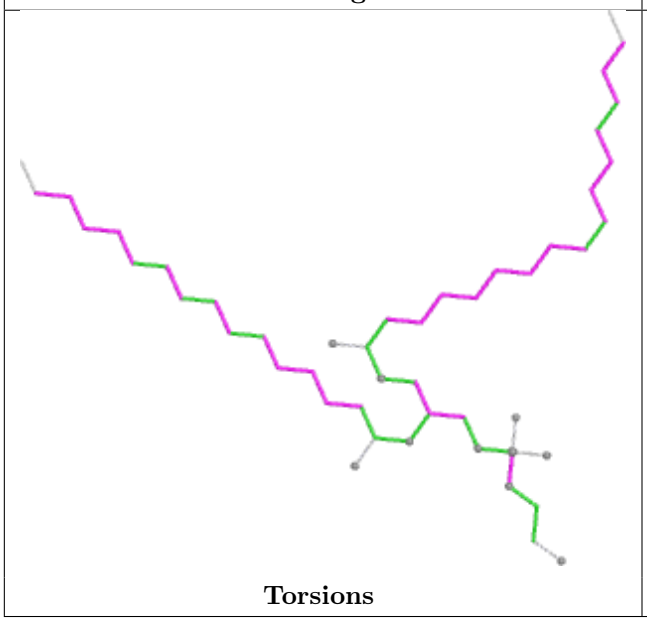
Ligand A1A0P Ca 303



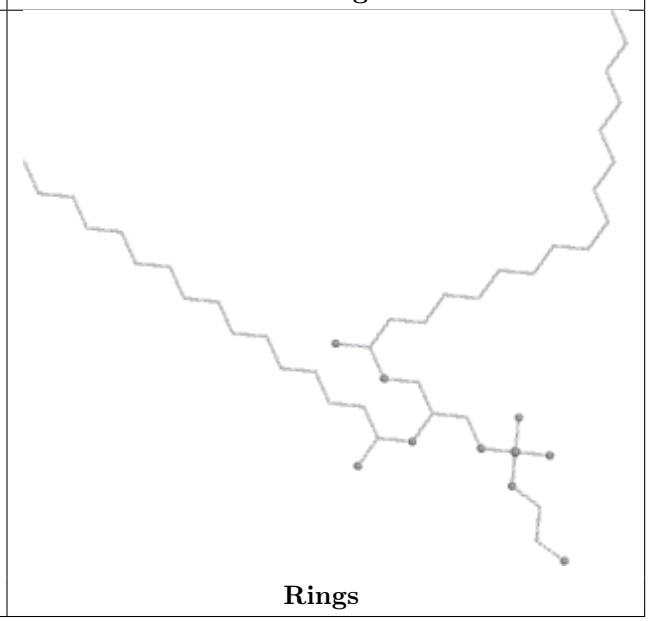
Bond lengths



Bond angles

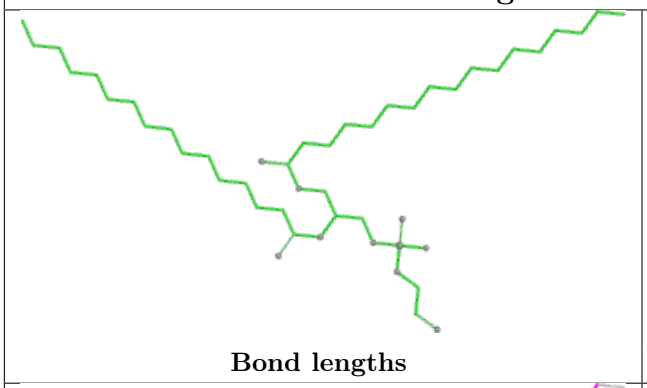


Torsions

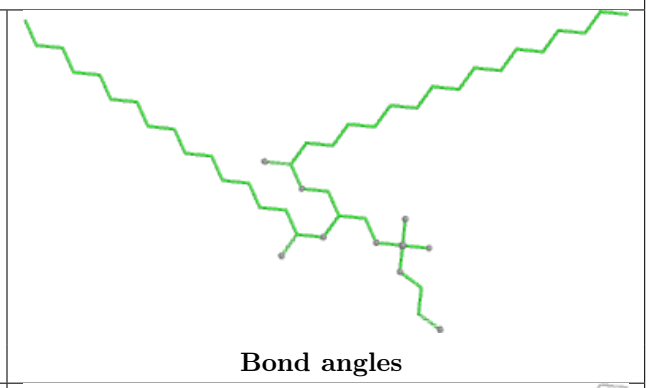


Rings

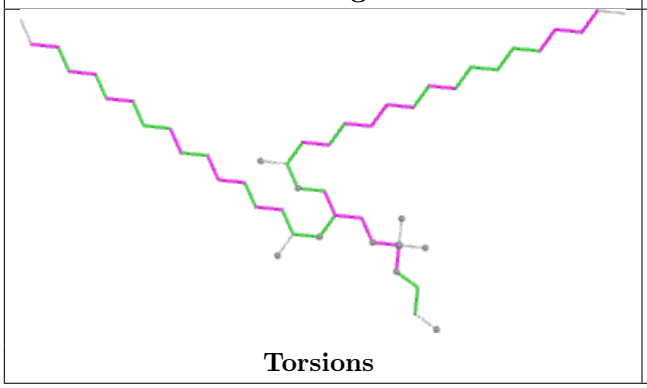
Ligand A1A0P Ba 314



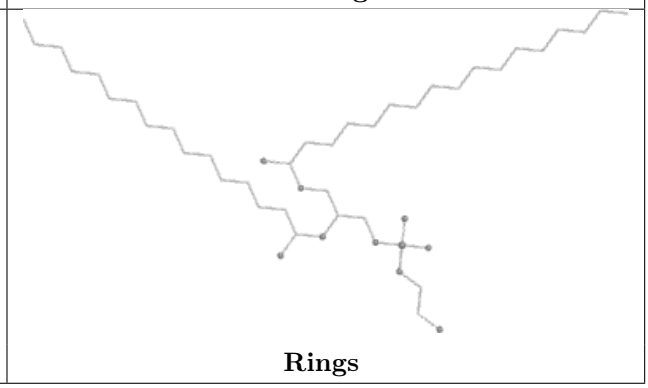
Bond lengths



Bond angles

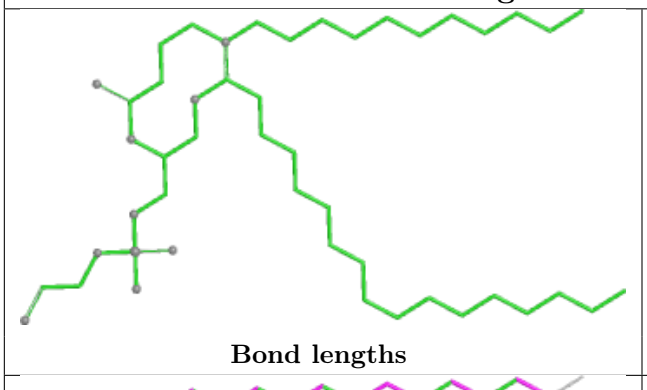


Torsions



Rings

Ligand A1A0P Cc 310



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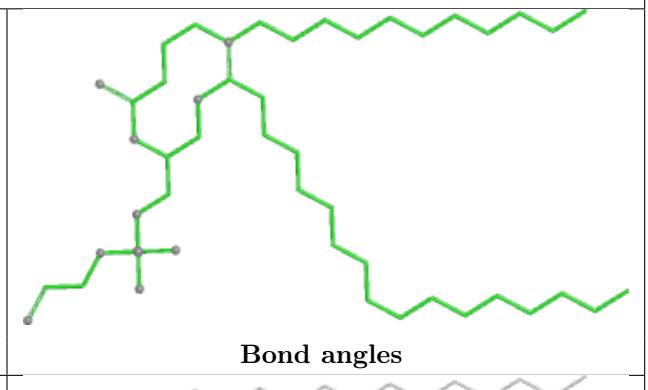
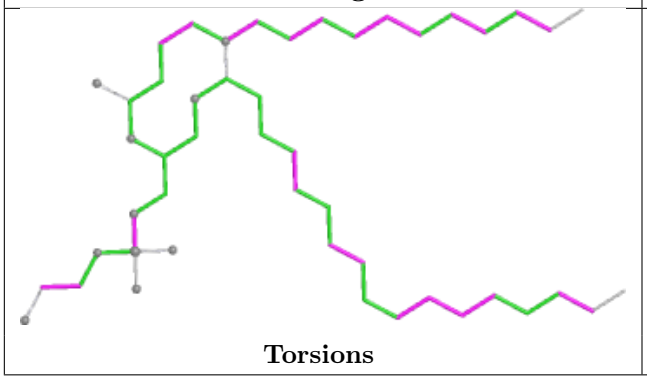
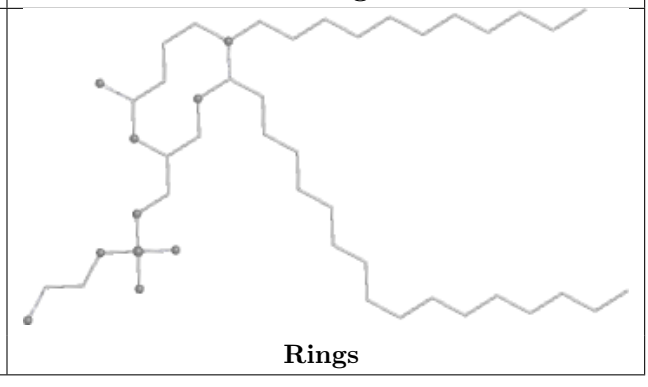


Bond angles

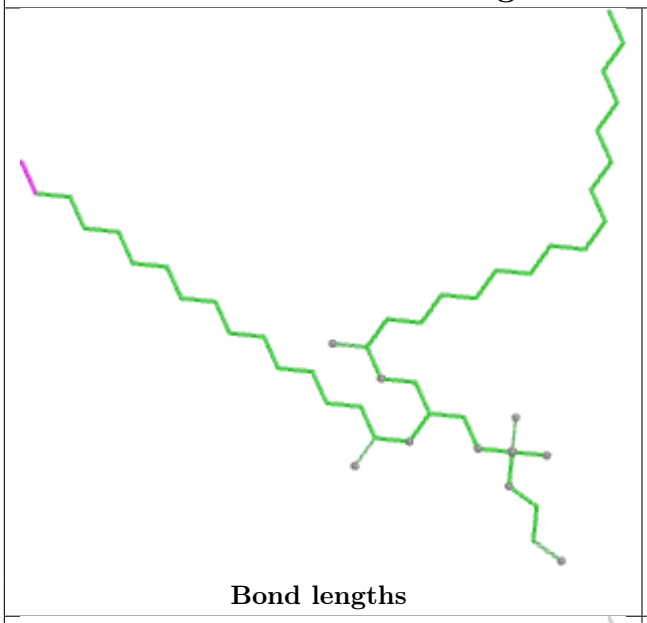


Torsions

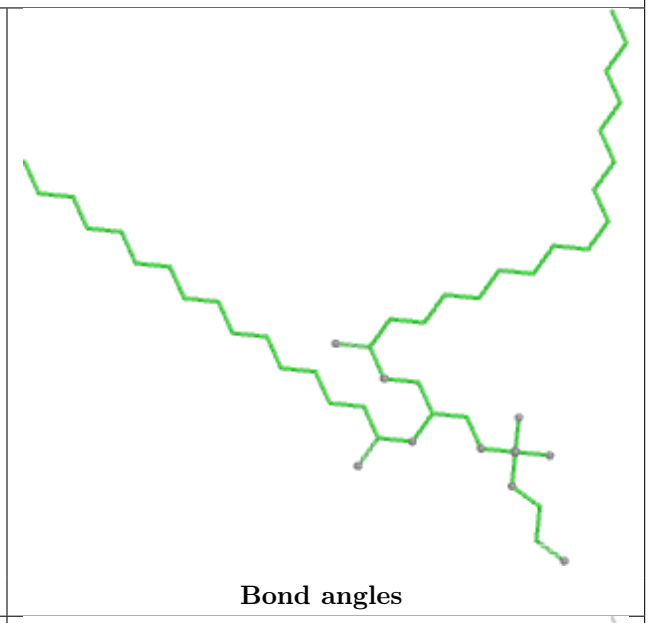


Rings

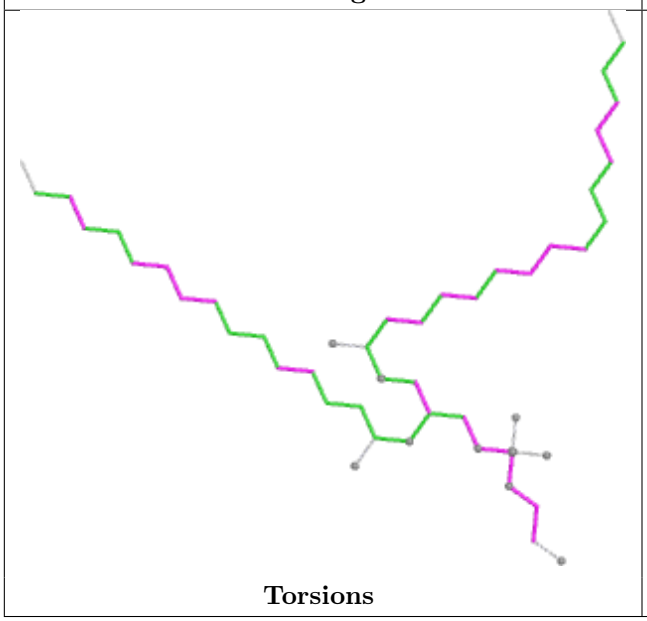
Ligand A1A0P Cc 314



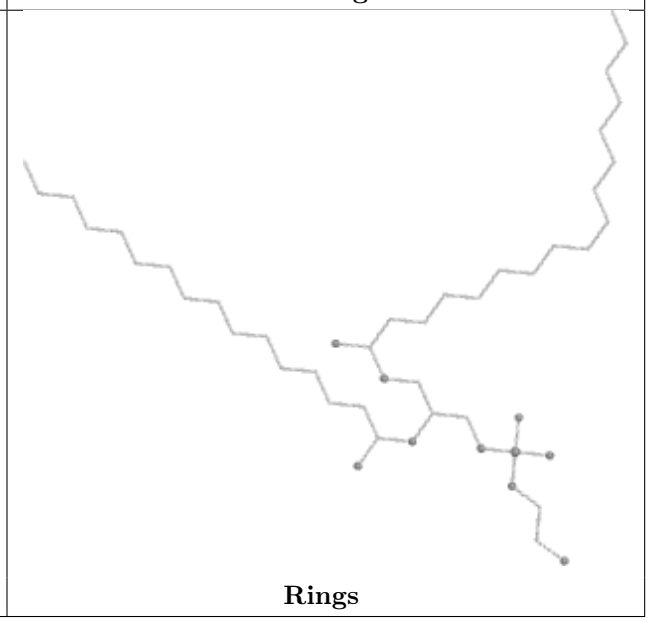
Bond lengths



Bond angles

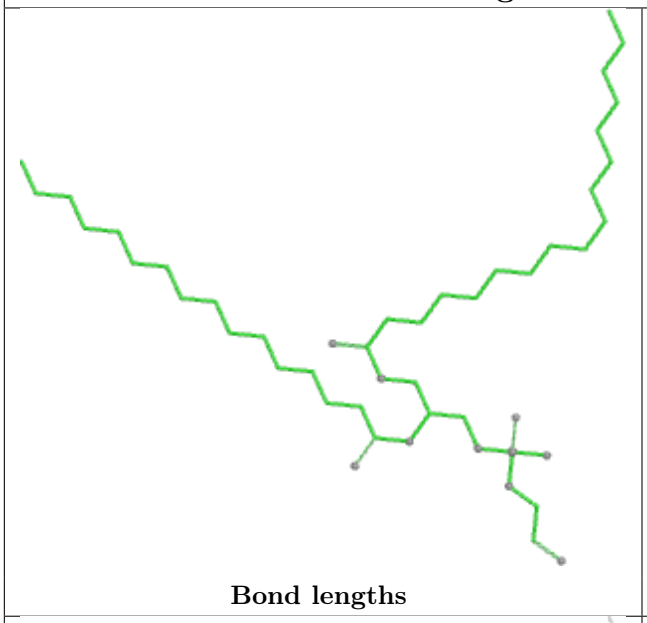


Torsions



Rings

Ligand A1A0P Ba 310



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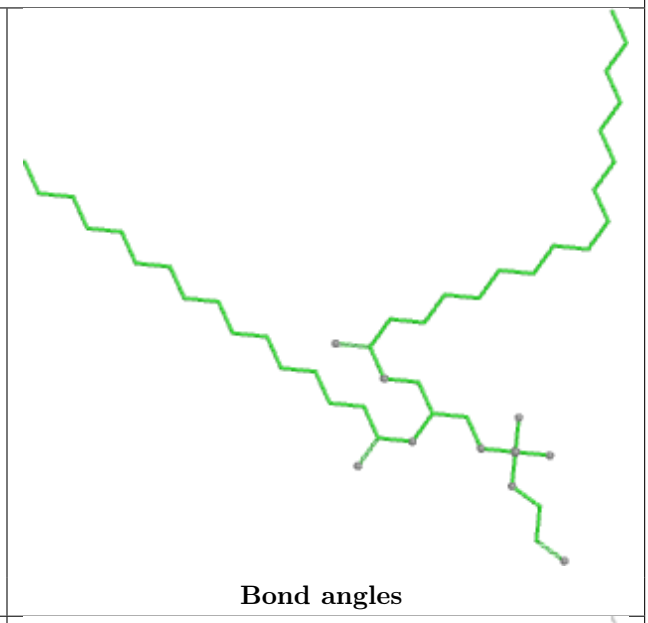
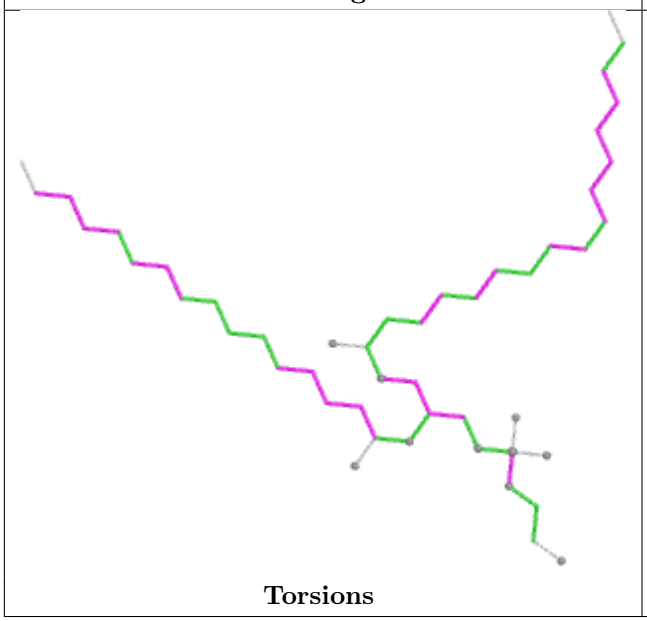
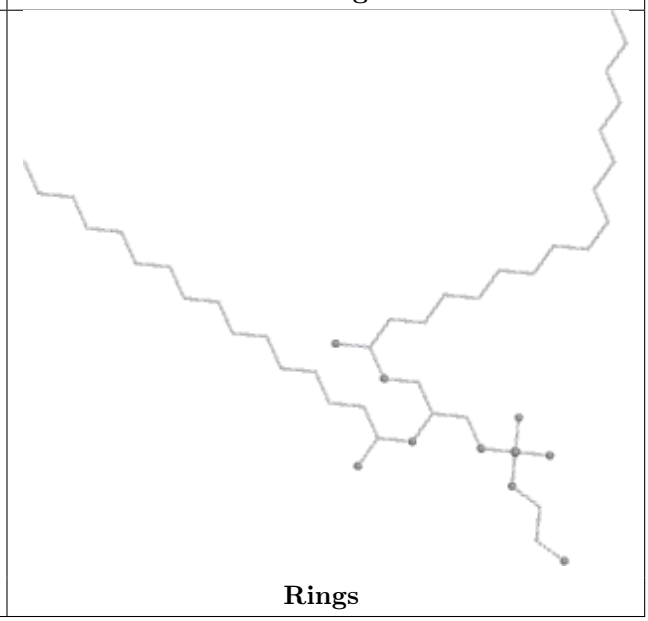


Bond angles

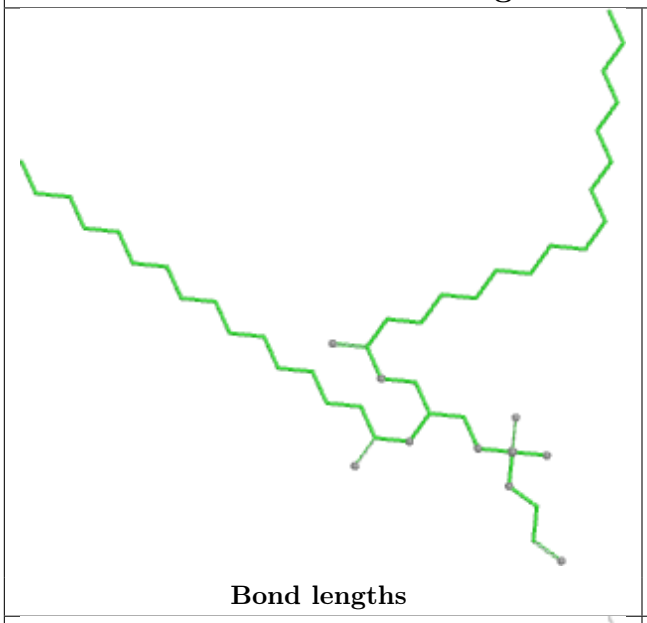


Torsions

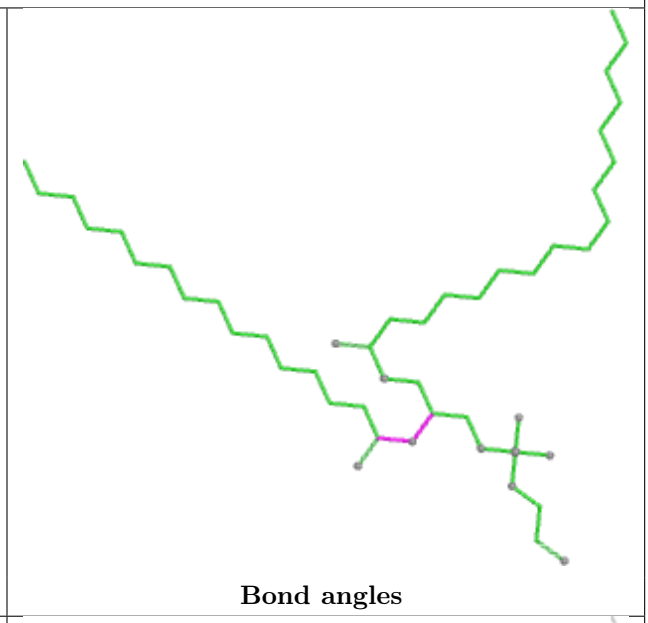


Rings

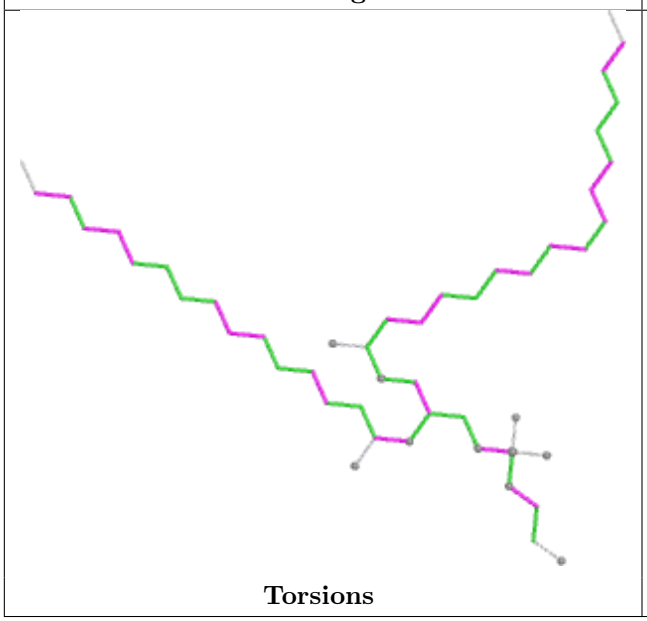
Ligand A1A0P Ab 537



Bond lengths



Bond angles



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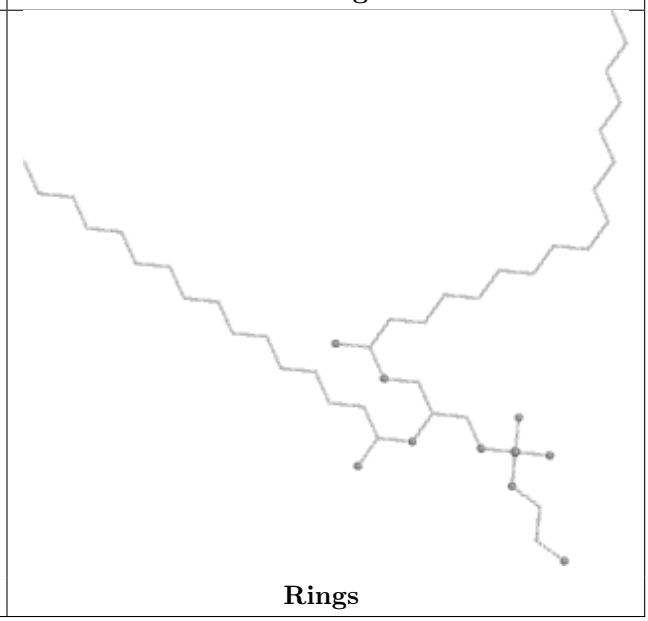
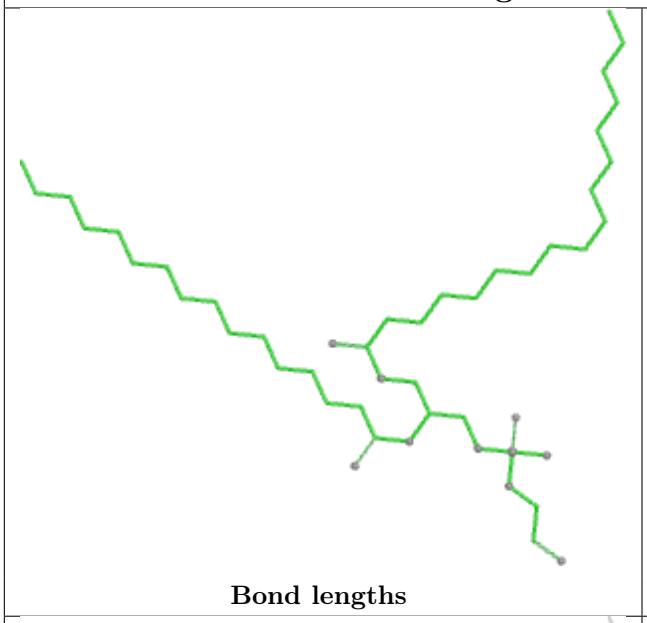
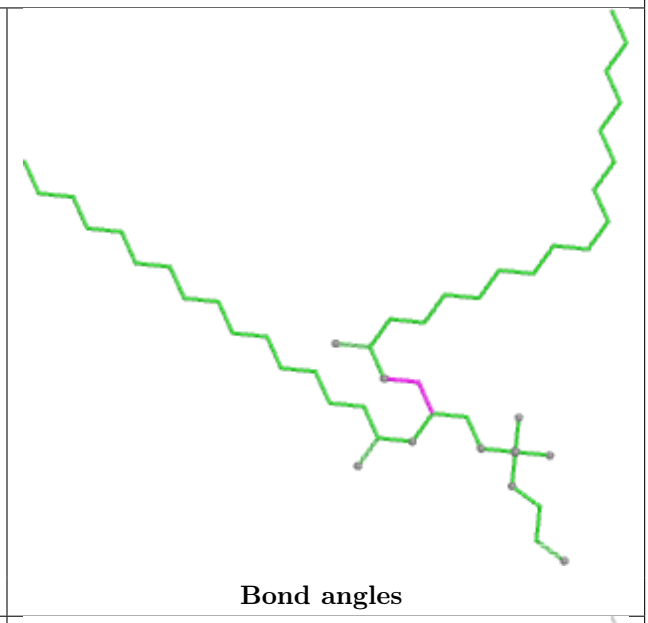


Rings

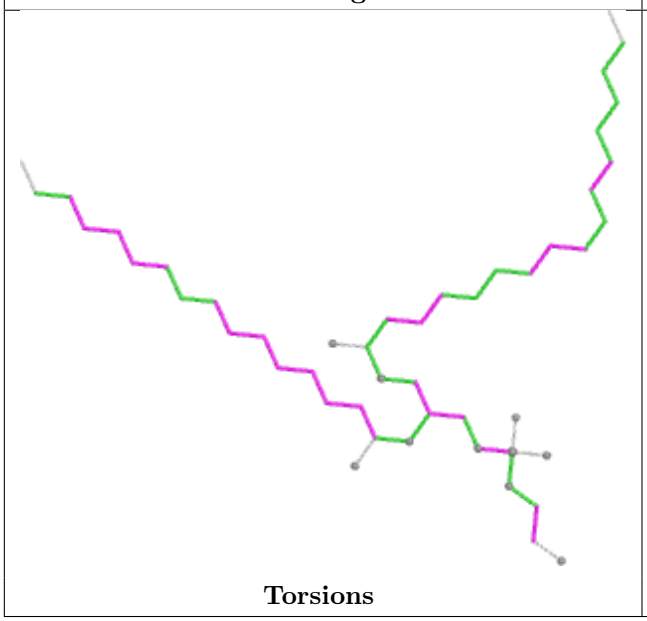
Ligand A1A0P Cb 309



Bond lengths



Bond angles



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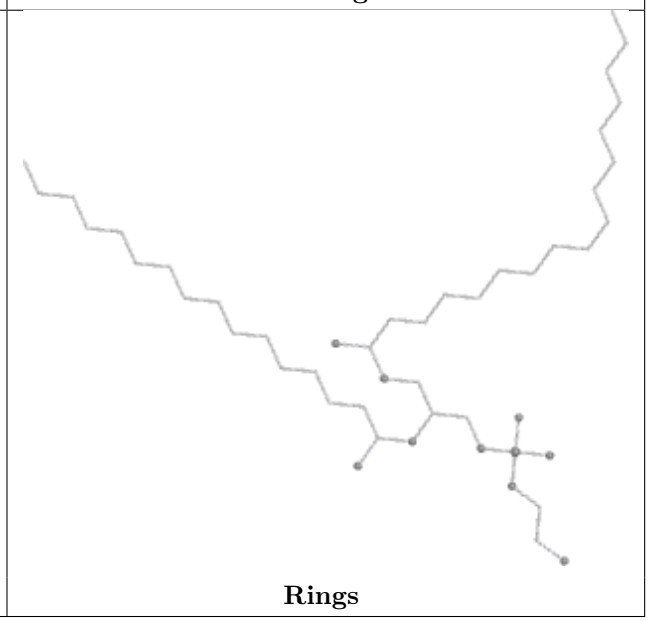
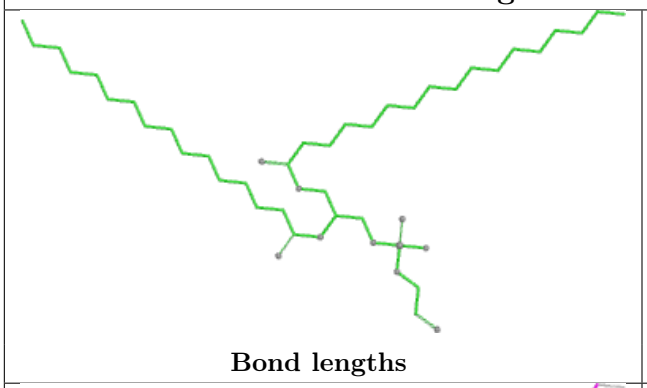
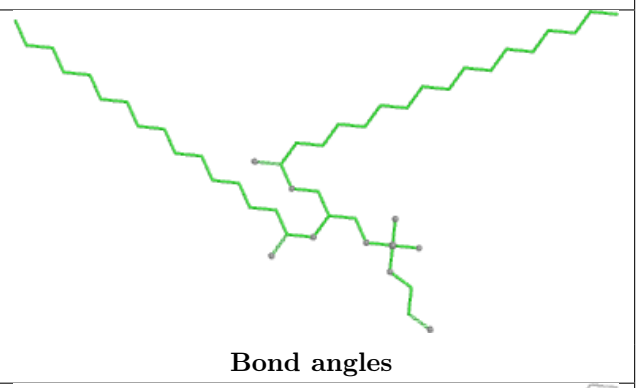


Rings

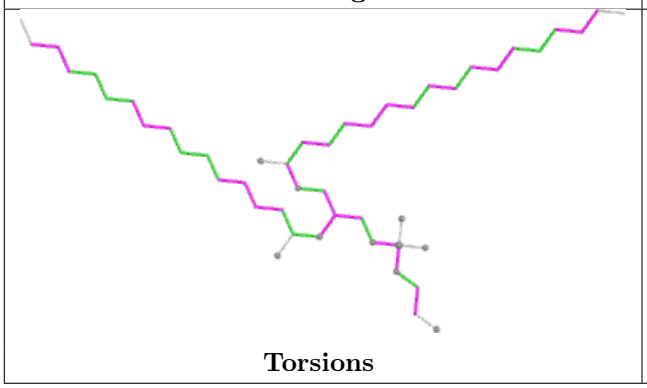
Ligand A1A0P Bc 309



Bond lengths



Bond angles



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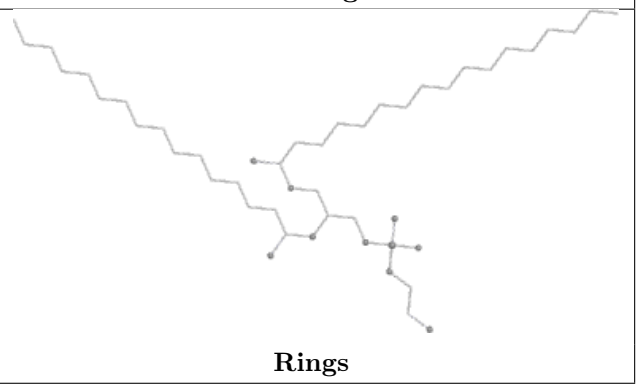
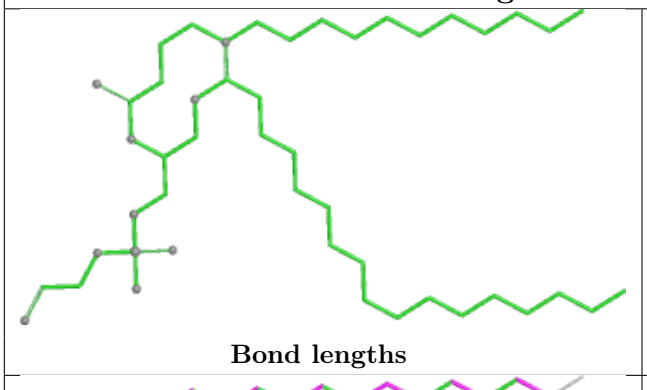
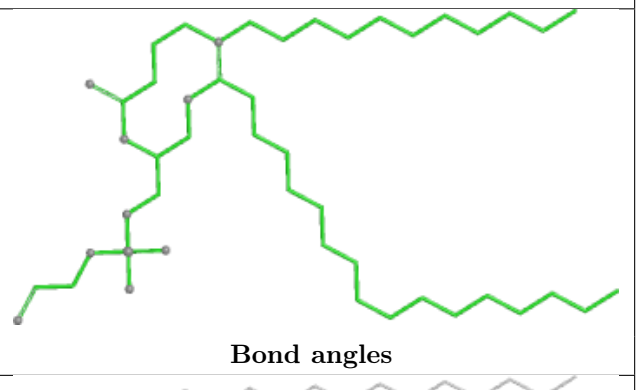


Rings

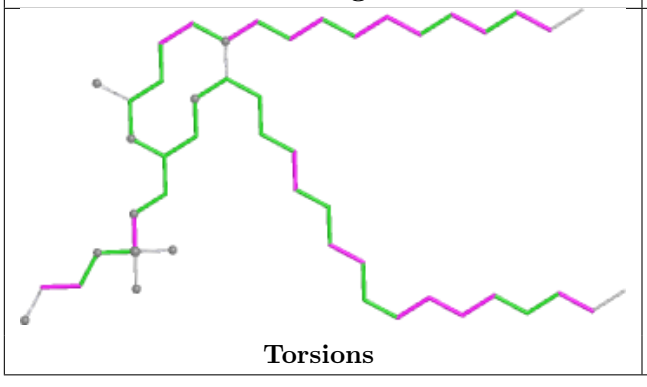
Ligand A1A0P Ca 310



Bond lengths



Bond angles



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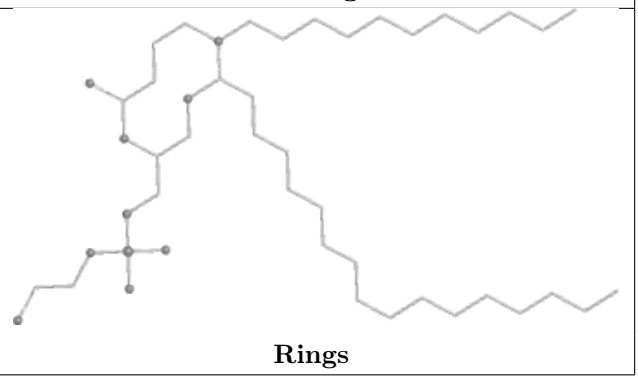
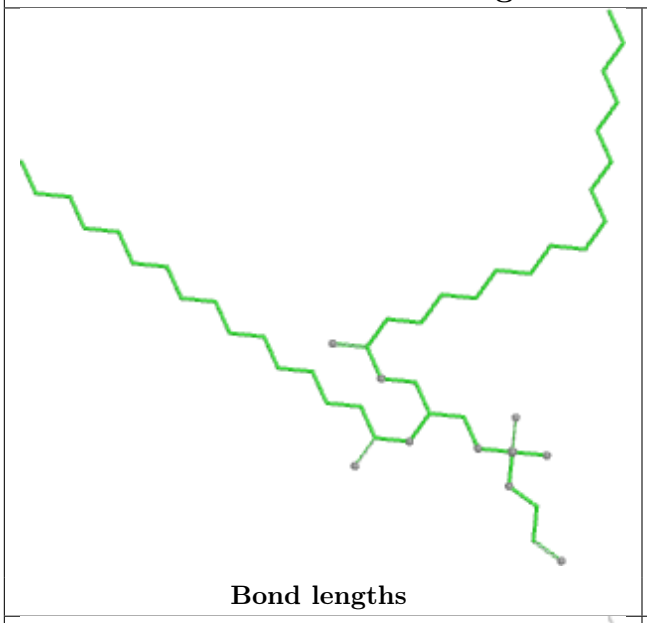
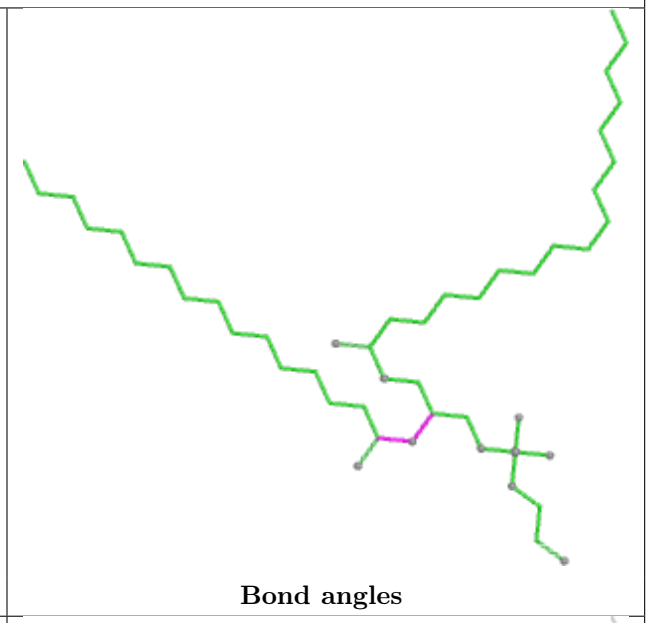


Rings

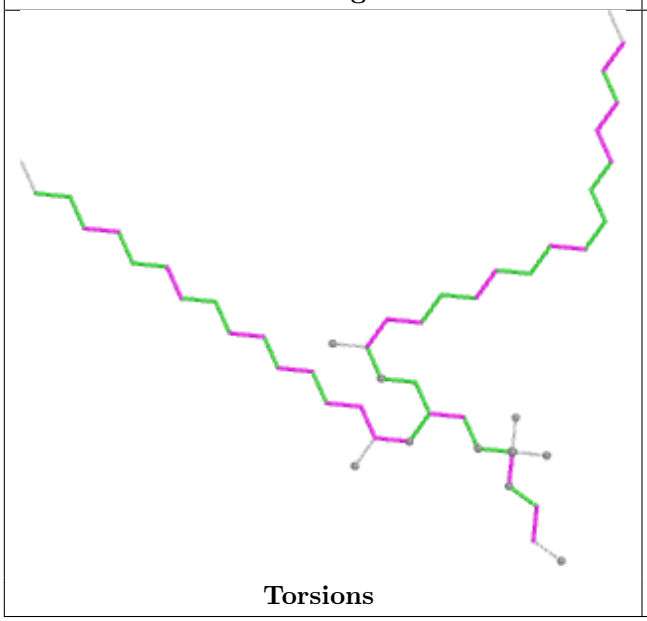
Ligand A1A0P Bb 311



Bond lengths



Bond angles



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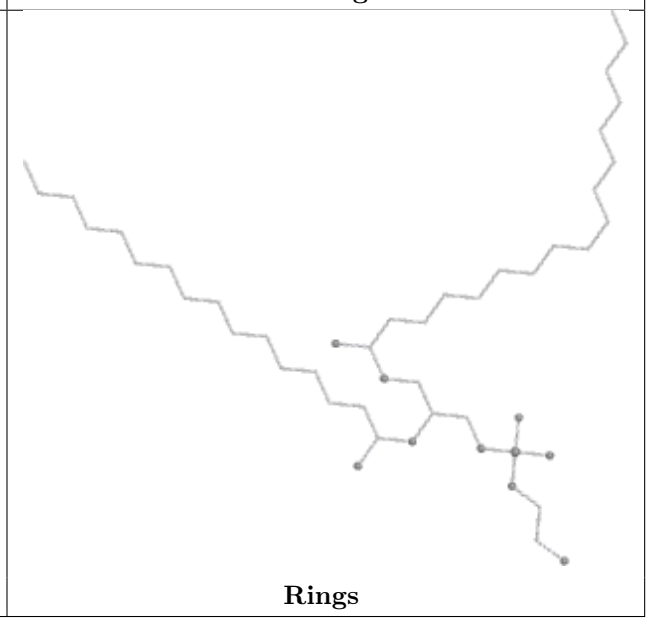
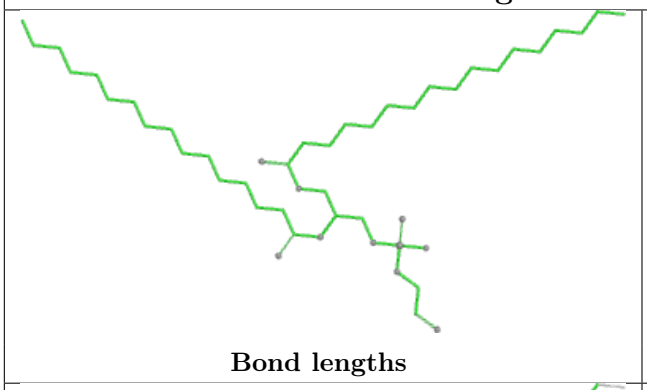
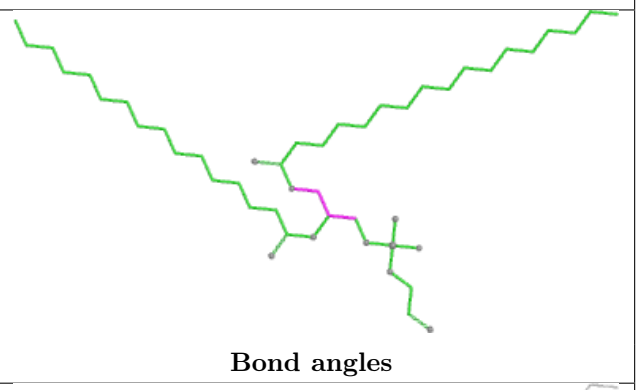


Rings

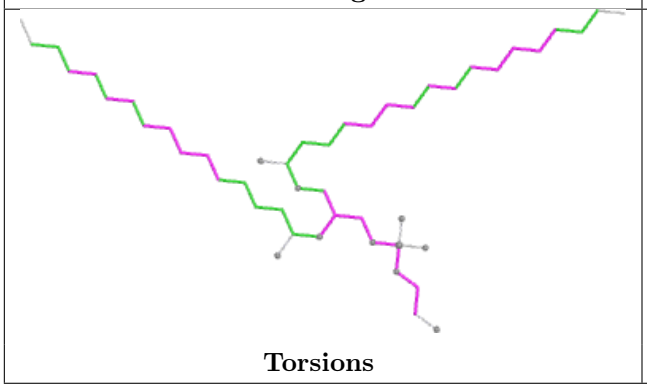
Ligand A1A0P Cb 308



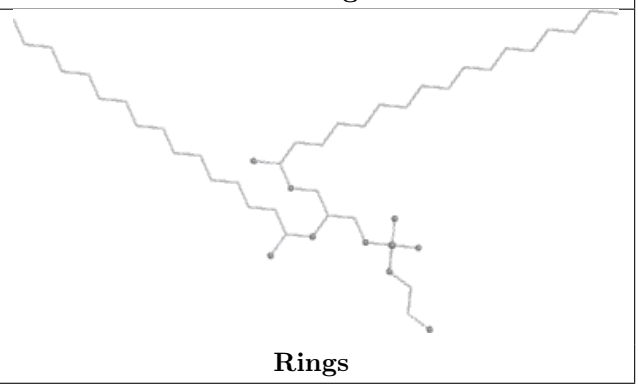
Bond lengths



Bond angles

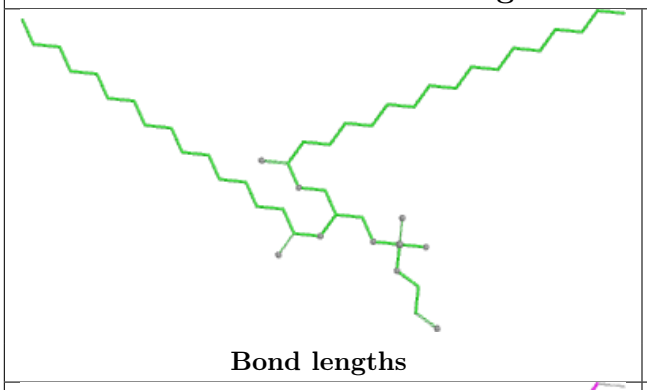


Torsions

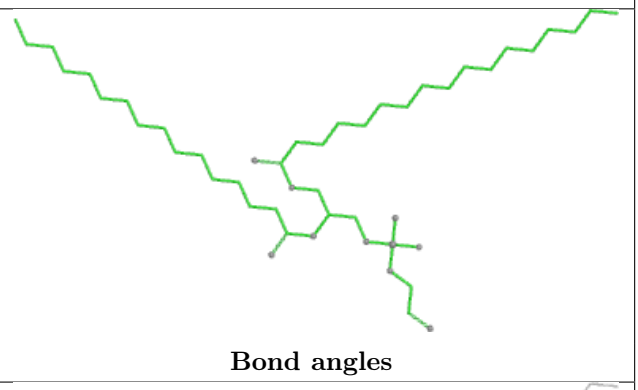


Rings

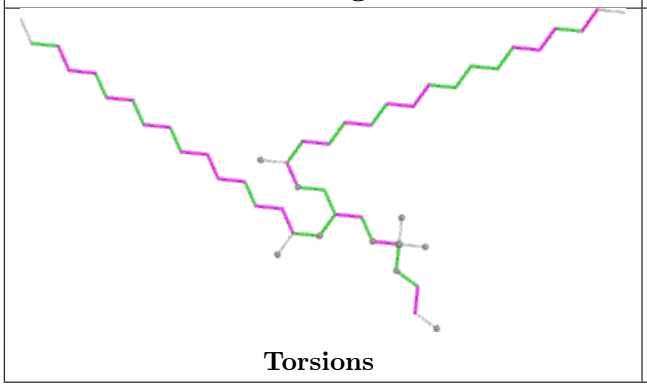
Ligand A1A0P Ba 313



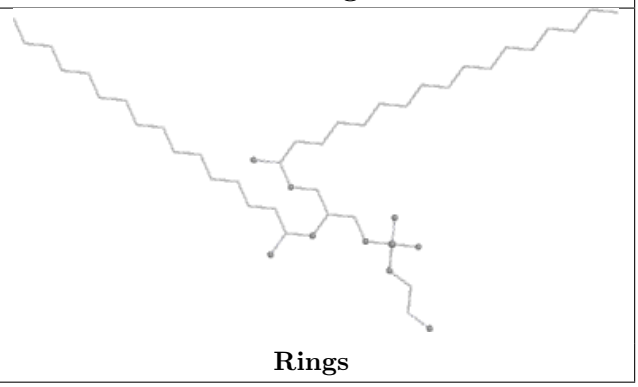
Bond lengths



Bond angles

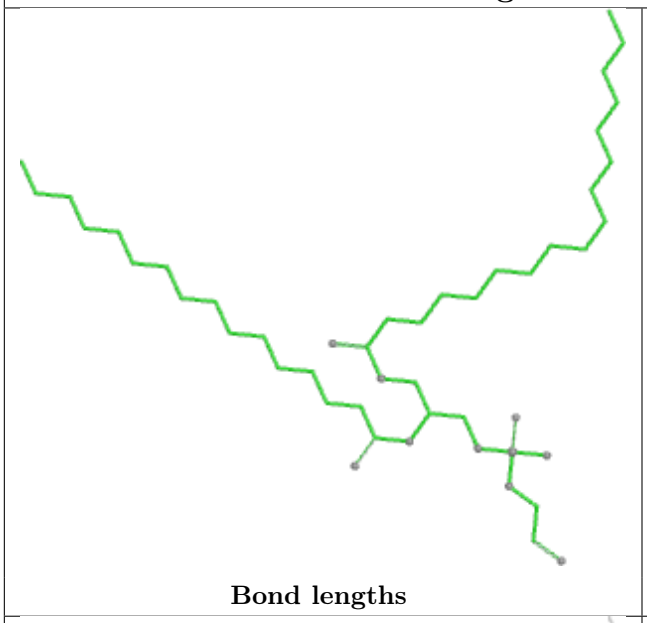


Torsions

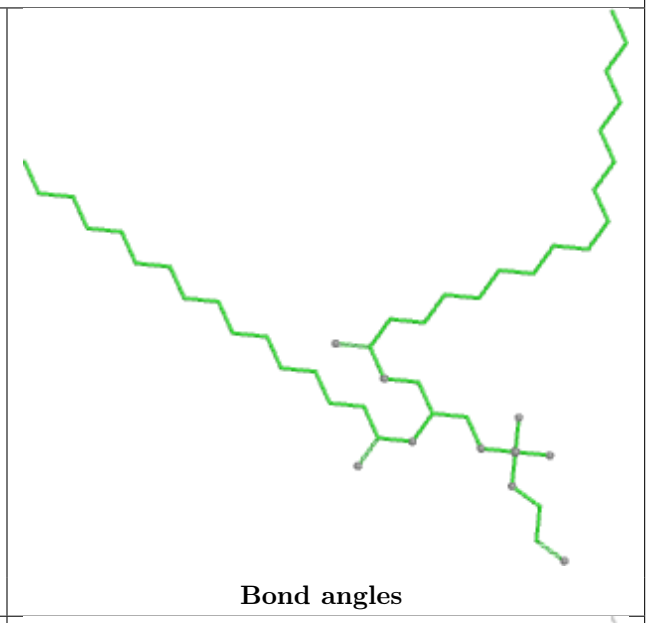


Rings

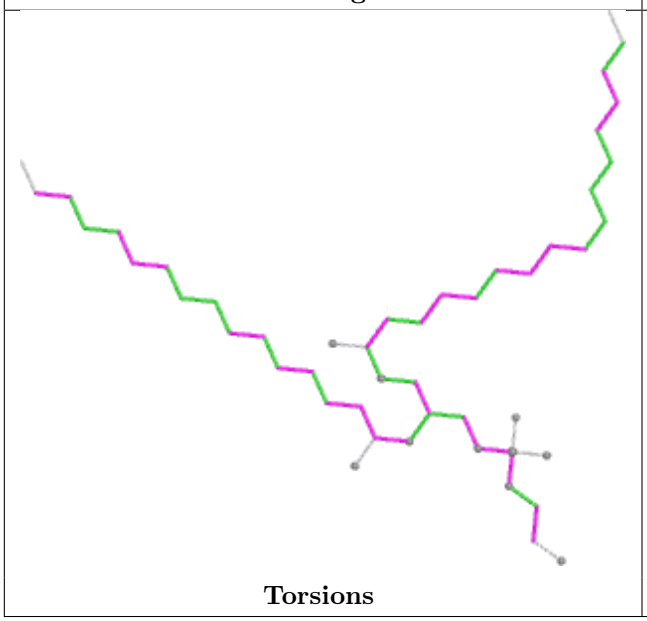
Ligand A1A0P Ca 307



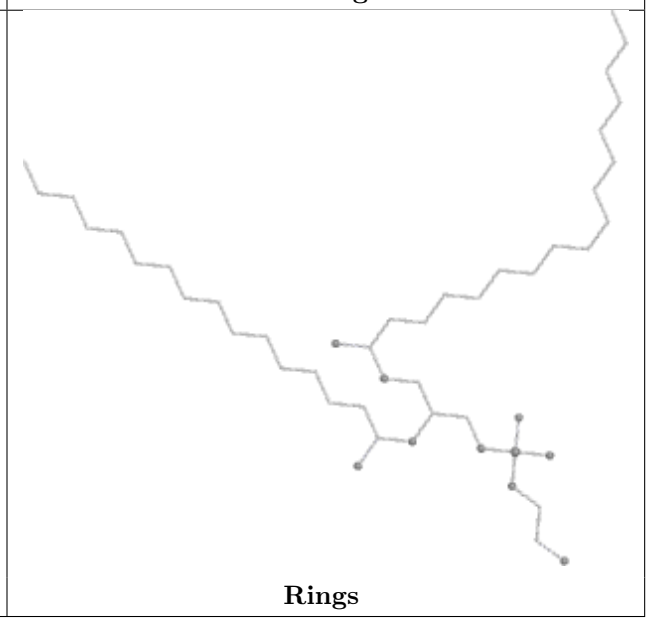
Bond lengths



Bond angles

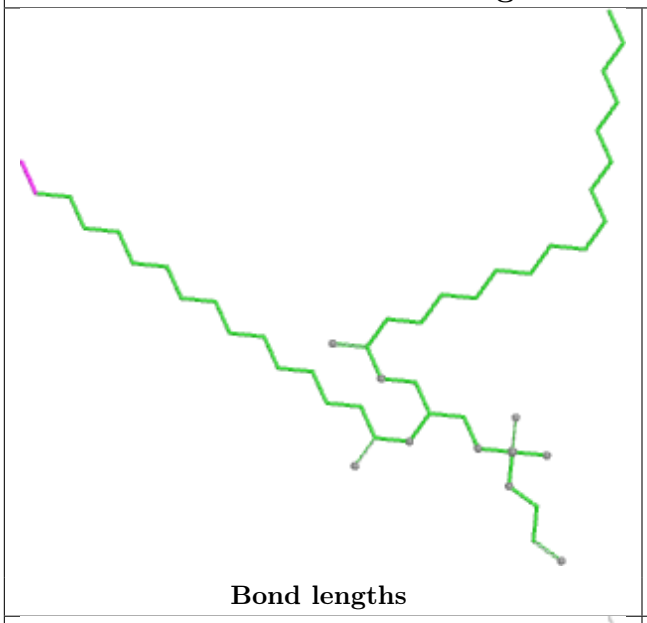


Torsions

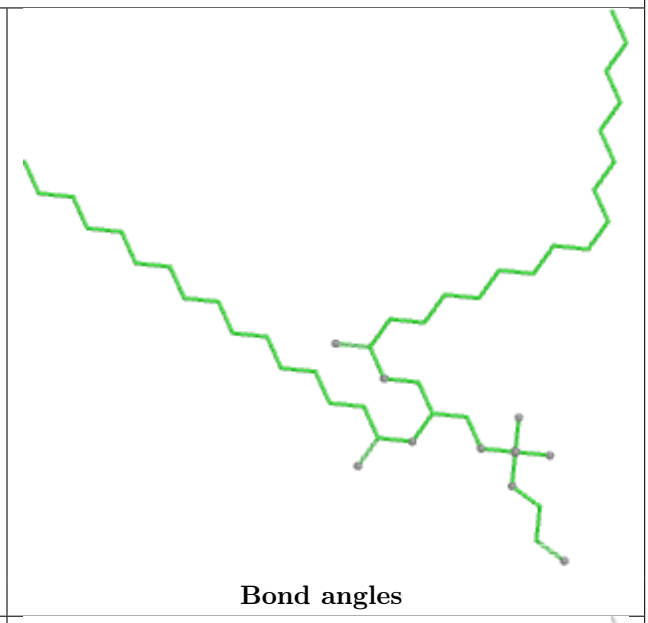


Rings

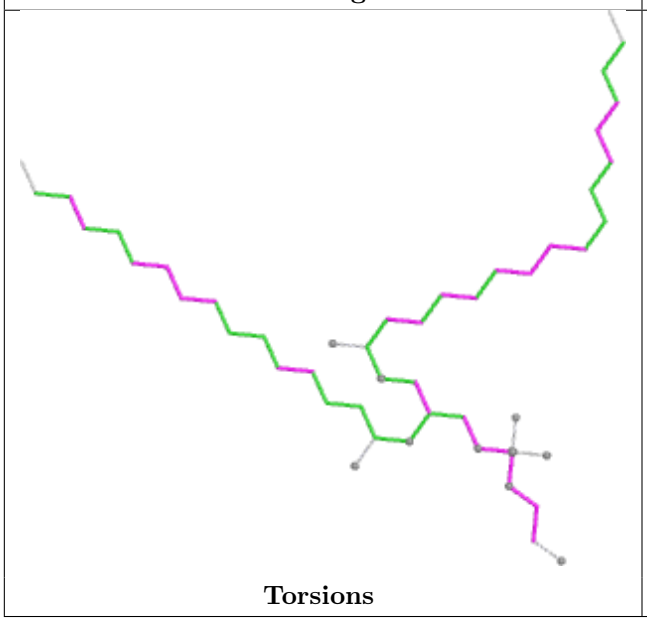
Ligand A1A0P Ca 314



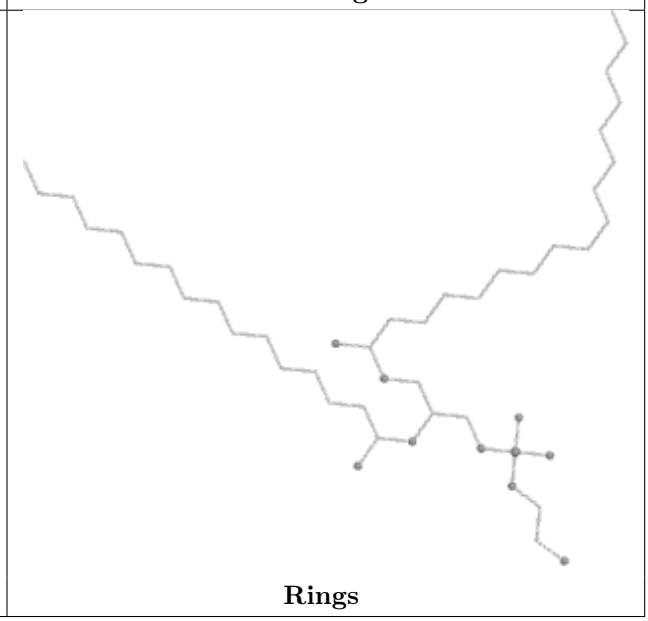
Bond lengths



Bond angles

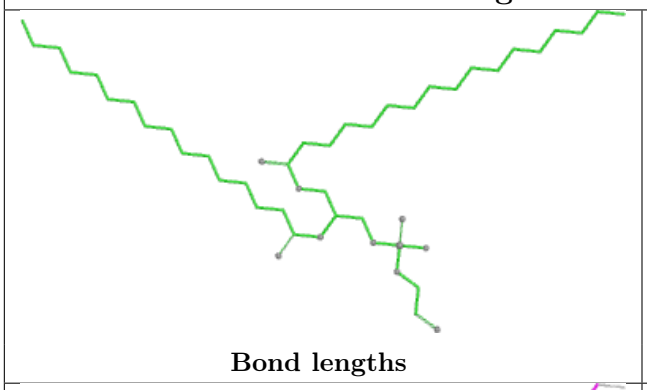


Torsions

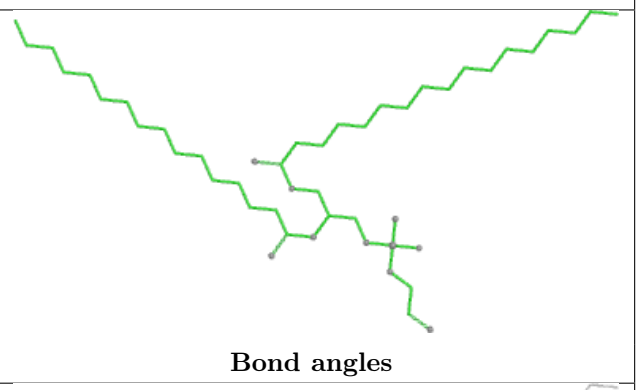


Rings

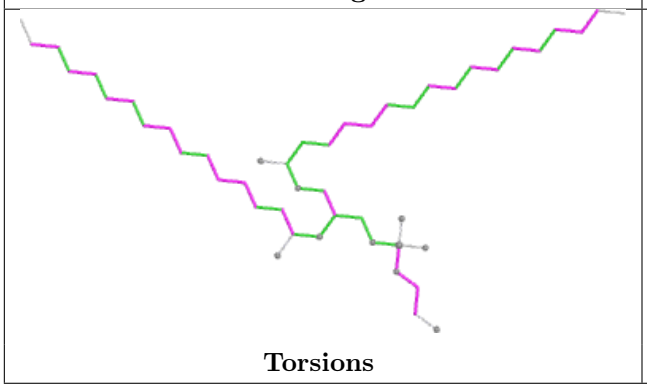
Ligand A1A0P Cb 305



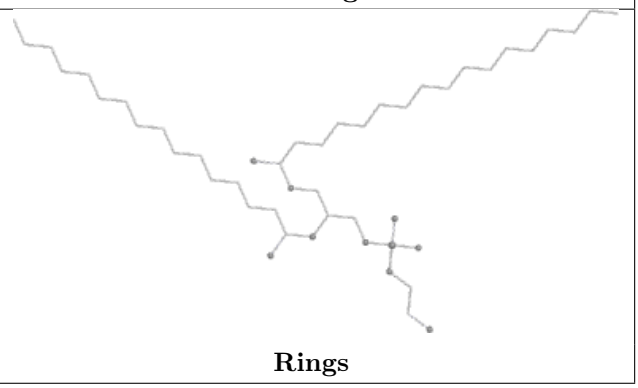
Bond lengths



Bond angles

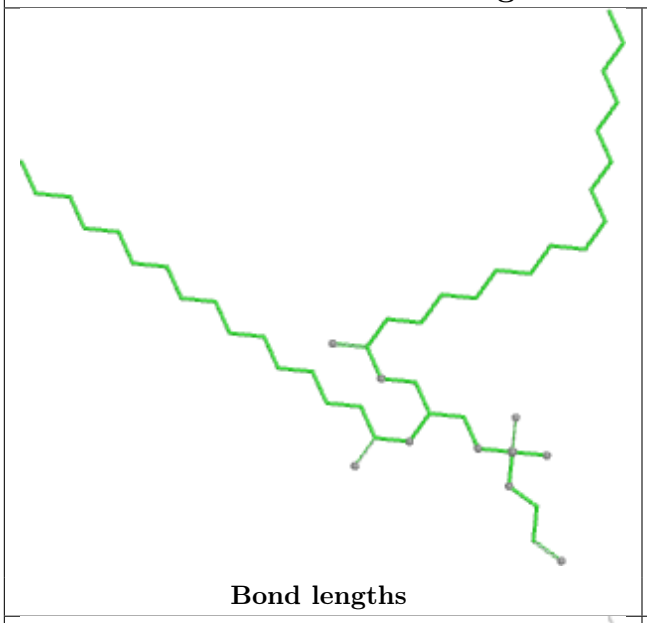


Torsions

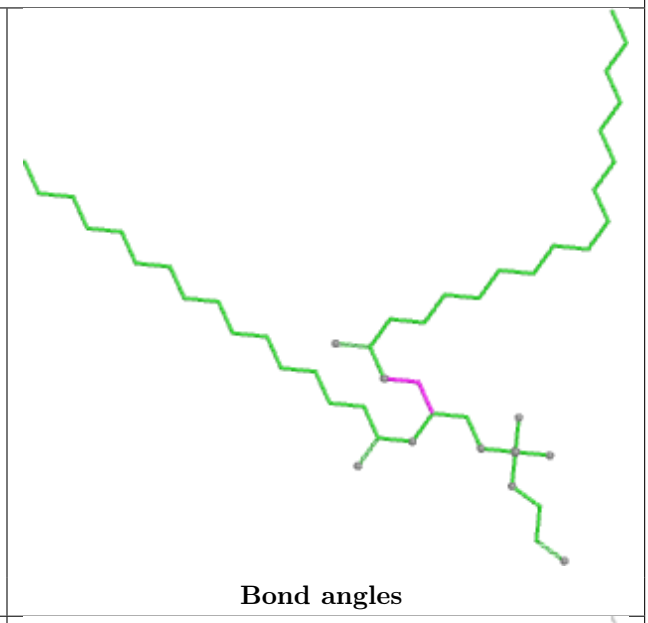


Rings

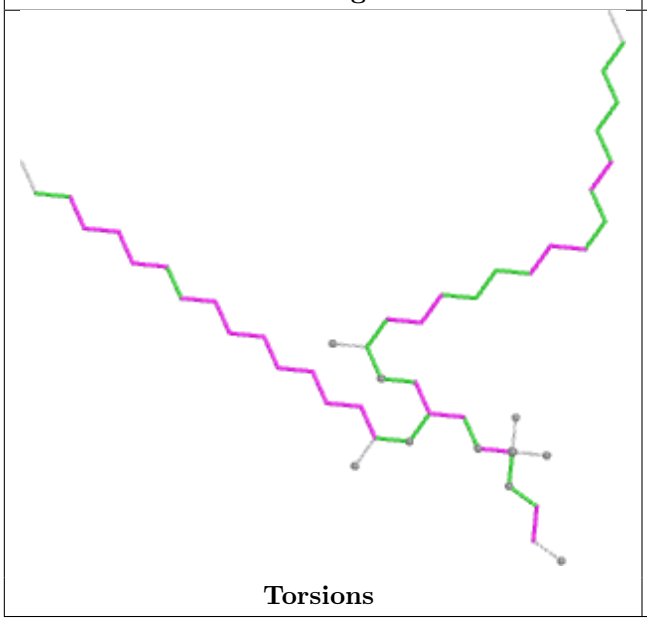
Ligand A1A0P Cc 309



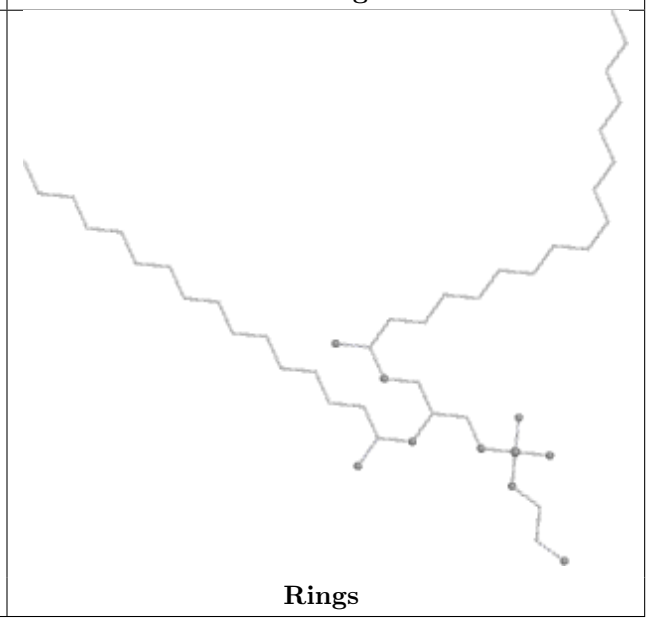
Bond lengths



Bond angles

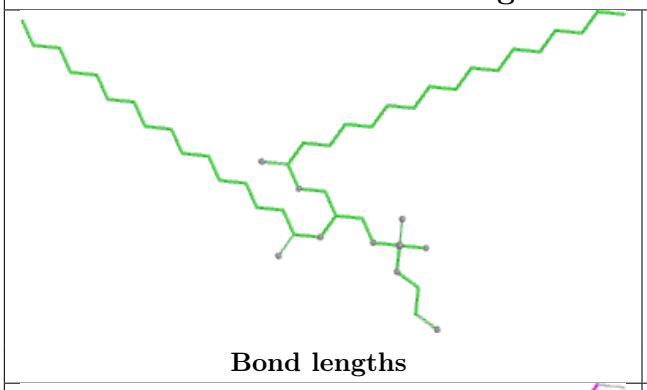


Torsions

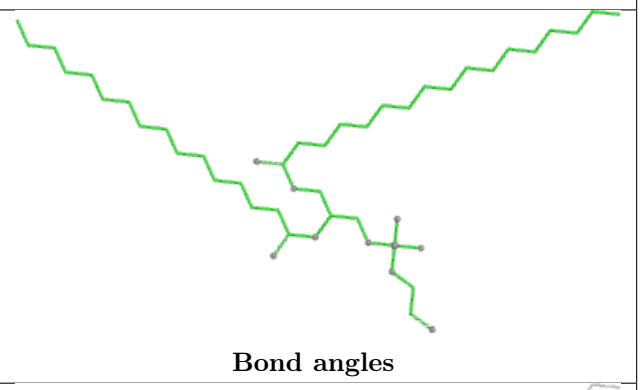


Rings

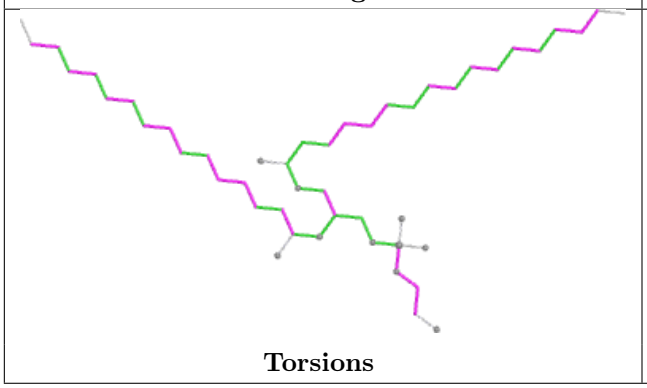
Ligand A1A0P Cc 305



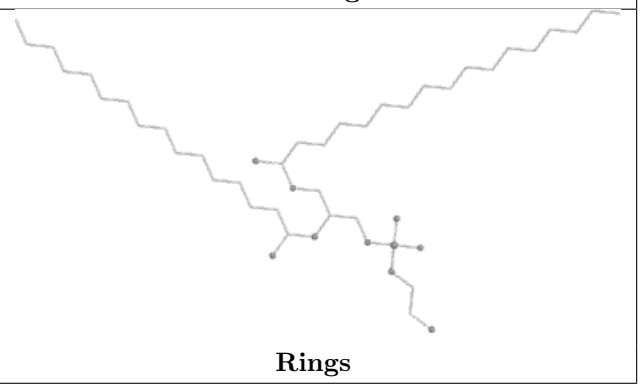
Bond lengths



Bond angles

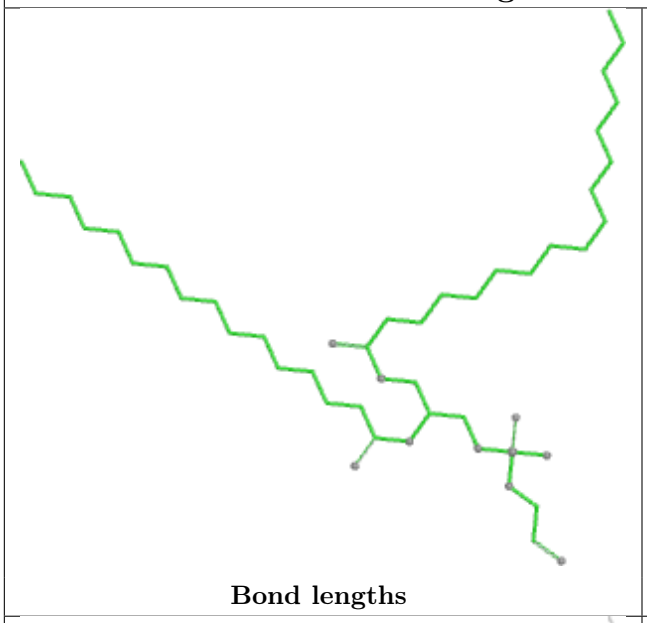


Torsions

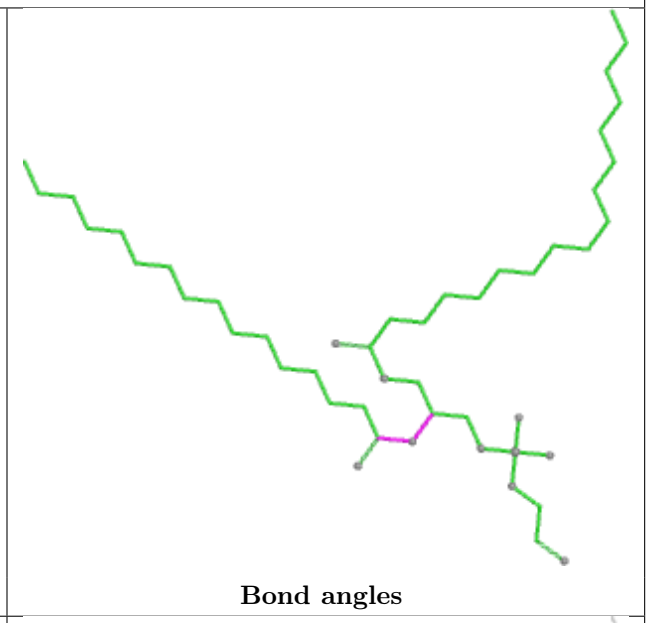


Rings

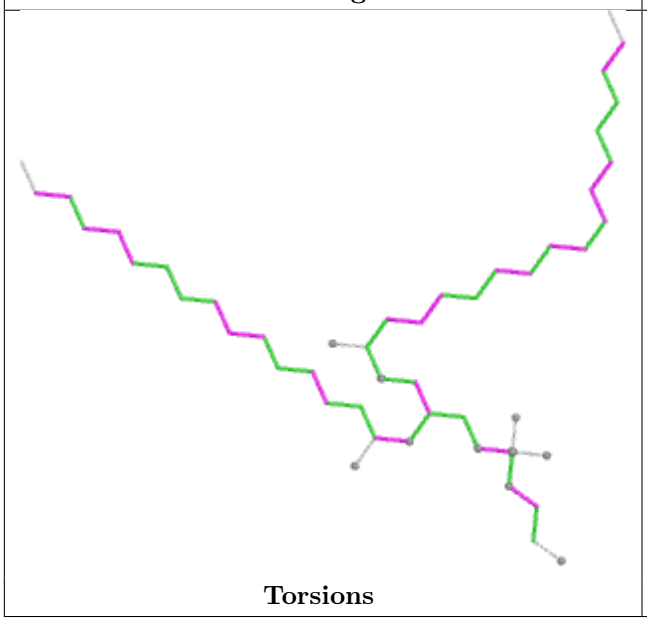
Ligand A1A0P Ac 537



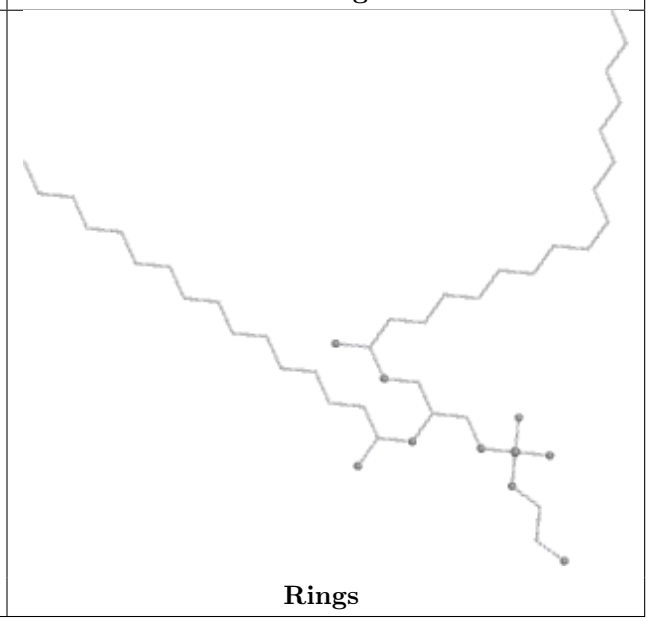
Bond lengths



Bond angles

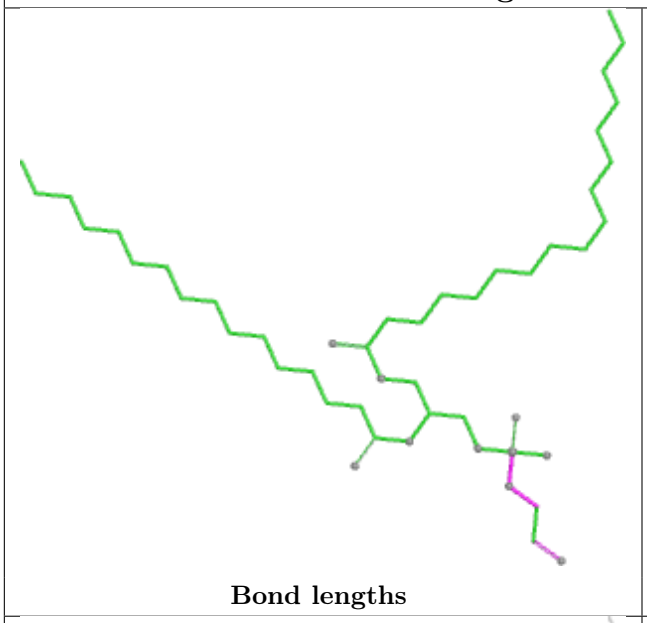


Torsions

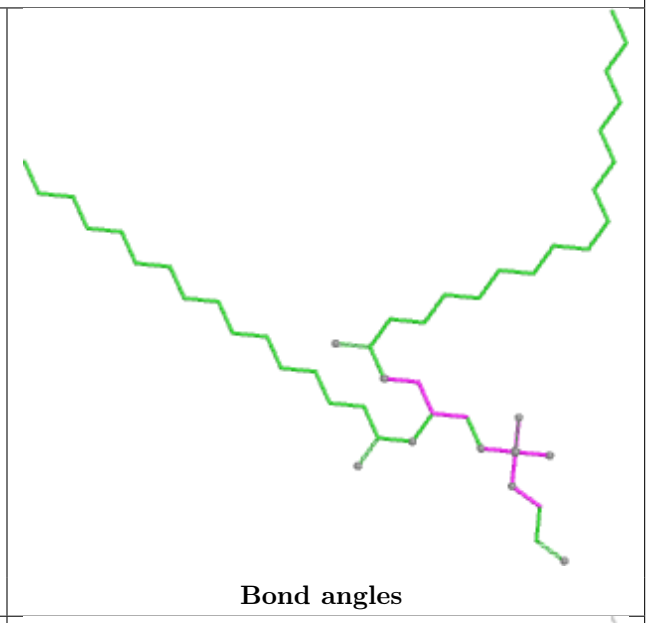


Rings

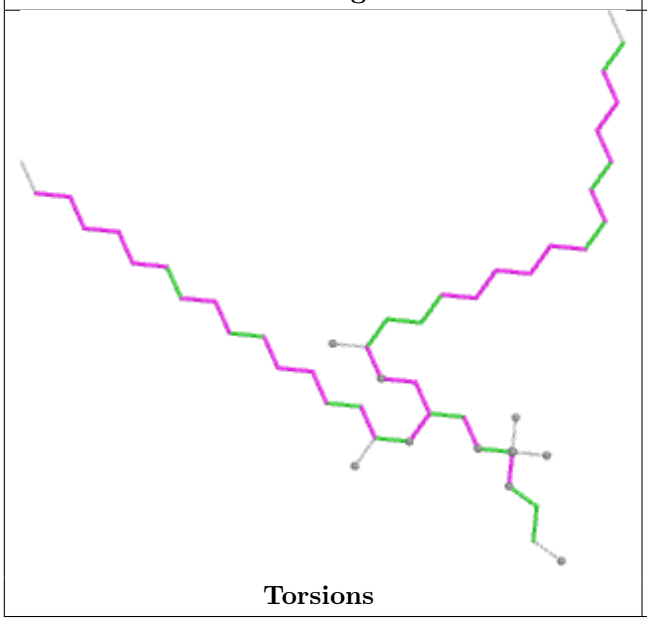
Ligand A1A0P Ca 306



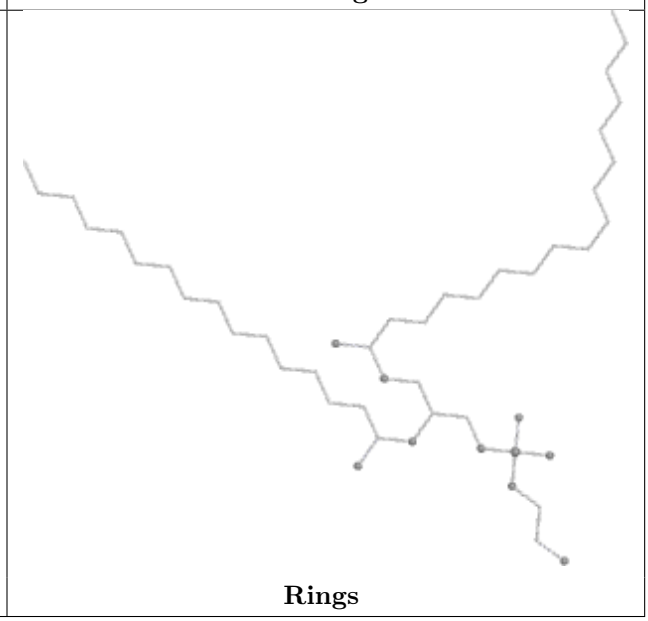
Bond lengths



Bond angles

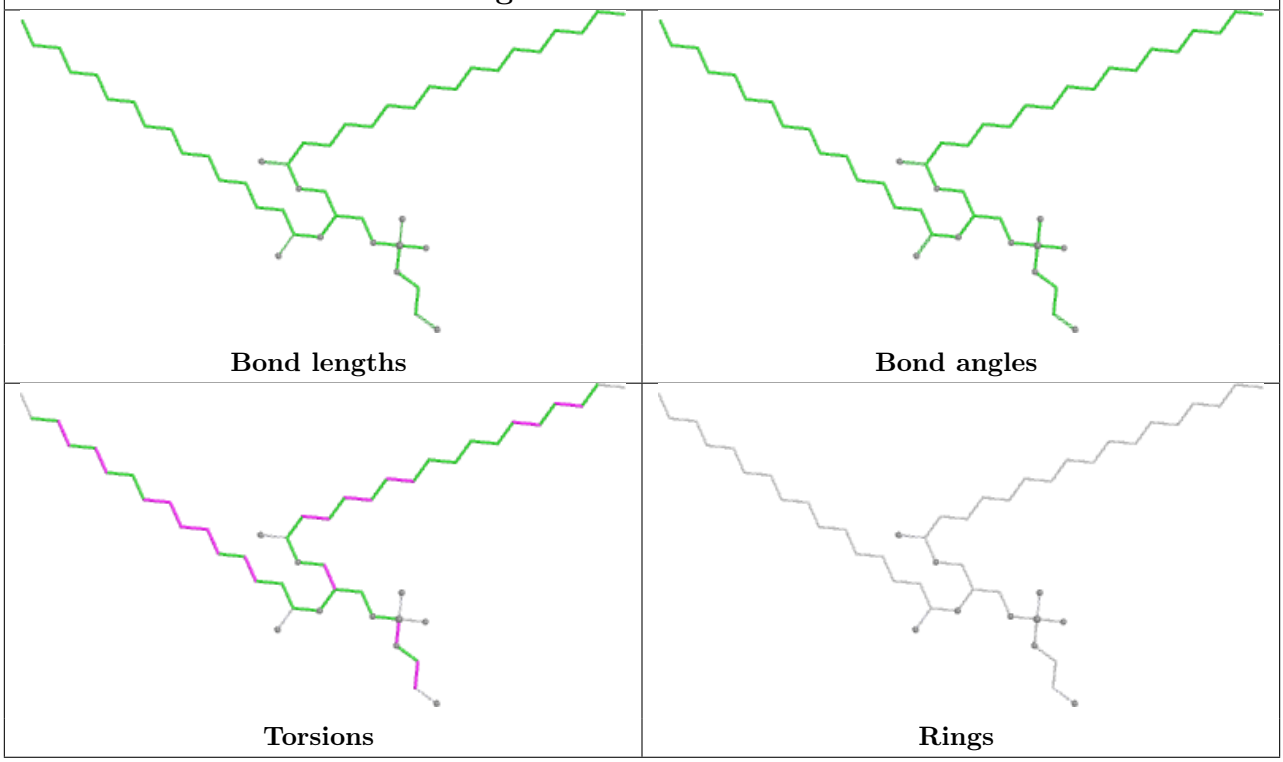


Torsions

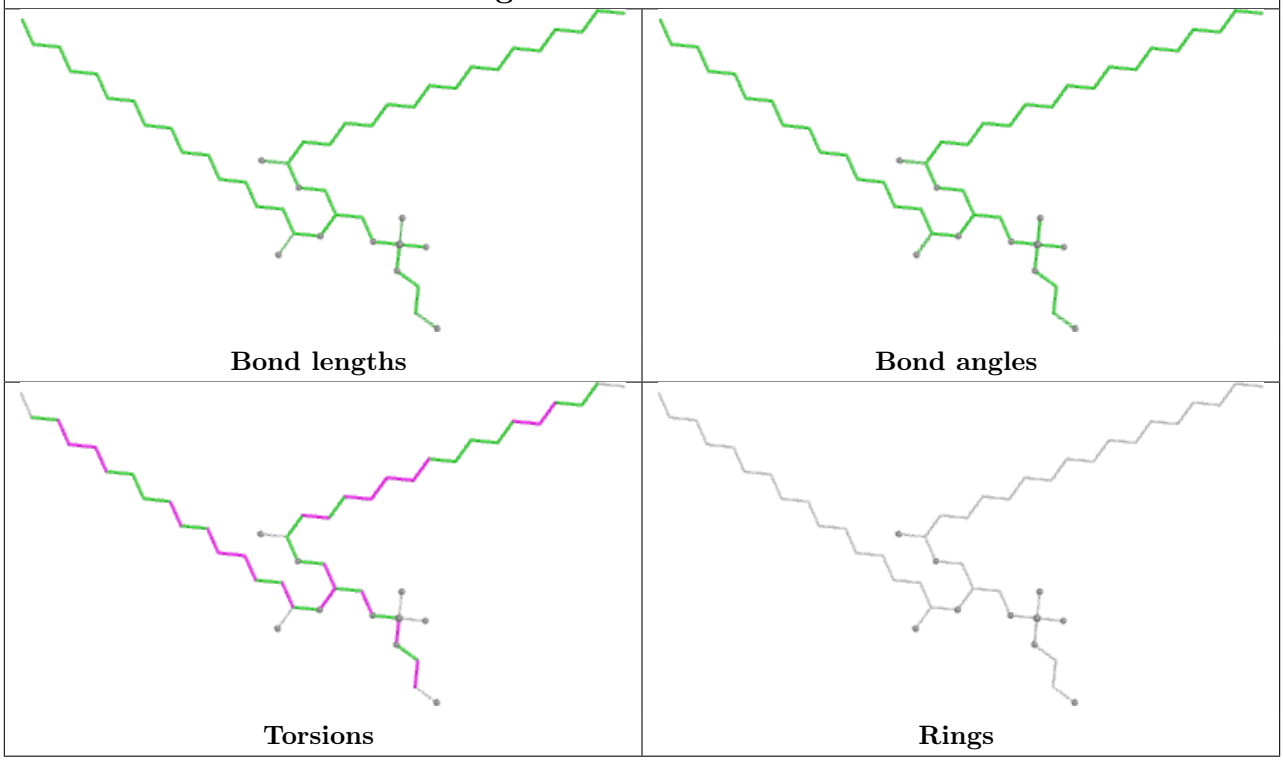


Rings

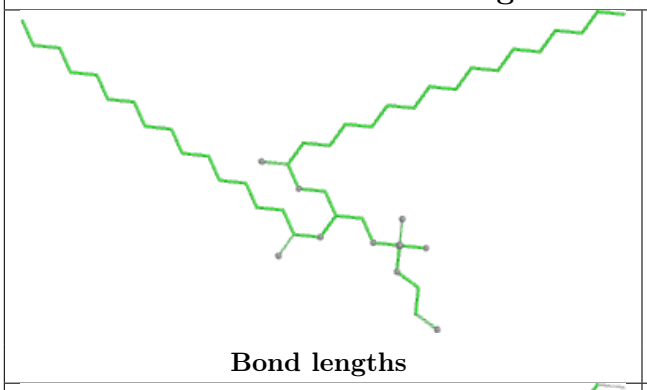
Ligand A1A0P Bb 308



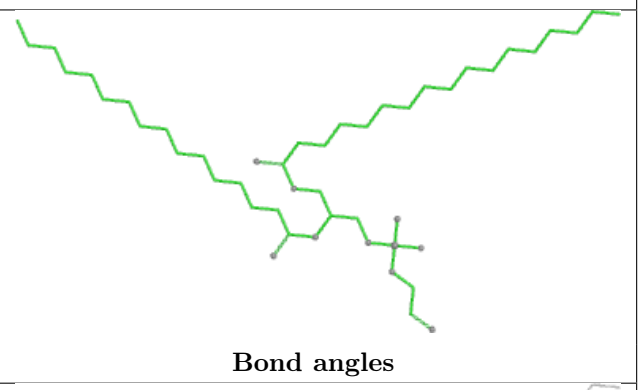
Ligand A1A0P Bb 312



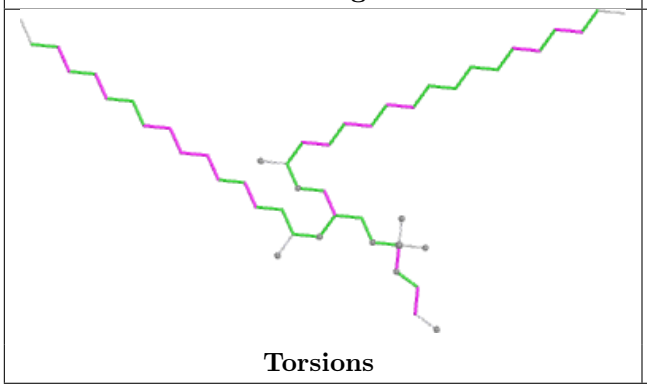
Ligand A1A0P Ba 308



Bond lengths



Bond angles



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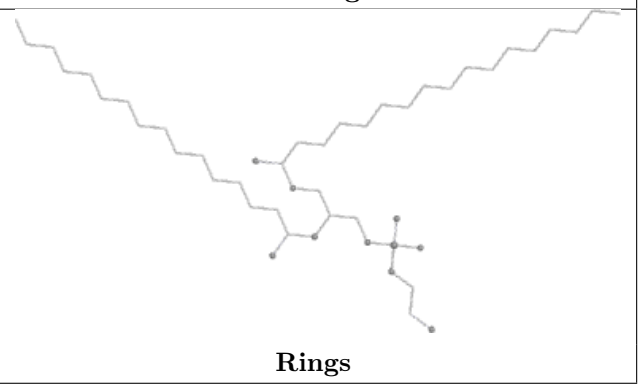
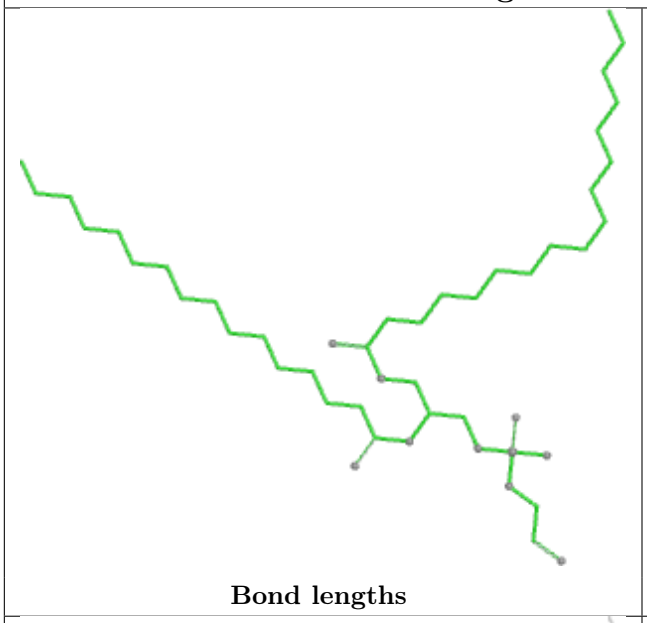
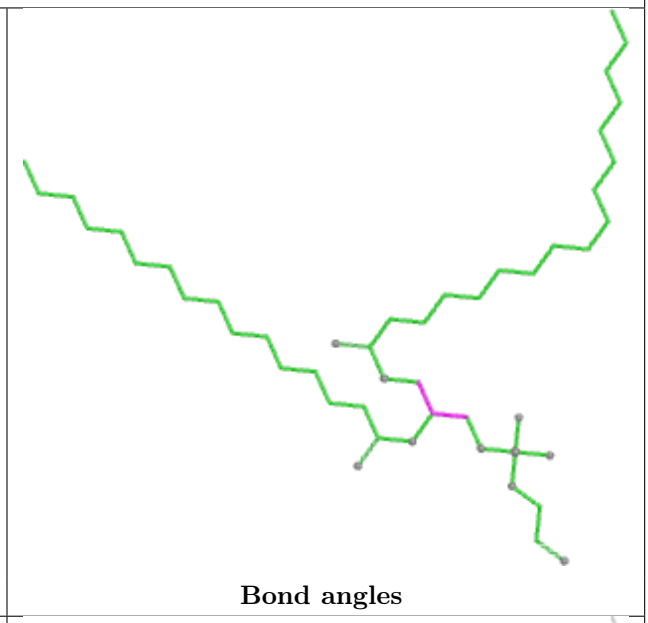


Rings

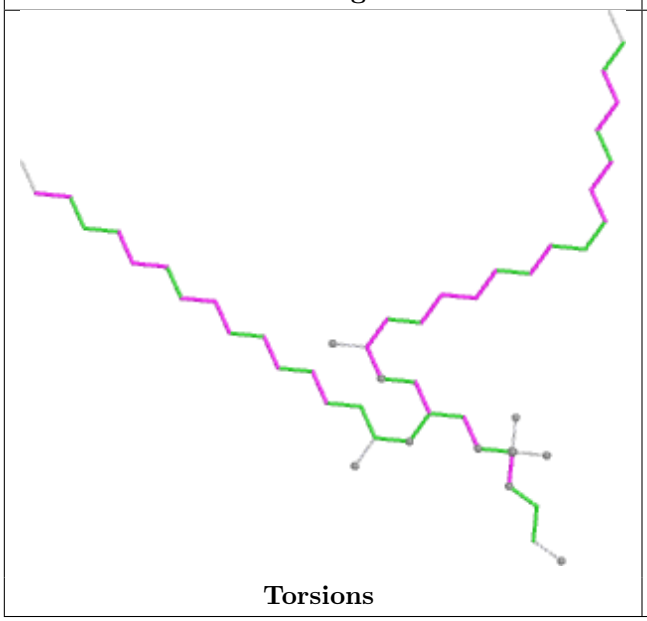
Ligand A1A0P Ca 304



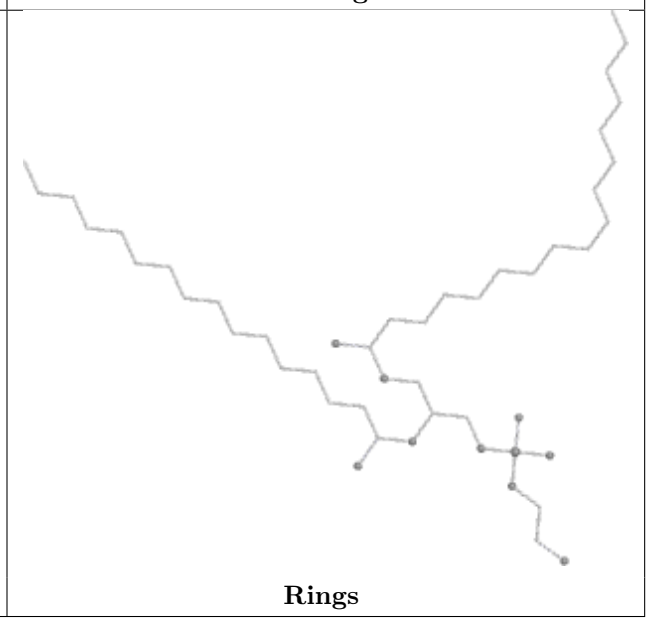
Bond lengths



Bond angles

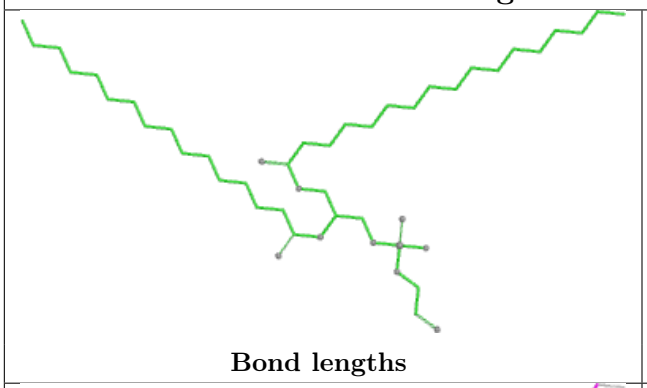


Torsions

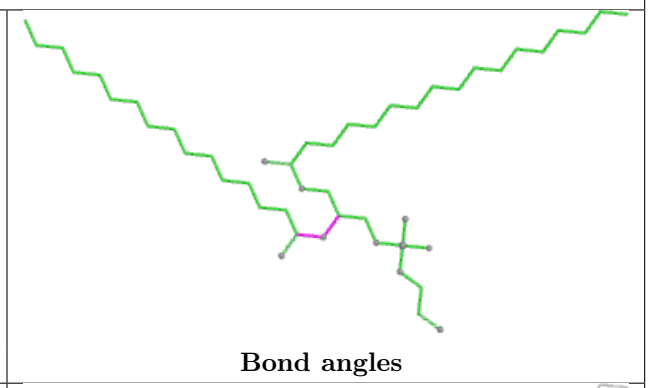


Rings

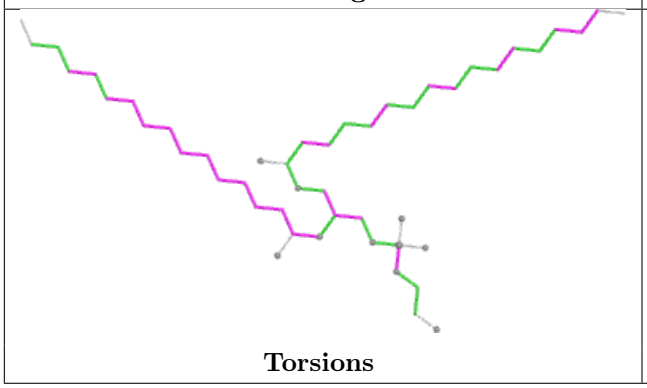
Ligand A1A0P Ca 312



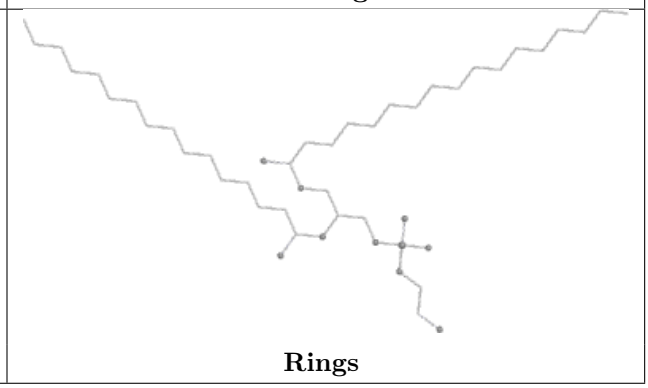
Bond lengths



Bond angles

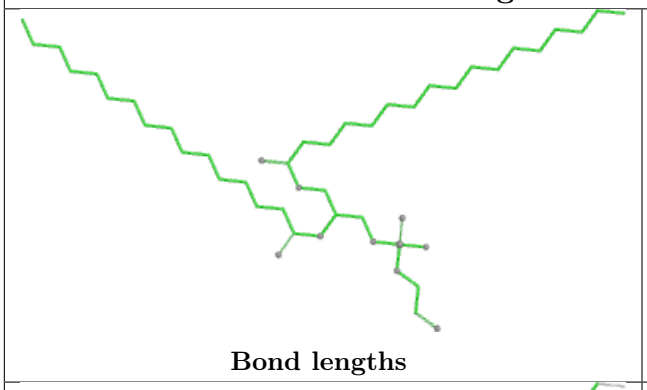


Torsions

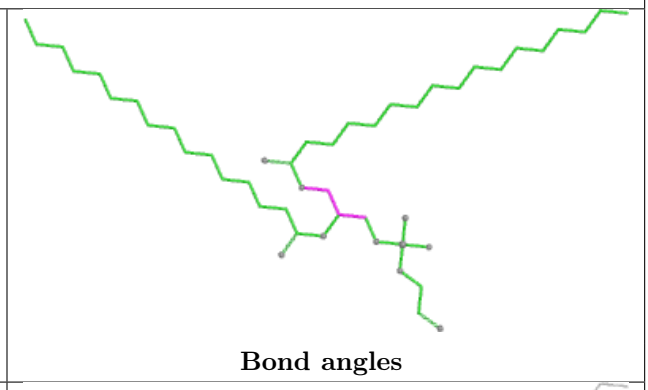


Rings

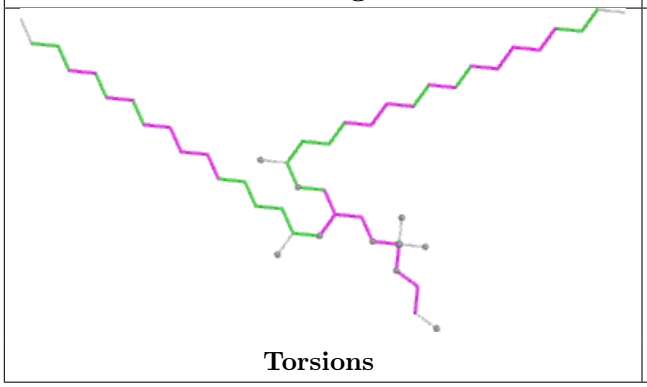
Ligand A1A0P Ca 308



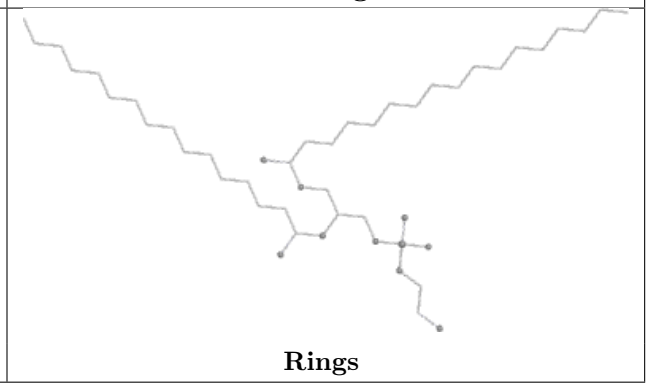
Bond lengths



Bond angles

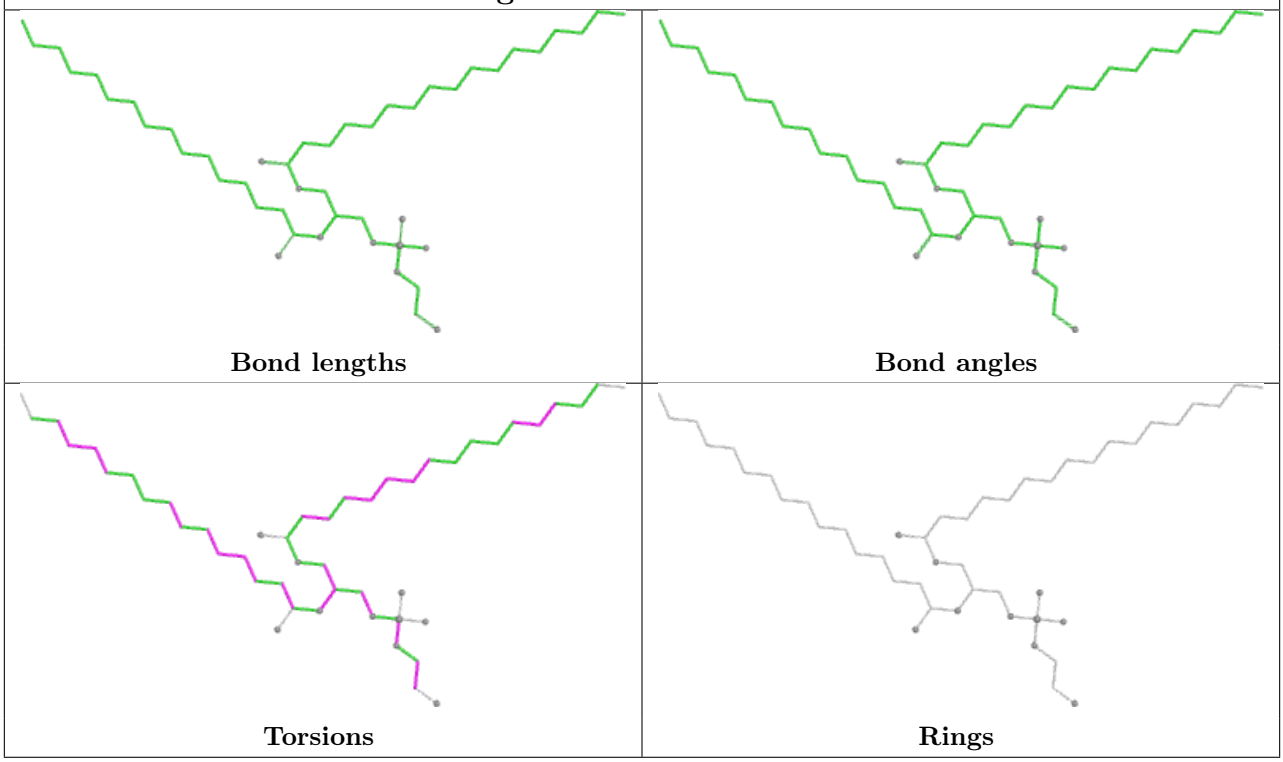


Torsions

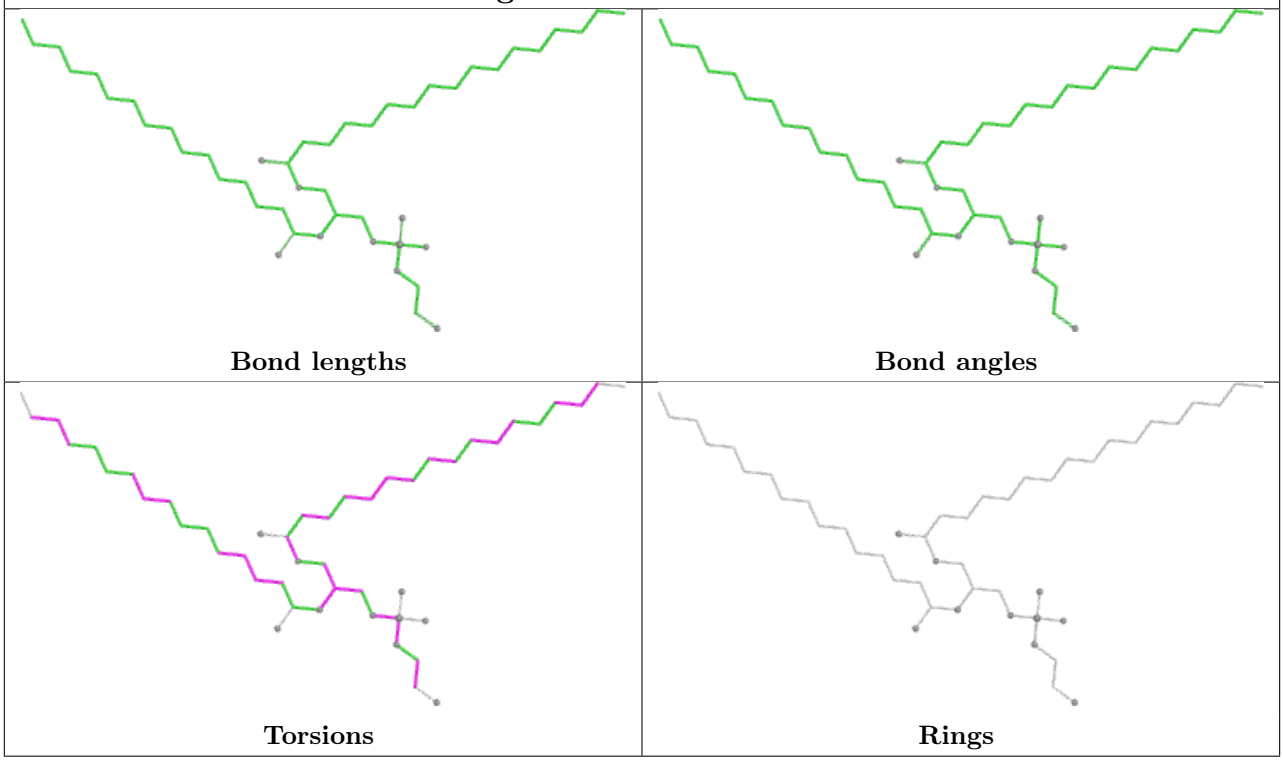


Rings

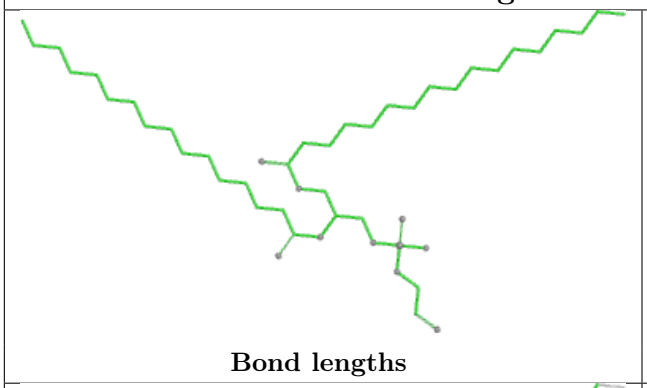
Ligand A1A0P Ba 312



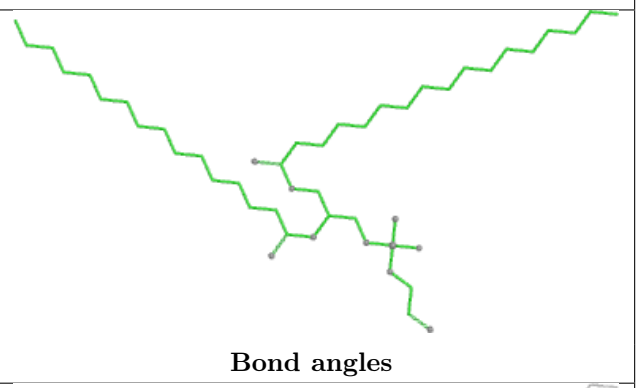
Ligand A1A0P Ba 309



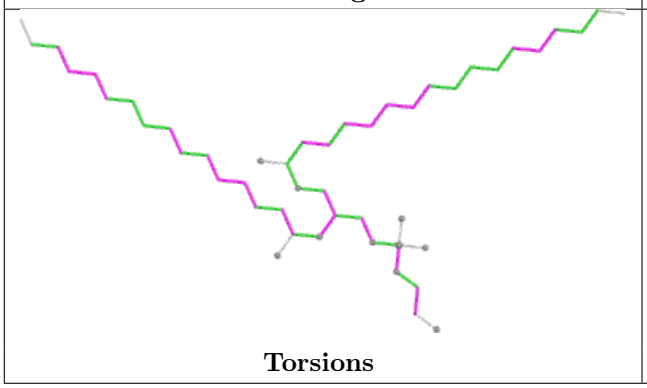
Ligand A1A0P Bc 312



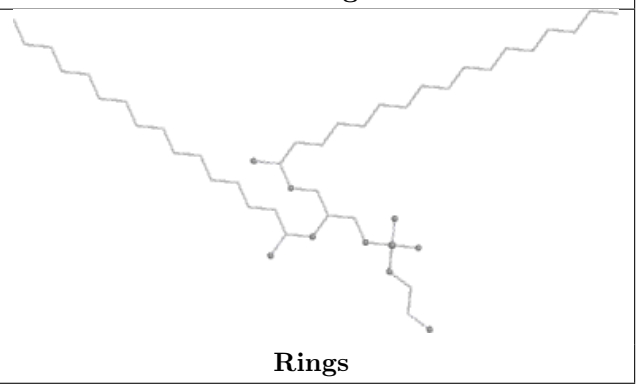
Bond lengths



Bond angles

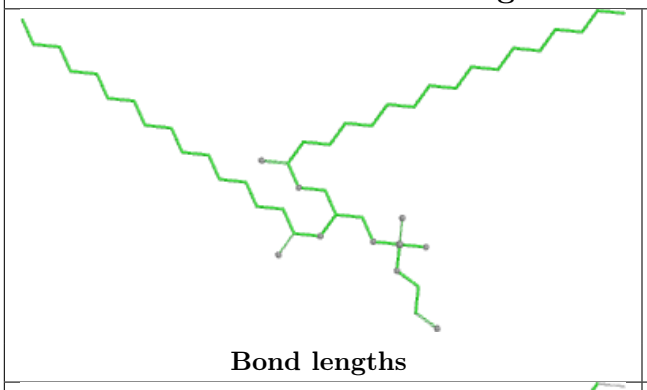


Torsions

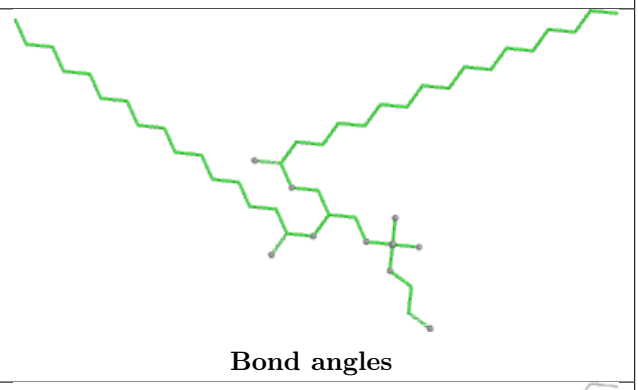


Rings

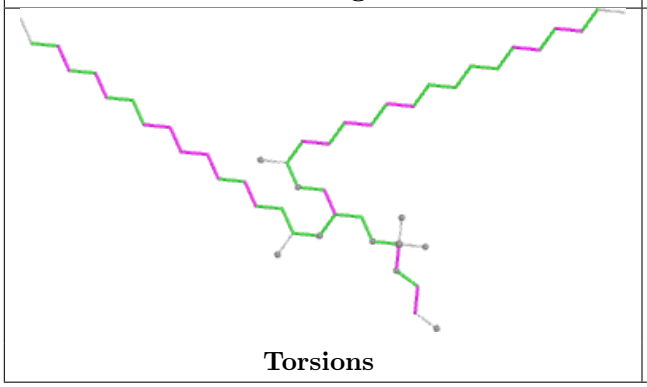
Ligand A1A0P Bc 308



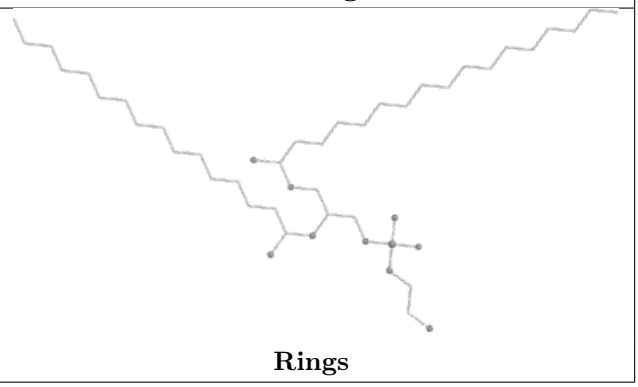
Bond lengths



Bond angles

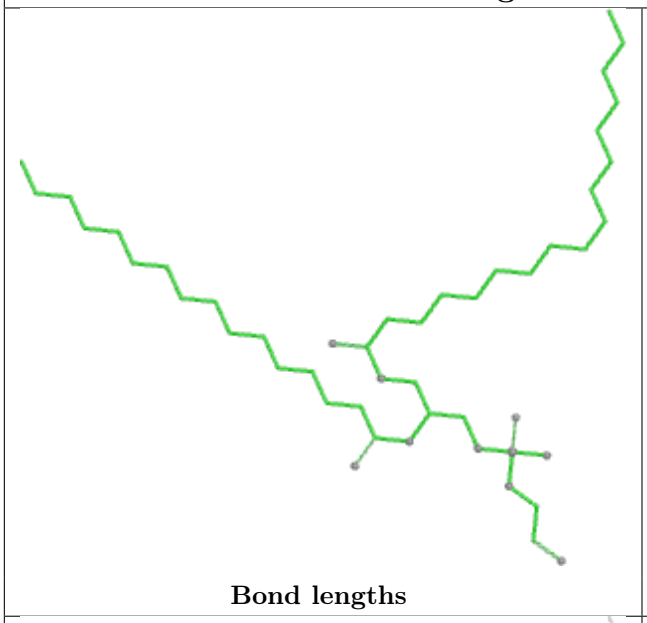


Torsions

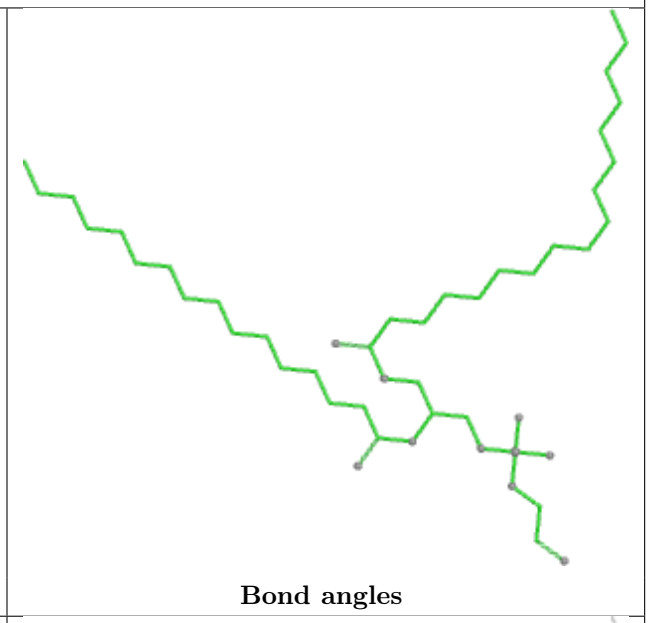


Rings

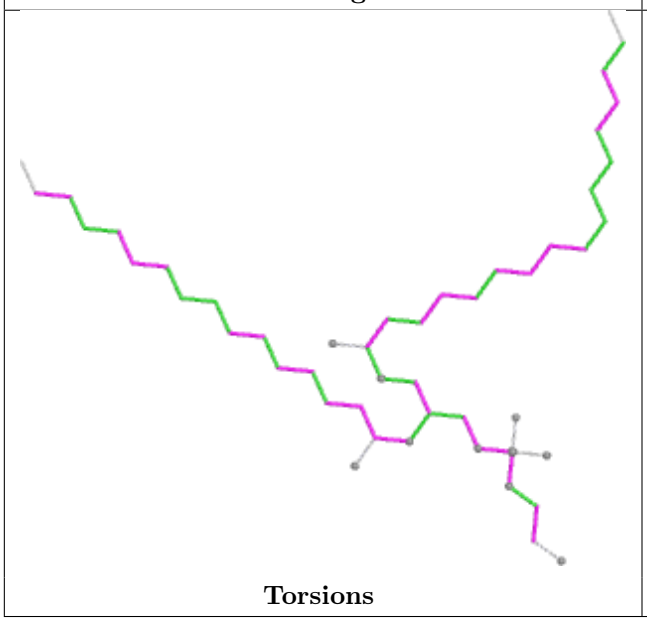
Ligand A1A0P Cc 307



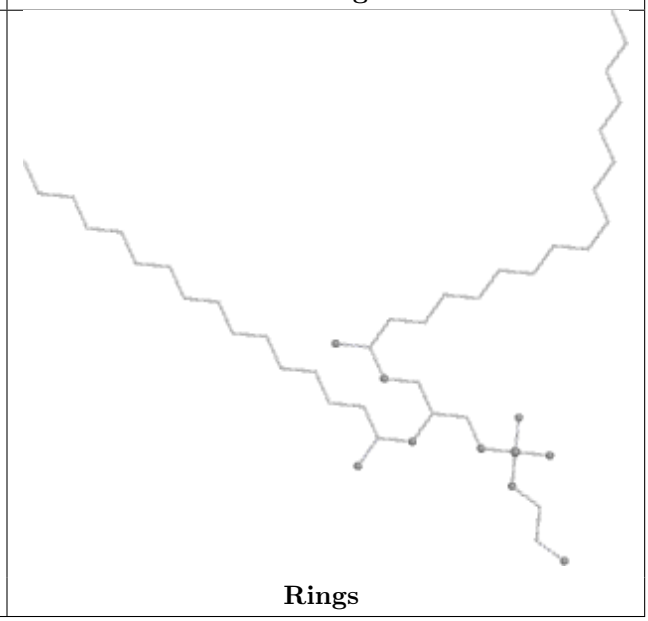
Bond lengths



Bond angles

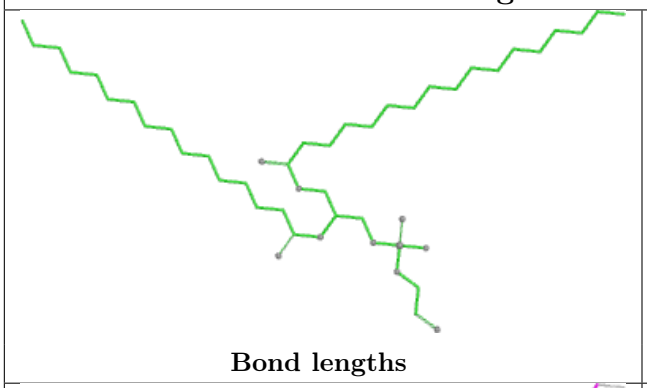


Torsions

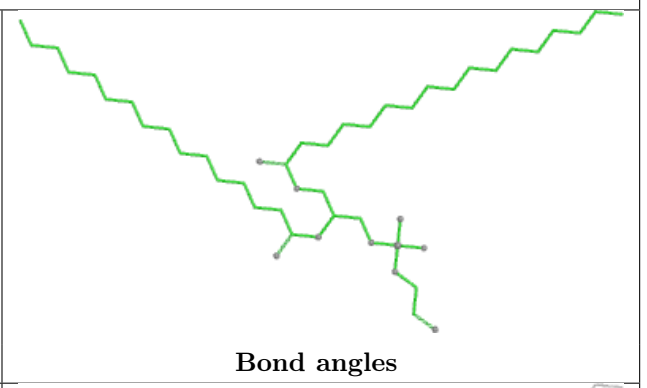


Rings

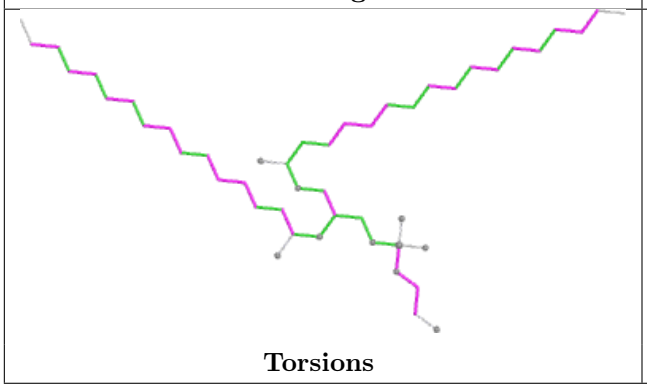
Ligand A1A0P Ca 305



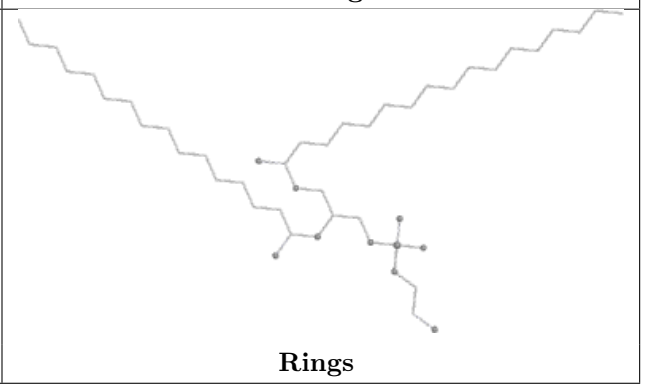
Bond lengths



Bond angles

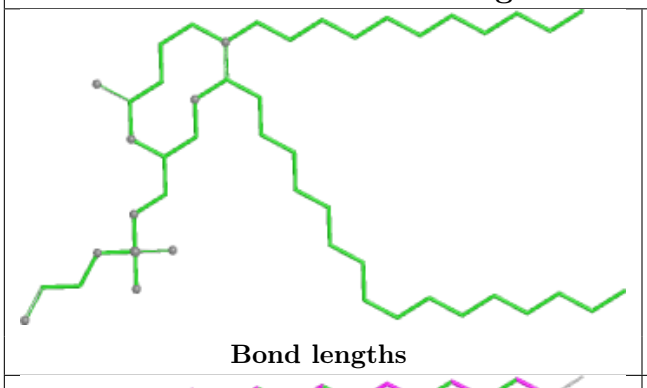


Torsions

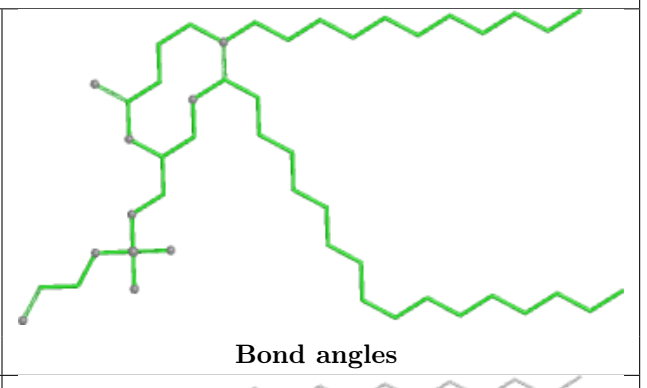


Rings

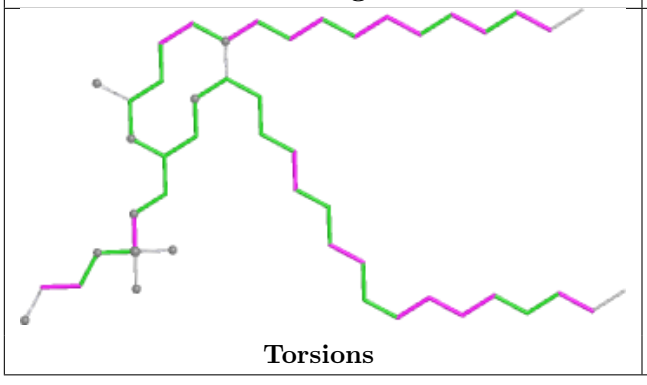
Ligand A1A0P Cb 310



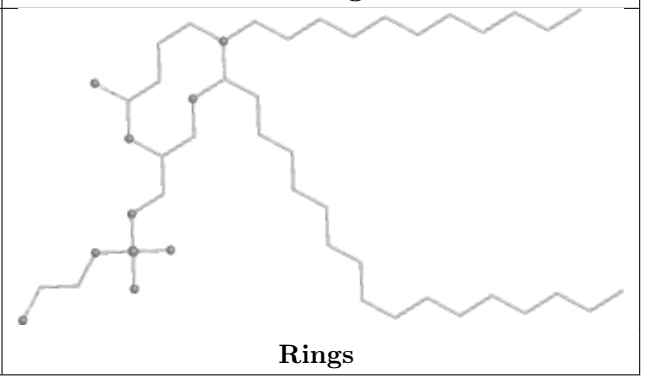
Bond lengths



Bond angles

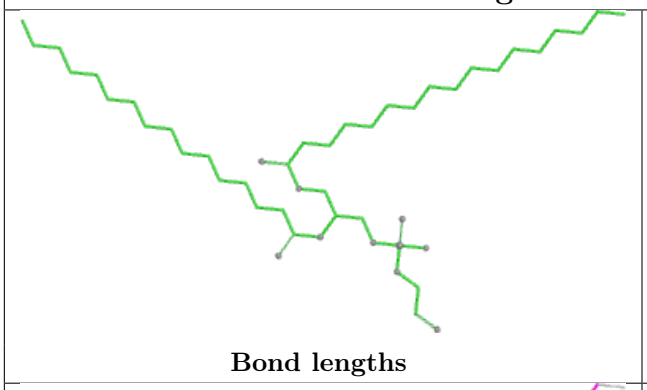


Torsions

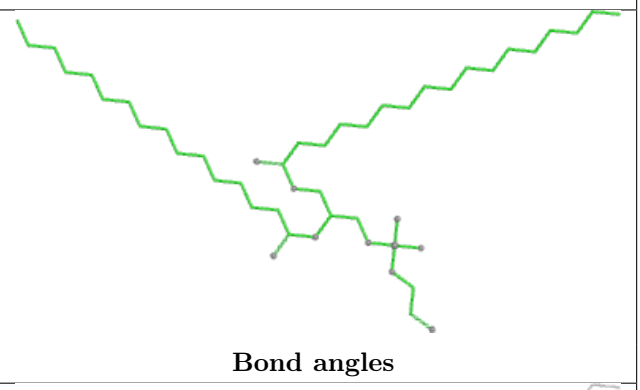


Rings

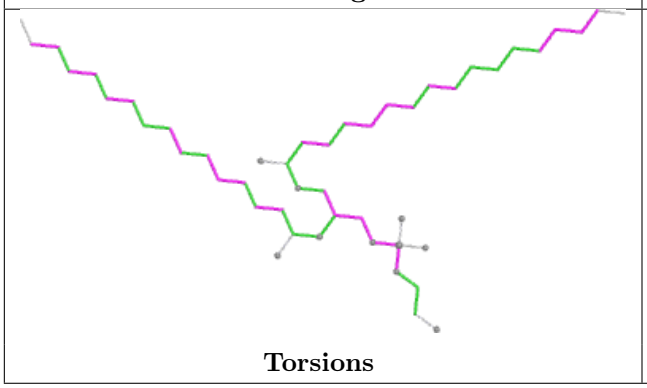
Ligand A1A0P Bb 314



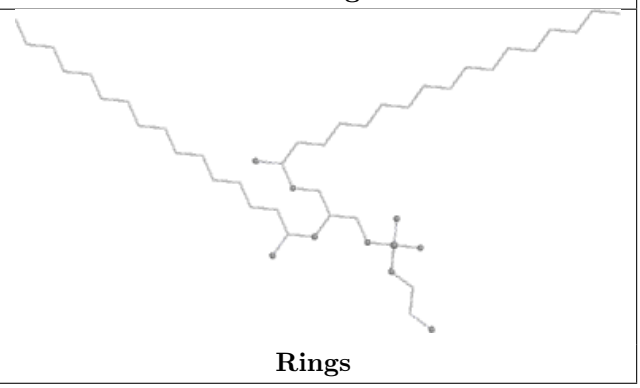
Bond lengths



Bond angles

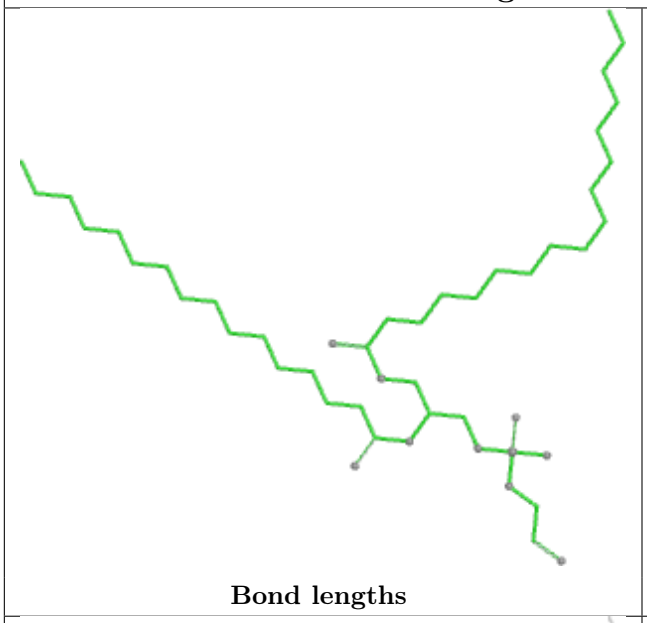


Torsions

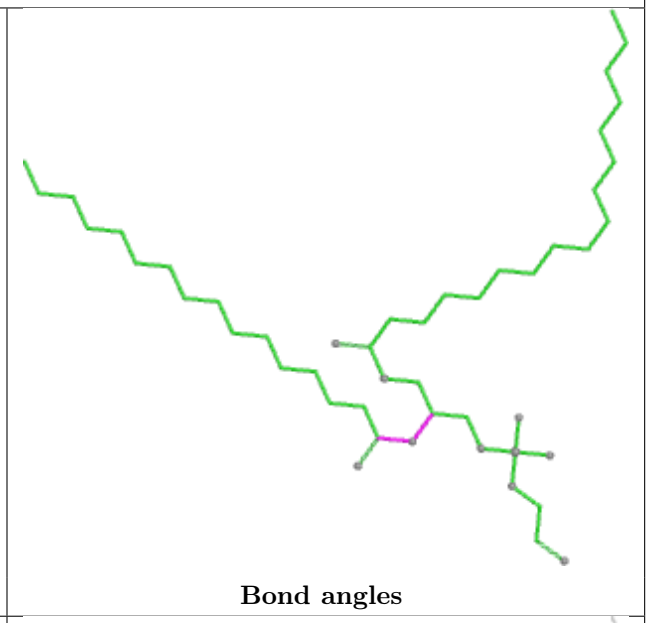


Rings

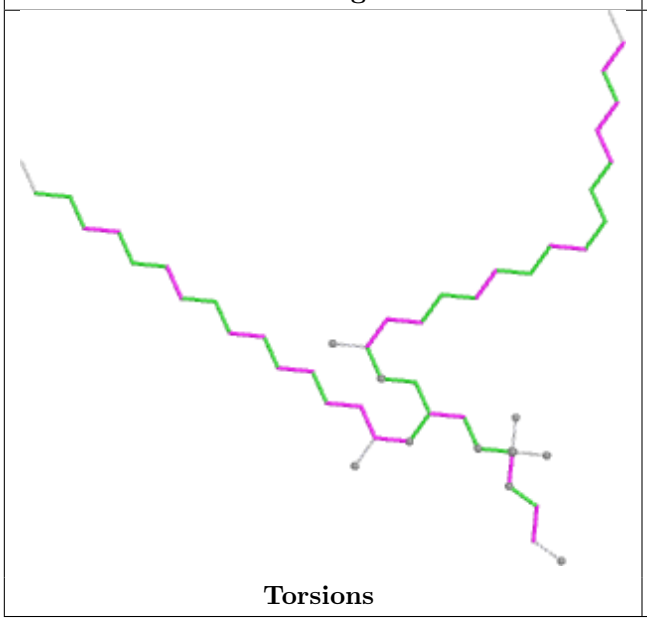
Ligand A1A0P Bc 311



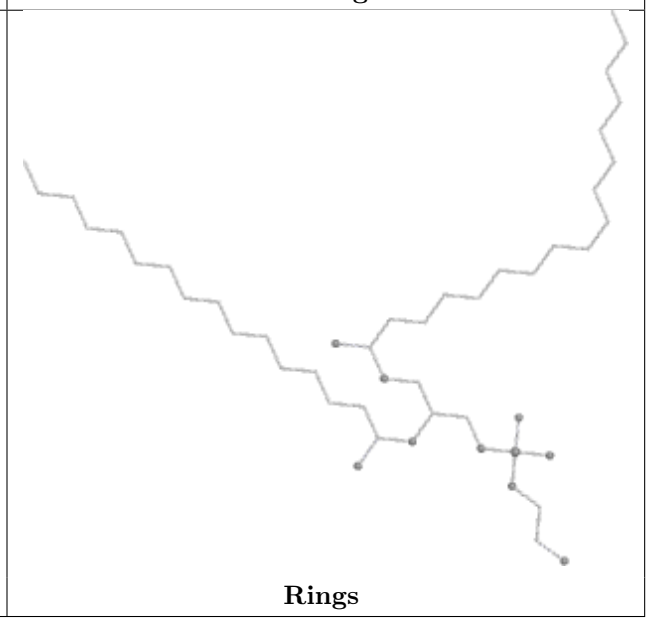
Bond lengths



Bond angles

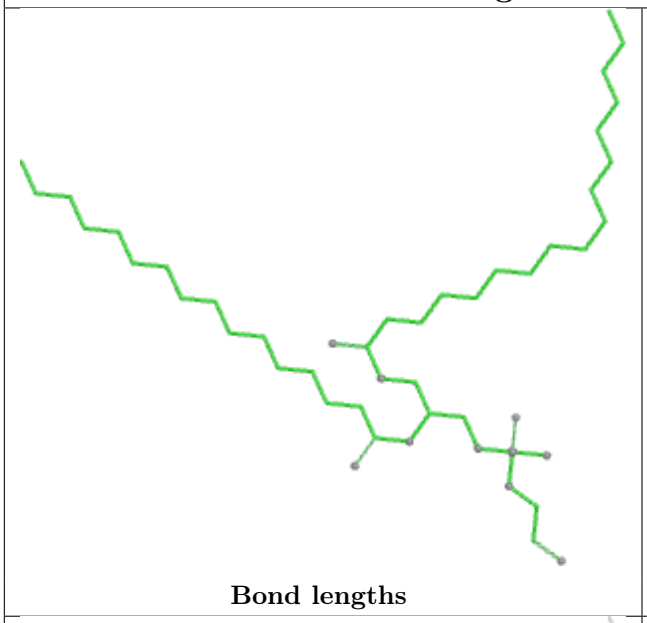


Torsions

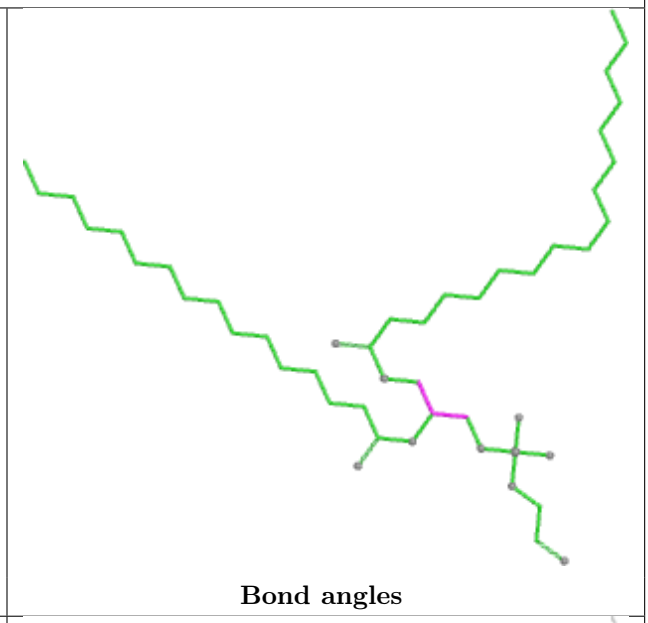


Rings

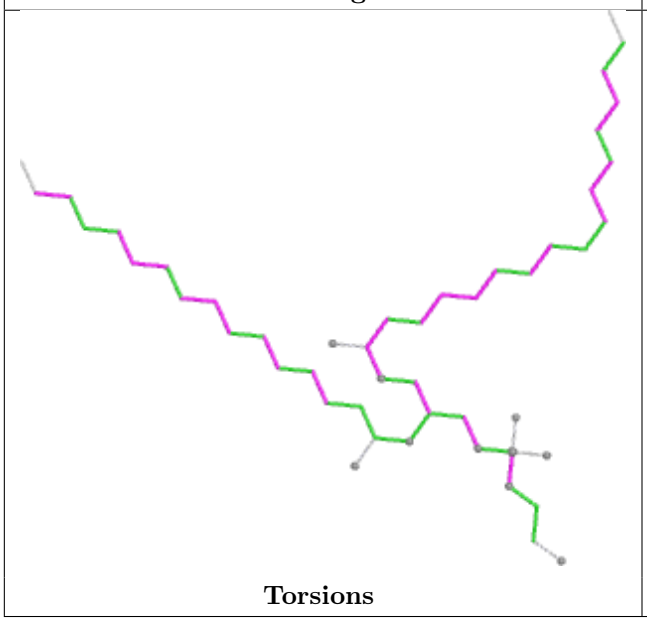
Ligand A1A0P Cb 304



Bond lengths



Bond angles



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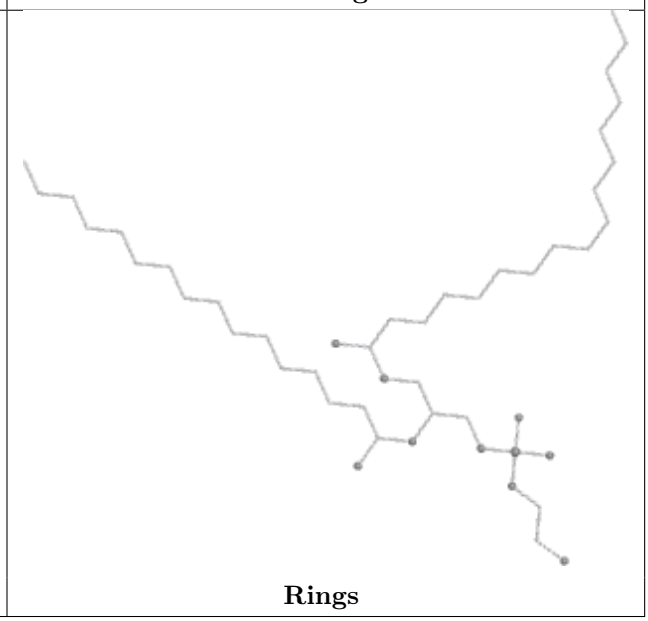
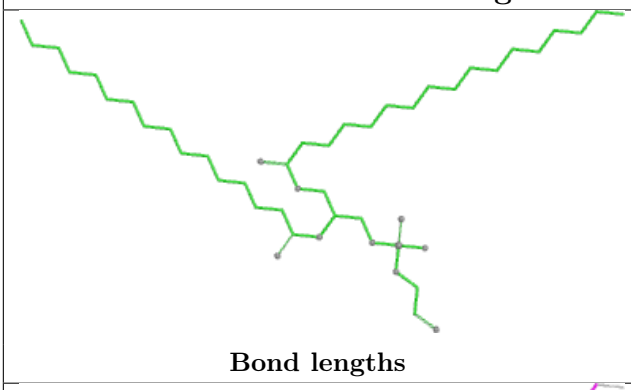
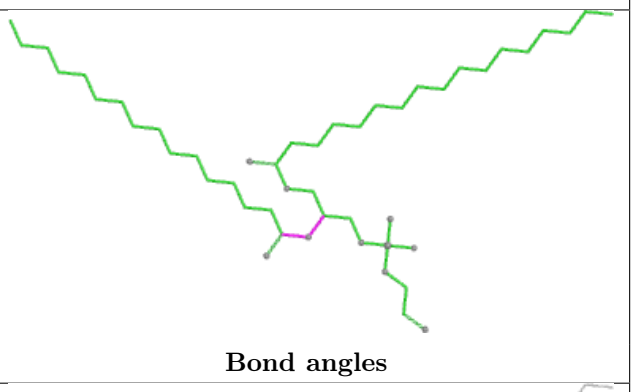


Rings

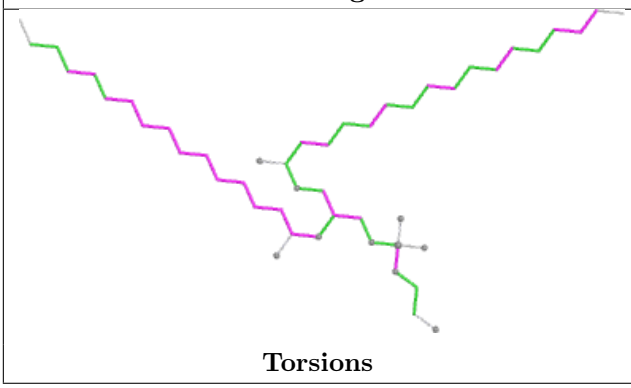
Ligand A1A0P Cb 312



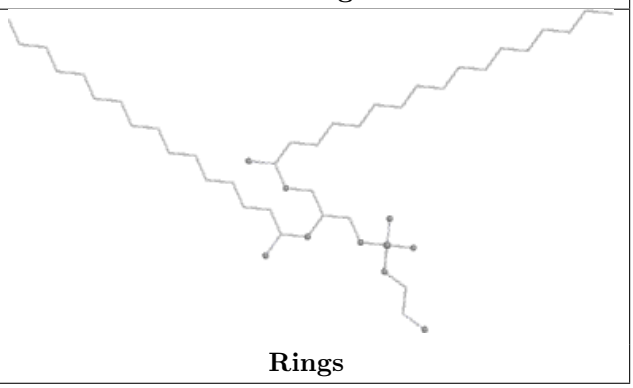
Bond lengths



Bond angles

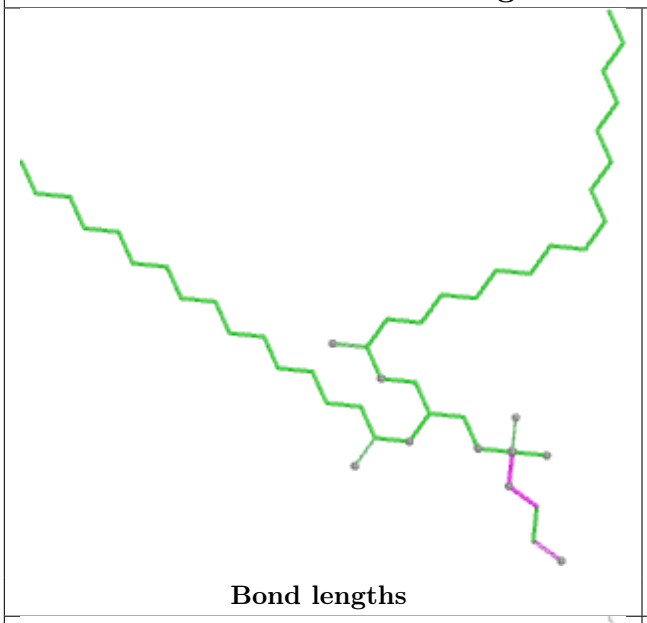


Torsions

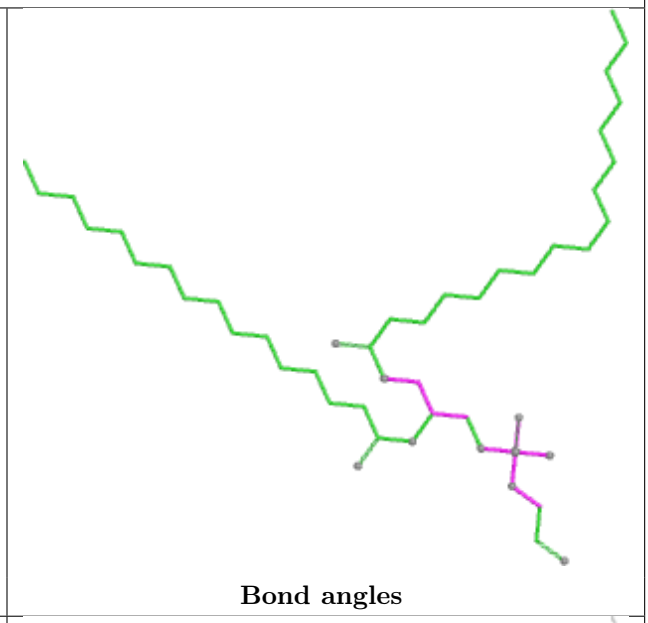


Rings

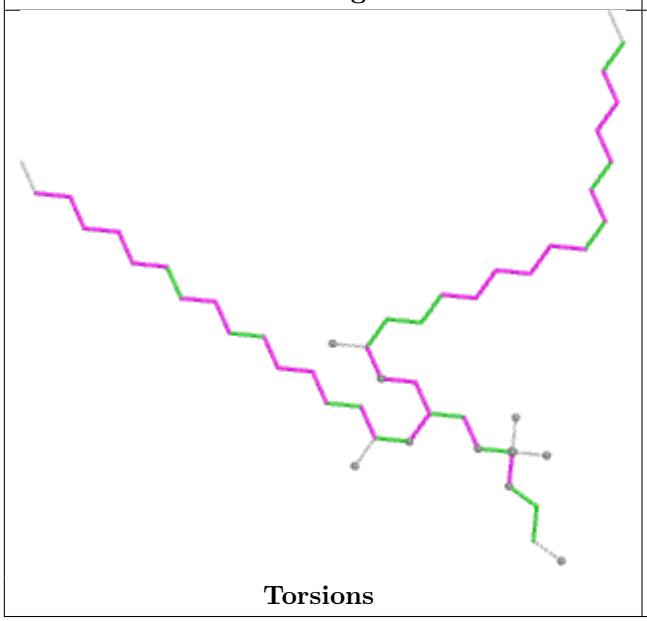
Ligand A1A0P Cc 306



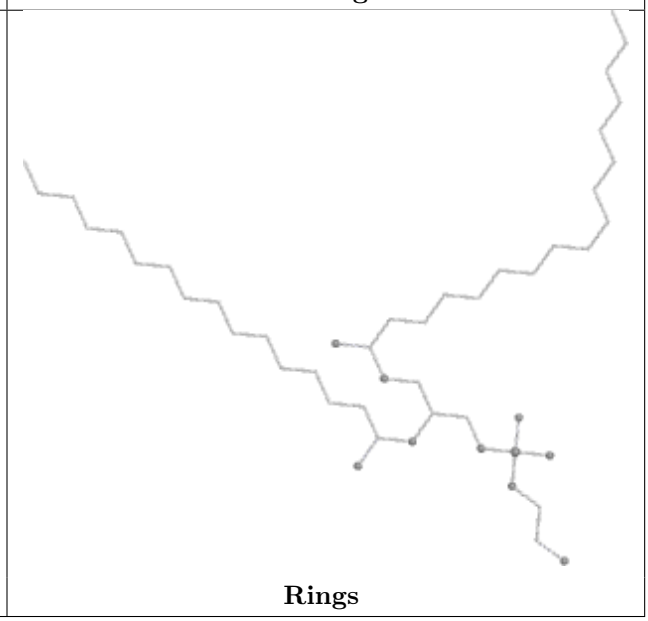
Bond lengths



Bond angles

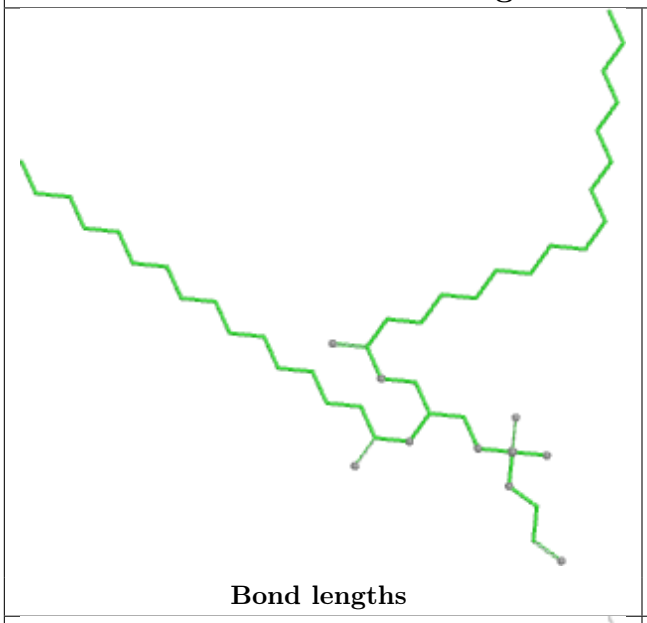


Torsions

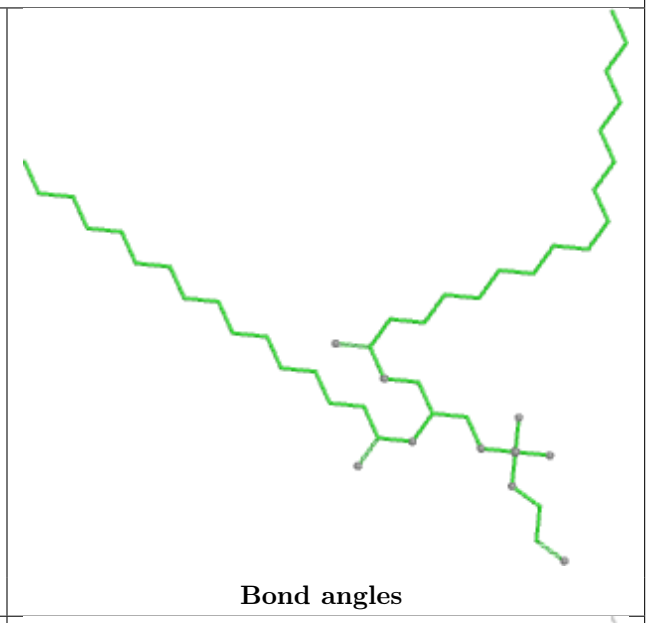


Rings

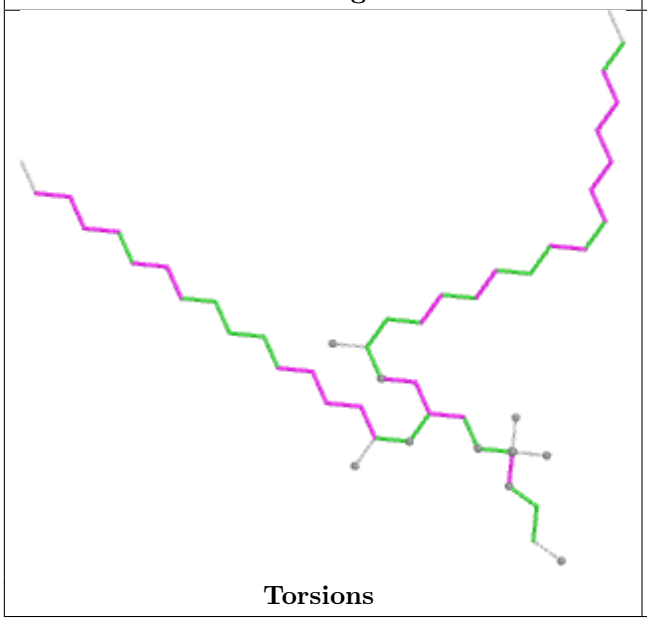
Ligand A1A0P Bb 310



Bond lengths



Bond angles



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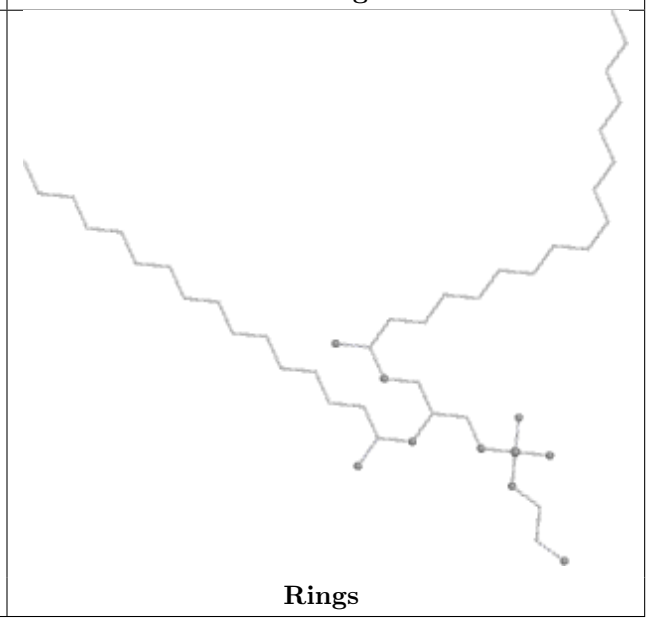
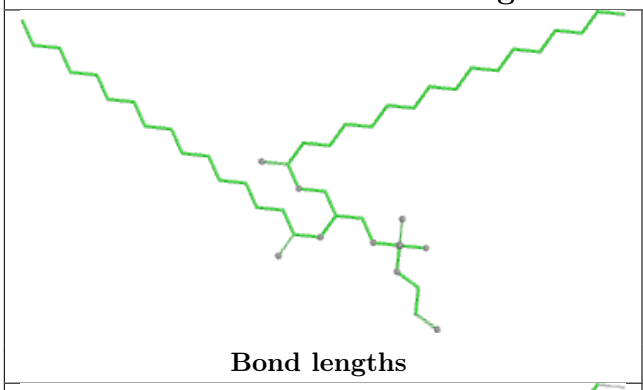
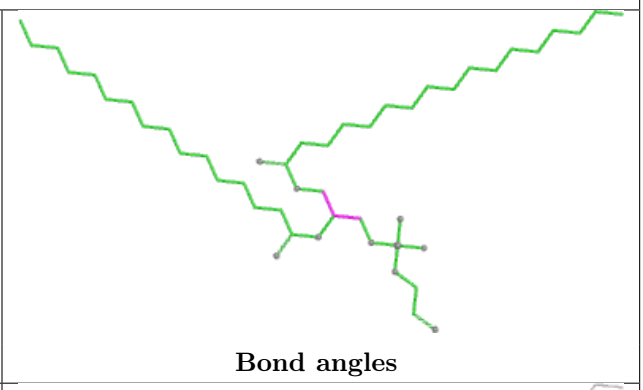


Rings

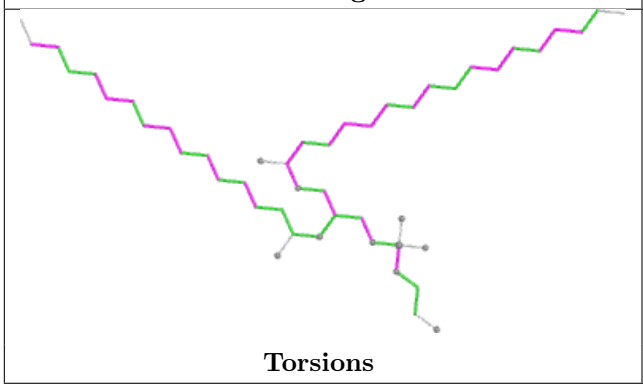
Ligand A1A0P Cc 304



Bond lengths



Bond angles



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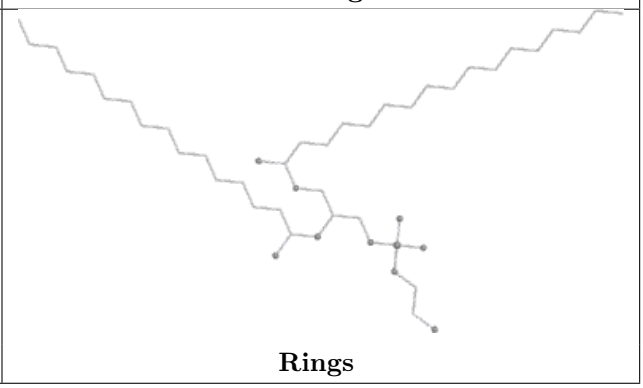
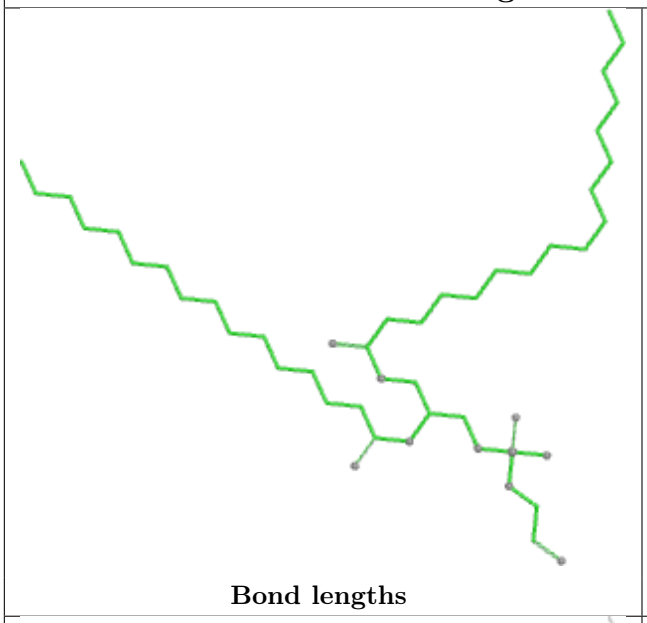


Rings

Ligand A1A0P Cc 313



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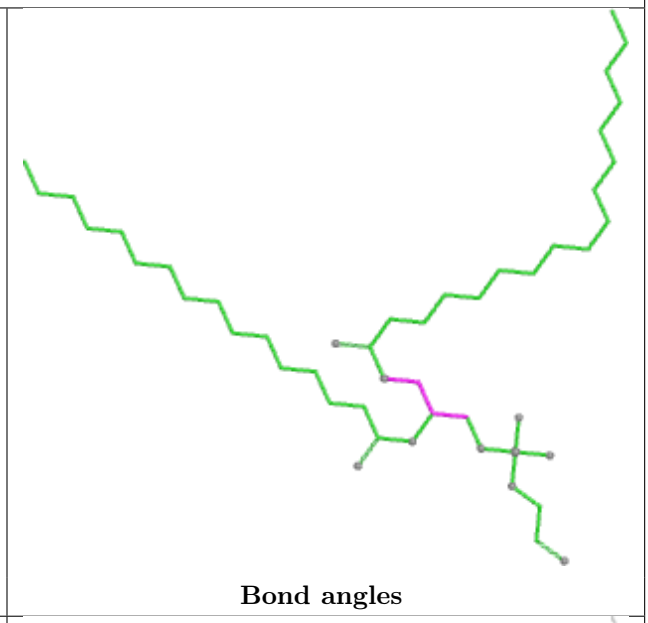
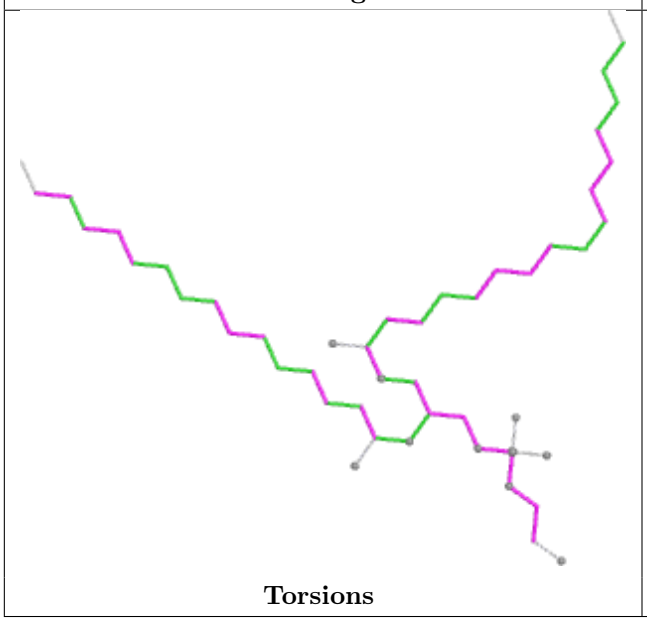


Bond angles



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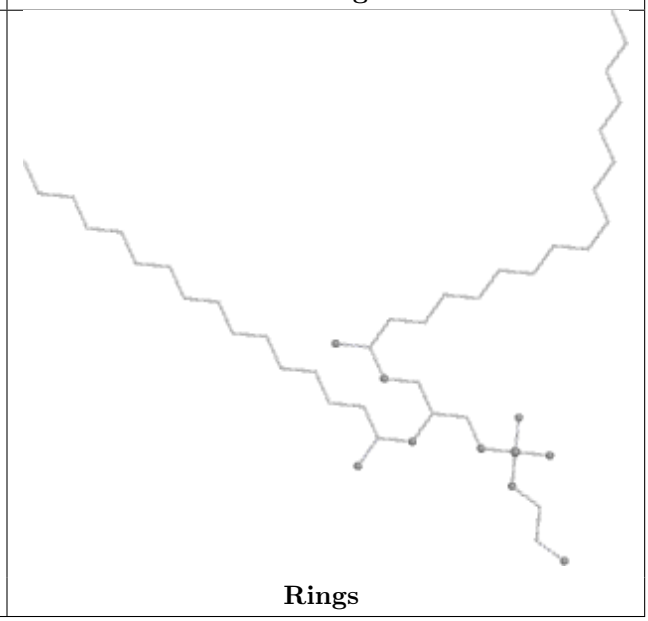
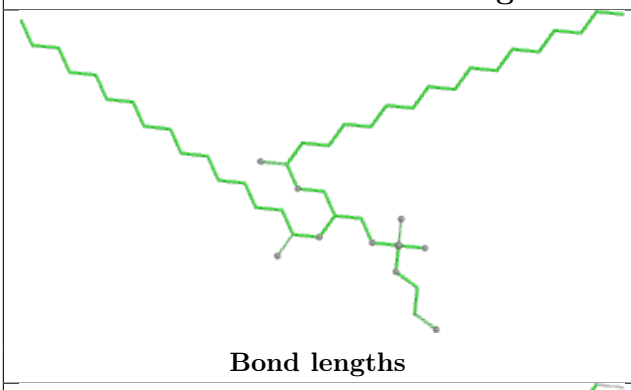
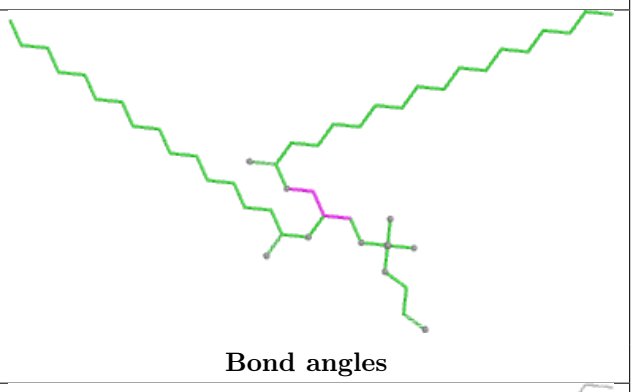


Rings

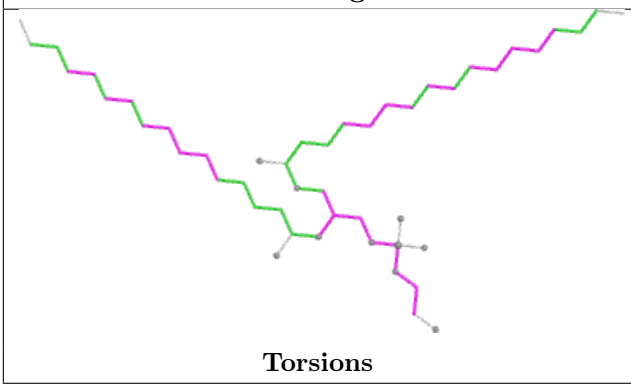
Ligand A1A0P Cc 308



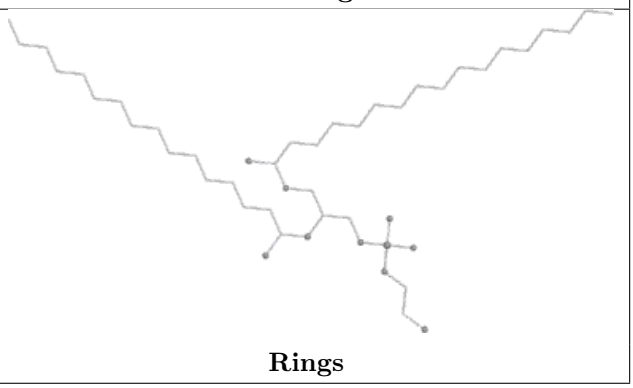
Bond lengths



Bond angles

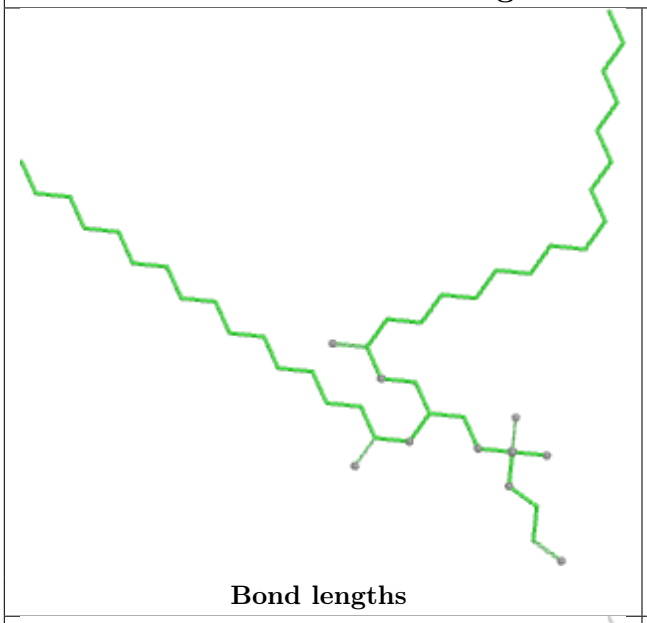


Torsions

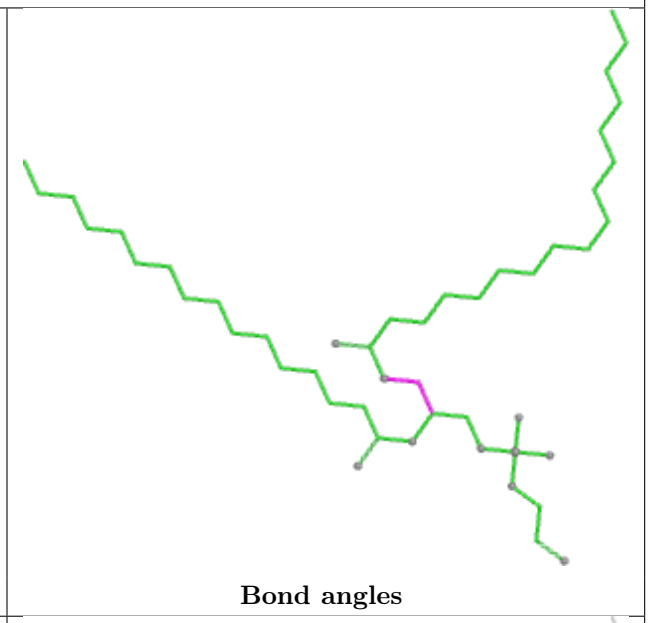


Rings

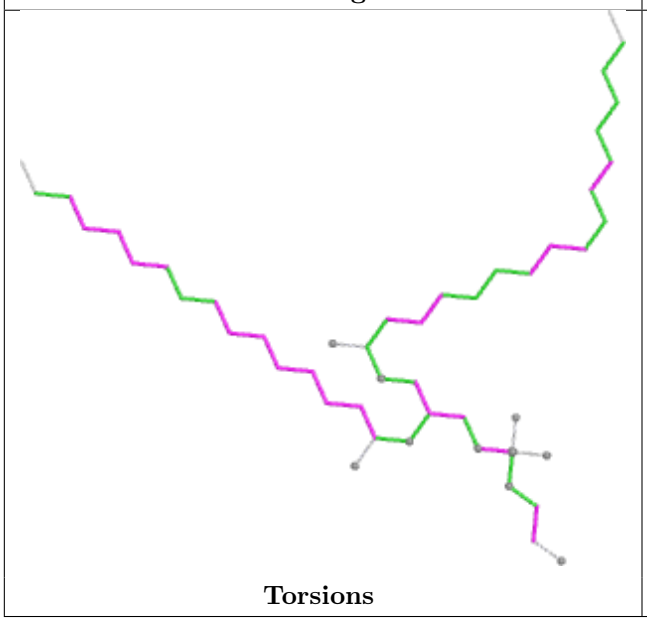
Ligand A1A0P Ca 309



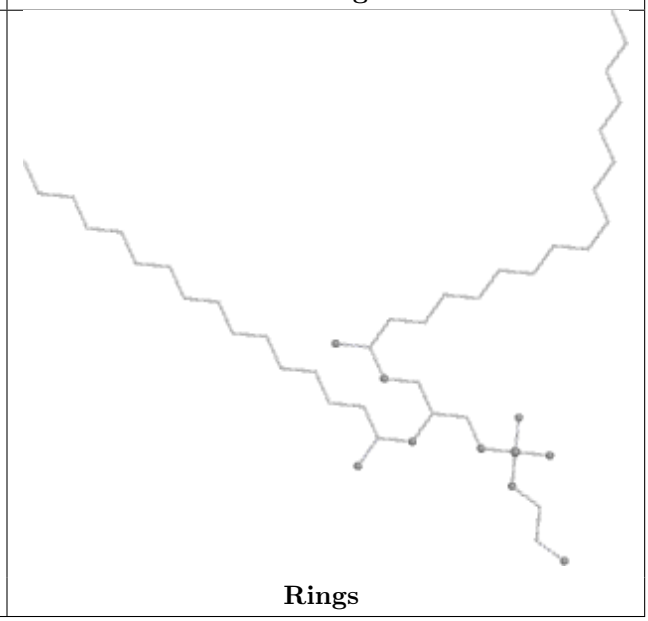
Bond lengths



Bond angles

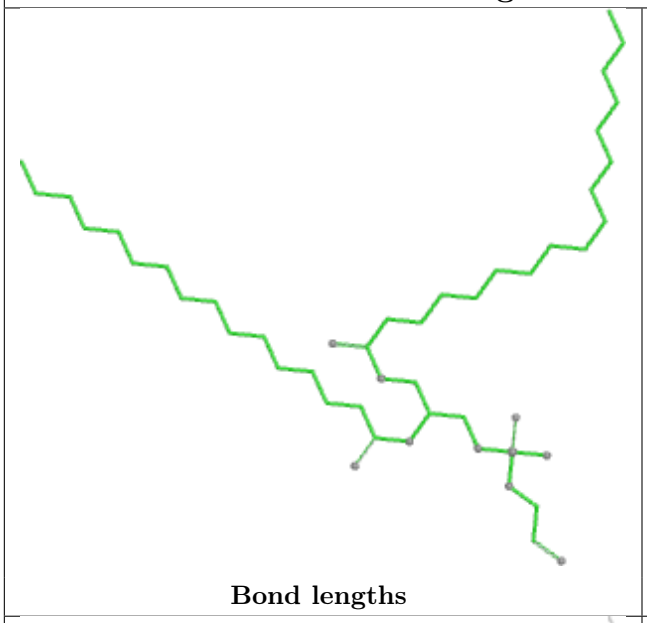


Torsions

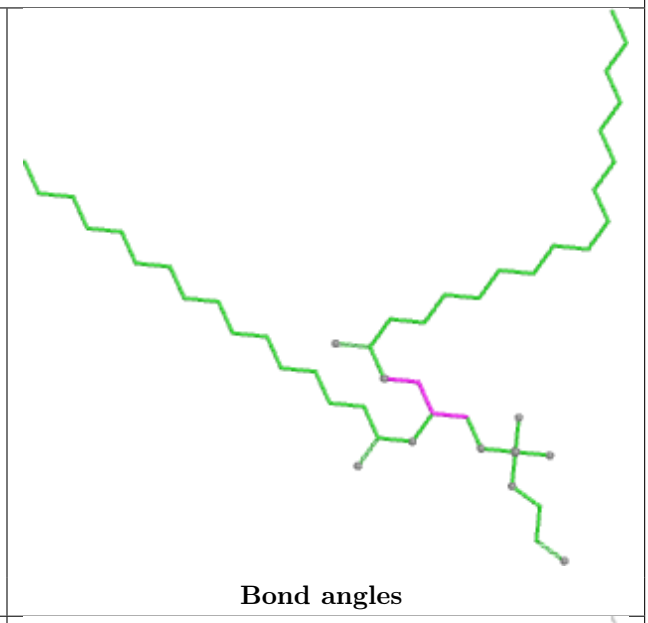


Rings

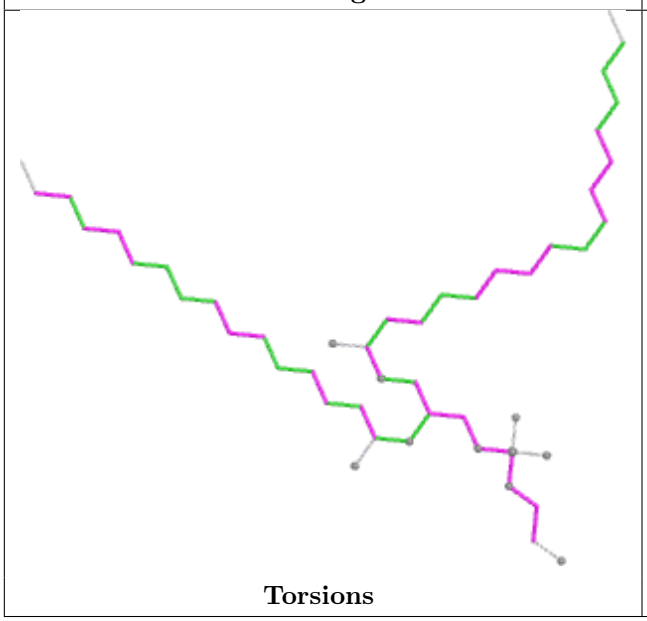
Ligand A1A0P Ca 313



Bond lengths



Bond angles



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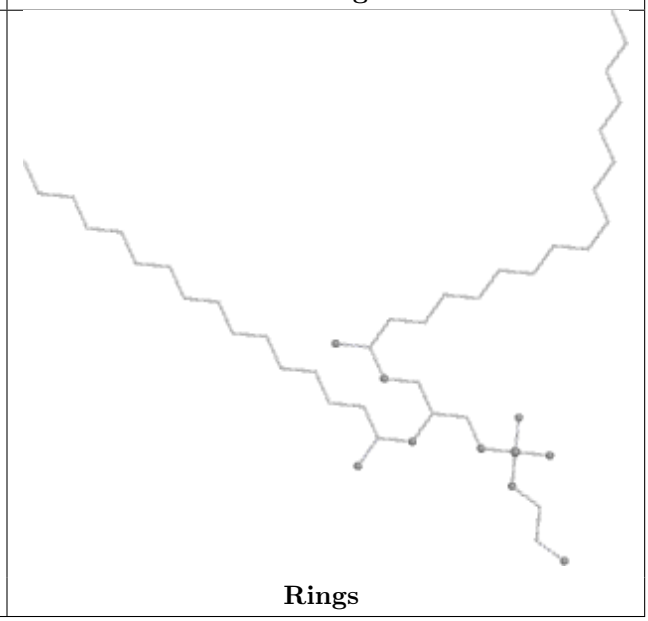
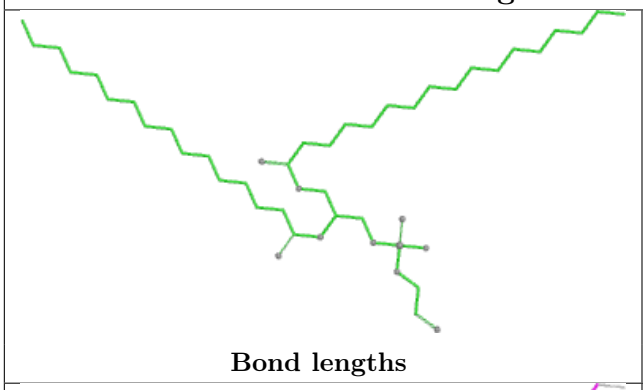
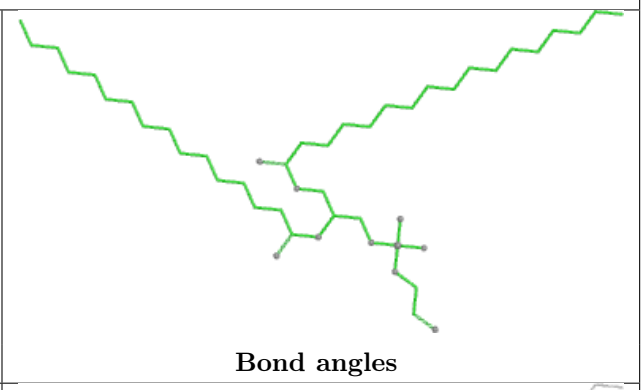


Rings

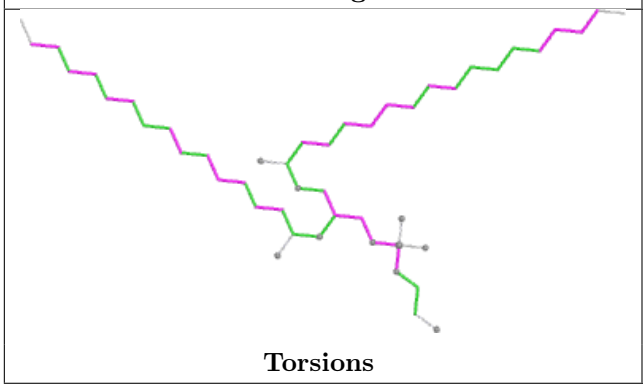
Ligand A1A0P Bc 314



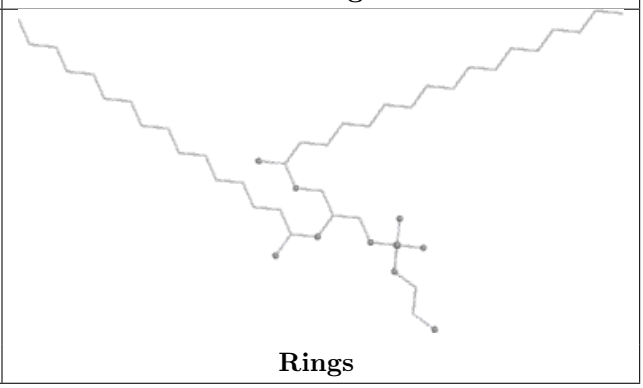
Bond lengths



Bond angles

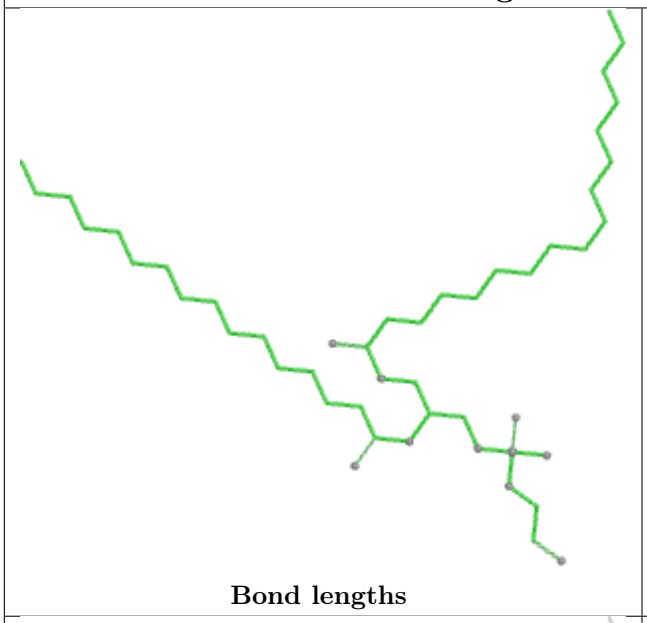


Torsions

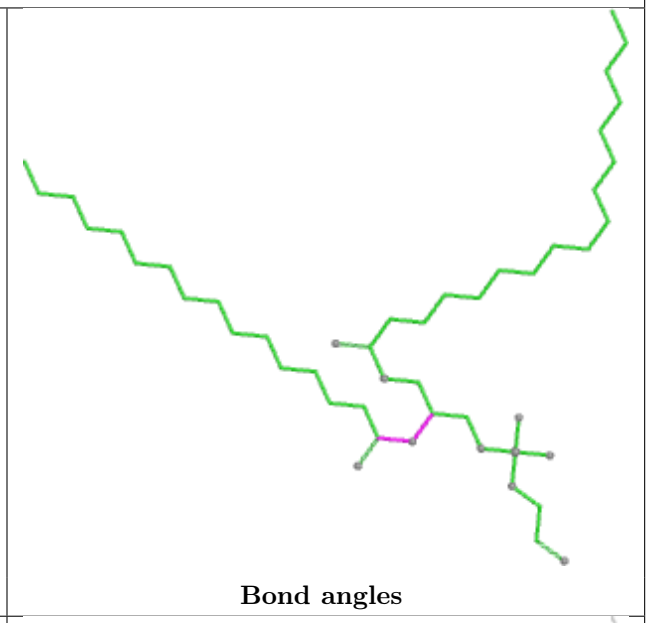


Rings

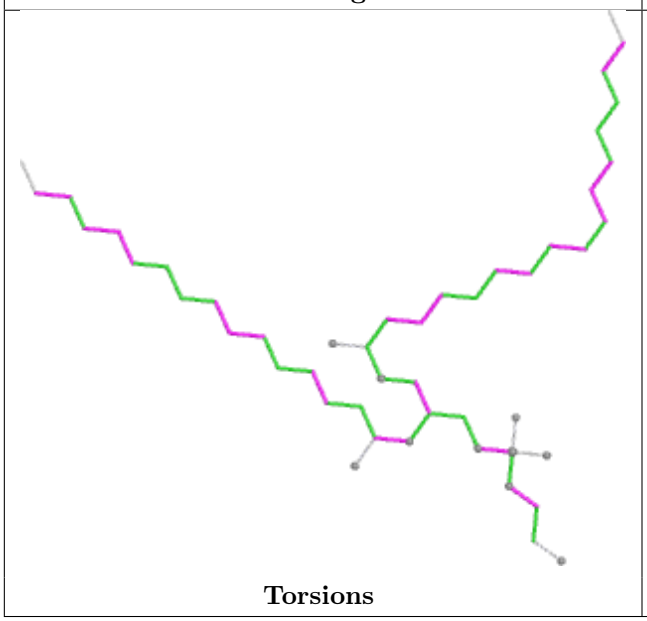
Ligand A1A0P Aa 537



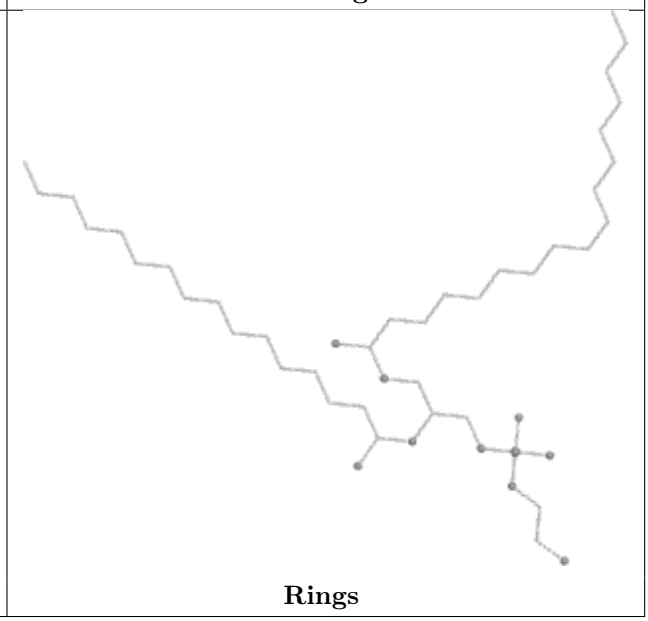
Bond lengths



Bond angles

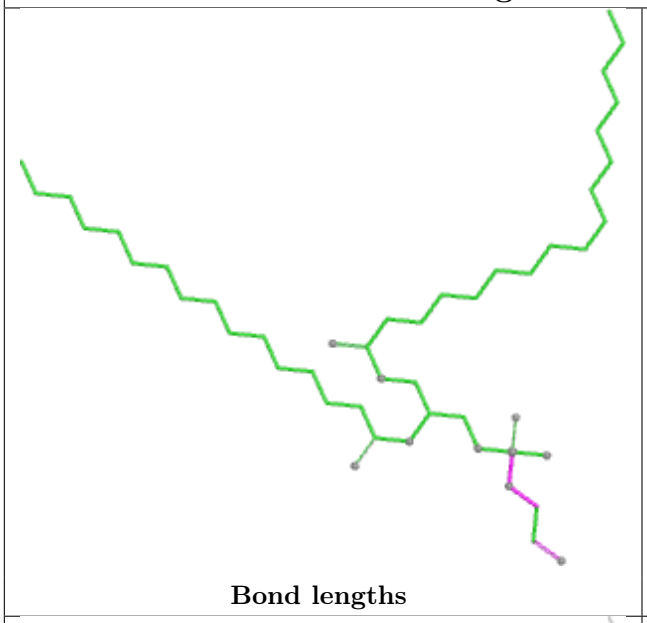


Torsions

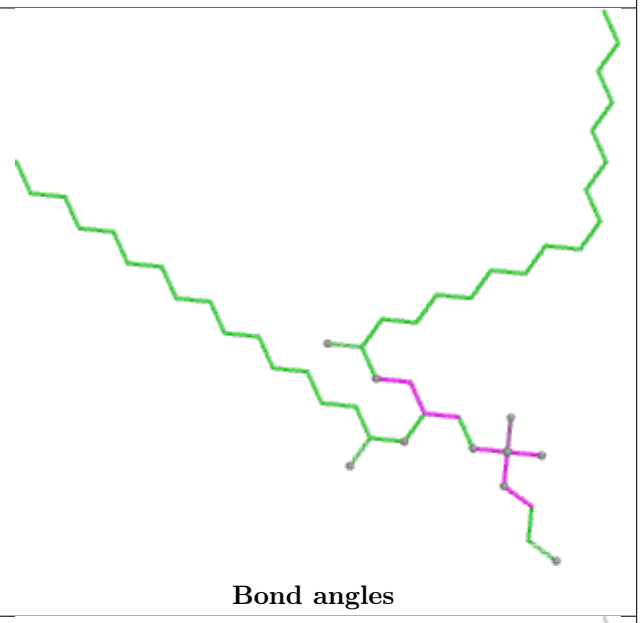


Rings

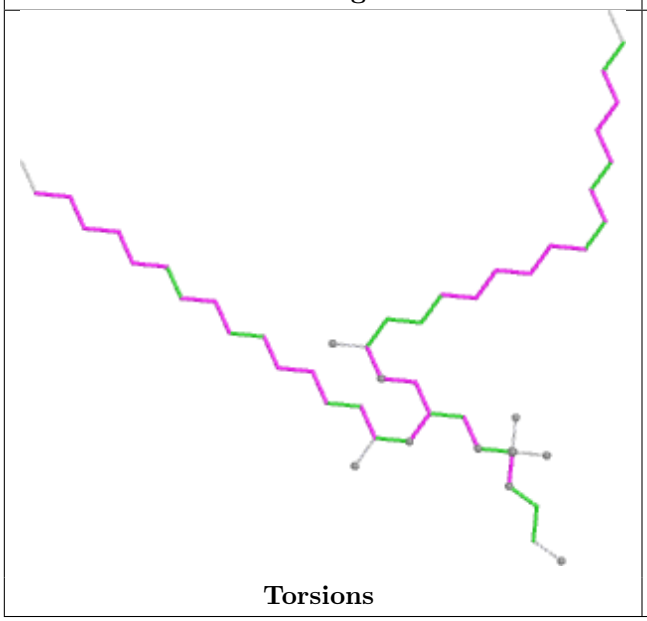
Ligand A1A0P Cb 306



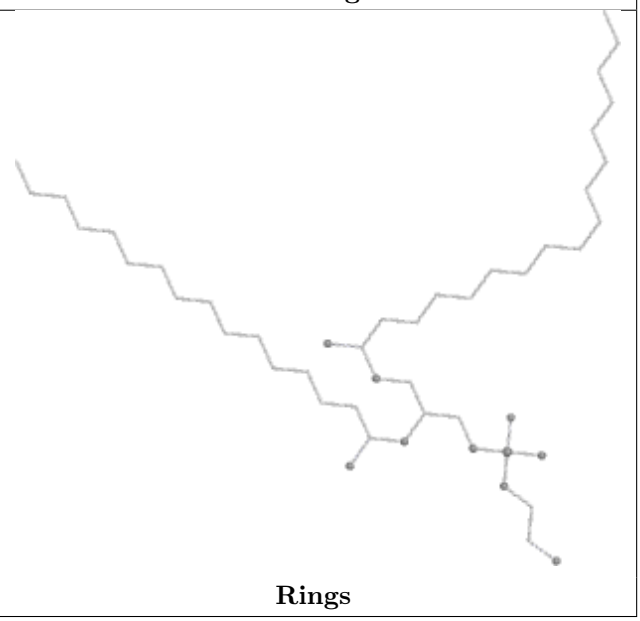
Bond lengths



Bond angles

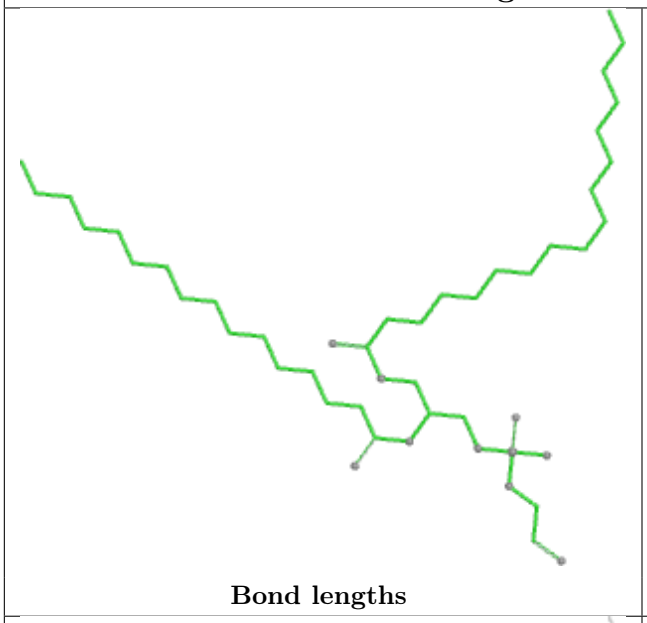


Torsions

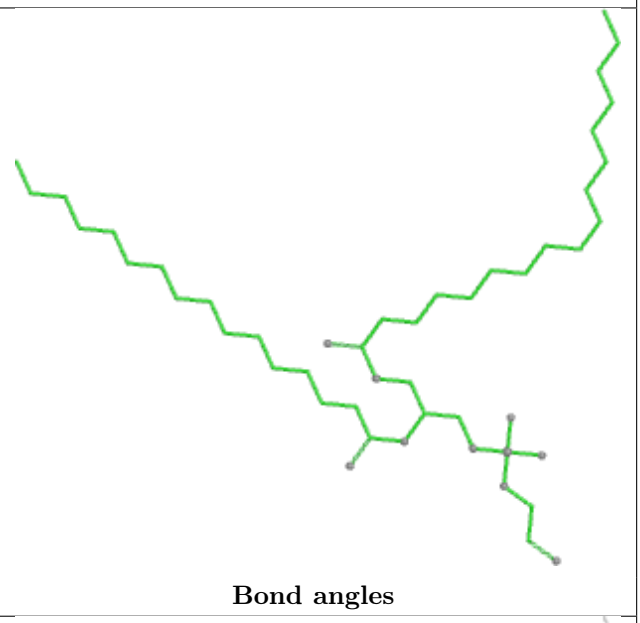


Rings

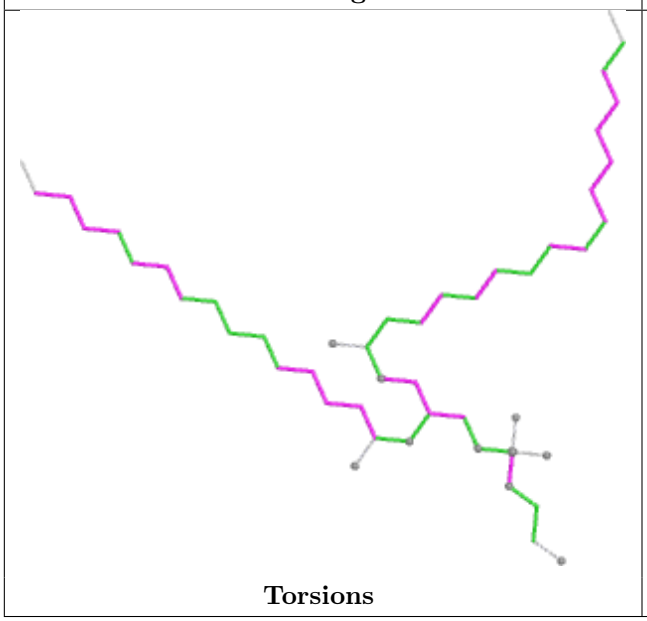
Ligand A1A0P Bc 310



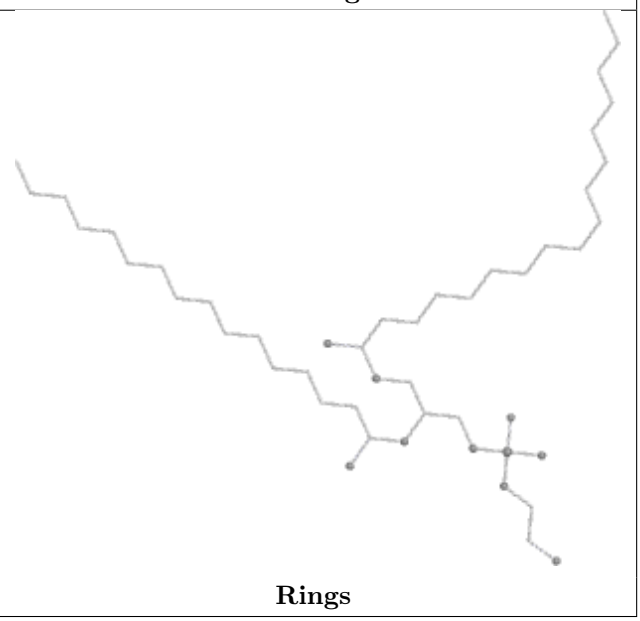
Bond lengths



Bond angles

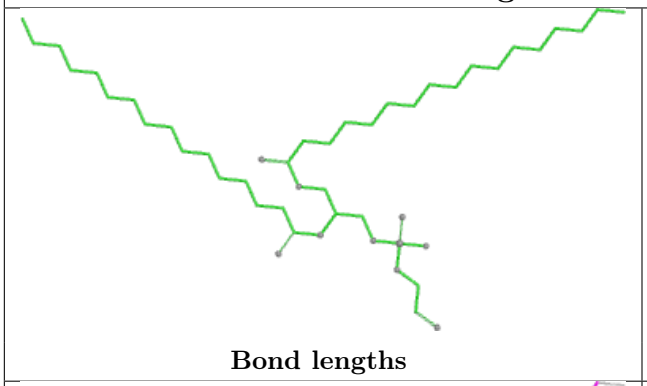


Torsions

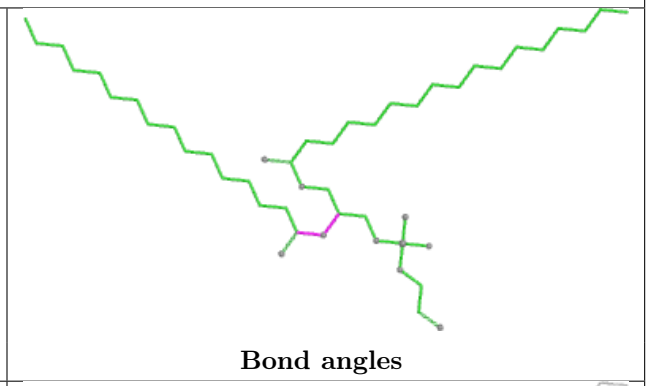


Rings

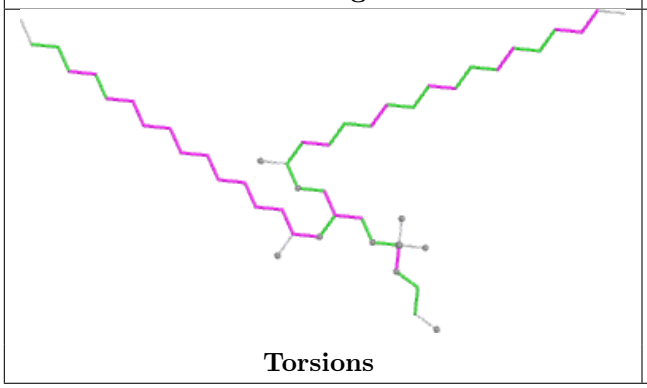
Ligand A1A0P Cc 312



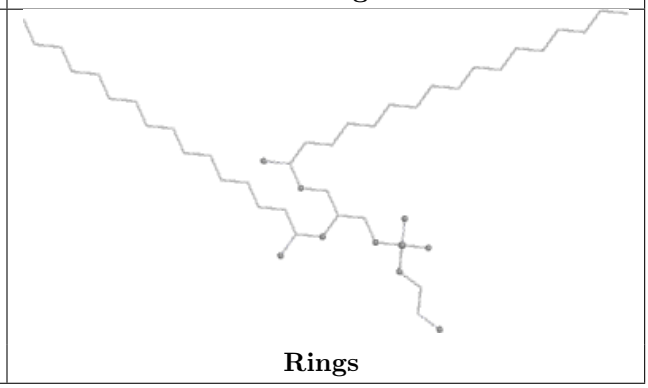
Bond lengths



Bond angles

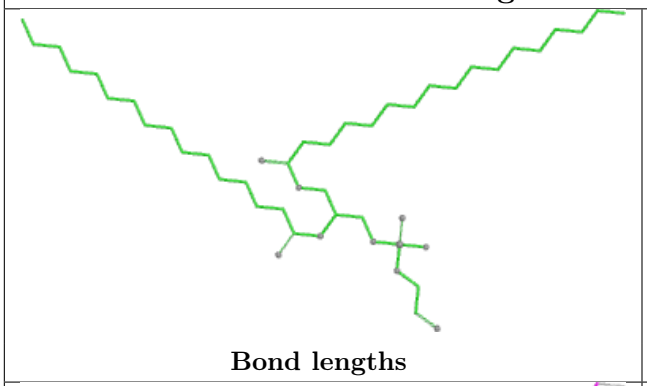


Torsions

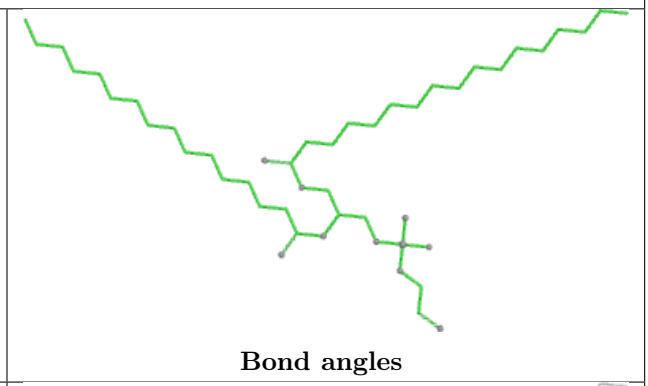


Rings

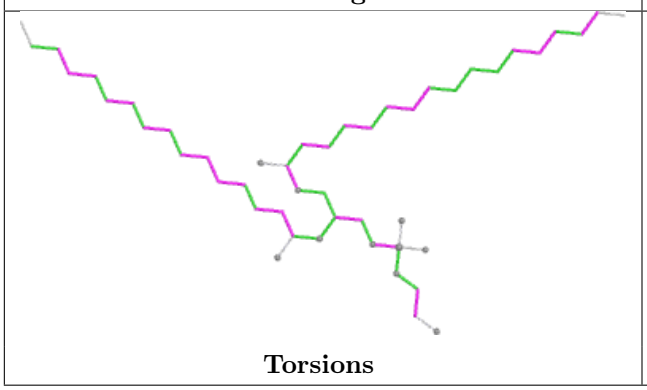
Ligand A1A0P Bc 313



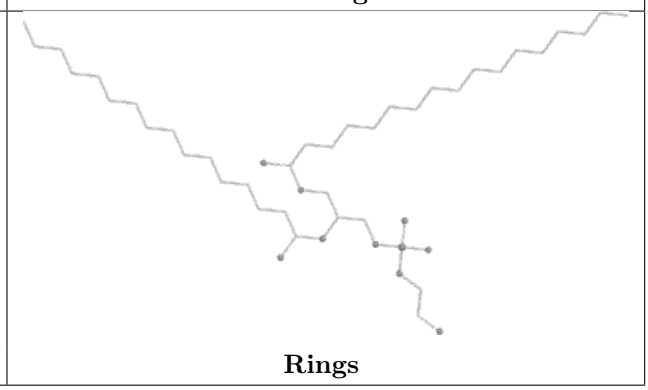
Bond lengths



Bond angles

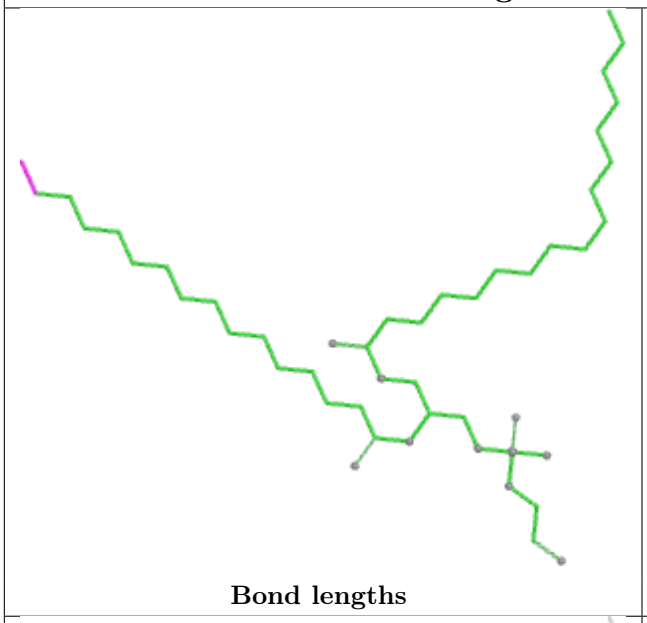


Torsions

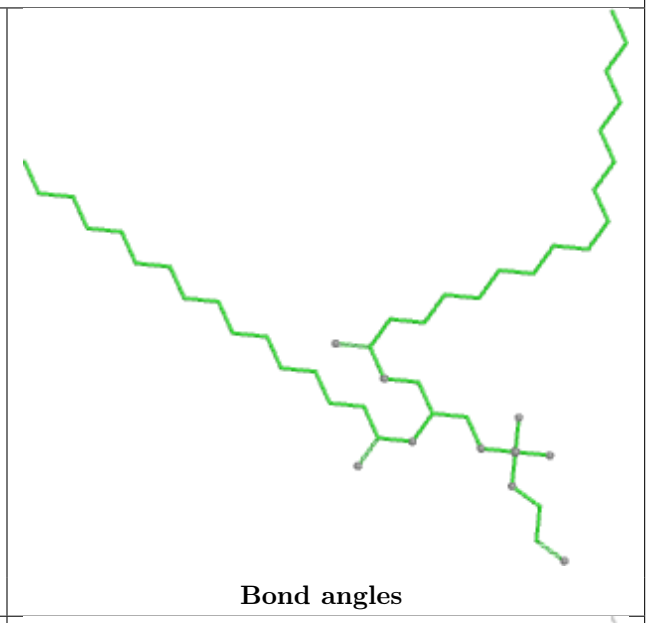


Rings

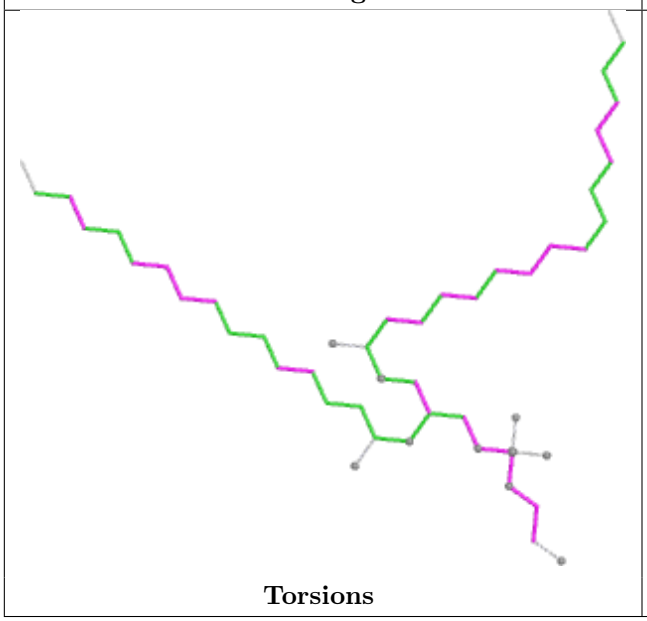
Ligand A1A0P Cb 314



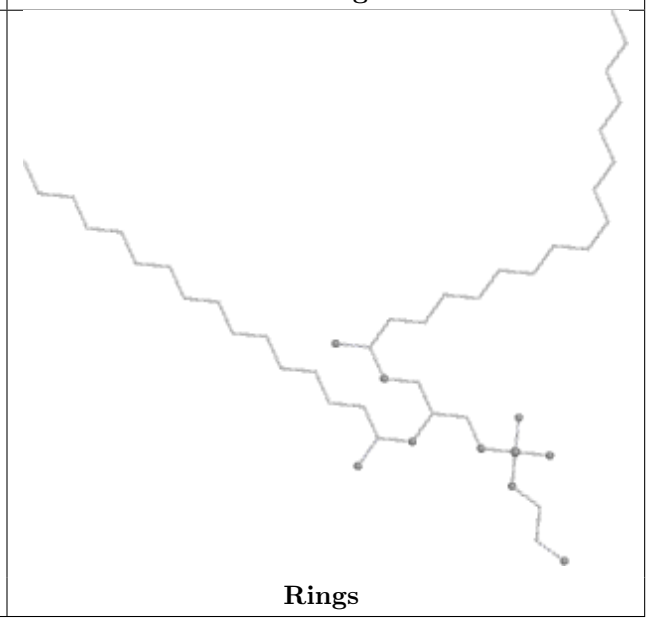
Bond lengths



Bond angles

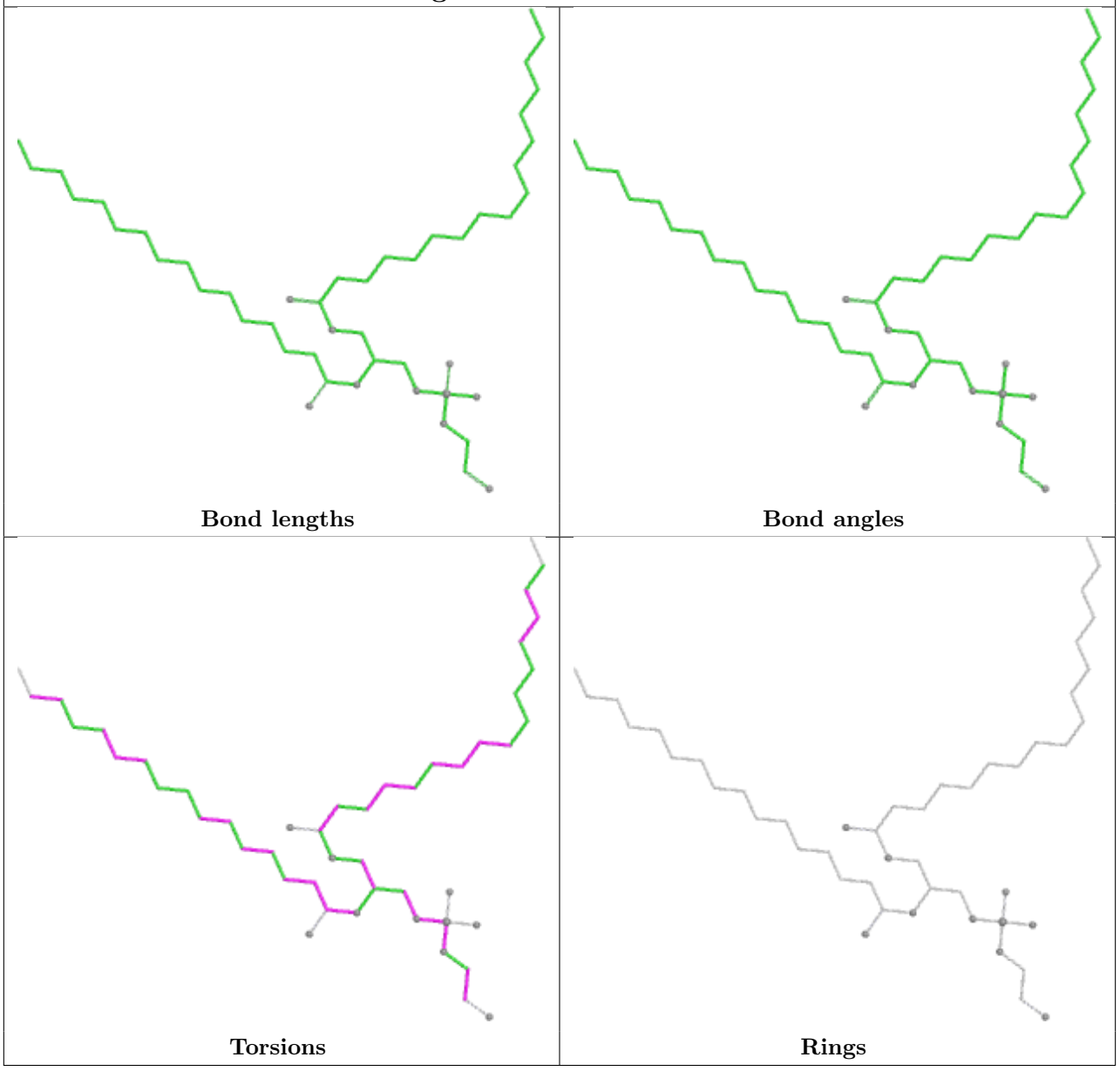


Torsions



Rings

Ligand A1A0P Cb 307



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

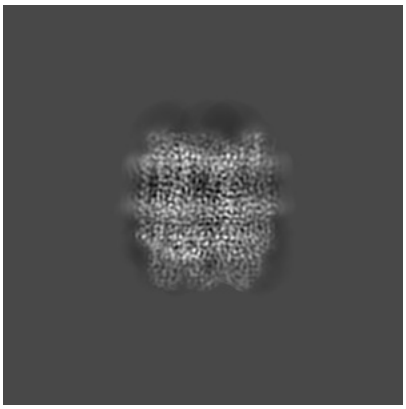
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-45659. These allow visual inspection of the internal detail of the map and identification of artifacts.

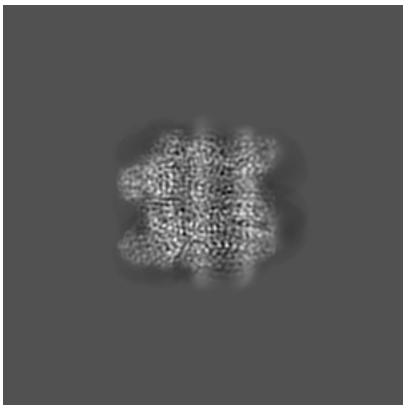
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

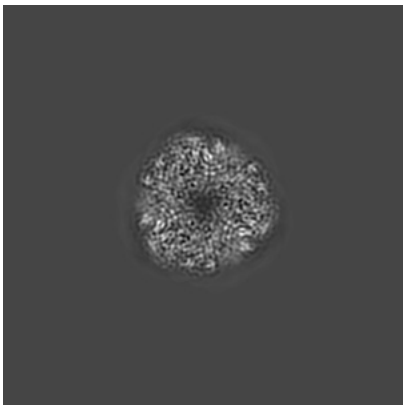
6.1.1 Primary map



X

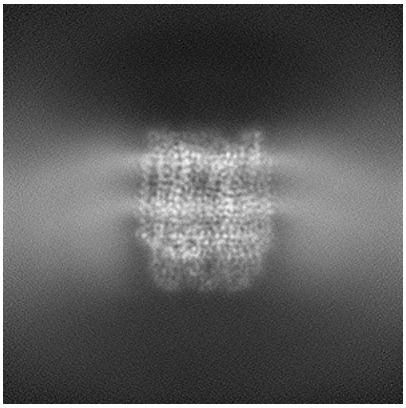


Y

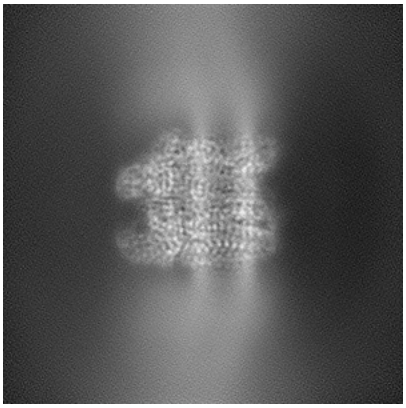


Z

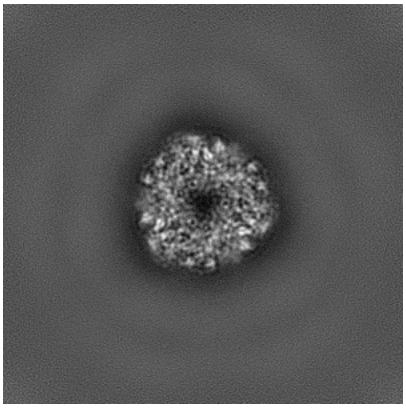
6.1.2 Raw map



X



Y



Z

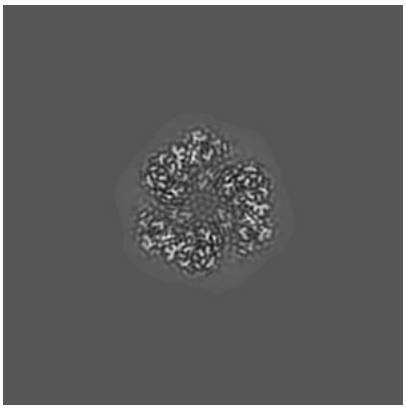
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

6.2.1 Primary map

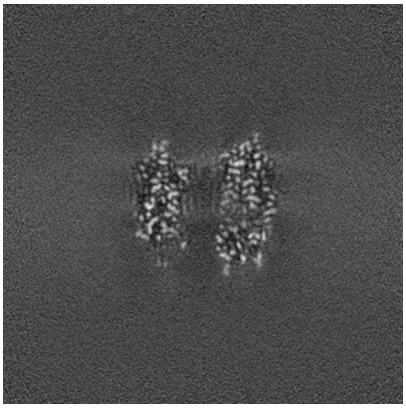
X Index: 160

Y Index: 160

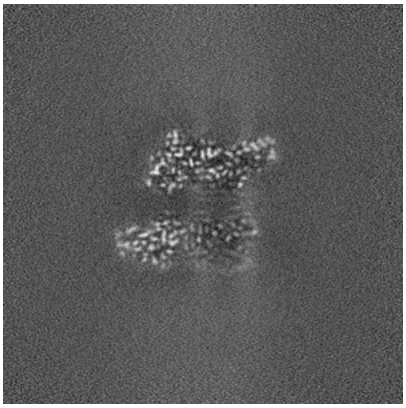


Z Index: 160

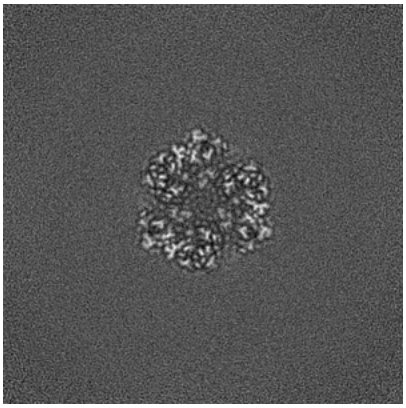
6.2.2 Raw map



X Index: 160



Y Index: 160

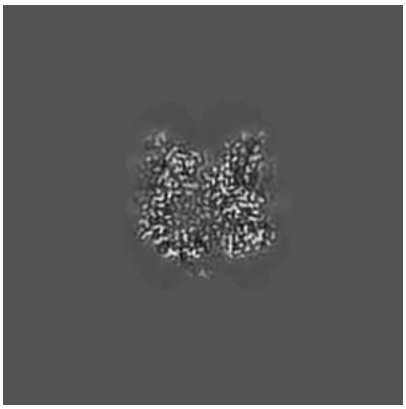


Z Index: 160

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

6.3 Largest variance slices (i)

6.3.1 Primary map

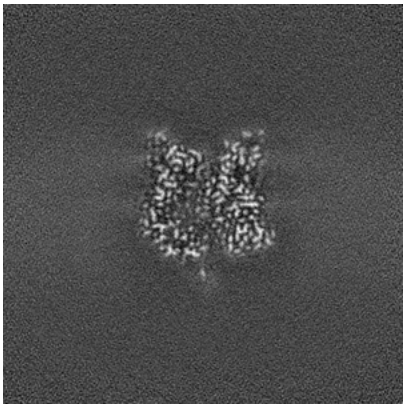


X Index: 141

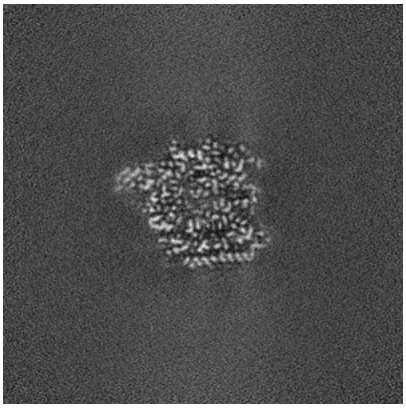
Y Index: 181

Z Index: 134

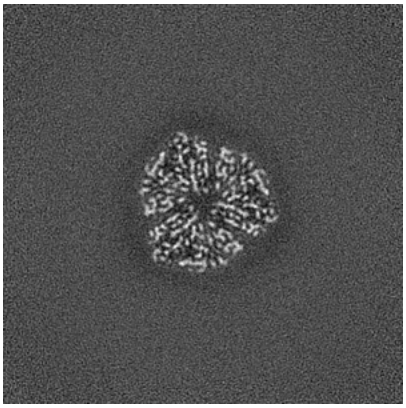
6.3.2 Raw map



X Index: 140



Y Index: 181

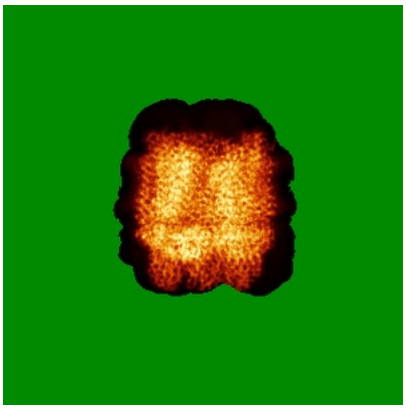


Z Index: 134

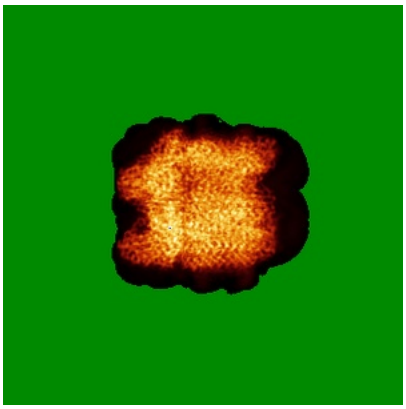
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

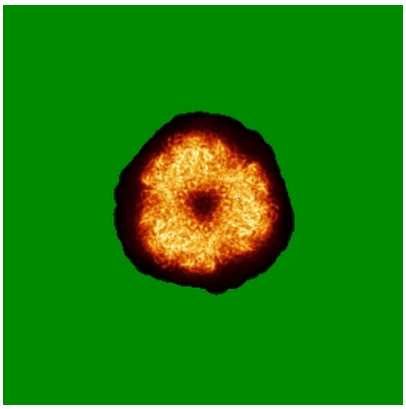
6.4.1 Primary map



X

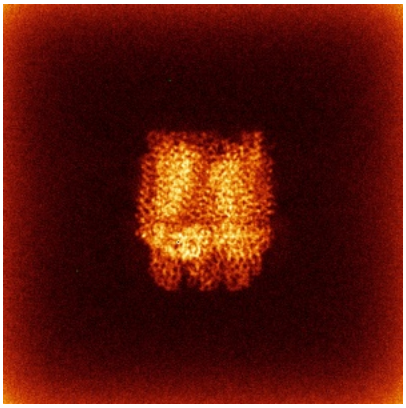


Y

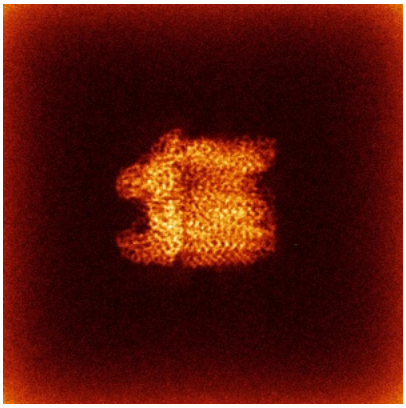


Z

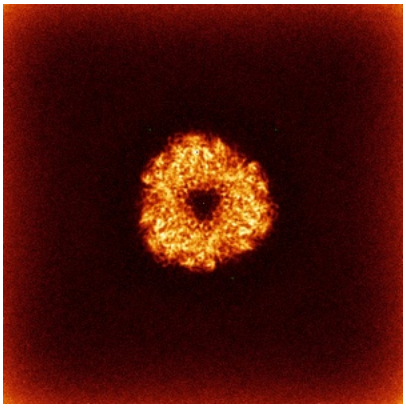
6.4.2 Raw map



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.

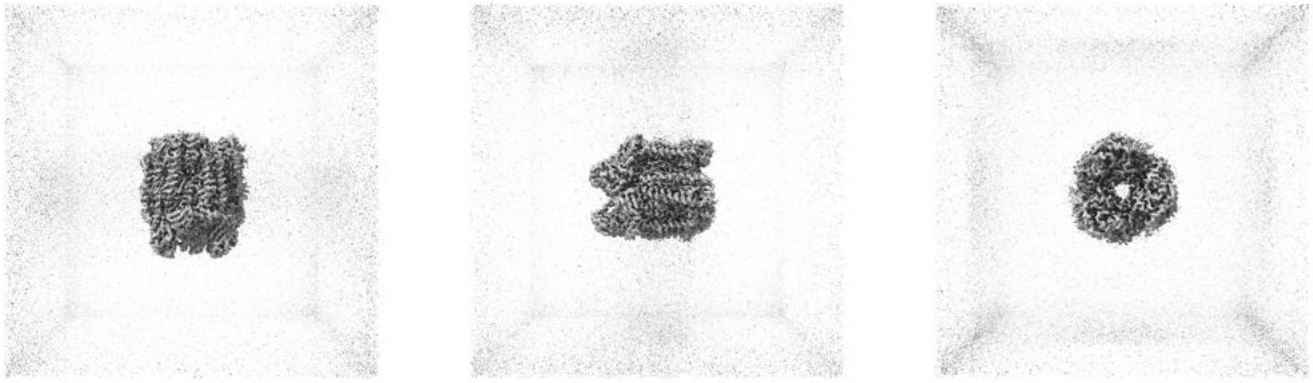
6.5 Orthogonal surface views (i)

6.5.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.06. 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



X Y Z

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

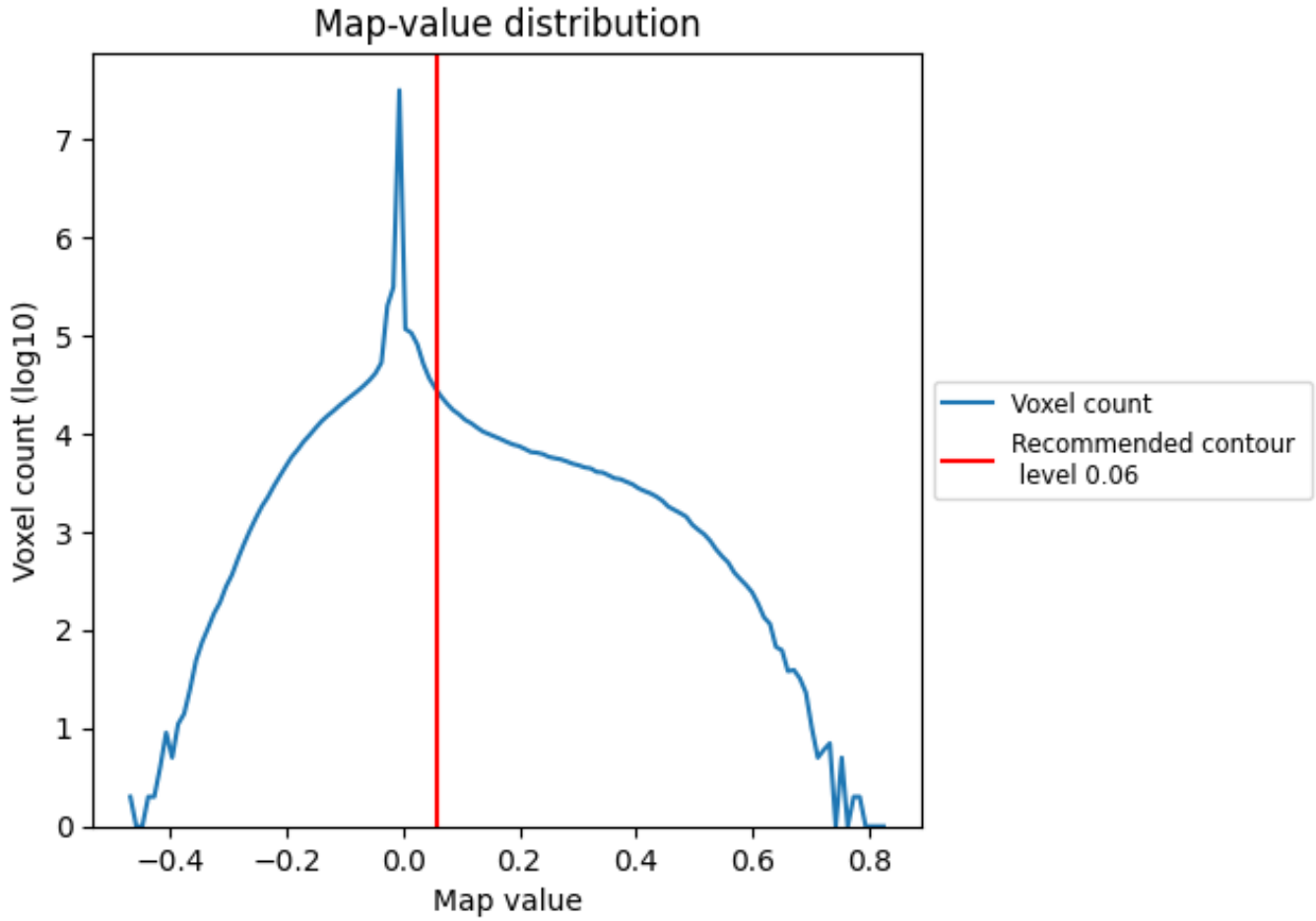
6.6 Mask visualisation (i)

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

7 Map analysis

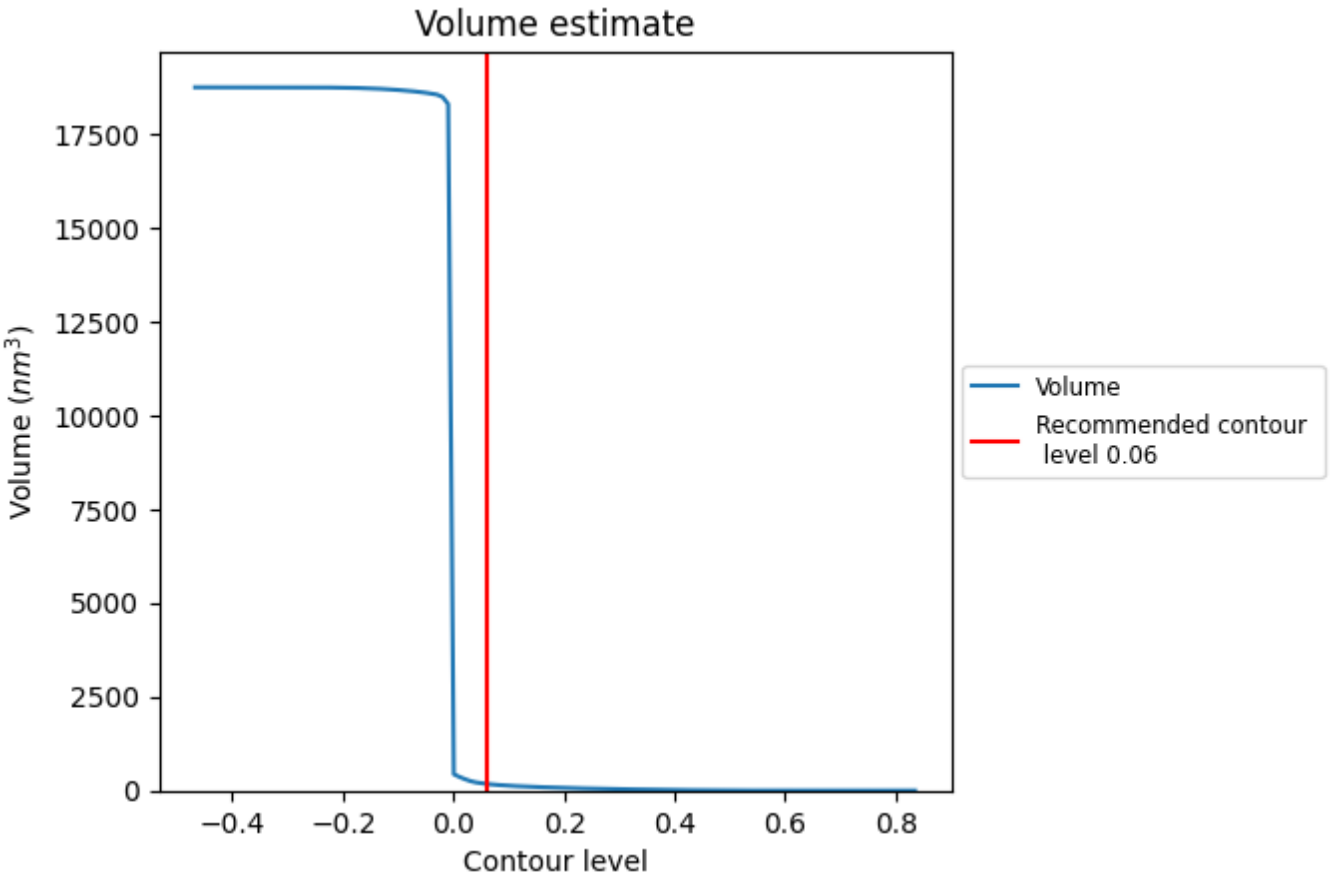
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

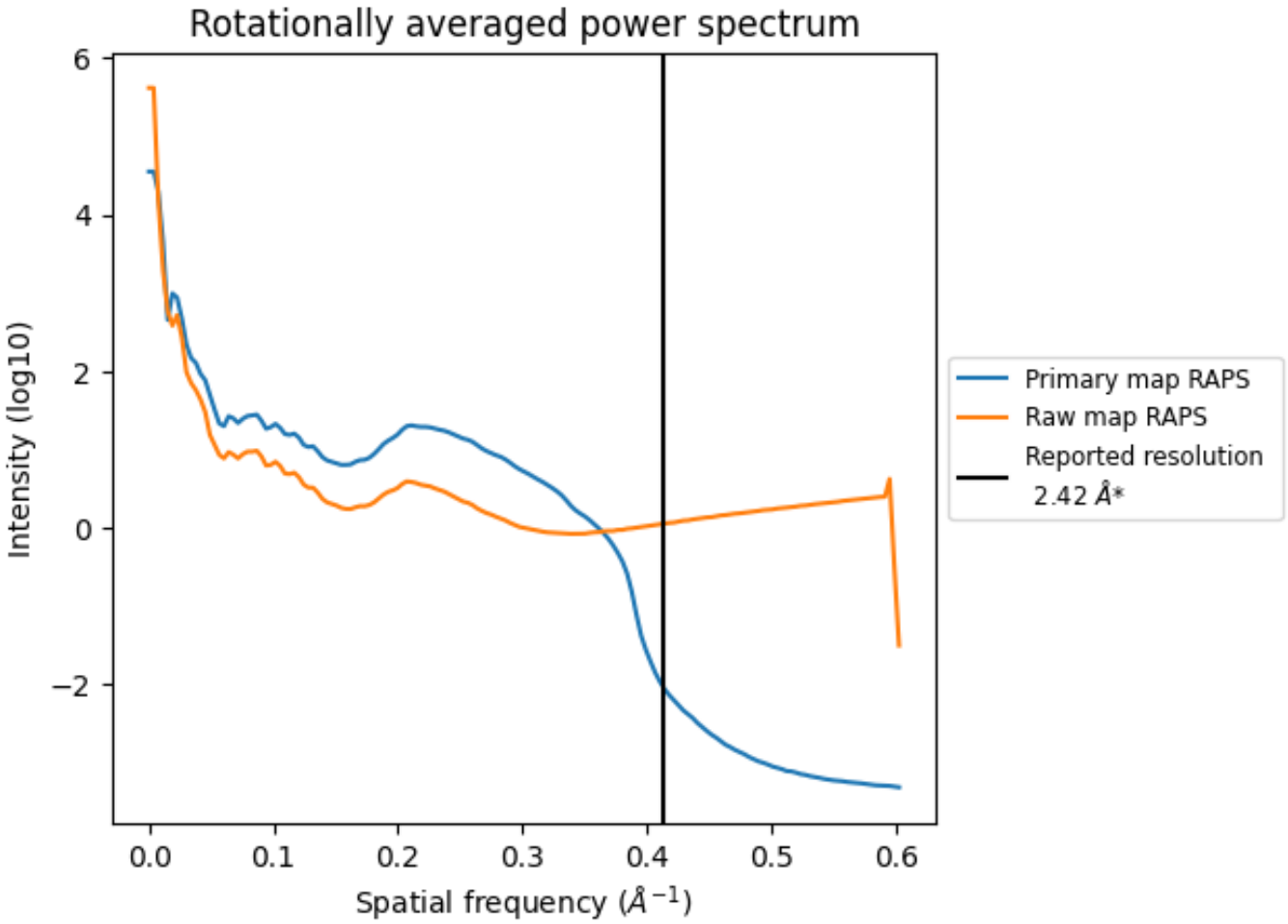
7.2 Volume estimate



The volume at the recommended contour level is 177 nm^3; this corresponds to an approximate mass of 160 kDa.

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

7.3 Rotationally averaged power spectrum (i)

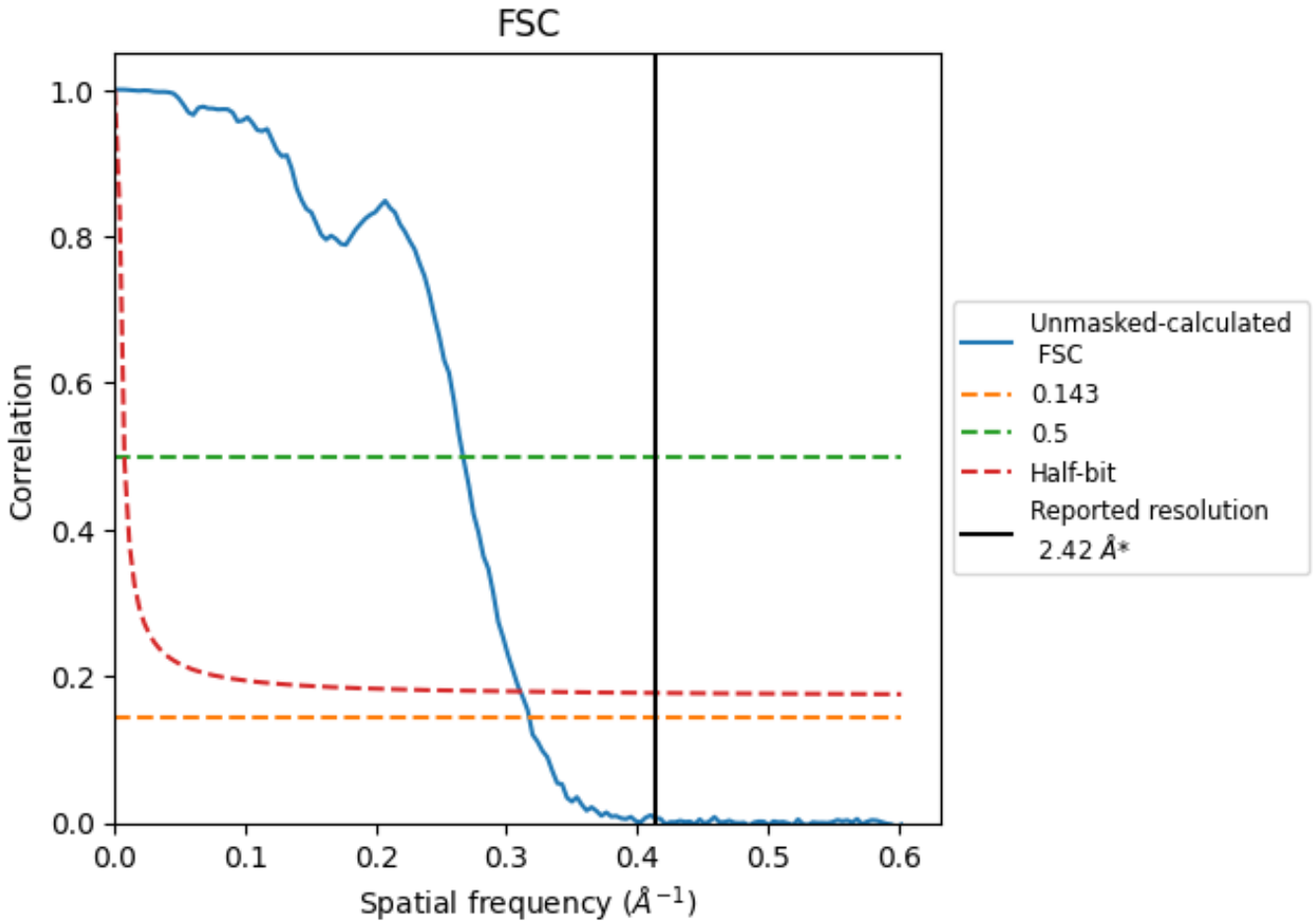


*Reported resolution corresponds to spatial frequency of 0.413 Å^{-1}

8 Fourier-Shell correlation

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



*Reported resolution corresponds to spatial frequency of 0.413 Å^{-1}

8.2 Resolution estimates (i)

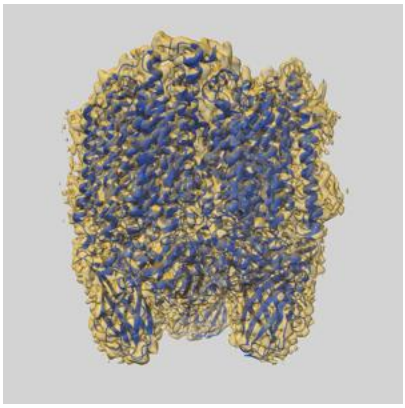
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.42	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	3.15	3.75	3.22

*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 3.15 differs from the reported value 2.42 by more than 10 %

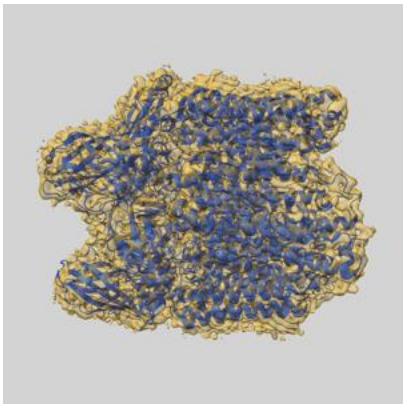
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-45659 and PDB model 9CL2. Per-residue inclusion information can be found in section 3 on page 9.

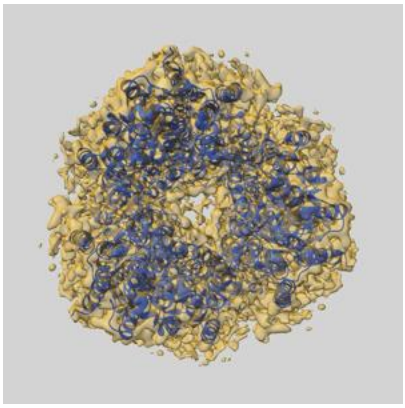
9.1 Map-model overlay



X



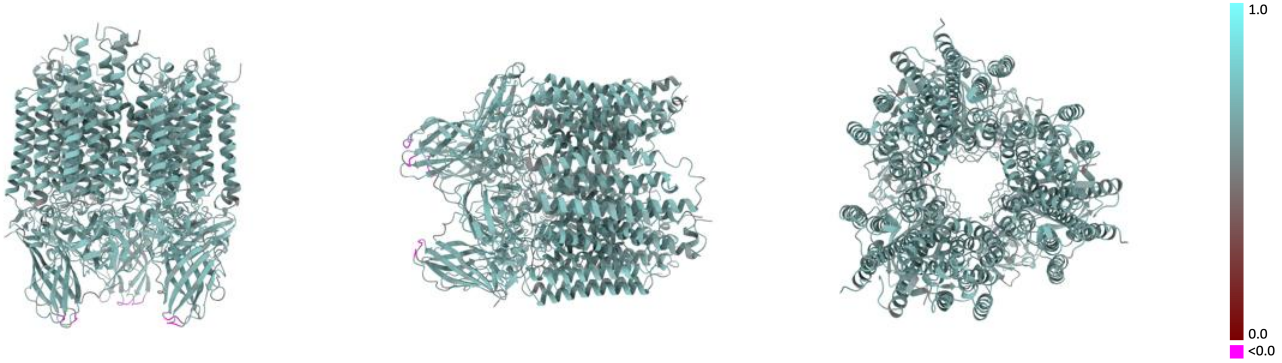
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.06 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.

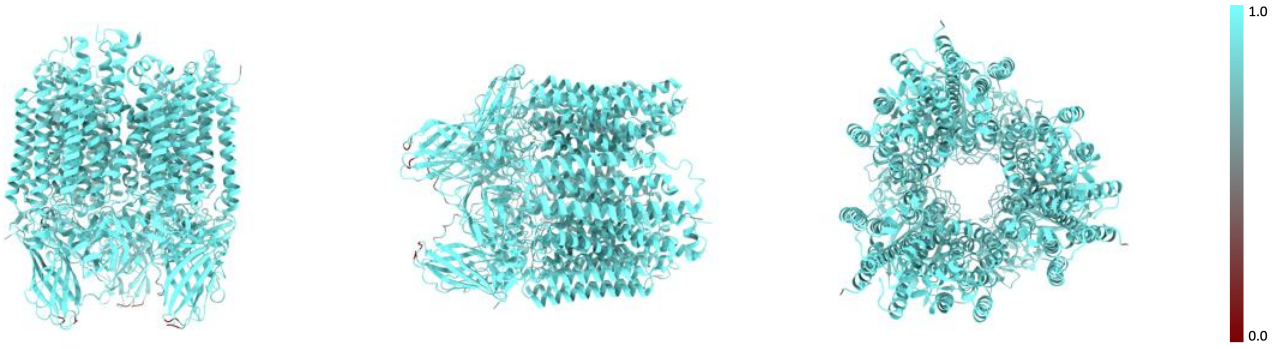
9.2 Q-score mapped to coordinate model (i)



X Y Z

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.

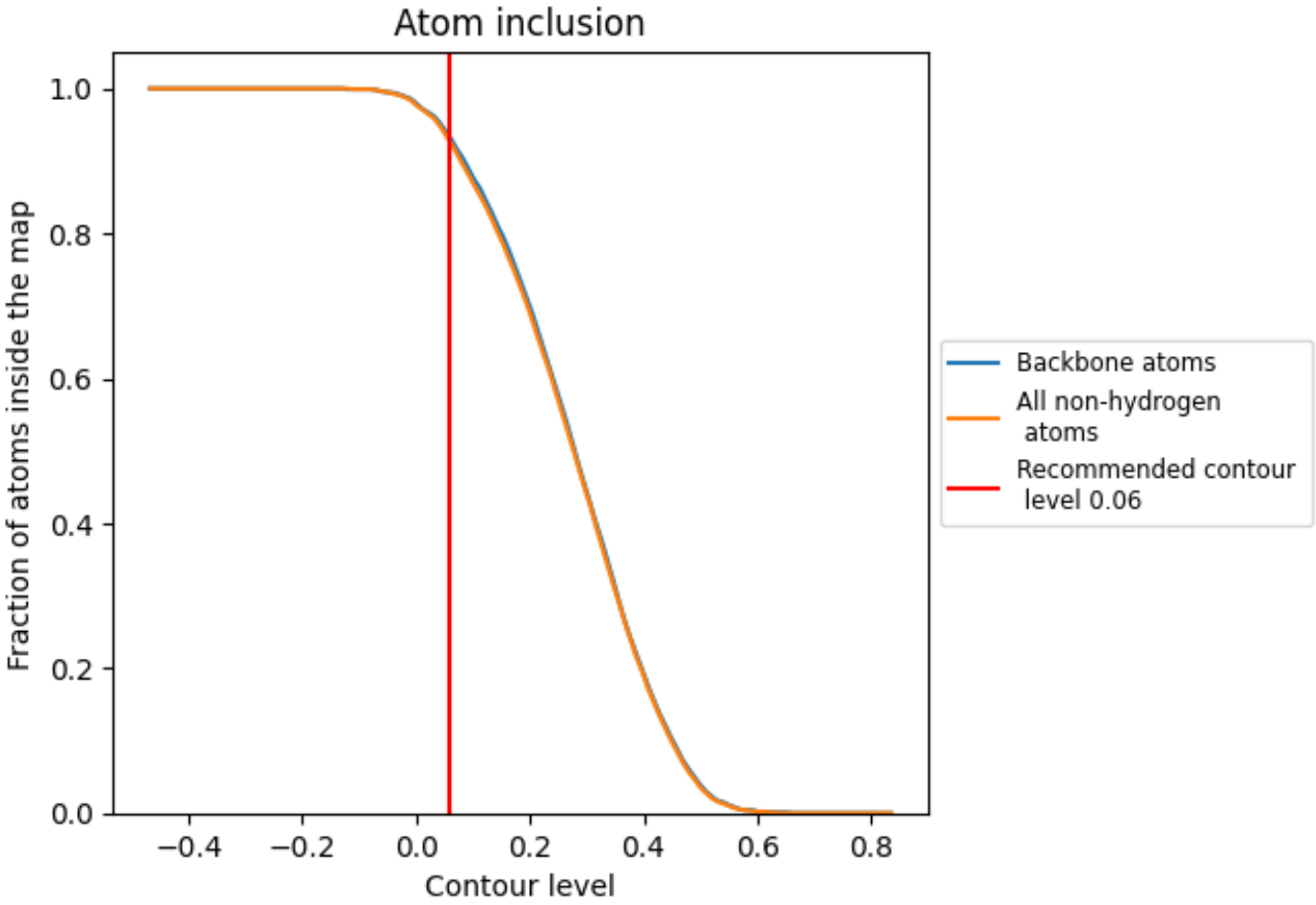
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

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 (0.06).

9.4 Atom inclusion (i)



At the recommended contour level, 93% of all backbone atoms, 93% 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 (0.06) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9260	0.6060
Aa	0.9610	0.6320
Ab	0.9590	0.6310
Ac	0.9600	0.6310
Ba	0.9150	0.5930
Bb	0.9180	0.5920
Bc	0.9180	0.5910
Ca	0.8850	0.5880
Cb	0.8860	0.5880
Cc	0.8860	0.5880