Full wwPDB EM Validation Report

Sep 17, 2025 – 06:27 PM JST

PDB ID	:	8HFQ / pdb_00008hfq
EMDB ID	:	EMD-34724
Title	:	Cryo-EM structure of CpcL-PBS from cyanobacterium Synechocystis sp. PCC 6803
Authors	:	Zheng, L.; Zhang, Z.; Wang, H.; Zheng, Z.; Gao, N.; Zhao, J.
Deposited on	:	2022-11-11
Resolution	:	2.64 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:

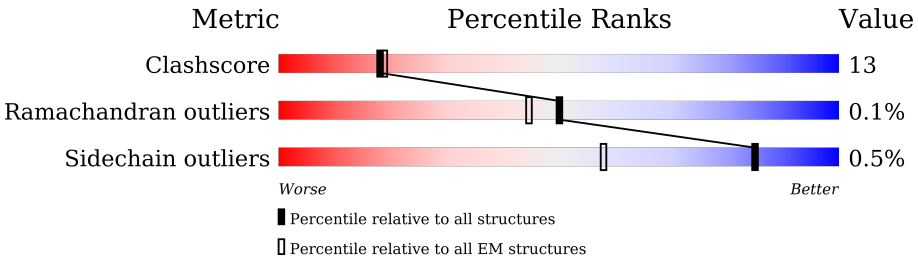
EMDB validation analysis	:	FAILED
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4-5-2 with Phenix2.0rc1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	FAILED
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.45.1

1 Overall quality at a glance

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

The reported resolution of this entry is 2.64 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%

Mol	Chain	Length	Quality of chain
1	A	162	80% 19% .
1	C	162	86% 14%
1	E	162	84% 16%
1	G	162	83% 17%
1	I	162	82% 18%
1	K	162	83% 17%
1	M	162	78% 22%
1	O	162	82% 18%
1	Q	162	80% 20%

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Mol	Chain	Length	Quality of chain
1	S	162	82% 18%
1	U	162	83% 17%
1	W	162	85% 15%
1	Y	162	89% 11%
1	a	162	83% 17%
1	c	162	80% 20%
1	e	162	83% 17%
1	g	162	88% 12%
1	i	162	81% 19%
2	B	172	78% 21%
2	D	172	81% 19%
2	F	172	88% 12%
2	H	172	83% 17%
2	J	172	84% 16%
2	L	172	83% 17%
2	N	172	78% 20%
2	P	172	84% 16%
2	R	172	82% 17%
2	T	172	78% 21%
2	V	172	83% 17%
2	X	172	80% 20%
2	Z	172	77% 22%
2	b	172	81% 18%
2	d	172	84% 16%
2	f	172	73% 27%

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Mol	Chain	Length	Quality of chain
2	h	172	
2	j	172	
3	k	291	
4	l	273	
5	m	413	
6	n	249	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
7	CYC	N	201	-	-	X	-
7	CYC	R	201	-	-	X	-
7	CYC	h	201	-	-	X	-

2 Entry composition (i)

There are 7 unique types of molecules in this entry. The entry contains 54193 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called C-phycocyanin alpha subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	C	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	E	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	G	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	I	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	K	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	M	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	O	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	Q	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	S	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	U	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	W	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	Y	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	a	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	c	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	e	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		
1	g	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	i	162	Total	C	N	O	S	0	0
			1240	775	215	247	3		

- Molecule 2 is a protein called C-phycocyanin beta subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	D	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	F	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	H	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	J	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	L	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	N	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	P	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	R	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	T	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	V	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	X	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	Z	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	b	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	d	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	f	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	h	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		
2	j	172	Total	C	N	O	S	0	0
			1270	784	228	251	7		

- Molecule 3 is a protein called Phycobilisome 32.1 kDa linker polypeptide, phycocyanin-associated, rod 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	k	289	2282	1438	408	433	3	0	0

- Molecule 4 is a protein called Phycobilisome 32.1 kDa linker polypeptide, phycocyanin-associated, rod 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	l	272	2164	1341	404	416	3	0	0

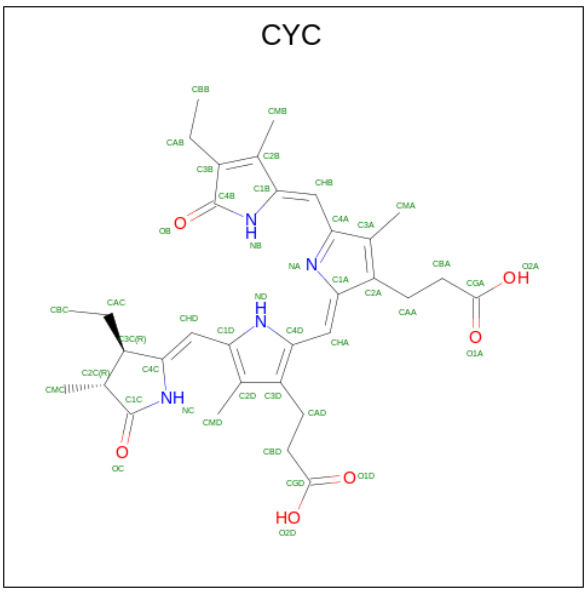
- Molecule 5 is a protein called Ferredoxin–NADP reductase.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	m	81	626	387	115	120	4	0	0

- Molecule 6 is a protein called Photosystem I-associated linker protein CpcL.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	n	197	1619	1019	295	300	5	0	0

- Molecule 7 is PHYCOCYANOBILIN (CCD ID: CYC) (formula: $C_{33}H_{40}N_4O_6$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
7	A	1	Total	C	N	O	0
			43	33	4	6	
7	B	1	Total	C	N	O	0
			43	33	4	6	
7	B	1	Total	C	N	O	0
			43	33	4	6	
7	C	1	Total	C	N	O	0
			43	33	4	6	
7	D	1	Total	C	N	O	0
			43	33	4	6	
7	D	1	Total	C	N	O	0
			43	33	4	6	
7	E	1	Total	C	N	O	0
			43	33	4	6	
7	F	1	Total	C	N	O	0
			43	33	4	6	
7	F	1	Total	C	N	O	0
			43	33	4	6	
7	G	1	Total	C	N	O	0
			43	33	4	6	
7	H	1	Total	C	N	O	0
			43	33	4	6	
7	H	1	Total	C	N	O	0
			43	33	4	6	
7	I	1	Total	C	N	O	0
			43	33	4	6	
7	J	1	Total	C	N	O	0
			43	33	4	6	
7	J	1	Total	C	N	O	0
			43	33	4	6	
7	K	1	Total	C	N	O	0
			43	33	4	6	
7	L	1	Total	C	N	O	0
			43	33	4	6	
7	L	1	Total	C	N	O	0
			43	33	4	6	
7	M	1	Total	C	N	O	0
			43	33	4	6	
7	N	1	Total	C	N	O	0
			43	33	4	6	
7	N	1	Total	C	N	O	0
			43	33	4	6	
7	O	1	Total	C	N	O	0
			43	33	4	6	

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Mol	Chain	Residues	Atoms				AltConf
7	P	1	Total	C	N	O	0
			43	33	4	6	
7	P	1	Total	C	N	O	0
			43	33	4	6	
7	Q	1	Total	C	N	O	0
			43	33	4	6	
7	R	1	Total	C	N	O	0
			43	33	4	6	
7	R	1	Total	C	N	O	0
			43	33	4	6	
7	S	1	Total	C	N	O	0
			43	33	4	6	
7	T	1	Total	C	N	O	0
			43	33	4	6	
7	T	1	Total	C	N	O	0
			43	33	4	6	
7	U	1	Total	C	N	O	0
			43	33	4	6	
7	V	1	Total	C	N	O	0
			43	33	4	6	
7	V	1	Total	C	N	O	0
			43	33	4	6	
7	W	1	Total	C	N	O	0
			43	33	4	6	
7	X	1	Total	C	N	O	0
			43	33	4	6	
7	X	1	Total	C	N	O	0
			43	33	4	6	
7	Y	1	Total	C	N	O	0
			43	33	4	6	
7	Z	1	Total	C	N	O	0
			43	33	4	6	
7	Z	1	Total	C	N	O	0
			43	33	4	6	
7	a	1	Total	C	N	O	0
			43	33	4	6	
7	b	1	Total	C	N	O	0
			43	33	4	6	
7	b	1	Total	C	N	O	0
			43	33	4	6	
7	c	1	Total	C	N	O	0
			43	33	4	6	

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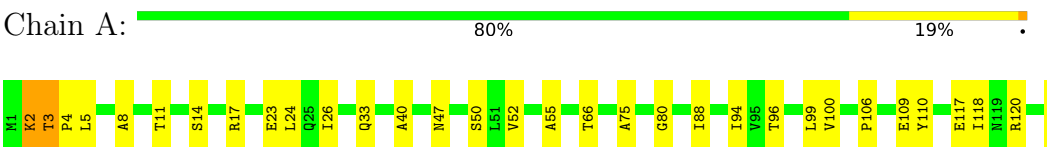
Mol	Chain	Residues	Atoms				AltConf
7	d	1	Total	C	N	O	0
			43	33	4	6	
7	d	1	Total	C	N	O	0
			43	33	4	6	
7	e	1	Total	C	N	O	0
			43	33	4	6	
7	f	1	Total	C	N	O	0
			43	33	4	6	
7	f	1	Total	C	N	O	0
			43	33	4	6	
7	g	1	Total	C	N	O	0
			43	33	4	6	
7	h	1	Total	C	N	O	0
			43	33	4	6	
7	h	1	Total	C	N	O	0
			43	33	4	6	
7	i	1	Total	C	N	O	0
			43	33	4	6	
7	j	1	Total	C	N	O	0
			43	33	4	6	
7	j	1	Total	C	N	O	0
			43	33	4	6	

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. 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. 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.

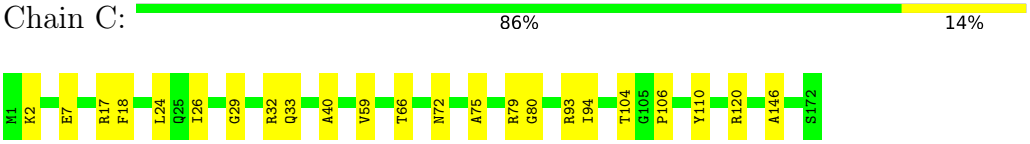
• Molecule 1: C-phycocyanin alpha subunit

Chain A:



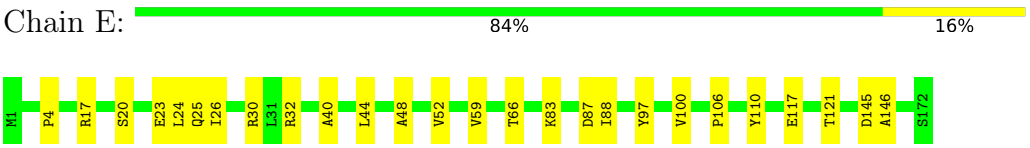
• Molecule 1: C-phycocyanin alpha subunit

Chain C:



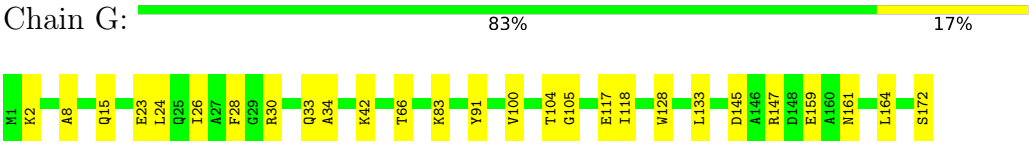
• Molecule 1: C-phycocyanin alpha subunit

Chain E:



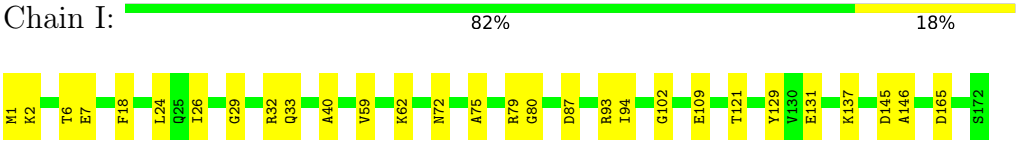
• Molecule 1: C-phycocyanin alpha subunit

Chain G:



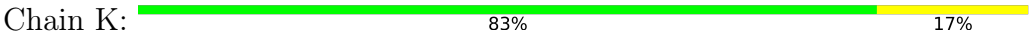
• Molecule 1: C-phycocyanin alpha subunit

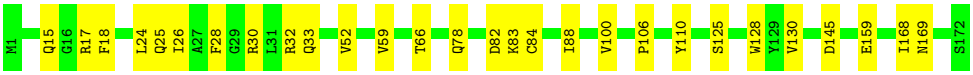
Chain I:



• Molecule 1: C-phycocyanin alpha subunit

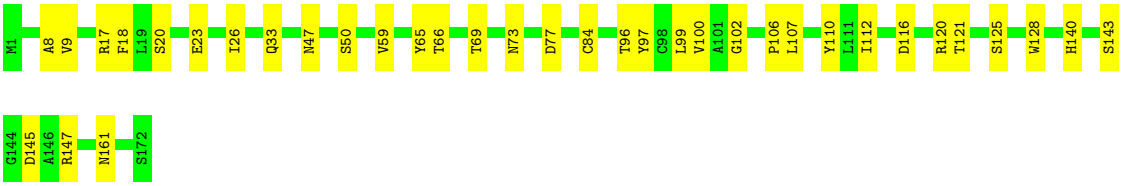
Chain K:





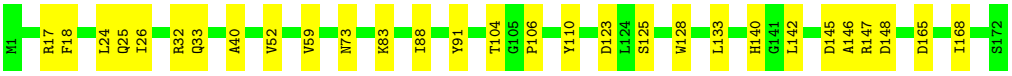
• Molecule 1: C-phycocyanin alpha subunit

Chain M:



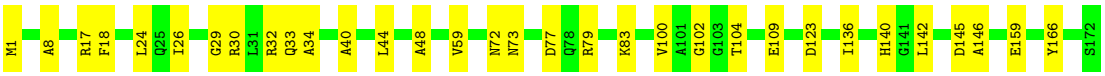
• Molecule 1: C-phycocyanin alpha subunit

Chain O:



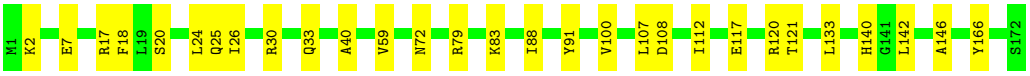
• Molecule 1: C-phycocyanin alpha subunit

Chain Q:



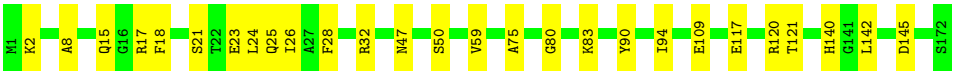
• Molecule 1: C-phycocyanin alpha subunit

Chain S:



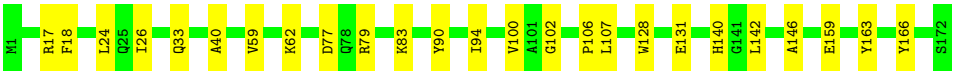
• Molecule 1: C-phycocyanin alpha subunit

Chain U:



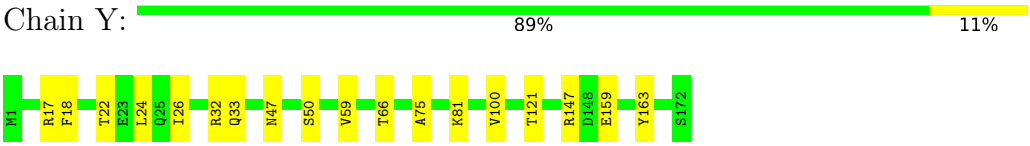
• Molecule 1: C-phycocyanin alpha subunit

Chain W:



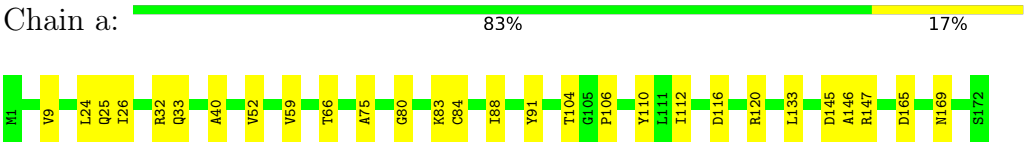
• Molecule 1: C-phycocyanin alpha subunit

Chain Y:



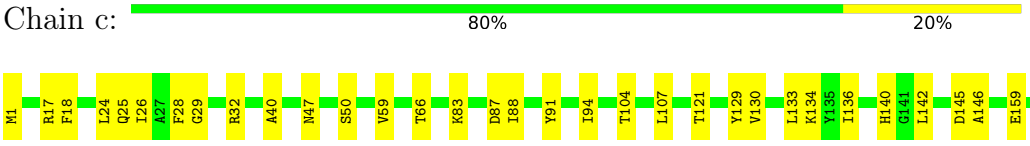
• Molecule 1: C-phycocyanin alpha subunit

Chain a:



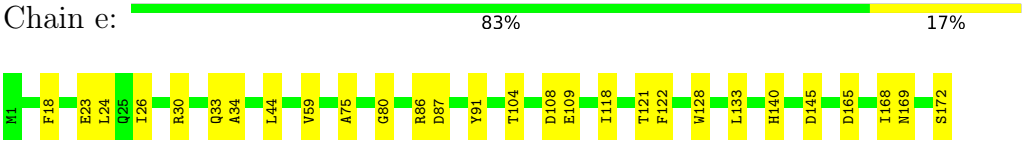
• Molecule 1: C-phycocyanin alpha subunit

Chain c:



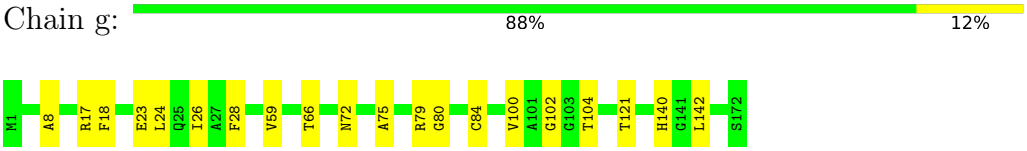
• Molecule 1: C-phycocyanin alpha subunit

Chain e:



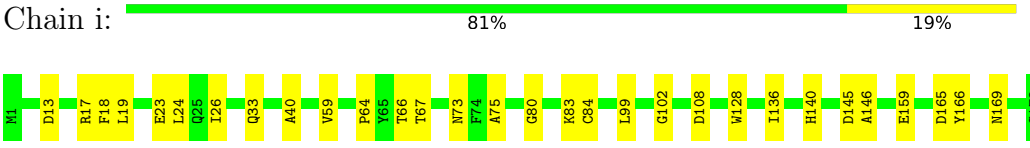
• Molecule 1: C-phycocyanin alpha subunit

Chain g:



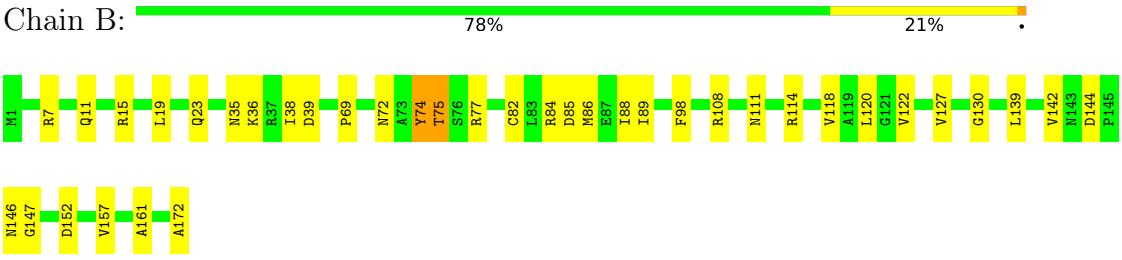
• Molecule 1: C-phycocyanin alpha subunit

Chain i:



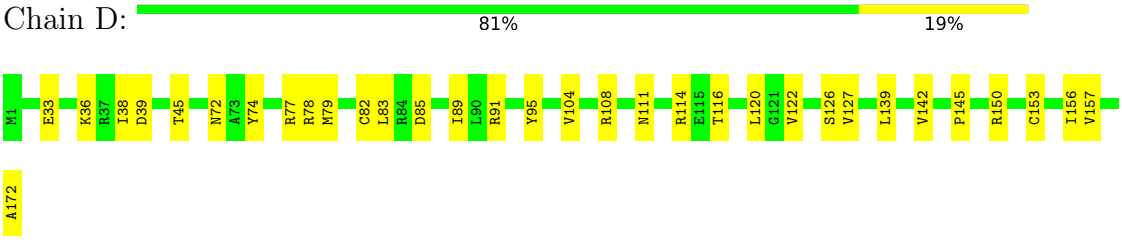
• Molecule 2: C-phycocyanin beta subunit

Chain B:



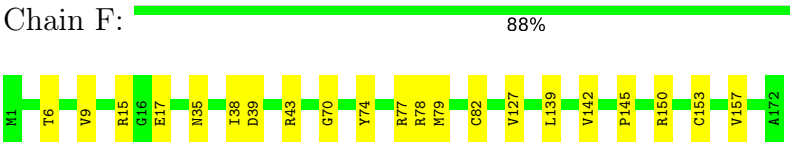
• Molecule 2: C-phycocyanin beta subunit

Chain D:



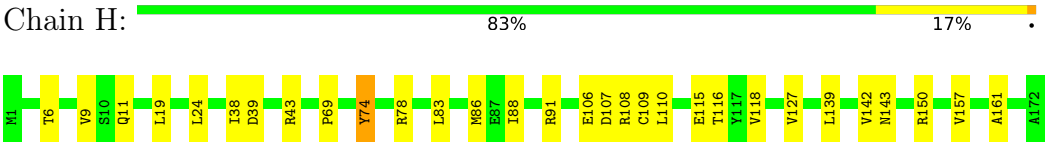
• Molecule 2: C-phycocyanin beta subunit

Chain F:



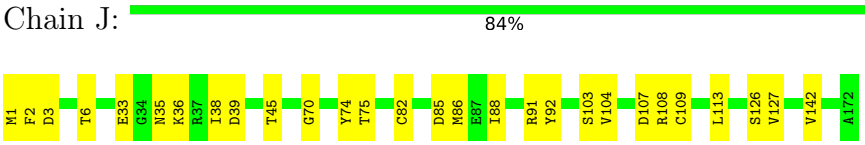
• Molecule 2: C-phycocyanin beta subunit

Chain H:



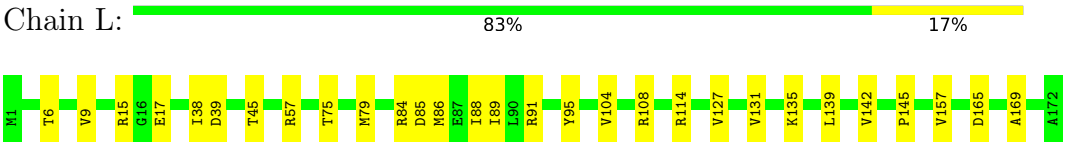
• Molecule 2: C-phycocyanin beta subunit

Chain J:



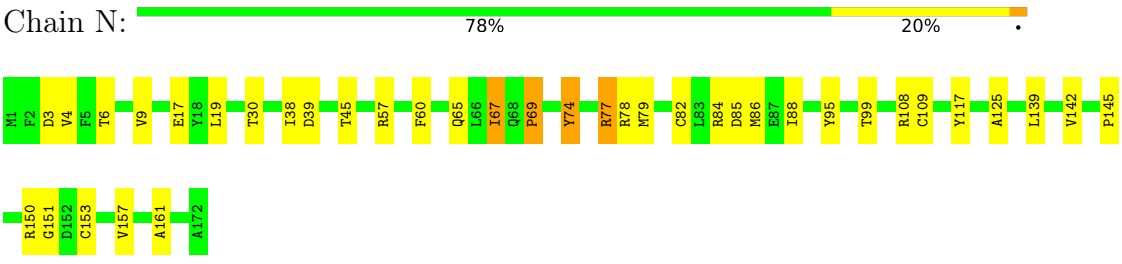
• Molecule 2: C-phycocyanin beta subunit

Chain L:



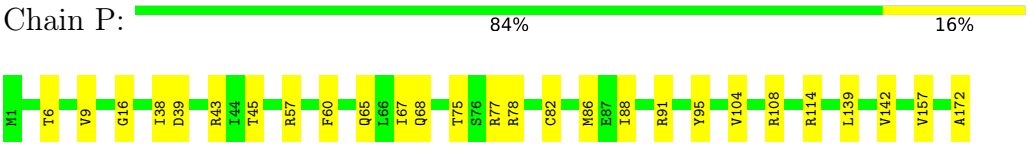
• Molecule 2: C-phycocyanin beta subunit

Chain N:



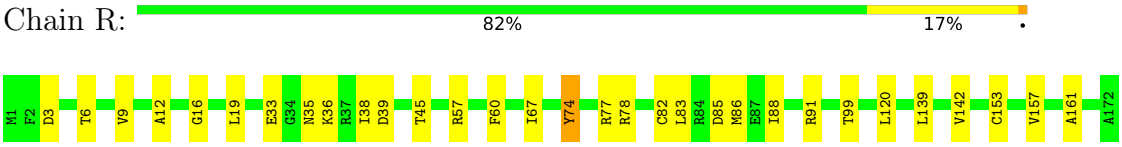
• Molecule 2: C-phycocyanin beta subunit

Chain P:



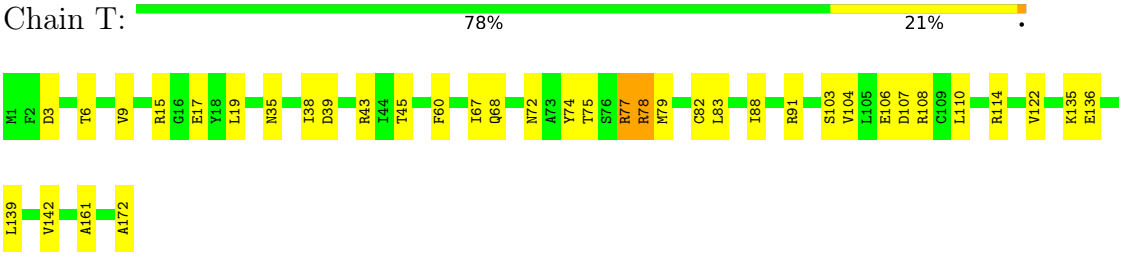
• Molecule 2: C-phycocyanin beta subunit

Chain R:



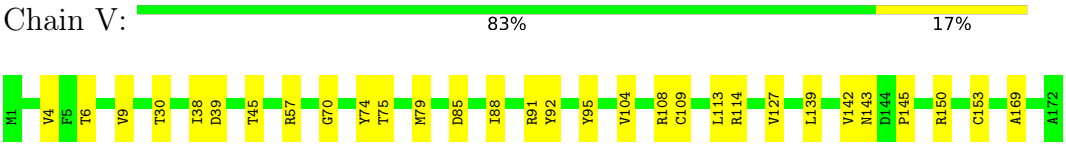
• Molecule 2: C-phycocyanin beta subunit

Chain T:



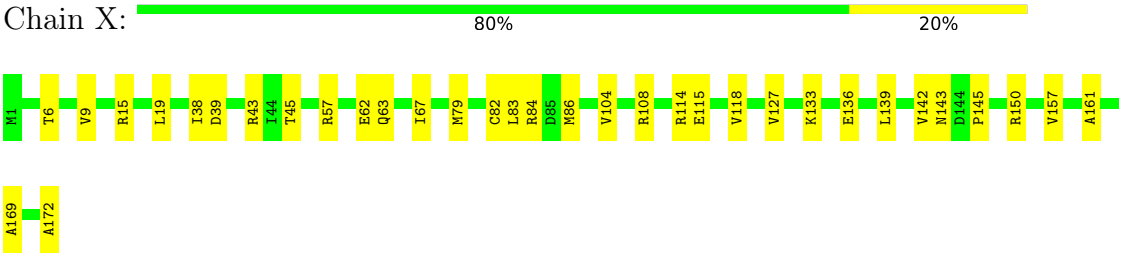
• Molecule 2: C-phycocyanin beta subunit

Chain V:



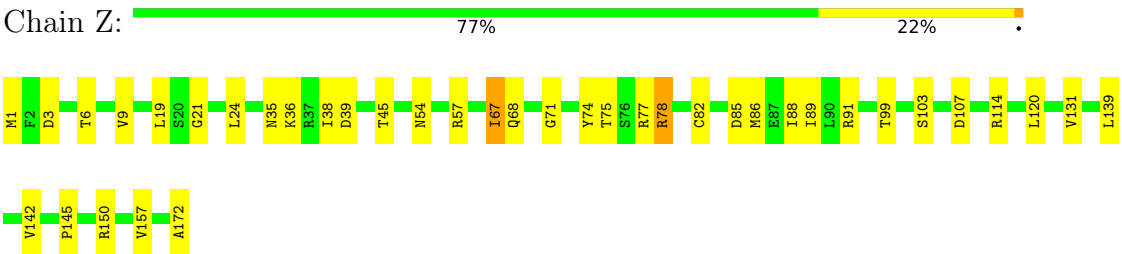
• Molecule 2: C-phycocyanin beta subunit

Chain X:



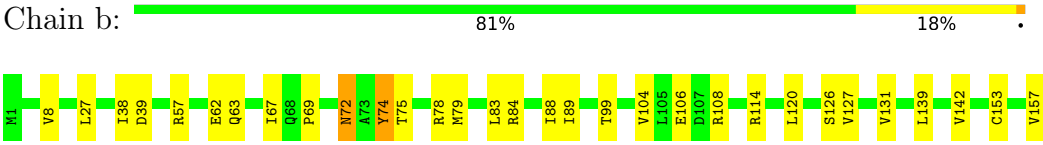
• Molecule 2: C-phycocyanin beta subunit

Chain Z:



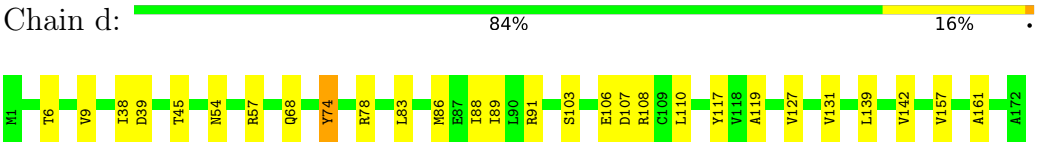
• Molecule 2: C-phycocyanin beta subunit

Chain b:



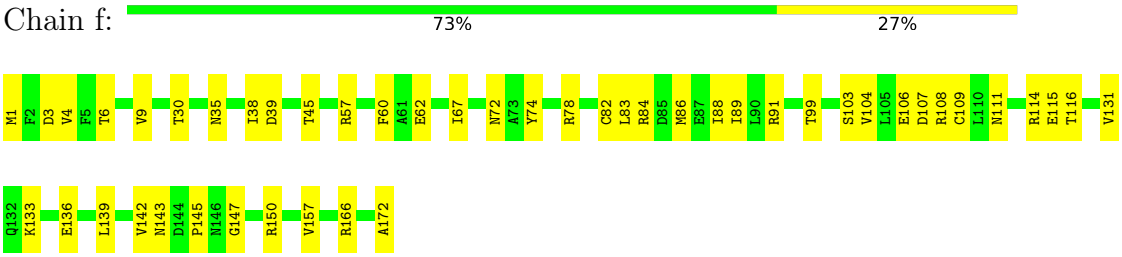
• Molecule 2: C-phycocyanin beta subunit

Chain d:



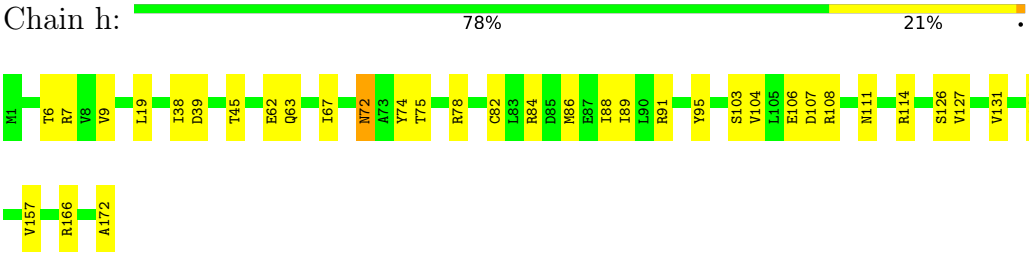
• Molecule 2: C-phycocyanin beta subunit

Chain f:



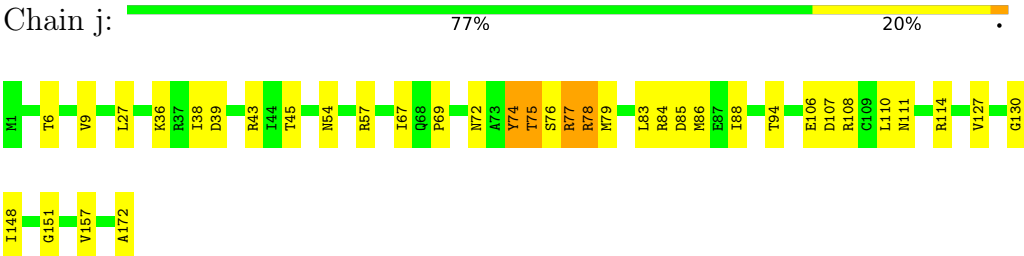
• Molecule 2: C-phycocyanin beta subunit

Chain h:



• Molecule 2: C-phycocyanin beta subunit

Chain j:

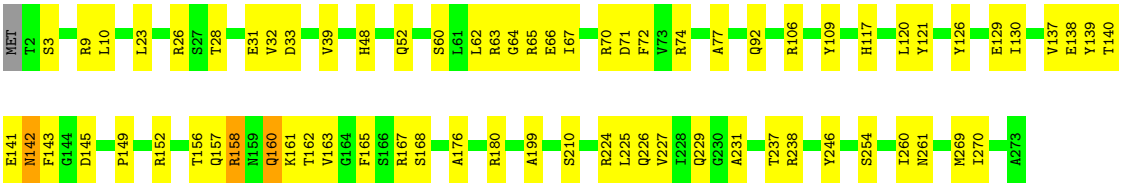


• Molecule 3: Phycobilisome 32.1 kDa linker polypeptide, phycocyanin-associated, rod 1

Chain k:

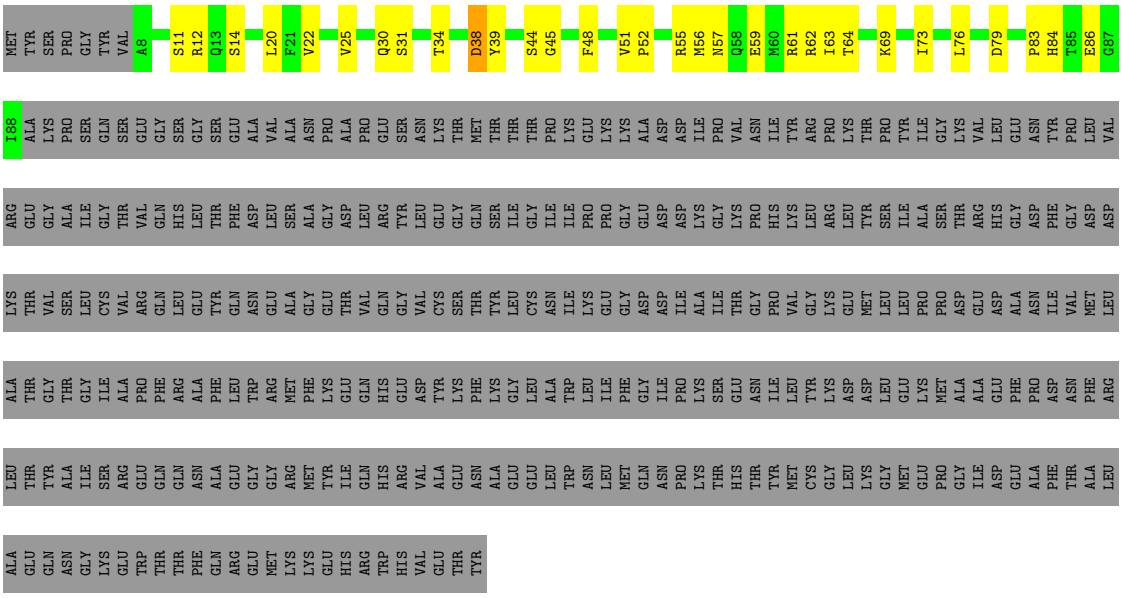
• Molecule 4: Phycobilisome 32.1 kDa linker polypeptide, phycocyanin-associated, rod 2

Chain l:



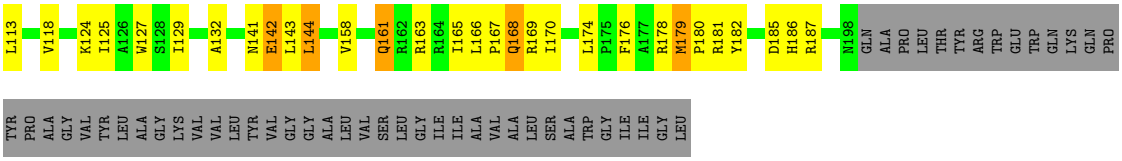
• Molecule 5: Ferredoxin–NADP reductase

Chain m:



• Molecule 6: Photosystem I-associated linker protein CpcL

Chain n:


L113 V118 K124 I125 A126 W127 S128 I129 A132 N141 E142 L143 L144 V158 Q161 R162 R163 R164 I165 L166 P167 Q168 R169 I170 L174 P175 F176 A177 R178 M179 P180 R181 Y182 D185 H186 R187 N198 GLN ALA PRO LEU THR TYR ARG TRP GLU TRP GLN LYS GLN PRO
TYR PRO ALA GLY VAL TYR LEU ALA GLY LYS VAL VAL LEU TYR VAL GLY GLY ALA LEU VAL SER LEU GLY ILE ILE ALA VAL ALA LEU SER ALA TRP GLY ILE ILE GLY LEU

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	124441	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	60	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	1800	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>5$	RMSZ	#$\|Z\|>5$
1	A	0.31	0/1261	0.57	0/1709
1	C	0.20	0/1261	0.45	0/1709
1	E	0.20	0/1261	0.48	0/1709
1	G	0.21	0/1261	0.46	0/1709
1	I	0.22	0/1261	0.49	0/1709
1	K	0.22	0/1261	0.45	0/1709
1	M	0.22	0/1261	0.49	0/1709
1	O	0.20	0/1261	0.49	0/1709
1	Q	0.23	0/1261	0.50	0/1709
1	S	0.22	0/1261	0.47	0/1709
1	U	0.26	0/1261	0.53	0/1709
1	W	0.21	0/1261	0.45	0/1709
1	Y	0.20	0/1261	0.42	0/1709
1	a	0.20	0/1261	0.45	0/1709
1	c	0.23	0/1261	0.51	0/1709
1	e	0.24	0/1261	0.52	0/1709
1	g	0.21	0/1261	0.49	0/1709
1	i	0.22	0/1261	0.50	0/1709
2	B	0.30	0/1284	0.64	3/1739 (0.2%)
2	D	0.27	0/1284	0.54	0/1739
2	F	0.26	0/1284	0.51	1/1739 (0.1%)
2	H	0.26	0/1284	0.53	1/1739 (0.1%)
2	J	0.27	0/1284	0.52	2/1739 (0.1%)
2	L	0.28	0/1284	0.56	1/1739 (0.1%)
2	N	0.32	0/1284	0.56	1/1739 (0.1%)
2	P	0.31	0/1284	0.55	0/1739
2	R	0.32	0/1284	0.56	1/1739 (0.1%)
2	T	0.36	0/1284	0.60	2/1739 (0.1%)
2	V	0.29	0/1284	0.58	2/1739 (0.1%)
2	X	0.31	0/1284	0.52	0/1739
2	Z	0.36	0/1284	0.56	1/1739 (0.1%)
2	b	0.30	0/1284	0.58	1/1739 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
2	d	0.34	0/1284	0.65	1/1739 (0.1%)
2	f	0.33	0/1284	0.59	2/1739 (0.1%)
2	h	0.31	0/1284	0.54	1/1739 (0.1%)
2	j	0.33	0/1284	0.57	1/1739 (0.1%)
3	k	0.30	0/2327	0.63	2/3149 (0.1%)
4	l	0.25	0/2201	0.54	3/2972 (0.1%)
5	m	0.34	0/635	0.64	0/854
6	n	0.35	0/1651	0.72	4/2230 (0.2%)
All	All	0.27	0/52624	0.54	30/71269 (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
1	U	0	1
2	N	0	1
2	T	0	2
2	Z	0	2
2	j	0	2
All	All	0	8

There are no bond length outliers.

All (30) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	k	183	GLU	N-CA-C	-8.41	95.64	108.67
6	n	179	MET	CA-C-N	7.64	127.80	120.31
6	n	179	MET	C-N-CA	7.64	127.80	120.31
4	l	160	GLN	N-CA-C	7.08	120.48	110.50
2	B	74	TYR	N-CA-CB	6.89	118.07	110.35
2	L	145	PRO	N-CD-CG	-6.13	94.01	103.20
4	l	142	ASN	N-CA-C	6.00	117.62	111.14
2	B	74	TYR	CA-C-O	-5.99	114.48	122.51
2	f	136	GLU	N-CA-CB	5.87	119.38	110.28
2	J	70	GLY	N-CA-C	-5.84	107.04	115.27
2	T	136	GLU	N-CA-CB	5.83	119.31	110.28
2	V	74	TYR	CA-C-O	-5.63	115.07	121.72
2	f	74	TYR	CA-C-O	-5.62	115.44	121.56
2	V	70	GLY	N-CA-C	-5.58	107.41	115.27
2	R	74	TYR	CA-C-O	-5.56	115.50	121.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	b	74	TYR	CA-C-O	-5.51	115.56	121.56
3	k	124	GLN	N-CA-C	5.46	121.15	113.02
2	B	75	THR	N-CA-CB	5.41	119.62	110.49
2	H	74	TYR	CA-C-O	-5.36	115.49	121.81
2	d	74	TYR	CA-C-O	-5.34	115.50	121.81
2	F	70	GLY	N-CA-C	-5.32	108.00	114.92
2	j	74	TYR	CA-C-O	-5.32	115.67	121.89
6	n	95	ARG	N-CA-C	5.32	117.15	111.36
2	h	74	TYR	CA-C-O	-5.21	115.66	121.81
2	T	74	TYR	CA-C-O	-5.17	115.71	121.81
2	N	74	TYR	CA-C-O	-5.06	115.65	121.47
2	Z	74	TYR	CA-C-O	-5.05	115.85	121.81
4	l	158	ARG	N-CA-C	5.04	116.78	111.28
2	J	74	TYR	CA-C-O	-5.03	116.08	121.56
6	n	161	GLN	N-CA-C	-5.00	102.97	110.23

There are no chirality outliers.

All (8) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	N	77	ARG	Sidechain
2	T	77	ARG	Sidechain
2	T	78	ARG	Sidechain
1	U	32	ARG	Sidechain
2	Z	77	ARG	Sidechain
2	Z	78	ARG	Sidechain
2	j	77	ARG	Sidechain
2	j	78	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	A	1240	0	1206	27	0
1	C	1240	0	1206	23	0
1	E	1240	0	1206	23	0
1	G	1240	0	1206	36	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	I	1240	0	1206	23	0
1	K	1240	0	1207	32	0
1	M	1240	0	1207	34	0
1	O	1240	0	1206	23	0
1	Q	1240	0	1206	36	0
1	S	1240	0	1206	23	0
1	U	1240	0	1206	33	0
1	W	1240	0	1206	20	0
1	Y	1240	0	1206	15	0
1	a	1240	0	1207	24	0
1	c	1240	0	1206	30	0
1	e	1240	0	1206	29	0
1	g	1240	0	1206	21	0
1	i	1240	0	1207	29	0
2	B	1270	0	1262	36	0
2	D	1270	0	1262	36	0
2	F	1270	0	1263	30	0
2	H	1270	0	1261	35	0
2	J	1270	0	1262	33	0
2	L	1270	0	1262	33	0
2	N	1270	0	1262	45	0
2	P	1270	0	1263	34	0
2	R	1270	0	1262	32	0
2	T	1270	0	1263	30	0
2	V	1270	0	1262	31	0
2	X	1270	0	1263	40	0
2	Z	1270	0	1262	32	0
2	b	1270	0	1262	32	0
2	d	1270	0	1262	22	0
2	f	1270	0	1263	47	0
2	h	1270	0	1262	34	0
2	j	1270	0	1262	43	0
3	k	2282	0	2261	93	0
4	l	2164	0	2118	75	0
5	m	626	0	639	58	0
6	n	1619	0	1590	65	0
7	A	43	0	37	7	0
7	B	86	0	74	33	0
7	C	43	0	37	7	0
7	D	86	0	75	35	0
7	E	43	0	37	9	0
7	F	86	0	76	35	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	G	43	0	37	14	0
7	H	86	0	75	31	0
7	I	43	0	37	4	0
7	J	86	0	75	30	0
7	K	43	0	38	14	0
7	L	86	0	74	30	0
7	M	43	0	38	12	0
7	N	86	0	75	41	0
7	O	43	0	37	8	0
7	P	86	0	76	30	0
7	Q	43	0	37	10	0
7	R	86	0	75	32	0
7	S	43	0	37	7	0
7	T	86	0	76	24	0
7	U	43	0	37	5	0
7	V	86	0	75	27	0
7	W	43	0	37	14	0
7	X	86	0	76	31	0
7	Y	43	0	37	4	0
7	Z	86	0	75	35	0
7	a	43	0	38	12	0
7	b	86	0	75	22	0
7	c	43	0	37	11	0
7	d	86	0	75	16	0
7	e	43	0	37	7	0
7	f	86	0	76	26	0
7	g	43	0	37	9	0
7	h	86	0	75	37	0
7	i	43	0	38	13	0
7	j	86	0	75	32	0
All	All	54193	0	53063	1391	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 13.

All (1391) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:84:CYS:SG	7:M:201:CYC:HAC2	1.21	1.70
2:F:82:CYS:SG	7:F:201:CYC:HAC2	1.27	1.68
1:i:84:CYS:SG	7:i:201:CYC:HAC2	1.13	1.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:84:CYS:SG	7:K:201:CYC:HAC2	1.14	1.65
2:f:82:CYS:SG	7:f:201:CYC:HAC2	1.35	1.62
1:a:84:CYS:SG	7:a:201:CYC:HAC2	1.38	1.60
2:P:82:CYS:SG	7:P:201:CYC:HAC2	1.44	1.55
2:T:82:CYS:SG	7:T:201:CYC:HAC2	1.46	1.53
7:B:202:CYC:CBB	1:G:33:GLN:HE22	1.25	1.49
1:g:84:CYS:SG	7:g:201:CYC:CAC	2.02	1.46
7:B:202:CYC:HBB2	1:G:33:GLN:NE2	1.13	1.45
2:J:82:CYS:SG	7:J:201:CYC:CAC	2.02	1.45
1:Q:33:GLN:NE2	7:V:202:CYC:HBB2	1.26	1.44
2:h:82:CYS:SG	7:h:201:CYC:CAC	2.06	1.43
1:Q:33:GLN:HE22	7:V:202:CYC:CBB	1.31	1.41
1:i:84:CYS:SG	7:i:201:CYC:CAC	2.06	1.40
7:Z:202:CYC:HBB2	1:e:33:GLN:NE2	1.37	1.39
1:K:84:CYS:SG	7:K:201:CYC:CAC	2.09	1.38
2:X:82:CYS:SG	7:X:201:CYC:HAC2	1.63	1.36
1:M:84:CYS:SG	7:M:201:CYC:CAC	2.16	1.34
7:h:201:CYC:HBB3	5:m:61:ARG:NH1	1.01	1.33
7:Z:201:CYC:O2D	4:l:180:ARG:NH2	1.63	1.31
7:h:201:CYC:OB	5:m:61:ARG:NH1	1.64	1.31
7:Z:201:CYC:O1A	4:l:48:HIS:N	1.64	1.30
2:F:82:CYS:SG	7:F:201:CYC:CAC	2.19	1.28
7:h:201:CYC:CBB	5:m:61:ARG:NH1	1.95	1.27
7:Z:202:CYC:CBB	1:e:33:GLN:HE22	1.49	1.26
7:h:201:CYC:CBB	5:m:61:ARG:HH11	1.50	1.23
2:P:82:CYS:SG	7:P:201:CYC:CAC	2.27	1.21
2:V:108:ARG:O	7:V:201:CYC:HBB1	1.36	1.21
1:U:15:GLN:HB2	3:k:19:ARG:NH2	1.58	1.18
2:f:82:CYS:SG	7:f:201:CYC:CAC	2.31	1.17
2:B:86:MET:HE2	7:B:201:CYC:CBC	1.73	1.16
1:a:84:CYS:SG	7:a:201:CYC:CAC	2.33	1.16
2:f:39:ASP:OD2	7:f:202:CYC:ND	1.79	1.15
7:N:201:CYC:HMA1	7:N:201:CYC:HB	1.03	1.14
7:R:201:CYC:O1A	3:k:48:TYR:N	1.79	1.14
2:T:82:CYS:SG	7:T:201:CYC:CAC	2.34	1.14
7:N:201:CYC:OB	3:k:92:GLN:CB	1.97	1.12
2:L:84:ARG:NH2	7:L:201:CYC:O1A	1.85	1.10
7:D:201:CYC:HB	7:D:201:CYC:HMA1	1.13	1.09
2:j:86:MET:HE2	7:j:201:CYC:CBC	1.80	1.09
2:B:86:MET:HE2	7:B:201:CYC:HBC1	1.25	1.09
7:N:201:CYC:OB	3:k:92:GLN:HB3	1.55	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:j:86:MET:HE2	7:j:201:CYC:HBC1	1.39	1.04
7:F:201:CYC:HB	7:F:201:CYC:HMA3	1.20	1.04
2:N:77:ARG:NH2	7:N:201:CYC:O2A	1.90	1.04
2:Z:39:ASP:OD2	7:Z:202:CYC:ND	1.91	1.03
7:d:201:CYC:HBB2	4:l:162:THR:OG1	1.56	1.02
1:U:15:GLN:CB	3:k:19:ARG:HH21	1.72	1.02
4:l:141:GLU:OE1	4:l:158:ARG:NH2	1.92	1.02
2:L:39:ASP:OD2	7:L:202:CYC:ND	1.92	1.02
2:b:84:ARG:NH2	7:b:201:CYC:O1A	1.93	1.02
5:m:48:PHE:HB3	5:m:84:HIS:HE1	1.25	1.01
7:B:202:CYC:HBB2	1:G:33:GLN:CD	1.85	1.01
7:Z:201:CYC:O2D	4:l:180:ARG:CZ	2.08	1.00
2:f:108:ARG:O	7:f:201:CYC:HBB1	1.60	1.00
2:N:77:ARG:NH2	7:N:201:CYC:CGA	2.24	1.00
7:R:201:CYC:CGA	3:k:48:TYR:H	1.75	0.99
1:U:15:GLN:CA	3:k:19:ARG:HH21	1.73	0.99
2:B:39:ASP:OD2	7:B:202:CYC:ND	1.95	0.99
3:k:183:GLU:HB3	3:k:186:SER:OG	1.61	0.99
7:h:201:CYC:C4B	5:m:61:ARG:HH12	1.78	0.97
3:k:277:ARG:HG3	3:k:277:ARG:HH11	1.27	0.96
1:U:15:GLN:CB	3:k:19:ARG:NH2	2.28	0.96
2:J:39:ASP:OD2	7:J:202:CYC:ND	1.98	0.95
7:Z:201:CYC:CGA	4:l:48:HIS:H	1.78	0.94
2:N:77:ARG:HH22	7:N:201:CYC:CGA	1.79	0.94
2:h:108:ARG:HA	5:m:64:THR:HG21	1.47	0.94
2:F:77:ARG:HE	6:n:167:PRO:HD2	1.32	0.93
2:P:82:CYS:HG	7:P:201:CYC:HAC2	1.27	0.93
2:h:86:MET:SD	7:h:201:CYC:HBC1	2.08	0.93
2:F:82:CYS:HG	7:F:201:CYC:HAC2	1.25	0.93
2:X:39:ASP:OD2	7:X:202:CYC:ND	2.00	0.93
7:R:201:CYC:O1A	3:k:48:TYR:CG	2.22	0.92
7:h:201:CYC:OB	5:m:61:ARG:CZ	2.17	0.92
2:V:79:MET:HE1	7:W:201:CYC:HMA1	1.52	0.92
7:N:201:CYC:OB	3:k:92:GLN:HB2	1.67	0.92
1:E:145:ASP:OD1	7:J:202:CYC:HMA2	1.68	0.92
2:T:82:CYS:HG	7:T:201:CYC:HAC2	1.13	0.92
1:K:59:VAL:HG11	7:K:201:CYC:HMC1	1.49	0.91
7:R:201:CYC:O1A	3:k:48:TYR:CB	2.18	0.91
7:N:201:CYC:HMA1	7:N:201:CYC:NB	1.83	0.91
7:h:201:CYC:HBB3	5:m:61:ARG:HH12	1.26	0.91
1:e:59:VAL:HG11	7:e:201:CYC:HMC1	1.49	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:f:142:VAL:HG13	7:f:202:CYC:CBC	2.00	0.91
7:Z:201:CYC:O2D	4:l:180:ARG:NE	2.03	0.90
7:a:201:CYC:HC	7:a:201:CYC:HMD1	1.37	0.89
2:V:39:ASP:OD1	7:V:202:CYC:ND	2.04	0.89
7:O:201:CYC:HMD1	7:O:201:CYC:HC	1.38	0.89
7:M:201:CYC:HMD1	7:M:201:CYC:HC	1.37	0.89
1:U:15:GLN:HA	3:k:19:ARG:HH21	1.37	0.89
7:e:201:CYC:HMD1	7:e:201:CYC:HC	1.37	0.88
7:M:201:CYC:O1D	2:R:57:ARG:NE	2.06	0.88
7:S:201:CYC:HC	7:S:201:CYC:HMD1	1.37	0.88
7:D:201:CYC:HBD1	7:D:201:CYC:HHA	1.55	0.88
2:F:127:VAL:HG22	7:F:201:CYC:H3C	1.55	0.88
7:W:201:CYC:HMD1	7:W:201:CYC:HC	1.37	0.88
1:c:145:ASP:OD1	7:h:202:CYC:HMA2	1.73	0.88
7:Q:201:CYC:HC	7:Q:201:CYC:HMD1	1.37	0.88
1:C:7:GLU:OE2	6:n:94:ARG:NH2	2.06	0.88
7:C:201:CYC:HMD1	7:C:201:CYC:HC	1.37	0.88
7:i:201:CYC:HC	7:i:201:CYC:HMD1	1.38	0.88
7:G:201:CYC:HC	7:G:201:CYC:HMD1	1.37	0.88
7:g:201:CYC:HMD1	7:g:201:CYC:HC	1.37	0.87
4:l:33:ASP:OD1	4:l:63:ARG:NH2	2.06	0.87
7:E:201:CYC:HMD1	7:E:201:CYC:HC	1.37	0.87
7:c:201:CYC:HMD1	7:c:201:CYC:HC	1.38	0.87
2:j:86:MET:HE2	7:j:201:CYC:HBC3	1.56	0.87
7:A:201:CYC:HMD1	7:A:201:CYC:HC	1.37	0.87
7:Y:201:CYC:HMD1	7:Y:201:CYC:HC	1.38	0.86
7:K:201:CYC:HMD1	7:K:201:CYC:HC	1.37	0.86
4:l:142:ASN:ND2	4:l:152:ARG:NH1	2.22	0.86
2:P:39:ASP:OD2	7:P:202:CYC:ND	2.08	0.86
2:V:108:ARG:O	7:V:201:CYC:CBB	2.24	0.86
7:Z:201:CYC:CGD	4:l:180:ARG:HH21	1.88	0.86
2:h:108:ARG:HA	5:m:64:THR:CG2	2.05	0.85
7:B:201:CYC:HB	7:B:201:CYC:HMA1	1.41	0.85
2:f:142:VAL:HG13	7:f:202:CYC:HBC1	1.58	0.85
1:e:86:ARG:NH2	7:e:201:CYC:O1A	2.10	0.84
7:D:201:CYC:HBA1	7:D:201:CYC:HMA3	1.58	0.84
2:N:39:ASP:OD1	7:N:202:CYC:HHB	1.78	0.84
2:X:82:CYS:SG	7:X:201:CYC:CAC	2.60	0.83
7:j:201:CYC:HMD1	7:j:201:CYC:HC	1.43	0.83
2:B:72:ASN:HD21	2:B:122:VAL:HG22	1.41	0.83
2:F:39:ASP:OD2	7:F:202:CYC:ND	2.12	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:86:MET:SD	7:L:201:CYC:HBC1	2.18	0.83
2:X:142:VAL:HG13	7:X:202:CYC:HBC1	1.60	0.83
7:F:201:CYC:HBD1	7:F:201:CYC:HHA	1.60	0.82
1:U:15:GLN:CA	3:k:19:ARG:NH2	2.43	0.82
1:O:145:ASP:OD1	7:X:202:CYC:HMA2	1.80	0.82
2:j:86:MET:CE	7:j:201:CYC:HBC1	2.10	0.81
2:b:127:VAL:HG22	7:b:201:CYC:H3C	1.60	0.81
1:e:59:VAL:CG1	7:e:201:CYC:HMC1	2.10	0.81
7:R:201:CYC:O1A	3:k:48:TYR:CA	2.29	0.81
1:Q:83:LYS:NZ	7:Q:201:CYC:O2A	2.12	0.80
1:K:59:VAL:CG1	7:K:201:CYC:HMC1	2.11	0.80
5:m:48:PHE:CB	5:m:84:HIS:HE1	1.95	0.80
7:D:201:CYC:HMA1	7:D:201:CYC:NB	1.93	0.80
2:H:39:ASP:OD2	7:H:202:CYC:ND	2.13	0.80
1:a:145:ASP:OD1	7:j:202:CYC:HMA2	1.82	0.80
7:F:202:CYC:HMA2	1:I:145:ASP:OD2	1.82	0.79
7:B:201:CYC:HMA1	7:B:201:CYC:NB	1.97	0.79
2:d:142:VAL:O	7:d:202:CYC:HBC2	1.82	0.79
2:Z:57:ARG:HD3	7:a:201:CYC:O1D	1.82	0.79
2:L:142:VAL:HG13	7:L:202:CYC:HBC1	1.64	0.79
2:N:79:MET:HE3	7:O:201:CYC:HBA1	1.62	0.79
1:e:118:ILE:HD12	2:j:79:MET:HE3	1.65	0.79
2:P:78:ARG:CG	7:P:201:CYC:HMD1	2.13	0.79
2:N:84:ARG:NH2	7:N:201:CYC:O1A	2.16	0.78
7:R:202:CYC:HMA2	1:U:145:ASP:OD1	1.84	0.78
7:N:202:CYC:OB	1:S:33:GLN:NE2	2.17	0.78
7:J:201:CYC:O1A	3:k:269:ASN:ND2	2.16	0.78
5:m:31:SER:H	5:m:34:THR:HB	1.49	0.78
2:J:142:VAL:HG13	7:J:202:CYC:HBC1	1.67	0.77
4:l:77:ALA:O	4:l:126:TYR:OH	2.03	0.77
7:F:201:CYC:HMA3	7:F:201:CYC:NB	1.99	0.77
1:i:84:CYS:SG	7:i:201:CYC:CBC	2.73	0.77
2:V:85:ASP:OD2	7:V:201:CYC:ND	2.17	0.77
2:X:82:CYS:HG	7:X:201:CYC:HAC2	1.45	0.77
2:d:39:ASP:OD2	7:d:202:CYC:ND	2.12	0.77
7:e:201:CYC:HMA1	2:j:79:MET:HE2	1.67	0.77
1:Q:33:GLN:CD	7:V:202:CYC:HBB2	2.08	0.76
7:P:201:CYC:HB	7:P:201:CYC:CMA	1.99	0.76
2:j:39:ASP:OD2	7:j:202:CYC:ND	2.17	0.76
2:D:39:ASP:OD2	7:D:202:CYC:ND	2.17	0.76
7:D:201:CYC:HB	7:D:201:CYC:CMA	1.97	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:H:201:CYC:HB	7:H:201:CYC:HMA3	1.50	0.76
5:m:48:PHE:HB3	5:m:84:HIS:CE1	2.15	0.76
7:F:201:CYC:NB	6:n:12:SER:OG	2.19	0.75
3:k:246:ILE:HD12	3:k:257:SER:O	1.86	0.75
2:j:86:MET:CE	7:j:201:CYC:CBC	2.63	0.75
2:X:86:MET:SD	7:X:201:CYC:HBC1	2.27	0.75
7:G:201:CYC:OB	2:L:75:THR:N	2.20	0.75
7:P:202:CYC:HBB2	1:W:33:GLN:NE2	2.01	0.75
7:G:201:CYC:HAB2	2:L:75:THR:HA	1.68	0.74
2:J:142:VAL:HG13	7:J:202:CYC:CBC	2.17	0.74
7:B:202:CYC:CAB	1:G:33:GLN:HE22	2.00	0.74
2:f:86:MET:HE3	7:f:201:CYC:CBC	2.17	0.74
7:F:201:CYC:HB	7:F:201:CYC:CMA	1.99	0.74
2:V:79:MET:CE	7:W:201:CYC:HMA1	2.18	0.74
2:T:142:VAL:O	7:T:202:CYC:HBC2	1.87	0.74
7:j:202:CYC:HB	7:j:202:CYC:CMA	2.01	0.74
7:T:202:CYC:HB	7:T:202:CYC:CMA	2.01	0.74
7:B:202:CYC:CMA	7:B:202:CYC:HB	2.01	0.73
2:X:43:ARG:HH12	7:X:202:CYC:HMC2	1.51	0.73
7:d:202:CYC:CMA	7:d:202:CYC:HB	2.01	0.73
2:J:127:VAL:HG22	7:J:201:CYC:H3C	1.69	0.73
2:N:77:ARG:NH2	7:N:201:CYC:O1A	2.19	0.73
1:U:15:GLN:HB2	3:k:19:ARG:HH22	1.53	0.73
7:Z:202:CYC:CMA	7:Z:202:CYC:HB	2.01	0.73
7:F:202:CYC:HB	7:F:202:CYC:CMA	2.01	0.73
7:D:202:CYC:HB	7:D:202:CYC:CMA	2.01	0.73
7:P:202:CYC:HB	7:P:202:CYC:CMA	2.01	0.73
7:R:202:CYC:HB	7:R:202:CYC:CMA	2.01	0.73
2:T:72:ASN:HD21	2:T:122:VAL:HG22	1.53	0.73
7:L:202:CYC:CMA	7:L:202:CYC:HB	2.01	0.73
7:N:202:CYC:CMA	7:N:202:CYC:HB	2.01	0.73
2:f:142:VAL:HG13	7:f:202:CYC:HBC2	1.71	0.73
1:g:84:CYS:SG	7:g:201:CYC:CBC	2.77	0.73
1:M:33:GLN:NE2	7:T:202:CYC:HBB2	2.04	0.73
7:V:202:CYC:CMA	7:V:202:CYC:HB	2.01	0.73
7:H:202:CYC:HB	7:H:202:CYC:CMA	2.01	0.73
7:h:202:CYC:HB	7:h:202:CYC:CMA	2.01	0.73
1:C:33:GLN:NE2	7:L:202:CYC:HBB2	2.04	0.72
1:I:59:VAL:HG11	7:I:201:CYC:HMC1	1.71	0.72
7:J:202:CYC:HB	7:J:202:CYC:CMA	2.01	0.72
2:P:78:ARG:HG2	7:P:201:CYC:HMD1	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:X:202:CYC:CMA	7:X:202:CYC:HB	2.01	0.72
7:b:202:CYC:CMA	7:b:202:CYC:HB	2.01	0.72
6:n:100:ASN:ND2	6:n:181:ARG:O	2.20	0.72
1:C:106:PRO:O	1:C:110:TYR:HB2	1.88	0.72
7:f:202:CYC:HB	7:f:202:CYC:CMA	2.01	0.72
7:L:201:CYC:HMA1	7:L:201:CYC:NB	2.04	0.72
2:d:142:VAL:HG13	7:d:202:CYC:HBC1	1.72	0.72
7:B:202:CYC:CBB	1:G:33:GLN:NE2	2.06	0.72
7:b:202:CYC:HMA2	1:i:145:ASP:OD1	1.88	0.72
2:X:142:VAL:O	7:X:202:CYC:HBC2	1.90	0.71
6:n:57:GLN:H	6:n:57:GLN:NE2	1.88	0.71
2:H:86:MET:HE3	7:H:201:CYC:HBC1	1.71	0.71
2:J:113:LEU:HD13	7:J:201:CYC:CMB	2.20	0.71
3:k:264:PRO:HD2	3:k:267:GLN:HB2	1.71	0.71
2:h:39:ASP:OD2	7:h:202:CYC:ND	2.16	0.71
1:K:33:GLN:HE22	1:K:145:ASP:HB3	1.55	0.71
7:F:201:CYC:C4B	6:n:12:SER:OG	2.39	0.70
3:k:277:ARG:HG3	3:k:277:ARG:NH1	2.01	0.70
7:F:201:CYC:O1D	6:n:169:ARG:NH2	2.19	0.70
7:B:201:CYC:HB	7:B:201:CYC:CMA	2.04	0.70
2:V:127:VAL:HG22	7:V:201:CYC:H3C	1.72	0.70
7:G:201:CYC:CAB	2:L:75:THR:HA	2.21	0.70
1:Q:33:GLN:HE22	7:V:202:CYC:HBB2	0.59	0.69
1:O:59:VAL:HG11	7:O:201:CYC:HMC1	1.74	0.69
7:d:201:CYC:O1A	4:l:156:THR:OG1	2.09	0.69
4:l:137:VAL:O	4:l:141:GLU:HG3	1.92	0.69
2:Z:85:ASP:OD2	7:Z:201:CYC:ND	2.25	0.69
7:Z:202:CYC:OB	1:e:33:GLN:NE2	2.24	0.69
2:B:86:MET:CE	7:B:201:CYC:HBC1	2.15	0.69
7:Z:201:CYC:O1A	4:l:48:HIS:CA	2.41	0.69
3:k:183:GLU:N	3:k:183:GLU:OE2	2.26	0.69
2:L:142:VAL:HG13	7:L:202:CYC:CBC	2.21	0.69
2:D:153:CYS:SG	7:D:202:CYC:HAC2	2.33	0.69
2:Z:57:ARG:CD	7:a:201:CYC:O1D	2.41	0.69
6:n:54:PHE:HB3	6:n:58:GLN:HB2	1.74	0.69
1:g:59:VAL:HG11	7:g:201:CYC:HMC1	1.73	0.68
7:B:202:CYC:OB	1:G:145:ASP:OD1	2.10	0.68
2:V:57:ARG:NE	7:W:201:CYC:O1D	2.23	0.68
1:A:145:ASP:OD1	7:H:202:CYC:HMA2	1.93	0.68
2:T:39:ASP:OD2	7:T:202:CYC:ND	2.20	0.68
1:i:84:CYS:CB	7:i:201:CYC:HAC2	2.21	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:153:CYS:SG	7:D:202:CYC:CAC	2.82	0.68
2:h:142:VAL:HG13	7:h:202:CYC:CBC	2.24	0.68
5:m:84:HIS:O	5:m:86:GLU:HG2	1.94	0.68
2:h:107:ASP:O	5:m:64:THR:HG23	1.95	0.67
2:b:120:LEU:HD12	7:b:201:CYC:O2D	1.94	0.67
1:E:59:VAL:HG11	7:E:201:CYC:HMC1	1.75	0.67
7:J:201:CYC:HAA1	3:k:268:LEU:HD23	1.76	0.67
6:n:69:GLU:O	6:n:73:LYS:HG3	1.94	0.67
1:C:33:GLN:NE2	7:L:202:CYC:OB	2.23	0.67
7:Z:201:CYC:HBB2	4:l:176:ALA:HB2	1.76	0.67
1:A:106:PRO:O	1:A:110:TYR:HB2	1.95	0.67
7:B:201:CYC:HC	7:B:201:CYC:CMD	2.08	0.67
7:D:201:CYC:HBD1	7:D:201:CYC:CHA	2.25	0.67
2:P:86:MET:HE3	7:P:201:CYC:CBC	2.24	0.67
3:k:101:LYS:HD2	3:k:170:LEU:HB3	1.77	0.66
2:R:82:CYS:HA	7:R:201:CYC:CHD	2.24	0.66
2:b:39:ASP:OD2	7:b:202:CYC:NA	2.28	0.66
7:Z:201:CYC:O1A	4:l:48:HIS:CB	2.43	0.66
2:b:84:ARG:O	2:b:88:ILE:HG13	1.95	0.66
2:F:38:ILE:HG22	7:F:202:CYC:HMB2	1.76	0.66
1:M:106:PRO:O	1:M:110:TYR:HB2	1.96	0.66
1:U:83:LYS:NZ	7:U:201:CYC:O2A	2.26	0.66
2:f:145:PRO:HB3	2:f:150:ARG:HH12	1.60	0.66
1:M:84:CYS:SG	7:M:201:CYC:CBC	2.83	0.66
2:P:78:ARG:HG3	7:P:201:CYC:HMD1	1.78	0.66
2:f:111:ASN:OD1	4:l:26:ARG:CZ	2.43	0.66
2:V:109:CYS:HA	7:V:201:CYC:CBB	2.26	0.65
2:B:86:MET:HE2	7:B:201:CYC:HBC2	1.70	0.65
7:B:202:CYC:OB	1:G:33:GLN:NE2	2.29	0.65
2:f:108:ARG:O	7:f:201:CYC:CBB	2.42	0.65
1:M:145:ASP:OD1	7:T:202:CYC:HMA2	1.96	0.65
2:H:142:VAL:HG13	7:H:202:CYC:HBC1	1.78	0.65
2:J:82:CYS:SG	7:J:201:CYC:CBC	2.82	0.65
1:W:140:HIS:HD2	1:W:142:LEU:H	1.43	0.65
2:F:153:CYS:SG	7:F:202:CYC:CAC	2.84	0.65
6:n:17:VAL:HG23	6:n:163:ARG:HH22	1.60	0.65
3:k:213:TYR:HA	3:k:258:ASN:ND2	2.12	0.65
2:B:88:ILE:HG21	7:B:201:CYC:HBB3	1.78	0.65
2:N:78:ARG:CG	7:N:201:CYC:HMD1	2.27	0.65
1:C:40:ALA:HB2	1:C:146:ALA:HB1	1.79	0.65
1:K:106:PRO:O	1:K:110:TYR:HB2	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:m:25:VAL:HG11	5:m:63:ILE:HG21	1.79	0.65
2:L:84:ARG:NH2	7:L:201:CYC:CGA	2.60	0.64
2:J:85:ASP:OD2	7:J:201:CYC:ND	2.30	0.64
2:P:142:VAL:HG13	7:P:202:CYC:HBC1	1.79	0.64
2:d:108:ARG:HG3	4:l:161:LYS:HG2	1.79	0.64
2:V:79:MET:HE1	7:W:201:CYC:CMA	2.26	0.64
1:W:62:LYS:HD2	1:W:131:GLU:HG3	1.78	0.64
1:a:106:PRO:O	1:a:110:TYR:HB2	1.97	0.64
7:h:201:CYC:C3B	5:m:61:ARG:HH12	2.11	0.64
1:A:94:ILE:HD11	7:A:201:CYC:HBB1	1.80	0.64
1:O:83:LYS:NZ	7:O:201:CYC:O2A	2.28	0.64
1:W:79:ARG:NH2	7:W:201:CYC:O2D	2.24	0.64
2:J:113:LEU:HD13	7:J:201:CYC:HMB1	1.79	0.64
1:A:14:SER:OG	6:n:29:ARG:NH1	2.31	0.64
2:X:38:ILE:HG22	7:X:202:CYC:HMB2	1.79	0.64
2:b:104:VAL:O	2:b:108:ARG:HB3	1.98	0.64
1:A:109:GLU:O	6:n:168:GLN:NE2	2.31	0.64
7:N:201:CYC:HBB2	3:k:92:GLN:HB2	1.79	0.64
2:b:142:VAL:O	7:b:202:CYC:HBC2	1.97	0.64
2:J:38:ILE:HG22	7:J:202:CYC:HMB2	1.79	0.64
2:B:111:ASN:O	6:n:174:LEU:HD11	1.99	0.63
2:J:104:VAL:HG23	2:J:108:ARG:HD3	1.79	0.63
1:e:122:PHE:HE2	2:j:79:MET:HE1	1.62	0.63
2:h:142:VAL:HG13	7:h:202:CYC:HBC1	1.80	0.63
2:N:60:PHE:HB3	2:N:67:ILE:HD11	1.79	0.63
1:Q:59:VAL:HG11	7:Q:201:CYC:HMC1	1.80	0.63
1:E:59:VAL:CG1	7:E:201:CYC:HMC1	2.29	0.63
1:a:83:LYS:NZ	7:a:201:CYC:O2A	2.22	0.63
1:K:24:LEU:HD22	2:L:38:ILE:HG23	1.81	0.62
7:L:201:CYC:HBA2	6:n:73:LYS:HB2	1.80	0.62
7:V:201:CYC:O2A	4:l:231:ALA:HB2	1.98	0.62
1:a:59:VAL:HG11	7:a:201:CYC:HMC1	1.81	0.62
2:R:120:LEU:HD13	7:R:201:CYC:HBD1	1.82	0.62
2:X:43:ARG:NH1	7:X:202:CYC:HMC2	2.13	0.62
7:j:201:CYC:HMD1	7:j:201:CYC:NC	2.13	0.62
2:N:38:ILE:HG22	7:N:202:CYC:HMB2	1.80	0.62
1:W:40:ALA:HB2	1:W:146:ALA:HB1	1.80	0.62
2:j:39:ASP:OD1	7:j:202:CYC:HHB	1.99	0.62
2:j:106:GLU:HA	2:j:110:LEU:HB2	1.82	0.62
1:A:11:THR:HA	6:n:29:ARG:HH12	1.64	0.62
2:f:106:GLU:HG3	2:f:166:ARG:HH21	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:86:MET:CE	7:H:201:CYC:HBC1	2.29	0.62
2:f:86:MET:HE3	7:f:201:CYC:HBC1	1.81	0.62
1:g:140:HIS:HD2	1:g:142:LEU:H	1.45	0.62
2:f:86:MET:HE3	7:f:201:CYC:HBC3	1.80	0.62
7:h:201:CYC:CAB	5:m:61:ARG:HH12	2.12	0.62
3:k:213:TYR:HA	3:k:258:ASN:HD22	1.65	0.62
2:V:109:CYS:HA	7:V:201:CYC:HBB2	1.81	0.62
4:l:210:SER:OG	4:l:224:ARG:NH2	2.33	0.61
7:P:201:CYC:HB	7:P:201:CYC:HMA2	1.62	0.61
2:X:142:VAL:HG13	7:X:202:CYC:CBC	2.27	0.61
1:A:33:GLN:NE2	7:H:202:CYC:OB	2.33	0.61
1:A:8:ALA:HB1	1:A:23:GLU:HG3	1.83	0.61
2:P:139:LEU:HD22	2:P:157:VAL:HG13	1.81	0.61
2:V:142:VAL:HG13	7:V:202:CYC:HBC1	1.83	0.61
2:J:82:CYS:SG	7:J:201:CYC:C3C	2.87	0.61
1:S:40:ALA:HB2	1:S:146:ALA:HB1	1.81	0.61
2:H:39:ASP:OD1	7:H:202:CYC:HHB	2.01	0.61
4:l:225:LEU:HG	4:l:270:ILE:HG12	1.83	0.61
2:b:126:SER:HB2	7:b:201:CYC:HMC2	1.83	0.61
1:U:15:GLN:HA	3:k:19:ARG:HD2	1.81	0.61
2:h:127:VAL:HG22	7:h:201:CYC:H3C	1.83	0.61
7:B:201:CYC:O2D	6:n:181:ARG:NH2	2.34	0.60
2:Z:54:ASN:OD1	2:Z:57:ARG:NH2	2.34	0.60
6:n:182:TYR:HB2	6:n:186:HIS:HB3	1.83	0.60
2:X:84:ARG:NH2	7:X:201:CYC:O1A	2.34	0.60
3:k:249:PRO:HB2	3:k:253:LYS:HB2	1.82	0.60
2:f:116:THR:HG23	5:m:44:SER:HB3	1.83	0.60
2:V:142:VAL:O	7:V:202:CYC:HBC2	2.02	0.60
2:H:118:VAL:HB	3:k:182:LEU:HD22	1.83	0.60
2:H:142:VAL:O	7:H:202:CYC:HBC2	2.00	0.60
2:L:104:VAL:HG23	2:L:108:ARG:HD2	1.84	0.60
1:U:59:VAL:HG11	7:U:201:CYC:HMC1	1.82	0.60
2:X:108:ARG:O	7:X:201:CYC:HBB1	2.01	0.60
2:H:38:ILE:HG22	7:H:202:CYC:HMB2	1.83	0.60
2:f:38:ILE:HG22	7:f:202:CYC:HMB2	1.84	0.60
1:A:117:GLU:HA	1:A:120:ARG:HG2	1.83	0.60
2:R:82:CYS:HA	7:R:201:CYC:HHD	1.83	0.60
7:R:201:CYC:O1A	3:k:48:TYR:CD2	2.55	0.60
2:Z:145:PRO:O	2:Z:150:ARG:NH2	2.35	0.60
7:b:202:CYC:OB	1:i:33:GLN:NE2	2.35	0.60
3:k:121:TYR:O	3:k:125:GLY:N	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:118:VAL:O	6:n:187:ARG:NH1	2.35	0.60
2:D:82:CYS:HA	7:D:201:CYC:HHD	1.84	0.59
2:R:142:VAL:O	7:R:202:CYC:HBC2	2.00	0.59
7:X:201:CYC:HMA2	4:l:254:SER:OG	2.01	0.59
7:h:201:CYC:C4B	5:m:61:ARG:NH1	2.44	0.59
4:l:67:ILE:HB	4:l:71:ASP:HB2	1.84	0.59
2:P:82:CYS:SG	7:P:201:CYC:HAC1	2.35	0.59
2:Z:142:VAL:HG13	7:Z:202:CYC:HBC1	1.83	0.59
1:c:140:HIS:HD2	1:c:142:LEU:H	1.48	0.59
7:V:202:CYC:HB	7:V:202:CYC:HMA1	1.67	0.59
7:b:202:CYC:HB	7:b:202:CYC:HMA1	1.68	0.59
7:h:201:CYC:HMA2	5:m:57:ASN:OD1	2.02	0.59
6:n:165:ILE:HD11	6:n:169:ARG:O	2.03	0.59
2:B:139:LEU:HD22	2:B:157:VAL:HG13	1.85	0.59
2:V:38:ILE:HG22	7:V:202:CYC:HMB1	1.83	0.59
7:Z:202:CYC:HB	7:Z:202:CYC:HMA1	1.68	0.59
2:j:142:VAL:O	7:j:202:CYC:HMC1	2.03	0.59
2:H:74:TYR:O	2:H:78:ARG:HB2	2.02	0.59
1:e:24:LEU:HD22	2:f:38:ILE:HG23	1.85	0.59
7:F:202:CYC:HB	7:F:202:CYC:HMA1	1.68	0.59
2:L:139:LEU:HD22	2:L:157:VAL:HG13	1.85	0.59
2:j:151:GLY:HA3	7:j:202:CYC:CMD	2.32	0.59
3:k:78:LYS:HD2	3:k:127:ASP:CG	2.27	0.59
7:G:201:CYC:OB	2:L:75:THR:CA	2.51	0.59
2:X:114:ARG:NH2	2:X:169:ALA:O	2.36	0.59
5:m:57:ASN:O	5:m:61:ARG:HG3	2.03	0.59
2:J:86:MET:SD	7:J:201:CYC:HBC1	2.43	0.59
5:m:51:VAL:HG22	5:m:59:GLU:HG3	1.83	0.59
7:J:202:CYC:HB	7:J:202:CYC:HMA1	1.68	0.59
1:O:59:VAL:CG1	7:O:201:CYC:HMC1	2.33	0.59
2:h:139:LEU:HD22	2:h:157:VAL:HG13	1.85	0.59
1:C:59:VAL:CG1	7:C:201:CYC:HMC1	2.33	0.58
1:I:72:ASN:HA	1:I:79:ARG:HH22	1.67	0.58
7:N:201:CYC:HB	7:N:201:CYC:CMA	1.96	0.58
2:R:85:ASP:OD2	7:R:201:CYC:ND	2.27	0.58
2:T:38:ILE:HG22	7:T:202:CYC:HMB2	1.85	0.58
1:C:2:LYS:HB3	6:n:94:ARG:NH2	2.18	0.58
7:D:202:CYC:HB	7:D:202:CYC:HMA1	1.68	0.58
7:L:202:CYC:HB	7:L:202:CYC:HMA1	1.67	0.58
7:R:202:CYC:HB	7:R:202:CYC:HMA1	1.68	0.58
7:T:202:CYC:HB	7:T:202:CYC:HMA1	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:62:GLU:HG3	2:X:63:GLN:HG3	1.85	0.58
2:f:139:LEU:HD22	2:f:157:VAL:HG13	1.84	0.58
3:k:120:LEU:HD11	3:k:124:GLN:OE1	2.02	0.58
2:H:116:THR:HA	3:k:257:SER:HB2	1.85	0.58
2:N:39:ASP:OD1	7:N:202:CYC:CHB	2.50	0.58
7:N:202:CYC:HB	7:N:202:CYC:HMA1	1.67	0.58
7:P:202:CYC:HB	7:P:202:CYC:HMA1	1.67	0.58
7:X:202:CYC:HB	7:X:202:CYC:HMA1	1.68	0.58
1:C:26:ILE:HG12	1:K:26:ILE:HG12	1.86	0.58
7:H:202:CYC:HB	7:H:202:CYC:HMA1	1.67	0.58
2:P:142:VAL:O	7:P:202:CYC:HBC2	2.03	0.58
2:d:139:LEU:HD22	2:d:157:VAL:HG13	1.85	0.58
7:f:202:CYC:HB	7:f:202:CYC:HMA1	1.68	0.58
2:h:104:VAL:O	2:h:108:ARG:HB2	2.02	0.58
2:h:111:ASN:HB2	5:m:69:LYS:NZ	2.17	0.58
2:D:142:VAL:O	7:D:202:CYC:HBC2	2.04	0.58
2:N:78:ARG:HG3	7:N:201:CYC:HMD1	1.85	0.58
2:T:142:VAL:HG13	7:T:202:CYC:HBC1	1.84	0.58
7:h:201:CYC:HBA2	5:m:56:MET:HB2	1.85	0.58
3:k:181:GLN:HB2	3:k:188:ARG:NH2	2.19	0.58
7:R:201:CYC:O1A	3:k:48:TYR:HB2	2.04	0.58
1:c:88:ILE:HD11	7:c:201:CYC:HBC1	1.85	0.58
7:a:201:CYC:HMD1	7:a:201:CYC:NC	2.16	0.58
2:b:139:LEU:HD22	2:b:157:VAL:HG13	1.85	0.58
7:d:202:CYC:HB	7:d:202:CYC:HMA1	1.68	0.58
4:l:120:LEU:HD11	5:m:12:ARG:HH12	1.69	0.58
5:m:59:GLU:O	5:m:63:ILE:HG13	2.04	0.58
7:B:202:CYC:HB	7:B:202:CYC:HMA1	1.67	0.58
1:G:33:GLN:NE2	1:G:159:GLU:OE1	2.37	0.58
1:I:59:VAL:CG1	7:I:201:CYC:HMC1	2.34	0.58
2:J:103:SER:O	2:J:107:ASP:HB2	2.04	0.58
7:h:202:CYC:HB	7:h:202:CYC:HMA1	1.68	0.58
7:A:201:CYC:HMD1	7:A:201:CYC:NC	2.16	0.57
2:B:74:TYR:O	2:B:75:THR:HG23	2.04	0.57
1:C:66:THR:HB	7:C:201:CYC:OC	2.03	0.57
2:N:142:VAL:O	7:N:202:CYC:HBC2	2.04	0.57
2:N:145:PRO:O	2:N:150:ARG:NH2	2.36	0.57
1:Q:145:ASP:OD1	7:V:202:CYC:OB	2.22	0.57
7:Z:202:CYC:HBB2	1:e:33:GLN:CD	2.20	0.57
1:g:72:ASN:O	1:g:79:ARG:NH2	2.37	0.57
1:E:17:ARG:NH1	1:E:23:GLU:OE1	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:100:VAL:HG21	2:R:19:LEU:HD12	1.85	0.57
2:P:104:VAL:HG23	2:P:108:ARG:HD2	1.86	0.57
7:j:202:CYC:HB	7:j:202:CYC:HMA1	1.67	0.57
2:f:103:SER:O	2:f:107:ASP:HB2	2.04	0.57
2:D:127:VAL:HG22	7:D:201:CYC:H3C	1.87	0.57
7:E:201:CYC:HMD1	7:E:201:CYC:NC	2.16	0.57
2:V:88:ILE:HD11	4:l:238:ARG:NH2	2.19	0.57
3:k:246:ILE:HG22	3:k:254:VAL:HG21	1.87	0.57
1:G:66:THR:HB	7:G:201:CYC:OC	2.05	0.57
1:K:83:LYS:CE	7:K:201:CYC:O2A	2.53	0.57
2:X:84:ARG:HH22	7:X:201:CYC:CGA	2.18	0.57
1:e:86:ARG:NH1	1:e:87:ASP:OD1	2.38	0.57
7:Z:202:CYC:HMA2	1:e:145:ASP:OD1	2.05	0.57
2:b:127:VAL:HG22	7:b:201:CYC:HMC1	1.85	0.57
2:j:142:VAL:O	7:j:202:CYC:HBC2	2.05	0.57
2:b:108:ARG:NH2	4:l:92:GLN:OE1	2.37	0.57
7:h:201:CYC:CAB	5:m:61:ARG:NH1	2.68	0.57
2:f:143:ASN:HA	7:f:202:CYC:HMC3	1.87	0.57
5:m:31:SER:O	5:m:34:THR:N	2.37	0.57
2:B:72:ASN:ND2	2:B:122:VAL:HG22	2.16	0.56
2:F:82:CYS:SG	7:F:201:CYC:C3C	2.93	0.56
1:S:72:ASN:HA	1:S:79:ARG:HH22	1.70	0.56
4:l:117:HIS:HB3	4:l:129:GLU:OE2	2.04	0.56
1:C:104:THR:OG1	1:K:17:ARG:NH2	2.38	0.56
2:F:39:ASP:OD1	7:F:202:CYC:HHB	2.05	0.56
1:g:59:VAL:CG1	7:g:201:CYC:HMC1	2.35	0.56
7:D:202:CYC:HMA2	1:K:145:ASP:OD1	2.06	0.56
2:H:139:LEU:HD21	2:H:161:ALA:HB2	1.87	0.56
1:K:83:LYS:NZ	7:K:201:CYC:O2A	2.38	0.56
2:N:153:CYS:SG	7:N:202:CYC:CAC	2.93	0.56
1:Q:140:HIS:HD2	1:Q:142:LEU:H	1.52	0.56
2:R:77:ARG:HG2	3:k:50:MET:HE3	1.87	0.56
2:R:142:VAL:HG13	7:R:202:CYC:HBC1	1.88	0.56
2:T:3:ASP:H	2:T:6:THR:HG1	1.50	0.56
7:X:201:CYC:HMA2	7:X:201:CYC:HB	1.69	0.56
4:l:28:THR:OG1	4:l:31:GLU:OE1	2.21	0.56
1:G:83:LYS:NZ	7:G:201:CYC:O2A	2.38	0.56
2:L:88:ILE:HG12	2:L:91:ARG:HH21	1.71	0.56
2:N:78:ARG:HG2	7:N:201:CYC:HMD1	1.88	0.56
1:c:32:ARG:HD3	1:g:28:PHE:HB3	1.88	0.56
1:K:84:CYS:SG	7:K:201:CYC:CBC	2.91	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:60:PHE:HB3	2:T:67:ILE:HD13	1.88	0.56
6:n:77:ILE:HB	6:n:81:ASP:HB2	1.87	0.56
1:Q:104:THR:OG1	1:U:17:ARG:NH2	2.37	0.56
1:c:17:ARG:NH2	1:g:104:THR:OG1	2.34	0.56
2:B:77:ARG:HD3	6:n:95:ARG:NH1	2.21	0.56
7:Q:201:CYC:HMD1	7:Q:201:CYC:NC	2.16	0.56
1:a:24:LEU:HD22	2:b:38:ILE:HG23	1.87	0.56
2:f:108:ARG:NH1	4:l:31:GLU:OE2	2.39	0.56
3:k:172:ARG:NH1	3:k:202:VAL:O	2.36	0.56
5:m:38:ASP:OD2	5:m:38:ASP:N	2.39	0.56
2:P:57:ARG:NE	7:Q:201:CYC:O1D	2.31	0.56
1:U:15:GLN:O	3:k:19:ARG:NH2	2.39	0.56
7:Z:202:CYC:HBB2	1:e:33:GLN:HE22	0.56	0.56
1:C:120:ARG:NH1	1:G:172:SER:O	2.40	0.55
7:D:202:CYC:HMA1	7:D:202:CYC:NB	2.22	0.55
7:H:201:CYC:HBB2	3:k:255:ARG:HH21	1.71	0.55
1:U:15:GLN:HA	3:k:19:ARG:NH2	2.10	0.55
7:V:202:CYC:HMA1	7:V:202:CYC:NB	2.22	0.55
7:X:202:CYC:HMA1	7:X:202:CYC:NB	2.22	0.55
1:G:24:LEU:HD22	2:H:38:ILE:HG23	1.88	0.55
7:H:202:CYC:HMA1	7:H:202:CYC:NB	2.22	0.55
1:Q:72:ASN:O	1:Q:79:ARG:NH2	2.40	0.55
7:j:201:CYC:HBA1	4:l:60:SER:O	2.07	0.55
6:n:31:PHE:HB3	6:n:45:LEU:HG	1.89	0.55
7:F:201:CYC:HHA	7:F:201:CYC:CBD	2.34	0.55
7:i:201:CYC:HMD1	7:i:201:CYC:NC	2.16	0.55
4:l:67:ILE:HB	4:l:71:ASP:CB	2.37	0.55
2:B:35:ASN:HB2	7:B:202:CYC:O2D	2.06	0.55
7:B:202:CYC:HMA1	7:B:202:CYC:NB	2.22	0.55
7:C:201:CYC:HMD1	7:C:201:CYC:NC	2.16	0.55
2:J:113:LEU:HD13	7:J:201:CYC:HMB2	1.86	0.55
7:L:202:CYC:HMA1	7:L:202:CYC:NB	2.22	0.55
1:M:128:TRP:CD2	7:M:201:CYC:HMC3	2.42	0.55
7:M:201:CYC:HMD1	7:M:201:CYC:NC	2.16	0.55
7:R:202:CYC:HMA1	7:R:202:CYC:NB	2.22	0.55
2:X:145:PRO:O	2:X:150:ARG:NH2	2.40	0.55
2:P:86:MET:HE3	7:P:201:CYC:HBC1	1.87	0.55
7:X:201:CYC:HB	7:X:201:CYC:CMA	2.20	0.55
7:Z:202:CYC:HMA1	7:Z:202:CYC:NB	2.22	0.55
7:h:202:CYC:HMA1	7:h:202:CYC:NB	2.22	0.55
4:l:227:VAL:HG21	4:l:260:ILE:HD13	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:F:202:CYC:HMA1	7:F:202:CYC:NB	2.22	0.55
7:F:202:CYC:OB	1:I:33:GLN:NE2	2.39	0.55
1:A:100:VAL:HG21	2:B:19:LEU:HD12	1.89	0.55
7:Z:201:CYC:O1A	4:l:48:HIS:CG	2.60	0.55
7:f:202:CYC:HMA1	7:f:202:CYC:NB	2.22	0.55
7:j:202:CYC:HMA1	7:j:202:CYC:NB	2.22	0.55
1:C:72:ASN:O	1:C:79:ARG:NH2	2.40	0.55
2:R:60:PHE:HB3	2:R:67:ILE:HD13	1.89	0.55
7:T:202:CYC:HMA1	7:T:202:CYC:NB	2.22	0.55
1:c:40:ALA:HB2	1:c:146:ALA:HB1	1.89	0.55
1:c:83:LYS:HZ2	7:c:201:CYC:CGA	2.19	0.55
6:n:104:ARG:NH2	6:n:180:PRO:HD2	2.22	0.55
7:P:202:CYC:HMA1	7:P:202:CYC:NB	2.22	0.55
7:d:201:CYC:HBB2	4:l:162:THR:HG1	1.71	0.55
2:N:39:ASP:OD2	7:N:202:CYC:ND	2.31	0.54
2:P:75:THR:HA	7:Q:201:CYC:HAB2	1.87	0.54
4:l:62:LEU:O	4:l:65:ARG:HD2	2.07	0.54
2:P:78:ARG:HG2	7:P:201:CYC:CMD	2.35	0.54
7:T:202:CYC:HB	7:T:202:CYC:HMA2	1.73	0.54
7:b:202:CYC:HMA1	7:b:202:CYC:NB	2.22	0.54
2:f:57:ARG:HD3	7:g:201:CYC:O1D	2.08	0.54
7:j:202:CYC:HMA2	7:j:202:CYC:HB	1.72	0.54
3:k:70:ARG:NH1	3:k:135:ASP:OD1	2.37	0.54
4:l:142:ASN:ND2	4:l:152:ARG:HH11	2.05	0.54
4:l:163:VAL:HG23	4:l:199:ALA:HB2	1.89	0.54
7:N:202:CYC:HB	7:N:202:CYC:HMA2	1.73	0.54
1:a:32:ARG:NH2	1:a:33:GLN:OE1	2.41	0.54
2:h:114:ARG:NH1	2:h:172:ALA:O	2.41	0.54
2:j:85:ASP:OD2	7:j:201:CYC:ND	2.41	0.54
4:l:160:GLN:HG2	4:l:161:LYS:N	2.17	0.54
2:B:142:VAL:O	7:B:202:CYC:HBC2	2.08	0.54
1:E:24:LEU:HD22	2:F:38:ILE:HG23	1.88	0.54
2:J:3:ASP:H	2:J:6:THR:HB	1.72	0.54
7:L:201:CYC:HMA1	7:L:201:CYC:HB	1.71	0.54
1:U:24:LEU:HD22	2:V:38:ILE:HG23	1.89	0.54
2:j:142:VAL:HG13	7:j:202:CYC:HBC1	1.88	0.54
3:k:83:LYS:HE2	3:k:126:PHE:CD2	2.43	0.54
7:N:202:CYC:HMA1	7:N:202:CYC:NB	2.22	0.54
7:R:202:CYC:HMA2	7:R:202:CYC:HB	1.73	0.54
1:g:100:VAL:HG21	2:h:19:LEU:HD12	1.89	0.54
7:O:201:CYC:HMD1	7:O:201:CYC:NC	2.16	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:32:ARG:NH2	1:Y:33:GLN:OE1	2.41	0.54
2:Z:142:VAL:HG13	7:Z:202:CYC:CBC	2.37	0.54
1:a:26:ILE:HG12	1:i:26:ILE:HG12	1.90	0.54
7:h:202:CYC:HMA2	7:h:202:CYC:HB	1.73	0.54
2:B:82:CYS:HB2	7:B:201:CYC:HMD3	1.90	0.54
2:R:82:CYS:HB2	7:R:201:CYC:C4C	2.38	0.54
2:T:114:ARG:NH1	2:T:172:ALA:O	2.41	0.54
7:Z:202:CYC:HB	7:Z:202:CYC:HMA2	1.73	0.54
1:c:26:ILE:HG12	1:g:26:ILE:HG12	1.89	0.54
5:m:48:PHE:CB	5:m:84:HIS:CE1	2.83	0.54
2:J:75:THR:N	7:K:201:CYC:OB	2.41	0.54
1:M:33:GLN:NE2	7:T:202:CYC:OB	2.26	0.54
1:a:66:THR:HB	7:a:201:CYC:OC	2.07	0.54
6:n:84:ARG:HD3	6:n:141:ASN:ND2	2.23	0.54
7:D:202:CYC:HB	7:D:202:CYC:HMA2	1.72	0.54
7:H:202:CYC:HB	7:H:202:CYC:HMA2	1.72	0.54
7:L:202:CYC:HB	7:L:202:CYC:HMA2	1.73	0.54
2:b:127:VAL:CG2	7:b:201:CYC:HMC1	2.38	0.54
7:F:202:CYC:HMA2	7:F:202:CYC:HB	1.73	0.53
7:J:202:CYC:HMA2	7:J:202:CYC:HB	1.73	0.53
7:J:202:CYC:HMA1	7:J:202:CYC:NB	2.22	0.53
2:L:84:ARG:NH1	2:L:85:ASP:OD1	2.41	0.53
7:L:201:CYC:HBB2	6:n:71:GLN:HE21	1.73	0.53
2:N:142:VAL:HG13	7:N:202:CYC:HBC1	1.90	0.53
2:V:104:VAL:HG23	2:V:108:ARG:HD3	1.90	0.53
1:W:59:VAL:HG11	7:W:201:CYC:HMC1	1.90	0.53
7:d:202:CYC:HMA1	7:d:202:CYC:NB	2.22	0.53
2:f:1:MET:H1	4:l:28:THR:CG2	2.21	0.53
6:n:104:ARG:HH22	6:n:180:PRO:HD2	1.73	0.53
2:B:36:LYS:NZ	2:B:152:ASP:O	2.40	0.53
1:Q:59:VAL:CG1	7:Q:201:CYC:HMC1	2.38	0.53
2:X:127:VAL:HG22	7:X:201:CYC:H3C	1.90	0.53
2:b:79:MET:HE3	7:c:201:CYC:HBA1	1.89	0.53
2:f:1:MET:N	4:l:28:THR:HG21	2.23	0.53
2:h:82:CYS:SG	7:h:201:CYC:C3C	2.95	0.53
2:H:107:ASP:HB3	6:n:36:THR:HB	1.90	0.53
2:H:127:VAL:HG22	7:H:201:CYC:H3C	1.90	0.53
1:O:26:ILE:HG12	1:W:26:ILE:HG12	1.89	0.53
7:P:202:CYC:HB	7:P:202:CYC:HMA2	1.73	0.53
2:h:62:GLU:HG3	2:h:63:GLN:HG3	1.90	0.53
1:i:66:THR:HB	7:i:201:CYC:OC	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:l:152:ARG:O	4:l:157:GLN:NE2	2.40	0.53
6:n:54:PHE:HE1	6:n:92:PHE:HB2	1.72	0.53
1:Q:30:ARG:NH2	1:Q:100:VAL:O	2.41	0.53
7:T:201:CYC:HMA2	7:T:201:CYC:HB	1.73	0.53
7:h:201:CYC:CBB	5:m:61:ARG:HH12	1.91	0.53
3:k:109:PHE:O	3:k:166:ARG:NH1	2.41	0.53
3:k:267:GLN:HE21	3:k:267:GLN:HA	1.74	0.53
7:B:201:CYC:HC	7:B:201:CYC:HMD2	1.71	0.53
2:J:126:SER:HB3	7:J:201:CYC:HMC2	1.91	0.53
2:N:139:LEU:HD22	2:N:157:VAL:HG13	1.91	0.53
1:S:100:VAL:HG21	2:T:19:LEU:HD12	1.90	0.53
2:X:15:ARG:NH2	2:b:62:GLU:O	2.40	0.53
2:d:86:MET:CG	7:d:201:CYC:HBC1	2.38	0.53
1:A:24:LEU:HD22	2:B:38:ILE:HG23	1.91	0.53
1:C:59:VAL:HG11	7:C:201:CYC:HMC1	1.89	0.53
2:H:109:CYS:HA	7:H:201:CYC:HAB2	1.90	0.53
1:Q:166:TYR:OH	1:U:17:ARG:NH1	2.41	0.53
1:c:59:VAL:HG11	7:c:201:CYC:HMC1	1.89	0.53
2:f:1:MET:H1	4:l:28:THR:HG23	1.74	0.53
7:B:202:CYC:HB	7:B:202:CYC:HMA2	1.73	0.53
6:n:95:ARG:HG3	6:n:95:ARG:HH11	1.73	0.53
1:a:59:VAL:CG1	7:a:201:CYC:HMC1	2.39	0.53
1:i:128:TRP:CD2	7:i:201:CYC:HMC3	2.44	0.53
7:L:202:CYC:CMA	7:L:202:CYC:NB	2.72	0.53
7:h:202:CYC:CMA	7:h:202:CYC:NB	2.72	0.53
1:I:6:THR:HG23	2:J:1:MET:HE2	1.91	0.52
7:X:202:CYC:CMA	7:X:202:CYC:NB	2.72	0.52
2:H:6:THR:HA	2:H:9:VAL:HB	1.92	0.52
2:L:127:VAL:HG22	7:L:201:CYC:H3C	1.92	0.52
2:T:103:SER:O	2:T:107:ASP:HB2	2.09	0.52
2:X:145:PRO:HB3	2:X:150:ARG:HH12	1.75	0.52
1:c:1:MET:HE3	2:d:6:THR:HB	1.91	0.52
7:e:201:CYC:HMD1	7:e:201:CYC:NC	2.16	0.52
2:h:142:VAL:HG13	7:h:202:CYC:HBC2	1.91	0.52
1:G:30:ARG:O	1:G:34:ALA:HB2	2.09	0.52
7:P:201:CYC:CMA	7:P:201:CYC:NB	2.72	0.52
7:X:201:CYC:HBA1	4:l:254:SER:OG	2.09	0.52
1:Y:24:LEU:HD22	2:Z:38:ILE:HG23	1.91	0.52
2:Z:103:SER:O	2:Z:107:ASP:HB2	2.10	0.52
1:A:96:THR:HA	1:A:99:LEU:HD12	1.91	0.52
2:H:142:VAL:HG13	7:H:202:CYC:CBC	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:147:ARG:NH1	1:O:148:ASP:OD2	2.42	0.52
2:f:104:VAL:HG23	2:f:108:ARG:HD3	1.91	0.52
2:B:144:ASP:OD1	2:B:146:ASN:ND2	2.43	0.52
2:T:104:VAL:HG23	2:T:108:ARG:HD2	1.90	0.52
2:f:111:ASN:OD1	4:l:26:ARG:NH2	2.42	0.52
2:j:36:LYS:NZ	7:j:202:CYC:HMD2	2.24	0.52
7:B:201:CYC:CMD	7:B:201:CYC:NC	2.73	0.52
7:D:202:CYC:HBB1	1:K:159:GLU:OE2	2.09	0.52
1:O:24:LEU:HD22	2:P:38:ILE:HG23	1.92	0.52
1:Q:33:GLN:NE2	7:V:202:CYC:CBB	2.15	0.52
2:b:57:ARG:HD3	7:c:201:CYC:O1D	2.10	0.52
2:b:67:ILE:HD12	7:c:201:CYC:O1A	2.10	0.52
7:b:202:CYC:HB	7:b:202:CYC:HMA2	1.72	0.52
4:l:142:ASN:HD22	4:l:152:ARG:NH1	2.06	0.52
2:B:114:ARG:NH1	2:B:172:ALA:O	2.43	0.52
7:d:202:CYC:HB	7:d:202:CYC:HMA2	1.72	0.52
2:h:7:ARG:NH2	2:h:103:SER:OG	2.43	0.52
1:A:17:ARG:NH2	1:G:104:THR:OG1	2.42	0.52
7:R:202:CYC:CMA	7:R:202:CYC:NB	2.72	0.52
7:f:202:CYC:HB	7:f:202:CYC:HMA2	1.73	0.52
1:C:29:GLY:HA2	1:C:32:ARG:HG2	1.92	0.52
1:E:30:ARG:NH2	1:E:100:VAL:O	2.43	0.52
2:J:33:GLU:HA	2:J:36:LYS:HE3	1.92	0.52
2:J:39:ASP:OD1	7:J:202:CYC:HHB	2.10	0.52
1:U:8:ALA:HB1	1:U:23:GLU:HG3	1.92	0.52
3:k:216:SER:O	3:k:220:ASN:ND2	2.39	0.52
1:E:66:THR:HB	7:E:201:CYC:OC	2.09	0.52
2:L:38:ILE:HG22	7:L:202:CYC:HMB2	1.92	0.52
1:W:59:VAL:CG1	7:W:201:CYC:HMC1	2.40	0.52
7:W:201:CYC:HMD1	7:W:201:CYC:NC	2.16	0.52
1:Y:100:VAL:HG21	2:Z:19:LEU:HD22	1.91	0.52
2:Z:86:MET:CG	7:Z:201:CYC:HBC1	2.40	0.52
7:c:201:CYC:HMD1	7:c:201:CYC:NC	2.16	0.52
3:k:40:TYR:OH	3:k:54:ARG:O	2.28	0.52
2:J:88:ILE:HG12	2:J:91:ARG:HH21	1.75	0.51
7:S:201:CYC:HMD1	7:S:201:CYC:NC	2.16	0.51
2:T:43:ARG:NH1	2:T:142:VAL:O	2.43	0.51
1:U:59:VAL:CG1	7:U:201:CYC:HMC1	2.39	0.51
1:c:59:VAL:CG1	7:c:201:CYC:HMC1	2.40	0.51
2:j:38:ILE:HG22	7:j:202:CYC:HMB1	1.92	0.51
7:N:202:CYC:CMA	7:N:202:CYC:NB	2.72	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:165:ASP:HA	1:O:168:ILE:HB	1.93	0.51
2:P:39:ASP:OD1	7:P:202:CYC:HHB	2.11	0.51
7:V:202:CYC:HB	7:V:202:CYC:HMA2	1.73	0.51
1:W:24:LEU:HD22	2:X:38:ILE:HG23	1.93	0.51
1:C:32:ARG:HD3	1:K:28:PHE:HB3	1.92	0.51
2:D:145:PRO:O	2:D:150:ARG:NH1	2.43	0.51
1:K:25:GLN:HA	1:K:28:PHE:HB2	1.92	0.51
1:C:94:ILE:HD11	7:C:201:CYC:HBB1	1.92	0.51
1:Q:33:GLN:NE2	1:Q:159:GLU:OE1	2.43	0.51
2:V:92:TYR:OH	3:k:24:ARG:NH2	2.43	0.51
2:V:113:LEU:HD22	7:V:201:CYC:HMB2	1.92	0.51
2:X:39:ASP:OD1	7:X:202:CYC:HHB	2.10	0.51
3:k:138:GLU:OE2	3:k:152:ARG:NH2	2.41	0.51
1:A:47:ASN:OD1	1:A:50:SER:OG	2.28	0.51
2:D:77:ARG:HG2	6:n:3:LEU:HD22	1.93	0.51
1:Y:17:ARG:NH1	1:e:108:ASP:OD1	2.43	0.51
3:k:176:ASN:ND2	3:k:180:SER:O	2.42	0.51
7:B:202:CYC:HBB1	1:G:159:GLU:OE1	2.11	0.51
7:H:201:CYC:HMA3	7:H:201:CYC:NB	2.23	0.51
7:V:202:CYC:CMA	7:V:202:CYC:NB	2.72	0.51
7:X:202:CYC:HMA2	7:X:202:CYC:HB	1.73	0.51
2:J:107:ASP:OD2	3:k:281:LYS:NZ	2.43	0.51
2:V:114:ARG:NH2	2:V:169:ALA:O	2.43	0.51
1:W:128:TRP:CD2	7:W:201:CYC:HMC3	2.46	0.51
3:k:181:GLN:HB2	3:k:188:ARG:HH21	1.73	0.51
6:n:161:GLN:HG3	6:n:176:PHE:CE2	2.46	0.51
7:G:201:CYC:HMD1	7:G:201:CYC:NC	2.16	0.51
2:V:91:ARG:NH1	2:V:95:TYR:OH	2.43	0.51
2:b:142:VAL:HG13	7:b:202:CYC:HBC1	1.93	0.51
1:i:99:LEU:HD23	1:i:159:GLU:HG2	1.92	0.51
3:k:106:ARG:NH1	3:k:107:ALA:O	2.43	0.51
2:B:86:MET:HE1	2:B:130:GLY:HA3	1.92	0.51
7:K:201:CYC:HMD1	7:K:201:CYC:NC	2.16	0.51
1:Q:83:LYS:HZ2	7:Q:201:CYC:CGA	2.18	0.51
2:R:35:ASN:HB2	7:R:202:CYC:O2D	2.10	0.51
5:m:59:GLU:HA	5:m:59:GLU:OE1	2.11	0.51
7:T:202:CYC:NC	7:T:202:CYC:HMD1	2.26	0.51
2:D:142:VAL:HG13	7:D:202:CYC:HBC1	1.94	0.50
1:I:1:MET:HG2	1:I:109:GLU:HG3	1.93	0.50
1:M:59:VAL:HG11	7:M:201:CYC:HMC1	1.91	0.50
2:f:60:PHE:HB3	2:f:67:ILE:HD13	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:f:89:ILE:HG21	2:f:131:VAL:HG22	1.93	0.50
1:i:13:ASP:OD2	2:j:108:ARG:NH1	2.44	0.50
7:j:202:CYC:CMA	7:j:202:CYC:NB	2.72	0.50
2:F:15:ARG:NH1	2:F:17:GLU:OE2	2.44	0.50
7:L:201:CYC:HBA1	6:n:70:SER:O	2.11	0.50
7:X:202:CYC:NC	7:X:202:CYC:HMD1	2.26	0.50
7:F:202:CYC:CMA	7:F:202:CYC:NB	2.72	0.50
7:L:202:CYC:NC	7:L:202:CYC:HMD1	2.26	0.50
2:f:84:ARG:NH2	7:f:201:CYC:O1A	2.44	0.50
2:j:139:LEU:HD22	2:j:157:VAL:HG13	1.94	0.50
1:E:44:LEU:O	1:E:48:ALA:HB2	2.10	0.50
1:M:26:ILE:HG12	1:S:26:ILE:HG12	1.93	0.50
1:S:30:ARG:NH2	1:S:100:VAL:O	2.45	0.50
2:X:104:VAL:O	2:X:108:ARG:HB2	2.12	0.50
1:g:66:THR:HB	7:g:201:CYC:OC	2.12	0.50
7:h:201:CYC:OB	5:m:61:ARG:NH2	2.44	0.50
2:D:33:GLU:HG3	2:D:156:ILE:HD11	1.94	0.50
1:E:20:SER:OG	1:I:2:LYS:NZ	2.44	0.50
7:G:201:CYC:O1D	2:L:57:ARG:NE	2.36	0.50
7:G:201:CYC:CBB	2:L:75:THR:HA	2.42	0.50
7:j:202:CYC:NC	7:j:202:CYC:HMD1	2.26	0.50
4:l:109:TYR:OH	4:l:160:GLN:HB2	2.11	0.50
7:H:202:CYC:NC	7:H:202:CYC:HMD1	2.26	0.50
2:X:139:LEU:HD22	2:X:157:VAL:HG13	1.92	0.50
3:k:209:ALA:HB1	3:k:281:LYS:HD2	1.93	0.50
6:n:84:ARG:HB2	6:n:144:LEU:HD12	1.94	0.50
7:J:201:CYC:HBB1	3:k:276:ASN:ND2	2.26	0.50
2:T:106:GLU:HA	2:T:110:LEU:HB2	1.94	0.50
1:U:140:HIS:HD2	1:U:142:LEU:H	1.60	0.50
2:b:153:CYS:SG	7:b:202:CYC:CAC	3.00	0.50
1:c:104:THR:OG1	1:g:17:ARG:NH2	2.45	0.50
2:f:62:GLU:OE2	2:f:133:LYS:NZ	2.34	0.50
4:l:140:THR:O	5:m:39:TYR:HE1	1.95	0.50
1:E:32:ARG:NH1	1:E:145:ASP:OD2	2.45	0.49
2:F:153:CYS:SG	7:F:202:CYC:HAC2	2.51	0.49
2:P:86:MET:HE3	7:P:201:CYC:HBC3	1.93	0.49
2:Z:139:LEU:HD22	2:Z:157:VAL:HG13	1.94	0.49
1:a:116:ASP:OD1	1:a:116:ASP:N	2.44	0.49
3:k:213:TYR:O	3:k:214:ARG:NE	2.45	0.49
6:n:185:ASP:N	6:n:185:ASP:OD1	2.45	0.49
2:F:82:CYS:SG	7:F:201:CYC:CBC	2.96	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:39:ASP:OD2	7:N:202:CYC:NA	2.44	0.49
1:O:73:ASN:ND2	1:O:123:ASP:OD2	2.44	0.49
2:R:74:TYR:O	2:R:78:ARG:HB2	2.12	0.49
1:a:120:ARG:NH1	1:e:172:SER:O	2.45	0.49
1:i:18:PHE:HB3	2:j:45:THR:HG23	1.94	0.49
1:i:23:GLU:HA	1:i:26:ILE:HD12	1.94	0.49
2:J:2:PHE:HD1	2:J:6:THR:HG22	1.77	0.49
1:K:83:LYS:HE2	7:K:201:CYC:O2A	2.11	0.49
1:S:59:VAL:HG11	7:S:201:CYC:HMC1	1.95	0.49
1:S:117:GLU:HG2	1:S:120:ARG:HH22	1.76	0.49
7:Y:201:CYC:HMD1	7:Y:201:CYC:NC	2.16	0.49
2:L:135:LYS:NZ	2:L:165:ASP:OD1	2.37	0.49
2:X:6:THR:HA	2:X:9:VAL:HB	1.95	0.49
1:i:108:ASP:OD1	1:i:166:TYR:OH	2.28	0.49
2:j:142:VAL:HG13	7:j:202:CYC:CBC	2.43	0.49
2:j:151:GLY:HA3	7:j:202:CYC:HMD3	1.93	0.49
2:D:36:LYS:HG2	7:D:202:CYC:C1D	2.43	0.49
2:N:77:ARG:HH21	7:N:201:CYC:CGA	2.19	0.49
1:Y:66:THR:HB	7:Y:201:CYC:OC	2.12	0.49
4:l:70:ARG:HG3	4:l:139:TYR:CE1	2.47	0.49
1:E:83:LYS:NZ	7:E:201:CYC:O2A	2.42	0.49
1:Q:32:ARG:HD3	1:U:28:PHE:HB3	1.94	0.49
1:i:83:LYS:NZ	7:i:201:CYC:O2A	2.45	0.49
1:Y:17:ARG:NH2	1:e:104:THR:OG1	2.46	0.49
2:f:72:ASN:O	2:f:78:ARG:HD2	2.13	0.49
2:h:126:SER:HB3	7:h:201:CYC:HMC2	1.93	0.49
3:k:246:ILE:CD1	3:k:257:SER:O	2.59	0.49
6:n:84:ARG:HD3	6:n:141:ASN:HD21	1.78	0.49
2:B:77:ARG:HD3	6:n:95:ARG:CZ	2.43	0.49
2:R:6:THR:HA	2:R:9:VAL:HB	1.95	0.49
2:d:142:VAL:HG13	7:d:202:CYC:CBC	2.41	0.49
7:D:202:CYC:CMA	7:D:202:CYC:NB	2.72	0.49
2:J:126:SER:CB	7:J:201:CYC:HMC2	2.42	0.49
2:V:142:VAL:HG13	7:V:202:CYC:CBC	2.43	0.49
1:W:107:LEU:HD13	1:W:166:TYR:HD1	1.77	0.49
2:h:84:ARG:NH2	7:h:201:CYC:O2A	2.46	0.49
4:l:39:VAL:HG11	4:l:72:PHE:CD2	2.48	0.49
1:A:109:GLU:OE1	6:n:168:GLN:N	2.43	0.49
1:O:140:HIS:HD2	1:O:142:LEU:HD12	1.78	0.49
7:P:201:CYC:CMA	7:P:201:CYC:HBA1	2.43	0.49
2:Z:88:ILE:HG12	2:Z:91:ARG:HH21	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:b:127:VAL:HG22	7:b:201:CYC:CMC	2.43	0.49
1:I:24:LEU:HD22	2:J:38:ILE:HG23	1.95	0.48
7:R:201:CYC:CGA	3:k:48:TYR:CD2	2.96	0.48
2:b:114:ARG:NH1	2:b:172:ALA:O	2.44	0.48
2:D:72:ASN:ND2	7:D:201:CYC:HC	2.11	0.48
7:D:201:CYC:O2A	6:n:129:ILE:HG21	2.13	0.48
2:H:74:TYR:HB3	2:H:78:ARG:HH21	1.78	0.48
1:O:40:ALA:HB2	1:O:146:ALA:HB1	1.96	0.48
2:R:86:MET:HG2	7:R:201:CYC:HBC1	1.95	0.48
1:S:107:LEU:HB3	1:S:112:ILE:HG12	1.94	0.48
1:E:106:PRO:O	1:E:110:TYR:HB2	2.13	0.48
1:M:73:ASN:O	7:M:201:CYC:HMD1	2.14	0.48
2:N:84:ARG:HH22	7:N:201:CYC:HBA1	1.78	0.48
2:R:86:MET:CG	7:R:201:CYC:HBC1	2.43	0.48
7:g:201:CYC:HMD1	7:g:201:CYC:NC	2.16	0.48
2:h:153:CYS:SG	7:h:202:CYC:CAC	3.02	0.48
1:i:19:LEU:HD12	2:j:94:THR:HG22	1.95	0.48
1:S:88:ILE:HD11	7:S:201:CYC:HBC1	1.95	0.48
1:c:159:GLU:OE1	7:h:202:CYC:CBB	2.61	0.48
1:i:24:LEU:HD22	2:j:38:ILE:HG23	1.95	0.48
3:k:97:GLU:HG3	3:k:170:LEU:HD11	1.96	0.48
2:H:43:ARG:HH12	7:H:202:CYC:HMC2	1.78	0.48
2:j:6:THR:HA	2:j:9:VAL:HB	1.96	0.48
2:D:79:MET:HG2	7:E:201:CYC:CMA	2.43	0.48
2:F:82:CYS:HG	7:F:201:CYC:CAC	2.04	0.48
1:O:52:VAL:HG22	1:O:88:ILE:HG22	1.96	0.48
2:b:8:VAL:HG11	2:b:27:LEU:HD11	1.96	0.48
1:c:159:GLU:OE1	7:h:202:CYC:HBB1	2.13	0.48
1:i:40:ALA:HB2	1:i:146:ALA:HB1	1.96	0.48
1:Q:136:ILE:O	1:Q:140:HIS:ND1	2.42	0.48
1:U:18:PHE:HB3	2:V:45:THR:HG23	1.96	0.48
2:X:104:VAL:HG23	2:X:108:ARG:HD2	1.96	0.48
1:g:24:LEU:HD22	2:h:38:ILE:HG23	1.96	0.48
3:k:112:ASP:HA	3:k:115:ILE:HD12	1.95	0.48
3:k:211:TRP:O	3:k:214:ARG:NH2	2.46	0.48
7:B:202:CYC:CMA	7:B:202:CYC:NB	2.72	0.48
1:M:59:VAL:CG1	7:M:201:CYC:HMC1	2.44	0.48
1:Q:29:GLY:HA2	1:Q:32:ARG:HG2	1.96	0.48
1:W:83:LYS:NZ	7:W:201:CYC:O2A	2.39	0.48
2:B:85:ASP:O	2:B:89:ILE:HG13	2.14	0.48
2:H:108:ARG:O	3:k:255:ARG:NH2	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:17:ARG:NH2	1:S:7:GLU:OE2	2.46	0.48
7:R:201:CYC:CGA	3:k:48:TYR:HB2	2.44	0.48
2:d:54:ASN:OD1	2:d:57:ARG:NH1	2.43	0.48
2:h:126:SER:CB	7:h:201:CYC:HMC2	2.44	0.48
1:i:66:THR:HG21	7:i:201:CYC:HMC2	1.95	0.48
4:l:143:PHE:CD1	4:l:149:PRO:HA	2.49	0.48
2:D:82:CYS:HB2	7:D:201:CYC:HMD3	1.96	0.48
2:D:108:ARG:NH1	6:n:97:PHE:O	2.42	0.48
1:e:109:GLU:HG3	2:j:77:ARG:HH21	1.79	0.48
2:b:72:ASN:O	2:b:78:ARG:HD2	2.14	0.47
1:g:84:CYS:SG	7:g:201:CYC:C3C	2.97	0.47
2:h:108:ARG:HA	5:m:64:THR:HG23	1.94	0.47
7:j:201:CYC:HBA2	4:l:63:ARG:HB3	1.96	0.47
2:D:72:ASN:HD21	2:D:122:VAL:HG22	1.79	0.47
1:K:28:PHE:HZ	7:L:202:CYC:C1B	2.27	0.47
1:K:128:TRP:CD2	7:K:201:CYC:HMC3	2.49	0.47
1:Q:1:MET:HE3	2:R:6:THR:HB	1.96	0.47
1:Q:30:ARG:O	1:Q:34:ALA:HB2	2.13	0.47
4:l:106:ARG:NH1	4:l:138:GLU:OE1	2.47	0.47
1:A:88:ILE:HD11	7:A:201:CYC:HBC1	1.95	0.47
2:D:120:LEU:HD11	7:D:201:CYC:HAA1	1.96	0.47
2:L:6:THR:HA	2:L:9:VAL:HB	1.95	0.47
2:d:119:ALA:O	4:l:9:ARG:NH2	2.47	0.47
2:f:3:ASP:HA	2:f:99:THR:HB	1.97	0.47
1:K:32:ARG:NH2	1:K:33:GLN:OE1	2.47	0.47
1:M:84:CYS:CB	7:M:201:CYC:HAC2	2.31	0.47
2:N:57:ARG:NE	7:O:201:CYC:O1D	2.46	0.47
7:P:202:CYC:CMA	7:P:202:CYC:NB	2.72	0.47
1:S:24:LEU:HD22	2:T:38:ILE:HG23	1.95	0.47
7:T:202:CYC:CMA	7:T:202:CYC:NB	2.72	0.47
1:U:8:ALA:HB2	1:U:26:ILE:HG21	1.96	0.47
3:k:59:GLU:O	3:k:63:THR:OG1	2.30	0.47
3:k:229:THR:HB	3:k:235:ALA:HB3	1.96	0.47
6:n:31:PHE:HB2	6:n:158:VAL:HB	1.97	0.47
7:D:201:CYC:HHA	7:D:201:CYC:CBD	2.36	0.47
7:J:202:CYC:CMA	7:J:202:CYC:NB	2.72	0.47
2:N:3:ASP:HA	2:N:99:THR:HB	1.96	0.47
2:P:88:ILE:HG12	2:P:91:ARG:HH21	1.79	0.47
1:c:66:THR:HB	7:c:201:CYC:OC	2.14	0.47
2:f:114:ARG:NH1	2:f:172:ALA:O	2.47	0.47
2:D:104:VAL:O	2:D:108:ARG:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:42:LYS:HE2	2:H:24:LEU:HG	1.95	0.47
2:P:43:ARG:NH1	2:P:142:VAL:O	2.47	0.47
2:Z:120:LEU:HD22	7:Z:201:CYC:HBD1	1.96	0.47
1:C:24:LEU:HD22	2:D:38:ILE:HG23	1.95	0.47
2:D:36:LYS:HD3	7:D:202:CYC:HMD3	1.97	0.47
7:G:201:CYC:OB	2:L:75:THR:HA	2.15	0.47
2:J:142:VAL:HG13	7:J:202:CYC:HBC2	1.93	0.47
1:O:73:ASN:HA	7:O:201:CYC:HBD2	1.96	0.47
1:Q:40:ALA:HB2	1:Q:146:ALA:HB1	1.97	0.47
2:R:139:LEU:HD22	2:R:157:VAL:HG13	1.97	0.47
7:d:202:CYC:CMA	7:d:202:CYC:NB	2.72	0.47
1:e:165:ASP:HA	1:e:168:ILE:HB	1.97	0.47
7:f:202:CYC:CMA	7:f:202:CYC:NB	2.72	0.47
2:h:88:ILE:HG12	2:h:91:ARG:HH21	1.80	0.47
3:k:166:ARG:NH2	3:k:192:GLU:O	2.47	0.47
1:K:78:GLN:NE2	1:K:82:ASP:OD2	2.48	0.47
2:b:127:VAL:CG2	7:b:201:CYC:CMC	2.93	0.47
4:l:145:ASP:OD2	5:m:62:ARG:NH2	2.48	0.47
2:F:153:CYS:SG	7:F:202:CYC:HAC1	2.54	0.47
2:V:75:THR:HA	7:W:201:CYC:HAB2	1.97	0.47
2:B:84:ARG:O	2:B:88:ILE:HG13	2.15	0.47
2:B:147:GLY:O	1:G:147:ARG:NH1	2.48	0.47
7:D:201:CYC:HC	7:D:201:CYC:HMD2	1.80	0.47
7:H:202:CYC:CMA	7:H:202:CYC:NB	2.72	0.47
7:b:202:CYC:CMA	7:b:202:CYC:NB	2.72	0.47
3:k:274:GLN:O	3:k:278:LEU:HG	2.14	0.47
2:H:86:MET:HE3	7:H:201:CYC:CBC	2.43	0.46
2:L:84:ARG:HH22	7:L:201:CYC:CGA	2.27	0.46
1:Y:121:THR:HG21	2:d:83:LEU:HD22	1.97	0.46
2:D:45:THR:O	1:K:169:ASN:ND2	2.48	0.46
2:D:111:ASN:HB3	6:n:101:ASN:HB3	1.98	0.46
1:M:20:SER:OG	1:S:2:LYS:NZ	2.48	0.46
1:Q:24:LEU:HD22	2:R:38:ILE:HG23	1.97	0.46
2:R:3:ASP:HA	2:R:99:THR:HB	1.97	0.46
3:k:140:GLN:O	4:l:237:THR:OG1	2.33	0.46
1:A:66:THR:HB	7:A:201:CYC:OC	2.16	0.46
1:K:18:PHE:HB3	2:L:45:THR:HG23	1.97	0.46
2:L:15:ARG:NE	2:L:17:GLU:OE2	2.46	0.46
1:O:25:GLN:NE2	1:W:102:GLY:O	2.47	0.46
1:Q:73:ASN:ND2	1:Q:123:ASP:OD1	2.47	0.46
2:Z:21:GLY:HA2	2:Z:24:LEU:HD12	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3:THR:O	1:A:4:PRO:C	2.59	0.46
2:B:74:TYR:OH	1:C:93:ARG:NH2	2.48	0.46
7:D:201:CYC:CGA	6:n:129:ILE:HG21	2.46	0.46
2:F:43:ARG:NH1	2:F:142:VAL:O	2.48	0.46
1:G:15:GLN:HB2	6:n:23:SER:HB2	1.97	0.46
1:I:29:GLY:HA2	1:I:32:ARG:HG2	1.98	0.46
1:M:140:HIS:NE2	1:M:161:ASN:OD1	2.48	0.46
2:T:72:ASN:ND2	7:T:201:CYC:HC	2.13	0.46
2:Z:35:ASN:HB2	7:Z:202:CYC:O2D	2.15	0.46
3:k:272:LEU:HD23	3:k:272:LEU:HA	1.73	0.46
1:A:5:LEU:HA	2:B:98:PHE:HE2	1.81	0.46
1:K:30:ARG:NH2	1:K:100:VAL:O	2.48	0.46
2:N:108:ARG:O	7:N:201:CYC:HAB2	2.16	0.46
2:P:142:VAL:HG13	7:P:202:CYC:CBC	2.44	0.46
2:B:142:VAL:HG13	7:B:202:CYC:HBC1	1.97	0.46
2:D:126:SER:HB3	7:D:201:CYC:HMC2	1.97	0.46
7:H:201:CYC:HBB2	3:k:255:ARG:NH2	2.30	0.46
1:K:52:VAL:HG22	1:K:88:ILE:HG22	1.97	0.46
2:N:74:TYR:O	2:N:78:ARG:HB3	2.16	0.46
2:R:88:ILE:HG12	2:R:91:ARG:HH21	1.80	0.46
2:T:15:ARG:NH2	2:T:17:GLU:OE2	2.49	0.46
2:X:15:ARG:HE	2:b:63:GLN:HG2	1.80	0.46
1:Y:159:GLU:OE2	1:Y:163:TYR:OH	2.32	0.46
2:f:39:ASP:OD1	7:f:202:CYC:HHB	2.15	0.46
1:M:77:ASP:OD1	1:M:77:ASP:N	2.48	0.46
1:S:17:ARG:HH22	1:S:20:SER:HB3	1.80	0.46
7:Z:202:CYC:CMA	7:Z:202:CYC:NB	2.72	0.46
2:j:36:LYS:HZ3	7:j:202:CYC:HMD2	1.80	0.46
1:E:17:ARG:NH2	1:I:7:GLU:OE2	2.42	0.46
2:L:39:ASP:OD1	7:L:202:CYC:HHB	2.15	0.46
7:U:201:CYC:HC	7:U:201:CYC:CMD	2.29	0.46
1:Y:47:ASN:OD1	1:Y:50:SER:OG	2.33	0.46
1:c:91:TYR:HD2	1:c:133:LEU:HD21	1.81	0.46
7:d:201:CYC:O1D	4:l:3:SER:OG	2.26	0.46
7:A:201:CYC:HBA1	2:F:79:MET:HE3	1.98	0.46
2:D:36:LYS:HD3	7:D:202:CYC:CMD	2.46	0.46
2:H:83:LEU:HD22	1:I:121:THR:HG21	1.98	0.46
1:K:17:ARG:O	2:L:95:TYR:OH	2.30	0.46
1:S:91:TYR:HD2	1:S:133:LEU:HD21	1.80	0.46
2:T:83:LEU:HD22	1:U:121:THR:HG21	1.98	0.46
2:T:135:LYS:HB3	2:T:135:LYS:HE2	1.71	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:7:ARG:HD2	2:B:11:GLN:HE22	1.80	0.46
2:D:139:LEU:HD22	2:D:157:VAL:HG13	1.97	0.46
2:N:82:CYS:HA	7:N:201:CYC:CHD	2.46	0.46
2:V:139:LEU:O	2:V:143:ASN:ND2	2.44	0.46
1:W:159:GLU:OE2	1:W:163:TYR:OH	2.34	0.46
2:f:109:CYS:HA	7:f:201:CYC:CBB	2.46	0.46
2:h:111:ASN:HB2	5:m:69:LYS:HZ2	1.79	0.46
3:k:3:ILE:HD12	3:k:12:VAL:HG11	1.98	0.46
5:m:25:VAL:HG11	5:m:63:ILE:CG2	2.45	0.46
2:D:116:THR:HG23	6:n:125:ILE:HG12	1.98	0.45
2:R:139:LEU:HD11	2:R:161:ALA:HB2	1.98	0.45
1:a:104:THR:OG1	1:i:17:ARG:NH2	2.45	0.45
3:k:19:ARG:HD3	3:k:20:PRO:HD2	1.98	0.45
1:A:26:ILE:HG23	1:G:26:ILE:HG12	1.97	0.45
1:G:33:GLN:HE21	1:G:159:GLU:HB2	1.80	0.45
1:U:15:GLN:HG3	1:U:17:ARG:HG2	1.98	0.45
1:W:100:VAL:HG21	2:X:19:LEU:HD22	1.98	0.45
1:c:24:LEU:HD22	2:d:38:ILE:HG23	1.98	0.45
1:G:28:PHE:HE2	7:H:202:CYC:HBB3	1.80	0.45
1:M:47:ASN:OD1	1:M:50:SER:OG	2.34	0.45
2:P:6:THR:HA	2:P:9:VAL:HB	1.98	0.45
1:Q:33:GLN:HE21	1:Q:159:GLU:HB2	1.80	0.45
2:d:117:TYR:HE2	2:d:127:VAL:HG11	1.81	0.45
1:A:75:ALA:HA	1:A:80:GLY:HA3	1.99	0.45
7:D:201:CYC:HC	7:D:201:CYC:CMD	2.29	0.45
2:F:145:PRO:O	2:F:150:ARG:NH1	2.40	0.45
1:g:18:PHE:HB3	2:h:45:THR:HG23	1.98	0.45
2:j:79:MET:HE1	2:j:83:LEU:HD11	1.97	0.45
7:B:202:CYC:HBB2	1:G:33:GLN:OE1	2.14	0.45
2:D:74:TYR:O	2:D:78:ARG:HB2	2.17	0.45
2:D:79:MET:HG2	7:E:201:CYC:HMA1	1.98	0.45
7:I:201:CYC:HC	7:I:201:CYC:CMD	2.29	0.45
2:N:88:ILE:HG21	7:N:201:CYC:HAB1	1.99	0.45
7:P:201:CYC:HBB2	7:P:201:CYC:OB	2.17	0.45
1:c:18:PHE:HB3	2:d:45:THR:HG23	1.99	0.45
2:j:111:ASN:ND2	5:m:76:LEU:O	2.39	0.45
2:D:91:ARG:NH2	6:n:132:ALA:O	2.49	0.45
2:J:126:SER:HB2	7:J:201:CYC:CMC	2.47	0.45
2:f:84:ARG:HH22	7:f:201:CYC:CGA	2.28	0.45
7:j:201:CYC:CBA	4:l:63:ARG:HB3	2.46	0.45
7:H:201:CYC:HBB2	3:k:255:ARG:HE	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:125:SER:HB3	1:M:128:TRP:CE2	2.51	0.45
2:T:6:THR:HA	2:T:9:VAL:HB	1.98	0.45
7:T:201:CYC:CMA	7:T:201:CYC:NB	2.79	0.45
1:a:112:ILE:HG22	4:l:52:GLN:HG2	1.98	0.45
2:b:84:ARG:NH2	7:b:201:CYC:CGA	2.77	0.45
2:D:82:CYS:HA	7:D:201:CYC:CHD	2.45	0.45
2:D:83:LEU:HD22	1:E:121:THR:HG21	1.99	0.45
2:F:77:ARG:HE	6:n:167:PRO:CD	2.16	0.45
2:T:35:ASN:HB2	7:T:202:CYC:O2D	2.16	0.45
7:T:201:CYC:HC	7:T:201:CYC:CMD	2.30	0.45
1:U:90:TYR:O	1:U:94:ILE:HG12	2.16	0.45
2:h:106:GLU:OE2	2:h:166:ARG:NH1	2.50	0.45
1:i:59:VAL:HG11	7:i:201:CYC:HMC1	1.99	0.45
2:j:114:ARG:NH1	2:j:172:ALA:O	2.42	0.45
4:l:64:GLY:HA3	4:l:66:GLU:OE1	2.17	0.45
5:m:22:VAL:HG23	5:m:76:LEU:HD11	1.99	0.45
1:A:52:VAL:HG22	1:A:88:ILE:HG22	1.99	0.45
2:D:114:ARG:NH1	2:D:172:ALA:O	2.41	0.45
1:E:87:ASP:OD2	7:E:201:CYC:NA	2.50	0.45
2:H:88:ILE:HG12	2:H:91:ARG:HH21	1.82	0.45
2:H:115:GLU:HG3	3:k:214:ARG:HB2	1.99	0.45
7:P:201:CYC:CMD	7:P:201:CYC:HC	2.30	0.45
2:Z:89:ILE:HG21	2:Z:131:VAL:HG22	1.98	0.45
2:f:35:ASN:HB2	7:f:202:CYC:O2D	2.16	0.45
2:j:127:VAL:HG22	7:j:201:CYC:H3C	1.99	0.45
5:m:51:VAL:CG2	5:m:59:GLU:HG3	2.47	0.45
6:n:179:MET:HA	6:n:180:PRO:HD3	1.62	0.45
2:B:127:VAL:HG22	7:B:201:CYC:H3C	1.98	0.45
2:B:139:LEU:HD11	2:B:161:ALA:HB2	1.99	0.45
1:C:59:VAL:HG11	7:C:201:CYC:HBC2	1.98	0.45
1:G:91:TYR:HD2	1:G:133:LEU:HD21	1.81	0.45
7:L:201:CYC:HC	7:L:201:CYC:CMD	2.30	0.45
7:Z:202:CYC:CBB	1:e:33:GLN:NE2	2.33	0.45
5:m:25:VAL:HG11	5:m:63:ILE:HD13	1.99	0.45
7:F:201:CYC:O2A	6:n:163:ARG:NH2	2.39	0.44
2:P:114:ARG:NH1	2:P:172:ALA:O	2.40	0.44
1:Q:140:HIS:CD2	1:Q:142:LEU:H	2.34	0.44
2:R:82:CYS:CB	7:R:201:CYC:C4C	2.94	0.44
1:i:136:ILE:O	1:i:140:HIS:ND1	2.45	0.44
2:j:86:MET:HE1	2:j:130:GLY:HA3	1.99	0.44
3:k:43:VAL:HA	3:k:102:HIS:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:n:26:GLU:HB3	6:n:165:ILE:CG2	2.47	0.44
6:n:118:VAL:HG21	6:n:124:LYS:HD2	1.99	0.44
1:G:161:ASN:HA	1:G:164:LEU:HB2	1.99	0.44
2:L:114:ARG:NH2	2:L:169:ALA:O	2.51	0.44
1:M:8:ALA:HB1	1:M:23:GLU:HG3	1.97	0.44
1:O:106:PRO:O	1:O:110:TYR:HB2	2.17	0.44
2:P:77:ARG:HE	1:Q:109:GLU:HA	1.82	0.44
2:V:79:MET:CE	7:W:201:CYC:CMA	2.91	0.44
2:X:114:ARG:NH1	2:X:172:ALA:OXT	2.43	0.44
2:d:74:TYR:O	2:d:78:ARG:HB2	2.17	0.44
7:A:201:CYC:HMA1	2:F:79:MET:HG2	1.99	0.44
2:N:6:THR:HA	2:N:9:VAL:HB	1.99	0.44
2:P:75:THR:N	7:Q:201:CYC:OB	2.44	0.44
2:R:39:ASP:OD2	7:R:202:CYC:ND	2.31	0.44
2:d:106:GLU:HA	2:d:110:LEU:HB2	1.99	0.44
1:e:18:PHE:HB3	2:f:45:THR:HG23	2.00	0.44
1:e:91:TYR:HD2	1:e:133:LEU:HD21	1.82	0.44
1:g:17:ARG:O	2:h:95:TYR:OH	2.35	0.44
7:j:202:CYC:HMD1	7:j:202:CYC:HC	1.83	0.44
4:l:130:ILE:HD13	4:l:130:ILE:HA	1.89	0.44
2:B:108:ARG:C	6:n:178:ARG:HH22	2.24	0.44
1:I:62:LYS:HD3	1:I:131:GLU:HG2	1.99	0.44
1:S:18:PHE:HB3	2:T:45:THR:HG23	1.98	0.44
2:Z:36:LYS:HG2	7:Z:202:CYC:C2D	2.47	0.44
4:l:224:ARG:O	4:l:270:ILE:HA	2.18	0.44
2:X:43:ARG:NH1	2:X:142:VAL:O	2.50	0.44
2:b:89:ILE:HG21	2:b:131:VAL:HG22	1.99	0.44
5:m:20:LEU:HB3	5:m:76:LEU:HD22	1.99	0.44
1:A:55:ALA:HB3	1:A:88:ILE:HG21	2.00	0.44
1:E:25:GLN:NE2	1:I:102:GLY:O	2.42	0.44
2:H:88:ILE:HD11	3:k:251:TYR:CD2	2.53	0.44
7:L:201:CYC:HMA2	3:k:226:LEU:CD2	2.47	0.44
1:M:102:GLY:O	1:S:25:GLN:NE2	2.39	0.44
1:M:143:SER:HA	1:M:147:ARG:HD3	1.99	0.44
7:X:202:CYC:HMD1	7:X:202:CYC:HC	1.83	0.44
2:Z:3:ASP:HA	2:Z:99:THR:HB	1.98	0.44
1:a:147:ARG:HH22	2:j:148:ILE:HA	1.82	0.44
1:c:29:GLY:HA2	1:c:32:ARG:HG2	1.99	0.44
1:e:30:ARG:O	1:e:34:ALA:HB2	2.18	0.44
1:M:96:THR:HA	1:M:99:LEU:HD12	2.00	0.44
1:M:121:THR:HG21	2:R:83:LEU:HD22	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:33:GLN:NE2	7:X:202:CYC:OB	2.32	0.44
1:Q:18:PHE:HB3	2:R:45:THR:HG23	1.99	0.44
1:W:77:ASP:OD1	1:W:77:ASP:N	2.51	0.44
2:Z:45:THR:O	1:e:169:ASN:ND2	2.51	0.44
2:Z:82:CYS:HA	7:Z:201:CYC:CHD	2.48	0.44
1:e:128:TRP:CD2	7:e:201:CYC:HMC3	2.53	0.44
2:D:39:ASP:OD1	7:D:202:CYC:HHB	2.17	0.44
7:T:202:CYC:HMD1	7:T:202:CYC:HC	1.83	0.44
1:c:25:GLN:NE2	1:g:102:GLY:O	2.42	0.44
2:d:6:THR:HA	2:d:9:VAL:HB	2.00	0.44
3:k:243:ILE:O	3:k:258:ASN:HA	2.17	0.44
4:l:165:PHE:O	4:l:168:SER:OG	2.35	0.44
1:M:107:LEU:HB3	1:M:112:ILE:HG12	2.00	0.44
1:Q:17:ARG:HH12	1:U:2:LYS:HE2	1.83	0.44
7:F:201:CYC:CMD	7:F:201:CYC:HC	2.31	0.43
1:I:87:ASP:OD2	1:I:129:TYR:OH	2.31	0.43
1:K:15:GLN:HG2	6:n:90:ASP:HB2	2.00	0.43
7:N:201:CYC:HC	7:N:201:CYC:CMD	2.31	0.43
1:O:32:ARG:NH2	1:O:33:GLN:OE1	2.51	0.43
2:V:6:THR:HA	2:V:9:VAL:HB	2.00	0.43
1:a:91:TYR:HD2	1:a:133:LEU:HD21	1.83	0.43
2:b:126:SER:HB2	7:b:201:CYC:CMC	2.46	0.43
2:d:88:ILE:HG12	2:d:91:ARG:HH21	1.83	0.43
7:h:201:CYC:CMD	7:h:201:CYC:HC	2.31	0.43
2:R:88:ILE:HG21	7:R:201:CYC:CAB	2.48	0.43
1:S:121:THR:HG21	2:X:83:LEU:HD22	1.99	0.43
2:Z:1:MET:HE2	2:Z:1:MET:HB3	1.89	0.43
1:c:47:ASN:OD1	1:c:50:SER:OG	2.35	0.43
4:l:229:GLN:OE1	4:l:246:TYR:OH	2.31	0.43
2:H:74:TYR:OH	1:I:93:ARG:NH2	2.46	0.43
2:N:109:CYS:HA	7:N:201:CYC:HAB2	1.99	0.43
1:c:130:VAL:HG12	1:c:134:LYS:HE2	2.00	0.43
2:d:139:LEU:HD11	2:d:161:ALA:HB2	2.00	0.43
2:j:43:ARG:NH1	2:j:142:VAL:O	2.50	0.43
3:k:183:GLU:HB3	3:k:186:SER:HG	1.77	0.43
6:n:166:LEU:HB2	6:n:169:ARG:HG3	1.99	0.43
2:B:15:ARG:HH22	2:B:23:GLN:HE22	1.66	0.43
2:B:69:PRO:HA	2:B:74:TYR:CD2	2.53	0.43
2:B:120:LEU:HG	6:n:180:PRO:HB3	1.99	0.43
7:H:201:CYC:HC	7:H:201:CYC:CMD	2.31	0.43
1:K:130:VAL:HG13	1:K:168:ILE:HD12	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:79:MET:HG2	7:U:201:CYC:HMA1	2.00	0.43
1:i:59:VAL:CG1	7:i:201:CYC:HMC1	2.48	0.43
6:n:57:GLN:NE2	6:n:57:GLN:N	2.60	0.43
2:H:106:GLU:HA	2:H:110:LEU:HB2	2.01	0.43
2:L:142:VAL:O	7:L:202:CYC:HBC2	2.19	0.43
1:M:9:VAL:HG21	2:N:99:THR:HG23	2.00	0.43
1:Q:77:ASP:OD1	1:Q:77:ASP:N	2.51	0.43
1:a:165:ASP:O	1:a:169:ASN:ND2	2.51	0.43
4:l:23:LEU:HD11	4:l:32:VAL:HG22	2.00	0.43
1:E:26:ILE:HG23	1:I:26:ILE:HG12	2.01	0.43
7:H:202:CYC:HMD1	7:H:202:CYC:HC	1.83	0.43
2:L:142:VAL:CG1	7:L:202:CYC:HBC1	2.42	0.43
7:L:202:CYC:HMD1	7:L:202:CYC:HC	1.83	0.43
1:W:90:TYR:O	1:W:94:ILE:HG12	2.19	0.43
7:X:201:CYC:HC	7:X:201:CYC:CMD	2.31	0.43
2:d:103:SER:O	2:d:107:ASP:HB2	2.18	0.43
3:k:246:ILE:O	3:k:254:VAL:HG11	2.19	0.43
1:E:4:PRO:HG2	1:E:30:ARG:HD3	2.00	0.43
2:H:11:GLN:HG2	2:N:125:ALA:HB1	2.00	0.43
2:N:86:MET:SD	7:N:201:CYC:HBC1	2.59	0.43
1:Q:102:GLY:O	1:U:25:GLN:NE2	2.51	0.43
2:V:4:VAL:HG21	2:V:30:THR:HG21	2.01	0.43
1:W:106:PRO:HG3	2:X:9:VAL:HG11	2.00	0.43
1:e:75:ALA:HA	1:e:80:GLY:HA3	2.00	0.43
2:h:108:ARG:CA	5:m:64:THR:HG21	2.34	0.43
7:h:201:CYC:HBB3	5:m:61:ARG:HH11	0.61	0.43
4:l:140:THR:O	5:m:39:TYR:CE1	2.72	0.43
2:H:43:ARG:NH1	2:H:142:VAL:O	2.52	0.43
1:I:40:ALA:HB2	1:I:146:ALA:HB1	1.99	0.43
1:Q:83:LYS:NZ	7:Q:201:CYC:CGA	2.78	0.43
2:R:153:CYS:SG	7:R:202:CYC:CAC	3.07	0.43
1:S:108:ASP:OD1	1:S:166:TYR:OH	2.33	0.43
2:j:107:ASP:O	5:m:79:ASP:N	2.46	0.43
2:H:143:ASN:HD21	2:H:157:VAL:HG11	1.84	0.43
1:I:18:PHE:HB3	2:J:45:THR:HG23	2.01	0.43
2:F:139:LEU:HD22	2:F:157:VAL:HG13	2.00	0.43
7:J:201:CYC:HC	7:J:201:CYC:CMD	2.31	0.43
1:M:18:PHE:HB3	2:N:45:THR:HG23	2.01	0.43
1:c:83:LYS:NZ	7:c:201:CYC:O2A	2.51	0.43
2:f:6:THR:HA	2:f:9:VAL:HB	2.00	0.43
2:j:74:TYR:O	2:j:78:ARG:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:k:213:TYR:OH	3:k:260:ALA:HB2	2.17	0.43
5:m:22:VAL:O	5:m:73:ILE:HA	2.19	0.43
1:C:17:ARG:O	2:D:95:TYR:OH	2.30	0.42
2:F:142:VAL:HG13	7:F:202:CYC:HBC1	2.01	0.42
7:G:201:CYC:HBB2	2:L:75:THR:HA	2.00	0.42
2:R:12:ALA:O	2:R:16:GLY:N	2.52	0.42
1:S:83:LYS:HZ2	7:S:201:CYC:CGA	2.32	0.42
7:T:201:CYC:HB	7:T:201:CYC:CMA	2.31	0.42
1:Y:18:PHE:HB3	2:Z:45:THR:HG23	2.00	0.42
1:Y:22:THR:O	1:Y:26:ILE:HG13	2.19	0.42
2:Z:114:ARG:NH2	2:Z:172:ALA:OXT	2.51	0.42
1:a:84:CYS:CB	7:a:201:CYC:HAC2	2.39	0.42
2:b:69:PRO:HA	2:b:74:TYR:CG	2.53	0.42
1:E:52:VAL:HG22	1:E:88:ILE:HG22	2.01	0.42
1:G:100:VAL:HG21	2:H:19:LEU:HD22	2.02	0.42
2:J:75:THR:HA	7:K:201:CYC:HAB2	2.00	0.42
1:O:17:ARG:O	2:P:95:TYR:OH	2.37	0.42
1:W:18:PHE:HB3	2:X:45:THR:HG23	2.00	0.42
1:Y:75:ALA:HB1	1:Y:81:LYS:HG3	2.01	0.42
1:c:136:ILE:O	1:c:140:HIS:ND1	2.41	0.42
1:C:18:PHE:HB3	2:D:45:THR:HG23	2.00	0.42
2:N:139:LEU:HD11	2:N:161:ALA:HB2	2.00	0.42
2:V:75:THR:N	7:W:201:CYC:OB	2.52	0.42
2:f:1:MET:H2	4:l:28:THR:HG21	1.82	0.42
1:i:73:ASN:OD1	1:i:73:ASN:N	2.50	0.42
1:i:75:ALA:HA	1:i:80:GLY:HA3	2.01	0.42
3:k:83:LYS:HE2	3:k:126:PHE:HD2	1.82	0.42
4:l:109:TYR:O	4:l:167:ARG:NH1	2.52	0.42
1:G:117:GLU:OE2	6:n:61:GLN:NE2	2.53	0.42
2:N:151:GLY:HA3	7:N:202:CYC:CMD	2.50	0.42
7:P:201:CYC:HB	7:P:201:CYC:HMA3	1.82	0.42
2:X:115:GLU:HA	2:X:118:VAL:HB	2.01	0.42
1:c:17:ARG:HH22	1:g:104:THR:HG1	1.60	0.42
2:h:6:THR:HA	2:h:9:VAL:HB	2.01	0.42
2:h:89:ILE:HG21	2:h:131:VAL:HG22	2.01	0.42
4:l:160:GLN:HG2	4:l:161:LYS:O	2.19	0.42
6:n:127:TRP:HZ3	6:n:142:GLU:HB3	1.84	0.42
2:F:142:VAL:HG13	7:F:202:CYC:CBC	2.49	0.42
7:F:201:CYC:CBD	7:F:201:CYC:CHA	2.98	0.42
1:G:2:LYS:H	1:G:105:GLY:HA3	1.84	0.42
2:N:142:VAL:HG13	7:N:202:CYC:CBC	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:18:PHE:HB3	2:P:45:THR:HG23	2.00	0.42
7:V:201:CYC:HC	7:V:201:CYC:CMD	2.33	0.42
1:Y:147:ARG:NH1	2:f:147:GLY:O	2.46	0.42
1:g:75:ALA:HA	1:g:80:GLY:HA3	2.00	0.42
2:F:82:CYS:HB2	7:F:201:CYC:HMD3	2.02	0.42
2:J:92:TYR:CG	2:J:109:CYS:HB2	2.54	0.42
1:K:125:SER:HB2	1:K:128:TRP:CE2	2.55	0.42
2:T:139:LEU:HD11	2:T:161:ALA:HB2	2.01	0.42
2:Z:86:MET:HE2	2:Z:86:MET:HB3	1.90	0.42
2:b:106:GLU:OE2	2:b:166:ARG:NE	2.52	0.42
6:n:129:ILE:HD12	6:n:132:ALA:HB3	2.02	0.42
2:N:4:VAL:HG21	2:N:30:THR:HG21	2.02	0.42
1:O:106:PRO:HG3	2:P:9:VAL:HG11	2.01	0.42
2:P:60:PHE:HB3	2:P:67:ILE:HD13	2.02	0.42
7:P:201:CYC:NB	7:P:201:CYC:HMA3	2.34	0.42
1:Q:33:GLN:HE22	7:V:202:CYC:HBB1	1.57	0.42
7:R:201:CYC:CMD	7:R:201:CYC:HC	2.33	0.42
1:U:15:GLN:C	3:k:19:ARG:NH2	2.77	0.42
1:U:47:ASN:OD1	1:U:50:SER:OG	2.38	0.42
2:X:108:ARG:HG2	4:l:261:ASN:HB3	2.00	0.42
2:f:83:LEU:HD22	1:g:121:THR:HG21	2.02	0.42
2:f:88:ILE:HG12	2:f:91:ARG:HH21	1.83	0.42
4:l:74:ARG:CZ	5:m:55:ARG:HD3	2.49	0.42
6:n:106:VAL:HG11	6:n:124:LYS:HA	2.01	0.42
1:E:26:ILE:HG12	1:I:26:ILE:HG12	2.02	0.42
1:G:66:THR:HG21	7:G:201:CYC:HMC2	2.02	0.42
2:N:69:PRO:HB3	2:P:16:GLY:HA3	2.00	0.42
2:T:104:VAL:O	2:T:108:ARG:HB2	2.20	0.42
2:Z:6:THR:HA	2:Z:9:VAL:HB	2.00	0.42
1:a:9:VAL:HG21	2:b:99:THR:HG23	2.02	0.42
7:f:201:CYC:HC	7:f:201:CYC:CMD	2.33	0.42
2:h:72:ASN:O	2:h:78:ARG:HD2	2.20	0.42
2:j:27:LEU:HD23	2:j:27:LEU:HA	1.93	0.42
6:n:58:GLN:HB3	6:n:63:ASN:HD22	1.85	0.42
1:G:118:ILE:HD11	2:L:79:MET:HB3	2.02	0.42
1:I:75:ALA:HA	1:I:80:GLY:HA3	2.01	0.42
2:N:153:CYS:SG	7:N:202:CYC:HAC1	2.59	0.42
2:f:4:VAL:HG21	2:f:30:THR:HG21	2.01	0.42
3:k:188:ARG:O	3:k:189:LEU:HD23	2.20	0.42
5:m:25:VAL:CG1	5:m:63:ILE:HG21	2.49	0.42
5:m:52:PRO:O	5:m:56:MET:HG3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2:LYS:HE3	1:G:15:GLN:HE22	1.85	0.42
1:G:8:ALA:HB1	1:G:23:GLU:HG3	2.01	0.42
1:O:125:SER:HB2	1:O:128:TRP:CE2	2.55	0.42
1:e:44:LEU:HD21	1:e:140:HIS:HB2	2.01	0.42
4:l:226:GLN:HB2	4:l:269:MET:HB3	2.02	0.42
6:n:13:GLN:HB2	6:n:15:GLN:HE21	1.85	0.42
2:D:85:ASP:O	2:D:89:ILE:HG13	2.20	0.41
2:H:69:PRO:HA	2:H:74:TYR:CG	2.54	0.41
7:N:201:CYC:CGA	7:N:201:CYC:HHA	2.50	0.41
1:i:73:ASN:O	7:i:201:CYC:HMD1	2.19	0.41
5:m:76:LEU:HG	5:m:83:PRO:HG2	2.01	0.41
1:A:26:ILE:HG12	1:G:26:ILE:HG23	2.02	0.41
1:M:65:TYR:O	1:M:69:THR:OG1	2.25	0.41
2:P:65:GLN:O	2:P:68:GLN:HG3	2.19	0.41
1:Y:26:ILE:HG23	1:e:26:ILE:HG12	2.02	0.41
7:Z:201:CYC:HC	7:Z:201:CYC:CMD	2.33	0.41
3:k:258:ASN:OD1	3:k:258:ASN:N	2.54	0.41
6:n:113:LEU:HD13	6:n:144:LEU:HD21	2.01	0.41
2:F:35:ASN:HB2	7:F:202:CYC:O2D	2.20	0.41
2:T:88:ILE:HG12	2:T:91:ARG:HH21	1.84	0.41
1:U:117:GLU:HG3	1:U:120:ARG:HH22	1.84	0.41
2:Z:71:GLY:O	2:Z:78:ARG:NH1	2.53	0.41
2:j:84:ARG:O	2:j:88:ILE:HG13	2.19	0.41
3:k:251:TYR:O	3:k:251:TYR:CD1	2.74	0.41
3:k:277:ARG:NH1	3:k:277:ARG:CG	2.72	0.41
7:B:202:CYC:CBB	1:G:159:GLU:OE1	2.67	0.41
1:C:75:ALA:HA	1:C:80:GLY:HA3	2.02	0.41
1:G:28:PHE:HZ	7:H:202:CYC:C1B	2.33	0.41
1:M:17:ARG:O	2:N:95:TYR:OH	2.31	0.41
2:R:33:GLU:HA	2:R:36:LYS:HE3	2.02	0.41
2:V:145:PRO:HB3	2:V:150:ARG:HH11	1.85	0.41
2:Z:39:ASP:OD1	7:Z:202:CYC:HHB	2.20	0.41
1:e:23:GLU:HA	1:e:26:ILE:HD12	2.02	0.41
1:e:121:THR:HG21	2:j:83:LEU:HD22	2.02	0.41
1:g:8:ALA:HB1	1:g:23:GLU:HG3	2.02	0.41
1:I:94:ILE:HD11	7:I:201:CYC:HBB1	2.02	0.41
2:X:143:ASN:HD21	2:X:157:VAL:HG11	1.85	0.41
2:Z:57:ARG:HD2	7:a:201:CYC:O1D	2.20	0.41
7:Z:201:CYC:O1A	4:l:48:HIS:HB2	2.21	0.41
1:a:75:ALA:HA	1:a:80:GLY:HA3	2.02	0.41
1:G:128:TRP:CD2	7:G:201:CYC:HMC3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:35:ASN:HB2	7:J:202:CYC:O2D	2.20	0.41
1:K:66:THR:HB	7:K:201:CYC:OC	2.20	0.41
1:O:104:THR:OG1	1:W:17:ARG:NH2	2.52	0.41
1:c:159:GLU:OE2	1:c:163:TYR:OH	2.28	0.41
7:d:201:CYC:HC	7:d:201:CYC:CMD	2.33	0.41
2:f:109:CYS:HA	7:f:201:CYC:HBB2	2.03	0.41
7:D:202:CYC:CBB	1:K:159:GLU:OE2	2.69	0.41
2:V:153:CYS:SG	7:V:202:CYC:CAC	3.09	0.41
7:X:201:CYC:CMA	7:X:201:CYC:NB	2.83	0.41
2:j:75:THR:O	2:j:76:SER:C	2.64	0.41
2:j:86:MET:CE	7:j:201:CYC:HBC3	2.39	0.41
3:k:28:SER:OG	3:k:30:ASP:OD1	2.33	0.41
2:H:43:ARG:NH1	7:H:202:CYC:HMC2	2.36	0.41
2:L:89:ILE:HG21	2:L:131:VAL:HG22	2.02	0.41
1:M:116:ASP:OD1	1:M:120:ARG:NH2	2.53	0.41
1:S:59:VAL:CG1	7:S:201:CYC:HMC1	2.51	0.41
1:U:75:ALA:HA	1:U:80:GLY:HA3	2.03	0.41
2:X:133:LYS:HA	2:X:136:GLU:HG2	2.01	0.41
2:Z:36:LYS:HG2	7:Z:202:CYC:C1D	2.51	0.41
1:A:40:ALA:HB2	1:A:146:ALA:HB1	2.02	0.41
1:E:97:TYR:OH	2:F:17:GLU:O	2.33	0.41
2:F:74:TYR:O	2:F:78:ARG:HB2	2.21	0.41
2:J:113:LEU:CD1	7:J:201:CYC:HMB1	2.47	0.41
1:M:97:TYR:OH	2:N:17:GLU:O	2.38	0.41
1:Q:44:LEU:O	1:Q:48:ALA:HB2	2.21	0.41
2:R:88:ILE:HG21	7:R:201:CYC:HAB2	2.03	0.41
2:T:77:ARG:HG2	1:U:109:GLU:O	2.21	0.41
1:i:165:ASP:O	1:i:169:ASN:ND2	2.54	0.41
5:m:11:SER:O	5:m:14:SER:HB2	2.21	0.41
1:E:40:ALA:HB2	1:E:146:ALA:HB1	2.01	0.41
2:X:139:LEU:HD11	2:X:161:ALA:HB2	2.02	0.41
1:Y:59:VAL:HG11	7:Y:201:CYC:HMC1	2.03	0.41
1:a:40:ALA:HB2	1:a:146:ALA:HB1	2.02	0.41
2:b:83:LEU:HD22	1:c:121:THR:HG21	2.03	0.41
2:j:54:ASN:OD1	2:j:57:ARG:NH1	2.52	0.41
3:k:183:GLU:CB	3:k:186:SER:OG	2.51	0.41
5:m:31:SER:N	5:m:34:THR:HB	2.25	0.41
1:A:118:ILE:HD11	2:F:79:MET:HB3	2.03	0.40
2:F:6:THR:HA	2:F:9:VAL:HB	2.02	0.40
1:K:15:GLN:HG2	6:n:90:ASP:CB	2.51	0.40
2:N:69:PRO:CB	2:P:16:GLY:HA3	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:201:CYC:O1D	2:X:57:ARG:NE	2.50	0.40
1:a:25:GLN:NE2	1:i:102:GLY:O	2.54	0.40
7:b:201:CYC:HC	7:b:201:CYC:CMD	2.33	0.40
1:E:117:GLU:OE1	1:E:117:GLU:N	2.53	0.40
1:M:26:ILE:HG23	1:S:26:ILE:HG12	2.03	0.40
1:M:100:VAL:HG21	2:N:19:LEU:HD22	2.04	0.40
1:Q:8:ALA:HB2	1:Q:26:ILE:HG21	2.03	0.40
2:X:79:MET:HE2	2:X:79:MET:HB2	1.93	0.40
2:Z:67:ILE:H	2:Z:67:ILE:HG13	1.48	0.40
1:c:87:ASP:HB3	1:c:129:TYR:HE1	1.87	0.40
2:f:115:GLU:HG2	5:m:45:GLY:HA3	2.02	0.40
2:h:104:VAL:HG23	2:h:108:ARG:HD2	2.03	0.40
4:l:141:GLU:O	5:m:38:ASP:OD2	2.39	0.40
1:G:8:ALA:HB2	1:G:26:ILE:HG21	2.04	0.40
2:R:82:CYS:CA	7:R:201:CYC:CHD	2.97	0.40
1:S:140:HIS:CD2	1:S:142:LEU:H	2.39	0.40
1:c:28:PHE:HZ	7:d:202:CYC:C1B	2.34	0.40
2:d:119:ALA:HB1	4:l:10:LEU:HD21	2.03	0.40
3:k:267:GLN:HE21	3:k:267:GLN:CA	2.32	0.40
1:I:137:LYS:NZ	1:I:165:ASP:OD1	2.40	0.40
1:M:66:THR:HB	7:M:201:CYC:OC	2.20	0.40
1:O:91:TYR:HD2	1:O:133:LEU:HD21	1.85	0.40
1:U:21:SER:O	1:U:25:GLN:HG3	2.22	0.40
2:d:89:ILE:HG21	2:d:131:VAL:HG22	2.03	0.40
7:f:201:CYC:CGA	5:m:30:GLN:HG2	2.51	0.40
1:i:64:PRO:O	1:i:67:THR:OG1	2.38	0.40
3:k:56:LYS:H	3:k:56:LYS:HG2	1.64	0.40
1:C:33:GLN:HE22	7:L:202:CYC:C4B	2.23	0.40
2:H:150:ARG:NH2	7:H:202:CYC:OC	2.55	0.40
2:N:85:ASP:OD2	2:N:117:TYR:OH	2.34	0.40
2:T:72:ASN:HD22	7:T:201:CYC:HC	1.70	0.40
1:a:52:VAL:HG22	1:a:88:ILE:HG22	2.03	0.40
1:c:94:ILE:HG22	1:c:107:LEU:HD23	2.04	0.40
4:l:121:TYR:HB2	4:l:129:GLU:HG3	2.03	0.40
6:n:54:PHE:CE1	6:n:92:PHE:HB2	2.54	0.40

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	A	160/162 (99%)	157 (98%)	3 (2%)	0	100	100
1	C	160/162 (99%)	158 (99%)	2 (1%)	0	100	100
1	E	160/162 (99%)	158 (99%)	2 (1%)	0	100	100
1	G	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
1	I	160/162 (99%)	158 (99%)	2 (1%)	0	100	100
1	K	160/162 (99%)	156 (98%)	4 (2%)	0	100	100
1	M	160/162 (99%)	157 (98%)	3 (2%)	0	100	100
1	O	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
1	Q	160/162 (99%)	158 (99%)	2 (1%)	0	100	100
1	S	160/162 (99%)	157 (98%)	3 (2%)	0	100	100
1	U	160/162 (99%)	157 (98%)	3 (2%)	0	100	100
1	W	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
1	Y	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
1	a	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
1	c	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
1	e	160/162 (99%)	158 (99%)	2 (1%)	0	100	100
1	g	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
1	i	160/162 (99%)	160 (100%)	0	0	100	100
2	B	170/172 (99%)	166 (98%)	4 (2%)	0	100	100
2	D	170/172 (99%)	168 (99%)	2 (1%)	0	100	100
2	F	170/172 (99%)	166 (98%)	4 (2%)	0	100	100
2	H	170/172 (99%)	168 (99%)	2 (1%)	0	100	100
2	J	170/172 (99%)	166 (98%)	4 (2%)	0	100	100
2	L	170/172 (99%)	167 (98%)	3 (2%)	0	100	100
2	N	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	22	32

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	P	170/172 (99%)	167 (98%)	3 (2%)	0	100	100
2	R	170/172 (99%)	166 (98%)	4 (2%)	0	100	100
2	T	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	22	32
2	V	170/172 (99%)	166 (98%)	4 (2%)	0	100	100
2	X	170/172 (99%)	167 (98%)	3 (2%)	0	100	100
2	Z	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	22	32
2	b	170/172 (99%)	166 (98%)	3 (2%)	1 (1%)	22	32
2	d	170/172 (99%)	168 (99%)	2 (1%)	0	100	100
2	f	170/172 (99%)	165 (97%)	5 (3%)	0	100	100
2	h	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	22	32
2	j	170/172 (99%)	163 (96%)	5 (3%)	2 (1%)	11	15
3	k	287/291 (99%)	279 (97%)	8 (3%)	0	100	100
4	l	270/273 (99%)	264 (98%)	6 (2%)	0	100	100
5	m	79/413 (19%)	76 (96%)	3 (4%)	0	100	100
6	n	195/249 (78%)	187 (96%)	8 (4%)	0	100	100
All	All	6771/7238 (94%)	6652 (98%)	112 (2%)	7 (0%)	50	65

All (7) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	j	75	THR
2	N	69	PRO
2	Z	75	THR
2	b	75	THR
2	h	75	THR
2	T	75	THR
2	j	69	PRO

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	A	126/126 (100%)	124 (98%)	2 (2%)	58 75
1	C	126/126 (100%)	126 (100%)	0	100 100
1	E	126/126 (100%)	126 (100%)	0	100 100
1	G	126/126 (100%)	126 (100%)	0	100 100
1	I	126/126 (100%)	126 (100%)	0	100 100
1	K	126/126 (100%)	126 (100%)	0	100 100
1	M	126/126 (100%)	126 (100%)	0	100 100
1	O	126/126 (100%)	126 (100%)	0	100 100
1	Q	126/126 (100%)	126 (100%)	0	100 100
1	S	126/126 (100%)	126 (100%)	0	100 100
1	U	126/126 (100%)	126 (100%)	0	100 100
1	W	126/126 (100%)	126 (100%)	0	100 100
1	Y	126/126 (100%)	126 (100%)	0	100 100
1	a	126/126 (100%)	126 (100%)	0	100 100
1	c	126/126 (100%)	126 (100%)	0	100 100
1	e	126/126 (100%)	126 (100%)	0	100 100
1	g	126/126 (100%)	126 (100%)	0	100 100
1	i	126/126 (100%)	126 (100%)	0	100 100
2	B	128/128 (100%)	128 (100%)	0	100 100
2	D	128/128 (100%)	128 (100%)	0	100 100
2	F	128/128 (100%)	128 (100%)	0	100 100
2	H	128/128 (100%)	128 (100%)	0	100 100
2	J	128/128 (100%)	128 (100%)	0	100 100
2	L	128/128 (100%)	128 (100%)	0	100 100
2	N	128/128 (100%)	126 (98%)	2 (2%)	58 75
2	P	128/128 (100%)	128 (100%)	0	100 100
2	R	128/128 (100%)	128 (100%)	0	100 100
2	T	128/128 (100%)	126 (98%)	2 (2%)	58 75
2	V	128/128 (100%)	128 (100%)	0	100 100
2	X	128/128 (100%)	127 (99%)	1 (1%)	79 89
2	Z	128/128 (100%)	126 (98%)	2 (2%)	58 75
2	b	128/128 (100%)	127 (99%)	1 (1%)	79 89

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	d	128/128 (100%)	127 (99%)	1 (1%)	79 89
2	f	128/128 (100%)	128 (100%)	0	100 100
2	h	128/128 (100%)	126 (98%)	2 (2%)	58 75
2	j	128/128 (100%)	126 (98%)	2 (2%)	58 75
3	k	244/246 (99%)	242 (99%)	2 (1%)	79 89
4	l	229/230 (100%)	229 (100%)	0	100 100
5	m	71/351 (20%)	70 (99%)	1 (1%)	62 78
6	n	173/211 (82%)	167 (96%)	6 (4%)	31 48
All	All	5289/5610 (94%)	5265 (100%)	24 (0%)	85 93

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

Mol	Chain	Res	Type
1	A	2	LYS
1	A	3	THR
2	N	65	GLN
2	N	67	ILE
2	T	68	GLN
2	T	78	ARG
2	X	67	ILE
2	Z	67	ILE
2	Z	68	GLN
2	b	72	ASN
2	d	68	GLN
2	h	67	ILE
2	h	72	ASN
2	j	67	ILE
2	j	72	ASN
3	k	267	GLN
3	k	277	ARG
5	m	38	ASP
6	n	93	ARG
6	n	142	GLU
6	n	143	LEU
6	n	144	LEU
6	n	168	GLN
6	n	170	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (80)

such sidechains are listed below:

Mol	Chain	Res	Type
2	B	11	GLN
2	B	72	ASN
1	C	33	GLN
1	C	139	ASN
2	D	72	ASN
1	E	35	ASN
1	E	49	GLN
1	E	53	ASN
2	F	47	ASN
2	F	63	GLN
2	F	146	ASN
1	G	15	GLN
1	G	33	GLN
1	G	139	ASN
2	H	42	ASN
2	J	42	ASN
2	J	47	ASN
1	K	33	GLN
1	K	49	GLN
1	K	53	ASN
2	L	111	ASN
1	M	78	GLN
1	M	139	ASN
1	O	47	ASN
1	O	70	GLN
1	O	169	ASN
2	P	23	GLN
2	P	47	ASN
1	Q	33	GLN
1	Q	39	GLN
1	Q	57	GLN
1	S	49	GLN
1	S	57	GLN
1	S	139	ASN
2	T	68	GLN
2	T	72	ASN
1	U	78	GLN
1	U	139	ASN
2	V	23	GLN
1	W	33	GLN
1	W	57	GLN
1	W	78	GLN

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Mol	Chain	Res	Type
2	X	146	ASN
1	Y	139	ASN
2	Z	146	ASN
1	a	35	ASN
1	a	57	GLN
1	a	61	ASN
1	a	139	ASN
2	b	23	GLN
2	b	68	GLN
1	c	49	GLN
1	c	78	GLN
1	c	139	ASN
2	d	68	GLN
1	e	33	GLN
1	e	47	ASN
1	e	70	GLN
1	e	139	ASN
1	e	161	ASN
2	f	35	ASN
2	f	68	GLN
1	g	139	ASN
2	h	47	ASN
2	h	72	ASN
1	i	33	GLN
1	i	35	ASN
1	i	57	GLN
2	j	47	ASN
3	k	142	ASN
3	k	208	ASN
3	k	276	ASN
4	l	8	GLN
5	m	84	HIS
6	n	57	GLN
6	n	71	GLN
6	n	141	ASN
6	n	152	ASN
6	n	168	GLN
6	n	186	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)

54 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
7	CYC	C	201	1	42,46,46	2.24	14 (33%)	50,67,67	3.41	20 (40%)
7	CYC	J	201	-	42,46,46	2.68	13 (30%)	50,67,67	2.16	14 (28%)
7	CYC	j	201	-	42,46,46	3.63	17 (40%)	50,67,67	2.50	13 (26%)
7	CYC	N	201	2	42,46,46	2.75	14 (33%)	50,67,67	2.56	13 (26%)
7	CYC	e	201	1	42,46,46	2.25	15 (35%)	50,67,67	3.40	20 (40%)
7	CYC	R	201	-	42,46,46	2.26	11 (26%)	50,67,67	3.45	20 (40%)
7	CYC	f	202	-	42,46,46	3.17	16 (38%)	50,67,67	2.62	14 (28%)
7	CYC	X	202	-	42,46,46	3.17	16 (38%)	50,67,67	2.62	14 (28%)
7	CYC	T	202	-	42,46,46	3.15	16 (38%)	50,67,67	2.62	14 (28%)
7	CYC	S	201	1	42,46,46	2.24	16 (38%)	50,67,67	3.41	20 (40%)
7	CYC	V	202	-	42,46,46	3.16	16 (38%)	50,67,67	2.62	14 (28%)
7	CYC	J	202	-	42,46,46	3.16	16 (38%)	50,67,67	2.63	15 (30%)
7	CYC	L	201	2	42,46,46	2.73	14 (33%)	50,67,67	2.16	16 (32%)
7	CYC	U	201	1	42,46,46	2.26	15 (35%)	50,67,67	3.40	20 (40%)
7	CYC	V	201	2	42,46,46	2.29	13 (30%)	50,67,67	3.46	20 (40%)
7	CYC	G	201	1	42,46,46	2.25	15 (35%)	50,67,67	3.40	19 (38%)
7	CYC	P	202	-	42,46,46	3.16	16 (38%)	50,67,67	2.63	14 (28%)
7	CYC	K	201	-	42,46,46	2.24	16 (38%)	50,67,67	3.41	19 (38%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
7	CYC	R	202	-	42,46,46	3.17	16 (38%)	50,67,67	2.63	14 (28%)
7	CYC	h	201	-	42,46,46	2.73	13 (30%)	50,67,67	2.16	13 (26%)
7	CYC	f	201	-	42,46,46	2.28	13 (30%)	50,67,67	3.45	20 (40%)
7	CYC	B	202	-	42,46,46	3.17	16 (38%)	50,67,67	2.62	14 (28%)
7	CYC	H	202	-	42,46,46	3.17	16 (38%)	50,67,67	2.62	15 (30%)
7	CYC	E	201	1	42,46,46	2.25	16 (38%)	50,67,67	3.43	20 (40%)
7	CYC	H	201	2	42,46,46	2.71	13 (30%)	50,67,67	2.17	15 (30%)
7	CYC	L	202	-	42,46,46	3.17	16 (38%)	50,67,67	2.62	15 (30%)
7	CYC	W	201	1	42,46,46	2.26	16 (38%)	50,67,67	3.40	19 (38%)
7	CYC	Z	202	-	42,46,46	3.17	16 (38%)	50,67,67	2.63	15 (30%)
7	CYC	i	201	-	42,46,46	2.24	16 (38%)	50,67,67	3.39	20 (40%)
7	CYC	g	201	-	42,46,46	2.24	14 (33%)	50,67,67	3.39	20 (40%)
7	CYC	Q	201	1	42,46,46	2.24	15 (35%)	50,67,67	3.41	20 (40%)
7	CYC	A	201	1	42,46,46	2.25	15 (35%)	50,67,67	3.40	19 (38%)
7	CYC	h	202	-	42,46,46	3.16	17 (40%)	50,67,67	2.63	13 (26%)
7	CYC	I	201	1	42,46,46	2.25	16 (38%)	50,67,67	3.39	19 (38%)
7	CYC	T	201	-	42,46,46	2.67	13 (30%)	50,67,67	2.20	17 (34%)
7	CYC	P	201	-	42,46,46	3.02	17 (40%)	50,67,67	2.21	13 (26%)
7	CYC	a	201	-	42,46,46	2.25	16 (38%)	50,67,67	3.40	20 (40%)
7	CYC	d	202	-	42,46,46	3.17	16 (38%)	50,67,67	2.63	14 (28%)
7	CYC	O	201	1	42,46,46	2.27	16 (38%)	50,67,67	3.40	20 (40%)
7	CYC	j	202	-	42,46,46	3.18	16 (38%)	50,67,67	2.63	15 (30%)
7	CYC	D	201	2	42,46,46	3.14	18 (42%)	50,67,67	2.29	13 (26%)
7	CYC	c	201	1	42,46,46	2.25	16 (38%)	50,67,67	3.41	20 (40%)
7	CYC	b	201	2	42,46,46	2.72	14 (33%)	50,67,67	2.18	15 (30%)
7	CYC	B	201	-	42,46,46	3.65	19 (45%)	50,67,67	1.99	12 (24%)
7	CYC	F	202	-	42,46,46	3.17	17 (40%)	50,67,67	2.63	14 (28%)
7	CYC	D	202	-	42,46,46	3.17	16 (38%)	50,67,67	2.63	15 (30%)
7	CYC	Z	201	2	42,46,46	2.28	12 (28%)	50,67,67	3.43	20 (40%)
7	CYC	N	202	-	42,46,46	3.17	17 (40%)	50,67,67	2.62	14 (28%)
7	CYC	Y	201	1	42,46,46	2.24	15 (35%)	50,67,67	3.40	19 (38%)
7	CYC	M	201	-	42,46,46	2.26	16 (38%)	50,67,67	3.38	20 (40%)
7	CYC	d	201	-	42,46,46	2.27	12 (28%)	50,67,67	3.42	20 (40%)
7	CYC	X	201	-	42,46,46	2.74	14 (33%)	50,67,67	2.59	15 (30%)
7	CYC	b	202	-	42,46,46	3.16	17 (40%)	50,67,67	2.63	15 (30%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
7	CYC	F	201	-	42,46,46	3.11	17 (40%)	50,67,67	2.26	13 (26%)

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
7	CYC	C	201	1	-	10/25/74/74	0/4/4/4
7	CYC	J	201	-	-	8/25/74/74	0/4/4/4
7	CYC	j	201	-	-	9/25/74/74	0/4/4/4
7	CYC	N	201	2	-	12/25/74/74	0/4/4/4
7	CYC	e	201	1	-	10/25/74/74	0/4/4/4
7	CYC	R	201	-	-	9/25/74/74	0/4/4/4
7	CYC	f	202	-	-	8/25/74/74	0/4/4/4
7	CYC	X	202	-	-	8/25/74/74	0/4/4/4
7	CYC	T	202	-	-	8/25/74/74	0/4/4/4
7	CYC	S	201	1	-	10/25/74/74	0/4/4/4
7	CYC	V	202	-	-	8/25/74/74	0/4/4/4
7	CYC	J	202	-	-	8/25/74/74	0/4/4/4
7	CYC	L	201	2	-	11/25/74/74	0/4/4/4
7	CYC	U	201	1	-	10/25/74/74	0/4/4/4
7	CYC	V	201	2	-	9/25/74/74	0/4/4/4
7	CYC	G	201	1	-	10/25/74/74	0/4/4/4
7	CYC	P	202	-	-	8/25/74/74	0/4/4/4
7	CYC	K	201	-	-	10/25/74/74	0/4/4/4
7	CYC	R	202	-	-	8/25/74/74	0/4/4/4
7	CYC	h	201	-	-	10/25/74/74	0/4/4/4
7	CYC	f	201	-	-	9/25/74/74	0/4/4/4
7	CYC	B	202	-	-	8/25/74/74	0/4/4/4
7	CYC	H	202	-	-	8/25/74/74	0/4/4/4
7	CYC	E	201	1	-	10/25/74/74	0/4/4/4
7	CYC	H	201	2	-	10/25/74/74	0/4/4/4
7	CYC	L	202	-	-	8/25/74/74	0/4/4/4
7	CYC	W	201	1	-	9/25/74/74	0/4/4/4
7	CYC	Z	202	-	-	8/25/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
7	CYC	i	201	-	-	10/25/74/74	0/4/4/4
7	CYC	g	201	-	-	9/25/74/74	0/4/4/4
7	CYC	Q	201	1	-	10/25/74/74	0/4/4/4
7	CYC	A	201	1	-	10/25/74/74	0/4/4/4
7	CYC	h	202	-	-	8/25/74/74	0/4/4/4
7	CYC	I	201	1	-	10/25/74/74	0/4/4/4
7	CYC	T	201	-	-	11/25/74/74	0/4/4/4
7	CYC	P	201	-	-	9/25/74/74	0/4/4/4
7	CYC	a	201	-	-	9/25/74/74	0/4/4/4
7	CYC	d	202	-	-	8/25/74/74	0/4/4/4
7	CYC	O	201	1	-	9/25/74/74	0/4/4/4
7	CYC	j	202	-	-	8/25/74/74	0/4/4/4
7	CYC	D	201	2	-	7/25/74/74	0/4/4/4
7	CYC	c	201	1	-	9/25/74/74	0/4/4/4
7	CYC	b	201	2	-	10/25/74/74	0/4/4/4
7	CYC	B	201	-	-	10/25/74/74	0/4/4/4
7	CYC	F	202	-	-	8/25/74/74	0/4/4/4
7	CYC	D	202	-	-	8/25/74/74	0/4/4/4
7	CYC	Z	201	2	-	9/25/74/74	0/4/4/4
7	CYC	N	202	-	-	8/25/74/74	0/4/4/4
7	CYC	Y	201	1	-	10/25/74/74	0/4/4/4
7	CYC	M	201	-	-	9/25/74/74	0/4/4/4
7	CYC	d	201	-	-	9/25/74/74	0/4/4/4
7	CYC	X	201	-	-	10/25/74/74	0/4/4/4
7	CYC	b	202	-	-	8/25/74/74	0/4/4/4
7	CYC	F	201	-	-	11/25/74/74	0/4/4/4

All (827) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	j	201	CYC	C3C-C4C	14.78	1.72	1.50
7	B	201	CYC	C1C-NC	10.75	1.51	1.37
7	j	202	CYC	CHA-C1A	-9.54	1.27	1.35
7	X	201	CYC	C1B-NB	9.53	1.53	1.37
7	F	202	CYC	CHA-C1A	-9.50	1.27	1.35
7	B	201	CYC	C1B-NB	9.49	1.53	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	H	202	CYC	CHA-C1A	-9.48	1.27	1.35
7	d	202	CYC	CHA-C1A	-9.48	1.27	1.35
7	b	201	CYC	C1B-NB	9.46	1.53	1.37
7	J	202	CYC	CHA-C1A	-9.46	1.27	1.35
7	L	202	CYC	CHA-C1A	-9.46	1.27	1.35
7	F	201	CYC	C1B-NB	9.45	1.53	1.37
7	N	202	CYC	CHA-C1A	-9.45	1.27	1.35
7	R	202	CYC	CHA-C1A	-9.44	1.27	1.35
7	Z	202	CYC	CHA-C1A	-9.44	1.27	1.35
7	B	202	CYC	CHA-C1A	-9.44	1.27	1.35
7	J	201	CYC	C1B-NB	9.44	1.53	1.37
7	D	202	CYC	CHA-C1A	-9.43	1.27	1.35
7	h	201	CYC	C1B-NB	9.43	1.53	1.37
7	f	202	CYC	CHA-C1A	-9.42	1.27	1.35
7	P	202	CYC	CHA-C1A	-9.41	1.27	1.35
7	X	202	CYC	CHA-C1A	-9.41	1.27	1.35
7	T	201	CYC	C1B-NB	9.40	1.53	1.37
7	h	202	CYC	CHA-C1A	-9.39	1.27	1.35
7	D	201	CYC	C1B-NB	9.39	1.53	1.37
7	X	202	CYC	C1B-NB	9.37	1.53	1.37
7	j	202	CYC	C1B-NB	9.37	1.53	1.37
7	R	202	CYC	C1B-NB	9.37	1.53	1.37
7	L	202	CYC	C1B-NB	9.35	1.53	1.37
7	d	202	CYC	C1B-NB	9.35	1.53	1.37
7	b	202	CYC	CHA-C1A	-9.35	1.27	1.35
7	f	202	CYC	C1B-NB	9.34	1.53	1.37
7	Z	202	CYC	C1B-NB	9.34	1.53	1.37
7	B	202	CYC	C1B-NB	9.34	1.53	1.37
7	L	201	CYC	C1B-NB	9.34	1.53	1.37
7	T	202	CYC	C1B-NB	9.33	1.53	1.37
7	T	202	CYC	CHA-C1A	-9.33	1.27	1.35
7	F	202	CYC	C1B-NB	9.33	1.53	1.37
7	V	202	CYC	C1B-NB	9.33	1.53	1.37
7	V	202	CYC	CHA-C1A	-9.32	1.27	1.35
7	H	202	CYC	C1B-NB	9.32	1.53	1.37
7	N	202	CYC	C1B-NB	9.31	1.53	1.37
7	D	202	CYC	C1B-NB	9.31	1.53	1.37
7	b	202	CYC	C1B-NB	9.31	1.53	1.37
7	N	201	CYC	C1B-NB	9.30	1.53	1.37
7	J	202	CYC	C1B-NB	9.30	1.53	1.37
7	h	202	CYC	C1B-NB	9.30	1.53	1.37
7	j	201	CYC	C1B-NB	9.29	1.53	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	P	202	CYC	C1B-NB	9.27	1.53	1.37
7	P	201	CYC	C1B-NB	9.20	1.53	1.37
7	H	201	CYC	C1B-NB	9.08	1.53	1.37
7	B	201	CYC	C4B-NB	7.55	1.53	1.38
7	B	201	CYC	C4C-NC	-7.51	1.21	1.37
7	L	201	CYC	C4B-NB	7.48	1.53	1.38
7	P	201	CYC	CHA-C1A	-7.48	1.28	1.35
7	H	201	CYC	C4B-NB	7.47	1.53	1.38
7	X	201	CYC	C4B-NB	7.47	1.53	1.38
7	F	201	CYC	C4B-NB	7.45	1.53	1.38
7	J	201	CYC	C4B-NB	7.43	1.53	1.38
7	h	201	CYC	C4B-NB	7.42	1.53	1.38
7	b	202	CYC	C4B-NB	7.39	1.53	1.38
7	b	201	CYC	C4B-NB	7.38	1.53	1.38
7	H	202	CYC	C4B-NB	7.38	1.53	1.38
7	P	202	CYC	C4B-NB	7.37	1.53	1.38
7	X	202	CYC	C4B-NB	7.37	1.53	1.38
7	D	202	CYC	C4B-NB	7.36	1.53	1.38
7	f	202	CYC	C4B-NB	7.35	1.53	1.38
7	B	202	CYC	C4B-NB	7.35	1.53	1.38
7	F	202	CYC	C4B-NB	7.35	1.53	1.38
7	h	202	CYC	C4B-NB	7.34	1.53	1.38
7	J	202	CYC	C4B-NB	7.34	1.53	1.38
7	N	202	CYC	C4B-NB	7.34	1.53	1.38
7	d	202	CYC	C4B-NB	7.34	1.53	1.38
7	Z	202	CYC	C4B-NB	7.33	1.53	1.38
7	R	202	CYC	C4B-NB	7.33	1.53	1.38
7	L	202	CYC	C4B-NB	7.33	1.53	1.38
7	V	202	CYC	C4B-NB	7.33	1.53	1.38
7	j	202	CYC	C4B-NB	7.33	1.53	1.38
7	T	201	CYC	C4B-NB	7.32	1.53	1.38
7	T	202	CYC	C4B-NB	7.32	1.53	1.38
7	j	201	CYC	C4B-NB	7.31	1.53	1.38
7	D	201	CYC	C4B-NB	7.29	1.53	1.38
7	N	201	CYC	C4B-NB	7.21	1.53	1.38
7	U	201	CYC	OB-C4B	7.17	1.37	1.23
7	P	201	CYC	C4B-NB	7.15	1.53	1.38
7	E	201	CYC	OB-C4B	7.12	1.37	1.23
7	Z	201	CYC	OB-C4B	7.11	1.37	1.23
7	a	201	CYC	OB-C4B	7.09	1.37	1.23
7	d	201	CYC	OB-C4B	7.08	1.37	1.23
7	g	201	CYC	OB-C4B	7.08	1.37	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	C	201	CYC	OB-C4B	7.08	1.37	1.23
7	f	201	CYC	OB-C4B	7.08	1.37	1.23
7	K	201	CYC	OB-C4B	7.07	1.37	1.23
7	O	201	CYC	OB-C4B	7.06	1.37	1.23
7	I	201	CYC	OB-C4B	7.06	1.37	1.23
7	R	201	CYC	OB-C4B	7.05	1.37	1.23
7	A	201	CYC	OB-C4B	7.05	1.37	1.23
7	V	201	CYC	OB-C4B	7.05	1.37	1.23
7	Q	201	CYC	OB-C4B	7.05	1.37	1.23
7	W	201	CYC	OB-C4B	7.04	1.37	1.23
7	c	201	CYC	OB-C4B	7.02	1.36	1.23
7	e	201	CYC	OB-C4B	7.01	1.36	1.23
7	M	201	CYC	OB-C4B	7.01	1.36	1.23
7	i	201	CYC	OB-C4B	7.00	1.36	1.23
7	G	201	CYC	OB-C4B	6.94	1.36	1.23
7	S	201	CYC	OB-C4B	6.93	1.36	1.23
7	Y	201	CYC	OB-C4B	6.93	1.36	1.23
7	F	202	CYC	C1C-NC	-6.69	1.28	1.37
7	D	202	CYC	C1C-NC	-6.67	1.29	1.37
7	Z	202	CYC	C1C-NC	-6.67	1.29	1.37
7	j	202	CYC	C1C-NC	-6.67	1.29	1.37
7	R	202	CYC	C1C-NC	-6.67	1.29	1.37
7	d	202	CYC	C1C-NC	-6.66	1.29	1.37
7	H	202	CYC	C1C-NC	-6.66	1.29	1.37
7	P	202	CYC	C1C-NC	-6.65	1.29	1.37
7	J	202	CYC	C1C-NC	-6.64	1.29	1.37
7	V	202	CYC	C1C-NC	-6.64	1.29	1.37
7	L	202	CYC	C1C-NC	-6.63	1.29	1.37
7	f	202	CYC	C1C-NC	-6.63	1.29	1.37
7	B	202	CYC	C1C-NC	-6.62	1.29	1.37
7	b	202	CYC	C1C-NC	-6.62	1.29	1.37
7	N	202	CYC	C1C-NC	-6.60	1.29	1.37
7	X	202	CYC	C1C-NC	-6.59	1.29	1.37
7	h	202	CYC	C1C-NC	-6.58	1.29	1.37
7	T	202	CYC	C1C-NC	-6.56	1.29	1.37
7	F	201	CYC	C1A-NA	5.68	1.50	1.38
7	D	201	CYC	C1A-NA	5.59	1.50	1.38
7	D	201	CYC	CHB-C4A	5.56	1.53	1.40
7	B	201	CYC	C1A-NA	5.52	1.50	1.38
7	F	201	CYC	CHB-C4A	5.38	1.53	1.40
7	h	201	CYC	C1C-NC	-5.34	1.30	1.37
7	P	201	CYC	CHB-C4A	5.33	1.52	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	D	201	CYC	C4A-NA	5.33	1.48	1.36
7	L	201	CYC	CHB-C4A	5.33	1.52	1.40
7	V	201	CYC	C1C-NC	-5.32	1.30	1.37
7	P	201	CYC	C1C-NC	-5.31	1.30	1.37
7	d	201	CYC	C1C-NC	-5.29	1.30	1.37
7	j	201	CYC	CHB-C4A	5.26	1.52	1.40
7	N	201	CYC	CHB-C4A	5.25	1.52	1.40
7	X	201	CYC	C1C-NC	-5.24	1.30	1.37
7	B	201	CYC	CHB-C4A	5.23	1.52	1.40
7	J	201	CYC	C1C-NC	-5.23	1.30	1.37
7	b	201	CYC	CHB-C4A	5.22	1.52	1.40
7	D	201	CYC	C1C-NC	-5.22	1.30	1.37
7	L	201	CYC	C1C-NC	-5.21	1.30	1.37
7	H	201	CYC	CHB-C4A	5.20	1.52	1.40
7	H	201	CYC	C1C-NC	-5.20	1.30	1.37
7	h	201	CYC	CHB-C4A	5.19	1.52	1.40
7	b	201	CYC	C1C-NC	-5.18	1.30	1.37
7	j	201	CYC	C1C-NC	-5.18	1.30	1.37
7	F	201	CYC	C1C-NC	-5.15	1.30	1.37
7	T	201	CYC	C1C-NC	-5.14	1.30	1.37
7	f	201	CYC	C1C-NC	-5.14	1.30	1.37
7	B	201	CYC	C4A-NA	5.11	1.48	1.36
7	F	201	CYC	C4A-NA	5.07	1.48	1.36
7	R	201	CYC	C1C-NC	-5.05	1.31	1.37
7	S	201	CYC	C1C-NC	-5.04	1.31	1.37
7	Z	201	CYC	C1C-NC	-5.02	1.31	1.37
7	M	201	CYC	C1C-NC	-5.01	1.31	1.37
7	c	201	CYC	C1C-NC	-4.98	1.31	1.37
7	N	201	CYC	C1C-NC	-4.97	1.31	1.37
7	G	201	CYC	C1C-NC	-4.96	1.31	1.37
7	O	201	CYC	C1C-NC	-4.95	1.31	1.37
7	e	201	CYC	C1C-NC	-4.95	1.31	1.37
7	A	201	CYC	C1C-NC	-4.92	1.31	1.37
7	a	201	CYC	C1C-NC	-4.91	1.31	1.37
7	F	201	CYC	C2A-C3A	4.91	1.47	1.36
7	Y	201	CYC	C1C-NC	-4.91	1.31	1.37
7	W	201	CYC	C1C-NC	-4.90	1.31	1.37
7	Q	201	CYC	C1C-NC	-4.89	1.31	1.37
7	D	201	CYC	C2A-C3A	4.89	1.47	1.36
7	j	201	CYC	C4C-NC	-4.88	1.27	1.37
7	K	201	CYC	C1C-NC	-4.87	1.31	1.37
7	I	201	CYC	C1C-NC	-4.86	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	U	201	CYC	C1C-NC	-4.86	1.31	1.37
7	i	201	CYC	C1C-NC	-4.84	1.31	1.37
7	B	201	CYC	C2A-C3A	4.83	1.47	1.36
7	C	201	CYC	C1C-NC	-4.80	1.31	1.37
7	E	201	CYC	C1C-NC	-4.77	1.31	1.37
7	F	201	CYC	C1A-C2A	4.72	1.53	1.45
7	g	201	CYC	C1C-NC	-4.64	1.31	1.37
7	W	201	CYC	OC-C1C	4.64	1.32	1.23
7	S	201	CYC	OC-C1C	4.60	1.32	1.23
7	Y	201	CYC	OC-C1C	4.59	1.32	1.23
7	M	201	CYC	OC-C1C	4.57	1.32	1.23
7	U	201	CYC	OC-C1C	4.57	1.32	1.23
7	I	201	CYC	OC-C1C	4.56	1.32	1.23
7	K	201	CYC	OC-C1C	4.56	1.32	1.23
7	g	201	CYC	OC-C1C	4.56	1.32	1.23
7	A	201	CYC	OC-C1C	4.55	1.32	1.23
7	Q	201	CYC	OC-C1C	4.55	1.32	1.23
7	a	201	CYC	OC-C1C	4.54	1.32	1.23
7	G	201	CYC	OC-C1C	4.54	1.32	1.23
7	D	201	CYC	C1A-C2A	4.53	1.52	1.45
7	E	201	CYC	OC-C1C	4.51	1.32	1.23
7	i	201	CYC	OC-C1C	4.51	1.32	1.23
7	O	201	CYC	OC-C1C	4.50	1.32	1.23
7	c	201	CYC	OC-C1C	4.46	1.32	1.23
7	C	201	CYC	OC-C1C	4.45	1.32	1.23
7	V	201	CYC	OC-C1C	4.43	1.32	1.23
7	d	201	CYC	OC-C1C	4.43	1.32	1.23
7	Z	201	CYC	OC-C1C	4.43	1.32	1.23
7	X	201	CYC	OC-C1C	4.43	1.32	1.23
7	P	201	CYC	C2A-C3A	4.40	1.46	1.36
7	e	201	CYC	OC-C1C	4.39	1.32	1.23
7	R	201	CYC	OC-C1C	4.39	1.32	1.23
7	f	201	CYC	OC-C1C	4.34	1.32	1.23
7	N	201	CYC	OC-C1C	4.33	1.32	1.23
7	B	201	CYC	C1A-C2A	4.32	1.52	1.45
7	B	201	CYC	CHA-C1A	-4.23	1.31	1.35
7	J	201	CYC	CMC-C2C	4.21	1.62	1.53
7	X	201	CYC	CHB-C4A	4.20	1.50	1.40
7	d	201	CYC	CHB-C4A	4.20	1.50	1.40
7	R	201	CYC	CHB-C4A	4.19	1.50	1.40
7	P	201	CYC	CMC-C2C	4.18	1.62	1.53
7	h	201	CYC	CMC-C2C	4.16	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	T	201	CYC	CHB-C4A	4.16	1.50	1.40
7	Z	201	CYC	CHB-C4A	4.12	1.50	1.40
7	f	201	CYC	CHB-C4A	4.12	1.50	1.40
7	j	201	CYC	CMC-C2C	4.11	1.62	1.53
7	L	201	CYC	CMC-C2C	4.10	1.62	1.53
7	H	201	CYC	CMC-C2C	4.10	1.62	1.53
7	V	201	CYC	CHB-C4A	4.09	1.50	1.40
7	D	201	CYC	CMC-C2C	4.08	1.62	1.53
7	F	201	CYC	CMC-C2C	4.07	1.62	1.53
7	J	201	CYC	CHB-C4A	4.07	1.49	1.40
7	N	201	CYC	CMC-C2C	4.06	1.61	1.53
7	B	201	CYC	CMC-C2C	4.06	1.61	1.53
7	T	201	CYC	CMC-C2C	4.04	1.61	1.53
7	X	201	CYC	CMC-C2C	4.03	1.61	1.53
7	f	202	CYC	CMC-C2C	4.00	1.61	1.53
7	J	202	CYC	CMC-C2C	3.98	1.61	1.53
7	R	202	CYC	CMC-C2C	3.98	1.61	1.53
7	d	202	CYC	CMC-C2C	3.98	1.61	1.53
7	P	202	CYC	CMC-C2C	3.98	1.61	1.53
7	j	202	CYC	CMC-C2C	3.97	1.61	1.53
7	b	201	CYC	CMC-C2C	3.97	1.61	1.53
7	D	202	CYC	CMC-C2C	3.96	1.61	1.53
7	B	202	CYC	CMC-C2C	3.96	1.61	1.53
7	H	202	CYC	CMC-C2C	3.95	1.61	1.53
7	Z	202	CYC	CMC-C2C	3.95	1.61	1.53
7	N	202	CYC	CMC-C2C	3.95	1.61	1.53
7	T	202	CYC	CMC-C2C	3.95	1.61	1.53
7	L	202	CYC	CMC-C2C	3.94	1.61	1.53
7	R	202	CYC	OC-C1C	3.94	1.31	1.23
7	F	202	CYC	CMC-C2C	3.94	1.61	1.53
7	V	202	CYC	CMC-C2C	3.94	1.61	1.53
7	X	202	CYC	CMC-C2C	3.93	1.61	1.53
7	h	202	CYC	CMC-C2C	3.93	1.61	1.53
7	b	202	CYC	CMC-C2C	3.93	1.61	1.53
7	D	202	CYC	OC-C1C	3.93	1.31	1.23
7	J	202	CYC	OC-C1C	3.92	1.31	1.23
7	D	201	CYC	CHA-C1A	-3.92	1.31	1.35
7	Z	202	CYC	OC-C1C	3.91	1.31	1.23
7	h	202	CYC	OC-C1C	3.91	1.31	1.23
7	B	202	CYC	OC-C1C	3.91	1.31	1.23
7	P	202	CYC	OC-C1C	3.91	1.31	1.23
7	j	202	CYC	OC-C1C	3.90	1.31	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	b	202	CYC	OC-C1C	3.90	1.31	1.23
7	d	202	CYC	OC-C1C	3.90	1.31	1.23
7	L	202	CYC	OC-C1C	3.90	1.31	1.23
7	N	202	CYC	OC-C1C	3.90	1.31	1.23
7	F	202	CYC	OC-C1C	3.90	1.31	1.23
7	V	202	CYC	OC-C1C	3.89	1.31	1.23
7	H	202	CYC	OC-C1C	3.89	1.31	1.23
7	X	202	CYC	OC-C1C	3.89	1.31	1.23
7	f	202	CYC	OC-C1C	3.88	1.31	1.23
7	T	202	CYC	OC-C1C	3.88	1.31	1.23
7	Y	201	CYC	C3D-C2D	3.78	1.48	1.37
7	F	201	CYC	CHA-C1A	-3.78	1.32	1.35
7	P	201	CYC	C1A-NA	3.74	1.46	1.38
7	O	201	CYC	C3D-C2D	3.74	1.48	1.37
7	C	201	CYC	C3D-C2D	3.71	1.48	1.37
7	G	201	CYC	C3D-C2D	3.70	1.48	1.37
7	g	201	CYC	C3D-C2D	3.70	1.48	1.37
7	a	201	CYC	C3D-C2D	3.69	1.48	1.37
7	I	201	CYC	C3D-C2D	3.69	1.48	1.37
7	A	201	CYC	C3D-C2D	3.68	1.48	1.37
7	U	201	CYC	C3D-C2D	3.68	1.48	1.37
7	e	201	CYC	C3D-C2D	3.67	1.48	1.37
7	S	201	CYC	C3D-C2D	3.67	1.48	1.37
7	Q	201	CYC	C3D-C2D	3.67	1.48	1.37
7	W	201	CYC	C3D-C2D	3.66	1.48	1.37
7	i	201	CYC	CHB-C4A	3.66	1.49	1.40
7	W	201	CYC	CHB-C4A	3.66	1.49	1.40
7	L	201	CYC	C2A-C3A	3.64	1.44	1.36
7	E	201	CYC	C3D-C2D	3.64	1.48	1.37
7	M	201	CYC	C3D-C2D	3.64	1.48	1.37
7	c	201	CYC	C3D-C2D	3.63	1.48	1.37
7	Q	201	CYC	CHB-C4A	3.63	1.48	1.40
7	K	201	CYC	C3D-C2D	3.62	1.48	1.37
7	i	201	CYC	C3D-C2D	3.62	1.48	1.37
7	j	201	CYC	C2A-C3A	3.61	1.44	1.36
7	H	201	CYC	C2A-C3A	3.61	1.44	1.36
7	M	201	CYC	CHB-C4A	3.61	1.48	1.40
7	R	201	CYC	C2A-C3A	3.61	1.44	1.36
7	Y	201	CYC	CHB-C4A	3.60	1.48	1.40
7	E	201	CYC	CHB-C4A	3.59	1.48	1.40
7	c	201	CYC	CHB-C4A	3.59	1.48	1.40
7	C	201	CYC	C2A-C3A	3.58	1.44	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	G	201	CYC	CHB-C4A	3.58	1.48	1.40
7	J	202	CYC	C2A-C3A	3.58	1.44	1.36
7	V	202	CYC	C2A-C3A	3.58	1.44	1.36
7	F	202	CYC	C2A-C3A	3.58	1.44	1.36
7	V	201	CYC	C2A-C3A	3.57	1.44	1.36
7	h	202	CYC	C2A-C3A	3.57	1.44	1.36
7	d	201	CYC	C2A-C3A	3.57	1.44	1.36
7	Z	201	CYC	C2A-C3A	3.57	1.44	1.36
7	b	202	CYC	C2A-C3A	3.57	1.44	1.36
7	c	201	CYC	C2A-C3A	3.57	1.44	1.36
7	e	201	CYC	CHB-C4A	3.57	1.48	1.40
7	a	201	CYC	CHB-C4A	3.57	1.48	1.40
7	Z	201	CYC	CHA-C1A	3.56	1.38	1.35
7	I	201	CYC	CHB-C4A	3.56	1.48	1.40
7	P	202	CYC	C2A-C3A	3.56	1.44	1.36
7	g	201	CYC	CHB-C4A	3.56	1.48	1.40
7	B	202	CYC	C2A-C3A	3.56	1.44	1.36
7	R	202	CYC	C2A-C3A	3.56	1.44	1.36
7	d	202	CYC	C2A-C3A	3.55	1.44	1.36
7	O	201	CYC	CHB-C4A	3.55	1.48	1.40
7	T	201	CYC	C2A-C3A	3.55	1.44	1.36
7	T	202	CYC	C2A-C3A	3.55	1.44	1.36
7	N	202	CYC	C2A-C3A	3.55	1.44	1.36
7	f	202	CYC	C2A-C3A	3.55	1.44	1.36
7	O	201	CYC	C2A-C3A	3.55	1.44	1.36
7	E	201	CYC	C2A-C3A	3.55	1.44	1.36
7	U	201	CYC	CHB-C4A	3.55	1.48	1.40
7	L	202	CYC	C2A-C3A	3.54	1.44	1.36
7	X	201	CYC	C2A-C3A	3.54	1.44	1.36
7	d	202	CYC	CAC-C3C	3.54	1.61	1.54
7	A	201	CYC	C2A-C3A	3.54	1.44	1.36
7	H	202	CYC	C2A-C3A	3.54	1.44	1.36
7	f	201	CYC	C2A-C3A	3.54	1.44	1.36
7	T	201	CYC	CHA-C1A	3.54	1.38	1.35
7	K	201	CYC	CHB-C4A	3.54	1.48	1.40
7	D	202	CYC	C2A-C3A	3.54	1.44	1.36
7	j	202	CYC	CAC-C3C	3.54	1.60	1.54
7	J	201	CYC	C2A-C3A	3.54	1.44	1.36
7	b	201	CYC	C2A-C3A	3.54	1.44	1.36
7	Z	202	CYC	C2A-C3A	3.53	1.44	1.36
7	j	202	CYC	C2A-C3A	3.53	1.44	1.36
7	N	201	CYC	C2A-C3A	3.53	1.44	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	b	202	CYC	CAC-C3C	3.53	1.60	1.54
7	J	202	CYC	CAC-C3C	3.53	1.60	1.54
7	X	202	CYC	C2A-C3A	3.52	1.44	1.36
7	h	201	CYC	C2A-C3A	3.52	1.44	1.36
7	F	202	CYC	CAC-C3C	3.52	1.60	1.54
7	A	201	CYC	CHB-C4A	3.52	1.48	1.40
7	N	202	CYC	CAC-C3C	3.52	1.60	1.54
7	V	201	CYC	C3D-C2D	3.51	1.48	1.37
7	T	202	CYC	CAC-C3C	3.51	1.60	1.54
7	G	201	CYC	C2A-C3A	3.51	1.44	1.36
7	H	202	CYC	CAC-C3C	3.50	1.60	1.54
7	H	201	CYC	CHA-C1A	3.50	1.38	1.35
7	W	201	CYC	C2A-C3A	3.50	1.44	1.36
7	L	202	CYC	CAC-C3C	3.50	1.60	1.54
7	h	202	CYC	CAC-C3C	3.50	1.60	1.54
7	P	202	CYC	CAC-C3C	3.49	1.60	1.54
7	f	202	CYC	CAC-C3C	3.49	1.60	1.54
7	B	202	CYC	CAC-C3C	3.49	1.60	1.54
7	e	201	CYC	C2A-C3A	3.49	1.44	1.36
7	C	201	CYC	CHB-C4A	3.49	1.48	1.40
7	V	202	CYC	CAC-C3C	3.49	1.60	1.54
7	Z	202	CYC	CAC-C3C	3.49	1.60	1.54
7	D	202	CYC	CAC-C3C	3.49	1.60	1.54
7	b	201	CYC	C3D-C2D	3.49	1.48	1.37
7	g	201	CYC	C2A-C3A	3.49	1.44	1.36
7	f	201	CYC	C3D-C2D	3.48	1.48	1.37
7	I	201	CYC	C2A-C3A	3.48	1.44	1.36
7	S	201	CYC	CHB-C4A	3.48	1.48	1.40
7	S	201	CYC	C2A-C3A	3.48	1.44	1.36
7	U	201	CYC	C2A-C3A	3.48	1.44	1.36
7	i	201	CYC	C2A-C3A	3.47	1.44	1.36
7	X	202	CYC	CAC-C3C	3.47	1.60	1.54
7	Y	201	CYC	C2A-C3A	3.47	1.44	1.36
7	a	201	CYC	C2A-C3A	3.47	1.44	1.36
7	M	201	CYC	C2A-C3A	3.46	1.44	1.36
7	f	201	CYC	CHA-C1A	3.46	1.38	1.35
7	R	202	CYC	CAC-C3C	3.46	1.60	1.54
7	P	201	CYC	C3D-C2D	3.46	1.47	1.37
7	K	201	CYC	C2A-C3A	3.46	1.44	1.36
7	Z	201	CYC	C3D-C2D	3.45	1.47	1.37
7	N	201	CYC	C3D-C2D	3.45	1.47	1.37
7	J	201	CYC	C3D-C2D	3.45	1.47	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	N	201	CYC	CHA-C1A	3.44	1.38	1.35
7	b	201	CYC	CHA-C1A	3.43	1.38	1.35
7	T	201	CYC	C3D-C2D	3.43	1.47	1.37
7	H	201	CYC	C3D-C2D	3.43	1.47	1.37
7	R	201	CYC	C3D-C2D	3.42	1.47	1.37
7	h	201	CYC	C3D-C2D	3.42	1.47	1.37
7	Q	201	CYC	C2A-C3A	3.42	1.44	1.36
7	X	201	CYC	C3D-C2D	3.41	1.47	1.37
7	d	201	CYC	C3D-C2D	3.39	1.47	1.37
7	L	201	CYC	C3D-C2D	3.37	1.47	1.37
7	Z	201	CYC	C4B-C3B	-3.35	1.41	1.48
7	V	201	CYC	CHA-C1A	3.34	1.37	1.35
7	X	201	CYC	CHA-C1A	3.32	1.37	1.35
7	j	201	CYC	C3D-C2D	3.30	1.47	1.37
7	h	201	CYC	CHA-C1A	3.30	1.37	1.35
7	J	201	CYC	CHA-C1A	3.28	1.37	1.35
7	d	201	CYC	CHA-C1A	3.28	1.37	1.35
7	V	201	CYC	C4B-C3B	-3.26	1.42	1.48
7	f	201	CYC	C4B-C3B	-3.24	1.42	1.48
7	d	201	CYC	C4B-C3B	-3.23	1.42	1.48
7	D	202	CYC	C3D-C2D	3.23	1.47	1.37
7	P	202	CYC	C3D-C2D	3.23	1.47	1.37
7	f	202	CYC	C3D-C2D	3.22	1.47	1.37
7	d	202	CYC	C3D-C2D	3.21	1.47	1.37
7	J	202	CYC	C3D-C2D	3.21	1.47	1.37
7	X	202	CYC	C3D-C2D	3.20	1.47	1.37
7	N	202	CYC	C3D-C2D	3.20	1.47	1.37
7	F	202	CYC	C3D-C2D	3.20	1.47	1.37
7	T	202	CYC	C3D-C2D	3.20	1.47	1.37
7	R	202	CYC	C3D-C2D	3.20	1.47	1.37
7	L	202	CYC	C3D-C2D	3.19	1.47	1.37
7	V	202	CYC	C3D-C2D	3.19	1.47	1.37
7	Z	202	CYC	C3D-C2D	3.19	1.47	1.37
7	B	202	CYC	C3D-C2D	3.19	1.47	1.37
7	h	202	CYC	C1A-NA	3.19	1.45	1.38
7	b	202	CYC	C3D-C2D	3.19	1.47	1.37
7	h	202	CYC	C3D-C2D	3.19	1.47	1.37
7	H	202	CYC	C1A-NA	3.18	1.45	1.38
7	H	202	CYC	C3D-C2D	3.18	1.47	1.37
7	j	202	CYC	C3D-C2D	3.18	1.47	1.37
7	b	202	CYC	C1A-NA	3.18	1.45	1.38
7	F	202	CYC	C1A-NA	3.18	1.45	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	V	202	CYC	C1A-NA	3.18	1.45	1.38
7	N	202	CYC	C1A-NA	3.17	1.45	1.38
7	f	202	CYC	C1A-NA	3.17	1.45	1.38
7	L	201	CYC	CHA-C1A	3.17	1.37	1.35
7	X	202	CYC	C1A-NA	3.17	1.45	1.38
7	B	202	CYC	C1A-NA	3.17	1.45	1.38
7	Z	202	CYC	C1A-NA	3.16	1.45	1.38
7	J	202	CYC	C1A-NA	3.16	1.45	1.38
7	R	202	CYC	C1A-NA	3.16	1.45	1.38
7	j	202	CYC	C1A-NA	3.16	1.45	1.38
7	L	202	CYC	C1A-NA	3.15	1.45	1.38
7	H	202	CYC	C2C-C1C	3.15	1.54	1.52
7	P	202	CYC	C1A-NA	3.15	1.45	1.38
7	d	202	CYC	C1A-NA	3.14	1.45	1.38
7	X	202	CYC	C2C-C1C	3.14	1.54	1.52
7	T	202	CYC	C1A-NA	3.14	1.45	1.38
7	R	201	CYC	CHA-C1A	3.13	1.37	1.35
7	R	201	CYC	C4B-C3B	-3.13	1.42	1.48
7	N	202	CYC	CHB-C4A	3.13	1.47	1.40
7	R	202	CYC	CHB-C4A	3.13	1.47	1.40
7	j	202	CYC	CHB-C4A	3.13	1.47	1.40
7	d	202	CYC	C2C-C1C	3.13	1.54	1.52
7	f	202	CYC	CHB-C4A	3.12	1.47	1.40
7	D	202	CYC	C1A-NA	3.12	1.45	1.38
7	h	202	CYC	CHB-C4A	3.12	1.47	1.40
7	L	202	CYC	CHB-C4A	3.12	1.47	1.40
7	B	202	CYC	CHB-C4A	3.12	1.47	1.40
7	T	202	CYC	CHB-C4A	3.12	1.47	1.40
7	D	202	CYC	C2C-C1C	3.11	1.54	1.52
7	Z	202	CYC	CHB-C4A	3.11	1.47	1.40
7	F	201	CYC	C4D-CHA	3.11	1.53	1.41
7	B	201	CYC	C1D-CHD	3.11	1.53	1.41
7	X	202	CYC	CHB-C4A	3.10	1.47	1.40
7	V	202	CYC	CHB-C4A	3.10	1.47	1.40
7	P	202	CYC	CHB-C4A	3.10	1.47	1.40
7	V	202	CYC	C2C-C1C	3.10	1.54	1.52
7	d	202	CYC	CHB-C4A	3.10	1.47	1.40
7	F	202	CYC	CHB-C4A	3.10	1.47	1.40
7	j	202	CYC	C2C-C1C	3.09	1.54	1.52
7	b	202	CYC	CHB-C4A	3.09	1.47	1.40
7	b	202	CYC	C2C-C1C	3.09	1.54	1.52
7	F	202	CYC	C2C-C1C	3.09	1.54	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	f	202	CYC	C2C-C1C	3.09	1.54	1.52
7	H	202	CYC	CHB-C4A	3.09	1.47	1.40
7	D	202	CYC	CHB-C4A	3.09	1.47	1.40
7	N	202	CYC	C2C-C1C	3.08	1.54	1.52
7	J	202	CYC	CHB-C4A	3.08	1.47	1.40
7	H	201	CYC	CHB-C1B	-3.08	1.30	1.38
7	P	202	CYC	C2C-C1C	3.06	1.54	1.52
7	R	202	CYC	C2C-C1C	3.06	1.54	1.52
7	T	202	CYC	C2C-C1C	3.06	1.54	1.52
7	L	202	CYC	C2C-C1C	3.06	1.54	1.52
7	B	202	CYC	C2C-C1C	3.06	1.54	1.52
7	J	202	CYC	C2C-C1C	3.05	1.54	1.52
7	Z	202	CYC	C2C-C1C	3.03	1.54	1.52
7	D	201	CYC	C1D-CHD	3.02	1.52	1.41
7	h	202	CYC	C2C-C1C	3.01	1.54	1.52
7	D	201	CYC	C4D-CHA	2.99	1.52	1.41
7	O	201	CYC	C3C-C4C	2.95	1.55	1.50
7	e	201	CYC	C3C-C4C	2.93	1.55	1.50
7	B	201	CYC	C4D-CHA	2.93	1.52	1.41
7	P	201	CYC	C1A-C2A	2.93	1.50	1.45
7	M	201	CYC	C3C-C4C	2.92	1.55	1.50
7	W	201	CYC	C3C-C4C	2.92	1.55	1.50
7	E	201	CYC	C3C-C4C	2.91	1.55	1.50
7	a	201	CYC	C3C-C4C	2.86	1.55	1.50
7	h	201	CYC	CHB-C1B	-2.85	1.31	1.38
7	V	201	CYC	C4B-NB	-2.85	1.31	1.38
7	f	201	CYC	C4B-NB	-2.85	1.31	1.38
7	C	201	CYC	C3C-C4C	2.84	1.55	1.50
7	K	201	CYC	C3C-C4C	2.84	1.55	1.50
7	R	201	CYC	C4B-NB	-2.83	1.32	1.38
7	d	201	CYC	C4B-NB	-2.83	1.32	1.38
7	c	201	CYC	C3C-C4C	2.83	1.55	1.50
7	g	201	CYC	C3C-C4C	2.83	1.55	1.50
7	f	202	CYC	CHB-C1B	-2.83	1.31	1.38
7	N	201	CYC	OB-C4B	-2.82	1.18	1.23
7	j	201	CYC	CHA-C1A	2.82	1.37	1.35
7	U	201	CYC	C3C-C4C	2.82	1.55	1.50
7	Y	201	CYC	C3C-C4C	2.81	1.55	1.50
7	A	201	CYC	C3C-C4C	2.81	1.55	1.50
7	B	202	CYC	CHB-C1B	-2.80	1.31	1.38
7	V	202	CYC	CHB-C1B	-2.80	1.31	1.38
7	Z	202	CYC	CHB-C1B	-2.80	1.31	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	F	202	CYC	CHB-C1B	-2.80	1.31	1.38
7	d	202	CYC	CHB-C1B	-2.80	1.31	1.38
7	R	202	CYC	CHB-C1B	-2.80	1.31	1.38
7	i	201	CYC	C3C-C4C	2.80	1.54	1.50
7	N	202	CYC	CHB-C1B	-2.79	1.31	1.38
7	Z	201	CYC	C4B-NB	-2.79	1.32	1.38
7	X	202	CYC	CHB-C1B	-2.79	1.31	1.38
7	b	202	CYC	CHB-C1B	-2.79	1.31	1.38
7	S	201	CYC	C3C-C4C	2.79	1.54	1.50
7	h	202	CYC	CHB-C1B	-2.79	1.31	1.38
7	j	202	CYC	CHB-C1B	-2.79	1.31	1.38
7	L	202	CYC	CHB-C1B	-2.78	1.31	1.38
7	T	202	CYC	CHB-C1B	-2.78	1.31	1.38
7	I	201	CYC	C3C-C4C	2.78	1.54	1.50
7	f	201	CYC	CMB-C2B	-2.78	1.44	1.50
7	D	202	CYC	CHB-C1B	-2.77	1.31	1.38
7	H	202	CYC	CHB-C1B	-2.76	1.31	1.38
7	P	202	CYC	CHB-C1B	-2.76	1.31	1.38
7	j	201	CYC	CHB-C1B	-2.76	1.31	1.38
7	Q	201	CYC	C3C-C4C	2.75	1.54	1.50
7	j	201	CYC	OB-C4B	-2.75	1.18	1.23
7	N	201	CYC	CHB-C1B	-2.75	1.31	1.38
7	L	201	CYC	CHB-C1B	-2.73	1.31	1.38
7	G	201	CYC	C3C-C4C	2.73	1.54	1.50
7	d	201	CYC	C1B-NB	-2.73	1.33	1.37
7	M	201	CYC	C4B-C3B	-2.73	1.43	1.48
7	J	202	CYC	CHB-C1B	-2.72	1.31	1.38
7	P	201	CYC	C3B-C2B	2.72	1.42	1.36
7	P	201	CYC	OB-C4B	-2.72	1.18	1.23
7	U	201	CYC	C3B-C2B	2.70	1.42	1.36
7	Y	201	CYC	C4B-C3B	-2.70	1.43	1.48
7	j	201	CYC	CHD-C4C	-2.70	1.31	1.38
7	Z	201	CYC	CMB-C2B	-2.69	1.45	1.50
7	X	201	CYC	CHB-C1B	-2.69	1.31	1.38
7	e	201	CYC	C3B-C2B	2.69	1.42	1.36
7	Z	201	CYC	C1B-NB	-2.69	1.33	1.37
7	D	201	CYC	OB-C4B	-2.68	1.18	1.23
7	b	201	CYC	CHB-C1B	-2.68	1.31	1.38
7	B	201	CYC	CHB-C1B	-2.68	1.31	1.38
7	f	201	CYC	C1B-NB	-2.67	1.33	1.37
7	V	201	CYC	C1B-NB	-2.67	1.33	1.37
7	L	201	CYC	C3B-C2B	2.66	1.42	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	N	201	CYC	C3B-C2B	2.66	1.42	1.36
7	Q	201	CYC	C3B-C2B	2.65	1.42	1.36
7	T	201	CYC	CHB-C1B	-2.65	1.31	1.38
7	V	201	CYC	CMB-C2B	-2.65	1.45	1.50
7	O	201	CYC	C3B-C2B	2.65	1.42	1.36
7	D	201	CYC	C3B-C2B	2.65	1.42	1.36
7	c	201	CYC	C4B-C3B	-2.65	1.43	1.48
7	g	201	CYC	C3B-C2B	2.64	1.42	1.36
7	O	201	CYC	CHA-C1A	2.64	1.37	1.35
7	E	201	CYC	C4B-C3B	-2.64	1.43	1.48
7	Y	201	CYC	C3B-C2B	2.64	1.42	1.36
7	R	201	CYC	C1B-NB	-2.64	1.33	1.37
7	A	201	CYC	C4B-C3B	-2.64	1.43	1.48
7	E	201	CYC	C4B-NB	-2.64	1.32	1.38
7	Q	201	CYC	C4B-C3B	-2.64	1.43	1.48
7	S	201	CYC	C3B-C2B	2.63	1.42	1.36
7	a	201	CYC	C4B-NB	-2.63	1.32	1.38
7	H	201	CYC	OB-C4B	-2.63	1.18	1.23
7	J	201	CYC	CHB-C1B	-2.63	1.31	1.38
7	O	201	CYC	C4B-C3B	-2.63	1.43	1.48
7	e	201	CYC	C4B-C3B	-2.63	1.43	1.48
7	S	201	CYC	C4B-C3B	-2.63	1.43	1.48
7	K	201	CYC	C3B-C2B	2.63	1.42	1.36
7	c	201	CYC	C3B-C2B	2.62	1.42	1.36
7	B	201	CYC	C3B-C2B	2.62	1.42	1.36
7	M	201	CYC	C1B-NB	-2.62	1.33	1.37
7	h	201	CYC	OB-C4B	-2.62	1.18	1.23
7	G	201	CYC	C3B-C2B	2.62	1.42	1.36
7	M	201	CYC	C3B-C2B	2.62	1.42	1.36
7	C	201	CYC	C4B-NB	-2.62	1.32	1.38
7	g	201	CYC	C4B-C3B	-2.62	1.43	1.48
7	E	201	CYC	C3B-C2B	2.62	1.42	1.36
7	R	201	CYC	CMB-C2B	-2.61	1.45	1.50
7	L	201	CYC	OB-C4B	-2.61	1.18	1.23
7	C	201	CYC	C4B-C3B	-2.61	1.43	1.48
7	K	201	CYC	C4B-C3B	-2.61	1.43	1.48
7	F	201	CYC	OB-C4B	-2.61	1.18	1.23
7	b	201	CYC	C3B-C2B	2.61	1.42	1.36
7	T	201	CYC	OB-C4B	-2.61	1.18	1.23
7	G	201	CYC	C4B-C3B	-2.61	1.43	1.48
7	U	201	CYC	C4B-C3B	-2.60	1.43	1.48
7	I	201	CYC	C3B-C2B	2.60	1.42	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	I	201	CYC	C4B-C3B	-2.60	1.43	1.48
7	C	201	CYC	C3B-C2B	2.60	1.42	1.36
7	F	201	CYC	OC-C1C	-2.60	1.18	1.23
7	A	201	CYC	C3B-C2B	2.60	1.42	1.36
7	P	201	CYC	CHB-C1B	-2.60	1.31	1.38
7	a	201	CYC	C4B-C3B	-2.60	1.43	1.48
7	W	201	CYC	C4B-C3B	-2.59	1.43	1.48
7	g	201	CYC	C4B-NB	-2.59	1.32	1.38
7	b	201	CYC	OB-C4B	-2.59	1.18	1.23
7	V	202	CYC	C3B-C2B	2.59	1.42	1.36
7	B	201	CYC	OB-C4B	-2.59	1.18	1.23
7	L	201	CYC	OC-C1C	-2.58	1.18	1.23
7	j	202	CYC	OB-C4B	-2.58	1.18	1.23
7	H	202	CYC	C3B-C2B	2.58	1.42	1.36
7	i	201	CYC	C3B-C2B	2.58	1.42	1.36
7	X	202	CYC	OB-C4B	-2.58	1.18	1.23
7	O	201	CYC	C4B-NB	-2.58	1.32	1.38
7	i	201	CYC	C4B-C3B	-2.58	1.43	1.48
7	D	202	CYC	C3B-C2B	2.58	1.42	1.36
7	a	201	CYC	C3B-C2B	2.57	1.42	1.36
7	T	201	CYC	OC-C1C	-2.57	1.18	1.23
7	b	202	CYC	OB-C4B	-2.57	1.18	1.23
7	j	201	CYC	OC-C1C	-2.57	1.18	1.23
7	R	202	CYC	C3B-C2B	2.57	1.42	1.36
7	f	202	CYC	OB-C4B	-2.57	1.18	1.23
7	H	201	CYC	OC-C1C	-2.57	1.18	1.23
7	W	201	CYC	C3B-C2B	2.57	1.42	1.36
7	e	201	CYC	C4B-NB	-2.57	1.32	1.38
7	W	201	CYC	C4B-NB	-2.56	1.32	1.38
7	I	201	CYC	CHA-C1A	2.56	1.37	1.35
7	T	202	CYC	C3B-C2B	2.56	1.42	1.36
7	V	202	CYC	OB-C4B	-2.56	1.18	1.23
7	U	201	CYC	C4B-NB	-2.56	1.32	1.38
7	J	201	CYC	OC-C1C	-2.56	1.18	1.23
7	j	202	CYC	C3B-C2B	2.56	1.42	1.36
7	J	202	CYC	C3B-C2B	2.56	1.42	1.36
7	B	202	CYC	OB-C4B	-2.56	1.18	1.23
7	P	202	CYC	C3B-C2B	2.56	1.42	1.36
7	B	202	CYC	C3B-C2B	2.56	1.42	1.36
7	H	202	CYC	OB-C4B	-2.55	1.18	1.23
7	A	201	CYC	C1B-NB	-2.55	1.33	1.37
7	h	202	CYC	C3B-C2B	2.55	1.42	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	F	202	CYC	OB-C4B	-2.55	1.18	1.23
7	f	202	CYC	C3B-C2B	2.55	1.42	1.36
7	I	201	CYC	C4B-NB	-2.55	1.32	1.38
7	P	202	CYC	OB-C4B	-2.55	1.18	1.23
7	L	202	CYC	OB-C4B	-2.55	1.18	1.23
7	J	202	CYC	OB-C4B	-2.54	1.18	1.23
7	j	201	CYC	C3B-C2B	2.54	1.42	1.36
7	F	201	CYC	CHB-C1B	-2.54	1.31	1.38
7	b	202	CYC	C3B-C2B	2.54	1.42	1.36
7	D	202	CYC	OB-C4B	-2.54	1.18	1.23
7	L	202	CYC	C3B-C2B	2.54	1.42	1.36
7	Z	202	CYC	C3B-C2B	2.54	1.42	1.36
7	G	201	CYC	C4B-NB	-2.54	1.32	1.38
7	h	201	CYC	OC-C1C	-2.54	1.18	1.23
7	X	202	CYC	C3B-C2B	2.54	1.42	1.36
7	T	201	CYC	C3B-C2B	2.54	1.42	1.36
7	h	202	CYC	OB-C4B	-2.53	1.18	1.23
7	J	201	CYC	C3B-C2B	2.53	1.42	1.36
7	b	201	CYC	OC-C1C	-2.53	1.18	1.23
7	R	202	CYC	OB-C4B	-2.53	1.18	1.23
7	N	202	CYC	C3B-C2B	2.53	1.42	1.36
7	K	201	CYC	C4B-NB	-2.53	1.32	1.38
7	Y	201	CYC	C4B-NB	-2.53	1.32	1.38
7	d	202	CYC	OB-C4B	-2.53	1.18	1.23
7	F	201	CYC	C3B-C2B	2.53	1.42	1.36
7	d	202	CYC	C3B-C2B	2.53	1.42	1.36
7	T	202	CYC	OB-C4B	-2.53	1.18	1.23
7	h	201	CYC	C3B-C2B	2.53	1.42	1.36
7	F	202	CYC	C3B-C2B	2.53	1.42	1.36
7	P	201	CYC	OC-C1C	-2.53	1.18	1.23
7	Z	202	CYC	OB-C4B	-2.53	1.18	1.23
7	A	201	CYC	C4B-NB	-2.52	1.32	1.38
7	c	201	CYC	C4B-NB	-2.52	1.32	1.38
7	a	201	CYC	C1B-NB	-2.52	1.33	1.37
7	e	201	CYC	C1B-NB	-2.52	1.33	1.37
7	N	202	CYC	OB-C4B	-2.52	1.18	1.23
7	J	201	CYC	OB-C4B	-2.52	1.18	1.23
7	U	201	CYC	CHA-C1A	2.51	1.37	1.35
7	B	201	CYC	OC-C1C	-2.51	1.18	1.23
7	U	201	CYC	C1B-NB	-2.51	1.33	1.37
7	X	201	CYC	OB-C4B	-2.50	1.18	1.23
7	I	201	CYC	C1B-NB	-2.50	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	Q	201	CYC	C4B-NB	-2.50	1.32	1.38
7	d	201	CYC	CMB-C2B	-2.50	1.45	1.50
7	c	201	CYC	C1B-NB	-2.49	1.33	1.37
7	D	201	CYC	OC-C1C	-2.48	1.18	1.23
7	G	201	CYC	C1B-NB	-2.48	1.33	1.37
7	S	201	CYC	C4B-NB	-2.47	1.32	1.38
7	M	201	CYC	C4B-NB	-2.47	1.32	1.38
7	i	201	CYC	C1B-NB	-2.46	1.33	1.37
7	K	201	CYC	C1B-NB	-2.46	1.33	1.37
7	W	201	CYC	CHA-C1A	2.46	1.37	1.35
7	H	201	CYC	C3B-C2B	2.46	1.41	1.36
7	X	201	CYC	C3B-C2B	2.46	1.41	1.36
7	B	201	CYC	CHD-C4C	-2.45	1.31	1.38
7	i	201	CYC	CHA-C1A	2.45	1.37	1.35
7	S	201	CYC	C1B-NB	-2.45	1.33	1.37
7	g	201	CYC	C1B-NB	-2.44	1.33	1.37
7	G	201	CYC	CHA-C1A	2.44	1.37	1.35
7	M	201	CYC	CHA-C1A	2.44	1.37	1.35
7	i	201	CYC	C4B-NB	-2.44	1.32	1.38
7	C	201	CYC	C1B-NB	-2.44	1.33	1.37
7	D	201	CYC	CHB-C1B	-2.43	1.32	1.38
7	Q	201	CYC	C1B-NB	-2.42	1.33	1.37
7	O	201	CYC	C1B-NB	-2.42	1.33	1.37
7	G	201	CYC	C1D-CHD	2.42	1.50	1.41
7	Y	201	CYC	C1D-CHD	2.42	1.50	1.41
7	Y	201	CYC	C1B-NB	-2.42	1.33	1.37
7	I	201	CYC	C1D-CHD	2.42	1.50	1.41
7	e	201	CYC	C1D-CHD	2.41	1.50	1.41
7	i	201	CYC	C1D-CHD	2.41	1.50	1.41
7	U	201	CYC	C1D-CHD	2.41	1.50	1.41
7	C	201	CYC	C1D-CHD	2.41	1.50	1.41
7	c	201	CYC	C1D-CHD	2.39	1.50	1.41
7	g	201	CYC	C1D-CHD	2.39	1.50	1.41
7	O	201	CYC	C1D-CHD	2.39	1.50	1.41
7	W	201	CYC	C1B-NB	-2.38	1.33	1.37
7	A	201	CYC	C1D-CHD	2.38	1.50	1.41
7	M	201	CYC	C1D-CHD	2.38	1.50	1.41
7	a	201	CYC	CHA-C1A	2.38	1.37	1.35
7	S	201	CYC	C1D-CHD	2.38	1.50	1.41
7	K	201	CYC	C1D-CHD	2.38	1.50	1.41
7	g	201	CYC	CHA-C1A	2.38	1.37	1.35
7	O	201	CYC	CMB-C2B	-2.38	1.45	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	c	201	CYC	CHA-C1A	2.37	1.37	1.35
7	a	201	CYC	C1D-CHD	2.36	1.50	1.41
7	E	201	CYC	C1B-NB	-2.35	1.33	1.37
7	W	201	CYC	C1D-CHD	2.35	1.50	1.41
7	E	201	CYC	C1D-CHD	2.35	1.50	1.41
7	Q	201	CYC	C1D-CHD	2.34	1.50	1.41
7	C	201	CYC	CHA-C1A	2.33	1.37	1.35
7	f	202	CYC	C1A-C2A	2.33	1.49	1.45
7	C	201	CYC	CMB-C2B	-2.32	1.45	1.50
7	D	201	CYC	CHD-C4C	-2.32	1.32	1.38
7	j	202	CYC	C1A-C2A	2.32	1.49	1.45
7	c	201	CYC	CMB-C2B	-2.32	1.45	1.50
7	G	201	CYC	CMB-C2B	-2.31	1.45	1.50
7	T	201	CYC	C1B-C2B	2.31	1.49	1.45
7	M	201	CYC	CMB-C2B	-2.30	1.45	1.50
7	Q	201	CYC	CMB-C2B	-2.30	1.45	1.50
7	Q	201	CYC	CHA-C1A	2.29	1.37	1.35
7	D	202	CYC	C1A-C2A	2.29	1.49	1.45
7	S	201	CYC	CMB-C2B	-2.29	1.45	1.50
7	g	201	CYC	CMB-C2B	-2.29	1.45	1.50
7	L	202	CYC	C1A-C2A	2.29	1.49	1.45
7	E	201	CYC	CHA-C1A	2.28	1.37	1.35
7	U	201	CYC	CMB-C2B	-2.28	1.46	1.50
7	W	201	CYC	CMB-C2B	-2.27	1.46	1.50
7	N	202	CYC	C1A-C2A	2.27	1.49	1.45
7	K	201	CYC	CHA-C1A	2.27	1.37	1.35
7	a	201	CYC	CMB-C2B	-2.27	1.46	1.50
7	A	201	CYC	C2C-C1C	2.27	1.54	1.52
7	b	202	CYC	C1A-C2A	2.26	1.49	1.45
7	Y	201	CYC	CMB-C2B	-2.26	1.46	1.50
7	Z	202	CYC	C1A-C2A	2.26	1.49	1.45
7	B	202	CYC	C1A-C2A	2.26	1.49	1.45
7	F	202	CYC	C1A-C2A	2.26	1.49	1.45
7	G	201	CYC	C2C-C1C	2.25	1.54	1.52
7	H	202	CYC	C1A-C2A	2.25	1.49	1.45
7	X	202	CYC	C1A-C2A	2.25	1.49	1.45
7	V	202	CYC	C1A-C2A	2.25	1.49	1.45
7	I	201	CYC	CMB-C2B	-2.25	1.46	1.50
7	P	202	CYC	C1A-C2A	2.24	1.49	1.45
7	d	202	CYC	C1A-C2A	2.24	1.49	1.45
7	A	201	CYC	CHA-C1A	2.24	1.37	1.35
7	T	202	CYC	C1A-C2A	2.24	1.49	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	i	201	CYC	CMB-C2B	-2.24	1.46	1.50
7	e	201	CYC	CHA-C1A	2.24	1.37	1.35
7	h	202	CYC	C1A-C2A	2.24	1.49	1.45
7	E	201	CYC	CMB-C2B	-2.24	1.46	1.50
7	e	201	CYC	CMB-C2B	-2.24	1.46	1.50
7	R	202	CYC	C1A-C2A	2.23	1.49	1.45
7	A	201	CYC	CMB-C2B	-2.23	1.46	1.50
7	S	201	CYC	CHA-C1A	2.23	1.37	1.35
7	c	201	CYC	C2C-C1C	2.23	1.54	1.52
7	Y	201	CYC	CHA-C1A	2.21	1.37	1.35
7	J	201	CYC	C1B-C2B	2.21	1.49	1.45
7	K	201	CYC	CMB-C2B	-2.20	1.46	1.50
7	J	202	CYC	C1A-C2A	2.19	1.49	1.45
7	b	201	CYC	C1B-C2B	2.19	1.49	1.45
7	L	201	CYC	C1B-C2B	2.18	1.49	1.45
7	j	201	CYC	C1B-C2B	2.18	1.49	1.45
7	O	201	CYC	C2C-C1C	2.17	1.54	1.52
7	D	201	CYC	C1B-C2B	2.16	1.49	1.45
7	F	201	CYC	C1B-C2B	2.14	1.49	1.45
7	Y	201	CYC	C2C-C1C	2.14	1.54	1.52
7	X	201	CYC	C1B-C2B	2.14	1.49	1.45
7	i	201	CYC	C2C-C1C	2.14	1.54	1.52
7	B	201	CYC	C1B-C2B	2.13	1.48	1.45
7	E	201	CYC	C2C-C1C	2.13	1.54	1.52
7	e	201	CYC	C2C-C1C	2.13	1.54	1.52
7	P	201	CYC	C1B-C2B	2.13	1.48	1.45
7	U	201	CYC	C2C-C3C	-2.11	1.48	1.54
7	f	201	CYC	C3B-C2B	2.09	1.41	1.36
7	S	201	CYC	C2C-C1C	2.09	1.53	1.52
7	I	201	CYC	C2C-C1C	2.08	1.53	1.52
7	d	201	CYC	C1D-CHD	2.08	1.49	1.41
7	M	201	CYC	C2C-C1C	2.08	1.53	1.52
7	j	201	CYC	C1D-CHD	2.08	1.49	1.41
7	V	201	CYC	C3B-C2B	2.07	1.41	1.36
7	W	201	CYC	C2C-C1C	2.07	1.53	1.52
7	Z	201	CYC	C1D-CHD	2.06	1.49	1.41
7	L	201	CYC	C1D-CHD	2.06	1.49	1.41
7	H	201	CYC	C1D-CHD	2.05	1.49	1.41
7	N	201	CYC	C1B-C2B	2.05	1.48	1.45
7	b	202	CYC	C1B-C2B	2.05	1.48	1.45
7	a	201	CYC	C2C-C3C	-2.05	1.48	1.54
7	K	201	CYC	C2C-C1C	2.04	1.53	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	P	201	CYC	C4A-C3A	2.04	1.50	1.45
7	f	201	CYC	C1D-CHD	2.04	1.49	1.41
7	W	201	CYC	C2C-C3C	-2.04	1.48	1.54
7	P	201	CYC	C1D-CHD	2.03	1.49	1.41
7	I	201	CYC	C2C-C3C	-2.02	1.48	1.54
7	M	201	CYC	C2C-C3C	-2.02	1.48	1.54
7	i	201	CYC	C2C-C3C	-2.02	1.48	1.54
7	b	201	CYC	C1D-CHD	2.02	1.48	1.41
7	a	201	CYC	C2C-C1C	2.02	1.53	1.52
7	h	201	CYC	C1B-C2B	2.02	1.48	1.45
7	O	201	CYC	C2C-C3C	-2.01	1.48	1.54
7	V	201	CYC	C1D-CHD	2.01	1.48	1.41
7	F	201	CYC	C1D-CHD	2.01	1.48	1.41
7	N	201	CYC	C1D-CHD	2.01	1.48	1.41
7	E	201	CYC	C2C-C3C	-2.00	1.48	1.54
7	c	201	CYC	C2C-C3C	-2.00	1.48	1.54
7	Q	201	CYC	C2C-C1C	2.00	1.53	1.52
7	K	201	CYC	C2C-C3C	-2.00	1.48	1.54
7	X	201	CYC	C1D-CHD	2.00	1.48	1.41
7	N	202	CYC	C1B-C2B	2.00	1.48	1.45
7	F	202	CYC	C1B-C2B	2.00	1.48	1.45
7	S	201	CYC	C2C-C3C	-2.00	1.48	1.54
7	h	202	CYC	C1B-C2B	2.00	1.48	1.45

All (894) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	E	201	CYC	C3B-C4B-NB	12.53	116.90	106.78
7	f	201	CYC	C3B-C4B-NB	12.49	116.87	106.78
7	V	201	CYC	C3B-C4B-NB	12.45	116.84	106.78
7	O	201	CYC	C3B-C4B-NB	12.45	116.83	106.78
7	U	201	CYC	C3B-C4B-NB	12.42	116.81	106.78
7	Y	201	CYC	C3B-C4B-NB	12.41	116.80	106.78
7	R	201	CYC	C3B-C4B-NB	12.38	116.78	106.78
7	c	201	CYC	C3B-C4B-NB	12.37	116.77	106.78
7	g	201	CYC	C3B-C4B-NB	12.37	116.77	106.78
7	K	201	CYC	C3B-C4B-NB	12.36	116.77	106.78
7	W	201	CYC	C3B-C4B-NB	12.36	116.76	106.78
7	C	201	CYC	C3B-C4B-NB	12.36	116.76	106.78
7	Q	201	CYC	C3B-C4B-NB	12.35	116.76	106.78
7	Z	201	CYC	C3B-C4B-NB	12.33	116.74	106.78
7	a	201	CYC	C3B-C4B-NB	12.31	116.73	106.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	A	201	CYC	C3B-C4B-NB	12.29	116.71	106.78
7	e	201	CYC	C3B-C4B-NB	12.29	116.71	106.78
7	I	201	CYC	C3B-C4B-NB	12.25	116.67	106.78
7	d	201	CYC	C3B-C4B-NB	12.23	116.66	106.78
7	S	201	CYC	C3B-C4B-NB	12.23	116.66	106.78
7	G	201	CYC	C3B-C4B-NB	12.20	116.63	106.78
7	i	201	CYC	C3B-C4B-NB	12.20	116.63	106.78
7	M	201	CYC	C3B-C4B-NB	12.15	116.59	106.78
7	V	201	CYC	OC-C1C-C2C	-11.36	117.14	126.17
7	X	201	CYC	OC-C1C-C2C	-11.24	117.24	126.17
7	d	201	CYC	OC-C1C-C2C	-11.18	117.28	126.17
7	f	201	CYC	OC-C1C-C2C	-11.17	117.29	126.17
7	N	201	CYC	OC-C1C-C2C	-11.12	117.33	126.17
7	Z	201	CYC	OC-C1C-C2C	-11.11	117.34	126.17
7	R	201	CYC	OC-C1C-C2C	-11.07	117.37	126.17
7	S	201	CYC	OC-C1C-C2C	-10.71	117.65	126.17
7	c	201	CYC	OC-C1C-C2C	-10.67	117.69	126.17
7	i	201	CYC	OC-C1C-C2C	-10.65	117.70	126.17
7	G	201	CYC	OC-C1C-C2C	-10.65	117.71	126.17
7	A	201	CYC	OC-C1C-C2C	-10.60	117.74	126.17
7	Q	201	CYC	OC-C1C-C2C	-10.59	117.75	126.17
7	e	201	CYC	OC-C1C-C2C	-10.57	117.77	126.17
7	E	201	CYC	OC-C1C-C2C	-10.57	117.77	126.17
7	M	201	CYC	OC-C1C-C2C	-10.56	117.77	126.17
7	W	201	CYC	OC-C1C-C2C	-10.54	117.79	126.17
7	K	201	CYC	OC-C1C-C2C	-10.54	117.79	126.17
7	O	201	CYC	OC-C1C-C2C	-10.48	117.84	126.17
7	C	201	CYC	OC-C1C-C2C	-10.48	117.84	126.17
7	a	201	CYC	OC-C1C-C2C	-10.48	117.84	126.17
7	I	201	CYC	OC-C1C-C2C	-10.44	117.87	126.17
7	Y	201	CYC	OC-C1C-C2C	-10.43	117.88	126.17
7	U	201	CYC	OC-C1C-C2C	-10.43	117.88	126.17
7	g	201	CYC	OC-C1C-C2C	-10.38	117.92	126.17
7	j	201	CYC	CHD-C4C-NC	9.87	136.94	125.20
7	D	202	CYC	OC-C1C-C2C	-9.81	118.37	126.17
7	j	202	CYC	OC-C1C-C2C	-9.80	118.38	126.17
7	d	202	CYC	OC-C1C-C2C	-9.78	118.40	126.17
7	b	202	CYC	OC-C1C-C2C	-9.77	118.41	126.17
7	F	202	CYC	OC-C1C-C2C	-9.77	118.41	126.17
7	R	202	CYC	OC-C1C-C2C	-9.77	118.41	126.17
7	V	202	CYC	OC-C1C-C2C	-9.76	118.41	126.17
7	h	202	CYC	OC-C1C-C2C	-9.75	118.42	126.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	Z	202	CYC	OC-C1C-C2C	-9.75	118.42	126.17
7	P	202	CYC	OC-C1C-C2C	-9.75	118.42	126.17
7	X	202	CYC	OC-C1C-C2C	-9.74	118.43	126.17
7	H	202	CYC	OC-C1C-C2C	-9.74	118.43	126.17
7	L	202	CYC	OC-C1C-C2C	-9.74	118.43	126.17
7	B	202	CYC	OC-C1C-C2C	-9.73	118.43	126.17
7	J	202	CYC	OC-C1C-C2C	-9.73	118.43	126.17
7	T	202	CYC	OC-C1C-C2C	-9.73	118.43	126.17
7	f	202	CYC	OC-C1C-C2C	-9.72	118.45	126.17
7	N	202	CYC	OC-C1C-C2C	-9.71	118.46	126.17
7	h	202	CYC	C2C-C1C-NC	9.08	116.10	108.27
7	J	202	CYC	C2C-C1C-NC	9.08	116.10	108.27
7	j	202	CYC	C2C-C1C-NC	9.08	116.10	108.27
7	F	202	CYC	C2C-C1C-NC	9.07	116.09	108.27
7	h	201	CYC	C2C-C1C-NC	9.07	116.09	108.27
7	R	202	CYC	C2C-C1C-NC	9.06	116.08	108.27
7	D	202	CYC	C2C-C1C-NC	9.05	116.08	108.27
7	P	202	CYC	C2C-C1C-NC	9.05	116.08	108.27
7	Z	202	CYC	C2C-C1C-NC	9.05	116.08	108.27
7	B	202	CYC	C2C-C1C-NC	9.05	116.07	108.27
7	L	202	CYC	C2C-C1C-NC	9.03	116.06	108.27
7	b	202	CYC	C2C-C1C-NC	9.03	116.06	108.27
7	T	202	CYC	C2C-C1C-NC	9.03	116.05	108.27
7	V	202	CYC	C2C-C1C-NC	9.02	116.05	108.27
7	d	202	CYC	C2C-C1C-NC	9.02	116.05	108.27
7	H	202	CYC	C2C-C1C-NC	9.02	116.05	108.27
7	X	202	CYC	C2C-C1C-NC	9.02	116.05	108.27
7	N	202	CYC	C2C-C1C-NC	9.01	116.04	108.27
7	X	201	CYC	C2C-C1C-NC	9.01	116.04	108.27
7	f	202	CYC	C2C-C1C-NC	9.01	116.04	108.27
7	P	201	CYC	C2C-C1C-NC	8.96	115.99	108.27
7	d	201	CYC	C2C-C1C-NC	8.95	115.99	108.27
7	F	201	CYC	C2C-C1C-NC	8.95	115.99	108.27
7	J	201	CYC	C2C-C1C-NC	8.92	115.96	108.27
7	R	201	CYC	C2C-C1C-NC	8.91	115.96	108.27
7	V	201	CYC	C2C-C1C-NC	8.90	115.95	108.27
7	j	201	CYC	C2C-C1C-NC	8.89	115.93	108.27
7	D	201	CYC	C2C-C1C-NC	8.87	115.92	108.27
7	S	201	CYC	C2C-C1C-NC	8.87	115.92	108.27
7	H	201	CYC	C2C-C1C-NC	8.86	115.91	108.27
7	N	201	CYC	C2C-C1C-NC	8.86	115.91	108.27
7	f	201	CYC	C2C-C1C-NC	8.85	115.90	108.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	T	201	CYC	C2C-C1C-NC	8.81	115.87	108.27
7	K	201	CYC	C2C-C1C-NC	8.80	115.86	108.27
7	Z	201	CYC	C2C-C1C-NC	8.80	115.86	108.27
7	b	201	CYC	C2C-C1C-NC	8.80	115.86	108.27
7	C	201	CYC	C2C-C1C-NC	8.79	115.85	108.27
7	L	201	CYC	C2C-C1C-NC	8.75	115.82	108.27
7	Y	201	CYC	C2C-C1C-NC	8.73	115.80	108.27
7	g	201	CYC	C2C-C1C-NC	8.73	115.80	108.27
7	Q	201	CYC	C2C-C1C-NC	8.73	115.80	108.27
7	M	201	CYC	C2C-C1C-NC	8.72	115.79	108.27
7	a	201	CYC	C2C-C1C-NC	8.72	115.79	108.27
7	G	201	CYC	C2C-C1C-NC	8.72	115.79	108.27
7	A	201	CYC	C2C-C1C-NC	8.71	115.78	108.27
7	W	201	CYC	C2C-C1C-NC	8.70	115.77	108.27
7	e	201	CYC	C2C-C1C-NC	8.70	115.77	108.27
7	U	201	CYC	C2C-C1C-NC	8.69	115.77	108.27
7	I	201	CYC	C2C-C1C-NC	8.69	115.76	108.27
7	i	201	CYC	C2C-C1C-NC	8.68	115.75	108.27
7	O	201	CYC	C2C-C1C-NC	8.68	115.75	108.27
7	E	201	CYC	C2C-C1C-NC	8.66	115.74	108.27
7	c	201	CYC	C2C-C1C-NC	8.58	115.67	108.27
7	R	201	CYC	OB-C4B-C3B	-8.01	119.35	128.04
7	V	201	CYC	OB-C4B-C3B	-7.99	119.37	128.04
7	f	201	CYC	OB-C4B-C3B	-7.96	119.40	128.04
7	Z	201	CYC	OB-C4B-C3B	-7.84	119.53	128.04
7	d	201	CYC	OB-C4B-C3B	-7.79	119.58	128.04
7	U	201	CYC	OB-C4B-C3B	-7.71	119.67	128.04
7	E	201	CYC	OB-C4B-C3B	-7.67	119.72	128.04
7	C	201	CYC	OB-C4B-C3B	-7.65	119.74	128.04
7	e	201	CYC	OB-C4B-C3B	-7.64	119.75	128.04
7	O	201	CYC	OB-C4B-C3B	-7.64	119.75	128.04
7	c	201	CYC	OB-C4B-C3B	-7.63	119.76	128.04
7	B	201	CYC	C4D-CHA-C1A	-7.62	119.70	128.81
7	I	201	CYC	OB-C4B-C3B	-7.61	119.78	128.04
7	K	201	CYC	OB-C4B-C3B	-7.61	119.78	128.04
7	a	201	CYC	OB-C4B-C3B	-7.59	119.81	128.04
7	W	201	CYC	OB-C4B-C3B	-7.58	119.81	128.04
7	Q	201	CYC	OB-C4B-C3B	-7.56	119.84	128.04
7	g	201	CYC	OB-C4B-C3B	-7.55	119.84	128.04
7	Y	201	CYC	OB-C4B-C3B	-7.54	119.86	128.04
7	G	201	CYC	OB-C4B-C3B	-7.52	119.88	128.04
7	A	201	CYC	OB-C4B-C3B	-7.50	119.90	128.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	M	201	CYC	OB-C4B-C3B	-7.46	119.94	128.04
7	S	201	CYC	OB-C4B-C3B	-7.46	119.94	128.04
7	i	201	CYC	OB-C4B-C3B	-7.39	120.02	128.04
7	D	201	CYC	C4D-CHA-C1A	-7.23	120.18	128.81
7	F	201	CYC	C4D-CHA-C1A	-5.97	121.68	128.81
7	h	201	CYC	OC-C1C-C2C	-4.90	122.27	126.17
7	J	201	CYC	OC-C1C-C2C	-4.85	122.32	126.17
7	P	202	CYC	C4D-CHA-C1A	4.84	134.60	128.81
7	R	202	CYC	C4D-CHA-C1A	4.83	134.58	128.81
7	H	202	CYC	C4D-CHA-C1A	4.83	134.57	128.81
7	D	202	CYC	C4D-CHA-C1A	4.83	134.57	128.81
7	F	202	CYC	C4D-CHA-C1A	4.82	134.57	128.81
7	O	201	CYC	CAB-C3B-C4B	4.81	128.98	121.38
7	d	202	CYC	C4D-CHA-C1A	4.81	134.56	128.81
7	h	202	CYC	C4D-CHA-C1A	4.81	134.56	128.81
7	T	202	CYC	C4D-CHA-C1A	4.81	134.55	128.81
7	E	201	CYC	CAB-C3B-C4B	4.80	128.97	121.38
7	Z	202	CYC	C4D-CHA-C1A	4.79	134.53	128.81
7	B	202	CYC	C4D-CHA-C1A	4.79	134.53	128.81
7	J	202	CYC	C4D-CHA-C1A	4.78	134.53	128.81
7	C	201	CYC	CAB-C3B-C4B	4.78	128.94	121.38
7	V	202	CYC	C4D-CHA-C1A	4.78	134.52	128.81
7	L	201	CYC	OC-C1C-C2C	-4.78	122.38	126.17
7	b	202	CYC	C4D-CHA-C1A	4.78	134.51	128.81
7	N	202	CYC	C4D-CHA-C1A	4.78	134.51	128.81
7	j	202	CYC	C4D-CHA-C1A	4.77	134.50	128.81
7	L	202	CYC	C4D-CHA-C1A	4.77	134.50	128.81
7	Y	201	CYC	CAB-C3B-C4B	4.76	128.90	121.38
7	X	202	CYC	C4D-CHA-C1A	4.76	134.50	128.81
7	U	201	CYC	CAB-C3B-C4B	4.75	128.88	121.38
7	e	201	CYC	CAB-C3B-C4B	4.75	128.88	121.38
7	c	201	CYC	CAB-C3B-C4B	4.74	128.86	121.38
7	f	202	CYC	C4D-CHA-C1A	4.74	134.47	128.81
7	K	201	CYC	CAB-C3B-C4B	4.74	128.86	121.38
7	Q	201	CYC	CAB-C3B-C4B	4.73	128.86	121.38
7	g	201	CYC	CAB-C3B-C4B	4.72	128.84	121.38
7	a	201	CYC	CAB-C3B-C4B	4.71	128.82	121.38
7	A	201	CYC	CAB-C3B-C4B	4.70	128.81	121.38
7	M	201	CYC	CAB-C3B-C4B	4.70	128.81	121.38
7	I	201	CYC	CAB-C3B-C4B	4.70	128.80	121.38
7	W	201	CYC	CAB-C3B-C4B	4.69	128.79	121.38
7	S	201	CYC	CAB-C3B-C4B	4.64	128.71	121.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	G	201	CYC	CAB-C3B-C4B	4.64	128.71	121.38
7	P	201	CYC	OC-C1C-C2C	-4.63	122.50	126.17
7	i	201	CYC	CAB-C3B-C4B	4.61	128.66	121.38
7	E	201	CYC	C1B-NB-C4B	-4.59	104.82	110.67
7	A	201	CYC	C1B-NB-C4B	-4.57	104.85	110.67
7	S	201	CYC	C1B-NB-C4B	-4.57	104.85	110.67
7	K	201	CYC	C1B-NB-C4B	-4.56	104.86	110.67
7	Q	201	CYC	C1B-NB-C4B	-4.56	104.87	110.67
7	c	201	CYC	C1B-NB-C4B	-4.54	104.89	110.67
7	i	201	CYC	C1B-NB-C4B	-4.53	104.90	110.67
7	U	201	CYC	C1B-NB-C4B	-4.52	104.91	110.67
7	g	201	CYC	C1B-NB-C4B	-4.51	104.92	110.67
7	O	201	CYC	C1B-NB-C4B	-4.51	104.92	110.67
7	Y	201	CYC	C1B-NB-C4B	-4.51	104.92	110.67
7	D	201	CYC	OC-C1C-C2C	-4.51	122.59	126.17
7	C	201	CYC	C1B-NB-C4B	-4.51	104.93	110.67
7	R	201	CYC	C1B-NB-C4B	-4.49	104.96	110.67
7	W	201	CYC	C1B-NB-C4B	-4.48	104.97	110.67
7	G	201	CYC	C1B-NB-C4B	-4.47	104.97	110.67
7	e	201	CYC	C1B-NB-C4B	-4.47	104.98	110.67
7	F	201	CYC	OC-C1C-C2C	-4.46	122.63	126.17
7	f	201	CYC	C1B-NB-C4B	-4.44	105.02	110.67
7	Z	201	CYC	CAB-C3B-C4B	4.44	128.38	121.38
7	V	201	CYC	CAB-C3B-C4B	4.43	128.38	121.38
7	I	201	CYC	C1B-NB-C4B	-4.43	105.03	110.67
7	Z	201	CYC	C1B-NB-C4B	-4.42	105.04	110.67
7	a	201	CYC	C1B-NB-C4B	-4.42	105.04	110.67
7	f	201	CYC	CAB-C3B-C4B	4.42	128.35	121.38
7	R	201	CYC	CAB-C3B-C4B	4.41	128.35	121.38
7	V	201	CYC	C1B-NB-C4B	-4.41	105.06	110.67
7	H	201	CYC	OC-C1C-C2C	-4.40	122.67	126.17
7	M	201	CYC	C1B-NB-C4B	-4.40	105.07	110.67
7	d	201	CYC	C1B-NB-C4B	-4.38	105.09	110.67
7	d	201	CYC	CAB-C3B-C4B	4.33	128.22	121.38
7	B	201	CYC	C2C-C1C-NC	4.33	112.00	108.27
7	T	201	CYC	OC-C1C-C2C	-4.30	122.76	126.17
7	P	201	CYC	C2A-C1A-NA	-4.28	103.83	110.05
7	T	202	CYC	CHD-C4C-NC	-4.25	120.15	125.20
7	X	202	CYC	CHD-C4C-NC	-4.22	120.19	125.20
7	V	202	CYC	CHD-C4C-NC	-4.22	120.19	125.20
7	F	202	CYC	CHD-C4C-NC	-4.22	120.19	125.20
7	b	202	CYC	CHD-C4C-NC	-4.21	120.19	125.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	D	202	CYC	CHD-C4C-NC	-4.21	120.20	125.20
7	d	202	CYC	CHD-C4C-NC	-4.21	120.20	125.20
7	b	201	CYC	OC-C1C-C2C	-4.20	122.83	126.17
7	f	202	CYC	CHD-C4C-NC	-4.20	120.21	125.20
7	h	202	CYC	CHD-C4C-NC	-4.20	120.21	125.20
7	B	202	CYC	CHD-C4C-NC	-4.20	120.22	125.20
7	R	202	CYC	CHD-C4C-NC	-4.20	120.22	125.20
7	H	202	CYC	CHD-C4C-NC	-4.18	120.23	125.20
7	J	202	CYC	CHD-C4C-NC	-4.18	120.23	125.20
7	Z	202	CYC	CHD-C4C-NC	-4.18	120.23	125.20
7	L	202	CYC	CHD-C4C-NC	-4.17	120.24	125.20
7	j	202	CYC	CHD-C4C-NC	-4.17	120.24	125.20
7	N	202	CYC	CHD-C4C-NC	-4.17	120.25	125.20
7	P	202	CYC	CHD-C4C-NC	-4.17	120.25	125.20
7	j	202	CYC	C2A-C1A-NA	-4.16	103.99	110.05
7	N	202	CYC	C2A-C1A-NA	-4.16	104.00	110.05
7	L	202	CYC	C2A-C1A-NA	-4.15	104.00	110.05
7	f	202	CYC	C2A-C1A-NA	-4.15	104.01	110.05
7	H	202	CYC	C2A-C1A-NA	-4.15	104.01	110.05
7	R	202	CYC	C2A-C1A-NA	-4.15	104.02	110.05
7	F	202	CYC	C2A-C1A-NA	-4.14	104.02	110.05
7	d	202	CYC	C2A-C1A-NA	-4.14	104.03	110.05
7	B	202	CYC	C2A-C1A-NA	-4.13	104.03	110.05
7	h	202	CYC	C2A-C1A-NA	-4.13	104.04	110.05
7	D	202	CYC	C2A-C1A-NA	-4.13	104.04	110.05
7	J	202	CYC	C2A-C1A-NA	-4.12	104.05	110.05
7	Z	202	CYC	C2A-C1A-NA	-4.12	104.05	110.05
7	X	202	CYC	C2A-C1A-NA	-4.12	104.06	110.05
7	b	202	CYC	C2A-C1A-NA	-4.12	104.06	110.05
7	P	202	CYC	C2A-C1A-NA	-4.11	104.06	110.05
7	T	202	CYC	C2A-C1A-NA	-4.11	104.07	110.05
7	V	202	CYC	C2A-C1A-NA	-4.10	104.08	110.05
7	j	201	CYC	OC-C1C-C2C	-3.96	123.02	126.17
7	H	202	CYC	C1A-NA-C4A	3.80	113.67	106.51
7	d	202	CYC	C1A-NA-C4A	3.80	113.67	106.51
7	L	202	CYC	C1A-NA-C4A	3.80	113.67	106.51
7	D	202	CYC	C1A-NA-C4A	3.79	113.65	106.51
7	j	202	CYC	C1A-NA-C4A	3.79	113.65	106.51
7	f	202	CYC	C1A-NA-C4A	3.79	113.64	106.51
7	J	202	CYC	C1A-NA-C4A	3.78	113.64	106.51
7	P	202	CYC	C1A-NA-C4A	3.78	113.64	106.51
7	R	202	CYC	C1A-NA-C4A	3.78	113.64	106.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	F	202	CYC	C1A-NA-C4A	3.78	113.64	106.51
7	N	202	CYC	C1A-NA-C4A	3.78	113.63	106.51
7	B	202	CYC	C1A-NA-C4A	3.78	113.62	106.51
7	T	202	CYC	C1A-NA-C4A	3.77	113.61	106.51
7	Z	202	CYC	C1A-NA-C4A	3.77	113.60	106.51
7	h	202	CYC	C1A-NA-C4A	3.76	113.59	106.51
7	V	202	CYC	C1A-NA-C4A	3.75	113.58	106.51
7	b	202	CYC	C1A-NA-C4A	3.75	113.58	106.51
7	X	202	CYC	C1A-NA-C4A	3.75	113.57	106.51
7	P	201	CYC	C1A-NA-C4A	3.70	113.48	106.51
7	b	201	CYC	CAA-CBA-CGA	-3.67	105.71	113.60
7	P	201	CYC	CMA-C3A-C4A	3.48	130.42	125.06
7	R	201	CYC	C1A-C2A-C3A	-3.45	102.97	106.78
7	T	201	CYC	CAD-CBD-CGD	-3.42	104.17	113.76
7	G	201	CYC	C1A-C2A-C3A	-3.41	103.01	106.78
7	Z	201	CYC	C1A-C2A-C3A	-3.41	103.01	106.78
7	e	201	CYC	C1A-C2A-C3A	-3.40	103.01	106.78
7	E	201	CYC	C1A-C2A-C3A	-3.38	103.04	106.78
7	T	201	CYC	C1A-C2A-C3A	-3.37	103.05	106.78
7	I	201	CYC	C1A-C2A-C3A	-3.37	103.06	106.78
7	C	201	CYC	C1A-C2A-C3A	-3.36	103.06	106.78
7	A	201	CYC	C1A-C2A-C3A	-3.36	103.07	106.78
7	f	201	CYC	C1A-C2A-C3A	-3.36	103.07	106.78
7	M	201	CYC	C1A-C2A-C3A	-3.35	103.07	106.78
7	O	201	CYC	C1A-C2A-C3A	-3.35	103.07	106.78
7	H	201	CYC	C1B-NB-C4B	-3.35	106.40	110.67
7	J	201	CYC	C1A-C2A-C3A	-3.35	103.08	106.78
7	j	201	CYC	C1A-C2A-C3A	-3.35	103.08	106.78
7	W	201	CYC	C1A-C2A-C3A	-3.34	103.09	106.78
7	L	201	CYC	C1A-C2A-C3A	-3.33	103.10	106.78
7	X	201	CYC	C1A-C2A-C3A	-3.32	103.10	106.78
7	C	201	CYC	C4D-CHA-C1A	3.32	132.78	128.81
7	g	201	CYC	C1A-C2A-C3A	-3.32	103.11	106.78
7	Q	201	CYC	C1A-C2A-C3A	-3.32	103.11	106.78
7	b	201	CYC	C1A-C2A-C3A	-3.32	103.11	106.78
7	h	201	CYC	C1A-C2A-C3A	-3.32	103.11	106.78
7	i	201	CYC	C1A-C2A-C3A	-3.31	103.11	106.78
7	A	201	CYC	C4D-CHA-C1A	3.31	132.76	128.81
7	V	201	CYC	C1A-C2A-C3A	-3.31	103.12	106.78
7	a	201	CYC	C1A-C2A-C3A	-3.30	103.13	106.78
7	H	201	CYC	C1A-C2A-C3A	-3.30	103.13	106.78
7	S	201	CYC	C1A-C2A-C3A	-3.30	103.13	106.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	N	201	CYC	C1A-C2A-C3A	-3.30	103.14	106.78
7	F	201	CYC	C2A-C1A-NA	-3.29	105.26	110.05
7	Y	201	CYC	C1A-C2A-C3A	-3.29	103.15	106.78
7	I	201	CYC	C4D-CHA-C1A	3.28	132.73	128.81
7	a	201	CYC	C4D-CHA-C1A	3.26	132.71	128.81
7	j	201	CYC	OC-C1C-NC	-3.26	121.00	124.94
7	d	201	CYC	C1A-C2A-C3A	-3.25	103.19	106.78
7	K	201	CYC	C1A-C2A-C3A	-3.24	103.19	106.78
7	Y	201	CYC	C4D-CHA-C1A	3.24	132.68	128.81
7	i	201	CYC	C4D-CHA-C1A	3.24	132.68	128.81
7	G	201	CYC	C4D-CHA-C1A	3.23	132.66	128.81
7	U	201	CYC	C1A-C2A-C3A	-3.23	103.21	106.78
7	b	201	CYC	C1B-CHB-C4A	-3.23	120.20	128.08
7	T	201	CYC	C1B-CHB-C4A	-3.22	120.21	128.08
7	c	201	CYC	C1A-C2A-C3A	-3.22	103.22	106.78
7	e	201	CYC	C4D-CHA-C1A	3.21	132.65	128.81
7	Q	201	CYC	C4D-CHA-C1A	3.20	132.64	128.81
7	B	201	CYC	C2A-C1A-NA	-3.20	105.40	110.05
7	E	201	CYC	C4D-CHA-C1A	3.20	132.63	128.81
7	d	201	CYC	O2D-CGD-O1D	-3.19	115.34	123.30
7	W	201	CYC	O2D-CGD-O1D	-3.19	115.35	123.30
7	U	201	CYC	C4D-CHA-C1A	3.19	132.62	128.81
7	K	201	CYC	C4D-CHA-C1A	3.18	132.61	128.81
7	f	201	CYC	O2D-CGD-O1D	-3.17	115.39	123.30
7	g	201	CYC	C4D-CHA-C1A	3.17	132.60	128.81
7	W	201	CYC	C4D-CHA-C1A	3.17	132.59	128.81
7	O	201	CYC	C4D-CHA-C1A	3.16	132.59	128.81
7	D	201	CYC	C2A-C1A-NA	-3.16	105.45	110.05
7	S	201	CYC	C4D-CHA-C1A	3.16	132.58	128.81
7	M	201	CYC	C4D-CHA-C1A	3.16	132.58	128.81
7	P	201	CYC	C4D-CHA-C1A	3.16	132.58	128.81
7	F	201	CYC	CAD-CBD-CGD	-3.15	104.92	113.76
7	R	201	CYC	O2D-CGD-O1D	-3.14	115.47	123.30
7	c	201	CYC	C4D-CHA-C1A	3.14	132.56	128.81
7	Z	201	CYC	O2D-CGD-O1D	-3.14	115.48	123.30
7	K	201	CYC	O2D-CGD-O1D	-3.13	115.51	123.30
7	i	201	CYC	O2D-CGD-O1D	-3.12	115.51	123.30
7	E	201	CYC	O2D-CGD-O1D	-3.12	115.51	123.30
7	G	201	CYC	O2D-CGD-O1D	-3.11	115.55	123.30
7	V	201	CYC	O2D-CGD-O1D	-3.09	115.60	123.30
7	e	201	CYC	O2D-CGD-O1D	-3.09	115.60	123.30
7	a	201	CYC	O2D-CGD-O1D	-3.08	115.61	123.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	c	201	CYC	O2D-CGD-O1D	-3.08	115.62	123.30
7	O	201	CYC	O2D-CGD-O1D	-3.07	115.64	123.30
7	U	201	CYC	O2D-CGD-O1D	-3.07	115.65	123.30
7	M	201	CYC	O2D-CGD-O1D	-3.07	115.66	123.30
7	Q	201	CYC	O2D-CGD-O1D	-3.07	115.66	123.30
7	S	201	CYC	O2D-CGD-O1D	-3.05	115.69	123.30
7	I	201	CYC	O2D-CGD-O1D	-3.05	115.69	123.30
7	g	201	CYC	O2D-CGD-O1D	-3.05	115.70	123.30
7	C	201	CYC	O2D-CGD-O1D	-3.04	115.71	123.30
7	F	201	CYC	C1B-C2B-C3B	3.04	111.04	107.87
7	Y	201	CYC	O2D-CGD-O1D	-3.03	115.74	123.30
7	D	201	CYC	C1B-C2B-C3B	3.01	111.02	107.87
7	A	201	CYC	O2D-CGD-O1D	-3.01	115.80	123.30
7	h	201	CYC	C1B-NB-C4B	-3.01	106.84	110.67
7	f	202	CYC	C1B-C2B-C3B	3.01	111.01	107.87
7	L	202	CYC	C1B-C2B-C3B	3.01	111.01	107.87
7	b	201	CYC	CAA-C2A-C1A	3.00	130.32	125.01
7	K	201	CYC	CAA-CBA-CGA	-3.00	107.14	113.60
7	b	201	CYC	OC-C1C-NC	-3.00	121.31	124.94
7	j	202	CYC	C1B-C2B-C3B	2.99	110.99	107.87
7	N	202	CYC	C1B-C2B-C3B	2.99	110.99	107.87
7	X	202	CYC	C1B-C2B-C3B	2.99	110.99	107.87
7	Z	202	CYC	C1B-C2B-C3B	2.99	110.99	107.87
7	d	202	CYC	C1B-C2B-C3B	2.99	110.99	107.87
7	W	201	CYC	CAA-CBA-CGA	-2.98	107.18	113.60
7	R	202	CYC	C1B-C2B-C3B	2.98	110.98	107.87
7	V	202	CYC	C1B-C2B-C3B	2.98	110.98	107.87
7	B	202	CYC	C1B-C2B-C3B	2.98	110.98	107.87
7	F	202	CYC	C1B-C2B-C3B	2.98	110.98	107.87
7	e	201	CYC	CAA-CBA-CGA	-2.97	107.21	113.60
7	i	201	CYC	CAA-CBA-CGA	-2.97	107.21	113.60
7	I	201	CYC	CAA-CBA-CGA	-2.97	107.21	113.60
7	D	202	CYC	C1B-C2B-C3B	2.97	110.97	107.87
7	b	202	CYC	C1B-C2B-C3B	2.97	110.97	107.87
7	h	202	CYC	C1B-C2B-C3B	2.97	110.97	107.87
7	C	201	CYC	CAA-CBA-CGA	-2.97	107.22	113.60
7	Y	201	CYC	CAA-CBA-CGA	-2.97	107.22	113.60
7	S	201	CYC	CAA-CBA-CGA	-2.96	107.22	113.60
7	a	201	CYC	CAA-CBA-CGA	-2.96	107.24	113.60
7	P	202	CYC	C1B-C2B-C3B	2.95	110.95	107.87
7	c	201	CYC	CAA-CBA-CGA	-2.95	107.25	113.60
7	U	201	CYC	CAA-CBA-CGA	-2.95	107.25	113.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	J	202	CYC	C1B-C2B-C3B	2.95	110.95	107.87
7	T	201	CYC	OC-C1C-NC	-2.95	121.37	124.94
7	b	201	CYC	C1B-NB-C4B	-2.94	106.92	110.67
7	E	201	CYC	CAA-CBA-CGA	-2.94	107.27	113.60
7	T	202	CYC	C1B-C2B-C3B	2.94	110.94	107.87
7	G	201	CYC	CAA-CBA-CGA	-2.94	107.28	113.60
7	g	201	CYC	CAA-CBA-CGA	-2.94	107.28	113.60
7	K	201	CYC	O2D-CGD-CBD	2.94	123.47	114.03
7	F	201	CYC	OC-C1C-NC	-2.94	121.39	124.94
7	R	201	CYC	C4A-C3A-C2A	2.93	109.88	106.51
7	Q	201	CYC	CAA-CBA-CGA	-2.93	107.29	113.60
7	W	201	CYC	O2D-CGD-CBD	2.93	123.45	114.03
7	O	201	CYC	CAA-CBA-CGA	-2.93	107.29	113.60
7	X	201	CYC	C1B-NB-C4B	-2.92	106.95	110.67
7	U	201	CYC	O2D-CGD-CBD	2.92	123.41	114.03
7	H	202	CYC	C1B-C2B-C3B	2.92	110.92	107.87
7	A	201	CYC	CAA-CBA-CGA	-2.92	107.32	113.60
7	H	201	CYC	OC-C1C-NC	-2.91	121.42	124.94
7	e	201	CYC	O1A-CGA-CBA	-2.91	113.74	123.08
7	B	201	CYC	C1B-NB-C4B	-2.91	106.97	110.67
7	c	201	CYC	O1A-CGA-CBA	-2.90	113.76	123.08
7	i	201	CYC	O2D-CGD-CBD	2.90	123.35	114.03
7	L	201	CYC	C1B-NB-C4B	-2.90	106.98	110.67
7	g	201	CYC	O2D-CGD-CBD	2.90	123.34	114.03
7	c	201	CYC	O2D-CGD-CBD	2.90	123.33	114.03
7	O	201	CYC	O2D-CGD-CBD	2.90	123.33	114.03
7	A	201	CYC	O2D-CGD-CBD	2.90	123.33	114.03
7	G	201	CYC	O2D-CGD-CBD	2.89	123.33	114.03
7	M	201	CYC	CAA-CBA-CGA	-2.89	107.37	113.60
7	e	201	CYC	O2D-CGD-CBD	2.89	123.32	114.03
7	T	201	CYC	C4A-C3A-C2A	2.89	109.83	106.51
7	j	201	CYC	C1B-NB-C4B	-2.89	106.99	110.67
7	a	201	CYC	O1A-CGA-CBA	-2.89	113.80	123.08
7	I	201	CYC	O1A-CGA-CBA	-2.89	113.81	123.08
7	S	201	CYC	O1A-CGA-CBA	-2.89	113.81	123.08
7	Q	201	CYC	O2D-CGD-CBD	2.89	123.30	114.03
7	O	201	CYC	O1A-CGA-CBA	-2.88	113.81	123.08
7	K	201	CYC	O1A-CGA-CBA	-2.88	113.81	123.08
7	Z	201	CYC	O1A-CGA-CBA	-2.88	113.82	123.08
7	M	201	CYC	O2D-CGD-CBD	2.88	123.29	114.03
7	a	201	CYC	O2D-CGD-CBD	2.88	123.29	114.03
7	L	202	CYC	CAC-C3C-C2C	2.88	121.45	114.26

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	E	201	CYC	O2D-CGD-CBD	2.88	123.28	114.03
7	h	202	CYC	CAC-C3C-C2C	2.88	121.45	114.26
7	E	201	CYC	O1A-CGA-CBA	-2.87	113.85	123.08
7	T	202	CYC	CAC-C3C-C2C	2.87	121.44	114.26
7	J	201	CYC	C4A-C3A-C2A	2.87	109.81	106.51
7	V	201	CYC	O1A-CGA-CBA	-2.87	113.85	123.08
7	X	201	CYC	C4A-C3A-C2A	2.87	109.80	106.51
7	V	202	CYC	CAC-C3C-C2C	2.87	121.43	114.26
7	G	201	CYC	O1A-CGA-CBA	-2.87	113.86	123.08
7	Z	202	CYC	CAC-C3C-C2C	2.87	121.43	114.26
7	d	201	CYC	O2D-CGD-CBD	2.87	123.25	114.03
7	g	201	CYC	O1A-CGA-CBA	-2.87	113.86	123.08
7	S	201	CYC	O2D-CGD-CBD	2.87	123.25	114.03
7	A	201	CYC	O1A-CGA-CBA	-2.87	113.87	123.08
7	Z	201	CYC	O2D-CGD-CBD	2.87	123.24	114.03
7	I	201	CYC	O2D-CGD-CBD	2.87	123.23	114.03
7	C	201	CYC	O1A-CGA-CBA	-2.86	113.88	123.08
7	d	201	CYC	O1A-CGA-CBA	-2.86	113.88	123.08
7	f	201	CYC	O1A-CGA-CBA	-2.86	113.88	123.08
7	U	201	CYC	O1A-CGA-CBA	-2.86	113.88	123.08
7	D	202	CYC	CAC-C3C-C2C	2.86	121.41	114.26
7	f	202	CYC	CAC-C3C-C2C	2.86	121.41	114.26
7	Y	201	CYC	O1A-CGA-CBA	-2.86	113.89	123.08
7	B	202	CYC	CAC-C3C-C2C	2.86	121.40	114.26
7	b	202	CYC	CAC-C3C-C2C	2.86	121.40	114.26
7	C	201	CYC	O2D-CGD-CBD	2.86	123.21	114.03
7	N	202	CYC	CAC-C3C-C2C	2.86	121.40	114.26
7	Y	201	CYC	O2D-CGD-CBD	2.86	123.21	114.03
7	R	201	CYC	O2D-CGD-CBD	2.86	123.21	114.03
7	Q	201	CYC	O1A-CGA-CBA	-2.86	113.91	123.08
7	P	202	CYC	CAC-C3C-C2C	2.85	121.39	114.26
7	i	201	CYC	O1A-CGA-CBA	-2.85	113.91	123.08
7	R	202	CYC	CAC-C3C-C2C	2.85	121.39	114.26
7	X	202	CYC	CAC-C3C-C2C	2.85	121.39	114.26
7	H	202	CYC	CAC-C3C-C2C	2.85	121.39	114.26
7	j	202	CYC	CAC-C3C-C2C	2.85	121.38	114.26
7	d	202	CYC	CAC-C3C-C2C	2.85	121.38	114.26
7	D	201	CYC	OC-C1C-NC	-2.85	121.49	124.94
7	j	201	CYC	C4A-C3A-C2A	2.85	109.78	106.51
7	R	201	CYC	O1A-CGA-CBA	-2.84	113.94	123.08
7	V	201	CYC	O2D-CGD-CBD	2.84	123.17	114.03
7	N	201	CYC	C4A-C3A-C2A	2.84	109.77	106.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	f	201	CYC	O2D-CGD-CBD	2.84	123.16	114.03
7	F	202	CYC	CAC-C3C-C2C	2.84	121.36	114.26
7	W	201	CYC	O1A-CGA-CBA	-2.84	113.96	123.08
7	P	201	CYC	C1B-C2B-C3B	2.84	110.83	107.87
7	J	202	CYC	CAC-C3C-C2C	2.84	121.35	114.26
7	P	201	CYC	OC-C1C-NC	-2.84	121.51	124.94
7	L	201	CYC	CAA-CBA-CGA	-2.84	107.50	113.60
7	N	201	CYC	CBD-CAD-C3D	-2.83	107.78	112.62
7	h	201	CYC	C4A-C3A-C2A	2.83	109.76	106.51
7	M	201	CYC	O1A-CGA-CBA	-2.83	114.00	123.08
7	L	201	CYC	C4A-C3A-C2A	2.83	109.75	106.51
7	Z	201	CYC	C4A-C3A-C2A	2.82	109.75	106.51
7	B	201	CYC	C1A-C2A-C3A	2.82	109.91	106.78
7	b	201	CYC	C4A-C3A-C2A	2.82	109.74	106.51
7	f	201	CYC	C4A-C3A-C2A	2.81	109.73	106.51
7	H	202	CYC	C1B-NB-C4B	-2.81	107.09	110.67
7	J	201	CYC	C1B-NB-C4B	-2.80	107.10	110.67
7	X	202	CYC	C1B-NB-C4B	-2.80	107.10	110.67
7	H	201	CYC	C4A-C3A-C2A	2.79	109.72	106.51
7	h	201	CYC	C1B-CHB-C4A	-2.79	121.26	128.08
7	Z	202	CYC	C1B-NB-C4B	-2.79	107.11	110.67
7	d	202	CYC	C1B-NB-C4B	-2.79	107.12	110.67
7	N	202	CYC	C1B-NB-C4B	-2.79	107.12	110.67
7	j	202	CYC	C1B-NB-C4B	-2.78	107.12	110.67
7	J	202	CYC	C1B-NB-C4B	-2.78	107.13	110.67
7	R	202	CYC	C1B-NB-C4B	-2.78	107.13	110.67
7	d	201	CYC	C4A-C3A-C2A	2.78	109.70	106.51
7	h	202	CYC	C1B-NB-C4B	-2.78	107.13	110.67
7	B	202	CYC	C1B-NB-C4B	-2.77	107.14	110.67
7	P	202	CYC	C1B-NB-C4B	-2.77	107.14	110.67
7	Z	201	CYC	CAA-CBA-CGA	-2.77	107.64	113.60
7	b	202	CYC	C1B-NB-C4B	-2.77	107.14	110.67
7	L	202	CYC	C1B-NB-C4B	-2.77	107.14	110.67
7	N	201	CYC	CBC-CAC-C3C	-2.76	107.31	113.47
7	f	201	CYC	CAA-CBA-CGA	-2.76	107.65	113.60
7	D	202	CYC	C1B-NB-C4B	-2.76	107.15	110.67
7	V	202	CYC	C1B-NB-C4B	-2.76	107.15	110.67
7	T	202	CYC	C1B-NB-C4B	-2.76	107.16	110.67
7	d	201	CYC	CAA-CBA-CGA	-2.75	107.68	113.60
7	V	201	CYC	C4A-C3A-C2A	2.75	109.67	106.51
7	L	201	CYC	C1B-C2B-C3B	2.75	110.74	107.87
7	F	202	CYC	C1B-NB-C4B	-2.75	107.17	110.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	h	201	CYC	CHD-C4C-NC	-2.75	121.94	125.20
7	R	201	CYC	CAA-CBA-CGA	-2.74	107.70	113.60
7	f	202	CYC	C1B-NB-C4B	-2.74	107.18	110.67
7	B	201	CYC	CHD-C4C-NC	-2.73	121.95	125.20
7	h	201	CYC	OC-C1C-NC	-2.73	121.64	124.94
7	Q	201	CYC	CHD-C4C-NC	-2.73	121.96	125.20
7	E	201	CYC	C1A-NA-C4A	2.72	111.63	106.51
7	K	201	CYC	C1A-NA-C4A	2.72	111.63	106.51
7	S	201	CYC	C1A-NA-C4A	2.71	111.62	106.51
7	L	201	CYC	CAB-C3B-C4B	2.71	125.65	121.38
7	g	201	CYC	CHD-C4C-NC	-2.70	121.99	125.20
7	U	201	CYC	CHD-C4C-NC	-2.70	121.99	125.20
7	b	201	CYC	C1A-NA-C4A	2.70	111.60	106.51
7	J	201	CYC	C1B-CHB-C4A	-2.70	121.49	128.08
7	T	201	CYC	CAA-CBA-CGA	-2.70	107.80	113.60
7	B	201	CYC	C1B-C2B-C3B	2.69	110.68	107.87
7	N	201	CYC	CHD-C4C-NC	-2.69	122.00	125.20
7	G	201	CYC	CHD-C4C-NC	-2.69	122.00	125.20
7	Q	201	CYC	C1A-NA-C4A	2.69	111.58	106.51
7	T	201	CYC	C1B-NB-C4B	-2.69	107.25	110.67
7	J	201	CYC	C1B-C2B-C3B	2.69	110.68	107.87
7	Y	201	CYC	C1A-NA-C4A	2.68	111.56	106.51
7	i	201	CYC	CHD-C4C-NC	-2.68	122.02	125.20
7	i	201	CYC	C1A-NA-C4A	2.68	111.55	106.51
7	a	201	CYC	CHD-C4C-NC	-2.68	122.02	125.20
7	V	201	CYC	CAA-CBA-CGA	-2.68	107.84	113.60
7	g	201	CYC	C1A-NA-C4A	2.68	111.55	106.51
7	W	201	CYC	C1A-NA-C4A	2.68	111.55	106.51
7	C	201	CYC	C1A-NA-C4A	2.67	111.55	106.51
7	A	201	CYC	CHD-C4C-NC	-2.67	122.03	125.20
7	c	201	CYC	C1A-NA-C4A	2.67	111.54	106.51
7	U	201	CYC	C1A-NA-C4A	2.67	111.54	106.51
7	H	201	CYC	C1A-NA-C4A	2.67	111.54	106.51
7	b	201	CYC	CHD-C4C-NC	-2.67	122.04	125.20
7	R	201	CYC	C1A-NA-C4A	2.67	111.53	106.51
7	T	201	CYC	C1A-NA-C4A	2.66	111.53	106.51
7	A	201	CYC	C1A-NA-C4A	2.66	111.53	106.51
7	J	201	CYC	OC-C1C-NC	-2.66	121.72	124.94
7	T	201	CYC	CHD-C4C-NC	-2.66	122.04	125.20
7	Z	201	CYC	CHD-C4C-NC	-2.66	122.05	125.20
7	a	201	CYC	C1A-NA-C4A	2.66	111.52	106.51
7	V	201	CYC	C1A-NA-C4A	2.66	111.51	106.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	j	201	CYC	C1A-NA-C4A	2.65	111.51	106.51
7	N	201	CYC	C1B-NB-C4B	-2.65	107.29	110.67
7	c	201	CYC	CHD-C4C-NC	-2.65	122.05	125.20
7	J	201	CYC	C1A-NA-C4A	2.65	111.50	106.51
7	E	201	CYC	CHD-C4C-NC	-2.65	122.06	125.20
7	H	201	CYC	CHB-C4A-C3A	2.65	131.71	124.90
7	I	201	CYC	CHD-C4C-NC	-2.65	122.06	125.20
7	M	201	CYC	C1A-NA-C4A	2.65	111.49	106.51
7	R	201	CYC	CHD-C4C-NC	-2.65	122.06	125.20
7	N	201	CYC	C1A-NA-C4A	2.64	111.49	106.51
7	d	201	CYC	C1A-NA-C4A	2.64	111.48	106.51
7	G	201	CYC	C1A-NA-C4A	2.63	111.47	106.51
7	W	201	CYC	CHD-C4C-NC	-2.63	122.08	125.20
7	Z	201	CYC	C1A-NA-C4A	2.63	111.47	106.51
7	S	201	CYC	CHD-C4C-NC	-2.63	122.08	125.20
7	L	201	CYC	C1A-NA-C4A	2.63	111.46	106.51
7	e	201	CYC	C1A-NA-C4A	2.63	111.46	106.51
7	J	202	CYC	CHB-C4A-C3A	2.63	131.65	124.90
7	h	201	CYC	C1A-NA-C4A	2.63	111.46	106.51
7	H	201	CYC	CHD-C4C-NC	-2.62	122.09	125.20
7	j	202	CYC	CHB-C4A-C3A	2.62	131.64	124.90
7	T	201	CYC	C1B-C2B-C3B	2.62	110.61	107.87
7	H	202	CYC	CHB-C4A-C3A	2.62	131.64	124.90
7	X	201	CYC	C1A-NA-C4A	2.62	111.44	106.51
7	Y	201	CYC	CHD-C4C-NC	-2.62	122.09	125.20
7	D	202	CYC	CHB-C4A-C3A	2.62	131.63	124.90
7	F	202	CYC	CHB-C4A-C3A	2.61	131.62	124.90
7	f	201	CYC	C1A-NA-C4A	2.61	111.43	106.51
7	X	202	CYC	CHB-C4A-C3A	2.61	131.62	124.90
7	C	201	CYC	CHD-C4C-NC	-2.61	122.10	125.20
7	b	202	CYC	CHB-C4A-C3A	2.61	131.62	124.90
7	M	201	CYC	CHD-C4C-NC	-2.61	122.10	125.20
7	T	202	CYC	CHB-C4A-C3A	2.61	131.61	124.90
7	V	202	CYC	CHB-C4A-C3A	2.60	131.60	124.90
7	Z	202	CYC	CHB-C4A-C3A	2.60	131.59	124.90
7	L	202	CYC	CHB-C4A-C3A	2.60	131.58	124.90
7	P	202	CYC	CHB-C4A-C3A	2.60	131.58	124.90
7	O	201	CYC	CHD-C4C-NC	-2.59	122.12	125.20
7	B	202	CYC	CHB-C4A-C3A	2.59	131.57	124.90
7	F	201	CYC	CHD-C4C-NC	-2.59	122.12	125.20
7	J	201	CYC	CHD-C4C-NC	-2.59	122.12	125.20
7	P	201	CYC	CHD-C4C-NC	-2.59	122.12	125.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	L	201	CYC	OC-C1C-NC	-2.59	121.80	124.94
7	j	201	CYC	C1B-CHB-C4A	-2.59	121.75	128.08
7	e	201	CYC	CHD-C4C-NC	-2.59	122.13	125.20
7	N	202	CYC	CHB-C4A-C3A	2.59	131.55	124.90
7	h	202	CYC	CHB-C4A-C3A	2.59	131.55	124.90
7	d	202	CYC	CHB-C4A-C3A	2.58	131.54	124.90
7	f	202	CYC	CHB-C4A-C3A	2.58	131.54	124.90
7	B	201	CYC	CAD-CBD-CGD	-2.58	106.52	113.76
7	Y	201	CYC	CHB-C4A-C3A	2.58	131.53	124.90
7	a	201	CYC	CHB-C4A-C3A	2.58	131.53	124.90
7	R	202	CYC	CHB-C4A-C3A	2.58	131.53	124.90
7	S	201	CYC	CHB-C4A-C3A	2.58	131.53	124.90
7	K	201	CYC	CHD-C4C-NC	-2.58	122.14	125.20
7	X	201	CYC	C1B-C2B-C3B	2.57	110.56	107.87
7	I	201	CYC	C1A-NA-C4A	2.57	111.35	106.51
7	M	201	CYC	CHB-C4A-C3A	2.57	131.51	124.90
7	V	201	CYC	CHD-C4C-NC	-2.57	122.15	125.20
7	G	201	CYC	CHB-C4A-C3A	2.57	131.51	124.90
7	A	201	CYC	CHB-C4A-C3A	2.57	131.50	124.90
7	N	201	CYC	C1B-C2B-C3B	2.57	110.55	107.87
7	O	201	CYC	C1A-NA-C4A	2.57	111.34	106.51
7	K	201	CYC	CHB-C4A-C3A	2.56	131.49	124.90
7	j	201	CYC	C1B-C2B-C3B	2.56	110.55	107.87
7	U	201	CYC	CHB-C4A-C3A	2.56	131.49	124.90
7	E	201	CYC	CHB-C4A-C3A	2.56	131.48	124.90
7	F	201	CYC	C1B-NB-C4B	-2.56	107.41	110.67
7	X	201	CYC	CHD-C4C-NC	-2.55	122.17	125.20
7	C	201	CYC	CHB-C4A-C3A	2.55	131.46	124.90
7	d	201	CYC	CHD-C4C-NC	-2.55	122.17	125.20
7	D	201	CYC	C1A-C2A-C3A	2.54	109.60	106.78
7	f	201	CYC	CHD-C4C-NC	-2.54	122.19	125.20
7	e	201	CYC	CHB-C4A-C3A	2.54	131.43	124.90
7	i	201	CYC	CHB-C4A-C3A	2.54	131.42	124.90
7	A	201	CYC	C2B-C1B-NB	2.54	110.70	106.99
7	O	201	CYC	CHB-C4A-C3A	2.53	131.41	124.90
7	I	201	CYC	CHB-C4A-C3A	2.53	131.41	124.90
7	Q	201	CYC	CHB-C4A-C3A	2.53	131.41	124.90
7	S	201	CYC	C2B-C1B-NB	2.53	110.69	106.99
7	N	201	CYC	CHB-C4A-C3A	2.53	131.40	124.90
7	g	201	CYC	CHB-C4A-C3A	2.52	131.39	124.90
7	W	201	CYC	CHB-C4A-C3A	2.52	131.39	124.90
7	L	201	CYC	CHD-C4C-NC	-2.52	122.21	125.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	c	201	CYC	CHB-C4A-C3A	2.52	131.37	124.90
7	e	201	CYC	C4A-C3A-C2A	2.51	109.39	106.51
7	T	201	CYC	CAB-C3B-C4B	2.51	125.34	121.38
7	F	201	CYC	C1A-C2A-C3A	2.50	109.56	106.78
7	B	201	CYC	CBC-CAC-C3C	-2.50	107.89	113.47
7	b	201	CYC	C1B-C2B-C3B	2.49	110.47	107.87
7	H	201	CYC	C1B-C2B-C3B	2.49	110.47	107.87
7	D	202	CYC	C4A-C3A-C2A	2.48	109.35	106.51
7	K	201	CYC	C2B-C1B-NB	2.47	110.61	106.99
7	G	201	CYC	C4A-C3A-C2A	2.47	109.35	106.51
7	H	202	CYC	C4A-C3A-C2A	2.47	109.35	106.51
7	c	201	CYC	C2B-C1B-NB	2.47	110.61	106.99
7	U	201	CYC	C2B-C1B-NB	2.47	110.61	106.99
7	C	201	CYC	C4A-C3A-C2A	2.47	109.35	106.51
7	i	201	CYC	C2B-C1B-NB	2.47	110.60	106.99
7	B	201	CYC	OC-C1C-C2C	-2.47	124.21	126.17
7	A	201	CYC	C4A-C3A-C2A	2.46	109.34	106.51
7	Y	201	CYC	C4A-C3A-C2A	2.46	109.33	106.51
7	G	201	CYC	C2B-C1B-NB	2.46	110.59	106.99
7	Q	201	CYC	C2B-C1B-NB	2.46	110.59	106.99
7	e	201	CYC	C2B-C1B-NB	2.46	110.59	106.99
7	M	201	CYC	C4A-C3A-C2A	2.46	109.33	106.51
7	E	201	CYC	C4A-C3A-C2A	2.46	109.33	106.51
7	S	201	CYC	C4A-C3A-C2A	2.45	109.33	106.51
7	b	202	CYC	C4A-C3A-C2A	2.45	109.32	106.51
7	Z	202	CYC	C4A-C3A-C2A	2.45	109.32	106.51
7	H	201	CYC	CAB-C3B-C4B	2.45	125.25	121.38
7	a	201	CYC	C4A-C3A-C2A	2.45	109.32	106.51
7	j	201	CYC	CAD-CBD-CGD	-2.45	106.90	113.76
7	g	201	CYC	C2B-C1B-NB	2.45	110.57	106.99
7	d	202	CYC	CAB-C3B-C4B	2.44	125.24	121.38
7	j	202	CYC	C4A-C3A-C2A	2.44	109.31	106.51
7	h	202	CYC	CAB-C3B-C4B	2.44	125.23	121.38
7	F	202	CYC	C4A-C3A-C2A	2.44	109.31	106.51
7	i	201	CYC	C4A-C3A-C2A	2.44	109.31	106.51
7	T	202	CYC	CAB-C3B-C4B	2.44	125.23	121.38
7	V	202	CYC	CAB-C3B-C4B	2.43	125.22	121.38
7	Q	201	CYC	C4A-C3A-C2A	2.43	109.30	106.51
7	j	202	CYC	CAB-C3B-C4B	2.43	125.22	121.38
7	Z	202	CYC	CAB-C3B-C4B	2.43	125.22	121.38
7	I	201	CYC	C4A-C3A-C2A	2.43	109.30	106.51
7	E	201	CYC	C2B-C1B-NB	2.43	110.55	106.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	R	202	CYC	CAB-C3B-C4B	2.43	125.22	121.38
7	f	202	CYC	CAB-C3B-C4B	2.43	125.21	121.38
7	C	201	CYC	C2B-C1B-NB	2.43	110.54	106.99
7	B	202	CYC	CAB-C3B-C4B	2.43	125.21	121.38
7	N	202	CYC	CAB-C3B-C4B	2.43	125.21	121.38
7	V	202	CYC	C4A-C3A-C2A	2.43	109.29	106.51
7	X	202	CYC	C4A-C3A-C2A	2.43	109.29	106.51
7	P	202	CYC	CAB-C3B-C4B	2.42	125.21	121.38
7	P	202	CYC	C4A-C3A-C2A	2.42	109.29	106.51
7	X	202	CYC	CAB-C3B-C4B	2.42	125.19	121.38
7	J	202	CYC	C4A-C3A-C2A	2.41	109.28	106.51
7	L	202	CYC	C4A-C3A-C2A	2.41	109.28	106.51
7	B	202	CYC	C4A-C3A-C2A	2.41	109.27	106.51
7	N	202	CYC	C4A-C3A-C2A	2.41	109.27	106.51
7	d	201	CYC	CBD-CAD-C3D	2.41	116.73	112.62
7	b	202	CYC	CAB-C3B-C4B	2.41	125.18	121.38
7	O	201	CYC	C2B-C1B-NB	2.41	110.51	106.99
7	D	202	CYC	CAB-C3B-C4B	2.41	125.18	121.38
7	f	202	CYC	C4A-C3A-C2A	2.41	109.27	106.51
7	L	202	CYC	CAB-C3B-C4B	2.41	125.18	121.38
7	M	201	CYC	C2B-C1B-NB	2.40	110.51	106.99
7	H	202	CYC	CAB-C3B-C4B	2.40	125.17	121.38
7	J	202	CYC	CAB-C3B-C4B	2.40	125.17	121.38
7	V	201	CYC	O2A-CGA-CBA	2.40	121.75	114.03
7	D	201	CYC	CMA-C3A-C4A	2.40	128.76	125.06
7	T	202	CYC	C4A-C3A-C2A	2.40	109.27	106.51
7	g	201	CYC	C4A-C3A-C2A	2.40	109.26	106.51
7	d	202	CYC	C4A-C3A-C2A	2.39	109.25	106.51
7	R	201	CYC	CBD-CAD-C3D	2.39	116.70	112.62
7	K	201	CYC	C4A-C3A-C2A	2.39	109.25	106.51
7	W	201	CYC	C4A-C3A-C2A	2.39	109.25	106.51
7	I	201	CYC	C2B-C1B-NB	2.38	110.48	106.99
7	h	202	CYC	C4A-C3A-C2A	2.38	109.24	106.51
7	Y	201	CYC	C2B-C1B-NB	2.38	110.47	106.99
7	F	202	CYC	CAB-C3B-C4B	2.38	125.13	121.38
7	O	201	CYC	C4A-C3A-C2A	2.37	109.23	106.51
7	d	201	CYC	O2A-CGA-CBA	2.37	121.64	114.03
7	a	201	CYC	C2B-C1B-NB	2.36	110.44	106.99
7	V	201	CYC	CBD-CAD-C3D	2.36	116.65	112.62
7	U	201	CYC	C4A-C3A-C2A	2.36	109.22	106.51
7	f	201	CYC	O2A-CGA-CBA	2.36	121.61	114.03
7	j	202	CYC	CAA-CBA-CGA	-2.36	108.53	113.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	D	201	CYC	C1B-NB-C4B	-2.35	107.67	110.67
7	Q	201	CYC	O2A-CGA-CBA	2.35	121.58	114.03
7	J	202	CYC	CAA-CBA-CGA	-2.35	108.55	113.60
7	d	201	CYC	CAB-C3B-C2B	2.35	131.55	127.53
7	F	202	CYC	CAA-CBA-CGA	-2.35	108.55	113.60
7	V	202	CYC	CAA-CBA-CGA	-2.35	108.55	113.60
7	R	201	CYC	O2A-CGA-CBA	2.35	121.57	114.03
7	R	202	CYC	C4A-C3A-C2A	2.35	109.20	106.51
7	h	201	CYC	CAA-CBA-CGA	-2.35	108.56	113.60
7	X	202	CYC	CAA-CBA-CGA	-2.34	108.56	113.60
7	d	202	CYC	CAA-CBA-CGA	-2.34	108.56	113.60
7	Z	202	CYC	CAA-CBA-CGA	-2.34	108.57	113.60
7	W	201	CYC	C2B-C1B-NB	2.34	110.41	106.99
7	B	202	CYC	CAA-CBA-CGA	-2.34	108.57	113.60
7	T	202	CYC	CAA-CBA-CGA	-2.34	108.57	113.60
7	Z	201	CYC	O2A-CGA-CBA	2.34	121.54	114.03
7	h	202	CYC	CAA-CBA-CGA	-2.34	108.58	113.60
7	H	202	CYC	CAA-CBA-CGA	-2.33	108.58	113.60
7	L	202	CYC	CAA-CBA-CGA	-2.33	108.58	113.60
7	c	201	CYC	O2A-CGA-CBA	2.33	121.51	114.03
7	L	201	CYC	CBD-CAD-C3D	-2.33	108.65	112.62
7	D	202	CYC	CAA-CBA-CGA	-2.33	108.59	113.60
7	f	202	CYC	CAA-CBA-CGA	-2.33	108.59	113.60
7	R	202	CYC	CAA-CBA-CGA	-2.33	108.60	113.60
7	N	202	CYC	CAA-CBA-CGA	-2.32	108.61	113.60
7	P	202	CYC	CAA-CBA-CGA	-2.32	108.62	113.60
7	b	202	CYC	CAA-CBA-CGA	-2.31	108.62	113.60
7	i	201	CYC	CAB-C3B-C2B	2.31	131.48	127.53
7	K	201	CYC	O2A-CGA-CBA	2.31	121.45	114.03
7	W	201	CYC	O2A-CGA-CBA	2.31	121.44	114.03
7	R	201	CYC	CAB-C3B-C2B	2.31	131.47	127.53
7	c	201	CYC	C4A-C3A-C2A	2.30	109.15	106.51
7	B	201	CYC	CMA-C3A-C4A	2.30	128.60	125.06
7	g	201	CYC	O2A-CGA-CBA	2.30	121.41	114.03
7	O	201	CYC	O2A-CGA-CBA	2.30	121.41	114.03
7	h	201	CYC	C1B-C2B-C3B	2.29	110.27	107.87
7	A	201	CYC	O2A-CGA-CBA	2.29	121.37	114.03
7	a	201	CYC	O2A-CGA-CBA	2.28	121.37	114.03
7	f	201	CYC	CAB-C3B-C2B	2.28	131.43	127.53
7	f	201	CYC	CBD-CAD-C3D	2.28	116.51	112.62
7	U	201	CYC	O2A-CGA-CBA	2.28	121.34	114.03
7	C	201	CYC	O2A-CGA-CBA	2.27	121.33	114.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	I	201	CYC	O2A-CGA-CBA	2.27	121.33	114.03
7	E	201	CYC	O2A-CGA-CBA	2.27	121.33	114.03
7	a	201	CYC	CAB-C3B-C2B	2.27	131.41	127.53
7	S	201	CYC	O2A-CGA-CBA	2.27	121.32	114.03
7	Z	201	CYC	CBD-CAD-C3D	2.27	116.49	112.62
7	D	201	CYC	CAD-CBD-CGD	-2.27	107.40	113.76
7	D	201	CYC	CHB-C4A-C3A	2.27	130.73	124.90
7	U	201	CYC	CAB-C3B-C2B	2.27	131.40	127.53
7	W	201	CYC	CAB-C3B-C2B	2.26	131.40	127.53
7	e	201	CYC	O2A-CGA-CBA	2.26	121.29	114.03
7	S	201	CYC	CAB-C3B-C2B	2.26	131.40	127.53
7	i	201	CYC	O2A-CGA-CBA	2.26	121.29	114.03
7	G	201	CYC	CAB-C3B-C2B	2.26	131.39	127.53
7	K	201	CYC	CAB-C3B-C2B	2.26	131.39	127.53
7	V	201	CYC	CAB-C3B-C2B	2.26	131.39	127.53
7	G	201	CYC	O2A-CGA-CBA	2.26	121.28	114.03
7	Y	201	CYC	O2A-CGA-CBA	2.25	121.26	114.03
7	I	201	CYC	CAB-C3B-C2B	2.25	131.38	127.53
7	P	201	CYC	C1B-NB-C4B	-2.25	107.81	110.67
7	M	201	CYC	O2A-CGA-CBA	2.25	121.24	114.03
7	L	201	CYC	C1B-CHB-C4A	-2.25	122.60	128.08
7	g	201	CYC	CAB-C3B-C2B	2.24	131.36	127.53
7	e	201	CYC	CAB-C3B-C2B	2.24	131.36	127.53
7	A	201	CYC	CAB-C3B-C2B	2.24	131.35	127.53
7	X	201	CYC	CAA-CBA-CGA	-2.23	108.80	113.60
7	H	201	CYC	CAD-CBD-CGD	-2.22	107.52	113.76
7	Q	201	CYC	CAB-C3B-C2B	2.21	131.32	127.53
7	D	201	CYC	CAA-CBA-CGA	-2.21	108.84	113.60
7	J	201	CYC	O2A-CGA-CBA	2.21	121.12	114.03
7	Y	201	CYC	CAB-C3B-C2B	2.20	131.30	127.53
7	j	201	CYC	CAB-C3B-C4B	2.20	124.86	121.38
7	H	201	CYC	CHB-C1B-C2B	-2.20	122.59	126.95
7	Z	201	CYC	CAB-C3B-C2B	2.19	131.28	127.53
7	E	201	CYC	CAB-C3B-C2B	2.19	131.28	127.53
7	P	201	CYC	CAA-CBA-CGA	-2.19	108.89	113.60
7	P	201	CYC	CBD-CAD-C3D	-2.18	108.90	112.62
7	M	201	CYC	CAB-C3B-C2B	2.18	131.26	127.53
7	R	201	CYC	C2B-C1B-NB	2.17	110.17	106.99
7	c	201	CYC	CAB-C3B-C2B	2.17	131.25	127.53
7	C	201	CYC	CAB-C3B-C2B	2.17	131.24	127.53
7	B	201	CYC	CBA-CAA-C2A	-2.16	106.63	112.63
7	O	201	CYC	CAB-C3B-C2B	2.16	131.22	127.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	H	201	CYC	CHB-C1B-NB	2.15	130.68	126.06
7	X	201	CYC	CAB-C3B-C4B	2.15	124.78	121.38
7	X	201	CYC	CAD-CBD-CGD	-2.15	107.74	113.76
7	f	201	CYC	C2B-C1B-NB	2.14	110.12	106.99
7	h	201	CYC	CAD-CBD-CGD	-2.14	107.77	113.76
7	L	201	CYC	CBC-CAC-C3C	-2.13	108.73	113.47
7	X	201	CYC	CHB-C4A-C3A	2.13	130.37	124.90
7	J	201	CYC	CAB-C3B-C4B	2.11	124.71	121.38
7	R	201	CYC	CHB-C4A-C3A	2.10	130.31	124.90
7	V	201	CYC	C2B-C1B-NB	2.10	110.06	106.99
7	Z	201	CYC	C2B-C1B-NB	2.10	110.06	106.99
7	J	201	CYC	CHB-C4A-C3A	2.09	130.28	124.90
7	b	201	CYC	CAB-C3B-C4B	2.09	124.68	121.38
7	T	201	CYC	CHB-C4A-C3A	2.09	130.28	124.90
7	X	201	CYC	C1B-CHB-C4A	-2.08	123.00	128.08
7	P	201	CYC	CAD-CBD-CGD	-2.08	107.93	113.76
7	T	201	CYC	C3A-C4A-NA	-2.08	106.09	110.53
7	b	201	CYC	CAD-CBD-CGD	-2.08	107.94	113.76
7	d	201	CYC	C2B-C1B-NB	2.07	110.02	106.99
7	D	201	CYC	CAB-C3B-C4B	2.07	124.65	121.38
7	d	201	CYC	CHB-C4A-C3A	2.07	130.22	124.90
7	N	201	CYC	C3A-C4A-NA	-2.07	106.11	110.53
7	J	201	CYC	C3A-C4A-NA	-2.06	106.12	110.53
7	C	201	CYC	CAC-C3C-C2C	2.06	119.41	114.26
7	f	201	CYC	CHB-C4A-C3A	2.06	130.19	124.90
7	H	201	CYC	C3A-C4A-NA	-2.06	106.13	110.53
7	Z	201	CYC	C3A-C4A-NA	-2.06	106.13	110.53
7	U	201	CYC	CAC-C3C-C2C	2.06	119.40	114.26
7	h	201	CYC	C3A-C4A-NA	-2.06	106.13	110.53
7	a	201	CYC	CAC-C3C-C2C	2.05	119.38	114.26
7	H	202	CYC	C3A-C4A-NA	-2.05	106.15	110.53
7	Z	201	CYC	CHB-C4A-C3A	2.05	130.16	124.90
7	E	201	CYC	CAC-C3C-C2C	2.04	119.36	114.26
7	X	201	CYC	O2A-CGA-CBA	2.04	120.59	114.03
7	V	201	CYC	C3A-C4A-NA	-2.04	106.17	110.53
7	D	202	CYC	C3A-C4A-NA	-2.04	106.17	110.53
7	R	201	CYC	C3A-C4A-NA	-2.04	106.17	110.53
7	X	201	CYC	C3A-C4A-NA	-2.04	106.17	110.53
7	F	201	CYC	CHB-C4A-C3A	2.04	130.13	124.90
7	J	202	CYC	C3A-C4A-NA	-2.04	106.18	110.53
7	f	201	CYC	C3A-C4A-NA	-2.04	106.18	110.53
7	e	201	CYC	CAC-C3C-C2C	2.03	119.34	114.26

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	b	201	CYC	C3A-C4A-NA	-2.03	106.18	110.53
7	M	201	CYC	CAC-C3C-C2C	2.03	119.34	114.26
7	T	201	CYC	CAB-C3B-C2B	-2.03	124.05	127.53
7	L	201	CYC	CAB-C3B-C2B	-2.03	124.05	127.53
7	V	201	CYC	CHB-C4A-C3A	2.03	130.13	124.90
7	F	202	CYC	C3A-C4A-NA	-2.03	106.19	110.53
7	d	202	CYC	C3A-C4A-NA	-2.03	106.19	110.53
7	c	201	CYC	CAC-C3C-C2C	2.03	119.33	114.26
7	g	201	CYC	CAC-C3C-C2C	2.03	119.33	114.26
7	P	202	CYC	C3A-C4A-NA	-2.03	106.19	110.53
7	T	201	CYC	CAA-C2A-C1A	2.03	128.59	125.01
7	S	201	CYC	CAC-C3C-C2C	2.03	119.32	114.26
7	Z	202	CYC	C3A-C4A-NA	-2.02	106.20	110.53
7	Q	201	CYC	CAC-C3C-C2C	2.02	119.31	114.26
7	N	201	CYC	O2A-CGA-CBA	2.02	120.53	114.03
7	j	202	CYC	C3A-C4A-NA	-2.02	106.21	110.53
7	j	201	CYC	C3A-C4A-NA	-2.02	106.21	110.53
7	L	202	CYC	C3A-C4A-NA	-2.02	106.21	110.53
7	F	201	CYC	CAB-C3B-C4B	2.02	124.56	121.38
7	L	202	CYC	CBD-CAD-C3D	-2.01	109.18	112.62
7	F	201	CYC	CMA-C3A-C4A	2.01	128.16	125.06
7	B	202	CYC	C3A-C4A-NA	-2.01	106.23	110.53
7	H	202	CYC	O2D-CGD-CBD	2.01	120.49	114.03
7	T	202	CYC	C3A-C4A-NA	-2.01	106.23	110.53
7	X	202	CYC	C3A-C4A-NA	-2.01	106.23	110.53
7	D	202	CYC	O2D-CGD-CBD	2.01	120.48	114.03
7	f	202	CYC	C3A-C4A-NA	-2.01	106.24	110.53
7	b	202	CYC	C3A-C4A-NA	-2.01	106.24	110.53
7	i	201	CYC	CAC-C3C-C2C	2.01	119.27	114.26
7	b	202	CYC	CBD-CAD-C3D	-2.00	109.20	112.62
7	L	201	CYC	C3A-C4A-NA	-2.00	106.25	110.53
7	d	201	CYC	C3A-C4A-NA	-2.00	106.25	110.53
7	R	202	CYC	CBD-CAD-C3D	-2.00	109.20	112.62
7	Z	202	CYC	CBD-CAD-C3D	-2.00	109.20	112.62
7	V	202	CYC	C3A-C4A-NA	-2.00	106.25	110.53
7	J	202	CYC	O2D-CGD-CBD	2.00	120.47	114.03
7	j	202	CYC	O2D-CGD-CBD	2.00	120.46	114.03
7	O	201	CYC	CAC-C3C-C2C	2.00	119.26	114.26
7	N	202	CYC	C3A-C4A-NA	-2.00	106.25	110.53

There are no chirality outliers.

All (491) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
7	A	201	CYC	NA-C4A-CHB-C1B
7	A	201	CYC	C3A-C4A-CHB-C1B
7	A	201	CYC	C4C-C3C-CAC-CBC
7	A	201	CYC	ND-C1D-CHD-C4C
7	A	201	CYC	C2D-C1D-CHD-C4C
7	B	201	CYC	C2C-C3C-CAC-CBC
7	B	201	CYC	C4C-C3C-CAC-CBC
7	B	201	CYC	ND-C1D-CHD-C4C
7	B	202	CYC	NA-C4A-CHB-C1B
7	B	202	CYC	C2C-C3C-CAC-CBC
7	B	202	CYC	C4C-C3C-CAC-CBC
7	C	201	CYC	NA-C4A-CHB-C1B
7	C	201	CYC	C3A-C4A-CHB-C1B
7	C	201	CYC	C4C-C3C-CAC-CBC
7	C	201	CYC	ND-C1D-CHD-C4C
7	C	201	CYC	C2D-C1D-CHD-C4C
7	D	201	CYC	C3A-C4A-CHB-C1B
7	D	201	CYC	C2D-C3D-CAD-CBD
7	D	201	CYC	C4D-C3D-CAD-CBD
7	D	202	CYC	NA-C4A-CHB-C1B
7	D	202	CYC	C2C-C3C-CAC-CBC
7	D	202	CYC	C4C-C3C-CAC-CBC
7	E	201	CYC	NA-C4A-CHB-C1B
7	E	201	CYC	C3A-C4A-CHB-C1B
7	E	201	CYC	C4C-C3C-CAC-CBC
7	E	201	CYC	ND-C1D-CHD-C4C
7	E	201	CYC	C2D-C1D-CHD-C4C
7	F	201	CYC	ND-C1D-CHD-C4C
7	F	201	CYC	C2D-C1D-CHD-C4C
7	F	201	CYC	C2D-C3D-CAD-CBD
7	F	201	CYC	C4D-C3D-CAD-CBD
7	F	202	CYC	NA-C4A-CHB-C1B
7	F	202	CYC	C2C-C3C-CAC-CBC
7	F	202	CYC	C4C-C3C-CAC-CBC
7	G	201	CYC	NA-C4A-CHB-C1B
7	G	201	CYC	C3A-C4A-CHB-C1B
7	G	201	CYC	C4C-C3C-CAC-CBC
7	G	201	CYC	ND-C1D-CHD-C4C
7	G	201	CYC	C2D-C1D-CHD-C4C
7	H	201	CYC	C4B-C3B-CAB-CBB
7	H	201	CYC	ND-C1D-CHD-C4C
7	H	201	CYC	C2D-C1D-CHD-C4C
7	H	202	CYC	NA-C4A-CHB-C1B

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Mol	Chain	Res	Type	Atoms
7	H	202	CYC	C2C-C3C-CAC-CBC
7	H	202	CYC	C4C-C3C-CAC-CBC
7	I	201	CYC	NA-C4A-CHB-C1B
7	I	201	CYC	C3A-C4A-CHB-C1B
7	I	201	CYC	C4C-C3C-CAC-CBC
7	I	201	CYC	ND-C1D-CHD-C4C
7	I	201	CYC	C2D-C1D-CHD-C4C
7	J	201	CYC	NA-C4A-CHB-C1B
7	J	201	CYC	C3A-C4A-CHB-C1B
7	J	201	CYC	ND-C1D-CHD-C4C
7	J	201	CYC	C2D-C1D-CHD-C4C
7	J	202	CYC	NA-C4A-CHB-C1B
7	J	202	CYC	C2C-C3C-CAC-CBC
7	J	202	CYC	C4C-C3C-CAC-CBC
7	K	201	CYC	NA-C4A-CHB-C1B
7	K	201	CYC	C3A-C4A-CHB-C1B
7	K	201	CYC	C4C-C3C-CAC-CBC
7	K	201	CYC	ND-C1D-CHD-C4C
7	K	201	CYC	C2D-C1D-CHD-C4C
7	L	201	CYC	NA-C4A-CHB-C1B
7	L	201	CYC	C3A-C4A-CHB-C1B
7	L	201	CYC	C2B-C3B-CAB-CBB
7	L	201	CYC	C4C-C3C-CAC-CBC
7	L	201	CYC	ND-C1D-CHD-C4C
7	L	201	CYC	C2D-C1D-CHD-C4C
7	L	202	CYC	NA-C4A-CHB-C1B
7	L	202	CYC	C2C-C3C-CAC-CBC
7	L	202	CYC	C4C-C3C-CAC-CBC
7	M	201	CYC	NA-C4A-CHB-C1B
7	M	201	CYC	C3A-C4A-CHB-C1B
7	M	201	CYC	C4C-C3C-CAC-CBC
7	M	201	CYC	ND-C1D-CHD-C4C
7	M	201	CYC	C2D-C1D-CHD-C4C
7	N	201	CYC	NA-C4A-CHB-C1B
7	N	201	CYC	C4B-C3B-CAB-CBB
7	N	201	CYC	ND-C1D-CHD-C4C
7	N	201	CYC	C2D-C1D-CHD-C4C
7	N	201	CYC	C3D-CAD-CBD-CGD
7	N	202	CYC	NA-C4A-CHB-C1B
7	N	202	CYC	C2C-C3C-CAC-CBC
7	N	202	CYC	C4C-C3C-CAC-CBC
7	O	201	CYC	NA-C4A-CHB-C1B

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Mol	Chain	Res	Type	Atoms
7	O	201	CYC	C3A-C4A-CHB-C1B
7	O	201	CYC	C4C-C3C-CAC-CBC
7	O	201	CYC	ND-C1D-CHD-C4C
7	O	201	CYC	C2D-C1D-CHD-C4C
7	P	201	CYC	NA-C4A-CHB-C1B
7	P	201	CYC	C3A-C4A-CHB-C1B
7	P	201	CYC	C2B-C3B-CAB-CBB
7	P	201	CYC	C4C-C3C-CAC-CBC
7	P	201	CYC	ND-C1D-CHD-C4C
7	P	201	CYC	C2D-C1D-CHD-C4C
7	P	202	CYC	NA-C4A-CHB-C1B
7	P	202	CYC	C2C-C3C-CAC-CBC
7	P	202	CYC	C4C-C3C-CAC-CBC
7	Q	201	CYC	NA-C4A-CHB-C1B
7	Q	201	CYC	C3A-C4A-CHB-C1B
7	Q	201	CYC	C4C-C3C-CAC-CBC
7	Q	201	CYC	ND-C1D-CHD-C4C
7	Q	201	CYC	C2D-C1D-CHD-C4C
7	R	201	CYC	NA-C4A-CHB-C1B
7	R	201	CYC	C3A-C4A-CHB-C1B
7	R	201	CYC	ND-C1D-CHD-C4C
7	R	201	CYC	C2D-C1D-CHD-C4C
7	R	202	CYC	NA-C4A-CHB-C1B
7	R	202	CYC	C2C-C3C-CAC-CBC
7	R	202	CYC	C4C-C3C-CAC-CBC
7	S	201	CYC	NA-C4A-CHB-C1B
7	S	201	CYC	C3A-C4A-CHB-C1B
7	S	201	CYC	C4C-C3C-CAC-CBC
7	S	201	CYC	ND-C1D-CHD-C4C
7	S	201	CYC	C2D-C1D-CHD-C4C
7	T	201	CYC	NA-C4A-CHB-C1B
7	T	201	CYC	C3A-C4A-CHB-C1B
7	T	201	CYC	ND-C1D-CHD-C4C
7	T	201	CYC	C2D-C1D-CHD-C4C
7	T	202	CYC	NA-C4A-CHB-C1B
7	T	202	CYC	C2C-C3C-CAC-CBC
7	T	202	CYC	C4C-C3C-CAC-CBC
7	U	201	CYC	NA-C4A-CHB-C1B
7	U	201	CYC	C3A-C4A-CHB-C1B
7	U	201	CYC	C4C-C3C-CAC-CBC
7	U	201	CYC	ND-C1D-CHD-C4C
7	U	201	CYC	C2D-C1D-CHD-C4C

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Mol	Chain	Res	Type	Atoms
7	V	201	CYC	NA-C4A-CHB-C1B
7	V	201	CYC	C3A-C4A-CHB-C1B
7	V	201	CYC	ND-C1D-CHD-C4C
7	V	201	CYC	C2D-C1D-CHD-C4C
7	V	202	CYC	NA-C4A-CHB-C1B
7	V	202	CYC	C2C-C3C-CAC-CBC
7	V	202	CYC	C4C-C3C-CAC-CBC
7	W	201	CYC	NA-C4A-CHB-C1B
7	W	201	CYC	C3A-C4A-CHB-C1B
7	W	201	CYC	C4C-C3C-CAC-CBC
7	W	201	CYC	ND-C1D-CHD-C4C
7	W	201	CYC	C2D-C1D-CHD-C4C
7	X	201	CYC	NA-C4A-CHB-C1B
7	X	201	CYC	C3A-C4A-CHB-C1B
7	X	201	CYC	ND-C1D-CHD-C4C
7	X	201	CYC	C2D-C1D-CHD-C4C
7	X	202	CYC	NA-C4A-CHB-C1B
7	X	202	CYC	C2C-C3C-CAC-CBC
7	X	202	CYC	C4C-C3C-CAC-CBC
7	Y	201	CYC	NA-C4A-CHB-C1B
7	Y	201	CYC	C3A-C4A-CHB-C1B
7	Y	201	CYC	C4C-C3C-CAC-CBC
7	Y	201	CYC	ND-C1D-CHD-C4C
7	Y	201	CYC	C2D-C1D-CHD-C4C
7	Z	201	CYC	NA-C4A-CHB-C1B
7	Z	201	CYC	C3A-C4A-CHB-C1B
7	Z	201	CYC	ND-C1D-CHD-C4C
7	Z	201	CYC	C2D-C1D-CHD-C4C
7	Z	202	CYC	NA-C4A-CHB-C1B
7	Z	202	CYC	C2C-C3C-CAC-CBC
7	Z	202	CYC	C4C-C3C-CAC-CBC
7	a	201	CYC	NA-C4A-CHB-C1B
7	a	201	CYC	C3A-C4A-CHB-C1B
7	a	201	CYC	C4C-C3C-CAC-CBC
7	a	201	CYC	ND-C1D-CHD-C4C
7	a	201	CYC	C2D-C1D-CHD-C4C
7	b	201	CYC	NA-C4A-CHB-C1B
7	b	201	CYC	C3A-C4A-CHB-C1B
7	b	201	CYC	C4B-C3B-CAB-CBB
7	b	201	CYC	ND-C1D-CHD-C4C
7	b	201	CYC	C2D-C1D-CHD-C4C
7	b	202	CYC	NA-C4A-CHB-C1B

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Mol	Chain	Res	Type	Atoms
7	b	202	CYC	C2C-C3C-CAC-CBC
7	b	202	CYC	C4C-C3C-CAC-CBC
7	c	201	CYC	NA-C4A-CHB-C1B
7	c	201	CYC	C3A-C4A-CHB-C1B
7	c	201	CYC	C4C-C3C-CAC-CBC
7	c	201	CYC	ND-C1D-CHD-C4C
7	c	201	CYC	C2D-C1D-CHD-C4C
7	d	201	CYC	NA-C4A-CHB-C1B
7	d	201	CYC	C3A-C4A-CHB-C1B
7	d	201	CYC	ND-C1D-CHD-C4C
7	d	201	CYC	C2D-C1D-CHD-C4C
7	d	202	CYC	NA-C4A-CHB-C1B
7	d	202	CYC	C2C-C3C-CAC-CBC
7	d	202	CYC	C4C-C3C-CAC-CBC
7	e	201	CYC	NA-C4A-CHB-C1B
7	e	201	CYC	C3A-C4A-CHB-C1B
7	e	201	CYC	C4C-C3C-CAC-CBC
7	e	201	CYC	ND-C1D-CHD-C4C
7	e	201	CYC	C2D-C1D-CHD-C4C
7	f	201	CYC	NA-C4A-CHB-C1B
7	f	201	CYC	C3A-C4A-CHB-C1B
7	f	201	CYC	ND-C1D-CHD-C4C
7	f	201	CYC	C2D-C1D-CHD-C4C
7	f	202	CYC	NA-C4A-CHB-C1B
7	f	202	CYC	C2C-C3C-CAC-CBC
7	f	202	CYC	C4C-C3C-CAC-CBC
7	g	201	CYC	NA-C4A-CHB-C1B
7	g	201	CYC	C3A-C4A-CHB-C1B
7	g	201	CYC	C4C-C3C-CAC-CBC
7	g	201	CYC	ND-C1D-CHD-C4C
7	g	201	CYC	C2D-C1D-CHD-C4C
7	h	201	CYC	NA-C4A-CHB-C1B
7	h	201	CYC	C3A-C4A-CHB-C1B
7	h	201	CYC	C4B-C3B-CAB-CBB
7	h	201	CYC	ND-C1D-CHD-C4C
7	h	201	CYC	C2D-C1D-CHD-C4C
7	h	202	CYC	NA-C4A-CHB-C1B
7	h	202	CYC	C2C-C3C-CAC-CBC
7	h	202	CYC	C4C-C3C-CAC-CBC
7	i	201	CYC	NA-C4A-CHB-C1B
7	i	201	CYC	C3A-C4A-CHB-C1B
7	i	201	CYC	C4C-C3C-CAC-CBC

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Mol	Chain	Res	Type	Atoms
7	i	201	CYC	ND-C1D-CHD-C4C
7	i	201	CYC	C2D-C1D-CHD-C4C
7	j	201	CYC	NA-C4A-CHB-C1B
7	j	201	CYC	C3A-C4A-CHB-C1B
7	j	201	CYC	ND-C1D-CHD-C4C
7	j	201	CYC	C2D-C1D-CHD-C4C
7	j	202	CYC	NA-C4A-CHB-C1B
7	j	202	CYC	C2C-C3C-CAC-CBC
7	j	202	CYC	C4C-C3C-CAC-CBC
7	h	201	CYC	C2B-C3B-CAB-CBB
7	H	201	CYC	C2B-C3B-CAB-CBB
7	b	201	CYC	C2B-C3B-CAB-CBB
7	N	201	CYC	C2B-C3B-CAB-CBB
7	N	201	CYC	C3A-C4A-CHB-C1B
7	L	201	CYC	C4B-C3B-CAB-CBB
7	P	201	CYC	C4B-C3B-CAB-CBB
7	H	201	CYC	NB-C1B-CHB-C4A
7	D	201	CYC	NA-C4A-CHB-C1B
7	P	201	CYC	C1A-C2A-CAA-CBA
7	B	201	CYC	NA-C4A-CHB-C1B
7	F	201	CYC	NA-C4A-CHB-C1B
7	H	201	CYC	NA-C4A-CHB-C1B
7	B	201	CYC	C3A-C4A-CHB-C1B
7	B	202	CYC	C3A-C4A-CHB-C1B
7	D	202	CYC	C3A-C4A-CHB-C1B
7	F	201	CYC	C3A-C4A-CHB-C1B
7	F	202	CYC	C3A-C4A-CHB-C1B
7	H	201	CYC	C3A-C4A-CHB-C1B
7	H	202	CYC	C3A-C4A-CHB-C1B
7	J	202	CYC	C3A-C4A-CHB-C1B
7	L	202	CYC	C3A-C4A-CHB-C1B
7	N	202	CYC	C3A-C4A-CHB-C1B
7	P	202	CYC	C3A-C4A-CHB-C1B
7	R	202	CYC	C3A-C4A-CHB-C1B
7	T	202	CYC	C3A-C4A-CHB-C1B
7	V	202	CYC	C3A-C4A-CHB-C1B
7	X	202	CYC	C3A-C4A-CHB-C1B
7	Z	202	CYC	C3A-C4A-CHB-C1B
7	b	202	CYC	C3A-C4A-CHB-C1B
7	d	202	CYC	C3A-C4A-CHB-C1B
7	f	202	CYC	C3A-C4A-CHB-C1B
7	h	202	CYC	C3A-C4A-CHB-C1B

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Mol	Chain	Res	Type	Atoms
7	j	202	CYC	C3A-C4A-CHB-C1B
7	D	201	CYC	C1A-C2A-CAA-CBA
7	h	201	CYC	C1A-C2A-CAA-CBA
7	D	201	CYC	NC-C4C-CHD-C1D
7	D	201	CYC	C3A-C2A-CAA-CBA
7	B	201	CYC	NB-C1B-CHB-C4A
7	P	201	CYC	C3A-C2A-CAA-CBA
7	h	201	CYC	C3A-C2A-CAA-CBA
7	B	201	CYC	C2A-CAA-CBA-CGA
7	T	201	CYC	C1A-C2A-CAA-CBA
7	H	201	CYC	C2B-C1B-CHB-C4A
7	T	201	CYC	C4C-C3C-CAC-CBC
7	E	201	CYC	C2B-C3B-CAB-CBB
7	C	201	CYC	C2B-C3B-CAB-CBB
7	K	201	CYC	C2B-C3B-CAB-CBB
7	O	201	CYC	C2B-C3B-CAB-CBB
7	I	201	CYC	C2B-C3B-CAB-CBB
7	Q	201	CYC	C2B-C3B-CAB-CBB
7	U	201	CYC	C2B-C3B-CAB-CBB
7	c	201	CYC	C2B-C3B-CAB-CBB
7	g	201	CYC	C2B-C3B-CAB-CBB
7	G	201	CYC	C2B-C3B-CAB-CBB
7	S	201	CYC	C2B-C3B-CAB-CBB
7	Y	201	CYC	C2B-C3B-CAB-CBB
7	a	201	CYC	C2B-C3B-CAB-CBB
7	e	201	CYC	C2B-C3B-CAB-CBB
7	i	201	CYC	C2B-C3B-CAB-CBB
7	X	201	CYC	C1A-C2A-CAA-CBA
7	W	201	CYC	C2B-C3B-CAB-CBB
7	A	201	CYC	C2B-C3B-CAB-CBB
7	M	201	CYC	C2B-C3B-CAB-CBB
7	F	201	CYC	C1A-C2A-CAA-CBA
7	F	201	CYC	C3A-C2A-CAA-CBA
7	T	201	CYC	C3A-C2A-CAA-CBA
7	X	201	CYC	C3A-C2A-CAA-CBA
7	V	201	CYC	CAA-CBA-CGA-O1A
7	T	202	CYC	C2B-C3B-CAB-CBB
7	Z	202	CYC	C2B-C3B-CAB-CBB
7	d	202	CYC	C2B-C3B-CAB-CBB
7	f	202	CYC	C2B-C3B-CAB-CBB
7	R	201	CYC	CAA-CBA-CGA-O1A
7	Z	201	CYC	CAA-CBA-CGA-O1A

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Mol	Chain	Res	Type	Atoms
7	f	201	CYC	CAA-CBA-CGA-O1A
7	V	202	CYC	C2B-C3B-CAB-CBB
7	X	202	CYC	C2B-C3B-CAB-CBB
7	b	202	CYC	C2B-C3B-CAB-CBB
7	h	202	CYC	C2B-C3B-CAB-CBB
7	j	202	CYC	C2B-C3B-CAB-CBB
7	B	202	CYC	C2B-C3B-CAB-CBB
7	D	202	CYC	C2B-C3B-CAB-CBB
7	L	202	CYC	C2B-C3B-CAB-CBB
7	P	202	CYC	C2B-C3B-CAB-CBB
7	d	201	CYC	CAA-CBA-CGA-O1A
7	H	202	CYC	C2B-C3B-CAB-CBB
7	J	202	CYC	C2B-C3B-CAB-CBB
7	N	202	CYC	C2B-C3B-CAB-CBB
7	R	202	CYC	C2B-C3B-CAB-CBB
7	F	202	CYC	C2B-C3B-CAB-CBB
7	N	201	CYC	CAD-CBD-CGD-O2D
7	H	201	CYC	CAA-CBA-CGA-O1A
7	N	201	CYC	CAA-CBA-CGA-O1A
7	L	201	CYC	CAA-CBA-CGA-O1A
7	T	201	CYC	CAD-CBD-CGD-O1D
7	K	201	CYC	CAA-CBA-CGA-O1A
7	c	201	CYC	CAA-CBA-CGA-O1A
7	A	201	CYC	CAA-CBA-CGA-O1A
7	C	201	CYC	CAA-CBA-CGA-O1A
7	E	201	CYC	CAA-CBA-CGA-O1A
7	I	201	CYC	CAA-CBA-CGA-O1A
7	M	201	CYC	CAA-CBA-CGA-O1A
7	O	201	CYC	CAA-CBA-CGA-O1A
7	Q	201	CYC	CAA-CBA-CGA-O1A
7	S	201	CYC	CAA-CBA-CGA-O1A
7	U	201	CYC	CAA-CBA-CGA-O1A
7	W	201	CYC	CAA-CBA-CGA-O1A
7	Y	201	CYC	CAA-CBA-CGA-O1A
7	a	201	CYC	CAA-CBA-CGA-O1A
7	e	201	CYC	CAA-CBA-CGA-O1A
7	g	201	CYC	CAA-CBA-CGA-O1A
7	i	201	CYC	CAA-CBA-CGA-O1A
7	A	201	CYC	CAA-CBA-CGA-O2A
7	G	201	CYC	CAA-CBA-CGA-O1A
7	H	201	CYC	CAA-CBA-CGA-O2A
7	I	201	CYC	CAA-CBA-CGA-O2A

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Mol	Chain	Res	Type	Atoms
7	B	201	CYC	CAD-CBD-CGD-O1D
7	B	202	CYC	CAA-CBA-CGA-O1A
7	C	201	CYC	CAA-CBA-CGA-O2A
7	E	201	CYC	CAA-CBA-CGA-O2A
7	F	201	CYC	CAD-CBD-CGD-O2D
7	G	201	CYC	CAA-CBA-CGA-O2A
7	K	201	CYC	CAA-CBA-CGA-O2A
7	L	201	CYC	CAD-CBD-CGD-O2D
7	L	202	CYC	CAA-CBA-CGA-O1A
7	M	201	CYC	CAA-CBA-CGA-O2A
7	O	201	CYC	CAA-CBA-CGA-O2A
7	P	202	CYC	CAA-CBA-CGA-O1A
7	Q	201	CYC	CAA-CBA-CGA-O2A
7	S	201	CYC	CAA-CBA-CGA-O2A
7	T	202	CYC	CAA-CBA-CGA-O1A
7	U	201	CYC	CAA-CBA-CGA-O2A
7	W	201	CYC	CAA-CBA-CGA-O2A
7	Y	201	CYC	CAA-CBA-CGA-O2A
7	a	201	CYC	CAA-CBA-CGA-O2A
7	b	201	CYC	CAA-CBA-CGA-O1A
7	b	202	CYC	CAA-CBA-CGA-O1A
7	c	201	CYC	CAA-CBA-CGA-O2A
7	e	201	CYC	CAA-CBA-CGA-O2A
7	g	201	CYC	CAA-CBA-CGA-O2A
7	i	201	CYC	CAA-CBA-CGA-O2A
7	D	202	CYC	CAA-CBA-CGA-O1A
7	F	202	CYC	CAA-CBA-CGA-O1A
7	H	202	CYC	CAA-CBA-CGA-O1A
7	J	202	CYC	CAA-CBA-CGA-O1A
7	N	202	CYC	CAA-CBA-CGA-O1A
7	R	202	CYC	CAA-CBA-CGA-O1A
7	V	202	CYC	CAA-CBA-CGA-O1A
7	X	202	CYC	CAA-CBA-CGA-O1A
7	Z	202	CYC	CAA-CBA-CGA-O1A
7	d	202	CYC	CAA-CBA-CGA-O1A
7	f	202	CYC	CAA-CBA-CGA-O1A
7	h	202	CYC	CAA-CBA-CGA-O1A
7	j	202	CYC	CAA-CBA-CGA-O1A
7	j	201	CYC	CAA-CBA-CGA-O2A
7	T	201	CYC	CAA-CBA-CGA-O1A
7	N	201	CYC	CAA-CBA-CGA-O2A
7	L	201	CYC	CAD-CBD-CGD-O1D

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Mol	Chain	Res	Type	Atoms
7	j	201	CYC	CAA-CBA-CGA-O1A
7	B	201	CYC	C2B-C1B-CHB-C4A
7	F	201	CYC	CAD-CBD-CGD-O1D
7	L	201	CYC	CAA-CBA-CGA-O2A
7	T	201	CYC	CAA-CBA-CGA-O2A
7	T	201	CYC	CAD-CBD-CGD-O2D
7	b	201	CYC	CAA-CBA-CGA-O2A
7	B	201	CYC	CAD-CBD-CGD-O2D
7	R	201	CYC	CAA-CBA-CGA-O2A
7	X	201	CYC	CAD-CBD-CGD-O2D
7	f	201	CYC	CAA-CBA-CGA-O2A
7	Z	201	CYC	CAA-CBA-CGA-O2A
7	b	201	CYC	CAD-CBD-CGD-O1D
7	b	201	CYC	CAD-CBD-CGD-O2D
7	J	201	CYC	CAD-CBD-CGD-O2D
7	V	201	CYC	CAA-CBA-CGA-O2A
7	d	201	CYC	CAA-CBA-CGA-O2A
7	B	202	CYC	CAA-CBA-CGA-O2A
7	D	202	CYC	CAA-CBA-CGA-O2A
7	F	202	CYC	CAA-CBA-CGA-O2A
7	H	202	CYC	CAA-CBA-CGA-O2A
7	J	202	CYC	CAA-CBA-CGA-O2A
7	L	202	CYC	CAA-CBA-CGA-O2A
7	N	201	CYC	CAD-CBD-CGD-O1D
7	N	202	CYC	CAA-CBA-CGA-O2A
7	P	202	CYC	CAA-CBA-CGA-O2A
7	R	202	CYC	CAA-CBA-CGA-O2A
7	T	202	CYC	CAA-CBA-CGA-O2A
7	V	202	CYC	CAA-CBA-CGA-O2A
7	X	202	CYC	CAA-CBA-CGA-O2A
7	Z	202	CYC	CAA-CBA-CGA-O2A
7	b	202	CYC	CAA-CBA-CGA-O2A
7	d	202	CYC	CAA-CBA-CGA-O2A
7	f	202	CYC	CAA-CBA-CGA-O2A
7	h	202	CYC	CAA-CBA-CGA-O2A
7	j	202	CYC	CAA-CBA-CGA-O2A
7	X	201	CYC	CAD-CBD-CGD-O1D
7	J	201	CYC	CAD-CBD-CGD-O1D
7	j	201	CYC	CAD-CBD-CGD-O1D
7	J	201	CYC	CAA-CBA-CGA-O1A
7	R	201	CYC	CAD-CBD-CGD-O1D
7	V	201	CYC	CAD-CBD-CGD-O1D

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Mol	Chain	Res	Type	Atoms
7	d	201	CYC	CAD-CBD-CGD-O1D
7	f	201	CYC	CAD-CBD-CGD-O1D
7	j	201	CYC	C2B-C3B-CAB-CBB
7	Z	201	CYC	CAD-CBD-CGD-O1D
7	X	201	CYC	CAA-CBA-CGA-O1A
7	d	201	CYC	CAD-CBD-CGD-O2D
7	R	201	CYC	CAD-CBD-CGD-O2D
7	V	201	CYC	CAD-CBD-CGD-O2D
7	Z	201	CYC	CAD-CBD-CGD-O2D
7	f	201	CYC	CAD-CBD-CGD-O2D
7	X	201	CYC	CAA-CBA-CGA-O2A
7	W	201	CYC	C3A-C2A-CAA-CBA
7	J	201	CYC	CAA-CBA-CGA-O2A
7	h	201	CYC	CAD-CBD-CGD-O2D
7	j	201	CYC	CAD-CBD-CGD-O2D
7	i	201	CYC	C3A-C2A-CAA-CBA
7	C	201	CYC	C3A-C2A-CAA-CBA
7	S	201	CYC	C3A-C2A-CAA-CBA
7	Y	201	CYC	C3A-C2A-CAA-CBA
7	a	201	CYC	C3A-C2A-CAA-CBA
7	g	201	CYC	C3A-C2A-CAA-CBA
7	h	201	CYC	CAD-CBD-CGD-O1D
7	F	201	CYC	NB-C1B-CHB-C4A
7	N	201	CYC	NB-C1B-CHB-C4A
7	A	201	CYC	C3A-C2A-CAA-CBA
7	E	201	CYC	C3A-C2A-CAA-CBA
7	G	201	CYC	C3A-C2A-CAA-CBA
7	I	201	CYC	C3A-C2A-CAA-CBA
7	K	201	CYC	C3A-C2A-CAA-CBA
7	M	201	CYC	C3A-C2A-CAA-CBA
7	O	201	CYC	C3A-C2A-CAA-CBA
7	Q	201	CYC	C3A-C2A-CAA-CBA
7	U	201	CYC	C3A-C2A-CAA-CBA
7	c	201	CYC	C3A-C2A-CAA-CBA
7	d	201	CYC	C3A-C2A-CAA-CBA
7	e	201	CYC	C3A-C2A-CAA-CBA
7	A	201	CYC	C1A-C2A-CAA-CBA
7	B	202	CYC	C1A-C2A-CAA-CBA
7	D	202	CYC	C1A-C2A-CAA-CBA
7	E	201	CYC	C1A-C2A-CAA-CBA
7	F	202	CYC	C1A-C2A-CAA-CBA
7	G	201	CYC	C1A-C2A-CAA-CBA

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Mol	Chain	Res	Type	Atoms
7	H	202	CYC	C1A-C2A-CAA-CBA
7	I	201	CYC	C1A-C2A-CAA-CBA
7	J	202	CYC	C1A-C2A-CAA-CBA
7	K	201	CYC	C1A-C2A-CAA-CBA
7	L	202	CYC	C1A-C2A-CAA-CBA
7	N	202	CYC	C1A-C2A-CAA-CBA
7	P	202	CYC	C1A-C2A-CAA-CBA
7	Q	201	CYC	C1A-C2A-CAA-CBA
7	R	202	CYC	C1A-C2A-CAA-CBA
7	S	201	CYC	C1A-C2A-CAA-CBA
7	T	202	CYC	C1A-C2A-CAA-CBA
7	U	201	CYC	C1A-C2A-CAA-CBA
7	V	202	CYC	C1A-C2A-CAA-CBA
7	X	202	CYC	C1A-C2A-CAA-CBA
7	Y	201	CYC	C1A-C2A-CAA-CBA
7	Z	202	CYC	C1A-C2A-CAA-CBA
7	b	202	CYC	C1A-C2A-CAA-CBA
7	d	202	CYC	C1A-C2A-CAA-CBA
7	e	201	CYC	C1A-C2A-CAA-CBA
7	f	202	CYC	C1A-C2A-CAA-CBA
7	h	202	CYC	C1A-C2A-CAA-CBA
7	i	201	CYC	C1A-C2A-CAA-CBA
7	j	202	CYC	C1A-C2A-CAA-CBA
7	R	201	CYC	C3A-C2A-CAA-CBA
7	V	201	CYC	C3A-C2A-CAA-CBA
7	Z	201	CYC	C3A-C2A-CAA-CBA
7	f	201	CYC	C3A-C2A-CAA-CBA
7	C	201	CYC	CAD-CBD-CGD-O2D

There are no ring outliers.

54 monomers are involved in 714 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
7	C	201	CYC	7	0
7	J	201	CYC	17	0
7	j	201	CYC	13	0
7	N	201	CYC	24	0
7	e	201	CYC	7	0
7	R	201	CYC	21	0
7	f	202	CYC	13	0
7	X	202	CYC	17	0
7	T	202	CYC	15	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
7	S	201	CYC	7	0
7	V	202	CYC	18	0
7	J	202	CYC	13	0
7	L	201	CYC	12	0
7	U	201	CYC	5	0
7	V	201	CYC	9	0
7	G	201	CYC	14	0
7	P	202	CYC	11	0
7	K	201	CYC	14	0
7	R	202	CYC	11	0
7	h	201	CYC	24	0
7	f	201	CYC	13	0
7	B	202	CYC	19	0
7	H	202	CYC	20	0
7	E	201	CYC	9	0
7	H	201	CYC	11	0
7	L	202	CYC	18	0
7	W	201	CYC	14	0
7	Z	202	CYC	19	0
7	i	201	CYC	13	0
7	g	201	CYC	9	0
7	Q	201	CYC	10	0
7	A	201	CYC	7	0
7	h	202	CYC	13	0
7	I	201	CYC	4	0
7	T	201	CYC	9	0
7	P	201	CYC	19	0
7	a	201	CYC	12	0
7	d	202	CYC	10	0
7	O	201	CYC	8	0
7	j	202	CYC	19	0
7	D	201	CYC	18	0
7	c	201	CYC	11	0
7	b	201	CYC	11	0
7	B	201	CYC	14	0
7	F	202	CYC	16	0
7	D	202	CYC	17	0
7	Z	201	CYC	16	0
7	N	202	CYC	17	0
7	Y	201	CYC	4	0
7	M	201	CYC	12	0
7	d	201	CYC	6	0

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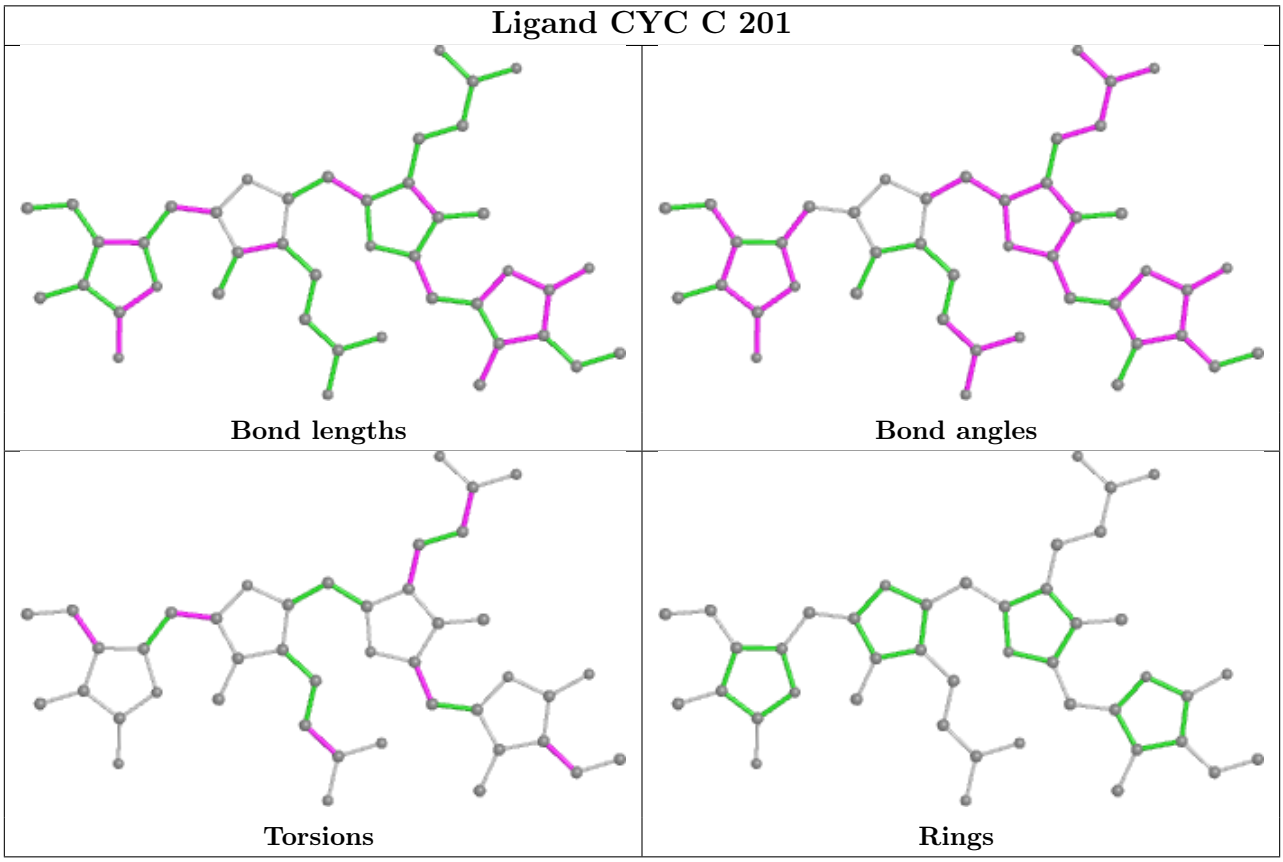
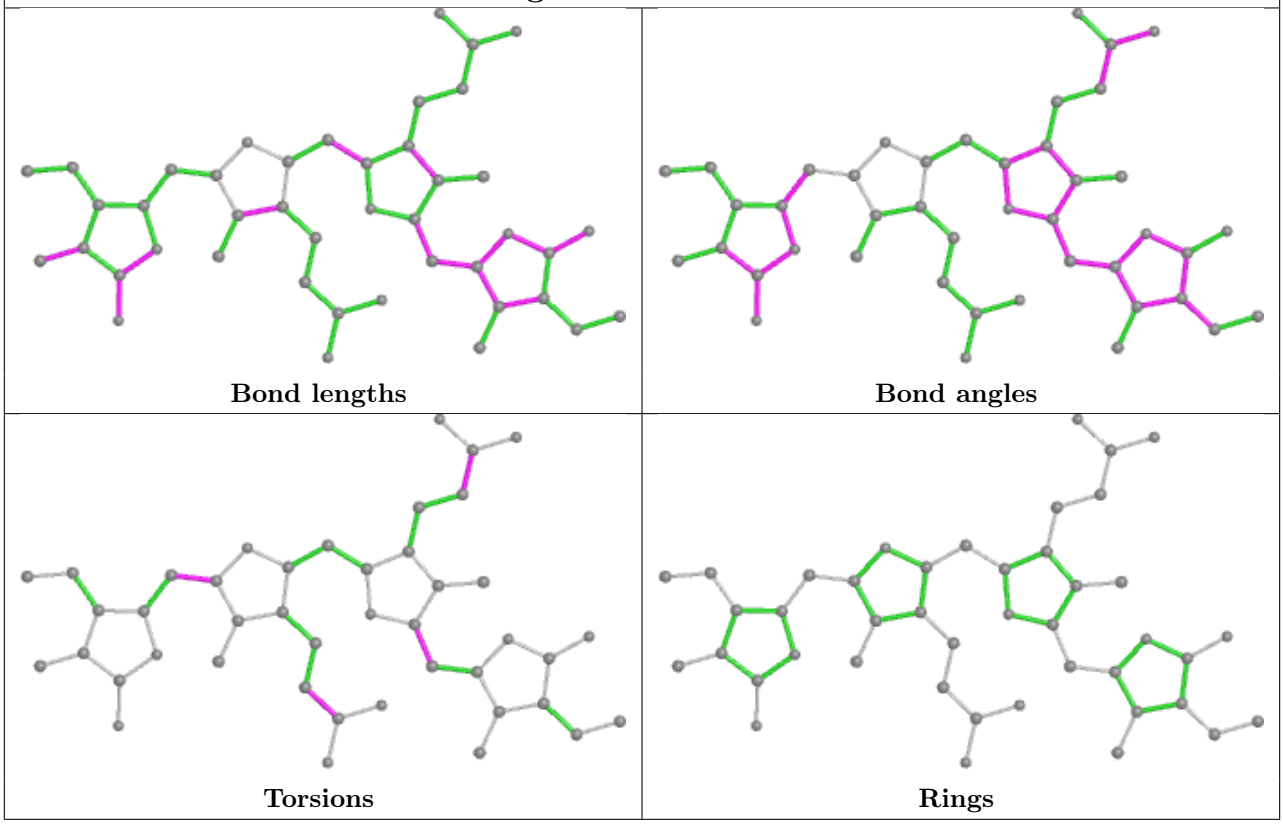
Mol	Chain	Res	Type	Clashes	Symm-Clashes
7	X	201	CYC	14	0
7	b	202	CYC	11	0
7	F	201	CYC	19	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less 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 CYC J 201



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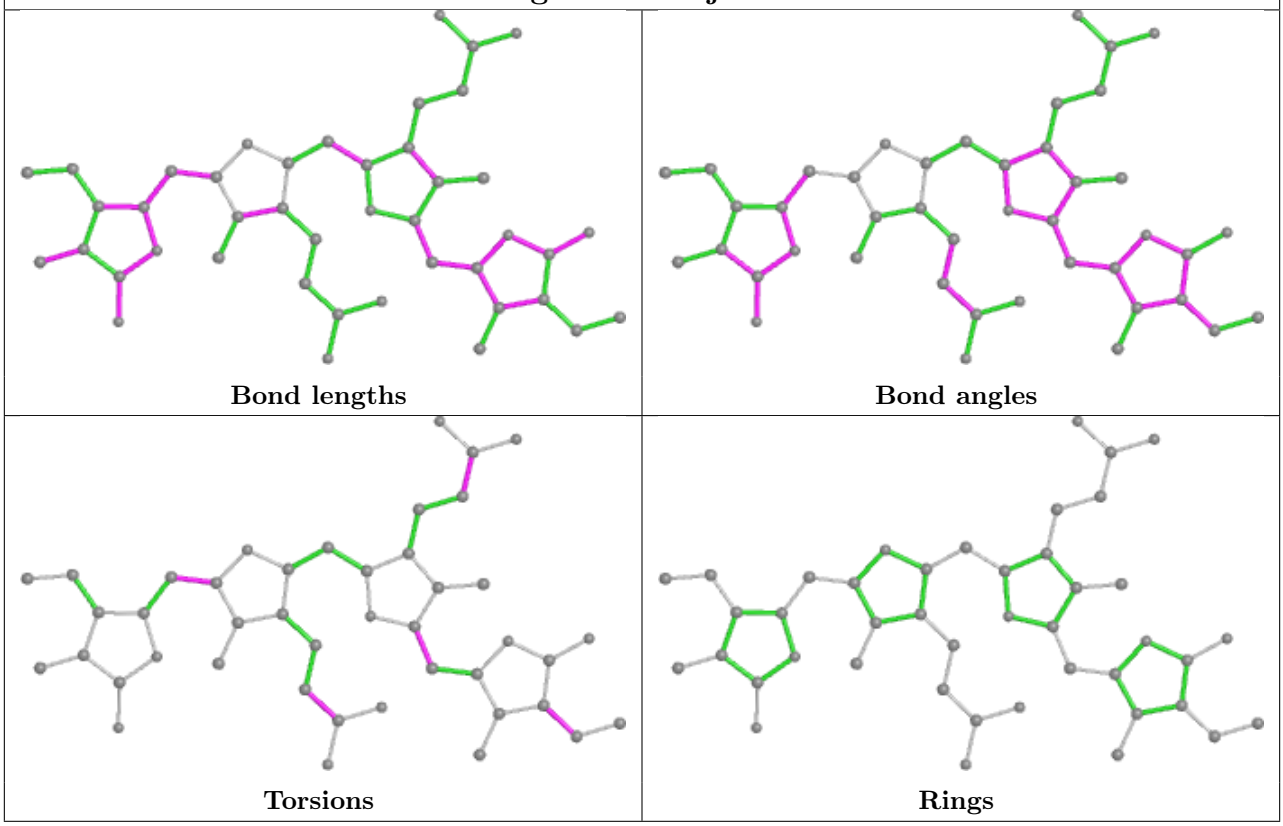

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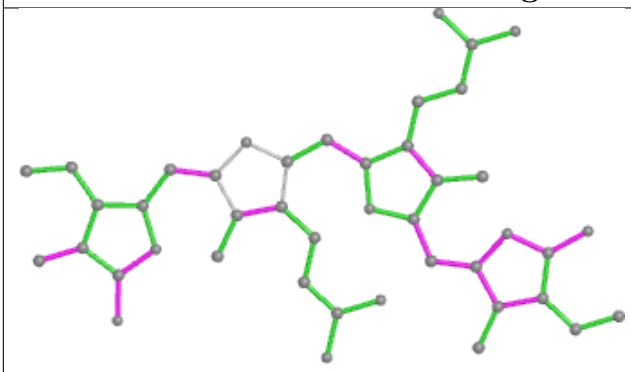
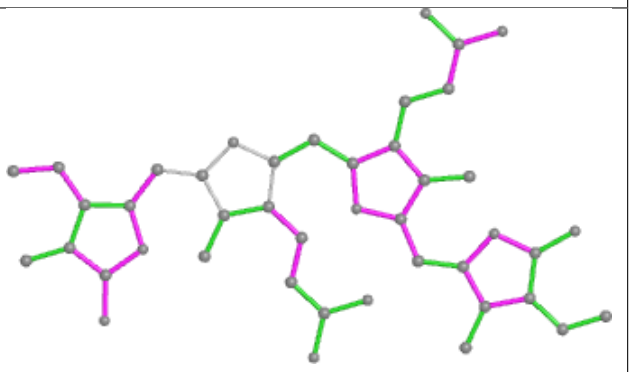
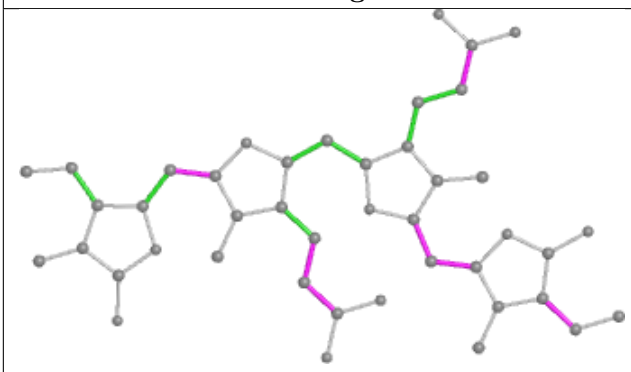


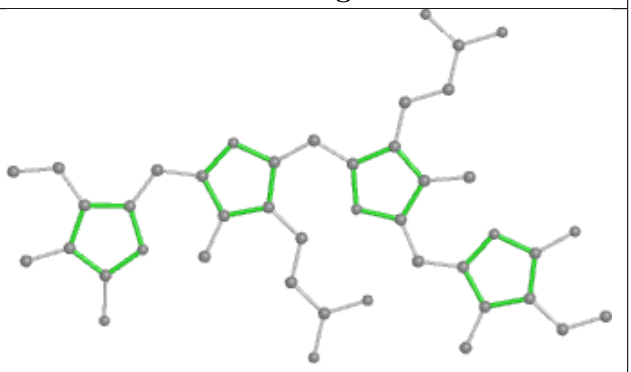
Bond lengths



Bond angles

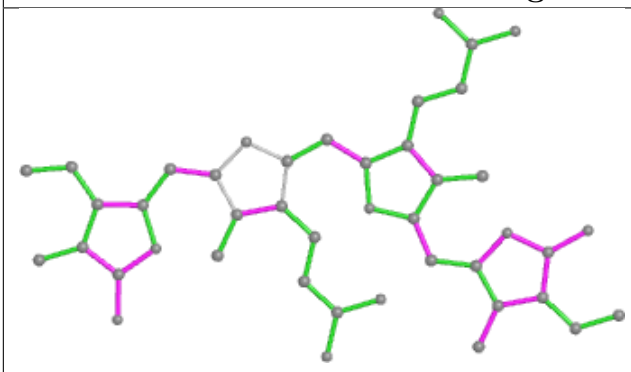


Torsions



Rings

Ligand CYC e 201



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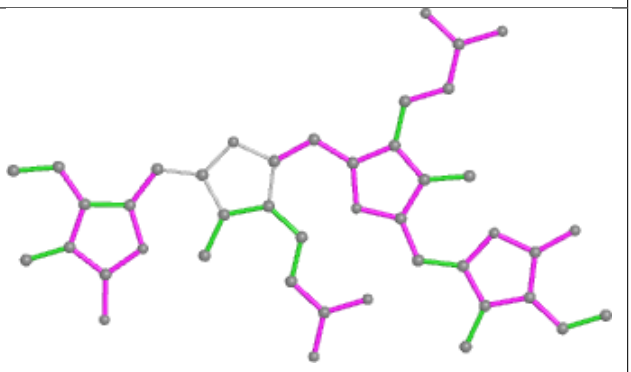

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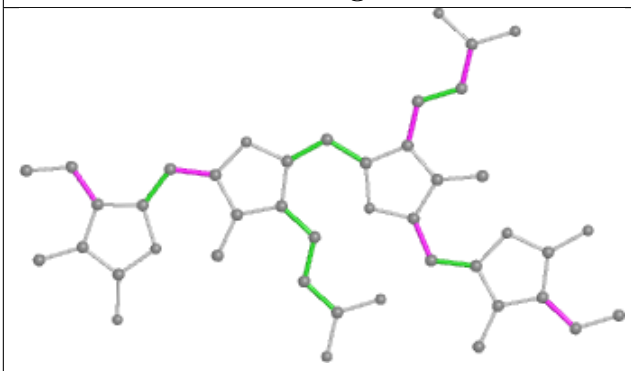

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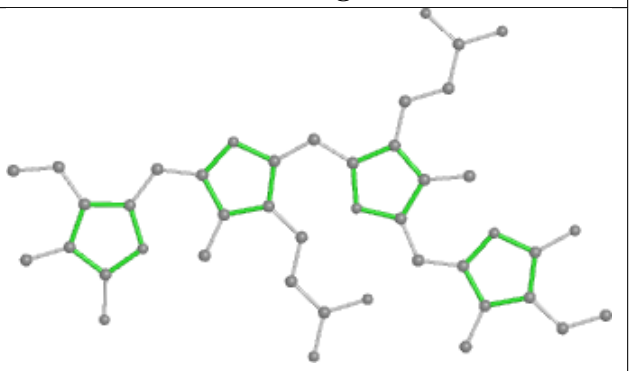

Rings

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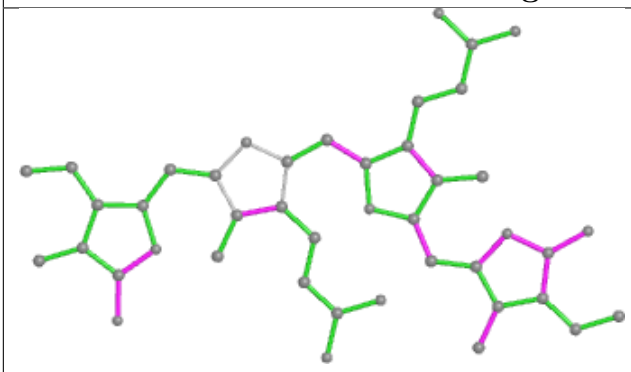

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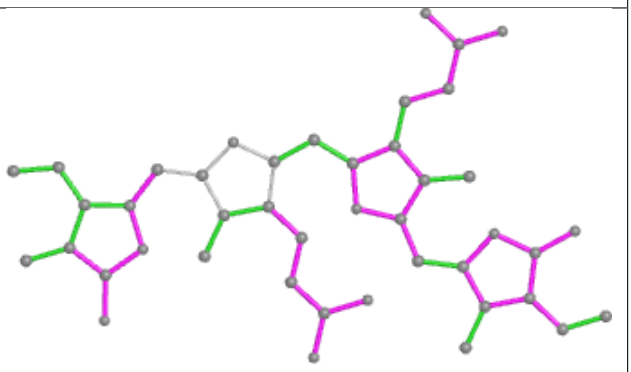

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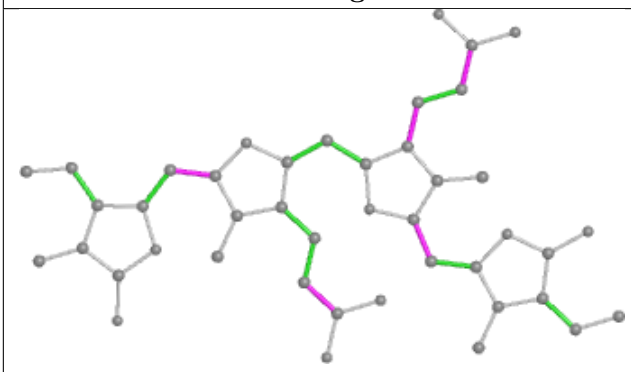

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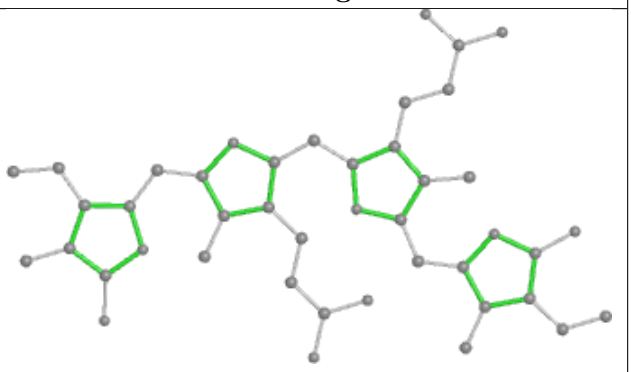

Rings

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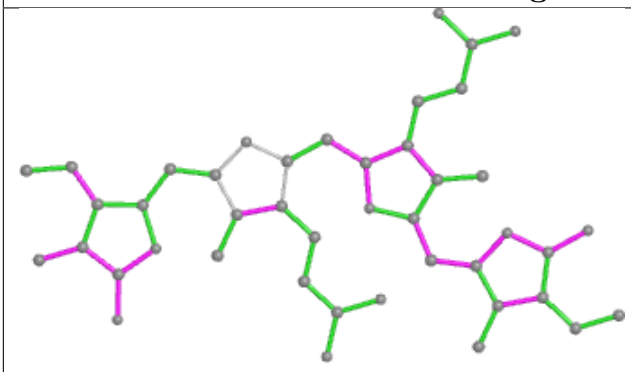

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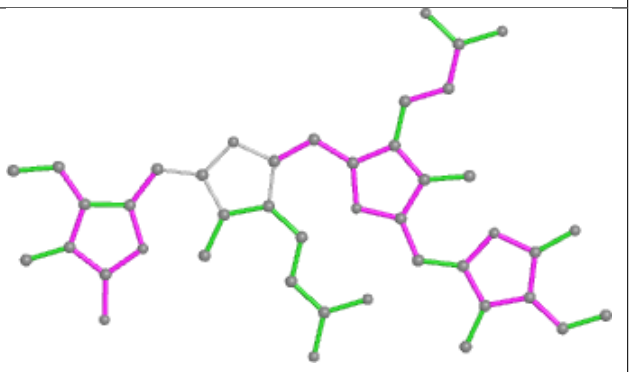
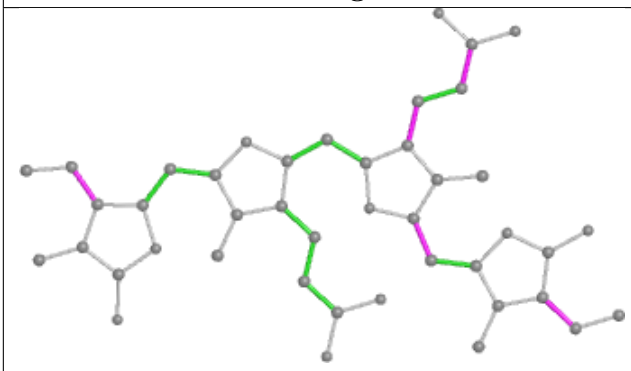


Bond angles



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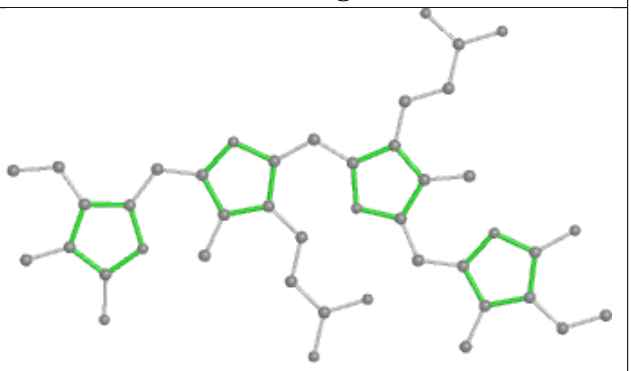

Rings

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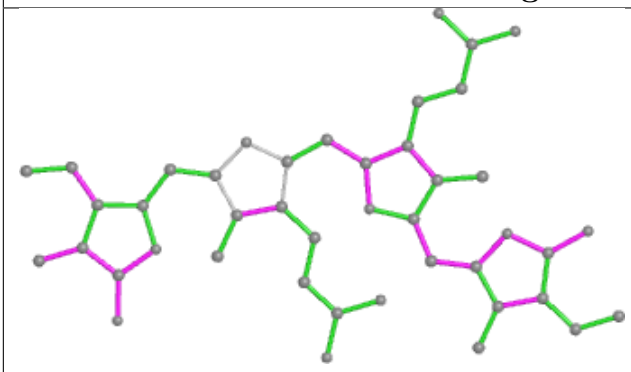

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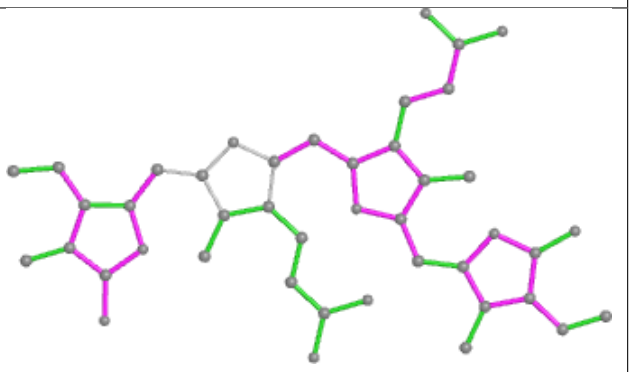

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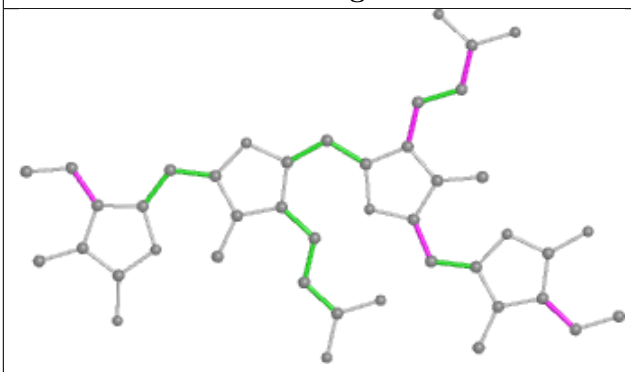

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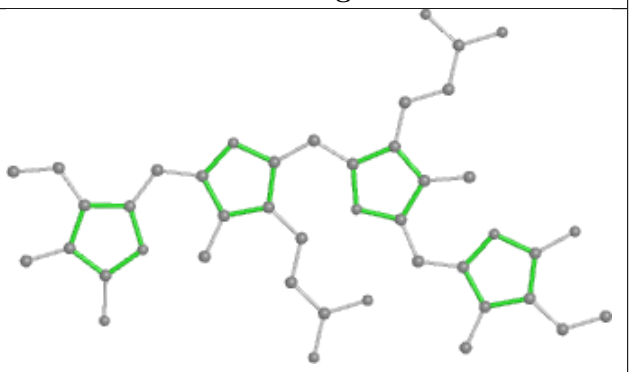

Rings

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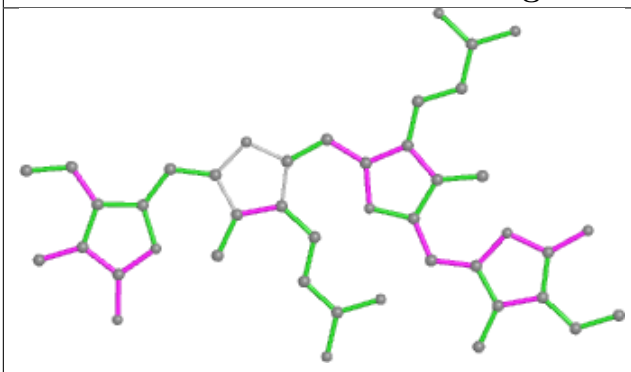

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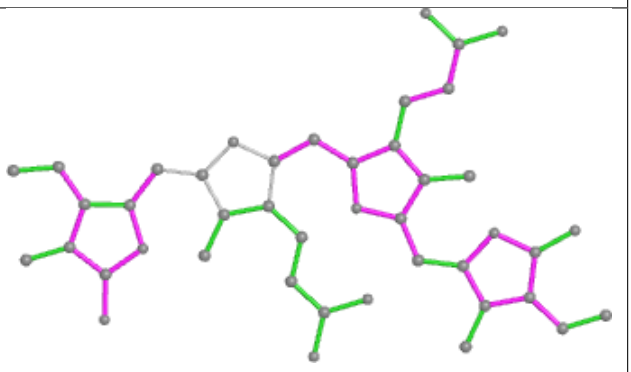
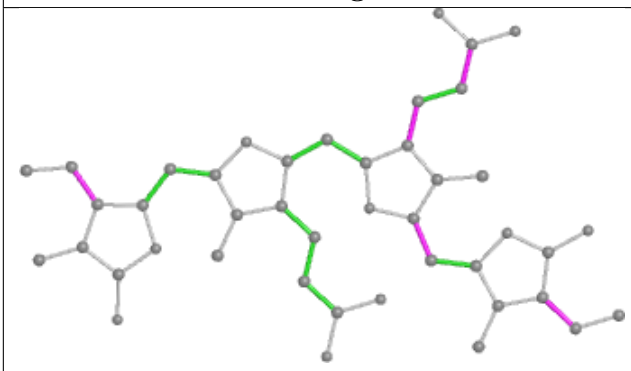


Bond angles



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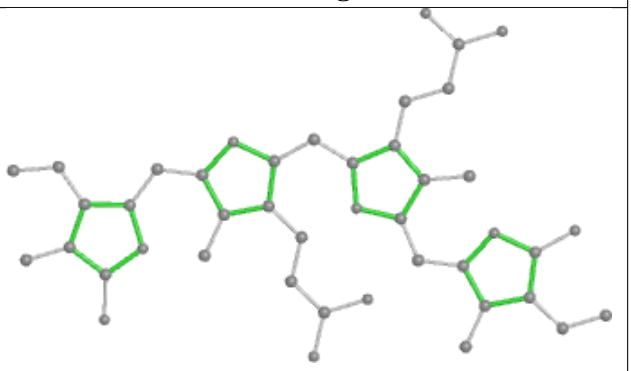

Rings

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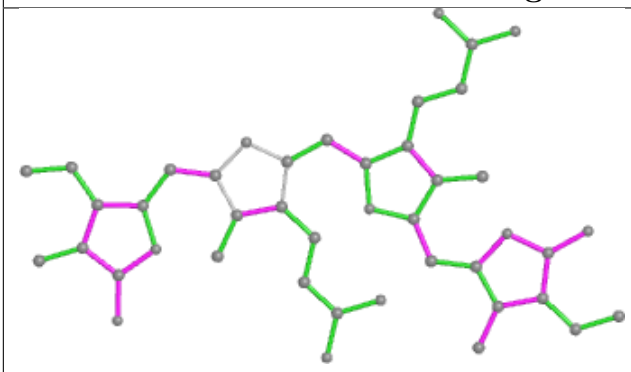

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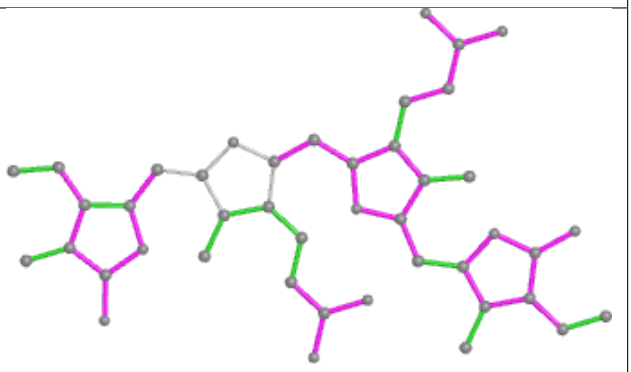

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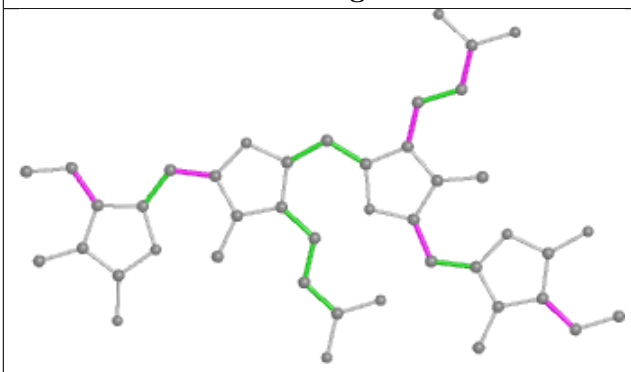

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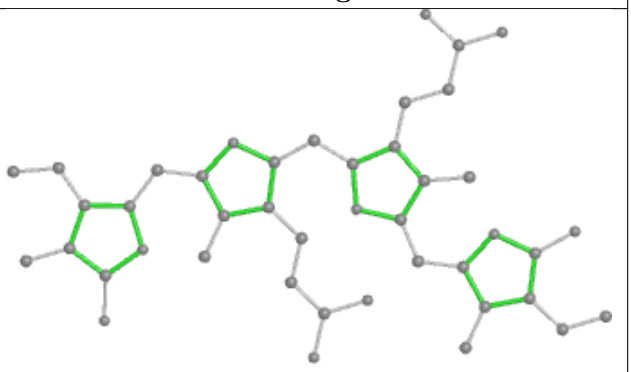

Rings

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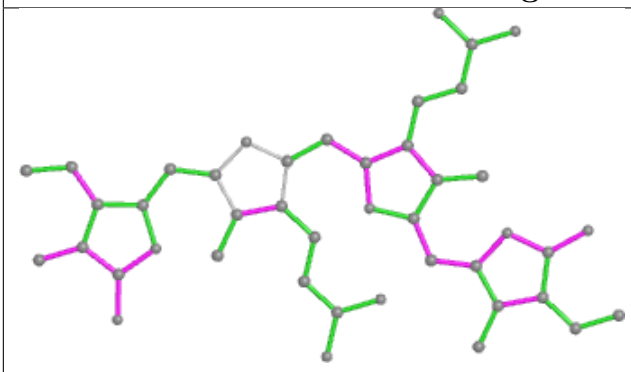

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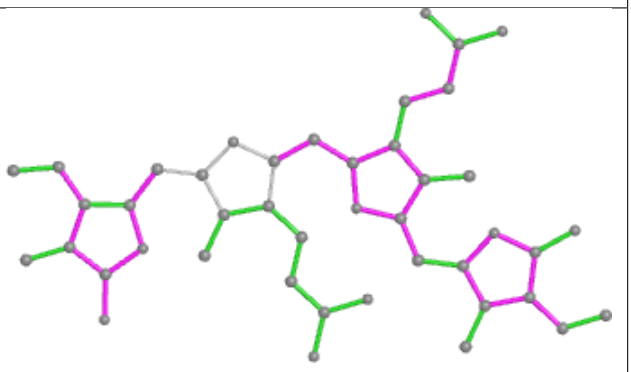

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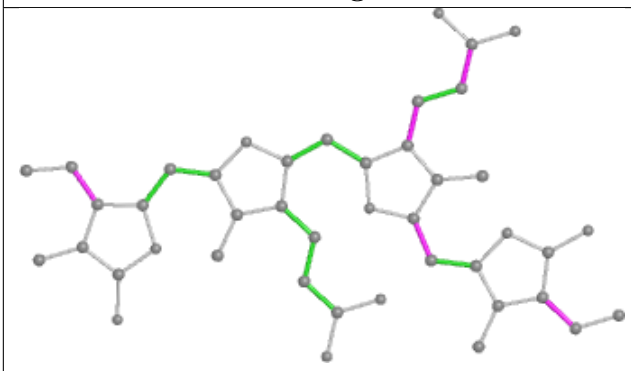

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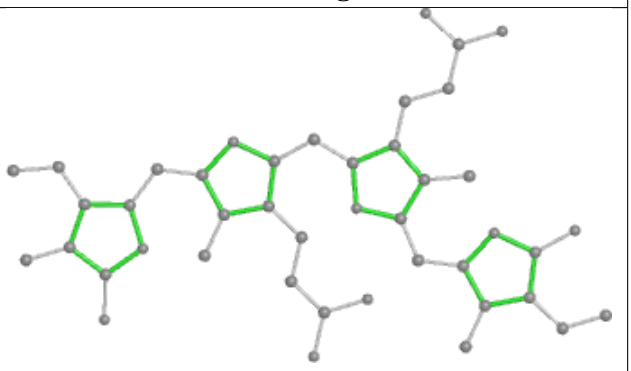

Rings

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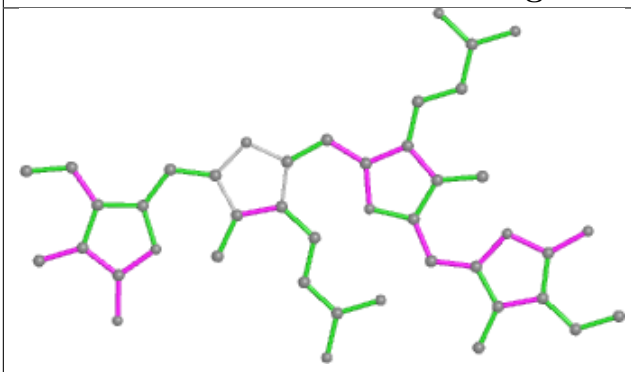

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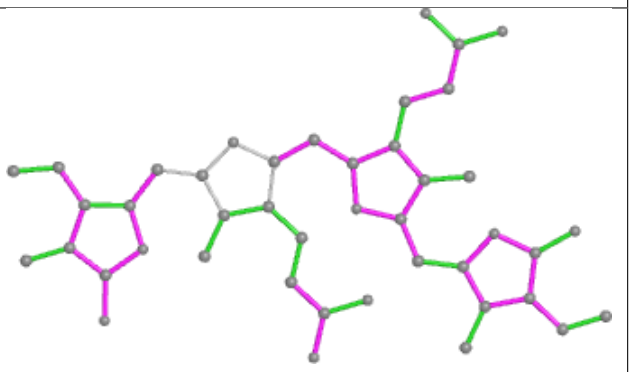

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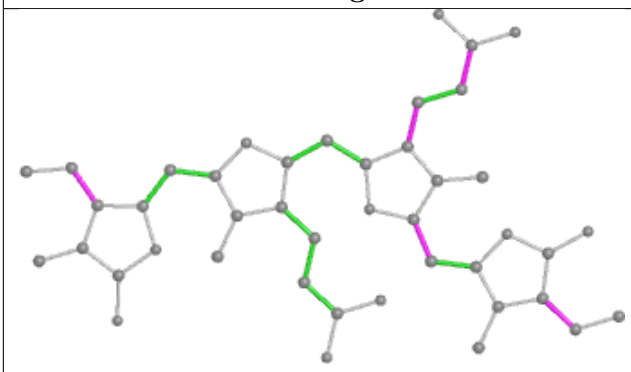

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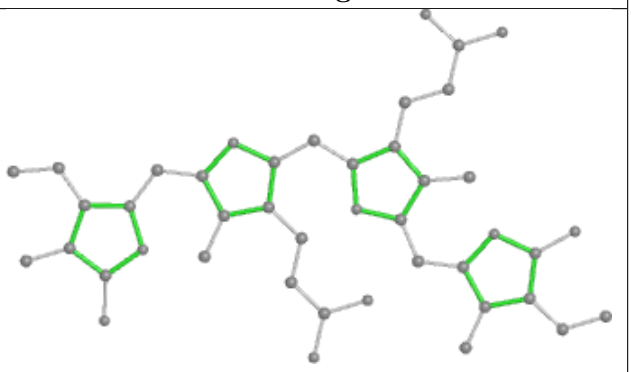

Rings

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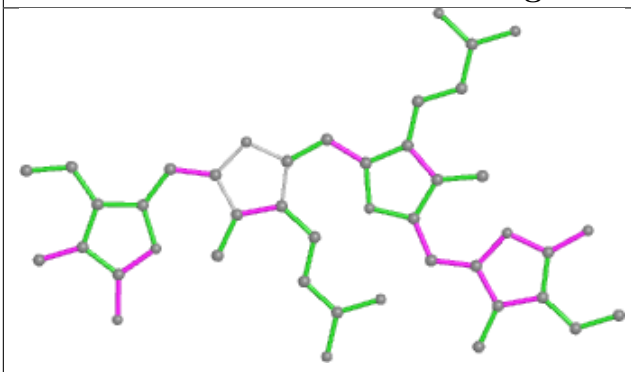
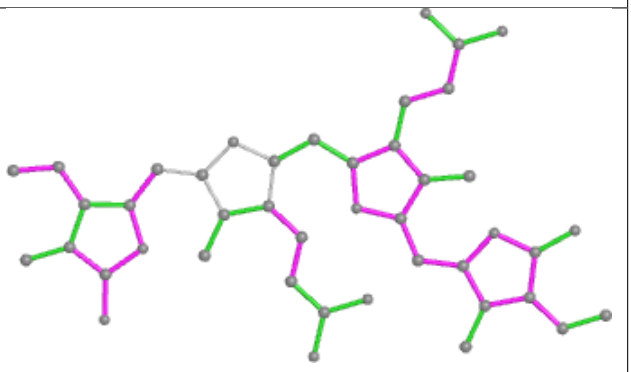
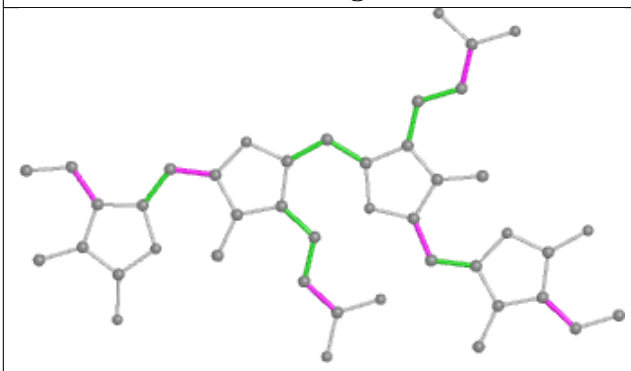


Bond lengths



Bond angles



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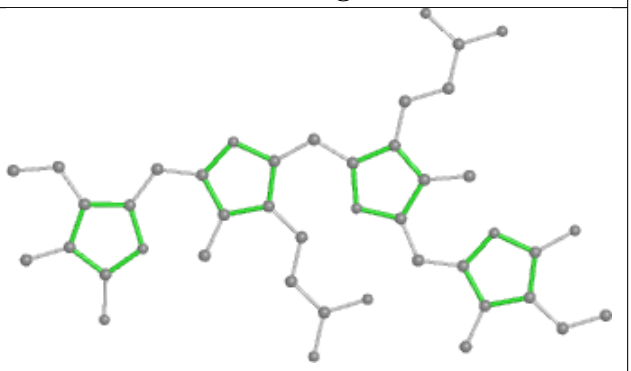
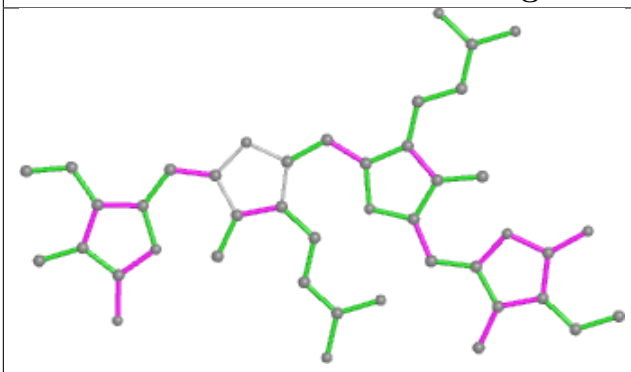


Rings

Ligand CYC U 201



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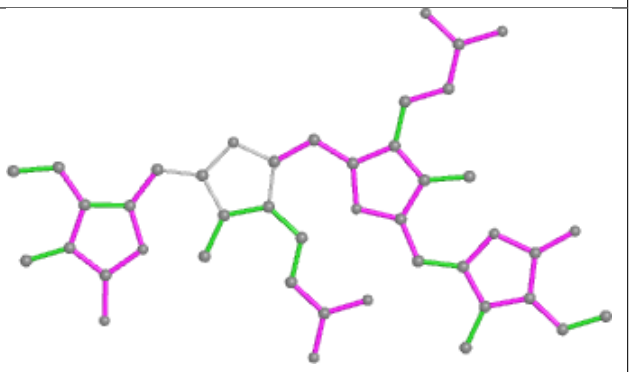
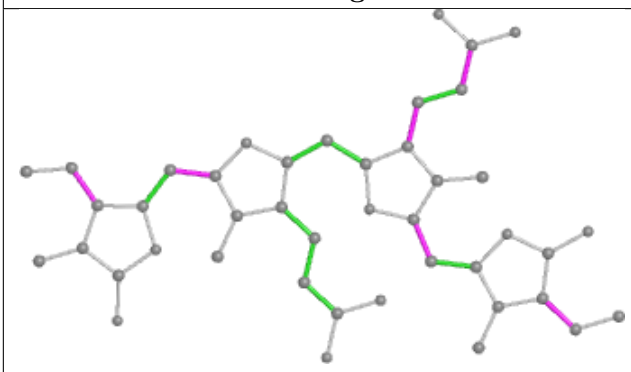


Bond angles



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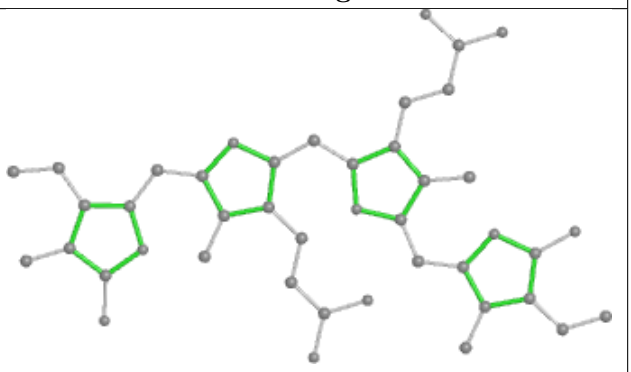
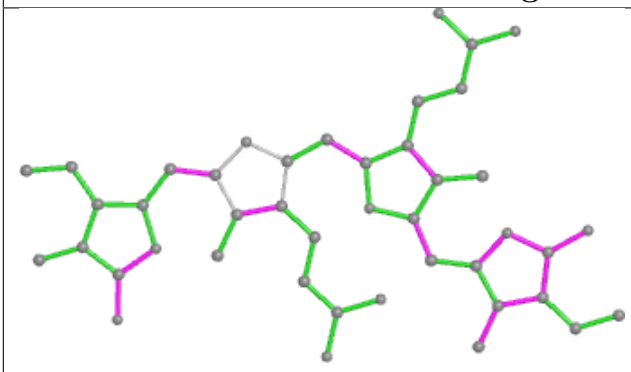


Rings

Ligand CYC V 201



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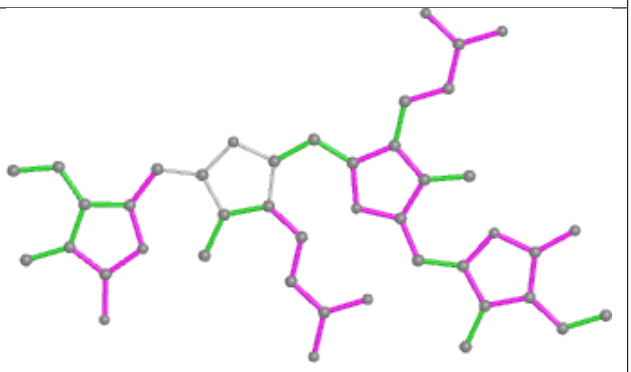
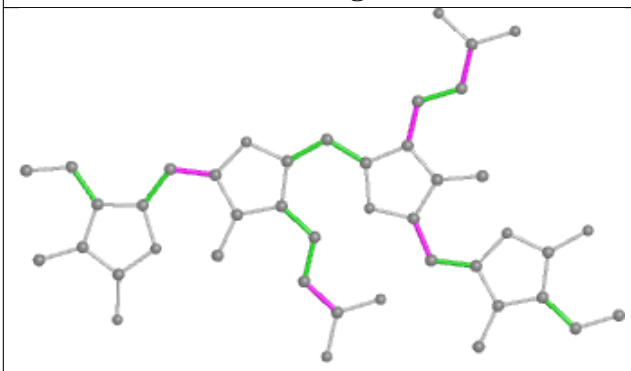


Bond angles



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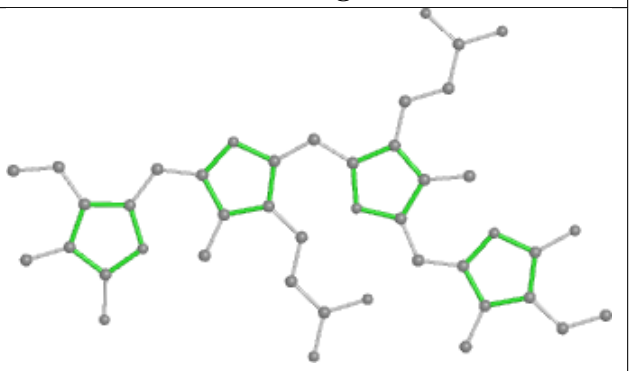
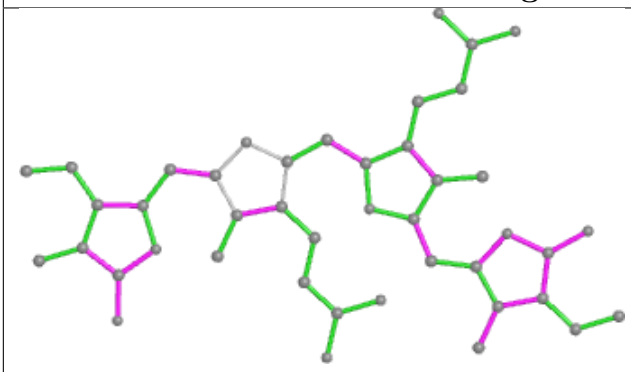
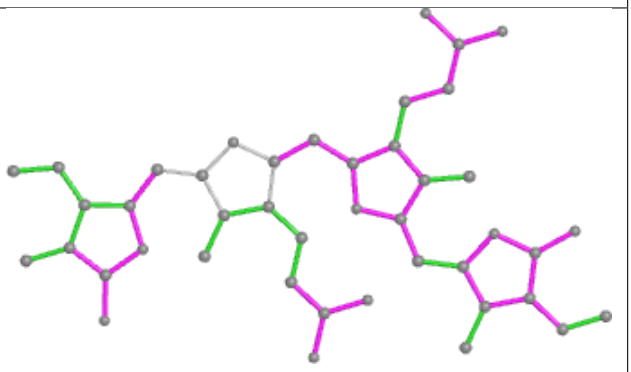


Rings

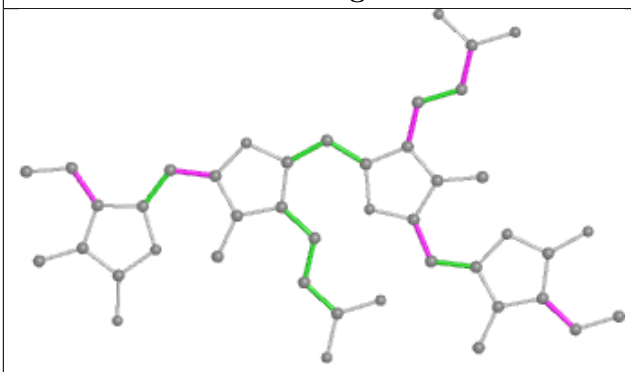
Ligand CYC G 201



Bond lengths



Bond angles



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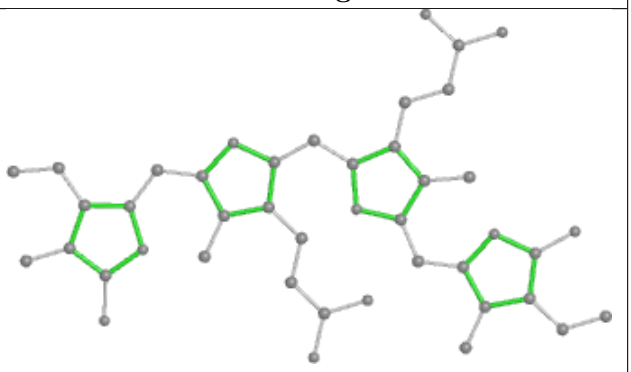
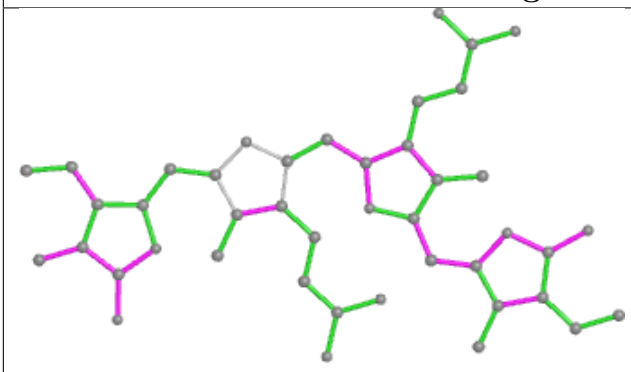
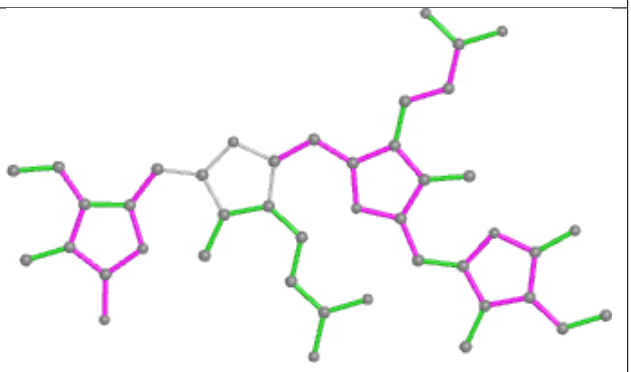


Rings

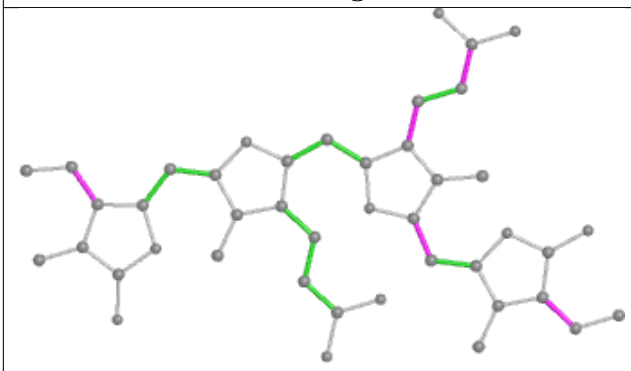
Ligand CYC P 202



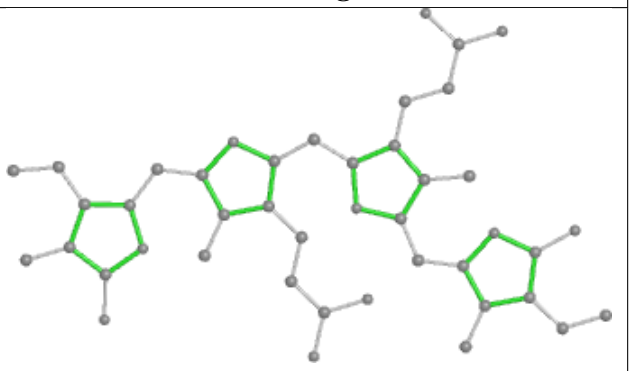
Bond lengths



Bond angles

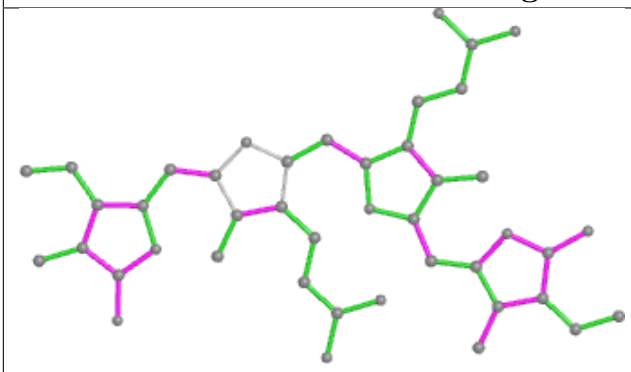


Torsions

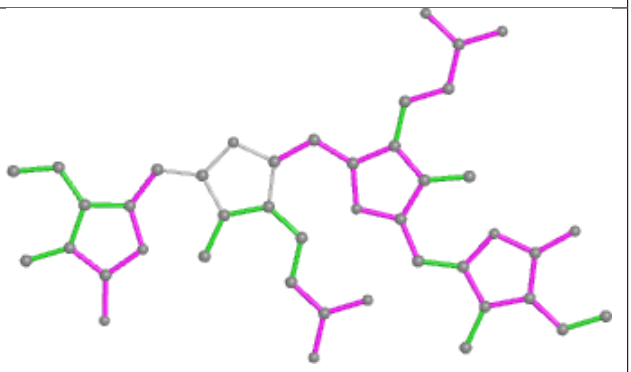


Rings

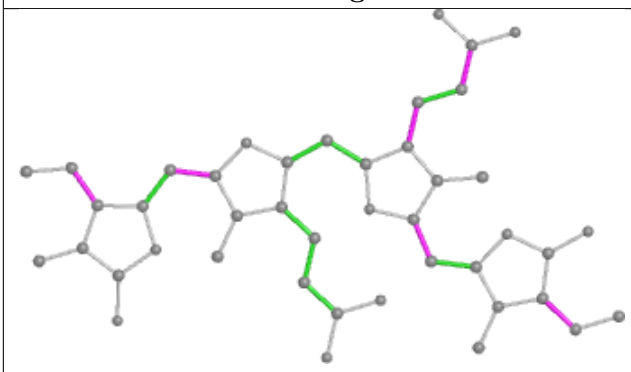
Ligand CYC K 201



Bond lengths



Bond angles



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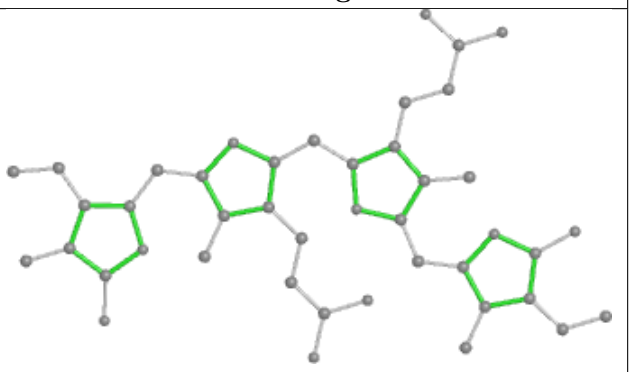
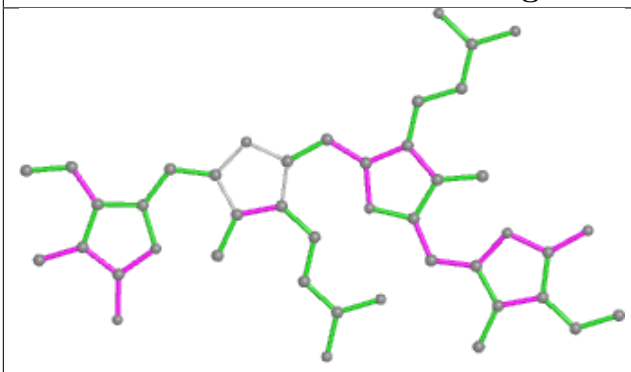


Rings

Ligand CYC R 202



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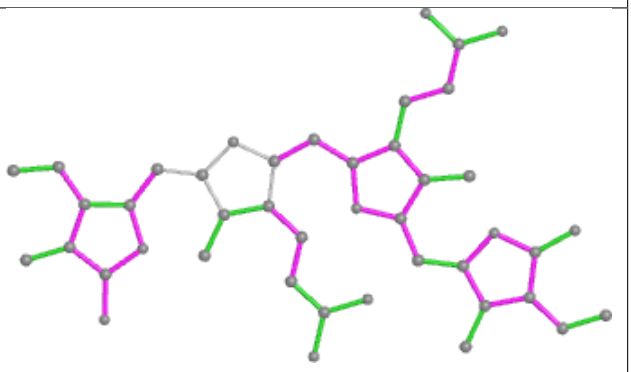

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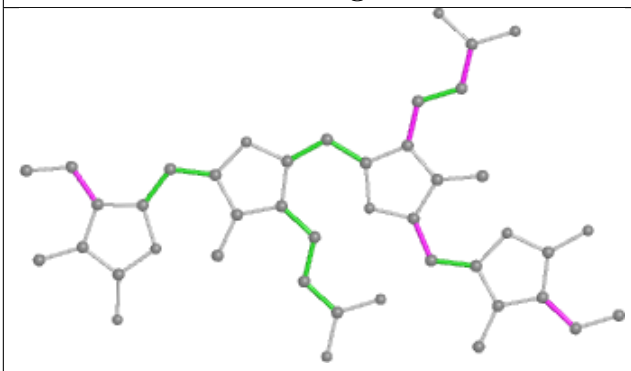

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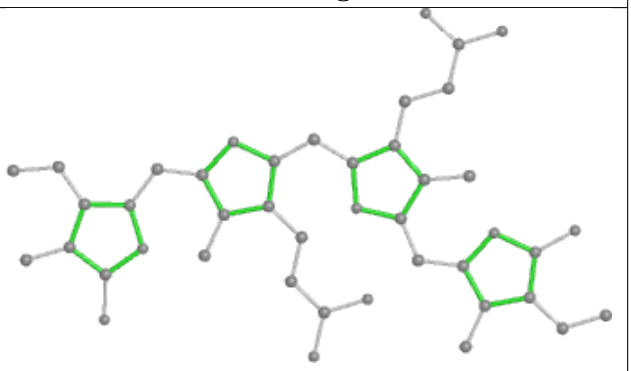

Rings

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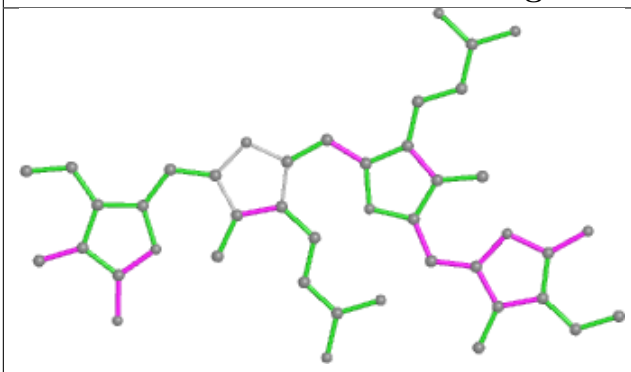

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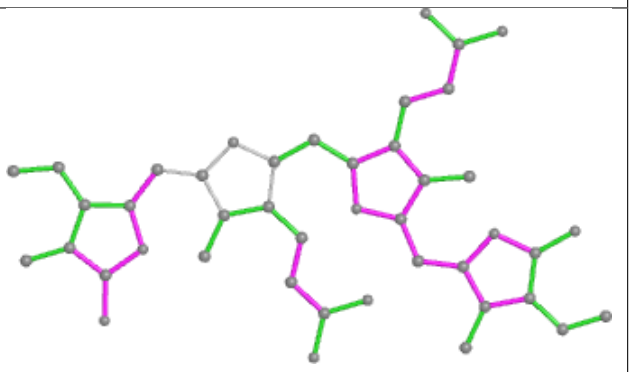

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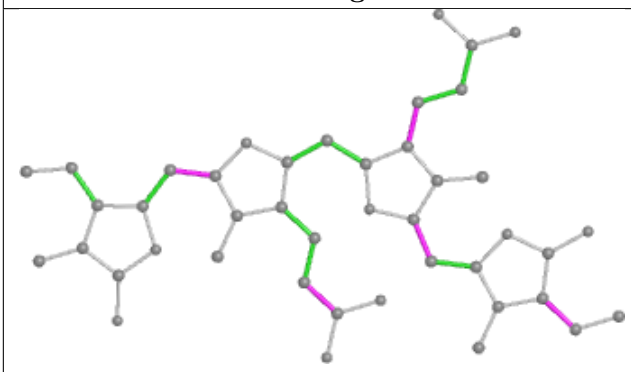

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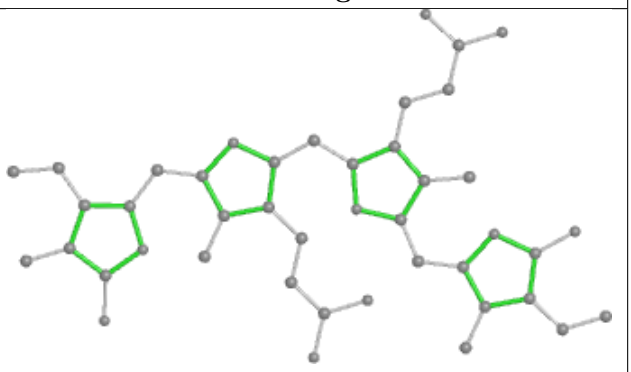

Rings

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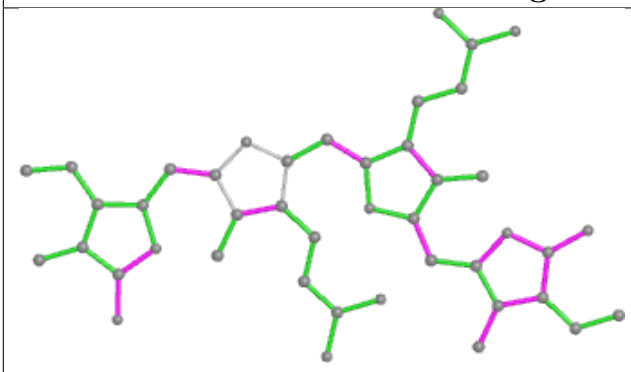

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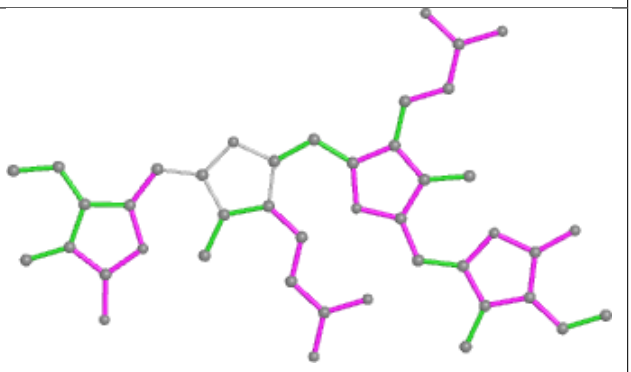

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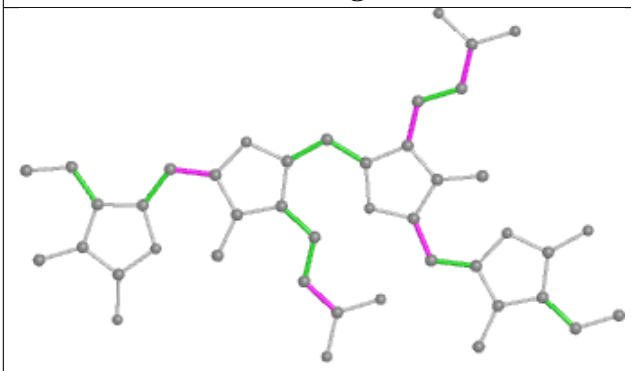

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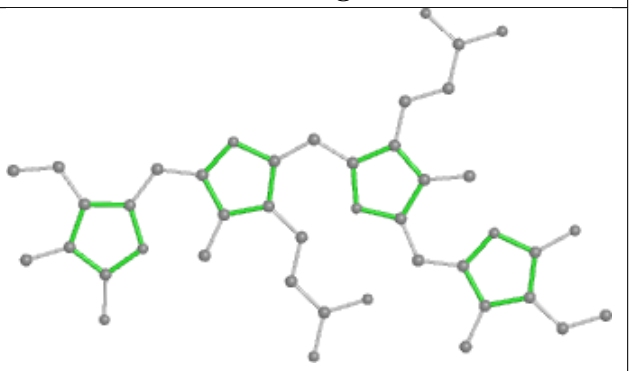

Rings

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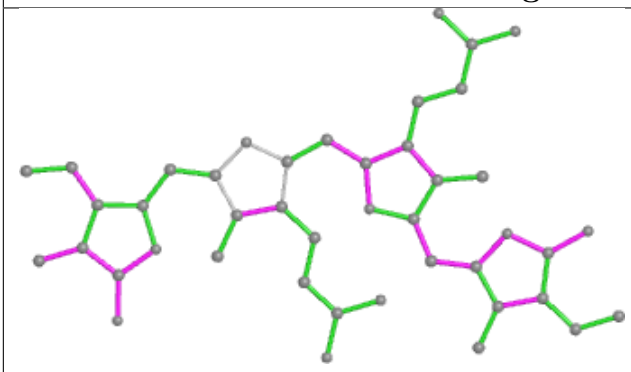

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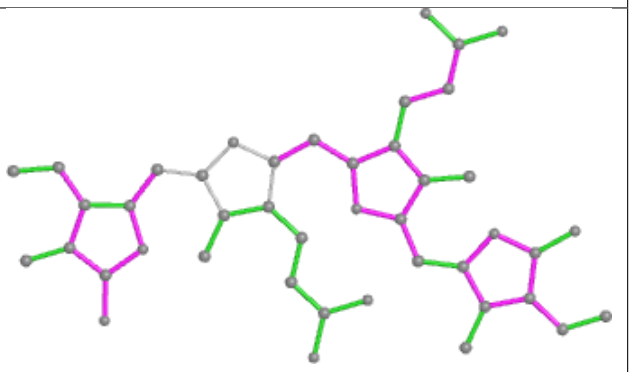

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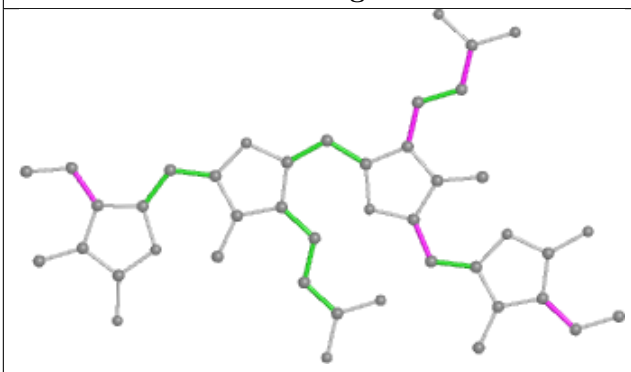

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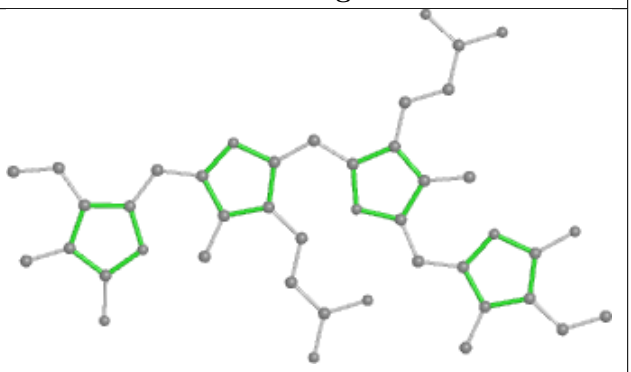

Rings

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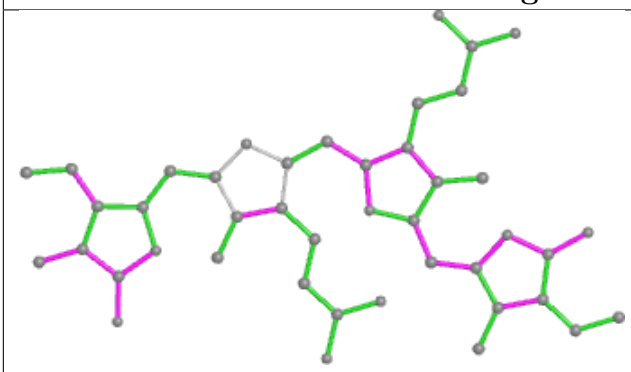

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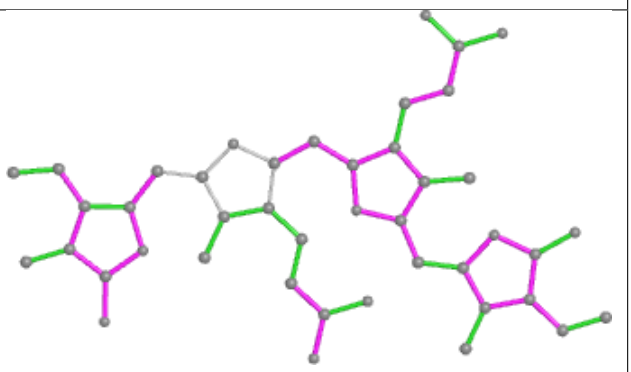

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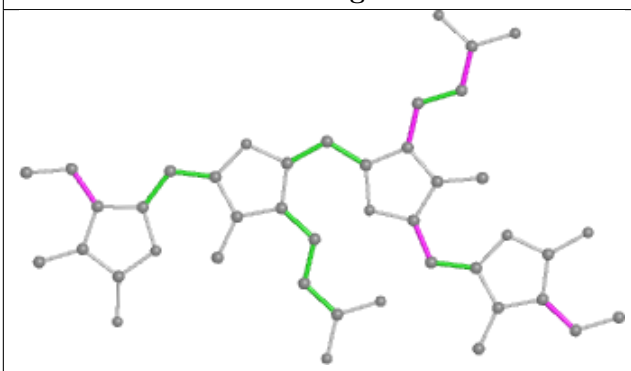

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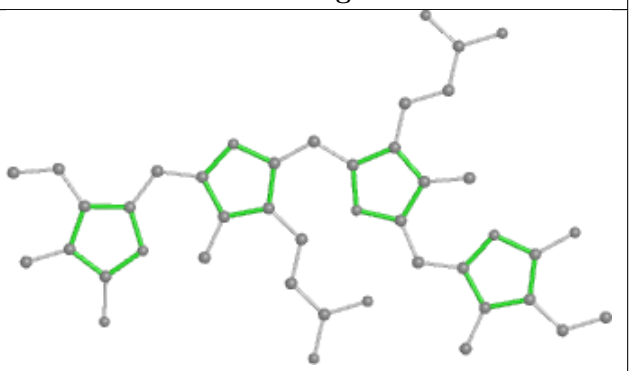

Rings

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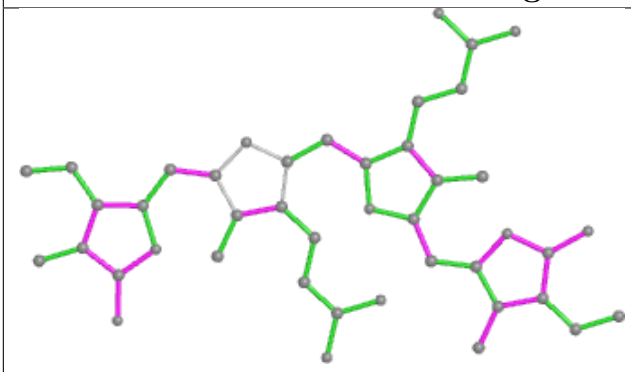

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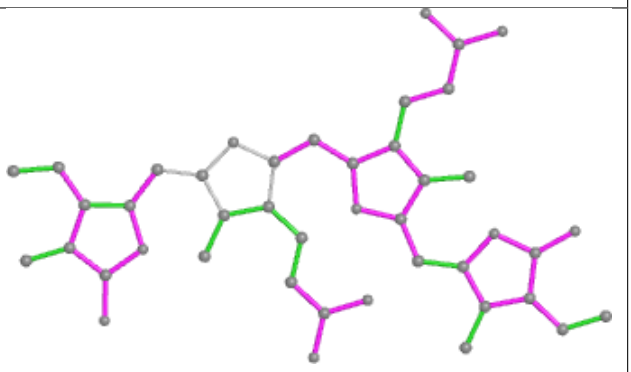

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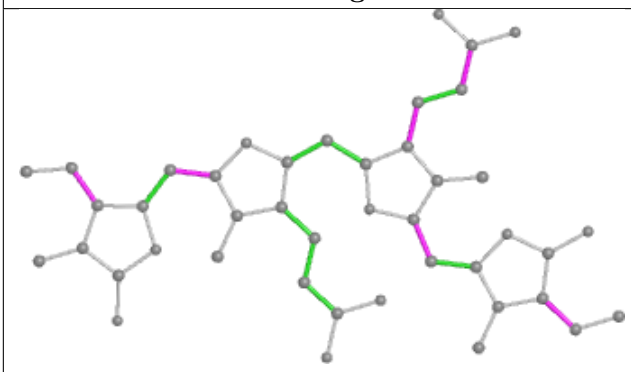

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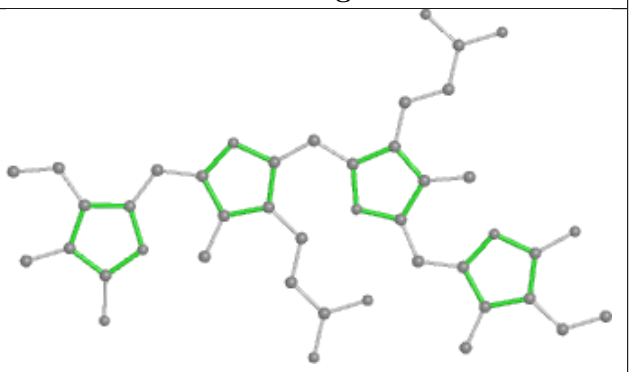

Rings

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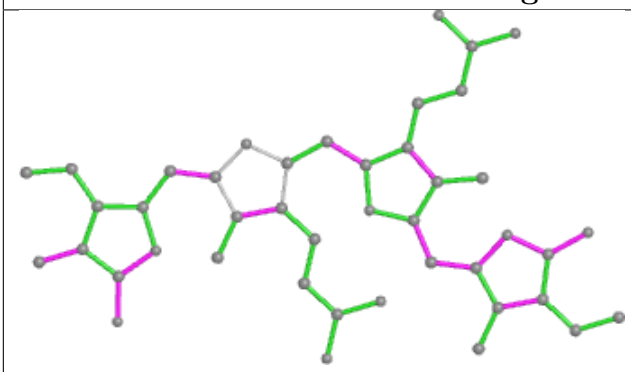

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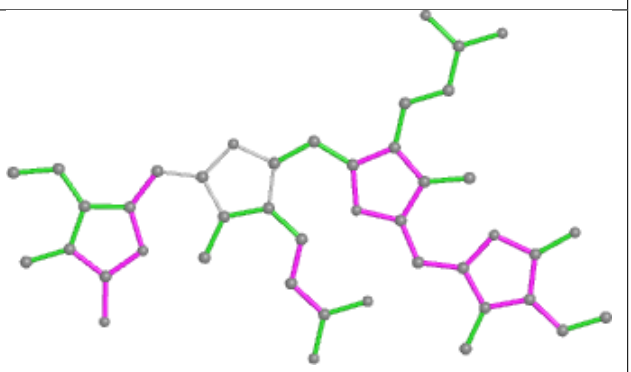

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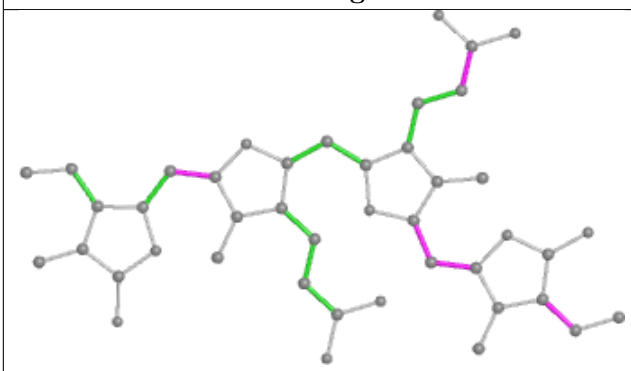

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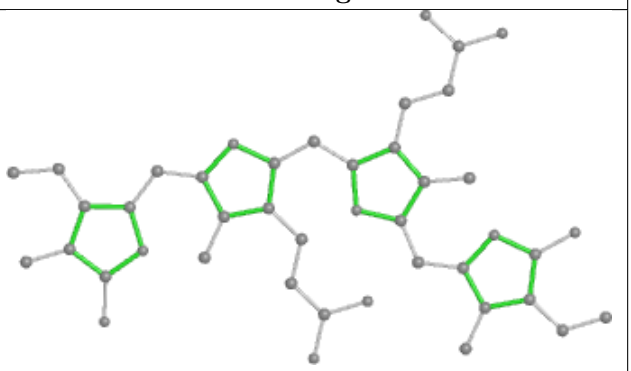

Rings

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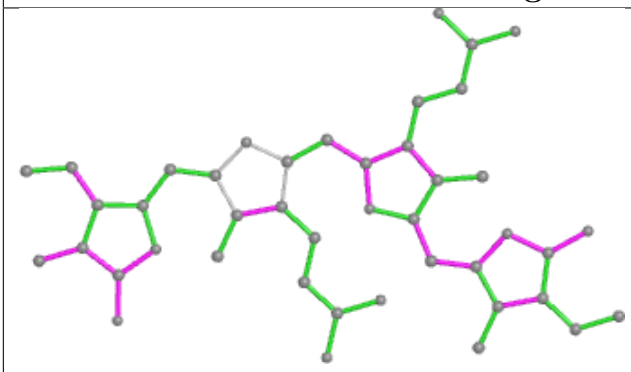

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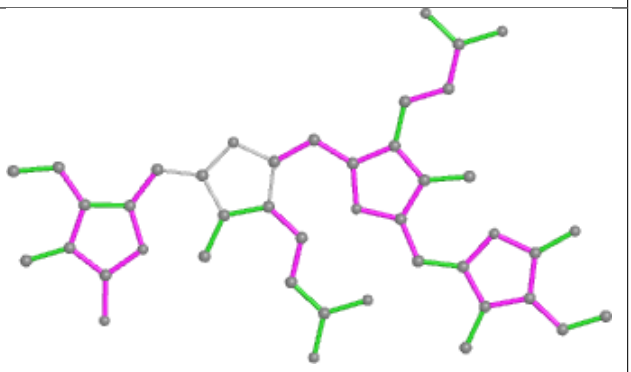

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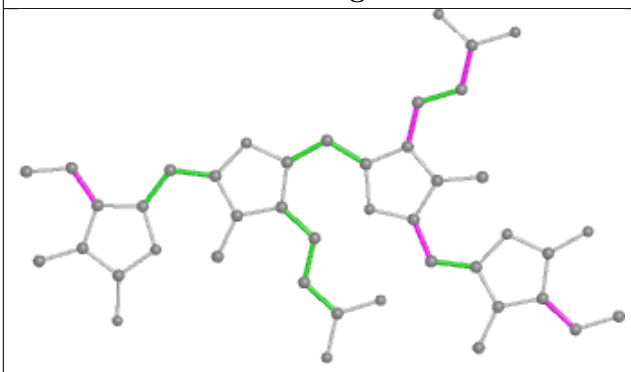

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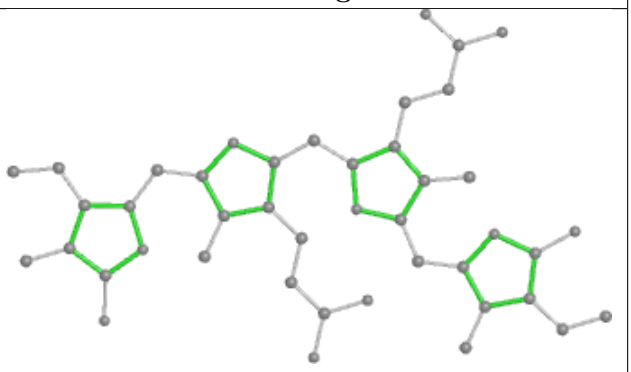

Rings

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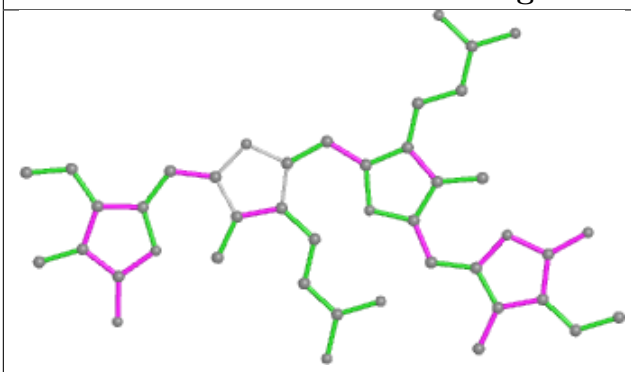

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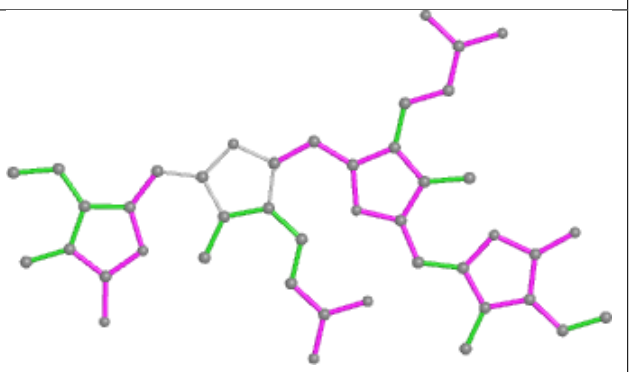

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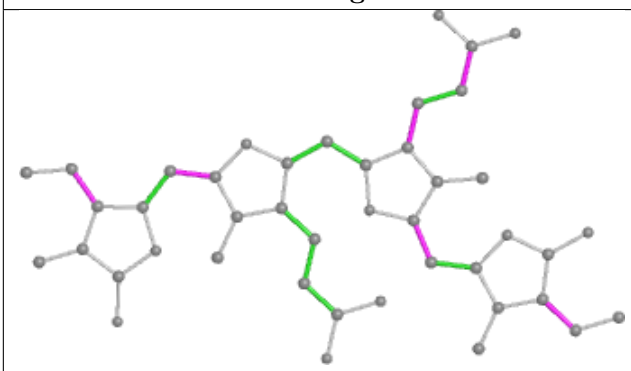

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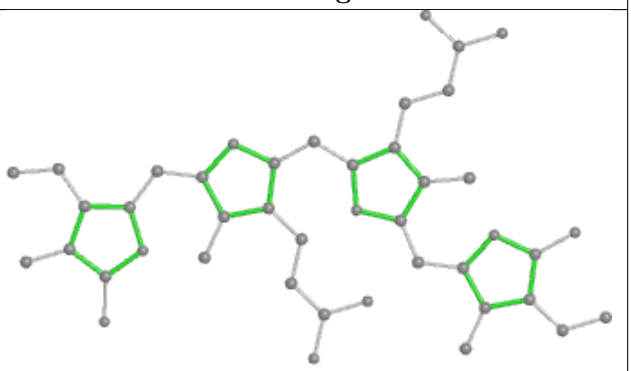

Rings

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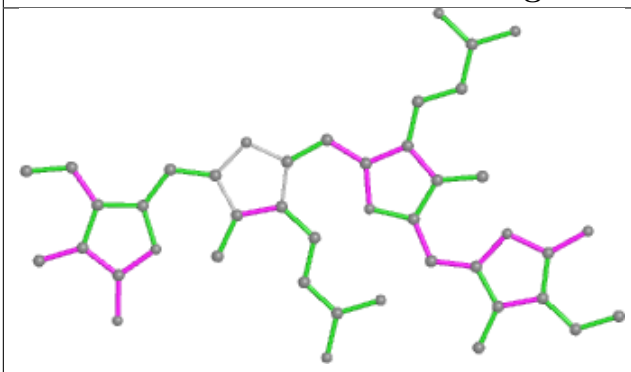

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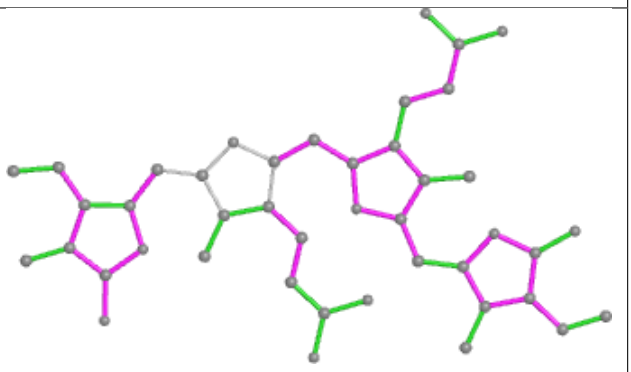

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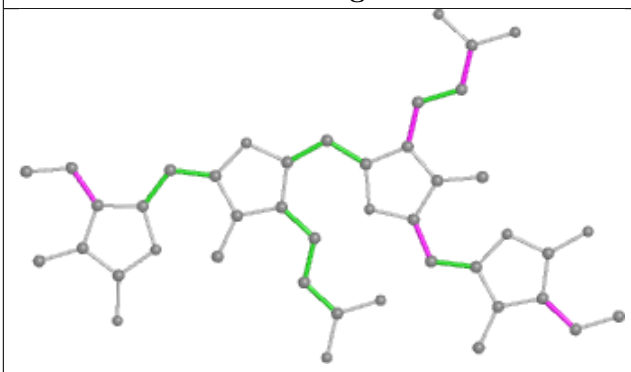

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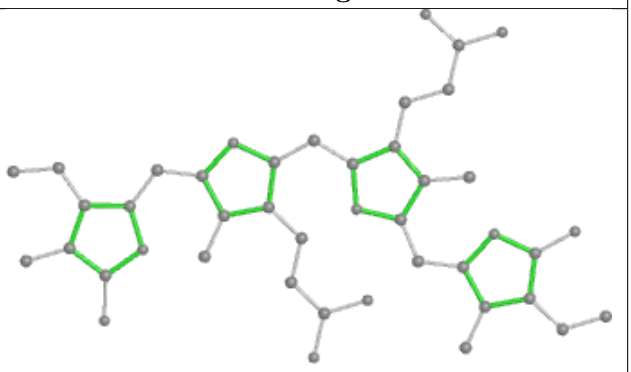

Rings

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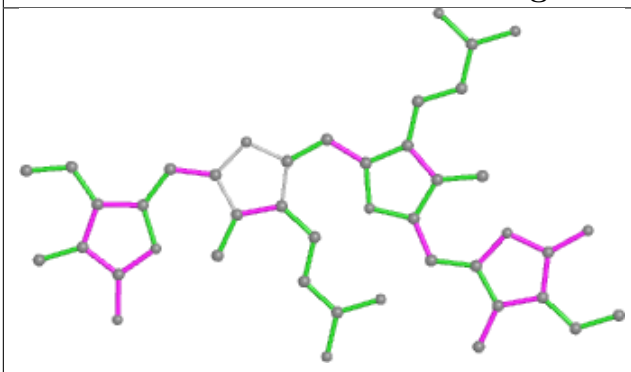

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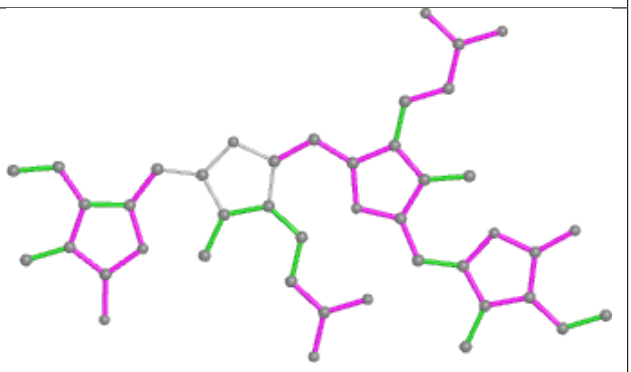

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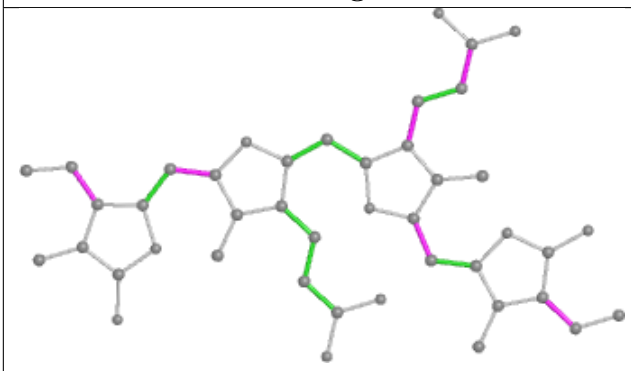

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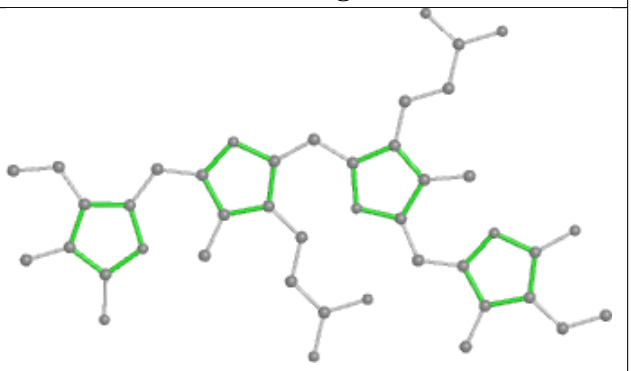
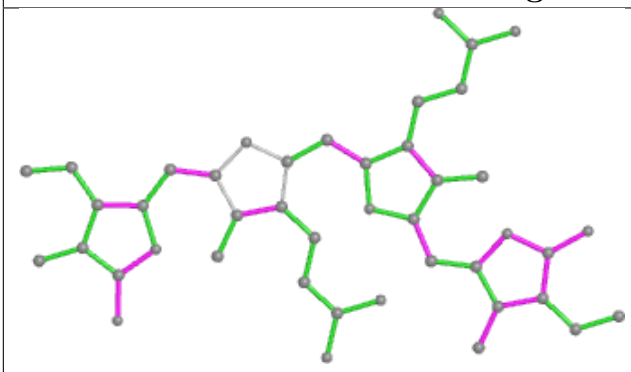


Rings

Ligand CYC g 201



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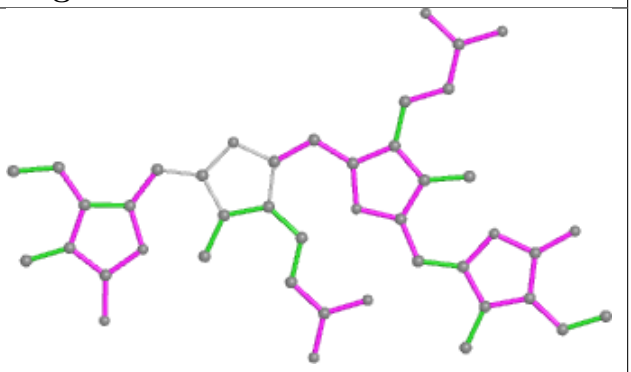

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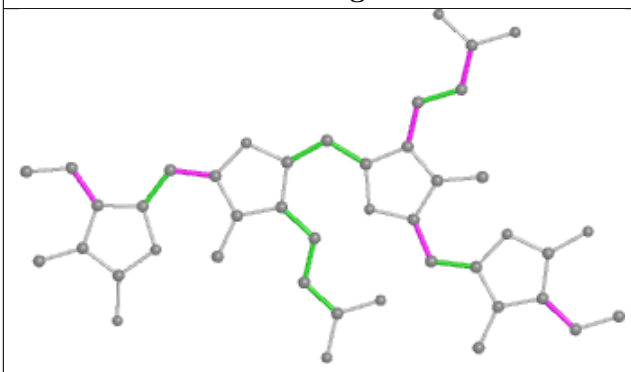

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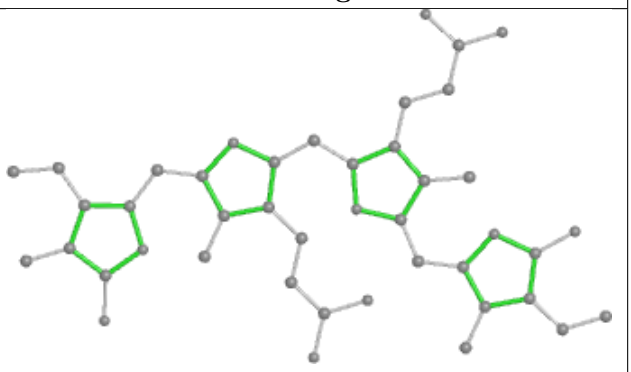
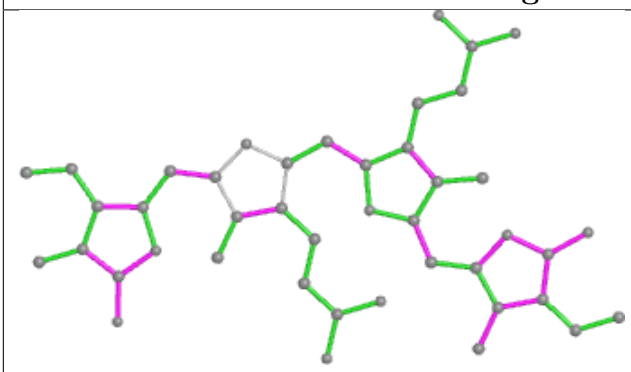


Rings

Ligand CYC Q 201



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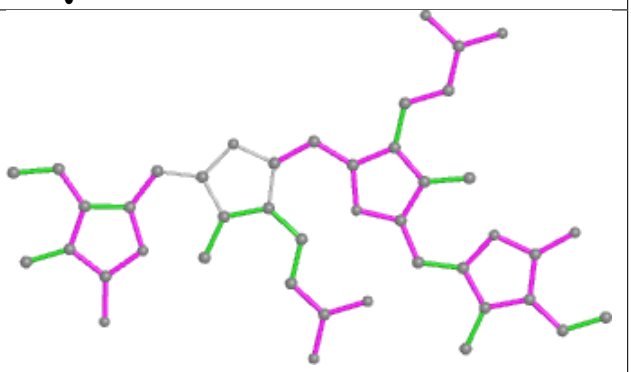

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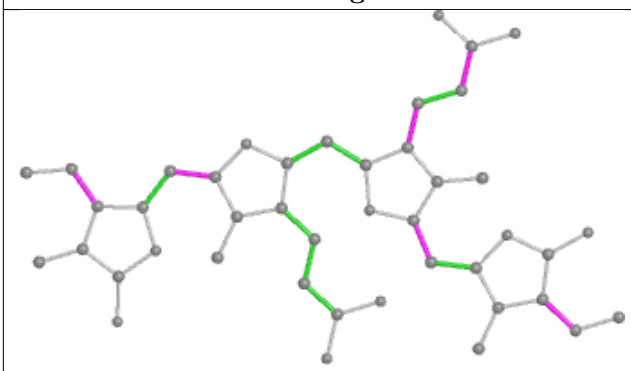

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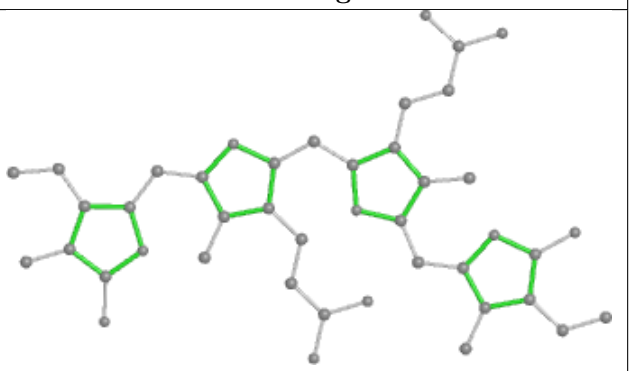
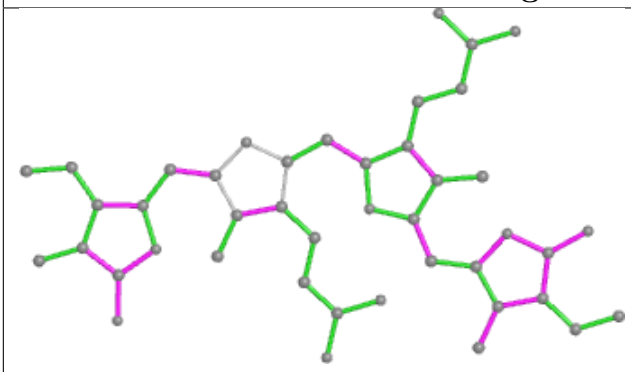


Rings

Ligand CYC A 201



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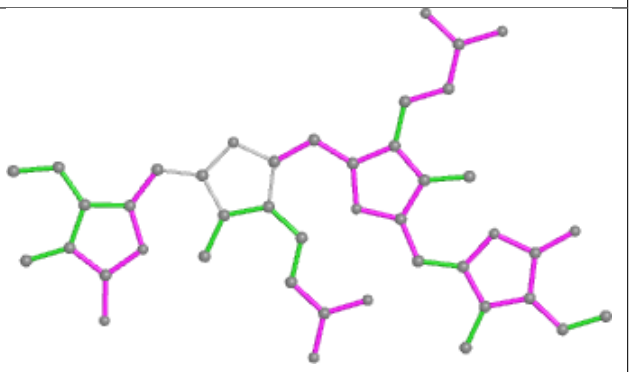
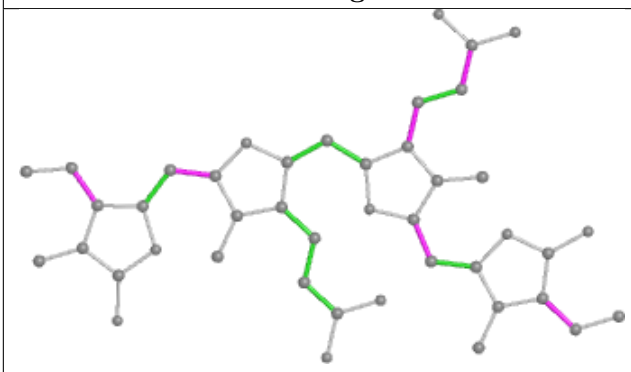


Bond angles



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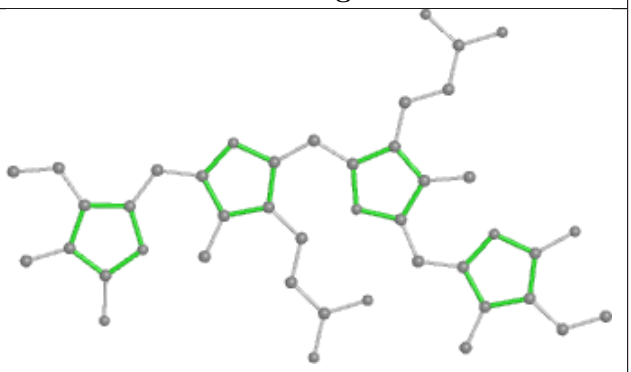
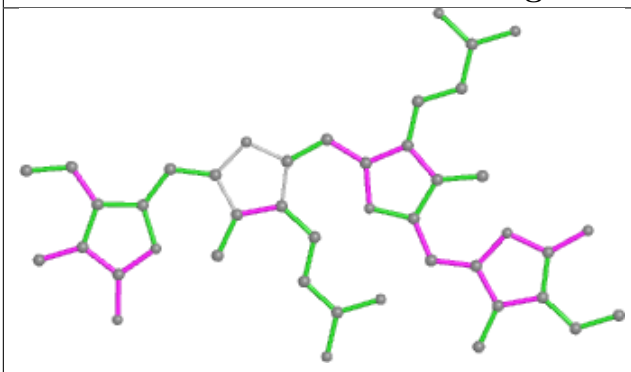


Rings

Ligand CYC h 202



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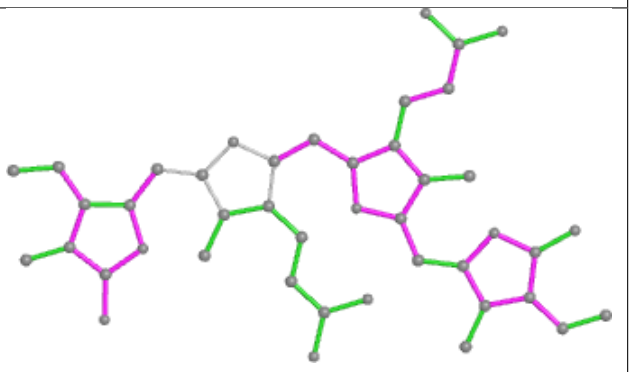

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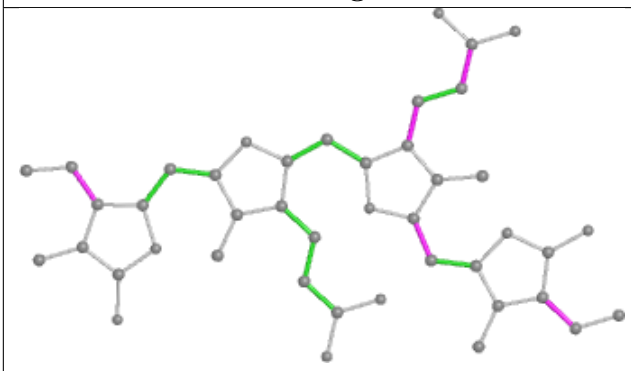

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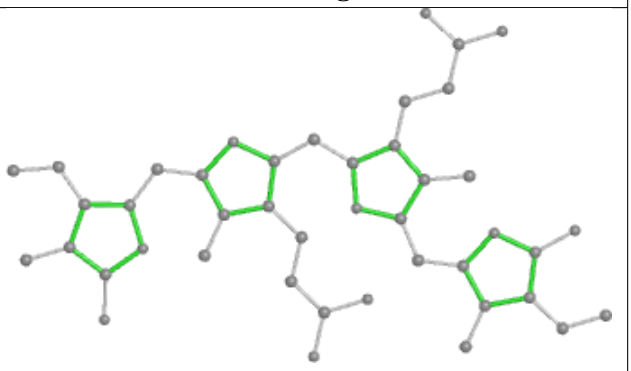

Rings

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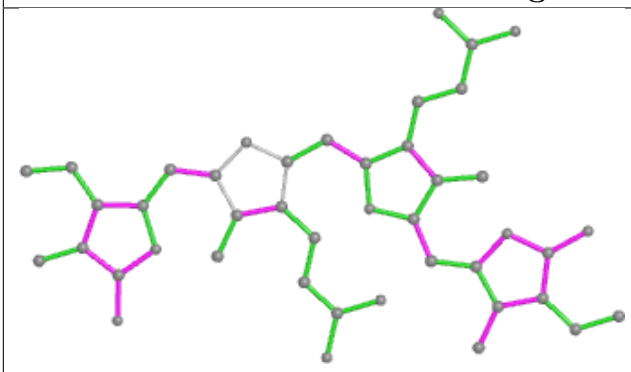

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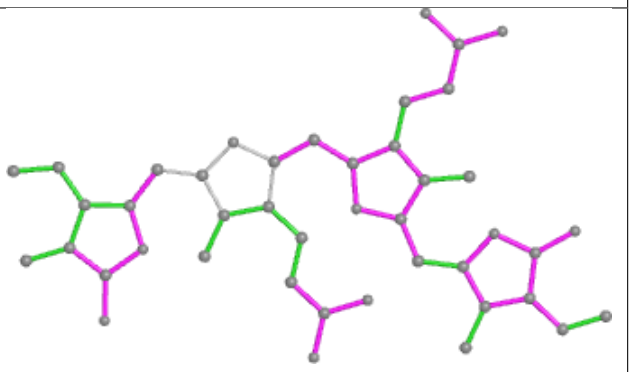

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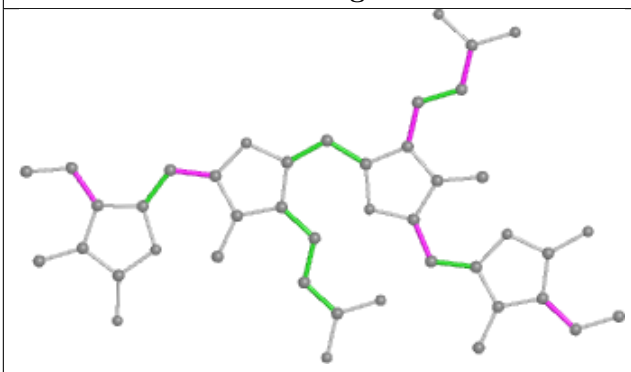

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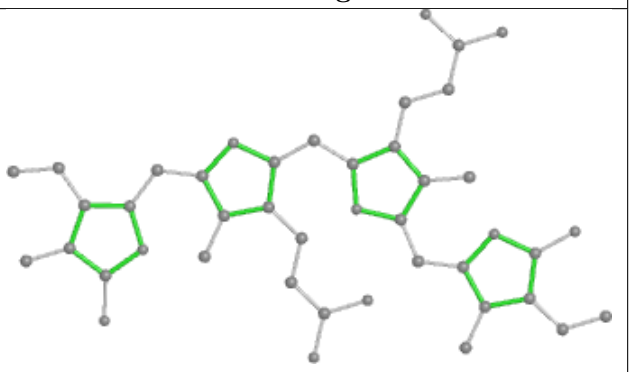

Rings

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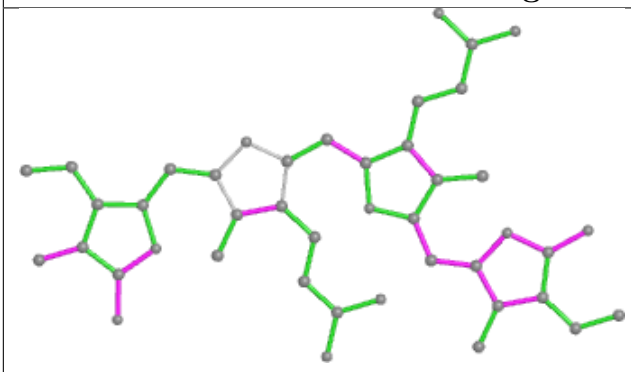

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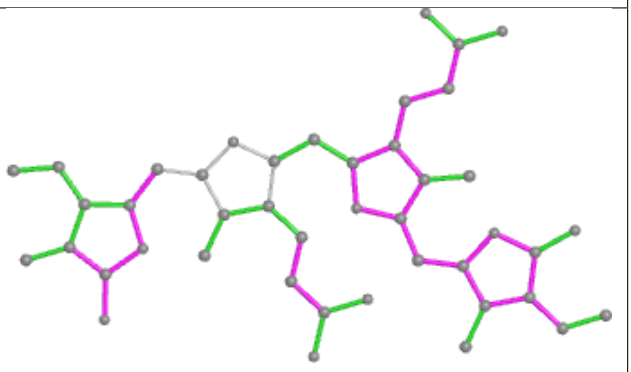

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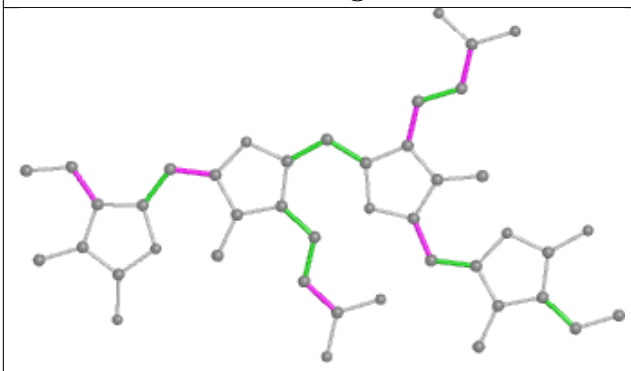

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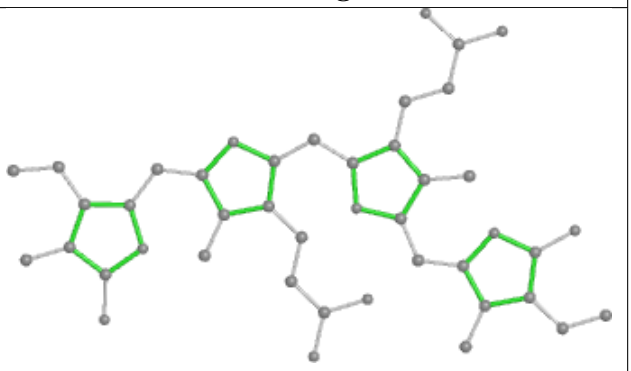

Rings

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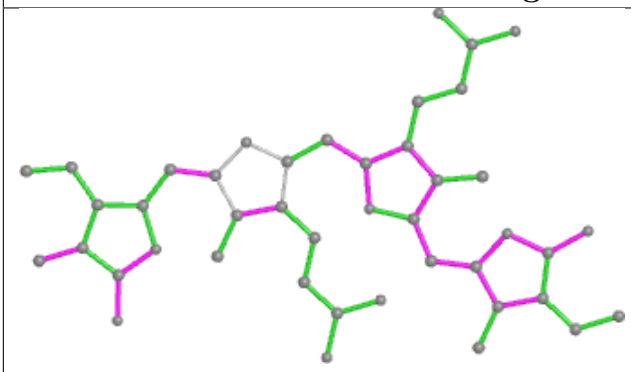

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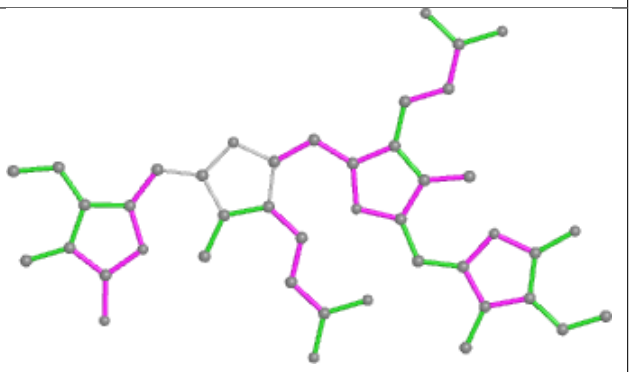

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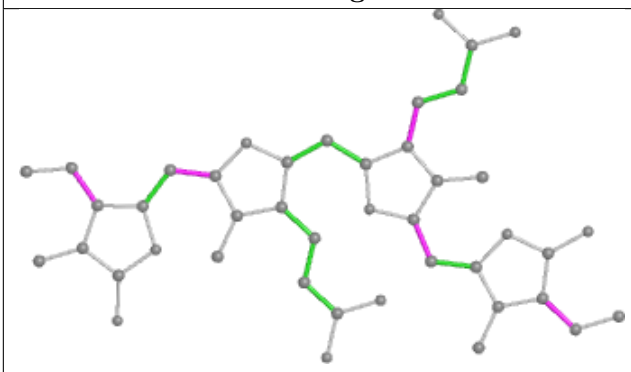

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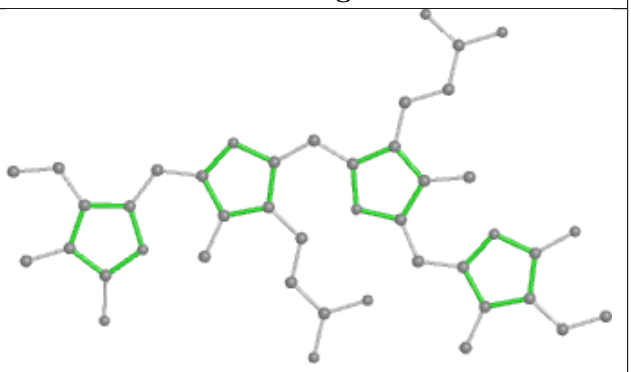

Rings

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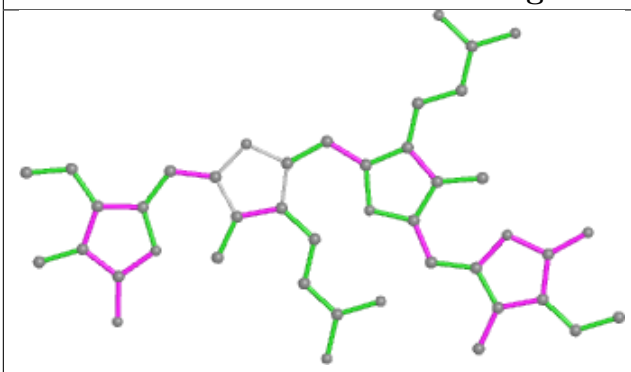

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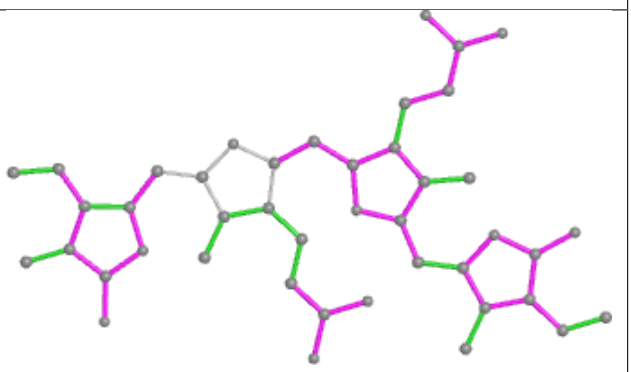

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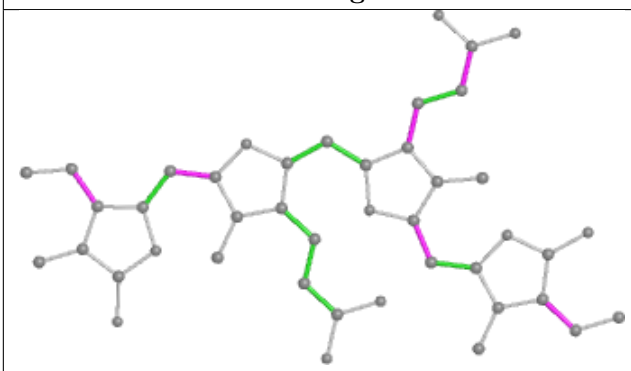

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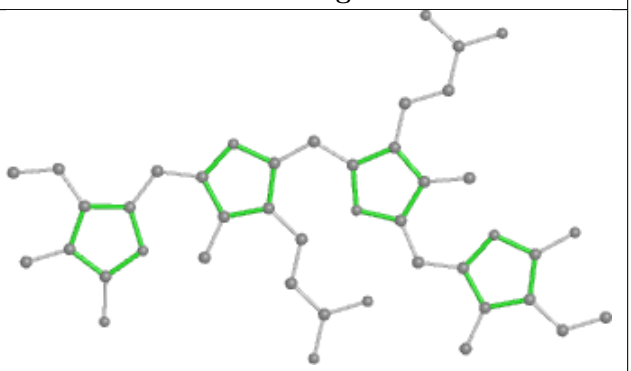

Rings

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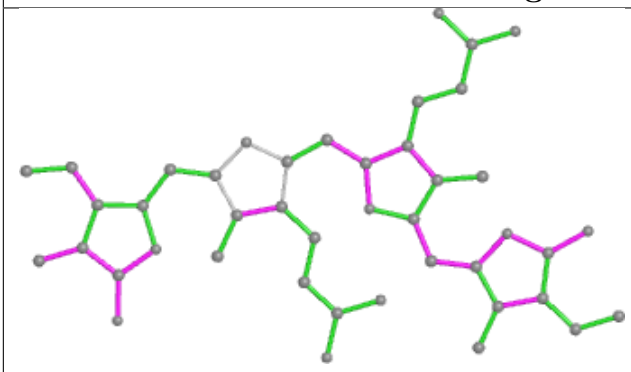

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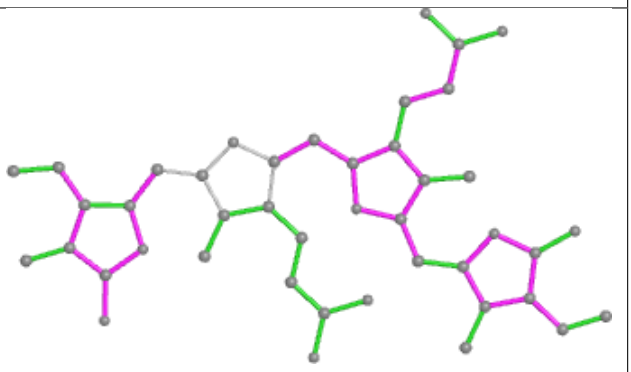

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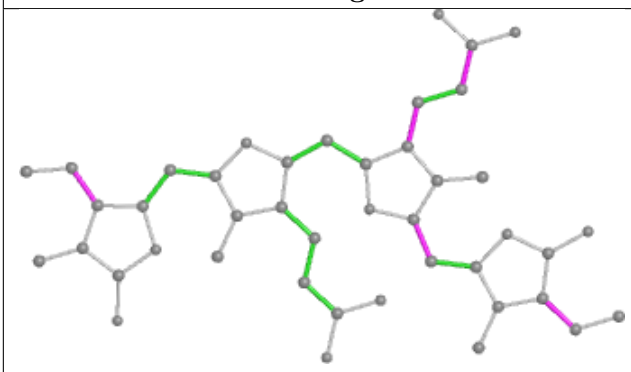

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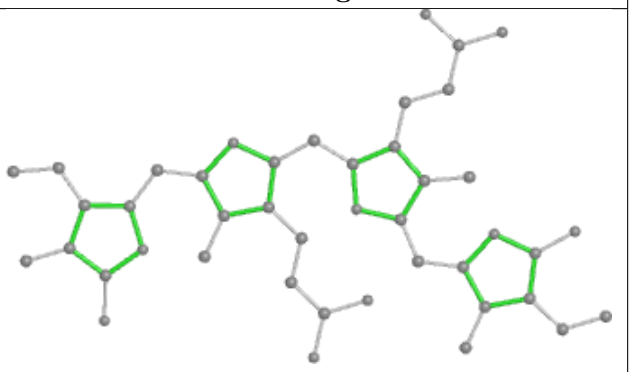

Rings

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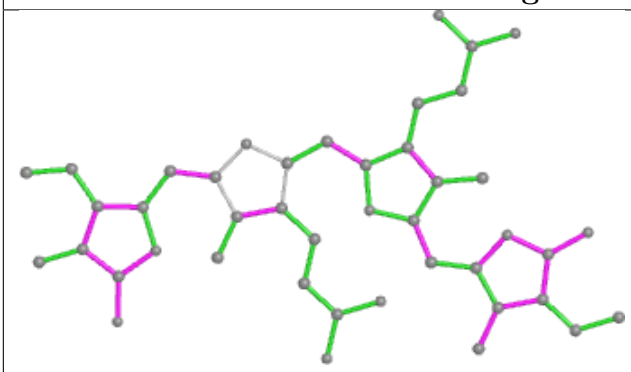

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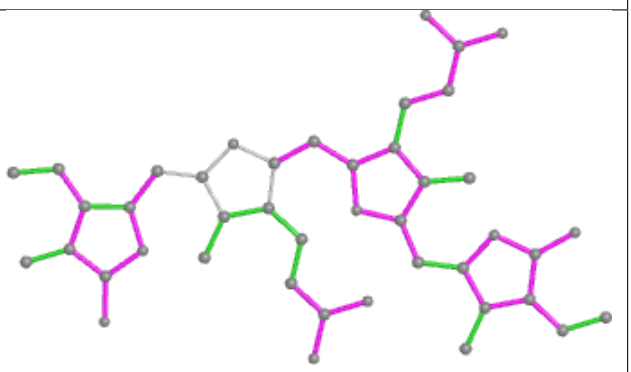

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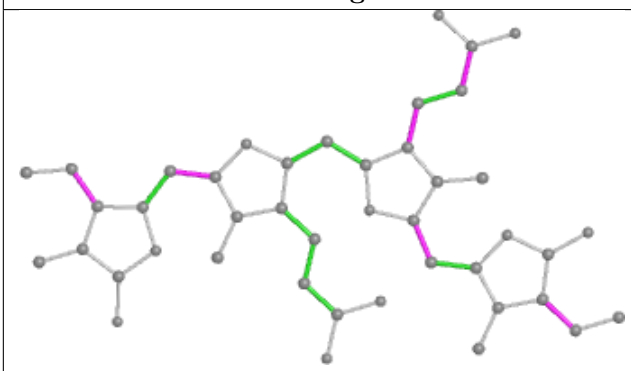

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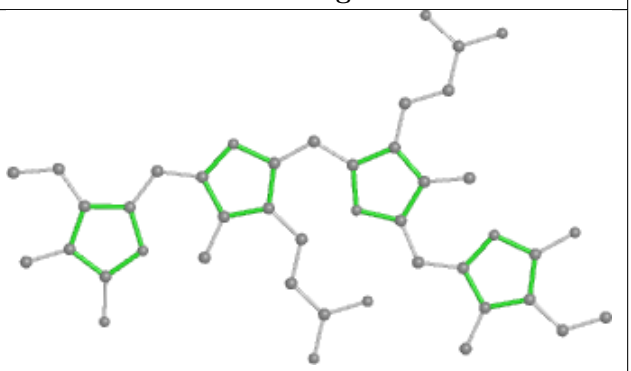

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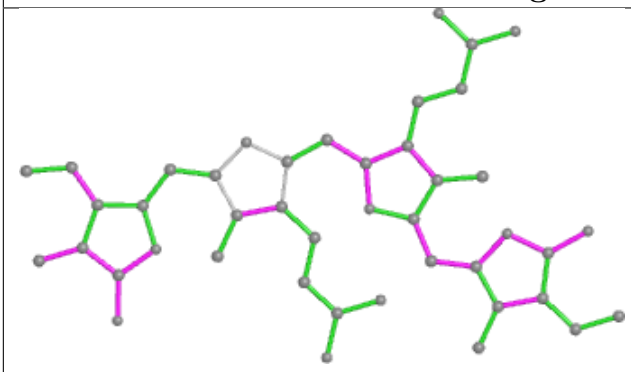

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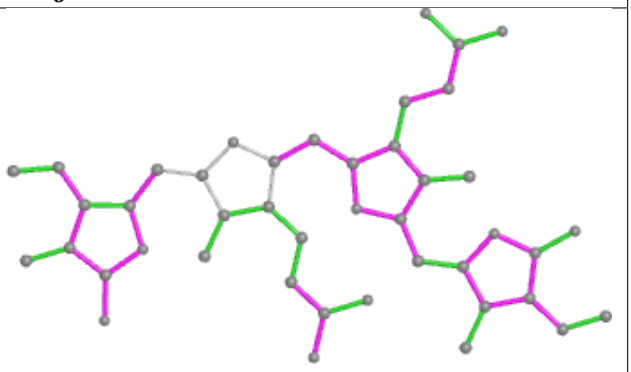

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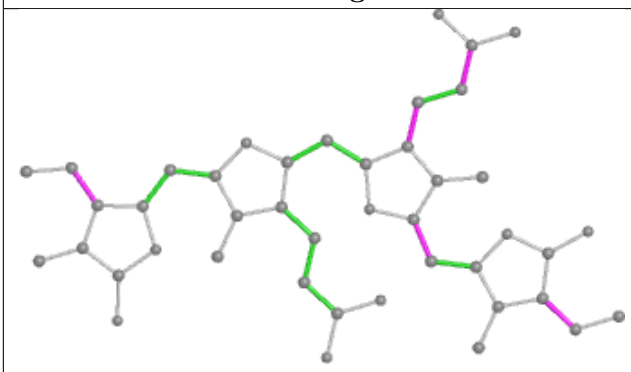

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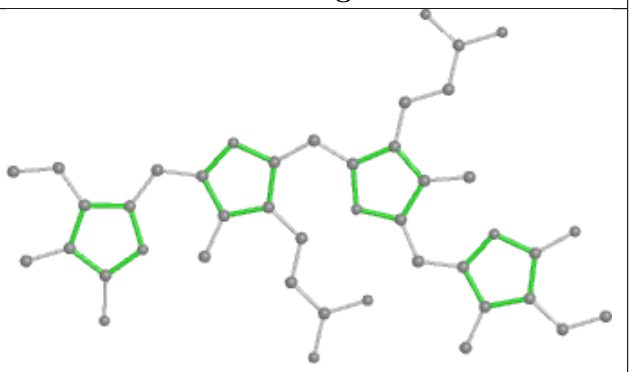

Rings

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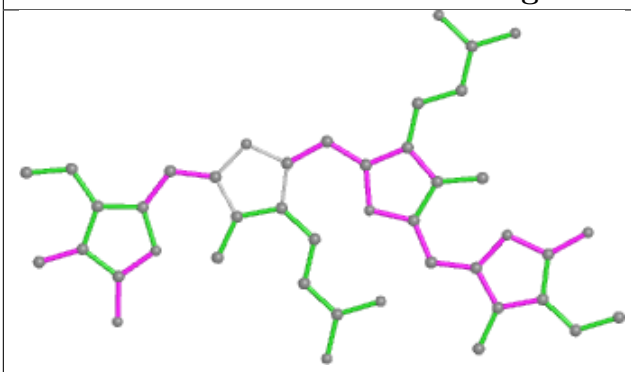

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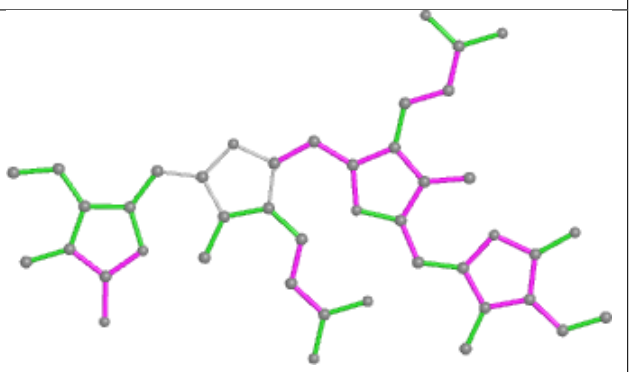

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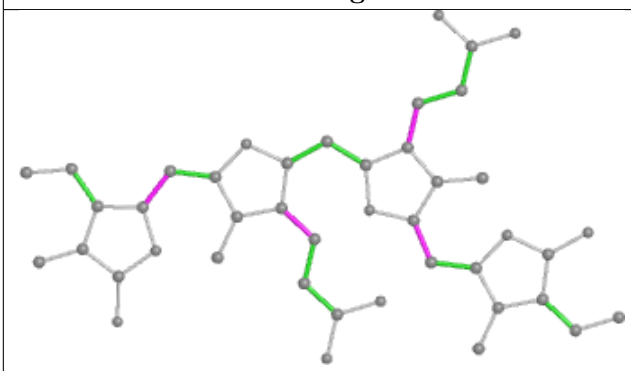

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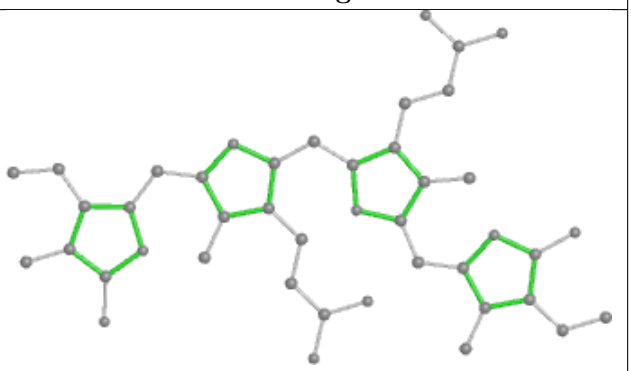

Rings

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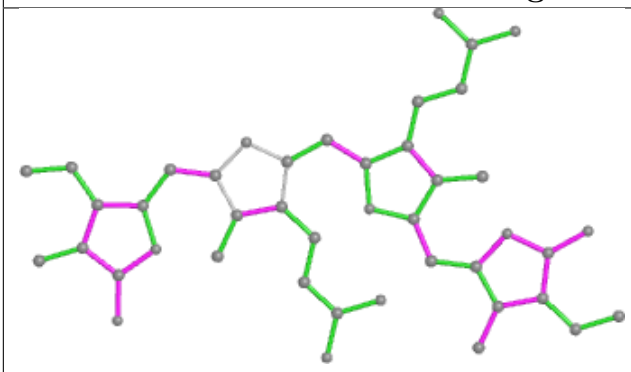

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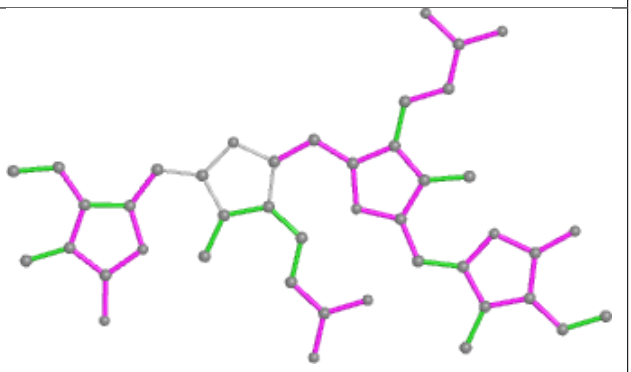

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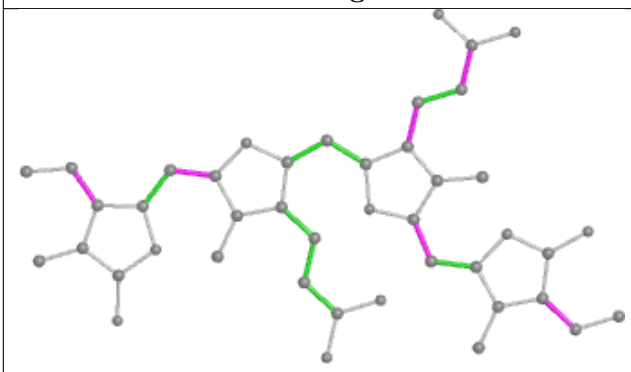

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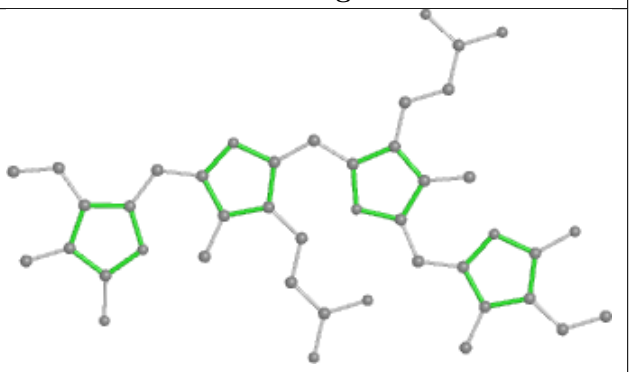

Rings

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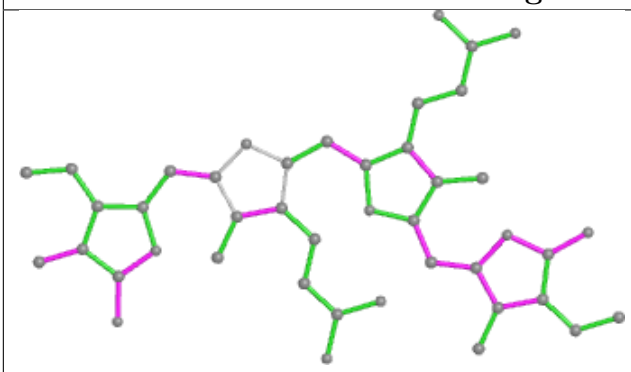

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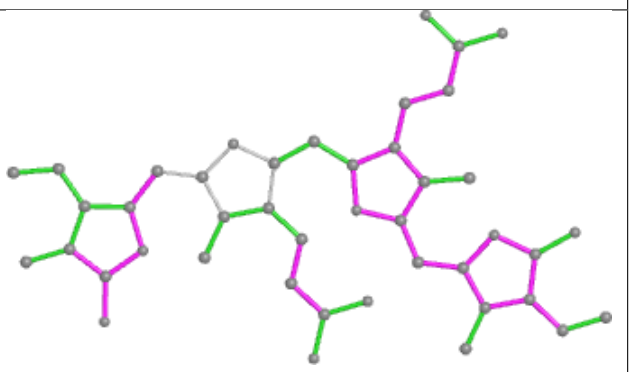

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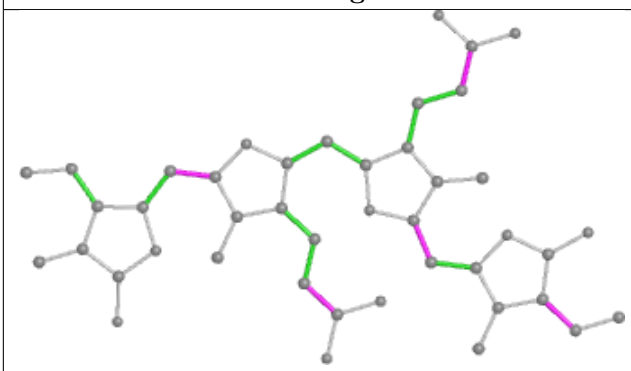

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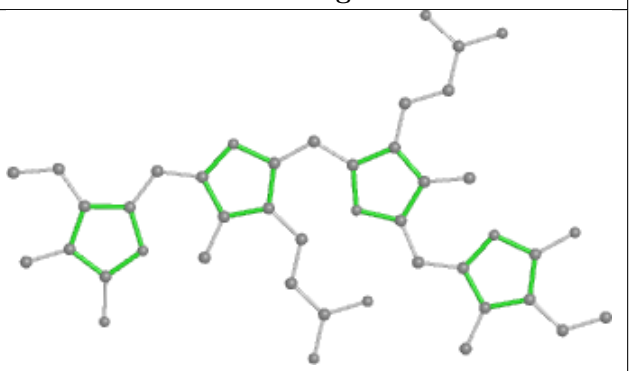

Rings

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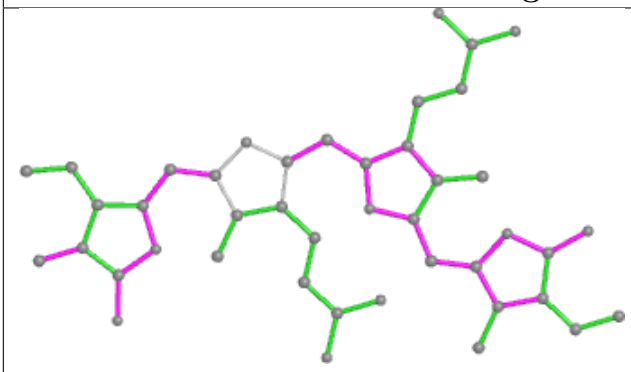

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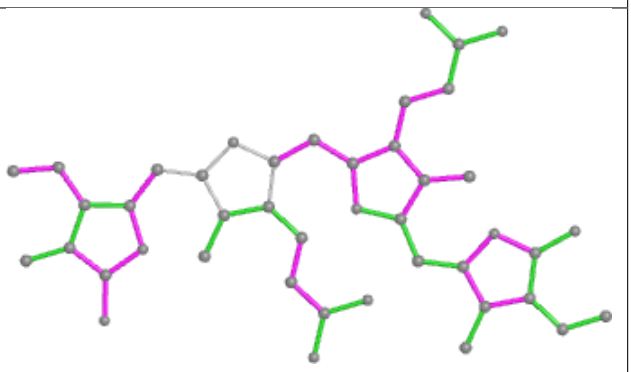

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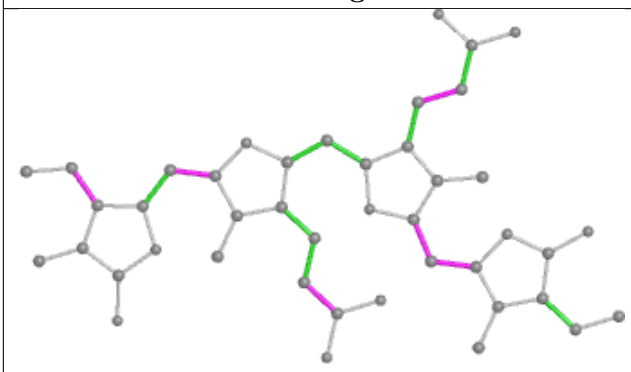

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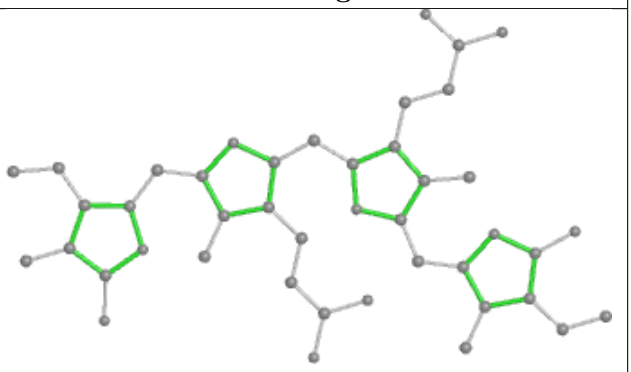

Rings

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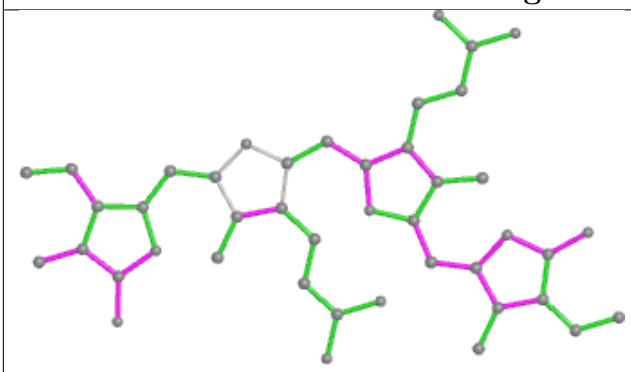

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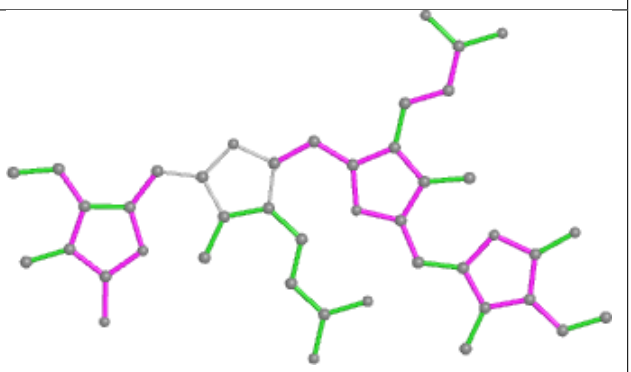

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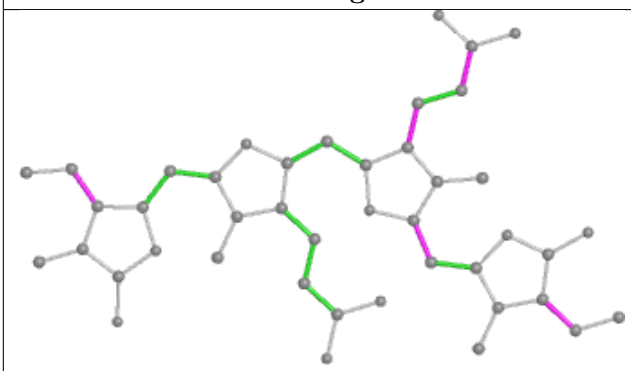

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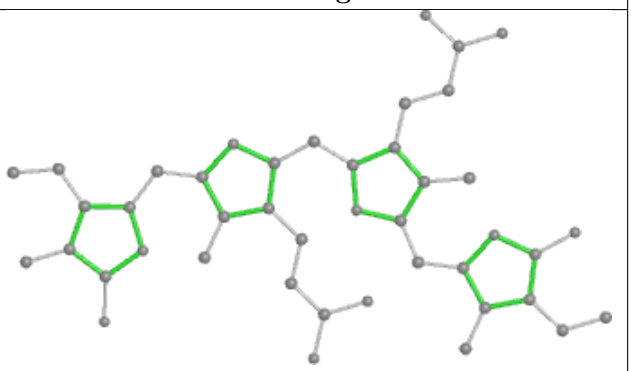

Rings

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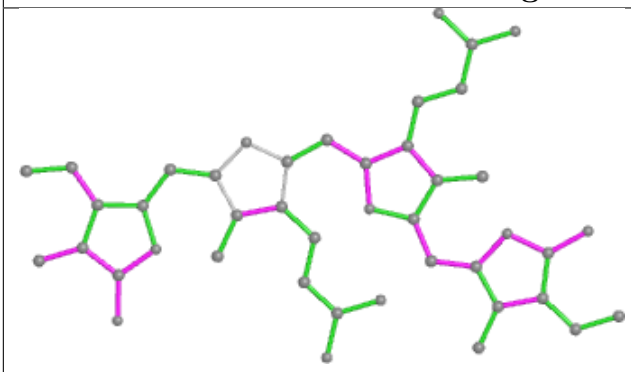

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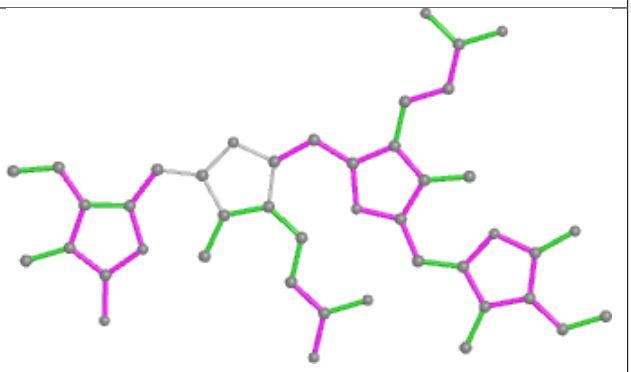

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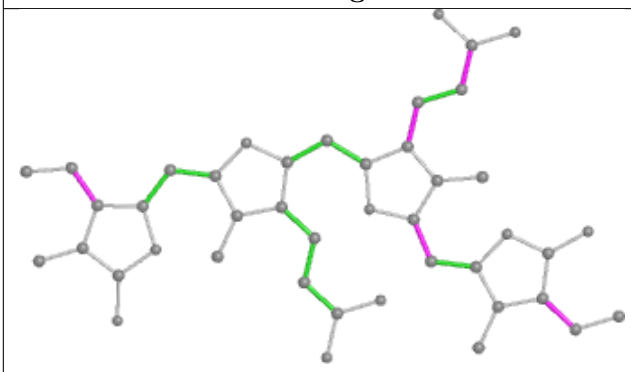

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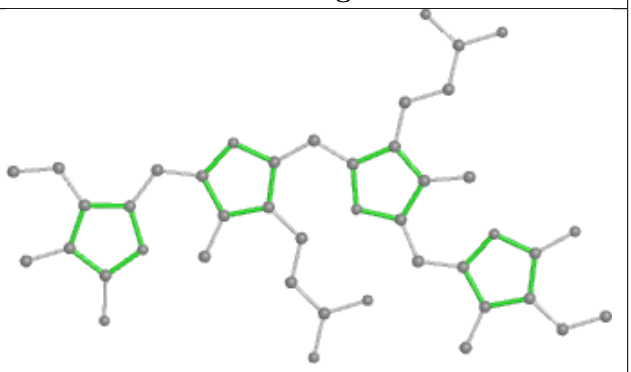

Rings

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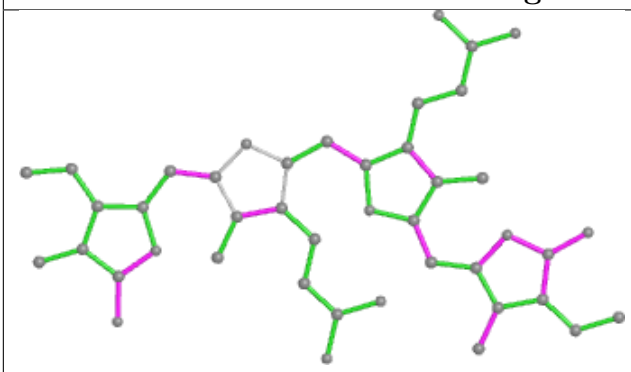

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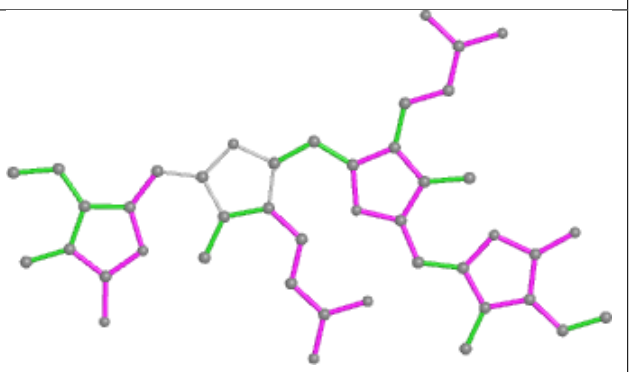

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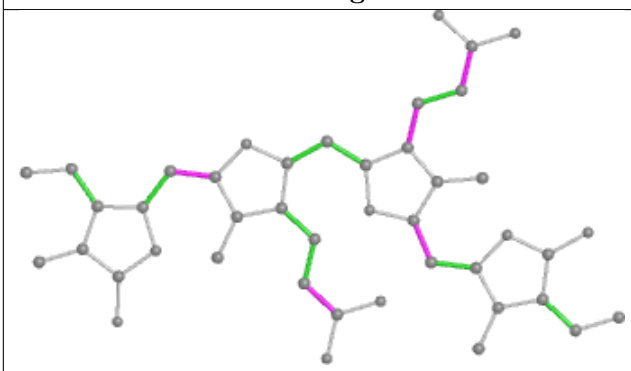

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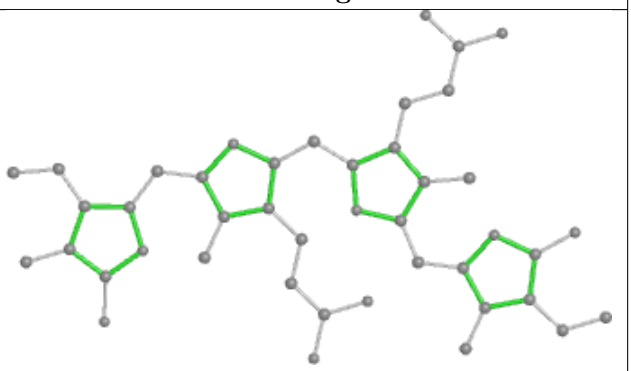
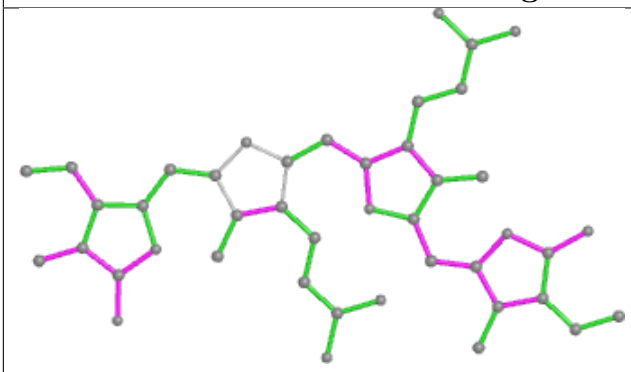
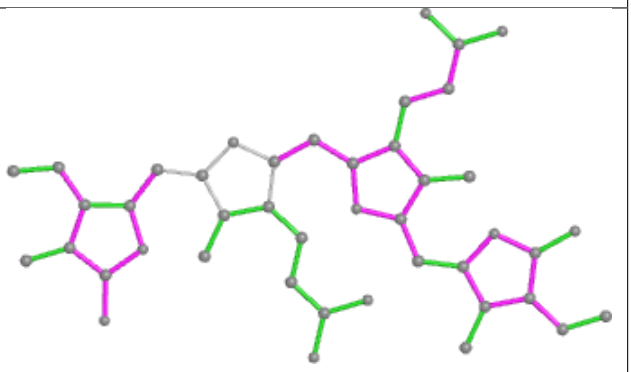


Rings

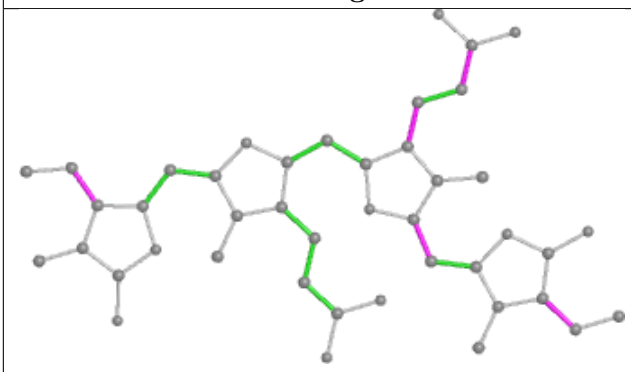
Ligand CYC N 202



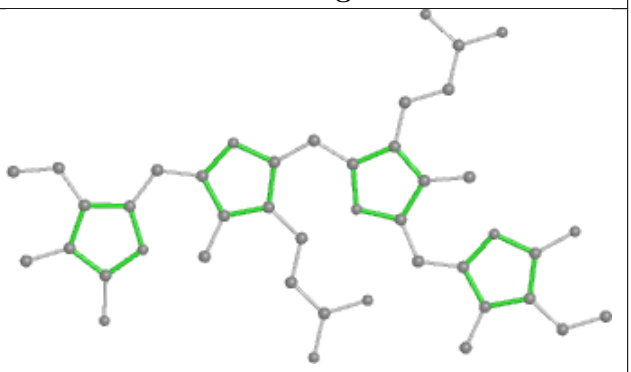
Bond lengths



Bond angles

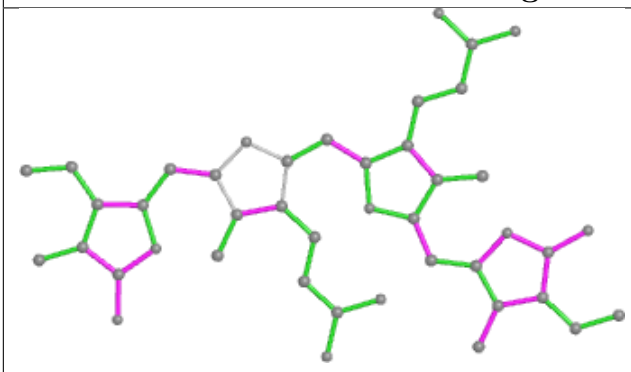


Torsions



Rings

Ligand CYC Y 201



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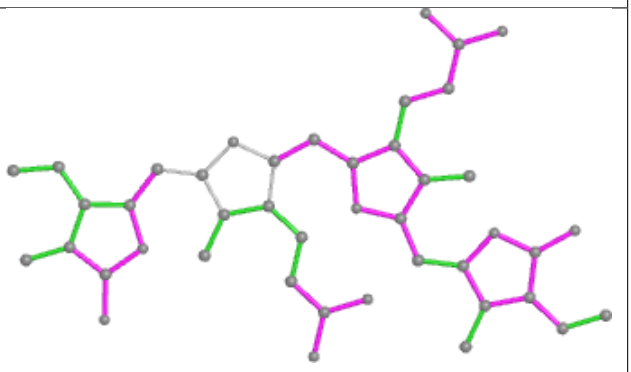
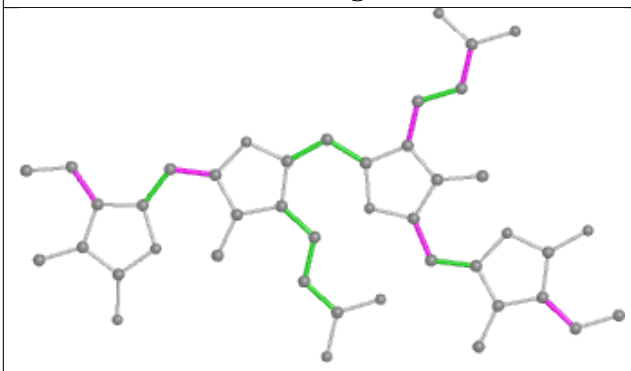


Bond angles



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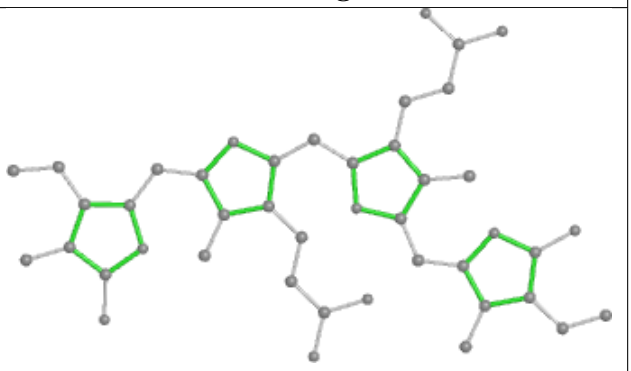
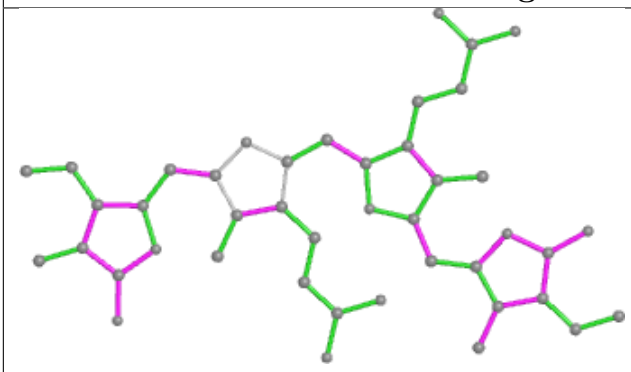


Rings

Ligand CYC M 201



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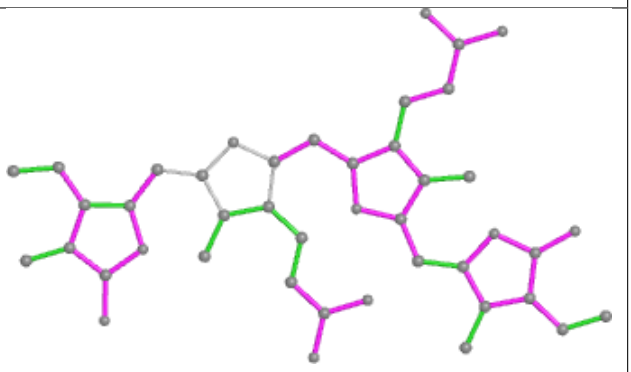
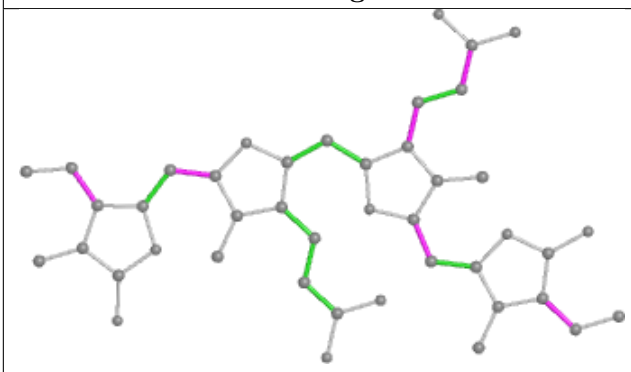


Bond angles



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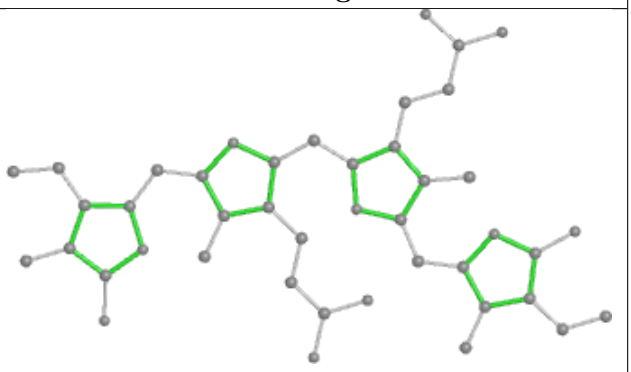
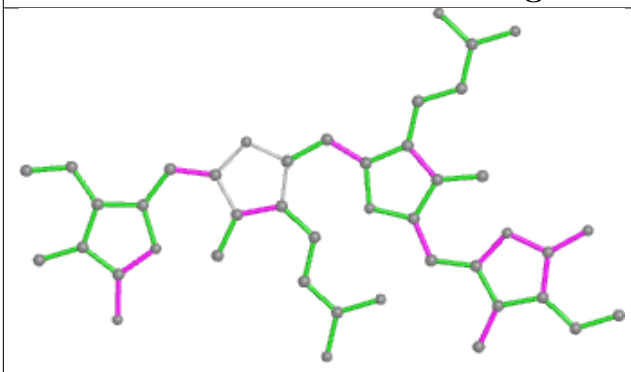


Rings

Ligand CYC d 201



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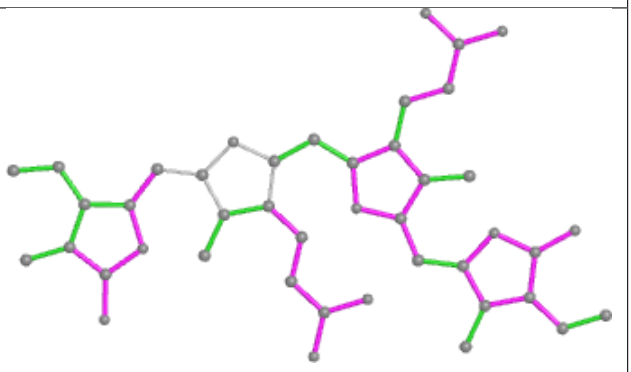
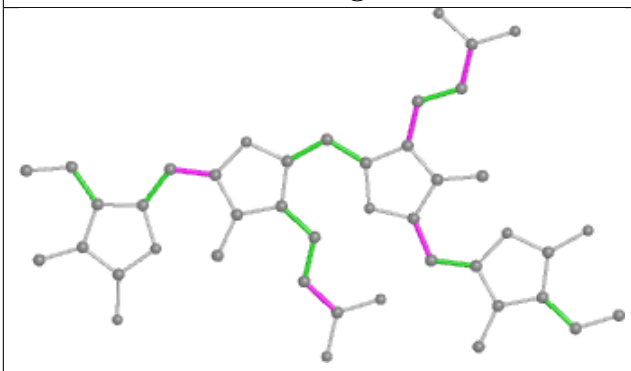
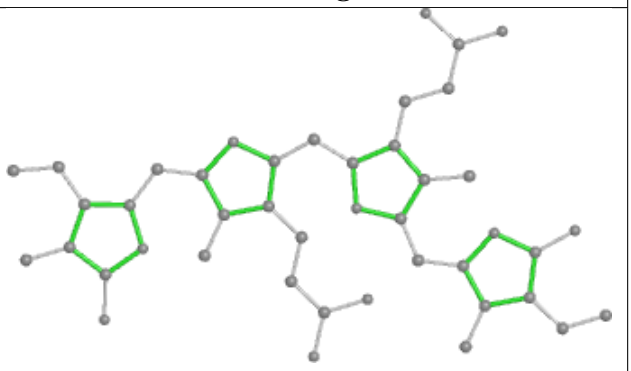


Bond angles

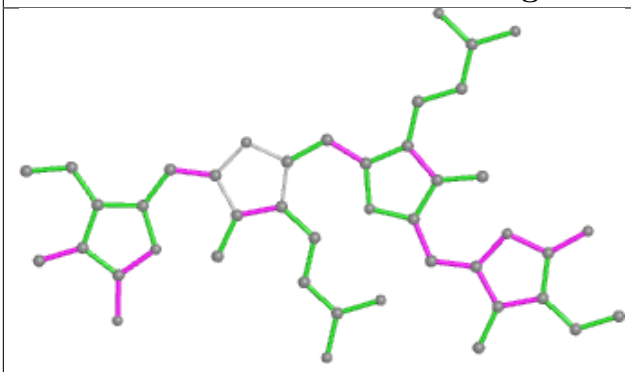


Torsions



Rings

Ligand CYC X 201



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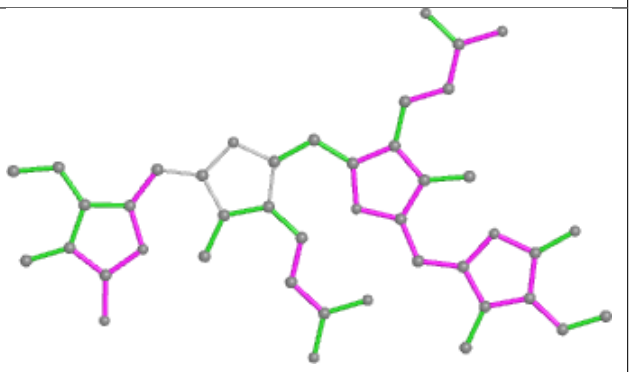
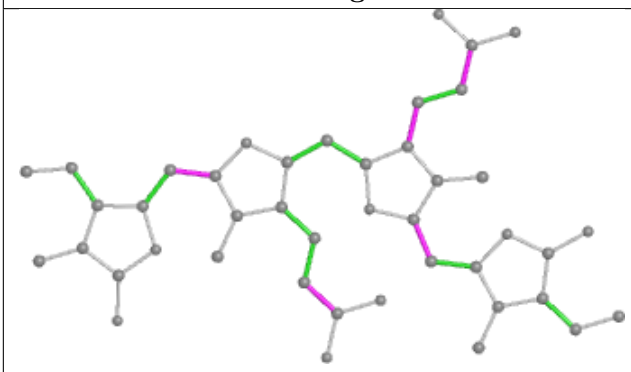


Bond angles



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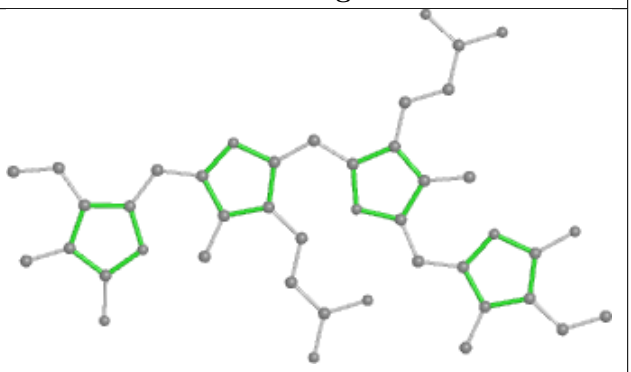
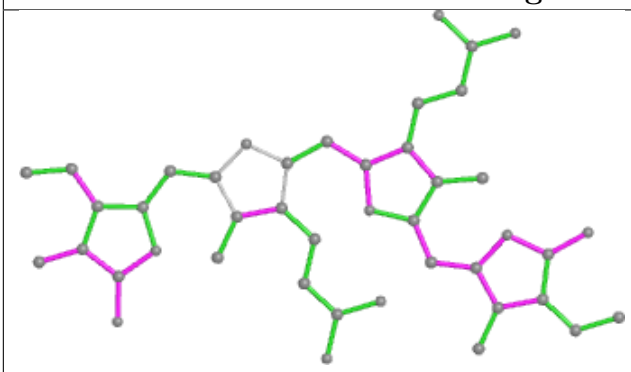


Rings

Ligand CYC b 202



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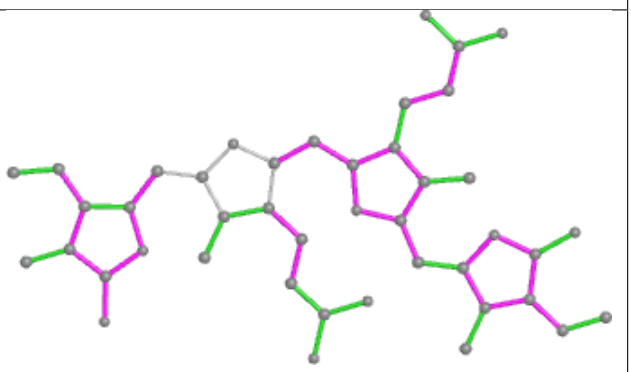
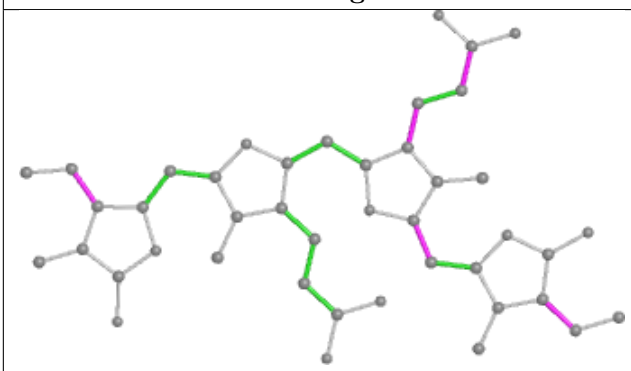


Bond angles



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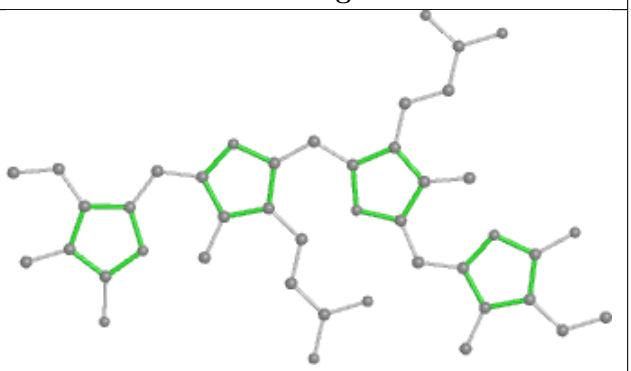
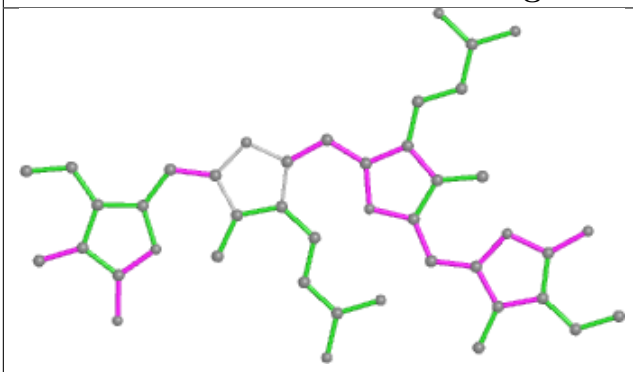
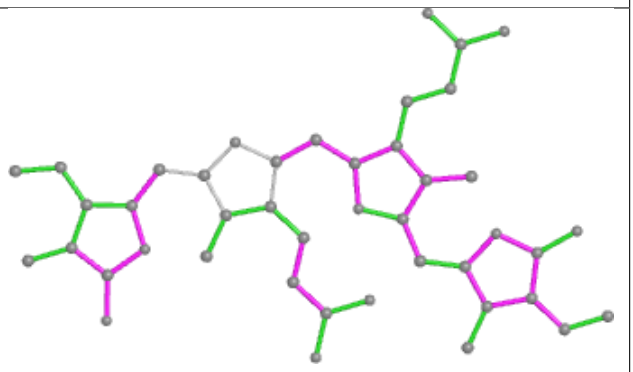


Rings

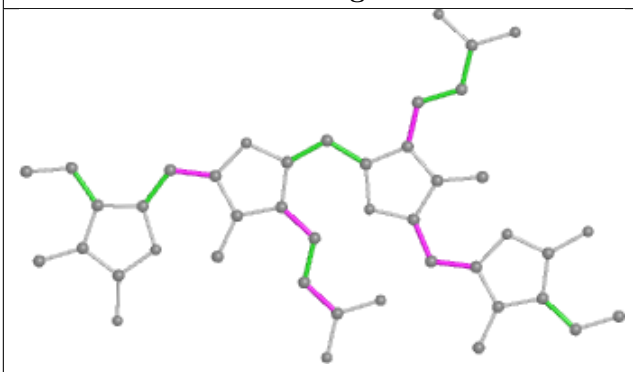
Ligand CYC F 201



Bond lengths



Bond angles



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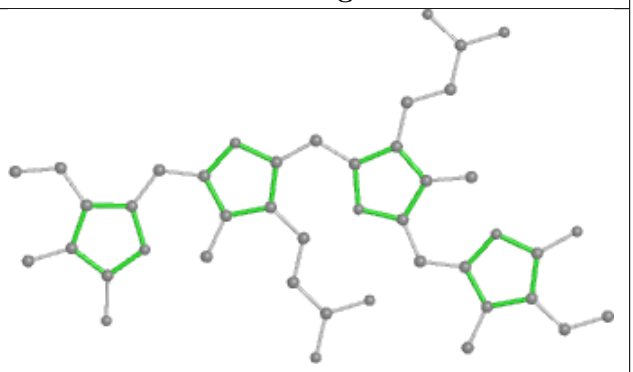

Rings

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.