Full wwPDB X-ray Structure Validation Report ⓘ

Nov 23, 2023 – 12:08 AM JST

PDB ID	:	7X8X
Title	:	structural insights into Mycobacterium tuberculosis ClpP1P2 inhibition by Cediranib: implications for developing antimicrobial agents targeting Clp protease
Authors	:	Bao, R.; Luo, Y.F.; Zhu, Y.B.; Yang, Y.; Zhou, Y.Z.
Deposited on	:	2022-03-15
Resolution	:	3.24 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

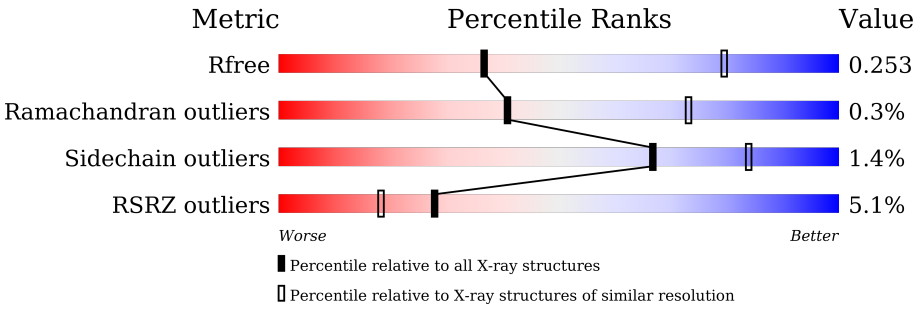
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.24 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1619 (3.28-3.20)
Ramachandran outliers	138981	1728 (3.28-3.20)
Sidechain outliers	138945	1727 (3.28-3.20)
RSRZ outliers	127900	1567 (3.28-3.20)

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

Mol	Chain	Length	Quality of chain
1	A	197	3% 90% 8% ·
1	C	197	4% 88% 11% ·
1	E	197	3% 93% 5% ·
1	F	197	2% 89% 10% ··
1	H	197	4% 91% 8% ·
1	J	197	6% 94% 5% ··

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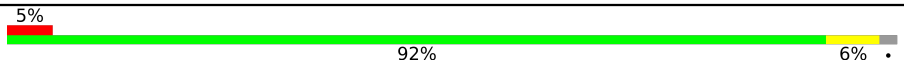
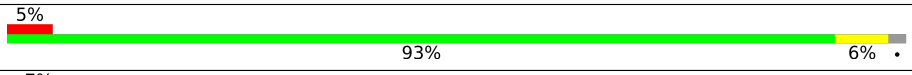
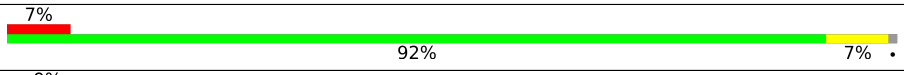
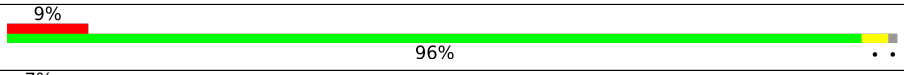
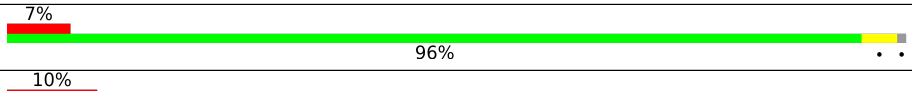
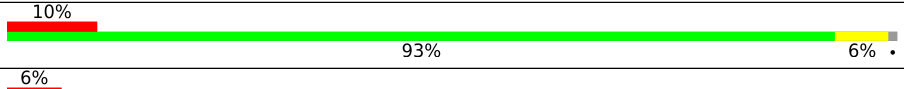
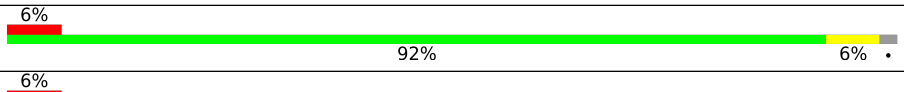
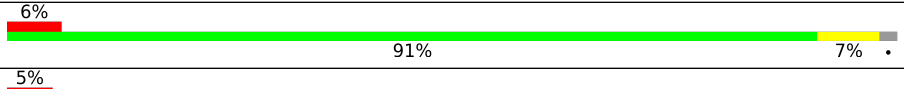
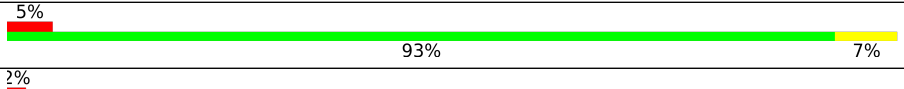
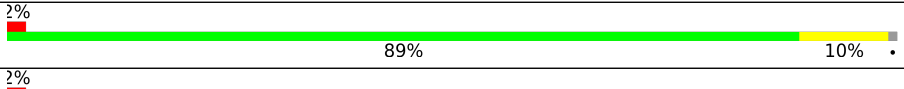
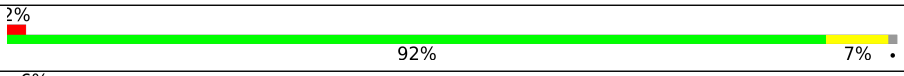
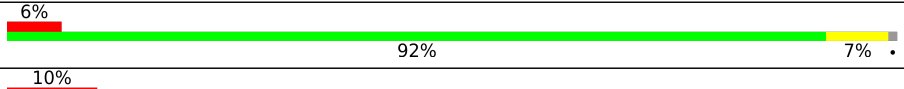
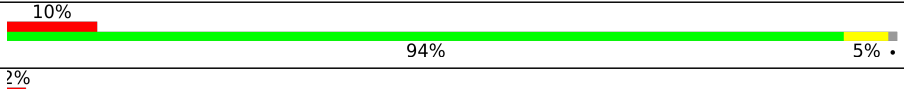
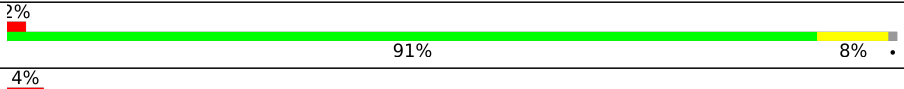
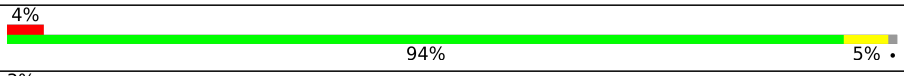
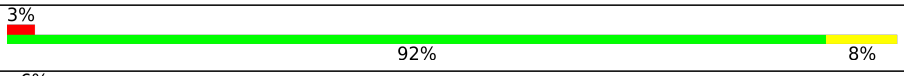
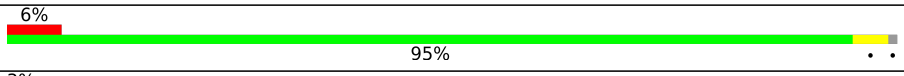
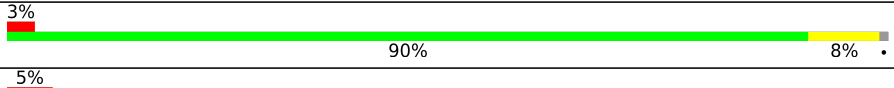
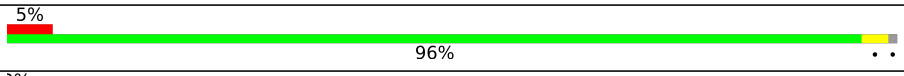
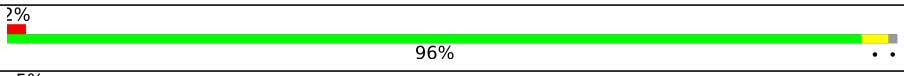
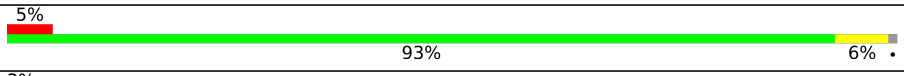
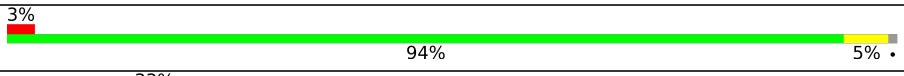
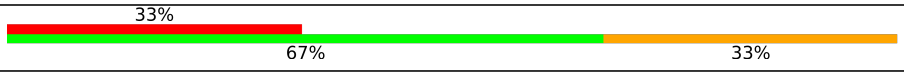
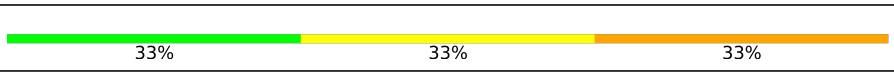
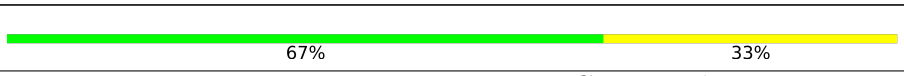
Mol	Chain	Length	Quality of chain
1	L	197	
1	O	197	
1	Q	197	
1	S	197	
1	T	197	
1	V	197	
1	X	197	
1	a	197	
2	B	177	
2	D	177	
2	G	177	
2	I	177	
2	K	177	
2	M	177	
2	N	177	
2	P	177	
2	R	177	
2	U	177	
2	W	177	
2	Y	177	
2	Z	177	
2	b	177	
3	0	3	
3	1	3	
3	2	3	

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Mol	Chain	Length	Quality of chain
3	3	3	67% 33%
3	4	3	67% 33%
3	c	3	67% 33%
3	e	3	33% 67% 33%
3	f	3	67% 33%
3	g	3	67% 33%
3	h	3	33% 67% 33%
3	i	3	67% 67% 33%
3	j	3	33% 33% 67%
3	k	3	67% 33%
3	l	3	33% 33% 33% 33%
3	m	3	33% 33% 33%
3	n	3	33% 33% 33% 33%
3	o	3	33% 67% 33%
3	p	3	33% 33% 67%
3	q	3	67% 33%
3	r	3	33% 33% 33% 33%
3	s	3	33% 33% 67%
3	t	3	33% 67% 33%
3	u	3	67% 33%
3	v	3	33% 33% 67%
3	w	3	33% 67% 33%
3	x	3	33% 67%
3	y	3	33% 33% 33%
3	z	3	33% 33% 33% 33%

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
4	AI4	B	201	-	X	-	X
4	AI4	F	301	-	X	-	X
4	AI4	G	201	-	X	-	-
4	AI4	I	201	-	X	-	X
4	AI4	K	201	-	X	-	X
4	AI4	M	201	-	X	-	-
4	AI4	N	301	-	X	-	-
4	AI4	R	201	-	X	-	-
4	AI4	U	201	-	X	-	X
4	AI4	V	301	-	X	-	-
4	AI4	W	201	-	X	-	X
4	AI4	Y	201	-	X	-	-
4	AI4	Z	201	-	X	-	-
4	AI4	b	201	-	X	-	X

2 Entry composition (i)

There are 4 unique types of molecules in this entry. The entry contains 81239 atoms, of which 40443 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called ATP-dependent Clp protease proteolytic subunit 2.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	194	Total	C	H	N	O	S	0	0	0
			2986	936	1495	255	292	8			
1	O	194	Total	C	H	N	O	S	0	0	0
			2986	936	1495	255	292	8			
1	C	196	Total	C	H	N	O	S	0	0	0
			2993	940	1496	256	293	8			
1	Q	196	Total	C	H	N	O	S	0	0	0
			2993	940	1496	256	293	8			
1	F	196	Total	C	H	N	O	S	0	0	0
			2993	940	1496	256	293	8			
1	S	196	Total	C	H	N	O	S	0	0	0
			2993	940	1496	256	293	8			
1	H	196	Total	C	H	N	O	S	0	0	0
			3008	943	1507	257	293	8			
1	T	196	Total	C	H	N	O	S	0	0	0
			3008	943	1507	257	293	8			
1	J	195	Total	C	H	N	O	S	0	0	0
			3011	946	1509	256	292	8			
1	V	195	Total	C	H	N	O	S	0	0	0
			3010	946	1508	256	292	8			
1	L	193	Total	C	H	N	O	S	0	0	0
			2941	925	1467	252	289	8			
1	X	193	Total	C	H	N	O	S	0	0	0
			2941	925	1467	252	289	8			
1	E	193	Total	C	H	N	O	S	0	0	0
			2941	925	1467	252	289	8			
1	a	193	Total	C	H	N	O	S	0	0	0
			2941	925	1467	252	289	8			

- Molecule 2 is a protein called ATP-dependent Clp protease proteolytic subunit 1.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
2	B	177	Total	C	H	N	O	S	0	0	0
			2695	855	1344	228	259	9			
2	P	177	Total	C	H	N	O	S	0	0	0
			2695	855	1344	228	259	9			
2	D	175	Total	C	H	N	O	S	0	0	0
			2652	843	1320	223	257	9			
2	R	175	Total	C	H	N	O	S	0	0	0
			2652	843	1320	223	257	9			
2	I	175	Total	C	H	N	O	S	0	0	0
			2644	841	1316	223	255	9			
2	U	175	Total	C	H	N	O	S	0	0	0
			2644	841	1316	223	255	9			
2	K	175	Total	C	H	N	O	S	0	0	0
			2627	838	1305	220	255	9			
2	W	175	Total	C	H	N	O	S	0	0	0
			2627	838	1305	220	255	9			
2	M	176	Total	C	H	N	O	S	0	0	0
			2629	841	1305	218	256	9			
2	Y	176	Total	C	H	N	O	S	0	0	0
			2629	841	1305	218	256	9			
2	N	176	Total	C	H	N	O	S	0	0	0
			2629	841	1305	218	256	9			
2	Z	176	Total	C	H	N	O	S	0	0	0
			2629	841	1305	218	256	9			
2	G	176	Total	C	H	N	O	S	0	0	0
			2646	844	1316	221	256	9			
2	b	176	Total	C	H	N	O	S	0	0	0
			2646	844	1316	221	256	9			

- Molecule 3 is a protein called 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	c	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	e	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	f	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	g	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	h	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	i	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	j	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	k	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	l	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	m	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	n	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	o	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	p	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	q	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	r	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	s	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	t	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	u	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	v	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	w	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	x	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	y	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	z	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	0	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	1	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	2	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			

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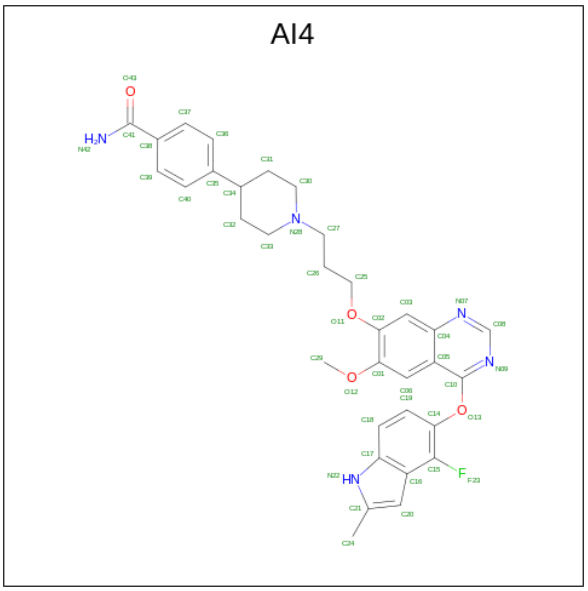
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	3	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			
3	4	3	Total	C	H	N	O	0	0	0
			52	19	27	2	4			

- Molecule 4 is 4-[1-[3-[4-[(4-fluoranyl-2-methyl-1H-indol-5-yl)oxy]-6-methoxy-quinazolin-7-yl]oxypropyl]piperidin-4-yl]benzamide (three-letter code: AI4) (formula: $C_{33}H_{34}FN_5O_4$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms						ZeroOcc	AltConf
4	B	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		
4	R	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		
4	F	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		
4	I	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		
4	U	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		
4	V	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		
4	K	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		
4	W	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		

Continued on next page...

Continued from previous page...

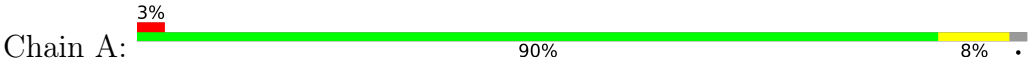
Mol	Chain	Residues	Atoms						ZeroOcc	AltConf
4	M	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		
4	Y	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		
4	N	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		
4	Z	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		
4	G	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		
4	b	1	Total	C	F	H	N	O	0	0
			71	33	1	28	5	4		

3 Residue-property plots (i)

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

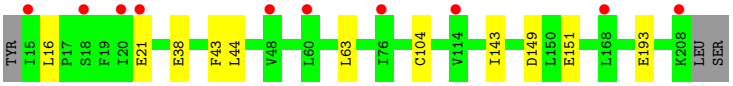
• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

Chain A:



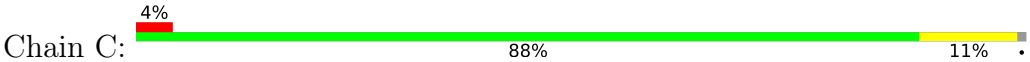
• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

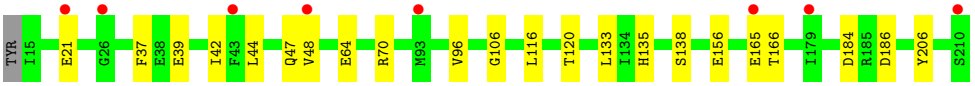
Chain O:



• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

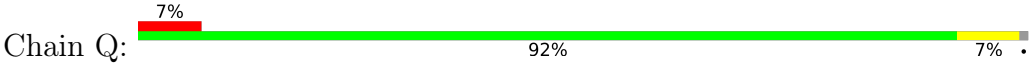
Chain C:

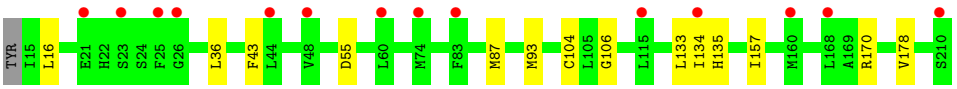




• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

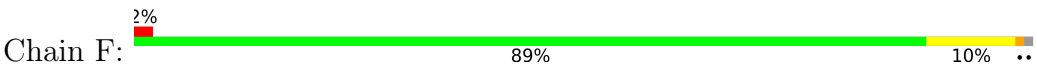
Chain Q:





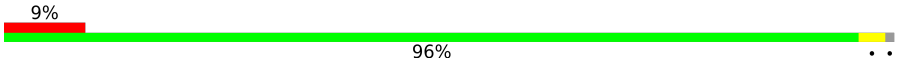
• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

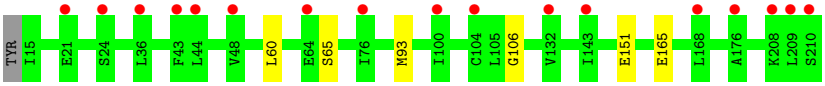
Chain F:



• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

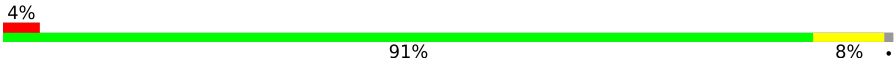
Chain S:





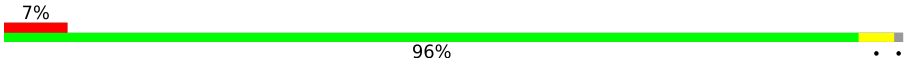
• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

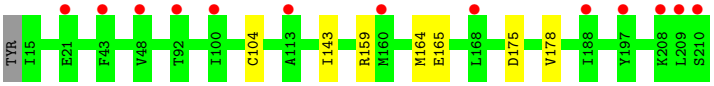
Chain H:



• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

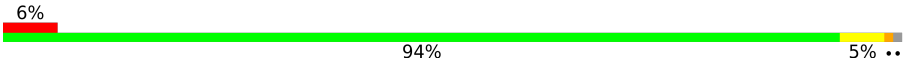
Chain T:





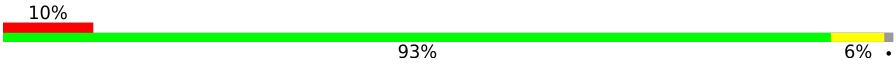
• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

Chain J:



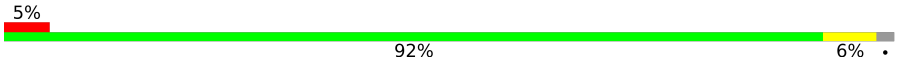
• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

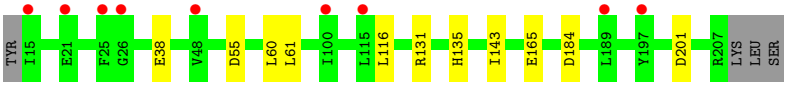
Chain V:



• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

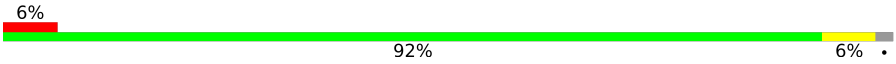
Chain L:





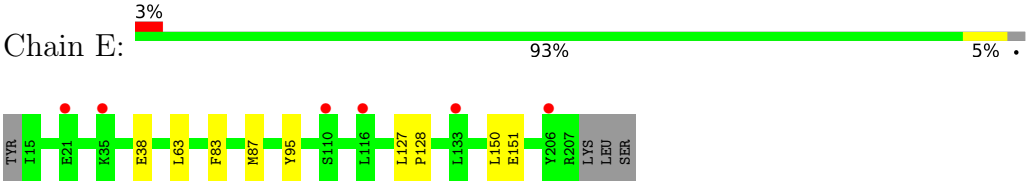
• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

Chain X:



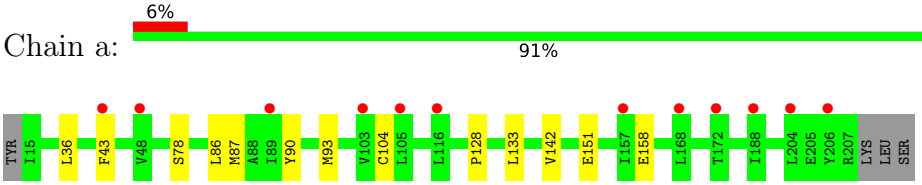
• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

Chain E:



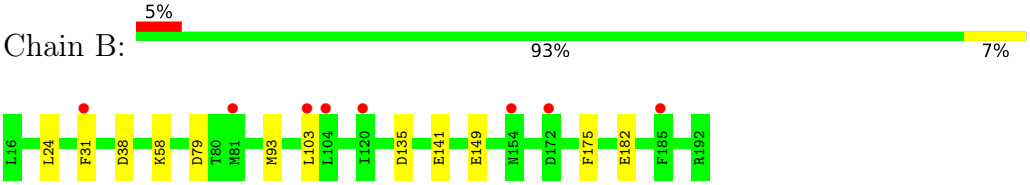
• Molecule 1: ATP-dependent Clp protease proteolytic subunit 2

Chain a:



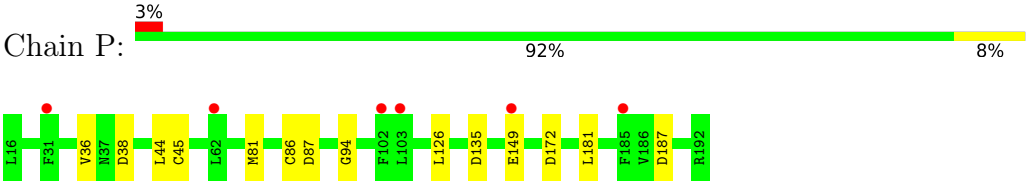
• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1

Chain B:



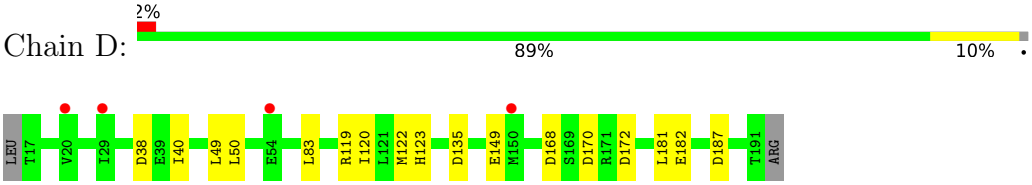
• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1

Chain P:



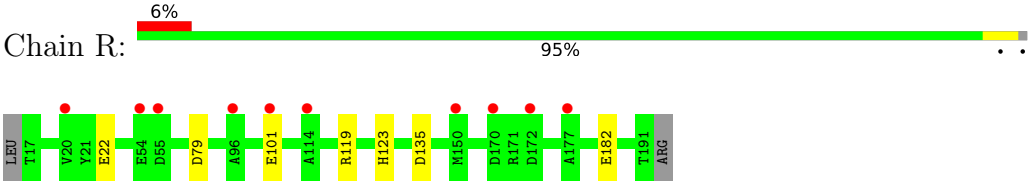
• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1

Chain D:



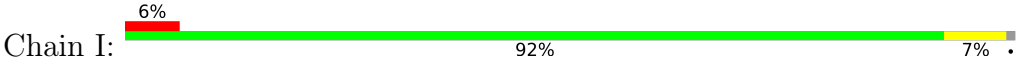
• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1

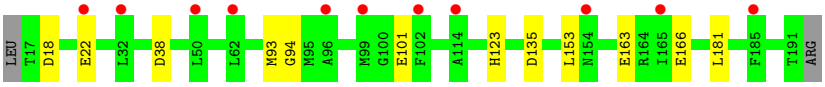
Chain R:



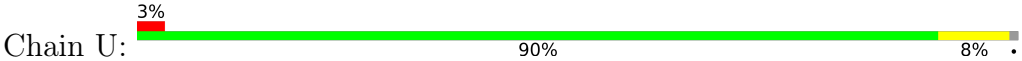
• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1

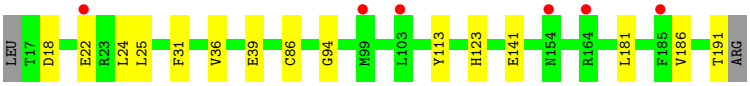
Chain I:



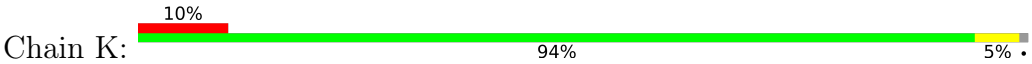


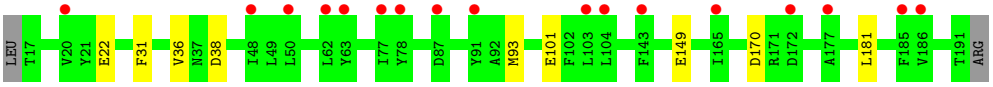
• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1



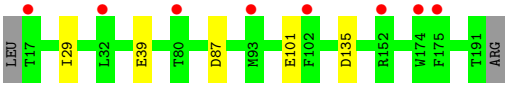


• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1

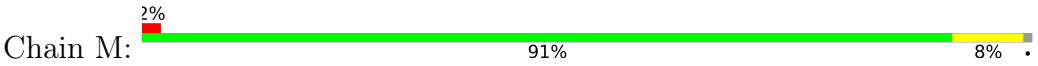


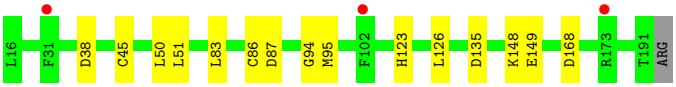


• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1

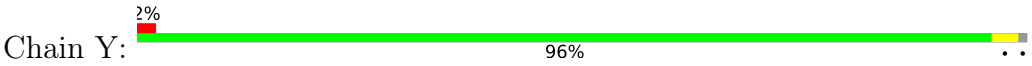


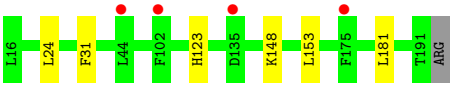
• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1



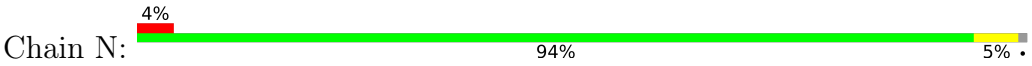


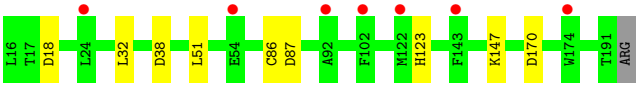
• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1





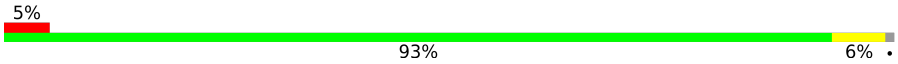
• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1

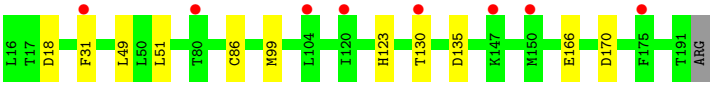




• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1

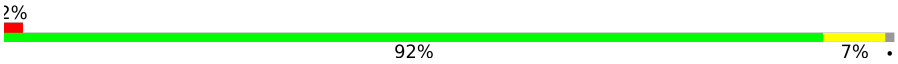
Chain Z:

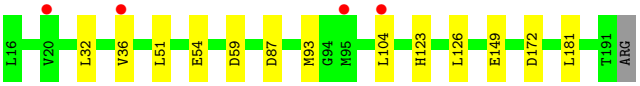




• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1

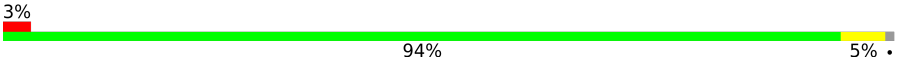
Chain G:

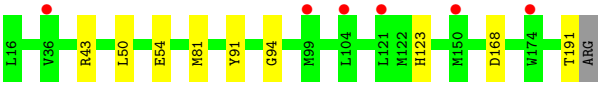




• Molecule 2: ATP-dependent Clp protease proteolytic subunit 1

Chain b:





• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain c:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain e:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain f:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain g:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain h:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain i:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

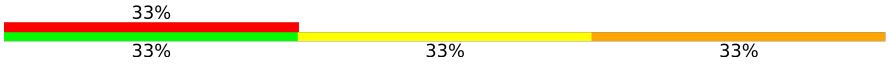
Chain j:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain k:

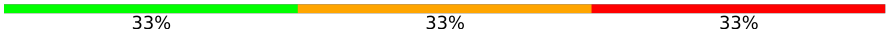
• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain l:



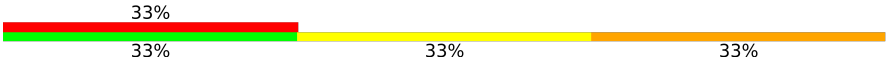
• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain m:



• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain n:



• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain o:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

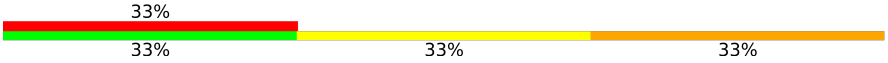
Chain p:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain q:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain r:



• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain s:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain t:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain u:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain v:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

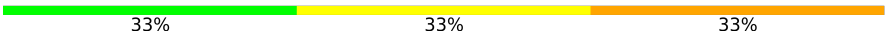
Chain w:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain x:

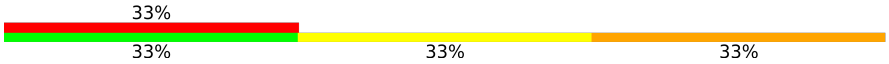
• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain y:



• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain z:

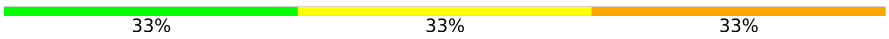


• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain 0:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain 1:



• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain 2:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain 3:

• Molecule 3: 4-[[3,5-bis(fluoranyl)phenyl]methyl]-N-[(4-bromophenyl)methyl]piperazine-1-carboxamide

Chain 4:

4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	207.51Å 182.50Å 188.70Å 90.00° 95.02° 90.00°	Depositor
Resolution (Å)	33.31 – 3.24 136.81 – 3.24	Depositor EDS
% Data completeness (in resolution range)	99.7 (33.31-3.24) 99.8 (136.81-3.24)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.11 (at 3.26Å)	Xtriage
Refinement program	PHENIX 1.19.2_4158, PHENIX 1.19.2_4158	Depositor
R, R_{free}	0.179 , 0.254 0.178 , 0.253	Depositor DCC
R_{free} test set	5566 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å^2)	98.1	Xtriage
Anisotropy	0.078	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.39 , 58.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	81239	wwPDB-VP
Average B, all atoms (Å^2)	105.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 38.33 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 3.7473e-04. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: AI4, BEZ

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	1.07	5/1512 (0.3%)	1.17	11/2045 (0.5%)
1	C	1.18	12/1518 (0.8%)	1.26	10/2055 (0.5%)
1	E	1.03	6/1495 (0.4%)	1.09	3/2025 (0.1%)
1	F	1.20	12/1518 (0.8%)	1.29	12/2055 (0.6%)
1	H	1.16	10/1522 (0.7%)	1.24	10/2059 (0.5%)
1	J	0.94	1/1524 (0.1%)	1.10	7/2062 (0.3%)
1	L	0.94	2/1495 (0.1%)	1.11	8/2025 (0.4%)
1	O	0.93	3/1512 (0.2%)	1.08	7/2045 (0.3%)
1	Q	0.93	2/1518 (0.1%)	1.09	7/2055 (0.3%)
1	S	0.91	2/1518 (0.1%)	1.05	3/2055 (0.1%)
1	T	1.01	5/1522 (0.3%)	1.07	2/2059 (0.1%)
1	V	0.91	2/1524 (0.1%)	1.12	10/2062 (0.5%)
1	X	0.97	5/1495 (0.3%)	1.09	7/2025 (0.3%)
1	a	1.03	7/1495 (0.5%)	1.08	5/2025 (0.2%)
2	B	1.03	5/1373 (0.4%)	1.16	10/1856 (0.5%)
2	D	1.10	3/1354 (0.2%)	1.26	13/1831 (0.7%)
2	G	0.98	4/1352 (0.3%)	1.18	10/1830 (0.5%)
2	I	1.11	7/1350 (0.5%)	1.24	9/1826 (0.5%)
2	K	1.08	6/1344 (0.4%)	1.14	6/1819 (0.3%)
2	M	1.08	5/1346 (0.4%)	1.20	12/1823 (0.7%)
2	N	0.94	0/1346	1.19	7/1823 (0.4%)
2	P	1.01	2/1373 (0.1%)	1.21	10/1856 (0.5%)
2	R	1.04	3/1354 (0.2%)	1.09	3/1831 (0.2%)
2	U	1.05	7/1350 (0.5%)	1.17	6/1826 (0.3%)
2	W	1.02	3/1344 (0.2%)	1.08	3/1819 (0.2%)
2	Y	1.00	2/1346 (0.1%)	1.08	5/1823 (0.3%)
2	Z	0.86	1/1346 (0.1%)	1.10	7/1823 (0.4%)
2	b	0.93	3/1352 (0.2%)	1.10	5/1830 (0.3%)
3	0	2.16	1/16 (6.2%)	2.10	0/19
3	1	1.91	0/16	2.97	3/19 (15.8%)
3	2	2.16	1/16 (6.2%)	1.63	0/19
3	3	1.67	0/16	2.14	1/19 (5.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
3	4	2.16	1/16 (6.2%)	2.87	1/19 (5.3%)
3	c	1.79	0/16	2.85	1/19 (5.3%)
3	e	1.91	0/16	1.91	0/19
3	f	1.88	1/16 (6.2%)	2.47	1/19 (5.3%)
3	g	2.30	1/16 (6.2%)	3.01	2/19 (10.5%)
3	h	1.78	0/16	2.96	2/19 (10.5%)
3	i	2.07	1/16 (6.2%)	2.42	0/19
3	j	2.15	1/16 (6.2%)	2.53	1/19 (5.3%)
3	k	2.32	1/16 (6.2%)	2.91	2/19 (10.5%)
3	l	2.18	1/16 (6.2%)	3.05	2/19 (10.5%)
3	m	1.81	1/16 (6.2%)	3.00	2/19 (10.5%)
3	n	1.94	0/16	3.98	3/19 (15.8%)
3	o	2.49	1/16 (6.2%)	3.65	3/19 (15.8%)
3	p	2.13	0/16	3.32	4/19 (21.1%)
3	q	2.62	1/16 (6.2%)	3.50	2/19 (10.5%)
3	r	1.75	0/16	3.57	4/19 (21.1%)
3	s	2.18	1/16 (6.2%)	3.27	3/19 (15.8%)
3	t	2.23	1/16 (6.2%)	2.64	1/19 (5.3%)
3	u	2.43	1/16 (6.2%)	3.37	3/19 (15.8%)
3	v	1.90	1/16 (6.2%)	2.66	1/19 (5.3%)
3	w	2.00	1/16 (6.2%)	2.00	0/19
3	x	2.06	1/16 (6.2%)	2.17	0/19
3	y	1.94	1/16 (6.2%)	3.62	2/19 (10.5%)
3	z	2.04	0/16	3.88	4/19 (21.1%)
All	All	1.04	144/40546 (0.4%)	1.18	256/54800 (0.5%)

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
2	N	0	1
2	Z	0	1
All	All	0	2

All (144) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Q	104	CYS	CB-SG	-10.57	1.64	1.82
1	F	15	ILE	C-N	9.86	1.56	1.34
1	a	151	GLU	CG-CD	9.12	1.65	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	K	22	GLU	CG-CD	9.10	1.65	1.51
2	P	149	GLU	CG-CD	8.69	1.65	1.51
2	M	45	CYS	CB-SG	-8.41	1.68	1.82
2	M	149	GLU	CG-CD	8.21	1.64	1.51
1	H	175	ASP	CB-CG	7.96	1.68	1.51
3	q	2	LEU	C-N	7.93	1.52	1.34
1	F	75	TYR	CD1-CE1	-7.90	1.27	1.39
1	A	159	ARG	CG-CD	7.77	1.71	1.51
2	D	135	ASP	CB-CG	7.77	1.68	1.51
1	V	104	CYS	CB-SG	-7.70	1.69	1.82
1	V	151	GLU	CG-CD	7.70	1.63	1.51
2	R	182	GLU	CG-CD	7.62	1.63	1.51
2	G	32	LEU	CA-CB	-7.53	1.36	1.53
3	u	2	LEU	C-N	7.44	1.51	1.34
1	E	151	GLU	CG-CD	7.42	1.63	1.51
3	g	2	LEU	C-N	7.22	1.50	1.34
2	K	36	VAL	CB-CG2	-7.17	1.37	1.52
3	s	2	LEU	C-N	7.13	1.50	1.34
2	M	148	LYS	CE-NZ	7.12	1.66	1.49
1	F	119	GLY	C-N	7.06	1.50	1.34
2	I	22	GLU	CG-CD	7.05	1.62	1.51
1	S	165	GLU	CD-OE2	6.98	1.33	1.25
1	T	165	GLU	CD-OE2	6.85	1.33	1.25
3	2	2	LEU	C-N	6.83	1.49	1.34
1	T	104	CYS	CB-SG	-6.81	1.70	1.82
1	C	70	ARG	CG-CD	6.79	1.69	1.51
3	o	2	LEU	C-N	6.75	1.49	1.34
2	K	149	GLU	CG-CD	6.60	1.61	1.51
2	I	163	GLU	CG-CD	6.58	1.61	1.51
1	C	96	VAL	CB-CG1	-6.57	1.39	1.52
2	M	149	GLU	CD-OE1	6.56	1.32	1.25
3	4	2	LEU	C-N	6.55	1.49	1.34
1	F	103	VAL	CB-CG2	-6.53	1.39	1.52
2	b	54	GLU	CG-CD	6.46	1.61	1.51
3	k	2	LEU	C-N	6.43	1.48	1.34
2	U	86	CYS	CB-SG	6.42	1.93	1.82
2	K	101	GLU	CD-OE1	6.40	1.32	1.25
1	F	103	VAL	CB-CG1	-6.39	1.39	1.52
1	S	151	GLU	CG-CD	6.36	1.61	1.51
2	P	45	CYS	CB-SG	-6.34	1.71	1.82
1	C	48	VAL	CB-CG2	6.34	1.66	1.52
1	F	131	ARG	CG-CD	6.32	1.67	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	a	142	VAL	CB-CG1	-6.30	1.39	1.52
2	I	166	GLU	CG-CD	6.28	1.61	1.51
1	H	103	VAL	CB-CG1	-6.26	1.39	1.52
2	W	39	GLU	CG-CD	6.24	1.61	1.51
3	j	2	LEU	C-N	6.14	1.48	1.34
1	E	38	GLU	CG-CD	6.13	1.61	1.51
3	0	2	LEU	C-N	6.11	1.48	1.34
3	t	2	LEU	C-N	6.10	1.48	1.34
2	D	182	GLU	CG-CD	6.09	1.61	1.51
2	W	29	ILE	CB-CG2	-6.09	1.33	1.52
1	H	103	VAL	CB-CG2	-6.08	1.40	1.52
1	F	75	TYR	CE1-CZ	-6.04	1.30	1.38
2	B	141	GLU	CD-OE2	6.04	1.32	1.25
2	I	22	GLU	CB-CG	6.03	1.63	1.52
2	M	148	LYS	CD-CE	6.01	1.66	1.51
1	C	44	LEU	CA-CB	-6.01	1.40	1.53
2	Y	148	LYS	CE-NZ	6.00	1.64	1.49
3	w	2	LEU	C-N	6.00	1.47	1.34
2	B	149	GLU	CG-CD	5.97	1.60	1.51
1	F	48	VAL	CB-CG2	5.95	1.65	1.52
3	i	2	LEU	C-N	5.93	1.47	1.34
3	x	2	LEU	C-N	5.92	1.47	1.34
2	U	36	VAL	CB-CG1	-5.92	1.40	1.52
1	a	142	VAL	CB-CG2	-5.92	1.40	1.52
2	K	31	PHE	CE1-CZ	5.88	1.48	1.37
2	R	101	GLU	CG-CD	5.87	1.60	1.51
1	X	159	ARG	CG-CD	5.81	1.66	1.51
2	K	22	GLU	CB-CG	5.81	1.63	1.52
1	Q	178	VAL	CB-CG2	-5.79	1.40	1.52
1	H	39	GLU	CG-CD	5.79	1.60	1.51
1	H	178	VAL	CB-CG2	-5.75	1.40	1.52
3	f	2	LEU	C-N	5.73	1.47	1.34
1	T	159	ARG	CG-CD	5.72	1.66	1.51
2	U	22	GLU	CG-CD	5.71	1.60	1.51
1	C	165	GLU	CD-OE1	5.70	1.31	1.25
1	T	175	ASP	CB-CG	5.70	1.63	1.51
1	E	95	TYR	CD2-CE2	-5.66	1.30	1.39
3	l	2	LEU	C-N	5.66	1.47	1.34
1	a	90	TYR	CE2-CZ	-5.65	1.31	1.38
1	C	206	TYR	CD2-CE2	-5.64	1.30	1.39
2	I	38	ASP	CB-CG	5.63	1.63	1.51
2	G	54	GLU	CG-CD	5.62	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	27	VAL	CB-CG1	-5.61	1.41	1.52
3	y	2	LEU	C-N	5.59	1.47	1.34
1	O	151	GLU	CD-OE1	5.59	1.31	1.25
1	X	131	ARG	CG-CD	5.58	1.65	1.51
1	C	39	GLU	CG-CD	5.58	1.60	1.51
1	A	144	GLN	CG-CD	-5.55	1.38	1.51
2	b	91	TYR	CE2-CZ	5.51	1.45	1.38
2	I	101	GLU	CG-CD	5.50	1.60	1.51
1	T	178	VAL	CB-CG2	-5.50	1.41	1.52
2	U	39	GLU	CG-CD	5.45	1.60	1.51
1	H	165	GLU	CD-OE2	5.43	1.31	1.25
1	F	165	GLU	CD-OE2	5.42	1.31	1.25
1	E	83	PHE	CE1-CZ	5.42	1.47	1.37
2	B	31	PHE	CE2-CZ	5.41	1.47	1.37
2	Y	31	PHE	CE2-CZ	5.41	1.47	1.37
1	E	151	GLU	CD-OE1	5.39	1.31	1.25
1	C	21	GLU	CD-OE2	5.38	1.31	1.25
1	C	165	GLU	CB-CG	-5.38	1.42	1.52
1	O	38	GLU	CG-CD	5.37	1.60	1.51
1	J	142	VAL	CB-CG1	-5.36	1.41	1.52
1	X	37	PHE	CD1-CE1	-5.36	1.28	1.39
1	F	75	TYR	CD2-CE2	-5.35	1.31	1.39
1	A	90	TYR	CD1-CE1	-5.34	1.31	1.39
1	a	158	GLU	CG-CD	5.34	1.59	1.51
1	E	95	TYR	CD1-CE1	-5.31	1.31	1.39
1	C	42	ILE	CB-CG2	-5.30	1.36	1.52
1	O	21	GLU	CG-CD	5.30	1.59	1.51
1	X	37	PHE	CD2-CE2	-5.30	1.28	1.39
1	C	47	GLN	CG-CD	5.29	1.63	1.51
1	F	38	GLU	CD-OE2	5.28	1.31	1.25
2	I	101	GLU	CD-OE1	5.27	1.31	1.25
2	b	54	GLU	CB-CG	5.26	1.62	1.52
1	L	165	GLU	CD-OE2	5.23	1.31	1.25
2	B	182	GLU	CB-CG	5.22	1.62	1.52
1	A	50	ASP	CB-CG	5.21	1.62	1.51
2	W	101	GLU	CG-CD	5.19	1.59	1.51
1	C	37	PHE	CE1-CZ	-5.18	1.27	1.37
3	v	2	LEU	C-N	5.18	1.46	1.34
2	D	40	ILE	CB-CG2	-5.18	1.36	1.52
2	B	175	PHE	CE1-CZ	-5.16	1.27	1.37
1	L	38	GLU	CG-CD	5.16	1.59	1.51
2	G	36	VAL	CB-CG1	-5.16	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	Z	31	PHE	CE2-CZ	5.15	1.47	1.37
1	A	90	TYR	CE1-CZ	-5.14	1.31	1.38
2	R	22	GLU	CB-CG	5.14	1.61	1.52
1	a	90	TYR	CD2-CE2	-5.13	1.31	1.39
1	a	90	TYR	CE1-CZ	-5.13	1.31	1.38
1	H	142	VAL	CB-CG2	-5.12	1.42	1.52
1	X	165	GLU	CD-OE2	5.10	1.31	1.25
1	H	197	TYR	CD1-CE1	-5.09	1.31	1.39
2	U	113	TYR	CE1-CZ	-5.08	1.31	1.38
3	m	2	LEU	C-N	5.08	1.45	1.34
2	U	186	VAL	CB-CG1	-5.07	1.42	1.52
2	U	31	PHE	CE1-CZ	5.07	1.47	1.37
1	F	185	ARG	CG-CD	-5.06	1.39	1.51
2	G	149	GLU	CG-CD	5.04	1.59	1.51
1	H	197	TYR	CD2-CE2	-5.01	1.31	1.39

All (256) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	y	2	LEU	O-C-N	-11.09	104.96	122.70
3	z	3	LEU	CB-CG-CD2	10.51	128.86	111.00
2	K	38	ASP	CB-CG-OD2	-10.39	108.94	118.30
3	o	2	LEU	O-C-N	-10.20	106.38	122.70
3	n	3	LEU	CB-CG-CD2	9.92	127.86	111.00
2	Z	170	ASP	CB-CG-OD1	-9.85	109.44	118.30
2	N	38	ASP	CB-CG-OD2	-9.84	109.44	118.30
2	b	168	ASP	CB-CG-OD1	-9.26	109.97	118.30
2	D	187	ASP	CB-CG-OD2	-9.19	110.03	118.30
2	W	87	ASP	CB-CG-OD1	-9.17	110.04	118.30
1	C	64	GLU	OE1-CD-OE2	8.78	133.84	123.30
2	N	87	ASP	CB-CG-OD1	-8.72	110.45	118.30
3	k	2	LEU	O-C-N	-8.67	108.82	122.70
3	q	2	LEU	O-C-N	-8.63	108.88	122.70
2	I	38	ASP	CB-CG-OD2	-8.60	110.56	118.30
2	D	172	ASP	CB-CG-OD2	-8.51	110.64	118.30
2	B	24	LEU	CB-CG-CD1	-8.30	96.89	111.00
3	u	2	LEU	O-C-N	-8.28	109.45	122.70
2	D	38	ASP	CB-CG-OD2	-8.20	110.92	118.30
2	B	103	LEU	CB-CG-CD1	8.07	124.73	111.00
2	G	126	LEU	CB-CG-CD1	8.07	124.72	111.00
1	A	165	GLU	OE1-CD-OE2	8.03	132.94	123.30
1	F	139	LEU	CB-CG-CD2	-8.02	97.36	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	r	2	LEU	CB-CG-CD2	-7.90	97.57	111.00
2	R	79	ASP	CB-CG-OD2	-7.90	111.19	118.30
2	U	25	LEU	CB-CG-CD2	-7.88	97.61	111.00
1	F	201	ASP	CB-CG-OD1	7.86	125.38	118.30
1	F	99	ASP	CB-CG-OD1	-7.74	111.33	118.30
2	B	38	ASP	CB-CG-OD2	-7.72	111.35	118.30
1	F	66	LEU	CB-CG-CD1	7.71	124.11	111.00
1	Q	55	ASP	CB-CG-OD2	7.57	125.11	118.30
2	M	148	LYS	CD-CE-NZ	7.57	129.10	111.70
1	L	143	ILE	CG1-CB-CG2	-7.55	94.78	111.40
2	D	83	LEU	CB-CG-CD1	7.50	123.74	111.00
1	Q	16	LEU	CB-CG-CD2	7.41	123.59	111.00
2	K	101	GLU	OE1-CD-OE2	7.40	132.19	123.30
2	b	191	THR	N-CA-C	7.36	130.87	111.00
1	F	105	LEU	CB-CG-CD1	7.29	123.39	111.00
1	X	139	LEU	CB-CG-CD2	-7.29	98.61	111.00
2	M	51	LEU	CB-CG-CD2	7.26	123.34	111.00
1	S	60	LEU	CB-CG-CD1	-7.23	98.70	111.00
2	M	83	LEU	CB-CG-CD2	7.23	123.30	111.00
3	1	2	LEU	CB-CG-CD1	7.15	123.15	111.00
2	G	172	ASP	CB-CG-OD1	7.11	124.70	118.30
2	G	87	ASP	CB-CG-OD1	-7.06	111.95	118.30
1	a	36	LEU	CB-CG-CD1	-7.04	99.04	111.00
1	A	63	LEU	CB-CG-CD1	-7.02	99.07	111.00
2	M	126	LEU	CB-CG-CD1	7.02	122.93	111.00
2	U	181	LEU	CB-CG-CD2	-7.01	99.08	111.00
2	M	87	ASP	CB-CG-OD1	-6.98	112.02	118.30
3	h	3	LEU	CB-CG-CD2	6.88	122.70	111.00
1	J	175	ASP	CB-CG-OD2	-6.86	112.12	118.30
3	n	3	LEU	N-CA-C	-6.84	92.53	111.00
2	I	135	ASP	CB-CG-OD1	6.84	124.45	118.30
3	o	2	LEU	CA-C-N	6.81	132.18	117.20
2	M	38	ASP	CB-CG-OD2	-6.78	112.20	118.30
1	H	16	LEU	CB-CG-CD2	6.77	122.50	111.00
2	G	93	MET	CA-CB-CG	6.77	124.80	113.30
1	O	104	CYS	CA-CB-SG	-6.71	101.92	114.00
2	M	50	LEU	CB-CG-CD2	6.70	122.38	111.00
3	s	2	LEU	O-C-N	6.68	133.39	122.70
3	n	2	LEU	CB-CG-CD2	-6.67	99.66	111.00
3	4	2	LEU	O-C-N	-6.67	112.03	122.70
2	N	170	ASP	CB-CG-OD1	-6.64	112.32	118.30
2	B	141	GLU	OE1-CD-OE2	6.64	131.27	123.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	38	ASP	CB-CG-OD1	6.64	124.27	118.30
3	j	2	LEU	CB-CA-C	-6.63	97.60	110.20
2	K	93	MET	CA-CB-CG	6.62	124.55	113.30
3	t	2	LEU	CB-CA-C	-6.60	97.66	110.20
1	O	193	GLU	OE1-CD-OE2	6.60	131.22	123.30
2	K	170	ASP	CB-CG-OD2	6.58	124.23	118.30
1	F	186	ASP	CB-CG-OD2	-6.57	112.39	118.30
1	E	63	LEU	CB-CG-CD1	-6.55	99.86	111.00
3	o	2	LEU	N-CA-CB	6.54	123.47	110.40
1	H	164	MET	CA-CB-CG	-6.52	102.22	113.30
1	V	189	LEU	CB-CG-CD2	-6.50	99.95	111.00
3	g	2	LEU	O-C-N	-6.48	112.33	122.70
2	D	170	ASP	CB-CG-OD1	-6.48	112.47	118.30
2	P	38	ASP	CB-CG-OD2	-6.46	112.48	118.30
1	O	149	ASP	CB-CG-OD2	-6.46	112.49	118.30
2	P	44	LEU	CA-CB-CG	6.45	130.15	115.30
2	Y	181	LEU	CB-CG-CD1	-6.42	100.08	111.00
1	F	201	ASP	CB-CG-OD2	-6.41	112.53	118.30
1	H	184	ASP	CB-CG-OD1	-6.36	112.58	118.30
2	N	32	LEU	CB-CG-CD1	-6.35	100.20	111.00
3	h	3	LEU	N-CA-C	-6.34	93.89	111.00
3	g	2	LEU	CA-C-N	6.33	131.14	117.20
2	P	187	ASP	CB-CG-OD2	-6.33	112.61	118.30
2	G	87	ASP	CB-CG-OD2	6.31	123.98	118.30
1	A	66	LEU	CB-CG-CD1	6.30	121.70	111.00
3	z	3	LEU	CA-CB-CG	-6.28	100.85	115.30
2	Y	181	LEU	CB-CG-CD2	-6.28	100.32	111.00
3	u	2	LEU	CA-C-N	6.26	130.97	117.20
2	I	38	ASP	CB-CG-OD1	6.26	123.93	118.30
1	A	139	LEU	CB-CG-CD2	-6.26	100.36	111.00
3	p	2	LEU	CB-CG-CD2	6.25	121.62	111.00
1	A	196	ASP	CB-CG-OD2	-6.25	112.68	118.30
1	V	186	ASP	CB-CG-OD1	-6.24	112.68	118.30
1	L	55	ASP	CB-CG-OD2	6.23	123.91	118.30
3	q	2	LEU	CA-C-N	6.21	130.87	117.20
1	H	165	GLU	OE1-CD-OE2	6.20	130.74	123.30
1	V	115	LEU	CB-CG-CD1	-6.19	100.48	111.00
2	b	50	LEU	CB-CG-CD1	-6.18	100.49	111.00
2	K	101	GLU	CG-CD-OE2	-6.18	105.94	118.30
1	L	60	LEU	CB-CG-CD1	-6.17	100.50	111.00
1	X	63	LEU	CB-CG-CD1	-6.17	100.52	111.00
1	C	165	GLU	OE1-CD-OE2	6.16	130.69	123.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	D	168	ASP	CB-CG-OD1	6.08	123.77	118.30
2	I	153	LEU	CB-CG-CD2	-6.06	100.70	111.00
2	I	18	ASP	CB-CG-OD2	-6.04	112.86	118.30
2	I	181	LEU	CB-CG-CD2	-6.04	100.73	111.00
1	V	149	ASP	CB-CG-OD2	-6.03	112.87	118.30
1	J	60	LEU	CB-CG-CD1	-6.03	100.75	111.00
2	Y	148	LYS	CD-CE-NZ	6.02	125.55	111.70
2	B	135	ASP	CB-CG-OD2	-6.01	112.89	118.30
1	F	44	LEU	CB-CG-CD2	6.01	121.22	111.00
3	z	3	LEU	N-CA-C	-6.00	94.79	111.00
2	D	172	ASP	CB-CG-OD1	5.99	123.69	118.30
1	L	61	LEU	CB-CG-CD1	-5.98	100.84	111.00
3	l	3	LEU	N-CA-CB	5.97	122.35	110.40
1	J	55	ASP	CB-CG-OD2	5.97	123.67	118.30
1	C	186	ASP	CB-CG-OD2	-5.97	112.93	118.30
1	V	139	LEU	CB-CG-CD2	-5.97	100.85	111.00
2	D	122	MET	CG-SD-CE	5.92	109.67	100.20
1	V	50	ASP	CB-CG-OD2	-5.91	112.98	118.30
3	z	3	LEU	CB-CG-CD1	-5.89	100.98	111.00
1	H	165	GLU	CA-CB-CG	-5.89	100.44	113.40
1	E	127	LEU	CB-CG-CD2	-5.88	101.00	111.00
2	D	120	ILE	CG1-CB-CG2	-5.88	98.46	111.40
2	G	59	ASP	CB-CG-OD1	-5.88	113.01	118.30
1	H	49	ASP	CB-CG-OD1	5.87	123.58	118.30
3	f	2	LEU	CB-CA-C	-5.87	99.05	110.20
1	A	192	GLU	OE1-CD-OE2	5.83	130.30	123.30
2	Z	99	MET	CA-CB-CG	5.83	123.21	113.30
2	B	93	MET	CG-SD-CE	5.82	109.51	100.20
1	H	195	LYS	CD-CE-NZ	-5.80	98.35	111.70
1	H	60	LEU	CB-CG-CD1	-5.79	101.16	111.00
2	B	103	LEU	CB-CG-CD2	-5.78	101.17	111.00
1	a	104	CYS	CA-CB-SG	-5.78	103.59	114.00
3	r	3	LEU	N-CA-C	-5.77	95.43	111.00
2	P	87	ASP	CB-CG-OD2	5.75	123.48	118.30
2	P	81	MET	CG-SD-CE	5.75	109.39	100.20
2	U	18	ASP	CB-CG-OD2	-5.74	113.13	118.30
2	G	104	LEU	CA-CB-CG	5.74	128.49	115.30
1	a	133	LEU	CB-CG-CD1	-5.73	101.26	111.00
2	D	181	LEU	CB-CG-CD2	-5.72	101.27	111.00
1	T	164	MET	CA-CB-CG	-5.72	103.58	113.30
2	Z	130	THR	CA-CB-CG2	-5.72	104.40	112.40
1	A	104	CYS	CA-CB-SG	-5.71	103.73	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	W	135	ASP	CB-CG-OD1	5.70	123.43	118.30
1	V	139	LEU	CB-CG-CD1	5.69	120.67	111.00
2	G	51	LEU	CB-CG-CD1	-5.68	101.35	111.00
3	m	3	LEU	CB-CG-CD1	5.68	120.65	111.00
2	P	135	ASP	CB-CG-OD2	-5.67	113.19	118.30
2	P	172	ASP	CB-CG-OD2	-5.64	113.22	118.30
2	D	50	LEU	CB-CG-CD1	-5.64	101.41	111.00
3	1	3	LEU	CB-CG-CD2	5.63	120.57	111.00
2	M	95	MET	CG-SD-CE	5.62	109.20	100.20
1	J	182	ASP	CB-CG-OD1	-5.60	113.26	118.30
2	D	49	LEU	CB-CG-CD1	5.57	120.47	111.00
3	k	2	LEU	CA-C-N	5.57	129.46	117.20
3	p	3	LEU	CA-CB-CG	-5.56	102.52	115.30
1	F	63	LEU	CB-CG-CD1	-5.54	101.58	111.00
3	l	3	LEU	CA-CB-CG	-5.52	102.59	115.30
2	N	147	LYS	CD-CE-NZ	-5.52	99.01	111.70
2	U	24	LEU	CB-CG-CD1	-5.51	101.63	111.00
1	S	165	GLU	OE1-CD-OE2	5.51	129.91	123.30
1	C	70	ARG	CB-CA-C	5.50	121.41	110.40
2	N	170	ASP	CB-CG-OD2	5.49	123.25	118.30
1	F	103	VAL	CG1-CB-CG2	-5.48	102.14	110.90
1	Q	133	LEU	CB-CG-CD1	5.47	120.31	111.00
2	R	135	ASP	CB-CG-OD2	-5.47	113.38	118.30
2	N	51	LEU	CB-CG-CD1	-5.46	101.73	111.00
1	L	60	LEU	CB-CG-CD2	-5.45	101.74	111.00
1	C	166	THR	CA-CB-CG2	-5.44	104.78	112.40
3	y	2	LEU	CA-C-N	5.44	129.16	117.20
2	P	126	LEU	CB-CG-CD1	-5.43	101.76	111.00
1	H	196	ASP	CB-CG-OD1	5.43	123.19	118.30
1	Q	36	LEU	CB-CG-CD1	-5.43	101.78	111.00
1	A	149	ASP	CB-CG-OD1	-5.42	113.42	118.30
3	s	2	LEU	CA-CB-CG	-5.42	102.85	115.30
1	A	144	GLN	CA-CB-CG	5.41	125.30	113.40
2	I	93	MET	CA-CB-CG	5.41	122.50	113.30
1	F	165	GLU	OE1-CD-OE2	5.39	129.77	123.30
1	X	172	THR	CA-CB-CG2	-5.39	104.85	112.40
2	Y	24	LEU	CB-CG-CD2	5.39	120.17	111.00
2	Z	51	LEU	CB-CG-CD1	-5.39	101.83	111.00
1	O	44	LEU	CB-CG-CD2	5.39	120.16	111.00
2	Z	135	ASP	CB-CG-OD2	-5.38	113.46	118.30
3	u	2	LEU	N-CA-CB	5.36	121.13	110.40
2	K	181	LEU	CB-CG-CD2	-5.36	101.89	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	3	3	LEU	N-CA-C	-5.36	96.53	111.00
1	C	184	ASP	CB-CG-OD1	-5.35	113.48	118.30
2	P	181	LEU	CB-CG-CD2	-5.34	101.92	111.00
2	I	93	MET	CG-SD-CE	5.32	108.70	100.20
1	J	133	LEU	CB-CG-CD1	-5.31	101.97	111.00
1	F	55	ASP	CB-CG-OD2	-5.30	113.53	118.30
1	S	93	MET	CG-SD-CE	5.29	108.67	100.20
1	H	67	ASP	CB-CG-OD1	-5.29	113.54	118.30
2	R	135	ASP	CB-CG-OD1	5.29	123.06	118.30
1	V	63	LEU	CB-CG-CD2	5.29	119.98	111.00
1	C	133	LEU	CA-CB-CG	5.27	127.43	115.30
1	O	63	LEU	CB-CG-CD1	-5.26	102.05	111.00
3	m	2	LEU	N-CA-CB	-5.24	99.92	110.40
3	c	2	LEU	CB-CG-CD2	5.23	119.89	111.00
1	L	201	ASP	CB-CG-OD1	5.22	123.00	118.30
2	G	181	LEU	CB-CG-CD1	-5.22	102.13	111.00
2	M	168	ASP	CB-CG-OD1	-5.21	113.61	118.30
3	p	3	LEU	CA-C-O	5.20	131.02	120.10
1	V	104	CYS	CA-CB-SG	-5.18	104.68	114.00
1	E	150	LEU	CB-CG-CD2	-5.17	102.21	111.00
2	M	148	LYS	CA-CB-CG	5.17	124.77	113.40
1	C	120	THR	CA-CB-CG2	-5.16	105.17	112.40
2	U	141	GLU	CA-CB-CG	5.16	124.75	113.40
2	Y	153	LEU	CB-CG-CD1	-5.16	102.23	111.00
3	p	3	LEU	N-CA-C	-5.16	97.07	111.00
3	1	3	LEU	N-CA-C	-5.16	97.07	111.00
2	Z	166	GLU	OE1-CD-OE2	5.16	129.49	123.30
2	M	135	ASP	CB-CG-OD2	-5.15	113.67	118.30
1	A	150	LEU	CB-CG-CD2	-5.14	102.25	111.00
3	r	2	LEU	O-C-N	-5.13	114.48	122.70
2	b	81	MET	CA-CB-CG	5.13	122.03	113.30
3	v	3	LEU	CA-CB-CG	-5.13	103.50	115.30
2	U	191	THR	N-CA-C	5.13	124.85	111.00
2	G	36	VAL	CG1-CB-CG2	-5.13	102.70	110.90
1	a	86	LEU	CB-CG-CD2	5.12	119.71	111.00
3	r	2	LEU	CB-CG-CD1	5.12	119.70	111.00
2	b	43	ARG	NE-CZ-NH1	5.12	122.86	120.30
1	a	93	MET	CA-CB-CG	5.11	121.98	113.30
2	W	87	ASP	CB-CG-OD2	5.11	122.90	118.30
1	V	143	ILE	CG1-CB-CG2	-5.09	100.20	111.40
1	A	61	LEU	CB-CG-CD2	5.09	119.65	111.00
1	Q	157	ILE	CG1-CB-CG2	-5.09	100.21	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	J	182	ASP	CB-CG-OD2	5.08	122.88	118.30
1	O	43	PHE	CB-CG-CD1	-5.08	117.24	120.80
1	Q	93	MET	CB-CG-SD	-5.08	97.16	112.40
1	J	71	ASP	CB-CG-OD2	-5.08	113.73	118.30
2	B	79	ASP	CB-CG-OD2	-5.07	113.74	118.30
1	O	143	ILE	CG1-CB-CG2	-5.07	100.25	111.40
1	X	115	LEU	CA-CB-CG	5.07	126.95	115.30
1	C	156	GLU	OE1-CD-OE2	5.06	129.38	123.30
2	I	163	GLU	OE1-CD-OE2	-5.06	117.22	123.30
1	L	116	LEU	CB-CG-CD1	-5.06	102.40	111.00
1	Q	134	ILE	CG1-CB-CG2	-5.06	100.27	111.40
1	T	143	ILE	CG1-CB-CG2	-5.05	100.30	111.40
3	s	3	LEU	N-CA-CB	5.04	120.48	110.40
2	B	58	LYS	CD-CE-NZ	5.04	123.28	111.70
1	X	163	LEU	CA-CB-CG	5.04	126.88	115.30
1	C	116	LEU	CA-CB-CG	5.03	126.88	115.30
2	P	36	VAL	CG1-CB-CG2	-5.03	102.86	110.90
1	L	184	ASP	CB-CG-OD2	-5.02	113.78	118.30
1	X	133	LEU	CB-CG-CD1	-5.02	102.46	111.00
1	X	143	ILE	CG1-CB-CG2	-5.01	100.37	111.40
2	Z	49	LEU	CB-CG-CD2	5.01	119.52	111.00
2	D	149	GLU	CA-CB-CG	5.00	124.41	113.40
2	M	51	LEU	CB-CG-CD1	-5.00	102.49	111.00

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	N	18	ASP	Peptide
2	Z	18	ASP	Peptide

5.2 Too-close contacts (i)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	192/197 (98%)	183 (95%)	8 (4%)	1 (0%)	29	64
1	C	194/197 (98%)	186 (96%)	7 (4%)	1 (0%)	29	64
1	E	191/197 (97%)	180 (94%)	11 (6%)	0	100	100
1	F	194/197 (98%)	185 (95%)	7 (4%)	2 (1%)	15	50
1	H	194/197 (98%)	184 (95%)	10 (5%)	0	100	100
1	J	193/197 (98%)	182 (94%)	11 (6%)	0	100	100
1	L	191/197 (97%)	183 (96%)	8 (4%)	0	100	100
1	O	192/197 (98%)	181 (94%)	10 (5%)	1 (0%)	29	64
1	Q	194/197 (98%)	186 (96%)	7 (4%)	1 (0%)	29	64
1	S	194/197 (98%)	183 (94%)	10 (5%)	1 (0%)	29	64
1	T	194/197 (98%)	188 (97%)	6 (3%)	0	100	100
1	V	193/197 (98%)	182 (94%)	10 (5%)	1 (0%)	29	64
1	X	191/197 (97%)	181 (95%)	9 (5%)	1 (0%)	29	64
1	a	191/197 (97%)	182 (95%)	9 (5%)	0	100	100
2	B	175/177 (99%)	168 (96%)	7 (4%)	0	100	100
2	D	173/177 (98%)	168 (97%)	5 (3%)	0	100	100
2	G	174/177 (98%)	169 (97%)	5 (3%)	0	100	100
2	I	173/177 (98%)	170 (98%)	2 (1%)	1 (1%)	25	61
2	K	173/177 (98%)	166 (96%)	7 (4%)	0	100	100
2	M	174/177 (98%)	169 (97%)	4 (2%)	1 (1%)	25	61
2	N	174/177 (98%)	169 (97%)	5 (3%)	0	100	100
2	P	175/177 (99%)	169 (97%)	5 (3%)	1 (1%)	25	61
2	R	173/177 (98%)	168 (97%)	5 (3%)	0	100	100
2	U	173/177 (98%)	169 (98%)	3 (2%)	1 (1%)	25	61
2	W	173/177 (98%)	167 (96%)	6 (4%)	0	100	100
2	Y	174/177 (98%)	169 (97%)	5 (3%)	0	100	100
2	Z	174/177 (98%)	167 (96%)	7 (4%)	0	100	100
2	b	174/177 (98%)	168 (97%)	5 (3%)	1 (1%)	25	61
3	0	1/3 (33%)	1 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	1	1/3 (33%)	1 (100%)	0	0	100	100
3	2	1/3 (33%)	1 (100%)	0	0	100	100
3	3	1/3 (33%)	1 (100%)	0	0	100	100
3	4	1/3 (33%)	1 (100%)	0	0	100	100
3	c	1/3 (33%)	1 (100%)	0	0	100	100
3	e	1/3 (33%)	1 (100%)	0	0	100	100
3	f	1/3 (33%)	1 (100%)	0	0	100	100
3	g	1/3 (33%)	1 (100%)	0	0	100	100
3	h	1/3 (33%)	1 (100%)	0	0	100	100
3	i	1/3 (33%)	0	1 (100%)	0	100	100
3	j	1/3 (33%)	1 (100%)	0	0	100	100
3	k	1/3 (33%)	1 (100%)	0	0	100	100
3	l	1/3 (33%)	1 (100%)	0	0	100	100
3	m	1/3 (33%)	0	0	1 (100%)	0	0
3	n	1/3 (33%)	1 (100%)	0	0	100	100
3	o	1/3 (33%)	1 (100%)	0	0	100	100
3	p	1/3 (33%)	1 (100%)	0	0	100	100
3	q	1/3 (33%)	0	1 (100%)	0	100	100
3	r	1/3 (33%)	1 (100%)	0	0	100	100
3	s	1/3 (33%)	0	1 (100%)	0	100	100
3	t	1/3 (33%)	1 (100%)	0	0	100	100
3	u	1/3 (33%)	1 (100%)	0	0	100	100
3	v	1/3 (33%)	1 (100%)	0	0	100	100
3	w	1/3 (33%)	1 (100%)	0	0	100	100
3	x	1/3 (33%)	1 (100%)	0	0	100	100
3	y	1/3 (33%)	1 (100%)	0	0	100	100
3	z	1/3 (33%)	1 (100%)	0	0	100	100
All	All	5158/5320 (97%)	4946 (96%)	197 (4%)	15 (0%)	41	73

All (15) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	P	94	GLY

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Mol	Chain	Res	Type
2	U	94	GLY
1	V	106	GLY
2	b	94	GLY
3	m	2	LEU
1	C	106	GLY
1	Q	106	GLY
2	I	94	GLY
1	X	106	GLY
1	S	106	GLY
1	O	16	LEU
1	F	106	GLY
2	M	94	GLY
1	A	16	LEU
1	F	48	VAL

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	160/164 (98%)	159 (99%)	1 (1%)	86 93
1	C	160/164 (98%)	158 (99%)	2 (1%)	69 85
1	E	157/164 (96%)	155 (99%)	2 (1%)	69 85
1	F	160/164 (98%)	159 (99%)	1 (1%)	86 93
1	H	161/164 (98%)	161 (100%)	0	100 100
1	J	161/164 (98%)	158 (98%)	3 (2%)	57 79
1	L	157/164 (96%)	155 (99%)	2 (1%)	69 85
1	O	160/164 (98%)	160 (100%)	0	100 100
1	Q	160/164 (98%)	157 (98%)	3 (2%)	57 79
1	S	160/164 (98%)	159 (99%)	1 (1%)	86 93
1	T	161/164 (98%)	161 (100%)	0	100 100
1	V	161/164 (98%)	160 (99%)	1 (1%)	86 93
1	X	157/164 (96%)	157 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	a	157/164 (96%)	153 (98%)	4 (2%)	47 74
2	B	138/138 (100%)	138 (100%)	0	100 100
2	D	136/138 (99%)	134 (98%)	2 (2%)	65 83
2	G	135/138 (98%)	134 (99%)	1 (1%)	84 92
2	I	135/138 (98%)	134 (99%)	1 (1%)	84 92
2	K	134/138 (97%)	134 (100%)	0	100 100
2	M	134/138 (97%)	132 (98%)	2 (2%)	65 83
2	N	134/138 (97%)	132 (98%)	2 (2%)	65 83
2	P	138/138 (100%)	137 (99%)	1 (1%)	84 92
2	R	136/138 (99%)	134 (98%)	2 (2%)	65 83
2	U	135/138 (98%)	134 (99%)	1 (1%)	84 92
2	W	134/138 (97%)	134 (100%)	0	100 100
2	Y	134/138 (97%)	133 (99%)	1 (1%)	84 92
2	Z	134/138 (97%)	132 (98%)	2 (2%)	65 83
2	b	135/138 (98%)	134 (99%)	1 (1%)	84 92
3	0	2/2 (100%)	1 (50%)	1 (50%)	0 0
3	1	2/2 (100%)	1 (50%)	1 (50%)	0 0
3	2	2/2 (100%)	2 (100%)	0	100 100
3	3	2/2 (100%)	1 (50%)	1 (50%)	0 0
3	4	2/2 (100%)	1 (50%)	1 (50%)	0 0
3	c	2/2 (100%)	2 (100%)	0	100 100
3	e	2/2 (100%)	1 (50%)	1 (50%)	0 0
3	f	2/2 (100%)	2 (100%)	0	100 100
3	g	2/2 (100%)	2 (100%)	0	100 100
3	h	2/2 (100%)	1 (50%)	1 (50%)	0 0
3	i	2/2 (100%)	2 (100%)	0	100 100
3	j	2/2 (100%)	1 (50%)	1 (50%)	0 0
3	k	2/2 (100%)	1 (50%)	1 (50%)	0 0
3	l	2/2 (100%)	1 (50%)	1 (50%)	0 0
3	m	2/2 (100%)	0	2 (100%)	0 0
3	n	2/2 (100%)	1 (50%)	1 (50%)	0 0

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	o	2/2 (100%)	1 (50%)	1 (50%)	0 0
3	p	2/2 (100%)	0	2 (100%)	0 0
3	q	2/2 (100%)	1 (50%)	1 (50%)	0 0
3	r	2/2 (100%)	1 (50%)	1 (50%)	0 0
3	s	2/2 (100%)	2 (100%)	0	100 100
3	t	2/2 (100%)	2 (100%)	0	100 100
3	u	2/2 (100%)	2 (100%)	0	100 100
3	v	2/2 (100%)	0	2 (100%)	0 0
3	w	2/2 (100%)	2 (100%)	0	100 100
3	x	2/2 (100%)	1 (50%)	1 (50%)	0 0
3	y	2/2 (100%)	0	2 (100%)	0 0
3	z	2/2 (100%)	0	2 (100%)	0 0
All	All	4180/4284 (98%)	4120 (99%)	60 (1%)	67 84

All (60) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	65	SER
2	P	86	CYS
1	C	135	HIS
1	C	138	SER
1	Q	43	PHE
1	Q	87	MET
1	Q	135	HIS
2	D	119	ARG
2	D	123	HIS
2	R	119	ARG
2	R	123	HIS
1	F	43	PHE
1	S	65	SER
2	I	123	HIS
2	U	123	HIS
1	J	14	TYR
1	J	43	PHE
1	J	135	HIS
1	V	14	TYR
1	L	131	ARG
1	L	135	HIS

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Mol	Chain	Res	Type
2	M	86	CYS
2	M	123	HIS
2	Y	123	HIS
2	N	86	CYS
2	N	123	HIS
2	Z	86	CYS
2	Z	123	HIS
1	E	87	MET
1	E	128	PRO
1	a	43	PHE
1	a	78	SER
1	a	87	MET
1	a	128	PRO
2	G	123	HIS
2	b	123	HIS
3	e	2	LEU
3	h	3	LEU
3	j	3	LEU
3	k	2	LEU
3	l	3	LEU
3	m	2	LEU
3	m	3	LEU
3	n	3	LEU
3	o	2	LEU
3	p	2	LEU
3	p	3	LEU
3	q	2	LEU
3	r	3	LEU
3	v	2	LEU
3	v	3	LEU
3	x	3	LEU
3	y	2	LEU
3	y	3	LEU
3	z	2	LEU
3	z	3	LEU
3	0	2	LEU
3	1	3	LEU
3	3	3	LEU
3	4	2	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (7) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	135	HIS
1	A	136	GLN
1	Q	135	HIS
1	H	94	GLN
1	L	94	GLN
1	L	135	HIS
2	G	47	GLN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

14 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	$\#\|Z\| > 2$
4	AI4	K	201	-	45,48,48	5.54	24 (53%)	62,68,68	4.95	32 (51%)
4	AI4	Y	201	-	45,48,48	5.64	24 (53%)	62,68,68	5.17	32 (51%)
4	AI4	U	201	-	45,48,48	5.46	26 (57%)	62,68,68	5.10	33 (53%)
4	AI4	I	201	-	45,48,48	5.56	27 (60%)	62,68,68	5.05	33 (53%)
4	AI4	Z	201	-	45,48,48	5.68	26 (57%)	62,68,68	5.13	32 (51%)
4	AI4	W	201	-	45,48,48	5.61	28 (62%)	62,68,68	4.39	32 (51%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
4	AI4	G	201	-	45,48,48	5.60	27 (60%)	62,68,68	5.07	37 (59%)
4	AI4	F	301	-	45,48,48	5.62	26 (57%)	62,68,68	4.81	31 (50%)
4	AI4	N	301	-	45,48,48	5.62	21 (46%)	62,68,68	8.67	39 (62%)
4	AI4	B	201	-	45,48,48	5.47	24 (53%)	62,68,68	5.51	38 (61%)
4	AI4	b	201	-	45,48,48	5.60	24 (53%)	62,68,68	5.15	37 (59%)
4	AI4	V	301	-	45,48,48	5.60	26 (57%)	62,68,68	4.89	33 (53%)
4	AI4	M	201	-	45,48,48	5.59	25 (55%)	62,68,68	4.79	35 (56%)
4	AI4	R	201	-	45,48,48	5.52	22 (48%)	62,68,68	4.76	34 (54%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	AI4	K	201	-	-	10/21/31/31	0/6/6/6
4	AI4	Y	201	-	-	11/21/31/31	0/6/6/6
4	AI4	U	201	-	-	12/21/31/31	0/6/6/6
4	AI4	I	201	-	-	10/21/31/31	0/6/6/6
4	AI4	Z	201	-	-	11/21/31/31	0/6/6/6
4	AI4	W	201	-	-	9/21/31/31	0/6/6/6
4	AI4	G	201	-	-	11/21/31/31	0/6/6/6
4	AI4	F	301	-	-	9/21/31/31	0/6/6/6
4	AI4	N	301	-	-	10/21/31/31	0/6/6/6
4	AI4	B	201	-	-	10/21/31/31	0/6/6/6
4	AI4	b	201	-	-	10/21/31/31	0/6/6/6
4	AI4	V	301	-	-	10/21/31/31	0/6/6/6
4	AI4	M	201	-	-	13/21/31/31	0/6/6/6
4	AI4	R	201	-	-	11/21/31/31	0/6/6/6

All (350) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	F	301	AI4	C36-C35	-16.96	1.11	1.39
4	I	201	AI4	C40-C35	-16.94	1.11	1.39
4	b	201	AI4	C40-C35	-16.94	1.11	1.39
4	R	201	AI4	C40-C35	-16.85	1.11	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	N	301	AI4	C36-C35	-16.67	1.12	1.39
4	G	201	AI4	C40-C35	-16.53	1.12	1.39
4	M	201	AI4	C40-C35	-16.39	1.12	1.39
4	Z	201	AI4	C36-C35	-16.34	1.12	1.39
4	W	201	AI4	C40-C35	-16.27	1.12	1.39
4	Y	201	AI4	C40-C35	-16.23	1.12	1.39
4	V	301	AI4	C36-C35	-16.17	1.12	1.39
4	B	201	AI4	C37-C38	16.11	1.66	1.39
4	Z	201	AI4	C40-C35	-16.06	1.13	1.39
4	N	301	AI4	C40-C35	-16.05	1.13	1.39
4	B	201	AI4	C40-C35	-16.01	1.13	1.39
4	Y	201	AI4	C37-C38	15.91	1.66	1.39
4	U	201	AI4	C37-C38	15.86	1.66	1.39
4	V	301	AI4	C37-C38	15.77	1.66	1.39
4	F	301	AI4	C40-C35	-15.72	1.13	1.39
4	K	201	AI4	C40-C35	-15.64	1.13	1.39
4	N	301	AI4	C37-C38	15.59	1.66	1.39
4	Z	201	AI4	C37-C38	15.56	1.65	1.39
4	Y	201	AI4	C36-C35	-15.55	1.13	1.39
4	G	201	AI4	C36-C35	-15.55	1.13	1.39
4	U	201	AI4	C40-C35	-15.54	1.13	1.39
4	K	201	AI4	C37-C38	15.53	1.65	1.39
4	b	201	AI4	C37-C38	15.47	1.65	1.39
4	W	201	AI4	C37-C38	15.37	1.65	1.39
4	B	201	AI4	C39-C38	15.30	1.65	1.39
4	R	201	AI4	C37-C38	15.28	1.65	1.39
4	K	201	AI4	C36-C35	-15.24	1.14	1.39
4	G	201	AI4	C37-C38	15.24	1.65	1.39
4	M	201	AI4	C37-C38	15.19	1.65	1.39
4	V	301	AI4	C39-C38	15.12	1.65	1.39
4	I	201	AI4	C36-C35	-15.09	1.14	1.39
4	U	201	AI4	C36-C35	-15.07	1.14	1.39
4	R	201	AI4	C36-C35	-15.07	1.14	1.39
4	I	201	AI4	C37-C38	15.04	1.65	1.39
4	B	201	AI4	C36-C35	-15.02	1.14	1.39
4	M	201	AI4	C36-C35	-14.90	1.14	1.39
4	V	301	AI4	C40-C35	-14.88	1.15	1.39
4	Y	201	AI4	C39-C38	14.85	1.64	1.39
4	b	201	AI4	C36-C35	-14.83	1.15	1.39
4	W	201	AI4	C36-C35	-14.75	1.15	1.39
4	N	301	AI4	C39-C38	14.70	1.64	1.39
4	F	301	AI4	C39-C38	14.68	1.64	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	K	201	AI4	C39-C38	14.65	1.64	1.39
4	U	201	AI4	C39-C38	14.61	1.64	1.39
4	R	201	AI4	C39-C38	14.57	1.64	1.39
4	b	201	AI4	C39-C38	14.41	1.64	1.39
4	F	301	AI4	C37-C38	14.34	1.63	1.39
4	I	201	AI4	C39-C38	14.05	1.63	1.39
4	G	201	AI4	C39-C38	14.02	1.63	1.39
4	M	201	AI4	C39-C38	13.90	1.63	1.39
4	Z	201	AI4	C39-C38	13.74	1.62	1.39
4	W	201	AI4	C39-C38	13.36	1.62	1.39
4	W	201	AI4	C38-C41	-11.87	1.32	1.50
4	M	201	AI4	C38-C41	-10.40	1.34	1.50
4	G	201	AI4	C38-C41	-9.90	1.35	1.50
4	K	201	AI4	C38-C41	-9.59	1.36	1.50
4	F	301	AI4	C41-N42	9.58	1.51	1.33
4	I	201	AI4	C38-C41	-9.38	1.36	1.50
4	R	201	AI4	C38-C41	-9.38	1.36	1.50
4	Z	201	AI4	C38-C41	-9.32	1.36	1.50
4	b	201	AI4	C38-C41	-9.15	1.36	1.50
4	N	301	AI4	C38-C41	-9.00	1.37	1.50
4	V	301	AI4	C41-N42	8.96	1.50	1.33
4	N	301	AI4	C35-C34	-8.61	1.34	1.52
4	Y	201	AI4	C41-N42	8.60	1.49	1.33
4	U	201	AI4	C38-C41	-8.35	1.38	1.50
4	Y	201	AI4	C35-C34	-8.33	1.35	1.52
4	N	301	AI4	C41-N42	8.32	1.48	1.33
4	U	201	AI4	C41-N42	8.11	1.48	1.33
4	Y	201	AI4	C38-C41	-7.99	1.38	1.50
4	R	201	AI4	C41-N42	7.92	1.48	1.33
4	M	201	AI4	C41-N42	7.92	1.48	1.33
4	I	201	AI4	C41-N42	7.92	1.48	1.33
4	b	201	AI4	C41-N42	7.76	1.47	1.33
4	F	301	AI4	C35-C34	-7.75	1.36	1.52
4	Z	201	AI4	C35-C34	-7.72	1.36	1.52
4	B	201	AI4	C41-N42	7.71	1.47	1.33
4	V	301	AI4	C38-C41	-7.69	1.39	1.50
4	W	201	AI4	C35-C34	-7.63	1.36	1.52
4	K	201	AI4	C41-N42	7.61	1.47	1.33
4	M	201	AI4	C35-C34	-7.56	1.36	1.52
4	G	201	AI4	C35-C34	-7.56	1.36	1.52
4	F	301	AI4	C38-C41	-7.48	1.39	1.50
4	R	201	AI4	C35-C34	-7.44	1.37	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	G	201	AI4	C41-N42	7.36	1.47	1.33
4	K	201	AI4	C35-C34	-7.35	1.37	1.52
4	Z	201	AI4	C41-N42	7.31	1.46	1.33
4	B	201	AI4	C38-C41	-7.25	1.39	1.50
4	V	301	AI4	C35-C34	-7.18	1.37	1.52
4	b	201	AI4	C35-C34	-6.99	1.38	1.52
4	I	201	AI4	C35-C34	-6.91	1.38	1.52
4	W	201	AI4	C41-N42	6.83	1.46	1.33
4	U	201	AI4	C35-C34	-6.63	1.38	1.52
4	B	201	AI4	C35-C34	-6.40	1.39	1.52
4	b	201	AI4	O13-C10	6.19	1.46	1.36
4	Z	201	AI4	C31-C30	-6.10	1.35	1.52
4	F	301	AI4	C31-C34	-6.05	1.36	1.53
4	W	201	AI4	C32-C33	-6.04	1.35	1.52
4	M	201	AI4	C31-C30	-5.95	1.35	1.52
4	V	301	AI4	C31-C34	-5.82	1.37	1.53
4	Y	201	AI4	C31-C34	-5.72	1.37	1.53
4	Z	201	AI4	C31-C34	-5.52	1.38	1.53
4	V	301	AI4	C31-C30	-5.32	1.37	1.52
4	F	301	AI4	C31-C30	-5.32	1.37	1.52
4	K	201	AI4	C31-C30	-5.29	1.37	1.52
4	M	201	AI4	C31-C34	-5.24	1.39	1.53
4	U	201	AI4	C31-C30	-5.19	1.38	1.52
4	F	301	AI4	C05-C04	-5.17	1.34	1.42
4	W	201	AI4	C31-C34	-5.16	1.39	1.53
4	Z	201	AI4	O13-C10	4.92	1.44	1.36
4	N	301	AI4	C31-C34	-4.91	1.39	1.53
4	Y	201	AI4	C31-C30	-4.91	1.38	1.52
4	N	301	AI4	C32-C34	-4.90	1.39	1.53
4	R	201	AI4	C31-C30	-4.89	1.38	1.52
4	b	201	AI4	C31-C30	-4.88	1.38	1.52
4	Y	201	AI4	C32-C33	-4.87	1.38	1.52
4	K	201	AI4	C32-C34	-4.86	1.40	1.53
4	Z	201	AI4	C32-C34	-4.84	1.40	1.53
4	G	201	AI4	C32-C34	-4.84	1.40	1.53
4	W	201	AI4	C33-N28	-4.73	1.33	1.46
4	b	201	AI4	C32-C34	-4.69	1.40	1.53
4	G	201	AI4	C31-C30	-4.67	1.39	1.52
4	M	201	AI4	C32-C34	-4.66	1.40	1.53
4	B	201	AI4	C32-C34	-4.65	1.40	1.53
4	B	201	AI4	O13-C10	4.65	1.43	1.36
4	K	201	AI4	C31-C34	-4.64	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	I	201	AI4	O11-C02	4.63	1.46	1.37
4	N	301	AI4	C31-C30	-4.56	1.39	1.52
4	K	201	AI4	O13-C10	4.56	1.43	1.36
4	Z	201	AI4	C30-N28	-4.55	1.34	1.46
4	I	201	AI4	C31-C30	-4.54	1.39	1.52
4	R	201	AI4	C32-C34	-4.53	1.40	1.53
4	G	201	AI4	C31-C34	-4.52	1.40	1.53
4	G	201	AI4	O13-C10	4.52	1.43	1.36
4	I	201	AI4	C32-C34	-4.47	1.41	1.53
4	B	201	AI4	C31-C34	-4.46	1.41	1.53
4	U	201	AI4	C31-C34	-4.43	1.41	1.53
4	Z	201	AI4	O12-C01	4.41	1.44	1.37
4	B	201	AI4	C31-C30	-4.37	1.40	1.52
4	W	201	AI4	C32-C34	-4.36	1.41	1.53
4	W	201	AI4	O11-C02	4.35	1.46	1.37
4	N	301	AI4	C32-C33	-4.33	1.40	1.52
4	b	201	AI4	C31-C34	-4.31	1.41	1.53
4	R	201	AI4	C31-C34	-4.31	1.41	1.53
4	V	301	AI4	C30-N28	-4.30	1.35	1.46
4	Y	201	AI4	C33-N28	-4.29	1.35	1.46
4	M	201	AI4	O13-C10	4.17	1.42	1.36
4	M	201	AI4	C30-N28	-4.17	1.35	1.46
4	Y	201	AI4	O13-C10	4.15	1.42	1.36
4	F	301	AI4	C33-N28	-4.14	1.35	1.46
4	K	201	AI4	C32-C33	-4.14	1.40	1.52
4	V	301	AI4	C33-N28	-4.14	1.35	1.46
4	U	201	AI4	C32-C34	-4.14	1.41	1.53
4	Y	201	AI4	C32-C34	-4.13	1.42	1.53
4	B	201	AI4	C30-N28	-4.11	1.35	1.46
4	V	301	AI4	O13-C10	4.10	1.42	1.36
4	K	201	AI4	C30-N28	-4.05	1.35	1.46
4	I	201	AI4	C31-C34	-4.03	1.42	1.53
4	U	201	AI4	O13-C10	4.02	1.42	1.36
4	F	301	AI4	C32-C34	-4.00	1.42	1.53
4	V	301	AI4	C32-C34	-3.98	1.42	1.53
4	b	201	AI4	C10-C05	3.97	1.48	1.43
4	G	201	AI4	C32-C33	-3.95	1.41	1.52
4	Z	201	AI4	C32-C33	-3.93	1.41	1.52
4	F	301	AI4	C32-C33	-3.90	1.41	1.52
4	N	301	AI4	O13-C10	3.90	1.42	1.36
4	V	301	AI4	C32-C33	-3.90	1.41	1.52
4	U	201	AI4	O11-C02	3.90	1.45	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	G	201	AI4	C33-N28	-3.88	1.36	1.46
4	Z	201	AI4	C33-N28	-3.87	1.36	1.46
4	Z	201	AI4	C06-C01	3.87	1.43	1.36
4	W	201	AI4	C31-C30	-3.85	1.41	1.52
4	R	201	AI4	C30-N28	-3.81	1.36	1.46
4	R	201	AI4	O13-C10	3.79	1.42	1.36
4	Y	201	AI4	C06-C01	3.78	1.43	1.36
4	Z	201	AI4	O11-C02	3.77	1.45	1.37
4	K	201	AI4	O12-C01	3.75	1.43	1.37
4	I	201	AI4	C30-N28	-3.75	1.36	1.46
4	F	301	AI4	O11-C02	3.75	1.45	1.37
4	I	201	AI4	O13-C10	3.74	1.42	1.36
4	M	201	AI4	O11-C02	3.71	1.44	1.37
4	M	201	AI4	C32-C33	-3.70	1.42	1.52
4	G	201	AI4	O11-C02	3.65	1.44	1.37
4	W	201	AI4	C06-C01	3.62	1.43	1.36
4	U	201	AI4	C30-N28	-3.62	1.36	1.46
4	F	301	AI4	O12-C01	3.62	1.42	1.37
4	Y	201	AI4	O11-C02	3.62	1.44	1.37
4	I	201	AI4	C06-C01	3.60	1.43	1.36
4	b	201	AI4	O11-C02	3.60	1.44	1.37
4	I	201	AI4	O12-C01	3.60	1.42	1.37
4	b	201	AI4	O13-C14	3.59	1.47	1.39
4	b	201	AI4	C32-C33	-3.59	1.42	1.52
4	G	201	AI4	C10-C05	3.59	1.48	1.43
4	M	201	AI4	C33-N28	-3.58	1.37	1.46
4	R	201	AI4	C32-C33	-3.54	1.42	1.52
4	G	201	AI4	C06-C01	3.54	1.42	1.36
4	b	201	AI4	C30-N28	-3.54	1.37	1.46
4	G	201	AI4	C30-N28	-3.54	1.37	1.46
4	R	201	AI4	C05-C04	-3.49	1.36	1.42
4	V	301	AI4	C03-C04	3.49	1.47	1.41
4	K	201	AI4	C06-C01	3.49	1.42	1.36
4	Y	201	AI4	O12-C01	3.47	1.42	1.37
4	V	301	AI4	C06-C01	3.46	1.42	1.36
4	I	201	AI4	C32-C33	-3.46	1.42	1.52
4	b	201	AI4	C06-C01	3.46	1.42	1.36
4	B	201	AI4	C33-N28	-3.44	1.37	1.46
4	B	201	AI4	C32-C33	-3.42	1.42	1.52
4	V	301	AI4	O11-C02	3.42	1.44	1.37
4	V	301	AI4	O12-C01	3.39	1.42	1.37
4	K	201	AI4	O11-C02	3.38	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	N	301	AI4	C33-N28	-3.37	1.37	1.46
4	V	301	AI4	C03-C02	3.37	1.42	1.36
4	G	201	AI4	C03-C04	3.33	1.47	1.41
4	N	301	AI4	C30-N28	-3.32	1.37	1.46
4	b	201	AI4	C03-C04	3.31	1.47	1.41
4	W	201	AI4	C03-C04	3.30	1.47	1.41
4	U	201	AI4	C06-C01	3.30	1.42	1.36
4	F	301	AI4	C30-N28	-3.29	1.37	1.46
4	U	201	AI4	C32-C33	-3.25	1.43	1.52
4	I	201	AI4	C33-N28	-3.24	1.38	1.46
4	W	201	AI4	C40-C39	-3.21	1.32	1.38
4	R	201	AI4	C33-N28	-3.21	1.38	1.46
4	Z	201	AI4	C03-C02	3.17	1.42	1.36
4	G	201	AI4	O12-C01	3.16	1.42	1.37
4	M	201	AI4	O13-C14	3.14	1.46	1.39
4	Y	201	AI4	C30-N28	-3.13	1.38	1.46
4	b	201	AI4	C33-N28	-3.12	1.38	1.46
4	W	201	AI4	O12-C01	3.11	1.42	1.37
4	I	201	AI4	C03-C04	3.11	1.46	1.41
4	K	201	AI4	C33-N28	-3.11	1.38	1.46
4	Z	201	AI4	C40-C39	-3.10	1.33	1.38
4	B	201	AI4	O11-C02	3.10	1.43	1.37
4	M	201	AI4	C40-C39	-3.10	1.33	1.38
4	U	201	AI4	O12-C01	3.02	1.42	1.37
4	F	301	AI4	C37-C36	-2.99	1.33	1.38
4	W	201	AI4	C03-C02	2.96	1.41	1.36
4	I	201	AI4	C10-C05	2.93	1.47	1.43
4	K	201	AI4	C03-C02	2.92	1.41	1.36
4	U	201	AI4	C03-C04	2.92	1.46	1.41
4	b	201	AI4	O12-C01	2.91	1.41	1.37
4	G	201	AI4	C03-C02	2.89	1.41	1.36
4	B	201	AI4	C15-C16	2.89	1.47	1.41
4	Z	201	AI4	C03-C04	2.89	1.46	1.41
4	B	201	AI4	O12-C01	2.88	1.41	1.37
4	R	201	AI4	C03-C04	2.87	1.46	1.41
4	B	201	AI4	C05-C04	-2.84	1.37	1.42
4	U	201	AI4	C33-N28	-2.83	1.39	1.46
4	F	301	AI4	O43-C41	2.82	1.29	1.24
4	R	201	AI4	C40-C39	-2.82	1.33	1.38
4	I	201	AI4	O13-C14	2.82	1.45	1.39
4	R	201	AI4	O12-C01	2.81	1.41	1.37
4	F	301	AI4	C06-C01	2.81	1.41	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	R	201	AI4	O11-C02	2.80	1.43	1.37
4	R	201	AI4	C06-C01	2.79	1.41	1.36
4	W	201	AI4	C30-N28	-2.78	1.39	1.46
4	I	201	AI4	C05-C04	-2.77	1.37	1.42
4	M	201	AI4	C06-C01	2.77	1.41	1.36
4	M	201	AI4	C03-C04	2.75	1.46	1.41
4	Z	201	AI4	C05-C04	-2.67	1.38	1.42
4	U	201	AI4	O13-C14	2.67	1.45	1.39
4	R	201	AI4	O13-C14	2.67	1.45	1.39
4	I	201	AI4	C40-C39	-2.65	1.33	1.38
4	G	201	AI4	C08-N07	2.64	1.36	1.32
4	N	301	AI4	C06-C01	2.63	1.41	1.36
4	U	201	AI4	C05-C04	-2.63	1.38	1.42
4	M	201	AI4	O12-C01	2.63	1.41	1.37
4	G	201	AI4	C40-C39	-2.62	1.34	1.38
4	B	201	AI4	C03-C02	2.62	1.41	1.36
4	K	201	AI4	O13-C14	2.60	1.45	1.39
4	U	201	AI4	C40-C39	-2.60	1.34	1.38
4	B	201	AI4	C18-C19	2.60	1.42	1.36
4	G	201	AI4	O43-C41	-2.58	1.19	1.24
4	b	201	AI4	C03-C02	2.58	1.41	1.36
4	W	201	AI4	C18-C19	2.57	1.42	1.36
4	N	301	AI4	C40-C39	-2.56	1.34	1.38
4	N	301	AI4	O12-C01	2.56	1.41	1.37
4	W	201	AI4	C10-C05	2.51	1.46	1.43
4	W	201	AI4	C06-C05	2.51	1.47	1.42
4	B	201	AI4	C03-C04	2.50	1.45	1.41
4	U	201	AI4	C10-C05	2.48	1.46	1.43
4	K	201	AI4	C03-C04	2.48	1.45	1.41
4	K	201	AI4	C18-C19	2.47	1.41	1.36
4	G	201	AI4	O13-C14	2.45	1.44	1.39
4	I	201	AI4	C18-C19	2.45	1.41	1.36
4	W	201	AI4	C05-C04	-2.45	1.38	1.42
4	K	201	AI4	C05-C04	-2.43	1.38	1.42
4	V	301	AI4	C16-C17	-2.43	1.36	1.42
4	W	201	AI4	C15-C16	2.42	1.46	1.41
4	M	201	AI4	C03-C02	2.41	1.40	1.36
4	M	201	AI4	C10-C05	2.41	1.46	1.43
4	I	201	AI4	C26-C25	2.38	1.61	1.51
4	W	201	AI4	O13-C10	2.38	1.39	1.36
4	Y	201	AI4	C03-C04	2.37	1.45	1.41
4	B	201	AI4	O13-C14	2.37	1.44	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	V	301	AI4	C26-C27	2.37	1.61	1.51
4	F	301	AI4	C03-C02	2.35	1.40	1.36
4	Y	201	AI4	C16-C17	-2.34	1.36	1.42
4	G	201	AI4	C18-C19	2.34	1.41	1.36
4	M	201	AI4	C05-C04	-2.33	1.38	1.42
4	V	301	AI4	C26-C25	2.33	1.61	1.51
4	Y	201	AI4	C06-C05	2.33	1.46	1.42
4	U	201	AI4	C03-C02	2.32	1.40	1.36
4	W	201	AI4	C18-C17	2.32	1.45	1.41
4	Z	201	AI4	C26-C25	2.31	1.60	1.51
4	F	301	AI4	C40-C39	-2.31	1.34	1.38
4	F	301	AI4	C26-C25	2.30	1.60	1.51
4	V	301	AI4	C06-C05	2.29	1.46	1.42
4	U	201	AI4	C18-C19	2.29	1.41	1.36
4	I	201	AI4	C03-C02	2.29	1.40	1.36
4	Y	201	AI4	O13-C14	2.27	1.44	1.39
4	b	201	AI4	C06-C05	2.27	1.46	1.42
4	Y	201	AI4	C05-C04	-2.27	1.38	1.42
4	K	201	AI4	C40-C39	-2.25	1.34	1.38
4	F	301	AI4	C27-N28	2.24	1.52	1.47
4	M	201	AI4	C08-N07	2.24	1.35	1.32
4	I	201	AI4	C08-N07	2.24	1.35	1.32
4	U	201	AI4	C26-C25	2.23	1.60	1.51
4	Z	201	AI4	O13-C14	2.23	1.44	1.39
4	N	301	AI4	O43-C41	-2.23	1.19	1.24
4	B	201	AI4	C06-C01	2.23	1.40	1.36
4	N	301	AI4	C03-C04	2.21	1.45	1.41
4	U	201	AI4	C08-N07	2.21	1.35	1.32
4	F	301	AI4	C18-C19	2.21	1.41	1.36
4	G	201	AI4	C06-C05	2.19	1.46	1.42
4	b	201	AI4	C18-C19	2.19	1.41	1.36
4	W	201	AI4	O13-C14	2.19	1.44	1.39
4	R	201	AI4	C03-C02	2.19	1.40	1.36
4	W	201	AI4	C08-N07	2.18	1.35	1.32
4	I	201	AI4	O43-C41	-2.18	1.20	1.24
4	V	301	AI4	C08-N07	2.17	1.35	1.32
4	Z	201	AI4	C18-C19	2.16	1.41	1.36
4	Y	201	AI4	C03-C02	2.15	1.40	1.36
4	N	301	AI4	C16-C17	-2.13	1.36	1.42
4	B	201	AI4	C26-C25	2.09	1.59	1.51
4	M	201	AI4	O43-C41	-2.09	1.20	1.24
4	G	201	AI4	C16-C17	-2.08	1.37	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	Y	201	AI4	C40-C39	-2.07	1.35	1.38
4	Z	201	AI4	C26-C27	2.06	1.60	1.51
4	N	301	AI4	O11-C02	2.06	1.41	1.37
4	V	301	AI4	O13-C14	2.04	1.44	1.39
4	F	301	AI4	C03-C04	2.04	1.45	1.41
4	F	301	AI4	C26-C27	2.04	1.60	1.51
4	b	201	AI4	C27-N28	2.04	1.52	1.47
4	V	301	AI4	C40-C39	-2.03	1.35	1.38
4	Z	201	AI4	C16-C17	-2.03	1.37	1.42
4	K	201	AI4	C37-C36	-2.01	1.35	1.38

All (478) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	N	301	AI4	O43-C41-N42	-41.95	62.98	122.58
4	N	301	AI4	O43-C41-C38	-36.76	75.64	119.63
4	Y	201	AI4	C38-C41-N42	18.11	139.48	117.75
4	N	301	AI4	C38-C41-N42	17.39	138.62	117.75
4	B	201	AI4	O43-C41-N42	-16.43	99.24	122.58
4	G	201	AI4	C38-C41-N42	16.08	137.05	117.75
4	F	301	AI4	C39-C38-C37	-15.68	96.25	118.59
4	I	201	AI4	C38-C41-N42	15.52	136.37	117.75
4	B	201	AI4	C39-C38-C37	-15.40	96.65	118.59
4	F	301	AI4	C39-C38-C41	15.12	161.52	121.04
4	b	201	AI4	C39-C38-C37	-15.06	97.14	118.59
4	Y	201	AI4	C39-C38-C37	-15.03	97.17	118.59
4	N	301	AI4	C39-C38-C41	14.92	160.98	121.04
4	U	201	AI4	C38-C41-N42	14.88	135.61	117.75
4	I	201	AI4	C39-C38-C37	-14.69	97.65	118.59
4	N	301	AI4	C39-C38-C37	-14.68	97.67	118.59
4	B	201	AI4	C38-C41-N42	14.66	135.34	117.75
4	V	301	AI4	C39-C38-C37	-14.54	97.88	118.59
4	Y	201	AI4	C39-C38-C41	14.49	159.83	121.04
4	V	301	AI4	C39-C38-C41	14.46	159.74	121.04
4	Z	201	AI4	O43-C41-N42	-14.43	102.08	122.58
4	U	201	AI4	O43-C41-N42	-14.31	102.25	122.58
4	G	201	AI4	C39-C38-C37	-14.15	98.43	118.59
4	K	201	AI4	C39-C38-C41	14.08	158.73	121.04
4	b	201	AI4	C38-C41-N42	14.00	134.55	117.75
4	G	201	AI4	O43-C41-N42	-13.99	102.70	122.58
4	G	201	AI4	C39-C38-C41	13.86	158.13	121.04
4	Z	201	AI4	C39-C38-C37	-13.83	98.88	118.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	U	201	AI4	C39-C38-C37	-13.80	98.92	118.59
4	I	201	AI4	C39-C38-C41	13.80	157.97	121.04
4	M	201	AI4	C38-C41-N42	13.71	134.20	117.75
4	b	201	AI4	C39-C38-C41	13.67	157.64	121.04
4	V	301	AI4	C38-C41-N42	13.59	134.06	117.75
4	R	201	AI4	C39-C38-C37	-13.58	99.25	118.59
4	Y	201	AI4	O43-C41-N42	-13.55	103.32	122.58
4	K	201	AI4	C39-C38-C37	-13.48	99.39	118.59
4	K	201	AI4	C38-C41-N42	13.41	133.84	117.75
4	U	201	AI4	C39-C38-C41	13.35	156.78	121.04
4	M	201	AI4	C39-C38-C41	13.28	156.59	121.04
4	I	201	AI4	O43-C41-N42	-13.24	103.76	122.58
4	R	201	AI4	C39-C38-C41	13.17	156.29	121.04
4	B	201	AI4	C39-C38-C41	13.15	156.24	121.04
4	Z	201	AI4	C39-C38-C41	13.07	156.02	121.04
4	Z	201	AI4	C38-C41-N42	12.97	133.32	117.75
4	W	201	AI4	C39-C38-C41	12.88	155.52	121.04
4	M	201	AI4	C39-C38-C37	-12.68	100.52	118.59
4	b	201	AI4	O43-C41-N42	-12.63	104.63	122.58
4	K	201	AI4	O43-C41-N42	-12.61	104.66	122.58
4	W	201	AI4	C39-C38-C37	-12.24	101.14	118.59
4	R	201	AI4	C38-C41-N42	12.18	132.37	117.75
4	V	301	AI4	O43-C41-N42	-12.16	105.31	122.58
4	B	201	AI4	C30-C31-C34	11.79	124.99	111.04
4	R	201	AI4	O43-C41-N42	-11.77	105.85	122.58
4	K	201	AI4	C30-C31-C34	11.63	124.80	111.04
4	Z	201	AI4	C30-C31-C34	11.04	124.11	111.04
4	M	201	AI4	O43-C41-N42	-11.04	106.90	122.58
4	W	201	AI4	C33-C32-C34	10.92	123.96	111.04
4	U	201	AI4	C30-C31-C34	10.83	123.85	111.04
4	R	201	AI4	C30-C31-C34	10.49	123.45	111.04
4	I	201	AI4	C30-C31-C34	10.31	123.24	111.04
4	M	201	AI4	C30-C31-C34	10.04	122.92	111.04
4	F	301	AI4	C31-C30-N28	10.00	126.63	111.11
4	Y	201	AI4	C33-C32-C34	9.63	122.43	111.04
4	F	301	AI4	C33-C32-C34	9.45	122.22	111.04
4	Z	201	AI4	C05-C10-N09	-9.38	116.48	124.37
4	G	201	AI4	C30-C31-C34	9.13	121.84	111.04
4	b	201	AI4	C30-C31-C34	8.99	121.67	111.04
4	Y	201	AI4	C31-C30-N28	8.87	124.88	111.11
4	Z	201	AI4	C39-C40-C35	8.85	130.11	121.20
4	W	201	AI4	O43-C41-N42	-8.68	110.25	122.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	W	201	AI4	C38-C41-N42	8.64	128.12	117.75
4	V	301	AI4	C30-C31-C34	8.57	121.17	111.04
4	F	301	AI4	O43-C41-N42	-8.56	110.42	122.58
4	F	301	AI4	C38-C41-N42	8.30	127.72	117.75
4	K	201	AI4	C32-C33-N28	8.26	123.93	111.11
4	B	201	AI4	C32-C33-N28	8.24	123.89	111.11
4	V	301	AI4	C33-C32-C34	8.15	120.68	111.04
4	N	301	AI4	C30-C31-C34	8.15	120.68	111.04
4	b	201	AI4	C05-C10-N09	-8.07	117.58	124.37
4	U	201	AI4	C39-C40-C35	7.74	128.98	121.20
4	W	201	AI4	C39-C40-C35	7.67	128.91	121.20
4	B	201	AI4	C05-C10-N09	-7.65	117.93	124.37
4	N	301	AI4	C40-C35-C36	7.55	127.71	118.29
4	F	301	AI4	O11-C25-C26	7.48	136.11	108.33
4	I	201	AI4	O11-C25-C26	7.44	135.98	108.33
4	N	301	AI4	C05-C10-N09	-7.38	118.16	124.37
4	b	201	AI4	O12-C01-C06	-7.36	115.72	125.24
4	N	301	AI4	C37-C38-C41	-7.36	101.35	121.04
4	K	201	AI4	C05-C10-N09	-7.31	118.22	124.37
4	V	301	AI4	C39-C40-C35	7.30	128.54	121.20
4	R	201	AI4	C40-C35-C36	7.30	127.40	118.29
4	K	201	AI4	C39-C40-C35	7.27	128.51	121.20
4	V	301	AI4	C31-C30-N28	7.25	122.37	111.11
4	W	201	AI4	C40-C35-C36	7.23	127.31	118.29
4	F	301	AI4	N07-C08-N09	-7.22	117.40	128.68
4	K	201	AI4	C37-C38-C41	-7.19	101.80	121.04
4	b	201	AI4	O11-C25-C26	7.15	134.90	108.33
4	M	201	AI4	C40-C35-C36	7.13	127.19	118.29
4	U	201	AI4	C32-C33-N28	7.13	122.17	111.11
4	I	201	AI4	C32-C33-N28	7.11	122.15	111.11
4	N	301	AI4	C32-C33-N28	7.06	122.07	111.11
4	I	201	AI4	N07-C08-N09	-7.04	117.67	128.68
4	F	301	AI4	C37-C38-C41	-7.03	102.23	121.04
4	B	201	AI4	C39-C40-C35	7.02	128.26	121.20
4	G	201	AI4	C33-C32-C34	7.02	119.34	111.04
4	Z	201	AI4	C32-C33-N28	7.01	121.99	111.11
4	R	201	AI4	C32-C33-N28	7.01	121.99	111.11
4	b	201	AI4	C32-C33-N28	6.99	121.97	111.11
4	V	301	AI4	C37-C38-C41	-6.98	102.37	121.04
4	M	201	AI4	C32-C33-N28	6.95	121.89	111.11
4	K	201	AI4	C40-C35-C36	6.93	126.94	118.29
4	B	201	AI4	C10-C05-C04	6.92	119.24	114.73

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	B	201	AI4	F23-C15-C16	6.91	127.06	118.56
4	G	201	AI4	C40-C35-C36	6.83	126.81	118.29
4	K	201	AI4	C10-C05-C04	6.80	119.16	114.73
4	M	201	AI4	C37-C38-C41	-6.79	102.86	121.04
4	W	201	AI4	C31-C30-N28	6.76	121.60	111.11
4	Y	201	AI4	C37-C38-C41	-6.74	102.99	121.04
4	Z	201	AI4	C40-C35-C36	6.74	126.70	118.29
4	G	201	AI4	C32-C33-N28	6.73	121.55	111.11
4	F	301	AI4	C08-N07-C04	6.70	124.63	115.40
4	b	201	AI4	C33-C32-C34	6.69	118.95	111.04
4	U	201	AI4	O11-C25-C26	6.66	133.08	108.33
4	W	201	AI4	C37-C38-C41	-6.66	103.22	121.04
4	Z	201	AI4	C33-C32-C34	6.65	118.91	111.04
4	Y	201	AI4	C40-C35-C36	6.63	126.56	118.29
4	I	201	AI4	C33-C32-C34	6.63	118.88	111.04
4	B	201	AI4	C33-C32-C34	6.62	118.87	111.04
4	V	301	AI4	C40-C35-C36	6.61	126.54	118.29
4	G	201	AI4	C37-C38-C41	-6.58	103.43	121.04
4	W	201	AI4	O11-C25-C26	6.55	132.67	108.33
4	G	201	AI4	C39-C40-C35	6.55	127.79	121.20
4	b	201	AI4	C39-C40-C35	6.53	127.76	121.20
4	Z	201	AI4	C10-C05-C04	6.51	118.97	114.73
4	M	201	AI4	C31-C30-N28	6.44	121.10	111.11
4	N	301	AI4	C33-C32-C34	6.41	118.62	111.04
4	M	201	AI4	O12-C01-C06	-6.40	116.97	125.24
4	I	201	AI4	C40-C35-C36	6.36	126.23	118.29
4	Z	201	AI4	O11-C25-C26	6.35	131.92	108.33
4	b	201	AI4	C31-C30-N28	6.35	120.96	111.11
4	R	201	AI4	C37-C38-C41	-6.31	104.14	121.04
4	R	201	AI4	C39-C40-C35	6.27	127.51	121.20
4	U	201	AI4	C37-C38-C41	-6.26	104.28	121.04
4	I	201	AI4	C08-N07-C04	6.25	124.01	115.40
4	N	301	AI4	C39-C40-C35	6.25	127.48	121.20
4	U	201	AI4	C40-C35-C36	6.24	126.08	118.29
4	I	201	AI4	C37-C38-C41	-6.24	104.34	121.04
4	b	201	AI4	O12-C01-C02	6.21	124.07	115.41
4	R	201	AI4	C33-C32-C34	6.21	118.38	111.04
4	Z	201	AI4	C32-C34-C35	6.19	127.30	112.79
4	G	201	AI4	C05-C10-N09	-6.19	119.16	124.37
4	M	201	AI4	C33-C32-C34	6.19	118.36	111.04
4	W	201	AI4	C27-N28-C30	6.15	126.95	111.23
4	Y	201	AI4	C39-C40-C35	6.12	127.36	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	V	301	AI4	C32-C34-C35	6.09	127.08	112.79
4	M	201	AI4	O11-C25-C26	6.09	130.95	108.33
4	N	301	AI4	O11-C02-C03	-6.09	114.88	125.19
4	N	301	AI4	N07-C08-N09	-6.09	119.17	128.68
4	Y	201	AI4	O11-C25-C26	6.09	130.94	108.33
4	U	201	AI4	O12-C01-C06	-6.08	117.37	125.24
4	Z	201	AI4	C31-C30-N28	6.08	120.55	111.11
4	V	301	AI4	O11-C25-C26	6.07	130.87	108.33
4	G	201	AI4	C10-C05-C04	6.05	118.67	114.73
4	B	201	AI4	O12-C01-C06	-6.02	117.45	125.24
4	Z	201	AI4	C37-C38-C41	-5.98	105.03	121.04
4	N	301	AI4	O12-C01-C06	-5.97	117.52	125.24
4	b	201	AI4	C37-C38-C41	-5.91	105.22	121.04
4	N	301	AI4	C31-C30-N28	5.88	120.24	111.11
4	B	201	AI4	C40-C35-C36	5.84	125.58	118.29
4	M	201	AI4	C39-C40-C35	5.80	127.04	121.20
4	F	301	AI4	C40-C35-C36	5.76	125.47	118.29
4	R	201	AI4	N07-C08-N09	-5.73	119.72	128.68
4	B	201	AI4	O11-C25-C26	5.73	129.63	108.33
4	Y	201	AI4	F23-C15-C16	5.72	125.59	118.56
4	F	301	AI4	C37-C36-C35	5.70	126.94	121.20
4	U	201	AI4	C33-C32-C34	5.70	117.78	111.04
4	B	201	AI4	O12-C01-C02	5.68	123.33	115.41
4	U	201	AI4	C32-C34-C35	5.68	126.10	112.79
4	V	301	AI4	N07-C08-N09	-5.67	119.81	128.68
4	U	201	AI4	N07-C08-N09	-5.60	119.92	128.68
4	M	201	AI4	C37-C36-C35	5.60	126.83	121.20
4	I	201	AI4	C39-C40-C35	5.54	126.77	121.20
4	b	201	AI4	C40-C35-C36	5.51	125.17	118.29
4	V	301	AI4	C32-C33-N28	5.51	119.66	111.11
4	N	301	AI4	O12-C01-C02	5.51	123.08	115.41
4	U	201	AI4	C08-N07-C04	5.51	122.99	115.40
4	F	301	AI4	C39-C40-C35	5.49	126.72	121.20
4	B	201	AI4	O13-C10-N09	5.48	126.79	119.58
4	V	301	AI4	C05-C10-N09	-5.45	119.78	124.37
4	W	201	AI4	C33-N28-C30	5.45	121.10	108.83
4	R	201	AI4	C08-N07-C04	5.44	122.90	115.40
4	G	201	AI4	C31-C30-N28	5.44	119.55	111.11
4	F	301	AI4	C30-C31-C34	5.44	117.47	111.04
4	G	201	AI4	O11-C25-C26	5.42	128.47	108.33
4	Y	201	AI4	N07-C08-N09	-5.39	120.26	128.68
4	b	201	AI4	C37-C36-C35	5.34	126.57	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	M	201	AI4	C32-C34-C35	5.34	125.31	112.79
4	K	201	AI4	O11-C25-C26	5.34	128.17	108.33
4	Z	201	AI4	C27-N28-C33	5.33	124.88	111.23
4	N	301	AI4	C08-N09-C10	5.33	124.34	115.88
4	B	201	AI4	C32-C34-C35	5.33	125.30	112.79
4	F	301	AI4	O12-C01-C02	5.32	122.82	115.41
4	B	201	AI4	C31-C30-N28	5.29	119.32	111.11
4	I	201	AI4	C37-C36-C35	5.26	126.50	121.20
4	U	201	AI4	C31-C30-N28	5.26	119.27	111.11
4	I	201	AI4	C31-C30-N28	5.23	119.23	111.11
4	R	201	AI4	O12-C01-C06	-5.22	118.49	125.24
4	B	201	AI4	C37-C38-C41	-5.21	107.09	121.04
4	U	201	AI4	C05-C10-N09	-5.20	119.99	124.37
4	G	201	AI4	O12-C01-C06	-5.19	118.52	125.24
4	B	201	AI4	F23-C15-C14	-5.18	111.87	119.16
4	F	301	AI4	C32-C33-N28	5.16	119.12	111.11
4	F	301	AI4	C32-C34-C35	5.12	124.80	112.79
4	W	201	AI4	C30-C31-C34	5.06	117.02	111.04
4	R	201	AI4	C33-N28-C30	5.05	120.20	108.83
4	W	201	AI4	N07-C08-N09	-5.05	120.79	128.68
4	U	201	AI4	C27-N28-C33	5.05	124.15	111.23
4	G	201	AI4	C33-N28-C30	5.05	120.19	108.83
4	R	201	AI4	C05-C10-N09	-5.04	120.13	124.37
4	R	201	AI4	C31-C30-N28	5.03	118.92	111.11
4	B	201	AI4	N07-C08-N09	-5.03	120.81	128.68
4	V	301	AI4	C27-N28-C33	5.03	124.10	111.23
4	K	201	AI4	C32-C34-C35	5.03	124.58	112.79
4	Z	201	AI4	C08-N09-C10	5.02	123.85	115.88
4	Z	201	AI4	N07-C08-N09	-5.00	120.86	128.68
4	b	201	AI4	O11-C02-C03	-4.99	116.74	125.19
4	Y	201	AI4	F23-C15-C14	-4.98	112.14	119.16
4	b	201	AI4	N07-C08-N09	-4.95	120.94	128.68
4	I	201	AI4	C33-N28-C30	4.93	119.92	108.83
4	K	201	AI4	C33-N28-C30	4.88	119.80	108.83
4	Y	201	AI4	C27-N28-C30	4.87	123.68	111.23
4	K	201	AI4	O12-C01-C02	4.86	122.19	115.41
4	W	201	AI4	F23-C15-C16	4.85	124.52	118.56
4	B	201	AI4	O43-C41-C38	4.83	125.41	119.63
4	U	201	AI4	C33-N28-C30	4.79	119.61	108.83
4	V	301	AI4	C33-N28-C30	4.74	119.49	108.83
4	F	301	AI4	F23-C15-C16	4.73	124.38	118.56
4	W	201	AI4	C31-C34-C35	4.69	123.78	112.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	M	201	AI4	C27-N28-C33	4.65	123.14	111.23
4	M	201	AI4	O12-C01-C02	4.65	121.89	115.41
4	Y	201	AI4	C32-C34-C31	4.63	119.21	109.56
4	R	201	AI4	C37-C36-C35	4.63	125.85	121.20
4	Y	201	AI4	C33-N28-C30	4.62	119.23	108.83
4	N	301	AI4	C32-C34-C31	4.62	119.18	109.56
4	W	201	AI4	C32-C33-N28	4.62	118.28	111.11
4	N	301	AI4	C33-N28-C30	4.61	119.21	108.83
4	b	201	AI4	C08-N09-C10	4.60	123.18	115.88
4	F	301	AI4	C03-C04-N07	4.59	123.20	117.97
4	K	201	AI4	O12-C01-C06	-4.58	119.32	125.24
4	N	301	AI4	O11-C25-C26	4.56	125.28	108.33
4	B	201	AI4	C27-N28-C33	4.55	122.87	111.23
4	I	201	AI4	C29-O12-C01	4.55	124.40	117.53
4	M	201	AI4	C10-C05-C04	4.55	117.69	114.73
4	F	301	AI4	C27-N28-C33	4.55	122.86	111.23
4	Y	201	AI4	C32-C33-N28	4.51	118.11	111.11
4	Y	201	AI4	C37-C36-C35	4.51	125.73	121.20
4	R	201	AI4	C05-C04-N07	-4.50	118.03	122.83
4	R	201	AI4	C32-C34-C35	4.50	123.34	112.79
4	K	201	AI4	C33-C32-C34	4.49	116.36	111.04
4	U	201	AI4	O12-C01-C02	4.47	121.64	115.41
4	W	201	AI4	C08-N07-C04	4.46	121.55	115.40
4	U	201	AI4	C10-C05-C04	4.42	117.61	114.73
4	V	301	AI4	C08-N09-C10	4.41	122.88	115.88
4	b	201	AI4	C10-C05-C04	4.41	117.61	114.73
4	b	201	AI4	C33-N28-C30	4.41	118.76	108.83
4	Y	201	AI4	O11-C02-C03	-4.40	117.73	125.19
4	R	201	AI4	C10-C05-C04	4.40	117.59	114.73
4	b	201	AI4	C14-O13-C10	4.38	124.24	117.82
4	U	201	AI4	C05-C04-N07	-4.37	118.18	122.83
4	G	201	AI4	F23-C15-C16	4.34	123.89	118.56
4	M	201	AI4	C33-N28-C30	4.33	118.58	108.83
4	Y	201	AI4	C30-C31-C34	4.30	116.13	111.04
4	B	201	AI4	C37-C36-C35	4.29	125.52	121.20
4	Z	201	AI4	C33-N28-C30	4.29	118.48	108.83
4	M	201	AI4	O11-C02-C03	-4.28	117.94	125.19
4	R	201	AI4	O12-C01-C02	4.28	121.37	115.41
4	I	201	AI4	C32-C34-C35	4.27	122.80	112.79
4	G	201	AI4	C37-C36-C35	4.26	125.49	121.20
4	I	201	AI4	C27-N28-C33	4.24	122.08	111.23
4	F	301	AI4	O12-C01-C06	-4.23	119.77	125.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	b	201	AI4	C27-N28-C33	4.23	122.04	111.23
4	M	201	AI4	C08-N07-C04	4.22	121.21	115.40
4	U	201	AI4	O11-C02-C03	-4.21	118.06	125.19
4	W	201	AI4	C40-C35-C34	-4.21	110.19	121.11
4	B	201	AI4	O11-C02-C03	-4.20	118.08	125.19
4	I	201	AI4	C08-N09-C10	4.19	122.52	115.88
4	Y	201	AI4	C08-N07-C04	4.18	121.16	115.40
4	Z	201	AI4	O12-C01-C02	4.16	121.20	115.41
4	F	301	AI4	C05-C04-N07	-4.16	118.40	122.83
4	K	201	AI4	C27-N28-C33	4.15	121.86	111.23
4	U	201	AI4	C37-C36-C35	4.15	125.38	121.20
4	Z	201	AI4	O43-C41-C38	4.15	124.60	119.63
4	B	201	AI4	C08-N09-C10	4.13	122.42	115.88
4	V	301	AI4	O13-C10-N09	4.10	124.98	119.58
4	B	201	AI4	C33-N28-C30	4.10	118.06	108.83
4	M	201	AI4	C05-C10-N09	-4.09	120.93	124.37
4	R	201	AI4	C27-N28-C33	4.08	121.67	111.23
4	R	201	AI4	O11-C25-C26	4.08	123.48	108.33
4	W	201	AI4	C32-C34-C31	4.07	118.05	109.56
4	K	201	AI4	C31-C30-N28	4.06	117.41	111.11
4	b	201	AI4	O11-C02-C01	4.01	124.01	115.73
4	R	201	AI4	C40-C35-C34	-4.01	110.70	121.11
4	N	301	AI4	C08-N07-C04	4.00	120.91	115.40
4	M	201	AI4	C05-C04-N07	-3.97	118.60	122.83
4	b	201	AI4	C08-N07-C04	3.94	120.83	115.40
4	Z	201	AI4	O12-C01-C06	-3.92	120.17	125.24
4	M	201	AI4	N07-C08-N09	-3.92	122.55	128.68
4	K	201	AI4	N07-C08-N09	-3.91	122.57	128.68
4	K	201	AI4	C32-C34-C31	3.91	117.70	109.56
4	b	201	AI4	C32-C34-C31	3.90	117.69	109.56
4	I	201	AI4	C05-C10-N09	-3.89	121.09	124.37
4	F	301	AI4	C32-C34-C31	3.87	117.63	109.56
4	K	201	AI4	C37-C36-C35	3.86	125.08	121.20
4	G	201	AI4	C32-C34-C35	3.83	121.78	112.79
4	G	201	AI4	F23-C15-C14	-3.82	113.79	119.16
4	G	201	AI4	C32-C34-C31	3.81	117.50	109.56
4	Y	201	AI4	C05-C10-N09	-3.80	121.17	124.37
4	b	201	AI4	C32-C34-C35	3.78	121.67	112.79
4	B	201	AI4	C03-C04-N07	3.78	122.28	117.97
4	G	201	AI4	C05-C04-N07	-3.74	118.85	122.83
4	Y	201	AI4	C32-C34-C35	3.70	121.47	112.79
4	I	201	AI4	C40-C35-C34	-3.70	111.51	121.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	W	201	AI4	C37-C36-C35	3.68	124.90	121.20
4	N	301	AI4	C32-C34-C35	3.66	121.37	112.79
4	I	201	AI4	O11-C02-C03	-3.65	119.01	125.19
4	N	301	AI4	C37-C36-C35	3.65	124.87	121.20
4	U	201	AI4	C32-C34-C31	3.65	117.17	109.56
4	B	201	AI4	C08-N07-C04	3.65	120.42	115.40
4	F	301	AI4	F23-C15-C14	-3.63	114.06	119.16
4	N	301	AI4	C27-N28-C30	3.62	120.50	111.23
4	K	201	AI4	O13-C10-N09	3.62	124.35	119.58
4	b	201	AI4	C40-C35-C34	-3.62	111.72	121.11
4	R	201	AI4	C08-N09-C10	3.62	121.61	115.88
4	V	301	AI4	C37-C36-C35	3.61	124.83	121.20
4	V	301	AI4	C08-N07-C04	3.61	120.38	115.40
4	G	201	AI4	N07-C08-N09	-3.60	123.05	128.68
4	M	201	AI4	C32-C34-C31	3.60	117.07	109.56
4	R	201	AI4	O11-C02-C03	-3.60	119.10	125.19
4	F	301	AI4	C27-N28-C30	3.60	120.43	111.23
4	R	201	AI4	C32-C34-C31	3.59	117.05	109.56
4	Y	201	AI4	C08-N09-C10	3.59	121.58	115.88
4	V	301	AI4	C03-C04-N07	3.55	122.02	117.97
4	G	201	AI4	C27-N28-C30	3.53	120.27	111.23
4	G	201	AI4	O12-C01-C02	3.53	120.33	115.41
4	N	301	AI4	C27-N28-C33	3.53	120.27	111.23
4	I	201	AI4	O13-C14-C15	3.52	126.35	119.26
4	G	201	AI4	C08-N07-C04	3.51	120.24	115.40
4	K	201	AI4	O11-C02-C03	-3.50	119.27	125.19
4	F	301	AI4	C33-N28-C30	3.50	116.70	108.83
4	M	201	AI4	C40-C35-C34	-3.47	112.10	121.11
4	K	201	AI4	C05-C04-N07	-3.47	119.14	122.83
4	Z	201	AI4	C40-C35-C34	-3.45	112.15	121.11
4	B	201	AI4	C05-C04-N07	-3.45	119.16	122.83
4	I	201	AI4	C05-C04-N07	-3.42	119.19	122.83
4	U	201	AI4	C08-N09-C10	3.42	121.30	115.88
4	U	201	AI4	C40-C35-C34	-3.40	112.27	121.11
4	G	201	AI4	C31-C34-C35	3.38	120.73	112.79
4	U	201	AI4	O11-C02-C01	3.37	122.70	115.73
4	I	201	AI4	C32-C34-C31	3.37	116.57	109.56
4	K	201	AI4	C08-N09-C10	3.36	121.21	115.88
4	b	201	AI4	C31-C34-C35	3.35	120.65	112.79
4	I	201	AI4	C31-C34-C35	3.34	120.62	112.79
4	Y	201	AI4	C24-C21-N22	3.33	127.71	119.98
4	B	201	AI4	C14-O13-C10	3.33	122.69	117.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	G	201	AI4	O11-C02-C03	-3.32	119.57	125.19
4	M	201	AI4	O11-C02-C01	3.31	122.56	115.73
4	K	201	AI4	C40-C35-C34	-3.28	112.59	121.11
4	Z	201	AI4	C08-N07-C04	3.27	119.90	115.40
4	V	301	AI4	C32-C34-C31	3.27	116.37	109.56
4	U	201	AI4	O13-C14-C15	3.25	125.81	119.26
4	G	201	AI4	C27-N28-C33	3.25	119.54	111.23
4	M	201	AI4	F23-C15-C16	3.22	122.52	118.56
4	G	201	AI4	C40-C35-C34	-3.20	112.81	121.11
4	F	301	AI4	C08-N09-C10	3.18	120.92	115.88
4	B	201	AI4	C40-C35-C34	-3.18	112.87	121.11
4	R	201	AI4	C14-C15-C16	-3.17	118.35	121.97
4	V	301	AI4	C06-C05-C04	3.17	122.83	118.94
4	I	201	AI4	O11-C02-C01	3.17	122.27	115.73
4	N	301	AI4	C10-C05-C04	3.13	116.77	114.73
4	K	201	AI4	C08-N07-C04	3.12	119.70	115.40
4	W	201	AI4	C27-C26-C25	-3.12	101.57	112.93
4	b	201	AI4	C27-N28-C30	3.11	119.20	111.23
4	W	201	AI4	C05-C04-N07	-3.08	119.55	122.83
4	V	301	AI4	O11-C02-C03	-3.08	119.99	125.19
4	B	201	AI4	C27-N28-C30	3.06	119.06	111.23
4	Z	201	AI4	O13-C10-C05	3.04	120.93	115.69
4	B	201	AI4	C31-C34-C35	3.01	119.85	112.79
4	N	301	AI4	O11-C02-C01	2.99	121.90	115.73
4	Z	201	AI4	C32-C34-C31	2.95	115.72	109.56
4	R	201	AI4	C31-C34-C35	2.91	119.61	112.79
4	N	301	AI4	C03-C02-C01	2.88	122.91	120.07
4	b	201	AI4	C19-C18-C17	-2.86	117.23	120.84
4	F	301	AI4	O11-C02-C03	-2.85	120.36	125.19
4	b	201	AI4	O13-C10-C05	2.84	120.59	115.69
4	N	301	AI4	C31-C34-C35	2.84	119.45	112.79
4	W	201	AI4	C03-C04-N07	2.83	121.19	117.97
4	G	201	AI4	C24-C21-N22	2.82	126.51	119.98
4	W	201	AI4	C08-N09-C10	2.81	120.33	115.88
4	R	201	AI4	F23-C15-C16	2.80	122.00	118.56
4	b	201	AI4	C05-C04-N07	-2.79	119.86	122.83
4	Y	201	AI4	C31-C34-C35	2.78	119.32	112.79
4	V	301	AI4	O12-C01-C06	-2.78	121.64	125.24
4	W	201	AI4	C05-C10-N09	-2.78	122.03	124.37
4	M	201	AI4	C03-C04-N07	2.77	121.13	117.97
4	K	201	AI4	C27-N28-C30	2.77	118.33	111.23
4	Z	201	AI4	C37-C36-C35	2.77	123.99	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	G	201	AI4	O11-C02-C01	2.77	121.46	115.73
4	V	301	AI4	C10-C05-C04	2.77	116.53	114.73
4	Y	201	AI4	C40-C35-C34	-2.75	113.97	121.11
4	W	201	AI4	O11-C02-C03	-2.75	120.54	125.19
4	Z	201	AI4	C05-C04-N07	-2.73	119.93	122.83
4	M	201	AI4	C27-N28-C30	2.72	118.19	111.23
4	M	201	AI4	F23-C15-C14	-2.70	115.36	119.16
4	R	201	AI4	C27-N28-C30	2.70	118.13	111.23
4	F	301	AI4	C06-C01-C02	-2.69	117.41	120.07
4	b	201	AI4	F23-C15-C16	2.66	121.83	118.56
4	G	201	AI4	C14-O13-C10	2.64	121.69	117.82
4	I	201	AI4	C27-N28-C30	2.64	117.99	111.23
4	N	301	AI4	C26-C27-N28	-2.64	107.19	113.84
4	Z	201	AI4	O13-C14-C15	2.63	124.56	119.26
4	G	201	AI4	C08-N09-C10	2.61	120.02	115.88
4	B	201	AI4	O11-C02-C01	2.60	121.09	115.73
4	R	201	AI4	C03-C04-N07	2.56	120.89	117.97
4	Z	201	AI4	O11-C02-C03	-2.55	120.88	125.19
4	I	201	AI4	C14-O13-C10	2.55	121.55	117.82
4	B	201	AI4	C32-C34-C31	2.54	114.86	109.56
4	K	201	AI4	C03-C04-N07	2.50	120.81	117.97
4	W	201	AI4	F23-C15-C14	-2.49	115.66	119.16
4	N	301	AI4	C40-C35-C34	-2.45	114.75	121.11
4	M	201	AI4	O13-C14-C15	2.43	124.15	119.26
4	W	201	AI4	O13-C10-C05	2.41	119.85	115.69
4	N	301	AI4	C29-O12-C01	-2.39	113.92	117.53
4	V	301	AI4	O12-C01-C02	2.38	118.72	115.41
4	R	201	AI4	C25-O11-C02	-2.38	111.86	117.69
4	V	301	AI4	C25-O11-C02	-2.34	111.96	117.69
4	K	201	AI4	C20-C16-C17	2.33	108.30	106.27
4	R	201	AI4	O11-C02-C01	2.33	120.53	115.73
4	b	201	AI4	C29-O12-C01	-2.33	114.02	117.53
4	I	201	AI4	C03-C04-N07	2.32	120.62	117.97
4	N	301	AI4	C06-C05-C04	2.31	121.78	118.94
4	W	201	AI4	C32-C34-C35	2.29	118.17	112.79
4	F	301	AI4	C24-C21-N22	2.29	125.28	119.98
4	Z	201	AI4	O13-C10-N09	2.28	122.59	119.58
4	Y	201	AI4	C27-N28-C33	2.26	117.03	111.23
4	U	201	AI4	C26-C27-N28	-2.25	108.18	113.84
4	M	201	AI4	C25-O11-C02	-2.24	112.21	117.69
4	B	201	AI4	C06-C05-C04	2.23	121.68	118.94
4	I	201	AI4	O12-C01-C06	-2.20	122.39	125.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	Y	201	AI4	C03-C02-C01	2.20	122.24	120.07
4	M	201	AI4	C36-C37-C38	-2.19	118.23	120.78
4	N	301	AI4	O13-C10-N09	2.18	122.45	119.58
4	N	301	AI4	C25-O11-C02	2.17	122.99	117.69
4	N	301	AI4	O13-C10-C05	2.14	119.38	115.69
4	B	201	AI4	C20-C16-C17	-2.13	104.42	106.27
4	W	201	AI4	O12-C01-C06	-2.12	122.49	125.24
4	Y	201	AI4	C05-C04-N07	-2.12	120.58	122.83
4	Z	201	AI4	C27-N28-C30	2.11	116.64	111.23
4	K	201	AI4	C31-C34-C35	2.10	117.72	112.79
4	W	201	AI4	O11-C02-C01	2.09	120.05	115.73
4	V	301	AI4	C05-C04-N07	-2.09	120.61	122.83
4	I	201	AI4	O13-C10-C05	2.07	119.26	115.69
4	U	201	AI4	C03-C04-N07	2.07	120.33	117.97
4	U	201	AI4	O43-C41-C38	2.06	122.10	119.63
4	M	201	AI4	C31-C34-C35	2.06	117.62	112.79
4	N	301	AI4	C05-C04-N07	-2.06	120.64	122.83
4	G	201	AI4	C03-C04-N07	2.06	120.32	117.97
4	b	201	AI4	C18-C19-C14	2.06	123.46	119.95
4	N	301	AI4	C24-C21-N22	2.05	124.74	119.98
4	Y	201	AI4	O43-C41-C38	-2.05	117.18	119.63
4	Y	201	AI4	O11-C02-C01	2.04	119.94	115.73
4	F	301	AI4	C31-C34-C35	2.04	117.57	112.79
4	G	201	AI4	C26-C27-N28	-2.04	108.71	113.84
4	U	201	AI4	C20-C16-C17	-2.03	104.50	106.27
4	G	201	AI4	O13-C10-N09	2.03	122.25	119.58
4	b	201	AI4	C24-C21-N22	2.02	124.67	119.98
4	V	301	AI4	C27-N28-C30	2.02	116.40	111.23
4	V	301	AI4	C40-C35-C34	-2.00	115.91	121.11
4	V	301	AI4	C27-C26-C25	2.00	120.22	112.93

There are no chirality outliers.

All (147) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	U	201	AI4	C15-C14-O13-C10
4	K	201	AI4	C15-C14-O13-C10
4	M	201	AI4	C15-C14-O13-C10
4	b	201	AI4	C15-C14-O13-C10
4	W	201	AI4	C26-C27-N28-C30
4	R	201	AI4	O11-C25-C26-C27
4	K	201	AI4	O11-C25-C26-C27

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Mol	Chain	Res	Type	Atoms
4	N	301	AI4	O11-C25-C26-C27
4	G	201	AI4	O11-C25-C26-C27
4	U	201	AI4	C02-C01-O12-C29
4	N	301	AI4	C02-C01-O12-C29
4	Y	201	AI4	C02-C01-O12-C29
4	U	201	AI4	C06-C01-O12-C29
4	N	301	AI4	C06-C01-O12-C29
4	U	201	AI4	O11-C25-C26-C27
4	Y	201	AI4	C06-C01-O12-C29
4	I	201	AI4	C02-C01-O12-C29
4	M	201	AI4	C02-C01-O12-C29
4	Z	201	AI4	C02-C01-O12-C29
4	I	201	AI4	C26-C27-N28-C30
4	V	301	AI4	C26-C27-N28-C33
4	M	201	AI4	C26-C27-N28-C33
4	Z	201	AI4	C26-C27-N28-C33
4	I	201	AI4	O11-C25-C26-C27
4	M	201	AI4	O11-C25-C26-C27
4	F	301	AI4	C26-C27-N28-C33
4	b	201	AI4	C26-C27-N28-C33
4	G	201	AI4	C02-C01-O12-C29
4	B	201	AI4	C26-C27-N28-C30
4	I	201	AI4	C06-C01-O12-C29
4	R	201	AI4	C26-C27-N28-C30
4	U	201	AI4	C26-C27-N28-C33
4	Y	201	AI4	C26-C27-N28-C30
4	b	201	AI4	C02-C01-O12-C29
4	M	201	AI4	C06-C01-O12-C29
4	B	201	AI4	O11-C25-C26-C27
4	Z	201	AI4	C06-C01-O12-C29
4	Y	201	AI4	C01-C02-O11-C25
4	b	201	AI4	C01-C02-O11-C25
4	F	301	AI4	C01-C02-O11-C25
4	Y	201	AI4	C26-C27-N28-C33
4	Z	201	AI4	O11-C25-C26-C27
4	K	201	AI4	C26-C25-O11-C02
4	V	301	AI4	C02-C01-O12-C29
4	G	201	AI4	C06-C01-O12-C29
4	Y	201	AI4	O11-C25-C26-C27
4	V	301	AI4	C03-C02-O11-C25
4	R	201	AI4	C26-C25-O11-C02
4	Y	201	AI4	C03-C02-O11-C25

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Mol	Chain	Res	Type	Atoms
4	F	301	AI4	C26-C25-O11-C02
4	K	201	AI4	C03-C02-O11-C25
4	U	201	AI4	C26-C25-O11-C02
4	Z	201	AI4	C03-C02-O11-C25
4	V	301	AI4	C01-C02-O11-C25
4	N	301	AI4	C01-C02-O11-C25
4	K	201	AI4	C01-C02-O11-C25
4	M	201	AI4	C03-C02-O11-C25
4	b	201	AI4	C03-C02-O11-C25
4	N	301	AI4	C03-C02-O11-C25
4	F	301	AI4	O11-C25-C26-C27
4	B	201	AI4	C03-C02-O11-C25
4	b	201	AI4	C06-C01-O12-C29
4	Z	201	AI4	C01-C02-O11-C25
4	G	201	AI4	C03-C02-O11-C25
4	U	201	AI4	C03-C02-O11-C25
4	Z	201	AI4	C26-C25-O11-C02
4	W	201	AI4	C25-C26-C27-N28
4	M	201	AI4	C26-C25-O11-C02
4	B	201	AI4	C31-C34-C35-C36
4	B	201	AI4	C32-C34-C35-C36
4	B	201	AI4	C32-C34-C35-C40
4	R	201	AI4	C31-C34-C35-C36
4	R	201	AI4	C32-C34-C35-C40
4	F	301	AI4	C31-C34-C35-C36
4	F	301	AI4	C32-C34-C35-C36
4	F	301	AI4	C32-C34-C35-C40
4	I	201	AI4	C31-C34-C35-C36
4	I	201	AI4	C31-C34-C35-C40
4	I	201	AI4	C32-C34-C35-C36
4	I	201	AI4	C32-C34-C35-C40
4	U	201	AI4	C31-C34-C35-C36
4	U	201	AI4	C32-C34-C35-C36
4	U	201	AI4	C32-C34-C35-C40
4	V	301	AI4	C32-C34-C35-C36
4	V	301	AI4	C32-C34-C35-C40
4	K	201	AI4	C31-C34-C35-C36
4	K	201	AI4	C32-C34-C35-C36
4	W	201	AI4	C32-C34-C35-C36
4	M	201	AI4	C31-C34-C35-C36
4	M	201	AI4	C31-C34-C35-C40
4	M	201	AI4	C32-C34-C35-C36

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Mol	Chain	Res	Type	Atoms
4	M	201	AI4	C32-C34-C35-C40
4	Y	201	AI4	C32-C34-C35-C36
4	N	301	AI4	C31-C34-C35-C36
4	N	301	AI4	C31-C34-C35-C40
4	N	301	AI4	C32-C34-C35-C40
4	Z	201	AI4	C31-C34-C35-C36
4	G	201	AI4	C32-C34-C35-C40
4	b	201	AI4	C31-C34-C35-C40
4	b	201	AI4	C32-C34-C35-C40
4	F	301	AI4	C03-C02-O11-C25
4	M	201	AI4	C01-C02-O11-C25
4	B	201	AI4	C31-C34-C35-C40
4	R	201	AI4	C31-C34-C35-C40
4	R	201	AI4	C32-C34-C35-C36
4	F	301	AI4	C31-C34-C35-C40
4	Y	201	AI4	C31-C34-C35-C36
4	N	301	AI4	C32-C34-C35-C36
4	G	201	AI4	C31-C34-C35-C40
4	b	201	AI4	C31-C34-C35-C36
4	b	201	AI4	C32-C34-C35-C36
4	U	201	AI4	C31-C34-C35-C40
4	V	301	AI4	C31-C34-C35-C40
4	K	201	AI4	C31-C34-C35-C40
4	W	201	AI4	C31-C34-C35-C36
4	W	201	AI4	C32-C34-C35-C40
4	Y	201	AI4	C31-C34-C35-C40
4	Y	201	AI4	C32-C34-C35-C40
4	Z	201	AI4	C31-C34-C35-C40
4	Z	201	AI4	C32-C34-C35-C36
4	Z	201	AI4	C32-C34-C35-C40
4	G	201	AI4	C31-C34-C35-C36
4	G	201	AI4	C32-C34-C35-C36
4	V	301	AI4	C31-C34-C35-C36
4	K	201	AI4	C32-C34-C35-C40
4	W	201	AI4	C31-C34-C35-C40
4	G	201	AI4	C26-C25-O11-C02
4	W	201	AI4	C03-C02-O11-C25
4	B	201	AI4	C01-C02-O11-C25
4	G	201	AI4	C01-C02-O11-C25
4	R	201	AI4	C03-C02-O11-C25
4	I	201	AI4	C03-C02-O11-C25
4	G	201	AI4	C26-C27-N28-C30

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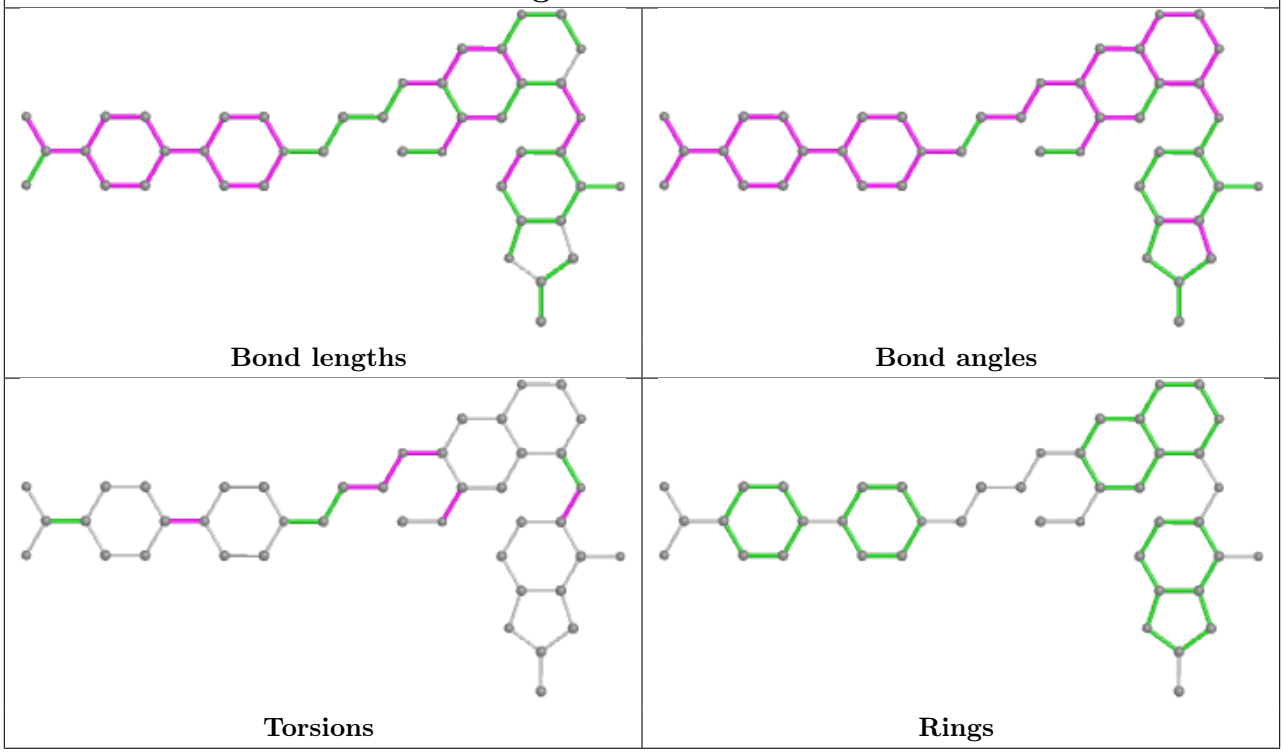
Mol	Chain	Res	Type	Atoms
4	R	201	AI4	C02-C01-O12-C29
4	V	301	AI4	C06-C01-O12-C29
4	U	201	AI4	C01-C02-O11-C25
4	B	201	AI4	C02-C01-O12-C29
4	N	301	AI4	C26-C25-O11-C02
4	V	301	AI4	C26-C25-O11-C02
4	B	201	AI4	C26-C25-O11-C02
4	W	201	AI4	C01-C02-O11-C25
4	R	201	AI4	C01-C02-O11-C25
4	I	201	AI4	C01-C02-O11-C25
4	M	201	AI4	C19-C14-O13-C10
4	R	201	AI4	C06-C01-O12-C29
4	W	201	AI4	O11-C25-C26-C27
4	K	201	AI4	C02-C01-O12-C29

There are no ring outliers.

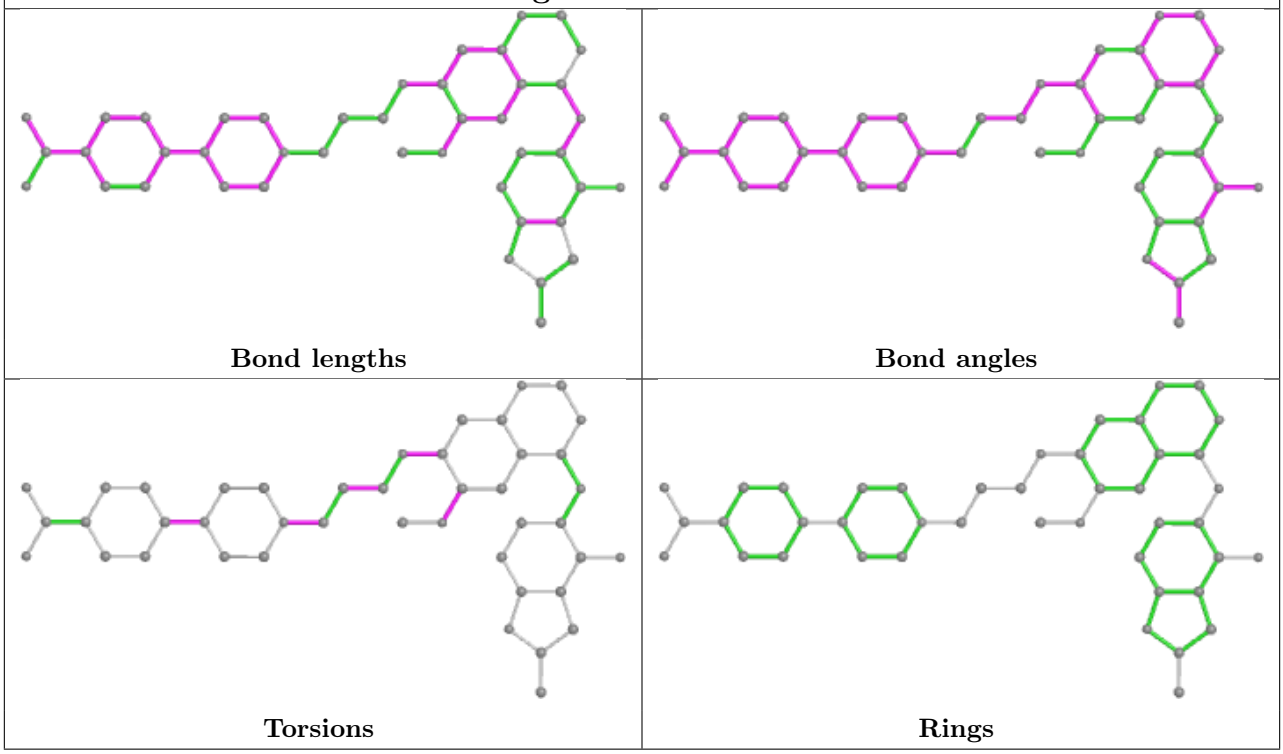
No monomer is involved in short contacts.

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

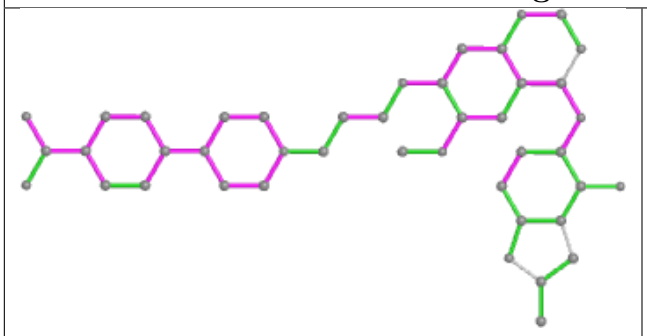
Ligand AI4 K 201



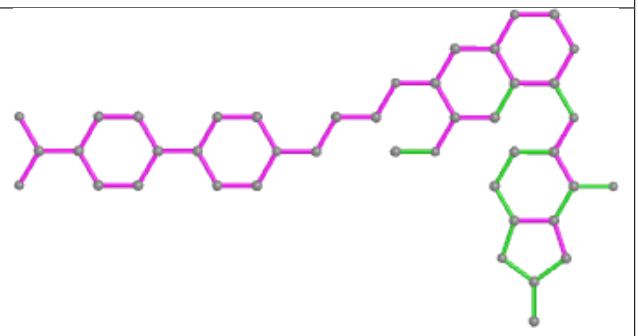
Ligand AI4 Y 201



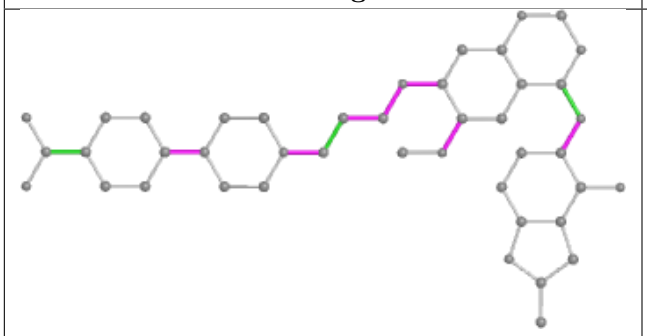
Ligand AI4 U 201



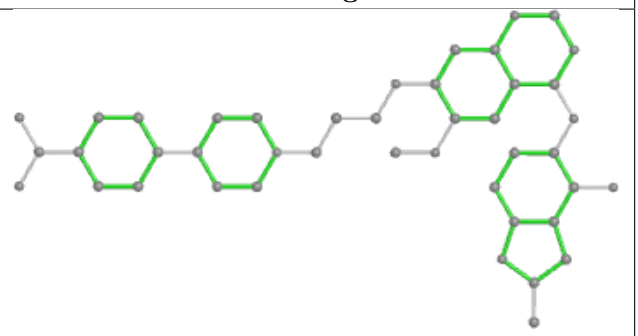
Bond lengths



Bond angles

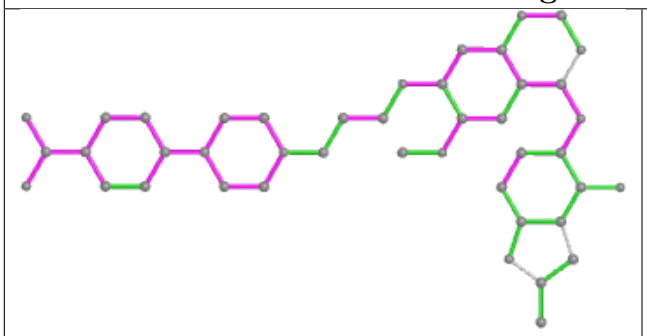


Torsions

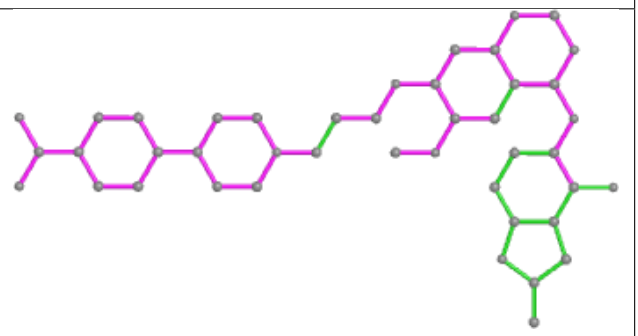


Rings

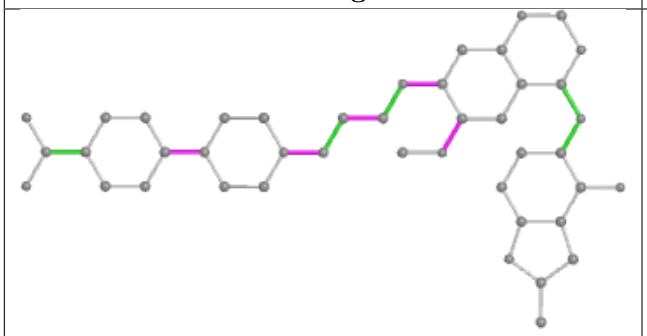
Ligand AI4 I 201



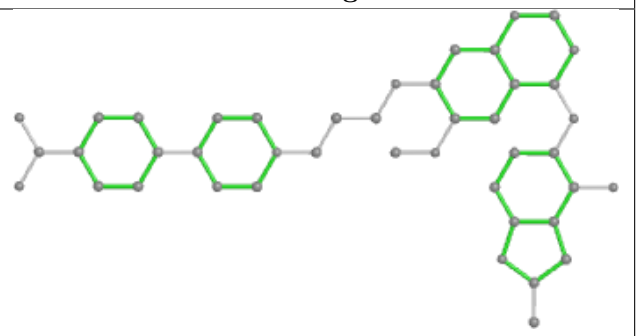
Bond lengths



Bond angles

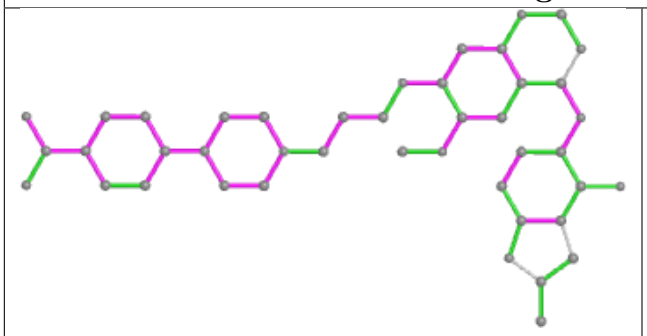


Torsions

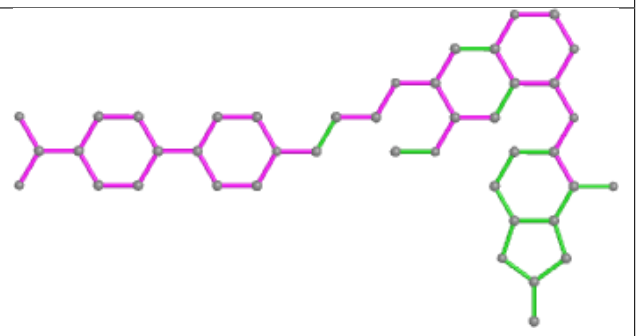


Rings

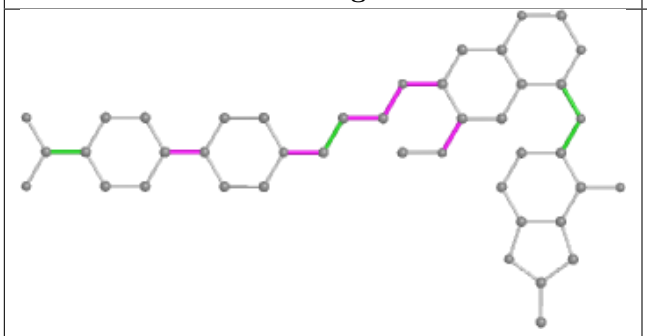
Ligand AI4 Z 201



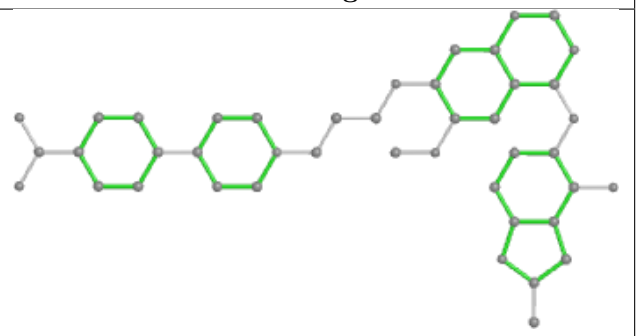
Bond lengths



Bond angles

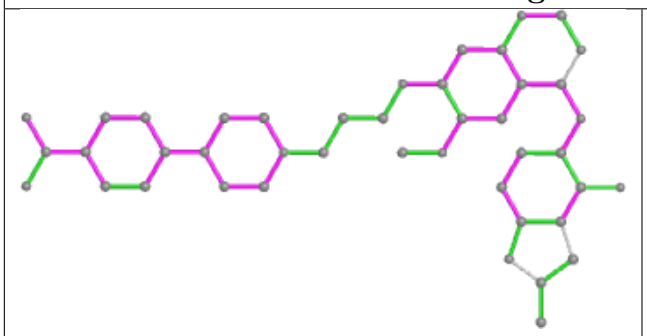


Torsions

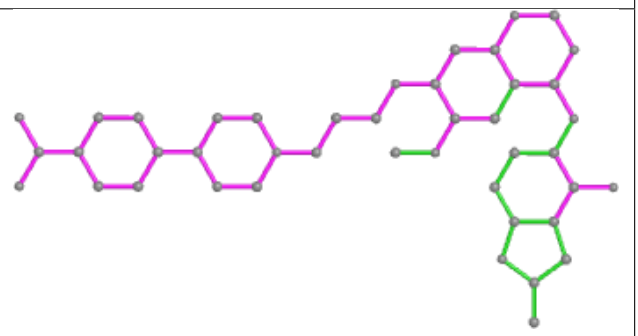


Rings

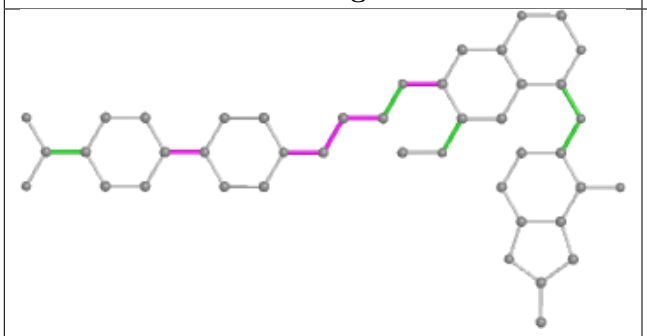
Ligand AI4 W 201



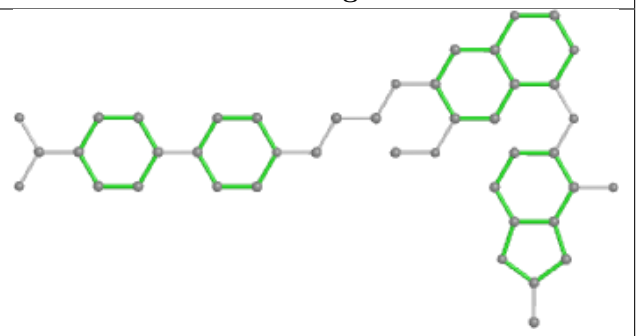
Bond lengths



Bond angles

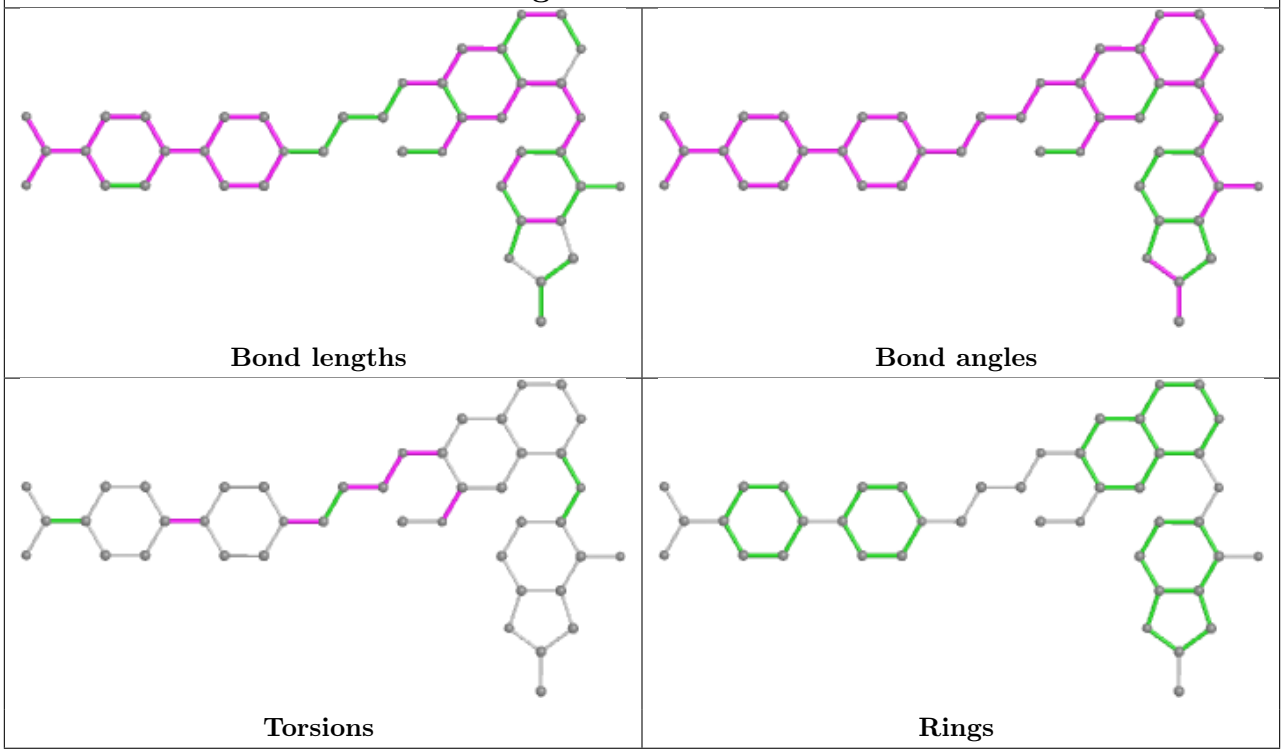


Torsions

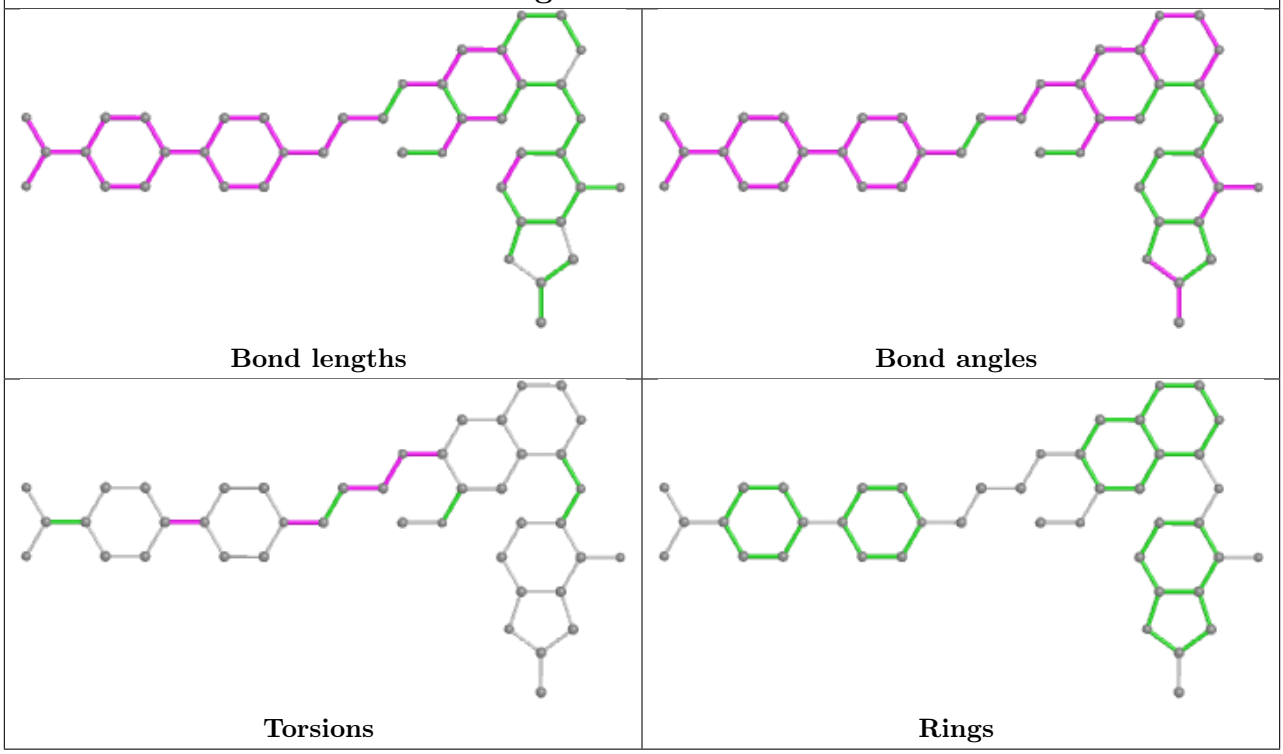


Rings

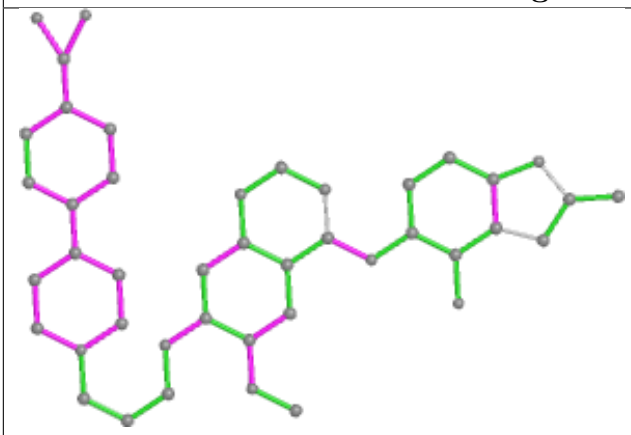
Ligand AI4 G 201



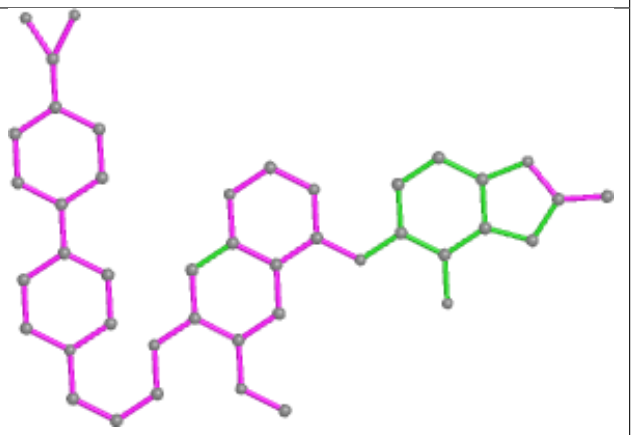
Ligand AI4 F 301



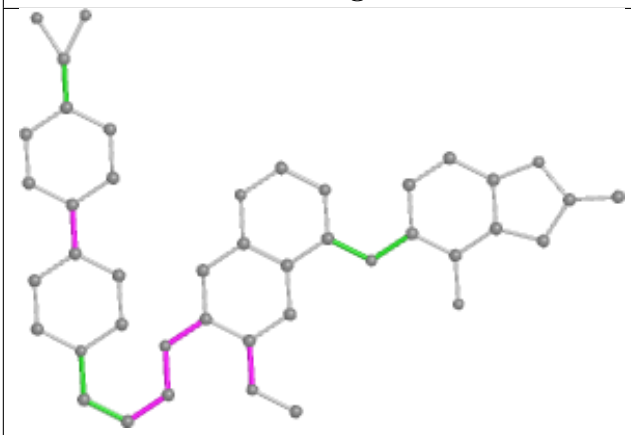
Ligand AI4 N 301



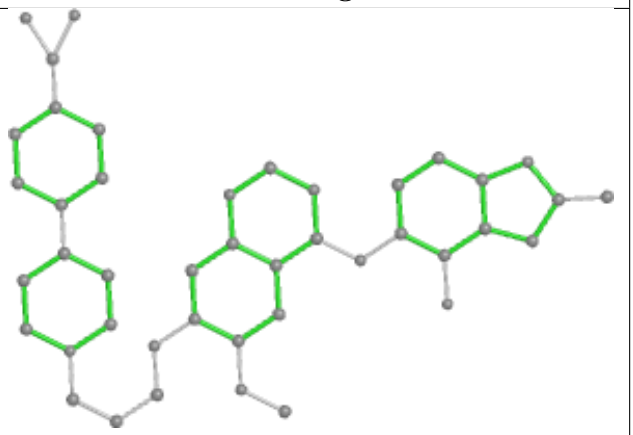
Bond lengths



Bond angles

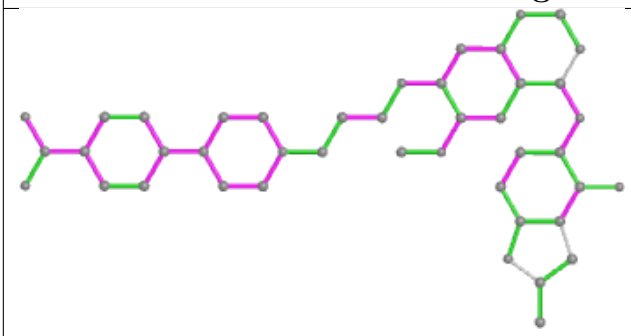


Torsions

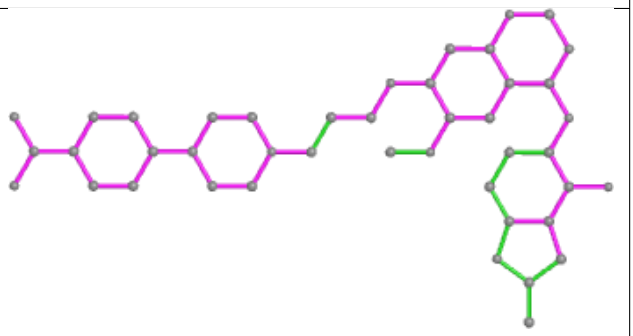


Rings

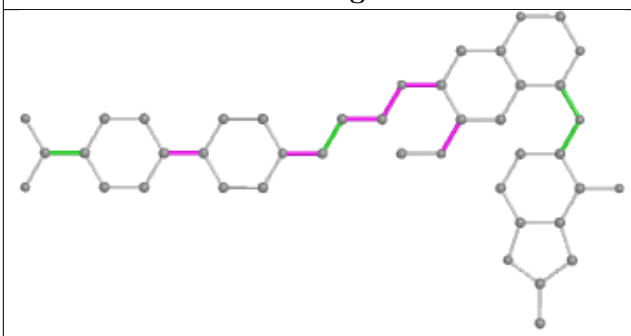
Ligand AI4 B 201



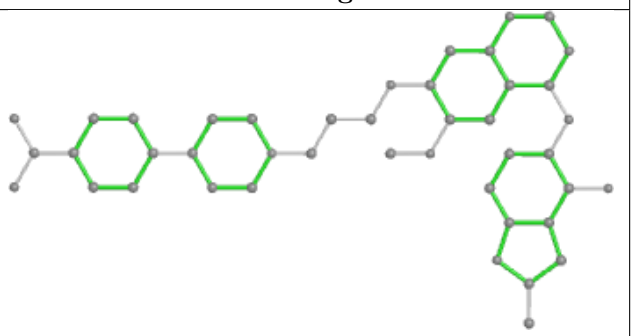
Bond lengths



Bond angles

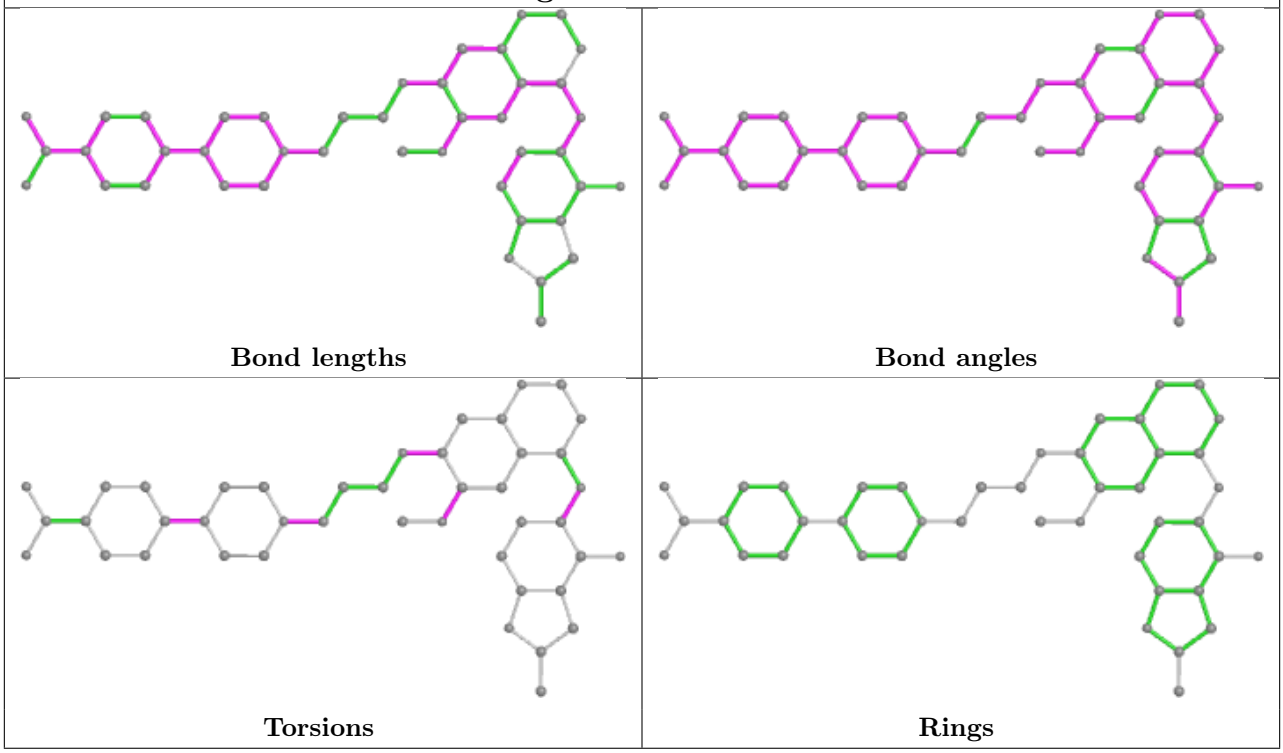


Torsions

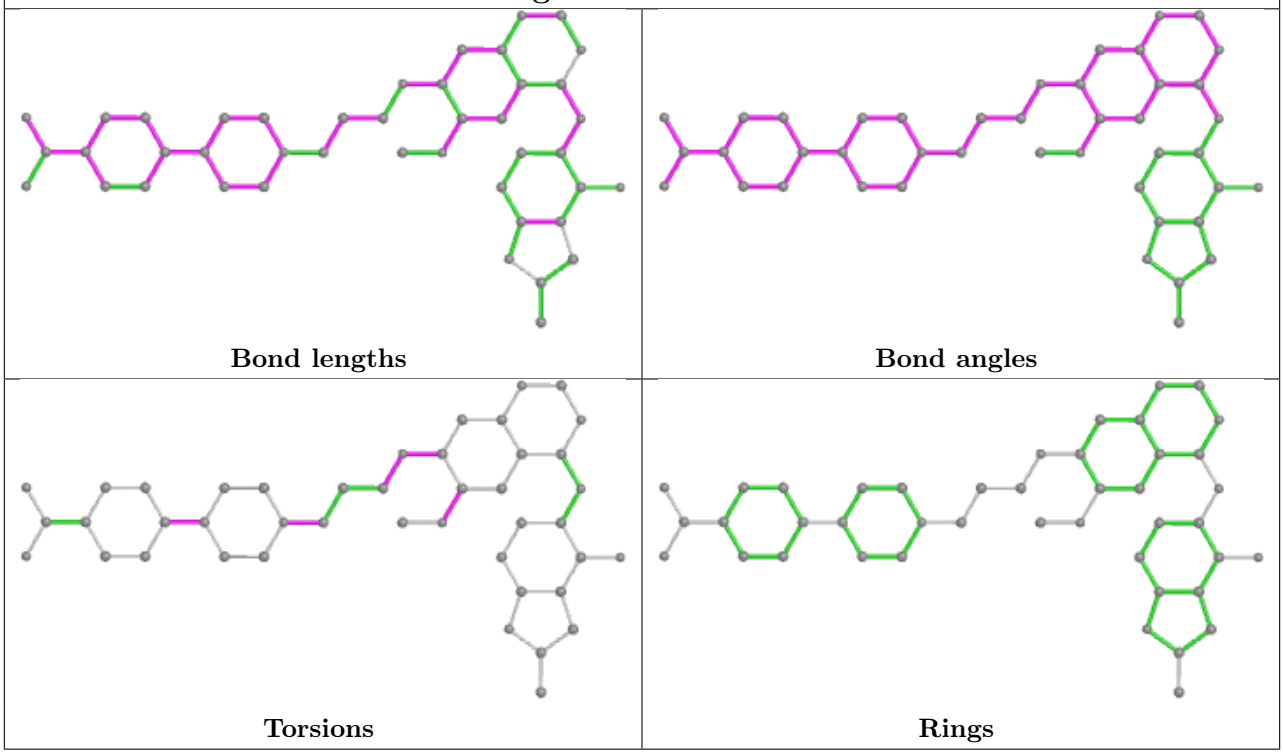


Rings

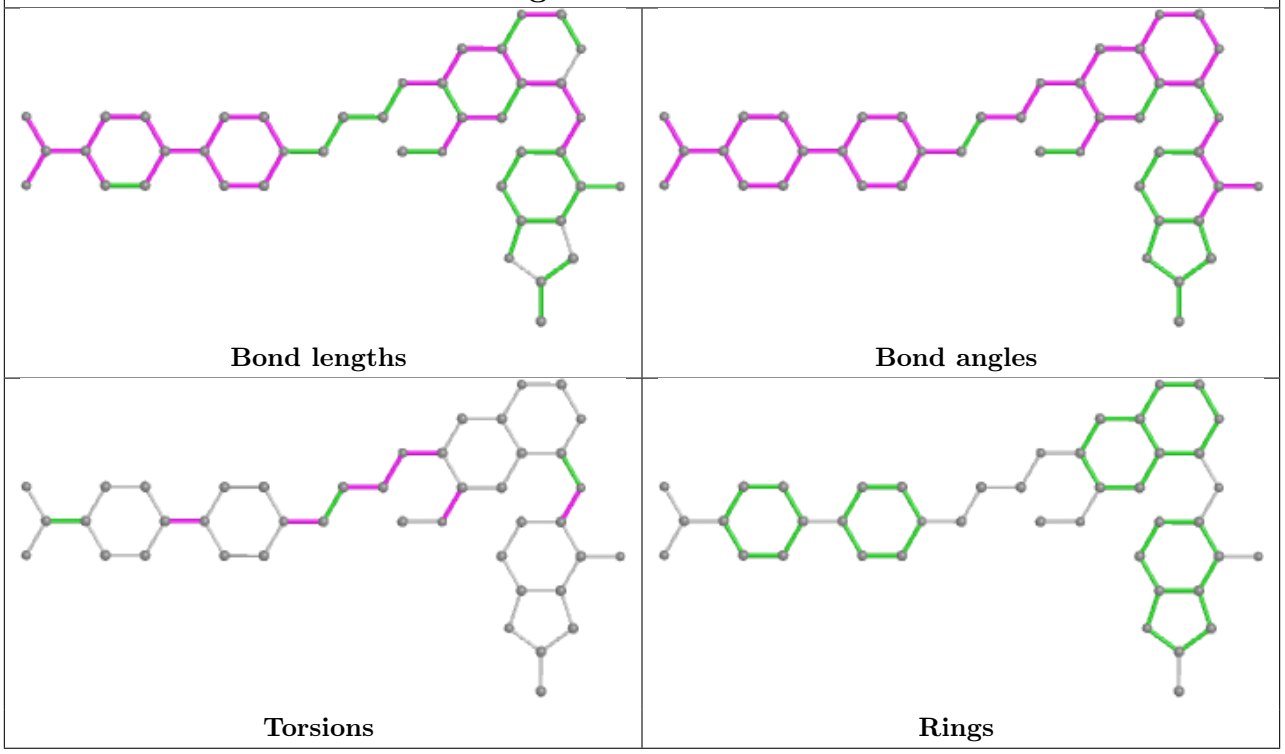
Ligand AI4 b 201



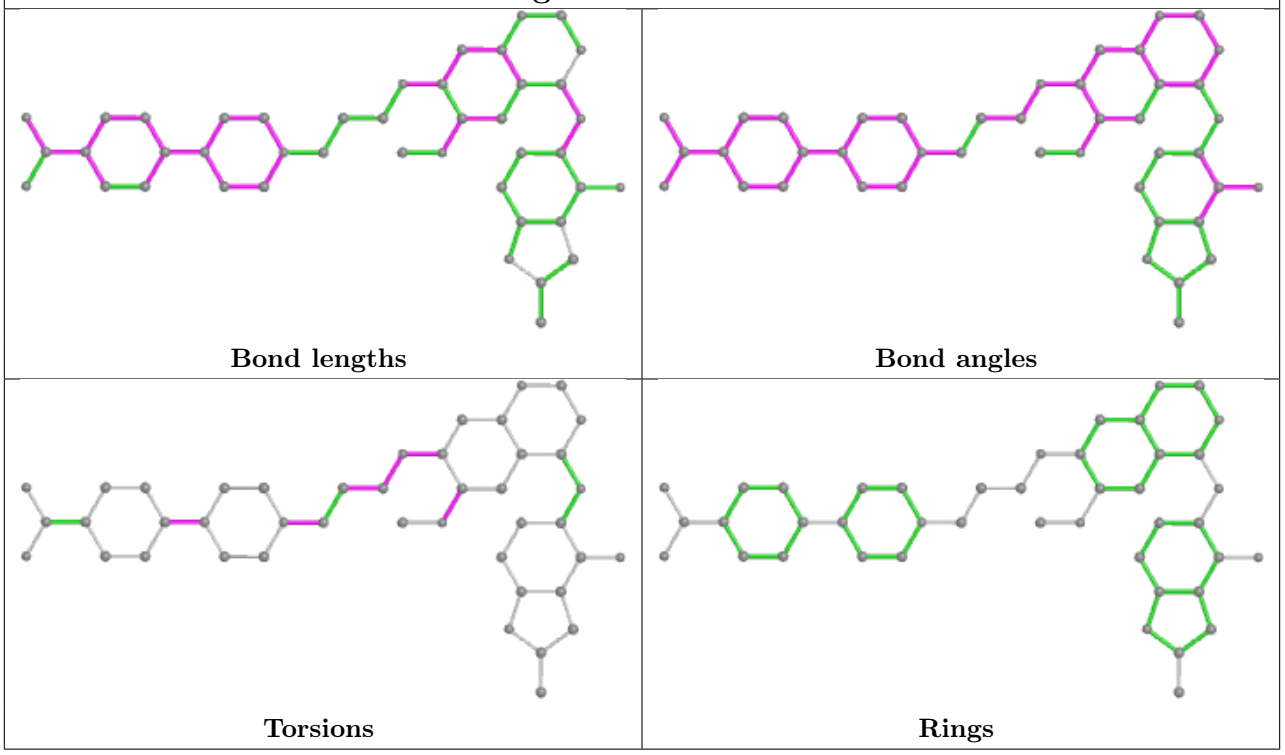
Ligand AI4 V 301



Ligand AI4 M 201



Ligand AI4 R 201



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
1	A	194/197 (98%)	0.58	5 (2%)	56	44	64, 87, 119, 144	0
1	C	196/197 (99%)	0.64	8 (4%)	37	27	57, 82, 115, 155	0
1	E	193/197 (97%)	0.59	6 (3%)	49	37	69, 90, 121, 137	0
1	F	196/197 (99%)	0.61	3 (1%)	73	64	65, 83, 113, 175	0
1	H	196/197 (99%)	0.61	8 (4%)	37	27	63, 81, 125, 174	0
1	J	195/197 (98%)	0.63	11 (5%)	24	15	75, 96, 125, 154	0
1	L	193/197 (97%)	0.68	9 (4%)	31	21	75, 97, 121, 142	0
1	O	194/197 (98%)	0.63	10 (5%)	27	17	79, 97, 134, 154	0
1	Q	196/197 (99%)	0.69	14 (7%)	16	11	77, 102, 133, 157	0
1	S	196/197 (99%)	0.75	17 (8%)	10	7	76, 105, 139, 173	0
1	T	196/197 (99%)	0.72	13 (6%)	18	12	77, 97, 132, 190	0
1	V	195/197 (98%)	0.74	19 (9%)	7	6	78, 100, 135, 166	0
1	X	193/197 (97%)	0.75	12 (6%)	20	13	79, 102, 130, 147	0
1	a	193/197 (97%)	0.66	12 (6%)	20	13	74, 97, 126, 142	0
2	B	177/177 (100%)	0.62	8 (4%)	33	23	65, 87, 123, 149	0
2	D	175/177 (98%)	0.55	4 (2%)	60	50	64, 83, 116, 139	0
2	G	176/177 (99%)	0.58	4 (2%)	60	50	66, 87, 119, 145	0
2	I	175/177 (98%)	0.61	11 (6%)	20	13	66, 81, 111, 143	0
2	K	175/177 (98%)	0.70	17 (9%)	7	6	71, 93, 122, 148	0
2	M	176/177 (99%)	0.59	3 (1%)	70	60	64, 82, 109, 132	0
2	N	176/177 (99%)	0.64	7 (3%)	38	28	67, 90, 125, 156	0
2	P	177/177 (100%)	0.58	6 (3%)	45	33	68, 89, 117, 142	0
2	R	175/177 (98%)	0.66	10 (5%)	23	15	71, 90, 120, 148	0
2	U	175/177 (98%)	0.59	6 (3%)	45	33	72, 87, 112, 132	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
2	W	175/177 (98%)	0.66	8 (4%) 32 22	73, 92, 124, 142	0
2	Y	176/177 (99%)	0.60	4 (2%) 60 50	69, 88, 115, 146	0
2	Z	176/177 (99%)	0.68	8 (4%) 33 23	72, 95, 125, 157	0
2	b	176/177 (99%)	0.60	6 (3%) 45 33	73, 91, 117, 145	0
3	0	2/3 (66%)	1.68	1 (50%) 0 0	123, 123, 123, 128	0
3	1	2/3 (66%)	1.34	0 100 100	103, 103, 103, 111	0
3	2	2/3 (66%)	0.82	0 100 100	125, 125, 125, 125	0
3	3	2/3 (66%)	1.51	0 100 100	104, 104, 104, 106	0
3	4	2/3 (66%)	0.48	0 100 100	126, 126, 126, 132	0
3	c	2/3 (66%)	1.70	0 100 100	104, 104, 104, 106	0
3	e	2/3 (66%)	1.65	1 (50%) 0 0	115, 115, 115, 125	0
3	f	2/3 (66%)	1.43	0 100 100	97, 97, 97, 97	0
3	g	2/3 (66%)	1.26	0 100 100	123, 123, 123, 133	0
3	h	2/3 (66%)	2.07	1 (50%) 0 0	92, 92, 92, 103	0
3	i	2/3 (66%)	2.65	2 (100%) 0 0	113, 113, 113, 119	0
3	j	2/3 (66%)	2.74	1 (50%) 0 0	90, 90, 90, 100	0
3	k	2/3 (66%)	1.16	0 100 100	115, 115, 115, 126	0
3	l	2/3 (66%)	2.81	1 (50%) 0 0	94, 94, 94, 110	0
3	m	2/3 (66%)	0.81	0 100 100	116, 116, 116, 120	0
3	n	2/3 (66%)	1.79	1 (50%) 0 0	100, 100, 100, 104	0
3	o	2/3 (66%)	2.66	1 (50%) 0 0	120, 120, 120, 121	0
3	p	2/3 (66%)	3.17	1 (50%) 0 0	94, 94, 94, 105	0
3	q	2/3 (66%)	0.66	0 100 100	127, 127, 127, 130	0
3	r	2/3 (66%)	1.55	1 (50%) 0 0	97, 97, 97, 100	0
3	s	2/3 (66%)	2.44	1 (50%) 0 0	119, 119, 119, 126	0
3	t	2/3 (66%)	2.11	1 (50%) 0 0	99, 99, 99, 107	0
3	u	2/3 (66%)	1.36	0 100 100	119, 119, 119, 128	0
3	v	2/3 (66%)	2.39	1 (50%) 0 0	96, 96, 96, 105	0
3	w	2/3 (66%)	1.39	1 (50%) 0 0	121, 121, 121, 126	0
3	x	2/3 (66%)	1.71	0 100 100	103, 103, 103, 107	0
3	y	2/3 (66%)	0.71	0 100 100	128, 128, 128, 137	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
3	z	2/3 (66%)	1.50	1 (50%)	0	0	99, 99, 99, 101	0
All	All	5242/5320 (98%)	0.65	265 (5%)	28	18	57, 92, 125, 190	0

All (265) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	T	210	SER	8.8
1	S	210	SER	6.2
1	T	209	LEU	6.1
3	p	3	LEU	4.9
3	s	3	LEU	4.9
1	V	127	LEU	4.8
3	l	3	LEU	4.8
1	H	48	VAL	4.4
1	O	208	LYS	4.3
1	V	48	VAL	4.2
2	K	91	TYR	4.2
1	T	208	LYS	4.2
3	j	3	LEU	4.1
1	V	208	LYS	4.1
3	o	3	LEU	4.1
1	J	21	GLU	3.9
1	L	25	PHE	3.7
1	X	48	VAL	3.7
2	R	54	GLU	3.7
1	Q	25	PHE	3.6
3	v	3	LEU	3.6
1	S	209	LEU	3.6
3	t	3	LEU	3.6
1	X	20	ILE	3.5
1	T	21	GLU	3.5
1	Q	210	SER	3.5
2	B	103	LEU	3.5
1	X	100	ILE	3.5
1	H	208	LYS	3.4
1	V	21	GLU	3.4
1	V	164	MET	3.4
1	C	26	GLY	3.4
2	B	185	PHE	3.4
1	J	208	LYS	3.4
2	P	102	PHE	3.3
1	X	15	ILE	3.3

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Mol	Chain	Res	Type	RSRZ
2	B	104	LEU	3.3
1	C	43	PHE	3.3
1	S	21	GLU	3.2
2	I	102	PHE	3.2
1	L	21	GLU	3.2
1	O	60	LEU	3.2
1	X	191	ALA	3.1
1	Q	48	VAL	3.1
3	i	3	LEU	3.1
1	A	21	GLU	3.1
2	R	96	ALA	3.1
1	C	48	VAL	3.1
1	L	100	ILE	3.0
3	e	3	LEU	3.0
1	O	15	ILE	3.0
1	J	197	TYR	3.0
3	h	3	LEU	3.0
1	S	24	SER	3.0
2	R	20	VAL	3.0
1	O	48	VAL	3.0
2	K	77	ILE	2.9
1	a	168	LEU	2.9
2	D	54	GLU	2.9
1	a	116	LEU	2.9
1	O	21	GLU	2.9
2	I	62	LEU	2.9
2	b	174	TRP	2.9
2	Z	150	MET	2.9
2	K	172	ASP	2.9
2	b	150	MET	2.9
1	S	48	VAL	2.8
1	V	20	ILE	2.8
1	S	43	PHE	2.8
1	V	14	TYR	2.8
2	W	93	MET	2.8
1	J	168	LEU	2.8
1	a	204	LEU	2.8
3	n	3	LEU	2.8
1	L	15	ILE	2.7
1	T	100	ILE	2.7
1	X	35	LYS	2.7
1	A	179	ILE	2.7

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Mol	Chain	Res	Type	RSRZ
1	a	43	PHE	2.7
1	X	199	ILE	2.7
2	K	20	VAL	2.7
1	S	176	ALA	2.7
1	O	20	ILE	2.7
2	R	172	ASP	2.7
1	X	179	ILE	2.7
2	G	20	VAL	2.7
1	L	189	LEU	2.6
2	R	101	GLU	2.6
1	S	208	LYS	2.6
1	L	197	TYR	2.6
1	J	24	SER	2.6
2	Y	135	ASP	2.6
2	K	63	TYR	2.6
1	Q	115	LEU	2.6
1	J	76	ILE	2.6
2	N	92	ALA	2.6
1	a	172	THR	2.6
1	H	21	GLU	2.6
1	T	48	VAL	2.6
2	I	154	ASN	2.6
1	V	28	LYS	2.6
1	a	206	TYR	2.6
1	H	210	SER	2.6
2	U	154	ASN	2.6
2	R	177	ALA	2.5
1	V	25	PHE	2.5
3	0	3	LEU	2.5
2	G	104	LEU	2.5
3	z	3	LEU	2.5
1	a	188	ILE	2.5
1	Q	74	MET	2.5
1	a	105	LEU	2.5
1	A	168	LEU	2.5
1	X	168	LEU	2.5
1	O	168	LEU	2.5
1	S	36	LEU	2.4
2	K	186	VAL	2.4
1	Q	26	GLY	2.4
1	V	63	LEU	2.4
1	V	103	VAL	2.4

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Mol	Chain	Res	Type	RSRZ
1	L	48	VAL	2.4
3	w	3	LEU	2.4
1	E	206	TYR	2.4
2	I	96	ALA	2.4
2	Z	175	PHE	2.4
2	P	103	LEU	2.4
2	W	152	ARG	2.4
2	U	185	PHE	2.4
2	D	29	ILE	2.4
1	S	76	ILE	2.4
1	J	199	ILE	2.4
2	P	149	GLU	2.4
2	U	99	MET	2.4
2	b	104	LEU	2.4
2	M	31	PHE	2.4
1	C	21	GLU	2.4
2	K	103	LEU	2.4
2	K	104	LEU	2.4
1	T	43	PHE	2.4
2	N	54	GLU	2.4
1	C	179	ILE	2.4
1	T	113	ALA	2.4
2	D	150	MET	2.4
2	R	114	ALA	2.4
1	Q	44	LEU	2.4
1	a	103	VAL	2.3
1	T	160	MET	2.3
1	V	60	LEU	2.3
1	F	168	LEU	2.3
2	M	173	ARG	2.3
1	J	127	LEU	2.3
1	H	43	PHE	2.3
1	T	92	THR	2.3
2	b	121	LEU	2.3
2	W	17	THR	2.3
2	P	62	LEU	2.3
2	G	36	VAL	2.3
1	S	168	LEU	2.3
2	Y	102	PHE	2.3
1	Q	21	GLU	2.3
2	B	154	ASN	2.3
1	H	86	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
2	I	32	LEU	2.3
2	P	31	PHE	2.3
2	K	185	PHE	2.3
2	W	102	PHE	2.3
2	W	175	PHE	2.3
1	V	75	TYR	2.3
2	Z	31	PHE	2.3
1	A	64	GLU	2.3
1	H	127	LEU	2.3
2	Y	44	LEU	2.3
1	Q	60	LEU	2.2
2	Z	130	THR	2.2
2	K	165	ILE	2.2
1	T	168	LEU	2.2
3	r	3	LEU	2.2
1	Q	23	SER	2.2
1	V	97	ARG	2.2
2	R	170	ASP	2.2
2	N	24	LEU	2.2
2	b	99	MET	2.2
1	L	26	GLY	2.2
1	E	21	GLU	2.2
3	i	2	LEU	2.2
1	V	179	ILE	2.2
1	J	191	ALA	2.2
2	R	55	ASP	2.2
2	K	87	ASP	2.2
2	Y	175	PHE	2.2
1	C	210	SER	2.2
1	V	150	LEU	2.2
2	I	185	PHE	2.2
2	N	174	TRP	2.2
2	Z	120	ILE	2.2
2	I	50	LEU	2.2
1	C	165	GLU	2.2
1	S	132	VAL	2.2
1	Q	168	LEU	2.1
1	E	116	LEU	2.1
2	U	103	LEU	2.1
1	X	43	PHE	2.1
1	F	160	MET	2.1
2	I	99	MET	2.1

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Mol	Chain	Res	Type	RSRZ
1	S	44	LEU	2.1
1	a	89	ILE	2.1
1	Q	83	PHE	2.1
1	V	123	LYS	2.1
1	X	157	ILE	2.1
2	N	122	MET	2.1
2	B	31	PHE	2.1
2	U	164	ARG	2.1
2	N	102	PHE	2.1
1	S	104	CYS	2.1
2	K	143	PHE	2.1
2	M	102	PHE	2.1
2	Z	147	LYS	2.1
1	E	133	LEU	2.1
1	F	210	SER	2.1
2	I	114	ALA	2.1
1	A	72	ILE	2.1
1	J	74	MET	2.1
2	R	150	MET	2.1
1	S	100	ILE	2.1
2	D	20	VAL	2.1
1	V	43	PHE	2.1
1	E	110	SER	2.1
1	O	76	ILE	2.1
1	Q	134	ILE	2.1
1	a	48	VAL	2.1
2	B	120	ILE	2.1
2	W	174	TRP	2.1
1	C	93	MET	2.1
1	Q	160	MET	2.1
1	O	114	VAL	2.1
2	B	172	ASP	2.1
2	K	62	LEU	2.1
2	N	143	PHE	2.1
2	Z	80	THR	2.1
1	S	64	GLU	2.1
2	K	177	ALA	2.1
2	W	32	LEU	2.1
2	G	95	MET	2.1
1	T	197	TYR	2.1
2	K	78	TYR	2.1
1	X	103	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
1	T	188	ILE	2.1
1	L	115	LEU	2.1
2	P	185	PHE	2.0
2	I	165	ILE	2.0
2	K	48	ILE	2.0
2	Z	104	LEU	2.0
1	O	18	SER	2.0
2	U	22	GLU	2.0
1	S	143	ILE	2.0
1	a	157	ILE	2.0
2	K	50	LEU	2.0
2	I	22	GLU	2.0
1	E	35	LYS	2.0
1	V	165	GLU	2.0
1	H	113	ALA	2.0
1	J	66	LEU	2.0
2	W	80	THR	2.0
2	b	36	VAL	2.0
2	B	81	MET	2.0

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

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

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	AI4	W	201	43/43	0.64	0.56	111,157,195,219	0
4	AI4	U	201	43/43	0.70	0.55	103,148,191,204	0
4	AI4	K	201	43/43	0.77	0.49	114,146,188,204	0
4	AI4	B	201	43/43	0.77	0.52	105,138,204,223	0

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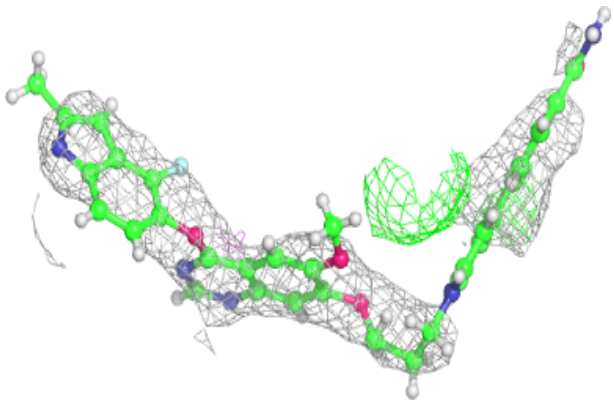
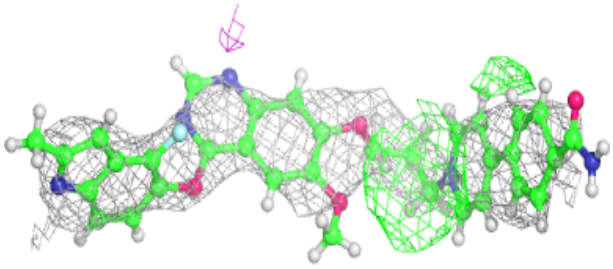
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	AI4	b	201	43/43	0.77	0.47	107,140,184,201	0
4	AI4	I	201	43/43	0.78	0.44	104,137,196,215	0
4	AI4	F	301	43/43	0.79	0.47	96,133,190,200	0
4	AI4	G	201	43/43	0.80	0.58	100,137,201,215	0
4	AI4	V	301	43/43	0.81	0.45	101,135,192,215	0
4	AI4	Z	201	43/43	0.84	0.51	99,149,213,226	0
4	AI4	M	201	43/43	0.84	0.42	99,135,199,215	0
4	AI4	Y	201	43/43	0.84	0.58	102,136,195,209	0
4	AI4	R	201	43/43	0.85	0.48	94,136,203,221	0
4	AI4	N	301	43/43	0.86	0.42	90,134,190,200	0

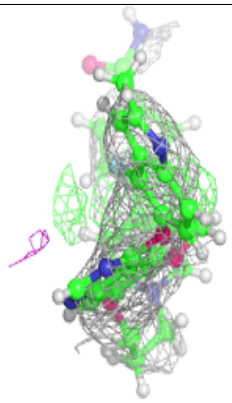
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around AI4 W 201:

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

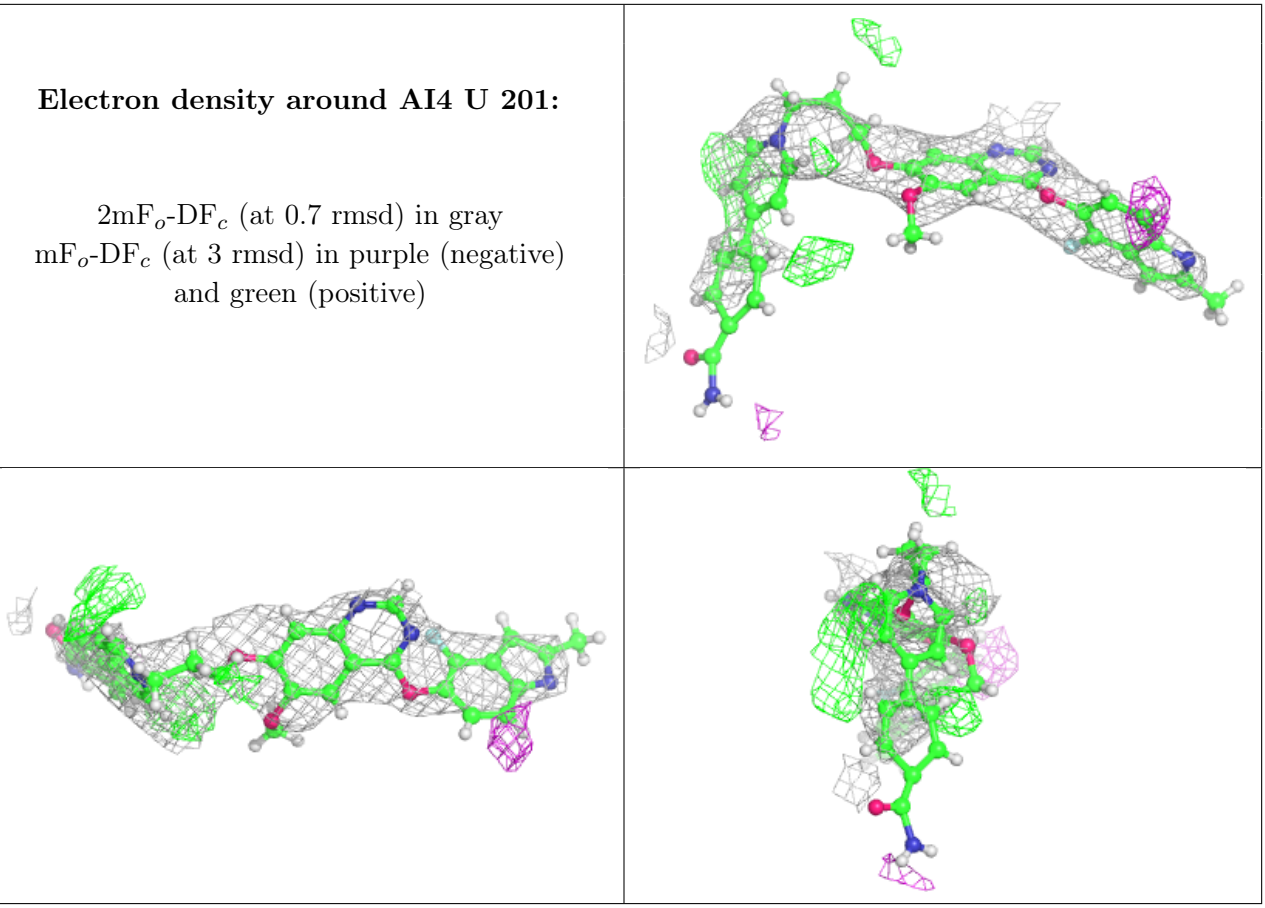






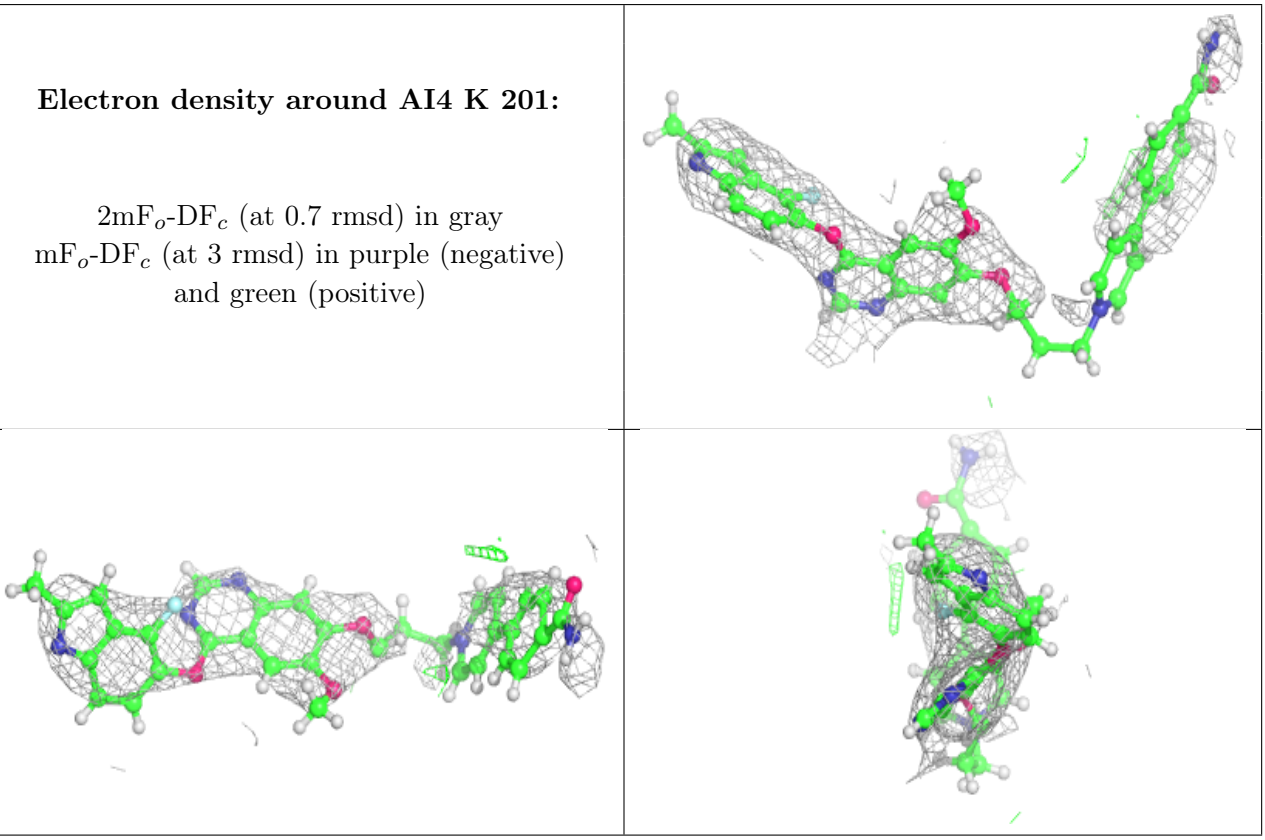
Electron density around AI4 U 201:

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



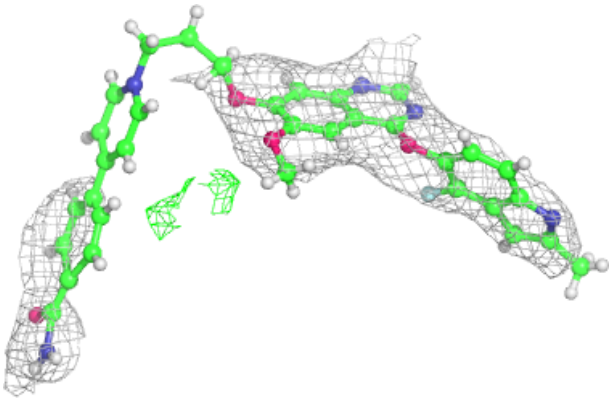
Electron density around AI4 K 201:

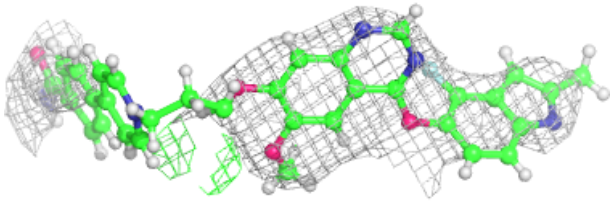
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

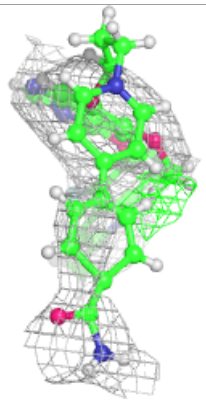


Electron density around AI4 B 201:

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

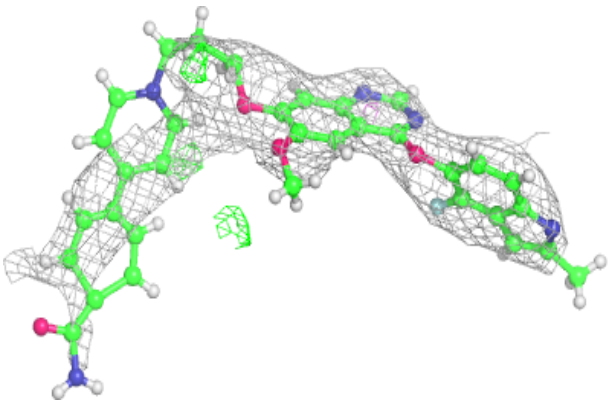


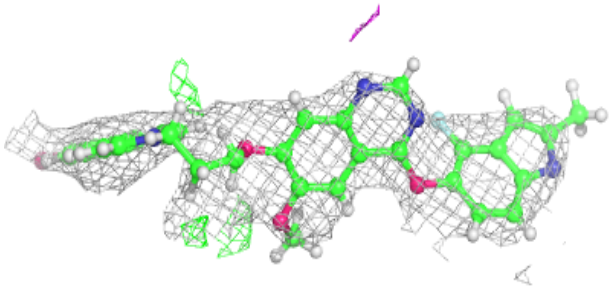


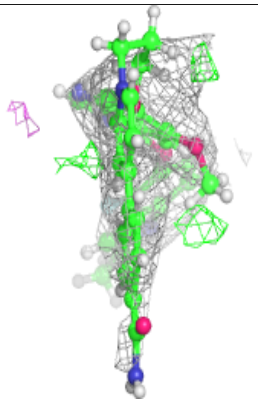


Electron density around AI4 b 201:

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

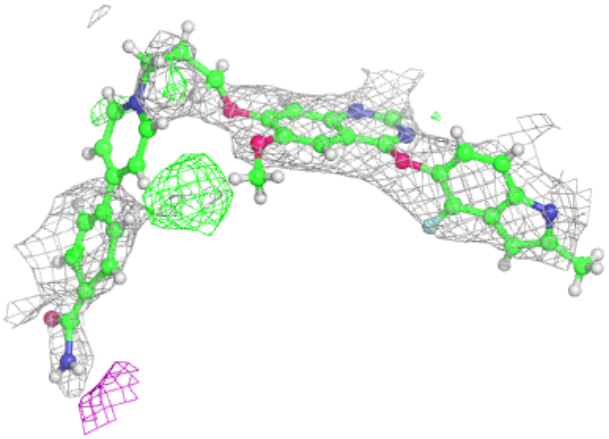


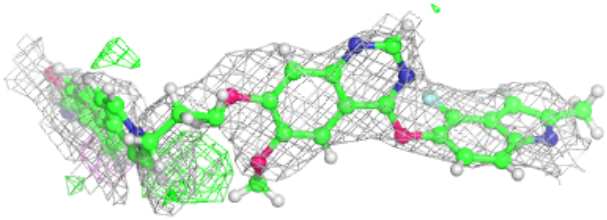


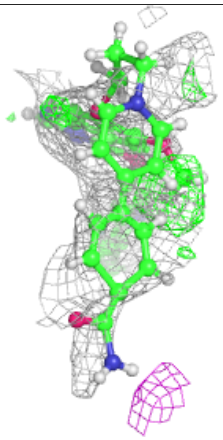


Electron density around AI4 I 201:

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

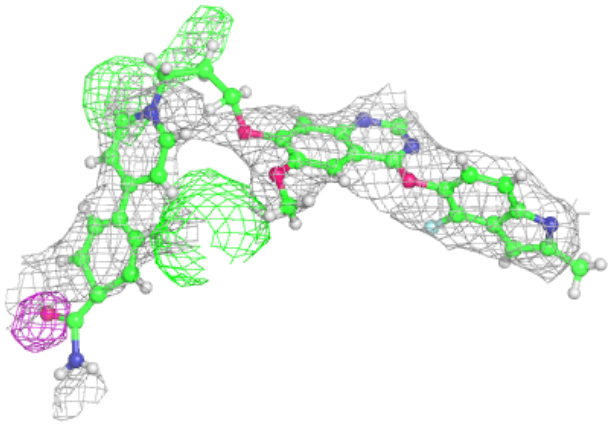


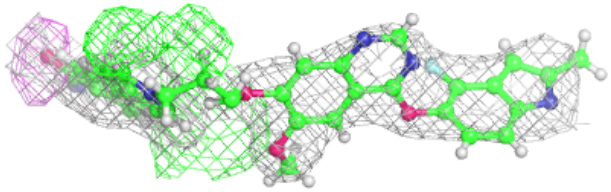


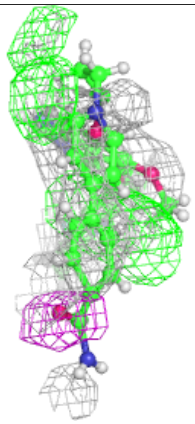


Electron density around AI4 F 301:

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

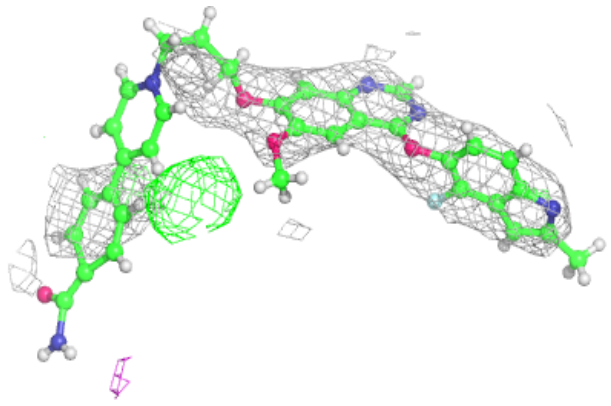


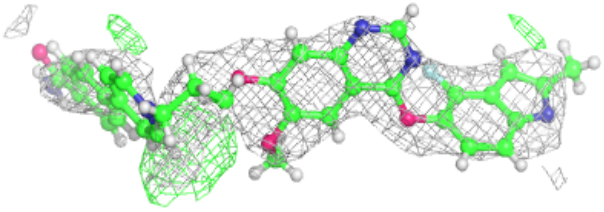


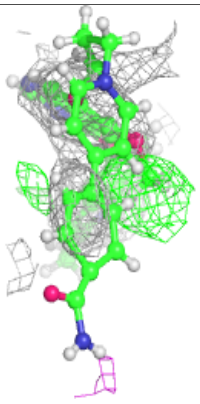


Electron density around AI4 G 201:

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

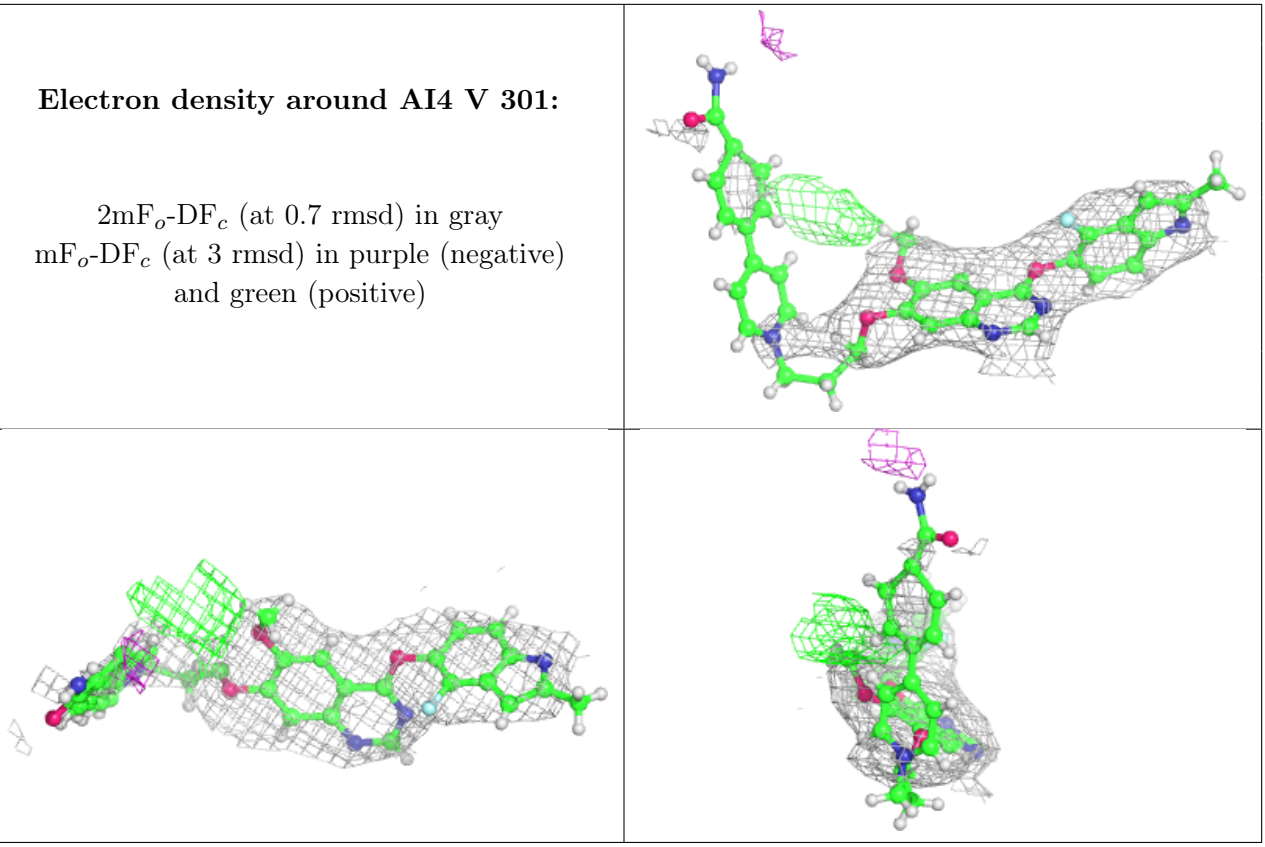






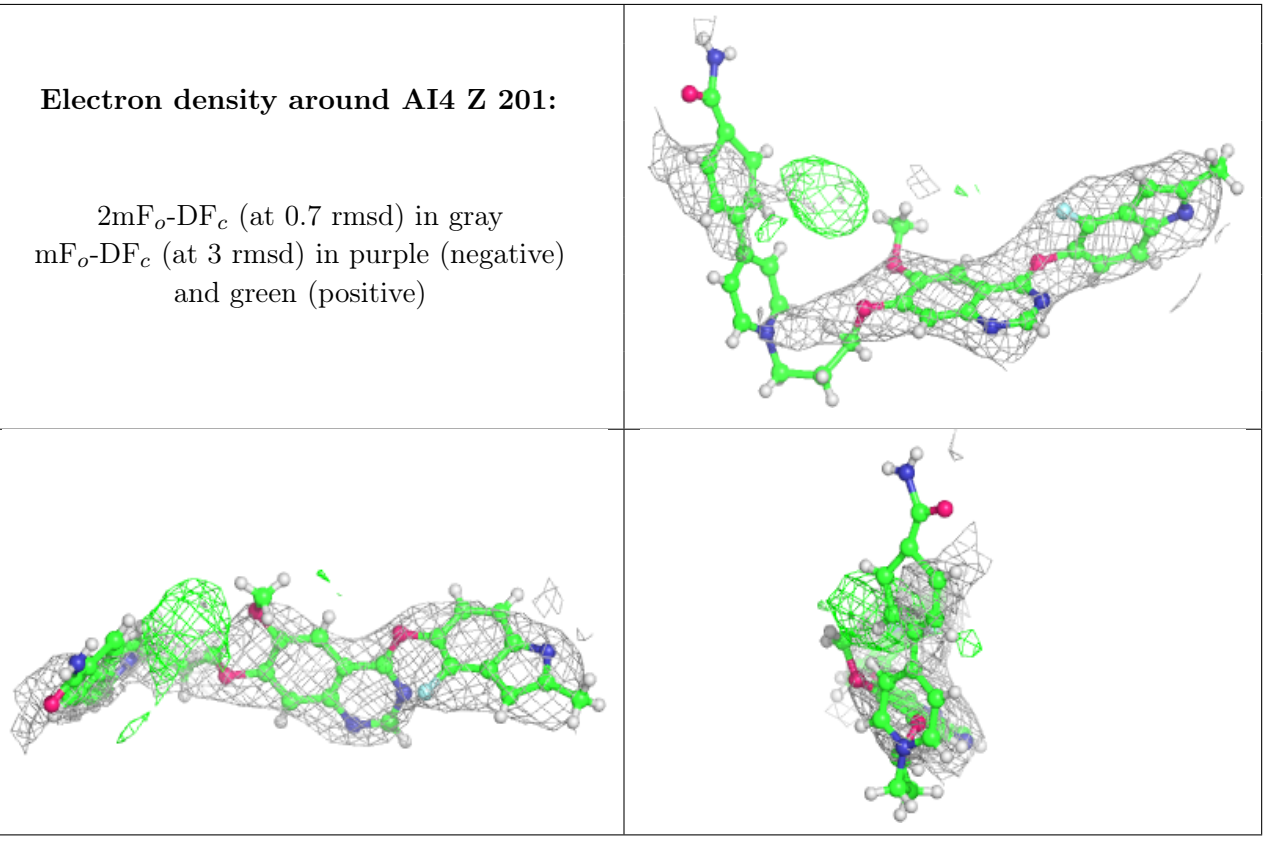
Electron density around AI4 V 301:

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



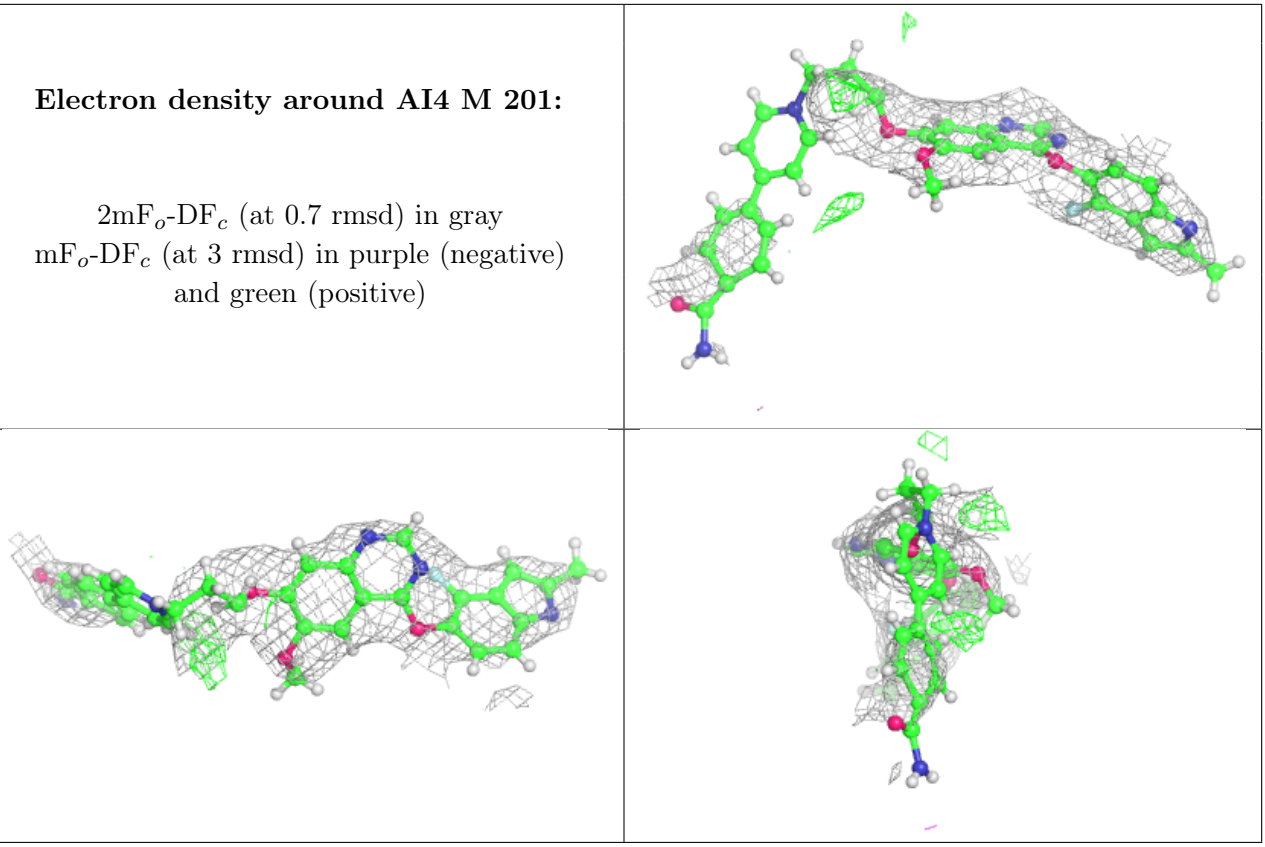
Electron density around AI4 Z 201:

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



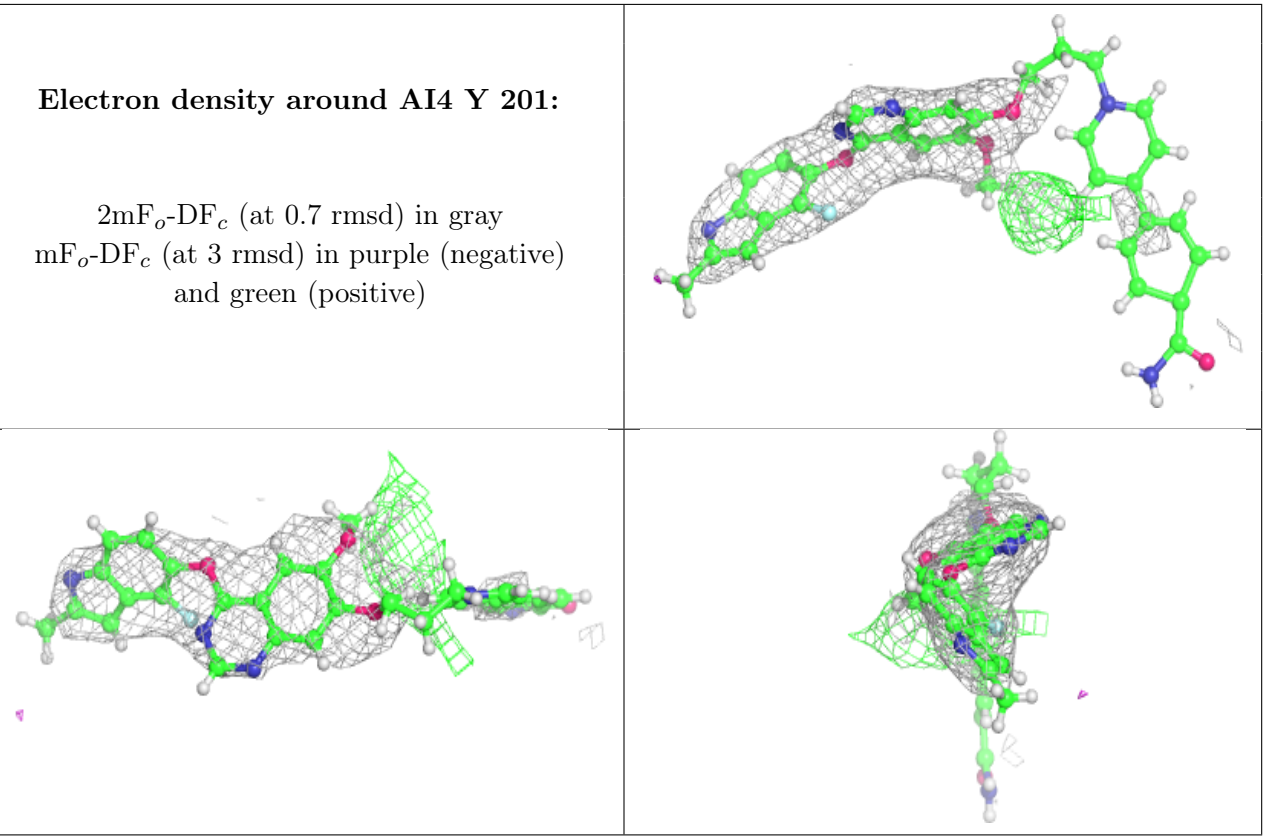
Electron density around AI4 M 201:

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



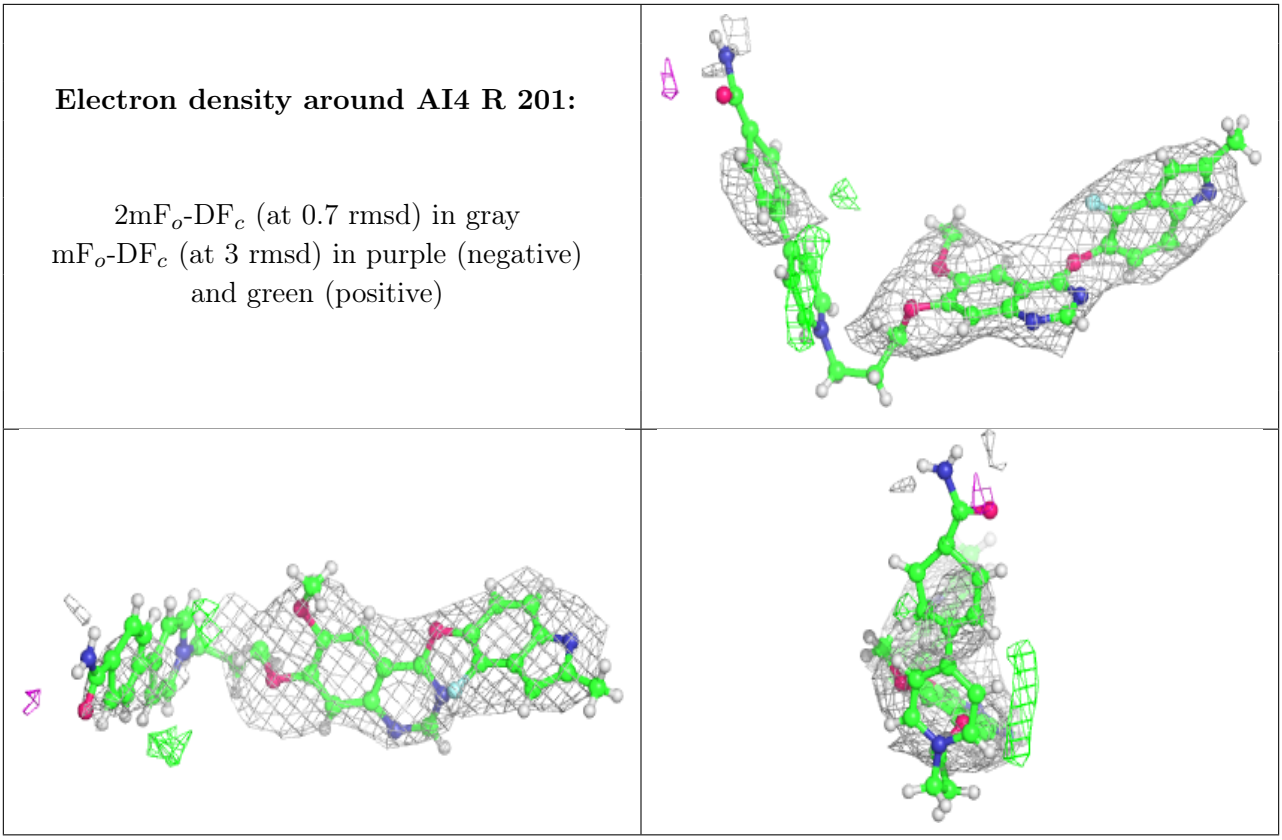
Electron density around AI4 Y 201:

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



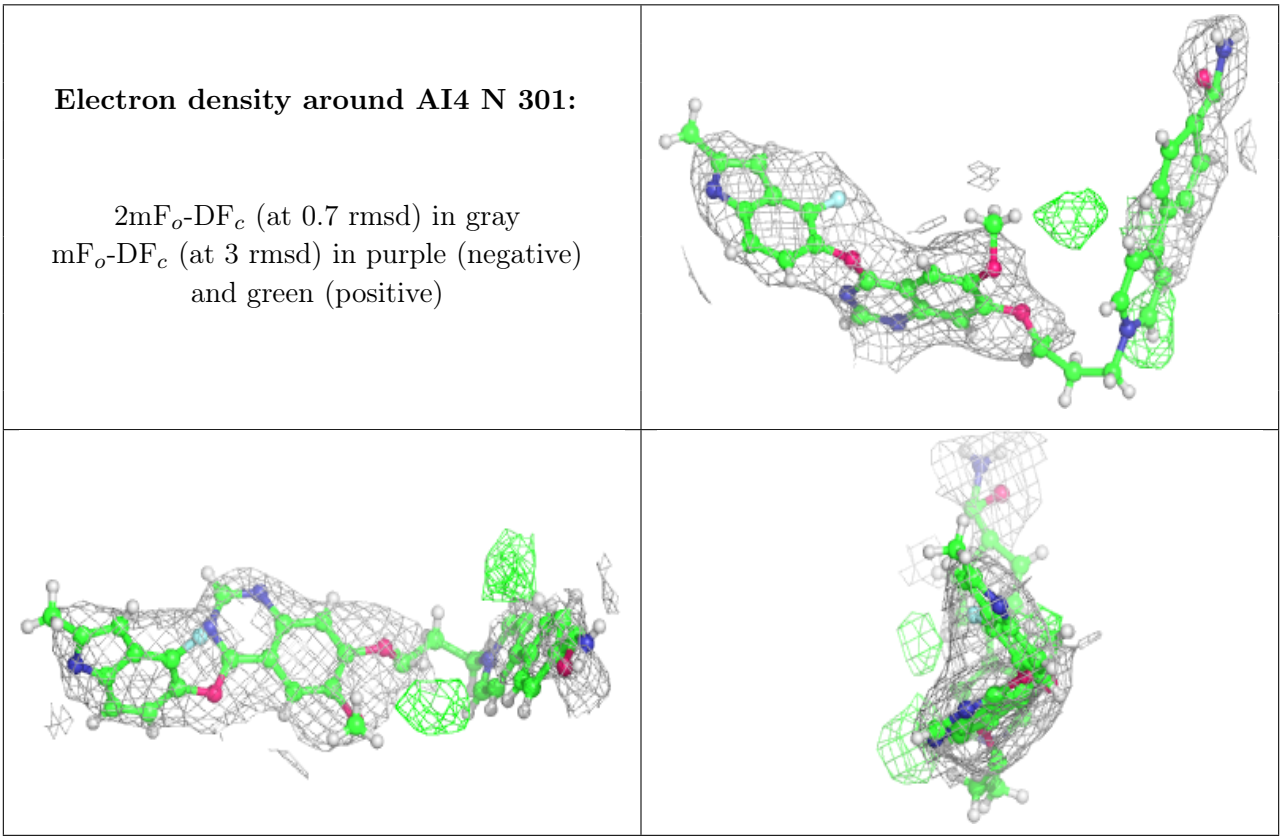
Electron density around AI4 R 201:

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



Electron density around AI4 N 301:

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



6.5 Other polymers (i)

There are no such residues in this entry.