



Full wwPDB X-ray Structure Validation Report ⓘ

Jul 20, 2026 – 02:49 pm BST

PDB ID : 9RZ0 / pdb_00009rz0
Title : Alpha-Methylacyl-CoA racemase from Mycobacterium tuberculosis in complex with 2-(4-(3-Methoxybenzyloxy)phenylthiol)propanoyl-CoA
Authors : Mojanaga, O.O.; Acharya, K.R.; Lloyd, M.D.
Deposited on : 2025-07-15
Resolution : 2.30 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	:	4-5-2 with Phenix2.0
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

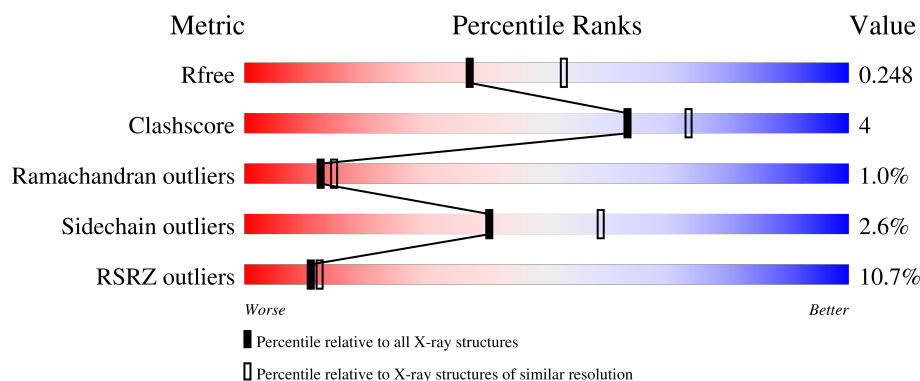
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.30 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}	180053	6319 (2.30-2.30)
Clashscore	190562	6919 (2.30-2.30)
Ramachandran outliers	187476	6854 (2.30-2.30)
Sidechain outliers	187428	6854 (2.30-2.30)
RSRZ outliers	180081	6325 (2.30-2.30)

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 $\leq 5\%$. 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	364	
1	B	364	
1	C	364	
1	D	364	
1	E	364	

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Mol	Chain	Length	Quality of chain
1	F	364	14% 81% 16% ..
1	G	364	23% 80% 15% ..
1	H	364	16% 88% 10% ..
1	I	364	5% 89% 9% ..
1	J	364	5% 87% 10% ..
1	K	364	9% 85% 12% ..
1	L	364	6% 88% 10% ..

2 Entry composition

There are 3 unique types of molecules in this entry. The entry contains 34478 atoms, of which 0 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 Alpha-methylacyl-CoA racemase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	357	Total	C	N	O	S	0	2	0
			2706	1698	484	508	16			
1	B	357	Total	C	N	O	S	0	2	0
			2709	1699	486	508	16			
1	C	357	Total	C	N	O	S	0	2	0
			2706	1698	484	508	16			
1	D	357	Total	C	N	O	S	0	1	0
			2703	1697	484	506	16			
1	E	359	Total	C	N	O	S	0	3	0
			2727	1709	488	514	16			
1	F	357	Total	C	N	O	S	0	1	0
			2703	1695	484	508	16			
1	G	357	Total	C	N	O	S	0	2	0
			2706	1698	484	508	16			
1	H	359	Total	C	N	O	S	0	1	0
			2715	1703	486	510	16			
1	I	359	Total	C	N	O	S	0	2	0
			2718	1704	486	512	16			
1	J	356	Total	C	N	O	S	0	1	0
			2696	1692	483	505	16			
1	K	356	Total	C	N	O	S	0	3	0
			2705	1697	484	508	16			
1	L	359	Total	C	N	O	S	0	1	0
			2715	1703	486	510	16			

There are 48 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	361	GLY	-	expression tag	UNP O06543
A	362	SER	-	expression tag	UNP O06543
A	363	GLY	-	expression tag	UNP O06543
A	364	CYS	-	expression tag	UNP O06543
B	361	GLY	-	expression tag	UNP O06543

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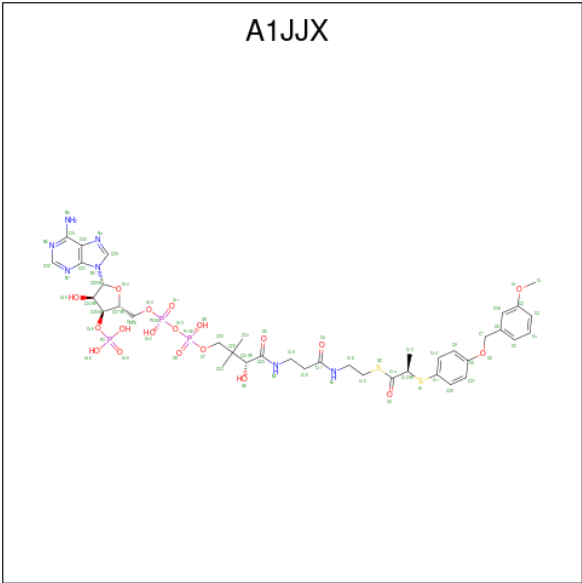
Chain	Residue	Modelled	Actual	Comment	Reference
B	362	SER	-	expression tag	UNP O06543
B	363	GLY	-	expression tag	UNP O06543
B	364	CYS	-	expression tag	UNP O06543
C	361	GLY	-	expression tag	UNP O06543
C	362	SER	-	expression tag	UNP O06543
C	363	GLY	-	expression tag	UNP O06543
C	364	CYS	-	expression tag	UNP O06543
D	361	GLY	-	expression tag	UNP O06543
D	362	SER	-	expression tag	UNP O06543
D	363	GLY	-	expression tag	UNP O06543
D	364	CYS	-	expression tag	UNP O06543
E	361	GLY	-	expression tag	UNP O06543
E	362	SER	-	expression tag	UNP O06543
E	363	GLY	-	expression tag	UNP O06543
E	364	CYS	-	expression tag	UNP O06543
F	361	GLY	-	expression tag	UNP O06543
F	362	SER	-	expression tag	UNP O06543
F	363	GLY	-	expression tag	UNP O06543
F	364	CYS	-	expression tag	UNP O06543
G	361	GLY	-	expression tag	UNP O06543
G	362	SER	-	expression tag	UNP O06543
G	363	GLY	-	expression tag	UNP O06543
G	364	CYS	-	expression tag	UNP O06543
H	361	GLY	-	expression tag	UNP O06543
H	362	SER	-	expression tag	UNP O06543
H	363	GLY	-	expression tag	UNP O06543
H	364	CYS	-	expression tag	UNP O06543
I	361	GLY	-	expression tag	UNP O06543
I	362	SER	-	expression tag	UNP O06543
I	363	GLY	-	expression tag	UNP O06543
I	364	CYS	-	expression tag	UNP O06543
J	361	GLY	-	expression tag	UNP O06543
J	362	SER	-	expression tag	UNP O06543
J	363	GLY	-	expression tag	UNP O06543
J	364	CYS	-	expression tag	UNP O06543
K	361	GLY	-	expression tag	UNP O06543
K	362	SER	-	expression tag	UNP O06543
K	363	GLY	-	expression tag	UNP O06543
K	364	CYS	-	expression tag	UNP O06543
L	361	GLY	-	expression tag	UNP O06543
L	362	SER	-	expression tag	UNP O06543
L	363	GLY	-	expression tag	UNP O06543

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Chain	Residue	Modelled	Actual	Comment	Reference
L	364	CYS	-	expression tag	UNP O06543

- Molecule 2 is 2-(4-(3-Methoxybenzyloxy)phenylthiol)propanoyl-CoA (CCD ID: A1JJX) (formula: C₃₈H₅₂N₇O₁₉P₃S₂) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms						ZeroOcc	AltConf
2	A	1	Total	C	N	O	P	S	0	0
			69	38	7	19	3	2		
2	B	1	Total	C	N	O	P	S	0	0
			69	38	7	19	3	2		
2	C	1	Total	C	N	O	P	S	0	0
			69	38	7	19	3	2		
2	D	1	Total	C	N	O	P	S	0	0
			69	38	7	19	3	2		
2	E	1	Total	C	N	O	P	S	0	0
			69	38	7	19	3	2		
2	F	1	Total	C	N	O	P	S	0	0
			69	38	7	19	3	2		
2	G	1	Total	C	N	O	P	S	0	0
			69	38	7	19	3	2		
2	H	1	Total	C	N	O	P	S	0	0
			69	38	7	19	3	2		
2	I	1	Total	C	N	O	P	S	0	0
			69	38	7	19	3	2		
2	J	1	Total	C	N	O	P	S	0	0
			69	38	7	19	3	2		

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Mol	Chain	Residues	Atoms						ZeroOcc	AltConf
2	K	1	Total	C	N	O	P	S	0	0
			69	38	7	19	3	2		
2	L	1	Total	C	N	O	P	S	0	0
			69	38	7	19	3	2		

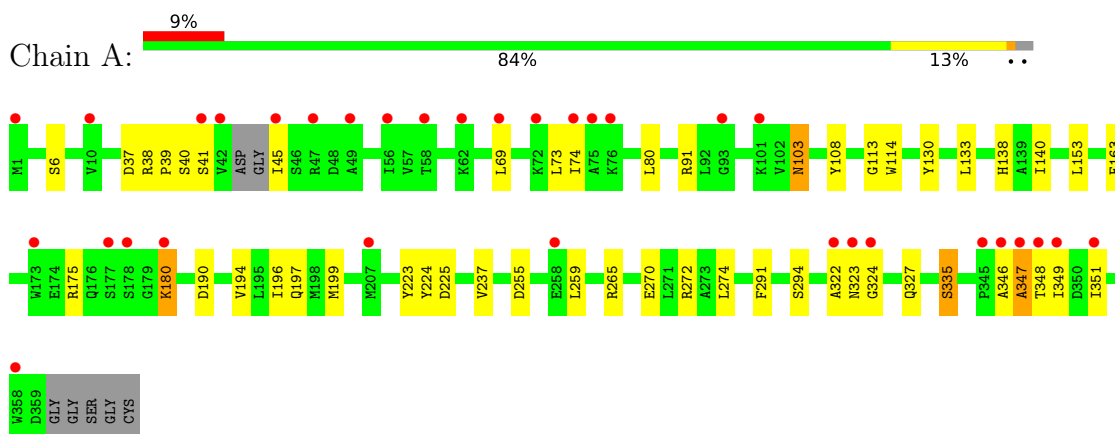
- Molecule 3 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	100	Total	O	0	0
			100	100		
3	B	100	Total	O	0	0
			100	100		
3	C	107	Total	O	0	0
			107	107		
3	D	97	Total	O	0	0
			97	97		
3	E	92	Total	O	0	0
			92	92		
3	F	74	Total	O	0	0
			74	74		
3	G	74	Total	O	0	0
			74	74		
3	H	86	Total	O	0	0
			86	86		
3	I	97	Total	O	0	0
			97	97		
3	J	104	Total	O	0	0
			104	104		
3	K	105	Total	O	0	0
			105	105		
3	L	105	Total	O	0	0
			105	105		

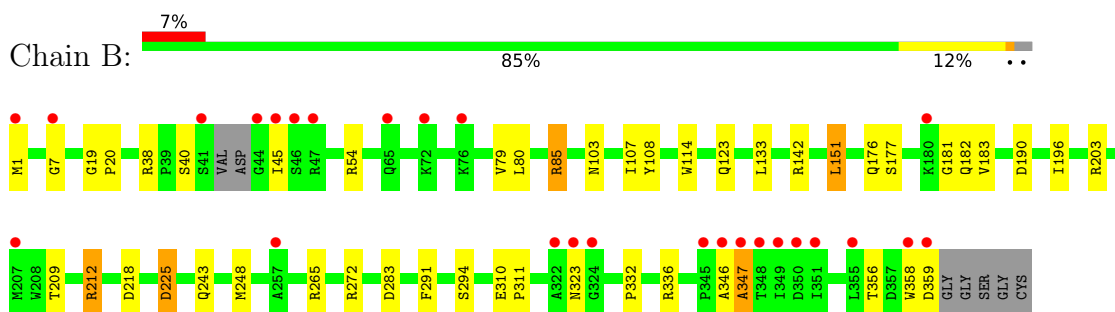
3 Residue-property plots [i](#)

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.

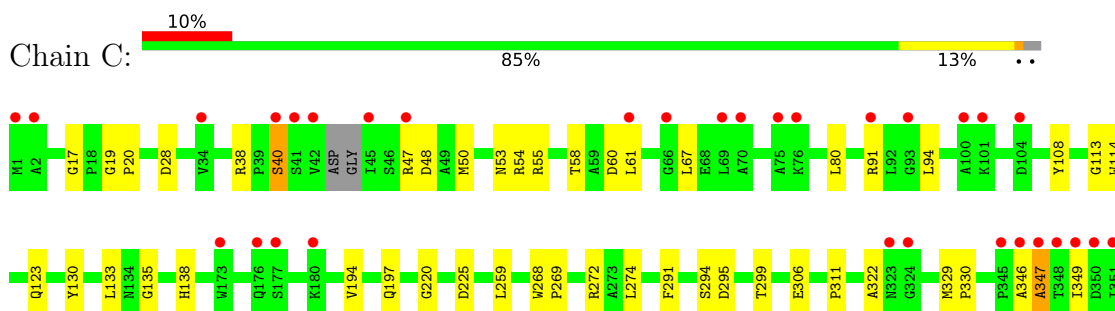
- Molecule 1: Alpha-methylacyl-CoA racemase

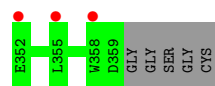


- Molecule 1: Alpha-methylacyl-CoA racemase

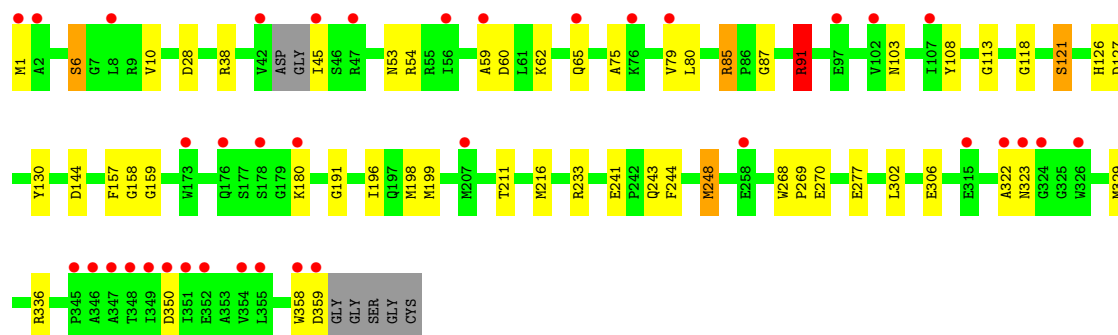
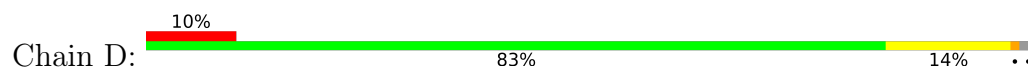


- Molecule 1: Alpha-methylacyl-CoA racemase

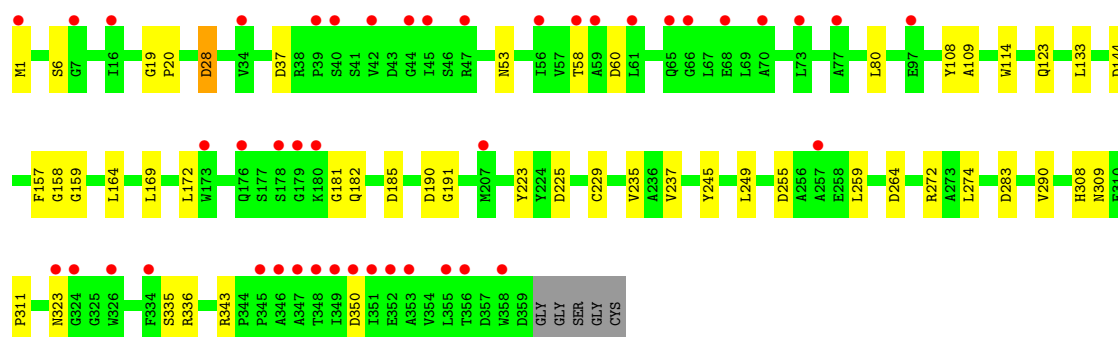
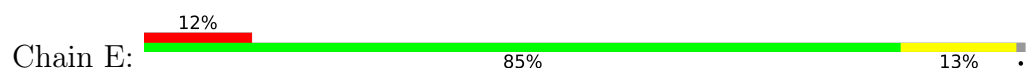




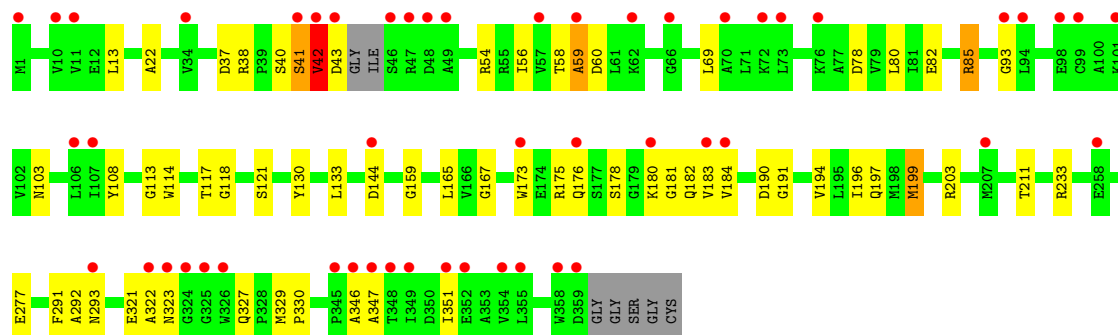
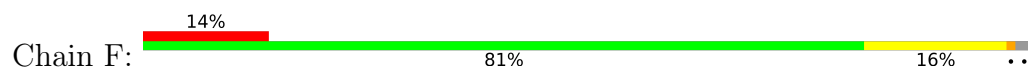
• Molecule 1: Alpha-methylacyl-CoA racemase



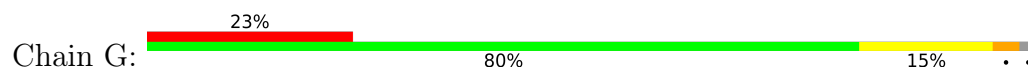
• Molecule 1: Alpha-methylacyl-CoA racemase

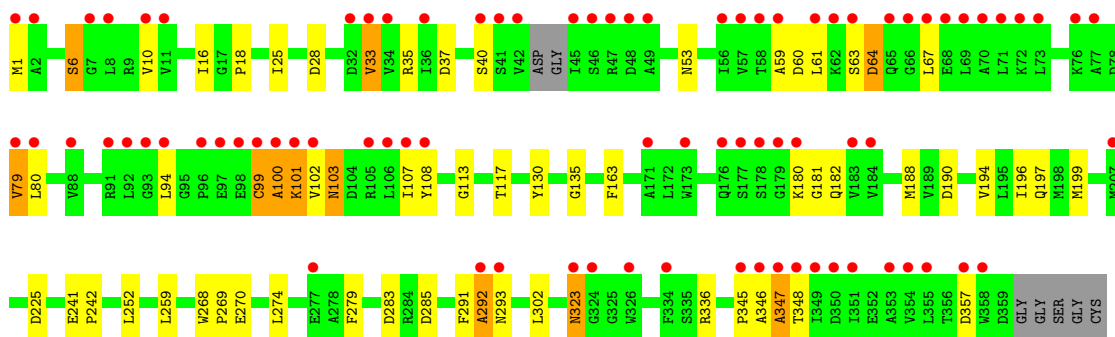


• Molecule 1: Alpha-methylacyl-CoA racemase

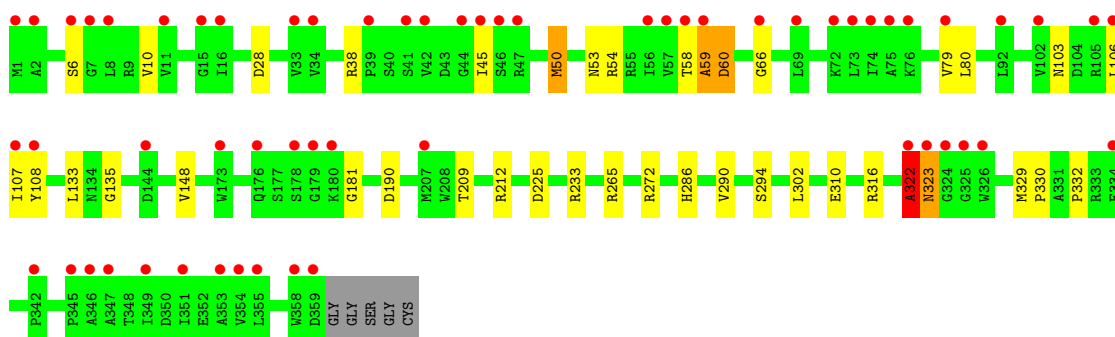
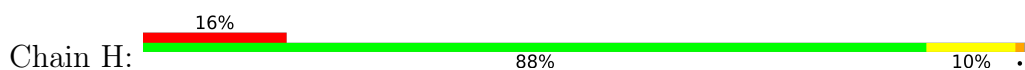


• Molecule 1: Alpha-methylacyl-CoA racemase

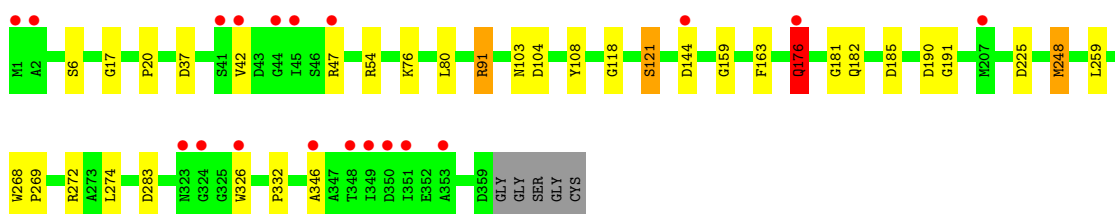
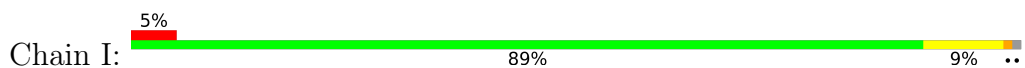




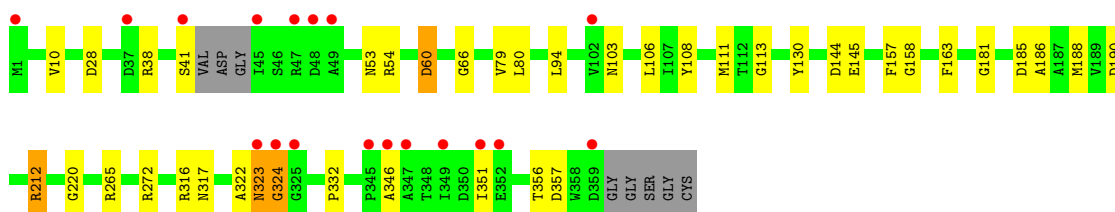
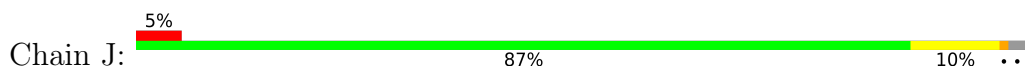
• Molecule 1: Alpha-methylacyl-CoA racemase



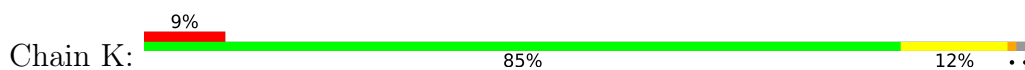
• Molecule 1: Alpha-methylacyl-CoA racemase

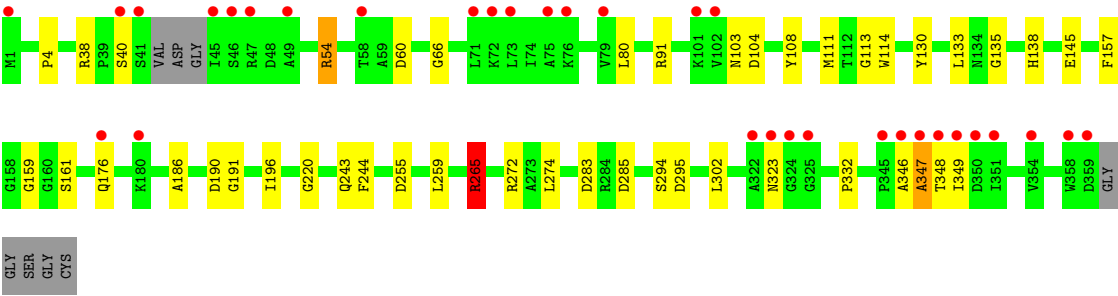


• Molecule 1: Alpha-methylacyl-CoA racemase

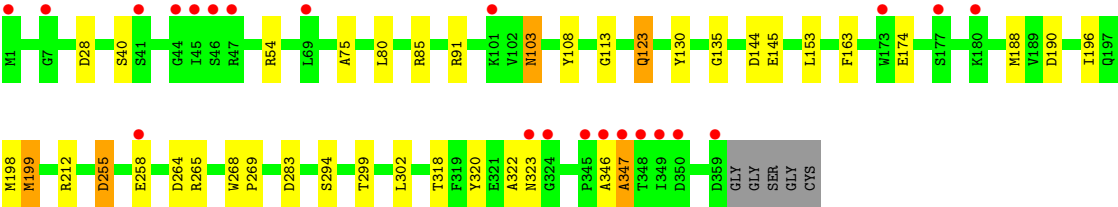
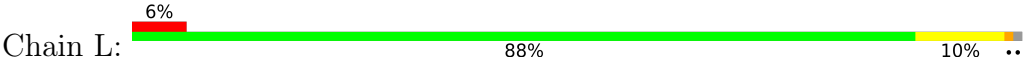


• Molecule 1: Alpha-methylacyl-CoA racemase





• Molecule 1: Alpha-methylacyl-CoA racemase



4 Data and refinement statistics

Property	Value	Source
Space group	I 4 2 2	Depositor
Cell constants a, b, c, α , β , γ	276.85Å 276.85Å 390.05Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	196.53 – 2.30 196.53 – 2.30	Depositor EDS
% Data completeness (in resolution range)	99.9 (196.53-2.30) 99.7 (196.53-2.30)	Depositor EDS
R_{merge}	0.35	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.28 (at 2.29Å)	Xtriage
Refinement program	REFMAC 5.8.0430 (refmacat 0.4.88)	Depositor
R, R_{free}	0.198 , 0.242 0.207 , 0.248	Depositor DCC
R_{free} test set	16817 reflections (5.10%)	wwPDB-VP
Wilson B-factor (Å ²)	44.2	Xtriage
Anisotropy	0.134	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.34 , 33.1	EDS
L-test for twinning ²	$\langle L \rangle = 0.51$, $\langle L^2 \rangle = 0.35$	Xtriage
Estimated twinning fraction	0.006 for -1/2*h+1/2*k-1/2*l,1/2*h-1/2*k-1/2*l,-h-k 0.007 for -1/2*h-1/2*k+1/2*l,-1/2*h-1/2*k-1/2*l,h-k	Xtriage
F_o, F_c correlation	0.95	EDS
Total number of atoms	34478	wwPDB-VP
Average B, all atoms (Å ²)	54.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.61% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: A1JJX

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.61	0/2778	1.09	4/3778 (0.1%)
1	B	0.61	0/2775	1.12	10/3773 (0.3%)
1	C	0.61	0/2778	1.05	5/3778 (0.1%)
1	D	0.61	0/2769	1.11	7/3766 (0.2%)
1	E	0.61	0/2800	1.11	9/3809 (0.2%)
1	F	0.61	0/2769	1.12	5/3766 (0.1%)
1	G	0.58	0/2778	1.13	9/3778 (0.2%)
1	H	0.60	0/2782	1.13	5/3785 (0.1%)
1	I	0.59	0/2791	1.09	7/3797 (0.2%)
1	J	0.60	0/2762	1.10	6/3756 (0.2%)
1	K	0.61	0/2780	1.10	8/3780 (0.2%)
1	L	0.60	0/2782	1.11	10/3785 (0.3%)
All	All	0.60	0/33344	1.10	85/45351 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	3
1	B	0	2
1	D	0	3
1	E	0	1
1	F	0	3
1	G	0	1
1	H	0	5
1	I	0	1
1	J	0	2
1	K	0	2
1	L	0	4

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Mol	Chain	#Chirality outliers	#Planarity outliers
All	All	0	27

There are no bond length outliers.

All (85) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	203	ARG	CB-CA-C	-10.54	92.92	110.85
1	B	203	ARG	N-CA-CB	8.23	122.35	110.16
1	E	190	ASP	CA-CB-CG	7.27	119.87	112.60
1	L	123	GLN	N-CA-CB	-7.19	98.15	109.87
1	J	185	ASP	CA-CB-CG	7.02	119.62	112.60
1	E	283	ASP	CA-CB-CG	7.01	119.61	112.60
1	D	91	ARG	CB-CA-C	-6.96	96.95	110.46
1	F	190	ASP	CA-CB-CG	6.94	119.54	112.60
1	B	283	ASP	CA-CB-CG	6.60	119.20	112.60
1	I	190	ASP	CA-CB-CG	6.50	119.10	112.60
1	G	285	ASP	CA-CB-CG	6.43	119.03	112.60
1	F	211	THR	CA-CB-OG1	-6.38	100.03	109.60
1	B	123	GLN	CB-CA-C	6.20	119.82	109.89
1	E	28	ASP	CA-CB-CG	6.20	118.80	112.60
1	E	123	GLN	N-CA-CB	6.19	119.18	109.83
1	J	190	ASP	CA-CB-CG	6.18	118.78	112.60
1	D	144	ASP	CA-CB-CG	6.17	118.77	112.60
1	B	190	ASP	CA-CB-CG	6.13	118.73	112.60
1	H	148	VAL	CB-CA-C	6.13	116.07	110.13
1	G	225	ASP	CA-CB-CG	6.12	118.72	112.60
1	G	60	ASP	CA-CB-CG	6.11	118.71	112.60
1	J	357	ASP	CA-CB-CG	6.08	118.68	112.60
1	G	283	ASP	CA-CB-CG	6.01	118.61	112.60
1	E	264	ASP	CA-CB-CG	6.00	118.61	112.60
1	B	54	ARG	CB-CA-C	-6.00	96.84	109.38
1	I	176	GLN	N-CA-CB	5.99	119.04	110.06
1	G	190	ASP	CA-CB-CG	5.98	118.58	112.60
1	K	283	ASP	CA-CB-CG	5.97	118.57	112.60
1	D	38	ARG	CB-CA-C	5.94	117.41	108.86
1	I	283	ASP	CA-CB-CG	5.93	118.53	112.60
1	L	123	GLN	CB-CA-C	5.92	119.99	110.29
1	B	218	ASP	CA-CB-CG	5.84	118.44	112.60
1	E	123	GLN	CB-CA-C	-5.77	100.14	109.72
1	H	310	GLU	CB-CG-CD	5.74	122.36	112.60
1	G	99	CYS	CB-CA-C	5.71	119.77	110.24
1	B	225	ASP	CA-CB-CG	5.66	118.26	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	L	190	ASP	CA-CB-CG	5.60	118.20	112.60
1	D	248	MET	CG-SD-CE	5.60	113.22	100.90
1	L	318	THR	CA-CB-OG1	-5.59	101.21	109.60
1	H	190	ASP	CA-CB-CG	5.58	118.19	112.60
1	J	54	ARG	CB-CA-C	-5.58	97.17	109.56
1	B	123	GLN	N-CA-CB	-5.58	101.54	109.85
1	L	283	ASP	CA-CB-CG	5.57	118.17	112.60
1	L	283	ASP	CB-CA-C	5.56	120.83	109.76
1	B	38	ARG	CB-CA-C	5.55	117.18	108.63
1	K	190	ASP	CA-CB-CG	5.53	118.13	112.60
1	H	60	ASP	CA-CB-CG	5.53	118.13	112.60
1	A	37	ASP	CA-CB-CG	5.52	118.12	112.60
1	I	104	ASP	CA-CB-CG	5.49	118.09	112.60
1	L	255	ASP	CA-CB-CG	5.47	118.08	112.60
1	K	54	ARG	CB-CA-C	-5.47	98.57	109.79
1	J	144	ASP	CA-CB-CG	5.46	118.06	112.60
1	D	306	GLU	CB-CA-C	-5.44	100.18	109.65
1	I	144	ASP	CA-CB-CG	5.43	118.03	112.60
1	L	28	ASP	CA-CB-CG	5.43	118.03	112.60
1	G	64	ASP	CB-CA-C	5.42	117.74	109.34
1	K	283	ASP	CB-CA-C	5.42	120.75	110.51
1	I	185	ASP	CA-CB-CG	5.40	118.00	112.60
1	C	48	ASP	CA-CB-CG	5.38	117.98	112.60
1	E	255	ASP	CA-CB-CG	5.31	117.91	112.60
1	C	60	ASP	CA-CB-CG	5.30	117.90	112.60
1	C	38	ARG	CB-CA-C	5.26	117.00	109.11
1	D	211	THR	CA-CB-OG1	-5.26	101.71	109.60
1	K	104	ASP	CA-CB-CG	5.24	117.84	112.60
1	E	37	ASP	CA-CB-CG	5.23	117.83	112.60
1	F	60	ASP	CA-CB-CG	5.21	117.81	112.60
1	A	255	ASP	CA-CB-CG	5.21	117.81	112.60
1	G	357	ASP	CA-CB-CG	5.20	117.80	112.60
1	J	60	ASP	CA-CB-CG	5.19	117.79	112.60
1	F	327	GLN	CB-CA-C	-5.19	101.40	109.55
1	C	123	GLN	CB-CA-C	-5.13	102.56	110.26
1	I	91	ARG	CB-CA-C	-5.11	99.53	110.32
1	K	285	ASP	CB-CA-C	5.08	119.50	110.85
1	A	190	ASP	CA-CB-CG	5.08	117.68	112.60
1	K	265	ARG	CD-NE-CZ	5.08	131.51	124.40
1	A	327	GLN	O-C-N	-5.07	118.30	121.85
1	H	148	VAL	CA-C-O	5.06	122.65	119.51
1	K	255	ASP	CA-CB-CG	5.05	117.66	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	L	144	ASP	CA-CB-CG	5.05	117.65	112.60
1	D	54	ARG	CB-CA-C	-5.05	98.35	109.56
1	L	264	ASP	CA-CB-CG	5.05	117.65	112.60
1	G	37	ASP	CA-CB-CG	5.02	117.62	112.60
1	C	306	GLU	CB-CA-C	-5.01	100.93	109.65
1	F	144	ASP	CA-CB-CG	5.01	117.61	112.60
1	E	185	ASP	CA-CB-CG	5.00	117.61	112.60

There are no chirality outliers.

All (27) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	265	ARG	Sidechain
1	A	38	ARG	Sidechain
1	A	91	ARG	Sidechain
1	B	212	ARG	Sidechain
1	B	7	GLY	Peptide
1	D	233	ARG	Sidechain
1	D	322	ALA	Peptide
1	D	91	ARG	Sidechain
1	E	350	ASP	Peptide
1	F	203	ARG	Sidechain
1	F	233	ARG	Sidechain
1	F	322	ALA	Peptide
1	G	35	ARG	Sidechain
1	H	212	ARG	Sidechain
1	H	233	ARG	Sidechain
1	H	265	ARG	Sidechain
1	H	322	ALA	Peptide
1	H	54	ARG	Peptide
1	I	91	ARG	Sidechain
1	J	212	ARG	Sidechain
1	J	265	ARG	Sidechain
1	K	265	ARG	Sidechain
1	K	54	ARG	Peptide
1	L	212	ARG	Sidechain
1	L	265	ARG	Sidechain
1	L	54	ARG	Peptide
1	L	91	ARG	Sidechain

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2706	0	2650	27	0
1	B	2709	0	2653	23	0
1	C	2706	0	2650	24	0
1	D	2703	0	2652	26	0
1	E	2727	0	2665	19	0
1	F	2703	0	2645	28	0
1	G	2706	0	2650	36	0
1	H	2715	0	2660	20	0
1	I	2718	0	2658	17	0
1	J	2696	0	2643	17	0
1	K	2705	0	2649	25	0
1	L	2715	0	2660	19	0
2	A	69	0	0	0	0
2	B	69	0	0	1	0
2	C	69	0	0	1	0
2	D	69	0	0	0	0
2	E	69	0	0	0	0
2	F	69	0	0	3	0
2	G	69	0	0	2	0
2	H	69	0	0	2	0
2	I	69	0	0	0	0
2	J	69	0	0	0	0
2	K	69	0	0	1	0
2	L	69	0	0	0	0
3	A	100	0	0	2	0
3	B	100	0	0	2	0
3	C	107	0	0	1	0
3	D	97	0	0	1	0
3	E	92	0	0	0	0
3	F	74	0	0	1	0
3	G	74	0	0	3	0
3	H	86	0	0	1	0
3	I	97	0	0	3	0
3	J	104	0	0	1	0
3	K	105	0	0	2	0
3	L	105	0	0	0	0
All	All	34478	0	31835	261	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 4.

All (261) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:259:LEU:HD22	1:G:274:LEU:HD13	1.65	0.79
1:F:85:ARG:HD2	2:F:401:A1JJX:O11	1.81	0.78
1:H:79:VAL:HG22	1:H:107:ILE:HB	1.65	0.77
1:A:291:PHE:O	1:A:294:SER:HB3	1.88	0.73
1:I:80:LEU:HD23	1:I:108:TYR:CE2	2.26	0.70
1:H:80:LEU:HD23	1:H:108:TYR:CE2	2.28	0.69
1:I:176:GLN:HE21	1:I:176:GLN:HA	1.57	0.69
1:F:85:ARG:CD	2:F:401:A1JJX:O11	2.41	0.68
1:A:259:LEU:HD22	1:A:274:LEU:HD13	1.74	0.68
1:G:79:VAL:HG22	1:G:107:ILE:HB	1.76	0.67
1:I:118:GLY:O	1:I:121:SER:OG	2.13	0.65
1:H:225:ASP:OD2	1:H:272:ARG:NH1	2.29	0.65
1:E:336:ARG:NH2	1:F:180:LYS:HB2	2.14	0.63
1:G:80:LEU:HD23	1:G:108:TYR:CE1	2.34	0.62
1:A:80:LEU:HD23	1:A:108:TYR:CE2	2.34	0.62
1:J:322:ALA:O	1:J:324:GLY:N	2.28	0.62
1:A:346:ALA:O	1:A:347:ALA:O	2.17	0.62
1:D:118:GLY:O	1:D:121:SER:OG	2.12	0.62
1:C:138:HIS:HD2	3:C:568:HOH:O	1.81	0.61
1:B:291:PHE:O	1:B:294:SER:HB3	2.00	0.61
1:C:55:ARG:HD2	1:C:349:ILE:HD12	1.82	0.61
1:I:346:ALA:HB3	3:I:563:HOH:O	2.00	0.61
1:J:80:LEU:HD23	1:J:108:TYR:CE2	2.36	0.61
1:K:60:ASP:O	1:K:66:GLY:HA3	2.01	0.59
1:H:28:ASP:HA	1:H:53:ASN:HD22	1.67	0.59
1:K:138:HIS:HD2	3:K:561:HOH:O	1.86	0.59
1:G:270:GLU:HG3	3:G:564:HOH:O	2.02	0.58
1:K:332:PRO:HG3	1:L:163:PHE:O	2.02	0.58
1:B:346:ALA:O	1:B:347:ALA:O	2.21	0.58
1:C:61:LEU:HD22	1:C:94:LEU:HD11	1.85	0.58
1:E:80:LEU:HD23	1:E:108:TYR:CE2	2.39	0.58
1:D:80:LEU:HD23	1:D:108:TYR:CE2	2.39	0.57
1:D:28:ASP:HA	1:D:53:ASN:ND2	2.19	0.57
1:I:259:LEU:HD22	1:I:274:LEU:HD13	1.85	0.57
1:F:113:GLY:HA3	1:F:130:TYR:CE1	2.40	0.57
1:F:80:LEU:CD2	1:F:108:TYR:CE1	2.87	0.57
1:L:255:ASP:HB2	1:L:258:GLU:HG2	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:69:LEU:HD13	1:F:351:ILE:HG23	1.85	0.56
1:E:259:LEU:HD22	1:E:274:LEU:HD13	1.87	0.56
1:B:80:LEU:HD23	1:B:108:TYR:CE2	2.41	0.55
1:F:58:THR:O	1:F:59:ALA:HB2	2.07	0.55
1:K:196:ILE:HG13	1:L:153:LEU:HD21	1.88	0.55
1:F:80:LEU:HD22	1:F:108:TYR:CE1	2.41	0.55
1:K:145:GLU:OE1	1:L:145:GLU:OE1	2.24	0.55
1:F:196:ILE:HG12	1:F:199:MET:HB2	1.87	0.55
1:K:294:SER:O	1:L:123:GLN:HG3	2.07	0.55
1:F:181:GLY:O	1:F:182:GLN:HB3	2.06	0.55
1:D:10:VAL:HG22	1:D:79:VAL:HB	1.88	0.55
1:D:87:GLY:O	1:D:91:ARG:HG3	2.07	0.54
1:C:80:LEU:HD12	1:C:108:TYR:CE1	2.42	0.54
1:C:28:ASP:HA	1:C:53:ASN:HD22	1.72	0.54
1:E:225:ASP:OD2	1:E:272:ARG:NH1	2.42	0.53
1:A:175:ARG:HG2	1:A:175:ARG:O	2.08	0.53
1:D:28:ASP:HA	1:D:53:ASN:HD22	1.73	0.52
1:G:100:ALA:O	1:G:101:LYS:HG3	2.10	0.52
1:L:80:LEU:HD23	1:L:108:TYR:CE1	2.43	0.52
1:B:85:ARG:HD2	2:B:401:A1JJX:O12	2.10	0.52
1:E:159:GLY:O	1:E:191:GLY:HA3	2.10	0.52
1:H:28:ASP:HA	1:H:53:ASN:ND2	2.25	0.52
1:G:102:VAL:O	1:G:103:ASN:HB2	2.11	0.51
1:C:28:ASP:HA	1:C:53:ASN:ND2	2.25	0.51
1:D:243:GLN:HG3	3:K:599:HOH:O	2.11	0.51
1:J:220:GLY:O	1:J:272:ARG:NH2	2.43	0.51
1:F:113:GLY:HA3	1:F:130:TYR:CZ	2.46	0.51
1:L:198:MET:HE2	1:L:199:MET:HE1	1.92	0.51
1:A:225:ASP:OD2	1:A:272:ARG:NH1	2.42	0.51
1:F:42:VAL:HG11	1:F:58:THR:HG22	1.93	0.50
1:G:80:LEU:HD23	1:G:108:TYR:CD1	2.45	0.50
1:K:80:LEU:HD23	1:K:108:TYR:CE1	2.47	0.50
1:G:194:VAL:O	1:G:197:GLN:HB2	2.12	0.50
1:G:302:LEU:O	1:H:135:GLY:HA2	2.11	0.50
1:E:28:ASP:HA	1:E:53:ASN:ND2	2.27	0.49
1:A:138:HIS:HD2	3:A:527:HOH:O	1.94	0.49
1:I:54:ARG:HG2	1:I:54:ARG:HH11	1.76	0.49
1:G:64:ASP:HA	3:G:501:HOH:O	2.11	0.49
1:L:80:LEU:CD2	1:L:108:TYR:CE1	2.95	0.49
1:C:259:LEU:HD22	1:C:274:LEU:HD13	1.93	0.49
1:H:322:ALA:O	1:H:323:ASN:O	2.31	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:401:A1JJX:O5	2:H:401:A1JJX:C24	2.60	0.49
1:J:60:ASP:O	1:J:66:GLY:HA3	2.12	0.49
1:D:268:TRP:N	1:D:269:PRO:CD	2.75	0.49
1:F:194:VAL:O	1:F:197:GLN:HB2	2.13	0.49
1:G:113:GLY:HA3	1:G:130:TYR:CZ	2.47	0.49
1:B:243[A]:GLN:H	1:B:243[A]:GLN:CD	2.20	0.49
1:A:346:ALA:O	1:A:347:ALA:C	2.55	0.48
1:H:50:MET:HE3	3:H:558:HOH:O	2.13	0.48
1:G:163:PHE:O	1:H:332:PRO:HG3	2.14	0.48
1:G:336:ARG:HG2	1:G:336:ARG:HH11	1.77	0.48
1:H:329:MET:HE3	1:H:330:PRO:HD2	1.94	0.48
1:B:80:LEU:CD2	1:B:108:TYR:CE2	2.96	0.48
1:G:135:GLY:HA2	1:H:302:LEU:O	2.13	0.48
1:H:58:THR:O	1:H:59:ALA:HB2	2.13	0.48
1:C:19:GLY:N	1:C:20:PRO:CD	2.77	0.48
1:D:80:LEU:CD2	1:D:108:TYR:CE2	2.96	0.48
1:G:113:GLY:HA2	1:G:188:MET:HB2	1.94	0.48
1:K:159:GLY:O	1:K:191:GLY:HA3	2.13	0.48
1:F:85:ARG:NH1	2:F:401:A1JJX:O8	2.47	0.48
1:G:80:LEU:CD2	1:G:108:TYR:CE1	2.95	0.48
1:J:111:MET:HE3	1:J:186:ALA:O	2.14	0.48
1:A:45:ILE:HG12	1:A:347:ALA:HB2	1.96	0.48
1:C:135:GLY:HA2	1:D:302:LEU:O	2.14	0.48
1:K:244:PHE:CD1	1:K:295:ASP:HB3	2.49	0.48
1:A:73:LEU:O	1:A:74:ILE:C	2.56	0.48
1:B:243[B]:GLN:HG2	3:B:563:HOH:O	2.13	0.48
1:C:50:MET:HE1	1:D:198:MET:HE3	1.96	0.48
1:B:243[B]:GLN:CG	3:B:563:HOH:O	2.62	0.47
1:C:54:ARG:HG2	1:C:54:ARG:HH11	1.79	0.47
1:I:268:TRP:N	1:I:269:PRO:CD	2.76	0.47
1:D:1:MET:O	1:D:6:SER:OG	2.31	0.47
1:D:75:ALA:HA	1:D:103:ASN:HB2	1.96	0.47
1:D:358:TRP:O	1:D:359:ASP:C	2.57	0.47
1:F:291:PHE:O	1:F:293:ASN:N	2.48	0.47
1:L:346:ALA:O	1:L:347:ALA:O	2.33	0.47
1:H:106:LEU:O	1:H:181:GLY:HA3	2.14	0.47
1:B:346:ALA:O	1:B:347:ALA:C	2.58	0.47
1:I:80:LEU:HD23	1:I:108:TYR:CD2	2.50	0.46
1:A:113:GLY:HA3	1:A:130:TYR:CE1	2.50	0.46
1:H:60:ASP:O	1:H:66:GLY:HA3	2.15	0.46
1:D:60:ASP:OD1	1:D:62:LYS:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:326:TRP:HD1	3:I:574:HOH:O	1.97	0.46
1:K:91:ARG:NH2	2:K:401:A1JJX:O17	2.49	0.46
1:K:114:TRP:CZ3	1:K:133:LEU:HD22	2.50	0.46
1:K:302:LEU:O	1:L:135:GLY:HA2	2.15	0.46
1:J:113:GLY:HA3	1:J:130:TYR:CE1	2.49	0.46
1:E:109:ALA:HB1	1:E:164:LEU:HD11	1.97	0.46
1:A:270:GLU:HG3	3:A:585:HOH:O	2.15	0.46
1:C:291:PHE:O	1:C:294:SER:HB3	2.16	0.46
1:A:180:LYS:O	1:B:336:ARG:NH2	2.49	0.46
1:G:196:ILE:HG12	1:G:199:MET:HB2	1.96	0.46
1:K:157:PHE:HA	1:K:161:SER:OG	2.15	0.46
1:C:259:LEU:CD2	1:C:274:LEU:HD13	2.46	0.46
1:G:181:GLY:O	1:G:182:GLN:HB3	2.16	0.46
1:I:332:PRO:HG3	1:J:163:PHE:O	2.16	0.46
1:F:114:TRP:CZ3	1:F:133:LEU:HD22	2.52	0.45
2:C:401:A1JJX:C5	1:D:216:MET:HE1	2.45	0.45
1:G:1:MET:O	1:G:6:SER:OG	2.30	0.45
1:C:114:TRP:CZ3	1:C:133:LEU:HD22	2.51	0.45
1:C:346:ALA:O	1:C:347:ALA:C	2.59	0.45
1:E:245:TYR:CE2	1:E:249:LEU:HD11	2.51	0.45
1:K:220:GLY:O	1:K:272:ARG:NH2	2.50	0.45
1:D:270:GLU:HG3	3:D:579:HOH:O	2.16	0.45
1:F:108:TYR:HB3	1:F:183:VAL:HG22	1.99	0.45
1:L:320:TYR:CE2	1:L:322:ALA:HB2	2.52	0.45
1:A:140:ILE:CD1	1:B:151:LEU:HG	2.46	0.45
1:C:67:LEU:HD12	1:C:67:LEU:O	2.16	0.45
1:A:335:SER:HG	1:B:183:VAL:H	1.65	0.45
1:C:329:MET:HE3	1:C:330:PRO:HD2	1.98	0.45
1:F:159:GLY:O	1:F:191:GLY:HA3	2.17	0.45
1:F:329:MET:HE3	1:F:330:PRO:HD2	1.99	0.45
1:I:163:PHE:O	1:J:332:PRO:HG3	2.16	0.45
1:G:323:ASN:OD1	1:G:323:ASN:N	2.49	0.45
1:H:50:MET:HE2	1:H:50:MET:HB2	1.82	0.45
1:E:19:GLY:N	1:E:20:PRO:HD2	2.31	0.44
1:F:118:GLY:O	1:F:121:SER:OG	2.32	0.44
1:E:181:GLY:O	1:E:182:GLN:HB3	2.18	0.44
1:F:40:SER:O	1:F:41:SER:CB	2.65	0.44
1:A:196:ILE:HG12	1:A:199:MET:HB2	2.00	0.44
1:A:39:PRO:C	1:A:41:SER:H	2.25	0.44
1:A:163:PHE:O	1:B:332:PRO:HG3	2.17	0.44
1:K:259:LEU:CD2	1:K:274:LEU:HD13	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:323:ASN:O	1:A:324:GLY:C	2.61	0.44
1:C:220:GLY:O	1:C:272:ARG:NH2	2.51	0.44
1:E:60:ASP:OD1	1:E:60:ASP:C	2.61	0.44
1:I:17:GLY:O	1:I:20:PRO:HD2	2.17	0.44
1:B:225:ASP:OD2	1:B:272:ARG:NH1	2.51	0.44
1:E:308:HIS:CD2	1:E:309:ASN:OD1	2.71	0.44
1:F:78:ASP:OD1	1:F:175:ARG:NH2	2.43	0.44
1:H:80:LEU:HD23	1:H:108:TYR:CD2	2.52	0.43
1:J:316:ARG:O	1:J:317:ASN:C	2.61	0.43
1:B:358:TRP:O	1:B:359:ASP:HB2	2.18	0.43
1:A:69:LEU:HD13	1:A:351:ILE:HG23	2.01	0.43
1:B:79:VAL:HG22	1:B:107:ILE:HB	2.00	0.43
2:G:401:A1JJX:O5	2:G:401:A1JJX:C24	2.67	0.43
1:F:13:LEU:HD12	1:F:82:GLU:HB3	2.00	0.43
1:G:28:ASP:HA	1:G:53:ASN:HD22	1.84	0.43
1:J:157:PHE:O	1:J:158:GLY:C	2.62	0.43
1:A:224:TYR:HA	1:A:237:VAL:O	2.19	0.43
1:G:268:TRP:N	1:G:269:PRO:CD	2.81	0.43
1:K:113:GLY:HA3	1:K:130:TYR:CZ	2.54	0.43
1:J:10:VAL:HG22	1:J:79:VAL:HB	2.00	0.43
1:D:157:PHE:O	1:D:158:GLY:C	2.61	0.43
1:E:223:TYR:O	1:E:237:VAL:HG12	2.19	0.43
1:J:28:ASP:HA	1:J:53:ASN:ND2	2.34	0.43
1:L:113:GLY:HA2	1:L:188:MET:HB2	2.01	0.43
1:F:22:ALA:O	1:F:165:LEU:HD21	2.19	0.43
1:G:346:ALA:O	1:G:347:ALA:C	2.62	0.43
1:H:38:ARG:NH1	2:H:401:A1JJX:O14	2.51	0.43
1:L:113:GLY:HA3	1:L:130:TYR:CZ	2.54	0.43
1:L:196:ILE:HG12	1:L:199:MET:HB2	2.00	0.43
1:A:223:TYR:O	1:A:237:VAL:HG12	2.19	0.42
1:B:114:TRP:CZ3	1:B:133:LEU:HD22	2.55	0.42
1:C:268:TRP:N	1:C:269:PRO:CD	2.82	0.42
1:D:159:GLY:O	1:D:191:GLY:HA3	2.19	0.42
1:F:40:SER:O	1:F:41:SER:HB3	2.19	0.42
1:I:80:LEU:CD2	1:I:108:TYR:CE2	3.00	0.42
1:K:346:ALA:O	1:K:347:ALA:C	2.62	0.42
1:G:61:LEU:HG	2:G:401:A1JJX:N5	2.34	0.42
1:G:252:LEU:HD21	1:G:279:PHE:CE1	2.54	0.42
1:B:243[A]:GLN:OE1	1:B:243[A]:GLN:N	2.46	0.42
1:C:113:GLY:HA3	1:C:130:TYR:CZ	2.54	0.42
1:D:126:HIS:O	1:D:127:ASP:C	2.61	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:93:GLY:HA2	3:F:527:HOH:O	2.20	0.42
1:G:16:ILE:O	1:G:18:PRO:HD2	2.19	0.42
1:H:10:VAL:HG22	1:H:79:VAL:HB	2.01	0.42
1:J:145:GLU:O	1:J:212:ARG:NH1	2.52	0.42
1:K:346:ALA:O	1:K:347:ALA:O	2.38	0.42
1:C:225:ASP:OD2	1:C:272:ARG:NH1	2.52	0.42
1:G:117:THR:O	1:H:316:ARG:HD2	2.20	0.42
1:I:248:MET:HE3	1:I:248:MET:HB3	2.00	0.42
1:K:347:ALA:O	1:K:348:THR:C	2.62	0.42
1:A:194:VAL:O	1:A:197:GLN:HB2	2.20	0.42
1:J:346:ALA:HB3	3:J:505:HOH:O	2.20	0.42
1:K:111:MET:HE3	1:K:186:ALA:O	2.20	0.42
1:C:194:VAL:O	1:C:197:GLN:HB2	2.19	0.42
1:D:113:GLY:HA3	1:D:130:TYR:CE1	2.54	0.42
1:E:114:TRP:CZ3	1:E:133:LEU:HD22	2.55	0.42
1:F:167:GLY:HA3	1:F:184:VAL:HG11	2.01	0.42
1:G:99:CYS:O	1:G:101:LYS:N	2.50	0.42
1:G:345:PRO:HA	3:G:507:HOH:O	2.18	0.42
1:A:103:ASN:OD1	1:A:103:ASN:C	2.62	0.42
1:B:142:ARG:O	1:B:212:ARG:HD2	2.19	0.42
1:K:113:GLY:HA3	1:K:130:TYR:CE1	2.55	0.42
1:E:157:PHE:O	1:E:158:GLY:C	2.62	0.41
1:G:67:LEU:O	1:G:67:LEU:HD12	2.19	0.41
1:I:159:GLY:O	1:I:191:GLY:HA3	2.20	0.41
1:K:196:ILE:HG23	1:K:196:ILE:O	2.19	0.41
1:E:169:LEU:HD23	1:E:172:LEU:HD12	2.01	0.41
1:G:291:PHE:O	1:G:292:ALA:C	2.63	0.41
1:I:181:GLY:O	1:I:182:GLN:HB3	2.20	0.41
1:E:1:MET:HE2	1:E:343:ARG:NH2	2.35	0.41
1:G:10:VAL:CG1	1:G:33:VAL:HG13	2.50	0.41
1:D:196:ILE:HG12	1:D:199:MET:HB2	2.03	0.41
1:K:135:GLY:HA2	1:L:302:LEU:O	2.20	0.41
1:L:75:ALA:HA	1:L:103:ASN:HB2	2.03	0.41
1:C:17:GLY:O	1:C:20:PRO:HD2	2.21	0.41
1:D:241:GLU:HB2	1:D:244:PHE:CD2	2.56	0.41
1:G:28:ASP:HA	1:G:53:ASN:ND2	2.36	0.41
1:H:286:HIS:CE1	1:H:290:VAL:HG21	2.55	0.41
1:K:4:PRO:O	1:L:174:GLU:HB2	2.21	0.41
3:I:589:HOH:O	1:K:243[B]:GLN:HG3	2.21	0.41
1:J:113:GLY:HA2	1:J:188:MET:HB2	2.02	0.41
1:D:336:ARG:HG2	1:D:336:ARG:HH11	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:54:ARG:O	1:F:346:ALA:HB3	2.21	0.41
1:G:241:GLU:HA	1:G:242:PRO:HD3	1.92	0.41
1:I:225:ASP:OD2	1:I:272:ARG:NH1	2.54	0.41
1:J:106:LEU:O	1:J:181:GLY:HA3	2.21	0.41
1:B:310:GLU:O	1:B:311:PRO:C	2.63	0.41
1:E:19:GLY:N	1:E:20:PRO:CD	2.83	0.41
1:G:61:LEU:HD13	1:G:94:LEU:CD1	2.50	0.41
1:J:94:LEU:HD23	1:J:94:LEU:HA	1.85	0.41
1:L:268:TRP:N	1:L:269:PRO:CD	2.84	0.41
1:A:114:TRP:CZ3	1:A:133:LEU:HD22	2.56	0.40
1:C:295:ASP:CG	1:D:85:ARG:HH22	2.29	0.40
1:G:25:ILE:O	1:G:28:ASP:HB2	2.21	0.40
1:E:229:CYS:SG	1:E:235:VAL:HG13	2.62	0.40
1:B:19:GLY:N	1:B:20:PRO:CD	2.84	0.40
1:D:329:MET:HE3	1:D:329:MET:HB3	2.00	0.40
1:L:113:GLY:HA3	1:L:130:TYR:CE1	2.57	0.40
1:A:153:LEU:HD21	1:B:196:ILE:HG13	2.04	0.40
1:A:348:THR:HG22	1:A:349:ILE:N	2.36	0.40
1:B:181:GLY:O	1:B:182:GLN:HB3	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	355/364 (98%)	328 (92%)	23 (6%)	4 (1%)	11	13
1	B	355/364 (98%)	336 (95%)	16 (4%)	3 (1%)	16	20
1	C	355/364 (98%)	327 (92%)	25 (7%)	3 (1%)	16	20
1	D	354/364 (97%)	328 (93%)	25 (7%)	1 (0%)	36	46
1	E	360/364 (99%)	331 (92%)	28 (8%)	1 (0%)	36	46

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	F	354/364 (97%)	321 (91%)	26 (7%)	7 (2%)	6	5
1	G	355/364 (98%)	324 (91%)	23 (6%)	8 (2%)	5	4
1	H	358/364 (98%)	331 (92%)	23 (6%)	4 (1%)	11	13
1	I	359/364 (99%)	345 (96%)	13 (4%)	1 (0%)	36	46
1	J	353/364 (97%)	335 (95%)	14 (4%)	4 (1%)	11	13
1	K	355/364 (98%)	329 (93%)	23 (6%)	3 (1%)	16	20
1	L	358/364 (98%)	336 (94%)	19 (5%)	3 (1%)	16	20
All	All	4271/4368 (98%)	3971 (93%)	258 (6%)	42 (1%)	12	15

All (42) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	103	ASN
1	A	347	ALA
1	B	347	ALA
1	C	347	ALA
1	F	41	SER
1	F	42	VAL
1	F	103	ASN
1	F	292	ALA
1	G	103	ASN
1	G	292	ALA
1	G	347	ALA
1	H	323	ASN
1	K	347	ALA
1	F	59	ALA
1	F	347	ALA
1	G	101	LYS
1	H	59	ALA
1	J	103	ASN
1	J	323	ASN
1	K	103	ASN
1	A	40	SER
1	B	151	LEU
1	C	40	SER
1	D	59	ALA
1	G	59	ALA
1	G	63	SER
1	G	348	THR
1	H	103	ASN

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Mol	Chain	Res	Type
1	K	323	ASN
1	L	323	ASN
1	L	347	ALA
1	I	103	ASN
1	J	356	THR
1	A	322	ALA
1	B	103	ASN
1	C	322	ALA
1	E	323	ASN
1	F	178	SER
1	G	100	ALA
1	H	322	ALA
1	L	103	ASN
1	J	324	GLY

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	276/277 (100%)	273 (99%)	3 (1%)	65	81
1	B	275/277 (99%)	264 (96%)	11 (4%)	28	42
1	C	276/277 (100%)	270 (98%)	6 (2%)	45	65
1	D	275/277 (99%)	265 (96%)	10 (4%)	31	47
1	E	278/277 (100%)	272 (98%)	6 (2%)	45	65
1	F	275/277 (99%)	262 (95%)	13 (5%)	23	35
1	G	276/277 (100%)	269 (98%)	7 (2%)	42	60
1	H	276/277 (100%)	270 (98%)	6 (2%)	45	65
1	I	277/277 (100%)	269 (97%)	8 (3%)	37	55
1	J	274/277 (99%)	270 (98%)	4 (2%)	57	75
1	K	276/277 (100%)	271 (98%)	5 (2%)	51	70
1	L	276/277 (100%)	271 (98%)	5 (2%)	51	70
All	All	3310/3324 (100%)	3226 (98%)	84 (2%)	40	60

All (84) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	6	SER
1	A	180	LYS
1	A	335	SER
1	B	1	MET
1	B	40	SER
1	B	45	ILE
1	B	85	ARG
1	B	176	GLN
1	B	177	SER
1	B	209	THR
1	B	248	MET
1	B	265	ARG
1	B	323	ASN
1	B	356	THR
1	C	40	SER
1	C	47	ARG
1	C	58	THR
1	C	91	ARG
1	C	299	THR
1	C	311	PRO
1	D	6	SER
1	D	45	ILE
1	D	65	GLN
1	D	85	ARG
1	D	121	SER
1	D	180	LYS
1	D	248	MET
1	D	277	GLU
1	D	323	ASN
1	D	350	ASP
1	E	6	SER
1	E	58	THR
1	E	144	ASP
1	E	290	VAL
1	E	311	PRO
1	E	335	SER
1	F	37	ASP
1	F	38	ARG
1	F	42	VAL
1	F	43	ASP
1	F	56	ILE
1	F	85	ARG

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Mol	Chain	Res	Type
1	F	117	THR
1	F	173	TRP
1	F	176	GLN
1	F	199	MET
1	F	277	GLU
1	F	321	GLU
1	F	323	ASN
1	G	6	SER
1	G	33	VAL
1	G	40	SER
1	G	79	VAL
1	G	180	LYS
1	G	293	ASN
1	G	323	ASN
1	H	6	SER
1	H	45	ILE
1	H	50	MET
1	H	133	LEU
1	H	209	THR
1	H	294	SER
1	I	6	SER
1	I	37	ASP
1	I	42	VAL
1	I	47	ARG
1	I	76	LYS
1	I	121	SER
1	I	176	GLN
1	I	248	MET
1	J	38	ARG
1	J	41	SER
1	J	323	ASN
1	J	351	ILE
1	K	38	ARG
1	K	40	SER
1	K	176	GLN
1	K	265	ARG
1	K	349	ILE
1	L	40	SER
1	L	85	ARG
1	L	199	MET
1	L	294	SER
1	L	299	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (53) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	116	GLN
1	A	138	HIS
1	A	176	GLN
1	A	263	ASN
1	A	286	HIS
1	A	327	GLN
1	B	116	GLN
1	B	286	HIS
1	B	293	ASN
1	B	308	HIS
1	C	138	HIS
1	C	176	GLN
1	C	263	ASN
1	C	282	HIS
1	C	327	GLN
1	D	116	GLN
1	D	286	HIS
1	D	308	HIS
1	E	116	GLN
1	E	138	HIS
1	E	176	GLN
1	E	263	ASN
1	E	293	ASN
1	E	308	HIS
1	F	116	GLN
1	F	323	ASN
1	G	116	GLN
1	G	176	GLN
1	G	197	GLN
1	G	263	ASN
1	G	327	GLN
1	H	116	GLN
1	H	282	HIS
1	H	286	HIS
1	H	323	ASN
1	I	123	GLN
1	I	138	HIS
1	I	176	GLN
1	I	263	ASN
1	I	309	ASN
1	I	327	GLN

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Mol	Chain	Res	Type
1	J	116	GLN
1	J	176	GLN
1	J	286	HIS
1	J	293	ASN
1	J	308	HIS
1	J	309	ASN
1	J	323	ASN
1	K	138	HIS
1	K	176	GLN
1	K	327	GLN
1	L	176	GLN
1	L	286	HIS

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 oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

12 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	$\# Z > 2$
2	A1JJX	E	401	-	67,73,73	0.73	2 (2%)	91,106,106	0.93	5 (5%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	A1JJX	B	401	-	67,73,73	0.61	1 (1%)	91,106,106	1.07	8 (8%)
2	A1JJX	G	401	-	67,73,73	0.62	2 (2%)	91,106,106	1.02	8 (8%)
2	A1JJX	C	401	-	67,73,73	0.62	1 (1%)	91,106,106	0.96	5 (5%)
2	A1JJX	L	401	-	67,73,73	0.66	2 (2%)	91,106,106	0.99	9 (9%)
2	A1JJX	J	401	-	67,73,73	0.55	1 (1%)	91,106,106	0.99	5 (5%)
2	A1JJX	H	401	-	67,73,73	0.88	3 (4%)	91,106,106	1.01	6 (6%)
2	A1JJX	I	401	-	67,73,73	0.70	1 (1%)	91,106,106	0.92	5 (5%)
2	A1JJX	D	401	-	67,73,73	0.57	1 (1%)	91,106,106	0.96	5 (5%)
2	A1JJX	K	401	-	67,73,73	0.66	1 (1%)	91,106,106	0.88	5 (5%)
2	A1JJX	A	401	-	67,73,73	0.61	2 (2%)	91,106,106	0.94	5 (5%)
2	A1JJX	F	401	-	67,73,73	0.69	3 (4%)	91,106,106	1.09	8 (8%)

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
2	A1JJX	E	401	-	-	17/65/82/82	0/5/5/5
2	A1JJX	B	401	-	-	12/65/82/82	0/5/5/5
2	A1JJX	G	401	-	-	16/65/82/82	0/5/5/5
2	A1JJX	C	401	-	-	9/65/82/82	0/5/5/5
2	A1JJX	L	401	-	-	9/65/82/82	0/5/5/5
2	A1JJX	J	401	-	-	7/65/82/82	0/5/5/5
2	A1JJX	H	401	-	-	23/65/82/82	0/5/5/5
2	A1JJX	I	401	-	-	10/65/82/82	0/5/5/5
2	A1JJX	D	401	-	-	8/65/82/82	0/5/5/5
2	A1JJX	K	401	-	-	9/65/82/82	0/5/5/5
2	A1JJX	A	401	-	-	8/65/82/82	0/5/5/5
2	A1JJX	F	401	-	-	14/65/82/82	0/5/5/5

All (20) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	H	401	A1JJX	O3-C14	3.98	1.26	1.20
2	H	401	A1JJX	C12-S1	3.76	1.89	1.83
2	I	401	A1JJX	O3-C14	3.35	1.25	1.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	401	A1JJX	O3-C14	3.00	1.25	1.20
2	K	401	A1JJX	O3-C14	2.82	1.24	1.20
2	L	401	A1JJX	O3-C14	2.78	1.24	1.20
2	C	401	A1JJX	O3-C14	2.67	1.24	1.20
2	E	401	A1JJX	C12-S1	2.65	1.87	1.83
2	F	401	A1JJX	P3-O16	2.37	1.63	1.59
2	B	401	A1JJX	O3-C14	2.31	1.24	1.20
2	L	401	A1JJX	C12-S1	2.30	1.87	1.83
2	D	401	A1JJX	O3-C14	2.28	1.24	1.20
2	G	401	A1JJX	O3-C14	2.20	1.24	1.20
2	H	401	A1JJX	C14-S2	2.15	1.82	1.75
2	A	401	A1JJX	P3-O16	2.14	1.63	1.59
2	F	401	A1JJX	O4-C17	2.05	1.27	1.23
2	J	401	A1JJX	O3-C14	2.03	1.23	1.20
2	G	401	A1JJX	P3-O16	2.03	1.63	1.59
2	A	401	A1JJX	O3-C14	2.02	1.23	1.20
2	F	401	A1JJX	O3-C14	2.01	1.23	1.20

All (74) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	401	A1JJX	O17-P3-O19	4.50	128.32	110.68
2	C	401	A1JJX	O7-P1-O8	-4.34	92.12	109.07
2	G	401	A1JJX	O9-P1-O8	3.89	131.46	112.24
2	B	401	A1JJX	O16-P3-O19	-3.77	94.85	109.39
2	A	401	A1JJX	O9-P1-O8	3.67	130.38	112.24
2	H	401	A1JJX	C15-S2-C14	3.54	112.40	101.75
2	F	401	A1JJX	O15-C34-C35	3.46	121.00	111.17
2	L	401	A1JJX	O9-P1-O8	3.34	128.73	112.24
2	D	401	A1JJX	P2-O10-P1	3.32	144.22	132.83
2	F	401	A1JJX	O9-P1-O8	3.25	128.30	112.24
2	J	401	A1JJX	O7-P1-O8	-3.21	96.52	109.07
2	L	401	A1JJX	C24-C22-C25	-3.18	103.05	108.23
2	B	401	A1JJX	O16-C35-C34	3.17	123.15	111.68
2	I	401	A1JJX	O16-P3-O19	-3.16	97.19	109.39
2	J	401	A1JJX	O9-P1-O8	3.15	127.80	112.24
2	F	401	A1JJX	C15-S2-C14	3.07	110.99	101.75
2	B	401	A1JJX	O18-P3-O16	3.04	119.62	105.99
2	G	401	A1JJX	C24-C22-C21	2.97	113.97	108.82
2	E	401	A1JJX	O18-P3-O17	2.92	118.78	107.64
2	C	401	A1JJX	O9-P1-O8	2.91	126.64	112.24
2	G	401	A1JJX	O15-C34-C35	2.90	119.39	111.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	K	401	A1JJX	O7-P1-O8	-2.89	97.76	109.07
2	D	401	A1JJX	O9-P1-O8	2.88	126.48	112.24
2	E	401	A1JJX	O15-C34-C35	2.82	119.16	111.17
2	G	401	A1JJX	O15-C34-C28	-2.81	100.63	110.02
2	L	401	A1JJX	P2-O10-P1	2.76	142.30	132.83
2	K	401	A1JJX	O9-P1-O8	2.76	125.87	112.24
2	A	401	A1JJX	C24-C22-C25	-2.74	103.76	108.23
2	D	401	A1JJX	C23-C22-C25	2.69	112.62	108.23
2	I	401	A1JJX	C13-C12-S1	2.67	116.28	108.69
2	I	401	A1JJX	O9-P1-O8	2.67	125.44	112.24
2	F	401	A1JJX	O7-P1-O8	-2.62	98.84	109.07
2	C	401	A1JJX	C13-C12-S1	2.60	116.07	108.69
2	J	401	A1JJX	C23-C22-C21	2.59	113.30	108.82
2	G	401	A1JJX	C23-C22-C25	2.57	112.43	108.23
2	G	401	A1JJX	O16-P3-O19	-2.50	99.74	109.39
2	K	401	A1JJX	O18-P3-O17	2.46	117.06	107.64
2	J	401	A1JJX	O18-P3-O17	2.46	117.05	107.64
2	C	401	A1JJX	C23-C22-C25	-2.46	104.22	108.23
2	F	401	A1JJX	C24-C22-C25	2.46	112.25	108.23
2	C	401	A1JJX	C23-C22-C21	2.44	113.05	108.82
2	H	401	A1JJX	C13-C12-S1	2.44	115.61	108.69
2	D	401	A1JJX	O12-P2-O11	2.41	124.16	112.24
2	I	401	A1JJX	C23-C22-C25	2.40	112.15	108.23
2	A	401	A1JJX	O15-C34-C35	2.39	117.96	111.17
2	H	401	A1JJX	P2-O10-P1	2.38	141.00	132.83
2	H	401	A1JJX	C24-C22-C21	2.37	112.92	108.82
2	J	401	A1JJX	C13-C12-S1	2.32	115.27	108.69
2	A	401	A1JJX	O9-P1-O7	-2.31	97.03	107.75
2	E	401	A1JJX	C19-C18-C17	2.29	116.16	112.36
2	H	401	A1JJX	O2-C7-C6	2.26	115.95	109.16
2	F	401	A1JJX	O15-C34-C28	-2.25	102.50	110.02
2	B	401	A1JJX	O7-P1-O8	-2.23	100.35	109.07
2	A	401	A1JJX	C13-C12-S1	2.20	114.92	108.69
2	G	401	A1JJX	C13-C12-S1	2.19	114.92	108.69
2	L	401	A1JJX	O7-P1-O8	-2.18	100.56	109.07
2	E	401	A1JJX	O15-C34-C28	-2.18	102.75	110.02
2	B	401	A1JJX	O9-P1-O8	2.17	122.95	112.24
2	F	401	A1JJX	C19-C18-C17	2.15	115.94	112.36
2	L	401	A1JJX	O12-P2-O11	2.15	122.86	112.24
2	K	401	A1JJX	C13-C12-S1	2.12	114.70	108.69
2	D	401	A1JJX	C13-C12-S1	2.11	114.68	108.69
2	E	401	A1JJX	P2-O10-P1	2.11	140.06	132.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	I	401	A1JJX	O7-P1-O8	-2.11	100.84	109.07
2	F	401	A1JJX	O16-C35-C34	2.10	119.30	111.68
2	B	401	A1JJX	C13-C12-S1	2.10	114.65	108.69
2	L	401	A1JJX	C13-C12-S1	2.10	114.64	108.69
2	L	401	A1JJX	O18-P3-O19	2.09	118.85	110.68
2	L	401	A1JJX	C24-C22-C21	2.06	112.40	108.82
2	L	401	A1JJX	O18-P3-O16	-2.05	96.79	105.99
2	B	401	A1JJX	O17-P3-O16	-2.05	96.80	105.99
2	K	401	A1JJX	O17-P3-O19	-2.03	102.73	110.68
2	H	401	A1JJX	C24-C22-C25	-2.02	104.93	108.23
2	G	401	A1JJX	O3-C14-S2	-2.02	121.09	123.80

There are no chirality outliers.

All (142) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	401	A1JJX	C17-C18-C19-N2
2	B	401	A1JJX	C26-O13-P2-O10
2	D	401	A1JJX	O13-C26-C27-O14
2	D	401	A1JJX	O13-C26-C27-C35
2	E	401	A1JJX	C17-C18-C19-N2
2	E	401	A1JJX	C26-O13-P2-O10
2	E	401	A1JJX	C27-C35-O16-P3
2	F	401	A1JJX	C12-C14-S2-C15
2	F	401	A1JJX	O3-C14-S2-C15
2	G	401	A1JJX	C17-C18-C19-N2
2	G	401	A1JJX	C20-C21-C22-C23
2	G	401	A1JJX	C20-C21-C22-C24
2	G	401	A1JJX	C20-C21-C22-C25
2	G	401	A1JJX	O6-C21-C22-C23
2	G	401	A1JJX	O6-C21-C22-C25
2	G	401	A1JJX	C25-O7-P1-O8
2	H	401	A1JJX	C15-C16-N1-C17
2	H	401	A1JJX	C20-C21-C22-C24
2	H	401	A1JJX	C20-C21-C22-C25
2	H	401	A1JJX	P1-O10-P2-O13
2	I	401	A1JJX	C25-O7-P1-O9
2	L	401	A1JJX	C26-O13-P2-O10
2	L	401	A1JJX	C26-O13-P2-O12
2	A	401	A1JJX	C3-C2-O1-C1
2	A	401	A1JJX	C38-C2-O1-C1
2	H	401	A1JJX	C38-C2-O1-C1

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Mol	Chain	Res	Type	Atoms
2	I	401	A1JJX	C3-C2-O1-C1
2	I	401	A1JJX	C38-C2-O1-C1
2	H	401	A1JJX	C3-C2-O1-C1
2	B	401	A1JJX	O13-C26-C27-O14
2	E	401	A1JJX	O13-C26-C27-O14
2	H	401	A1JJX	O13-C26-C27-O14
2	H	401	A1JJX	O13-C26-C27-C35
2	L	401	A1JJX	O13-C26-C27-O14
2	L	401	A1JJX	O13-C26-C27-C35
2	K	401	A1JJX	C38-C2-O1-C1
2	K	401	A1JJX	C3-C2-O1-C1
2	B	401	A1JJX	C34-C35-O16-P3
2	E	401	A1JJX	C9-C8-O2-C7
2	E	401	A1JJX	C37-C8-O2-C7
2	G	401	A1JJX	C38-C2-O1-C1
2	G	401	A1JJX	C3-C2-O1-C1
2	B	401	A1JJX	C27-C35-O16-P3
2	B	401	A1JJX	C38-C2-O1-C1
2	F	401	A1JJX	C18-C17-N1-C16
2	B	401	A1JJX	C3-C2-O1-C1
2	E	401	A1JJX	C3-C2-O1-C1
2	E	401	A1JJX	C38-C2-O1-C1
2	F	401	A1JJX	O4-C17-N1-C16
2	C	401	A1JJX	C17-C18-C19-N2
2	D	401	A1JJX	C17-C18-C19-N2
2	I	401	A1JJX	C17-C18-C19-N2
2	L	401	A1JJX	C17-C18-C19-N2
2	C	401	A1JJX	C9-C8-O2-C7
2	C	401	A1JJX	C37-C8-O2-C7
2	G	401	A1JJX	O6-C21-C22-C24
2	E	401	A1JJX	P2-O10-P1-O7
2	B	401	A1JJX	O13-C26-C27-C35
2	E	401	A1JJX	O13-C26-C27-C35
2	A	401	A1JJX	C35-O16-P3-O19
2	J	401	A1JJX	C35-O16-P3-O19
2	K	401	A1JJX	C17-C18-C19-N2
2	A	401	A1JJX	S1-C12-C14-O3
2	B	401	A1JJX	S1-C12-C14-O3
2	C	401	A1JJX	S1-C12-C14-O3
2	D	401	A1JJX	S1-C12-C14-O3
2	E	401	A1JJX	S1-C12-C14-O3
2	F	401	A1JJX	S1-C12-C14-O3

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Mol	Chain	Res	Type	Atoms
2	G	401	A1JJX	S1-C12-C14-O3
2	H	401	A1JJX	S1-C12-C14-O3
2	I	401	A1JJX	S1-C12-C14-O3
2	J	401	A1JJX	S1-C12-C14-O3
2	K	401	A1JJX	S1-C12-C14-O3
2	L	401	A1JJX	S1-C12-C14-O3
2	H	401	A1JJX	C20-C21-C22-C23
2	H	401	A1JJX	P2-O10-P1-O8
2	I	401	A1JJX	C9-C8-O2-C7
2	B	401	A1JJX	C26-O13-P2-O11
2	B	401	A1JJX	C26-O13-P2-O12
2	G	401	A1JJX	C25-O7-P1-O9
2	H	401	A1JJX	C25-O7-P1-O9
2	H	401	A1JJX	O3-C14-S2-C15
2	H	401	A1JJX	O6-C21-C22-C25
2	I	401	A1JJX	C37-C8-O2-C7
2	J	401	A1JJX	C14-C12-S1-C11
2	E	401	A1JJX	C6-C7-O2-C8
2	H	401	A1JJX	O6-C21-C22-C23
2	H	401	A1JJX	O6-C21-C22-C24
2	A	401	A1JJX	P1-O10-P2-O12
2	C	401	A1JJX	P1-O10-P2-O12
2	J	401	A1JJX	P1-O10-P2-O12
2	F	401	A1JJX	C37-C8-O2-C7
2	J	401	A1JJX	C17-C18-C19-N2
2	I	401	A1JJX	O13-C26-C27-O14
2	J	401	A1JJX	O13-C26-C27-O14
2	H	401	A1JJX	C12-C14-S2-C15
2	F	401	A1JJX	C9-C8-O2-C7
2	F	401	A1JJX	C16-C15-S2-C14
2	K	401	A1JJX	P1-O10-P2-O12
2	C	401	A1JJX	C35-O16-P3-O19
2	E	401	A1JJX	C35-O16-P3-O19
2	H	401	A1JJX	C35-O16-P3-O19
2	K	401	A1JJX	C37-C8-O2-C7
2	K	401	A1JJX	C9-C8-O2-C7
2	D	401	A1JJX	C38-C2-O1-C1
2	F	401	A1JJX	C17-C18-C19-N2
2	H	401	A1JJX	C17-C18-C19-N2
2	F	401	A1JJX	C15-C16-N1-C17
2	A	401	A1JJX	O13-C26-C27-O14
2	L	401	A1JJX	C3-C2-O1-C1

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Mol	Chain	Res	Type	Atoms
2	A	401	A1JJX	C35-O16-P3-O17
2	E	401	A1JJX	C35-O16-P3-O18
2	F	401	A1JJX	C35-O16-P3-O17
2	F	401	A1JJX	C35-O16-P3-O18
2	G	401	A1JJX	C25-O7-P1-O10
2	L	401	A1JJX	C38-C2-O1-C1
2	K	401	A1JJX	O13-C26-C27-O14
2	B	401	A1JJX	P1-O10-P2-O12
2	H	401	A1JJX	P2-O10-P1-O9
2	H	401	A1JJX	P1-O10-P2-O11
2	H	401	A1JJX	P1-O10-P2-O12
2	I	401	A1JJX	P1-O10-P2-O12
2	C	401	A1JJX	C26-O13-P2-O11
2	D	401	A1JJX	C26-O13-P2-O11
2	E	401	A1JJX	C26-O13-P2-O11
2	G	401	A1JJX	C26-O13-P2-O11
2	H	401	A1JJX	C25-O7-P1-O8
2	J	401	A1JJX	C26-O13-P2-O11
2	K	401	A1JJX	C26-O13-P2-O11
2	C	401	A1JJX	O13-C26-C27-O14
2	F	401	A1JJX	O13-C26-C27-O14
2	G	401	A1JJX	O13-C26-C27-O14
2	D	401	A1JJX	C3-C2-O1-C1
2	E	401	A1JJX	C24-C22-C25-O7
2	B	401	A1JJX	C13-C12-S1-C11
2	C	401	A1JJX	C13-C12-S1-C11
2	D	401	A1JJX	C13-C12-S1-C11
2	E	401	A1JJX	C13-C12-S1-C11
2	F	401	A1JJX	C13-C12-S1-C11
2	G	401	A1JJX	C13-C12-S1-C11
2	I	401	A1JJX	C13-C12-S1-C11
2	L	401	A1JJX	C13-C12-S1-C11

There are no ring outliers.

6 monomers are involved in 10 short contacts:

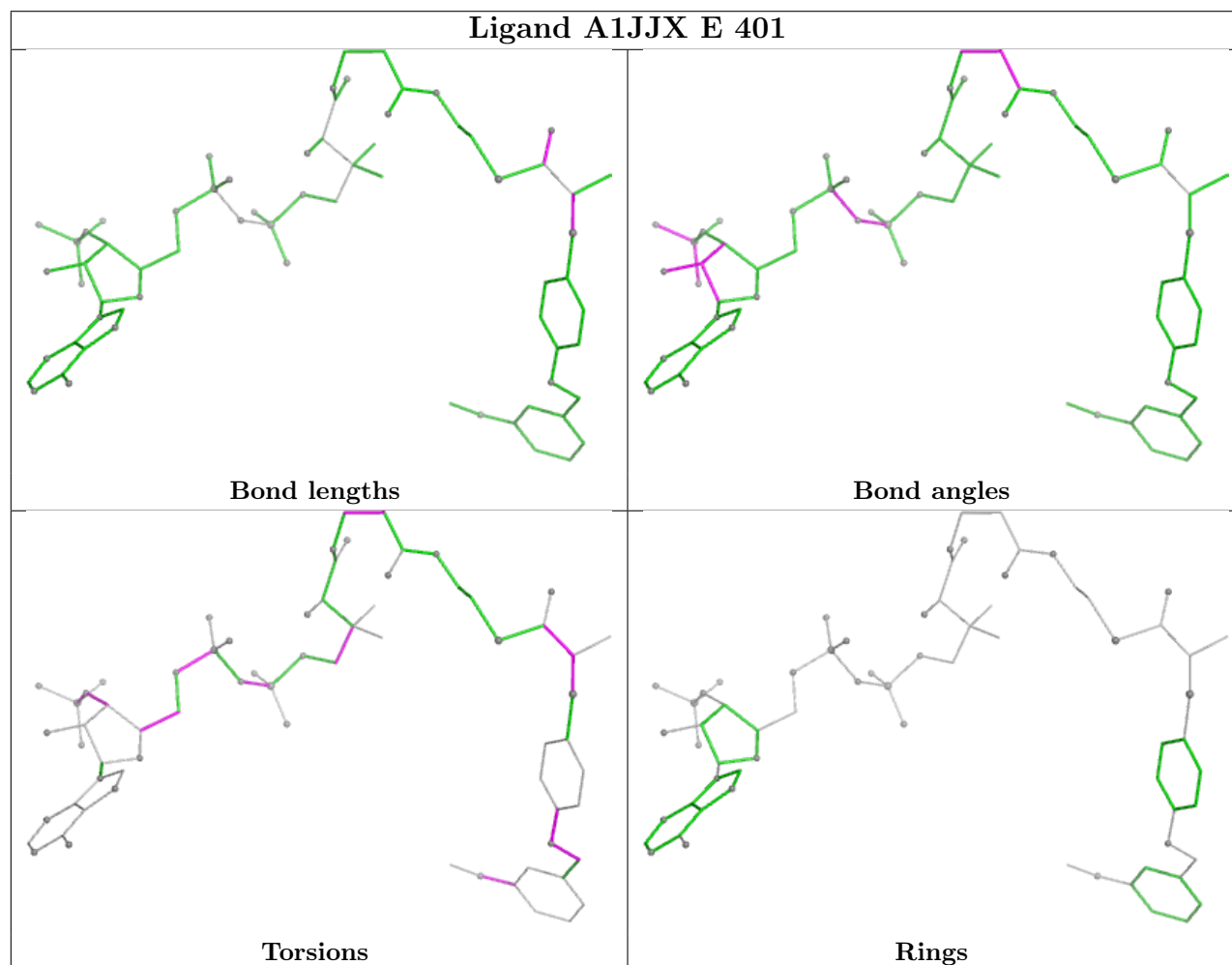
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	401	A1JJX	1	0
2	G	401	A1JJX	2	0
2	C	401	A1JJX	1	0
2	H	401	A1JJX	2	0
2	K	401	A1JJX	1	0

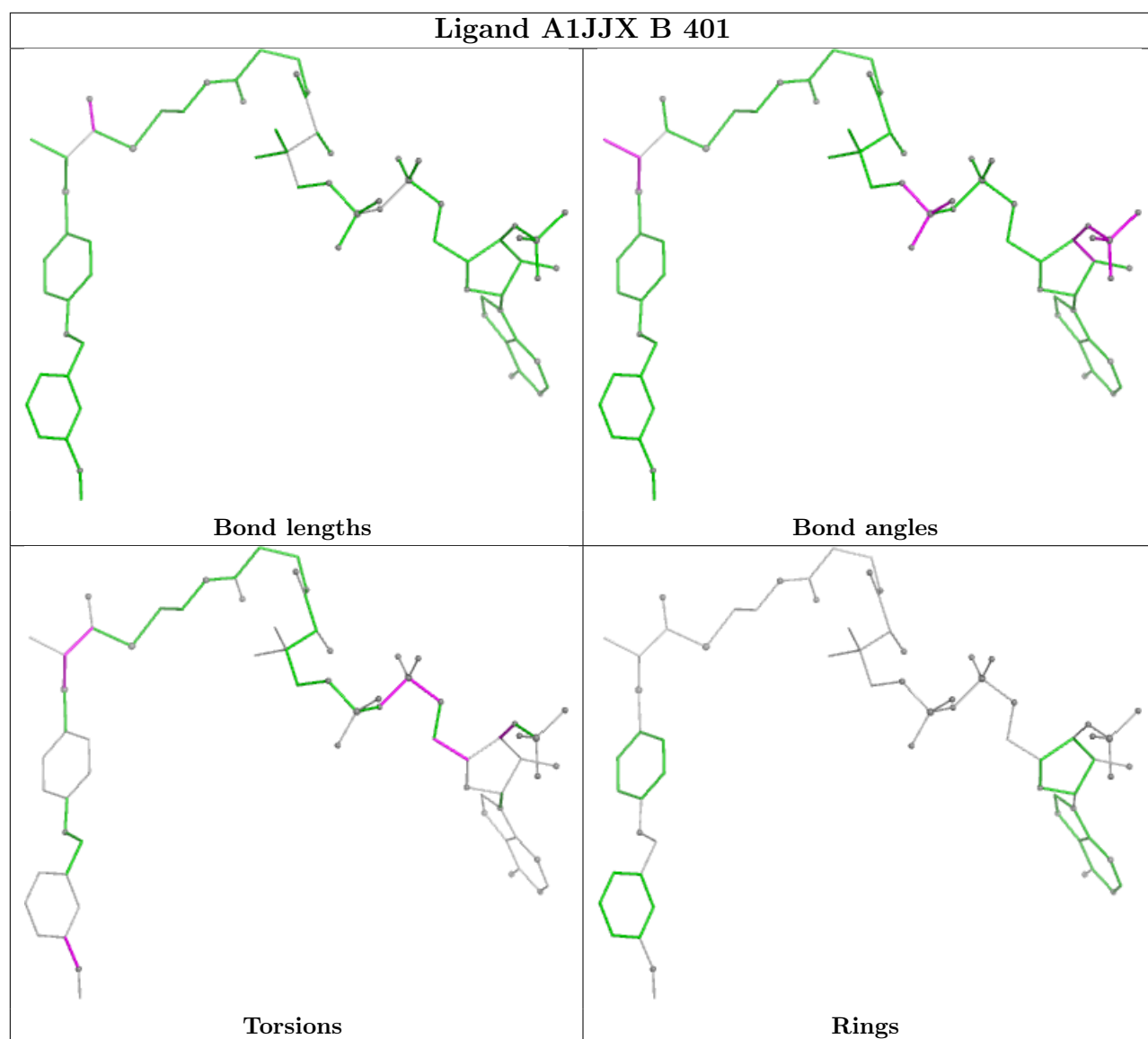
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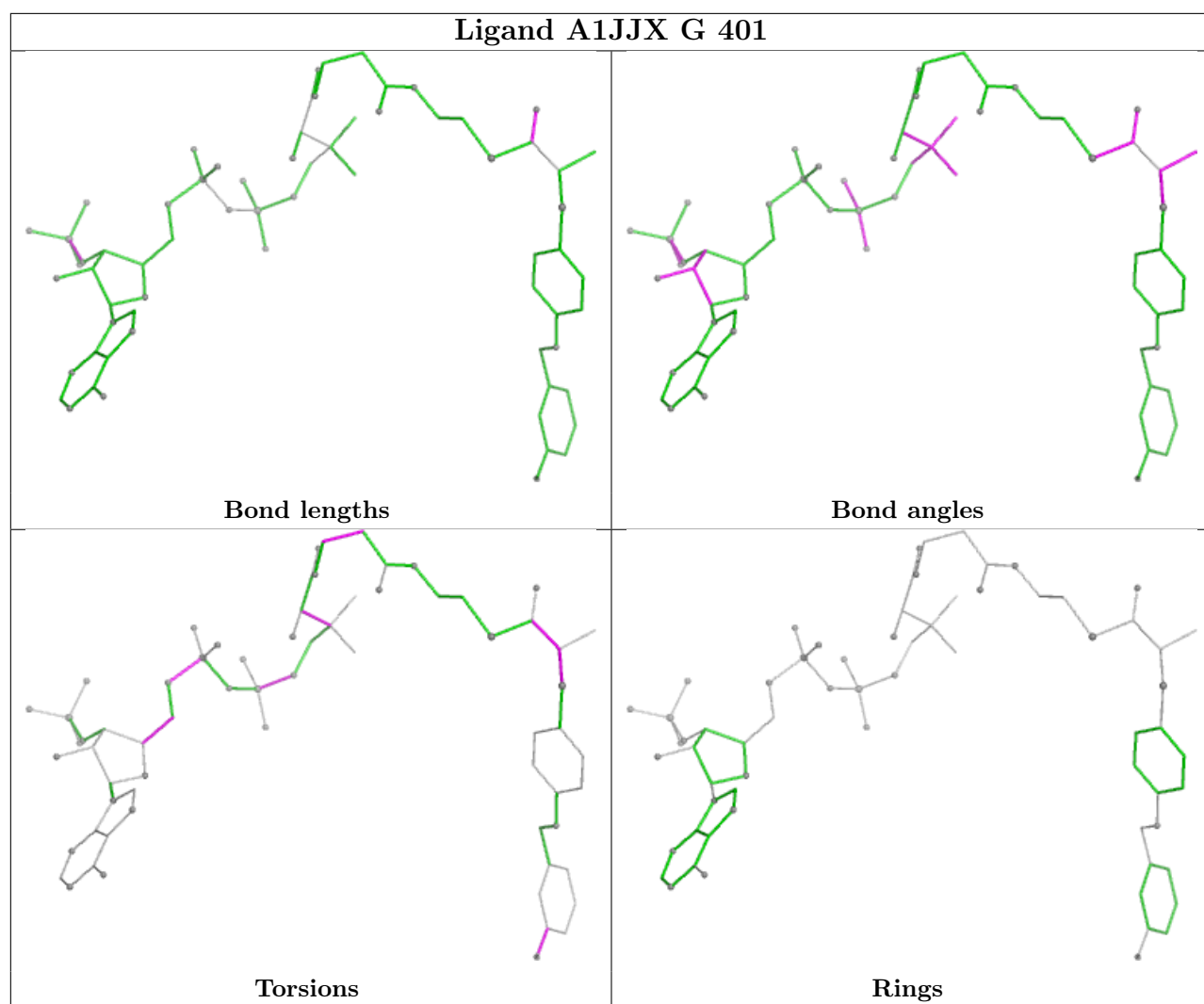
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Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	F	401	A1JJX	3	0

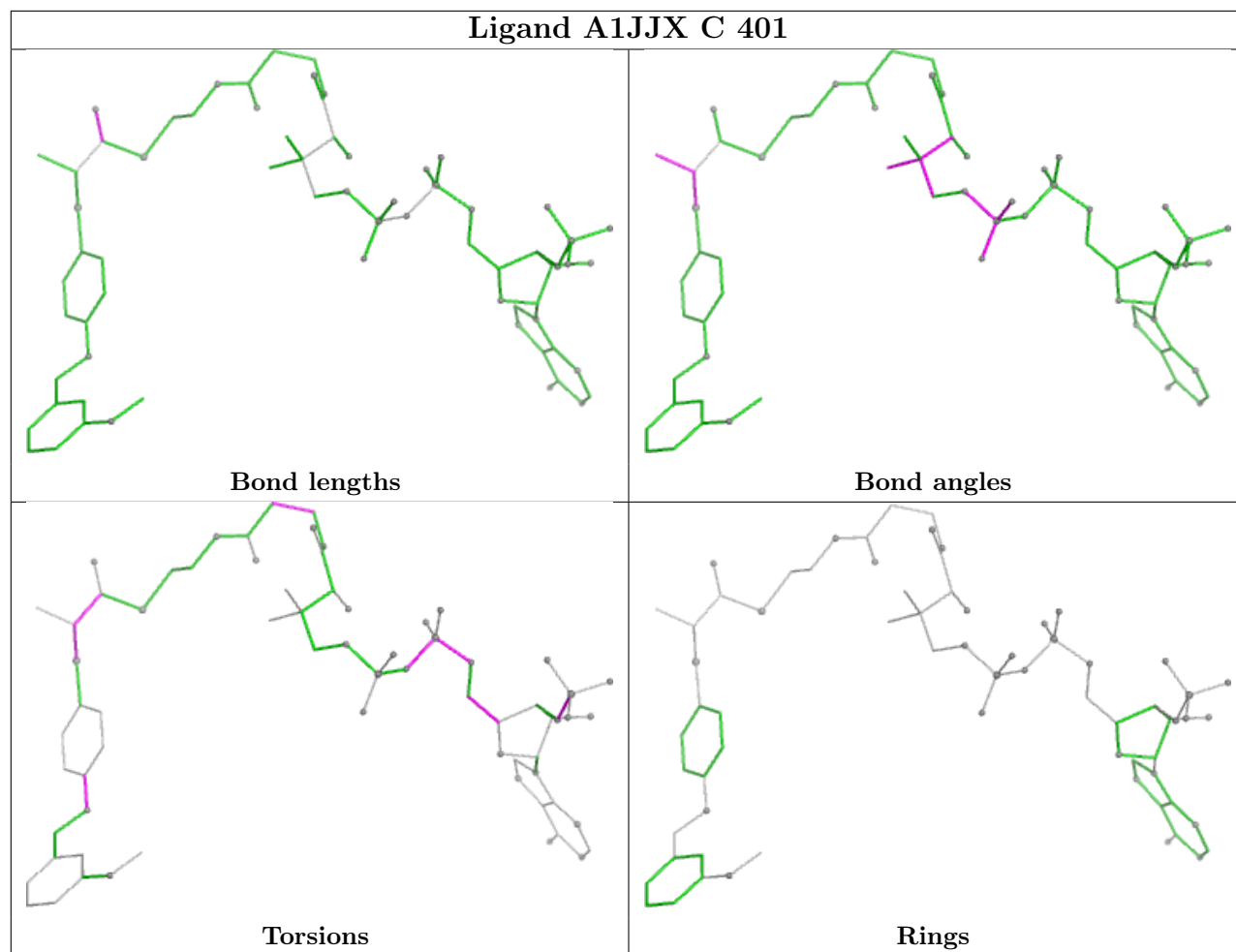
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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



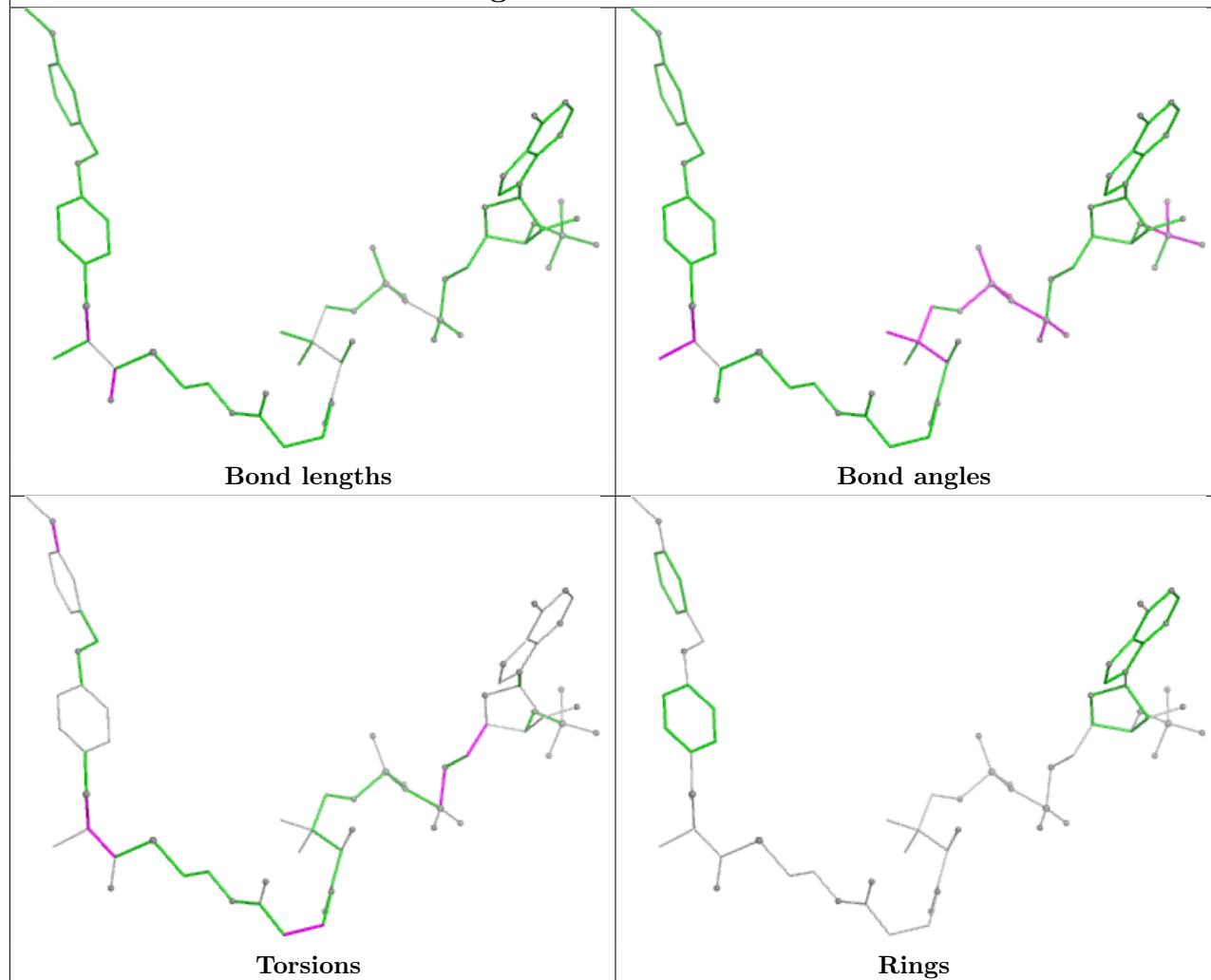




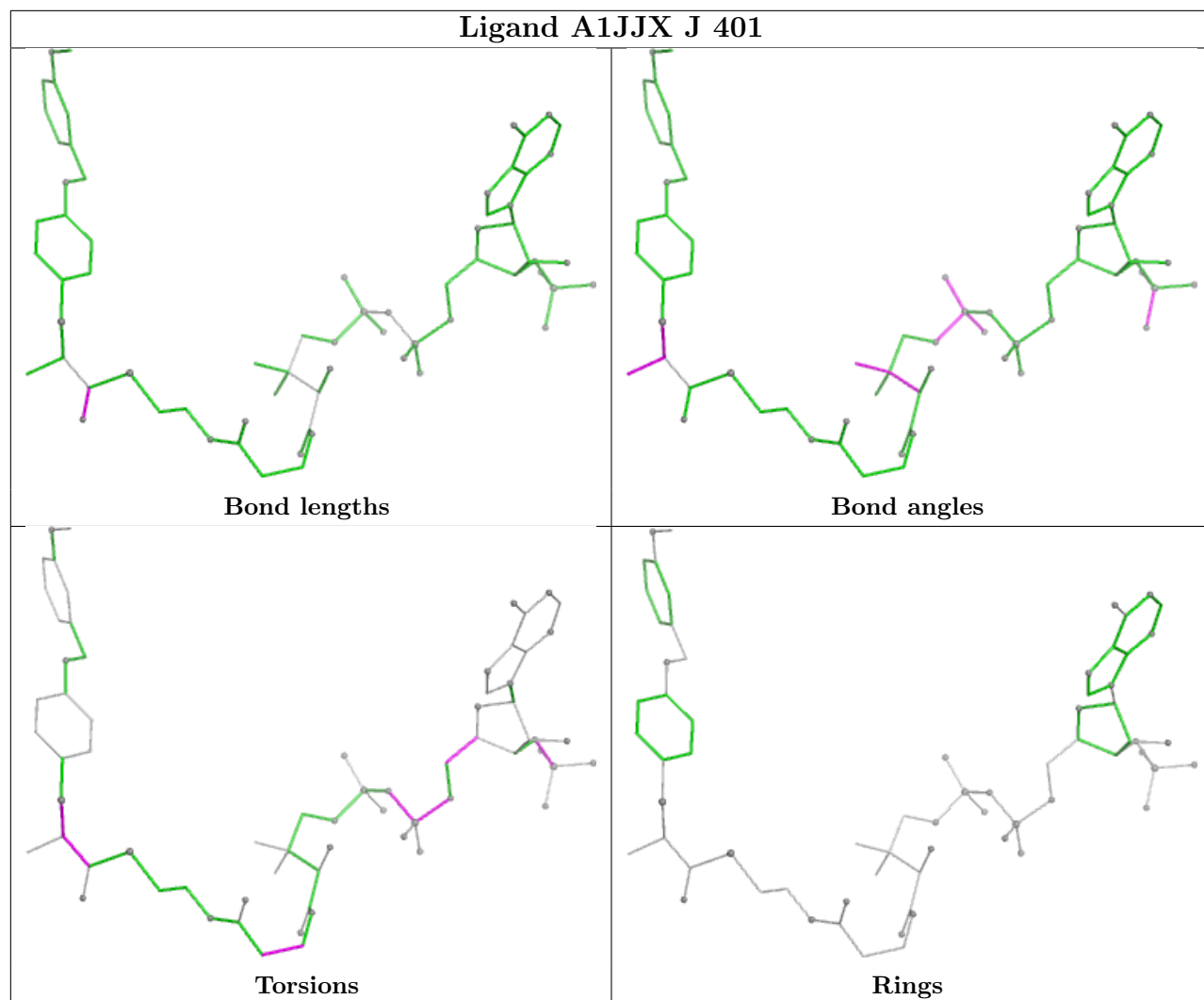
Ligand A1JJX C 401



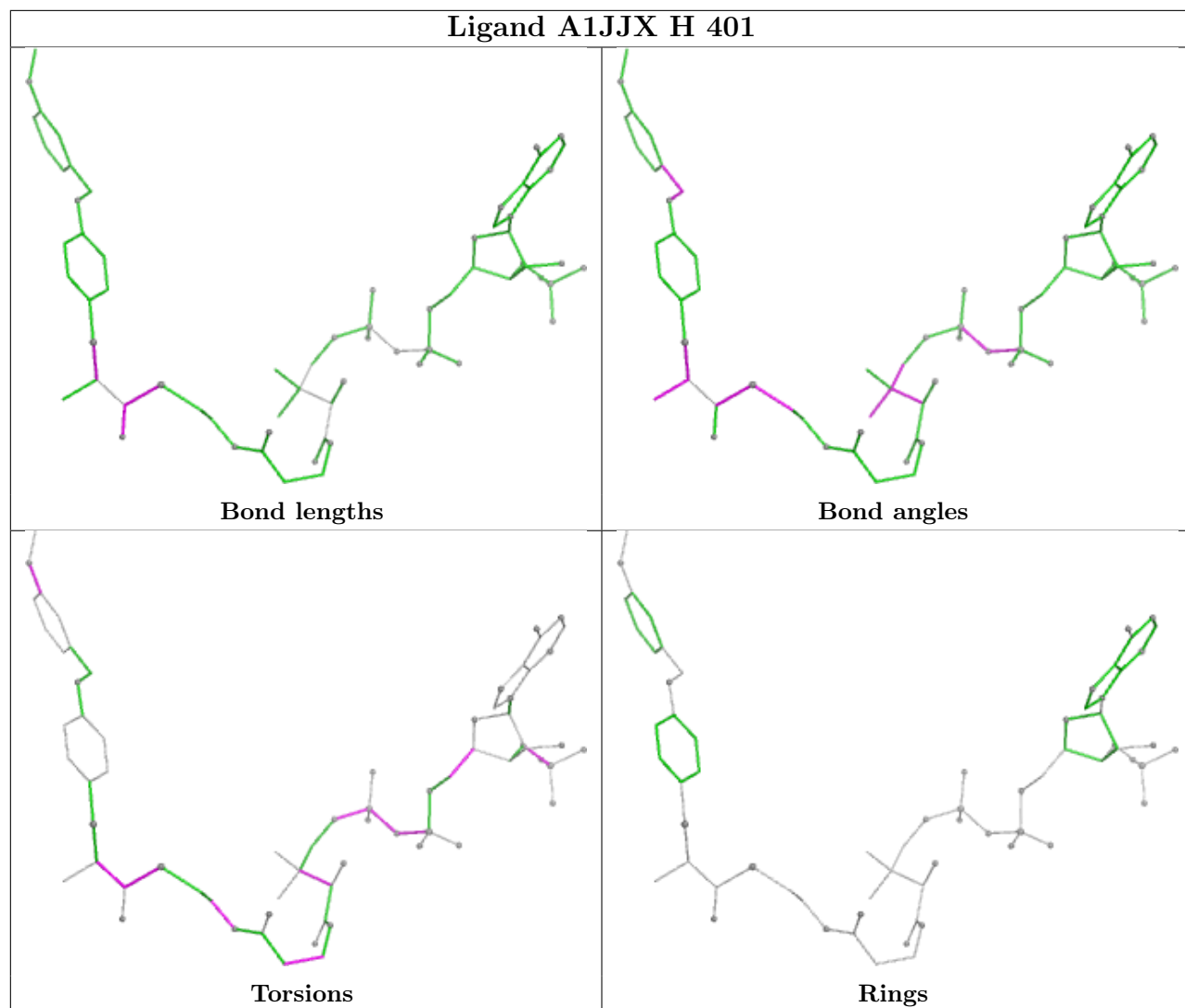
Ligand A1JJX L 401

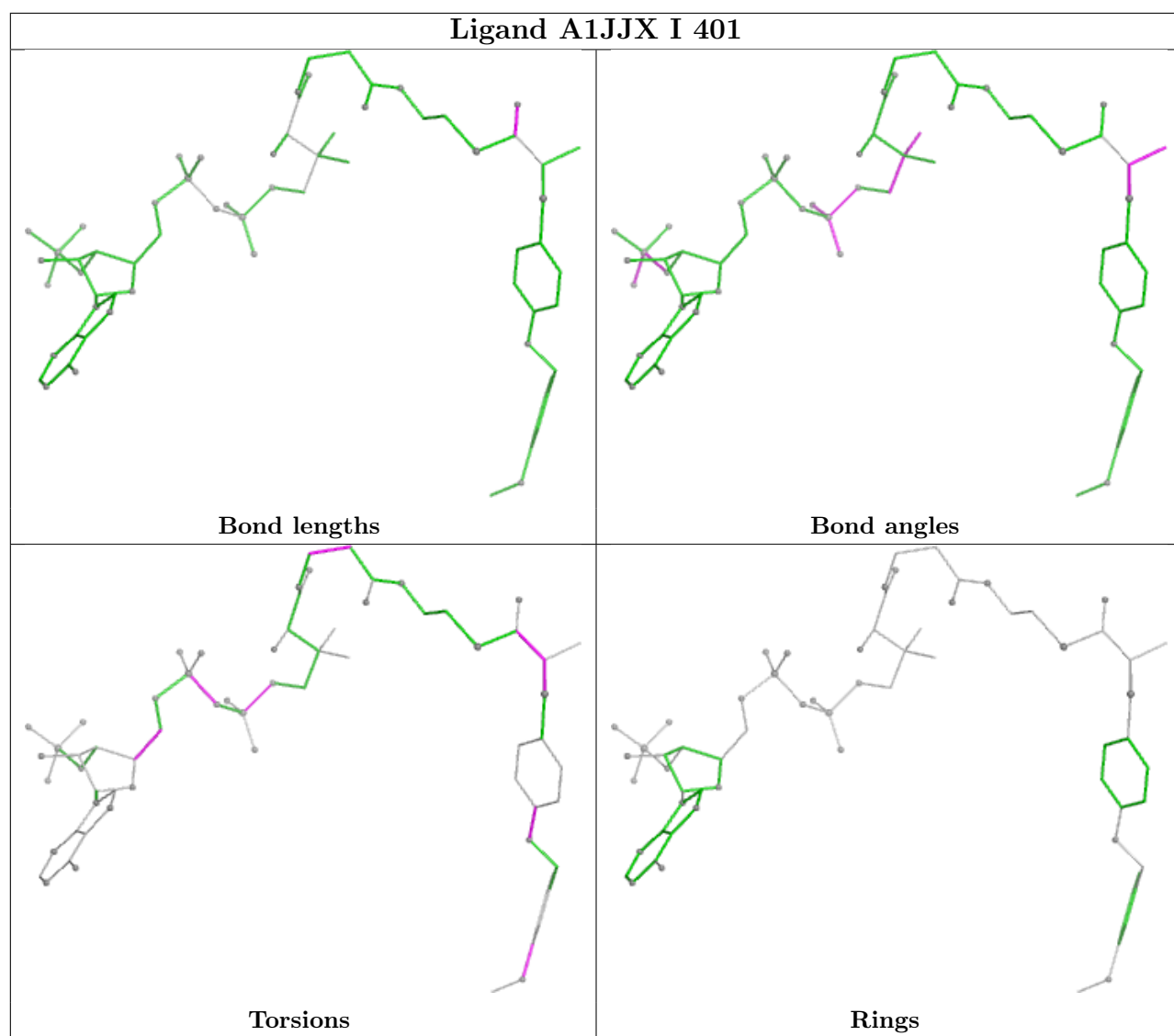


Ligand A1JJX J 401

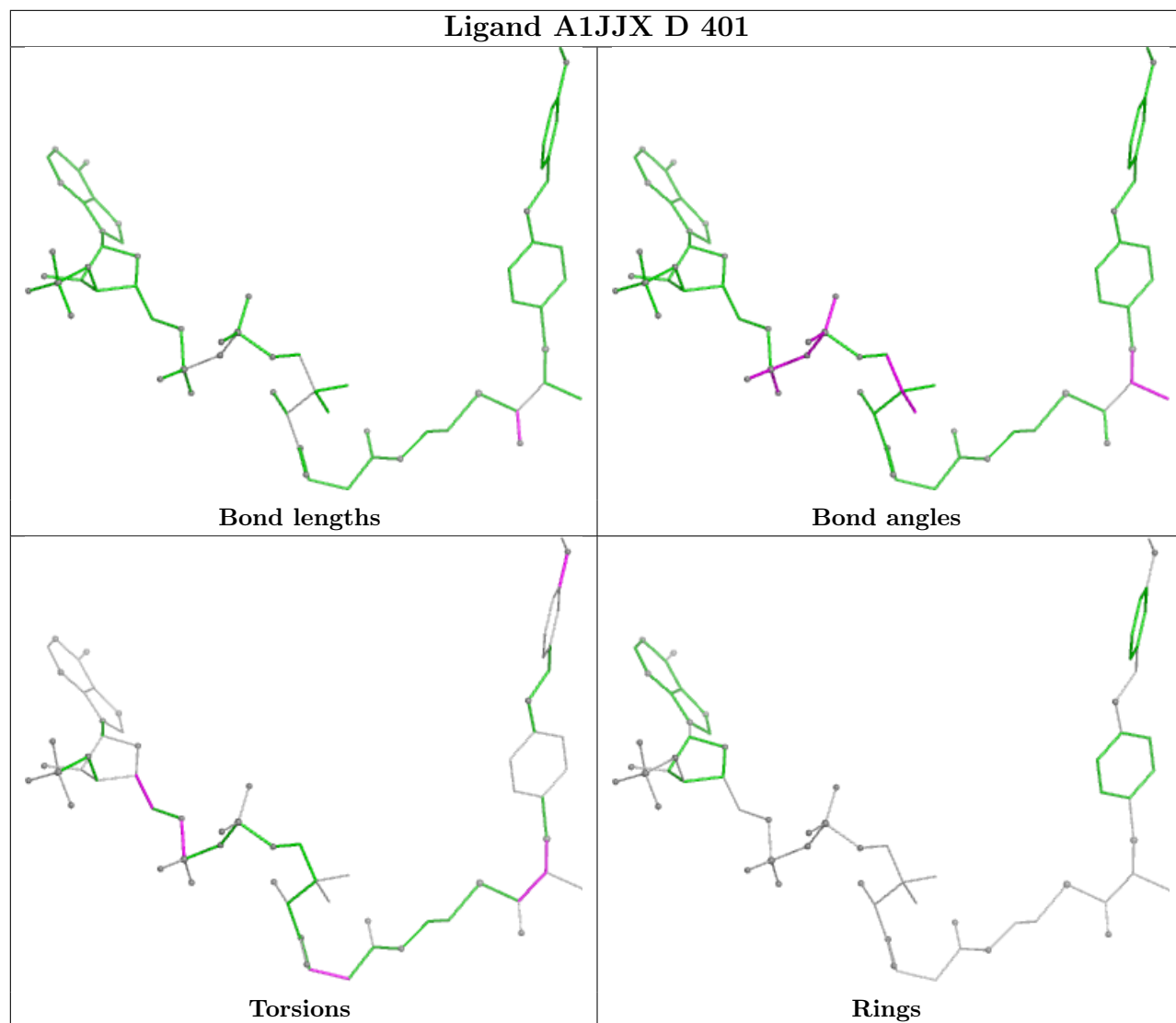


Ligand A1JJX H 401

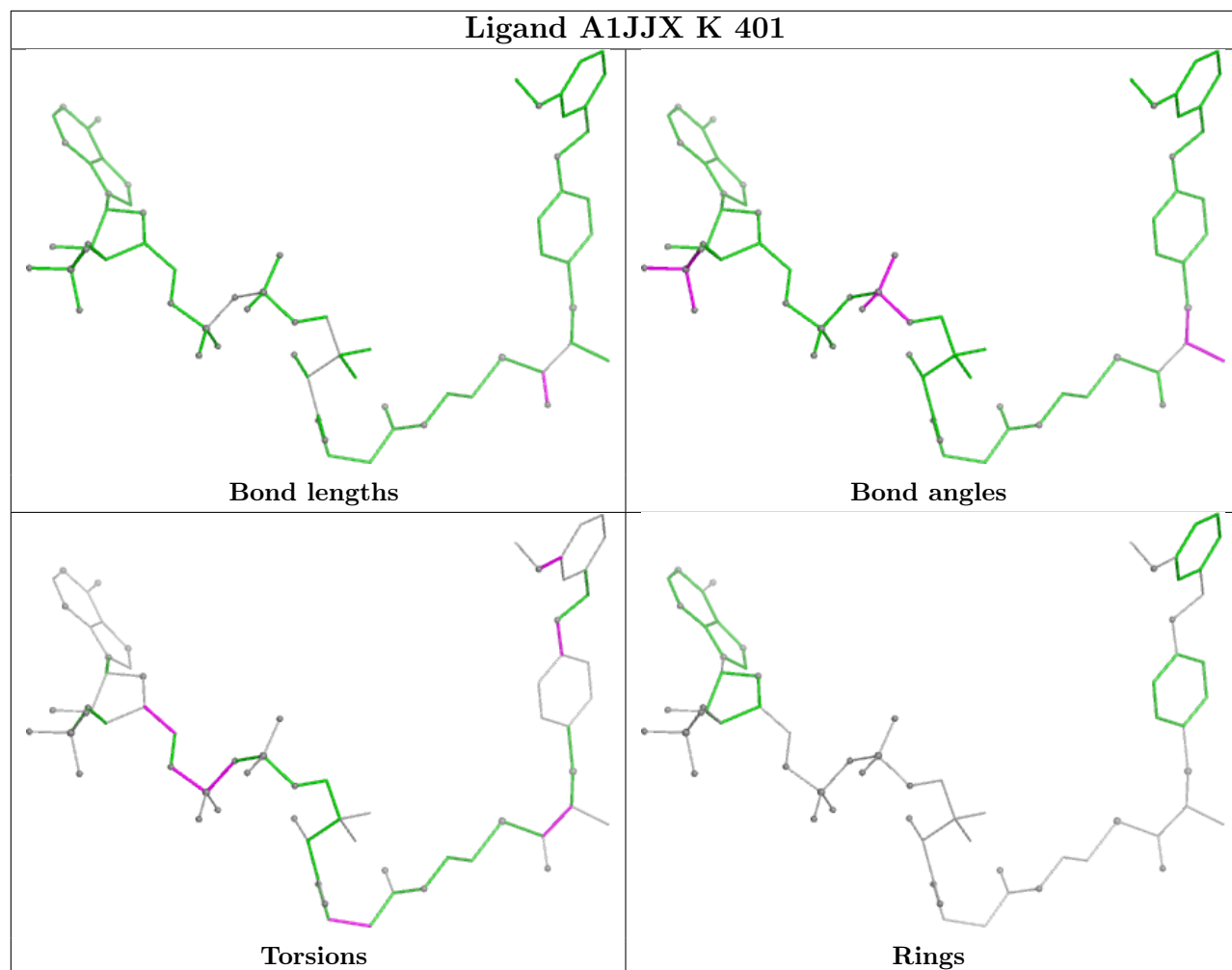




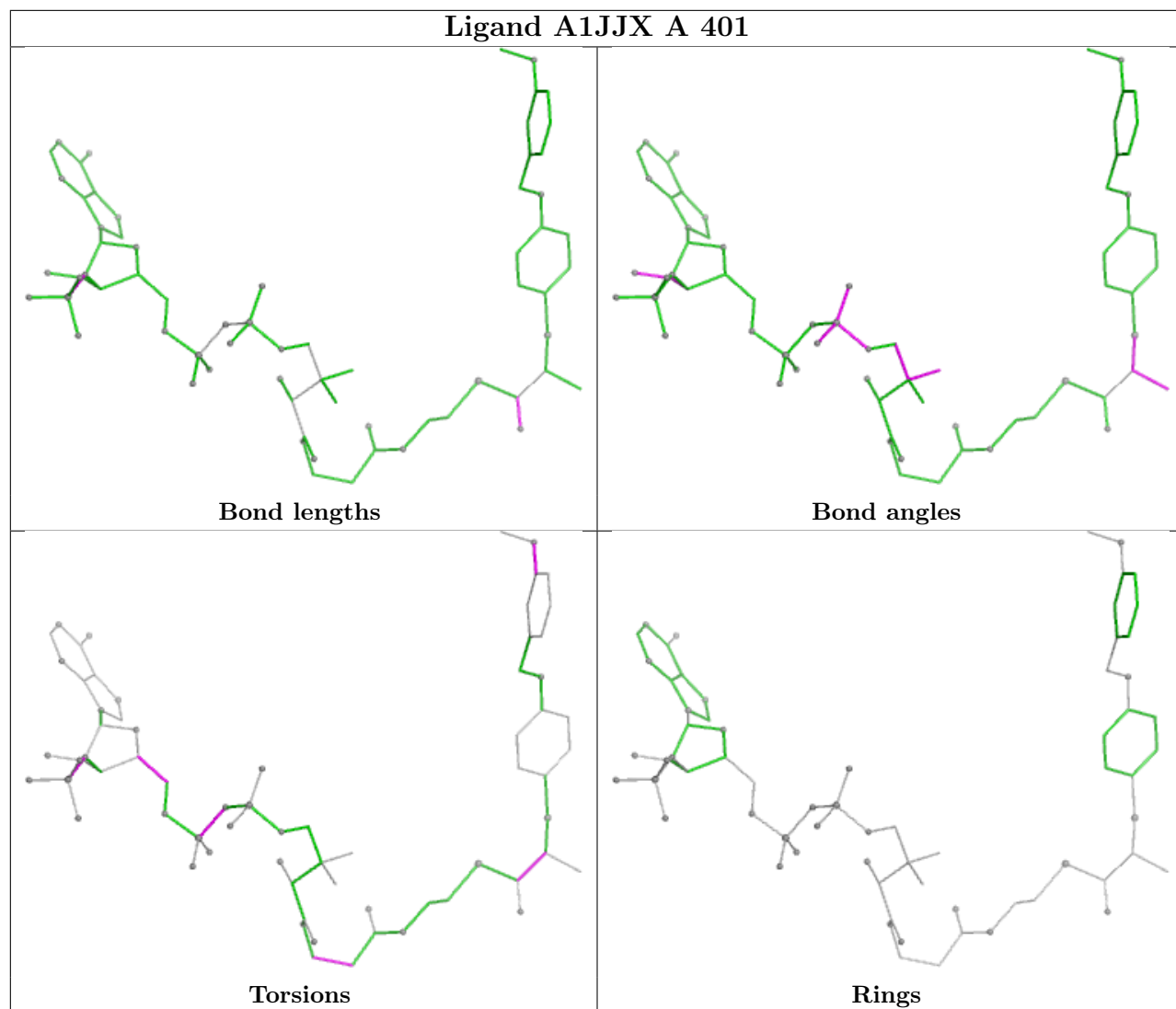
Ligand A1JJX D 401

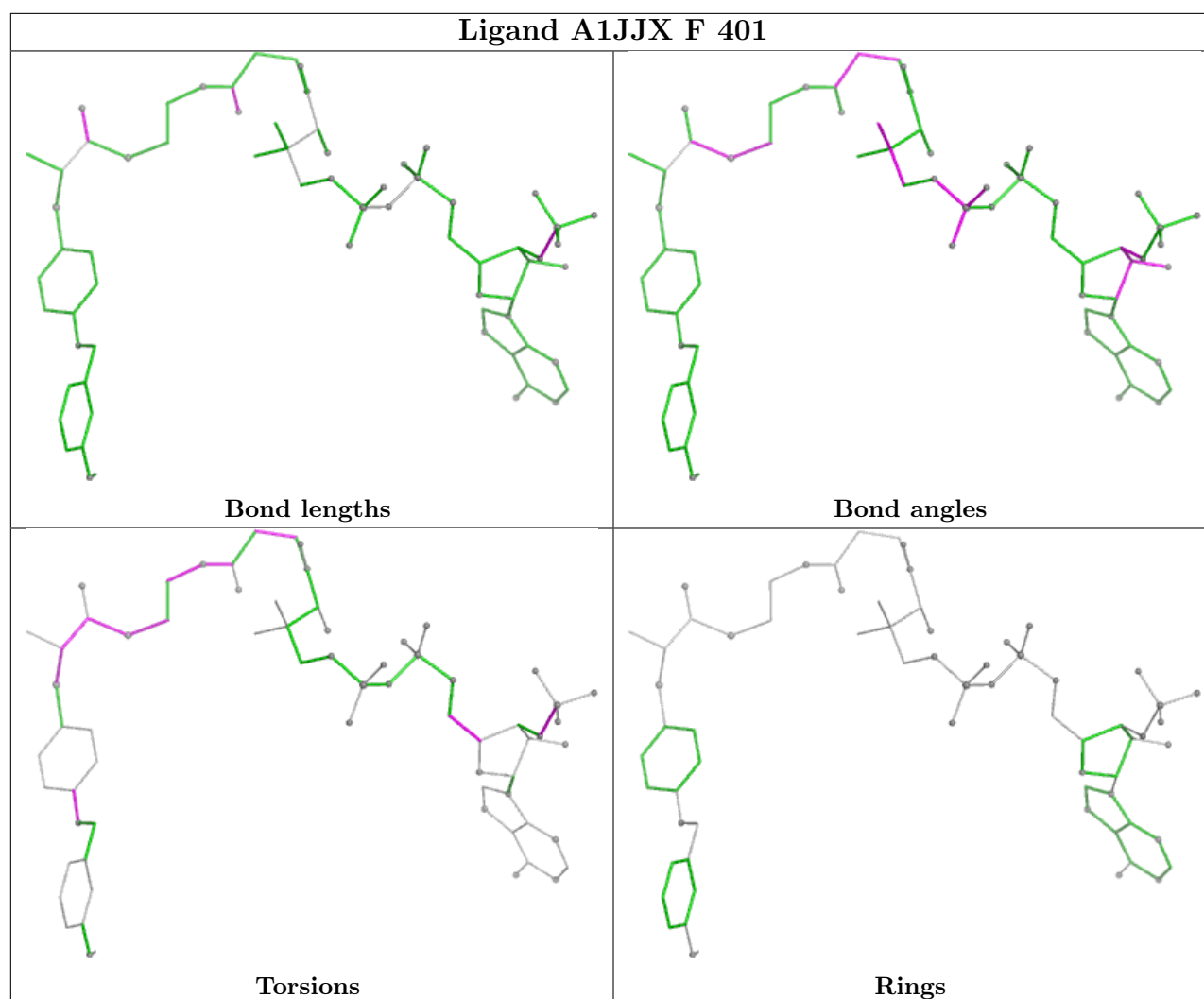


Ligand A1JJX K 401



Ligand A1JJX A 401





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, 95th 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	357/364 (98%)	0.49	33 (9%)	14 16	28, 46, 93, 124	2 (0%)
1	B	357/364 (98%)	0.34	26 (7%)	21 23	18, 45, 92, 136	2 (0%)
1	C	357/364 (98%)	0.49	35 (9%)	13 14	29, 47, 94, 131	2 (0%)
1	D	357/364 (98%)	0.51	37 (10%)	11 13	28, 47, 88, 133	1 (0%)
1	E	359/364 (98%)	0.58	44 (12%)	8 9	18, 48, 103, 132	3 (0%)
1	F	357/364 (98%)	0.68	51 (14%)	6 7	29, 51, 97, 138	1 (0%)
1	G	357/364 (98%)	0.96	83 (23%)	2 2	29, 53, 109, 138	2 (0%)
1	H	359/364 (98%)	0.75	59 (16%)	4 5	30, 52, 111, 138	1 (0%)
1	I	359/364 (98%)	0.31	19 (5%)	32 34	30, 46, 87, 129	2 (0%)
1	J	356/364 (97%)	0.28	18 (5%)	33 35	31, 45, 83, 126	1 (0%)
1	K	356/364 (97%)	0.42	32 (8%)	15 16	21, 46, 92, 135	3 (0%)
1	L	359/364 (98%)	0.38	22 (6%)	27 29	30, 47, 91, 119	1 (0%)
All	All	4290/4368 (98%)	0.52	459 (10%)	11 12	18, 48, 97, 138	21 (0%)

All (459) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	42	VAL	8.8
1	G	42	VAL	7.4
1	A	346	ALA	7.1
1	D	42	VAL	6.6
1	D	346	ALA	6.5
1	C	42	VAL	6.4
1	D	45	ILE	6.3
1	G	45	ILE	6.1
1	K	45	ILE	6.0
1	J	346	ALA	5.8
1	I	346	ALA	5.7

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Mol	Chain	Res	Type	RSRZ
1	B	346	ALA	5.5
1	A	45	ILE	5.4
1	H	346	ALA	5.4
1	F	42	VAL	5.4
1	E	346	ALA	5.3
1	L	45	ILE	5.2
1	B	45	ILE	5.2
1	E	349	ILE	5.2
1	K	346	ALA	5.0
1	I	45	ILE	5.0
1	C	346	ALA	4.9
1	C	45	ILE	4.8
1	H	45	ILE	4.7
1	D	347	ALA	4.7
1	G	351	ILE	4.7
1	G	102	VAL	4.6
1	J	45	ILE	4.6
1	G	347	ALA	4.4
1	G	11	VAL	4.4
1	E	42	VAL	4.4
1	F	346	ALA	4.4
1	G	69	LEU	4.4
1	G	349	ILE	4.4
1	H	7	GLY	4.3
1	E	45	ILE	4.3
1	L	180	LYS	4.2
1	F	347	ALA	4.2
1	G	10	VAL	4.2
1	H	349	ILE	4.2
1	L	349	ILE	4.2
1	K	41	SER	4.1
1	A	348	THR	4.1
1	K	350	ASP	4.1
1	K	324	GLY	4.1
1	G	348	THR	4.1
1	F	349	ILE	4.1
1	H	34	VAL	4.1
1	H	207	MET	4.0
1	H	16	ILE	4.0
1	G	346	ALA	4.0
1	D	348	THR	4.0
1	H	178	SER	3.9

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Mol	Chain	Res	Type	RSRZ
1	G	324	GLY	3.9
1	F	46	SER	3.9
1	G	107	ILE	3.9
1	G	33	VAL	3.9
1	L	346	ALA	3.9
1	G	178	SER	3.9
1	D	324	GLY	3.9
1	E	16	ILE	3.8
1	G	101	LYS	3.8
1	G	93	GLY	3.8
1	L	324	GLY	3.8
1	C	347	ALA	3.8
1	C	323	ASN	3.8
1	F	359	ASP	3.8
1	J	345	PRO	3.8
1	H	355	LEU	3.8
1	I	323	ASN	3.7
1	I	47	ARG	3.7
1	E	347	ALA	3.7
1	A	349	ILE	3.7
1	B	351	ILE	3.7
1	E	351	ILE	3.6
1	F	351	ILE	3.6
1	A	69	LEU	3.6
1	G	1	MET	3.6
1	F	324	GLY	3.6
1	A	347	ALA	3.6
1	E	324	GLY	3.6
1	G	72	LYS	3.6
1	H	322	ALA	3.6
1	K	347	ALA	3.6
1	K	348	THR	3.6
1	C	345	PRO	3.6
1	A	351	ILE	3.5
1	G	62	LYS	3.5
1	G	354	VAL	3.5
1	H	2	ALA	3.5
1	A	47	ARG	3.5
1	C	66	GLY	3.5
1	D	351	ILE	3.5
1	H	324	GLY	3.5
1	F	11	VAL	3.5

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Mol	Chain	Res	Type	RSRZ
1	G	34	VAL	3.5
1	I	176	GLN	3.5
1	D	180	LYS	3.5
1	K	176	GLN	3.4
1	L	348	THR	3.4
1	D	2	ALA	3.4
1	G	76	LYS	3.4
1	H	179	GLY	3.4
1	H	8	LEU	3.4
1	J	351	ILE	3.4
1	A	93	GLY	3.4
1	H	57	VAL	3.3
1	H	347	ALA	3.3
1	K	102	VAL	3.3
1	F	1	MET	3.3
1	G	293	ASN	3.3
1	G	99	CYS	3.3
1	G	97	GLU	3.3
1	A	76	LYS	3.3
1	C	176	GLN	3.3
1	A	324	GLY	3.3
1	G	73	LEU	3.3
1	E	58	THR	3.3
1	I	42	VAL	3.3
1	F	144	ASP	3.2
1	D	345	PRO	3.2
1	G	100	ALA	3.2
1	G	358	TRP	3.2
1	G	179	GLY	3.2
1	H	144	ASP	3.2
1	A	72	LYS	3.2
1	A	41	SER	3.2
1	B	347	ALA	3.2
1	G	79	VAL	3.2
1	B	345	PRO	3.2
1	F	176	GLN	3.2
1	H	42	VAL	3.2
1	G	355	LEU	3.2
1	H	58	THR	3.2
1	K	47	ARG	3.1
1	I	351	ILE	3.1
1	F	348	THR	3.1

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Mol	Chain	Res	Type	RSRZ
1	B	76	LYS	3.1
1	J	324	GLY	3.1
1	B	1	MET	3.1
1	H	326	TRP	3.1
1	E	176	GLN	3.1
1	G	7	GLY	3.1
1	G	176	GLN	3.1
1	D	59	ALA	3.1
1	G	292	ALA	3.1
1	J	347	ALA	3.1
1	A	345	PRO	3.1
1	F	106	LEU	3.1
1	E	207	MET	3.1
1	D	359	ASP	3.0
1	H	323	ASN	3.0
1	F	101	LYS	3.0
1	G	353	ALA	3.0
1	E	1	MET	3.0
1	H	1	MET	3.0
1	F	258	GLU	3.0
1	H	351	ILE	3.0
1	C	76	LYS	3.0
1	F	62	LYS	3.0
1	K	180	LYS	3.0
1	G	173	TRP	3.0
1	K	359	ASP	3.0
1	H	56	ILE	3.0
1	A	180	LYS	3.0
1	F	49	ALA	2.9
1	A	101	LYS	2.9
1	E	180	LYS	2.9
1	G	70	ALA	2.9
1	G	57	VAL	2.9
1	D	349	ILE	2.9
1	G	56	ILE	2.9
1	J	349	ILE	2.9
1	D	97	GLU	2.9
1	G	63	SER	2.9
1	K	1	MET	2.9
1	I	44	GLY	2.9
1	E	47	ARG	2.9
1	H	105	ARG	2.9

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Mol	Chain	Res	Type	RSRZ
1	K	349	ILE	2.9
1	B	46	SER	2.9
1	B	350	ASP	2.9
1	E	178	SER	2.9
1	F	66	GLY	2.9
1	G	96	PRO	2.9
1	G	183	VAL	2.9
1	C	1	MET	2.9
1	F	107	ILE	2.9
1	I	349	ILE	2.9
1	G	46	SER	2.8
1	G	350	ASP	2.9
1	F	180	LYS	2.8
1	K	76	LYS	2.8
1	H	334	PHE	2.8
1	L	347	ALA	2.8
1	H	354	VAL	2.8
1	H	358	TRP	2.8
1	E	323	ASN	2.8
1	H	66	GLY	2.8
1	H	176	GLN	2.8
1	F	59	ALA	2.8
1	J	41	SER	2.8
1	G	345	PRO	2.8
1	C	70	ALA	2.8
1	F	76	LYS	2.8
1	F	173	TRP	2.8
1	E	355	LEU	2.8
1	G	180	LYS	2.8
1	D	323	ASN	2.7
1	G	36	ILE	2.7
1	J	359	ASP	2.7
1	I	324	GLY	2.7
1	I	1	MET	2.7
1	F	47	ARG	2.7
1	G	47	ARG	2.7
1	G	88	VAL	2.7
1	D	65	GLN	2.7
1	L	359	ASP	2.7
1	B	44	GLY	2.7
1	B	207	MET	2.7
1	D	207	MET	2.7

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Mol	Chain	Res	Type	RSRZ
1	H	106	LEU	2.7
1	G	49	ALA	2.7
1	K	49	ALA	2.7
1	B	65	GLN	2.7
1	A	323	ASN	2.7
1	J	48	ASP	2.7
1	C	349	ILE	2.7
1	F	72	LYS	2.7
1	H	345	PRO	2.7
1	A	1	MET	2.7
1	D	173	TRP	2.7
1	H	173	TRP	2.7
1	B	257	ALA	2.7
1	D	322	ALA	2.7
1	G	65	GLN	2.7
1	F	323	ASN	2.7
1	E	345	PRO	2.7
1	J	47	ARG	2.7
1	C	358	TRP	2.7
1	I	326	TRP	2.7
1	A	322	ALA	2.6
1	E	44	GLY	2.6
1	L	47	ARG	2.6
1	F	73	LEU	2.6
1	F	326	TRP	2.6
1	L	173	TRP	2.6
1	B	323	ASN	2.6
1	B	348	THR	2.6
1	C	351	ILE	2.6
1	C	101	LYS	2.6
1	F	43	ASP	2.6
1	E	39	PRO	2.6
1	G	108	TYR	2.6
1	F	41	SER	2.6
1	D	355	LEU	2.6
1	H	47	ARG	2.6
1	L	1	MET	2.6
1	G	41	SER	2.6
1	A	49	ALA	2.5
1	J	49	ALA	2.5
1	B	358	TRP	2.5
1	C	93	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
1	F	345	PRO	2.5
1	H	39	PRO	2.5
1	C	41	SER	2.5
1	D	1	MET	2.5
1	C	104	ASP	2.5
1	C	350	ASP	2.5
1	E	70	ALA	2.5
1	I	350	ASP	2.5
1	E	348	THR	2.5
1	F	354	VAL	2.5
1	I	41	SER	2.5
1	G	68	GLU	2.5
1	G	92	LEU	2.5
1	A	207	MET	2.5
1	E	353	ALA	2.5
1	F	48	ASP	2.5
1	H	6	SER	2.5
1	L	46	SER	2.5
1	F	355	LEU	2.5
1	G	71	LEU	2.5
1	H	73	LEU	2.5
1	H	76	LYS	2.5
1	E	77	ALA	2.5
1	H	353	ALA	2.5
1	B	324	GLY	2.5
1	E	7	GLY	2.5
1	H	342	PRO	2.5
1	A	258	GLU	2.4
1	G	58	THR	2.4
1	G	177	SER	2.4
1	H	46	SER	2.4
1	C	173	TRP	2.4
1	G	94	LEU	2.4
1	G	106	LEU	2.4
1	G	207	MET	2.4
1	G	357	ASP	2.4
1	J	37	ASP	2.4
1	J	323	ASN	2.4
1	B	47	ARG	2.4
1	H	59	ALA	2.4
1	A	173	TRP	2.4
1	L	323	ASN	2.4

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Mol	Chain	Res	Type	RSRZ
1	L	7	GLY	2.4
1	A	62	LYS	2.4
1	B	72	LYS	2.4
1	G	67	LEU	2.4
1	E	173	TRP	2.4
1	F	98	GLU	2.4
1	G	48	ASP	2.4
1	L	258	GLU	2.4
1	L	350	ASP	2.4
1	K	345	PRO	2.4
1	F	93	GLY	2.4
1	F	322	ALA	2.4
1	G	2	ALA	2.4
1	A	56	ILE	2.4
1	B	355	LEU	2.4
1	K	46	SER	2.3
1	B	349	ILE	2.3
1	E	56	ILE	2.3
1	B	359	ASP	2.3
1	B	180	LYS	2.3
1	D	326	TRP	2.3
1	L	345	PRO	2.3
1	H	15	GLY	2.3
1	E	356	THR	2.3
1	H	74	ILE	2.3
1	E	68	GLU	2.3
1	H	33	VAL	2.3
1	G	61	LEU	2.3
1	E	179	GLY	2.3
1	F	358	TRP	2.3
1	C	75	ALA	2.3
1	I	348	THR	2.3
1	C	47	ARG	2.3
1	E	40	SER	2.3
1	G	105	ARG	2.3
1	D	315	GLU	2.3
1	G	277	GLU	2.3
1	J	352	GLU	2.3
1	H	107	ILE	2.3
1	K	351	ILE	2.3
1	C	34	VAL	2.3
1	D	102	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
1	C	355	LEU	2.3
1	H	359	ASP	2.3
1	B	7	GLY	2.3
1	J	325	GLY	2.3
1	E	257	ALA	2.3
1	F	70	ALA	2.3
1	K	58	THR	2.3
1	D	56	ILE	2.3
1	D	354	VAL	2.3
1	G	80	LEU	2.2
1	G	184	VAL	2.3
1	J	102	VAL	2.3
1	D	47	ARG	2.2
1	K	325	GLY	2.2
1	G	98	GLU	2.2
1	L	177	SER	2.2
1	H	180	LYS	2.2
1	C	69	LEU	2.2
1	E	73	LEU	2.2
1	F	34	VAL	2.2
1	H	69	LEU	2.2
1	K	323	ASN	2.2
1	G	91	ARG	2.2
1	C	324	GLY	2.2
1	C	352	GLU	2.2
1	D	352	GLU	2.2
1	F	352	GLU	2.2
1	E	65	GLN	2.2
1	C	348	THR	2.2
1	G	77	ALA	2.2
1	C	177	SER	2.2
1	H	108	TYR	2.2
1	D	358	TRP	2.2
1	E	326	TRP	2.2
1	G	8	LEU	2.2
1	K	354	VAL	2.2
1	G	334	PHE	2.2
1	D	350	ASP	2.2
1	F	293	ASN	2.2
1	E	66	GLY	2.2
1	G	66	GLY	2.2
1	E	97	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
1	A	75	ALA	2.2
1	B	322	ALA	2.2
1	G	326	TRP	2.2
1	D	107	ILE	2.2
1	C	91	ARG	2.2
1	A	10	VAL	2.2
1	F	10	VAL	2.2
1	H	72	LYS	2.2
1	K	101	LYS	2.2
1	F	325	GLY	2.2
1	H	325	GLY	2.2
1	L	44	GLY	2.2
1	G	59	ALA	2.2
1	G	171	ALA	2.2
1	K	322	ALA	2.2
1	I	207	MET	2.1
1	K	358	TRP	2.1
1	E	34	VAL	2.1
1	F	57	VAL	2.1
1	F	183	VAL	2.1
1	F	184	VAL	2.1
1	H	102	VAL	2.1
1	D	176	GLN	2.1
1	A	58	THR	2.1
1	C	40	SER	2.1
1	H	75	ALA	2.1
1	F	207	MET	2.1
1	C	180	LYS	2.1
1	D	8	LEU	2.1
1	D	76	LYS	2.1
1	H	92	LEU	2.1
1	D	79	VAL	2.1
1	E	358	TRP	2.1
1	H	11	VAL	2.1
1	A	178	SER	2.1
1	B	41	SER	2.1
1	G	40	SER	2.1
1	I	353	ALA	2.1
1	J	1	MET	2.1
1	C	61	LEU	2.1
1	K	71	LEU	2.1
1	I	144	ASP	2.1

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Mol	Chain	Res	Type	RSRZ
1	D	178	SER	2.1
1	K	40	SER	2.1
1	L	69	LEU	2.1
1	A	74	ILE	2.1
1	K	79	VAL	2.1
1	E	334	PHE	2.1
1	H	44	GLY	2.1
1	A	177	SER	2.0
1	C	2	ALA	2.0
1	C	100	ALA	2.0
1	D	258	GLU	2.0
1	F	99	CYS	2.0
1	I	2	ALA	2.0
1	E	350	ASP	2.0
1	F	94	LEU	2.0
1	H	79	VAL	2.0
1	L	101	LYS	2.0
1	A	358	TRP	2.0
1	E	352	GLU	2.0
1	H	41	SER	2.0
1	L	41	SER	2.0
1	E	59	ALA	2.0
1	K	75	ALA	2.0
1	E	61	LEU	2.0
1	G	32	ASP	2.0
1	G	323	ASN	2.0
1	K	73	LEU	2.0
1	K	72	LYS	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 oligosaccharides 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,

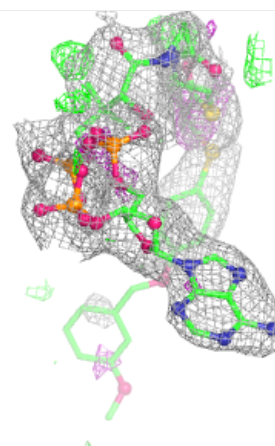
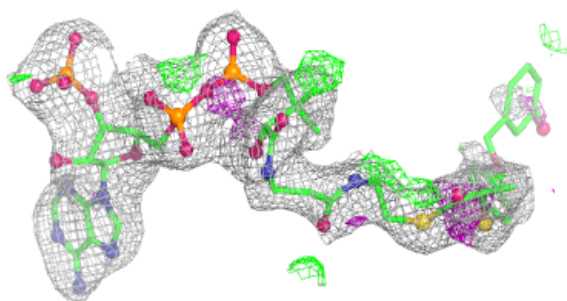
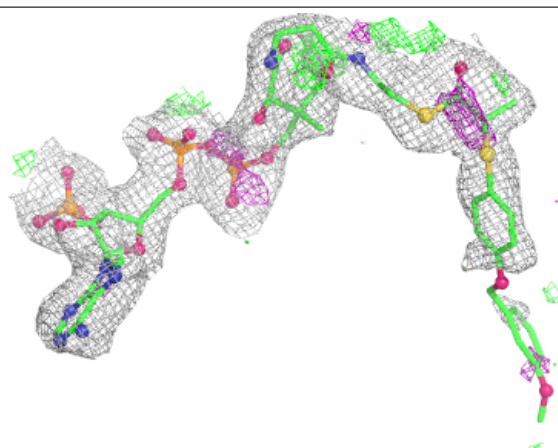
median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q<0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
2	A1JJX	H	401	69/69	0.87	0.19	62,89,154,165	0
2	A1JJX	E	401	69/69	0.88	0.19	56,85,153,167	0
2	A1JJX	F	401	69/69	0.93	0.13	38,63,118,128	0
2	A1JJX	C	401	69/69	0.94	0.13	42,61,134,145	0
2	A1JJX	G	401	69/69	0.94	0.13	41,62,121,140	0
2	A1JJX	A	401	69/69	0.94	0.13	38,59,127,141	0
2	A1JJX	B	401	69/69	0.95	0.12	39,57,129,146	0
2	A1JJX	D	401	69/69	0.95	0.11	35,54,131,145	0
2	A1JJX	K	401	69/69	0.95	0.12	40,56,142,150	0
2	A1JJX	J	401	69/69	0.96	0.11	37,52,131,140	0
2	A1JJX	I	401	69/69	0.96	0.12	33,50,147,169	0
2	A1JJX	L	401	69/69	0.96	0.12	33,53,155,161	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.

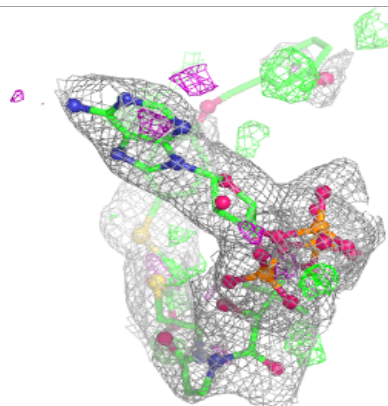
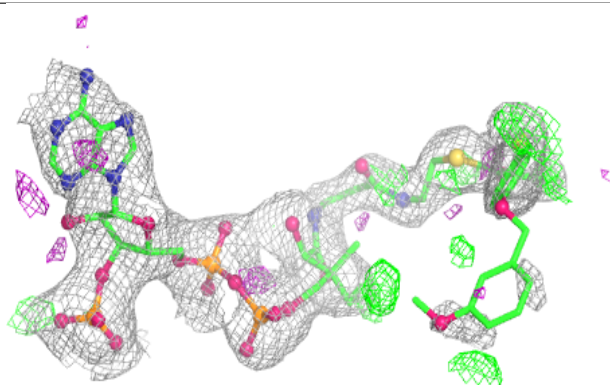
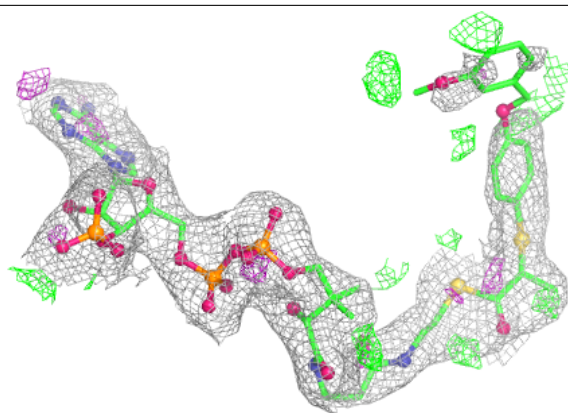
Electron density around A1JJX H 401:

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



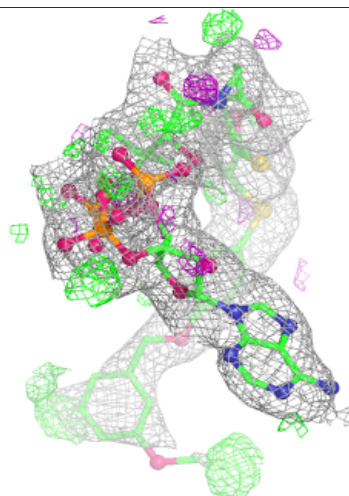
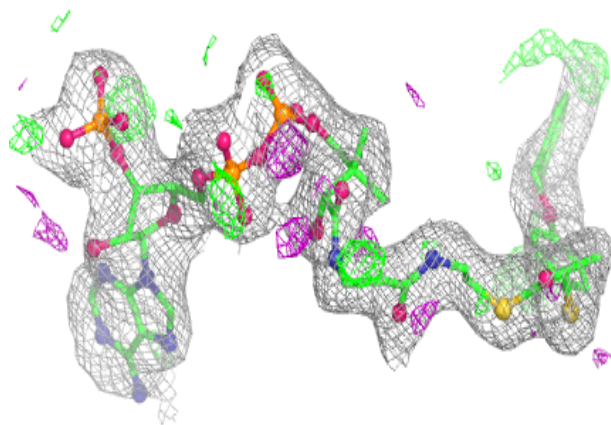
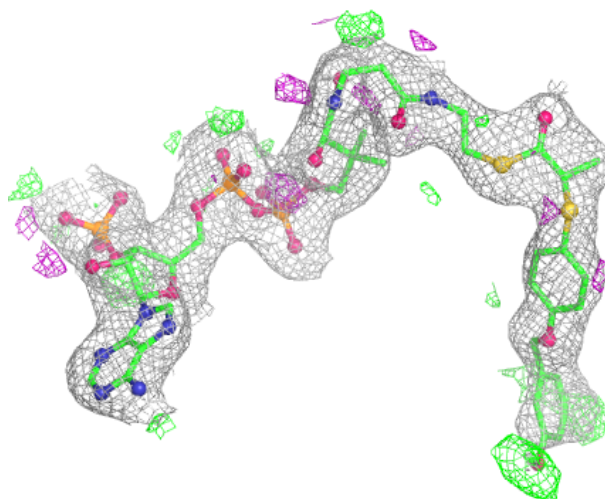
Electron density around A1JJX E 401:

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



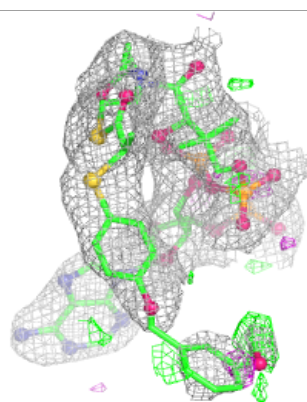
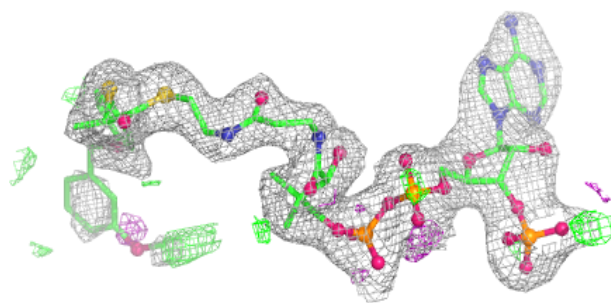
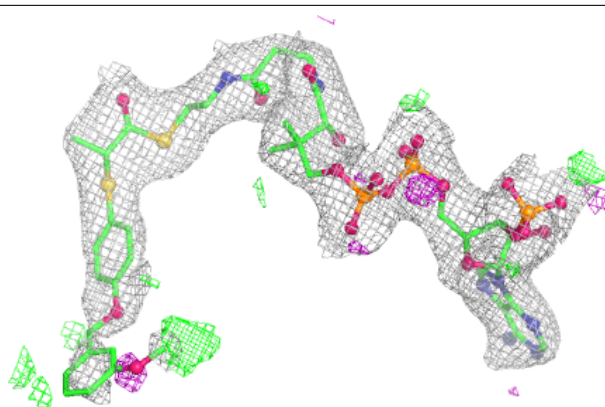
Electron density around A1JJX F 401:

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



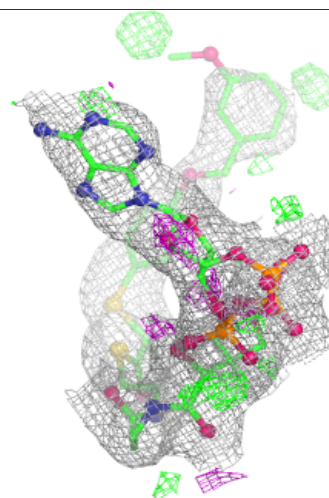
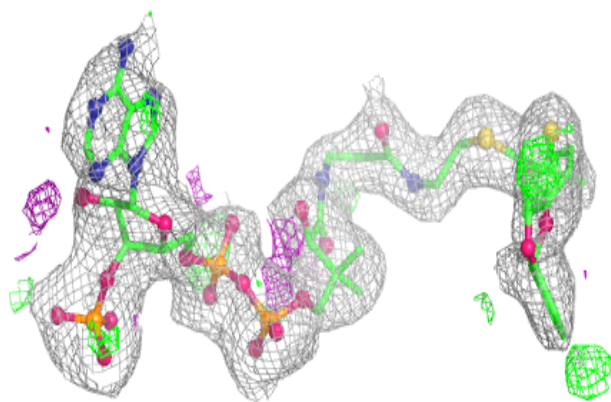
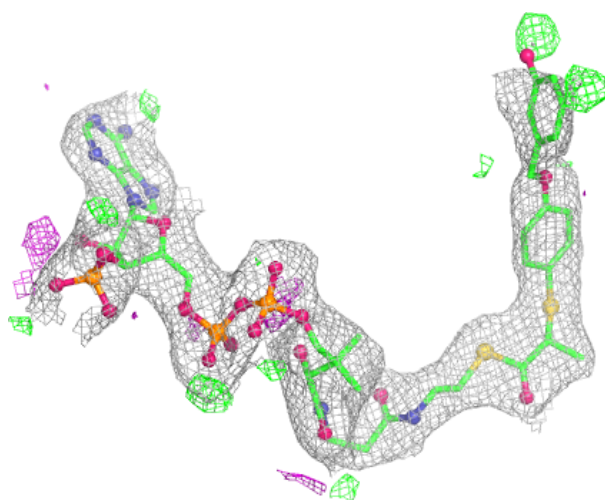
Electron density around A1JJX C 401:

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



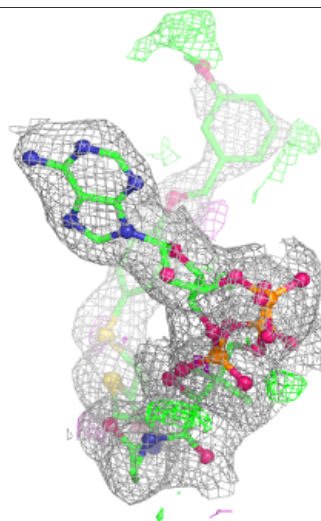
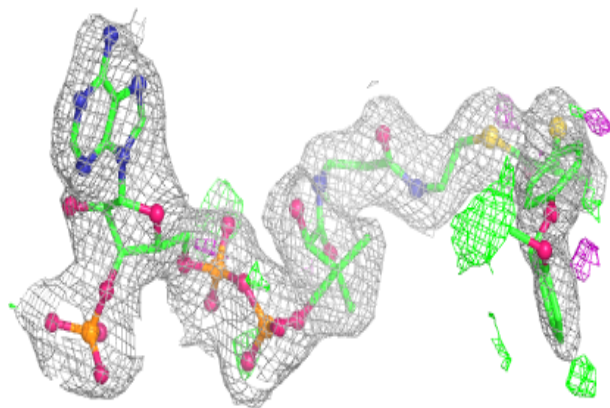
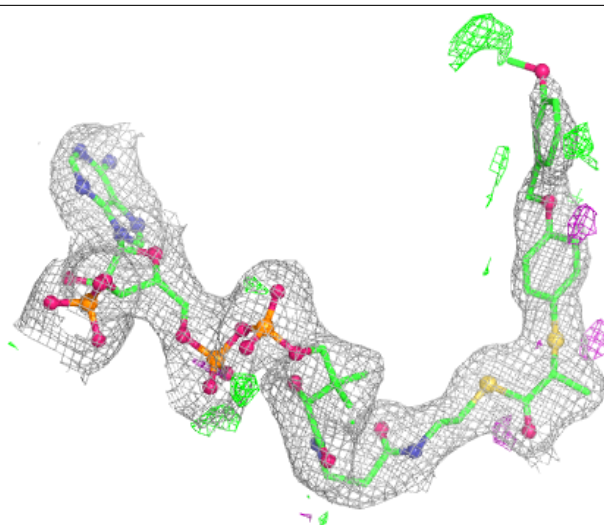
Electron density around A1JJX G 401:

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



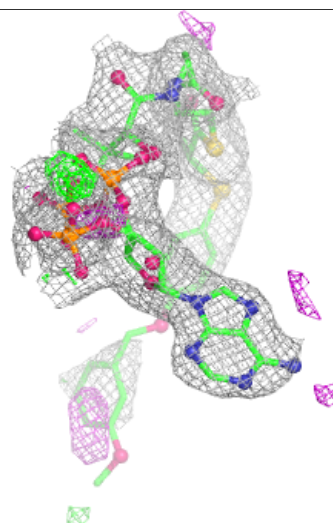
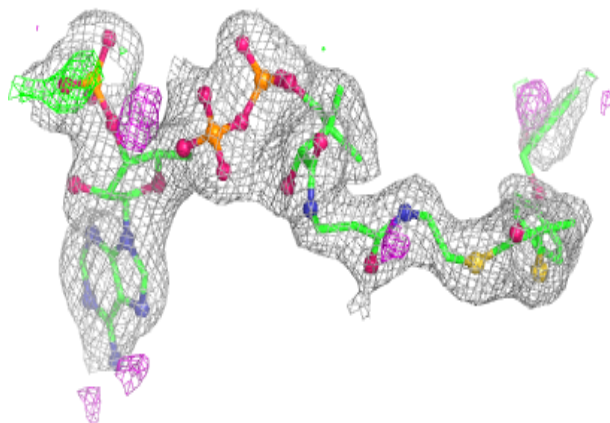
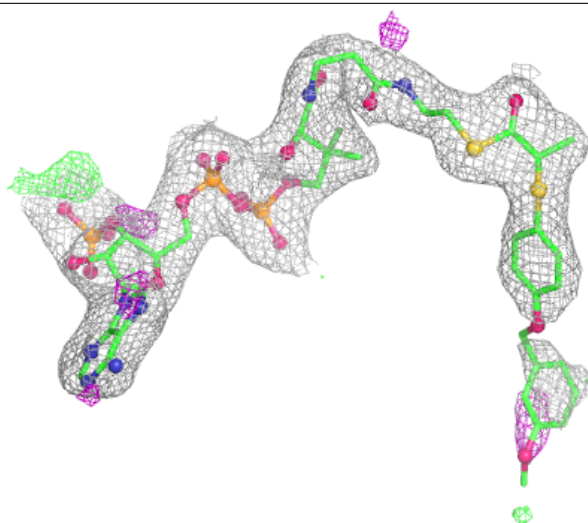
Electron density around A1JJX A 401:

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



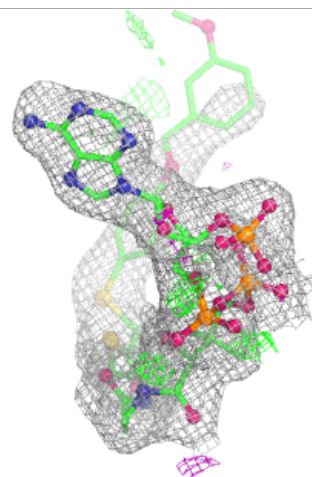
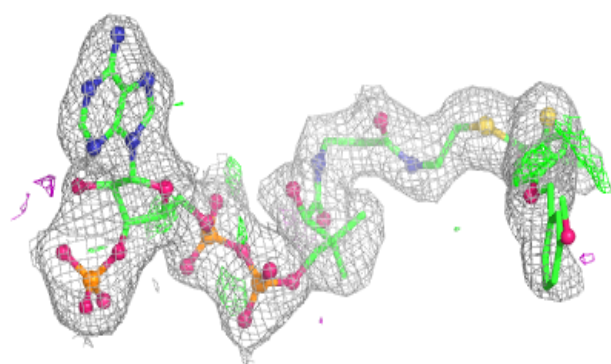
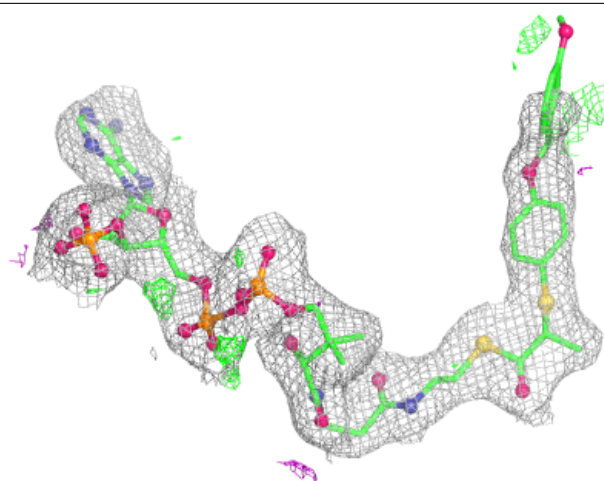
Electron density around A1JJX B 401:

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



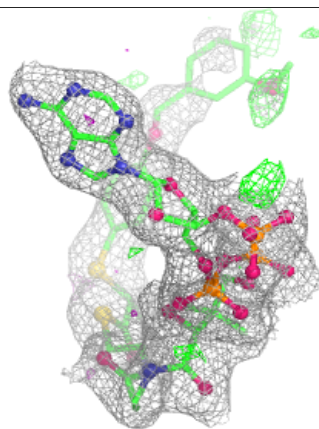
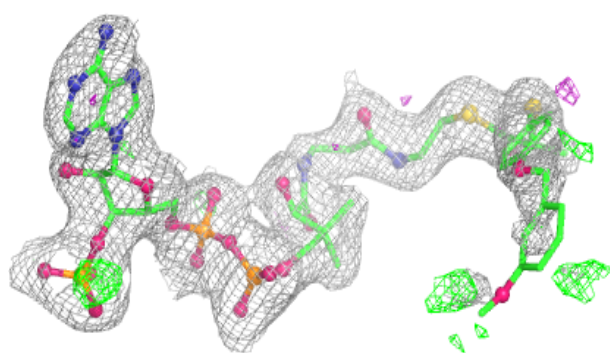
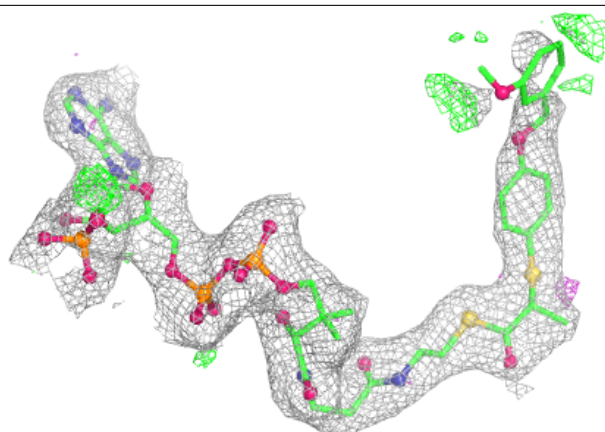
Electron density around A1JJX D 401:

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



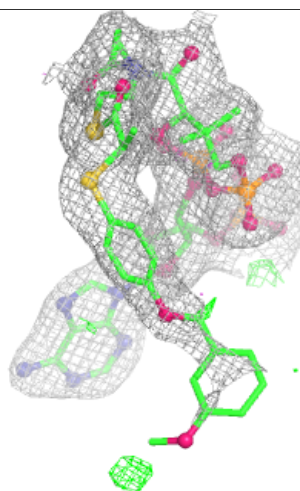
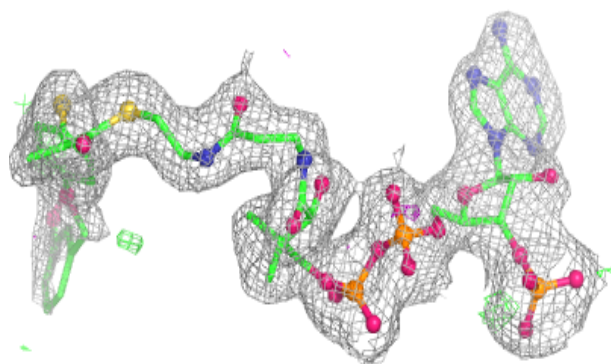
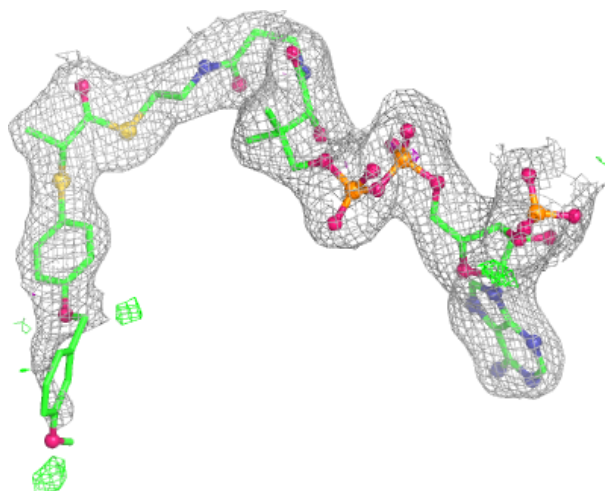
Electron density around A1JJX K 401:

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



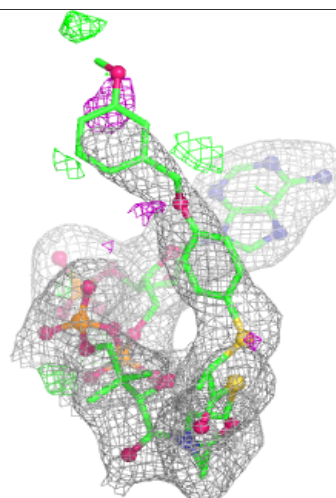
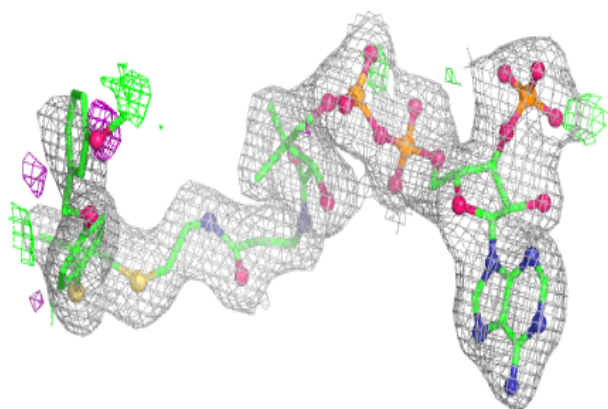
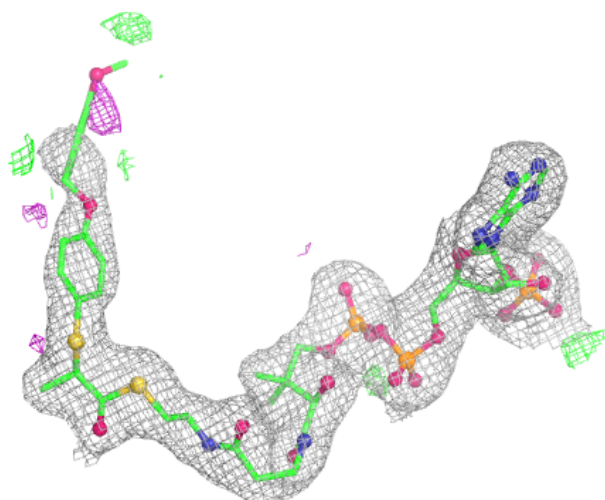
Electron density around A1JJX J 401:

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



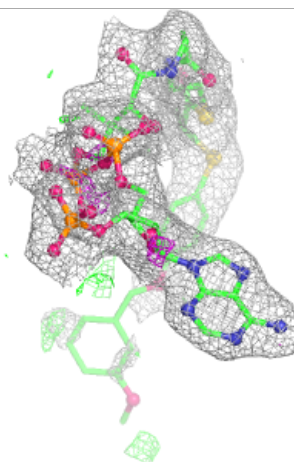
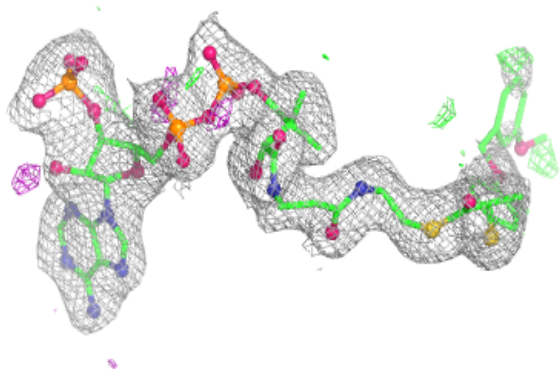
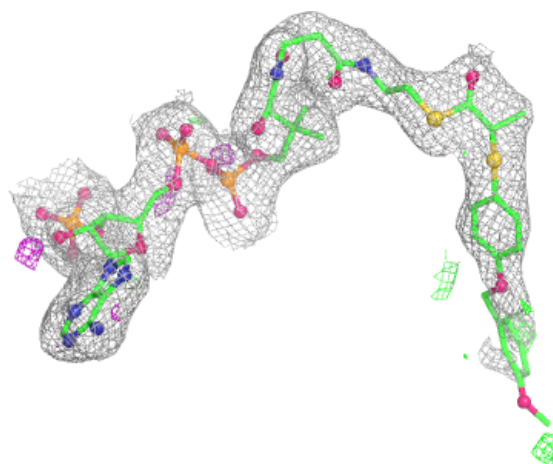
Electron density around A1JJX I 401:

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



Electron density around A1JJX L 401:

$2mF_o-DF_c$ (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.