Full wwPDB X-ray Structure Validation Report (i)

Sep 29, 2025 – 10:28 AM JST

PDB ID	:	9W6V / pdb_00009w6v
Title	:	Crystal structure of 11betaHSD1 in complex with compound 1
Authors	:	Takahashi, M.
Deposited on	:	2025-08-05
Resolution	:	3.20 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 (i) 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 (i)) were used in the production of this report:

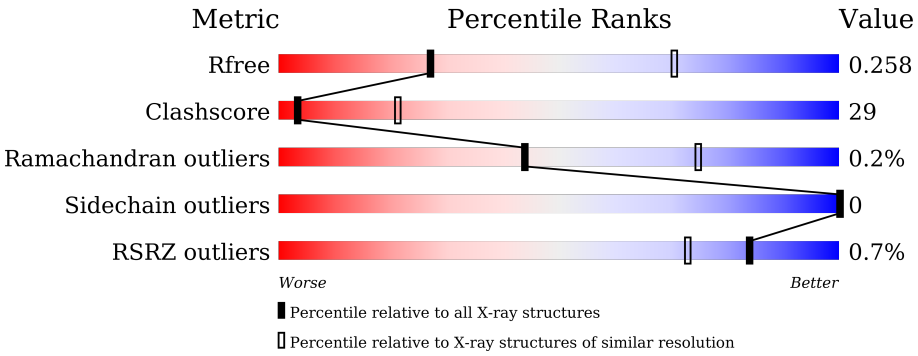
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.46

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 3.20 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}	164625	1370 (3.20-3.20)
Clashscore	180529	1497 (3.20-3.20)
Ramachandran outliers	177936	1479 (3.20-3.20)
Sidechain outliers	177891	1478 (3.20-3.20)
RSRZ outliers	164620	1371 (3.20-3.20)

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	246	52% 46% .
1	B	246	% 56% 41% .
1	C	246	57% 40% .
1	D	246	% 57% 40% .
1	E	246	57% 40% .
1	F	246	47% 50% .

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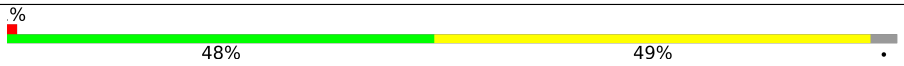
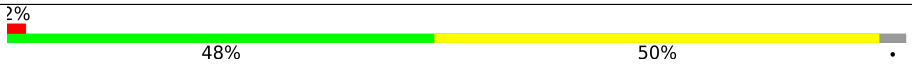
Mol	Chain	Length	Quality of chain
1	G	246	
1	H	246	
1	I	246	
1	J	246	
1	K	246	

2 Entry composition (i)

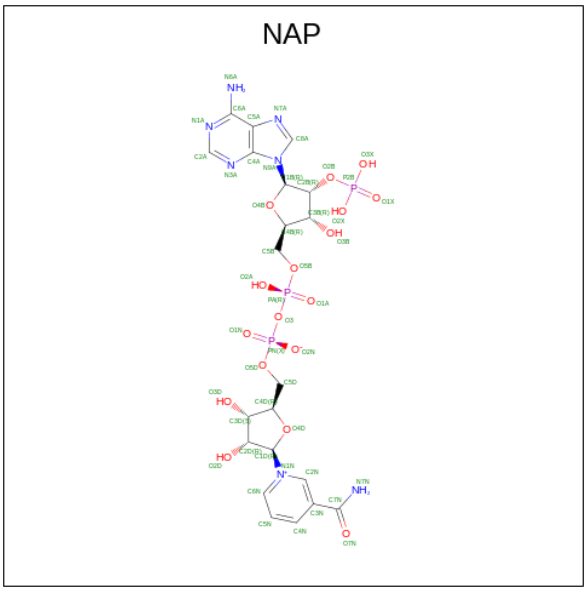
There are 3 unique types of molecules in this entry. The entry contains 21292 atoms, of which 550 are hydrogens and 0 are deuteriums.

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 11-beta-hydroxysteroid dehydrogenase 1.

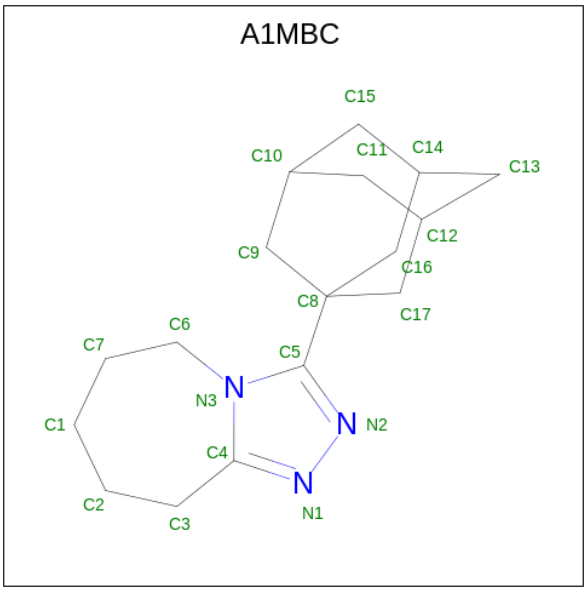
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	240	Total	C	N	O	S	0	0	0
			1824	1161	308	340	15			
1	B	239	Total	C	N	O	S	0	0	0
			1817	1157	307	338	15			
1	C	239	Total	C	N	O	S	0	0	0
			1815	1156	307	337	15			
1	D	240	Total	C	N	O	S	0	0	0
			1824	1161	308	340	15			
1	E	240	Total	C	N	O	S	0	0	0
			1824	1161	308	340	15			
1	F	239	Total	C	N	O	S	0	0	0
			1810	1153	305	337	15			
1	G	238	Total	C	N	O	S	0	0	0
			1808	1152	306	335	15			
1	H	240	Total	C	N	O	S	0	0	0
			1825	1161	309	340	15			
1	I	239	Total	C	N	O	S	0	0	0
			1815	1156	307	337	15			
1	J	239	Total	C	N	O	S	0	0	0
			1810	1153	305	337	15			
1	K	240	Total	C	N	O	S	0	0	0
			1822	1160	308	339	15			

- Molecule 2 is NADP NICOTINAMIDE-ADENINE-DINUCLEOTIDE PHOSPHATE (CCD ID: NAP) (formula: $C_{21}H_{28}N_7O_{17}P_3$).



Mol	Chain	Residues	Atoms						ZeroOcc	AltConf
2	A	1	Total	C	H	N	O	P	0	0
			73	21	25	7	17	3		
2	B	1	Total	C	H	N	O	P	0	0
			73	21	25	7	17	3		
2	C	1	Total	C	H	N	O	P	0	0
			73	21	25	7	17	3		
2	D	1	Total	C	H	N	O	P	0	0
			73	21	25	7	17	3		
2	E	1	Total	C	H	N	O	P	0	0
			73	21	25	7	17	3		
2	F	1	Total	C	H	N	O	P	0	0
			73	21	25	7	17	3		
2	G	1	Total	C	H	N	O	P	0	0
			73	21	25	7	17	3		
2	H	1	Total	C	H	N	O	P	0	0
			73	21	25	7	17	3		
2	I	1	Total	C	H	N	O	P	0	0
			73	21	25	7	17	3		
2	J	1	Total	C	H	N	O	P	0	0
			73	21	25	7	17	3		
2	K	1	Total	C	H	N	O	P	0	0
			73	21	25	7	17	3		

- Molecule 3 is 3-(1-adamantyl)-6,7,8,9-tetrahydro-5 {H}-[1,2,4]triazolo[4,3-a]azepine (CCD ID: A1MBC) (formula: $C_{17}H_{25}N_3$) (labeled as "Ligand of Interest" by depositor).



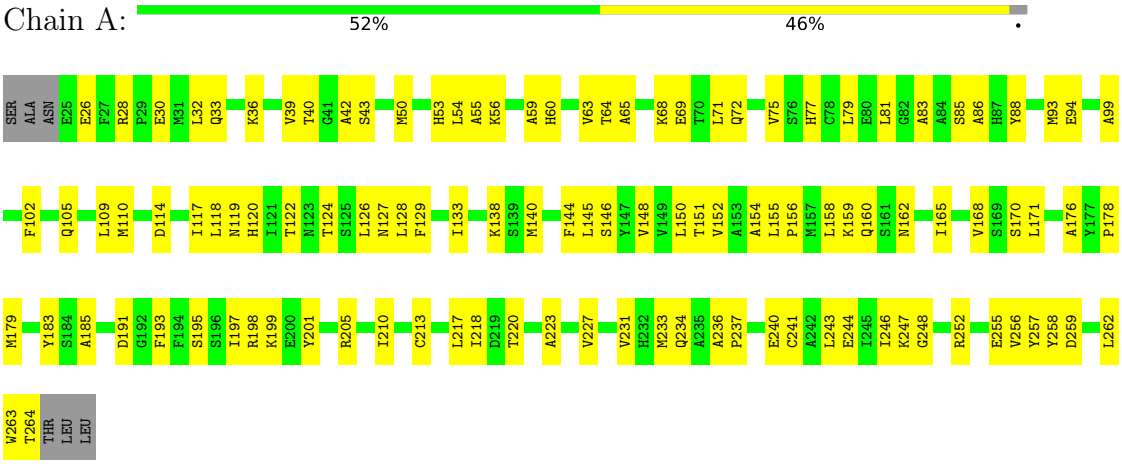
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
3	A	1	Total	C	H	N	0	0
			45	17	25	3		
3	B	1	Total	C	H	N	0	0
			45	17	25	3		
3	C	1	Total	C	H	N	0	0
			45	17	25	3		
3	D	1	Total	C	H	N	0	0
			45	17	25	3		
3	E	1	Total	C	H	N	0	0
			45	17	25	3		
3	F	1	Total	C	H	N	0	0
			45	17	25	3		
3	G	1	Total	C	H	N	0	0
			45	17	25	3		
3	H	1	Total	C	H	N	0	0
			45	17	25	3		
3	I	1	Total	C	H	N	0	0
			45	17	25	3		
3	J	1	Total	C	H	N	0	0
			45	17	25	3		
3	K	1	Total	C	H	N	0	0
			45	17	25	3		

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.

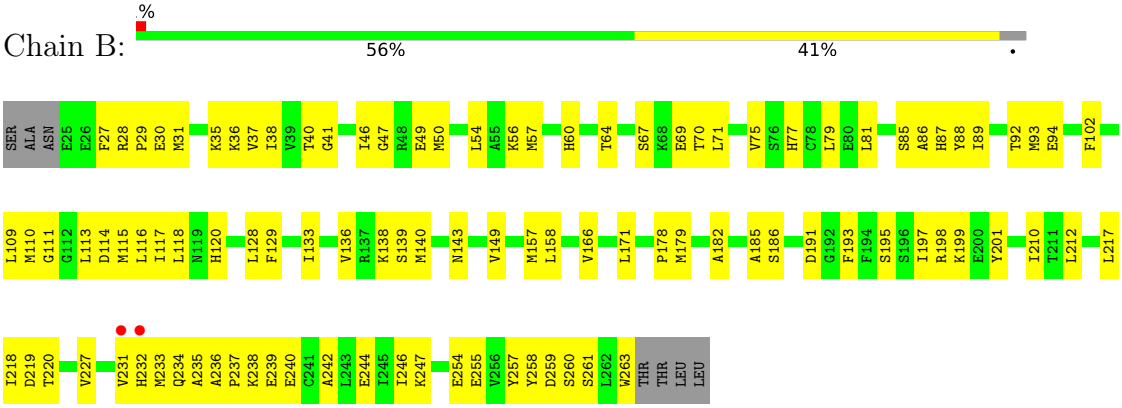
• Molecule 1: 11-beta-hydroxysteroid dehydrogenase 1

Chain A:



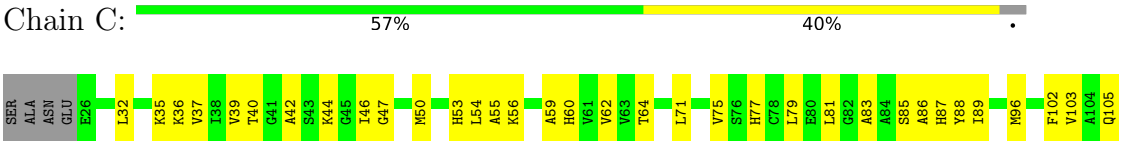
• Molecule 1: 11-beta-hydroxysteroid dehydrogenase 1

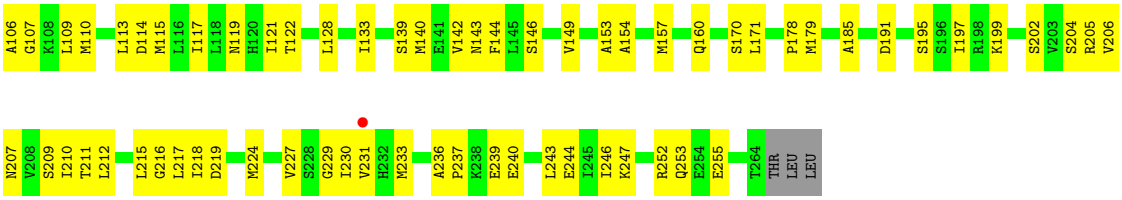
Chain B:



• Molecule 1: 11-beta-hydroxysteroid dehydrogenase 1

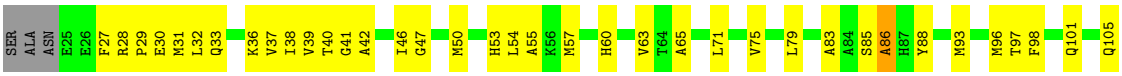
Chain C:

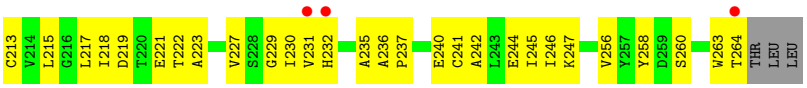




• Molecule 1: 11-beta-hydroxysteroid dehydrogenase 1

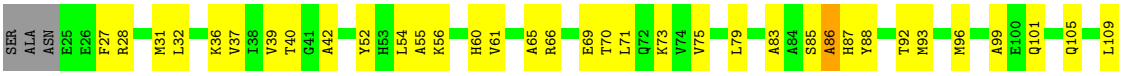
Chain D:

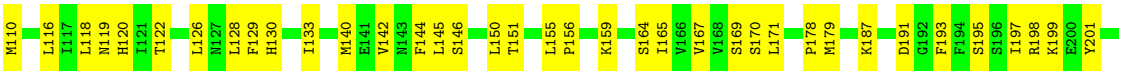


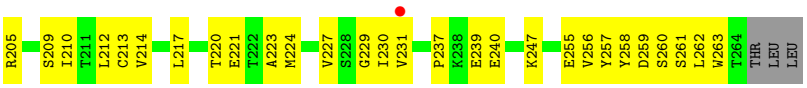


• Molecule 1: 11-beta-hydroxysteroid dehydrogenase 1

Chain E:

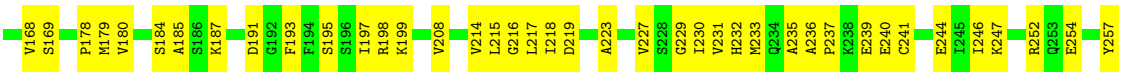


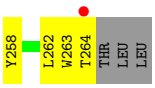




• Molecule 1: 11-beta-hydroxysteroid dehydrogenase 1

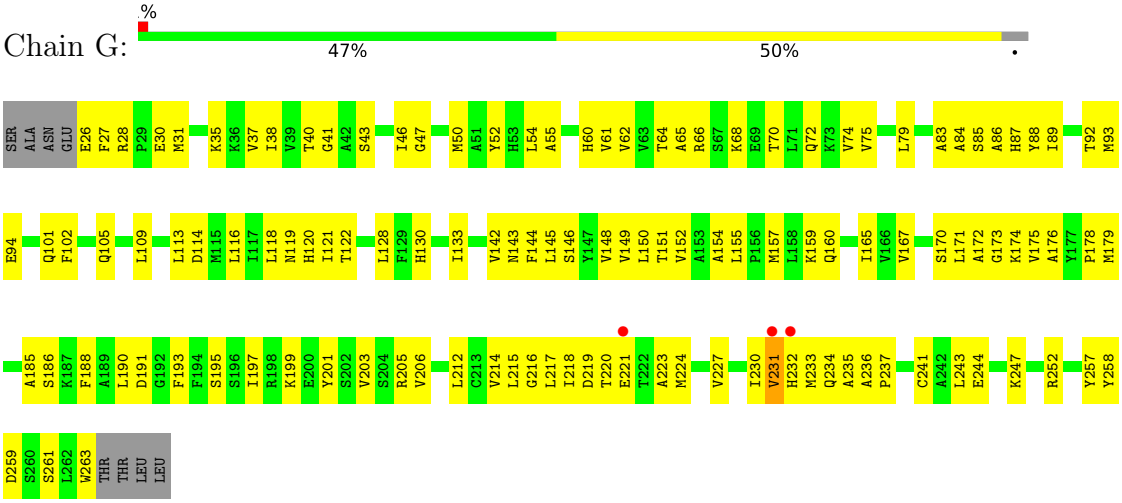
Chain F:





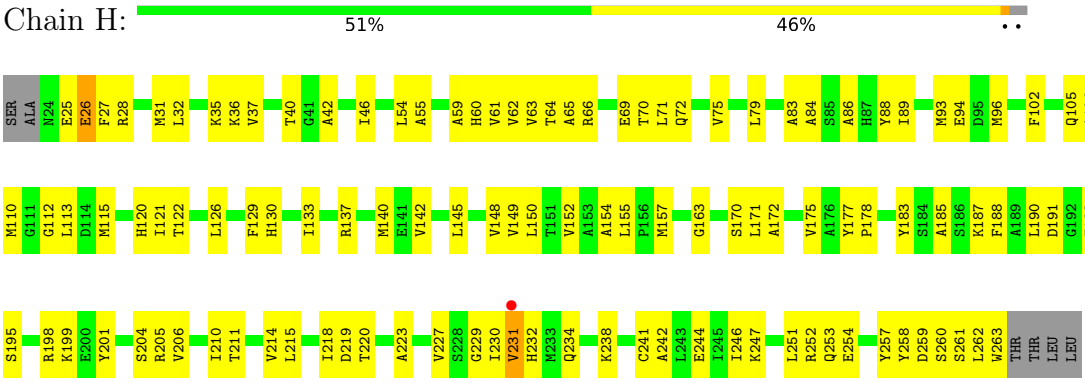
• Molecule 1: 11-beta-hydroxysteroid dehydrogenase 1

Chain G:



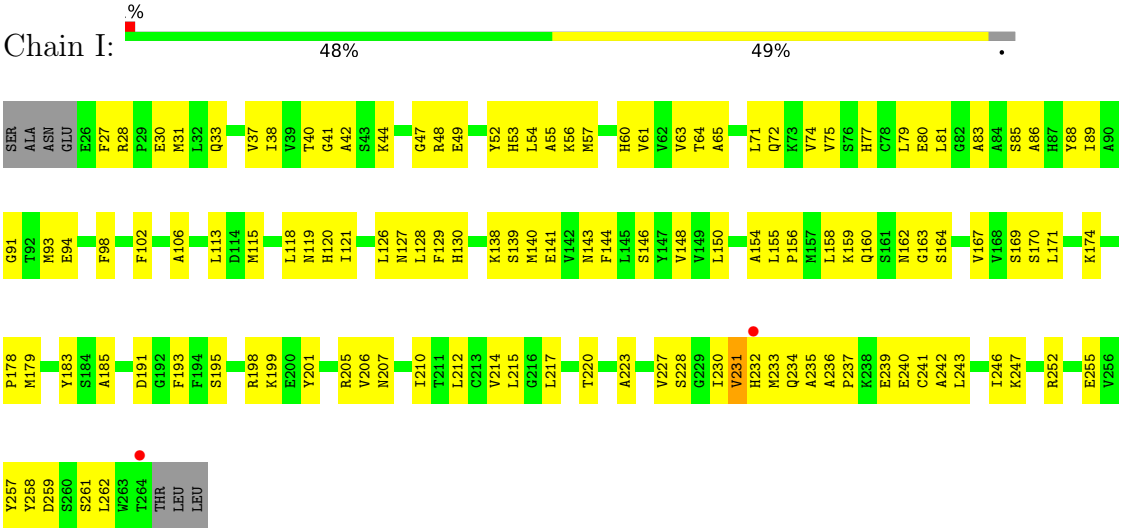
• Molecule 1: 11-beta-hydroxysteroid dehydrogenase 1

Chain H:



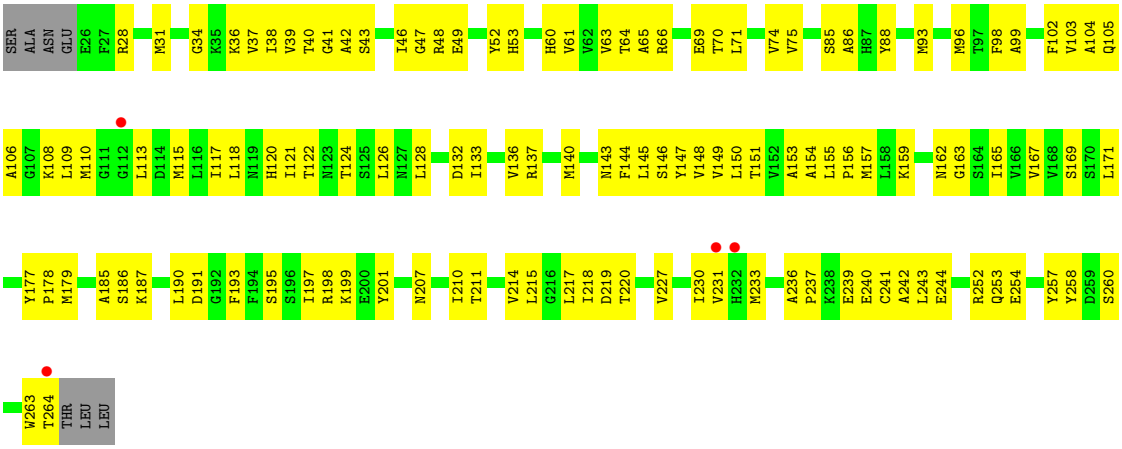
• Molecule 1: 11-beta-hydroxysteroid dehydrogenase 1

Chain I:



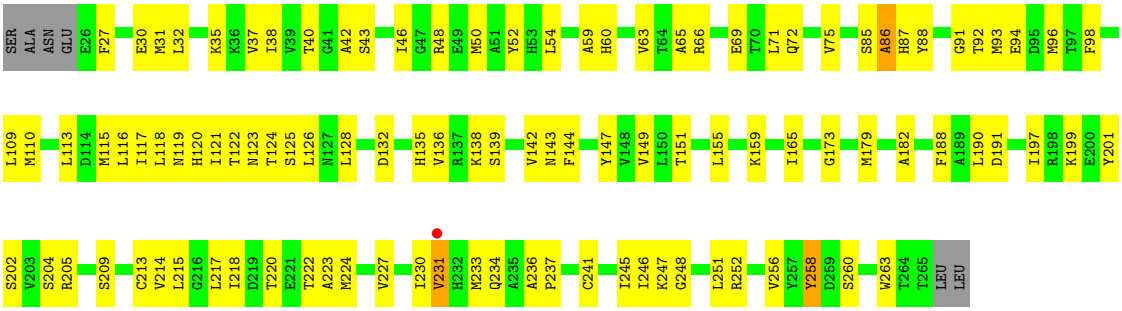
• Molecule 1: 11-beta-hydroxysteroid dehydrogenase 1

Chain J:



• Molecule 1: 11-beta-hydroxysteroid dehydrogenase 1

Chain K:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	308.09Å 99.37Å 136.25Å 90.00° 104.14° 90.00°	Depositor
Resolution (Å)	49.69 – 3.20 49.69 – 3.20	Depositor EDS
% Data completeness (in resolution range)	99.2 (49.69-3.20) 99.3 (49.69-3.20)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.07	Depositor
$< I/\sigma(I) >$ [1]	2.54 (at 3.19Å)	Xtriage
Refinement program	PHENIX (1.20.1_4487: ???)	Depositor
R, R_{free}	0.187 , 0.258 0.187 , 0.258	Depositor DCC
R_{free} test set	6526 reflections (9.92%)	wwPDB-VP
Wilson B-factor (Å^2)	65.2	Xtriage
Anisotropy	0.671	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.30 , 37.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.50$, $< L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	21292	wwPDB-VP
Average B, all atoms (Å^2)	60.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.09% of the height of the origin peak. No significant pseudotranslation is detected.*

[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

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: A1MBC, NAP

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	0.44	0/1854	0.68	0/2502
1	B	0.51	0/1847	0.74	0/2492
1	C	0.46	0/1845	0.67	0/2490
1	D	0.46	0/1854	0.72	1/2502 (0.0%)
1	E	0.49	0/1854	0.77	2/2502 (0.1%)
1	F	0.39	0/1839	0.63	0/2482
1	G	0.41	0/1838	0.66	0/2480
1	H	0.39	0/1855	0.65	0/2503
1	I	0.36	0/1845	0.62	0/2490
1	J	0.38	0/1839	0.64	0/2482
1	K	0.50	0/1852	0.76	2/2500 (0.1%)
All	All	0.44	0/20322	0.69	5/27425 (0.0%)

There are no bond length outliers.

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	86	ALA	N-CA-C	5.55	117.40	110.91
1	K	258	TYR	CA-CB-CG	-5.27	104.41	113.90
1	D	86	ALA	N-CA-C	5.26	117.06	110.91
1	K	86	ALA	N-CA-C	5.20	116.99	110.91
1	E	258	TYR	CA-CB-CG	-5.11	104.71	113.90

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1824	0	1860	105	0
1	B	1817	0	1853	106	0
1	C	1815	0	1853	115	0
1	D	1824	0	1860	97	0
1	E	1824	0	1860	97	0
1	F	1810	0	1849	147	0
1	G	1808	0	1846	154	0
1	H	1825	0	1859	120	0
1	I	1815	0	1853	142	0
1	J	1810	0	1849	138	0
1	K	1822	0	1861	99	0
2	A	48	25	24	3	0
2	B	48	25	21	1	0
2	C	48	25	22	6	0
2	D	48	25	22	2	0
2	E	48	25	22	2	0
2	F	48	25	24	4	0
2	G	48	25	23	6	0
2	H	48	25	24	3	0
2	I	48	25	21	7	0
2	J	48	25	21	4	0
2	K	48	25	22	2	0
3	A	20	25	0	1	0
3	B	20	25	0	0	0
3	C	20	25	0	0	0
3	D	20	25	0	0	0
3	E	20	25	0	0	0
3	F	20	25	0	0	0
3	G	20	25	0	0	0
3	H	20	25	0	1	0
3	I	20	25	0	0	0
3	J	20	25	0	0	0
3	K	20	25	0	0	0
All	All	20742	550	20649	1219	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 29.

All (1219) 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:J:105:GLN:HA	1:J:108:LYS:HE2	1.23	1.12
1:C:122:THR:HB	1:C:142:VAL:HG21	1.37	1.06
1:B:38:ILE:HD11	1:B:102:PHE:CZ	1.92	1.04
1:I:178:PRO:HG3	1:J:199:LYS:HB3	1.44	0.99
1:I:199:LYS:HB3	1:J:178:PRO:HG3	1.43	0.99
1:B:38:ILE:HD11	1:B:102:PHE:HZ	1.26	0.98
1:E:37:VAL:HG11	1:E:54:LEU:CD1	1.94	0.98
1:E:239:GLU:HG3	1:E:240:GLU:H	1.26	0.97
1:D:27:PHE:HZ	1:D:57:MET:HE1	1.29	0.97
1:A:227:VAL:CG1	1:A:231:VAL:HB	1.95	0.97
1:A:60:HIS:CD2	1:A:85:SER:HB2	1.99	0.97
1:D:232:HIS:HB3	1:G:233:MET:HE2	1.45	0.97
1:C:39:VAL:HG12	1:C:42:ALA:HB2	1.47	0.96
1:D:198:ARG:NH1	1:D:210:ILE:O	1.98	0.96
1:K:215:LEU:HD11	1:K:245:ILE:HD11	1.48	0.96
1:J:37:VAL:HG13	1:J:115:MET:HB3	1.47	0.94
1:A:133:ILE:HD13	1:B:149:VAL:HG22	1.51	0.93
1:A:39:VAL:HG22	1:A:117:ILE:HD12	1.51	0.93
1:E:60:HIS:CD2	1:E:85:SER:HB2	2.04	0.93
1:A:234:GLN:O	1:A:262:LEU:HD13	1.69	0.93
1:K:42:ALA:HB3	1:K:63:VAL:HB	1.52	0.92
1:G:224:MET:HE2	1:G:224:MET:HA	1.51	0.92
1:F:233:MET:HG2	1:I:232:HIS:CE1	2.04	0.92
1:G:46:ILE:HD11	1:G:218:ILE:HG21	1.52	0.90
1:D:27:PHE:CZ	1:D:57:MET:HE1	2.06	0.90
1:E:217:LEU:HD21	1:E:224:MET:HE1	1.54	0.89
1:K:38:ILE:HD11	1:K:116:LEU:HD12	1.53	0.89
1:J:96:MET:HE1	1:J:145:LEU:HB3	1.54	0.89
1:J:53:HIS:HD2	1:J:243:LEU:HD13	1.38	0.89
1:E:39:VAL:HG12	1:E:42:ALA:HB2	1.53	0.88
1:C:60:HIS:CD2	1:C:85:SER:HB2	2.09	0.88
1:K:31:MET:HE1	1:K:251:LEU:HD23	1.57	0.87
1:B:69:GLU:HG3	1:B:70:THR:H	1.41	0.86
1:F:233:MET:HE2	1:F:262:LEU:HB3	1.57	0.86
1:I:56:LYS:HE2	1:I:81:LEU:HD21	1.57	0.86
1:G:38:ILE:HG22	1:G:116:LEU:HA	1.56	0.85
1:I:54:LEU:HD22	1:I:246:ILE:HD13	1.58	0.85
1:F:28:ARG:O	1:F:31:MET:HG3	1.76	0.85
1:A:155:LEU:HD11	1:A:201:TYR:OH	1.75	0.85
1:G:93:MET:HG3	1:G:120:HIS:NE2	1.92	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:239:GLU:HG3	1:F:240:GLU:H	1.41	0.84
1:E:155:LEU:HG	1:E:159:LYS:HE2	1.57	0.84
1:I:230:ILE:HG22	1:I:231:VAL:HG23	1.59	0.84
1:I:241:CYS:HB2	1:I:258:TYR:CE2	2.13	0.84
1:F:244:GLU:OE1	1:F:247:LYS:HD3	1.78	0.84
1:G:38:ILE:HD11	1:G:102:PHE:CZ	2.12	0.84
1:H:170:SER:HB2	2:H:301:NAP:H5N	1.60	0.83
1:A:53:HIS:NE2	1:A:243:LEU:HB2	1.93	0.83
1:F:239:GLU:HG3	1:F:240:GLU:N	1.92	0.83
1:E:239:GLU:HG3	1:E:240:GLU:N	1.90	0.83
1:G:205:ARG:NH1	1:G:206:VAL:HG22	1.93	0.83
1:A:220:THR:HG21	2:A:301:NAP:O1N	1.78	0.82
1:G:116:LEU:HD11	1:G:118:LEU:HD21	1.60	0.82
1:B:255:GLU:HG3	1:B:257:TYR:HE1	1.44	0.82
1:C:60:HIS:HD2	1:C:85:SER:HB2	1.44	0.82
1:D:75:VAL:CG2	1:D:88:TYR:HB3	2.09	0.82
1:H:155:LEU:HD11	1:H:201:TYR:OH	1.78	0.81
1:F:198:ARG:NH1	1:F:254:GLU:HG2	1.94	0.81
1:G:259:ASP:OD1	1:G:261:SER:OG	1.97	0.81
1:K:38:ILE:CD1	1:K:116:LEU:HD12	2.10	0.81
1:F:36:LYS:HE3	1:F:111:GLY:O	1.81	0.81
1:H:130:HIS:HB2	1:I:205:ARG:NE	1.95	0.81
1:J:144:PHE:HD2	1:J:145:LEU:HD22	1.45	0.81
1:A:199:LYS:HB3	1:B:178:PRO:HG3	1.62	0.81
1:I:60:HIS:ND1	1:I:85:SER:HB2	1.96	0.81
1:E:126:LEU:HD11	1:E:227:VAL:HG12	1.62	0.80
1:G:217:LEU:HD23	1:G:235:ALA:HB2	1.63	0.80
1:G:217:LEU:CD2	1:G:235:ALA:HB2	2.10	0.80
1:F:46:ILE:HD11	1:F:218:ILE:HG21	1.63	0.80
1:E:37:VAL:HG11	1:E:54:LEU:HD11	1.62	0.80
1:C:32:LEU:HD11	1:C:115:MET:HE1	1.63	0.80
1:J:96:MET:CE	1:J:145:LEU:HB3	2.12	0.80
1:D:29:PRO:HA	1:D:57:MET:HE2	1.63	0.79
1:D:75:VAL:HG21	1:D:88:TYR:HB3	1.63	0.79
1:H:93:MET:HE3	1:H:150:LEU:HD11	1.65	0.79
1:A:178:PRO:HG3	1:B:199:LYS:HB3	1.64	0.79
1:G:38:ILE:HD11	1:G:102:PHE:HZ	1.46	0.78
1:A:263:TRP:O	1:A:264:THR:OG1	2.02	0.78
1:E:198:ARG:NH1	1:E:210:ILE:O	2.17	0.78
1:K:38:ILE:HG23	1:K:113:LEU:HD11	1.65	0.78
1:C:113:LEU:HD23	1:C:154:ALA:HB1	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:227:VAL:HG13	1:F:231:VAL:HB	1.64	0.78
1:B:237:PRO:HG2	1:B:240:GLU:HB3	1.63	0.78
1:I:198:ARG:NH1	1:I:210:ILE:O	2.16	0.78
1:C:204:SER:HB2	1:C:206:VAL:HG23	1.64	0.77
1:K:155:LEU:HD11	1:K:201:TYR:OH	1.82	0.77
1:C:53:HIS:CE1	1:C:243:LEU:HB2	2.19	0.77
1:F:118:LEU:O	1:F:168:VAL:HG23	1.84	0.77
1:K:38:ILE:HD11	1:K:116:LEU:CD1	2.14	0.77
1:F:99:ALA:HB1	1:F:150:LEU:HD23	1.65	0.77
1:C:178:PRO:HG3	1:D:199:LYS:HB3	1.65	0.77
1:C:239:GLU:HG3	1:C:240:GLU:H	1.50	0.77
1:J:151:THR:HG23	1:J:165:ILE:HD13	1.65	0.77
1:E:140:MET:HE2	1:F:140:MET:HG2	1.66	0.77
1:E:229:GLY:HA3	1:K:199:LYS:HE2	1.67	0.77
1:F:36:LYS:HD3	1:F:110:MET:O	1.84	0.77
1:B:60:HIS:ND1	1:B:85:SER:HB2	1.99	0.77
1:E:171:LEU:O	1:E:171:LEU:HD23	1.84	0.77
1:F:39:VAL:HG12	1:F:42:ALA:HB2	1.66	0.77
1:E:178:PRO:HG3	1:F:199:LYS:HB3	1.67	0.77
1:B:38:ILE:CG2	1:B:116:LEU:HA	2.15	0.76
1:C:205:ARG:CZ	1:G:130:HIS:HB2	2.14	0.76
1:F:99:ALA:HB1	1:F:150:LEU:CD2	2.15	0.76
1:I:37:VAL:HG22	1:I:115:MET:HB3	1.67	0.76
1:D:107:GLY:HA3	1:D:157:MET:HE1	1.68	0.76
1:E:60:HIS:HD2	1:E:85:SER:HB2	1.46	0.76
1:J:49:GLU:HG2	1:J:239:GLU:HA	1.68	0.76
1:F:79:LEU:HD21	1:F:86:ALA:HB3	1.67	0.76
1:G:178:PRO:HG3	1:H:199:LYS:HB3	1.67	0.75
1:E:214:VAL:HB	1:E:257:TYR:CD1	2.21	0.75
1:G:230:ILE:O	1:G:231:VAL:HG22	1.87	0.75
1:C:133:ILE:HD13	1:D:149:VAL:HG22	1.69	0.74
1:I:148:VAL:HG22	1:I:193:PHE:CE2	2.22	0.74
1:K:96:MET:HG3	1:K:149:VAL:HG21	1.68	0.74
1:F:141:GLU:OE1	1:F:145:LEU:HD12	1.88	0.74
1:G:92:THR:OG1	1:G:94:GLU:HG3	1.86	0.74
1:B:198:ARG:NH1	1:B:210:ILE:O	2.21	0.74
1:F:70:THR:O	1:F:74:VAL:HG23	1.87	0.74
1:F:118:LEU:HD22	1:F:150:LEU:HD12	1.70	0.73
1:D:217:LEU:HD23	1:D:218:ILE:N	2.02	0.73
1:K:126:LEU:HD11	1:K:227:VAL:HG12	1.69	0.73
1:D:217:LEU:HD22	1:D:235:ALA:HB2	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:93:MET:HG3	1:G:120:HIS:CE1	2.22	0.73
1:I:27:PHE:CD2	1:I:247:LYS:HG2	2.23	0.73
1:J:211:THR:HG23	1:J:253:GLN:O	1.88	0.73
1:C:122:THR:CB	1:C:142:VAL:HG21	2.17	0.73
1:H:66:ARG:HB2	2:H:301:NAP:O2X	1.89	0.73
1:B:93:MET:HG2	1:B:120:HIS:NE2	2.04	0.73
1:G:151:THR:HG23	1:G:165:ILE:CD1	2.18	0.73
1:I:40:THR:O	1:I:119:ASN:HB3	1.89	0.73
1:E:28:ARG:O	1:E:31:MET:HG3	1.89	0.73
1:C:56:LYS:HG2	1:C:81:LEU:HD22	1.71	0.72
1:C:32:LEU:O	1:C:59:ALA:HB2	1.90	0.72
1:A:176:ALA:O	1:B:199:LYS:NZ	2.23	0.72
1:D:32:LEU:HD12	1:D:57:MET:SD	2.30	0.71
1:H:204:SER:HB2	1:H:206:VAL:HG23	1.71	0.71
1:F:62:VAL:HG23	1:F:110:MET:HE2	1.72	0.71
1:A:197:ILE:HD11	1:B:129:PHE:HB3	1.71	0.71
1:D:204:SER:HB2	1:D:206:VAL:HG23	1.72	0.71
1:E:93:MET:HG3	1:E:120:HIS:CE1	2.25	0.71
1:H:198:ARG:NE	1:H:254:GLU:HG2	2.05	0.71
1:F:263:TRP:O	1:F:264:THR:HB	1.90	0.71
1:H:232:HIS:O	1:J:233:MET:HB3	1.89	0.71
1:A:60:HIS:HD2	1:A:85:SER:HB2	1.56	0.71
1:H:130:HIS:HB2	1:I:205:ARG:HE	1.55	0.71
1:H:231:VAL:HG21	1:J:231:VAL:HG23	1.72	0.70
1:G:60:HIS:ND1	1:G:85:SER:HB2	2.06	0.70
1:I:198:ARG:HH11	1:I:210:ILE:HB	1.56	0.70
1:C:55:ALA:CB	1:C:83:ALA:HB2	2.21	0.70
1:I:141:GLU:OE2	1:J:137:ARG:NH1	2.24	0.70
1:C:40:THR:O	1:C:119:ASN:HB3	1.91	0.70
1:A:151:THR:HG23	1:A:165:ILE:HD13	1.72	0.70
1:E:220:THR:HG21	2:E:301:NAP:O2N	1.91	0.70
1:A:75:VAL:CG1	1:A:88:TYR:HB3	2.21	0.70
1:I:30:GLU:O	1:I:33:GLN:N	2.22	0.70
1:F:64:THR:HB	1:F:102:PHE:CE2	2.27	0.69
1:I:159:LYS:HD3	1:I:206:VAL:HG13	1.74	0.69
1:A:140:MET:HE2	1:B:140:MET:HG2	1.74	0.69
1:I:38:ILE:HD11	1:I:106:ALA:CB	2.22	0.69
1:F:227:VAL:CG1	1:F:231:VAL:HB	2.22	0.69
1:G:205:ARG:HH11	1:G:206:VAL:HG22	1.55	0.69
1:C:199:LYS:HB3	1:D:178:PRO:HG3	1.74	0.69
1:E:164:SER:HB3	1:E:209:SER:OG	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:128:LEU:CD1	1:C:179:MET:HG2	2.22	0.69
1:H:69:GLU:HG2	1:H:70:THR:N	2.07	0.69
1:J:171:LEU:O	1:J:171:LEU:HD23	1.92	0.69
1:G:38:ILE:HD12	1:G:62:VAL:O	1.92	0.69
1:G:191:ASP:O	1:G:195:SER:HB2	1.93	0.69
1:G:217:LEU:HD23	1:G:235:ALA:CA	2.23	0.69
1:G:38:ILE:CG2	1:G:116:LEU:HA	2.23	0.69
1:I:56:LYS:HG3	1:I:81:LEU:HG	1.74	0.69
1:I:214:VAL:HB	1:I:257:TYR:CD1	2.27	0.69
1:K:30:GLU:OE1	1:K:30:GLU:N	2.23	0.69
1:B:191:ASP:O	1:B:195:SER:HB2	1.92	0.68
1:B:28:ARG:O	1:B:31:MET:HG3	1.93	0.68
1:E:37:VAL:HG11	1:E:54:LEU:HD13	1.71	0.68
1:F:233:MET:CE	1:F:262:LEU:HB3	2.23	0.68
1:H:171:LEU:O	1:H:171:LEU:HD23	1.94	0.68
1:I:44:LYS:HA	1:I:48:ARG:HE	1.57	0.68
1:K:69:GLU:CD	1:K:69:GLU:H	2.02	0.68
1:C:87:HIS:CB	1:C:109:LEU:HD23	2.23	0.68
1:I:162:ASN:O	1:I:252:ARG:NH1	2.27	0.68
1:A:94:GLU:OE2	1:A:138:LYS:HE2	1.94	0.68
1:A:244:GLU:OE1	1:A:247:LYS:HE2	1.93	0.68
1:G:199:LYS:HB3	1:H:178:PRO:HG3	1.76	0.68
1:D:60:HIS:ND1	1:D:85:SER:HB2	2.09	0.68
1:K:215:LEU:HD13	1:K:241:CYS:SG	2.34	0.68
1:B:233:MET:HG2	1:B:233:MET:O	1.94	0.67
1:C:140:MET:HE1	1:C:144:PHE:CD2	2.29	0.67
1:I:239:GLU:HG3	1:I:240:GLU:N	2.08	0.67
1:K:75:VAL:HG23	1:K:86:ALA:HB1	1.76	0.67
1:G:217:LEU:HD23	1:G:235:ALA:CB	2.24	0.67
1:F:42:ALA:HB3	1:F:63:VAL:HB	1.76	0.67
1:G:116:LEU:CD1	1:G:118:LEU:HD21	2.24	0.67
1:B:93:MET:HG2	1:B:120:HIS:CE1	2.30	0.67
1:J:53:HIS:CD2	1:J:243:LEU:HD13	2.27	0.67
1:A:227:VAL:HG13	1:A:231:VAL:HB	1.76	0.67
1:B:128:LEU:CD1	1:B:179:MET:HG2	2.25	0.67
1:F:229:GLY:HA3	1:J:199:LYS:NZ	2.09	0.67
1:F:62:VAL:CG2	1:F:110:MET:HE2	2.24	0.67
1:J:132:ASP:O	1:J:136:VAL:HG23	1.94	0.67
1:G:89:ILE:CD1	1:G:105:GLN:HB2	2.24	0.67
1:C:44:LYS:HE2	2:C:301:NAP:O3X	1.95	0.67
1:G:230:ILE:HG22	1:G:231:VAL:HG13	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:178:PRO:HG3	1:B:199:LYS:CB	2.24	0.66
1:E:69:GLU:HG2	1:E:70:THR:N	2.10	0.66
1:F:36:LYS:HA	1:F:60:HIS:HB2	1.77	0.66
1:H:26:GLU:HB2	1:H:28:ARG:NH2	2.10	0.66
1:H:69:GLU:HG2	1:H:70:THR:H	1.59	0.66
1:G:55:ALA:CB	1:G:83:ALA:HB2	2.24	0.66
1:G:79:LEU:HD21	1:G:86:ALA:HB3	1.77	0.66
1:G:52:TYR:CE1	1:G:74:VAL:HG13	2.31	0.66
1:J:144:PHE:CD2	1:J:145:LEU:HD22	2.30	0.66
1:B:255:GLU:HG3	1:B:257:TYR:CE1	2.29	0.66
1:E:128:LEU:CD1	1:E:179:MET:HG2	2.25	0.66
1:F:43:SER:HB2	1:F:65:ALA:HB3	1.77	0.66
1:G:145:LEU:HD21	1:H:137:ARG:CG	2.25	0.66
1:H:72:GLN:O	1:H:75:VAL:HG22	1.95	0.66
1:I:64:THR:HB	1:I:102:PHE:CE1	2.29	0.66
1:A:198:ARG:HG3	1:A:210:ILE:HB	1.76	0.66
1:D:32:LEU:HD11	1:D:246:ILE:CG2	2.26	0.66
1:F:32:LEU:HD12	1:F:54:LEU:HD22	1.78	0.66
1:C:178:PRO:HG3	1:D:199:LYS:CB	2.25	0.66
1:F:63:VAL:HG23	1:F:71:LEU:HD22	1.78	0.66
1:I:178:PRO:HG3	1:J:199:LYS:CB	2.24	0.66
1:A:75:VAL:HG11	1:A:88:TYR:HB3	1.77	0.66
1:G:205:ARG:HD3	1:G:205:ARG:H	1.59	0.66
1:I:93:MET:CE	1:I:150:LEU:HD21	2.25	0.66
1:C:113:LEU:CD2	1:C:154:ALA:HB1	2.26	0.66
1:C:205:ARG:NH1	1:G:130:HIS:HB2	2.10	0.66
1:G:133:ILE:HD13	1:H:149:VAL:HG22	1.76	0.66
1:J:49:GLU:CG	1:J:239:GLU:HA	2.24	0.66
1:B:38:ILE:HG22	1:B:116:LEU:HA	1.77	0.65
1:G:193:PHE:HB2	1:H:185:ALA:HB2	1.78	0.65
1:I:93:MET:HE1	1:I:150:LEU:HD21	1.77	0.65
1:K:42:ALA:CB	1:K:63:VAL:HB	2.25	0.65
1:E:122:THR:HG23	1:E:142:VAL:HG21	1.78	0.65
1:E:133:ILE:HD11	1:F:152:VAL:HG21	1.78	0.65
1:F:214:VAL:HB	1:F:257:TYR:HD1	1.60	0.65
1:J:163:GLY:O	1:J:252:ARG:NH1	2.29	0.65
1:D:128:LEU:CD1	1:D:179:MET:HG2	2.26	0.65
1:D:128:LEU:HD12	1:D:179:MET:HG2	1.77	0.65
1:G:219:ASP:OD1	1:G:237:PRO:HA	1.96	0.65
1:I:53:HIS:CD2	1:I:243:LEU:HB2	2.32	0.65
1:J:70:THR:O	1:J:74:VAL:HG23	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:223:ALA:O	1:A:227:VAL:HG23	1.97	0.65
1:H:214:VAL:HB	1:H:257:TYR:CD1	2.31	0.65
1:I:126:LEU:O	1:I:127:ASN:ND2	2.29	0.65
1:C:199:LYS:CB	1:D:178:PRO:HG3	2.27	0.65
1:J:46:ILE:HD11	1:J:218:ILE:HG21	1.79	0.65
1:F:122:THR:HG21	1:F:139:SER:HA	1.79	0.65
1:F:151:THR:HG23	1:F:165:ILE:HD13	1.79	0.65
1:A:64:THR:HB	1:A:102:PHE:CE1	2.31	0.65
1:H:42:ALA:HB3	1:H:63:VAL:HB	1.79	0.65
1:I:121:ILE:HB	1:I:143:ASN:OD1	1.96	0.65
1:J:61:VAL:CG2	1:J:86:ALA:HA	2.26	0.65
1:A:53:HIS:HD2	1:A:243:LEU:HD13	1.62	0.65
1:C:75:VAL:HG21	1:C:88:TYR:CD1	2.31	0.65
1:D:32:LEU:HD13	1:D:54:LEU:HD23	1.78	0.64
1:D:105:GLN:O	1:D:109:LEU:HD13	1.97	0.64
1:F:43:SER:HB2	1:F:65:ALA:CB	2.27	0.64
1:C:215:LEU:HB2	2:C:301:NAP:C5N	2.27	0.64
1:E:155:LEU:CG	1:E:159:LYS:HE2	2.26	0.64
1:E:259:ASP:OD1	1:E:261:SER:OG	2.15	0.64
1:F:32:LEU:HD12	1:F:54:LEU:CD2	2.27	0.64
1:F:52:TYR:OH	1:F:74:VAL:HG13	1.98	0.64
1:G:217:LEU:HD11	1:G:224:MET:HE1	1.79	0.64
1:I:30:GLU:O	1:I:33:GLN:HB2	1.97	0.64
1:J:260:SER:HA	1:J:263:TRP:CE3	2.33	0.64
1:E:40:THR:O	1:E:119:ASN:HB3	1.97	0.64
1:E:69:GLU:HG2	1:E:70:THR:H	1.62	0.64
1:A:236:ALA:HB2	1:A:262:LEU:HD11	1.79	0.64
1:J:126:LEU:HB3	1:J:179:MET:HE2	1.79	0.64
1:G:60:HIS:CE1	1:G:84:ALA:HB1	2.32	0.64
1:H:234:GLN:OE1	1:J:264:THR:HG23	1.98	0.64
1:I:113:LEU:HG	1:I:158:LEU:HD21	1.78	0.64
1:I:241:CYS:HB2	1:I:258:TYR:HE2	1.59	0.64
1:D:151:THR:HG23	1:D:165:ILE:CD1	2.28	0.64
1:F:79:LEU:CD2	1:F:86:ALA:HB3	2.28	0.64
1:F:93:MET:HG3	1:F:120:HIS:NE2	2.13	0.64
1:A:162:ASN:O	1:A:252:ARG:NH1	2.29	0.63
1:D:113:LEU:HD11	1:D:115:MET:O	1.98	0.63
1:F:26:GLU:HB3	1:F:28:ARG:NH2	2.13	0.63
1:C:128:LEU:HD12	1:C:179:MET:HG2	1.80	0.63
1:G:121:ILE:HD13	2:G:301:NAP:O2D	1.97	0.63
1:A:56:LYS:HG3	1:A:81:LEU:HD13	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:203:VAL:HB	1:J:179:MET:HE3	1.79	0.63
1:I:42:ALA:HB3	1:I:63:VAL:HB	1.80	0.63
1:K:128:LEU:HD12	1:K:179:MET:HG2	1.78	0.63
1:C:121:ILE:HB	1:C:143:ASN:OD1	1.98	0.63
1:H:25:GLU:O	1:H:26:GLU:HB2	1.97	0.63
1:C:140:MET:CA	1:C:140:MET:HE3	2.29	0.63
1:G:155:LEU:HD11	1:G:201:TYR:OH	1.99	0.63
1:G:243:LEU:HG	1:G:247:LYS:HE3	1.79	0.63
1:K:87:HIS:CD2	1:K:109:LEU:HD22	2.33	0.63
1:C:140:MET:HE3	1:C:140:MET:HA	1.82	0.62
1:D:32:LEU:HD13	1:D:54:LEU:CD2	2.28	0.62
1:C:149:VAL:HG22	1:D:133:ILE:HD13	1.81	0.62
1:D:260:SER:HA	1:D:263:TRP:CE2	2.35	0.62
1:F:38:ILE:HG21	1:F:102:PHE:HE1	1.64	0.62
1:G:41:GLY:O	1:G:47:GLY:HA3	1.99	0.62
1:F:32:LEU:O	1:F:59:ALA:HB2	2.00	0.62
1:F:99:ALA:O	1:F:103:VAL:HG23	1.98	0.62
1:G:145:LEU:HD21	1:H:137:ARG:HD2	1.82	0.62
1:G:224:MET:HE2	1:G:224:MET:CA	2.29	0.62
1:H:163:GLY:O	1:H:252:ARG:NH2	2.33	0.62
1:I:129:PHE:HB3	1:J:197:ILE:HD11	1.80	0.62
1:J:197:ILE:HG23	1:J:201:TYR:CE1	2.35	0.62
1:C:197:ILE:HG22	1:C:210:ILE:HD11	1.81	0.61
1:E:99:ALA:HB1	1:E:150:LEU:CD2	2.29	0.61
1:F:215:LEU:HB2	2:F:301:NAP:C5N	2.30	0.61
1:H:61:VAL:HG23	1:H:86:ALA:HA	1.80	0.61
1:I:40:THR:HG22	1:I:64:THR:CG2	2.30	0.61
1:J:46:ILE:CD1	1:J:218:ILE:HG21	2.29	0.61
1:K:93:MET:HG3	1:K:120:HIS:CE1	2.35	0.61
1:E:130:HIS:CE1	1:K:205:ARG:HG2	2.35	0.61
1:F:154:ALA:O	1:F:158:LEU:HD12	2.00	0.61
1:I:191:ASP:O	1:I:195:SER:HB2	2.00	0.61
1:D:231:VAL:CG2	1:G:231:VAL:HG12	2.30	0.61
1:E:75:VAL:CG2	1:E:88:TYR:HB3	2.31	0.61
1:E:93:MET:HG3	1:E:120:HIS:NE2	2.16	0.61
1:A:26:GLU:HB2	1:A:28:ARG:NH1	2.15	0.61
1:C:139:SER:O	1:C:143:ASN:HB2	2.01	0.61
1:F:40:THR:HA	1:F:64:THR:HG23	1.82	0.61
1:F:107:GLY:CA	1:F:157:MET:HE1	2.31	0.61
1:B:38:ILE:HG21	1:B:116:LEU:HD13	1.81	0.61
1:B:69:GLU:HG3	1:B:70:THR:N	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:28:ARG:HG3	1:I:28:ARG:HH11	1.62	0.61
1:J:113:LEU:HD23	1:J:154:ALA:HB1	1.82	0.61
1:D:223:ALA:HB2	2:D:301:NAP:H72N	1.65	0.61
1:F:241:CYS:HB2	1:F:258:TYR:CE2	2.36	0.61
1:F:151:THR:HG23	1:F:165:ILE:CD1	2.31	0.60
1:B:49:GLU:HB2	1:B:242:ALA:HB2	1.82	0.60
1:F:55:ALA:CB	1:F:83:ALA:HB2	2.30	0.60
1:G:55:ALA:HB1	1:G:83:ALA:HB2	1.82	0.60
1:G:145:LEU:HD21	1:H:137:ARG:CD	2.31	0.60
1:H:215:LEU:HD13	1:H:241:CYS:SG	2.41	0.60
1:K:132:ASP:OD2	1:K:135:HIS:HB2	2.01	0.60
1:D:215:LEU:HD11	1:D:245:ILE:HD11	1.82	0.60
1:G:144:PHE:HD1	1:G:190:LEU:HD23	1.67	0.60
1:I:56:LYS:HG3	1:I:81:LEU:CD2	2.31	0.60
1:B:236:ALA:HB1	1:B:237:PRO:HD2	1.82	0.60
1:C:75:VAL:HG21	1:C:88:TYR:HD1	1.65	0.60
1:H:220:THR:HG23	1:H:223:ALA:H	1.66	0.60
1:E:178:PRO:HG3	1:F:199:LYS:CB	2.31	0.60
1:A:151:THR:HG23	1:A:165:ILE:CD1	2.31	0.60
1:A:53:HIS:CD2	1:A:243:LEU:HB2	2.36	0.60
1:A:237:PRO:HG2	1:A:240:GLU:HB2	1.84	0.60
1:F:237:PRO:HG2	1:F:240:GLU:HB3	1.83	0.60
1:G:40:THR:HG22	1:G:64:THR:CG2	2.31	0.60
1:H:126:LEU:HD11	1:H:227:VAL:HG12	1.83	0.60
1:K:46:ILE:HG13	1:K:220:THR:HG21	1.84	0.60
1:H:96:MET:HE3	1:H:145:LEU:HB3	1.83	0.60
1:J:105:GLN:O	1:J:109:LEU:HD13	2.02	0.60
1:C:230:ILE:HD12	1:C:230:ILE:H	1.66	0.60
1:F:214:VAL:HB	1:F:257:TYR:CD1	2.36	0.60
1:I:38:ILE:HD11	1:I:106:ALA:HB3	1.82	0.60
1:G:43:SER:HB3	1:G:65:ALA:CB	2.32	0.59
1:J:75:VAL:CG2	1:J:88:TYR:HB3	2.32	0.59
1:C:54:LEU:HD22	1:C:246:ILE:HD13	1.84	0.59
1:J:38:ILE:HG13	1:J:113:LEU:HD11	1.84	0.59
1:B:259:ASP:OD1	1:B:261:SER:OG	2.21	0.59
1:I:52:TYR:CE1	1:I:74:VAL:HG13	2.37	0.59
1:A:205:ARG:CG	1:A:205:ARG:O	2.50	0.59
1:A:241:CYS:HB2	1:A:258:TYR:CE2	2.38	0.59
1:B:113:LEU:HD23	1:B:114:ASP:N	2.18	0.59
1:C:54:LEU:HD22	1:C:246:ILE:CD1	2.33	0.59
1:I:146:SER:O	1:I:150:LEU:HG	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:163:GLY:O	1:I:252:ARG:NH1	2.36	0.59
1:I:199:LYS:CB	1:J:178:PRO:HG3	2.26	0.59
1:K:27:PHE:CE2	1:K:247:LYS:HG2	2.37	0.59
1:A:227:VAL:HG12	1:A:231:VAL:HB	1.79	0.59
1:B:87:HIS:ND1	1:B:109:LEU:HD13	2.18	0.59
1:C:244:GLU:OE1	1:C:247:LYS:HD3	2.00	0.59
1:A:99:ALA:HB1	1:A:150:LEU:HD22	1.84	0.59
1:B:171:LEU:HD23	1:B:171:LEU:O	2.03	0.59
1:D:217:LEU:HD22	1:D:235:ALA:CB	2.32	0.59
1:F:26:GLU:HB3	1:F:28:ARG:HH22	1.67	0.59
1:G:145:LEU:HD21	1:H:137:ARG:HG2	1.84	0.59
1:B:240:GLU:HG2	1:B:258:TYR:OH	2.02	0.58
1:I:139:SER:O	1:I:143:ASN:HB2	2.03	0.58
1:K:38:ILE:HG23	1:K:113:LEU:CD1	2.32	0.58
1:K:217:LEU:HD12	1:K:218:ILE:N	2.17	0.58
1:E:87:HIS:CG	1:E:109:LEU:HD23	2.39	0.58
1:C:39:VAL:CG1	1:C:42:ALA:HB2	2.28	0.58
1:G:145:LEU:CD2	1:H:137:ARG:HG2	2.33	0.58
1:I:40:THR:HA	1:I:64:THR:HG22	1.85	0.58
1:B:71:LEU:O	1:B:75:VAL:HG23	2.04	0.58
1:G:26:GLU:HG2	1:G:27:PHE:N	2.19	0.58
1:G:93:MET:HG3	1:G:120:HIS:CD2	2.39	0.58
1:K:215:LEU:N	1:K:215:LEU:HD23	2.18	0.58
1:A:72:GLN:O	1:A:75:VAL:HG22	2.03	0.58
1:A:118:LEU:O	1:A:168:VAL:HG23	2.04	0.58
1:B:113:LEU:HD22	1:B:158:LEU:HD21	1.85	0.58
1:B:128:LEU:HD12	1:B:179:MET:HG2	1.85	0.58
1:D:242:ALA:O	1:D:246:ILE:HG13	2.04	0.58
1:A:155:LEU:HD11	1:A:201:TYR:HH	1.69	0.58
1:D:28:ARG:HB3	1:D:30:GLU:OE1	2.04	0.58
1:K:66:ARG:HB2	2:K:301:NAP:O2X	2.04	0.58
1:J:39:VAL:HG22	1:J:117:ILE:HD12	1.86	0.58
1:B:136:VAL:HG22	1:B:182:ALA:HB2	1.86	0.58
1:G:113:LEU:HB3	1:G:157:MET:HB3	1.85	0.58
1:J:65:ALA:HB3	1:J:71:LEU:HD21	1.85	0.58
1:K:248:GLY:HA3	1:K:256:VAL:HG11	1.86	0.58
1:C:71:LEU:O	1:C:75:VAL:HG23	2.04	0.57
1:K:38:ILE:CG1	1:K:116:LEU:HD12	2.34	0.57
1:D:28:ARG:O	1:D:31:MET:HG3	2.05	0.57
1:G:92:THR:HG1	1:G:94:GLU:HG3	1.67	0.57
1:I:239:GLU:HG3	1:I:240:GLU:H	1.67	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:209:SER:HB3	1:K:252:ARG:HE	1.68	0.57
1:E:151:THR:HG23	1:E:165:ILE:HD13	1.86	0.57
1:J:40:THR:HA	1:J:64:THR:HG22	1.86	0.57
1:K:151:THR:HG23	1:K:165:ILE:CD1	2.34	0.57
1:H:187:LYS:HD3	1:H:190:LEU:HD12	1.86	0.57
1:A:197:ILE:CD1	1:B:129:PHE:HB3	2.35	0.57
1:G:217:LEU:HD21	1:G:235:ALA:HB2	1.87	0.57
1:K:72:GLN:HG3	1:K:88:TYR:CZ	2.40	0.57
1:F:46:ILE:CD1	1:F:218:ILE:HG21	2.34	0.57
1:F:159:LYS:HG3	1:F:208:VAL:HG21	1.86	0.57
1:I:41:GLY:O	1:I:47:GLY:HA3	2.03	0.57
1:K:63:VAL:HG23	1:K:71:LEU:HD22	1.86	0.57
1:A:144:PHE:CD2	1:A:145:LEU:HD22	2.39	0.57
1:C:75:VAL:CG2	1:C:88:TYR:HB3	2.35	0.57
1:A:40:THR:O	1:A:119:ASN:HB3	2.05	0.57
1:B:89:ILE:HD12	1:B:102:PHE:CD1	2.40	0.57
1:E:75:VAL:HG21	1:E:88:TYR:HB3	1.86	0.57
1:G:40:THR:HG22	1:G:64:THR:HG21	1.86	0.57
1:F:36:LYS:HB3	1:F:110:MET:SD	2.44	0.57
1:K:116:LEU:HD21	1:K:118:LEU:HD21	1.85	0.57
1:E:156:PRO:HA	1:E:159:LYS:HD2	1.87	0.57
1:I:217:LEU:HD22	1:I:235:ALA:HB2	1.86	0.57
1:D:231:VAL:HG22	1:G:231:VAL:HG12	1.86	0.56
1:E:140:MET:HE1	1:E:144:PHE:CD2	2.40	0.56
1:J:217:LEU:HD23	1:J:218:ILE:N	2.19	0.56
1:B:260:SER:HA	1:B:263:TRP:CD2	2.40	0.56
1:G:223:ALA:HB2	2:G:301:NAP:H72N	1.70	0.56
1:I:44:LYS:HE2	2:I:301:NAP:O3X	2.05	0.56
1:J:151:THR:HG23	1:J:165:ILE:CD1	2.35	0.56
1:D:79:LEU:CD2	1:D:86:ALA:HB3	2.35	0.56
1:D:232:HIS:CB	1:G:233:MET:HE2	2.28	0.56
1:F:107:GLY:HA3	1:F:157:MET:HE1	1.86	0.56
1:K:91:GLY:HA3	1:K:98:PHE:CE2	2.39	0.56
1:K:217:LEU:HD12	1:K:218:ILE:H	1.70	0.56
1:F:75:VAL:CG2	1:F:88:TYR:HB3	2.36	0.56
1:I:71:LEU:HB3	1:I:88:TYR:CD2	2.40	0.56
1:A:54:LEU:HD23	1:A:246:ILE:HD13	1.87	0.56
1:B:231:VAL:HG11	1:C:231:VAL:HB	1.87	0.56
1:C:140:MET:HE3	1:C:144:PHE:HB3	1.86	0.56
1:J:155:LEU:HD22	1:J:159:LYS:HE3	1.87	0.56
1:D:30:GLU:HA	1:D:33:GLN:HB2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:230:ILE:O	1:E:231:VAL:C	2.48	0.56
1:G:35:LYS:HG3	1:G:114:ASP:OD2	2.06	0.56
1:G:37:VAL:HG11	1:G:54:LEU:HD13	1.88	0.56
1:A:43:SER:HB3	2:A:301:NAP:O3B	2.06	0.56
1:C:50:MET:O	1:C:54:LEU:HD23	2.05	0.56
1:F:49:GLU:HG2	1:F:239:GLU:HA	1.87	0.56
1:K:31:MET:HE1	1:K:251:LEU:CD2	2.31	0.56
1:J:104:ALA:O	1:J:108:LYS:HG3	2.06	0.56
1:A:220:THR:HG23	1:A:223:ALA:H	1.71	0.55
1:F:146:SER:O	1:F:150:LEU:HG	2.07	0.55
1:G:244:GLU:HA	1:G:244:GLU:OE1	2.04	0.55
1:J:96:MET:HE3	1:J:149:VAL:HG21	1.87	0.55
1:F:52:TYR:CZ	1:F:74:VAL:HG13	2.42	0.55
1:J:191:ASP:O	1:J:195:SER:HB2	2.06	0.55
1:J:241:CYS:HB2	1:J:258:TYR:CE2	2.41	0.55
1:B:29:PRO:HA	1:B:57:MET:HE2	1.88	0.55
1:E:221:GLU:H	1:E:221:GLU:CD	2.13	0.55
1:J:230:ILE:O	1:J:231:VAL:C	2.49	0.55
1:A:152:VAL:HG21	1:B:133:ILE:HD11	1.88	0.55
1:B:79:LEU:HD21	1:B:86:ALA:HB3	1.88	0.55
1:C:171:LEU:O	1:C:171:LEU:HD23	2.05	0.55
1:D:97:THR:O	1:D:101:GLN:HG3	2.06	0.55
1:E:128:LEU:O	1:K:205:ARG:NH1	2.39	0.55
1:H:223:ALA:O	1:H:227:VAL:HG22	2.05	0.55
1:H:27:PHE:CD2	1:H:247:LYS:HE2	2.41	0.55
1:J:260:SER:HB3	1:J:263:TRP:CZ3	2.41	0.55
1:K:92:THR:OG1	1:K:94:GLU:HB2	2.07	0.55
1:I:93:MET:HG3	1:I:120:HIS:CE1	2.42	0.55
1:F:198:ARG:CZ	1:F:254:GLU:HG2	2.36	0.55
1:E:126:LEU:N	1:E:126:LEU:HD23	2.22	0.55
1:G:52:TYR:OH	1:G:74:VAL:HA	2.06	0.55
1:G:89:ILE:HD11	1:G:105:GLN:HB2	1.88	0.55
1:H:230:ILE:O	1:H:231:VAL:O	2.25	0.55
1:I:56:LYS:HE2	1:I:81:LEU:CD2	2.33	0.55
1:I:156:PRO:O	1:I:160:GLN:HG3	2.07	0.55
1:J:260:SER:HA	1:J:263:TRP:CD2	2.42	0.55
1:K:147:TYR:CD2	1:K:190:LEU:HD21	2.41	0.55
1:G:68:LYS:HE2	1:G:88:TYR:HE1	1.71	0.55
1:H:148:VAL:HG22	1:H:193:PHE:CE2	2.42	0.55
1:I:54:LEU:CD2	1:I:246:ILE:HD13	2.34	0.55
1:D:96:MET:HG3	1:D:149:VAL:HG21	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:46:ILE:HD11	1:F:218:ILE:CG2	2.37	0.55
1:I:174:LYS:HE2	1:I:191:ASP:OD2	2.05	0.55
1:K:155:LEU:O	1:K:159:LYS:HG3	2.07	0.55
1:B:88:TYR:CD1	1:B:88:TYR:C	2.84	0.54
1:B:219:ASP:OD1	1:B:238:LYS:HG2	2.07	0.54
1:E:171:LEU:HD23	1:E:171:LEU:C	2.31	0.54
1:H:259:ASP:OD2	1:H:262:LEU:HD11	2.07	0.54
1:J:69:GLU:CD	1:J:69:GLU:H	2.14	0.54
1:D:232:HIS:HB3	1:G:233:MET:CE	2.29	0.54
1:F:93:MET:HG3	1:F:120:HIS:CD2	2.42	0.54
1:C:224:MET:HE2	1:C:224:MET:HA	1.88	0.54
1:G:79:LEU:CD2	1:G:86:ALA:HB3	2.36	0.54
1:G:146:SER:O	1:G:150:LEU:HG	2.07	0.54
1:C:64:THR:HB	1:C:102:PHE:CE1	2.42	0.54
1:F:95:ASP:OD1	1:F:97:THR:HB	2.08	0.54
1:F:103:VAL:HG11	1:F:154:ALA:HB2	1.89	0.54
1:G:151:THR:HG23	1:G:165:ILE:HD13	1.88	0.54
1:K:32:LEU:HD11	1:K:115:MET:CE	2.38	0.54
1:K:155:LEU:HD22	1:K:159:LYS:HE2	1.89	0.54
1:A:93:MET:HG3	1:A:120:HIS:CE1	2.42	0.54
1:F:113:LEU:HD11	1:F:115:MET:O	2.07	0.54
1:F:219:ASP:HB3	1:F:235:ALA:HB1	1.90	0.54
1:B:240:GLU:HG2	1:B:258:TYR:CZ	2.43	0.54
1:C:211:THR:HG23	1:C:253:GLN:O	2.07	0.54
1:C:237:PRO:HB2	1:C:239:GLU:CG	2.38	0.54
1:F:154:ALA:C	1:F:158:LEU:HD12	2.32	0.54
1:F:227:VAL:HG12	1:F:227:VAL:O	2.08	0.54
1:J:113:LEU:HB2	1:J:157:MET:SD	2.47	0.54
1:B:36:LYS:HB3	1:B:110:MET:HE3	1.88	0.54
1:G:40:THR:HA	1:G:64:THR:HG22	1.90	0.54
1:A:122:THR:O	1:A:124:THR:HG23	2.08	0.54
1:E:128:LEU:HD12	1:E:179:MET:HG2	1.90	0.54
1:G:241:CYS:HA	1:G:258:TYR:CE2	2.42	0.54
1:I:72:GLN:HG3	1:I:88:TYR:CZ	2.43	0.54
1:K:122:THR:OG1	1:K:142:VAL:HB	2.08	0.54
1:B:77:HIS:CE1	1:B:81:LEU:HG	2.43	0.54
1:F:198:ARG:HH11	1:F:254:GLU:HG2	1.70	0.54
1:D:96:MET:HE3	1:D:145:LEU:HG	1.89	0.53
1:D:151:THR:HG23	1:D:165:ILE:HD11	1.90	0.53
1:F:113:LEU:HD23	1:F:158:LEU:HG	1.91	0.53
1:F:169:SER:HA	1:F:187:LYS:HE3	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:240:GLU:HG2	1:F:258:TYR:OH	2.07	0.53
1:G:171:LEU:HD11	1:G:263:TRP:CE2	2.43	0.53
1:J:198:ARG:HD2	1:J:254:GLU:HG2	1.90	0.53
1:B:46:ILE:HD11	1:B:218:ILE:HG21	1.88	0.53
1:G:50:MET:O	1:G:54:LEU:HG	2.07	0.53
1:H:229:GLY:HA3	1:I:199:LYS:HE2	1.90	0.53
1:I:118:LEU:HD22	1:I:150:LEU:CD1	2.38	0.53
1:F:60:HIS:ND1	1:F:85:SER:OG	2.25	0.53
1:G:218:ILE:HG22	1:G:220:THR:HG23	1.91	0.53
1:A:36:LYS:N	1:A:114:ASP:OD2	2.31	0.53
1:E:223:ALA:O	1:E:227:VAL:HG22	2.09	0.53
1:G:193:PHE:CE1	1:G:197:ILE:HG13	2.43	0.53
1:I:55:ALA:CB	1:I:83:ALA:HB2	2.38	0.53
1:J:42:ALA:HA	1:J:47:GLY:C	2.33	0.53
1:K:40:THR:O	1:K:119:ASN:HB3	2.08	0.53
1:K:236:ALA:HB1	1:K:237:PRO:HD2	1.91	0.53
1:G:128:LEU:HD23	1:G:179:MET:HG2	1.91	0.53
1:I:236:ALA:HB1	1:I:237:PRO:HD2	1.91	0.53
1:C:170:SER:HB2	2:C:301:NAP:C5N	2.39	0.53
1:C:197:ILE:HG22	1:C:210:ILE:CD1	2.37	0.53
1:C:217:LEU:CG	1:C:224:MET:HE1	2.38	0.53
1:G:28:ARG:O	1:G:31:MET:HG3	2.08	0.53
1:G:199:LYS:CB	1:H:178:PRO:HG3	2.39	0.53
1:J:39:VAL:HG12	1:J:42:ALA:HB2	1.91	0.53
1:A:93:MET:HG3	1:A:120:HIS:NE2	2.24	0.53
1:B:36:LYS:HE3	1:B:111:GLY:O	2.09	0.53
1:H:234:GLN:CG	1:J:264:THR:HG23	2.38	0.53
1:I:193:PHE:HB2	1:J:185:ALA:HB2	1.91	0.53
1:C:107:GLY:HA3	1:C:157:MET:HE1	1.90	0.53
1:J:93:MET:HG3	1:J:120:HIS:CD2	2.43	0.53
1:B:89:ILE:HD12	1:B:102:PHE:CE1	2.44	0.53
1:E:193:PHE:HB2	1:F:185:ALA:HB2	1.91	0.53
1:H:37:VAL:HG11	1:H:54:LEU:HD11	1.91	0.53
1:J:41:GLY:O	1:J:47:GLY:HA3	2.09	0.53
1:J:167:VAL:CG1	1:J:190:LEU:HD13	2.39	0.53
1:H:75:VAL:HG11	1:H:88:TYR:HD2	1.74	0.53
1:K:116:LEU:CD2	1:K:118:LEU:HD21	2.39	0.53
1:A:53:HIS:CD2	1:A:243:LEU:HD13	2.43	0.52
1:B:56:LYS:HG3	1:B:81:LEU:HD13	1.90	0.52
1:C:230:ILE:HD12	1:C:230:ILE:N	2.24	0.52
1:E:101:GLN:O	1:E:105:GLN:HG3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:205:ARG:CZ	1:I:130:HIS:HB2	2.38	0.52
1:G:214:VAL:HB	1:G:257:TYR:CD2	2.44	0.52
1:H:170:SER:HB2	2:H:301:NAP:C5N	2.37	0.52
1:K:37:VAL:HG11	1:K:54:LEU:HD13	1.91	0.52
1:A:42:ALA:HB3	1:A:63:VAL:HB	1.91	0.52
1:C:239:GLU:HG3	1:C:240:GLU:N	2.19	0.52
1:E:79:LEU:HD21	1:E:86:ALA:HB3	1.90	0.52
1:H:55:ALA:CB	1:H:83:ALA:HB2	2.40	0.52
1:J:46:ILE:HG13	1:J:220:THR:HG21	1.91	0.52
1:K:60:HIS:HB3	1:K:85:SER:HB3	1.92	0.52
1:F:97:THR:O	1:F:101:GLN:HG3	2.09	0.52
1:A:126:LEU:O	1:A:127:ASN:ND2	2.43	0.52
1:F:38:ILE:HG21	1:F:102:PHE:CE1	2.45	0.52
1:A:193:PHE:HB2	1:B:185:ALA:HB2	1.92	0.52
1:C:96:MET:HE1	1:C:146:SER:HB3	1.90	0.52
1:E:169:SER:HA	1:E:187:LYS:HE3	1.92	0.52
1:I:56:LYS:HG3	1:I:81:LEU:CG	2.38	0.52
1:I:94:GLU:OE1	1:I:138:LYS:HE3	2.09	0.52
1:K:27:PHE:CD2	1:K:247:LYS:HG2	2.45	0.52
1:D:244:GLU:O	1:D:247:LYS:HE2	2.10	0.52
1:E:217:LEU:HD11	1:E:224:MET:CE	2.40	0.52
1:F:26:GLU:HG3	1:F:27:PHE:H	1.75	0.52
1:I:118:LEU:HD22	1:I:150:LEU:HD12	1.91	0.52
1:J:121:ILE:HB	1:J:143:ASN:OD1	2.10	0.52
1:K:124:THR:CG2	1:K:125:SER:N	2.73	0.52
1:A:217:LEU:HD12	1:A:218:ILE:N	2.24	0.52
1:F:113:LEU:HB2	1:F:157:MET:HE2	1.90	0.52
1:J:128:LEU:HD23	1:J:179:MET:HG2	1.91	0.52
1:A:140:MET:HE2	1:B:140:MET:CG	2.40	0.52
1:G:203:VAL:CG1	1:J:179:MET:HE3	2.40	0.52
1:I:121:ILE:CD1	1:I:183:TYR:HE1	2.22	0.52
1:I:223:ALA:HB2	2:I:301:NAP:H72N	1.75	0.52
1:J:61:VAL:HG22	1:J:86:ALA:HA	1.91	0.52
1:J:214:VAL:HB	1:J:257:TYR:HD1	1.74	0.52
1:A:213:CYS:SG	1:A:256:VAL:HG22	2.51	0.51
1:I:148:VAL:HG12	1:J:133:ILE:HD11	1.92	0.51
1:C:87:HIS:CG	1:C:109:LEU:HD23	2.44	0.51
1:D:139:SER:O	1:D:143:ASN:HB2	2.10	0.51
1:F:56:LYS:HD3	1:F:81:LEU:CD2	2.39	0.51
1:F:229:GLY:HA3	1:J:199:LYS:HZ2	1.74	0.51
1:H:40:THR:HA	1:H:64:THR:HG22	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:49:GLU:HB3	1:I:242:ALA:CB	2.41	0.51
1:K:151:THR:HG23	1:K:165:ILE:HD13	1.93	0.51
1:C:160:GLN:HG3	1:C:160:GLN:O	2.09	0.51
1:F:43:SER:CB	1:F:65:ALA:CB	2.88	0.51
1:F:115:MET:HE2	1:F:164:SER:HB2	1.92	0.51
1:G:37:VAL:HG11	1:G:54:LEU:CD1	2.40	0.51
1:C:230:ILE:O	1:C:231:VAL:C	2.53	0.51
1:D:37:VAL:HG11	1:D:54:LEU:CD1	2.40	0.51
1:F:44:LYS:HA	1:F:48:ARG:HD3	1.93	0.51
1:H:28:ARG:O	1:H:31:MET:HG3	2.11	0.51
1:J:43:SER:HB3	1:J:65:ALA:CB	2.40	0.51
1:G:26:GLU:HG2	1:G:27:PHE:H	1.75	0.51
1:H:122:THR:OG1	1:H:142:VAL:HB	2.11	0.51
1:I:223:ALA:O	1:I:227:VAL:HG22	2.10	0.51
1:J:215:LEU:HB2	2:J:301:NAP:C5N	2.40	0.51
1:K:119:ASN:OD1	2:K:301:NAP:H4D	2.11	0.51
1:A:105:GLN:O	1:A:109:LEU:HD13	2.11	0.51
1:B:37:VAL:HG11	1:B:54:LEU:CD1	2.40	0.51
1:J:40:THR:HG22	1:J:64:THR:HG21	1.92	0.51
1:A:54:LEU:CD2	1:A:246:ILE:HD13	2.40	0.51
1:C:217:LEU:HD11	1:C:224:MET:CE	2.40	0.51
1:J:121:ILE:HG21	2:J:301:NAP:O2D	2.10	0.51
1:J:236:ALA:HB1	1:J:237:PRO:HD2	1.92	0.51
1:K:188:PHE:O	1:K:191:ASP:N	2.43	0.51
1:D:30:GLU:H	1:D:30:GLU:CD	2.17	0.51
1:E:260:SER:HA	1:E:263:TRP:CD2	2.46	0.51
1:F:217:LEU:HD23	1:F:218:ILE:N	2.25	0.51
1:F:229:GLY:HA3	1:J:199:LYS:HZ1	1.75	0.51
1:E:116:LEU:HD21	1:E:118:LEU:HD21	1.93	0.51
1:F:39:VAL:CG1	1:F:42:ALA:HB2	2.40	0.51
1:G:144:PHE:CE2	1:H:140:MET:HE3	2.46	0.51
1:G:214:VAL:HG21	1:G:257:TYR:CE2	2.46	0.51
1:H:69:GLU:CD	1:H:69:GLU:H	2.19	0.51
1:H:75:VAL:O	1:H:79:LEU:HD12	2.11	0.51
1:J:71:LEU:O	1:J:75:VAL:HG23	2.10	0.51
1:K:27:PHE:CE2	1:K:247:LYS:HA	2.46	0.51
1:G:40:THR:O	1:G:119:ASN:HB3	2.11	0.51
1:B:197:ILE:HG23	1:B:201:TYR:CE1	2.46	0.50
1:C:217:LEU:HG	1:C:224:MET:HE1	1.93	0.50
1:C:219:ASP:OD2	1:C:237:PRO:HA	2.11	0.50
1:I:261:SER:C	1:I:262:LEU:HD23	2.37	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:263:TRP:HB2	1:G:232:HIS:CE1	2.46	0.50
1:I:61:VAL:HG23	1:I:86:ALA:HA	1.93	0.50
1:I:129:PHE:HB3	1:J:197:ILE:CD1	2.42	0.50
1:J:99:ALA:HB1	1:J:150:LEU:CD2	2.40	0.50
1:C:140:MET:CE	1:C:144:PHE:HB3	2.40	0.50
1:H:148:VAL:O	1:H:152:VAL:HG23	2.10	0.50
1:J:42:ALA:HB3	1:J:63:VAL:HB	1.94	0.50
1:K:38:ILE:HG22	1:K:110:MET:HE1	1.94	0.50
1:C:55:ALA:HB1	1:C:83:ALA:HB2	1.92	0.50
1:F:148:VAL:O	1:F:152:VAL:HG23	2.11	0.50
1:G:216:GLY:O	2:G:301:NAP:H4N	2.11	0.50
1:B:40:THR:HA	1:B:64:THR:CG2	2.41	0.50
1:D:93:MET:HG3	1:D:120:HIS:CE1	2.47	0.50
1:H:234:GLN:CD	1:J:264:THR:HG23	2.35	0.50
1:I:40:THR:HG22	1:I:64:THR:HG21	1.94	0.50
1:K:116:LEU:CG	1:K:118:LEU:HD21	2.41	0.50
1:K:236:ALA:HB1	1:K:258:TYR:HE2	1.76	0.50
1:F:159:LYS:HG3	1:F:208:VAL:CG2	2.41	0.50
1:I:128:LEU:HD23	1:I:179:MET:HG2	1.93	0.50
1:C:36:LYS:HG3	1:C:114:ASP:OD2	2.12	0.50
1:H:94:GLU:HG2	1:H:142:VAL:HG21	1.93	0.50
1:I:54:LEU:HD22	1:I:246:ILE:CD1	2.35	0.50
1:K:233:MET:HG2	1:K:234:GLN:H	1.76	0.50
1:G:258:TYR:CD1	1:G:259:ASP:N	2.80	0.50
1:H:27:PHE:HD2	1:H:247:LYS:HE2	1.77	0.50
1:H:94:GLU:HG2	1:H:142:VAL:CG2	2.41	0.50
1:H:258:TYR:CD1	1:H:259:ASP:N	2.79	0.50
1:A:26:GLU:HB2	1:A:28:ARG:HH12	1.76	0.50
1:D:40:THR:O	1:D:119:ASN:HB3	2.12	0.50
1:D:229:GLY:C	1:D:230:ILE:HD13	2.37	0.50
1:G:101:GLN:O	1:G:105:GLN:HG2	2.12	0.50
1:J:162:ASN:OD1	1:J:207:ASN:HB2	2.11	0.50
1:D:93:MET:HG3	1:D:120:HIS:NE2	2.27	0.49
1:E:66:ARG:HB2	2:E:301:NAP:O2X	2.11	0.49
1:E:129:PHE:CE2	1:F:193:PHE:HZ	2.29	0.49
1:G:75:VAL:HG11	1:G:88:TYR:HB3	1.93	0.49
1:H:89:ILE:HD12	1:H:105:GLN:OE1	2.11	0.49
1:A:68:LYS:HG3	1:A:69:GLU:H	1.76	0.49
1:A:99:ALA:HB1	1:A:150:LEU:CD2	2.41	0.49
1:C:227:VAL:HG22	1:C:227:VAL:O	2.12	0.49
1:F:128:LEU:HD12	1:F:179:MET:HG3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:60:HIS:CD2	1:H:84:ALA:HB3	2.47	0.49
1:D:38:ILE:HG13	1:D:113:LEU:HD13	1.94	0.49
1:B:37:VAL:HG11	1:B:54:LEU:HD13	1.95	0.49
1:C:209:SER:HB3	1:C:252:ARG:CZ	2.42	0.49
1:H:177:TYR:CD2	3:H:302:A1MBC:C11	2.96	0.49
1:I:93:MET:HG3	1:I:120:HIS:NE2	2.27	0.49
1:J:40:THR:HG22	1:J:64:THR:CG2	2.43	0.49
1:A:43:SER:HB2	1:A:65:ALA:CB	2.42	0.49
1:C:53:HIS:ND1	1:C:243:LEU:HD13	2.27	0.49
1:E:39:VAL:CG1	1:E:42:ALA:HB2	2.33	0.49
1:G:243:LEU:HG	1:G:247:LYS:CE	2.42	0.49
1:H:260:SER:HA	1:H:263:TRP:CE3	2.46	0.49
1:B:113:LEU:HD21	1:B:115:MET:O	2.12	0.49
1:C:236:ALA:HB1	1:C:237:PRO:HD2	1.95	0.49
1:J:214:VAL:HG12	1:J:214:VAL:O	2.13	0.49
1:B:36:LYS:HD3	1:B:110:MET:O	2.13	0.49
1:C:62:VAL:CG2	1:C:110:MET:HG3	2.42	0.49
1:C:140:MET:CE	1:C:144:PHE:CD2	2.95	0.49
1:F:128:LEU:HD12	1:F:179:MET:CG	2.43	0.49
1:G:72:GLN:O	1:G:75:VAL:HG22	2.13	0.49
1:G:172:ALA:HA	1:G:175:VAL:O	2.13	0.49
1:J:219:ASP:OD1	1:J:219:ASP:O	2.31	0.49
1:A:248:GLY:HA3	1:A:256:VAL:HG11	1.95	0.49
1:B:140:MET:HE1	1:B:186:SER:N	2.28	0.49
1:B:244:GLU:OE2	1:B:247:LYS:HD3	2.12	0.49
1:F:169:SER:OG	1:F:187:LYS:HD2	2.12	0.49
1:G:149:VAL:HG22	1:H:133:ILE:HD13	1.94	0.49
1:H:26:GLU:CB	1:H:28:ARG:NH2	2.75	0.49
1:H:259:ASP:OD1	1:H:261:SER:OG	2.30	0.49
1:J:239:GLU:HG3	1:J:240:GLU:H	1.77	0.49
1:K:213:CYS:SG	1:K:245:ILE:HG23	2.53	0.49
1:B:41:GLY:O	1:B:47:GLY:HA3	2.12	0.49
1:F:37:VAL:HG22	1:F:115:MET:HB3	1.95	0.49
1:A:68:LYS:HG3	1:A:69:GLU:N	2.28	0.49
1:E:75:VAL:HG13	1:E:86:ALA:O	2.12	0.49
1:F:93:MET:HG3	1:F:120:HIS:CE1	2.48	0.49
1:F:236:ALA:HB1	1:F:237:PRO:HD2	1.95	0.49
1:G:215:LEU:HB2	2:G:301:NAP:C5N	2.43	0.49
1:E:88:TYR:CD1	1:E:88:TYR:C	2.91	0.48
1:F:75:VAL:HG21	1:F:88:TYR:HB3	1.94	0.48
1:I:214:VAL:HB	1:I:257:TYR:CE1	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:259:ASP:HB3	1:A:262:LEU:HG	1.94	0.48
1:B:38:ILE:HG23	1:B:116:LEU:HD12	1.96	0.48
1:C:36:LYS:HB3	1:C:110:MET:SD	2.52	0.48
1:C:244:GLU:OE1	1:C:244:GLU:HA	2.13	0.48
1:E:79:LEU:CD2	1:E:86:ALA:HB3	2.43	0.48
1:E:259:ASP:HB3	1:E:262:LEU:HG	1.94	0.48
1:F:107:GLY:HA2	1:F:157:MET:HE1	1.94	0.48
1:H:112:GLY:HA2	1:H:157:MET:HE2	1.95	0.48
1:I:72:GLN:HA	1:I:75:VAL:HG12	1.94	0.48
1:D:155:LEU:N	1:D:156:PRO:HD2	2.28	0.48
1:E:237:PRO:HB2	1:E:239:GLU:HG2	1.95	0.48
1:F:116:LEU:HD22	1:F:154:ALA:CB	2.43	0.48
1:B:67:SER:HB3	1:B:69:GLU:HG3	1.94	0.48
1:B:79:LEU:CD2	1:B:86:ALA:HB3	2.44	0.48
1:J:75:VAL:HG22	1:J:88:TYR:HB3	1.96	0.48
1:C:185:ALA:HB2	1:D:193:PHE:HB2	1.94	0.48
1:E:155:LEU:CD2	1:E:159:LYS:HE2	2.44	0.48
1:F:53:HIS:HB3	1:F:57:MET:HE2	1.95	0.48
1:G:234:GLN:O	1:G:235:ALA:HB3	2.13	0.48
1:J:48:ARG:HD2	1:J:74:VAL:HG22	1.95	0.48
1:J:53:HIS:CD2	1:J:243:LEU:HB2	2.48	0.48
1:B:75:VAL:CG2	1:B:88:TYR:HB3	2.44	0.48
1:D:217:LEU:HD11	1:D:227:VAL:HG21	1.96	0.48
1:F:126:LEU:HB3	1:F:179:MET:HE3	1.94	0.48
1:G:217:LEU:HD23	1:G:235:ALA:HA	1.94	0.48
1:G:230:ILE:O	1:G:231:VAL:CG2	2.61	0.48
1:J:198:ARG:NE	1:J:254:GLU:HG2	2.29	0.48
1:K:48:ARG:HG2	1:K:52:TYR:CE2	2.48	0.48
1:A:217:LEU:H	1:A:233:MET:CE	2.26	0.48
1:F:105:GLN:O	1:F:109:LEU:HD13	2.14	0.48
1:G:241:CYS:CA	1:G:258:TYR:CE2	2.97	0.48
1:H:46:ILE:HD11	1:H:218:ILE:HG21	1.95	0.48
1:I:38:ILE:HD11	1:I:106:ALA:HB1	1.94	0.48
1:A:236:ALA:HB1	1:A:237:PRO:HD2	1.95	0.48
1:C:62:VAL:HG23	1:C:110:MET:SD	2.54	0.48
1:G:203:VAL:CB	1:J:179:MET:HE3	2.44	0.48
1:A:55:ALA:CB	1:A:83:ALA:HB2	2.44	0.48
1:G:144:PHE:CD1	1:G:190:LEU:HD23	2.47	0.48
1:J:38:ILE:HG13	1:J:113:LEU:CD1	2.44	0.48
1:J:169:SER:HA	1:J:187:LYS:CE	2.44	0.48
1:K:224:MET:HE3	1:K:224:MET:HA	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:42:ALA:HA	1:C:47:GLY:HA3	1.96	0.47
1:J:61:VAL:HG23	1:J:86:ALA:HA	1.93	0.47
1:B:75:VAL:HG21	1:B:88:TYR:HB3	1.95	0.47
1:C:140:MET:SD	1:D:140:MET:HE2	2.54	0.47
1:F:36:LYS:HD3	1:F:110:MET:HB3	1.95	0.47
1:H:93:MET:HG3	1:H:120:HIS:CE1	2.49	0.47
1:J:128:LEU:HD23	1:J:179:MET:CG	2.44	0.47
1:J:157:MET:HE3	1:J:157:MET:HB2	1.73	0.47
1:E:65:ALA:HB3	1:E:71:LEU:HD11	1.96	0.47
1:F:87:HIS:ND1	1:F:88:TYR:N	2.54	0.47
1:F:99:ALA:HB1	1:F:150:LEU:HD21	1.94	0.47
1:I:42:ALA:HA	1:I:47:GLY:HA3	1.96	0.47
1:I:212:LEU:O	1:I:255:GLU:HA	2.14	0.47
1:G:116:LEU:HD11	1:G:118:LEU:CD2	2.39	0.47
1:I:77:HIS:O	1:I:77:HIS:ND1	2.48	0.47
1:K:214:VAL:C	1:K:215:LEU:HD23	2.40	0.47
1:A:129:PHE:HB3	1:B:197:ILE:HD11	1.96	0.47
1:D:53:HIS:O	1:D:57:MET:HG3	2.14	0.47
1:E:99:ALA:HB1	1:E:150:LEU:HD21	1.95	0.47
1:H:36:LYS:HD3	1:H:110:MET:O	2.15	0.47
1:J:146:SER:O	1:J:150:LEU:HG	2.14	0.47
1:J:171:LEU:HD22	1:J:177:TYR:HE2	1.79	0.47
1:K:116:LEU:HG	1:K:118:LEU:HD21	1.95	0.47
1:H:241:CYS:HB2	1:H:258:TYR:CE2	2.49	0.47
1:J:244:GLU:HA	1:J:244:GLU:OE1	2.14	0.47
1:A:79:LEU:CD2	1:A:86:ALA:HB3	2.44	0.47
1:D:264:THR:HG23	1:G:232:HIS:CE1	2.50	0.47
1:G:217:LEU:HD11	1:G:227:VAL:HG11	1.96	0.47
1:H:64:THR:HB	1:H:102:PHE:CE1	2.49	0.47
1:H:113:LEU:HD11	1:H:115:MET:O	2.14	0.47
1:I:259:ASP:OD2	1:I:262:LEU:HD11	2.13	0.47
1:D:191:ASP:O	1:D:195:SER:HB2	2.15	0.47
1:G:40:THR:HA	1:G:64:THR:CG2	2.44	0.47
1:J:40:THR:HA	1:J:64:THR:CG2	2.45	0.47
1:K:38:ILE:HG12	1:K:116:LEU:HD12	1.96	0.47
1:D:217:LEU:HD23	1:D:217:LEU:C	2.39	0.47
1:H:234:GLN:HG3	1:J:264:THR:N	2.30	0.47
1:J:36:LYS:HB3	1:J:110:MET:SD	2.54	0.47
1:J:65:ALA:CB	1:J:71:LEU:HD21	2.44	0.47
1:K:35:LYS:O	1:K:59:ALA:HB1	2.14	0.47
1:A:217:LEU:H	1:A:233:MET:HE1	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:27:PHE:CZ	1:B:57:MET:HE1	2.50	0.47
1:D:236:ALA:HB1	1:D:237:PRO:HD2	1.97	0.47
1:G:178:PRO:HG3	1:H:199:LYS:CB	2.42	0.47
1:I:241:CYS:HB2	1:I:258:TYR:CD2	2.49	0.47
1:D:55:ALA:CB	1:D:83:ALA:HB2	2.45	0.46
1:D:199:LYS:O	1:D:202:SER:HB3	2.15	0.46
1:F:77:HIS:O	1:F:77:HIS:ND1	2.46	0.46
1:G:212:LEU:HD12	1:G:212:LEU:HA	1.46	0.46
1:J:98:PHE:CE1	1:J:102:PHE:HB2	2.50	0.46
1:K:128:LEU:HD12	1:K:179:MET:CG	2.44	0.46
1:A:233:MET:HG2	1:A:234:GLN:N	2.30	0.46
1:D:221:GLU:HG2	1:D:222:THR:N	2.30	0.46
1:D:244:GLU:OE2	1:D:247:LYS:HD3	2.15	0.46
1:G:68:LYS:HE2	1:G:88:TYR:CE1	2.51	0.46
1:H:191:ASP:O	1:H:195:SER:HB2	2.15	0.46
1:J:218:ILE:HB	2:J:301:NAP:C7N	2.45	0.46
1:K:128:LEU:CD1	1:K:179:MET:HG2	2.43	0.46
1:E:214:VAL:HB	1:E:257:TYR:CE1	2.49	0.46
1:H:247:LYS:O	1:H:251:LEU:HD13	2.15	0.46
1:E:27:PHE:CD2	1:E:247:LYS:HG2	2.51	0.46
1:E:55:ALA:CB	1:E:83:ALA:HB2	2.45	0.46
1:K:124:THR:HG22	1:K:125:SER:N	2.30	0.46
1:B:94:GLU:HG2	1:B:138:LYS:HZ2	1.81	0.46
1:G:243:LEU:O	1:G:247:LYS:HG3	2.15	0.46
1:H:121:ILE:CD1	1:H:183:TYR:HE1	2.28	0.46
1:I:171:LEU:C	1:I:171:LEU:HD13	2.40	0.46
1:C:32:LEU:HD13	1:C:32:LEU:HA	1.79	0.46
1:G:236:ALA:HB1	1:G:237:PRO:HD2	1.96	0.46
1:H:93:MET:HG3	1:H:120:HIS:NE2	2.31	0.46
1:H:113:LEU:HD23	1:H:154:ALA:HB1	1.98	0.46
1:H:198:ARG:HA	1:H:210:ILE:HD12	1.97	0.46
1:J:155:LEU:N	1:J:156:PRO:HD2	2.30	0.46
1:K:204:SER:O	1:K:205:ARG:HD3	2.16	0.46
1:C:46:ILE:O	1:C:50:MET:HG3	2.16	0.46
1:D:29:PRO:HA	1:D:57:MET:CE	2.38	0.46
1:F:232:HIS:CB	1:I:233:MET:HE3	2.45	0.46
1:J:198:ARG:CD	1:J:254:GLU:HG2	2.45	0.46
1:C:87:HIS:HB3	1:C:109:LEU:HD23	1.97	0.46
1:D:221:GLU:CD	1:D:221:GLU:H	2.24	0.46
1:F:240:GLU:CG	1:F:258:TYR:OH	2.64	0.46
1:H:32:LEU:N	1:H:32:LEU:HD22	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:28:ARG:HB3	1:B:30:GLU:OE1	2.16	0.46
1:C:217:LEU:H	1:C:233:MET:HE2	1.80	0.46
1:H:121:ILE:HD12	1:H:183:TYR:HE1	1.80	0.46
1:K:139:SER:O	1:K:143:ASN:HB2	2.16	0.46
1:K:173:GLY:HA2	1:K:188:PHE:HD1	1.80	0.46
1:B:136:VAL:HA	1:B:182:ALA:HB1	1.98	0.46
1:B:227:VAL:HG12	1:B:227:VAL:O	2.16	0.46
1:G:171:LEU:HD23	1:G:171:LEU:HA	1.82	0.46
1:A:183:TYR:OH	3:A:302:A1MBC:N1	2.49	0.45
1:B:27:PHE:HZ	1:B:57:MET:HE1	1.81	0.45
1:B:49:GLU:HB2	1:B:242:ALA:CB	2.46	0.45
1:H:211:THR:HG23	1:H:253:GLN:O	2.16	0.45
1:H:242:ALA:O	1:H:246:ILE:HD12	2.16	0.45
1:I:28:ARG:O	1:I:31:MET:HG3	2.15	0.45
1:I:185:ALA:HB2	1:J:193:PHE:HB2	1.97	0.45
1:J:93:MET:HG3	1:J:120:HIS:NE2	2.31	0.45
1:K:136:VAL:HG22	1:K:182:ALA:HB2	1.98	0.45
1:K:173:GLY:HA2	1:K:188:PHE:CD1	2.50	0.45
1:A:155:LEU:N	1:A:156:PRO:HD2	2.31	0.45
1:C:103:VAL:HG21	1:C:153:ALA:HB3	1.97	0.45
1:H:62:VAL:HG11	1:H:106:ALA:CB	2.46	0.45
1:J:93:MET:HE3	1:J:150:LEU:HD11	1.98	0.45
1:B:217:LEU:CD2	1:B:235:ALA:HB2	2.47	0.45
1:C:170:SER:HB2	2:C:301:NAP:H5N	1.97	0.45
1:G:227:VAL:HG22	1:G:231:VAL:HG22	1.97	0.45
1:I:91:GLY:HA3	1:I:98:PHE:CE1	2.51	0.45
1:J:102:PHE:CE1	1:J:106:ALA:HB2	2.51	0.45
1:J:165:ILE:HB	1:J:210:ILE:HG12	1.99	0.45
1:K:46:ILE:HG13	1:K:220:THR:CG2	2.46	0.45
1:A:144:PHE:HD2	1:A:145:LEU:HD22	1.79	0.45
1:B:212:LEU:O	1:B:255:GLU:HB2	2.15	0.45
1:C:171:LEU:HD23	1:C:171:LEU:C	2.42	0.45
1:E:60:HIS:CG	1:E:85:SER:HB2	2.49	0.45
1:I:72:GLN:O	1:I:75:VAL:HG12	2.17	0.45
1:J:140:MET:HA	1:J:140:MET:HE3	1.98	0.45
1:C:37:VAL:HG21	1:C:54:LEU:HD12	1.96	0.45
1:D:30:GLU:CD	1:D:30:GLU:N	2.75	0.45
1:D:39:VAL:HG22	1:D:117:ILE:HD12	1.97	0.45
1:G:151:THR:HG23	1:G:165:ILE:HD11	1.96	0.45
1:K:32:LEU:HD13	1:K:32:LEU:HA	1.58	0.45
1:K:50:MET:SD	1:K:117:ILE:HG21	2.55	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:155:LEU:HD22	1:G:159:LYS:HE3	1.97	0.45
1:G:205:ARG:H	1:G:205:ARG:CD	2.29	0.45
1:I:64:THR:HB	1:I:102:PHE:CZ	2.51	0.45
1:C:215:LEU:HB2	2:C:301:NAP:C6N	2.47	0.45
1:D:223:ALA:HB2	2:D:301:NAP:N7N	2.30	0.45
1:E:237:PRO:HB2	1:E:239:GLU:CG	2.46	0.45
1:F:40:THR:O	1:F:119:ASN:HB3	2.16	0.45
1:I:54:LEU:CD2	1:I:246:ILE:CD1	2.95	0.45
1:I:230:ILE:O	1:I:231:VAL:HB	2.16	0.45
1:H:96:MET:CE	1:H:145:LEU:HB3	2.45	0.45
1:A:185:ALA:HB2	1:B:193:PHE:HB2	1.99	0.45
1:C:62:VAL:HG11	1:C:106:ALA:CB	2.47	0.45
1:D:240:GLU:HB3	1:D:258:TYR:OH	2.17	0.45
1:E:230:ILE:HD13	1:E:230:ILE:N	2.31	0.45
1:G:87:HIS:CB	1:G:109:LEU:HD23	2.47	0.45
1:G:113:LEU:HD23	1:G:154:ALA:HB1	1.97	0.45
1:G:193:PHE:HZ	1:H:129:PHE:CE2	2.35	0.45
1:H:93:MET:CE	1:H:150:LEU:HD11	2.41	0.45
1:I:28:ARG:HG3	1:I:28:ARG:NH1	2.31	0.45
1:G:170:SER:HB2	2:G:301:NAP:C5N	2.47	0.45
2:A:301:NAP:O1N	2:A:301:NAP:N7N	2.49	0.44
1:B:38:ILE:HG23	1:B:116:LEU:HA	1.99	0.44
1:C:75:VAL:HG13	1:C:86:ALA:O	2.18	0.44
1:H:37:VAL:HG11	1:H:54:LEU:CD1	2.47	0.44
1:J:34:GLY:O	1:J:60:HIS:HD2	2.00	0.44
1:C:207:ASN:O	1:C:252:ARG:NH2	2.50	0.44
1:E:52:TYR:O	1:E:56:LYS:HG3	2.17	0.44
1:E:54:LEU:HD23	1:E:54:LEU:HA	1.79	0.44
1:E:73:LYS:HB2	1:E:73:LYS:HE3	1.67	0.44
1:F:113:LEU:CB	1:F:157:MET:HE2	2.47	0.44
1:F:241:CYS:HB2	1:F:258:TYR:HE2	1.79	0.44
1:I:40:THR:HG22	1:I:64:THR:HG22	1.99	0.44
1:K:54:LEU:HG	1:K:246:ILE:HD13	1.98	0.44
1:A:197:ILE:HD11	1:B:129:PHE:CB	2.41	0.44
1:A:199:LYS:NZ	1:C:229:GLY:HA3	2.32	0.44
1:C:191:ASP:O	1:C:195:SER:HB2	2.17	0.44
1:C:199:LYS:HB2	1:D:178:PRO:HG3	1.99	0.44
1:C:237:PRO:HB2	1:C:239:GLU:HG3	1.98	0.44
1:J:227:VAL:O	1:J:227:VAL:HG12	2.17	0.44
1:B:118:LEU:HD23	1:B:118:LEU:HA	1.80	0.44
1:D:230:ILE:HD13	1:D:230:ILE:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:79:LEU:HG	1:H:86:ALA:HB3	1.97	0.44
1:H:260:SER:HB3	1:H:263:TRP:CZ3	2.52	0.44
1:I:89:ILE:HD12	1:I:102:PHE:CD1	2.52	0.44
1:B:36:LYS:HD3	1:B:110:MET:HB3	1.99	0.44
1:C:37:VAL:HG21	1:C:54:LEU:CD1	2.48	0.44
1:F:126:LEU:HD13	1:F:179:MET:CE	2.48	0.44
1:I:53:HIS:HB3	1:I:57:MET:HE3	2.00	0.44
1:I:155:LEU:N	1:I:156:PRO:HD2	2.31	0.44
1:K:223:ALA:O	1:K:227:VAL:HG22	2.18	0.44
1:B:232:HIS:O	1:C:233:MET:HB3	2.17	0.44
1:D:205:ARG:HA	1:D:205:ARG:HD3	1.74	0.44
1:E:144:PHE:HD2	1:E:145:LEU:HD22	1.81	0.44
1:C:56:LYS:CG	1:C:81:LEU:HD22	2.43	0.44
1:C:199:LYS:O	1:C:202:SER:HB3	2.18	0.44
1:C:216:GLY:O	2:C:301:NAP:H4N	2.18	0.44
1:C:217:LEU:HD21	1:C:224:MET:HE1	2.00	0.44
1:D:231:VAL:HG21	1:G:231:VAL:HG12	1.98	0.44
1:E:55:ALA:HB1	1:E:83:ALA:HB2	2.00	0.44
1:F:57:MET:HE1	1:F:246:ILE:HG21	2.00	0.44
1:G:61:VAL:HG23	1:G:86:ALA:HA	2.00	0.44
1:G:121:ILE:HB	1:G:143:ASN:OD1	2.18	0.44
1:G:176:ALA:CB	1:H:195:SER:HB3	2.47	0.44
1:H:231:VAL:HG21	1:J:231:VAL:CG2	2.45	0.44
1:H:241:CYS:HB2	1:H:258:TYR:CD2	2.53	0.44
1:J:60:HIS:ND1	1:J:85:SER:HB3	2.33	0.44
1:K:43:SER:HB3	1:K:65:ALA:CB	2.48	0.44
1:B:38:ILE:HD11	1:B:102:PHE:CE2	2.48	0.44
1:B:116:LEU:HD11	1:B:118:LEU:HD21	2.00	0.44
1:E:212:LEU:O	1:E:255:GLU:HA	2.17	0.44
1:F:71:LEU:O	1:F:75:VAL:HG23	2.18	0.44
1:G:173:GLY:HA2	1:G:188:PHE:HD1	1.82	0.44
1:J:140:MET:HE3	1:J:140:MET:CA	2.48	0.44
1:A:160:GLN:O	1:A:160:GLN:HG3	2.17	0.44
1:A:205:ARG:O	1:A:205:ARG:HG3	2.17	0.44
1:B:38:ILE:HG21	1:B:116:LEU:CD1	2.45	0.44
1:C:217:LEU:O	1:C:218:ILE:HD13	2.17	0.44
1:D:155:LEU:HD22	1:D:201:TYR:OH	2.17	0.44
1:E:199:LYS:CB	1:F:178:PRO:HG3	2.47	0.44
1:F:36:LYS:HB3	1:F:110:MET:HB3	1.99	0.44
1:I:27:PHE:CE2	1:I:247:LYS:HG2	2.52	0.44
1:I:55:ALA:HB2	1:I:83:ALA:HB2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:50:MET:O	1:A:54:LEU:HG	2.17	0.43
1:B:139:SER:O	1:B:143:ASN:HB2	2.18	0.43
1:D:132:ASP:OD1	1:D:134:HIS:HB3	2.18	0.43
1:H:130:HIS:CB	1:I:205:ARG:NE	2.74	0.43
1:J:140:MET:SD	1:J:186:SER:HA	2.58	0.43
1:D:37:VAL:HG11	1:D:54:LEU:HD13	1.99	0.43
1:E:96:MET:HE1	1:E:146:SER:HB3	2.01	0.43
1:I:79:LEU:HD21	1:I:86:ALA:HB3	2.00	0.43
1:I:113:LEU:CD2	1:I:154:ALA:HB1	2.47	0.43
1:J:207:ASN:O	1:J:252:ARG:NH2	2.37	0.43
1:D:42:ALA:HB3	1:D:63:VAL:HB	1.99	0.43
1:D:151:THR:HG23	1:D:165:ILE:HD13	1.96	0.43
1:E:155:LEU:N	1:E:156:PRO:HD2	2.33	0.43
1:G:75:VAL:CG1	1:G:88:TYR:HB3	2.48	0.43
1:I:91:GLY:HA3	1:I:98:PHE:CZ	2.53	0.43
1:I:155:LEU:CD2	1:I:201:TYR:OH	2.66	0.43
1:D:41:GLY:O	1:D:47:GLY:HA3	2.19	0.43
1:D:65:ALA:HB3	1:D:71:LEU:HD21	1.99	0.43
1:D:215:LEU:HD22	1:D:241:CYS:SG	2.58	0.43
1:E:32:LEU:HA	1:E:32:LEU:HD13	1.77	0.43
1:F:155:LEU:HD22	1:F:159:LYS:CD	2.49	0.43
1:I:72:GLN:O	1:I:75:VAL:CG1	2.66	0.43
1:I:79:LEU:CD2	1:I:86:ALA:HB3	2.49	0.43
1:J:49:GLU:HB3	1:J:242:ALA:HB2	2.00	0.43
1:F:193:PHE:CE1	1:F:197:ILE:HG13	2.53	0.43
1:H:171:LEU:HD12	1:H:263:TRP:CE2	2.54	0.43
1:H:242:ALA:O	1:H:246:ILE:CD1	2.66	0.43
1:I:170:SER:HB2	2:I:301:NAP:C5N	2.47	0.43
1:K:94:GLU:OE2	1:K:138:LYS:HE3	2.18	0.43
1:A:32:LEU:O	1:A:59:ALA:HB2	2.18	0.43
1:C:197:ILE:HD13	1:C:197:ILE:HA	1.77	0.43
1:F:232:HIS:O	1:I:233:MET:HG3	2.18	0.43
1:G:241:CYS:HA	1:G:258:TYR:CD2	2.54	0.43
1:I:72:GLN:HA	1:I:75:VAL:CG1	2.48	0.43
1:A:154:ALA:HB1	1:A:158:LEU:CD1	2.48	0.43
1:B:40:THR:HA	1:B:64:THR:HG22	2.00	0.43
1:D:46:ILE:HG22	1:D:50:MET:HE2	2.01	0.43
1:F:179:MET:HE1	1:F:230:ILE:HG21	2.00	0.43
1:J:52:TYR:CE1	1:J:74:VAL:HG13	2.54	0.43
1:F:56:LYS:HD3	1:F:81:LEU:HD21	2.00	0.43
1:G:160:GLN:O	1:G:160:GLN:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:241:CYS:CB	1:I:258:TYR:CE2	2.93	0.43
1:D:213:CYS:HA	1:D:256:VAL:HG13	2.01	0.43
1:G:46:ILE:CD1	1:G:218:ILE:HG21	2.37	0.43
1:G:122:THR:HB	1:G:142:VAL:HB	2.01	0.43
1:H:244:GLU:OE1	1:H:244:GLU:HA	2.17	0.43
1:I:215:LEU:HB2	2:I:301:NAP:C5N	2.48	0.43
1:I:220:THR:HG21	2:I:301:NAP:O1N	2.18	0.43
1:K:69:GLU:CD	1:K:69:GLU:N	2.74	0.43
1:K:71:LEU:HD23	1:K:71:LEU:HA	1.72	0.43
1:K:120:HIS:O	1:K:121:ILE:HG23	2.19	0.43
1:K:222:THR:H	1:K:222:THR:HG23	1.57	0.43
1:E:262:LEU:O	1:E:263:TRP:HD1	2.02	0.43
1:F:233:MET:HG2	1:I:232:HIS:HE1	1.75	0.43
1:G:28:ARG:HH21	1:G:30:GLU:CD	2.27	0.43
1:G:174:LYS:HE2	1:G:191:ASP:OD2	2.19	0.43
1:H:205:ARG:CG	1:H:205:ARG:O	2.67	0.43
1:K:91:GLY:CA	1:K:98:PHE:CE2	3.01	0.43
1:K:151:THR:HG23	1:K:165:ILE:HD11	1.99	0.43
1:A:77:HIS:CE1	1:A:81:LEU:HG	2.54	0.42
1:A:148:VAL:HG22	1:A:193:PHE:CE1	2.53	0.42
1:B:50:MET:HA	1:B:246:ILE:HD11	2.00	0.42
1:C:55:ALA:HB2	1:C:83:ALA:HB2	1.98	0.42
1:C:140:MET:CE	1:C:144:PHE:HD2	2.32	0.42
1:D:96:MET:CG	1:D:149:VAL:HG21	2.49	0.42
1:G:243:LEU:HD12	1:G:243:LEU:HA	1.77	0.42
1:B:157:MET:HE3	1:B:157:MET:HB2	1.72	0.42
1:E:36:LYS:HD3	1:E:110:MET:O	2.18	0.42
1:E:191:ASP:O	1:E:195:SER:HB2	2.18	0.42
1:E:199:LYS:HB3	1:F:178:PRO:HG3	2.00	0.42
1:F:43:SER:C	1:F:44:LYS:HG2	2.44	0.42
1:F:49:GLU:CG	1:F:239:GLU:HA	2.50	0.42
1:G:219:ASP:CG	1:G:219:ASP:O	2.62	0.42
1:H:220:THR:HG22	1:H:223:ALA:HB3	2.01	0.42
1:J:167:VAL:HG13	1:J:190:LEU:HD13	2.00	0.42
1:K:116:LEU:HG	1:K:118:LEU:CD2	2.49	0.42
1:F:233:MET:HG2	1:I:232:HIS:ND1	2.32	0.42
1:G:70:THR:O	1:G:74:VAL:HG23	2.18	0.42
1:G:167:VAL:O	1:G:212:LEU:HD12	2.19	0.42
1:H:36:LYS:HA	1:H:60:HIS:HB2	2.01	0.42
1:H:71:LEU:O	1:H:75:VAL:HG13	2.20	0.42
1:H:171:LEU:HD12	1:H:263:TRP:CZ2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:118:LEU:HD13	1:J:147:TYR:HA	2.01	0.42
1:C:89:ILE:HD11	1:C:105:GLN:HG3	2.01	0.42
1:F:66:ARG:HB2	2:F:301:NAP:O2X	2.19	0.42
1:I:93:MET:HE3	1:I:150:LEU:HD21	2.00	0.42
1:I:171:LEU:HD13	1:I:171:LEU:O	2.19	0.42
1:I:262:LEU:HD23	1:I:262:LEU:N	2.34	0.42
1:K:113:LEU:HD12	1:K:113:LEU:HA	1.89	0.42
1:K:122:THR:HG22	1:K:123:ASN:N	2.35	0.42
1:B:69:GLU:CG	1:B:70:THR:N	2.82	0.42
1:B:219:ASP:OD2	1:B:237:PRO:HA	2.20	0.42
1:C:79:LEU:HG	1:C:86:ALA:HB3	2.00	0.42
1:F:223:ALA:HB2	2:F:301:NAP:H72N	1.83	0.42
1:I:63:VAL:HG23	1:I:71:LEU:HD22	2.02	0.42
1:I:228:SER:C	1:I:230:ILE:H	2.28	0.42
1:J:126:LEU:HD23	1:J:126:LEU:N	2.34	0.42
1:A:30:GLU:O	1:A:33:GLN:HB3	2.19	0.42
1:A:144:PHE:HD2	1:A:145:LEU:CD2	2.32	0.42
1:D:219:ASP:OD1	1:D:219:ASP:O	2.38	0.42
1:E:61:VAL:CG2	1:E:86:ALA:HA	2.49	0.42
1:F:56:LYS:HB2	1:F:81:LEU:HD22	2.02	0.42
1:G:121:ILE:HD13	2:G:301:NAP:C2D	2.49	0.42
1:H:172:ALA:O	1:H:188:PHE:HE1	2.03	0.42
1:I:77:HIS:CE1	1:I:81:LEU:HD13	2.54	0.42
1:I:121:ILE:CD1	1:I:183:TYR:CE1	3.02	0.42
1:E:197:ILE:HG23	1:E:201:TYR:CE1	2.55	0.42
1:E:224:MET:HE2	1:E:224:MET:HA	2.00	0.42
1:K:197:ILE:HG22	1:K:201:TYR:CE2	2.55	0.42
1:K:230:ILE:O	1:K:231:VAL:O	2.37	0.42
1:C:35:LYS:O	1:C:59:ALA:HB1	2.20	0.42
1:F:217:LEU:HD23	1:F:218:ILE:H	1.85	0.42
1:F:244:GLU:OE1	1:F:244:GLU:HA	2.18	0.42
1:K:27:PHE:CD1	1:K:27:PHE:C	2.97	0.42
1:A:255:GLU:OE2	1:A:257:TYR:OH	2.27	0.42
1:B:117:ILE:HA	1:B:166:VAL:HB	2.01	0.42
1:B:198:ARG:NH1	1:B:254:GLU:O	2.49	0.42
1:B:239:GLU:HG3	1:B:240:GLU:H	1.85	0.42
1:F:64:THR:HA	1:F:89:ILE:O	2.19	0.42
1:D:260:SER:HA	1:D:263:TRP:NE1	2.34	0.42
1:F:163:GLY:O	1:F:252:ARG:NH1	2.53	0.42
1:G:38:ILE:HG21	1:G:116:LEU:HD13	2.02	0.42
1:G:185:ALA:HB2	1:H:193:PHE:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:28:ARG:O	1:J:31:MET:HG3	2.20	0.42
1:A:155:LEU:O	1:A:159:LYS:HG3	2.20	0.41
1:B:38:ILE:CG2	1:B:116:LEU:CD1	2.98	0.41
1:D:36:LYS:HA	1:D:60:HIS:HB2	2.02	0.41
1:F:55:ALA:HB1	1:F:83:ALA:HB2	2.00	0.41
1:G:116:LEU:CG	1:G:118:LEU:HD21	2.50	0.41
1:G:221:GLU:H	1:G:221:GLU:HG3	1.58	0.41
1:H:79:LEU:HG	1:H:86:ALA:CB	2.49	0.41
1:J:122:THR:O	1:J:124:THR:HG23	2.20	0.41
1:A:43:SER:HB2	1:A:65:ALA:HB3	2.01	0.41
1:A:154:ALA:HB1	1:A:158:LEU:HD11	2.02	0.41
1:D:145:LEU:HD12	1:D:145:LEU:O	2.20	0.41
1:G:241:CYS:HB2	1:G:258:TYR:CE2	2.55	0.41
1:G:143:ASN:HB2	1:G:186:SER:HB3	2.02	0.41
1:J:103:VAL:HG21	1:J:153:ALA:HB3	2.02	0.41
1:J:148:VAL:HG13	1:J:193:PHE:CZ	2.55	0.41
1:B:92:THR:O	1:B:92:THR:HG23	2.20	0.41
1:C:60:HIS:CD2	1:C:85:SER:CB	2.94	0.41
1:E:61:VAL:HG22	1:E:86:ALA:HA	2.01	0.41
1:G:66:ARG:HE	1:G:66:ARG:HB2	1.43	0.41
1:G:224:MET:HA	1:G:224:MET:CE	2.32	0.41
1:H:27:PHE:HB2	1:H:251:LEU:HD11	2.01	0.41
1:H:112:GLY:HA2	1:H:157:MET:CE	2.50	0.41
1:A:36:LYS:CD	1:A:110:MET:O	2.69	0.41
1:A:65:ALA:N	1:A:71:LEU:HD11	2.36	0.41
1:F:93:MET:HE3	1:F:150:LEU:HD11	2.02	0.41
1:F:216:GLY:O	2:F:301:NAP:H4N	2.20	0.41
1:G:88:TYR:CD1	1:G:88:TYR:C	2.98	0.41
1:H:193:PHE:HD2	1:H:194:PHE:CD1	2.39	0.41
1:I:42:ALA:HA	1:I:47:GLY:C	2.45	0.41
1:I:80:GLU:OE1	1:I:80:GLU:HA	2.20	0.41
1:I:118:LEU:HD12	1:I:167:VAL:HG22	2.03	0.41
1:F:191:ASP:O	1:F:195:SER:HB2	2.20	0.41
1:H:32:LEU:HD13	1:H:32:LEU:HA	1.84	0.41
1:H:205:ARG:O	1:H:205:ARG:HG2	2.21	0.41
1:H:229:GLY:HA3	1:I:199:LYS:CE	2.50	0.41
1:I:77:HIS:HE1	1:I:81:LEU:HD13	1.85	0.41
1:K:199:LYS:O	1:K:202:SER:HB3	2.19	0.41
1:B:31:MET:O	1:B:35:LYS:HD3	2.21	0.41
1:E:60:HIS:HD2	1:E:85:SER:CB	2.26	0.41
1:F:230:ILE:HD12	1:I:178:PRO:HG2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:233:MET:HE1	1:I:234:GLN:NE2	2.36	0.41
1:J:239:GLU:HG3	1:J:240:GLU:N	2.35	0.41
1:A:191:ASP:O	1:A:195:SER:HB2	2.20	0.41
1:A:220:THR:HG22	1:A:223:ALA:HB3	2.02	0.41
1:E:92:THR:O	1:E:92:THR:HG23	2.20	0.41
1:F:180:VAL:O	1:F:184:SER:HB2	2.21	0.41
1:G:31:MET:HB3	1:G:31:MET:HE2	1.72	0.41
1:H:28:ARG:HG2	1:H:31:MET:HE3	2.02	0.41
1:I:162:ASN:OD1	1:I:207:ASN:HB3	2.20	0.41
1:K:37:VAL:HG11	1:K:54:LEU:CD1	2.50	0.41
1:A:40:THR:HG22	1:A:64:THR:CG2	2.51	0.41
1:A:155:LEU:HB3	1:A:159:LYS:HZ2	1.85	0.41
1:A:217:LEU:O	1:A:218:ILE:HD13	2.19	0.41
1:C:77:HIS:HE1	1:C:81:LEU:HD11	1.86	0.41
1:C:79:LEU:HA	1:C:79:LEU:HD23	1.62	0.41
1:C:212:LEU:O	1:C:255:GLU:HA	2.21	0.41
1:D:30:GLU:OE1	1:D:30:GLU:N	2.38	0.41
1:D:37:VAL:HG11	1:D:54:LEU:HD11	2.02	0.41
1:E:213:CYS:SG	1:E:256:VAL:CG1	3.09	0.41
1:E:217:LEU:CD2	1:E:224:MET:HE1	2.38	0.41
1:G:252:ARG:HH11	1:G:252:ARG:HG3	1.86	0.41
1:H:35:LYS:O	1:H:59:ALA:HB1	2.21	0.41
1:I:65:ALA:N	1:I:71:LEU:HD11	2.35	0.41
1:I:115:MET:HA	1:I:164:SER:O	2.21	0.41
1:I:169:SER:O	2:I:301:NAP:H6N	2.21	0.41
1:I:170:SER:HB2	2:I:301:NAP:H5N	2.02	0.41
1:J:96:MET:HE2	1:J:145:LEU:HB3	1.98	0.41
1:J:99:ALA:HB1	1:J:150:LEU:HD23	2.02	0.41
1:K:27:PHE:CZ	1:K:247:LYS:HG2	2.55	0.41
1:A:146:SER:O	1:A:150:LEU:HD23	2.20	0.41
1:B:38:ILE:CG2	1:B:116:LEU:HD12	2.51	0.41
1:C:121:ILE:HA	1:C:143:ASN:OD1	2.21	0.41
1:D:93:MET:HE2	1:D:98:PHE:HE2	1.85	0.41
1:E:140:MET:CA	1:E:140:MET:HE3	2.51	0.41
1:E:170:SER:OG	1:E:171:LEU:N	2.51	0.41
1:H:234:GLN:HG2	1:J:264:THR:OG1	2.20	0.41
1:I:72:GLN:C	1:I:75:VAL:HG12	2.46	0.41
1:I:121:ILE:HD13	1:I:183:TYR:HE1	1.85	0.41
1:B:158:LEU:HD23	1:B:158:LEU:HA	1.88	0.40
1:C:105:GLN:O	1:C:109:LEU:HD13	2.21	0.40
1:J:66:ARG:HB2	2:J:301:NAP:O2X	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:144:PHE:O	1:K:147:TYR:HB2	2.21	0.40
1:A:170:SER:OG	1:A:171:LEU:N	2.55	0.40
1:A:263:TRP:C	1:A:264:THR:HG1	2.09	0.40
1:D:75:VAL:HG13	1:D:86:ALA:O	2.22	0.40
1:E:229:GLY:HA3	1:K:199:LYS:CE	2.46	0.40
1:H:231:VAL:HG11	1:J:231:VAL:HG23	2.02	0.40
1:I:259:ASP:HB3	1:I:262:LEU:HG	2.02	0.40
1:J:140:MET:HE3	1:J:144:PHE:HB3	2.03	0.40
1:K:260:SER:HA	1:K:263:TRP:CE3	2.56	0.40
1:B:81:LEU:HD23	1:B:81:LEU:HA	1.86	0.40
1:B:233:MET:O	1:B:233:MET:CG	2.66	0.40
1:B:233:MET:O	1:B:234:GLN:HB2	2.21	0.40
1:C:115:MET:HG2	1:C:117:ILE:HG13	2.03	0.40
1:D:140:MET:SD	1:D:186:SER:HA	2.61	0.40
1:E:167:VAL:HB	1:E:212:LEU:HD12	2.03	0.40
1:F:37:VAL:HG11	1:F:54:LEU:CD1	2.51	0.40
1:J:237:PRO:HG2	1:J:240:GLU:HB3	2.04	0.40
1:A:36:LYS:HA	1:A:60:HIS:HB2	2.03	0.40
1:B:220:THR:HG21	2:B:301:NAP:O1N	2.21	0.40
1:I:140:MET:O	1:I:144:PHE:HB3	2.21	0.40
1:J:96:MET:HE1	1:J:145:LEU:C	2.46	0.40
1:J:211:THR:HA	1:J:254:GLU:O	2.21	0.40
1:J:217:LEU:HD23	1:J:218:ILE:H	1.84	0.40
1:A:128:LEU:HD23	1:A:179:MET:HG2	2.03	0.40
1:B:36:LYS:HA	1:B:60:HIS:HB2	2.03	0.40
1:F:118:LEU:CD2	1:F:150:LEU:HD12	2.47	0.40
1:G:38:ILE:HG21	1:G:116:LEU:CD1	2.52	0.40
1:G:148:VAL:O	1:G:152:VAL:HG23	2.22	0.40
1:H:65:ALA:HB3	1:H:71:LEU:HD21	2.04	0.40
1:H:172:ALA:HA	1:H:175:VAL:O	2.21	0.40
1:H:219:ASP:OD1	1:H:238:LYS:HG2	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	238/246 (97%)	223 (94%)	15 (6%)	0	100	100
1	B	237/246 (96%)	222 (94%)	15 (6%)	0	100	100
1	C	237/246 (96%)	219 (92%)	18 (8%)	0	100	100
1	D	238/246 (97%)	224 (94%)	14 (6%)	0	100	100
1	E	238/246 (97%)	224 (94%)	14 (6%)	0	100	100
1	F	237/246 (96%)	221 (93%)	16 (7%)	0	100	100
1	G	236/246 (96%)	221 (94%)	14 (6%)	1 (0%)	30	64
1	H	238/246 (97%)	223 (94%)	13 (6%)	2 (1%)	16	51
1	I	237/246 (96%)	222 (94%)	14 (6%)	1 (0%)	30	64
1	J	237/246 (96%)	224 (94%)	13 (6%)	0	100	100
1	K	238/246 (97%)	226 (95%)	11 (5%)	1 (0%)	30	64
All	All	2611/2706 (96%)	2449 (94%)	157 (6%)	5 (0%)	44	75

All (5) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	G	231	VAL
1	H	231	VAL
1	K	231	VAL
1	I	231	VAL
1	H	26	GLU

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	197/202 (98%)	197 (100%)	0	100	100
1	B	196/202 (97%)	196 (100%)	0	100	100
1	C	196/202 (97%)	196 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	D	197/202 (98%)	197 (100%)	0	100	100
1	E	197/202 (98%)	197 (100%)	0	100	100
1	F	195/202 (96%)	195 (100%)	0	100	100
1	G	195/202 (96%)	195 (100%)	0	100	100
1	H	197/202 (98%)	197 (100%)	0	100	100
1	I	196/202 (97%)	196 (100%)	0	100	100
1	J	195/202 (96%)	195 (100%)	0	100	100
1	K	197/202 (98%)	197 (100%)	0	100	100
All	All	2158/2222 (97%)	2158 (100%)	0	100	100

There are no protein residues with a non-rotameric sidechain to report.

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (21) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	60	HIS
1	A	87	HIS
1	A	135	HIS
1	B	77	HIS
1	C	53	HIS
1	C	60	HIS
1	C	77	HIS
1	C	134	HIS
1	C	234	GLN
1	D	127	ASN
1	E	60	HIS
1	E	87	HIS
1	E	130	HIS
1	F	127	ASN
1	F	162	ASN
1	H	101	GLN
1	I	253	GLN
1	J	53	HIS
1	J	72	GLN
1	K	119	ASN
1	K	162	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

22 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	$\#\|Z\| > 2$
3	A1MBC	C	302	-	21,24,24	0.97	1 (4%)	26,37,37	0.60	0
2	NAP	G	301	-	45,52,52	4.74	18 (40%)	56,80,80	2.28	14 (25%)
2	NAP	E	301	-	45,52,52	4.81	18 (40%)	56,80,80	2.23	12 (21%)
3	A1MBC	J	302	-	21,24,24	0.86	1 (4%)	26,37,37	0.74	1 (3%)
2	NAP	H	301	-	45,52,52	4.71	20 (44%)	56,80,80	2.22	10 (17%)
3	A1MBC	D	302	-	21,24,24	0.96	1 (4%)	26,37,37	0.79	1 (3%)
2	NAP	A	301	-	45,52,52	4.78	20 (44%)	56,80,80	1.99	9 (16%)
2	NAP	C	301	-	45,52,52	4.71	21 (46%)	56,80,80	2.11	12 (21%)
3	A1MBC	E	302	-	21,24,24	0.86	1 (4%)	26,37,37	0.70	0
3	A1MBC	B	302	-	21,24,24	1.02	1 (4%)	26,37,37	1.61	2 (7%)
2	NAP	J	301	-	45,52,52	4.84	20 (44%)	56,80,80	2.13	8 (14%)
2	NAP	I	301	-	45,52,52	4.85	20 (44%)	56,80,80	2.01	11 (19%)
3	A1MBC	K	302	-	21,24,24	0.82	1 (4%)	26,37,37	1.11	2 (7%)
3	A1MBC	G	302	-	21,24,24	0.90	1 (4%)	26,37,37	0.77	1 (3%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
3	A1MBC	F	302	-	21,24,24	0.89	1 (4%)	26,37,37	0.76	1 (3%)
2	NAP	D	301	-	45,52,52	4.84	20 (44%)	56,80,80	2.13	10 (17%)
3	A1MBC	I	302	-	21,24,24	0.96	1 (4%)	26,37,37	0.85	1 (3%)
2	NAP	K	301	-	45,52,52	4.56	19 (42%)	56,80,80	2.24	15 (26%)
3	A1MBC	H	302	-	21,24,24	1.00	1 (4%)	26,37,37	1.22	2 (7%)
2	NAP	F	301	-	45,52,52	4.73	21 (46%)	56,80,80	2.30	10 (17%)
3	A1MBC	A	302	-	21,24,24	0.95	1 (4%)	26,37,37	0.62	0
2	NAP	B	301	-	45,52,52	4.78	21 (46%)	56,80,80	2.31	11 (19%)

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
3	A1MBC	C	302	-	-	2/3/41/41	0/5/5/5
2	NAP	G	301	-	-	5/31/67/67	0/5/5/5
2	NAP	E	301	-	-	3/31/67/67	0/5/5/5
3	A1MBC	J	302	-	-	3/3/41/41	0/5/5/5
2	NAP	H	301	-	-	8/31/67/67	0/5/5/5
3	A1MBC	D	302	-	-	0/3/41/41	0/5/5/5
2	NAP	A	301	-	-	7/31/67/67	0/5/5/5
2	NAP	C	301	-	-	6/31/67/67	0/5/5/5
3	A1MBC	E	302	-	-	3/3/41/41	0/5/5/5
3	A1MBC	B	302	-	-	3/3/41/41	0/5/5/5
2	NAP	J	301	-	-	7/31/67/67	0/5/5/5
2	NAP	I	301	-	-	4/31/67/67	0/5/5/5
3	A1MBC	K	302	-	-	3/3/41/41	0/5/5/5
3	A1MBC	G	302	-	-	3/3/41/41	0/5/5/5
3	A1MBC	F	302	-	-	3/3/41/41	0/5/5/5
2	NAP	D	301	-	-	5/31/67/67	0/5/5/5
3	A1MBC	I	302	-	-	3/3/41/41	0/5/5/5
2	NAP	K	301	-	-	4/31/67/67	0/5/5/5
3	A1MBC	H	302	-	-	3/3/41/41	0/5/5/5
2	NAP	F	301	-	-	9/31/67/67	0/5/5/5
3	A1MBC	A	302	-	-	3/3/41/41	0/5/5/5

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	NAP	B	301	-	-	6/31/67/67	0/5/5/5

All (229) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	301	NAP	C2D-C1D	-18.74	1.25	1.53
2	I	301	NAP	C2D-C1D	-18.54	1.25	1.53
2	B	301	NAP	C2D-C1D	-18.46	1.25	1.53
2	J	301	NAP	C2D-C1D	-18.38	1.25	1.53
2	D	301	NAP	C2D-C1D	-18.23	1.26	1.53
2	A	301	NAP	C2D-C1D	-17.95	1.26	1.53
2	H	301	NAP	C2D-C1D	-17.80	1.26	1.53
2	F	301	NAP	C2D-C1D	-17.57	1.27	1.53
2	G	301	NAP	C2D-C1D	-17.32	1.27	1.53
2	C	301	NAP	C2D-C1D	-17.30	1.27	1.53
2	K	301	NAP	C2D-C1D	-16.80	1.28	1.53
2	I	301	NAP	C3B-C2B	-13.51	1.22	1.52
2	G	301	NAP	C3B-C2B	-13.47	1.22	1.52
2	C	301	NAP	C3B-C2B	-13.45	1.23	1.52
2	F	301	NAP	C3B-C2B	-13.19	1.23	1.52
2	A	301	NAP	C3B-C2B	-13.16	1.23	1.52
2	J	301	NAP	C3B-C2B	-13.11	1.23	1.52
2	E	301	NAP	C3B-C2B	-13.05	1.23	1.52
2	D	301	NAP	C3B-C2B	-13.04	1.23	1.52
2	B	301	NAP	C3B-C2B	-12.89	1.24	1.52
2	H	301	NAP	C3B-C2B	-12.76	1.24	1.52
2	K	301	NAP	C3B-C2B	-12.19	1.25	1.52
2	B	301	NAP	C3D-C4D	-11.03	1.24	1.53
2	D	301	NAP	C3D-C4D	-10.95	1.25	1.53
2	E	301	NAP	C3D-C4D	-10.89	1.25	1.53
2	K	301	NAP	C3D-C4D	-10.81	1.25	1.53
2	J	301	NAP	C3D-C4D	-10.79	1.25	1.53
2	C	301	NAP	C3D-C4D	-10.46	1.26	1.53
2	A	301	NAP	C3D-C4D	-10.46	1.26	1.53
2	H	301	NAP	C3D-C4D	-10.34	1.26	1.53
2	I	301	NAP	C3D-C4D	-10.28	1.26	1.53
2	G	301	NAP	C3D-C4D	-10.28	1.26	1.53
2	F	301	NAP	C3D-C4D	-10.24	1.26	1.53
2	J	301	NAP	O4D-C1D	10.22	1.55	1.41
2	I	301	NAP	O4D-C1D	10.16	1.55	1.41
2	G	301	NAP	O4D-C1D	10.15	1.55	1.41
2	F	301	NAP	O4D-C1D	9.97	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	301	NAP	O4D-C1D	9.88	1.54	1.41
2	D	301	NAP	O4D-C1D	9.80	1.54	1.41
2	H	301	NAP	O4D-C1D	9.74	1.54	1.41
2	C	301	NAP	O4D-C1D	9.49	1.54	1.41
2	B	301	NAP	O4D-C1D	9.26	1.54	1.41
2	E	301	NAP	O4D-C1D	8.91	1.53	1.41
2	K	301	NAP	O4D-C1D	7.86	1.52	1.41
2	D	301	NAP	O4B-C1B	7.31	1.51	1.41
2	E	301	NAP	O4B-C1B	7.22	1.51	1.41
2	A	301	NAP	C7N-N7N	7.12	1.46	1.33
2	K	301	NAP	C7N-N7N	6.95	1.46	1.33
2	J	301	NAP	C7N-N7N	6.91	1.46	1.33
2	F	301	NAP	C7N-N7N	6.81	1.46	1.33
2	D	301	NAP	C7N-N7N	6.79	1.45	1.33
2	H	301	NAP	C7N-N7N	6.77	1.45	1.33
2	I	301	NAP	C7N-N7N	6.71	1.45	1.33
2	K	301	NAP	O4B-C1B	6.66	1.50	1.41
2	C	301	NAP	C7N-N7N	6.63	1.45	1.33
2	H	301	NAP	O4B-C1B	6.56	1.50	1.41
2	B	301	NAP	C7N-N7N	6.53	1.45	1.33
2	E	301	NAP	C7N-N7N	6.52	1.45	1.33
2	G	301	NAP	C7N-N7N	6.35	1.45	1.33
2	A	301	NAP	O4B-C1B	6.34	1.49	1.41
2	F	301	NAP	O4B-C1B	6.29	1.49	1.41
2	C	301	NAP	O4B-C1B	5.97	1.49	1.41
2	A	301	NAP	O4B-C4B	-5.97	1.31	1.45
2	J	301	NAP	O4B-C1B	5.96	1.49	1.41
2	B	301	NAP	C3B-C4B	5.95	1.68	1.53
2	I	301	NAP	O4B-C1B	5.90	1.49	1.41
2	B	301	NAP	O4B-C4B	-5.83	1.32	1.45
2	E	301	NAP	O4B-C4B	-5.80	1.32	1.45
2	I	301	NAP	O4B-C4B	-5.79	1.32	1.45
2	G	301	NAP	O4B-C1B	5.71	1.49	1.41
2	G	301	NAP	C3B-C4B	5.70	1.67	1.53
2	D	301	NAP	O4B-C4B	-5.67	1.32	1.45
2	B	301	NAP	O4B-C1B	5.65	1.49	1.41
2	K	301	NAP	C3B-C4B	5.58	1.67	1.53
2	C	301	NAP	C3B-C4B	5.57	1.67	1.53
2	H	301	NAP	O4D-C4D	5.55	1.57	1.45
2	G	301	NAP	O4B-C4B	-5.51	1.32	1.45
2	F	301	NAP	C2D-C3D	5.47	1.68	1.53
2	B	301	NAP	O7N-C7N	-5.47	1.13	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	J	301	NAP	C3B-C4B	5.45	1.66	1.53
2	G	301	NAP	C2D-C3D	5.43	1.68	1.53
2	C	301	NAP	O4B-C4B	-5.41	1.32	1.45
2	F	301	NAP	O4D-C4D	5.39	1.57	1.45
2	J	301	NAP	O4B-C4B	-5.36	1.33	1.45
2	D	301	NAP	C3B-C4B	5.34	1.66	1.53
2	I	301	NAP	C3B-C4B	5.33	1.66	1.53
2	H	301	NAP	C2D-C3D	5.28	1.67	1.53
2	A	301	NAP	C3B-C4B	5.27	1.66	1.53
2	A	301	NAP	C2D-C3D	5.26	1.67	1.53
2	H	301	NAP	O4B-C4B	-5.25	1.33	1.45
2	E	301	NAP	O4D-C4D	5.21	1.56	1.45
2	I	301	NAP	C2D-C3D	5.21	1.67	1.53
2	G	301	NAP	O4D-C4D	5.19	1.56	1.45
2	J	301	NAP	C2D-C3D	5.18	1.67	1.53
2	K	301	NAP	O4D-C4D	5.14	1.56	1.45
2	C	301	NAP	C2D-C3D	5.11	1.67	1.53
2	K	301	NAP	O4B-C4B	-5.10	1.33	1.45
2	D	301	NAP	C2D-C3D	5.09	1.67	1.53
2	A	301	NAP	O7N-C7N	-5.08	1.14	1.24
2	A	301	NAP	O4D-C4D	5.03	1.56	1.45
2	D	301	NAP	O7N-C7N	-5.01	1.14	1.24
2	E	301	NAP	C3B-C4B	5.01	1.65	1.53
2	E	301	NAP	C2D-C3D	4.98	1.67	1.53
2	F	301	NAP	O4B-C4B	-4.98	1.33	1.45
2	F	301	NAP	C3B-C4B	4.96	1.65	1.53
2	G	301	NAP	O7N-C7N	-4.95	1.14	1.24
2	J	301	NAP	O4D-C4D	4.90	1.56	1.45
2	C	301	NAP	O7N-C7N	-4.90	1.14	1.24
2	I	301	NAP	C3N-C7N	4.88	1.57	1.50
2	G	301	NAP	C3N-C7N	4.88	1.57	1.50
2	I	301	NAP	O4D-C4D	4.87	1.55	1.45
2	D	301	NAP	C3N-C7N	4.84	1.57	1.50
2	K	301	NAP	C2D-C3D	4.83	1.66	1.53
2	J	301	NAP	C3N-C7N	4.81	1.57	1.50
2	K	301	NAP	O7N-C7N	-4.76	1.15	1.24
2	C	301	NAP	O4D-C4D	4.75	1.55	1.45
2	B	301	NAP	C2D-C3D	4.72	1.66	1.53
2	F	301	NAP	O7N-C7N	-4.71	1.15	1.24
2	B	301	NAP	O4D-C4D	4.71	1.55	1.45
2	J	301	NAP	O7N-C7N	-4.59	1.15	1.24
2	H	301	NAP	C3B-C4B	4.57	1.64	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	301	NAP	C3N-C7N	4.57	1.57	1.50
2	I	301	NAP	O7N-C7N	-4.55	1.15	1.24
2	D	301	NAP	O4D-C4D	4.48	1.55	1.45
2	E	301	NAP	O7N-C7N	-4.46	1.15	1.24
2	E	301	NAP	C3N-C7N	4.29	1.57	1.50
2	H	301	NAP	O7N-C7N	-4.26	1.16	1.24
2	H	301	NAP	C3N-C7N	4.25	1.57	1.50
2	K	301	NAP	C3N-C7N	4.14	1.56	1.50
3	B	302	A1MBC	C6-N3	-4.07	1.46	1.49
2	A	301	NAP	C3N-C7N	3.85	1.56	1.50
3	C	302	A1MBC	C6-N3	-3.82	1.46	1.49
3	H	302	A1MBC	C6-N3	-3.81	1.46	1.49
3	I	302	A1MBC	C6-N3	-3.74	1.46	1.49
2	C	301	NAP	C3N-C7N	3.68	1.56	1.50
3	A	302	A1MBC	C6-N3	-3.67	1.46	1.49
3	D	302	A1MBC	C6-N3	-3.58	1.46	1.49
2	C	301	NAP	C5D-C4D	3.50	1.62	1.51
3	G	302	A1MBC	C6-N3	-3.48	1.46	1.49
2	G	301	NAP	C5D-C4D	3.47	1.62	1.51
3	F	302	A1MBC	C6-N3	-3.39	1.46	1.49
2	F	301	NAP	C5D-C4D	3.32	1.62	1.51
2	K	301	NAP	C5D-C4D	3.32	1.62	1.51
3	E	302	A1MBC	C6-N3	-3.27	1.46	1.49
2	I	301	NAP	O3D-C3D	3.21	1.50	1.43
3	J	302	A1MBC	C6-N3	-3.21	1.46	1.49
2	J	301	NAP	P2B-O2B	3.19	1.65	1.59
2	I	301	NAP	C5D-C4D	3.14	1.61	1.51
2	J	301	NAP	C5D-C4D	3.10	1.61	1.51
2	H	301	NAP	C5D-C4D	3.08	1.61	1.51
2	A	301	NAP	C5D-C4D	3.07	1.61	1.51
2	B	301	NAP	O3D-C3D	3.07	1.50	1.43
2	H	301	NAP	O3D-C3D	3.06	1.50	1.43
2	D	301	NAP	C5D-C4D	3.02	1.61	1.51
3	K	302	A1MBC	C6-N3	-2.97	1.47	1.49
2	J	301	NAP	O3D-C3D	2.95	1.49	1.43
2	B	301	NAP	C3N-C7N	2.94	1.55	1.50
2	E	301	NAP	C6A-N6A	2.90	1.44	1.34
2	A	301	NAP	O3D-C3D	2.89	1.49	1.43
2	K	301	NAP	O2D-C2D	2.88	1.49	1.43
2	E	301	NAP	C5D-C4D	2.85	1.60	1.51
2	B	301	NAP	C5D-C4D	2.82	1.60	1.51
2	G	301	NAP	C2A-N3A	2.80	1.36	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	301	NAP	C6A-N6A	2.80	1.44	1.34
2	I	301	NAP	C5A-C4A	-2.78	1.33	1.40
2	C	301	NAP	O2D-C2D	2.76	1.49	1.43
2	B	301	NAP	C5A-C4A	-2.76	1.33	1.40
2	I	301	NAP	C6A-N6A	2.75	1.44	1.34
2	J	301	NAP	C5A-C4A	-2.73	1.33	1.40
2	C	301	NAP	O3D-C3D	2.72	1.49	1.43
2	H	301	NAP	C5A-C4A	-2.71	1.33	1.40
2	G	301	NAP	O3D-C3D	2.70	1.49	1.43
2	H	301	NAP	P2B-O2B	2.69	1.64	1.59
2	D	301	NAP	O2D-C2D	2.69	1.49	1.43
2	E	301	NAP	O2D-C2D	2.67	1.49	1.43
2	A	301	NAP	C6A-N6A	2.64	1.43	1.34
2	A	301	NAP	C5A-C4A	-2.64	1.34	1.40
2	E	301	NAP	O3D-C3D	2.62	1.49	1.43
2	D	301	NAP	P2B-O2B	2.60	1.64	1.59
2	F	301	NAP	C6A-N6A	2.60	1.43	1.34
2	F	301	NAP	C5A-C4A	-2.60	1.34	1.40
2	D	301	NAP	C5A-C4A	-2.59	1.34	1.40
2	K	301	NAP	C6A-N6A	2.59	1.43	1.34
2	F	301	NAP	O3D-C3D	2.59	1.49	1.43
2	K	301	NAP	O3D-C3D	2.57	1.49	1.43
2	D	301	NAP	O3D-C3D	2.57	1.49	1.43
2	E	301	NAP	C2A-N3A	2.56	1.36	1.32
2	H	301	NAP	C6A-N6A	2.56	1.43	1.34
2	A	301	NAP	O2D-C2D	2.55	1.49	1.43
2	E	301	NAP	C5A-C4A	-2.52	1.34	1.40
2	C	301	NAP	C5A-C4A	-2.49	1.34	1.40
2	B	301	NAP	P2B-O2B	2.48	1.64	1.59
2	F	301	NAP	P2B-O2B	2.47	1.64	1.59
2	B	301	NAP	C4A-N3A	-2.45	1.32	1.35
2	B	301	NAP	O2D-C2D	2.43	1.48	1.43
2	J	301	NAP	C6A-N6A	2.42	1.42	1.34
2	D	301	NAP	C6A-N6A	2.42	1.42	1.34
2	I	301	NAP	O2D-C2D	2.41	1.48	1.43
2	K	301	NAP	C5A-C4A	-2.38	1.34	1.40
2	B	301	NAP	C6A-N6A	2.38	1.42	1.34
2	I	301	NAP	C2A-N3A	2.38	1.35	1.32
2	D	301	NAP	C2A-N3A	2.38	1.35	1.32
2	F	301	NAP	O2D-C2D	2.35	1.48	1.43
2	G	301	NAP	C6A-N6A	2.35	1.42	1.34
2	I	301	NAP	P2B-O2B	2.35	1.63	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	G	301	NAP	C5A-C4A	-2.33	1.34	1.40
2	K	301	NAP	C4A-N3A	-2.29	1.32	1.35
2	J	301	NAP	O2D-C2D	2.27	1.48	1.43
2	A	301	NAP	P2B-O2B	2.25	1.63	1.59
2	B	301	NAP	C2A-N3A	2.25	1.35	1.32
2	C	301	NAP	C2A-N3A	2.22	1.35	1.32
2	C	301	NAP	P2B-O2B	2.20	1.63	1.59
2	H	301	NAP	O2D-C2D	2.19	1.48	1.43
2	F	301	NAP	PN-O5D	2.18	1.68	1.59
2	J	301	NAP	C2A-N3A	2.15	1.35	1.32
2	F	301	NAP	O3B-C3B	2.14	1.48	1.43
2	H	301	NAP	C2A-N3A	2.12	1.35	1.32
2	D	301	NAP	PN-O5D	2.11	1.67	1.59
2	H	301	NAP	O3B-C3B	2.10	1.47	1.43
2	F	301	NAP	C2A-N3A	2.10	1.35	1.32
2	A	301	NAP	PN-O5D	2.05	1.67	1.59
2	G	301	NAP	O2D-C2D	2.05	1.47	1.43
2	B	301	NAP	C4N-C3N	-2.04	1.35	1.39
2	I	301	NAP	O5B-C5B	-2.03	1.37	1.44
2	J	301	NAP	PN-O5D	2.02	1.67	1.59
2	A	301	NAP	O5B-C5B	-2.02	1.37	1.44
2	K	301	NAP	PN-O5D	2.01	1.67	1.59
2	C	301	NAP	PN-O5D	2.01	1.67	1.59
2	C	301	NAP	C4A-N3A	-2.01	1.32	1.35

All (133) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	F	301	NAP	C5A-C6A-N6A	10.30	136.01	120.35
2	B	301	NAP	C5A-C6A-N6A	9.59	134.93	120.35
2	H	301	NAP	C5A-C6A-N6A	9.54	134.85	120.35
2	J	301	NAP	C5A-C6A-N6A	9.35	134.56	120.35
2	K	301	NAP	C5A-C6A-N6A	9.05	134.11	120.35
2	G	301	NAP	C5A-C6A-N6A	8.77	133.68	120.35
2	C	301	NAP	C5A-C6A-N6A	8.67	133.53	120.35
2	E	301	NAP	C5A-C6A-N6A	8.66	133.51	120.35
2	D	301	NAP	C5A-C6A-N6A	8.51	133.28	120.35
2	A	301	NAP	C5A-C6A-N6A	7.58	131.88	120.35
2	F	301	NAP	N6A-C6A-N1A	-7.48	103.04	118.57
2	B	301	NAP	N6A-C6A-N1A	-7.24	103.55	118.57
2	I	301	NAP	C5A-C6A-N6A	7.13	131.18	120.35
2	H	301	NAP	N6A-C6A-N1A	-6.93	104.19	118.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	J	301	NAP	N6A-C6A-N1A	-6.51	105.06	118.57
2	G	301	NAP	N6A-C6A-N1A	-6.50	105.08	118.57
2	D	301	NAP	N6A-C6A-N1A	-6.05	106.01	118.57
3	B	302	A1MBC	C7-C6-N3	5.96	115.86	111.18
2	E	301	NAP	N6A-C6A-N1A	-5.88	106.36	118.57
2	K	301	NAP	N6A-C6A-N1A	-5.83	106.47	118.57
2	C	301	NAP	N6A-C6A-N1A	-5.62	106.90	118.57
2	J	301	NAP	N3A-C2A-N1A	-5.45	120.15	128.68
2	A	301	NAP	N6A-C6A-N1A	-5.44	107.28	118.57
2	I	301	NAP	N3A-C2A-N1A	-5.39	120.25	128.68
2	B	301	NAP	N3A-C2A-N1A	-5.35	120.32	128.68
2	A	301	NAP	C1B-N9A-C4A	-5.33	117.28	126.64
2	E	301	NAP	N3A-C2A-N1A	-5.19	120.56	128.68
2	D	301	NAP	N3A-C2A-N1A	-5.19	120.57	128.68
2	F	301	NAP	C1B-N9A-C4A	-5.18	117.54	126.64
2	A	301	NAP	N3A-C2A-N1A	-5.12	120.67	128.68
2	B	301	NAP	C1B-N9A-C4A	-5.10	117.68	126.64
2	I	301	NAP	C1B-N9A-C4A	-5.05	117.77	126.64
2	F	301	NAP	N3A-C2A-N1A	-5.02	120.83	128.68
2	E	301	NAP	C1B-N9A-C4A	-5.02	117.83	126.64
2	H	301	NAP	N3A-C2A-N1A	-4.97	120.91	128.68
2	E	301	NAP	O4B-C1B-C2B	-4.92	98.06	106.59
2	D	301	NAP	C1B-N9A-C4A	-4.91	118.02	126.64
2	I	301	NAP	N6A-C6A-N1A	-4.72	108.78	118.57
3	B	302	A1MBC	C1-C2-C3	-4.69	106.68	114.23
2	H	301	NAP	C1B-N9A-C4A	-4.65	118.47	126.64
2	K	301	NAP	C1B-N9A-C4A	-4.64	118.48	126.64
2	G	301	NAP	N3A-C2A-N1A	-4.56	121.55	128.68
2	K	301	NAP	N3A-C2A-N1A	-4.54	121.58	128.68
3	H	302	A1MBC	C7-C6-N3	4.51	114.72	111.18
2	C	301	NAP	N3A-C2A-N1A	-4.50	121.64	128.68
2	F	301	NAP	O4B-C1B-C2B	-4.22	99.27	106.59
2	K	301	NAP	O4B-C1B-C2B	-4.12	99.43	106.59
2	C	301	NAP	O4B-C1B-C2B	-4.12	99.44	106.59
2	J	301	NAP	C1B-N9A-C4A	-4.11	119.42	126.64
2	G	301	NAP	O4B-C1B-C2B	-4.06	99.54	106.59
3	K	302	A1MBC	C7-C6-N3	4.01	114.33	111.18
2	G	301	NAP	C1B-N9A-C4A	-3.77	120.02	126.64
2	G	301	NAP	C6N-N1N-C2N	-3.74	118.56	121.97
2	B	301	NAP	PN-O3-PA	-3.74	120.00	132.83
2	G	301	NAP	C3B-C2B-C1B	3.58	109.63	102.89
2	H	301	NAP	C3D-C2D-C1D	3.49	106.23	100.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	301	NAP	C5B-C4B-C3B	-3.45	102.25	115.18
2	E	301	NAP	C3B-C2B-C1B	3.45	109.38	102.89
2	K	301	NAP	C3B-C2B-C1B	3.45	109.37	102.89
2	H	301	NAP	PN-O3-PA	-3.43	121.05	132.83
2	E	301	NAP	C3D-C2D-C1D	3.40	106.09	100.98
2	C	301	NAP	C1B-N9A-C4A	-3.39	120.68	126.64
2	A	301	NAP	O4B-C1B-C2B	-3.38	100.72	106.59
2	J	301	NAP	O4B-C1B-C2B	-3.38	100.73	106.59
2	J	301	NAP	PN-O3-PA	-3.34	121.37	132.83
2	I	301	NAP	PN-O3-PA	-3.34	121.38	132.83
2	C	301	NAP	C3B-C2B-C1B	3.29	109.07	102.89
2	G	301	NAP	O3B-C3B-C2B	3.26	120.43	111.17
2	C	301	NAP	C2D-C3D-C4D	3.26	108.97	102.64
2	D	301	NAP	O4B-C1B-C2B	-3.25	100.95	106.59
2	F	301	NAP	C3D-C2D-C1D	3.24	105.86	100.98
2	H	301	NAP	C3B-C2B-C1B	3.16	108.83	102.89
2	H	301	NAP	O4B-C1B-C2B	-3.11	101.20	106.59
2	A	301	NAP	C3B-C2B-C1B	3.10	108.71	102.89
2	I	301	NAP	C3D-C2D-C1D	3.05	105.56	100.98
2	A	301	NAP	C5B-C4B-C3B	-3.04	103.80	115.18
2	D	301	NAP	C5B-C4B-C3B	-3.03	103.84	115.18
2	I	301	NAP	O4B-C1B-C2B	-2.98	101.42	106.59
2	A	301	NAP	C2D-C3D-C4D	2.95	108.38	102.64
2	D	301	NAP	C2D-C3D-C4D	2.92	108.32	102.64
2	B	301	NAP	O4B-C1B-C2B	-2.90	101.56	106.59
2	C	301	NAP	PN-O3-PA	-2.86	123.02	132.83
2	K	301	NAP	C5B-C4B-C3B	-2.83	104.57	115.18
2	C	301	NAP	C6N-N1N-C2N	-2.78	119.44	121.97
2	E	301	NAP	C5B-C4B-C3B	-2.74	104.92	115.18
3	I	302	A1MBC	C7-C6-N3	2.71	113.31	111.18
2	B	301	NAP	C2D-C3D-C4D	2.70	107.90	102.64
2	G	301	NAP	PN-O3-PA	-2.70	123.57	132.83
3	F	302	A1MBC	C7-C6-N3	2.69	113.29	111.18
2	I	301	NAP	C6N-N1N-C2N	-2.69	119.52	121.97
2	D	301	NAP	C3B-C2B-C1B	2.69	107.94	102.89
2	K	301	NAP	C2D-C3D-C4D	2.68	107.85	102.64
3	H	302	A1MBC	C2-C3-C4	2.67	116.80	113.96
2	G	301	NAP	O7N-C7N-C3N	2.65	122.81	119.63
2	B	301	NAP	C3B-C2B-C1B	2.63	107.84	102.89
2	E	301	NAP	C6N-N1N-C2N	-2.63	119.58	121.97
2	K	301	NAP	C3D-C2D-C1D	2.54	104.81	100.98
2	J	301	NAP	C3B-C2B-C1B	2.53	107.65	102.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	K	302	A1MBC	C2-C3-C4	2.52	116.65	113.96
2	C	301	NAP	C5B-C4B-C3B	-2.50	105.82	115.18
3	J	302	A1MBC	C1-C2-C3	-2.50	110.22	114.23
2	K	301	NAP	O3B-C3B-C2B	2.49	118.23	111.17
2	K	301	NAP	O2D-C2D-C3D	-2.46	103.86	111.82
3	D	302	A1MBC	C7-C6-N3	2.46	113.11	111.18
2	E	301	NAP	C2D-C3D-C4D	2.45	107.41	102.64
2	E	301	NAP	O3B-C3B-C4B	-2.43	104.02	111.05
2	K	301	NAP	PN-O3-PA	-2.43	124.49	132.83
2	G	301	NAP	O4B-C4B-C3B	2.42	109.91	105.11
2	K	301	NAP	O3D-C3D-C2D	-2.40	104.06	111.82
2	A	301	NAP	PN-O3-PA	-2.37	124.69	132.83
2	G	301	NAP	O2B-C2B-C1B	-2.33	101.72	110.10
2	F	301	NAP	C6N-N1N-C2N	-2.32	119.86	121.97
2	D	301	NAP	O7N-C7N-N7N	-2.29	119.32	122.58
2	I	301	NAP	O7N-C7N-C3N	2.29	122.37	119.63
2	B	301	NAP	O3B-C3B-C2B	2.28	117.65	111.17
2	H	301	NAP	C6N-N1N-C2N	-2.26	119.91	121.97
2	H	301	NAP	C2D-C3D-C4D	2.25	107.01	102.64
2	E	301	NAP	O4D-C1D-C2D	-2.24	103.65	106.93
2	J	301	NAP	C2D-C3D-C4D	2.23	106.98	102.64
2	D	301	NAP	C6N-N1N-C2N	-2.20	119.97	121.97
2	F	301	NAP	C3B-C2B-C1B	2.18	106.98	102.89
2	I	301	NAP	C2D-C3D-C4D	2.17	106.86	102.64
2	F	301	NAP	C4A-C5A-N7A	-2.16	107.15	109.40
2	C	301	NAP	C2N-C3N-C4N	2.15	120.70	118.26
3	G	302	A1MBC	C1-C2-C3	-2.13	110.81	114.23
2	I	301	NAP	PA-O5B-C5B	-2.12	109.27	121.68
2	K	301	NAP	C5D-C4D-C3D	-2.08	107.37	115.18
2	G	301	NAP	C5D-C4D-C3D	-2.07	107.43	115.18
2	B	301	NAP	PN-O5D-C5D	-2.06	109.63	121.68
2	G	301	NAP	C3D-C2D-C1D	2.05	104.07	100.98
2	F	301	NAP	PN-O3-PA	-2.04	125.83	132.83
2	C	301	NAP	O3D-C3D-C2D	-2.03	105.25	111.82
2	K	301	NAP	C6N-N1N-C2N	-2.02	120.14	121.97

There are no chirality outliers.

All (93) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	301	NAP	C2B-O2B-P2B-O2X
2	B	301	NAP	C2B-O2B-P2B-O2X

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Mol	Chain	Res	Type	Atoms
2	C	301	NAP	O4D-C1D-N1N-C2N
2	E	301	NAP	C2B-O2B-P2B-O1X
2	F	301	NAP	O4B-C4B-C5B-O5B
2	F	301	NAP	C2B-O2B-P2B-O1X
2	F	301	NAP	O4D-C1D-N1N-C2N
2	G	301	NAP	O4D-C1D-N1N-C2N
2	H	301	NAP	C2B-O2B-P2B-O1X
2	H	301	NAP	C5D-O5D-PN-O3
2	H	301	NAP	C5D-O5D-PN-O1N
2	H	301	NAP	C5D-O5D-PN-O2N
2	I	301	NAP	O4B-C4B-C5B-O5B
2	J	301	NAP	O4B-C4B-C5B-O5B
2	J	301	NAP	C2B-O2B-P2B-O1X
2	K	301	NAP	C2B-O2B-P2B-O1X
3	J	302	A1MBC	N2-C5-C8-C17
3	J	302	A1MBC	N2-C5-C8-C9
2	A	301	NAP	O4B-C4B-C5B-O5B
2	A	301	NAP	O4D-C4D-C5D-O5D
2	B	301	NAP	O4D-C4D-C5D-O5D
2	C	301	NAP	O4B-C4B-C5B-O5B
2	F	301	NAP	O4D-C4D-C5D-O5D
2	G	301	NAP	O4D-C4D-C5D-O5D
2	I	301	NAP	C3B-C4B-C5B-O5B
2	J	301	NAP	O4D-C4D-C5D-O5D
2	K	301	NAP	O4B-C4B-C5B-O5B
2	A	301	NAP	C3B-C4B-C5B-O5B
2	B	301	NAP	C3D-C4D-C5D-O5D
2	C	301	NAP	C3B-C4B-C5B-O5B
2	F	301	NAP	C3B-C4B-C5B-O5B
2	F	301	NAP	C3D-C4D-C5D-O5D
2	G	301	NAP	C3D-C4D-C5D-O5D
2	H	301	NAP	O4D-C4D-C5D-O5D
2	J	301	NAP	C3B-C4B-C5B-O5B
2	J	301	NAP	C3D-C4D-C5D-O5D
2	A	301	NAP	C3D-C4D-C5D-O5D
2	B	301	NAP	O4B-C4B-C5B-O5B
2	K	301	NAP	C3B-C4B-C5B-O5B
2	B	301	NAP	C3B-C4B-C5B-O5B
2	H	301	NAP	C3D-C4D-C5D-O5D
2	D	301	NAP	O4B-C4B-C5B-O5B
2	G	301	NAP	O4B-C4B-C5B-O5B
2	A	301	NAP	C2B-O2B-P2B-O1X

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Mol	Chain	Res	Type	Atoms
2	B	301	NAP	C2B-O2B-P2B-O1X
2	D	301	NAP	C2B-O2B-P2B-O1X
2	D	301	NAP	C2B-O2B-P2B-O2X
2	E	301	NAP	C2B-O2B-P2B-O2X
2	F	301	NAP	C2B-O2B-P2B-O2X
2	J	301	NAP	C2B-O2B-P2B-O2X
2	C	301	NAP	O4D-C4D-C5D-O5D
3	A	302	A1MBC	N2-C5-C8-C17
3	A	302	A1MBC	N2-C5-C8-C16
3	A	302	A1MBC	N2-C5-C8-C9
3	B	302	A1MBC	N2-C5-C8-C17
3	B	302	A1MBC	N2-C5-C8-C16
3	B	302	A1MBC	N2-C5-C8-C9
3	C	302	A1MBC	N2-C5-C8-C17
3	E	302	A1MBC	N2-C5-C8-C17
3	E	302	A1MBC	N2-C5-C8-C16
3	E	302	A1MBC	N2-C5-C8-C9
3	F	302	A1MBC	N2-C5-C8-C17
3	F	302	A1MBC	N2-C5-C8-C16
3	F	302	A1MBC	N2-C5-C8-C9
3	G	302	A1MBC	N2-C5-C8-C17
3	G	302	A1MBC	N2-C5-C8-C16
3	G	302	A1MBC	N2-C5-C8-C9
3	H	302	A1MBC	N2-C5-C8-C17
3	H	302	A1MBC	N2-C5-C8-C16
3	H	302	A1MBC	N2-C5-C8-C9
3	I	302	A1MBC	N2-C5-C8-C17
3	I	302	A1MBC	N2-C5-C8-C16
3	I	302	A1MBC	N2-C5-C8-C9
3	J	302	A1MBC	N2-C5-C8-C16
3	K	302	A1MBC	N2-C5-C8-C17
3	K	302	A1MBC	N2-C5-C8-C9
2	D	301	NAP	C3B-C4B-C5B-O5B
2	H	301	NAP	O4B-C4B-C5B-O5B
2	D	301	NAP	PN-O3-PA-O2A
2	F	301	NAP	PN-O3-PA-O1A
2	C	301	NAP	C3D-C4D-C5D-O5D
2	G	301	NAP	C3B-C4B-C5B-O5B
2	E	301	NAP	O4B-C4B-C5B-O5B
2	F	301	NAP	C5D-O5D-PN-O3
2	A	301	NAP	PN-O3-PA-O2A
2	H	301	NAP	PA-O3-PN-O1N

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Mol	Chain	Res	Type	Atoms
2	J	301	NAP	PN-O3-PA-O2A
2	K	301	NAP	PN-O3-PA-O2A
2	C	301	NAP	C5B-O5B-PA-O1A
2	I	301	NAP	C5B-O5B-PA-O1A
2	I	301	NAP	C5D-O5D-PN-O1N
3	C	302	A1MBC	N2-C5-C8-C16
3	K	302	A1MBC	N2-C5-C8-C16

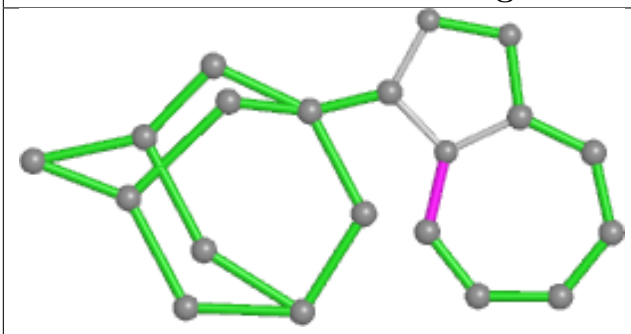
There are no ring outliers.

13 monomers are involved in 42 short contacts:

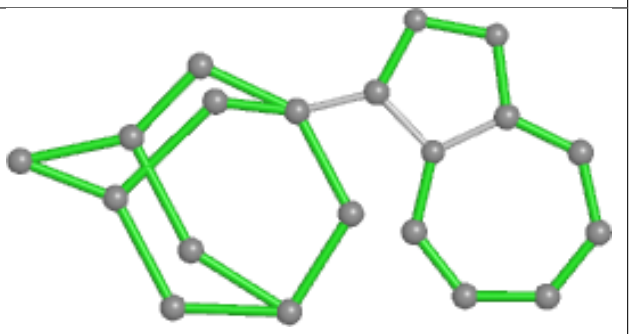
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	G	301	NAP	6	0
2	E	301	NAP	2	0
2	H	301	NAP	3	0
2	A	301	NAP	3	0
2	C	301	NAP	6	0
2	J	301	NAP	4	0
2	I	301	NAP	7	0
2	D	301	NAP	2	0
2	K	301	NAP	2	0
3	H	302	A1MBC	1	0
2	F	301	NAP	4	0
3	A	302	A1MBC	1	0
2	B	301	NAP	1	0

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

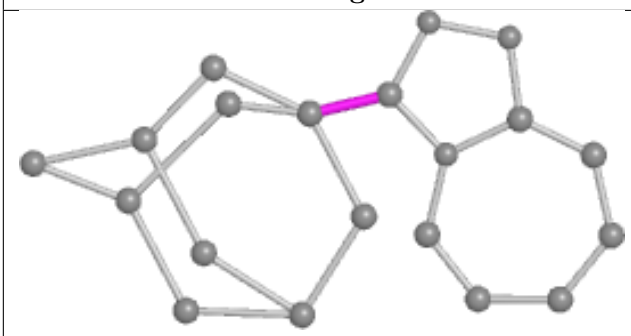
Ligand A1MBC C 302



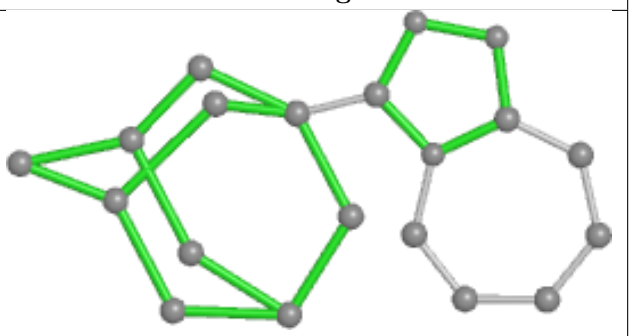
Bond lengths



Bond angles

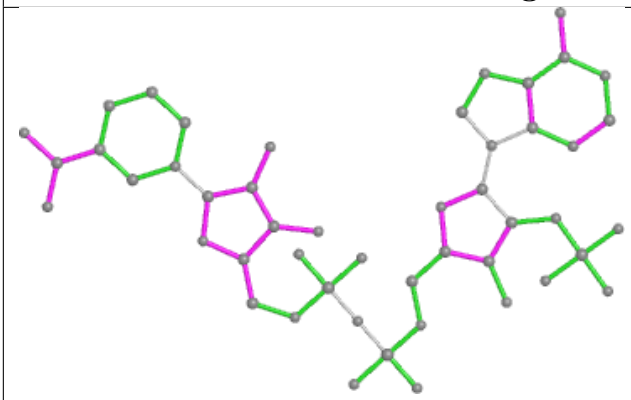


Torsions



Rings

Ligand NAP G 301



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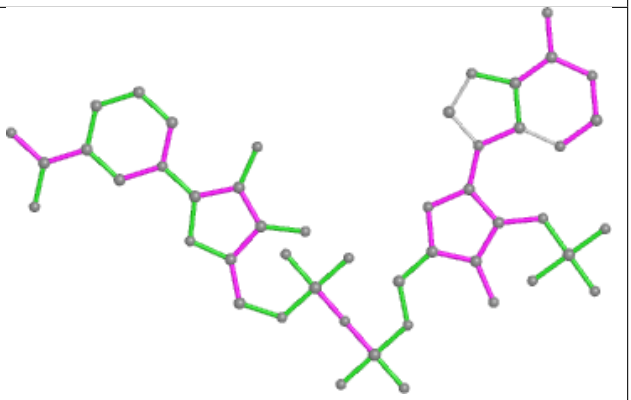

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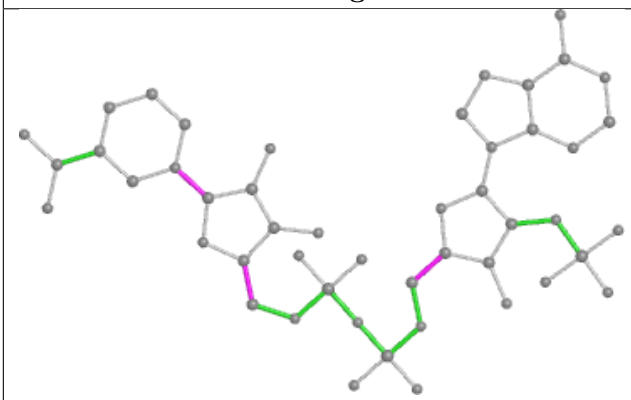

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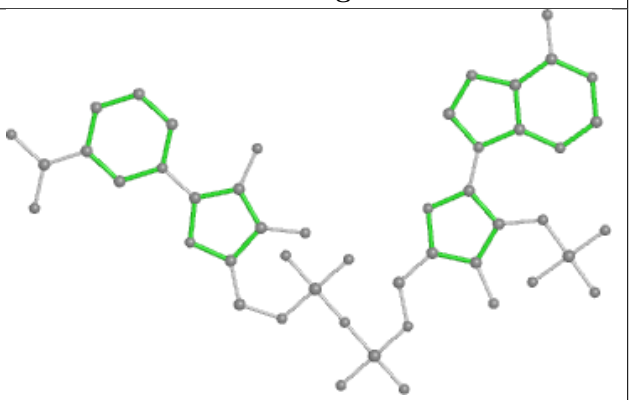
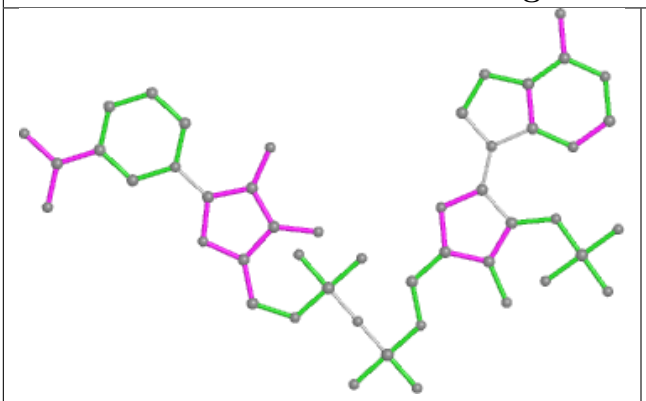


Rings

Ligand NAP E 301



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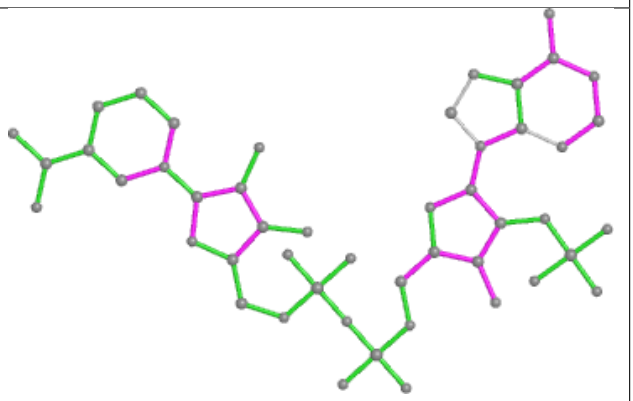
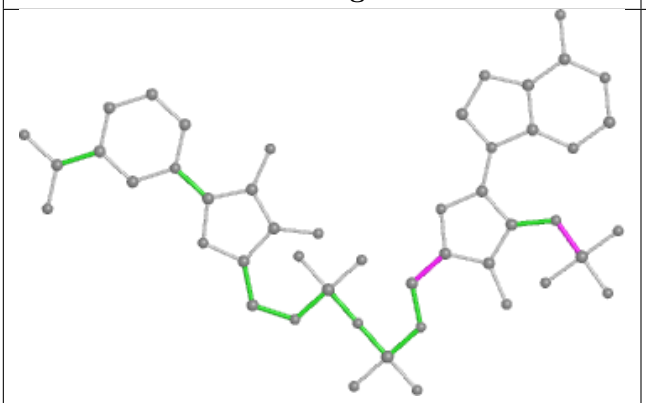
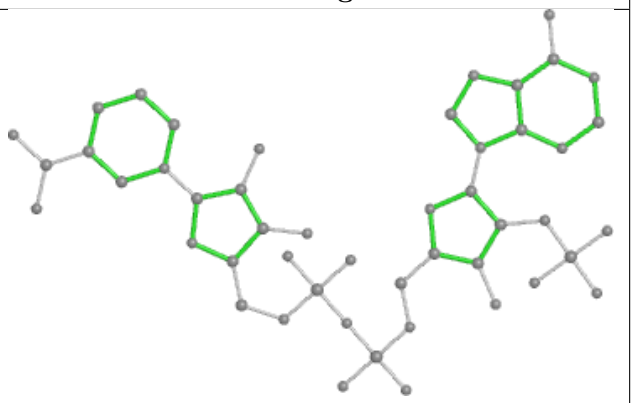


Bond angles

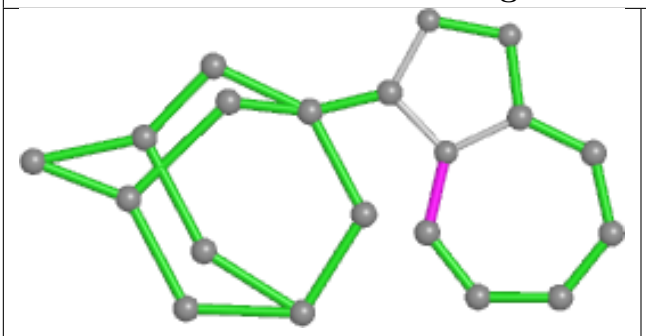


Torsions



Rings

Ligand A1MBC J 302



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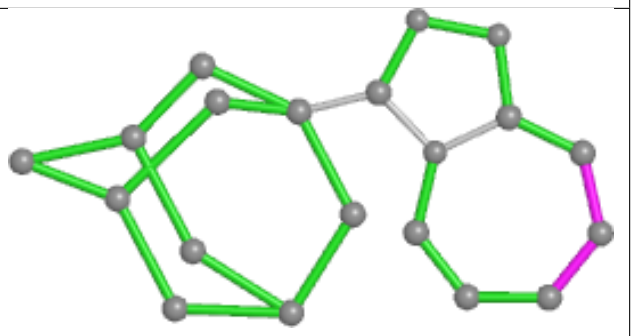

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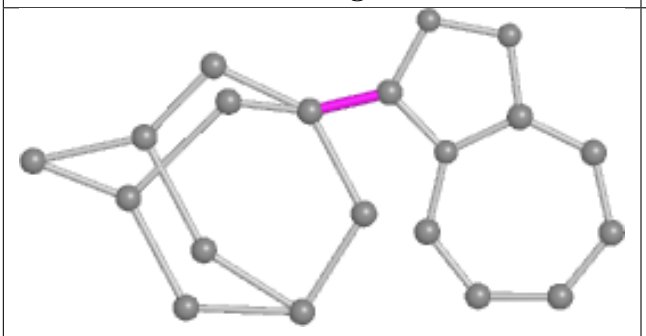

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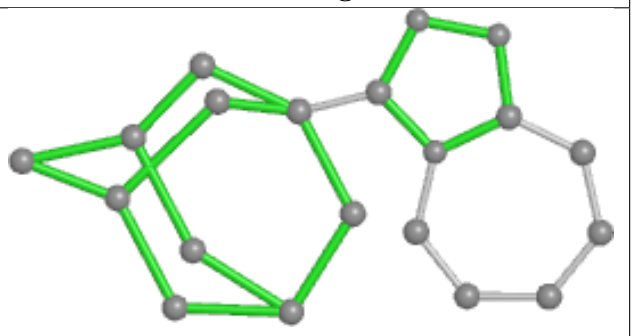
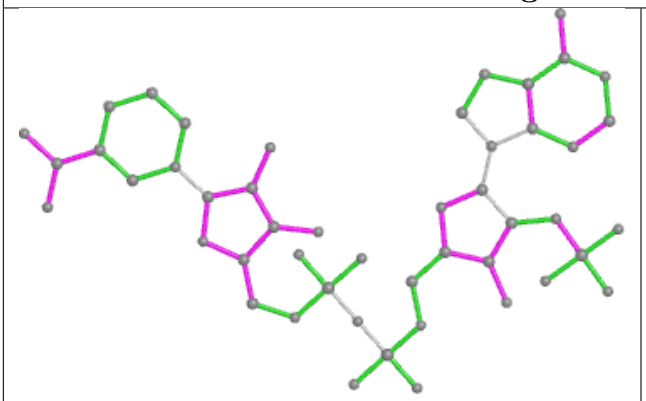


Rings

Ligand NAP H 301



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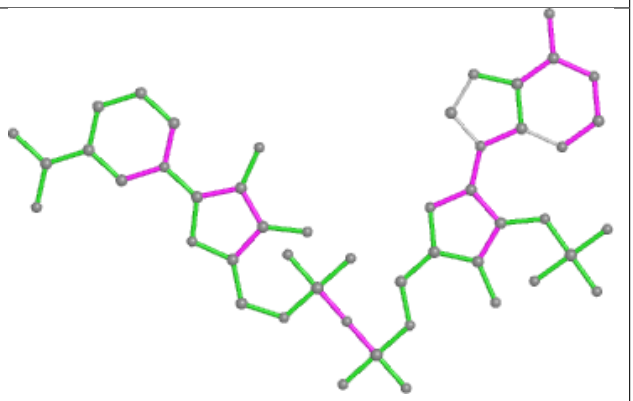

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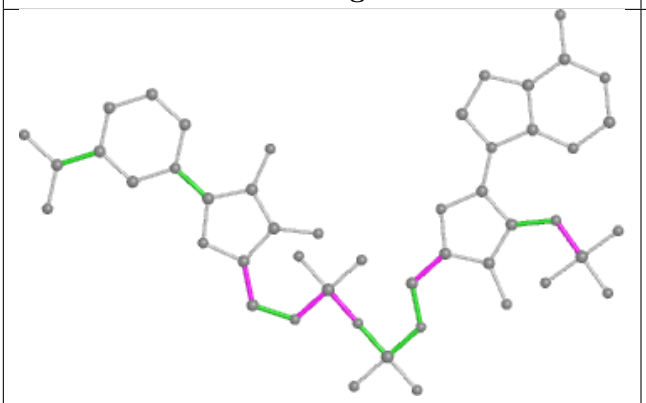

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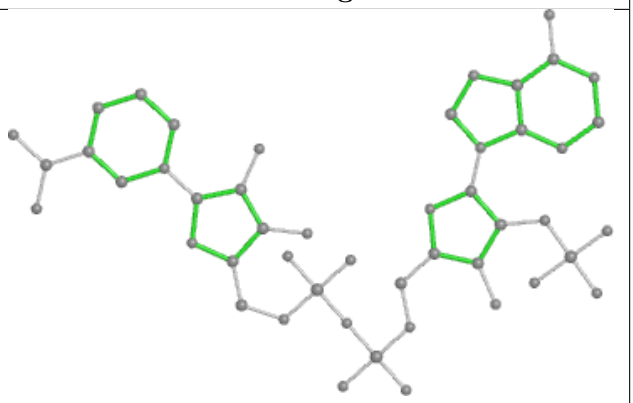
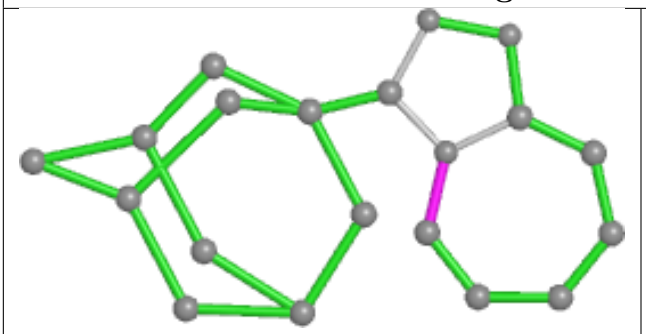


Rings

Ligand A1MBC D 302



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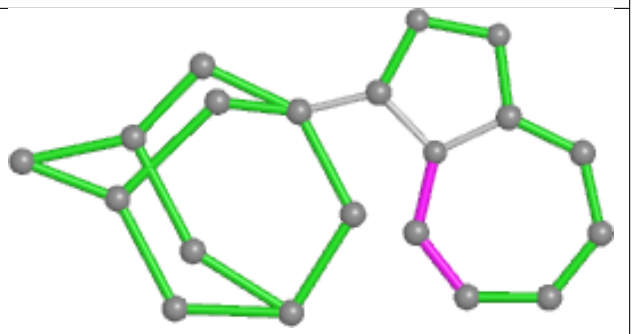

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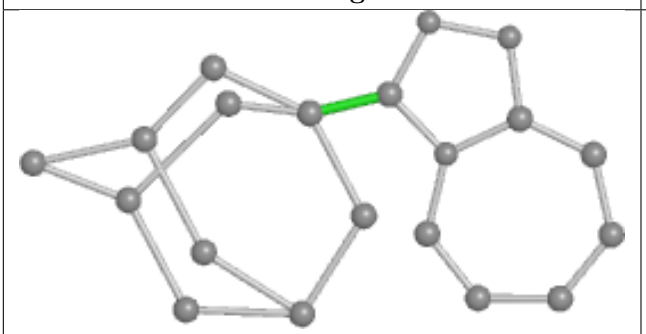

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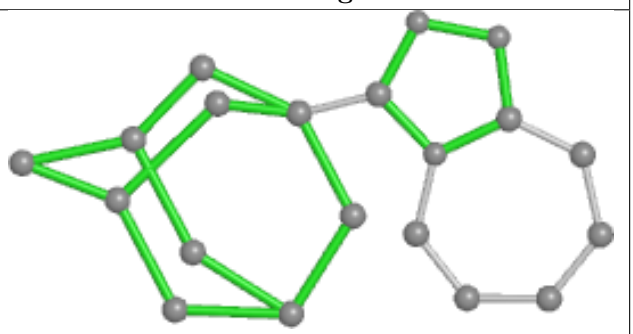
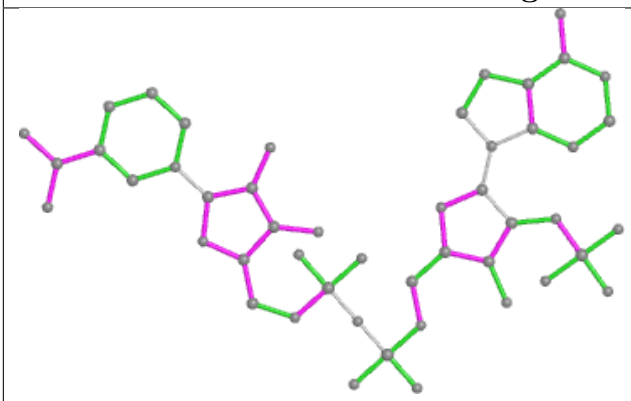


Rings

Ligand NAP A 301



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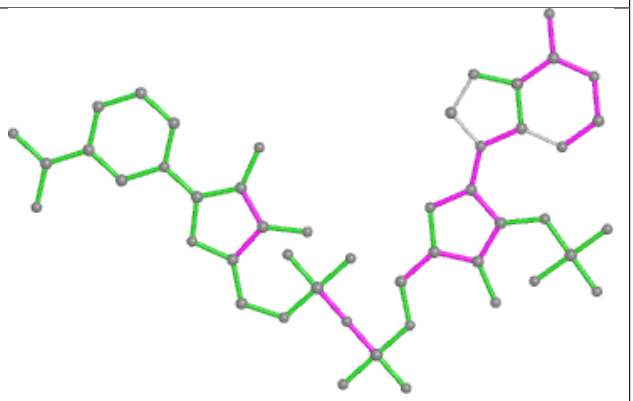

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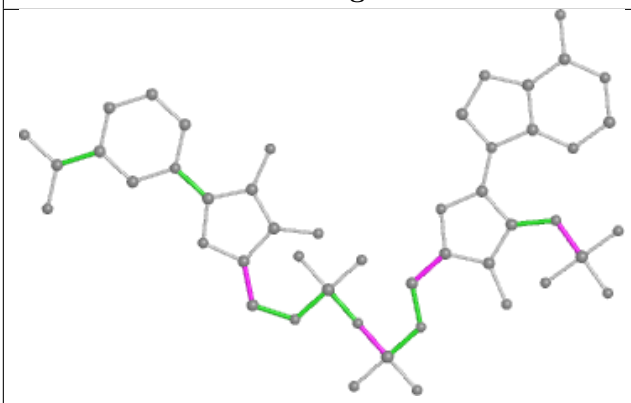

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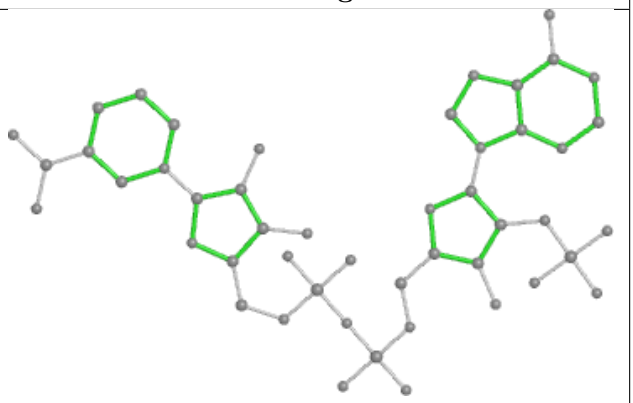
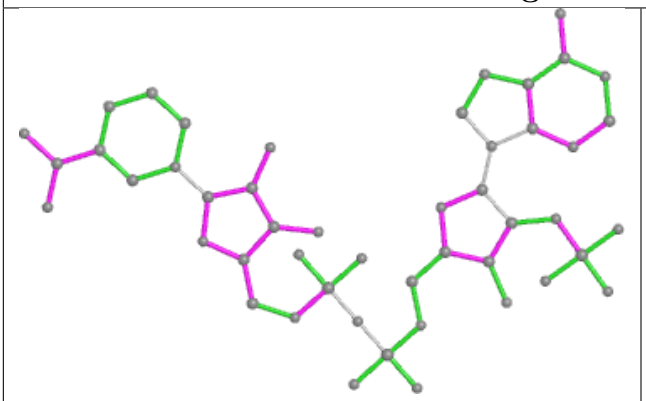


Rings

Ligand NAP C 301



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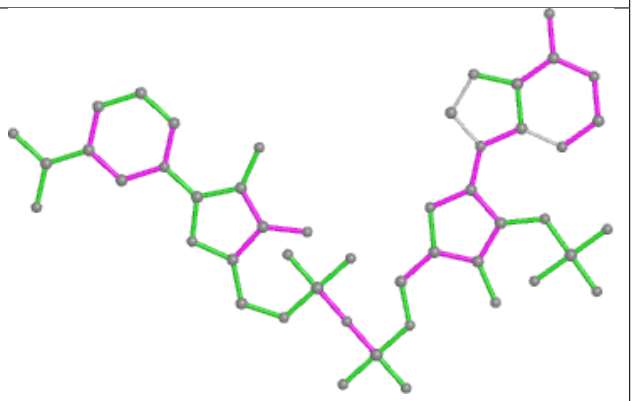

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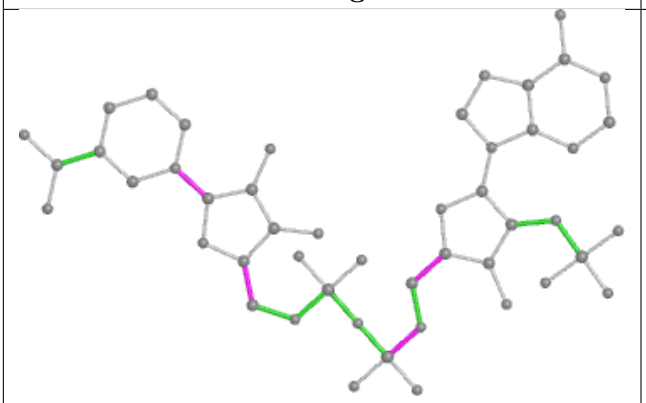

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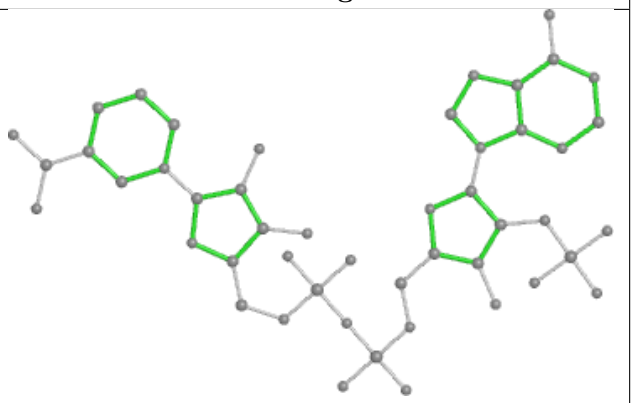
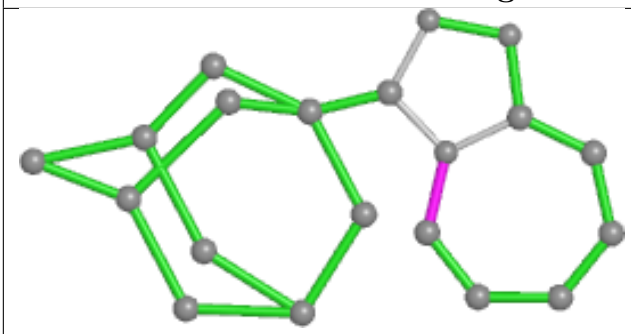


Rings

Ligand A1MBC E 302



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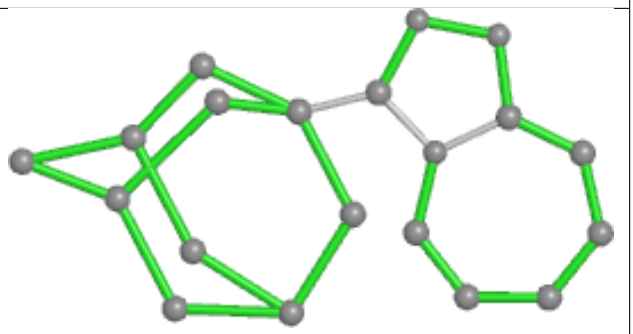
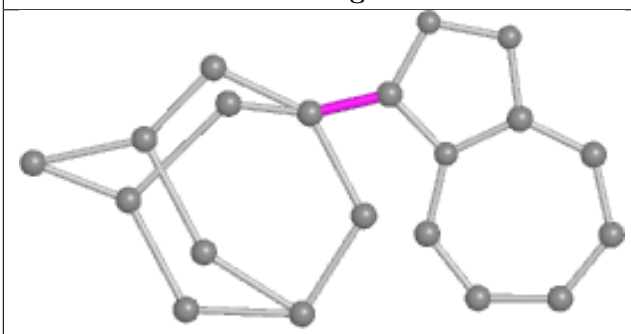
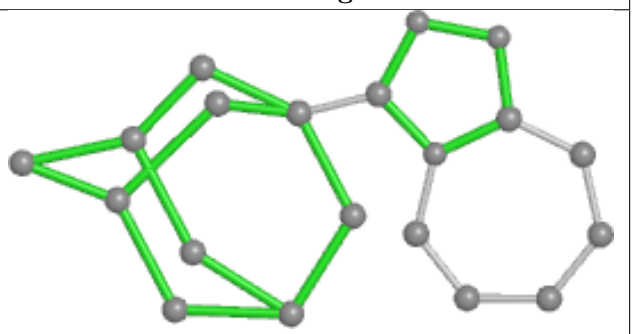


Bond angles

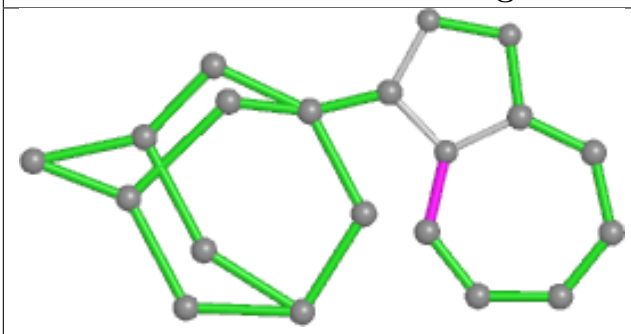


Torsions



Rings

Ligand A1MBC B 302



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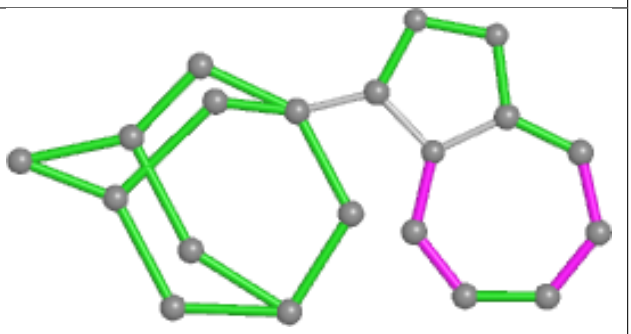

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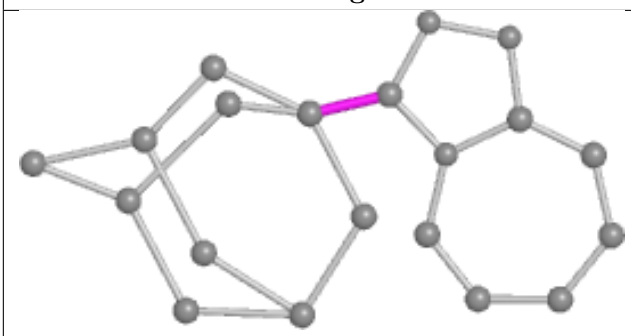

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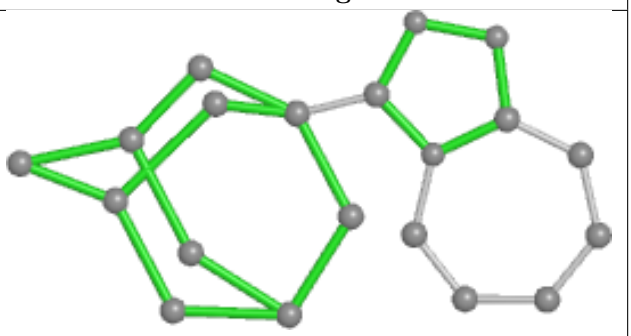
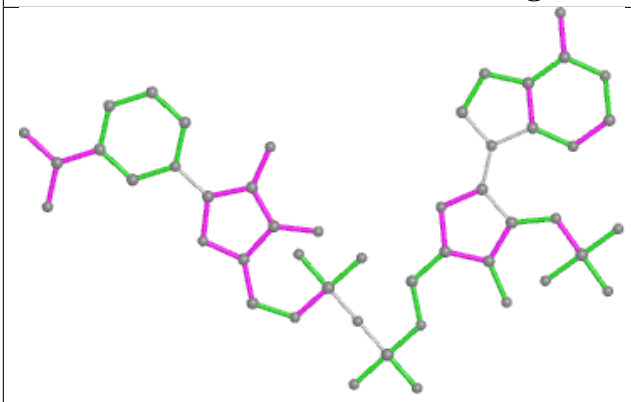


Rings

Ligand NAP J 301



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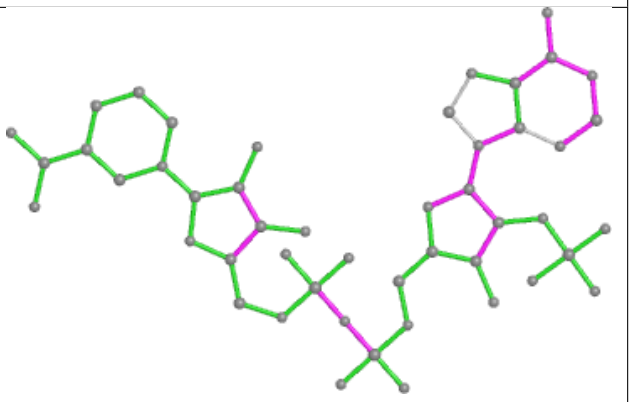

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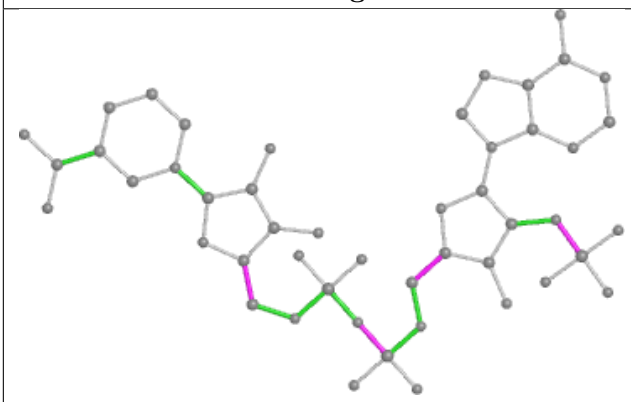

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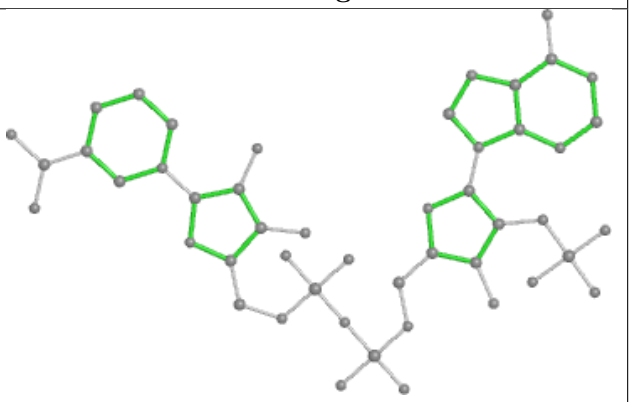
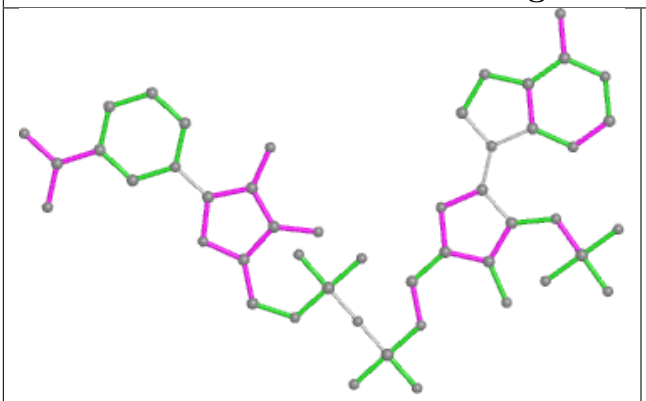


Rings

Ligand NAP I 301



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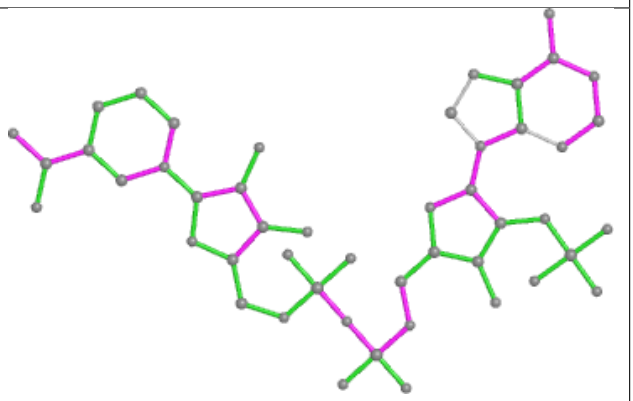
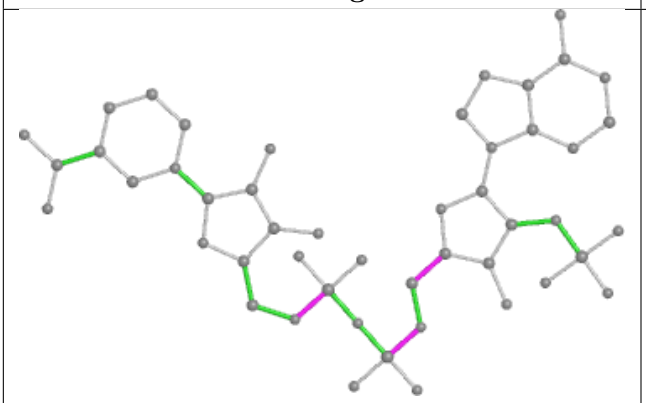


Bond angles



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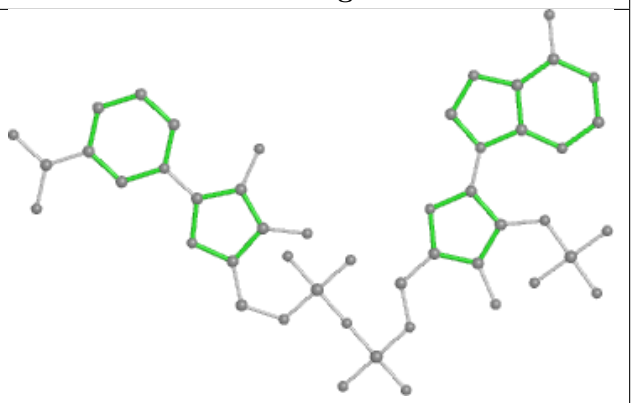
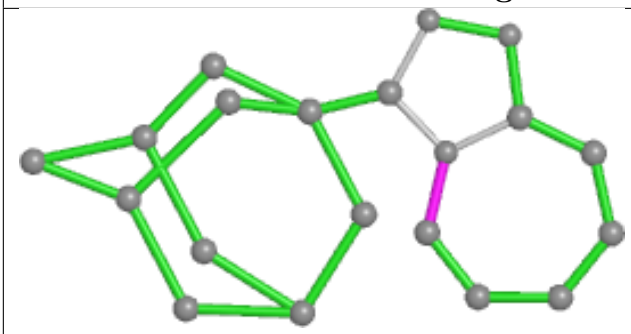


Rings

Ligand A1MBC K 302



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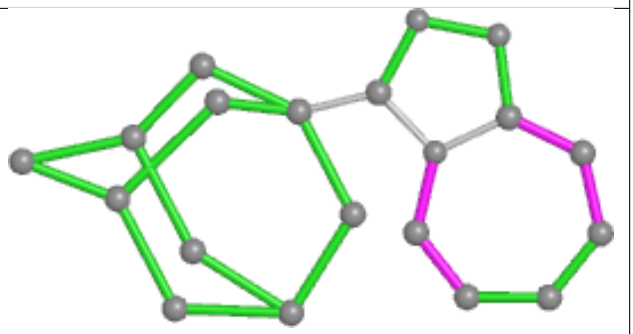
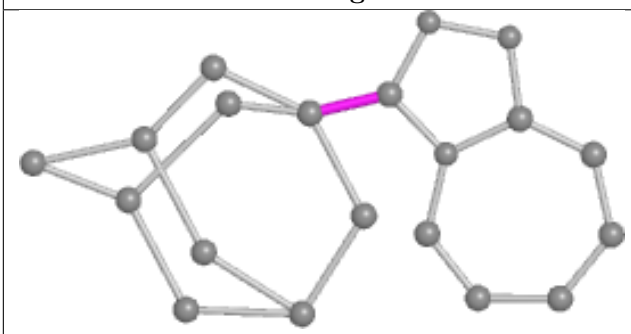


Bond angles



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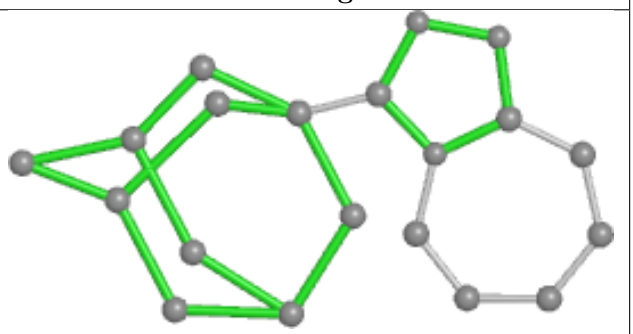
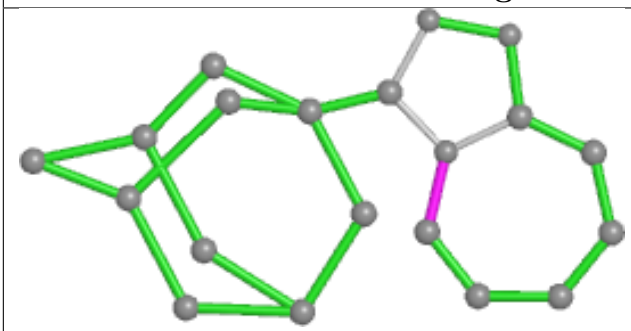


Rings

Ligand A1MBC G 302



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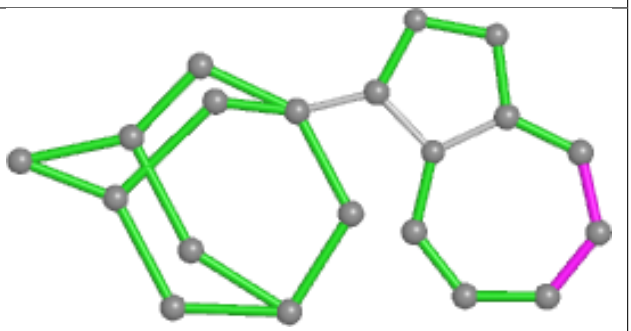
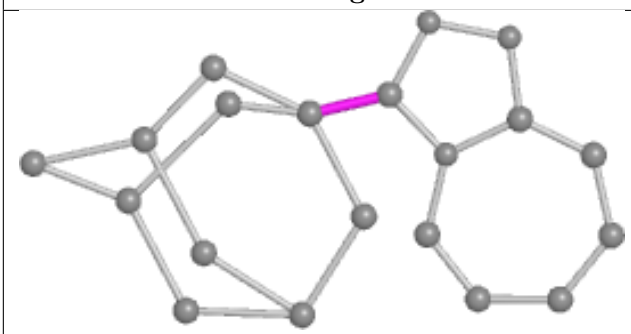


Bond angles



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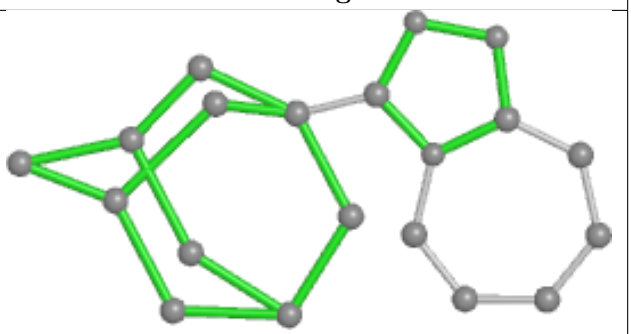
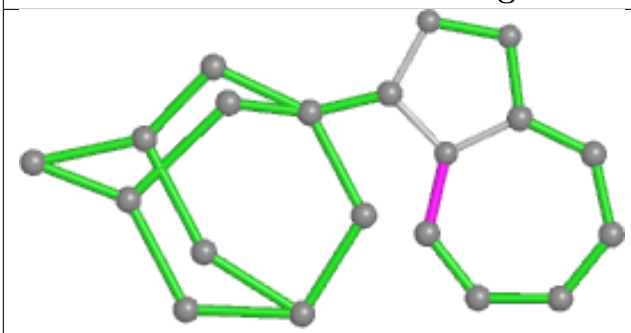
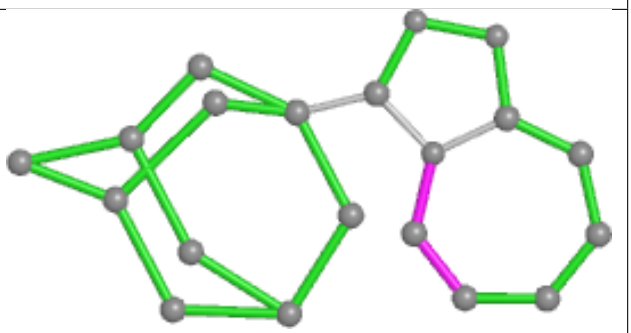


Rings

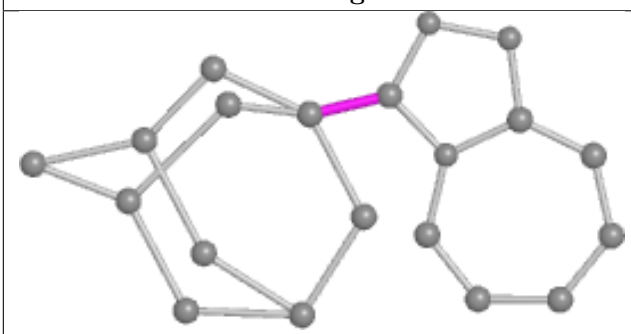
Ligand A1MBC F 302



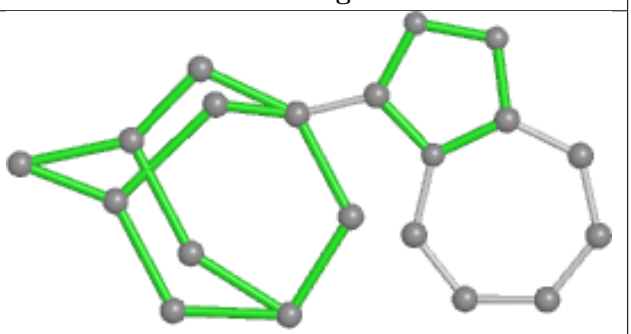
Bond lengths



Bond angles

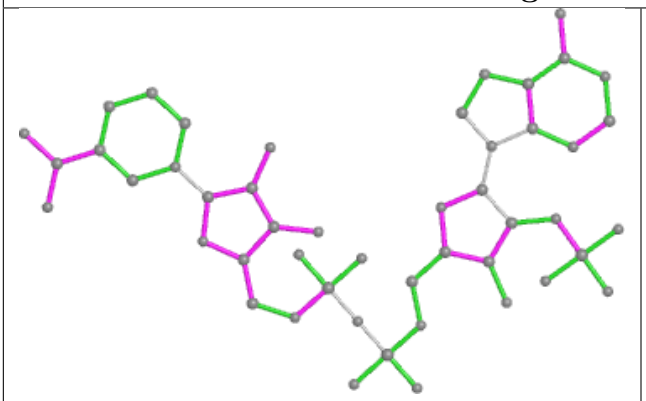


Torsions

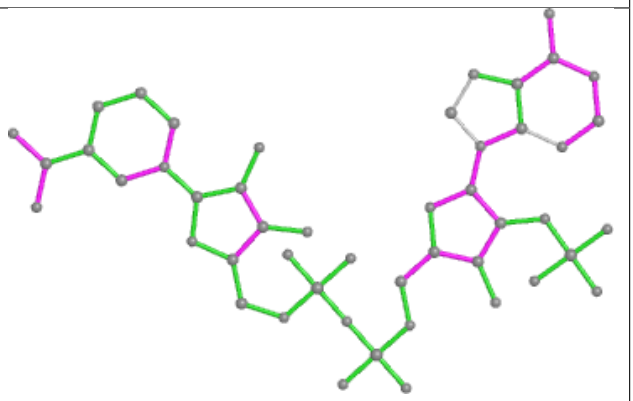


Rings

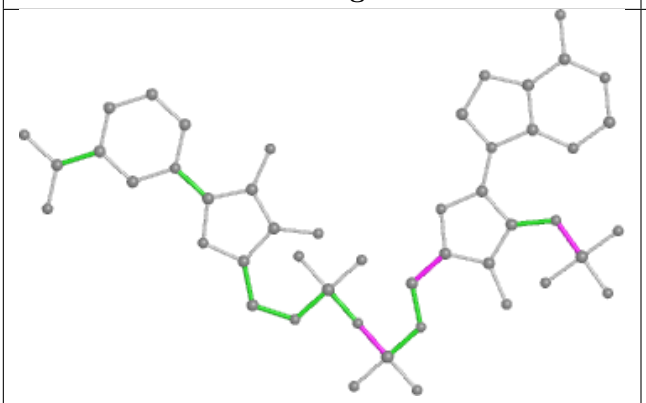
Ligand NAP D 301



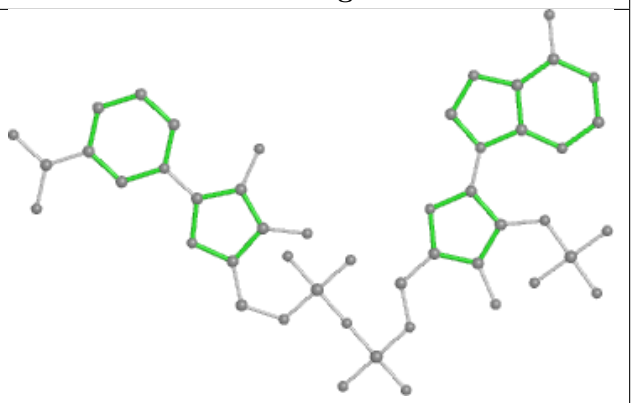
Bond lengths



Bond angles

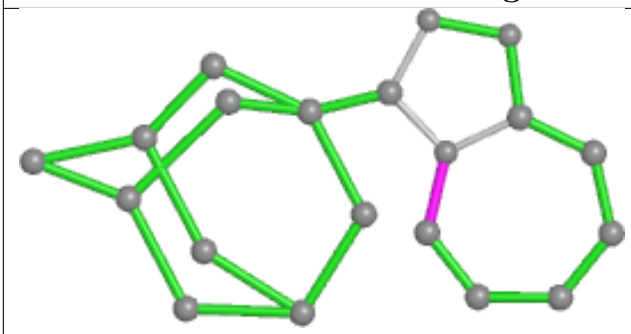


Torsions

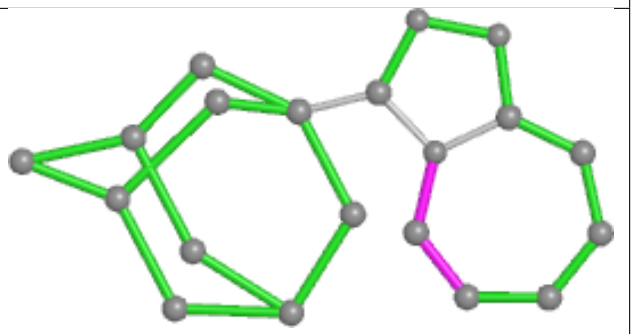


Rings

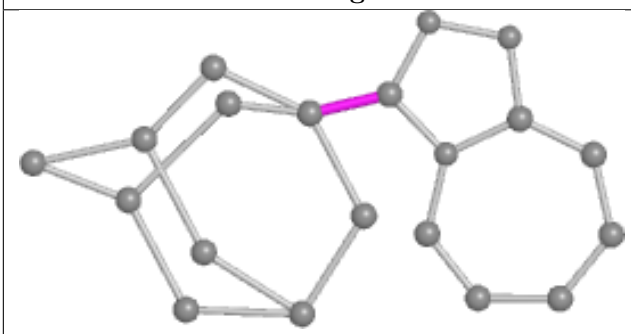
Ligand A1MBC I 302



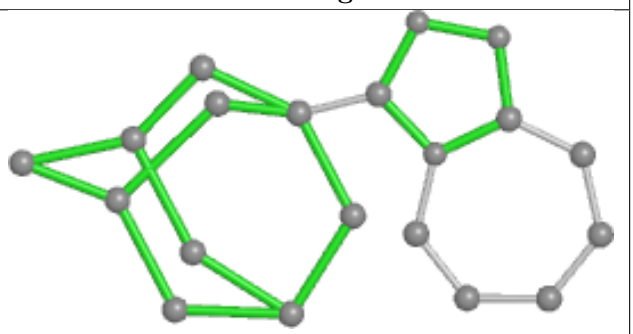
Bond lengths



Bond angles

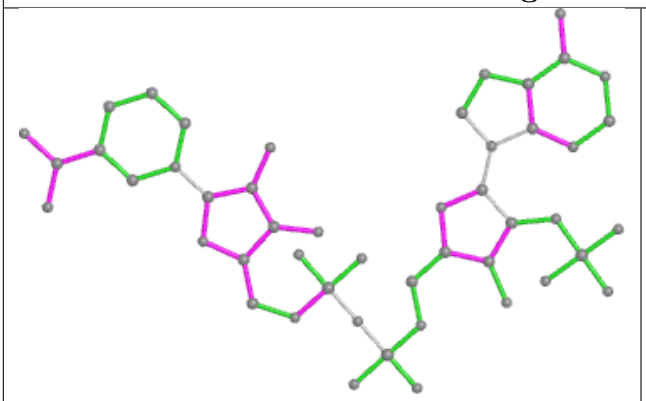


Torsions

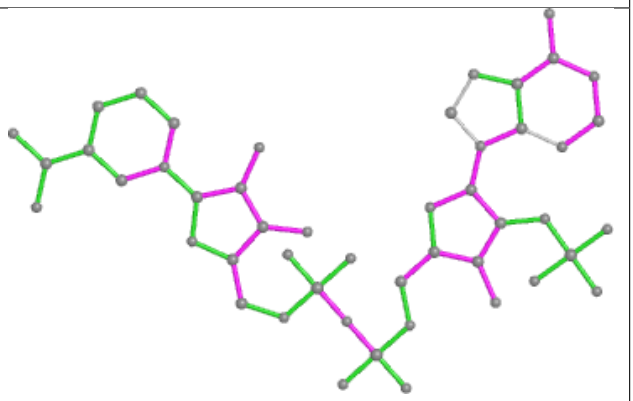


Rings

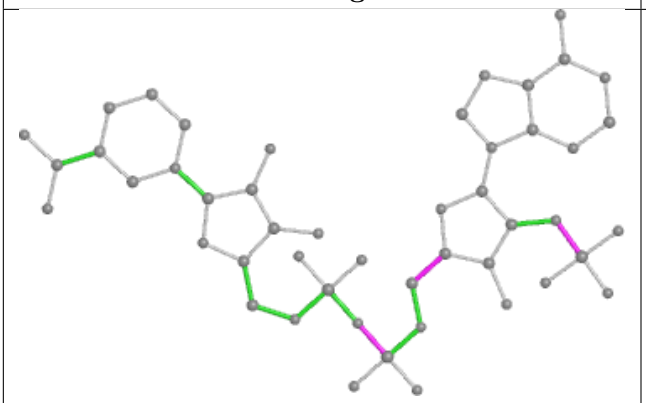
Ligand NAP K 301



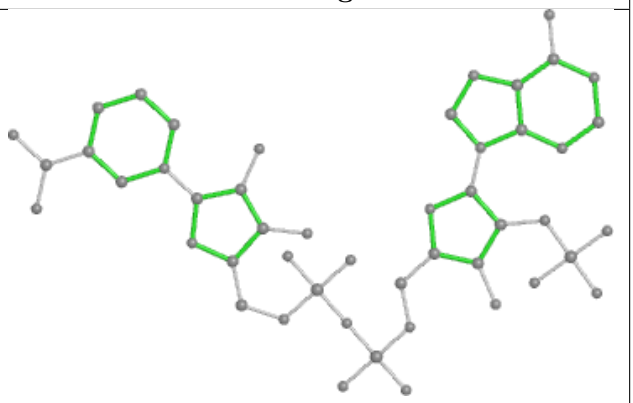
Bond lengths



Bond angles

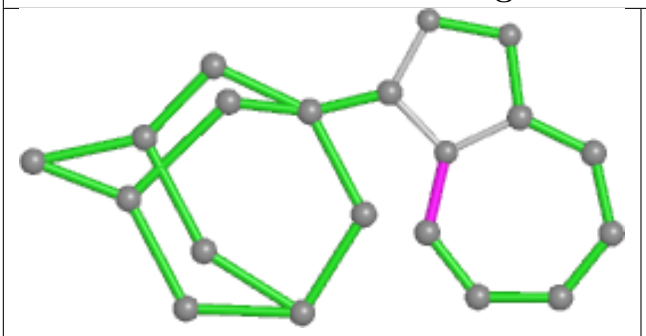


Torsions

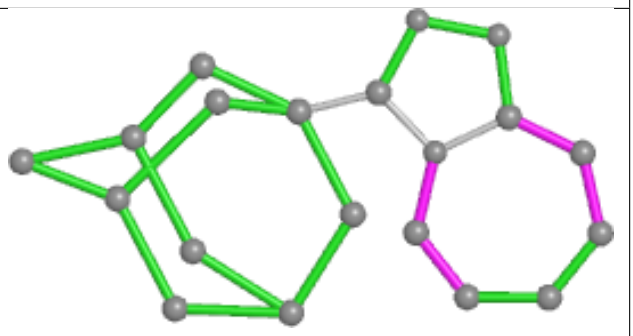


Rings

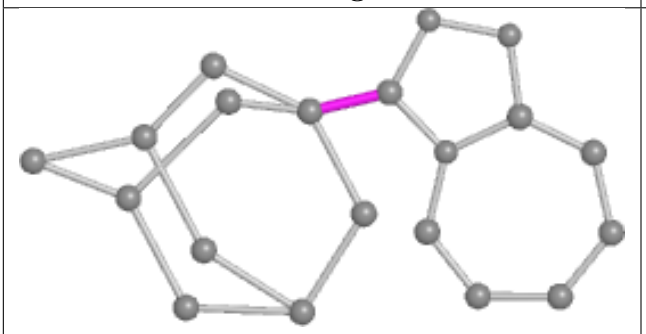
Ligand A1MBC H 302



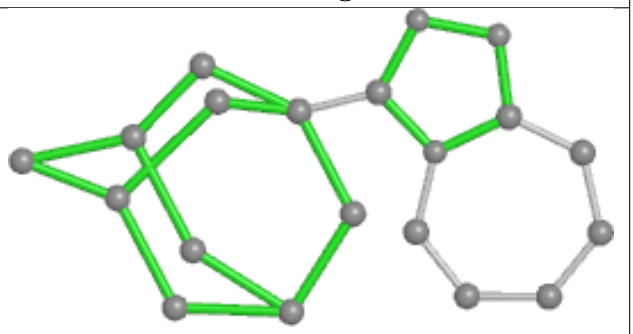
Bond lengths



Bond angles

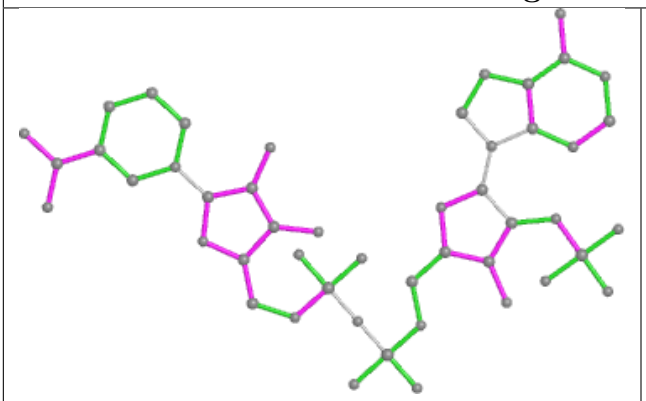


Torsions

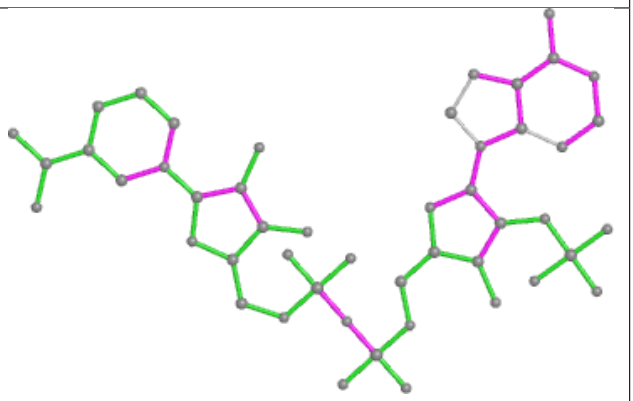


Rings

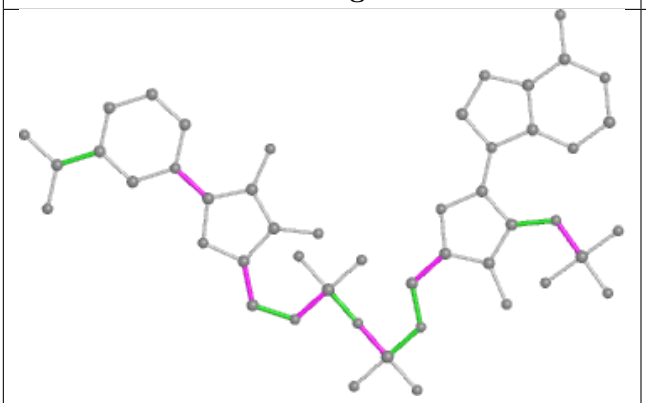
Ligand NAP F 301



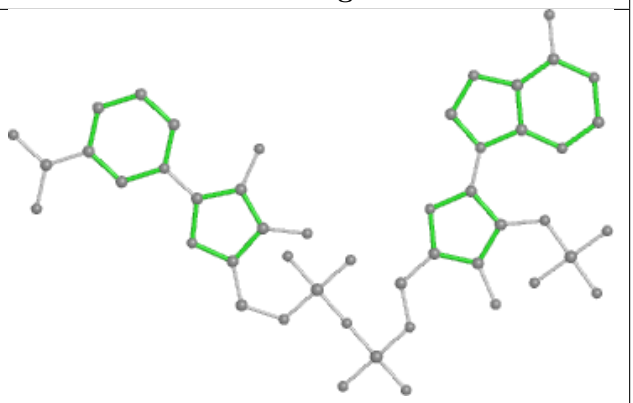
Bond lengths



Bond angles

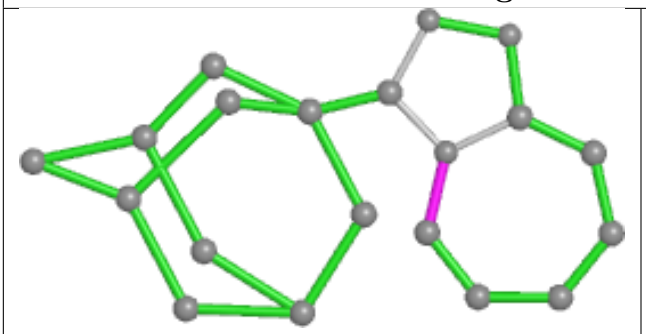


Torsions

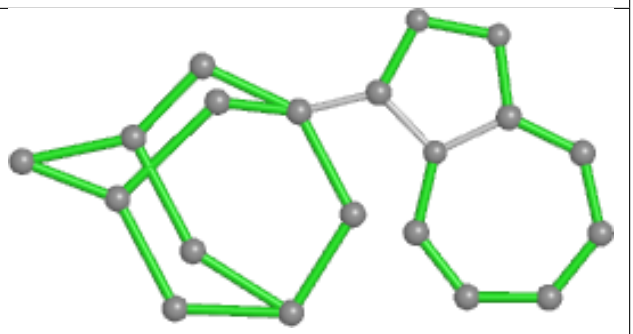


Rings

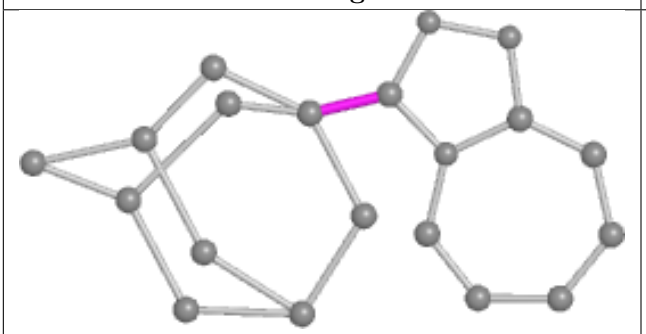
Ligand A1MBC A 302



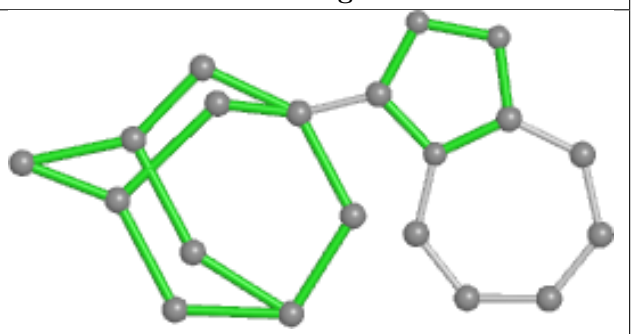
Bond lengths



Bond angles

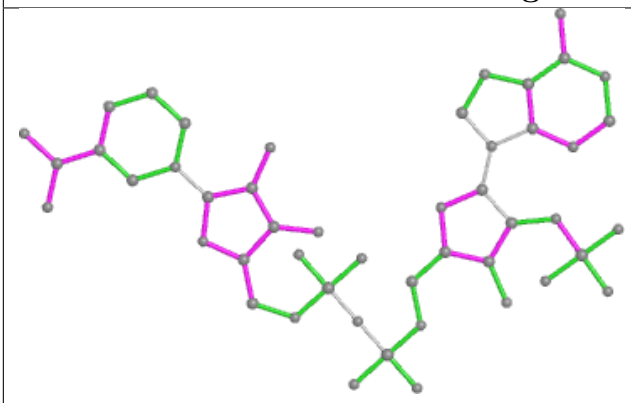


Torsions

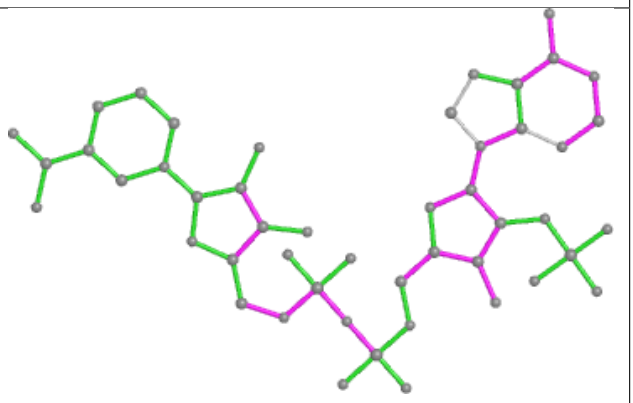


Rings

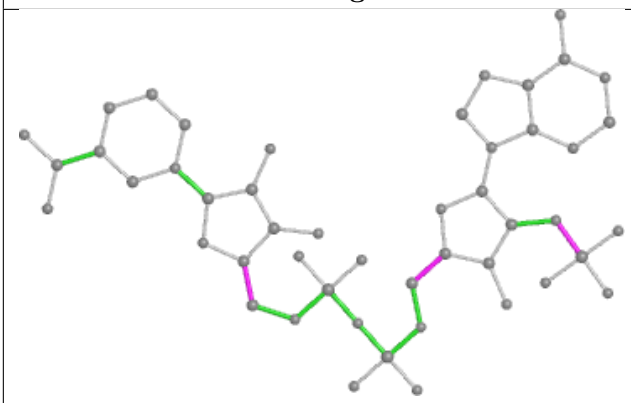
Ligand NAP B 301



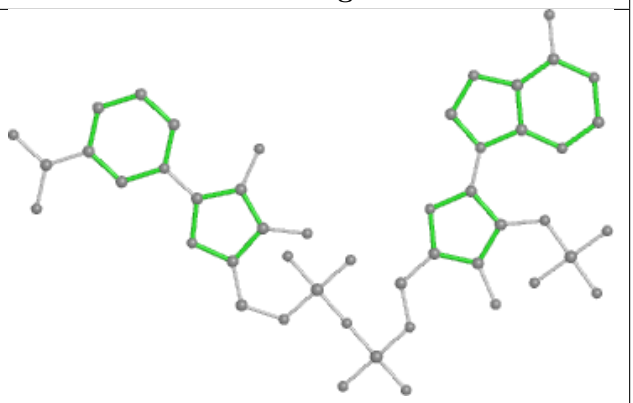
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 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	240/246 (97%)	-0.29	0 100 100	35, 58, 80, 99	0
1	B	239/246 (97%)	-0.35	2 (0%) 82 70	32, 46, 69, 101	0
1	C	239/246 (97%)	-0.33	1 (0%) 89 81	38, 55, 77, 88	0
1	D	240/246 (97%)	-0.41	3 (1%) 74 60	35, 49, 75, 107	0
1	E	240/246 (97%)	-0.54	1 (0%) 89 81	33, 44, 65, 95	0
1	F	239/246 (97%)	0.07	1 (0%) 89 81	43, 71, 92, 98	0
1	G	238/246 (96%)	0.07	3 (1%) 74 60	47, 68, 85, 103	0
1	H	240/246 (97%)	-0.18	1 (0%) 89 81	46, 65, 84, 102	0
1	I	239/246 (97%)	-0.06	2 (0%) 82 70	49, 72, 91, 101	0
1	J	239/246 (97%)	0.03	4 (1%) 69 53	48, 76, 98, 106	0
1	K	240/246 (97%)	-0.45	1 (0%) 89 81	31, 45, 68, 101	0
All	All	2633/2706 (97%)	-0.22	19 (0%) 84 73	31, 59, 88, 107	0

All (19) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	231	VAL	4.1
1	J	231	VAL	4.0
1	J	232	HIS	3.9
1	J	112	GLY	3.8
1	K	231	VAL	3.7
1	J	264	THR	3.1
1	B	232	HIS	3.1
1	D	264	THR	3.0
1	E	231	VAL	2.9
1	H	231	VAL	2.8
1	G	231	VAL	2.8
1	I	264	THR	2.8

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Mol	Chain	Res	Type	RSRZ
1	B	231	VAL	2.5
1	G	232	HIS	2.3
1	I	232	HIS	2.3
1	F	264	THR	2.2
1	D	231	VAL	2.0
1	D	232	HIS	2.0
1	G	221	GLU	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, 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
2	NAP	J	301	48/48	0.91	0.08	58,74,89,94	0
3	A1MBC	J	302	20/20	0.91	0.12	57,69,81,87	0
3	A1MBC	G	302	20/20	0.92	0.11	52,67,80,83	0
3	A1MBC	H	302	20/20	0.92	0.13	49,62,75,80	0
2	NAP	G	301	48/48	0.92	0.09	47,63,76,80	0
2	NAP	I	301	48/48	0.93	0.09	56,71,89,95	0
2	NAP	F	301	48/48	0.93	0.08	58,71,87,95	0
3	A1MBC	D	302	20/20	0.93	0.10	42,54,63,68	0
2	NAP	H	301	48/48	0.94	0.08	51,67,84,88	0
3	A1MBC	F	302	20/20	0.95	0.10	56,68,79,80	0
3	A1MBC	B	302	20/20	0.95	0.09	35,47,57,60	0
3	A1MBC	C	302	20/20	0.95	0.10	38,56,63,63	0
3	A1MBC	I	302	20/20	0.95	0.10	54,70,84,85	0
2	NAP	C	301	48/48	0.95	0.07	38,54,66,70	0
3	A1MBC	K	302	20/20	0.95	0.08	37,48,58,59	0
2	NAP	K	301	48/48	0.96	0.07	31,43,56,57	0

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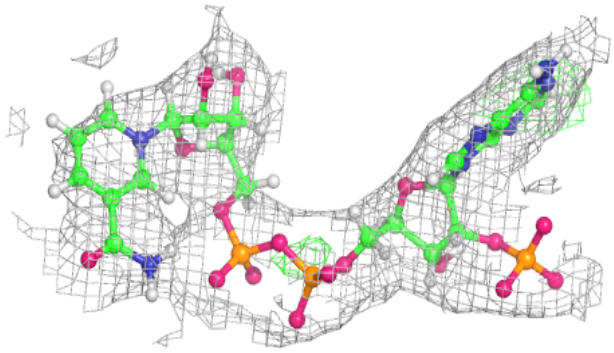
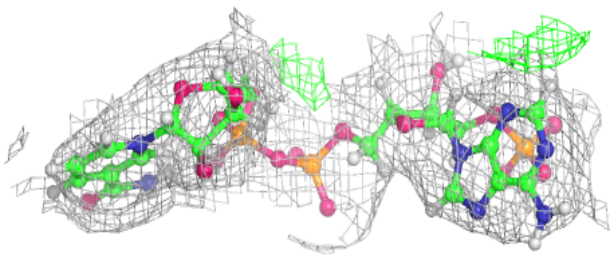
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
2	NAP	A	301	48/48	0.96	0.07	41,54,69,75	0
2	NAP	B	301	48/48	0.97	0.07	31,41,54,57	0
2	NAP	D	301	48/48	0.97	0.06	33,43,59,61	0
2	NAP	E	301	48/48	0.97	0.07	34,43,53,58	0
3	A1MBC	E	302	20/20	0.97	0.07	34,45,50,53	0
3	A1MBC	A	302	20/20	0.97	0.07	37,50,60,61	0

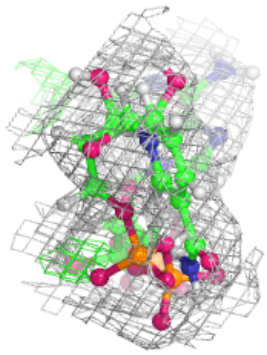
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around NAP J 301:

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

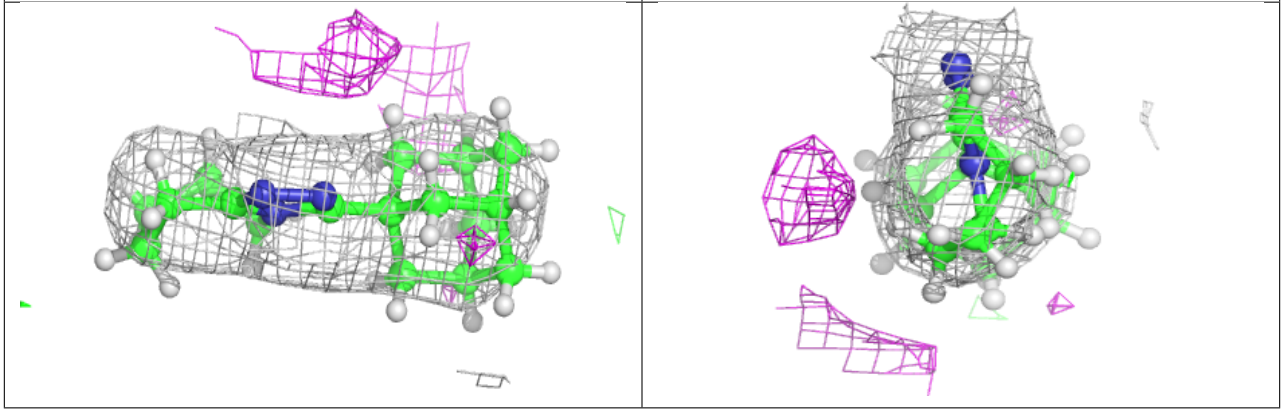






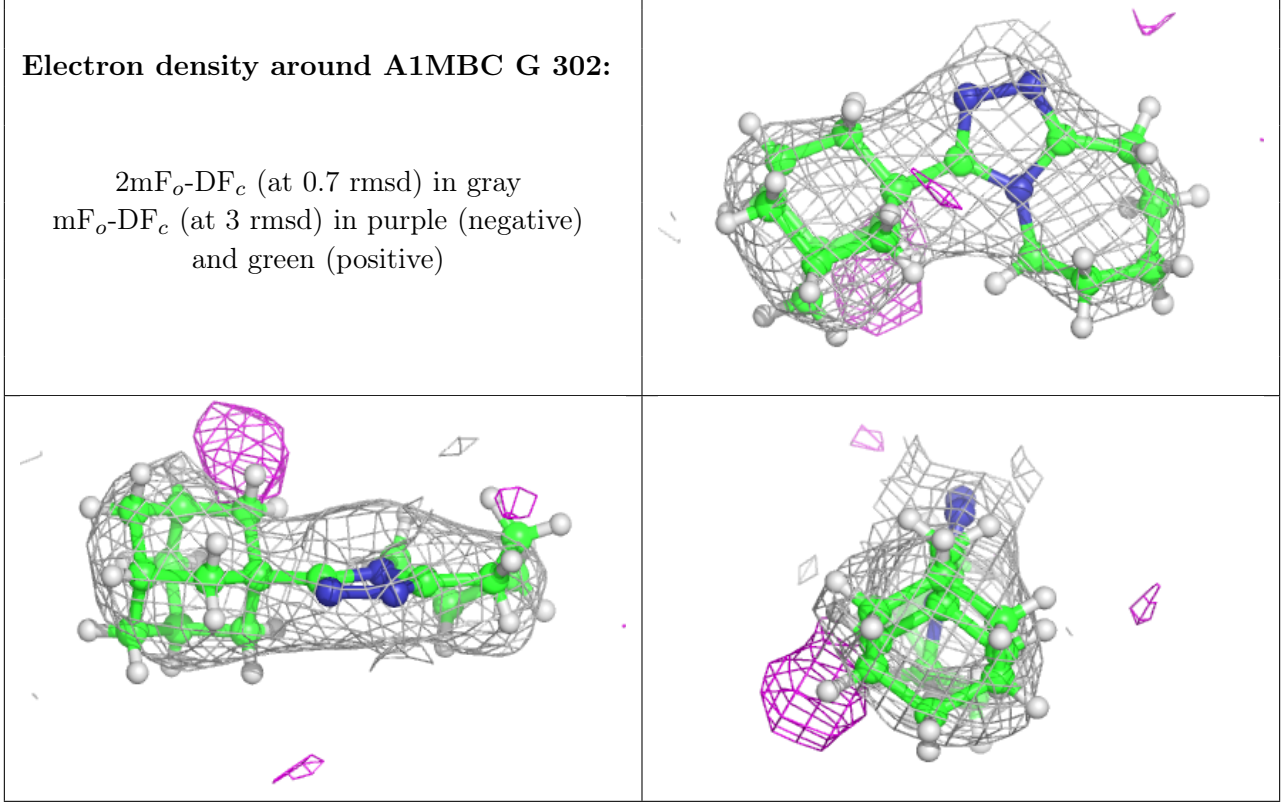
Electron density around A1MBC J 302:

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



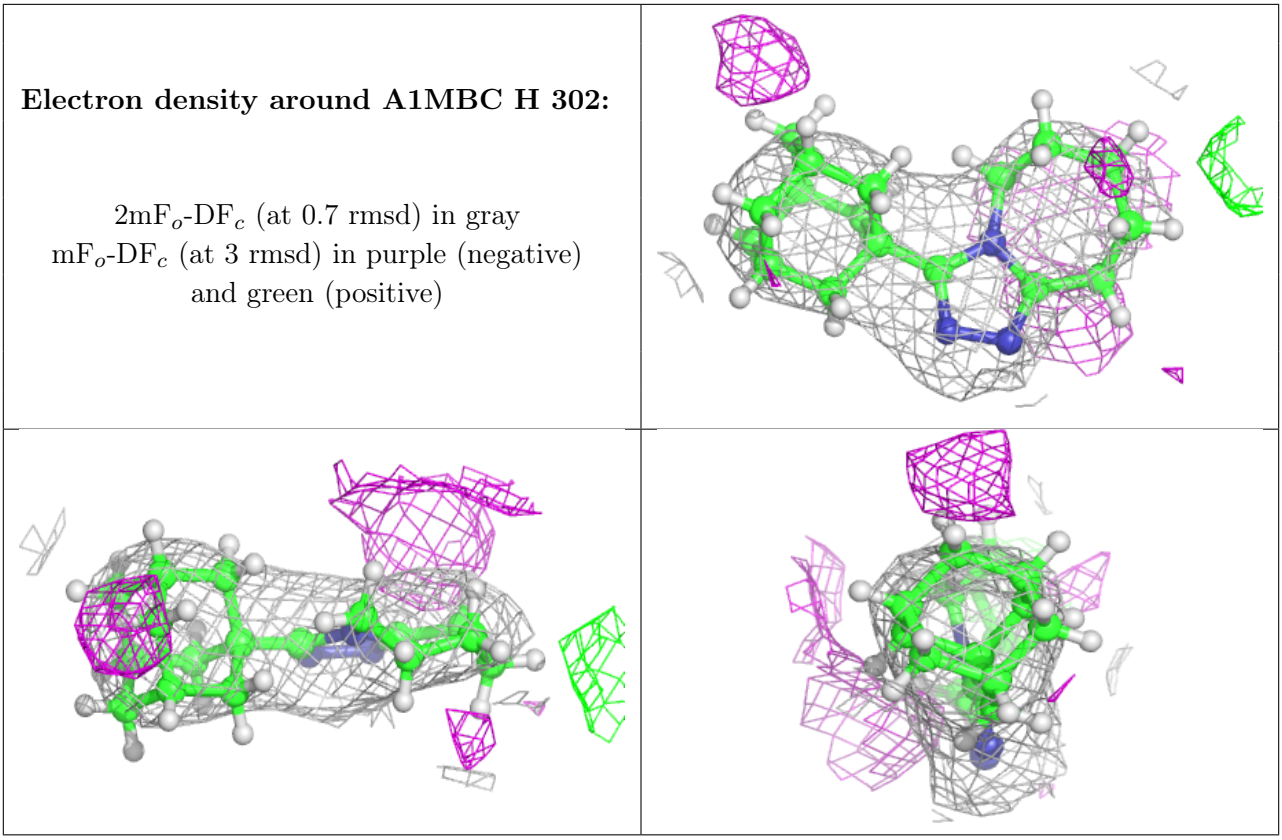
Electron density around A1MBC G 302:

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



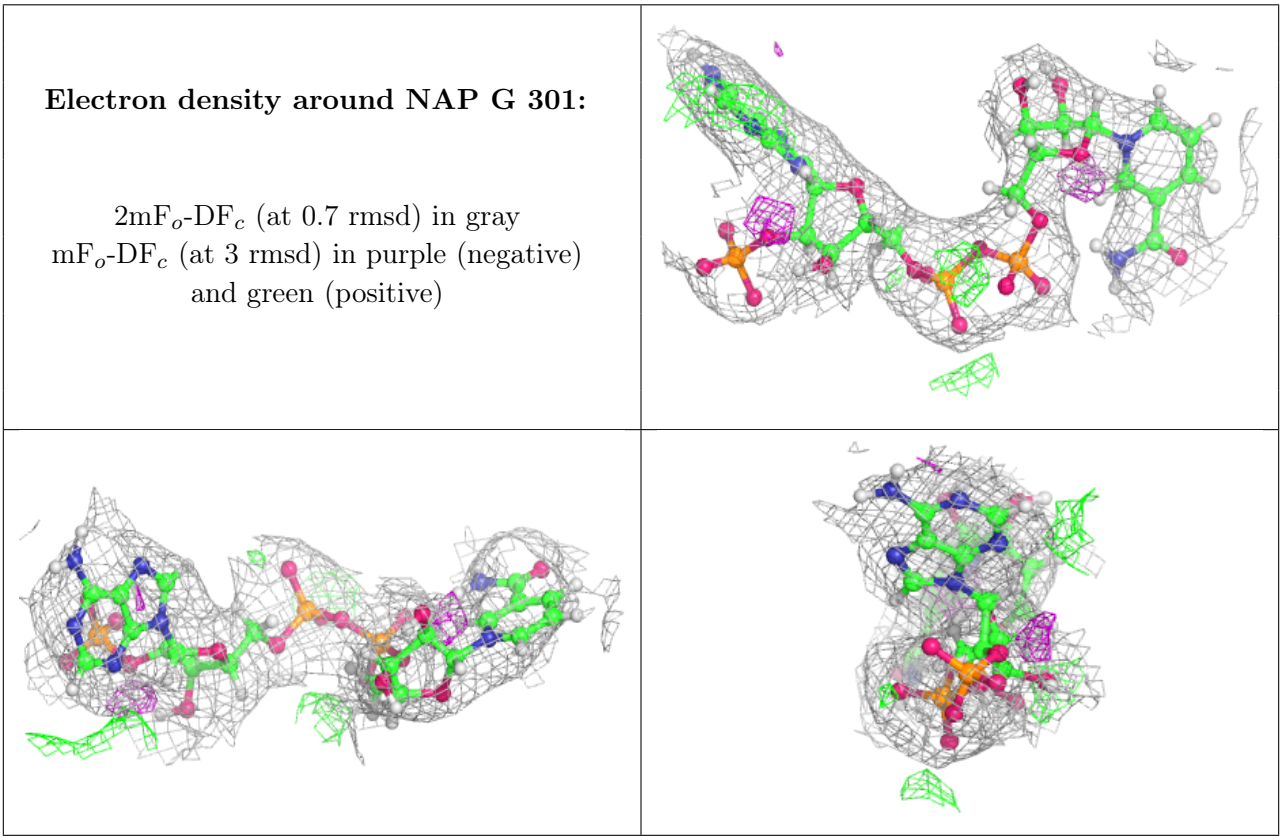
Electron density around A1MBC H 302:

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



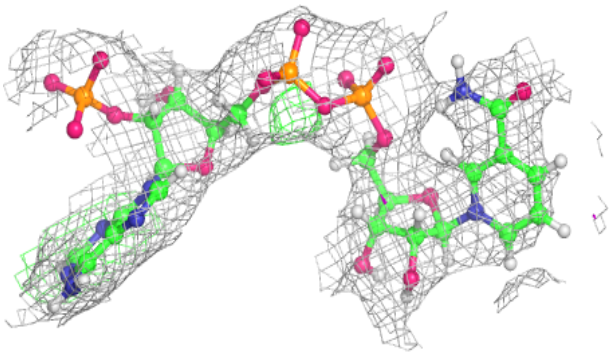
Electron density around NAP G 301:

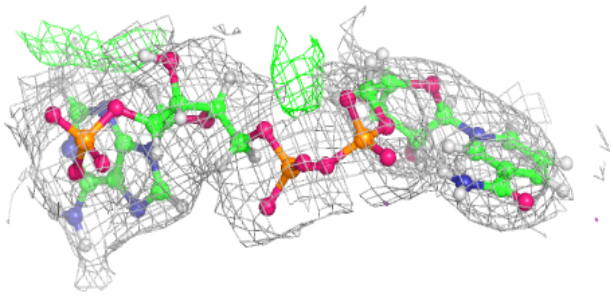
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

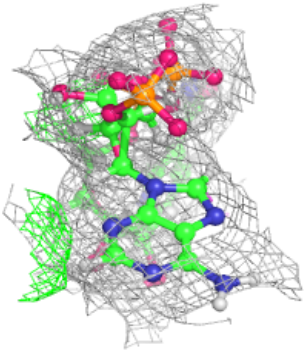


Electron density around NAP I 301:

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

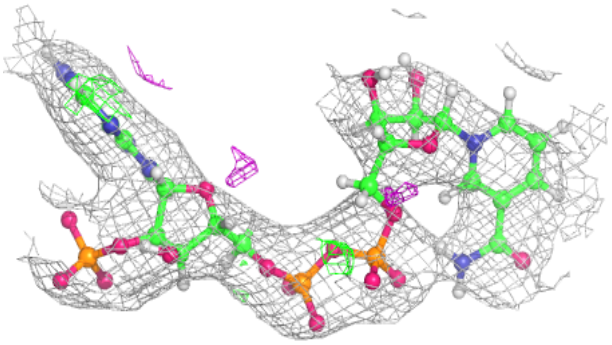


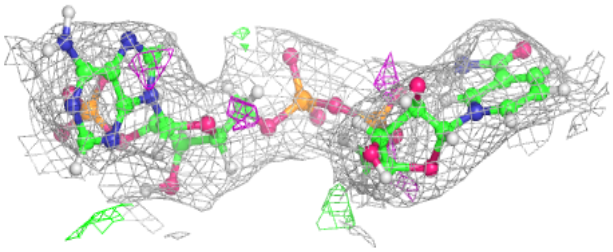


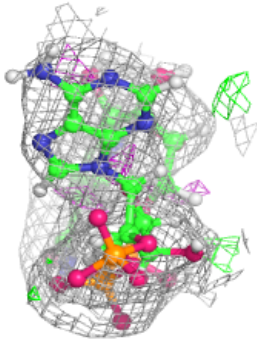


Electron density around NAP F 301:

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

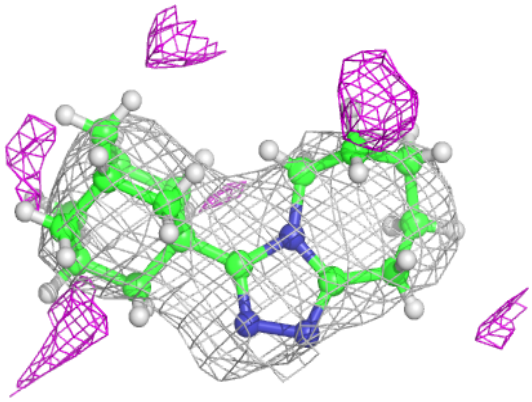


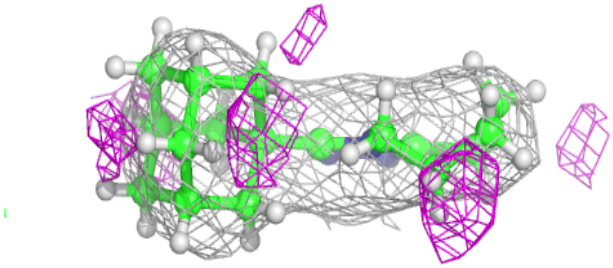


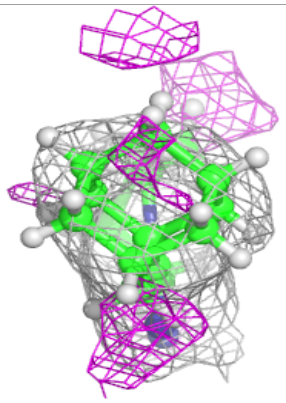


Electron density around A1MBC D 302:

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

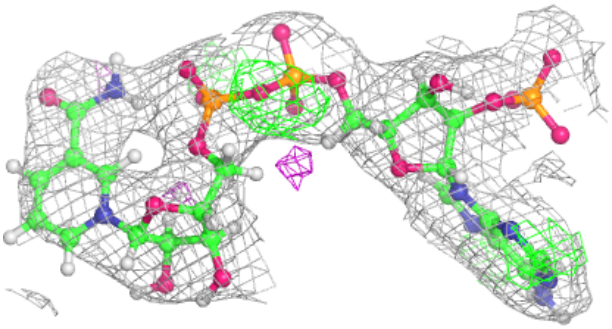


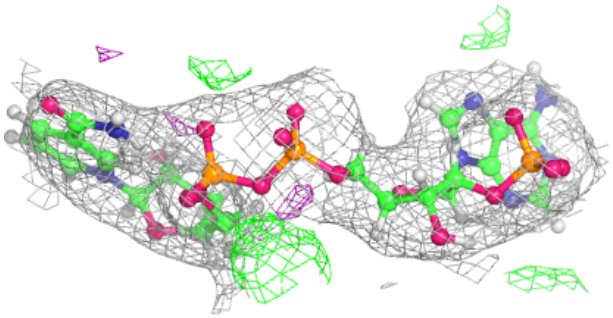


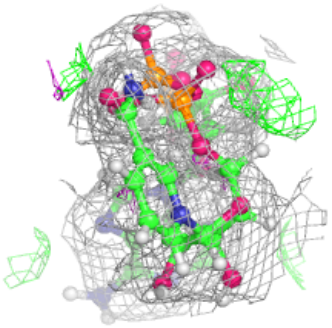


Electron density around NAP H 301:

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

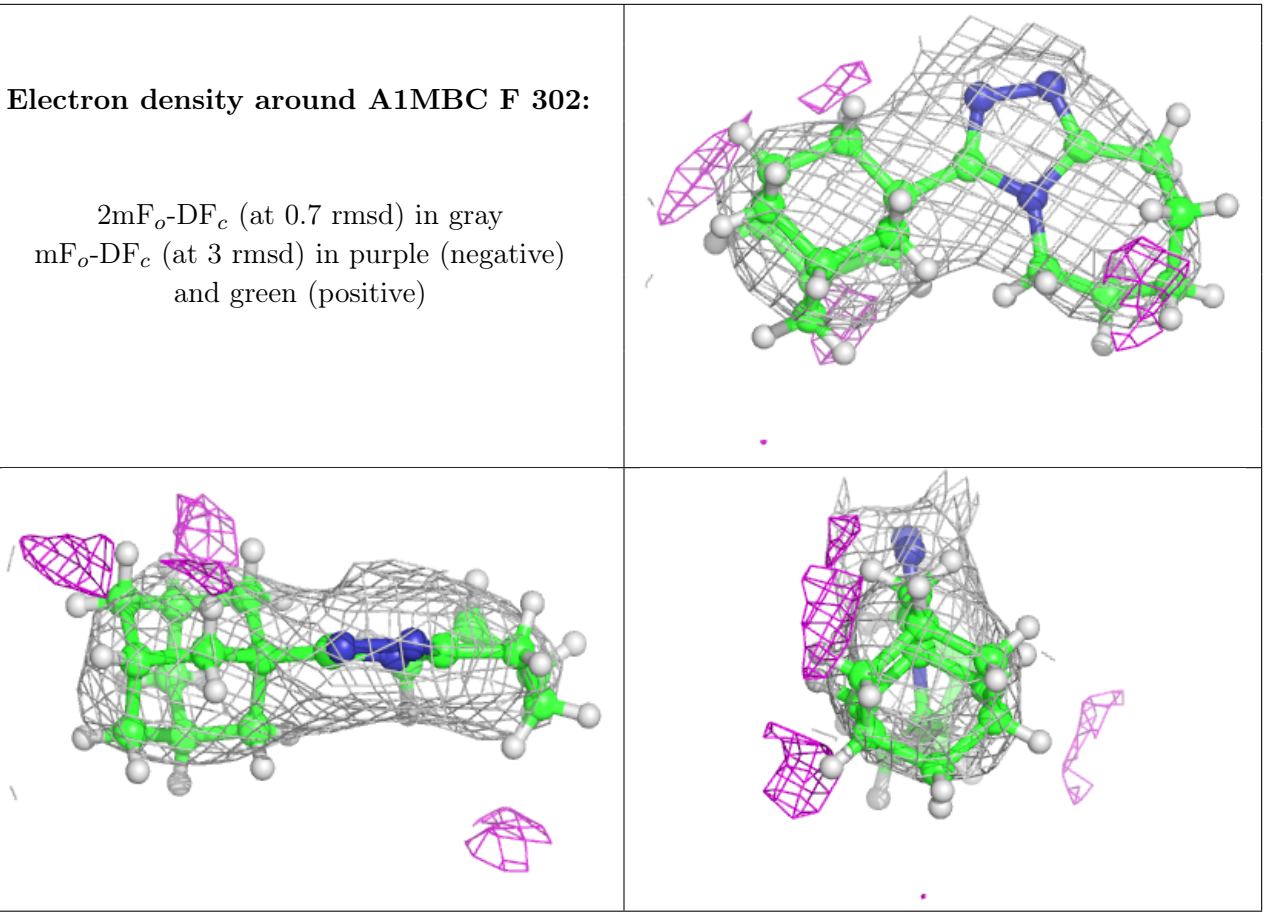






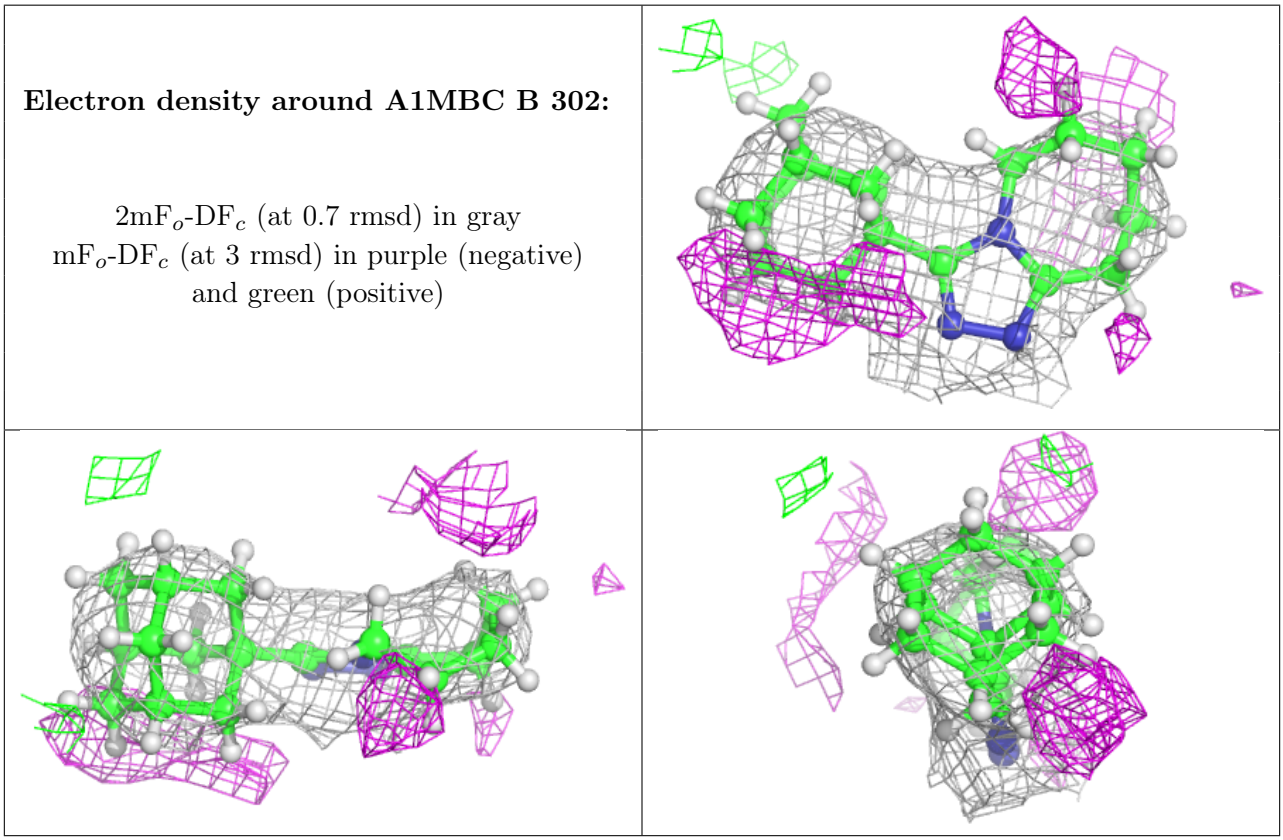
Electron density around A1MBC F 302:

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



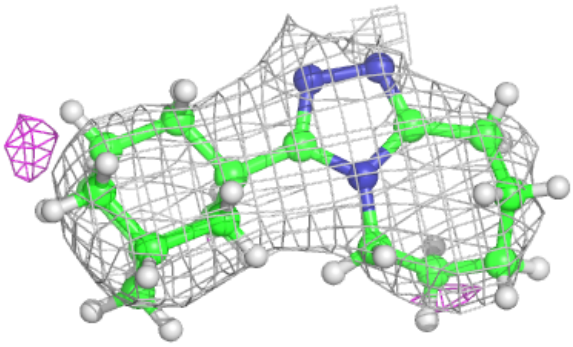
Electron density around A1MBC B 302:

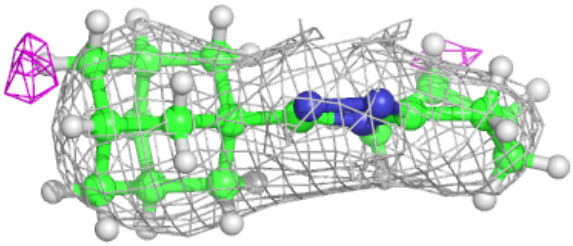
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

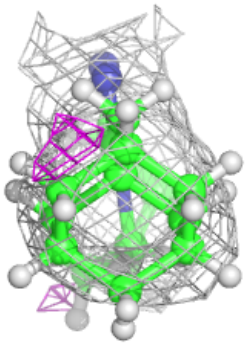


Electron density around A1MBC C 302:

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

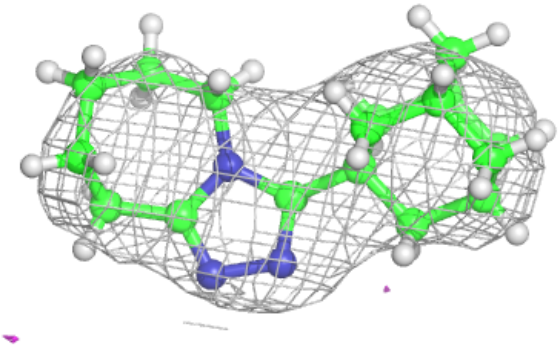


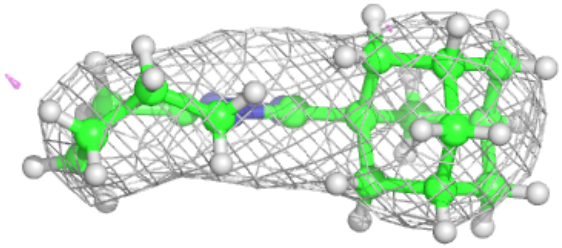


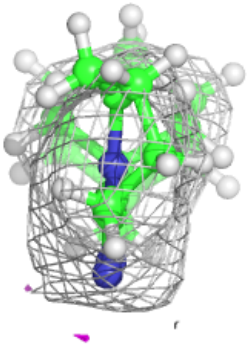


Electron density around A1MBC I 302:

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

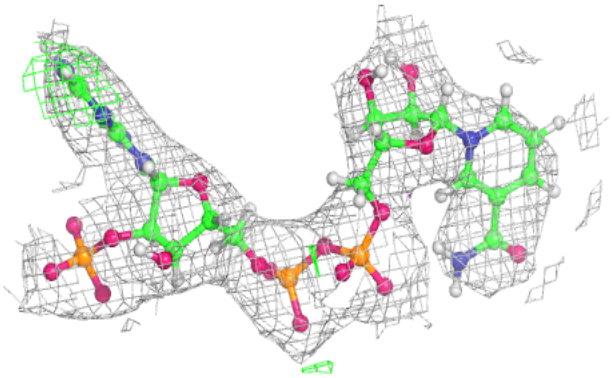


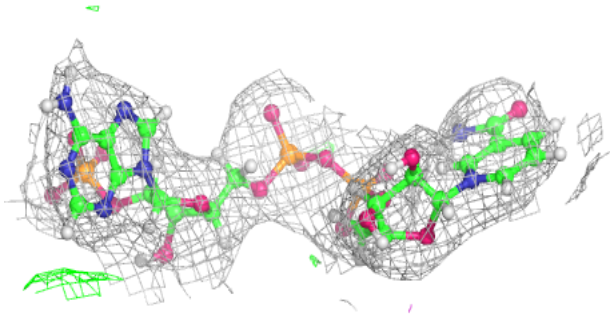


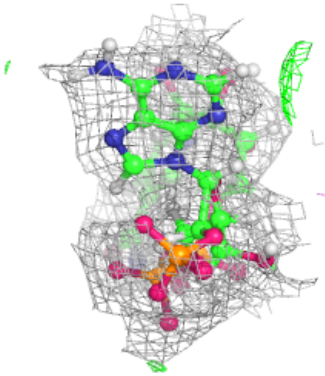


Electron density around NAP C 301:

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

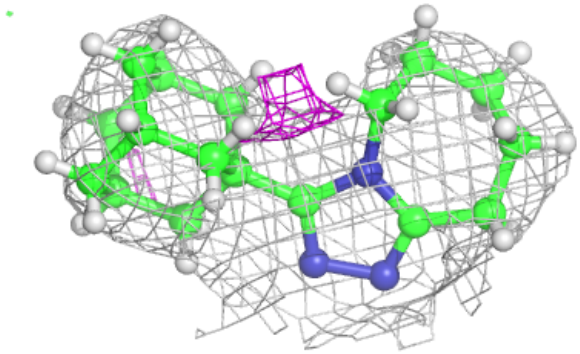


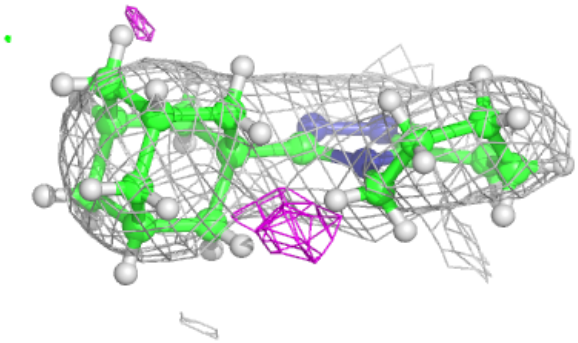


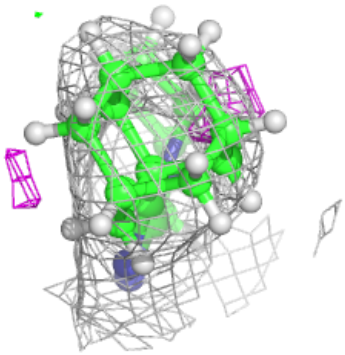


Electron density around A1MBC K 302:

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

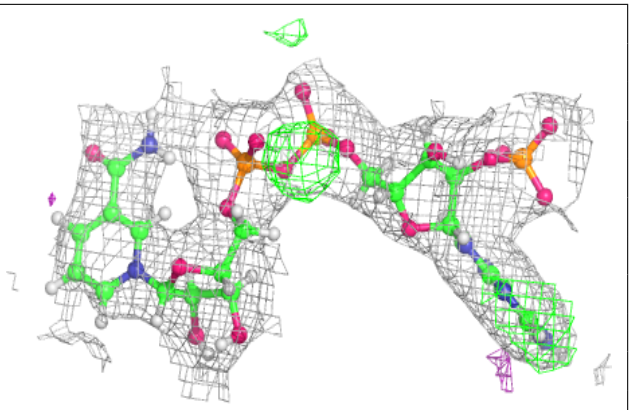


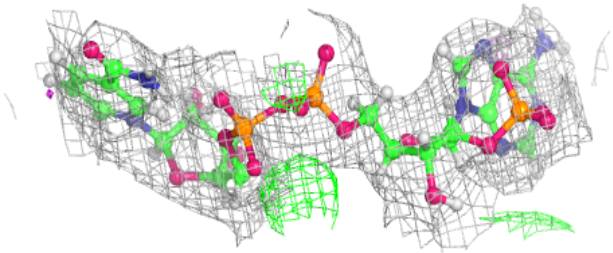


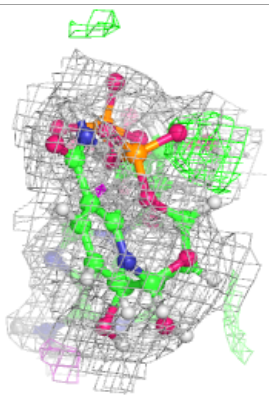


Electron density around NAP K 301:

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

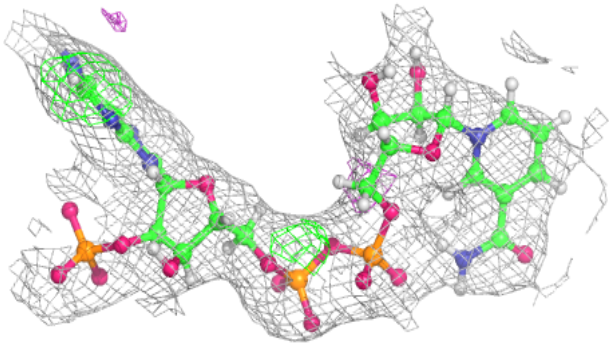


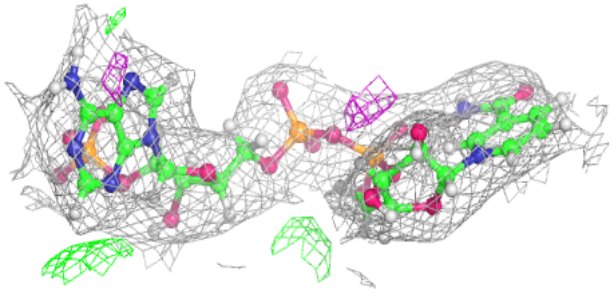


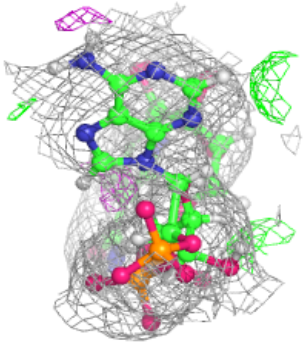


Electron density around NAP A 301:

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

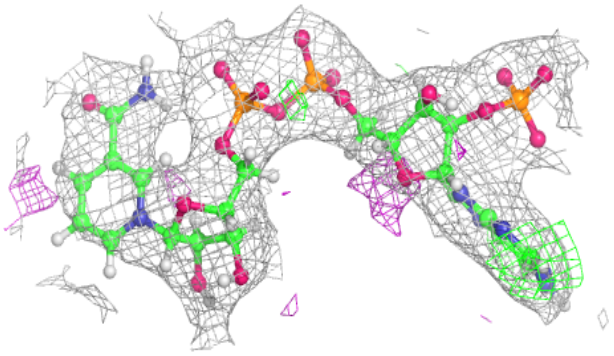


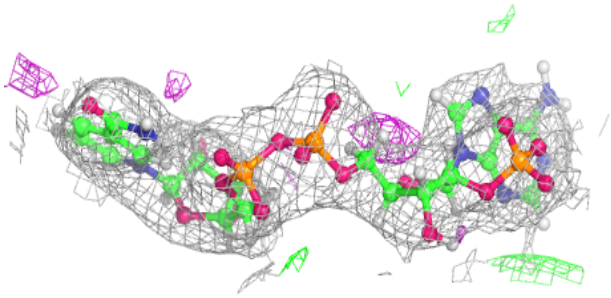


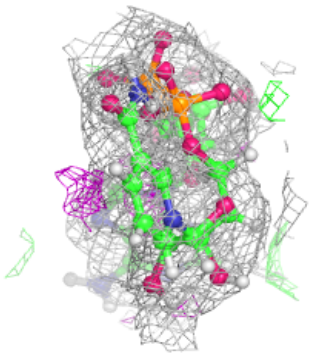


Electron density around NAP B 301:

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

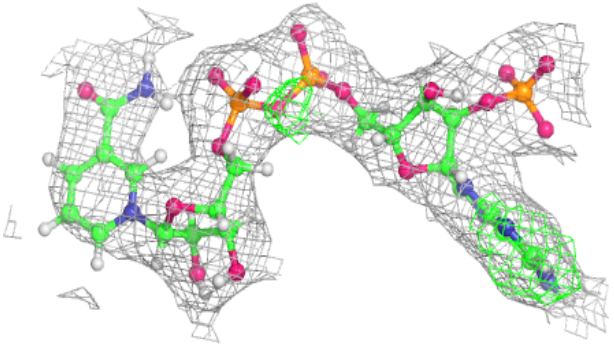


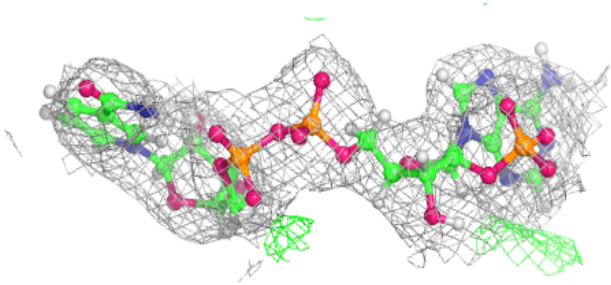


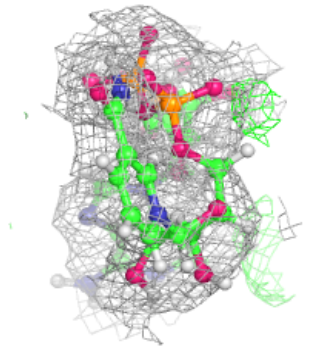


Electron density around NAP D 301:

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

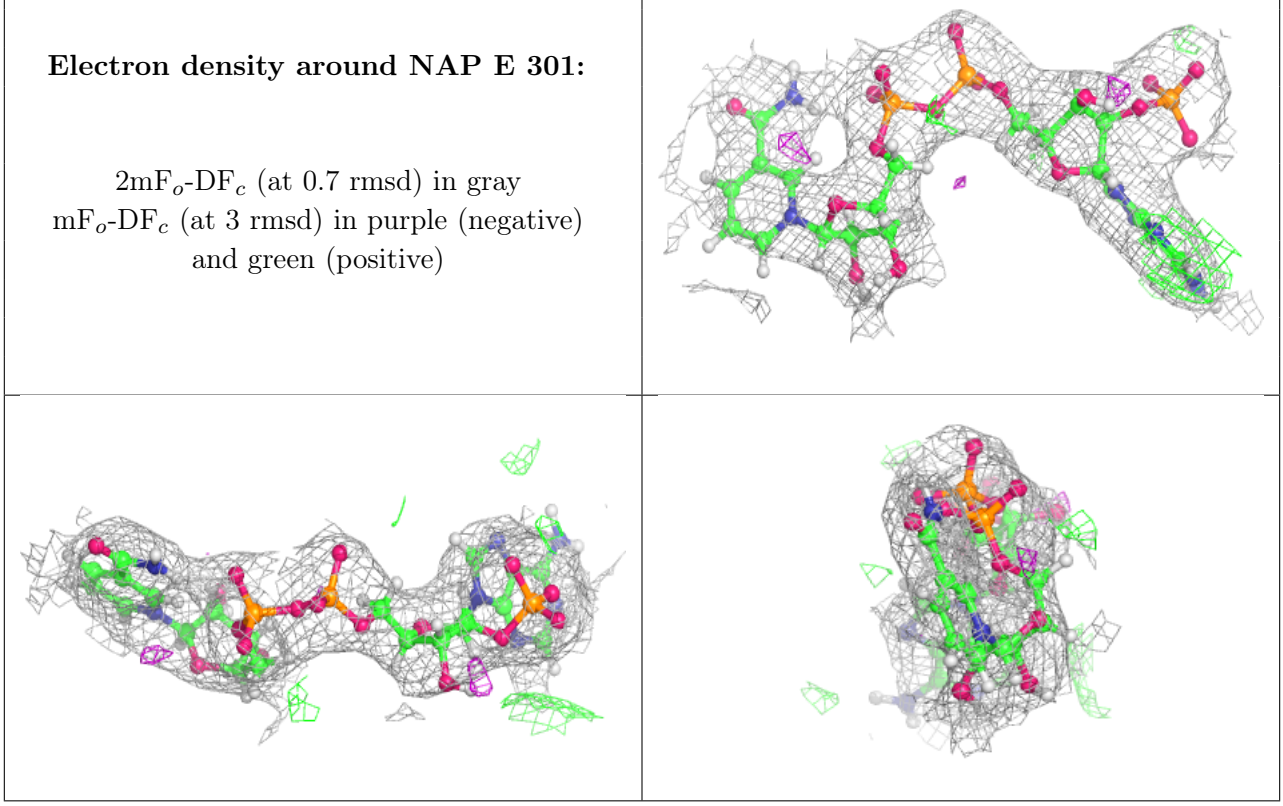






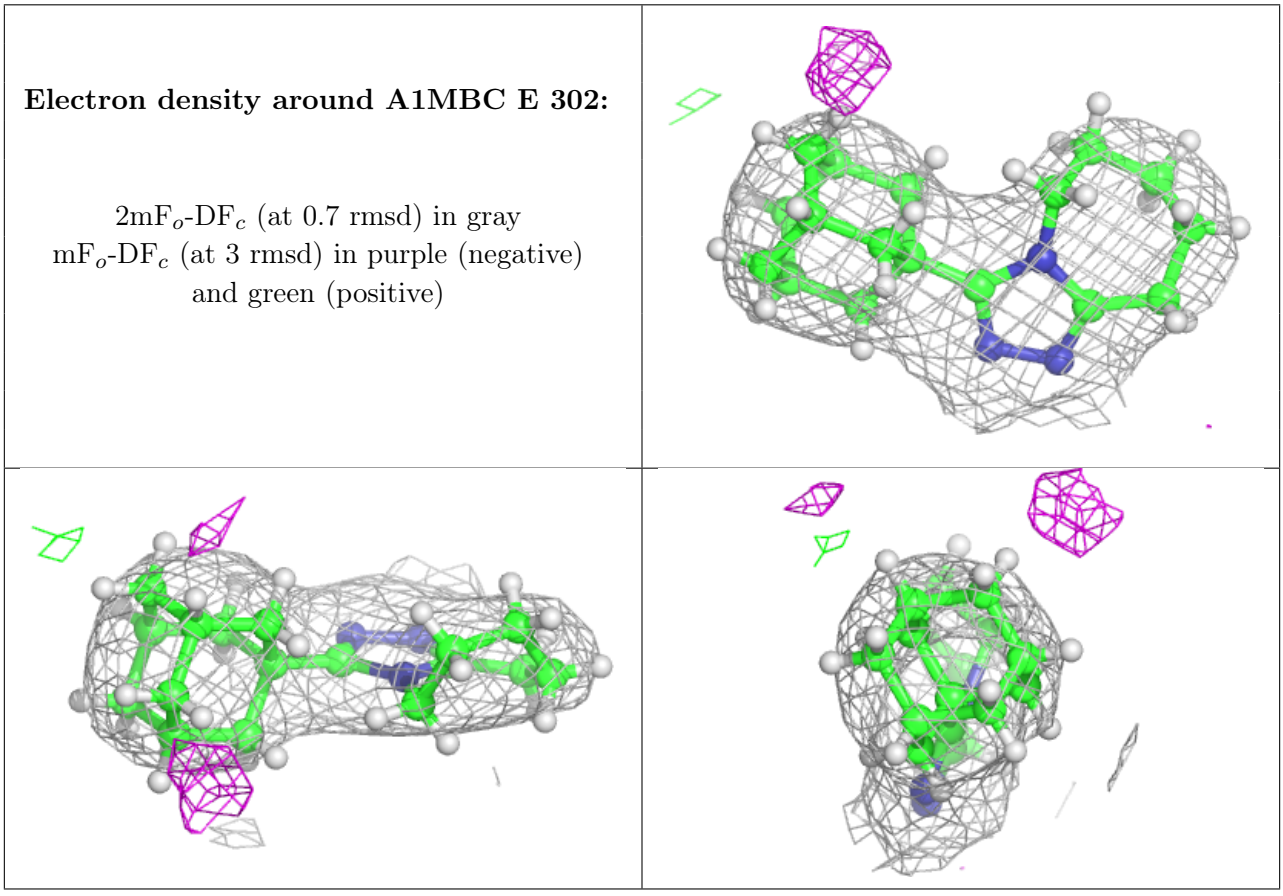
Electron density around NAP E 301:

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



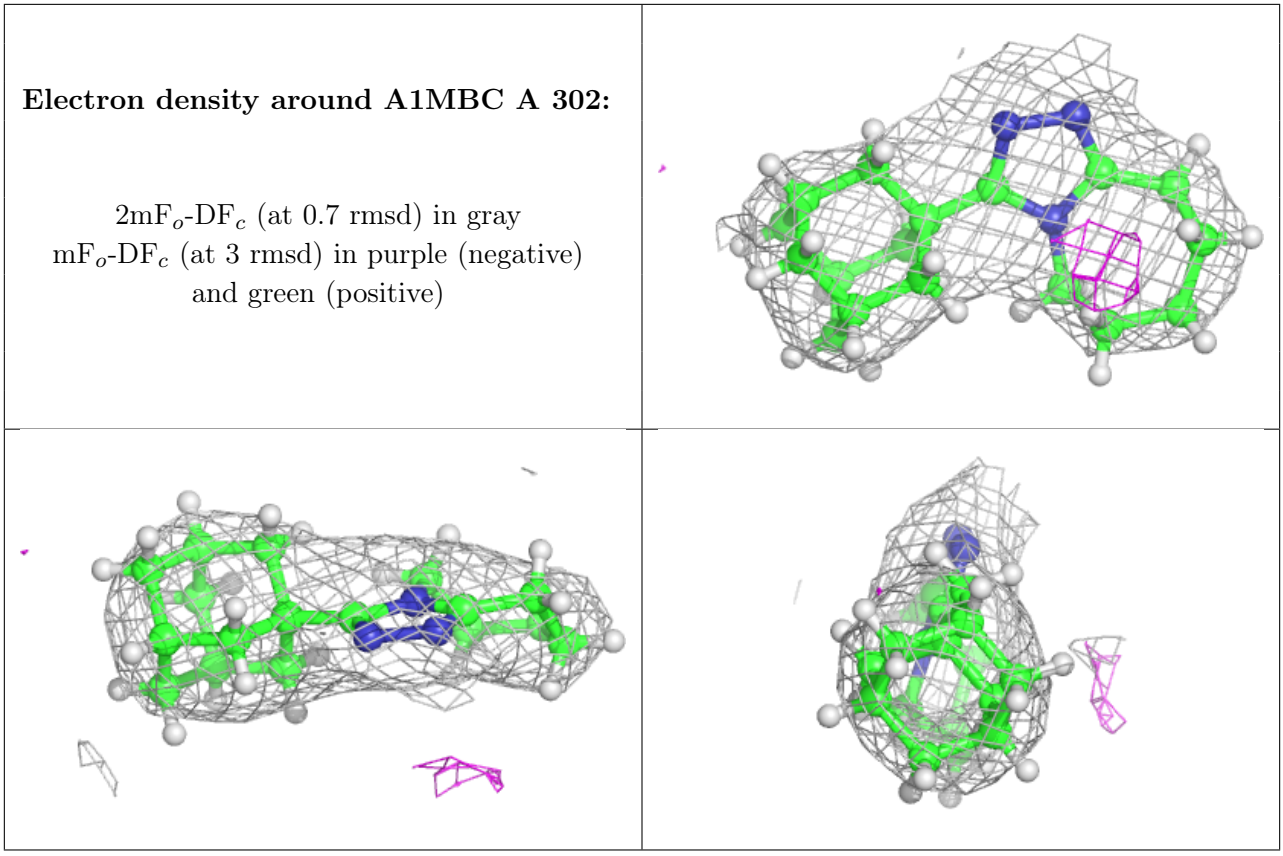
Electron density around A1MBC E 302:

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



Electron density around A1MBC A 302:

$2mF_o$-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

There are no such residues in this entry.