Full wwPDB X-ray Structure Validation Report (i)

Dec 16, 2023 – 11:39 pm GMT

PDB ID	:	4BGE
Title	:	Crystal structure of InhA(S94A) mutant in complex with pyridomycin
Authors	:	Pojer, F.; Hartkoorn, R.C.; Cole, S.T.
Deposited on	:	2013-03-26
Resolution	:	2.25 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	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance ⓘ

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

The reported resolution of this entry is 2.25 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	Percentile Ranks	Value
Rfree		0.296
Clashscore		4
Ramachandran outliers		0.5%
Sidechain outliers		8.2%
RSRZ outliers		16.1%

Worse   *Better*

▮ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution
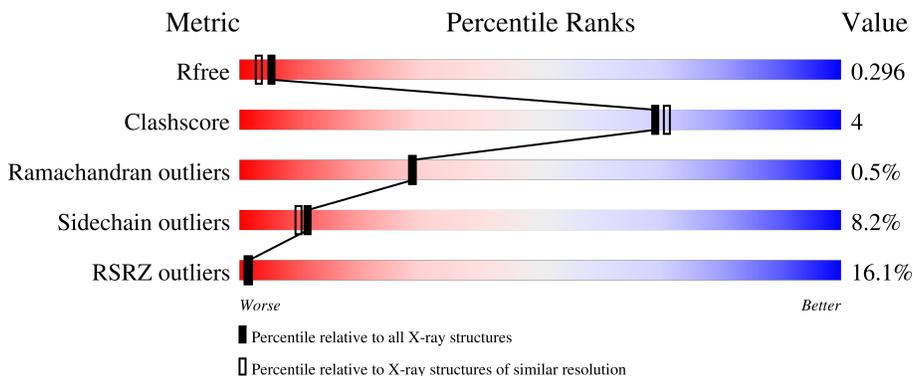
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R$_{free}$	130704	1377 (2.26-2.26)
Clashscore	141614	1487 (2.26-2.26)
Ramachandran outliers	138981	1449 (2.26-2.26)
Sidechain outliers	138945	1450 (2.26-2.26)
RSRZ outliers	127900	1356 (2.26-2.26)

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	269	9% — 84% — 13% ••
1	B	269	12% — 84% — 14% ••
1	C	269	19% — 83% — 11% • 6%
1	D	269	13% — 82% — 10% • 6%
1	E	269	19% — 80% — 12% • 7%

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Mol	Chain	Length	Quality of chain
1	F	269	

2 Entry composition ⓘ

There are 3 unique types of molecules in this entry. The entry contains 12612 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Enoyl-[acyl-carrier-protein] reductase [NADH].

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	267	Total	C	N	O	S	0	0	0
			1988	1260	347	371	10			
1	B	267	Total	C	N	O	S	0	0	0
			1988	1260	347	371	10			
1	C	254	Total	C	N	O	S	0	0	0
			1909	1210	334	356	9			
1	D	252	Total	C	N	O	S	0	0	0
			1889	1199	329	352	9			
1	E	251	Total	C	N	O	S	0	0	0
			1889	1199	331	350	9			
1	F	267	Total	C	N	O	S	0	0	0
			1988	1260	347	371	10			

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	94	ALA	SER	engineered mutation	UNP P9WGR1
B	94	ALA	SER	engineered mutation	UNP P9WGR1
C	94	ALA	SER	engineered mutation	UNP P9WGR1
D	94	ALA	SER	engineered mutation	UNP P9WGR1
E	94	ALA	SER	engineered mutation	UNP P9WGR1
F	94	ALA	SER	engineered mutation	UNP P9WGR1

- Molecule 2 is Pyridomycin (three-letter code: PYW) (formula: $C_{27}H_{32}N_4O_8$).

PYW
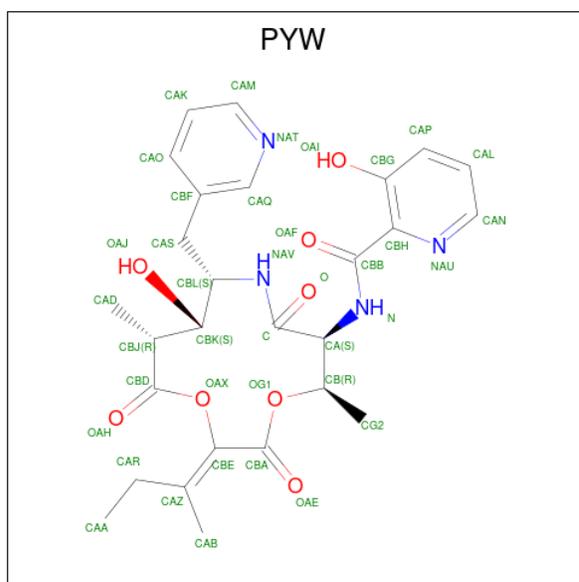
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
2	A	1	Total 39	C 27	N 4	O 8	0	0
2	B	1	Total 39	C 27	N 4	O 8	0	0
2	C	1	Total 39	C 27	N 4	O 8	0	0
2	D	1	Total 39	C 27	N 4	O 8	0	0
2	E	1	Total 39	C 27	N 4	O 8	0	0
2	F	1	Total 39	C 27	N 4	O 8	0	0

- Molecule 3 is water.

| Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	154	Total 154	O 154	0	0
3	B	114	Total 114	O 114	0	0
3	C	76	Total 76	O 76	0	0
3	D	109	Total 109	O 109	0	0
3	E	86	Total 86	O 86	0	0
3	F	188	Total 188	O 188	0	0

3 Residue-property plots ⓘ

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: Enoyl-[acyl-carrier-protein] reductase [NADH]
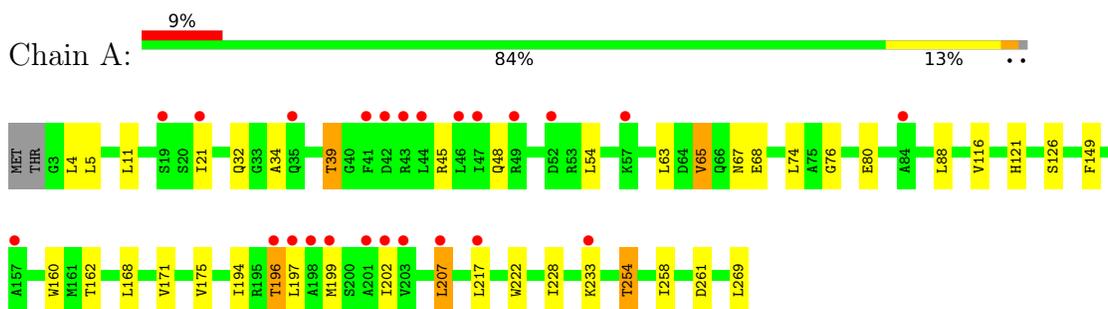

- Molecule 1: Enoyl-[acyl-carrier-protein] reductase [NADH]
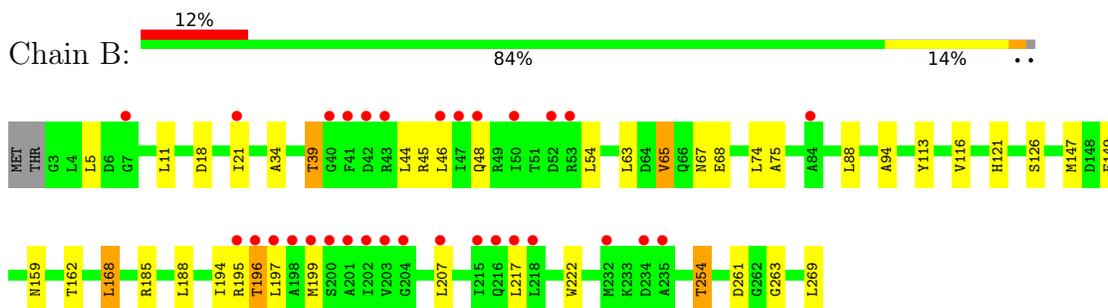
- Molecule 1: Enoyl-[acyl-carrier-protein] reductase [NADH]
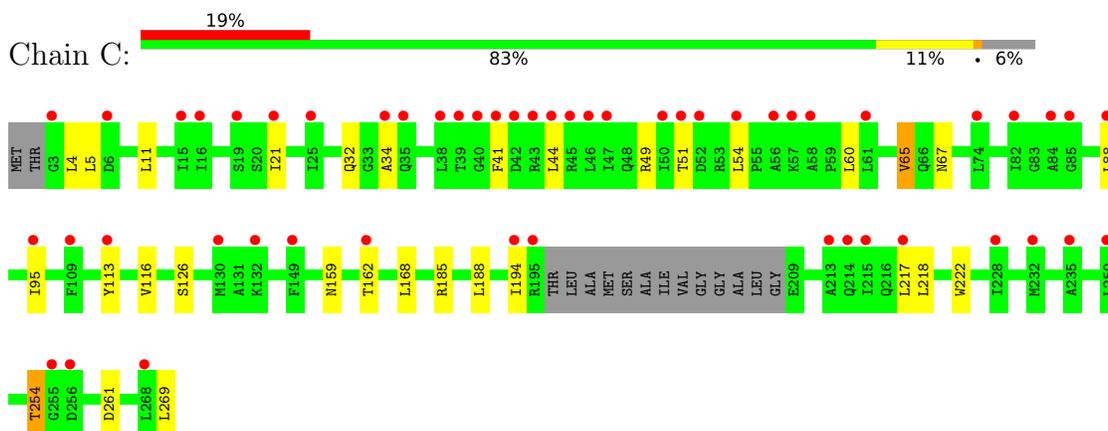


- Molecule 1: Enoyl-[acyl-carrier-protein] reductase [NADH]

Chain D:
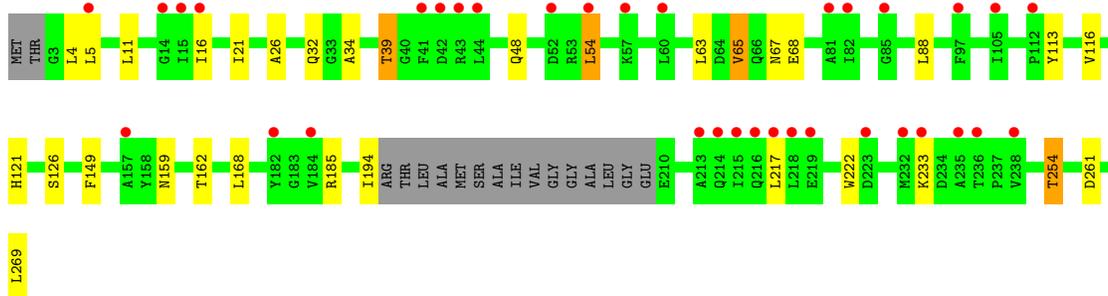
• Molecule 1: Enoyl-[acyl-carrier-protein] reductase [NADH]

Chain E:
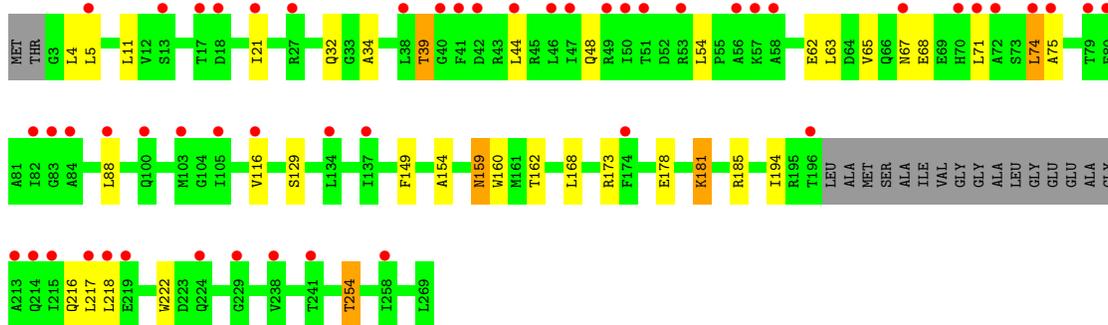
• Molecule 1: Enoyl-[acyl-carrier-protein] reductase [NADH]

Chain F:
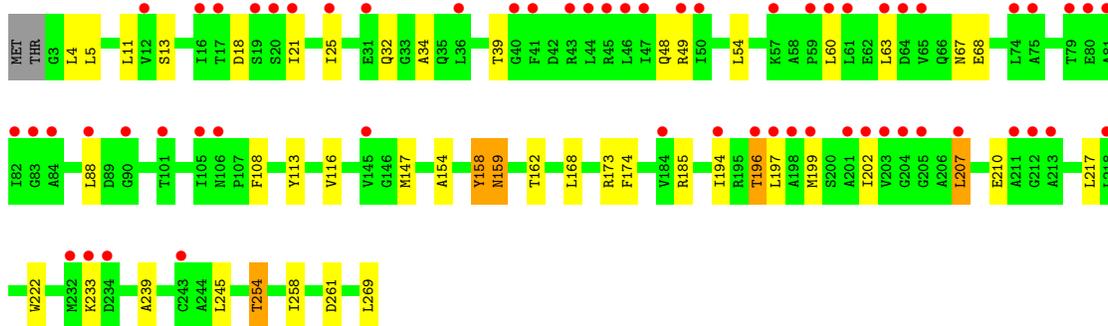
4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	100.60Å 83.05Å 190.68Å 90.00° 94.84° 90.00°	Depositor
Resolution (Å)	47.50 – 2.25 46.26 – 2.25	Depositor EDS
% Data completeness (in resolution range)	99.4 (47.50-2.25) 77.6 (46.26-2.25)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.33 (at 2.24Å)	Xtriage
Refinement program	BUSTER 2.11.5	Depositor
R, R_{free}	0.240 , 0.278 0.266 , 0.296	Depositor DCC
R_{free} test set	3722 reflections (5.03%)	wwPDB-VP
Wilson B-factor (Å^2)	20.7	Xtriage
Anisotropy	0.148	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 36.4	EDS
L-test for twinning[2]	$< |L| > = 0.35, < L^2 > = 0.17$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.82	EDS
Total number of atoms	12612	wwPDB-VP
Average B, all atoms (Å^2)	33.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.24% of the height of the origin peak. No significant pseudotranslation is detected.*

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

5   Model quality (i)

5.1   Standard geometry (i)

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

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	0.42	0/2026	0.63	0/2750
1	B	0.42	0/2026	0.64	0/2750
1	C	0.41	0/1946	0.62	0/2640
1	D	0.41	0/1926	0.62	0/2614
1	E	0.42	0/1926	0.64	0/2614
1	F	0.42	0/2026	0.62	0/2750
All	All	0.42	0/11876	0.63	0/16118

There are no bond length outliers.

There are no bond angle outliers.

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	1988	0	2006	16	0
1	B	1988	0	2006	15	0
1	C	1909	0	1918	10	0
1	D	1889	0	1899	13	0
1	E	1889	0	1905	16	0
1	F	1988	0	2006	22	0
2	A	39	0	31	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	B	39	0	31	3	0
2	C	39	0	31	0	0
2	D	39	0	31	1	0
2	E	39	0	31	1	0
2	F	39	0	31	2	0
3	A	154	0	0	1	0
3	B	114	0	0	2	0
3	C	76	0	0	0	0
3	D	109	0	0	1	0
3	E	86	0	0	0	0
3	F	188	0	0	0	0
All	All	12612	0	11926	88	0

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

All (88) 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:D:21:ILE:HD11	1:D:194:ILE:HD13	1.37	1.06
1:B:254:THR:HG21	3:B:2082:HOH:O	1.80	0.82
1:E:71:LEU:HD21	1:E:129:SER:HB3	1.66	0.75
1:D:149:PHE:HB2	2:D:1270:PYW:HAQ	1.67	0.75
1:A:254:THR:HG22	1:B:263:GLY:HA3	1.70	0.73
1:D:254:THR:HG21	3:D:2081:HOH:O	1.89	0.72
1:A:149:PHE:HB2	2:A:1270:PYW:HAQ	1.73	0.70
1:D:21:ILE:CD1	1:D:194:ILE:HD13	2.22	0.67
1:E:4:LEU:H	1:E:32:GLN:HE21	1.45	0.65
1:A:4:LEU:H	1:A:32:GLN:HE21	1.46	0.64
1:C:4:LEU:H	1:C:32:GLN:HE21	1.46	0.62
1:D:4:LEU:H	1:D:32:GLN:HE21	1.46	0.62
1:E:44:LEU:HD11	1:E:62:GLU:HG3	1.81	0.61
1:F:147:MET:HB3	2:F:1270:PYW:HAM	1.83	0.61
1:A:116:VAL:HG11	1:A:160:TRP:CE3	2.36	0.60
1:F:25:ILE:HD13	1:F:239:ALA:HA	1.83	0.60
1:E:178:GLU:O	1:E:181:LYS:HG2	2.06	0.56
1:E:149:PHE:HB2	2:E:1270:PYW:HAQ	1.88	0.56
1:F:11:LEU:HB2	1:F:88:LEU:HD21	1.91	0.53
1:D:11:LEU:HB2	1:D:88:LEU:HD21	1.90	0.53
1:B:11:LEU:HB2	1:B:88:LEU:HD21	1.91	0.53
1:F:5:LEU:HB3	1:F:34:ALA:HB2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:21:ILE:O	1:F:25:ILE:HG12	2.08	0.53
1:C:11:LEU:HB2	1:C:88:LEU:HD21	1.91	0.52
1:E:11:LEU:HB2	1:E:88:LEU:HD21	1.91	0.51
1:A:11:LEU:HB2	1:A:88:LEU:HD21	1.91	0.51
1:E:159:ASN:HA	1:F:174:PHE:CE2	2.46	0.51
1:C:21:ILE:HD11	1:C:194:ILE:HG13	1.94	0.50
1:A:5:LEU:HB3	1:A:34:ALA:HB2	1.93	0.50
1:C:51:THR:HA	1:C:54:LEU:HD13	1.92	0.50
1:E:21:ILE:HD11	1:E:194:ILE:HG13	1.94	0.50
1:B:5:LEU:HB3	1:B:34:ALA:HB2	1.93	0.50
1:D:5:LEU:HB3	1:D:34:ALA:HB2	1.94	0.49
1:F:25:ILE:CD1	1:F:239:ALA:HA	2.43	0.49
1:E:5:LEU:HB3	1:E:34:ALA:HB2	1.94	0.49
1:B:39:THR:HG23	1:B:63:LEU:HB3	1.96	0.48
1:C:5:LEU:HB3	1:C:34:ALA:HB2	1.95	0.48
1:B:21:ILE:HD11	1:B:194:ILE:HG13	1.96	0.48
1:A:171:VAL:O	1:A:175:VAL:HG23	2.14	0.48
1:A:21:ILE:HD11	1:A:194:ILE:HG13	1.95	0.47
1:E:116:VAL:HG11	1:E:160:TRP:CE3	2.48	0.47
1:C:168:LEU:HG	1:C:188:LEU:HD21	1.96	0.47
1:F:21:ILE:HD11	1:F:194:ILE:HG13	1.96	0.47
1:E:173:ARG:HB3	1:F:154:ALA:HB2	1.96	0.47
1:F:222:TRP:HE1	1:F:261:ASP:HB2	1.80	0.47
1:B:149:PHE:HB2	2:B:1270:PYW:HAQ	1.96	0.46
1:B:168:LEU:HD22	1:B:188:LEU:HD11	1.97	0.46
1:F:4:LEU:H	1:F:32:GLN:HE21	1.62	0.46
1:E:39:THR:HG23	1:E:63:LEU:HB3	1.98	0.45
1:E:154:ALA:HB2	1:F:173:ARG:HB3	1.98	0.45
1:C:113:TYR:HA	1:C:116:VAL:HG22	1.99	0.45
1:C:65:VAL:HG21	1:C:126:SER:HB2	1.99	0.45
1:A:222:TRP:HE1	1:A:261:ASP:HB2	1.82	0.45
1:D:222:TRP:HE1	1:D:261:ASP:HB2	1.82	0.45
1:F:108:PHE:HD1	1:F:159:ASN:HB3	1.82	0.45
1:A:202:ILE:HG22	1:A:207:LEU:HB2	1.99	0.45
1:C:222:TRP:HE1	1:C:261:ASP:HB2	1.82	0.45
1:D:113:TYR:HA	1:D:116:VAL:HG22	1.99	0.45
1:F:39:THR:HG23	1:F:63:LEU:HB3	1.98	0.44
1:B:196:THR:H	1:B:199:MET:HB2	1.83	0.44
1:B:113:TYR:HA	1:B:116:VAL:HG22	1.99	0.44
1:F:185:ARG:HA	1:F:254:THR:HG23	1.99	0.44
1:D:39:THR:HG23	1:D:63:LEU:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:113:TYR:HA	1:F:116:VAL:HG22	1.99	0.44
1:B:222:TRP:HE1	1:B:261:ASP:HB2	1.82	0.44
1:F:196:THR:H	1:F:199:MET:HB2	1.83	0.44
1:A:39:THR:HG23	1:A:63:LEU:HB3	2.00	0.43
1:A:196:THR:H	1:A:199:MET:HB2	1.84	0.43
1:B:147:MET:HB3	2:B:1270:PYW:HAM	2.00	0.43
1:C:185:ARG:HA	1:C:254:THR:HG23	2.00	0.43
1:B:65:VAL:HG21	1:B:126:SER:HB2	2.00	0.43
1:D:65:VAL:HG21	1:D:126:SER:HB2	2.00	0.43
1:B:185:ARG:HA	1:B:254:THR:HG23	2.01	0.43
1:F:13:SER:HA	1:F:39:THR:HB	2.00	0.43
1:E:185:ARG:HA	1:E:254:THR:HG23	2.01	0.43
1:B:94:ALA:HA	2:B:1270:PYW:HAL	2.01	0.42
1:E:63:LEU:HD13	1:E:74:LEU:HG	2.01	0.42
1:A:258:ILE:HA	3:A:2150:HOH:O	2.17	0.42
1:D:185:ARG:HA	1:D:254:THR:HG23	2.01	0.42
1:A:228:ILE:HG23	3:B:2082:HOH:O	2.21	0.41
1:F:158:TYR:HD1	2:F:1270:PYW:HAA2	1.84	0.41
1:A:65:VAL:HG21	1:A:126:SER:HB2	2.03	0.41
1:D:26:ALA:HB1	1:D:54:LEU:HD21	2.03	0.41
1:F:245:LEU:HD11	1:F:258:ILE:HG13	2.03	0.41
1:A:76:GLY:O	1:A:80:GLU:HG2	2.21	0.40
1:F:21:ILE:HG22	1:F:25:ILE:HD11	2.03	0.40
1:E:216:GLN:HE21	1:E:216:GLN:HB3	1.75	0.40
1:F:202:ILE:HG22	1:F:207:LEU:HB2	2.02	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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	265/269 (98%)	250 (94%)	15 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	265/269 (98%)	250 (94%)	13 (5%)	2 (1%)	19	17
1	C	250/269 (93%)	237 (95%)	12 (5%)	1 (0%)	34	37
1	D	248/269 (92%)	234 (94%)	13 (5%)	1 (0%)	34	37
1	E	247/269 (92%)	231 (94%)	14 (6%)	2 (1%)	19	17
1	F	265/269 (98%)	250 (94%)	14 (5%)	1 (0%)	34	37
All	All	1540/1614 (95%)	1452 (94%)	81 (5%)	7 (0%)	29	29

All (7) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	75	ALA
1	C	159	ASN
1	D	159	ASN
1	E	75	ALA
1	E	159	ASN
1	F	159	ASN
1	B	159	ASN

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	202/204 (99%)	184 (91%)	18 (9%)	9	8
1	B	202/204 (99%)	181 (90%)	21 (10%)	7	5
1	C	195/204 (96%)	183 (94%)	12 (6%)	18	17
1	D	193/204 (95%)	179 (93%)	14 (7%)	14	12
1	E	194/204 (95%)	180 (93%)	14 (7%)	14	12
1	F	202/204 (99%)	184 (91%)	18 (9%)	9	8
All	All	1188/1224 (97%)	1091 (92%)	97 (8%)	11	10

All (97) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	39	THR
1	A	45	ARG
1	A	48	GLN
1	A	54	LEU
1	A	65	VAL
1	A	67	ASN
1	A	68	GLU
1	A	74	LEU
1	A	121	HIS
1	A	162	THR
1	A	168	LEU
1	A	196	THR
1	A	197	LEU
1	A	207	LEU
1	A	217	LEU
1	A	233	LYS
1	A	254	THR
1	A	269	LEU
1	B	18	ASP
1	B	39	THR
1	B	44	LEU
1	B	45	ARG
1	B	46	LEU
1	B	48	GLN
1	B	54	LEU
1	B	65	VAL
1	B	67	ASN
1	B	68	GLU
1	B	74	LEU
1	B	121	HIS
1	B	162	THR
1	B	168	LEU
1	B	195	ARG
1	B	196	THR
1	B	197	LEU
1	B	207	LEU
1	B	217	LEU
1	B	254	THR
1	B	269	LEU
1	C	41	PHE
1	C	44	LEU
1	C	49	ARG
1	C	60	LEU

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Mol	Chain	Res	Type
1	C	65	VAL
1	C	67	ASN
1	C	95	ILE
1	C	162	THR
1	C	217	LEU
1	C	218	LEU
1	C	254	THR
1	C	269	LEU
1	D	16	ILE
1	D	39	THR
1	D	48	GLN
1	D	54	LEU
1	D	65	VAL
1	D	67	ASN
1	D	68	GLU
1	D	121	HIS
1	D	162	THR
1	D	168	LEU
1	D	217	LEU
1	D	233	LYS
1	D	254	THR
1	D	269	LEU
1	E	39	THR
1	E	48	GLN
1	E	54	LEU
1	E	65	VAL
1	E	67	ASN
1	E	68	GLU
1	E	74	LEU
1	E	162	THR
1	E	168	LEU
1	E	181	LYS
1	E	217	LEU
1	E	218	LEU
1	E	222	TRP
1	E	254	THR
1	F	18	ASP
1	F	48	GLN
1	F	49	ARG
1	F	54	LEU
1	F	60	LEU
1	F	67	ASN

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Mol	Chain	Res	Type
1	F	68	GLU
1	F	158	TYR
1	F	162	THR
1	F	168	LEU
1	F	196	THR
1	F	197	LEU
1	F	207	LEU
1	F	210	GLU
1	F	217	LEU
1	F	233	LYS
1	F	254	THR
1	F	269	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (23) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	32	GLN
1	A	48	GLN
1	A	67	ASN
1	A	187	ASN
1	A	216	GLN
1	B	67	ASN
1	B	187	ASN
1	C	32	GLN
1	C	67	ASN
1	C	187	ASN
1	D	32	GLN
1	D	67	ASN
1	D	121	HIS
1	D	187	ASN
1	E	32	GLN
1	E	67	ASN
1	E	121	HIS
1	E	187	ASN
1	E	216	GLN
1	F	24	HIS
1	F	32	GLN
1	F	35	GLN
1	F	187	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 monosaccharides in this entry.

5.6 Ligand geometry ⓘ

6 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
2	PYW	E	1270	-	39,41,41	1.28	5 (12%)	47,57,57	1.35	4 (8%)
2	PYW	F	1270	-	39,41,41	1.26	5 (12%)	47,57,57	1.21	4 (8%)
2	PYW	C	1270	-	39,41,41	1.25	6 (15%)	47,57,57	1.34	5 (10%)
2	PYW	D	1270	-	39,41,41	1.23	3 (7%)	47,57,57	1.25	3 (6%)
2	PYW	A	1270	-	39,41,41	1.14	2 (5%)	47,57,57	1.36	5 (10%)
2	PYW	B	1270	-	39,41,41	1.26	4 (10%)	47,57,57	1.32	4 (8%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	PYW	E	1270	-	-	14/53/54/54	0/2/3/3
2	PYW	F	1270	-	-	12/53/54/54	0/2/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	PYW	C	1270	-	-	11/53/54/54	0/2/3/3
2	PYW	D	1270	-	-	9/53/54/54	0/2/3/3
2	PYW	A	1270	-	-	9/53/54/54	0/2/3/3
2	PYW	B	1270	-	-	8/53/54/54	0/2/3/3

All (25) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	1270	PYW	C-NAV	3.23	1.41	1.34
2	A	1270	PYW	CBG-CBH	3.06	1.44	1.40
2	F	1270	PYW	C-NAV	3.04	1.40	1.34
2	B	1270	PYW	C-NAV	2.87	1.40	1.34
2	E	1270	PYW	CBB-N	2.77	1.40	1.34
2	C	1270	PYW	CBB-N	2.74	1.40	1.34
2	D	1270	PYW	CBG-CBH	2.73	1.44	1.40
2	F	1270	PYW	CBH-NAU	2.69	1.39	1.34
2	D	1270	PYW	CBB-N	2.62	1.39	1.34
2	F	1270	PYW	CBB-N	2.61	1.39	1.34
2	F	1270	PYW	CBG-CBH	2.56	1.44	1.40
2	C	1270	PYW	C-NAV	2.52	1.39	1.34
2	A	1270	PYW	C-NAV	2.44	1.39	1.34
2	C	1270	PYW	CBH-NAU	2.41	1.38	1.34
2	B	1270	PYW	CBK-CBL	2.37	1.57	1.53
2	B	1270	PYW	CBB-N	2.37	1.39	1.34
2	B	1270	PYW	CBG-CBH	2.34	1.43	1.40
2	E	1270	PYW	CBK-CBL	2.33	1.57	1.53
2	C	1270	PYW	CBG-CBH	2.22	1.43	1.40
2	F	1270	PYW	CBK-CBL	2.22	1.57	1.53
2	C	1270	PYW	CAQ-CBF	2.19	1.43	1.38
2	E	1270	PYW	CBG-CBH	2.09	1.43	1.40
2	D	1270	PYW	CBH-NAU	2.06	1.38	1.34
2	E	1270	PYW	CAQ-CBF	2.05	1.43	1.38
2	C	1270	PYW	CAQ-NAT	2.03	1.38	1.34

All (25) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	1270	PYW	CB-OG1-CBA	5.64	123.89	117.43
2	C	1270	PYW	CB-OG1-CBA	5.59	123.83	117.43
2	E	1270	PYW	CB-OG1-CBA	5.53	123.75	117.43
2	A	1270	PYW	CB-OG1-CBA	5.08	123.25	117.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	D	1270	PYW	CB-OG1-CBA	5.01	123.17	117.43
2	F	1270	PYW	CB-OG1-CBA	4.65	122.75	117.43
2	C	1270	PYW	CBA-CBE-CAZ	3.58	128.13	124.45
2	A	1270	PYW	CBD-OAX-CBE	3.39	123.49	117.64
2	E	1270	PYW	CBA-CBE-CAZ	3.08	127.62	124.45
2	E	1270	PYW	CA-N-CBB	2.94	126.84	121.52
2	D	1270	PYW	CBA-CBE-CAZ	2.93	127.47	124.45
2	A	1270	PYW	CBA-CBE-CAZ	2.82	127.35	124.45
2	F	1270	PYW	CBA-CBE-CAZ	2.60	127.13	124.45
2	A	1270	PYW	CBK-CBJ-CBD	2.43	115.23	110.02
2	B	1270	PYW	CBD-OAX-CBE	2.42	121.82	117.64
2	B	1270	PYW	CBJ-CBK-CBL	2.32	116.95	113.52
2	A	1270	PYW	OAF-CBB-CBH	2.30	124.03	120.59
2	E	1270	PYW	CBK-CBJ-CBD	2.28	114.92	110.02
2	C	1270	PYW	CA-N-CBB	2.18	125.46	121.52
2	B	1270	PYW	CBK-CBJ-CBD	2.13	114.58	110.02
2	F	1270	PYW	CB-CA-C	2.08	115.33	110.98
2	C	1270	PYW	OAE-CBA-CBE	2.08	128.59	122.39
2	F	1270	PYW	CBK-CBJ-CBD	2.05	114.42	110.02
2	C	1270	PYW	OG1-CB-CA	-2.01	101.30	105.86
2	D	1270	PYW	OAE-CBA-CBE	2.00	128.37	122.39

There are no chirality outliers.

All (63) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	1270	PYW	CBD-CBJ-CBK-CBL
2	A	1270	PYW	CAA-CAR-CAZ-CAB
2	B	1270	PYW	CAA-CAR-CAZ-CBE
2	B	1270	PYW	CAA-CAR-CAZ-CAB
2	C	1270	PYW	CBD-CBJ-CBK-CBL
2	C	1270	PYW	CAA-CAR-CAZ-CBE
2	C	1270	PYW	CAA-CAR-CAZ-CAB
2	D	1270	PYW	CBD-CBJ-CBK-CBL
2	D	1270	PYW	CBD-CBJ-CBK-OAJ
2	E	1270	PYW	OAE-CBA-CBE-OAX
2	E	1270	PYW	OAE-CBA-CBE-CAZ
2	E	1270	PYW	OG1-CBA-CBE-CAZ
2	E	1270	PYW	CAA-CAR-CAZ-CAB
2	E	1270	PYW	C-CA-CB-OG1
2	E	1270	PYW	C-CA-CB-CG2
2	E	1270	PYW	N-CA-CB-CG2

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Mol	Chain	Res	Type	Atoms
2	E	1270	PYW	N-CBB-CBH-NAU
2	E	1270	PYW	N-CBB-CBH-CBG
2	E	1270	PYW	OAF-CBB-CBH-NAU
2	E	1270	PYW	OAF-CBB-CBH-CBG
2	F	1270	PYW	CBD-CBJ-CBK-CBL
2	F	1270	PYW	CBD-CBJ-CBK-OAJ
2	F	1270	PYW	CBE-CBA-OG1-CB
2	F	1270	PYW	OAE-CBA-OG1-CB
2	F	1270	PYW	OAF-CBB-N-CA
2	A	1270	PYW	OAF-CBB-CBH-NAU
2	B	1270	PYW	OAF-CBB-CBH-NAU
2	C	1270	PYW	OAF-CBB-CBH-NAU
2	D	1270	PYW	OAF-CBB-CBH-NAU
2	F	1270	PYW	OAF-CBB-CBH-NAU
2	F	1270	PYW	CBH-CBB-N-CA
2	A	1270	PYW	N-CBB-CBH-CBG
2	B	1270	PYW	N-CBB-CBH-CBG
2	C	1270	PYW	N-CBB-CBH-CBG
2	D	1270	PYW	N-CBB-CBH-CBG
2	F	1270	PYW	N-CBB-CBH-CBG
2	A	1270	PYW	N-CBB-CBH-NAU
2	B	1270	PYW	N-CBB-CBH-NAU
2	C	1270	PYW	N-CBB-CBH-NAU
2	D	1270	PYW	N-CBB-CBH-NAU
2	F	1270	PYW	N-CBB-CBH-NAU
2	C	1270	PYW	OAE-CBA-OG1-CB
2	E	1270	PYW	OG1-CBA-CBE-OAX
2	E	1270	PYW	N-CA-CB-OG1
2	E	1270	PYW	OAF-CBB-N-CA
2	D	1270	PYW	CAA-CAR-CAZ-CAB
2	F	1270	PYW	CAA-CAR-CAZ-CAB
2	A	1270	PYW	CBF-CAS-CBL-NAV
2	A	1270	PYW	CAA-CAR-CAZ-CBE
2	C	1270	PYW	OAF-CBB-N-CA
2	A	1270	PYW	OAF-CBB-CBH-CBG
2	B	1270	PYW	OAF-CBB-CBH-CBG
2	C	1270	PYW	OAF-CBB-CBH-CBG
2	D	1270	PYW	OAF-CBB-CBH-CBG
2	F	1270	PYW	OAF-CBB-CBH-CBG
2	B	1270	PYW	CBD-CBJ-CBK-CBL
2	A	1270	PYW	CAD-CBJ-CBK-CBL
2	D	1270	PYW	CAD-CBJ-CBK-CBL

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Mol	Chain	Res	Type	Atoms
2	F	1270	PYW	CAD-CBJ-CBK-CBL
2	C	1270	PYW	CBE-CBA-OG1-CB
2	C	1270	PYW	CAD-CBJ-CBK-CBL
2	D	1270	PYW	OAE-CBA-OG1-CB
2	B	1270	PYW	OAF-CBB-N-CA

There are no ring outliers.

5 monomers are involved in 8 short contacts:

| Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	E	1270	PYW	1	0
2	F	1270	PYW	2	0
2	D	1270	PYW	1	0
2	A	1270	PYW	1	0
2	B	1270	PYW	3	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less 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 PYW E 1270

Bond lengths

Bond angles

Torsions

Rings

Ligand PYW F 1270

Bond lengths

Bond angles

Torsions

Rings

Ligand PYW C 1270

Bond lengths

Bond angles

Torsions

Rings

Ligand PYW D 1270

Bond lengths

Bond angles

Torsions

Rings

Ligand PYW A 1270

Bond lengths

Bond angles

Torsions

Rings

Ligand PYW B 1270

Bond lengths

Bond angles

Torsions

Rings
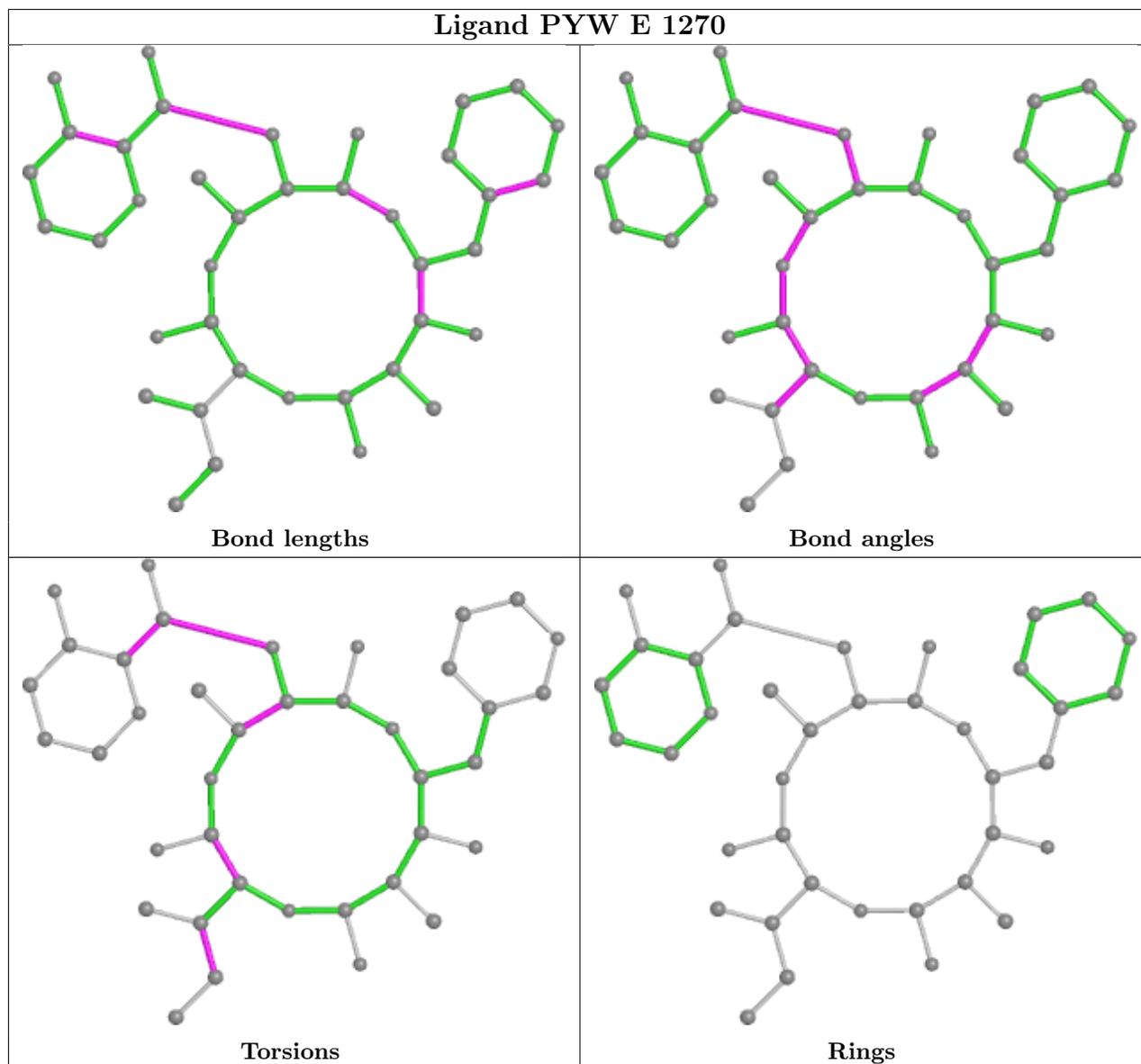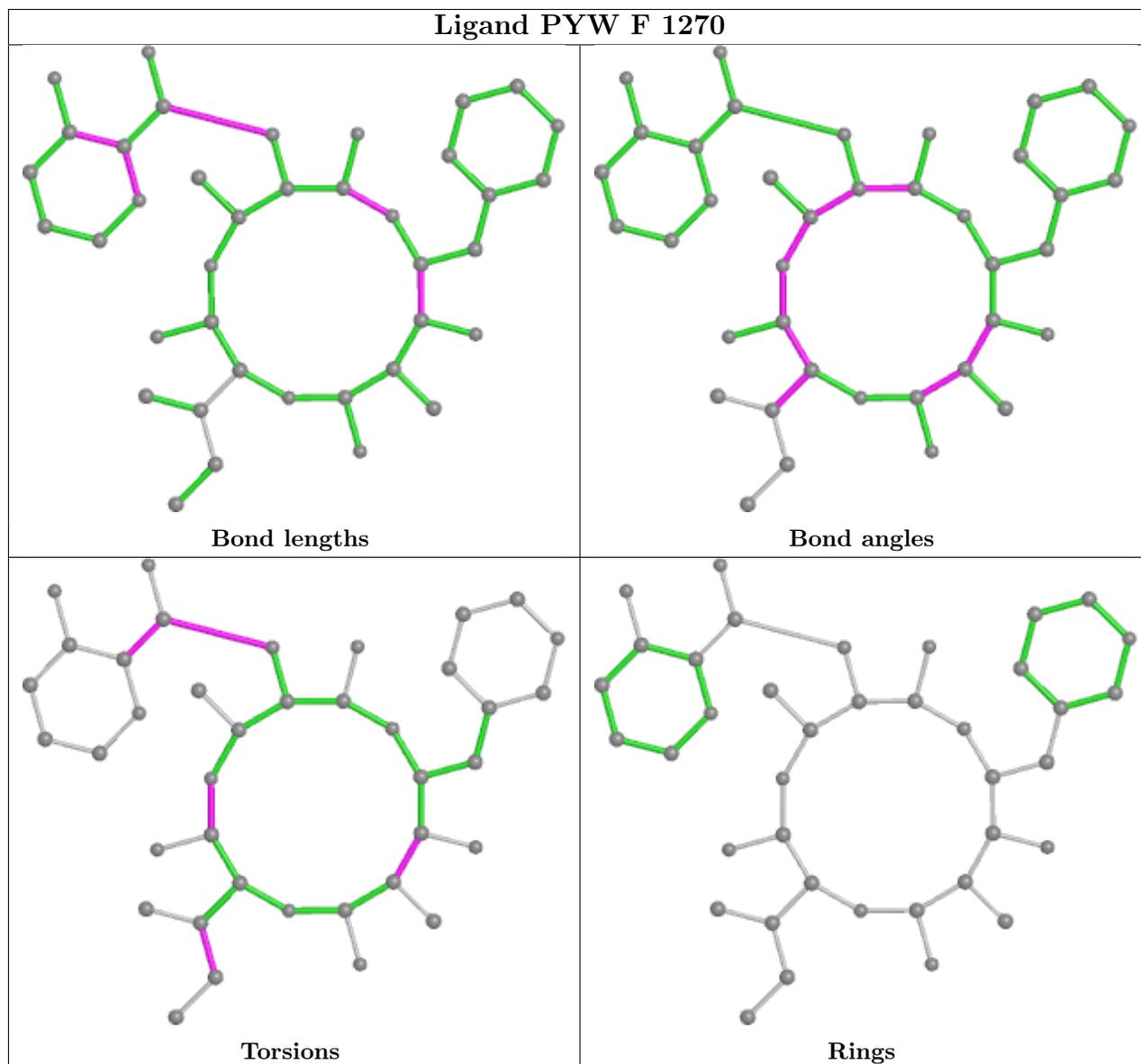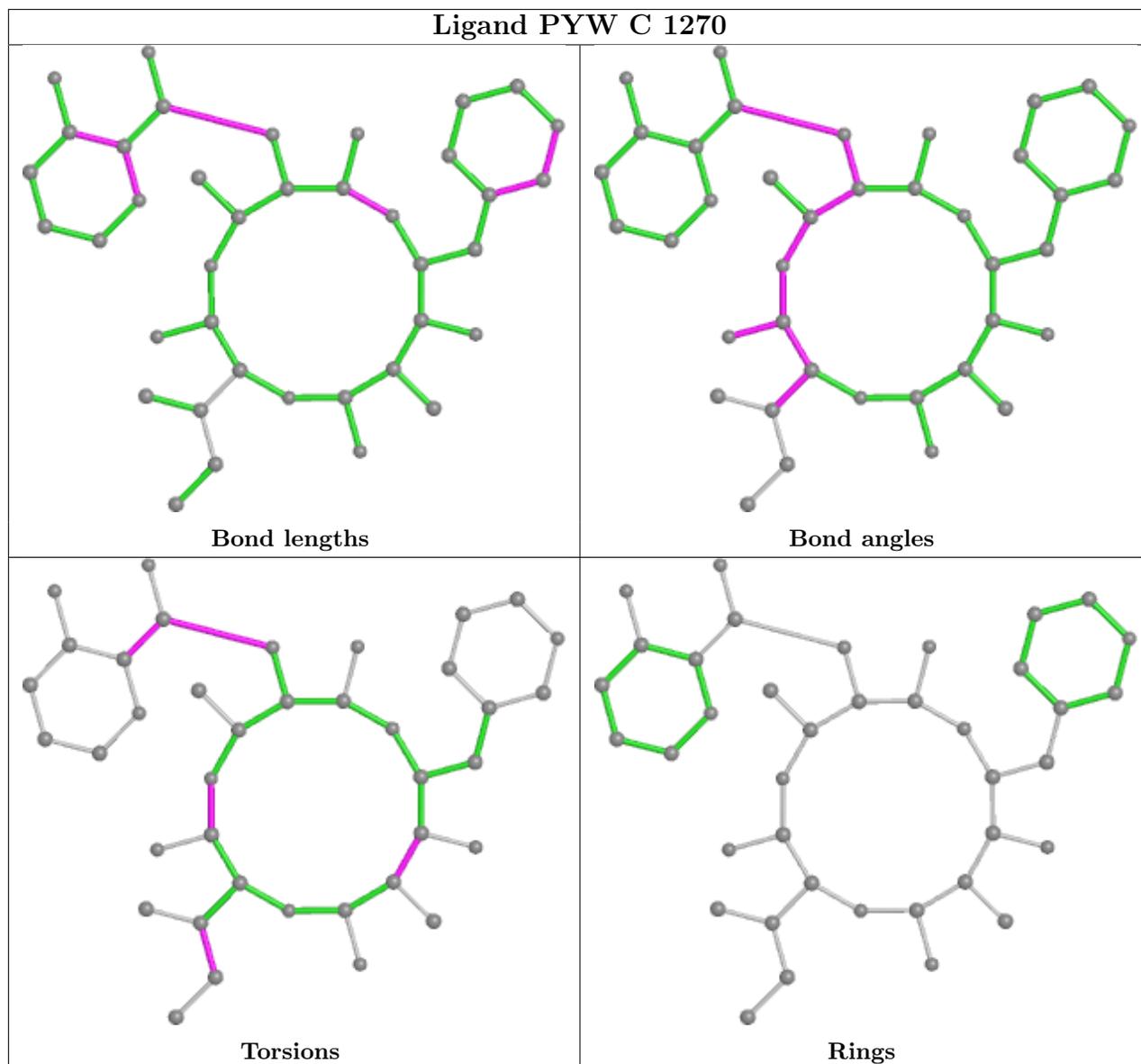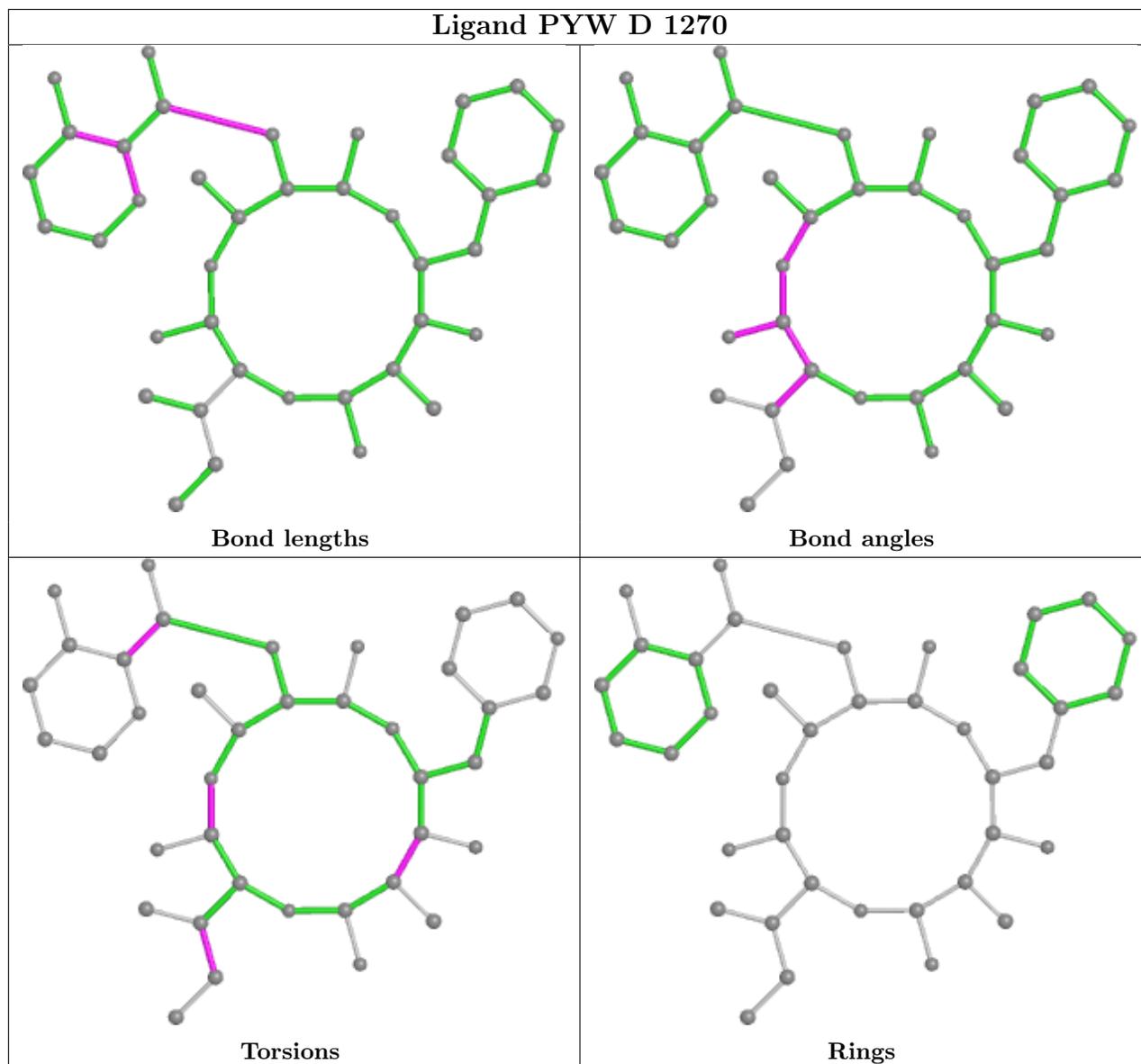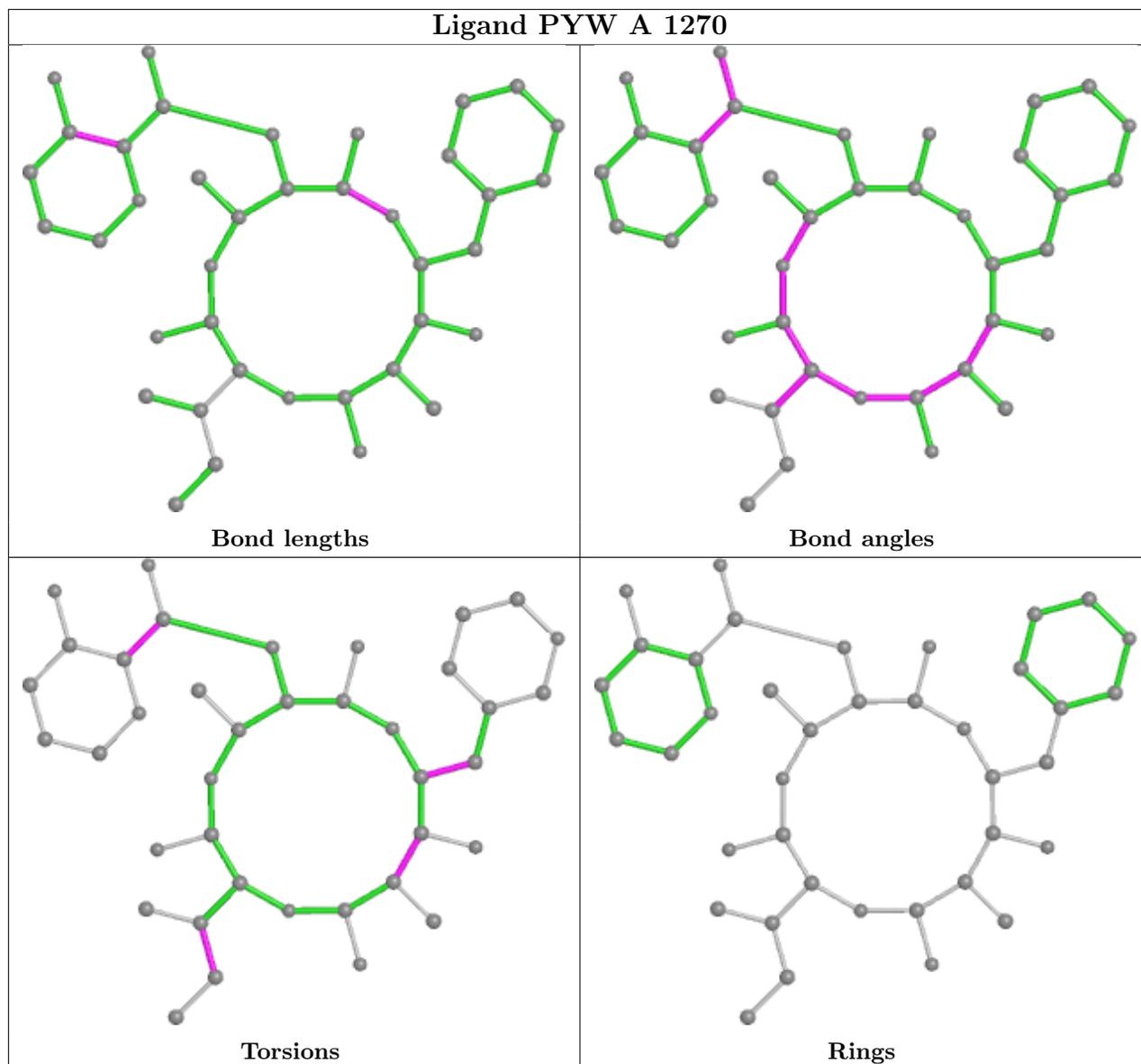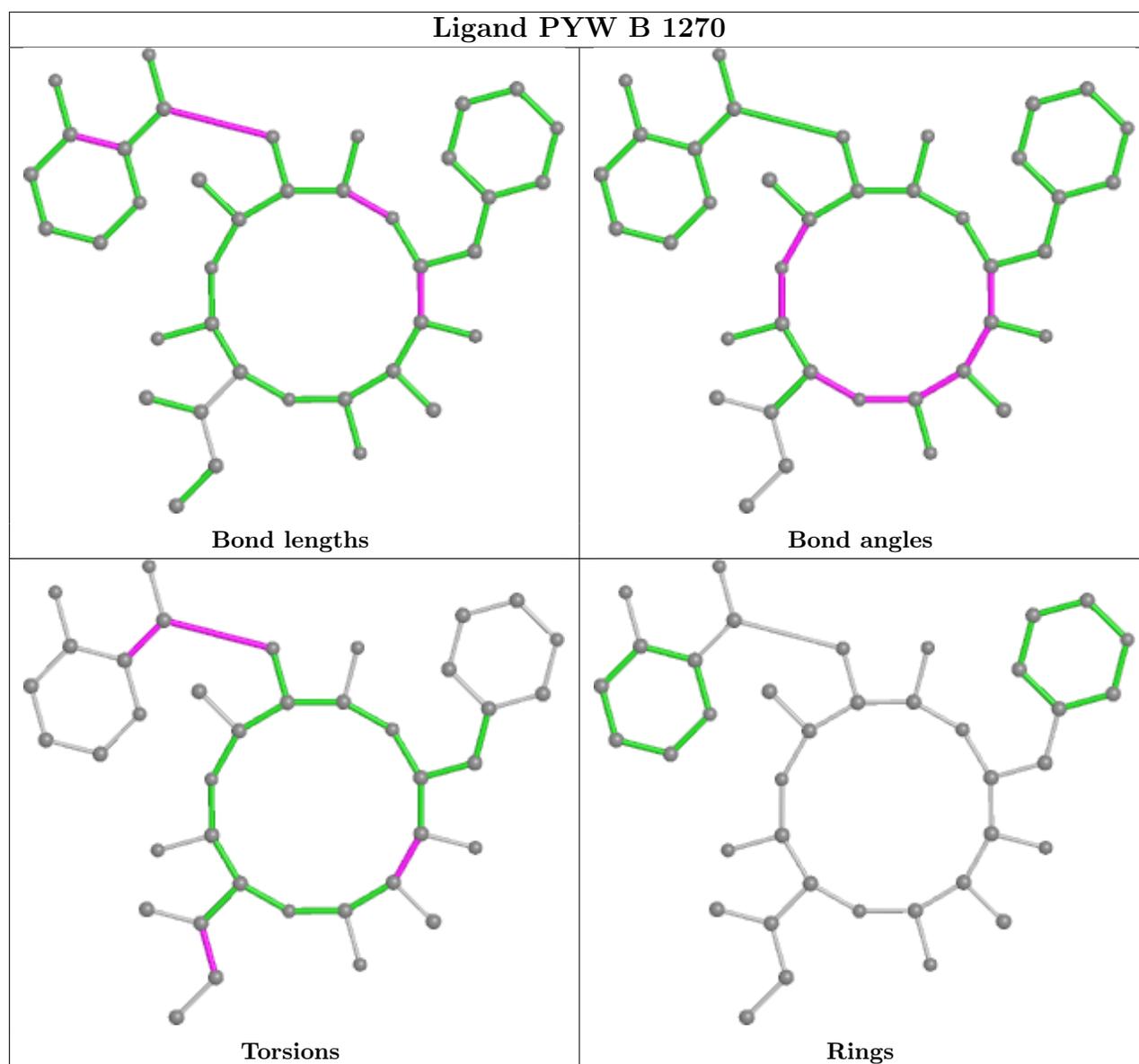
5.7 Other polymers ⓘ

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, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å²)	Q<0.9
1	A	267/269 (99%)	0.80	24 (8%)	9	10	6, 22, 50, 66	0
1	B	267/269 (99%)	0.78	31 (11%)	4	4	5, 20, 54, 76	0
1	C	254/269 (94%)	1.24	52 (20%)	1	1	14, 36, 59, 77	0
1	D	252/269 (93%)	1.19	34 (13%)	3	2	17, 35, 58, 76	0
1	E	251/269 (93%)	1.39	51 (20%)	1	1	16, 36, 63, 75	0
1	F	267/269 (99%)	1.40	59 (22%)	0	0	17, 38, 63, 74	0
All	All	1558/1614 (96%)	1.13	251 (16%)	1	1	5, 32, 60, 77	0

All (251) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	E	214	GLN	6.9
1	E	217	LEU	6.6
1	E	196	THR	6.3
1	F	203	VAL	6.1
1	A	198	ALA	6.0
1	F	82	ILE	6.0
1	A	46	LEU	5.8
1	C	3	GLY	5.6
1	C	45	ARG	5.5
1	B	50	ILE	5.5
1	D	15	ILE	5.3
1	E	74	LEU	5.3
1	A	202	ILE	4.9
1	A	207	LEU	4.8
1	F	197	LEU	4.8
1	D	215	ILE	4.8
1	F	50	ILE	4.8
1	C	41	PHE	4.7
1	F	16	ILE	4.6

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Mol	Chain	Res	Type	RSRZ
1	F	202	ILE	4.6
1	A	47	ILE	4.5
1	B	41	PHE	4.5
1	E	219	GLU	4.5
1	F	47	ILE	4.5
1	E	213	ALA	4.5
1	B	197	LEU	4.4
1	C	50	ILE	4.4
1	F	211	ALA	4.3
1	B	43	ARG	4.3
1	D	41	PHE	4.3
1	F	198	ALA	4.2
1	E	57	LYS	4.2
1	B	46	LEU	4.2
1	A	41	PHE	4.1
1	A	203	VAL	4.1
1	C	16	ILE	4.0
1	D	236	THR	4.0
1	D	44	LEU	4.0
1	D	105	ILE	3.9
1	E	46	LEU	3.8
1	C	40	GLY	3.7
1	D	214	GLN	3.7
1	E	40	GLY	3.7
1	D	43	ARG	3.7
1	C	57	LYS	3.7
1	F	81	ALA	3.7
1	E	82	ILE	3.7
1	F	57	LYS	3.7
1	E	72	ALA	3.7
1	F	212	GLY	3.7
1	C	195	ARG	3.6
1	B	202	ILE	3.6
1	E	218	LEU	3.6
1	F	84	ALA	3.6
1	F	204	GLY	3.6
1	C	15	ILE	3.6
1	F	12	VAL	3.6
1	E	42	ASP	3.5
1	E	49	ARG	3.5
1	C	44	LEU	3.4
1	B	196	THR	3.4

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Mol	Chain	Res	Type	RSRZ
1	E	84	ALA	3.4
1	D	233	LYS	3.4
1	C	235	ALA	3.4
1	F	43	ARG	3.4
1	D	218	LEU	3.3
1	F	61	LEU	3.3
1	C	42	ASP	3.2
1	B	42	ASP	3.2
1	F	105	ILE	3.2
1	F	65	VAL	3.2
1	B	201	ALA	3.2
1	C	58	ALA	3.2
1	B	47	ILE	3.2
1	A	42	ASP	3.2
1	D	217	LEU	3.2
1	E	67	ASN	3.2
1	E	238	VAL	3.1
1	C	54	LEU	3.1
1	F	20	SER	3.1
1	C	232	MET	3.1
1	B	207	LEU	3.1
1	B	7	GLY	3.0
1	E	51	THR	3.0
1	D	82	ILE	3.0
1	F	21	ILE	3.0
1	C	82	ILE	3.0
1	C	194	ILE	2.9
1	E	50	ILE	2.9
1	C	149	PHE	2.9
1	E	5	LEU	2.9
1	D	232	MET	2.9
1	C	21	ILE	2.9
1	C	85	GLY	2.9
1	A	49	ARG	2.9
1	F	19	SER	2.9
1	D	81	ALA	2.9
1	C	39	THR	2.9
1	A	57	LYS	2.8
1	E	224	GLN	2.8
1	F	44	LEU	2.8
1	F	199	MET	2.8
1	E	79	THR	2.8

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Mol	Chain	Res	Type	RSRZ
1	E	116	VAL	2.8
1	F	218	LEU	2.8
1	B	195	ARG	2.8
1	C	213	ALA	2.8
1	D	57	LYS	2.8
1	F	207	LEU	2.8
1	A	157	ALA	2.7
1	E	75	ALA	2.7
1	B	48	GLN	2.7
1	F	80	GLU	2.7
1	F	233	LYS	2.7
1	D	112	PRO	2.7
1	C	84	ALA	2.7
1	E	27	ARG	2.7
1	A	44	LEU	2.7
1	C	46	LEU	2.7
1	F	196	THR	2.7
1	C	6	ASP	2.7
1	C	52	ASP	2.7
1	F	83	GLY	2.7
1	E	17	THR	2.7
1	F	101	THR	2.7
1	A	43	ARG	2.7
1	F	201	ALA	2.7
1	D	97	PHE	2.7
1	E	44	LEU	2.7
1	B	204	GLY	2.7
1	A	19	SER	2.7
1	D	16	ILE	2.7
1	D	213	ALA	2.7
1	E	137	ILE	2.6
1	D	5	LEU	2.6
1	F	49	ARG	2.6
1	C	130	MET	2.6
1	C	25	ILE	2.6
1	C	51	THR	2.6
1	A	197	LEU	2.6
1	F	63	LEU	2.6
1	E	229	GLY	2.6
1	E	41	PHE	2.6
1	E	134	LEU	2.6
1	C	47	ILE	2.6

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Mol	Chain	Res	Type	RSRZ
1	A	196	THR	2.6
1	A	199	MET	2.6
1	D	238	VAL	2.6
1	D	216	GLN	2.6
1	E	258	ILE	2.6
1	D	235	ALA	2.5
1	C	38	LEU	2.5
1	F	60	LEU	2.5
1	D	85	GLY	2.5
1	F	41	PHE	2.5
1	F	74	LEU	2.5
1	D	184	VAL	2.5
1	A	84	ALA	2.5
1	E	70	HIS	2.4
1	B	217	LEU	2.4
1	E	88	LEU	2.4
1	B	84	ALA	2.4
1	F	184	VAL	2.4
1	F	90	GLY	2.4
1	B	218	LEU	2.4
1	C	74	LEU	2.4
1	C	250	LEU	2.4
1	B	203	VAL	2.4
1	A	35	GLN	2.4
1	F	75	ALA	2.4
1	C	215	ILE	2.4
1	E	80	GLU	2.4
1	A	21	ILE	2.4
1	E	21	ILE	2.4
1	C	88	LEU	2.4
1	F	46	LEU	2.4
1	C	132	LYS	2.3
1	C	113	TYR	2.3
1	E	105	ILE	2.3
1	F	234	ASP	2.3
1	C	228	ILE	2.3
1	E	47	ILE	2.3
1	E	58	ALA	2.3
1	E	241	THR	2.3
1	C	19	SER	2.3
1	A	201	ALA	2.3
1	C	214	GLN	2.3

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Mol	Chain	Res	Type	RSRZ
1	D	14	GLY	2.3
1	B	200	SER	2.3
1	E	56	ALA	2.3
1	F	213	ALA	2.3
1	E	53	ARG	2.3
1	A	52	ASP	2.3
1	B	232	MET	2.2
1	F	243	CYS	2.2
1	F	31	GLU	2.2
1	B	40	GLY	2.2
1	D	157	ALA	2.2
1	E	83	GLY	2.2
1	D	54	LEU	2.2
1	F	88	LEU	2.2
1	C	43	ARG	2.2
1	F	59	PRO	2.2
1	F	145	VAL	2.2
1	C	256	ASP	2.2
1	C	217	LEU	2.2
1	E	38	LEU	2.2
1	B	235	ALA	2.2
1	C	95	ILE	2.2
1	E	215	ILE	2.2
1	C	61	LEU	2.2
1	E	71	LEU	2.2
1	E	103	MET	2.1
1	D	182	TYR	2.1
1	C	34	ALA	2.1
1	C	162	THR	2.1
1	B	215	ILE	2.1
1	B	216	GLN	2.1
1	F	106	ASN	2.1
1	B	234	ASP	2.1
1	E	13	SER	2.1
1	D	52	ASP	2.1
1	F	79	THR	2.1
1	C	109	PHE	2.1
1	F	45	ARG	2.1
1	F	40	GLY	2.1
1	F	194	ILE	2.1
1	D	42	ASP	2.1
1	E	174	PHE	2.1

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Mol	Chain	Res	Type	RSRZ
1	F	205	GLY	2.1
1	F	25	ILE	2.1
1	B	198	ALA	2.1
1	D	223	ASP	2.0
1	C	268	LEU	2.0
1	F	17	THR	2.0
1	C	56	ALA	2.0
1	C	255	GLY	2.0
1	D	219	GLU	2.0
1	E	100	GLN	2.0
1	F	64	ASP	2.0
1	A	217	LEU	2.0
1	D	60	LEU	2.0
1	B	199	MET	2.0
1	F	232	MET	2.0
1	C	35	GLN	2.0
1	B	53	ARG	2.0
1	E	18	ASP	2.0
1	A	233	LYS	2.0
1	B	21	ILE	2.0
1	F	36	LEU	2.0
1	B	52	ASP	2.0

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

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

6.3 Carbohydrates ⓘ

There are no monosaccharides in this entry.

6.4 Ligands ⓘ

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($Å^2$)	Q<0.9
2	PYW	E	1270	39/39	0.79	0.21	26,32,40,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
2	PYW	F	1270	39/39	0.81	0.24	30,36,45,46	0
2	PYW	C	1270	39/39	0.84	0.21	20,30,36,37	0
2	PYW	D	1270	39/39	0.86	0.17	15,22,29,30	0
2	PYW	B	1270	39/39	0.86	0.18	7,15,28,33	0
2	PYW	A	1270	39/39	0.86	0.17	8,16,22,26	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 PYW E 1270:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative) and green (positive)
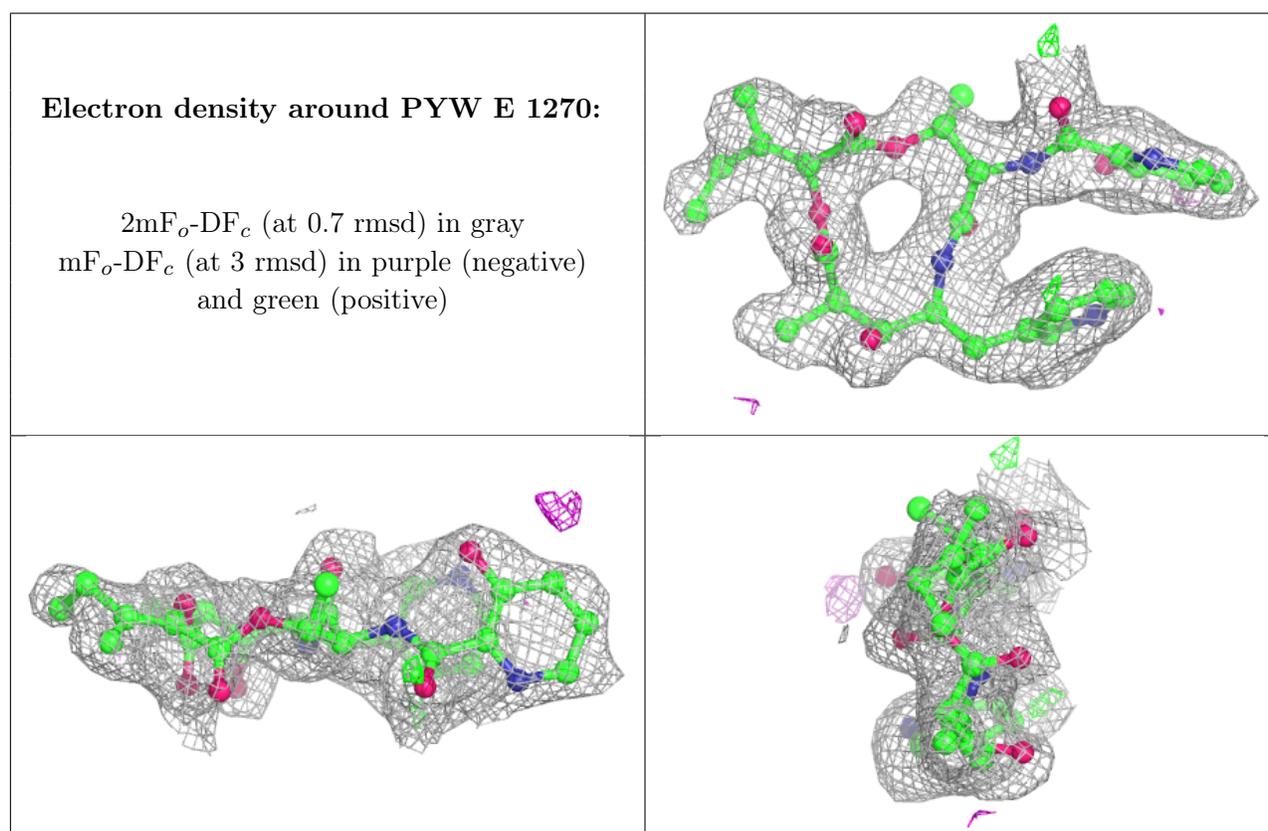
Electron density around PYW F 1270:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
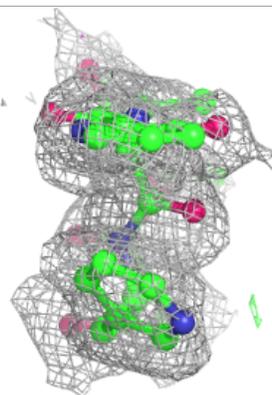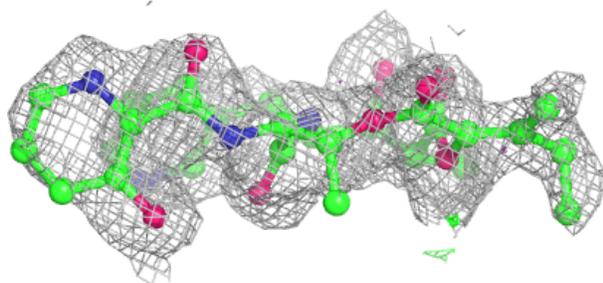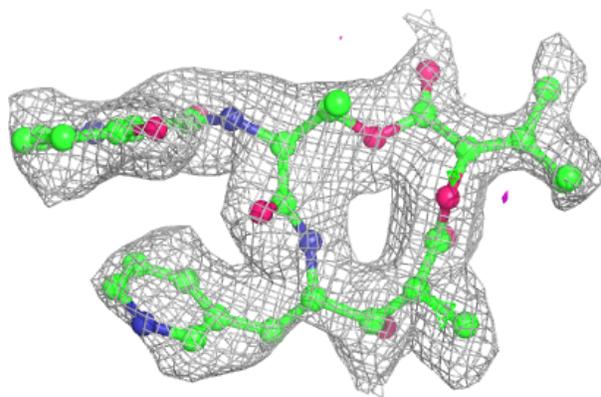
Electron density around PYW C 1270:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
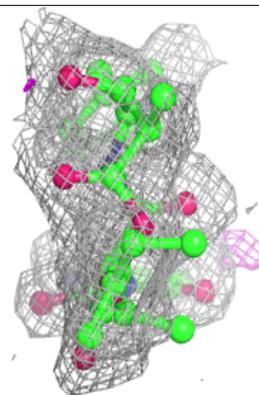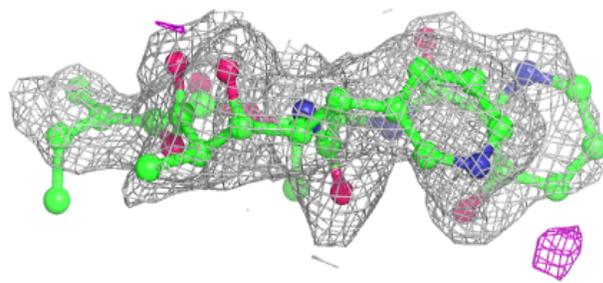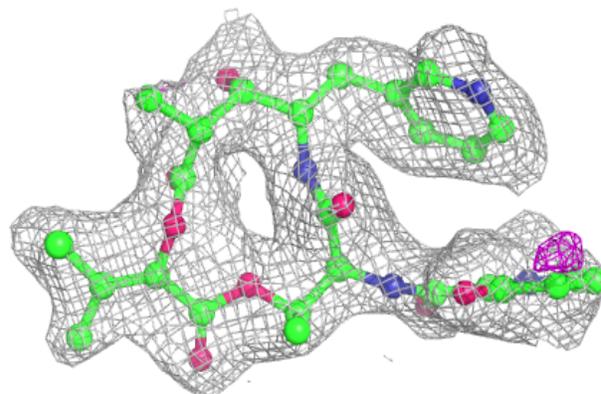
Electron density around PYW D 1270:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
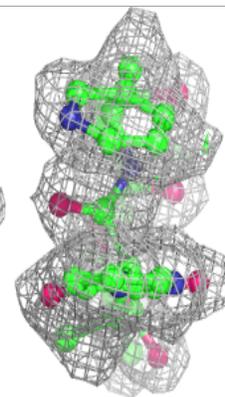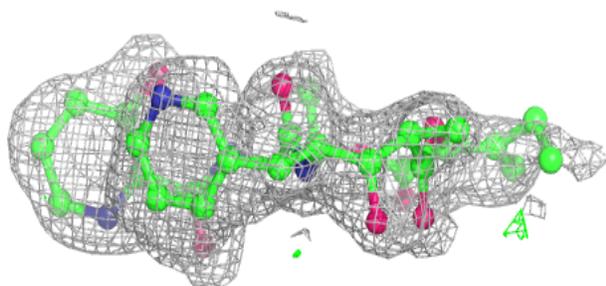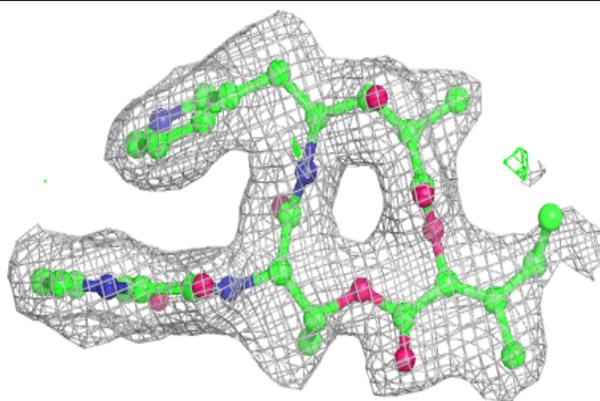
Electron density around PYW B 1270:

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 PYW A 1270:

$2mF_o$-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.