



Full wwPDB X-ray Structure Validation Report ⓘ

Aug 29, 2024 – 10:12 AM JST

PDB ID : 9J9C
Title : Glucosyl transferase NbUGT72AY1 co-crystallized with Scopoletin and UDP2Fglucose in the presence of retinol
Authors : Arold, S.T.; Hameed, U.F.S.
Deposited on : 2024-08-22
Resolution : 3.10 Å (reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtrriage (Phenix) : 1.13
EDS : 3.0
buster-report : 1.1.7 (2018)
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4 : 9.0.002 (Gargrove)
Density-Fitness : 1.0.11
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.38.2

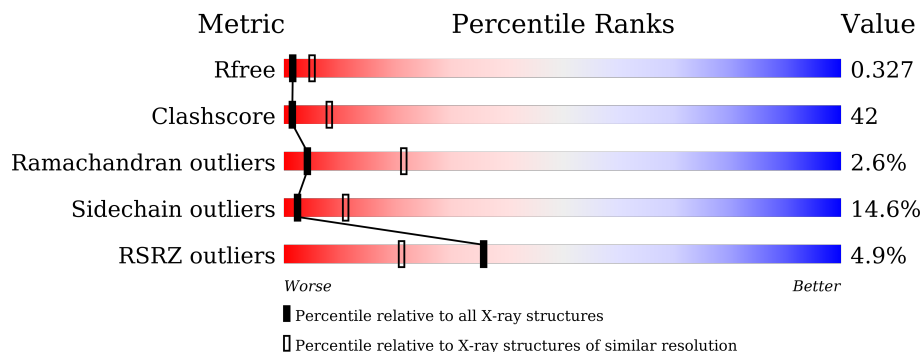
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.10 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	1351 (3.10-3.10)
Clashscore	180529	1454 (3.10-3.10)
Ramachandran outliers	177936	1391 (3.10-3.10)
Sidechain outliers	177891	1391 (3.10-3.10)
RSRZ outliers	164620	1351 (3.10-3.10)

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

Mol	Chain	Length	Quality of chain
1	A	474	
1	B	474	
1	C	474	
1	D	474	
1	E	474	
1	F	474	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
1	G	474	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	U2F	A	501	-	-	X	-
2	U2F	C	501	-	-	X	-
2	U2F	D	501	-	-	X	-
2	U2F	E	501	-	-	X	-
2	U2F	G	501	-	-	X	-
3	T83	A	502	-	X	-	-
3	T83	B	502	-	X	-	-
3	T83	C	502	-	X	-	-
3	T83	D	502	-	X	-	-
3	T83	F	502	-	X	-	-

2 Entry composition [i](#)

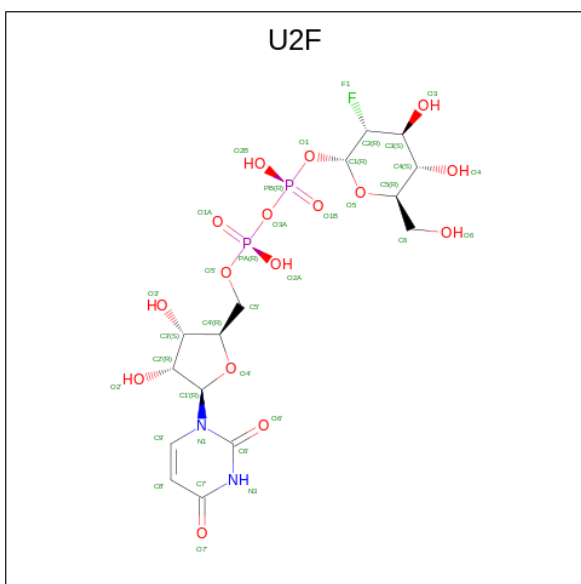
There are 3 unique types of molecules in this entry. The entry contains 25789 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Glycosyltransferase.

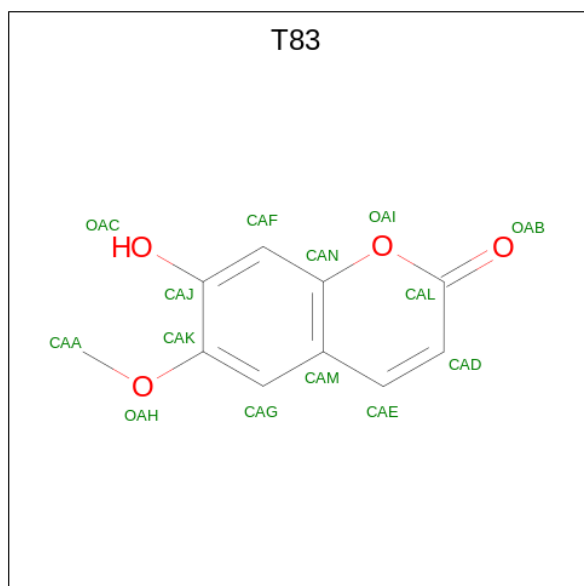
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	458	Total 3627	C 2318	N 610	O 683	S 16	0	0	0
1	B	460	Total 3640	C 2325	N 612	O 687	S 16	0	0	0
1	C	460	Total 3640	C 2325	N 612	O 687	S 16	0	0	0
1	D	460	Total 3640	C 2325	N 612	O 687	S 16	0	0	0
1	E	460	Total 3640	C 2325	N 612	O 687	S 16	0	0	0
1	F	460	Total 3640	C 2325	N 612	O 687	S 16	0	0	0
1	G	460	Total 3640	C 2325	N 612	O 687	S 16	0	0	0

- Molecule 2 is URIDINE-5'-DIPHOSPHATE-2-DEOXY-2-FLUORO-ALPHA-D-GLUCOSE (three-letter code: U2F) (formula: C₁₅H₂₃FN₂O₁₆P₂).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	
2	A	1	Total	C	F	N	O	P	0	0
			36	15	1	2	16	2		
2	B	1	Total	C	F	N	O	P	0	0
			36	15	1	2	16	2		
2	C	1	Total	C	F	N	O	P	0	0
			36	15	1	2	16	2		
2	D	1	Total	C	F	N	O	P	0	0
			36	15	1	2	16	2		
2	E	1	Total	C	F	N	O	P	0	0
			36	15	1	2	16	2		
2	F	1	Total	C	F	N	O	P	0	0
			36	15	1	2	16	2		
2	G	1	Total	C	F	N	O	P	0	0
			36	15	1	2	16	2		

- Molecule 3 is 7-hydroxy-6-methoxy-2H-1-benzopyran-2-one (three-letter code: T83) (formula: C₁₀H₈O₄) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	1	Total	C O	0	0
			14	10 4		
3	B	1	Total	C O	0	0
			14	10 4		
3	C	1	Total	C O	0	0
			14	10 4		
3	D	1	Total	C O	0	0
			14	10 4		

Continued on next page...

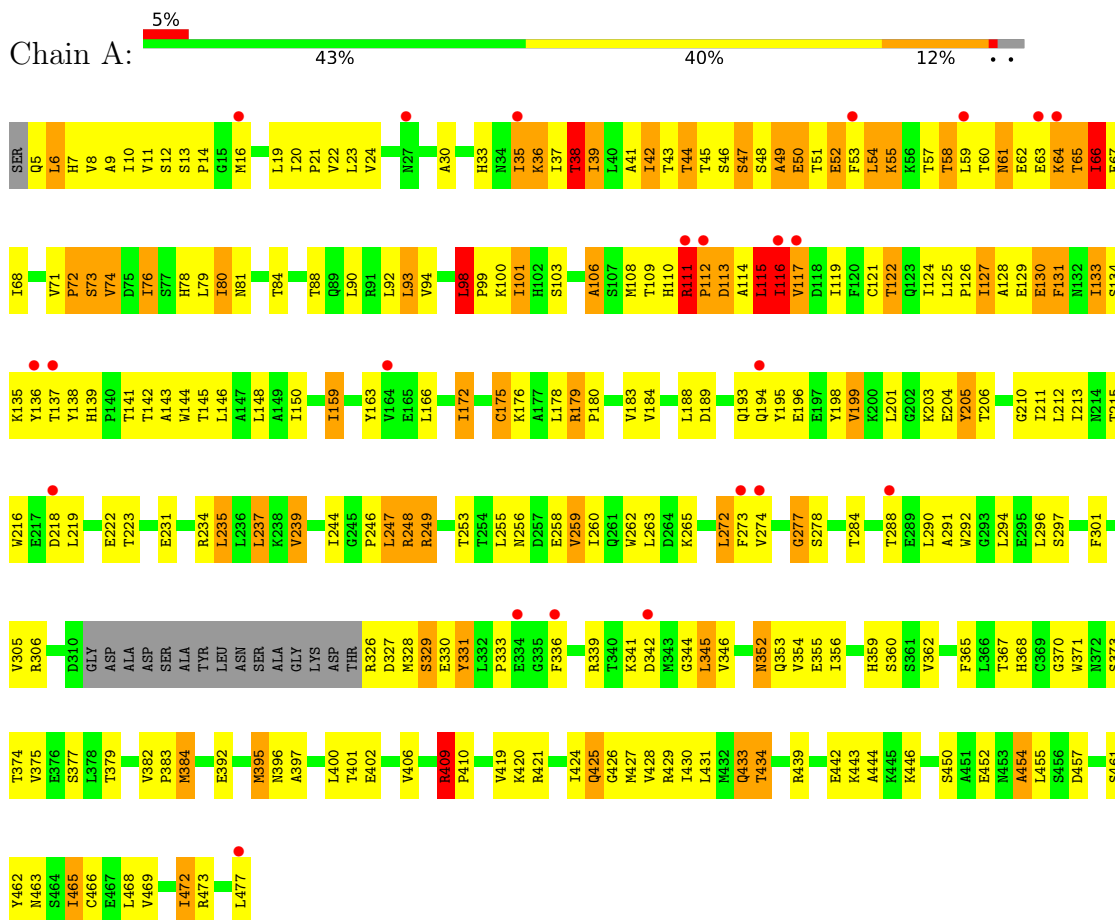
Continued from previous page...

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	C	O		
3	F	1	14	10	4	0	0

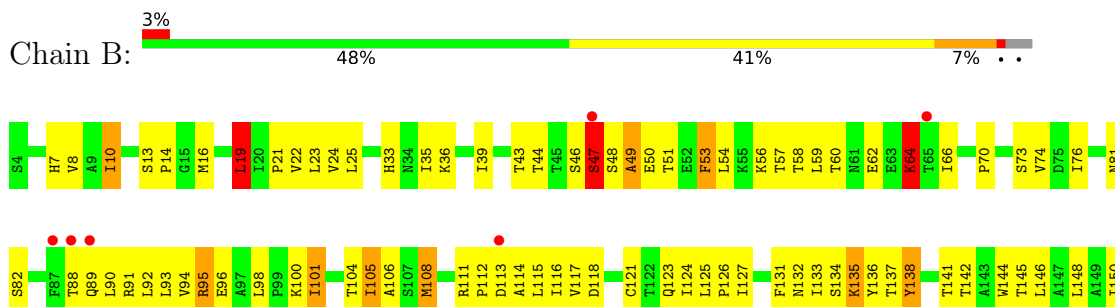
3 Residue-property plots

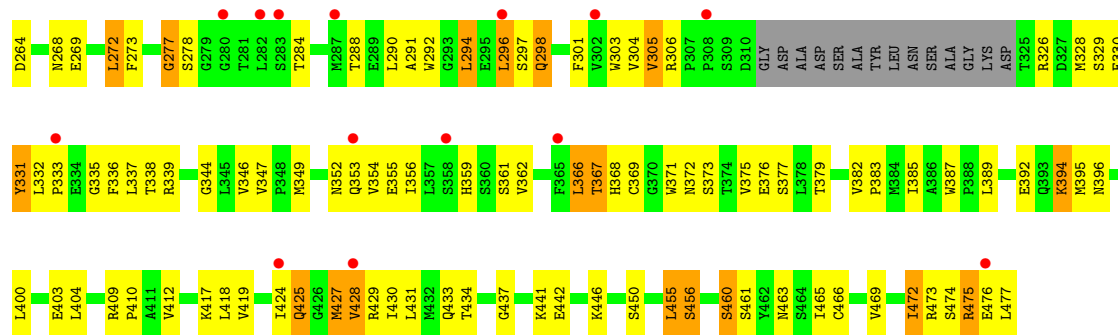
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: Glycosyltransferase



• Molecule 1: Glycosyltransferase





4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	87.13Å 170.39Å 152.13Å 90.00° 93.39° 90.00°	Depositor
Resolution (Å)	48.53 – 3.10 48.53 – 3.10	Depositor EDS
% Data completeness (in resolution range)	74.3 (48.53-3.10) 78.7 (48.53-3.10)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.15 (at 3.12Å)	Xtrriage
Refinement program	REFMAC 5.8.0419	Depositor
R, R_{free}	0.256 , 0.318 0.267 , 0.327	Depositor DCC
R_{free} test set	20205 reflections (4.93%)	wwPDB-VP
Wilson B-factor (Å ²)	84.5	Xtrriage
Anisotropy	0.124	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.34 , 73.5	EDS
L-test for twinning ²	$\langle L \rangle = 0.51$, $\langle L^2 \rangle = 0.34$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
Reported twinning fraction	0.888 for H, K, L 0.112 for -h,-k,l	Depositor
Outliers	0 of 63062 reflections	Xtrriage
F_o, F_c correlation	0.87	EDS
Total number of atoms	25789	wwPDB-VP
Average B, all atoms (Å ²)	75.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.13% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality i

5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: U2F, T83

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	0.43	0/3698	0.97	14/5016 (0.3%)
1	B	0.42	0/3711	0.88	4/5034 (0.1%)
1	C	0.41	0/3711	0.94	10/5034 (0.2%)
1	D	0.42	0/3711	0.88	7/5034 (0.1%)
1	E	0.43	1/3711 (0.0%)	0.91	8/5034 (0.2%)
1	F	0.43	0/3711	0.93	11/5034 (0.2%)
1	G	0.48	0/3711	0.96	11/5034 (0.2%)
All	All	0.43	1/25964 (0.0%)	0.93	65/35220 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	8
1	B	0	5
1	C	0	4
1	D	0	6
1	E	0	8
1	F	0	5
1	G	0	7
All	All	0	43

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	73	SER	CA-CB	-5.88	1.44	1.52

All (65) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	123	GLN	CB-CA-C	-15.55	79.30	110.40
1	A	117	VAL	N-CA-CB	-12.06	84.96	111.50
1	C	124	ILE	N-CA-CB	-11.04	85.40	110.80
1	A	116	ILE	CB-CA-C	-9.27	93.07	111.60
1	A	115	LEU	N-CA-CB	-8.90	92.60	110.40
1	F	269	GLU	CB-CA-C	8.87	128.14	110.40
1	E	93	LEU	CB-CA-C	8.83	126.98	110.20
1	G	427	MET	CG-SD-CE	-8.80	86.12	100.20
1	A	16	MET	CB-CA-C	8.49	127.38	110.40
1	G	37	ILE	N-CA-CB	-7.61	93.30	110.80
1	B	19	LEU	CB-CG-CD1	7.58	123.88	111.00
1	F	4	SER	N-CA-CB	7.49	121.73	110.50
1	A	384	MET	CG-SD-CE	-7.29	88.53	100.20
1	C	332	LEU	CB-CG-CD1	-7.12	98.91	111.00
1	C	123	GLN	N-CA-C	6.92	129.69	111.00
1	A	115	LEU	CB-CG-CD2	6.88	122.69	111.00
1	F	75	ASP	CB-CA-C	6.85	124.10	110.40
1	E	90	LEU	CB-CG-CD1	-6.69	99.62	111.00
1	E	343	MET	CG-SD-CE	-6.64	89.57	100.20
1	D	134	SER	CB-CA-C	6.55	122.55	110.10
1	A	409	ARG	CG-CD-NE	6.45	125.34	111.80
1	G	305	VAL	CA-CB-CG1	6.40	120.50	110.90
1	D	333	PRO	N-CA-CB	-6.32	95.65	102.60
1	C	414	PRO	N-CA-CB	-6.29	95.68	102.60
1	E	194	GLN	CB-CA-C	-6.25	97.89	110.40
1	C	420	LYS	N-CA-CB	6.25	121.85	110.60
1	F	269	GLU	N-CA-C	-6.20	94.27	111.00
1	A	395	MET	CG-SD-CE	-6.04	90.53	100.20
1	A	115	LEU	CB-CG-CD1	5.94	121.10	111.00
1	C	383	PRO	N-CA-CB	-5.88	96.13	102.60
1	G	146	LEU	CB-CG-CD1	5.87	120.98	111.00
1	G	455	LEU	CB-CG-CD2	5.87	120.98	111.00
1	F	270	SER	N-CA-CB	5.87	119.30	110.50
1	E	219	LEU	CB-CG-CD1	5.79	120.84	111.00
1	F	19	LEU	CB-CG-CD1	5.76	120.79	111.00
1	C	353	GLN	CB-CA-C	5.71	121.82	110.40
1	E	446	LYS	CD-CE-NZ	5.71	124.82	111.70
1	D	263	LEU	N-CA-CB	-5.67	99.06	110.40
1	D	134	SER	N-CA-CB	5.62	118.93	110.50
1	D	413	LEU	CB-CG-CD1	-5.62	101.45	111.00
1	A	130	GLU	N-CA-C	-5.56	95.99	111.00
1	G	170	LEU	CB-CG-CD1	5.55	120.43	111.00
1	G	141	THR	CA-CB-OG1	5.49	120.52	109.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	130	GLU	N-CA-C	-5.48	96.19	111.00
1	A	38	THR	N-CA-CB	5.48	120.71	110.30
1	G	41	ALA	CB-CA-C	-5.47	101.89	110.10
1	G	43	THR	CA-CB-OG1	-5.43	97.59	109.00
1	A	38	THR	OG1-CB-CG2	-5.42	97.53	110.00
1	F	368	HIS	CB-CG-ND1	-5.33	109.88	123.20
1	F	244	ILE	N-CA-C	-5.32	96.65	111.00
1	B	214	ASN	N-CA-CB	5.27	120.08	110.60
1	F	290	LEU	CB-CG-CD2	5.27	119.96	111.00
1	E	351	ALA	N-CA-CB	5.25	117.45	110.10
1	G	113	ASP	CB-CA-C	5.24	120.89	110.40
1	G	171	LYS	N-CA-CB	5.21	119.99	110.60
1	C	23	LEU	CB-CG-CD2	5.21	119.85	111.00
1	B	220	GLU	N-CA-CB	5.17	119.90	110.60
1	D	400	LEU	CB-CG-CD2	5.15	119.75	111.00
1	F	129	GLU	N-CA-CB	5.07	119.72	110.60
1	E	287	MET	CG-SD-CE	5.05	108.28	100.20
1	D	468	LEU	CB-CG-CD1	5.05	119.58	111.00
1	C	404	LEU	CB-CG-CD1	5.04	119.56	111.00
1	A	454	ALA	N-CA-C	-5.02	97.45	111.00
1	A	98	LEU	CB-CG-CD2	5.01	119.52	111.00
1	B	431	LEU	N-CA-C	-5.01	97.48	111.00

There are no chirality outliers.

All (43) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	111	ARG	Sidechain
1	A	179	ARG	Sidechain
1	A	234	ARG	Sidechain
1	A	248	ARG	Sidechain
1	A	249	ARG	Sidechain
1	A	339	ARG	Sidechain
1	A	409	ARG	Sidechain
1	A	421	ARG	Sidechain
1	B	190	ARG	Sidechain
1	B	326	ARG	Sidechain
1	B	339	ARG	Sidechain
1	B	91	ARG	Sidechain
1	B	95	ARG	Sidechain
1	C	248	ARG	Sidechain
1	C	249	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
1	C	409	ARG	Sidechain
1	C	91	ARG	Sidechain
1	D	111	ARG	Sidechain
1	D	248	ARG	Sidechain
1	D	249	ARG	Sidechain
1	D	326	ARG	Sidechain
1	D	339	ARG	Sidechain
1	D	95	ARG	Sidechain
1	E	111	ARG	Sidechain
1	E	190	ARG	Sidechain
1	E	234	ARG	Sidechain
1	E	248	ARG	Sidechain
1	E	28	ARG	Sidechain
1	E	326	ARG	Sidechain
1	E	421	ARG	Sidechain
1	E	91	ARG	Sidechain
1	F	111	ARG	Sidechain
1	F	234	ARG	Sidechain
1	F	248	ARG	Sidechain
1	F	249	ARG	Sidechain
1	F	339	ARG	Sidechain
1	G	111	ARG	Sidechain
1	G	234	ARG	Sidechain
1	G	248	ARG	Sidechain
1	G	339	ARG	Sidechain
1	G	473	ARG	Sidechain
1	G	475	ARG	Sidechain
1	G	91	ARG	Sidechain

5.2 Too-close contacts [\(i\)](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3627	0	3718	353	0
1	B	3640	0	3730	258	0
1	C	3640	0	3730	327	0
1	D	3640	0	3730	253	0
1	E	3640	0	3730	296	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	F	3640	0	3730	313	0
1	G	3640	0	3730	404	0
2	A	36	0	21	10	0
2	B	36	0	21	8	0
2	C	36	0	21	33	0
2	D	36	0	21	12	0
2	E	36	0	21	13	0
2	F	36	0	21	5	0
2	G	36	0	21	10	0
3	A	14	0	0	2	0
3	B	14	0	0	0	0
3	C	14	0	0	1	0
3	D	14	0	0	3	0
3	F	14	0	0	0	0
All	All	25789	0	26245	2193	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 42.

All (2193) 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:B:172:ILE:HD11	1:B:175:CYS:SG	1.65	1.36
1:C:229:TYR:CD2	1:F:430:ILE:HD11	1.67	1.29
1:C:59:LEU:HD23	1:C:59:LEU:O	1.33	1.26
1:A:462:TYR:O	1:A:465:ILE:HD13	1.36	1.25
1:B:60:THR:CG2	1:B:64:LYS:NZ	2.01	1.24
1:D:396:ASN:O	1:D:400:LEU:HD22	1.41	1.21
1:G:430:ILE:O	1:G:434:THR:HG22	1.41	1.19
1:F:223:THR:O	1:F:227:LEU:HD23	1.36	1.19
1:F:151:TYR:O	1:F:154:VAL:HG22	1.41	1.19
1:G:20:ILE:HG13	1:G:21:PRO:HD3	1.21	1.19
1:B:436:GLU:O	1:B:440:ILE:HD13	1.38	1.18
1:B:60:THR:HG21	1:B:64:LYS:NZ	1.56	1.18
1:F:290:LEU:CD2	1:F:294:LEU:HD11	1.75	1.17
1:G:124:ILE:CG2	1:G:127:ILE:HD12	1.75	1.16
1:D:413:LEU:HD11	1:D:415:THR:OG1	1.46	1.15
1:E:244:ILE:HD11	1:E:465:ILE:HG13	1.28	1.15
1:C:370:GLY:HA2	2:C:501:U2F:O4	1.45	1.15
1:E:271:VAL:HG22	1:E:361:SER:O	1.47	1.13
1:C:14:PRO:N	1:C:42:ILE:HD11	1.64	1.13

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:137:THR:OG1	1:C:208:PHE:CD2	1.98	1.13
1:C:37:ILE:CD1	1:C:66:ILE:HA	1.76	1.13
1:C:397:ALA:O	1:C:401:THR:HG23	1.49	1.12
1:D:372:ASN:HB2	2:D:501:U2F:O1A	1.45	1.12
1:F:151:TYR:CE2	1:F:154:VAL:HG21	1.85	1.11
1:A:44:THR:HG22	1:A:50:GLU:OE1	1.50	1.11
1:G:137:THR:OG1	1:G:211:ILE:HD12	1.50	1.10
1:F:290:LEU:HD23	1:F:294:LEU:HD11	1.29	1.10
1:A:50:GLU:OE2	1:A:51:THR:HG23	1.49	1.10
1:A:58:THR:HA	1:A:61:ASN:ND2	1.67	1.10
1:B:172:ILE:CD1	1:B:175:CYS:SG	2.40	1.09
1:D:176:LYS:HD2	1:D:403:GLU:OE2	1.52	1.09
1:G:26:GLY:HA2	1:G:29:LEU:HD21	1.35	1.08
1:E:364:GLY:HA3	1:E:432:MET:HE1	1.28	1.08
1:E:147:ALA:HA	1:E:150:ILE:HD11	1.31	1.07
1:G:8:VAL:H	1:G:37:ILE:HG12	1.18	1.07
1:F:286:GLN:HE22	1:F:419:VAL:CG2	1.68	1.07
1:A:292:TRP:O	1:A:296:LEU:HD12	1.55	1.07
1:B:292:TRP:HA	1:B:295:GLU:CD	1.75	1.06
1:B:60:THR:HG21	1:B:64:LYS:HZ1	0.99	1.06
1:C:147:ALA:HA	1:C:150:ILE:HD11	1.14	1.06
1:G:9:ALA:HB3	1:G:115:LEU:CD1	1.86	1.06
1:C:371:TRP:N	2:C:501:U2F:O4	1.89	1.05
1:E:122:THR:O	1:E:125:LEU:HG	1.54	1.05
1:C:370:GLY:CA	2:C:501:U2F:O4	2.04	1.05
1:G:90:LEU:HD11	1:G:120:PHE:HB3	1.39	1.04
1:G:137:THR:OG1	1:G:211:ILE:CD1	2.05	1.04
1:A:172:ILE:HD11	1:A:175:CYS:C	1.78	1.04
1:E:373:SER:OG	2:E:501:U2F:H5'2	1.57	1.04
1:G:141:THR:HG22	1:G:371:TRP:HB2	1.39	1.04
1:E:151:TYR:CZ	1:E:154:VAL:HG21	1.92	1.03
1:C:13:SER:C	1:C:42:ILE:HD11	1.80	1.02
1:B:19:LEU:HD12	1:B:23:LEU:HD21	1.38	1.02
1:G:124:ILE:HG23	1:G:127:ILE:HD12	1.36	1.01
1:B:19:LEU:HD12	1:B:23:LEU:CD2	1.89	1.01
1:F:286:GLN:HE22	1:F:419:VAL:HG23	1.22	1.01
1:E:244:ILE:CD1	1:E:465:ILE:CG1	2.39	1.01
1:G:12:SER:HB3	1:G:41:ALA:HB2	1.40	1.01
1:B:60:THR:HG23	1:B:64:LYS:CE	1.90	1.00
1:C:12:SER:O	1:C:42:ILE:HD12	1.62	1.00
1:F:290:LEU:HD23	1:F:294:LEU:CD1	1.91	1.00

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:244:ILE:HD11	1:E:465:ILE:CG1	1.93	0.99
1:G:124:ILE:O	1:G:127:ILE:HG23	1.61	0.99
1:G:141:THR:HG22	1:G:371:TRP:CB	1.93	0.99
1:E:290:LEU:HD23	1:E:294:LEU:HD11	1.45	0.99
1:F:424:ILE:C	1:F:424:ILE:HD13	1.82	0.98
1:C:59:LEU:HD22	1:C:61:ASN:HD21	1.25	0.97
1:E:371:TRP:O	1:E:375:VAL:HG13	1.64	0.97
1:C:147:ALA:CA	1:C:150:ILE:HD11	1.93	0.97
1:C:42:ILE:HA	1:C:71:VAL:HG13	1.43	0.97
1:B:60:THR:CG2	1:B:64:LYS:HZ1	1.72	0.97
1:B:412:VAL:HG11	1:B:417:LYS:HE3	1.47	0.96
1:E:351:ALA:O	2:E:501:U2F:O7'	1.82	0.96
1:B:33:HIS:CE1	1:B:465:ILE:HG21	2.01	0.96
1:C:14:PRO:CD	1:C:42:ILE:HD11	1.94	0.96
1:B:33:HIS:ND1	1:B:465:ILE:HG21	1.81	0.96
1:A:88:THR:O	1:A:92:LEU:HD12	1.64	0.96
1:B:60:THR:HG23	1:B:64:LYS:NZ	1.76	0.96
1:E:146:LEU:O	1:E:150:ILE:HD13	1.66	0.96
1:G:76:ILE:HD11	1:G:79:LEU:HB2	1.46	0.96
1:G:255:LEU:HD12	1:G:261:GLN:HG2	1.47	0.96
1:F:475:ARG:HD2	1:F:475:ARG:O	1.64	0.95
1:C:72:PRO:HD2	1:C:100:LYS:CE	1.94	0.95
1:C:229:TYR:CE2	1:F:430:ILE:HD11	2.01	0.95
1:E:372:ASN:HB2	2:E:501:U2F:O1A	1.66	0.95
1:C:19:LEU:O	1:C:22:VAL:HG12	1.65	0.95
1:C:37:ILE:HD11	1:C:66:ILE:HA	1.44	0.95
1:C:57:THR:OG1	1:C:60:THR:HA	1.65	0.95
1:G:328:MET:HA	1:G:328:MET:HE3	1.44	0.95
1:F:220:GLU:O	1:F:224:ILE:HG22	1.67	0.95
2:C:501:U2F:H3'	2:C:501:U2F:PA	2.07	0.95
1:B:213:ILE:CG2	1:B:215:THR:HG22	1.97	0.95
1:C:59:LEU:O	1:C:59:LEU:CD2	2.14	0.94
1:F:88:THR:O	1:F:92:LEU:HD22	1.67	0.94
1:A:377:SER:O	1:A:382:VAL:HG22	1.66	0.94
1:G:377:SER:O	1:G:382:VAL:HG22	1.67	0.94
1:B:392:GLU:OE2	2:B:501:U2F:O4	1.86	0.94
1:C:88:THR:O	1:C:92:LEU:HD12	1.67	0.94
1:F:298:GLN:OE1	1:F:429:ARG:NH2	2.01	0.94
1:A:146:LEU:O	1:A:150:ILE:HD12	1.67	0.93
1:C:37:ILE:HD13	1:C:66:ILE:HA	1.47	0.93
1:A:63:GLU:O	1:A:63:GLU:HG2	1.69	0.93

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:173:PRO:HB2	1:D:233:LEU:HD22	1.50	0.93
1:G:290:LEU:O	1:G:294:LEU:HD13	1.66	0.93
1:A:38:THR:CG2	1:A:67:GLU:HB2	1.97	0.93
1:C:350:TRP:CZ2	2:C:501:U2F:O7'	2.21	0.93
1:E:364:GLY:CA	1:E:432:MET:HE1	1.99	0.93
1:A:462:TYR:O	1:A:465:ILE:CD1	2.17	0.93
1:A:38:THR:HG22	1:A:67:GLU:O	1.68	0.93
1:A:62:GLU:OE1	1:A:66:ILE:HD11	1.66	0.93
1:E:469:VAL:HA	1:E:472:ILE:HD12	1.47	0.93
1:C:115:LEU:HD13	1:C:133:ILE:HG21	1.50	0.93
1:A:10:ILE:HB	1:A:39:ILE:HD12	1.51	0.92
1:B:292:TRP:HA	1:B:295:GLU:OE1	1.69	0.92
1:B:421:ARG:HA	1:B:424:ILE:HD11	1.50	0.92
1:C:372:ASN:HB2	2:C:501:U2F:H1'	1.50	0.92
1:E:176:LYS:HE2	1:E:403:GLU:OE2	1.70	0.92
1:B:88:THR:O	1:B:92:LEU:HD12	1.69	0.92
1:G:127:ILE:HD13	1:G:128:ALA:N	1.82	0.92
1:A:6:LEU:HG	1:A:472:ILE:HD11	1.51	0.92
1:A:457:ASP:O	1:A:462:TYR:CD2	2.22	0.92
1:C:137:THR:OG1	1:C:208:PHE:HD2	1.51	0.92
1:G:155:PHE:HZ	1:G:172:ILE:HD13	1.35	0.92
1:G:197:GLU:OE1	1:G:197:GLU:HA	1.66	0.92
1:E:61:ASN:ND2	1:E:66:ILE:H	1.68	0.92
1:E:290:LEU:CD2	1:E:294:LEU:HD11	1.98	0.92
1:A:172:ILE:O	1:A:172:ILE:HD13	1.69	0.91
1:C:59:LEU:HD21	1:C:67:GLU:HG3	1.53	0.91
1:G:155:PHE:CZ	1:G:172:ILE:HD13	2.06	0.91
1:A:37:ILE:HD11	1:A:66:ILE:HA	1.52	0.91
1:C:109:THR:HG23	1:C:110:HIS:ND1	1.86	0.91
1:B:60:THR:CG2	1:B:64:LYS:HZ3	1.74	0.90
1:F:151:TYR:CD2	1:F:154:VAL:HG21	2.05	0.90
1:B:101:ILE:O	1:B:105:ILE:HD12	1.71	0.90
2:C:501:U2F:H4'	2:C:501:U2F:PB	2.12	0.90
1:G:124:ILE:HG22	1:G:127:ILE:HD12	1.55	0.89
1:A:131:PHE:HB2	1:A:133:ILE:HD11	1.55	0.89
1:C:13:SER:C	1:C:42:ILE:CD1	2.41	0.89
1:C:350:TRP:HZ2	2:C:501:U2F:O7'	1.55	0.89
1:G:170:LEU:CD2	1:G:178:LEU:HB3	2.02	0.89
1:B:436:GLU:O	1:B:440:ILE:CD1	2.21	0.88
1:G:25:LEU:O	1:G:29:LEU:CD2	2.21	0.88
1:F:293:GLY:HA3	1:F:424:ILE:HD12	1.54	0.88

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:244:ILE:CD1	1:E:465:ILE:HG12	2.01	0.88
1:E:271:VAL:HG23	1:E:362:VAL:HA	1.54	0.88
1:F:286:GLN:NE2	1:F:419:VAL:HG23	1.87	0.88
1:G:25:LEU:HD23	1:G:29:LEU:HD22	1.55	0.88
1:A:406:VAL:CG2	1:A:444:ALA:HB2	2.04	0.88
1:B:401:THR:OG1	1:B:409:ARG:NH1	2.06	0.88
1:C:37:ILE:HD11	1:C:66:ILE:CA	2.02	0.87
1:C:37:ILE:HD11	1:C:66:ILE:CB	2.04	0.87
1:A:426:GLY:O	1:A:430:ILE:HD13	1.74	0.87
1:E:290:LEU:HD23	1:E:294:LEU:CD1	2.04	0.87
1:E:413:LEU:HD12	1:E:414:PRO:HD2	1.55	0.87
1:G:328:MET:HE3	1:G:331:TYR:CE2	2.09	0.87
1:B:239:VAL:HG23	1:B:240:PRO:HD2	1.55	0.87
1:G:125:LEU:HG	1:G:126:PRO:HD3	1.55	0.87
1:G:290:LEU:O	1:G:294:LEU:CD1	2.22	0.87
1:D:429:ARG:HB3	1:D:433:GLN:HE22	1.38	0.87
1:G:170:LEU:CD2	1:G:178:LEU:CB	2.53	0.87
1:C:150:ILE:H	1:C:150:ILE:HD13	1.40	0.87
1:A:44:THR:CG2	1:A:50:GLU:OE1	2.23	0.87
1:A:172:ILE:HD11	1:A:175:CYS:O	1.75	0.86
1:G:20:ILE:CG1	1:G:21:PRO:HD3	2.04	0.86
1:B:19:LEU:CD1	1:B:23:LEU:HD21	2.05	0.86
1:G:170:LEU:HD23	1:G:178:LEU:HB3	1.55	0.86
1:F:143:ALA:N	1:F:213:ILE:HD11	1.90	0.86
1:F:286:GLN:NE2	1:F:419:VAL:CG2	2.38	0.86
1:G:33:HIS:ND1	1:G:465:ILE:HG21	1.89	0.86
1:E:155:PHE:CZ	1:E:172:ILE:HD13	2.11	0.86
1:C:368:HIS:NE2	2:C:501:U2F:O1A	2.09	0.86
1:E:183:VAL:CG2	1:E:187:LEU:HB2	2.06	0.86
1:G:137:THR:HG1	1:G:211:ILE:HD12	1.33	0.85
1:D:429:ARG:CB	1:D:433:GLN:HE22	1.88	0.85
1:E:115:LEU:HD23	1:E:133:ILE:HG21	1.57	0.85
1:A:377:SER:OG	1:A:382:VAL:HG23	1.75	0.85
1:C:146:LEU:O	1:C:150:ILE:CD1	2.25	0.85
1:C:109:THR:HG23	1:C:110:HIS:CE1	2.12	0.85
1:E:19:LEU:HD13	1:E:23:LEU:HD13	1.59	0.85
1:C:42:ILE:O	1:C:42:ILE:HD13	1.77	0.84
1:F:223:THR:O	1:F:227:LEU:CD2	2.24	0.84
1:E:147:ALA:HA	1:E:150:ILE:CD1	2.07	0.84
1:E:180:PRO:O	1:E:183:VAL:HG12	1.76	0.84
2:E:501:U2F:H3'	2:E:501:U2F:O6'	1.78	0.84

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:183:VAL:O	1:G:394:LYS:HD2	1.77	0.84
1:D:396:ASN:O	1:D:400:LEU:CD2	2.24	0.84
1:F:192:ASP:OD1	1:F:194:GLN:OE1	1.94	0.84
1:A:58:THR:HA	1:A:61:ASN:HD22	1.39	0.84
1:C:146:LEU:O	1:C:150:ILE:HD13	1.78	0.84
1:G:8:VAL:H	1:G:37:ILE:CG1	1.90	0.83
1:A:172:ILE:O	1:A:172:ILE:CD1	2.25	0.83
1:A:116:ILE:HD11	1:A:136:TYR:CE2	2.13	0.83
1:E:125:LEU:CD1	1:E:126:PRO:HD3	2.08	0.83
1:E:263:LEU:HB3	1:E:359:HIS:ND1	1.93	0.83
1:E:430:ILE:HA	1:E:434:THR:HG23	1.61	0.83
1:F:33:HIS:ND1	1:F:465:ILE:HG21	1.93	0.83
1:G:272:LEU:HD23	1:G:428:VAL:HG23	1.61	0.82
1:C:159:ILE:HD12	1:C:160:GLU:O	1.79	0.82
1:C:229:TYR:CD2	1:F:430:ILE:CD1	2.59	0.82
1:G:430:ILE:O	1:G:434:THR:CG2	2.26	0.82
1:A:430:ILE:HA	1:A:434:THR:HG23	1.61	0.82
1:B:393:GLN:HE21	2:B:501:U2F:C6	1.92	0.82
1:C:37:ILE:HD11	1:C:66:ILE:HB	1.60	0.82
1:E:119:ILE:CG2	1:E:140:PRO:HD3	2.08	0.82
1:C:328:MET:HA	1:C:328:MET:HE3	1.60	0.82
1:F:426:GLY:O	1:F:430:ILE:HD13	1.78	0.82
1:A:117:VAL:HB	1:A:121:CYS:HB2	1.62	0.82
1:B:146:LEU:O	1:B:150:ILE:HD13	1.79	0.82
1:G:116:ILE:HD11	1:G:138:TYR:HB2	1.62	0.82
1:A:92:LEU:CD2	1:B:81:ASN:HD22	1.92	0.82
1:E:364:GLY:HA3	1:E:432:MET:CE	2.09	0.82
1:C:109:THR:CG2	1:C:110:HIS:CE1	2.63	0.82
1:E:424:ILE:O	1:E:428:VAL:HG12	1.79	0.82
1:A:20:ILE:HG12	1:A:21:PRO:HD3	1.62	0.82
1:D:413:LEU:HD22	1:D:414:PRO:HD2	1.62	0.82
1:A:37:ILE:CD1	1:A:66:ILE:HA	2.09	0.82
1:G:387:TRP:CH2	1:G:424:ILE:HD11	2.15	0.82
1:F:326:ARG:HG3	1:F:330:GLU:OE2	1.80	0.81
1:D:290:LEU:HD22	1:D:303:TRP:CZ2	2.15	0.81
1:A:430:ILE:HA	1:A:434:THR:CG2	2.10	0.81
1:F:441:LYS:O	1:F:445:LYS:NZ	2.12	0.81
1:C:147:ALA:HA	1:C:150:ILE:CD1	2.06	0.81
1:C:290:LEU:O	1:C:294:LEU:HD23	1.81	0.81
1:D:290:LEU:HD23	1:D:294:LEU:HD11	1.62	0.81
1:E:155:PHE:HZ	1:E:172:ILE:HD13	1.43	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:293:GLY:CA	1:F:424:ILE:HD12	2.08	0.81
1:E:151:TYR:CE2	1:E:154:VAL:HG21	2.15	0.81
1:C:370:GLY:HA2	2:C:501:U2F:HE	1.44	0.81
1:E:430:ILE:HA	1:E:434:THR:CG2	2.11	0.81
1:F:430:ILE:HA	1:F:434:THR:HG23	1.60	0.81
1:G:26:GLY:CA	1:G:29:LEU:HD21	2.10	0.81
1:C:59:LEU:CD2	1:C:67:GLU:HG3	2.11	0.80
1:F:95:ARG:NH2	1:F:123:GLN:HE22	1.79	0.80
1:G:424:ILE:O	1:G:428:VAL:HG12	1.81	0.80
1:C:330:GLU:HG3	1:C:331:TYR:CD1	2.15	0.80
1:F:16:MET:HE1	1:F:53:PHE:CD2	2.16	0.80
1:A:472:ILE:HD13	1:A:473:ARG:N	1.97	0.80
1:F:424:ILE:C	1:F:424:ILE:CD1	2.49	0.80
1:A:231:GLU:O	1:A:235:LEU:HD12	1.81	0.80
1:G:10:ILE:HB	1:G:39:ILE:HG13	1.62	0.80
2:C:501:U2F:H5'1	2:C:501:U2F:H9'	1.62	0.80
1:F:424:ILE:O	1:F:428:VAL:HG12	1.81	0.80
1:B:185:ASP:HA	1:B:188:LEU:HD23	1.64	0.80
1:D:401:THR:OG1	1:D:409:ARG:NH1	2.15	0.80
1:G:179:ARG:HD2	1:G:180:PRO:HD2	1.61	0.80
1:G:151:TYR:CD1	1:G:154:VAL:HG21	2.17	0.80
1:B:60:THR:HG23	1:B:64:LYS:HE2	1.64	0.80
1:B:291:ALA:O	1:B:295:GLU:OE1	1.99	0.80
1:F:188:LEU:HD23	1:F:188:LEU:N	1.96	0.80
1:F:86:ILE:HD12	1:F:86:ILE:H	1.45	0.80
1:F:441:LYS:HG3	1:F:445:LYS:HZ1	1.44	0.80
1:F:426:GLY:O	1:F:430:ILE:CD1	2.29	0.80
1:E:122:THR:O	1:E:125:LEU:CG	2.30	0.79
1:F:151:TYR:HD2	1:F:155:PHE:CE2	1.99	0.79
1:B:151:TYR:HD2	1:B:155:PHE:CE2	2.00	0.79
1:C:37:ILE:CD1	1:C:66:ILE:CA	2.57	0.79
1:F:430:ILE:HA	1:F:434:THR:CG2	2.11	0.79
1:G:234:ARG:HH11	1:G:238:LYS:NZ	1.80	0.79
1:F:244:ILE:HA	1:F:461:SER:OG	1.81	0.79
1:G:9:ALA:HB3	1:G:115:LEU:HD11	1.63	0.79
1:B:112:PRO:O	1:B:133:ILE:HG12	1.80	0.79
1:E:185:ASP:HA	1:E:188:LEU:HD23	1.64	0.79
1:G:29:LEU:HD23	1:G:29:LEU:H	1.45	0.79
1:D:98:LEU:HA	1:D:101:ILE:CD1	2.12	0.79
1:D:151:TYR:HD2	1:D:155:PHE:CE2	2.01	0.79
1:G:290:LEU:HD23	1:G:294:LEU:HD11	1.64	0.79

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:184:VAL:HG13	1:A:395:MET:HE3	1.64	0.79
1:C:71:VAL:HG23	1:C:100:LYS:HD2	1.64	0.79
1:F:154:VAL:HG23	1:F:155:PHE:N	1.96	0.79
1:D:185:ASP:HA	1:D:188:LEU:HD23	1.65	0.79
1:G:170:LEU:CD1	1:G:171:LYS:N	2.46	0.78
1:A:462:TYR:C	1:A:465:ILE:HD13	2.03	0.78
1:C:72:PRO:HD2	1:C:100:LYS:HE3	1.65	0.78
2:C:501:U2F:H4'	2:C:501:U2F:O1B	1.83	0.78
1:F:131:PHE:HB2	1:F:133:ILE:CD1	2.13	0.78
1:F:219:LEU:HD12	1:F:220:GLU:HG3	1.65	0.78
1:G:185:ASP:HA	1:G:188:LEU:HD23	1.65	0.78
1:B:293:GLY:HA3	1:B:424:ILE:HG13	1.62	0.78
1:E:115:LEU:HD23	1:E:133:ILE:CG2	2.12	0.78
1:A:92:LEU:HD21	1:B:81:ASN:HD22	1.46	0.78
1:A:92:LEU:HD21	1:B:81:ASN:ND2	1.99	0.78
1:G:151:TYR:CE1	1:G:154:VAL:HG21	2.19	0.78
1:B:239:VAL:CG2	1:B:240:PRO:HD2	2.14	0.78
1:G:170:LEU:HD11	1:G:178:LEU:H	1.46	0.78
1:D:396:ASN:H	1:D:396:ASN:HD22	1.32	0.78
1:E:295:GLU:OE1	1:E:339:ARG:NH1	2.16	0.78
1:F:374:THR:CG2	1:F:400:LEU:HD21	2.14	0.78
1:C:59:LEU:HG	1:C:68:ILE:O	1.83	0.78
1:C:213:ILE:HD12	1:C:241:VAL:HG22	1.65	0.78
1:E:125:LEU:HD12	1:E:126:PRO:HD3	1.64	0.78
1:E:151:TYR:HD2	1:E:155:PHE:CE2	2.01	0.77
1:F:441:LYS:CG	1:F:445:LYS:HZ1	1.96	0.77
1:B:213:ILE:HG21	1:B:215:THR:HG22	1.65	0.77
1:C:151:TYR:HD2	1:C:155:PHE:CE2	2.01	0.77
1:D:467:GLU:O	1:D:470:LYS:HG3	1.84	0.77
1:E:77:SER:HA	1:E:80:ILE:HD11	1.65	0.77
1:E:86:ILE:O	1:E:90:LEU:HD12	1.84	0.77
1:E:246:PRO:HD2	1:E:455:LEU:CD1	2.15	0.77
1:F:260:ILE:CG2	1:G:429:ARG:HH12	1.96	0.77
1:A:426:GLY:O	1:A:430:ILE:CD1	2.32	0.77
1:G:170:LEU:HD12	1:G:171:LYS:N	2.00	0.77
1:B:374:THR:CG2	1:B:400:LEU:HD21	2.15	0.77
1:C:297:SER:HB3	1:C:428:VAL:HG21	1.67	0.77
1:D:10:ILE:CG2	1:D:22:VAL:HG12	2.14	0.77
1:G:36:LYS:O	1:G:36:LYS:HD2	1.83	0.77
1:G:170:LEU:HD21	1:G:178:LEU:HB2	1.67	0.77
1:C:60:THR:C	1:C:61:ASN:HD22	1.88	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:112:PRO:O	1:C:133:ILE:HD12	1.85	0.77
1:B:352:ASN:HB3	1:B:355:GLU:OE1	1.84	0.77
1:C:176:LYS:HG2	1:C:177:ALA:H	1.48	0.77
1:A:50:GLU:HG2	1:A:51:THR:N	1.98	0.76
1:A:7:HIS:HB2	1:A:36:LYS:NZ	2.00	0.76
1:F:469:VAL:HA	1:F:472:ILE:CD1	2.16	0.76
1:D:231:GLU:O	1:D:235:LEU:HD12	1.84	0.76
1:D:290:LEU:CD2	1:D:294:LEU:HD11	2.15	0.76
1:B:259:VAL:HG12	1:B:345:LEU:HD23	1.66	0.76
1:C:14:PRO:HD3	1:C:42:ILE:HD11	1.67	0.76
1:E:203:LYS:O	1:E:206:THR:HG22	1.84	0.76
2:C:501:U2F:C3'	2:C:501:U2F:O3A	2.34	0.76
1:E:244:ILE:HD13	1:E:465:ILE:HG12	1.67	0.76
1:A:341:LYS:HD2	1:A:342:ASP:OD1	1.86	0.76
1:E:438:LYS:N	1:E:438:LYS:HD2	2.01	0.76
1:A:14:PRO:HG3	1:A:93:LEU:HD22	1.67	0.76
1:B:148:LEU:HD22	1:B:178:LEU:HD12	1.68	0.76
1:E:421:ARG:HA	1:E:424:ILE:HD12	1.67	0.76
1:F:25:LEU:O	1:F:29:LEU:HD12	1.86	0.76
1:D:131:PHE:HB2	1:D:133:ILE:CD1	2.16	0.75
1:F:76:ILE:O	1:F:76:ILE:HD13	1.86	0.75
1:G:166:LEU:HD12	1:G:168:GLU:HB2	1.68	0.75
1:A:203:LYS:O	1:A:206:THR:HG22	1.86	0.75
1:D:98:LEU:HA	1:D:101:ILE:HD12	1.66	0.75
1:D:263:LEU:HB3	1:D:359:HIS:HD1	1.51	0.75
1:C:59:LEU:HD21	1:C:67:GLU:CG	2.15	0.75
1:D:429:ARG:HA	1:D:433:GLN:OE1	1.87	0.75
1:G:125:LEU:HG	1:G:126:PRO:CD	2.17	0.75
1:F:239:VAL:HG23	1:F:240:PRO:HD2	1.69	0.75
1:D:290:LEU:HD23	1:D:294:LEU:CD1	2.16	0.75
1:C:37:ILE:CD1	1:C:65:THR:O	2.35	0.75
1:C:244:ILE:HD13	1:C:244:ILE:H	1.52	0.75
1:E:263:LEU:HB3	1:E:359:HIS:CE1	2.21	0.75
1:G:8:VAL:N	1:G:37:ILE:HG12	1.98	0.75
1:D:203:LYS:O	1:D:206:THR:HG22	1.86	0.75
1:C:185:ASP:HA	1:C:188:LEU:HD13	1.68	0.74
1:E:363:GLY:O	1:E:432:MET:HE2	1.87	0.74
1:G:9:ALA:HB3	1:G:115:LEU:HD13	1.68	0.74
1:F:203:LYS:O	1:F:206:THR:HG22	1.87	0.74
1:B:421:ARG:HA	1:B:424:ILE:CD1	2.17	0.74
1:D:429:ARG:HB3	1:D:433:GLN:NE2	2.02	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:392:GLU:HG2	1:D:396:ASN:ND2	2.03	0.74
1:F:406:VAL:HG11	1:F:447:LEU:HD12	1.69	0.74
1:G:244:ILE:H	1:G:244:ILE:HD13	1.53	0.74
1:C:461:SER:O	1:C:465:ILE:HD12	1.88	0.74
1:G:294:LEU:HD12	1:G:294:LEU:N	2.03	0.74
1:F:213:ILE:O	1:F:244:ILE:HD13	1.88	0.74
1:D:413:LEU:HD13	1:D:416:LYS:H	1.50	0.74
1:A:20:ILE:CG1	1:A:21:PRO:HD3	2.17	0.74
1:E:119:ILE:HG13	1:E:120:PHE:CD1	2.22	0.74
1:A:172:ILE:O	1:A:172:ILE:CG1	2.35	0.74
1:E:363:GLY:O	1:E:432:MET:CE	2.35	0.74
1:A:8:VAL:CG2	1:A:37:ILE:HG22	2.18	0.74
2:A:501:U2F:H6C1	3:A:502:T83:OAC	1.87	0.74
1:G:10:ILE:H	1:G:39:ILE:HB	1.52	0.73
1:G:387:TRP:CZ3	1:G:424:ILE:CD1	2.71	0.73
1:D:392:GLU:HG2	1:D:396:ASN:HD21	1.52	0.73
1:E:352:ASN:HB3	1:E:355:GLU:OE1	1.87	0.73
1:A:81:ASN:ND2	1:B:192:ASP:OD1	2.20	0.73
1:C:203:LYS:O	1:C:206:THR:HG22	1.88	0.73
2:D:501:U2F:H5'2	2:D:501:U2F:H9'	1.70	0.73
1:A:469:VAL:HA	1:A:472:ILE:CG2	2.19	0.73
1:G:170:LEU:HD11	1:G:177:ALA:HA	1.68	0.73
1:E:77:SER:HA	1:E:80:ILE:CD1	2.19	0.73
1:G:213:ILE:O	1:G:244:ILE:HD13	1.87	0.73
1:C:213:ILE:O	1:C:244:ILE:HD13	1.89	0.73
1:F:290:LEU:CD2	1:F:294:LEU:CD1	2.56	0.73
1:A:7:HIS:HB2	1:A:36:LYS:HZ1	1.51	0.73
1:G:12:SER:HB3	1:G:41:ALA:CB	2.17	0.73
1:C:332:LEU:HD11	1:C:336:PHE:HB3	1.71	0.72
1:E:18:HIS:O	1:E:22:VAL:HG13	1.89	0.72
1:E:115:LEU:CD2	1:E:133:ILE:HG21	2.18	0.72
1:F:25:LEU:O	1:F:29:LEU:CD1	2.37	0.72
1:B:328:MET:N	1:B:328:MET:SD	2.62	0.72
2:C:501:U2F:H3'	2:C:501:U2F:O3A	1.88	0.72
1:E:119:ILE:CG2	1:E:140:PRO:CD	2.67	0.72
1:A:193:GLN:O	1:A:196:GLU:HG2	1.89	0.72
1:C:72:PRO:HD2	1:C:100:LYS:NZ	2.04	0.72
1:D:136:TYR:CE2	1:D:472:ILE:HD13	2.25	0.72
1:G:80:ILE:HG23	1:G:84:THR:HG21	1.72	0.72
1:C:23:LEU:HD23	1:C:39:ILE:HD13	1.71	0.72
1:G:170:LEU:HD12	1:G:171:LYS:H	1.54	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:370:GLY:C	2:C:501:U2F:O4	2.27	0.72
1:A:9:ALA:HB3	1:A:115:LEU:HB2	1.70	0.72
1:F:425:GLN:HE21	1:F:429:ARG:HE	1.34	0.72
1:A:439:ARG:NH1	1:A:443:LYS:HE2	2.04	0.72
1:G:332:LEU:HD21	1:G:337:LEU:HD11	1.71	0.72
1:G:352:ASN:HB3	1:G:355:GLU:OE1	1.90	0.72
1:B:244:ILE:H	1:B:244:ILE:HD13	1.53	0.72
1:F:290:LEU:HD21	1:F:294:LEU:HD11	1.72	0.72
1:F:374:THR:HG21	1:F:400:LEU:HD21	1.72	0.72
1:B:292:TRP:CA	1:B:295:GLU:OE1	2.36	0.72
1:B:374:THR:HG21	1:B:400:LEU:HD21	1.70	0.72
1:D:95:ARG:NE	1:D:123:GLN:NE2	2.38	0.72
1:D:449:LYS:O	1:D:453:ASN:ND2	2.23	0.72
1:A:72:PRO:HG2	1:A:100:LYS:HD3	1.71	0.71
1:C:136:TYR:CE2	1:C:472:ILE:HD13	2.25	0.71
1:C:370:GLY:O	1:C:374:THR:HG22	1.90	0.71
1:G:10:ILE:HG12	1:G:116:ILE:CG2	2.20	0.71
1:D:429:ARG:O	1:D:433:GLN:OE1	2.08	0.71
1:E:35:ILE:HG22	1:E:37:ILE:HD13	1.70	0.71
1:G:197:GLU:OE1	1:G:197:GLU:CA	2.39	0.71
1:C:13:SER:CA	1:C:42:ILE:HD11	2.20	0.71
1:F:387:TRP:O	1:F:389:LEU:HD22	1.91	0.71
1:B:454:ALA:HB1	1:B:461:SER:OG	1.90	0.71
1:E:246:PRO:HD2	1:E:455:LEU:HD11	1.72	0.71
1:E:61:ASN:ND2	1:E:66:ILE:N	2.38	0.71
1:E:220:GLU:O	1:E:224:ILE:HD12	1.88	0.71
1:G:387:TRP:HH2	1:G:424:ILE:HD11	1.54	0.71
1:G:151:TYR:O	1:G:154:VAL:HG23	1.90	0.71
1:A:116:ILE:HG21	1:A:136:TYR:H	1.55	0.71
1:F:293:GLY:HA3	1:F:424:ILE:CD1	2.20	0.71
1:G:125:LEU:CG	1:G:126:PRO:HD3	2.20	0.71
1:C:146:LEU:HD23	1:C:150:ILE:HD12	1.72	0.70
1:C:159:ILE:HG13	1:C:166:LEU:HD21	1.73	0.70
1:D:263:LEU:HB3	1:D:359:HIS:ND1	2.04	0.70
1:B:213:ILE:HG22	1:B:215:THR:H	1.55	0.70
1:B:400:LEU:HA	1:B:404:LEU:HD12	1.73	0.70
1:D:430:ILE:HA	1:D:434:THR:CG2	2.21	0.70
1:G:88:THR:HA	1:G:91:ARG:HB2	1.72	0.70
1:G:201:LEU:HA	1:G:204:GLU:HB2	1.71	0.70
1:B:251:VAL:HG12	1:B:354:VAL:HG22	1.73	0.70
1:G:170:LEU:CD2	1:G:178:LEU:HB2	2.21	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:9:ALA:H	1:A:115:LEU:HB2	1.54	0.70
1:A:469:VAL:O	1:A:472:ILE:HG23	1.91	0.70
1:C:430:ILE:HA	1:C:434:THR:CG2	2.21	0.70
1:F:286:GLN:HE22	1:F:419:VAL:HG22	1.52	0.70
1:G:43:THR:HG22	1:G:72:PRO:HA	1.73	0.70
1:A:420:LYS:O	1:A:424:ILE:HD12	1.90	0.70
1:C:229:TYR:CE2	1:F:430:ILE:CD1	2.73	0.70
1:E:119:ILE:HG23	1:E:140:PRO:HD3	1.71	0.70
1:A:115:LEU:O	1:A:116:ILE:HG23	1.92	0.70
1:A:210:GLY:C	1:A:211:ILE:HD12	2.11	0.70
2:C:501:U2F:O3A	2:C:501:U2F:HC	1.92	0.70
1:E:8:VAL:HG11	1:E:116:ILE:CD1	2.21	0.70
1:C:57:THR:OG1	1:C:60:THR:CA	2.39	0.70
1:G:72:PRO:HD2	1:G:100:LYS:HG2	1.74	0.70
1:G:328:MET:CE	1:G:331:TYR:CE2	2.75	0.70
1:A:80:ILE:HG12	1:A:84:THR:HB	1.73	0.70
1:C:7:HIS:CD2	1:C:36:LYS:HD2	2.27	0.70
1:C:220:GLU:O	1:C:224:ILE:HD12	1.92	0.70
1:B:137:THR:HG21	1:B:205:TYR:CD1	2.27	0.69
1:B:172:ILE:HD12	1:B:175:CYS:HB2	1.74	0.69
1:F:35:ILE:HG22	1:F:37:ILE:HD13	1.72	0.69
1:G:19:LEU:HD13	1:G:23:LEU:HD23	1.74	0.69
1:G:170:LEU:HD23	1:G:178:LEU:CB	2.17	0.69
1:A:30:ALA:HB1	1:A:65:THR:OG1	1.91	0.69
1:D:10:ILE:HG22	1:D:22:VAL:HG12	1.74	0.69
1:F:95:ARG:HH21	1:F:123:GLN:NE2	1.90	0.69
1:F:75:ASP:O	1:F:76:ILE:HG22	1.93	0.69
1:G:35:ILE:HG22	1:G:37:ILE:HD11	1.74	0.69
1:G:328:MET:CE	1:G:331:TYR:HE2	2.05	0.69
1:A:8:VAL:HG22	1:A:37:ILE:HG22	1.75	0.69
1:B:166:LEU:O	1:B:167:LYS:HG2	1.92	0.69
1:C:430:ILE:HA	1:C:434:THR:HG23	1.74	0.69
1:G:25:LEU:O	1:G:29:LEU:HD22	1.91	0.69
1:G:170:LEU:CD1	1:G:178:LEU:H	2.06	0.69
1:A:290:LEU:O	1:A:294:LEU:HD12	1.92	0.69
1:B:101:ILE:O	1:B:105:ILE:CD1	2.41	0.69
1:C:136:TYR:CE2	1:C:472:ILE:CD1	2.76	0.69
1:D:35:ILE:HG22	1:D:37:ILE:HD13	1.74	0.69
1:E:290:LEU:O	1:E:294:LEU:HD12	1.92	0.69
1:F:172:ILE:H	1:F:172:ILE:HD12	1.58	0.69
1:G:33:HIS:CB	1:G:35:ILE:HD11	2.23	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:35:ILE:HG22	1:G:37:ILE:CD1	2.23	0.69
1:A:38:THR:HG21	1:A:67:GLU:HB2	1.71	0.69
1:C:383:PRO:HB2	1:C:431:LEU:HD11	1.75	0.69
1:D:18:HIS:O	1:D:22:VAL:CG2	2.41	0.69
1:B:146:LEU:HD22	1:B:213:ILE:HD11	1.73	0.69
1:F:5:GLN:OE1	1:F:36:LYS:HD3	1.91	0.69
1:A:62:GLU:OE1	1:A:66:ILE:CD1	2.41	0.68
1:G:231:GLU:O	1:G:235:LEU:HD22	1.92	0.68
1:A:172:ILE:HD11	1:A:175:CYS:CA	2.22	0.68
1:C:306:ARG:HA	1:C:349:MET:HE1	1.75	0.68
1:F:368:HIS:HB2	1:F:389:LEU:HD23	1.75	0.68
1:C:37:ILE:HD12	1:C:65:THR:O	1.94	0.68
1:E:87:PHE:HB3	1:E:194:GLN:HE21	1.57	0.68
1:G:290:LEU:HD23	1:G:294:LEU:CD1	2.22	0.68
1:D:136:TYR:CE2	1:D:472:ILE:CD1	2.76	0.68
1:D:290:LEU:O	1:D:294:LEU:HD12	1.94	0.68
1:B:292:TRP:O	1:B:295:GLU:HG2	1.92	0.68
1:F:95:ARG:NH2	1:F:123:GLN:NE2	2.42	0.68
1:F:290:LEU:O	1:F:294:LEU:HD12	1.94	0.68
1:B:290:LEU:O	1:B:294:LEU:HD12	1.93	0.68
1:E:44:THR:HG21	1:E:47:SER:OG	1.94	0.68
1:F:337:LEU:HD22	1:F:337:LEU:H	1.58	0.68
1:G:25:LEU:O	1:G:29:LEU:HD23	1.91	0.68
1:G:25:LEU:HD23	1:G:25:LEU:C	2.14	0.68
1:G:455:LEU:O	1:G:456:SER:OG	2.09	0.68
1:A:125:LEU:HD12	1:A:135:LYS:HD2	1.76	0.68
1:B:251:VAL:HG23	1:B:252:GLU:H	1.59	0.68
1:D:102:HIS:HA	1:D:105:ILE:CD1	2.24	0.68
1:E:216:TRP:CH2	1:E:219:LEU:HD23	2.29	0.68
1:G:335:GLY:O	1:G:338:THR:HG22	1.94	0.68
1:A:178:LEU:HD21	1:A:395:MET:HE2	1.75	0.68
1:D:430:ILE:HA	1:D:434:THR:HG23	1.75	0.68
1:E:14:PRO:O	1:E:50:GLU:OE1	2.11	0.68
1:F:216:TRP:CH2	1:F:219:LEU:HD23	2.29	0.67
1:F:353:GLN:NE2	1:F:376:GLU:OE1	2.27	0.67
1:A:457:ASP:O	1:A:462:TYR:CE2	2.46	0.67
1:C:14:PRO:N	1:C:42:ILE:CD1	2.49	0.67
1:D:413:LEU:HD12	1:D:416:LYS:HG3	1.75	0.67
1:E:151:TYR:CE2	1:E:154:VAL:CG2	2.77	0.67
1:F:143:ALA:HA	1:F:213:ILE:HD12	1.76	0.67
1:A:172:ILE:HD12	1:A:176:LYS:O	1.94	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:172:ILE:O	1:B:172:ILE:HD13	1.94	0.67
1:E:176:LYS:HE2	1:E:403:GLU:CD	2.15	0.67
1:G:35:ILE:O	1:G:37:ILE:HD12	1.94	0.67
1:G:305:VAL:CG2	1:G:328:MET:HE2	2.24	0.67
1:A:19:LEU:HD13	1:A:23:LEU:HD13	1.77	0.67
1:A:50:GLU:CD	1:A:51:THR:HG23	2.13	0.67
1:A:172:ILE:O	1:A:172:ILE:HG12	1.94	0.67
1:B:137:THR:HG22	1:B:211:ILE:HG12	1.76	0.67
1:F:469:VAL:HA	1:F:472:ILE:HD11	1.76	0.67
1:F:474:SER:O	1:F:477:LEU:CD1	2.43	0.67
1:B:371:TRP:O	1:B:375:VAL:HG22	1.93	0.67
1:B:440:ILE:HD13	1:B:440:ILE:H	1.58	0.67
1:C:13:SER:HA	1:C:42:ILE:CD1	2.25	0.67
1:C:78:HIS:CE1	1:C:79:LEU:HG	2.29	0.67
1:F:239:VAL:CG2	1:F:240:PRO:HD2	2.24	0.67
1:B:440:ILE:CD1	1:B:440:ILE:N	2.58	0.67
1:C:147:ALA:CA	1:C:150:ILE:CD1	2.70	0.67
1:C:178:LEU:CD1	1:C:183:VAL:HG12	2.25	0.67
1:A:14:PRO:CG	1:A:42:ILE:HD11	2.25	0.67
1:A:33:HIS:CE1	1:A:465:ILE:HG13	2.30	0.67
1:A:473:ARG:O	1:A:477:LEU:HD13	1.94	0.67
1:B:239:VAL:HG23	1:B:240:PRO:CD	2.23	0.67
1:C:6:LEU:HD22	1:C:473:ARG:CZ	2.25	0.67
1:E:146:LEU:CD2	1:E:150:ILE:HD12	2.24	0.67
2:E:501:U2F:O6'	2:E:501:U2F:C3'	2.43	0.67
1:F:387:TRP:O	1:F:389:LEU:CD2	2.43	0.67
1:D:176:LYS:CD	1:D:403:GLU:OE2	2.39	0.67
1:E:284:THR:O	1:E:288:THR:HG23	1.96	0.66
1:F:143:ALA:CA	1:F:213:ILE:CD1	2.73	0.66
1:F:424:ILE:HD13	1:F:424:ILE:O	1.94	0.66
1:A:19:LEU:O	1:A:23:LEU:HD13	1.94	0.66
1:C:172:ILE:H	1:C:172:ILE:HD12	1.60	0.66
1:G:179:ARG:CD	1:G:180:PRO:HD2	2.24	0.66
1:A:50:GLU:OE2	1:A:51:THR:CG2	2.38	0.66
1:C:429:ARG:HH12	1:D:260:ILE:HG23	1.60	0.66
1:D:173:PRO:HB2	1:D:233:LEU:CD2	2.23	0.66
1:G:170:LEU:HD21	1:G:178:LEU:CB	2.24	0.66
1:D:372:ASN:CB	2:D:501:U2F:O1A	2.33	0.66
1:G:387:TRP:HZ3	1:G:424:ILE:CD1	2.08	0.66
1:C:72:PRO:HD2	1:C:100:LYS:HZ1	1.60	0.66
1:C:371:TRP:HA	1:C:374:THR:HG23	1.76	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:455:LEU:O	1:G:456:SER:CB	2.43	0.66
1:C:476:GLU:O	1:C:477:LEU:HG	1.96	0.66
1:G:18:HIS:O	1:G:22:VAL:CG2	2.43	0.66
1:A:352:ASN:HB2	1:A:355:GLU:OE1	1.96	0.66
1:C:13:SER:CA	1:C:42:ILE:CD1	2.72	0.66
1:C:23:LEU:CD2	1:C:39:ILE:HD13	2.26	0.66
1:C:437:GLY:HA2	1:C:440:ILE:HD12	1.78	0.66
1:G:53:PHE:HA	1:G:56:LYS:HD2	1.78	0.66
1:C:328:MET:HA	1:C:328:MET:CE	2.25	0.66
1:F:244:ILE:HD13	1:F:244:ILE:H	1.60	0.66
1:G:332:LEU:CD2	1:G:337:LEU:HD11	2.25	0.66
1:A:136:TYR:HD2	1:A:212:LEU:HD13	1.61	0.66
1:B:115:LEU:CD2	1:B:117:VAL:HG12	2.26	0.66
1:C:41:ALA:O	1:C:71:VAL:HG12	1.96	0.66
1:E:87:PHE:CB	1:E:194:GLN:HE21	2.08	0.66
1:G:40:LEU:HB2	1:G:69:ILE:H	1.60	0.66
1:A:184:VAL:HG13	1:A:395:MET:CE	2.26	0.65
1:C:371:TRP:N	2:C:501:U2F:HE	1.95	0.65
1:D:106:ALA:HA	1:D:111:ARG:HH12	1.59	0.65
1:E:97:ALA:O	1:E:101:ILE:HD12	1.96	0.65
1:G:305:VAL:HG23	1:G:328:MET:HE2	1.77	0.65
1:C:7:HIS:ND1	1:C:112:PRO:HA	2.11	0.65
1:C:16:MET:HE2	1:C:49:ALA:HB1	1.78	0.65
1:D:263:LEU:HB3	1:D:359:HIS:CE1	2.31	0.65
1:F:154:VAL:CG2	1:F:155:PHE:N	2.58	0.65
1:A:462:TYR:HA	1:A:465:ILE:CD1	2.27	0.65
1:E:372:ASN:ND2	2:E:501:U2F:O1A	2.29	0.65
1:F:105:ILE:HA	1:F:108:MET:HE3	1.76	0.65
1:G:165:GLU:OE2	1:G:166:LEU:HD22	1.96	0.65
1:A:6:LEU:CG	1:A:472:ILE:HD11	2.24	0.65
1:A:439:ARG:HH11	1:A:443:LYS:HE2	1.61	0.65
1:F:133:ILE:HD13	1:F:133:ILE:N	2.11	0.65
1:G:410:PRO:N	1:G:427:MET:HE1	2.11	0.65
1:F:244:ILE:CA	1:F:461:SER:OG	2.44	0.65
1:B:410:PRO:N	1:B:427:MET:HE3	2.11	0.65
1:D:246:PRO:HB2	1:D:375:VAL:HG13	1.78	0.65
1:D:251:VAL:HG12	1:D:354:VAL:HG12	1.79	0.65
1:F:126:PRO:HA	1:F:129:GLU:OE1	1.95	0.65
1:C:239:VAL:HG13	1:C:240:PRO:HD2	1.79	0.65
1:D:396:ASN:HD22	1:D:396:ASN:N	1.95	0.65
1:E:244:ILE:HD13	1:E:465:ILE:CG1	2.21	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:20:ILE:HG13	1:G:21:PRO:CD	2.13	0.65
1:G:170:LEU:HD22	1:G:172:ILE:HD11	1.78	0.65
1:A:101:ILE:HD12	1:A:124:ILE:HD12	1.77	0.65
2:C:501:U2F:PA	2:C:501:U2F:C3'	2.84	0.65
1:G:114:ALA:HB2	1:G:472:ILE:HG21	1.79	0.65
1:G:190:ARG:HG3	1:G:195:TYR:CE2	2.32	0.65
1:C:72:PRO:CD	1:C:100:LYS:HE3	2.26	0.64
1:E:148:LEU:HD12	1:E:198:TYR:OH	1.97	0.64
1:G:91:ARG:HA	1:G:91:ARG:CZ	2.27	0.64
1:B:440:ILE:CD1	1:B:440:ILE:H	2.10	0.64
1:F:188:LEU:N	1:F:188:LEU:CD2	2.59	0.64
1:E:108:MET:HE2	1:E:112:PRO:HD3	1.79	0.64
1:G:141:THR:HG21	1:G:392:GLU:OE2	1.97	0.64
1:F:239:VAL:HG23	1:F:240:PRO:CD	2.27	0.64
1:A:20:ILE:HG12	1:A:21:PRO:CD	2.27	0.64
1:C:246:PRO:HB2	1:C:375:VAL:HG13	1.79	0.64
1:E:7:HIS:HB2	1:E:110:HIS:NE2	2.13	0.64
1:E:35:ILE:HG22	1:E:37:ILE:CD1	2.27	0.64
1:E:118:ASP:HB3	1:E:121:CYS:SG	2.37	0.64
1:A:133:ILE:N	1:A:133:ILE:HD12	2.13	0.64
1:F:381:GLY:O	1:F:445:LYS:NZ	2.30	0.64
1:A:193:GLN:O	1:A:196:GLU:CG	2.45	0.64
1:B:148:LEU:HD22	1:B:178:LEU:CD1	2.27	0.64
1:C:329:SER:HA	1:C:332:LEU:HD22	1.80	0.64
1:F:50:GLU:O	1:F:54:LEU:HD23	1.97	0.64
1:F:254:THR:HG23	1:F:355:GLU:OE1	1.98	0.64
1:B:60:THR:CG2	1:B:64:LYS:CE	2.63	0.64
1:D:98:LEU:CA	1:D:101:ILE:HD12	2.26	0.64
1:E:6:LEU:HD11	1:E:473:ARG:HH11	1.63	0.64
1:A:10:ILE:HB	1:A:39:ILE:CD1	2.25	0.64
1:C:16:MET:CE	1:C:49:ALA:HB1	2.27	0.64
1:D:10:ILE:HG21	1:D:22:VAL:HG12	1.79	0.64
1:G:258:GLU:HA	1:G:261:GLN:HG3	1.80	0.64
1:B:105:ILE:HD13	1:B:127:ILE:HG21	1.80	0.64
1:C:44:THR:HG21	1:C:47:SER:HB3	1.80	0.64
1:D:424:ILE:HA	1:D:427:MET:CE	2.27	0.64
1:G:213:ILE:HD12	1:G:241:VAL:CG1	2.28	0.64
1:G:434:THR:HG23	1:G:437:GLY:H	1.62	0.64
1:A:262:TRP:CG	1:A:345:LEU:HD13	2.32	0.63
1:B:328:MET:O	1:B:330:GLU:N	2.31	0.63
1:C:262:TRP:CZ3	1:C:266:GLN:HG3	2.32	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:372:ASN:HB2	2:C:501:U2F:C1'	2.28	0.63
1:E:50:GLU:O	1:E:54:LEU:HD23	1.98	0.63
1:E:409:ARG:C	1:E:427:MET:HE3	2.18	0.63
1:A:246:PRO:HB2	1:A:375:VAL:HG13	1.79	0.63
1:E:88:THR:HG23	1:E:194:GLN:HG3	1.80	0.63
1:G:10:ILE:HD13	1:G:25:LEU:HD22	1.80	0.63
1:G:19:LEU:O	1:G:23:LEU:HD23	1.98	0.63
1:C:76:ILE:CD1	1:C:93:LEU:HD22	2.28	0.63
1:A:33:HIS:CE1	1:A:465:ILE:HD11	2.33	0.63
1:C:10:ILE:HG22	1:C:22:VAL:CG2	2.28	0.63
1:D:292:TRP:O	1:D:296:LEU:HD12	1.98	0.63
1:F:143:ALA:HB2	1:F:213:ILE:HD13	1.81	0.63
1:G:268:ASN:C	1:G:269:GLU:HG2	2.18	0.63
1:E:271:VAL:CG2	1:E:362:VAL:HA	2.27	0.63
1:G:165:GLU:H	1:G:165:GLU:CD	2.01	0.63
1:G:246:PRO:HB2	1:G:375:VAL:HG13	1.79	0.63
1:C:292:TRP:O	1:C:296:LEU:HD22	1.98	0.63
1:E:12:SER:HB2	1:E:22:VAL:HG21	1.80	0.63
1:E:32:HIS:HB2	1:E:33:HIS:CE1	2.33	0.63
1:G:90:LEU:CD1	1:G:120:PHE:HB3	2.23	0.63
1:A:116:ILE:CG2	1:A:136:TYR:H	2.12	0.63
1:D:10:ILE:HG22	1:D:22:VAL:CG1	2.27	0.63
1:D:148:LEU:HD12	1:D:198:TYR:OH	1.99	0.63
1:E:244:ILE:CD1	1:E:465:ILE:HG13	2.05	0.63
1:A:469:VAL:HA	1:A:472:ILE:HG23	1.81	0.63
1:B:112:PRO:O	1:B:133:ILE:CG1	2.46	0.63
1:D:104:THR:O	1:D:108:MET:HG3	1.99	0.63
1:G:277:GLY:HA3	1:G:368:HIS:CE1	2.34	0.63
1:G:463:ASN:O	1:G:466:CYS:SG	2.49	0.63
1:C:59:LEU:HD23	1:C:68:ILE:H	1.64	0.62
1:G:162:GLU:H	1:G:162:GLU:CD	2.02	0.62
1:C:87:PHE:HZ	1:C:201:LEU:HD22	1.64	0.62
1:D:125:LEU:HD12	1:D:135:LYS:HD2	1.81	0.62
1:E:183:VAL:HG22	1:E:187:LEU:HB2	1.78	0.62
1:G:101:ILE:HD11	1:G:127:ILE:HG13	1.80	0.62
1:A:11:VAL:N	1:A:116:ILE:O	2.26	0.62
1:C:413:LEU:HB2	1:C:416:LYS:HG3	1.81	0.62
1:F:148:LEU:HD12	1:F:198:TYR:OH	1.99	0.62
1:F:273:PHE:HD1	1:F:274:VAL:N	1.98	0.62
1:G:184:VAL:HG23	1:G:187:LEU:HD23	1.81	0.62
1:G:366:LEU:HD22	1:G:385:ILE:HB	1.82	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:133:ILE:HD13	1:D:133:ILE:N	2.14	0.62
1:E:74:VAL:HG13	1:E:76:ILE:HD11	1.80	0.62
1:G:125:LEU:CD1	1:G:126:PRO:HD3	2.29	0.62
1:G:133:ILE:HD13	1:G:133:ILE:N	2.14	0.62
1:E:8:VAL:CG1	1:E:116:ILE:CD1	2.77	0.62
1:E:183:VAL:HG21	1:E:187:LEU:CB	2.30	0.62
1:F:246:PRO:HB2	1:F:375:VAL:HG13	1.80	0.62
1:A:377:SER:OG	1:A:382:VAL:CG2	2.46	0.62
1:B:106:ALA:HA	1:B:111:ARG:HH12	1.63	0.62
1:E:273:PHE:HD1	1:E:274:VAL:N	1.98	0.62
1:A:277:GLY:O	1:A:306:ARG:NH2	2.32	0.62
1:B:172:ILE:HD13	1:B:172:ILE:C	2.20	0.62
1:E:9:ALA:HB3	1:E:115:LEU:HD13	1.80	0.62
1:A:6:LEU:HG	1:A:472:ILE:CD1	2.26	0.61
1:A:37:ILE:HD11	1:A:66:ILE:CA	2.26	0.61
1:A:148:LEU:HD12	1:A:198:TYR:OH	1.99	0.61
1:E:76:ILE:O	1:E:80:ILE:HD12	1.99	0.61
1:E:353:GLN:NE2	1:E:376:GLU:OE1	2.31	0.61
1:G:35:ILE:C	1:G:37:ILE:HD12	2.20	0.61
1:A:116:ILE:HG21	1:A:136:TYR:N	2.15	0.61
1:B:13:SER:HB3	1:B:14:PRO:HD2	1.82	0.61
1:F:10:ILE:CG2	1:F:22:VAL:HG13	2.30	0.61
1:F:151:TYR:CD2	1:F:154:VAL:CG2	2.82	0.61
1:E:13:SER:HB3	1:E:14:PRO:HD2	1.82	0.61
1:E:18:HIS:O	1:E:22:VAL:CG1	2.48	0.61
1:F:351:ALA:O	2:F:501:U2F:H8'	2.00	0.61
1:A:10:ILE:CG2	1:A:22:VAL:HG13	2.30	0.61
1:A:33:HIS:CE1	1:A:465:ILE:CG1	2.83	0.61
1:C:12:SER:HB2	1:C:22:VAL:HG11	1.81	0.61
1:E:61:ASN:OD1	1:E:64:LYS:N	2.34	0.61
1:E:410:PRO:N	1:E:427:MET:HE3	2.14	0.61
1:C:373:SER:OG	2:C:501:U2F:O2'	2.05	0.61
1:C:408:ILE:HD12	1:C:430:ILE:HD11	1.81	0.61
1:D:95:ARG:HD3	1:D:123:GLN:NE2	2.16	0.61
1:D:273:PHE:HD1	1:D:274:VAL:N	1.99	0.61
1:E:190:ARG:HG3	1:E:195:TYR:CE2	2.34	0.61
1:B:291:ALA:C	1:B:295:GLU:OE1	2.39	0.61
1:C:125:LEU:HD12	1:C:135:LYS:HD2	1.80	0.61
1:D:131:PHE:HB2	1:D:133:ILE:HD12	1.82	0.61
1:E:139:HIS:O	1:E:213:ILE:HA	2.01	0.61
1:B:412:VAL:HG11	1:B:417:LYS:CE	2.28	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:239:VAL:CG2	1:B:240:PRO:CD	2.79	0.61
1:C:231:GLU:O	1:C:235:LEU:HG	2.01	0.61
1:D:33:HIS:CD2	1:D:465:ILE:HG21	2.36	0.61
1:E:413:LEU:CD1	1:E:414:PRO:HD2	2.27	0.61
1:A:9:ALA:O	1:A:116:ILE:N	2.33	0.61
1:A:292:TRP:C	1:A:296:LEU:HD12	2.21	0.61
1:F:35:ILE:HG22	1:F:37:ILE:CD1	2.31	0.61
1:G:249:ARG:NH2	2:G:501:U2F:O2'	2.34	0.61
1:A:54:LEU:C	1:A:54:LEU:HD12	2.21	0.60
1:B:329:SER:HA	1:B:332:LEU:HD23	1.82	0.60
1:G:290:LEU:CD2	1:G:294:LEU:HD11	2.31	0.60
1:G:410:PRO:HA	1:G:427:MET:CE	2.30	0.60
1:B:297:SER:HB3	1:B:428:VAL:HG21	1.83	0.60
1:C:37:ILE:HD13	1:C:37:ILE:O	2.01	0.60
1:F:254:THR:CG2	1:F:355:GLU:OE1	2.49	0.60
1:F:424:ILE:CD1	1:F:425:GLN:N	2.64	0.60
1:A:249:ARG:CZ	1:A:354:VAL:HG23	2.30	0.60
1:D:117:VAL:HG11	1:D:121:CYS:O	2.00	0.60
1:G:231:GLU:O	1:G:235:LEU:CD2	2.49	0.60
1:G:304:VAL:HA	1:G:347:VAL:HG23	1.82	0.60
1:D:328:MET:O	1:D:329:SER:C	2.40	0.60
1:D:413:LEU:CD1	1:D:416:LYS:H	2.13	0.60
1:A:365:PHE:CE2	1:A:373:SER:OG	2.54	0.60
1:B:146:LEU:CD2	1:B:213:ILE:HD11	2.31	0.60
1:B:172:ILE:HD12	1:B:175:CYS:CB	2.31	0.60
1:B:248:ARG:HD3	1:B:379:THR:HG21	1.84	0.60
1:C:350:TRP:CH2	2:C:501:U2F:O7'	2.53	0.60
1:C:356:ILE:O	1:C:362:VAL:HG21	2.01	0.60
1:A:122:THR:HG21	1:A:201:LEU:HD22	1.84	0.60
1:C:76:ILE:HD11	1:C:93:LEU:HD22	1.83	0.60
1:C:117:VAL:HG13	1:C:121:CYS:HB2	1.84	0.60
1:D:102:HIS:HA	1:D:105:ILE:HD11	1.84	0.60
1:D:356:ILE:O	1:D:362:VAL:HG21	2.01	0.60
1:G:294:LEU:CD1	1:G:294:LEU:N	2.65	0.60
1:B:273:PHE:HD1	1:B:274:VAL:N	1.98	0.60
1:A:468:LEU:O	1:A:472:ILE:HG22	2.01	0.60
1:B:159:ILE:H	1:B:159:ILE:HD12	1.67	0.60
1:F:143:ALA:HA	1:F:213:ILE:CD1	2.31	0.60
1:F:239:VAL:CG2	1:F:240:PRO:CD	2.80	0.60
1:E:428:VAL:O	1:E:431:LEU:O	2.20	0.60
1:A:6:LEU:O	1:A:35:ILE:HD12	2.01	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:406:VAL:HG23	1:A:444:ALA:HB2	1.81	0.60
2:C:501:U2F:PB	2:C:501:U2F:C4'	2.89	0.60
1:G:328:MET:HA	1:G:328:MET:CE	2.27	0.60
1:G:356:ILE:O	1:G:362:VAL:HG21	2.02	0.60
1:B:356:ILE:O	1:B:362:VAL:HG21	2.02	0.59
1:F:424:ILE:HD13	1:F:425:GLN:N	2.17	0.59
1:G:21:PRO:HA	1:G:24:VAL:HG12	1.84	0.59
1:G:170:LEU:HD22	1:G:172:ILE:CD1	2.32	0.59
1:G:387:TRP:CH2	1:G:424:ILE:CD1	2.83	0.59
1:A:112:PRO:C	1:A:114:ALA:H	2.06	0.59
1:A:92:LEU:CD2	1:B:81:ASN:ND2	2.59	0.59
1:C:37:ILE:HD13	1:C:65:THR:O	2.02	0.59
1:C:370:GLY:O	1:C:374:THR:CG2	2.51	0.59
1:G:125:LEU:HD12	1:G:126:PRO:N	2.18	0.59
1:A:374:THR:HA	1:A:384:MET:HE3	1.83	0.59
1:D:117:VAL:HG13	1:D:121:CYS:HB2	1.84	0.59
1:F:35:ILE:O	1:F:65:THR:HG22	2.02	0.59
1:F:469:VAL:HA	1:F:472:ILE:HD13	1.83	0.59
1:G:184:VAL:CG2	1:G:187:LEU:HD23	2.31	0.59
1:A:356:ILE:O	1:A:362:VAL:HG21	2.02	0.59
1:E:53:PHE:HA	1:E:56:LYS:HD3	1.84	0.59
1:F:7:HIS:HD2	1:F:112:PRO:HA	1.66	0.59
1:F:63:GLU:C	1:F:65:THR:H	2.06	0.59
1:F:244:ILE:HA	1:F:461:SER:HG	1.68	0.59
1:A:38:THR:HG22	1:A:67:GLU:HB2	1.80	0.59
1:A:409:ARG:C	1:A:427:MET:HE3	2.22	0.59
1:D:35:ILE:HG22	1:D:37:ILE:CD1	2.33	0.59
1:E:372:ASN:CB	2:E:501:U2F:O1A	2.47	0.59
1:C:13:SER:HA	1:C:42:ILE:HD11	1.82	0.59
1:E:19:LEU:CD1	1:E:23:LEU:HD13	2.31	0.59
1:E:76:ILE:O	1:E:80:ILE:CD1	2.51	0.59
1:E:263:LEU:CB	1:E:359:HIS:CE1	2.85	0.59
1:F:441:LYS:CG	1:F:445:LYS:NZ	2.66	0.59
1:C:297:SER:CB	1:C:428:VAL:HG21	2.33	0.59
1:C:371:TRP:HA	1:C:374:THR:CG2	2.32	0.59
1:E:6:LEU:HD11	1:E:473:ARG:HD3	1.84	0.59
1:E:356:ILE:O	1:E:362:VAL:HG21	2.01	0.59
1:G:25:LEU:O	1:G:25:LEU:HD23	2.02	0.59
1:G:36:LYS:HB2	1:G:65:THR:HA	1.83	0.59
1:C:330:GLU:HG3	1:C:331:TYR:HD1	1.65	0.59
1:E:183:VAL:HG21	1:E:187:LEU:HB2	1.85	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:224:ILE:C	1:F:224:ILE:HD13	2.23	0.59
1:G:33:HIS:HB2	1:G:35:ILE:HD11	1.83	0.59
1:A:14:PRO:CD	1:A:42:ILE:HD11	2.33	0.59
1:A:116:ILE:HG21	1:A:136:TYR:O	2.03	0.59
1:C:9:ALA:HB3	1:C:115:LEU:HD12	1.84	0.59
1:C:33:HIS:O	1:C:35:ILE:HD12	2.03	0.59
1:C:332:LEU:HD11	1:C:336:PHE:CD2	2.38	0.59
1:C:397:ALA:O	1:C:401:THR:CG2	2.39	0.59
1:D:429:ARG:CG	1:D:433:GLN:HE22	2.15	0.59
1:A:55:LYS:HE3	1:A:55:LYS:O	2.03	0.58
1:D:413:LEU:HD13	1:D:413:LEU:C	2.24	0.58
1:A:24:VAL:CG2	1:A:247:LEU:HB3	2.33	0.58
1:D:95:ARG:CD	1:D:123:GLN:NE2	2.66	0.58
1:A:43:THR:HG22	1:A:71:VAL:O	2.03	0.58
1:B:293:GLY:HA3	1:B:424:ILE:CG1	2.34	0.58
1:C:350:TRP:CH2	2:C:501:U2F:C7'	2.85	0.58
1:E:33:HIS:O	1:E:35:ILE:HD12	2.03	0.58
1:E:399:MET:HG2	1:E:404:LEU:CD2	2.33	0.58
1:G:170:LEU:HD13	1:G:171:LYS:N	2.17	0.58
1:E:111:ARG:HG2	1:E:112:PRO:HD2	1.84	0.58
1:G:170:LEU:CG	1:G:178:LEU:H	2.16	0.58
1:C:59:LEU:HD22	1:C:61:ASN:ND2	2.08	0.58
1:F:151:TYR:CZ	1:F:154:VAL:HG21	2.37	0.58
1:A:131:PHE:N	1:A:131:PHE:CD1	2.71	0.58
1:B:111:ARG:NH1	1:B:131:PHE:CE2	2.71	0.58
1:E:255:LEU:C	1:E:257:ASP:H	2.07	0.58
1:F:33:HIS:O	1:F:35:ILE:HD12	2.04	0.58
1:G:29:LEU:HD23	1:G:29:LEU:N	2.18	0.58
1:A:20:ILE:N	1:A:21:PRO:HD2	2.19	0.58
1:A:37:ILE:O	1:A:38:THR:HG23	2.04	0.58
1:A:58:THR:HG22	1:A:59:LEU:HD12	1.86	0.58
2:A:501:U2F:C6	3:A:502:T83:OAC	2.51	0.58
1:B:33:HIS:O	1:B:35:ILE:HD12	2.04	0.58
1:C:43:THR:HG22	1:C:71:VAL:O	2.03	0.58
1:F:426:GLY:O	1:F:430:ILE:HD12	2.03	0.58
1:B:297:SER:HB3	1:B:428:VAL:CG2	2.34	0.58
1:B:409:ARG:C	1:B:427:MET:HE3	2.24	0.58
1:C:330:GLU:CG	1:C:331:TYR:CD1	2.86	0.58
1:F:127:ILE:O	1:F:131:PHE:HD1	1.86	0.58
1:F:151:TYR:O	1:F:154:VAL:CG2	2.34	0.58
1:F:163:TYR:O	1:F:166:LEU:HG	2.03	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:260:ILE:CG2	1:G:429:ARG:NH1	2.66	0.58
1:G:124:ILE:CG2	1:G:127:ILE:CD1	2.67	0.58
1:G:410:PRO:CA	1:G:427:MET:HE1	2.34	0.58
1:B:176:LYS:HE2	1:B:403:GLU:OE2	2.04	0.58
1:C:332:LEU:CD2	1:C:333:PRO:O	2.52	0.58
1:F:264:ASP:OD1	1:G:433:GLN:NE2	2.37	0.58
1:A:163:TYR:O	1:A:166:LEU:HG	2.04	0.58
1:A:272:LEU:HD23	1:A:428:VAL:HG22	1.85	0.58
1:B:392:GLU:CD	2:B:501:U2F:O4	2.41	0.58
1:D:115:LEU:HD21	1:D:117:VAL:HG23	1.86	0.58
1:E:251:VAL:HG23	1:E:355:GLU:HG3	1.86	0.58
1:F:260:ILE:HG23	1:G:429:ARG:HH12	1.68	0.58
1:B:112:PRO:O	1:B:133:ILE:CD1	2.52	0.57
1:C:43:THR:CG2	1:C:72:PRO:HA	2.34	0.57
1:C:126:PRO:HA	1:C:129:GLU:HG3	1.86	0.57
1:D:33:HIS:O	1:D:35:ILE:HD12	2.03	0.57
1:D:413:LEU:CD1	1:D:416:LYS:N	2.67	0.57
1:G:10:ILE:CG2	1:G:22:VAL:HG12	2.35	0.57
1:G:328:MET:HE3	1:G:331:TYR:CZ	2.39	0.57
1:G:20:ILE:HD12	1:G:21:PRO:N	2.19	0.57
1:G:249:ARG:HH21	1:G:354:VAL:HG13	1.69	0.57
1:D:184:VAL:HG12	1:D:392:GLU:HA	1.85	0.57
1:D:212:LEU:HD23	1:D:244:ILE:HD13	1.85	0.57
1:F:125:LEU:HD12	1:F:135:LYS:HD2	1.85	0.57
1:G:49:ALA:O	1:G:51:THR:N	2.37	0.57
1:A:136:TYR:CD2	1:A:212:LEU:HD13	2.39	0.57
1:C:213:ILE:HD12	1:C:241:VAL:CG2	2.33	0.57
1:D:413:LEU:HD22	1:D:414:PRO:CD	2.33	0.57
1:G:139:HIS:CE1	1:G:142:THR:O	2.58	0.57
1:B:428:VAL:O	1:B:431:LEU:O	2.21	0.57
1:G:269:GLU:OE1	1:G:441:LYS:HE3	2.04	0.57
1:A:19:LEU:HD13	1:A:19:LEU:C	2.25	0.57
1:G:103:SER:O	1:G:107:SER:HB3	2.04	0.57
1:G:294:LEU:CD1	1:G:294:LEU:H	2.18	0.57
1:A:367:THR:HG21	1:A:384:MET:HE1	1.86	0.57
1:C:23:LEU:CD2	1:C:39:ILE:CD1	2.82	0.57
1:E:183:VAL:CG2	1:E:187:LEU:CB	2.81	0.57
1:F:290:LEU:HD23	1:F:294:LEU:HD12	1.86	0.57
1:G:26:GLY:CA	1:G:29:LEU:CD2	2.82	0.57
1:A:131:PHE:N	1:A:131:PHE:HD1	2.02	0.57
1:B:88:THR:HG22	1:B:194:GLN:HA	1.87	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:72:PRO:CD	1:C:100:LYS:CE	2.78	0.57
1:D:290:LEU:HD22	1:D:303:TRP:CH2	2.39	0.57
1:E:419:VAL:HG12	1:E:424:ILE:HG13	1.86	0.57
1:A:139:HIS:CE1	1:A:142:THR:O	2.58	0.56
1:G:19:LEU:HD13	1:G:19:LEU:C	2.25	0.56
1:A:201:LEU:HA	1:A:204:GLU:OE1	2.05	0.56
1:B:163:TYR:O	1:B:166:LEU:HG	2.06	0.56
1:C:8:VAL:HG22	1:C:114:ALA:HB3	1.87	0.56
1:C:213:ILE:HD11	1:C:243:PRO:HG3	1.86	0.56
1:D:413:LEU:HD12	1:D:416:LYS:CG	2.35	0.56
1:E:122:THR:O	1:E:125:LEU:CD1	2.53	0.56
1:E:291:ALA:HB1	1:E:336:PHE:CE2	2.40	0.56
1:F:76:ILE:HD11	1:F:79:LEU:HB3	1.87	0.56
1:A:14:PRO:CG	1:A:93:LEU:HD22	2.34	0.56
1:A:33:HIS:NE2	1:A:465:ILE:CG1	2.69	0.56
1:A:88:THR:HG22	1:A:194:GLN:HA	1.88	0.56
1:A:116:ILE:HG12	1:A:136:TYR:CG	2.39	0.56
1:A:429:ARG:HD2	1:A:433:GLN:HE21	1.70	0.56
1:B:90:LEU:O	1:B:94:VAL:HG23	2.06	0.56
1:C:88:THR:HG22	1:C:194:GLN:HA	1.88	0.56
1:D:367:THR:O	1:D:386:ALA:O	2.23	0.56
1:D:392:GLU:OE1	2:D:501:U2F:HC	2.04	0.56
1:F:47:SER:O	1:F:49:ALA:N	2.39	0.56
1:F:48:SER:O	1:F:49:ALA:C	2.43	0.56
1:A:126:PRO:HG2	1:A:127:ILE:HD13	1.88	0.56
1:A:179:ARG:NH2	1:A:402:GLU:OE2	2.31	0.56
1:B:43:THR:O	1:B:73:SER:HB3	2.06	0.56
1:D:112:PRO:O	1:D:133:ILE:HG21	2.05	0.56
1:G:155:PHE:CZ	1:G:172:ILE:CD1	2.83	0.56
1:G:162:GLU:OE1	1:G:165:GLU:OE1	2.24	0.56
1:A:9:ALA:N	1:A:115:LEU:HB2	2.21	0.56
1:A:442:GLU:O	1:A:446:LYS:HG3	2.05	0.56
1:C:328:MET:HE3	1:C:331:TYR:OH	2.06	0.56
1:C:393:GLN:NE2	2:C:501:U2F:O3	2.38	0.56
1:E:125:LEU:HD13	1:E:126:PRO:HD3	1.85	0.56
1:F:291:ALA:HB1	1:F:336:PHE:CE2	2.40	0.56
1:G:176:LYS:HE3	1:G:403:GLU:CG	2.35	0.56
1:B:54:LEU:O	1:B:58:THR:HG23	2.06	0.56
1:C:262:TRP:CG	1:C:345:LEU:HD22	2.41	0.56
1:C:326:ARG:C	1:C:330:GLU:OE2	2.44	0.56
1:D:20:ILE:N	1:D:21:PRO:HD2	2.20	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:326:ARG:O	1:D:327:ASP:C	2.43	0.56
1:E:219:LEU:HD12	1:E:220:GLU:HG3	1.88	0.56
1:F:151:TYR:CE2	1:F:154:VAL:CG2	2.77	0.56
1:A:262:TRP:CD2	1:A:345:LEU:HD13	2.40	0.56
1:C:20:ILE:N	1:C:21:PRO:HD2	2.21	0.56
1:D:335:GLY:O	1:D:336:PHE:C	2.44	0.56
1:E:255:LEU:O	1:E:257:ASP:N	2.39	0.56
1:F:131:PHE:HB2	1:F:133:ILE:HD12	1.85	0.56
1:G:5:GLN:OE1	1:G:36:LYS:HE3	2.06	0.56
1:G:86:ILE:HA	1:G:89:GLN:HB2	1.87	0.56
1:G:114:ALA:C	1:G:115:LEU:HD22	2.26	0.56
1:A:50:GLU:CG	1:A:51:THR:N	2.67	0.56
1:A:116:ILE:CD1	1:A:136:TYR:CE2	2.88	0.56
1:A:373:SER:HB2	2:A:501:U2F:O2A	2.06	0.56
1:G:234:ARG:NH1	1:G:238:LYS:NZ	2.50	0.56
1:A:90:LEU:O	1:A:94:VAL:HG23	2.06	0.56
1:B:216:TRP:O	1:B:219:LEU:O	2.24	0.56
1:C:71:VAL:HG23	1:C:100:LYS:CD	2.33	0.56
1:E:19:LEU:HD13	1:E:19:LEU:C	2.25	0.56
1:E:21:PRO:HA	1:E:24:VAL:HG12	1.88	0.56
1:E:61:ASN:HD21	1:E:66:ILE:H	1.51	0.56
1:G:115:LEU:HD23	1:G:133:ILE:HG13	1.87	0.56
1:G:155:PHE:CE2	1:G:172:ILE:CD1	2.89	0.56
1:A:410:PRO:N	1:A:427:MET:HE3	2.21	0.55
1:E:139:HIS:CE1	1:E:142:THR:O	2.58	0.55
1:E:421:ARG:HA	1:E:424:ILE:CD1	2.34	0.55
1:G:106:ALA:C	1:G:108:MET:H	2.10	0.55
1:G:256:ASN:O	1:G:259:VAL:N	2.38	0.55
1:A:21:PRO:HA	1:A:24:VAL:HG13	1.87	0.55
1:A:353:GLN:OE1	2:A:501:U2F:H2'	2.06	0.55
1:C:19:LEU:HD13	1:C:19:LEU:C	2.25	0.55
1:E:48:SER:O	1:E:49:ALA:C	2.44	0.55
1:E:271:VAL:CG2	1:E:361:SER:O	2.37	0.55
1:D:88:THR:HG22	1:D:194:GLN:HA	1.88	0.55
1:D:352:ASN:HB3	1:D:355:GLU:OE1	2.06	0.55
1:E:153:GLN:NE2	1:E:236:LEU:HD12	2.21	0.55
1:E:363:GLY:O	1:E:432:MET:HE1	2.07	0.55
1:G:91:ARG:HH22	1:G:94:VAL:HG22	1.70	0.55
1:G:124:ILE:HG22	1:G:127:ILE:CD1	2.31	0.55
1:C:146:LEU:CD2	1:C:150:ILE:HD12	2.35	0.55
1:E:290:LEU:HD21	1:E:294:LEU:HD11	1.83	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:364:GLY:N	1:E:432:MET:HE1	2.20	0.55
1:F:387:TRP:CH2	1:F:419:VAL:HG21	2.42	0.55
1:A:106:ALA:C	1:A:108:MET:H	2.10	0.55
1:A:273:PHE:HE2	1:A:353:GLN:HG3	1.71	0.55
1:B:172:ILE:CD1	1:B:175:CYS:CB	2.84	0.55
1:B:387:TRP:CH2	1:B:419:VAL:HG21	2.40	0.55
1:F:441:LYS:C	1:F:445:LYS:HZ3	2.04	0.55
1:G:353:GLN:OE1	2:G:501:U2F:H2'	2.05	0.55
1:A:131:PHE:HB2	1:A:133:ILE:CD1	2.33	0.55
1:B:309:SER:O	1:B:310:ASP:C	2.45	0.55
1:F:19:LEU:O	1:F:23:LEU:HD12	2.05	0.55
1:A:114:ALA:HB1	1:A:134:SER:HB2	1.87	0.55
1:A:430:ILE:HA	1:A:434:THR:HG21	1.86	0.55
1:C:435:LYS:NZ	1:D:382:VAL:HG22	2.22	0.55
1:E:430:ILE:HA	1:E:434:THR:HG21	1.87	0.55
1:F:430:ILE:HA	1:F:434:THR:HG21	1.89	0.55
1:G:366:LEU:C	1:G:366:LEU:CD1	2.75	0.55
1:B:301:PHE:CE1	1:B:344:GLY:HA3	2.42	0.55
1:E:139:HIS:CE1	1:E:141:THR:CG2	2.90	0.55
1:A:20:ILE:CG1	1:A:21:PRO:CD	2.83	0.55
1:A:333:PRO:HG2	1:A:336:PHE:HD2	1.72	0.55
1:B:89:GLN:O	1:B:93:LEU:HD23	2.07	0.55
1:D:48:SER:O	1:D:49:ALA:C	2.44	0.55
1:D:115:LEU:CD2	1:D:117:VAL:HG23	2.37	0.55
1:D:336:PHE:O	1:D:337:LEU:C	2.45	0.55
1:A:116:ILE:CG1	1:A:136:TYR:CZ	2.90	0.55
1:C:10:ILE:HG22	1:C:22:VAL:HG23	1.88	0.55
1:C:126:PRO:O	1:C:129:GLU:HG3	2.07	0.55
1:D:101:ILE:O	1:D:105:ILE:HD13	2.07	0.55
1:D:141:THR:HA	1:D:371:TRP:CD1	2.42	0.55
1:D:429:ARG:O	1:D:433:GLN:CD	2.45	0.55
1:E:363:GLY:C	1:E:432:MET:HE1	2.26	0.55
1:F:476:GLU:C	1:F:477:LEU:HD12	2.27	0.55
1:G:10:ILE:HG22	1:G:22:VAL:HG12	1.89	0.55
1:G:291:ALA:HB1	1:G:336:PHE:CE2	2.42	0.55
1:G:410:PRO:CA	1:G:427:MET:CE	2.85	0.55
1:A:48:SER:O	1:A:49:ALA:C	2.45	0.54
1:A:291:ALA:HB1	1:A:336:PHE:CE2	2.42	0.54
1:D:90:LEU:O	1:D:94:VAL:HG23	2.07	0.54
1:F:364:GLY:HA3	1:F:432:MET:HE3	1.89	0.54
1:G:292:TRP:O	1:G:296:LEU:HD22	2.07	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:301:PHE:CE1	1:D:344:GLY:HA3	2.42	0.54
1:D:429:ARG:CB	1:D:433:GLN:NE2	2.66	0.54
1:E:183:VAL:O	1:E:394:LYS:HE2	2.07	0.54
1:G:141:THR:HA	1:G:371:TRP:CD1	2.43	0.54
1:A:45:THR:HG23	1:A:73:SER:CB	2.38	0.54
1:A:116:ILE:HG13	1:A:136:TYR:CZ	2.43	0.54
1:B:420:LYS:O	1:B:424:ILE:HD13	2.07	0.54
1:D:18:HIS:O	1:D:22:VAL:HG23	2.07	0.54
1:F:364:GLY:HA3	1:F:432:MET:CE	2.37	0.54
1:G:170:LEU:CG	1:G:178:LEU:HB3	2.37	0.54
2:G:501:U2F:O1	2:G:501:U2F:O1A	2.24	0.54
1:A:8:VAL:N	1:A:35:ILE:HD11	2.22	0.54
1:B:48:SER:O	1:B:49:ALA:C	2.45	0.54
1:C:43:THR:HA	1:C:50:GLU:OE1	2.08	0.54
1:E:101:ILE:O	1:E:105:ILE:HD12	2.08	0.54
1:E:119:ILE:HG21	1:E:140:PRO:HD2	1.89	0.54
1:E:263:LEU:CB	1:E:359:HIS:ND1	2.70	0.54
1:F:86:ILE:H	1:F:86:ILE:CD1	2.19	0.54
1:F:200:LYS:O	1:F:204:GLU:HG3	2.07	0.54
1:G:333:PRO:HG2	1:G:336:PHE:HD2	1.71	0.54
1:E:88:THR:HG22	1:E:194:GLN:HA	1.88	0.54
1:F:333:PRO:HG2	1:F:336:PHE:HD2	1.72	0.54
1:G:269:GLU:OE1	1:G:441:LYS:CE	2.56	0.54
1:A:263:LEU:HB3	1:A:359:HIS:CD2	2.42	0.54
1:E:141:THR:HA	1:E:371:TRP:CD1	2.42	0.54
1:E:146:LEU:HD12	1:E:213:ILE:HG21	1.87	0.54
1:G:40:LEU:CB	1:G:69:ILE:H	2.20	0.54
1:A:36:LYS:HB2	1:A:64:LYS:O	2.08	0.54
1:B:251:VAL:HG23	1:B:252:GLU:N	2.21	0.54
1:C:95:ARG:HA	1:C:98:LEU:HD13	1.90	0.54
1:E:155:PHE:CZ	1:E:172:ILE:CD1	2.88	0.54
1:F:44:THR:OG1	1:F:45:THR:N	2.41	0.54
1:G:215:THR:OG1	1:G:219:LEU:HD23	2.08	0.54
1:A:141:THR:HG21	1:A:392:GLU:OE2	2.07	0.54
1:A:426:GLY:C	1:A:430:ILE:HD13	2.27	0.54
1:B:21:PRO:HA	1:B:24:VAL:HG13	1.89	0.54
1:C:350:TRP:HH2	2:C:501:U2F:C7'	2.21	0.54
1:D:184:VAL:HG23	1:D:187:LEU:HD13	1.89	0.54
1:D:258:GLU:HA	1:D:261:GLN:HB2	1.89	0.54
1:D:424:ILE:HA	1:D:427:MET:HE3	1.90	0.54
1:E:79:LEU:N	1:E:79:LEU:HD12	2.22	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:90:LEU:O	1:F:94:VAL:HG23	2.07	0.54
1:A:141:THR:HA	1:A:371:TRP:CD1	2.43	0.54
1:B:166:LEU:O	1:B:167:LYS:CG	2.56	0.54
1:C:115:LEU:CD1	1:C:133:ILE:HG21	2.33	0.54
1:C:141:THR:HA	1:C:371:TRP:CD1	2.42	0.54
1:A:117:VAL:HG11	1:A:124:ILE:HB	1.90	0.54
1:B:329:SER:CA	1:B:332:LEU:HD23	2.37	0.54
1:C:352:ASN:HB2	1:C:355:GLU:OE1	2.08	0.54
1:E:234:ARG:HH12	1:E:239:VAL:N	2.05	0.54
1:A:6:LEU:HD21	1:A:473:ARG:HG2	1.90	0.53
1:A:277:GLY:HA3	1:A:368:HIS:CE1	2.42	0.53
1:B:141:THR:HA	1:B:371:TRP:CD1	2.43	0.53
1:C:48:SER:O	1:C:49:ALA:C	2.45	0.53
1:F:474:SER:O	1:F:477:LEU:HD13	2.08	0.53
1:G:76:ILE:HD13	1:G:92:LEU:HD13	1.89	0.53
1:G:170:LEU:HD11	1:G:178:LEU:N	2.20	0.53
1:A:106:ALA:HA	1:A:111:ARG:HH22	1.72	0.53
1:A:433:GLN:HE22	1:A:434:THR:HG22	1.74	0.53
1:B:60:THR:HG23	1:B:64:LYS:HZ3	1.53	0.53
1:F:449:LYS:O	1:F:453:ASN:OD1	2.26	0.53
1:A:37:ILE:HG13	1:A:66:ILE:H	1.72	0.53
1:B:101:ILE:HG13	1:B:124:ILE:HD12	1.90	0.53
1:B:136:TYR:CE1	1:B:472:ILE:HD13	2.44	0.53
1:B:254:THR:O	1:B:255:LEU:HG	2.08	0.53
1:B:434:THR:HG22	1:B:436:GLU:N	2.22	0.53
1:C:297:SER:HB3	1:C:428:VAL:CG2	2.38	0.53
1:F:150:ILE:HD13	1:F:237:LEU:CD2	2.38	0.53
1:A:172:ILE:HG13	1:A:175:CYS:HB2	1.90	0.53
1:B:114:ALA:CB	1:B:472:ILE:HD12	2.38	0.53
1:B:237:LEU:HD22	1:B:239:VAL:O	2.08	0.53
1:F:76:ILE:HA	1:F:78:HIS:NE2	2.23	0.53
1:F:264:ASP:OD1	1:G:433:GLN:HG3	2.08	0.53
1:G:410:PRO:HA	1:G:427:MET:HE3	1.91	0.53
1:G:442:GLU:O	1:G:446:LYS:HG2	2.09	0.53
1:A:14:PRO:HD3	1:A:42:ILE:HD11	1.90	0.53
1:D:95:ARG:HA	1:D:98:LEU:HD23	1.91	0.53
1:E:119:ILE:HG22	1:E:139:HIS:HA	1.91	0.53
1:F:16:MET:CE	1:F:53:PHE:CG	2.91	0.53
1:G:36:LYS:O	1:G:37:ILE:HG13	2.08	0.53
1:G:193:GLN:O	1:G:195:TYR:N	2.42	0.53
1:D:277:GLY:HA3	1:D:368:HIS:CE1	2.43	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:441:LYS:HG2	1:F:445:LYS:NZ	2.24	0.53
1:C:59:LEU:CD2	1:C:68:ILE:H	2.21	0.53
1:C:335:GLY:HA3	1:C:339:ARG:NH1	2.23	0.53
1:C:433:GLN:HG3	1:D:264:ASP:OD1	2.09	0.53
1:E:95:ARG:HA	1:E:98:LEU:HD23	1.90	0.53
1:G:141:THR:CG2	1:G:371:TRP:HB2	2.26	0.53
1:G:474:SER:O	1:G:475:ARG:C	2.47	0.53
1:C:13:SER:N	1:C:118:ASP:OD2	2.40	0.53
1:D:196:GLU:O	1:D:200:LYS:HG3	2.08	0.53
1:E:292:TRP:O	1:E:296:LEU:HD22	2.09	0.53
1:E:326:ARG:O	1:E:327:ASP:HB3	2.08	0.53
1:F:10:ILE:HG22	1:F:22:VAL:HG13	1.90	0.53
1:A:159:ILE:C	1:A:159:ILE:HD12	2.29	0.53
1:C:23:LEU:HD22	1:C:39:ILE:CD1	2.38	0.53
1:C:433:GLN:NE2	1:D:359:HIS:NE2	2.54	0.53
1:E:146:LEU:CD2	1:E:150:ILE:CD1	2.86	0.53
1:F:326:ARG:C	1:F:330:GLU:OE2	2.47	0.53
1:G:33:HIS:HB3	1:G:35:ILE:HD11	1.90	0.53
1:G:42:ILE:HD12	1:G:71:VAL:HB	1.90	0.53
1:A:14:PRO:HG3	1:A:42:ILE:HD11	1.89	0.53
1:A:133:ILE:HD12	1:A:133:ILE:H	1.74	0.53
1:C:371:TRP:CA	1:C:374:THR:HG23	2.39	0.53
1:C:466:CYS:O	1:C:470:LYS:HG3	2.09	0.53
1:D:187:LEU:HD11	1:D:198:TYR:CE2	2.44	0.53
1:D:419:VAL:HG12	1:D:424:ILE:HG13	1.90	0.53
1:E:421:ARG:CA	1:E:424:ILE:HD12	2.39	0.53
1:G:461:SER:O	1:G:465:ILE:HD12	2.09	0.53
1:B:76:ILE:CD1	1:B:93:LEU:HD22	2.39	0.52
1:B:440:ILE:N	1:B:440:ILE:HD12	2.24	0.52
1:C:13:SER:HA	1:C:42:ILE:HD12	1.91	0.52
1:C:248:ARG:HG2	1:C:379:THR:HG21	1.91	0.52
1:C:370:GLY:HA2	2:C:501:U2F:C4	2.37	0.52
1:D:424:ILE:HA	1:D:427:MET:HE2	1.91	0.52
1:F:127:ILE:O	1:F:131:PHE:CD1	2.62	0.52
1:F:248:ARG:HD2	1:F:379:THR:HG21	1.91	0.52
1:B:155:PHE:HB3	1:B:159:ILE:HD13	1.91	0.52
1:B:436:GLU:HG2	1:B:440:ILE:HD11	1.91	0.52
1:C:101:ILE:O	1:C:105:ILE:HD12	2.08	0.52
1:E:112:PRO:HG2	1:E:115:LEU:HD21	1.91	0.52
1:E:119:ILE:HG23	1:E:140:PRO:CD	2.36	0.52
1:E:299:GLN:HE22	1:E:433:GLN:NE2	2.07	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:262:TRP:CD2	1:F:345:LEU:HD12	2.44	0.52
1:G:472:ILE:O	1:G:474:SER:N	2.39	0.52
1:A:328:MET:HA	1:A:331:TYR:CZ	2.44	0.52
2:C:501:U2F:O3A	2:C:501:U2F:C4'	2.57	0.52
1:G:10:ILE:HG23	1:G:116:ILE:HG23	1.92	0.52
1:G:255:LEU:O	1:G:256:ASN:C	2.47	0.52
1:G:387:TRP:CZ3	1:G:424:ILE:HD11	2.42	0.52
1:A:9:ALA:CB	1:A:115:LEU:HB2	2.38	0.52
1:A:172:ILE:CD1	1:A:175:CYS:O	2.51	0.52
1:B:10:ILE:HA	1:B:116:ILE:O	2.10	0.52
1:B:19:LEU:O	1:B:23:LEU:CD2	2.57	0.52
1:D:173:PRO:HG3	1:D:232:LYS:HE3	1.91	0.52
1:F:21:PRO:HA	1:F:24:VAL:CG2	2.38	0.52
1:F:141:THR:HA	1:F:371:TRP:CD1	2.43	0.52
1:F:143:ALA:HB2	1:F:213:ILE:CD1	2.39	0.52
1:F:392:GLU:OE2	2:F:501:U2F:O3	2.27	0.52
1:B:422:GLU:O	1:B:425:GLN:HG3	2.09	0.52
1:F:57:THR:O	1:F:59:LEU:N	2.43	0.52
1:F:271:VAL:HG23	1:F:361:SER:O	2.09	0.52
1:C:125:LEU:HB2	1:C:208:PHE:HE1	1.74	0.52
1:A:78:HIS:CD2	1:A:79:LEU:CD1	2.93	0.52
1:A:78:HIS:CD2	1:A:79:LEU:HD12	2.44	0.52
1:A:116:ILE:HG12	1:A:136:TYR:CD1	2.45	0.52
1:B:33:HIS:CG	1:B:465:ILE:HG21	2.44	0.52
1:C:59:LEU:CD2	1:C:61:ASN:HD21	2.11	0.52
1:E:8:VAL:CG1	1:E:116:ILE:HD12	2.40	0.52
1:F:441:LYS:HG2	1:F:445:LYS:HZ1	1.74	0.52
1:G:296:LEU:HD13	1:G:296:LEU:N	2.25	0.52
1:A:462:TYR:CA	1:A:465:ILE:HD13	2.39	0.52
1:A:462:TYR:HD2	1:A:463:ASN:OD1	1.92	0.52
1:B:19:LEU:O	1:B:23:LEU:HD23	2.10	0.52
1:B:434:THR:HG22	1:B:436:GLU:H	1.74	0.52
1:C:7:HIS:HD2	1:C:36:LYS:HD2	1.73	0.52
1:C:10:ILE:CG2	1:C:22:VAL:HG23	2.39	0.52
1:C:43:THR:OG1	1:C:44:THR:N	2.42	0.52
1:F:19:LEU:HD12	1:F:23:LEU:HD12	1.92	0.52
1:F:286:GLN:NE2	1:F:419:VAL:HG22	2.15	0.52
1:G:176:LYS:HG2	1:G:177:ALA:N	2.24	0.52
1:A:260:ILE:HD12	1:A:260:ILE:N	2.24	0.52
1:A:365:PHE:CZ	1:A:373:SER:OG	2.63	0.52
1:B:98:LEU:HA	1:B:101:ILE:HG12	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:90:LEU:O	1:E:94:VAL:HG22	2.08	0.52
1:E:119:ILE:CG2	1:E:140:PRO:HD2	2.40	0.52
1:E:422:GLU:O	1:E:425:GLN:HG3	2.10	0.52
1:E:442:GLU:O	1:E:446:LYS:HG2	2.10	0.52
1:G:137:THR:HG23	1:G:208:PHE:CG	2.45	0.52
1:A:65:THR:O	1:A:66:ILE:O	2.28	0.52
1:C:215:THR:OG1	1:C:219:LEU:HD23	2.10	0.52
1:E:244:ILE:CG1	1:E:465:ILE:HG12	2.40	0.52
1:E:271:VAL:HG22	1:E:361:SER:C	2.25	0.52
1:F:141:THR:HG21	1:F:392:GLU:OE2	2.10	0.52
1:F:236:LEU:HD12	1:F:236:LEU:N	2.25	0.52
1:B:141:THR:HG21	1:B:392:GLU:OE2	2.10	0.51
1:B:391:ALA:HB3	2:B:501:U2F:H6C2	1.91	0.51
1:C:213:ILE:HD11	1:C:243:PRO:CG	2.40	0.51
1:C:350:TRP:CH2	2:C:501:U2F:C8'	2.94	0.51
1:E:147:ALA:CA	1:E:150:ILE:CD1	2.85	0.51
1:G:7:HIS:CE1	1:G:38:THR:HB	2.45	0.51
1:G:29:LEU:CD2	1:G:29:LEU:H	2.21	0.51
1:D:142:THR:CG2	1:D:145:THR:HG23	2.41	0.51
1:D:163:TYR:HA	1:D:166:LEU:HD21	1.92	0.51
1:E:139:HIS:HE1	1:E:142:THR:O	1.92	0.51
1:G:256:ASN:O	1:G:257:ASP:C	2.48	0.51
1:G:419:VAL:HG12	1:G:424:ILE:HG12	1.93	0.51
1:A:33:HIS:CE1	1:A:465:ILE:CD1	2.93	0.51
1:C:59:LEU:CD2	1:C:68:ILE:N	2.73	0.51
1:F:133:ILE:HD13	1:F:133:ILE:H	1.75	0.51
1:F:426:GLY:C	1:F:430:ILE:HD13	2.30	0.51
1:G:76:ILE:HG23	1:G:77:SER:H	1.75	0.51
1:G:255:LEU:HD13	1:G:260:ILE:HG22	1.91	0.51
1:B:215:THR:OG1	1:B:219:LEU:HD23	2.09	0.51
1:C:328:MET:SD	1:C:348:PRO:HB3	2.50	0.51
1:C:350:TRP:HA	1:C:350:TRP:CE3	2.45	0.51
1:D:371:TRP:N	2:D:501:U2F:O4	2.37	0.51
2:D:501:U2F:O3	3:D:502:T83:CAJ	2.58	0.51
1:E:244:ILE:HD12	1:E:461:SER:O	2.10	0.51
1:E:249:ARG:HB2	1:E:354:VAL:HG21	1.93	0.51
1:E:372:ASN:HD22	2:E:501:U2F:PA	2.33	0.51
1:A:212:LEU:HD23	1:A:244:ILE:HD13	1.91	0.51
1:E:139:HIS:CE1	1:E:141:THR:HG23	2.46	0.51
1:F:9:ALA:O	1:F:115:LEU:HD12	2.10	0.51
1:F:328:MET:HE3	1:F:348:PRO:HG3	1.92	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:139:HIS:HE1	1:A:142:THR:O	1.93	0.51
1:A:433:GLN:C	1:A:433:GLN:CD	2.68	0.51
1:E:108:MET:CE	1:E:112:PRO:HD3	2.39	0.51
1:E:146:LEU:HD23	1:E:150:ILE:CD1	2.40	0.51
1:G:33:HIS:CE1	1:G:465:ILE:HG21	2.46	0.51
1:G:192:ASP:O	1:G:194:GLN:N	2.43	0.51
1:G:373:SER:HB3	2:G:501:U2F:O2A	2.10	0.51
1:A:51:THR:O	1:A:54:LEU:HG	2.10	0.51
1:C:10:ILE:CG2	1:C:22:VAL:CG2	2.88	0.51
1:D:61:ASN:HB2	1:D:66:ILE:O	2.11	0.51
1:D:274:VAL:HG21	1:D:294:LEU:HD21	1.92	0.51
1:D:442:GLU:O	1:D:446:LYS:HG2	2.11	0.51
1:A:272:LEU:CD1	1:A:272:LEU:C	2.79	0.51
1:A:367:THR:HG21	1:A:384:MET:CE	2.39	0.51
1:B:105:ILE:O	1:B:111:ARG:NH1	2.44	0.51
1:E:86:ILE:O	1:E:90:LEU:CD1	2.58	0.51
1:G:273:PHE:HE2	1:G:353:GLN:HG3	1.76	0.51
1:A:30:ALA:HA	1:A:35:ILE:O	2.11	0.51
1:A:452:GLU:O	1:A:454:ALA:O	2.29	0.51
1:D:60:THR:HG23	1:D:61:ASN:O	2.10	0.51
1:D:383:PRO:HB2	1:D:431:LEU:HD11	1.93	0.51
1:E:73:SER:HB3	1:E:93:LEU:CD1	2.41	0.51
1:E:246:PRO:CD	1:E:455:LEU:HD11	2.41	0.51
1:B:399:MET:HG2	1:B:404:LEU:HD11	1.93	0.51
1:B:474:SER:HA	1:B:477:LEU:HG	1.93	0.51
1:C:21:PRO:O	1:C:24:VAL:HG22	2.10	0.51
1:C:408:ILE:CD1	1:C:430:ILE:HG13	2.41	0.51
1:D:88:THR:HG23	1:D:194:GLN:HB3	1.93	0.51
1:D:422:GLU:O	1:D:425:GLN:HG3	2.11	0.51
1:E:309:SER:O	1:E:310:ASP:HB2	2.10	0.51
1:F:76:ILE:CD1	1:F:79:LEU:HB3	2.40	0.51
1:F:326:ARG:HG2	1:F:331:TYR:HE2	1.75	0.51
1:F:372:ASN:HB2	2:F:501:U2F:O5'	2.11	0.51
1:B:105:ILE:HG23	1:B:108:MET:HE3	1.93	0.50
1:E:296:LEU:HD13	1:E:296:LEU:N	2.25	0.50
1:F:326:ARG:CG	1:F:331:TYR:HE2	2.24	0.50
1:G:164:VAL:HG11	1:G:188:LEU:HD13	1.93	0.50
1:G:252:GLU:HB2	1:G:254:THR:HG23	1.94	0.50
1:A:260:ILE:HD12	1:A:260:ILE:H	1.76	0.50
1:A:284:THR:O	1:A:288:THR:HG23	2.12	0.50
1:B:237:LEU:CD2	1:B:239:VAL:O	2.59	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:12:SER:O	1:C:42:ILE:CD1	2.49	0.50
1:E:237:LEU:HD12	1:E:239:VAL:H	1.76	0.50
1:F:209:ASP:C	1:F:239:VAL:HG21	2.32	0.50
1:A:9:ALA:H	1:A:115:LEU:CB	2.23	0.50
1:A:43:THR:OG1	1:A:44:THR:N	2.43	0.50
1:A:215:THR:OG1	1:A:219:LEU:HD23	2.12	0.50
1:A:272:LEU:CD2	1:A:428:VAL:HG22	2.41	0.50
1:A:425:GLN:HG3	1:A:426:GLY:N	2.25	0.50
1:B:54:LEU:CD2	1:B:70:PRO:HB3	2.40	0.50
1:C:392:GLU:OE2	2:C:501:U2F:H4	2.10	0.50
1:D:337:LEU:O	1:D:341:LYS:HG3	2.10	0.50
1:B:151:TYR:CD2	1:B:155:PHE:CE2	2.91	0.50
1:B:434:THR:O	1:B:438:LYS:HD2	2.11	0.50
1:D:292:TRP:C	1:D:296:LEU:HD12	2.31	0.50
1:E:295:GLU:CD	1:E:339:ARG:NH1	2.64	0.50
1:F:21:PRO:O	1:F:24:VAL:HG23	2.11	0.50
1:G:18:HIS:O	1:G:22:VAL:HG23	2.10	0.50
1:G:127:ILE:O	1:G:130:GLU:O	2.29	0.50
1:C:6:LEU:HD22	1:C:473:ARG:NH2	2.27	0.50
1:C:262:TRP:CD1	1:C:345:LEU:HD13	2.46	0.50
1:D:33:HIS:NE2	1:D:465:ILE:HG21	2.26	0.50
1:D:396:ASN:ND2	1:D:396:ASN:N	2.59	0.50
1:G:284:THR:O	1:G:288:THR:HG23	2.12	0.50
1:A:45:THR:HG23	1:A:73:SER:HB3	1.93	0.50
1:A:114:ALA:CB	1:A:134:SER:HB2	2.41	0.50
1:A:249:ARG:NH2	1:A:354:VAL:HG23	2.26	0.50
1:C:284:THR:O	1:C:288:THR:HG23	2.12	0.50
1:D:452:GLU:O	1:D:454:ALA:O	2.29	0.50
1:F:48:SER:OG	1:F:49:ALA:N	2.42	0.50
1:F:58:THR:HG22	1:F:59:LEU:HG	1.93	0.50
1:A:10:ILE:HG21	1:A:22:VAL:HG13	1.92	0.50
1:A:272:LEU:C	1:A:272:LEU:HD12	2.31	0.50
1:B:95:ARG:HA	1:B:98:LEU:HD23	1.93	0.50
1:D:19:LEU:HD23	1:D:50:GLU:OE2	2.11	0.50
1:B:209:ASP:C	1:B:239:VAL:HG21	2.31	0.50
1:B:353:GLN:OE1	2:B:501:U2F:H2'	2.12	0.50
1:B:412:VAL:CG1	1:B:417:LYS:HE3	2.31	0.50
1:C:476:GLU:OE1	1:C:476:GLU:HA	2.12	0.50
1:G:5:GLN:NE2	1:G:36:LYS:HG3	2.27	0.50
1:G:125:LEU:N	1:G:126:PRO:HD2	2.27	0.50
1:C:178:LEU:HD13	1:C:183:VAL:HG12	1.92	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:244:ILE:HG13	1:D:247:LEU:HD21	1.94	0.50
1:F:20:ILE:HG21	1:F:249:ARG:HD2	1.94	0.50
1:A:116:ILE:HG12	1:A:136:TYR:CD2	2.47	0.49
1:A:397:ALA:O	1:A:401:THR:HG23	2.12	0.49
1:B:105:ILE:HD13	1:B:127:ILE:CG2	2.41	0.49
1:E:305:VAL:HG11	1:E:346:VAL:CG1	2.42	0.49
1:F:95:ARG:HA	1:F:98:LEU:HD23	1.93	0.49
1:G:36:LYS:O	1:G:36:LYS:CD	2.57	0.49
1:G:127:ILE:HD13	1:G:128:ALA:H	1.73	0.49
1:A:401:THR:HG21	1:A:409:ARG:HD3	1.94	0.49
1:C:89:GLN:O	1:C:93:LEU:HD23	2.11	0.49
1:C:150:ILE:HD13	1:C:150:ILE:N	2.17	0.49
1:D:106:ALA:HA	1:D:111:ARG:NH1	2.26	0.49
1:G:176:LYS:HE3	1:G:403:GLU:HG2	1.93	0.49
1:C:297:SER:CB	1:C:428:VAL:CG2	2.90	0.49
1:D:229:TYR:OH	1:F:229:TYR:OH	1.70	0.49
1:E:33:HIS:NE2	1:E:465:ILE:HG21	2.27	0.49
1:F:12:SER:OG	1:F:41:ALA:HA	2.12	0.49
1:G:366:LEU:C	1:G:366:LEU:HD13	2.33	0.49
1:A:248:ARG:HD3	1:A:379:THR:HG21	1.94	0.49
1:B:146:LEU:O	1:B:150:ILE:CD1	2.56	0.49
1:D:89:GLN:O	1:D:93:LEU:HD12	2.12	0.49
1:D:215:THR:OG1	1:D:219:LEU:HD23	2.12	0.49
1:E:220:GLU:O	1:E:224:ILE:CD1	2.59	0.49
1:G:117:VAL:HG23	1:G:118:ASP:O	2.12	0.49
1:C:42:ILE:HG22	1:C:101:ILE:HD11	1.93	0.49
1:E:331:TYR:HD1	1:E:332:LEU:HD12	1.78	0.49
1:F:16:MET:HE2	1:F:53:PHE:CG	2.47	0.49
1:F:88:THR:HG22	1:F:194:GLN:HA	1.94	0.49
1:F:293:GLY:CA	1:F:424:ILE:CD1	2.85	0.49
1:F:381:GLY:N	1:F:448:LYS:HE3	2.27	0.49
1:G:190:ARG:HG3	1:G:195:TYR:CD2	2.48	0.49
1:B:125:LEU:HB3	1:B:126:PRO:HD3	1.95	0.49
1:B:150:ILE:N	1:B:150:ILE:HD12	2.27	0.49
1:C:332:LEU:CD1	1:C:336:PHE:CD2	2.96	0.49
1:D:236:LEU:N	1:D:236:LEU:HD12	2.28	0.49
1:F:262:TRP:CG	1:F:345:LEU:HD12	2.47	0.49
1:F:397:ALA:O	1:F:401:THR:HG23	2.13	0.49
1:G:33:HIS:HB2	1:G:35:ILE:CD1	2.41	0.49
1:G:90:LEU:O	1:G:91:ARG:C	2.51	0.49
1:G:192:ASP:O	1:G:193:GLN:C	2.50	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:304:VAL:HG22	1:G:347:VAL:HG23	1.93	0.49
1:G:377:SER:HB2	1:G:382:VAL:HG23	1.93	0.49
1:B:60:THR:CG2	1:B:64:LYS:HE2	2.37	0.49
1:C:332:LEU:HD11	1:C:336:PHE:HD2	1.77	0.49
1:C:427:MET:HA	1:C:430:ILE:HG12	1.95	0.49
1:G:49:ALA:O	1:G:50:GLU:C	2.51	0.49
1:A:61:ASN:HB3	1:A:67:GLU:OE1	2.12	0.49
1:A:125:LEU:N	1:A:126:PRO:HD2	2.28	0.49
1:A:139:HIS:CE1	1:A:141:THR:OG1	2.66	0.49
1:B:117:VAL:HG23	1:B:118:ASP:O	2.13	0.49
1:C:114:ALA:CB	1:C:472:ILE:HD12	2.43	0.49
1:D:228:ARG:HA	1:D:234:ARG:HH21	1.78	0.49
1:E:274:VAL:HG21	1:E:294:LEU:HD21	1.94	0.49
1:F:244:ILE:CA	1:F:461:SER:HG	2.25	0.49
1:F:305:VAL:CG1	1:F:328:MET:HE2	2.43	0.49
1:G:248:ARG:HD3	1:G:379:THR:HG21	1.95	0.49
1:A:259:VAL:HG23	1:A:260:ILE:HD12	1.93	0.49
1:C:112:PRO:O	1:C:133:ILE:CD1	2.57	0.49
1:F:183:VAL:HG23	1:F:188:LEU:CD2	2.43	0.49
1:F:441:LYS:HG2	1:F:445:LYS:CE	2.43	0.49
1:G:10:ILE:HG12	1:G:116:ILE:HG23	1.93	0.49
1:B:284:THR:O	1:B:288:THR:HG23	2.13	0.49
1:B:359:HIS:HB3	1:B:362:VAL:HG23	1.95	0.49
1:D:231:GLU:O	1:D:235:LEU:CD1	2.57	0.49
2:F:501:U2F:O5	2:F:501:U2F:O1A	2.31	0.49
1:A:126:PRO:O	1:A:129:GLU:HG3	2.13	0.48
1:A:142:THR:OG1	1:A:145:THR:HG23	2.13	0.48
1:A:469:VAL:C	1:A:472:ILE:HG23	2.33	0.48
1:B:397:ALA:O	1:B:401:THR:HG23	2.13	0.48
1:C:136:TYR:HE2	1:C:472:ILE:HD13	1.76	0.48
2:C:501:U2F:H1	3:C:502:T83:OAC	2.13	0.48
1:D:162:GLU:O	1:D:166:LEU:HD23	2.12	0.48
1:D:290:LEU:HD21	1:D:294:LEU:HD11	1.94	0.48
1:E:146:LEU:HD12	1:E:213:ILE:CG2	2.42	0.48
1:E:299:GLN:NE2	1:E:433:GLN:HG3	2.28	0.48
1:F:98:LEU:HA	1:F:101:ILE:HG12	1.94	0.48
1:A:119:ILE:O	1:A:122:THR:HG22	2.11	0.48
1:A:469:VAL:CA	1:A:472:ILE:HG23	2.43	0.48
1:C:109:THR:HG21	1:C:110:HIS:CE1	2.45	0.48
1:E:190:ARG:HG3	1:E:195:TYR:CD2	2.48	0.48
1:F:125:LEU:HB3	1:F:126:PRO:HD3	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:76:ILE:HD13	1:A:76:ILE:H	1.77	0.48
1:A:212:LEU:HD23	1:A:244:ILE:CD1	2.43	0.48
1:B:142:THR:CG2	1:B:145:THR:HG23	2.43	0.48
1:B:292:TRP:HA	1:B:295:GLU:OE2	2.11	0.48
1:C:305:VAL:HG11	1:C:346:VAL:CG1	2.43	0.48
1:C:436:GLU:HG3	1:C:439:ARG:HH22	1.78	0.48
1:D:328:MET:O	1:D:330:GLU:N	2.47	0.48
1:D:429:ARG:CA	1:D:433:GLN:OE1	2.58	0.48
1:E:244:ILE:HG13	1:E:244:ILE:O	2.12	0.48
1:F:237:LEU:HD12	1:F:239:VAL:H	1.79	0.48
1:G:25:LEU:C	1:G:25:LEU:CD2	2.80	0.48
1:A:76:ILE:H	1:A:76:ILE:CD1	2.26	0.48
1:B:111:ARG:HE	1:G:255:LEU:HD21	1.79	0.48
1:B:353:GLN:OE1	1:B:376:GLU:OE1	2.32	0.48
1:C:142:THR:OG1	1:C:145:THR:HG23	2.12	0.48
1:G:59:LEU:O	1:G:60:THR:C	2.51	0.48
1:D:430:ILE:HA	1:D:434:THR:HG21	1.95	0.48
1:E:224:ILE:HA	1:E:227:LEU:HD12	1.96	0.48
1:F:25:LEU:CD1	1:F:29:LEU:HD11	2.44	0.48
1:D:284:THR:O	1:D:288:THR:HG23	2.12	0.48
1:D:418:LEU:HD13	1:D:419:VAL:N	2.28	0.48
1:E:257:ASP:OD2	1:E:260:ILE:HD13	2.14	0.48
1:E:397:ALA:O	1:E:401:THR:HG23	2.13	0.48
1:F:117:VAL:HG23	1:F:118:ASP:O	2.14	0.48
1:G:146:LEU:HD21	1:G:211:ILE:HG21	1.95	0.48
1:G:305:VAL:CG1	1:G:346:VAL:HG13	2.43	0.48
1:A:127:ILE:CD1	1:A:127:ILE:N	2.76	0.48
1:B:277:GLY:HA3	1:B:368:HIS:CE1	2.49	0.48
1:E:151:TYR:CD1	1:E:154:VAL:HG11	2.49	0.48
1:F:133:ILE:HA	1:F:475:ARG:NH2	2.29	0.48
1:G:125:LEU:CG	1:G:126:PRO:CD	2.84	0.48
1:A:9:ALA:HB3	1:A:115:LEU:HD23	1.96	0.48
1:C:237:LEU:HD12	1:C:239:VAL:H	1.79	0.48
1:D:237:LEU:HD12	1:D:239:VAL:H	1.78	0.48
1:D:397:ALA:O	1:D:401:THR:HG23	2.13	0.48
1:E:249:ARG:CZ	1:E:354:VAL:HG23	2.43	0.48
1:F:305:VAL:HG11	1:F:346:VAL:CG1	2.44	0.48
1:F:470:LYS:O	1:F:472:ILE:O	2.31	0.48
1:G:20:ILE:CG1	1:G:21:PRO:CD	2.85	0.48
1:G:144:TRP:HA	1:G:223:THR:HG21	1.96	0.48
1:G:166:LEU:CD1	1:G:168:GLU:HB2	2.42	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:33:HIS:HE1	1:A:465:ILE:HD11	1.76	0.48
1:A:274:VAL:HG21	1:A:294:LEU:HD21	1.96	0.48
1:B:112:PRO:O	1:B:133:ILE:HD11	2.13	0.48
1:C:175:CYS:HB3	1:C:223:THR:HG23	1.96	0.48
1:C:178:LEU:HD11	1:C:183:VAL:HG12	1.94	0.48
1:C:257:ASP:OD2	1:C:260:ILE:HD13	2.13	0.48
1:D:476:GLU:O	1:D:477:LEU:HB2	2.13	0.48
1:F:286:GLN:HE21	1:F:387:TRP:HZ2	1.62	0.48
1:A:112:PRO:O	1:A:114:ALA:N	2.33	0.48
1:B:105:ILE:CD1	1:B:127:ILE:HG21	2.43	0.48
1:C:50:GLU:O	1:C:54:LEU:CD1	2.62	0.48
1:C:408:ILE:HD12	1:C:430:ILE:CD1	2.42	0.48
1:D:209:ASP:CG	1:D:475:ARG:HH12	2.17	0.48
1:D:212:LEU:HD23	1:D:244:ILE:CD1	2.43	0.48
1:D:229:TYR:CZ	1:F:229:TYR:OH	2.64	0.48
1:E:33:HIS:CD2	1:E:465:ILE:HG21	2.48	0.48
1:F:33:HIS:HE1	1:F:465:ILE:HD13	1.79	0.48
1:F:75:ASP:O	1:F:76:ILE:CG2	2.62	0.48
1:F:92:LEU:HD13	1:F:95:ARG:NH1	2.28	0.48
1:G:139:HIS:HE1	1:G:142:THR:O	1.95	0.48
1:G:142:THR:OG1	1:G:145:THR:HG23	2.14	0.48
1:A:54:LEU:O	1:A:68:ILE:CD1	2.62	0.47
1:F:12:SER:O	1:F:13:SER:HB3	2.14	0.47
1:F:224:ILE:HD13	1:F:225:ASN:N	2.28	0.47
1:G:90:LEU:HD13	1:G:90:LEU:C	2.34	0.47
1:G:123:GLN:OE1	1:G:123:GLN:N	2.42	0.47
1:G:269:GLU:OE1	1:G:441:LYS:NZ	2.46	0.47
1:A:63:GLU:N	1:A:65:THR:HG22	2.28	0.47
1:A:465:ILE:HG12	1:A:466:CYS:N	2.28	0.47
1:B:187:LEU:HD11	1:B:198:TYR:CD2	2.49	0.47
1:B:258:GLU:HA	1:B:261:GLN:OE1	2.14	0.47
1:C:150:ILE:H	1:C:150:ILE:CD1	2.21	0.47
1:G:158:GLU:HB2	1:G:159:ILE:HD12	1.95	0.47
1:A:37:ILE:HD11	1:A:66:ILE:CB	2.44	0.47
1:C:16:MET:N	1:C:16:MET:SD	2.87	0.47
1:C:109:THR:HG23	1:C:110:HIS:CG	2.49	0.47
1:C:327:ASP:O	1:C:330:GLU:HG2	2.14	0.47
1:C:332:LEU:CD1	1:C:336:PHE:HB3	2.41	0.47
1:D:187:LEU:HD11	1:D:198:TYR:CD2	2.49	0.47
1:D:305:VAL:HG11	1:D:346:VAL:CG1	2.44	0.47
1:D:372:ASN:ND2	2:D:501:U2F:O1A	2.47	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:277:GLY:HA3	1:E:368:HIS:CE1	2.49	0.47
1:F:14:PRO:HG3	1:F:93:LEU:HD22	1.95	0.47
1:F:284:THR:O	1:F:288:THR:HG23	2.14	0.47
1:G:115:LEU:HD23	1:G:133:ILE:CG1	2.45	0.47
1:G:166:LEU:O	1:G:167:LYS:HB3	2.14	0.47
1:A:353:GLN:HB2	2:A:501:U2F:C6'	2.45	0.47
1:C:146:LEU:O	1:C:150:ILE:HD12	2.09	0.47
1:C:335:GLY:HA3	1:C:339:ARG:HH12	1.78	0.47
1:D:151:TYR:CD2	1:D:155:PHE:CE2	2.91	0.47
1:D:212:LEU:HD11	1:D:468:LEU:HD21	1.96	0.47
1:F:159:ILE:HD12	1:F:159:ILE:N	2.30	0.47
1:G:6:LEU:HB2	1:G:35:ILE:HG23	1.96	0.47
1:G:237:LEU:HD12	1:G:239:VAL:H	1.80	0.47
1:B:201:LEU:HD13	1:B:201:LEU:C	2.35	0.47
1:C:136:TYR:HE2	1:C:472:ILE:CD1	2.26	0.47
1:E:123:GLN:HA	1:E:125:LEU:HD11	1.96	0.47
1:E:282:LEU:HD13	1:E:286:GLN:HG3	1.97	0.47
1:G:105:ILE:C	1:G:107:SER:H	2.17	0.47
1:G:179:ARG:HD2	1:G:180:PRO:CD	2.39	0.47
1:G:236:LEU:N	1:G:236:LEU:HD12	2.29	0.47
1:A:237:LEU:HD12	1:A:239:VAL:H	1.78	0.47
1:C:59:LEU:HD21	1:C:68:ILE:N	2.30	0.47
1:C:409:ARG:C	1:C:427:MET:HE3	2.35	0.47
1:E:142:THR:OG1	1:E:145:THR:HG23	2.15	0.47
1:E:183:VAL:HG21	1:E:187:LEU:HB3	1.95	0.47
1:E:304:VAL:HG21	1:E:350:TRP:O	2.14	0.47
1:F:221:PRO:O	1:F:224:ILE:HG23	2.15	0.47
1:G:159:ILE:HD12	1:G:159:ILE:N	2.30	0.47
1:G:305:VAL:HG13	1:G:346:VAL:HG13	1.97	0.47
1:A:33:HIS:C	1:A:35:ILE:H	2.18	0.47
1:B:289:GLU:O	1:B:424:ILE:HD11	2.15	0.47
1:C:13:SER:CA	1:C:42:ILE:HD12	2.45	0.47
1:C:213:ILE:CD1	1:C:241:VAL:HG22	2.39	0.47
1:C:350:TRP:CZ2	2:C:501:U2F:C7'	2.97	0.47
1:D:131:PHE:HB2	1:D:133:ILE:HD11	1.97	0.47
1:F:14:PRO:CG	1:F:93:LEU:HD22	2.45	0.47
1:F:219:LEU:HD12	1:F:220:GLU:CG	2.42	0.47
1:F:224:ILE:HD11	1:F:228:ARG:NE	2.30	0.47
1:F:328:MET:HA	1:F:331:TYR:CZ	2.50	0.47
1:G:9:ALA:HA	1:G:38:THR:O	2.15	0.47
1:A:7:HIS:HA	1:A:36:LYS:HD2	1.97	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:44:THR:HG21	1:A:47:SER:OG	2.14	0.47
1:A:112:PRO:C	1:A:114:ALA:N	2.68	0.47
1:A:116:ILE:C	1:A:116:ILE:HD12	2.34	0.47
1:A:462:TYR:HA	1:A:465:ILE:HD13	1.97	0.47
1:C:104:THR:O	1:C:108:MET:HG3	2.15	0.47
1:D:44:THR:OG1	1:D:45:THR:N	2.48	0.47
1:E:12:SER:HB3	1:E:41:ALA:HA	1.97	0.47
1:E:117:VAL:HG23	1:E:118:ASP:O	2.14	0.47
1:F:33:HIS:CE1	1:F:465:ILE:HG21	2.50	0.47
1:G:153:GLN:HG3	1:G:203:LYS:HD2	1.96	0.47
1:A:6:LEU:HB3	1:A:35:ILE:HD13	1.97	0.47
1:A:9:ALA:HB3	1:A:115:LEU:CB	2.43	0.47
1:A:63:GLU:C	1:A:65:THR:N	2.67	0.47
1:B:125:LEU:HD12	1:B:135:LYS:HD2	1.97	0.47
1:B:435:LYS:O	1:B:439:ARG:HD2	2.15	0.47
1:C:220:GLU:O	1:C:224:ILE:CD1	2.62	0.47
1:F:94:VAL:HG11	1:F:121:CYS:HA	1.97	0.47
1:F:327:ASP:O	1:F:330:GLU:HG3	2.15	0.47
1:A:58:THR:HA	1:A:61:ASN:HD21	1.71	0.47
1:A:80:ILE:HG12	1:A:84:THR:CB	2.44	0.47
1:A:365:PHE:HE2	1:A:373:SER:HG	1.56	0.47
1:B:54:LEU:HD22	1:B:70:PRO:HB3	1.97	0.47
1:B:341:LYS:C	1:B:343:MET:H	2.18	0.47
1:C:392:GLU:OE1	2:C:501:U2F:O6	2.33	0.47
1:E:201:LEU:HD13	1:E:201:LEU:C	2.36	0.47
1:B:372:ASN:HA	1:B:375:VAL:HG22	1.95	0.46
1:C:25:LEU:HD22	1:C:138:TYR:CD2	2.50	0.46
1:D:263:LEU:C	1:D:359:HIS:HE1	2.18	0.46
1:E:27:ASN:HA	1:E:66:ILE:HD11	1.97	0.46
1:E:146:LEU:C	1:E:150:ILE:HD13	2.33	0.46
1:E:244:ILE:HG12	1:E:465:ILE:HG12	1.97	0.46
1:F:219:LEU:O	1:F:219:LEU:HD13	2.14	0.46
1:G:119:ILE:C	1:G:119:ILE:HD13	2.36	0.46
1:G:328:MET:CE	1:G:331:TYR:OH	2.63	0.46
1:B:136:TYR:CE1	1:B:472:ILE:CD1	2.97	0.46
1:B:274:VAL:HG21	1:B:294:LEU:HD21	1.96	0.46
1:C:269:GLU:O	1:C:269:GLU:HG2	2.13	0.46
1:D:136:TYR:HE2	1:D:472:ILE:CD1	2.28	0.46
1:D:201:LEU:C	1:D:201:LEU:HD13	2.34	0.46
1:E:43:THR:OG1	1:E:72:PRO:HA	2.15	0.46
1:E:146:LEU:HD23	1:E:150:ILE:HD12	1.98	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:19:LEU:HD12	1:F:23:LEU:CD1	2.46	0.46
1:G:133:ILE:HD13	1:G:133:ILE:H	1.80	0.46
1:G:372:ASN:HB2	2:G:501:U2F:O5'	2.14	0.46
1:A:116:ILE:HB	1:A:117:VAL:HG22	1.98	0.46
1:A:121:CYS:O	1:A:124:ILE:HG12	2.15	0.46
1:C:16:MET:CE	1:C:49:ALA:CB	2.92	0.46
1:C:146:LEU:HD12	1:C:213:ILE:HG21	1.97	0.46
1:E:139:HIS:CE1	1:E:141:THR:HG22	2.51	0.46
2:E:501:U2F:O1A	2:E:501:U2F:O3'	2.21	0.46
1:A:10:ILE:HG22	1:A:22:VAL:HG13	1.97	0.46
1:A:80:ILE:HG12	1:A:81:ASN:N	2.31	0.46
1:B:377:SER:OG	1:B:384:MET:CE	2.64	0.46
1:D:12:SER:HB3	1:D:41:ALA:HA	1.96	0.46
1:G:39:ILE:HG12	1:G:40:LEU:N	2.21	0.46
1:B:50:GLU:O	1:B:54:LEU:CD1	2.64	0.46
1:F:16:MET:HE1	1:F:53:PHE:CG	2.50	0.46
1:F:151:TYR:CD2	1:F:155:PHE:CE2	2.91	0.46
1:A:130:GLU:C	1:A:131:PHE:CD1	2.89	0.46
1:B:111:ARG:HB2	1:G:253:THR:HB	1.98	0.46
1:C:435:LYS:HE3	1:D:359:HIS:O	2.15	0.46
1:D:359:HIS:HB3	1:D:362:VAL:HG23	1.96	0.46
1:E:250:LYS:HA	1:E:250:LYS:HD3	1.41	0.46
1:F:423:GLU:HG2	1:F:427:MET:CE	2.46	0.46
1:G:84:THR:OG1	1:G:85:LYS:N	2.48	0.46
1:A:33:HIS:NE2	1:A:465:ILE:HG12	2.31	0.46
1:A:116:ILE:CG1	1:A:136:TYR:CE2	2.99	0.46
1:A:201:LEU:C	1:A:201:LEU:HD13	2.36	0.46
1:C:436:GLU:HG3	1:C:439:ARG:NH2	2.30	0.46
1:E:119:ILE:HD12	1:E:119:ILE:C	2.36	0.46
1:E:144:TRP:CH2	1:E:176:LYS:HD3	2.49	0.46
1:F:7:HIS:CE1	1:F:38:THR:HG23	2.51	0.46
1:F:25:LEU:O	1:F:29:LEU:HD13	2.14	0.46
1:F:92:LEU:CD1	1:F:95:ARG:NH1	2.79	0.46
1:G:151:TYR:CD1	1:G:154:VAL:CG2	2.95	0.46
1:A:11:VAL:HB	1:A:117:VAL:HA	1.98	0.46
1:A:109:THR:OG1	1:A:110:HIS:N	2.48	0.46
1:A:116:ILE:CG1	1:A:136:TYR:O	2.63	0.46
1:B:209:ASP:CG	1:B:475:ARG:NH1	2.69	0.46
1:D:144:TRP:CH2	1:D:176:LYS:HD3	2.50	0.46
1:E:231:GLU:HG2	1:E:232:LYS:N	2.31	0.46
1:E:249:ARG:NH2	1:E:354:VAL:HG23	2.31	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:501:U2F:O6'	2:E:501:U2F:C2'	2.64	0.46
1:F:388:PRO:C	1:F:389:LEU:HD22	2.36	0.46
1:G:40:LEU:HB3	1:G:69:ILE:O	2.16	0.46
1:G:113:ASP:O	1:G:114:ALA:CB	2.63	0.46
1:B:144:TRP:HA	1:B:223:THR:HG21	1.98	0.46
1:B:244:ILE:HB	1:B:465:ILE:CD1	2.45	0.46
1:D:46:SER:O	1:D:48:SER:N	2.49	0.46
1:D:55:LYS:O	1:D:56:LYS:HB2	2.16	0.46
1:E:372:ASN:HB2	2:E:501:U2F:PA	2.56	0.46
1:F:25:LEU:HD22	1:F:138:TYR:CD2	2.50	0.46
1:F:154:VAL:CG2	1:F:155:PHE:H	2.29	0.46
1:G:353:GLN:OE1	1:G:376:GLU:OE1	2.34	0.46
1:A:253:THR:O	1:A:253:THR:HG22	2.16	0.46
1:B:148:LEU:CD2	1:B:178:LEU:CD1	2.92	0.46
1:B:412:VAL:HG11	1:B:417:LYS:HB3	1.98	0.46
1:E:373:SER:OG	2:E:501:U2F:C5'	2.47	0.46
1:F:292:TRP:O	1:F:296:LEU:HD12	2.15	0.46
1:G:430:ILE:C	1:G:434:THR:HG22	2.28	0.46
1:B:8:VAL:HG22	1:B:114:ALA:HB3	1.97	0.45
1:B:427:MET:HA	1:B:430:ILE:HG22	1.98	0.45
1:C:151:TYR:CD2	1:C:155:PHE:CE2	2.92	0.45
1:C:359:HIS:HB3	1:C:362:VAL:HG23	1.98	0.45
1:D:150:ILE:HD13	1:D:237:LEU:CD2	2.46	0.45
1:G:234:ARG:HH11	1:G:238:LYS:HZ3	1.60	0.45
1:G:234:ARG:NH1	1:G:238:LYS:HZ3	2.14	0.45
1:A:210:GLY:HA2	1:A:239:VAL:HG23	1.98	0.45
1:B:25:LEU:HD22	1:B:138:TYR:CD2	2.52	0.45
1:B:209:ASP:CG	1:B:475:ARG:HH12	2.20	0.45
1:B:249:ARG:NH1	2:B:501:U2F:O2'	2.48	0.45
1:C:50:GLU:O	1:C:54:LEU:HD13	2.16	0.45
1:C:133:ILE:HG22	1:C:134:SER:O	2.15	0.45
1:D:244:ILE:HB	1:D:465:ILE:CD1	2.46	0.45
1:F:389:LEU:HD22	1:F:389:LEU:N	2.32	0.45
1:G:13:SER:HB3	1:G:14:PRO:CD	2.45	0.45
1:C:371:TRP:O	1:C:374:THR:HG23	2.17	0.45
1:D:244:ILE:HB	1:D:465:ILE:HD11	1.99	0.45
1:D:418:LEU:CD1	1:D:418:LEU:C	2.84	0.45
1:E:332:LEU:HD23	1:E:333:PRO:HD2	1.98	0.45
1:E:396:ASN:O	1:E:400:LEU:HD12	2.17	0.45
1:F:260:ILE:HG22	1:G:429:ARG:HH12	1.81	0.45
1:F:328:MET:HA	1:F:331:TYR:CE1	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:7:HIS:CD2	1:G:112:PRO:HA	2.51	0.45
1:G:466:CYS:O	1:G:469:VAL:HG22	2.17	0.45
1:A:20:ILE:HG13	1:A:21:PRO:HD3	1.94	0.45
1:A:359:HIS:HB3	1:A:362:VAL:HG23	1.99	0.45
1:D:59:LEU:HB3	1:D:68:ILE:HB	1.98	0.45
1:D:125:LEU:HB3	1:D:126:PRO:HD3	1.97	0.45
1:F:290:LEU:HD13	1:F:303:TRP:CZ2	2.51	0.45
1:F:359:HIS:HE2	1:G:433:GLN:HB3	1.81	0.45
1:F:418:LEU:HD13	1:F:418:LEU:C	2.37	0.45
1:G:141:THR:HG22	1:G:371:TRP:HB3	1.91	0.45
2:G:501:U2F:O5'	2:G:501:U2F:F1	2.24	0.45
1:A:48:SER:O	1:A:52:GLU:HG3	2.16	0.45
1:A:81:ASN:HB3	1:B:192:ASP:HA	1.97	0.45
1:A:116:ILE:HD13	1:A:117:VAL:O	2.16	0.45
1:B:53:PHE:O	1:B:57:THR:HG23	2.17	0.45
1:C:180:PRO:O	1:C:183:VAL:HG13	2.17	0.45
1:D:369:CYS:SG	1:D:386:ALA:O	2.58	0.45
1:E:24:VAL:HG21	1:E:248:ARG:N	2.31	0.45
1:E:151:TYR:CD2	1:E:155:PHE:CE2	2.92	0.45
1:E:213:ILE:HD12	1:E:215:THR:HG22	1.98	0.45
1:G:209:ASP:HB3	1:G:475:ARG:CZ	2.47	0.45
1:G:264:ASP:OD1	1:G:359:HIS:CE1	2.70	0.45
1:A:439:ARG:NH1	1:A:443:LYS:CE	2.78	0.45
1:B:50:GLU:O	1:B:54:LEU:HD12	2.16	0.45
1:C:163:TYR:CE2	1:C:187:LEU:HD22	2.52	0.45
1:D:413:LEU:HD13	1:D:416:LYS:N	2.24	0.45
1:E:8:VAL:HG11	1:E:116:ILE:HD11	1.98	0.45
1:F:127:ILE:HG23	1:F:131:PHE:CE1	2.52	0.45
1:G:80:ILE:HA	1:G:80:ILE:HD13	1.70	0.45
1:G:166:LEU:HD12	1:G:168:GLU:H	1.81	0.45
1:C:71:VAL:HA	1:C:100:LYS:NZ	2.32	0.45
1:C:332:LEU:HD21	1:C:333:PRO:O	2.16	0.45
1:D:262:TRP:HA	1:D:265:LYS:HE2	1.97	0.45
1:E:125:LEU:HD12	1:E:126:PRO:CD	2.43	0.45
1:E:151:TYR:CE1	1:E:154:VAL:HG11	2.51	0.45
1:A:5:GLN:HG2	1:A:36:LYS:HE3	1.99	0.45
1:A:76:ILE:O	1:A:80:ILE:HG22	2.17	0.45
1:D:209:ASP:CG	1:D:475:ARG:NH1	2.70	0.45
1:F:396:ASN:O	1:F:400:LEU:HD12	2.16	0.45
1:F:424:ILE:HD13	1:F:428:VAL:HG12	1.98	0.45
1:G:119:ILE:O	1:G:122:THR:HG23	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:222:GLU:OE2	1:A:223:THR:OG1	2.35	0.45
1:B:48:SER:HA	1:B:51:THR:OG1	2.17	0.45
1:B:137:THR:CG2	1:B:211:ILE:HG12	2.46	0.45
1:B:155:PHE:HD1	1:B:159:ILE:HD11	1.82	0.45
1:C:71:VAL:HG23	1:C:100:LYS:CE	2.47	0.45
1:C:229:TYR:CG	1:F:430:ILE:HD11	2.38	0.45
1:C:425:GLN:O	1:C:428:VAL:HG22	2.16	0.45
1:C:466:CYS:HA	1:C:469:VAL:HG22	1.99	0.45
1:D:119:ILE:C	1:D:119:ILE:HD13	2.37	0.45
1:E:61:ASN:HD21	1:E:66:ILE:N	2.12	0.45
1:E:153:GLN:NE2	1:E:236:LEU:CD1	2.80	0.45
1:A:12:SER:HB3	1:A:41:ALA:HA	1.98	0.45
1:A:66:ILE:O	1:A:66:ILE:HG12	2.16	0.45
1:A:73:SER:OG	1:A:74:VAL:N	2.49	0.45
1:A:278:SER:OG	2:A:501:U2F:O2B	2.33	0.45
1:B:94:VAL:O	1:B:98:LEU:CD2	2.65	0.45
1:C:12:SER:HB3	1:C:41:ALA:HA	1.98	0.45
1:C:21:PRO:HA	1:C:24:VAL:HG22	1.99	0.45
1:C:222:GLU:HG2	1:C:223:THR:N	2.32	0.45
1:D:78:HIS:CD2	1:D:79:LEU:CD2	2.99	0.45
1:E:75:ASP:C	1:E:76:ILE:HD13	2.37	0.45
1:E:123:GLN:HA	1:E:125:LEU:CD1	2.46	0.45
1:E:382:VAL:HA	1:E:383:PRO:HD2	1.85	0.45
1:F:328:MET:CE	1:F:346:VAL:HG12	2.46	0.45
1:G:193:GLN:O	1:G:196:GLU:N	2.50	0.45
1:G:297:SER:N	1:G:425:GLN:HG3	2.32	0.45
1:G:352:ASN:O	1:G:356:ILE:HD12	2.17	0.45
1:B:175:CYS:SG	1:B:223:THR:HG23	2.57	0.44
1:D:95:ARG:HD3	1:D:123:GLN:CD	2.38	0.44
1:D:199:VAL:HG12	1:D:203:LYS:HE3	1.98	0.44
1:D:200:LYS:O	1:D:204:GLU:HG3	2.16	0.44
1:D:353:GLN:OE1	2:D:501:U2F:H2'	2.17	0.44
1:F:137:THR:HG21	1:F:205:TYR:HE1	1.82	0.44
1:G:62:GLU:CG	1:G:63:GLU:OE1	2.65	0.44
1:G:472:ILE:C	1:G:474:SER:N	2.70	0.44
1:A:42:ILE:HD12	1:A:43:THR:O	2.18	0.44
1:A:211:ILE:HD12	1:A:211:ILE:N	2.31	0.44
1:B:180:PRO:O	1:B:183:VAL:HG13	2.17	0.44
1:B:306:ARG:HG2	1:B:349:MET:HA	1.98	0.44
1:C:371:TRP:C	1:C:374:THR:HG23	2.38	0.44
1:D:180:PRO:O	1:D:183:VAL:HG13	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:74:VAL:HG13	1:E:76:ILE:CD1	2.47	0.44
1:E:81:ASN:O	1:E:84:THR:OG1	2.26	0.44
1:E:192:ASP:O	1:E:193:GLN:C	2.56	0.44
1:E:359:HIS:HB3	1:E:362:VAL:HG23	1.98	0.44
1:F:48:SER:O	1:F:51:THR:N	2.50	0.44
1:F:425:GLN:HE21	1:F:429:ARG:NE	2.07	0.44
1:G:127:ILE:CD1	1:G:128:ALA:N	2.70	0.44
1:G:256:ASN:O	1:G:258:GLU:N	2.50	0.44
1:G:367:THR:HG23	1:G:369:CYS:H	1.82	0.44
1:G:396:ASN:O	1:G:400:LEU:HD12	2.18	0.44
1:B:442:GLU:O	1:B:446:LYS:HD3	2.18	0.44
1:C:410:PRO:N	1:C:427:MET:HE3	2.32	0.44
1:E:304:VAL:CG2	1:E:351:ALA:HB3	2.48	0.44
1:F:286:GLN:NE2	1:F:387:TRP:HZ2	2.16	0.44
1:A:143:ALA:HB2	1:A:213:ILE:HD12	1.98	0.44
1:A:195:TYR:O	1:A:199:VAL:HG12	2.18	0.44
1:A:249:ARG:HB2	1:A:354:VAL:HG21	2.00	0.44
1:B:244:ILE:HB	1:B:465:ILE:HD11	2.00	0.44
2:C:501:U2F:O2B	2:C:501:U2F:H5'2	2.17	0.44
1:D:218:ASP:OD2	1:D:450:SER:HB2	2.18	0.44
1:D:245:GLY:HA2	1:D:247:LEU:HD22	1.98	0.44
1:E:48:SER:OG	1:E:52:GLU:HG3	2.17	0.44
1:E:176:LYS:CE	1:E:403:GLU:OE1	2.66	0.44
1:E:457:ASP:HA	1:E:462:TYR:CD2	2.52	0.44
1:F:64:LYS:HA	1:F:64:LYS:HD2	1.37	0.44
1:G:91:ARG:O	1:G:91:ARG:NH2	2.50	0.44
1:A:61:ASN:HB3	1:A:67:GLU:CD	2.37	0.44
1:B:187:LEU:HD11	1:B:198:TYR:CE2	2.53	0.44
1:C:185:ASP:HA	1:C:188:LEU:CD1	2.44	0.44
1:F:441:LYS:HG2	1:F:445:LYS:HE3	2.00	0.44
1:G:26:GLY:O	1:G:29:LEU:HD23	2.16	0.44
1:G:99:PRO:HA	1:G:102:HIS:CD2	2.52	0.44
1:G:366:LEU:HD13	1:G:367:THR:N	2.32	0.44
1:A:65:THR:HG23	1:A:66:ILE:HG23	2.00	0.44
1:A:88:THR:HG23	1:A:194:GLN:HB3	1.98	0.44
1:C:135:LYS:NZ	1:C:209:ASP:OD1	2.51	0.44
1:C:148:LEU:HD12	1:C:148:LEU:O	2.18	0.44
1:C:410:PRO:O	1:C:411:ALA:C	2.55	0.44
1:D:175:CYS:SG	1:D:223:THR:HG23	2.57	0.44
1:E:112:PRO:HG2	1:E:133:ILE:HD13	2.00	0.44
1:F:251:VAL:CG2	1:F:354:VAL:HG12	2.47	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:380:ASN:C	1:F:448:LYS:HE3	2.38	0.44
1:G:68:ILE:HG12	1:G:69:ILE:N	2.32	0.44
1:G:137:THR:OG1	1:G:211:ILE:HD13	2.07	0.44
1:G:298:GLN:HE21	1:G:298:GLN:HB3	1.53	0.44
1:G:460:SER:OG	1:G:461:SER:N	2.50	0.44
1:A:38:THR:HG22	1:A:67:GLU:C	2.36	0.44
1:B:159:ILE:HD12	1:B:159:ILE:N	2.33	0.44
1:C:387:TRP:CH2	1:C:419:VAL:HG21	2.53	0.44
1:D:133:ILE:HD13	1:D:133:ILE:H	1.81	0.44
1:D:332:LEU:O	1:D:333:PRO:C	2.55	0.44
1:F:78:HIS:CE1	1:F:79:LEU:HB2	2.52	0.44
1:F:252:GLU:O	1:F:254:THR:N	2.50	0.44
1:G:10:ILE:HA	1:G:116:ILE:O	2.17	0.44
1:G:90:LEU:HD13	1:G:91:ARG:N	2.33	0.44
1:A:6:LEU:HD13	1:A:6:LEU:HA	1.91	0.44
1:A:216:TRP:CH2	1:A:219:LEU:HD13	2.53	0.44
1:A:426:GLY:O	1:A:430:ILE:HD12	2.14	0.44
1:B:172:ILE:HD13	1:B:175:CYS:H	1.83	0.44
1:C:41:ALA:O	1:C:71:VAL:CG1	2.64	0.44
1:D:413:LEU:HD21	1:D:415:THR:HG23	1.99	0.44
1:E:466:CYS:O	1:E:470:LYS:HG2	2.18	0.44
1:F:94:VAL:O	1:F:98:LEU:CD2	2.66	0.44
1:F:180:PRO:O	1:F:183:VAL:HG13	2.18	0.44
1:F:244:ILE:H	1:F:244:ILE:CD1	2.27	0.44
1:G:25:LEU:HD12	1:G:138:TYR:CD2	2.53	0.44
1:G:25:LEU:HD12	1:G:138:TYR:CE2	2.52	0.44
1:G:29:LEU:HB2	1:G:35:ILE:HD13	2.00	0.44
1:G:45:THR:O	1:G:48:SER:N	2.44	0.44
1:A:14:PRO:HG3	1:A:93:LEU:CD2	2.43	0.44
1:A:37:ILE:HD12	1:A:66:ILE:HA	1.96	0.44
1:A:49:ALA:O	1:A:52:GLU:CD	2.56	0.44
1:B:210:GLY:HA2	1:B:239:VAL:HG22	2.00	0.44
1:C:59:LEU:CG	1:C:68:ILE:O	2.61	0.44
1:C:335:GLY:C	1:C:339:ARG:NH1	2.71	0.44
1:D:163:TYR:HA	1:D:166:LEU:CD2	2.48	0.44
1:F:476:GLU:O	1:F:477:LEU:HG	2.18	0.44
1:G:164:VAL:CG1	1:G:188:LEU:HD13	2.47	0.44
1:A:127:ILE:O	1:A:130:GLU:O	2.36	0.43
1:A:231:GLU:O	1:A:235:LEU:CD1	2.58	0.43
1:A:419:VAL:HG12	1:A:424:ILE:CD1	2.48	0.43
1:B:115:LEU:HD22	1:B:117:VAL:HG12	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:144:TRP:CH2	1:B:176:LYS:HD3	2.53	0.43
1:C:66:ILE:O	1:C:66:ILE:HG13	2.18	0.43
1:C:147:ALA:C	1:C:150:ILE:CD1	2.87	0.43
1:D:10:ILE:HA	1:D:116:ILE:O	2.17	0.43
1:D:112:PRO:O	1:D:133:ILE:CG2	2.65	0.43
1:D:131:PHE:CB	1:D:133:ILE:HD12	2.45	0.43
1:E:234:ARG:HD2	1:E:234:ARG:HA	1.76	0.43
1:F:50:GLU:O	1:F:54:LEU:CD2	2.66	0.43
1:F:183:VAL:HG23	1:F:188:LEU:HD22	2.00	0.43
1:G:213:ILE:HD13	1:G:242:PHE:C	2.39	0.43
1:G:367:THR:HG23	1:G:369:CYS:N	2.33	0.43
1:B:332:LEU:HD22	1:B:332:LEU:N	2.33	0.43
1:B:448:LYS:HE2	1:B:452:GLU:OE2	2.18	0.43
1:C:144:TRP:CH2	1:C:176:LYS:HD3	2.53	0.43
1:C:328:MET:CE	1:C:331:TYR:OH	2.67	0.43
1:D:13:SER:HB3	1:D:14:PRO:HD2	2.00	0.43
1:D:378:LEU:C	1:D:380:ASN:N	2.70	0.43
2:D:501:U2F:O3	3:D:502:T83:CAF	2.66	0.43
1:E:105:ILE:HA	1:E:108:MET:HG3	2.00	0.43
1:E:137:THR:HG21	1:E:205:TYR:HE1	1.83	0.43
1:F:10:ILE:HG21	1:F:22:VAL:HG13	1.98	0.43
1:F:98:LEU:HD11	1:F:123:GLN:O	2.18	0.43
1:F:142:THR:OG1	1:F:145:THR:HG23	2.18	0.43
1:F:431:LEU:HG	1:F:432:MET:CE	2.47	0.43
1:G:25:LEU:HD23	1:G:29:LEU:CD2	2.37	0.43
1:G:97:ALA:O	1:G:98:LEU:C	2.56	0.43
1:G:98:LEU:N	1:G:99:PRO:HD2	2.33	0.43
1:G:305:VAL:HG23	1:G:328:MET:CE	2.46	0.43
1:A:327:ASP:O	1:A:330:GLU:HG3	2.18	0.43
1:A:396:ASN:O	1:A:400:LEU:HD12	2.19	0.43
1:B:425:GLN:HA	1:B:428:VAL:HG22	2.01	0.43
1:C:87:PHE:CZ	1:C:201:LEU:HD22	2.49	0.43
1:C:277:GLY:HA3	1:C:368:HIS:CE1	2.53	0.43
1:E:73:SER:CB	1:E:93:LEU:CD1	2.96	0.43
1:E:150:ILE:HG12	1:E:151:TYR:N	2.33	0.43
1:F:10:ILE:HA	1:F:116:ILE:O	2.18	0.43
1:F:430:ILE:CA	1:F:434:THR:HG23	2.41	0.43
1:F:476:GLU:N	1:F:477:LEU:HD12	2.34	0.43
1:G:187:LEU:N	1:G:187:LEU:CD2	2.81	0.43
1:G:232:LYS:O	1:G:236:LEU:HD13	2.18	0.43
1:A:80:ILE:HG12	1:A:81:ASN:H	1.83	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:113:ASP:O	1:A:133:ILE:HG22	2.18	0.43
1:B:137:THR:HG21	1:B:205:TYR:HD1	1.79	0.43
1:C:110:HIS:O	1:C:111:ARG:O	2.35	0.43
1:C:260:ILE:HD12	1:C:260:ILE:N	2.34	0.43
1:D:102:HIS:HA	1:D:105:ILE:HD13	1.99	0.43
1:E:22:VAL:HG22	1:E:23:LEU:HD12	2.00	0.43
1:E:95:ARG:CA	1:E:98:LEU:HD23	2.48	0.43
1:G:36:LYS:HD2	1:G:36:LYS:C	2.38	0.43
1:G:359:HIS:HB3	1:G:362:VAL:HG23	1.99	0.43
1:A:193:GLN:O	1:A:196:GLU:HG3	2.19	0.43
1:A:273:PHE:CE2	1:A:353:GLN:HG3	2.52	0.43
1:B:387:TRP:CH2	1:B:419:VAL:CG2	3.01	0.43
1:C:433:GLN:NE2	1:D:264:ASP:OD1	2.51	0.43
1:D:137:THR:HG21	1:D:205:TYR:HE1	1.83	0.43
1:D:301:PHE:CZ	1:D:344:GLY:HA3	2.54	0.43
1:E:90:LEU:HD12	1:E:90:LEU:H	1.83	0.43
1:E:175:CYS:SG	1:E:223:THR:HG23	2.59	0.43
1:E:255:LEU:C	1:E:257:ASP:N	2.71	0.43
1:E:290:LEU:HD22	1:E:303:TRP:CZ2	2.54	0.43
1:E:308:PRO:HD2	1:E:326:ARG:HH12	1.83	0.43
1:F:94:VAL:O	1:F:98:LEU:HD23	2.19	0.43
1:G:329:SER:HA	1:G:332:LEU:HD21	2.01	0.43
1:G:377:SER:HB2	1:G:382:VAL:CG2	2.48	0.43
1:A:9:ALA:CA	1:A:115:LEU:HB2	2.48	0.43
1:A:38:THR:HG22	1:A:67:GLU:CB	2.47	0.43
1:A:218:ASP:OD2	1:A:450:SER:HB2	2.19	0.43
1:A:259:VAL:CG1	1:A:345:LEU:HD23	2.48	0.43
1:A:263:LEU:CB	1:A:359:HIS:CD2	3.01	0.43
1:A:455:LEU:HD12	1:A:461:SER:OG	2.18	0.43
1:A:466:CYS:HA	1:A:469:VAL:HG22	2.00	0.43
1:B:98:LEU:HD11	1:B:123:GLN:O	2.19	0.43
1:B:400:LEU:HA	1:B:404:LEU:CD1	2.44	0.43
1:C:42:ILE:CA	1:C:71:VAL:HG13	2.32	0.43
1:C:301:PHE:CZ	1:C:344:GLY:HA3	2.53	0.43
1:D:95:ARG:CA	1:D:98:LEU:HD23	2.48	0.43
1:D:334:GLU:HB3	1:D:335:GLY:H	1.67	0.43
1:E:6:LEU:CD1	1:E:473:ARG:HH11	2.29	0.43
1:E:259:VAL:HA	1:E:345:LEU:HD21	2.00	0.43
1:F:95:ARG:CA	1:F:98:LEU:HD23	2.49	0.43
1:F:143:ALA:N	1:F:213:ILE:CD1	2.69	0.43
1:G:180:PRO:O	1:G:183:VAL:HG13	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:387:TRP:CZ3	1:G:424:ILE:HD12	2.51	0.43
1:A:7:HIS:ND1	1:A:112:PRO:HA	2.33	0.43
1:A:133:ILE:N	1:A:133:ILE:CD1	2.82	0.43
1:A:180:PRO:O	1:A:183:VAL:HG13	2.19	0.43
1:C:164:VAL:HG11	1:C:188:LEU:HA	2.01	0.43
1:C:216:TRP:CH2	1:C:219:LEU:HD13	2.53	0.43
1:D:248:ARG:HD3	1:D:379:THR:HG21	2.01	0.43
1:G:182:ASP:O	1:G:395:MET:HG3	2.19	0.43
1:G:294:LEU:HD12	1:G:294:LEU:H	1.75	0.43
1:B:94:VAL:O	1:B:98:LEU:HD23	2.19	0.43
1:B:94:VAL:HG11	1:B:121:CYS:HA	2.01	0.43
1:B:98:LEU:O	1:B:101:ILE:HG12	2.19	0.43
1:B:301:PHE:CZ	1:B:344:GLY:HA3	2.54	0.43
1:B:396:ASN:O	1:B:400:LEU:HD12	2.18	0.43
1:C:57:THR:OG1	1:C:60:THR:CB	2.67	0.43
1:C:433:GLN:O	1:D:360:SER:HB3	2.18	0.43
1:C:435:LYS:HG3	1:D:358:SER:O	2.19	0.43
1:D:463:ASN:HD22	1:D:463:ASN:HA	1.64	0.43
1:E:94:VAL:O	1:E:98:LEU:CD2	2.66	0.43
1:F:274:VAL:HG21	1:F:294:LEU:HD21	2.00	0.43
1:F:424:ILE:HD12	1:F:425:GLN:N	2.33	0.43
1:G:5:GLN:OE1	1:G:35:ILE:HA	2.19	0.43
1:G:62:GLU:HG2	1:G:63:GLU:OE1	2.19	0.43
1:G:216:TRP:CH2	1:G:219:LEU:HD13	2.53	0.43
1:G:306:ARG:CZ	1:G:349:MET:O	2.67	0.43
1:G:387:TRP:O	1:G:389:LEU:HD22	2.19	0.43
1:A:57:THR:O	1:A:60:THR:HG22	2.19	0.43
1:B:16:MET:CE	1:B:53:PHE:CD2	3.02	0.43
1:C:94:VAL:HG23	1:C:95:ARG:N	2.34	0.43
1:C:95:ARG:CA	1:C:98:LEU:HD13	2.49	0.43
1:C:213:ILE:HD13	1:C:242:PHE:C	2.39	0.43
1:D:94:VAL:O	1:D:98:LEU:CD2	2.66	0.43
1:D:212:LEU:N	1:D:212:LEU:HD12	2.34	0.43
1:E:163:TYR:CZ	1:E:190:ARG:NH2	2.86	0.43
1:E:249:ARG:NH2	2:E:501:U2F:H3	2.17	0.43
1:F:34:ASN:CG	1:F:34:ASN:O	2.57	0.43
1:F:40:LEU:HD12	1:F:69:ILE:HB	2.00	0.43
1:F:127:ILE:O	1:F:130:GLU:O	2.37	0.43
1:F:301:PHE:CZ	1:F:344:GLY:HA3	2.54	0.43
1:G:43:THR:OG1	1:G:44:THR:N	2.52	0.43
1:G:155:PHE:CE1	1:G:170:LEU:O	2.72	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:116:ILE:HG12	1:A:136:TYR:O	2.19	0.43
1:A:128:ALA:HA	1:A:133:ILE:HD13	2.01	0.43
1:B:216:TRP:CH2	1:B:219:LEU:HD13	2.53	0.43
1:F:404:LEU:HD13	1:F:447:LEU:HD11	1.99	0.43
1:G:59:LEU:H	1:G:59:LEU:HG	1.47	0.43
1:G:183:VAL:O	1:G:394:LYS:CD	2.57	0.43
1:G:258:GLU:HA	1:G:261:GLN:CG	2.48	0.43
1:A:9:ALA:HB3	1:A:115:LEU:HG	2.01	0.42
1:A:19:LEU:HD13	1:A:23:LEU:CD1	2.48	0.42
1:B:19:LEU:HD23	1:B:50:GLU:CG	2.49	0.42
1:B:88:THR:HG23	1:B:194:GLN:HB3	2.00	0.42
1:B:95:ARG:CA	1:B:98:LEU:HD23	2.49	0.42
1:B:111:ARG:NE	1:G:255:LEU:HD21	2.33	0.42
1:B:113:ASP:HA	1:B:133:ILE:HD11	2.00	0.42
1:B:297:SER:CB	1:B:428:VAL:CG2	2.97	0.42
1:C:78:HIS:CE1	1:C:79:LEU:CG	3.00	0.42
1:E:114:ALA:O	1:E:115:LEU:HD22	2.19	0.42
1:E:399:MET:HG2	1:E:404:LEU:HD21	2.01	0.42
1:F:144:TRP:CH2	1:F:176:LYS:HD3	2.54	0.42
1:F:192:ASP:CG	1:F:194:GLN:OE1	2.55	0.42
1:G:18:HIS:ND1	1:G:18:HIS:N	2.67	0.42
1:G:98:LEU:O	1:G:101:ILE:HG23	2.18	0.42
1:G:115:LEU:HD13	1:G:115:LEU:HA	1.78	0.42
1:A:20:ILE:HD11	2:A:501:U2F:H4'	2.00	0.42
1:B:273:PHE:CD1	1:B:273:PHE:C	2.92	0.42
1:C:468:LEU:O	1:C:472:ILE:HG12	2.19	0.42
1:E:251:VAL:HB	1:E:354:VAL:HG12	2.00	0.42
1:F:383:PRO:HB2	1:F:431:LEU:HD11	2.01	0.42
1:G:5:GLN:HE22	1:G:36:LYS:HG3	1.84	0.42
1:G:301:PHE:CZ	1:G:344:GLY:HA3	2.54	0.42
1:C:126:PRO:O	1:C:127:ILE:C	2.57	0.42
1:C:292:TRP:C	1:C:296:LEU:HD22	2.39	0.42
1:D:117:VAL:HG21	1:D:124:ILE:HB	2.02	0.42
1:E:10:ILE:HA	1:E:116:ILE:O	2.19	0.42
1:F:20:ILE:O	1:F:24:VAL:HG22	2.19	0.42
1:F:48:SER:HG	1:F:49:ALA:H	1.66	0.42
1:G:124:ILE:N	1:G:124:ILE:CD1	2.83	0.42
1:G:383:PRO:HB2	1:G:431:LEU:HD11	2.01	0.42
1:A:63:GLU:C	1:A:65:THR:H	2.22	0.42
1:A:370:GLY:HA3	2:A:501:U2F:F1	2.09	0.42
1:B:95:ARG:CZ	1:B:96:GLU:OE2	2.68	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:209:ASP:C	1:B:239:VAL:CG2	2.87	0.42
1:B:372:ASN:HA	1:B:375:VAL:CG2	2.49	0.42
1:D:109:THR:HG22	1:D:110:HIS:CD2	2.55	0.42
1:D:150:ILE:HD13	1:D:237:LEU:HD23	2.00	0.42
1:D:277:GLY:O	1:D:278:SER:C	2.57	0.42
1:E:34:ASN:O	1:E:34:ASN:CG	2.57	0.42
1:E:272:LEU:HD22	1:E:428:VAL:HG23	2.01	0.42
1:F:125:LEU:CD1	1:F:135:LYS:HD2	2.49	0.42
2:G:501:U2F:O6	2:G:501:U2F:H1	2.19	0.42
1:A:52:GLU:OE1	1:A:53:PHE:N	2.52	0.42
1:A:370:GLY:CA	2:A:501:U2F:F1	2.57	0.42
1:B:393:GLN:NE2	2:B:501:U2F:O6	2.51	0.42
1:C:137:THR:HG21	1:C:205:TYR:HE1	1.84	0.42
1:D:117:VAL:HG11	1:D:121:CYS:C	2.40	0.42
1:D:216:TRP:CH2	1:D:219:LEU:HD13	2.54	0.42
1:D:249:ARG:NH2	2:D:501:U2F:O6'	2.52	0.42
1:F:231:GLU:HG2	1:F:232:LYS:N	2.35	0.42
1:F:286:GLN:NE2	1:F:387:TRP:CZ2	2.88	0.42
1:G:292:TRP:C	1:G:296:LEU:HD22	2.39	0.42
1:A:249:ARG:NH2	2:A:501:U2F:O6'	2.53	0.42
1:B:111:ARG:HG3	1:G:255:LEU:HD21	2.01	0.42
1:D:283:SER:O	1:D:284:THR:C	2.57	0.42
1:D:396:ASN:H	1:D:396:ASN:ND2	2.09	0.42
1:D:435:LYS:HB2	1:G:217:GLU:HG2	2.01	0.42
1:F:98:LEU:O	1:F:101:ILE:HG12	2.19	0.42
1:F:273:PHE:C	1:F:273:PHE:CD1	2.93	0.42
1:A:122:THR:HG21	1:A:201:LEU:CD2	2.48	0.42
1:A:305:VAL:HG11	1:A:346:VAL:CG1	2.49	0.42
1:C:182:ASP:O	1:C:395:MET:HG3	2.20	0.42
1:C:200:LYS:O	1:C:204:GLU:HG3	2.20	0.42
1:D:27:ASN:HA	1:D:66:ILE:HD11	2.02	0.42
1:E:213:ILE:O	1:E:214:ASN:C	2.58	0.42
1:F:6:LEU:HD11	1:F:473:ARG:CD	2.49	0.42
1:G:5:GLN:OE1	1:G:36:LYS:HG3	2.20	0.42
1:G:107:SER:O	1:G:107:SER:OG	2.38	0.42
1:G:218:ASP:OD2	1:G:450:SER:HB2	2.19	0.42
1:G:251:VAL:HG12	1:G:252:GLU:H	1.84	0.42
1:G:425:GLN:HA	1:G:428:VAL:CG1	2.49	0.42
1:A:126:PRO:O	1:A:130:GLU:HG3	2.19	0.42
1:B:383:PRO:CG	1:B:431:LEU:HD11	2.49	0.42
1:C:109:THR:CG2	1:C:110:HIS:ND1	2.68	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:218:ASP:OD2	1:C:450:SER:HB2	2.20	0.42
1:C:335:GLY:CA	1:C:339:ARG:NH1	2.83	0.42
1:D:111:ARG:NH1	1:D:131:PHE:HE2	2.17	0.42
1:F:264:ASP:OD1	1:G:433:GLN:CG	2.67	0.42
1:F:425:GLN:HA	1:F:428:VAL:CG1	2.50	0.42
1:F:431:LEU:HG	1:F:432:MET:HE2	2.02	0.42
1:G:10:ILE:HG21	1:G:22:VAL:HG12	2.02	0.42
1:B:468:LEU:O	1:B:472:ILE:HG12	2.20	0.42
1:D:72:PRO:O	1:D:73:SER:HB3	2.20	0.42
1:D:166:LEU:O	1:D:167:LYS:HB3	2.20	0.42
1:D:367:THR:HG23	1:D:369:CYS:H	1.85	0.42
1:D:413:LEU:CD2	1:D:414:PRO:HD2	2.40	0.42
2:D:501:U2F:O3	3:D:502:T83:OAC	2.38	0.42
1:E:473:ARG:HA	1:E:473:ARG:HD2	1.81	0.42
1:F:5:GLN:HE22	1:F:36:LYS:NZ	2.18	0.42
1:F:352:ASN:OD1	1:F:355:GLU:CG	2.68	0.42
1:F:445:LYS:HB2	1:F:445:LYS:HE2	1.92	0.42
1:G:25:LEU:CD2	1:G:29:LEU:HD22	2.37	0.42
1:G:175:CYS:SG	1:G:223:THR:HG23	2.59	0.42
1:A:193:GLN:NE2	1:B:82:SER:OG	2.53	0.42
1:B:44:THR:HG21	1:B:47:SER:HB3	2.01	0.42
1:B:182:ASP:O	1:B:395:MET:HG3	2.19	0.42
1:B:297:SER:CB	1:B:428:VAL:HG23	2.50	0.42
1:C:396:ASN:O	1:C:400:LEU:HD12	2.20	0.42
1:D:20:ILE:CG2	1:D:249:ARG:HG3	2.50	0.42
1:D:20:ILE:O	1:D:24:VAL:HG23	2.19	0.42
1:D:182:ASP:O	1:D:395:MET:HG3	2.20	0.42
1:E:98:LEU:N	1:E:99:PRO:HD2	2.35	0.42
1:E:182:ASP:O	1:E:395:MET:HG3	2.20	0.42
1:E:326:ARG:HG3	1:E:330:GLU:HB2	2.01	0.42
1:G:19:LEU:HD13	1:G:23:LEU:CD2	2.47	0.42
1:G:35:ILE:HD12	1:G:35:ILE:N	2.34	0.42
1:G:219:LEU:HD11	1:G:404:LEU:HD21	2.01	0.42
1:G:304:VAL:HG22	1:G:347:VAL:CG2	2.49	0.42
1:A:94:VAL:HG11	1:A:121:CYS:HA	2.02	0.41
1:A:184:VAL:CG1	1:A:395:MET:HE3	2.44	0.41
1:C:10:ILE:HA	1:C:116:ILE:O	2.19	0.41
1:C:98:LEU:N	1:C:99:PRO:HD2	2.35	0.41
1:C:239:VAL:HG13	1:C:240:PRO:CD	2.47	0.41
1:C:352:ASN:CB	1:C:355:GLU:OE1	2.68	0.41
1:C:385:ILE:HG13	1:C:431:LEU:HD22	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:95:ARG:HE	1:D:123:GLN:NE2	2.17	0.41
1:D:98:LEU:N	1:D:99:PRO:HD2	2.34	0.41
1:E:218:ASP:OD2	1:E:450:SER:HB2	2.19	0.41
1:F:150:ILE:HD13	1:F:237:LEU:HD23	2.01	0.41
1:G:290:LEU:HD22	1:G:303:TRP:CZ2	2.55	0.41
1:A:144:TRP:CH2	1:A:176:LYS:HD3	2.55	0.41
1:C:297:SER:HB2	1:C:428:VAL:HG23	2.02	0.41
1:D:136:TYR:HE2	1:D:472:ILE:HD13	1.76	0.41
1:D:272:LEU:HD21	1:D:428:VAL:HG22	2.02	0.41
1:E:50:GLU:O	1:E:54:LEU:CD2	2.66	0.41
1:E:276:PHE:O	1:E:280:GLY:HA3	2.20	0.41
1:E:292:TRP:C	1:E:296:LEU:HD22	2.40	0.41
1:E:301:PHE:CZ	1:E:344:GLY:HA3	2.54	0.41
1:F:91:ARG:NH2	1:F:204:GLU:OE2	2.53	0.41
1:G:45:THR:HB	1:G:46:SER:H	1.69	0.41
1:G:187:LEU:N	1:G:187:LEU:HD22	2.35	0.41
1:G:296:LEU:N	1:G:296:LEU:CD1	2.83	0.41
1:B:106:ALA:HA	1:B:111:ARG:NH1	2.34	0.41
1:B:198:TYR:O	1:B:201:LEU:HB3	2.19	0.41
1:C:88:THR:HG23	1:C:194:GLN:HB3	2.01	0.41
1:C:297:SER:N	1:C:425:GLN:HG3	2.35	0.41
1:C:332:LEU:CG	1:C:336:PHE:HB3	2.50	0.41
1:C:430:ILE:HA	1:C:434:THR:HG21	1.97	0.41
1:E:187:LEU:HD21	1:E:198:TYR:CE2	2.56	0.41
1:E:430:ILE:CA	1:E:434:THR:HG23	2.42	0.41
1:F:441:LYS:O	1:F:445:LYS:CE	2.68	0.41
1:G:425:GLN:O	1:G:428:VAL:HG13	2.20	0.41
1:A:98:LEU:N	1:A:99:PRO:HD2	2.34	0.41
1:A:327:ASP:OD2	1:A:329:SER:OG	2.36	0.41
1:B:172:ILE:HD12	1:B:175:CYS:SG	2.46	0.41
1:C:38:THR:CG2	1:C:69:ILE:HG12	2.51	0.41
1:C:57:THR:O	1:C:59:LEU:N	2.53	0.41
1:C:215:THR:HG21	1:C:220:GLU:OE1	2.20	0.41
1:D:144:TRP:HA	1:D:223:THR:HG21	2.02	0.41
1:D:148:LEU:C	1:D:148:LEU:HD13	2.41	0.41
1:D:367:THR:HG23	1:D:369:CYS:N	2.35	0.41
1:E:273:PHE:C	1:E:273:PHE:CD1	2.93	0.41
1:F:188:LEU:HD23	1:F:188:LEU:H	1.78	0.41
1:F:410:PRO:HB3	1:F:427:MET:HE1	2.01	0.41
1:G:35:ILE:HG22	1:G:37:ILE:HD12	2.01	0.41
1:G:53:PHE:O	1:G:56:LYS:HB2	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:74:VAL:HG22	1:G:96:GLU:HB2	2.02	0.41
1:G:92:LEU:H	1:G:92:LEU:HG	1.68	0.41
1:A:198:TYR:O	1:A:201:LEU:HB3	2.20	0.41
1:A:341:LYS:HB3	1:A:341:LYS:HE3	1.87	0.41
1:B:111:ARG:HG3	1:G:255:LEU:CD2	2.50	0.41
1:B:336:PHE:HA	1:B:339:ARG:HD3	2.02	0.41
1:D:353:GLN:OE1	1:D:376:GLU:OE1	2.39	0.41
1:F:209:ASP:C	1:F:239:VAL:CG2	2.88	0.41
1:G:7:HIS:HA	1:G:37:ILE:HG13	2.01	0.41
1:G:52:GLU:O	1:G:56:LYS:N	2.47	0.41
1:G:111:ARG:HA	1:G:112:PRO:HD3	1.89	0.41
1:G:368:HIS:NE2	2:G:501:U2F:O2B	2.45	0.41
1:G:425:GLN:HE21	1:G:425:GLN:HB3	1.48	0.41
1:A:8:VAL:HG22	1:A:35:ILE:HD11	2.03	0.41
1:C:94:VAL:O	1:C:98:LEU:CD1	2.69	0.41
1:F:199:VAL:HG12	1:F:203:LYS:HE3	2.03	0.41
1:F:474:SER:O	1:F:477:LEU:HD11	2.21	0.41
1:G:244:ILE:HD13	1:G:244:ILE:N	2.29	0.41
1:G:249:ARG:CZ	2:G:501:U2F:O2'	2.68	0.41
1:B:22:VAL:HG12	1:B:39:ILE:HD12	2.03	0.41
1:C:13:SER:HB3	1:C:118:ASP:OD2	2.21	0.41
1:C:294:LEU:N	1:C:294:LEU:CD2	2.83	0.41
1:C:330:GLU:CG	1:C:331:TYR:CE1	3.03	0.41
1:C:433:GLN:CG	1:D:264:ASP:OD1	2.69	0.41
1:E:36:LYS:C	1:E:37:ILE:HD13	2.41	0.41
1:E:159:ILE:HG22	1:E:161:GLY:H	1.85	0.41
1:E:252:GLU:O	1:E:254:THR:N	2.54	0.41
1:F:215:THR:HG21	1:F:220:GLU:OE1	2.21	0.41
1:F:468:LEU:HD23	1:F:472:ILE:CD1	2.51	0.41
1:G:328:MET:HA	1:G:331:TYR:CZ	2.56	0.41
1:A:383:PRO:HB2	1:A:431:LEU:HD11	2.03	0.41
1:B:187:LEU:CD1	1:B:198:TYR:CD2	3.04	0.41
1:C:146:LEU:HD23	1:C:146:LEU:C	2.41	0.41
1:D:20:ILE:HG21	1:D:249:ARG:HG3	2.01	0.41
1:D:24:VAL:HG11	1:D:248:ARG:N	2.36	0.41
1:D:232:LYS:O	1:D:236:LEU:HD13	2.20	0.41
1:D:370:GLY:HA2	2:D:501:U2F:O4	2.21	0.41
1:E:138:TYR:O	1:E:140:PRO:HD3	2.21	0.41
1:F:143:ALA:CB	1:F:213:ILE:CD1	2.98	0.41
1:F:263:LEU:HB3	1:F:359:HIS:ND1	2.36	0.41
1:G:125:LEU:HD12	1:G:126:PRO:CD	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:472:ILE:H	1:G:472:ILE:HG12	1.55	0.41
1:A:106:ALA:C	1:A:108:MET:N	2.73	0.41
1:A:301:PHE:CZ	1:A:344:GLY:HA3	2.55	0.41
1:B:244:ILE:H	1:B:244:ILE:CD1	2.29	0.41
1:B:305:VAL:HG11	1:B:346:VAL:CG1	2.51	0.41
1:C:435:LYS:HZ3	1:D:382:VAL:HG22	1.86	0.41
1:D:336:PHE:O	1:D:338:THR:N	2.54	0.41
1:E:87:PHE:HB2	1:E:194:GLN:HE21	1.81	0.41
1:E:119:ILE:HG13	1:E:120:PHE:CE1	2.54	0.41
1:E:198:TYR:O	1:E:201:LEU:HB3	2.20	0.41
1:E:296:LEU:N	1:E:296:LEU:CD1	2.84	0.41
1:E:425:GLN:HA	1:E:428:VAL:CG1	2.50	0.41
1:G:97:ALA:O	1:G:100:LYS:N	2.54	0.41
1:G:101:ILE:HG13	1:G:102:HIS:N	2.33	0.41
1:G:127:ILE:O	1:G:130:GLU:HG3	2.20	0.41
1:G:368:HIS:HE2	2:G:501:U2F:PB	2.44	0.41
1:G:409:ARG:HB2	1:G:410:PRO:HD2	2.02	0.41
1:G:417:LYS:HD3	1:G:418:LEU:O	2.21	0.41
1:A:80:ILE:CG1	1:A:84:THR:HB	2.48	0.41
1:B:326:ARG:O	1:B:327:ASP:C	2.58	0.41
1:C:212:LEU:HD12	1:C:212:LEU:N	2.36	0.41
1:D:234:ARG:HH11	1:D:238:LYS:N	2.19	0.41
1:D:273:PHE:C	1:D:273:PHE:CD1	2.93	0.41
1:E:78:HIS:CD2	1:E:78:HIS:O	2.73	0.41
1:E:111:ARG:HH21	1:E:131:PHE:HD1	1.68	0.41
1:F:182:ASP:O	1:F:395:MET:HG3	2.20	0.41
1:B:133:ILE:HD12	1:B:133:ILE:HA	2.00	0.40
1:B:212:LEU:HD12	1:B:212:LEU:N	2.36	0.40
1:D:198:TYR:O	1:D:201:LEU:HB3	2.20	0.40
1:F:29:LEU:HD12	1:F:29:LEU:H	1.86	0.40
1:F:36:LYS:C	1:F:37:ILE:HD13	2.42	0.40
1:G:10:ILE:HG22	1:G:22:VAL:CG1	2.50	0.40
1:A:108:MET:O	1:A:109:THR:C	2.58	0.40
1:A:175:CYS:SG	1:A:223:THR:HG23	2.60	0.40
1:B:7:HIS:HA	1:B:36:LYS:O	2.21	0.40
1:B:297:SER:HB2	1:B:428:VAL:HG23	2.03	0.40
1:B:409:ARG:HB2	1:B:410:PRO:HD2	2.02	0.40
1:C:176:LYS:CG	1:C:177:ALA:H	2.23	0.40
1:D:94:VAL:O	1:D:98:LEU:HD23	2.21	0.40
1:E:94:VAL:O	1:E:98:LEU:HD23	2.21	0.40
1:E:124:ILE:N	1:E:124:ILE:CD1	2.84	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:383:PRO:HG3	1:E:431:LEU:HD21	2.02	0.40
1:F:15:GLY:N	1:F:50:GLU:OE2	2.48	0.40
1:F:175:CYS:SG	1:F:223:THR:HG23	2.61	0.40
2:F:501:U2F:O6'	2:F:501:U2F:O4'	2.36	0.40
1:G:26:GLY:O	1:G:29:LEU:CD2	2.69	0.40
1:G:94:VAL:O	1:G:95:ARG:C	2.57	0.40
1:A:61:ASN:HB3	1:A:67:GLU:OE2	2.21	0.40
1:A:98:LEU:O	1:A:101:ILE:HG23	2.22	0.40
1:A:116:ILE:CB	1:A:136:TYR:O	2.69	0.40
1:A:137:THR:HG21	1:A:205:TYR:HE1	1.86	0.40
1:A:148:LEU:HD13	1:A:148:LEU:C	2.42	0.40
1:C:9:ALA:HB3	1:C:115:LEU:CD1	2.51	0.40
1:C:301:PHE:CE1	1:C:344:GLY:HA3	2.57	0.40
1:D:36:LYS:C	1:D:37:ILE:HD13	2.42	0.40
1:D:48:SER:O	1:D:51:THR:N	2.54	0.40
1:F:127:ILE:HG23	1:F:131:PHE:HE1	1.86	0.40
1:F:468:LEU:HD23	1:F:468:LEU:C	2.42	0.40
1:G:14:PRO:O	1:G:15:GLY:C	2.59	0.40
1:G:412:VAL:HG11	1:G:417:LYS:HB3	2.02	0.40
1:A:20:ILE:N	1:A:21:PRO:CD	2.84	0.40
1:A:429:ARG:HA	1:A:429:ARG:HD3	1.94	0.40
1:B:276:PHE:CD1	1:B:276:PHE:N	2.89	0.40
1:D:138:TYR:O	1:D:140:PRO:HD3	2.22	0.40
1:D:142:THR:HG23	1:D:145:THR:H	1.87	0.40
1:E:255:LEU:H	1:E:255:LEU:HG	1.68	0.40
1:F:36:LYS:CE	1:F:65:THR:HG23	2.52	0.40
1:F:218:ASP:OD2	1:F:450:SER:HB2	2.21	0.40
1:A:80:ILE:CG1	1:A:81:ASN:N	2.85	0.40
1:A:265:LYS:HD3	1:A:265:LYS:HA	1.94	0.40
1:B:378:LEU:C	1:B:380:ASN:N	2.74	0.40
1:B:393:GLN:HE21	2:B:501:U2F:H6C1	1.77	0.40
1:D:118:ASP:OD1	1:D:119:ILE:N	2.55	0.40
1:D:291:ALA:HB3	1:D:333:PRO:HG2	2.03	0.40
1:E:263:LEU:C	1:E:359:HIS:HE1	2.25	0.40
1:E:399:MET:O	1:E:404:LEU:HD22	2.21	0.40
1:F:9:ALA:HA	1:F:38:THR:O	2.21	0.40
1:F:276:PHE:CD1	1:F:276:PHE:N	2.90	0.40
1:F:277:GLY:O	1:F:278:SER:C	2.60	0.40
1:F:409:ARG:HB2	1:F:410:PRO:HD2	2.04	0.40
1:G:40:LEU:HD22	1:G:40:LEU:HA	1.72	0.40
1:G:176:LYS:HG2	1:G:177:ALA:H	1.85	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:359:HIS:HD2	1:G:361:SER:H	1.69	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	454/474 (96%)	400 (88%)	40 (9%)	14 (3%)	3	19
1	B	456/474 (96%)	407 (89%)	40 (9%)	9 (2%)	6	26
1	C	456/474 (96%)	408 (90%)	41 (9%)	7 (2%)	8	33
1	D	456/474 (96%)	400 (88%)	40 (9%)	16 (4%)	3	16
1	E	456/474 (96%)	410 (90%)	36 (8%)	10 (2%)	5	24
1	F	456/474 (96%)	406 (89%)	43 (9%)	7 (2%)	8	33
1	G	456/474 (96%)	375 (82%)	62 (14%)	19 (4%)	2	13
All	All	3190/3318 (96%)	2806 (88%)	302 (10%)	82 (3%)	4	21

All (82) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	64	LYS
1	A	116	ILE
1	A	189	ASP
1	B	329	SER
1	C	58	THR
1	C	60	THR
1	C	111	ARG
1	D	327	ASP
1	D	333	PRO
1	D	336	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	E	193	GLN
1	E	194	GLN
1	F	49	ALA
1	F	329	SER
1	G	5	GLN
1	G	50	GLU
1	G	114	ALA
1	G	193	GLN
1	G	277	GLY
1	A	6	LEU
1	A	49	ALA
1	A	66	ILE
1	A	106	ALA
1	A	329	SER
1	B	46	SER
1	B	255	LEU
1	C	47	SER
1	C	49	ALA
1	C	329	SER
1	D	47	SER
1	D	167	LYS
1	D	253	THR
1	D	255	LEU
1	D	278	SER
1	D	329	SER
1	E	191	SER
1	E	253	THR
1	E	256	ASN
1	E	278	SER
1	F	76	ILE
1	G	14	PRO
1	G	83	SER
1	G	171	LYS
1	G	256	ASN
1	G	257	ASP
1	B	47	SER
1	B	49	ALA
1	B	64	LYS
1	B	167	LYS
1	C	420	LYS
1	D	49	ALA
1	D	334	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	E	49	ALA
1	F	48	SER
1	F	58	THR
1	G	59	LEU
1	G	167	LYS
1	G	194	GLN
1	G	456	SER
1	A	46	SER
1	A	72	PRO
1	B	62	GLU
1	E	46	SER
1	E	327	ASP
1	G	49	ALA
1	G	330	GLU
1	A	61	ASN
1	A	113	ASP
1	A	256	ASN
1	B	346	VAL
1	D	258	GLU
1	E	47	SER
1	G	278	SER
1	D	166	LEU
1	D	256	ASN
1	D	337	LEU
1	G	60	THR
1	G	76	ILE
1	A	277	GLY
1	D	277	GLY
1	F	277	GLY
1	F	13	SER

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	411/422 (97%)	355 (86%)	56 (14%)	3 13

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	B	413/422 (98%)	369 (89%)	44 (11%)	5	21
1	C	413/422 (98%)	358 (87%)	55 (13%)	3	13
1	D	413/422 (98%)	359 (87%)	54 (13%)	3	14
1	E	413/422 (98%)	358 (87%)	55 (13%)	3	13
1	F	413/422 (98%)	349 (84%)	64 (16%)	2	9
1	G	413/422 (98%)	319 (77%)	94 (23%)	0	3
All	All	2889/2954 (98%)	2467 (85%)	422 (15%)	2	11

All (422) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	13	SER
1	A	35	ILE
1	A	36	LYS
1	A	38	THR
1	A	39	ILE
1	A	42	ILE
1	A	44	THR
1	A	47	SER
1	A	50	GLU
1	A	52	GLU
1	A	54	LEU
1	A	55	LYS
1	A	58	THR
1	A	65	THR
1	A	66	ILE
1	A	73	SER
1	A	74	VAL
1	A	76	ILE
1	A	80	ILE
1	A	93	LEU
1	A	98	LEU
1	A	101	ILE
1	A	103	SER
1	A	111	ARG
1	A	112	PRO
1	A	115	LEU
1	A	122	THR
1	A	127	ILE
1	A	131	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	133	ILE
1	A	138	TYR
1	A	159	ILE
1	A	172	ILE
1	A	175	CYS
1	A	188	LEU
1	A	199	VAL
1	A	205	TYR
1	A	235	LEU
1	A	237	LEU
1	A	239	VAL
1	A	247	LEU
1	A	255	LEU
1	A	258	GLU
1	A	259	VAL
1	A	272	LEU
1	A	297	SER
1	A	326	ARG
1	A	331	TYR
1	A	345	LEU
1	A	352	ASN
1	A	360	SER
1	A	425	GLN
1	A	433	GLN
1	A	434	THR
1	A	465	ILE
1	A	472	ILE
1	B	10	ILE
1	B	19	LEU
1	B	47	SER
1	B	53	PHE
1	B	56	LYS
1	B	59	LEU
1	B	64	LYS
1	B	66	ILE
1	B	74	VAL
1	B	100	LYS
1	B	101	ILE
1	B	104	THR
1	B	105	ILE
1	B	108	MET
1	B	132	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	B	134	SER
1	B	135	LYS
1	B	138	TYR
1	B	172	ILE
1	B	175	CYS
1	B	179	ARG
1	B	192	ASP
1	B	205	TYR
1	B	213	ILE
1	B	234	ARG
1	B	235	LEU
1	B	244	ILE
1	B	259	VAL
1	B	273	PHE
1	B	310	ASP
1	B	328	MET
1	B	329	SER
1	B	331	TYR
1	B	339	ARG
1	B	375	VAL
1	B	377	SER
1	B	424	ILE
1	B	438	LYS
1	B	439	ARG
1	B	440	ILE
1	B	455	LEU
1	B	461	SER
1	B	465	ILE
1	B	470	LYS
1	C	6	LEU
1	C	13	SER
1	C	16	MET
1	C	37	ILE
1	C	40	LEU
1	C	42	ILE
1	C	45	THR
1	C	47	SER
1	C	53	PHE
1	C	60	THR
1	C	66	ILE
1	C	83	SER
1	C	100	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	102	HIS
1	C	104	THR
1	C	113	ASP
1	C	122	THR
1	C	132	ASN
1	C	138	TYR
1	C	148	LEU
1	C	150	ILE
1	C	159	ILE
1	C	160	GLU
1	C	172	ILE
1	C	175	CYS
1	C	178	LEU
1	C	205	TYR
1	C	213	ILE
1	C	231	GLU
1	C	232	LYS
1	C	237	LEU
1	C	239	VAL
1	C	244	ILE
1	C	248	ARG
1	C	251	VAL
1	C	252	GLU
1	C	254	THR
1	C	256	ASN
1	C	259	VAL
1	C	294	LEU
1	C	296	LEU
1	C	326	ARG
1	C	328	MET
1	C	331	TYR
1	C	332	LEU
1	C	352	ASN
1	C	361	SER
1	C	374	THR
1	C	392	GLU
1	C	401	THR
1	C	404	LEU
1	C	409	ARG
1	C	415	THR
1	C	416	LYS
1	C	476	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	D	4	SER
1	D	6	LEU
1	D	19	LEU
1	D	22	VAL
1	D	39	ILE
1	D	40	LEU
1	D	44	THR
1	D	45	THR
1	D	59	LEU
1	D	73	SER
1	D	80	ILE
1	D	93	LEU
1	D	95	ARG
1	D	104	THR
1	D	105	ILE
1	D	119	ILE
1	D	124	ILE
1	D	133	ILE
1	D	134	SER
1	D	138	TYR
1	D	157	LYS
1	D	166	LEU
1	D	175	CYS
1	D	179	ARG
1	D	184	VAL
1	D	205	TYR
1	D	233	LEU
1	D	237	LEU
1	D	239	VAL
1	D	247	LEU
1	D	260	ILE
1	D	273	PHE
1	D	282	LEU
1	D	283	SER
1	D	297	SER
1	D	326	ARG
1	D	328	MET
1	D	333	PRO
1	D	334	GLU
1	D	339	ARG
1	D	361	SER
1	D	367	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	D	382	VAL
1	D	387	TRP
1	D	396	ASN
1	D	409	ARG
1	D	412	VAL
1	D	413	LEU
1	D	418	LEU
1	D	456	SER
1	D	465	ILE
1	D	468	LEU
1	D	470	LYS
1	D	477	LEU
1	E	22	VAL
1	E	44	THR
1	E	62	GLU
1	E	73	SER
1	E	74	VAL
1	E	80	ILE
1	E	81	ASN
1	E	93	LEU
1	E	94	VAL
1	E	100	LYS
1	E	104	THR
1	E	108	MET
1	E	119	ILE
1	E	124	ILE
1	E	125	LEU
1	E	138	TYR
1	E	146	LEU
1	E	150	ILE
1	E	154	VAL
1	E	160	GLU
1	E	166	LEU
1	E	167	LYS
1	E	168	GLU
1	E	170	LEU
1	E	175	CYS
1	E	183	VAL
1	E	187	LEU
1	E	205	TYR
1	E	219	LEU
1	E	234	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	E	237	LEU
1	E	248	ARG
1	E	250	LYS
1	E	251	VAL
1	E	254	THR
1	E	255	LEU
1	E	271	VAL
1	E	273	PHE
1	E	281	THR
1	E	283	SER
1	E	296	LEU
1	E	309	SER
1	E	326	ARG
1	E	329	SER
1	E	331	TYR
1	E	332	LEU
1	E	361	SER
1	E	413	LEU
1	E	415	THR
1	E	428	VAL
1	E	431	LEU
1	E	434	THR
1	E	438	LYS
1	E	465	ILE
1	E	476	GLU
1	F	4	SER
1	F	13	SER
1	F	19	LEU
1	F	23	LEU
1	F	24	VAL
1	F	40	LEU
1	F	43	THR
1	F	44	THR
1	F	45	THR
1	F	46	SER
1	F	58	THR
1	F	60	THR
1	F	61	ASN
1	F	63	GLU
1	F	64	LYS
1	F	65	THR
1	F	74	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	F	76	ILE
1	F	79	LEU
1	F	84	THR
1	F	92	LEU
1	F	93	LEU
1	F	101	ILE
1	F	104	THR
1	F	105	ILE
1	F	107	SER
1	F	109	THR
1	F	124	ILE
1	F	129	GLU
1	F	133	ILE
1	F	134	SER
1	F	138	TYR
1	F	167	LYS
1	F	172	ILE
1	F	175	CYS
1	F	188	LEU
1	F	205	TYR
1	F	219	LEU
1	F	222	GLU
1	F	224	ILE
1	F	227	LEU
1	F	234	ARG
1	F	237	LEU
1	F	244	ILE
1	F	248	ARG
1	F	273	PHE
1	F	290	LEU
1	F	329	SER
1	F	331	TYR
1	F	332	LEU
1	F	337	LEU
1	F	413	LEU
1	F	424	ILE
1	F	428	VAL
1	F	433	GLN
1	F	434	THR
1	F	445	LYS
1	F	455	LEU
1	F	456	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	F	457	ASP
1	F	461	SER
1	F	472	ILE
1	F	473	ARG
1	F	475	ARG
1	G	5	GLN
1	G	7	HIS
1	G	18	HIS
1	G	22	VAL
1	G	35	ILE
1	G	36	LYS
1	G	37	ILE
1	G	39	ILE
1	G	40	LEU
1	G	45	THR
1	G	47	SER
1	G	52	GLU
1	G	54	LEU
1	G	55	LYS
1	G	59	LEU
1	G	64	LYS
1	G	66	ILE
1	G	67	GLU
1	G	68	ILE
1	G	69	ILE
1	G	75	ASP
1	G	76	ILE
1	G	77	SER
1	G	80	ILE
1	G	82	SER
1	G	85	LYS
1	G	86	ILE
1	G	88	THR
1	G	90	LEU
1	G	91	ARG
1	G	92	LEU
1	G	93	LEU
1	G	94	VAL
1	G	95	ARG
1	G	96	GLU
1	G	98	LEU
1	G	100	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	G	101	ILE
1	G	102	HIS
1	G	103	SER
1	G	104	THR
1	G	105	ILE
1	G	108	MET
1	G	109	THR
1	G	111	ARG
1	G	115	LEU
1	G	118	ASP
1	G	119	ILE
1	G	124	ILE
1	G	127	ILE
1	G	130	GLU
1	G	133	ILE
1	G	138	TYR
1	G	141	THR
1	G	146	LEU
1	G	148	LEU
1	G	153	GLN
1	G	154	VAL
1	G	162	GLU
1	G	165	GLU
1	G	166	LEU
1	G	170	LEU
1	G	171	LYS
1	G	175	CYS
1	G	187	LEU
1	G	194	GLN
1	G	197	GLU
1	G	199	VAL
1	G	200	LYS
1	G	201	LEU
1	G	203	LYS
1	G	213	ILE
1	G	235	LEU
1	G	237	LEU
1	G	239	VAL
1	G	244	ILE
1	G	252	GLU
1	G	253	THR
1	G	257	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	G	272	LEU
1	G	294	LEU
1	G	296	LEU
1	G	298	GLN
1	G	326	ARG
1	G	331	TYR
1	G	366	LEU
1	G	367	THR
1	G	394	LYS
1	G	425	GLN
1	G	428	VAL
1	G	460	SER
1	G	472	ILE
1	G	476	GLU
1	G	477	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (48) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	34	ASN
1	A	61	ASN
1	A	123	GLN
1	A	139	HIS
1	A	193	GLN
1	A	225	ASN
1	A	390	HIS
1	A	433	GLN
1	B	153	GLN
1	B	353	GLN
1	B	393	GLN
1	C	33	HIS
1	C	61	ASN
1	C	256	ASN
1	C	268	ASN
1	C	298	GLN
1	C	353	GLN
1	C	393	GLN
1	C	433	GLN
1	D	110	HIS
1	D	123	GLN
1	D	225	ASN
1	D	352	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	D	353	GLN
1	D	396	ASN
1	D	463	ASN
1	E	78	HIS
1	E	132	ASN
1	E	153	GLN
1	E	298	GLN
1	E	299	GLN
1	E	352	ASN
1	E	463	ASN
1	F	5	GLN
1	F	7	HIS
1	F	123	GLN
1	F	225	ASN
1	F	261	GLN
1	F	286	GLN
1	F	425	GLN
1	F	433	GLN
1	F	453	ASN
1	G	7	HIS
1	G	298	GLN
1	G	359	HIS
1	G	372	ASN
1	G	425	GLN
1	G	433	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry

12 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	U2F	C	501	-	35,38,38	0.50	0	51,58,58	1.28	6 (11%)
3	T83	F	502	-	15,15,15	5.63	11 (73%)	21,21,21	4.86	12 (57%)
2	U2F	D	501	-	35,38,38	0.69	1 (2%)	51,58,58	1.36	8 (15%)
2	U2F	E	501	-	35,38,38	0.68	1 (2%)	51,58,58	1.82	6 (11%)
3	T83	C	502	-	15,15,15	5.83	11 (73%)	21,21,21	4.86	13 (61%)
3	T83	A	502	-	15,15,15	5.47	10 (66%)	21,21,21	5.72	15 (71%)
3	T83	B	502	-	15,15,15	5.61	11 (73%)	21,21,21	5.09	11 (52%)
2	U2F	F	501	-	35,38,38	0.62	1 (2%)	51,58,58	1.52	6 (11%)
2	U2F	B	501	-	35,38,38	0.47	0	51,58,58	1.04	4 (7%)
2	U2F	G	501	-	35,38,38	0.55	0	51,58,58	1.17	4 (7%)
3	T83	D	502	-	15,15,15	5.39	10 (66%)	21,21,21	5.09	14 (66%)
2	U2F	A	501	-	35,38,38	0.53	0	51,58,58	0.98	1 (1%)

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	U2F	C	501	-	-	10/22/59/59	0/3/3/3
3	T83	F	502	-	-	2/2/2/2	0/2/2/2
2	U2F	D	501	-	-	8/22/59/59	0/3/3/3
2	U2F	E	501	-	-	13/22/59/59	0/3/3/3
3	T83	C	502	-	-	2/2/2/2	0/2/2/2
3	T83	A	502	-	-	2/2/2/2	0/2/2/2
3	T83	B	502	-	-	2/2/2/2	0/2/2/2
2	U2F	F	501	-	-	7/22/59/59	0/3/3/3

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	U2F	B	501	-	-	6/22/59/59	0/3/3/3
2	U2F	G	501	-	-	10/22/59/59	0/3/3/3
3	T83	D	502	-	-	2/2/2/2	0/2/2/2
2	U2F	A	501	-	-	7/22/59/59	0/3/3/3

All (56) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	502	T83	CAD-CAE	11.94	1.55	1.34
3	B	502	T83	CAD-CAE	10.91	1.53	1.34
3	F	502	T83	CAD-CAE	10.74	1.53	1.34
3	A	502	T83	CAD-CAE	10.53	1.52	1.34
3	D	502	T83	CAD-CAE	10.10	1.51	1.34
3	C	502	T83	CAF-CAN	9.14	1.55	1.38
3	F	502	T83	CAG-CAM	-9.05	1.25	1.40
3	A	502	T83	CAF-CAN	9.02	1.55	1.38
3	B	502	T83	CAF-CAN	8.82	1.54	1.38
3	F	502	T83	CAG-CAK	-8.71	1.22	1.38
3	D	502	T83	CAF-CAN	8.68	1.54	1.38
3	B	502	T83	CAG-CAM	-8.51	1.26	1.40
3	B	502	T83	CAG-CAK	-8.07	1.24	1.38
3	F	502	T83	CAF-CAN	7.93	1.53	1.38
3	C	502	T83	CAG-CAM	-7.87	1.27	1.40
3	A	502	T83	CAG-CAM	-7.70	1.27	1.40
3	D	502	T83	CAG-CAM	-7.51	1.27	1.40
3	A	502	T83	CAG-CAK	-7.25	1.25	1.38
3	C	502	T83	CAM-CAN	7.01	1.55	1.41
3	C	502	T83	CAG-CAK	-6.69	1.26	1.38
3	D	502	T83	CAG-CAK	-6.68	1.26	1.38
3	D	502	T83	CAM-CAN	6.57	1.54	1.41
3	B	502	T83	CAM-CAN	6.53	1.54	1.41
3	F	502	T83	CAM-CAN	6.38	1.53	1.41
3	A	502	T83	CAM-CAN	6.32	1.53	1.41
3	C	502	T83	OAI-CAL	5.85	1.47	1.38
3	A	502	T83	OAI-CAL	5.50	1.47	1.38
3	C	502	T83	CAM-CAE	-5.27	1.33	1.44
3	D	502	T83	OAH-CAK	5.26	1.45	1.37
3	D	502	T83	OAI-CAL	5.22	1.46	1.38
3	F	502	T83	CAM-CAE	-5.10	1.33	1.44
3	F	502	T83	OAI-CAL	5.07	1.46	1.38
3	D	502	T83	OAI-CAN	4.90	1.46	1.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	502	T83	OAI-CAN	4.75	1.45	1.38
3	C	502	T83	OAH-CAK	4.69	1.44	1.37
3	B	502	T83	OAI-CAL	4.52	1.45	1.38
3	A	502	T83	OAH-CAK	4.48	1.44	1.37
3	A	502	T83	CAM-CAE	-4.47	1.34	1.44
3	B	502	T83	CAD-CAL	4.43	1.54	1.44
3	B	502	T83	CAM-CAE	-4.39	1.35	1.44
3	D	502	T83	CAM-CAE	-4.39	1.35	1.44
3	A	502	T83	CAD-CAL	4.12	1.54	1.44
3	F	502	T83	OAI-CAN	4.11	1.44	1.38
3	C	502	T83	CAD-CAL	3.89	1.53	1.44
3	F	502	T83	CAD-CAL	3.86	1.53	1.44
3	A	502	T83	OAI-CAN	3.73	1.44	1.38
3	B	502	T83	OAH-CAK	3.73	1.43	1.37
3	D	502	T83	CAD-CAL	3.47	1.52	1.44
3	B	502	T83	OAI-CAN	3.37	1.43	1.38
3	B	502	T83	CAJ-CAK	-3.01	1.34	1.40
3	F	502	T83	OAH-CAK	2.46	1.41	1.37
3	F	502	T83	CAJ-CAK	-2.43	1.35	1.40
2	D	501	U2F	O5-C5	2.25	1.49	1.44
3	C	502	T83	CAJ-CAK	-2.25	1.36	1.40
2	F	501	U2F	C4-C5	2.13	1.57	1.53
2	E	501	U2F	O5-C5	2.12	1.49	1.44

All (100) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	502	T83	CAM-CAG-CAK	16.07	146.94	120.73
3	B	502	T83	CAM-CAG-CAK	14.88	144.99	120.73
3	D	502	T83	CAM-CAG-CAK	14.78	144.83	120.73
3	C	502	T83	CAM-CAG-CAK	14.25	143.97	120.73
3	F	502	T83	CAM-CAG-CAK	13.85	143.31	120.73
3	A	502	T83	CAG-CAM-CAN	-10.71	106.61	119.40
3	B	502	T83	CAG-CAM-CAN	-10.05	107.40	119.40
3	F	502	T83	CAG-CAM-CAN	-9.87	107.61	119.40
3	A	502	T83	CAN-OAI-CAL	-8.75	110.08	121.65
3	D	502	T83	CAG-CAM-CAN	-8.59	109.14	119.40
3	C	502	T83	CAG-CAM-CAN	-8.48	109.27	119.40
2	E	501	U2F	O5-C1-O1	8.37	122.31	111.36
3	D	502	T83	CAG-CAK-CAJ	-7.77	111.68	120.06
3	F	502	T83	CAN-OAI-CAL	-7.50	111.73	121.65
3	C	502	T83	CAG-CAK-CAJ	-7.32	112.17	120.06

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	502	T83	CAG-CAK-CAJ	-7.14	112.36	120.06
3	B	502	T83	CAN-OAI-CAL	-7.10	112.26	121.65
3	D	502	T83	CAN-OAI-CAL	-6.83	112.62	121.65
3	B	502	T83	CAG-CAK-CAJ	-6.43	113.13	120.06
2	F	501	U2F	O5-C1-O1	-6.41	102.98	111.36
3	A	502	T83	OAH-CAK-CAJ	6.29	123.68	114.57
3	C	502	T83	CAN-OAI-CAL	-5.98	113.74	121.65
3	F	502	T83	CAG-CAK-CAJ	-5.69	113.92	120.06
3	D	502	T83	CAF-CAN-CAM	-5.46	108.70	120.07
3	F	502	T83	OAH-CAK-CAJ	5.38	122.36	114.57
3	B	502	T83	CAE-CAD-CAL	-5.35	114.52	121.43
3	C	502	T83	CAF-CAN-CAM	-5.16	109.33	120.07
3	A	502	T83	OAI-CAL-CAD	4.99	124.72	117.12
3	A	502	T83	OAB-CAL-CAD	-4.88	116.92	126.00
3	B	502	T83	CAG-CAM-CAE	4.88	132.42	122.91
3	A	502	T83	CAG-CAM-CAE	4.72	132.09	122.91
3	A	502	T83	CAF-CAN-CAM	-4.65	110.38	120.07
2	E	501	U2F	C2'-C3'-C4'	-4.64	93.63	102.64
3	D	502	T83	CAG-CAM-CAE	4.61	131.88	122.91
3	B	502	T83	OAI-CAL-CAD	4.57	124.08	117.12
2	F	501	U2F	F1-C2-C1	4.50	112.61	107.57
3	B	502	T83	CAF-CAN-CAM	-4.41	110.88	120.07
3	D	502	T83	CAA-OAH-CAK	4.35	124.10	117.53
3	F	502	T83	CAG-CAM-CAE	4.28	131.24	122.91
3	D	502	T83	OAB-CAL-CAD	-4.20	118.20	126.00
2	B	501	U2F	PA-O3A-PB	-4.09	118.80	132.83
2	A	501	U2F	PA-O3A-PB	-4.03	118.99	132.83
3	C	502	T83	OAB-CAL-CAD	-4.01	118.54	126.00
3	F	502	T83	CAF-CAN-CAM	-3.98	111.78	120.07
2	C	501	U2F	PB-O1-C1	3.93	134.95	119.74
3	C	502	T83	OAI-CAN-CAF	3.80	121.48	115.79
2	C	501	U2F	O2'-C2'-C3'	-3.79	99.56	111.82
3	C	502	T83	CAG-CAM-CAE	3.77	130.25	122.91
3	A	502	T83	CAE-CAD-CAL	-3.74	116.60	121.43
3	F	502	T83	OAI-CAL-CAD	3.67	122.72	117.12
3	C	502	T83	CAE-CAD-CAL	-3.67	116.68	121.43
2	D	501	U2F	C1-C2-C3	3.67	116.00	110.60
3	F	502	T83	OAB-CAL-CAD	-3.62	119.26	126.00
3	C	502	T83	OAI-CAL-CAD	3.61	122.62	117.12
2	G	501	U2F	C1-C2-C3	3.61	115.91	110.60
2	E	501	U2F	PA-O3A-PB	-3.57	120.59	132.83
2	F	501	U2F	O3'-C3'-C2'	3.55	123.31	111.82

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	501	U2F	C1-O5-C5	3.55	120.66	113.69
2	C	501	U2F	O5-C1-O1	3.45	115.88	111.36
2	G	501	U2F	O3A-PB-O1	-3.41	95.61	102.48
3	B	502	T83	OAH-CAK-CAJ	3.38	119.46	114.57
3	C	502	T83	OAH-CAK-CAJ	3.28	119.32	114.57
2	G	501	U2F	PA-O3A-PB	-3.22	121.78	132.83
3	D	502	T83	OAH-CAK-CAG	3.09	129.44	124.12
2	F	501	U2F	O1-C1-C2	3.09	114.04	108.38
3	F	502	T83	CAE-CAD-CAL	-3.07	117.46	121.43
2	E	501	U2F	C1-C2-C3	-3.02	106.15	110.60
3	D	502	T83	CAE-CAD-CAL	-3.02	117.52	121.43
2	D	501	U2F	PA-O3A-PB	-3.00	122.54	132.83
3	A	502	T83	CAF-CAJ-CAK	-3.00	116.74	119.81
3	D	502	T83	OAI-CAL-OAB	2.99	120.25	116.44
2	E	501	U2F	F1-C2-C3	2.97	111.49	108.85
3	D	502	T83	OAH-CAK-CAJ	2.96	118.86	114.57
3	D	502	T83	CAJ-CAF-CAN	2.95	123.34	119.14
3	A	502	T83	CAJ-CAF-CAN	2.91	123.27	119.14
3	D	502	T83	OAI-CAL-CAD	2.90	121.53	117.12
2	D	501	U2F	O5-C5-C4	2.79	114.75	109.69
2	F	501	U2F	C6-C5-C4	2.63	119.16	113.00
2	G	501	U2F	C3-C4-C5	2.62	114.92	110.24
2	C	501	U2F	O2'-C2'-C1'	2.59	118.67	110.02
2	D	501	U2F	F1-C2-C1	2.56	110.44	107.57
3	C	502	T83	OAH-CAK-CAG	2.55	128.51	124.12
2	B	501	U2F	F1-C2-C1	2.54	110.41	107.57
2	C	501	U2F	O3A-PB-O1	2.47	107.47	102.48
3	A	502	T83	CAM-CAE-CAD	-2.41	118.23	121.54
2	D	501	U2F	F1-C2-C3	-2.41	106.72	108.85
3	A	502	T83	CAN-CAM-CAE	2.28	120.97	117.86
2	D	501	U2F	O1-PB-O1B	2.28	118.01	109.47
3	F	502	T83	CAN-CAM-CAE	2.27	120.95	117.86
3	F	502	T83	CAM-CAE-CAD	-2.24	118.47	121.54
3	C	502	T83	OAI-CAN-CAM	2.22	123.27	120.55
2	E	501	U2F	O4'-C4'-C3'	-2.20	100.76	105.11
2	F	501	U2F	O3A-PB-O1	2.20	106.92	102.48
2	C	501	U2F	F1-C2-C1	2.19	110.02	107.57
3	B	502	T83	OAB-CAL-CAD	-2.18	121.94	126.00
2	B	501	U2F	F1-C2-C3	2.14	110.75	108.85
2	D	501	U2F	PB-O1-C1	2.12	127.93	119.74
3	B	502	T83	CAA-OAH-CAK	2.11	120.72	117.53
3	A	502	T83	OAI-CAN-CAM	2.10	123.12	120.55

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	501	U2F	O1-C1-C2	2.06	112.15	108.38

There are no chirality outliers.

All (71) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	501	U2F	O5-C1-O1-PB
2	A	501	U2F	PB-O3A-PA-O5'
2	B	501	U2F	PA-O3A-PB-O1
2	C	501	U2F	C5'-O5'-PA-O3A
2	C	501	U2F	C4'-C5'-O5'-PA
2	D	501	U2F	O5-C1-O1-PB
2	D	501	U2F	PB-O3A-PA-O5'
2	D	501	U2F	C3'-C4'-C5'-O5'
2	E	501	U2F	O5-C1-O1-PB
2	E	501	U2F	C5'-O5'-PA-O1A
2	E	501	U2F	C4'-C5'-O5'-PA
2	E	501	U2F	O4'-C4'-C5'-O5'
2	E	501	U2F	C3'-C4'-C5'-O5'
2	F	501	U2F	O5-C1-O1-PB
2	F	501	U2F	O4'-C4'-C5'-O5'
2	F	501	U2F	O4'-C1'-N1-C6'
2	F	501	U2F	O4'-C1'-N1-C9'
2	G	501	U2F	O5-C1-O1-PB
2	G	501	U2F	C5'-O5'-PA-O3A
2	C	501	U2F	C4-C5-C6-O6
2	C	501	U2F	O4'-C4'-C5'-O5'
2	C	501	U2F	C3'-C4'-C5'-O5'
2	F	501	U2F	C3'-C4'-C5'-O5'
2	A	501	U2F	C4-C5-C6-O6
3	A	502	T83	CAG-CAK-OAH-CAA
3	D	502	T83	CAG-CAK-OAH-CAA
2	C	501	U2F	O5-C5-C6-O6
2	G	501	U2F	O5-C5-C6-O6
3	D	502	T83	CAJ-CAK-OAH-CAA
2	A	501	U2F	C1-O1-PB-O3A
3	A	502	T83	CAJ-CAK-OAH-CAA
2	G	501	U2F	C4-C5-C6-O6
2	D	501	U2F	O4'-C4'-C5'-O5'
2	G	501	U2F	O4'-C4'-C5'-O5'
2	G	501	U2F	C3'-C4'-C5'-O5'
3	C	502	T83	CAG-CAK-OAH-CAA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
2	A	501	U2F	O5-C5-C6-O6
2	B	501	U2F	O5-C5-C6-O6
3	F	502	T83	CAG-CAK-OAH-CAA
2	E	501	U2F	C2'-C1'-N1-C6'
3	B	502	T83	CAJ-CAK-OAH-CAA
3	C	502	T83	CAJ-CAK-OAH-CAA
3	F	502	T83	CAJ-CAK-OAH-CAA
3	B	502	T83	CAG-CAK-OAH-CAA
2	E	501	U2F	C2'-C1'-N1-C9'
2	B	501	U2F	C4-C5-C6-O6
2	C	501	U2F	PA-O3A-PB-O1B
2	E	501	U2F	O4'-C1'-N1-C9'
2	B	501	U2F	C4'-C5'-O5'-PA
2	E	501	U2F	PA-O3A-PB-O1
2	E	501	U2F	PB-O3A-PA-O5'
2	F	501	U2F	PA-O3A-PB-O1
2	G	501	U2F	PA-O3A-PB-O1
2	G	501	U2F	C4'-C5'-O5'-PA
2	E	501	U2F	C5'-O5'-PA-O3A
2	B	501	U2F	PB-O3A-PA-O1A
2	D	501	U2F	C4'-C5'-O5'-PA
2	C	501	U2F	C5'-O5'-PA-O1A
2	C	501	U2F	C5'-O5'-PA-O2A
2	E	501	U2F	C5'-O5'-PA-O2A
2	G	501	U2F	C5'-O5'-PA-O1A
2	G	501	U2F	C5'-O5'-PA-O2A
2	E	501	U2F	O4'-C1'-N1-C6'
2	D	501	U2F	C1-O1-PB-O3A
2	A	501	U2F	PA-O3A-PB-O1B
2	F	501	U2F	PA-O3A-PB-O1B
2	B	501	U2F	O4'-C4'-C5'-O5'
2	C	501	U2F	PA-O3A-PB-O2B
2	D	501	U2F	C1-O1-PB-O1B
2	D	501	U2F	PA-O3A-PB-O2B
2	A	501	U2F	O4'-C4'-C5'-O5'

There are no ring outliers.

10 monomers are involved in 91 short contacts:

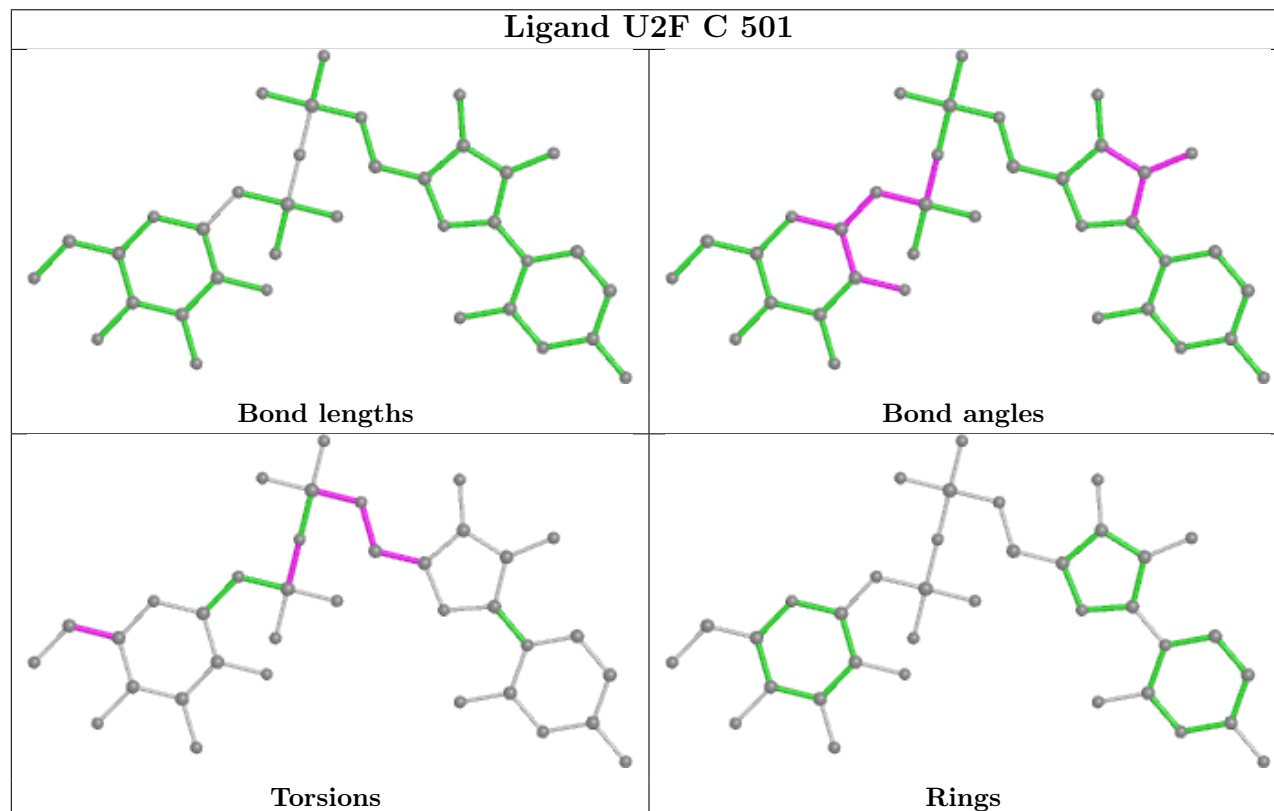
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	C	501	U2F	33	0
2	D	501	U2F	12	0

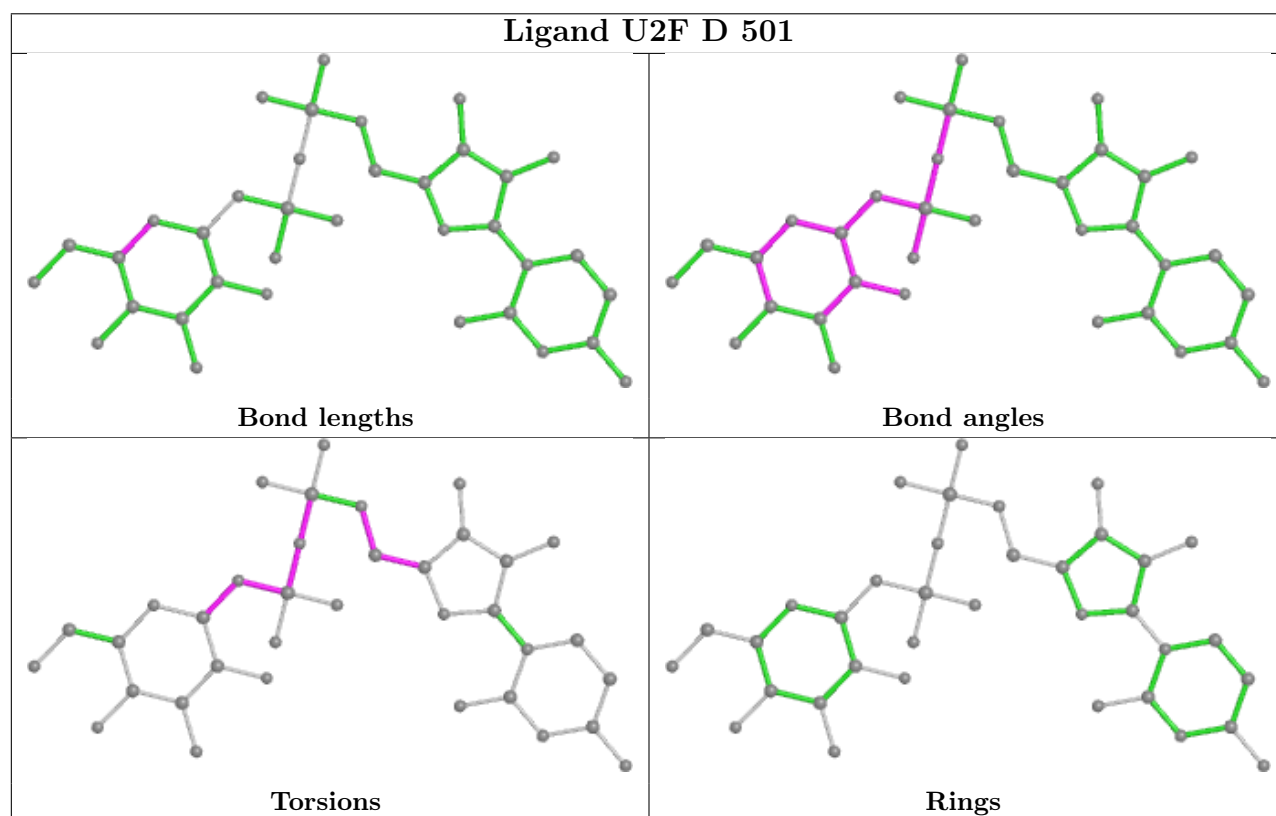
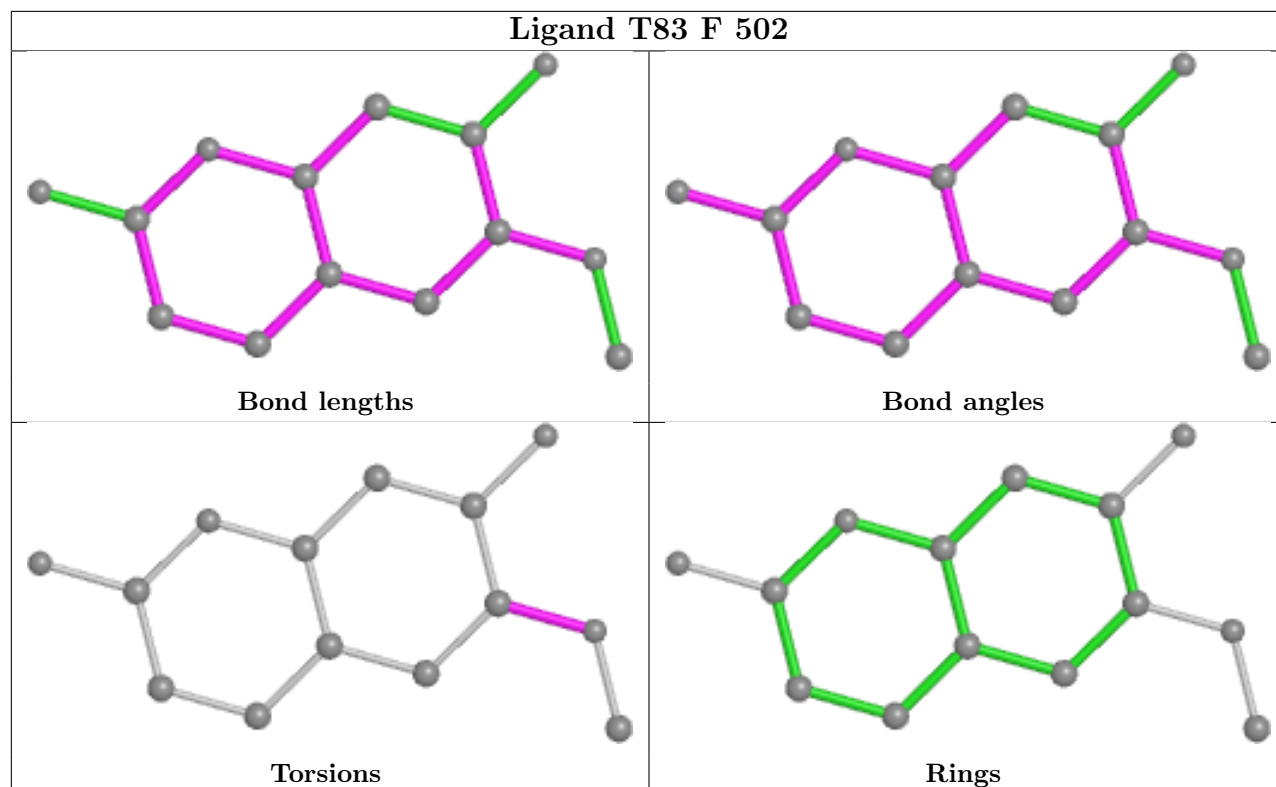
Continued on next page...

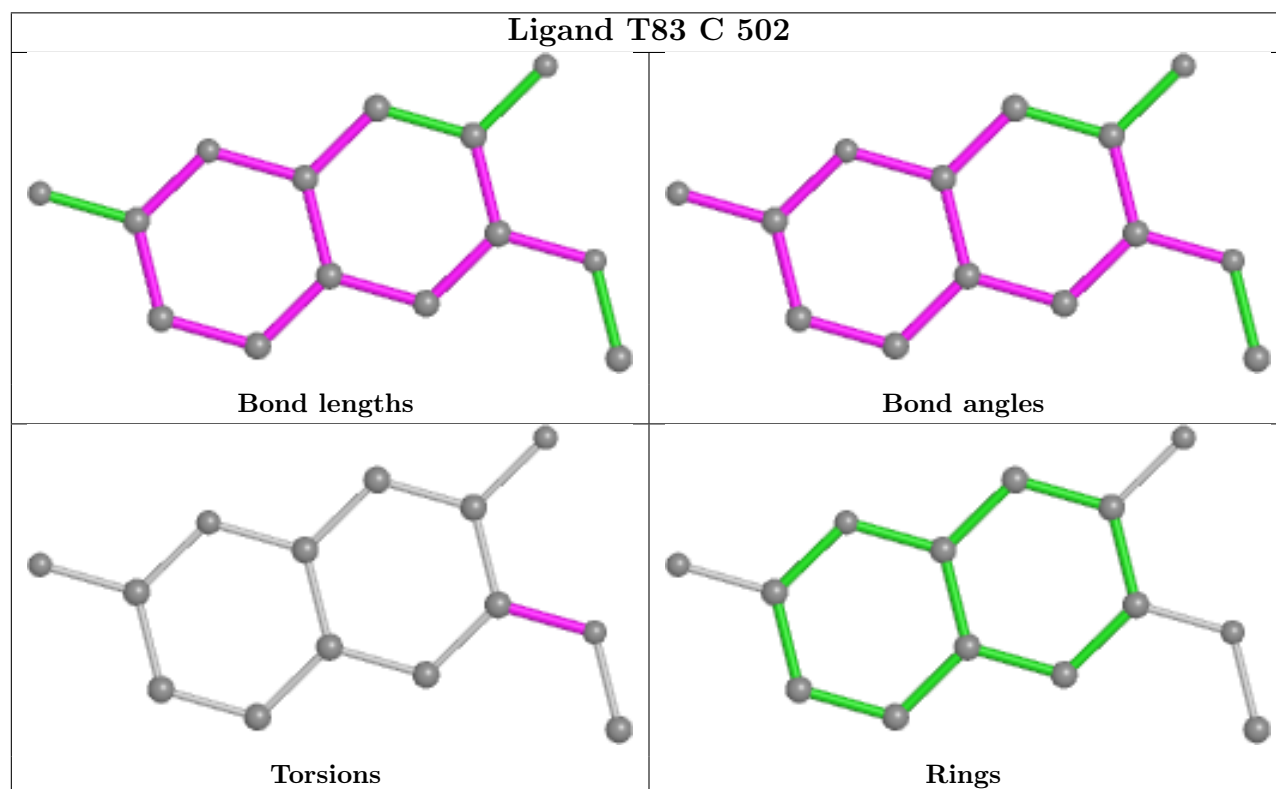
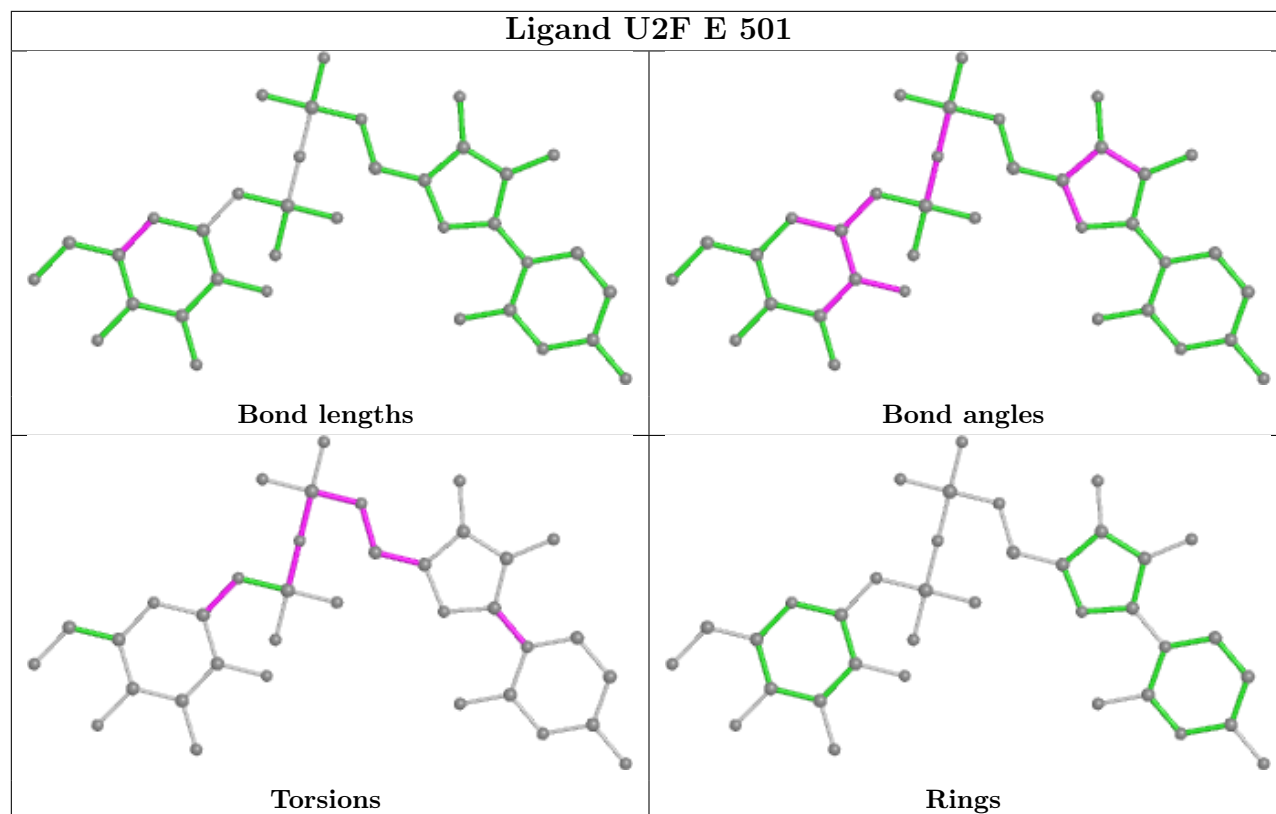
Continued from previous page...

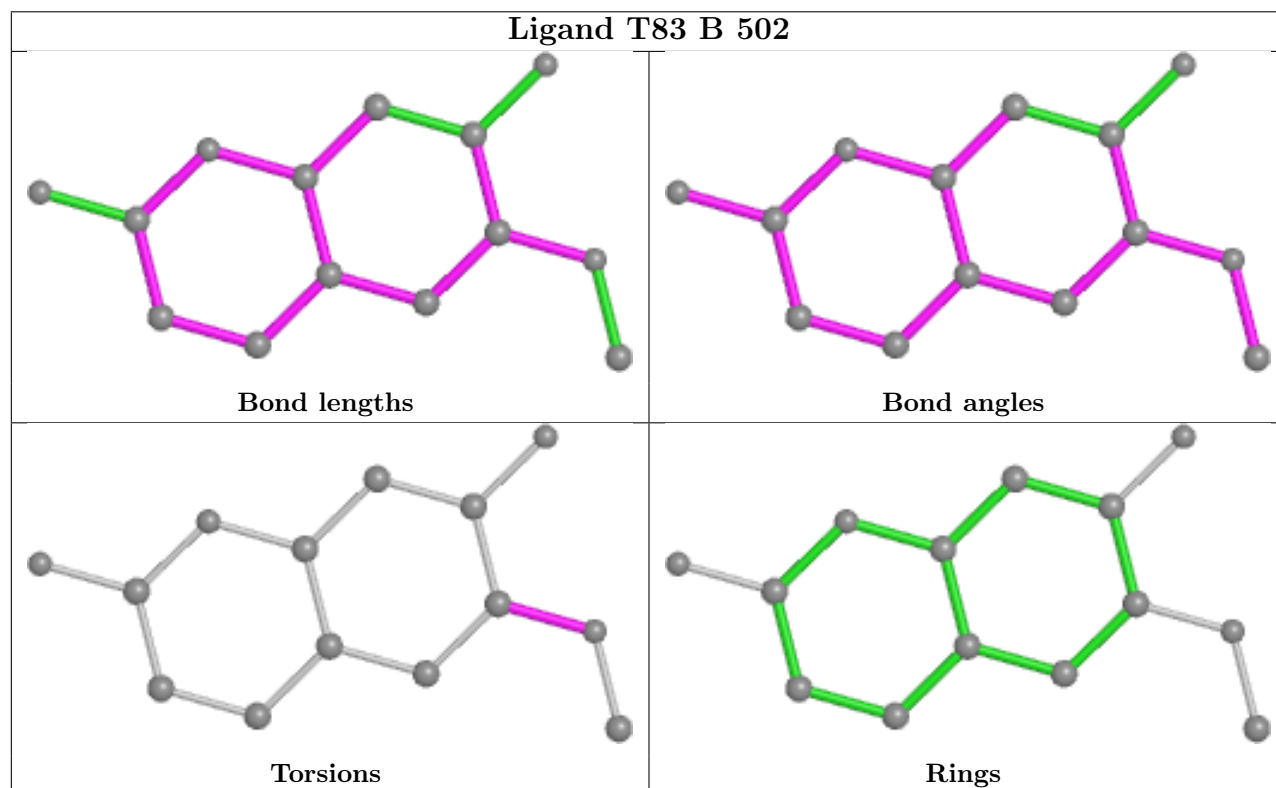
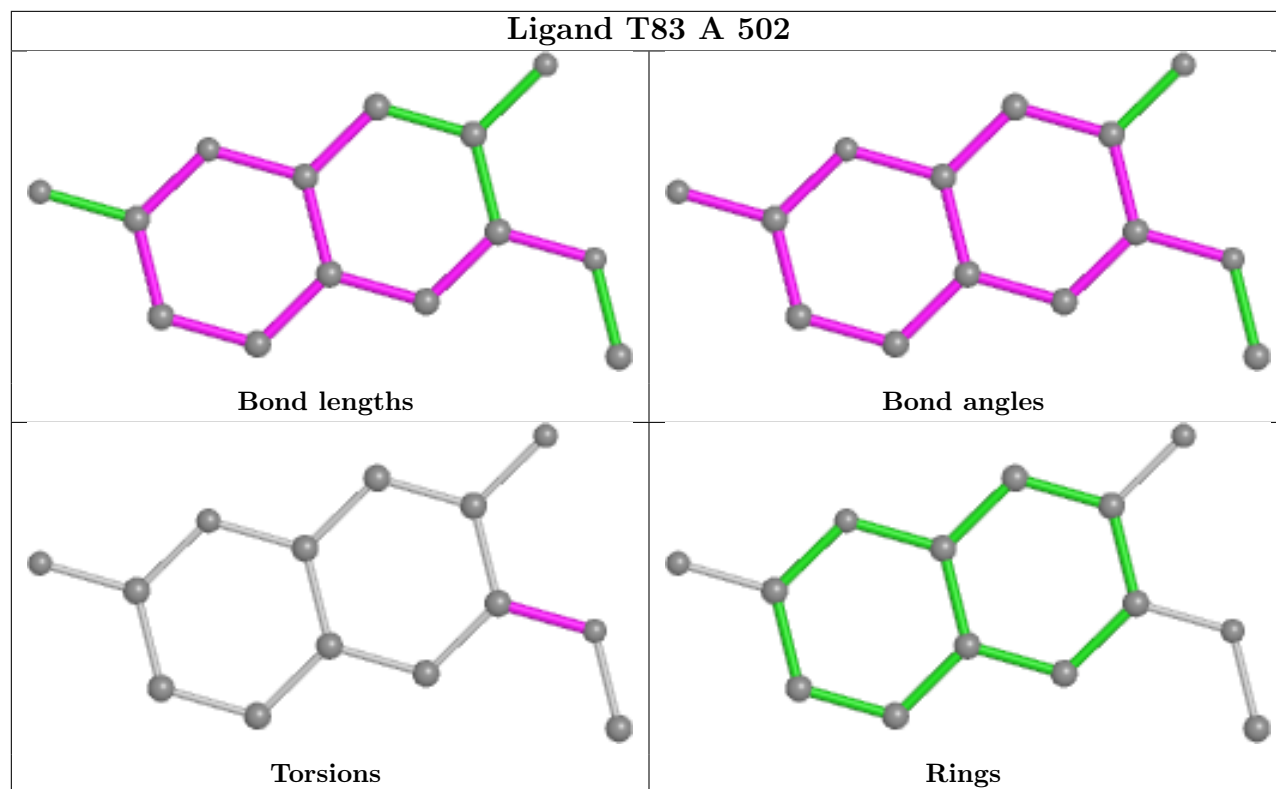
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	E	501	U2F	13	0
3	C	502	T83	1	0
3	A	502	T83	2	0
2	F	501	U2F	5	0
2	B	501	U2F	8	0
2	G	501	U2F	10	0
3	D	502	T83	3	0
2	A	501	U2F	10	0

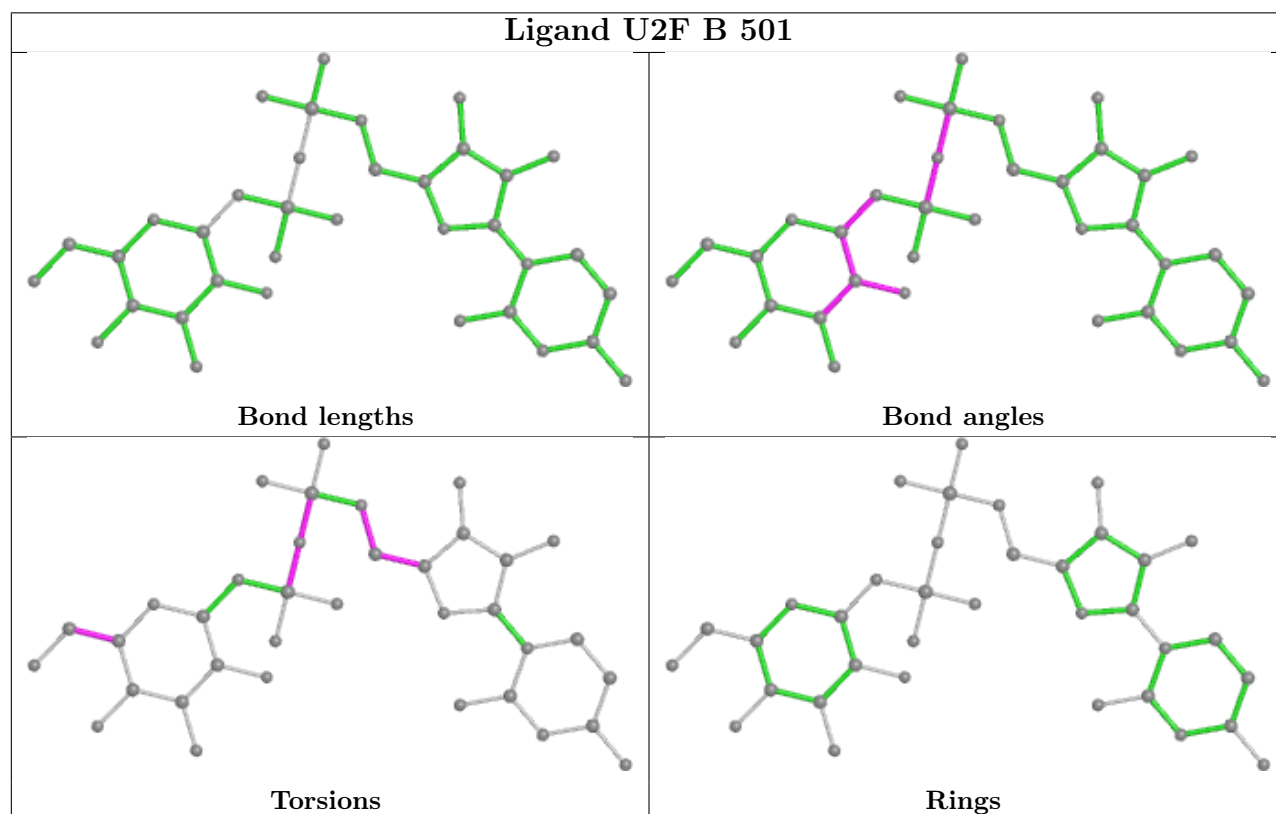
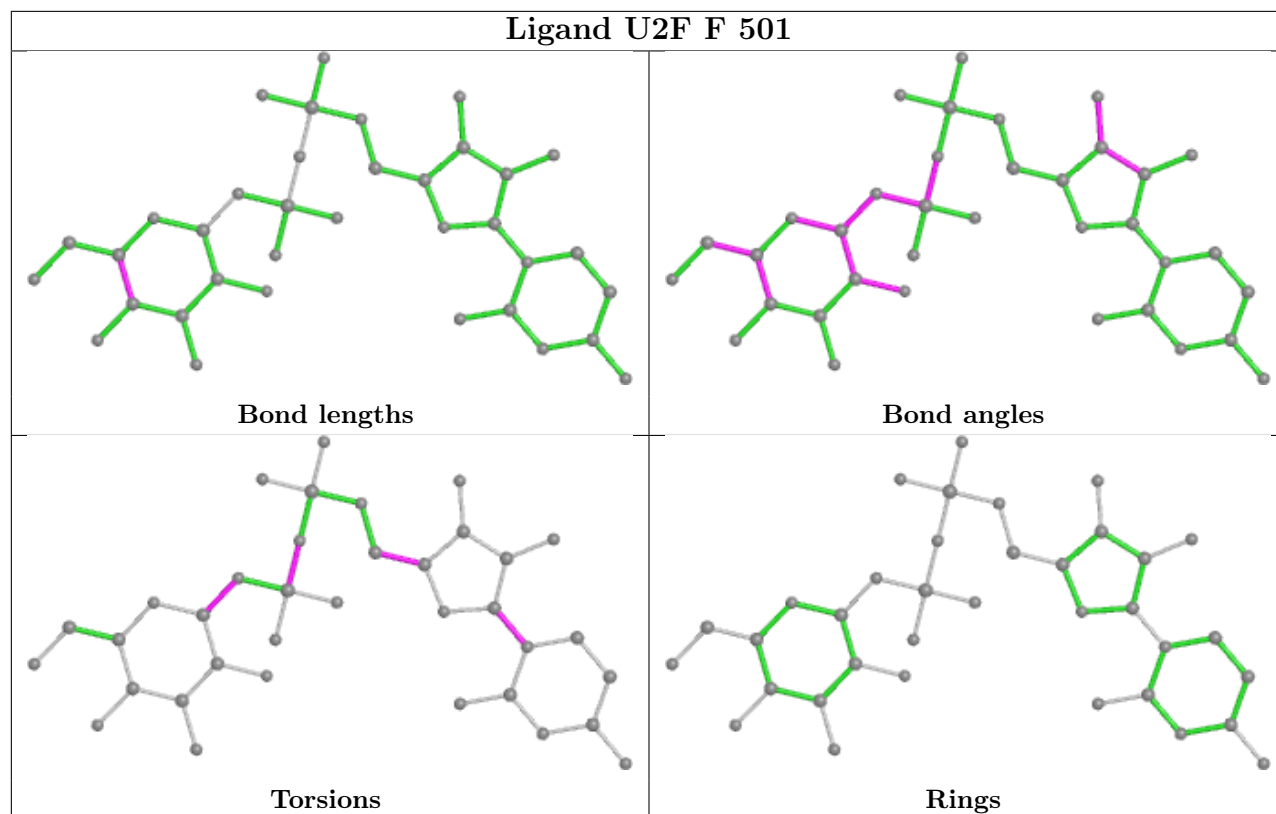
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

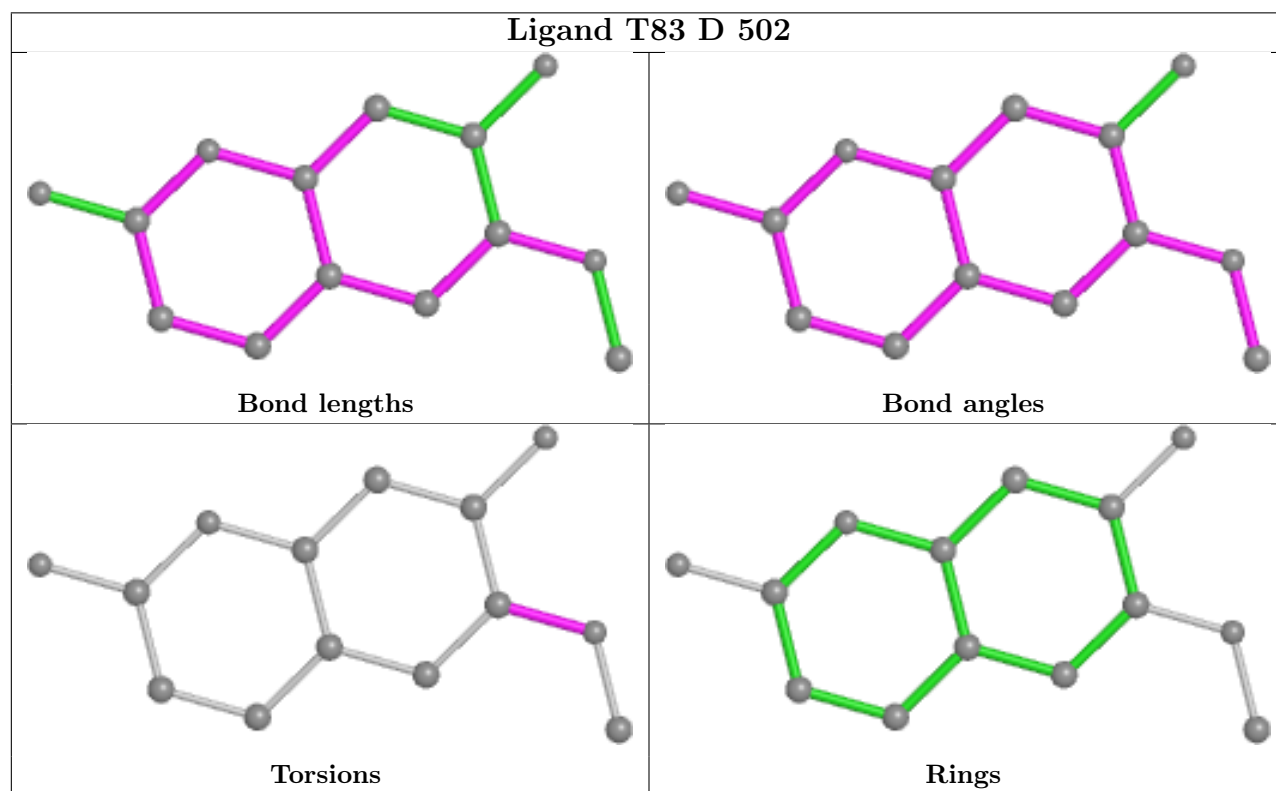
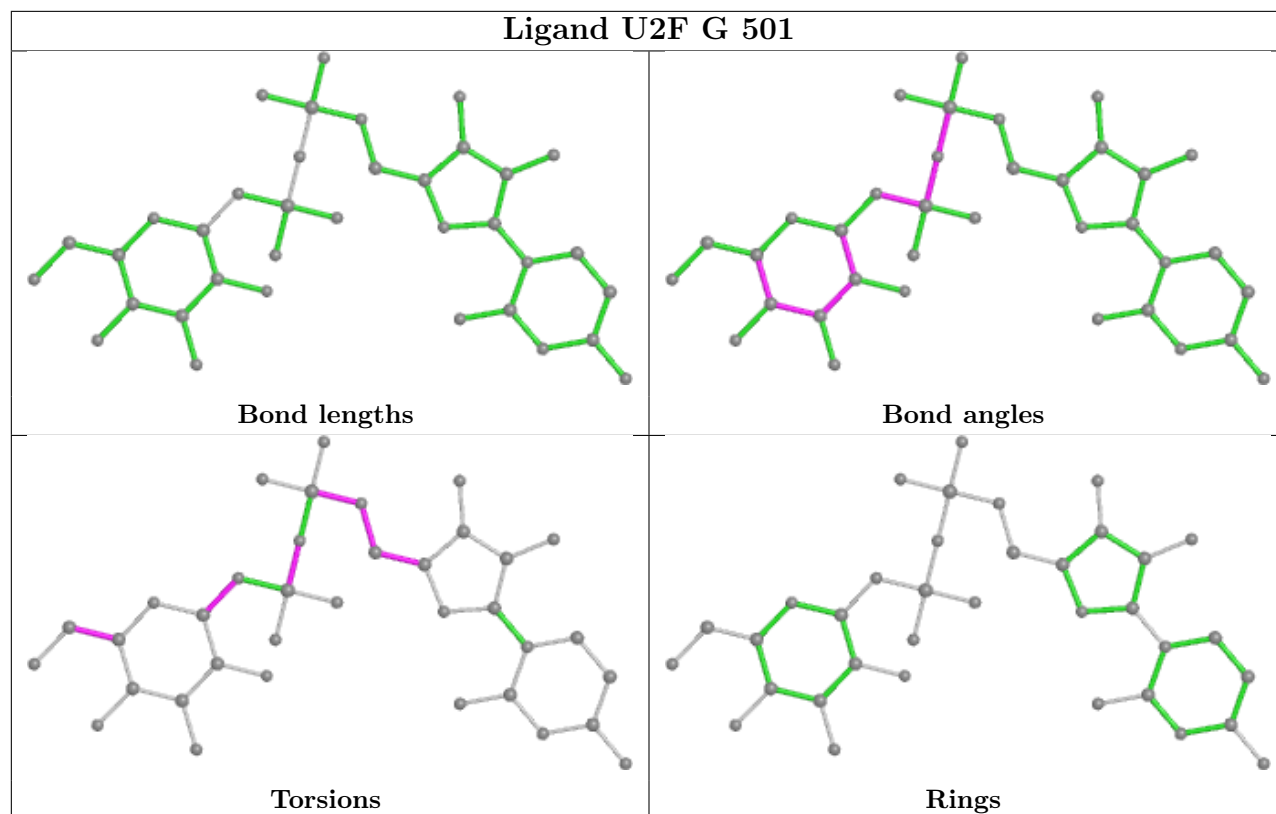


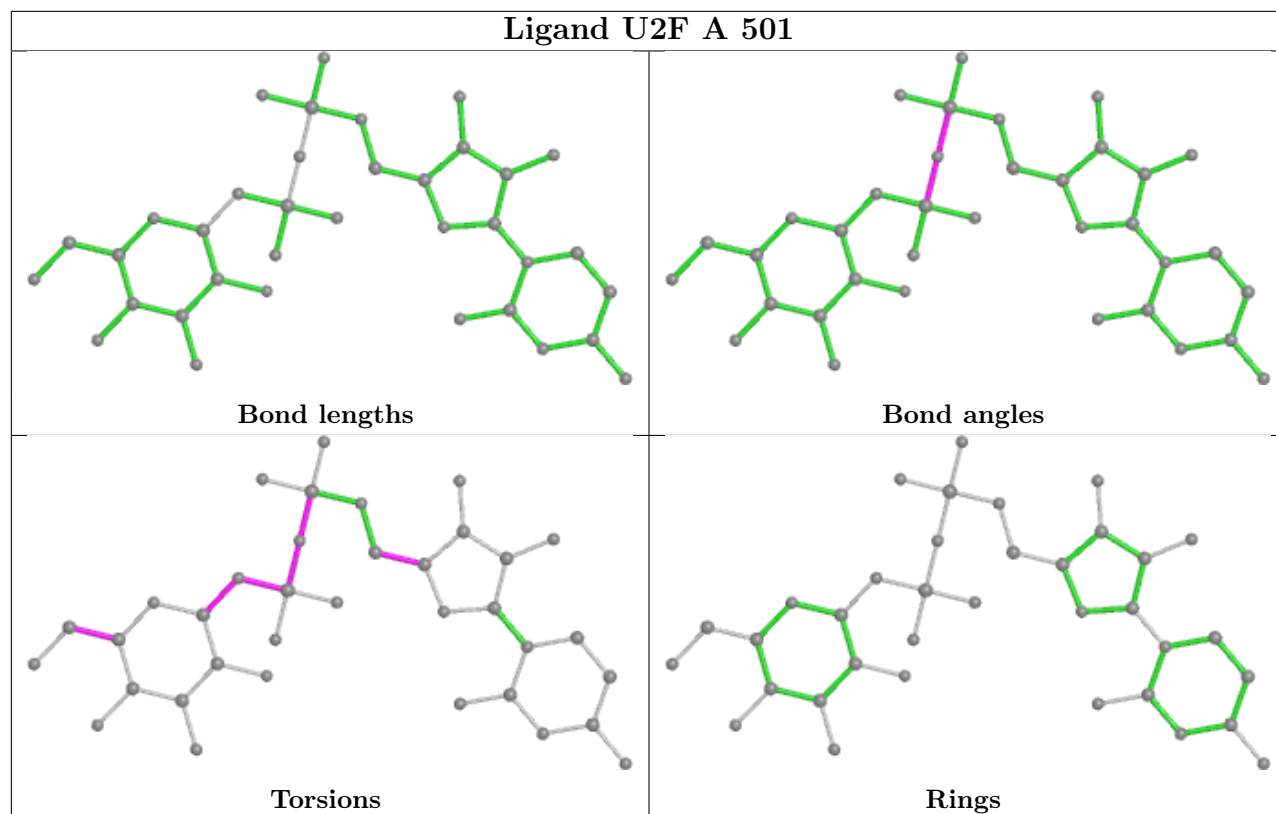












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	458/474 (96%)	0.45	23 (5%) 35 21	34, 68, 122, 210	0
1	B	460/474 (97%)	0.33	14 (3%) 52 33	32, 60, 93, 146	0
1	C	460/474 (97%)	0.43	15 (3%) 49 30	37, 71, 113, 145	0
1	D	460/474 (97%)	0.42	17 (3%) 45 27	30, 68, 101, 136	0
1	E	460/474 (97%)	0.55	23 (5%) 35 21	30, 74, 114, 157	0
1	F	460/474 (97%)	0.42	18 (3%) 44 26	33, 73, 110, 154	0
1	G	460/474 (97%)	0.84	47 (10%) 13 8	33, 85, 143, 172	0
All	All	3218/3318 (96%)	0.49	157 (4%) 36 21	30, 71, 119, 210	0

All (157) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	116	ILE	5.5
1	D	281	THR	5.4
1	G	255	LEU	5.3
1	G	42	ILE	5.1
1	E	349	MET	4.7
1	G	38	THR	4.6
1	E	73	SER	4.3
1	G	428	VAL	4.2
1	G	66	ILE	4.2
1	B	160	GLU	3.9
1	G	207	ASP	3.9
1	E	307	PRO	3.8
1	G	69	ILE	3.8
1	D	325	THR	3.7
1	A	35	ILE	3.7
1	D	280	GLY	3.6
1	E	164	VAL	3.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	B	113	ASP	3.6
1	G	257	ASP	3.6
1	A	63	GLU	3.6
1	C	76	ILE	3.5
1	F	175	CYS	3.5
1	G	92	LEU	3.5
1	E	282	LEU	3.4
1	C	75	ASP	3.4
1	G	165	GLU	3.3
1	F	255	LEU	3.3
1	C	53	PHE	3.2
1	G	256	ASN	3.2
1	D	328	MET	3.1
1	C	186	PRO	3.1
1	G	43	THR	3.1
1	G	87	PHE	3.1
1	A	53	PHE	3.0
1	A	137	THR	3.0
1	G	282	LEU	2.9
1	B	65	THR	2.9
1	G	101	ILE	2.9
1	A	164	VAL	2.9
1	F	227	LEU	2.9
1	D	236	LEU	2.9
1	A	16	MET	2.8
1	E	477	LEU	2.8
1	B	310	ASP	2.8
1	G	358	SER	2.8
1	A	136	TYR	2.8
1	A	59	LEU	2.8
1	G	11	VAL	2.8
1	G	23	LEU	2.8
1	E	281	THR	2.8
1	A	112	PRO	2.7
1	B	299	GLN	2.7
1	D	242	PHE	2.8
1	C	280	GLY	2.7
1	A	117	VAL	2.7
1	D	28	ARG	2.7
1	F	169	PRO	2.7
1	G	125	LEU	2.7
1	G	63	GLU	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	D	53	PHE	2.7
1	B	364	GLY	2.6
1	C	279	GLY	2.6
1	G	287	MET	2.6
1	A	274	VAL	2.6
1	F	268	ASN	2.6
1	E	151	TYR	2.5
1	G	73	SER	2.5
1	G	476	GLU	2.5
1	G	127	ILE	2.5
1	E	331	TYR	2.5
1	G	280	GLY	2.5
1	D	80	ILE	2.4
1	A	64	LYS	2.4
1	F	65	THR	2.4
1	D	278	SER	2.4
1	G	283	SER	2.4
1	F	477	LEU	2.4
1	B	161	GLY	2.4
1	G	44	THR	2.4
1	B	333	PRO	2.4
1	E	254	THR	2.4
1	E	153	GLN	2.4
1	G	19	LEU	2.3
1	G	96	GLU	2.3
1	G	162	GLU	2.3
1	E	262	TRP	2.3
1	F	303	TRP	2.3
1	C	286	GLN	2.3
1	E	471	ASP	2.3
1	G	308	PRO	2.3
1	A	218	ASP	2.3
1	F	132	ASN	2.3
1	B	87	PHE	2.3
1	A	27	ASN	2.3
1	A	477	LEU	2.3
1	F	344	GLY	2.3
1	F	166	LEU	2.3
1	D	453	ASN	2.2
1	A	273	PHE	2.2
1	F	58	THR	2.2
1	B	89	GLN	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	E	344	GLY	2.2
1	B	88	THR	2.2
1	C	84	THR	2.2
1	G	302	VAL	2.2
1	A	334	GLU	2.2
1	D	158	GLU	2.2
1	C	109	THR	2.2
1	C	241	VAL	2.2
1	C	331	TYR	2.2
1	C	404	LEU	2.2
1	G	115	LEU	2.2
1	A	111	ARG	2.2
1	E	201	LEU	2.2
1	G	54	LEU	2.2
1	F	86	ILE	2.1
1	G	67	GLU	2.1
1	G	110	HIS	2.1
1	E	122	THR	2.1
1	C	381	GLY	2.1
1	G	424	ILE	2.1
1	D	162	GLU	2.1
1	D	333	PRO	2.1
1	G	170	LEU	2.1
1	G	296	LEU	2.1
1	F	177	ALA	2.1
1	E	205	TYR	2.1
1	B	185	ASP	2.1
1	G	353	GLN	2.1
1	G	251	VAL	2.1
1	C	82	SER	2.1
1	E	340	THR	2.1
1	E	360	SER	2.1
1	F	122	THR	2.1
1	D	163	TYR	2.1
1	A	194	GLN	2.1
1	A	342	ASP	2.1
1	D	93	LEU	2.1
1	G	105	ILE	2.1
1	G	57	THR	2.1
1	B	47	SER	2.1
1	A	336	PHE	2.1
1	E	328	MET	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	G	333	PRO	2.1
1	F	394	LYS	2.0
1	A	288	THR	2.0
1	F	273	PHE	2.0
1	E	90	LEU	2.0
1	B	347	VAL	2.0
1	F	307	PRO	2.0
1	C	422	GLU	2.0
1	D	76	ILE	2.0
1	E	116	ILE	2.0
1	G	365	PHE	2.0
1	G	68	ILE	2.0
1	G	149	ALA	2.0
1	E	26	GLY	2.0

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

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

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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.

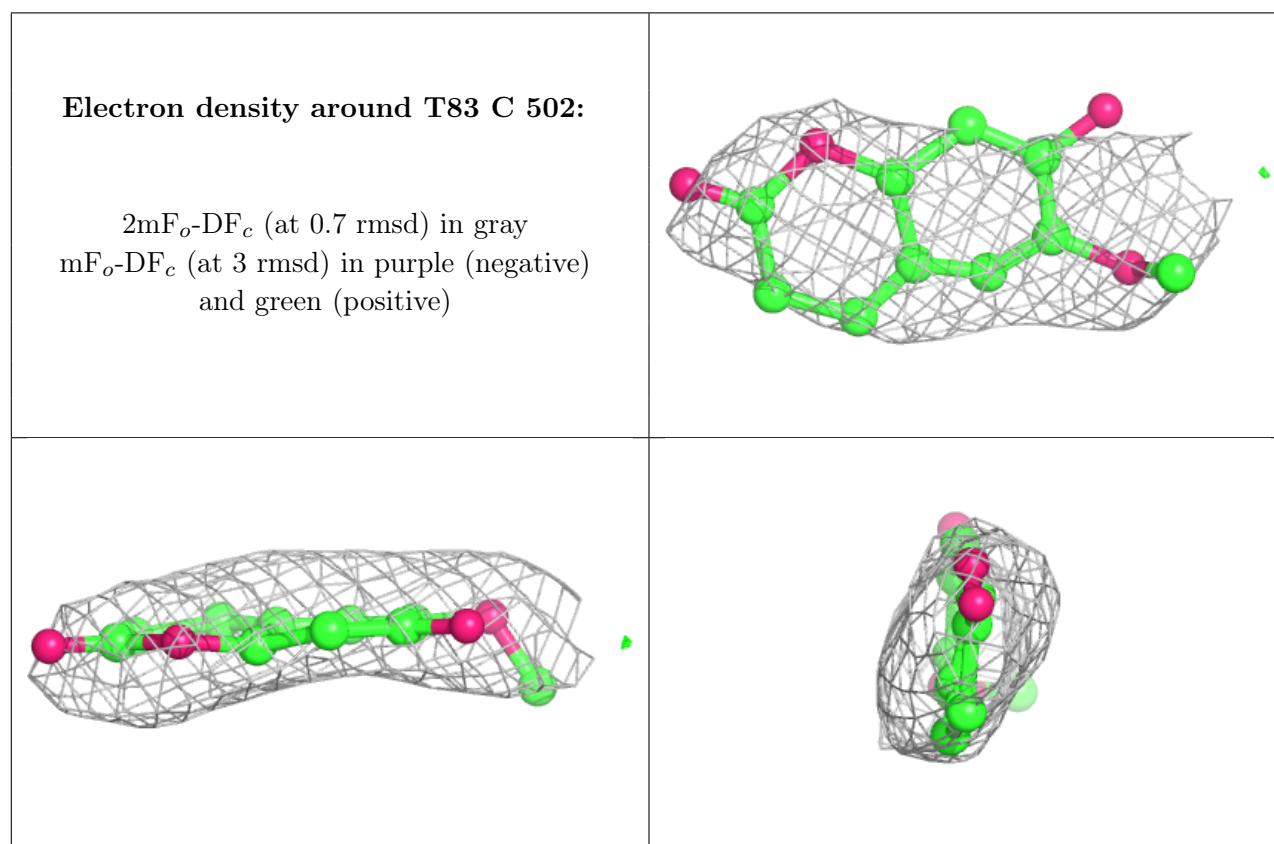
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
3	T83	C	502	14/14	0.80	0.16	53,65,77,77	0
2	U2F	C	501	36/36	0.84	0.14	38,71,99,104	0
2	U2F	E	501	36/36	0.85	0.16	44,66,112,128	0
3	T83	D	502	14/14	0.85	0.15	39,67,79,80	0
2	U2F	G	501	36/36	0.86	0.10	48,66,88,91	0
3	T83	A	502	14/14	0.86	0.18	56,79,84,92	0
2	U2F	F	501	36/36	0.87	0.13	49,72,92,104	0
3	T83	B	502	14/14	0.88	0.16	63,79,87,99	0
3	T83	F	502	14/14	0.89	0.16	60,86,95,102	0

Continued on next page...

Continued from previous page...

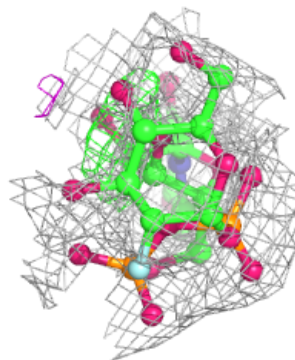
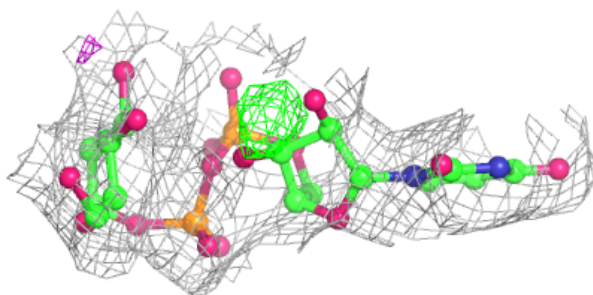
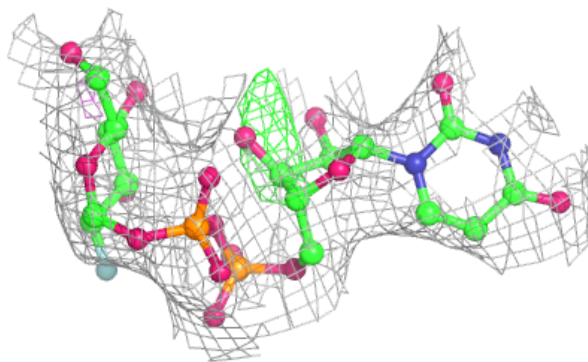
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
2	U2F	A	501	36/36	0.91	0.11	36,51,71,101	0
2	U2F	D	501	36/36	0.92	0.10	44,52,61,63	0
2	U2F	B	501	36/36	0.94	0.09	41,61,85,93	0

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.

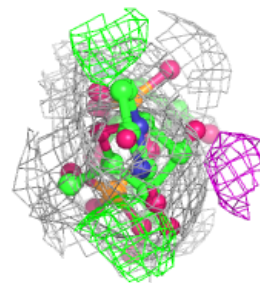
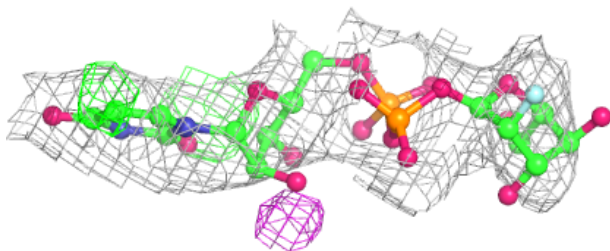
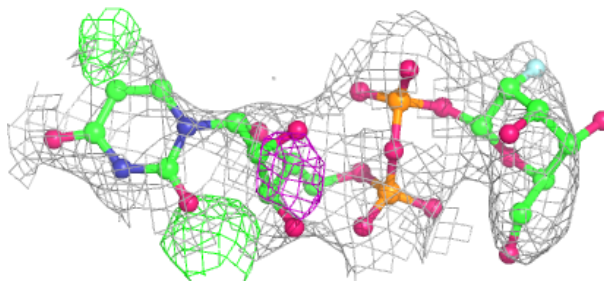


Electron density around U2F C 501:

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

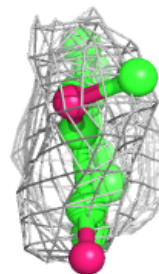
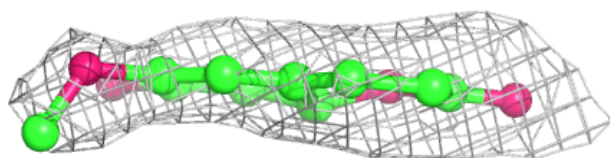
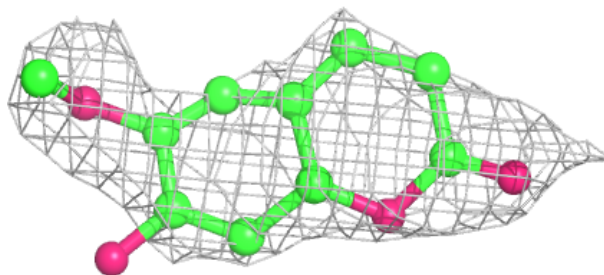
**Electron density around U2F E 501:**

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

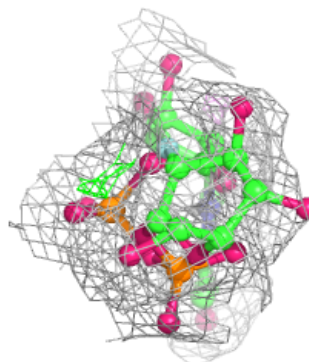
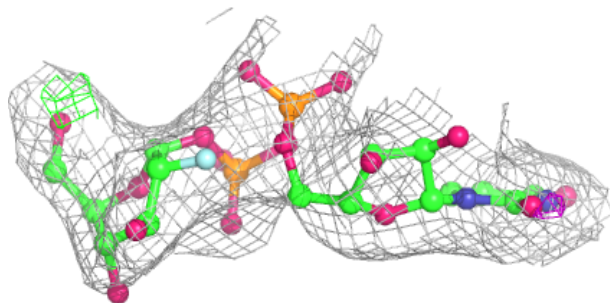
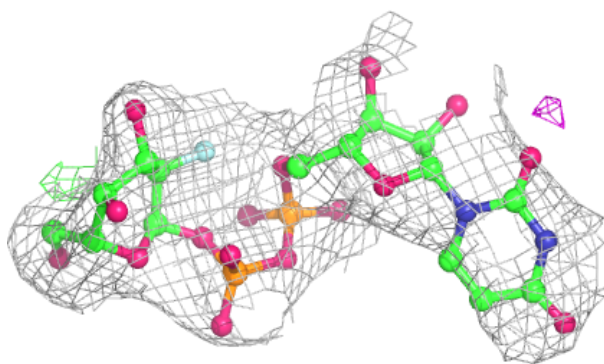


Electron density around T83 D 502:

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

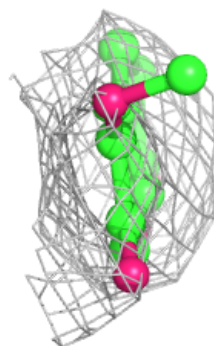
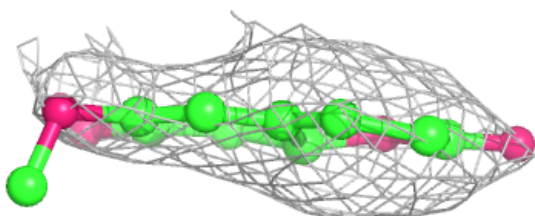
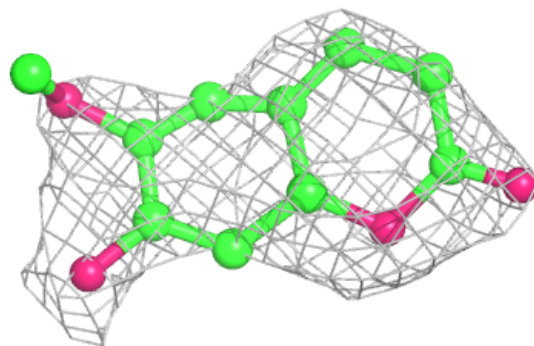
**Electron density around U2F G 501:**

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

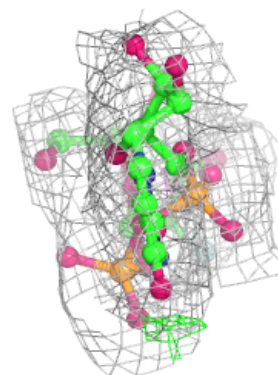
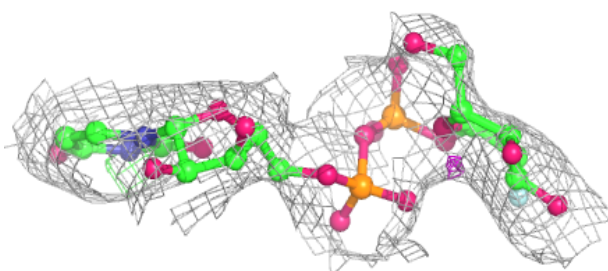
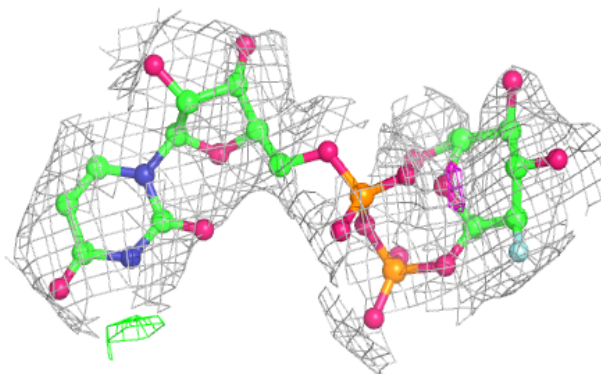


Electron density around T83 A 502:

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

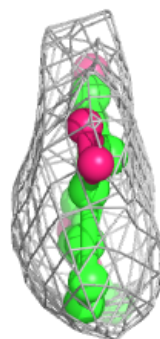
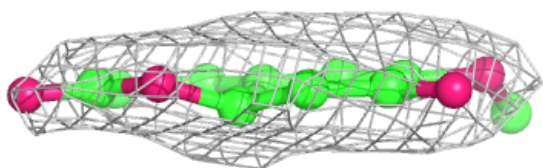
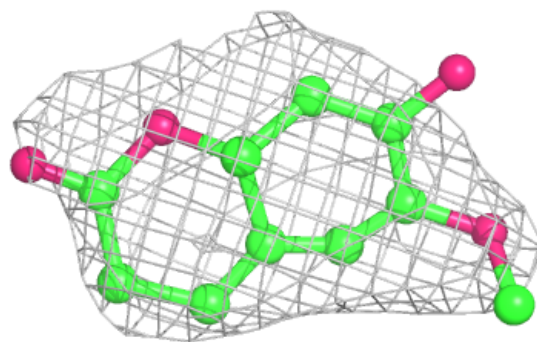
**Electron density around U2F F 501:**

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

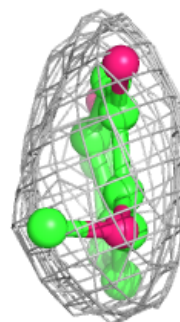
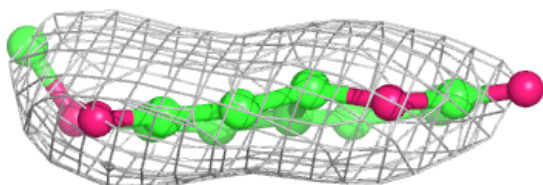
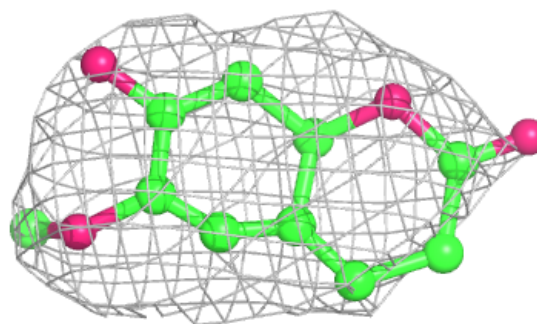


Electron density around T83 B 502:

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

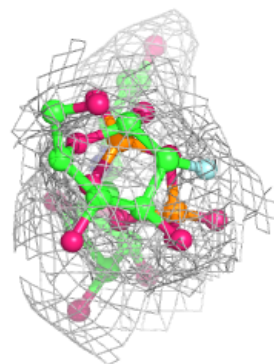
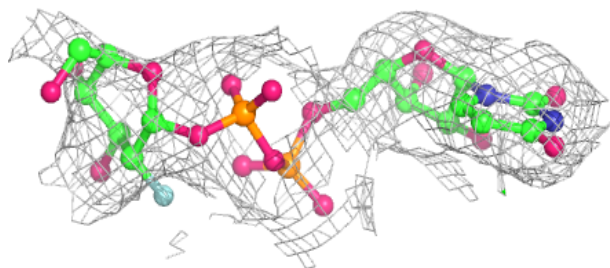
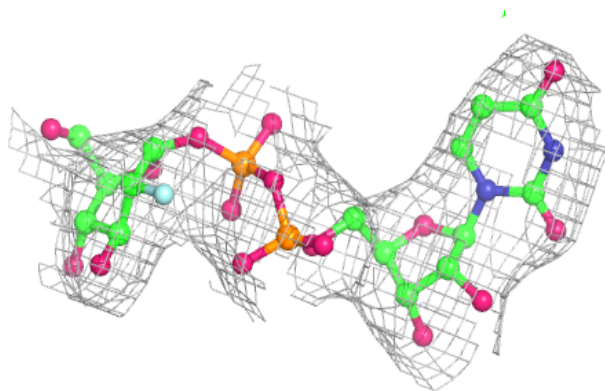
**Electron density around T83 F 502:**

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

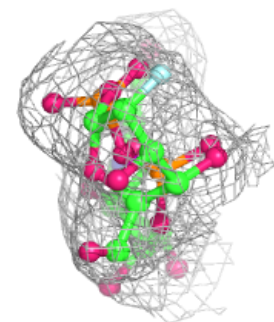
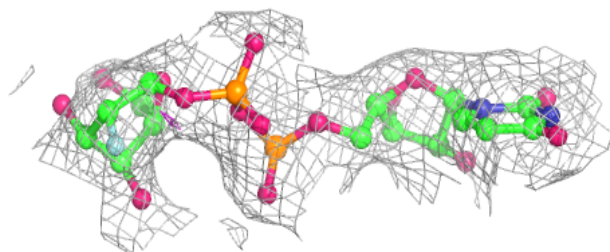
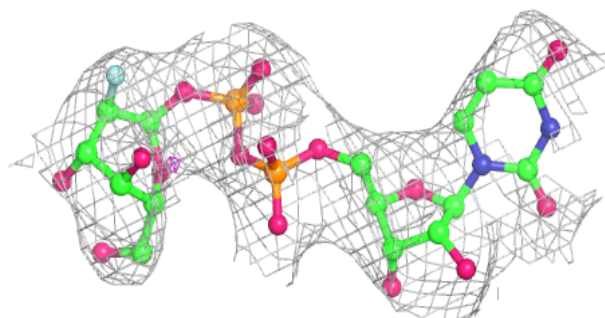


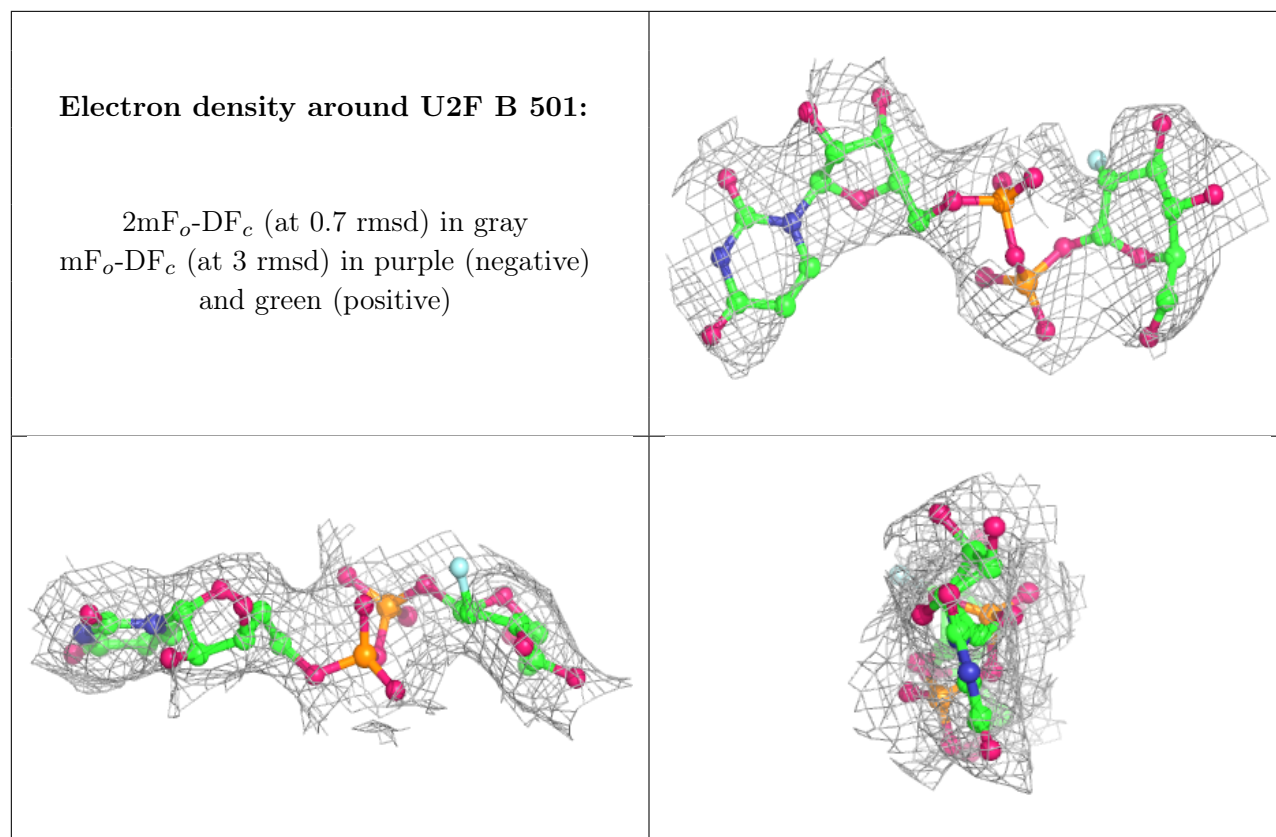
Electron density around U2F A 501:

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

**Electron density around U2F D 501:**

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





6.5 Other polymers [i](#)

There are no such residues in this entry.