



# Full wwPDB/EMDatabank EM Map/Model Validation Report ⓘ

Mar 2, 2017 – 01:19 pm GMT

PDB ID : 5T0C  
EMDB ID: : EMD-8332  
Title : Structural basis for dynamic regulation of the human 26S proteasome  
Authors : Chen, S.; Wu, J.; Lu, Y.; Ma, Y.B.; Lee, B.H.; Yu, Z.; Ouyang, Q.; Finley, D.;  
Kirschner, M.W.; Mao, Y.  
Deposited on : 2016-08-15  
Resolution : 3.80 Å(reported)

This is a Full wwPDB/EMDatabank EM Map/Model Validation Report  
for a publicly released PDB/EMDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/EMValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

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MolProbity : 4.02b-467  
Mogul : 1.7.2 (RC1), CSD as538be (2017)  
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)  
Validation Pipeline (wwPDB-VP) : recalc29047

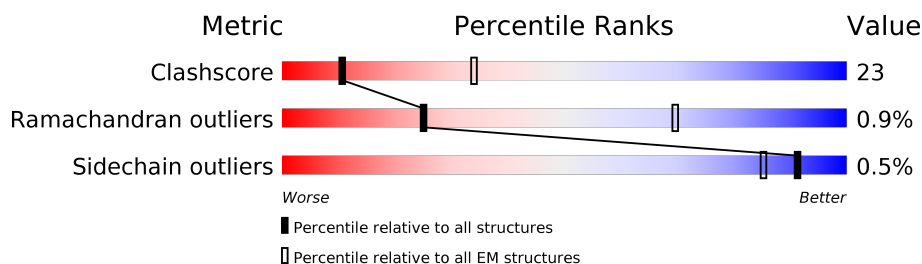
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.80 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.






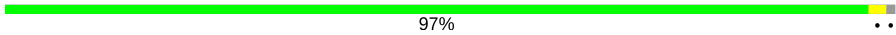
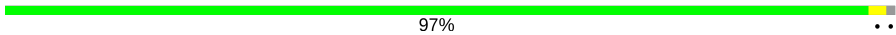




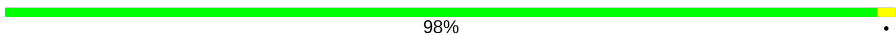
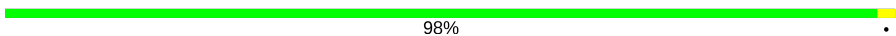














Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	125131	1336
Ramachandran outliers	121729	1120
Sidechain outliers	121581	1026

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. 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  $\leq 5\%$ .

Mol	Chain	Length	Quality of chain
1	AU	953	58% 26% 15%
1	BU	953	58% 26% 15%
2	AV	533	53% 36% 10%
2	BV	533	53% 35% 10%
3	AW	456	64% 35% .
3	BW	456	65% 34% .
4	AX	422	67% 23% 10%
4	BX	422	67% 23% 10%
5	AY	389	62% 34% . .


























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Mol	Chain	Length	Quality of chain
5	BY	389	
6	AZ	324	
6	BZ	324	
7	Aa	376	
7	Ba	376	
8	Ab	377	
8	Bb	377	
9	Ac	310	
9	Bc	310	
10	Ad	257	
10	Bd	257	
11	Ae	70	
11	Be	70	
12	Af	908	
12	Bf	908	
13	AA	433	
13	BA	433	
14	AB	440	
14	BB	440	
15	AD	418	
15	BD	418	
16	AE	389	
16	BE	389	
17	AF	439	
17	BF	439	


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Mol	Chain	Length	Quality of chain
18	AC	406	
18	BC	406	
19	AG	245	
19	BG	245	
20	AH	233	
20	BH	233	
21	AI	260	
21	BI	260	
22	AJ	247	
22	BJ	247	
23	AK	240	
23	BK	240	
24	AL	268	
24	BL	268	
25	AM	254	
25	BM	254	
26	AN	238	
26	BN	238	
27	AO	276	
27	BO	276	
28	AP	204	
28	BP	204	
29	AQ	201	
29	BQ	201	
30	AR	262	

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Mol	Chain	Length	Quality of chain
30	BR	262	
31	AS	240	
31	BS	240	
32	AT	263	
32	BT	263	

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
34	ATP	AE	401	-	-	X	-
34	ATP	BE	401	-	-	X	-

## 2 Entry composition

There are 35 unique types of molecules in this entry. The entry contains 155574 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 26S proteasome non-ATPase regulatory subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	AU	806	Total	C	N	O	S	0	0
			6287	3990	1075	1178	44		
1	BU	806	Total	C	N	O	S	0	0
			6287	3990	1075	1178	44		

- Molecule 2 is a protein called 26S proteasome non-ATPase regulatory subunit 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	AV	480	Total	C	N	O	S	0	0
			3852	2444	684	710	14		
2	BV	480	Total	C	N	O	S	0	0
			3852	2444	684	710	14		

- Molecule 3 is a protein called 26S proteasome non-ATPase regulatory subunit 12.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	AW	456	Total	C	N	O	S	0	0
			3703	2339	635	704	25		
3	BW	456	Total	C	N	O	S	0	0
			3703	2339	635	704	25		

- Molecule 4 is a protein called 26S proteasome non-ATPase regulatory subunit 11.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	AX	380	Total	C	N	O	S	0	0
			3009	1918	509	570	12		
4	BX	380	Total	C	N	O	S	0	0
			3009	1918	509	570	12		

- Molecule 5 is a protein called 26S proteasome non-ATPase regulatory subunit 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	AY	378	Total	C	N	O	S	0	0
			3115	1987	533	578	17		
5	BY	378	Total	C	N	O	S	0	0
			3115	1987	533	578	17		

- Molecule 6 is a protein called 26S proteasome non-ATPase regulatory subunit 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	AZ	286	Total	C	N	O	S	0	0
			2281	1457	392	427	5		
6	BZ	286	Total	C	N	O	S	0	0
			2281	1457	392	427	5		

- Molecule 7 is a protein called 26S proteasome non-ATPase regulatory subunit 13.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	Aa	373	Total	C	N	O	S	0	0
			2995	1911	510	559	15		
7	Ba	373	Total	C	N	O	S	0	0
			2995	1911	510	559	15		

- Molecule 8 is a protein called 26S proteasome non-ATPase regulatory subunit 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	Ab	191	Total	C	N	O	S	0	0
			1458	910	261	279	8		
8	Bb	191	Total	C	N	O	S	0	0
			1458	910	261	279	8		

- Molecule 9 is a protein called 26S proteasome non-ATPase regulatory subunit 14.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	Ac	287	Total	C	N	O	S	0	0
			2260	1430	389	422	19		
9	Bc	287	Total	C	N	O	S	0	0
			2260	1430	389	422	19		

- Molecule 10 is a protein called 26S proteasome non-ATPase regulatory subunit 8.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	Ad	257	Total	C	N	O	S	0	0
			2116	1371	346	390	9		

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Mol	Chain	Residues	Atoms					AltConf	Trace
10	Bd	257	Total	C	N	O	S	0	0
			2116	1371	346	390	9		

- Molecule 11 is a protein called 26S proteasome complex subunit DSS1.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	Ae	40	Total	C	N	O	S	0	0
			334	200	55	77	2		
11	Be	40	Total	C	N	O	S	0	0
			334	200	55	77	2		

- Molecule 12 is a protein called 26S proteasome non-ATPase regulatory subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	Af	694	Total	C	N	O	S	0	0
			5331	3364	899	1027	41		
12	Bf	694	Total	C	N	O	S	0	0
			5331	3364	899	1027	41		

- Molecule 13 is a protein called 26S protease regulatory subunit 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AA	361	Total	C	N	O	S	0	0
			2835	1788	501	528	18		
13	BA	361	Total	C	N	O	S	0	0
			2835	1788	501	528	18		

- Molecule 14 is a protein called 26S protease regulatory subunit 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AB	341	Total	C	N	O	S	0	0
			2662	1671	453	526	12		
14	BB	341	Total	C	N	O	S	0	0
			2662	1671	453	526	12		

- Molecule 15 is a protein called 26S protease regulatory subunit 6B.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AD	380	Total	C	N	O	S	0	0
			3040	1923	524	580	13		
15	BD	380	Total	C	N	O	S	0	0
			3040	1923	524	580	13		



- Molecule 16 is a protein called 26S protease regulatory subunit 10B.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AE	353	Total	C	N	O	S	0	0
			2790	1755	494	525	16		
16	BE	353	Total	C	N	O	S	0	0
			2790	1755	494	525	16		

- Molecule 17 is a protein called 26S protease regulatory subunit 6A.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AF	366	Total	C	N	O	S	0	0
			2863	1802	496	549	16		
17	BF	366	Total	C	N	O	S	0	0
			2863	1802	496	549	16		

- Molecule 18 is a protein called 26S protease regulatory subunit 8.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AC	384	Total	C	N	O	S	0	0
			3015	1894	540	564	17		
18	BC	384	Total	C	N	O	S	0	0
			3015	1894	540	564	17		

- Molecule 19 is a protein called Proteasome subunit alpha type-6.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AG	240	Total	C	N	O	S	0	0
			1826	1160	305	348	13		
19	BG	240	Total	C	N	O	S	0	0
			1826	1160	305	348	13		

- Molecule 20 is a protein called Proteasome subunit alpha type-2.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AH	232	Total	C	N	O	S	0	0
			1708	1081	289	333	5		
20	BH	232	Total	C	N	O	S	0	0
			1708	1081	289	333	5		

- Molecule 21 is a protein called Proteasome subunit alpha type-4.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	AI	250	Total	C	N	O	S	0	0
			1912	1204	329	371	8		
21	BI	250	Total	C	N	O	S	0	0
			1912	1204	329	371	8		

- Molecule 22 is a protein called Proteasome subunit alpha type-7.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AJ	239	Total	C	N	O	S	0	0
			1704	1056	308	335	5		
22	BJ	239	Total	C	N	O	S	0	0
			1704	1056	308	335	5		

- Molecule 23 is a protein called Proteasome subunit alpha type-5.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AK	228	Total	C	N	O	S	0	0
			1722	1080	284	348	10		
23	BK	228	Total	C	N	O	S	0	0
			1722	1080	284	348	10		

- Molecule 24 is a protein called Proteasome subunit alpha type-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AL	238	Total	C	N	O	S	0	0
			1850	1159	334	346	11		
24	BL	238	Total	C	N	O	S	0	0
			1850	1159	334	346	11		

- Molecule 25 is a protein called Proteasome subunit alpha type-3.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	AM	240	Total	C	N	O	S	0	0
			1856	1178	314	353	11		
25	BM	240	Total	C	N	O	S	0	0
			1856	1178	314	353	11		

- Molecule 26 is a protein called Proteasome subunit beta type-6.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AN	191	Total	C	N	O	S	0	0
			1430	893	245	280	12		

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Mol	Chain	Residues	Atoms					AltConf	Trace
26	BN	191	Total	C	N	O	S	0	0
			1430	893	245	280	12		

- Molecule 27 is a protein called Proteasome subunit beta type-7.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	AO	220	Total	C	N	O	S	0	0
			1643	1033	280	318	12		
27	BO	220	Total	C	N	O	S	0	0
			1643	1033	280	318	12		

- Molecule 28 is a protein called Proteasome subunit beta type-3.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	AP	204	Total	C	N	O	S	0	0
			1585	1010	262	294	19		
28	BP	204	Total	C	N	O	S	0	0
			1585	1010	262	294	19		

- Molecule 29 is a protein called Proteasome subunit beta type-2.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	AQ	199	Total	C	N	O	S	0	0
			1570	1006	265	290	9		
29	BQ	199	Total	C	N	O	S	0	0
			1570	1006	265	290	9		

- Molecule 30 is a protein called Proteasome subunit beta type-5.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	AR	201	Total	C	N	O	S	0	0
			1548	974	273	292	9		
30	BR	201	Total	C	N	O	S	0	0
			1548	974	273	292	9		

- Molecule 31 is a protein called Proteasome subunit beta type-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	AS	213	Total	C	N	O	S	0	0
			1641	1036	282	313	10		
31	BS	213	Total	C	N	O	S	0	0
			1641	1036	282	313	10		

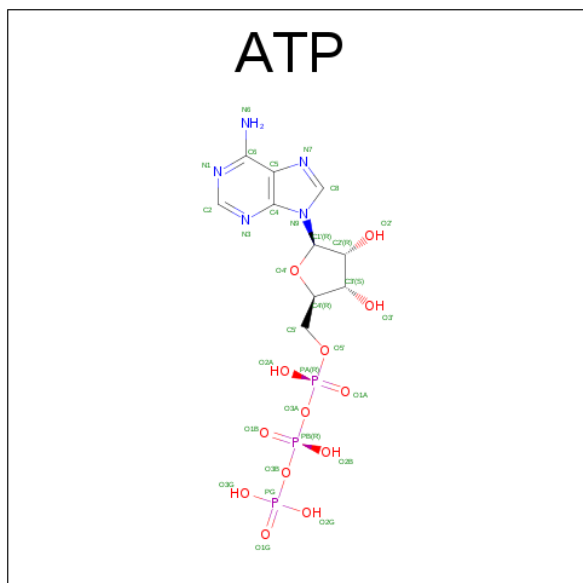
- Molecule 32 is a protein called Proteasome subunit beta type-4.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	AT	215	Total	C	N	O	S	0	0
			1667	1052	285	318	12		
32	BT	215	Total	C	N	O	S	0	0
			1667	1052	285	318	12		

- Molecule 33 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
33	Ac	1	Total	Zn	0
			1	1	
33	Bc	1	Total	Zn	0
			1	1	

- Molecule 34 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula:  $C_{10}H_{16}N_5O_{13}P_3$ ).



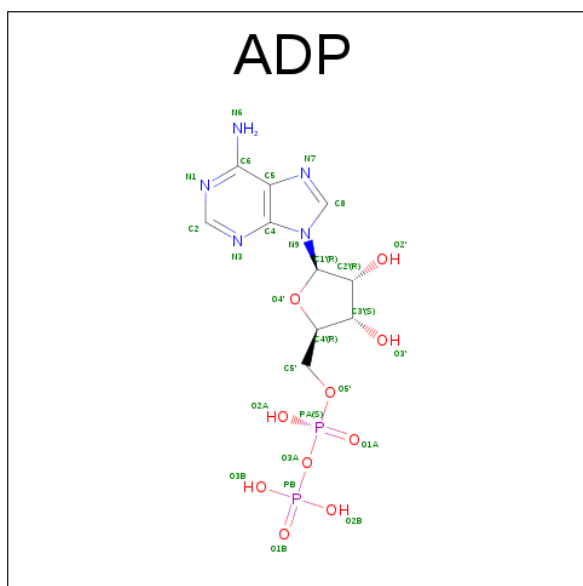
Mol	Chain	Residues	Atoms					AltConf
34	AA	1	Total	C	N	O	P	0
			31	10	5	13	3	
34	AD	1	Total	C	N	O	P	0
			31	10	5	13	3	
34	AE	1	Total	C	N	O	P	0
			31	10	5	13	3	
34	AF	1	Total	C	N	O	P	0
			31	10	5	13	3	

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Mol	Chain	Residues	Atoms					AltConf
34	BA	1	Total	C	N	O	P	0
			31	10	5	13	3	
34	BD	1	Total	C	N	O	P	0
			31	10	5	13	3	
34	BE	1	Total	C	N	O	P	0
			31	10	5	13	3	
34	BF	1	Total	C	N	O	P	0
			31	10	5	13	3	

- Molecule 35 is ADENOSINE-5'-DIPHOSPHATE (three-letter code: ADP) (formula:  $C_{10}H_{15}N_5O_{10}P_2$ ).

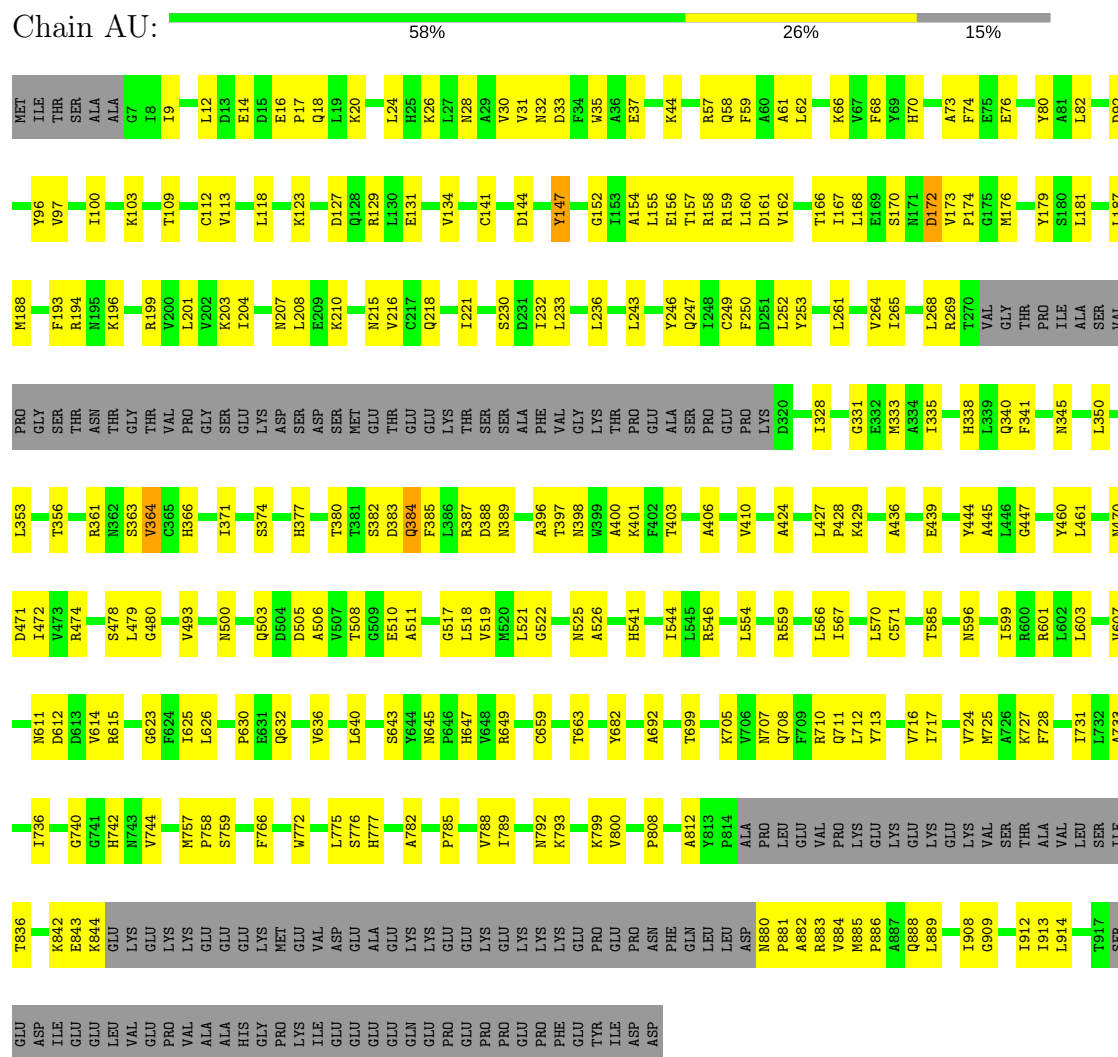


Mol	Chain	Residues	Atoms					AltConf
35	AB	1	Total	C	N	O	P	0
			27	10	5	10	2	
35	AC	1	Total	C	N	O	P	0
			27	10	5	10	2	
35	BB	1	Total	C	N	O	P	0
			27	10	5	10	2	
35	BC	1	Total	C	N	O	P	0
			27	10	5	10	2	

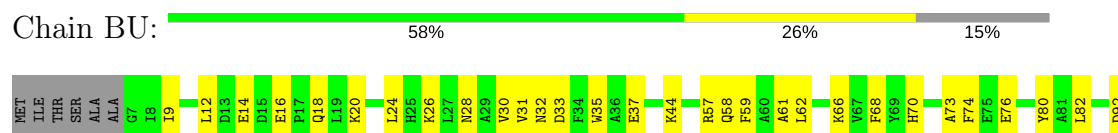
### 3 Residue-property plots

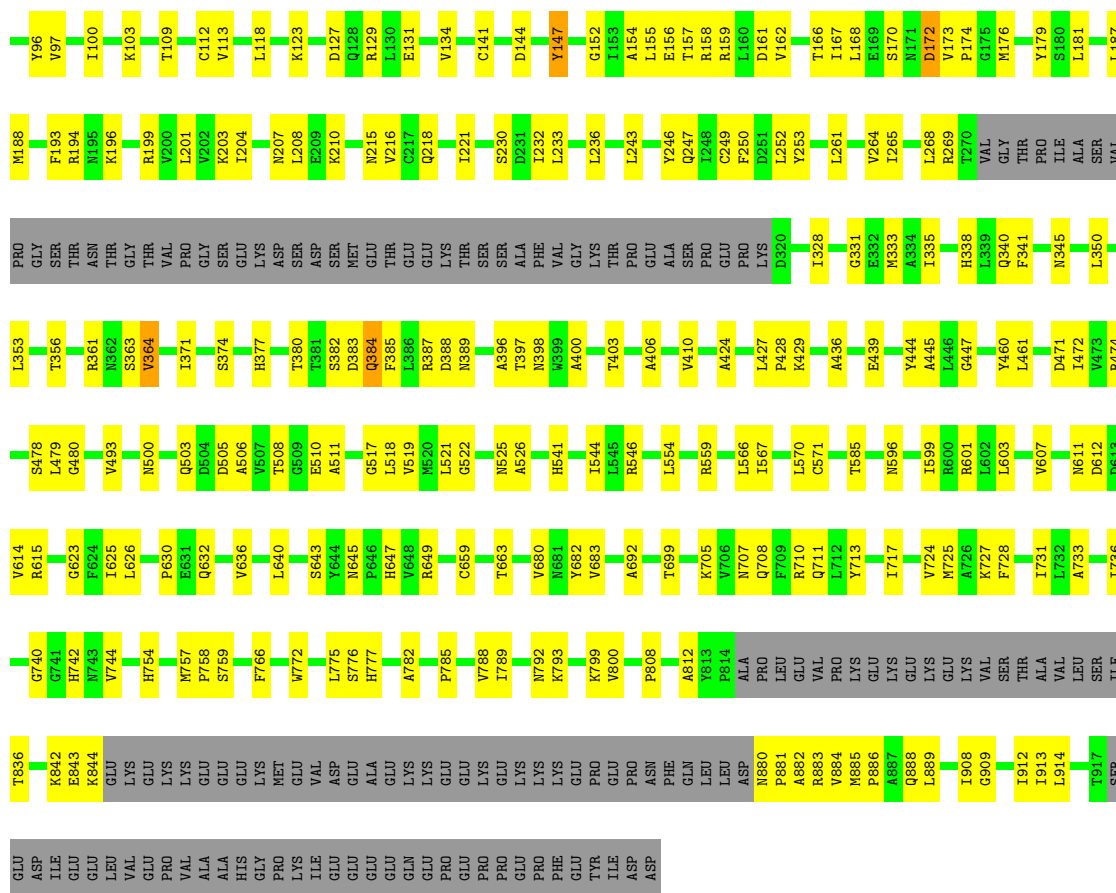
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according 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. 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: 26S proteasome non-ATPase regulatory subunit 1



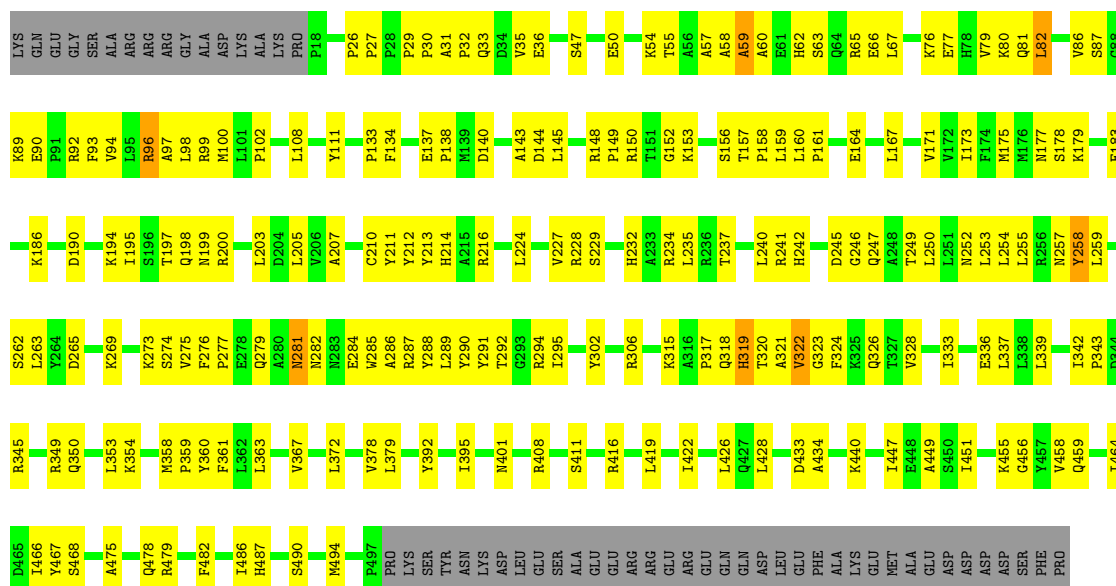
- Molecule 1: 26S proteasome non-ATPase regulatory subunit 1





• Molecule 2: 26S proteasome non-ATPase regulatory subunit 3

Chain AV: 53% 36% 10%



• Molecule 2: 26S proteasome non-ATPase regulatory subunit 3

Category	Percentage
Very bad	53%
Bad	35%
Average	10%
Good	2%



Satisfaction Level	Percentage
Very satisfied	64%
Satisfied	35%



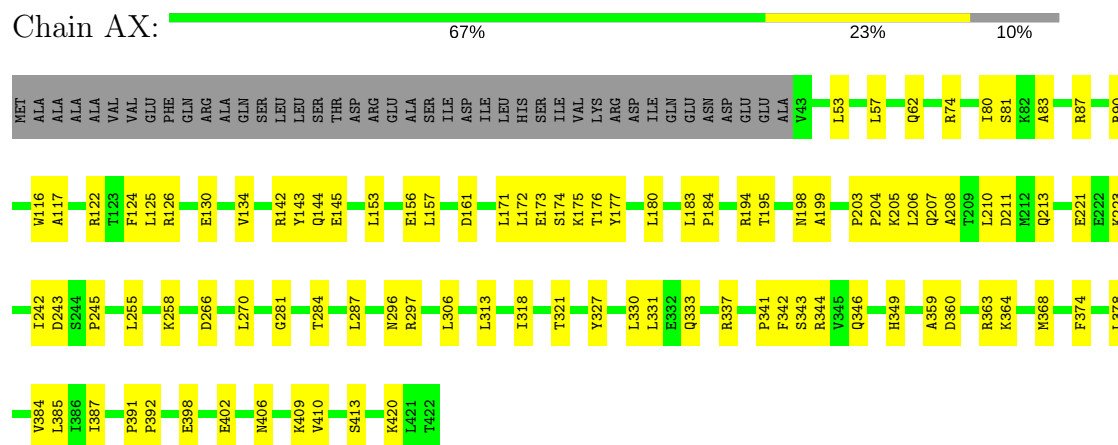
65% 34%



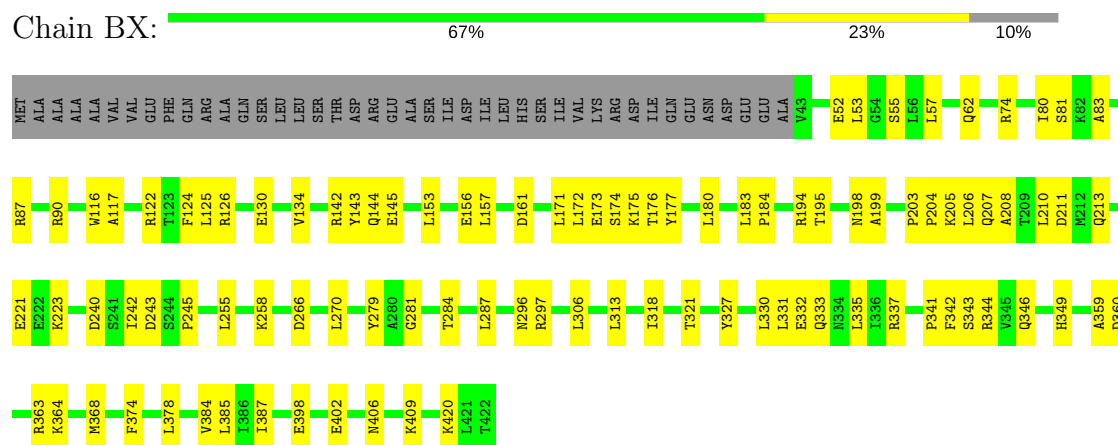




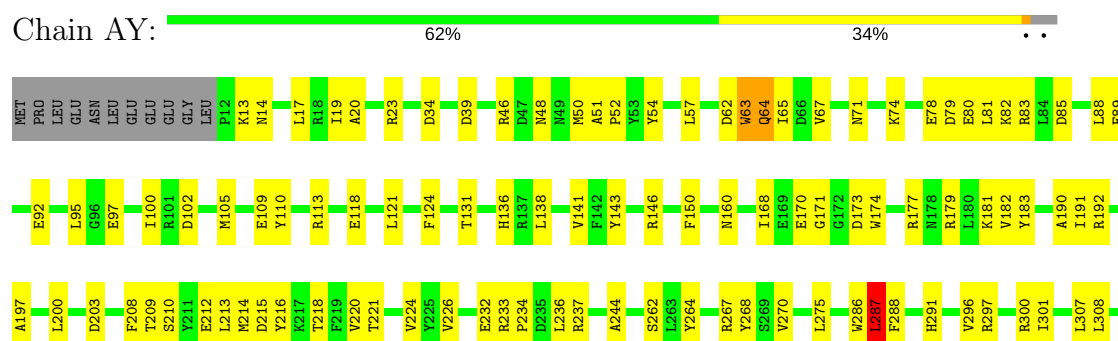
- Molecule 4: 26S proteasome non-ATPase regulatory subunit 11

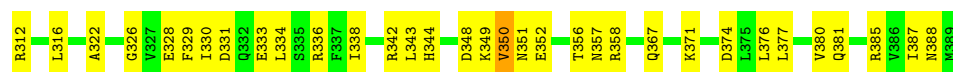


- Molecule 4: 26S proteasome non-ATPase regulatory subunit 11



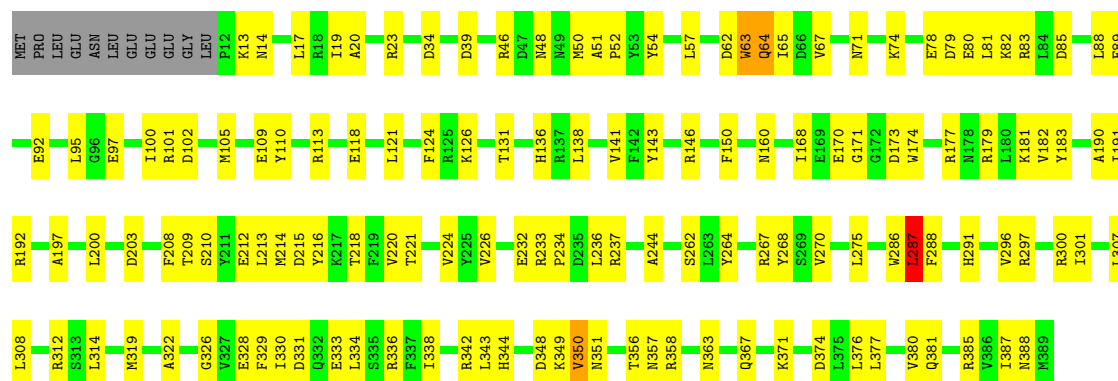
- Molecule 5: 26S proteasome non-ATPase regulatory subunit 6





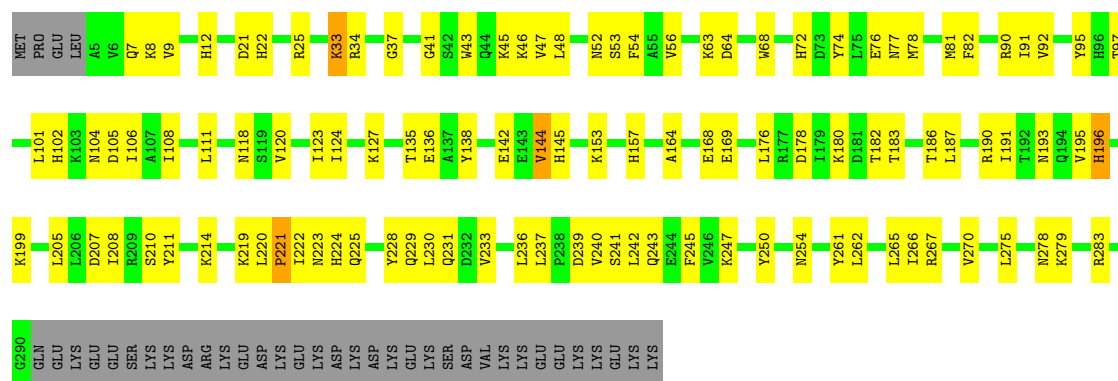
• Molecule 5: 26S proteasome non-ATPase regulatory subunit 6

Chain BY: 62% 34%



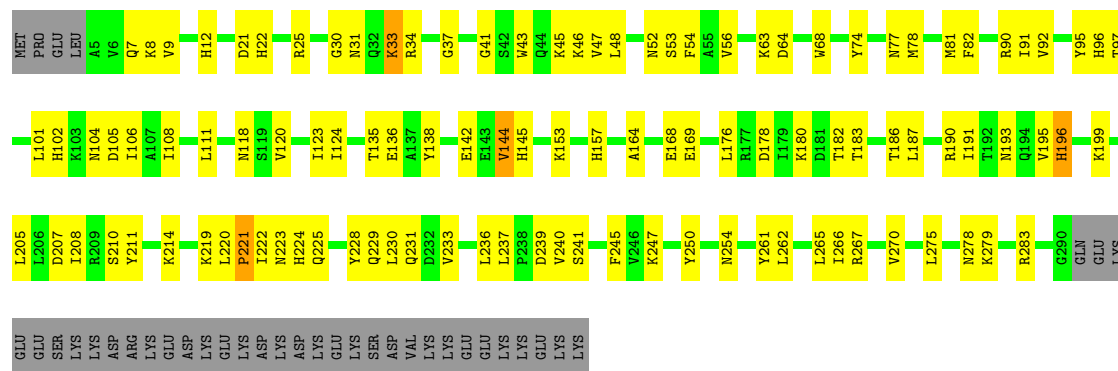
• Molecule 6: 26S proteasome non-ATPase regulatory subunit 7

Chain AZ: 54% 33% 12%



• Molecule 6: 26S proteasome non-ATPase regulatory subunit 7

Chain BZ: 55% 32% 12%



• Molecule 7: 26S proteasome non-ATPase regulatory subunit 13

Sequence logo for the 10th position. The y-axis represents information content in bits, ranging from 0 to 0.4. The x-axis shows the amino acid sequence: MET, LYS, ASP, V4, S14, H69, L145, I166, D260, V336, V340, and T376. The V4 position shows a strong preference for Valine (V), while the T376 position shows a strong preference for Threonine (T).

- |      |
|------|
| MET  |
| LYS  |
| ASP  |
| V4   |
| S14  |
| H69  |
| L145 |
| I166 |
| D260 |
| V336 |
| V340 |
| T376 |

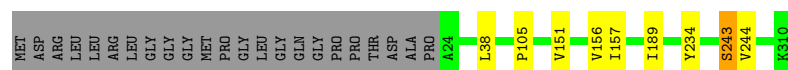
- [illegible]

- |     |     |     |     |
|-----|-----|-----|-----|
| GLY | ASP | GLY | ILE |
| LYS | ASP | LYS | ASP |
| LYS | ASP | LYS | THR |
| LYS | ASP | LYS | THR |
| LYS | ASP | LYS | GLY |
| GLU | ALA | GLU | THR |
| GLU | MET | GLU | GLY |
| ASP | ASP | ASP | ALA |
| LYS | THR | THR | GLY |
| LYS | ASP | ASP | ASP |
|     | GLU | ASP | ASP |
|     | PRO | GLU | ALA |
|     | ALA | GLU | LEU |
|     | LYS | LEU | GLY |
|     | GLU | LYS | ALA |
|     | GLU | MET | ASP |
|     | ASP | THR | PHE |
|     | ASP | ILE | THR |
|     | TYR | ILE | THR |
|     | ASP | GLN | GLY |
|     | VAL | GLN | VAL |
|     | MET | GLU | ASP |
|     | GLN | PHE | PRO |
|     | ASP | GLY | SER |
|     | PRO | ARG | ALA |
|     | GLU | THR | ASP |
|     | PHE | GLY | PRO |
|     | LEU | LEU | GLU |
|     | GLN | PRO | LEU |
|     | SER | ASP | LEU |
|     | VAL | LEU | ALA |
|     | LEU | SER | ALA |
|     | GLU | SER | LEU |
|     | ASN | MET | ARG |
|     | LEU | THR | VAL |
|     | PRO | GLU | SER |
|     | GLY | GLU | MET |
|     | VAL | GLU | GLY |
|     | ASP | GLN | GLU |
|     | PRO | ILE | GLN |
|     | ASN | ALA | ARG |
|     | ASN | TYR | GLN |
|     | GLU | ALA | ARG |
|     | ALA | MET | GLN |
|     | ILE | GLN | GLY |
|     | ARG | MET | GLU |
|     | ASN | SER | GLU |
|     | ALA | LEU | ALA |
|     | MET | GLN | ARG |
|     | GLY | GLY | ARG |
|     | SER | ALA | ALA |
|     | LEU | GLU | ALA |
|     | ALA | PHE | ALA |
|     | SER | GLY | ALA |
|     | GLN | GLN | SER |
|     | ALA | ALA | ALA |
|     | THR | GLU | ALA |
|     | LYS | SER | GLY |
|     | ASP | ALA | ALA |

- |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|
| MET | ASP | ARG | LEU | LEU | ARG | LEU | GLY | GLY | GLY | MET | PRO | PRO | GLY | LEU | GLY | GLN | GLY | PRO | PRO | THR | ASP | ALA | PRO | A24 | L38 | P105 | V151 | V156 | I157 | I189 | Y234 | S243 | V244 | K310 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|

- WORLDWIDE  
**PDB**  
PROTEIN DATA BANK
-  **EMDataBank**  
Unified Data Resource for 3DEM

Chain Bc:  90% • 7%



- Molecule 10: 26S proteasome non-ATPase regulatory subunit 8

Chain Ad:  98%



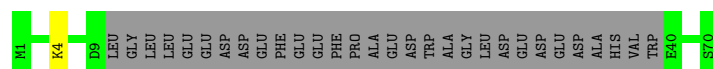
- Molecule 10: 26S proteasome non-ATPase regulatory subunit 8

Chain Bd:  98%



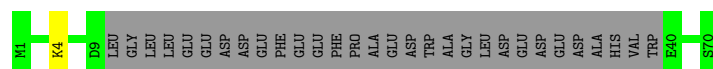
- Molecule 11: 26S proteasome complex subunit DSS1

Chain Ae:  56% . 43%



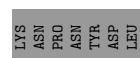
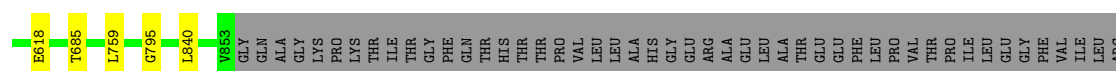
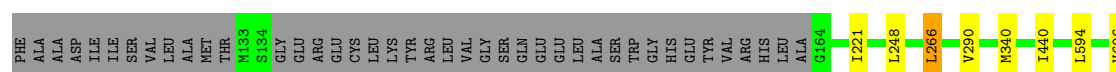
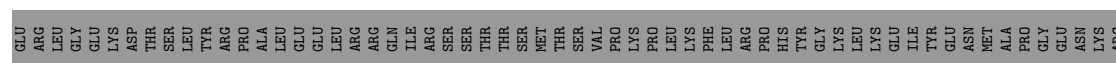
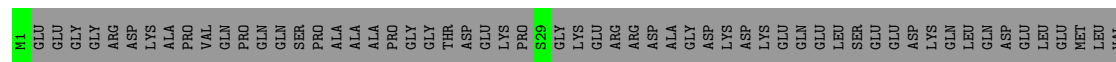
- Molecule 11: 26S proteasome complex subunit DSS1

Chain Be:  56% 43%



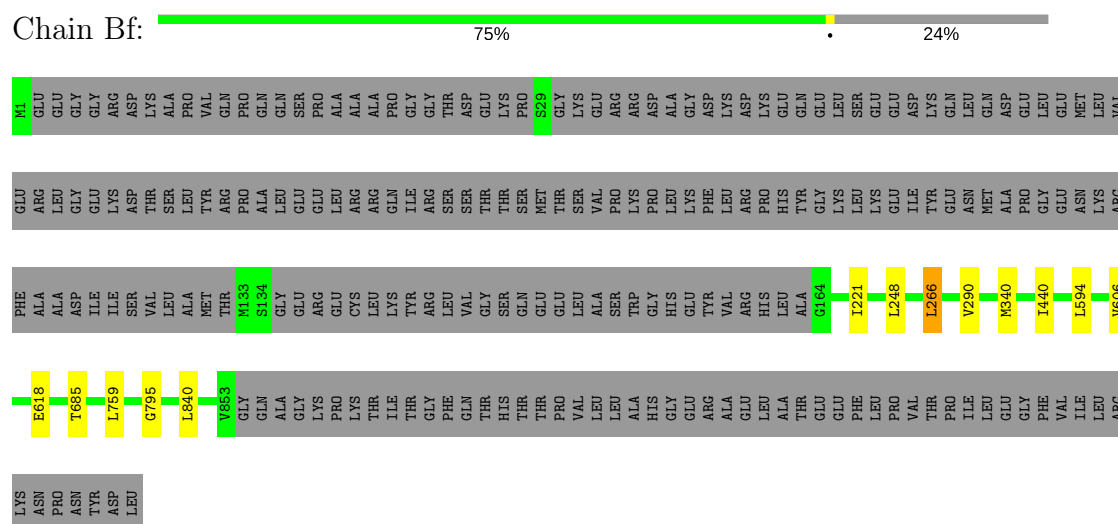
- Molecule 12: 26S proteasome non-ATPase regulatory subunit 2

Chain Af:  75% 24%



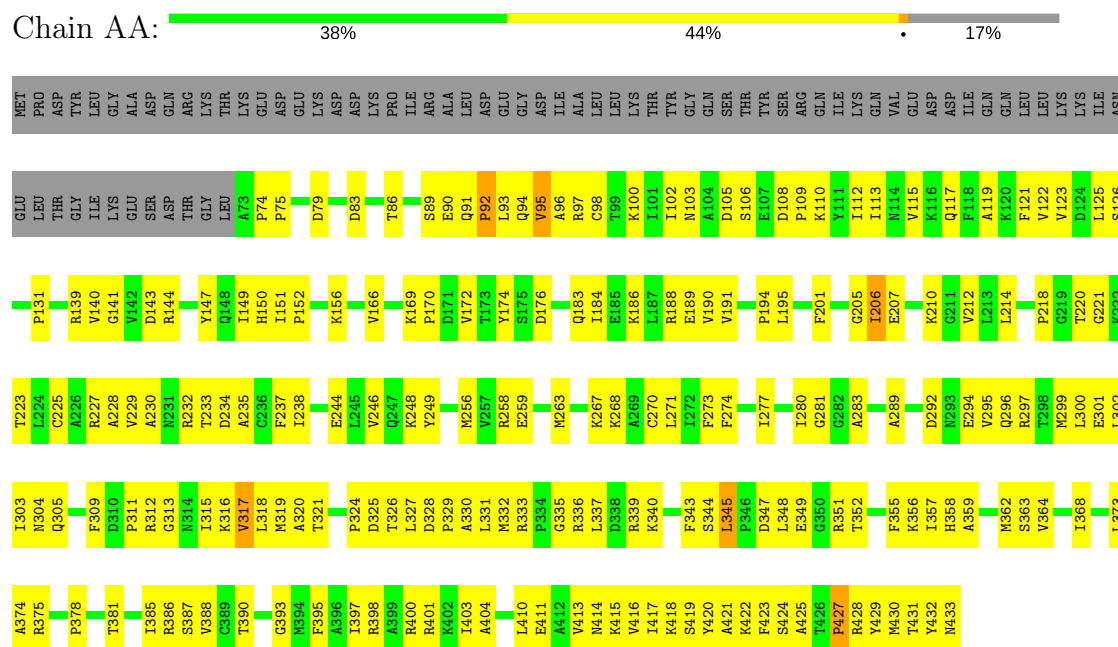
- Molecule 12: 26S proteasome non-ATPase regulatory subunit 2

Chain Bf:



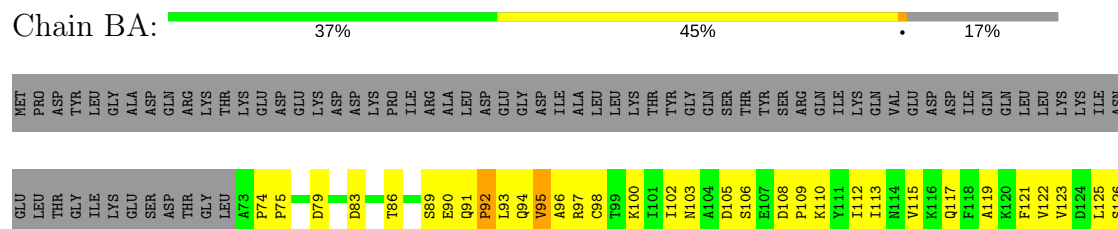
- Molecule 13: 26S protease regulatory subunit 7

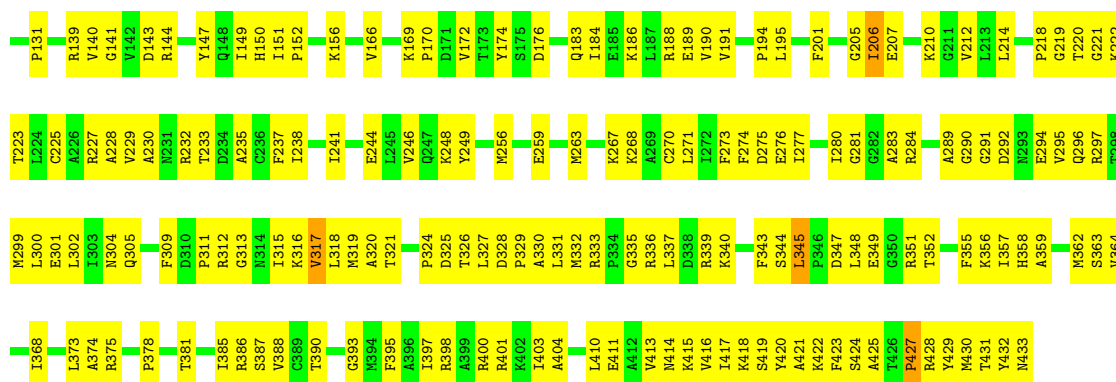
Chain AA:



- Molecule 13: 26S protease regulatory subunit 7

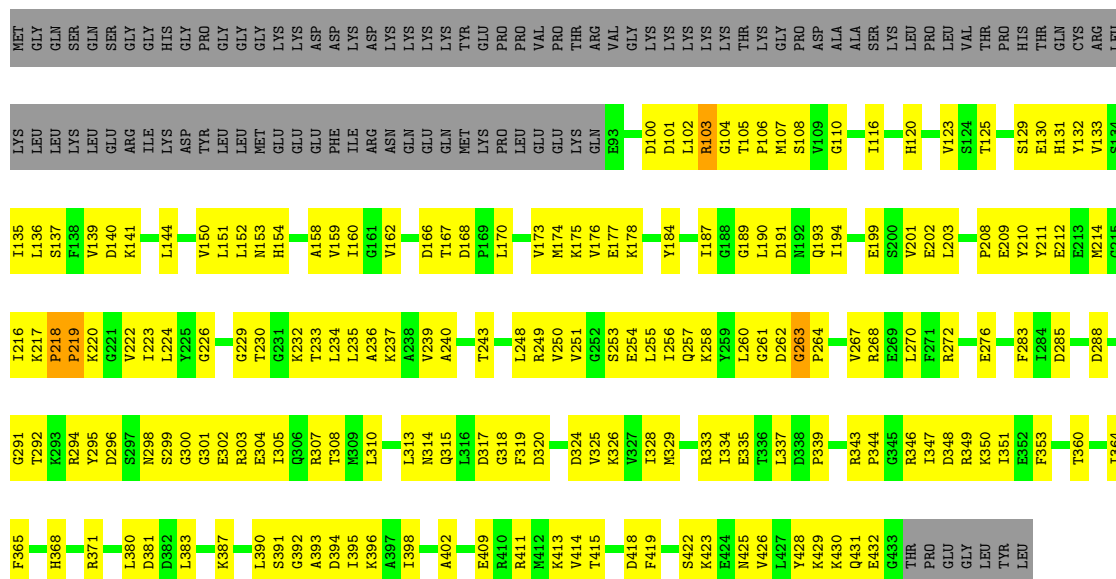
Chain BA:





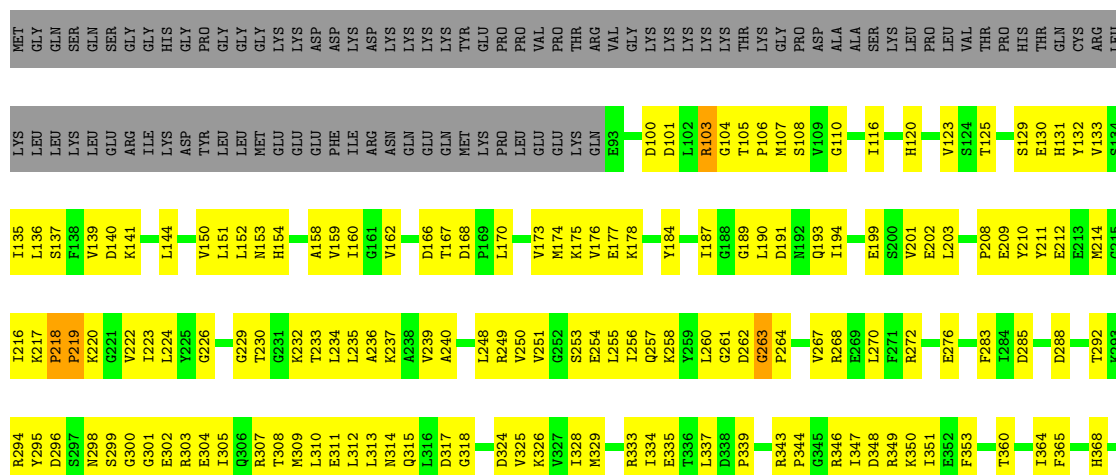
• Molecule 14: 26S protease regulatory subunit 4

Chain AB: 36% 40% 23%



• Molecule 14: 26S protease regulatory subunit 4

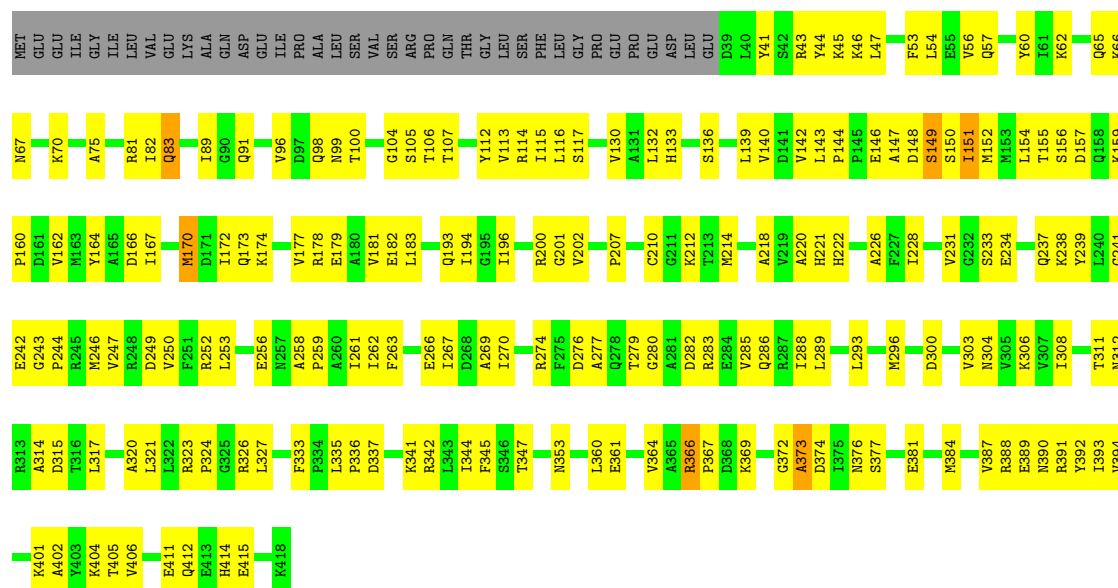
Chain BB: 37% 40% 23%





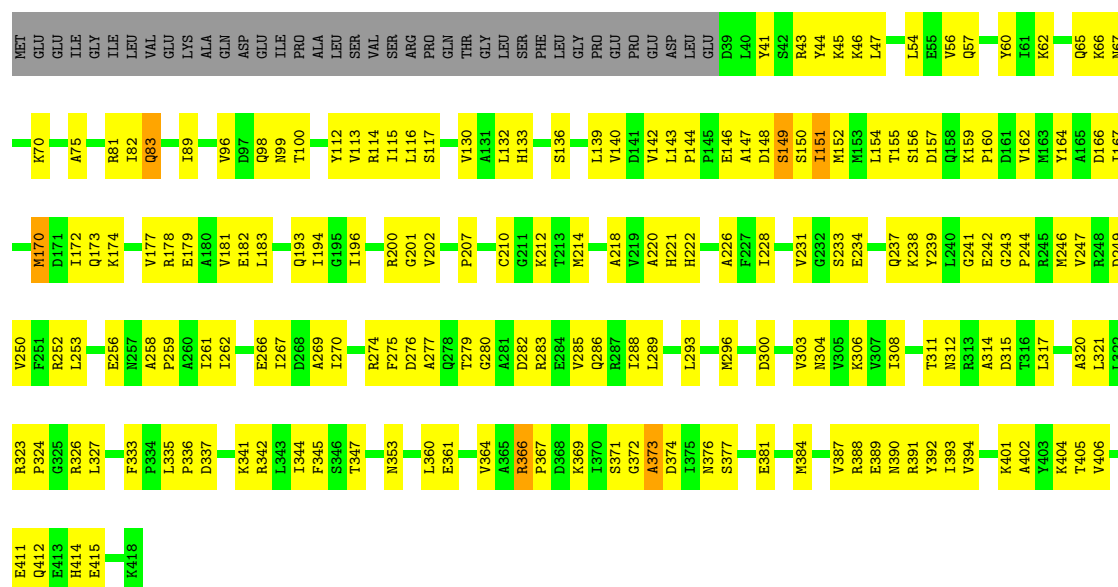
### • Molecule 15: 26S protease regulatory subunit 6B

Chain AD: 47% 42% 9%



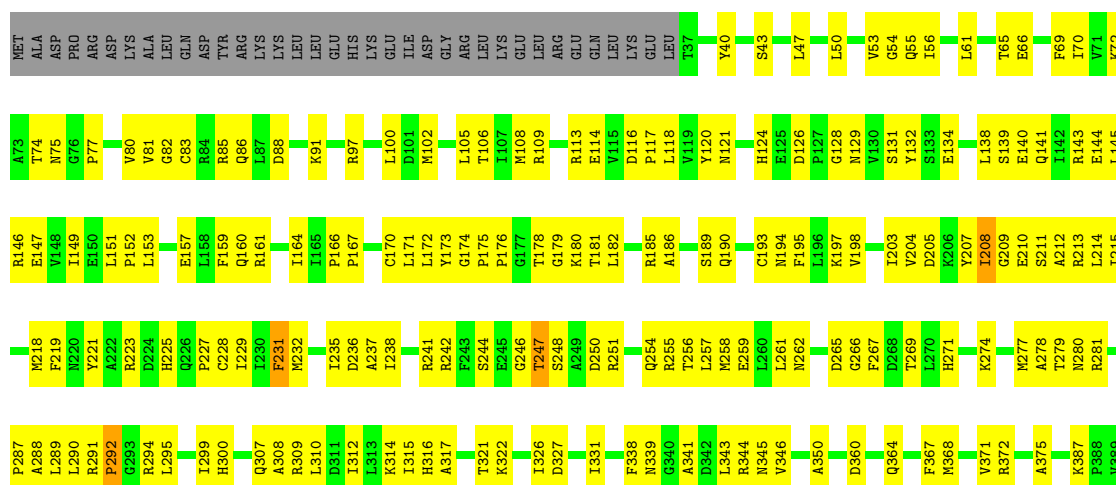
### • Molecule 15: 26S protease regulatory subunit 6B

Chain BD: 48% 41% 9%



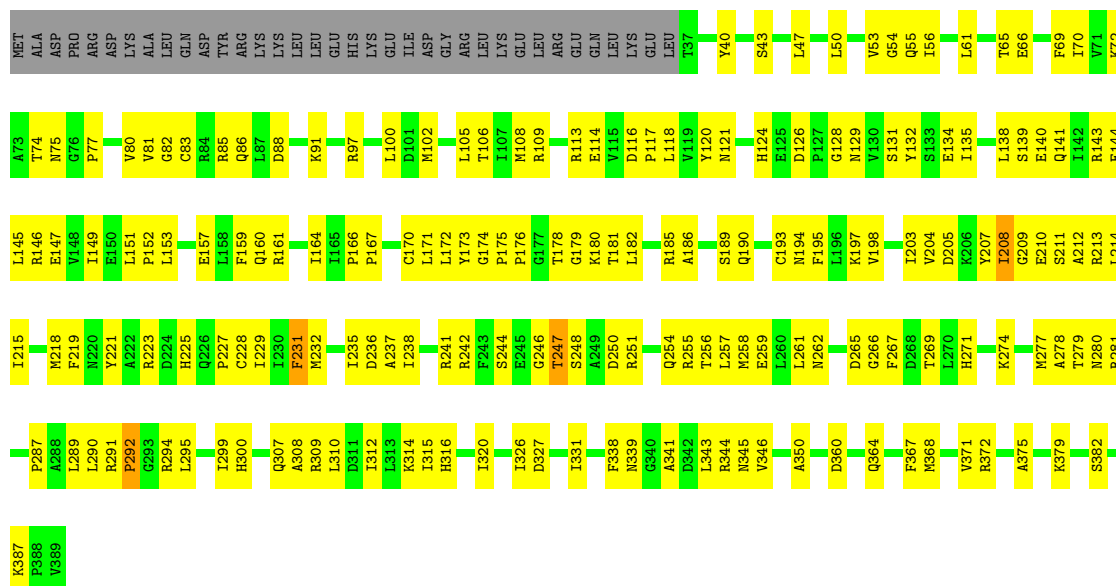
### • Molecule 16: 26S protease regulatory subunit 10B

Chain AE: 44% 45% 9%



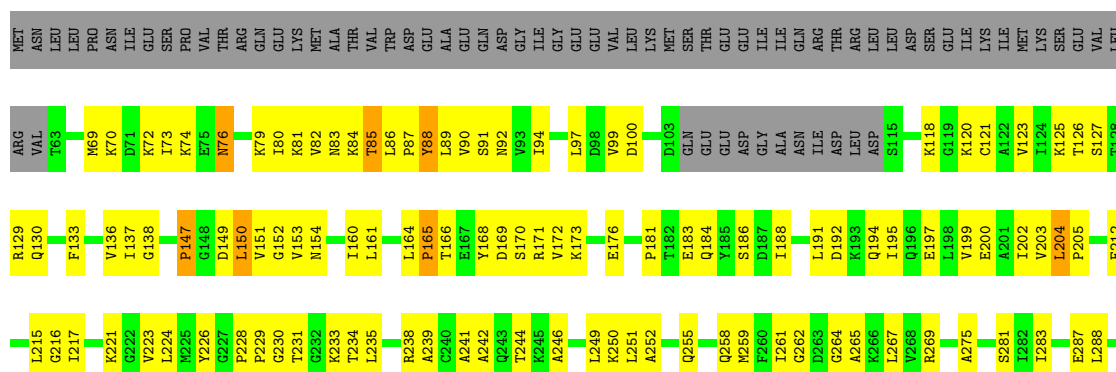
• Molecule 16: 26S protease regulatory subunit 10B

Chain BE: 44% 45% 9%

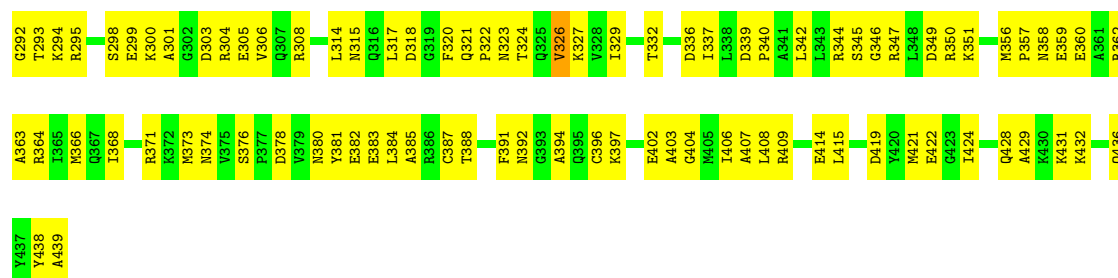


• Molecule 17: 26S protease regulatory subunit 6A

Chain AF: 38% 43% 17%

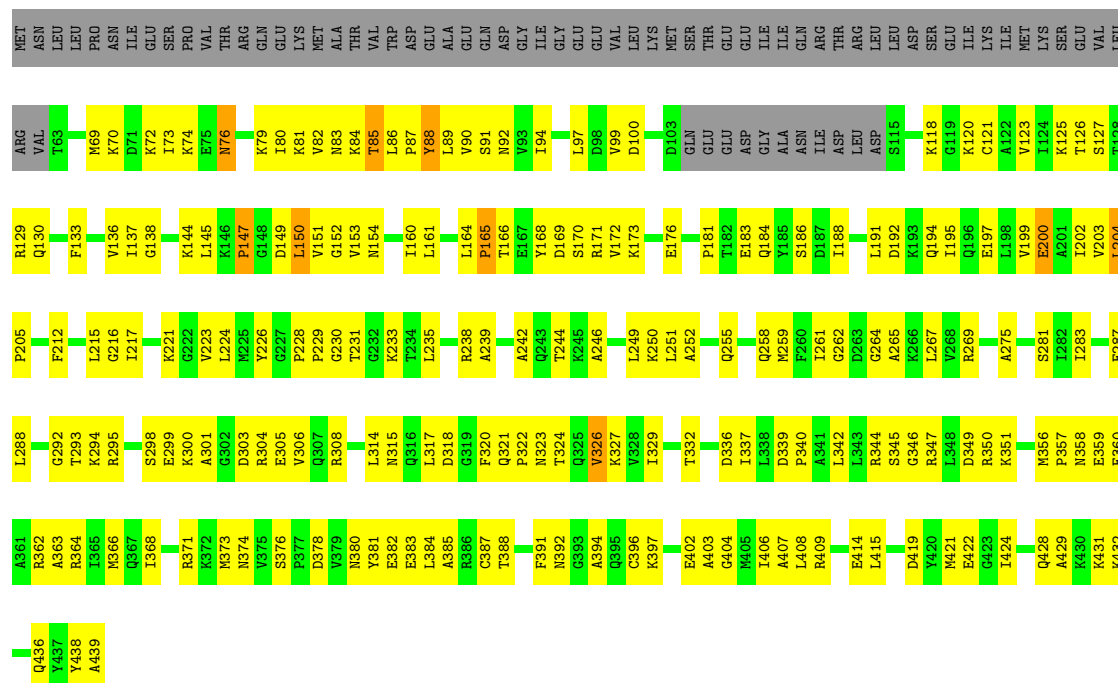






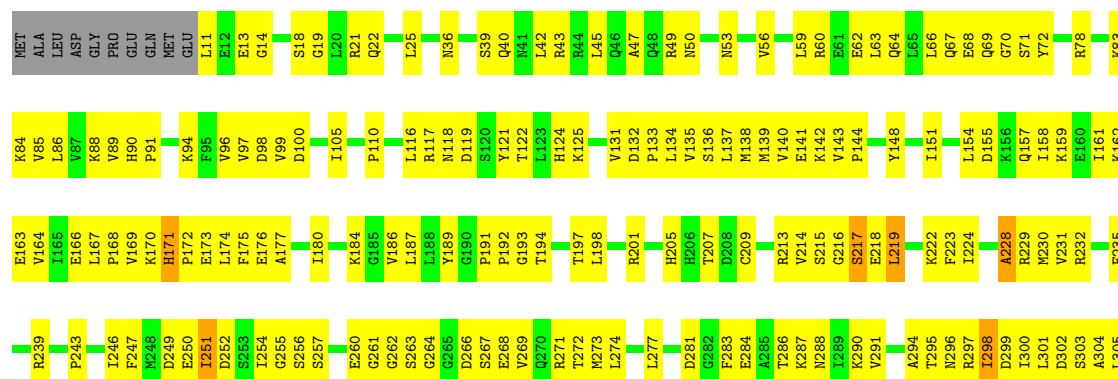
• Molecule 17: 26S protease regulatory subunit 6A

Chain BF: 38% 43% 17%

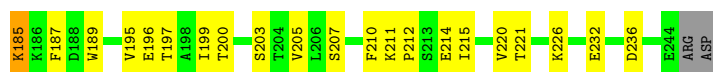


• Molecule 18: 26S protease regulatory subunit 8

Chain AC: 40% 53% 5%

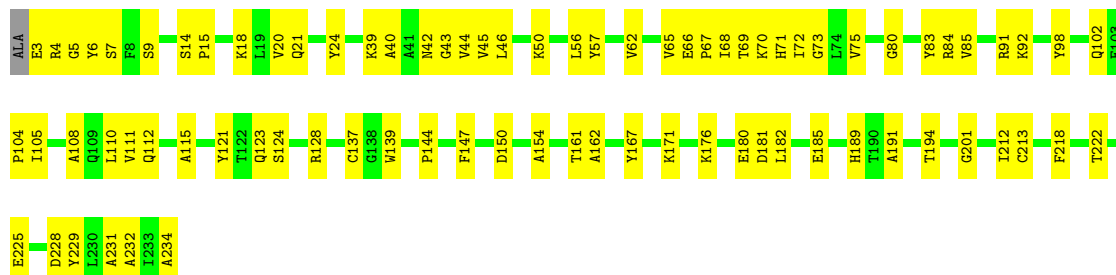






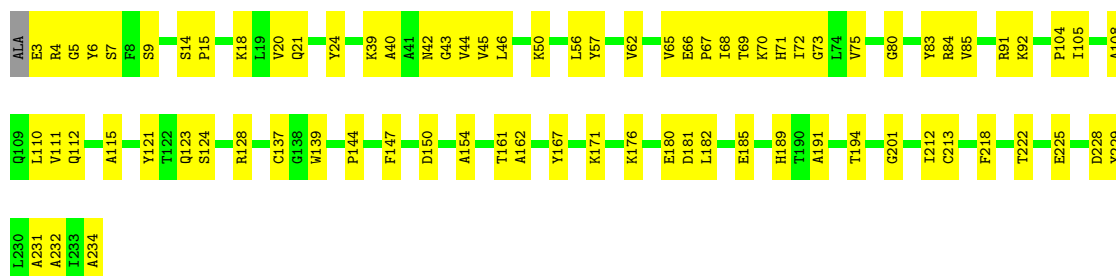
• Molecule 20: Proteasome subunit alpha type-2

Chain AH: 65% 35%



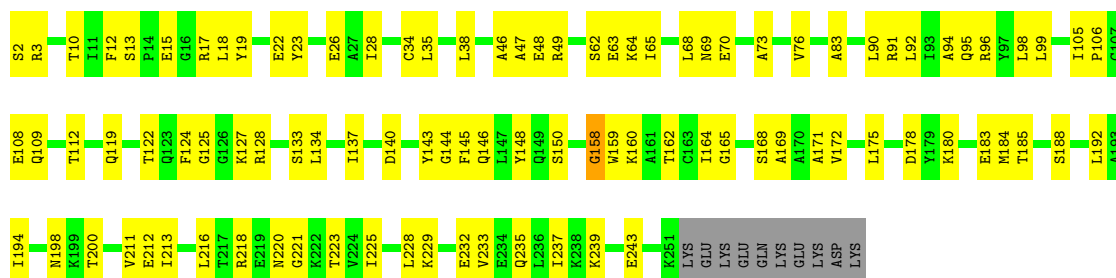
• Molecule 20: Proteasome subunit alpha type-2

Chain BH: 66% 34%



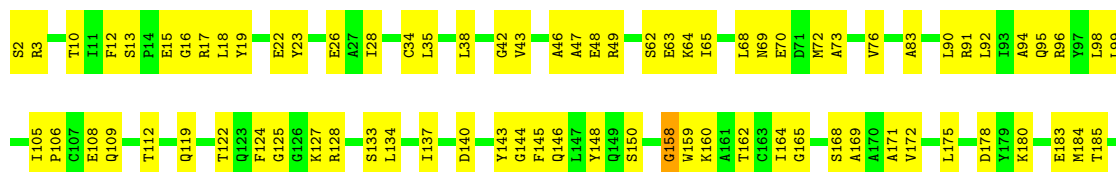
• Molecule 21: Proteasome subunit alpha type-4

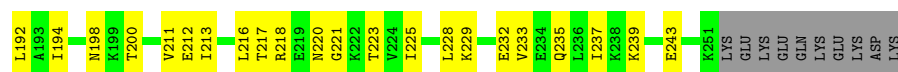
Chain AI: 59% 37%



• Molecule 21: Proteasome subunit alpha type-4

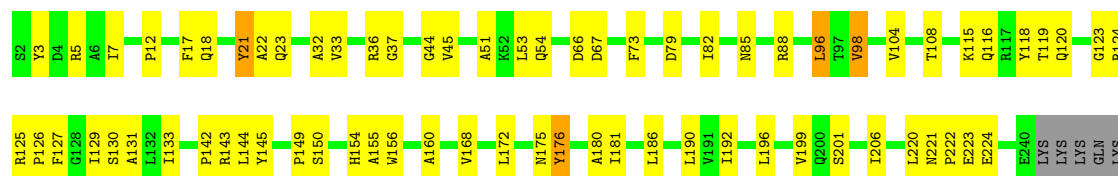
Chain BI: 57% 38%





• Molecule 22: Proteasome subunit alpha type-7

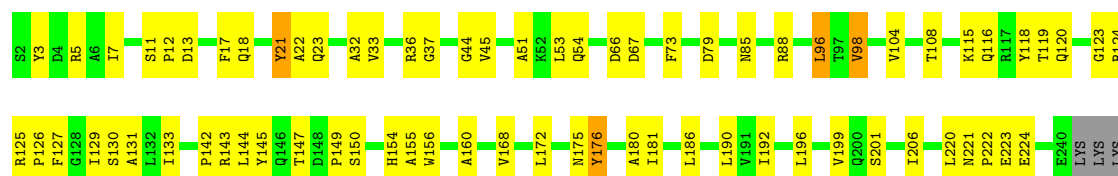
Chain AJ: 68% 27%



LYS  
ALA  
SER

• Molecule 22: Proteasome subunit alpha type-7

Chain BJ: 67% 28%



GLN  
LYS  
LYS  
ALA  
SER

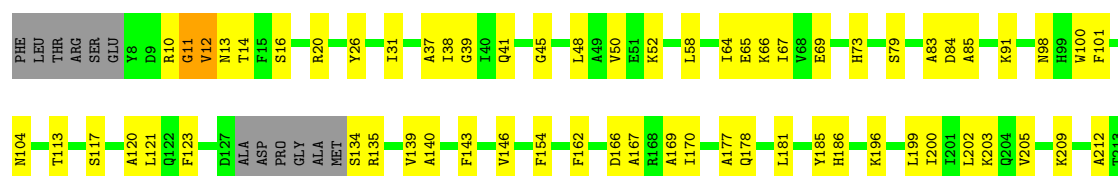
• Molecule 23: Proteasome subunit alpha type-5

Chain AK: 62% 32% 5%

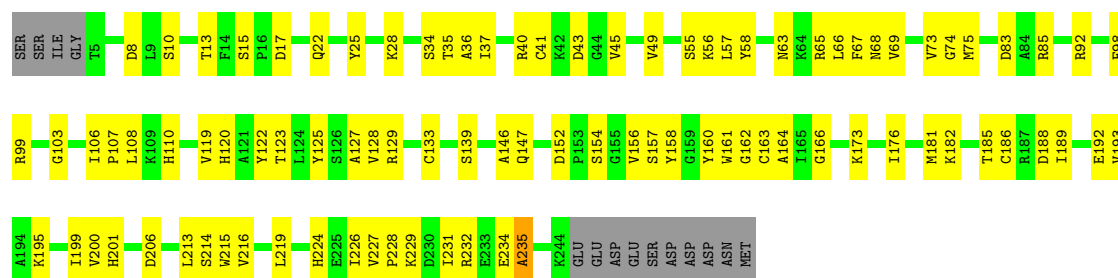


• Molecule 23: Proteasome subunit alpha type-5

Chain BK: 63% 31% 5%

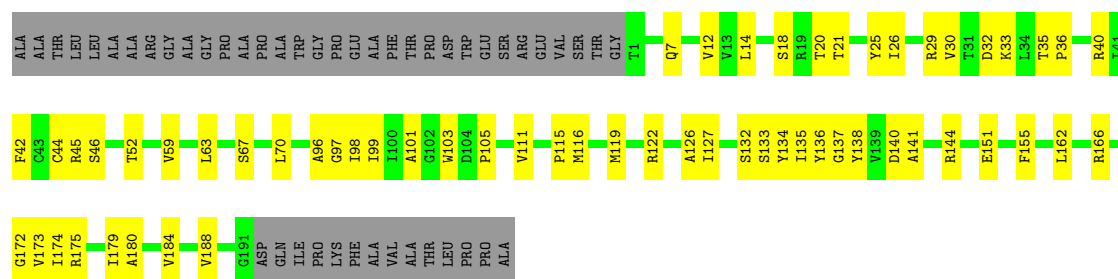






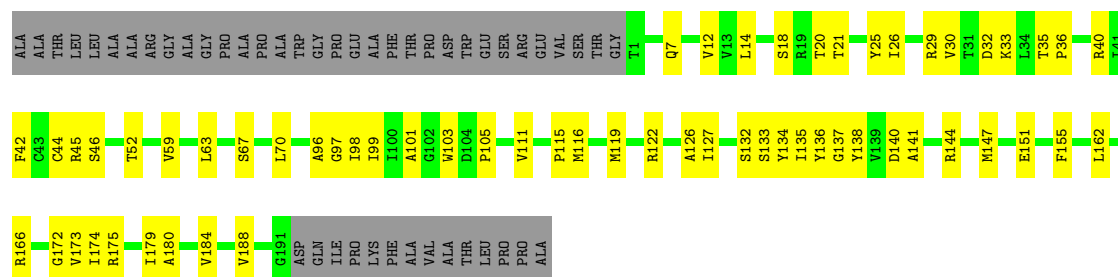
• Molecule 26: Proteasome subunit beta type-6

Chain AN: 



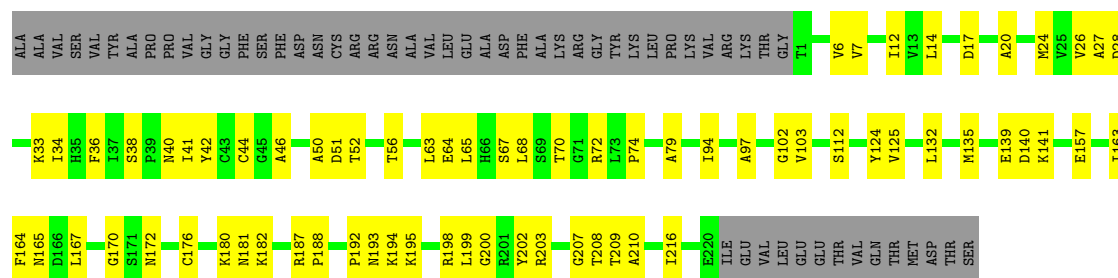
• Molecule 26: Proteasome subunit beta type-6

Chain BN: 



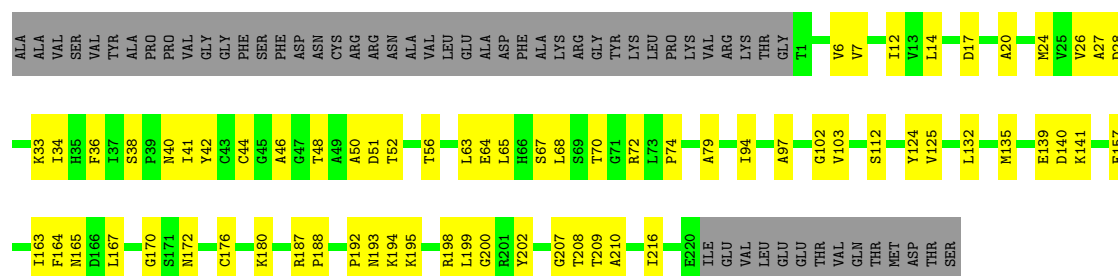
• Molecule 27: Proteasome subunit beta type-7

Chain AO: 



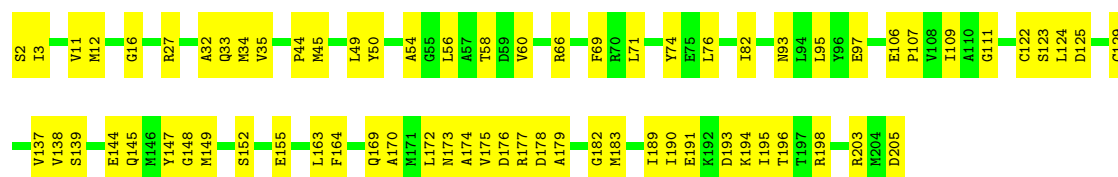
• Molecule 27: Proteasome subunit beta type-7

Chain BO: 



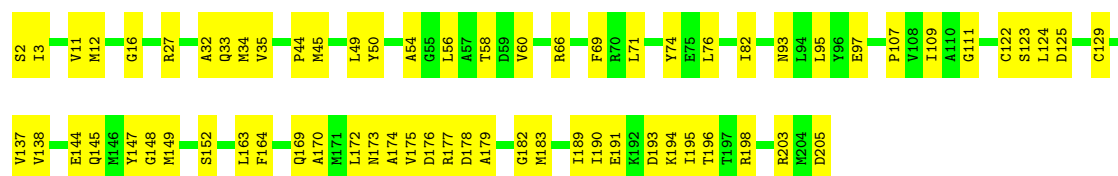
• Molecule 28: Proteasome subunit beta type-3

Chain AP: 66% 34%



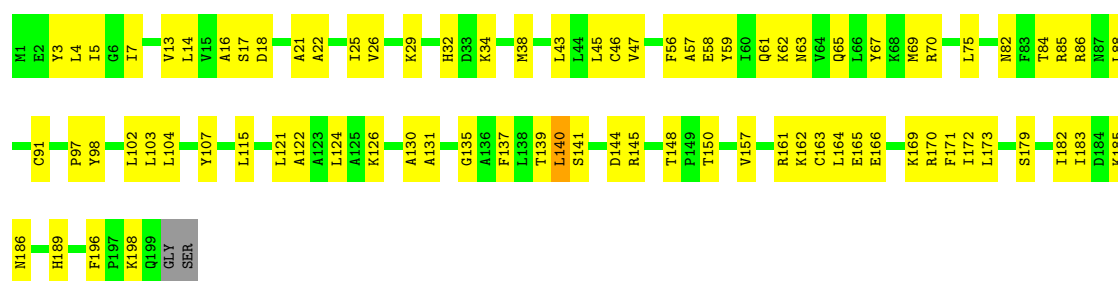
• Molecule 28: Proteasome subunit beta type-3

Chain BP: 67% 33%



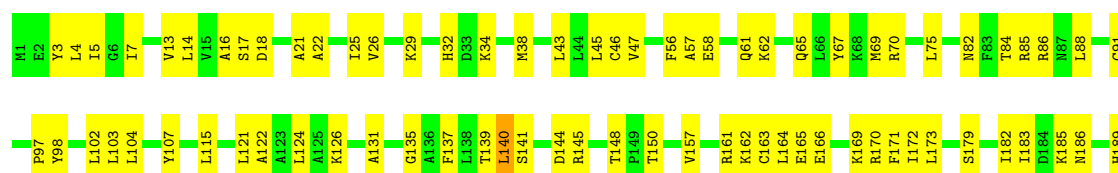
• Molecule 29: Proteasome subunit beta type-2

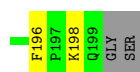
Chain AQ: 59% 40%



• Molecule 29: Proteasome subunit beta type-2

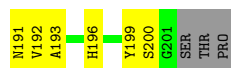
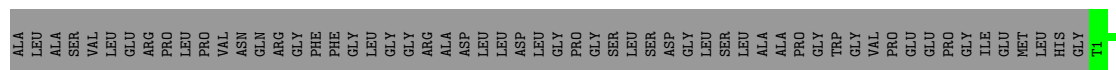
Chain BQ: 60% 38%





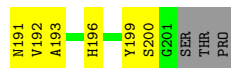
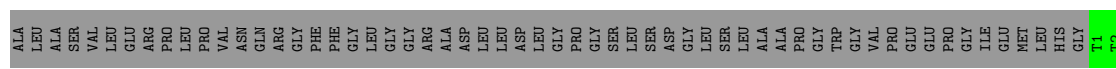
• Molecule 30: Proteasome subunit beta type-5

Chain AR: 61% 15% 23%



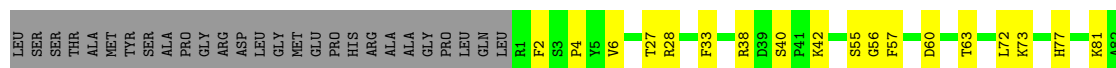
• Molecule 30: Proteasome subunit beta type-5

Chain BR: 61% 15% 23%



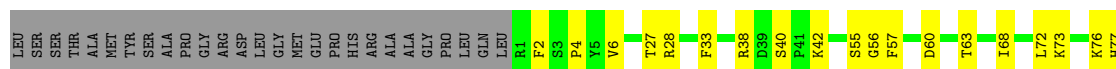
• Molecule 31: Proteasome subunit beta type-1

Chain AS: 66% 23% 11%

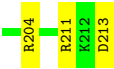


• Molecule 31: Proteasome subunit beta type-1

Chain BS: 64% 25% 11%

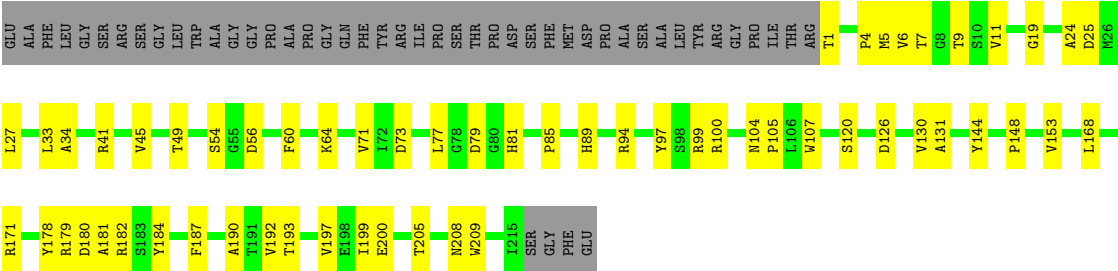






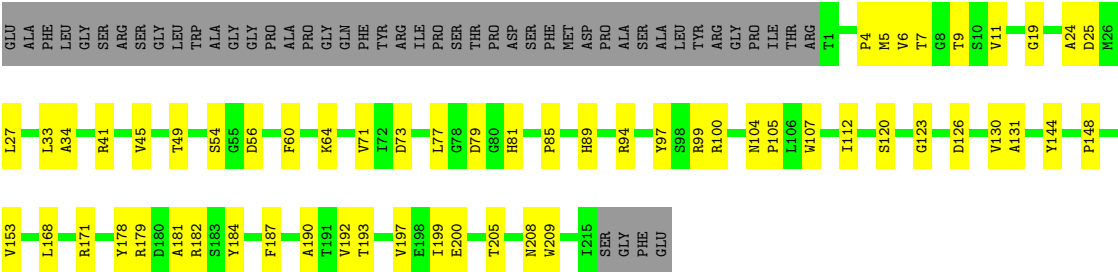
• Molecule 32: Proteasome subunit beta type-4

Chain AT:  59% 22% 18%



• Molecule 32: Proteasome subunit beta type-4

Chain BT:  59% 22% 18%



## 4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of particles used	86420	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	Not provided	Depositor
Microscope	FEI TECNAI ARCTICA	Depositor
Voltage (kV)	200	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	Not provided	Depositor
Minimum defocus (nm)	-1000	Depositor
Maximum defocus (nm)	-3000	Depositor
Magnification	28736	Depositor
Image detector	Not provided	Depositor

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, ATP, ADP

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	$\# Z  > 2$	RMSZ	$\# Z  > 2$
1	AU	0.29	0/6396	0.49	0/8646
1	BU	0.29	0/6396	0.49	0/8646
10	Ad	0.30	0/2162	0.57	0/2919
10	Bd	0.30	0/2162	0.57	0/2919
11	Ae	0.28	0/338	0.56	0/450
11	Be	0.28	0/338	0.56	0/450
12	Af	0.33	2/5413 (0.0%)	0.63	3/7317 (0.0%)
12	Bf	0.33	2/5413 (0.0%)	0.63	3/7317 (0.0%)
13	AA	0.31	0/2886	0.56	1/3899 (0.0%)
13	BA	0.31	0/2886	0.56	1/3899 (0.0%)
14	AB	0.29	0/2700	0.54	0/3645
14	BB	0.29	0/2700	0.54	0/3645
15	AD	0.29	0/3090	0.58	1/4168 (0.0%)
15	BD	0.29	0/3090	0.58	1/4168 (0.0%)
16	AE	0.29	0/2835	0.54	0/3821
16	BE	0.29	0/2835	0.54	0/3821
17	AF	0.32	0/2903	0.59	2/3912 (0.1%)
17	BF	0.32	0/2903	0.59	2/3912 (0.1%)
18	AC	0.29	0/3054	0.57	2/4107 (0.0%)
18	BC	0.29	0/3054	0.57	2/4107 (0.0%)
19	AG	0.30	0/1859	0.51	0/2523
19	BG	0.30	0/1859	0.51	0/2523
2	AV	0.31	0/3929	0.57	0/5309
2	BV	0.31	0/3929	0.57	0/5309
20	AH	0.30	0/1743	0.50	0/2372
20	BH	0.30	0/1743	0.50	0/2372
21	AI	0.31	0/1942	0.53	0/2628
21	BI	0.31	0/1942	0.53	0/2628
22	AJ	0.30	0/1728	0.48	0/2358
22	BJ	0.30	0/1728	0.48	0/2358
23	AK	0.30	0/1747	0.53	0/2364
23	BK	0.30	0/1747	0.53	0/2364

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >2	RMSZ	# Z  >2
24	AL	0.28	0/1885	0.49	0/2552
24	BL	0.28	0/1885	0.49	0/2552
25	AM	0.31	0/1891	0.49	0/2552
25	BM	0.31	0/1891	0.49	0/2552
26	AN	0.29	0/1454	0.48	0/1967
26	BN	0.29	0/1454	0.48	0/1967
27	AO	0.28	0/1670	0.48	0/2265
27	BO	0.28	0/1670	0.48	0/2265
28	AP	0.31	0/1614	0.49	0/2177
28	BP	0.31	0/1614	0.49	0/2177
29	AQ	0.31	0/1603	0.51	1/2174 (0.0%)
29	BQ	0.31	0/1603	0.51	1/2174 (0.0%)
3	AW	0.29	0/3751	0.54	3/5042 (0.1%)
3	BW	0.29	0/3751	0.54	3/5042 (0.1%)
30	AR	0.30	0/1579	0.46	0/2134
30	BR	0.30	0/1579	0.46	0/2134
31	AS	0.29	0/1671	0.48	0/2253
31	BS	0.29	0/1671	0.48	0/2253
32	AT	0.30	0/1700	0.49	0/2305
32	BT	0.30	0/1700	0.49	0/2305
4	AX	0.27	0/3053	0.45	0/4115
4	BX	0.27	0/3053	0.45	0/4115
5	AY	0.30	0/3173	0.53	2/4273 (0.0%)
5	BY	0.30	0/3173	0.53	2/4273 (0.0%)
6	AZ	0.28	0/2324	0.55	0/3150
6	BZ	0.28	0/2324	0.55	0/3150
7	Aa	0.36	1/3053 (0.0%)	0.52	0/4133
7	Ba	0.36	1/3053 (0.0%)	0.52	0/4133
8	Ab	0.27	0/1478	0.48	0/2001
8	Bb	0.27	0/1478	0.48	0/2001
9	Ac	0.33	0/2302	0.60	1/3110 (0.0%)
9	Bc	0.33	0/2302	0.60	1/3110 (0.0%)
All	All	0.30	6/157852 (0.0%)	0.54	32/213282 (0.0%)

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
16	AE	0	1
16	BE	0	1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	#Chirality outliers	#Planarity outliers
18	AC	0	1
18	BC	0	1
23	AK	0	1
23	BK	0	1
9	Ac	0	1
9	Bc	0	1
All	All	0	8

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	Aa	145	LEU	C-N	11.88	1.56	1.34
7	Ba	145	LEU	C-N	11.88	1.56	1.34
12	Af	840	LEU	C-N	6.42	1.46	1.34
12	Bf	840	LEU	C-N	6.42	1.46	1.34
12	Af	340	MET	C-N	-5.33	1.21	1.34
12	Bf	340	MET	C-N	-5.33	1.21	1.34

All (32) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	BF	150	LEU	CB-CG-CD2	8.79	125.95	111.00
17	AF	150	LEU	CB-CG-CD2	8.76	125.90	111.00
17	BF	204	LEU	CA-CB-CG	6.02	129.15	115.30
17	AF	204	LEU	CA-CB-CG	6.02	129.15	115.30
12	Af	618	GLU	N-CA-C	6.00	127.21	111.00
12	Bf	618	GLU	N-CA-C	6.00	127.19	111.00
18	AC	217	SER	C-N-CA	5.96	136.61	121.70
18	BC	217	SER	C-N-CA	5.96	136.61	121.70
12	Af	266	LEU	CA-CB-CG	5.62	128.22	115.30
12	Bf	266	LEU	CA-CB-CG	5.61	128.21	115.30
3	BW	40	LEU	CA-CB-CG	5.53	128.01	115.30
3	AW	40	LEU	CA-CB-CG	5.52	127.99	115.30
5	AY	63	TRP	C-N-CA	5.52	135.50	121.70
5	BY	63	TRP	C-N-CA	5.52	135.50	121.70
3	BW	92	LYS	C-N-CA	5.46	135.35	121.70
3	AW	92	LYS	C-N-CA	5.44	135.31	121.70
12	Bf	795	GLY	N-CA-C	5.44	126.70	113.10
12	Af	795	GLY	N-CA-C	5.43	126.68	113.10
5	AY	287	LEU	CA-CB-CG	5.41	127.74	115.30
5	BY	287	LEU	CA-CB-CG	5.40	127.71	115.30
9	Ac	243	SER	C-N-CA	5.34	135.04	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	BW	135	LYS	C-N-CA	5.33	135.03	121.70
3	AW	135	LYS	C-N-CA	5.33	135.01	121.70
9	Bc	243	SER	C-N-CA	5.31	134.97	121.70
29	AQ	140	LEU	CA-CB-CG	5.18	127.21	115.30
29	BQ	140	LEU	CA-CB-CG	5.16	127.18	115.30
13	BA	91	GLN	C-N-CD	5.15	139.22	128.40
13	AA	91	GLN	C-N-CD	5.15	139.21	128.40
15	AD	373	ALA	C-N-CA	5.05	134.34	121.70
15	BD	373	ALA	C-N-CA	5.05	134.32	121.70
18	AC	338	LEU	CA-CB-CG	5.01	126.83	115.30
18	BC	338	LEU	CA-CB-CG	5.01	126.82	115.30

There are no chirality outliers.

All (8) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
18	AC	171	HIS	Peptide
16	AE	175	PRO	Peptide
23	AK	232	GLU	Peptide
9	Ac	243	SER	Peptide
18	BC	171	HIS	Peptide
16	BE	175	PRO	Peptide
23	BK	232	GLU	Peptide
9	Bc	243	SER	Peptide

## 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	AU	6287	0	6338	172	0
1	BU	6287	0	6338	171	0
2	AV	3852	0	3893	161	0
2	BV	3852	0	3893	158	0
3	AW	3703	0	3822	150	0
3	BW	3703	0	3822	150	0
4	AX	3009	0	3113	87	0
4	BX	3009	0	3113	87	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	AY	3115	0	3120	107	0
5	BY	3115	0	3120	112	0
6	AZ	2281	0	2312	97	0
6	BZ	2281	0	2312	94	0
7	Aa	2995	0	3012	0	0
7	Ba	2995	0	3012	0	0
8	Ab	1458	0	1505	0	0
8	Bb	1458	0	1505	0	0
9	Ac	2260	0	2276	0	0
9	Bc	2260	0	2276	0	0
10	Ad	2116	0	2146	0	0
10	Bd	2116	0	2146	0	0
11	Ae	334	0	294	0	0
11	Be	334	0	294	0	0
12	Af	5331	0	5343	0	0
12	Bf	5331	0	5343	0	0
13	AA	2835	0	2879	187	0
13	BA	2835	0	2879	192	0
14	AB	2662	0	2702	212	0
14	BB	2662	0	2702	211	0
15	AD	3040	0	3074	217	0
15	BD	3040	0	3074	212	0
16	AE	2790	0	2846	187	0
16	BE	2790	0	2846	186	0
17	AF	2863	0	2931	213	0
17	BF	2863	0	2931	220	0
18	AC	3015	0	3125	262	0
18	BC	3015	0	3125	261	0
19	AG	1826	0	1796	69	0
19	BG	1826	0	1796	70	0
20	AH	1708	0	1594	81	0
20	BH	1708	0	1594	80	0
21	AI	1912	0	1851	81	0
21	BI	1912	0	1851	84	0
22	AJ	1704	0	1517	64	0
22	BJ	1704	0	1517	65	0
23	AK	1722	0	1673	79	0
23	BK	1722	0	1673	78	0
24	AL	1850	0	1822	80	0
24	BL	1850	0	1822	80	0
25	AM	1856	0	1814	82	0
25	BM	1856	0	1814	80	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	AN	1430	0	1391	99	0
26	BN	1430	0	1392	107	0
27	AO	1643	0	1643	178	0
27	BO	1643	0	1643	179	0
28	AP	1585	0	1594	146	0
28	BP	1585	0	1594	143	0
29	AQ	1570	0	1540	141	0
29	BQ	1570	0	1540	135	0
30	AR	1548	0	1490	127	0
30	BR	1548	0	1490	130	0
31	AS	1641	0	1613	219	0
31	BS	1641	0	1613	222	0
32	AT	1667	0	1626	85	0
32	BT	1667	0	1626	78	0
33	Ac	1	0	0	0	0
33	Bc	1	0	0	0	0
34	AA	31	0	12	2	0
34	AD	31	0	12	2	0
34	AE	31	0	12	9	0
34	AF	31	0	12	2	0
34	BA	31	0	12	2	0
34	BD	31	0	12	2	0
34	BE	31	0	12	9	0
34	BF	31	0	12	2	0
35	AB	27	0	12	7	0
35	AC	27	0	12	3	0
35	BB	27	0	12	7	0
35	BC	27	0	12	4	0
All	All	155574	0	155535	5748	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 23.

All (5748) 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)
31:AS:185:ARG:HA	27:BO:26:VAL:CG2	1.29	1.61
26:AN:138:TYR:CA	26:BN:138:TYR:HB2	1.23	1.59
27:AO:26:VAL:CG2	31:BS:185:ARG:HA	1.33	1.58
31:AS:180:ILE:CG2	27:BO:195:LYS:CE	1.75	1.58
26:AN:138:TYR:HB2	26:BN:138:TYR:CA	1.22	1.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AS:33:PHE:CD1	27:BO:167:LEU:HD12	1.40	1.56
28:AP:147:TYR:CE1	31:BS:185:ARG:CZ	1.88	1.56
31:AS:185:ARG:CZ	28:BP:147:TYR:CE1	1.89	1.55
27:AO:195:LYS:CE	31:BS:180:ILE:CG2	1.75	1.55
27:AO:167:LEU:HD12	31:BS:33:PHE:CD1	1.41	1.53
28:AP:147:TYR:CD1	31:BS:185:ARG:CZ	1.91	1.51
31:AS:185:ARG:CZ	28:BP:147:TYR:CD1	1.94	1.50
26:AN:134:TYR:CE2	32:BT:33:LEU:HD13	1.47	1.49
32:AT:33:LEU:HD13	26:BN:134:TYR:CE2	1.47	1.48
31:AS:159:GLN:HE21	27:BO:209:THR:C	1.17	1.43
27:AO:209:THR:C	31:BS:159:GLN:HE21	1.20	1.40
28:AP:177:ARG:CD	30:BR:26:ILE:O	1.69	1.40
30:AR:26:ILE:O	28:BP:177:ARG:CD	1.70	1.39
31:AS:180:ILE:CG2	27:BO:195:LYS:HE3	1.39	1.38
27:AO:199:LEU:HD21	31:BS:176:LYS:N	1.05	1.37
27:AO:195:LYS:HE3	31:BS:180:ILE:CG2	1.39	1.37
28:AP:32:ALA:HB2	30:BR:169:TYR:CE2	1.59	1.34
30:AR:169:TYR:CE2	28:BP:32:ALA:HB2	1.60	1.34
31:AS:173:ARG:HB2	27:BO:199:LEU:O	1.26	1.34
31:AS:176:LYS:N	27:BO:199:LEU:CD2	1.91	1.34
31:AS:176:LYS:N	27:BO:199:LEU:HD21	1.05	1.33
31:AS:33:PHE:CG	27:BO:167:LEU:HD12	1.37	1.33
28:AP:177:ARG:NH1	30:BR:27:ALA:O	1.60	1.33
27:AO:199:LEU:CD2	31:BS:176:LYS:N	1.90	1.32
31:AS:181:SER:HA	27:BO:195:LYS:NZ	1.45	1.32
29:AQ:166:GLU:OE1	30:BR:140:ASP:HB3	1.29	1.31
30:AR:27:ALA:O	28:BP:177:ARG:NH1	1.59	1.31
31:AS:185:ARG:CA	27:BO:26:VAL:CG2	2.07	1.31
6:AZ:261:TYR:O	6:AZ:265:LEU:HD13	1.20	1.31
29:AQ:166:GLU:OE1	30:BR:140:ASP:CB	1.79	1.30
30:AR:140:ASP:CB	29:BQ:166:GLU:OE1	1.79	1.30
31:AS:185:ARG:NE	28:BP:147:TYR:CD1	1.99	1.30
27:AO:195:LYS:NZ	31:BS:181:SER:HA	1.46	1.29
28:AP:147:TYR:CD1	31:BS:185:ARG:NE	1.98	1.29
6:BZ:261:TYR:O	6:BZ:265:LEU:HD13	1.19	1.29
27:AO:199:LEU:O	31:BS:173:ARG:HB2	1.29	1.29
31:AS:185:ARG:CA	27:BO:26:VAL:HG23	1.62	1.29
27:AO:167:LEU:HD12	31:BS:33:PHE:CG	1.35	1.28
27:AO:195:LYS:CE	31:BS:180:ILE:HG22	0.80	1.28
3:AW:136:ILE:CG1	15:AD:392:TYR:HD1	1.45	1.28
29:AQ:169:LYS:NZ	30:BR:136:TYR:CD1	2.01	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AS:180:ILE:HG22	27:BO:195:LYS:CE	0.79	1.27
27:AO:26:VAL:CG2	31:BS:185:ARG:CA	2.11	1.27
28:AP:177:ARG:HD2	30:BR:26:ILE:O	1.13	1.27
30:AR:136:TYR:CD1	29:BQ:169:LYS:NZ	2.02	1.26
14:BB:103:ARG:O	14:BB:107:MET:HE2	1.31	1.26
3:BW:136:ILE:CG1	15:BD:392:TYR:HD1	1.45	1.26
30:AR:134:TYR:CE1	29:BQ:137:PHE:CB	2.18	1.25
30:AR:26:ILE:O	28:BP:177:ARG:HD2	1.14	1.25
3:BW:136:ILE:HG12	15:BD:392:TYR:CD1	1.70	1.24
30:AR:24:ALA:O	28:BP:178:ASP:OD1	1.56	1.24
31:AS:159:GLN:NE2	27:BO:210:ALA:N	1.83	1.24
3:AW:136:ILE:HG12	15:AD:392:TYR:CD1	1.70	1.24
27:AO:26:VAL:HG23	31:BS:185:ARG:CA	1.65	1.24
27:AO:210:ALA:N	31:BS:159:GLN:NE2	1.85	1.24
30:AR:26:ILE:HD13	28:BP:176:ASP:C	1.56	1.24
26:AN:138:TYR:CB	26:BN:138:TYR:CA	2.16	1.24
30:AR:140:ASP:HB3	29:BQ:166:GLU:OE1	1.28	1.24
6:AZ:261:TYR:O	6:AZ:265:LEU:CD1	1.86	1.23
14:AB:103:ARG:O	14:AB:107:MET:HE2	1.34	1.23
28:AP:176:ASP:C	30:BR:26:ILE:HD13	1.55	1.23
28:AP:147:TYR:CE1	31:BS:185:ARG:NH2	2.07	1.23
6:BZ:261:TYR:O	6:BZ:265:LEU:CD1	1.86	1.23
26:AN:138:TYR:CA	26:BN:138:TYR:CB	2.16	1.21
31:AS:181:SER:CA	27:BO:195:LYS:HZ2	1.54	1.21
31:AS:157:ASN:HD22	28:BP:173:ASN:N	1.36	1.21
31:AS:185:ARG:NH2	28:BP:147:TYR:CE1	2.07	1.20
31:AS:176:LYS:CA	27:BO:199:LEU:HD21	1.69	1.20
28:AP:178:ASP:OD1	30:BR:24:ALA:O	1.56	1.20
28:AP:173:ASN:N	31:BS:157:ASN:HD22	1.40	1.20
27:AO:199:LEU:HD21	31:BS:176:LYS:CA	1.66	1.20
31:AS:144:MET:CE	28:BP:147:TYR:CB	2.19	1.19
30:AR:166:ARG:NH2	28:BP:35:VAL:HG23	1.57	1.19
31:AS:144:MET:HE1	28:BP:147:TYR:HB3	1.24	1.19
29:AQ:137:PHE:CB	30:BR:134:TYR:CE1	2.17	1.18
28:AP:147:TYR:CB	31:BS:144:MET:CE	2.22	1.18
27:AO:26:VAL:HG23	31:BS:185:ARG:C	1.64	1.18
31:AS:185:ARG:C	27:BO:26:VAL:HG23	1.62	1.18
27:AO:195:LYS:NZ	31:BS:181:SER:CA	2.08	1.17
14:BB:100:ASP:HA	14:BB:103:ARG:NH1	1.59	1.17
26:AN:138:TYR:HB2	26:BN:138:TYR:CB	1.75	1.17
31:AS:159:GLN:NE2	27:BO:209:THR:C	1.96	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AN:138:TYR:CB	26:BN:138:TYR:HB2	1.75	1.16
29:AQ:165:GLU:HB2	30:BR:141:ARG:NH2	1.61	1.16
31:AS:185:ARG:NH1	28:BP:147:TYR:CE1	2.14	1.16
14:AB:100:ASP:HA	14:AB:103:ARG:NH1	1.59	1.16
16:BE:181:THR:O	16:BE:185:ARG:HB2	1.46	1.15
27:AO:209:THR:C	31:BS:159:GLN:NE2	2.00	1.15
28:AP:147:TYR:CE1	31:BS:185:ARG:NH1	2.11	1.15
31:AS:180:ILE:CG2	27:BO:195:LYS:HE2	1.53	1.15
29:AQ:137:PHE:CA	30:BR:134:TYR:HE1	1.59	1.15
27:AO:140:ASP:OD2	32:BT:171:ARG:NH2	1.79	1.15
29:AQ:173:LEU:HA	29:BQ:172:ILE:O	0.98	1.15
29:AQ:173:LEU:CA	29:BQ:172:ILE:O	1.94	1.15
26:AN:138:TYR:HA	26:BN:138:TYR:CB	1.75	1.15
31:AS:181:SER:CA	27:BO:195:LYS:NZ	2.06	1.14
29:AQ:172:ILE:O	29:BQ:173:LEU:HA	1.00	1.14
26:AN:26:ILE:HG21	32:BT:178:TYR:O	1.46	1.14
30:AR:141:ARG:NH2	29:BQ:165:GLU:HB2	1.62	1.14
29:AQ:172:ILE:O	29:BQ:173:LEU:CA	1.96	1.14
32:AT:171:ARG:NH2	27:BO:140:ASP:OD2	1.79	1.14
29:AQ:137:PHE:HB3	30:BR:134:TYR:CE1	1.83	1.14
28:AP:35:VAL:HG23	30:BR:166:ARG:NH2	1.60	1.13
30:AR:134:TYR:HE1	29:BQ:137:PHE:CA	1.62	1.13
26:AN:138:TYR:CB	26:BN:138:TYR:HA	1.74	1.13
26:AN:138:TYR:N	26:BN:138:TYR:HB2	1.63	1.13
16:AE:181:THR:O	16:AE:185:ARG:HB2	1.46	1.13
31:AS:185:ARG:O	27:BO:26:VAL:HG23	1.45	1.13
27:AO:195:LYS:HZ2	31:BS:181:SER:CA	1.59	1.13
29:AQ:162:LYS:HA	30:BR:141:ARG:CZ	1.78	1.13
16:AE:367:PHE:O	16:AE:371:VAL:HB	1.49	1.12
32:AT:178:TYR:O	26:BN:26:ILE:HG21	1.48	1.12
27:AO:26:VAL:HG23	31:BS:185:ARG:O	1.45	1.12
26:AN:134:TYR:OH	32:BT:33:LEU:HD22	1.52	1.10
30:AR:26:ILE:HG22	28:BP:177:ARG:HD3	1.16	1.10
27:AO:26:VAL:HG21	31:BS:185:ARG:HA	1.15	1.10
31:AS:185:ARG:HD3	27:BO:26:VAL:HB	1.24	1.10
30:AR:26:ILE:CD1	28:BP:177:ARG:N	2.14	1.10
32:AT:33:LEU:HD22	26:BN:134:TYR:CZ	1.86	1.10
31:AS:185:ARG:HA	27:BO:26:VAL:HG21	1.12	1.10
28:AP:177:ARG:N	30:BR:26:ILE:CD1	2.14	1.10
30:AR:134:TYR:CE1	29:BQ:137:PHE:HB3	1.84	1.10
29:AQ:137:PHE:HA	30:BR:134:TYR:CE1	1.86	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BE:367:PHE:O	16:BE:371:VAL:HB	1.49	1.09
26:AN:138:TYR:HA	26:BN:138:TYR:HB2	1.11	1.09
28:AP:176:ASP:OD2	31:BS:157:ASN:OD1	1.70	1.09
30:AR:134:TYR:CE1	29:BQ:137:PHE:HA	1.88	1.09
26:AN:138:TYR:HB2	26:BN:138:TYR:N	1.65	1.08
4:BX:122:ARG:HH21	20:BH:185:GLU:HG2	1.13	1.08
26:AN:134:TYR:CZ	32:BT:33:LEU:HD22	1.87	1.08
28:AP:144:GLU:O	31:BS:144:MET:HA	1.53	1.08
13:BA:414:ASN:O	13:BA:418:LYS:HB2	1.53	1.08
13:AA:414:ASN:O	13:AA:418:LYS:HB2	1.53	1.08
28:AP:147:TYR:CD1	31:BS:185:ARG:NH2	2.20	1.08
31:AS:157:ASN:OD1	28:BP:176:ASP:OD2	1.70	1.07
31:AS:157:ASN:ND2	28:BP:173:ASN:N	2.00	1.07
27:AO:199:LEU:HD22	31:BS:174:LEU:O	1.53	1.07
30:AR:141:ARG:HH22	29:BQ:165:GLU:HB2	1.16	1.07
18:BC:346:LYS:O	18:BC:350:LEU:HD13	1.55	1.07
29:AQ:137:PHE:CB	30:BR:134:TYR:HE1	1.50	1.07
31:AS:174:LEU:O	27:BO:199:LEU:HD22	1.51	1.07
31:AS:176:LYS:HB2	27:BO:199:LEU:HG	1.09	1.07
31:AS:144:MET:HA	28:BP:144:GLU:O	1.51	1.06
31:AS:33:PHE:CD1	27:BO:167:LEU:CD1	2.14	1.06
28:AP:177:ARG:HD3	30:BR:26:ILE:HG22	1.18	1.06
4:AX:122:ARG:HH21	20:AH:185:GLU:HG2	1.13	1.06
32:AT:33:LEU:HD22	26:BN:134:TYR:OH	1.53	1.06
27:AO:26:VAL:HB	31:BS:185:ARG:HD3	1.27	1.05
30:AR:141:ARG:CZ	29:BQ:162:LYS:HA	1.79	1.05
14:AB:103:ARG:CD	14:AB:107:MET:CE	2.35	1.05
3:BW:136:ILE:CG1	15:BD:392:TYR:CD1	2.33	1.05
27:AO:195:LYS:HE2	31:BS:180:ILE:CG2	1.53	1.05
17:AF:97:LEU:HD13	17:AF:120:LYS:HE2	1.37	1.05
26:AN:138:TYR:HB2	26:BN:138:TYR:HA	1.08	1.05
28:AP:173:ASN:N	31:BS:157:ASN:ND2	2.04	1.05
31:AS:175:VAL:C	27:BO:199:LEU:HD21	1.77	1.05
18:AC:346:LYS:O	18:AC:350:LEU:HD13	1.55	1.04
31:AS:180:ILE:HG23	27:BO:195:LYS:HG3	1.36	1.04
14:BB:103:ARG:CD	14:BB:107:MET:CE	2.35	1.04
31:AS:157:ASN:HD22	28:BP:173:ASN:CA	1.70	1.04
28:AP:147:TYR:HB3	31:BS:144:MET:HE1	1.35	1.04
30:AR:169:TYR:CE2	28:BP:32:ALA:CB	2.41	1.04
31:AS:144:MET:HA	28:BP:144:GLU:C	1.77	1.04
13:AA:90:GLU:HG2	13:AA:94:GLN:HE22	1.22	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AN:138:TYR:HA	26:BN:138:TYR:CD1	1.92	1.03
3:AW:136:ILE:CG1	15:AD:392:TYR:CD1	2.33	1.03
28:AP:32:ALA:CB	30:BR:169:TYR:CE2	2.39	1.03
27:AO:199:LEU:HG	31:BS:176:LYS:HB2	1.09	1.03
30:AR:134:TYR:CE1	29:BQ:137:PHE:CA	2.40	1.03
13:BA:90:GLU:HG2	13:BA:94:GLN:HE22	1.22	1.03
29:AQ:137:PHE:CA	30:BR:134:TYR:CE1	2.38	1.03
6:BZ:261:TYR:C	6:BZ:265:LEU:HD13	1.79	1.03
27:AO:195:LYS:HD2	31:BS:184:GLU:CG	1.89	1.03
31:AS:157:ASN:ND2	28:BP:172:LEU:C	2.12	1.03
28:AP:147:TYR:HD1	31:BS:185:ARG:NE	1.43	1.02
14:AB:103:ARG:HG3	14:AB:160:ILE:HG21	1.04	1.02
17:BF:84:LYS:HA	17:BF:161:LEU:HD22	1.40	1.02
3:BW:141:GLU:OE2	15:BD:392:TYR:CE1	2.12	1.02
31:AS:184:GLU:CG	27:BO:195:LYS:HD2	1.90	1.02
27:AO:167:LEU:CD1	31:BS:33:PHE:CD1	2.15	1.02
3:BW:136:ILE:HG12	15:BD:392:TYR:HD1	1.08	1.02
31:AS:185:ARG:HA	27:BO:26:VAL:HG23	1.18	1.02
3:AW:141:GLU:OE2	15:AD:392:TYR:CE1	2.12	1.02
6:AZ:261:TYR:C	6:AZ:265:LEU:HD13	1.79	1.02
17:AF:97:LEU:HD13	17:AF:120:LYS:CE	1.91	1.01
31:AS:176:LYS:CB	27:BO:199:LEU:HG	1.90	1.01
31:AS:185:ARG:NE	28:BP:147:TYR:HD1	1.45	1.01
14:BB:100:ASP:CB	14:BB:103:ARG:HH12	1.73	1.01
18:BC:66:LEU:HG	18:BC:70:GLY:HA2	1.39	1.01
27:AO:199:LEU:HG	31:BS:176:LYS:CB	1.90	1.01
26:AN:138:TYR:CD1	26:BN:138:TYR:HA	1.95	1.01
31:AS:177:ASP:OD2	27:BO:200:GLY:N	1.93	1.01
14:BB:103:ARG:HG3	14:BB:160:ILE:HG21	1.04	1.01
31:AS:173:ARG:C	27:BO:199:LEU:HD23	1.78	1.01
26:AN:134:TYR:CE2	32:BT:33:LEU:CD1	2.43	1.00
17:BF:97:LEU:HD13	17:BF:120:LYS:HE2	1.37	1.00
27:AO:199:LEU:HD21	31:BS:175:VAL:C	1.79	1.00
17:BF:97:LEU:HD13	17:BF:120:LYS:CE	1.91	1.00
32:AT:33:LEU:CD1	26:BN:134:TYR:CE2	2.43	1.00
14:AB:100:ASP:CB	14:AB:103:ARG:HH12	1.73	1.00
14:AB:100:ASP:HA	14:AB:103:ARG:CZ	1.92	1.00
28:AP:173:ASN:CA	31:BS:157:ASN:HD22	1.73	1.00
29:AQ:169:LYS:NZ	30:BR:136:TYR:CE1	2.29	1.00
27:AO:200:GLY:N	31:BS:177:ASP:OD2	1.92	1.00
28:AP:144:GLU:C	31:BS:144:MET:HA	1.78	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AO:199:LEU:CG	31:BS:176:LYS:HB2	1.92	1.00
18:AC:70:GLY:O	18:AC:118:ASN:ND2	1.95	1.00
18:BC:133:PRO:O	18:BC:137:LEU:HB2	1.61	1.00
13:AA:90:GLU:O	13:AA:94:GLN:NE2	1.95	1.00
31:AS:159:GLN:HE21	27:BO:210:ALA:N	1.50	1.00
5:BY:177:ARG:HH12	18:BC:337:ASN:HD21	1.08	1.00
18:BC:136:SER:O	18:BC:140:VAL:HB	1.62	0.99
17:AF:84:LYS:HA	17:AF:161:LEU:HD22	1.40	0.99
13:BA:90:GLU:O	13:BA:94:GLN:NE2	1.95	0.99
18:AC:133:PRO:O	18:AC:137:LEU:HB2	1.61	0.99
27:AO:199:LEU:HD23	31:BS:173:ARG:C	1.79	0.99
28:AP:172:LEU:C	31:BS:157:ASN:ND2	2.14	0.99
31:AS:180:ILE:HG22	27:BO:195:LYS:CD	1.93	0.99
30:AR:26:ILE:HD13	28:BP:177:ARG:N	1.72	0.99
27:AO:210:ALA:N	31:BS:159:GLN:HE21	1.51	0.99
16:AE:50:LEU:HD11	17:AF:138:GLY:HA2	1.43	0.99
16:BE:50:LEU:HD11	17:BF:138:GLY:HA2	1.44	0.99
18:AC:66:LEU:HG	18:AC:70:GLY:HA2	1.39	0.99
18:BC:70:GLY:O	18:BC:118:ASN:ND2	1.95	0.99
23:AK:101:PHE:CE1	30:AR:61:ARG:HB2	1.97	0.99
31:AS:176:LYS:HB2	27:BO:199:LEU:CG	1.92	0.99
31:AS:185:ARG:NH2	28:BP:147:TYR:CD1	2.22	0.99
31:AS:185:ARG:CA	27:BO:26:VAL:HG21	1.81	0.98
27:AO:195:LYS:HZ2	31:BS:181:SER:HA	0.82	0.98
27:AO:195:LYS:HG3	31:BS:180:ILE:HG23	1.40	0.98
26:AN:138:TYR:CB	26:BN:138:TYR:CB	2.31	0.98
30:AR:140:ASP:HB2	29:BQ:166:GLU:OE1	1.62	0.98
18:AC:136:SER:O	18:AC:140:VAL:HB	1.62	0.98
14:BB:100:ASP:HA	14:BB:103:ARG:CZ	1.92	0.98
29:AQ:169:LYS:HE3	30:BR:136:TYR:HD1	1.24	0.98
23:BK:101:PHE:CE1	30:BR:61:ARG:HB2	1.97	0.98
30:AR:136:TYR:CE1	29:BQ:169:LYS:NZ	2.30	0.98
27:AO:26:VAL:HG23	31:BS:185:ARG:HA	1.20	0.98
30:AR:136:TYR:HD1	29:BQ:169:LYS:HE3	1.27	0.97
30:AR:166:ARG:NH2	28:BP:35:VAL:CG2	2.20	0.97
27:AO:26:VAL:HG21	31:BS:184:GLU:O	1.64	0.97
5:BY:174:TRP:N	18:BC:334:ARG:O	1.97	0.97
30:AR:26:ILE:O	28:BP:177:ARG:CG	2.13	0.97
15:BD:114:ARG:NH2	18:BC:62:GLU:HG2	1.79	0.97
15:AD:114:ARG:NH2	18:AC:62:GLU:HG2	1.79	0.96
5:AY:174:TRP:N	18:AC:334:ARG:O	1.97	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AQ:166:GLU:OE1	30:BR:140:ASP:HB2	1.61	0.96
31:AS:144:MET:HE1	28:BP:147:TYR:CB	1.79	0.96
31:AS:33:PHE:HD1	27:BO:167:LEU:CD1	1.65	0.96
27:AO:26:VAL:HG21	31:BS:185:ARG:CA	1.84	0.96
31:AS:180:ILE:CG2	27:BO:195:LYS:CG	2.43	0.96
27:AO:193:ASN:ND2	31:BS:213:ASP:OD1	1.85	0.96
27:AO:24:MET:CE	31:BS:187:VAL:HG23	1.96	0.96
32:AT:178:TYR:CD1	27:BO:139:GLU:OE2	2.19	0.96
16:BE:85:ARG:CZ	18:BC:47:ALA:HA	43.52	0.96
27:AO:139:GLU:OE2	32:BT:178:TYR:CD1	2.18	0.96
27:AO:165:ASN:ND2	32:BT:148:PRO:HB3	1.81	0.96
31:AS:173:ARG:CB	27:BO:199:LEU:O	2.14	0.96
16:AE:85:ARG:CZ	18:AC:47:ALA:HA	43.52	0.96
29:AQ:162:LYS:CA	30:BR:141:ARG:CZ	2.43	0.95
30:AR:166:ARG:HH21	28:BP:35:VAL:HG23	1.23	0.95
29:AQ:170:ARG:NH1	29:BQ:22:ALA:HA	1.81	0.95
18:BC:217:SER:HB3	18:BC:218:GLU:HB3	1.46	0.95
30:AR:141:ARG:CZ	29:BQ:162:LYS:CA	2.43	0.95
17:AF:86:LEU:O	17:AF:154:ASN:OD1	1.85	0.95
31:AS:181:SER:HA	27:BO:195:LYS:HZ2	0.78	0.95
31:AS:184:GLU:O	27:BO:26:VAL:HG21	1.64	0.95
31:AS:174:LEU:C	27:BO:199:LEU:HD22	1.86	0.95
29:AQ:165:GLU:HB2	30:BR:141:ARG:HH22	1.15	0.95
26:AN:138:TYR:HA	26:BN:138:TYR:CG	2.02	0.95
16:AE:85:ARG:NH1	18:AC:47:ALA:HA	43.93	0.95
29:AQ:169:LYS:CE	30:BR:136:TYR:CD1	2.49	0.95
27:AO:24:MET:HE1	31:BS:187:VAL:HG23	1.48	0.94
28:AP:177:ARG:CG	30:BR:26:ILE:O	2.14	0.94
31:AS:180:ILE:C	27:BO:195:LYS:HE3	1.87	0.94
16:BE:85:ARG:NH1	18:BC:47:ALA:HA	43.93	0.94
31:AS:213:ASP:OD1	27:BO:193:ASN:ND2	1.82	0.94
31:AS:157:ASN:ND2	28:BP:173:ASN:CA	2.29	0.94
14:AB:103:ARG:HD2	14:AB:107:MET:HE2	1.48	0.94
18:AC:217:SER:HB3	18:AC:218:GLU:HB3	1.46	0.94
13:BA:416:VAL:O	13:BA:420:TYR:HB2	1.68	0.94
27:AO:195:LYS:CD	31:BS:180:ILE:HG22	1.96	0.94
27:AO:24:MET:CE	31:BS:187:VAL:CG2	2.46	0.94
23:AK:101:PHE:HE1	30:AR:61:ARG:HB2	1.32	0.94
31:AS:157:ASN:ND2	28:BP:173:ASN:HA	1.82	0.94
18:BC:346:LYS:O	18:BC:350:LEU:CD1	2.16	0.94
28:AP:35:VAL:CG2	30:BR:166:ARG:NH2	2.22	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AA:416:VAL:O	13:AA:420:TYR:HB2	1.68	0.93
26:AN:138:TYR:CG	26:BN:138:TYR:HA	2.02	0.93
32:AT:148:PRO:HB3	27:BO:165:ASN:ND2	1.83	0.93
31:AS:33:PHE:CD1	27:BO:167:LEU:HB2	2.02	0.93
28:AP:147:TYR:HB2	31:BS:144:MET:SD	2.09	0.93
31:AS:144:MET:SD	28:BP:147:TYR:HB2	2.07	0.93
17:BF:86:LEU:O	17:BF:154:ASN:OD1	1.85	0.93
30:AR:133:VAL:HG23	29:BQ:137:PHE:HB3	1.50	0.93
18:BC:69:GLN:OE1	18:BC:118:ASN:O	1.86	0.93
18:AC:346:LYS:O	18:AC:350:LEU:CD1	2.16	0.93
27:AO:167:LEU:HB2	31:BS:33:PHE:CD1	2.03	0.93
28:AP:173:ASN:HA	31:BS:157:ASN:ND2	1.84	0.93
14:AB:103:ARG:CD	14:AB:107:MET:HE2	1.98	0.93
31:AS:185:ARG:CD	27:BO:26:VAL:HB	1.98	0.93
29:AQ:22:ALA:HA	29:BQ:170:ARG:NH1	1.84	0.93
27:AO:26:VAL:CG2	31:BS:185:ARG:O	2.16	0.93
1:AU:517:GLY:O	1:AU:554:LEU:HD22	1.69	0.93
31:AS:187:VAL:HG23	27:BO:24:MET:CE	1.99	0.93
27:AO:199:LEU:HD22	31:BS:174:LEU:C	1.89	0.93
30:AR:169:TYR:HE2	28:BP:32:ALA:CB	1.81	0.92
31:AS:185:ARG:O	27:BO:26:VAL:CG2	2.15	0.92
3:BW:135:LYS:HA	15:BD:392:TYR:HB2	1.51	0.92
30:AR:26:ILE:CG2	28:BP:177:ARG:HD3	1.99	0.92
27:AO:195:LYS:HE3	31:BS:180:ILE:C	1.89	0.92
28:AP:147:TYR:HE1	31:BS:185:ARG:CZ	1.57	0.92
27:AO:199:LEU:O	31:BS:173:ARG:CB	2.17	0.92
1:BU:517:GLY:O	1:BU:554:LEU:HD22	1.69	0.92
18:AC:69:GLN:OE1	18:AC:118:ASN:O	1.86	0.92
17:AF:176:GLU:HG3	17:AF:250:LYS:HB2	1.50	0.92
4:AX:122:ARG:NH2	20:AH:185:GLU:HG2	1.85	0.92
27:AO:167:LEU:CD1	31:BS:33:PHE:HD1	1.67	0.92
5:AY:177:ARG:HH12	18:AC:337:ASN:HD21	1.08	0.92
3:AW:136:ILE:HG13	15:AD:392:TYR:HA	1.50	0.92
14:BB:100:ASP:CA	14:BB:103:ARG:NH1	2.33	0.92
14:BB:103:ARG:HD2	14:BB:107:MET:CE	2.00	0.92
30:AR:166:ARG:HH21	28:BP:35:VAL:CG2	1.81	0.91
14:AB:103:ARG:HG3	14:AB:160:ILE:CG2	1.98	0.91
28:AP:35:VAL:HG23	30:BR:166:ARG:HH21	1.25	0.91
30:AR:136:TYR:CD1	29:BQ:169:LYS:CE	2.51	0.91
27:AO:195:LYS:CG	31:BS:180:ILE:CG2	2.46	0.91
29:AQ:166:GLU:OE2	30:BR:140:ASP:C	2.09	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AQ:137:PHE:HB3	30:BR:133:VAL:HG23	1.52	0.91
28:AP:173:ASN:CA	31:BS:157:ASN:ND2	2.32	0.91
31:AS:187:VAL:CG2	27:BO:24:MET:CE	2.48	0.91
30:AR:26:ILE:CD1	28:BP:175:VAL:O	2.18	0.91
27:AO:195:LYS:HE2	31:BS:180:ILE:HG22	0.92	0.91
28:AP:175:VAL:O	30:BR:26:ILE:CD1	2.19	0.91
17:BF:85:THR:HA	17:BF:86:LEU:HD23	1.53	0.91
31:AS:180:ILE:HG22	27:BO:195:LYS:HE2	0.92	0.91
32:AT:33:LEU:HD13	26:BN:134:TYR:HE2	1.27	0.91
3:AW:135:LYS:HA	15:AD:392:TYR:HB2	1.51	0.91
28:AP:32:ALA:CB	30:BR:169:TYR:HE2	1.79	0.90
17:BF:87:PRO:HA	17:BF:154:ASN:OD1	1.71	0.90
4:BX:122:ARG:NH2	20:BH:185:GLU:HG2	1.85	0.90
32:AT:33:LEU:CD1	26:BN:166:ARG:HG3	2.01	0.90
28:AP:173:ASN:ND2	31:BS:151:ASN:ND2	2.18	0.90
31:AS:159:GLN:HE22	27:BO:210:ALA:CA	1.84	0.90
17:BF:97:LEU:HD13	17:BF:120:LYS:CG	2.02	0.90
29:AQ:169:LYS:CE	30:BR:136:TYR:HD1	1.84	0.90
28:AP:144:GLU:O	31:BS:144:MET:CA	2.19	0.90
3:BW:136:ILE:HG13	15:BD:392:TYR:HA	1.50	0.90
17:BF:381:TYR:O	17:BF:385:ALA:HB2	1.71	0.90
26:AN:133:SER:O	26:BN:134:TYR:HA	1.71	0.90
31:AS:185:ARG:CZ	28:BP:147:TYR:HD1	1.66	0.90
28:AP:176:ASP:O	30:BR:26:ILE:HG21	1.70	0.90
26:AN:134:TYR:HE2	32:BT:33:LEU:HD13	1.27	0.90
14:AB:100:ASP:CA	14:AB:103:ARG:NH1	2.33	0.90
31:AS:151:ASN:ND2	28:BP:173:ASN:ND2	2.19	0.90
6:AZ:222:ILE:HG23	6:AZ:223:ASN:HB3	1.54	0.90
17:BF:176:GLU:HG3	17:BF:250:LYS:HB2	1.50	0.90
28:AP:177:ARG:HD3	30:BR:26:ILE:CG2	2.01	0.90
27:AO:26:VAL:HB	31:BS:185:ARG:CD	2.01	0.90
17:AF:97:LEU:CD1	17:AF:120:LYS:HG3	2.01	0.90
17:BF:97:LEU:CD1	17:BF:120:LYS:HG3	2.01	0.90
31:AS:187:VAL:HG23	27:BO:24:MET:HE1	1.50	0.90
26:AN:134:TYR:HD1	26:BN:133:SER:O	1.53	0.89
30:AR:140:ASP:C	29:BQ:166:GLU:OE2	2.09	0.89
6:BZ:222:ILE:HG23	6:BZ:223:ASN:HB3	1.54	0.89
30:AR:134:TYR:HE1	29:BQ:137:PHE:CB	1.50	0.89
15:AD:366:ARG:HG3	15:AD:367:PRO:HD3	1.54	0.89
17:AF:97:LEU:HD13	17:AF:120:LYS:CG	2.02	0.89
31:AS:144:MET:CA	28:BP:144:GLU:O	2.19	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AP:175:VAL:O	30:BR:26:ILE:HD11	1.73	0.89
31:AS:176:LYS:H	27:BO:199:LEU:HD21	1.37	0.89
17:AF:87:PRO:HA	17:AF:154:ASN:OD1	1.71	0.89
31:AS:176:LYS:H	27:BO:199:LEU:CD2	1.85	0.89
28:AP:177:ARG:NH2	31:BS:150:ASP:OD2	2.06	0.89
23:BK:101:PHE:HE1	30:BR:61:ARG:HB2	1.32	0.89
17:AF:381:TYR:O	17:AF:385:ALA:HB2	1.71	0.89
14:BB:103:ARG:CG	14:BB:160:ILE:HG21	1.98	0.89
31:AS:185:ARG:CZ	28:BP:147:TYR:HE1	1.57	0.89
31:AS:150:ASP:OD2	28:BP:177:ARG:NH2	2.05	0.89
27:AO:210:ALA:CA	31:BS:159:GLN:HE22	1.86	0.89
30:AR:136:TYR:HD1	29:BQ:169:LYS:CE	1.86	0.89
31:AS:174:LEU:C	27:BO:199:LEU:CD2	2.40	0.88
30:AR:26:ILE:HG21	28:BP:176:ASP:O	1.72	0.88
30:AR:26:ILE:HD11	28:BP:175:VAL:O	1.72	0.88
28:AP:147:TYR:HE1	31:BS:185:ARG:NH2	1.57	0.88
31:AS:174:LEU:HA	27:BO:202:TYR:OH	1.74	0.88
28:AP:149:MET:SD	31:BS:148:LEU:HB2	2.12	0.88
20:AH:167:TYR:O	20:AH:171:LYS:HB2	1.74	0.88
16:AE:54:GLY:O	16:AE:102:MET:HE3	1.72	0.88
31:AS:148:LEU:HB2	28:BP:149:MET:SD	2.13	0.88
14:BB:103:ARG:HD2	14:BB:107:MET:HE2	1.55	0.88
30:AR:191:ASN:OD1	28:BP:203:ARG:NH2	2.05	0.88
17:AF:85:THR:HA	17:AF:86:LEU:HD23	1.53	0.88
26:AN:134:TYR:HA	26:BN:133:SER:O	1.73	0.88
28:AP:35:VAL:CG2	30:BR:166:ARG:HH21	1.82	0.88
14:AB:103:ARG:CG	14:AB:160:ILE:HG21	1.98	0.88
31:AS:180:ILE:HG23	27:BO:195:LYS:CG	2.04	0.88
20:BH:167:TYR:O	20:BH:171:LYS:HB2	1.74	0.88
5:BY:179:ARG:NH2	5:BY:212:GLU:OE2	2.07	0.88
14:BB:103:ARG:HG3	14:BB:160:ILE:CG2	1.98	0.87
5:AY:179:ARG:NH2	5:AY:212:GLU:OE2	2.07	0.87
16:BE:54:GLY:O	16:BE:102:MET:HE3	1.75	0.87
14:AB:103:ARG:O	14:AB:107:MET:CE	2.22	0.87
13:AA:229:VAL:HG22	13:AA:237:PHE:HZ	1.39	0.87
26:AN:133:SER:O	26:BN:134:TYR:HD1	1.55	0.87
26:AN:166:ARG:HG3	32:BT:33:LEU:CD1	2.03	0.87
29:AQ:141:SER:OG	30:BR:137:GLY:HA3	1.75	0.87
27:AO:24:MET:HE3	31:BS:187:VAL:CG2	2.04	0.87
28:AP:177:ARG:N	30:BR:26:ILE:HD13	1.74	0.87
27:AO:199:LEU:CD2	31:BS:174:LEU:C	2.43	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AP:176:ASP:C	30:BR:26:ILE:CD1	2.40	0.87
27:AO:195:LYS:HZ1	31:BS:181:SER:CA	1.87	0.87
13:BA:229:VAL:HG22	13:BA:237:PHE:HZ	1.39	0.86
17:BF:97:LEU:HD13	17:BF:120:LYS:HG3	1.57	0.86
30:AR:137:GLY:HA3	29:BQ:141:SER:OG	1.74	0.86
15:AD:269:ALA:HB1	16:AE:255:ARG:HG3	1.57	0.86
31:AS:181:SER:N	27:BO:195:LYS:NZ	2.23	0.86
15:BD:366:ARG:HG3	15:BD:367:PRO:HD3	1.54	0.86
27:AO:140:ASP:CG	32:BT:171:ARG:HH21	1.79	0.86
14:BB:103:ARG:HD3	14:BB:107:MET:CE	2.05	0.86
18:BC:69:GLN:OE1	18:BC:118:ASN:C	2.14	0.86
32:AT:171:ARG:HH21	27:BO:140:ASP:CG	1.79	0.86
27:AO:195:LYS:HB2	31:BS:184:GLU:OE2	1.76	0.86
27:AO:202:TYR:OH	31:BS:174:LEU:HA	1.76	0.86
28:AP:203:ARG:NH2	30:BR:191:ASN:OD1	2.08	0.86
14:AB:103:ARG:HD3	14:AB:107:MET:CE	2.05	0.85
18:BC:69:GLN:HG2	18:BC:118:ASN:HB2	1.58	0.85
31:AS:159:GLN:HE22	27:BO:210:ALA:N	1.70	0.85
14:AB:103:ARG:HD2	14:AB:107:MET:CE	2.00	0.85
31:AS:184:GLU:OE2	27:BO:195:LYS:HB2	1.77	0.85
24:AL:160:SER:O	24:AL:169:ARG:NH2	2.09	0.85
18:AC:69:GLN:OE1	18:AC:118:ASN:C	2.14	0.85
27:AO:24:MET:HE3	31:BS:187:VAL:HG22	1.56	0.85
24:BL:160:SER:O	24:BL:169:ARG:NH2	2.09	0.85
30:AR:169:TYR:HE2	28:BP:32:ALA:HB2	1.03	0.85
18:AC:69:GLN:HG2	18:AC:118:ASN:HB2	1.58	0.85
31:AS:180:ILE:CG2	27:BO:195:LYS:CD	2.53	0.85
27:AO:199:LEU:HB2	31:BS:177:ASP:CB	1.94	0.85
31:AS:187:VAL:HG22	27:BO:24:MET:HE3	1.58	0.85
17:AF:97:LEU:HD13	17:AF:120:LYS:HG3	1.56	0.84
16:BE:186:ALA:O	16:BE:190:GLN:HB2	1.77	0.84
14:BB:103:ARG:O	14:BB:107:MET:CE	2.22	0.84
24:BL:120:THR:O	25:BM:129:ARG:NH1	2.09	0.84
29:AQ:137:PHE:HB3	30:BR:133:VAL:CG2	2.08	0.84
14:BB:103:ARG:CD	14:BB:107:MET:HE2	2.05	0.84
15:BD:269:ALA:HB1	16:BE:255:ARG:HG3	1.57	0.84
13:AA:375:ARG:NH2	23:AK:205:VAL:O	2.10	0.84
2:BV:57:ALA:HB3	2:BV:58:ALA:HB3	1.60	0.84
16:AE:186:ALA:O	16:AE:190:GLN:HB2	1.77	0.84
22:BJ:115:LYS:NZ	22:BJ:129:ILE:O	2.11	0.84
31:AS:187:VAL:CG2	27:BO:24:MET:HE3	2.08	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AO:195:LYS:NZ	31:BS:181:SER:N	2.25	0.84
27:AO:195:LYS:HD2	31:BS:184:GLU:HG2	1.60	0.84
2:AV:57:ALA:HB3	2:AV:58:ALA:HB3	1.60	0.84
16:AE:75:ASN:HD21	17:AF:130:GLN:HA	1.42	0.84
27:AO:195:LYS:CG	31:BS:180:ILE:HG23	2.07	0.84
24:AL:120:THR:O	25:AM:129:ARG:NH1	2.09	0.83
28:AP:144:GLU:C	31:BS:144:MET:CA	2.43	0.83
22:AJ:115:LYS:NZ	22:AJ:129:ILE:O	2.11	0.83
31:AS:177:ASP:CB	27:BO:199:LEU:HB2	1.96	0.83
31:AS:181:SER:CA	27:BO:195:LYS:HZ1	1.89	0.83
2:AV:153:LYS:O	2:AV:157:THR:HG23	1.79	0.83
30:AR:26:ILE:CD1	28:BP:176:ASP:C	2.42	0.83
2:BV:153:LYS:O	2:BV:157:THR:HG23	1.79	0.83
3:BW:40:LEU:HB2	3:BW:41:GLN:HA	1.60	0.83
17:AF:191:LEU:HG	17:AF:194:GLN:HE21	1.42	0.83
24:AL:121:GLN:HG3	25:AM:129:ARG:HG2	1.58	0.83
2:BV:321:ALA:HB1	2:BV:322:VAL:HB	1.59	0.83
30:AR:133:VAL:CG2	29:BQ:137:PHE:HB3	2.07	0.83
18:BC:69:GLN:OE1	18:BC:118:ASN:HB2	1.78	0.83
31:AS:38:ARG:NH2	27:BO:164:PHE:O	2.10	0.83
16:AE:266:GLY:HA2	16:AE:267:PHE:HB2	1.61	0.83
2:AV:321:ALA:HB1	2:AV:322:VAL:HB	1.59	0.83
16:BE:75:ASN:HD21	17:BF:130:GLN:HA	1.42	0.83
3:AW:40:LEU:HB2	3:AW:41:GLN:HA	1.60	0.83
13:BA:375:ARG:NH2	23:BK:205:VAL:O	2.11	0.83
31:AS:185:ARG:NH2	28:BP:147:TYR:HE1	1.55	0.83
5:AY:97:GLU:OE2	18:AC:162:LYS:HD3	1.77	0.82
6:AZ:33:LYS:NZ	6:AZ:34:ARG:O	2.12	0.82
17:BF:191:LEU:HG	17:BF:194:GLN:HE21	1.42	0.82
31:AS:144:MET:CE	28:BP:147:TYR:HB2	2.08	0.82
3:BW:47:LEU:O	3:BW:51:GLU:OE1	1.97	0.82
14:BB:199:GLU:O	14:BB:203:LEU:N	2.12	0.82
18:BC:22:GLN:HA	18:BC:25:LEU:HD13	1.61	0.82
31:AS:184:GLU:HG2	27:BO:195:LYS:HD2	1.60	0.82
18:BC:69:GLN:CG	18:BC:118:ASN:HB2	2.10	0.82
28:AP:32:ALA:HB2	30:BR:169:TYR:HE2	1.02	0.82
5:BY:97:GLU:OE2	18:BC:162:LYS:HD3	1.77	0.82
30:AR:26:ILE:C	28:BP:177:ARG:CD	2.46	0.82
14:AB:100:ASP:CA	14:AB:103:ARG:HH12	1.93	0.82
27:AO:195:LYS:HD2	31:BS:184:GLU:HG3	1.62	0.82
13:BA:83:ASP:OD1	14:BB:137:SER:OG	1.98	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BE:50:LEU:HD11	17:BF:138:GLY:CA	2.10	0.82
24:BL:121:GLN:HG3	25:BM:129:ARG:HG2	1.58	0.82
6:AZ:224:HIS:HB3	6:AZ:225:GLN:HA	1.60	0.82
31:AS:180:ILE:HG21	27:BO:195:LYS:HE2	1.60	0.82
28:AP:177:ARG:CD	30:BR:26:ILE:C	2.47	0.81
14:AB:199:GLU:O	14:AB:203:LEU:N	2.12	0.81
14:BB:211:TYR:HE1	14:BB:218:PRO:HD2	1.45	0.81
6:BZ:33:LYS:NZ	6:BZ:34:ARG:O	2.12	0.81
27:AO:195:LYS:HE2	31:BS:180:ILE:HG21	1.59	0.81
27:AO:199:LEU:HD12	31:BS:177:ASP:OD1	1.79	0.81
18:AC:69:GLN:OE1	18:AC:118:ASN:HB2	1.78	0.81
18:AC:162:LYS:O	18:AC:166:GLU:HB2	1.81	0.81
14:AB:235:LEU:O	14:AB:239:VAL:HB	1.80	0.81
27:AO:164:PHE:O	31:BS:38:ARG:NH2	2.12	0.81
16:AE:146:ARG:HH22	16:AE:190:GLN:HG2	1.45	0.81
27:AO:195:LYS:CD	31:BS:180:ILE:CG2	2.55	0.81
31:AS:173:ARG:HB2	27:BO:199:LEU:C	2.01	0.81
3:AW:47:LEU:O	3:AW:51:GLU:OE1	1.97	0.81
15:BD:89:ILE:HD11	16:BE:80:VAL:HG13	1.63	0.81
31:AS:180:ILE:CG2	27:BO:195:LYS:HG3	2.08	0.81
18:AC:22:GLN:HA	18:AC:25:LEU:HD13	1.61	0.81
16:AE:50:LEU:CD1	17:AF:138:GLY:HA2	2.10	0.81
31:AS:177:ASP:OD1	27:BO:199:LEU:HD12	1.79	0.81
14:AB:211:TYR:HE1	14:AB:218:PRO:HD2	1.45	0.81
18:AC:69:GLN:CG	18:AC:118:ASN:HB2	2.10	0.81
6:BZ:224:HIS:HB3	6:BZ:225:GLN:HA	1.60	0.81
16:AE:50:LEU:HD11	17:AF:138:GLY:CA	2.10	0.81
16:BE:266:GLY:HA2	16:BE:267:PHE:HB2	1.61	0.81
31:AS:185:ARG:HE	28:BP:147:TYR:HD1	1.29	0.80
16:AE:178:THR:OG1	34:AE:401:ATP:O2A	1.99	0.80
14:BB:235:LEU:O	14:BB:239:VAL:HB	1.80	0.80
5:BY:174:TRP:HB3	18:BC:334:ARG:O	1.81	0.80
27:AO:199:LEU:CD2	31:BS:176:LYS:H	1.86	0.80
17:AF:168:TYR:HB2	17:AF:169:ASP:HB2	1.64	0.80
27:AO:195:LYS:HG3	31:BS:180:ILE:CG2	2.12	0.80
28:AP:147:TYR:HD1	31:BS:185:ARG:HE	1.28	0.80
16:BE:50:LEU:CD1	17:BF:138:GLY:HA2	2.10	0.80
5:AY:174:TRP:HB3	18:AC:334:ARG:O	1.81	0.80
26:AN:134:TYR:CD1	26:BN:136:TYR:HD2	1.99	0.80
16:BE:178:THR:OG1	34:BE:401:ATP:O2A	1.99	0.80
16:BE:146:ARG:HH22	16:BE:190:GLN:HG2	1.45	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BX:87:ARG:HD2	20:BH:231:ALA:HB3	1.63	0.80
4:AX:87:ARG:HD2	20:AH:231:ALA:HB3	1.63	0.80
15:BD:151:ILE:HB	15:BD:152:MET:HA	1.64	0.80
28:AP:147:TYR:HB2	31:BS:144:MET:CE	2.10	0.80
3:AW:257:GLN:HA	3:AW:258:ALA:HB3	1.64	0.80
18:BC:162:LYS:O	18:BC:166:GLU:HB2	1.81	0.80
16:BE:54:GLY:O	16:BE:102:MET:CE	2.29	0.80
21:AI:13:SER:O	22:AJ:21:TYR:OH	1.99	0.80
26:AN:136:TYR:HD2	26:BN:134:TYR:CD1	2.00	0.79
31:AS:184:GLU:HG3	27:BO:195:LYS:HD2	1.62	0.79
29:AQ:165:GLU:CB	30:BR:141:ARG:HH22	1.94	0.79
13:AA:106:SER:HB3	13:AA:110:LYS:HG3	1.63	0.79
3:AW:92:LYS:H	3:AW:93:ARG:HB3	1.46	0.79
13:BA:283:ALA:H	13:BA:326:THR:HG21	1.46	0.79
13:AA:83:ASP:OD1	14:AB:137:SER:OG	1.98	0.79
16:AE:54:GLY:O	16:AE:102:MET:CE	2.29	0.79
14:BB:103:ARG:HD3	14:BB:107:MET:SD	2.22	0.79
21:BI:13:SER:O	22:BJ:21:TYR:OH	1.99	0.79
22:BJ:18:GLN:O	22:BJ:22:ALA:HB2	1.83	0.79
21:BI:218:ARG:NH1	21:BI:223:THR:OG1	2.16	0.79
14:AB:103:ARG:HD3	14:AB:107:MET:SD	2.22	0.79
18:AC:184:LYS:HG3	18:AC:311:ILE:HD12	1.64	0.79
2:AV:255:LEU:HD22	2:AV:291:TYR:HB3	1.65	0.79
3:AW:268:LYS:HD3	3:AW:299:ILE:HG21	1.64	0.79
17:BF:97:LEU:CD1	17:BF:120:LYS:HE2	2.13	0.79
29:AQ:137:PHE:HA	30:BR:134:TYR:HE1	1.28	0.79
2:BV:228:ARG:HH21	2:BV:257:ASN:HB3	1.48	0.79
13:AA:283:ALA:H	13:AA:326:THR:HG21	1.46	0.79
31:AS:180:ILE:CB	27:BO:195:LYS:HE3	2.13	0.79
22:AJ:18:GLN:O	22:AJ:22:ALA:HB2	1.83	0.79
13:BA:106:SER:HB3	13:BA:110:LYS:HG3	1.63	0.79
31:AS:148:LEU:CB	28:BP:149:MET:SD	2.71	0.79
3:BW:136:ILE:H	3:BW:141:GLU:HG2	1.48	0.79
16:AE:182:LEU:HD11	34:AE:401:ATP:H2'	1.64	0.79
17:BF:168:TYR:HB2	17:BF:169:ASP:HB2	1.64	0.79
1:BU:474:ARG:HH21	1:BU:500:ASN:HB2	1.48	0.79
24:BL:152:ASN:HA	25:BM:85:ARG:HH22	1.48	0.78
15:AD:151:ILE:HB	15:AD:152:MET:HA	1.64	0.78
31:AS:33:PHE:CD1	27:BO:167:LEU:CB	2.65	0.78
1:AU:799:LYS:HA	1:AU:843:GLU:HG3	1.65	0.78
16:BE:182:LEU:HD11	34:BE:401:ATP:H2'	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AF:86:LEU:HB2	17:AF:88:TYR:CE1	2.18	0.78
21:AI:218:ARG:NH1	21:AI:223:THR:OG1	2.16	0.78
17:BF:86:LEU:HB2	17:BF:88:TYR:CE1	2.18	0.78
31:AS:159:GLN:N	27:BO:208:THR:OG1	2.17	0.78
27:AO:167:LEU:CB	31:BS:33:PHE:CD1	2.66	0.78
27:AO:198:ARG:NH2	28:AP:152:SER:O	2.17	0.78
31:AS:159:GLN:NE2	27:BO:210:ALA:CA	2.45	0.78
3:BW:92:LYS:H	3:BW:93:ARG:HB3	1.47	0.78
30:AR:26:ILE:HD11	28:BP:178:ASP:O	1.82	0.78
3:AW:136:ILE:H	3:AW:141:GLU:HG2	1.48	0.78
1:BU:154:ALA:HB2	1:BU:166:THR:HG21	1.65	0.78
17:AF:97:LEU:CD1	17:AF:120:LYS:HE2	2.13	0.78
15:AD:89:ILE:HD11	16:AE:80:VAL:HG13	1.63	0.78
1:AU:154:ALA:HB2	1:AU:166:THR:HG21	1.65	0.78
31:AS:185:ARG:NH1	28:BP:147:TYR:HE1	1.68	0.78
14:BB:100:ASP:CA	14:BB:103:ARG:HH12	1.93	0.78
3:BW:268:LYS:HD3	3:BW:299:ILE:HG21	1.64	0.78
4:BX:83:ALA:HA	20:BH:229:TYR:HD1	1.49	0.78
13:AA:248:LYS:HG3	14:AB:260:LEU:HB2	1.66	0.78
13:BA:248:LYS:HG3	14:BB:260:LEU:HB2	1.66	0.78
15:BD:113:VAL:HA	18:BC:66:LEU:HD11	1.66	0.78
21:AI:148:TYR:HA	21:AI:158:GLY:HA2	1.67	0.77
27:AO:210:ALA:N	31:BS:159:GLN:HE22	1.73	0.77
2:AV:494:MET:HG3	6:AZ:278:ASN:HD22	1.49	0.77
28:AP:176:ASP:O	30:BR:26:ILE:HD13	1.83	0.77
4:BX:198:ASN:O	18:BC:392:GLN:NE2	2.17	0.77
24:AL:152:ASN:HA	25:AM:85:ARG:HH22	1.48	0.77
26:AN:138:TYR:HA	26:BN:138:TYR:HD1	1.49	0.77
27:AO:210:ALA:CA	31:BS:159:GLN:NE2	2.45	0.77
30:AR:26:ILE:HB	28:BP:177:ARG:HG3	1.67	0.77
1:BU:799:LYS:HA	1:BU:843:GLU:HG3	1.65	0.77
3:BW:406:VAL:HG12	3:BW:413:ILE:HB	1.65	0.77
28:AP:178:ASP:O	30:BR:26:ILE:HD11	1.83	0.77
16:AE:109:ARG:NH1	17:AF:121:CYS:SG	2.58	0.77
21:BI:148:TYR:HA	21:BI:158:GLY:HA2	1.67	0.77
2:BV:494:MET:HG3	6:BZ:278:ASN:HD22	1.49	0.77
3:BW:257:GLN:HA	3:BW:258:ALA:HB3	1.64	0.77
22:AJ:120:GLN:O	23:AK:134:SER:OG	2.02	0.77
31:AS:4:PRO:HB2	32:AT:100:ARG:HH21	1.50	0.77
3:AW:416:GLN:HB3	3:AW:417:ARG:HA	1.67	0.77
13:BA:355:PHE:O	13:BA:359:ALA:HB2	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BO:198:ARG:NH2	28:BP:152:SER:O	2.17	0.77
15:AD:113:VAL:HA	18:AC:66:LEU:HD11	1.66	0.77
26:AN:136:TYR:HB2	26:BN:134:TYR:HB3	1.66	0.77
32:AT:33:LEU:HD13	26:BN:134:TYR:CZ	2.19	0.77
13:BA:174:TYR:HD1	13:BA:227:ARG:HE	1.29	0.77
15:BD:201:GLY:HA3	15:BD:327:LEU:HA	1.67	0.77
21:BI:194:ILE:O	21:BI:198:ASN:HB2	1.84	0.77
21:AI:194:ILE:O	21:AI:198:ASN:HB2	1.84	0.77
23:AK:100:TRP:O	30:AR:57:ARG:NH2	2.18	0.77
31:AS:185:ARG:HD3	27:BO:26:VAL:CB	2.10	0.77
26:AN:134:TYR:HB3	26:BN:136:TYR:HB2	1.66	0.77
13:AA:174:TYR:HD1	13:AA:227:ARG:HE	1.30	0.77
31:AS:185:ARG:HA	27:BO:26:VAL:CB	2.12	0.77
4:AX:83:ALA:HA	20:AH:229:TYR:HD1	1.49	0.77
27:AO:195:LYS:HE3	31:BS:180:ILE:CB	2.15	0.77
20:BH:39:LYS:HE2	20:BH:144:PRO:HG2	1.67	0.77
26:AN:134:TYR:CZ	32:BT:33:LEU:HD13	2.18	0.77
1:BU:554:LEU:HD23	1:BU:554:LEU:O	1.84	0.77
4:AX:198:ASN:O	18:AC:392:GLN:NE2	2.17	0.76
17:AF:275:ALA:HB1	17:AF:326:VAL:HG11	1.68	0.76
18:BC:66:LEU:HG	18:BC:70:GLY:CA	2.15	0.76
27:AO:199:LEU:C	31:BS:173:ARG:HB2	2.04	0.76
27:AO:139:GLU:OE2	32:BT:178:TYR:CG	2.38	0.76
14:AB:100:ASP:HB3	14:AB:103:ARG:HH12	1.50	0.76
1:AU:554:LEU:O	1:AU:554:LEU:HD23	1.84	0.76
18:BC:184:LYS:HG3	18:BC:311:ILE:HD12	1.64	0.76
16:AE:345:ASN:ND2	17:AF:345:SER:H	1.83	0.76
31:AS:143:ALA:HB3	28:BP:144:GLU:CG	2.15	0.76
15:BD:81:ARG:NE	15:BD:82:ILE:HD11	2.01	0.76
22:BJ:120:GLN:O	23:BK:134:SER:OG	2.02	0.76
2:BV:255:LEU:HD22	2:BV:291:TYR:HB3	1.65	0.76
27:AO:199:LEU:CD2	31:BS:176:LYS:CA	2.43	0.76
30:AR:26:ILE:HD13	28:BP:176:ASP:O	1.85	0.76
32:AT:178:TYR:CG	27:BO:139:GLU:OE2	2.38	0.76
6:AZ:164:ALA:HB1	6:AZ:168:GLU:HG3	1.66	0.76
14:BB:103:ARG:CD	14:BB:107:MET:HE1	2.15	0.76
16:BE:109:ARG:NH1	17:BF:121:CYS:SG	2.58	0.76
16:BE:345:ASN:ND2	17:BF:345:SER:H	1.83	0.76
3:AW:406:VAL:HG12	3:AW:413:ILE:HB	1.65	0.76
14:AB:264:PRO:O	14:AB:267:VAL:N	2.19	0.76
18:AC:263:SER:O	18:AC:267:SER:CB	2.34	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BB:264:PRO:O	14:BB:267:VAL:N	2.19	0.76
31:BS:4:PRO:HB2	32:BT:100:ARG:HH21	1.50	0.76
16:BE:88:ASP:HB2	16:BE:91:LYS:HE3	1.68	0.76
17:BF:295:ARG:NH2	17:BF:300:LYS:O	2.19	0.76
27:AO:26:VAL:CB	31:BS:185:ARG:HA	2.15	0.76
13:AA:355:PHE:O	13:AA:359:ALA:HB2	1.84	0.76
18:AC:325:ARG:O	18:AC:329:LEU:CB	2.34	0.76
17:AF:204:LEU:HD12	17:AF:205:PRO:HD3	1.68	0.76
18:BC:263:SER:O	18:BC:267:SER:CB	2.34	0.76
24:BL:62:LYS:HZ1	24:BL:75:ALA:HA	1.50	0.76
6:BZ:164:ALA:HB1	6:BZ:168:GLU:HG3	1.66	0.76
20:AH:39:LYS:HE2	20:AH:144:PRO:HG2	1.67	0.76
30:AR:134:TYR:CD1	29:BQ:137:PHE:HB3	2.21	0.76
2:BV:67:LEU:HD21	2:BV:205:LEU:HD23	1.68	0.76
2:AV:228:ARG:HH21	2:AV:257:ASN:HB3	1.48	0.75
18:BC:325:ARG:O	18:BC:329:LEU:CB	2.34	0.75
26:AN:134:TYR:OH	32:BT:33:LEU:CD2	2.32	0.75
15:AD:81:ARG:NE	15:AD:82:ILE:HD11	2.01	0.75
18:BC:86:LEU:HD23	18:BC:96:VAL:HB	1.68	0.75
17:BF:275:ALA:HB1	17:BF:326:VAL:HG11	1.68	0.75
23:AK:48:LEU:HB3	23:AK:218:ALA:HB3	1.66	0.75
17:BF:204:LEU:HD12	17:BF:205:PRO:HD3	1.68	0.75
32:AT:33:LEU:CD2	26:BN:134:TYR:OH	2.33	0.75
27:AO:193:ASN:HD21	31:BS:213:ASP:CB	1.90	0.75
17:AF:295:ARG:NH2	17:AF:300:LYS:O	2.19	0.75
3:AW:257:GLN:HE22	3:AW:262:LYS:HD2	1.51	0.75
4:AX:420:LYS:O	6:AZ:283:ARG:NH2	2.19	0.75
18:BC:201:ARG:O	18:BC:205:HIS:HB2	1.86	0.75
16:AE:88:ASP:HB2	16:AE:91:LYS:HE3	1.68	0.75
1:AU:474:ARG:HH21	1:AU:500:ASN:HB2	1.48	0.75
1:AU:607:VAL:O	1:AU:615:ARG:NH1	2.20	0.75
3:AW:44:ILE:HB	3:AW:93:ARG:HD2	1.68	0.75
30:AR:136:TYR:CD1	29:BQ:169:LYS:HE3	2.14	0.75
23:BK:100:TRP:O	30:BR:57:ARG:NH2	2.18	0.75
3:BW:257:GLN:HE22	3:BW:262:LYS:HD2	1.51	0.75
3:BW:416:GLN:HB3	3:BW:417:ARG:HA	1.67	0.75
18:AC:86:LEU:HD23	18:AC:96:VAL:HB	1.68	0.75
27:AO:208:THR:OG1	31:BS:159:GLN:N	2.19	0.75
23:BK:48:LEU:HB3	23:BK:218:ALA:HB3	1.67	0.75
29:AQ:4:LEU:HD22	29:AQ:18:ASP:H	1.52	0.75
18:AC:66:LEU:HG	18:AC:70:GLY:CA	2.15	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AD:201:GLY:HA3	15:AD:327:LEU:HA	1.67	0.75
28:AP:147:TYR:HB3	31:BS:144:MET:CE	2.00	0.75
18:AC:201:ARG:O	18:AC:205:HIS:HB2	1.86	0.75
14:BB:100:ASP:HB3	14:BB:103:ARG:HH12	1.50	0.75
18:AC:18:SER:HA	18:AC:21:ARG:HB2	1.69	0.74
27:AO:167:LEU:HD13	31:BS:33:PHE:HD1	1.52	0.74
17:AF:181:PRO:HG3	17:AF:238:ARG:HG2	1.69	0.74
26:AN:166:ARG:HH21	26:BN:140:ASP:CG	1.91	0.74
13:AA:89:SER:O	13:AA:92:PRO:HD2	1.87	0.74
28:AP:147:TYR:HD1	31:BS:185:ARG:CZ	1.62	0.74
17:BF:181:PRO:HG3	17:BF:238:ARG:HG2	1.69	0.74
25:BM:192:GLU:HA	25:BM:195:LYS:HE3	1.69	0.74
4:AX:195:THR:OG1	18:AC:388:ALA:HB2	1.87	0.74
13:BA:89:SER:O	13:BA:92:PRO:HD2	1.87	0.74
4:BX:195:THR:OG1	18:BC:388:ALA:HB2	1.87	0.74
16:BE:50:LEU:CD1	17:BF:138:GLY:CA	2.65	0.74
23:BK:228:MET:HG3	23:BK:229:PHE:H	1.52	0.74
16:AE:50:LEU:CD1	17:AF:138:GLY:CA	2.65	0.74
29:AQ:137:PHE:HB3	30:BR:134:TYR:CD1	2.22	0.74
31:AS:159:GLN:HE21	27:BO:209:THR:CA	1.99	0.74
1:BU:607:VAL:O	1:BU:615:ARG:NH1	2.20	0.74
4:BX:420:LYS:O	6:BZ:283:ARG:NH2	2.19	0.74
6:BZ:261:TYR:O	6:BZ:265:LEU:HD12	1.86	0.74
15:AD:136:SER:HB3	18:AC:67:GLN:CD	2.08	0.74
23:AK:45:GLY:HA3	23:AK:221:GLN:HG3	1.69	0.74
2:AV:67:LEU:HD21	2:AV:205:LEU:HD23	1.68	0.74
13:BA:335:GLY:HA2	17:BF:394:ALA:HB1	1.70	0.74
18:AC:325:ARG:O	18:AC:329:LEU:HB2	1.87	0.74
30:AR:141:ARG:HH22	29:BQ:165:GLU:CB	1.95	0.74
21:BI:145:PHE:HZ	21:BI:218:ARG:HB2	1.51	0.74
29:BQ:4:LEU:HD22	29:BQ:18:ASP:H	1.52	0.74
28:AP:144:GLU:CG	31:BS:143:ALA:HB3	2.16	0.74
15:AD:136:SER:HB3	18:AC:67:GLN:OE1	1.88	0.74
30:AR:26:ILE:HD12	28:BP:177:ARG:N	1.84	0.74
31:AS:148:LEU:HD22	28:BP:152:SER:CB	2.17	0.74
3:AW:173:THR:HG23	3:AW:182:ARG:HH11	1.53	0.74
15:BD:136:SER:HB3	18:BC:67:GLN:OE1	1.88	0.74
5:BY:268:TYR:HB2	5:BY:322:ALA:HB1	1.70	0.74
13:AA:335:GLY:HA2	17:AF:394:ALA:HB1	1.70	0.74
3:AW:186:ILE:O	3:AW:189:GLN:NE2	2.21	0.74
5:AY:268:TYR:HB2	5:AY:322:ALA:HB1	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AN:138:TYR:HD1	26:BN:138:TYR:HA	1.52	0.74
3:BW:340:VAL:HG13	3:BW:350:ARG:HD2	1.70	0.74
5:BY:89:GLU:HA	5:BY:92:GLU:HG2	1.70	0.74
31:AS:177:ASP:OD2	27:BO:199:LEU:HB2	1.70	0.73
32:AT:179:ARG:N	26:BN:29:ARG:HH21	1.86	0.73
3:BW:173:THR:HG23	3:BW:182:ARG:HH11	1.53	0.73
23:AK:228:MET:HG3	23:AK:229:PHE:H	1.52	0.73
14:BB:174:MET:HA	14:BB:248:LEU:HD13	1.70	0.73
13:BA:425:ALA:HA	14:BB:339:PRO:HB3	1.70	0.73
13:AA:425:ALA:HA	14:AB:339:PRO:HB3	1.70	0.73
3:AW:414:ASN:ND2	3:AW:416:GLN:O	2.21	0.73
5:AY:89:GLU:HA	5:AY:92:GLU:HG2	1.70	0.73
18:BC:325:ARG:O	18:BC:329:LEU:HB2	1.87	0.73
17:BF:384:LEU:HA	17:BF:387:CYS:HB2	1.71	0.73
31:AS:157:ASN:O	28:BP:169:GLN:OE1	2.07	0.73
28:AP:177:ARG:CG	30:BR:26:ILE:HB	2.06	0.73
3:BW:90:LEU:HD11	3:BW:135:LYS:HD3	1.71	0.73
14:AB:411:ARG:NH2	14:AB:413:LYS:O	2.21	0.73
21:AI:145:PHE:HZ	21:AI:218:ARG:HB2	1.51	0.73
6:AZ:37:GLY:HA2	6:AZ:56:VAL:HG12	1.70	0.73
23:BK:45:GLY:HA3	23:BK:221:GLN:HG3	1.69	0.73
3:BW:44:ILE:HB	3:BW:93:ARG:HD2	1.68	0.73
15:AD:274:ARG:O	15:AD:283:ARG:NH2	2.22	0.73
3:AW:373:ILE:HG23	3:AW:413:ILE:HG13	1.71	0.73
14:BB:411:ARG:NH2	14:BB:413:LYS:O	2.21	0.73
31:AS:184:GLU:C	27:BO:26:VAL:HG21	2.09	0.73
1:BU:147:TYR:OH	1:BU:170:SER:O	2.06	0.73
6:BZ:37:GLY:HA2	6:BZ:56:VAL:HG12	1.70	0.73
18:AC:263:SER:O	18:AC:267:SER:HB2	1.88	0.73
15:BD:136:SER:HB3	18:BC:67:GLN:CD	2.08	0.73
21:BI:119:GLN:NE2	22:BJ:79:ASP:OD1	2.22	0.73
17:AF:384:LEU:HA	17:AF:387:CYS:HB2	1.71	0.73
3:AW:90:LEU:HD11	3:AW:135:LYS:HD3	1.71	0.73
13:BA:103:ASN:O	17:BF:173:LYS:NZ	2.22	0.73
3:BW:186:ILE:O	3:BW:189:GLN:NE2	2.21	0.73
26:AN:40:ARG:NH1	26:AN:180:ALA:O	2.22	0.73
1:AU:147:TYR:OH	1:AU:170:SER:O	2.06	0.73
15:BD:274:ARG:O	15:BD:283:ARG:NH2	2.21	0.73
28:AP:177:ARG:HG3	30:BR:26:ILE:HB	1.69	0.73
3:BW:414:ASN:ND2	3:BW:416:GLN:O	2.21	0.73
26:AN:179:ILE:HG12	26:AN:184:VAL:HG22	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AO:207:GLY:O	31:BS:159:GLN:HG2	1.88	0.72
18:BC:214:VAL:HG12	18:BC:249:ASP:H	1.53	0.72
15:AD:323:ARG:HD2	18:AC:142:LYS:HA	1.71	0.72
14:AB:174:MET:HA	14:AB:248:LEU:HD13	1.70	0.72
15:AD:238:LYS:HA	16:AE:208:ILE:HG12	1.71	0.72
21:AI:119:GLN:NE2	22:AJ:79:ASP:OD1	2.22	0.72
24:AL:62:LYS:HZ1	24:AL:75:ALA:HA	1.55	0.72
25:AM:192:GLU:HA	25:AM:195:LYS:HE3	1.69	0.72
6:AZ:261:TYR:O	6:AZ:265:LEU:HD12	1.86	0.72
26:AN:140:ASP:CG	26:BN:166:ARG:HH21	1.93	0.72
21:AI:17:ARG:HH12	21:AI:19:TYR:HD1	1.38	0.72
30:AR:140:ASP:O	29:BQ:166:GLU:OE2	2.08	0.72
18:BC:18:SER:HA	18:BC:21:ARG:HB2	1.69	0.72
19:BG:148:GLY:O	19:BG:150:GLN:NE2	2.22	0.72
13:AA:218:PRO:HD3	13:AA:428:ARG:HE	1.54	0.72
19:AG:148:GLY:O	19:AG:150:GLN:NE2	2.22	0.72
26:BN:40:ARG:NH1	26:BN:180:ALA:O	2.22	0.72
3:AW:340:VAL:HG13	3:AW:350:ARG:HD2	1.70	0.72
13:BA:218:PRO:HD3	13:BA:428:ARG:HE	1.54	0.72
31:AS:159:GLN:HG2	27:BO:207:GLY:O	1.88	0.72
22:AJ:120:GLN:OE1	23:AK:134:SER:N	2.23	0.72
5:AY:381:GLN:HB3	5:AY:385:ARG:HH12	1.55	0.72
28:AP:144:GLU:HG2	31:BS:144:MET:HB2	1.72	0.72
28:AP:152:SER:CB	31:BS:148:LEU:HD22	2.20	0.72
30:AR:26:ILE:HB	28:BP:177:ARG:CG	2.04	0.72
1:AU:842:LYS:HA	1:AU:843:GLU:HB3	1.71	0.72
3:BW:373:ILE:HG23	3:BW:413:ILE:HG13	1.71	0.72
30:AR:55:TRP:HE1	31:AS:97:TYR:HH	1.33	0.72
23:AK:143:PHE:HB2	23:AK:154:PHE:HB2	1.72	0.72
30:BR:196:HIS:O	30:BR:200:SER:OG	2.08	0.72
27:AO:209:THR:CA	31:BS:159:GLN:HE21	2.03	0.72
27:AO:26:VAL:CB	31:BS:185:ARG:HD3	2.13	0.72
18:BC:263:SER:O	18:BC:267:SER:HB2	1.88	0.71
28:BP:107:PRO:HG2	28:BP:124:LEU:HB2	1.72	0.71
15:AD:326:ARG:HH21	18:AC:141:GLU:HB3	1.55	0.71
17:AF:381:TYR:O	17:AF:385:ALA:CB	2.38	0.71
6:AZ:233:VAL:HA	6:AZ:236:LEU:HD13	1.72	0.71
15:BD:238:LYS:HA	16:BE:208:ILE:HG12	1.71	0.71
26:BN:179:ILE:HG12	26:BN:184:VAL:HG22	1.72	0.71
5:BY:381:GLN:HB3	5:BY:385:ARG:HH12	1.55	0.71
31:AS:174:LEU:HD23	27:BO:202:TYR:CZ	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AR:26:ILE:O	28:BP:177:ARG:HG3	1.89	0.71
18:AC:214:VAL:HG12	18:AC:249:ASP:H	1.53	0.71
3:AW:90:LEU:HD22	15:AD:390:ASN:O	1.90	0.71
13:AA:304:ASN:ND2	17:AF:287:GLU:OE1	2.24	0.71
13:BA:429:TYR:O	13:BA:433:ASN:N	2.24	0.71
17:BF:381:TYR:O	17:BF:385:ALA:CB	2.38	0.71
25:AM:67:PHE:HB2	25:AM:75:MET:HB2	1.72	0.71
27:AO:26:VAL:HG21	31:BS:184:GLU:C	2.10	0.71
28:AP:147:TYR:HE1	31:BS:185:ARG:NH1	1.66	0.71
31:AS:159:GLN:O	27:BO:208:THR:OG1	2.07	0.71
31:AS:33:PHE:HD1	27:BO:167:LEU:HD13	1.53	0.71
1:AU:611:ASN:HB3	1:AU:614:VAL:HG12	1.72	0.71
22:BJ:120:GLN:OE1	23:BK:134:SER:N	2.23	0.71
1:BU:611:ASN:HB3	1:BU:614:VAL:HG12	1.72	0.71
15:AD:303:VAL:HA	15:AD:304:ASN:HB2	1.73	0.71
2:AV:379:LEU:HD13	2:AV:395:ILE:HG12	1.73	0.71
27:AO:199:LEU:CG	31:BS:176:LYS:CB	2.59	0.71
1:BU:447:GLY:HA3	1:BU:480:GLY:HA2	1.73	0.71
13:AA:429:TYR:O	13:AA:433:ASN:N	2.24	0.71
29:AQ:57:ALA:O	29:AQ:61:GLN:HB3	1.91	0.71
3:AW:123:ARG:HH12	3:AW:127:THR:HB	1.56	0.71
21:BI:35:LEU:HA	21:BI:162:THR:HG21	1.73	0.71
31:AS:177:ASP:HB2	27:BO:199:LEU:HB2	1.72	0.71
27:AO:195:LYS:HE3	31:BS:180:ILE:HG22	0.73	0.71
1:BU:842:LYS:HA	1:BU:843:GLU:HB3	1.71	0.71
19:AG:203:SER:O	19:AG:207:SER:N	2.23	0.71
29:AQ:171:PHE:HA	29:BQ:25:ILE:O	1.91	0.71
4:AX:198:ASN:OD1	18:AC:392:GLN:CG	2.39	0.71
6:AZ:7:GLN:OE1	6:AZ:46:LYS:NZ	2.24	0.71
15:BD:259:PRO:HA	15:BD:304:ASN:HD22	1.56	0.71
31:AS:144:MET:CE	28:BP:147:TYR:HB3	1.96	0.71
6:BZ:233:VAL:HA	6:BZ:236:LEU:HD13	1.72	0.71
28:AP:107:PRO:HG2	28:AP:124:LEU:HB2	1.72	0.71
13:BA:304:ASN:ND2	17:BF:287:GLU:OE1	2.24	0.71
17:BF:293:THR:HG23	17:BF:337:ILE:HG21	1.73	0.71
26:AN:134:TYR:CD1	26:BN:133:SER:O	2.43	0.71
27:AO:199:LEU:HB2	31:BS:177:ASP:HB2	1.71	0.71
31:AS:180:ILE:HG22	27:BO:195:LYS:HE3	0.73	0.71
18:BC:70:GLY:O	18:BC:118:ASN:CG	2.29	0.71
3:BW:136:ILE:CD1	15:BD:392:TYR:HD1	2.03	0.71
23:AK:31:ILE:HD13	23:AK:140:ALA:HB2	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AX:122:ARG:NH2	20:AH:185:GLU:CG	2.55	0.70
23:AK:85:ALA:HB2	23:AK:139:VAL:HG21	1.73	0.70
5:AY:344:HIS:HB3	5:AY:358:ARG:HG2	1.73	0.70
22:BJ:119:THR:HG22	22:BJ:126:PRO:HB3	1.73	0.70
23:BK:143:PHE:HB2	23:BK:154:PHE:HB2	1.72	0.70
32:AT:178:TYR:C	26:BN:29:ARG:NE	2.43	0.70
2:BV:212:TYR:OH	2:BV:287:ARG:NH2	2.24	0.70
14:AB:313:LEU:HD11	14:AB:344:PRO:HG2	1.74	0.70
28:AP:149:MET:SD	31:BS:148:LEU:CB	2.70	0.70
1:AU:518:LEU:HD23	1:AU:554:LEU:HD11	1.73	0.70
28:AP:144:GLU:O	31:BS:144:MET:CB	2.30	0.70
27:AO:139:GLU:OE2	32:BT:178:TYR:CE1	2.44	0.70
6:BZ:222:ILE:HG23	6:BZ:223:ASN:CB	2.21	0.70
16:AE:181:THR:O	16:AE:185:ARG:CB	2.34	0.70
19:BG:203:SER:O	19:BG:207:SER:N	2.23	0.70
27:BO:42:TYR:HD2	27:BO:176:CYS:HG	1.39	0.70
2:BV:379:LEU:HD13	2:BV:395:ILE:HG12	1.73	0.70
5:BY:344:HIS:HB3	5:BY:358:ARG:HG2	1.73	0.70
18:AC:70:GLY:O	18:AC:118:ASN:CG	2.29	0.70
4:AX:87:ARG:HD2	20:AH:231:ALA:CB	2.20	0.70
23:BK:31:ILE:HD13	23:BK:140:ALA:HB2	1.72	0.70
29:AQ:170:ARG:NH1	29:BQ:22:ALA:CA	2.53	0.70
29:BQ:57:ALA:O	29:BQ:61:GLN:HB3	1.91	0.70
1:BU:518:LEU:HD23	1:BU:554:LEU:HD11	1.73	0.70
3:BW:90:LEU:HD22	15:BD:390:ASN:O	1.90	0.70
6:BZ:7:GLN:OE1	6:BZ:46:LYS:NZ	2.24	0.70
13:AA:388:VAL:HG13	13:AA:413:VAL:HG22	1.74	0.70
14:BB:425:ASN:O	14:BB:429:LYS:HB2	1.92	0.70
16:BE:47:LEU:HD13	17:BF:80:ILE:HG12	1.72	0.70
32:AT:178:TYR:O	26:BN:29:ARG:NE	2.24	0.70
13:BA:90:GLU:HG2	13:BA:94:GLN:NE2	2.03	0.70
13:AA:103:ASN:O	17:AF:173:LYS:NZ	2.22	0.70
13:AA:92:PRO:C	13:AA:93:LEU:HD12	2.12	0.70
15:AD:259:PRO:HA	15:AD:304:ASN:HD22	1.56	0.70
15:AD:389:GLU:HB2	15:AD:391:ARG:HB2	1.73	0.70
29:AQ:169:LYS:HE3	30:BR:136:TYR:CD1	2.11	0.70
30:AR:196:HIS:O	30:AR:200:SER:OG	2.08	0.70
15:BD:303:VAL:HA	15:BD:304:ASN:HB2	1.72	0.70
21:BI:17:ARG:HH12	21:BI:19:TYR:HD1	1.38	0.70
32:AT:33:LEU:HD12	26:BN:166:ARG:HG3	1.73	0.70
15:AD:293:LEU:HG	15:AD:326:ARG:HD3	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AJ:119:THR:HG22	22:AJ:126:PRO:HB3	1.73	0.70
23:AK:16:SER:HB3	23:AK:20:ARG:H	1.57	0.70
28:AP:177:ARG:HG3	30:BR:26:ILE:O	1.91	0.70
27:AO:199:LEU:CD2	31:BS:174:LEU:O	2.37	0.70
4:BX:198:ASN:OD1	18:BC:392:GLN:CG	2.39	0.70
1:AU:447:GLY:HA3	1:AU:480:GLY:HA2	1.73	0.70
4:AX:255:LEU:HD12	4:AX:287:LEU:HD13	1.74	0.70
27:AO:202:TYR:CZ	31:BS:174:LEU:HD23	2.27	0.70
1:BU:356:THR:HG21	1:BU:731:ILE:HD13	1.74	0.70
14:AB:177:GLU:H	14:AB:178:LYS:HA	1.56	0.69
18:AC:99:VAL:HA	18:AC:100:ASP:HB2	1.72	0.69
2:AV:212:TYR:OH	2:AV:287:ARG:NH2	2.24	0.69
15:BD:323:ARG:HD2	18:BC:142:LYS:HA	1.71	0.69
25:BM:67:PHE:HB2	25:BM:75:MET:HB2	1.72	0.69
3:AW:136:ILE:CD1	15:AD:392:TYR:HD1	2.03	0.69
16:AE:47:LEU:HD13	17:AF:80:ILE:HG12	1.72	0.69
26:AN:137:GLY:O	26:BN:162:LEU:HD13	1.93	0.69
1:AU:155:LEU:O	1:AU:158:ARG:NH1	2.25	0.69
18:BC:99:VAL:HA	18:BC:100:ASP:HB2	1.72	0.69
18:BC:71:SER:HA	18:BC:118:ASN:HB3	1.72	0.69
15:BD:293:LEU:HG	15:BD:326:ARG:HD3	1.74	0.69
23:BK:38:ILE:HD11	23:BK:177:ALA:HB1	1.74	0.69
4:BX:194:ARG:HD2	4:BX:210:LEU:HD21	1.74	0.69
14:AB:425:ASN:O	14:AB:429:LYS:HB2	1.92	0.69
16:AE:124:HIS:HD1	17:AF:320:PHE:HE1	1.39	0.69
20:AH:123:GLN:HB2	21:AI:128:ARG:HH21	1.57	0.69
24:AL:69:HIS:ND1	24:AL:70:ILE:HG13	2.07	0.69
2:AV:94:VAL:HG22	2:AV:138:PRO:HD3	1.74	0.69
13:BA:92:PRO:C	13:BA:93:LEU:HD12	2.12	0.69
14:BB:313:LEU:HD11	14:BB:344:PRO:HG2	1.74	0.69
16:BE:86:GLN:NE2	16:BE:108:MET:O	2.25	0.69
31:AS:176:LYS:CA	27:BO:199:LEU:CD2	2.45	0.69
29:AQ:166:GLU:OE2	30:BR:140:ASP:O	2.09	0.69
21:AI:35:LEU:HA	21:AI:162:THR:HG21	1.73	0.69
4:AX:194:ARG:HD2	4:AX:210:LEU:HD21	1.74	0.69
15:BD:326:ARG:HH21	18:BC:141:GLU:HB3	1.55	0.69
31:AS:144:MET:HB2	28:BP:144:GLU:HG2	1.72	0.69
30:AR:141:ARG:N	29:BQ:166:GLU:OE2	2.26	0.69
31:AS:144:MET:CB	28:BP:144:GLU:O	2.32	0.69
1:AU:356:THR:HG21	1:AU:731:ILE:HD13	1.74	0.69
15:BD:389:GLU:HB2	15:BD:391:ARG:HB2	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BX:87:ARG:HD2	20:BH:231:ALA:CB	2.20	0.69
14:AB:103:ARG:CD	14:AB:107:MET:HE1	2.23	0.69
14:AB:304:GLU:HA	14:AB:307:ARG:HG2	1.74	0.69
19:AG:47:CYS:HB3	19:AG:221:THR:HG23	1.74	0.69
1:AU:522:GLY:O	1:AU:559:ARG:NH2	2.25	0.69
3:AW:409:LEU:HD21	4:AX:344:ARG:HG2	1.74	0.69
20:BH:231:ALA:HB3	20:BH:232:ALA:HB3	1.75	0.69
31:AS:213:ASP:CB	27:BO:193:ASN:HD21	1.91	0.69
14:AB:387:LYS:HD2	14:AB:390:LEU:HD22	1.74	0.69
17:AF:293:THR:HG23	17:AF:337:ILE:HG21	1.73	0.69
26:AN:133:SER:O	26:BN:134:TYR:CD1	2.44	0.69
3:BW:123:ARG:HH12	3:BW:127:THR:HB	1.56	0.69
13:AA:94:GLN:O	14:AB:131:HIS:NE2	2.26	0.69
18:AC:71:SER:HA	18:AC:118:ASN:HB3	1.72	0.69
13:BA:388:VAL:HG13	13:BA:413:VAL:HG22	1.74	0.69
14:BB:387:LYS:HD2	14:BB:390:LEU:HD22	1.74	0.69
3:BW:136:ILE:HG13	15:BD:392:TYR:HD1	1.53	0.69
20:BH:123:GLN:HB2	21:BI:128:ARG:HH21	1.57	0.69
27:BO:103:VAL:HG11	27:BO:180:LYS:HA	1.75	0.69
29:AQ:166:GLU:OE2	30:BR:141:ARG:N	2.25	0.69
13:AA:90:GLU:HG2	13:AA:94:GLN:NE2	2.03	0.69
24:BL:69:HIS:ND1	24:BL:70:ILE:HG13	2.07	0.69
13:BA:292:ASP:HB3	13:BA:296:GLN:HG2	1.75	0.69
13:BA:393:GLY:HA3	14:BB:216:ILE:HG13	1.74	0.69
19:BG:47:CYS:HB3	19:BG:221:THR:HG23	1.74	0.69
2:BV:94:VAL:HG22	2:BV:138:PRO:HD3	1.74	0.69
13:BA:189:GLU:OE2	17:BF:409:ARG:NH2	2.26	0.69
17:BF:90:VAL:HG13	17:BF:150:LEU:HA	1.75	0.69
23:BK:85:ALA:HB2	23:BK:139:VAL:HG21	1.73	0.69
13:AA:189:GLU:OE2	17:AF:409:ARG:NH2	2.26	0.68
27:AO:103:VAL:HG11	27:AO:180:LYS:HA	1.75	0.68
25:AM:92:ARG:NH2	32:AT:73:ASP:OD1	2.26	0.68
14:BB:177:GLU:H	14:BB:178:LYS:HA	1.57	0.68
14:BB:304:GLU:HA	14:BB:307:ARG:HG2	1.74	0.68
23:BK:16:SER:HB3	23:BK:20:ARG:H	1.57	0.68
27:AO:208:THR:OG1	31:BS:159:GLN:O	2.10	0.68
13:AA:393:GLY:HA3	14:AB:216:ILE:HG13	1.74	0.68
18:AC:69:GLN:CD	18:AC:118:ASN:HB2	2.13	0.68
20:AH:123:GLN:O	21:AI:127:LYS:NZ	2.25	0.68
22:AJ:108:THR:HG22	22:AJ:133:ILE:HD13	1.76	0.68
1:AU:406:ALA:HA	1:AU:445:ALA:HB2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AV:466:ILE:HG23	2:AV:467:TYR:H	1.58	0.68
1:BU:109:THR:OG1	1:BU:156:GLU:O	2.11	0.68
1:BU:522:GLY:O	1:BU:559:ARG:NH2	2.25	0.68
4:BX:122:ARG:NH2	20:BH:185:GLU:CG	2.54	0.68
16:AE:173:TYR:CZ	16:AE:300:HIS:HB3	2.29	0.68
22:AJ:7:ILE:HG13	22:AJ:124:ARG:H	1.59	0.68
24:AL:82:ARG:O	24:AL:86:ASN:ND2	2.27	0.68
26:AN:134:TYR:CZ	32:BT:33:LEU:CD2	2.73	0.68
6:AZ:142:GLU:OE2	6:AZ:153:LYS:NZ	2.27	0.68
6:AZ:222:ILE:HG23	6:AZ:223:ASN:CB	2.21	0.68
13:BA:201:PHE:O	13:BA:205:GLY:N	2.26	0.68
13:BA:94:GLN:O	14:BB:131:HIS:NE2	2.26	0.68
29:AQ:22:ALA:CA	29:BQ:170:ARG:NH1	2.55	0.68
4:BX:255:LEU:HD12	4:BX:287:LEU:HD13	1.74	0.68
17:AF:87:PRO:CA	17:AF:154:ASN:OD1	2.42	0.68
19:AG:71:LYS:O	19:AG:95:ARG:NH2	2.26	0.68
26:AN:134:TYR:O	26:BN:134:TYR:O	2.10	0.68
18:BC:69:GLN:CD	18:BC:118:ASN:HB2	2.13	0.68
18:BC:271:ARG:HA	18:BC:274:LEU:HB2	1.73	0.68
19:BG:71:LYS:O	19:BG:95:ARG:NH2	2.26	0.68
31:AS:144:MET:SD	28:BP:147:TYR:CB	2.74	0.68
26:AN:29:ARG:NE	32:BT:178:TYR:O	2.25	0.68
25:BM:92:ARG:NH2	32:BT:73:ASP:OD1	2.26	0.68
3:BW:169:LEU:O	3:BW:182:ARG:NH1	2.27	0.68
16:AE:86:GLN:NE2	16:AE:108:MET:O	2.25	0.68
20:AH:43:GLY:HA2	20:AH:144:PRO:HG3	1.76	0.68
17:BF:304:ARG:O	17:BF:308:ARG:HB2	1.93	0.68
16:BE:124:HIS:HD1	17:BF:320:PHE:HE1	1.39	0.68
2:BV:466:ILE:HG23	2:BV:467:TYR:H	1.58	0.68
13:AA:292:ASP:HB3	13:AA:296:GLN:HG2	1.75	0.68
15:AD:384:MET:HA	15:AD:387:VAL:HG12	1.76	0.68
17:AF:304:ARG:O	17:AF:308:ARG:HB2	1.93	0.68
28:AP:169:GLN:OE1	31:BS:157:ASN:O	2.10	0.68
17:BF:339:ASP:HB3	17:BF:342:LEU:HG	1.76	0.68
13:AA:375:ARG:HH12	23:AK:205:VAL:HB	1.59	0.68
26:AN:138:TYR:CB	26:BN:138:TYR:N	2.49	0.68
28:AP:147:TYR:CB	31:BS:144:MET:SD	2.76	0.68
26:AN:166:ARG:HG3	32:BT:33:LEU:HD12	1.76	0.68
6:BZ:105:ASP:HA	6:BZ:108:ILE:HD13	1.74	0.68
23:AK:38:ILE:HD11	23:AK:177:ALA:HB1	1.74	0.68
14:BB:393:ALA:HA	14:BB:396:LYS:HB3	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BE:180:LYS:HG3	16:BE:181:THR:H	1.59	0.68
30:AR:26:ILE:C	28:BP:177:ARG:HD2	2.09	0.68
1:BU:341:PHE:HB2	1:BU:881:PRO:HD2	1.74	0.68
13:AA:201:PHE:O	13:AA:205:GLY:N	2.26	0.68
3:AW:384:LEU:HD13	3:AW:388:GLU:HB3	1.76	0.68
1:BU:607:VAL:HG12	15:BD:67:ASN:HD22	1.58	0.68
16:BE:186:ALA:O	16:BE:190:GLN:CB	2.42	0.68
24:BL:7:ASP:O	24:BL:21:GLN:NE2	2.27	0.68
24:BL:82:ARG:O	24:BL:86:ASN:ND2	2.27	0.68
1:BU:155:LEU:O	1:BU:158:ARG:NH1	2.25	0.68
18:AC:298:ILE:O	18:AC:301:LEU:N	2.27	0.68
26:AN:134:TYR:CD1	26:BN:136:TYR:CD2	2.82	0.68
26:AN:29:ARG:NE	32:BT:178:TYR:C	2.45	0.68
29:AQ:162:LYS:HB3	30:BR:141:ARG:NE	2.09	0.68
32:AT:178:TYR:CE1	27:BO:139:GLU:OE2	2.46	0.68
29:AQ:25:ILE:O	29:BQ:171:PHE:HA	1.94	0.68
2:AV:479:ARG:NH2	5:AY:374:ASP:OD1	2.27	0.67
15:BD:384:MET:HA	15:BD:387:VAL:HG12	1.76	0.67
3:BW:384:LEU:HD13	3:BW:388:GLU:HB3	1.76	0.67
17:AF:339:ASP:HB3	17:AF:342:LEU:HG	1.76	0.67
27:AO:167:LEU:HB2	31:BS:33:PHE:CG	2.29	0.67
1:AU:607:VAL:HG12	15:AD:67:ASN:HD22	1.58	0.67
13:BA:281:GLY:O	13:BA:326:THR:OG1	2.11	0.67
27:BO:46:ALA:HB3	27:BO:97:ALA:HB3	1.75	0.67
2:BV:479:ARG:NH2	5:BY:374:ASP:OD1	2.27	0.67
16:AE:186:ALA:O	16:AE:190:GLN:CB	2.42	0.67
16:AE:141:GLN:NE2	16:AE:300:HIS:O	2.27	0.67
28:AP:58:THR:OG1	29:AQ:121:LEU:O	2.10	0.67
3:AW:169:LEU:O	3:AW:182:ARG:NH1	2.27	0.67
6:AZ:105:ASP:HA	6:AZ:108:ILE:HD13	1.74	0.67
18:AC:271:ARG:HA	18:AC:274:LEU:HB2	1.74	0.67
3:AW:136:ILE:HG13	15:AD:392:TYR:HD1	1.53	0.67
20:AH:231:ALA:HB3	20:AH:232:ALA:HB3	1.75	0.67
15:BD:194:ILE:HD13	18:BC:371:LEU:HB2	1.76	0.67
16:BE:194:ASN:ND2	16:BE:225:HIS:O	2.25	0.67
21:BI:49:ARG:HH12	21:BI:64:LYS:H	1.42	0.67
1:BU:885:MET:HB3	1:BU:888:GLN:HG3	1.76	0.67
17:AF:90:VAL:HG13	17:AF:150:LEU:HA	1.75	0.67
6:AZ:43:TRP:HB3	6:AZ:90:ARG:HH21	1.60	0.67
16:BE:173:TYR:CZ	16:BE:300:HIS:HB3	2.28	0.67
22:BJ:108:THR:HG22	22:BJ:133:ILE:HD13	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AP:177:ARG:N	30:BR:26:ILE:HD12	1.82	0.67
2:BV:282:ASN:O	2:BV:315:LYS:NZ	2.28	0.67
3:BW:331:GLY:HA2	3:BW:332:SER:HB3	1.77	0.67
6:BZ:43:TRP:HB3	6:BZ:90:ARG:HH21	1.60	0.67
16:AE:194:ASN:ND2	16:AE:225:HIS:O	2.25	0.67
21:AI:49:ARG:HH12	21:AI:64:LYS:H	1.43	0.67
32:AT:33:LEU:HB2	26:BN:134:TYR:OH	1.95	0.67
32:AT:33:LEU:HD22	26:BN:134:TYR:HH	1.60	0.67
16:BE:235:ILE:HG22	16:BE:279:THR:HB	1.76	0.67
16:BE:141:GLN:NE2	16:BE:300:HIS:O	2.27	0.67
13:BA:309:PHE:HZ	17:BF:235:LEU:HA	1.60	0.67
17:BF:87:PRO:CA	17:BF:154:ASN:OD1	2.42	0.67
32:AT:33:LEU:CD2	26:BN:134:TYR:CZ	2.72	0.67
3:BW:409:LEU:HD21	4:BX:344:ARG:HG2	1.74	0.67
28:AP:147:TYR:CB	31:BS:144:MET:HE3	2.03	0.67
1:AU:109:THR:OG1	1:AU:156:GLU:O	2.11	0.67
1:AU:341:PHE:HB2	1:AU:881:PRO:HD2	1.74	0.67
1:AU:885:MET:HB3	1:AU:888:GLN:HG3	1.76	0.67
3:AW:331:GLY:HA2	3:AW:332:SER:HB3	1.77	0.67
13:BA:170:PRO:HA	13:BA:229:VAL:HG12	1.76	0.67
18:BC:325:ARG:NH2	18:BC:353:GLY:O	2.26	0.67
1:BU:406:ALA:HA	1:BU:445:ALA:HB2	1.75	0.67
13:AA:281:GLY:O	13:AA:326:THR:OG1	2.11	0.67
21:AI:10:THR:HG22	22:AJ:125:ARG:HB2	1.76	0.67
27:AO:46:ALA:HB3	27:AO:97:ALA:HB3	1.75	0.67
15:BD:412:GLN:HG3	15:BD:414:HIS:H	1.59	0.67
16:BE:82:GLY:O	16:BE:106:THR:OG1	2.09	0.67
26:AN:134:TYR:OH	32:BT:33:LEU:HB2	1.95	0.67
2:BV:265:ASP:O	2:BV:269:LYS:NZ	2.28	0.67
14:AB:261:GLY:HA2	14:AB:262:ASP:HB3	1.77	0.67
17:AF:223:VAL:HG13	17:AF:329:ILE:HG23	1.77	0.67
13:AA:309:PHE:HZ	17:AF:235:LEU:HA	1.60	0.67
31:AS:174:LEU:HD23	27:BO:202:TYR:OH	1.93	0.67
1:AU:199:ARG:O	1:AU:203:LYS:NZ	2.27	0.67
2:AV:265:ASP:O	2:AV:269:LYS:NZ	2.28	0.67
3:AW:48:LEU:HD12	3:AW:96:GLN:HE22	1.60	0.67
21:BI:10:THR:HG22	22:BJ:125:ARG:HB2	1.76	0.67
31:AS:159:GLN:CA	27:BO:208:THR:OG1	2.42	0.67
2:BV:333:ILE:HD11	2:BV:360:TYR:HE2	1.60	0.67
2:BV:79:VAL:HG13	2:BV:80:LYS:H	1.60	0.67
4:BX:171:LEU:O	4:BX:213:GLN:NE2	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AD:412:GLN:HG3	15:AD:414:HIS:H	1.59	0.66
16:AE:180:LYS:HG3	16:AE:181:THR:H	1.59	0.66
24:AL:107:ARG:NH2	32:AT:79:ASP:OD2	2.22	0.66
2:AV:250:LEU:HA	2:AV:253:LEU:HD12	1.77	0.66
13:BA:223:THR:OG1	34:BA:501:ATP:O2A	2.13	0.66
17:BF:83:ASN:O	17:BF:154:ASN:ND2	2.28	0.66
19:BG:127:GLN:NE2	20:BH:121:TYR:OH	2.28	0.66
2:BV:337:LEU:O	2:BV:401:ASN:ND2	2.29	0.66
5:BY:13:LYS:HG2	5:BY:146:ARG:HD2	1.77	0.66
26:AN:162:LEU:HD13	26:BN:137:GLY:O	1.94	0.66
27:AO:42:TYR:HD2	27:AO:176:CYS:HG	1.40	0.66
2:AV:336:GLU:HA	2:AV:339:LEU:HD12	1.77	0.66
5:AY:13:LYS:HG2	5:AY:146:ARG:HD2	1.77	0.66
14:BB:105:THR:HG23	14:BB:106:PRO:HD3	1.77	0.66
31:AS:33:PHE:CG	27:BO:167:LEU:HB2	2.30	0.66
28:AP:173:ASN:ND2	31:BS:151:ASN:HD22	1.94	0.66
13:AA:373:LEU:HD11	13:AA:413:VAL:HG11	1.77	0.66
19:AG:127:GLN:NE2	20:AH:121:TYR:OH	2.28	0.66
24:AL:7:ASP:O	24:AL:21:GLN:NE2	2.27	0.66
30:AR:141:ARG:CZ	29:BQ:165:GLU:HB2	2.25	0.66
13:BA:375:ARG:HH12	23:BK:205:VAL:HB	1.59	0.66
2:BV:447:ILE:HG13	2:BV:449:ALA:H	1.61	0.66
14:AB:393:ALA:HA	14:AB:396:LYS:HB3	1.76	0.66
1:AU:247:GLN:HE22	1:AU:912:ILE:HG22	1.60	0.66
15:BD:148:ASP:HB3	15:BD:149:SER:C	2.16	0.66
20:BH:45:VAL:HG22	20:BH:212:ILE:HG22	1.78	0.66
20:BH:43:GLY:HA2	20:BH:144:PRO:HG3	1.76	0.66
30:BR:55:TRP:HE1	31:BS:97:TYR:HH	1.43	0.66
6:BZ:142:GLU:OE2	6:BZ:153:LYS:NZ	2.27	0.66
18:AC:229:ARG:HG2	18:AC:231:VAL:HG22	1.76	0.66
18:AC:325:ARG:NH2	18:AC:353:GLY:O	2.26	0.66
18:AC:350:LEU:HB3	18:AC:387:VAL:HG11	1.78	0.66
23:AK:221:GLN:HB2	23:AK:224:GLN:HB3	1.77	0.66
2:AV:337:LEU:O	2:AV:401:ASN:ND2	2.28	0.66
16:BE:242:ARG:HB3	16:BE:254:GLN:HG3	1.77	0.66
23:BK:221:GLN:HB2	23:BK:224:GLN:HB3	1.77	0.66
26:AN:136:TYR:CD2	26:BN:134:TYR:CD1	2.83	0.66
13:AA:223:THR:OG1	34:AA:501:ATP:O2A	2.13	0.66
3:AW:55:ARG:HH12	3:AW:79:GLU:HG3	1.60	0.66
18:BC:229:ARG:HG2	18:BC:231:VAL:HG22	1.76	0.66
22:BJ:7:ILE:HG13	22:BJ:124:ARG:H	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BU:35:TRP:HB3	1:BU:70:HIS:CG	2.31	0.66
3:BW:48:LEU:HD12	3:BW:96:GLN:HE22	1.60	0.66
15:AD:148:ASP:HB3	15:AD:149:SER:C	2.16	0.66
17:AF:83:ASN:O	17:AF:154:ASN:ND2	2.28	0.66
2:AV:282:ASN:O	2:AV:315:LYS:NZ	2.28	0.66
29:BQ:4:LEU:HD13	29:BQ:17:SER:HB2	1.78	0.66
16:AE:242:ARG:HB3	16:AE:254:GLN:HG3	1.77	0.66
24:AL:229:VAL:HG12	24:AL:233:LEU:HG	1.78	0.66
31:AS:144:MET:CB	28:BP:144:GLU:HG2	2.26	0.66
31:AS:174:LEU:O	27:BO:199:LEU:CD2	2.35	0.66
30:AR:141:ARG:NE	29:BQ:162:LYS:HB3	2.09	0.66
27:AO:199:LEU:CD1	31:BS:177:ASP:OD1	2.42	0.66
2:BV:345:ARG:HD3	2:BV:361:PHE:HD1	1.61	0.66
2:BV:455:LYS:N	2:BV:456:GLY:HA2	2.10	0.66
30:AR:133:VAL:CG2	29:BQ:137:PHE:CB	2.74	0.66
4:AX:122:ARG:HH21	20:AH:185:GLU:CG	2.00	0.66
18:BC:298:ILE:O	18:BC:301:LEU:N	2.27	0.66
1:BU:338:HIS:CE1	1:BU:785:PRO:HB3	2.31	0.66
13:AA:170:PRO:HA	13:AA:229:VAL:HG12	1.76	0.66
19:AG:110:PRO:O	19:AG:111:VAL:HG12	1.96	0.66
27:AO:64:GLU:O	27:AO:68:LEU:HB2	1.96	0.66
29:AQ:137:PHE:O	30:BR:134:TYR:HD1	1.78	0.66
1:AU:35:TRP:HB3	1:AU:70:HIS:CG	2.30	0.66
6:AZ:262:LEU:HD23	6:AZ:265:LEU:HD22	1.76	0.66
29:BQ:3:TYR:CZ	29:BQ:131:ALA:HA	2.30	0.66
2:BV:336:GLU:HA	2:BV:339:LEU:HD12	1.77	0.66
26:AN:18:SER:HB2	26:AN:30:VAL:HA	1.78	0.65
2:AV:455:LYS:N	2:AV:456:GLY:HA2	2.10	0.65
17:BF:223:VAL:HG13	17:BF:329:ILE:HG23	1.77	0.65
21:BI:228:LEU:HD13	21:BI:233:VAL:HG21	1.78	0.65
19:AG:123:GLN:HG2	20:AH:85:VAL:HG21	1.78	0.65
29:AQ:3:TYR:CZ	29:AQ:131:ALA:HA	2.30	0.65
17:BF:89:LEU:HG	17:BF:153:VAL:HG13	1.78	0.65
26:BN:18:SER:HB2	26:BN:30:VAL:HA	1.78	0.65
14:AB:139:VAL:HA	14:AB:140:ASP:HB3	1.79	0.65
17:AF:97:LEU:HD13	17:AF:120:LYS:CD	2.26	0.65
25:AM:15:SER:OG	25:AM:17:ASP:OD1	2.07	0.65
29:AQ:4:LEU:HD13	29:AQ:17:SER:HB2	1.78	0.65
1:AU:742:HIS:O	1:AU:883:ARG:NH2	2.29	0.65
2:AV:79:VAL:HG13	2:AV:80:LYS:H	1.60	0.65
23:BK:48:LEU:N	23:BK:218:ALA:O	2.28	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AT:144:TYR:HB3	27:BO:132:LEU:CD1	2.27	0.65
1:BU:742:HIS:O	1:BU:883:ARG:NH2	2.29	0.65
3:BW:55:ARG:HH12	3:BW:79:GLU:HG3	1.60	0.65
4:AX:83:ALA:HB1	20:AH:229:TYR:HB2	1.79	0.65
1:AU:338:HIS:CE1	1:AU:785:PRO:HB3	2.31	0.65
2:AV:322:VAL:HG13	2:AV:323:GLY:H	1.62	0.65
24:BL:41:LYS:NZ	24:BL:180:MET:O	2.30	0.65
1:BU:68:PHE:HB3	1:BU:73:ALA:HB3	1.79	0.65
2:BV:322:VAL:HG13	2:BV:323:GLY:H	1.62	0.65
2:AV:195:ILE:HD11	18:AC:19:GLY:HA2	1.79	0.65
21:AI:2:SER:N	24:AL:123:TYR:HH	1.94	0.65
13:BA:373:LEU:HD11	13:BA:413:VAL:HG11	1.77	0.65
14:BB:103:ARG:CD	14:BB:107:MET:SD	2.84	0.65
14:BB:103:ARG:HD3	14:BB:107:MET:HE1	1.74	0.65
14:BB:261:GLY:HA2	14:BB:262:ASP:HB3	1.77	0.65
18:BC:350:LEU:HB3	18:BC:387:VAL:HG11	1.78	0.65
19:BG:110:PRO:O	19:BG:111:VAL:HG12	1.96	0.65
22:BJ:18:GLN:O	22:BJ:22:ALA:CB	2.44	0.65
16:AE:208:ILE:O	16:AE:210:GLU:N	2.28	0.65
20:AH:15:PRO:HA	21:AI:23:TYR:CZ	2.32	0.65
20:AH:45:VAL:HG22	20:AH:212:ILE:HG22	1.78	0.65
23:AK:200:ILE:HA	23:AK:203:LYS:HZ3	1.61	0.65
29:AQ:165:GLU:HB2	30:BR:141:ARG:CZ	2.25	0.65
2:AV:333:ILE:HD11	2:AV:360:TYR:HE2	1.60	0.65
14:BB:139:VAL:HA	14:BB:140:ASP:HB3	1.79	0.65
18:BC:286:THR:HG23	18:BC:287:LYS:H	1.61	0.65
15:BD:289:LEU:O	15:BD:293:LEU:HB2	1.97	0.65
24:BL:186:GLU:HA	24:BL:189:LYS:HG2	1.79	0.65
2:BV:195:ILE:HD11	18:BC:19:GLY:HA2	1.79	0.65
6:BZ:262:LEU:HD23	6:BZ:265:LEU:HD22	1.76	0.65
16:AE:235:ILE:HG22	16:AE:279:THR:HB	1.76	0.65
27:AO:132:LEU:CD1	32:BT:144:TYR:HB3	2.27	0.65
4:AX:124:PHE:CE1	20:AH:234:ALA:OXT	2.50	0.65
4:AX:171:LEU:O	4:AX:213:GLN:NE2	2.28	0.65
14:BB:199:GLU:HG3	14:BB:203:LEU:HB2	1.79	0.65
16:BE:181:THR:O	16:BE:185:ARG:CB	2.34	0.65
25:BM:15:SER:OG	25:BM:17:ASP:OD1	2.07	0.65
2:BV:250:LEU:HA	2:BV:253:LEU:HD12	1.77	0.65
13:AA:166:VAL:HA	13:AA:238:ILE:HD12	1.79	0.65
14:AB:103:ARG:CD	14:AB:107:MET:SD	2.84	0.65
15:AD:194:ILE:HD13	18:AC:371:LEU:HB2	1.76	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AO:208:THR:OG1	31:BS:159:GLN:CA	2.45	0.65
29:AQ:22:ALA:HA	29:BQ:170:ARG:HH11	1.62	0.65
20:BH:15:PRO:HA	21:BI:23:TYR:CZ	2.32	0.65
28:AP:176:ASP:C	30:BR:26:ILE:HG21	2.17	0.65
15:AD:289:LEU:O	15:AD:293:LEU:HB2	1.97	0.65
15:AD:96:VAL:HG21	15:AD:112:TYR:HE1	1.62	0.65
32:AT:33:LEU:HD11	26:BN:166:ARG:CG	2.26	0.65
17:BF:200:GLU:O	17:BF:204:LEU:HG	1.97	0.65
28:BP:58:THR:OG1	29:BQ:121:LEU:O	2.10	0.65
27:AO:199:LEU:HB2	31:BS:177:ASP:OD2	1.68	0.65
2:BV:80:LYS:HB3	2:BV:81:GLN:C	2.17	0.65
4:BX:124:PHE:CE1	20:BH:234:ALA:OXT	2.50	0.65
22:AJ:18:GLN:O	22:AJ:22:ALA:CB	2.44	0.65
31:AS:177:ASP:OD1	27:BO:199:LEU:CD1	2.43	0.65
1:BU:247:GLN:HE22	1:BU:912:ILE:HG22	1.60	0.65
2:BV:333:ILE:HD11	2:BV:360:TYR:CE2	2.32	0.65
18:AC:378:VAL:HG12	18:AC:379:THR:H	1.62	0.64
15:AD:285:VAL:HA	15:AD:288:ILE:HD12	1.79	0.64
16:AE:82:GLY:O	16:AE:106:THR:OG1	2.09	0.64
2:AV:80:LYS:HB3	2:AV:81:GLN:C	2.17	0.64
3:AW:90:LEU:HD22	15:AD:390:ASN:HB3	1.80	0.64
13:BA:90:GLU:CG	13:BA:94:GLN:HE22	2.06	0.64
15:BD:96:VAL:HG21	15:BD:112:TYR:HE1	1.62	0.64
26:AN:138:TYR:N	26:BN:138:TYR:CB	2.47	0.64
27:BO:64:GLU:O	27:BO:68:LEU:HB2	1.96	0.64
13:AA:333:ARG:HH12	13:AA:340:LYS:HD3	1.62	0.64
14:AB:105:THR:HG23	14:AB:106:PRO:HD3	1.77	0.64
16:AE:265:ASP:OD2	16:AE:294:ARG:NH2	2.30	0.64
13:BA:92:PRO:HB2	13:BA:93:LEU:HD12	1.79	0.64
17:BF:397:LYS:HZ1	17:BF:408:LEU:HD21	18.00	0.64
17:BF:97:LEU:HD13	17:BF:120:LYS:CD	2.26	0.64
19:BG:123:GLN:HG2	20:BH:85:VAL:HG21	1.78	0.64
24:BL:229:VAL:HG12	24:BL:233:LEU:HG	1.77	0.64
25:AM:122:TYR:HD1	25:AM:128:VAL:HG21	1.63	0.64
13:BA:292:ASP:OD1	14:BB:303:ARG:NH2	2.20	0.64
18:BC:217:SER:HB3	18:BC:218:GLU:CB	2.25	0.64
4:BX:83:ALA:HB1	20:BH:229:TYR:HB2	1.79	0.64
24:BL:85:CYS:O	24:BL:89:ARG:HG2	1.97	0.64
29:AQ:170:ARG:O	29:BQ:26:VAL:C	2.32	0.64
18:AC:133:PRO:O	18:AC:137:LEU:CB	2.42	0.64
18:AC:344:LEU:HA	18:AC:347:ILE:HG22	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AD:82:ILE:N	15:AD:82:ILE:HD12	2.13	0.64
1:AU:789:ILE:HG23	1:AU:844:LYS:HE2	1.79	0.64
2:AV:333:ILE:HD11	2:AV:360:TYR:CE2	2.32	0.64
2:AV:447:ILE:HG13	2:AV:449:ALA:H	1.61	0.64
14:BB:135:ILE:HG12	14:BB:159:VAL:HG13	1.79	0.64
18:BC:117:ARG:N	18:BC:122:THR:O	2.31	0.64
1:BU:199:ARG:O	1:BU:203:LYS:NZ	2.27	0.64
13:AA:297:ARG:O	13:AA:301:GLU:HB2	1.98	0.64
14:AB:199:GLU:HG3	14:AB:203:LEU:HB2	1.79	0.64
18:AC:286:THR:HG23	18:AC:287:LYS:H	1.61	0.64
17:AF:89:LEU:HG	17:AF:153:VAL:HG13	1.78	0.64
24:AL:148:CYS:HG	24:AL:150:SER:HG	1.43	0.64
18:BC:344:LEU:HA	18:BC:347:ILE:HG22	1.79	0.64
29:AQ:137:PHE:CB	30:BR:133:VAL:CG2	2.74	0.64
15:AD:130:VAL:HA	15:AD:142:VAL:HA	1.79	0.64
16:AE:149:ILE:HA	16:AE:274:LYS:HE2	1.79	0.64
16:AE:327:ASP:N	16:AE:364:GLN:OE1	2.27	0.64
31:AS:185:ARG:C	27:BO:26:VAL:CG2	2.42	0.64
13:BA:297:ARG:O	13:BA:301:GLU:HB2	1.98	0.64
14:BB:301:GLY:H	14:BB:304:GLU:HB3	1.63	0.64
14:BB:317:ASP:HB3	14:BB:318:GLY:HA2	1.79	0.64
5:BY:174:TRP:HE3	18:BC:334:ARG:HA	1.62	0.64
29:BQ:13:VAL:HB	29:BQ:183:ILE:HB	1.79	0.64
24:BL:107:ARG:NH2	32:BT:79:ASP:OD2	2.22	0.64
6:BZ:225:GLN:HG2	6:BZ:228:TYR:HE2	1.63	0.64
5:AY:174:TRP:HE3	18:AC:334:ARG:HA	1.62	0.64
17:AF:200:GLU:O	17:AF:204:LEU:HG	1.97	0.64
30:AR:134:TYR:HD1	29:BQ:137:PHE:O	1.80	0.64
29:AQ:166:GLU:CD	30:BR:140:ASP:HB3	2.17	0.64
1:BU:789:ILE:HG23	1:BU:844:LYS:HE2	1.79	0.64
3:BW:90:LEU:HD22	15:BD:390:ASN:HB3	1.80	0.64
13:AA:401:ARG:HH12	13:AA:404:ALA:HA	1.62	0.64
15:AD:323:ARG:HD3	18:AC:142:LYS:HD3	1.78	0.64
16:AE:128:GLY:O	16:AE:189:SER:OG	2.15	0.64
17:AF:301:ALA:HB3	17:AF:304:ARG:HB2	1.80	0.64
21:AI:228:LEU:HD13	21:AI:233:VAL:HG21	1.78	0.64
24:AL:85:CYS:O	24:AL:89:ARG:HG2	1.98	0.64
27:AO:63:LEU:HD11	27:AO:79:ALA:HB2	1.78	0.64
29:AQ:144:ASP:C	30:BR:162:GLN:NE2	2.51	0.64
2:AV:167:LEU:HD11	2:AV:171:VAL:HB	1.79	0.64
13:BA:415:LYS:O	13:BA:419:SER:OG	2.11	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:BA:289:ALA:HB1	17:BF:295:ARG:HD3	1.78	0.64
1:BU:215:ASN:OD1	1:BU:216:VAL:N	2.30	0.64
6:BZ:97:THR:HA	6:BZ:124:ILE:HG13	1.80	0.64
18:AC:187:LEU:HD11	18:AC:314:LYS:HD2	1.80	0.64
15:AD:193:GLN:O	18:AC:337:ASN:ND2	2.31	0.64
29:AQ:13:VAL:HB	29:AQ:183:ILE:HB	1.79	0.64
31:AS:4:PRO:HB2	32:AT:100:ARG:NH2	2.12	0.64
14:BB:426:VAL:HA	14:BB:429:LYS:HB3	1.80	0.64
15:BD:285:VAL:HA	15:BD:288:ILE:HD12	1.79	0.64
20:BH:123:GLN:O	21:BI:127:LYS:NZ	2.25	0.64
25:BM:37:ILE:HD11	25:BM:193:VAL:HG13	1.80	0.64
2:BV:224:LEU:HD12	2:BV:228:ARG:HG3	1.80	0.64
14:AB:301:GLY:H	14:AB:304:GLU:HB3	1.63	0.64
24:AL:186:GLU:HA	24:AL:189:LYS:HG2	1.79	0.64
13:BA:401:ARG:HH12	13:BA:404:ALA:HA	1.62	0.64
18:BC:378:VAL:HG12	18:BC:379:THR:H	1.62	0.64
31:BS:4:PRO:HB2	32:BT:100:ARG:NH2	2.12	0.64
14:AB:226:GLY:HA3	14:AB:353:PHE:HB3	1.80	0.63
19:AG:53:GLN:HA	19:AG:215:ILE:HA	1.80	0.63
25:AM:8:ASP:O	25:AM:22:GLN:NE2	2.26	0.63
29:AQ:26:VAL:C	29:BQ:170:ARG:O	2.33	0.63
31:AS:151:ASN:HD22	28:BP:173:ASN:ND2	1.96	0.63
1:AU:68:PHE:HB3	1:AU:73:ALA:HB3	1.79	0.63
6:AZ:225:GLN:HG2	6:AZ:228:TYR:HE2	1.63	0.63
16:BE:208:ILE:O	16:BE:210:GLU:N	2.28	0.63
25:BM:122:TYR:HD1	25:BM:128:VAL:HG21	1.63	0.63
2:BV:190:ASP:HA	2:BV:200:ARG:HH21	1.62	0.63
13:AA:289:ALA:HB1	17:AF:295:ARG:HD3	1.78	0.63
15:AD:114:ARG:NH2	18:AC:62:GLU:CG	2.57	0.63
22:AJ:186:LEU:O	22:AJ:190:LEU:HB2	1.98	0.63
1:AU:203:LYS:O	1:AU:207:ASN:ND2	2.31	0.63
4:AX:90:ARG:HH21	4:AX:125:LEU:HA	1.63	0.63
6:AZ:250:TYR:O	6:AZ:254:ASN:HB2	1.98	0.63
13:BA:166:VAL:HA	13:BA:238:ILE:HD12	1.79	0.63
18:BC:158:ILE:HA	18:BC:161:ILE:HG22	1.80	0.63
16:BE:265:ASP:OD2	16:BE:294:ARG:NH2	2.30	0.63
27:AO:202:TYR:OH	31:BS:174:LEU:HD23	1.97	0.63
3:BW:340:VAL:HG22	3:BW:350:ARG:HH11	1.63	0.63
13:AA:248:LYS:HG2	14:AB:261:GLY:O	1.99	0.63
13:BA:333:ARG:HH12	13:BA:340:LYS:HD3	1.62	0.63
18:BC:201:ARG:O	18:BC:205:HIS:CB	2.46	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BD:193:GLN:O	18:BC:337:ASN:ND2	2.31	0.63
15:BD:130:VAL:HA	15:BD:142:VAL:HA	1.79	0.63
19:BG:53:GLN:HA	19:BG:215:ILE:HA	1.80	0.63
27:BO:63:LEU:HD11	27:BO:79:ALA:HB2	1.78	0.63
14:AB:103:ARG:CG	14:AB:107:MET:SD	2.87	0.63
18:AC:117:ARG:N	18:AC:122:THR:O	2.31	0.63
18:AC:158:ILE:HA	18:AC:161:ILE:HG22	1.80	0.63
24:AL:117:GLN:O	24:AL:120:THR:OG1	2.15	0.63
1:AU:156:GLU:OE2	15:AD:45:LYS:NZ	2.32	0.63
1:AU:215:ASN:OD1	1:AU:216:VAL:N	2.30	0.63
2:AV:190:ASP:HA	2:AV:200:ARG:HH21	1.63	0.63
29:BQ:57:ALA:O	29:BQ:61:GLN:CB	2.46	0.63
13:AA:349:GLU:O	13:AA:352:THR:HG22	1.98	0.63
14:AB:135:ILE:HG12	14:AB:159:VAL:HG13	1.79	0.63
14:AB:317:ASP:HB3	14:AB:318:GLY:HA2	1.79	0.63
21:AI:49:ARG:NH1	21:AI:64:LYS:H	1.97	0.63
25:AM:37:ILE:HD11	25:AM:193:VAL:HG13	1.80	0.63
26:AN:166:ARG:HG3	32:BT:33:LEU:HD11	1.79	0.63
30:AR:141:ARG:HA	29:BQ:166:GLU:OE2	1.98	0.63
14:BB:343:ARG:HA	14:BB:347:ILE:HD13	1.81	0.63
14:BB:218:PRO:HB2	14:BB:346:ARG:HH12	1.62	0.63
22:BJ:186:LEU:O	22:BJ:190:LEU:HB2	1.98	0.63
30:AR:134:TYR:O	29:BQ:141:SER:HB3	1.98	0.63
15:AD:388:ARG:HH12	16:AE:143:ARG:HG3	1.63	0.63
28:AP:177:ARG:HD2	30:BR:26:ILE:C	2.11	0.63
2:AV:345:ARG:HD3	2:AV:361:PHE:HD1	1.61	0.63
5:AY:356:THR:HA	5:AY:357:ASN:CG	2.19	0.63
13:BA:248:LYS:HG2	14:BB:261:GLY:O	1.99	0.63
14:BB:103:ARG:CG	14:BB:107:MET:SD	2.87	0.63
29:AQ:170:ARG:HH11	29:BQ:22:ALA:HA	1.60	0.63
21:AI:143:TYR:HB2	21:AI:146:GLN:HE21	1.64	0.63
6:AZ:54:PHE:HB3	6:AZ:82:PHE:HE2	1.63	0.63
18:BC:133:PRO:O	18:BC:137:LEU:CB	2.42	0.63
18:BC:213:ARG:NH2	18:BC:249:ASP:OD1	2.32	0.63
1:BU:156:GLU:OE2	15:BD:45:LYS:NZ	2.32	0.63
5:BY:262:SER:HB3	5:BY:270:VAL:HG11	1.81	0.63
14:AB:218:PRO:HB2	14:AB:346:ARG:HH12	1.62	0.63
31:AS:173:ARG:HD3	27:BO:200:GLY:HA3	1.81	0.63
15:BD:82:ILE:HD12	15:BD:82:ILE:N	2.13	0.63
16:BE:149:ILE:HA	16:BE:274:LYS:HE2	1.79	0.63
14:BB:431:GLN:HG2	21:BI:169:ALA:HB3	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BI:49:ARG:NH1	21:BI:64:LYS:H	1.97	0.63
24:BL:148:CYS:HG	24:BL:150:SER:HG	1.44	0.63
13:AA:292:ASP:OD1	14:AB:303:ARG:NH2	2.20	0.63
13:AA:92:PRO:HB2	13:AA:93:LEU:HD12	1.79	0.63
18:AC:166:GLU:OE1	18:AC:170:LYS:NZ	2.27	0.63
4:AX:409:LYS:HE2	18:AC:260:GLU:HB3	69.45	0.63
15:AD:181:VAL:O	15:AD:306:LYS:NZ	2.31	0.63
22:AJ:116:GLN:NE2	22:AJ:150:SER:O	2.32	0.63
26:AN:166:ARG:CG	32:BT:33:LEU:HD11	2.29	0.63
30:AR:134:TYR:CD1	29:BQ:137:PHE:HA	2.34	0.63
15:BD:323:ARG:HD3	18:BC:142:LYS:HD3	1.78	0.63
6:BZ:250:TYR:O	6:BZ:254:ASN:HB2	1.98	0.63
18:AC:201:ARG:O	18:AC:205:HIS:CB	2.46	0.62
24:AL:109:VAL:HG21	24:AL:145:PHE:HD2	1.64	0.62
31:AS:180:ILE:C	27:BO:195:LYS:CE	2.63	0.62
15:BD:181:VAL:O	15:BD:306:LYS:NZ	2.31	0.62
22:BJ:116:GLN:NE2	22:BJ:150:SER:O	2.32	0.62
31:AS:180:ILE:CA	27:BO:195:LYS:HE3	2.29	0.62
28:AP:144:GLU:HG2	31:BS:144:MET:CB	2.26	0.62
27:AO:199:LEU:C	31:BS:177:ASP:OD2	2.13	0.62
14:AB:268:ARG:HA	14:AB:315:GLN:HE22	1.64	0.62
14:AB:431:GLN:HG2	21:AI:169:ALA:HB3	1.81	0.62
29:AQ:141:SER:HB3	30:BR:134:TYR:O	1.98	0.62
2:AV:228:ARG:O	2:AV:232:HIS:ND1	2.31	0.62
15:BD:114:ARG:NH2	18:BC:62:GLU:CG	2.57	0.62
3:BW:171:VAL:HG11	15:BD:392:TYR:OH	1.99	0.62
16:BE:212:ALA:HB2	16:BE:256:THR:HG22	1.81	0.62
32:BT:153:VAL:HG21	32:BT:168:LEU:HD11	1.82	0.62
13:AA:297:ARG:O	13:AA:301:GLU:CB	2.47	0.62
23:AK:48:LEU:N	23:AK:218:ALA:O	2.28	0.62
29:AQ:57:ALA:O	29:AQ:61:GLN:CB	2.46	0.62
2:AV:173:ILE:O	2:AV:177:ASN:ND2	2.32	0.62
3:AW:408:ARG:HD2	4:AX:346:GLN:HE22	1.64	0.62
5:AY:262:SER:HB3	5:AY:270:VAL:HG11	1.81	0.62
14:BB:268:ARG:HA	14:BB:315:GLN:HE22	1.64	0.62
14:BB:226:GLY:HA3	14:BB:353:PHE:HB3	1.80	0.62
14:BB:298:ASN:HD22	16:BE:246:GLY:HA2	1.64	0.62
4:BX:90:ARG:HH21	4:BX:125:LEU:HA	1.63	0.62
24:AL:41:LYS:NZ	24:AL:180:MET:O	2.30	0.62
25:AM:55:SER:H	25:AM:57:LEU:HG	1.63	0.62
5:AY:110:TYR:O	5:AY:113:ARG:HB3	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:BF:301:ALA:HB3	17:BF:304:ARG:HB2	1.80	0.62
31:AS:157:ASN:HB2	28:BP:173:ASN:ND2	2.14	0.62
3:BW:408:ARG:HD2	4:BX:346:GLN:HE22	1.64	0.62
5:BY:356:THR:HA	5:BY:357:ASN:CG	2.19	0.62
6:BZ:144:VAL:HG12	6:BZ:145:HIS:H	1.64	0.62
31:AS:57:PHE:HD2	31:AS:60:ASP:H	1.48	0.62
5:AY:210:SER:HB3	5:AY:213:LEU:HB2	1.82	0.62
18:BC:187:LEU:HD11	18:BC:314:LYS:HD2	1.80	0.62
18:BC:69:GLN:OE1	18:BC:118:ASN:CB	2.48	0.62
15:BD:388:ARG:HH12	16:BE:143:ARG:HG3	1.63	0.62
26:BN:14:LEU:HD11	26:BN:101:ALA:HB3	1.81	0.62
2:BV:167:LEU:HD11	2:BV:171:VAL:HB	1.80	0.62
5:BY:17:LEU:HA	5:BY:150:PHE:HE1	1.64	0.62
5:BY:210:SER:HB3	5:BY:213:LEU:HB2	1.82	0.62
18:AC:310:ARG:HB2	18:AC:311:ILE:HG23	1.81	0.62
15:AD:178:ARG:HD3	15:AD:182:GLU:HG2	1.81	0.62
6:AZ:220:LEU:HB3	6:AZ:221:PRO:HA	1.81	0.62
6:AZ:97:THR:HA	6:AZ:124:ILE:HG13	1.80	0.62
13:BA:349:GLU:O	13:BA:352:THR:HG22	1.98	0.62
32:BT:99:ARG:HG3	32:BT:105:PRO:HA	1.82	0.62
18:AC:313:ARG:NH1	18:AC:314:LYS:O	2.32	0.62
23:AK:232:GLU:H	23:AK:235:GLU:HG3	1.65	0.62
30:AR:162:GLN:NE2	29:BQ:144:ASP:C	2.53	0.62
30:AR:21:THR:HG22	30:AR:27:ALA:H	1.65	0.62
2:AV:89:LYS:HD3	2:AV:92:ARG:HH11	1.65	0.62
15:BD:178:ARG:HD3	15:BD:182:GLU:HG2	1.81	0.62
29:BQ:140:LEU:O	29:BQ:144:ASP:CB	2.48	0.62
2:BV:228:ARG:O	2:BV:232:HIS:ND1	2.31	0.62
13:AA:190:VAL:HG11	13:AA:212:VAL:HG11	1.82	0.62
18:AC:69:GLN:OE1	18:AC:118:ASN:CB	2.48	0.62
30:AR:140:ASP:HB3	29:BQ:166:GLU:CD	2.18	0.62
30:AR:26:ILE:HG21	28:BP:176:ASP:C	2.17	0.62
18:BC:313:ARG:NH1	18:BC:314:LYS:O	2.32	0.62
16:BE:350:ALA:HB1	16:BE:367:PHE:CD1	2.35	0.62
17:BF:97:LEU:HD12	17:BF:120:LYS:HG3	1.82	0.62
17:BF:86:LEU:C	17:BF:154:ASN:OD1	2.37	0.62
21:BI:143:TYR:HB2	21:BI:146:GLN:HE21	1.64	0.62
24:BL:109:VAL:HG21	24:BL:145:PHE:HD2	1.64	0.62
27:AO:26:VAL:CG2	31:BS:185:ARG:C	2.44	0.62
6:BZ:91:ILE:O	6:BZ:91:ILE:HD12	2.00	0.62
14:AB:343:ARG:HA	14:AB:347:ILE:HD13	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AR:26:ILE:C	28:BP:177:ARG:HD3	2.19	0.62
1:AU:505:ASP:HB3	1:AU:508:THR:HG22	1.82	0.62
13:BA:190:VAL:HG11	13:BA:212:VAL:HG11	1.82	0.62
15:BD:247:VAL:HG21	15:BD:288:ILE:HG23	1.82	0.62
16:BE:128:GLY:O	16:BE:189:SER:OG	2.15	0.62
16:BE:327:ASP:N	16:BE:364:GLN:OE1	2.27	0.62
23:BK:232:GLU:H	23:BK:235:GLU:HG3	1.65	0.62
30:AR:169:TYR:CD2	28:BP:32:ALA:CB	2.83	0.62
3:BW:219:THR:HG22	3:BW:222:LEU:H	1.64	0.62
14:AB:295:TYR:HB3	14:AB:299:SER:HB3	1.82	0.62
14:AB:334:ILE:HD12	14:AB:337:LEU:HD12	1.82	0.62
18:AC:78:ARG:HB3	18:AC:86:LEU:HD12	1.82	0.62
15:AD:136:SER:O	18:AC:66:LEU:HD23	2.00	0.62
2:AV:224:LEU:HD12	2:AV:228:ARG:HG3	1.80	0.62
5:AY:190:ALA:O	5:AY:291:HIS:NE2	2.26	0.62
4:AX:384:VAL:HB	5:AY:312:ARG:HH22	1.65	0.62
6:AZ:144:VAL:HG12	6:AZ:145:HIS:H	1.64	0.62
18:BC:297:ARG:HG3	18:BC:298:ILE:H	1.65	0.62
22:BJ:73:PHE:HA	22:BJ:131:ALA:HA	1.81	0.62
24:BL:15:PRO:O	25:BM:28:LYS:NZ	2.25	0.62
6:BZ:54:PHE:HB3	6:BZ:82:PHE:HE2	1.63	0.62
17:AF:86:LEU:C	17:AF:154:ASN:OD1	2.37	0.61
26:AN:140:ASP:OD2	26:BN:166:ARG:NH2	2.26	0.61
29:AQ:137:PHE:HA	30:BR:134:TYR:CD1	2.34	0.61
32:AT:153:VAL:HG21	32:AT:168:LEU:HD11	1.82	0.61
4:BX:409:LYS:HE2	18:BC:260:GLU:HB3	69.45	0.61
18:BC:310:ARG:HB2	18:BC:311:ILE:HG23	1.81	0.61
15:BD:167:ILE:HD11	15:BD:174:LYS:HD3	1.82	0.61
16:BE:65:THR:HG22	16:BE:66:GLU:H	1.65	0.61
5:BY:301:ILE:HD12	5:BY:342:ARG:HB3	1.82	0.61
13:AA:316:LYS:O	13:AA:317:VAL:HG13	2.01	0.61
14:AB:426:VAL:HA	14:AB:429:LYS:HB3	1.80	0.61
16:AE:212:ALA:HB2	16:AE:256:THR:HG22	1.81	0.61
16:AE:350:ALA:HB2	16:AE:371:VAL:HG23	1.82	0.61
20:AH:65:VAL:HG22	20:AH:75:VAL:HG12	1.82	0.61
5:AY:356:THR:OG1	5:AY:357:ASN:O	2.14	0.61
22:BJ:115:LYS:HE2	22:BJ:149:PRO:HA	1.82	0.61
20:BH:4:ARG:HD3	25:BM:127:ALA:HB2	1.82	0.61
31:AS:185:ARG:N	27:BO:26:VAL:HG21	2.14	0.61
5:BY:110:TYR:O	5:BY:113:ARG:HB3	2.00	0.61
14:AB:103:ARG:HG2	14:AB:107:MET:SD	2.40	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AN:14:LEU:HD11	26:AN:101:ALA:HB3	1.81	0.61
13:BA:297:ARG:O	13:BA:301:GLU:CB	2.47	0.61
18:BC:78:ARG:HB3	18:BC:86:LEU:HD12	1.82	0.61
21:BI:2:SER:N	24:BL:123:TYR:HH	1.97	0.61
29:AQ:166:GLU:OE2	30:BR:141:ARG:HA	1.99	0.61
28:AP:177:ARG:HD3	30:BR:26:ILE:C	2.18	0.61
18:AC:213:ARG:NH2	18:AC:249:ASP:OD1	2.32	0.61
18:AC:217:SER:HB3	18:AC:218:GLU:CB	2.25	0.61
15:AD:202:VAL:HB	15:AD:308:ILE:HA	1.81	0.61
31:AS:114:ASP:OD1	31:AS:118:LYS:N	2.28	0.61
1:AU:599:ILE:HG23	15:AD:56:VAL:HG21	1.83	0.61
5:AY:357:ASN:HB2	5:AY:358:ARG:HA	1.82	0.61
20:BH:65:VAL:HG22	20:BH:75:VAL:HG12	1.82	0.61
25:BM:55:SER:H	25:BM:57:LEU:HG	1.63	0.61
27:AO:165:ASN:CG	32:BT:148:PRO:HB3	2.21	0.61
4:BX:384:VAL:HB	5:BY:312:ARG:HH22	1.65	0.61
14:AB:103:ARG:CG	14:AB:107:MET:HE2	2.30	0.61
16:AE:152:PRO:HG3	16:AE:159:PHE:HE2	1.66	0.61
17:AF:86:LEU:HB2	17:AF:88:TYR:CZ	2.35	0.61
24:AL:212:ILE:HD13	24:AL:229:VAL:HG11	1.83	0.61
2:AV:318:GLN:O	2:AV:319:HIS:ND1	2.33	0.61
3:AW:340:VAL:HG22	3:AW:350:ARG:HH11	1.63	0.61
5:AY:177:ARG:HH12	18:AC:337:ASN:ND2	1.90	0.61
5:AY:17:LEU:HA	5:AY:150:PHE:HE1	1.64	0.61
15:BD:136:SER:O	18:BC:66:LEU:HD23	2.00	0.61
16:BE:350:ALA:HB2	16:BE:371:VAL:HG23	1.83	0.61
29:BQ:140:LEU:O	29:BQ:144:ASP:HB2	2.00	0.61
1:BU:615:ARG:HH21	1:BU:645:ASN:HD21	1.49	0.61
2:BV:173:ILE:O	2:BV:177:ASN:ND2	2.32	0.61
4:BX:346:GLN:HE21	4:BX:349:HIS:HB2	1.64	0.61
14:AB:250:VAL:HG21	14:AB:270:LEU:HD22	1.82	0.61
22:AJ:73:PHE:HA	22:AJ:131:ALA:HA	1.82	0.61
29:AQ:145:ARG:N	30:BR:162:GLN:NE2	2.48	0.61
3:AW:219:THR:HG22	3:AW:222:LEU:H	1.64	0.61
4:AX:346:GLN:HE21	4:AX:349:HIS:HB2	1.64	0.61
19:BG:125:TYR:HA	19:BG:131:MET:SD	2.41	0.61
21:BI:38:LEU:HG	21:BI:160:LYS:HB3	1.82	0.61
28:AP:32:ALA:CB	30:BR:169:TYR:CD2	2.83	0.61
30:BR:21:THR:HG22	30:BR:27:ALA:H	1.65	0.61
31:BS:57:PHE:HD2	31:BS:60:ASP:H	1.48	0.61
2:BV:89:LYS:HD3	2:BV:92:ARG:HH11	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AA:397:ILE:O	13:AA:400:ARG:NH1	2.34	0.61
15:AD:336:PRO:O	15:AD:341:LYS:NZ	2.34	0.61
3:AW:171:VAL:HG11	15:AD:392:TYR:OH	1.99	0.61
21:AI:38:LEU:HG	21:AI:160:LYS:HB3	1.82	0.61
22:AJ:116:GLN:HE21	23:AK:83:ALA:HB3	1.66	0.61
3:AW:241:LEU:HA	3:AW:244:CYS:SG	2.41	0.61
13:BA:330:ALA:HA	13:BA:333:ARG:HG2	1.81	0.61
18:BC:325:ARG:O	18:BC:329:LEU:HB3	2.01	0.61
2:BV:157:THR:OG1	2:BV:158:PRO:HD3	2.00	0.61
2:BV:318:GLN:O	2:BV:319:HIS:ND1	2.33	0.61
18:AC:297:ARG:HG3	18:AC:298:ILE:H	1.65	0.61
15:AD:167:ILE:HD11	15:AD:174:LYS:HD3	1.82	0.61
20:AH:15:PRO:HA	21:AI:23:TYR:CE1	2.36	0.61
21:AI:122:THR:O	22:AJ:125:ARG:NH1	2.34	0.61
22:AJ:115:LYS:HE2	22:AJ:149:PRO:HA	1.82	0.61
29:AQ:140:LEU:O	29:AQ:144:ASP:CB	2.48	0.61
32:AT:99:ARG:HG3	32:AT:105:PRO:HA	1.82	0.61
1:AU:353:LEU:HD13	1:AU:385:PHE:HZ	1.66	0.61
2:AV:281:ASN:H	2:AV:284:GLU:HB3	1.66	0.61
13:BA:201:PHE:HE1	17:BF:408:LEU:HD22	1.66	0.61
23:BK:200:ILE:HA	23:BK:203:LYS:HZ3	1.66	0.61
6:BZ:63:LYS:HB2	6:BZ:64:ASP:HB2	1.83	0.61
16:AE:65:THR:HG22	16:AE:66:GLU:H	1.65	0.61
19:AG:125:TYR:HA	19:AG:131:MET:SD	2.41	0.61
1:AU:615:ARG:HH21	1:AU:645:ASN:HD21	1.49	0.61
6:AZ:210:SER:O	6:AZ:214:LYS:HG2	2.01	0.61
6:AZ:91:ILE:O	6:AZ:91:ILE:HD12	2.00	0.61
13:BA:324:PRO:HD2	13:BA:432:TYR:HB2	1.82	0.61
16:BE:269:THR:OG1	16:BE:271:HIS:ND1	2.32	0.61
16:BE:178:THR:HG23	34:BE:401:ATP:C8	2.36	0.61
21:BI:235:GLN:O	21:BI:239:LYS:HB2	2.01	0.61
2:BV:241:ARG:HG3	2:BV:242:HIS:H	1.66	0.61
13:AA:381:THR:OG1	14:AB:343:ARG:NH1	2.33	0.61
14:AB:391:SER:OG	18:AC:310:ARG:NH2	2.34	0.61
14:AB:298:ASN:HD22	16:AE:246:GLY:HA2	1.64	0.61
3:AW:135:LYS:HG2	15:AD:390:ASN:O	2.01	0.61
13:BA:316:LYS:O	13:BA:317:VAL:HG13	2.01	0.61
14:BB:103:ARG:HG2	14:BB:107:MET:SD	2.40	0.61
18:BC:332:HIS:CD2	18:BC:360:LYS:HG2	2.36	0.61
19:BG:163:PHE:CD1	20:BH:57:TYR:HA	2.36	0.61
24:BL:183:ASN:ND2	24:BL:186:GLU:OE2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BL:212:ILE:HD13	24:BL:229:VAL:HG11	1.83	0.61
24:BL:107:ARG:HH21	32:BT:77:LEU:HD12	1.66	0.61
1:BU:74:PHE:HB3	1:BU:103:LYS:HE3	1.83	0.61
1:BU:353:LEU:HD13	1:BU:385:PHE:HZ	1.66	0.61
1:BU:505:ASP:HB3	1:BU:508:THR:HG22	1.82	0.61
1:BU:599:ILE:HG23	15:BD:56:VAL:HG21	1.83	0.61
3:BW:241:LEU:HA	3:BW:244:CYS:SG	2.41	0.61
13:AA:299:MET:HG3	13:AA:300:LEU:H	1.66	0.60
15:AD:100:THR:HB	15:AD:114:ARG:HD2	1.83	0.60
16:AE:350:ALA:HB1	16:AE:367:PHE:CD1	2.35	0.60
16:AE:178:THR:HG23	34:AE:401:ATP:C8	2.36	0.60
32:AT:179:ARG:N	26:BN:29:ARG:NH2	2.48	0.60
6:AZ:63:LYS:HB2	6:AZ:64:ASP:HB2	1.82	0.60
18:BC:166:GLU:OE1	18:BC:170:LYS:NZ	2.27	0.60
15:BD:202:VAL:HB	15:BD:308:ILE:HA	1.81	0.60
16:BE:152:PRO:HG3	16:BE:159:PHE:HE2	1.66	0.60
17:BF:358:ASN:O	17:BF:362:ARG:N	2.29	0.60
27:BO:163:ILE:HG23	27:BO:170:GLY:HA2	1.82	0.60
13:AA:330:ALA:HA	13:AA:333:ARG:HG2	1.81	0.60
20:AH:4:ARG:HD3	25:AM:127:ALA:HB2	1.82	0.60
14:BB:110:GLY:HA3	14:BB:152:LEU:HD13	1.82	0.60
14:BB:295:TYR:HB3	14:BB:299:SER:HB3	1.82	0.60
14:BB:178:LYS:HD2	18:BC:283:PHE:HA	1.83	0.60
15:BD:100:THR:HB	15:BD:114:ARG:HD2	1.83	0.60
17:BF:230:GLY:H	17:BF:392:ASN:HB3	1.65	0.60
20:BH:15:PRO:HA	21:BI:23:TYR:CE1	2.36	0.60
3:BW:135:LYS:HG2	15:BD:390:ASN:O	2.01	0.60
17:AF:252:ALA:HB3	17:AF:255:GLN:HG2	1.83	0.60
29:AQ:140:LEU:O	29:AQ:144:ASP:HB2	2.00	0.60
31:AS:181:SER:N	27:BO:195:LYS:HZ1	1.94	0.60
14:BB:250:VAL:HG21	14:BB:270:LEU:HD22	1.82	0.60
2:BV:281:ASN:H	2:BV:284:GLU:HB3	1.66	0.60
4:BX:124:PHE:CD1	20:BH:189:HIS:NE2	2.70	0.60
13:AA:201:PHE:HE1	17:AF:408:LEU:HD22	1.66	0.60
13:AA:90:GLU:CG	13:AA:94:GLN:HE22	2.06	0.60
15:AD:247:VAL:HG21	15:AD:288:ILE:HG23	1.82	0.60
16:AE:172:LEU:O	16:AE:278:ALA:HA	2.02	0.60
17:AF:230:GLY:H	17:AF:392:ASN:HB3	1.65	0.60
19:AG:163:PHE:CD1	20:AH:57:TYR:HA	2.36	0.60
4:AX:83:ALA:HA	20:AH:229:TYR:CD1	2.35	0.60
24:AL:39:LYS:HD2	24:AL:142:PRO:HB2	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AQ:145:ARG:NH1	30:BR:158:ARG:HG3	2.16	0.60
13:BA:115:VAL:HG13	13:BA:117:GLN:HB3	1.82	0.60
13:BA:292:ASP:O	13:BA:296:GLN:N	2.23	0.60
13:BA:381:THR:OG1	14:BB:343:ARG:NH1	2.33	0.60
14:BB:334:ILE:HD12	14:BB:337:LEU:HD12	1.82	0.60
14:BB:391:SER:OG	18:BC:310:ARG:NH2	2.34	0.60
22:BJ:116:GLN:HE21	23:BK:83:ALA:HB3	1.66	0.60
6:BZ:220:LEU:HB3	6:BZ:221:PRO:HA	1.81	0.60
15:AD:276:ASP:O	15:AD:280:GLY:N	2.34	0.60
21:AI:235:GLN:O	21:AI:239:LYS:HB2	2.01	0.60
2:AV:157:THR:OG1	2:AV:158:PRO:HD3	2.00	0.60
18:BC:209:CYS:HB3	18:BC:243:PRO:HG2	1.82	0.60
1:BU:252:LEU:HD21	1:BU:264:VAL:HG11	1.84	0.60
14:AB:178:LYS:HD2	18:AC:283:PHE:HA	1.83	0.60
5:AY:174:TRP:CB	18:AC:334:ARG:O	2.49	0.60
15:AD:323:ARG:NH1	15:AD:324:PRO:O	2.34	0.60
16:AE:269:THR:OG1	16:AE:271:HIS:ND1	2.32	0.60
17:AF:314:LEU:O	17:AF:318:ASP:HB2	2.01	0.60
27:AO:200:GLY:HA3	31:BS:173:ARG:HD3	1.84	0.60
18:AC:332:HIS:CD2	18:AC:360:LYS:HG2	2.36	0.60
28:AP:173:ASN:ND2	31:BS:157:ASN:HB2	2.17	0.60
15:BD:323:ARG:NH1	15:BD:324:PRO:O	2.34	0.60
25:BM:181:MET:HG3	25:BM:182:LYS:HD2	1.83	0.60
29:BQ:43:LEU:HG	29:BQ:183:ILE:HD11	1.82	0.60
27:AO:199:LEU:HD23	31:BS:176:LYS:H	1.66	0.60
31:BS:28:ARG:NH1	31:BS:187:VAL:O	2.35	0.60
32:BT:97:TYR:HA	32:BT:100:ARG:HG2	1.83	0.60
1:BU:203:LYS:O	1:BU:207:ASN:ND2	2.31	0.60
6:BZ:210:SER:O	6:BZ:214:LYS:HG2	2.01	0.60
14:AB:100:ASP:O	14:AB:103:ARG:NH2	2.35	0.60
18:AC:209:CYS:HB3	18:AC:243:PRO:HG2	1.82	0.60
15:AD:193:GLN:HB3	18:AC:376:VAL:HG23	1.82	0.60
4:AX:124:PHE:CD1	20:AH:189:HIS:NE2	2.70	0.60
20:AH:92:LYS:HG2	27:AO:65:LEU:HD21	1.83	0.60
29:AQ:43:LEU:HG	29:AQ:183:ILE:HD11	1.82	0.60
15:BD:150:SER:OG	15:BD:151:ILE:N	2.34	0.60
27:AO:195:LYS:HZ1	31:BS:181:SER:N	1.92	0.60
6:BZ:207:ASP:O	6:BZ:210:SER:OG	2.11	0.60
14:AB:250:VAL:HG13	14:AB:255:LEU:HD22	1.84	0.60
24:AL:62:LYS:NZ	24:AL:75:ALA:HA	2.17	0.60
25:AM:181:MET:HG3	25:AM:182:LYS:HD2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AO:163:ILE:HG23	27:AO:170:GLY:HA2	1.82	0.60
5:AY:301:ILE:HD12	5:AY:342:ARG:HB3	1.82	0.60
1:BU:363:SER:HB3	18:BC:173:GLU:HB3	84.56	0.60
15:BD:44:TYR:HA	18:BC:25:LEU:HD11	1.84	0.60
15:BD:276:ASP:O	15:BD:280:GLY:N	2.34	0.60
17:BF:86:LEU:HB2	17:BF:88:TYR:CZ	2.35	0.60
30:AR:158:ARG:HG3	29:BQ:145:ARG:NH1	2.17	0.60
5:BY:190:ALA:O	5:BY:291:HIS:NE2	2.26	0.60
14:AB:103:ARG:HD3	14:AB:107:MET:HE1	1.80	0.60
31:AS:143:ALA:HB3	28:BP:144:GLU:HG3	1.83	0.60
32:AT:148:PRO:HB3	27:BO:165:ASN:HD21	1.67	0.60
24:BL:62:LYS:NZ	24:BL:75:ALA:HA	2.17	0.60
1:BU:842:LYS:HG2	1:BU:882:ALA:HB2	1.84	0.60
13:AA:324:PRO:HD2	13:AA:432:TYR:HB2	1.82	0.59
15:AD:44:TYR:HA	18:AC:25:LEU:HD11	1.84	0.59
18:AC:325:ARG:O	18:AC:329:LEU:HB3	2.01	0.59
18:AC:66:LEU:CG	18:AC:70:GLY:HA2	2.26	0.59
17:AF:199:VAL:O	17:AF:203:VAL:HB	2.02	0.59
24:AL:183:ASN:ND2	24:AL:186:GLU:OE2	2.34	0.59
2:AV:224:LEU:HB2	2:AV:227:VAL:HB	1.84	0.59
13:BA:397:ILE:O	13:BA:400:ARG:NH1	2.34	0.59
14:BB:103:ARG:HD2	14:BB:107:MET:HE1	1.78	0.59
14:BB:223:ILE:HB	14:BB:350:LYS:HB3	1.84	0.59
30:AR:141:ARG:N	29:BQ:166:GLU:CD	2.56	0.59
27:AO:165:ASN:HD21	32:BT:148:PRO:HB3	1.66	0.59
14:AB:106:PRO:HB2	14:AB:154:HIS:HE1	1.67	0.59
17:AF:91:SER:OG	17:AF:125:LYS:O	2.20	0.59
25:AM:110:HIS:NE2	26:AN:70:LEU:HD23	2.17	0.59
14:BB:100:ASP:O	14:BB:103:ARG:NH2	2.35	0.59
14:BB:220:LYS:NZ	14:BB:344:PRO:O	2.35	0.59
17:BF:314:LEU:O	17:BF:318:ASP:HB2	2.01	0.59
21:BI:49:ARG:NH1	21:BI:63:GLU:HB3	2.17	0.59
5:BY:357:ASN:HB2	5:BY:358:ARG:HA	1.82	0.59
13:AA:415:LYS:O	13:AA:419:SER:OG	2.11	0.59
14:AB:110:GLY:HA3	14:AB:152:LEU:HD13	1.82	0.59
15:AD:160:PRO:HG2	15:AD:221:HIS:CD2	2.37	0.59
17:AF:358:ASN:O	17:AF:362:ARG:N	2.29	0.59
27:AO:26:VAL:HG21	31:BS:185:ARG:N	2.16	0.59
32:AT:33:LEU:CD1	26:BN:166:ARG:CG	2.79	0.59
1:AU:252:LEU:HD21	1:AU:264:VAL:HG11	1.84	0.59
2:AV:275:VAL:H	2:AV:276:PHE:HA	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BB:250:VAL:HG13	14:BB:255:LEU:HD22	1.84	0.59
16:BE:172:LEU:O	16:BE:278:ALA:HA	2.02	0.59
20:BH:92:LYS:HG2	27:BO:65:LEU:HD21	1.83	0.59
21:BI:122:THR:O	22:BJ:125:ARG:NH1	2.34	0.59
21:BI:95:GLN:HE22	21:BI:98:LEU:HD23	1.67	0.59
28:AP:177:ARG:NH2	31:BS:146:GLN:HB3	2.18	0.59
2:BV:224:LEU:HB2	2:BV:227:VAL:HB	1.84	0.59
2:BV:290:TYR:OH	2:BV:294:ARG:NH2	2.35	0.59
4:BX:122:ARG:HH21	20:BH:185:GLU:CG	2.00	0.59
6:BZ:106:ILE:HD11	6:BZ:153:LYS:HB3	1.85	0.59
13:AA:115:VAL:HG13	13:AA:117:GLN:HB3	1.82	0.59
26:AN:67:SER:HA	26:AN:70:LEU:HD12	1.84	0.59
31:AS:28:ARG:NH1	31:AS:187:VAL:O	2.35	0.59
2:AV:241:ARG:HG3	2:AV:242:HIS:H	1.66	0.59
15:BD:193:GLN:HB3	18:BC:376:VAL:HG23	1.82	0.59
25:BM:8:ASP:O	25:BM:22:GLN:NE2	2.26	0.59
2:BV:451:ILE:HG13	2:BV:458:VAL:HG13	1.85	0.59
32:AT:97:TYR:HA	32:AT:100:ARG:HG2	1.83	0.59
1:AU:74:PHE:HB3	1:AU:103:LYS:HE3	1.83	0.59
6:AZ:106:ILE:HD11	6:AZ:153:LYS:HB3	1.85	0.59
6:AZ:207:ASP:O	6:AZ:210:SER:OG	2.11	0.59
13:BA:299:MET:HG3	13:BA:300:LEU:H	1.66	0.59
14:BB:106:PRO:HB2	14:BB:154:HIS:HE1	1.67	0.59
17:BF:199:VAL:O	17:BF:203:VAL:HB	2.02	0.59
17:BF:252:ALA:HB3	17:BF:255:GLN:HG2	1.83	0.59
19:BG:164:LYS:NZ	20:BH:56:LEU:O	2.33	0.59
25:BM:110:HIS:NE2	26:BN:70:LEU:HD23	2.17	0.59
30:AR:168:ALA:O	28:BP:179:ALA:HB1	2.02	0.59
5:BY:356:THR:OG1	5:BY:357:ASN:O	2.14	0.59
17:AF:126:THR:OG1	17:AF:130:GLN:N	2.35	0.59
5:AY:63:TRP:HB3	5:AY:64:GLN:HB3	1.85	0.59
18:BC:131:VAL:HG13	18:BC:132:ASP:H	1.68	0.59
16:BE:138:LEU:HD22	16:BE:141:GLN:HG3	1.85	0.59
16:BE:145:LEU:O	16:BE:149:ILE:HB	2.03	0.59
16:BE:236:ASP:OD1	16:BE:236:ASP:N	2.35	0.59
24:BL:39:LYS:HD2	24:BL:142:PRO:HB2	1.84	0.59
1:AU:842:LYS:HG2	1:AU:882:ALA:HB2	1.84	0.59
2:AV:416:ARG:HB3	5:AY:348:ASP:OD1	2.03	0.59
4:AX:198:ASN:OD1	18:AC:392:GLN:HG3	2.02	0.59
14:AB:223:ILE:HB	14:AB:350:LYS:HB3	1.85	0.59
22:AJ:221:ASN:O	22:AJ:223:GLU:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AM:160:TYR:HD2	25:AM:163:CYS:HB2	1.68	0.59
29:AQ:170:ARG:HH11	29:BQ:22:ALA:CB	2.15	0.59
30:AR:199:TYR:CD1	29:BQ:145:ARG:NH1	2.69	0.59
13:BA:423:PHE:HD1	13:BA:424:SER:HG	1.50	0.59
25:BM:160:TYR:HD2	25:BM:163:CYS:HB2	1.68	0.59
28:AP:125:ASP:HB2	28:AP:129:CYS:HB3	1.85	0.59
21:BI:69:ASN:OD1	21:BI:70:GLU:N	2.36	0.59
22:BJ:221:ASN:O	22:BJ:223:GLU:N	2.36	0.59
32:AT:209:TRP:CH2	26:BN:172:GLY:HA2	2.38	0.59
29:AQ:22:ALA:CB	29:BQ:170:ARG:HH11	2.16	0.59
4:BX:83:ALA:HA	20:BH:229:TYR:CD1	2.35	0.59
6:BZ:22:HIS:HA	6:BZ:25:ARG:HG2	1.84	0.59
18:AC:84:LYS:HE3	18:AC:96:VAL:HG22	1.85	0.59
21:AI:106:PRO:HD2	21:AI:109:GLN:HE21	1.67	0.59
21:AI:69:ASN:OD1	21:AI:70:GLU:N	2.36	0.59
26:AN:172:GLY:HA2	32:BT:209:TRP:CH2	2.37	0.59
30:AR:133:VAL:HG23	29:BQ:137:PHE:CB	2.30	0.59
18:BC:84:LYS:HE3	18:BC:96:VAL:HG22	1.85	0.59
15:BD:336:PRO:O	15:BD:341:LYS:NZ	2.34	0.59
16:BE:212:ALA:HB1	16:BE:259:GLU:HG3	1.83	0.59
21:BI:140:ASP:OD1	21:BI:144:GLY:N	2.36	0.59
24:BL:201:ALA:HA	24:BL:239:ARG:HH11	1.68	0.59
30:AR:162:GLN:NE2	29:BQ:145:ARG:N	2.51	0.59
1:BU:14:GLU:O	1:BU:20:LYS:NZ	2.36	0.59
2:BV:275:VAL:H	2:BV:276:PHE:HA	1.68	0.59
15:BD:286:GLN:NE2	18:BC:218:GLU:OE2	2.36	0.58
20:BH:4:ARG:HH22	25:BM:125:TYR:HB3	1.68	0.58
23:BK:50:VAL:HG11	23:BK:66:LYS:HB2	1.85	0.58
14:AB:402:ALA:HB1	14:AB:414:VAL:HG11	1.84	0.58
18:AC:299:ASP:HA	18:AC:302:ASP:HB3	1.85	0.58
16:AE:56:ILE:HG23	16:AE:100:LEU:HB2	1.85	0.58
16:AE:212:ALA:HB1	16:AE:259:GLU:HG3	1.83	0.58
21:AI:140:ASP:OD1	21:AI:144:GLY:N	2.36	0.58
21:AI:95:GLN:HE22	21:AI:98:LEU:HD23	1.67	0.58
17:BF:305:GLU:HB3	17:BF:308:ARG:NH2	2.19	0.58
30:AR:134:TYR:CD1	29:BQ:137:PHE:CA	2.85	0.58
29:AQ:196:PHE:HB3	29:BQ:198:LYS:CB	2.33	0.58
2:BV:416:ARG:HB3	5:BY:348:ASP:OD1	2.03	0.58
15:AD:286:GLN:NE2	18:AC:218:GLU:OE2	2.36	0.58
2:AV:97:ALA:HB3	2:AV:98:LEU:HA	1.85	0.58
14:BB:175:LYS:HB3	14:BB:176:VAL:HB	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BW:136:ILE:CD1	15:BD:392:TYR:CD1	2.84	0.58
17:BF:224:LEU:HB3	17:BF:351:LYS:HG2	1.84	0.58
3:AW:136:ILE:HD11	16:AE:161:ARG:CZ	2.34	0.58
24:AL:107:ARG:HH21	32:AT:77:LEU:HD12	1.66	0.58
20:AH:4:ARG:HH22	25:AM:125:TYR:HB3	1.68	0.58
1:AU:363:SER:HB3	18:AC:173:GLU:HB3	84.56	0.58
2:AV:290:TYR:OH	2:AV:294:ARG:NH2	2.35	0.58
15:BD:160:PRO:HG2	15:BD:221:HIS:CD2	2.37	0.58
17:BF:126:THR:OG1	17:BF:130:GLN:N	2.35	0.58
17:BF:181:PRO:HD2	17:BF:242:ALA:HB2	1.86	0.58
1:BU:188:MET:HG2	1:BU:194:ARG:HD3	1.86	0.58
18:AC:89:VAL:HG12	18:AC:91:PRO:HD2	1.86	0.58
17:AF:197:GLU:OE2	17:AF:350:ARG:NH2	2.36	0.58
19:AG:30:LYS:NZ	25:AM:16:PRO:O	2.25	0.58
27:AO:195:LYS:HE3	31:BS:180:ILE:CA	2.31	0.58
29:AQ:166:GLU:CD	30:BR:141:ARG:N	2.56	0.58
30:AR:166:ARG:NH2	28:BP:33:GLN:O	2.36	0.58
32:AT:179:ARG:HA	26:BN:26:ILE:CG2	2.27	0.58
1:AU:603:LEU:HD21	15:AD:60:TYR:HD1	1.68	0.58
17:BF:431:LYS:HB2	17:BF:432:LYS:HB2	1.85	0.58
21:BI:106:PRO:HD2	21:BI:109:GLN:HE21	1.67	0.58
3:BW:45:GLU:HB2	3:BW:93:ARG:HG3	1.85	0.58
18:AC:131:VAL:HG13	18:AC:132:ASP:H	1.68	0.58
17:AF:92:ASN:HB3	17:AF:125:LYS:HB2	1.85	0.58
17:AF:224:LEU:HB3	17:AF:351:LYS:HG2	1.84	0.58
17:AF:431:LYS:HB2	17:AF:432:LYS:HB2	1.85	0.58
21:AI:49:ARG:NH1	21:AI:63:GLU:HB3	2.17	0.58
23:AK:10:ARG:HD3	23:AK:14:THR:HG21	1.86	0.58
24:AL:151:ALA:O	25:AM:85:ARG:NH2	2.37	0.58
2:AV:451:ILE:HG13	2:AV:458:VAL:HG13	1.85	0.58
1:BU:788:VAL:HG13	1:BU:884:VAL:HG11	1.84	0.58
5:BY:63:TRP:HB3	5:BY:64:GLN:HB3	1.85	0.58
18:AC:198:LEU:HD11	35:AC:501:ADP:H2'	1.85	0.58
17:AF:181:PRO:HD2	17:AF:242:ALA:HB2	1.86	0.58
29:AQ:137:PHE:CA	30:BR:134:TYR:CD1	2.85	0.58
29:AQ:198:LYS:CB	29:BQ:196:PHE:HB3	2.33	0.58
14:BB:402:ALA:HB1	14:BB:414:VAL:HG11	1.84	0.58
16:BE:179:GLY:N	34:BE:401:ATP:O2A	2.36	0.58
16:BE:85:ARG:NH1	18:BC:47:ALA:CA	44.22	0.58
17:BF:197:GLU:OE2	17:BF:350:ARG:NH2	2.36	0.58
24:BL:151:ALA:O	25:BM:85:ARG:NH2	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BN:67:SER:HA	26:BN:70:LEU:HD12	1.84	0.58
27:AO:195:LYS:CE	31:BS:180:ILE:C	2.65	0.58
1:BU:246:TYR:HH	1:BU:250:PHE:HE2	1.52	0.58
2:BV:148:ARG:HG3	2:BV:149:PRO:HD3	1.86	0.58
13:AA:333:ARG:O	13:AA:337:LEU:N	2.37	0.58
14:AB:144:LEU:HD22	14:AB:162:VAL:HG11	1.86	0.58
18:AC:174:LEU:HA	18:AC:177:ALA:HB3	1.86	0.58
17:AF:305:GLU:HB3	17:AF:308:ARG:NH2	2.19	0.58
21:AI:216:LEU:HD12	21:AI:225:ILE:HG12	1.85	0.58
28:AP:176:ASP:OD2	31:BS:157:ASN:CG	2.42	0.58
3:AW:236:HIS:ND1	3:AW:237:GLU:OE1	2.36	0.58
18:BC:263:SER:O	18:BC:267:SER:HB3	2.03	0.58
18:BC:89:VAL:HG12	18:BC:91:PRO:HD2	1.86	0.58
16:BE:56:ILE:HG23	16:BE:100:LEU:HB2	1.85	0.58
17:BF:92:ASN:HB3	17:BF:125:LYS:HB2	1.85	0.58
2:BV:326:GLN:HB3	2:BV:353:LEU:HD13	1.85	0.58
2:BV:97:ALA:HB3	2:BV:98:LEU:HA	1.85	0.58
3:BW:72:LYS:HZ1	3:BW:122:LEU:HB2	1.69	0.58
14:AB:208:PRO:O	14:AB:212:GLU:HG2	2.04	0.58
21:AI:213:ILE:HB	21:AI:228:LEU:HD21	1.86	0.58
2:AV:326:GLN:HB3	2:AV:353:LEU:HD13	1.85	0.58
13:BA:206:ILE:HG13	13:BA:207:GLU:H	1.69	0.58
18:BC:69:GLN:HG2	18:BC:118:ASN:CB	2.32	0.58
21:BI:216:LEU:HD12	21:BI:225:ILE:HG12	1.85	0.58
23:BK:215:ILE:HD12	23:BK:234:LEU:HD11	1.86	0.58
3:BW:236:HIS:ND1	3:BW:237:GLU:OE1	2.36	0.58
4:BX:198:ASN:OD1	18:BC:392:GLN:HG3	2.02	0.58
6:BZ:193:ASN:O	6:BZ:196:HIS:ND1	2.20	0.58
13:AA:205:GLY:HA2	13:AA:206:ILE:HG22	1.86	0.58
18:AC:163:GLU:O	18:AC:167:LEU:HB2	2.04	0.58
5:AY:203:ASP:N	5:AY:203:ASP:OD1	2.36	0.58
6:AZ:22:HIS:HA	6:AZ:25:ARG:HG2	1.84	0.58
1:BU:96:TYR:O	1:BU:100:ILE:HG12	2.04	0.58
15:AD:136:SER:O	18:AC:66:LEU:CD2	2.52	0.57
15:AD:150:SER:OG	15:AD:151:ILE:N	2.34	0.57
1:AU:188:MET:HG2	1:AU:194:ARG:HD3	1.86	0.57
1:AU:643:SER:O	1:AU:649:ARG:NH1	2.37	0.57
13:BA:100:LYS:HE2	13:BA:113:ILE:HD13	1.86	0.57
18:BC:171:HIS:O	18:BC:173:GLU:N	2.37	0.57
21:BI:213:ILE:HB	21:BI:228:LEU:HD21	1.86	0.57
24:BL:52:ALA:HB2	24:BL:59:HIS:HA	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BP:125:ASP:HB2	28:BP:129:CYS:HB3	1.85	0.57
31:AS:157:ASN:HB3	28:BP:172:LEU:CB	2.34	0.57
28:AP:144:GLU:HG3	31:BS:143:ALA:HB3	1.86	0.57
5:BY:174:TRP:CB	18:BC:334:ARG:O	2.49	0.57
13:AA:89:SER:C	13:AA:92:PRO:HD2	2.24	0.57
15:AD:159:LYS:HB3	15:AD:160:PRO:HA	1.87	0.57
15:AD:283:ARG:HG3	15:AD:286:GLN:HE21	1.69	0.57
19:AG:128:ASN:HB3	19:AG:131:MET:HG2	1.86	0.57
28:AP:49:LEU:HG	28:AP:111:GLY:HA3	1.85	0.57
28:AP:12:MET:HG3	28:AP:138:VAL:HG12	1.86	0.57
3:AW:48:LEU:HB2	3:AW:96:GLN:OE1	2.03	0.57
1:BU:603:LEU:HD21	15:BD:60:TYR:HD1	1.68	0.57
26:AN:166:ARG:NH2	26:BN:140:ASP:OD2	2.24	0.57
31:AS:159:GLN:CB	27:BO:208:THR:OG1	2.52	0.57
28:BP:49:LEU:HG	28:BP:111:GLY:HA3	1.86	0.57
22:BJ:96:LEU:HA	29:BQ:62:LYS:HE2	1.86	0.57
18:AC:119:ASP:OD1	18:AC:119:ASP:N	2.37	0.57
18:AC:197:THR:HG23	18:AC:213:ARG:HH12	1.68	0.57
17:AF:204:LEU:HD13	17:AF:212:PHE:CZ	2.39	0.57
23:AK:50:VAL:HG11	23:AK:66:LYS:HB2	1.85	0.57
1:AU:14:GLU:O	1:AU:20:LYS:NZ	2.36	0.57
14:BB:224:LEU:N	14:BB:329:MET:O	2.36	0.57
18:BC:299:ASP:HA	18:BC:302:ASP:HB3	1.85	0.57
16:BE:128:GLY:HA2	16:BE:129:ASN:HB2	1.86	0.57
3:BW:48:LEU:HB2	3:BW:96:GLN:OE1	2.03	0.57
13:AA:214:LEU:N	13:AA:319:MET:O	2.32	0.57
18:AC:263:SER:O	18:AC:267:SER:HB3	2.03	0.57
16:AE:138:LEU:HD22	16:AE:141:GLN:HG3	1.85	0.57
17:AF:97:LEU:HD12	17:AF:120:LYS:HG3	1.82	0.57
23:AK:225:ASN:HB2	23:AK:226:PHE:CG	2.39	0.57
26:AN:144:ARG:NH2	26:AN:151:GLU:OE1	2.38	0.57
14:BB:103:ARG:CG	14:BB:107:MET:HE2	2.34	0.57
23:BK:10:ARG:HD3	23:BK:14:THR:HG21	1.86	0.57
32:AT:144:TYR:HB3	27:BO:132:LEU:HD12	1.86	0.57
3:BW:137:TYR:HB3	3:BW:140:ILE:HD12	1.87	0.57
14:AB:210:TYR:O	14:AB:214:MET:HB2	2.04	0.57
19:AG:164:LYS:NZ	20:AH:56:LEU:O	2.33	0.57
28:AP:2:SER:OG	28:AP:3:ILE:N	2.38	0.57
30:AR:141:ARG:CA	29:BQ:166:GLU:OE2	2.53	0.57
5:AY:79:ASP:HA	5:AY:82:LYS:HG2	1.87	0.57
13:BA:214:LEU:N	13:BA:319:MET:O	2.32	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BD:283:ARG:HG3	15:BD:286:GLN:HE21	1.69	0.57
16:BE:195:PHE:HD1	16:BE:229:ILE:HB	1.70	0.57
14:AB:220:LYS:NZ	14:AB:344:PRO:O	2.35	0.57
18:AC:171:HIS:O	18:AC:173:GLU:N	2.37	0.57
16:AE:145:LEU:O	16:AE:149:ILE:HB	2.03	0.57
16:AE:179:GLY:N	34:AE:401:ATP:O2A	2.36	0.57
29:AQ:164:LEU:HB3	29:AQ:196:PHE:HZ	1.69	0.57
1:AU:96:TYR:O	1:AU:100:ILE:HG12	2.04	0.57
1:AU:759:SER:HA	1:AU:782:ALA:HA	1.86	0.57
2:AV:82:LEU:O	2:AV:87:SER:OG	2.23	0.57
3:AW:416:GLN:HB3	3:AW:417:ARG:CA	2.35	0.57
3:BW:136:ILE:HD11	16:BE:161:ARG:CZ	2.34	0.57
16:AE:204:VAL:HG23	16:AE:205:ASP:H	1.69	0.57
1:AU:788:VAL:HG13	1:AU:884:VAL:HG11	1.84	0.57
18:BC:346:LYS:O	18:BC:350:LEU:HD12	2.04	0.57
15:BD:159:LYS:HB3	15:BD:160:PRO:HA	1.87	0.57
19:BG:128:ASN:HB3	19:BG:131:MET:HG2	1.86	0.57
26:BN:144:ARG:NH2	26:BN:151:GLU:OE1	2.38	0.57
32:AT:33:LEU:HD11	26:BN:166:ARG:HG3	1.77	0.57
28:BP:12:MET:HG3	28:BP:138:VAL:HG12	1.86	0.57
30:AR:140:ASP:C	29:BQ:166:GLU:CD	2.62	0.57
27:AO:132:LEU:HD12	32:BT:144:TYR:HB3	1.85	0.57
26:AN:26:ILE:CG2	32:BT:179:ARG:HA	2.28	0.57
5:BY:79:ASP:HA	5:BY:82:LYS:HG2	1.87	0.57
15:AD:388:ARG:NH2	16:AE:144:GLU:OE1	2.37	0.57
16:AE:195:PHE:HD1	16:AE:229:ILE:HB	1.70	0.57
31:AS:159:GLN:CG	27:BO:207:GLY:O	2.51	0.57
32:AT:148:PRO:HB3	27:BO:165:ASN:CG	2.24	0.57
2:AV:411:SER:HB2	2:AV:447:ILE:HD13	1.86	0.57
14:BB:208:PRO:O	14:BB:212:GLU:HG2	2.04	0.57
24:BL:157:ARG:NH2	25:BM:56:LYS:HZ3	2.02	0.57
26:BN:96:ALA:HB3	26:BN:116:MET:HA	1.87	0.57
32:BT:6:VAL:O	32:BT:56:ASP:HA	2.05	0.57
21:AI:127:LYS:HD3	22:AJ:3:TYR:OH	2.05	0.57
24:AL:157:ARG:NH2	25:AM:56:LYS:HZ3	2.02	0.57
24:AL:201:ALA:HA	24:AL:239:ARG:HH11	1.68	0.57
26:AN:96:ALA:HB3	26:AN:116:MET:HA	1.87	0.57
27:AO:195:LYS:CD	31:BS:184:GLU:HG3	2.33	0.57
2:AV:224:LEU:HD13	2:AV:227:VAL:HB	1.87	0.57
3:AW:45:GLU:HB2	3:AW:93:ARG:HG3	1.85	0.57
5:AY:97:GLU:HG3	18:AC:148:TYR:HE2	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:BC:197:THR:HG23	18:BC:213:ARG:HH12	1.68	0.57
15:BD:341:LYS:HB3	15:BD:364:VAL:HG23	1.87	0.57
17:BF:91:SER:OG	17:BF:125:LYS:O	2.20	0.57
30:AR:168:ALA:HB3	28:BP:32:ALA:HA	1.87	0.57
28:AP:33:GLN:O	30:BR:166:ARG:NH2	2.38	0.57
1:BU:187:LEU:HD13	15:BD:45:LYS:HG2	1.87	0.57
14:AB:258:LYS:HE2	18:AC:228:ALA:O	2.05	0.57
18:AC:90:HIS:HB2	18:AC:91:PRO:HD3	1.86	0.57
16:AE:236:ASP:N	16:AE:236:ASP:OD1	2.35	0.57
17:AF:380:ASN:C	17:AF:382:GLU:H	2.08	0.57
24:AL:189:LYS:HA	24:AL:192:LEU:HG	1.87	0.57
3:AW:137:TYR:HB3	3:AW:140:ILE:HD12	1.86	0.57
13:BA:89:SER:C	13:BA:92:PRO:HD2	2.24	0.57
14:BB:210:TYR:O	14:BB:214:MET:HB2	2.04	0.57
5:BY:97:GLU:HG3	18:BC:148:TYR:HE2	1.70	0.57
15:BD:388:ARG:NH2	16:BE:144:GLU:OE1	2.37	0.57
13:BA:206:ILE:N	17:BF:373:MET:SD	2.63	0.57
20:BH:105:ILE:HG12	20:BH:110:LEU:HD12	1.87	0.57
24:BL:18:ARG:NH1	24:BL:23:GLU:OE2	2.38	0.57
25:BM:73:VAL:HG22	25:BM:139:SER:HB2	1.87	0.57
31:AS:157:ASN:CG	28:BP:172:LEU:HB3	2.24	0.57
5:BY:174:TRP:HB3	18:BC:334:ARG:C	2.25	0.57
14:AB:175:LYS:HB3	14:AB:176:VAL:HB	1.85	0.56
15:AD:136:SER:CB	18:AC:67:GLN:HA	2.34	0.56
15:AD:341:LYS:HB3	15:AD:364:VAL:HG23	1.87	0.56
16:AE:345:ASN:HD22	17:AF:345:SER:CB	2.18	0.56
20:AH:66:GLU:HG3	20:AH:91:ARG:NH2	2.20	0.56
23:AK:215:ILE:HD12	23:AK:234:LEU:HD11	1.86	0.56
25:AM:106:ILE:HD11	25:AM:110:HIS:HB2	1.87	0.56
22:AJ:96:LEU:HA	29:AQ:62:LYS:HE2	1.86	0.56
2:AV:148:ARG:HG3	2:AV:149:PRO:HD3	1.86	0.56
2:AV:358:MET:HB2	2:AV:359:PRO:HD3	1.87	0.56
5:AY:97:GLU:OE2	18:AC:162:LYS:CD	2.53	0.56
13:BA:305:GLN:O	13:BA:312:ARG:NE	2.38	0.56
18:BC:174:LEU:HA	18:BC:177:ALA:HB3	1.86	0.56
17:BF:374:ASN:HB3	17:BF:414:GLU:HG3	1.87	0.56
21:BI:127:LYS:HD3	22:BJ:3:TYR:OH	2.04	0.56
29:AQ:166:GLU:OE2	30:BR:141:ARG:CA	2.53	0.56
29:AQ:140:LEU:CD2	30:BR:166:ARG:HG2	2.35	0.56
2:BV:90:GLU:OE1	2:BV:90:GLU:N	2.38	0.56
13:AA:206:ILE:HG13	13:AA:207:GLU:H	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AA:305:GLN:O	13:AA:312:ARG:NE	2.38	0.56
18:AC:295:THR:HG22	18:AC:296:ASN:H	1.69	0.56
16:AE:50:LEU:CD1	17:AF:138:GLY:HA3	2.35	0.56
28:AP:179:ALA:HB1	30:BR:168:ALA:O	2.05	0.56
13:BA:423:PHE:CZ	14:BB:350:LYS:HD3	2.40	0.56
15:BD:136:SER:CB	18:BC:67:GLN:HA	2.34	0.56
15:BD:136:SER:O	18:BC:66:LEU:CD2	2.52	0.56
17:BF:380:ASN:C	17:BF:382:GLU:H	2.08	0.56
19:BG:211:LYS:NZ	19:BG:232:GLU:OE2	2.38	0.56
24:BL:189:LYS:HA	24:BL:192:LEU:HG	1.87	0.56
29:BQ:164:LEU:HB3	29:BQ:196:PHE:HZ	1.69	0.56
1:BU:112:CYS:SG	1:BU:159:ARG:NH1	2.78	0.56
13:AA:292:ASP:O	13:AA:296:GLN:N	2.23	0.56
14:AB:223:ILE:HG13	14:AB:346:ARG:HB3	1.87	0.56
18:AC:69:GLN:HG2	18:AC:118:ASN:CB	2.32	0.56
15:AD:293:LEU:O	15:AD:296:MET:HG2	2.06	0.56
16:AE:371:VAL:O	16:AE:375:ALA:CB	2.53	0.56
27:AO:195:LYS:HE3	31:BS:180:ILE:HG23	1.71	0.56
1:AU:112:CYS:SG	1:AU:159:ARG:NH1	2.78	0.56
5:AY:92:GLU:HA	5:AY:100:ILE:HD13	1.86	0.56
13:BA:205:GLY:HA2	13:BA:206:ILE:HG22	1.86	0.56
14:BB:258:LYS:HE2	18:BC:228:ALA:O	2.05	0.56
15:BD:374:ASP:OD1	16:BE:291:ARG:NH1	2.39	0.56
13:AA:201:PHE:CE1	17:AF:408:LEU:HD22	2.41	0.56
17:AF:397:LYS:HZ1	17:AF:408:LEU:HD21	17.92	0.56
23:AK:37:ALA:HB2	23:AK:50:VAL:HG23	1.87	0.56
24:AL:52:ALA:HB2	24:AL:59:HIS:HA	1.86	0.56
28:AP:172:LEU:HB3	31:BS:157:ASN:CG	2.26	0.56
14:BB:106:PRO:HB2	14:BB:154:HIS:CE1	2.40	0.56
18:BC:163:GLU:O	18:BC:167:LEU:HB2	2.04	0.56
16:BE:345:ASN:HD22	17:BF:345:SER:CB	2.18	0.56
22:BJ:104:VAL:HG11	22:BJ:143:ARG:HB2	1.87	0.56
1:BU:759:SER:HA	1:BU:782:ALA:HA	1.86	0.56
3:BW:370:TYR:HA	3:BW:371:THR:HB	1.88	0.56
6:BZ:186:THR:HG23	6:BZ:187:LEU:H	1.70	0.56
14:AB:106:PRO:HB2	14:AB:154:HIS:CE1	2.40	0.56
17:AF:406:ILE:HA	17:AF:409:ARG:HG2	1.87	0.56
20:AH:43:GLY:HA3	20:AH:213:CYS:O	2.06	0.56
24:AL:172:LEU:O	24:AL:176:MET:HB3	2.06	0.56
24:AL:18:ARG:NH1	24:AL:23:GLU:OE2	2.38	0.56
25:AM:73:VAL:HG22	25:AM:139:SER:HB2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AQ:22:ALA:CA	29:BQ:170:ARG:HH11	2.17	0.56
31:AS:125:ASP:OD1	31:AS:129:SER:N	2.38	0.56
2:AV:200:ARG:HH11	2:AV:242:HIS:HB2	1.71	0.56
13:BA:174:TYR:HA	13:BA:227:ARG:HG3	1.87	0.56
14:BB:223:ILE:HG13	14:BB:346:ARG:HB3	1.87	0.56
18:BC:369:TYR:O	18:BC:373:GLU:HB2	2.06	0.56
23:BK:225:ASN:HB2	23:BK:226:PHE:CG	2.39	0.56
31:BS:125:ASP:OD1	31:BS:129:SER:N	2.38	0.56
28:AP:172:LEU:CB	31:BS:157:ASN:HB3	2.36	0.56
5:BY:92:GLU:HA	5:BY:100:ILE:HD13	1.86	0.56
5:BY:203:ASP:OD1	5:BY:203:ASP:N	2.36	0.56
13:AA:102:ILE:HG22	13:AA:113:ILE:HG12	1.87	0.56
17:AF:359:GLU:HB2	17:AF:385:ALA:HB1	1.88	0.56
22:AJ:33:VAL:O	22:AJ:44:GLY:N	2.38	0.56
27:AO:193:ASN:HD21	31:BS:213:ASP:HB3	1.71	0.56
3:AW:274:VAL:O	3:AW:283:GLN:NE2	2.39	0.56
14:BB:108:SER:N	14:BB:152:LEU:O	2.39	0.56
14:BB:144:LEU:HD22	14:BB:162:VAL:HG11	1.86	0.56
15:BD:293:LEU:O	15:BD:296:MET:HG2	2.06	0.56
15:BD:345:PHE:HB3	15:BD:360:LEU:HD22	1.88	0.56
16:BE:371:VAL:O	16:BE:375:ALA:CB	2.53	0.56
17:BF:204:LEU:HD13	17:BF:212:PHE:CZ	2.39	0.56
20:BH:43:GLY:HA3	20:BH:213:CYS:O	2.06	0.56
31:BS:114:ASP:OD1	31:BS:118:LYS:N	2.28	0.56
2:BV:358:MET:HB2	2:BV:359:PRO:HD3	1.87	0.56
2:BV:82:LEU:O	2:BV:87:SER:OG	2.23	0.56
14:AB:166:ASP:HA	14:AB:167:THR:OG1	2.06	0.56
16:AE:128:GLY:HA2	16:AE:129:ASN:HB2	1.86	0.56
1:AU:705:LYS:HA	1:AU:708:GLN:HG3	1.88	0.56
3:AW:67:LEU:HD22	3:AW:71:VAL:HB	1.88	0.56
18:BC:198:LEU:HD11	35:BC:501:ADP:H2'	1.85	0.56
16:BE:138:LEU:CD2	16:BE:140:GLU:HG2	2.36	0.56
16:BE:121:ASN:ND2	16:BE:197:LYS:O	2.39	0.56
20:BH:66:GLU:HG3	20:BH:91:ARG:NH2	2.20	0.56
28:AP:173:ASN:HD21	31:BS:151:ASN:ND2	2.04	0.56
4:BX:83:ALA:CB	20:BH:229:TYR:HB2	2.36	0.56
5:BY:23:ARG:NH1	5:BY:52:PRO:O	2.35	0.56
13:AA:100:LYS:HE2	13:AA:113:ILE:HD13	1.86	0.56
14:AB:108:SER:N	14:AB:152:LEU:O	2.39	0.56
5:AY:174:TRP:HB3	18:AC:334:ARG:C	2.25	0.56
4:AX:199:ALA:HA	18:AC:392:GLN:OE1	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AE:138:LEU:CD2	16:AE:140:GLU:HG2	2.36	0.56
27:AO:67:SER:HB3	27:AO:74:PRO:HG3	1.88	0.56
29:AQ:47:VAL:HB	29:AQ:102:LEU:HG	1.88	0.56
2:AV:90:GLU:OE1	2:AV:90:GLU:N	2.38	0.56
14:BB:223:ILE:HD11	14:BB:346:ARG:H	1.70	0.56
14:BB:390:LEU:HD23	14:BB:394:ASP:HB3	1.87	0.56
15:BD:75:ALA:HB1	18:BC:56:VAL:HG21	1.88	0.56
25:BM:106:ILE:HD11	25:BM:110:HIS:HB2	1.87	0.56
27:AO:207:GLY:O	31:BS:159:GLN:CG	2.52	0.56
16:AE:121:ASN:ND2	16:AE:197:LYS:O	2.39	0.56
16:AE:368:MET:O	16:AE:372:ARG:CB	2.53	0.56
25:AM:40:ARG:HH11	25:AM:147:GLN:HA	1.71	0.56
31:AS:151:ASN:HD21	28:BP:169:GLN:HB3	1.71	0.56
1:AU:187:LEU:HD13	15:AD:45:LYS:HG2	1.87	0.56
2:AV:159:LEU:HD13	2:AV:178:SER:HB2	1.88	0.56
2:AV:290:TYR:CD1	2:AV:328:VAL:HG23	2.41	0.56
2:AV:342:ILE:HD12	2:AV:343:PRO:HD2	1.87	0.56
3:AW:5:GLY:HA3	3:AW:47:LEU:HD22	1.88	0.56
3:AW:72:LYS:HZ1	3:AW:122:LEU:HB2	1.71	0.56
14:BB:166:ASP:HA	14:BB:167:THR:OG1	2.06	0.56
14:BB:349:ARG:NH2	14:BB:351:ILE:HG22	2.20	0.56
17:BF:359:GLU:HB2	17:BF:385:ALA:HB1	1.87	0.56
2:BV:224:LEU:HD13	2:BV:227:VAL:HB	1.87	0.56
3:BW:274:VAL:O	3:BW:283:GLN:NE2	2.39	0.56
13:AA:174:TYR:HA	13:AA:227:ARG:HG3	1.87	0.56
14:AB:390:LEU:HD23	14:AB:394:ASP:HB3	1.87	0.56
15:AD:114:ARG:HH21	18:AC:62:GLU:HG2	1.65	0.56
15:AD:315:ASP:N	15:AD:315:ASP:OD1	2.39	0.56
15:AD:374:ASP:OD1	16:AE:291:ARG:NH1	2.39	0.56
15:AD:75:ALA:HB1	18:AC:56:VAL:HG21	1.88	0.56
20:AH:105:ILE:HG12	20:AH:110:LEU:HD12	1.87	0.56
23:AK:225:ASN:HB2	23:AK:226:PHE:CD2	2.41	0.56
28:AP:32:ALA:HA	30:BR:168:ALA:HB3	1.88	0.56
4:AX:83:ALA:CB	20:AH:229:TYR:HB2	2.36	0.56
6:AZ:222:ILE:CG2	6:AZ:223:ASN:HB3	2.33	0.56
13:BA:428:ARG:O	13:BA:431:THR:OG1	2.19	0.56
15:BD:114:ARG:HH21	18:BC:62:GLU:HG2	1.65	0.56
14:AB:349:ARG:NH2	14:AB:351:ILE:HG22	2.20	0.56
17:AF:215:LEU:HB2	17:AF:217:ILE:HG12	1.87	0.56
21:AI:134:LEU:H	21:AI:150:SER:HG	1.54	0.56
22:AJ:104:VAL:HG11	22:AJ:143:ARG:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AN:59:VAL:O	26:AN:63:LEU:HB3	2.06	0.56
29:AQ:166:GLU:CD	30:BR:140:ASP:C	2.64	0.56
32:AT:6:VAL:O	32:AT:56:ASP:HA	2.05	0.56
2:AV:228:ARG:HH12	2:AV:254:LEU:HA	1.71	0.56
18:BC:295:THR:HG22	18:BC:296:ASN:H	1.69	0.56
4:BX:199:ALA:HA	18:BC:392:GLN:OE1	2.06	0.56
23:BK:37:ALA:HB2	23:BK:50:VAL:HG23	1.87	0.56
29:AQ:170:ARG:HH11	29:BQ:22:ALA:CA	2.16	0.56
2:BV:160:LEU:HB2	2:BV:161:PRO:HD3	1.88	0.56
3:BW:416:GLN:HB3	3:BW:417:ARG:CA	2.35	0.56
3:BW:67:LEU:HD22	3:BW:71:VAL:HB	1.88	0.56
6:BZ:195:VAL:HG13	6:BZ:199:LYS:HD3	1.87	0.56
13:AA:417:ILE:O	13:AA:421:ALA:HB3	2.07	0.55
18:AC:235:PHE:CE2	18:AC:239:ARG:HD2	2.41	0.55
17:AF:238:ARG:CZ	17:AF:250:LYS:HE3	2.36	0.55
6:AZ:186:THR:HG23	6:AZ:187:LEU:H	1.70	0.55
16:BE:368:MET:O	16:BE:372:ARG:CB	2.53	0.55
17:BF:238:ARG:CZ	17:BF:250:LYS:HE3	2.36	0.55
25:BM:40:ARG:HH11	25:BM:147:GLN:HA	1.71	0.55
32:AT:33:LEU:CB	26:BN:134:TYR:OH	2.54	0.55
31:AS:181:SER:CB	27:BO:195:LYS:HZ1	2.19	0.55
1:BU:428:PRO:HB3	1:BU:439:GLU:HB2	1.88	0.55
1:BU:571:CYS:HB2	1:BU:601:ARG:HH21	1.71	0.55
3:BW:455:LEU:HD12	3:BW:456:GLN:HG2	1.88	0.55
3:BW:405:LYS:HG3	4:BX:342:PHE:HA	1.88	0.55
17:AF:374:ASN:HB3	17:AF:414:GLU:HG3	1.87	0.55
17:AF:97:LEU:CD1	17:AF:120:LYS:CG	2.70	0.55
21:AI:3:ARG:HA	22:AJ:5:ARG:HH12	1.71	0.55
26:AN:134:TYR:OH	32:BT:33:LEU:CB	2.54	0.55
28:AP:95:LEU:HD11	28:AP:107:PRO:HG3	1.89	0.55
31:AS:146:GLN:HB3	28:BP:177:ARG:NH2	2.21	0.55
3:AW:328:LEU:HD11	3:AW:341:PHE:HE2	1.72	0.55
5:AY:23:ARG:NH1	5:AY:52:PRO:O	2.35	0.55
13:BA:333:ARG:O	13:BA:337:LEU:N	2.37	0.55
24:BL:41:LYS:HG3	24:BL:180:MET:HB3	1.89	0.55
26:BN:59:VAL:O	26:BN:63:LEU:HB3	2.06	0.55
31:BS:2:PHE:CD1	32:BT:105:PRO:HG3	2.41	0.55
1:BU:643:SER:O	1:BU:649:ARG:NH1	2.37	0.55
31:AS:184:GLU:HG3	27:BO:195:LYS:CD	2.34	0.55
4:AX:359:ALA:O	4:AX:363:ARG:HG3	2.06	0.55
13:BA:102:ILE:HG22	13:BA:113:ILE:HG12	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:BA:176:ASP:HA	13:BA:357:ILE:HD12	1.89	0.55
18:BC:235:PHE:CE2	18:BC:239:ARG:HD2	2.41	0.55
15:BD:82:ILE:HG21	18:BC:63:LEU:HD22	1.87	0.55
19:BG:176:THR:O	19:BG:180:GLU:HG3	2.06	0.55
22:BJ:33:VAL:O	22:BJ:44:GLY:N	2.38	0.55
30:AR:133:VAL:HG21	29:BQ:137:PHE:CB	2.36	0.55
13:AA:333:ARG:NH1	13:AA:340:LYS:HD3	2.21	0.55
13:AA:423:PHE:CZ	14:AB:350:LYS:HD3	2.40	0.55
14:AB:209:GLU:HG2	14:AB:210:TYR:H	1.71	0.55
18:AC:369:TYR:O	18:AC:373:GLU:HB2	2.06	0.55
22:AJ:23:GLN:HG2	22:AJ:149:PRO:HG2	1.88	0.55
31:AS:2:PHE:CD1	32:AT:105:PRO:HG3	2.41	0.55
1:AU:181:LEU:HD11	1:AU:201:LEU:HD12	1.89	0.55
1:AU:428:PRO:HB3	1:AU:439:GLU:HB2	1.88	0.55
15:BD:315:ASP:OD1	15:BD:315:ASP:N	2.39	0.55
16:BE:204:VAL:HG23	16:BE:205:ASP:H	1.69	0.55
19:BG:139:ILE:HG13	19:BG:153:LYS:HG3	1.89	0.55
21:BI:134:LEU:H	21:BI:150:SER:HG	1.54	0.55
28:BP:2:SER:OG	28:BP:3:ILE:N	2.38	0.55
2:BV:290:TYR:CD1	2:BV:328:VAL:HG23	2.41	0.55
3:BW:408:ARG:NH1	4:BX:349:HIS:HB3	2.22	0.55
14:AB:380:LEU:HA	14:AB:383:LEU:HD12	1.89	0.55
15:AD:323:ARG:NH1	18:AC:141:GLU:O	2.39	0.55
3:AW:405:LYS:HG3	4:AX:342:PHE:HA	1.88	0.55
14:BB:209:GLU:HG2	14:BB:210:TYR:H	1.71	0.55
18:BC:90:HIS:HB2	18:BC:91:PRO:HD3	1.86	0.55
23:BK:225:ASN:HB2	23:BK:226:PHE:CD2	2.41	0.55
22:BJ:154:HIS:HE1	23:BK:64:ILE:HG13	1.71	0.55
24:BL:172:LEU:O	24:BL:176:MET:HB3	2.06	0.55
31:AS:176:LYS:H	27:BO:199:LEU:HD23	1.67	0.55
27:BO:67:SER:HB3	27:BO:74:PRO:HG3	1.88	0.55
28:BP:95:LEU:HD11	28:BP:107:PRO:HG3	1.89	0.55
29:AQ:141:SER:HG	30:BR:137:GLY:HA3	1.71	0.55
1:BU:705:LYS:HA	1:BU:708:GLN:HG3	1.88	0.55
3:BW:65:ARG:HB2	3:BW:66:ILE:HB	1.88	0.55
13:AA:218:PRO:O	13:AA:221:GLY:N	2.30	0.55
13:AA:249:TYR:HE2	17:AF:259:MET:HG3	1.72	0.55
17:AF:384:LEU:O	17:AF:388:THR:HG23	2.06	0.55
19:AG:176:THR:O	19:AG:180:GLU:HG3	2.06	0.55
19:AG:11:ARG:O	19:AG:24:GLN:NE2	2.40	0.55
22:AJ:32:ALA:HB2	22:AJ:45:VAL:HG23	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AP:147:TYR:HE1	31:BS:185:ARG:HH22	1.49	0.55
31:AS:63:THR:OG1	32:AT:94:ARG:NH1	2.40	0.55
13:BA:201:PHE:CE1	17:BF:408:LEU:HD22	2.40	0.55
13:BA:417:ILE:O	13:BA:421:ALA:HB3	2.07	0.55
17:BF:230:GLY:HA2	17:BF:231:THR:HB	1.88	0.55
21:BI:3:ARG:HA	22:BJ:5:ARG:HH12	1.71	0.55
29:AQ:145:ARG:NH1	30:BR:199:TYR:CD1	2.70	0.55
2:BV:200:ARG:HH11	2:BV:242:HIS:HB2	1.71	0.55
13:AA:417:ILE:O	13:AA:421:ALA:CB	2.55	0.55
13:AA:94:GLN:C	13:AA:96:ALA:H	2.10	0.55
13:BA:249:TYR:HE2	17:BF:259:MET:HG3	1.72	0.55
29:BQ:47:VAL:HB	29:BQ:102:LEU:HG	1.88	0.55
2:BV:411:SER:HB2	2:BV:447:ILE:HD13	1.86	0.55
2:BV:79:VAL:HG13	2:BV:80:LYS:N	2.22	0.55
16:AE:85:ARG:NH1	18:AC:47:ALA:CA	44.22	0.55
19:AG:139:ILE:HG13	19:AG:153:LYS:HG3	1.89	0.55
22:AJ:154:HIS:HE1	23:AK:64:ILE:HG13	1.71	0.55
25:AM:34:SER:OG	25:AM:65:ARG:NH2	2.40	0.55
22:BJ:32:ALA:HB2	22:BJ:45:VAL:HG23	1.87	0.55
23:BK:79:SER:OG	23:BK:170:ILE:HD13	2.07	0.55
2:BV:342:ILE:HD12	2:BV:343:PRO:HD2	1.87	0.55
3:BW:84:ASN:O	3:BW:87:ILE:HD12	2.07	0.55
13:AA:295:VAL:O	13:AA:299:MET:HG2	2.07	0.55
13:AA:92:PRO:O	13:AA:93:LEU:HB2	2.07	0.55
14:AB:223:ILE:HD11	14:AB:346:ARG:H	1.70	0.55
14:AB:387:LYS:HB3	14:AB:390:LEU:HD13	1.89	0.55
19:AG:211:LYS:NZ	19:AG:232:GLU:OE2	2.38	0.55
27:AO:17:ASP:O	27:AO:33:LYS:NZ	2.36	0.55
27:AO:195:LYS:HZ1	31:BS:181:SER:CB	2.20	0.55
30:AR:141:ARG:HB2	29:BQ:166:GLU:HG3	1.89	0.55
2:AV:211:TYR:O	2:AV:214:HIS:HB2	2.07	0.55
3:AW:370:TYR:HA	3:AW:371:THR:HB	1.87	0.55
5:AY:181:LYS:HA	5:AY:200:LEU:HD12	1.89	0.55
13:BA:206:ILE:HG12	17:BF:404:GLY:HA3	1.89	0.55
13:BA:333:ARG:NH1	13:BA:340:LYS:HD3	2.21	0.55
13:BA:417:ILE:O	13:BA:421:ALA:CB	2.55	0.55
14:BB:380:LEU:HA	14:BB:383:LEU:HD12	1.89	0.55
25:BM:34:SER:OG	25:BM:65:ARG:NH2	2.40	0.55
31:BS:168:LEU:O	31:BS:172:MET:HG2	2.07	0.55
2:BV:228:ARG:HH12	2:BV:254:LEU:HA	1.72	0.55
3:BW:328:LEU:HD11	3:BW:341:PHE:HE2	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BW:371:THR:O	3:BW:414:ASN:HB2	2.06	0.55
3:BW:5:GLY:HA3	3:BW:47:LEU:HD22	1.88	0.55
17:AF:86:LEU:O	17:AF:154:ASN:CG	2.46	0.55
23:AK:79:SER:OG	23:AK:170:ILE:HD13	2.07	0.55
3:AW:371:THR:O	3:AW:414:ASN:HB2	2.06	0.55
3:AW:408:ARG:NH1	4:AX:349:HIS:HB3	2.22	0.55
13:BA:232:ARG:HH11	13:BA:233:THR:H	1.54	0.55
14:BB:387:LYS:HB3	14:BB:390:LEU:HD13	1.89	0.55
15:BD:323:ARG:NH1	18:BC:141:GLU:O	2.39	0.55
17:BF:215:LEU:HB2	17:BF:217:ILE:HG12	1.88	0.55
17:BF:384:LEU:O	17:BF:388:THR:HG23	2.06	0.55
17:BF:403:ALA:O	17:BF:407:ALA:HB2	2.07	0.55
17:BF:406:ILE:HA	17:BF:409:ARG:HG2	1.87	0.55
22:BJ:23:GLN:HG2	22:BJ:149:PRO:HG2	1.88	0.55
2:BV:211:TYR:O	2:BV:214:HIS:HB2	2.07	0.55
2:BV:490:SER:HA	6:BZ:275:LEU:HD21	1.89	0.55
14:AB:176:VAL:HG23	14:AB:177:GLU:HB2	1.88	0.54
15:AD:345:PHE:HB3	15:AD:360:LEU:HD22	1.88	0.54
16:AE:118:LEU:HD21	16:AE:225:HIS:CE1	2.42	0.54
17:AF:151:VAL:HB	17:AF:160:ILE:HG21	1.88	0.54
25:AM:57:LEU:HB2	25:AM:58:TYR:CD2	2.42	0.54
27:AO:208:THR:OG1	31:BS:159:GLN:CB	2.54	0.54
1:AU:233:LEU:HD13	1:AU:268:LEU:HD21	1.89	0.54
18:BC:330:LYS:O	18:BC:334:ARG:HG3	2.07	0.54
19:BG:11:ARG:O	19:BG:24:GLN:NE2	2.39	0.54
20:BH:50:LYS:NZ	20:BH:62:VAL:O	2.40	0.54
24:BL:204:ASP:HB3	24:BL:205:LEU:C	2.27	0.54
28:BP:170:ALA:O	28:BP:174:ALA:CB	2.55	0.54
5:BY:349:LYS:HG3	5:BY:350:VAL:HG13	1.90	0.54
17:AF:385:ALA:O	17:AF:388:THR:OG1	2.23	0.54
4:AX:124:PHE:CZ	20:AH:234:ALA:OXT	2.60	0.54
6:AZ:101:LEU:HD23	6:AZ:123:ILE:HD11	1.89	0.54
6:AZ:193:ASN:O	6:AZ:196:HIS:ND1	2.20	0.54
13:BA:420:TYR:HA	13:BA:423:PHE:CE2	2.42	0.54
13:BA:75:PRO:O	13:BA:79:ASP:HB2	2.07	0.54
15:BD:81:ARG:CD	15:BD:82:ILE:CD1	2.86	0.54
15:BD:238:LYS:NZ	16:BE:74:THR:O	2.31	0.54
17:BF:204:LEU:HD13	17:BF:212:PHE:HZ	1.71	0.54
4:BX:124:PHE:CZ	20:BH:234:ALA:OXT	2.60	0.54
13:AA:343:PHE:HA	13:AA:344:SER:OG	2.08	0.54
13:AA:176:ASP:HA	13:AA:357:ILE:HD12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AB:224:LEU:N	14:AB:329:MET:O	2.36	0.54
17:AF:204:LEU:HD13	17:AF:212:PHE:HZ	1.71	0.54
5:AY:349:LYS:HG3	5:AY:350:VAL:HG13	1.89	0.54
3:AW:422:ASN:ND2	6:AZ:247:LYS:O	2.41	0.54
18:BC:119:ASP:N	18:BC:119:ASP:OD1	2.37	0.54
17:BF:97:LEU:CD1	17:BF:120:LYS:CG	2.70	0.54
24:BL:224:TYR:HD1	24:BL:228:ASP:HB3	1.73	0.54
31:AS:157:ASN:CG	28:BP:176:ASP:OD2	2.44	0.54
2:BV:285:TRP:O	2:BV:288:TYR:HB3	2.07	0.54
3:BW:62:SER:HB2	3:BW:71:VAL:HG11	1.90	0.54
5:BY:181:LYS:HA	5:BY:200:LEU:HD12	1.89	0.54
6:BZ:102:HIS:CD2	6:BZ:104:ASN:HB3	2.43	0.54
13:AA:420:TYR:HA	13:AA:423:PHE:CE2	2.42	0.54
3:AW:84:ASN:O	3:AW:87:ILE:HD12	2.07	0.54
13:BA:283:ALA:HB3	13:BA:326:THR:HB	1.90	0.54
14:BB:176:VAL:HG23	14:BB:177:GLU:HB2	1.88	0.54
27:BO:41:ILE:HG12	27:BO:102:GLY:HA3	1.90	0.54
27:AO:208:THR:OG1	31:BS:159:GLN:HB3	1.90	0.54
5:BY:170:GLU:N	5:BY:171:GLY:HA3	2.23	0.54
14:AB:103:ARG:HG2	14:AB:107:MET:HE2	1.90	0.54
14:AB:153:ASN:HD21	14:AB:160:ILE:HB	1.72	0.54
15:AD:82:ILE:HG21	18:AC:63:LEU:HD22	1.87	0.54
17:AF:81:LYS:O	17:AF:85:THR:HG22	2.08	0.54
21:AI:171:ALA:HB2	21:AI:200:THR:HG21	1.89	0.54
1:AU:571:CYS:HB2	1:AU:601:ARG:HH21	1.71	0.54
3:AW:86:ASN:HB3	3:AW:88:MET:HG3	1.90	0.54
4:AX:143:TYR:HD2	4:AX:144:GLN:HG2	1.72	0.54
6:AZ:102:HIS:CD2	6:AZ:104:ASN:HB3	2.43	0.54
6:AZ:195:VAL:HG13	6:AZ:199:LYS:HD3	1.87	0.54
6:AZ:225:GLN:HG2	6:AZ:228:TYR:CE2	2.43	0.54
14:BB:153:ASN:HD21	14:BB:160:ILE:HB	1.72	0.54
16:BE:310:LEU:O	16:BE:314:LYS:HG2	2.08	0.54
21:BI:171:ALA:HB2	21:BI:200:THR:HG21	1.89	0.54
28:AP:205:ASP:C	30:BR:19:ARG:HH22	2.10	0.54
2:BV:475:ALA:O	2:BV:479:ARG:HG2	2.08	0.54
3:BW:441:LYS:HA	3:BW:444:HIS:CE1	2.43	0.54
4:BX:172:LEU:HD12	4:BX:175:LYS:HD3	1.89	0.54
16:AE:170:CYS:SG	16:AE:171:LEU:N	2.81	0.54
17:AF:86:LEU:O	17:AF:88:TYR:N	2.38	0.54
28:AP:170:ALA:O	28:AP:174:ALA:CB	2.55	0.54
29:AQ:137:PHE:CB	30:BR:133:VAL:HG21	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AR:166:ARG:O	28:BP:34:MET:N	2.41	0.54
31:AS:157:ASN:HB3	28:BP:172:LEU:HB2	1.89	0.54
2:AV:97:ALA:N	2:AV:98:LEU:HB2	2.23	0.54
13:BA:343:PHE:HA	13:BA:344:SER:OG	2.08	0.54
17:BF:151:VAL:HB	17:BF:160:ILE:HG21	1.88	0.54
31:AS:177:ASP:OD2	27:BO:199:LEU:C	2.14	0.54
30:AR:141:ARG:NE	29:BQ:162:LYS:CB	2.71	0.54
27:AO:199:LEU:CB	31:BS:177:ASP:OD2	2.16	0.54
4:BX:130:GLU:HB3	4:BX:153:LEU:HD21	1.90	0.54
4:BX:161:ASP:HB2	20:BH:176:LYS:CB	2.37	0.54
4:BX:359:ALA:O	4:BX:363:ARG:HG3	2.06	0.54
6:BZ:56:VAL:HA	6:BZ:74:TYR:HE2	1.73	0.54
20:AH:50:LYS:NZ	20:AH:62:VAL:O	2.40	0.54
27:AO:38:SER:OG	27:AO:40:ASN:OD1	2.26	0.54
30:AR:166:ARG:HG2	29:BQ:140:LEU:CD2	2.36	0.54
21:BI:184:MET:HA	21:BI:185:THR:C	2.28	0.54
23:BK:169:ALA:HB3	23:BK:178:GLN:HG2	1.89	0.54
2:BV:97:ALA:N	2:BV:98:LEU:HB2	2.23	0.54
4:BX:143:TYR:HD2	4:BX:144:GLN:HG2	1.72	0.54
4:BX:174:SER:HA	4:BX:177:TYR:HD2	1.73	0.54
18:AC:42:LEU:O	18:AC:45:LEU:HB2	2.08	0.54
15:AD:384:MET:HE2	16:AE:164:ILE:HD11	1.89	0.54
20:AH:46:LEU:HD13	20:AH:75:VAL:HG22	1.89	0.54
24:AL:204:ASP:HB3	24:AL:205:LEU:C	2.27	0.54
24:AL:41:LYS:HG3	24:AL:180:MET:HB3	1.89	0.54
3:AW:455:LEU:HD12	3:AW:456:GLN:HG2	1.88	0.54
2:AV:490:SER:HA	6:AZ:275:LEU:HD21	1.89	0.54
15:BD:384:MET:O	15:BD:387:VAL:HG12	2.08	0.54
15:BD:384:MET:SD	16:BE:167:PRO:HG3	2.48	0.54
16:BE:50:LEU:CD1	17:BF:138:GLY:HA3	2.36	0.54
22:BJ:172:LEU:HA	22:BJ:175:ASN:HB3	1.90	0.54
1:BU:181:LEU:HD11	1:BU:201:LEU:HD12	1.89	0.54
2:BV:159:LEU:HD13	2:BV:178:SER:HB2	1.88	0.54
18:AC:330:LYS:O	18:AC:334:ARG:HG3	2.07	0.54
15:AD:384:MET:SD	16:AE:167:PRO:HG3	2.48	0.54
17:AF:230:GLY:HA2	17:AF:231:THR:HB	1.88	0.54
28:AP:170:ALA:O	28:AP:174:ALA:HB2	2.07	0.54
3:AW:312:MET:SD	3:AW:361:HIS:ND1	2.73	0.54
3:AW:441:LYS:HA	3:AW:444:HIS:CE1	2.43	0.54
4:AX:174:SER:HA	4:AX:177:TYR:HD2	1.73	0.54
5:AY:349:LYS:O	5:AY:350:VAL:HG22	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BB:255:LEU:HD12	14:BB:256:ILE:HG12	1.90	0.54
14:BB:324:ASP:OD1	14:BB:324:ASP:N	2.40	0.54
16:BE:174:GLY:O	16:BE:280:ASN:HA	2.08	0.54
22:AJ:172:LEU:HA	22:AJ:175:ASN:HB3	1.90	0.54
23:AK:113:THR:HG21	23:AK:162:PHE:CG	2.43	0.54
1:AU:382:SER:O	1:AU:384:GLN:NE2	2.41	0.54
1:AU:623:GLY:HA2	1:AU:659:CYS:HB2	1.90	0.54
2:AV:285:TRP:O	2:AV:288:TYR:HB3	2.07	0.54
5:AY:71:ASN:HA	5:AY:74:LYS:HG2	1.89	0.54
13:BA:295:VAL:O	13:BA:299:MET:HG2	2.07	0.54
17:BF:192:ASP:HA	17:BF:195:ILE:HG22	1.90	0.54
20:BH:40:ALA:HB1	20:BH:182:LEU:H	1.73	0.54
24:BL:215:VAL:HB	24:BL:221:PHE:HD1	1.72	0.54
24:BL:93:LEU:HA	24:BL:96:ARG:HB3	1.90	0.54
30:AR:138:VAL:H	29:BQ:141:SER:HB2	1.72	0.54
3:BW:416:GLN:HB3	3:BW:418:PRO:HD3	1.90	0.54
14:AB:232:LYS:N	35:AB:501:ADP:O3B	2.39	0.53
16:AE:178:THR:HG23	34:AE:401:ATP:H8	1.72	0.53
17:AF:406:ILE:HG22	17:AF:409:ARG:NH1	2.23	0.53
4:AX:161:ASP:HB2	20:AH:176:LYS:CB	2.38	0.53
2:AV:79:VAL:HG13	2:AV:80:LYS:N	2.22	0.53
3:AW:65:ARG:HB2	3:AW:66:ILE:HB	1.88	0.53
18:BC:243:PRO:HB3	18:BC:288:ASN:HB3	1.90	0.53
16:BE:118:LEU:HD21	16:BE:225:HIS:CE1	2.42	0.53
16:BE:219:PHE:O	16:BE:223:ARG:HG3	2.08	0.53
16:BE:54:GLY:O	16:BE:102:MET:HE2	2.08	0.53
25:BM:25:TYR:HD1	25:BM:28:LYS:HE3	1.73	0.53
25:BM:57:LEU:HB2	25:BM:58:TYR:CD2	2.42	0.53
27:BO:38:SER:OG	27:BO:40:ASN:OD1	2.26	0.53
31:AS:157:ASN:HD21	28:BP:173:ASN:HA	1.72	0.53
3:BW:405:LYS:HA	4:BX:341:PRO:O	2.08	0.53
4:AX:198:ASN:OD1	18:AC:392:GLN:HG2	2.08	0.53
15:AD:81:ARG:CD	15:AD:82:ILE:CD1	2.86	0.53
25:AM:56:LYS:HE3	25:AM:57:LEU:O	2.08	0.53
15:BD:54:LEU:HA	15:BD:57:GLN:HB2	1.90	0.53
5:BY:177:ARG:HH12	18:BC:337:ASN:ND2	1.90	0.53
13:AA:75:PRO:O	13:AA:79:ASP:HB2	2.08	0.53
17:AF:403:ALA:O	17:AF:407:ALA:HB2	2.07	0.53
21:AI:94:ALA:HB1	21:AI:105:ILE:HG21	1.90	0.53
23:AK:169:ALA:HB3	23:AK:178:GLN:HG2	1.89	0.53
24:AL:215:VAL:HB	24:AL:221:PHE:HD1	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AM:68:ASN:ND2	25:AM:224:HIS:O	2.40	0.53
25:AM:25:TYR:HD1	25:AM:28:LYS:HE3	1.73	0.53
28:AP:148:GLY:HA3	31:BS:144:MET:HB3	1.90	0.53
29:AQ:162:LYS:CB	30:BR:141:ARG:NE	2.71	0.53
2:AV:160:LEU:HB2	2:AV:161:PRO:HD3	1.88	0.53
2:AV:213:TYR:HD1	2:AV:216:ARG:HD2	1.73	0.53
3:AW:62:SER:HB2	3:AW:71:VAL:HG11	1.90	0.53
13:BA:184:ILE:O	13:BA:188:ARG:HB2	2.09	0.53
18:BC:164:VAL:HG21	18:BC:313:ARG:HG2	1.90	0.53
16:BE:170:CYS:SG	16:BE:171:LEU:N	2.81	0.53
17:BF:212:PHE:O	17:BF:216:GLY:N	2.41	0.53
17:BF:249:LEU:HA	17:BF:252:ALA:HB3	11.15	0.53
17:BF:299:GLU:HB3	17:BF:300:LYS:HB2	1.90	0.53
17:BF:86:LEU:O	17:BF:154:ASN:CG	2.46	0.53
23:BK:227:HIS:HA	23:BK:228:MET:C	2.29	0.53
25:BM:56:LYS:HE3	25:BM:57:LEU:O	2.08	0.53
28:BP:170:ALA:O	28:BP:174:ALA:HB2	2.07	0.53
5:BY:349:LYS:O	5:BY:350:VAL:HG22	2.08	0.53
14:AB:324:ASP:N	14:AB:324:ASP:OD1	2.40	0.53
23:AK:52:LYS:HD3	23:AK:64:ILE:HB	1.90	0.53
26:AN:99:ILE:HD13	26:AN:126:ALA:HB1	1.91	0.53
31:AS:159:GLN:O	27:BO:208:THR:CB	2.56	0.53
5:AY:34:ASP:OD1	5:AY:34:ASP:N	2.42	0.53
13:BA:327:LEU:O	13:BA:331:LEU:N	2.41	0.53
16:BE:308:ALA:O	16:BE:312:ILE:HG22	2.08	0.53
17:BF:99:VAL:HG23	17:BF:118:LYS:HA	1.90	0.53
19:BG:158:GLY:O	20:BH:84:ARG:NH2	2.40	0.53
20:BH:46:LEU:HD13	20:BH:75:VAL:HG22	1.89	0.53
23:BK:52:LYS:HD3	23:BK:64:ILE:HB	1.90	0.53
5:BY:109:GLU:HG2	5:BY:124:PHE:CE1	2.44	0.53
18:AC:243:PRO:HB3	18:AC:288:ASN:HB3	1.90	0.53
15:AD:114:ARG:HH21	18:AC:62:GLU:CG	2.21	0.53
24:AL:224:TYR:HD1	24:AL:228:ASP:HB3	1.73	0.53
31:AS:174:LEU:C	27:BO:199:LEU:HD23	2.28	0.53
32:AT:181:ALA:N	26:BN:26:ILE:HG13	2.23	0.53
1:AU:800:VAL:HG21	1:AU:914:LEU:HD21	1.90	0.53
2:AV:475:ALA:O	2:AV:479:ARG:HG2	2.08	0.53
3:AW:247:TYR:O	3:AW:250:ILE:HG13	2.08	0.53
3:AW:416:GLN:HB3	3:AW:418:PRO:HD3	1.90	0.53
14:BB:100:ASP:CB	14:BB:103:ARG:NH1	2.54	0.53
14:BB:232:LYS:N	35:BB:501:ADP:O3B	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BD:114:ARG:HH21	18:BC:62:GLU:CG	2.21	0.53
15:BD:81:ARG:CD	15:BD:82:ILE:HD11	2.39	0.53
19:BG:81:THR:OG1	19:BG:137:CYS:HB3	2.08	0.53
23:BK:16:SER:N	23:BK:20:ARG:O	2.42	0.53
31:AS:174:LEU:HD23	27:BO:202:TYR:CE1	2.44	0.53
3:BW:86:ASN:HB3	3:BW:88:MET:HG3	1.90	0.53
5:BY:34:ASP:N	5:BY:34:ASP:OD1	2.42	0.53
13:AA:206:ILE:HG12	17:AF:404:GLY:HA3	1.89	0.53
13:AA:327:LEU:O	13:AA:331:LEU:N	2.41	0.53
15:AD:54:LEU:HA	15:AD:57:GLN:HB2	1.90	0.53
23:AK:41:GLN:N	23:AK:166:ASP:O	2.35	0.53
31:AS:168:LEU:O	31:AS:172:MET:HG2	2.07	0.53
4:AX:172:LEU:HD12	4:AX:175:LYS:HD3	1.89	0.53
5:AY:170:GLU:N	5:AY:171:GLY:HA3	2.23	0.53
6:AZ:56:VAL:HA	6:AZ:74:TYR:HE2	1.73	0.53
18:BC:42:LEU:O	18:BC:45:LEU:HB2	2.08	0.53
17:BF:204:LEU:HB2	17:BF:212:PHE:HZ	1.74	0.53
17:BF:406:ILE:HG22	17:BF:409:ARG:NH1	2.23	0.53
23:BK:113:THR:HG21	23:BK:162:PHE:CG	2.43	0.53
1:BU:382:SER:O	1:BU:384:GLN:NE2	2.41	0.53
6:BZ:101:LEU:HD23	6:BZ:123:ILE:HD11	1.89	0.53
13:AA:232:ARG:NH2	13:AA:235:ALA:O	2.42	0.53
13:AA:232:ARG:HH11	13:AA:233:THR:H	1.54	0.53
18:AC:304:ALA:HA	18:AC:307:ARG:HB2	1.91	0.53
16:AE:182:LEU:CD1	34:AE:401:ATP:H2'	2.35	0.53
17:AF:94:ILE:HB	17:AF:123:VAL:HB	1.91	0.53
17:AF:70:LYS:O	17:AF:73:ILE:HG13	2.08	0.53
19:AG:81:THR:OG1	19:AG:137:CYS:HB3	2.08	0.53
20:AH:167:TYR:O	20:AH:171:LYS:CB	2.53	0.53
21:AI:92:LEU:HD21	21:AI:96:ARG:HH21	1.74	0.53
30:AR:138:VAL:N	29:BQ:141:SER:HB2	2.24	0.53
30:AR:136:TYR:O	30:AR:140:ASP:HB2	2.09	0.53
2:AV:275:VAL:HB	2:AV:277:PRO:HD3	1.91	0.53
17:BF:81:LYS:O	17:BF:85:THR:HG22	2.08	0.53
23:BK:11:GLY:C	23:BK:13:ASN:H	2.12	0.53
29:BQ:17:SER:O	29:BQ:179:SER:N	2.42	0.53
3:BW:422:ASN:ND2	6:BZ:247:LYS:O	2.41	0.53
3:AW:136:ILE:CD1	15:AD:392:TYR:CD1	2.84	0.53
16:AE:310:LEU:O	16:AE:314:LYS:HG2	2.08	0.53
16:AE:326:ILE:HD12	16:AE:326:ILE:O	2.09	0.53
16:AE:244:SER:H	17:AF:299:GLU:HB2	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AK:209:LYS:O	23:AK:214:ASN:ND2	2.42	0.53
25:AM:43:ASP:N	25:AM:43:ASP:OD1	2.40	0.53
30:AR:19:ARG:HH22	28:BP:205:ASP:C	2.12	0.53
1:AU:388:ASP:OD1	1:AU:389:ASN:ND2	2.42	0.53
1:AU:844:LYS:HD3	1:AU:881:PRO:HD3	1.91	0.53
4:AX:130:GLU:HB3	4:AX:153:LEU:HD21	1.90	0.53
16:BE:178:THR:HG23	34:BE:401:ATP:H8	1.72	0.53
23:BK:225:ASN:HA	23:BK:227:HIS:HB3	1.91	0.53
26:BN:99:ILE:HD13	26:BN:126:ALA:HB1	1.91	0.53
2:BV:275:VAL:HB	2:BV:277:PRO:HD3	1.91	0.53
5:BY:71:ASN:HA	5:BY:74:LYS:HG2	1.89	0.53
5:BY:97:GLU:OE2	18:BC:162:LYS:CD	2.53	0.53
18:AC:164:VAL:HG21	18:AC:313:ARG:HG2	1.90	0.53
15:AD:81:ARG:CD	15:AD:82:ILE:HD11	2.39	0.53
16:AE:69:PHE:O	16:AE:80:VAL:HA	2.09	0.53
17:AF:99:VAL:HG23	17:AF:118:LYS:HA	1.90	0.53
22:AJ:12:PRO:HA	23:AK:26:TYR:CG	2.43	0.53
22:AJ:17:PHE:O	22:AJ:21:TYR:HB3	2.09	0.53
24:AL:93:LEU:HA	24:AL:96:ARG:HB3	1.90	0.53
26:AN:29:ARG:NH2	32:BT:179:ARG:N	2.50	0.53
29:AQ:107:TYR:CE2	29:AQ:185:LYS:HA	2.44	0.53
3:AW:373:ILE:HG12	3:AW:374:THR:O	2.09	0.53
13:BA:232:ARG:NH2	13:BA:235:ALA:O	2.42	0.53
13:BA:94:GLN:C	13:BA:96:ALA:H	2.11	0.53
14:BB:232:LYS:HB3	35:BB:501:ADP:O5'	2.09	0.53
15:BD:218:ALA:O	15:BD:222:HIS:ND1	2.42	0.53
16:BE:244:SER:H	17:BF:299:GLU:HB2	1.74	0.53
23:BK:209:LYS:O	23:BK:214:ASN:ND2	2.42	0.53
18:AC:134:LEU:HD13	18:AC:223:PHE:HB2	1.91	0.53
16:AE:174:GLY:O	16:AE:280:ASN:HA	2.08	0.53
16:AE:308:ALA:O	16:AE:312:ILE:HG22	2.08	0.53
17:AF:204:LEU:HB2	17:AF:212:PHE:HZ	1.74	0.53
20:AH:40:ALA:HB1	20:AH:182:LEU:H	1.73	0.53
23:AK:227:HIS:HA	23:AK:228:MET:C	2.29	0.53
1:AU:246:TYR:HH	1:AU:250:PHE:HE2	1.57	0.53
14:BB:222:VAL:HG22	14:BB:328:ILE:HG12	1.92	0.53
18:BC:132:ASP:O	18:BC:135:VAL:N	2.42	0.53
25:BM:43:ASP:N	25:BM:43:ASP:OD1	2.40	0.53
3:BW:247:TYR:O	3:BW:250:ILE:HG13	2.08	0.53
13:AA:184:ILE:O	13:AA:188:ARG:HB2	2.09	0.52
13:AA:416:VAL:HA	13:AA:420:TYR:HD2	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AC:268:GLU:HA	18:AC:271:ARG:HB3	1.91	0.52
15:AD:218:ALA:O	15:AD:222:HIS:ND1	2.42	0.52
15:AD:384:MET:O	15:AD:387:VAL:HG12	2.08	0.52
17:AF:299:GLU:HB3	17:AF:300:LYS:HB2	1.90	0.52
17:AF:364:ARG:O	17:AF:368:ILE:HG12	2.09	0.52
13:AA:206:ILE:N	17:AF:373:MET:SD	2.64	0.52
25:AM:195:LYS:O	25:AM:199:ILE:HB	2.09	0.52
27:AO:41:ILE:HG12	27:AO:102:GLY:HA3	1.90	0.52
1:AU:208:LEU:HD23	1:AU:210:LYS:H	1.75	0.52
1:AU:61:ALA:HB1	1:AU:80:TYR:HB3	1.91	0.52
16:BE:157:GLU:HA	16:BE:160:GLN:HG2	1.90	0.52
17:BF:438:TYR:O	24:BL:62:LYS:NZ	2.40	0.52
29:AQ:166:GLU:HG3	30:BR:141:ARG:HB2	1.91	0.52
1:BU:61:ALA:HB1	1:BU:80:TYR:HB3	1.91	0.52
2:BV:213:TYR:HD1	2:BV:216:ARG:HD2	1.73	0.52
13:AA:425:ALA:C	13:AA:427:PRO:HD3	2.30	0.52
14:AB:232:LYS:HB3	35:AB:501:ADP:O5'	2.09	0.52
14:BB:251:VAL:HG22	14:BB:285:ASP:N	2.25	0.52
18:BC:134:LEU:HD13	18:BC:223:PHE:HB2	1.91	0.52
18:BC:66:LEU:CG	18:BC:70:GLY:HA2	2.26	0.52
17:BF:70:LYS:O	17:BF:73:ILE:HG13	2.08	0.52
22:BJ:12:PRO:HA	23:BK:26:TYR:CG	2.43	0.52
1:BU:623:GLY:HA2	1:BU:659:CYS:HB2	1.90	0.52
1:BU:800:VAL:HG21	1:BU:914:LEU:HD21	1.90	0.52
2:BV:440:LYS:NZ	15:BD:143:LEU:O	76.97	0.52
3:BW:61:VAL:O	3:BW:64:SER:OG	2.27	0.52
13:AA:418:LYS:O	13:AA:422:LYS:HG3	2.09	0.52
14:AB:141:LYS:HA	14:AB:144:LEU:HG	1.92	0.52
16:AE:157:GLU:HA	16:AE:160:GLN:HG2	1.90	0.52
16:AE:50:LEU:HD13	17:AF:138:GLY:CA	2.39	0.52
17:AF:192:ASP:HA	17:AF:195:ILE:HG22	1.90	0.52
27:AO:141:LYS:NZ	27:AO:157:GLU:OE2	2.42	0.52
29:AQ:141:SER:HB2	30:BR:138:VAL:H	1.74	0.52
1:AU:118:LEU:HD21	1:AU:123:LYS:HA	1.92	0.52
3:AW:359:VAL:O	3:AW:363:ILE:HG12	2.09	0.52
14:BB:218:PRO:HB2	14:BB:346:ARG:NH1	2.24	0.52
25:BM:68:ASN:ND2	25:BM:224:HIS:O	2.40	0.52
29:AQ:137:PHE:CB	30:BR:133:VAL:HG23	2.31	0.52
28:AP:169:GLN:HB3	31:BS:151:ASN:HD21	1.73	0.52
3:BW:359:VAL:O	3:BW:363:ILE:HG12	2.09	0.52
3:BW:420:ASP:HB2	3:BW:425:LEU:HD12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AC:277:LEU:O	18:AC:281:ASP:HB3	2.09	0.52
15:AD:154:LEU:O	15:AD:155:THR:OG1	2.24	0.52
16:AE:219:PHE:O	16:AE:223:ARG:HG3	2.08	0.52
16:AE:250:ASP:O	16:AE:254:GLN:HG2	2.10	0.52
17:AF:249:LEU:HA	17:AF:252:ALA:HB3	11.14	0.52
19:AG:175:SER:HB2	19:AG:205:VAL:HG21	1.91	0.52
24:AL:15:PRO:O	25:AM:28:LYS:NZ	2.25	0.52
29:AQ:17:SER:O	29:AQ:179:SER:N	2.42	0.52
2:AV:255:LEU:CD2	2:AV:291:TYR:HB3	2.39	0.52
13:BA:92:PRO:O	13:BA:93:LEU:HB2	2.07	0.52
14:BB:170:LEU:O	14:BB:173:VAL:HG22	2.10	0.52
18:BC:268:GLU:HA	18:BC:271:ARG:HB3	1.91	0.52
18:BC:304:ALA:HA	18:BC:307:ARG:HB2	1.91	0.52
19:BG:175:SER:HB2	19:BG:205:VAL:HG21	1.91	0.52
31:AS:213:ASP:HB3	27:BO:193:ASN:HD21	1.73	0.52
29:BQ:107:TYR:CE2	29:BQ:185:LYS:HA	2.44	0.52
13:AA:283:ALA:HB3	13:AA:326:THR:HB	1.90	0.52
18:AC:132:ASP:O	18:AC:135:VAL:N	2.42	0.52
15:AD:282:ASP:OD1	16:AE:251:ARG:NH2	2.43	0.52
22:AJ:220:LEU:HD13	22:AJ:224:GLU:HB2	1.91	0.52
23:AK:11:GLY:C	23:AK:13:ASN:H	2.12	0.52
5:AY:381:GLN:HB3	5:AY:385:ARG:NH1	2.23	0.52
16:BE:326:ILE:HD12	16:BE:326:ILE:O	2.09	0.52
17:BF:364:ARG:O	17:BF:368:ILE:HG12	2.09	0.52
22:BJ:145:TYR:CE1	22:BJ:155:ALA:HB2	2.45	0.52
23:BK:177:ALA:O	23:BK:181:LEU:CB	2.57	0.52
23:BK:221:GLN:OE1	23:BK:227:HIS:NE2	2.42	0.52
24:BL:36:VAL:HG22	24:BL:160:SER:HB2	1.90	0.52
30:BR:136:TYR:O	30:BR:140:ASP:HB2	2.09	0.52
31:BS:63:THR:OG1	32:BT:94:ARG:NH1	2.40	0.52
1:BU:388:ASP:OD1	1:BU:389:ASN:ND2	2.42	0.52
2:BV:252:ASN:ND2	2:BV:284:GLU:OE2	2.43	0.52
4:BX:198:ASN:OD1	18:BC:392:GLN:HG2	2.08	0.52
16:AE:207:TYR:HB2	16:AE:208:ILE:HD12	1.92	0.52
23:AK:177:ALA:O	23:AK:181:LEU:CB	2.57	0.52
23:AK:16:SER:N	23:AK:20:ARG:O	2.42	0.52
17:AF:438:TYR:O	24:AL:62:LYS:NZ	2.40	0.52
2:AV:269:LYS:HE2	2:AV:295:ILE:HG13	1.92	0.52
2:AV:284:GLU:HG2	2:AV:287:ARG:HE	1.74	0.52
14:BB:217:LYS:HG2	14:BB:219:PRO:HD3	1.92	0.52
17:BF:94:ILE:HB	17:BF:123:VAL:HB	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BI:159:TRP:HB3	22:BJ:54:GLN:OE1	2.10	0.52
26:BN:151:GLU:O	26:BN:155:PHE:HB2	2.10	0.52
2:BV:284:GLU:HG2	2:BV:287:ARG:HE	1.74	0.52
2:BV:269:LYS:HE2	2:BV:295:ILE:HG13	1.92	0.52
2:BV:79:VAL:O	2:BV:80:LYS:NZ	2.26	0.52
5:BY:102:ASP:HA	5:BY:105:MET:HG2	1.92	0.52
5:BY:296:VAL:O	5:BY:300:ARG:HG3	2.10	0.52
13:AA:246:VAL:HG13	13:AA:280:ILE:HG22	1.92	0.52
14:AB:255:LEU:HD12	14:AB:256:ILE:HG12	1.90	0.52
1:AU:141:CYS:SG	18:AC:13:GLU:HG2	2.50	0.52
4:AX:194:ARG:HB3	18:AC:385:MET:SD	2.50	0.52
16:AE:153:LEU:HD13	16:AE:227:PRO:HG3	1.91	0.52
19:AG:185:LYS:HG3	19:AG:187:PHE:H	1.75	0.52
21:AI:184:MET:HA	21:AI:185:THR:C	2.28	0.52
22:AJ:88:ARG:HH21	29:AQ:69:MET:C	2.13	0.52
31:AS:157:ASN:ND2	28:BP:172:LEU:O	2.43	0.52
31:AS:159:GLN:HB3	27:BO:208:THR:OG1	1.90	0.52
1:AU:377:HIS:O	1:AU:380:THR:HG22	2.09	0.52
2:AV:252:ASN:ND2	2:AV:284:GLU:OE2	2.43	0.52
5:AY:109:GLU:HG2	5:AY:124:PHE:CE1	2.44	0.52
5:AY:326:GLY:HA2	5:AY:329:PHE:HD2	1.74	0.52
13:BA:315:ILE:HD12	13:BA:316:LYS:O	2.09	0.52
14:BB:141:LYS:HA	14:BB:144:LEU:HG	1.92	0.52
14:BB:249:ARG:HG3	14:BB:283:PHE:HD2	1.74	0.52
18:BC:231:VAL:HG11	18:BC:272:THR:HG23	1.92	0.52
15:BD:133:HIS:CE1	18:BC:67:GLN:OE1	2.63	0.52
21:BI:12:PHE:HB2	22:BJ:21:TYR:HE2	1.75	0.52
25:BM:195:LYS:O	25:BM:199:ILE:HB	2.09	0.52
1:BU:844:LYS:HD3	1:BU:881:PRO:HD3	1.91	0.52
3:BW:135:LYS:HB3	3:BW:136:ILE:HB	1.92	0.52
4:BX:281:GLY:H	4:BX:284:THR:HG22	1.75	0.52
6:BZ:9:VAL:HG12	6:BZ:48:LEU:HB3	1.92	0.52
14:AB:218:PRO:HB2	14:AB:346:ARG:NH1	2.24	0.52
14:AB:249:ARG:NH2	14:AB:251:VAL:HB	2.25	0.52
3:AW:136:ILE:HG13	15:AD:392:TYR:CD1	2.36	0.52
19:AG:158:GLY:O	20:AH:84:ARG:NH2	2.40	0.52
21:AI:159:TRP:HB3	22:AJ:54:GLN:OE1	2.10	0.52
23:AK:121:LEU:HD22	23:AK:123:PHE:HE2	1.75	0.52
13:BA:364:VAL:HG13	13:BA:368:ILE:HD12	1.92	0.52
18:BC:223:PHE:CD2	18:BC:224:ILE:HG13	2.45	0.52
16:BE:50:LEU:HD13	17:BF:138:GLY:CA	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BH:167:TYR:O	20:BH:171:LYS:CB	2.53	0.52
21:BI:94:ALA:HB1	21:BI:105:ILE:HG21	1.90	0.52
22:BJ:17:PHE:O	22:BJ:21:TYR:HB3	2.09	0.52
22:BJ:220:LEU:HD13	22:BJ:224:GLU:HB2	1.91	0.52
25:BM:213:LEU:O	25:BM:226:ILE:HG13	2.09	0.52
31:AS:181:SER:N	27:BO:195:LYS:CE	2.73	0.52
31:AS:144:MET:HB3	28:BP:148:GLY:HA3	1.91	0.52
1:BU:233:LEU:HD13	1:BU:268:LEU:HD21	1.89	0.52
1:BU:377:HIS:O	1:BU:380:THR:HG22	2.10	0.52
2:BV:143:ALA:HB3	2:BV:145:LEU:HB3	1.92	0.52
3:BW:373:ILE:HG12	3:BW:374:THR:O	2.09	0.52
5:BY:326:GLY:HA2	5:BY:329:PHE:HD2	1.74	0.52
6:BZ:225:GLN:HE22	6:BZ:229:GLN:HB2	1.75	0.52
13:AA:364:VAL:HG13	13:AA:368:ILE:HD12	1.92	0.52
14:AB:251:VAL:HG22	14:AB:285:ASP:N	2.25	0.52
18:AC:231:VAL:HG11	18:AC:272:THR:HG23	1.92	0.52
15:AD:82:ILE:N	15:AD:82:ILE:CD1	2.73	0.52
21:AI:12:PHE:HB2	22:AJ:21:TYR:HE2	1.75	0.52
23:AK:154:PHE:HB3	23:AK:162:PHE:HE1	1.75	0.52
26:AN:151:GLU:O	26:AN:155:PHE:HB2	2.10	0.52
4:AX:281:GLY:H	4:AX:284:THR:HG22	1.74	0.52
15:BD:154:LEU:O	15:BD:155:THR:OG1	2.24	0.52
15:BD:154:LEU:HD23	15:BD:155:THR:H	1.75	0.52
15:BD:282:ASP:OD1	16:BE:251:ARG:NH2	2.43	0.52
16:BE:367:PHE:O	16:BE:371:VAL:CB	2.41	0.52
16:BE:69:PHE:O	16:BE:80:VAL:HA	2.09	0.52
19:BG:29:PHE:HA	19:BG:32:ILE:HD12	1.92	0.52
29:BQ:56:PHE:CZ	29:BQ:98:TYR:HD2	2.28	0.52
14:AB:170:LEU:O	14:AB:173:VAL:HG22	2.10	0.52
18:AC:346:LYS:O	18:AC:350:LEU:HD12	2.04	0.52
15:AD:270:ILE:HA	16:AE:251:ARG:HH21	1.75	0.52
16:AE:309:ARG:HG3	16:AE:343:LEU:HD22	1.92	0.52
16:AE:55:GLN:N	17:AF:133:PHE:O	2.43	0.52
23:AK:225:ASN:HA	23:AK:227:HIS:HB3	1.91	0.52
23:AK:221:GLN:OE1	23:AK:227:HIS:NE2	2.42	0.52
24:AL:36:VAL:HG22	24:AL:160:SER:HB2	1.90	0.52
29:AQ:162:LYS:CB	30:BR:141:ARG:CZ	2.88	0.52
2:AV:143:ALA:HB3	2:AV:145:LEU:HB3	1.92	0.52
2:AV:194:LYS:O	2:AV:242:HIS:NE2	2.32	0.52
17:BF:229:PRO:O	17:BF:392:ASN:ND2	2.44	0.52
20:BH:111:VAL:HG21	20:BH:147:PHE:CD2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BU:118:LEU:HD21	1:BU:123:LYS:HA	1.91	0.52
1:BU:208:LEU:HD23	1:BU:210:LYS:H	1.75	0.52
5:BY:131:THR:HG21	5:BY:136:HIS:HB2	1.92	0.52
6:BZ:68:TRP:HH2	6:BZ:111:LEU:HB2	1.75	0.52
14:AB:217:LYS:HG2	14:AB:219:PRO:HD3	1.92	0.51
17:AF:261:ILE:HG22	17:AF:305:GLU:OE2	2.11	0.51
21:AI:140:ASP:OD2	21:AI:146:GLN:NE2	2.43	0.51
29:AQ:84:THR:HG21	29:AQ:104:LEU:HD11	1.93	0.51
1:AU:596:ASN:O	1:AU:599:ILE:HG22	2.11	0.51
1:AU:625:ILE:HG13	1:AU:626:LEU:HG	1.92	0.51
3:AW:135:LYS:HB3	3:AW:136:ILE:HB	1.92	0.51
13:BA:418:LYS:O	13:BA:422:LYS:HG3	2.09	0.51
14:BB:103:ARG:HG2	14:BB:107:MET:HE2	1.91	0.51
14:BB:249:ARG:NH2	14:BB:251:VAL:HB	2.25	0.51
1:BU:141:CYS:SG	18:BC:13:GLU:HG2	2.50	0.51
23:BK:121:LEU:HD22	23:BK:123:PHE:HE2	1.75	0.51
28:BP:145:GLN:N	28:BP:145:GLN:OE1	2.42	0.51
1:BU:808:PRO:HD3	1:BU:836:THR:HB	1.93	0.51
4:BX:194:ARG:HB3	18:BC:385:MET:SD	2.50	0.51
18:AC:223:PHE:CD2	18:AC:224:ILE:HG13	2.45	0.51
16:AE:54:GLY:O	16:AE:102:MET:HE2	2.10	0.51
28:AP:177:ARG:CG	30:BR:26:ILE:CB	2.85	0.51
1:AU:32:ASN:OD1	1:AU:33:ASP:N	2.43	0.51
3:AW:405:LYS:HA	4:AX:341:PRO:O	2.08	0.51
13:BA:246:VAL:HG13	13:BA:280:ILE:HG22	1.92	0.51
15:BD:337:ASP:O	15:BD:341:LYS:N	2.31	0.51
16:BE:194:ASN:HB2	16:BE:227:PRO:O	2.10	0.51
16:BE:207:TYR:HB2	16:BE:208:ILE:HD12	1.92	0.51
16:BE:182:LEU:CD1	34:BE:401:ATP:H2'	2.35	0.51
27:BO:6:VAL:HG23	27:BO:124:TYR:HB3	1.92	0.51
27:BO:141:LYS:NZ	27:BO:157:GLU:OE2	2.43	0.51
29:BQ:139:THR:HG22	29:BQ:163:CYS:SG	2.51	0.51
29:BQ:84:THR:HG21	29:BQ:104:LEU:HD11	1.93	0.51
14:AB:324:ASP:HB2	14:AB:326:LYS:HD3	1.92	0.51
15:AD:154:LEU:HD23	15:AD:155:THR:H	1.75	0.51
15:AD:283:ARG:HA	15:AD:286:GLN:HG2	1.92	0.51
22:AJ:145:TYR:CE1	22:AJ:155:ALA:HB2	2.45	0.51
25:AM:213:LEU:O	25:AM:226:ILE:HG13	2.09	0.51
29:AQ:56:PHE:CZ	29:AQ:98:TYR:HD2	2.28	0.51
6:AZ:225:GLN:HE22	6:AZ:229:GLN:HB2	1.75	0.51
13:BA:425:ALA:C	13:BA:427:PRO:HD3	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BD:283:ARG:HA	15:BD:286:GLN:HG2	1.92	0.51
15:BD:296:MET:SD	15:BD:326:ARG:HB3	2.50	0.51
16:BE:126:ASP:OD1	16:BE:185:ARG:NE	2.44	0.51
21:BI:140:ASP:OD2	21:BI:146:GLN:NE2	2.43	0.51
22:BJ:36:ARG:HB3	22:BJ:144:LEU:HD23	1.93	0.51
30:AR:166:ARG:O	28:BP:34:MET:CB	2.57	0.51
29:AQ:145:ARG:HH22	30:BR:199:TYR:HD1	1.58	0.51
2:BV:349:ARG:HD2	2:BV:354:LYS:HD3	1.92	0.51
3:BW:75:TYR:HD1	3:BW:78:LYS:HE2	1.76	0.51
13:AA:339:ARG:NH2	17:AF:402:GLU:OE1	2.44	0.51
14:AB:103:ARG:HD2	14:AB:103:ARG:O	2.10	0.51
14:AB:222:VAL:HG22	14:AB:328:ILE:HG12	1.92	0.51
15:AD:296:MET:SD	15:AD:326:ARG:HB3	2.50	0.51
14:AB:298:ASN:ND2	16:AE:246:GLY:HA2	2.25	0.51
28:AP:145:GLN:N	28:AP:145:GLN:OE1	2.42	0.51
31:AS:72:LEU:HD23	31:AS:83:MET:SD	2.50	0.51
1:AU:243:LEU:O	1:AU:913:ILE:HG21	2.10	0.51
13:BA:339:ARG:NH2	17:BF:402:GLU:OE1	2.44	0.51
14:BB:298:ASN:ND2	16:BE:246:GLY:HA2	2.25	0.51
18:BC:277:LEU:O	18:BC:281:ASP:HB3	2.09	0.51
16:BE:153:LEU:HD13	16:BE:227:PRO:HG3	1.91	0.51
16:BE:55:GLN:N	17:BF:133:PHE:O	2.43	0.51
19:BG:157:ALA:HB3	19:BG:159:TYR:HD2	1.76	0.51
19:BG:172:GLN:N	19:BG:172:GLN:OE1	2.44	0.51
2:BV:144:ASP:OD1	2:BV:150:ARG:NH2	2.31	0.51
5:BY:381:GLN:HB3	5:BY:385:ARG:NH1	2.23	0.51
16:AE:138:LEU:HD13	16:AE:141:GLN:NE2	2.26	0.51
16:AE:198:VAL:HB	16:AE:231:PHE:O	2.11	0.51
17:AF:212:PHE:O	17:AF:216:GLY:N	2.40	0.51
17:AF:376:SER:O	17:AF:378:ASP:N	2.39	0.51
17:AF:229:PRO:O	17:AF:392:ASN:ND2	2.43	0.51
25:AM:40:ARG:N	25:AM:161:TRP:O	2.44	0.51
1:AU:31:VAL:HG22	1:AU:35:TRP:CD1	2.45	0.51
4:AX:203:PRO:HB3	4:AX:206:LEU:HG	1.92	0.51
13:BA:416:VAL:HA	13:BA:420:TYR:HD2	1.74	0.51
21:BI:92:LEU:HD21	21:BI:96:ARG:HH21	1.74	0.51
21:BI:99:LEU:O	29:BQ:86:ARG:NH2	2.38	0.51
22:BJ:88:ARG:HH21	29:BQ:69:MET:C	2.13	0.51
31:BS:72:LEU:HD23	31:BS:83:MET:SD	2.50	0.51
1:BU:374:SER:HB2	1:BU:410:VAL:HB	1.93	0.51
1:BU:625:ILE:HG13	1:BU:626:LEU:HG	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BZ:225:GLN:HG2	6:BZ:228:TYR:CE2	2.43	0.51
13:AA:315:ILE:HD12	13:AA:316:LYS:O	2.09	0.51
13:AA:218:PRO:CD	13:AA:428:ARG:HG3	2.41	0.51
14:AB:249:ARG:HG3	14:AB:283:PHE:HD2	1.74	0.51
16:AE:368:MET:O	16:AE:372:ARG:HB3	2.10	0.51
19:AG:29:PHE:HA	19:AG:32:ILE:HD12	1.92	0.51
26:AN:132:SER:HA	26:AN:135:ILE:HG12	1.93	0.51
3:AW:420:ASP:HB2	3:AW:425:LEU:HD12	1.91	0.51
13:BA:263:MET:O	13:BA:267:LYS:HG2	2.11	0.51
20:BH:70:LYS:O	20:BH:218:PHE:N	2.44	0.51
28:AP:34:MET:N	30:BR:166:ARG:O	2.43	0.51
1:BU:243:LEU:O	1:BU:913:ILE:HG21	2.10	0.51
3:BW:312:MET:SD	3:BW:361:HIS:ND1	2.73	0.51
4:BX:203:PRO:HB3	4:BX:206:LEU:HG	1.91	0.51
4:BX:330:LEU:HA	4:BX:333:GLN:HB2	1.92	0.51
13:AA:151:ILE:HD12	13:AA:152:PRO:HD2	1.93	0.51
13:AA:344:SER:CA	13:AA:345:LEU:HB2	2.40	0.51
18:AC:99:VAL:HG13	18:AC:100:ASP:C	2.31	0.51
15:AD:133:HIS:CE1	18:AC:67:GLN:OE1	2.63	0.51
27:AO:202:TYR:CE1	31:BS:174:LEU:HD23	2.45	0.51
1:AU:424:ALA:HA	1:AU:427:LEU:HD13	1.92	0.51
1:AU:742:HIS:HB2	1:AU:883:ARG:HH12	1.75	0.51
3:AW:72:LYS:NZ	3:AW:119:PRO:O	2.42	0.51
5:AY:131:THR:HG21	5:AY:136:HIS:HB2	1.92	0.51
5:AY:296:VAL:O	5:AY:300:ARG:HG3	2.10	0.51
13:BA:218:PRO:O	13:BA:221:GLY:N	2.30	0.51
16:BE:198:VAL:HB	16:BE:231:PHE:O	2.11	0.51
16:BE:250:ASP:O	16:BE:254:GLN:HG2	2.10	0.51
17:BF:86:LEU:O	17:BF:88:TYR:N	2.38	0.51
19:BG:185:LYS:HG3	19:BG:187:PHE:H	1.75	0.51
32:BT:192:VAL:HG12	32:BT:197:VAL:HA	1.93	0.51
1:BU:742:HIS:HB2	1:BU:883:ARG:HH12	1.75	0.51
2:BV:179:LYS:O	2:BV:183:GLU:HG3	2.11	0.51
2:AV:440:LYS:NZ	15:AD:143:LEU:O	76.97	0.51
16:AE:194:ASN:HB2	16:AE:227:PRO:O	2.10	0.51
17:AF:170:SER:OG	17:AF:171:ARG:N	2.44	0.51
20:AH:111:VAL:HG21	20:AH:147:PHE:CD2	2.45	0.51
1:AU:16:GLU:OE1	1:AU:18:GLN:NE2	2.44	0.51
1:AU:692:ALA:HB2	1:AU:733:ALA:HB1	1.93	0.51
1:AU:808:PRO:HD3	1:AU:836:THR:HB	1.93	0.51
1:AU:886:PRO:HA	1:AU:889:LEU:HD12	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AW:155:GLN:HG2	3:AW:157:GLY:H	1.76	0.51
5:AY:102:ASP:HA	5:AY:105:MET:HG2	1.92	0.51
13:BA:186:LYS:HB3	13:BA:339:ARG:HD2	1.93	0.51
13:BA:344:SER:CA	13:BA:345:LEU:HB2	2.40	0.51
14:BB:294:ARG:NH1	14:BB:295:TYR:O	2.44	0.51
14:BB:324:ASP:HB2	14:BB:326:LYS:HD3	1.92	0.51
15:BD:114:ARG:HH21	18:BC:62:GLU:CD	2.14	0.51
15:BD:384:MET:HE2	16:BE:164:ILE:HD11	1.93	0.51
28:BP:191:GLU:HG3	28:BP:193:ASP:H	1.76	0.51
1:BU:176:MET:HA	1:BU:179:TYR:CD1	2.46	0.51
1:BU:436:ALA:HB1	1:BU:472:ILE:HG12	1.93	0.51
2:BV:153:LYS:O	2:BV:157:THR:CG2	2.57	0.51
14:AB:133:VAL:HG11	14:AB:159:VAL:H	1.76	0.51
17:AF:304:ARG:O	17:AF:308:ARG:CB	2.59	0.51
21:AI:35:LEU:HG	21:AI:46:ALA:HB3	1.93	0.51
26:AN:59:VAL:O	26:AN:63:LEU:CB	2.59	0.51
27:AO:6:VAL:HG23	27:AO:124:TYR:HB3	1.92	0.51
5:AY:233:ARG:NH2	5:AY:264:TYR:O	2.40	0.51
6:AZ:68:TRP:HH2	6:AZ:111:LEU:HB2	1.75	0.51
6:AZ:45:LYS:HG3	6:AZ:46:LYS:H	1.76	0.51
13:BA:191:VAL:O	13:BA:195:LEU:HB3	2.11	0.51
14:BB:133:VAL:HG11	14:BB:159:VAL:H	1.76	0.51
17:BF:357:PRO:O	17:BF:362:ARG:NH1	2.40	0.51
31:AS:180:ILE:CB	27:BO:195:LYS:CE	2.77	0.51
31:AS:148:LEU:HD22	28:BP:152:SER:HB3	1.92	0.51
30:AR:141:ARG:CZ	29:BQ:162:LYS:CB	2.88	0.51
23:BK:101:PHE:HZ	30:BR:58:LEU:HA	1.76	0.51
5:BY:233:ARG:NH2	5:BY:264:TYR:O	2.41	0.51
16:AE:203:ILE:HG23	16:AE:211:SER:HB3	1.93	0.51
19:AG:56:VAL:HG13	19:AG:61:LEU:HD22	1.93	0.51
26:AN:32:ASP:OD1	26:AN:175:ARG:NE	2.44	0.51
29:AQ:139:THR:HG22	29:AQ:163:CYS:SG	2.50	0.51
30:AR:177:TYR:HD1	30:AR:186:ARG:HA	1.76	0.51
2:AV:179:LYS:O	2:AV:183:GLU:HG3	2.11	0.51
2:AV:89:LYS:HD2	2:AV:93:PHE:CE2	2.46	0.51
14:BB:103:ARG:HD2	14:BB:103:ARG:O	2.10	0.51
15:BD:179:GLU:HG2	15:BD:183:LEU:HD22	1.93	0.51
16:BE:368:MET:O	16:BE:372:ARG:HB3	2.10	0.51
25:BM:35:THR:HA	25:BM:166:GLY:HA3	1.93	0.51
26:BN:35:THR:OG1	26:BN:45:ARG:NH2	2.44	0.51
28:AP:172:LEU:HB2	31:BS:157:ASN:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BR:55:TRP:NE1	31:BS:97:TYR:OH	2.38	0.51
1:BU:541:HIS:HB2	1:BU:544:ILE:HG22	1.93	0.51
2:BV:89:LYS:HD2	2:BV:93:PHE:CE2	2.46	0.51
13:AA:170:PRO:HB2	13:AA:230:ALA:HA	1.94	0.50
13:AA:186:LYS:HB3	13:AA:339:ARG:HD2	1.93	0.50
13:AA:344:SER:HA	13:AA:345:LEU:HB2	1.92	0.50
17:AF:406:ILE:HD13	17:AF:422:GLU:OE1	2.11	0.50
25:AM:229:LYS:HZ1	25:AM:235:ALA:H	1.59	0.50
28:AP:191:GLU:HG3	28:AP:193:ASP:H	1.76	0.50
30:AR:55:TRP:NE1	31:AS:97:TYR:OH	2.38	0.50
1:AU:842:LYS:HA	1:AU:843:GLU:CB	2.41	0.50
3:AW:75:TYR:HD1	3:AW:78:LYS:HE2	1.76	0.50
6:AZ:9:VAL:HG12	6:AZ:48:LEU:HB3	1.92	0.50
17:BF:261:ILE:HG22	17:BF:305:GLU:OE2	2.11	0.50
17:BF:303:ASP:O	17:BF:306:VAL:N	2.44	0.50
24:BL:138:ASP:OD2	32:BT:81:HIS:NE2	2.44	0.50
24:BL:47:VAL:HG13	24:BL:212:ILE:HG13	1.93	0.50
26:BN:32:ASP:OD1	26:BN:175:ARG:NE	2.44	0.50
1:BU:424:ALA:HA	1:BU:427:LEU:HD13	1.92	0.50
1:BU:692:ALA:HB1	1:BU:736:ILE:HB	1.93	0.50
18:AC:158:ILE:HG13	18:AC:162:LYS:NZ	2.26	0.50
15:AD:344:ILE:HD11	15:AD:376:ASN:HB2	1.93	0.50
25:AM:40:ARG:HB2	25:AM:45:VAL:HG22	1.93	0.50
26:AN:35:THR:OG1	26:AN:45:ARG:NH2	2.44	0.50
15:BD:82:ILE:CD1	15:BD:82:ILE:N	2.73	0.50
16:BE:309:ARG:HG3	16:BE:343:LEU:HD22	1.92	0.50
16:BE:346:VAL:HG13	16:BE:371:VAL:HG22	1.93	0.50
17:BF:137:ILE:CG2	17:BF:160:ILE:H	2.24	0.50
26:AN:162:LEU:HD21	26:BN:141:ALA:HB2	1.92	0.50
27:BO:64:GLU:O	27:BO:68:LEU:CB	2.59	0.50
30:BR:177:TYR:HD1	30:BR:186:ARG:HA	1.76	0.50
32:BT:60:PHE:O	32:BT:64:LYS:HB2	2.11	0.50
13:AA:423:PHE:HD1	13:AA:424:SER:HG	1.58	0.50
18:AC:69:GLN:OE1	18:AC:118:ASN:CA	2.59	0.50
16:AE:120:TYR:OH	17:AF:147:PRO:O	2.30	0.50
16:AE:204:VAL:HG11	17:AF:262:GLY:HA3	1.94	0.50
16:AE:360:ASP:N	16:AE:360:ASP:OD1	2.44	0.50
19:AG:157:ALA:HB3	19:AG:159:TYR:HD2	1.76	0.50
19:AG:161:CYS:HG	19:AG:163:PHE:HE1	1.59	0.50
32:AT:192:VAL:HG12	32:AT:197:VAL:HA	1.93	0.50
1:AU:176:MET:HA	1:AU:179:TYR:CD1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:BC:303:SER:O	18:BC:307:ARG:N	2.45	0.50
16:BE:83:CYS:SG	16:BE:106:THR:OG1	2.65	0.50
16:BE:138:LEU:HD13	16:BE:141:GLN:NE2	2.26	0.50
17:BF:170:SER:OG	17:BF:171:ARG:N	2.44	0.50
1:BU:31:VAL:HG22	1:BU:35:TRP:CD1	2.45	0.50
18:AC:39:SER:O	18:AC:43:ARG:HG3	2.11	0.50
21:AI:229:LYS:N	21:AI:232:GLU:OE2	2.43	0.50
24:AL:73:SER:HB3	24:AL:133:LEU:HB2	1.93	0.50
24:AL:148:CYS:SG	24:AL:150:SER:OG	2.62	0.50
27:AO:42:TYR:HD2	27:AO:176:CYS:SG	2.34	0.50
30:AR:191:ASN:OD1	30:AR:192:VAL:N	2.44	0.50
18:BC:223:PHE:HD2	18:BC:224:ILE:HG13	1.77	0.50
17:BF:183:GLU:HG2	17:BF:239:ALA:HB2	1.93	0.50
23:BK:154:PHE:HB3	23:BK:162:PHE:HE1	1.75	0.50
1:BU:16:GLU:OE1	1:BU:18:GLN:NE2	2.44	0.50
1:BU:232:ILE:O	1:BU:236:LEU:HG	2.11	0.50
13:AA:274:PHE:HB2	13:AA:319:MET:SD	2.52	0.50
14:AB:294:ARG:NH1	14:AB:295:TYR:O	2.44	0.50
16:AE:346:VAL:HG13	16:AE:371:VAL:HG22	1.93	0.50
19:AG:172:GLN:N	19:AG:172:GLN:OE1	2.44	0.50
20:AH:70:LYS:O	20:AH:218:PHE:N	2.44	0.50
28:AP:32:ALA:HB1	30:BR:169:TYR:CD2	2.46	0.50
4:AX:330:LEU:HA	4:AX:333:GLN:HB2	1.92	0.50
5:AY:191:ILE:HG13	5:AY:192:ARG:H	1.77	0.50
13:BA:344:SER:HA	13:BA:345:LEU:HB2	1.92	0.50
13:BA:358:HIS:CD2	13:BA:386:ARG:HG3	2.46	0.50
14:BB:136:LEU:O	14:BB:136:LEU:HD23	2.12	0.50
14:BB:305:ILE:HA	14:BB:308:THR:HG22	1.94	0.50
18:BC:69:GLN:OE1	18:BC:118:ASN:CA	2.59	0.50
18:BC:158:ILE:HG13	18:BC:162:LYS:NZ	2.26	0.50
15:BD:344:ILE:HD11	15:BD:376:ASN:HB2	1.93	0.50
17:BF:100:ASP:N	17:BF:100:ASP:OD1	2.43	0.50
17:BF:406:ILE:HD13	17:BF:422:GLU:OE1	2.11	0.50
21:BI:35:LEU:HG	21:BI:46:ALA:HB3	1.93	0.50
26:BN:132:SER:HA	26:BN:135:ILE:HG12	1.93	0.50
28:AP:172:LEU:O	31:BS:157:ASN:ND2	2.45	0.50
27:AO:210:ALA:HA	31:BS:159:GLN:HE22	1.73	0.50
1:BU:886:PRO:HA	1:BU:889:LEU:HD12	1.93	0.50
4:BX:205:LYS:HG3	4:BX:208:ALA:HB3	1.93	0.50
6:BZ:214:LYS:HB3	6:BZ:222:ILE:HG12	1.94	0.50
13:AA:214:LEU:O	13:AA:320:ALA:HA	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AB:191:ASP:OD1	14:AB:191:ASP:N	2.45	0.50
16:AE:126:ASP:OD1	16:AE:185:ARG:NE	2.44	0.50
23:AK:101:PHE:HZ	30:AR:58:LEU:HA	1.76	0.50
1:AU:403:THR:HG23	1:AU:777:HIS:HE2	1.77	0.50
1:AU:374:SER:HB2	1:AU:410:VAL:HB	1.93	0.50
14:BB:254:GLU:HB2	18:BC:268:GLU:OE1	2.11	0.50
14:BB:313:LEU:O	14:BB:317:ASP:N	2.45	0.50
16:BE:203:ILE:HG23	16:BE:211:SER:HB3	1.93	0.50
23:BK:196:LYS:HA	23:BK:199:LEU:HG	1.94	0.50
25:BM:215:TRP:HB3	25:BM:227:VAL:HG13	1.93	0.50
26:BN:59:VAL:O	26:BN:63:LEU:CB	2.59	0.50
30:BR:191:ASN:OD1	30:BR:192:VAL:N	2.44	0.50
27:AO:208:THR:CB	31:BS:159:GLN:O	2.60	0.50
6:BZ:45:LYS:HG3	6:BZ:46:LYS:H	1.76	0.50
13:AA:140:VAL:HG12	13:AA:152:PRO:HA	1.92	0.50
13:AA:191:VAL:O	13:AA:195:LEU:HB3	2.11	0.50
13:AA:358:HIS:CD2	13:AA:386:ARG:HG3	2.46	0.50
24:AL:40:SER:HA	24:AL:180:MET:HA	1.93	0.50
25:AM:106:ILE:HD12	25:AM:107:PRO:HD2	1.94	0.50
25:AM:215:TRP:HB3	25:AM:227:VAL:HG13	1.93	0.50
2:AV:108:LEU:HA	2:AV:111:TYR:HD2	1.77	0.50
2:AV:47:SER:HA	2:AV:50:GLU:HB2	1.94	0.50
4:AX:406:ASN:HB2	5:AY:376:LEU:HD11	1.94	0.50
13:BA:218:PRO:CD	13:BA:428:ARG:HG3	2.41	0.50
25:BM:188:ASP:O	25:BM:192:GLU:HG2	2.12	0.50
26:AN:26:ILE:HG13	32:BT:181:ALA:N	2.23	0.50
2:BV:108:LEU:HA	2:BV:111:TYR:HD2	1.77	0.50
3:BW:148:THR:O	3:BW:151:THR:OG1	2.29	0.50
4:BX:364:LYS:O	4:BX:368:MET:HG2	2.12	0.50
5:BY:208:PHE:HB2	18:BC:340:ARG:HD2	1.93	0.50
13:AA:244:GLU:OE2	14:AB:268:ARG:NE	2.45	0.50
18:AC:283:PHE:CD1	18:AC:284:GLU:HG2	2.47	0.50
15:AD:43:ARG:HA	15:AD:46:LYS:HB2	1.94	0.50
16:AE:83:CYS:SG	16:AE:106:THR:OG1	2.65	0.50
17:AF:100:ASP:N	17:AF:100:ASP:OD1	2.43	0.50
17:AF:183:GLU:HG2	17:AF:239:ALA:HB2	1.93	0.50
17:AF:303:ASP:O	17:AF:306:VAL:N	2.44	0.50
19:AG:39:SER:H	19:AG:172:GLN:HE21	1.60	0.50
21:AI:12:PHE:HB3	22:AJ:21:TYR:OH	2.12	0.50
21:AI:62:SER:OG	21:AI:65:ILE:HB	2.11	0.50
1:AU:436:ALA:HB1	1:AU:472:ILE:HG12	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AV:349:ARG:HD2	2:AV:354:LYS:HD3	1.92	0.50
3:AW:67:LEU:H	3:AW:68:VAL:HA	1.77	0.50
13:BA:214:LEU:O	13:BA:320:ALA:HA	2.12	0.50
18:BC:283:PHE:CD1	18:BC:284:GLU:HG2	2.47	0.50
15:BD:270:ILE:HA	16:BE:251:ARG:HH21	1.75	0.50
17:BF:221:LYS:HD2	17:BF:327:LYS:HE3	1.94	0.50
16:BE:204:VAL:HG11	17:BF:262:GLY:HA3	1.94	0.50
19:BG:56:VAL:HG13	19:BG:61:LEU:HD22	1.93	0.50
21:BI:105:ILE:HD12	21:BI:106:PRO:HD2	1.92	0.50
2:BV:47:SER:HA	2:BV:50:GLU:HB2	1.94	0.50
3:BW:72:LYS:NZ	3:BW:119:PRO:O	2.42	0.50
13:AA:428:ARG:O	13:AA:431:THR:OG1	2.19	0.50
14:AB:305:ILE:HA	14:AB:308:THR:HG22	1.94	0.50
18:AC:137:LEU:HA	18:AC:140:VAL:HG12	1.94	0.50
20:AH:9:SER:OG	20:AH:123:GLN:O	2.30	0.50
25:AM:232:ARG:HB3	25:AM:234:GLU:HG2	1.94	0.50
26:AN:21:THR:HB	26:AN:25:TYR:O	2.12	0.50
27:AO:64:GLU:O	27:AO:68:LEU:CB	2.59	0.50
32:AT:99:ARG:HD2	32:AT:104:ASN:O	2.12	0.50
1:AU:113:VAL:HG22	1:AU:158:ARG:HG3	1.94	0.50
1:AU:232:ILE:O	1:AU:236:LEU:HG	2.12	0.50
3:AW:183:VAL:O	3:AW:186:ILE:HG22	2.12	0.50
3:AW:402:ILE:HG23	3:AW:416:GLN:HE22	1.77	0.50
6:AZ:52:ASN:OD1	6:AZ:53:SER:N	2.40	0.50
13:BA:140:VAL:HG12	13:BA:152:PRO:HA	1.92	0.50
13:BA:151:ILE:HD12	13:BA:152:PRO:HD2	1.93	0.50
13:BA:413:VAL:O	13:BA:417:ILE:HG12	2.12	0.50
15:BD:164:TYR:HB3	15:BD:218:ALA:HB1	1.93	0.50
22:BJ:144:LEU:HD11	22:BJ:156:TRP:HB2	1.94	0.50
31:BS:28:ARG:O	31:BS:42:LYS:NZ	2.45	0.50
1:BU:596:ASN:O	1:BU:599:ILE:HG22	2.11	0.50
6:BZ:182:THR:N	6:BZ:183:THR:HA	2.27	0.50
17:AF:137:ILE:CG2	17:AF:160:ILE:H	2.24	0.49
21:AI:105:ILE:HD12	21:AI:106:PRO:HD2	1.92	0.49
22:AJ:36:ARG:HB3	22:AJ:144:LEU:HD23	1.93	0.49
24:AL:47:VAL:HG13	24:AL:212:ILE:HG13	1.93	0.49
31:AS:148:LEU:CD2	28:BP:152:SER:HB3	2.42	0.49
1:AU:692:ALA:HB1	1:AU:736:ILE:HB	1.93	0.49
13:BA:324:PRO:CD	13:BA:432:TYR:HB2	2.42	0.49
18:BC:167:LEU:HD23	18:BC:171:HIS:HB2	1.94	0.49
15:BD:320:ALA:O	15:BD:323:ARG:NH2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:BF:385:ALA:O	17:BF:388:THR:OG1	2.23	0.49
20:BH:150:ASP:OD1	20:BH:154:ALA:N	2.45	0.49
21:BI:12:PHE:HB3	22:BJ:21:TYR:OH	2.12	0.49
21:BI:235:GLN:O	21:BI:239:LYS:CB	2.60	0.49
25:BM:40:ARG:HB2	25:BM:45:VAL:HG22	1.93	0.49
32:BT:190:ALA:HB2	32:BT:199:ILE:HG23	1.93	0.49
3:BW:142:ARG:HH21	3:BW:178:GLU:HB2	1.77	0.49
13:AA:413:VAL:O	13:AA:417:ILE:HG12	2.12	0.49
14:AB:100:ASP:HA	14:AB:103:ARG:NH2	2.27	0.49
14:AB:130:GLU:N	14:AB:130:GLU:OE1	2.45	0.49
14:AB:368:HIS:CE1	14:AB:396:LYS:HB2	2.46	0.49
18:AC:13:GLU:N	18:AC:14:GLY:HA3	2.27	0.49
15:AD:114:ARG:HH21	18:AC:62:GLU:CD	2.14	0.49
15:AD:164:TYR:HB3	15:AD:218:ALA:HB1	1.93	0.49
16:AE:371:VAL:O	16:AE:375:ALA:HB2	2.12	0.49
17:AF:221:LYS:HD2	17:AF:327:LYS:HE3	1.94	0.49
20:AH:150:ASP:OD1	20:AH:154:ALA:N	2.45	0.49
26:AN:141:ALA:HB2	26:BN:162:LEU:HD21	1.94	0.49
29:AQ:141:SER:HB2	30:BR:138:VAL:N	2.27	0.49
1:AU:167:ILE:HD12	1:AU:204:ILE:HG21	1.94	0.49
3:AW:257:GLN:HB3	3:AW:259:GLU:N	2.26	0.49
3:AW:61:VAL:O	3:AW:64:SER:OG	2.27	0.49
5:AY:95:LEU:HB3	18:AC:171:HIS:CE1	2.47	0.49
14:BB:261:GLY:C	14:BB:263:GLY:H	2.16	0.49
17:BF:314:LEU:O	17:BF:318:ASP:CB	2.60	0.49
21:BI:62:SER:OG	21:BI:65:ILE:HB	2.12	0.49
22:BJ:12:PRO:HG3	23:BK:26:TYR:CZ	2.47	0.49
24:BL:184:LEU:HD23	24:BL:214:ILE:HG21	1.95	0.49
1:BU:249:CYS:HB3	1:BU:328:ILE:HG21	1.93	0.49
3:BW:446:ILE:HG21	6:BZ:157:HIS:HB2	1.95	0.49
13:AA:263:MET:O	13:AA:267:LYS:HG2	2.11	0.49
14:AB:136:LEU:HD23	14:AB:136:LEU:O	2.12	0.49
18:AC:138:MET:O	18:AC:142:LYS:HG2	2.12	0.49
18:AC:36:ASN:O	18:AC:40:GLN:HG2	2.13	0.49
1:AU:478:SER:OG	1:AU:511:ALA:HB1	2.12	0.49
1:AU:541:HIS:HB2	1:AU:544:ILE:HG22	1.93	0.49
3:AW:142:ARG:HH21	3:AW:178:GLU:HB2	1.77	0.49
4:AX:205:LYS:HG3	4:AX:208:ALA:HB3	1.94	0.49
6:AZ:182:THR:N	6:AZ:183:THR:HA	2.27	0.49
13:BA:170:PRO:HB2	13:BA:230:ALA:HA	1.94	0.49
13:BA:274:PHE:HB2	13:BA:319:MET:SD	2.52	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BB:211:TYR:CE1	14:BB:218:PRO:HD2	2.36	0.49
14:BB:272:ARG:O	14:BB:276:GLU:HG2	2.12	0.49
14:BB:368:HIS:CE1	14:BB:396:LYS:HB2	2.47	0.49
18:BC:99:VAL:HG13	18:BC:100:ASP:C	2.31	0.49
18:BC:13:GLU:N	18:BC:14:GLY:HA3	2.27	0.49
16:BE:345:ASN:ND2	17:BF:345:SER:N	2.57	0.49
19:BG:144:ASP:H	19:BG:150:GLN:HE22	1.60	0.49
20:BH:9:SER:OG	20:BH:123:GLN:O	2.30	0.49
20:BH:42:ASN:N	20:BH:42:ASN:OD1	2.46	0.49
24:BL:40:SER:HA	24:BL:180:MET:HA	1.93	0.49
24:BL:73:SER:HB3	24:BL:133:LEU:HB2	1.93	0.49
26:BN:21:THR:HB	26:BN:25:TYR:O	2.12	0.49
30:AR:169:TYR:CD2	28:BP:32:ALA:HB1	2.47	0.49
31:BS:73:LYS:O	31:BS:77:HIS:ND1	2.39	0.49
32:BT:99:ARG:HD2	32:BT:104:ASN:O	2.12	0.49
1:BU:525:ASN:OD1	1:BU:526:ALA:N	2.46	0.49
1:BU:692:ALA:HB2	1:BU:733:ALA:HB1	1.93	0.49
2:BV:322:VAL:HG13	2:BV:323:GLY:N	2.27	0.49
3:BW:402:ILE:HG23	3:BW:416:GLN:HE22	1.77	0.49
5:BY:191:ILE:HG13	5:BY:192:ARG:H	1.77	0.49
13:AA:328:ASP:O	13:AA:332:MET:HG2	2.12	0.49
14:AB:313:LEU:O	14:AB:317:ASP:N	2.45	0.49
14:AB:429:LYS:HE2	18:AC:314:LYS:NZ	2.27	0.49
5:AY:208:PHE:HB2	18:AC:340:ARG:HD2	1.93	0.49
15:AD:341:LYS:O	15:AD:344:ILE:HG22	2.12	0.49
15:AD:65:GLN:O	18:AC:49:ARG:NH2	2.45	0.49
17:AF:150:LEU:HD23	17:AF:150:LEU:O	2.12	0.49
17:AF:249:LEU:HB2	17:AF:283:ILE:HG13	1.95	0.49
17:AF:234:THR:N	34:AF:501:ATP:O2B	2.36	0.49
23:AK:84:ASP:OD1	23:AK:135:ARG:NH2	2.45	0.49
25:AM:188:ASP:O	25:AM:192:GLU:HG2	2.12	0.49
29:AQ:157:VAL:O	29:AQ:161:ARG:HG2	2.13	0.49
30:AR:26:ILE:CB	28:BP:177:ARG:CG	2.82	0.49
2:AV:26:PRO:O	2:AV:29:PRO:HD2	2.12	0.49
4:AX:406:ASN:HA	4:AX:409:LYS:HD3	1.94	0.49
13:BA:139:ARG:H	13:BA:156:LYS:HE3	1.78	0.49
14:BB:295:TYR:OH	14:BB:302:GLU:N	2.46	0.49
32:AT:144:TYR:HB3	27:BO:132:LEU:HD13	1.94	0.49
18:AC:214:VAL:HG22	18:AC:215:SER:H	1.78	0.49
18:AC:303:SER:O	18:AC:307:ARG:N	2.45	0.49
15:AD:282:ASP:O	15:AD:285:VAL:HG22	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AD:320:ALA:O	15:AD:323:ARG:NH2	2.45	0.49
17:AF:357:PRO:O	17:AF:362:ARG:NH1	2.40	0.49
1:AU:525:ASN:OD1	1:AU:526:ALA:N	2.46	0.49
4:AX:364:LYS:O	4:AX:368:MET:HG2	2.12	0.49
16:BE:241:ARG:HB2	17:BF:298:SER:HB2	1.95	0.49
23:BK:226:PHE:HA	23:BK:227:HIS:HB3	1.94	0.49
2:BV:26:PRO:O	2:BV:29:PRO:HD2	2.12	0.49
3:BW:257:GLN:HB3	3:BW:259:GLU:N	2.26	0.49
3:BW:67:LEU:H	3:BW:68:VAL:HA	1.77	0.49
14:AB:120:HIS:ND1	14:AB:132:TYR:HB3	2.28	0.49
32:AT:60:PHE:O	32:AT:64:LYS:HB2	2.11	0.49
1:AU:249:CYS:HB3	1:AU:328:ILE:HG21	1.93	0.49
14:BB:130:GLU:N	14:BB:130:GLU:OE1	2.45	0.49
13:BA:244:GLU:OE2	14:BB:268:ARG:NE	2.45	0.49
5:BY:95:LEU:HB3	18:BC:171:HIS:CE1	2.47	0.49
14:BB:429:LYS:HE2	18:BC:314:LYS:NZ	2.27	0.49
15:BD:139:LEU:O	15:BD:143:LEU:HD13	13.80	0.49
30:BR:196:HIS:O	30:BR:200:SER:CB	2.61	0.49
5:BY:20:ALA:HB2	5:BY:150:PHE:HD1	1.77	0.49
3:AW:90:LEU:CD2	15:AD:390:ASN:HB3	2.42	0.49
16:AE:291:ARG:HG3	16:AE:292:PRO:O	2.13	0.49
17:AF:314:LEU:O	17:AF:318:ASP:CB	2.60	0.49
31:AS:28:ARG:O	31:AS:42:LYS:NZ	2.45	0.49
1:AU:176:MET:HA	1:AU:179:TYR:HD1	1.77	0.49
1:AU:566:LEU:O	1:AU:570:LEU:HG	2.13	0.49
14:BB:100:ASP:HA	14:BB:103:ARG:NH2	2.26	0.49
14:BB:120:HIS:ND1	14:BB:132:TYR:HB3	2.28	0.49
18:BC:39:SER:O	18:BC:43:ARG:HG3	2.11	0.49
16:BE:145:LEU:HD21	16:BE:299:ILE:HD13	1.95	0.49
16:BE:120:TYR:OH	17:BF:147:PRO:O	2.30	0.49
23:BK:166:ASP:HB2	24:BL:56:LEU:HB2	1.95	0.49
28:AP:152:SER:HB3	31:BS:148:LEU:HD22	1.95	0.49
1:BU:167:ILE:HD12	1:BU:204:ILE:HG21	1.94	0.49
2:BV:90:GLU:HG3	2:BV:158:PRO:HB3	1.94	0.49
4:BX:223:LYS:HE2	5:BY:244:ALA:HB2	1.95	0.49
13:AA:139:ARG:HD2	13:AA:156:LYS:HA	1.95	0.49
14:AB:295:TYR:OH	14:AB:302:GLU:N	2.46	0.49
1:AU:141:CYS:HA	18:AC:11:LEU:HD11	1.95	0.49
15:AD:133:HIS:ND1	18:AC:67:GLN:OE1	2.46	0.49
15:AD:179:GLU:HG2	15:AD:183:LEU:HD22	1.93	0.49
15:AD:246:MET:O	15:AD:250:VAL:HG23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AE:241:ARG:HB2	17:AF:298:SER:HB2	1.95	0.49
25:AM:69:VAL:H	25:AM:74:GLY:HA2	1.78	0.49
25:AM:83:ASP:HB2	25:AM:133:CYS:SG	2.53	0.49
1:AU:159:ARG:HB3	1:AU:162:VAL:HG12	1.95	0.49
5:AY:333:GLU:HA	5:AY:336:ARG:HH21	1.78	0.49
18:BC:137:LEU:HA	18:BC:140:VAL:HG12	1.94	0.49
17:BF:150:LEU:O	17:BF:150:LEU:HD23	2.12	0.49
20:BH:3:GLU:HG3	20:BH:5:GLY:H	1.78	0.49
20:BH:67:PRO:O	20:BH:91:ARG:NH2	2.46	0.49
25:BM:232:ARG:HB3	25:BM:234:GLU:HG2	1.94	0.49
30:AR:141:ARG:NH1	29:BQ:162:LYS:HA	2.23	0.49
29:AQ:140:LEU:HD22	30:BR:166:ARG:HG2	1.95	0.49
27:AO:199:LEU:CD2	31:BS:175:VAL:C	2.58	0.49
3:BW:441:LYS:NZ	6:BZ:207:ASP:OD2	2.46	0.49
13:AA:125:LEU:HD21	13:AA:131:PRO:HA	1.95	0.49
13:AA:351:ARG:NH1	13:AA:378:PRO:HA	2.27	0.49
14:AB:254:GLU:HB2	18:AC:268:GLU:OE1	2.11	0.49
14:AB:173:VAL:HG12	18:AC:232:ARG:HG2	1.94	0.49
23:AK:11:GLY:O	23:AK:12:VAL:HG22	2.12	0.49
31:AS:180:ILE:CG2	27:BO:195:LYS:HG2	2.37	0.49
2:AV:31:ALA:HB3	2:AV:32:PRO:HD3	1.95	0.49
3:AW:98:LYS:HD3	3:AW:138:VAL:HB	1.95	0.49
5:AY:20:ALA:HB2	5:AY:150:PHE:HD1	1.77	0.49
13:BA:328:ASP:O	13:BA:332:MET:HG2	2.12	0.49
13:BA:351:ARG:NH1	13:BA:378:PRO:HA	2.28	0.49
15:BD:133:HIS:ND1	18:BC:67:GLN:OE1	2.46	0.49
3:BW:136:ILE:HD11	15:BD:392:TYR:CD1	2.47	0.49
3:BW:136:ILE:HG13	15:BD:392:TYR:CD1	2.36	0.49
15:BD:81:ARG:CG	15:BD:82:ILE:HD12	2.43	0.49
27:AO:199:LEU:HD23	31:BS:174:LEU:C	2.31	0.49
6:BZ:191:ILE:O	6:BZ:195:VAL:HG23	2.13	0.49
14:AB:176:VAL:HA	14:AB:177:GLU:HA	1.58	0.49
13:AA:119:ALA:HA	17:AF:127:SER:HB3	1.95	0.49
17:AF:150:LEU:HD22	17:AF:164:LEU:HB3	1.95	0.49
17:AF:357:PRO:HB2	17:AF:362:ARG:HG2	1.95	0.49
17:AF:363:ALA:HB1	17:AF:381:TYR:HB3	1.95	0.49
17:AF:403:ALA:HB1	17:AF:415:LEU:HD11	1.95	0.49
23:AK:226:PHE:HA	23:AK:227:HIS:HB3	1.94	0.49
25:AM:35:THR:HA	25:AM:166:GLY:HA3	1.93	0.49
25:AM:66:LEU:HD13	25:AM:214:SER:HB2	1.95	0.49
27:AO:7:VAL:HG22	27:AO:12:ILE:HG12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AR:196:HIS:O	30:AR:200:SER:CB	2.61	0.49
2:AV:90:GLU:HG3	2:AV:158:PRO:HB3	1.94	0.49
3:AW:440:ASN:O	3:AW:443:THR:OG1	2.18	0.49
6:AZ:136:GLU:OE2	6:AZ:157:HIS:ND1	2.46	0.49
14:BB:222:VAL:HA	14:BB:346:ARG:HG2	1.95	0.49
15:BD:65:GLN:O	18:BC:49:ARG:NH2	2.45	0.49
15:BD:341:LYS:O	15:BD:344:ILE:HG22	2.12	0.49
15:BD:361:GLU:HA	15:BD:364:VAL:HG12	1.94	0.49
20:BH:231:ALA:H	20:BH:232:ALA:C	2.17	0.49
21:BI:171:ALA:O	21:BI:175:LEU:HG	2.13	0.49
25:BM:69:VAL:H	25:BM:74:GLY:HA2	1.78	0.49
27:BO:42:TYR:HD2	27:BO:176:CYS:SG	2.34	0.49
1:BU:141:CYS:HA	18:BC:11:LEU:HD11	1.95	0.49
1:BU:159:ARG:HB3	1:BU:162:VAL:HG12	1.95	0.49
1:BU:216:VAL:HG21	1:BU:232:ILE:HD13	1.95	0.49
3:BW:155:GLN:HG2	3:BW:157:GLY:H	1.76	0.49
6:BZ:219:LYS:HG3	6:BZ:220:LEU:HD23	1.95	0.49
13:AA:139:ARG:H	13:AA:156:LYS:HE3	1.78	0.48
14:AB:222:VAL:HA	14:AB:346:ARG:HG2	1.95	0.48
15:AD:361:GLU:HA	15:AD:364:VAL:HG12	1.94	0.48
17:AF:373:MET:N	17:AF:373:MET:SD	2.86	0.48
21:AI:171:ALA:O	21:AI:175:LEU:HG	2.13	0.48
22:AJ:144:LEU:HD11	22:AJ:156:TRP:HB2	1.94	0.48
3:AW:135:LYS:HB3	3:AW:136:ILE:C	2.33	0.48
4:AX:258:LYS:HD3	4:AX:266:ASP:HB2	1.95	0.48
6:AZ:219:LYS:HG3	6:AZ:220:LEU:HD23	1.94	0.48
6:AZ:214:LYS:HB3	6:AZ:222:ILE:HG12	1.94	0.48
14:BB:103:ARG:CG	14:BB:107:MET:CE	2.89	0.48
14:BB:288:ASP:HB3	14:BB:292:THR:HG23	1.95	0.48
18:BC:36:ASN:O	18:BC:40:GLN:HG2	2.12	0.48
17:BF:76:ASN:O	17:BF:80:ILE:HG13	2.13	0.48
23:BK:177:ALA:O	23:BK:181:LEU:HB2	2.13	0.48
2:BV:281:ASN:N	2:BV:284:GLU:HB3	2.27	0.48
3:BW:135:LYS:HB3	3:BW:136:ILE:C	2.33	0.48
3:BW:139:GLU:HG2	3:BW:142:ARG:HB2	1.95	0.48
3:BW:183:VAL:O	3:BW:186:ILE:HG22	2.12	0.48
6:BZ:237:LEU:HB2	6:BZ:239:ASP:HB3	1.94	0.48
14:AB:261:GLY:C	14:AB:263:GLY:H	2.16	0.48
15:AD:412:GLN:H	15:AD:415:GLU:HB2	1.79	0.48
16:AE:113:ARG:HB3	16:AE:221:TYR:OH	2.13	0.48
15:AD:369:LYS:HZ2	20:AH:201:GLY:H	1.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AH:42:ASN:N	20:AH:42:ASN:OD1	2.46	0.48
24:AL:184:LEU:HD23	24:AL:214:ILE:HG21	1.95	0.48
27:AO:112:SER:HB3	27:AO:125:VAL:HG11	1.94	0.48
27:AO:195:LYS:CE	31:BS:181:SER:N	2.76	0.48
32:AT:190:ALA:HB2	32:AT:199:ILE:HG23	1.93	0.48
2:AV:281:ASN:N	2:AV:284:GLU:HB3	2.27	0.48
13:BA:390:THR:HG21	14:BB:218:PRO:HB3	1.96	0.48
14:BB:251:VAL:HG13	14:BB:285:ASP:O	2.13	0.48
15:BD:344:ILE:HA	15:BD:347:THR:HG22	1.94	0.48
17:BF:363:ALA:HB1	17:BF:381:TYR:HB3	1.95	0.48
27:AO:132:LEU:HD13	32:BT:144:TYR:HB3	1.95	0.48
1:BU:176:MET:HA	1:BU:179:TYR:HD1	1.77	0.48
14:AB:240:ALA:O	14:AB:243:THR:OG1	2.19	0.48
15:AD:337:ASP:O	15:AD:341:LYS:N	2.31	0.48
3:AW:136:ILE:HD11	15:AD:392:TYR:CD1	2.47	0.48
15:AD:81:ARG:CG	15:AD:82:ILE:HD12	2.43	0.48
20:AH:231:ALA:H	20:AH:232:ALA:C	2.17	0.48
23:AK:196:LYS:HA	23:AK:199:LEU:HG	1.94	0.48
19:AG:84:THR:HB	25:AM:156:VAL:HG22	1.96	0.48
28:AP:148:GLY:CA	31:BS:144:MET:HB3	2.43	0.48
29:AQ:4:LEU:HB3	29:AQ:17:SER:HA	1.95	0.48
30:AR:81:LYS:HD3	30:AR:120:ARG:NH1	2.28	0.48
1:AU:73:ALA:HB1	1:AU:76:GLU:HB3	1.95	0.48
2:AV:54:LYS:N	2:AV:55:THR:OG1	2.47	0.48
18:BC:266:ASP:O	18:BC:269:VAL:N	2.44	0.48
18:BC:369:TYR:HB2	18:BC:382:ASP:OD1	2.14	0.48
15:BD:381:GLU:HG3	15:BD:406:VAL:HG11	1.95	0.48
17:BF:304:ARG:O	17:BF:308:ARG:CB	2.59	0.48
21:BI:48:GLU:HA	21:BI:211:VAL:HA	1.95	0.48
21:BI:38:LEU:HD12	21:BI:38:LEU:H	1.78	0.48
29:BQ:157:VAL:O	29:BQ:161:ARG:HG2	2.12	0.48
32:BT:7:THR:OG1	32:BT:182:ARG:NH2	2.46	0.48
1:BU:265:ILE:HG12	1:BU:269:ARG:HH11	1.78	0.48
3:BW:90:LEU:CD2	15:BD:390:ASN:HB3	2.42	0.48
14:AB:418:ASP:O	14:AB:422:SER:OG	2.31	0.48
15:AD:381:GLU:HG3	15:AD:406:VAL:HG11	1.95	0.48
16:AE:55:GLN:HB3	16:AE:100:LEU:O	2.14	0.48
17:AF:94:ILE:HD11	17:AF:125:LYS:HG2	1.96	0.48
21:AI:235:GLN:O	21:AI:239:LYS:CB	2.60	0.48
23:AK:177:ALA:O	23:AK:181:LEU:HB2	2.13	0.48
3:AW:446:ILE:HG21	6:AZ:157:HIS:HB2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AW:51:GLU:OE1	3:AW:51:GLU:N	2.46	0.48
13:BA:139:ARG:HD2	13:BA:156:LYS:HA	1.95	0.48
14:BB:418:ASP:O	14:BB:422:SER:OG	2.31	0.48
15:BD:246:MET:O	15:BD:250:VAL:HG23	2.13	0.48
15:BD:43:ARG:HA	15:BD:46:LYS:HB2	1.94	0.48
19:BG:84:THR:HB	25:BM:156:VAL:HG22	1.96	0.48
31:AS:175:VAL:C	27:BO:199:LEU:CD2	2.57	0.48
29:BQ:38:MET:O	29:BQ:65:GLN:NE2	2.47	0.48
31:BS:169:ASP:OD2	31:BS:173:ARG:NH1	2.46	0.48
1:BU:403:THR:HG23	1:BU:777:HIS:HE2	1.77	0.48
1:BU:478:SER:OG	1:BU:511:ALA:HB1	2.12	0.48
2:BV:234:ARG:O	2:BV:237:THR:HG22	2.13	0.48
5:BY:333:GLU:HA	5:BY:336:ARG:HH21	1.77	0.48
14:AB:272:ARG:O	14:AB:276:GLU:HG2	2.13	0.48
18:AC:223:PHE:HD2	18:AC:224:ILE:HG13	1.77	0.48
15:AD:139:LEU:O	15:AD:143:LEU:HD13	13.80	0.48
16:AE:316:HIS:NE2	16:AE:344:ARG:HB3	2.29	0.48
16:AE:97:ARG:CZ	16:AE:114:GLU:HG2	2.44	0.48
21:AI:48:GLU:HA	21:AI:211:VAL:HA	1.95	0.48
21:AI:99:LEU:O	29:AQ:86:ARG:NH2	2.38	0.48
22:AJ:12:PRO:HG3	23:AK:26:TYR:CZ	2.47	0.48
1:AU:265:ILE:HG12	1:AU:269:ARG:HH11	1.78	0.48
1:AU:506:ALA:HB2	1:AU:541:HIS:HB3	1.96	0.48
6:AZ:43:TRP:HZ3	6:AZ:48:LEU:HD12	1.78	0.48
13:BA:299:MET:HG3	13:BA:300:LEU:N	2.29	0.48
13:BA:95:VAL:HG12	13:BA:144:ARG:NH1	2.28	0.48
14:BB:191:ASP:N	14:BB:191:ASP:OD1	2.44	0.48
16:BE:116:ASP:HB3	16:BE:117:PRO:HD3	1.95	0.48
16:BE:207:TYR:OH	17:BF:129:ARG:NH1	2.47	0.48
17:BF:94:ILE:HD11	17:BF:125:LYS:HG2	1.96	0.48
19:BG:73:THR:HG22	19:BG:74:GLU:H	1.79	0.48
23:BK:84:ASP:OD1	23:BK:135:ARG:NH2	2.45	0.48
28:BP:11:VAL:HG23	28:BP:54:ALA:HB2	1.95	0.48
31:AS:144:MET:HB3	28:BP:148:GLY:CA	2.42	0.48
1:BU:113:VAL:HG22	1:BU:158:ARG:HG3	1.94	0.48
3:BW:235:GLN:OE1	3:BW:243:ILE:HD13	2.14	0.48
3:BW:397:VAL:HG21	4:BX:341:PRO:HA	1.95	0.48
5:BY:343:LEU:O	5:BY:343:LEU:HD23	2.14	0.48
13:AA:299:MET:HG3	13:AA:300:LEU:N	2.28	0.48
13:AA:355:PHE:O	13:AA:359:ALA:CB	2.60	0.48
14:AB:100:ASP:CB	14:AB:103:ARG:NH1	2.54	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AB:395:ILE:O	14:AB:398:ILE:HG12	2.14	0.48
14:AB:232:LYS:H	35:AB:501:ADP:PB	2.37	0.48
18:AC:167:LEU:HD23	18:AC:171:HIS:HB2	1.94	0.48
18:AC:369:TYR:HB2	18:AC:382:ASP:OD1	2.14	0.48
15:AD:344:ILE:HA	15:AD:347:THR:HG22	1.94	0.48
23:AK:117:SER:HA	23:AK:120:ALA:HB2	1.95	0.48
24:AL:138:ASP:OD2	32:AT:81:HIS:NE2	2.44	0.48
1:AU:216:VAL:HG21	1:AU:232:ILE:HD13	1.95	0.48
1:AU:24:LEU:HD13	1:AU:59:PHE:CD2	2.48	0.48
1:AU:35:TRP:HB3	1:AU:70:HIS:CD2	2.49	0.48
2:AV:207:ALA:HA	2:AV:210:CYS:SG	2.54	0.48
3:AW:392:PHE:O	3:AW:396:LEU:HG	2.12	0.48
3:AW:423:ASN:N	3:AW:423:ASN:OD1	2.46	0.48
3:AW:441:LYS:NZ	6:AZ:207:ASP:OD2	2.46	0.48
13:BA:328:ASP:HB3	13:BA:329:PRO:HD3	1.96	0.48
14:BB:173:VAL:HG12	18:BC:232:ARG:HG2	1.94	0.48
14:BB:267:VAL:HA	14:BB:270:LEU:HD12	1.95	0.48
18:BC:214:VAL:HG22	18:BC:215:SER:H	1.78	0.48
15:BD:369:LYS:HZ2	20:BH:201:GLY:H	1.62	0.48
16:BE:371:VAL:O	16:BE:375:ALA:HB2	2.12	0.48
17:BF:336:ASP:N	17:BF:336:ASP:OD1	2.47	0.48
19:BG:39:SER:H	19:BG:172:GLN:HE21	1.60	0.48
23:BK:117:SER:HA	23:BK:120:ALA:HB2	1.94	0.48
24:BL:117:GLN:O	24:BL:120:THR:OG1	2.14	0.48
24:BL:47:VAL:HG12	24:BL:195:LEU:HD22	1.96	0.48
27:BO:14:LEU:HB2	27:BO:176:CYS:HB3	1.96	0.48
29:BQ:67:TYR:CD2	29:BQ:75:LEU:HG	2.49	0.48
1:BU:506:ALA:HB2	1:BU:541:HIS:HB3	1.96	0.48
2:BV:134:PHE:HA	2:BV:137:GLU:OE1	2.14	0.48
4:BX:406:ASN:HB2	5:BY:376:LEU:HD11	1.94	0.48
6:BZ:52:ASN:OD1	6:BZ:53:SER:N	2.40	0.48
16:AE:207:TYR:OH	17:AF:129:ARG:NH1	2.47	0.48
16:AE:145:LEU:HD21	16:AE:299:ILE:HD13	1.95	0.48
3:AW:139:GLU:HG2	3:AW:142:ARG:HB2	1.95	0.48
4:AX:80:ILE:HD12	4:AX:81:SER:O	2.13	0.48
6:AZ:237:LEU:HB2	6:AZ:239:ASP:HB3	1.94	0.48
15:BD:136:SER:N	18:BC:67:GLN:OE1	2.47	0.48
16:BE:113:ARG:HB3	16:BE:221:TYR:OH	2.13	0.48
17:BF:120:LYS:HG2	17:BF:136:VAL:HG21	1.96	0.48
17:BF:229:PRO:HA	17:BF:230:GLY:HA2	1.55	0.48
17:BF:249:LEU:HB2	17:BF:283:ILE:HG13	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:BF:314:LEU:HG	17:BF:347:ARG:HE	1.79	0.48
19:BG:120:ASP:OD1	20:BH:84:ARG:NH1	2.47	0.48
23:BK:11:GLY:O	23:BK:12:VAL:HG22	2.12	0.48
17:BF:439:ALA:OXT	24:BL:51:ARG:NH2	2.47	0.48
25:BM:122:TYR:CD1	25:BM:128:VAL:HG21	2.48	0.48
29:BQ:4:LEU:HB3	29:BQ:17:SER:HA	1.95	0.48
2:BV:408:ARG:O	2:BV:411:SER:OG	2.23	0.48
3:BW:423:ASN:N	3:BW:423:ASN:OD1	2.46	0.48
14:AB:116:ILE:HB	14:AB:120:HIS:O	2.14	0.48
18:AC:135:VAL:O	18:AC:139:MET:HG2	2.14	0.48
17:AF:318:ASP:HB2	17:AF:347:ARG:HH12	1.79	0.48
17:AF:356:MET:HE3	17:AF:391:PHE:N	2.28	0.48
20:AH:121:TYR:O	20:AH:124:SER:OG	2.32	0.48
29:AQ:88:LEU:HD23	29:AQ:122:ALA:HA	1.94	0.48
1:AU:567:ILE:HD13	1:AU:570:LEU:HD12	1.96	0.48
3:AW:141:GLU:OE2	15:AD:392:TYR:CD1	2.65	0.48
3:AW:148:THR:O	3:AW:151:THR:OG1	2.29	0.48
18:BC:303:SER:O	18:BC:307:ARG:HG2	2.14	0.48
15:BD:282:ASP:O	15:BD:285:VAL:HG22	2.13	0.48
13:BA:119:ALA:HA	17:BF:127:SER:HB3	1.95	0.48
17:BF:357:PRO:HB2	17:BF:362:ARG:HG2	1.95	0.48
17:BF:368:ILE:O	17:BF:371:ARG:HG2	2.13	0.48
20:BH:181:ASP:OD1	20:BH:181:ASP:N	2.47	0.48
22:BJ:104:VAL:HB	22:BJ:143:ARG:HD3	1.96	0.48
26:BN:127:ILE:HD12	26:BN:136:TYR:CD1	2.49	0.48
29:BQ:88:LEU:HD23	29:BQ:122:ALA:HA	1.94	0.48
1:BU:566:LEU:O	1:BU:570:LEU:HG	2.13	0.48
1:BU:24:LEU:HD13	1:BU:59:PHE:CD2	2.48	0.48
1:BU:724:VAL:HA	1:BU:727:LYS:HG2	1.96	0.48
3:BW:392:PHE:O	3:BW:396:LEU:HG	2.12	0.48
5:BY:64:GLN:HG2	5:BY:65:ILE:HG22	1.96	0.48
13:AA:324:PRO:CD	13:AA:432:TYR:HB2	2.42	0.48
14:AB:288:ASP:HB3	14:AB:292:THR:HG23	1.95	0.48
17:AF:204:LEU:HB2	17:AF:212:PHE:CZ	2.49	0.48
27:AO:34:ILE:HG12	27:AO:44:CYS:SG	2.54	0.48
29:AQ:145:ARG:HD3	30:BR:158:ARG:CG	2.05	0.48
29:AQ:38:MET:O	29:AQ:65:GLN:NE2	2.47	0.48
30:AR:199:TYR:HD1	29:BQ:145:ARG:HH22	1.61	0.48
31:AS:2:PHE:CG	32:AT:105:PRO:HG3	2.49	0.48
4:AX:124:PHE:CD1	20:AH:189:HIS:CD2	3.02	0.48
5:AY:343:LEU:HD23	5:AY:343:LEU:O	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BB:116:ILE:HB	14:BB:120:HIS:O	2.14	0.48
14:BB:190:LEU:HB2	14:BB:193:GLN:HB3	1.95	0.48
14:BB:314:ASN:HA	14:BB:317:ASP:HB2	1.96	0.48
18:BC:196:LYS:NZ	35:BC:501:ADP:O3B	2.30	0.48
16:BE:291:ARG:HG3	16:BE:292:PRO:O	2.13	0.48
17:BF:318:ASP:HB2	17:BF:347:ARG:HH12	1.79	0.48
17:BF:373:MET:SD	17:BF:373:MET:N	2.86	0.48
21:BI:47:ALA:HB1	21:BI:64:LYS:HD2	1.96	0.48
25:BM:66:LEU:HD13	25:BM:214:SER:HB2	1.95	0.48
2:BV:207:ALA:HA	2:BV:210:CYS:SG	2.54	0.48
2:BV:235:LEU:HD12	2:BV:247:GLN:HG3	1.95	0.48
13:AA:176:ASP:HA	13:AA:357:ILE:CD1	2.44	0.48
14:AB:251:VAL:HG13	14:AB:285:ASP:O	2.14	0.48
18:AC:60:ARG:O	18:AC:64:GLN:HG2	2.14	0.48
15:AD:285:VAL:HA	15:AD:288:ILE:HB	1.96	0.48
16:AE:180:LYS:HG2	34:AE:401:ATP:O2B	2.14	0.48
17:AF:120:LYS:HG2	17:AF:136:VAL:HG21	1.96	0.48
20:AH:3:GLU:HG3	20:AH:5:GLY:H	1.78	0.48
21:AI:239:LYS:O	21:AI:243:GLU:HG2	2.14	0.48
29:AQ:115:LEU:O	29:AQ:126:LYS:HD2	2.14	0.48
29:AQ:38:MET:HB3	29:AQ:38:MET:HE2	1.74	0.48
32:AT:25:ASP:HA	32:AT:187:PHE:HA	1.95	0.48
32:AT:7:THR:OG1	32:AT:182:ARG:NH2	2.46	0.48
2:AV:273:LYS:HA	2:AV:274:SER:HB2	1.95	0.48
6:AZ:210:SER:HB2	6:AZ:214:LYS:NZ	2.29	0.48
13:BA:176:ASP:HA	13:BA:357:ILE:CD1	2.44	0.48
18:BC:138:MET:O	18:BC:142:LYS:HG2	2.12	0.48
16:BE:174:GLY:C	16:BE:176:PRO:HD2	2.35	0.48
20:BH:6:TYR:CG	20:BH:7:SER:N	2.82	0.48
23:BK:41:GLN:N	23:BK:166:ASP:O	2.35	0.48
25:BM:106:ILE:HD12	25:BM:107:PRO:HD2	1.94	0.48
25:BM:83:ASP:HB2	25:BM:133:CYS:SG	2.53	0.48
24:BL:157:ARG:HH21	25:BM:56:LYS:HD2	1.79	0.48
27:BO:34:ILE:HG12	27:BO:44:CYS:SG	2.54	0.48
1:BU:493:VAL:HG21	1:BU:519:VAL:HG11	1.96	0.48
3:BW:100:ALA:O	3:BW:104:MET:HG2	2.14	0.48
3:BW:51:GLU:OE1	3:BW:51:GLU:N	2.46	0.48
4:BX:406:ASN:HA	4:BX:409:LYS:HD3	1.94	0.48
4:BX:80:ILE:HD12	4:BX:81:SER:O	2.13	0.48
5:BY:334:LEU:O	5:BY:338:ILE:HG13	2.14	0.48
6:BZ:136:GLU:OE2	6:BZ:157:HIS:ND1	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AA:328:ASP:HB3	13:AA:329:PRO:HD3	1.96	0.47
16:AE:345:ASN:ND2	17:AF:345:SER:N	2.57	0.47
15:AD:238:LYS:NZ	16:AE:74:THR:O	2.31	0.47
17:AF:76:ASN:O	17:AF:80:ILE:HG13	2.13	0.47
21:AI:164:ILE:HA	21:AI:165:GLY:HA2	1.65	0.47
26:AN:173:VAL:HG22	26:AN:174:ILE:H	1.79	0.47
3:AW:35:ALA:HB2	3:AW:48:LEU:HD11	1.96	0.47
4:AX:242:ILE:HG13	4:AX:243:ASP:H	1.79	0.47
4:AX:406:ASN:HA	4:AX:409:LYS:HB2	1.96	0.47
5:AY:334:LEU:O	5:AY:338:ILE:HG13	2.14	0.47
6:AZ:191:ILE:O	6:AZ:195:VAL:HG23	2.13	0.47
13:BA:125:LEU:HD21	13:BA:131:PRO:HA	1.95	0.47
18:BC:83:LYS:HG2	18:BC:105:ILE:HD11	1.96	0.47
15:BD:384:MET:CA	15:BD:387:VAL:HG12	2.43	0.47
16:BE:316:HIS:NE2	16:BE:344:ARG:HB3	2.29	0.47
16:BE:97:ARG:CZ	16:BE:114:GLU:HG2	2.44	0.47
17:BF:86:LEU:C	17:BF:88:TYR:N	2.68	0.47
27:BO:7:VAL:HG22	27:BO:12:ILE:HG12	1.94	0.47
1:BU:842:LYS:HA	1:BU:843:GLU:CB	2.41	0.47
2:BV:273:LYS:HA	2:BV:274:SER:HB2	1.95	0.47
2:BV:54:LYS:N	2:BV:55:THR:OG1	2.47	0.47
2:BV:80:LYS:CE	2:BV:86:VAL:HB	2.44	0.47
3:BW:98:LYS:HD3	3:BW:138:VAL:HB	1.95	0.47
18:AC:303:SER:O	18:AC:307:ARG:HG2	2.14	0.47
15:AD:136:SER:N	18:AC:67:GLN:OE1	2.47	0.47
16:AE:345:ASN:HD22	17:AF:345:SER:HB2	1.77	0.47
19:AG:34:GLN:N	19:AG:34:GLN:OE1	2.47	0.47
20:AH:6:TYR:CG	20:AH:7:SER:N	2.82	0.47
24:AL:39:LYS:HA	24:AL:44:ALA:HA	1.96	0.47
26:AN:115:PRO:HD2	26:AN:119:MET:O	2.14	0.47
28:AP:147:TYR:HD1	31:BS:185:ARG:NH2	1.83	0.47
28:AP:11:VAL:HG23	28:AP:54:ALA:HB2	1.95	0.47
31:AS:159:GLN:NE2	27:BO:210:ALA:HA	2.29	0.47
2:AV:134:PHE:HA	2:AV:137:GLU:OE1	2.14	0.47
2:AV:80:LYS:HD3	2:AV:80:LYS:HA	1.61	0.47
5:AY:138:LEU:HD22	5:AY:168:ILE:HD11	1.96	0.47
18:BC:60:ARG:O	18:BC:64:GLN:HG2	2.14	0.47
15:BD:285:VAL:HA	15:BD:288:ILE:HB	1.96	0.47
17:BF:403:ALA:HB1	17:BF:415:LEU:HD11	1.95	0.47
24:BL:39:LYS:HA	24:BL:44:ALA:HA	1.96	0.47
30:BR:81:LYS:HD3	30:BR:120:ARG:NH1	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AO:210:ALA:CB	31:BS:159:GLN:HE22	2.26	0.47
4:BX:258:LYS:HD3	4:BX:266:ASP:HB2	1.95	0.47
15:AD:143:LEU:HG	15:AD:144:PRO:HD2	1.96	0.47
17:AF:137:ILE:HG21	17:AF:160:ILE:H	1.80	0.47
17:AF:265:ALA:O	17:AF:269:ARG:HG3	2.15	0.47
17:AF:314:LEU:HG	17:AF:347:ARG:HE	1.79	0.47
21:AI:47:ALA:HB1	21:AI:64:LYS:HD2	1.96	0.47
26:AN:52:THR:HG22	26:AN:98:ILE:HD11	1.96	0.47
28:AP:175:VAL:O	30:BR:26:ILE:HD12	2.11	0.47
29:AQ:67:TYR:CD2	29:AQ:75:LEU:HG	2.49	0.47
31:AS:159:GLN:HE22	27:BO:210:ALA:HA	1.72	0.47
32:AT:126:ASP:HB3	32:AT:130:VAL:H	1.79	0.47
2:AV:144:ASP:OD1	2:AV:150:ARG:NH2	2.31	0.47
2:AV:234:ARG:O	2:AV:237:THR:HG22	2.13	0.47
2:AV:235:LEU:HD12	2:AV:247:GLN:HG3	1.94	0.47
3:AW:235:GLN:OE1	3:AW:243:ILE:HD13	2.14	0.47
3:AW:397:VAL:HG21	4:AX:341:PRO:HA	1.95	0.47
3:AW:408:ARG:HD2	4:AX:346:GLN:NE2	2.29	0.47
4:AX:134:VAL:HG13	4:AX:172:LEU:HD23	1.97	0.47
4:AX:183:LEU:HB3	4:AX:184:PRO:HD3	1.96	0.47
4:AX:223:LYS:HE2	5:AY:244:ALA:HB2	1.95	0.47
5:AY:78:GLU:OE1	5:AY:81:LEU:HD22	2.13	0.47
13:BA:123:VAL:HG11	13:BA:147:TYR:O	2.14	0.47
14:BB:139:VAL:HB	14:BB:141:LYS:N	2.29	0.47
14:BB:201:VAL:HG23	14:BB:202:GLU:HG2	1.95	0.47
18:BC:135:VAL:O	18:BC:139:MET:HG2	2.14	0.47
15:BD:283:ARG:HH11	18:BC:222:LYS:HB2	1.80	0.47
1:BU:640:LEU:HD21	15:BD:60:TYR:HE1	1.79	0.47
16:BE:55:GLN:HB3	16:BE:100:LEU:O	2.14	0.47
20:BH:80:GLY:HA2	20:BH:83:TYR:HB3	1.96	0.47
21:BI:239:LYS:O	21:BI:243:GLU:HG2	2.14	0.47
27:BO:112:SER:HB3	27:BO:125:VAL:HG11	1.94	0.47
2:BV:255:LEU:CD2	2:BV:291:TYR:HB3	2.39	0.47
2:BV:31:ALA:HB3	2:BV:32:PRO:HD3	1.95	0.47
3:BW:171:VAL:CG1	15:BD:392:TYR:OH	2.62	0.47
3:BW:32:ALA:O	3:BW:36:LYS:HG3	2.15	0.47
4:BX:318:ILE:HG22	4:BX:321:THR:H	1.79	0.47
4:BX:406:ASN:HA	4:BX:409:LYS:HB2	1.96	0.47
5:BY:78:GLU:OE1	5:BY:81:LEU:HD22	2.13	0.47
6:BZ:43:TRP:HZ3	6:BZ:48:LEU:HD12	1.78	0.47
13:AA:390:THR:HG21	14:AB:218:PRO:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AF:428:GLN:HA	17:AF:429:ALA:HA	1.48	0.47
19:AG:144:ASP:H	19:AG:150:GLN:HE22	1.60	0.47
24:AL:47:VAL:HG12	24:AL:195:LEU:HD22	1.96	0.47
29:AQ:4:LEU:HD13	29:AQ:17:SER:CB	2.44	0.47
1:AU:640:LEU:HD21	15:AD:60:TYR:HE1	1.79	0.47
1:AU:792:ASN:OD1	1:AU:793:LYS:N	2.44	0.47
2:AV:322:VAL:HG13	2:AV:323:GLY:N	2.27	0.47
2:AV:80:LYS:CE	2:AV:86:VAL:HB	2.44	0.47
4:AX:176:THR:O	4:AX:180:LEU:HG	2.15	0.47
6:AZ:228:TYR:O	6:AZ:231:GLN:HB3	2.14	0.47
14:BB:187:ILE:HG21	14:BB:236:ALA:HB1	1.96	0.47
18:BC:193:GLY:H	18:BC:355:SER:HB2	1.79	0.47
16:BE:360:ASP:OD1	16:BE:360:ASP:N	2.44	0.47
16:BE:345:ASN:HD22	17:BF:345:SER:HB2	1.77	0.47
17:BF:85:THR:HA	17:BF:86:LEU:HA	1.69	0.47
19:BG:34:GLN:OE1	19:BG:34:GLN:N	2.47	0.47
32:BT:25:ASP:HA	32:BT:187:PHE:HA	1.95	0.47
1:BU:350:LEU:HD12	1:BU:353:LEU:HD12	1.96	0.47
3:BW:35:ALA:HB2	3:BW:48:LEU:HD11	1.96	0.47
4:BX:242:ILE:HG13	4:BX:243:ASP:H	1.79	0.47
13:AA:95:VAL:HG12	13:AA:144:ARG:NH1	2.29	0.47
13:AA:94:GLN:O	13:AA:96:ALA:N	2.48	0.47
14:AB:201:VAL:HG23	14:AB:202:GLU:HG2	1.95	0.47
17:AF:235:LEU:O	17:AF:239:ALA:CB	2.63	0.47
20:AH:139:TRP:HA	20:AH:144:PRO:HA	1.97	0.47
23:AK:166:ASP:HB2	24:AL:56:LEU:HB2	1.95	0.47
27:AO:199:LEU:CD2	31:BS:176:LYS:CB	2.91	0.47
32:AT:19:GLY:HA3	32:AT:193:THR:HG22	1.96	0.47
1:AU:261:LEU:HA	1:AU:264:VAL:HG12	1.97	0.47
2:AV:153:LYS:O	2:AV:157:THR:CG2	2.57	0.47
3:AW:446:ILE:HD13	6:AZ:157:HIS:HB2	1.97	0.47
5:AY:64:GLN:HG2	5:AY:65:ILE:HG22	1.96	0.47
13:BA:126:SER:OG	13:BA:150:HIS:O	2.31	0.47
14:BB:232:LYS:H	35:BB:501:ADP:PB	2.36	0.47
18:BC:361:GLY:O	18:BC:365:GLU:HB2	2.14	0.47
16:BE:81:VAL:HG11	16:BE:105:LEU:O	2.15	0.47
15:BD:233:SER:HB2	16:BE:255:ARG:HG2	1.96	0.47
16:BE:178:THR:OG1	34:BE:401:ATP:O2B	2.33	0.47
17:BF:92:ASN:HA	17:BF:149:ASP:HA	1.95	0.47
17:BF:204:LEU:HB2	17:BF:212:PHE:CZ	2.49	0.47
23:BK:196:LYS:O	23:BK:200:ILE:HG13	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BM:56:LYS:N	25:BM:57:LEU:HA	2.29	0.47
3:BW:446:ILE:HD13	6:BZ:157:HIS:HB2	1.97	0.47
4:BX:176:THR:O	4:BX:180:LEU:HG	2.15	0.47
4:BX:183:LEU:HB3	4:BX:184:PRO:HD3	1.96	0.47
13:AA:189:GLU:O	13:AA:194:PRO:HD3	2.15	0.47
14:AB:267:VAL:HA	14:AB:270:LEU:HD12	1.95	0.47
16:AE:116:ASP:HB3	16:AE:117:PRO:HD3	1.95	0.47
17:AF:368:ILE:O	17:AF:371:ARG:HG2	2.13	0.47
20:AH:111:VAL:O	20:AH:115:ALA:HB2	2.15	0.47
21:AI:38:LEU:HD12	21:AI:38:LEU:H	1.78	0.47
23:AK:196:LYS:O	23:AK:200:ILE:HG13	2.15	0.47
25:AM:56:LYS:N	25:AM:57:LEU:HA	2.29	0.47
27:AO:135:MET:HG2	32:BT:179:ARG:HD2	1.97	0.47
18:BC:117:ARG:HD3	18:BC:122:THR:OG1	2.14	0.47
15:BD:117:SER:CB	18:BC:59:LEU:HD12	2.45	0.47
15:BD:353:ASN:O	15:BD:394:VAL:HG12	2.15	0.47
15:BD:214:MET:HE1	34:BD:501:ATP:C4	2.49	0.47
20:BH:121:TYR:O	20:BH:124:SER:OG	2.32	0.47
4:BX:124:PHE:CD1	20:BH:189:HIS:CD2	3.02	0.47
20:BH:69:THR:HG22	20:BH:70:LYS:H	1.80	0.47
24:BL:200:PRO:HD2	24:BL:203:GLN:HE22	1.79	0.47
25:BM:40:ARG:N	25:BM:161:TRP:O	2.44	0.47
25:BM:229:LYS:HZ1	25:BM:235:ALA:H	1.62	0.47
26:BN:20:THR:HG1	26:BN:33:LYS:HZ1	1.55	0.47
1:BU:340:GLN:HG3	1:BU:880:ASN:HB3	1.97	0.47
14:AB:346:ARG:HG3	14:AB:349:ARG:H	1.80	0.47
18:AC:83:LYS:HG2	18:AC:105:ILE:HD11	1.96	0.47
18:AC:117:ARG:HD3	18:AC:122:THR:OG1	2.13	0.47
16:AE:81:VAL:HG11	16:AE:105:LEU:O	2.15	0.47
17:AF:188:ILE:HD13	17:AF:191:LEU:HD22	1.97	0.47
17:AF:233:LYS:N	34:AF:501:ATP:O2B	2.48	0.47
19:AG:60:LEU:HD13	25:AM:162:GLY:O	2.15	0.47
22:AJ:104:VAL:HB	22:AJ:143:ARG:HD3	1.96	0.47
22:AJ:37:GLY:O	22:AJ:142:PRO:HB3	2.15	0.47
23:AK:10:ARG:O	23:AK:12:VAL:N	2.47	0.47
26:AN:26:ILE:HD13	32:BT:179:ARG:N	2.01	0.47
28:AP:58:THR:O	29:AQ:85:ARG:NH2	2.48	0.47
22:AJ:98:VAL:HG22	30:AR:78:ALA:HB1	1.96	0.47
2:AV:259:LEU:HD11	2:AV:294:ARG:HD2	1.97	0.47
3:AW:240:TYR:CD1	3:AW:276:LEU:HB3	2.50	0.47
13:BA:290:GLY:HA2	13:BA:291:GLY:HA3	1.66	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BB:428:TYR:O	14:BB:432:GLU:N	2.46	0.47
18:BC:217:SER:CB	18:BC:218:GLU:HB3	2.31	0.47
18:BC:255:GLY:N	18:BC:256:SER:HB2	2.30	0.47
18:BC:88:LYS:HD2	18:BC:94:LYS:HE3	1.97	0.47
15:BD:143:LEU:HG	15:BD:144:PRO:HD2	1.96	0.47
15:BD:253:LEU:HA	15:BD:256:GLU:HB3	1.96	0.47
15:BD:414:HIS:CE1	19:BG:25:VAL:HB	2.50	0.47
16:BE:180:LYS:HG2	34:BE:401:ATP:O2B	2.14	0.47
17:BF:188:ILE:HD13	17:BF:191:LEU:HD22	1.97	0.47
17:BF:300:LYS:NZ	17:BF:301:ALA:O	2.45	0.47
27:AO:199:LEU:CD2	31:BS:176:LYS:HB2	2.45	0.47
26:AN:134:TYR:CE1	32:BT:33:LEU:HD22	2.45	0.47
1:BU:35:TRP:HB3	1:BU:70:HIS:CD2	2.49	0.47
1:BU:73:ALA:HB1	1:BU:76:GLU:HB3	1.95	0.47
1:BU:766:PHE:HD1	1:BU:776:SER:HA	1.80	0.47
18:AC:193:GLY:H	18:AC:355:SER:HB2	1.79	0.47
18:AC:217:SER:CB	18:AC:218:GLU:HB3	2.31	0.47
19:AG:116:LYS:HG2	19:AG:160:TYR:CZ	2.50	0.47
21:AI:3:ARG:H	24:AL:123:TYR:HH	1.63	0.47
24:AL:200:PRO:HD2	24:AL:203:GLN:HE22	1.79	0.47
17:AF:439:ALA:OXT	24:AL:51:ARG:NH2	2.47	0.47
31:AS:151:ASN:ND2	28:BP:173:ASN:HD21	2.06	0.47
1:AU:427:LEU:HD23	1:AU:429:LYS:NZ	2.29	0.47
5:AY:183:TYR:OH	5:AY:212:GLU:HB2	2.15	0.47
13:BA:125:LEU:HB3	13:BA:149:ILE:HB	1.97	0.47
15:BD:412:GLN:H	15:BD:415:GLU:HB2	1.79	0.47
16:BE:61:LEU:HD11	16:BE:72:LYS:HB2	1.96	0.47
21:BI:185:THR:OG1	21:BI:185:THR:O	2.33	0.47
21:BI:229:LYS:N	21:BI:232:GLU:OE2	2.43	0.47
24:BL:66:VAL:HG11	24:BL:88:MET:HG3	1.97	0.47
29:BQ:115:LEU:O	29:BQ:126:LYS:HD2	2.14	0.47
29:BQ:4:LEU:HD13	29:BQ:17:SER:CB	2.44	0.47
1:BU:32:ASN:OD1	1:BU:33:ASP:N	2.43	0.47
1:BU:630:PRO:HA	1:BU:659:CYS:SG	2.55	0.47
6:BZ:210:SER:HB2	6:BZ:214:LYS:NZ	2.29	0.47
13:AA:277:ILE:HD12	13:AA:319:MET:SD	2.55	0.47
14:AB:139:VAL:HB	14:AB:141:LYS:N	2.29	0.47
14:AB:184:TYR:HD2	14:AB:240:ALA:HB1	1.80	0.47
14:AB:314:ASN:HA	14:AB:317:ASP:HB2	1.96	0.47
18:AC:361:GLY:O	18:AC:365:GLU:HB2	2.14	0.47
15:AD:212:LYS:HD3	34:AD:501:ATP:O1G	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AG:74:GLU:HB3	19:AG:226:LYS:HD2	1.97	0.47
20:AH:222:THR:OG1	20:AH:225:GLU:OE1	2.30	0.47
20:AH:80:GLY:HA2	20:AH:83:TYR:HB3	1.96	0.47
4:AX:318:ILE:HG22	4:AX:321:THR:H	1.79	0.47
13:BA:83:ASP:CG	14:BB:137:SER:OG	2.53	0.47
14:BB:203:LEU:HG	14:BB:211:TYR:CD1	2.50	0.47
14:BB:395:ILE:O	14:BB:398:ILE:HG12	2.14	0.47
5:BY:173:ASP:HA	18:BC:335:LYS:HA	1.97	0.47
17:BF:150:LEU:HD22	17:BF:164:LEU:HB3	1.95	0.47
17:BF:235:LEU:O	17:BF:239:ALA:CB	2.63	0.47
17:BF:265:ALA:O	17:BF:269:ARG:HG3	2.15	0.47
17:BF:298:SER:HB3	17:BF:299:GLU:HG2	1.97	0.47
19:BG:74:GLU:HB3	19:BG:226:LYS:HD2	1.97	0.47
24:BL:168:ALA:O	24:BL:172:LEU:HG	2.15	0.47
1:BU:261:LEU:HA	1:BU:264:VAL:HG12	1.96	0.47
4:BX:134:VAL:HG13	4:BX:172:LEU:HD23	1.96	0.47
13:AA:125:LEU:HB3	13:AA:149:ILE:HB	1.97	0.47
14:AB:203:LEU:HG	14:AB:211:TYR:CD1	2.50	0.47
14:AB:230:THR:HG21	14:AB:353:PHE:CE2	2.50	0.47
16:AE:174:GLY:C	16:AE:176:PRO:HD2	2.35	0.47
19:AG:144:ASP:HB3	19:AG:147:GLN:HB2	1.96	0.47
19:AG:48:ALA:HB3	19:AG:220:VAL:HG12	1.97	0.47
20:AH:69:THR:HG22	20:AH:70:LYS:H	1.80	0.47
25:AM:214:SER:HA	25:AM:226:ILE:HA	1.96	0.47
1:AU:340:GLN:HG3	1:AU:880:ASN:HB3	1.97	0.47
1:AU:724:VAL:HA	1:AU:727:LYS:HG2	1.96	0.47
5:AY:357:ASN:CB	5:AY:358:ARG:HA	2.45	0.47
6:AZ:144:VAL:HG12	6:AZ:145:HIS:N	2.30	0.47
6:AZ:164:ALA:HB3	6:AZ:169:GLU:HG3	1.97	0.47
13:BA:351:ARG:HB2	13:BA:374:ALA:HB1	1.97	0.47
13:BA:94:GLN:O	13:BA:96:ALA:N	2.48	0.47
18:BC:161:ILE:HD13	18:BC:186:VAL:HG21	1.97	0.47
5:BY:177:ARG:NH2	18:BC:337:ASN:OD1	2.45	0.47
15:BD:249:ASP:O	15:BD:253:LEU:HG	2.15	0.47
17:BF:87:PRO:HB2	17:BF:152:GLY:HA3	1.96	0.47
22:BJ:120:GLN:HA	23:BK:135:ARG:HE	1.80	0.47
22:BJ:98:VAL:HG22	30:BR:78:ALA:HB1	1.96	0.47
19:BG:60:LEU:HD13	25:BM:162:GLY:O	2.15	0.47
25:BM:56:LYS:H	25:BM:57:LEU:HA	1.79	0.47
31:AS:185:ARG:NH1	27:BO:26:VAL:O	2.47	0.47
31:AS:185:ARG:HH22	28:BP:147:TYR:HE1	1.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BQ:3:TYR:CE2	29:BQ:5:ILE:HA	2.50	0.47
31:BS:2:PHE:CG	32:BT:105:PRO:HG3	2.49	0.47
1:BU:427:LEU:HD23	1:BU:429:LYS:NZ	2.29	0.47
3:BW:56:THR:HG21	3:BW:103:LYS:HG2	1.97	0.47
6:BZ:228:TYR:O	6:BZ:231:GLN:HB3	2.14	0.47
13:AA:351:ARG:HB2	13:AA:374:ALA:HB1	1.97	0.47
15:AD:283:ARG:HH11	18:AC:222:LYS:HB2	1.80	0.47
15:AD:117:SER:CB	18:AC:59:LEU:HD12	2.45	0.47
15:AD:214:MET:HE1	34:AD:501:ATP:C4	2.50	0.47
16:AE:131:SER:HA	16:AE:134:GLU:HB2	1.97	0.47
17:AF:92:ASN:HA	17:AF:149:ASP:HA	1.95	0.47
19:AG:73:THR:HG22	19:AG:74:GLU:H	1.79	0.47
20:AH:181:ASP:OD1	20:AH:181:ASP:N	2.47	0.47
19:AG:120:ASP:OD1	20:AH:84:ARG:NH1	2.47	0.47
24:AL:157:ARG:HH21	25:AM:56:LYS:HD2	1.79	0.47
24:AL:168:ALA:O	24:AL:172:LEU:HG	2.15	0.47
27:AO:14:LEU:HB2	27:AO:176:CYS:HB3	1.96	0.47
28:AP:27:ARG:HB2	28:AP:183:MET:HB2	1.97	0.47
29:AQ:3:TYR:CE2	29:AQ:5:ILE:HA	2.50	0.47
1:AU:350:LEU:HD12	1:AU:353:LEU:HD12	1.96	0.47
1:AU:766:PHE:HD1	1:AU:776:SER:HA	1.80	0.47
6:AZ:239:ASP:N	6:AZ:239:ASP:OD1	2.48	0.47
13:BA:390:THR:HA	14:BB:216:ILE:HG23	1.97	0.47
15:BD:83:GLN:CD	15:BD:133:HIS:CD2	2.80	0.47
16:BE:131:SER:HA	16:BE:134:GLU:HB2	1.97	0.47
17:BF:233:LYS:N	34:BF:501:ATP:O2B	2.47	0.47
17:BF:97:LEU:HA	17:BF:120:LYS:HG3	1.96	0.47
23:BK:10:ARG:O	23:BK:12:VAL:N	2.47	0.47
26:BN:52:THR:HG22	26:BN:98:ILE:HD11	1.96	0.47
28:BP:58:THR:O	29:BQ:85:ARG:NH2	2.48	0.47
32:BT:19:GLY:HA3	32:BT:193:THR:HG22	1.96	0.47
3:BW:441:LYS:HZ3	3:BW:445:LEU:HD11	1.80	0.47
6:BZ:144:VAL:HG12	6:BZ:145:HIS:N	2.30	0.47
6:BZ:222:ILE:CG2	6:BZ:223:ASN:HB3	2.33	0.47
13:AA:126:SER:OG	13:AA:150:HIS:O	2.31	0.46
14:AB:167:THR:OG1	14:AB:168:ASP:N	2.49	0.46
18:AC:88:LYS:HD2	18:AC:94:LYS:HE3	1.97	0.46
15:AD:233:SER:HB2	16:AE:255:ARG:HG2	1.96	0.46
25:AM:137:LEU:HA	25:AM:137:LEU:HD23	1.80	0.46
25:AM:56:LYS:H	25:AM:57:LEU:HA	1.79	0.46
27:AO:52:THR:O	27:AO:56:THR:HG22	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:BA:312:ARG:HA	13:BA:313:GLY:HA2	1.43	0.46
13:BA:277:ILE:HD12	13:BA:319:MET:SD	2.55	0.46
14:BB:346:ARG:HG3	14:BB:349:ARG:H	1.80	0.46
15:BD:81:ARG:NE	15:BD:82:ILE:CD1	2.76	0.46
3:BW:175:GLY:HA2	16:BE:161:ARG:NE	2.30	0.46
16:BE:214:LEU:O	16:BE:218:MET:CB	2.63	0.46
17:BF:137:ILE:HG21	17:BF:160:ILE:H	1.80	0.46
17:BF:288:LEU:O	17:BF:292:GLY:N	2.48	0.46
17:BF:376:SER:O	17:BF:378:ASP:N	2.39	0.46
19:BG:144:ASP:HB3	19:BG:147:GLN:HB2	1.96	0.46
21:BI:178:ASP:HB3	21:BI:192:LEU:HD11	1.97	0.46
22:BJ:176:TYR:OH	23:BK:58:LEU:HD23	2.15	0.46
13:AA:395:PHE:CD1	13:AA:398:ARG:HD3	2.50	0.46
14:AB:190:LEU:HB2	14:AB:193:GLN:HB3	1.95	0.46
14:AB:106:PRO:HB3	18:AC:121:TYR:HB2	1.96	0.46
16:AE:317:ALA:O	16:AE:322:LYS:NZ	2.38	0.46
17:AF:87:PRO:HB2	17:AF:152:GLY:HA3	1.96	0.46
17:AF:97:LEU:HA	17:AF:120:LYS:HG3	1.96	0.46
26:AN:46:SER:HB2	26:AN:97:GLY:HA3	1.97	0.46
1:AU:493:VAL:HG21	1:AU:519:VAL:HG11	1.96	0.46
3:AW:100:ALA:O	3:AW:104:MET:HG2	2.14	0.46
15:BD:160:PRO:HG3	15:BD:220:ALA:HB3	1.96	0.46
15:BD:389:GLU:HB3	15:BD:390:ASN:HB2	1.98	0.46
16:BE:138:LEU:HD21	16:BE:140:GLU:HG2	1.96	0.46
17:BF:202:ILE:HG13	17:BF:203:VAL:HG23	1.97	0.46
20:BH:108:ALA:O	20:BH:112:GLN:HG2	2.15	0.46
20:BH:222:THR:OG1	20:BH:225:GLU:OE1	2.30	0.46
31:AS:159:GLN:C	27:BO:208:THR:OG1	2.53	0.46
2:BV:194:LYS:O	2:BV:242:HIS:NE2	2.32	0.46
3:BW:440:ASN:O	3:BW:443:THR:OG1	2.18	0.46
5:BY:138:LEU:HD22	5:BY:168:ILE:HD11	1.96	0.46
13:AA:218:PRO:HD2	13:AA:428:ARG:HG3	1.98	0.46
14:AB:150:VAL:HG12	14:AB:162:VAL:HG12	1.97	0.46
15:AD:115:ILE:HG22	15:AD:139:LEU:HD12	1.98	0.46
15:AD:160:PRO:HG3	15:AD:220:ALA:HB3	1.96	0.46
15:AD:253:LEU:HA	15:AD:256:GLU:HB3	1.96	0.46
17:AF:171:ARG:HH12	17:AF:267:LEU:HD21	1.81	0.46
26:AN:127:ILE:HD12	26:AN:136:TYR:CD1	2.49	0.46
28:AP:147:TYR:HE1	31:BS:185:ARG:HH12	1.59	0.46
32:AT:89:HIS:CE1	32:AT:131:ALA:HB1	2.50	0.46
2:AV:482:PHE:O	2:AV:486:ILE:HG13	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AW:440:ASN:HB3	6:AZ:230:LEU:HD11	1.97	0.46
5:BY:174:TRP:HB2	18:BC:336:MET:O	2.16	0.46
20:BH:67:PRO:HB3	20:BH:218:PHE:CE2	2.50	0.46
25:BM:215:TRP:HH2	25:BM:219:LEU:H	1.63	0.46
28:BP:27:ARG:HB2	28:BP:183:MET:HB2	1.97	0.46
32:BT:126:ASP:HB3	32:BT:130:VAL:H	1.79	0.46
1:BU:331:GLY:O	1:BU:335:ILE:HG12	2.15	0.46
1:BU:567:ILE:HD13	1:BU:570:LEU:HD12	1.96	0.46
2:BV:259:LEU:HD11	2:BV:294:ARG:HD2	1.97	0.46
14:AB:209:GLU:HG2	14:AB:210:TYR:N	2.30	0.46
13:AA:390:THR:HA	14:AB:216:ILE:HG23	1.97	0.46
14:AB:428:TYR:O	14:AB:432:GLU:N	2.46	0.46
15:AD:249:ASP:O	15:AD:253:LEU:HG	2.15	0.46
16:AE:140:GLU:HA	16:AE:143:ARG:HD3	1.97	0.46
16:AE:214:LEU:O	16:AE:218:MET:CB	2.63	0.46
17:AF:383:GLU:HB2	24:AL:170:THR:HG21	1.97	0.46
17:AF:397:LYS:NZ	17:AF:408:LEU:HD21	18.46	0.46
22:AJ:176:TYR:OH	23:AK:58:LEU:HD23	2.15	0.46
22:AJ:85:ASN:HB3	29:AQ:70:ARG:HH12	1.80	0.46
24:AL:66:VAL:HG11	24:AL:88:MET:HG3	1.97	0.46
25:AM:99:ARG:HD3	25:AM:103:GLY:HA2	1.98	0.46
30:AR:166:ARG:HG2	29:BQ:140:LEU:HD22	1.96	0.46
1:AU:521:LEU:HB2	1:AU:554:LEU:CD2	2.46	0.46
3:AW:32:ALA:O	3:AW:36:LYS:HG3	2.15	0.46
5:AY:173:ASP:HA	18:AC:335:LYS:HA	1.97	0.46
13:BA:420:TYR:HE1	14:BB:350:LYS:HG2	1.81	0.46
18:BC:246:ILE:O	18:BC:291:VAL:HA	2.16	0.46
15:BD:342:ARG:HG3	15:BD:364:VAL:HG21	1.97	0.46
21:BI:220:ASN:HA	21:BI:221:GLY:HA2	1.55	0.46
22:BJ:11:SER:OG	22:BJ:13:ASP:OD1	2.23	0.46
1:BU:611:ASN:HB3	1:BU:614:VAL:CG1	2.44	0.46
2:BV:80:LYS:HE2	2:BV:86:VAL:HB	1.98	0.46
3:BW:240:TYR:CD1	3:BW:276:LEU:HB3	2.50	0.46
4:BX:327:TYR:O	4:BX:331:LEU:HD13	2.16	0.46
6:BZ:12:HIS:ND1	6:BZ:168:GLU:OE1	2.49	0.46
14:AB:103:ARG:HD2	14:AB:107:MET:HE1	1.86	0.46
13:AA:83:ASP:CG	14:AB:137:SER:OG	2.53	0.46
16:AE:247:THR:OG1	16:AE:248:SER:N	2.48	0.46
17:AF:321:GLN:O	17:AF:324:THR:HG23	2.15	0.46
19:AG:113:MET:SD	27:AO:70:THR:HG22	2.56	0.46
20:AH:67:PRO:HB3	20:AH:218:PHE:CE2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AT:144:TYR:CB	27:BO:132:LEU:HD13	2.45	0.46
32:AT:45:VAL:HG13	32:AT:71:VAL:HG21	1.98	0.46
1:AU:436:ALA:O	1:AU:472:ILE:HD13	2.16	0.46
1:AU:630:PRO:HA	1:AU:659:CYS:SG	2.55	0.46
2:AV:80:LYS:HE2	2:AV:86:VAL:HB	1.98	0.46
5:AY:307:LEU:HD22	5:AY:308:LEU:HD22	1.98	0.46
14:BB:418:ASP:O	14:BB:422:SER:CB	2.64	0.46
17:BF:321:GLN:O	17:BF:324:THR:HG23	2.15	0.46
19:BG:39:SER:H	19:BG:172:GLN:NE2	2.14	0.46
20:BH:139:TRP:HA	20:BH:144:PRO:HA	1.97	0.46
25:BM:185:THR:O	25:BM:189:ILE:HG12	2.16	0.46
32:BT:199:ILE:HG22	32:BT:200:GLU:H	1.81	0.46
1:BU:243:LEU:HD21	1:BU:913:ILE:HD13	1.98	0.46
5:BY:46:ARG:C	5:BY:48:ASN:H	2.19	0.46
13:AA:123:VAL:HG11	13:AA:147:TYR:O	2.14	0.46
14:AB:100:ASP:O	14:AB:104:GLY:N	2.49	0.46
14:AB:187:ILE:HG21	14:AB:236:ALA:HB1	1.96	0.46
18:AC:254:ILE:HA	18:AC:257:SER:HB3	1.98	0.46
18:AC:255:GLY:N	18:AC:256:SER:HB2	2.30	0.46
14:AB:294:ARG:HD3	18:AC:261:GLY:HA2	1.97	0.46
15:AD:132:LEU:HD21	15:AD:139:LEU:HD23	1.98	0.46
3:AW:171:VAL:CG1	15:AD:392:TYR:OH	2.62	0.46
16:AE:178:THR:OG1	34:AE:401:ATP:O2B	2.33	0.46
16:AE:61:LEU:HD11	16:AE:72:LYS:HB2	1.96	0.46
4:AX:410:VAL:O	4:AX:413:SER:OG	2.30	0.46
13:BA:100:LYS:NZ	13:BA:141:GLY:O	2.49	0.46
14:BB:106:PRO:HB3	18:BC:121:TYR:HB2	1.96	0.46
15:BD:374:ASP:OD1	15:BD:377:SER:HB2	2.16	0.46
19:BG:48:ALA:HB3	19:BG:220:VAL:HG12	1.97	0.46
26:BN:175:ARG:HG2	26:BN:188:VAL:HG22	1.98	0.46
27:BO:52:THR:O	27:BO:56:THR:HG22	2.15	0.46
29:BQ:4:LEU:HB3	29:BQ:16:ALA:O	2.15	0.46
1:BU:9:ILE:HD11	1:BU:37:GLU:HG3	1.98	0.46
1:BU:436:ALA:O	1:BU:472:ILE:HD13	2.16	0.46
1:BU:521:LEU:HB2	1:BU:554:LEU:CD2	2.46	0.46
2:BV:62:HIS:HA	2:BV:65:ARG:HB3	1.98	0.46
2:BV:80:LYS:HD3	2:BV:80:LYS:HA	1.61	0.46
3:BW:372:ARG:HG2	3:BW:414:ASN:HB3	1.98	0.46
5:BY:183:TYR:OH	5:BY:212:GLU:HB2	2.15	0.46
15:AD:335:LEU:HD11	15:AD:372:GLY:HA2	1.98	0.46
15:AD:384:MET:CA	15:AD:387:VAL:HG12	2.43	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AD:353:ASN:O	15:AD:394:VAL:HG12	2.15	0.46
17:AF:202:ILE:HG13	17:AF:203:VAL:HG23	1.97	0.46
1:AU:474:ARG:NH2	1:AU:500:ASN:HB2	2.25	0.46
2:AV:137:GLU:HA	2:AV:140:ASP:HB2	1.98	0.46
3:AW:56:THR:HG21	3:AW:103:LYS:HG2	1.97	0.46
13:BA:108:ASP:HB2	13:BA:109:PRO:HD3	1.98	0.46
13:BA:411:GLU:HA	13:BA:414:ASN:HD21	1.81	0.46
18:BC:189:TYR:CE2	18:BC:316:GLU:HA	2.51	0.46
16:BE:178:THR:HG22	16:BE:339:ASN:HB3	1.98	0.46
17:BF:94:ILE:HA	17:BF:147:PRO:HB3	1.98	0.46
23:BK:67:ILE:HG12	23:BK:218:ALA:HB2	1.98	0.46
26:BN:115:PRO:HD2	26:BN:119:MET:O	2.15	0.46
26:BN:173:VAL:HG22	26:BN:174:ILE:H	1.79	0.46
27:BO:17:ASP:O	27:BO:33:LYS:NZ	2.36	0.46
27:BO:51:ASP:HB3	27:BO:94:ILE:HG23	1.97	0.46
2:BV:210:CYS:SG	2:BV:211:TYR:N	2.89	0.46
13:AA:411:GLU:HA	13:AA:414:ASN:HD21	1.81	0.46
14:AB:173:VAL:HA	18:AC:232:ARG:HG2	1.98	0.46
15:AD:277:ALA:C	15:AD:280:GLY:H	2.20	0.46
16:AE:138:LEU:HD21	16:AE:140:GLU:HG2	1.96	0.46
16:AE:178:THR:HG22	16:AE:339:ASN:HB3	1.98	0.46
16:AE:367:PHE:O	16:AE:371:VAL:CB	2.41	0.46
15:AD:147:ALA:HB1	16:AE:70:ILE:HD13	1.98	0.46
17:AF:288:LEU:O	17:AF:292:GLY:N	2.48	0.46
17:AF:85:THR:HA	17:AF:86:LEU:HA	1.69	0.46
19:AG:39:SER:H	19:AG:172:GLN:NE2	2.14	0.46
25:AM:122:TYR:CD1	25:AM:128:VAL:HG21	2.48	0.46
26:AN:175:ARG:HG2	26:AN:188:VAL:HG22	1.98	0.46
29:AQ:4:LEU:HB3	29:AQ:16:ALA:O	2.15	0.46
4:AX:327:TYR:O	4:AX:331:LEU:HD13	2.16	0.46
13:BA:218:PRO:HD2	13:BA:428:ARG:HG3	1.98	0.46
14:BB:100:ASP:O	14:BB:104:GLY:N	2.49	0.46
14:BB:364:ILE:HG21	14:BB:392:GLY:HA2	1.97	0.46
15:BD:212:LYS:HD3	34:BD:501:ATP:O1G	2.15	0.46
20:BH:68:ILE:HA	20:BH:91:ARG:HE	1.80	0.46
25:BM:99:ARG:HD3	25:BM:103:GLY:HA2	1.98	0.46
32:AT:179:ARG:HD2	27:BO:135:MET:HG2	1.98	0.46
29:BQ:7:ILE:HB	29:BQ:14:LEU:HD23	1.97	0.46
28:AP:152:SER:HB3	31:BS:148:LEU:CD2	2.45	0.46
27:AO:195:LYS:HG2	31:BS:180:ILE:CG2	2.40	0.46
32:BT:49:THR:HB	32:BT:85:PRO:HG3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BU:168:LEU:HD13	1:BU:204:ILE:HD11	1.97	0.46
6:BZ:164:ALA:HB3	6:BZ:169:GLU:HG3	1.97	0.46
13:AA:229:VAL:HG22	13:AA:237:PHE:CZ	2.31	0.46
14:AB:103:ARG:CG	14:AB:107:MET:CE	2.89	0.46
14:AB:387:LYS:HE3	14:AB:395:ILE:HD12	1.97	0.46
5:AY:174:TRP:HB2	18:AC:336:MET:O	2.16	0.46
18:AC:197:THR:HB	35:AC:501:ADP:PA	2.56	0.46
20:AH:68:ILE:HA	20:AH:91:ARG:HE	1.80	0.46
27:AO:26:VAL:O	31:BS:185:ARG:NH1	2.48	0.46
31:AS:159:GLN:HE22	27:BO:210:ALA:CB	2.26	0.46
32:AT:45:VAL:HB	32:AT:49:THR:HG23	1.98	0.46
1:AU:331:GLY:O	1:AU:335:ILE:HG12	2.15	0.46
2:AV:210:CYS:SG	2:AV:211:TYR:N	2.89	0.46
2:AV:467:TYR:HB3	2:AV:468:SER:H	1.58	0.46
3:AW:370:TYR:HA	3:AW:371:THR:CB	2.46	0.46
5:AY:19:ILE:O	5:AY:23:ARG:HG2	2.16	0.46
6:AZ:12:HIS:ND1	6:AZ:168:GLU:OE1	2.49	0.46
13:BA:189:GLU:O	13:BA:194:PRO:HD3	2.15	0.46
14:BB:211:TYR:CE1	14:BB:217:LYS:HA	2.50	0.46
18:BC:78:ARG:HA	18:BC:110:PRO:HG3	1.98	0.46
17:BF:137:ILE:HD13	17:BF:160:ILE:HB	1.97	0.46
17:BF:344:ARG:NH1	17:BF:346:GLY:HA3	2.31	0.46
17:BF:383:GLU:HB2	24:BL:170:THR:HG21	1.97	0.46
19:BG:116:LYS:HG2	19:BG:160:TYR:CZ	2.50	0.46
22:BJ:37:GLY:O	22:BJ:142:PRO:HB3	2.15	0.46
24:BL:101:ARG:HG3	24:BL:102:PRO:O	2.16	0.46
29:BQ:38:MET:HB3	29:BQ:38:MET:HE2	1.73	0.46
5:BY:19:ILE:O	5:BY:23:ARG:HG2	2.16	0.46
5:BY:307:LEU:HD22	5:BY:308:LEU:HD22	1.98	0.46
6:BZ:239:ASP:N	6:BZ:239:ASP:OD1	2.48	0.46
13:AA:183:GLN:H	13:AA:183:GLN:CD	2.20	0.46
13:AA:225:CYS:O	13:AA:229:VAL:HG23	2.16	0.46
13:AA:311:PRO:HD2	13:AA:313:GLY:HA2	1.98	0.46
14:AB:211:TYR:CE1	14:AB:217:LYS:HA	2.51	0.46
18:AC:161:ILE:HD13	18:AC:186:VAL:HG21	1.97	0.46
18:AC:246:ILE:O	18:AC:291:VAL:HA	2.16	0.46
15:AD:146:GLU:HG3	15:AD:252:ARG:HG3	1.97	0.46
17:AF:255:GLN:O	17:AF:258:GLN:NE2	2.49	0.46
17:AF:336:ASP:N	17:AF:336:ASP:OD1	2.47	0.46
17:AF:356:MET:HE2	17:AF:362:ARG:HD3	1.97	0.46
17:AF:86:LEU:C	17:AF:88:TYR:N	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AH:111:VAL:O	20:AH:115:ALA:CB	2.65	0.46
21:AI:178:ASP:HB3	21:AI:192:LEU:HD11	1.97	0.46
28:AP:164:PHE:CE1	28:AP:198:ARG:HD2	2.51	0.46
3:AW:372:ARG:HG2	3:AW:414:ASN:HB3	1.98	0.46
5:AY:39:ASP:N	5:AY:39:ASP:OD1	2.49	0.46
6:AZ:102:HIS:HD2	6:AZ:104:ASN:HB3	1.81	0.46
6:AZ:208:ILE:HA	6:AZ:211:TYR:CD2	2.51	0.46
13:BA:183:GLN:H	13:BA:183:GLN:CD	2.19	0.46
14:BB:230:THR:HG21	14:BB:353:PHE:CE2	2.50	0.46
14:BB:365:PHE:HB2	14:BB:395:ILE:HD13	1.97	0.46
18:BC:175:PHE:HD1	18:BC:180:ILE:HG23	1.82	0.46
21:BI:73:ALA:HB3	21:BI:137:ILE:HD11	1.98	0.46
22:BJ:131:ALA:H	22:BJ:147:THR:HG1	1.63	0.46
23:BK:39:GLY:HA2	23:BK:48:LEU:HA	1.97	0.46
25:BM:214:SER:HA	25:BM:226:ILE:HA	1.96	0.46
28:BP:164:PHE:CE1	28:BP:198:ARG:HD2	2.51	0.46
28:AP:34:MET:CB	30:BR:166:ARG:O	2.56	0.46
1:BU:792:ASN:OD1	1:BU:793:LYS:N	2.44	0.46
2:BV:482:PHE:O	2:BV:486:ILE:HG13	2.15	0.46
5:BY:377:LEU:HA	5:BY:380:VAL:HG22	1.98	0.46
13:AA:100:LYS:NZ	13:AA:141:GLY:O	2.49	0.45
13:AA:220:THR:HB	34:AA:501:ATP:N7	2.31	0.45
18:AC:215:SER:HA	18:AC:216:GLY:HA3	1.48	0.45
19:AG:15:ILE:HD12	20:AH:21:GLN:NE2	2.31	0.45
21:AI:18:LEU:O	21:AI:22:GLU:HG2	2.16	0.45
21:AI:73:ALA:HB3	21:AI:137:ILE:HD11	1.98	0.45
32:AT:9:THR:O	32:AT:41:ARG:NH2	2.49	0.45
4:AX:297:ARG:HB2	4:AX:337:ARG:NH1	2.31	0.45
4:AX:343:SER:HB2	4:AX:387:ILE:HB	1.98	0.45
6:AZ:176:LEU:HD12	6:AZ:178:ASP:H	1.81	0.45
6:AZ:190:ARG:HG3	6:AZ:191:ILE:HD12	1.98	0.45
6:AZ:205:LEU:HA	6:AZ:208:ILE:HG22	1.98	0.45
13:BA:228:ALA:O	13:BA:232:ARG:HB2	2.17	0.45
13:BA:395:PHE:CD1	13:BA:398:ARG:HD3	2.50	0.45
18:BC:197:THR:HB	35:BC:501:ADP:PA	2.56	0.45
18:BC:264:GLY:HA2	18:BC:267:SER:HB3	1.97	0.45
15:BD:115:ILE:HG22	15:BD:139:LEU:HD12	1.98	0.45
16:BE:210:GLU:HB2	16:BE:213:ARG:HG2	1.98	0.45
19:BG:161:CYS:HG	19:BG:163:PHE:HE1	1.64	0.45
19:BG:58:ASP:OD1	19:BG:59:LYS:N	2.49	0.45
21:BI:76:VAL:HA	21:BI:134:LEU:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BJ:186:LEU:O	22:BJ:190:LEU:CB	2.63	0.45
26:BN:46:SER:HB2	26:BN:97:GLY:HA3	1.97	0.45
1:BU:699:THR:HG21	1:BU:812:ALA:O	2.16	0.45
3:BW:370:TYR:HA	3:BW:371:THR:CB	2.46	0.45
3:BW:408:ARG:HD2	4:BX:346:GLN:NE2	2.29	0.45
4:BX:258:LYS:HE3	4:BX:270:LEU:HD11	1.99	0.45
5:BY:39:ASP:OD1	5:BY:39:ASP:N	2.49	0.45
13:AA:102:ILE:HA	13:AA:113:ILE:HA	1.97	0.45
14:AB:364:ILE:HG21	14:AB:392:GLY:HA2	1.97	0.45
15:AD:267:ILE:O	15:AD:270:ILE:N	2.47	0.45
15:AD:389:GLU:HB3	15:AD:390:ASN:HB2	1.98	0.45
3:AW:175:GLY:HA2	16:AE:161:ARG:NE	2.30	0.45
16:AE:193:CYS:SG	16:AE:227:PRO:HG2	2.56	0.45
16:AE:210:GLU:HB2	16:AE:213:ARG:HG2	1.98	0.45
16:AE:214:LEU:O	16:AE:218:MET:HB2	2.16	0.45
17:AF:298:SER:HB3	17:AF:299:GLU:HG2	1.97	0.45
17:AF:320:PHE:HB3	17:AF:322:PRO:HD2	1.97	0.45
19:AG:196:GLU:O	19:AG:200:THR:HG23	2.17	0.45
21:AI:185:THR:O	21:AI:185:THR:OG1	2.33	0.45
22:AJ:120:GLN:HA	23:AK:135:ARG:HE	1.80	0.45
25:AM:216:VAL:HB	25:AM:224:HIS:CG	2.51	0.45
27:AO:51:ASP:HB3	27:AO:94:ILE:HG23	1.97	0.45
1:AU:632:GLN:O	1:AU:636:VAL:HG22	2.16	0.45
2:AV:81:GLN:HB3	2:AV:82:LEU:C	2.37	0.45
5:AY:232:GLU:O	5:AY:236:LEU:N	2.43	0.45
5:AY:367:GLN:OE1	5:AY:371:LYS:HE2	2.16	0.45
5:AY:377:LEU:HA	5:AY:380:VAL:HG22	1.98	0.45
13:BA:348:LEU:HA	13:BA:351:ARG:NH2	2.32	0.45
18:BC:11:LEU:HG	18:BC:13:GLU:HB3	1.98	0.45
15:BD:266:GLU:HG2	15:BD:311:THR:HA	1.98	0.45
15:BD:335:LEU:HD11	15:BD:372:GLY:HA2	1.98	0.45
15:BD:411:GLU:HA	15:BD:412:GLN:HA	1.72	0.45
16:BE:140:GLU:HA	16:BE:143:ARG:HD3	1.97	0.45
16:BE:287:PRO:HA	16:BE:290:LEU:HB2	1.99	0.45
15:BD:147:ALA:HB1	16:BE:70:ILE:HD13	1.98	0.45
17:BF:403:ALA:HA	17:BF:419:ASP:OD1	2.16	0.45
20:BH:111:VAL:O	20:BH:115:ALA:HB2	2.15	0.45
21:BI:18:LEU:O	21:BI:22:GLU:HG2	2.16	0.45
27:BO:50:ALA:HB2	28:BP:129:CYS:HB2	1.98	0.45
29:BQ:45:LEU:HD12	29:BQ:103:LEU:HD12	1.99	0.45
1:BU:157:THR:OG1	1:BU:159:ARG:NH2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BU:510:GLU:OE2	1:BU:546:ARG:NH2	2.50	0.45
5:BY:232:GLU:CD	5:BY:234:PRO:HD2	2.36	0.45
14:AB:151:LEU:O	14:AB:152:LEU:HD12	2.16	0.45
18:AC:117:ARG:HG2	18:AC:124:HIS:HB2	1.99	0.45
18:AC:365:GLU:HA	18:AC:368:MET:HG2	1.98	0.45
15:AD:374:ASP:OD1	15:AD:377:SER:HB2	2.16	0.45
17:AF:403:ALA:HA	17:AF:419:ASP:OD1	2.16	0.45
15:AD:414:HIS:CE1	19:AG:25:VAL:HB	2.50	0.45
23:AK:67:ILE:HG12	23:AK:218:ALA:HB2	1.98	0.45
27:AO:50:ALA:HB2	28:AP:129:CYS:HB2	1.98	0.45
1:AU:168:LEU:HD13	1:AU:204:ILE:HD11	1.97	0.45
1:AU:611:ASN:HB3	1:AU:614:VAL:CG1	2.44	0.45
2:AV:59:ALA:N	2:AV:60:ALA:HB3	2.32	0.45
13:BA:362:MET:HG2	13:BA:363:SER:H	1.81	0.45
13:BA:410:LEU:O	13:BA:414:ASN:ND2	2.50	0.45
14:BB:150:VAL:HG12	14:BB:162:VAL:HG12	1.97	0.45
14:BB:209:GLU:HG2	14:BB:210:TYR:N	2.30	0.45
14:BB:387:LYS:HE3	14:BB:395:ILE:HD12	1.97	0.45
15:BD:267:ILE:O	15:BD:270:ILE:N	2.47	0.45
16:BE:129:ASN:O	16:BE:132:TYR:HB3	2.17	0.45
16:BE:368:MET:O	16:BE:372:ARG:HB2	2.16	0.45
21:BI:28:ILE:HG12	21:BI:133:SER:HB2	1.97	0.45
25:BM:216:VAL:HB	25:BM:224:HIS:CG	2.52	0.45
25:BM:229:LYS:HA	25:BM:229:LYS:HD2	1.59	0.45
31:AS:177:ASP:OD2	27:BO:199:LEU:CB	2.17	0.45
31:AS:159:GLN:C	27:BO:208:THR:HG1	2.19	0.45
32:BT:178:TYR:OH	32:BT:208:ASN:O	2.28	0.45
32:BT:9:THR:O	32:BT:41:ARG:NH2	2.49	0.45
1:BU:62:LEU:O	1:BU:66:LYS:HG2	2.16	0.45
2:BV:144:ASP:N	2:BV:145:LEU:HA	2.31	0.45
13:AA:348:LEU:HA	13:AA:351:ARG:NH2	2.32	0.45
14:AB:393:ALA:HB2	35:AB:501:ADP:O4'	2.16	0.45
18:AC:11:LEU:HG	18:AC:13:GLU:HB3	1.98	0.45
18:AC:310:ARG:HA	18:AC:311:ILE:HA	1.74	0.45
15:AD:342:ARG:HG3	15:AD:364:VAL:HG21	1.98	0.45
3:AW:136:ILE:CD1	16:AE:161:ARG:CZ	2.94	0.45
16:AE:228:CYS:SG	16:AE:229:ILE:N	2.90	0.45
19:AG:58:ASP:OD1	19:AG:59:LYS:N	2.49	0.45
21:AI:28:ILE:HG12	21:AI:133:SER:HB2	1.97	0.45
25:AM:107:PRO:HB2	25:AM:110:HIS:HD2	1.82	0.45
25:AM:215:TRP:HH2	25:AM:219:LEU:H	1.63	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AS:6:VAL:HG12	31:AS:57:PHE:CE1	2.52	0.45
32:AT:33:LEU:HD22	26:BN:134:TYR:CE1	2.43	0.45
32:AT:49:THR:HB	32:AT:85:PRO:HG3	1.98	0.45
1:AU:173:VAL:N	1:AU:174:PRO:HD3	2.31	0.45
1:AU:193:PHE:HA	1:AU:196:LYS:HD2	1.98	0.45
1:AU:9:ILE:HD11	1:AU:37:GLU:HG3	1.98	0.45
2:AV:133:PRO:O	2:AV:137:GLU:HG3	2.15	0.45
5:AY:232:GLU:CD	5:AY:234:PRO:HD2	2.36	0.45
5:AY:237:ARG:HD3	5:AY:264:TYR:CE1	2.52	0.45
13:BA:102:ILE:HA	13:BA:113:ILE:HA	1.97	0.45
14:BB:173:VAL:HA	18:BC:232:ARG:HG2	1.98	0.45
15:BD:146:GLU:HG3	15:BD:252:ARG:HG3	1.97	0.45
17:BF:69:MET:HA	17:BF:72:LYS:HG2	1.99	0.45
22:BJ:66:ASP:OD1	22:BJ:67:ASP:N	2.49	0.45
25:BM:107:PRO:HB2	25:BM:110:HIS:HD2	1.82	0.45
31:BS:201:GLU:N	31:BS:201:GLU:OE1	2.49	0.45
32:BT:89:HIS:CE1	32:BT:131:ALA:HB1	2.50	0.45
4:BX:297:ARG:HB2	4:BX:337:ARG:NH1	2.31	0.45
5:BY:357:ASN:CB	5:BY:358:ARG:HA	2.45	0.45
13:AA:108:ASP:HB2	13:AA:109:PRO:HD3	1.98	0.45
18:AC:175:PHE:HD1	18:AC:180:ILE:HG23	1.81	0.45
17:AF:94:ILE:HA	17:AF:147:PRO:HB3	1.98	0.45
17:AF:79:LYS:O	17:AF:82:VAL:HG22	2.16	0.45
19:AG:157:ALA:HB3	19:AG:159:TYR:CD2	2.51	0.45
20:AH:80:GLY:O	20:AH:84:ARG:HG3	2.17	0.45
22:AJ:66:ASP:OD1	22:AJ:67:ASP:N	2.48	0.45
3:AW:42:GLU:O	3:AW:45:GLU:HB3	2.17	0.45
14:BB:184:TYR:HD2	14:BB:240:ALA:HB1	1.80	0.45
18:BC:117:ARG:HG2	18:BC:124:HIS:HB2	1.99	0.45
18:BC:378:VAL:HG12	18:BC:379:THR:N	2.30	0.45
15:BD:228:ILE:HG13	15:BD:262:ILE:HG12	1.99	0.45
16:BE:193:CYS:SG	16:BE:227:PRO:HG2	2.56	0.45
17:BF:171:ARG:HH12	17:BF:267:LEU:HD21	1.81	0.45
19:BG:157:ALA:HB3	19:BG:159:TYR:CD2	2.51	0.45
25:BM:152:ASP:OD1	25:BM:156:VAL:N	2.49	0.45
29:AQ:22:ALA:HB2	29:BQ:170:ARG:HH11	1.82	0.45
22:BJ:85:ASN:HB3	29:BQ:70:ARG:HH12	1.80	0.45
2:BV:133:PRO:O	2:BV:137:GLU:HG3	2.15	0.45
5:BY:216:TYR:O	5:BY:220:VAL:HG23	2.16	0.45
18:AC:321:ASN:O	18:AC:325:ARG:HG3	2.16	0.45
15:AD:237:GLN:HG3	15:AD:242:GLU:HG2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AD:81:ARG:HG2	15:AD:82:ILE:HD12	1.98	0.45
16:AE:40:TYR:O	16:AE:43:SER:OG	2.30	0.45
17:AF:344:ARG:NH1	17:AF:346:GLY:HA3	2.31	0.45
17:AF:69:MET:HA	17:AF:72:LYS:HG2	1.99	0.45
20:AH:108:ALA:O	20:AH:112:GLN:HG2	2.15	0.45
20:AH:67:PRO:O	20:AH:91:ARG:NH2	2.46	0.45
21:AI:13:SER:O	21:AI:15:GLU:N	2.50	0.45
23:AK:39:GLY:HA2	23:AK:48:LEU:HA	1.97	0.45
24:AL:101:ARG:HG3	24:AL:102:PRO:O	2.16	0.45
27:AO:20:ALA:O	27:AO:27:ALA:HB3	2.17	0.45
29:AQ:45:LEU:HD12	29:AQ:103:LEU:HD12	1.98	0.45
30:AR:193:ALA:HB3	28:BP:203:ARG:NH1	2.32	0.45
1:AU:62:LEU:O	1:AU:66:LYS:HG2	2.17	0.45
1:AU:699:THR:HG21	1:AU:812:ALA:O	2.16	0.45
2:AV:350:GLN:HB3	2:AV:353:LEU:HB3	1.98	0.45
3:AW:33:LYS:O	3:AW:37:GLU:HG3	2.17	0.45
4:AX:207:GLN:NE2	4:AX:211:ASP:OD1	2.45	0.45
5:AY:118:GLU:O	5:AY:121:LEU:HG	2.17	0.45
5:AY:46:ARG:C	5:AY:48:ASN:H	2.19	0.45
6:AZ:124:ILE:HA	6:AZ:135:THR:HA	1.99	0.45
14:BB:167:THR:OG1	14:BB:168:ASP:N	2.49	0.45
14:BB:253:SER:OG	14:BB:257:GLN:OE1	2.32	0.45
14:BB:393:ALA:HB2	35:BB:501:ADP:O4'	2.16	0.45
14:BB:294:ARG:HD3	18:BC:261:GLY:HA2	1.97	0.45
18:BC:307:ARG:O	18:BC:309:GLY:N	2.50	0.45
18:BC:321:ASN:O	18:BC:325:ARG:HG3	2.16	0.45
15:BD:277:ALA:C	15:BD:280:GLY:H	2.20	0.45
16:BE:214:LEU:O	16:BE:218:MET:HB2	2.16	0.45
17:BF:223:VAL:HG23	17:BF:350:ARG:HB2	1.99	0.45
15:BD:414:HIS:HE1	19:BG:25:VAL:HB	1.82	0.45
22:BJ:192:ILE:O	22:BJ:196:LEU:CB	2.65	0.45
2:BV:239:THR:HA	2:BV:240:LEU:HA	1.73	0.45
3:BW:33:LYS:O	3:BW:37:GLU:HG3	2.17	0.45
6:BZ:124:ILE:HA	6:BZ:135:THR:HA	1.99	0.45
6:BZ:176:LEU:HD12	6:BZ:178:ASP:H	1.81	0.45
13:AA:352:THR:O	13:AA:356:LYS:HG3	2.17	0.45
18:AC:78:ARG:HA	18:AC:110:PRO:HG3	1.98	0.45
18:AC:378:VAL:HG12	18:AC:379:THR:N	2.30	0.45
18:AC:84:LYS:HB3	18:AC:96:VAL:HG22	1.99	0.45
16:AE:147:GLU:O	16:AE:151:LEU:HB3	2.17	0.45
16:AE:312:ILE:HG23	16:AE:343:LEU:HD23	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AJ:186:LEU:O	22:AJ:190:LEU:CB	2.63	0.45
31:AS:169:ASP:OD2	31:AS:173:ARG:NH1	2.46	0.45
2:AV:161:PRO:O	2:AV:164:GLU:HB2	2.17	0.45
2:AV:62:HIS:HA	2:AV:65:ARG:HB3	1.98	0.45
6:AZ:233:VAL:O	6:AZ:236:LEU:HB2	2.17	0.45
13:BA:352:THR:O	13:BA:356:LYS:HG3	2.17	0.45
13:BA:90:GLU:CG	13:BA:94:GLN:NE2	2.75	0.45
18:BC:139:MET:SD	18:BC:213:ARG:HB2	2.57	0.45
18:BC:254:ILE:HA	18:BC:257:SER:HB3	1.98	0.45
3:BW:136:ILE:CD1	16:BE:161:ARG:CZ	2.94	0.45
16:BE:331:ILE:HD12	16:BE:371:VAL:HG11	1.99	0.45
19:BG:38:THR:HA	19:BG:172:GLN:NE2	2.31	0.45
21:BI:47:ALA:O	21:BI:212:GLU:N	2.50	0.45
31:AS:211:ARG:HD2	27:BO:194:LYS:O	2.16	0.45
30:AR:26:ILE:HD12	28:BP:175:VAL:O	2.12	0.45
1:BU:193:PHE:HA	1:BU:196:LYS:HD2	1.97	0.45
2:BV:197:THR:HG22	2:BV:200:ARG:H	1.81	0.45
3:BW:144:ARG:HA	3:BW:147:LYS:HE2	1.99	0.45
5:BY:118:GLU:O	5:BY:121:LEU:HG	2.17	0.45
5:BY:349:LYS:C	5:BY:351:ASN:H	2.20	0.45
13:AA:420:TYR:HE1	14:AB:350:LYS:HG2	1.81	0.45
14:AB:418:ASP:O	14:AB:422:SER:CB	2.64	0.45
18:AC:168:PRO:HA	18:AC:172:PRO:HG3	1.99	0.45
16:AE:129:ASN:O	16:AE:132:TYR:HB3	2.17	0.45
19:AG:89:SER:OG	25:AM:120:HIS:ND1	2.48	0.45
25:AM:185:THR:O	25:AM:189:ILE:HG12	2.16	0.45
25:AM:229:LYS:HD2	25:AM:229:LYS:HA	1.59	0.45
31:AS:201:GLU:N	31:AS:201:GLU:OE1	2.49	0.45
1:AU:152:GLY:HA3	15:AD:41:TYR:CD2	2.52	0.45
1:AU:158:ARG:HD2	1:AU:193:PHE:CE1	2.52	0.45
1:AU:157:THR:OG1	1:AU:159:ARG:NH2	2.50	0.45
1:AU:243:LEU:HD21	1:AU:913:ILE:HD13	1.98	0.45
1:AU:510:GLU:OE2	1:AU:546:ARG:NH2	2.50	0.45
1:AU:908:ILE:HG12	1:AU:909:GLY:H	1.82	0.45
2:AV:96:ARG:HA	2:AV:98:LEU:HD12	1.99	0.45
3:AW:441:LYS:HZ3	3:AW:445:LEU:HD11	1.82	0.45
4:AX:258:LYS:HE3	4:AX:270:LEU:HD11	1.99	0.45
13:BA:339:ARG:HD3	13:BA:339:ARG:HA	2.07	0.45
14:BB:100:ASP:CA	14:BB:103:ARG:CZ	2.80	0.45
14:BB:224:LEU:HB3	14:BB:234:LEU:HD13	1.98	0.45
18:BC:168:PRO:HA	18:BC:172:PRO:HG3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:BC:343:ASN:HB3	18:BC:346:LYS:HG2	1.99	0.45
17:BF:79:LYS:O	17:BF:82:VAL:HG22	2.16	0.45
20:BH:44:VAL:HB	20:BH:213:CYS:HB2	1.99	0.45
21:BI:13:SER:O	21:BI:15:GLU:N	2.50	0.45
22:BJ:116:GLN:OE1	23:BK:135:ARG:NH2	2.50	0.45
23:BK:202:LEU:HA	23:BK:205:VAL:HG22	1.98	0.45
31:BS:27:THR:HB	31:BS:40:SER:H	1.82	0.45
1:BU:460:TYR:HD2	1:BU:461:LEU:HD12	1.82	0.45
1:BU:59:PHE:HA	1:BU:62:LEU:HD13	1.99	0.45
1:BU:632:GLN:O	1:BU:636:VAL:HG22	2.16	0.45
2:BV:319:HIS:HB2	2:BV:320:THR:HA	1.99	0.45
2:BV:80:LYS:HD2	2:BV:82:LEU:O	2.17	0.45
6:BZ:21:ASP:OD1	6:BZ:22:HIS:N	2.50	0.45
18:AC:143:VAL:HG22	18:AC:144:PRO:O	2.17	0.45
17:AF:137:ILE:HD13	17:AF:160:ILE:HB	1.97	0.45
17:AF:300:LYS:NZ	17:AF:301:ALA:O	2.45	0.45
17:AF:86:LEU:HA	17:AF:86:LEU:HD23	1.82	0.45
23:AK:202:LEU:HA	23:AK:205:VAL:HG22	1.98	0.45
24:AL:85:CYS:O	24:AL:88:MET:HB3	2.16	0.45
29:AQ:7:ILE:HB	29:AQ:14:LEU:HD23	1.97	0.45
31:AS:197:ILE:HB	31:AS:204:ARG:HB2	1.99	0.45
1:AU:26:LYS:O	1:AU:30:VAL:HG22	2.17	0.45
1:AU:59:PHE:HA	1:AU:62:LEU:HD13	1.99	0.45
2:AV:80:LYS:HD2	2:AV:82:LEU:O	2.17	0.45
13:BA:229:VAL:HG22	13:BA:237:PHE:CZ	2.31	0.45
13:BA:311:PRO:HD2	13:BA:313:GLY:HA2	1.98	0.45
13:BA:97:ARG:HA	13:BA:98:CYS:HA	1.55	0.45
14:BB:151:LEU:O	14:BB:152:LEU:HD12	2.16	0.45
18:BC:373:GLU:HG2	18:BC:375:ARG:NH1	2.32	0.45
16:BE:341:ALA:O	16:BE:345:ASN:OD1	2.35	0.45
17:BF:144:LYS:HA	17:BF:145:LEU:HA	1.76	0.45
17:BF:70:LYS:HG3	17:BF:74:LYS:HE3	1.98	0.45
19:BG:70:PHE:CD2	19:BG:91:VAL:HG21	2.52	0.45
20:BH:111:VAL:O	20:BH:115:ALA:CB	2.64	0.45
20:BH:80:GLY:O	20:BH:84:ARG:HG3	2.17	0.45
25:BM:98:PHE:CD1	25:BM:106:ILE:HD13	2.52	0.45
28:BP:144:GLU:O	28:BP:148:GLY:HA3	2.17	0.45
32:BT:45:VAL:HG13	32:BT:71:VAL:HG21	1.98	0.45
1:BU:152:GLY:HA3	15:BD:41:TYR:CD2	2.52	0.45
1:BU:26:LYS:O	1:BU:30:VAL:HG22	2.17	0.45
2:BV:55:THR:HB	2:BV:198:GLN:CD	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AB:139:VAL:HA	14:AB:140:ASP:CB	2.47	0.45
14:AB:343:ARG:HB2	14:AB:344:PRO:HD3	1.99	0.45
5:AY:179:ARG:HH11	18:AC:340:ARG:NH2	2.15	0.45
15:AD:266:GLU:HG2	15:AD:311:THR:HA	1.98	0.45
21:AI:220:ASN:HA	21:AI:221:GLY:HA2	1.55	0.45
21:AI:47:ALA:O	21:AI:212:GLU:N	2.50	0.45
22:AJ:116:GLN:OE1	23:AK:135:ARG:NH2	2.50	0.45
28:AP:144:GLU:O	28:AP:148:GLY:HA3	2.17	0.45
29:AQ:3:TYR:CE2	29:AQ:131:ALA:HA	2.52	0.45
1:AU:380:THR:HG23	1:AU:382:SER:H	1.82	0.45
1:AU:460:TYR:HD2	1:AU:461:LEU:HD12	1.82	0.45
2:AV:55:THR:HB	2:AV:198:GLN:CD	2.37	0.45
5:AY:377:LEU:O	5:AY:381:GLN:HG3	2.17	0.45
5:AY:50:MET:SD	5:AY:74:LYS:HB3	2.57	0.45
13:BA:220:THR:HB	34:BA:501:ATP:N7	2.31	0.45
14:BB:189:GLY:HA3	14:BB:360:THR:HG23	1.99	0.45
18:BC:134:LEU:HD21	18:BC:219:LEU:HD23	1.99	0.45
16:BE:228:CYS:SG	16:BE:229:ILE:N	2.90	0.45
17:BF:314:LEU:HB3	17:BF:347:ARG:HH11	1.82	0.45
17:BF:320:PHE:HB3	17:BF:322:PRO:HD2	1.97	0.45
20:BH:67:PRO:HA	20:BH:73:GLY:HA2	1.98	0.45
23:BK:212:ALA:HA	23:BK:238:ILE:HD11	1.99	0.45
30:BR:6:PHE:HB2	30:BR:125:THR:HG22	1.99	0.45
31:BS:6:VAL:HG12	31:BS:57:PHE:CE1	2.52	0.45
3:BW:124:LEU:O	3:BW:128:LEU:HD23	2.17	0.45
3:BW:42:GLU:O	3:BW:45:GLU:HB3	2.17	0.45
3:BW:46:THR:O	3:BW:49:SER:OG	2.26	0.45
5:BY:174:TRP:NE1	18:BC:338:LEU:HB3	2.32	0.45
5:BY:237:ARG:HD3	5:BY:264:TYR:CE1	2.52	0.45
5:BY:50:MET:SD	5:BY:74:LYS:HB3	2.57	0.45
6:BZ:190:ARG:HG3	6:BZ:191:ILE:HD12	1.98	0.45
13:AA:362:MET:HG2	13:AA:363:SER:H	1.81	0.44
18:AC:155:ASP:N	18:AC:155:ASP:OD1	2.51	0.44
18:AC:264:GLY:HA2	18:AC:267:SER:HB3	1.97	0.44
18:AC:266:ASP:O	18:AC:269:VAL:N	2.44	0.44
18:AC:189:TYR:CE2	18:AC:316:GLU:HA	2.51	0.44
16:AE:368:MET:O	16:AE:372:ARG:HB2	2.16	0.44
19:AG:210:PHE:CE1	19:AG:214:GLU:HB2	2.53	0.44
23:AK:212:ALA:HA	23:AK:238:ILE:HD11	1.99	0.44
27:AO:36:PHE:CD1	27:AO:42:TYR:HE1	2.34	0.44
28:AP:190:ILE:HG22	28:AP:195:ILE:HG23	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AS:73:LYS:O	31:AS:77:HIS:ND1	2.39	0.44
1:AU:707:ASN:O	1:AU:711:GLN:HG2	2.17	0.44
2:AV:279:GLN:NE2	2:AV:285:TRP:CD1	2.85	0.44
2:AV:363:LEU:HA	2:AV:378:VAL:HG11	2.00	0.44
2:AV:455:LYS:H	2:AV:456:GLY:HA2	1.82	0.44
3:AW:441:LYS:HA	3:AW:444:HIS:HE1	1.82	0.44
5:AY:349:LYS:C	5:AY:351:ASN:H	2.20	0.44
13:BA:347:ASP:O	13:BA:351:ARG:HG3	2.17	0.44
14:BB:170:LEU:HD21	14:BB:270:LEU:HD23	1.99	0.44
15:BD:132:LEU:HD21	15:BD:139:LEU:HD23	1.98	0.44
16:BE:254:GLN:O	16:BE:258:MET:HG2	2.17	0.44
17:BF:191:LEU:HG	17:BF:194:GLN:NE2	2.22	0.44
19:BG:48:ALA:HB2	19:BG:149:PRO:HB2	1.99	0.44
22:BJ:96:LEU:HD11	29:BQ:58:GLU:HB3	1.99	0.44
24:BL:137:TYR:HE2	24:BL:215:VAL:HG13	1.82	0.44
27:BO:20:ALA:HB3	27:BO:28:ASP:HB3	1.98	0.44
27:AO:132:LEU:HD13	32:BT:144:TYR:CB	2.46	0.44
32:BT:41:ARG:HH21	32:BT:54:SER:HA	1.82	0.44
1:BU:908:ILE:HG12	1:BU:909:GLY:H	1.82	0.44
2:BV:419:LEU:O	2:BV:422:ILE:HG22	2.17	0.44
2:BV:59:ALA:N	2:BV:60:ALA:HB3	2.32	0.44
3:BW:253:THR:HB	3:BW:254:PRO:HD3	2.00	0.44
3:BW:333:LEU:HD12	3:BW:333:LEU:O	2.17	0.44
4:BX:173:GLU:O	4:BX:176:THR:HG22	2.17	0.44
4:BX:296:ASN:O	4:BX:337:ARG:NH2	2.43	0.44
3:BW:440:ASN:HB3	6:BZ:230:LEU:HD11	1.98	0.44
13:AA:277:ILE:HG22	13:AA:321:THR:HB	1.99	0.44
14:AB:190:LEU:HD13	14:AB:194:ILE:HB	1.99	0.44
14:AB:211:TYR:CE1	14:AB:218:PRO:HD2	2.36	0.44
18:AC:134:LEU:HD21	18:AC:219:LEU:HD23	1.99	0.44
16:AE:138:LEU:HD23	16:AE:139:SER:N	2.32	0.44
15:AD:231:VAL:HG22	16:AE:262:ASN:ND2	2.31	0.44
16:AE:134:GLU:HB3	16:AE:315:ILE:HD13	2.00	0.44
16:AE:341:ALA:O	16:AE:345:ASN:OD1	2.35	0.44
15:AD:414:HIS:HE1	19:AG:25:VAL:HB	1.82	0.44
20:AH:123:GLN:HG3	21:AI:128:ARG:HB3	1.99	0.44
22:AJ:156:TRP:HZ3	22:AJ:160:ALA:H	1.65	0.44
32:AT:199:ILE:HG22	32:AT:200:GLU:H	1.81	0.44
32:AT:41:ARG:HH21	32:AT:54:SER:HA	1.82	0.44
1:AU:28:ASN:HD22	1:AU:59:PHE:HZ	1.65	0.44
2:AV:144:ASP:N	2:AV:145:LEU:HA	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AV:76:LYS:HA	2:AV:77:GLU:HA	1.74	0.44
5:AY:174:TRP:CD1	18:AC:338:LEU:HB3	2.52	0.44
5:AY:197:ALA:HB3	5:AY:226:VAL:HG21	1.99	0.44
18:BC:143:VAL:HG22	18:BC:144:PRO:O	2.17	0.44
5:BY:179:ARG:HH11	18:BC:340:ARG:NH2	2.15	0.44
16:BE:247:THR:OG1	16:BE:248:SER:N	2.48	0.44
16:BE:312:ILE:HG23	16:BE:343:LEU:HD23	1.98	0.44
17:BF:238:ARG:HE	17:BF:250:LYS:HG2	1.83	0.44
17:BF:172:VAL:HG13	17:BF:267:LEU:HG	2.00	0.44
17:BF:428:GLN:HA	17:BF:429:ALA:HA	1.48	0.44
19:BG:113:MET:SD	27:BO:70:THR:HG22	2.56	0.44
19:BG:15:ILE:HD12	20:BH:21:GLN:NE2	2.31	0.44
19:BG:196:GLU:O	19:BG:200:THR:HG23	2.17	0.44
20:BH:225:GLU:HA	20:BH:228:ASP:HB2	2.00	0.44
21:BI:68:LEU:HD13	21:BI:90:LEU:HD21	2.00	0.44
27:BO:187:ARG:HA	27:BO:188:PRO:HA	1.81	0.44
27:BO:36:PHE:CD1	27:BO:42:TYR:HE1	2.34	0.44
28:BP:66:ARG:O	28:BP:69:PHE:HB3	2.18	0.44
32:BT:45:VAL:HB	32:BT:49:THR:HG23	1.98	0.44
1:BU:158:ARG:HD2	1:BU:193:PHE:CE1	2.52	0.44
2:BV:100:MET:HG2	2:BV:102:PRO:HD2	1.99	0.44
2:BV:137:GLU:HA	2:BV:140:ASP:HB2	1.98	0.44
2:BV:449:ALA:HB1	2:BV:459:GLN:O	2.18	0.44
2:BV:89:LYS:HD2	2:BV:93:PHE:HE2	1.83	0.44
3:BW:220:GLU:HA	3:BW:221:LYS:HA	1.82	0.44
6:BZ:118:ASN:N	6:BZ:118:ASN:OD1	2.50	0.44
6:BZ:205:LEU:HA	6:BZ:208:ILE:HG22	1.98	0.44
6:BZ:208:ILE:HA	6:BZ:211:TYR:CD2	2.51	0.44
13:AA:228:ALA:O	13:AA:232:ARG:HB2	2.17	0.44
14:AB:189:GLY:HA3	14:AB:360:THR:HG23	1.99	0.44
14:AB:217:LYS:C	14:AB:219:PRO:HD3	2.38	0.44
14:AB:365:PHE:HB2	14:AB:395:ILE:HD13	1.97	0.44
18:AC:167:LEU:HD22	18:AC:175:PHE:CE2	2.52	0.44
18:AC:255:GLY:CA	18:AC:256:SER:HB2	2.48	0.44
15:AD:149:SER:OG	15:AD:150:SER:N	2.50	0.44
15:AD:239:TYR:HE2	16:AE:75:ASN:O	2.00	0.44
17:AF:281:SER:HB3	17:AF:326:VAL:HG13	2.00	0.44
19:AG:116:LYS:HG2	19:AG:160:TYR:CE2	2.52	0.44
19:AG:144:ASP:OD1	19:AG:145:GLU:N	2.45	0.44
20:AH:67:PRO:HA	20:AH:73:GLY:HA2	1.98	0.44
21:AI:125:GLY:HA2	22:AJ:3:TYR:CD2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AQ:135:GLY:O	29:AQ:139:THR:HG23	2.18	0.44
1:AU:757:MET:HG3	1:AU:758:PRO:HD3	1.99	0.44
13:BA:194:PRO:HG3	13:BA:201:PHE:HE2	1.83	0.44
14:BB:260:LEU:HD12	14:BB:260:LEU:O	2.17	0.44
18:BC:215:SER:HA	18:BC:216:GLY:HA3	1.48	0.44
15:BD:231:VAL:HG22	16:BE:262:ASN:ND2	2.31	0.44
15:BD:244:PRO:HD3	15:BD:288:ILE:HD11	1.98	0.44
15:BD:388:ARG:HH22	16:BE:144:GLU:HA	1.83	0.44
15:BD:81:ARG:C	15:BD:82:ILE:HD12	2.37	0.44
21:BI:125:GLY:HA2	22:BJ:3:TYR:CD2	2.52	0.44
22:BJ:156:TRP:HZ3	22:BJ:160:ALA:H	1.65	0.44
22:BJ:201:SER:HA	22:BJ:206:ILE:HD11	1.99	0.44
31:AS:180:ILE:HG21	27:BO:195:LYS:CG	2.44	0.44
29:BQ:3:TYR:CE2	29:BQ:131:ALA:HA	2.52	0.44
27:AO:210:ALA:HA	31:BS:159:GLN:NE2	2.29	0.44
31:BS:197:ILE:HB	31:BS:204:ARG:HB2	1.99	0.44
1:BU:380:THR:HG23	1:BU:382:SER:H	1.82	0.44
2:BV:433:ASP:N	2:BV:433:ASP:OD1	2.50	0.44
3:BW:175:GLY:HA2	16:BE:161:ARG:HE	1.83	0.44
4:BX:343:SER:HB2	4:BX:387:ILE:HB	1.98	0.44
5:BY:367:GLN:OE1	5:BY:371:LYS:HE2	2.16	0.44
13:AA:297:ARG:O	13:AA:301:GLU:HB3	2.18	0.44
13:AA:325:ASP:HB2	13:AA:326:THR:HA	1.99	0.44
18:AC:252:ASP:HB2	18:AC:294:ALA:O	2.18	0.44
18:AC:299:ASP:O	18:AC:303:SER:OG	2.28	0.44
15:AD:228:ILE:HG13	15:AD:262:ILE:HG12	1.99	0.44
17:AF:70:LYS:HG3	17:AF:74:LYS:HE3	1.98	0.44
19:AG:70:PHE:CD2	19:AG:91:VAL:HG21	2.52	0.44
20:AH:98:TYR:O	20:AH:102:GLN:N	2.38	0.44
21:AI:35:LEU:CA	21:AI:162:THR:HG21	2.45	0.44
25:AM:98:PHE:CD1	25:AM:106:ILE:HD13	2.52	0.44
27:AO:194:LYS:O	31:BS:211:ARG:HD2	2.17	0.44
27:AO:20:ALA:HB3	27:AO:28:ASP:HB3	1.98	0.44
2:AV:319:HIS:HB2	2:AV:320:THR:HA	1.99	0.44
2:AV:408:ARG:O	2:AV:411:SER:OG	2.23	0.44
2:AV:428:LEU:HD21	2:AV:434:ALA:N	2.33	0.44
4:AX:142:ARG:HD3	4:AX:145:GLU:HG3	1.99	0.44
4:AX:296:ASN:O	4:AX:337:ARG:NH2	2.44	0.44
5:AY:216:TYR:O	5:AY:220:VAL:HG23	2.16	0.44
6:AZ:21:ASP:OD1	6:AZ:22:HIS:N	2.50	0.44
14:BB:190:LEU:HD13	14:BB:194:ILE:HB	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BE:159:PHE:HD2	16:BE:166:PRO:HG3	1.83	0.44
17:BF:356:MET:HE3	17:BF:391:PHE:N	2.32	0.44
17:BF:84:LYS:HA	17:BF:161:LEU:CD2	2.30	0.44
24:BL:85:CYS:O	24:BL:88:MET:HB3	2.16	0.44
28:BP:109:ILE:HB	28:BP:122:CYS:SG	2.57	0.44
28:BP:190:ILE:HG22	28:BP:195:ILE:HG23	1.99	0.44
29:BQ:135:GLY:O	29:BQ:139:THR:HG23	2.17	0.44
29:BQ:148:THR:HG22	29:BQ:150:THR:H	1.82	0.44
30:BR:104:TRP:CD2	30:BR:181:GLU:HA	2.53	0.44
1:BU:630:PRO:HG2	1:BU:663:THR:HG21	2.00	0.44
2:BV:487:HIS:NE2	6:BZ:267:ARG:HD3	2.32	0.44
3:BW:92:LYS:N	3:BW:93:ARG:HB3	2.24	0.44
5:BY:141:VAL:HG13	5:BY:160:ASN:ND2	2.33	0.44
13:AA:363:SER:HB2	13:AA:403:ILE:HG22	1.99	0.44
13:AA:74:PRO:HB2	13:AA:75:PRO:HD3	2.00	0.44
14:AB:224:LEU:HB3	14:AB:234:LEU:HD13	1.98	0.44
14:AB:371:ARG:NH1	18:AC:176:GLU:OE2	2.46	0.44
16:AE:129:ASN:O	16:AE:132:TYR:N	2.43	0.44
16:AE:159:PHE:HD2	16:AE:166:PRO:HG3	1.83	0.44
17:AF:223:VAL:HG23	17:AF:350:ARG:HB2	1.99	0.44
16:AE:237:ALA:O	17:AF:304:ARG:NH1	2.51	0.44
20:AH:14:SER:OG	20:AH:18:LYS:N	2.51	0.44
30:AR:6:PHE:HB2	30:AR:125:THR:HG22	1.99	0.44
31:AS:55:SER:OG	31:AS:56:GLY:N	2.51	0.44
1:AU:388:ASP:OD1	1:AU:389:ASN:N	2.48	0.44
2:AV:197:THR:HG22	2:AV:200:ARG:H	1.81	0.44
3:AW:253:THR:HB	3:AW:254:PRO:HD3	2.00	0.44
6:AZ:242:LEU:HA	6:AZ:243:GLN:HA	1.73	0.44
18:BC:255:GLY:CA	18:BC:256:SER:HB2	2.48	0.44
15:BD:200:ARG:HH22	15:BD:300:ASP:CG	2.21	0.44
15:BD:258:ALA:HB1	15:BD:304:ASN:HB3	2.00	0.44
15:BD:82:ILE:HA	15:BD:83:GLN:HA	1.58	0.44
17:BF:281:SER:HB3	17:BF:326:VAL:HG13	2.00	0.44
30:AR:141:ARG:HB2	29:BQ:166:GLU:CG	2.47	0.44
1:BU:173:VAL:N	1:BU:174:PRO:HD3	2.31	0.44
2:BV:96:ARG:HA	2:BV:98:LEU:HD12	1.99	0.44
6:BZ:233:VAL:O	6:BZ:236:LEU:HB2	2.17	0.44
13:AA:105:ASP:OD1	13:AA:105:ASP:N	2.45	0.44
18:AC:373:GLU:HG2	18:AC:375:ARG:NH1	2.32	0.44
15:AD:244:PRO:HD3	15:AD:288:ILE:HD11	1.98	0.44
15:AD:83:GLN:CD	15:AD:133:HIS:CD2	2.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AD:99:ASN:H	15:AD:115:ILE:HD11	1.83	0.44
16:AE:254:GLN:O	16:AE:258:MET:HG2	2.17	0.44
20:AH:111:VAL:HG21	20:AH:147:PHE:HD2	1.81	0.44
21:AI:76:VAL:HA	21:AI:134:LEU:HB3	1.98	0.44
25:AM:40:ARG:NH1	25:AM:146:ALA:O	2.51	0.44
25:AM:158:TYR:HE1	25:AM:160:TYR:CZ	2.36	0.44
32:AT:24:ALA:HB1	32:AT:41:ARG:NH1	2.32	0.44
1:AU:144:ASP:HB3	18:AC:11:LEU:HD13	2.00	0.44
2:AV:419:LEU:O	2:AV:422:ILE:HG22	2.17	0.44
2:AV:449:ALA:HB1	2:AV:459:GLN:O	2.18	0.44
5:AY:174:TRP:NE1	18:AC:338:LEU:HB3	2.32	0.44
6:AZ:225:GLN:NE2	6:AZ:229:GLN:HB2	2.33	0.44
13:BA:143:ASP:O	13:BA:147:TYR:N	2.51	0.44
13:BA:225:CYS:O	13:BA:229:VAL:HG23	2.17	0.44
13:BA:97:ARG:HB3	14:BB:131:HIS:HD2	1.83	0.44
14:BB:193:GLN:HG2	14:BB:237:LYS:NZ	2.32	0.44
18:BC:255:GLY:H	18:BC:256:SER:HB2	1.82	0.44
19:BG:110:PRO:HB3	27:BO:72:ARG:HH12	1.83	0.44
25:BM:108:LEU:HD22	25:BM:139:SER:HB3	2.00	0.44
25:BM:40:ARG:NH1	25:BM:146:ALA:O	2.51	0.44
32:BT:24:ALA:HB1	32:BT:41:ARG:NH1	2.32	0.44
2:BV:81:GLN:HB3	2:BV:82:LEU:C	2.37	0.44
3:BW:141:GLU:OE2	15:BD:392:TYR:CD1	2.65	0.44
13:AA:344:SER:O	13:AA:344:SER:OG	2.28	0.44
18:AC:157:GLN:OE1	18:AC:318:PRO:HD3	2.18	0.44
19:AG:163:PHE:HD2	19:AG:166:THR:OG1	2.01	0.44
19:AG:38:THR:HA	19:AG:172:GLN:NE2	2.31	0.44
19:AG:197:THR:HA	19:AG:200:THR:OG1	2.18	0.44
20:AH:123:GLN:NE2	21:AI:128:ARG:O	2.51	0.44
21:AI:68:LEU:HD13	21:AI:90:LEU:HD21	2.00	0.44
22:AJ:192:ILE:O	22:AJ:196:LEU:CB	2.65	0.44
25:AM:110:HIS:CE1	26:AN:70:LEU:HA	2.53	0.44
27:AO:187:ARG:HA	27:AO:188:PRO:HA	1.81	0.44
19:AG:110:PRO:HB3	27:AO:72:ARG:HH12	1.83	0.44
30:AR:133:VAL:HG21	29:BQ:137:PHE:HB2	2.00	0.44
2:AV:286:ALA:HB2	2:AV:315:LYS:HD3	2.00	0.44
5:AY:109:GLU:HG2	5:AY:124:PHE:HE1	1.82	0.44
6:AZ:210:SER:HB2	6:AZ:214:LYS:HZ3	1.83	0.44
13:BA:273:PHE:HD1	13:BA:318:LEU:HB3	1.83	0.44
13:BA:355:PHE:O	13:BA:359:ALA:CB	2.60	0.44
13:BA:363:SER:HB2	13:BA:403:ILE:HG22	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BB:103:ARG:HG2	14:BB:107:MET:CE	2.48	0.44
14:BB:217:LYS:C	14:BB:219:PRO:HD3	2.38	0.44
18:BC:157:GLN:OE1	18:BC:318:PRO:HD3	2.18	0.44
16:BE:345:ASN:ND2	17:BF:345:SER:CB	2.81	0.44
19:BG:116:LYS:HG2	19:BG:160:TYR:CE2	2.52	0.44
24:BL:68:ASN:O	24:BL:220:GLU:HG2	2.18	0.44
31:AS:176:LYS:CB	27:BO:199:LEU:CD2	2.93	0.44
28:BP:45:MET:HE3	28:BP:71:LEU:HD23	1.99	0.44
5:BY:387:ILE:HA	5:BY:388:ASN:HA	1.54	0.44
13:AA:194:PRO:HG3	13:AA:201:PHE:HE2	1.83	0.44
14:AB:253:SER:OG	14:AB:257:GLN:OE1	2.32	0.44
18:AC:139:MET:SD	18:AC:213:ARG:HB2	2.57	0.44
16:AE:174:GLY:HA2	16:AE:176:PRO:HD2	2.00	0.44
17:AF:172:VAL:HG13	17:AF:267:LEU:HG	2.00	0.44
17:AF:314:LEU:HB3	17:AF:347:ARG:HH11	1.82	0.44
19:AG:48:ALA:HB2	19:AG:149:PRO:HB2	1.99	0.44
19:AG:91:VAL:CG1	19:AG:95:ARG:HE	2.31	0.44
22:AJ:201:SER:HA	22:AJ:206:ILE:HD11	1.99	0.44
28:AP:109:ILE:HB	28:AP:122:CYS:SG	2.57	0.44
28:AP:173:ASN:HA	31:BS:157:ASN:HD21	1.74	0.44
29:AQ:148:THR:HG22	29:AQ:150:THR:H	1.82	0.44
22:AJ:96:LEU:HD11	29:AQ:58:GLU:HB3	1.99	0.44
23:AK:104:ASN:OD1	30:AR:57:ARG:NH2	2.51	0.44
31:AS:27:THR:HB	31:AS:40:SER:H	1.82	0.44
1:AU:161:ASP:OD1	1:AU:162:VAL:N	2.51	0.44
2:AV:27:PRO:O	2:AV:30:PRO:HD2	2.18	0.44
2:AV:30:PRO:HA	2:AV:33:GLN:HB2	2.00	0.44
3:AW:219:THR:HA	3:AW:220:GLU:HB3	2.00	0.44
6:AZ:54:PHE:HB2	6:AZ:78:MET:SD	2.58	0.44
14:BB:258:LYS:O	14:BB:296:ASP:HB2	2.18	0.44
14:BB:310:LEU:O	14:BB:313:LEU:HB3	2.18	0.44
18:BC:155:ASP:OD1	18:BC:155:ASP:N	2.51	0.44
18:BC:167:LEU:HD22	18:BC:175:PHE:CE2	2.52	0.44
15:BD:237:GLN:HG3	15:BD:242:GLU:HG2	1.98	0.44
16:BE:147:GLU:O	16:BE:151:LEU:HB3	2.17	0.44
16:BE:180:LYS:HG3	16:BE:181:THR:N	2.29	0.44
15:BD:239:TYR:HE2	16:BE:75:ASN:O	2.00	0.44
20:BH:111:VAL:HG21	20:BH:147:PHE:HD2	1.81	0.44
21:BI:164:ILE:HA	21:BI:165:GLY:HA2	1.65	0.44
21:BI:3:ARG:H	24:BL:123:TYR:HH	1.65	0.44
29:AQ:162:LYS:HG2	30:BR:141:ARG:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BV:161:PRO:O	2:BV:164:GLU:HB2	2.17	0.44
2:BV:27:PRO:O	2:BV:30:PRO:HD2	2.18	0.44
2:BV:30:PRO:HA	2:BV:33:GLN:HB2	2.00	0.44
2:BV:350:GLN:HB3	2:BV:353:LEU:HB3	1.98	0.44
4:BX:378:LEU:HA	4:BX:385:LEU:HA	2.00	0.44
5:BY:197:ALA:HB3	5:BY:226:VAL:HG21	1.98	0.44
5:BY:57:LEU:HD11	5:BY:62:ASP:HA	2.00	0.44
6:BZ:102:HIS:HD2	6:BZ:104:ASN:HB3	1.81	0.44
18:AC:307:ARG:O	18:AC:309:GLY:N	2.50	0.44
5:AY:179:ARG:HE	18:AC:340:ARG:NH2	2.16	0.44
18:AC:194:THR:HG21	18:AC:357:ALA:HB2	2.00	0.44
15:AD:388:ARG:HH22	16:AE:144:GLU:HA	1.83	0.44
15:AD:81:ARG:C	15:AD:82:ILE:HD12	2.37	0.44
24:AL:184:LEU:H	24:AL:184:LEU:HD12	1.82	0.44
29:AQ:65:GLN:O	29:AQ:69:MET:HG2	2.18	0.44
30:AR:104:TRP:CD2	30:AR:181:GLU:HA	2.53	0.44
1:AU:710:ARG:HA	1:AU:713:TYR:HD2	1.83	0.44
3:AW:124:LEU:O	3:AW:128:LEU:HD23	2.17	0.44
3:AW:144:ARG:HA	3:AW:147:LYS:HE2	1.99	0.44
3:AW:175:GLY:CA	16:AE:161:ARG:HE	2.31	0.44
14:BB:371:ARG:NH1	18:BC:176:GLU:OE2	2.46	0.44
18:BC:260:GLU:O	18:BC:263:SER:OG	2.26	0.44
18:BC:365:GLU:HA	18:BC:368:MET:HG2	1.99	0.44
18:BC:69:GLN:NE2	18:BC:72:TYR:OH	2.51	0.44
15:BD:172:ILE:HG13	15:BD:173:GLN:H	1.83	0.44
15:BD:371:SER:HA	15:BD:372:GLY:HA3	1.71	0.44
17:BF:97:LEU:HD22	17:BF:120:LYS:HE2	1.99	0.44
19:BG:210:PHE:CE1	19:BG:214:GLU:HB2	2.53	0.44
20:BH:123:GLN:HG3	21:BI:128:ARG:HB3	2.00	0.44
24:BL:43:HIS:HA	24:BL:137:TYR:OH	2.18	0.44
27:BO:216:ILE:HD13	28:BP:196:THR:HG23	2.00	0.44
29:BQ:140:LEU:O	29:BQ:144:ASP:HB3	2.18	0.44
1:BU:172:ASP:HA	1:BU:173:VAL:HB	2.00	0.44
2:BV:289:LEU:HA	2:BV:292:THR:HG22	2.00	0.44
2:BV:455:LYS:H	2:BV:456:GLY:HA2	1.81	0.44
2:BV:80:LYS:HA	2:BV:81:GLN:HB2	2.00	0.44
4:BX:306:LEU:HD11	4:BX:313:LEU:HG	2.00	0.44
6:BZ:225:GLN:NE2	6:BZ:229:GLN:HB2	2.33	0.44
14:AB:260:LEU:O	14:AB:260:LEU:HD12	2.17	0.43
18:AC:338:LEU:HA	18:AC:378:VAL:H	1.83	0.43
15:AD:117:SER:H	18:AC:59:LEU:HD11	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AE:140:GLU:O	16:AE:144:GLU:HB2	2.18	0.43
16:AE:210:GLU:O	16:AE:213:ARG:HG2	2.18	0.43
20:AH:44:VAL:HB	20:AH:213:CYS:HB2	1.99	0.43
24:AL:43:HIS:HA	24:AL:137:TYR:OH	2.18	0.43
24:AL:65:HIS:O	24:AL:89:ARG:NH1	2.51	0.43
28:AP:177:ARG:HG3	30:BR:26:ILE:CB	2.45	0.43
29:AQ:162:LYS:HA	30:BR:141:ARG:NH1	2.25	0.43
32:AT:180:ASP:O	26:BN:26:ILE:CG1	2.60	0.43
2:AV:100:MET:HG2	2:AV:102:PRO:HD2	1.99	0.43
3:AW:87:ILE:O	3:AW:88:MET:HB2	2.18	0.43
4:AX:173:GLU:O	4:AX:176:THR:HG22	2.17	0.43
4:AX:195:THR:HG21	18:AC:384:GLU:OE2	2.18	0.43
4:AX:360:ASP:HA	4:AX:363:ARG:NE	2.33	0.43
6:AZ:224:HIS:CB	6:AZ:225:GLN:HA	2.35	0.43
6:AZ:8:LYS:HG3	6:AZ:47:VAL:HG23	2.00	0.43
13:BA:74:PRO:HB2	13:BA:75:PRO:HD3	2.00	0.43
5:BY:179:ARG:HE	18:BC:340:ARG:NH2	2.16	0.43
15:BD:117:SER:H	18:BC:59:LEU:HD11	1.83	0.43
15:BD:81:ARG:HG2	15:BD:82:ILE:HD12	1.99	0.43
16:BE:134:GLU:HB3	16:BE:315:ILE:HD13	2.00	0.43
16:BE:138:LEU:HD23	16:BE:139:SER:N	2.32	0.43
17:BF:97:LEU:HD13	17:BF:120:LYS:CB	2.48	0.43
21:BI:108:GLU:O	21:BI:112:THR:HG23	2.17	0.43
25:BM:119:VAL:O	25:BM:123:THR:HG23	2.18	0.43
25:BM:36:ALA:HB1	25:BM:49:VAL:HG22	2.00	0.43
29:BQ:21:ALA:HB2	29:BQ:34:LYS:HZ1	1.82	0.43
1:BU:161:ASP:OD1	1:BU:162:VAL:N	2.51	0.43
2:BV:286:ALA:HB2	2:BV:315:LYS:HD3	2.00	0.43
3:BW:124:LEU:HA	3:BW:127:THR:HG22	1.99	0.43
3:BW:237:GLU:HG2	3:BW:238:GLY:H	1.83	0.43
3:BW:324:TYR:O	3:BW:327:GLU:HG2	2.18	0.43
5:BY:328:GLU:O	5:BY:331:ASP:HB3	2.18	0.43
13:AA:347:ASP:O	13:AA:351:ARG:HG3	2.17	0.43
14:AB:133:VAL:HG11	14:AB:158:ALA:HA	2.00	0.43
14:AB:193:GLN:HG2	14:AB:237:LYS:NZ	2.32	0.43
14:AB:319:PHE:HA	14:AB:320:ASP:HA	1.76	0.43
18:AC:255:GLY:H	18:AC:256:SER:HB2	1.82	0.43
18:AC:69:GLN:NE2	18:AC:72:TYR:OH	2.51	0.43
16:AE:145:LEU:HD11	16:AE:172:LEU:HD21	1.99	0.43
24:AL:166:GLN:HA	24:AL:169:ARG:HH11	1.82	0.43
28:AP:177:ARG:HD3	30:BR:26:ILE:CB	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AO:216:ILE:HD13	28:AP:196:THR:HG23	2.00	0.43
28:AP:66:ARG:O	28:AP:69:PHE:HB3	2.18	0.43
28:AP:74:TYR:CE2	28:AP:82:ILE:HG13	2.53	0.43
32:AT:178:TYR:C	26:BN:29:ARG:HE	2.21	0.43
2:AV:80:LYS:HA	2:AV:81:GLN:HB2	2.00	0.43
18:BC:84:LYS:HB3	18:BC:96:VAL:HG22	1.98	0.43
15:BD:207:PRO:HG2	15:BD:312:ASN:HA	2.01	0.43
15:BD:83:GLN:H	15:BD:83:GLN:HG2	1.69	0.43
16:BE:140:GLU:O	16:BE:144:GLU:HB2	2.18	0.43
16:BE:145:LEU:HD11	16:BE:172:LEU:HD21	1.99	0.43
16:BE:237:ALA:O	17:BF:304:ARG:NH1	2.51	0.43
17:BF:318:ASP:HB2	17:BF:347:ARG:NH1	2.34	0.43
19:BG:77:GLY:H	19:BG:141:ILE:CD1	2.31	0.43
25:BM:110:HIS:CE1	26:BN:70:LEU:HA	2.53	0.43
25:BM:200:VAL:HG22	25:BM:201:HIS:H	1.83	0.43
27:BO:20:ALA:O	27:BO:27:ALA:HB3	2.17	0.43
31:AS:144:MET:HE3	28:BP:147:TYR:N	2.14	0.43
29:AQ:166:GLU:CD	30:BR:140:ASP:CB	2.75	0.43
2:BV:279:GLN:NE2	2:BV:285:TRP:CD1	2.85	0.43
2:BV:363:LEU:HA	2:BV:378:VAL:HG11	1.99	0.43
3:BW:87:ILE:O	3:BW:88:MET:HB2	2.18	0.43
6:BZ:54:PHE:HB2	6:BZ:78:MET:SD	2.58	0.43
6:BZ:63:LYS:H	6:BZ:64:ASP:HB2	1.83	0.43
13:AA:410:LEU:O	13:AA:414:ASN:ND2	2.50	0.43
18:AC:124:HIS:ND1	18:AC:125:LYS:HG2	2.34	0.43
18:AC:137:LEU:O	18:AC:140:VAL:HG12	2.19	0.43
18:AC:250:GLU:O	18:AC:251:ILE:HG22	2.19	0.43
15:AD:258:ALA:HB1	15:AD:304:ASN:HB3	2.00	0.43
16:AE:287:PRO:HA	16:AE:290:LEU:HB2	1.99	0.43
16:AE:307:GLN:O	16:AE:310:LEU:HB3	2.18	0.43
16:AE:331:ILE:HD12	16:AE:371:VAL:HG11	1.99	0.43
21:AI:108:GLU:O	21:AI:112:THR:HG23	2.18	0.43
22:AJ:115:LYS:HE3	22:AJ:127:PHE:HB2	2.00	0.43
25:AM:200:VAL:HG22	25:AM:201:HIS:H	1.83	0.43
30:AR:141:ARG:HD2	29:BQ:162:LYS:HG2	2.01	0.43
32:AT:19:GLY:N	32:AT:120:SER:OG	2.51	0.43
1:AU:250:PHE:HA	1:AU:253:TYR:HB3	2.00	0.43
3:AW:70:VAL:O	3:AW:73:MET:HG2	2.19	0.43
4:AX:378:LEU:HA	4:AX:385:LEU:HA	2.00	0.43
5:AY:57:LEU:HD11	5:AY:62:ASP:HA	2.00	0.43
6:AZ:118:ASN:OD1	6:AZ:118:ASN:N	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AZ:63:LYS:H	6:AZ:64:ASP:HB2	1.83	0.43
13:BA:325:ASP:HB2	13:BA:326:THR:HA	1.99	0.43
15:BD:377:SER:O	15:BD:381:GLU:HG2	2.19	0.43
17:BF:244:THR:C	17:BF:246:ALA:H	2.22	0.43
20:BH:123:GLN:NE2	21:BI:128:ARG:O	2.51	0.43
20:BH:14:SER:OG	20:BH:18:LYS:N	2.51	0.43
22:BJ:115:LYS:HE3	22:BJ:127:PHE:HB2	2.00	0.43
23:BK:199:LEU:HA	23:BK:202:LEU:HB2	2.00	0.43
24:BL:193:ARG:HA	24:BL:196:ARG:CD	2.48	0.43
25:BM:201:HIS:CE1	25:BM:206:ASP:HB2	2.53	0.43
29:BQ:65:GLN:O	29:BQ:69:MET:HG2	2.18	0.43
31:BS:55:SER:OG	31:BS:56:GLY:N	2.51	0.43
27:AO:135:MET:CG	32:BT:179:ARG:CD	2.86	0.43
1:BU:28:ASN:HD22	1:BU:59:PHE:HZ	1.65	0.43
5:BY:138:LEU:HD12	5:BY:141:VAL:HB	2.01	0.43
15:AD:200:ARG:HH22	15:AD:300:ASP:CG	2.21	0.43
16:AE:238:ILE:O	16:AE:257:LEU:HD11	2.18	0.43
16:AE:345:ASN:ND2	17:AF:345:SER:CB	2.81	0.43
17:AF:244:THR:C	17:AF:246:ALA:H	2.22	0.43
19:AG:77:GLY:H	19:AG:141:ILE:CD1	2.31	0.43
23:AK:73:HIS:HA	23:AK:226:PHE:CE1	2.53	0.43
28:AP:147:TYR:N	31:BS:144:MET:HE3	2.09	0.43
29:AQ:172:ILE:O	29:BQ:172:ILE:O	2.36	0.43
30:AR:134:TYR:O	29:BQ:141:SER:CB	2.67	0.43
31:AS:148:LEU:HD23	31:AS:178:VAL:HG12	2.00	0.43
2:AV:246:GLY:O	2:AV:249:THR:OG1	2.29	0.43
3:AW:333:LEU:O	3:AW:333:LEU:HD12	2.17	0.43
4:AX:306:LEU:HD11	4:AX:313:LEU:HG	2.00	0.43
13:BA:299:MET:O	13:BA:302:LEU:HB3	2.19	0.43
13:BA:297:ARG:O	13:BA:301:GLU:HB3	2.18	0.43
18:BC:228:ALA:O	18:BC:230:MET:HG2	2.18	0.43
15:BD:231:VAL:HG13	16:BE:262:ASN:HD22	1.84	0.43
16:BE:238:ILE:O	16:BE:257:LEU:HD11	2.18	0.43
19:BG:91:VAL:CG1	19:BG:95:ARG:HE	2.31	0.43
20:BH:161:THR:OG1	20:BH:162:ALA:N	2.51	0.43
24:BL:166:GLN:HA	24:BL:169:ARG:HH11	1.82	0.43
28:BP:191:GLU:HG2	28:BP:194:LYS:O	2.18	0.43
29:BQ:46:CYS:HA	29:BQ:102:LEU:HB2	2.00	0.43
1:BU:471:ASP:OD1	1:BU:471:ASP:N	2.46	0.43
3:BW:122:LEU:HA	3:BW:125:ILE:HG22	2.01	0.43
4:BX:142:ARG:HD3	4:BX:145:GLU:HG3	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:BY:212:GLU:H	5:BY:212:GLU:HG2	1.57	0.43
13:AA:339:ARG:HA	13:AA:339:ARG:HD3	2.07	0.43
13:AA:355:PHE:CE1	13:AA:385:ILE:HB	2.54	0.43
14:AB:258:LYS:O	14:AB:296:ASP:HB2	2.18	0.43
14:AB:298:ASN:OD1	14:AB:298:ASN:N	2.49	0.43
20:AH:225:GLU:HA	20:AH:228:ASP:HB2	2.00	0.43
21:AI:22:GLU:O	21:AI:26:GLU:HG2	2.19	0.43
22:AJ:7:ILE:HD11	22:AJ:123:GLY:HA2	2.00	0.43
25:AM:119:VAL:O	25:AM:123:THR:HG23	2.18	0.43
32:AT:178:TYR:OH	32:AT:208:ASN:O	2.28	0.43
3:AW:122:LEU:HA	3:AW:125:ILE:HG22	2.01	0.43
3:AW:175:GLY:HA2	16:AE:161:ARG:HE	1.83	0.43
3:AW:237:GLU:HG2	3:AW:238:GLY:H	1.83	0.43
14:BB:133:VAL:HG11	14:BB:158:ALA:HA	2.00	0.43
15:BD:116:LEU:HD12	15:BD:140:VAL:HG22	2.01	0.43
15:BD:231:VAL:HB	15:BD:234:GLU:HB3	2.00	0.43
15:BD:99:ASN:H	15:BD:115:ILE:HD11	1.83	0.43
16:BE:309:ARG:HH12	16:BE:338:PHE:HB2	1.84	0.43
23:BK:73:HIS:HA	23:BK:226:PHE:CE1	2.53	0.43
24:BL:22:ILE:HG21	24:BL:150:SER:HB3	2.01	0.43
24:BL:88:MET:CE	24:BL:108:LEU:HD21	2.48	0.43
25:BM:158:TYR:HE1	25:BM:160:TYR:CZ	2.36	0.43
29:AQ:137:PHE:HB2	30:BR:133:VAL:HG21	1.99	0.43
1:BU:707:ASN:O	1:BU:711:GLN:HG2	2.17	0.43
1:BU:772:TRP:HB3	1:BU:775:LEU:HG	2.01	0.43
5:BY:174:TRP:CD1	18:BC:338:LEU:HB3	2.52	0.43
5:BY:377:LEU:O	5:BY:381:GLN:HG3	2.17	0.43
13:AA:273:PHE:HD1	13:AA:318:LEU:HB3	1.83	0.43
14:AB:258:LYS:HE3	14:AB:258:LYS:HB3	1.81	0.43
18:AC:168:PRO:HG2	18:AC:290:LYS:HE3	2.01	0.43
5:AY:177:ARG:NH2	18:AC:337:ASN:OD1	2.45	0.43
15:AD:100:THR:HA	15:AD:114:ARG:HA	2.00	0.43
15:AD:231:VAL:HB	15:AD:234:GLU:HB3	2.00	0.43
15:AD:81:ARG:HD3	15:AD:82:ILE:CD1	2.48	0.43
16:AE:309:ARG:HH12	16:AE:338:PHE:HB2	1.84	0.43
17:AF:165:PRO:HB2	17:AF:166:THR:OG1	2.19	0.43
17:AF:421:MET:HA	17:AF:424:ILE:HD12	2.00	0.43
23:AK:225:ASN:OD1	23:AK:225:ASN:N	2.52	0.43
24:AL:137:TYR:HE2	24:AL:215:VAL:HG13	1.82	0.43
25:AM:152:ASP:OD2	25:AM:154:SER:OG	2.37	0.43
25:AM:173:LYS:HA	25:AM:176:ILE:HD12	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AP:172:LEU:C	31:BS:157:ASN:HD21	2.10	0.43
28:AP:175:VAL:HG11	28:AP:182:GLY:HA2	2.00	0.43
29:AQ:21:ALA:HB2	29:AQ:34:LYS:HZ1	1.83	0.43
1:AU:172:ASP:HA	1:AU:173:VAL:HB	2.00	0.43
2:AV:487:HIS:NE2	6:AZ:267:ARG:HD3	2.32	0.43
13:BA:126:SER:N	13:BA:149:ILE:O	2.43	0.43
14:BB:343:ARG:HB2	14:BB:344:PRO:HD3	1.99	0.43
1:BU:144:ASP:HB3	18:BC:11:LEU:HD13	2.00	0.43
18:BC:250:GLU:O	18:BC:251:ILE:HG22	2.19	0.43
18:BC:285:ALA:HA	18:BC:286:THR:HA	1.82	0.43
4:BX:195:THR:HG21	18:BC:384:GLU:OE2	2.18	0.43
15:BD:279:THR:O	15:BD:282:ASP:HB3	2.19	0.43
15:BD:391:ARG:NH2	15:BD:393:ILE:O	2.44	0.43
15:BD:81:ARG:HD3	15:BD:82:ILE:CD1	2.48	0.43
17:BF:397:LYS:NZ	17:BF:408:LEU:HD21	18.46	0.43
17:BF:86:LEU:C	17:BF:88:TYR:H	2.20	0.43
19:BG:163:PHE:HD2	19:BG:166:THR:OG1	2.01	0.43
22:BJ:51:ALA:C	22:BJ:53:LEU:H	2.22	0.43
24:BL:184:LEU:HD12	24:BL:184:LEU:H	1.82	0.43
24:BL:65:HIS:O	24:BL:89:ARG:NH1	2.51	0.43
24:BL:92:CYS:O	24:BL:96:ARG:HB2	2.19	0.43
32:AT:179:ARG:N	26:BN:26:ILE:HD13	2.03	0.43
29:AQ:141:SER:CB	30:BR:134:TYR:O	2.65	0.43
6:BZ:224:HIS:CB	6:BZ:225:GLN:HA	2.35	0.43
17:AF:229:PRO:HA	17:AF:230:GLY:HA2	1.55	0.43
23:AK:199:LEU:HA	23:AK:202:LEU:HB2	2.00	0.43
24:AL:88:MET:CE	24:AL:108:LEU:HD21	2.48	0.43
24:AL:65:HIS:CD2	24:AL:221:PHE:HD2	2.37	0.43
24:AL:68:ASN:O	24:AL:220:GLU:HG2	2.18	0.43
25:AM:201:HIS:CE1	25:AM:206:ASP:HB2	2.53	0.43
31:AS:180:ILE:HG21	27:BO:195:LYS:HG2	1.99	0.43
1:AU:630:PRO:HG2	1:AU:663:THR:HG21	2.00	0.43
3:AW:124:LEU:HA	3:AW:127:THR:HG22	1.99	0.43
3:AW:55:ARG:NH1	3:AW:79:GLU:HG3	2.31	0.43
17:BF:356:MET:HE2	17:BF:362:ARG:HD3	2.00	0.43
19:BG:28:ALA:O	19:BG:31:ALA:N	2.52	0.43
23:BK:104:ASN:OD1	30:BR:57:ARG:NH2	2.51	0.43
32:BT:19:GLY:N	32:BT:120:SER:OG	2.51	0.43
1:BU:356:THR:HG22	1:BU:717:ILE:HG21	2.01	0.43
2:BV:182:LYS:HB3	2:BV:182:LYS:HE3	1.83	0.43
3:BW:219:THR:HA	3:BW:220:GLU:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BX:74:ARG:HH22	4:BX:116:TRP:HB2	1.84	0.43
13:AA:112:ILE:HB	13:AA:122:VAL:HG22	2.01	0.43
13:AA:299:MET:O	13:AA:302:LEU:HB3	2.19	0.43
13:AA:210:LYS:HB2	13:AA:336:ARG:O	2.19	0.43
14:AB:170:LEU:HD21	14:AB:270:LEU:HD23	1.99	0.43
14:AB:411:ARG:NH2	14:AB:415:THR:HG23	2.34	0.43
18:AC:228:ALA:O	18:AC:230:MET:HG2	2.18	0.43
15:AD:231:VAL:HG13	16:AE:262:ASN:HD22	1.84	0.43
15:AD:377:SER:O	15:AD:381:GLU:HG2	2.19	0.43
19:AG:27:TYR:HD1	19:AG:30:LYS:HE2	1.83	0.43
20:AH:71:HIS:CE1	20:AH:104:PRO:HB3	2.54	0.43
24:AL:193:ARG:HA	24:AL:196:ARG:CD	2.48	0.43
27:AO:181:ASN:OD1	27:AO:182:LYS:N	2.50	0.43
27:AO:208:THR:OG1	31:BS:159:GLN:C	2.57	0.43
27:AO:36:PHE:HA	27:AO:42:TYR:CD1	2.54	0.43
2:AV:254:LEU:HG	2:AV:258:TYR:HD2	1.84	0.43
3:AW:324:TYR:O	3:AW:327:GLU:HG2	2.18	0.43
6:AZ:33:LYS:HE3	6:AZ:33:LYS:HB3	1.88	0.43
13:BA:355:PHE:CE1	13:BA:385:ILE:HB	2.54	0.43
14:BB:103:ARG:HD2	14:BB:103:ARG:C	2.39	0.43
14:BB:229:GLY:HA3	18:BC:308:PRO:HG3	2.01	0.43
18:BC:203:VAL:O	18:BC:207:THR:OG1	2.28	0.43
18:BC:310:ARG:HA	18:BC:311:ILE:HA	1.74	0.43
15:BD:154:LEU:HD11	15:BD:157:ASP:OD2	2.19	0.43
15:BD:177:VAL:O	15:BD:181:VAL:HB	2.19	0.43
16:BE:211:SER:O	16:BE:215:ILE:HG12	2.19	0.43
17:BF:165:PRO:HB2	17:BF:166:THR:OG1	2.19	0.43
23:BK:146:VAL:HG11	23:BK:222:PRO:HA	2.01	0.43
20:BH:4:ARG:NH2	25:BM:127:ALA:H	2.17	0.43
31:BS:148:LEU:HD23	31:BS:178:VAL:HG12	2.00	0.43
1:BU:218:GLN:O	1:BU:221:ILE:HG13	2.18	0.43
1:BU:710:ARG:HA	1:BU:713:TYR:HD2	1.83	0.43
2:BV:254:LEU:HG	2:BV:258:TYR:HD2	1.84	0.43
3:BW:55:ARG:NH1	3:BW:75:TYR:O	2.52	0.43
5:BY:51:ALA:HA	5:BY:54:TYR:HD2	1.84	0.43
13:AA:97:ARG:HB3	14:AB:131:HIS:HD2	1.83	0.43
14:AB:219:PRO:HB2	14:AB:326:LYS:HZ2	1.83	0.43
18:AC:249:ASP:HA	18:AC:250:GLU:HA	1.63	0.43
18:AC:343:ASN:HB3	18:AC:346:LYS:HG2	1.99	0.43
15:AD:207:PRO:HG2	15:AD:312:ASN:HA	2.01	0.43
20:AH:191:ALA:HA	20:AH:194:THR:HG22	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AG:18:PRO:HA	20:AH:24:TYR:CZ	2.54	0.43
25:AM:229:LYS:NZ	25:AM:235:ALA:H	2.17	0.43
29:AQ:91:CYS:SG	29:AQ:97:PRO:HA	2.59	0.43
31:AS:157:ASN:HB3	28:BP:172:LEU:HB3	2.00	0.43
32:AT:4:PRO:HG3	32:AT:107:TRP:CD1	2.54	0.43
1:AU:218:GLN:O	1:AU:221:ILE:HG13	2.18	0.43
1:AU:401:LYS:HB2	1:AU:401:LYS:HE2	1.71	0.43
1:AU:92:ASP:HA	1:AU:97:VAL:HG21	2.01	0.43
2:AV:79:VAL:HG12	2:AV:161:PRO:HB2	2.01	0.43
5:AY:51:ALA:HA	5:AY:54:TYR:HD2	1.84	0.43
18:BC:100:ASP:CG	18:BC:122:THR:HB	2.39	0.43
18:BC:194:THR:O	18:BC:317:PHE:HZ	2.02	0.43
18:BC:169:VAL:HG21	18:BC:207:THR:HG21	2.01	0.43
18:BC:252:ASP:HB2	18:BC:294:ALA:O	2.18	0.43
3:BW:175:GLY:CA	16:BE:161:ARG:HE	2.31	0.43
20:BH:71:HIS:CE1	20:BH:104:PRO:HB3	2.54	0.43
21:BI:127:LYS:HB3	21:BI:127:LYS:HE3	1.87	0.43
22:BJ:7:ILE:HD11	22:BJ:123:GLY:HA2	2.00	0.43
25:BM:229:LYS:NZ	25:BM:235:ALA:H	2.17	0.43
1:BU:92:ASP:HA	1:BU:97:VAL:HG21	2.01	0.43
13:AA:191:VAL:HG23	13:AA:271:LEU:HD21	2.00	0.43
15:AD:389:GLU:HB3	15:AD:390:ASN:C	2.39	0.43
17:AF:226:TYR:HA	17:AF:332:THR:O	2.19	0.43
17:AF:323:ASN:OD1	17:AF:323:ASN:N	4.25	0.43
21:AI:76:VAL:HG21	21:AI:83:ALA:CB	2.49	0.43
22:AJ:118:TYR:HD1	22:AJ:124:ARG:HH21	1.67	0.43
29:AQ:46:CYS:HA	29:AQ:102:LEU:HB2	2.00	0.43
29:AQ:86:ARG:HD3	29:AQ:86:ARG:HA	1.85	0.43
3:AW:92:LYS:N	3:AW:93:ARG:HB3	2.23	0.43
5:AY:141:VAL:HG13	5:AY:160:ASN:ND2	2.33	0.43
5:AY:286:TRP:O	5:AY:287:LEU:HG	2.19	0.43
13:BA:191:VAL:HG23	13:BA:271:LEU:HD21	2.00	0.43
18:BC:124:HIS:ND1	18:BC:125:LYS:HG2	2.34	0.43
15:BD:117:SER:H	18:BC:59:LEU:CD1	2.32	0.43
15:BD:149:SER:OG	15:BD:150:SER:N	2.50	0.43
15:BD:170:MET:C	15:BD:172:ILE:H	2.22	0.43
16:BE:174:GLY:HA2	16:BE:176:PRO:HD2	2.00	0.43
17:BF:298:SER:HA	17:BF:299:GLU:HA	1.85	0.43
21:BI:22:GLU:O	21:BI:26:GLU:HG2	2.19	0.43
25:BM:40:ARG:HG2	25:BM:161:TRP:HA	2.01	0.43
28:BP:175:VAL:HG11	28:BP:182:GLY:HA2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BU:757:MET:HG3	1:BU:758:PRO:HD3	1.99	0.43
2:BV:171:VAL:O	2:BV:175:MET:HG3	2.19	0.43
3:BW:449:GLU:O	3:BW:453:HIS:ND1	2.44	0.43
13:AA:313:GLY:C	13:AA:315:ILE:H	2.23	0.42
18:AC:158:ILE:HG13	18:AC:162:LYS:HZ1	1.84	0.42
15:AD:117:SER:H	18:AC:59:LEU:CD1	2.32	0.42
15:AD:279:THR:O	15:AD:282:ASP:HB3	2.19	0.42
17:AF:97:LEU:HD22	17:AF:120:LYS:HE2	1.99	0.42
20:AH:161:THR:OG1	20:AH:162:ALA:N	2.51	0.42
23:AK:177:ALA:O	23:AK:181:LEU:HB3	2.20	0.42
24:AL:155:ASP:O	25:AM:58:TYR:HB2	2.19	0.42
24:AL:93:LEU:O	24:AL:97:PHE:HB2	2.19	0.42
19:AG:88:ARG:NH1	25:AM:157:SER:H	2.17	0.42
25:AM:36:ALA:HB1	25:AM:49:VAL:HG22	2.00	0.42
26:AN:7:GLN:HA	26:AN:12:VAL:HA	2.01	0.42
28:AP:191:GLU:HG2	28:AP:194:LYS:O	2.18	0.42
32:AT:1:THR:N	32:AT:105:PRO:O	2.37	0.42
3:AW:317:TRP:CD1	3:AW:358:VAL:HG21	2.54	0.42
5:AY:14:ASN:HD21	5:AY:214:MET:HA	1.84	0.42
5:AY:328:GLU:O	5:AY:331:ASP:HB3	2.18	0.42
13:BA:277:ILE:HG22	13:BA:321:THR:HB	2.00	0.42
14:BB:411:ARG:NH2	14:BB:415:THR:HG23	2.34	0.42
18:BC:170:LYS:C	18:BC:172:PRO:HD3	2.39	0.42
18:BC:327:ASP:O	18:BC:331:ILE:HG12	2.19	0.42
15:BD:100:THR:HA	15:BD:114:ARG:HA	2.00	0.42
16:BE:307:GLN:O	16:BE:310:LEU:HB3	2.18	0.42
19:BG:88:ARG:NH1	25:BM:157:SER:H	2.17	0.42
20:BH:191:ALA:HA	20:BH:194:THR:HG22	2.01	0.42
21:BI:34:CYS:H	21:BI:164:ILE:HG22	1.84	0.42
25:BM:152:ASP:OD2	25:BM:154:SER:OG	2.37	0.42
29:AQ:170:ARG:HD2	29:BQ:26:VAL:HG23	2.01	0.42
30:BR:40:TYR:CD1	30:BR:41:LEU:HG	2.54	0.42
2:BV:428:LEU:HD21	2:BV:434:ALA:N	2.33	0.42
4:BX:117:ALA:HB2	4:BX:125:LEU:HD23	2.01	0.42
6:BZ:22:HIS:HA	6:BZ:25:ARG:CG	2.48	0.42
13:AA:92:PRO:C	13:AA:93:LEU:CD1	2.86	0.42
18:AC:170:LYS:C	18:AC:172:PRO:HD3	2.39	0.42
18:AC:69:GLN:HG2	18:AC:69:GLN:O	2.19	0.42
15:AD:105:SER:OG	15:AD:107:THR:OG1	2.30	0.42
20:AH:4:ARG:NH2	25:AM:127:ALA:H	2.17	0.42
23:AK:42:THR:O	23:AK:45:GLY:N	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AL:92:CYS:O	24:AL:96:ARG:HB2	2.19	0.42
27:AO:195:LYS:NZ	31:BS:181:SER:CB	2.78	0.42
28:AP:45:MET:HE3	28:AP:71:LEU:HD23	2.01	0.42
32:AT:179:ARG:CD	27:BO:135:MET:CG	2.87	0.42
1:AU:250:PHE:HZ	1:AU:333:MET:SD	2.42	0.42
2:AV:360:TYR:O	2:AV:363:LEU:HB3	2.20	0.42
2:AV:433:ASP:OD1	2:AV:433:ASP:N	2.50	0.42
2:AV:80:LYS:HG3	2:AV:87:SER:HA	2.01	0.42
3:AW:449:GLU:O	3:AW:453:HIS:ND1	2.44	0.42
3:AW:55:ARG:NH1	3:AW:75:TYR:O	2.52	0.42
5:AY:267:ARG:HG3	5:AY:270:VAL:HG12	2.01	0.42
6:AZ:182:THR:H	6:AZ:183:THR:HA	1.84	0.42
13:BA:210:LYS:HB2	13:BA:336:ARG:O	2.19	0.42
14:BB:261:GLY:HA2	14:BB:262:ASP:CB	2.48	0.42
18:BC:194:THR:HG21	18:BC:357:ALA:HB2	2.00	0.42
16:BE:232:MET:HB2	16:BE:277:MET:HG2	2.01	0.42
17:BF:226:TYR:HA	17:BF:332:THR:O	2.19	0.42
19:BG:27:TYR:HD1	19:BG:30:LYS:HE2	1.83	0.42
26:BN:111:VAL:O	26:BN:122:ARG:HG3	2.19	0.42
1:BU:250:PHE:HA	1:BU:253:TYR:HB3	2.00	0.42
3:BW:257:GLN:HA	3:BW:258:ALA:CB	2.42	0.42
3:BW:441:LYS:HD2	3:BW:444:HIS:HE1	1.85	0.42
13:AA:97:ARG:HA	13:AA:98:CYS:HA	1.56	0.42
18:AC:324:ALA:O	18:AC:328:ILE:HG22	2.20	0.42
15:AD:162:VAL:HB	15:AD:166:ASP:OD2	2.20	0.42
29:AQ:140:LEU:O	29:AQ:144:ASP:HB3	2.18	0.42
2:AV:289:LEU:HA	2:AV:292:THR:HG22	2.00	0.42
2:AV:494:MET:HG3	6:AZ:278:ASN:ND2	2.27	0.42
4:AX:74:ARG:HH22	4:AX:116:TRP:HB2	1.84	0.42
4:AX:398:GLU:O	4:AX:402:GLU:HG3	2.19	0.42
14:BB:125:THR:HG22	14:BB:129:SER:OG	2.19	0.42
18:BC:338:LEU:HA	18:BC:378:VAL:H	1.83	0.42
18:BC:85:VAL:N	18:BC:97:VAL:O	2.52	0.42
15:BD:82:ILE:HG21	18:BC:63:LEU:CD2	2.49	0.42
16:BE:210:GLU:O	16:BE:213:ARG:HG2	2.18	0.42
17:BF:255:GLN:O	17:BF:258:GLN:NE2	2.49	0.42
19:BG:212:PRO:HG3	19:BG:236:ASP:HB2	2.02	0.42
21:BI:143:TYR:HB2	21:BI:146:GLN:NE2	2.31	0.42
21:BI:76:VAL:HG21	21:BI:83:ALA:CB	2.49	0.42
22:BJ:130:SER:OG	22:BJ:149:PRO:HD3	2.19	0.42
25:BM:10:SER:HB3	25:BM:13:THR:HG23	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BT:5:MET:O	32:BT:7:THR:HG23	2.19	0.42
1:BU:371:ILE:HD12	1:BU:371:ILE:HA	1.92	0.42
1:BU:766:PHE:CD1	1:BU:776:SER:HA	2.55	0.42
2:BV:149:PRO:HG3	2:BV:203:LEU:HG	2.00	0.42
6:BZ:262:LEU:HA	6:BZ:265:LEU:HD22	2.00	0.42
13:AA:143:ASP:O	13:AA:147:TYR:N	2.51	0.42
13:AA:205:GLY:HA2	13:AA:206:ILE:CG2	2.49	0.42
14:AB:103:ARG:HD2	14:AB:103:ARG:C	2.39	0.42
14:AB:310:LEU:O	14:AB:313:LEU:HB3	2.18	0.42
14:AB:346:ARG:NH2	14:AB:348:ASP:HB3	2.34	0.42
18:AC:169:VAL:HG21	18:AC:207:THR:HG21	2.01	0.42
16:AE:232:MET:HB2	16:AE:277:MET:HG2	2.01	0.42
17:AF:228:PRO:HA	17:AF:229:PRO:HD3	1.92	0.42
17:AF:97:LEU:CD1	17:AF:120:LYS:CB	2.98	0.42
23:AK:11:GLY:O	23:AK:13:ASN:N	2.52	0.42
23:AK:69:GLU:HB2	23:AK:228:MET:CE	2.50	0.42
24:AL:161:ILE:O	24:AL:165:SER:OG	2.36	0.42
26:AN:111:VAL:O	26:AN:122:ARG:HG3	2.20	0.42
26:AN:20:THR:OG1	26:AN:33:LYS:NZ	2.20	0.42
30:AR:40:TYR:CD1	30:AR:41:LEU:HG	2.54	0.42
1:AU:740:GLY:HA3	1:AU:744:VAL:HG22	2.01	0.42
1:AU:82:LEU:O	1:AU:129:ARG:NE	2.52	0.42
2:AV:89:LYS:HD2	2:AV:93:PHE:HE2	1.83	0.42
4:AX:194:ARG:C	18:AC:385:MET:SD	2.98	0.42
13:BA:248:LYS:HA	13:BA:248:LYS:HD3	1.84	0.42
13:BA:256:MET:O	13:BA:259:GLU:HG2	2.19	0.42
13:BA:313:GLY:C	13:BA:315:ILE:H	2.23	0.42
18:BC:72:TYR:HB2	18:BC:116:LEU:HB3	2.02	0.42
18:BC:308:PRO:HG2	18:BC:310:ARG:HG2	2.01	0.42
15:BD:258:ALA:HA	15:BD:259:PRO:C	2.40	0.42
17:BF:323:ASN:OD1	17:BF:323:ASN:N	4.25	0.42
24:BL:208:LYS:HA	24:BL:226:ASP:OD1	2.19	0.42
31:AS:144:MET:HE3	28:BP:147:TYR:CB	2.13	0.42
21:BI:91:ARG:HD3	28:BP:76:LEU:HB3	2.01	0.42
28:BP:74:TYR:CE2	28:BP:82:ILE:HG13	2.54	0.42
29:BQ:186:ASN:HB2	29:BQ:189:HIS:NE2	2.35	0.42
29:BQ:91:CYS:SG	29:BQ:97:PRO:HA	2.59	0.42
2:BV:276:PHE:HA	2:BV:277:PRO:HD3	1.86	0.42
2:BV:360:TYR:O	2:BV:363:LEU:HB3	2.20	0.42
2:BV:59:ALA:HA	2:BV:60:ALA:C	2.40	0.42
2:BV:80:LYS:HG3	2:BV:87:SER:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BW:136:ILE:HD11	16:BE:161:ARG:NH1	2.35	0.42
3:BW:441:LYS:HA	3:BW:444:HIS:HE1	1.82	0.42
4:BX:398:GLU:O	4:BX:402:GLU:HG3	2.19	0.42
5:BY:210:SER:HB3	5:BY:213:LEU:CB	2.49	0.42
6:BZ:182:THR:H	6:BZ:183:THR:HA	1.84	0.42
6:BZ:8:LYS:HG3	6:BZ:47:VAL:HG23	2.00	0.42
14:AB:365:PHE:CE2	14:AB:380:LEU:HB3	2.54	0.42
14:AB:392:GLY:HA3	35:AB:501:ADP:C5	2.55	0.42
18:AC:262:GLY:O	18:AC:266:ASP:HB3	2.20	0.42
15:AD:312:ASN:OD1	16:AE:242:ARG:NH2	2.52	0.42
16:AE:312:ILE:O	16:AE:315:ILE:HG13	2.20	0.42
13:AA:309:PHE:CZ	17:AF:235:LEU:HA	2.48	0.42
17:AF:238:ARG:HE	17:AF:250:LYS:HG2	1.83	0.42
19:AG:28:ALA:O	19:AG:31:ALA:N	2.52	0.42
22:AJ:130:SER:OG	22:AJ:149:PRO:HD3	2.19	0.42
24:AL:22:ILE:HG21	24:AL:150:SER:HB3	2.00	0.42
24:AL:205:LEU:H	24:AL:209:ASN:HD21	1.67	0.42
25:AM:108:LEU:HD22	25:AM:139:SER:HB3	2.00	0.42
25:AM:231:ILE:O	25:AM:232:ARG:HB2	2.19	0.42
32:AT:34:ALA:O	26:BN:166:ARG:HD2	2.19	0.42
1:AU:356:THR:HG22	1:AU:717:ILE:HG21	2.01	0.42
1:AU:12:LEU:HB2	1:AU:44:LYS:HE3	2.02	0.42
1:AU:470:ASN:HA	1:AU:471:ASP:HA	1.76	0.42
1:AU:772:TRP:HB3	1:AU:775:LEU:HG	2.01	0.42
4:AX:117:ALA:HB2	4:AX:125:LEU:HD23	2.01	0.42
5:AY:138:LEU:HD12	5:AY:141:VAL:HB	2.01	0.42
6:AZ:120:VAL:HG23	6:AZ:138:TYR:O	2.19	0.42
6:AZ:262:LEU:HA	6:AZ:265:LEU:HD22	2.00	0.42
14:BB:300:GLY:HA2	14:BB:301:GLY:HA2	1.77	0.42
14:BB:394:ASP:O	14:BB:398:ILE:HG23	2.20	0.42
18:BC:137:LEU:O	18:BC:140:VAL:HG12	2.19	0.42
18:BC:168:PRO:HG2	18:BC:290:LYS:HE3	2.01	0.42
16:BE:309:ARG:NH1	16:BE:338:PHE:HB2	2.34	0.42
17:BF:294:LYS:HZ3	17:BF:340:PRO:HG2	1.85	0.42
17:BF:421:MET:HA	17:BF:424:ILE:HD12	2.00	0.42
19:BG:102:LYS:HB3	19:BG:102:LYS:HE3	1.86	0.42
23:BK:11:GLY:O	23:BK:13:ASN:N	2.52	0.42
24:BL:104:PRO:HG2	24:BL:107:ARG:HH11	1.85	0.42
27:AO:208:THR:HA	31:BS:159:GLN:HG3	1.72	0.42
32:BT:4:PRO:HG3	32:BT:107:TRP:CD1	2.54	0.42
3:BW:90:LEU:HA	3:BW:94:ARG:HD2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BX:360:ASP:HA	4:BX:363:ARG:NE	2.33	0.42
14:AB:103:ARG:HG2	14:AB:107:MET:CE	2.48	0.42
14:AB:125:THR:HG22	14:AB:129:SER:OG	2.19	0.42
14:AB:217:LYS:HB3	14:AB:217:LYS:HE3	1.83	0.42
18:AC:167:LEU:HB3	18:AC:168:PRO:HD3	2.01	0.42
15:AD:172:ILE:HG13	15:AD:173:GLN:H	1.83	0.42
17:AF:318:ASP:HB2	17:AF:347:ARG:NH1	2.33	0.42
21:AI:34:CYS:H	21:AI:164:ILE:HG22	1.84	0.42
21:AI:124:PHE:HB2	22:AJ:123:GLY:O	2.20	0.42
22:AJ:18:GLN:HA	22:AJ:21:TYR:HD2	1.85	0.42
23:AK:65:GLU:O	23:AK:65:GLU:HG2	2.19	0.42
25:AM:40:ARG:HG2	25:AM:161:TRP:HA	2.01	0.42
21:AI:91:ARG:HD3	28:AP:76:LEU:HB3	2.01	0.42
29:AQ:4:LEU:HD22	29:AQ:18:ASP:N	2.29	0.42
1:AU:766:PHE:CD1	1:AU:776:SER:HA	2.54	0.42
3:AW:175:GLY:HA2	16:AE:161:ARG:HD2	2.01	0.42
18:BC:84:LYS:HA	18:BC:98:ASP:HA	2.02	0.42
15:BD:243:GLY:HA3	15:BD:288:ILE:HD13	2.02	0.42
16:BE:174:GLY:C	16:BE:180:LYS:HZ1	2.23	0.42
17:BF:228:PRO:HA	17:BF:229:PRO:HD3	1.92	0.42
17:BF:344:ARG:HB3	17:BF:347:ARG:HB2	2.01	0.42
25:BM:173:LYS:HA	25:BM:176:ILE:HD12	2.01	0.42
3:BW:317:TRP:CD1	3:BW:358:VAL:HG21	2.54	0.42
3:BW:70:VAL:O	3:BW:73:MET:HG2	2.18	0.42
5:BY:109:GLU:HG2	5:BY:124:PHE:HE1	1.82	0.42
13:AA:184:ILE:O	13:AA:188:ARG:CB	2.68	0.42
14:AB:233:THR:HG23	35:AB:501:ADP:N7	2.34	0.42
18:AC:194:THR:O	18:AC:317:PHE:HZ	2.02	0.42
15:AD:303:VAL:HA	15:AD:304:ASN:CB	2.42	0.42
23:AK:79:SER:O	23:AK:139:VAL:HG23	2.20	0.42
29:AQ:4:LEU:HD22	29:AQ:17:SER:HA	2.02	0.42
29:AQ:29:LYS:HD3	29:AQ:32:HIS:HB2	2.01	0.42
2:AV:59:ALA:HA	2:AV:60:ALA:C	2.40	0.42
3:AW:192:LEU:O	3:AW:196:VAL:HG23	2.20	0.42
5:AY:85:ASP:HA	5:AY:88:LEU:CD2	2.50	0.42
6:AZ:190:ARG:O	6:AZ:193:ASN:HB2	2.20	0.42
6:AZ:37:GLY:HA3	6:AZ:95:TYR:CZ	2.54	0.42
13:BA:112:ILE:HB	13:BA:122:VAL:HG22	2.01	0.42
4:BX:194:ARG:C	18:BC:385:MET:SD	2.98	0.42
15:BD:311:THR:HG21	15:BD:317:LEU:HD11	2.01	0.42
15:BD:389:GLU:HB3	15:BD:390:ASN:C	2.39	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BD:312:ASN:OD1	16:BE:242:ARG:NH2	2.52	0.42
13:BA:309:PHE:CZ	17:BF:235:LEU:HA	2.48	0.42
17:BF:264:GLY:HA2	17:BF:267:LEU:HB2	2.01	0.42
21:BI:35:LEU:CA	21:BI:162:THR:HG21	2.46	0.42
22:BJ:118:TYR:HD1	22:BJ:124:ARG:HH21	1.67	0.42
24:BL:161:ILE:O	24:BL:165:SER:OG	2.36	0.42
30:AR:26:ILE:CB	28:BP:177:ARG:HG3	2.42	0.42
28:AP:203:ARG:NH1	30:BR:193:ALA:HB3	2.34	0.42
1:BU:250:PHE:HZ	1:BU:333:MET:SD	2.42	0.42
2:BV:79:VAL:HG12	2:BV:161:PRO:HB2	2.01	0.42
2:BV:245:ASP:OD2	2:BV:281:ASN:ND2	2.51	0.42
2:BV:99:ARG:HG3	2:BV:143:ALA:O	2.20	0.42
4:BX:331:LEU:HD23	4:BX:364:LYS:HG2	2.01	0.42
5:BY:215:ASP:OD2	5:BY:218:THR:HG23	2.20	0.42
6:BZ:120:VAL:HG23	6:BZ:138:TYR:O	2.19	0.42
13:AA:312:ARG:HA	13:AA:313:GLY:HA2	1.43	0.42
14:AB:409:GLU:OE1	14:AB:411:ARG:NE	2.44	0.42
15:AD:194:ILE:HD12	15:AD:196:ILE:HD13	2.02	0.42
15:AD:226:ALA:O	15:AD:261:ILE:HB	2.20	0.42
15:AD:258:ALA:HA	15:AD:259:PRO:C	2.40	0.42
15:AD:173:GLN:OE1	15:AD:333:PHE:HA	2.20	0.42
17:AF:317:LEU:O	17:AF:344:ARG:NH1	2.53	0.42
24:AL:85:CYS:SG	24:AL:89:ARG:NH2	2.93	0.42
25:AM:10:SER:HB3	25:AM:13:THR:HG23	2.01	0.42
26:AN:42:PHE:CD2	26:AN:179:ILE:HD11	2.54	0.42
29:AQ:59:TYR:O	29:AQ:63:ASN:ND2	2.43	0.42
30:AR:13:ILE:HA	30:AR:13:ILE:HD13	1.89	0.42
32:AT:180:ASP:O	26:BN:26:ILE:HG12	2.20	0.42
13:BA:219:GLY:HA2	13:BA:220:THR:HA	1.48	0.42
17:BF:345:SER:HA	17:BF:349:ASP:HB2	2.01	0.42
19:BG:197:THR:HA	19:BG:200:THR:OG1	2.18	0.42
24:BL:52:ALA:HB2	24:BL:59:HIS:HD2	1.84	0.42
24:BL:65:HIS:CD2	24:BL:221:PHE:HD2	2.37	0.42
26:BN:144:ARG:H	26:BN:147:MET:HE3	1.85	0.42
27:BO:36:PHE:HA	27:BO:42:TYR:CD1	2.54	0.42
29:BQ:85:ARG:HB2	29:BQ:124:LEU:HD11	2.02	0.42
2:BV:100:MET:O	2:BV:104:THR:HG23	2.20	0.42
3:BW:434:SER:HA	6:BZ:237:LEU:HD22	2.00	0.42
5:BY:210:SER:HB3	5:BY:213:LEU:HG	2.02	0.42
5:BY:286:TRP:C	5:BY:288:PHE:H	2.23	0.42
5:BY:330:ILE:HA	5:BY:333:GLU:HB3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BZ:37:GLY:HA3	6:BZ:95:TYR:CZ	2.54	0.42
14:AB:123:VAL:O	14:AB:130:GLU:HA	2.20	0.42
14:AB:394:ASP:O	14:AB:398:ILE:HG23	2.20	0.42
18:AC:100:ASP:CG	18:AC:122:THR:HB	2.39	0.42
15:AD:402:ALA:HA	15:AD:405:THR:HB	2.02	0.42
16:AE:309:ARG:NH1	16:AE:338:PHE:HB2	2.34	0.42
16:AE:75:ASN:C	16:AE:77:PRO:HD2	2.40	0.42
17:AF:366:MET:HG3	17:AF:396:CYS:HB3	2.02	0.42
19:AG:195:VAL:O	19:AG:199:ILE:HD12	2.20	0.42
21:AI:127:LYS:HB3	21:AI:127:LYS:HE3	1.87	0.42
21:AI:218:ARG:HA	21:AI:218:ARG:HD2	1.88	0.42
28:AP:16:GLY:HA3	28:AP:163:LEU:HD22	2.01	0.42
1:AU:383:ASP:OD2	1:AU:387:ARG:NH2	2.53	0.42
2:AV:171:VAL:O	2:AV:175:MET:HG3	2.19	0.42
3:AW:434:SER:HA	6:AZ:237:LEU:HD22	2.00	0.42
4:AX:221:GLU:HB3	4:AX:223:LYS:HG2	2.02	0.42
5:AY:208:PHE:HB3	5:AY:209:THR:H	1.55	0.42
5:AY:286:TRP:C	5:AY:288:PHE:H	2.23	0.42
13:BA:105:ASP:OD1	13:BA:105:ASP:N	2.45	0.42
13:BA:344:SER:N	13:BA:345:LEU:HB2	2.35	0.42
13:BA:428:ARG:NH2	13:BA:431:THR:HG21	2.35	0.42
13:BA:427:PRO:O	13:BA:430:MET:HB3	2.19	0.42
13:BA:83:ASP:HA	13:BA:86:THR:HB	2.01	0.42
14:BB:230:THR:HA	35:BB:501:ADP:O1A	2.20	0.42
14:BB:255:LEU:HG	14:BB:255:LEU:H	1.68	0.42
14:BB:409:GLU:OE1	14:BB:411:ARG:NE	2.44	0.42
14:BB:390:LEU:HD21	14:BB:430:LYS:NZ	2.35	0.42
18:BC:262:GLY:O	18:BC:266:ASP:HB3	2.19	0.42
15:BD:226:ALA:O	15:BD:261:ILE:HB	2.20	0.42
16:BE:310:LEU:O	16:BE:314:LYS:NZ	2.41	0.42
23:BK:13:ASN:OD1	24:BL:126:ARG:NH1	2.48	0.42
26:BN:42:PHE:CD2	26:BN:179:ILE:HD11	2.54	0.42
1:BU:740:GLY:HA3	1:BU:744:VAL:HG22	2.01	0.42
2:BV:279:GLN:HB2	2:BV:285:TRP:CG	2.55	0.42
2:BV:296:LYS:HZ1	2:BV:308:THR:HG21	1.85	0.42
3:BW:328:LEU:HD11	3:BW:341:PHE:CE2	2.52	0.42
5:BY:297:ARG:O	5:BY:301:ILE:HG22	2.20	0.42
6:BZ:30:GLY:HA3	6:BZ:31:ASN:HA	1.79	0.42
14:AB:224:LEU:HD13	14:AB:234:LEU:HB3	2.01	0.42
14:AB:390:LEU:HD21	14:AB:430:LYS:NZ	2.35	0.42
18:AC:269:VAL:O	18:AC:272:THR:HB	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AB:229:GLY:HA3	18:AC:308:PRO:HG3	2.01	0.42
15:AD:82:ILE:HG21	18:AC:63:LEU:CD2	2.49	0.42
15:AD:100:THR:HG21	15:AD:112:TYR:OH	2.20	0.42
17:AF:251:LEU:HD12	17:AF:252:ALA:H	1.85	0.42
29:AQ:85:ARG:HB2	29:AQ:124:LEU:HD11	2.02	0.42
31:AS:81:LYS:HE3	31:AS:81:LYS:HB2	1.87	0.42
1:AU:127:ASP:O	1:AU:131:GLU:HG2	2.19	0.42
1:AU:264:VAL:HG22	1:AU:268:LEU:HD22	2.02	0.42
1:AU:682:TYR:HB3	1:AU:725:MET:SD	2.59	0.42
2:AV:149:PRO:HG3	2:AV:203:LEU:HG	2.00	0.42
3:AW:127:THR:HA	3:AW:130:MET:HG2	2.02	0.42
4:AX:368:MET:HB3	4:AX:374:PHE:HB3	2.02	0.42
4:AX:420:LYS:NZ	6:AZ:279:LYS:HD2	2.35	0.42
5:AY:330:ILE:HA	5:AY:333:GLU:HB3	2.02	0.42
5:AY:387:ILE:HA	5:AY:388:ASN:HA	1.54	0.42
14:BB:220:LYS:HB3	14:BB:346:ARG:CZ	2.50	0.42
14:BB:392:GLY:HA3	35:BB:501:ADP:C5	2.55	0.42
18:BC:324:ALA:O	18:BC:328:ILE:HG22	2.20	0.42
18:BC:69:GLN:HG2	18:BC:69:GLN:O	2.19	0.42
15:BD:402:ALA:HA	15:BD:405:THR:HB	2.02	0.42
34:BE:401:ATP:H4'	17:BF:344:ARG:HE	1.84	0.42
19:BG:144:ASP:OD1	19:BG:145:GLU:N	2.45	0.42
21:BI:124:PHE:HB2	22:BJ:123:GLY:O	2.20	0.42
23:BK:185:TYR:CG	23:BK:186:HIS:N	2.88	0.42
23:BK:225:ASN:OD1	23:BK:225:ASN:N	2.52	0.42
28:BP:16:GLY:HA3	28:BP:163:LEU:HD22	2.01	0.42
30:AR:26:ILE:CG2	28:BP:176:ASP:O	2.56	0.42
29:AQ:166:GLU:CG	30:BR:141:ARG:HB2	2.48	0.42
1:BU:127:ASP:O	1:BU:131:GLU:HG2	2.19	0.42
1:BU:612:ASP:HB3	1:BU:647:HIS:CG	2.55	0.42
2:BV:392:TYR:O	2:BV:395:ILE:HG22	2.19	0.42
14:AB:261:GLY:HA2	14:AB:262:ASP:CB	2.48	0.41
18:AC:72:TYR:HB2	18:AC:116:LEU:HB3	2.01	0.41
16:AE:211:SER:O	16:AE:215:ILE:HG12	2.19	0.41
21:AI:185:THR:HG1	21:AI:188:SER:HG	1.66	0.41
22:AJ:51:ALA:C	22:AJ:53:LEU:H	2.22	0.41
23:AK:146:VAL:HG11	23:AK:222:PRO:HA	2.01	0.41
23:AK:185:TYR:CG	23:AK:186:HIS:N	2.88	0.41
28:AP:152:SER:CB	31:BS:148:LEU:CD2	2.96	0.41
29:AQ:13:VAL:O	29:AQ:182:ILE:HD12	2.21	0.41
31:AS:136:LYS:HA	31:AS:136:LYS:HD3	1.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AS:159:GLN:HG3	27:BO:208:THR:HA	1.69	0.41
32:AT:27:LEU:HD22	32:AT:184:TYR:HB3	2.02	0.41
1:AU:17:PRO:O	1:AU:20:LYS:N	2.53	0.41
1:AU:364:VAL:HG12	1:AU:728:PHE:CD1	2.55	0.41
2:AV:276:PHE:HA	2:AV:277:PRO:HD3	1.86	0.41
2:AV:363:LEU:O	2:AV:367:VAL:HG23	2.20	0.41
3:AW:441:LYS:HD2	3:AW:444:HIS:HE1	1.84	0.41
3:AW:90:LEU:HA	3:AW:94:ARG:HD2	2.01	0.41
5:AY:143:TYR:HA	5:AY:146:ARG:HG2	2.01	0.41
5:AY:297:ARG:O	5:AY:301:ILE:HG22	2.20	0.41
13:BA:232:ARG:HA	13:BA:232:ARG:HD2	1.85	0.41
14:BB:346:ARG:NH2	14:BB:348:ASP:HB3	2.34	0.41
18:BC:167:LEU:HB3	18:BC:168:PRO:HD3	2.01	0.41
3:BW:175:GLY:HA2	16:BE:161:ARG:HD2	2.01	0.41
17:BF:252:ALA:HB3	17:BF:255:GLN:CG	2.49	0.41
17:BF:317:LEU:O	17:BF:344:ARG:NH1	2.53	0.41
17:BF:360:GLU:O	17:BF:364:ARG:HG3	2.20	0.41
17:BF:366:MET:HG3	17:BF:396:CYS:HB3	2.02	0.41
23:BK:65:GLU:O	23:BK:65:GLU:HG2	2.19	0.41
24:BL:205:LEU:H	24:BL:209:ASN:HD21	1.67	0.41
25:BM:231:ILE:O	25:BM:232:ARG:HB2	2.19	0.41
31:AS:175:VAL:N	27:BO:199:LEU:CD2	2.83	0.41
31:BS:136:LYS:HD3	31:BS:136:LYS:HA	1.89	0.41
1:BU:383:ASP:OD2	1:BU:387:ARG:NH2	2.53	0.41
1:BU:396:ALA:HB1	1:BU:400:ALA:CB	2.50	0.41
1:BU:682:TYR:HB3	1:BU:725:MET:SD	2.59	0.41
3:BW:123:ARG:NH1	3:BW:127:THR:HB	2.29	0.41
13:AA:233:THR:HG23	13:AA:234:ASP:H	1.85	0.41
13:AA:428:ARG:NH2	13:AA:431:THR:HG21	2.35	0.41
13:AA:90:GLU:CG	13:AA:94:GLN:NE2	2.75	0.41
14:AB:380:LEU:HD12	14:AB:381:ASP:N	2.35	0.41
18:AC:267:SER:O	18:AC:271:ARG:HB2	2.20	0.41
18:AC:277:LEU:O	18:AC:281:ASP:CB	2.68	0.41
15:AD:116:LEU:HD12	15:AD:140:VAL:HG22	2.01	0.41
15:AD:154:LEU:HD11	15:AD:157:ASP:OD2	2.19	0.41
15:AD:243:GLY:HA3	15:AD:288:ILE:HD13	2.02	0.41
15:AD:47:LEU:HD12	18:AC:25:LEU:HB3	2.02	0.41
15:AD:62:LYS:O	15:AD:66:LYS:HG3	2.20	0.41
15:AD:81:ARG:NE	15:AD:82:ILE:CD1	2.76	0.41
15:AD:83:GLN:HG2	15:AD:83:GLN:H	1.69	0.41
3:AW:136:ILE:HD11	16:AE:161:ARG:NH1	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AU:612:ASP:HB3	1:AU:647:HIS:CG	2.55	0.41
2:AV:372:LEU:HD13	2:AV:426:LEU:O	2.21	0.41
13:BA:241:ILE:H	13:BA:241:ILE:HG12	1.68	0.41
14:BB:224:LEU:HD13	14:BB:234:LEU:HB3	2.01	0.41
14:BB:425:ASN:O	14:BB:429:LYS:CB	2.64	0.41
18:BC:131:VAL:HG13	18:BC:132:ASP:N	2.32	0.41
19:BG:183:VAL:HA	19:BG:189:TRP:HZ2	1.85	0.41
21:BI:108:GLU:OE2	21:BI:146:GLN:NE2	2.49	0.41
23:BK:177:ALA:O	23:BK:181:LEU:HB3	2.19	0.41
23:BK:69:GLU:HB2	23:BK:228:MET:CE	2.50	0.41
24:BL:155:ASP:O	25:BM:58:TYR:HB2	2.19	0.41
25:BM:163:CYS:SG	25:BM:164:ALA:N	2.94	0.41
30:AR:26:ILE:CB	28:BP:177:ARG:HD3	2.48	0.41
30:AR:158:ARG:CG	29:BQ:145:ARG:HD3	2.05	0.41
1:BU:82:LEU:O	1:BU:129:ARG:NE	2.52	0.41
2:BV:464:ILE:HB	2:BV:465:ASP:H	1.77	0.41
4:BX:203:PRO:HB2	4:BX:204:PRO:C	2.41	0.41
5:BY:208:PHE:HB3	5:BY:209:THR:H	1.55	0.41
13:AA:256:MET:O	13:AA:259:GLU:HG2	2.19	0.41
13:AA:427:PRO:O	13:AA:430:MET:HB3	2.19	0.41
15:AD:228:ILE:HB	15:AD:262:ILE:HA	2.01	0.41
15:AD:311:THR:HG21	15:AD:317:LEU:HD11	2.01	0.41
16:AE:180:LYS:HG3	16:AE:181:THR:N	2.30	0.41
16:AE:371:VAL:O	16:AE:375:ALA:HB3	2.20	0.41
17:AF:294:LYS:HZ3	17:AF:340:PRO:HG2	1.85	0.41
19:AG:179:LEU:O	19:AG:182:LYS:N	2.53	0.41
21:AI:233:VAL:O	21:AI:237:ILE:HG13	2.21	0.41
23:AK:14:THR:HG23	24:AL:21:GLN:OE1	2.20	0.41
23:AK:186:HIS:CE1	23:AK:188:SER:HG	2.37	0.41
24:AL:208:LYS:HA	24:AL:226:ASP:OD1	2.20	0.41
24:AL:52:ALA:HB2	24:AL:59:HIS:HD2	1.84	0.41
26:AN:33:LYS:O	26:AN:44:CYS:HA	2.21	0.41
26:AN:96:ALA:H	26:AN:116:MET:HG2	1.85	0.41
28:AP:56:LEU:O	28:AP:60:VAL:HG23	2.20	0.41
2:AV:79:VAL:O	2:AV:80:LYS:NZ	2.26	0.41
4:AX:331:LEU:HD23	4:AX:364:LYS:HG2	2.02	0.41
6:AZ:22:HIS:HA	6:AZ:25:ARG:CG	2.48	0.41
6:AZ:77:ASN:O	6:AZ:81:MET:HG3	2.20	0.41
13:BA:195:LEU:HD21	13:BA:232:ARG:CZ	2.50	0.41
13:BA:387:SER:HA	13:BA:390:THR:HB	2.01	0.41
14:BB:233:THR:HG23	35:BB:501:ADP:N7	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:BC:159:LYS:HA	18:BC:162:LYS:HE2	2.02	0.41
15:BD:162:VAL:HB	15:BD:166:ASP:OD2	2.20	0.41
15:BD:173:GLN:OE1	15:BD:333:PHE:HA	2.20	0.41
17:BF:97:LEU:CD1	17:BF:120:LYS:CB	2.98	0.41
17:BF:153:VAL:HB	17:BF:160:ILE:HG13	2.01	0.41
17:BF:184:GLN:HG2	17:BF:186:SER:H	1.86	0.41
17:BF:231:THR:HG22	17:BF:233:LYS:H	1.85	0.41
13:BA:121:PHE:HA	17:BF:88:TYR:O	2.20	0.41
19:BG:195:VAL:O	19:BG:199:ILE:HD12	2.20	0.41
19:BG:89:SER:OG	25:BM:120:HIS:ND1	2.48	0.41
22:BJ:104:VAL:HG23	22:BJ:133:ILE:HG22	2.02	0.41
23:BK:228:MET:HG3	23:BK:229:PHE:N	2.29	0.41
26:BN:7:GLN:HA	26:BN:12:VAL:HA	2.01	0.41
26:BN:96:ALA:H	26:BN:116:MET:HG2	1.85	0.41
31:AS:181:SER:CB	27:BO:195:LYS:NZ	2.75	0.41
2:BV:186:LYS:NZ	2:BV:234:ARG:HD3	2.35	0.41
5:BY:143:TYR:HA	5:BY:146:ARG:HG2	2.01	0.41
5:BY:14:ASN:HD21	5:BY:214:MET:HA	1.84	0.41
5:BY:221:THR:HA	5:BY:224:VAL:HG12	2.03	0.41
5:BY:286:TRP:O	5:BY:287:LEU:HG	2.19	0.41
4:BX:420:LYS:NZ	6:BZ:279:LYS:HD2	2.35	0.41
13:AA:83:ASP:HA	13:AA:86:THR:HB	2.01	0.41
18:AC:131:VAL:HG13	18:AC:132:ASP:N	2.32	0.41
18:AC:159:LYS:HA	18:AC:162:LYS:HE2	2.02	0.41
18:AC:273:MET:O	18:AC:277:LEU:HG	2.20	0.41
17:AF:97:LEU:HD13	17:AF:120:LYS:CB	2.48	0.41
19:AG:183:VAL:HA	19:AG:189:TRP:HZ2	1.85	0.41
19:AG:212:PRO:HG3	19:AG:236:ASP:HB2	2.01	0.41
20:AH:72:ILE:HG23	20:AH:137:CYS:O	2.20	0.41
21:AI:168:SER:O	21:AI:172:VAL:HG23	2.20	0.41
21:AI:239:LYS:NZ	21:AI:243:GLU:OE2	2.43	0.41
25:AM:163:CYS:SG	25:AM:164:ALA:N	2.94	0.41
31:AS:150:ASP:HB3	31:AS:156:LYS:HD2	2.01	0.41
2:AV:186:LYS:NZ	2:AV:234:ARG:HD3	2.35	0.41
2:AV:302:TYR:O	2:AV:306:ARG:N	2.43	0.41
2:AV:475:ALA:HA	2:AV:478:GLN:OE1	2.21	0.41
13:BA:283:ALA:HA	13:BA:284:ARG:HA	1.75	0.41
14:BB:333:ARG:HG2	14:BB:335:GLU:H	1.86	0.41
14:BB:380:LEU:HD12	14:BB:381:ASP:N	2.35	0.41
18:BC:249:ASP:HA	18:BC:250:GLU:HA	1.63	0.41
18:BC:239:ARG:NH1	18:BC:284:GLU:OE1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BD:314:ALA:HA	15:BD:317:LEU:HG	2.02	0.41
15:BD:62:LYS:O	15:BD:66:LYS:HG3	2.20	0.41
16:BE:379:LYS:O	16:BE:382:SER:OG	2.29	0.41
16:BE:75:ASN:C	16:BE:77:PRO:HD2	2.40	0.41
17:BF:381:TYR:HA	17:BF:384:LEU:HD11	2.02	0.41
19:BG:18:PRO:HA	20:BH:24:TYR:CZ	2.54	0.41
22:BJ:18:GLN:HA	22:BJ:21:TYR:HD2	1.85	0.41
24:BL:196:ARG:HE	24:BL:239:ARG:HH21	1.69	0.41
29:BQ:4:LEU:HD22	29:BQ:17:SER:HA	2.02	0.41
29:BQ:29:LYS:HD3	29:BQ:32:HIS:HB2	2.01	0.41
1:BU:444:TYR:CE1	1:BU:479:LEU:HD23	2.55	0.41
1:BU:500:ASN:HA	1:BU:503:GLN:HG2	2.02	0.41
2:BV:148:ARG:H	2:BV:148:ARG:HG2	1.69	0.41
3:BW:91:SER:HB2	3:BW:92:LYS:HA	2.02	0.41
4:BX:332:GLU:HA	4:BX:335:LEU:HB2	2.02	0.41
6:BZ:190:ARG:O	6:BZ:193:ASN:HB2	2.20	0.41
6:BZ:91:ILE:H	6:BZ:91:ILE:HG13	1.70	0.41
13:AA:112:ILE:HG13	13:AA:112:ILE:H	4.39	0.41
13:AA:387:SER:HA	13:AA:390:THR:HB	2.01	0.41
14:AB:150:VAL:HA	14:AB:162:VAL:HG12	2.01	0.41
14:AB:296:ASP:OD2	18:AC:268:GLU:HG3	2.21	0.41
15:AD:170:MET:C	15:AD:172:ILE:H	2.22	0.41
15:AD:241:GLY:O	15:AD:244:PRO:HD2	2.21	0.41
15:AD:89:ILE:O	15:AD:106:THR:OG1	2.25	0.41
16:AE:289:LEU:O	16:AE:295:LEU:HB2	2.20	0.41
17:AF:235:LEU:O	17:AF:239:ALA:HB2	2.21	0.41
17:AF:345:SER:HA	17:AF:349:ASP:HB2	2.01	0.41
23:AK:211:ASN:OD1	23:AK:214:ASN:N	2.51	0.41
29:AQ:170:ARG:HH11	29:BQ:22:ALA:HB2	1.82	0.41
1:AU:567:ILE:HD11	1:AU:585:THR:HB	2.02	0.41
2:AV:241:ARG:HG3	2:AV:242:HIS:N	2.35	0.41
2:AV:279:GLN:HB2	2:AV:285:TRP:CG	2.55	0.41
3:AW:40:LEU:HB2	3:AW:41:GLN:CA	2.41	0.41
4:AX:53:LEU:O	4:AX:57:LEU:HG	2.21	0.41
14:BB:123:VAL:O	14:BB:130:GLU:HA	2.20	0.41
18:BC:381:GLU:O	18:BC:385:MET:HG2	2.21	0.41
15:BD:194:ILE:HD12	15:BD:196:ILE:HD13	2.02	0.41
15:BD:373:ALA:HA	15:BD:374:ASP:HB3	2.03	0.41
15:BD:47:LEU:HD12	18:BC:25:LEU:HB3	2.02	0.41
21:BI:145:PHE:CZ	21:BI:218:ARG:HB2	2.42	0.41
24:BL:157:ARG:HG3	24:BL:176:MET:HE2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BN:33:LYS:O	26:BN:44:CYS:HA	2.21	0.41
32:BT:112:ILE:O	32:BT:123:GLY:N	2.39	0.41
32:BT:187:PHE:CE2	32:BT:205:THR:HG23	2.55	0.41
1:BU:364:VAL:HG12	1:BU:728:PHE:CD1	2.55	0.41
1:BU:12:LEU:HB2	1:BU:44:LYS:HE3	2.02	0.41
2:BV:194:LYS:O	2:BV:195:ILE:HD13	2.21	0.41
2:BV:160:LEU:HD22	2:BV:213:TYR:CD2	2.56	0.41
2:BV:363:LEU:O	2:BV:367:VAL:HG23	2.20	0.41
2:BV:372:LEU:HD13	2:BV:426:LEU:O	2.21	0.41
3:BW:192:LEU:O	3:BW:196:VAL:HG23	2.20	0.41
3:BW:254:PRO:HA	3:BW:257:GLN:HB2	2.02	0.41
4:BX:207:GLN:NE2	4:BX:211:ASP:OD1	2.45	0.41
6:BZ:241:SER:HB3	6:BZ:245:PHE:HB3	2.02	0.41
6:BZ:41:GLY:HA3	6:BZ:92:VAL:HB	2.02	0.41
13:AA:195:LEU:HD21	13:AA:232:ARG:CZ	2.50	0.41
18:AC:162:LYS:O	18:AC:166:GLU:CB	2.61	0.41
15:AD:130:VAL:HG21	15:AD:139:LEU:HD22	2.03	0.41
15:AD:154:LEU:C	15:AD:156:SER:H	2.24	0.41
15:AD:177:VAL:O	15:AD:181:VAL:HB	2.19	0.41
15:AD:261:ILE:HG12	15:AD:306:LYS:HB2	2.02	0.41
17:AF:153:VAL:HB	17:AF:160:ILE:HG13	2.01	0.41
13:AA:258:ARG:NH2	17:AF:255:GLN:HE22	2.19	0.41
17:AF:436:GLN:C	17:AF:438:TYR:H	2.24	0.41
23:AK:98:ASN:O	23:AK:101:PHE:HB2	2.21	0.41
25:AM:152:ASP:OD1	25:AM:156:VAL:N	2.49	0.41
25:AM:173:LYS:HA	25:AM:176:ILE:CD1	2.50	0.41
26:AN:45:ARG:HD2	26:AN:52:THR:OG1	2.21	0.41
28:AP:149:MET:HE2	31:BS:147:PRO:HB2	1.52	0.41
28:AP:93:ASN:O	28:AP:97:GLU:HG3	2.21	0.41
29:AQ:186:ASN:HB2	29:AQ:189:HIS:NE2	2.35	0.41
29:AQ:3:TYR:CG	29:AQ:4:LEU:N	2.89	0.41
31:AS:185:ARG:NH2	28:BP:147:TYR:HD1	1.86	0.41
32:AT:187:PHE:CE2	32:AT:205:THR:HG23	2.55	0.41
2:AV:392:TYR:O	2:AV:395:ILE:HG22	2.19	0.41
2:AV:99:ARG:HG3	2:AV:143:ALA:O	2.20	0.41
5:AY:182:VAL:HG11	5:AY:213:LEU:HD22	2.02	0.41
5:AY:210:SER:HB3	5:AY:213:LEU:HG	2.02	0.41
5:AY:221:THR:O	5:AY:224:VAL:HG12	2.20	0.41
15:BD:130:VAL:HG21	15:BD:139:LEU:HD22	2.03	0.41
15:BD:228:ILE:HB	15:BD:262:ILE:HA	2.01	0.41
16:BE:114:GLU:N	16:BE:221:TYR:OH	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:BF:344:ARG:HG2	17:BF:345:SER:N	2.36	0.41
17:BF:86:LEU:HB2	17:BF:88:TYR:CD1	2.56	0.41
21:BI:168:SER:O	21:BI:172:VAL:HG23	2.20	0.41
22:BJ:168:VAL:O	22:BJ:172:LEU:HG	2.20	0.41
31:AS:185:ARG:CD	28:BP:147:TYR:CD1	2.96	0.41
32:BT:27:LEU:HD22	32:BT:184:TYR:HB3	2.02	0.41
1:BU:397:THR:OG1	1:BU:398:ASN:N	2.54	0.41
1:BU:57:ARG:HG3	1:BU:58:GLN:N	2.36	0.41
2:BV:475:ALA:HA	2:BV:478:GLN:OE1	2.21	0.41
13:AA:344:SER:N	13:AA:345:LEU:HB2	2.35	0.41
18:AC:214:VAL:N	18:AC:247:PHE:O	2.47	0.41
18:AC:308:PRO:HG2	18:AC:310:ARG:HG2	2.01	0.41
15:AD:401:LYS:HA	15:AD:404:LYS:HG2	2.03	0.41
16:AE:159:PHE:N	16:AE:159:PHE:CD1	2.88	0.41
16:AE:207:TYR:HD1	16:AE:208:ILE:HD13	1.85	0.41
16:AE:261:LEU:HD21	16:AE:289:LEU:HG	2.03	0.41
20:AH:105:ILE:HG23	20:AH:110:LEU:HD11	2.03	0.41
21:AI:180:LYS:HB2	21:AI:183:GLU:OE1	2.21	0.41
24:AL:104:PRO:HG2	24:AL:107:ARG:HH11	1.85	0.41
27:AO:203:ARG:NH2	28:AP:155:GLU:OE1	2.37	0.41
1:AU:396:ALA:HB1	1:AU:400:ALA:CB	2.50	0.41
2:AV:160:LEU:HD22	2:AV:213:TYR:CD2	2.56	0.41
2:AV:156:SER:O	2:AV:160:LEU:HG	2.21	0.41
2:AV:194:LYS:O	2:AV:195:ILE:HD13	2.21	0.41
2:AV:245:ASP:OD2	2:AV:281:ASN:ND2	2.51	0.41
3:AW:268:LYS:HE2	3:AW:301:LYS:HE2	2.03	0.41
6:AZ:127:LYS:HB2	6:AZ:127:LYS:HE2	1.83	0.41
14:BB:365:PHE:CE2	14:BB:380:LEU:HB3	2.54	0.41
18:BC:269:VAL:O	18:BC:272:THR:HB	2.20	0.41
18:BC:273:MET:O	18:BC:277:LEU:HG	2.20	0.41
15:BD:261:ILE:HG12	15:BD:306:LYS:HB2	2.02	0.41
15:BD:274:ARG:NH1	15:BD:276:ASP:OD2	2.54	0.41
16:BE:244:SER:HB3	17:BF:299:GLU:HB2	2.02	0.41
20:BH:72:ILE:HG23	20:BH:137:CYS:O	2.20	0.41
21:BI:16:GLY:H	22:BJ:21:TYR:HH	1.69	0.41
24:BL:65:HIS:N	24:BL:223:ILE:HD11	2.35	0.41
24:BL:93:LEU:O	24:BL:97:PHE:HB2	2.19	0.41
31:BS:40:SER:O	31:BS:42:LYS:HD2	2.21	0.41
32:BT:4:PRO:HB3	32:BT:56:ASP:HB2	2.03	0.41
4:BX:240:ASP:OD1	4:BX:279:TYR:OH	2.35	0.41
5:BY:275:LEU:HD23	5:BY:275:LEU:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AA:121:PHE:HA	17:AF:88:TYR:O	2.20	0.41
13:AA:303:ILE:HG21	13:AA:332:MET:HG3	2.03	0.41
14:AB:333:ARG:HG2	14:AB:335:GLU:H	1.85	0.41
18:AC:191:PRO:HA	18:AC:192:PRO:HD2	1.97	0.41
15:AD:151:ILE:CB	15:AD:152:MET:HA	2.44	0.41
15:AD:154:LEU:HD23	15:AD:155:THR:N	2.36	0.41
15:AD:353:ASN:CG	15:AD:393:ILE:HG12	2.41	0.41
15:AD:411:GLU:HA	15:AD:412:GLN:HA	1.72	0.41
34:AE:401:ATP:H4'	17:AF:344:ARG:HE	1.84	0.41
17:AF:184:GLN:HG2	17:AF:186:SER:H	1.86	0.41
17:AF:344:ARG:HG2	17:AF:345:SER:N	2.36	0.41
17:AF:360:GLU:O	17:AF:364:ARG:HG3	2.20	0.41
22:AJ:180:ALA:HA	22:AJ:181:ILE:HA	1.46	0.41
32:AT:97:TYR:CD1	32:AT:100:ARG:HD3	2.56	0.41
1:AU:366:HIS:ND1	1:AU:396:ALA:HA	2.36	0.41
1:AU:444:TYR:CE1	1:AU:479:LEU:HD23	2.55	0.41
1:AU:479:LEU:CD1	1:AU:511:ALA:HA	2.51	0.41
2:AV:31:ALA:O	2:AV:35:VAL:HG22	2.21	0.41
4:AX:391:PRO:HG2	4:AX:392:PRO:HD3	2.03	0.41
5:AY:215:ASP:OD2	5:AY:218:THR:HG23	2.20	0.41
18:BC:21:ARG:HA	18:BC:21:ARG:HD3	1.90	0.41
14:BB:296:ASP:OD2	18:BC:268:GLU:HG3	2.21	0.41
16:BE:371:VAL:O	16:BE:375:ALA:HB3	2.20	0.41
23:BK:14:THR:HG23	24:BL:21:GLN:OE1	2.20	0.41
24:BL:85:CYS:SG	24:BL:89:ARG:NH2	2.93	0.41
29:BQ:86:ARG:HA	29:BQ:86:ARG:HD3	1.85	0.41
28:AP:172:LEU:HB3	31:BS:157:ASN:HB3	2.01	0.41
1:BU:264:VAL:HG22	1:BU:268:LEU:HD22	2.02	0.41
1:BU:474:ARG:NH2	1:BU:500:ASN:HB2	2.25	0.41
3:BW:121:LYS:HG3	3:BW:122:LEU:HD12	2.02	0.41
3:BW:127:THR:HA	3:BW:130:MET:HG2	2.02	0.41
4:BX:243:ASP:OD1	4:BX:245:PRO:HD2	2.20	0.41
5:BY:232:GLU:O	5:BY:236:LEU:N	2.43	0.41
5:BY:267:ARG:HG3	5:BY:270:VAL:HG12	2.01	0.41
5:BY:85:ASP:HA	5:BY:88:LEU:CD2	2.50	0.41
18:AC:295:THR:HB	18:AC:300:ILE:CD1	2.51	0.41
18:AC:84:LYS:HA	18:AC:98:ASP:HA	2.02	0.41
17:AF:231:THR:HG22	17:AF:233:LYS:H	1.85	0.41
17:AF:241:ALA:O	17:AF:244:THR:OG1	2.37	0.41
17:AF:344:ARG:HB3	17:AF:347:ARG:HB2	2.01	0.41
19:AG:116:LYS:HB3	19:AG:116:LYS:HE2	1.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AG:152:TYR:CD1	19:AG:162:GLY:HA3	2.56	0.41
25:AM:228:PRO:HB2	25:AM:231:ILE:HG12	2.02	0.41
27:AO:172:ASN:HA	27:AO:192:PRO:HD2	2.03	0.41
28:AP:147:TYR:CD1	31:BS:185:ARG:CD	2.95	0.41
31:AS:99:ARG:O	31:AS:101:PHE:N	2.54	0.41
32:AT:5:MET:O	32:AT:7:THR:HG23	2.19	0.41
2:AV:275:VAL:O	2:AV:285:TRP:HH2	2.04	0.41
4:AX:126:ARG:HH22	4:AX:156:GLU:HG3	1.85	0.41
6:AZ:241:SER:HB3	6:AZ:245:PHE:HB3	2.02	0.41
14:BB:150:VAL:HA	14:BB:162:VAL:HG12	2.01	0.41
14:BB:190:LEU:O	14:BB:194:ILE:N	2.46	0.41
14:BB:268:ARG:HA	14:BB:315:GLN:NE2	2.34	0.41
14:BB:193:GLN:HE21	14:BB:351:ILE:HD13	1.86	0.41
18:BC:172:PRO:O	18:BC:175:PHE:HB2	2.21	0.41
18:BC:267:SER:O	18:BC:271:ARG:HB2	2.20	0.41
18:BC:277:LEU:O	18:BC:281:ASP:CB	2.68	0.41
16:BE:40:TYR:O	16:BE:43:SER:OG	2.30	0.41
17:BF:235:LEU:O	17:BF:239:ALA:HB2	2.21	0.41
17:BF:344:ARG:HD2	17:BF:347:ARG:HH21	1.85	0.41
21:BI:43:VAL:HG12	21:BI:216:LEU:HB3	2.03	0.41
23:BK:167:ALA:O	23:BK:181:LEU:HD21	2.21	0.41
25:BM:173:LYS:HA	25:BM:176:ILE:CD1	2.50	0.41
26:BN:45:ARG:HD2	26:BN:52:THR:OG1	2.21	0.41
31:AS:159:GLN:O	27:BO:208:THR:HA	2.21	0.41
31:BS:150:ASP:HB3	31:BS:156:LYS:HD2	2.02	0.41
1:BU:32:ASN:ND2	2:BV:229:SER:OG	2.54	0.41
1:BU:612:ASP:HB3	1:BU:647:HIS:CD2	2.56	0.41
2:BV:96:ARG:HA	2:BV:98:LEU:HB2	2.03	0.41
3:BW:112:VAL:HB	3:BW:120:ILE:HD13	2.03	0.41
4:BX:368:MET:HB3	4:BX:374:PHE:HB3	2.02	0.41
4:BX:52:GLU:O	4:BX:55:SER:OG	2.29	0.41
5:BY:221:THR:O	5:BY:224:VAL:HG12	2.20	0.41
6:BZ:77:ASN:O	6:BZ:81:MET:HG3	2.20	0.41
14:AB:190:LEU:O	14:AB:194:ILE:N	2.46	0.41
14:AB:300:GLY:HA2	14:AB:301:GLY:HA2	1.77	0.41
14:AB:230:THR:HA	35:AB:501:ADP:O1A	2.20	0.41
18:AC:85:VAL:N	18:AC:97:VAL:O	2.52	0.41
16:AE:114:GLU:N	16:AE:221:TYR:OH	2.54	0.41
16:AE:281:ARG:HD3	16:AE:387:LYS:HZ1	1.86	0.41
19:AG:28:ALA:HA	19:AG:31:ALA:HB3	2.03	0.41
23:AK:65:GLU:OE1	23:AK:65:GLU:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AM:74:GLY:N	25:AM:224:HIS:HD1	2.19	0.41
26:AN:103:TRP:CH2	26:AN:105:PRO:HA	2.56	0.41
28:AP:189:ILE:HG23	28:AP:196:THR:HB	2.03	0.41
1:AU:521:LEU:HB2	1:AU:554:LEU:HD21	2.03	0.41
2:AV:269:LYS:HB3	2:AV:273:LYS:NZ	2.36	0.41
3:AW:397:VAL:HG11	4:AX:341:PRO:HB3	2.03	0.41
4:AX:243:ASP:OD1	4:AX:245:PRO:HD2	2.20	0.41
13:BA:206:ILE:HG23	13:BA:207:GLU:N	2.36	0.41
15:BD:401:LYS:HA	15:BD:404:LYS:HG2	2.03	0.41
16:BE:131:SER:O	16:BE:135:ILE:HG23	2.20	0.41
16:BE:208:ILE:C	16:BE:210:GLU:H	2.22	0.41
19:BG:184:LYS:HA	19:BG:185:LYS:C	2.41	0.41
21:BI:72:MET:HE1	21:BI:105:ILE:HG23	2.03	0.41
22:BJ:180:ALA:HA	22:BJ:181:ILE:HA	1.46	0.41
23:BK:98:ASN:O	23:BK:101:PHE:HB2	2.21	0.41
25:BM:74:GLY:N	25:BM:224:HIS:HD1	2.18	0.41
25:BM:228:PRO:HB2	25:BM:231:ILE:HG12	2.02	0.41
28:BP:93:ASN:O	28:BP:97:GLU:HG3	2.20	0.41
29:BQ:26:VAL:HG11	30:BR:133:VAL:HG12	2.03	0.41
27:AO:24:MET:SD	31:BS:187:VAL:CG2	3.09	0.41
32:BT:11:VAL:HG13	32:BT:24:ALA:HB2	2.03	0.41
2:BV:269:LYS:HB3	2:BV:273:LYS:NZ	2.36	0.41
4:BX:53:LEU:O	4:BX:57:LEU:HG	2.21	0.41
5:BY:363:ASN:HD22	5:BY:363:ASN:HA	1.71	0.41
5:BY:80:GLU:HA	5:BY:83:ARG:HG2	2.02	0.41
14:AB:288:ASP:O	14:AB:291:GLY:N	2.54	0.41
14:AB:419:PHE:O	14:AB:423:LYS:CB	2.69	0.41
14:AB:425:ASN:O	14:AB:429:LYS:CB	2.64	0.41
15:AD:373:ALA:HA	15:AD:374:ASP:HB3	2.02	0.41
16:AE:244:SER:HB3	17:AF:299:GLU:HB2	2.02	0.41
20:AH:20:VAL:HG12	20:AH:24:TYR:CE2	2.56	0.41
24:AL:189:LYS:HZ3	24:AL:193:ARG:HH22	1.69	0.41
31:AS:157:ASN:CB	28:BP:172:LEU:HB3	2.51	0.41
1:AU:371:ILE:HA	1:AU:371:ILE:HD12	1.92	0.41
1:AU:361:ARG:NH1	1:AU:727:LYS:HG3	2.36	0.41
2:AV:262:SER:HB2	2:AV:263:LEU:HB2	2.03	0.41
2:AV:318:GLN:O	2:AV:319:HIS:CG	2.74	0.41
3:AW:123:ARG:NH1	3:AW:127:THR:HB	2.28	0.41
3:AW:335:SER:OG	3:AW:336:PRO:HD3	2.21	0.41
4:AX:344:ARG:HA	4:AX:385:LEU:O	2.21	0.41
5:AY:221:THR:HA	5:AY:224:VAL:HG12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AY:275:LEU:O	5:AY:275:LEU:HD23	2.20	0.41
6:AZ:266:ILE:O	6:AZ:270:VAL:HG23	2.21	0.41
14:BB:419:PHE:O	14:BB:423:LYS:CB	2.69	0.41
18:BC:42:LEU:HA	18:BC:45:LEU:HD13	2.03	0.41
15:BD:100:THR:HG21	15:BD:112:TYR:OH	2.20	0.41
15:BD:98:GLN:O	15:BD:99:ASN:HB2	2.21	0.41
16:BE:159:PHE:CD1	16:BE:159:PHE:N	2.88	0.41
16:BE:289:LEU:O	16:BE:295:LEU:HB2	2.20	0.41
16:BE:338:PHE:CZ	16:BE:375:ALA:HB1	2.56	0.41
17:BF:169:ASP:N	17:BF:173:LYS:HB2	2.36	0.41
20:BH:20:VAL:HG12	20:BH:24:TYR:CE2	2.56	0.41
23:BK:79:SER:O	23:BK:139:VAL:HG23	2.20	0.41
23:BK:65:GLU:OE1	23:BK:65:GLU:N	2.54	0.41
27:BO:172:ASN:HA	27:BO:192:PRO:HD2	2.03	0.41
32:BT:97:TYR:CD1	32:BT:100:ARG:HD3	2.56	0.41
1:BU:680:VAL:HB	1:BU:683:VAL:HG12	2.03	0.41
2:BV:318:GLN:O	2:BV:319:HIS:CG	2.74	0.41
4:BX:221:GLU:HB3	4:BX:223:LYS:HG2	2.02	0.41
5:BY:101:ARG:HH21	5:BY:126:LYS:HG3	1.86	0.41
5:BY:95:LEU:HD12	5:BY:95:LEU:HA	1.87	0.41
14:AB:220:LYS:HB3	14:AB:346:ARG:CZ	2.50	0.40
18:AC:117:ARG:NH1	18:AC:124:HIS:HD2	2.19	0.40
18:AC:197:THR:HG23	18:AC:213:ARG:NH1	2.35	0.40
18:AC:327:ASP:O	18:AC:331:ILE:HG12	2.19	0.40
18:AC:42:LEU:HA	18:AC:45:LEU:HD13	2.03	0.40
15:AD:114:ARG:NH2	18:AC:62:GLU:CD	2.75	0.40
15:AD:274:ARG:NH1	15:AD:276:ASP:OD2	2.54	0.40
15:AD:263:PHE:HD1	15:AD:308:ILE:HG13	1.86	0.40
16:AE:174:GLY:C	16:AE:180:LYS:HZ1	2.24	0.40
16:AE:288:ALA:O	16:AE:294:ARG:HD2	2.22	0.40
17:AF:84:LYS:HA	17:AF:161:LEU:CD2	2.30	0.40
22:AJ:168:VAL:O	22:AJ:172:LEU:HG	2.20	0.40
23:AK:225:ASN:HA	23:AK:226:PHE:HA	1.89	0.40
24:AL:65:HIS:N	24:AL:223:ILE:HD11	2.35	0.40
27:AO:132:LEU:CD1	32:BT:144:TYR:CB	2.98	0.40
27:AO:195:LYS:HG2	31:BS:180:ILE:HG21	2.03	0.40
28:AP:123:SER:HB3	28:AP:137:VAL:HB	2.03	0.40
29:AQ:137:PHE:O	30:BR:134:TYR:CD1	2.67	0.40
32:AT:11:VAL:HG13	32:AT:24:ALA:HB2	2.03	0.40
1:AU:32:ASN:ND2	2:AV:229:SER:OG	2.54	0.40
2:AV:224:LEU:O	2:AV:228:ARG:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AW:213:PHE:CZ	3:AW:227:TYR:HE1	2.39	0.40
3:AW:268:LYS:HA	3:AW:271:VAL:HG12	2.04	0.40
4:AX:203:PRO:HB2	4:AX:204:PRO:C	2.41	0.40
5:AY:312:ARG:HA	5:AY:356:THR:HG22	2.04	0.40
13:BA:241:ILE:HG22	14:BB:314:ASN:HD21	1.86	0.40
14:BB:423:LYS:HZ3	14:BB:427:LEU:HB2	1.86	0.40
18:BC:193:GLY:H	18:BC:355:SER:CB	2.35	0.40
16:BE:312:ILE:O	16:BE:315:ILE:HG13	2.20	0.40
17:BF:251:LEU:HD12	17:BF:252:ALA:H	1.85	0.40
19:BG:80:MET:HG3	19:BG:87:SER:HB2	2.03	0.40
26:BN:103:TRP:CH2	26:BN:105:PRO:HA	2.56	0.40
28:BP:189:ILE:HG23	28:BP:196:THR:HB	2.03	0.40
28:BP:56:LEU:O	28:BP:60:VAL:HG23	2.20	0.40
29:BQ:22:ALA:HB1	29:BQ:26:VAL:O	2.21	0.40
1:BU:479:LEU:CD1	1:BU:511:ALA:HA	2.51	0.40
3:BW:268:LYS:HE2	3:BW:301:LYS:HE2	2.03	0.40
3:BW:86:ASN:CB	3:BW:88:MET:HG3	2.51	0.40
6:BZ:266:ILE:O	6:BZ:270:VAL:HG23	2.21	0.40
13:AA:94:GLN:C	13:AA:96:ALA:N	2.74	0.40
18:AC:193:GLY:H	18:AC:355:SER:CB	2.35	0.40
18:AC:239:ARG:NH1	18:AC:284:GLU:OE1	2.54	0.40
15:AD:314:ALA:HA	15:AD:317:LEU:HG	2.02	0.40
15:AD:53:PHE:O	15:AD:57:GLN:HG2	2.22	0.40
17:AF:381:TYR:HA	17:AF:384:LEU:HD11	2.02	0.40
22:AJ:172:LEU:HA	22:AJ:175:ASN:CB	2.52	0.40
23:AK:167:ALA:O	23:AK:181:LEU:HD21	2.21	0.40
24:AL:146:GLN:HE21	24:AL:154:PHE:HD2	1.68	0.40
24:AL:215:VAL:HB	24:AL:221:PHE:CD1	2.55	0.40
24:AL:231:PRO:O	24:AL:234:GLU:HG2	2.22	0.40
25:AM:43:ASP:OD1	25:AM:186:CYS:SG	2.79	0.40
25:AM:94:GLU:OE2	25:AM:114:ARG:NE	2.55	0.40
28:AP:44:PRO:HA	28:AP:50:TYR:CD1	2.57	0.40
29:AQ:22:ALA:HB1	29:AQ:26:VAL:O	2.21	0.40
2:AV:186:LYS:HZ3	2:AV:234:ARG:HD3	1.87	0.40
2:AV:63:SER:O	2:AV:66:GLU:HB3	2.21	0.40
3:AW:243:ILE:HB	3:AW:247:TYR:CD1	2.57	0.40
14:BB:264:PRO:HG3	14:BB:311:GLU:HG2	2.02	0.40
18:BC:385:MET:O	18:BC:389:LYS:HG2	2.21	0.40
15:BD:289:LEU:HD21	15:BD:321:LEU:HD11	2.03	0.40
19:BG:179:LEU:O	19:BG:182:LYS:N	2.53	0.40
19:BG:28:ALA:HA	19:BG:31:ALA:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BK:91:LYS:HB3	23:BK:91:LYS:HE3	1.91	0.40
25:BM:43:ASP:OD1	25:BM:186:CYS:SG	2.79	0.40
28:BP:44:PRO:HA	28:BP:50:TYR:CD1	2.57	0.40
29:BQ:3:TYR:CG	29:BQ:4:LEU:N	2.89	0.40
1:BU:221:ILE:HB	1:BU:754:HIS:HB2	2.03	0.40
2:BV:33:GLN:NE2	2:BV:118:GLN:OE1	2.54	0.40
4:BX:344:ARG:HA	4:BX:385:LEU:O	2.21	0.40
5:BY:182:VAL:HG11	5:BY:213:LEU:HD22	2.02	0.40
13:AA:294:GLU:HA	13:AA:297:ARG:HG2	2.03	0.40
18:AC:151:ILE:HG12	18:AC:154:LEU:HD12	2.03	0.40
18:AC:328:ILE:HG21	35:AC:501:ADP:N1	2.37	0.40
15:AD:233:SER:CB	16:AE:255:ARG:HG2	2.52	0.40
15:AD:98:GLN:O	15:AD:99:ASN:HB2	2.21	0.40
16:AE:321:THR:HG22	17:AF:215:LEU:HA	2.04	0.40
17:AF:264:GLY:HA2	17:AF:267:LEU:HB2	2.02	0.40
22:AJ:82:ILE:HA	22:AJ:82:ILE:HD13	1.93	0.40
29:AQ:3:TYR:OH	29:AQ:130:ALA:O	2.32	0.40
30:AR:8:PHE:HE2	30:AR:13:ILE:HG12	1.86	0.40
32:AT:99:ARG:HA	32:AT:99:ARG:HD3	1.96	0.40
1:AU:500:ASN:HA	1:AU:503:GLN:HG2	2.02	0.40
6:AZ:41:GLY:HA3	6:AZ:92:VAL:HB	2.02	0.40
13:BA:294:GLU:HA	13:BA:297:ARG:HG2	2.03	0.40
13:BA:419:SER:HA	13:BA:422:LYS:HD2	2.03	0.40
18:BC:151:ILE:HG12	18:BC:154:LEU:HD12	2.03	0.40
18:BC:192:PRO:HA	18:BC:193:GLY:HA3	1.80	0.40
15:BD:130:VAL:HB	15:BD:142:VAL:HG12	2.04	0.40
13:BA:309:PHE:HE2	17:BF:183:GLU:OE2	2.05	0.40
17:BF:229:PRO:HB3	34:BF:501:ATP:O1B	2.22	0.40
19:BG:127:GLN:HA	20:BH:128:ARG:NH1	2.36	0.40
19:BG:152:TYR:CD1	19:BG:162:GLY:HA3	2.56	0.40
20:BH:105:ILE:HG23	20:BH:110:LEU:HD11	2.03	0.40
21:BI:180:LYS:HB2	21:BI:183:GLU:OE1	2.21	0.40
21:BI:233:VAL:O	21:BI:237:ILE:HG13	2.21	0.40
24:BL:65:HIS:HD2	24:BL:221:PHE:HD2	1.69	0.40
28:BP:123:SER:HB3	28:BP:137:VAL:HB	2.03	0.40
30:BR:41:LEU:HA	30:BR:41:LEU:HD23	1.85	0.40
31:BS:99:ARG:O	31:BS:101:PHE:N	2.54	0.40
26:AN:166:ARG:HD2	32:BT:34:ALA:O	2.21	0.40
1:BU:230:SER:HA	1:BU:268:LEU:HD11	2.03	0.40
1:BU:567:ILE:HD11	1:BU:585:THR:HB	2.02	0.40
2:BV:197:THR:C	2:BV:199:ASN:H	2.25	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BW:397:VAL:HG11	4:BX:341:PRO:HB3	2.03	0.40
6:BZ:221:PRO:CD	6:BZ:222:ILE:HA	2.51	0.40
14:AB:102:LEU:HD12	14:AB:102:LEU:O	2.21	0.40
14:AB:304:GLU:HA	14:AB:307:ARG:HE	1.87	0.40
18:AC:301:LEU:O	18:AC:305:LEU:HB2	2.22	0.40
15:AD:136:SER:HB3	18:AC:67:GLN:HA	2.03	0.40
15:AD:91:GLN:N	15:AD:104:GLY:O	2.52	0.40
15:AD:207:PRO:CG	15:AD:312:ASN:HA	2.52	0.40
16:AE:338:PHE:CZ	16:AE:375:ALA:HB1	2.56	0.40
21:AI:95:GLN:NE2	21:AI:98:LEU:HD23	2.35	0.40
26:AN:136:TYR:HD2	26:BN:134:TYR:CG	2.39	0.40
30:AR:26:ILE:HG22	28:BP:177:ARG:CD	2.11	0.40
1:AU:160:LEU:HD21	1:AU:196:LYS:HB3	2.04	0.40
1:AU:230:SER:HA	1:AU:268:LEU:HD11	2.04	0.40
1:AU:57:ARG:HG3	1:AU:58:GLN:N	2.36	0.40
1:AU:712:LEU:O	1:AU:716:VAL:HG22	2.21	0.40
2:AV:96:ARG:HA	2:AV:98:LEU:HB2	2.03	0.40
3:AW:220:GLU:HA	3:AW:221:LYS:HA	1.82	0.40
3:AW:436:MET:O	3:AW:440:ASN:ND2	2.46	0.40
5:AY:316:LEU:HG	5:AY:352:GLU:HG3	2.03	0.40
5:AY:80:GLU:HA	5:AY:83:ARG:HG2	2.02	0.40
6:AZ:72:HIS:O	6:AZ:76:GLU:HG2	2.22	0.40
13:BA:222:LYS:HD3	13:BA:275:ASP:OD2	2.22	0.40
14:BB:217:LYS:HB3	14:BB:217:LYS:HE3	1.83	0.40
14:BB:309:MET:O	14:BB:312:LEU:HB3	2.22	0.40
18:BC:295:THR:HB	18:BC:300:ILE:CD1	2.51	0.40
18:BC:301:LEU:O	18:BC:305:LEU:HB2	2.22	0.40
18:BC:328:ILE:HG21	35:BC:501:ADP:N1	2.37	0.40
15:BD:136:SER:HB3	18:BC:67:GLN:HA	2.03	0.40
15:BD:154:LEU:C	15:BD:156:SER:H	2.24	0.40
15:BD:241:GLY:O	15:BD:244:PRO:HD2	2.21	0.40
15:BD:274:ARG:HD2	15:BD:275:PHE:H	1.86	0.40
15:BD:353:ASN:CG	15:BD:393:ILE:HG12	2.41	0.40
21:BI:42:GLY:HA2	21:BI:217:THR:HA	2.04	0.40
32:AT:209:TRP:HH2	26:BN:172:GLY:HA2	1.86	0.40
26:BN:36:PRO:HA	26:BN:42:PHE:CD1	2.57	0.40
27:BO:48:THR:HG22	27:BO:51:ASP:H	1.87	0.40
27:BO:48:THR:O	27:BO:52:THR:HG23	2.22	0.40
29:BQ:13:VAL:O	29:BQ:182:ILE:HD12	2.21	0.40
30:BR:3:THR:HG22	30:BR:16:ALA:HB1	2.03	0.40
31:BS:76:LYS:O	31:BS:80:ASN:N	2.49	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BV:179:LYS:HG2	2:BV:214:HIS:NE2	2.36	0.40
2:BV:193:GLN:O	2:BV:194:LYS:HB2	2.22	0.40
2:BV:78:HIS:HB3	2:BV:161:PRO:HB3	2.04	0.40
4:BX:126:ARG:HH22	4:BX:156:GLU:HG3	1.85	0.40
5:BY:233:ARG:HB3	5:BY:234:PRO:HD3	2.04	0.40
6:BZ:180:LYS:HG2	15:BD:70:LYS:HG2	2.04	0.40
6:BZ:96:HIS:CE1	6:BZ:123:ILE:HG12	2.57	0.40
14:AB:234:LEU:O	14:AB:237:LYS:HB2	2.22	0.40
18:AC:172:PRO:O	18:AC:175:PHE:HB2	2.21	0.40
18:AC:381:GLU:O	18:AC:385:MET:HG2	2.21	0.40
15:AD:289:LEU:HD21	15:AD:321:LEU:HD11	2.03	0.40
6:AZ:180:LYS:HG2	15:AD:70:LYS:HG2	2.04	0.40
17:AF:344:ARG:HD2	17:AF:347:ARG:HH21	1.85	0.40
19:AG:16:PHE:CZ	20:AH:128:ARG:HD2	2.57	0.40
22:AJ:104:VAL:HG23	22:AJ:133:ILE:HG22	2.02	0.40
26:AN:36:PRO:HA	26:AN:42:PHE:CD1	2.57	0.40
28:AP:106:GLU:HB3	28:AP:139:SER:HB3	2.03	0.40
32:AT:4:PRO:HB3	32:AT:56:ASP:HB2	2.03	0.40
1:AU:397:THR:OG1	1:AU:398:ASN:N	2.54	0.40
2:AV:152:GLY:O	2:AV:156:SER:OG	2.35	0.40
2:AV:197:THR:C	2:AV:199:ASN:H	2.25	0.40
3:AW:112:VAL:HB	3:AW:120:ILE:HD13	2.03	0.40
3:AW:121:LYS:HG3	3:AW:122:LEU:HD12	2.02	0.40
3:AW:86:ASN:CB	3:AW:88:MET:HG3	2.51	0.40
4:AX:420:LYS:HZ3	6:AZ:279:LYS:HD2	1.87	0.40
13:BA:416:VAL:HA	13:BA:420:TYR:CD2	2.55	0.40
14:BB:176:VAL:CG2	14:BB:177:GLU:HB2	2.52	0.40
13:BA:276:GLU:OE2	14:BB:310:LEU:HG	2.21	0.40
16:BE:261:LEU:HD21	16:BE:289:LEU:HG	2.03	0.40
16:BE:281:ARG:HG2	16:BE:387:LYS:HE3	2.03	0.40
16:BE:320:ILE:HD12	17:BF:215:LEU:O	2.22	0.40
17:BF:380:ASN:C	17:BF:382:GLU:N	2.74	0.40
17:BF:403:ALA:O	17:BF:407:ALA:CB	2.70	0.40
17:BF:436:GLN:C	17:BF:438:TYR:H	2.24	0.40
24:BL:146:GLN:HE21	24:BL:154:PHE:HD2	1.68	0.40
25:BM:25:TYR:HA	25:BM:28:LYS:HE3	2.03	0.40
31:BS:68:ILE:HD11	31:BS:92:LEU:HD13	2.03	0.40
1:BU:208:LEU:HD23	1:BU:210:LYS:N	2.36	0.40
1:BU:253:TYR:CE1	1:BU:331:GLY:HA3	2.57	0.40
1:BU:361:ARG:NH1	1:BU:727:LYS:HG3	2.37	0.40
1:BU:521:LEU:HD13	1:BU:554:LEU:HD23	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BV:246:GLY:O	2:BV:249:THR:OG1	2.29	0.40
3:BW:40:LEU:HB2	3:BW:41:GLN:CA	2.41	0.40
5:BY:314:LEU:HD11	5:BY:319:MET:HE3	2.04	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 PDB entries followed by that with respect to all EM entries.

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	AU	798/953 (84%)	762 (96%)	34 (4%)	2 (0%)	44	81
1	BU	798/953 (84%)	762 (96%)	34 (4%)	2 (0%)	44	81
2	AV	478/533 (90%)	431 (90%)	40 (8%)	7 (2%)	12	53
2	BV	478/533 (90%)	431 (90%)	39 (8%)	8 (2%)	11	51
3	AW	454/456 (100%)	412 (91%)	38 (8%)	4 (1%)	20	62
3	BW	454/456 (100%)	412 (91%)	38 (8%)	4 (1%)	20	62
4	AX	378/422 (90%)	363 (96%)	15 (4%)	0	100	100
4	BX	378/422 (90%)	363 (96%)	15 (4%)	0	100	100
5	AY	376/389 (97%)	342 (91%)	30 (8%)	4 (1%)	17	60
5	BY	376/389 (97%)	342 (91%)	30 (8%)	4 (1%)	17	60
6	AZ	284/324 (88%)	257 (90%)	23 (8%)	4 (1%)	13	54
6	BZ	284/324 (88%)	257 (90%)	23 (8%)	4 (1%)	13	54
7	Aa	371/376 (99%)	343 (92%)	23 (6%)	5 (1%)	14	56
7	Ba	371/376 (99%)	343 (92%)	23 (6%)	5 (1%)	14	56
8	Ab	189/377 (50%)	180 (95%)	8 (4%)	1 (0%)	32	73
8	Bb	189/377 (50%)	180 (95%)	8 (4%)	1 (0%)	32	73
9	Ac	285/310 (92%)	252 (88%)	27 (10%)	6 (2%)	8	47

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	Bc	285/310 (92%)	252 (88%)	27 (10%)	6 (2%)	8	47
10	Ad	255/257 (99%)	227 (89%)	25 (10%)	3 (1%)	15	58
10	Bd	255/257 (99%)	227 (89%)	25 (10%)	3 (1%)	15	58
11	Ae	36/70 (51%)	32 (89%)	3 (8%)	1 (3%)	6	42
11	Be	36/70 (51%)	32 (89%)	3 (8%)	1 (3%)	6	42
12	Af	686/908 (76%)	571 (83%)	110 (16%)	5 (1%)	25	68
12	Bf	686/908 (76%)	571 (83%)	110 (16%)	5 (1%)	25	68
13	AA	359/433 (83%)	317 (88%)	33 (9%)	9 (2%)	6	44
13	BA	359/433 (83%)	317 (88%)	33 (9%)	9 (2%)	6	44
14	AB	339/440 (77%)	303 (89%)	32 (9%)	4 (1%)	15	58
14	BB	339/440 (77%)	303 (89%)	32 (9%)	4 (1%)	15	58
15	AD	378/418 (90%)	330 (87%)	44 (12%)	4 (1%)	17	60
15	BD	378/418 (90%)	330 (87%)	44 (12%)	4 (1%)	17	60
16	AE	351/389 (90%)	307 (88%)	40 (11%)	4 (1%)	17	60
16	BE	351/389 (90%)	307 (88%)	40 (11%)	4 (1%)	17	60
17	AF	362/439 (82%)	326 (90%)	32 (9%)	4 (1%)	17	60
17	BF	362/439 (82%)	326 (90%)	31 (9%)	5 (1%)	13	54
18	AC	382/406 (94%)	341 (89%)	37 (10%)	4 (1%)	18	61
18	BC	382/406 (94%)	341 (89%)	37 (10%)	4 (1%)	18	61
19	AG	238/245 (97%)	221 (93%)	14 (6%)	3 (1%)	14	56
19	BG	238/245 (97%)	221 (93%)	14 (6%)	3 (1%)	14	56
20	AH	230/233 (99%)	216 (94%)	14 (6%)	0	100	100
20	BH	230/233 (99%)	216 (94%)	14 (6%)	0	100	100
21	AI	248/260 (95%)	226 (91%)	21 (8%)	1 (0%)	38	77
21	BI	248/260 (95%)	226 (91%)	21 (8%)	1 (0%)	38	77
22	AJ	237/247 (96%)	226 (95%)	7 (3%)	4 (2%)	11	51
22	BJ	237/247 (96%)	226 (95%)	7 (3%)	4 (2%)	11	51
23	AK	224/240 (93%)	201 (90%)	21 (9%)	2 (1%)	20	62
23	BK	224/240 (93%)	202 (90%)	20 (9%)	2 (1%)	20	62
24	AL	236/268 (88%)	214 (91%)	22 (9%)	0	100	100
24	BL	236/268 (88%)	214 (91%)	22 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
25	AM	238/254 (94%)	219 (92%)	17 (7%)	2 (1%)	22	65
25	BM	238/254 (94%)	219 (92%)	17 (7%)	2 (1%)	22	65
26	AN	189/238 (79%)	184 (97%)	5 (3%)	0	100	100
26	BN	189/238 (79%)	184 (97%)	5 (3%)	0	100	100
27	AO	218/276 (79%)	211 (97%)	7 (3%)	0	100	100
27	BO	218/276 (79%)	211 (97%)	7 (3%)	0	100	100
28	AP	202/204 (99%)	181 (90%)	21 (10%)	0	100	100
28	BP	202/204 (99%)	181 (90%)	21 (10%)	0	100	100
29	AQ	197/201 (98%)	181 (92%)	16 (8%)	0	100	100
29	BQ	197/201 (98%)	181 (92%)	16 (8%)	0	100	100
30	AR	199/262 (76%)	192 (96%)	7 (4%)	0	100	100
30	BR	199/262 (76%)	192 (96%)	7 (4%)	0	100	100
31	AS	211/240 (88%)	201 (95%)	10 (5%)	0	100	100
31	BS	211/240 (88%)	201 (95%)	10 (5%)	0	100	100
32	AT	213/263 (81%)	204 (96%)	9 (4%)	0	100	100
32	BT	213/263 (81%)	204 (96%)	9 (4%)	0	100	100
All	All	19682/22662 (87%)	17947 (91%)	1567 (8%)	168 (1%)	25	62

All (168) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	AU	364	VAL
3	AW	136	ILE
5	AY	350	VAL
9	Ac	157	ILE
9	Ac	244	VAL
12	Af	221	ILE
12	Af	606	VAL
13	AA	206	ILE
19	AG	111	VAL
23	AK	12	VAL
1	BU	364	VAL
3	BW	136	ILE
5	BY	350	VAL
9	Bc	157	ILE
9	Bc	244	VAL

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Mol	Chain	Res	Type
12	Bf	221	ILE
12	Bf	606	VAL
13	BA	206	ILE
19	BG	111	VAL
23	BK	12	VAL
2	AV	82	LEU
7	Aa	340	VAL
12	Af	290	VAL
13	AA	95	VAL
13	AA	268	LYS
13	AA	427	PRO
14	AB	218	PRO
14	AB	263	GLY
14	AB	325	VAL
15	AD	149	SER
15	AD	151	ILE
17	AF	88	TYR
18	AC	298	ILE
21	AI	158	GLY
22	AJ	199	VAL
23	AK	11	GLY
25	AM	63	ASN
2	BV	82	LEU
7	Ba	336	VAL
7	Ba	340	VAL
12	Bf	290	VAL
13	BA	95	VAL
13	BA	268	LYS
13	BA	427	PRO
14	BB	218	PRO
14	BB	263	GLY
14	BB	325	VAL
15	BD	149	SER
15	BD	151	ILE
17	BF	88	TYR
18	BC	298	ILE
21	BI	158	GLY
22	BJ	199	VAL
23	BK	11	GLY
25	BM	63	ASN
2	AV	59	ALA
2	AV	96	ARG

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Mol	Chain	Res	Type
5	AY	287	LEU
6	AZ	144	VAL
7	Aa	336	VAL
12	Af	440	ILE
15	AD	170	MET
16	AE	209	GLY
16	AE	247	THR
18	AC	219	LEU
19	AG	185	LYS
22	AJ	96	LEU
2	BV	59	ALA
2	BV	96	ARG
5	BY	287	LEU
6	BZ	144	VAL
12	Bf	440	ILE
15	BD	170	MET
16	BE	209	GLY
16	BE	247	THR
18	BC	219	LEU
19	BG	185	LYS
22	BJ	96	LEU
3	AW	40	LEU
3	AW	138	VAL
5	AY	64	GLN
5	AY	67	VAL
6	AZ	33	LYS
8	Ab	77	THR
9	Ac	156	VAL
10	Ad	213	ARG
12	Af	594	LEU
16	AE	208	ILE
18	AC	228	ALA
3	BW	40	LEU
3	BW	138	VAL
5	BY	64	GLN
5	BY	67	VAL
6	BZ	33	LYS
8	Bb	77	THR
9	Bc	156	VAL
10	Bd	213	ARG
12	Bf	594	LEU
16	BE	208	ILE

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Mol	Chain	Res	Type
18	BC	228	ALA
3	AW	427	ASP
7	Aa	69	HIS
7	Aa	260	ASP
11	Ae	4	LYS
3	BW	427	ASP
7	Ba	69	HIS
7	Ba	260	ASP
11	Be	4	LYS
2	AV	319	HIS
10	Ad	214	GLY
15	AD	210	CYS
17	AF	165	PRO
25	AM	235	ALA
2	BV	54	LYS
2	BV	319	HIS
10	Bd	214	GLY
14	BB	219	PRO
15	BD	210	CYS
17	BF	165	PRO
17	BF	200	GLU
25	BM	235	ALA
9	Ac	105	PRO
13	AA	317	VAL
14	AB	219	PRO
17	AF	326	VAL
19	AG	170	VAL
22	AJ	98	VAL
9	Bc	105	PRO
13	BA	317	VAL
17	BF	326	VAL
19	BG	170	VAL
22	BJ	98	VAL
2	AV	464	ILE
6	AZ	240	VAL
13	AA	92	PRO
13	AA	169	LYS
13	AA	172	VAL
16	AE	292	PRO
18	AC	251	ILE
2	BV	464	ILE
6	BZ	240	VAL

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Mol	Chain	Res	Type
13	BA	92	PRO
13	BA	169	LYS
13	BA	172	VAL
16	BE	292	PRO
18	BC	251	ILE
1	AU	134	VAL
2	AV	322	VAL
7	Aa	166	ILE
9	Ac	151	VAL
1	BU	134	VAL
2	BV	322	VAL
7	Ba	166	ILE
9	Bc	151	VAL
2	AV	317	PRO
13	AA	345	LEU
17	AF	147	PRO
22	AJ	222	PRO
2	BV	317	PRO
13	BA	345	LEU
17	BF	147	PRO
22	BJ	222	PRO
9	Ac	189	ILE
9	Bc	189	ILE
6	AZ	221	PRO
6	BZ	221	PRO
10	Ad	37	PRO
10	Bd	37	PRO

### 5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	AU	685/816 (84%)	681 (99%)	4 (1%)	89	95
1	BU	685/816 (84%)	681 (99%)	4 (1%)	89	95
2	AV	414/459 (90%)	409 (99%)	5 (1%)	75	88

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	BV	414/459 (90%)	409 (99%)	5 (1%)	75	88
3	AW	416/416 (100%)	413 (99%)	3 (1%)	87	94
3	BW	416/416 (100%)	413 (99%)	3 (1%)	87	94
4	AX	327/362 (90%)	325 (99%)	2 (1%)	89	95
4	BX	327/362 (90%)	325 (99%)	2 (1%)	89	95
5	AY	334/344 (97%)	334 (100%)	0	100	100
5	BY	334/344 (97%)	334 (100%)	0	100	100
6	AZ	257/295 (87%)	256 (100%)	1 (0%)	93	97
6	BZ	257/295 (87%)	256 (100%)	1 (0%)	93	97
7	Aa	333/336 (99%)	332 (100%)	1 (0%)	94	97
7	Ba	333/336 (99%)	332 (100%)	1 (0%)	94	97
8	Ab	167/312 (54%)	167 (100%)	0	100	100
8	Bb	167/312 (54%)	167 (100%)	0	100	100
9	Ac	252/268 (94%)	250 (99%)	2 (1%)	85	93
9	Bc	252/268 (94%)	250 (99%)	2 (1%)	85	93
10	Ad	231/231 (100%)	230 (100%)	1 (0%)	93	97
10	Bd	231/231 (100%)	230 (100%)	1 (0%)	93	97
11	Ae	38/63 (60%)	38 (100%)	0	100	100
11	Be	38/63 (60%)	38 (100%)	0	100	100
12	Af	582/763 (76%)	578 (99%)	4 (1%)	87	94
12	Bf	582/763 (76%)	578 (99%)	4 (1%)	87	94
13	AA	308/372 (83%)	307 (100%)	1 (0%)	94	97
13	BA	308/372 (83%)	307 (100%)	1 (0%)	94	97
14	AB	298/385 (77%)	296 (99%)	2 (1%)	87	94
14	BB	298/385 (77%)	296 (99%)	2 (1%)	87	94
15	AD	333/366 (91%)	331 (99%)	2 (1%)	89	95
15	BD	333/366 (91%)	331 (99%)	2 (1%)	89	95
16	AE	308/341 (90%)	306 (99%)	2 (1%)	89	95
16	BE	308/341 (90%)	306 (99%)	2 (1%)	89	95
17	AF	312/379 (82%)	309 (99%)	3 (1%)	80	90
17	BF	312/379 (82%)	309 (99%)	3 (1%)	80	90

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
18	AC	332/352 (94%)	329 (99%)	3 (1%)	82	92
18	BC	332/352 (94%)	329 (99%)	3 (1%)	82	92
19	AG	193/209 (92%)	193 (100%)	0	100	100
19	BG	193/209 (92%)	193 (100%)	0	100	100
20	AH	164/190 (86%)	163 (99%)	1 (1%)	89	95
20	BH	164/190 (86%)	163 (99%)	1 (1%)	89	95
21	AI	193/220 (88%)	193 (100%)	0	100	100
21	BI	193/220 (88%)	193 (100%)	0	100	100
22	AJ	152/210 (72%)	150 (99%)	2 (1%)	73	88
22	BJ	152/210 (72%)	150 (99%)	2 (1%)	73	88
23	AK	186/202 (92%)	186 (100%)	0	100	100
23	BK	186/202 (92%)	186 (100%)	0	100	100
24	AL	198/229 (86%)	198 (100%)	0	100	100
24	BL	198/229 (86%)	198 (100%)	0	100	100
25	AM	192/211 (91%)	191 (100%)	1 (0%)	91	96
25	BM	192/211 (91%)	191 (100%)	1 (0%)	91	96
26	AN	148/180 (82%)	148 (100%)	0	100	100
26	BN	148/180 (82%)	148 (100%)	0	100	100
27	AO	177/227 (78%)	177 (100%)	0	100	100
27	BO	177/227 (78%)	177 (100%)	0	100	100
28	AP	172/173 (99%)	172 (100%)	0	100	100
28	BP	172/173 (99%)	172 (100%)	0	100	100
29	AQ	164/171 (96%)	163 (99%)	1 (1%)	89	95
29	BQ	164/171 (96%)	163 (99%)	1 (1%)	89	95
30	AR	153/201 (76%)	153 (100%)	0	100	100
30	BR	153/201 (76%)	153 (100%)	0	100	100
31	AS	174/198 (88%)	174 (100%)	0	100	100
31	BS	174/198 (88%)	174 (100%)	0	100	100
32	AT	175/214 (82%)	175 (100%)	0	100	100
32	BT	175/214 (82%)	175 (100%)	0	100	100
All	All	16736/19390 (86%)	16654 (100%)	82 (0%)	91	96

All (82) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	AU	147	TYR
1	AU	172	ASP
1	AU	345	ASN
1	AU	384	GLN
2	AV	36	GLU
2	AV	240	LEU
2	AV	258	TYR
2	AV	281	ASN
2	AV	324	PHE
3	AW	214	PHE
3	AW	273	TYR
3	AW	361	HIS
4	AX	62	GLN
4	AX	157	LEU
6	AZ	196	HIS
7	Aa	14	SER
9	Ac	38	LEU
9	Ac	234	TYR
10	Ad	3	GLU
12	Af	248	LEU
12	Af	266	LEU
12	Af	685	THR
12	Af	759	LEU
13	AA	270	CYS
14	AB	101	ASP
14	AB	103	ARG
15	AD	83	GLN
15	AD	366	ARG
16	AE	53	VAL
16	AE	231	PHE
17	AF	76	ASN
17	AF	85	THR
17	AF	315	ASN
18	AC	50	ASN
18	AC	53	ASN
18	AC	68	GLU
20	AH	180	GLU
22	AJ	21	TYR
22	AJ	176	TYR
25	AM	41	CYS
29	AQ	82	ASN
1	BU	147	TYR

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Mol	Chain	Res	Type
1	BU	172	ASP
1	BU	345	ASN
1	BU	384	GLN
2	BV	36	GLU
2	BV	240	LEU
2	BV	258	TYR
2	BV	281	ASN
2	BV	324	PHE
3	BW	214	PHE
3	BW	273	TYR
3	BW	361	HIS
4	BX	62	GLN
4	BX	157	LEU
6	BZ	196	HIS
7	Ba	14	SER
9	Bc	38	LEU
9	Bc	234	TYR
10	Bd	3	GLU
12	Bf	248	LEU
12	Bf	266	LEU
12	Bf	685	THR
12	Bf	759	LEU
13	BA	270	CYS
14	BB	101	ASP
14	BB	103	ARG
15	BD	83	GLN
15	BD	366	ARG
16	BE	53	VAL
16	BE	231	PHE
17	BF	76	ASN
17	BF	85	THR
17	BF	315	ASN
18	BC	50	ASN
18	BC	53	ASN
18	BC	68	GLU
20	BH	180	GLU
22	BJ	21	TYR
22	BJ	176	TYR
25	BM	41	CYS
29	BQ	82	ASN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (105) such sidechains are listed below:

Mol	Chain	Res	Type
1	AU	18	GLN
1	AU	338	HIS
2	AV	33	GLN
3	AW	257	GLN
3	AW	414	ASN
7	Aa	18	GLN
7	Aa	35	HIS
7	Aa	244	ASN
9	Ac	172	HIS
9	Ac	298	GLN
11	Ae	6	GLN
12	Af	198	HIS
12	Af	199	ASN
12	Af	371	ASN
12	Af	387	GLN
12	Af	396	ASN
12	Af	428	GLN
12	Af	452	ASN
12	Af	475	ASN
12	Af	531	ASN
12	Af	565	ASN
12	Af	650	GLN
12	Af	724	ASN
12	Af	737	ASN
12	Af	747	GLN
13	AA	94	GLN
13	AA	304	ASN
13	AA	414	ASN
14	AB	153	ASN
14	AB	193	GLN
14	AB	315	GLN
15	AD	286	GLN
15	AD	304	ASN
16	AE	75	ASN
16	AE	262	ASN
16	AE	345	ASN
17	AF	194	GLN
17	AF	369	HIS
19	AG	127	GLN
19	AG	150	GLN
21	AI	95	GLN
21	AI	119	GLN
22	AJ	120	GLN

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Mol	Chain	Res	Type
26	AN	123	GLN
27	AO	193	ASN
28	AP	169	GLN
28	AP	173	ASN
31	AS	146	GLN
31	AS	151	ASN
31	AS	157	ASN
31	AS	159	GLN
1	BU	18	GLN
1	BU	338	HIS
2	BV	33	GLN
3	BW	257	GLN
3	BW	414	ASN
7	Ba	18	GLN
7	Ba	244	ASN
9	Bc	172	HIS
9	Bc	298	GLN
11	Be	6	GLN
12	Bf	198	HIS
12	Bf	199	ASN
12	Bf	371	ASN
12	Bf	387	GLN
12	Bf	396	ASN
12	Bf	428	GLN
12	Bf	452	ASN
12	Bf	475	ASN
12	Bf	531	ASN
12	Bf	565	ASN
12	Bf	650	GLN
12	Bf	724	ASN
12	Bf	737	ASN
12	Bf	747	GLN
13	BA	94	GLN
13	BA	304	ASN
13	BA	414	ASN
14	BB	153	ASN
14	BB	193	GLN
14	BB	314	ASN
14	BB	315	GLN
15	BD	286	GLN
15	BD	304	ASN
16	BE	75	ASN

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Mol	Chain	Res	Type
16	BE	262	ASN
16	BE	345	ASN
17	BF	194	GLN
17	BF	369	HIS
19	BG	127	GLN
19	BG	150	GLN
20	BH	166	ASN
20	BH	169	ASN
21	BI	95	GLN
21	BI	119	GLN
22	BJ	120	GLN
25	BM	147	GLN
26	BN	123	GLN
27	BO	193	ASN
28	BP	169	GLN
28	BP	173	ASN
31	BS	146	GLN
31	BS	151	ASN
31	BS	157	ASN
31	BS	159	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 carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 14 ligands modelled in this entry, 2 are monoatomic - leaving 12 for Mogul analysis.

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
34	ATP	AA	501	-	27,33,33	0.90	1 (3%)	25,52,52	1.58	2 (8%)
35	ADP	AB	501	-	25,29,29	1.01	1 (4%)	24,45,45	1.59	4 (16%)
35	ADP	AC	501	-	25,29,29	1.00	1 (4%)	24,45,45	1.54	2 (8%)
34	ATP	AD	501	-	27,33,33	0.90	1 (3%)	25,52,52	1.64	2 (8%)
34	ATP	AE	401	-	27,33,33	0.93	1 (3%)	25,52,52	1.49	2 (8%)
34	ATP	AF	501	-	27,33,33	0.93	1 (3%)	25,52,52	1.49	2 (8%)
34	ATP	BA	501	-	27,33,33	0.90	1 (3%)	25,52,52	1.59	2 (8%)
35	ADP	BB	501	-	25,29,29	1.01	1 (4%)	24,45,45	1.60	4 (16%)
35	ADP	BC	501	-	25,29,29	1.01	1 (4%)	24,45,45	1.54	2 (8%)
34	ATP	BD	501	-	27,33,33	0.91	1 (3%)	25,52,52	1.63	2 (8%)
34	ATP	BE	401	-	27,33,33	0.93	1 (3%)	25,52,52	1.48	2 (8%)
34	ATP	BF	501	-	27,33,33	0.94	1 (3%)	25,52,52	1.49	2 (8%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
34	ATP	AA	501	-	-	0/18/38/38	0/3/3/3
35	ADP	AB	501	-	-	0/12/32/32	0/3/3/3
35	ADP	AC	501	-	-	0/12/32/32	0/3/3/3
34	ATP	AD	501	-	-	0/18/38/38	0/3/3/3
34	ATP	AE	401	-	-	0/18/38/38	0/3/3/3
34	ATP	AF	501	-	-	0/18/38/38	0/3/3/3
34	ATP	BA	501	-	-	0/18/38/38	0/3/3/3
35	ADP	BB	501	-	-	0/12/32/32	0/3/3/3
35	ADP	BC	501	-	-	0/12/32/32	0/3/3/3
34	ATP	BD	501	-	-	0/18/38/38	0/3/3/3
34	ATP	BE	401	-	-	0/18/38/38	0/3/3/3
34	ATP	BF	501	-	-	0/18/38/38	0/3/3/3

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	AA	501	ATP	C5-C4	2.91	1.47	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	501	ATP	C5-C4	2.91	1.47	1.40
34	BD	501	ATP	C5-C4	3.00	1.47	1.40
34	AD	501	ATP	C5-C4	3.00	1.47	1.40
35	BB	501	ADP	C5-C4	3.04	1.47	1.40
35	AB	501	ADP	C5-C4	3.04	1.47	1.40
34	AF	501	ATP	C5-C4	3.09	1.47	1.40
34	BF	501	ATP	C5-C4	3.09	1.47	1.40
34	BE	401	ATP	C5-C4	3.15	1.47	1.40
34	AE	401	ATP	C5-C4	3.15	1.47	1.40
35	AC	501	ADP	C5-C4	3.18	1.47	1.40
35	BC	501	ADP	C5-C4	3.22	1.47	1.40

All (28) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AD	501	ATP	N3-C2-N1	-6.09	123.55	128.86
34	BD	501	ATP	N3-C2-N1	-6.07	123.57	128.86
34	BA	501	ATP	N3-C2-N1	-5.67	123.92	128.86
34	AA	501	ATP	N3-C2-N1	-5.65	123.94	128.86
35	BC	501	ADP	N3-C2-N1	-5.19	124.34	128.86
35	AC	501	ADP	N3-C2-N1	-5.14	124.38	128.86
34	AF	501	ATP	N3-C2-N1	-4.99	124.51	128.86
34	BF	501	ATP	N3-C2-N1	-4.96	124.53	128.86
35	BB	501	ADP	N3-C2-N1	-4.88	124.61	128.86
35	AB	501	ADP	N3-C2-N1	-4.87	124.62	128.86
34	AE	401	ATP	N3-C2-N1	-4.36	125.06	128.86
34	BE	401	ATP	N3-C2-N1	-4.30	125.11	128.86
35	AC	501	ADP	C4-C5-N7	-3.30	106.23	109.41
35	BC	501	ADP	C4-C5-N7	-3.30	106.23	109.41
34	AE	401	ATP	C4-C5-N7	-3.21	106.31	109.41
34	BE	401	ATP	C4-C5-N7	-3.21	106.31	109.41
34	AF	501	ATP	C4-C5-N7	-2.83	106.68	109.41
34	BF	501	ATP	C4-C5-N7	-2.80	106.70	109.41
34	AD	501	ATP	C4-C5-N7	-2.56	106.94	109.41
34	BD	501	ATP	C4-C5-N7	-2.55	106.94	109.41
35	BB	501	ADP	C4-C5-N7	-2.46	107.04	109.41
34	BA	501	ATP	C4-C5-N7	-2.44	107.05	109.41
35	AB	501	ADP	C4-C5-N7	-2.43	107.07	109.41
34	AA	501	ATP	C4-C5-N7	-2.40	107.09	109.41
35	BB	501	ADP	C2'-C3'-C4'	2.15	106.80	102.62
35	AB	501	ADP	C2'-C3'-C4'	2.17	106.84	102.62
35	AB	501	ADP	C4'-O4'-C1'	3.10	113.06	109.77

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	501	ADP	C4'-O4'-C1'	3.12	113.08	109.77

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

12 monomers are involved in 51 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
34	AA	501	ATP	2	0
35	AB	501	ADP	7	0
35	AC	501	ADP	3	0
34	AD	501	ATP	2	0
34	AE	401	ATP	9	0
34	AF	501	ATP	2	0
34	BA	501	ATP	2	0
35	BB	501	ADP	7	0
35	BC	501	ADP	4	0
34	BD	501	ATP	2	0
34	BE	401	ATP	9	0
34	BF	501	ATP	2	0

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
12	Bf	3
12	Af	3

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	Bf	269:ALA	C	270:LEU	N	9.72
1	Af	269:ALA	C	270:LEU	N	9.71
1	Af	238:ASN	C	239:TYR	N	7.22

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	Bf	238:ASN	C	239:TYR	N	7.22
1	Af	507:ASP	C	508:SER	N	5.88
1	Bf	507:ASP	C	508:SER	N	5.88