



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 15, 2017 – 06:04 am GMT

PDB ID : 1R9T
Title : RNA POLYMERASE II STRAND SEPARATED ELONGATION COM-
PLEX, MISMATCHED NUCLEOTIDE
Authors : Westover, K.D.; Bushnell, D.A.; Kornberg, R.D.
Deposited on : 2003-10-30
Resolution : 3.50 Å(reported)

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

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

A user guide is available at

<http://wwpdb.org/validation/2016/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7.2 (RC1), CSD as538be (2017)
Xtriage (Phenix) : 1.9-1692
EDS : trunk28620
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : recalc28949

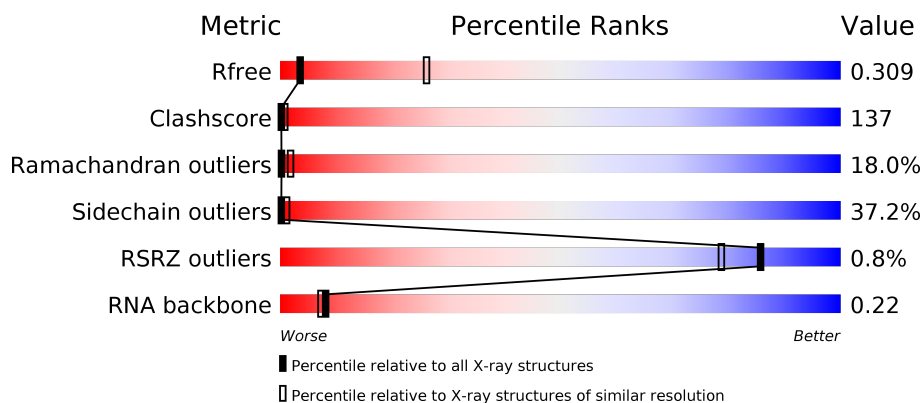
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.50 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	100719	1195 (3.60-3.40)
Clashscore	112137	1322 (3.60-3.40)
Ramachandran outliers	110173	1283 (3.60-3.40)
Sidechain outliers	110143	1284 (3.60-3.40)
RSRZ outliers	101464	1226 (3.60-3.40)
RNA backbone	2435	1024 (4.10-2.86)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	R	10	<div> <div>10%</div> <div>50%</div> <div>40%</div> </div>
2	T	28	<div> <div>18%</div> <div>50%</div> <div>43%</div> <div>7%</div> </div>
3	N	14	<div> <div>36%</div> <div>71%</div> <div>29%</div> </div>
4	A	1733	<div> <div>•</div> <div>11%</div> <div>35%</div> <div>32%</div> <div>20%</div> </div>

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Mol	Chain	Length	Quality of chain
5	B	1224	
6	C	318	
7	E	215	
8	F	155	
9	H	146	
10	I	122	
11	J	70	
12	K	120	
13	L	70	

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
15	MG	A	2002	-	-	-	X
16	ATP	B	1308	-	-	-	X

2 Entry composition

There are 16 unique types of molecules in this entry. The entry contains 29248 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called RNA strand.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	R	10	Total	C	N	O	P	0	0	0
			217	98	45	65	9			

- Molecule 2 is a DNA chain called DNA template strand.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	T	28	Total	C	N	O	P	0	0	0
			566	271	104	164	27			

- Molecule 3 is a DNA chain called DNA nontemplate strand.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	N	14	Total	C	N	O	P	0	0	0
			284	137	49	85	13			

- Molecule 4 is a protein called DNA-directed RNA polymerase II largest subunit.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	A	1395	Total	C	N	O	S	0	0	0
			10969	6917	1923	2068	61			

- Molecule 5 is a protein called DNA-directed RNA polymerase II 140 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	B	1106	Total	C	N	O	S	0	0	0
			8792	5568	1538	1631	55			

- Molecule 6 is a protein called DNA-directed RNA polymerase II 45 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	C	266	Total	C	N	O	S	0	0	0
			2095	1317	348	417	13			

- Molecule 7 is a protein called DNA-directed RNA polymerases I, II, and III 27 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	E	214	Total	C	N	O	S	0	0	0
			1752	1111	309	321	11			

- Molecule 8 is a protein called DNA-directed RNA polymerases I, II, and III 23 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	F	84	Total	C	N	O	S	0	0	0
			679	434	115	127	3			

- Molecule 9 is a protein called DNA-directed RNA polymerases I, II, and III 14.5 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	H	133	Total	C	N	O	S	0	0	0
			1068	673	180	211	4			

- Molecule 10 is a protein called DNA-directed RNA polymerase II 14.2 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	I	119	Total	C	N	O	S	0	0	0
			971	596	179	186	10			

- Molecule 11 is a protein called DNA-directed RNA polymerases I, II, and III 8.3 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	J	65	Total	C	N	O	S	0	0	0
			532	339	93	94	6			

- Molecule 12 is a protein called DNA-directed RNA polymerase II 13.6 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	K	114	Total	C	N	O	S	0	0	0
			919	590	156	171	2			

- Molecule 13 is a protein called DNA-directed RNA polymerases I, II, and III 7.7 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	L	46	Total	C	N	O	S	0	0	0
			363	224	72	63	4			

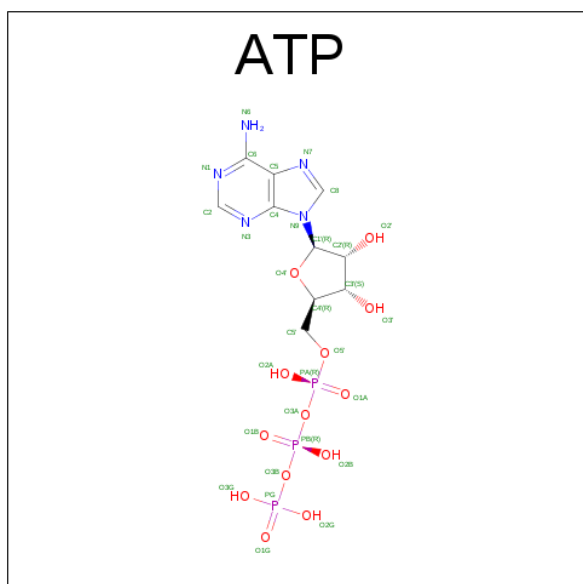
- Molecule 14 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
14	J	1	Total	Zn	0	0
			1	1		
14	B	1	Total	Zn	0	0
			1	1		
14	I	2	Total	Zn	0	0
			2	2		
14	C	1	Total	Zn	0	0
			1	1		
14	A	2	Total	Zn	0	0
			2	2		
14	L	1	Total	Zn	0	0
			1	1		

- Molecule 15 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
15	A	2	Total	Mg	0	0
			2	2		

- Molecule 16 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula: C₁₀H₁₆N₅O₁₃P₃).

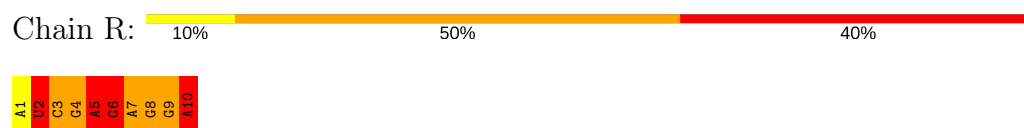


Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
16	B	1	Total	C	N	O	P	0	0
			31	10	5	13	3		

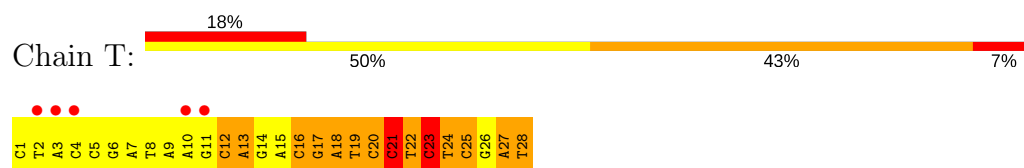
3 Residue-property plots

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 and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

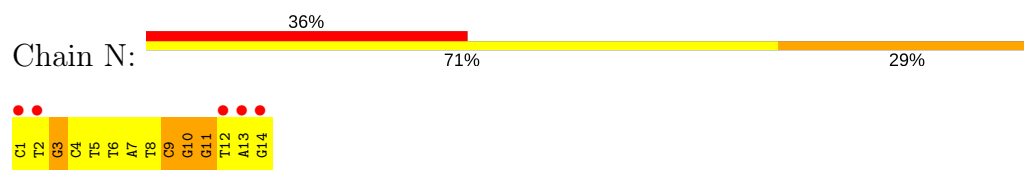
- Molecule 1: RNA strand



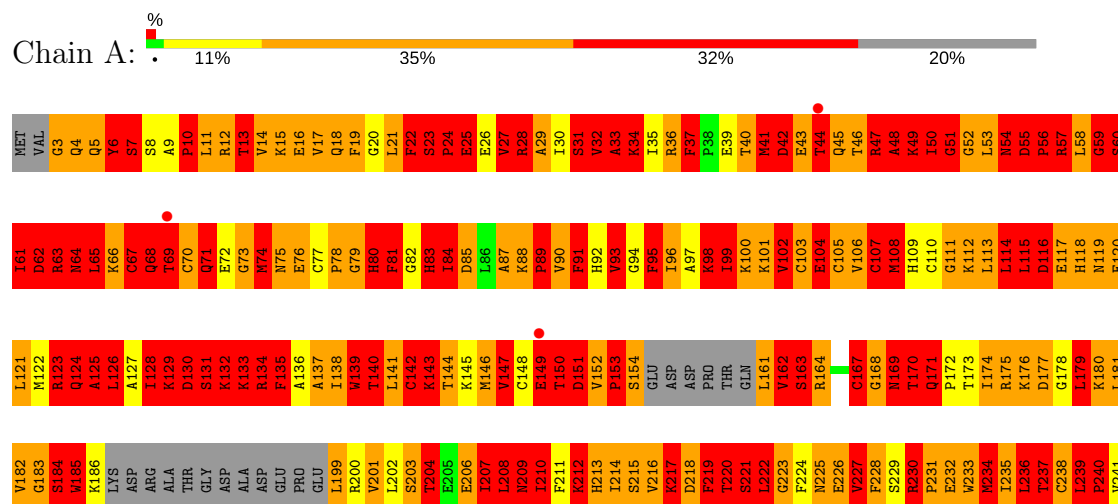
- Molecule 2: DNA template strand



- Molecule 3: DNA nontemplate strand



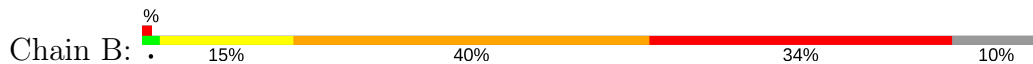
- Molecule 4: DNA-directed RNA polymerase II largest subunit



T1142	L1022	R862	L902	V842	T782	L722	R662	D602	F482	G422	D362	T302	P242
L1143	L1023	R963	N903	K843	T783	N723	S663	M603	D483	D423	Q363	Y303	P243
K1144	PHE	I964	T904	A844	L784	A724	T664	G604	G484	L424	Q364	N304	P244
S1145	S1024	Q965	T905	L845	R785	A725	G665	M605	D485	Q425	G365	D305	P245
V1146	L1026	N966	H906	E846	H786	R726	T666	L606	E486	L426	P366	N306	V246
T1147	A1027	A967	T907	D847	F787	D727	G667	T607	M487	Q427	P367	D307	R247
L1148	T1028	Q968	L908	L848	S788	K728	D668	I608	K488	Y428	K368	I308	P248
A1149	R1029	Q969	D909	M849	K789	A729	T669	D609	L489	Y429	S369	A309	S249
S1150	R1030	T970	P910	V850	D790	G730	T670	G610	L490	W430	I370	G310	I250
E1151	V1031	F971	S911	H851	D791	R731	A671	Q611	K431	W431	A371	Q311	S251
Y1152	L1152	H972	L912	H852	T792	L732	D672	I612	P492	K432	K372	P312	F252
Y1153	Q1033	I973	L913	D853	S793	A733	G673	I613	Q493	E433	T373	Q313	N253
Y1154	E1034	D974	E914	N854	T794	E734	P674	F614	S494	E434	L374	A314	E254
D1155	Y1035	H975	S915	T855	E795	V735	T675	G615	E495	H435	T375	L315	S255
P1156	R1036	T976	G916	T856	S796	N736	M676	V616	E496	L436	Y376	Q316	Q256
I1157	L1037	K977	S917	R857	K797	L737	R677	V617	T497	K437	P377	Q317	R257
P1158	T1038	P978	E918	N858	G798	D738	E678	E618	R498	D438	E378	S318	G258
R1159	K1039	S979	I919	S859	F799	R739	T679	K619	A999	N439	V379	G319	E259
S1160	R1040	D980	L920	L860	T800	L740	T680	K620	E500	D440	V380	R320	D260
T1161	Q1041	L981	G921	G861	E801	N741	E681	T621	L501	P441	T381	P321	D261
V1162	F1042	T982	D922	N862	N902	N742	T682	V622	S502	Y442	L262	V322	L262
E1163	L1163	I983	L923	V863	S803	V743	T683	G623	Q503	L443	Y383	K323	T263
P1164	W1044	K984	K924	I864	A804	K744	A684	S624	L504	F444	N384	S324	F264
E1165	L1045	D985	L925	Q865	L805	Q745	E685	S625	C505	N445	I385	I325	K265
D1166	V1046	I986	Q926	F866	R806	M746	A686	N626	A506	K446	D386	K326	L266
E1167	S1047	V987	V927	I867	G807	V747	K687	G627	V507	Q447	E387	A327	A267
E1168	A1108	L988	L928	Y868	L808	M748	R688	G628	P508	F448	L388	R328	D268
I1169	T1048	G989	L929	G869	T809	A749	K689	L629	F509	S449	L389	L329	L269
N1170	E1050	V990	D930	E870	P810	G750	V690	K630	L450	K390	K330	K330	L270
Q1171	A1051	K991	E931	D871	Q811	S751	L691	H631	I511	H451	L391	K331	K271
L1172	L1052	D992	E932	G872	E812	K752	D692	V632	V612	K452	V392	K332	A272
H1173	F1053	L993	Y933	K873	F813	G753	V693	V633	S813	K453	R393	E333	N273
F1174	L1054	Q994	K934	D874	F814	S754	T694	T634	P514	S454	N394	G334	I274
S1175	S1115	E995	Q935	A875	F815	F755	E695	R635	Q515	K455	G395	R335	S275
L1176	L1056	N996	L936	K876	H816	V756	E696	E636	S516	K456	P396	L336	L276
LEU	V1057	L997	V937	H877	A817	N757	A697	K637	N517	A457	N397	R337	E277
ASP	V1058	K998	K938	I878	N818	V758	Q698	G638	K518	H458	E398	G338	T278
GLU	H1059	V999	D939	E879	G819	A759	A699	P639	P519	R459	H399	N339	L279
GLU	L1120	L1000	R940	K880	G820	Q760	T700	Q640	C520	V460	P400	L340	E280
ALA	E1121	R1001	K941	Q881	R821	M761	L701	V641	M521	K461	G401	K341	N281
GLU	P1122	G1002	F942	S882	E822	S762	L702	C642	G522	V462	A402	G342	G282
GLN	L1063	L1003	L943	L883	G823	A763	T703	A643	I523	P463	K403	K343	G283
SER	H1124	E1004	R944	D884	L824	C764	A704	K644	M524	V464	Y404	K344	A284
PHE	A1125	G1005	E945	T885	T825	V765	K705	L645	Q525	Y465	V405	V345	P285
ASP	A1126	V1006	V946	I886	D826	G766	H706	F646	D526	S466	I406	D346	H286
Q1187	D1127	I1007	F947	G887	T827	Q767	G707	G647	T527	T467	R407	F347	H287
Q1188	L1068	Q1008	D948	G888	A828	Q768	M708	N648	L528	F468	D408	S348	A288
S1189	E1129	N1009	G950	S889	V829	S769	T709	I649	C529	R469	S409	A349	L289
P1190	Q1070	A1010	D890	D890	K830	V770	L710	Q650	G530	L470	G410	R350	E290
W1191	S1071	Q1011	E951	A891	T831	E771	R711	K651	I631	N471	D411	T351	E291
L1192	L1072	R1012	A952	A892	A832	G772	E712	V652	R532	L472	K412	V352	A292
L1193	G1073	D1013	N953	F893	E833	K773	S713	V653	K533	L473	I413	I353	E293
R1194	E1074	A1014	W954	E894	T834	R774	F714	N654	L534	V474	D414	S354	S294
L1195	P1075	V1015	P955	K895	G835	I775	E715	F655	T595	V475	L415	G355	L295
E1196	A1076	H896	L956	R896	H836	A776	D716	M656	L536	S476	R416	D356	L296
L1197	L1077	T1017	P957	Y897	T837	F777	N717	L657	R537	P477	Y417	P357	Q297
D1198	Q1078	F1018	V958	R898	Q838	G778	V718	L658	D538	V478	S418	N358	F298
R1199	M1079	C1019	N959	V899	R839	F779	V719	H659	T539	N479	K419	L359	V299
H1140	T1080	D1020	I960	D900	R840	Q760	R720	P660	F540	A480	R420	E360	V300
A1201	L1081	L1021	R961	L901	L841	D781	F721	G661	I541	D481	A421	L361	A301

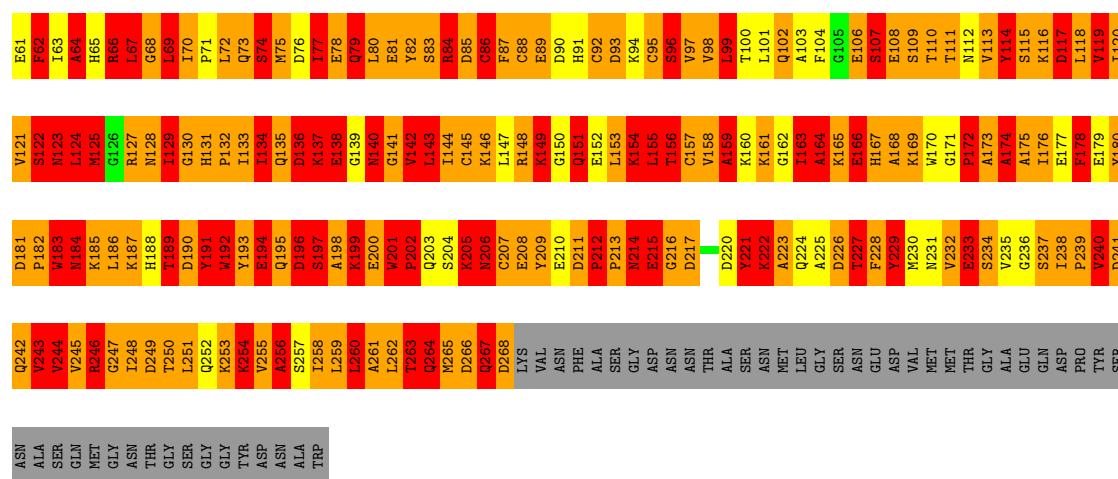
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				S1383	D1323	I1263		
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PRO	TYR	THR	GLY	ASP	T1385	T1325	M1265	K1205
SER	PRO	SER	GLY	GLU	R1386	R1326	T1266	D1206
SER	PRO	PRO	PHE	GLU	H1387	I1327	M1267	L1207
TYR	THR	THR	THR	LEU	G1388	Y1328	L1268	T1208
SER	SER	TYR	ALA	SER	F1389	T1329	E1269	M1209
PRO	PRO	PRO	TYR	VAL	N1390	M1270	G1210	G1210
THR	PRO	PRO	TYR	LYS	R1391	S1331	I1271	Q1211
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SER	SER	GLN	GLN	GLN	A1396	M1336	V1276	L1216
PRO	PRO	SER	GLU	GLY	L1397	E1337	L1277	K1217
THR	SER	PRO	ALA	ILE	M1398	V1338	N1278	Q1218
SER	TYR	THR	THR	THR	R1399	L1339	T1279	T1219
PRO	PRO	SER	SER	GLU	C1400	G1340	E1280	F1220
SER	PRO	PRO	PRO	ILE	S1401	I1341	T1281	K1221
TYR	THR	THR	PHE	GLU	F1402	E1342	V1282	K1221
SER	SER	TYR	GLY	ASP	A1343	A1343	V1283	D1223
PRO	PRO	SER	ALA	SER	E1404	G1344	M1284	L1224
THR	THR	PRO	TYR	GLN	T1405	R1345	M1285	F1225
SER	TYR	THR	GLY	ASP	V1406	A1346	K1286	V1226
PRO	GLY	SER	GLU	GLY	E1407	A1347	Y1287	T1227
GLY	PRO	PRO	ALA	GLY	I1408	L1348	D1288	V1228
TYR	TYR	THR	PRO	PRO	L1409	V1349	R1289	S1229
SER	SER	TYR	THR	THR	F1410	K1350	K1290	E1230
PRO	PRO	SER	SER	PRO	E1411	E1351	V1291	D1231
GLY	SER	PRO	PRO	GLY	A1412	V1352	T1292	N1232
TYR	TYR	THR	GLY	SER	G1413	Y1353	S1293	D1233
ALA	PRO	PRO	PHE	ASN	A1416	M1354	P1294	E1234
TYR	THR	SER	VAL	SER	E1417	V1355	G1295	K1235
SER	SER	TYR	SER	GLY	L1418	I1356	G1296	L1236
PRO	PRO	SER	LEU	GLY	D1419	A1357	E1297	I1237
ALA	ALA	PRO	PRO	VAL	D1420	S1358	Y1298	I1238
GLN	GLN	TYR	THR	GLY	C1421	G1359	V1299	R1239
ASP	ASP	SER	PHE	ALA	R1422	K1360	K1300	C1240
GLY	PRO	PRO	SER	GLY	G1423	S1361	P1301	R1241
THR	THR	SER	PRO	LEU	V1424	Y1362	E1302	V1242
LYS	LYS	TYR	THR	THR	S1425	V1363	E1303	V1243
ASN	HIS	PRO	SER	VAL	E1426	A1364	V1304	ARG
GLU	GLU	ASN	PRO	LYS	E1427	Y1365	M1305	PRO
ASN	GLU	TYR	THR	ASP	T1428	R1366	L1306	LYS
ASN	ASN	SER	TYR	GLU	I1429	M1367	E1307	SER
GLU	GLU	PRO	LEU	LEU	L1430	A1368	T1308	LEU
ASN	ASN	THR	PRO	MET	G1431	L1370	D1309	ASP
ASN	ASN	SER	THR	PHE	Q1432	L1371	G1310	GLU
ARG	ARG	TYR	SER	M1433	V1372	Y1372	N1312	THR
		PRO	ALA	A1434	D1373	D1373	L1313	GLU
		TYR	ALA	LEU	P1435	V1374	S1314	A1254
		SER	TYR	VAL	I1436	M1375	E1315	E1255
	PRO	PRO	PRO	ASP	G1437	T1376	E1256	E1256
	THR	THR	THR	THR	T1438	T1377	M1317	D1257
	SER	TYR	THR	GLY	G1439	Q1378	L1318	H1258
	PRO	PRO	SER	SER	A1440	G1379	V1319	M1259
	ASN	PRO	THR	ASN	F1441	G1380	V1320	L1260
	THR	PRO	SER	THR	D1442	G1281	G1281	F1261

- Molecule 5: DNA-directed RNA polymerase II 140 kDa polypeptide



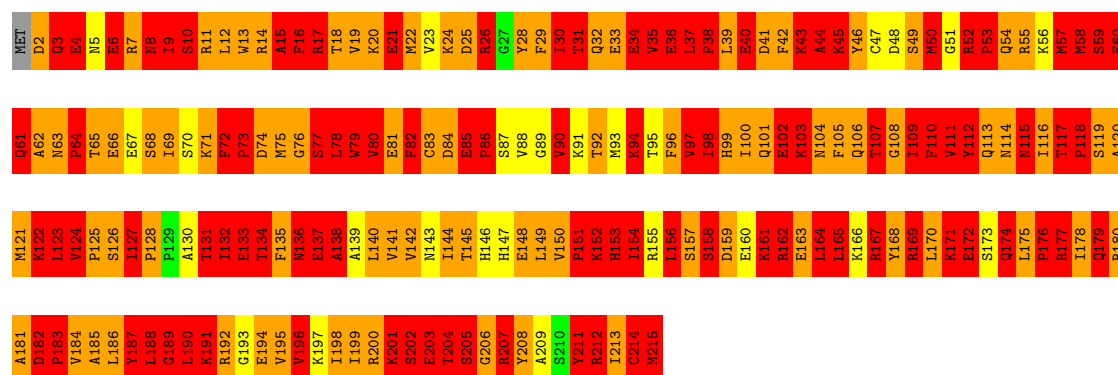
L361	L362	L363	L364	L365	L366	L367	L368	G369	G370	G371	G372	G373	K374	A375	F376	F377	L378	G379	L380	L381	L382	N383	R384	L385	L386	L387	C388	A389	L390	L391	R392	K393	D394	K395	D396	R397	R398	D399	F400	G401	G402	K403	K404	R405	L406	D407	L408	A409	G410	P411	L412	L413	L414	A414	G415	L416	F417	K418	T419	T420				
R341	R342	A243	L244	E245	K246	G247	S248	R249	F250	L251	S252	K192	K193	E194	V256	K257	L258	E259	G260	R261	E262	G263	F264	S265	A266	R267	T268	E269	L269	K270	L271	T272	L273	P274	V275	L276	K277	Q278	D279	A280	L281	L282	V283	L284	E285	F286	R287	A288	L289	G290	L291	A352	L292	G293	D294	L295	E296	L297	K298	L299	E299	E300		
L181	S182	E183	A184	T185	E186	S187	D188	L189	Y190	K191	L192	K193	E194	C195	V196	F197	D198	M199	G200	G201	Y202	F203	T204	L205	R206	G207	E208	S209	K210	V211	L212	L213	A214	Q215	E216	R217	S218	A219	G220	G221	L222	V223	Q224	V225	F226	K227	A228	A229	A230	P231	S232	S233	M234	L235	E236	V237	N238	E239	T240					
M21	L122	T123	S124	S125	S126	G127	L128	F129	V130	D131	V132	K133	K134	A135	T136	T137	G138	A139	G140	V141	V142	P143	G144	A145	G146	L147	L148	E149	L150	L151	L152	A153	G154	S155	A156	A157	A158	S159	M160	E161	E162	S163	S164	D165	G166	G167	V168	T169	H170	A171	L172	M173	L174	Q175	E176	A177	R178	L179	P180					
MET	SER	ASP	LEU	ALA	ASN	GLU	GLY	TYR	TYR	LEU	GLY	GLN	LEU	ALA	GLN	HIS	THR	THR	GLU	ILE	ASP	VAL	PRO	ASN	ILE	SER	ARG	LEU	LYS	TYR	GLY	THR	ALA	GLY	ARG	GLU	LEU	LYS	TYR	GLY	SER	ASP	K99	P100	M101	V102	M103	E104	S105	D106	G107	V108	T109	H110	A111	L112	M113	O53	F54	V55	D56	A57	R58	L59





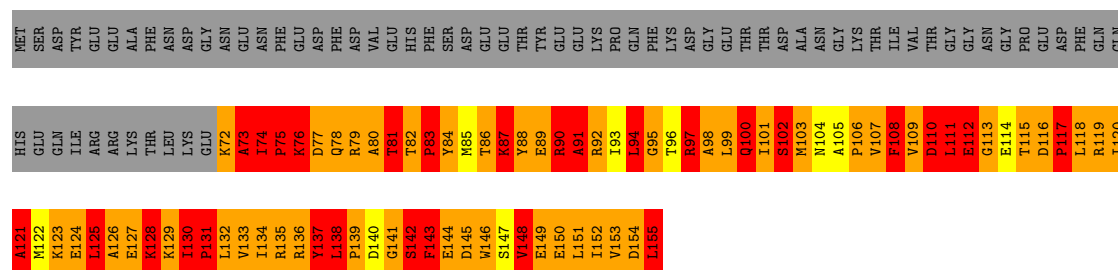
• Molecule 7: DNA-directed RNA polymerases I, II, and III 27 kDa polypeptide

Chain E: 12% 39% 47%



• Molecule 8: DNA-directed RNA polymerases I, II, and III 23 kDa polypeptide

Chain F: 6% 30% 19% 46%



• Molecule 9: DNA-directed RNA polymerases I, II, and III 14.5 kDa polypeptide

Chain H: 10% 42% 38% 9%



4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	168.85Å 222.96Å 193.60Å 90.00° 101.17° 90.00°	Depositor
Resolution (Å)	40.00 – 3.50 39.98 – 3.50	Depositor EDS
% Data completeness (in resolution range)	(Not available) (40.00-3.50) 93.7 (39.98-3.50)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	3.26 (at 3.48Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.230 , 0.317 0.226 , 0.309	Depositor DCC
R_{free} test set	8299 reflections (10.03%)	DCC
Wilson B-factor (Å ²)	80.5	Xtriage
Anisotropy	0.219	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.20 , 80.9	EDS
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.89	EDS
Total number of atoms	29248	wwPDB-VP
Average B, all atoms (Å ²)	62.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.52% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	R	3.34	30/244 (12.3%)	3.47	35/380 (9.2%)
2	T	2.72	42/633 (6.6%)	2.95	63/971 (6.5%)
3	N	1.33	4/316 (1.3%)	1.10	6/484 (1.2%)
4	A	3.73	1529/11163 (13.7%)	3.57	2038/15091 (13.5%)
5	B	3.68	1206/8963 (13.5%)	3.62	1655/12086 (13.7%)
6	C	3.67	281/2133 (13.2%)	3.42	376/2891 (13.0%)
7	E	3.85	252/1788 (14.1%)	3.52	348/2406 (14.5%)
8	F	3.81	105/691 (15.2%)	3.78	136/933 (14.6%)
9	H	4.17	178/1086 (16.4%)	3.65	243/1470 (16.5%)
10	I	3.97	150/989 (15.2%)	3.89	212/1331 (15.9%)
11	J	3.68	72/541 (13.3%)	3.56	89/727 (12.2%)
12	K	3.73	149/937 (15.9%)	3.38	150/1265 (11.9%)
13	L	4.22	68/365 (18.6%)	3.67	86/485 (17.7%)
All	All	3.71	4066/29849 (13.6%)	3.55	5437/40520 (13.4%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	R	0	1
2	T	1	2
4	A	2	121
5	B	4	114
6	C	1	11
7	E	0	17
8	F	0	5
9	H	0	16
10	I	1	18
11	J	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
12	K	0	9
13	L	0	5
All	All	9	321

All (4066) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1110	ASN	CB-CG	39.65	2.42	1.51
4	A	820	GLY	C-O	-37.66	0.63	1.23
7	E	117	THR	CA-CB	34.64	2.43	1.53
4	A	437	MET	SD-CE	30.90	3.50	1.77
4	A	322	VAL	CA-CB	-27.33	0.97	1.54
5	B	108	VAL	CA-CB	23.98	2.05	1.54
4	A	987	VAL	CB-CG2	23.71	2.02	1.52
9	H	100	THR	CA-CB	23.44	2.14	1.53
5	B	595	ARG	CG-CD	23.26	2.10	1.51
11	J	46	CYS	CB-SG	23.07	2.21	1.82
10	I	29	CYS	CB-SG	23.03	2.21	1.82
4	A	1121	GLU	CB-CG	22.95	1.95	1.52
6	C	209	TYR	CD2-CE2	22.84	1.73	1.39
1	R	5	A	O3'-P	-22.75	1.33	1.61
4	A	1277	GLU	CG-CD	22.49	1.85	1.51
4	A	311	GLN	CB-CG	21.85	2.11	1.52
4	A	1285	MET	SD-CE	21.64	2.99	1.77
4	A	320	ARG	C-N	21.55	1.75	1.34
4	A	69	THR	CA-CB	21.18	2.08	1.53
6	C	201	TRP	CB-CG	-21.14	1.12	1.50
4	A	681	GLU	CG-CD	20.98	1.83	1.51
8	F	112	GLU	CG-CD	20.88	1.83	1.51
4	A	972	HIS	CA-CB	20.84	1.99	1.53
8	F	112	GLU	CB-CG	20.84	1.91	1.52
5	B	275	TYR	CB-CG	20.60	1.82	1.51
4	A	1278	ASN	CB-CG	20.58	1.98	1.51
2	T	17	DG	C3'-O3'	-20.45	1.17	1.44
7	E	172	GLU	CB-CG	20.32	1.90	1.52
4	A	672	ASP	CB-CG	20.25	1.94	1.51
4	A	322	VAL	CB-CG2	20.15	1.95	1.52
4	A	1398	MET	SD-CE	20.08	2.90	1.77
5	B	429	PHE	CB-CG	20.03	1.85	1.51
4	A	1362	TYR	CD2-CE2	19.92	1.69	1.39
5	B	1189	ILE	CA-CB	19.89	2.00	1.54
4	A	1277	GLU	CB-CG	19.70	1.89	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	552	MET	SD-CE	19.62	2.87	1.77
10	I	9	ASP	CB-CG	19.56	1.92	1.51
4	A	162	VAL	CA-CB	19.39	1.95	1.54
4	A	685	GLU	CG-CD	19.31	1.80	1.51
4	A	905	ASP	CB-CG	19.23	1.92	1.51
5	B	866	TYR	CB-CG	19.22	1.80	1.51
6	C	41	ILE	CA-CB	-19.16	1.10	1.54
8	F	103	MET	SD-CE	18.95	2.83	1.77
4	A	1256	GLU	CB-CG	18.54	1.87	1.52
4	A	531	ILE	CA-CB	18.50	1.97	1.54
9	H	34	ASP	CB-CG	18.42	1.90	1.51
5	B	275	TYR	CD1-CE1	18.21	1.66	1.39
6	C	50	GLU	CG-CD	18.12	1.79	1.51
5	B	1221	SER	CA-CB	18.07	1.80	1.52
4	A	895	LYS	CB-CG	18.01	2.01	1.52
6	C	78	GLU	CG-CD	18.00	1.78	1.51
4	A	67	CYS	CB-SG	17.97	2.12	1.82
5	B	466	TRP	CE3-CZ3	-17.97	1.07	1.38
2	T	21	DC	O3'-P	-17.97	1.39	1.61
4	A	1121	GLU	CG-CD	17.94	1.78	1.51
10	I	107	SER	CA-CB	17.92	1.79	1.52
5	B	903	VAL	CA-CB	-17.91	1.17	1.54
4	A	620	LYS	CB-CG	17.89	2.00	1.52
10	I	10	CYS	CB-SG	17.77	2.12	1.82
4	A	1080	THR	CA-CB	17.65	1.99	1.53
5	B	1185	CYS	CB-SG	17.63	2.12	1.82
5	B	667	GLN	CB-CG	17.58	2.00	1.52
5	B	473	MET	SD-CE	17.55	2.76	1.77
4	A	1242	VAL	CB-CG1	17.44	1.89	1.52
10	I	36	GLU	CG-CD	17.43	1.78	1.51
7	E	172	GLU	CG-CD	17.41	1.78	1.51
7	E	45	LYS	CB-CG	17.40	1.99	1.52
5	B	882	THR	N-CA	17.39	1.81	1.46
4	A	724	GLU	CG-CD	17.39	1.78	1.51
5	B	892	LYS	CD-CE	17.27	1.94	1.51
9	H	19	ARG	CG-CD	17.17	1.94	1.51
6	C	265	MET	SD-CE	17.00	2.73	1.77
13	L	26	THR	CA-CB	16.90	1.97	1.53
4	A	153	PRO	CA-C	16.86	1.86	1.52
9	H	45	GLU	CG-CD	16.85	1.77	1.51
7	E	4	GLU	CB-CG	16.82	1.84	1.52
4	A	352	VAL	CB-CG2	-16.79	1.17	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	H	19	ARG	CB-CG	16.73	1.97	1.52
7	E	215	MET	SD-CE	16.71	2.71	1.77
5	B	522	VAL	CA-CB	-16.66	1.19	1.54
13	L	68	GLU	CG-CD	16.61	1.76	1.51
5	B	472	ALA	N-CA	16.50	1.79	1.46
4	A	781	ASP	CB-CG	16.47	1.86	1.51
10	I	60	GLN	CB-CG	16.45	1.97	1.52
7	E	119	SER	CA-CB	16.45	1.77	1.52
4	A	311	GLN	CG-CD	16.42	1.88	1.51
4	A	1146	VAL	CB-CG2	16.42	1.87	1.52
4	A	812	GLU	CG-CD	16.40	1.76	1.51
4	A	265	LYS	CD-CE	16.38	1.92	1.51
5	B	646	LEU	CA-CB	16.37	1.91	1.53
4	A	486	GLU	CG-CD	16.36	1.76	1.51
5	B	918	ILE	CA-CB	16.36	1.92	1.54
7	E	162	ARG	CG-CD	16.34	1.92	1.51
4	A	620	LYS	CD-CE	16.32	1.92	1.51
2	T	12	DC	C3'-O3'	16.27	1.65	1.44
10	I	8	ARG	CG-CD	16.20	1.92	1.51
5	B	69	LEU	CA-C	16.15	1.95	1.52
5	B	466	TRP	CG-CD2	-16.15	1.16	1.43
4	A	1110	ASN	CA-CB	16.14	1.95	1.53
7	E	4	GLU	CG-CD	16.14	1.76	1.51
5	B	473	MET	CG-SD	16.12	2.23	1.81
4	A	506	ALA	CA-CB	-16.07	1.18	1.52
5	B	709	ASP	CB-CG	15.94	1.85	1.51
5	B	608	ASP	CB-CG	15.90	1.85	1.51
9	H	76	THR	CA-CB	15.79	1.94	1.53
5	B	368	GLU	CG-CD	15.74	1.75	1.51
7	E	50	MET	SD-CE	15.71	2.65	1.77
4	A	593	GLU	CG-CD	15.69	1.75	1.51
5	B	826	ALA	CA-CB	-15.66	1.19	1.52
6	C	208	GLU	CG-CD	15.64	1.75	1.51
5	B	567	GLU	CG-CD	15.63	1.75	1.51
6	C	209	TYR	CD1-CE1	15.60	1.62	1.39
9	H	82	PRO	CA-C	15.57	1.83	1.52
5	B	275	TYR	CE1-CZ	15.55	1.58	1.38
5	B	49	ASP	CB-CG	15.54	1.84	1.51
4	A	227	VAL	CA-CB	15.53	1.87	1.54
11	J	44	TYR	CD2-CE2	15.50	1.62	1.39
5	B	549	THR	CB-CG2	15.44	2.03	1.52
5	B	164	LYS	CB-CG	15.36	1.94	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	H	79	TRP	CB-CG	-15.34	1.22	1.50
4	A	790	ASP	CB-CG	15.33	1.83	1.51
4	A	817	ALA	CA-CB	-15.32	1.20	1.52
12	K	20	LYS	CD-CE	15.29	1.89	1.51
6	C	4	GLU	CG-CD	15.25	1.74	1.51
4	A	712	GLU	CG-CD	15.24	1.74	1.51
9	H	86	ASP	CB-CG	15.19	1.83	1.51
10	I	77	LYS	CB-CG	15.16	1.93	1.52
5	B	468	GLU	CG-CD	15.16	1.74	1.51
4	A	1346	ALA	CA-CB	-15.15	1.20	1.52
4	A	129	LYS	CB-CG	15.15	1.93	1.52
4	A	1337	GLU	CG-CD	15.13	1.74	1.51
5	B	315	LYS	CB-CG	15.11	1.93	1.52
5	B	667	GLN	CG-CD	15.08	1.85	1.51
4	A	316	GLN	CB-CG	15.07	1.93	1.52
4	A	820	GLY	C-N	15.06	1.68	1.34
4	A	1204	ASP	CB-CG	14.97	1.83	1.51
12	K	83	PRO	CB-CG	14.95	2.24	1.50
5	B	1111	MET	SD-CE	14.94	2.61	1.77
12	K	10	PHE	CB-CG	-14.91	1.26	1.51
4	A	274	ILE	CA-CB	14.90	1.89	1.54
5	B	1120	GLU	CG-CD	14.89	1.74	1.51
4	A	945	GLU	CG-CD	14.88	1.74	1.51
6	C	152	GLU	CG-CD	14.88	1.74	1.51
4	A	933	TYR	CD1-CE1	14.82	1.61	1.39
4	A	1299	VAL	CB-CG1	14.80	1.83	1.52
4	A	1287	TYR	CD2-CE2	14.76	1.61	1.39
6	C	121	VAL	CB-CG1	14.76	1.83	1.52
11	J	10	CYS	CB-SG	14.76	2.07	1.82
4	A	1214	GLU	CG-CD	14.73	1.74	1.51
9	H	109	LYS	CB-CG	14.72	1.92	1.52
7	E	158	SER	CA-CB	14.72	1.75	1.52
4	A	976	THR	CA-CB	14.69	1.91	1.53
5	B	986	GLN	CG-CD	14.68	1.84	1.51
5	B	1098	MET	SD-CE	14.68	2.60	1.77
5	B	319	GLU	CG-CD	14.67	1.74	1.51
4	A	1109	LYS	CD-CE	14.63	1.87	1.51
4	A	945	GLU	CB-CG	14.54	1.79	1.52
5	B	595	ARG	CB-CG	14.51	1.91	1.52
9	H	126	GLU	CG-CD	14.51	1.73	1.51
5	B	655	LYS	CB-CG	14.51	1.91	1.52
5	B	570	VAL	CB-CG2	14.46	1.83	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	321	PRO	C-O	14.45	1.52	1.23
5	B	429	PHE	CD1-CE1	14.44	1.68	1.39
5	B	509	ALA	CA-CB	14.44	1.82	1.52
13	L	68	GLU	CB-CG	14.44	1.79	1.52
4	A	863	VAL	CB-CG1	14.43	1.83	1.52
4	A	1277	GLU	CA-CB	14.42	1.85	1.53
5	B	666	TYR	CB-CG	14.41	1.73	1.51
9	H	81	PRO	CA-C	14.41	1.81	1.52
4	A	1361	SER	CA-CB	14.36	1.74	1.52
4	A	1057	VAL	CB-CG1	14.35	1.82	1.52
8	F	127	GLU	CG-CD	14.35	1.73	1.51
5	B	497	ARG	CG-CD	14.35	1.87	1.51
2	T	21	DC	O5'-C5'	14.34	1.78	1.42
5	B	133	LYS	CB-CG	14.30	1.91	1.52
4	A	833	GLU	CG-CD	14.27	1.73	1.51
5	B	315	LYS	CD-CE	14.20	1.86	1.51
13	L	50	ASP	N-CA	14.20	1.74	1.46
5	B	431	TYR	CD1-CE1	14.18	1.60	1.39
4	A	17	VAL	CB-CG1	14.17	1.82	1.52
13	L	49	LYS	CB-CG	14.14	1.90	1.52
5	B	476	ARG	CG-CD	14.10	1.87	1.51
4	A	1393	ASN	CB-CG	14.09	1.83	1.51
5	B	1223	ASP	CB-CG	14.05	1.81	1.51
4	A	620	LYS	CE-NZ	14.02	1.84	1.49
10	I	41	PRO	CA-C	-14.01	1.24	1.52
4	A	496	GLU	CG-CD	14.00	1.73	1.51
6	C	121	VAL	CA-CB	-13.99	1.25	1.54
5	B	95	ILE	CA-CB	-13.99	1.22	1.54
4	A	1196	GLU	CG-CD	13.99	1.73	1.51
5	B	908	GLU	CG-CD	13.98	1.73	1.51
4	A	327	ALA	CA-CB	13.96	1.81	1.52
7	E	148	GLU	CG-CD	13.94	1.72	1.51
11	J	44	TYR	CD1-CE1	13.91	1.60	1.39
5	B	987	LYS	CD-CE	13.88	1.85	1.51
5	B	598	GLU	CG-CD	13.87	1.72	1.51
8	F	127	GLU	CB-CG	13.87	1.78	1.52
5	B	211	VAL	CA-CB	-13.86	1.25	1.54
8	F	76	LYS	CD-CE	13.86	1.85	1.51
5	B	429	PHE	CD2-CE2	13.84	1.67	1.39
2	T	18	DA	O3'-P	-13.83	1.44	1.61
4	A	832	ALA	CA-CB	-13.83	1.23	1.52
4	A	551	TYR	CD2-CE2	13.82	1.60	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	I	60	GLN	CG-CD	13.81	1.82	1.51
4	A	941	LYS	CD-CE	13.79	1.85	1.51
9	H	14	GLU	CG-CD	13.79	1.72	1.51
9	H	52	GLN	CB-CG	13.77	1.89	1.52
4	A	1221	LYS	CB-CG	13.77	1.89	1.52
7	E	159	ASP	CB-CG	13.75	1.80	1.51
4	A	1293	SER	CA-CB	13.73	1.73	1.52
6	C	221	TYR	CD1-CE1	-13.72	1.18	1.39
4	A	37	PHE	CB-CG	13.69	1.74	1.51
6	C	208	GLU	CB-CG	13.64	1.78	1.52
5	B	108	VAL	CB-CG1	13.61	1.81	1.52
4	A	15	LYS	CD-CE	13.59	1.85	1.51
4	A	844	ALA	CA-CB	-13.57	1.24	1.52
4	A	57	ARG	CG-CD	13.53	1.85	1.51
4	A	286	HIS	CA-CB	13.53	1.83	1.53
5	B	68	THR	CA-CB	13.51	1.88	1.53
4	A	74	MET	SD-CE	13.51	2.53	1.77
6	C	225	ALA	CA-CB	-13.49	1.24	1.52
6	C	217	ASP	CB-CG	13.45	1.79	1.51
5	B	695	ALA	CA-CB	13.44	1.80	1.52
5	B	132	VAL	CB-CG2	-13.42	1.24	1.52
5	B	666	TYR	CD2-CE2	13.41	1.59	1.39
4	A	941	LYS	CB-CG	13.41	1.88	1.52
10	I	116	ASN	CB-CG	13.40	1.81	1.51
5	B	968	VAL	CB-CG1	-13.39	1.24	1.52
5	B	865	LYS	N-CA	13.37	1.73	1.46
5	B	305	VAL	CB-CG2	13.36	1.80	1.52
6	C	235	VAL	CA-CB	-13.34	1.26	1.54
5	B	641	GLU	CG-CD	13.31	1.72	1.51
4	A	42	ASP	CB-CG	13.29	1.79	1.51
6	C	78	GLU	CB-CG	13.29	1.77	1.52
4	A	518	LYS	CD-CE	13.27	1.84	1.51
4	A	1256	GLU	CG-CD	13.27	1.71	1.51
5	B	1085	ILE	CA-CB	-13.26	1.24	1.54
4	A	278	THR	CA-CB	13.24	1.87	1.53
12	K	55	LYS	CD-CE	13.23	1.84	1.51
5	B	865	LYS	CB-CG	13.22	1.88	1.52
4	A	1127	ASP	CB-CG	13.22	1.79	1.51
5	B	637	LEU	CA-CB	-13.21	1.23	1.53
4	A	44	THR	CA-CB	13.19	1.87	1.53
10	I	36	GLU	CB-CG	13.18	1.77	1.52
5	B	478	GLY	CA-C	13.16	1.73	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	F	76	LYS	CB-CG	13.16	1.88	1.52
4	A	551	TYR	CE2-CZ	13.15	1.55	1.38
6	C	209	TYR	CE2-CZ	13.15	1.55	1.38
1	R	5	A	P-O5'	13.14	1.72	1.59
5	B	793	ALA	CA-CB	-13.13	1.24	1.52
6	C	149	LYS	CB-CG	13.12	1.88	1.52
4	A	277	GLU	CG-CD	13.10	1.71	1.51
6	C	12	GLU	CG-CD	13.09	1.71	1.51
5	B	345	LYS	CD-CE	13.08	1.83	1.51
9	H	139	ASN	CB-CG	13.08	1.81	1.51
12	K	55	LYS	CB-CG	13.08	1.87	1.52
2	T	16	DC	C3'-O3'	13.04	1.60	1.44
4	A	311	GLN	CA-CB	13.02	1.82	1.53
4	A	1092	LYS	CB-CG	13.02	1.87	1.52
5	B	853	SER	CA-CB	-13.01	1.33	1.52
5	B	595	ARG	CD-NE	13.00	1.68	1.46
5	B	706	GLN	CB-CG	12.99	1.87	1.52
4	A	218	ASP	CB-CG	12.98	1.79	1.51
4	A	833	GLU	CB-CG	12.96	1.76	1.52
9	H	15	VAL	CA-CB	12.95	1.81	1.54
5	B	510	LYS	N-CA	12.95	1.72	1.46
5	B	1120	GLU	CB-CG	12.95	1.76	1.52
4	A	277	GLU	CB-CG	12.94	1.76	1.52
12	K	8	GLU	CG-CD	12.94	1.71	1.51
5	B	691	GLU	CG-CD	12.90	1.71	1.51
7	E	111	VAL	CB-CG1	12.90	1.79	1.52
5	B	1027	ILE	CA-CB	-12.89	1.25	1.54
7	E	207	ARG	CG-CD	12.87	1.84	1.51
4	A	895	LYS	CG-CD	12.86	1.96	1.52
5	B	666	TYR	CD1-CE1	12.86	1.58	1.39
5	B	277	LYS	CB-CG	12.85	1.87	1.52
6	C	154	LYS	CD-CE	12.84	1.83	1.51
5	B	709	ASP	CA-CB	12.84	1.82	1.53
5	B	1092	TYR	CE1-CZ	12.81	1.55	1.38
7	E	54	GLN	CB-CG	12.81	1.87	1.52
4	A	984	LYS	CD-CE	12.80	1.83	1.51
11	J	55	ASP	CB-CG	12.80	1.78	1.51
9	H	37	LYS	CD-CE	12.79	1.83	1.51
4	A	776	ALA	CA-CB	-12.79	1.25	1.52
5	B	1220	ARG	CB-CG	12.78	1.87	1.52
4	A	593	GLU	CB-CG	12.78	1.76	1.52
5	B	101	MET	SD-CE	12.76	2.49	1.77

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	275	TYR	CA-CB	12.75	1.81	1.53
12	K	54	ARG	CB-CG	12.74	1.86	1.52
4	A	1283	VAL	CA-CB	-12.72	1.28	1.54
5	B	315	LYS	CG-CD	12.72	1.95	1.52
10	I	4	PHE	CB-CG	-12.71	1.29	1.51
8	F	73	ALA	CA-CB	-12.70	1.25	1.52
4	A	1433	MET	SD-CE	12.66	2.48	1.77
5	B	305	VAL	CA-CB	12.65	1.81	1.54
4	A	656	TRP	CB-CG	-12.61	1.27	1.50
5	B	606	LYS	CD-CE	12.61	1.82	1.51
4	A	1173	HIS	N-CA	12.61	1.71	1.46
4	A	739	ASP	CB-CG	12.60	1.78	1.51
4	A	875	ALA	CA-CB	-12.59	1.26	1.52
4	A	900	ASP	CB-CG	12.59	1.78	1.51
13	L	44	ASP	CB-CG	12.59	1.78	1.51
4	A	104	GLU	CG-CD	12.58	1.70	1.51
5	B	305	VAL	CB-CG1	12.58	1.79	1.52
5	B	227	LYS	CD-CE	12.58	1.82	1.51
5	B	275	TYR	CD2-CE2	12.57	1.58	1.39
1	R	7	A	C5'-C4'	-12.56	1.36	1.51
4	A	1153	TYR	CD1-CE1	12.55	1.58	1.39
5	B	532	ALA	CA-CB	12.54	1.78	1.52
4	A	1134	ILE	CA-CB	-12.54	1.26	1.54
12	K	54	ARG	CG-CD	12.52	1.83	1.51
4	A	85	ASP	CB-CG	12.52	1.78	1.51
4	A	1162	VAL	CB-CG1	-12.52	1.26	1.52
5	B	1022	THR	CA-CB	-12.52	1.20	1.53
10	I	77	LYS	CG-CD	12.51	1.95	1.52
5	B	368	GLU	CB-CG	12.50	1.75	1.52
5	B	816	GLU	CG-CD	12.48	1.70	1.51
4	A	1315	GLU	CG-CD	12.48	1.70	1.51
4	A	1408	ILE	CA-CB	-12.47	1.26	1.54
5	B	866	TYR	CA-CB	12.47	1.81	1.53
5	B	1071	VAL	CA-CB	-12.46	1.28	1.54
5	B	372	SER	CA-CB	12.45	1.71	1.52
6	C	3	GLU	CG-CD	12.44	1.70	1.51
12	K	20	LYS	CE-NZ	12.44	1.80	1.49
13	L	43	THR	CA-CB	12.43	1.85	1.53
4	A	1353	TYR	CD1-CE1	12.43	1.57	1.39
5	B	1217	TYR	CD1-CE1	-12.42	1.20	1.39
5	B	730	ARG	CB-CG	12.41	1.86	1.52
4	A	518	LYS	CE-NZ	12.40	1.80	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	E	81	GLU	CB-CG	12.36	1.75	1.52
8	F	88	TYR	CE1-CZ	-12.36	1.22	1.38
7	E	35	VAL	CA-CB	12.35	1.80	1.54
11	J	65	PRO	CB-CG	12.34	2.11	1.50
4	A	15	LYS	CE-NZ	12.33	1.79	1.49
5	B	892	LYS	CE-NZ	12.33	1.79	1.49
9	H	110	ASP	CB-CG	12.33	1.77	1.51
5	B	294	ASP	CB-CG	12.32	1.77	1.51
4	A	797	LYS	CE-NZ	12.31	1.79	1.49
7	E	35	VAL	CB-CG2	12.31	1.78	1.52
13	L	64	LEU	CG-CD1	12.31	1.97	1.51
4	A	1129	GLU	CG-CD	12.31	1.70	1.51
4	A	87	ALA	CA-CB	12.29	1.78	1.52
5	B	67	SER	CA-CB	12.28	1.71	1.52
5	B	347	LYS	CB-CG	12.28	1.85	1.52
5	B	250	PHE	CB-CG	12.27	1.72	1.51
8	F	153	VAL	CB-CG1	12.27	1.78	1.52
8	F	76	LYS	CG-CD	12.26	1.94	1.52
10	I	77	LYS	CA-CB	12.25	1.80	1.53
5	B	870	ILE	CB-CG2	12.24	1.90	1.52
6	C	64	ALA	CA-CB	-12.24	1.26	1.52
6	C	214	ASN	CB-CG	12.23	1.79	1.51
5	B	799	PRO	N-CD	-12.23	1.30	1.47
6	C	137	LYS	CE-NZ	12.22	1.79	1.49
5	B	1224	PHE	CB-CG	12.20	1.72	1.51
1	R	4	G	P-OP1	12.19	1.69	1.49
5	B	868	MET	CG-SD	12.19	2.12	1.81
5	B	134	LYS	CB-CG	12.18	1.85	1.52
6	C	154	LYS	CE-NZ	12.17	1.79	1.49
8	F	106	PRO	CB-CG	12.15	2.10	1.50
9	H	57	VAL	CB-CG1	12.13	1.78	1.52
5	B	987	LYS	CE-NZ	12.11	1.79	1.49
9	H	2	SER	CA-C	12.11	1.84	1.52
5	B	622	LYS	CD-CE	12.10	1.81	1.51
4	A	1238	ILE	CA-CB	-12.10	1.27	1.54
4	A	324	SER	CA-CB	-12.08	1.34	1.52
7	E	85	GLU	CG-CD	12.07	1.70	1.51
10	I	74	GLU	CG-CD	12.07	1.70	1.51
5	B	219	ALA	CA-CB	12.03	1.77	1.52
9	H	60	ALA	CA-CB	12.02	1.77	1.52
4	A	820	GLY	CA-C	12.00	1.71	1.51
4	A	1013	ASP	CB-CG	12.00	1.76	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	883	LEU	CA-CB	12.00	1.81	1.53
4	A	934	LYS	CD-CE	12.00	1.81	1.51
4	A	284	ALA	CA-CB	11.98	1.77	1.52
5	B	1136	ASP	CB-CG	11.97	1.76	1.51
7	E	66	GLU	CB-CG	11.96	1.74	1.52
6	C	205	LYS	CB-CG	11.96	1.84	1.52
1	R	1	A	O3'-P	-11.94	1.46	1.61
4	A	880	LYS	CD-CE	11.95	1.81	1.51
4	A	640	GLN	CG-CD	11.93	1.78	1.51
6	C	125	MET	SD-CE	11.93	2.44	1.77
5	B	509	ALA	CA-C	11.93	1.83	1.52
2	T	23	DC	C4'-O4'	-11.93	1.33	1.45
5	B	28	GLU	CB-CG	11.93	1.74	1.52
5	B	188	ASP	CB-CG	11.92	1.76	1.51
12	K	108	GLU	CG-CD	11.91	1.69	1.51
4	A	1003	LYS	CD-CE	11.90	1.81	1.51
6	C	233	GLU	CG-CD	11.90	1.69	1.51
4	A	724	GLU	CB-CG	11.90	1.74	1.52
9	H	52	GLN	CG-CD	11.90	1.78	1.51
4	A	644	LYS	CD-CE	11.89	1.80	1.51
6	C	154	LYS	CB-CG	11.89	1.84	1.52
4	A	972	HIS	CB-CG	11.88	1.71	1.50
5	B	462	ALA	CA-CB	-11.88	1.27	1.52
4	A	1278	ASN	CA-CB	11.87	1.84	1.53
8	F	78	GLN	CB-CG	11.85	1.84	1.52
5	B	1223	ASP	CA-C	11.85	1.83	1.52
9	H	110	ASP	CA-CB	11.85	1.80	1.53
4	A	1362	TYR	CD1-CE1	11.84	1.57	1.39
7	E	16	PHE	CE2-CZ	11.84	1.59	1.37
5	B	328	GLU	CG-CD	11.83	1.69	1.51
5	B	798	TYR	C-N	11.81	1.56	1.34
5	B	786	ASN	CB-CG	11.79	1.78	1.51
9	H	3	ASN	CB-CG	11.78	1.78	1.51
4	A	941	LYS	CG-CD	11.76	1.92	1.52
6	C	88	CYS	CB-SG	-11.76	1.62	1.82
5	B	482	VAL	CB-CG2	-11.74	1.28	1.52
5	B	522	VAL	CB-CG1	-11.73	1.28	1.52
13	L	50	ASP	CB-CG	11.72	1.76	1.51
4	A	734	GLU	CG-CD	11.71	1.69	1.51
9	H	80	ARG	CG-CD	11.71	1.81	1.51
4	A	107	CYS	CB-SG	11.71	2.02	1.82
5	B	28	GLU	CG-CD	11.70	1.69	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	T	20	DC	C3'-O3'	-11.70	1.28	1.44
4	A	1259	MET	SD-CE	11.69	2.43	1.77
9	H	114	VAL	CB-CG1	11.67	1.77	1.52
9	H	127	GLY	CA-C	11.66	1.70	1.51
6	C	180	TYR	CD1-CE1	11.66	1.56	1.39
4	A	592	ASP	CB-CG	11.64	1.76	1.51
4	A	1165	GLU	CB-CG	11.63	1.74	1.52
12	K	20	LYS	CB-CG	11.63	1.83	1.52
5	B	866	TYR	CD1-CE1	11.63	1.56	1.39
4	A	792	TYR	CE1-CZ	11.62	1.53	1.38
9	H	84	ALA	CA-CB	11.61	1.76	1.52
5	B	758	PHE	CB-CG	-11.61	1.31	1.51
5	B	351	TYR	CD1-CE1	11.61	1.56	1.39
7	E	121	MET	SD-CE	11.60	2.42	1.77
5	B	1057	LYS	CB-CG	11.60	1.83	1.52
9	H	85	GLY	CA-C	11.60	1.70	1.51
4	A	998	LEU	CG-CD2	11.58	1.94	1.51
5	B	536	VAL	CB-CG1	-11.57	1.28	1.52
5	B	426	LYS	CD-CE	11.55	1.80	1.51
5	B	646	LEU	CB-CG	11.55	1.86	1.52
7	E	201	LYS	CB-CG	11.55	1.83	1.52
4	A	620	LYS	CG-CD	11.55	1.91	1.52
5	B	415	GLN	CB-CG	11.54	1.83	1.52
10	I	107	SER	CB-OG	11.54	1.57	1.42
10	I	59	VAL	CB-CG2	-11.54	1.28	1.52
4	A	1317	MET	SD-CE	11.53	2.42	1.77
13	L	26	THR	CA-C	11.52	1.82	1.52
4	A	321	PRO	CA-C	11.51	1.75	1.52
4	A	1231	ASP	CB-CG	11.51	1.75	1.51
4	A	991	LYS	CD-CE	11.50	1.80	1.51
6	C	137	LYS	CD-CE	11.50	1.80	1.51
5	B	335	GLY	CA-C	11.50	1.70	1.51
5	B	568	ASP	CB-CG	11.49	1.75	1.51
4	A	1174	PHE	N-CA	11.48	1.69	1.46
5	B	522	VAL	CB-CG2	-11.48	1.28	1.52
7	E	45	LYS	CA-CB	11.48	1.79	1.53
4	A	49	LYS	CD-CE	11.48	1.79	1.51
7	E	90	VAL	CB-CG1	11.48	1.76	1.52
5	B	353	LYS	CB-CG	11.46	1.83	1.52
5	B	636	PRO	CB-CG	11.45	2.07	1.50
4	A	590	ARG	CG-CD	11.44	1.80	1.51
4	A	532	ARG	CB-CG	11.44	1.83	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	T	17	DG	P-OP1	11.43	1.68	1.49
5	B	241	ARG	CG-CD	11.43	1.80	1.51
5	B	1036	ALA	CA-CB	11.42	1.76	1.52
12	K	85	ASP	CB-CG	11.42	1.75	1.51
5	B	968	VAL	CA-CB	-11.41	1.30	1.54
4	A	1256	GLU	CA-CB	11.40	1.79	1.53
5	B	275	TYR	CG-CD1	11.40	1.53	1.39
5	B	866	TYR	CD2-CE2	11.39	1.56	1.39
5	B	488	TYR	CD1-CE1	-11.38	1.22	1.39
4	A	408	ASP	CB-CG	11.37	1.75	1.51
6	C	4	GLU	CB-CG	11.36	1.73	1.52
5	B	655	LYS	CD-CE	11.35	1.79	1.51
4	A	895	LYS	CA-CB	11.35	1.78	1.53
4	A	1112	LYS	CB-CG	11.34	1.83	1.52
4	A	524	VAL	CB-CG1	11.33	1.76	1.52
12	K	3	ALA	CA-CB	-11.33	1.28	1.52
5	B	880	THR	CA-CB	11.32	1.82	1.53
13	L	42	ARG	CG-CD	11.31	1.80	1.51
4	A	325	ILE	CB-CG2	11.31	1.88	1.52
4	A	531	ILE	CB-CG2	11.31	1.88	1.52
6	C	232	VAL	CB-CG1	-11.31	1.29	1.52
4	A	152	VAL	CA-CB	11.30	1.78	1.54
5	B	567	GLU	CB-CG	11.29	1.73	1.52
4	A	171	GLN	CB-CG	11.28	1.82	1.52
4	A	1300	LYS	CD-CE	11.28	1.79	1.51
6	C	52	GLU	CG-CD	11.26	1.68	1.51
10	I	91	ARG	CB-CG	11.26	1.82	1.52
7	E	46	TYR	CE1-CZ	11.25	1.53	1.38
4	A	958	VAL	CA-CB	-11.24	1.31	1.54
4	A	1324	PRO	CA-C	-11.23	1.30	1.52
5	B	345	LYS	CB-CG	11.23	1.82	1.52
4	A	1209	MET	CG-SD	11.22	2.10	1.81
4	A	1237	ILE	CA-CB	-11.22	1.29	1.54
5	B	699	GLU	CD-OE2	11.22	1.38	1.25
10	I	85	PHE	CE2-CZ	-11.21	1.16	1.37
7	E	52	ARG	CG-CD	11.21	1.79	1.51
4	A	934	LYS	CB-CG	11.20	1.82	1.52
4	A	368	LYS	CD-CE	11.19	1.79	1.51
5	B	259	TYR	CD2-CE2	11.19	1.56	1.39
5	B	131	ASP	CB-CG	11.18	1.75	1.51
11	J	29	GLU	CG-CD	11.18	1.68	1.51
5	B	1023	VAL	CB-CG2	-11.18	1.29	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	825	VAL	CB-CG1	11.17	1.76	1.52
11	J	59	LYS	CD-CE	11.15	1.79	1.51
1	R	8	G	C3'-O3'	11.15	1.57	1.42
2	T	22	DT	P-OP2	11.14	1.67	1.49
5	B	479	VAL	CA-CB	-11.13	1.31	1.54
6	C	102	GLN	CG-CD	11.12	1.76	1.51
4	A	212	LYS	CB-CG	11.12	1.82	1.52
5	B	115	GLN	CG-CD	11.11	1.76	1.51
5	B	531	GLN	CB-CG	11.11	1.82	1.52
5	B	753	ALA	CA-CB	-11.11	1.29	1.52
6	C	179	GLU	CG-CD	11.11	1.68	1.51
5	B	950	ASP	CB-CG	11.10	1.75	1.51
4	A	1125	ALA	CA-CB	11.10	1.75	1.52
4	A	1424	VAL	CB-CG2	-11.07	1.29	1.52
6	C	222	LYS	CD-CE	11.07	1.78	1.51
5	B	1220	ARG	CG-CD	11.06	1.79	1.51
5	B	560	GLU	CG-CD	11.06	1.68	1.51
4	A	554	PRO	CA-C	-11.05	1.30	1.52
7	E	83	CYS	CA-C	11.04	1.81	1.52
4	A	736	ASN	CB-CG	-11.04	1.25	1.51
5	B	433	GLN	CB-CG	11.03	1.82	1.52
5	B	703	ILE	CA-CB	-11.03	1.29	1.54
9	H	86	ASP	N-CA	11.03	1.68	1.46
4	A	1003	LYS	CB-CG	11.02	1.82	1.52
4	A	1332	PHE	CE2-CZ	11.01	1.58	1.37
11	J	3	VAL	CB-CG2	11.01	1.75	1.52
4	A	795	GLU	CG-CD	11.00	1.68	1.51
4	A	1391	ARG	CG-CD	11.00	1.79	1.51
5	B	880	THR	CA-C	11.00	1.81	1.52
4	A	372	LYS	CB-CG	11.00	1.82	1.52
7	E	52	ARG	CB-CG	10.99	1.82	1.52
4	A	1337	GLU	CB-CG	10.99	1.73	1.52
9	H	3	ASN	N-CA	10.99	1.68	1.46
4	A	1303	GLU	CG-CD	10.99	1.68	1.51
9	H	51	ALA	CA-CB	10.99	1.75	1.52
4	A	984	LYS	CE-NZ	10.98	1.76	1.49
11	J	29	GLU	CB-CG	10.98	1.73	1.52
5	B	789	MET	SD-CE	10.97	2.39	1.77
9	H	63	LEU	CG-CD2	10.96	1.92	1.51
4	A	387	ARG	CG-CD	10.95	1.79	1.51
4	A	66	LYS	CB-CG	10.95	1.82	1.52
12	K	109	TRP	CE3-CZ3	-10.95	1.19	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	E	33	GLU	CA-C	10.94	1.81	1.52
12	K	53	ASP	CB-CG	10.94	1.74	1.51
4	A	1102	LYS	CD-CE	10.94	1.78	1.51
4	A	905	ASP	CA-CB	10.93	1.77	1.53
5	B	354	ASP	CB-CG	10.92	1.74	1.51
4	A	1230	GLU	CG-CD	10.92	1.68	1.51
4	A	676	MET	SD-CE	10.92	2.38	1.77
5	B	622	LYS	CB-CG	10.92	1.82	1.52
5	B	470	LYS	CE-NZ	10.91	1.76	1.49
10	I	42	LEU	CG-CD2	10.91	1.92	1.51
5	B	1222	ARG	CG-CD	10.90	1.79	1.51
5	B	429	PHE	CG-CD1	10.89	1.55	1.38
4	A	877	HIS	CA-CB	10.88	1.77	1.53
6	C	138	GLU	CG-CD	10.87	1.68	1.51
4	A	337	ARG	CG-CD	10.87	1.79	1.51
4	A	911	SER	CA-CB	10.87	1.69	1.52
5	B	730	ARG	CG-CD	10.86	1.79	1.51
4	A	1121	GLU	CA-CB	10.86	1.77	1.53
13	L	37	LYS	CB-CG	10.86	1.81	1.52
5	B	397	ASP	CB-CG	10.85	1.74	1.51
6	C	102	GLN	CB-CG	10.84	1.81	1.52
5	B	881	ASN	CB-CG	10.82	1.75	1.51
4	A	553	VAL	CA-CB	-10.82	1.32	1.54
4	A	608	ILE	CA-CB	-10.81	1.29	1.54
5	B	94	LYS	CB-CG	10.81	1.81	1.52
4	A	66	LYS	CD-CE	10.80	1.78	1.51
4	A	1144	LYS	CD-CE	10.80	1.78	1.51
5	B	414	ALA	CA-CB	-10.79	1.29	1.52
1	R	4	G	O3'-P	10.78	1.74	1.61
9	H	146	ARG	CG-CD	10.78	1.78	1.51
5	B	472	ALA	C-O	10.75	1.43	1.23
7	E	21	GLU	CG-CD	10.75	1.68	1.51
7	E	42	PHE	CD2-CE2	10.75	1.60	1.39
11	J	44	TYR	CE2-CZ	10.75	1.52	1.38
4	A	565	ILE	CA-CB	-10.74	1.30	1.54
5	B	478	GLY	C-O	10.74	1.40	1.23
5	B	1212	ILE	CA-CB	-10.74	1.30	1.54
9	H	109	LYS	CD-CE	10.74	1.78	1.51
4	A	1118	VAL	CB-CG1	10.73	1.75	1.52
13	L	37	LYS	CD-CE	10.72	1.78	1.51
5	B	799	PRO	CA-C	-10.71	1.31	1.52
11	J	19	GLU	CG-CD	10.71	1.68	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	C	222	LYS	CB-CG	10.71	1.81	1.52
4	A	431	LYS	CG-CD	10.70	1.88	1.52
4	A	898	ARG	CG-CD	10.68	1.78	1.51
5	B	629	ASP	CB-CG	10.67	1.74	1.51
7	E	117	THR	CA-C	10.67	1.80	1.52
4	A	563	PRO	CA-C	-10.66	1.31	1.52
5	B	667	GLN	CA-CB	10.66	1.77	1.53
5	B	1210	MET	SD-CE	10.66	2.37	1.77
4	A	98	LYS	CB-CG	10.66	1.81	1.52
4	A	291	GLU	CG-CD	10.66	1.68	1.51
6	C	52	GLU	CB-CG	10.66	1.72	1.52
5	B	785	TYR	CD1-CE1	-10.65	1.23	1.39
5	B	69	LEU	C-O	10.65	1.43	1.23
4	A	1217	LYS	CB-CG	10.64	1.81	1.52
7	E	42	PHE	CD1-CE1	10.64	1.60	1.39
4	A	1290	LYS	CD-CE	10.64	1.77	1.51
7	E	171	LYS	CB-CG	10.63	1.81	1.52
6	C	209	TYR	CZ-OH	10.61	1.55	1.37
5	B	23	ALA	CA-CB	-10.61	1.30	1.52
5	B	636	PRO	CG-CD	10.60	1.85	1.50
4	A	1343	ALA	CA-CB	-10.60	1.30	1.52
9	H	132	LEU	CA-CB	10.59	1.78	1.53
12	K	17	SER	CA-CB	10.59	1.68	1.52
4	A	1047	SER	CA-CB	-10.59	1.37	1.52
4	A	546	VAL	CB-CG1	10.58	1.75	1.52
4	A	562	THR	CA-CB	-10.58	1.25	1.53
5	B	715	ALA	CA-CB	10.58	1.74	1.52
5	B	964	VAL	CB-CG1	-10.57	1.30	1.52
5	B	102	VAL	CA-CB	-10.57	1.32	1.54
5	B	655	LYS	CG-CD	10.56	1.88	1.52
10	I	29	CYS	CA-CB	10.56	1.77	1.53
4	A	696	GLU	CG-CD	10.55	1.67	1.51
4	A	734	GLU	CD-OE1	10.55	1.37	1.25
4	A	1255	GLU	CG-CD	10.54	1.67	1.51
8	F	154	ASP	CB-CG	10.54	1.73	1.51
5	B	1193	GLN	CG-CD	10.53	1.75	1.51
5	B	711	GLU	CG-CD	-10.52	1.36	1.51
5	B	183	GLU	CG-CD	10.52	1.67	1.51
4	A	442	VAL	CA-CB	-10.51	1.32	1.54
5	B	40	GLU	CG-CD	10.51	1.67	1.51
5	B	781	PHE	CB-CG	-10.51	1.33	1.51
4	A	69	THR	N-CA	10.50	1.67	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1362	TYR	CE2-CZ	10.50	1.52	1.38
5	B	471	LYS	CD-CE	10.49	1.77	1.51
4	A	991	LYS	CB-CG	10.49	1.80	1.52
6	C	176	ILE	CA-CB	-10.49	1.30	1.54
9	H	52	GLN	CA-CB	10.49	1.77	1.53
5	B	327	ARG	CG-CD	10.48	1.78	1.51
13	L	41	SER	CA-CB	10.48	1.68	1.52
6	C	213	PRO	CA-C	10.47	1.73	1.52
9	H	131	ASN	CB-CG	10.47	1.75	1.51
4	A	1109	LYS	CG-CD	10.47	1.88	1.52
4	A	1214	GLU	CB-CG	10.47	1.72	1.52
4	A	37	PHE	CD2-CE2	10.46	1.60	1.39
5	B	327	ARG	CB-CG	10.46	1.80	1.52
5	B	712	PRO	CB-CG	10.45	2.02	1.50
4	A	237	THR	CA-CB	10.45	1.80	1.53
5	B	757	PRO	CA-C	-10.45	1.31	1.52
7	E	13	TRP	CB-CG	-10.45	1.31	1.50
4	A	318	SER	CA-C	10.44	1.80	1.52
7	E	46	TYR	CD1-CE1	10.44	1.55	1.39
7	E	128	PRO	CA-C	-10.44	1.31	1.52
10	I	10	CYS	N-CA	10.43	1.67	1.46
5	B	733	HIS	CA-CB	10.43	1.76	1.53
4	A	1081	LEU	N-CA	10.43	1.67	1.46
5	B	502	ILE	CA-CB	10.43	1.78	1.54
5	B	709	ASP	N-CA	10.41	1.67	1.46
4	A	275	SER	CA-CB	10.41	1.68	1.52
4	A	1334	ASP	CB-CG	10.41	1.73	1.51
5	B	315	LYS	CA-CB	10.41	1.76	1.53
4	A	1165	GLU	CG-CD	10.40	1.67	1.51
4	A	1338	VAL	CB-CG2	-10.40	1.31	1.52
4	A	1373	ASP	CB-CG	10.40	1.73	1.51
4	A	977	LYS	CB-CG	10.39	1.80	1.52
7	E	168	TYR	CD1-CE1	10.39	1.54	1.39
5	B	706	GLN	CG-CD	10.39	1.75	1.51
9	H	81	PRO	N-CA	10.38	1.64	1.47
10	I	93	LYS	CB-CG	10.37	1.80	1.52
5	B	910	VAL	CB-CG1	10.35	1.74	1.52
4	A	162	VAL	CB-CG1	10.35	1.74	1.52
5	B	813	LYS	CE-NZ	10.35	1.75	1.49
4	A	530	GLY	CA-C	10.34	1.68	1.51
4	A	588	LEU	CG-CD1	10.34	1.90	1.51
5	B	319	GLU	CB-CG	10.33	1.71	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1174	PHE	CA-C	10.33	1.79	1.52
4	A	1355	VAL	CA-CB	10.32	1.76	1.54
4	A	927	VAL	CB-CG1	10.32	1.74	1.52
5	B	589	VAL	CB-CG1	-10.31	1.31	1.52
4	A	323	LYS	CD-CE	10.31	1.77	1.51
4	A	250	ILE	CA-CB	10.30	1.78	1.54
5	B	751	VAL	CB-CG2	-10.30	1.31	1.52
4	A	962	ARG	CG-CD	10.29	1.77	1.51
6	C	87	PHE	CE2-CZ	10.29	1.56	1.37
10	I	52	ILE	CA-CB	10.28	1.78	1.54
4	A	729	ALA	CA-CB	-10.28	1.30	1.52
9	H	136	LYS	CB-CG	10.28	1.80	1.52
4	A	866	PHE	CD2-CE2	10.27	1.59	1.39
5	B	734	HIS	N-CA	10.27	1.66	1.46
4	A	905	ASP	CA-C	10.27	1.79	1.52
5	B	382	ILE	CA-CB	-10.26	1.31	1.54
6	C	42	PRO	CA-C	-10.26	1.32	1.52
5	B	635	ARG	CG-CD	10.26	1.77	1.51
6	C	61	GLU	CG-CD	10.25	1.67	1.51
5	B	951	GLN	CG-CD	10.25	1.74	1.51
10	I	77	LYS	CD-CE	10.25	1.76	1.51
4	A	217	LYS	CB-CG	10.23	1.80	1.52
4	A	254	GLU	CB-CG	10.23	1.71	1.52
4	A	801	GLU	CD-OE2	10.22	1.36	1.25
4	A	275	SER	N-CA	10.22	1.66	1.46
4	A	349	ALA	CA-CB	-10.22	1.30	1.52
4	A	771	GLU	CG-CD	10.21	1.67	1.51
7	E	151	PRO	CA-C	10.22	1.73	1.52
3	N	9	DC	C3'-O3'	10.21	1.57	1.44
4	A	1361	SER	CB-OG	10.20	1.55	1.42
9	H	34	ASP	CA-CB	10.19	1.76	1.53
10	I	16	PRO	CA-C	10.19	1.73	1.52
4	A	927	VAL	CB-CG2	-10.19	1.31	1.52
5	B	1144	ALA	CA-CB	-10.19	1.31	1.52
4	A	685	GLU	CB-CG	10.19	1.71	1.52
6	C	133	ILE	CA-CB	-10.18	1.31	1.54
4	A	133	LYS	CD-CE	10.18	1.76	1.51
5	B	1064	TYR	CE2-CZ	10.18	1.51	1.38
4	A	1402	PHE	CE2-CZ	10.17	1.56	1.37
7	E	139	ALA	CA-CB	10.17	1.73	1.52
4	A	341	MET	SD-CE	10.15	2.34	1.77
7	E	58	MET	CG-SD	10.14	2.07	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	E	122	LYS	CD-CE	10.14	1.76	1.51
5	B	1032	SER	CA-CB	10.12	1.68	1.52
6	C	4	GLU	N-CA	10.11	1.66	1.46
5	B	867	GLY	CA-C	10.10	1.68	1.51
4	A	290	GLU	CG-CD	10.09	1.67	1.51
5	B	536	VAL	CA-CB	-10.09	1.33	1.54
7	E	31	THR	CA-CB	10.07	1.79	1.53
4	A	1142	THR	CB-CG2	10.06	1.85	1.52
4	A	226	GLU	CG-CD	10.06	1.67	1.51
4	A	290	GLU	CB-CG	10.05	1.71	1.52
5	B	620	ARG	CB-CG	10.06	1.79	1.52
12	K	67	PHE	CD2-CE2	-10.05	1.19	1.39
5	B	256	VAL	CA-CB	-10.04	1.33	1.54
4	A	65	LEU	CA-CB	10.04	1.76	1.53
4	A	941	LYS	CE-NZ	10.04	1.74	1.49
5	B	693	ILE	CA-CB	-10.04	1.31	1.54
7	E	201	LYS	CD-CE	10.03	1.76	1.51
4	A	360	GLU	CG-CD	10.02	1.67	1.51
5	B	122	LEU	CG-CD1	10.02	1.89	1.51
4	A	590	ARG	CB-CG	10.01	1.79	1.52
4	A	873	MET	SD-CE	10.00	2.33	1.77
4	A	938	LYS	CD-CE	10.00	1.76	1.51
5	B	540	SER	CA-CB	-9.98	1.38	1.52
4	A	286	HIS	CA-C	9.98	1.78	1.52
12	K	27	ALA	CA-CB	9.98	1.73	1.52
5	B	1072	MET	CG-SD	9.98	2.07	1.81
4	A	605	MET	CG-SD	9.98	2.07	1.81
5	B	25	ILE	CA-CB	-9.98	1.31	1.54
12	K	16	GLU	CG-CD	9.98	1.67	1.51
5	B	466	TRP	CE2-CZ2	-9.96	1.22	1.39
9	H	14	GLU	CB-CG	9.96	1.71	1.52
5	B	589	VAL	CA-CB	-9.95	1.33	1.54
2	T	23	DC	C3'-O3'	-9.95	1.31	1.44
5	B	279	ASP	CB-CG	9.95	1.72	1.51
7	E	45	LYS	CG-CD	9.95	1.86	1.52
7	E	159	ASP	CA-CB	9.94	1.75	1.53
13	L	49	LYS	CG-CD	9.91	1.86	1.52
5	B	622	LYS	CE-NZ	9.91	1.73	1.49
4	A	104	GLU	CB-CG	9.90	1.71	1.52
5	B	193	LYS	CD-CE	9.90	1.75	1.51
5	B	99	LYS	CE-NZ	9.90	1.73	1.49
6	C	205	LYS	CD-CE	9.89	1.75	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	I	115	LYS	CD-CE	9.89	1.75	1.51
5	B	303	TYR	CD1-CE1	9.88	1.54	1.39
4	A	383	TYR	CE1-CZ	9.87	1.51	1.38
4	A	200	ARG	N-CA	9.87	1.66	1.46
5	B	226	PHE	CE1-CZ	9.86	1.56	1.37
5	B	249	ARG	CA-C	9.85	1.78	1.52
11	J	55	ASP	CA-CB	9.85	1.75	1.53
8	F	130	ILE	N-CA	9.85	1.66	1.46
4	A	255	SER	CA-CB	9.84	1.67	1.52
4	A	282	ASN	CB-CG	9.84	1.73	1.51
4	A	898	ARG	CB-CG	9.83	1.79	1.52
5	B	1206	GLU	CG-CD	9.82	1.66	1.51
4	A	315	LEU	CA-CB	9.82	1.76	1.53
6	C	30	ALA	CA-CB	-9.81	1.31	1.52
12	K	69	ALA	CA-CB	-9.81	1.31	1.52
5	B	704	ALA	CA-CB	-9.81	1.31	1.52
11	J	17	LYS	CE-NZ	9.81	1.73	1.49
9	H	45	GLU	CB-CG	9.81	1.70	1.52
4	A	232	GLU	CG-CD	9.80	1.66	1.51
7	E	3	GLN	CB-CG	9.79	1.78	1.52
5	B	1224	PHE	N-CA	9.79	1.66	1.46
7	E	201	LYS	CG-CD	9.79	1.85	1.52
4	A	1287	TYR	CE2-CZ	9.79	1.51	1.38
6	C	60	ASP	CB-CG	9.79	1.72	1.51
4	A	6	TYR	CD2-CE2	9.78	1.54	1.39
4	A	461	LYS	CB-CG	9.78	1.78	1.52
4	A	57	ARG	CB-CG	9.77	1.78	1.52
5	B	261	ARG	CG-CD	9.77	1.76	1.51
7	E	52	ARG	CA-CB	9.77	1.75	1.53
5	B	333	PHE	CE2-CZ	9.76	1.55	1.37
4	A	252	PHE	N-CA	9.76	1.65	1.46
5	B	734	HIS	CA-CB	9.75	1.75	1.53
10	I	9	ASP	CA-C	9.75	1.78	1.52
6	C	192	TRP	CZ3-CH2	9.75	1.55	1.40
9	H	105	GLU	CD-OE2	9.75	1.36	1.25
5	B	882	THR	CA-CB	9.74	1.78	1.53
2	T	23	DC	C4'-C3'	-9.74	1.42	1.52
5	B	26	THR	CA-CB	-9.74	1.28	1.53
12	K	14	GLU	CG-CD	9.74	1.66	1.51
8	F	126	ALA	CA-CB	9.74	1.72	1.52
12	K	38	GLU	CB-CG	9.73	1.70	1.52
4	A	398	GLU	CG-CD	9.73	1.66	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	C	249	ASP	CB-CG	9.73	1.72	1.51
4	A	897	TYR	CD1-CE1	-9.72	1.24	1.39
10	I	107	SER	CA-C	9.71	1.78	1.52
4	A	36	ARG	CB-CG	9.71	1.78	1.52
4	A	403	LYS	CD-CE	9.71	1.75	1.51
7	E	29	PHE	CE2-CZ	9.70	1.55	1.37
4	A	411	ASP	CB-CG	9.70	1.72	1.51
6	C	222	LYS	CG-CD	9.69	1.85	1.52
4	A	42	ASP	CA-CB	9.69	1.75	1.53
4	A	688	LYS	CD-CE	9.69	1.75	1.51
4	A	1284	MET	SD-CE	9.69	2.32	1.77
4	A	977	LYS	CD-CE	9.67	1.75	1.51
4	A	948	VAL	CA-CB	-9.67	1.34	1.54
4	A	1420	ASP	CB-CG	9.67	1.72	1.51
5	B	367	LEU	CG-CD2	9.67	1.87	1.51
4	A	317	LYS	CA-CB	9.65	1.75	1.53
10	I	8	ARG	CB-CG	9.65	1.78	1.52
13	L	49	LYS	CD-CE	9.65	1.75	1.51
4	A	972	HIS	N-CA	9.64	1.65	1.46
5	B	1007	VAL	C-O	-9.63	1.05	1.23
6	C	180	TYR	CD2-CE2	9.63	1.53	1.39
5	B	36	ALA	CA-CB	-9.63	1.32	1.52
4	A	403	LYS	CE-NZ	9.62	1.73	1.49
7	E	45	LYS	CD-CE	9.62	1.75	1.51
5	B	613	VAL	CA-CB	-9.62	1.34	1.54
4	A	323	LYS	CG-CD	9.61	1.85	1.52
7	E	105	PHE	CD2-CE2	9.61	1.58	1.39
5	B	949	VAL	CB-CG1	-9.60	1.32	1.52
4	A	977	LYS	N-CA	9.60	1.65	1.46
5	B	868	MET	SD-CE	9.60	2.31	1.77
12	K	38	GLU	CD-OE2	9.60	1.36	1.25
4	A	1107	VAL	CB-CG2	9.59	1.73	1.52
5	B	836	GLU	CB-CG	9.59	1.70	1.52
8	F	76	LYS	CA-CB	9.59	1.75	1.53
4	A	1104	ILE	CB-CG2	-9.57	1.23	1.52
4	A	1356	ILE	CA-CB	-9.57	1.32	1.54
4	A	1400	CYS	CB-SG	-9.56	1.66	1.82
7	E	162	ARG	CB-CG	9.55	1.78	1.52
4	A	1291	VAL	CA-CB	-9.55	1.34	1.54
5	B	133	LYS	CA-C	9.55	1.77	1.52
5	B	353	LYS	CG-CD	9.54	1.84	1.52
12	K	20	LYS	CG-CD	9.55	1.84	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1063	MET	SD-CE	9.54	2.31	1.77
5	B	447	ALA	CA-C	9.53	1.77	1.52
5	B	477	ALA	CA-CB	9.52	1.72	1.52
5	B	790	ASP	CB-CG	9.51	1.71	1.51
5	B	994	TYR	CE2-CZ	-9.51	1.26	1.38
4	A	41	MET	SD-CE	9.50	2.31	1.77
4	A	838	GLN	CB-CG	9.50	1.78	1.52
4	A	461	LYS	CD-CE	9.49	1.75	1.51
12	K	49	GLU	CA-C	-9.49	1.28	1.52
5	B	104	GLU	CG-CD	9.49	1.66	1.51
10	I	116	ASN	CA-CB	9.49	1.77	1.53
5	B	1119	VAL	CA-CB	-9.49	1.34	1.54
4	A	251	SER	CA-CB	9.47	1.67	1.52
5	B	714	GLU	CG-CD	9.47	1.66	1.51
4	A	1444	MET	CA-C	9.47	1.77	1.52
5	B	982	SER	CA-C	-9.46	1.28	1.52
4	A	1365	TYR	CD1-CE1	9.46	1.53	1.39
5	B	21	GLU	CG-CD	9.46	1.66	1.51
5	B	130	VAL	CB-CG2	-9.46	1.32	1.52
5	B	1140	ALA	CA-CB	9.45	1.72	1.52
5	B	580	VAL	CB-CG2	-9.45	1.33	1.52
3	N	10	DG	P-OP1	9.44	1.65	1.49
4	A	962	ARG	CB-CG	9.44	1.78	1.52
4	A	690	VAL	CA-CB	-9.43	1.34	1.54
4	A	980	ASP	CB-CG	9.43	1.71	1.51
5	B	1120	GLU	CD-OE2	9.43	1.36	1.25
5	B	1153	GLU	CG-CD	9.43	1.66	1.51
4	A	356	ASP	CB-CG	9.43	1.71	1.51
8	F	149	GLU	CG-CD	9.43	1.66	1.51
5	B	133	LYS	CD-CE	9.42	1.74	1.51
9	H	146	ARG	CB-CG	9.42	1.77	1.52
4	A	226	GLU	CB-CG	9.41	1.70	1.52
1	R	4	G	C3'-O3'	9.40	1.55	1.42
4	A	277	GLU	CA-C	9.40	1.77	1.52
4	A	1104	ILE	CA-CB	-9.40	1.33	1.54
6	C	113	VAL	CA-CB	-9.40	1.35	1.54
7	E	49	SER	CA-CB	9.40	1.67	1.52
6	C	221	TYR	CG-CD2	9.40	1.51	1.39
5	B	250	PHE	CA-C	9.40	1.77	1.52
5	B	259	TYR	CD1-CE1	9.39	1.53	1.39
5	B	1091	TYR	CA-C	-9.39	1.28	1.52
4	A	499	ALA	CA-CB	-9.38	1.32	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	1223	ASP	CA-CB	9.38	1.74	1.53
9	H	63	LEU	CG-CD1	9.38	1.86	1.51
5	B	106	ASP	CB-CG	9.38	1.71	1.51
13	L	26	THR	N-CA	9.38	1.65	1.46
4	A	129	LYS	CG-CD	9.38	1.84	1.52
4	A	171	GLN	CG-CD	9.38	1.72	1.51
5	B	814	PHE	CE2-CZ	9.38	1.55	1.37
5	B	429	PHE	CE2-CZ	9.37	1.55	1.37
4	A	814	PHE	CB-CG	-9.37	1.35	1.51
5	B	726	ALA	CA-CB	-9.36	1.32	1.52
6	C	9	LYS	CD-CE	9.36	1.74	1.51
4	A	976	THR	CB-CG2	9.36	1.83	1.52
11	J	13	VAL	CB-CG2	9.36	1.72	1.52
4	A	822	GLU	CD-OE2	9.35	1.35	1.25
4	A	257	ARG	CA-CB	9.34	1.74	1.53
9	H	98	TYR	CD1-CE1	9.32	1.53	1.39
9	H	127	GLY	N-CA	9.32	1.60	1.46
11	J	5	VAL	CB-CG1	-9.32	1.33	1.52
4	A	1206	ASP	CB-CG	9.32	1.71	1.51
13	L	35	SER	CA-CB	9.32	1.67	1.52
4	A	1336	MET	CG-SD	-9.31	1.56	1.81
9	H	19	ARG	CD-NE	9.31	1.62	1.46
12	K	30	ALA	CA-CB	-9.31	1.32	1.52
2	T	23	DC	N1-C2	-9.31	1.30	1.40
8	F	106	PRO	CA-C	-9.30	1.34	1.52
5	B	315	LYS	CE-NZ	9.30	1.72	1.49
5	B	658	ILE	CA-CB	-9.30	1.33	1.54
5	B	470	LYS	N-CA	9.29	1.65	1.46
10	I	3	THR	CB-CG2	9.29	1.83	1.52
4	A	1130	GLN	CB-CG	9.29	1.77	1.52
12	K	14	GLU	CB-CG	9.28	1.69	1.52
5	B	1194	ILE	CA-CB	-9.28	1.33	1.54
4	A	930	ASP	CB-CG	9.27	1.71	1.51
4	A	1003	LYS	CG-CD	9.27	1.83	1.52
11	J	52	THR	CA-C	9.27	1.77	1.52
4	A	1403	GLU	CG-CD	9.26	1.65	1.51
4	A	1162	VAL	CA-CB	-9.26	1.35	1.54
4	A	1445	ILE	CA-CB	9.26	1.76	1.54
13	L	33	GLU	CB-CG	9.25	1.69	1.52
4	A	393	ARG	CG-CD	9.25	1.75	1.51
5	B	865	LYS	CA-C	9.25	1.76	1.52
7	E	81	GLU	CG-CD	9.25	1.65	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	E	77	SER	CA-CB	9.24	1.66	1.52
12	K	47	ARG	CG-CD	9.24	1.75	1.51
4	A	25	GLU	CG-CD	9.24	1.65	1.51
4	A	101	LYS	CB-CG	9.23	1.77	1.52
5	B	620	ARG	CG-CD	9.23	1.75	1.51
5	B	966	VAL	CB-CG1	-9.22	1.33	1.52
5	B	25	ILE	CB-CG2	-9.22	1.24	1.52
4	A	550	LEU	CB-CG	-9.21	1.25	1.52
4	A	265	LYS	CE-NZ	9.21	1.72	1.49
12	K	82	ASP	CB-CG	9.21	1.71	1.51
5	B	1148	LYS	CD-CE	9.20	1.74	1.51
12	K	1	MET	SD-CE	9.20	2.29	1.77
4	A	176	LYS	CD-CE	9.20	1.74	1.51
5	B	38	PHE	CG-CD1	-9.20	1.25	1.38
5	B	840	ILE	CA-CB	-9.19	1.33	1.54
6	C	25	VAL	CA-CB	-9.18	1.35	1.54
6	C	209	TYR	CB-CG	9.17	1.65	1.51
4	A	516	SER	CA-CB	9.17	1.66	1.52
4	A	644	LYS	CE-NZ	9.16	1.72	1.49
5	B	223	VAL	CB-CG1	9.16	1.72	1.52
5	B	1009	ASP	CB-CG	9.16	1.71	1.51
12	K	55	LYS	CG-CD	9.16	1.83	1.52
12	K	112	GLN	CG-CD	9.16	1.72	1.51
5	B	711	GLU	CA-CB	-9.16	1.33	1.53
6	C	268	ASP	CB-CG	9.16	1.71	1.51
9	H	93	TYR	CB-CG	9.16	1.65	1.51
6	C	149	LYS	CG-CD	9.16	1.83	1.52
5	B	250	PHE	N-CA	9.15	1.64	1.46
5	B	875	GLU	CG-CD	9.15	1.65	1.51
8	F	78	GLN	CG-CD	9.15	1.72	1.51
8	F	140	ASP	CB-CG	9.15	1.71	1.51
4	A	1069	ALA	CA-CB	9.15	1.71	1.52
5	B	275	TYR	CG-CD2	9.15	1.51	1.39
11	J	21	TYR	CD2-CE2	-9.15	1.25	1.39
4	A	49	LYS	CG-CD	9.14	1.83	1.52
9	H	136	LYS	CA-CB	9.14	1.74	1.53
7	E	105	PHE	CE1-CZ	9.13	1.54	1.37
7	E	152	LYS	CD-CE	9.13	1.74	1.51
10	I	37	GLU	CG-CD	9.13	1.65	1.51
5	B	868	MET	CB-CG	9.12	1.80	1.51
8	F	155	LEU	CA-C	9.12	1.76	1.52
4	A	1098	VAL	CA-CB	-9.12	1.35	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	29	ALA	CA-CB	9.11	1.71	1.52
4	A	43	GLU	CG-CD	9.11	1.65	1.51
8	F	112	GLU	CA-CB	9.11	1.74	1.53
4	A	316	GLN	CA-C	9.11	1.76	1.52
4	A	175	ARG	CG-CD	9.10	1.74	1.51
10	I	40	SER	CA-CB	9.10	1.66	1.52
5	B	283	VAL	CA-CB	-9.09	1.35	1.54
5	B	293	PRO	CA-C	9.09	1.71	1.52
4	A	6	TYR	CD1-CE1	9.09	1.52	1.39
12	K	79	GLU	CG-CD	9.09	1.65	1.51
4	A	596	THR	CA-CB	9.09	1.76	1.53
1	R	6	G	P-OP2	9.08	1.64	1.49
4	A	129	LYS	CD-CE	9.08	1.74	1.51
4	A	317	LYS	CB-CG	9.08	1.77	1.52
4	A	473	SER	CA-CB	9.07	1.66	1.52
8	F	143	PHE	CE1-CZ	9.07	1.54	1.37
5	B	239	GLU	CD-OE1	9.06	1.35	1.25
5	B	370	PHE	CB-CG	9.06	1.66	1.51
5	B	646	LEU	CA-C	9.06	1.76	1.52
4	A	478	TYR	CD1-CE1	-9.05	1.25	1.39
5	B	813	LYS	CD-CE	9.05	1.73	1.51
7	E	79	TRP	CB-CG	9.05	1.66	1.50
12	K	26	LYS	CG-CD	9.04	1.83	1.52
4	A	495	GLU	CG-CD	9.04	1.65	1.51
10	I	54	GLU	CG-CD	9.04	1.65	1.51
4	A	390	GLN	CG-CD	9.03	1.71	1.51
5	B	473	MET	N-CA	9.03	1.64	1.46
5	B	210	LYS	CD-CE	9.02	1.73	1.51
5	B	662	MET	SD-CE	9.02	2.28	1.77
6	C	158	VAL	CA-CB	-9.02	1.35	1.54
4	A	287	HIS	N-CA	9.02	1.64	1.46
4	A	1153	TYR	CE1-CZ	9.02	1.50	1.38
4	A	1301	GLU	CB-CG	9.02	1.69	1.52
6	C	142	VAL	CA-CB	9.02	1.73	1.54
9	H	86	ASP	CA-C	9.01	1.76	1.52
4	A	1280	GLU	CG-CD	9.01	1.65	1.51
4	A	526	ASP	CB-CG	9.00	1.70	1.51
4	A	1198	ASP	CB-CG	9.00	1.70	1.51
4	A	1287	TYR	CD1-CE1	8.99	1.52	1.39
5	B	227	LYS	CG-CD	8.99	1.83	1.52
5	B	489	SER	CA-CB	8.99	1.66	1.52
13	L	42	ARG	CB-CG	8.99	1.76	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	261	ARG	CB-CG	8.99	1.76	1.52
5	B	856	PHE	CA-CB	-8.99	1.34	1.53
4	A	1290	LYS	CG-CD	8.98	1.82	1.52
8	F	78	GLN	CA-CB	8.98	1.73	1.53
4	A	880	LYS	CB-CG	8.98	1.76	1.52
6	C	81	GLU	CG-CD	8.98	1.65	1.51
13	L	37	LYS	CG-CD	8.98	1.82	1.52
5	B	32	ALA	CA-CB	-8.97	1.33	1.52
5	B	903	VAL	CB-CG2	-8.97	1.34	1.52
10	I	93	LYS	CD-CE	8.96	1.73	1.51
5	B	436	VAL	CA-C	8.96	1.76	1.52
6	C	7	GLN	CB-CG	-8.96	1.28	1.52
5	B	433	GLN	CG-CD	8.95	1.71	1.51
4	A	1359	ASP	CB-CG	8.95	1.70	1.51
7	E	95	THR	N-CA	8.94	1.64	1.46
5	B	488	TYR	CD2-CE2	-8.93	1.25	1.39
5	B	1079	LYS	CD-CE	8.92	1.73	1.51
6	C	154	LYS	CG-CD	8.92	1.82	1.52
7	E	3	GLN	CG-CD	8.92	1.71	1.51
11	J	18	TRP	CB-CG	-8.92	1.34	1.50
5	B	1189	ILE	CB-CG2	8.92	1.80	1.52
5	B	1201	LYS	CD-CE	8.92	1.73	1.51
5	B	345	LYS	CG-CD	8.91	1.82	1.52
4	A	80	HIS	N-CA	8.91	1.64	1.46
4	A	34	LYS	CB-CG	8.90	1.76	1.52
7	E	98	ILE	CA-CB	8.90	1.75	1.54
10	I	101	PHE	CB-CG	-8.89	1.36	1.51
4	A	739	ASP	CA-CB	8.89	1.73	1.53
5	B	44	VAL	CA-CB	-8.89	1.36	1.54
4	A	237	THR	CB-CG2	8.89	1.81	1.52
4	A	1294	PRO	CB-CG	8.89	1.94	1.50
4	A	1402	PHE	CD1-CE1	8.88	1.57	1.39
5	B	56	ASP	CB-CG	8.88	1.70	1.51
5	B	332	ASP	CB-CG	8.87	1.70	1.51
4	A	1176	LEU	N-CA	8.87	1.64	1.46
4	A	392	VAL	CB-CG1	-8.87	1.34	1.52
4	A	1384	VAL	CB-CG2	-8.87	1.34	1.52
4	A	942	PHE	CA-CB	-8.87	1.34	1.53
6	C	89	GLU	CG-CD	8.87	1.65	1.51
9	H	109	LYS	CA-C	8.86	1.75	1.52
10	I	93	LYS	CG-CD	8.86	1.82	1.52
7	E	139	ALA	C-O	8.85	1.40	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	838	GLN	CG-CD	8.85	1.71	1.51
5	B	1049	ASP	CB-CG	8.84	1.70	1.51
5	B	134	LYS	CA-CB	8.84	1.73	1.53
7	E	107	THR	CA-CB	-8.84	1.30	1.53
4	A	1350	LYS	CB-CG	8.83	1.76	1.52
9	H	19	ARG	CA-CB	8.82	1.73	1.53
4	A	126	LEU	N-CA	8.82	1.64	1.46
5	B	908	GLU	CB-CG	8.82	1.69	1.52
4	A	428	TYR	CE1-CZ	8.81	1.50	1.38
4	A	786	HIS	CA-CB	-8.81	1.34	1.53
4	A	977	LYS	CG-CD	8.81	1.82	1.52
5	B	38	PHE	CE2-CZ	-8.81	1.20	1.37
4	A	252	PHE	CB-CG	8.81	1.66	1.51
7	E	44	ALA	CA-CB	8.81	1.71	1.52
5	B	116	GLU	CG-CD	8.80	1.65	1.51
4	A	893	PHE	CD1-CE1	8.79	1.56	1.39
4	A	669	THR	CA-CB	-8.79	1.30	1.53
7	E	162	ARG	CD-NE	8.79	1.61	1.46
5	B	1211	ASN	CB-CG	8.79	1.71	1.51
7	E	57	MET	SD-CE	8.79	2.27	1.77
8	F	129	LYS	CB-CG	8.79	1.76	1.52
5	B	398	ARG	CZ-NH1	8.78	1.44	1.33
5	B	714	GLU	CB-CG	8.78	1.68	1.52
4	A	431	LYS	CD-CE	8.78	1.73	1.51
4	A	900	ASP	N-CA	8.78	1.64	1.46
4	A	1064	VAL	CB-CG1	8.78	1.71	1.52
9	H	106	GLU	CG-CD	8.78	1.65	1.51
4	A	398	GLU	CB-CG	8.77	1.68	1.52
12	K	95	ILE	CA-CB	-8.77	1.34	1.54
4	A	318	SER	N-CA	8.76	1.63	1.46
11	J	17	LYS	CD-CE	8.76	1.73	1.51
5	B	323	VAL	CA-CB	-8.75	1.36	1.54
4	A	58	LEU	CB-CG	-8.75	1.27	1.52
6	C	257	SER	CA-CB	8.75	1.66	1.52
4	A	1361	SER	CA-C	8.74	1.75	1.52
5	B	1041	GLU	CG-CD	8.74	1.65	1.51
4	A	207	ILE	CA-C	-8.73	1.30	1.52
6	C	228	PHE	CE1-CZ	-8.73	1.20	1.37
4	A	125	ALA	CA-C	8.73	1.75	1.52
5	B	319	GLU	CD-OE2	8.73	1.35	1.25
5	B	451	LYS	CD-CE	8.73	1.73	1.51
13	L	29	TYR	CD1-CE1	8.73	1.52	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	733	HIS	CA-C	8.72	1.75	1.52
11	J	2	ILE	CA-CB	-8.71	1.34	1.54
4	A	1289	ARG	CG-CD	8.71	1.73	1.51
4	A	564	ALA	CA-CB	-8.71	1.34	1.52
4	A	1039	LYS	CA-C	-8.70	1.30	1.52
4	A	720	ARG	CB-CG	8.70	1.76	1.52
4	A	834	THR	CA-CB	-8.70	1.30	1.53
4	A	1173	HIS	CA-C	8.70	1.75	1.52
5	B	226	PHE	CD1-CE1	8.70	1.56	1.39
5	B	881	ASN	CA-C	8.70	1.75	1.52
9	H	10	PHE	CD1-CE1	8.70	1.56	1.39
5	B	235	SER	CA-CB	-8.69	1.40	1.52
5	B	510	LYS	CD-CE	8.69	1.73	1.51
9	H	132	LEU	CA-C	8.69	1.75	1.52
5	B	904	ARG	CB-CG	-8.69	1.29	1.52
6	C	266	ASP	CA-C	8.69	1.75	1.52
1	R	2	U	P-OP2	8.68	1.63	1.49
5	B	225	VAL	CA-CB	-8.68	1.36	1.54
2	T	21	DC	C3'-O3'	-8.68	1.32	1.44
4	A	81	PHE	CB-CG	8.68	1.66	1.51
5	B	934	LYS	CD-CE	8.68	1.73	1.51
4	A	749	ALA	CA-CB	-8.68	1.34	1.52
4	A	1443	VAL	CA-CB	-8.67	1.36	1.54
5	B	606	LYS	CE-NZ	8.67	1.70	1.49
4	A	88	LYS	CA-C	8.67	1.75	1.52
6	C	46	ILE	CA-CB	-8.67	1.34	1.54
4	A	864	ILE	CA-CB	-8.67	1.34	1.54
5	B	697	GLU	CD-OE2	8.67	1.35	1.25
9	H	89	LEU	CG-CD2	8.67	1.83	1.51
7	E	90	VAL	CA-CB	8.66	1.73	1.54
11	J	5	VAL	CA-CB	-8.65	1.36	1.54
4	A	991	LYS	CG-CD	8.65	1.81	1.52
7	E	135	PHE	CD1-CE1	8.64	1.56	1.39
5	B	709	ASP	CA-C	8.64	1.75	1.52
6	C	136	ASP	CA-C	8.64	1.75	1.52
6	C	144	ILE	CA-CB	-8.64	1.34	1.54
5	B	876	LYS	C-O	-8.63	1.06	1.23
4	A	128	ILE	CA-CB	8.63	1.74	1.54
5	B	211	VAL	CB-CG2	-8.63	1.34	1.52
9	H	45	GLU	CD-OE1	8.63	1.35	1.25
5	B	630	ALA	CA-CB	-8.62	1.34	1.52
10	I	91	ARG	CD-NE	8.62	1.61	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	901	PRO	CB-CG	8.62	1.93	1.50
9	H	109	LYS	CG-CD	8.61	1.81	1.52
10	I	30	ARG	CG-CD	8.61	1.73	1.51
6	C	205	LYS	CG-CD	8.61	1.81	1.52
4	A	39	GLU	CG-CD	8.60	1.64	1.51
4	A	123	ARG	CG-CD	8.60	1.73	1.51
4	A	764	CYS	CA-C	8.60	1.75	1.52
4	A	815	PHE	CB-CG	-8.60	1.36	1.51
12	K	109	TRP	CB-CG	8.60	1.65	1.50
4	A	1298	TYR	CD1-CE1	8.60	1.52	1.39
5	B	1004	GLU	CG-CD	8.60	1.64	1.51
7	E	172	GLU	CA-CB	8.60	1.72	1.53
5	B	529	GLU	CG-CD	8.60	1.64	1.51
6	C	86	CYS	CB-SG	-8.59	1.67	1.82
8	F	94	LEU	CG-CD1	8.59	1.83	1.51
12	K	67	PHE	CD1-CE1	-8.59	1.22	1.39
4	A	1093	LYS	CB-CG	8.59	1.75	1.52
7	E	180	ARG	CG-CD	8.58	1.73	1.51
5	B	531	GLN	CG-CD	8.58	1.70	1.51
10	I	56	ALA	CA-CB	8.58	1.70	1.52
4	A	880	LYS	CE-NZ	8.57	1.70	1.49
4	A	1288	ASP	CB-CG	8.57	1.69	1.51
5	B	164	LYS	CA-C	8.57	1.75	1.52
4	A	37	PHE	CD1-CE1	8.57	1.56	1.39
5	B	943	SER	CA-CB	8.57	1.65	1.52
4	A	1255	GLU	CB-CG	8.56	1.68	1.52
5	B	283	VAL	CA-C	-8.56	1.30	1.52
5	B	426	LYS	CE-NZ	8.56	1.70	1.49
13	L	50	ASP	CA-C	8.56	1.75	1.52
4	A	1411	GLU	CG-CD	8.55	1.64	1.51
9	H	37	LYS	CG-CD	8.55	1.81	1.52
7	E	191	LYS	CB-CG	8.55	1.75	1.52
10	I	45	ARG	CG-CD	8.55	1.73	1.51
4	A	829	VAL	CB-CG2	8.55	1.70	1.52
5	B	1152	MET	SD-CE	8.54	2.25	1.77
4	A	950	GLY	CA-C	8.54	1.65	1.51
12	K	114	LEU	CA-CB	8.54	1.73	1.53
7	E	97	VAL	CA-CB	8.54	1.72	1.54
10	I	9	ASP	CA-CB	8.53	1.72	1.53
5	B	393	LYS	CD-CE	8.53	1.72	1.51
5	B	781	PHE	CE1-CZ	8.53	1.53	1.37
13	L	25	ALA	CA-CB	8.52	1.70	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	1217	TYR	CG-CD2	8.52	1.50	1.39
7	E	127	ILE	N-CA	8.52	1.63	1.46
4	A	672	ASP	CA-CB	8.52	1.72	1.53
4	A	1205	LYS	CB-CG	8.52	1.75	1.52
4	A	934	LYS	CE-NZ	8.51	1.70	1.49
6	C	152	GLU	CD-OE2	8.51	1.35	1.25
4	A	1161	THR	CA-CB	8.51	1.75	1.53
6	C	184	ASN	CB-CG	8.51	1.70	1.51
4	A	866	PHE	CE1-CZ	8.50	1.53	1.37
4	A	1257	ASP	CB-CG	-8.50	1.33	1.51
4	A	256	GLN	N-CA	8.50	1.63	1.46
4	A	1168	GLU	CG-CD	8.50	1.64	1.51
4	A	1207	LEU	N-CA	8.50	1.63	1.46
6	C	178	PHE	CB-CG	-8.50	1.36	1.51
5	B	241	ARG	CB-CG	8.49	1.75	1.52
13	L	66	GLN	CG-CD	8.49	1.70	1.51
4	A	695	LYS	CD-CE	8.49	1.72	1.51
4	A	801	GLU	CD-OE1	8.49	1.34	1.25
10	I	91	ARG	CG-CD	8.49	1.73	1.51
4	A	1137	ALA	CA-CB	-8.48	1.34	1.52
4	A	1167	GLU	CG-CD	8.48	1.64	1.51
8	F	88	TYR	CD1-CE1	-8.48	1.26	1.39
4	A	203	SER	CA-CB	8.47	1.65	1.52
4	A	934	LYS	CG-CD	8.47	1.81	1.52
5	B	459	TYR	CE1-CZ	-8.47	1.27	1.38
5	B	643	ASP	CB-CG	8.47	1.69	1.51
4	A	524	VAL	CB-CG2	8.47	1.70	1.52
4	A	1301	GLU	CG-CD	8.47	1.64	1.51
4	A	316	GLN	CG-CD	8.46	1.70	1.51
6	C	152	GLU	CD-OE1	8.47	1.34	1.25
6	C	7	GLN	CA-CB	-8.46	1.35	1.53
2	T	23	DC	P-O5'	8.46	1.68	1.59
4	A	37	PHE	CE1-CZ	8.45	1.53	1.37
5	B	1221	SER	CA-C	8.45	1.75	1.52
4	A	1231	ASP	CA-CB	8.45	1.72	1.53
4	A	1000	LEU	CA-CB	-8.45	1.34	1.53
4	A	925	LEU	CG-CD2	8.45	1.83	1.51
5	B	61	ASP	CB-CG	8.44	1.69	1.51
5	B	727	LYS	CE-NZ	8.44	1.70	1.49
5	B	1071	VAL	CB-CG2	-8.44	1.35	1.52
4	A	85	ASP	CA-CB	8.44	1.72	1.53
5	B	957	ASN	CB-CG	8.44	1.70	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	666	TYR	CA-CB	8.44	1.72	1.53
6	C	194	GLU	CG-CD	8.44	1.64	1.51
4	A	1175	SER	N-CA	8.44	1.63	1.46
4	A	372	LYS	CG-CD	8.43	1.81	1.52
6	C	108	GLU	CG-CD	8.43	1.64	1.51
5	B	259	TYR	CB-CG	8.43	1.64	1.51
4	A	49	LYS	CB-CG	8.43	1.75	1.52
4	A	1315	GLU	CB-CG	8.43	1.68	1.52
6	C	170	TRP	CE3-CZ3	8.43	1.52	1.38
4	A	879	GLU	CG-CD	8.43	1.64	1.51
8	F	87	LYS	CE-NZ	8.43	1.70	1.49
5	B	641	GLU	CB-CG	8.42	1.68	1.52
5	B	1221	SER	CB-OG	8.42	1.53	1.42
4	A	486	GLU	CB-CG	8.42	1.68	1.52
4	A	1372	VAL	CB-CG1	-8.42	1.35	1.52
4	A	291	GLU	CB-CG	8.41	1.68	1.52
5	B	580	VAL	CA-CB	-8.41	1.37	1.54
5	B	468	GLU	CB-CG	8.41	1.68	1.52
5	B	1133	MET	SD-CE	8.41	2.25	1.77
5	B	933	SER	CA-CB	8.40	1.65	1.52
4	A	109	HIS	CA-CB	8.39	1.72	1.53
4	A	664	THR	CB-CG2	8.39	1.80	1.52
13	L	66	GLN	CA-CB	8.39	1.72	1.53
7	E	85	GLU	CB-CG	8.39	1.68	1.52
7	E	20	LYS	CB-CG	8.38	1.75	1.52
5	B	266	ALA	CA-CB	8.38	1.70	1.52
12	K	28	PRO	CB-CG	8.38	1.91	1.50
5	B	199	MET	SD-CE	8.37	2.24	1.77
4	A	1221	LYS	CA-CB	8.37	1.72	1.53
5	B	133	LYS	CG-CD	8.37	1.80	1.52
5	B	266	ALA	CA-C	8.37	1.74	1.52
12	K	81	TYR	N-CA	8.37	1.63	1.46
5	B	1057	LYS	CG-CD	8.37	1.80	1.52
4	A	478	TYR	CB-CG	-8.36	1.39	1.51
4	A	728	LYS	CD-CE	8.36	1.72	1.51
4	A	848	ILE	CB-CG2	-8.35	1.26	1.52
4	A	1058	VAL	CA-CB	-8.35	1.37	1.54
5	B	866	TYR	CA-C	8.35	1.74	1.52
9	H	15	VAL	CB-CG1	8.35	1.70	1.52
6	C	161	LYS	CE-NZ	8.35	1.70	1.49
4	A	406	ILE	CA-CB	-8.34	1.35	1.54
4	A	836	TYR	CD1-CE1	8.34	1.51	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	230	ALA	CA-CB	8.34	1.70	1.52
12	K	55	LYS	CE-NZ	8.34	1.69	1.49
4	A	77	CYS	CB-SG	8.34	1.96	1.82
4	A	249	SER	CA-C	8.34	1.74	1.52
13	L	51	CYS	CB-SG	8.33	1.96	1.82
4	A	321	PRO	N-CA	8.32	1.61	1.47
4	A	476	SER	CA-CB	-8.32	1.40	1.52
4	A	577	ILE	CA-CB	-8.32	1.35	1.54
5	B	622	LYS	CG-CD	8.32	1.80	1.52
5	B	643	ASP	CA-CB	8.32	1.72	1.53
5	B	1158	PHE	CD2-CE2	8.32	1.55	1.39
6	C	49	VAL	CA-CB	-8.32	1.37	1.54
4	A	500	GLU	CG-CD	8.32	1.64	1.51
4	A	1362	TYR	CB-CG	8.32	1.64	1.51
6	C	122	SER	CA-CB	8.31	1.65	1.52
4	A	927	VAL	N-CA	8.30	1.62	1.46
4	A	1205	LYS	CD-CE	8.30	1.72	1.51
5	B	882	THR	CB-CG2	8.30	1.79	1.52
5	B	880	THR	N-CA	8.30	1.62	1.46
7	E	71	LYS	CB-CG	8.30	1.75	1.52
9	H	80	ARG	CB-CG	8.30	1.75	1.52
6	C	214	ASN	N-CA	8.29	1.62	1.46
9	H	63	LEU	CA-C	8.29	1.74	1.52
5	B	470	LYS	CD-CE	8.29	1.72	1.51
4	A	1230	GLU	CB-CG	8.28	1.67	1.52
5	B	1201	LYS	CE-NZ	8.28	1.69	1.49
12	K	60	ALA	CA-CB	-8.28	1.35	1.52
4	A	230	ARG	CG-CD	8.28	1.72	1.51
4	A	727	ASP	CA-C	-8.28	1.31	1.52
5	B	415	GLN	CG-CD	8.27	1.70	1.51
5	B	1132	GLU	CB-CG	8.27	1.67	1.52
4	A	404	TYR	CD2-CE2	8.27	1.51	1.39
7	E	152	LYS	CB-CG	8.26	1.74	1.52
5	B	419	THR	CB-CG2	8.26	1.79	1.52
4	A	874	ASP	CB-CG	8.25	1.69	1.51
4	A	551	TYR	CZ-OH	8.25	1.51	1.37
4	A	11	LEU	CG-CD2	8.25	1.82	1.51
4	A	850	VAL	CB-CG2	8.25	1.70	1.52
5	B	175	ARG	CG-CD	8.25	1.72	1.51
4	A	601	LYS	CD-CE	8.24	1.71	1.51
6	C	4	GLU	CA-CB	8.24	1.72	1.53
7	E	75	MET	CG-SD	8.24	2.02	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	I	120	GLN	N-CA	8.24	1.62	1.46
5	B	757	PRO	C-O	-8.23	1.06	1.23
4	A	128	ILE	N-CA	8.23	1.62	1.46
4	A	512	VAL	CA-CB	-8.23	1.37	1.54
5	B	202	TYR	CE1-CZ	8.23	1.49	1.38
5	B	918	ILE	CB-CG2	8.23	1.78	1.52
9	H	109	LYS	CA-CB	8.23	1.72	1.53
4	A	278	THR	N-CA	8.22	1.62	1.46
5	B	301	ILE	CA-CB	-8.22	1.35	1.54
6	C	174	ALA	CA-CB	8.22	1.69	1.52
5	B	391	ASP	CB-CG	8.21	1.69	1.51
7	E	186	LEU	CG-CD2	8.21	1.82	1.51
5	B	615	MET	SD-CE	8.21	2.23	1.77
7	E	3	GLN	CA-CB	8.21	1.72	1.53
5	B	38	PHE	CB-CG	-8.21	1.37	1.51
5	B	935	ARG	CG-CD	8.21	1.72	1.51
5	B	956	THR	CA-CB	-8.21	1.32	1.53
6	C	238	ILE	CA-CB	-8.21	1.35	1.54
4	A	1042	PHE	CE2-CZ	8.20	1.52	1.37
5	B	983	ARG	C-O	8.20	1.39	1.23
4	A	1365	TYR	CE1-CZ	8.19	1.49	1.38
5	B	422	LYS	CB-CG	8.19	1.74	1.52
5	B	423	LYS	CE-NZ	8.19	1.69	1.49
5	B	868	MET	CA-C	8.19	1.74	1.52
4	A	929	LEU	CG-CD1	8.18	1.82	1.51
5	B	204	ILE	CA-CB	-8.18	1.36	1.54
5	B	484	ASN	N-CA	8.18	1.62	1.46
5	B	28	GLU	CD-OE2	8.18	1.34	1.25
5	B	250	PHE	CD2-CE2	8.18	1.55	1.39
5	B	1171	VAL	CB-CG1	8.18	1.70	1.52
4	A	220	THR	CB-CG2	8.17	1.79	1.52
4	A	876	ALA	CA-CB	8.17	1.69	1.52
4	A	316	GLN	CA-CB	8.17	1.72	1.53
5	B	249	ARG	CB-CG	8.16	1.74	1.52
9	H	145	ARG	CA-CB	8.16	1.71	1.53
5	B	700	SER	CA-CB	-8.16	1.40	1.52
4	A	1350	LYS	CG-CD	8.16	1.80	1.52
5	B	322	PHE	CE1-CZ	8.16	1.52	1.37
5	B	801	LYS	C-O	-8.15	1.07	1.23
5	B	883	LEU	CB-CG	8.15	1.76	1.52
5	B	1219	ASP	CA-C	8.15	1.74	1.52
6	C	173	ALA	CA-CB	8.14	1.69	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1074	GLU	CG-CD	8.14	1.64	1.51
6	C	257	SER	CA-C	-8.13	1.31	1.52
7	E	29	PHE	CD1-CE1	8.13	1.55	1.39
11	J	53	HIS	N-CA	8.13	1.62	1.46
4	A	628	GLY	CA-C	-8.12	1.38	1.51
5	B	296	GLU	CG-CD	8.12	1.64	1.51
6	C	84	ARG	CB-CG	8.12	1.74	1.52
5	B	346	GLU	CG-CD	8.12	1.64	1.51
5	B	799	PRO	C-O	-8.12	1.07	1.23
5	B	1092	TYR	CA-CB	-8.12	1.36	1.53
5	B	345	LYS	CE-NZ	8.12	1.69	1.49
5	B	351	TYR	CE1-CZ	8.12	1.49	1.38
9	H	114	VAL	CA-CB	8.11	1.71	1.54
5	B	601	ARG	CB-CG	8.11	1.74	1.52
4	A	848	ILE	CA-CB	-8.11	1.36	1.54
5	B	380	TYR	CE1-CZ	8.11	1.49	1.38
4	A	162	VAL	CB-CG2	8.11	1.69	1.52
4	A	278	THR	CA-C	8.10	1.74	1.52
5	B	99	LYS	CD-CE	8.10	1.71	1.51
4	A	417	TYR	CD1-CE1	8.10	1.51	1.39
4	A	1325	THR	N-CA	-8.10	1.30	1.46
7	E	6	GLU	CG-CD	8.10	1.64	1.51
5	B	133	LYS	CA-CB	8.10	1.71	1.53
4	A	456	MET	CG-SD	8.10	2.02	1.81
4	A	792	TYR	CG-CD2	8.10	1.49	1.39
6	C	3	GLU	N-CA	8.09	1.62	1.46
5	B	292	ILE	CA-CB	-8.09	1.36	1.54
5	B	780	VAL	CB-CG1	-8.09	1.35	1.52
9	H	113	ALA	CA-CB	-8.09	1.35	1.52
12	K	57	LEU	CG-CD1	8.09	1.81	1.51
10	I	119	THR	CA-C	8.09	1.74	1.52
4	A	1243	VAL	CB-CG2	8.09	1.69	1.52
9	H	144	ILE	CA-CB	-8.09	1.36	1.54
4	A	1050	GLU	CD-OE2	8.09	1.34	1.25
10	I	51	ASN	CA-C	8.09	1.74	1.52
5	B	429	PHE	CA-CB	8.08	1.71	1.53
4	A	345	VAL	CA-CB	-8.08	1.37	1.54
5	B	380	TYR	CD2-CE2	-8.08	1.27	1.39
10	I	34	TYR	CD2-CE2	8.07	1.51	1.39
4	A	406	ILE	CB-CG2	-8.06	1.27	1.52
10	I	22	ASN	CB-CG	8.06	1.69	1.51
5	B	206	ASN	CB-CG	-8.06	1.32	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	E	40	GLU	CG-CD	8.06	1.64	1.51
8	F	119	ARG	CB-CG	8.06	1.74	1.52
5	B	230	ALA	C-N	8.05	1.49	1.34
12	K	16	GLU	CB-CG	8.05	1.67	1.52
4	A	1154	TYR	CE1-CZ	8.04	1.49	1.38
5	B	454	THR	CA-CB	8.04	1.74	1.53
7	E	29	PHE	CB-CG	8.04	1.65	1.51
13	L	46	VAL	CB-CG2	-8.04	1.35	1.52
4	A	1335	ILE	CA-CB	-8.04	1.36	1.54
5	B	836	GLU	CG-CD	8.04	1.64	1.51
4	A	992	ASP	CA-C	-8.04	1.32	1.52
8	F	107	VAL	CA-CB	8.04	1.71	1.54
4	A	1102	LYS	CB-CG	8.03	1.74	1.52
4	A	129	LYS	CA-CB	8.03	1.71	1.53
5	B	944	THR	CA-CB	-8.03	1.32	1.53
5	B	981	ALA	CA-CB	-8.03	1.35	1.52
6	C	186	LEU	CA-CB	-8.03	1.35	1.53
4	A	1241	ARG	CG-CD	8.02	1.72	1.51
5	B	41	LYS	CE-NZ	8.02	1.69	1.49
5	B	855	PHE	CD2-CE2	8.02	1.55	1.39
5	B	659	ALA	CA-CB	-8.02	1.35	1.52
5	B	784	ASN	CB-CG	8.02	1.69	1.51
4	A	551	TYR	CB-CG	8.01	1.63	1.51
4	A	957	PRO	CA-C	-8.01	1.36	1.52
4	A	652	VAL	CB-CG1	8.00	1.69	1.52
4	A	905	ASP	N-CA	8.00	1.62	1.46
5	B	54	PHE	CE2-CZ	-8.00	1.22	1.37
4	A	254	GLU	CG-CD	8.00	1.64	1.51
7	E	133	GLU	CB-CG	8.00	1.67	1.52
10	I	51	ASN	CB-CG	8.00	1.69	1.51
12	K	88	LYS	CD-CE	8.00	1.71	1.51
4	A	799	PHE	CB-CG	8.00	1.65	1.51
5	B	1061	GLU	CG-CD	7.99	1.64	1.51
5	B	265	SER	CA-CB	7.99	1.65	1.52
12	K	37	LYS	CE-NZ	7.99	1.69	1.49
2	T	13	DA	P-O5'	7.99	1.67	1.59
4	A	152	VAL	CB-CG1	7.99	1.69	1.52
2	T	13	DA	O3'-P	7.98	1.70	1.61
7	E	30	ILE	CA-CB	-7.98	1.36	1.54
10	I	84	VAL	CB-CG2	-7.98	1.36	1.52
12	K	63	VAL	CA-CB	-7.98	1.38	1.54
5	B	429	PHE	CG-CD2	7.98	1.50	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	448	PRO	N-CD	-7.98	1.36	1.47
4	A	804	TYR	CB-CG	-7.98	1.39	1.51
4	A	958	VAL	CB-CG2	7.97	1.69	1.52
5	B	625	LYS	CD-CE	7.97	1.71	1.51
11	J	35	ALA	CA-CB	-7.97	1.35	1.52
4	A	306	ASN	CB-CG	-7.97	1.32	1.51
5	B	734	HIS	CA-C	7.97	1.73	1.52
4	A	1077	THR	CA-C	-7.96	1.32	1.52
4	A	789	LYS	CD-CE	7.96	1.71	1.51
4	A	1347	ALA	CA-CB	-7.95	1.35	1.52
8	F	128	LYS	CD-CE	7.95	1.71	1.51
6	C	18	VAL	CB-CG2	-7.95	1.36	1.52
5	B	517	THR	CA-CB	-7.95	1.32	1.53
2	T	23	DC	O3'-P	-7.94	1.51	1.61
4	A	947	PHE	CE2-CZ	-7.94	1.22	1.37
5	B	476	ARG	CZ-NH1	7.94	1.43	1.33
4	A	65	LEU	CG-CD2	7.94	1.81	1.51
7	E	118	PRO	CA-C	7.94	1.68	1.52
5	B	249	ARG	CG-CD	7.94	1.71	1.51
4	A	185	TRP	CA-C	7.94	1.73	1.52
4	A	866	PHE	CD1-CE1	7.93	1.55	1.39
8	F	155	LEU	CA-CB	7.93	1.72	1.53
4	A	1153	TYR	CB-CG	7.93	1.63	1.51
4	A	1363	VAL	CA-CB	-7.93	1.38	1.54
5	B	104	GLU	CB-CG	7.93	1.67	1.52
7	E	168	TYR	CG-CD2	-7.93	1.28	1.39
9	H	93	TYR	CD1-CE1	7.93	1.51	1.39
4	A	37	PHE	CG-CD2	7.93	1.50	1.38
9	H	87	ARG	CA-C	7.93	1.73	1.52
9	H	116	TYR	CD2-CE2	-7.92	1.27	1.39
5	B	299	GLU	CG-CD	7.92	1.63	1.51
5	B	949	VAL	CA-CB	-7.92	1.38	1.54
5	B	982	SER	CA-CB	-7.92	1.41	1.52
7	E	95	THR	CA-C	7.92	1.73	1.52
10	I	78	CYS	N-CA	7.92	1.62	1.46
4	A	251	SER	CA-C	7.92	1.73	1.52
5	B	952	VAL	CB-CG1	7.92	1.69	1.52
4	A	1262	LYS	CD-CE	7.91	1.71	1.51
5	B	29	ASP	CB-CG	7.91	1.68	1.51
5	B	858	SER	CA-CB	-7.91	1.41	1.52
12	K	36	GLU	CD-OE2	7.91	1.34	1.25
4	A	91	PHE	CE1-CZ	7.90	1.52	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	723	VAL	CA-CB	7.90	1.71	1.54
11	J	57	ILE	CB-CG2	7.89	1.77	1.52
11	J	18	TRP	CE3-CZ3	-7.89	1.25	1.38
4	A	637	LYS	CE-NZ	7.89	1.68	1.49
6	C	111	THR	CA-CB	7.89	1.73	1.53
6	C	192	TRP	CD2-CE2	7.89	1.50	1.41
12	K	37	LYS	CD-CE	7.89	1.71	1.51
4	A	1393	ASN	CA-CB	7.88	1.73	1.53
4	A	681	GLU	CB-CG	7.88	1.67	1.52
5	B	466	TRP	CA-CB	-7.88	1.36	1.53
10	I	117	LYS	CA-C	7.88	1.73	1.52
2	T	21	DC	C3'-C2'	-7.88	1.42	1.52
4	A	428	TYR	CB-CG	-7.88	1.39	1.51
4	A	689	LYS	CD-CE	7.88	1.71	1.51
10	I	87	GLN	CD-NE2	7.88	1.52	1.32
7	E	208	TYR	CB-CG	7.88	1.63	1.51
4	A	602	ASP	CB-CG	7.87	1.68	1.51
4	A	655	PHE	CB-CG	-7.87	1.38	1.51
2	T	19	DT	C3'-O3'	-7.87	1.33	1.44
4	A	3	GLY	N-CA	7.87	1.57	1.46
6	C	177	GLU	CD-OE2	7.87	1.34	1.25
4	A	474	VAL	CB-CG2	-7.87	1.36	1.52
6	C	165	LYS	CB-CG	7.87	1.73	1.52
4	A	779	PHE	CD2-CE2	-7.87	1.23	1.39
4	A	975	HIS	CA-C	7.87	1.73	1.52
5	B	409	ALA	CA-CB	-7.87	1.35	1.52
5	B	641	GLU	CD-OE2	7.87	1.34	1.25
5	B	698	GLU	CG-CD	7.87	1.63	1.51
5	B	1177	HIS	CA-CB	7.87	1.71	1.53
5	B	334	ILE	CB-CG2	-7.87	1.28	1.52
2	T	21	DC	P-O5'	7.87	1.67	1.59
5	B	565	PRO	CA-CB	-7.86	1.37	1.53
4	A	1199	ARG	CG-CD	7.86	1.71	1.51
7	E	180	ARG	CD-NE	7.86	1.59	1.46
4	A	143	LYS	CD-CE	7.86	1.70	1.51
4	A	613	ILE	CA-CB	-7.85	1.36	1.54
5	B	69	LEU	N-CA	7.85	1.62	1.46
4	A	1404	GLU	CG-CD	7.85	1.63	1.51
9	H	132	LEU	CB-CG	7.85	1.75	1.52
7	E	151	PRO	C-O	7.85	1.39	1.23
5	B	62	ILE	CA-C	-7.84	1.32	1.52
8	F	101	ILE	CB-CG2	7.84	1.77	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	315	LEU	CB-CG	7.84	1.75	1.52
5	B	682	SER	CA-C	-7.84	1.32	1.52
5	B	197	PHE	CB-CG	-7.83	1.38	1.51
4	A	1280	GLU	CB-CG	7.83	1.67	1.52
6	C	235	VAL	CB-CG2	-7.83	1.36	1.52
5	B	561	TRP	CB-CG	-7.83	1.36	1.50
4	A	6	TYR	CB-CG	7.83	1.63	1.51
5	B	1188	LYS	CB-CG	7.83	1.73	1.52
4	A	1438	THR	CA-CB	-7.83	1.33	1.53
4	A	101	LYS	CG-CD	7.82	1.79	1.52
5	B	418	LYS	CD-CE	7.82	1.70	1.51
12	K	14	GLU	CA-CB	7.82	1.71	1.53
4	A	221	SER	CA-CB	-7.82	1.41	1.52
5	B	431	TYR	CD2-CE2	7.82	1.51	1.39
5	B	866	TYR	CG-CD1	7.82	1.49	1.39
10	I	36	GLU	CA-CB	7.82	1.71	1.53
4	A	333	GLU	CG-CD	7.81	1.63	1.51
5	B	177	LYS	CB-CG	7.81	1.73	1.52
13	L	51	CYS	CA-C	7.81	1.73	1.52
7	E	41	ASP	CB-CG	7.81	1.68	1.51
4	A	1336	MET	SD-CE	7.81	2.21	1.77
9	H	145	ARG	CG-CD	7.81	1.71	1.51
4	A	200	ARG	CB-CG	7.80	1.73	1.52
4	A	286	HIS	N-CA	7.80	1.61	1.46
12	K	59	ALA	CA-CB	-7.80	1.36	1.52
4	A	1130	GLN	CG-CD	7.80	1.69	1.51
5	B	255	GLN	CG-CD	7.80	1.69	1.51
5	B	1073	TYR	CA-C	-7.80	1.32	1.52
7	E	152	LYS	CG-CD	7.80	1.78	1.52
4	A	914	GLU	CG-CD	7.80	1.63	1.51
10	I	11	ASN	CB-CG	7.80	1.69	1.51
4	A	108	MET	CG-SD	7.79	2.01	1.81
7	E	15	ALA	CA-CB	-7.79	1.36	1.52
5	B	113	TYR	CD2-CE2	-7.79	1.27	1.39
11	J	3	VAL	C-O	-7.79	1.08	1.23
4	A	982	THR	CA-CB	-7.79	1.33	1.53
9	H	117	SER	CA-C	7.79	1.73	1.52
4	A	1054	LEU	CA-CB	-7.79	1.35	1.53
4	A	66	LYS	CG-CD	7.78	1.78	1.52
5	B	1146	PHE	CE1-CZ	-7.78	1.22	1.37
4	A	101	LYS	CD-CE	7.78	1.70	1.51
4	A	937	VAL	CB-CG2	7.78	1.69	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	252	PHE	CA-C	7.78	1.73	1.52
4	A	1239	ARG	CG-CD	7.78	1.71	1.51
6	C	70	ILE	CA-CB	-7.77	1.36	1.54
12	K	112	GLN	CB-CG	7.77	1.73	1.52
4	A	1243	VAL	CA-C	7.77	1.73	1.52
7	E	29	PHE	CG-CD1	7.77	1.50	1.38
5	B	639	ILE	CA-CB	-7.77	1.36	1.54
7	E	126	SER	CA-CB	7.77	1.64	1.52
4	A	979	SER	CA-C	-7.76	1.32	1.52
4	A	534	LEU	CA-C	-7.76	1.32	1.52
4	A	392	VAL	CA-CB	-7.76	1.38	1.54
4	A	1365	TYR	CD2-CE2	7.76	1.50	1.39
8	F	124	GLU	CG-CD	-7.76	1.40	1.51
12	K	70	ARG	CG-CD	7.76	1.71	1.51
7	E	66	GLU	CA-CB	7.76	1.71	1.53
6	C	50	GLU	CB-CG	7.75	1.66	1.52
5	B	764	SER	CA-CB	7.75	1.64	1.52
11	J	8	PHE	CD1-CE1	-7.75	1.23	1.39
4	A	620	LYS	CA-CB	7.75	1.71	1.53
9	H	93	TYR	CD2-CE2	7.75	1.50	1.39
5	B	401	PHE	CE2-CZ	7.75	1.52	1.37
5	B	798	TYR	CG-CD1	-7.74	1.29	1.39
6	C	125	MET	CG-SD	7.74	2.01	1.81
4	A	976	THR	CA-C	7.74	1.73	1.52
6	C	72	LEU	CA-CB	-7.74	1.35	1.53
5	B	531	GLN	CA-CB	7.73	1.71	1.53
6	C	41	ILE	C-O	-7.73	1.08	1.23
4	A	209	ASN	CB-CG	7.73	1.68	1.51
4	A	1110	ASN	CA-C	7.73	1.73	1.52
4	A	287	HIS	CA-C	7.73	1.73	1.52
5	B	393	LYS	CG-CD	7.73	1.78	1.52
7	E	182	ASP	CB-CG	7.73	1.68	1.51
4	A	95	PHE	CB-CG	-7.72	1.38	1.51
5	B	530	GLY	CA-C	7.72	1.64	1.51
5	B	1224	PHE	CA-CB	7.72	1.71	1.53
5	B	397	ASP	N-CA	7.72	1.61	1.46
4	A	607	ILE	CB-CG2	7.71	1.76	1.52
4	A	637	LYS	CD-CE	7.71	1.70	1.51
4	A	6	TYR	CE2-CZ	7.71	1.48	1.38
7	E	91	LYS	CB-CG	7.71	1.73	1.52
4	A	770	VAL	CA-CB	-7.71	1.38	1.54
5	B	801	LYS	CD-CE	7.70	1.70	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	L	61	THR	CB-CG2	7.70	1.77	1.52
10	I	74	GLU	CB-CG	7.69	1.66	1.52
11	J	34	THR	CA-CB	-7.69	1.33	1.53
2	T	18	DA	P-O5'	-7.69	1.52	1.59
4	A	843	LYS	CD-CE	7.69	1.70	1.51
4	A	1203	ASN	CB-CG	7.69	1.68	1.51
4	A	401	GLY	CA-C	7.68	1.64	1.51
4	A	756	ILE	CA-CB	-7.67	1.37	1.54
12	K	38	GLU	CG-CD	7.67	1.63	1.51
10	I	47	GLU	CG-CD	7.67	1.63	1.51
6	C	208	GLU	CA-CB	7.66	1.70	1.53
5	B	964	VAL	CA-CB	-7.66	1.38	1.54
9	H	90	ALA	CA-CB	7.65	1.68	1.52
5	B	1080	LYS	CD-CE	7.65	1.70	1.51
5	B	705	MET	SD-CE	-7.65	1.35	1.77
5	B	509	ALA	C-O	7.65	1.37	1.23
7	E	102	GLU	CB-CG	7.65	1.66	1.52
4	A	1055	ARG	CB-CG	7.64	1.73	1.52
5	B	447	ALA	N-CA	7.64	1.61	1.46
10	I	115	LYS	CE-NZ	7.64	1.68	1.49
4	A	1031	VAL	CB-CG2	-7.64	1.36	1.52
4	A	1043	ASP	CB-CG	7.64	1.67	1.51
5	B	264	SER	CA-CB	7.64	1.64	1.52
5	B	1104	HIS	CA-CB	-7.63	1.37	1.53
5	B	320	ASP	CB-CG	7.63	1.67	1.51
5	B	645	SER	CA-CB	7.63	1.64	1.52
13	L	43	THR	CA-C	7.63	1.72	1.52
4	A	988	LEU	CA-CB	-7.62	1.36	1.53
12	K	79	GLU	CB-CG	7.62	1.66	1.52
5	B	325	GLN	CG-CD	7.61	1.68	1.51
4	A	827	THR	CA-CB	7.61	1.73	1.53
4	A	147	VAL	CA-CB	7.61	1.70	1.54
4	A	1221	LYS	CG-CD	7.61	1.78	1.52
7	E	192	ARG	CB-CG	7.61	1.73	1.52
9	H	124	ARG	CG-CD	7.61	1.71	1.51
4	A	601	LYS	CE-NZ	7.61	1.68	1.49
4	A	98	LYS	CG-CD	7.60	1.78	1.52
4	A	846	GLU	CG-CD	7.60	1.63	1.51
5	B	692	TYR	CD1-CE1	7.60	1.50	1.39
4	A	1176	LEU	CA-CB	7.60	1.71	1.53
5	B	982	SER	C-O	-7.60	1.08	1.23
4	A	65	LEU	CB-CG	7.60	1.74	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	942	PHE	CD2-CE2	-7.60	1.24	1.39
5	B	100	PRO	CA-C	-7.59	1.37	1.52
5	B	878	GLN	N-CA	7.59	1.61	1.46
6	C	123	ASN	CB-CG	7.58	1.68	1.51
6	C	149	LYS	CD-CE	7.58	1.70	1.51
7	E	94	LYS	CB-CG	7.58	1.73	1.52
4	A	1092	LYS	CA-CB	7.58	1.70	1.53
7	E	141	VAL	CB-CG1	7.58	1.68	1.52
5	B	1129	ARG	CG-CD	7.58	1.70	1.51
5	B	483	LEU	CA-C	7.58	1.72	1.52
5	B	879	ARG	CA-C	7.57	1.72	1.52
4	A	1287	TYR	CZ-OH	7.57	1.50	1.37
4	A	402	ALA	CA-CB	-7.57	1.36	1.52
12	K	54	ARG	CA-CB	7.57	1.70	1.53
4	A	175	ARG	CB-CG	7.56	1.73	1.52
5	B	347	LYS	CA-CB	7.56	1.70	1.53
4	A	850	VAL	CB-CG1	-7.56	1.36	1.52
4	A	1153	TYR	CA-C	7.56	1.72	1.52
12	K	63	VAL	CB-CG2	7.56	1.68	1.52
11	J	55	ASP	N-CA	7.56	1.61	1.46
4	A	847	ASP	CB-CG	7.56	1.67	1.51
5	B	223	VAL	CB-CG2	-7.56	1.36	1.52
4	A	368	LYS	CE-NZ	7.55	1.68	1.49
4	A	460	VAL	CB-CG1	-7.55	1.36	1.52
4	A	603	ASN	CB-CG	-7.55	1.33	1.51
4	A	258	GLY	N-CA	7.54	1.57	1.46
10	I	21	GLU	CG-CD	7.54	1.63	1.51
12	K	34	THR	CB-CG2	7.54	1.77	1.52
4	A	1081	LEU	CA-CB	7.54	1.71	1.53
4	A	690	VAL	CB-CG2	-7.53	1.37	1.52
4	A	789	LYS	CE-NZ	7.53	1.67	1.49
4	A	481	ASP	CB-CG	7.53	1.67	1.51
7	E	48	ASP	CA-CB	7.53	1.70	1.53
5	B	887	HIS	CA-CB	7.53	1.70	1.53
4	A	1211	GLN	CA-CB	7.53	1.70	1.53
5	B	368	GLU	CA-CB	7.52	1.70	1.53
5	B	1057	LYS	CD-CE	7.52	1.70	1.51
10	I	20	LYS	CB-CG	-7.52	1.32	1.52
1	R	2	U	C3'-O3'	-7.51	1.31	1.42
7	E	207	ARG	CD-NE	7.51	1.59	1.46
4	A	209	ASN	N-CA	7.51	1.61	1.46
4	A	1121	GLU	CD-OE1	7.51	1.33	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	L	37	LYS	CA-CB	7.51	1.70	1.53
4	A	255	SER	CA-C	7.51	1.72	1.52
4	A	1285	MET	CG-SD	7.51	2.00	1.81
5	B	914	LYS	CG-CD	7.51	1.77	1.52
7	E	14	ARG	CG-CD	7.51	1.70	1.51
7	E	208	TYR	CD2-CE2	7.51	1.50	1.39
5	B	1138	MET	SD-CE	7.50	2.19	1.77
11	J	53	HIS	CA-CB	-7.50	1.37	1.53
4	A	1064	VAL	CA-CB	-7.50	1.39	1.54
4	A	390	GLN	CB-CG	7.50	1.72	1.52
4	A	254	GLU	CA-CB	7.49	1.70	1.53
4	A	895	LYS	CD-CE	7.49	1.70	1.51
7	E	62	ALA	C-O	7.49	1.37	1.23
11	J	38	ARG	CB-CG	7.49	1.72	1.52
4	A	1204	ASP	CA-CB	7.49	1.70	1.53
8	F	88	TYR	CG-CD1	-7.49	1.29	1.39
7	E	44	ALA	CA-C	7.49	1.72	1.52
5	B	327	ARG	CA-CB	7.48	1.70	1.53
5	B	595	ARG	NE-CZ	7.48	1.42	1.33
5	B	70	ILE	CA-C	7.47	1.72	1.52
7	E	48	ASP	CB-CG	7.47	1.67	1.51
6	C	75	MET	SD-CE	7.47	2.19	1.77
6	C	119	VAL	CB-CG1	7.47	1.68	1.52
12	K	5	ASP	CB-CG	7.47	1.67	1.51
4	A	804	TYR	CG-CD1	-7.47	1.29	1.39
4	A	752	LYS	CB-CG	-7.47	1.32	1.52
5	B	649	LYS	CD-CE	7.47	1.70	1.51
11	J	12	LYS	CE-NZ	7.47	1.67	1.49
5	B	644	GLU	CA-C	7.46	1.72	1.52
5	B	207	GLY	CA-C	-7.46	1.40	1.51
5	B	447	ALA	CA-CB	-7.46	1.36	1.52
5	B	637	LEU	C-O	-7.46	1.09	1.23
5	B	783	THR	CA-CB	-7.45	1.33	1.53
9	H	129	TYR	CE2-CZ	7.45	1.48	1.38
5	B	890	TYR	CD2-CE2	-7.45	1.28	1.39
9	H	87	ARG	CB-CG	7.45	1.72	1.52
5	B	335	GLY	N-CA	7.45	1.57	1.46
5	B	358	LYS	CB-CG	7.45	1.72	1.52
9	H	87	ARG	CA-CB	7.45	1.70	1.53
4	A	453	MET	SD-CE	7.44	2.19	1.77
4	A	557	ASP	CB-CG	7.44	1.67	1.51
4	A	1127	ASP	CA-CB	7.44	1.70	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1261	LYS	CD-CE	7.44	1.69	1.51
5	B	809	MET	CG-SD	7.44	2.00	1.81
9	H	144	ILE	CB-CG2	7.43	1.75	1.52
4	A	312	PRO	CA-C	7.43	1.67	1.52
5	B	1098	MET	CB-CG	7.43	1.75	1.51
4	A	526	ASP	CA-CB	7.43	1.70	1.53
10	I	43	VAL	CA-CB	-7.43	1.39	1.54
7	E	190	LEU	CG-CD2	7.43	1.79	1.51
4	A	900	ASP	CA-CB	7.42	1.70	1.53
4	A	677	ARG	CG-CD	7.42	1.70	1.51
5	B	330	ALA	CA-CB	7.42	1.68	1.52
5	B	786	ASN	CG-OD1	7.42	1.40	1.24
4	A	1159	ARG	CB-CG	7.42	1.72	1.52
6	C	137	LYS	CB-CG	7.42	1.72	1.52
10	I	117	LYS	CB-CG	7.42	1.72	1.52
4	A	1035	TYR	CE1-CZ	7.41	1.48	1.38
5	B	678	GLU	CD-OE2	7.41	1.33	1.25
6	C	62	PHE	CB-CG	-7.41	1.38	1.51
8	F	137	TYR	CD2-CE2	7.41	1.50	1.39
4	A	1132	LYS	CD-CE	7.41	1.69	1.51
13	L	27	LEU	N-CA	7.41	1.61	1.46
5	B	557	PHE	CB-CG	-7.40	1.38	1.51
5	B	627	PHE	CE1-CZ	7.40	1.51	1.37
5	B	810	GLU	CG-CD	7.39	1.63	1.51
5	B	1101	ASP	CB-CG	7.39	1.67	1.51
4	A	1012	ARG	CB-CG	7.39	1.72	1.52
5	B	996	ARG	CA-CB	-7.39	1.37	1.53
6	C	205	LYS	CE-NZ	7.39	1.67	1.49
5	B	856	PHE	CB-CG	-7.38	1.38	1.51
4	A	185	TRP	CB-CG	7.38	1.63	1.50
4	A	1144	LYS	CE-NZ	7.38	1.67	1.49
4	A	1307	GLU	CG-CD	7.38	1.63	1.51
5	B	1022	THR	N-CA	-7.38	1.31	1.46
4	A	476	SER	C-O	-7.38	1.09	1.23
6	C	158	VAL	CB-CG2	-7.38	1.37	1.52
10	I	119	THR	N-CA	7.38	1.61	1.46
11	J	14	VAL	CA-CB	-7.37	1.39	1.54
5	B	1138	MET	CG-SD	7.37	2.00	1.81
7	E	152	LYS	CA-CB	7.37	1.70	1.53
4	A	1111	MET	N-CA	7.36	1.61	1.46
4	A	333	GLU	CD-OE1	7.36	1.33	1.25
5	B	210	LYS	CE-NZ	7.36	1.67	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	962	LYS	CD-CE	7.36	1.69	1.51
9	H	2	SER	CA-CB	7.35	1.64	1.52
4	A	1045	VAL	CB-CG2	-7.35	1.37	1.52
5	B	240	ILE	CA-CB	-7.35	1.38	1.54
4	A	48	ALA	CA-CB	7.34	1.67	1.52
4	A	899	VAL	CB-CG2	7.34	1.68	1.52
4	A	1235	LYS	CD-CE	7.34	1.69	1.51
4	A	1362	TYR	CG-CD2	7.34	1.48	1.39
5	B	826	ALA	N-CA	-7.34	1.31	1.46
6	C	34	ARG	CB-CG	7.34	1.72	1.52
4	A	831	THR	CA-C	-7.34	1.33	1.52
5	B	412	LEU	CA-CB	-7.34	1.36	1.53
4	A	733	ALA	CA-CB	-7.33	1.37	1.52
4	A	893	PHE	CE1-CZ	-7.33	1.23	1.37
4	A	321	PRO	N-CD	-7.33	1.37	1.47
5	B	526	GLU	CD-OE1	7.33	1.33	1.25
5	B	52	ASN	CB-CG	-7.33	1.34	1.51
4	A	81	PHE	CA-CB	7.32	1.70	1.53
5	B	510	LYS	CB-CG	7.32	1.72	1.52
5	B	914	LYS	CD-CE	7.32	1.69	1.51
4	A	337	ARG	CZ-NH1	7.32	1.42	1.33
8	F	119	ARG	CG-CD	7.32	1.70	1.51
5	B	1148	LYS	CE-NZ	7.32	1.67	1.49
4	A	734	GLU	CD-OE2	7.32	1.33	1.25
4	A	1272	THR	CA-CB	-7.32	1.34	1.53
4	A	491	VAL	CB-CG2	-7.31	1.37	1.52
4	A	751	SER	C-O	7.31	1.37	1.23
4	A	1093	LYS	CA-CB	7.31	1.70	1.53
5	B	55	VAL	CA-CB	7.31	1.70	1.54
5	B	848	ARG	CG-CD	7.31	1.70	1.51
5	B	938	SER	CA-CB	7.31	1.64	1.52
5	B	666	TYR	CG-CD2	7.30	1.48	1.39
12	K	1	MET	C-O	7.30	1.37	1.23
5	B	1154	ALA	CA-CB	-7.30	1.37	1.52
5	B	629	ASP	CA-CB	7.30	1.70	1.53
5	B	760	ASP	CB-CG	-7.30	1.36	1.51
5	B	31	TRP	CE3-CZ3	7.30	1.50	1.38
5	B	488	TYR	CZ-OH	-7.30	1.25	1.37
9	H	83	GLN	N-CA	7.30	1.60	1.46
4	A	1003	LYS	CE-NZ	7.29	1.67	1.49
4	A	1118	VAL	CA-CB	7.29	1.70	1.54
7	E	102	GLU	CG-CD	7.29	1.62	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	L	27	LEU	CA-CB	7.29	1.70	1.53
5	B	347	LYS	CG-CD	7.29	1.77	1.52
8	F	125	LEU	CG-CD2	7.29	1.78	1.51
6	C	267	GLN	CB-CG	7.28	1.72	1.52
4	A	949	ASP	CB-CG	7.28	1.67	1.51
9	H	32	THR	CA-C	7.28	1.71	1.52
7	E	114	ASN	CB-CG	7.28	1.67	1.51
4	A	319	GLY	N-CA	7.28	1.56	1.46
4	A	1116	LEU	CA-CB	-7.28	1.37	1.53
5	B	963	PHE	CD2-CE2	-7.27	1.24	1.39
8	F	128	LYS	CB-CG	7.27	1.72	1.52
6	C	266	ASP	N-CA	7.27	1.60	1.46
4	A	308	ILE	CA-C	7.27	1.71	1.52
5	B	699	GLU	CD-OE1	7.27	1.33	1.25
4	A	1307	GLU	CD-OE1	7.26	1.33	1.25
5	B	855	PHE	CD1-CE1	7.26	1.53	1.39
4	A	800	VAL	CA-CB	-7.26	1.39	1.54
5	B	225	VAL	CB-CG2	-7.26	1.37	1.52
5	B	92	PHE	CE1-CZ	7.26	1.51	1.37
5	B	836	GLU	CA-CB	7.26	1.70	1.53
6	C	161	LYS	CD-CE	7.26	1.69	1.51
5	B	646	LEU	N-CA	7.25	1.60	1.46
4	A	967	ALA	CA-CB	-7.25	1.37	1.52
4	A	1391	ARG	CB-CG	7.25	1.72	1.52
5	B	697	GLU	CB-CG	7.25	1.66	1.52
5	B	510	LYS	CG-CD	7.25	1.77	1.52
4	A	25	GLU	CB-CG	7.25	1.66	1.52
5	B	296	GLU	CB-CG	7.25	1.66	1.52
10	I	111	THR	C-O	-7.25	1.09	1.23
4	A	549	MET	CG-SD	7.25	2.00	1.81
5	B	1188	LYS	CG-CD	7.25	1.77	1.52
4	A	559	VAL	CA-CB	-7.24	1.39	1.54
6	C	59	ALA	CA-CB	7.24	1.67	1.52
5	B	24	PRO	CA-C	-7.24	1.38	1.52
5	B	43	LEU	CA-C	-7.23	1.34	1.52
8	F	87	LYS	CD-CE	7.23	1.69	1.51
4	A	364	VAL	CB-CG2	-7.22	1.37	1.52
5	B	164	LYS	CG-CD	7.22	1.77	1.52
6	C	233	GLU	CB-CG	7.22	1.65	1.52
4	A	55	ASP	CA-C	7.22	1.71	1.52
5	B	1220	ARG	CD-NE	7.22	1.58	1.46
6	C	42	PRO	CA-CB	-7.22	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	C	86	CYS	CA-C	-7.22	1.34	1.52
5	B	51	PHE	CB-CG	-7.21	1.39	1.51
4	A	186	LYS	CB-CG	7.21	1.72	1.52
4	A	1080	THR	N-CA	7.21	1.60	1.46
4	A	217	LYS	CA-CB	7.21	1.69	1.53
4	A	977	LYS	CA-C	7.21	1.71	1.52
4	A	301	ALA	CA-CB	-7.21	1.37	1.52
4	A	969	GLN	CG-CD	7.21	1.67	1.51
4	A	313	GLN	CB-CG	-7.20	1.33	1.52
5	B	322	PHE	CA-CB	7.20	1.69	1.53
4	A	98	LYS	CD-CE	7.20	1.69	1.51
4	A	1168	GLU	CB-CG	7.20	1.65	1.52
4	A	162	VAL	N-CA	7.19	1.60	1.46
4	A	169	ASN	CB-CG	7.19	1.67	1.51
4	A	184	SER	CA-CB	7.19	1.63	1.52
5	B	353	LYS	N-CA	7.19	1.60	1.46
12	K	68	PHE	CE1-CZ	-7.19	1.23	1.37
4	A	978	PRO	CA-C	-7.19	1.38	1.52
4	A	991	LYS	CE-NZ	7.19	1.67	1.49
5	B	1016	ALA	CA-C	-7.19	1.34	1.52
4	A	330	LYS	CE-NZ	7.18	1.67	1.49
4	A	1332	PHE	CD2-CE2	-7.18	1.24	1.39
6	C	85	ASP	CB-CG	7.18	1.66	1.51
12	K	6	ARG	CG-CD	-7.18	1.34	1.51
4	A	43	GLU	CB-CG	7.18	1.65	1.52
6	C	3	GLU	CB-CG	7.18	1.65	1.52
6	C	185	LYS	CD-CE	7.18	1.69	1.51
4	A	90	VAL	CB-CG1	-7.17	1.37	1.52
4	A	317	LYS	CA-C	7.17	1.71	1.52
7	E	29	PHE	CD2-CE2	7.17	1.53	1.39
4	A	291	GLU	CA-CB	7.17	1.69	1.53
4	A	4	GLN	CA-C	7.16	1.71	1.52
4	A	569	LYS	CD-CE	7.16	1.69	1.51
4	A	768	GLN	CD-NE2	7.16	1.50	1.32
4	A	539	THR	CA-CB	7.16	1.72	1.53
8	F	152	ILE	CA-CB	-7.16	1.38	1.54
12	K	50	LEU	CA-CB	-7.16	1.37	1.53
5	B	883	LEU	CG-CD2	7.15	1.78	1.51
9	H	111	LEU	CA-CB	7.15	1.70	1.53
4	A	598	LEU	CG-CD1	7.15	1.78	1.51
5	B	303	TYR	CA-CB	7.15	1.69	1.53
5	B	1220	ARG	CA-CB	7.15	1.69	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	371	GLU	CG-CD	7.14	1.62	1.51
4	A	771	GLU	CD-OE2	7.14	1.33	1.25
4	A	1231	ASP	N-CA	7.14	1.60	1.46
5	B	404	LYS	CD-CE	7.14	1.69	1.51
4	A	150	THR	CB-CG2	7.14	1.75	1.52
4	A	1154	TYR	CA-C	7.14	1.71	1.52
4	A	286	HIS	CB-CG	7.14	1.62	1.50
5	B	690	VAL	CB-CG1	-7.14	1.37	1.52
12	K	5	ASP	CA-C	-7.14	1.34	1.52
4	A	1438	THR	CB-CG2	7.13	1.75	1.52
6	C	79	GLN	CG-CD	7.13	1.67	1.51
9	H	45	GLU	CD-OE2	7.13	1.33	1.25
5	B	483	LEU	CB-CG	-7.13	1.31	1.52
7	E	215	MET	CG-SD	7.13	1.99	1.81
4	A	1039	LYS	CE-NZ	7.13	1.66	1.49
5	B	640	VAL	CA-CB	-7.13	1.39	1.54
10	I	2	THR	CA-CB	7.13	1.71	1.53
6	C	87	PHE	CB-CG	-7.13	1.39	1.51
4	A	83	HIS	CA-CB	-7.13	1.38	1.53
5	B	740	HIS	CA-CB	7.13	1.69	1.53
13	L	65	VAL	CB-CG1	-7.13	1.37	1.52
5	B	213	ILE	CA-CB	-7.13	1.38	1.54
4	A	228	PHE	CE2-CZ	7.12	1.50	1.37
7	E	169	ARG	CB-CG	7.12	1.71	1.52
5	B	860	MET	SD-CE	7.12	2.17	1.77
9	H	38	LEU	CG-CD1	7.12	1.78	1.51
6	C	228	PHE	CG-CD2	-7.12	1.28	1.38
6	C	263	THR	CA-CB	7.12	1.71	1.53
9	H	83	GLN	CA-C	7.12	1.71	1.52
9	H	27	GLU	CG-CD	7.12	1.62	1.51
4	A	906	HIS	N-CA	7.11	1.60	1.46
5	B	681	TRP	CB-CG	7.11	1.63	1.50
11	J	8	PHE	CB-CG	-7.11	1.39	1.51
4	A	1102	LYS	CG-CD	7.11	1.76	1.52
4	A	640	GLN	CB-CG	7.11	1.71	1.52
4	A	1221	LYS	N-CA	7.11	1.60	1.46
5	B	44	VAL	CB-CG1	-7.11	1.38	1.52
12	K	1	MET	N-CA	7.10	1.60	1.46
4	A	274	ILE	CB-CG2	7.10	1.74	1.52
4	A	1211	GLN	CG-CD	7.10	1.67	1.51
9	H	118	PHE	CE1-CZ	7.09	1.50	1.37
5	B	668	ASP	CB-CG	7.09	1.66	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	771	GLU	CB-CG	7.09	1.65	1.52
4	A	871	ASP	CA-CB	7.09	1.69	1.53
4	A	1013	ASP	CA-C	7.09	1.71	1.52
4	A	1320	PRO	CG-CD	7.09	1.74	1.50
6	C	253	LYS	CD-CE	7.09	1.69	1.51
11	J	12	LYS	CA-C	-7.09	1.34	1.52
5	B	1222	ARG	CB-CG	7.09	1.71	1.52
4	A	1121	GLU	N-CA	7.08	1.60	1.46
4	A	1300	LYS	CG-CD	7.08	1.76	1.52
5	B	798	TYR	CD1-CE1	-7.08	1.28	1.39
8	F	155	LEU	CG-CD2	7.08	1.78	1.51
4	A	571	LEU	CG-CD2	7.08	1.78	1.51
4	A	691	LEU	CG-CD1	-7.08	1.25	1.51
4	A	617	VAL	CB-CG2	-7.08	1.38	1.52
4	A	1411	GLU	CD-OE2	7.07	1.33	1.25
4	A	394	ASN	CB-CG	-7.07	1.34	1.51
7	E	34	GLU	CA-C	7.07	1.71	1.52
4	A	164	ARG	CA-C	7.06	1.71	1.52
4	A	864	ILE	CA-C	-7.06	1.34	1.52
5	B	595	ARG	CZ-NH2	7.06	1.42	1.33
5	B	788	ARG	CB-CG	7.06	1.71	1.52
4	A	418	SER	CA-CB	7.06	1.63	1.52
9	H	125	LEU	CG-CD1	7.06	1.77	1.51
4	A	532	ARG	N-CA	7.06	1.60	1.46
4	A	336	ILE	CA-CB	-7.05	1.38	1.54
4	A	425	GLN	CG-CD	7.05	1.67	1.51
5	B	488	TYR	CE2-CZ	-7.05	1.29	1.38
4	A	67	CYS	CA-CB	7.04	1.69	1.53
12	K	18	LYS	CD-CE	7.04	1.68	1.51
4	A	556	TRP	CG-CD1	-7.04	1.26	1.36
5	B	401	PHE	CD1-CE1	-7.04	1.25	1.39
12	K	32	VAL	CA-CB	-7.04	1.40	1.54
10	I	59	VAL	CB-CG1	-7.04	1.38	1.52
4	A	255	SER	N-CA	7.04	1.60	1.46
8	F	116	ASP	CB-CG	7.04	1.66	1.51
5	B	1174	LYS	CD-CE	7.03	1.68	1.51
12	K	56	VAL	CA-CB	-7.03	1.40	1.54
5	B	187	SER	CA-CB	7.03	1.63	1.52
5	B	811	TYR	CB-CG	-7.03	1.41	1.51
9	H	124	ARG	CB-CG	7.03	1.71	1.52
4	A	951	GLU	CB-CG	7.03	1.65	1.52
5	B	277	LYS	CD-CE	7.03	1.68	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	I	61	ASP	CB-CG	7.02	1.66	1.51
5	B	817	LEU	CA-CB	-7.02	1.37	1.53
4	A	1113	THR	CA-CB	-7.02	1.35	1.53
10	I	8	ARG	CA-CB	7.02	1.69	1.53
6	C	8	VAL	CB-CG1	-7.02	1.38	1.52
4	A	658	LEU	CG-CD1	7.01	1.77	1.51
5	B	655	LYS	CA-CB	7.01	1.69	1.53
5	B	352	ALA	CA-C	7.01	1.71	1.52
7	E	140	LEU	CA-CB	7.01	1.69	1.53
6	C	84	ARG	CG-CD	7.01	1.69	1.51
4	A	790	ASP	CA-CB	7.00	1.69	1.53
4	A	708	MET	CG-SD	7.00	1.99	1.81
5	B	595	ARG	CA-CB	7.00	1.69	1.53
5	B	635	ARG	CB-CG	7.00	1.71	1.52
4	A	1211	GLN	CB-CG	7.00	1.71	1.52
5	B	473	MET	CA-CB	7.00	1.69	1.53
5	B	646	LEU	CG-CD2	7.00	1.77	1.51
5	B	986	GLN	CD-OE1	7.00	1.39	1.24
13	L	57	LEU	CA-CB	-7.00	1.37	1.53
4	A	1332	PHE	CG-CD1	6.99	1.49	1.38
8	F	132	LEU	N-CA	-6.99	1.32	1.46
13	L	69	ALA	CA-CB	-6.99	1.37	1.52
6	C	240	VAL	CA-CB	-6.99	1.40	1.54
8	F	76	LYS	CE-NZ	6.99	1.66	1.49
4	A	1408	ILE	CA-C	-6.99	1.34	1.52
5	B	116	GLU	CB-CG	6.98	1.65	1.52
7	E	178	ILE	CA-CB	-6.98	1.38	1.54
4	A	942	PHE	CB-CG	-6.98	1.39	1.51
4	A	1368	MET	SD-CE	6.98	2.17	1.77
4	A	1212	VAL	CB-CG1	-6.98	1.38	1.52
10	I	100	PHE	CB-CG	-6.98	1.39	1.51
8	F	74	ILE	C-O	-6.97	1.10	1.23
6	C	201	TRP	CG-CD1	-6.97	1.26	1.36
7	E	7	ARG	CB-CG	6.97	1.71	1.52
5	B	353	LYS	CD-CE	6.96	1.68	1.51
4	A	1053	PHE	CE1-CZ	6.96	1.50	1.37
9	H	87	ARG	CG-CD	6.96	1.69	1.51
4	A	233	TRP	CB-CG	-6.96	1.37	1.50
4	A	116	ASP	CB-CG	6.95	1.66	1.51
4	A	656	TRP	CG-CD1	-6.95	1.27	1.36
9	H	37	LYS	CE-NZ	6.95	1.66	1.49
4	A	303	TYR	CZ-OH	6.95	1.49	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	E	132	ILE	N-CA	6.94	1.60	1.46
10	I	85	PHE	CD1-CE1	-6.94	1.25	1.39
4	A	246	VAL	CB-CG2	6.94	1.67	1.52
5	B	381	MET	CG-SD	6.94	1.99	1.81
12	K	48	ALA	CA-CB	6.94	1.67	1.52
7	E	25	ASP	CB-CG	6.94	1.66	1.51
4	A	599	SER	C-O	-6.93	1.10	1.23
4	A	763	ALA	CA-CB	-6.93	1.37	1.52
5	B	1163	CYS	CB-SG	6.93	1.94	1.82
8	F	81	THR	CA-CB	-6.93	1.35	1.53
4	A	878	ILE	CB-CG2	-6.93	1.31	1.52
4	A	981	LEU	CA-C	6.93	1.71	1.52
4	A	1282	VAL	N-CA	6.93	1.60	1.46
5	B	965	LYS	CE-NZ	6.93	1.66	1.49
7	E	192	ARG	CG-CD	6.93	1.69	1.51
13	L	45	ALA	CA-CB	6.93	1.67	1.52
10	I	37	GLU	CA-C	6.92	1.71	1.52
13	L	32	ALA	CA-CB	6.92	1.67	1.52
4	A	1402	PHE	CD2-CE2	6.92	1.53	1.39
5	B	307	ASP	CB-CG	-6.92	1.37	1.51
4	A	655	PHE	CE2-CZ	-6.91	1.24	1.37
4	A	970	THR	CA-CB	6.91	1.71	1.53
12	K	29	ASN	CB-CG	6.91	1.67	1.51
5	B	168	GLY	CA-C	6.91	1.62	1.51
4	A	689	LYS	CE-NZ	6.90	1.66	1.49
12	K	83	PRO	CG-CD	6.90	1.73	1.50
5	B	1071	VAL	CB-CG1	6.89	1.67	1.52
6	C	89	GLU	CD-OE2	6.89	1.33	1.25
5	B	963	PHE	CE1-CZ	6.89	1.50	1.37
5	B	1106	ARG	CB-CG	6.89	1.71	1.52
4	A	28	ARG	CB-CG	6.89	1.71	1.52
5	B	1145	SER	CA-C	-6.88	1.35	1.52
4	A	863	VAL	CB-CG2	6.88	1.67	1.52
7	E	85	GLU	CA-CB	6.88	1.69	1.53
10	I	13	MET	CG-SD	6.88	1.99	1.81
4	A	278	THR	CB-CG2	6.88	1.75	1.52
4	A	1102	LYS	CE-NZ	6.88	1.66	1.49
5	B	968	VAL	CB-CG2	-6.87	1.38	1.52
12	K	4	PRO	CA-CB	-6.87	1.39	1.53
12	K	107	THR	CA-CB	6.87	1.71	1.53
4	A	1113	THR	N-CA	-6.87	1.32	1.46
13	L	68	GLU	CD-OE2	6.87	1.33	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	C	253	LYS	CE-NZ	6.87	1.66	1.49
5	B	769	TYR	CG-CD2	-6.87	1.30	1.39
6	C	9	LYS	CG-CD	6.87	1.75	1.52
4	A	130	ASP	CB-CG	6.86	1.66	1.51
4	A	815	PHE	CA-CB	-6.86	1.38	1.53
7	E	162	ARG	CA-CB	6.86	1.69	1.53
4	A	288	ALA	CA-CB	6.86	1.66	1.52
4	A	1081	LEU	CG-CD2	6.86	1.77	1.51
5	B	37	PHE	CE1-CZ	-6.86	1.24	1.37
5	B	231	PRO	N-CD	6.86	1.57	1.47
5	B	739	THR	CA-CB	-6.86	1.35	1.53
7	E	191	LYS	CG-CD	6.86	1.75	1.52
4	A	1154	TYR	CD2-CE2	6.86	1.49	1.39
5	B	133	LYS	CE-NZ	6.86	1.66	1.49
5	B	357	GLN	CB-CG	6.85	1.71	1.52
4	A	932	GLU	CG-CD	6.85	1.62	1.51
7	E	205	SER	CA-CB	6.85	1.63	1.52
9	H	62	SER	CB-OG	6.85	1.51	1.42
8	F	146	TRP	CB-CG	-6.85	1.38	1.50
4	A	641	VAL	CA-CB	-6.84	1.40	1.54
5	B	565	PRO	CA-C	-6.84	1.39	1.52
4	A	533	LYS	CE-NZ	6.84	1.66	1.49
5	B	634	TYR	CD2-CE2	6.84	1.49	1.39
12	K	31	VAL	CB-CG2	-6.84	1.38	1.52
9	H	128	ASN	CB-CG	6.83	1.66	1.51
4	A	305	ASP	CB-CG	6.83	1.66	1.51
4	A	1424	VAL	CB-CG1	-6.83	1.38	1.52
4	A	1241	ARG	CB-CG	6.83	1.71	1.52
10	I	48	LEU	CG-CD1	6.83	1.77	1.51
4	A	36	ARG	CG-CD	6.83	1.69	1.51
4	A	1385	THR	CB-CG2	6.83	1.74	1.52
5	B	29	ASP	CG-OD2	6.83	1.41	1.25
3	N	3	DG	P-OP2	6.82	1.60	1.49
4	A	4	GLN	N-CA	6.82	1.59	1.46
6	C	47	ASP	C-O	6.82	1.36	1.23
12	K	114	LEU	N-CA	6.82	1.59	1.46
5	B	886	LYS	CD-CE	6.82	1.68	1.51
4	A	836	TYR	CZ-OH	6.82	1.49	1.37
4	A	1176	LEU	CB-CG	6.82	1.72	1.52
6	C	137	LYS	CG-CD	6.82	1.75	1.52
5	B	30	SER	CA-CB	-6.82	1.42	1.52
4	A	396	PRO	CB-CG	-6.81	1.15	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	164	LYS	CA-CB	6.81	1.69	1.53
5	B	434	ARG	CG-CD	6.81	1.69	1.51
5	B	360	PHE	CE1-CZ	6.81	1.50	1.37
10	I	116	ASN	CA-C	6.81	1.70	1.52
11	J	58	GLU	CA-C	-6.81	1.35	1.52
4	A	1050	GLU	CG-CD	6.81	1.62	1.51
5	B	739	THR	CB-CG2	-6.81	1.29	1.52
5	B	367	LEU	CA-CB	6.81	1.69	1.53
7	E	46	TYR	CZ-OH	6.81	1.49	1.37
4	A	918	GLU	CD-OE2	6.80	1.33	1.25
10	I	10	CYS	CA-C	6.80	1.70	1.52
4	A	154	SER	N-CA	6.80	1.59	1.46
6	C	141	GLY	CA-C	-6.80	1.41	1.51
4	A	1080	THR	CA-C	6.80	1.70	1.52
13	L	33	GLU	CG-CD	6.80	1.62	1.51
5	B	709	ASP	C-O	6.79	1.36	1.23
9	H	2	SER	N-CA	6.79	1.59	1.46
4	A	1205	LYS	CA-CB	6.79	1.68	1.53
10	I	96	SER	CA-CB	6.79	1.63	1.52
4	A	392	VAL	CB-CG2	-6.79	1.38	1.52
5	B	34	ILE	CA-CB	-6.79	1.39	1.54
6	C	214	ASN	CA-CB	6.79	1.70	1.53
5	B	963	PHE	CD1-CE1	-6.79	1.25	1.39
5	B	95	ILE	CB-CG2	6.78	1.73	1.52
4	A	121	LEU	CA-C	6.78	1.70	1.52
6	C	29	MET	CG-SD	6.78	1.98	1.81
4	A	1403	GLU	CB-CG	6.78	1.65	1.52
5	B	176	SER	CA-CB	6.78	1.63	1.52
5	B	96	TYR	CD2-CE2	6.77	1.49	1.39
5	B	252	SER	CA-CB	6.77	1.63	1.52
5	B	270	LYS	CE-NZ	6.77	1.66	1.49
10	I	43	VAL	CB-CG2	-6.77	1.38	1.52
5	B	61	ASP	CA-CB	6.77	1.68	1.53
7	E	158	SER	CB-OG	6.77	1.51	1.42
5	B	732	SER	C-O	6.77	1.36	1.23
9	H	89	LEU	CG-CD1	6.77	1.76	1.51
4	A	1141	THR	CA-CB	6.76	1.71	1.53
2	T	24	DT	P-OP1	-6.76	1.37	1.49
4	A	212	LYS	CG-CD	6.76	1.75	1.52
4	A	267	ALA	CA-CB	-6.76	1.38	1.52
4	A	321	PRO	CG-CD	6.76	1.73	1.50
6	C	147	LEU	CA-CB	-6.76	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	K	58	PHE	CD2-CE2	-6.76	1.25	1.39
5	B	966	VAL	CB-CG2	-6.76	1.38	1.52
10	I	19	ASP	CB-CG	6.75	1.66	1.51
5	B	631	GLY	CA-C	6.75	1.62	1.51
4	A	62	ASP	N-CA	6.75	1.59	1.46
9	H	89	LEU	CA-CB	6.75	1.69	1.53
6	C	115	SER	CA-C	-6.75	1.35	1.52
6	C	120	ILE	CA-CB	-6.75	1.39	1.54
6	C	55	THR	CB-CG2	-6.74	1.30	1.52
4	A	57	ARG	CA-C	6.74	1.70	1.52
5	B	812	LEU	CG-CD1	6.74	1.76	1.51
11	J	29	GLU	CA-CB	6.74	1.68	1.53
12	K	76	GLN	C-O	6.74	1.36	1.23
5	B	476	ARG	CB-CG	6.74	1.70	1.52
7	E	34	GLU	C-O	6.74	1.36	1.23
5	B	680	THR	CA-CB	6.74	1.70	1.53
5	B	122	LEU	CA-CB	-6.73	1.38	1.53
7	E	10	SER	N-CA	6.73	1.59	1.46
4	A	485	ASP	CB-CG	6.73	1.65	1.51
5	B	91	SER	CA-CB	6.73	1.63	1.52
1	R	9	G	C4'-C3'	-6.73	1.45	1.53
4	A	944	ARG	CG-CD	-6.73	1.35	1.51
10	I	29	CYS	N-CA	6.73	1.59	1.46
4	A	747	VAL	CA-CB	-6.73	1.40	1.54
5	B	436	VAL	CB-CG2	6.72	1.67	1.52
4	A	323	LYS	CB-CG	6.72	1.70	1.52
4	A	107	CYS	CA-CB	6.72	1.68	1.53
5	B	164	LYS	N-CA	6.72	1.59	1.46
4	A	1022	LEU	CG-CD2	6.72	1.76	1.51
5	B	694	ASP	CB-CG	6.72	1.65	1.51
10	I	4	PHE	CE1-CZ	6.72	1.50	1.37
4	A	646	PHE	CE2-CZ	6.72	1.50	1.37
4	A	981	LEU	CG-CD1	6.72	1.76	1.51
4	A	879	GLU	CB-CG	6.72	1.65	1.52
9	H	128	ASN	N-CA	6.72	1.59	1.46
10	I	8	ARG	CA-C	6.71	1.70	1.52
5	B	115	GLN	CB-CG	6.71	1.70	1.52
5	B	590	HIS	CA-CB	-6.71	1.39	1.53
7	E	14	ARG	CB-CG	6.71	1.70	1.52
4	A	427	GLN	CB-CG	6.71	1.70	1.52
5	B	1120	GLU	CA-CB	6.71	1.68	1.53
6	C	222	LYS	CE-NZ	6.71	1.65	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	E	11	ARG	CB-CG	6.71	1.70	1.52
4	A	1035	TYR	CG-CD2	6.70	1.47	1.39
5	B	633	VAL	CB-CG1	-6.70	1.38	1.52
5	B	69	LEU	CA-CB	6.70	1.69	1.53
4	A	698	GLN	CG-CD	6.70	1.66	1.51
4	A	1226	VAL	CB-CG2	6.70	1.67	1.52
4	A	387	ARG	CD-NE	6.69	1.57	1.46
4	A	12	ARG	CA-C	-6.69	1.35	1.52
4	A	662	PHE	CD1-CE1	-6.69	1.25	1.39
6	C	215	GLU	CG-CD	6.69	1.61	1.51
10	I	3	THR	CA-CB	6.69	1.70	1.53
8	F	149	GLU	CA-C	6.69	1.70	1.52
12	K	106	GLU	CD-OE2	6.69	1.33	1.25
5	B	777	ALA	CA-CB	-6.68	1.38	1.52
4	A	252	PHE	CD2-CE2	6.68	1.52	1.39
7	E	205	SER	N-CA	6.68	1.59	1.46
9	H	132	LEU	CG-CD1	6.68	1.76	1.51
4	A	553	VAL	CB-CG2	6.68	1.66	1.52
5	B	59	LEU	CG-CD2	6.68	1.76	1.51
5	B	250	PHE	CD1-CE1	6.68	1.52	1.39
5	B	713	ALA	CA-C	6.68	1.70	1.52
11	J	9	SER	CA-CB	-6.68	1.43	1.52
2	T	12	DC	C4'-C3'	6.67	1.60	1.53
4	A	1311	VAL	CB-CG2	-6.67	1.38	1.52
11	J	34	THR	CA-C	-6.67	1.35	1.52
4	A	162	VAL	CA-C	6.67	1.70	1.52
4	A	744	LYS	CE-NZ	6.67	1.65	1.49
6	C	76	ASP	CB-CG	6.67	1.65	1.51
4	A	253	ASN	CA-CB	6.66	1.70	1.53
4	A	840	ARG	CZ-NH2	6.66	1.41	1.33
4	A	455	MET	CA-CB	-6.66	1.39	1.53
5	B	1091	TYR	CD2-CE2	-6.66	1.29	1.39
7	E	56	LYS	N-CA	6.66	1.59	1.46
4	A	22	PHE	CE1-CZ	6.66	1.50	1.37
4	A	46	THR	CA-CB	6.66	1.70	1.53
4	A	173	THR	CA-CB	6.66	1.70	1.53
5	B	54	PHE	CB-CG	-6.66	1.40	1.51
5	B	475	SER	CA-CB	6.66	1.62	1.52
4	A	582	ILE	N-CA	-6.65	1.33	1.46
12	K	108	GLU	CB-CG	6.65	1.64	1.52
4	A	332	LYS	CE-NZ	6.65	1.65	1.49
5	B	896	ASP	CB-CG	6.65	1.65	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1007	ILE	CA-C	-6.65	1.35	1.52
4	A	795	GLU	CD-OE2	6.65	1.32	1.25
4	A	57	ARG	CD-NE	6.64	1.57	1.46
4	A	1187	GLN	CA-C	6.64	1.70	1.52
6	C	7	GLN	CG-CD	-6.64	1.35	1.51
9	H	84	ALA	CA-C	6.64	1.70	1.52
1	R	3	C	C3'-O3'	6.64	1.51	1.42
5	B	855	PHE	N-CA	-6.64	1.33	1.46
6	C	229	TYR	CD2-CE2	6.64	1.49	1.39
12	K	73	LEU	CA-CB	-6.64	1.38	1.53
4	A	261	ASP	CB-CG	6.64	1.65	1.51
5	B	304	ASP	N-CA	6.64	1.59	1.46
5	B	246	LYS	CB-CG	6.63	1.70	1.52
5	B	479	VAL	CB-CG1	-6.63	1.39	1.52
5	B	325	GLN	CA-C	6.63	1.70	1.52
4	A	746	MET	SD-CE	6.63	2.15	1.77
5	B	560	GLU	CB-CG	6.63	1.64	1.52
5	B	958	GLN	CG-CD	6.63	1.66	1.51
5	B	334	ILE	CA-C	6.63	1.70	1.52
13	L	43	THR	N-CA	6.63	1.59	1.46
10	I	45	ARG	CB-CG	6.63	1.70	1.52
10	I	81	ARG	CB-CG	6.63	1.70	1.52
12	K	74	ARG	CG-CD	6.63	1.68	1.51
4	A	773	LYS	CE-NZ	6.62	1.65	1.49
5	B	433	GLN	CA-CB	6.62	1.68	1.53
11	J	3	VAL	CA-CB	-6.62	1.40	1.54
4	A	435	HIS	CA-CB	-6.62	1.39	1.53
8	F	84	TYR	N-CA	6.62	1.59	1.46
4	A	951	GLU	CG-CD	6.61	1.61	1.51
5	B	468	GLU	N-CA	6.61	1.59	1.46
9	H	129	TYR	CD2-CE2	6.61	1.49	1.39
4	A	363	GLN	C-O	6.61	1.35	1.23
9	H	19	ARG	CZ-NH2	6.61	1.41	1.33
5	B	245	GLU	N-CA	6.61	1.59	1.46
5	B	896	ASP	CA-CB	6.60	1.68	1.53
5	B	981	ALA	CA-C	-6.60	1.35	1.52
5	B	891	ASP	CB-CG	6.60	1.65	1.51
11	J	8	PHE	CE2-CZ	-6.60	1.24	1.37
6	C	224	GLN	CG-CD	6.59	1.66	1.51
4	A	142	CYS	CA-C	-6.59	1.35	1.52
5	B	644	GLU	CB-CG	6.59	1.64	1.52
7	E	50	MET	CG-SD	6.59	1.98	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	K	113	THR	CA-C	6.59	1.70	1.52
9	H	126	GLU	CB-CG	6.59	1.64	1.52
4	A	320	ARG	CA-C	6.59	1.70	1.52
9	H	105	GLU	CG-CD	6.58	1.61	1.51
4	A	498	ARG	CG-CD	6.58	1.68	1.51
5	B	1073	TYR	CB-CG	-6.58	1.41	1.51
4	A	363	GLN	CD-NE2	6.58	1.49	1.32
5	B	650	GLU	CB-CG	-6.58	1.39	1.52
5	B	873	THR	CA-CB	6.58	1.70	1.53
9	H	19	ARG	CA-C	6.58	1.70	1.52
4	A	881	GLN	CG-CD	-6.57	1.35	1.51
4	A	804	TYR	CE2-CZ	-6.57	1.30	1.38
4	A	1378	GLN	CG-CD	6.57	1.66	1.51
4	A	1098	VAL	CB-CG2	-6.57	1.39	1.52
5	B	785	TYR	CD2-CE2	-6.57	1.29	1.39
7	E	58	MET	CB-CG	6.57	1.72	1.51
4	A	69	THR	CA-C	6.56	1.70	1.52
4	A	796	SER	CA-CB	-6.56	1.43	1.52
5	B	165	VAL	N-CA	6.56	1.59	1.46
5	B	421	PHE	CE1-CZ	6.56	1.49	1.37
4	A	478	TYR	CD2-CE2	-6.56	1.29	1.39
4	A	135	PHE	CE1-CZ	6.55	1.49	1.37
8	F	108	PHE	CD2-CE2	6.55	1.52	1.39
7	E	31	THR	CB-CG2	6.55	1.74	1.52
6	C	138	GLU	CD-OE1	6.55	1.32	1.25
4	A	37	PHE	CG-CD1	6.55	1.48	1.38
5	B	94	LYS	CG-CD	6.55	1.74	1.52
12	K	90	ALA	N-CA	-6.55	1.33	1.46
4	A	1175	SER	CA-CB	6.54	1.62	1.52
6	C	3	GLU	CA-C	6.54	1.70	1.52
4	A	252	PHE	CD1-CE1	6.53	1.52	1.39
4	A	593	GLU	CA-CB	6.53	1.68	1.53
12	K	28	PRO	CA-C	6.53	1.66	1.52
5	B	605	ARG	CA-C	-6.53	1.35	1.52
12	K	26	LYS	CD-CE	6.53	1.67	1.51
4	A	708	MET	SD-CE	6.53	2.14	1.77
7	E	45	LYS	CA-C	6.53	1.70	1.52
7	E	97	VAL	N-CA	6.53	1.59	1.46
13	L	65	VAL	CA-C	-6.52	1.35	1.52
11	J	19	GLU	CB-CG	6.52	1.64	1.52
7	E	113	GLN	CB-CG	6.52	1.70	1.52
10	I	13	MET	CA-C	-6.52	1.36	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	J	3	VAL	CB-CG1	-6.52	1.39	1.52
13	L	62	LYS	CB-CG	6.52	1.70	1.52
4	A	1315	GLU	CD-OE1	6.52	1.32	1.25
6	C	135	GLN	CA-C	-6.52	1.36	1.52
11	J	42	LYS	CG-CD	6.52	1.74	1.52
13	L	64	LEU	CG-CD2	6.51	1.75	1.51
5	B	1083	ALA	CA-CB	-6.51	1.38	1.52
4	A	372	LYS	CD-CE	6.51	1.67	1.51
6	C	92	CYS	CB-SG	-6.51	1.71	1.82
8	F	110	ASP	CA-C	6.51	1.69	1.52
8	F	153	VAL	CB-CG2	6.51	1.66	1.52
5	B	696	GLU	CD-OE1	6.51	1.32	1.25
12	K	16	GLU	N-CA	6.51	1.59	1.46
4	A	297	GLN	CB-CG	6.51	1.70	1.52
5	B	328	GLU	CB-CG	6.50	1.64	1.52
4	A	176	LYS	CG-CD	6.50	1.74	1.52
6	C	75	MET	CG-SD	6.50	1.98	1.81
8	F	108	PHE	CE2-CZ	6.50	1.49	1.37
5	B	698	GLU	CB-CG	6.50	1.64	1.52
7	E	74	ASP	CA-C	6.50	1.69	1.52
12	K	57	LEU	C-O	6.50	1.35	1.23
4	A	137	ALA	CA-CB	-6.50	1.38	1.52
5	B	250	PHE	CA-CB	6.50	1.68	1.53
10	I	80	SER	CA-CB	-6.50	1.43	1.52
4	A	540	PHE	CE2-CZ	6.49	1.49	1.37
4	A	956	LEU	CA-CB	-6.49	1.38	1.53
5	B	593	PRO	CB-CG	-6.49	1.17	1.50
9	H	20	TYR	N-CA	6.49	1.59	1.46
5	B	892	LYS	CG-CD	6.49	1.74	1.52
4	A	995	GLU	CD-OE1	6.49	1.32	1.25
5	B	833	TYR	C-O	-6.49	1.11	1.23
5	B	1189	ILE	CA-C	6.49	1.69	1.52
8	F	112	GLU	N-CA	6.48	1.59	1.46
6	C	191	TYR	CE2-CZ	6.48	1.47	1.38
6	C	260	LEU	CG-CD2	6.48	1.75	1.51
7	E	172	GLU	N-CA	6.48	1.59	1.46
9	H	84	ALA	N-CA	6.48	1.59	1.46
4	A	117	GLU	CB-CG	6.48	1.64	1.52
6	C	264	GLN	CG-CD	6.48	1.66	1.51
4	A	583	PRO	CB-CG	-6.48	1.17	1.50
4	A	1230	GLU	CA-C	6.47	1.69	1.52
5	B	958	GLN	CB-CG	6.47	1.70	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	H	97	MET	SD-CE	6.47	2.14	1.77
5	B	714	GLU	N-CA	6.47	1.59	1.46
6	C	166	GLU	CD-OE2	6.47	1.32	1.25
9	H	63	LEU	CA-CB	6.47	1.68	1.53
5	B	325	GLN	CA-CB	6.47	1.68	1.53
7	E	124	VAL	CA-C	6.47	1.69	1.52
4	A	461	LYS	CG-CD	6.46	1.74	1.52
5	B	374	LYS	CD-CE	6.46	1.67	1.51
6	C	81	GLU	CB-CG	6.46	1.64	1.52
12	K	113	THR	CA-CB	6.46	1.70	1.53
8	F	140	ASP	CA-CB	6.46	1.68	1.53
5	B	1188	LYS	CD-CE	6.46	1.67	1.51
10	I	85	PHE	CG-CD1	-6.46	1.29	1.38
5	B	1008	PRO	CA-CB	-6.46	1.40	1.53
6	C	20	PHE	CE2-CZ	6.46	1.49	1.37
7	E	135	PHE	CD2-CE2	6.46	1.52	1.39
4	A	697	ALA	CA-C	-6.46	1.36	1.52
9	H	79	TRP	N-CA	-6.46	1.33	1.46
4	A	49	LYS	CE-NZ	6.45	1.65	1.49
4	A	265	LYS	CG-CD	6.45	1.74	1.52
4	A	812	GLU	CB-CG	6.45	1.64	1.52
4	A	1228	TRP	CB-CG	-6.45	1.38	1.50
5	B	54	PHE	CA-CB	-6.45	1.39	1.53
9	H	15	VAL	CA-C	6.45	1.69	1.52
4	A	1026	LEU	CG-CD2	6.45	1.75	1.51
5	B	275	TYR	N-CA	6.45	1.59	1.46
6	C	35	ARG	CG-CD	6.45	1.68	1.51
4	A	896	ARG	CB-CG	6.45	1.70	1.52
5	B	1033	LYS	CD-CE	6.45	1.67	1.51
13	L	67	PHE	CB-CG	-6.45	1.40	1.51
9	H	76	THR	CB-CG2	6.45	1.73	1.52
5	B	316	PRO	CA-CB	-6.44	1.40	1.53
5	B	566	LEU	CA-C	-6.44	1.36	1.52
6	C	235	VAL	CB-CG1	-6.44	1.39	1.52
8	F	72	LYS	N-CA	6.44	1.59	1.46
4	A	127	ALA	CA-C	6.44	1.69	1.52
9	H	10	PHE	CE2-CZ	6.44	1.49	1.37
7	E	142	VAL	CB-CG2	6.44	1.66	1.52
7	E	72	PHE	CE2-CZ	6.44	1.49	1.37
6	C	50	GLU	CD-OE2	6.43	1.32	1.25
7	E	54	GLN	CG-CD	6.43	1.65	1.51
4	A	495	GLU	CB-CG	6.43	1.64	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	1047	PHE	N-CA	-6.43	1.33	1.46
5	B	284	ILE	CA-CB	-6.43	1.40	1.54
13	L	42	ARG	CA-C	6.43	1.69	1.52
6	C	203	GLN	CG-CD	6.43	1.65	1.51
7	E	119	SER	CB-OG	6.43	1.50	1.42
5	B	557	PHE	CD2-CE2	-6.43	1.26	1.39
5	B	1028	GLU	CB-CG	6.43	1.64	1.52
4	A	1352	VAL	CA-CB	-6.42	1.41	1.54
4	A	842	VAL	CA-CB	-6.42	1.41	1.54
5	B	1010	LEU	N-CA	-6.42	1.33	1.46
5	B	1116	ARG	CG-CD	-6.42	1.35	1.51
4	A	17	VAL	CA-CB	6.42	1.68	1.54
5	B	781	PHE	CD2-CE2	6.42	1.52	1.39
7	E	75	MET	N-CA	6.42	1.59	1.46
4	A	842	VAL	CB-CG2	-6.42	1.39	1.52
5	B	383	ASN	CB-CG	6.41	1.65	1.51
5	B	987	LYS	CG-CD	6.41	1.74	1.52
6	C	227	THR	CA-CB	6.41	1.70	1.53
5	B	437	GLU	CB-CG	6.41	1.64	1.52
7	E	21	GLU	CD-OE1	6.41	1.32	1.25
4	A	496	GLU	CD-OE2	6.41	1.32	1.25
8	F	84	TYR	CD1-CE1	-6.41	1.29	1.39
12	K	47	ARG	CB-CG	6.41	1.69	1.52
2	T	17	DG	C4'-C3'	-6.41	1.46	1.52
4	A	1109	LYS	CA-CB	6.41	1.68	1.53
4	A	1261	LYS	CE-NZ	6.40	1.65	1.49
5	B	818	PRO	CA-CB	-6.40	1.40	1.53
8	F	143	PHE	CD2-CE2	6.40	1.52	1.39
4	A	890	ASP	CB-CG	6.40	1.65	1.51
5	B	68	THR	CB-CG2	6.40	1.73	1.52
5	B	41	LYS	CG-CD	6.40	1.74	1.52
5	B	436	VAL	CA-CB	6.40	1.68	1.54
4	A	1307	GLU	CD-OE2	6.40	1.32	1.25
4	A	1307	GLU	CB-CG	6.40	1.64	1.52
4	A	569	LYS	C-O	-6.39	1.11	1.23
4	A	1112	LYS	CD-CE	6.39	1.67	1.51
5	B	310	MET	SD-CE	6.39	2.13	1.77
5	B	353	LYS	CA-CB	6.39	1.68	1.53
4	A	935	GLN	N-CA	-6.39	1.33	1.46
4	A	941	LYS	CA-CB	6.38	1.68	1.53
4	A	1122	PRO	CA-C	6.38	1.65	1.52
5	B	963	PHE	CB-CG	-6.38	1.40	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	1213	THR	CA-CB	6.38	1.70	1.53
7	E	33	GLU	CB-CG	6.38	1.64	1.52
10	I	107	SER	N-CA	6.38	1.59	1.46
5	B	21	GLU	CD-OE1	6.38	1.32	1.25
5	B	244	LEU	CG-CD2	6.38	1.75	1.51
4	A	55	ASP	C-N	6.38	1.46	1.34
4	A	519	PRO	CA-CB	-6.38	1.40	1.53
12	K	102	LYS	CD-CE	6.38	1.67	1.51
4	A	470	LEU	CG-CD2	6.37	1.75	1.51
4	A	1266	THR	CA-CB	-6.37	1.36	1.53
5	B	1185	CYS	CA-CB	6.37	1.68	1.53
5	B	1201	LYS	CB-CG	6.37	1.69	1.52
12	K	8	GLU	CB-CG	6.37	1.64	1.52
4	A	1262	LYS	CB-CG	6.37	1.69	1.52
5	B	236	HIS	CA-C	-6.37	1.36	1.52
5	B	785	TYR	CA-C	-6.37	1.36	1.52
6	C	234	SER	C-O	-6.37	1.11	1.23
4	A	863	VAL	CA-CB	6.37	1.68	1.54
2	T	21	DC	N1-C2	-6.37	1.33	1.40
5	B	354	ASP	CA-CB	6.37	1.68	1.53
4	A	302	THR	CB-CG2	6.36	1.73	1.52
6	C	131	HIS	CA-C	-6.36	1.36	1.52
12	K	84	LYS	CD-CE	6.36	1.67	1.51
4	A	298	PHE	CB-CG	-6.36	1.40	1.51
4	A	880	LYS	CG-CD	6.36	1.74	1.52
4	A	1297	GLU	CG-CD	6.36	1.61	1.51
4	A	416	ARG	CG-CD	6.36	1.67	1.51
4	A	743	VAL	CB-CG1	6.36	1.66	1.52
4	A	124	GLN	CG-CD	6.36	1.65	1.51
5	B	418	LYS	CB-CG	6.36	1.69	1.52
4	A	855	THR	CA-CB	-6.35	1.36	1.53
4	A	1277	GLU	CA-C	6.35	1.69	1.52
4	A	266	LEU	CA-C	6.35	1.69	1.52
9	H	91	ASP	N-CA	6.35	1.59	1.46
5	B	647	GLY	N-CA	6.35	1.55	1.46
12	K	56	VAL	CB-CG1	-6.35	1.39	1.52
9	H	17	PRO	CA-C	6.34	1.65	1.52
9	H	126	GLU	C-N	6.34	1.44	1.33
12	K	57	LEU	CG-CD2	6.34	1.75	1.51
4	A	687	LYS	CB-CG	6.34	1.69	1.52
5	B	1103	ILE	C-O	-6.34	1.11	1.23
4	A	771	GLU	CD-OE1	6.34	1.32	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	I	30	ARG	C-O	6.34	1.35	1.23
4	A	453	MET	CA-CB	-6.34	1.40	1.53
4	A	1262	LYS	CE-NZ	6.33	1.64	1.49
4	A	66	LYS	CE-NZ	6.33	1.64	1.49
4	A	954	TRP	CE3-CZ3	-6.33	1.27	1.38
9	H	139	ASN	CA-CB	6.33	1.69	1.53
4	A	150	THR	CA-CB	6.33	1.69	1.53
5	B	538	ASN	CG-ND2	6.33	1.48	1.32
9	H	135	LEU	CG-CD2	6.33	1.75	1.51
4	A	185	TRP	N-CA	6.32	1.58	1.46
4	A	330	LYS	CD-CE	6.32	1.67	1.51
7	E	37	LEU	N-CA	6.32	1.58	1.46
9	H	123	MET	SD-CE	6.32	2.13	1.77
4	A	955	PRO	CG-CD	6.32	1.71	1.50
4	A	409	SER	CA-C	6.32	1.69	1.52
4	A	894	GLU	CG-CD	6.32	1.61	1.51
4	A	321	PRO	C-N	6.31	1.48	1.34
4	A	696	GLU	CD-OE1	6.31	1.32	1.25
4	A	722	LEU	CB-CG	-6.31	1.34	1.52
10	I	13	MET	CB-CG	6.31	1.71	1.51
4	A	1004	ASN	CA-C	6.31	1.69	1.52
4	A	492	PRO	CA-C	-6.31	1.40	1.52
9	H	102	TYR	CG-CD1	-6.31	1.30	1.39
10	I	58	VAL	CA-CB	-6.31	1.41	1.54
10	I	31	THR	CA-CB	-6.30	1.36	1.53
4	A	673	GLY	CA-C	6.30	1.61	1.51
4	A	1337	GLU	CD-OE1	6.30	1.32	1.25
5	B	952	VAL	CB-CG2	-6.30	1.39	1.52
6	C	34	ARG	CG-CD	6.30	1.67	1.51
10	I	93	LYS	CA-CB	6.30	1.67	1.53
1	R	9	G	P-OP1	-6.30	1.38	1.49
4	A	1174	PHE	CA-CB	6.30	1.67	1.53
5	B	1097	HIS	N-CA	6.30	1.58	1.46
9	H	130	ARG	CB-CG	-6.29	1.35	1.52
4	A	1056	SER	CA-CB	6.29	1.62	1.52
5	B	951	GLN	CB-CG	6.29	1.69	1.52
10	I	101	PHE	CA-C	-6.29	1.36	1.52
4	A	1297	GLU	CB-CG	6.29	1.64	1.52
3	N	11	DG	P-O5'	6.29	1.66	1.59
5	B	238	ALA	CA-CB	-6.29	1.39	1.52
4	A	321	PRO	CB-CG	-6.29	1.18	1.50
4	A	929	LEU	CG-CD2	6.29	1.75	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	I	86	PHE	CA-CB	-6.29	1.40	1.53
8	F	123	LYS	CB-CG	6.28	1.69	1.52
9	H	102	TYR	CB-CG	-6.28	1.42	1.51
10	I	5	ARG	CA-CB	6.28	1.67	1.53
4	A	259	GLU	N-CA	6.28	1.58	1.46
6	C	51	VAL	CB-CG2	-6.28	1.39	1.52
4	A	303	TYR	CD2-CE2	6.28	1.48	1.39
4	A	1320	PRO	CA-CB	-6.28	1.41	1.53
7	E	34	GLU	N-CA	6.28	1.58	1.46
9	H	89	LEU	CB-CG	6.27	1.70	1.52
5	B	679	TYR	CB-CG	-6.27	1.42	1.51
5	B	242	SER	CA-C	-6.27	1.36	1.52
5	B	796	LEU	CG-CD2	6.27	1.75	1.51
4	A	898	ARG	CA-C	-6.27	1.36	1.52
5	B	851	PHE	CA-C	-6.27	1.36	1.52
6	C	74	SER	CA-CB	6.27	1.62	1.52
1	R	1	A	C3'-O3'	6.26	1.50	1.42
5	B	772	ALA	CA-CB	-6.26	1.39	1.52
7	E	178	ILE	CA-C	6.26	1.69	1.52
4	A	213	HIS	CA-CB	6.26	1.67	1.53
5	B	60	GLN	CB-CG	6.26	1.69	1.52
5	B	1079	LYS	CE-NZ	6.26	1.64	1.49
4	A	978	PRO	CA-CB	-6.26	1.41	1.53
4	A	1062	GLU	CG-CD	-6.26	1.42	1.51
4	A	269	ILE	CA-CB	-6.26	1.40	1.54
5	B	245	GLU	CG-CD	6.26	1.61	1.51
5	B	502	ILE	N-CA	6.26	1.58	1.46
4	A	677	ARG	CB-CG	6.25	1.69	1.52
4	A	1395	GLY	CA-C	6.25	1.61	1.51
5	B	262	GLU	CG-CD	6.25	1.61	1.51
5	B	515	HIS	N-CA	6.25	1.58	1.46
6	C	129	ILE	CB-CG2	-6.25	1.33	1.52
5	B	1157	ALA	CA-C	-6.25	1.36	1.52
4	A	1001	ARG	CB-CG	6.25	1.69	1.52
5	B	37	PHE	CD1-CE1	-6.25	1.26	1.39
5	B	346	GLU	CB-CG	6.25	1.64	1.52
2	T	25	DC	N1-C6	6.25	1.40	1.37
4	A	1217	LYS	CG-CD	6.25	1.73	1.52
5	B	1077	THR	CA-CB	-6.25	1.37	1.53
8	F	149	GLU	CD-OE2	6.25	1.32	1.25
4	A	216	VAL	CA-CB	6.24	1.67	1.54
5	B	729	ILE	CA-CB	-6.24	1.40	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	435	HIS	N-CA	-6.24	1.33	1.46
9	H	105	GLU	CD-OE1	6.24	1.32	1.25
10	I	120	GLN	CA-CB	6.24	1.67	1.53
5	B	818	PRO	CA-C	-6.24	1.40	1.52
5	B	382	ILE	N-CA	-6.23	1.33	1.46
4	A	1434	ALA	CA-C	6.23	1.69	1.52
5	B	373	ARG	CB-CG	6.23	1.69	1.52
5	B	1220	ARG	N-CA	6.23	1.58	1.46
4	A	176	LYS	CB-CG	6.23	1.69	1.52
4	A	440	ASP	CA-CB	6.23	1.67	1.53
5	B	432	MET	N-CA	6.23	1.58	1.46
4	A	1391	ARG	CA-C	6.23	1.69	1.52
6	C	72	LEU	CB-CG	-6.23	1.34	1.52
4	A	787	PHE	CE2-CZ	6.23	1.49	1.37
5	B	213	ILE	N-CA	-6.23	1.33	1.46
5	B	276	ILE	CA-CB	6.23	1.69	1.54
4	A	393	ARG	CB-CG	6.23	1.69	1.52
4	A	1259	MET	CG-SD	6.22	1.97	1.81
4	A	1335	ILE	CA-C	-6.22	1.36	1.52
5	B	533	CYS	CB-SG	-6.22	1.71	1.82
7	E	121	MET	CA-C	6.22	1.69	1.52
12	K	13	GLY	CA-C	6.22	1.61	1.51
5	B	707	PRO	CA-C	6.22	1.65	1.52
4	A	455	MET	CG-SD	-6.21	1.65	1.81
5	B	370	PHE	CA-CB	6.21	1.67	1.53
7	E	55	ARG	CB-CG	6.21	1.69	1.52
4	A	130	ASP	N-CA	6.21	1.58	1.46
5	B	598	GLU	CB-CG	6.21	1.64	1.52
12	K	90	ALA	CA-CB	-6.21	1.39	1.52
4	A	307	ASP	CB-CG	6.21	1.64	1.51
6	C	89	GLU	CB-CG	6.21	1.64	1.52
4	A	201	VAL	CA-CB	6.21	1.67	1.54
4	A	885	THR	CB-CG2	-6.21	1.31	1.52
5	B	1046	PRO	CA-C	-6.21	1.40	1.52
6	C	185	LYS	CE-NZ	6.21	1.64	1.49
7	E	70	SER	CA-CB	6.21	1.62	1.52
7	E	16	PHE	CG-CD1	6.21	1.48	1.38
5	B	660	LYS	CD-CE	6.20	1.66	1.51
7	E	50	MET	N-CA	6.20	1.58	1.46
4	A	212	LYS	CA-CB	6.20	1.67	1.53
4	A	773	LYS	CD-CE	6.20	1.66	1.51
4	A	567	LYS	CD-CE	6.20	1.66	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1199	ARG	CB-CG	6.20	1.69	1.52
4	A	760	GLN	CG-CD	6.20	1.65	1.51
5	B	623	GLU	CD-OE1	6.20	1.32	1.25
5	B	1041	GLU	CB-CG	6.20	1.64	1.52
13	L	47	ARG	CG-CD	6.20	1.67	1.51
7	E	77	SER	CA-C	6.19	1.69	1.52
5	B	360	PHE	CB-CG	-6.19	1.40	1.51
5	B	564	GLU	CD-OE1	6.19	1.32	1.25
5	B	111	ALA	N-CA	6.19	1.58	1.46
13	L	66	GLN	CB-CG	6.19	1.69	1.52
4	A	143	LYS	CE-NZ	6.19	1.64	1.49
4	A	1109	LYS	CB-CG	6.19	1.69	1.52
5	B	94	LYS	CD-CE	6.19	1.66	1.51
4	A	1291	VAL	CB-CG2	-6.18	1.39	1.52
13	L	33	GLU	CA-CB	6.18	1.67	1.53
4	A	1151	GLU	CA-C	6.18	1.69	1.52
5	B	41	LYS	CD-CE	6.18	1.66	1.51
4	A	284	ALA	C-N	6.17	1.46	1.34
5	B	380	TYR	CG-CD1	6.17	1.47	1.39
5	B	1051	THR	CA-CB	-6.17	1.37	1.53
5	B	881	ASN	C-N	6.17	1.48	1.34
5	B	1069	PHE	C-O	6.17	1.35	1.23
5	B	843	GLN	CA-C	-6.17	1.36	1.52
5	B	951	GLN	CD-OE1	6.17	1.37	1.24
5	B	1180	PHE	CE1-CZ	6.17	1.49	1.37
12	K	15	GLY	N-CA	6.17	1.55	1.46
5	B	28	GLU	N-CA	6.16	1.58	1.46
11	J	53	HIS	CA-C	-6.16	1.36	1.52
5	B	278	GLN	CG-CD	6.16	1.65	1.51
7	E	50	MET	CB-CG	6.16	1.71	1.51
4	A	1233	ASP	CB-CG	6.16	1.64	1.51
7	E	97	VAL	CA-C	6.16	1.69	1.52
7	E	103	LYS	CA-C	6.16	1.69	1.52
9	H	76	THR	N-CA	6.16	1.58	1.46
4	A	1428	VAL	CA-C	-6.16	1.36	1.52
5	B	950	ASP	CA-C	-6.16	1.36	1.52
4	A	1130	GLN	CA-CB	6.15	1.67	1.53
5	B	866	TYR	CG-CD2	6.15	1.47	1.39
5	B	994	TYR	CD2-CE2	-6.15	1.30	1.39
5	B	497	ARG	CB-CG	6.15	1.69	1.52
7	E	96	PHE	CA-C	6.15	1.69	1.52
10	I	118	ARG	CA-C	6.15	1.69	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	507	VAL	C-N	-6.14	1.22	1.34
4	A	728	LYS	CG-CD	6.14	1.73	1.52
12	K	24	ASP	CB-CG	6.14	1.64	1.51
4	A	282	ASN	CA-C	6.14	1.69	1.52
4	A	1074	GLU	CD-OE2	6.14	1.32	1.25
4	A	1341	ILE	CA-CB	6.14	1.69	1.54
5	B	296	GLU	CD-OE1	6.14	1.32	1.25
7	E	117	THR	N-CA	6.14	1.58	1.46
9	H	16	ASP	CA-C	6.13	1.68	1.52
4	A	985	ASP	CB-CG	6.13	1.64	1.51
4	A	655	PHE	CD1-CE1	-6.13	1.26	1.39
7	E	28	TYR	CD1-CE1	-6.13	1.30	1.39
2	T	19	DT	P-OP2	6.13	1.59	1.49
4	A	1081	LEU	CB-CG	6.13	1.70	1.52
4	A	1139	GLU	CB-CG	-6.13	1.40	1.52
10	I	115	LYS	CG-CD	6.13	1.73	1.52
4	A	1151	GLU	N-CA	6.12	1.58	1.46
5	B	761	HIS	CA-CB	-6.12	1.40	1.53
6	C	167	HIS	CA-C	-6.12	1.37	1.52
5	B	241	ARG	CD-NE	6.12	1.56	1.46
11	J	42	LYS	CD-CE	6.12	1.66	1.51
5	B	299	GLU	CD-OE1	6.12	1.32	1.25
10	I	17	ARG	CB-CG	6.12	1.69	1.52
4	A	1126	ALA	C-O	6.11	1.34	1.23
5	B	1151	LEU	CG-CD1	6.11	1.74	1.51
7	E	205	SER	CB-OG	6.11	1.50	1.42
12	K	64	GLU	N-CA	-6.11	1.34	1.46
5	B	1153	GLU	CB-CG	6.11	1.63	1.52
4	A	836	TYR	CD2-CE2	6.11	1.48	1.39
5	B	653	VAL	CB-CG2	-6.11	1.40	1.52
7	E	36	GLU	CB-CG	6.11	1.63	1.52
4	A	104	GLU	CA-C	6.11	1.68	1.52
5	B	987	LYS	CA-CB	6.11	1.67	1.53
4	A	212	LYS	C-O	6.10	1.34	1.23
5	B	422	LYS	CG-CD	6.10	1.73	1.52
7	E	76	GLY	N-CA	6.10	1.55	1.46
4	A	1435	PRO	CA-C	6.10	1.65	1.52
5	B	869	SER	CA-CB	6.10	1.62	1.52
7	E	199	ILE	CA-C	-6.10	1.37	1.52
5	B	229	ALA	CA-CB	6.10	1.65	1.52
4	A	840	ARG	CG-CD	6.10	1.67	1.51
4	A	833	GLU	CA-CB	6.10	1.67	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	248	SER	CA-CB	6.10	1.62	1.52
4	A	1282	VAL	CB-CG1	6.10	1.65	1.52
5	B	1092	TYR	CD1-CE1	6.10	1.48	1.39
12	K	109	TRP	CE2-CZ2	-6.10	1.29	1.39
8	F	128	LYS	CA-C	6.09	1.68	1.52
4	A	656	TRP	CE3-CZ3	-6.09	1.28	1.38
5	B	861	ASP	CA-C	6.09	1.68	1.52
9	H	133	ASN	N-CA	6.09	1.58	1.46
4	A	1289	ARG	CB-CG	6.09	1.69	1.52
7	E	66	GLU	CG-CD	6.09	1.61	1.51
4	A	123	ARG	CB-CG	6.09	1.69	1.52
5	B	510	LYS	CA-CB	6.09	1.67	1.53
9	H	29	ALA	CA-CB	6.09	1.65	1.52
5	B	315	LYS	CA-C	6.08	1.68	1.52
7	E	38	PRO	CA-C	-6.08	1.40	1.52
5	B	322	PHE	CD2-CE2	6.08	1.51	1.39
6	C	49	VAL	CB-CG1	-6.08	1.40	1.52
7	E	95	THR	CB-CG2	6.08	1.72	1.52
10	I	85	PHE	CB-CG	-6.08	1.41	1.51
7	E	163	GLU	CB-CG	6.08	1.63	1.52
12	K	1	MET	CG-SD	6.08	1.97	1.81
4	A	905	ASP	C-O	6.08	1.34	1.23
8	F	121	ALA	CA-CB	-6.08	1.39	1.52
4	A	1205	LYS	CE-NZ	6.08	1.64	1.49
5	B	250	PHE	CG-CD1	6.08	1.47	1.38
12	K	6	ARG	CB-CG	-6.07	1.36	1.52
4	A	551	TYR	CD1-CE1	6.07	1.48	1.39
7	E	84	ASP	CB-CG	6.07	1.64	1.51
4	A	1034	GLU	CB-CG	6.07	1.63	1.52
11	J	17	LYS	CA-CB	6.07	1.67	1.53
4	A	1042	PHE	CD2-CE2	-6.06	1.27	1.39
4	A	1353	TYR	CE1-CZ	6.06	1.46	1.38
5	B	619	ILE	CB-CG2	-6.06	1.34	1.52
4	A	1282	VAL	CB-CG2	6.06	1.65	1.52
4	A	984	LYS	CG-CD	6.06	1.73	1.52
5	B	425	THR	CA-C	-6.06	1.37	1.52
7	E	184	VAL	CB-CG1	6.06	1.65	1.52
4	A	465	TYR	CD1-CE1	6.06	1.48	1.39
4	A	1261	LYS	CB-CG	6.05	1.68	1.52
5	B	490	SER	CA-CB	-6.05	1.43	1.52
5	B	852	ARG	CG-CD	6.05	1.67	1.51
4	A	777	PHE	CA-CB	-6.05	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	203	PHE	CE2-CZ	6.05	1.48	1.37
5	B	407	ASP	CB-CG	6.05	1.64	1.51
5	B	890	TYR	CE2-CZ	-6.05	1.30	1.38
5	B	1177	HIS	CA-C	6.05	1.68	1.52
5	B	367	LEU	CB-CG	6.05	1.70	1.52
5	B	625	LYS	CE-NZ	6.05	1.64	1.49
5	B	1099	VAL	CA-CB	-6.05	1.42	1.54
7	E	150	VAL	CA-CB	6.05	1.67	1.54
9	H	93	TYR	CE1-CZ	6.05	1.46	1.38
9	H	104	PHE	CE2-CZ	6.05	1.48	1.37
11	J	58	GLU	CG-CD	6.05	1.61	1.51
4	A	52	GLY	N-CA	6.04	1.55	1.46
4	A	532	ARG	CD-NE	6.04	1.56	1.46
4	A	1298	TYR	CZ-OH	6.04	1.48	1.37
5	B	91	SER	N-CA	6.04	1.58	1.46
10	I	28	GLU	CD-OE2	6.04	1.32	1.25
9	H	78	SER	CA-CB	6.04	1.62	1.52
4	A	1259	MET	CA-C	-6.04	1.37	1.52
4	A	567	LYS	CA-CB	-6.04	1.40	1.53
5	B	51	PHE	CA-CB	-6.04	1.40	1.53
4	A	149	GLU	CB-CG	6.04	1.63	1.52
4	A	527	THR	CA-C	-6.04	1.37	1.52
4	A	713	SER	CA-CB	-6.04	1.43	1.52
4	A	47	ARG	CA-C	6.03	1.68	1.52
4	A	57	ARG	N-CA	6.03	1.58	1.46
4	A	1156	PRO	CB-CG	6.03	1.80	1.50
5	B	188	ASP	CA-CB	6.03	1.67	1.53
4	A	19	PHE	CB-CG	-6.03	1.41	1.51
5	B	103	ASN	CB-CG	6.03	1.65	1.51
4	A	810	PRO	CG-CD	-6.03	1.30	1.50
6	C	26	ASP	CA-C	6.03	1.68	1.52
8	F	124	GLU	CB-CG	-6.03	1.40	1.52
4	A	1243	VAL	CA-CB	6.03	1.67	1.54
5	B	1059	LEU	CA-C	-6.03	1.37	1.52
10	I	91	ARG	CZ-NH2	6.03	1.40	1.33
4	A	44	THR	CA-C	6.02	1.68	1.52
4	A	906	HIS	CA-C	6.02	1.68	1.52
4	A	936	LEU	CG-CD2	6.02	1.74	1.51
5	B	791	THR	C-O	-6.02	1.11	1.23
4	A	103	CYS	CA-C	-6.02	1.37	1.52
4	A	75	ASN	N-CA	6.02	1.58	1.46
4	A	799	PHE	CD1-CE1	6.02	1.51	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	F	151	LEU	CA-C	-6.02	1.37	1.52
13	L	37	LYS	CA-C	6.02	1.68	1.52
5	B	177	LYS	CD-CE	6.01	1.66	1.51
6	C	202	PRO	CA-C	-6.01	1.40	1.52
9	H	146	ARG	CD-NE	6.01	1.56	1.46
5	B	748	ILE	CA-CB	-6.01	1.41	1.54
6	C	187	LYS	CE-NZ	6.01	1.64	1.49
5	B	476	ARG	N-CA	6.01	1.58	1.46
5	B	131	ASP	CA-CB	6.01	1.67	1.53
5	B	463	THR	N-CA	-6.01	1.34	1.46
5	B	517	THR	CA-C	-6.01	1.37	1.52
4	A	783	THR	CA-CB	-6.00	1.37	1.53
5	B	564	GLU	CD-OE2	6.00	1.32	1.25
5	B	275	TYR	CA-C	6.00	1.68	1.52
5	B	397	ASP	CA-CB	6.00	1.67	1.53
9	H	17	PRO	CG-CD	-6.00	1.30	1.50
13	L	56	LEU	N-CA	6.00	1.58	1.46
13	L	56	LEU	CA-CB	-6.00	1.40	1.53
4	A	616	VAL	CB-CG1	-6.00	1.40	1.52
5	B	262	GLU	CB-CG	6.00	1.63	1.52
5	B	851	PHE	CE2-CZ	-6.00	1.25	1.37
10	I	33	SER	CA-C	6.00	1.68	1.52
4	A	153	PRO	CB-CG	5.99	1.79	1.50
4	A	712	GLU	CB-CG	5.99	1.63	1.52
5	B	666	TYR	CG-CD1	5.99	1.47	1.39
5	B	239	GLU	CD-OE2	5.99	1.32	1.25
5	B	751	VAL	CA-CB	-5.99	1.42	1.54
5	B	692	TYR	CB-CG	5.99	1.60	1.51
6	C	152	GLU	CB-CG	5.99	1.63	1.52
5	B	294	ASP	CA-CB	5.99	1.67	1.53
5	B	1007	VAL	CA-CB	-5.99	1.42	1.54
11	J	38	ARG	CG-CD	5.99	1.67	1.51
7	E	112	TYR	CD2-CE2	5.98	1.48	1.39
4	A	271	LYS	CB-CG	5.98	1.68	1.52
4	A	408	ASP	N-CA	5.98	1.58	1.46
5	B	528	PRO	CA-CB	-5.98	1.41	1.53
7	E	64	PRO	CB-CG	-5.98	1.20	1.50
10	I	2	THR	CB-CG2	5.98	1.72	1.52
4	A	935	GLN	CA-CB	-5.98	1.40	1.53
6	C	201	TRP	CG-CD2	-5.98	1.33	1.43
4	A	259	GLU	CB-CG	5.98	1.63	1.52
5	B	228	LYS	N-CA	-5.98	1.34	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	E	104	ASN	CB-CG	5.98	1.64	1.51
4	A	431	LYS	CB-CG	5.97	1.68	1.52
4	A	670	ILE	CA-C	5.97	1.68	1.52
5	B	635	ARG	C-O	-5.97	1.11	1.23
5	B	816	GLU	CD-OE1	5.97	1.32	1.25
4	A	945	GLU	CA-CB	5.97	1.67	1.53
7	E	181	ALA	CA-CB	-5.97	1.40	1.52
5	B	174	LEU	CB-CG	-5.97	1.35	1.52
6	C	21	ILE	CA-C	-5.97	1.37	1.52
12	K	25	THR	CB-CG2	5.97	1.72	1.52
4	A	893	PHE	CG-CD2	-5.97	1.29	1.38
5	B	431	TYR	CE1-CZ	5.96	1.46	1.38
5	B	1222	ARG	CA-C	5.96	1.68	1.52
4	A	73	GLY	CA-C	-5.96	1.42	1.51
1	R	7	A	P-O5'	-5.96	1.53	1.59
6	C	209	TYR	CE1-CZ	5.96	1.46	1.38
4	A	1153	TYR	CZ-OH	5.96	1.48	1.37
4	A	1349	TYR	CB-CG	5.96	1.60	1.51
6	C	262	LEU	N-CA	5.96	1.58	1.46
12	K	17	SER	CB-OG	5.96	1.50	1.42
4	A	1054	LEU	CG-CD2	5.95	1.73	1.51
5	B	492	LEU	CG-CD1	-5.95	1.29	1.51
5	B	655	LYS	CE-NZ	5.95	1.64	1.49
6	C	201	TRP	CA-CB	-5.95	1.40	1.53
4	A	66	LYS	CA-CB	5.95	1.67	1.53
10	I	49	ILE	CA-CB	5.95	1.68	1.54
4	A	814	PHE	CE1-CZ	-5.95	1.26	1.37
5	B	784	ASN	CG-ND2	5.95	1.47	1.32
12	K	29	ASN	C-O	5.95	1.34	1.23
4	A	917	SER	CA-CB	5.95	1.61	1.52
7	E	94	LYS	CD-CE	5.95	1.66	1.51
7	E	194	GLU	CG-CD	5.95	1.60	1.51
4	A	852	TYR	CA-C	5.94	1.68	1.52
5	B	1087	PHE	CE2-CZ	5.94	1.48	1.37
4	A	477	PRO	C-O	-5.94	1.11	1.23
4	A	1169	ILE	CB-CG2	5.94	1.71	1.52
5	B	745	PRO	CA-C	-5.94	1.41	1.52
5	B	965	LYS	CD-CE	5.94	1.66	1.51
7	E	19	VAL	CA-CB	-5.94	1.42	1.54
4	A	943	LEU	CG-CD1	5.94	1.73	1.51
5	B	826	ALA	CA-C	-5.93	1.37	1.52
4	A	133	LYS	CG-CD	5.93	1.72	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	1070	GLU	CG-CD	5.93	1.60	1.51
4	A	896	ARG	CG-CD	5.93	1.66	1.51
5	B	642	ASP	N-CA	5.93	1.58	1.46
4	A	1219	THR	CB-CG2	-5.93	1.32	1.52
4	A	218	ASP	CA-CB	5.92	1.67	1.53
4	A	935	GLN	CB-CG	-5.92	1.36	1.52
4	A	1046	LEU	CG-CD1	5.92	1.73	1.51
5	B	956	THR	CB-CG2	5.92	1.71	1.52
4	A	1036	ARG	CB-CG	5.92	1.68	1.52
4	A	1092	LYS	CG-CD	5.92	1.72	1.52
4	A	315	LEU	CG-CD2	5.92	1.73	1.51
7	E	19	VAL	CB-CG1	5.92	1.65	1.52
4	A	1421	CYS	CB-SG	5.92	1.92	1.82
9	H	98	TYR	CD2-CE2	5.92	1.48	1.39
4	A	949	ASP	CA-CB	5.92	1.67	1.53
5	B	775	LYS	C-O	5.92	1.34	1.23
5	B	1060	ARG	CA-CB	-5.92	1.41	1.53
10	I	17	ARG	CA-C	5.92	1.68	1.52
9	H	131	ASN	CA-CB	5.92	1.68	1.53
4	A	420	ARG	CG-CD	-5.91	1.37	1.51
5	B	108	VAL	CB-CG2	5.91	1.65	1.52
9	H	133	ASN	CA-CB	5.91	1.68	1.53
10	I	115	LYS	CB-CG	5.91	1.68	1.52
6	C	93	ASP	CB-CG	5.91	1.64	1.51
9	H	91	ASP	CB-CG	5.91	1.64	1.51
4	A	170	THR	CA-CB	5.91	1.68	1.53
9	H	99	GLY	CA-C	5.91	1.61	1.51
4	A	1154	TYR	CD1-CE1	5.91	1.48	1.39
4	A	1159	ARG	CG-CD	5.91	1.66	1.51
5	B	955	THR	N-CA	-5.91	1.34	1.46
4	A	258	GLY	CA-C	5.91	1.61	1.51
6	C	106	GLU	CD-OE1	5.90	1.32	1.25
8	F	155	LEU	C-OXT	5.90	1.34	1.23
6	C	61	GLU	CD-OE2	5.90	1.32	1.25
5	B	1141	HIS	CA-C	-5.90	1.37	1.52
5	B	277	LYS	CA-CB	5.90	1.67	1.53
4	A	56	PRO	N-CA	5.89	1.57	1.47
5	B	323	VAL	CB-CG1	-5.89	1.40	1.52
5	B	492	LEU	CA-C	-5.89	1.37	1.52
4	A	590	ARG	CA-C	-5.89	1.37	1.52
8	F	148	VAL	CA-CB	-5.89	1.42	1.54
5	B	934	LYS	CB-CG	5.89	1.68	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	C	143	LEU	N-CA	-5.89	1.34	1.46
4	A	468	PHE	CB-CG	-5.88	1.41	1.51
4	A	1006	ILE	CA-CB	5.88	1.68	1.54
5	B	459	TYR	CD2-CE2	5.88	1.48	1.39
5	B	461	LEU	CG-CD2	5.88	1.73	1.51
6	C	212	PRO	CA-C	5.88	1.64	1.52
5	B	1048	THR	CA-CB	-5.88	1.38	1.53
4	A	360	GLU	CB-CG	5.88	1.63	1.52
7	E	180	ARG	CZ-NH2	5.88	1.40	1.33
4	A	797	LYS	CD-CE	5.88	1.66	1.51
5	B	451	LYS	CE-NZ	5.88	1.63	1.49
5	B	1007	VAL	CB-CG1	5.88	1.65	1.52
4	A	1350	LYS	CD-CE	5.88	1.66	1.51
8	F	72	LYS	CD-CE	5.88	1.66	1.51
4	A	217	LYS	CD-CE	5.88	1.66	1.51
7	E	122	LYS	CE-NZ	5.88	1.63	1.49
4	A	1435	PRO	N-CA	5.87	1.57	1.47
4	A	880	LYS	CA-CB	5.87	1.66	1.53
5	B	473	MET	CB-CG	5.87	1.70	1.51
4	A	14	VAL	CB-CG2	-5.87	1.40	1.52
4	A	674	PRO	CG-CD	5.87	1.70	1.50
5	B	289	LEU	CG-CD1	5.87	1.73	1.51
6	C	165	LYS	CD-CE	5.87	1.66	1.51
5	B	764	SER	CB-OG	5.87	1.49	1.42
12	K	68	PHE	CE2-CZ	5.87	1.48	1.37
4	A	6	TYR	CA-CB	5.86	1.66	1.53
4	A	755	PHE	CE2-CZ	5.86	1.48	1.37
4	A	1039	LYS	CD-CE	5.86	1.66	1.51
5	B	598	GLU	CD-OE1	5.86	1.32	1.25
5	B	1004	GLU	CD-OE1	5.86	1.32	1.25
4	A	1158	PRO	CA-C	-5.86	1.41	1.52
4	A	1288	ASP	CA-CB	5.86	1.66	1.53
4	A	27	VAL	CA-CB	-5.86	1.42	1.54
4	A	902	LEU	CA-C	5.86	1.68	1.52
4	A	1217	LYS	CD-CE	5.86	1.65	1.51
4	A	1411	GLU	CB-CG	5.86	1.63	1.52
9	H	58	THR	CB-CG2	5.86	1.71	1.52
2	T	25	DC	N1-C2	-5.86	1.34	1.40
12	K	102	LYS	CG-CD	5.86	1.72	1.52
4	A	149	GLU	CG-CD	5.85	1.60	1.51
4	A	231	PRO	CA-C	-5.85	1.41	1.52
4	A	657	LEU	CA-C	-5.85	1.37	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1118	VAL	CB-CG2	5.85	1.65	1.52
5	B	65	GLU	N-CA	5.85	1.58	1.46
5	B	431	TYR	CA-CB	5.85	1.66	1.53
5	B	1185	CYS	CA-C	5.85	1.68	1.52
6	C	12	GLU	CD-OE1	5.85	1.32	1.25
9	H	129	TYR	CG-CD2	5.85	1.46	1.39
4	A	962	ARG	CA-C	-5.84	1.37	1.52
4	A	1187	GLN	C-O	5.84	1.34	1.23
5	B	756	ILE	CB-CG2	-5.84	1.34	1.52
5	B	1055	ILE	CA-C	-5.84	1.37	1.52
6	C	214	ASN	CA-C	5.84	1.68	1.52
9	H	14	GLU	CA-CB	5.84	1.66	1.53
10	I	8	ARG	CD-NE	5.84	1.56	1.46
4	A	1126	ALA	CA-C	5.84	1.68	1.52
4	A	51	GLY	CA-C	5.84	1.61	1.51
4	A	698	GLN	CD-OE1	5.84	1.36	1.24
9	H	145	ARG	CB-CG	5.84	1.68	1.52
5	B	983	ARG	CZ-NH2	-5.83	1.25	1.33
12	K	106	GLU	CG-CD	5.83	1.60	1.51
5	B	864	LYS	CB-CG	5.83	1.68	1.52
5	B	954	VAL	CA-C	-5.83	1.37	1.52
4	A	554	PRO	N-CA	-5.83	1.37	1.47
4	A	1190	PRO	CA-C	-5.83	1.41	1.52
5	B	403	LYS	CE-NZ	5.83	1.63	1.49
13	L	44	ASP	CA-C	5.83	1.68	1.52
4	A	559	VAL	CB-CG1	-5.83	1.40	1.52
4	A	1171	GLN	CA-CB	5.83	1.66	1.53
4	A	201	VAL	CB-CG1	-5.83	1.40	1.52
4	A	439	ASN	CA-C	-5.83	1.37	1.52
4	A	440	ASP	C-O	5.83	1.34	1.23
5	B	326	ASP	CA-CB	-5.83	1.41	1.53
8	F	134	ILE	CB-CG2	5.83	1.71	1.52
4	A	1224	LEU	CB-CG	5.83	1.69	1.52
4	A	1329	THR	N-CA	-5.82	1.34	1.46
5	B	1217	TYR	CE2-CZ	5.82	1.46	1.38
9	H	25	ARG	C-O	5.82	1.34	1.23
4	A	541	ILE	CA-C	-5.82	1.37	1.52
5	B	1017	ILE	CB-CG2	5.82	1.70	1.52
4	A	779	PHE	CD1-CE1	-5.82	1.27	1.39
4	A	1078	GLN	N-CA	-5.82	1.34	1.46
4	A	209	ASN	CA-CB	5.82	1.68	1.53
5	B	166	PHE	CE1-CZ	-5.82	1.26	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	1172	ILE	CA-CB	5.82	1.68	1.54
5	B	678	GLU	CA-CB	-5.81	1.41	1.53
4	A	1292	PRO	CA-C	-5.81	1.41	1.52
7	E	194	GLU	CD-OE2	5.81	1.32	1.25
4	A	88	LYS	CB-CG	5.81	1.68	1.52
4	A	1052	GLN	CD-NE2	5.81	1.47	1.32
5	B	758	PHE	CA-CB	-5.81	1.41	1.53
10	I	106	CYS	CB-SG	-5.81	1.72	1.81
4	A	371	ALA	CA-CB	-5.80	1.40	1.52
5	B	825	VAL	CB-CG2	5.80	1.65	1.52
7	E	56	LYS	CB-CG	5.80	1.68	1.52
12	K	58	PHE	CD1-CE1	-5.80	1.27	1.39
5	B	1120	GLU	CD-OE1	5.80	1.32	1.25
4	A	644	LYS	CA-C	5.80	1.68	1.52
5	B	653	VAL	CB-CG1	-5.80	1.40	1.52
2	T	19	DT	O3'-P	5.80	1.68	1.61
5	B	691	GLU	CD-OE1	5.80	1.32	1.25
4	A	1092	LYS	N-CA	5.80	1.57	1.46
4	A	417	TYR	CE2-CZ	-5.80	1.31	1.38
12	K	24	ASP	N-CA	5.80	1.57	1.46
5	B	945	GLU	CD-OE1	5.79	1.32	1.25
7	E	131	THR	CA-CB	5.79	1.68	1.53
10	I	58	VAL	CB-CG2	5.79	1.65	1.52
4	A	972	HIS	CA-C	5.79	1.68	1.52
4	A	1369	ALA	CA-CB	-5.79	1.40	1.52
4	A	400	PRO	CB-CG	5.79	1.78	1.50
8	F	100	GLN	CG-CD	5.79	1.64	1.51
2	T	20	DC	C4'-C3'	-5.79	1.46	1.52
4	A	1015	VAL	CB-CG1	5.79	1.65	1.52
2	T	19	DT	C4'-C3'	-5.79	1.46	1.52
4	A	892	ALA	N-CA	-5.79	1.34	1.46
8	F	129	LYS	CD-CE	5.79	1.65	1.51
4	A	988	LEU	CG-CD2	5.79	1.73	1.51
5	B	1199	ALA	CA-CB	5.79	1.64	1.52
5	B	1084	GLN	C-O	-5.78	1.12	1.23
4	A	240	PRO	CA-C	-5.78	1.41	1.52
4	A	644	LYS	CG-CD	5.78	1.72	1.52
5	B	1098	MET	CG-SD	5.78	1.96	1.81
7	E	170	LEU	CG-CD1	5.78	1.73	1.51
4	A	509	LEU	CG-CD1	5.78	1.73	1.51
5	B	869	SER	CA-C	5.78	1.68	1.52
7	E	168	TYR	CD2-CE2	5.78	1.48	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	F	105	ALA	CA-CB	5.78	1.64	1.52
13	L	62	LYS	CE-NZ	5.78	1.63	1.49
6	C	114	TYR	CD2-CE2	-5.78	1.30	1.39
1	R	6	G	N9-C4	5.78	1.42	1.38
4	A	212	LYS	CD-CE	5.78	1.65	1.51
4	A	1114	PRO	CA-C	5.78	1.64	1.52
5	B	934	LYS	CE-NZ	5.78	1.63	1.49
5	B	1082	MET	CG-SD	5.78	1.96	1.81
6	C	50	GLU	CD-OE1	5.78	1.32	1.25
8	F	149	GLU	CB-CG	5.78	1.63	1.52
13	L	42	ARG	CD-NE	5.78	1.56	1.46
4	A	938	LYS	CG-CD	5.78	1.72	1.52
4	A	1126	ALA	CA-CB	5.78	1.64	1.52
5	B	959	ASP	CB-CG	5.78	1.63	1.51
4	A	78	PRO	CG-CD	5.77	1.69	1.50
5	B	1215	ARG	N-CA	-5.77	1.34	1.46
1	R	9	G	O3'-P	-5.77	1.54	1.61
5	B	739	THR	CA-C	-5.77	1.38	1.52
6	C	12	GLU	CB-CG	5.77	1.63	1.52
4	A	153	PRO	CA-CB	5.77	1.65	1.53
11	J	5	VAL	N-CA	-5.77	1.34	1.46
4	A	953	ASN	CG-ND2	5.77	1.47	1.32
5	B	533	CYS	CA-C	-5.77	1.38	1.52
8	F	138	LEU	C-O	-5.77	1.12	1.23
4	A	457	ALA	N-CA	-5.76	1.34	1.46
6	C	181	ASP	C-N	-5.76	1.23	1.34
8	F	116	ASP	N-CA	5.76	1.57	1.46
11	J	18	TRP	CE2-CZ2	-5.76	1.29	1.39
4	A	514	PRO	CA-CB	-5.76	1.42	1.53
12	K	27	ALA	C-N	5.76	1.45	1.34
4	A	312	PRO	N-CA	5.76	1.57	1.47
5	B	1188	LYS	CA-C	5.76	1.68	1.52
7	E	82	PHE	CA-C	5.76	1.68	1.52
5	B	1193	GLN	CA-CB	5.76	1.66	1.53
4	A	685	GLU	CA-CB	5.76	1.66	1.53
6	C	260	LEU	CG-CD1	5.75	1.73	1.51
4	A	1175	SER	CA-C	5.75	1.68	1.52
5	B	470	LYS	CG-CD	5.75	1.72	1.52
10	I	20	LYS	N-CA	5.75	1.57	1.46
4	A	1267	MET	CG-SD	5.75	1.96	1.81
7	E	207	ARG	CB-CG	5.75	1.68	1.52
6	C	113	VAL	CB-CG2	-5.75	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	64	ASN	CA-C	5.75	1.67	1.52
4	A	1417	GLU	CG-CD	5.75	1.60	1.51
6	C	176	ILE	CB-CG2	-5.75	1.35	1.52
12	K	1	MET	CB-CG	5.75	1.69	1.51
5	B	358	LYS	CG-CD	5.74	1.72	1.52
4	A	81	PHE	N-CA	5.74	1.57	1.46
13	L	42	ARG	N-CA	5.74	1.57	1.46
5	B	1064	TYR	CZ-OH	5.74	1.47	1.37
5	B	1167	GLY	N-CA	5.73	1.54	1.46
4	A	903	ASN	CB-CG	5.73	1.64	1.51
6	C	42	PRO	N-CD	-5.73	1.39	1.47
10	I	100	PHE	CE2-CZ	-5.73	1.26	1.37
5	B	241	ARG	CA-CB	5.73	1.66	1.53
4	A	16	GLU	CG-CD	5.73	1.60	1.51
6	C	10	ILE	CA-CB	-5.73	1.41	1.54
4	A	200	ARG	CG-CD	5.73	1.66	1.51
10	I	14	LEU	C-O	5.73	1.34	1.23
4	A	685	GLU	CD-OE1	5.72	1.31	1.25
5	B	780	VAL	CA-CB	-5.72	1.42	1.54
9	H	10	PHE	CD2-CE2	5.72	1.50	1.39
6	C	114	TYR	CE2-CZ	-5.72	1.31	1.38
4	A	36	ARG	CA-CB	5.72	1.66	1.53
4	A	681	GLU	CD-OE1	5.72	1.31	1.25
9	H	26	ILE	CB-CG2	-5.72	1.35	1.52
5	B	471	LYS	CE-NZ	5.72	1.63	1.49
7	E	79	TRP	CG-CD1	5.72	1.44	1.36
4	A	274	ILE	CA-C	5.72	1.67	1.52
10	I	83	ASN	CA-C	-5.72	1.38	1.52
9	H	82	PRO	N-CA	5.71	1.56	1.47
10	I	52	ILE	N-CA	5.71	1.57	1.46
4	A	315	LEU	CA-C	5.71	1.67	1.52
4	A	985	ASP	C-O	5.71	1.34	1.23
12	K	74	ARG	C-O	5.71	1.34	1.23
5	B	70	ILE	N-CA	5.71	1.57	1.46
6	C	255	VAL	CA-CB	-5.71	1.42	1.54
4	A	720	ARG	CA-C	-5.71	1.38	1.52
5	B	118	ARG	CG-CD	5.71	1.66	1.51
5	B	941	LEU	CA-CB	-5.71	1.40	1.53
4	A	936	LEU	CG-CD1	5.70	1.73	1.51
5	B	423	LYS	CB-CG	-5.70	1.37	1.52
10	I	23	ASN	N-CA	5.70	1.57	1.46
10	I	60	GLN	CA-CB	5.70	1.66	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	I	100	PHE	CG-CD1	-5.70	1.30	1.38
5	B	172	ILE	CB-CG2	-5.70	1.35	1.52
5	B	1034	VAL	CB-CG2	-5.70	1.40	1.52
6	C	87	PHE	CE1-CZ	5.70	1.48	1.37
6	C	237	SER	CA-CB	5.70	1.61	1.52
4	A	533	LYS	N-CA	5.70	1.57	1.46
4	A	1109	LYS	CE-NZ	5.70	1.63	1.49
4	A	1226	VAL	CB-CG1	-5.70	1.40	1.52
4	A	1383	SER	C-O	5.70	1.34	1.23
9	H	139	ASN	N-CA	-5.70	1.34	1.46
1	R	7	A	O3'-P	-5.69	1.54	1.61
5	B	887	HIS	CA-C	5.69	1.67	1.52
6	C	109	SER	CA-CB	5.69	1.61	1.52
4	A	1314	SER	CA-CB	5.69	1.61	1.52
5	B	1073	TYR	CG-CD1	-5.69	1.31	1.39
4	A	1189	SER	C-O	5.69	1.34	1.23
4	A	1303	GLU	CB-CG	5.69	1.62	1.52
5	B	46	GLN	CG-CD	5.69	1.64	1.51
5	B	172	ILE	CA-CB	-5.69	1.41	1.54
5	B	979	LYS	CA-CB	-5.69	1.41	1.53
6	C	3	GLU	CD-OE1	5.69	1.31	1.25
4	A	6	TYR	CG-CD2	5.68	1.46	1.39
4	A	891	ALA	CA-CB	5.68	1.64	1.52
12	K	66	PRO	CA-C	-5.68	1.41	1.52
12	K	88	LYS	CG-CD	5.68	1.71	1.52
7	E	180	ARG	N-CA	5.68	1.57	1.46
7	E	16	PHE	C-O	5.68	1.34	1.23
5	B	649	LYS	CG-CD	5.68	1.71	1.52
4	A	417	TYR	CB-CG	5.67	1.60	1.51
5	B	996	ARG	CZ-NH1	5.67	1.40	1.33
12	K	73	LEU	CB-CG	-5.67	1.36	1.52
4	A	1135	ARG	C-O	5.67	1.34	1.23
12	K	81	TYR	CA-C	5.67	1.67	1.52
4	A	1092	LYS	CD-CE	5.67	1.65	1.51
4	A	1221	LYS	C-O	5.67	1.34	1.23
4	A	495	GLU	CD-OE1	5.67	1.31	1.25
5	B	177	LYS	CG-CD	5.67	1.71	1.52
5	B	470	LYS	CB-CG	5.67	1.67	1.52
5	B	904	ARG	CA-CB	-5.67	1.41	1.53
10	I	68	LEU	CA-C	-5.67	1.38	1.52
4	A	866	PHE	CG-CD2	5.67	1.47	1.38
5	B	90	ILE	CA-C	5.67	1.67	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	C	210	GLU	CD-OE1	5.67	1.31	1.25
4	A	542	GLU	N-CA	-5.67	1.35	1.46
4	A	147	VAL	CB-CG1	5.66	1.64	1.52
4	A	741	ASN	CG-ND2	5.66	1.47	1.32
4	A	1188	GLN	CG-CD	5.66	1.64	1.51
12	K	54	ARG	CD-NE	5.66	1.56	1.46
2	T	27	DA	C3'-O3'	-5.66	1.36	1.44
4	A	1040	GLN	CG-CD	5.66	1.64	1.51
5	B	633	VAL	CA-CB	-5.66	1.42	1.54
4	A	532	ARG	CG-CD	5.66	1.66	1.51
6	C	169	LYS	CE-NZ	5.66	1.63	1.49
6	C	175	ALA	CA-CB	5.66	1.64	1.52
7	E	131	THR	CA-C	5.66	1.67	1.52
4	A	417	TYR	CE1-CZ	5.65	1.46	1.38
5	B	411	PRO	CB-CG	5.65	1.78	1.50
8	F	155	LEU	CB-CG	5.65	1.69	1.52
4	A	814	PHE	CG-CD1	-5.65	1.30	1.38
7	E	18	THR	CA-CB	-5.65	1.38	1.53
4	A	547	LEU	CG-CD1	5.65	1.72	1.51
6	C	264	GLN	N-CA	5.65	1.57	1.46
5	B	471	LYS	N-CA	5.64	1.57	1.46
4	A	347	PHE	CE2-CZ	-5.64	1.26	1.37
5	B	742	GLU	CG-CD	5.64	1.60	1.51
6	C	36	VAL	CA-CB	-5.64	1.43	1.54
4	A	387	ARG	CB-CG	5.64	1.67	1.52
4	A	892	ALA	CA-C	-5.64	1.38	1.52
5	B	802	PRO	CA-C	5.64	1.64	1.52
4	A	572	TRP	CE2-CZ2	-5.63	1.30	1.39
4	A	945	GLU	CD-OE1	5.63	1.31	1.25
5	B	345	LYS	CA-CB	5.63	1.66	1.53
7	E	46	TYR	CD2-CE2	5.63	1.47	1.39
7	E	69	ILE	CA-CB	-5.63	1.41	1.54
9	H	136	LYS	CG-CD	5.63	1.71	1.52
5	B	1158	PHE	CD1-CE1	5.63	1.50	1.39
4	A	933	TYR	CE2-CZ	5.63	1.45	1.38
12	K	50	LEU	N-CA	-5.63	1.35	1.46
6	C	255	VAL	CB-CG2	-5.63	1.41	1.52
7	E	98	ILE	CB-CG2	5.63	1.70	1.52
12	K	114	LEU	CG-CD2	5.63	1.72	1.51
13	L	68	GLU	CD-OE1	5.63	1.31	1.25
4	A	201	VAL	CB-CG2	5.63	1.64	1.52
4	A	710	LEU	CB-CG	-5.63	1.36	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	938	LYS	CE-NZ	5.63	1.63	1.49
4	A	1309	ASP	CB-CG	5.63	1.63	1.51
5	B	423	LYS	CA-CB	-5.63	1.41	1.53
4	A	439	ASN	N-CA	-5.63	1.35	1.46
5	B	916	THR	CA-C	-5.63	1.38	1.52
4	A	1441	PHE	CB-CG	-5.62	1.41	1.51
5	B	455	SER	CA-CB	-5.62	1.44	1.52
8	F	128	LYS	CE-NZ	5.62	1.63	1.49
5	B	986	GLN	CA-C	5.62	1.67	1.52
4	A	777	PHE	C-O	5.62	1.34	1.23
12	K	62	LYS	CG-CD	5.62	1.71	1.52
5	B	723	VAL	N-CA	5.62	1.57	1.46
12	K	2	ASN	N-CA	-5.62	1.35	1.46
4	A	55	ASP	N-CA	5.61	1.57	1.46
5	B	197	PHE	CE1-CZ	5.61	1.48	1.37
4	A	25	GLU	CD-OE1	5.61	1.31	1.25
4	A	1422	ARG	CG-CD	5.61	1.66	1.51
5	B	801	LYS	CG-CD	5.61	1.71	1.52
5	B	432	MET	SD-CE	5.61	2.09	1.77
5	B	712	PRO	CG-CD	5.61	1.69	1.50
5	B	374	LYS	CG-CD	5.61	1.71	1.52
5	B	621	GLU	CB-CG	5.61	1.62	1.52
8	F	72	LYS	CG-CD	5.61	1.71	1.52
8	F	108	PHE	CD1-CE1	5.61	1.50	1.39
9	H	16	ASP	CA-CB	5.61	1.66	1.53
9	H	86	ASP	CA-CB	5.61	1.66	1.53
4	A	133	LYS	CE-NZ	5.61	1.63	1.49
4	A	813	PHE	CE1-CZ	-5.61	1.26	1.37
5	B	257	LYS	CD-CE	5.61	1.65	1.51
4	A	854	ASN	CB-CG	5.60	1.64	1.51
4	A	537	ARG	N-CA	5.60	1.57	1.46
10	I	98	VAL	CB-CG2	-5.60	1.41	1.52
5	B	667	GLN	N-CA	5.60	1.57	1.46
8	F	107	VAL	CB-CG2	-5.60	1.41	1.52
4	A	68	GLN	N-CA	5.60	1.57	1.46
4	A	1077	THR	CB-CG2	5.60	1.70	1.52
12	K	62	LYS	CD-CE	5.60	1.65	1.51
4	A	1205	LYS	CA-C	5.60	1.67	1.52
5	B	422	LYS	CD-CE	5.59	1.65	1.51
6	C	264	GLN	CA-C	5.59	1.67	1.52
5	B	459	TYR	CZ-OH	5.59	1.47	1.37
4	A	146	MET	SD-CE	5.59	2.09	1.77

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	971	PHE	CA-C	5.59	1.67	1.52
4	A	1047	SER	CB-OG	-5.59	1.34	1.42
6	C	143	LEU	CB-CG	-5.59	1.36	1.52
6	C	190	ASP	CB-CG	5.59	1.63	1.51
5	B	576	ASP	N-CA	5.59	1.57	1.46
4	A	1333	ILE	CA-CB	-5.59	1.42	1.54
5	B	894	ASP	CA-C	5.59	1.67	1.52
10	I	65	ASP	C-N	-5.59	1.23	1.34
4	A	1043	ASP	CA-C	5.59	1.67	1.52
5	B	426	LYS	CG-CD	5.59	1.71	1.52
7	E	40	GLU	CD-OE2	5.59	1.31	1.25
4	A	302	THR	CA-C	5.58	1.67	1.52
4	A	954	TRP	CG-CD2	-5.58	1.34	1.43
5	B	865	LYS	CG-CD	5.58	1.71	1.52
5	B	529	GLU	CD-OE1	5.58	1.31	1.25
9	H	16	ASP	N-CA	5.58	1.57	1.46
4	A	199	LEU	CA-C	5.58	1.67	1.52
4	A	1081	LEU	CG-CD1	5.58	1.72	1.51
4	A	1163	ILE	N-CA	-5.58	1.35	1.46
4	A	1257	ASP	CA-CB	-5.58	1.41	1.53
4	A	1328	TYR	CB-CG	5.58	1.60	1.51
2	T	21	DC	C2'-C1'	-5.58	1.46	1.52
5	B	393	LYS	CB-CG	5.58	1.67	1.52
5	B	322	PHE	CG-CD2	5.58	1.47	1.38
10	I	94	ASP	CB-CG	5.58	1.63	1.51
5	B	697	GLU	CD-OE1	5.58	1.31	1.25
4	A	1021	LEU	CG-CD2	5.57	1.72	1.51
4	A	790	ASP	CG-OD1	5.57	1.38	1.25
5	B	57	TYR	CD1-CE1	-5.57	1.30	1.39
7	E	25	ASP	CA-CB	5.57	1.66	1.53
4	A	1443	VAL	CB-CG2	-5.57	1.41	1.52
4	A	438	ASP	CB-CG	5.57	1.63	1.51
4	A	1283	VAL	CB-CG1	5.57	1.64	1.52
5	B	699	GLU	CG-CD	5.57	1.60	1.51
5	B	1137	CYS	CA-CB	-5.57	1.41	1.53
4	A	186	LYS	CD-CE	5.56	1.65	1.51
4	A	364	VAL	CB-CG1	5.56	1.64	1.52
4	A	474	VAL	CA-CB	-5.56	1.43	1.54
5	B	101	MET	CG-SD	5.56	1.95	1.81
5	B	431	TYR	CG-CD1	5.56	1.46	1.39
5	B	524	PRO	CA-C	-5.56	1.41	1.52
6	C	136	ASP	CA-CB	5.56	1.66	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	61	ILE	CA-C	5.56	1.67	1.52
5	B	96	TYR	CD1-CE1	5.56	1.47	1.39
5	B	494	HIS	CA-CB	-5.56	1.41	1.53
6	C	116	LYS	CB-CG	5.56	1.67	1.52
8	F	146	TRP	CZ3-CH2	-5.56	1.31	1.40
4	A	830	LYS	CA-CB	5.56	1.66	1.53
4	A	1144	LYS	CG-CD	5.56	1.71	1.52
4	A	344	ARG	CA-CB	-5.56	1.41	1.53
5	B	833	TYR	CD2-CE2	5.55	1.47	1.39
5	B	277	LYS	CG-CD	5.55	1.71	1.52
7	E	10	SER	CA-CB	5.55	1.61	1.52
11	J	59	LYS	CE-NZ	5.55	1.62	1.49
4	A	147	VAL	CB-CG2	5.55	1.64	1.52
4	A	511	ILE	CA-CB	-5.55	1.42	1.54
6	C	42	PRO	CB-CG	-5.55	1.22	1.50
4	A	654	ASN	CB-CG	-5.55	1.38	1.51
5	B	458	LYS	CB-CG	5.55	1.67	1.52
4	A	1445	ILE	CA-C	5.55	1.67	1.52
6	C	151	GLN	CG-CD	5.55	1.63	1.51
4	A	313	GLN	N-CA	5.54	1.57	1.46
4	A	492	PRO	CB-CG	5.54	1.77	1.50
13	L	37	LYS	CE-NZ	5.54	1.62	1.49
13	L	49	LYS	CA-CB	5.54	1.66	1.53
4	A	307	ASP	CA-C	5.54	1.67	1.52
5	B	169	ARG	CA-C	-5.54	1.38	1.52
1	R	4	G	C3'-C2'	-5.54	1.46	1.52
12	K	99	GLY	N-CA	5.54	1.54	1.46
5	B	108	VAL	N-CA	5.54	1.57	1.46
5	B	1009	ASP	C-O	5.54	1.33	1.23
9	H	93	TYR	CA-CB	5.54	1.66	1.53
9	H	94	ASP	CA-C	5.54	1.67	1.52
4	A	227	VAL	CB-CG1	5.54	1.64	1.52
4	A	881	GLN	CB-CG	-5.54	1.37	1.52
4	A	969	GLN	CA-CB	5.54	1.66	1.53
6	C	40	GLU	CD-OE1	5.54	1.31	1.25
12	K	1	MET	CA-CB	-5.54	1.41	1.53
4	A	1202	MET	CA-C	5.53	1.67	1.52
4	A	1374	VAL	CA-CB	-5.53	1.43	1.54
5	B	46	GLN	CD-OE1	5.53	1.36	1.24
10	I	119	THR	CA-CB	5.53	1.67	1.53
9	H	35	GLN	CB-CG	5.53	1.67	1.52
5	B	870	ILE	N-CA	5.53	1.57	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	630	ILE	CA-CB	-5.53	1.42	1.54
12	K	105	PHE	C-O	5.53	1.33	1.23
5	B	449	ASN	CA-CB	-5.53	1.38	1.53
5	B	1103	ILE	CA-C	-5.52	1.38	1.52
6	C	182	PRO	CA-C	-5.52	1.41	1.52
5	B	758	PHE	CG-CD2	-5.52	1.30	1.38
5	B	997	GLU	CG-CD	5.52	1.60	1.51
6	C	264	GLN	CB-CG	5.52	1.67	1.52
8	F	81	THR	CB-CG2	-5.52	1.34	1.52
4	A	1033	GLN	CG-CD	-5.52	1.38	1.51
6	C	56	THR	CB-CG2	-5.52	1.34	1.52
4	A	452	LYS	CB-CG	5.52	1.67	1.52
4	A	460	VAL	CA-CB	-5.52	1.43	1.54
12	K	39	ASP	CB-CG	5.52	1.63	1.51
4	A	467	THR	CA-CB	5.51	1.67	1.53
5	B	392	ARG	CA-CB	-5.51	1.41	1.53
4	A	264	PHE	CA-CB	-5.51	1.41	1.53
5	B	485	ARG	CA-CB	-5.51	1.41	1.53
5	B	641	GLU	CD-OE1	5.51	1.31	1.25
4	A	167	CYS	N-CA	5.51	1.57	1.46
4	A	568	PRO	CB-CG	-5.51	1.22	1.50
4	A	689	LYS	CG-CD	5.51	1.71	1.52
4	A	999	VAL	CA-CB	-5.51	1.43	1.54
4	A	523	ILE	CA-CB	-5.51	1.42	1.54
2	T	17	DG	O3'-P	-5.51	1.54	1.61
10	I	120	GLN	CB-CG	5.51	1.67	1.52
11	J	8	PHE	CG-CD1	-5.50	1.30	1.38
4	A	617	VAL	CA-CB	-5.50	1.43	1.54
4	A	1034	GLU	CA-CB	5.50	1.66	1.53
9	H	91	ASP	CA-C	5.50	1.67	1.52
4	A	180	LYS	CD-CE	5.50	1.65	1.51
5	B	536	VAL	CA-C	-5.50	1.38	1.52
5	B	625	LYS	CG-CD	5.50	1.71	1.52
5	B	895	ASP	CB-CG	5.50	1.63	1.51
7	E	127	ILE	CA-CB	5.50	1.67	1.54
4	A	901	LEU	CA-CB	5.50	1.66	1.53
9	H	41	ASP	CA-C	5.50	1.67	1.52
5	B	347	LYS	CA-C	5.49	1.67	1.52
5	B	638	PHE	CD2-CE2	-5.49	1.28	1.39
7	E	211	TYR	CG-CD1	-5.49	1.32	1.39
4	A	1221	LYS	CA-C	5.49	1.67	1.52
4	A	465	TYR	CA-CB	-5.49	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	116	GLU	CA-CB	5.49	1.66	1.53
5	B	471	LYS	C-O	5.49	1.33	1.23
4	A	828	ALA	C-O	5.49	1.33	1.23
5	B	621	GLU	CG-CD	5.49	1.60	1.51
5	B	714	GLU	CA-C	5.49	1.67	1.52
4	A	112	LYS	CD-CE	5.49	1.65	1.51
5	B	636	PRO	CA-C	-5.49	1.41	1.52
10	I	16	PRO	CB-CG	5.49	1.77	1.50
13	L	43	THR	CB-CG2	5.48	1.70	1.52
4	A	808	LEU	CG-CD2	5.48	1.72	1.51
5	B	660	LYS	CG-CD	5.48	1.71	1.52
7	E	122	LYS	CG-CD	5.48	1.71	1.52
4	A	1275	GLY	CA-C	-5.48	1.43	1.51
6	C	41	ILE	CB-CG2	-5.48	1.35	1.52
4	A	975	HIS	C-O	5.48	1.33	1.23
4	A	1285	MET	CA-CB	5.48	1.66	1.53
5	B	1187	ASN	CA-C	-5.48	1.38	1.52
6	C	168	ALA	CA-C	-5.48	1.38	1.52
6	C	266	ASP	CA-CB	5.48	1.66	1.53
10	I	98	VAL	CA-CB	-5.48	1.43	1.54
5	B	197	PHE	CG-CD1	-5.48	1.30	1.38
4	A	320	ARG	N-CA	5.48	1.57	1.46
4	A	500	GLU	CD-OE2	5.48	1.31	1.25
4	A	811	GLN	CB-CG	5.48	1.67	1.52
5	B	334	ILE	CA-CB	-5.48	1.42	1.54
5	B	471	LYS	CA-CB	5.48	1.66	1.53
4	A	275	SER	CA-C	5.47	1.67	1.52
4	A	277	GLU	CA-CB	5.47	1.66	1.53
4	A	1323	ASP	CA-CB	-5.47	1.42	1.53
5	B	92	PHE	CD2-CE2	5.47	1.50	1.39
9	H	15	VAL	CB-CG2	5.47	1.64	1.52
4	A	132	LYS	CG-CD	5.47	1.71	1.52
4	A	320	ARG	CB-CG	-5.47	1.37	1.52
6	C	7	GLN	N-CA	5.47	1.57	1.46
4	A	492	PRO	CA-CB	-5.47	1.42	1.53
4	A	983	ILE	CA-CB	-5.47	1.42	1.54
7	E	28	TYR	CD2-CE2	-5.47	1.31	1.39
10	I	97	MET	CG-SD	5.47	1.95	1.81
4	A	795	GLU	CB-CG	5.47	1.62	1.52
4	A	1173	HIS	C-N	5.47	1.46	1.34
6	C	149	LYS	CA-CB	5.47	1.66	1.53
4	A	1384	VAL	C-O	-5.47	1.12	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	630	ILE	CA-C	-5.47	1.38	1.52
6	C	90	ASP	CB-CG	5.47	1.63	1.51
7	E	200	ARG	CA-C	-5.47	1.38	1.52
6	C	57	VAL	CB-CG2	5.46	1.64	1.52
12	K	106	GLU	CD-OE1	5.46	1.31	1.25
4	A	726	ARG	CG-CD	-5.46	1.38	1.51
5	B	130	VAL	C-O	-5.46	1.12	1.23
4	A	353	ILE	CA-CB	-5.46	1.42	1.54
4	A	1428	VAL	CA-CB	-5.46	1.43	1.54
5	B	775	LYS	CA-CB	-5.46	1.42	1.53
4	A	495	GLU	CA-CB	5.46	1.66	1.53
4	A	752	LYS	CA-CB	-5.46	1.42	1.53
4	A	796	SER	CA-C	-5.46	1.38	1.52
5	B	1080	LYS	CE-NZ	5.46	1.62	1.49
11	J	50	ILE	CA-CB	5.46	1.67	1.54
12	K	6	ARG	CD-NE	-5.46	1.37	1.46
4	A	220	THR	CA-CB	5.46	1.67	1.53
4	A	607	ILE	CA-C	-5.46	1.38	1.52
4	A	1435	PRO	CB-CG	5.46	1.77	1.50
5	B	591	ARG	CB-CG	5.46	1.67	1.52
7	E	162	ARG	NE-CZ	5.46	1.40	1.33
1	R	6	G	C5-C4	5.45	1.42	1.38
5	B	1008	PRO	CA-C	5.45	1.63	1.52
4	A	24	PRO	CA-C	-5.45	1.42	1.52
4	A	780	VAL	CB-CG1	-5.45	1.41	1.52
5	B	576	ASP	CB-CG	5.45	1.63	1.51
1	R	8	G	O3'-P	-5.45	1.54	1.61
4	A	53	LEU	N-CA	5.45	1.57	1.46
4	A	132	LYS	CB-CG	5.45	1.67	1.52
5	B	62	ILE	C-O	-5.45	1.12	1.23
12	K	47	ARG	CD-NE	5.45	1.55	1.46
4	A	39	GLU	CD-OE1	5.45	1.31	1.25
4	A	45	GLN	N-CA	5.45	1.57	1.46
4	A	1028	THR	N-CA	-5.45	1.35	1.46
4	A	1206	ASP	CA-CB	5.45	1.66	1.53
7	E	116	ILE	CA-CB	5.45	1.67	1.54
4	A	284	ALA	N-CA	5.45	1.57	1.46
5	B	864	LYS	CA-CB	5.45	1.66	1.53
4	A	319	GLY	CA-C	5.44	1.60	1.51
5	B	197	PHE	CE2-CZ	-5.44	1.27	1.37
11	J	12	LYS	CD-CE	5.44	1.64	1.51
4	A	815	PHE	CD1-CE1	-5.44	1.28	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	E	83	CYS	CB-SG	-5.44	1.73	1.81
4	A	736	ASN	CA-CB	-5.44	1.39	1.53
5	B	1122	ARG	CB-CG	-5.44	1.37	1.52
7	E	139	ALA	N-CA	5.44	1.57	1.46
4	A	64	ASN	N-CA	5.44	1.57	1.46
4	A	569	LYS	CE-NZ	5.44	1.62	1.49
4	A	616	VAL	CA-CB	-5.43	1.43	1.54
7	E	187	TYR	CA-C	-5.43	1.38	1.52
6	C	177	GLU	CD-OE1	5.43	1.31	1.25
4	A	545	GLN	CD-NE2	5.43	1.46	1.32
5	B	987	LYS	CB-CG	5.43	1.67	1.52
6	C	117	ASP	CB-CG	5.43	1.63	1.51
7	E	81	GLU	N-CA	5.43	1.57	1.46
5	B	773	MET	CG-SD	5.43	1.95	1.81
4	A	1191	TRP	CE3-CZ3	-5.43	1.29	1.38
9	H	100	THR	N-CA	5.43	1.57	1.46
4	A	1103	GLU	CD-OE1	5.42	1.31	1.25
5	B	769	TYR	CD2-CE2	-5.42	1.31	1.39
4	A	13	THR	CA-C	-5.42	1.38	1.52
4	A	667	GLY	CA-C	5.42	1.60	1.51
5	B	1003	ALA	CA-C	-5.42	1.38	1.52
6	C	185	LYS	CG-CD	5.42	1.70	1.52
9	H	56	THR	CA-CB	-5.42	1.39	1.53
9	H	82	PRO	CB-CG	5.42	1.77	1.50
9	H	114	VAL	N-CA	5.42	1.57	1.46
4	A	344	ARG	CB-CG	-5.42	1.38	1.52
9	H	108	SER	CA-C	-5.42	1.38	1.52
4	A	743	VAL	CB-CG2	5.42	1.64	1.52
4	A	902	LEU	CA-CB	5.42	1.66	1.53
4	A	904	THR	CA-CB	5.42	1.67	1.53
5	B	623	GLU	CA-CB	-5.42	1.42	1.53
4	A	1171	GLN	CG-CD	5.42	1.63	1.51
4	A	1287	TYR	CA-C	5.42	1.67	1.52
5	B	1145	SER	CA-CB	5.42	1.61	1.52
4	A	791	ASP	CA-C	5.41	1.67	1.52
4	A	1301	GLU	CD-OE1	5.41	1.31	1.25
4	A	1428	VAL	CB-CG1	5.41	1.64	1.52
4	A	1176	LEU	CG-CD2	5.41	1.71	1.51
4	A	447	GLN	CD-NE2	5.41	1.46	1.32
4	A	323	LYS	N-CA	5.41	1.57	1.46
6	C	178	PHE	CE1-CZ	-5.41	1.27	1.37
5	B	722	ASP	CA-C	5.41	1.67	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	523	CYS	CA-C	-5.41	1.38	1.52
5	B	984	HIS	CA-CB	-5.41	1.42	1.53
6	C	15	LYS	CB-CG	5.41	1.67	1.52
7	E	199	ILE	CB-CG2	5.41	1.69	1.52
4	A	257	ARG	N-CA	5.40	1.57	1.46
4	A	14	VAL	CA-CB	-5.40	1.43	1.54
4	A	367	PRO	CA-C	-5.40	1.42	1.52
12	K	51	LEU	CB-CG	5.40	1.68	1.52
7	E	162	ARG	CA-C	5.40	1.67	1.52
4	A	443	LEU	CG-CD1	5.40	1.71	1.51
4	A	806	ARG	CZ-NH1	5.40	1.40	1.33
4	A	1401	SER	CB-OG	5.40	1.49	1.42
5	B	498	THR	CB-CG2	5.40	1.70	1.52
6	C	228	PHE	CB-CG	-5.40	1.42	1.51
10	I	7	CYS	CA-C	5.39	1.67	1.52
2	T	13	DA	P-OP1	5.39	1.58	1.49
4	A	571	LEU	CA-CB	5.39	1.66	1.53
5	B	325	GLN	CB-CG	5.39	1.67	1.52
7	E	201	LYS	CE-NZ	5.39	1.62	1.49
12	K	114	LEU	CB-CG	5.39	1.68	1.52
4	A	417	TYR	CG-CD1	5.39	1.46	1.39
4	A	1255	GLU	N-CA	5.39	1.57	1.46
5	B	832	GLY	CA-C	5.39	1.60	1.51
5	B	1174	LYS	CG-CD	5.39	1.70	1.52
9	H	14	GLU	CD-OE1	5.39	1.31	1.25
5	B	266	ALA	N-CA	5.39	1.57	1.46
4	A	62	ASP	CB-CG	5.39	1.63	1.51
4	A	652	VAL	CA-C	-5.39	1.39	1.52
4	A	1042	PHE	CD1-CE1	-5.39	1.28	1.39
5	B	31	TRP	CG-CD1	-5.39	1.29	1.36
10	I	96	SER	CB-OG	5.39	1.49	1.42
5	B	692	TYR	CA-CB	5.38	1.65	1.53
6	C	260	LEU	N-CA	-5.38	1.35	1.46
4	A	724	GLU	CD-OE1	5.38	1.31	1.25
6	C	161	LYS	N-CA	-5.38	1.35	1.46
7	E	113	GLN	CG-CD	5.38	1.63	1.51
12	K	64	GLU	CD-OE2	5.38	1.31	1.25
4	A	400	PRO	CA-C	-5.38	1.42	1.52
4	A	897	TYR	CB-CG	-5.38	1.43	1.51
5	B	1180	PHE	CB-CG	-5.38	1.42	1.51
5	B	303	TYR	CE1-CZ	5.37	1.45	1.38
5	B	743	ILE	CA-CB	-5.37	1.42	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	473	SER	CB-OG	5.37	1.49	1.42
4	A	601	LYS	CB-CG	5.37	1.67	1.52
4	A	1015	VAL	CA-CB	-5.37	1.43	1.54
5	B	191	LYS	CE-NZ	5.37	1.62	1.49
8	F	76	LYS	N-CA	5.37	1.57	1.46
10	I	68	LEU	N-CA	-5.37	1.35	1.46
5	B	1032	SER	CB-OG	5.37	1.49	1.42
4	A	1300	LYS	CE-NZ	5.37	1.62	1.49
5	B	194	GLU	CG-CD	5.37	1.60	1.51
2	T	23	DC	C2-N3	-5.37	1.31	1.35
4	A	598	LEU	CA-CB	-5.37	1.41	1.53
5	B	403	LYS	CD-CE	5.37	1.64	1.51
4	A	572	TRP	CE3-CZ3	-5.36	1.29	1.38
4	A	897	TYR	C-O	5.36	1.33	1.23
5	B	96	TYR	CE1-CZ	5.36	1.45	1.38
5	B	1082	MET	CB-CG	5.36	1.68	1.51
5	B	1085	ILE	CB-CG2	-5.36	1.36	1.52
11	J	43	ARG	CA-C	5.36	1.66	1.52
11	J	44	TYR	CZ-OH	5.36	1.47	1.37
4	A	856	THR	CA-CB	5.36	1.67	1.53
4	A	1219	THR	C-O	5.36	1.33	1.23
4	A	108	MET	CA-CB	5.36	1.65	1.53
4	A	898	ARG	CD-NE	5.36	1.55	1.46
4	A	938	LYS	C-O	5.36	1.33	1.23
5	B	193	LYS	CE-NZ	5.36	1.62	1.49
11	J	54	VAL	CB-CG1	-5.36	1.41	1.52
6	C	104	PHE	CA-C	-5.36	1.39	1.52
4	A	88	LYS	N-CA	-5.36	1.35	1.46
5	B	469	GLN	CD-NE2	5.36	1.46	1.32
5	B	1100	ASP	CB-CG	5.36	1.62	1.51
11	J	44	TYR	N-CA	-5.36	1.35	1.46
4	A	1341	ILE	CA-C	-5.36	1.39	1.52
5	B	349	ILE	CA-C	5.35	1.66	1.52
4	A	370	ILE	CA-CB	-5.35	1.42	1.54
4	A	104	GLU	CA-CB	5.35	1.65	1.53
5	B	107	GLY	C-O	5.35	1.32	1.23
4	A	826	ASP	CA-CB	5.35	1.65	1.53
4	A	1000	LEU	CG-CD2	5.35	1.71	1.51
4	A	1391	ARG	CD-NE	5.35	1.55	1.46
4	A	1243	VAL	N-CA	5.35	1.57	1.46
5	B	856	PHE	CE2-CZ	-5.35	1.27	1.37
5	B	1223	ASP	N-CA	5.35	1.57	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	T	13	DA	P-OP2	5.35	1.58	1.49
4	A	701	LEU	CA-C	5.35	1.66	1.52
4	A	655	PHE	CG-CD1	-5.34	1.30	1.38
5	B	49	ASP	CA-CB	5.34	1.65	1.53
5	B	183	GLU	CD-OE1	5.34	1.31	1.25
4	A	413	ILE	CA-CB	-5.34	1.42	1.54
5	B	186	GLU	CB-CG	5.34	1.62	1.52
5	B	376	PHE	CB-CG	-5.34	1.42	1.51
4	A	171	GLN	CA-CB	5.34	1.65	1.53
4	A	1108	ALA	C-O	5.34	1.33	1.23
4	A	1318	THR	CA-CB	-5.33	1.39	1.53
4	A	70	CYS	N-CA	5.33	1.57	1.46
5	B	54	PHE	CG-CD1	-5.33	1.30	1.38
5	B	878	GLN	CA-C	5.33	1.66	1.52
4	A	279	LEU	N-CA	5.33	1.57	1.46
4	A	996	ASN	CB-CG	-5.33	1.38	1.51
4	A	1078	GLN	CA-C	-5.33	1.39	1.52
5	B	1098	MET	N-CA	-5.33	1.35	1.46
10	I	7	CYS	CB-SG	-5.33	1.73	1.81
2	T	23	DC	N1-C6	5.33	1.40	1.37
4	A	778	GLY	CA-C	-5.33	1.43	1.51
4	A	264	PHE	CE1-CZ	5.33	1.47	1.37
4	A	380	VAL	CB-CG1	-5.33	1.41	1.52
5	B	226	PHE	CG-CD2	5.33	1.46	1.38
5	B	635	ARG	CA-CB	-5.33	1.42	1.53
7	E	26	ARG	CA-C	-5.33	1.39	1.52
4	A	145	LYS	CD-CE	5.33	1.64	1.51
4	A	1342	GLU	CD-OE1	5.33	1.31	1.25
5	B	104	GLU	CD-OE1	5.33	1.31	1.25
5	B	886	LYS	CE-NZ	5.33	1.62	1.49
5	B	539	LEU	CA-C	-5.32	1.39	1.52
5	B	1099	VAL	CA-C	-5.32	1.39	1.52
4	A	186	LYS	N-CA	5.32	1.56	1.46
4	A	799	PHE	CG-CD1	5.32	1.46	1.38
5	B	702	LEU	CG-CD1	5.32	1.71	1.51
5	B	882	THR	CA-C	5.32	1.66	1.52
5	B	1105	ALA	CA-CB	-5.32	1.41	1.52
7	E	174	GLN	CG-CD	5.32	1.63	1.51
6	C	122	SER	C-O	5.32	1.33	1.23
4	A	337	ARG	CA-CB	-5.32	1.42	1.53
6	C	104	PHE	CB-CG	5.32	1.60	1.51
4	A	4	GLN	CG-CD	5.31	1.63	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1303	GLU	CA-CB	5.31	1.65	1.53
5	B	855	PHE	CA-CB	-5.31	1.42	1.53
4	A	539	THR	C-O	5.31	1.33	1.23
4	A	551	TYR	CG-CD2	5.31	1.46	1.39
4	A	724	GLU	CD-OE2	5.31	1.31	1.25
5	B	890	TYR	CD1-CE1	-5.31	1.31	1.39
6	C	217	ASP	CA-CB	5.31	1.65	1.53
12	K	28	PRO	N-CA	5.31	1.56	1.47
4	A	208	LEU	CG-CD2	5.31	1.71	1.51
5	B	123	THR	CA-CB	-5.31	1.39	1.53
5	B	527	THR	CA-CB	-5.31	1.39	1.53
6	C	56	THR	CA-CB	-5.31	1.39	1.53
11	J	43	ARG	N-CA	5.31	1.56	1.46
4	A	23	SER	CA-CB	-5.31	1.45	1.52
4	A	1384	VAL	CB-CG1	5.31	1.64	1.52
10	I	99	LEU	CA-CB	-5.30	1.41	1.53
4	A	1261	LYS	CG-CD	5.30	1.70	1.52
4	A	32	VAL	CA-CB	5.30	1.65	1.54
4	A	346	ASP	CB-CG	5.30	1.62	1.51
4	A	520	CYS	CB-SG	-5.30	1.73	1.81
5	B	293	PRO	CB-CG	5.30	1.76	1.50
5	B	633	VAL	CB-CG2	5.30	1.64	1.52
5	B	1117	GLN	CA-C	5.30	1.66	1.52
4	A	185	TRP	CA-CB	5.30	1.65	1.53
5	B	606	LYS	CG-CD	5.30	1.70	1.52
4	A	1217	LYS	CA-CB	5.30	1.65	1.53
5	B	847	ASP	CA-C	-5.30	1.39	1.52
5	B	919	SER	CA-CB	5.30	1.60	1.52
6	C	157	CYS	CB-SG	-5.30	1.73	1.81
9	H	24	CYS	CA-CB	5.30	1.65	1.53
6	C	178	PHE	CG-CD2	-5.29	1.30	1.38
4	A	232	GLU	CB-CG	5.29	1.62	1.52
6	C	15	LYS	C-O	5.29	1.33	1.23
6	C	20	PHE	CA-C	-5.29	1.39	1.52
4	A	595	THR	C-O	-5.29	1.13	1.23
4	A	1165	GLU	CA-CB	5.29	1.65	1.53
7	E	214	CYS	CB-SG	-5.29	1.73	1.81
12	K	13	GLY	C-O	5.29	1.32	1.23
4	A	897	TYR	CD2-CE2	-5.29	1.31	1.39
4	A	951	GLU	CD-OE1	5.29	1.31	1.25
6	C	260	LEU	CA-C	-5.29	1.39	1.52
8	F	94	LEU	CG-CD2	5.29	1.71	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	87	ALA	N-CA	5.28	1.56	1.46
4	A	777	PHE	CE2-CZ	-5.28	1.27	1.37
5	B	104	GLU	CA-CB	5.28	1.65	1.53
5	B	207	GLY	C-O	5.28	1.32	1.23
4	A	298	PHE	CE2-CZ	5.28	1.47	1.37
4	A	603	ASN	CA-C	-5.28	1.39	1.52
4	A	1007	ILE	N-CA	-5.28	1.35	1.46
7	E	128	PRO	C-O	-5.28	1.12	1.23
5	B	967	ARG	CA-CB	-5.28	1.42	1.53
6	C	67	LEU	CG-CD2	5.28	1.71	1.51
6	C	166	GLU	CD-OE1	5.28	1.31	1.25
4	A	50	ILE	N-CA	5.28	1.56	1.46
6	C	20	PHE	CB-CG	-5.28	1.42	1.51
2	T	18	DA	C3'-O3'	-5.27	1.37	1.44
7	E	110	PHE	CE2-CZ	5.27	1.47	1.37
12	K	51	LEU	CG-CD1	5.27	1.71	1.51
4	A	712	GLU	CD-OE1	5.27	1.31	1.25
4	A	1411	GLU	CD-OE1	5.27	1.31	1.25
4	A	411	ASP	CA-C	5.27	1.66	1.52
4	A	973	ILE	CA-CB	5.26	1.67	1.54
6	C	134	ILE	CB-CG2	5.26	1.69	1.52
12	K	45	LEU	CA-CB	-5.26	1.41	1.53
4	A	44	THR	N-CA	5.26	1.56	1.46
4	A	838	GLN	C-O	-5.26	1.13	1.23
5	B	459	TYR	CE2-CZ	5.26	1.45	1.38
5	B	714	GLU	CA-CB	5.26	1.65	1.53
4	A	679	ILE	CB-CG2	-5.26	1.36	1.52
5	B	381	MET	C-O	5.26	1.33	1.23
9	H	135	LEU	CB-CG	5.26	1.67	1.52
5	B	411	PRO	CA-CB	-5.26	1.43	1.53
5	B	987	LYS	CA-C	5.26	1.66	1.52
10	I	107	SER	C-O	5.26	1.33	1.23
5	B	367	LEU	CA-C	5.25	1.66	1.52
5	B	191	LYS	CA-C	-5.25	1.39	1.52
5	B	880	THR	C-O	5.25	1.33	1.23
7	E	158	SER	N-CA	5.25	1.56	1.46
10	I	54	GLU	CB-CG	5.25	1.62	1.52
1	R	5	A	C3'-O3'	5.25	1.49	1.42
1	R	6	G	O3'-P	-5.25	1.54	1.61
4	A	698	GLN	CA-C	-5.25	1.39	1.52
9	H	39	THR	CA-C	5.25	1.66	1.52
8	F	131	PRO	C-N	-5.25	1.22	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	163	SER	CA-CB	5.25	1.60	1.52
5	B	1107	ALA	CA-C	-5.25	1.39	1.52
4	A	259	GLU	CA-CB	5.24	1.65	1.53
4	A	387	ARG	CZ-NH2	5.24	1.39	1.33
5	B	803	LEU	CA-CB	-5.24	1.41	1.53
5	B	510	LYS	CA-C	5.24	1.66	1.52
4	A	1297	GLU	CD-OE2	5.24	1.31	1.25
5	B	37	PHE	CE2-CZ	-5.24	1.27	1.37
5	B	426	LYS	CB-CG	5.24	1.66	1.52
5	B	900	ALA	N-CA	-5.24	1.35	1.46
8	F	88	TYR	CE2-CZ	-5.24	1.31	1.38
1	R	9	G	C3'-O3'	-5.24	1.34	1.42
5	B	418	LYS	CG-CD	5.24	1.70	1.52
5	B	575	PRO	CG-CD	5.24	1.68	1.50
5	B	620	ARG	N-CA	-5.24	1.35	1.46
5	B	702	LEU	CA-CB	-5.24	1.41	1.53
7	E	212	ARG	CA-CB	-5.24	1.42	1.53
4	A	644	LYS	CB-CG	5.24	1.66	1.52
4	A	759	ALA	C-O	5.24	1.33	1.23
4	A	923	LEU	CA-CB	-5.24	1.41	1.53
10	I	5	ARG	N-CA	5.24	1.56	1.46
4	A	924	LYS	CD-CE	5.24	1.64	1.51
4	A	1304	TRP	CA-C	-5.24	1.39	1.52
12	K	74	ARG	CZ-NH1	5.24	1.39	1.33
13	L	30	ILE	CA-CB	-5.24	1.42	1.54
4	A	528	LEU	CG-CD1	-5.23	1.32	1.51
5	B	552	MET	CG-SD	5.23	1.94	1.81
11	J	8	PHE	N-CA	-5.23	1.35	1.46
4	A	812	GLU	CD-OE2	5.23	1.31	1.25
5	B	114	PRO	N-CD	-5.23	1.40	1.47
5	B	581	PHE	CA-CB	-5.23	1.42	1.53
5	B	962	LYS	CG-CD	5.23	1.70	1.52
5	B	1029	CYS	CB-SG	-5.23	1.73	1.81
6	C	209	TYR	CG-CD2	5.23	1.46	1.39
4	A	785	PRO	CA-CB	-5.23	1.43	1.53
5	B	227	LYS	CB-CG	5.23	1.66	1.52
5	B	658	ILE	N-CA	-5.23	1.35	1.46
6	C	167	HIS	CA-CB	-5.23	1.42	1.53
4	A	886	ILE	CA-C	-5.23	1.39	1.52
5	B	90	ILE	N-CA	5.23	1.56	1.46
4	A	384	ASN	N-CA	5.23	1.56	1.46
4	A	1359	ASP	CA-CB	5.23	1.65	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	62	ILE	CA-CB	5.23	1.66	1.54
11	J	64	ASN	CG-ND2	5.23	1.46	1.32
5	B	1134	GLU	CG-CD	5.23	1.59	1.51
4	A	551	TYR	CE1-CZ	5.22	1.45	1.38
4	A	571	LEU	CA-C	-5.22	1.39	1.52
8	F	150	GLU	CG-CD	5.22	1.59	1.51
4	A	840	ARG	CB-CG	5.22	1.66	1.52
4	A	1209	MET	C-O	5.22	1.33	1.23
5	B	235	SER	CA-C	-5.22	1.39	1.52
4	A	977	LYS	CE-NZ	5.22	1.62	1.49
5	B	585	VAL	CB-CG2	-5.22	1.41	1.52
13	L	44	ASP	CA-CB	5.22	1.65	1.53
4	A	218	ASP	N-CA	5.22	1.56	1.46
2	T	25	DC	C5-C6	5.22	1.38	1.34
4	A	6	TYR	CG-CD1	5.22	1.46	1.39
4	A	404	TYR	CD1-CE1	5.22	1.47	1.39
4	A	416	ARG	CA-CB	-5.22	1.42	1.53
4	A	1316	VAL	CB-CG1	-5.22	1.41	1.52
4	A	973	ILE	CB-CG2	5.21	1.69	1.52
5	B	272	THR	CB-CG2	5.21	1.69	1.52
5	B	430	ARG	CA-C	5.21	1.66	1.52
7	E	199	ILE	CA-CB	-5.21	1.42	1.54
13	L	62	LYS	CA-CB	5.21	1.65	1.53
4	A	1074	GLU	N-CA	-5.21	1.35	1.46
5	B	196	PRO	CA-CB	-5.21	1.43	1.53
8	F	89	GLU	CG-CD	5.21	1.59	1.51
11	J	23	ASN	CB-CG	5.21	1.63	1.51
4	A	1191	TRP	CB-CG	-5.21	1.40	1.50
4	A	1276	VAL	CB-CG1	5.21	1.63	1.52
8	F	102	SER	CA-CB	-5.21	1.45	1.52
4	A	734	GLU	CA-C	5.21	1.66	1.52
5	B	221	ASN	C-O	5.21	1.33	1.23
5	B	526	GLU	CD-OE2	5.21	1.31	1.25
5	B	1106	ARG	CA-C	-5.21	1.39	1.52
1	R	9	G	C5'-C4'	5.20	1.57	1.51
5	B	1094	ARG	CB-CG	5.20	1.66	1.52
5	B	333	PHE	CG-CD1	5.20	1.46	1.38
4	A	932	GLU	CB-CG	5.20	1.62	1.52
4	A	672	ASP	CG-OD2	5.20	1.37	1.25
4	A	840	ARG	N-CA	-5.20	1.35	1.46
4	A	1015	VAL	CA-C	-5.20	1.39	1.52
12	K	18	LYS	CA-C	-5.20	1.39	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	939	ASP	CB-CG	5.20	1.62	1.51
5	B	1202	LEU	CG-CD2	5.20	1.71	1.51
4	A	1262	LYS	CG-CD	5.19	1.70	1.52
5	B	47	GLN	N-CA	5.19	1.56	1.46
5	B	759	PRO	CA-C	-5.19	1.42	1.52
4	A	850	VAL	N-CA	-5.19	1.35	1.46
4	A	1095	THR	C-O	5.19	1.33	1.23
5	B	686	ASN	CA-C	-5.19	1.39	1.52
5	B	804	GLY	CA-C	5.19	1.60	1.51
8	F	142	SER	CA-CB	5.19	1.60	1.52
4	A	600	PRO	CA-CB	-5.19	1.43	1.53
5	B	237	VAL	CA-CB	-5.19	1.43	1.54
9	H	32	THR	CA-CB	5.19	1.66	1.53
4	A	132	LYS	CD-CE	5.19	1.64	1.51
4	A	677	ARG	CD-NE	5.19	1.55	1.46
6	C	41	ILE	CA-C	-5.19	1.39	1.52
1	R	8	G	P-OP1	-5.19	1.40	1.49
6	C	263	THR	CB-CG2	5.19	1.69	1.52
8	F	115	THR	CA-CB	-5.19	1.39	1.53
4	A	58	LEU	CA-CB	-5.18	1.41	1.53
4	A	1110	ASN	CG-ND2	5.18	1.45	1.32
11	J	21	TYR	CB-CG	-5.18	1.43	1.51
4	A	1234	GLU	CB-CG	5.18	1.61	1.52
8	F	114	GLU	CD-OE1	5.18	1.31	1.25
4	A	58	LEU	N-CA	5.18	1.56	1.46
4	A	649	ILE	CA-CB	5.18	1.66	1.54
7	E	133	GLU	CA-C	5.18	1.66	1.52
8	F	92	ARG	CZ-NH1	5.18	1.39	1.33
5	B	334	ILE	C-N	5.18	1.42	1.33
4	A	787	PHE	CE1-CZ	5.17	1.47	1.37
5	B	1074	ASN	CA-C	-5.17	1.39	1.52
5	B	911	ILE	CA-CB	-5.17	1.43	1.54
5	B	1021	MET	SD-CE	5.17	2.06	1.77
4	A	561	PRO	CA-CB	-5.17	1.43	1.53
4	A	1108	ALA	CA-C	5.17	1.66	1.52
5	B	652	LYS	CG-CD	5.17	1.70	1.52
8	F	79	ARG	CG-CD	5.17	1.64	1.51
4	A	59	GLY	CA-C	5.17	1.60	1.51
5	B	708	GLU	CB-CG	5.17	1.61	1.52
8	F	124	GLU	CA-CB	-5.17	1.42	1.53
4	A	311	GLN	CA-C	5.17	1.66	1.52
9	H	63	LEU	CB-CG	5.17	1.67	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	I	27	PHE	CA-C	-5.17	1.39	1.52
4	A	309	ALA	N-CA	5.17	1.56	1.46
4	A	1299	VAL	N-CA	5.17	1.56	1.46
8	F	152	ILE	CA-C	5.17	1.66	1.52
9	H	11	GLN	CA-CB	-5.17	1.42	1.53
13	L	50	ASP	CA-CB	5.17	1.65	1.53
4	A	123	ARG	CD-NE	5.16	1.55	1.46
9	H	44	VAL	CB-CG1	5.16	1.63	1.52
4	A	383	TYR	CG-CD1	5.16	1.45	1.39
4	A	694	THR	CA-C	5.16	1.66	1.52
6	C	264	GLN	CA-CB	5.16	1.65	1.53
4	A	1400	CYS	C-O	-5.16	1.13	1.23
5	B	1190	ASP	CB-CG	5.16	1.62	1.51
5	B	834	ASN	CB-CG	5.16	1.62	1.51
5	B	1077	THR	CA-C	-5.16	1.39	1.52
13	L	25	ALA	CA-C	5.16	1.66	1.52
5	B	668	ASP	N-CA	5.16	1.56	1.46
4	A	430	TRP	CD2-CE2	-5.16	1.35	1.41
4	A	1042	PHE	CA-C	5.16	1.66	1.52
5	B	348	ARG	CG-CD	5.15	1.64	1.51
5	B	874	PHE	CE1-CZ	-5.15	1.27	1.37
7	E	49	SER	CA-C	5.15	1.66	1.52
4	A	251	SER	N-CA	5.15	1.56	1.46
4	A	1444	MET	CG-SD	5.15	1.94	1.81
4	A	332	LYS	CB-CG	-5.15	1.38	1.52
4	A	844	ALA	N-CA	-5.15	1.36	1.46
8	F	74	ILE	CA-CB	-5.15	1.43	1.54
9	H	38	LEU	CG-CD2	5.15	1.71	1.51
4	A	383	TYR	N-CA	-5.15	1.36	1.46
12	K	103	THR	CB-CG2	5.15	1.69	1.52
4	A	535	THR	N-CA	-5.14	1.36	1.46
4	A	105	CYS	CB-SG	5.14	1.91	1.82
4	A	153	PRO	N-CD	5.14	1.55	1.47
4	A	364	VAL	CA-CB	-5.14	1.44	1.54
4	A	432	VAL	CB-CG2	-5.14	1.42	1.52
4	A	1108	ALA	CA-CB	-5.14	1.41	1.52
5	B	230	ALA	CA-C	5.14	1.66	1.52
5	B	715	ALA	CA-C	5.14	1.66	1.52
5	B	1022	THR	CB-CG2	5.14	1.69	1.52
4	A	459	ARG	CG-CD	5.14	1.64	1.51
4	A	1294	PRO	CA-CB	5.14	1.63	1.53
5	B	380	TYR	CE2-CZ	5.14	1.45	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1032	LEU	CA-CB	5.14	1.65	1.53
4	A	1059	HIS	C-N	-5.14	1.24	1.34
4	A	186	LYS	CG-CD	5.13	1.70	1.52
4	A	612	ILE	CB-CG2	5.13	1.68	1.52
5	B	347	LYS	CD-CE	5.13	1.64	1.51
10	I	90	GLN	CA-CB	-5.13	1.42	1.53
4	A	1444	MET	SD-CE	5.13	2.06	1.77
5	B	1083	ALA	CA-C	-5.13	1.39	1.52
7	E	96	PHE	CE1-CZ	5.13	1.47	1.37
7	E	112	TYR	CD1-CE1	5.13	1.47	1.39
12	K	34	THR	CA-C	5.13	1.66	1.52
6	C	96	SER	CA-CB	5.13	1.60	1.52
7	E	29	PHE	CG-CD2	5.13	1.46	1.38
10	I	22	ASN	CA-CB	5.13	1.66	1.53
4	A	293	GLU	CD-OE2	5.13	1.31	1.25
5	B	493	SER	N-CA	-5.13	1.36	1.46
7	E	94	LYS	CA-C	5.13	1.66	1.52
2	T	23	DC	C2'-C1'	-5.13	1.47	1.52
4	A	1052	GLN	CB-CG	5.13	1.66	1.52
5	B	222	ILE	CA-C	5.13	1.66	1.52
8	F	105	ALA	CA-C	5.13	1.66	1.52
4	A	208	LEU	CG-CD1	5.12	1.70	1.51
5	B	953	LEU	CG-CD2	5.12	1.70	1.51
6	C	201	TRP	CE3-CZ3	-5.12	1.29	1.38
4	A	917	SER	CA-C	-5.12	1.39	1.52
9	H	76	THR	CA-C	5.12	1.66	1.52
4	A	996	ASN	CA-CB	-5.12	1.39	1.53
4	A	1389	PHE	CB-CG	-5.12	1.42	1.51
6	C	161	LYS	CG-CD	5.12	1.69	1.52
7	E	53	PRO	CB-CG	5.12	1.75	1.50
11	J	8	PHE	CD2-CE2	-5.12	1.29	1.39
5	B	103	ASN	N-CA	5.12	1.56	1.46
10	I	8	ARG	CZ-NH1	5.12	1.39	1.33
5	B	724	ASP	CA-C	5.11	1.66	1.52
5	B	903	VAL	CB-CG1	-5.11	1.42	1.52
5	B	1207	LEU	CA-C	-5.11	1.39	1.52
1	R	10	A	P-OP1	-5.11	1.40	1.49
4	A	1311	VAL	N-CA	-5.11	1.36	1.46
4	A	1356	ILE	CA-C	-5.11	1.39	1.52
5	B	386	LEU	CG-CD1	5.11	1.70	1.51
6	C	165	LYS	CG-CD	5.11	1.69	1.52
4	A	483	ASP	CB-CG	5.11	1.62	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	805	THR	CB-CG2	-5.11	1.35	1.52
4	A	345	VAL	CB-CG1	5.11	1.63	1.52
4	A	478	TYR	CE1-CZ	5.11	1.45	1.38
5	B	68	THR	N-CA	5.11	1.56	1.46
12	K	6	ARG	CA-CB	-5.11	1.42	1.53
5	B	1210	MET	CA-CB	-5.11	1.42	1.53
7	E	28	TYR	N-CA	5.11	1.56	1.46
11	J	52	THR	CA-CB	-5.11	1.40	1.53
4	A	1443	VAL	CB-CG1	-5.10	1.42	1.52
5	B	811	TYR	CE2-CZ	-5.10	1.31	1.38
5	B	915	THR	CA-C	-5.10	1.39	1.52
6	C	178	PHE	CE2-CZ	5.10	1.47	1.37
8	F	129	LYS	CA-C	5.10	1.66	1.52
4	A	883	LEU	N-CA	5.10	1.56	1.46
5	B	645	SER	N-CA	5.10	1.56	1.46
7	E	211	TYR	CE2-CZ	5.10	1.45	1.38
5	B	1213	THR	CA-C	5.10	1.66	1.52
10	I	78	CYS	CA-C	-5.10	1.39	1.52
12	K	46	ILE	CA-CB	-5.10	1.43	1.54
10	I	110	PHE	CD2-CE2	-5.10	1.29	1.39
5	B	267	ARG	CB-CG	5.09	1.66	1.52
4	A	635	ARG	CA-C	-5.09	1.39	1.52
5	B	1102	LYS	CE-NZ	5.09	1.61	1.49
7	E	201	LYS	CA-CB	5.09	1.65	1.53
5	B	861	ASP	C-O	5.09	1.33	1.23
12	K	60	ALA	CA-C	-5.09	1.39	1.52
4	A	497	THR	CA-CB	-5.09	1.40	1.53
4	A	1049	ILE	CA-CB	-5.09	1.43	1.54
5	B	251	ILE	N-CA	5.09	1.56	1.46
5	B	793	ALA	CA-C	-5.09	1.39	1.52
5	B	1092	TYR	CB-CG	-5.09	1.44	1.51
10	I	85	PHE	CD2-CE2	-5.09	1.29	1.39
4	A	200	ARG	CD-NE	5.08	1.55	1.46
4	A	712	GLU	CD-OE2	5.08	1.31	1.25
5	B	1045	SER	CA-CB	-5.08	1.45	1.52
5	B	384	ARG	CD-NE	5.08	1.55	1.46
5	B	647	GLY	CA-C	5.08	1.59	1.51
4	A	301	ALA	N-CA	5.08	1.56	1.46
4	A	323	LYS	CE-NZ	5.08	1.61	1.49
5	B	960	GLY	CA-C	5.08	1.59	1.51
5	B	1060	ARG	CA-C	5.08	1.66	1.52
4	A	605	MET	CB-CG	5.08	1.67	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1100	ARG	CA-CB	-5.08	1.42	1.53
5	B	646	LEU	C-N	5.08	1.42	1.33
8	F	129	LYS	CA-CB	5.08	1.65	1.53
11	J	39	LEU	CA-CB	-5.08	1.42	1.53
12	K	20	LYS	CA-CB	5.08	1.65	1.53
5	B	401	PHE	CD2-CE2	-5.08	1.29	1.39
5	B	1051	THR	N-CA	-5.08	1.36	1.46
4	A	565	ILE	N-CA	-5.08	1.36	1.46
5	B	533	CYS	CA-CB	-5.08	1.42	1.53
4	A	1137	ALA	N-CA	-5.07	1.36	1.46
6	C	32	SER	CA-C	-5.07	1.39	1.52
4	A	169	ASN	CA-C	5.07	1.66	1.52
4	A	947	PHE	CG-CD1	-5.07	1.31	1.38
4	A	1427	ASN	CB-CG	5.07	1.62	1.51
6	C	255	VAL	CB-CG1	5.07	1.63	1.52
11	J	56	LEU	CA-CB	-5.07	1.42	1.53
5	B	125	SER	C-O	5.07	1.32	1.23
6	C	5	GLY	CA-C	5.07	1.59	1.51
5	B	497	ARG	CZ-NH1	5.07	1.39	1.33
5	B	690	VAL	CA-CB	-5.07	1.44	1.54
6	C	37	MET	CA-CB	-5.07	1.42	1.53
4	A	340	LEU	CA-C	-5.07	1.39	1.52
5	B	1017	ILE	CA-CB	-5.07	1.43	1.54
12	K	31	VAL	CB-CG1	5.07	1.63	1.52
12	K	29	ASN	CG-ND2	5.06	1.45	1.32
4	A	814	PHE	CA-CB	-5.06	1.42	1.53
4	A	877	HIS	CB-CG	5.06	1.59	1.50
7	E	138	ALA	CA-CB	-5.06	1.41	1.52
11	J	59	LYS	CA-C	-5.06	1.39	1.52
4	A	450	LEU	CG-CD1	5.06	1.70	1.51
5	B	226	PHE	CA-C	-5.06	1.39	1.52
6	C	57	VAL	CA-CB	-5.06	1.44	1.54
13	L	28	LYS	CB-CG	5.06	1.66	1.52
1	R	6	G	O4'-C1'	5.06	1.48	1.41
5	B	613	VAL	CB-CG1	-5.06	1.42	1.52
5	B	908	GLU	CD-OE1	5.06	1.31	1.25
4	A	1298	TYR	CG-CD2	-5.06	1.32	1.39
4	A	234	MET	CB-CG	5.06	1.67	1.51
4	A	637	LYS	C-O	-5.06	1.13	1.23
9	H	22	LYS	CD-CE	5.06	1.63	1.51
1	R	6	G	C8-N7	5.05	1.33	1.30
4	A	1092	LYS	CA-C	5.05	1.66	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1409	LEU	N-CA	-5.05	1.36	1.46
8	F	72	LYS	C-O	5.05	1.32	1.23
5	B	679	TYR	CA-C	5.05	1.66	1.52
4	A	1063	MET	CG-SD	-5.05	1.68	1.81
5	B	472	ALA	CA-CB	5.05	1.63	1.52
9	H	59	ILE	CA-CB	-5.05	1.43	1.54
4	A	1026	LEU	N-CA	5.05	1.56	1.46
4	A	1052	GLN	CG-CD	5.05	1.62	1.51
5	B	212	LEU	CA-C	-5.05	1.39	1.52
5	B	734	HIS	CB-CG	5.05	1.59	1.50
5	B	830	TYR	CD1-CE1	5.05	1.47	1.39
12	K	2	ASN	CA-CB	-5.05	1.40	1.53
4	A	262	LEU	CA-CB	-5.05	1.42	1.53
5	B	133	LYS	N-CA	5.05	1.56	1.46
5	B	332	ASP	CA-CB	5.05	1.65	1.53
4	A	105	CYS	N-CA	5.05	1.56	1.46
4	A	507	VAL	CB-CG1	5.05	1.63	1.52
4	A	1293	SER	N-CA	-5.05	1.36	1.46
4	A	1403	GLU	CA-C	5.05	1.66	1.52
5	B	755	ILE	CA-CB	-5.05	1.43	1.54
5	B	941	LEU	CB-CG	-5.05	1.38	1.52
7	E	195	VAL	CA-CB	-5.04	1.44	1.54
10	I	16	PRO	N-CD	-5.04	1.40	1.47
4	A	1025	ARG	CB-CG	5.04	1.66	1.52
12	K	14	GLU	CD-OE2	5.04	1.31	1.25
4	A	260	ASP	CA-C	-5.04	1.39	1.52
4	A	109	HIS	CA-C	5.04	1.66	1.52
5	B	1100	ASP	N-CA	-5.04	1.36	1.46
10	I	30	ARG	CD-NE	5.04	1.55	1.46
4	A	478	TYR	CG-CD1	-5.04	1.32	1.39
4	A	1029	ARG	CG-CD	-5.04	1.39	1.51
8	F	105	ALA	C-O	5.04	1.32	1.23
4	A	990	VAL	CB-CG1	5.04	1.63	1.52
5	B	111	ALA	CA-CB	5.04	1.63	1.52
5	B	512	ARG	CA-CB	5.04	1.65	1.53
4	A	367	PRO	CA-CB	-5.03	1.43	1.53
4	A	471	ASN	C-O	-5.03	1.13	1.23
7	E	71	LYS	CA-CB	5.03	1.65	1.53
5	B	287	ARG	CA-C	-5.03	1.39	1.52
8	F	75	PRO	CA-C	5.03	1.62	1.52
9	H	58	THR	C-O	-5.03	1.13	1.23
4	A	1147	THR	CA-C	-5.03	1.39	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	781	PHE	CG-CD1	-5.03	1.31	1.38
5	B	1150	ARG	C-O	-5.03	1.13	1.23
7	E	94	LYS	CG-CD	5.03	1.69	1.52
4	A	922	ASP	CB-CG	5.03	1.62	1.51
4	A	885	THR	CA-C	5.03	1.66	1.52
4	A	1133	LEU	CG-CD2	5.03	1.70	1.51
6	C	151	GLN	CD-NE2	5.03	1.45	1.32
7	E	75	MET	CB-CG	5.03	1.67	1.51
4	A	376	TYR	C-O	-5.03	1.13	1.23
5	B	173	MET	CB-CG	5.03	1.67	1.51
10	I	101	PHE	CA-CB	-5.03	1.42	1.53
5	B	1053	GLU	CD-OE1	5.02	1.31	1.25
5	B	239	GLU	CG-CD	5.02	1.59	1.51
13	L	34	CYS	N-CA	5.02	1.56	1.46
10	I	3	THR	N-CA	5.02	1.56	1.46
4	A	516	SER	CB-OG	5.02	1.48	1.42
5	B	358	LYS	CD-CE	5.02	1.63	1.51
5	B	880	THR	CB-CG2	5.02	1.69	1.52
5	B	1095	LEU	CA-C	-5.02	1.40	1.52
6	C	82	TYR	CD2-CE2	5.02	1.46	1.39
7	E	115	ASN	N-CA	5.02	1.56	1.46
4	A	209	ASN	CA-C	5.02	1.66	1.52
5	B	26	THR	CA-C	5.01	1.66	1.52
7	E	138	ALA	C-O	5.01	1.32	1.23
10	I	29	CYS	CA-C	5.01	1.66	1.52
4	A	1329	THR	CA-CB	-5.01	1.40	1.53
5	B	635	ARG	C-N	5.01	1.43	1.34
5	B	661	LEU	CA-CB	-5.01	1.42	1.53
6	C	243	VAL	CA-CB	-5.01	1.44	1.54
11	J	44	TYR	CG-CD1	5.01	1.45	1.39
4	A	853	ASP	CA-C	5.01	1.66	1.52
4	A	1277	GLU	CD-OE2	5.01	1.31	1.25
5	B	1102	LYS	CD-CE	5.01	1.63	1.51
7	E	16	PHE	CA-C	5.01	1.66	1.52
8	F	113	GLY	CA-C	-5.01	1.43	1.51
4	A	28	ARG	CG-CD	5.00	1.64	1.51
4	A	43	GLU	CA-C	5.00	1.66	1.52
5	B	1014	PRO	CA-CB	-5.00	1.43	1.53
11	J	60	PHE	CE1-CZ	-5.00	1.27	1.37
4	A	975	HIS	N-CA	5.00	1.56	1.46
5	B	521	LEU	CA-C	-5.00	1.40	1.52

All (5437) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	941	LEU	CB-CG-CD2	37.01	173.92	111.00
4	A	337	ARG	NE-CZ-NH2	-34.93	102.83	120.30
4	A	980	ASP	CB-CG-OD2	33.77	148.69	118.30
5	B	466	TRP	CA-C-N	-31.53	53.14	116.20
4	A	337	ARG	NE-CZ-NH1	31.48	136.04	120.30
2	T	13	DA	OP1-P-O3'	-30.61	37.85	105.20
5	B	497	ARG	NE-CZ-NH2	-29.50	105.55	120.30
4	A	722	LEU	CB-CG-CD2	28.59	159.61	111.00
5	B	29	ASP	CB-CG-OD1	-27.64	93.43	118.30
4	A	980	ASP	CB-CG-OD1	-25.86	95.03	118.30
1	R	4	G	OP2-P-O3'	-25.63	48.80	105.20
2	T	21	DC	O5'-P-OP1	25.27	141.02	110.70
4	A	818	MET	CG-SD-CE	-25.17	59.93	100.20
4	A	806	ARG	NE-CZ-NH2	-23.27	108.67	120.30
4	A	847	ASP	CB-CG-OD2	22.79	138.81	118.30
4	A	325	ILE	CA-C-N	-22.62	67.43	117.20
5	B	473	MET	CA-C-N	-22.48	67.74	117.20
2	T	20	DC	OP1-P-O3'	-22.05	56.68	105.20
4	A	423	ASP	CB-CG-OD1	-21.54	98.92	118.30
2	T	27	DA	OP1-P-O3'	-21.51	57.88	105.20
4	A	998	LEU	CB-CG-CD1	-21.45	74.53	111.00
4	A	247	ARG	NE-CZ-NH2	-21.38	109.61	120.30
10	I	65	ASP	CB-CG-OD1	-20.84	99.54	118.30
5	B	798	TYR	C-N-CD	-20.73	75.00	120.60
5	B	354	ASP	CB-CG-OD2	20.73	136.95	118.30
5	B	983	ARG	NE-CZ-NH1	20.61	130.61	120.30
5	B	398	ARG	NE-CZ-NH2	-20.51	110.04	120.30
5	B	492	LEU	CA-CB-CG	-20.43	68.31	115.30
5	B	192	LEU	CB-CG-CD2	-20.40	76.33	111.00
5	B	477	ALA	C-N-CA	-20.37	79.52	122.30
11	J	6	ARG	NE-CZ-NH2	-20.22	110.19	120.30
5	B	996	ARG	NE-CZ-NH2	-20.11	110.25	120.30
4	A	821	ARG	N-CA-C	-20.05	56.86	111.00
5	B	398	ARG	NE-CZ-NH1	19.72	130.16	120.30
12	K	54	ARG	NE-CZ-NH1	19.46	130.03	120.30
4	A	325	ILE	O-C-N	18.90	152.94	122.70
11	J	48	ARG	NE-CZ-NH2	18.84	129.72	120.30
5	B	1094	ARG	NE-CZ-NH1	-18.80	110.90	120.30
4	A	939	ASP	CB-CG-OD2	-18.75	101.42	118.30
4	A	820	GLY	N-CA-C	-18.72	66.30	113.10
4	A	247	ARG	NE-CZ-NH1	18.40	129.50	120.30
5	B	483	LEU	CB-CG-CD2	18.38	142.25	111.00
5	B	188	ASP	CB-CG-OD2	18.32	134.79	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C	84	ARG	NE-CZ-NH1	-18.13	111.24	120.30
5	B	466	TRP	CB-CG-CD2	-18.13	103.04	126.60
4	A	320	ARG	N-CA-C	18.12	159.92	111.00
4	A	1368	MET	CG-SD-CE	18.10	129.16	100.20
4	A	658	LEU	CB-CG-CD2	-18.06	80.30	111.00
4	A	538	ASP	CB-CG-OD2	17.99	134.49	118.30
7	E	162	ARG	NE-CZ-NH1	17.94	129.27	120.30
5	B	595	ARG	NE-CZ-NH1	17.87	129.24	120.30
5	B	983	ARG	NE-CZ-NH2	-17.78	111.41	120.30
4	A	538	ASP	CB-CG-OD1	-17.55	102.51	118.30
6	C	186	LEU	CB-CG-CD2	-17.54	81.18	111.00
5	B	476	ARG	NE-CZ-NH2	-17.42	111.59	120.30
5	B	1043	ASP	CB-CG-OD1	-17.31	102.72	118.30
5	B	354	ASP	CB-CG-OD1	-17.28	102.75	118.30
5	B	29	ASP	CB-CG-OD2	17.25	133.82	118.30
2	T	13	DA	OP2-P-O3'	17.16	142.96	105.20
4	A	320	ARG	CB-CA-C	-17.16	76.08	110.40
5	B	472	ALA	O-C-N	17.07	150.01	122.70
8	F	103	MET	CG-SD-CE	17.03	127.44	100.20
4	A	1241	ARG	NE-CZ-NH2	17.01	128.80	120.30
5	B	1067	ARG	NE-CZ-NH1	16.91	128.75	120.30
4	A	857	ARG	NE-CZ-NH2	-16.75	111.93	120.30
10	I	9	ASP	CB-CG-OD2	16.70	133.33	118.30
4	A	123	ARG	NE-CZ-NH1	16.53	128.56	120.30
10	I	70	ARG	NE-CZ-NH1	-16.50	112.05	120.30
5	B	175	ARG	NE-CZ-NH2	16.44	128.52	120.30
12	K	42	LEU	CA-CB-CG	16.41	153.04	115.30
5	B	497	ARG	NE-CZ-NH1	16.27	128.44	120.30
5	B	745	PRO	N-CD-CG	-16.22	78.88	103.20
1	R	8	G	OP1-P-O3'	-16.21	69.53	105.20
5	B	605	ARG	NE-CZ-NH2	-16.20	112.20	120.30
8	F	92	ARG	NE-CZ-NH1	16.14	128.37	120.30
4	A	531	ILE	CA-C-N	-16.13	81.72	117.20
4	A	1017	LEU	CB-CG-CD1	16.12	138.40	111.00
5	B	367	LEU	CB-CG-CD2	16.11	138.38	111.00
6	C	190	ASP	CB-CG-OD2	16.09	132.78	118.30
4	A	1029	ARG	NE-CZ-NH2	-16.05	112.28	120.30
6	C	90	ASP	CB-CG-OD2	-16.02	103.88	118.30
1	R	3	C	O3'-P-O5'	-15.99	73.63	104.00
5	B	467	GLY	N-CA-C	15.99	153.07	113.10
5	B	635	ARG	N-CA-C	15.99	154.16	111.00
10	I	45	ARG	NE-CZ-NH2	-15.98	112.31	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	321	PRO	N-CA-C	-15.96	70.61	112.10
4	A	998	LEU	CB-CG-CD2	15.95	138.11	111.00
4	A	1345	ARG	NE-CZ-NH2	-15.89	112.35	120.30
5	B	1108	ARG	NE-CZ-NH2	-15.77	112.42	120.30
4	A	315	LEU	CA-CB-CG	15.74	151.50	115.30
8	F	92	ARG	NE-CZ-NH2	-15.71	112.44	120.30
5	B	1116	ARG	NE-CZ-NH2	-15.59	112.50	120.30
7	E	26	ARG	NE-CZ-NH1	-15.57	112.52	120.30
4	A	550	LEU	CB-CG-CD2	15.54	137.42	111.00
8	F	105	ALA	CB-CA-C	15.53	133.40	110.10
4	A	1153	TYR	CB-CG-CD1	15.51	130.31	121.00
5	B	241	ARG	NE-CZ-NH1	15.48	128.04	120.30
5	B	471	LYS	N-CA-CB	15.43	138.37	110.60
12	K	24	ASP	CB-CG-OD2	15.42	132.18	118.30
11	J	49	MET	CA-CB-CG	-15.41	87.09	113.30
5	B	461	LEU	CA-CB-CG	-15.39	79.90	115.30
4	A	265	LYS	CD-CE-NZ	15.39	147.09	111.70
12	K	70	ARG	NE-CZ-NH1	-15.36	112.62	120.30
4	A	1442	ASP	CB-CG-OD1	-15.35	104.49	118.30
10	I	65	ASP	CB-CG-OD2	15.34	132.10	118.30
10	I	8	ARG	NE-CZ-NH1	15.33	127.97	120.30
4	A	739	ASP	CB-CG-OD2	15.33	132.09	118.30
6	C	41	ILE	CA-CB-CG1	15.30	140.07	111.00
4	A	85	ASP	CB-CG-OD2	15.28	132.05	118.30
4	A	981	LEU	CB-CG-CD2	-15.24	85.09	111.00
4	A	1155	ASP	CB-CG-OD1	15.22	132.00	118.30
5	B	167	ILE	CB-CA-C	-15.19	81.22	111.60
5	B	466	TRP	CB-CG-CD1	15.17	146.72	127.00
6	C	226	ASP	CB-CG-OD1	-15.10	104.71	118.30
2	T	21	DC	O4'-C4'-C3'	-14.92	97.05	106.00
5	B	431	TYR	N-CA-C	-14.92	70.73	111.00
4	A	676	MET	CG-SD-CE	14.90	124.04	100.20
4	A	325	ILE	CA-C-O	-14.89	88.83	120.10
5	B	264	SER	CB-CA-C	14.89	138.39	110.10
1	R	8	G	OP2-P-O3'	14.83	137.82	105.20
5	B	638	PHE	CB-CG-CD2	-14.83	110.42	120.80
5	B	472	ALA	CA-C-N	-14.80	84.63	117.20
4	A	446	ARG	NE-CZ-NH2	-14.77	112.91	120.30
4	A	451	HIS	CB-CA-C	-14.77	80.86	110.40
4	A	47	ARG	NE-CZ-NH1	14.77	127.68	120.30
5	B	685	LEU	CB-CG-CD1	-14.71	85.99	111.00
4	A	571	LEU	CB-CG-CD2	14.68	135.96	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	942	ARG	NE-CZ-NH2	-14.66	112.97	120.30
5	B	646	LEU	CA-CB-CG	14.65	148.99	115.30
6	C	221	TYR	CE1-CZ-OH	-14.50	80.95	120.10
4	A	319	GLY	N-CA-C	-14.48	76.89	113.10
4	A	249	SER	N-CA-CB	-14.46	88.82	110.50
4	A	781	ASP	CB-CG-OD1	14.45	131.31	118.30
8	F	97	ARG	NE-CZ-NH2	-14.45	113.08	120.30
10	I	78	CYS	CA-CB-SG	14.44	139.99	114.00
8	F	125	LEU	C-N-CA	-14.30	85.95	121.70
5	B	373	ARG	NE-CZ-NH1	14.28	127.44	120.30
4	A	337	ARG	CD-NE-CZ	14.28	143.59	123.60
4	A	531	ILE	O-C-N	14.27	145.53	122.70
6	C	127	ARG	NE-CZ-NH1	-14.23	113.18	120.30
4	A	1176	LEU	CA-CB-CG	14.17	147.90	115.30
9	H	19	ARG	CG-CD-NE	14.16	141.53	111.80
5	B	471	LYS	CB-CA-C	-14.08	82.24	110.40
5	B	459	TYR	CB-CG-CD2	14.02	129.41	121.00
4	A	324	SER	CA-C-O	-14.00	90.70	120.10
7	E	167	ARG	NE-CZ-NH2	13.96	127.28	120.30
2	T	18	DA	O3'-P-O5'	-13.93	77.53	104.00
4	A	321	PRO	C-N-CA	-13.93	86.87	121.70
7	E	169	ARG	NE-CZ-NH2	-13.92	113.34	120.30
5	B	637	LEU	CB-CG-CD1	13.90	134.64	111.00
4	A	257	ARG	N-CA-C	13.90	148.54	111.00
11	J	25	LEU	CB-CG-CD1	-13.90	87.37	111.00
5	B	728	ARG	NE-CZ-NH1	-13.89	113.36	120.30
1	R	4	G	O3'-P-O5'	13.83	130.28	104.00
1	R	3	C	OP1-P-O3'	13.81	135.59	105.20
4	A	1000	LEU	CA-CB-CG	-13.77	83.62	115.30
5	B	514	LEU	CB-CG-CD2	13.77	134.41	111.00
4	A	483	ASP	CB-CG-OD1	13.76	130.68	118.30
4	A	826	ASP	CB-CG-OD1	-13.75	105.92	118.30
4	A	1313	LEU	CA-CB-CG	13.75	146.93	115.30
9	H	80	ARG	NE-CZ-NH1	13.73	127.17	120.30
4	A	1100	ARG	NE-CZ-NH2	-13.71	113.45	120.30
4	A	362	ASP	CB-CG-OD2	-13.68	105.99	118.30
4	A	403	LYS	CD-CE-NZ	13.63	143.06	111.70
9	H	100	THR	N-CA-C	-13.62	74.24	111.00
4	A	941	LYS	CD-CE-NZ	13.60	142.98	111.70
5	B	760	ASP	CB-CG-OD1	-13.60	106.06	118.30
4	A	658	LEU	CB-CG-CD1	13.60	134.11	111.00
5	B	760	ASP	CB-CG-OD2	13.57	130.51	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	384	ARG	NE-CZ-NH1	13.55	127.07	120.30
2	T	21	DC	C4'-C3'-C2'	13.53	115.28	103.10
4	A	15	LYS	CD-CE-NZ	13.48	142.71	111.70
5	B	790	ASP	CB-CG-OD2	13.44	130.40	118.30
5	B	287	ARG	NE-CZ-NH1	-13.42	113.59	120.30
4	A	11	LEU	CB-CG-CD1	-13.42	88.19	111.00
4	A	1227	ILE	CB-CA-C	-13.42	84.76	111.60
5	B	412	LEU	CB-CG-CD2	-13.41	88.19	111.00
5	B	595	ARG	CD-NE-CZ	13.38	142.33	123.60
5	B	496	ARG	NE-CZ-NH1	-13.37	113.62	120.30
4	A	720	ARG	CG-CD-NE	-13.36	83.75	111.80
4	A	1323	ASP	CB-CG-OD2	-13.34	106.30	118.30
8	F	112	GLU	OE1-CD-OE2	-13.32	107.31	123.30
12	K	6	ARG	NE-CZ-NH2	-13.29	113.65	120.30
2	T	21	DC	C5'-C4'-C3'	13.28	138.00	114.10
12	K	51	LEU	CA-CB-CG	13.27	145.82	115.30
6	C	268	ASP	CB-CG-OD1	13.25	130.22	118.30
7	E	200	ARG	NE-CZ-NH1	-13.24	113.68	120.30
6	C	90	ASP	CB-CG-OD1	13.23	130.21	118.30
5	B	694	ASP	CB-CG-OD1	13.19	130.17	118.30
5	B	261	ARG	NE-CZ-NH2	-13.15	113.72	120.30
10	I	79	HIS	N-CA-C	13.15	146.49	111.00
12	K	114	LEU	CB-CG-CD2	13.15	133.35	111.00
5	B	471	LYS	O-C-N	13.13	143.71	122.70
6	C	143	LEU	CB-CG-CD2	-13.13	88.67	111.00
5	B	287	ARG	NE-CZ-NH2	13.13	126.86	120.30
5	B	168	GLY	N-CA-C	13.13	145.92	113.10
5	B	632	ARG	NE-CZ-NH1	-13.12	113.74	120.30
4	A	58	LEU	CB-CG-CD2	-13.11	88.71	111.00
5	B	709	ASP	CB-CG-OD1	13.08	130.08	118.30
8	F	131	PRO	N-CA-CB	-13.08	87.61	103.30
5	B	192	LEU	CB-CG-CD1	13.07	133.22	111.00
12	K	38	GLU	CG-CD-OE1	-13.03	92.24	118.30
4	A	69	THR	N-CA-CB	13.03	135.05	110.30
4	A	528	LEU	CB-CG-CD2	13.03	133.14	111.00
4	A	324	SER	N-CA-C	13.02	146.16	111.00
5	B	579	ARG	NE-CZ-NH2	-12.99	113.80	120.30
5	B	950	ASP	CB-CG-OD1	12.98	129.99	118.30
6	C	221	TYR	CZ-CE2-CD2	-12.98	108.11	119.80
5	B	868	MET	CG-SD-CE	12.94	120.91	100.20
5	B	647	GLY	N-CA-C	12.94	145.45	113.10
7	E	11	ARG	NE-CZ-NH1	-12.93	113.84	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1220	ARG	NE-CZ-NH1	12.92	126.76	120.30
2	T	20	DC	OP2-P-O3'	12.92	133.62	105.20
4	A	446	ARG	NE-CZ-NH1	12.90	126.75	120.30
7	E	177	ARG	NE-CZ-NH2	12.86	126.73	120.30
4	A	259	GLU	N-CA-C	12.86	145.73	111.00
4	A	1381	LEU	CB-CG-CD2	-12.86	89.13	111.00
5	B	883	LEU	CA-CB-CG	12.86	144.88	115.30
11	J	64	ASN	N-CA-C	12.85	145.69	111.00
4	A	1300	LYS	CD-CE-NZ	12.83	141.21	111.70
10	I	14	LEU	CB-CG-CD2	-12.82	89.20	111.00
4	A	1127	ASP	CB-CG-OD1	12.77	129.79	118.30
6	C	91	HIS	CB-CA-C	-12.76	84.88	110.40
4	A	323	LYS	CA-C-O	-12.76	93.31	120.10
5	B	1208	MET	CG-SD-CE	-12.76	79.79	100.20
5	B	636	PRO	CB-CA-C	12.71	143.78	112.00
5	B	484	ASN	CB-CA-C	-12.69	85.03	110.40
4	A	200	ARG	NE-CZ-NH1	12.68	126.64	120.30
4	A	571	LEU	CB-CG-CD1	-12.68	89.45	111.00
9	H	34	ASP	CB-CG-OD2	12.67	129.70	118.30
5	B	1009	ASP	CB-CG-OD1	12.66	129.69	118.30
12	K	50	LEU	CB-CG-CD1	-12.65	89.49	111.00
2	T	27	DA	OP2-P-O3'	12.62	132.96	105.20
5	B	879	ARG	NE-CZ-NH1	12.60	126.60	120.30
4	A	847	ASP	CB-CG-OD1	-12.58	106.98	118.30
5	B	981	ALA	CA-C-N	-12.58	89.53	117.20
4	A	820	GLY	CA-C-N	-12.57	89.55	117.20
4	A	557	ASP	CB-CG-OD1	12.55	129.59	118.30
8	F	116	ASP	CB-CG-OD2	12.54	129.59	118.30
5	B	472	ALA	N-CA-CB	12.53	127.65	110.10
4	A	1017	LEU	CB-CG-CD2	12.51	132.26	111.00
5	B	702	LEU	CB-CG-CD2	-12.49	89.77	111.00
5	B	941	LEU	CB-CG-CD1	-12.47	89.80	111.00
4	A	592	ASP	CB-CG-OD1	12.46	129.51	118.30
1	R	4	G	O5'-P-OP1	-12.45	94.49	105.70
4	A	620	LYS	CD-CE-NZ	12.45	140.32	111.70
12	K	55	LYS	CD-CE-NZ	12.39	140.20	111.70
4	A	1067	LEU	CA-CB-CG	-12.39	86.81	115.30
4	A	905	ASP	CB-CG-OD2	12.38	129.45	118.30
4	A	434	ARG	CA-C-N	-12.38	89.96	117.20
1	R	6	G	OP1-P-OP2	-12.30	101.14	119.60
4	A	900	ASP	CB-CG-OD1	12.29	129.36	118.30
5	B	635	ARG	CB-CA-C	-12.27	85.86	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	H	111	LEU	CB-CG-CD1	12.27	131.86	111.00
4	A	53	LEU	CB-CA-C	-12.26	86.91	110.20
10	I	77	LYS	CD-CE-NZ	12.21	139.78	111.70
4	A	57	ARG	N-CA-CB	12.21	132.57	110.60
10	I	29	CYS	CA-CB-SG	12.20	135.96	114.00
5	B	1125	ASP	CB-CG-OD1	-12.19	107.33	118.30
4	A	1209	MET	CG-SD-CE	12.16	119.66	100.20
8	F	81	THR	N-CA-CB	-12.16	87.20	110.30
4	A	102	VAL	CB-CA-C	-12.16	88.30	111.40
4	A	322	VAL	CA-C-O	-12.16	94.57	120.10
4	A	898	ARG	CG-CD-NE	12.15	137.31	111.80
4	A	1030	ARG	NE-CZ-NH2	-12.13	114.23	120.30
4	A	1046	LEU	CB-CG-CD1	12.12	131.61	111.00
7	E	175	LEU	CB-CG-CD1	-12.12	90.40	111.00
4	A	489	LEU	CA-CB-CG	12.09	143.12	115.30
7	E	4	GLU	OE1-CD-OE2	-12.09	108.79	123.30
4	A	532	ARG	NE-CZ-NH1	12.09	126.34	120.30
12	K	5	ASP	C-N-CA	-12.08	91.51	121.70
5	B	1125	ASP	CB-CG-OD2	12.07	129.16	118.30
4	A	309	ALA	N-CA-CB	-12.06	93.21	110.10
4	A	1000	LEU	CB-CG-CD1	-12.05	90.51	111.00
6	C	205	LYS	CD-CE-NZ	12.03	139.36	111.70
5	B	608	ASP	CB-CG-OD1	12.01	129.11	118.30
5	B	795	ILE	CG1-CB-CG2	-11.98	85.04	111.40
4	A	1241	ARG	NE-CZ-NH1	-11.97	114.31	120.30
4	A	274	ILE	CB-CA-C	11.94	135.47	111.60
7	E	149	LEU	CB-CG-CD1	-11.94	90.71	111.00
4	A	801	GLU	OE1-CD-OE2	11.92	137.61	123.30
4	A	1028	THR	CA-CB-CG2	-11.92	95.71	112.40
4	A	485	ASP	CB-CG-OD2	11.91	129.02	118.30
5	B	987	LYS	CD-CE-NZ	11.91	139.09	111.70
4	A	469	ARG	CG-CD-NE	-11.86	86.90	111.80
4	A	544	ASP	CB-CG-OD1	-11.86	107.63	118.30
6	C	41	ILE	CG1-CB-CG2	-11.85	85.33	111.40
2	T	17	DG	C4'-C3'-C2'	11.85	113.76	103.10
5	B	470	LYS	O-C-N	11.85	141.65	122.70
4	A	1157	ASP	CB-CG-OD2	11.84	128.96	118.30
10	I	78	CYS	CB-CA-C	-11.82	86.75	110.40
10	I	36	GLU	OE1-CD-OE2	-11.82	109.12	123.30
4	A	380	VAL	CB-CA-C	-11.81	88.96	111.40
4	A	518	LYS	CD-CE-NZ	11.81	138.86	111.70
7	E	14	ARG	NE-CZ-NH2	-11.80	114.40	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	393	ARG	NE-CZ-NH1	11.80	126.20	120.30
4	A	939	ASP	CB-CG-OD1	11.80	128.92	118.30
11	J	31	ASP	CB-CG-OD1	-11.77	107.71	118.30
7	E	53	PRO	C-N-CA	-11.76	92.30	121.70
4	A	820	GLY	C-N-CA	-11.72	92.39	121.70
5	B	231	PRO	CA-N-CD	-11.72	95.08	111.50
4	A	722	LEU	CA-CB-CG	11.72	142.26	115.30
6	C	209	TYR	CB-CG-CD2	11.70	128.02	121.00
5	B	174	LEU	CB-CG-CD1	-11.68	91.15	111.00
2	T	23	DC	C4'-C3'-O3'	11.67	138.88	109.70
6	C	158	VAL	CB-CA-C	-11.66	89.24	111.40
4	A	701	LEU	CB-CG-CD2	-11.66	91.18	111.00
8	F	109	VAL	CB-CA-C	-11.64	89.29	111.40
5	B	852	ARG	NE-CZ-NH1	-11.63	114.49	120.30
9	H	82	PRO	N-CA-CB	-11.62	89.35	103.30
4	A	330	LYS	N-CA-C	11.62	142.36	111.00
7	E	117	THR	N-CA-CB	11.61	132.37	110.30
5	B	133	LYS	CD-CE-NZ	11.61	138.39	111.70
12	K	16	GLU	N-CA-C	-11.59	79.70	111.00
10	I	72	ASP	CB-CG-OD2	-11.58	107.88	118.30
9	H	89	LEU	CA-CB-CG	11.58	141.93	115.30
4	A	55	ASP	CB-CG-OD2	-11.57	107.89	118.30
10	I	91	ARG	NE-CZ-NH1	11.57	126.08	120.30
10	I	14	LEU	CA-C-N	-11.56	91.76	117.20
5	B	188	ASP	CB-CG-OD1	-11.56	107.90	118.30
5	B	1186	ASP	CB-CG-OD2	-11.56	107.90	118.30
10	I	107	SER	CB-CA-C	11.56	132.06	110.10
4	A	961	ARG	NE-CZ-NH1	11.56	126.08	120.30
10	I	8	ARG	CD-NE-CZ	11.55	139.77	123.60
4	A	421	ALA	N-CA-CB	-11.54	93.95	110.10
8	F	80	ALA	N-CA-CB	-11.54	93.95	110.10
5	B	884	ARG	N-CA-CB	11.53	131.36	110.60
5	B	1122	ARG	NE-CZ-NH2	-11.53	114.53	120.30
10	I	8	ARG	NE-CZ-NH2	-11.53	114.53	120.30
6	C	76	ASP	CB-CG-OD2	11.52	128.67	118.30
5	B	370	PHE	N-CA-C	-11.51	79.92	111.00
10	I	36	GLU	CA-CB-CG	11.50	138.71	113.40
11	J	62	ARG	CG-CD-NE	-11.50	87.65	111.80
4	A	423	ASP	CB-CG-OD2	11.50	128.65	118.30
6	C	137	LYS	CD-CE-NZ	11.50	138.15	111.70
4	A	635	ARG	NE-CZ-NH2	-11.49	114.55	120.30
5	B	392	ARG	NE-CZ-NH2	-11.49	114.56	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1107	VAL	CA-C-N	-11.47	91.96	117.20
5	B	839	MET	CG-SD-CE	-11.47	81.84	100.20
5	B	275	TYR	CA-CB-CG	11.44	135.13	113.40
5	B	881	ASN	CB-CA-C	11.43	133.26	110.40
4	A	1332	PHE	CB-CG-CD2	-11.43	112.80	120.80
4	A	992	ASP	CB-CG-OD2	-11.42	108.02	118.30
8	F	151	LEU	CA-CB-CG	-11.42	89.04	115.30
12	K	23	PRO	N-CA-CB	-11.42	89.60	103.30
5	B	1186	ASP	CB-CG-OD1	11.41	128.57	118.30
8	F	119	ARG	NE-CZ-NH1	11.41	126.01	120.30
7	E	188	LEU	CA-C-N	-11.41	93.38	116.20
2	T	17	DG	O3'-P-O5'	-11.40	82.34	104.00
5	B	514	LEU	CB-CG-CD1	-11.40	91.62	111.00
5	B	69	LEU	N-CA-C	11.38	141.73	111.00
5	B	119	LEU	CB-CG-CD2	-11.38	91.66	111.00
6	C	190	ASP	CB-CG-OD1	-11.38	108.06	118.30
6	C	221	TYR	OH-CZ-CE2	11.36	150.77	120.10
9	H	97	MET	CG-SD-CE	11.36	118.38	100.20
4	A	1398	MET	CG-SD-CE	11.34	118.35	100.20
7	E	35	VAL	CB-CA-C	11.33	132.92	111.40
4	A	1434	ALA	CB-CA-C	-11.32	93.12	110.10
5	B	638	PHE	N-CA-CB	11.32	130.97	110.60
6	C	140	ASN	C-N-CA	-11.32	98.53	122.30
4	A	320	ARG	NE-CZ-NH2	-11.31	114.64	120.30
5	B	356	LEU	CB-CG-CD1	11.30	130.22	111.00
4	A	1207	LEU	N-CA-C	11.30	141.51	111.00
4	A	311	GLN	CA-CB-CG	11.30	138.25	113.40
5	B	579	ARG	NE-CZ-NH1	11.29	125.94	120.30
4	A	716	ASP	CB-CG-OD1	-11.29	108.14	118.30
5	B	749	LEU	CB-CG-CD2	-11.28	91.83	111.00
5	B	892	LYS	CD-CE-NZ	11.27	137.63	111.70
5	B	699	GLU	OE1-CD-OE2	11.27	136.82	123.30
8	F	136	ARG	NE-CZ-NH2	11.26	125.93	120.30
5	B	724	ASP	CB-CG-OD2	11.26	128.43	118.30
4	A	326	ARG	NE-CZ-NH2	-11.25	114.67	120.30
11	J	24	LEU	CB-CG-CD1	-11.25	91.88	111.00
4	A	1366	ARG	NE-CZ-NH1	-11.24	114.68	120.30
5	B	745	PRO	CA-N-CD	-11.24	95.76	111.50
6	C	167	HIS	C-N-CA	-11.24	93.60	121.70
4	A	105	CYS	CA-CB-SG	11.24	134.23	114.00
1	R	9	G	O5'-P-OP1	11.23	124.18	110.70
6	C	169	LYS	CD-CE-NZ	-11.19	85.97	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1157	ALA	N-CA-CB	11.19	125.76	110.10
4	A	87	ALA	CA-C-N	-11.15	92.66	117.20
4	A	938	LYS	CD-CE-NZ	11.15	137.34	111.70
5	B	1043	ASP	CB-CG-OD2	11.12	128.31	118.30
7	E	168	TYR	CZ-CE2-CD2	11.11	129.80	119.80
9	H	30	SER	N-CA-CB	-11.11	93.84	110.50
5	B	635	ARG	CA-CB-CG	-11.10	88.97	113.40
4	A	1219	THR	CA-C-N	-11.10	92.79	117.20
5	B	604	ARG	C-N-CA	-11.09	93.99	121.70
6	C	147	LEU	CB-CG-CD1	-11.08	92.17	111.00
4	A	899	VAL	O-C-N	11.07	140.41	122.70
4	A	1294	PRO	N-CA-CB	-11.07	90.02	103.30
5	B	181	LEU	CB-CG-CD2	-11.06	92.19	111.00
5	B	1223	ASP	CB-CG-OD2	11.06	128.26	118.30
5	B	740	HIS	CB-CA-C	11.03	132.47	110.40
5	B	646	LEU	CB-CG-CD2	11.01	129.72	111.00
5	B	261	ARG	NE-CZ-NH1	11.01	125.80	120.30
6	C	121	VAL	CG1-CB-CG2	11.00	128.51	110.90
5	B	1135	ARG	NE-CZ-NH2	-11.00	114.80	120.30
4	A	114	LEU	CA-CB-CG	-11.00	90.00	115.30
4	A	325	ILE	N-CA-CB	11.00	136.09	110.80
4	A	1032	LEU	CB-CG-CD2	11.00	129.69	111.00
8	F	138	LEU	CA-CB-CG	-10.99	90.02	115.30
4	A	1285	MET	CA-CB-CG	10.98	131.97	113.30
4	A	253	ASN	CA-C-N	-10.97	93.06	117.20
4	A	331	GLY	N-CA-C	10.96	140.49	113.10
4	A	981	LEU	CB-CG-CD1	10.96	129.62	111.00
5	B	95	ILE	CG1-CB-CG2	10.94	135.47	111.40
4	A	135	PHE	CB-CG-CD2	-10.93	113.15	120.80
9	H	86	ASP	N-CA-CB	10.93	130.27	110.60
13	L	64	LEU	CA-C-N	-10.91	93.20	117.20
4	A	839	ARG	NE-CZ-NH2	10.90	125.75	120.30
5	B	221	ASN	CA-C-N	-10.90	93.22	117.20
6	C	256	ALA	N-CA-CB	-10.88	94.86	110.10
5	B	174	LEU	CA-CB-CG	10.87	140.30	115.30
10	I	75	CYS	N-CA-C	-10.85	81.71	111.00
5	B	495	LEU	CB-CG-CD1	10.84	129.43	111.00
9	H	100	THR	N-CA-CB	10.84	130.90	110.30
8	F	116	ASP	CB-CG-OD1	-10.83	108.56	118.30
4	A	547	LEU	CA-CB-CG	-10.82	90.41	115.30
5	B	432	MET	N-CA-C	10.82	140.22	111.00
10	I	45	ARG	NE-CZ-NH1	10.82	125.71	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	T	23	DC	O5'-P-OP2	-10.82	95.96	105.70
4	A	1013	ASP	CB-CG-OD2	-10.79	108.59	118.30
5	B	345	LYS	CD-CE-NZ	10.78	136.50	111.70
5	B	1100	ASP	CB-CA-C	10.77	131.95	110.40
13	L	27	LEU	CA-CB-CG	10.77	140.07	115.30
5	B	276	ILE	CA-C-N	-10.77	93.51	117.20
4	A	414	ASP	CB-CG-OD1	-10.76	108.61	118.30
13	L	50	ASP	CB-CG-OD2	10.76	127.98	118.30
4	A	1155	ASP	N-CA-C	-10.76	81.95	111.00
5	B	998	ASP	CB-CG-OD1	10.75	127.97	118.30
7	E	39	LEU	CA-CB-CG	-10.74	90.59	115.30
4	A	161	LEU	CA-CB-CG	10.73	139.99	115.30
5	B	226	PHE	CB-CG-CD2	-10.73	113.29	120.80
4	A	108	MET	N-CA-CB	-10.73	91.29	110.60
4	A	257	ARG	CB-CA-C	-10.73	88.94	110.40
9	H	134	ASN	N-CA-C	-10.73	82.04	111.00
4	A	341	MET	CG-SD-CE	-10.72	83.04	100.20
5	B	20	ASP	CB-CG-OD1	-10.72	108.65	118.30
5	B	351	TYR	CB-CG-CD2	-10.72	114.57	121.00
5	B	231	PRO	N-CA-CB	-10.71	90.44	103.30
4	A	1366	ARG	NE-CZ-NH2	10.71	125.66	120.30
5	B	102	VAL	CB-CA-C	-10.71	91.05	111.40
9	H	34	ASP	OD1-CG-OD2	-10.71	102.95	123.30
4	A	42	ASP	CB-CG-OD1	10.71	127.94	118.30
13	L	63	ARG	NE-CZ-NH2	-10.71	114.95	120.30
1	R	4	G	P-O3'-C3'	10.69	132.53	119.70
4	A	1392	SER	N-CA-C	10.68	139.83	111.00
5	B	1220	ARG	CG-CD-NE	10.67	134.20	111.80
6	C	136	ASP	CB-CG-OD2	10.67	127.90	118.30
10	I	16	PRO	CA-CB-CG	-10.67	83.73	104.00
1	R	7	A	O5'-P-OP2	-10.66	96.11	105.70
5	B	999	MET	CG-SD-CE	-10.66	83.15	100.20
5	B	568	ASP	CB-CG-OD2	-10.65	108.71	118.30
13	L	49	LYS	C-N-CA	10.65	148.33	121.70
4	A	833	GLU	OE1-CD-OE2	-10.64	110.53	123.30
5	B	558	LEU	CB-CG-CD1	-10.64	92.91	111.00
5	B	101	MET	CG-SD-CE	10.64	117.22	100.20
8	F	97	ARG	NE-CZ-NH1	10.63	125.62	120.30
5	B	605	ARG	NE-CZ-NH1	10.63	125.62	120.30
4	A	927	VAL	CG1-CB-CG2	-10.63	93.89	110.90
7	E	161	LYS	CD-CE-NZ	10.63	136.14	111.70
5	B	373	ARG	NE-CZ-NH2	-10.63	114.99	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	489	SER	N-CA-CB	10.62	126.44	110.50
4	A	927	VAL	CA-CB-CG2	-10.62	94.97	110.90
4	A	78	PRO	N-CA-C	-10.62	84.49	112.10
4	A	329	LEU	CA-CB-CG	-10.62	90.88	115.30
5	B	461	LEU	CB-CG-CD2	10.62	129.05	111.00
8	F	94	LEU	CA-CB-CG	-10.62	90.88	115.30
4	A	56	PRO	O-C-N	10.60	139.66	122.70
4	A	845	LEU	CA-CB-CG	-10.60	90.92	115.30
6	C	70	ILE	N-CA-CB	-10.60	86.43	110.80
5	B	170	LEU	CA-CB-CG	-10.59	90.93	115.30
5	B	850	LEU	CA-C-N	-10.59	93.91	117.20
11	J	54	VAL	O-C-N	10.59	139.64	122.70
4	A	176	LYS	CD-CE-NZ	10.58	136.04	111.70
8	F	130	ILE	N-CA-C	-10.58	82.44	111.00
6	C	5	GLY	N-CA-C	10.56	139.51	113.10
5	B	1052	VAL	CG1-CB-CG2	-10.56	94.00	110.90
7	E	58	MET	CB-CG-SD	10.56	144.08	112.40
5	B	457	LEU	CA-CB-CG	-10.56	91.02	115.30
5	B	1092	TYR	CB-CG-CD2	-10.56	114.67	121.00
4	A	296	LEU	CB-CG-CD1	-10.55	93.07	111.00
4	A	1025	ARG	NE-CZ-NH1	-10.55	115.03	120.30
5	B	431	TYR	CB-CA-C	10.55	131.50	110.40
5	B	580	VAL	CB-CA-C	-10.54	91.37	111.40
2	T	17	DG	O4'-C4'-C3'	-10.54	99.68	106.00
6	C	152	GLU	CA-CB-CG	10.54	136.59	113.40
4	A	602	ASP	CB-CG-OD2	-10.53	108.82	118.30
4	A	1282	VAL	CB-CA-C	-10.53	91.39	111.40
5	B	475	SER	O-C-N	10.53	139.55	122.70
4	A	1054	LEU	CA-CB-CG	-10.52	91.10	115.30
5	B	113	TYR	C-N-CD	10.52	150.49	128.40
7	E	12	LEU	CA-CB-CG	-10.52	91.11	115.30
9	H	62	SER	N-CA-CB	-10.52	94.73	110.50
4	A	751	SER	O-C-N	10.51	139.51	122.70
4	A	1204	ASP	CB-CG-OD2	10.48	127.73	118.30
5	B	426	LYS	CD-CE-NZ	10.48	135.80	111.70
5	B	959	ASP	CB-CG-OD1	10.47	127.72	118.30
4	A	55	ASP	N-CA-C	10.46	139.25	111.00
2	T	21	DC	C4'-C3'-O3'	10.46	135.85	109.70
4	A	1155	ASP	CB-CG-OD2	-10.46	108.89	118.30
4	A	367	PRO	CA-C-N	-10.45	94.21	117.20
5	B	552	MET	CB-CG-SD	-10.45	81.05	112.40
4	A	928	LEU	CA-CB-CG	-10.44	91.30	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	326	ASP	N-CA-C	10.42	139.14	111.00
5	B	882	THR	CB-CA-C	-10.42	83.47	111.60
13	L	48	CYS	CA-CB-SG	10.41	132.74	114.00
4	A	857	ARG	NH1-CZ-NH2	10.41	130.85	119.40
5	B	766	ARG	NE-CZ-NH1	-10.41	115.10	120.30
4	A	1108	ALA	N-CA-CB	-10.40	95.54	110.10
5	B	539	LEU	CB-CG-CD1	-10.40	93.31	111.00
5	B	935	ARG	NE-CZ-NH1	10.40	125.50	120.30
6	C	119	VAL	CG1-CB-CG2	10.40	127.55	110.90
4	A	1403	GLU	C-N-CA	-10.40	95.71	121.70
6	C	201	TRP	C-N-CD	10.40	150.23	128.40
5	B	723	VAL	CB-CA-C	-10.39	91.65	111.40
5	B	758	PHE	CB-CA-C	-10.38	89.63	110.40
5	B	694	ASP	CB-CA-C	-10.38	89.64	110.40
5	B	48	LEU	CB-CG-CD2	-10.37	93.37	111.00
4	A	1288	ASP	CB-CG-OD1	-10.37	108.97	118.30
10	I	14	LEU	O-C-N	10.37	139.29	122.70
5	B	304	ASP	CB-CG-OD2	10.37	127.63	118.30
10	I	77	LYS	CA-CB-CG	10.36	136.19	113.40
7	E	158	SER	CA-C-N	-10.35	94.42	117.20
10	I	10	CYS	CB-CA-C	-10.35	89.69	110.40
4	A	551	TYR	CB-CG-CD2	10.35	127.21	121.00
10	I	115	LYS	CD-CE-NZ	10.35	135.50	111.70
5	B	353	LYS	CA-CB-CG	10.35	136.16	113.40
5	B	981	ALA	O-C-N	10.34	139.24	122.70
5	B	1030	LEU	CA-CB-CG	-10.33	91.54	115.30
4	A	49	LYS	CD-CE-NZ	10.33	135.46	111.70
5	B	689	LEU	CA-CB-CG	-10.33	91.55	115.30
5	B	509	ALA	N-CA-C	10.31	138.85	111.00
4	A	1041	ALA	N-CA-CB	-10.31	95.67	110.10
5	B	941	LEU	CA-CB-CG	-10.31	91.59	115.30
10	I	104	LEU	CA-CB-CG	-10.31	91.59	115.30
5	B	315	LYS	CA-CB-CG	10.31	136.07	113.40
4	A	1157	ASP	CB-CG-OD1	-10.30	109.03	118.30
5	B	1113	VAL	CB-CA-C	-10.30	91.84	111.40
7	E	162	ARG	CG-CD-NE	10.29	133.40	111.80
4	A	1206	ASP	CB-CG-OD2	10.28	127.55	118.30
6	C	92	CYS	CA-CB-SG	-10.28	95.50	114.00
4	A	1219	THR	N-CA-CB	-10.27	90.80	110.30
5	B	883	LEU	CB-CG-CD2	10.26	128.44	111.00
5	B	668	ASP	CB-CG-OD2	10.26	127.53	118.30
5	B	868	MET	N-CA-C	-10.26	83.31	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	122	LEU	CA-CB-CG	10.25	138.87	115.30
4	A	79	GLY	CA-C-O	-10.22	102.20	120.60
4	A	52	GLY	CA-C-O	-10.22	102.20	120.60
4	A	1392	SER	N-CA-CB	-10.21	95.18	110.50
4	A	352	VAL	CB-CA-C	-10.21	92.00	111.40
5	B	847	ASP	CB-CG-OD1	-10.21	109.11	118.30
6	C	192	TRP	CA-CB-CG	10.21	133.10	113.70
7	E	73	PRO	CA-N-CD	-10.21	97.21	111.50
11	J	6	ARG	NE-CZ-NH1	10.20	125.40	120.30
5	B	638	PHE	CB-CG-CD1	10.18	127.93	120.80
9	H	37	LYS	O-C-N	10.18	138.99	122.70
11	J	5	VAL	N-CA-C	-10.18	83.51	111.00
13	L	44	ASP	CB-CG-OD1	10.18	127.46	118.30
4	A	968	GLN	CA-CB-CG	10.18	135.79	113.40
5	B	316	PRO	CA-CB-CG	-10.18	84.67	104.00
4	A	1399	ARG	NE-CZ-NH1	10.17	125.39	120.30
6	C	153	LEU	CB-CG-CD2	-10.17	93.71	111.00
6	C	9	LYS	N-CA-CB	10.17	128.91	110.60
5	B	799	PRO	CA-C-N	-10.17	94.83	117.20
5	B	69	LEU	CA-C-N	-10.16	94.85	117.20
4	A	127	ALA	N-CA-CB	10.16	124.32	110.10
4	A	456	MET	CA-CB-CG	10.15	130.56	113.30
13	L	64	LEU	O-C-N	10.15	138.94	122.70
4	A	409	SER	N-CA-CB	-10.15	95.27	110.50
10	I	10	CYS	N-CA-C	10.14	138.38	111.00
6	C	267	GLN	C-N-CA	-10.14	96.36	121.70
9	H	62	SER	CA-C-N	-10.14	94.90	117.20
5	B	993	THR	CA-CB-CG2	-10.13	98.22	112.40
5	B	307	ASP	CB-CG-OD2	-10.13	109.19	118.30
5	B	685	LEU	CB-CG-CD2	10.13	128.22	111.00
5	B	131	ASP	CB-CG-OD2	10.13	127.41	118.30
6	C	142	VAL	CB-CA-C	-10.12	92.17	111.40
12	K	111	LEU	CB-CG-CD1	-10.12	93.80	111.00
4	A	314	ALA	N-CA-C	10.11	138.30	111.00
4	A	1284	MET	CA-CB-CG	10.11	130.49	113.30
5	B	40	GLU	OE1-CD-OE2	-10.11	111.17	123.30
7	E	78	LEU	CB-CG-CD1	10.11	128.18	111.00
4	A	1313	LEU	CB-CA-C	-10.10	91.01	110.20
4	A	1359	ASP	CB-CG-OD1	-10.10	109.21	118.30
4	A	268	ASP	CB-CG-OD1	-10.09	109.22	118.30
5	B	566	LEU	CB-CG-CD2	-10.09	93.85	111.00
10	I	5	ARG	NE-CZ-NH1	10.08	125.34	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	K	54	ARG	CD-NE-CZ	10.08	137.71	123.60
4	A	183	GLY	N-CA-C	10.08	138.30	113.10
4	A	1029	ARG	CB-CA-C	-10.07	90.26	110.40
5	B	798	TYR	CA-C-O	-10.07	98.95	120.10
2	T	13	DA	O5'-P-OP1	-10.07	96.64	105.70
4	A	327	ALA	N-CA-CB	10.06	124.19	110.10
12	K	47	ARG	NE-CZ-NH1	10.06	125.33	120.30
5	B	431	TYR	CA-CB-CG	10.05	132.50	113.40
5	B	996	ARG	NE-CZ-NH1	10.05	125.33	120.30
5	B	880	THR	N-CA-C	10.05	138.13	111.00
4	A	735	VAL	CA-C-N	10.04	139.30	117.20
5	B	450	ALA	O-C-N	10.04	138.77	122.70
5	B	1180	PHE	N-CA-CB	-10.04	92.53	110.60
9	H	130	ARG	CB-CA-C	-10.03	90.34	110.40
4	A	1228	TRP	CB-CA-C	-10.02	90.36	110.40
7	E	107	THR	N-CA-C	10.02	138.05	111.00
7	E	53	PRO	CA-C-N	10.01	139.22	117.20
5	B	1217	TYR	CE1-CZ-OH	-10.00	93.09	120.10
5	B	850	LEU	CB-CG-CD1	-10.00	94.00	111.00
4	A	1021	LEU	CB-CG-CD2	-10.00	94.01	111.00
5	B	334	ILE	N-CA-C	10.00	137.99	111.00
10	I	25	LEU	CB-CG-CD2	-9.99	94.02	111.00
5	B	118	ARG	NE-CZ-NH2	-9.98	115.31	120.30
4	A	21	LEU	N-CA-C	9.98	137.95	111.00
5	B	351	TYR	CB-CG-CD1	9.98	126.99	121.00
12	K	24	ASP	CB-CG-OD1	-9.97	109.33	118.30
4	A	319	GLY	CA-C-O	-9.97	102.66	120.60
4	A	1400	CYS	CA-CB-SG	-9.97	96.06	114.00
4	A	1435	PRO	CA-CB-CG	-9.96	85.08	104.00
7	E	188	LEU	O-C-N	9.96	140.13	123.20
10	I	3	THR	N-CA-CB	9.95	129.21	110.30
4	A	1003	LYS	CD-CE-NZ	9.95	134.58	111.70
4	A	1273	LEU	CB-CG-CD1	-9.94	94.10	111.00
9	H	34	ASP	CB-CG-OD1	9.94	127.25	118.30
4	A	833	GLU	CG-CD-OE1	9.94	138.18	118.30
2	T	17	DG	O5'-P-OP1	-9.93	96.76	105.70
5	B	368	GLU	CA-CB-CG	9.93	135.25	113.40
4	A	56	PRO	N-CA-C	9.93	137.91	112.10
4	A	978	PRO	CA-N-CD	-9.93	97.60	111.50
2	T	23	DC	O5'-P-OP1	9.92	122.61	110.70
5	B	294	ASP	C-N-CA	-9.92	101.46	122.30
13	L	63	ARG	NE-CZ-NH1	9.91	125.26	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	390	LEU	CA-CB-CG	9.91	138.09	115.30
6	C	58	LEU	C-N-CA	-9.91	96.92	121.70
4	A	469	ARG	NE-CZ-NH1	-9.91	115.35	120.30
4	A	532	ARG	CB-CA-C	-9.90	90.60	110.40
6	C	154	LYS	CD-CE-NZ	9.89	134.45	111.70
9	H	116	TYR	CB-CG-CD2	-9.89	115.06	121.00
5	B	655	LYS	CB-CG-CD	9.88	137.29	111.60
10	I	4	PHE	CB-CG-CD2	-9.88	113.88	120.80
4	A	56	PRO	CA-C-N	-9.88	95.47	117.20
5	B	21	GLU	N-CA-C	9.88	137.67	111.00
1	R	1	A	C2'-C3'-O3'	9.87	131.21	109.50
5	B	837	ASP	CB-CG-OD1	-9.87	109.42	118.30
5	B	1156	ASP	CB-CA-C	-9.87	90.67	110.40
6	C	99	LEU	CB-CG-CD1	-9.86	94.23	111.00
5	B	258	LEU	CB-CG-CD1	-9.85	94.25	111.00
5	B	463	THR	C-N-CA	-9.85	101.61	122.30
4	A	309	ALA	N-CA-C	9.84	137.58	111.00
5	B	497	ARG	CG-CD-NE	-9.84	91.13	111.80
4	A	917	SER	C-N-CA	-9.84	97.11	121.70
11	J	34	THR	CA-CB-CG2	-9.84	98.63	112.40
4	A	822	GLU	OE1-CD-OE2	9.83	135.10	123.30
6	C	260	LEU	C-N-CA	-9.83	97.12	121.70
4	A	368	LYS	CD-CE-NZ	9.83	134.31	111.70
5	B	475	SER	C-N-CA	9.83	146.28	121.70
4	A	302	THR	N-CA-CB	-9.83	91.62	110.30
5	B	258	LEU	CB-CG-CD2	9.83	127.71	111.00
4	A	871	ASP	CB-CG-OD1	-9.82	109.46	118.30
4	A	895	LYS	CB-CG-CD	9.82	137.14	111.60
5	B	315	LYS	CD-CE-NZ	9.82	134.28	111.70
4	A	89	PRO	N-CA-CB	-9.81	91.53	103.30
5	B	250	PHE	CB-CG-CD2	9.81	127.67	120.80
5	B	380	TYR	CB-CG-CD2	-9.81	115.11	121.00
7	E	162	ARG	NH1-CZ-NH2	-9.81	108.61	119.40
4	A	323	LYS	C-N-CA	-9.80	97.19	121.70
5	B	678	GLU	OE1-CD-OE2	9.80	135.06	123.30
10	I	14	LEU	C-N-CA	9.80	146.20	121.70
10	I	56	ALA	N-CA-CB	9.80	123.82	110.10
5	B	666	TYR	CA-C-N	9.79	138.75	117.20
9	H	146	ARG	CG-CD-NE	9.80	132.37	111.80
4	A	568	PRO	N-CA-C	9.79	137.56	112.10
6	C	76	ASP	CB-CG-OD1	-9.79	109.49	118.30
5	B	131	ASP	N-CA-CB	-9.78	92.99	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C	47	ASP	CB-CG-OD1	-9.78	109.50	118.30
6	C	167	HIS	CB-CA-C	9.77	129.95	110.40
5	B	707	PRO	N-CA-C	-9.76	86.72	112.10
5	B	322	PHE	N-CA-CB	9.76	128.17	110.60
4	A	826	ASP	CB-CG-OD2	9.76	127.08	118.30
4	A	1062	GLU	OE1-CD-OE2	9.75	135.00	123.30
5	B	476	ARG	CA-CB-CG	9.75	134.84	113.40
4	A	1023	ARG	C-N-CA	-9.74	97.34	121.70
4	A	1361	SER	CA-CB-OG	9.74	137.50	111.20
7	E	42	PHE	CA-C-N	-9.74	95.77	117.20
8	F	72	LYS	CA-C-N	-9.74	95.77	117.20
7	E	81	GLU	N-CA-CB	9.73	128.12	110.60
7	E	149	LEU	CB-CG-CD2	9.73	127.54	111.00
6	C	249	ASP	CB-CG-OD2	9.72	127.05	118.30
5	B	702	LEU	CA-CB-CG	-9.72	92.94	115.30
4	A	958	VAL	CG1-CB-CG2	9.72	126.45	110.90
4	A	903	ASN	C-N-CA	-9.71	97.41	121.70
5	B	982	SER	CA-C-N	-9.71	95.84	117.20
9	H	109	LYS	CD-CE-NZ	9.71	134.04	111.70
5	B	881	ASN	C-N-CA	9.71	145.96	121.70
4	A	1334	ASP	CB-CG-OD2	9.70	127.03	118.30
4	A	1368	MET	CB-CG-SD	-9.70	83.30	112.40
5	B	813	LYS	CD-CE-NZ	9.70	134.01	111.70
5	B	942	ARG	CB-CA-C	-9.70	91.00	110.40
4	A	320	ARG	N-CA-CB	-9.70	93.15	110.60
7	E	73	PRO	N-CA-CB	-9.69	91.67	103.30
5	B	899	ILE	CB-CA-C	-9.69	92.23	111.60
5	B	1140	ALA	CB-CA-C	-9.69	95.57	110.10
10	I	113	ASP	CB-CG-OD1	-9.68	109.59	118.30
5	B	823	ALA	CB-CA-C	-9.68	95.59	110.10
4	A	107	CYS	CA-CB-SG	9.67	131.41	114.00
4	A	4	GLN	N-CA-CB	9.67	128.01	110.60
4	A	227	VAL	CG1-CB-CG2	-9.67	95.43	110.90
4	A	320	ARG	NE-CZ-NH1	9.67	125.13	120.30
1	R	5	A	O5'-P-OP2	-9.66	97.00	105.70
4	A	701	LEU	CB-CG-CD1	9.66	127.42	111.00
4	A	1040	GLN	CA-C-N	-9.66	95.96	117.20
4	A	1166	ASP	C-N-CA	-9.65	97.56	121.70
4	A	1036	ARG	NE-CZ-NH1	9.65	125.12	120.30
6	C	209	TYR	CD1-CE1-CZ	9.65	128.48	119.80
4	A	143	LYS	CD-CE-NZ	9.65	133.89	111.70
5	B	964	VAL	CA-CB-CG1	-9.65	96.43	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	I	77	LYS	CB-CG-CD	9.64	136.67	111.60
7	E	157	SER	N-CA-C	9.64	137.02	111.00
5	B	766	ARG	NE-CZ-NH2	-9.63	115.48	120.30
9	H	111	LEU	CB-CG-CD2	-9.63	94.63	111.00
10	I	9	ASP	CB-CA-C	9.61	129.63	110.40
5	B	390	LEU	CB-CG-CD1	-9.61	94.67	111.00
4	A	1011	GLN	CA-CB-CG	-9.60	92.29	113.40
7	E	156	LEU	CB-CG-CD1	-9.59	94.69	111.00
5	B	619	ILE	CA-C-N	-9.59	96.11	117.20
4	A	1353	TYR	CB-CG-CD1	9.58	126.75	121.00
4	A	459	ARG	NE-CZ-NH1	9.57	125.08	120.30
5	B	166	PHE	O-C-N	9.56	138.00	122.70
4	A	1116	LEU	CB-CG-CD2	-9.56	94.75	111.00
9	H	80	ARG	N-CA-C	-9.56	85.20	111.00
6	C	253	LYS	CD-CE-NZ	9.55	133.68	111.70
8	F	77	ASP	CB-CA-C	-9.55	91.30	110.40
4	A	662	PHE	CB-CG-CD1	-9.54	114.12	120.80
7	E	212	ARG	NE-CZ-NH2	-9.54	115.53	120.30
5	B	595	ARG	CB-CG-CD	9.54	136.40	111.60
4	A	316	GLN	N-CA-CB	9.54	127.77	110.60
4	A	1207	LEU	CA-C-N	-9.54	96.22	117.20
5	B	128	LEU	CA-CB-CG	-9.54	93.36	115.30
5	B	427	ASP	CB-CA-C	-9.54	91.33	110.40
5	B	660	LYS	CB-CA-C	-9.53	91.33	110.40
8	F	76	LYS	CB-CG-CD	9.53	136.38	111.60
5	B	1072	MET	CA-CB-CG	9.51	129.46	113.30
5	B	595	ARG	NH1-CZ-NH2	-9.50	108.95	119.40
5	B	187	SER	CB-CA-C	9.50	128.14	110.10
5	B	532	ALA	N-CA-CB	-9.49	96.81	110.10
9	H	132	LEU	CB-CG-CD1	9.49	127.14	111.00
5	B	1011	ILE	CB-CA-C	-9.49	92.62	111.60
4	A	509	LEU	CB-CG-CD1	9.49	127.13	111.00
4	A	322	VAL	N-CA-C	9.48	136.61	111.00
7	E	3	GLN	CA-CB-CG	9.48	134.26	113.40
5	B	620	ARG	NE-CZ-NH2	-9.48	115.56	120.30
7	E	180	ARG	NE-CZ-NH1	9.47	125.04	120.30
7	E	35	VAL	N-CA-C	-9.47	85.44	111.00
5	B	429	PHE	N-CA-C	-9.46	85.45	111.00
9	H	110	ASP	N-CA-CB	-9.46	93.57	110.60
4	A	179	LEU	CA-CB-CG	9.46	137.05	115.30
5	B	866	TYR	CA-CB-CG	9.46	131.37	113.40
5	B	48	LEU	CA-CB-CG	-9.45	93.56	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	K	20	LYS	CD-CE-NZ	9.45	133.44	111.70
4	A	901	LEU	CB-CG-CD1	9.45	127.06	111.00
7	E	3	GLN	N-CA-CB	9.45	127.61	110.60
5	B	450	ALA	CA-C-N	-9.45	96.42	117.20
10	I	120	GLN	N-CA-C	9.45	136.51	111.00
4	A	608	ILE	CB-CA-C	-9.45	92.71	111.60
8	F	135	ARG	CA-CB-CG	-9.44	92.62	113.40
5	B	526	GLU	OE1-CD-OE2	9.44	134.63	123.30
5	B	745	PRO	N-CA-CB	-9.44	91.97	103.30
4	A	372	LYS	CA-CB-CG	9.44	134.17	113.40
4	A	1208	THR	N-CA-C	9.44	136.48	111.00
4	A	87	ALA	O-C-N	9.44	137.80	122.70
7	E	17	ARG	NE-CZ-NH2	9.44	125.02	120.30
4	A	370	ILE	CG1-CB-CG2	-9.43	90.66	111.40
5	B	228	LYS	CD-CE-NZ	9.43	133.39	111.70
5	B	1217	TYR	CZ-CE2-CD2	-9.43	111.31	119.80
6	C	136	ASP	CB-CG-OD1	-9.43	109.81	118.30
5	B	622	LYS	CD-CE-NZ	9.43	133.39	111.70
4	A	537	ARG	NE-CZ-NH2	-9.43	115.59	120.30
5	B	901	PRO	CA-CB-CG	-9.42	86.10	104.00
4	A	987	VAL	CG1-CB-CG2	9.42	125.97	110.90
4	A	1359	ASP	CB-CG-OD2	9.41	126.77	118.30
12	K	54	ARG	CA-CB-CG	9.41	134.11	113.40
4	A	933	TYR	CZ-CE2-CD2	9.41	128.27	119.80
4	A	483	ASP	CB-CG-OD2	-9.40	109.83	118.30
5	B	865	LYS	N-CA-CB	9.40	127.53	110.60
4	A	250	ILE	N-CA-C	9.40	136.38	111.00
4	A	1121	GLU	CA-CB-CG	9.40	134.09	113.40
5	B	470	LYS	CD-CE-NZ	9.40	133.32	111.70
4	A	259	GLU	N-CA-CB	-9.40	93.68	110.60
4	A	949	ASP	CB-CG-OD2	9.40	126.76	118.30
4	A	997	LEU	C-N-CA	-9.40	98.20	121.70
5	B	879	ARG	CA-C-N	-9.40	96.53	117.20
4	A	455	MET	CA-CB-CG	-9.39	97.34	113.30
4	A	289	ILE	N-CA-C	-9.39	85.65	111.00
6	C	72	LEU	CB-CG-CD1	-9.39	95.04	111.00
1	R	7	A	P-O5'-C5'	-9.38	105.88	120.90
5	B	407	ASP	CB-CG-OD2	-9.38	109.86	118.30
5	B	275	TYR	CB-CG-CD1	9.37	126.62	121.00
6	C	246	ARG	NE-CZ-NH1	-9.37	115.61	120.30
7	E	41	ASP	CB-CG-OD2	9.37	126.73	118.30
4	A	934	LYS	CA-C-N	-9.36	96.61	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	399	HIS	CB-CA-C	-9.36	91.69	110.40
8	F	72	LYS	O-C-N	9.36	137.67	122.70
9	H	31	THR	N-CA-CB	9.36	128.08	110.30
4	A	880	LYS	CD-CE-NZ	9.35	133.21	111.70
4	A	1348	LEU	CB-CG-CD1	-9.35	95.10	111.00
11	J	31	ASP	CB-CG-OD2	9.35	126.72	118.30
5	B	706	GLN	N-CA-C	-9.35	85.76	111.00
1	R	5	A	C5'-C4'-C3'	9.34	130.95	116.00
5	B	99	LYS	N-CA-C	-9.34	85.77	111.00
5	B	459	TYR	CD1-CE1-CZ	9.34	128.21	119.80
5	B	464	GLY	N-CA-C	-9.34	89.75	113.10
10	I	4	PHE	O-C-N	9.34	137.64	122.70
5	B	995	ARG	NE-CZ-NH1	-9.33	115.63	120.30
10	I	30	ARG	CA-C-N	-9.33	96.68	117.20
5	B	275	TYR	CB-CA-C	9.32	129.05	110.40
10	I	92	ARG	NE-CZ-NH1	9.32	124.96	120.30
5	B	984	HIS	N-CA-CB	9.32	127.38	110.60
12	K	38	GLU	OE1-CD-OE2	9.32	134.48	123.30
7	E	199	ILE	CG1-CB-CG2	9.32	131.90	111.40
12	K	53	ASP	CB-CG-OD2	9.32	126.69	118.30
5	B	697	GLU	OE1-CD-OE2	9.31	134.48	123.30
5	B	386	LEU	CB-CG-CD1	9.31	126.82	111.00
4	A	917	SER	N-CA-CB	9.30	124.46	110.50
5	B	637	LEU	CB-CG-CD2	-9.29	95.20	111.00
9	H	144	ILE	CG1-CB-CG2	9.29	131.85	111.40
5	B	603	LEU	CB-CG-CD2	9.29	126.80	111.00
5	B	712	PRO	N-CA-C	-9.28	87.96	112.10
5	B	1045	SER	CB-CA-C	9.28	127.73	110.10
4	A	443	LEU	CA-CB-CG	-9.27	93.98	115.30
4	A	977	LYS	CD-CE-NZ	9.27	133.02	111.70
4	A	1176	LEU	CB-CG-CD2	9.26	126.74	111.00
8	F	131	PRO	CA-C-N	-9.26	96.83	117.20
11	J	10	CYS	CA-CB-SG	9.25	130.66	114.00
5	B	909	ASP	CB-CG-OD2	-9.25	109.98	118.30
5	B	1147	LEU	CB-CA-C	-9.24	92.64	110.20
9	H	45	GLU	CA-CB-CG	9.24	133.74	113.40
10	I	11	ASN	N-CA-CB	9.24	127.24	110.60
4	A	1153	TYR	CZ-CE2-CD2	9.24	128.11	119.80
4	A	934	LYS	CD-CE-NZ	9.23	132.94	111.70
2	T	12	DC	OP2-P-O3'	9.23	125.51	105.20
4	A	1403	GLU	O-C-N	-9.23	107.93	122.70
5	B	798	TYR	CB-CG-CD2	9.23	126.54	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1003	LYS	CB-CG-CD	9.22	135.57	111.60
5	B	731	VAL	N-CA-CB	-9.22	91.22	111.50
4	A	779	PHE	CB-CA-C	-9.22	91.97	110.40
5	B	753	ALA	CB-CA-C	-9.21	96.28	110.10
9	H	95	TYR	CA-CB-CG	9.21	130.90	113.40
4	A	1355	VAL	CG1-CB-CG2	-9.21	96.17	110.90
4	A	1421	CYS	CA-CB-SG	9.21	130.57	114.00
5	B	748	ILE	CB-CA-C	-9.21	93.19	111.60
6	C	102	GLN	CA-CB-CG	9.20	133.65	113.40
5	B	430	ARG	N-CA-C	9.20	135.84	111.00
6	C	118	LEU	CA-CB-CG	9.19	136.45	115.30
4	A	815	PHE	CB-CG-CD1	-9.19	114.36	120.80
4	A	116	ASP	CB-CG-OD2	9.19	126.57	118.30
5	B	853	SER	CA-CB-OG	-9.19	86.39	111.20
6	C	217	ASP	CB-CA-C	9.19	128.77	110.40
7	E	138	ALA	N-CA-CB	-9.18	97.25	110.10
8	F	79	ARG	CG-CD-NE	9.18	131.08	111.80
4	A	920	LEU	CA-CB-CG	-9.17	94.20	115.30
4	A	1206	ASP	N-CA-C	-9.17	86.24	111.00
10	I	24	ARG	NE-CZ-NH2	-9.17	115.72	120.30
5	B	1166	CYS	CA-CB-SG	9.17	130.50	114.00
4	A	532	ARG	CA-C-N	9.16	137.36	117.20
5	B	798	TYR	CD1-CE1-CZ	9.16	128.05	119.80
8	F	74	ILE	CB-CA-C	-9.16	93.28	111.60
4	A	656	TRP	CA-C-N	-9.16	97.06	117.20
4	A	1269	GLU	N-CA-C	9.14	135.69	111.00
4	A	254	GLU	CB-CA-C	9.14	128.68	110.40
5	B	899	ILE	CA-C-N	-9.14	97.10	117.20
5	B	252	SER	N-CA-CB	-9.14	96.80	110.50
4	A	1428	VAL	CA-CB-CG2	-9.13	97.20	110.90
9	H	17	PRO	CA-C-N	-9.13	97.93	116.20
4	A	1109	LYS	O-C-N	9.13	137.31	122.70
10	I	31	THR	C-N-CA	-9.13	98.88	121.70
4	A	410	GLY	O-C-N	9.12	137.30	122.70
4	A	968	GLN	N-CA-CB	9.12	127.02	110.60
5	B	276	ILE	N-CA-C	9.12	135.63	111.00
8	F	75	PRO	CB-CA-C	-9.12	89.19	112.00
10	I	107	SER	CA-CB-OG	9.12	135.82	111.20
1	R	4	G	OP1-P-O3'	9.12	125.26	105.20
9	H	135	LEU	CA-CB-CG	9.12	136.27	115.30
10	I	91	ARG	CD-NE-CZ	9.12	136.37	123.60
11	J	13	VAL	CB-CA-C	-9.12	94.08	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	606	LYS	CD-CE-NZ	9.12	132.67	111.70
13	L	70	ARG	N-CA-C	9.11	135.60	111.00
5	B	535	LEU	CA-CB-CG	-9.11	94.36	115.30
4	A	284	ALA	N-CA-C	9.10	135.58	111.00
12	K	41	THR	CA-CB-CG2	-9.10	99.66	112.40
5	B	796	LEU	C-N-CA	-9.10	98.95	121.70
4	A	1326	ARG	NE-CZ-NH2	9.10	124.85	120.30
4	A	1109	LYS	CD-CE-NZ	9.09	132.61	111.70
5	B	577	ALA	N-CA-CB	-9.09	97.38	110.10
9	H	130	ARG	NE-CZ-NH1	9.08	124.84	120.30
4	A	344	ARG	NE-CZ-NH1	9.07	124.84	120.30
5	B	1099	VAL	CA-C-N	-9.07	97.25	117.20
6	C	174	ALA	C-N-CA	-9.06	99.05	121.70
4	A	628	GLY	N-CA-C	9.05	135.73	113.10
4	A	1339	LEU	CB-CG-CD1	9.05	126.39	111.00
5	B	175	ARG	NE-CZ-NH1	-9.05	115.77	120.30
5	B	838	SER	N-CA-C	-9.05	86.56	111.00
9	H	82	PRO	CA-N-CD	-9.05	98.83	111.50
4	A	479	ASN	CB-CA-C	-9.05	92.30	110.40
4	A	531	ILE	N-CA-CB	9.05	131.62	110.80
4	A	1111	MET	N-CA-C	9.05	135.43	111.00
4	A	7	SER	N-CA-CB	9.05	124.07	110.50
5	B	62	ILE	N-CA-C	-9.05	86.57	111.00
5	B	113	TYR	CB-CG-CD2	-9.04	115.57	121.00
4	A	532	ARG	N-CA-C	9.04	135.41	111.00
5	B	1038	SER	CB-CA-C	-9.04	92.93	110.10
9	H	105	GLU	OE1-CD-OE2	9.04	134.15	123.30
10	I	74	GLU	N-CA-C	-9.04	86.59	111.00
4	A	531	ILE	CA-C-O	-9.03	101.14	120.10
4	A	555	ASP	CB-CG-OD1	-9.03	110.18	118.30
12	K	83	PRO	CB-CG-CD	-9.03	71.30	106.50
4	A	438	ASP	CB-CG-OD1	9.02	126.42	118.30
4	A	821	ARG	NE-CZ-NH2	9.02	124.81	120.30
4	A	236	LEU	CA-C-N	-9.02	97.35	117.20
7	E	205	SER	N-CA-C	-9.02	86.64	111.00
5	B	102	VAL	CG1-CB-CG2	9.02	125.32	110.90
5	B	696	GLU	CG-CD-OE2	-9.01	100.27	118.30
7	E	152	LYS	CA-CB-CG	9.01	133.23	113.40
5	B	272	THR	C-N-CA	-9.01	99.17	121.70
10	I	96	SER	CA-CB-OG	9.01	135.53	111.20
1	R	5	A	C2'-C3'-O3'	9.01	129.31	109.50
4	A	336	ILE	CA-C-N	-9.01	97.39	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	147	VAL	CB-CA-C	-9.00	94.30	111.40
5	B	211	VAL	CB-CA-C	-9.00	94.30	111.40
4	A	476	SER	CA-CB-OG	-9.00	86.91	111.20
4	A	481	ASP	CB-CA-C	8.99	128.38	110.40
4	A	315	LEU	N-CA-C	-8.99	86.74	111.00
9	H	27	GLU	OE1-CD-OE2	-8.99	112.52	123.30
5	B	483	LEU	CA-C-O	-8.98	101.24	120.10
5	B	133	LYS	CA-CB-CG	8.98	133.16	113.40
5	B	766	ARG	NH1-CZ-NH2	8.98	129.28	119.40
4	A	335	ARG	NE-CZ-NH1	-8.97	115.81	120.30
5	B	936	ASP	CB-CA-C	-8.97	92.46	110.40
5	B	880	THR	N-CA-CB	-8.96	93.27	110.30
10	I	8	ARG	CA-CB-CG	8.96	133.12	113.40
10	I	88	SER	CB-CA-C	-8.96	93.08	110.10
4	A	203	SER	CA-C-N	-8.95	97.52	117.20
6	C	121	VAL	CA-CB-CG2	-8.95	97.48	110.90
11	J	47	ARG	NE-CZ-NH1	8.95	124.77	120.30
4	A	1094	VAL	N-CA-C	8.94	135.15	111.00
4	A	315	LEU	CB-CA-C	8.94	127.19	110.20
7	E	117	THR	CA-CB-OG1	8.94	127.78	109.00
4	A	485	ASP	CB-CG-OD1	-8.94	110.25	118.30
10	I	30	ARG	CG-CD-NE	8.94	130.57	111.80
4	A	1350	LYS	CB-CG-CD	8.94	134.83	111.60
10	I	26	LEU	N-CA-C	8.93	135.11	111.00
5	B	901	PRO	N-CA-C	8.93	135.31	112.10
4	A	350	ARG	NE-CZ-NH2	8.92	124.76	120.30
4	A	563	PRO	N-CD-CG	-8.92	89.82	103.20
9	H	80	ARG	CD-NE-CZ	8.92	136.09	123.60
5	B	411	PRO	CA-CB-CG	-8.92	87.06	104.00
7	E	195	VAL	C-N-CA	-8.92	99.41	121.70
5	B	799	PRO	O-C-N	8.91	136.96	122.70
9	H	19	ARG	N-CA-C	-8.91	86.94	111.00
4	A	93	VAL	CB-CA-C	-8.91	94.47	111.40
9	H	34	ASP	CB-CA-C	8.91	128.22	110.40
4	A	170	THR	N-CA-C	8.90	135.04	111.00
4	A	671	ALA	N-CA-C	8.90	135.04	111.00
4	A	978	PRO	N-CA-C	8.90	135.24	112.10
7	E	155	ARG	C-N-CA	-8.90	99.45	121.70
9	H	116	TYR	CB-CG-CD1	8.90	126.34	121.00
4	A	417	TYR	OH-CZ-CE2	-8.90	96.08	120.10
4	A	1048	ASN	N-CA-CB	-8.90	94.58	110.60
5	B	436	VAL	CB-CA-C	8.90	128.30	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	H	136	LYS	N-CA-CB	-8.90	94.59	110.60
4	A	236	LEU	N-CA-C	8.89	135.00	111.00
4	A	1406	VAL	CB-CA-C	8.89	128.29	111.40
5	B	637	LEU	CB-CA-C	8.89	127.09	110.20
5	B	1046	PRO	N-CA-C	8.89	135.21	112.10
5	B	744	HIS	CB-CA-C	8.89	128.18	110.40
8	F	138	LEU	C-N-CD	8.88	147.05	128.40
6	C	221	TYR	CB-CG-CD1	-8.88	115.67	121.00
4	A	1394	THR	CB-CA-C	-8.87	87.64	111.60
5	B	568	ASP	CB-CG-OD1	8.87	126.29	118.30
5	B	470	LYS	CA-C-N	-8.87	97.69	117.20
5	B	275	TYR	CG-CD2-CE2	8.87	128.39	121.30
5	B	911	ILE	CA-CB-CG1	-8.87	94.15	111.00
4	A	363	GLN	CA-C-N	-8.87	97.70	117.20
4	A	1397	LEU	CA-CB-CG	-8.86	94.91	115.30
4	A	113	LEU	CA-CB-CG	-8.86	94.92	115.30
5	B	661	LEU	CA-CB-CG	8.85	135.66	115.30
5	B	866	TYR	N-CA-CB	8.85	126.53	110.60
6	C	7	GLN	N-CA-C	8.85	134.90	111.00
4	A	98	LYS	N-CA-C	-8.85	87.11	111.00
5	B	467	GLY	C-N-CA	8.85	143.82	121.70
4	A	1222	ASN	CA-C-N	-8.85	97.74	117.20
4	A	49	LYS	N-CA-CB	-8.84	94.68	110.60
4	A	532	ARG	C-N-CA	-8.84	99.59	121.70
5	B	1122	ARG	CA-C-N	-8.84	97.75	117.20
5	B	473	MET	CG-SD-CE	8.84	114.34	100.20
12	K	63	VAL	CA-CB-CG1	-8.84	97.64	110.90
4	A	735	VAL	CA-CB-CG1	-8.84	97.64	110.90
12	K	100	ALA	N-CA-CB	-8.84	97.73	110.10
4	A	1274	ARG	C-N-CA	-8.83	103.75	122.30
5	B	861	ASP	N-CA-C	8.83	134.85	111.00
5	B	236	HIS	N-CA-CB	8.83	126.49	110.60
1	R	5	A	OP2-P-O3'	8.82	124.61	105.20
4	A	129	LYS	CA-CB-CG	8.82	132.81	113.40
4	A	1333	ILE	CB-CA-C	8.82	129.24	111.60
5	B	121	ASN	CA-C-N	-8.82	97.80	117.20
4	A	593	GLU	C-N-CA	-8.82	103.79	122.30
5	B	239	GLU	OE1-CD-OE2	8.82	133.88	123.30
7	E	32	GLN	C-N-CA	-8.81	99.67	121.70
4	A	153	PRO	N-CA-CB	-8.81	92.73	103.30
4	A	279	LEU	CB-CG-CD1	-8.81	96.03	111.00
4	A	613	ILE	CG1-CB-CG2	8.79	130.75	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	K	89	ASN	CA-C-N	-8.79	97.85	117.20
12	K	31	VAL	N-CA-CB	-8.79	92.16	111.50
4	A	1055	ARG	CB-CG-CD	8.78	134.43	111.60
7	E	170	LEU	CB-CG-CD1	8.78	125.93	111.00
4	A	200	ARG	CA-C-N	-8.78	97.89	117.20
4	A	1046	LEU	CB-CG-CD2	-8.78	96.08	111.00
4	A	1026	LEU	CA-CB-CG	-8.77	95.12	115.30
4	A	679	ILE	CG1-CB-CG2	-8.77	92.11	111.40
6	C	177	GLU	OE1-CD-OE2	8.77	133.82	123.30
4	A	1109	LYS	CA-C-N	-8.77	97.91	117.20
5	B	470	LYS	CA-CB-CG	8.76	132.68	113.40
2	T	23	DC	O4'-C1'-N1	8.76	114.13	108.00
10	I	37	GLU	CA-CB-CG	8.76	132.67	113.40
4	A	1000	LEU	CB-CG-CD2	8.76	125.89	111.00
6	C	149	LYS	N-CA-CB	8.75	126.35	110.60
5	B	603	LEU	CB-CG-CD1	-8.75	96.12	111.00
7	E	122	LYS	CD-CE-NZ	8.75	131.82	111.70
8	F	79	ARG	CA-C-N	-8.75	97.95	117.20
4	A	176	LYS	CA-C-N	-8.75	97.95	117.20
5	B	850	LEU	CA-CB-CG	8.75	135.41	115.30
4	A	486	GLU	OE1-CD-OE2	-8.74	112.81	123.30
4	A	752	LYS	CB-CA-C	-8.74	92.91	110.40
4	A	935	GLN	CA-CB-CG	-8.74	94.17	113.40
5	B	431	TYR	CA-C-N	8.74	136.43	117.20
4	A	93	VAL	N-CA-C	8.74	134.60	111.00
5	B	1009	ASP	CB-CG-OD2	-8.74	110.43	118.30
8	F	128	LYS	CD-CE-NZ	8.73	131.79	111.70
8	F	153	VAL	CG1-CB-CG2	8.73	124.87	110.90
7	E	207	ARG	NE-CZ-NH1	8.72	124.66	120.30
4	A	133	LYS	CD-CE-NZ	8.72	131.76	111.70
5	B	526	GLU	CG-CD-OE2	-8.72	100.86	118.30
4	A	784	LEU	CB-CG-CD1	8.71	125.81	111.00
4	A	1039	LYS	CD-CE-NZ	8.71	131.74	111.70
7	E	10	SER	N-CA-CB	8.71	123.57	110.50
7	E	133	GLU	N-CA-C	-8.71	87.48	111.00
4	A	820	GLY	O-C-N	8.71	136.63	122.70
10	I	112	SER	N-CA-CB	-8.71	97.44	110.50
4	A	57	ARG	CA-CB-CG	8.70	132.55	113.40
5	B	1018	PRO	N-CA-CB	-8.70	92.86	103.30
7	E	26	ARG	O-C-N	8.70	137.99	123.20
9	H	53	ASP	CB-CG-OD2	8.70	126.13	118.30
4	A	751	SER	CA-C-N	-8.70	98.06	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1218	THR	N-CA-CB	-8.70	93.78	110.30
4	A	1313	LEU	O-C-N	8.69	136.61	122.70
4	A	743	VAL	CA-CB-CG1	-8.69	97.86	110.90
6	C	46	ILE	CG1-CB-CG2	8.69	130.52	111.40
13	L	46	VAL	CB-CA-C	-8.69	94.89	111.40
4	A	1285	MET	CB-CG-SD	8.69	138.47	112.40
10	I	61	ASP	CB-CG-OD2	8.69	126.12	118.30
4	A	664	THR	N-CA-C	-8.69	87.55	111.00
5	B	949	VAL	CA-CB-CG1	-8.68	97.88	110.90
11	J	1	MET	CG-SD-CE	-8.68	86.31	100.20
5	B	591	ARG	CB-CG-CD	8.67	134.15	111.60
4	A	3	GLY	O-C-N	8.67	136.57	122.70
5	B	68	THR	CA-CB-CG2	8.67	124.53	112.40
9	H	140	ALA	N-CA-CB	8.66	122.23	110.10
4	A	126	LEU	N-CA-C	8.66	134.39	111.00
4	A	842	VAL	CB-CA-C	-8.66	94.94	111.40
8	F	145	ASP	CB-CG-OD1	-8.66	110.51	118.30
1	R	9	G	OP1-P-OP2	-8.66	106.61	119.60
5	B	55	VAL	CB-CA-C	-8.66	94.95	111.40
4	A	291	GLU	N-CA-C	-8.65	87.64	111.00
4	A	794	PRO	N-CA-C	8.65	134.60	112.10
5	B	1171	VAL	O-C-N	8.65	136.54	122.70
4	A	620	LYS	CA-CB-CG	8.65	132.42	113.40
4	A	1162	VAL	CA-CB-CG1	-8.64	97.94	110.90
10	I	83	ASN	C-N-CA	-8.64	100.10	121.70
5	B	593	PRO	CA-N-CD	-8.64	99.41	111.50
4	A	948	VAL	CG1-CB-CG2	8.63	124.72	110.90
5	B	870	ILE	CG1-CB-CG2	8.63	130.39	111.40
5	B	600	LEU	CB-CG-CD2	-8.63	96.33	111.00
5	B	736	THR	CA-CB-CG2	-8.63	100.32	112.40
7	E	59	SER	CA-C-N	-8.63	98.22	117.20
4	A	1294	PRO	N-CD-CG	-8.62	90.27	103.20
4	A	1381	LEU	N-CA-C	-8.62	87.73	111.00
4	A	904	THR	N-CA-CB	-8.61	93.93	110.30
5	B	903	VAL	CB-CA-C	-8.62	95.03	111.40
4	A	1327	ILE	CA-C-N	-8.61	98.26	117.20
7	E	2	ASP	N-CA-C	8.61	134.24	111.00
5	B	1092	TYR	CB-CG-CD1	8.61	126.16	121.00
4	A	666	ILE	CB-CA-C	-8.60	94.40	111.60
4	A	1239	ARG	CG-CD-NE	8.60	129.86	111.80
4	A	404	TYR	N-CA-C	8.60	134.22	111.00
4	A	1025	ARG	NE-CZ-NH2	8.60	124.60	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1133	LEU	CB-CG-CD2	8.59	125.61	111.00
5	B	384	ARG	CD-NE-CZ	8.59	135.63	123.60
5	B	466	TRP	CA-CB-CG	8.59	130.02	113.70
4	A	1309	ASP	C-N-CA	-8.59	104.27	122.30
5	B	868	MET	CA-CB-CG	8.59	127.90	113.30
4	A	1327	ILE	CG1-CB-CG2	8.59	130.29	111.40
10	I	61	ASP	CB-CA-C	8.58	127.57	110.40
4	A	954	TRP	CA-CB-CG	-8.58	97.40	113.70
4	A	84	ILE	O-C-N	8.58	136.42	122.70
4	A	432	VAL	C-N-CA	-8.57	100.28	121.70
4	A	806	ARG	NH1-CZ-NH2	8.57	128.82	119.40
4	A	885	THR	CA-CB-CG2	-8.57	100.41	112.40
9	H	121	LEU	CB-CG-CD1	-8.57	96.44	111.00
13	L	57	LEU	N-CA-CB	-8.57	93.27	110.40
6	C	16	ASP	CB-CG-OD2	-8.56	110.59	118.30
6	C	82	TYR	N-CA-CB	8.56	126.01	110.60
4	A	168	GLY	N-CA-C	8.56	134.49	113.10
2	T	13	DA	O5'-P-OP2	-8.55	98.00	105.70
4	A	609	ASP	CB-CG-OD1	-8.54	110.61	118.30
4	A	1424	VAL	CG1-CB-CG2	-8.54	97.23	110.90
5	B	1151	LEU	CB-CG-CD2	-8.54	96.49	111.00
5	B	689	LEU	C-N-CA	-8.54	100.36	121.70
5	B	752	ALA	C-N-CA	-8.53	100.37	121.70
9	H	110	ASP	CB-CG-OD2	8.53	125.98	118.30
5	B	484	ASN	N-CA-C	-8.53	87.98	111.00
5	B	1059	LEU	CB-CG-CD2	-8.53	96.51	111.00
4	A	452	LYS	CD-CE-NZ	8.52	131.30	111.70
4	A	1443	VAL	O-C-N	8.52	136.34	122.70
4	A	601	LYS	CD-CE-NZ	8.52	131.29	111.70
4	A	136	ALA	N-CA-CB	8.51	122.02	110.10
4	A	359	LEU	CA-CB-CG	-8.51	95.72	115.30
5	B	509	ALA	N-CA-CB	-8.51	98.19	110.10
5	B	173	MET	CG-SD-CE	-8.51	86.59	100.20
5	B	189	LEU	CA-CB-CG	-8.51	95.74	115.30
5	B	50	SER	CB-CA-C	-8.50	93.95	110.10
5	B	473	MET	CA-C-O	8.49	137.94	120.10
4	A	322	VAL	CA-CB-CG2	-8.49	98.16	110.90
4	A	1277	GLU	OE1-CD-OE2	-8.48	113.12	123.30
5	B	1067	ARG	NE-CZ-NH2	-8.48	116.06	120.30
6	C	78	GLU	OE1-CD-OE2	-8.48	113.12	123.30
7	E	162	ARG	CD-NE-CZ	8.48	135.48	123.60
4	A	236	LEU	O-C-N	8.48	136.27	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	132	VAL	CB-CA-C	-8.48	95.28	111.40
5	B	798	TYR	OH-CZ-CE2	8.48	143.00	120.10
7	E	86	PRO	N-CA-CB	-8.48	93.12	103.30
9	H	140	ALA	C-N-CA	-8.48	100.50	121.70
4	A	766	GLY	N-CA-C	8.48	134.30	113.10
4	A	1404	GLU	C-N-CA	-8.48	100.50	121.70
7	E	63	ASN	N-CA-C	8.47	133.88	111.00
4	A	776	ALA	N-CA-C	8.47	133.87	111.00
4	A	1035	TYR	CA-C-N	-8.47	98.57	117.20
4	A	47	ARG	CD-NE-CZ	8.46	135.45	123.60
5	B	517	THR	N-CA-C	8.46	133.85	111.00
6	C	182	PRO	N-CD-CG	-8.46	90.50	103.20
6	C	186	LEU	CB-CG-CD1	8.47	125.39	111.00
7	E	43	LYS	N-CA-CB	-8.46	95.36	110.60
11	J	3	VAL	CG1-CB-CG2	8.46	124.44	110.90
5	B	878	GLN	N-CA-C	8.46	133.85	111.00
4	A	428	TYR	CB-CA-C	-8.46	93.49	110.40
4	A	843	LYS	CD-CE-NZ	8.46	131.15	111.70
9	H	80	ARG	NE-CZ-NH2	-8.45	116.07	120.30
4	A	1298	TYR	CB-CG-CD1	8.45	126.07	121.00
6	C	205	LYS	N-CA-C	-8.45	88.19	111.00
4	A	1153	TYR	CB-CG-CD2	-8.45	115.93	121.00
5	B	70	ILE	CG1-CB-CG2	8.45	129.98	111.40
5	B	591	ARG	CG-CD-NE	-8.45	94.06	111.80
5	B	663	ALA	N-CA-CB	-8.45	98.28	110.10
4	A	613	ILE	C-N-CA	-8.44	100.60	121.70
5	B	786	ASN	N-CA-CB	8.44	125.80	110.60
5	B	1156	ASP	CB-CG-OD1	-8.44	110.70	118.30
5	B	699	GLU	CG-CD-OE1	-8.44	101.42	118.30
4	A	417	TYR	CE1-CZ-OH	8.43	142.87	120.10
4	A	1391	ARG	CG-CD-NE	8.43	129.51	111.80
5	B	461	LEU	CB-CG-CD1	-8.43	96.67	111.00
5	B	591	ARG	N-CA-C	-8.43	88.23	111.00
7	E	74	ASP	CB-CG-OD2	8.43	125.89	118.30
5	B	1201	LYS	CD-CE-NZ	8.43	131.08	111.70
6	C	42	PRO	N-CA-C	8.43	134.01	112.10
4	A	843	LYS	CA-C-N	-8.42	98.67	117.20
5	B	552	MET	CA-CB-CG	8.42	127.61	113.30
4	A	154	SER	N-CA-C	8.42	133.73	111.00
9	H	2	SER	N-CA-C	8.41	133.72	111.00
4	A	107	CYS	CA-C-N	-8.41	98.69	117.20
4	A	1274	ARG	CG-CD-NE	-8.41	94.14	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	223	VAL	N-CA-CB	-8.41	93.00	111.50
5	B	204	ILE	CB-CA-C	-8.41	94.79	111.60
4	A	737	LEU	CB-CA-C	-8.40	94.23	110.20
10	I	66	PRO	N-CA-CB	-8.40	93.22	103.30
4	A	1034	GLU	CA-CB-CG	8.40	131.88	113.40
5	B	1121	GLY	CA-C-N	8.40	135.68	117.20
6	C	19	ASP	CB-CG-OD1	-8.40	110.74	118.30
4	A	304	MET	CG-SD-CE	-8.39	86.77	100.20
4	A	702	LEU	CB-CG-CD1	8.39	125.27	111.00
4	A	920	LEU	N-CA-C	-8.39	88.33	111.00
7	E	74	ASP	CB-CG-OD1	-8.39	110.74	118.30
5	B	241	ARG	CD-NE-CZ	8.39	135.35	123.60
5	B	900	ALA	CB-CA-C	8.39	122.69	110.10
11	J	43	ARG	NE-CZ-NH2	-8.38	116.11	120.30
4	A	797	LYS	CD-CE-NZ	8.38	130.98	111.70
4	A	1368	MET	CA-CB-CG	-8.38	99.05	113.30
4	A	898	ARG	NE-CZ-NH2	8.38	124.49	120.30
5	B	1085	ILE	N-CA-CB	-8.38	91.53	110.80
10	I	38	ALA	CB-CA-C	-8.38	97.53	110.10
4	A	749	ALA	CA-C-N	-8.37	99.46	116.20
5	B	413	LEU	CA-CB-CG	-8.37	96.05	115.30
7	E	82	PHE	CB-CG-CD2	-8.36	114.94	120.80
5	B	126	SER	CB-CA-C	8.36	125.99	110.10
4	A	412	ARG	NE-CZ-NH1	8.36	124.48	120.30
5	B	749	LEU	CB-CG-CD1	8.36	125.21	111.00
5	B	330	ALA	N-CA-C	-8.36	88.43	111.00
4	A	619	LYS	CD-CE-NZ	-8.35	92.49	111.70
5	B	227	LYS	N-CA-CB	8.35	125.64	110.60
5	B	222	ILE	N-CA-C	8.35	133.55	111.00
5	B	277	LYS	CA-CB-CG	8.35	131.77	113.40
12	K	74	ARG	NE-CZ-NH2	-8.35	116.12	120.30
4	A	1135	ARG	CA-C-N	-8.35	98.83	117.20
5	B	573	GLN	CA-CB-CG	8.35	131.77	113.40
4	A	1134	ILE	CG1-CB-CG2	8.35	129.76	111.40
4	A	1391	ARG	NE-CZ-NH1	8.34	124.47	120.30
4	A	316	GLN	C-N-CA	8.34	142.54	121.70
5	B	367	LEU	CB-CG-CD1	-8.34	96.83	111.00
6	C	69	LEU	CB-CG-CD2	8.34	125.17	111.00
5	B	93	GLY	N-CA-C	-8.34	92.26	113.10
7	E	182	ASP	CB-CG-OD2	8.33	125.80	118.30
12	K	36	GLU	CG-CD-OE1	-8.32	101.65	118.30
5	B	623	GLU	OE1-CD-OE2	8.32	133.29	123.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	E	190	LEU	C-N-CA	-8.32	100.89	121.70
5	B	99	LYS	CD-CE-NZ	8.32	130.84	111.70
5	B	265	SER	C-N-CA	-8.31	100.91	121.70
5	B	1098	MET	CA-CB-CG	8.31	127.43	113.30
13	L	49	LYS	CB-CG-CD	8.31	133.22	111.60
4	A	367	PRO	O-C-N	8.31	136.00	122.70
4	A	972	HIS	CA-CB-CG	8.31	127.73	113.60
7	E	138	ALA	N-CA-C	8.31	133.44	111.00
5	B	351	TYR	CE1-CZ-OH	8.31	142.53	120.10
5	B	427	ASP	N-CA-C	-8.31	88.57	111.00
10	I	99	LEU	CA-CB-CG	-8.31	96.19	115.30
7	E	183	PRO	N-CD-CG	-8.31	90.74	103.20
5	B	231	PRO	N-CA-C	8.30	133.69	112.10
4	A	1237	ILE	CB-CA-C	-8.30	94.99	111.60
5	B	356	LEU	CB-CG-CD2	-8.30	96.89	111.00
7	E	121	MET	CG-SD-CE	8.30	113.48	100.20
9	H	110	ASP	N-CA-C	8.30	133.41	111.00
1	R	2	U	OP1-P-OP2	-8.30	107.15	119.60
5	B	654	ARG	NE-CZ-NH1	-8.30	116.15	120.30
6	C	176	ILE	CB-CA-C	-8.29	95.01	111.60
11	J	65	PRO	N-CA-CB	-8.29	93.35	103.30
13	L	39	SER	N-CA-C	-8.29	88.61	111.00
4	A	253	ASN	O-C-N	8.29	135.96	122.70
4	A	1161	THR	CA-C-N	-8.29	98.97	117.20
4	A	1152	ILE	CG1-CB-CG2	-8.29	93.17	111.40
4	A	1233	ASP	N-CA-C	-8.29	88.63	111.00
5	B	535	LEU	CB-CG-CD1	8.28	125.07	111.00
3	N	9	DC	OP1-P-O3'	8.26	123.38	105.20
4	A	237	THR	O-C-N	8.26	135.92	122.70
4	A	346	ASP	CB-CG-OD1	-8.26	110.86	118.30
10	I	2	THR	CB-CA-C	-8.26	89.29	111.60
5	B	860	MET	CG-SD-CE	8.26	113.41	100.20
5	B	935	ARG	CB-CG-CD	8.26	133.06	111.60
7	E	39	LEU	CB-CG-CD1	8.25	125.02	111.00
8	F	86	THR	CB-CA-C	-8.25	89.33	111.60
4	A	363	GLN	O-C-N	8.24	135.89	122.70
4	A	65	LEU	CB-CG-CD2	8.24	125.01	111.00
5	B	814	PHE	CB-CG-CD1	-8.24	115.03	120.80
4	A	1172	LEU	N-CA-C	8.24	133.25	111.00
10	I	25	LEU	CB-CG-CD1	8.24	125.01	111.00
4	A	5	GLN	N-CA-C	8.24	133.24	111.00
4	A	1405	THR	N-CA-C	8.24	133.24	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	J	5	VAL	CB-CA-C	-8.24	95.75	111.40
5	B	1095	LEU	CB-CG-CD2	-8.23	97.00	111.00
4	A	1015	VAL	CG1-CB-CG2	8.23	124.07	110.90
5	B	629	ASP	CB-CG-OD2	8.23	125.71	118.30
4	A	873	MET	CG-SD-CE	-8.23	87.03	100.20
4	A	971	PHE	C-N-CA	8.23	142.28	121.70
6	C	209	TYR	CA-CB-CG	8.23	129.04	113.40
5	B	384	ARG	N-CA-CB	8.23	125.41	110.60
4	A	6	TYR	N-CA-C	-8.23	88.79	111.00
4	A	778	GLY	CA-C-N	-8.23	99.10	117.20
1	R	1	A	OP2-P-O3'	8.22	123.30	105.20
4	A	1320	PRO	CB-CA-C	-8.22	91.44	112.00
5	B	471	LYS	CA-C-N	-8.22	99.11	117.20
7	E	19	VAL	CG1-CB-CG2	8.22	124.06	110.90
12	K	51	LEU	CB-CG-CD1	8.22	124.98	111.00
12	K	4	PRO	N-CD-CG	-8.22	90.87	103.20
4	A	483	ASP	N-CA-C	-8.22	88.81	111.00
9	H	37	LYS	CA-C-N	-8.22	99.12	117.20
10	I	32	CYS	O-C-N	8.21	135.84	122.70
2	T	16	DC	OP1-P-O3'	8.21	123.27	105.20
7	E	168	TYR	N-CA-CB	8.21	125.38	110.60
12	K	75	ILE	N-CA-C	8.21	133.17	111.00
7	E	17	ARG	CG-CD-NE	8.21	129.04	111.80
4	A	330	LYS	C-N-CA	-8.20	105.07	122.30
6	C	35	ARG	CA-C-N	-8.21	99.15	117.20
4	A	819	GLY	C-N-CA	-8.20	105.08	122.30
5	B	289	LEU	CB-CG-CD2	-8.20	97.06	111.00
4	A	627	GLY	CA-C-O	-8.20	105.84	120.60
5	B	1015	HIS	C-N-CA	-8.20	101.20	121.70
4	A	1144	LYS	CD-CE-NZ	8.20	130.55	111.70
4	A	1371	LEU	CA-C-N	-8.20	99.17	117.20
7	E	139	ALA	CA-C-N	-8.19	99.17	117.20
4	A	614	PHE	CB-CG-CD1	-8.19	115.06	120.80
4	A	1081	LEU	CB-CG-CD2	8.19	124.93	111.00
7	E	7	ARG	NE-CZ-NH2	-8.19	116.20	120.30
7	E	45	LYS	CB-CG-CD	8.19	132.89	111.60
2	T	17	DG	OP1-P-OP2	-8.19	107.32	119.60
4	A	249	SER	CB-CA-C	8.19	125.66	110.10
4	A	722	LEU	CB-CG-CD1	-8.18	97.09	111.00
5	B	788	ARG	N-CA-C	-8.18	88.90	111.00
6	C	4	GLU	N-CA-CB	8.18	125.33	110.60
9	H	2	SER	N-CA-CB	-8.18	98.23	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C	259	LEU	CB-CG-CD2	-8.18	97.10	111.00
4	A	200	ARG	CG-CD-NE	8.17	128.96	111.80
4	A	1339	LEU	CB-CG-CD2	-8.17	97.11	111.00
7	E	86	PRO	CA-N-CD	-8.16	100.07	111.50
9	H	139	ASN	CA-C-N	-8.16	99.24	117.20
5	B	1093	GLN	C-N-CA	-8.16	101.30	121.70
6	C	166	GLU	OE1-CD-OE2	8.16	133.09	123.30
4	A	1293	SER	CB-CA-C	-8.16	94.60	110.10
5	B	1156	ASP	CB-CG-OD2	8.16	125.64	118.30
12	K	19	LEU	CB-CG-CD1	-8.16	97.14	111.00
5	B	1135	ARG	CB-CA-C	-8.15	94.09	110.40
9	H	46	LEU	CB-CA-C	-8.15	94.71	110.20
4	A	469	ARG	NE-CZ-NH2	8.15	124.38	120.30
10	I	31	THR	N-CA-CB	8.15	125.79	110.30
4	A	688	LYS	CB-CG-CD	8.15	132.79	111.60
4	A	434	ARG	CA-C-O	8.15	137.21	120.10
7	E	196	VAL	CB-CA-C	-8.15	95.92	111.40
4	A	621	THR	CA-CB-CG2	-8.15	101.00	112.40
5	B	1135	ARG	NH1-CZ-NH2	8.15	128.36	119.40
2	T	18	DA	P-O3'-C3'	8.14	129.47	119.70
4	A	1040	GLN	O-C-N	8.14	135.73	122.70
5	B	600	LEU	CA-CB-CG	-8.14	96.58	115.30
12	K	48	ALA	CB-CA-C	-8.14	97.89	110.10
5	B	476	ARG	CD-NE-CZ	8.14	134.99	123.60
5	B	637	LEU	N-CA-CB	8.14	126.67	110.40
8	F	127	GLU	N-CA-C	-8.14	89.03	111.00
4	A	62	ASP	CB-CG-OD1	8.13	125.62	118.30
4	A	672	ASP	CB-CG-OD2	8.13	125.62	118.30
4	A	927	VAL	CA-CB-CG1	8.13	123.10	110.90
7	E	184	VAL	N-CA-C	-8.13	89.04	111.00
5	B	1128	LEU	CA-CB-CG	-8.13	96.59	115.30
10	I	82	GLU	N-CA-CB	-8.13	95.96	110.60
5	B	511	PRO	N-CA-C	8.13	133.24	112.10
7	E	17	ARG	NE-CZ-NH1	-8.13	116.23	120.30
6	C	124	LEU	CB-CG-CD1	-8.13	97.18	111.00
5	B	50	SER	N-CA-CB	8.12	122.68	110.50
5	B	944	THR	CA-C-N	-8.12	99.33	117.20
11	J	54	VAL	CA-C-N	-8.12	99.33	117.20
4	A	434	ARG	CG-CD-NE	8.12	128.84	111.80
6	C	78	GLU	CA-CB-CG	8.12	131.26	113.40
6	C	9	LYS	CB-CA-C	-8.11	94.17	110.40
4	A	984	LYS	CD-CE-NZ	8.11	130.35	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	E	172	GLU	CA-CB-CG	8.11	131.24	113.40
4	A	1008	GLN	CB-CA-C	8.11	126.61	110.40
12	K	15	GLY	O-C-N	8.11	135.68	122.70
5	B	361	LEU	CB-CG-CD2	-8.10	97.23	111.00
4	A	926	GLN	O-C-N	8.10	135.66	122.70
5	B	1144	ALA	N-CA-C	8.10	132.86	111.00
7	E	187	TYR	CB-CG-CD1	-8.10	116.14	121.00
4	A	778	GLY	O-C-N	8.09	135.64	122.70
5	B	483	LEU	CA-C-N	-8.09	99.41	117.20
5	B	956	THR	N-CA-C	8.09	132.84	111.00
6	C	183	TRP	N-CA-C	-8.09	89.16	111.00
2	T	25	DC	O4'-C1'-N1	8.09	113.66	108.00
4	A	316	GLN	CA-C-N	-8.09	99.41	117.20
6	C	60	ASP	CB-CG-OD1	8.09	125.58	118.30
5	B	739	THR	CA-CB-CG2	-8.08	101.08	112.40
5	B	1202	LEU	CA-CB-CG	-8.08	96.71	115.30
6	C	75	MET	CG-SD-CE	8.08	113.13	100.20
7	E	187	TYR	CB-CG-CD2	8.08	125.85	121.00
6	C	38	ILE	CB-CA-C	-8.08	95.44	111.60
4	A	316	GLN	CB-CA-C	8.08	126.55	110.40
5	B	999	MET	CA-CB-CG	8.08	127.03	113.30
8	F	78	GLN	CB-CA-C	8.08	126.55	110.40
5	B	265	SER	CA-C-N	8.07	134.96	117.20
5	B	604	ARG	N-CA-C	-8.07	89.20	111.00
9	H	20	TYR	CB-CG-CD2	8.07	125.84	121.00
10	I	65	ASP	CB-CA-C	8.07	126.54	110.40
12	K	82	ASP	CB-CG-OD1	8.07	125.56	118.30
4	A	944	ARG	NE-CZ-NH1	-8.07	116.27	120.30
4	A	435	HIS	N-CA-CB	-8.06	96.08	110.60
4	A	1326	ARG	C-N-CA	-8.06	101.54	121.70
6	C	210	GLU	OE1-CD-OE2	8.06	132.97	123.30
9	H	57	VAL	CB-CA-C	-8.06	96.08	111.40
5	B	1217	TYR	OH-CZ-CE2	8.06	141.86	120.10
4	A	896	ARG	CG-CD-NE	8.05	128.72	111.80
5	B	66	ASP	CB-CG-OD2	8.06	125.55	118.30
5	B	546	SER	N-CA-CB	8.05	122.58	110.50
10	I	49	ILE	N-CA-C	-8.05	89.26	111.00
4	A	399	HIS	N-CA-C	8.05	132.74	111.00
4	A	992	ASP	O-C-N	8.05	135.58	122.70
5	B	1121	GLY	CA-C-O	-8.05	106.11	120.60
11	J	60	PHE	CB-CG-CD1	-8.05	115.17	120.80
4	A	1035	TYR	O-C-N	8.05	135.58	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C	209	TYR	CE1-CZ-CE2	-8.04	106.93	119.80
7	E	204	THR	O-C-N	8.05	135.57	122.70
4	A	1102	LYS	CD-CE-NZ	8.03	130.17	111.70
4	A	1117	THR	O-C-N	8.03	135.55	122.70
12	K	90	ALA	N-CA-CB	-8.03	98.86	110.10
4	A	1006	ILE	CA-C-N	-8.03	99.53	117.20
7	E	113	GLN	CA-CB-CG	8.03	131.06	113.40
9	H	124	ARG	CB-CG-CD	8.03	132.48	111.60
5	B	274	PRO	C-N-CA	-8.03	101.64	121.70
5	B	166	PHE	CA-C-N	-8.02	99.56	117.20
4	A	627	GLY	CA-C-N	-8.02	100.16	116.20
5	B	375	ALA	CB-CA-C	-8.01	98.08	110.10
5	B	479	VAL	N-CA-C	-8.01	89.37	111.00
4	A	1029	ARG	N-CA-CB	8.01	125.01	110.60
6	C	232	VAL	CB-CA-C	8.01	126.61	111.40
9	H	146	ARG	N-CA-CB	-8.00	96.19	110.60
4	A	1107	VAL	O-C-N	8.00	135.50	122.70
4	A	405	VAL	CB-CA-C	-8.00	96.20	111.40
6	C	83	SER	CB-CA-C	8.00	125.30	110.10
7	E	131	THR	CA-C-N	-8.00	99.60	117.20
4	A	348	SER	N-CA-CB	-8.00	98.50	110.50
6	C	3	GLU	N-CA-C	8.00	132.59	111.00
4	A	1194	ARG	NE-CZ-NH1	7.99	124.30	120.30
5	B	119	LEU	CB-CG-CD1	7.99	124.58	111.00
13	L	42	ARG	NE-CZ-NH1	7.99	124.30	120.30
4	A	252	PHE	CB-CA-C	7.99	126.38	110.40
4	A	672	ASP	N-CA-CB	7.98	124.97	110.60
9	H	20	TYR	C-N-CA	-7.98	101.75	121.70
4	A	73	GLY	C-N-CA	-7.98	101.75	121.70
4	A	1310	GLY	C-N-CA	-7.98	101.75	121.70
5	B	479	VAL	CA-CB-CG1	-7.98	98.93	110.90
4	A	1288	ASP	CB-CG-OD2	7.98	125.48	118.30
5	B	199	MET	CG-SD-CE	-7.98	87.44	100.20
5	B	209	GLU	OE1-CD-OE2	7.98	132.87	123.30
2	T	13	DA	OP1-P-OP2	-7.97	107.64	119.60
13	L	61	THR	CB-CA-C	-7.97	90.07	111.60
2	T	19	DT	O5'-P-OP1	7.97	120.27	110.70
9	H	145	ARG	CB-CG-CD	7.97	132.33	111.60
5	B	724	ASP	CB-CG-OD1	-7.97	111.13	118.30
6	C	260	LEU	N-CA-C	-7.97	89.49	111.00
4	A	1299	VAL	N-CA-C	7.96	132.51	111.00
1	R	5	A	OP1-P-O3'	7.96	122.72	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	H	81	PRO	N-CA-C	-7.96	91.40	112.10
4	A	6	TYR	C-N-CA	-7.96	101.81	121.70
6	C	129	ILE	CG1-CB-CG2	-7.96	93.90	111.40
10	I	71	SER	CB-CA-C	-7.96	94.98	110.10
4	A	163	SER	N-CA-C	7.95	132.46	111.00
5	B	469	GLN	C-N-CA	7.95	141.57	121.70
8	F	73	ALA	CA-C-N	-7.95	99.72	117.20
4	A	1057	VAL	CA-CB-CG2	-7.94	98.98	110.90
4	A	1100	ARG	NE-CZ-NH1	7.94	124.27	120.30
4	A	264	PHE	CB-CA-C	-7.94	94.52	110.40
13	L	70	ARG	NE-CZ-NH2	-7.94	116.33	120.30
4	A	1329	THR	CB-CA-C	-7.94	90.17	111.60
4	A	210	ILE	CA-C-N	-7.93	99.74	117.20
6	C	133	ILE	CB-CA-C	-7.93	95.73	111.60
5	B	1004	GLU	C-N-CA	-7.93	105.64	122.30
4	A	737	LEU	CB-CG-CD1	-7.93	97.52	111.00
8	F	112	GLU	N-CA-CB	7.93	124.87	110.60
4	A	378	GLU	C-N-CA	-7.92	101.89	121.70
4	A	883	LEU	CA-CB-CG	-7.92	97.07	115.30
5	B	239	GLU	N-CA-CB	-7.92	96.34	110.60
5	B	310	MET	CG-SD-CE	-7.92	87.52	100.20
5	B	775	LYS	CD-CE-NZ	-7.92	93.48	111.70
6	C	249	ASP	N-CA-CB	-7.92	96.34	110.60
8	F	88	TYR	CB-CG-CD2	7.92	125.75	121.00
9	H	127	GLY	C-N-CA	-7.92	101.90	121.70
7	E	179	GLN	N-CA-CB	-7.92	96.35	110.60
7	E	169	ARG	NH1-CZ-NH2	7.92	128.11	119.40
4	A	866	PHE	N-CA-CB	-7.92	96.35	110.60
3	N	3	DG	OP1-P-OP2	-7.91	107.73	119.60
5	B	767	ASN	CB-CA-C	-7.91	94.57	110.40
4	A	836	TYR	CB-CG-CD1	7.91	125.75	121.00
5	B	758	PHE	N-CA-C	7.91	132.36	111.00
5	B	41	LYS	CD-CE-NZ	7.91	129.89	111.70
10	I	40	SER	CA-CB-OG	7.91	132.56	111.20
7	E	49	SER	CB-CA-C	7.91	125.13	110.10
4	A	620	LYS	CG-CD-CE	7.90	135.61	111.90
4	A	670	ILE	C-N-CA	-7.90	101.94	121.70
5	B	618	ASP	CB-CG-OD2	-7.90	111.19	118.30
5	B	372	SER	N-CA-CB	7.90	122.35	110.50
5	B	616	ILE	CB-CA-C	-7.90	95.80	111.60
10	I	25	LEU	N-CA-C	7.90	132.33	111.00
4	A	568	PRO	CA-N-CD	-7.90	100.44	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	113	TYR	CB-CG-CD1	7.90	125.74	121.00
9	H	127	GLY	O-C-N	-7.90	110.06	122.70
6	C	189	THR	CB-CA-C	-7.90	90.28	111.60
11	J	57	ILE	CG1-CB-CG2	7.90	128.77	111.40
2	T	19	DT	OP1-P-OP2	-7.89	107.76	119.60
4	A	123	ARG	CD-NE-CZ	7.89	134.65	123.60
12	K	63	VAL	CA-C-N	-7.89	99.84	117.20
5	B	1147	LEU	CA-CB-CG	-7.89	97.15	115.30
8	F	131	PRO	N-CD-CG	-7.89	91.36	103.20
4	A	323	LYS	CB-CG-CD	7.89	132.11	111.60
6	C	57	VAL	CG1-CB-CG2	7.89	123.52	110.90
5	B	983	ARG	N-CA-CB	-7.89	96.41	110.60
5	B	876	LYS	N-CA-C	-7.88	89.71	111.00
11	J	48	ARG	NE-CZ-NH1	-7.88	116.36	120.30
4	A	822	GLU	CG-CD-OE1	-7.88	102.54	118.30
5	B	819	ALA	C-N-CA	-7.88	105.75	122.30
4	A	987	VAL	CA-CB-CG1	-7.88	99.08	110.90
6	C	4	GLU	CA-CB-CG	7.88	130.73	113.40
4	A	691	LEU	CB-CG-CD1	-7.88	97.61	111.00
5	B	270	LYS	CD-CE-NZ	7.88	129.82	111.70
4	A	799	PHE	CB-CG-CD1	7.87	126.31	120.80
10	I	28	GLU	N-CA-CB	-7.87	96.43	110.60
7	E	135	PHE	C-N-CA	-7.87	102.02	121.70
4	A	990	VAL	CG1-CB-CG2	7.87	123.49	110.90
4	A	377	PRO	N-CD-CG	-7.87	91.40	103.20
4	A	585	GLY	N-CA-C	-7.87	93.44	113.10
4	A	710	LEU	CB-CA-C	-7.87	95.26	110.20
5	B	391	ASP	CB-CG-OD1	-7.87	111.22	118.30
5	B	620	ARG	NE-CZ-NH1	7.86	124.23	120.30
5	B	1135	ARG	CG-CD-NE	-7.86	95.29	111.80
13	L	60	ARG	N-CA-C	-7.86	89.77	111.00
4	A	1382	THR	CA-CB-CG2	-7.86	101.40	112.40
4	A	1242	VAL	CG1-CB-CG2	7.86	123.47	110.90
4	A	1331	SER	CA-C-N	-7.86	99.92	117.20
7	E	111	VAL	N-CA-C	7.86	132.21	111.00
4	A	1313	LEU	CA-C-N	-7.85	99.92	117.20
5	B	826	ALA	O-C-N	7.85	135.26	122.70
4	A	739	ASP	CB-CA-C	7.85	126.09	110.40
5	B	640	VAL	N-CA-C	7.85	132.19	111.00
10	I	35	VAL	CA-CB-CG1	-7.85	99.13	110.90
4	A	204	THR	N-CA-CB	-7.84	95.40	110.30
5	B	94	LYS	CB-CG-CD	7.84	131.99	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	222	ILE	CA-C-N	-7.84	99.94	117.20
4	A	389	THR	CA-CB-CG2	-7.84	101.42	112.40
8	F	79	ARG	O-C-N	7.84	135.25	122.70
4	A	89	PRO	N-CD-CG	-7.84	91.44	103.20
5	B	424	LEU	CA-CB-CG	7.84	133.33	115.30
5	B	247	GLY	N-CA-C	7.84	132.69	113.10
4	A	66	LYS	CD-CE-NZ	7.83	129.72	111.70
5	B	230	ALA	N-CA-C	7.83	132.15	111.00
4	A	95	PHE	CB-CG-CD2	-7.83	115.32	120.80
12	K	17	SER	CA-CB-OG	7.83	132.34	111.20
4	A	1100	ARG	CA-CB-CG	-7.83	96.18	113.40
5	B	332	ASP	O-C-N	7.83	135.22	122.70
2	T	23	DC	C4'-C3'-C2'	7.82	110.14	103.10
4	A	317	LYS	CA-C-N	-7.82	99.99	117.20
5	B	960	GLY	CA-C-N	-7.82	99.99	117.20
4	A	43	GLU	N-CA-C	-7.82	89.88	111.00
4	A	687	LYS	CB-CA-C	7.82	126.04	110.40
7	E	180	ARG	NH1-CZ-NH2	-7.82	110.80	119.40
13	L	65	VAL	CA-CB-CG2	7.82	122.63	110.90
4	A	864	ILE	CA-CB-CG1	-7.81	96.16	111.00
4	A	1312	ASN	N-CA-CB	7.81	124.66	110.60
11	J	52	THR	N-CA-CB	-7.81	95.45	110.30
4	A	253	ASN	N-CA-C	7.81	132.09	111.00
5	B	497	ARG	CD-NE-CZ	7.81	134.54	123.60
7	E	42	PHE	O-C-N	7.81	135.20	122.70
7	E	157	SER	CB-CA-C	-7.81	95.26	110.10
4	A	132	LYS	CD-CE-NZ	7.81	129.66	111.70
6	C	249	ASP	CB-CA-C	7.81	126.01	110.40
4	A	1270	ASN	N-CA-CB	7.81	124.65	110.60
4	A	1047	SER	N-CA-C	7.80	132.07	111.00
10	I	8	ARG	N-CA-CB	7.80	124.65	110.60
4	A	42	ASP	OD1-CG-OD2	-7.80	108.47	123.30
5	B	1094	ARG	NE-CZ-NH2	7.80	124.20	120.30
5	B	759	PRO	CA-N-CD	-7.80	100.58	111.50
4	A	694	THR	CA-CB-CG2	-7.80	101.48	112.40
5	B	546	SER	CB-CA-C	-7.80	95.28	110.10
8	F	119	ARG	CB-CG-CD	7.79	131.86	111.60
4	A	236	LEU	CA-CB-CG	-7.79	97.38	115.30
4	A	608	ILE	N-CA-C	7.79	132.04	111.00
5	B	235	SER	CB-CA-C	-7.79	95.30	110.10
10	I	73	ARG	NE-CZ-NH1	7.79	124.20	120.30
1	R	6	G	O5'-P-OP2	-7.79	98.69	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	311	GLN	CB-CG-CD	7.78	131.84	111.60
4	A	391	LEU	CA-CB-CG	7.78	133.20	115.30
9	H	109	LYS	CB-CG-CD	7.78	131.83	111.60
6	C	127	ARG	NH1-CZ-NH2	7.78	127.96	119.40
4	A	1277	GLU	CB-CG-CD	7.78	135.20	114.20
5	B	1172	ILE	CA-C-O	7.78	136.43	120.10
8	F	144	GLU	CG-CD-OE1	-7.78	102.75	118.30
5	B	1092	TYR	CG-CD2-CE2	7.78	127.52	121.30
4	A	664	THR	CB-CA-C	-7.77	90.61	111.60
5	B	325	GLN	CB-CA-C	7.77	125.95	110.40
5	B	562	GLY	N-CA-C	-7.77	93.66	113.10
7	E	44	ALA	N-CA-CB	-7.77	99.22	110.10
13	L	58	LYS	N-CA-C	7.77	131.99	111.00
5	B	418	LYS	CA-CB-CG	7.77	130.50	113.40
4	A	1370	LEU	CB-CG-CD2	7.77	124.21	111.00
5	B	348	ARG	C-N-CA	-7.77	102.28	121.70
5	B	1083	ALA	C-N-CA	-7.77	102.28	121.70
4	A	1032	LEU	CA-CB-CG	-7.77	97.44	115.30
6	C	73	GLN	C-N-CA	-7.77	102.28	121.70
6	C	266	ASP	CB-CG-OD2	7.77	125.29	118.30
5	B	564	GLU	OE1-CD-OE2	7.77	132.62	123.30
5	B	1157	ALA	C-N-CA	-7.77	102.29	121.70
10	I	20	LYS	O-C-N	7.77	135.13	122.70
12	K	77	THR	CA-C-N	-7.76	100.12	117.20
5	B	226	PHE	CB-CG-CD1	7.76	126.23	120.80
4	A	836	TYR	CZ-CE2-CD2	7.75	126.78	119.80
5	B	378	LEU	CA-CB-CG	-7.75	97.47	115.30
4	A	59	GLY	C-N-CA	-7.75	102.32	121.70
10	I	13	MET	CA-C-N	-7.75	100.15	117.20
4	A	720	ARG	N-CA-CB	7.75	124.55	110.60
5	B	471	LYS	CD-CE-NZ	7.75	129.52	111.70
4	A	399	HIS	N-CA-CB	7.74	124.53	110.60
4	A	1161	THR	O-C-N	7.74	135.09	122.70
5	B	538	ASN	N-CA-CB	-7.74	96.67	110.60
7	E	211	TYR	CB-CG-CD2	7.74	125.64	121.00
7	E	207	ARG	CA-CB-CG	7.74	130.42	113.40
4	A	279	LEU	CB-CG-CD2	7.73	124.15	111.00
4	A	596	THR	CB-CA-C	-7.73	90.72	111.60
5	B	722	ASP	CB-CG-OD1	-7.73	111.35	118.30
4	A	925	LEU	CB-CG-CD1	-7.72	97.87	111.00
4	A	1331	SER	N-CA-CB	7.72	122.09	110.50
7	E	34	GLU	N-CA-CB	-7.72	96.70	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	3	GLY	CA-C-N	-7.72	100.21	117.20
4	A	606	LEU	C-N-CA	-7.72	102.40	121.70
7	E	180	ARG	NE-CZ-NH2	7.72	124.16	120.30
5	B	884	ARG	N-CA-C	-7.72	90.16	111.00
5	B	1153	GLU	CB-CA-C	7.72	125.84	110.40
4	A	101	LYS	CA-CB-CG	7.72	130.38	113.40
8	F	134	ILE	CB-CA-C	-7.71	96.17	111.60
4	A	665	GLY	C-N-CA	-7.71	102.42	121.70
4	A	1313	LEU	CB-CG-CD1	-7.71	97.90	111.00
5	B	595	ARG	CG-CD-NE	7.71	127.98	111.80
4	A	1281	ARG	N-CA-CB	7.70	124.47	110.60
4	A	1077	THR	CA-CB-CG2	-7.70	101.62	112.40
7	E	131	THR	O-C-N	7.70	135.02	122.70
7	E	140	LEU	CB-CG-CD1	7.70	124.09	111.00
5	B	806	THR	N-CA-C	-7.70	90.22	111.00
5	B	1191	ILE	N-CA-C	7.70	131.78	111.00
10	I	9	ASP	CA-C-N	7.70	134.13	117.20
4	A	420	ARG	NE-CZ-NH2	-7.69	116.45	120.30
5	B	367	LEU	CB-CA-C	7.69	124.81	110.20
4	A	344	ARG	NE-CZ-NH2	-7.69	116.46	120.30
4	A	438	ASP	CB-CG-OD2	-7.69	111.38	118.30
4	A	784	LEU	CB-CG-CD2	-7.69	97.93	111.00
5	B	229	ALA	N-CA-CB	-7.69	99.34	110.10
4	A	719	VAL	CB-CA-C	-7.68	96.80	111.40
4	A	995	GLU	CB-CA-C	7.68	125.77	110.40
4	A	1136	SER	CA-C-N	-7.68	100.29	117.20
7	E	26	ARG	CA-C-N	-7.68	100.83	116.20
4	A	553	VAL	CB-CA-C	-7.68	96.80	111.40
5	B	732	SER	CA-C-N	-7.68	100.30	117.20
7	E	164	LEU	CA-CB-CG	-7.68	97.63	115.30
11	J	60	PHE	CB-CG-CD2	7.68	126.17	120.80
5	B	69	LEU	CA-C-O	7.68	136.22	120.10
5	B	68	THR	N-CA-C	7.67	131.72	111.00
8	F	109	VAL	N-CA-C	-7.67	90.28	111.00
10	I	45	ARG	CG-CD-NE	-7.67	95.69	111.80
4	A	1337	GLU	CA-CB-CG	7.67	130.28	113.40
6	C	47	ASP	CB-CG-OD2	7.67	125.20	118.30
6	C	148	ARG	NE-CZ-NH2	-7.67	116.47	120.30
6	C	181	ASP	CB-CG-OD1	-7.67	111.39	118.30
4	A	1223	ASP	CB-CA-C	7.67	125.74	110.40
5	B	646	LEU	CB-CG-CD1	7.67	124.03	111.00
9	H	62	SER	O-C-N	7.67	134.97	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	976	ILE	C-N-CA	-7.67	106.20	122.30
13	L	44	ASP	OD1-CG-OD2	-7.66	108.75	123.30
5	B	620	ARG	CD-NE-CZ	7.66	134.32	123.60
9	H	52	GLN	CB-CA-C	7.66	125.72	110.40
4	A	135	PHE	CB-CG-CD1	7.66	126.16	120.80
5	B	889	THR	CB-CA-C	-7.66	90.93	111.60
4	A	713	SER	N-CA-CB	-7.65	99.02	110.50
4	A	252	PHE	CA-C-N	-7.65	100.37	117.20
5	B	1221	SER	CA-C-N	-7.65	100.37	117.20
6	C	150	GLY	N-CA-C	7.65	132.23	113.10
7	E	180	ARG	CD-NE-CZ	7.65	134.31	123.60
5	B	326	ASP	CB-CA-C	-7.65	95.10	110.40
7	E	85	GLU	CA-CB-CG	7.65	130.22	113.40
4	A	578	LEU	CB-CA-C	7.64	124.72	110.20
10	I	26	LEU	CA-CB-CG	-7.64	97.72	115.30
10	I	16	PRO	N-CD-CG	-7.64	91.74	103.20
4	A	1443	VAL	C-N-CA	7.64	140.79	121.70
5	B	483	LEU	N-CA-C	-7.64	90.38	111.00
11	J	5	VAL	CG1-CB-CG2	7.64	123.12	110.90
5	B	398	ARG	CD-NE-CZ	7.63	134.29	123.60
7	E	37	LEU	CB-CG-CD2	7.63	123.98	111.00
5	B	1069	PHE	CA-C-N	-7.63	100.41	117.20
5	B	107	GLY	O-C-N	7.63	134.91	122.70
4	A	528	LEU	CB-CG-CD1	-7.63	98.03	111.00
4	A	677	ARG	NE-CZ-NH2	7.63	124.11	120.30
5	B	632	ARG	CA-CB-CG	7.63	130.18	113.40
5	B	470	LYS	C-N-CA	7.62	140.76	121.70
5	B	795	ILE	CB-CA-C	-7.62	96.35	111.60
7	E	186	LEU	CA-CB-CG	-7.62	97.77	115.30
4	A	1437	GLY	CA-C-O	7.62	134.32	120.60
4	A	1081	LEU	CA-CB-CG	7.62	132.82	115.30
4	A	988	LEU	CB-CA-C	-7.62	95.73	110.20
9	H	130	ARG	N-CA-CB	-7.62	96.89	110.60
5	B	837	ASP	CB-CG-OD2	7.61	125.15	118.30
4	A	533	LYS	N-CA-CB	7.61	124.30	110.60
1	R	2	U	O5'-P-OP2	-7.61	98.85	105.70
4	A	1133	LEU	CB-CG-CD1	-7.61	98.06	111.00
5	B	609	ILE	CB-CA-C	-7.61	96.38	111.60
13	L	44	ASP	N-CA-CB	7.61	124.30	110.60
4	A	117	GLU	CA-C-N	-7.61	100.46	117.20
4	A	294	SER	CB-CA-C	7.61	124.56	110.10
11	J	22	LEU	CB-CG-CD1	-7.61	98.07	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1161	HIS	N-CA-CB	7.60	124.29	110.60
11	J	2	ILE	N-CA-C	7.60	131.53	111.00
7	E	45	LYS	CD-CE-NZ	7.60	129.18	111.70
11	J	51	LEU	CB-CA-C	7.60	124.64	110.20
4	A	1342	GLU	OE1-CD-OE2	7.60	132.42	123.30
4	A	274	ILE	CA-C-N	7.60	133.92	117.20
5	B	348	ARG	NE-CZ-NH1	7.60	124.10	120.30
5	B	397	ASP	C-N-CA	-7.60	102.70	121.70
5	B	637	LEU	C-N-CA	-7.60	102.70	121.70
5	B	585	VAL	CA-CB-CG2	-7.60	99.50	110.90
5	B	856	PHE	CB-CA-C	-7.60	95.20	110.40
11	J	62	ARG	NE-CZ-NH1	-7.60	116.50	120.30
9	H	114	VAL	N-CA-CB	7.60	128.21	111.50
4	A	982	THR	N-CA-CB	-7.59	95.87	110.30
10	I	8	ARG	O-C-N	-7.59	110.55	122.70
5	B	231	PRO	CA-CB-CG	-7.59	89.58	104.00
5	B	747	MET	C-N-CA	-7.59	102.73	121.70
5	B	587	HIS	N-CA-CB	7.59	124.26	110.60
8	F	91	ALA	N-CA-CB	-7.59	99.48	110.10
6	C	117	ASP	C-N-CA	-7.58	102.74	121.70
4	A	1380	GLY	CA-C-N	-7.58	100.52	117.20
6	C	66	ARG	CA-CB-CG	-7.58	96.72	113.40
4	A	66	LYS	CA-C-N	-7.58	100.53	117.20
6	C	165	LYS	CB-CG-CD	7.58	131.31	111.60
4	A	269	ILE	C-N-CA	-7.58	102.76	121.70
4	A	527	THR	N-CA-CB	7.58	124.69	110.30
4	A	896	ARG	NE-CZ-NH1	7.57	124.09	120.30
5	B	90	ILE	N-CA-C	7.57	131.45	111.00
6	C	172	PRO	N-CA-C	-7.57	92.41	112.10
8	F	79	ARG	NE-CZ-NH1	7.57	124.09	120.30
5	B	552	MET	CG-SD-CE	7.57	112.31	100.20
4	A	33	ALA	C-N-CA	-7.57	102.78	121.70
5	B	549	THR	CA-C-N	-7.57	100.55	117.20
6	C	151	GLN	C-N-CA	-7.57	102.78	121.70
5	B	477	ALA	O-C-N	-7.56	110.34	123.20
5	B	996	ARG	CG-CD-NE	7.56	127.68	111.80
4	A	664	THR	CA-CB-CG2	-7.56	101.82	112.40
5	B	111	ALA	CB-CA-C	-7.56	98.76	110.10
5	B	520	GLY	C-N-CA	-7.56	102.80	121.70
4	A	1173	HIS	C-N-CA	7.56	140.59	121.70
4	A	664	THR	OG1-CB-CG2	7.56	127.38	110.00
4	A	1434	ALA	N-CA-C	7.56	131.40	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	H	82	PRO	N-CD-CG	-7.56	91.87	103.20
13	L	52	GLY	C-N-CA	-7.56	102.81	121.70
4	A	1136	SER	N-CA-CB	-7.55	99.17	110.50
6	C	202	PRO	N-CD-CG	-7.55	91.87	103.20
4	A	369	SER	CB-CA-C	-7.54	95.76	110.10
4	A	1165	GLU	CA-CB-CG	7.54	129.99	113.40
7	E	141	VAL	CG1-CB-CG2	7.54	122.97	110.90
4	A	561	PRO	CA-C-N	-7.54	100.62	117.20
4	A	1285	MET	N-CA-C	-7.53	90.66	111.00
4	A	120	GLU	N-CA-C	7.53	131.33	111.00
7	E	44	ALA	N-CA-C	-7.53	90.67	111.00
6	C	131	HIS	CB-CA-C	-7.53	95.34	110.40
4	A	1056	SER	CB-CA-C	7.53	124.40	110.10
4	A	1318	THR	CA-CB-CG2	-7.53	101.86	112.40
5	B	731	VAL	C-N-CA	-7.53	102.88	121.70
7	E	119	SER	CA-CB-OG	7.53	131.52	111.20
4	A	905	ASP	CB-CA-C	7.53	125.45	110.40
6	C	30	ALA	N-CA-CB	-7.53	99.56	110.10
4	A	440	ASP	CB-CG-OD1	-7.52	111.53	118.30
4	A	384	ASN	N-CA-C	7.52	131.29	111.00
5	B	380	TYR	CD1-CE1-CZ	-7.52	113.03	119.80
4	A	1299	VAL	CG1-CB-CG2	7.51	122.92	110.90
5	B	1092	TYR	CE1-CZ-OH	7.51	140.38	120.10
5	B	1113	VAL	CG1-CB-CG2	7.51	122.92	110.90
6	C	243	VAL	C-N-CA	-7.51	102.92	121.70
9	H	101	ALA	N-CA-CB	7.51	120.61	110.10
11	J	24	LEU	C-N-CA	-7.51	102.92	121.70
4	A	901	LEU	CA-CB-CG	-7.51	98.03	115.30
12	K	36	GLU	OE1-CD-OE2	7.51	132.31	123.30
5	B	43	LEU	CA-CB-CG	-7.51	98.04	115.30
4	A	1333	ILE	N-CA-CB	-7.50	93.54	110.80
4	A	1285	MET	CA-C-N	-7.50	100.70	117.20
4	A	1438	THR	OG1-CB-CG2	7.50	127.25	110.00
12	K	31	VAL	CG1-CB-CG2	7.50	122.90	110.90
4	A	1127	ASP	N-CA-CB	7.50	124.09	110.60
9	H	129	TYR	N-CA-CB	-7.50	97.11	110.60
4	A	112	LYS	N-CA-C	-7.49	90.77	111.00
6	C	7	GLN	CB-CA-C	-7.49	95.41	110.40
6	C	159	ALA	CB-CA-C	-7.49	98.86	110.10
5	B	635	ARG	CB-CG-CD	7.49	131.08	111.60
5	B	948	ILE	C-N-CA	-7.49	102.97	121.70
4	A	763	ALA	N-CA-CB	-7.49	99.62	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	667	GLN	CB-CG-CD	7.49	131.07	111.60
4	A	780	VAL	N-CA-C	7.49	131.21	111.00
12	K	38	GLU	CG-CD-OE2	7.49	133.27	118.30
4	A	1407	GLU	N-CA-CB	-7.48	97.14	110.60
4	A	1284	MET	CB-CG-SD	-7.47	89.98	112.40
6	C	155	LEU	CB-CG-CD1	7.47	123.70	111.00
6	C	119	VAL	N-CA-CB	-7.47	95.07	111.50
4	A	972	HIS	CB-CA-C	7.47	125.33	110.40
5	B	1220	ARG	NH1-CZ-NH2	-7.47	111.19	119.40
5	B	498	THR	CB-CA-C	-7.47	91.44	111.60
11	J	22	LEU	CB-CG-CD2	7.46	123.69	111.00
5	B	109	THR	CB-CA-C	7.46	131.75	111.60
5	B	900	ALA	N-CA-CB	-7.46	99.65	110.10
9	H	84	ALA	N-CA-CB	-7.46	99.65	110.10
4	A	1173	HIS	O-C-N	7.46	134.64	122.70
4	A	1205	LYS	CD-CE-NZ	7.46	128.86	111.70
5	B	298	LEU	CB-CG-CD2	7.46	123.69	111.00
7	E	103	LYS	CD-CE-NZ	-7.46	94.54	111.70
4	A	1017	LEU	CA-CB-CG	-7.46	98.14	115.30
5	B	581	PHE	N-CA-C	7.46	131.13	111.00
13	L	66	GLN	CB-CA-C	7.46	125.32	110.40
2	T	23	DC	C2-N1-C1'	-7.46	110.60	118.80
5	B	1213	THR	CA-CB-CG2	-7.46	101.96	112.40
5	B	131	ASP	OD1-CG-OD2	-7.45	109.14	123.30
5	B	1166	CYS	N-CA-CB	-7.45	97.19	110.60
4	A	941	LYS	N-CA-CB	7.45	124.01	110.60
5	B	209	GLU	O-C-N	-7.45	110.78	122.70
5	B	416	LEU	CB-CA-C	-7.45	96.05	110.20
4	A	1111	MET	CG-SD-CE	-7.45	88.29	100.20
12	K	70	ARG	NE-CZ-NH2	7.45	124.02	120.30
4	A	22	PHE	N-CA-C	7.44	131.10	111.00
5	B	623	GLU	CA-CB-CG	-7.44	97.02	113.40
6	C	89	GLU	N-CA-C	-7.44	90.91	111.00
5	B	1172	ILE	N-CA-CB	-7.44	93.69	110.80
4	A	1035	TYR	CA-CB-CG	7.43	127.52	113.40
11	J	34	THR	OG1-CB-CG2	-7.43	92.91	110.00
4	A	569	LYS	N-CA-C	-7.43	90.95	111.00
3	N	10	DG	O5'-P-OP1	-7.42	99.02	105.70
5	B	533	CYS	CA-CB-SG	-7.42	100.63	114.00
4	A	1275	GLY	N-CA-C	-7.42	94.54	113.10
5	B	351	TYR	OH-CZ-CE2	-7.42	100.06	120.10
5	B	451	LYS	CD-CE-NZ	7.42	128.77	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1127	ASP	N-CA-C	-7.42	90.96	111.00
5	B	1221	SER	N-CA-C	7.42	131.04	111.00
7	E	211	TYR	CD1-CE1-CZ	7.42	126.48	119.80
4	A	902	LEU	CB-CA-C	7.42	124.30	110.20
4	A	1166	ASP	CB-CG-OD1	-7.42	111.62	118.30
5	B	164	LYS	CA-CB-CG	7.42	129.72	113.40
4	A	576	GLN	C-N-CA	-7.42	103.16	121.70
5	B	128	LEU	N-CA-CB	-7.42	95.57	110.40
5	B	69	LEU	N-CA-CB	-7.42	95.57	110.40
5	B	681	TRP	CB-CA-C	-7.42	95.57	110.40
5	B	61	ASP	C-N-CA	-7.41	103.18	121.70
7	E	139	ALA	O-C-N	7.41	134.55	122.70
6	C	137	LYS	N-CA-CB	7.41	123.93	110.60
5	B	589	VAL	N-CA-CB	-7.41	95.21	111.50
7	E	158	SER	CA-CB-OG	7.41	131.19	111.20
9	H	80	ARG	CB-CG-CD	7.41	130.86	111.60
4	A	532	ARG	CD-NE-CZ	7.40	133.97	123.60
5	B	879	ARG	O-C-N	7.40	134.53	122.70
6	C	173	ALA	N-CA-C	7.40	130.97	111.00
5	B	1012	ILE	CB-CA-C	-7.39	96.81	111.60
6	C	125	MET	CG-SD-CE	7.39	112.03	100.20
4	A	1242	VAL	CB-CA-C	-7.39	97.35	111.40
4	A	1332	PHE	CD1-CE1-CZ	-7.39	111.23	120.10
4	A	461	LYS	CA-CB-CG	7.39	129.66	113.40
6	C	109	SER	N-CA-CB	-7.39	99.42	110.50
7	E	177	ARG	CA-CB-CG	-7.39	97.14	113.40
12	K	18	LYS	CD-CE-NZ	7.39	128.69	111.70
5	B	372	SER	CA-CB-OG	7.39	131.14	111.20
4	A	417	TYR	CB-CG-CD1	7.38	125.43	121.00
5	B	644	GLU	N-CA-C	7.38	130.94	111.00
12	K	19	LEU	CB-CG-CD2	7.38	123.55	111.00
5	B	646	LEU	CD1-CG-CD2	-7.38	88.36	110.50
4	A	693	VAL	CG1-CB-CG2	-7.38	99.10	110.90
4	A	755	PHE	CA-C-N	-7.38	100.97	117.20
5	B	212	LEU	CA-CB-CG	-7.38	98.33	115.30
8	F	123	LYS	C-N-CA	-7.38	103.26	121.70
4	A	961	ARG	CD-NE-CZ	7.38	133.93	123.60
4	A	1172	LEU	CA-C-O	-7.37	104.61	120.10
5	B	51	PHE	CB-CG-CD1	-7.37	115.64	120.80
5	B	166	PHE	C-N-CA	7.37	140.13	121.70
4	A	16	GLU	CB-CA-C	-7.37	95.66	110.40
4	A	806	ARG	CA-C-N	-7.37	101.45	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	454	THR	OG1-CB-CG2	-7.37	93.05	110.00
5	B	788	ARG	NE-CZ-NH1	7.37	123.98	120.30
6	C	66	ARG	NE-CZ-NH2	-7.37	116.61	120.30
5	B	266	ALA	CA-C-N	-7.37	100.99	117.20
5	B	861	ASP	CB-CG-OD2	7.37	124.93	118.30
5	B	236	HIS	N-CA-C	-7.37	91.11	111.00
5	B	798	TYR	CB-CG-CD1	-7.36	116.58	121.00
5	B	209	GLU	CA-C-N	7.36	133.39	117.20
8	F	90	ARG	CG-CD-NE	-7.36	96.35	111.80
12	K	76	GLN	CA-C-N	-7.36	101.01	117.20
6	C	3	GLU	CA-C-N	7.36	133.38	117.20
7	E	202	SER	CB-CA-C	-7.35	96.13	110.10
10	I	29	CYS	N-CA-C	7.35	130.85	111.00
5	B	894	ASP	CB-CG-OD2	-7.35	111.68	118.30
4	A	1209	MET	CA-C-N	-7.35	101.50	116.20
4	A	833	GLU	N-CA-C	-7.35	91.16	111.00
4	A	1146	VAL	CG1-CB-CG2	7.35	122.66	110.90
2	T	22	DT	O5'-P-OP2	-7.35	99.09	105.70
5	B	1097	HIS	N-CA-CB	7.35	123.82	110.60
6	C	179	GLU	OE1-CD-OE2	-7.35	114.48	123.30
4	A	1391	ARG	C-N-CA	-7.34	103.34	121.70
6	C	210	GLU	CG-CD-OE2	-7.34	103.61	118.30
5	B	331	LEU	CA-CB-CG	-7.34	98.41	115.30
5	B	848	ARG	NE-CZ-NH1	-7.34	116.63	120.30
6	C	187	LYS	CB-CA-C	7.34	125.08	110.40
9	H	85	GLY	O-C-N	7.34	134.45	122.70
5	B	980	PHE	C-N-CA	-7.34	103.35	121.70
7	E	211	TYR	CB-CG-CD1	-7.34	116.60	121.00
9	H	43	ASN	N-CA-C	7.34	130.81	111.00
5	B	1098	MET	C-N-CA	-7.33	103.37	121.70
6	C	99	LEU	CB-CG-CD2	7.33	123.46	111.00
5	B	214	ALA	CB-CA-C	-7.33	99.11	110.10
9	H	40	LEU	CB-CA-C	-7.33	96.27	110.20
4	A	824	LEU	CB-CG-CD2	-7.33	98.54	111.00
5	B	475	SER	CA-C-N	-7.33	101.08	117.20
4	A	609	ASP	N-CA-C	-7.33	91.22	111.00
5	B	69	LEU	C-N-CA	7.33	140.02	121.70
5	B	539	LEU	CA-C-N	-7.32	101.09	117.20
5	B	39	ARG	CB-CA-C	-7.32	95.76	110.40
4	A	710	LEU	CB-CG-CD2	-7.32	98.56	111.00
13	L	57	LEU	CB-CG-CD2	-7.32	98.56	111.00
4	A	1038	THR	N-CA-CB	7.32	124.20	110.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	698	GLU	CG-CD-OE1	7.32	132.93	118.30
6	C	69	LEU	CB-CG-CD1	-7.31	98.57	111.00
9	H	121	LEU	CA-CB-CG	-7.31	98.48	115.30
4	A	115	LEU	CA-CB-CG	7.31	132.12	115.30
5	B	132	VAL	CA-C-O	-7.31	104.75	120.10
5	B	1093	GLN	N-CA-C	7.31	130.74	111.00
7	E	58	MET	O-C-N	7.31	134.40	122.70
4	A	1403	GLU	CA-C-N	7.31	133.28	117.20
4	A	330	LYS	CB-CA-C	-7.31	95.79	110.40
5	B	1209	ALA	CB-CA-C	7.31	121.06	110.10
4	A	995	GLU	CG-CD-OE2	-7.30	103.69	118.30
9	H	91	ASP	N-CA-C	7.30	130.72	111.00
7	E	62	ALA	O-C-N	7.30	134.38	122.70
9	H	112	ILE	CA-CB-CG2	7.30	125.50	110.90
9	H	116	TYR	OH-CZ-CE2	-7.30	100.38	120.10
4	A	1202	MET	CG-SD-CE	7.30	111.88	100.20
5	B	659	ALA	CB-CA-C	7.30	121.05	110.10
5	B	747	MET	CG-SD-CE	-7.30	88.53	100.20
6	C	220	ASP	CB-CG-OD1	7.30	124.87	118.30
4	A	844	ALA	CA-C-N	7.29	133.24	117.20
4	A	902	LEU	CB-CG-CD2	7.29	123.39	111.00
4	A	1221	LYS	CB-CG-CD	7.29	130.56	111.60
5	B	643	ASP	CB-CG-OD2	7.29	124.86	118.30
7	E	190	LEU	CA-CB-CG	-7.29	98.53	115.30
8	F	146	TRP	N-CA-C	7.29	130.69	111.00
11	J	53	HIS	CB-CA-C	-7.29	95.82	110.40
5	B	223	VAL	CA-CB-CG1	7.29	121.83	110.90
5	B	476	ARG	NE-CZ-NH1	7.29	123.94	120.30
12	K	27	ALA	N-CA-CB	-7.29	99.90	110.10
5	B	940	PRO	CB-CA-C	-7.28	93.79	112.00
4	A	532	ARG	NH1-CZ-NH2	-7.28	111.39	119.40
5	B	454	THR	N-CA-CB	7.28	124.13	110.30
5	B	638	PHE	CB-CA-C	-7.28	95.84	110.40
8	F	123	LYS	O-C-N	-7.28	111.05	122.70
4	A	323	LYS	CA-CB-CG	7.28	129.41	113.40
5	B	633	VAL	C-N-CA	-7.28	103.51	121.70
5	B	1193	GLN	N-CA-C	-7.28	91.35	111.00
5	B	90	ILE	C-N-CA	-7.28	103.51	121.70
5	B	229	ALA	CB-CA-C	-7.28	99.19	110.10
5	B	368	GLU	OE1-CD-OE2	-7.28	114.57	123.30
5	B	976	ILE	CG1-CB-CG2	-7.28	95.39	111.40
5	B	1089	PRO	N-CA-C	-7.28	93.19	112.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1289	ARG	C-N-CA	7.27	139.88	121.70
5	B	549	THR	CA-CB-CG2	7.27	122.58	112.40
5	B	723	VAL	N-CA-C	7.27	130.63	111.00
5	B	1210	MET	CG-SD-CE	-7.27	88.56	100.20
7	E	21	GLU	CG-CD-OE2	-7.27	103.75	118.30
5	B	1181	GLU	N-CA-C	7.27	130.63	111.00
4	A	337	ARG	CB-CG-CD	7.27	130.50	111.60
7	E	11	ARG	NE-CZ-NH2	7.27	123.94	120.30
4	A	17	VAL	CA-CB-CG1	7.26	121.80	110.90
4	A	152	VAL	CB-CA-C	-7.26	97.60	111.40
4	A	144	THR	N-CA-CB	7.26	124.10	110.30
10	I	9	ASP	O-C-N	-7.26	111.08	122.70
4	A	359	LEU	CB-CA-C	7.26	123.99	110.20
5	B	1092	TYR	CG-CD1-CE1	-7.26	115.49	121.30
5	B	392	ARG	NE-CZ-NH1	7.26	123.93	120.30
10	I	18	GLU	N-CA-C	7.26	130.59	111.00
4	A	734	GLU	OE1-CD-OE2	7.25	132.00	123.30
11	J	24	LEU	CB-CA-C	-7.25	96.42	110.20
4	A	722	LEU	C-N-CA	-7.25	103.57	121.70
4	A	988	LEU	CA-CB-CG	-7.25	98.62	115.30
4	A	1067	LEU	CB-CG-CD1	7.25	123.33	111.00
5	B	283	VAL	C-N-CA	-7.25	103.57	121.70
5	B	304	ASP	C-N-CA	-7.25	103.57	121.70
4	A	59	GLY	O-C-N	-7.25	111.10	122.70
6	C	31	ASN	CB-CA-C	-7.25	95.90	110.40
4	A	223	GLY	N-CA-C	7.25	131.22	113.10
4	A	486	GLU	CA-CB-CG	7.25	129.34	113.40
13	L	34	CYS	CA-CB-SG	-7.25	100.96	114.00
4	A	261	ASP	N-CA-CB	-7.24	97.56	110.60
13	L	68	GLU	C-N-CA	-7.24	103.59	121.70
4	A	988	LEU	CB-CG-CD1	-7.24	98.69	111.00
4	A	1277	GLU	CA-CB-CG	7.24	129.32	113.40
5	B	1007	VAL	CB-CA-C	-7.24	97.65	111.40
10	I	91	ARG	CB-CA-C	7.24	124.88	110.40
4	A	255	SER	N-CA-CB	7.23	121.35	110.50
5	B	360	PHE	N-CA-C	-7.23	91.47	111.00
5	B	877	PRO	N-CA-C	7.23	130.90	112.10
8	F	131	PRO	O-C-N	7.23	134.27	122.70
12	K	57	LEU	CA-C-N	-7.23	101.29	117.20
6	C	42	PRO	N-CD-CG	-7.23	92.36	103.20
5	B	356	LEU	CA-CB-CG	-7.23	98.67	115.30
11	J	56	LEU	CA-CB-CG	7.23	131.93	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	265	LYS	C-N-CA	-7.23	103.64	121.70
7	E	202	SER	N-CA-C	7.22	130.51	111.00
4	A	1049	ILE	CB-CA-C	-7.22	97.16	111.60
4	A	1239	ARG	CB-CG-CD	7.22	130.38	111.60
9	H	145	ARG	N-CA-C	7.22	130.50	111.00
5	B	612	GLU	OE1-CD-OE2	7.22	131.96	123.30
4	A	217	LYS	CD-CE-NZ	7.21	128.29	111.70
4	A	691	LEU	CB-CG-CD2	7.21	123.26	111.00
8	F	76	LYS	CA-CB-CG	7.21	129.27	113.40
4	A	556	TRP	CB-CG-CD2	7.21	135.97	126.60
5	B	91	SER	C-N-CA	-7.21	103.67	121.70
9	H	16	ASP	CB-CG-OD2	7.21	124.79	118.30
4	A	78	PRO	C-N-CA	-7.21	107.16	122.30
4	A	321	PRO	CA-C-N	7.21	133.06	117.20
4	A	1420	ASP	CB-CG-OD2	7.21	124.79	118.30
6	C	165	LYS	N-CA-CB	7.21	123.58	110.60
4	A	265	LYS	CG-CD-CE	7.21	133.52	111.90
5	B	785	TYR	CB-CA-C	-7.21	95.99	110.40
10	I	34	TYR	CD1-CE1-CZ	7.21	126.29	119.80
10	I	91	ARG	NH1-CZ-NH2	-7.21	111.47	119.40
12	K	64	GLU	OE1-CD-OE2	7.21	131.95	123.30
4	A	376	TYR	CB-CG-CD1	7.20	125.32	121.00
4	A	932	GLU	CB-CA-C	-7.20	96.00	110.40
5	B	937	ALA	C-N-CA	-7.20	103.70	121.70
9	H	55	LEU	CA-CB-CG	7.20	131.85	115.30
12	K	111	LEU	CB-CG-CD2	7.20	123.23	111.00
4	A	864	ILE	O-C-N	7.19	134.21	122.70
10	I	40	SER	CB-CA-C	7.19	123.77	110.10
4	A	1328	TYR	CA-C-N	-7.19	101.38	117.20
5	B	935	ARG	CD-NE-CZ	7.19	133.67	123.60
5	B	1014	PRO	CA-CB-CG	-7.19	90.33	104.00
7	E	132	ILE	C-N-CA	-7.19	103.72	121.70
10	I	3	THR	CB-CA-C	-7.19	92.18	111.60
4	A	234	MET	CG-SD-CE	-7.19	88.69	100.20
4	A	1280	GLU	CA-C-N	7.19	133.01	117.20
4	A	566	ILE	CG1-CB-CG2	-7.18	95.59	111.40
4	A	1039	LYS	C-N-CA	-7.18	103.75	121.70
9	H	16	ASP	N-CA-C	7.18	130.40	111.00
4	A	992	ASP	CB-CA-C	-7.18	96.04	110.40
5	B	495	LEU	CB-CG-CD2	-7.18	98.79	111.00
9	H	104	PHE	CB-CG-CD2	-7.18	115.77	120.80
10	I	42	LEU	C-N-CA	-7.18	103.75	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	757	PRO	N-CA-CB	-7.18	94.68	103.30
6	C	55	THR	CB-CA-C	-7.18	92.21	111.60
4	A	355	GLY	CA-C-O	-7.18	107.68	120.60
4	A	1017	LEU	CD1-CG-CD2	-7.18	88.97	110.50
10	I	32	CYS	CB-CA-C	7.17	124.75	110.40
2	T	12	DC	P-O3'-C3'	7.17	128.31	119.70
5	B	964	VAL	CA-CB-CG2	7.17	121.65	110.90
8	F	125	LEU	CB-CG-CD1	-7.17	98.81	111.00
10	I	77	LYS	N-CA-CB	7.17	123.51	110.60
5	B	22	SER	N-CA-CB	-7.17	99.75	110.50
4	A	840	ARG	CD-NE-CZ	7.17	133.63	123.60
7	E	207	ARG	CG-CD-NE	7.17	126.85	111.80
4	A	850	VAL	CA-CB-CG1	-7.17	100.15	110.90
9	H	133	ASN	N-CA-C	7.16	130.34	111.00
5	B	620	ARG	CB-CA-C	7.16	124.72	110.40
5	B	1104	HIS	N-CA-CB	-7.16	97.71	110.60
5	B	872	GLU	C-N-CA	-7.16	103.80	121.70
2	T	18	DA	OP1-P-O3'	7.16	120.94	105.20
5	B	323	VAL	CB-CA-C	-7.16	97.80	111.40
7	E	175	LEU	CB-CG-CD2	7.16	123.17	111.00
6	C	256	ALA	N-CA-C	7.16	130.32	111.00
5	B	629	ASP	C-N-CA	-7.15	103.81	121.70
4	A	1335	ILE	C-N-CA	-7.15	103.82	121.70
5	B	967	ARG	CA-CB-CG	7.15	129.12	113.40
9	H	52	GLN	N-CA-C	-7.15	91.70	111.00
5	B	25	ILE	CG1-CB-CG2	-7.15	95.68	111.40
9	H	84	ALA	CA-C-N	-7.15	101.91	116.20
4	A	527	THR	CB-CA-C	-7.14	92.31	111.60
5	B	1147	LEU	CB-CG-CD1	7.14	123.14	111.00
9	H	36	CYS	N-CA-C	7.14	130.29	111.00
4	A	218	ASP	CB-CG-OD1	7.14	124.73	118.30
4	A	1283	VAL	CG1-CB-CG2	7.14	122.32	110.90
5	B	277	LYS	CB-CG-CD	7.14	130.16	111.60
4	A	117	GLU	O-C-N	7.14	134.12	122.70
4	A	354	SER	C-N-CA	-7.14	107.31	122.30
5	B	986	GLN	CB-CA-C	7.14	124.67	110.40
6	C	90	ASP	N-CA-C	7.14	130.27	111.00
7	E	128	PRO	N-CD-CG	-7.14	92.50	103.20
13	L	25	ALA	C-N-CA	7.14	139.54	121.70
4	A	927	VAL	CB-CA-C	-7.13	97.84	111.40
11	J	28	ASP	CB-CG-OD1	-7.13	111.88	118.30
5	B	730	ARG	CG-CD-NE	7.13	126.78	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	H	127	GLY	CA-C-N	7.13	132.89	117.20
4	A	639	PRO	C-N-CA	-7.13	103.87	121.70
4	A	908	LEU	CA-CB-CG	7.13	131.70	115.30
7	E	45	LYS	CA-CB-CG	7.13	129.08	113.40
5	B	274	PRO	CA-N-CD	-7.13	101.52	111.50
5	B	655	LYS	CD-CE-NZ	7.12	128.09	111.70
4	A	995	GLU	N-CA-CB	-7.12	97.78	110.60
4	A	1399	ARG	NE-CZ-NH2	-7.12	116.74	120.30
12	K	84	LYS	CD-CE-NZ	7.12	128.08	111.70
5	B	1006	ILE	CB-CA-C	-7.12	97.36	111.60
10	I	21	GLU	N-CA-CB	-7.12	97.79	110.60
4	A	1019	CYS	CA-CB-SG	-7.12	101.19	114.00
10	I	27	PHE	C-N-CA	-7.12	103.91	121.70
4	A	1257	ASP	CB-CG-OD1	-7.11	111.90	118.30
6	C	257	SER	CA-C-N	-7.11	101.55	117.20
4	A	1362	TYR	OH-CZ-CE2	7.11	139.30	120.10
4	A	174	ILE	CG1-CB-CG2	-7.11	95.75	111.40
5	B	134	LYS	N-CA-C	7.11	130.20	111.00
5	B	1130	PHE	CB-CG-CD1	7.11	125.78	120.80
5	B	1152	MET	CG-SD-CE	7.11	111.58	100.20
8	F	119	ARG	CD-NE-CZ	7.11	133.55	123.60
6	C	268	ASP	N-CA-CB	7.11	123.40	110.60
7	E	74	ASP	N-CA-C	7.11	130.19	111.00
4	A	607	ILE	O-C-N	7.11	134.07	122.70
4	A	1023	ARG	NE-CZ-NH1	-7.11	116.75	120.30
4	A	1135	ARG	O-C-N	7.11	134.07	122.70
5	B	58	THR	CB-CA-C	-7.11	92.42	111.60
5	B	302	CYS	CA-CB-SG	-7.11	101.21	114.00
5	B	614	SER	CA-C-N	-7.10	101.57	117.20
7	E	181	ALA	CB-CA-C	-7.10	99.44	110.10
4	A	933	TYR	CB-CA-C	-7.10	96.19	110.40
9	H	26	ILE	CG1-CB-CG2	-7.10	95.77	111.40
4	A	317	LYS	N-CA-C	7.10	130.17	111.00
9	H	42	ILE	CB-CA-C	-7.10	97.40	111.60
4	A	1054	LEU	CB-CG-CD1	-7.10	98.94	111.00
7	E	21	GLU	CG-CD-OE1	7.10	132.49	118.30
4	A	203	SER	O-C-N	7.09	134.05	122.70
7	E	194	GLU	C-N-CA	-7.09	103.96	121.70
8	F	131	PRO	N-CA-C	7.09	130.54	112.10
5	B	113	TYR	CB-CA-C	7.09	124.58	110.40
4	A	210	ILE	O-C-N	7.09	134.04	122.70
4	A	277	GLU	CB-CA-C	7.09	124.58	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1299	VAL	CA-CB-CG2	-7.08	100.27	110.90
4	A	13	THR	N-CA-CB	-7.08	96.84	110.30
4	A	261	ASP	CB-CA-C	7.08	124.57	110.40
4	A	421	ALA	CB-CA-C	7.08	120.72	110.10
5	B	812	LEU	CA-C-N	-7.08	101.62	117.20
5	B	885	MET	N-CA-CB	-7.08	97.85	110.60
4	A	1368	MET	C-N-CA	-7.08	104.00	121.70
4	A	1373	ASP	CB-CG-OD2	7.08	124.67	118.30
6	C	155	LEU	CA-C-N	-7.08	101.62	117.20
4	A	361	LEU	CA-CB-CG	-7.08	99.02	115.30
4	A	784	LEU	CA-CB-CG	-7.08	99.02	115.30
4	A	1289	ARG	O-C-N	7.08	134.02	122.70
7	E	207	ARG	CD-NE-CZ	7.08	133.51	123.60
5	B	666	TYR	CA-CB-CG	7.08	126.84	113.40
12	K	113	THR	C-N-CA	7.07	139.38	121.70
4	A	599	SER	C-N-CD	7.07	143.25	128.40
4	A	1012	ARG	C-N-CA	-7.07	104.02	121.70
5	B	1091	TYR	CA-CB-CG	7.07	126.83	113.40
6	C	161	LYS	CB-CA-C	-7.07	96.26	110.40
7	E	178	ILE	CA-C-N	-7.07	101.65	117.20
7	E	186	LEU	CB-CG-CD2	7.07	123.02	111.00
10	I	21	GLU	CA-C-N	7.07	132.75	117.20
4	A	47	ARG	CG-CD-NE	7.07	126.64	111.80
4	A	1207	LEU	C-N-CA	7.07	139.37	121.70
4	A	1445	ILE	N-CA-CB	-7.06	94.55	110.80
5	B	944	THR	CB-CA-C	-7.06	92.53	111.60
4	A	1340	GLY	CA-C-N	-7.06	101.67	117.20
5	B	401	PHE	CB-CG-CD1	-7.05	115.86	120.80
9	H	86	ASP	CB-CG-OD1	7.05	124.65	118.30
4	A	938	LYS	CB-CG-CD	7.05	129.94	111.60
9	H	89	LEU	CB-CG-CD2	7.05	122.99	111.00
10	I	17	ARG	CA-CB-CG	7.05	128.91	113.40
9	H	23	VAL	O-C-N	7.05	133.98	122.70
4	A	1066	VAL	C-N-CA	-7.05	104.08	121.70
4	A	1296	GLY	N-CA-C	7.04	130.70	113.10
2	T	23	DC	C5'-C4'-O4'	7.04	122.67	109.30
5	B	94	LYS	N-CA-CB	7.04	123.27	110.60
7	E	73	PRO	C-N-CA	-7.04	104.10	121.70
13	L	37	LYS	CA-CB-CG	7.04	128.88	113.40
4	A	929	LEU	CB-CG-CD2	-7.04	99.04	111.00
4	A	1315	GLU	C-N-CA	-7.04	104.11	121.70
4	A	65	LEU	CA-CB-CG	7.03	131.48	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	688	LYS	CA-C-N	7.03	132.68	117.20
5	B	1157	ALA	N-CA-C	-7.03	92.02	111.00
5	B	181	LEU	CB-CG-CD1	7.03	122.94	111.00
4	A	1303	GLU	C-N-CA	-7.02	104.14	121.70
7	E	185	ALA	CB-CA-C	-7.02	99.56	110.10
4	A	1261	LYS	CD-CE-NZ	7.02	127.85	111.70
4	A	74	MET	CB-CG-SD	-7.02	91.34	112.40
4	A	647	GLY	C-N-CA	-7.02	104.16	121.70
4	A	653	VAL	CB-CA-C	-7.02	98.07	111.40
5	B	191	LYS	CD-CE-NZ	7.02	127.84	111.70
5	B	1124	ARG	NE-CZ-NH2	-7.02	116.79	120.30
4	A	139	TRP	CA-CB-CG	7.02	127.03	113.70
4	A	254	GLU	OE1-CD-OE2	-7.02	114.88	123.30
7	E	78	LEU	CB-CG-CD2	-7.02	99.07	111.00
8	F	106	PRO	CB-CG-CD	-7.01	79.15	106.50
9	H	23	VAL	C-N-CA	7.01	139.24	121.70
4	A	251	SER	CA-CB-OG	7.01	130.13	111.20
7	E	178	ILE	CG1-CB-CG2	7.01	126.83	111.40
5	B	52	ASN	CB-CA-C	-7.01	96.38	110.40
4	A	688	LYS	CD-CE-NZ	7.01	127.81	111.70
10	I	25	LEU	CA-C-N	-7.00	101.79	117.20
5	B	467	GLY	O-C-N	7.00	133.90	122.70
5	B	1153	GLU	C-N-CA	-7.00	104.20	121.70
10	I	60	GLN	CB-CG-CD	7.00	129.81	111.60
5	B	798	TYR	CE1-CZ-OH	-7.00	101.20	120.10
5	B	864	LYS	CA-C-O	-7.00	105.41	120.10
2	T	25	DC	O4'-C1'-C2'	6.99	111.50	105.90
5	B	127	GLY	CA-C-N	-6.99	101.81	117.20
5	B	369	GLY	CA-C-N	-6.99	101.81	117.20
5	B	1196	ILE	N-CA-C	6.99	129.88	111.00
5	B	1221	SER	CA-CB-OG	6.99	130.08	111.20
4	A	1031	VAL	CG1-CB-CG2	-6.99	99.71	110.90
5	B	164	LYS	CB-CG-CD	6.99	129.77	111.60
10	I	91	ARG	CG-CD-NE	6.99	126.48	111.80
10	I	95	THR	N-CA-C	6.99	129.88	111.00
4	A	962	ARG	NE-CZ-NH1	6.99	123.80	120.30
4	A	1118	VAL	CB-CA-C	-6.99	98.12	111.40
5	B	188	ASP	C-N-CA	-6.99	104.23	121.70
5	B	388	CYS	C-N-CA	-6.99	104.23	121.70
6	C	249	ASP	CB-CG-OD1	-6.99	112.01	118.30
4	A	103	CYS	CA-CB-SG	-6.99	101.42	114.00
4	A	552	TRP	N-CA-CB	-6.99	98.03	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	914	GLU	CB-CA-C	-6.99	96.43	110.40
4	A	1384	VAL	CA-CB-CG1	-6.99	100.42	110.90
7	E	22	MET	CG-SD-CE	-6.98	89.03	100.20
10	I	65	ASP	CA-C-O	6.98	134.77	120.10
4	A	50	ILE	N-CA-C	6.98	129.85	111.00
4	A	1038	THR	N-CA-C	-6.98	92.14	111.00
5	B	1064	TYR	CA-CB-CG	6.98	126.67	113.40
10	I	20	LYS	CD-CE-NZ	6.98	127.76	111.70
4	A	1233	ASP	CB-CG-OD2	6.98	124.58	118.30
6	C	99	LEU	CA-CB-CG	-6.98	99.25	115.30
4	A	33	ALA	N-CA-CB	6.98	119.87	110.10
5	B	879	ARG	CD-NE-CZ	6.98	133.37	123.60
4	A	382	PRO	CA-C-N	-6.97	101.86	117.20
10	I	92	ARG	CD-NE-CZ	6.97	133.37	123.60
4	A	1016	THR	CA-CB-CG2	-6.97	102.64	112.40
10	I	35	VAL	C-N-CA	-6.97	104.27	121.70
12	K	57	LEU	O-C-N	6.97	133.86	122.70
4	A	1066	VAL	CB-CA-C	-6.97	98.16	111.40
7	E	43	LYS	CA-C-N	-6.97	101.87	117.20
4	A	1445	ILE	N-CA-C	6.97	129.81	111.00
5	B	596	LEU	CB-CG-CD2	-6.97	99.15	111.00
4	A	472	LEU	CB-CA-C	-6.97	96.96	110.20
5	B	327	ARG	CA-CB-CG	6.97	128.73	113.40
6	C	246	ARG	C-N-CA	-6.97	107.67	122.30
4	A	266	LEU	CB-CA-C	6.96	123.43	110.20
5	B	485	ARG	N-CA-CB	6.96	123.14	110.60
5	B	1092	TYR	OH-CZ-CE2	-6.96	101.30	120.10
10	I	50	THR	C-N-CA	-6.96	104.29	121.70
4	A	410	GLY	CA-C-N	-6.96	101.88	117.20
5	B	249	ARG	N-CA-CB	6.96	123.13	110.60
5	B	914	LYS	CB-CG-CD	6.96	129.70	111.60
5	B	986	GLN	CA-CB-CG	-6.96	98.08	113.40
4	A	321	PRO	CA-C-O	-6.96	103.50	120.20
5	B	880	THR	CA-C-O	6.96	134.71	120.10
8	F	152	ILE	N-CA-CB	-6.96	94.80	110.80
5	B	1055	ILE	CA-CB-CG1	-6.96	97.78	111.00
8	F	145	ASP	OD1-CG-OD2	6.96	136.52	123.30
13	L	30	ILE	C-N-CA	-6.96	104.31	121.70
5	B	473	MET	CA-CB-CG	-6.95	101.48	113.30
5	B	1144	ALA	CB-CA-C	-6.95	99.67	110.10
4	A	564	ALA	C-N-CA	-6.95	104.32	121.70
10	I	24	ARG	NE-CZ-NH1	6.95	123.78	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	L	65	VAL	CA-CB-CG1	-6.95	100.47	110.90
4	A	720	ARG	NE-CZ-NH1	-6.95	116.83	120.30
5	B	218	SER	C-N-CA	-6.95	104.33	121.70
6	C	85	ASP	CB-CG-OD2	6.95	124.55	118.30
4	A	1353	TYR	CE1-CZ-OH	6.95	138.85	120.10
5	B	893	LEU	CA-CB-CG	6.95	131.27	115.30
5	B	25	ILE	CB-CA-C	-6.94	97.71	111.60
5	B	846	ILE	CA-C-N	-6.94	101.93	117.20
5	B	1121	GLY	C-N-CA	-6.94	104.34	121.70
4	A	1219	THR	CA-C-O	6.94	134.68	120.10
4	A	776	ALA	CB-CA-C	-6.94	99.69	110.10
5	B	347	LYS	CB-CG-CD	6.94	129.64	111.60
5	B	860	MET	N-CA-C	6.94	129.73	111.00
4	A	801	GLU	CG-CD-OE1	-6.93	104.43	118.30
5	B	1010	LEU	CB-CG-CD2	6.93	122.79	111.00
4	A	1365	TYR	CG-CD2-CE2	6.93	126.85	121.30
5	B	311	LEU	CA-C-N	-6.93	101.95	117.20
4	A	164	ARG	NE-CZ-NH1	6.93	123.77	120.30
5	B	1115	THR	CB-CA-C	-6.93	92.89	111.60
9	H	87	ARG	CA-C-N	-6.93	101.95	117.20
7	E	75	MET	N-CA-C	6.93	129.71	111.00
7	E	41	ASP	CB-CG-OD1	-6.93	112.07	118.30
4	A	899	VAL	C-N-CA	6.92	139.01	121.70
5	B	411	PRO	C-N-CA	-6.92	104.39	121.70
5	B	1018	PRO	CA-N-CD	-6.92	101.81	111.50
5	B	1135	ARG	NE-CZ-NH1	-6.92	116.84	120.30
6	C	226	ASP	CB-CG-OD2	6.92	124.53	118.30
7	E	214	CYS	CA-C-N	-6.92	101.97	117.20
8	F	142	SER	O-C-N	6.92	133.78	122.70
5	B	1220	ARG	CB-CA-C	6.92	124.24	110.40
12	K	114	LEU	CB-CG-CD1	-6.92	99.24	111.00
5	B	373	ARG	CG-CD-NE	6.92	126.33	111.80
5	B	278	GLN	C-N-CA	-6.92	104.41	121.70
5	B	1018	PRO	CA-CB-CG	-6.92	90.86	104.00
6	C	185	LYS	CD-CE-NZ	6.92	127.61	111.70
8	F	107	VAL	N-CA-CB	-6.92	96.29	111.50
4	A	308	ILE	CB-CA-C	-6.91	97.77	111.60
5	B	1151	LEU	CB-CG-CD1	6.91	122.75	111.00
6	C	162	GLY	N-CA-C	6.91	130.38	113.10
4	A	969	GLN	CB-CA-C	6.91	124.22	110.40
5	B	1172	ILE	CA-C-N	-6.91	102.00	117.20
4	A	988	LEU	C-N-CA	-6.91	107.79	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	K	47	ARG	CD-NE-CZ	6.91	133.27	123.60
5	B	960	GLY	N-CA-C	6.91	130.36	113.10
6	C	159	ALA	N-CA-C	6.91	129.64	111.00
2	T	20	DC	C4'-C3'-O3'	6.90	126.96	109.70
4	A	199	LEU	N-CA-C	6.90	129.64	111.00
12	K	109	TRP	CA-C-N	-6.90	102.02	117.20
7	E	4	GLU	CB-CA-C	6.90	124.20	110.40
5	B	566	LEU	CA-CB-CG	6.90	131.17	115.30
6	C	68	GLY	C-N-CA	-6.90	104.46	121.70
10	I	55	THR	N-CA-C	-6.90	92.38	111.00
5	B	1223	ASP	CA-C-N	6.90	132.37	117.20
4	A	753	GLY	O-C-N	6.89	133.73	122.70
4	A	1336	MET	CA-CB-CG	-6.89	101.58	113.30
5	B	301	ILE	CB-CA-C	-6.89	97.81	111.60
9	H	132	LEU	CA-CB-CG	6.89	131.15	115.30
5	B	957	ASN	N-CA-C	6.89	129.61	111.00
7	E	73	PRO	CA-CB-CG	-6.89	90.91	104.00
10	I	118	ARG	N-CA-C	6.89	129.60	111.00
4	A	968	GLN	C-N-CA	-6.89	104.48	121.70
6	C	154	LYS	CB-CG-CD	6.89	129.50	111.60
4	A	473	SER	CB-CA-C	6.88	123.18	110.10
5	B	702	LEU	CB-CG-CD1	6.88	122.70	111.00
4	A	520	CYS	N-CA-C	6.88	129.58	111.00
4	A	1428	VAL	CB-CA-C	6.88	124.48	111.40
6	C	259	LEU	N-CA-CB	-6.88	96.63	110.40
4	A	176	LYS	O-C-N	6.88	133.71	122.70
4	A	1402	PHE	CG-CD1-CE1	6.88	128.37	120.80
11	J	47	ARG	CA-C-N	-6.88	102.07	117.20
4	A	1169	ILE	CG1-CB-CG2	6.88	126.53	111.40
4	A	1214	GLU	CB-CA-C	6.88	124.16	110.40
5	B	209	GLU	C-N-CA	-6.88	104.51	121.70
10	I	46	HIS	N-CA-CB	6.88	122.97	110.60
4	A	704	ALA	O-C-N	6.87	133.70	122.70
5	B	1124	ARG	NE-CZ-NH1	6.87	123.74	120.30
7	E	179	GLN	CB-CA-C	6.87	124.15	110.40
8	F	130	ILE	CA-C-N	-6.87	97.86	117.10
9	H	126	GLU	C-N-CA	6.87	136.73	122.30
10	I	24	ARG	CG-CD-NE	-6.87	97.37	111.80
4	A	593	GLU	N-CA-CB	6.87	122.96	110.60
4	A	1380	GLY	CA-C-O	6.87	132.96	120.60
5	B	620	ARG	CA-CB-CG	6.87	128.51	113.40
5	B	852	ARG	C-N-CA	-6.87	104.53	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1159	ARG	NE-CZ-NH1	-6.87	116.86	120.30
2	T	21	DC	OP2-P-O3'	6.86	120.30	105.20
4	A	1235	LYS	CD-CE-NZ	6.86	127.49	111.70
9	H	20	TYR	CB-CG-CD1	-6.86	116.88	121.00
6	C	103	ALA	N-CA-CB	6.86	119.70	110.10
12	K	46	ILE	CB-CA-C	-6.86	97.88	111.60
6	C	80	LEU	CA-CB-CG	-6.86	99.53	115.30
4	A	283	GLY	CA-C-O	-6.86	108.26	120.60
4	A	754	SER	CB-CA-C	-6.86	97.08	110.10
12	K	58	PHE	N-CA-C	6.86	129.51	111.00
5	B	880	THR	CA-CB-CG2	6.85	122.00	112.40
4	A	998	LEU	N-CA-C	6.85	129.49	111.00
6	C	48	SER	N-CA-C	6.85	129.49	111.00
4	A	95	PHE	N-CA-CB	-6.85	98.28	110.60
4	A	263	THR	CA-CB-CG2	-6.85	102.81	112.40
4	A	597	LEU	N-CA-C	6.84	129.48	111.00
4	A	1393	ASN	CB-CA-C	6.84	124.09	110.40
10	I	9	ASP	OD1-CG-OD2	-6.84	110.30	123.30
9	H	52	GLN	CA-CB-CG	6.84	128.45	113.40
5	B	192	LEU	CA-CB-CG	-6.84	99.56	115.30
5	B	797	TYR	CA-CB-CG	6.84	126.40	113.40
5	B	943	SER	N-CA-C	6.84	129.47	111.00
4	A	23	SER	CB-CA-C	6.84	123.09	110.10
5	B	327	ARG	CG-CD-NE	6.84	126.16	111.80
4	A	387	ARG	CD-NE-CZ	6.84	133.17	123.60
4	A	945	GLU	CA-CB-CG	6.84	128.44	113.40
5	B	960	GLY	O-C-N	6.84	133.64	122.70
12	K	69	ALA	N-CA-CB	-6.84	100.53	110.10
4	A	1398	MET	CB-CG-SD	-6.83	91.90	112.40
4	A	546	VAL	CA-CB-CG2	-6.83	100.66	110.90
8	F	105	ALA	N-CA-C	-6.83	92.56	111.00
4	A	57	ARG	CB-CG-CD	6.83	129.35	111.60
9	H	124	ARG	CD-NE-CZ	6.83	133.16	123.60
4	A	296	LEU	CB-CG-CD2	6.83	122.61	111.00
4	A	711	ARG	NE-CZ-NH1	6.83	123.71	120.30
5	B	484	ASN	O-C-N	6.83	133.62	122.70
9	H	29	ALA	C-N-CA	6.83	138.77	121.70
12	K	107	THR	CA-CB-CG2	-6.83	102.84	112.40
4	A	521	MET	N-CA-CB	-6.83	98.31	110.60
5	B	423	LYS	CB-CA-C	-6.83	96.75	110.40
5	B	708	GLU	CA-CB-CG	6.83	128.42	113.40
5	B	274	PRO	N-CD-CG	-6.82	92.97	103.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	416	LEU	CB-CG-CD2	-6.82	99.41	111.00
9	H	144	ILE	CA-CB-CG1	-6.82	98.04	111.00
12	K	21	ILE	N-CA-C	6.82	129.42	111.00
5	B	193	LYS	C-N-CA	-6.82	104.65	121.70
5	B	477	ALA	CA-C-N	6.82	129.84	116.20
5	B	352	ALA	CA-C-N	6.82	132.20	117.20
4	A	11	LEU	N-CA-CB	-6.82	96.77	110.40
4	A	1323	ASP	CB-CG-OD1	6.82	124.43	118.30
5	B	370	PHE	N-CA-CB	-6.82	98.33	110.60
5	B	1007	VAL	C-N-CD	6.82	142.71	128.40
6	C	216	GLY	CA-C-N	-6.82	102.21	117.20
13	L	26	THR	N-CA-CB	6.82	123.25	110.30
4	A	727	ASP	O-C-N	6.81	133.60	122.70
7	E	58	MET	CA-C-N	-6.81	102.21	117.20
4	A	509	LEU	CB-CA-C	-6.81	97.26	110.20
4	A	685	GLU	CB-CA-C	6.81	124.03	110.40
4	A	840	ARG	CB-CA-C	6.81	124.02	110.40
5	B	184	ALA	CB-CA-C	-6.81	99.88	110.10
5	B	1222	ARG	NE-CZ-NH1	6.81	123.70	120.30
4	A	50	ILE	CG1-CB-CG2	6.81	126.38	111.40
4	A	1373	ASP	CB-CG-OD1	6.81	124.43	118.30
9	H	40	LEU	CA-CB-CG	-6.81	99.64	115.30
10	I	4	PHE	CA-C-N	-6.81	102.22	117.20
4	A	806	ARG	CA-CB-CG	6.81	128.38	113.40
4	A	955	PRO	N-CA-C	-6.81	94.40	112.10
12	K	70	ARG	C-N-CA	-6.81	104.68	121.70
4	A	396	PRO	CA-N-CD	-6.80	101.97	111.50
4	A	31	SER	CA-C-N	-6.80	102.23	117.20
4	A	1391	ARG	CD-NE-CZ	6.80	133.12	123.60
5	B	610	ASN	CB-CA-C	-6.80	96.80	110.40
4	A	24	PRO	CB-CA-C	6.80	129.00	112.00
5	B	1123	SER	CB-CA-C	6.80	123.02	110.10
4	A	59	GLY	CA-C-N	6.80	132.16	117.20
5	B	807	ARG	CG-CD-NE	6.80	126.08	111.80
5	B	904	ARG	NE-CZ-NH2	6.80	123.70	120.30
7	E	151	PRO	C-N-CA	6.80	138.69	121.70
9	H	132	LEU	CB-CA-C	6.80	123.12	110.20
6	C	150	GLY	CA-C-O	6.80	132.84	120.60
11	J	28	ASP	N-CA-CB	6.80	122.83	110.60
13	L	37	LYS	CG-CD-CE	6.79	132.29	111.90
2	T	20	DC	O4'-C4'-C3'	-6.79	101.78	104.50
4	A	1153	TYR	N-CA-CB	-6.79	98.37	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	368	GLU	CB-CA-C	-6.79	96.81	110.40
4	A	285	PRO	N-CA-C	6.79	129.76	112.10
4	A	1212	VAL	CA-C-N	-6.79	102.62	116.20
4	A	668	ASP	C-N-CA	-6.79	104.73	121.70
8	F	136	ARG	NE-CZ-NH1	-6.79	116.91	120.30
12	K	47	ARG	CG-CD-NE	6.79	126.06	111.80
5	B	61	ASP	CB-CA-C	-6.79	96.83	110.40
2	T	24	DT	C6-N1-C1'	6.79	130.58	120.40
4	A	59	GLY	N-CA-C	6.79	130.06	113.10
4	A	360	GLU	N-CA-CB	6.79	122.81	110.60
5	B	982	SER	N-CA-C	-6.79	92.68	111.00
4	A	1311	VAL	CA-CB-CG2	-6.78	100.72	110.90
6	C	257	SER	CA-CB-OG	6.78	129.51	111.20
5	B	69	LEU	CA-CB-CG	-6.78	99.70	115.30
5	B	1184	GLY	N-CA-C	-6.78	96.14	113.10
7	E	177	ARG	CA-C-N	-6.78	102.28	117.20
9	H	63	LEU	CA-CB-CG	6.78	130.90	115.30
7	E	184	VAL	C-N-CA	-6.78	104.75	121.70
4	A	1222	ASN	O-C-N	6.78	133.55	122.70
4	A	1062	GLU	CG-CD-OE1	-6.78	104.75	118.30
6	C	33	LEU	CB-CG-CD2	-6.78	99.48	111.00
4	A	977	LYS	CB-CG-CD	6.78	129.22	111.60
5	B	296	GLU	N-CA-CB	6.78	122.80	110.60
5	B	636	PRO	N-CA-CB	6.78	111.43	103.30
7	E	83	CYS	N-CA-CB	-6.77	98.41	110.60
4	A	670	ILE	CB-CA-C	-6.77	98.05	111.60
4	A	237	THR	CA-C-N	-6.77	102.30	117.20
4	A	1291	VAL	CA-CB-CG2	-6.77	100.74	110.90
4	A	1064	VAL	CA-CB-CG1	-6.77	100.75	110.90
5	B	1071	VAL	CB-CA-C	-6.77	98.54	111.40
9	H	136	LYS	CA-CB-CG	6.77	128.29	113.40
5	B	796	LEU	CB-CG-CD2	6.77	122.50	111.00
4	A	75	ASN	N-CA-C	-6.77	92.73	111.00
5	B	803	LEU	CB-CG-CD1	-6.77	99.50	111.00
8	F	141	GLY	N-CA-C	-6.77	96.19	113.10
4	A	1348	LEU	CB-CG-CD2	6.76	122.50	111.00
5	B	749	LEU	C-N-CA	-6.76	108.09	122.30
7	E	200	ARG	CA-CB-CG	6.76	128.28	113.40
7	E	62	ALA	CA-C-N	-6.76	102.33	117.20
4	A	1314	SER	O-C-N	6.76	133.51	122.70
4	A	268	ASP	CB-CG-OD2	6.75	124.38	118.30
4	A	480	ALA	CB-CA-C	-6.75	99.97	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	503	GLN	N-CA-CB	-6.75	98.44	110.60
4	A	123	ARG	N-CA-C	-6.75	92.77	111.00
4	A	1223	ASP	CB-CG-OD2	-6.75	112.22	118.30
6	C	206	ASN	N-CA-C	6.75	129.22	111.00
5	B	730	ARG	CB-CA-C	6.75	123.90	110.40
9	H	120	GLY	N-CA-C	6.75	129.97	113.10
4	A	528	LEU	CB-CA-C	6.74	123.01	110.20
4	A	992	ASP	N-CA-CB	6.74	122.74	110.60
4	A	1129	GLU	CA-CB-CG	6.74	128.24	113.40
7	E	167	ARG	CG-CD-NE	6.74	125.96	111.80
9	H	58	THR	CB-CA-C	-6.74	93.40	111.60
5	B	531	GLN	CA-CB-CG	6.74	128.23	113.40
4	A	1342	GLU	C-N-CA	-6.74	104.85	121.70
4	A	1406	VAL	N-CA-CB	-6.74	96.68	111.50
7	E	22	MET	CA-CB-CG	-6.74	101.85	113.30
13	L	42	ARG	CA-CB-CG	6.74	128.22	113.40
4	A	1059	HIS	N-CA-CB	6.74	122.72	110.60
5	B	905	VAL	CB-CA-C	-6.74	98.60	111.40
6	C	16	ASP	N-CA-C	6.74	129.18	111.00
7	E	201	LYS	CG-CD-CE	6.74	132.11	111.90
8	F	110	ASP	N-CA-CB	-6.74	98.48	110.60
9	H	116	TYR	CE1-CZ-OH	6.73	138.28	120.10
2	T	21	DC	O4'-C1'-C2'	6.73	111.28	105.90
4	A	469	ARG	CA-CB-CG	6.73	128.21	113.40
4	A	509	LEU	CB-CG-CD2	-6.73	99.56	111.00
5	B	1111	MET	CG-SD-CE	6.73	110.97	100.20
7	E	68	SER	CB-CA-C	-6.73	97.31	110.10
5	B	545	ILE	N-CA-C	6.73	129.17	111.00
11	J	6	ARG	CG-CD-NE	-6.73	97.67	111.80
4	A	937	VAL	CA-CB-CG1	-6.73	100.81	110.90
1	R	6	G	C5'-C4'-O4'	6.73	117.17	109.10
4	A	177	ASP	CB-CA-C	-6.73	96.95	110.40
4	A	1263	ILE	CA-CB-CG1	-6.72	98.23	111.00
5	B	195	CYS	CB-CA-C	-6.72	96.95	110.40
12	K	88	LYS	CD-CE-NZ	6.72	127.16	111.70
5	B	241	ARG	N-CA-C	-6.72	92.85	111.00
12	K	80	GLY	CA-C-O	-6.72	108.50	120.60
4	A	590	ARG	CB-CA-C	-6.72	96.96	110.40
4	A	752	LYS	N-CA-CB	6.72	122.69	110.60
5	B	451	LYS	N-CA-CB	-6.72	98.51	110.60
9	H	135	LEU	CB-CG-CD2	6.72	122.42	111.00
5	B	37	PHE	CA-C-N	6.72	131.98	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	305	VAL	CB-CA-C	6.72	124.16	111.40
4	A	341	MET	CA-CB-CG	-6.71	101.89	113.30
4	A	1383	SER	N-CA-CB	-6.71	100.43	110.50
5	B	1220	ARG	CD-NE-CZ	6.71	133.00	123.60
6	C	253	LYS	CB-CG-CD	6.71	129.06	111.60
10	I	32	CYS	CA-C-N	-6.71	102.43	117.20
4	A	951	GLU	CA-C-N	-6.71	102.43	117.20
6	C	124	LEU	CA-CB-CG	-6.71	99.86	115.30
13	L	64	LEU	CB-CG-CD2	-6.71	99.59	111.00
4	A	574	GLY	CA-C-N	-6.71	102.44	117.20
5	B	206	ASN	CA-C-N	-6.71	102.78	116.20
5	B	1158	PHE	CB-CG-CD2	6.71	125.50	120.80
10	I	13	MET	O-C-N	6.71	133.43	122.70
6	C	248	ILE	CA-C-N	-6.71	102.45	117.20
13	L	48	CYS	N-CA-C	6.71	129.10	111.00
4	A	36	ARG	NE-CZ-NH1	6.70	123.65	120.30
4	A	943	LEU	C-N-CA	-6.70	104.95	121.70
4	A	430	TRP	N-CA-CB	-6.70	98.54	110.60
4	A	7	SER	CA-C-N	-6.70	102.46	117.20
5	B	1147	LEU	CB-CG-CD2	-6.70	99.61	111.00
7	E	83	CYS	N-CA-C	6.70	129.09	111.00
5	B	570	VAL	CA-CB-CG1	-6.70	100.86	110.90
2	T	19	DT	OP2-P-O3'	-6.70	90.47	105.20
4	A	1101	LEU	CA-CB-CG	-6.70	99.90	115.30
11	J	53	HIS	N-CA-CB	6.70	122.65	110.60
4	A	483	ASP	CA-C-N	6.69	129.59	116.20
5	B	49	ASP	CB-CG-OD1	6.69	124.32	118.30
5	B	68	THR	C-N-CA	6.69	138.44	121.70
5	B	388	CYS	CA-CB-SG	-6.69	101.95	114.00
5	B	576	ASP	N-CA-CB	-6.69	98.55	110.60
4	A	1189	SER	CB-CA-C	6.69	122.82	110.10
5	B	250	PHE	CB-CA-C	-6.69	97.01	110.40
12	K	3	ALA	CB-CA-C	-6.69	100.06	110.10
4	A	681	GLU	OE1-CD-OE2	-6.69	115.27	123.30
4	A	938	LYS	CB-CA-C	-6.69	97.02	110.40
7	E	177	ARG	O-C-N	6.69	133.40	122.70
5	B	938	SER	CB-CA-C	6.69	122.81	110.10
4	A	815	PHE	CA-C-N	-6.69	102.49	117.20
5	B	253	THR	N-CA-C	6.69	129.05	111.00
4	A	829	VAL	CG1-CB-CG2	6.68	121.59	110.90
4	A	39	GLU	CG-CD-OE2	-6.68	104.93	118.30
4	A	1284	MET	O-C-N	6.68	133.39	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	E	148	GLU	OE1-CD-OE2	-6.68	115.28	123.30
9	H	58	THR	C-N-CA	-6.68	105.00	121.70
4	A	977	LYS	CB-CA-C	6.68	123.76	110.40
4	A	141	LEU	CA-CB-CG	-6.68	99.94	115.30
4	A	268	ASP	N-CA-CB	-6.68	98.58	110.60
4	A	276	LEU	CB-CA-C	6.68	122.89	110.20
4	A	952	ALA	N-CA-CB	-6.68	100.75	110.10
4	A	89	PRO	CA-N-CD	-6.68	102.15	111.50
4	A	280	GLU	N-CA-CB	-6.68	98.58	110.60
5	B	456	GLY	CA-C-N	-6.68	102.51	117.20
5	B	576	ASP	CA-C-N	-6.68	102.51	117.20
6	C	226	ASP	CB-CA-C	-6.68	97.05	110.40
4	A	1285	MET	C-N-CA	6.67	138.38	121.70
5	B	948	ILE	CB-CA-C	-6.67	98.25	111.60
6	C	238	ILE	CB-CA-C	-6.67	98.25	111.60
4	A	123	ARG	CG-CD-NE	6.67	125.81	111.80
4	A	804	TYR	N-CA-CB	6.67	122.61	110.60
4	A	1362	TYR	CD1-CE1-CZ	6.67	125.81	119.80
5	B	1021	MET	CG-SD-CE	-6.67	89.53	100.20
5	B	1010	LEU	CB-CA-C	6.67	122.87	110.20
5	B	1095	LEU	CA-CB-CG	-6.67	99.96	115.30
12	K	56	VAL	CB-CA-C	-6.67	98.73	111.40
4	A	347	PHE	CB-CG-CD2	6.67	125.47	120.80
6	C	86	CYS	C-N-CA	-6.67	105.03	121.70
5	B	1048	THR	CA-C-N	-6.67	102.54	117.20
4	A	1116	LEU	CB-CG-CD1	6.66	122.33	111.00
5	B	964	VAL	CB-CA-C	-6.66	98.74	111.40
9	H	142	LEU	CB-CG-CD1	-6.66	99.67	111.00
4	A	1433	MET	CA-CB-CG	-6.66	101.98	113.30
5	B	41	LYS	C-N-CA	-6.66	108.31	122.30
5	B	431	TYR	CA-C-O	-6.66	106.11	120.10
4	A	161	LEU	CB-CG-CD2	6.66	122.32	111.00
4	A	1038	THR	O-C-N	6.66	133.35	122.70
4	A	1268	LEU	CB-CG-CD2	-6.66	99.68	111.00
4	A	1403	GLU	N-CA-C	6.66	128.98	111.00
5	B	632	ARG	NE-CZ-NH2	6.66	123.63	120.30
5	B	1192	TYR	N-CA-CB	-6.66	98.61	110.60
6	C	107	SER	CA-C-N	-6.66	102.56	117.20
6	C	121	VAL	N-CA-C	6.66	128.97	111.00
5	B	545	ILE	CB-CA-C	-6.66	98.29	111.60
10	I	40	SER	N-CA-CB	6.66	120.48	110.50
4	A	842	VAL	C-N-CA	-6.65	105.06	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1018	PHE	CB-CG-CD1	6.65	125.46	120.80
8	F	144	GLU	C-N-CA	-6.65	105.07	121.70
12	K	21	ILE	CB-CA-C	-6.65	98.30	111.60
5	B	478	GLY	C-N-CA	-6.65	105.07	121.70
5	B	971	THR	CA-CB-CG2	6.65	121.71	112.40
4	A	28	ARG	NE-CZ-NH2	6.65	123.62	120.30
4	A	150	THR	N-CA-CB	6.65	122.93	110.30
4	A	415	LEU	C-N-CA	-6.65	105.08	121.70
5	B	818	PRO	CB-CA-C	-6.65	95.38	112.00
8	F	124	GLU	CB-CG-CD	-6.64	96.26	114.20
4	A	125	ALA	N-CA-C	6.64	128.93	111.00
4	A	1418	LEU	CB-CG-CD2	-6.64	99.71	111.00
5	B	1116	ARG	NE-CZ-NH1	6.64	123.62	120.30
8	F	139	PRO	CA-N-CD	-6.64	102.20	111.50
7	E	3	GLN	N-CA-C	-6.64	93.07	111.00
5	B	1175	LEU	CB-CG-CD2	-6.64	99.72	111.00
7	E	56	LYS	CA-C-N	-6.64	102.60	117.20
9	H	42	ILE	CG1-CB-CG2	-6.64	96.80	111.40
4	A	937	VAL	CB-CA-C	6.63	124.00	111.40
4	A	1281	ARG	CA-CB-CG	6.63	128.00	113.40
5	B	356	LEU	CB-CA-C	6.63	122.81	110.20
8	F	123	LYS	CA-C-N	6.63	131.79	117.20
4	A	884	ASP	O-C-N	6.63	133.31	122.70
5	B	680	THR	CB-CA-C	-6.63	93.70	111.60
4	A	179	LEU	CB-CG-CD1	6.63	122.27	111.00
4	A	1173	HIS	N-CA-CB	6.63	122.53	110.60
4	A	1269	GLU	OE1-CD-OE2	6.63	131.25	123.30
7	E	205	SER	CA-CB-OG	6.63	129.09	111.20
10	I	89	GLN	N-CA-C	6.63	128.89	111.00
5	B	1222	ARG	CB-CG-CD	6.62	128.82	111.60
6	C	165	LYS	CB-CA-C	-6.62	97.15	110.40
4	A	979	SER	N-CA-CB	6.62	120.43	110.50
4	A	1207	LEU	CB-CA-C	-6.62	97.62	110.20
5	B	322	PHE	N-CA-C	-6.62	93.12	111.00
5	B	896	ASP	CB-CG-OD2	6.62	124.26	118.30
4	A	877	HIS	C-N-CA	-6.62	105.16	121.70
4	A	898	ARG	CB-CA-C	-6.62	97.16	110.40
5	B	1108	ARG	CG-CD-NE	-6.62	97.90	111.80
4	A	605	MET	CB-CG-SD	-6.62	92.55	112.40
4	A	970	THR	N-CA-CB	6.61	122.87	110.30
5	B	97	VAL	N-CA-C	6.61	128.86	111.00
4	A	1014	ALA	N-CA-CB	-6.61	100.84	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	355	ILE	C-N-CA	-6.61	105.17	121.70
4	A	1221	LYS	CA-CB-CG	6.61	127.94	113.40
7	E	62	ALA	C-N-CA	6.61	138.22	121.70
5	B	419	THR	N-CA-C	6.61	128.84	111.00
4	A	173	THR	N-CA-C	-6.61	93.16	111.00
5	B	662	MET	CB-CA-C	6.61	123.62	110.40
5	B	939	THR	CA-CB-CG2	-6.61	103.15	112.40
9	H	88	SER	N-CA-CB	-6.61	100.59	110.50
4	A	1112	LYS	CA-CB-CG	6.61	127.93	113.40
5	B	578	THR	C-N-CA	-6.61	105.19	121.70
4	A	991	LYS	CD-CE-NZ	6.60	126.89	111.70
5	B	431	TYR	CZ-CE2-CD2	6.60	125.74	119.80
9	H	130	ARG	CD-NE-CZ	6.60	132.85	123.60
5	B	1067	ARG	CD-NE-CZ	6.60	132.84	123.60
10	I	17	ARG	CA-C-N	-6.60	102.67	117.20
5	B	663	ALA	CB-CA-C	-6.60	100.20	110.10
12	K	77	THR	CA-CB-CG2	-6.60	103.16	112.40
4	A	1055	ARG	CB-CA-C	-6.60	97.20	110.40
5	B	858	SER	CB-CA-C	-6.60	97.56	110.10
4	A	112	LYS	O-C-N	6.59	133.25	122.70
5	B	362	PRO	CA-N-CD	-6.59	102.27	111.50
4	A	115	LEU	CB-CG-CD2	6.59	122.20	111.00
4	A	570	PRO	N-CD-CG	-6.59	93.32	103.20
4	A	656	TRP	CA-CB-CG	-6.59	101.18	113.70
4	A	836	TYR	CE1-CZ-CE2	-6.59	109.26	119.80
4	A	1376	THR	N-CA-CB	-6.59	97.78	110.30
5	B	941	LEU	CB-CA-C	-6.59	97.68	110.20
4	A	570	PRO	N-CA-CB	-6.59	95.35	102.60
5	B	241	ARG	NH1-CZ-NH2	-6.59	112.15	119.40
5	B	712	PRO	C-N-CA	-6.59	105.23	121.70
4	A	200	ARG	O-C-N	6.59	133.24	122.70
5	B	622	LYS	CA-CB-CG	6.59	127.89	113.40
5	B	884	ARG	CA-C-N	-6.59	102.71	117.20
5	B	1220	ARG	C-N-CA	6.59	138.16	121.70
7	E	61	GLN	CA-C-N	-6.59	102.71	117.20
7	E	182	ASP	OD1-CG-OD2	-6.59	110.78	123.30
7	E	214	CYS	CB-CA-C	6.59	123.58	110.40
8	F	144	GLU	OE1-CD-OE2	6.59	131.20	123.30
5	B	1129	ARG	CA-CB-CG	6.58	127.89	113.40
9	H	5	LEU	CB-CG-CD1	6.58	122.19	111.00
9	H	55	LEU	CB-CG-CD1	-6.58	99.81	111.00
5	B	705	MET	CA-CB-CG	-6.58	102.11	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	F	140	ASP	CB-CG-OD2	6.58	124.22	118.30
4	A	74	MET	N-CA-C	6.58	128.77	111.00
4	A	107	CYS	N-CA-CB	6.58	122.44	110.60
4	A	406	ILE	CA-C-N	-6.58	102.73	117.20
4	A	820	GLY	CA-C-O	6.58	132.44	120.60
5	B	393	LYS	CG-CD-CE	6.58	131.63	111.90
5	B	746	SER	C-N-CA	-6.58	105.25	121.70
12	K	35	PHE	C-N-CA	-6.58	105.25	121.70
1	R	1	A	P-O3'-C3'	6.58	127.59	119.70
4	A	752	LYS	N-CA-C	6.58	128.76	111.00
4	A	1422	ARG	NE-CZ-NH1	6.58	123.59	120.30
4	A	1257	ASP	O-C-N	6.58	133.22	122.70
5	B	315	LYS	C-N-CD	6.57	142.20	128.40
5	B	449	ASN	CB-CA-C	-6.57	97.25	110.40
5	B	1185	CYS	CA-CB-SG	6.57	125.83	114.00
4	A	805	LEU	C-N-CA	-6.57	105.27	121.70
6	C	78	GLU	CB-CA-C	6.57	123.54	110.40
13	L	39	SER	N-CA-CB	6.57	120.36	110.50
4	A	1128	GLN	CB-CA-C	6.57	123.54	110.40
4	A	975	HIS	CA-C-N	-6.57	102.75	117.20
5	B	241	ARG	CA-CB-CG	6.57	127.85	113.40
6	C	134	ILE	CG1-CB-CG2	6.57	125.84	111.40
4	A	47	ARG	NH1-CZ-NH2	-6.56	112.18	119.40
4	A	425	GLN	N-CA-C	-6.56	93.28	111.00
4	A	655	PHE	CB-CG-CD2	6.56	125.39	120.80
5	B	397	ASP	CB-CG-OD2	6.56	124.21	118.30
5	B	866	TYR	CB-CG-CD2	6.56	124.94	121.00
12	K	73	LEU	CB-CG-CD2	-6.56	99.84	111.00
6	C	86	CYS	CA-CB-SG	-6.56	102.19	114.00
4	A	735	VAL	CA-C-O	-6.56	106.33	120.10
4	A	806	ARG	O-C-N	6.56	134.35	123.20
4	A	559	VAL	C-N-CA	-6.56	105.31	121.70
4	A	602	ASP	CB-CG-OD1	6.56	124.20	118.30
4	A	1287	TYR	CB-CG-CD2	6.55	124.93	121.00
5	B	287	ARG	CB-CG-CD	6.55	128.64	111.60
9	H	145	ARG	CA-CB-CG	6.55	127.82	113.40
10	I	99	LEU	N-CA-C	6.55	128.69	111.00
4	A	551	TYR	CG-CD1-CE1	6.55	126.54	121.30
6	C	229	TYR	CB-CG-CD2	6.55	124.93	121.00
4	A	899	VAL	CA-C-N	-6.55	102.80	117.20
4	A	951	GLU	O-C-N	6.55	133.18	122.70
5	B	1215	ARG	NE-CZ-NH2	-6.55	117.03	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	792	TYR	CA-C-N	-6.54	102.81	117.20
5	B	409	ALA	C-N-CA	-6.54	108.56	122.30
5	B	410	GLY	CA-C-O	6.54	132.38	120.60
5	B	856	PHE	CB-CG-CD2	-6.54	116.22	120.80
4	A	170	THR	N-CA-CB	-6.54	97.87	110.30
9	H	99	GLY	N-CA-C	6.54	129.46	113.10
5	B	884	ARG	O-C-N	6.54	133.16	122.70
5	B	1092	TYR	N-CA-C	6.54	128.66	111.00
4	A	542	GLU	N-CA-C	6.54	128.65	111.00
4	A	768	GLN	N-CA-CB	-6.54	98.83	110.60
5	B	122	LEU	CB-CG-CD1	-6.54	99.88	111.00
4	A	450	LEU	CB-CG-CD1	6.54	122.11	111.00
7	E	32	GLN	CB-CA-C	6.54	123.47	110.40
4	A	1105	LEU	CA-CB-CG	-6.53	100.28	115.30
4	A	1373	ASP	OD1-CG-OD2	-6.53	110.89	123.30
4	A	1353	TYR	CB-CG-CD2	-6.53	117.08	121.00
4	A	407	ARG	NE-CZ-NH2	-6.53	117.03	120.30
5	B	229	ALA	O-C-N	6.53	133.15	122.70
5	B	265	SER	O-C-N	-6.53	112.25	122.70
5	B	619	ILE	CA-C-O	6.53	133.81	120.10
7	E	34	GLU	CA-C-O	6.53	133.82	120.10
7	E	108	GLY	N-CA-C	6.53	129.43	113.10
8	F	83	PRO	C-N-CA	6.53	138.03	121.70
10	I	33	SER	N-CA-CB	6.53	120.30	110.50
5	B	416	LEU	C-N-CA	-6.53	105.38	121.70
13	L	40	LEU	CB-CA-C	6.53	122.60	110.20
4	A	735	VAL	CA-CB-CG2	6.53	120.69	110.90
4	A	926	GLN	CB-CA-C	6.53	123.45	110.40
4	A	1026	LEU	CB-CG-CD1	-6.53	99.91	111.00
4	A	578	LEU	CA-CB-CG	-6.52	100.30	115.30
4	A	106	VAL	CB-CA-C	-6.52	99.01	111.40
4	A	316	GLN	N-CA-C	-6.52	93.39	111.00
5	B	857	ARG	CB-CA-C	-6.52	97.36	110.40
4	A	1224	LEU	CB-CG-CD2	6.52	122.09	111.00
4	A	67	CYS	CA-CB-SG	6.52	125.73	114.00
4	A	12	ARG	NE-CZ-NH1	6.52	123.56	120.30
5	B	430	ARG	CA-C-N	6.52	131.54	117.20
5	B	769	TYR	CZ-CE2-CD2	6.52	125.67	119.80
4	A	346	ASP	CB-CG-OD2	6.52	124.16	118.30
5	B	1131	GLY	CA-C-N	-6.51	102.87	117.20
5	B	959	ASP	CB-CG-OD2	-6.51	112.44	118.30
4	A	711	ARG	NE-CZ-NH2	-6.51	117.04	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	876	ALA	C-N-CA	-6.51	105.42	121.70
5	B	420	LEU	CA-CB-CG	-6.51	100.33	115.30
4	A	1052	GLN	CB-CA-C	6.51	123.42	110.40
4	A	540	PHE	N-CA-C	6.51	128.57	111.00
4	A	826	ASP	CB-CA-C	6.51	123.41	110.40
4	A	560	ILE	C-N-CD	6.50	142.06	128.40
4	A	1015	VAL	CA-CB-CG2	-6.50	101.14	110.90
5	B	1010	LEU	CB-CG-CD1	-6.50	99.94	111.00
5	B	1150	ARG	CA-CB-CG	-6.50	99.09	113.40
8	F	90	ARG	NE-CZ-NH2	-6.50	117.05	120.30
5	B	1020	ARG	NE-CZ-NH2	-6.50	117.05	120.30
7	E	52	ARG	CB-CG-CD	6.50	128.50	111.60
7	E	135	PHE	CB-CG-CD1	6.50	125.35	120.80
10	I	16	PRO	CA-N-CD	-6.50	102.40	111.50
13	L	70	ARG	CG-CD-NE	6.50	125.45	111.80
4	A	1357	ALA	N-CA-CB	-6.50	101.00	110.10
4	A	1371	LEU	CA-CB-CG	-6.50	100.36	115.30
4	A	531	ILE	CA-CB-CG2	6.50	123.89	110.90
4	A	751	SER	C-N-CA	6.50	137.94	121.70
4	A	1116	LEU	CB-CA-C	-6.50	97.86	110.20
4	A	1188	GLN	C-N-CA	-6.50	105.46	121.70
4	A	1285	MET	CG-SD-CE	6.50	110.59	100.20
4	A	201	VAL	N-CA-CB	-6.50	97.21	111.50
13	L	59	ALA	N-CA-C	-6.50	93.46	111.00
4	A	182	VAL	N-CA-C	6.49	128.53	111.00
5	B	710	LEU	CB-CG-CD2	6.49	122.04	111.00
4	A	846	GLU	N-CA-C	6.49	128.53	111.00
5	B	20	ASP	CB-CG-OD2	6.49	124.14	118.30
5	B	810	GLU	CA-CB-CG	-6.49	99.12	113.40
8	F	92	ARG	CD-NE-CZ	6.49	132.69	123.60
8	F	94	LEU	CB-CG-CD2	-6.49	99.97	111.00
4	A	1305	VAL	C-N-CA	-6.49	105.48	121.70
5	B	1188	LYS	CA-CB-CG	6.49	127.68	113.40
5	B	1179	GLN	CA-C-N	-6.49	102.93	117.20
9	H	38	LEU	CB-CA-C	-6.49	97.88	110.20
4	A	1013	ASP	CB-CA-C	6.49	123.37	110.40
5	B	666	TYR	CA-C-O	-6.48	106.48	120.10
4	A	614	PHE	CB-CG-CD2	6.48	125.34	120.80
7	E	10	SER	N-CA-C	-6.48	93.50	111.00
4	A	1224	LEU	CB-CG-CD1	6.48	122.02	111.00
4	A	330	LYS	CD-CE-NZ	6.48	126.60	111.70
5	B	210	LYS	N-CA-CB	6.48	122.26	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C	122	SER	CA-C-N	-6.48	102.95	117.20
5	B	118	ARG	CG-CD-NE	-6.48	98.20	111.80
5	B	882	THR	C-N-CA	-6.48	105.51	121.70
1	R	6	G	P-O5'-C5'	-6.47	110.54	120.90
4	A	34	LYS	CA-CB-CG	6.47	127.65	113.40
4	A	1153	TYR	CE1-CZ-OH	6.47	137.58	120.10
5	B	777	ALA	C-N-CA	-6.47	105.51	121.70
6	C	178	PHE	N-CA-CB	-6.47	98.95	110.60
5	B	1008	PRO	N-CD-CG	-6.47	93.49	103.20
8	F	128	LYS	CB-CA-C	6.47	123.34	110.40
5	B	854	LEU	CA-CB-CG	-6.47	100.42	115.30
5	B	785	TYR	O-C-N	6.47	133.05	122.70
12	K	55	LYS	CB-CA-C	6.47	123.34	110.40
10	I	60	GLN	N-CA-CB	6.47	122.24	110.60
4	A	895	LYS	CA-CB-CG	6.46	127.62	113.40
4	A	1343	ALA	C-N-CA	-6.46	108.72	122.30
6	C	73	GLN	CB-CA-C	-6.46	97.47	110.40
4	A	536	LEU	N-CA-C	6.46	128.45	111.00
4	A	990	VAL	N-CA-CB	-6.46	97.28	111.50
5	B	1075	GLY	N-CA-C	6.46	129.26	113.10
4	A	1338	VAL	CB-CA-C	-6.46	99.12	111.40
5	B	484	ASN	CA-C-N	-6.46	102.99	117.20
5	B	999	MET	CB-CA-C	-6.46	97.48	110.40
5	B	799	PRO	CA-CB-CG	-6.46	91.73	104.00
7	E	7	ARG	CG-CD-NE	-6.45	98.25	111.80
8	F	155	LEU	CA-C-O	-6.45	106.56	120.10
4	A	329	LEU	CB-CG-CD1	6.45	121.96	111.00
4	A	1399	ARG	CB-CA-C	6.45	123.30	110.40
5	B	1137	CYS	C-N-CA	-6.45	105.58	121.70
2	T	13	DA	P-O3'-C3'	-6.45	111.97	119.70
4	A	970	THR	CB-CA-C	-6.45	94.20	111.60
5	B	958	GLN	N-CA-C	-6.45	93.60	111.00
7	E	40	GLU	CB-CA-C	6.45	123.29	110.40
4	A	171	GLN	N-CA-C	-6.44	93.60	111.00
5	B	981	ALA	CA-C-O	-6.44	106.57	120.10
10	I	118	ARG	CB-CA-C	-6.44	97.51	110.40
4	A	170	THR	OG1-CB-CG2	-6.44	95.18	110.00
6	C	21	ILE	N-CA-C	-6.44	93.60	111.00
7	E	82	PHE	CA-C-N	-6.44	103.03	117.20
7	E	56	LYS	O-C-N	6.44	133.01	122.70
11	J	54	VAL	CB-CA-C	6.44	123.64	111.40
4	A	1293	SER	CA-C-N	-6.44	99.07	117.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	286	HIS	CA-CB-CG	6.44	124.54	113.60
4	A	1294	PRO	CB-CA-C	-6.44	95.91	112.00
5	B	1091	TYR	CB-CA-C	-6.43	97.54	110.40
6	C	260	LEU	CB-CG-CD2	-6.43	100.07	111.00
11	J	44	TYR	CG-CD1-CE1	6.43	126.45	121.30
9	H	112	ILE	CA-CB-CG1	-6.43	98.78	111.00
5	B	230	ALA	CB-CA-C	-6.43	100.46	110.10
5	B	889	THR	N-CA-CB	6.43	122.51	110.30
5	B	243	ALA	N-CA-CB	6.42	119.09	110.10
9	H	41	ASP	CB-CG-OD1	6.42	124.08	118.30
4	A	1081	LEU	N-CA-CB	6.42	123.25	110.40
7	E	72	PHE	N-CA-C	6.42	128.34	111.00
9	H	94	ASP	CB-CG-OD1	-6.42	112.52	118.30
4	A	400	PRO	C-N-CA	-6.42	108.81	122.30
5	B	549	THR	CA-CB-OG1	-6.42	95.52	109.00
4	A	1033	GLN	CB-CA-C	-6.42	97.56	110.40
6	C	212	PRO	N-CA-CB	-6.42	95.54	102.60
4	A	58	LEU	CB-CA-C	-6.42	98.01	110.20
4	A	134	ARG	CB-CA-C	-6.42	97.56	110.40
4	A	318	SER	N-CA-CB	6.42	120.13	110.50
4	A	1187	GLN	C-N-CA	6.42	137.74	121.70
6	C	187	LYS	N-CA-CB	-6.42	99.05	110.60
12	K	4	PRO	O-C-N	6.42	132.97	122.70
4	A	1419	ASP	CA-C-N	-6.42	103.09	117.20
9	H	94	ASP	N-CA-CB	6.42	122.15	110.60
4	A	333	GLU	CG-CD-OE2	-6.41	105.47	118.30
5	B	634	TYR	CB-CG-CD1	-6.41	117.15	121.00
6	C	205	LYS	N-CA-CB	6.41	122.14	110.60
7	E	26	ARG	N-CA-CB	6.41	122.14	110.60
4	A	588	LEU	N-CA-C	6.41	128.31	111.00
6	C	91	HIS	C-N-CA	-6.41	105.68	121.70
4	A	851	HIS	CB-CA-C	-6.41	97.58	110.40
5	B	1035	ALA	CB-CA-C	6.41	119.71	110.10
5	B	1194	ILE	C-N-CA	-6.41	105.68	121.70
12	K	4	PRO	CA-C-N	-6.41	103.11	117.20
5	B	459	TYR	CG-CD1-CE1	6.41	126.42	121.30
6	C	22	LEU	CB-CA-C	6.41	122.37	110.20
12	K	74	ARG	CD-NE-CZ	6.41	132.57	123.60
4	A	1284	MET	CG-SD-CE	6.40	110.45	100.20
5	B	307	ASP	OD1-CG-OD2	6.40	135.47	123.30
4	A	420	ARG	CA-CB-CG	-6.40	99.31	113.40
4	A	444	PHE	CB-CA-C	-6.40	97.59	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	727	ASP	CA-C-N	-6.40	103.11	117.20
4	A	733	ALA	CB-CA-C	6.40	119.70	110.10
4	A	898	ARG	N-CA-CB	6.40	122.12	110.60
5	B	241	ARG	N-CA-CB	-6.40	99.08	110.60
5	B	987	LYS	CB-CG-CD	6.40	128.24	111.60
5	B	1031	LEU	CB-CG-CD1	-6.40	100.12	111.00
5	B	542	MET	CG-SD-CE	6.40	110.44	100.20
13	L	44	ASP	N-CA-C	-6.40	93.73	111.00
9	H	62	SER	N-CA-C	6.40	128.27	111.00
5	B	459	TYR	CE1-CZ-CE2	-6.39	109.57	119.80
10	I	17	ARG	CD-NE-CZ	6.39	132.55	123.60
13	L	40	LEU	O-C-N	6.39	132.93	122.70
12	K	34	THR	OG1-CB-CG2	6.39	124.69	110.00
5	B	371	GLU	C-N-CA	-6.39	105.73	121.70
7	E	189	GLY	N-CA-C	6.39	129.06	113.10
4	A	1232	ASN	CB-CA-C	-6.38	97.63	110.40
5	B	623	GLU	CG-CD-OE2	-6.38	105.53	118.30
7	E	46	TYR	CA-C-N	-6.38	103.15	117.20
4	A	961	ARG	CB-CA-C	-6.38	97.63	110.40
5	B	518	HIS	CB-CA-C	-6.38	97.63	110.40
12	K	19	LEU	O-C-N	6.38	132.91	122.70
4	A	1188	GLN	CA-CB-CG	6.38	127.44	113.40
5	B	830	TYR	C-N-CA	-6.38	105.75	121.70
10	I	17	ARG	N-CA-CB	6.38	122.09	110.60
5	B	1222	ARG	CD-NE-CZ	6.38	132.53	123.60
4	A	995	GLU	CA-CB-CG	6.38	127.43	113.40
4	A	1036	ARG	CA-CB-CG	6.38	127.43	113.40
5	B	1009	ASP	N-CA-CB	-6.38	99.12	110.60
5	B	1129	ARG	CG-CD-NE	-6.38	98.40	111.80
12	K	18	LYS	C-N-CA	-6.38	105.75	121.70
4	A	681	GLU	CG-CD-OE1	6.38	131.05	118.30
5	B	540	SER	N-CA-CB	-6.38	100.94	110.50
6	C	66	ARG	C-N-CA	-6.38	105.76	121.70
8	F	143	PHE	CB-CG-CD2	-6.38	116.34	120.80
4	A	805	LEU	CA-CB-CG	6.37	129.96	115.30
4	A	1268	LEU	CB-CG-CD1	6.37	121.83	111.00
10	I	98	VAL	CB-CA-C	-6.37	99.29	111.40
4	A	514	PRO	CB-CA-C	-6.37	96.07	112.00
4	A	516	SER	CA-CB-OG	6.37	128.40	111.20
4	A	1130	GLN	CB-CA-C	6.37	123.14	110.40
6	C	47	ASP	CA-C-N	-6.37	103.18	117.20
12	K	6	ARG	CG-CD-NE	-6.37	98.42	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1159	ARG	CB-CA-C	6.37	123.14	110.40
5	B	246	LYS	CA-CB-CG	6.37	127.41	113.40
10	I	43	VAL	O-C-N	6.37	132.89	122.70
5	B	221	ASN	CA-C-O	6.37	133.47	120.10
5	B	223	VAL	N-CA-C	6.37	128.19	111.00
5	B	370	PHE	CB-CA-C	6.37	123.14	110.40
5	B	953	LEU	CB-CG-CD1	-6.37	100.17	111.00
2	T	20	DC	C4'-C3'-C2'	6.37	108.83	103.10
5	B	447	ALA	N-CA-C	6.37	128.19	111.00
9	H	87	ARG	N-CA-C	6.37	128.19	111.00
4	A	670	ILE	N-CA-C	6.36	128.18	111.00
4	A	792	TYR	O-C-N	6.36	132.88	122.70
4	A	592	ASP	OD1-CG-OD2	-6.36	111.21	123.30
4	A	1119	TYR	CB-CA-C	-6.36	97.68	110.40
9	H	121	LEU	CB-CG-CD2	6.36	121.81	111.00
4	A	735	VAL	C-N-CA	-6.36	105.80	121.70
4	A	1303	GLU	CA-CB-CG	6.36	127.39	113.40
4	A	736	ASN	CB-CA-C	-6.36	97.69	110.40
5	B	350	GLN	N-CA-C	-6.36	93.84	111.00
5	B	474	SER	CB-CA-C	6.36	122.18	110.10
10	I	78	CYS	O-C-N	6.36	132.87	122.70
4	A	57	ARG	CD-NE-CZ	6.36	132.50	123.60
4	A	263	THR	OG1-CB-CG2	-6.36	95.38	110.00
5	B	25	ILE	N-CA-C	6.36	128.16	111.00
5	B	290	GLY	C-N-CA	-6.36	105.81	121.70
5	B	887	HIS	CA-CB-CG	6.36	124.41	113.60
7	E	94	LYS	CD-CE-NZ	6.36	126.32	111.70
9	H	14	GLU	CA-CB-CG	6.36	127.38	113.40
5	B	617	ARG	NE-CZ-NH1	-6.35	117.12	120.30
4	A	697	ALA	CB-CA-C	-6.35	100.57	110.10
4	A	1002	GLY	N-CA-C	6.35	128.98	113.10
4	A	1289	ARG	CG-CD-NE	6.35	125.14	111.80
5	B	281	PRO	CA-C-N	-6.35	103.23	117.20
6	C	136	ASP	CB-CA-C	6.35	123.10	110.40
4	A	406	ILE	CB-CA-C	-6.35	98.90	111.60
6	C	39	ALA	N-CA-CB	-6.35	101.21	110.10
13	L	60	ARG	CG-CD-NE	6.35	125.13	111.80
4	A	260	ASP	N-CA-CB	6.35	122.03	110.60
5	B	322	PHE	CA-C-N	-6.35	103.24	117.20
5	B	577	ALA	C-N-CA	-6.35	105.83	121.70
5	B	1082	MET	CG-SD-CE	6.35	110.36	100.20
6	C	220	ASP	C-N-CA	-6.35	105.84	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	606	LEU	CA-CB-CG	-6.34	100.71	115.30
6	C	38	ILE	N-CA-C	6.34	128.13	111.00
4	A	1193	LEU	CB-CG-CD1	-6.34	100.22	111.00
4	A	1050	GLU	OE1-CD-OE2	6.34	130.91	123.30
5	B	133	LYS	N-CA-C	6.34	128.12	111.00
5	B	384	ARG	C-N-CA	-6.34	105.85	121.70
5	B	1224	PHE	CB-CG-CD2	6.34	125.24	120.80
6	C	255	VAL	CA-C-N	-6.34	103.25	117.20
10	I	70	ARG	NH1-CZ-NH2	6.34	126.38	119.40
5	B	39	ARG	N-CA-CB	6.34	122.01	110.60
5	B	826	ALA	CA-C-N	-6.34	103.25	117.20
4	A	512	VAL	CA-CB-CG2	-6.34	101.39	110.90
10	I	6	PHE	C-N-CA	-6.34	105.86	121.70
4	A	804	TYR	CD1-CE1-CZ	6.34	125.50	119.80
4	A	1110	ASN	CB-CA-C	6.34	123.07	110.40
4	A	1418	LEU	CA-C-N	-6.34	103.26	117.20
11	J	61	LEU	CA-CB-CG	-6.34	100.72	115.30
4	A	144	THR	CB-CA-C	-6.33	94.50	111.60
4	A	448	PRO	CA-C-N	-6.33	103.27	117.20
7	E	37	LEU	CB-CG-CD1	-6.33	100.23	111.00
7	E	58	MET	C-N-CA	6.33	137.53	121.70
10	I	93	LYS	CA-CB-CG	6.33	127.33	113.40
4	A	891	ALA	CB-CA-C	-6.33	100.60	110.10
4	A	1346	ALA	C-N-CA	-6.33	105.87	121.70
6	C	21	ILE	CB-CA-C	-6.33	98.94	111.60
7	E	39	LEU	CB-CG-CD2	-6.33	100.24	111.00
4	A	967	ALA	N-CA-C	-6.33	93.91	111.00
4	A	45	GLN	N-CA-CB	6.33	121.99	110.60
4	A	1444	MET	N-CA-C	6.33	128.09	111.00
5	B	1176	ASN	CA-C-N	-6.33	103.28	117.20
4	A	734	GLU	CG-CD-OE2	-6.33	105.65	118.30
4	A	1316	VAL	CB-CA-C	-6.33	99.38	111.40
4	A	1151	GLU	N-CA-C	6.33	128.08	111.00
11	J	59	LYS	C-N-CA	-6.33	105.89	121.70
4	A	290	GLU	OE1-CD-OE2	-6.32	115.71	123.30
7	E	55	ARG	N-CA-C	6.32	128.08	111.00
5	B	298	LEU	CB-CG-CD1	-6.32	100.26	111.00
5	B	468	GLU	N-CA-CB	6.32	121.98	110.60
6	C	203	GLN	N-CA-CB	-6.32	99.22	110.60
11	J	48	ARG	CG-CD-NE	-6.32	98.53	111.80
5	B	1217	TYR	CB-CG-CD1	-6.32	117.21	121.00
4	A	805	LEU	CB-CA-C	-6.32	98.20	110.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C	57	VAL	CB-CA-C	-6.32	99.40	111.40
10	I	91	ARG	CA-C-N	-6.32	103.30	117.20
12	K	68	PHE	C-N-CA	6.32	137.49	121.70
4	A	47	ARG	CA-C-N	-6.32	103.31	117.20
4	A	1038	THR	CA-C-N	-6.32	103.30	117.20
9	H	102	TYR	N-CA-C	6.32	128.05	111.00
4	A	309	ALA	C-N-CA	-6.31	109.04	122.30
4	A	489	LEU	CB-CG-CD1	-6.31	100.27	111.00
7	E	124	VAL	CG1-CB-CG2	6.31	121.00	110.90
7	E	133	GLU	CA-CB-CG	6.31	127.29	113.40
5	B	43	LEU	CB-CG-CD1	6.31	121.73	111.00
5	B	434	ARG	NE-CZ-NH1	6.31	123.46	120.30
4	A	239	LEU	N-CA-CB	-6.31	97.78	110.40
4	A	974	ASP	N-CA-C	6.31	128.04	111.00
10	I	102	VAL	CB-CA-C	-6.31	99.41	111.40
4	A	39	GLU	CB-CA-C	6.31	123.01	110.40
4	A	1031	VAL	CA-C-O	-6.31	106.86	120.10
5	B	333	PHE	CB-CG-CD2	-6.30	116.39	120.80
4	A	1384	VAL	N-CA-CB	6.30	125.37	111.50
5	B	740	HIS	CB-CG-ND1	-6.30	107.44	123.20
4	A	1418	LEU	CB-CG-CD1	6.30	121.71	111.00
10	I	109	ILE	CB-CA-C	-6.30	99.00	111.60
5	B	459	TYR	OH-CZ-CE2	6.30	137.11	120.10
5	B	732	SER	O-C-N	6.30	132.78	122.70
9	H	101	ALA	O-C-N	6.30	132.78	122.70
4	A	507	VAL	CA-CB-CG2	-6.30	101.45	110.90
4	A	551	TYR	CB-CG-CD1	-6.30	117.22	121.00
5	B	334	ILE	O-C-N	6.30	133.90	123.20
7	E	165	LEU	CB-CG-CD2	-6.30	100.30	111.00
9	H	137	GLN	O-C-N	6.30	132.77	122.70
5	B	418	LYS	CD-CE-NZ	6.29	126.18	111.70
4	A	891	ALA	CA-C-N	-6.29	103.36	117.20
1	R	7	A	C4'-C3'-O3'	6.29	125.58	113.00
9	H	23	VAL	CA-CB-CG1	-6.29	101.46	110.90
9	H	37	LYS	CG-CD-CE	6.29	130.77	111.90
11	J	38	ARG	CG-CD-NE	-6.29	98.59	111.80
6	C	163	ILE	CB-CA-C	-6.29	99.02	111.60
4	A	531	ILE	C-N-CA	6.29	137.42	121.70
4	A	776	ALA	CA-C-N	-6.29	103.36	117.20
10	I	98	VAL	N-CA-C	6.29	127.98	111.00
4	A	573	SER	N-CA-CB	6.29	119.93	110.50
4	A	252	PHE	O-C-N	6.29	132.76	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	691	LEU	CB-CA-C	-6.29	98.26	110.20
4	A	1136	SER	CA-C-O	6.29	133.30	120.10
4	A	1314	SER	CA-C-N	-6.28	103.38	117.20
8	F	119	ARG	NH1-CZ-NH2	-6.28	112.49	119.40
5	B	448	ILE	CB-CA-C	-6.28	99.04	111.60
4	A	410	GLY	N-CA-C	6.28	128.80	113.10
6	C	46	ILE	N-CA-C	6.28	127.96	111.00
4	A	1334	ASP	OD1-CG-OD2	-6.28	111.37	123.30
7	E	4	GLU	CB-CG-CD	6.28	131.15	114.20
4	A	359	LEU	CA-C-N	6.28	131.01	117.20
4	A	481	ASP	CB-CG-OD2	6.28	123.95	118.30
4	A	1095	THR	O-C-N	6.28	132.74	122.70
5	B	655	LYS	N-CA-CB	6.28	121.90	110.60
6	C	19	ASP	C-N-CA	-6.28	106.01	121.70
4	A	303	TYR	CD1-CE1-CZ	6.28	125.45	119.80
5	B	1123	SER	N-CA-CB	-6.28	101.09	110.50
4	A	1195	LEU	CB-CG-CD2	-6.27	100.33	111.00
5	B	825	VAL	CA-C-N	-6.27	103.40	117.20
4	A	12	ARG	CA-C-N	-6.27	103.40	117.20
5	B	1030	LEU	CB-CG-CD1	6.27	121.66	111.00
4	A	406	ILE	CG1-CB-CG2	-6.27	97.61	111.40
4	A	1307	GLU	OE1-CD-OE2	6.27	130.82	123.30
8	F	132	LEU	CB-CG-CD2	-6.27	100.34	111.00
7	E	66	GLU	CA-C-N	-6.27	103.41	117.20
4	A	1207	LEU	CB-CG-CD2	6.27	121.65	111.00
4	A	98	LYS	CD-CE-NZ	6.26	126.11	111.70
5	B	261	ARG	CB-CG-CD	6.26	127.89	111.60
5	B	399	ASP	CB-CG-OD1	-6.26	112.66	118.30
5	B	848	ARG	NE-CZ-NH2	6.26	123.43	120.30
9	H	8	ASP	CB-CG-OD2	-6.26	112.66	118.30
11	J	44	TYR	CB-CA-C	6.26	122.93	110.40
4	A	886	ILE	C-N-CA	-6.26	109.15	122.30
9	H	14	GLU	CG-CD-OE1	6.26	130.82	118.30
4	A	251	SER	C-N-CA	6.26	137.35	121.70
4	A	939	ASP	CB-CA-C	6.26	122.92	110.40
4	A	129	LYS	CB-CG-CD	6.26	127.87	111.60
7	E	119	SER	CA-C-N	-6.26	103.43	117.20
6	C	93	ASP	CB-CG-OD2	6.25	123.93	118.30
7	E	176	PRO	N-CA-C	-6.25	95.84	112.10
12	K	41	THR	N-CA-CB	6.25	122.18	110.30
4	A	428	TYR	C-N-CA	-6.25	109.17	122.30
5	B	984	HIS	C-N-CA	-6.25	109.17	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	811	TYR	CD1-CE1-CZ	6.25	125.43	119.80
12	K	5	ASP	N-CA-CB	6.25	121.85	110.60
12	K	85	ASP	CB-CG-OD1	-6.25	112.68	118.30
4	A	303	TYR	CE1-CZ-CE2	-6.25	109.81	119.80
5	B	180	TYR	C-N-CA	-6.25	106.08	121.70
5	B	825	VAL	N-CA-C	6.25	127.87	111.00
10	I	113	ASP	CB-CG-OD2	6.25	123.92	118.30
13	L	41	SER	N-CA-CB	-6.25	101.13	110.50
5	B	287	ARG	N-CA-C	-6.25	94.14	111.00
4	A	857	ARG	NE-CZ-NH1	-6.24	117.18	120.30
6	C	82	TYR	CB-CG-CD2	6.24	124.75	121.00
6	C	209	TYR	OH-CZ-CE2	6.24	136.96	120.10
8	F	123	LYS	CA-CB-CG	6.24	127.13	113.40
5	B	112	LEU	N-CA-C	6.24	127.85	111.00
5	B	207	GLY	O-C-N	6.24	132.68	122.70
6	C	172	PRO	C-N-CA	-6.24	106.10	121.70
12	K	50	LEU	CB-CA-C	-6.24	98.34	110.20
4	A	41	MET	N-CA-C	6.24	127.84	111.00
4	A	720	ARG	CB-CA-C	-6.24	97.92	110.40
5	B	678	GLU	CG-CD-OE1	-6.24	105.83	118.30
5	B	693	ILE	N-CA-C	6.24	127.84	111.00
5	B	934	LYS	CD-CE-NZ	6.24	126.05	111.70
12	K	46	ILE	C-N-CA	-6.24	106.11	121.70
4	A	556	TRP	CB-CG-CD1	-6.24	118.89	127.00
5	B	1192	TYR	CB-CG-CD2	-6.24	117.26	121.00
4	A	850	VAL	CB-CA-C	-6.24	99.55	111.40
5	B	866	TYR	CA-C-N	-6.24	103.73	116.20
13	L	28	LYS	C-N-CA	-6.24	106.11	121.70
4	A	521	MET	CG-SD-CE	6.23	110.17	100.20
5	B	266	ALA	CA-C-O	6.23	133.19	120.10
5	B	885	MET	C-N-CA	-6.23	106.11	121.70
4	A	247	ARG	N-CA-C	6.23	127.83	111.00
4	A	432	VAL	CG1-CB-CG2	-6.23	100.93	110.90
7	E	34	GLU	CG-CD-OE2	-6.23	105.84	118.30
4	A	1035	TYR	CG-CD2-CE2	6.23	126.28	121.30
5	B	880	THR	CB-CA-C	6.23	128.42	111.60
4	A	1207	LEU	O-C-N	6.23	132.67	122.70
4	A	1319	VAL	CG1-CB-CG2	6.23	120.86	110.90
5	B	241	ARG	CG-CD-NE	6.23	124.88	111.80
5	B	758	PHE	CA-C-O	-6.23	107.02	120.10
9	H	145	ARG	NE-CZ-NH2	6.23	123.41	120.30
12	K	54	ARG	NH1-CZ-NH2	-6.23	112.55	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	L	63	ARG	CA-C-N	-6.23	103.50	117.20
4	A	383	TYR	CB-CG-CD1	6.23	124.74	121.00
5	B	176	SER	N-CA-CB	6.22	119.84	110.50
5	B	527	THR	CA-CB-CG2	-6.22	103.69	112.40
5	B	111	ALA	CA-C-N	6.22	130.89	117.20
5	B	276	ILE	O-C-N	6.22	132.66	122.70
5	B	466	TRP	CD1-NE1-CE2	-6.22	103.40	109.00
5	B	966	VAL	CB-CA-C	-6.22	99.58	111.40
6	C	144	ILE	C-N-CA	-6.22	106.15	121.70
6	C	263	THR	N-CA-CB	-6.22	98.48	110.30
6	C	233	GLU	CB-CA-C	-6.22	97.96	110.40
13	L	58	LYS	CD-CE-NZ	-6.22	97.40	111.70
4	A	176	LYS	N-CA-C	-6.22	94.22	111.00
5	B	131	ASP	CB-CA-C	6.22	122.83	110.40
11	J	26	GLN	O-C-N	6.22	132.65	122.70
2	T	22	DT	O5'-P-OP1	6.21	118.16	110.70
4	A	344	ARG	N-CA-C	-6.21	94.22	111.00
4	A	585	GLY	C-N-CA	-6.21	106.16	121.70
4	A	1401	SER	CA-CB-OG	6.21	127.98	111.20
5	B	517	THR	CA-C-N	-6.21	103.53	117.20
5	B	982	SER	O-C-N	6.21	132.64	122.70
4	A	57	ARG	NE-CZ-NH1	6.21	123.41	120.30
4	A	871	ASP	N-CA-CB	6.21	121.78	110.60
4	A	1036	ARG	CD-NE-CZ	6.21	132.29	123.60
9	H	61	SER	N-CA-CB	-6.21	101.18	110.50
4	A	260	ASP	CB-CG-OD2	-6.21	112.71	118.30
4	A	316	GLN	CA-CB-CG	6.21	127.06	113.40
5	B	296	GLU	CG-CD-OE2	-6.21	105.88	118.30
4	A	249	SER	CA-C-O	-6.21	107.06	120.10
5	B	107	GLY	C-N-CA	6.21	137.22	121.70
5	B	792	MET	N-CA-C	6.21	127.76	111.00
5	B	856	PHE	CB-CG-CD1	6.21	125.15	120.80
5	B	886	LYS	CD-CE-NZ	6.21	125.98	111.70
2	T	23	DC	N1-C2-O2	-6.21	115.18	118.90
4	A	863	VAL	C-N-CA	-6.21	106.18	121.70
10	I	44	TYR	CD1-CE1-CZ	6.21	125.39	119.80
7	E	56	LYS	CA-CB-CG	6.21	127.05	113.40
4	A	731	ARG	CG-CD-NE	6.20	124.83	111.80
4	A	1125	ALA	CA-C-N	6.20	130.85	117.20
5	B	565	PRO	C-N-CA	-6.20	106.19	121.70
4	A	129	LYS	CA-C-N	6.20	130.84	117.20
5	B	210	LYS	CD-CE-NZ	6.20	125.96	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	222	ILE	O-C-N	6.20	132.62	122.70
4	A	107	CYS	O-C-N	6.20	132.62	122.70
4	A	353	ILE	CG1-CB-CG2	-6.20	97.76	111.40
11	J	29	GLU	CB-CA-C	6.20	122.80	110.40
5	B	390	LEU	CA-C-N	-6.20	103.57	117.20
4	A	1109	LYS	CG-CD-CE	6.20	130.48	111.90
9	H	84	ALA	CB-CA-C	6.20	119.39	110.10
10	I	59	VAL	N-CA-CB	-6.20	97.87	111.50
13	L	65	VAL	C-N-CA	-6.20	106.21	121.70
5	B	591	ARG	NE-CZ-NH1	-6.19	117.20	120.30
6	C	191	TYR	C-N-CA	-6.19	106.22	121.70
1	R	9	G	O5'-P-OP2	6.19	118.13	110.70
4	A	179	LEU	N-CA-CB	6.19	122.79	110.40
5	B	944	THR	OG1-CB-CG2	6.19	124.24	110.00
9	H	46	LEU	CB-CG-CD1	6.19	121.53	111.00
4	A	739	ASP	CB-CG-OD1	-6.19	112.73	118.30
6	C	165	LYS	CA-CB-CG	6.19	127.02	113.40
8	F	75	PRO	CA-N-CD	-6.19	102.83	111.50
5	B	650	GLU	CB-CA-C	-6.19	98.03	110.40
5	B	745	PRO	CB-CA-C	6.19	127.47	112.00
4	A	126	LEU	CB-CG-CD2	-6.19	100.48	111.00
5	B	123	THR	N-CA-C	6.19	127.70	111.00
5	B	1209	ALA	N-CA-CB	-6.19	101.44	110.10
4	A	39	GLU	CG-CD-OE1	6.18	130.67	118.30
7	E	85	GLU	CB-CA-C	-6.18	98.03	110.40
9	H	103	LYS	C-N-CA	6.18	137.16	121.70
12	K	1	MET	C-N-CA	-6.18	106.24	121.70
4	A	405	VAL	CA-CB-CG1	-6.18	101.63	110.90
4	A	1054	LEU	N-CA-C	6.18	127.69	111.00
4	A	1150	SER	C-N-CA	6.18	137.16	121.70
5	B	567	GLU	OE1-CD-OE2	-6.18	115.88	123.30
7	E	215	MET	N-CA-CB	-6.18	99.47	110.60
4	A	12	ARG	O-C-N	6.18	132.59	122.70
5	B	757	PRO	N-CD-CG	-6.18	93.93	103.20
9	H	16	ASP	CB-CG-OD1	-6.18	112.74	118.30
4	A	810	PRO	CA-CB-CG	-6.18	92.26	104.00
5	B	217	ARG	NE-CZ-NH2	-6.18	117.21	120.30
5	B	349	ILE	CG1-CB-CG2	6.18	125.00	111.40
5	B	363	HIS	N-CA-C	-6.18	94.31	111.00
5	B	1180	PHE	C-N-CA	-6.18	106.25	121.70
6	C	220	ASP	O-C-N	-6.18	112.81	122.70
9	H	46	LEU	CB-CG-CD2	-6.18	100.50	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	461	LYS	CB-CG-CD	6.18	127.66	111.60
10	I	20	LYS	CA-C-N	-6.18	103.61	117.20
6	C	257	SER	O-C-N	6.18	132.58	122.70
8	F	107	VAL	CB-CA-C	6.18	123.14	111.40
4	A	251	SER	N-CA-C	6.17	127.67	111.00
4	A	922	ASP	CB-CG-OD2	6.17	123.86	118.30
4	A	1017	LEU	CB-CA-C	6.17	121.93	110.20
5	B	610	ASN	N-CA-C	6.17	127.67	111.00
12	K	12	LEU	CA-CB-CG	-6.17	101.10	115.30
4	A	63	ARG	C-N-CA	6.17	137.13	121.70
4	A	1138	ILE	CA-C-N	-6.17	103.62	117.20
5	B	177	LYS	CB-CG-CD	6.17	127.65	111.60
5	B	239	GLU	CG-CD-OE2	-6.17	105.96	118.30
9	H	107	VAL	CA-C-N	-6.17	103.62	117.20
4	A	218	ASP	OD1-CG-OD2	-6.17	111.58	123.30
4	A	1288	ASP	N-CA-CB	-6.17	99.50	110.60
5	B	564	GLU	CG-CD-OE2	-6.17	105.96	118.30
5	B	893	LEU	CB-CA-C	-6.17	98.48	110.20
12	K	6	ARG	NH1-CZ-NH2	6.17	126.19	119.40
5	B	175	ARG	CB-CA-C	6.17	122.73	110.40
4	A	900	ASP	OD1-CG-OD2	-6.17	111.59	123.30
10	I	26	LEU	CB-CG-CD1	-6.17	100.52	111.00
4	A	462	VAL	CA-CB-CG1	-6.16	101.65	110.90
10	I	20	LYS	N-CA-C	-6.16	94.36	111.00
4	A	945	GLU	N-CA-C	-6.16	94.37	111.00
4	A	1225	PHE	C-N-CA	-6.16	106.30	121.70
4	A	1237	ILE	CA-C-N	-6.16	103.65	117.20
6	C	67	LEU	CB-CG-CD2	6.16	121.47	111.00
6	C	197	SER	C-N-CA	-6.16	106.30	121.70
6	C	262	LEU	CB-CG-CD2	-6.16	100.53	111.00
6	C	70	ILE	N-CA-C	-6.16	94.37	111.00
4	A	366	VAL	CG1-CB-CG2	6.16	120.75	110.90
4	A	536	LEU	CA-CB-CG	6.16	129.46	115.30
5	B	1003	ALA	N-CA-CB	6.16	118.72	110.10
6	C	168	ALA	CB-CA-C	6.16	119.33	110.10
5	B	698	GLU	CA-CB-CG	6.16	126.94	113.40
5	B	791	THR	N-CA-C	-6.16	94.38	111.00
8	F	112	GLU	CA-C-N	-6.16	103.89	116.20
4	A	206	GLU	CB-CA-C	-6.15	98.09	110.40
4	A	349	ALA	C-N-CA	-6.15	106.31	121.70
5	B	563	MET	CA-CB-CG	6.15	123.76	113.30
4	A	432	VAL	N-CA-CB	-6.15	97.97	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	567	LYS	CD-CE-NZ	6.15	125.84	111.70
9	H	136	LYS	O-C-N	6.15	132.54	122.70
4	A	1298	TYR	CZ-CE2-CD2	6.15	125.33	119.80
5	B	805	THR	C-N-CA	-6.15	106.33	121.70
5	B	1175	LEU	CB-CG-CD1	6.15	121.45	111.00
6	C	4	GLU	OE1-CD-OE2	-6.15	115.92	123.30
4	A	619	LYS	CA-CB-CG	-6.15	99.88	113.40
5	B	228	LYS	CA-C-N	-6.15	103.68	117.20
5	B	943	SER	CB-CA-C	-6.15	98.42	110.10
5	B	130	VAL	CA-C-O	-6.14	107.20	120.10
5	B	316	PRO	N-CA-C	6.14	128.08	112.10
5	B	812	LEU	N-CA-CB	-6.14	98.11	110.40
5	B	967	ARG	NE-CZ-NH2	-6.14	117.23	120.30
4	A	603	ASN	C-N-CA	-6.14	109.40	122.30
4	A	913	LEU	O-C-N	6.14	132.53	122.70
5	B	1173	ALA	C-N-CA	-6.14	106.34	121.70
12	K	92	ASN	N-CA-CB	6.14	121.65	110.60
4	A	534	LEU	CB-CG-CD1	-6.14	100.56	111.00
6	C	106	GLU	CA-C-N	-6.14	103.69	117.20
6	C	222	LYS	O-C-N	6.14	132.52	122.70
7	E	64	PRO	CA-N-CD	-6.14	102.91	111.50
9	H	80	ARG	CB-CA-C	-6.14	98.13	110.40
9	H	91	ASP	C-N-CA	-6.14	106.36	121.70
4	A	254	GLU	N-CA-C	-6.13	94.44	111.00
5	B	267	ARG	NE-CZ-NH2	-6.13	117.23	120.30
5	B	713	ALA	CB-CA-C	6.13	119.30	110.10
5	B	728	ARG	NH1-CZ-NH2	6.13	126.15	119.40
5	B	1115	THR	N-CA-CB	-6.13	98.64	110.30
7	E	171	LYS	CD-CE-NZ	-6.13	97.59	111.70
4	A	1401	SER	N-CA-C	6.13	127.56	111.00
4	A	471	ASN	CA-C-N	6.13	130.69	117.20
6	C	25	VAL	CB-CA-C	-6.13	99.75	111.40
4	A	373	THR	CA-CB-CG2	-6.13	103.82	112.40
4	A	383	TYR	CB-CG-CD2	-6.13	117.32	121.00
4	A	1287	TYR	CE1-CZ-CE2	-6.13	109.99	119.80
7	E	71	LYS	CA-CB-CG	6.13	126.88	113.40
9	H	77	ARG	NE-CZ-NH2	6.13	123.36	120.30
4	A	514	PRO	CA-CB-CG	-6.13	92.36	104.00
4	A	1301	GLU	N-CA-CB	6.13	121.63	110.60
4	A	696	GLU	CG-CD-OE2	-6.12	106.05	118.30
5	B	943	SER	CA-CB-OG	6.12	127.74	111.20
4	A	328	ARG	NE-CZ-NH1	6.12	123.36	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	972	HIS	C-N-CA	6.12	137.01	121.70
4	A	1136	SER	CB-CA-C	6.12	121.73	110.10
4	A	1440	ALA	N-CA-CB	-6.12	101.53	110.10
5	B	90	ILE	O-C-N	-6.12	112.90	122.70
5	B	811	TYR	CA-CB-CG	-6.12	101.76	113.40
4	A	537	ARG	CB-CA-C	-6.12	98.16	110.40
4	A	972	HIS	CA-C-N	-6.12	103.73	117.20
5	B	302	CYS	CB-CA-C	6.12	122.64	110.40
5	B	737	THR	OG1-CB-CG2	-6.12	95.92	110.00
9	H	136	LYS	CA-C-N	-6.12	103.73	117.20
4	A	248	PRO	O-C-N	6.12	132.49	122.70
4	A	1034	GLU	C-N-CA	-6.12	106.40	121.70
4	A	118	HIS	CA-C-N	6.12	130.66	117.20
4	A	362	ASP	CB-CG-OD1	6.12	123.81	118.30
5	B	1203	LEU	CA-CB-CG	-6.12	101.23	115.30
9	H	49	VAL	CB-CA-C	-6.12	99.78	111.40
9	H	37	LYS	CD-CE-NZ	6.12	125.77	111.70
4	A	650	GLN	CB-CG-CD	-6.12	95.70	111.60
5	B	936	ASP	O-C-N	6.12	132.48	122.70
9	H	123	MET	CB-CA-C	-6.12	98.17	110.40
5	B	973	ILE	CB-CA-C	-6.11	99.37	111.60
7	E	36	GLU	N-CA-C	6.11	127.51	111.00
12	K	25	THR	CA-C-N	-6.11	103.75	117.20
4	A	690	VAL	CG1-CB-CG2	-6.11	101.12	110.90
4	A	960	ILE	C-N-CA	-6.11	106.42	121.70
4	A	1352	VAL	CA-CB-CG2	-6.11	101.73	110.90
5	B	327	ARG	CB-CG-CD	6.11	127.49	111.60
6	C	85	ASP	CB-CG-OD1	-6.11	112.80	118.30
7	E	96	PHE	CA-C-N	6.11	130.64	117.20
7	E	133	GLU	CG-CD-OE2	6.11	130.52	118.30
4	A	924	LYS	CD-CE-NZ	6.11	125.75	111.70
5	B	228	LYS	O-C-N	6.11	132.47	122.70
5	B	351	TYR	CZ-CE2-CD2	6.11	125.30	119.80
5	B	630	ALA	N-CA-C	6.11	127.50	111.00
5	B	207	GLY	CA-C-N	-6.11	103.76	117.20
5	B	563	MET	CB-CG-SD	6.11	130.72	112.40
5	B	1021	MET	CA-C-N	-6.11	103.76	117.20
8	F	101	ILE	CG1-CB-CG2	6.11	124.84	111.40
4	A	458	HIS	CA-C-N	-6.11	103.77	117.20
7	E	119	SER	O-C-N	6.11	132.47	122.70
5	B	289	LEU	CB-CG-CD1	6.10	121.38	111.00
5	B	736	THR	CA-C-N	-6.10	103.77	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	L	48	CYS	N-CA-CB	-6.10	99.61	110.60
4	A	704	ALA	CA-C-N	-6.10	103.78	117.20
4	A	350	ARG	NE-CZ-NH1	-6.10	117.25	120.30
5	B	315	LYS	CB-CG-CD	6.10	127.46	111.60
9	H	94	ASP	CA-C-N	6.10	130.62	117.20
4	A	50	ILE	CB-CA-C	-6.10	99.41	111.60
5	B	251	ILE	CA-C-N	-6.10	103.78	117.20
5	B	467	GLY	CA-C-O	-6.10	109.63	120.60
5	B	615	MET	N-CA-CB	-6.10	99.63	110.60
4	A	742	ASN	C-N-CA	-6.09	106.46	121.70
5	B	476	ARG	CG-CD-NE	-6.09	99.00	111.80
5	B	844	SER	CA-CB-OG	-6.09	94.75	111.20
5	B	633	VAL	CA-C-N	6.09	130.59	117.20
5	B	861	ASP	N-CA-CB	-6.09	99.64	110.60
5	B	872	GLU	CG-CD-OE2	-6.09	106.12	118.30
5	B	1079	LYS	CA-CB-CG	-6.09	100.00	113.40
7	E	72	PHE	CA-C-N	-6.09	100.05	117.10
5	B	1119	VAL	CA-CB-CG2	-6.09	101.77	110.90
9	H	129	TYR	CA-C-N	-6.09	103.81	117.20
5	B	278	GLN	N-CA-CB	-6.08	99.65	110.60
5	B	499	ASN	CB-CA-C	6.08	122.57	110.40
5	B	961	LEU	N-CA-CB	-6.08	98.23	110.40
5	B	1086	PHE	CB-CG-CD2	-6.08	116.54	120.80
11	J	59	LYS	N-CA-CB	6.08	121.55	110.60
6	C	120	ILE	C-N-CA	-6.08	106.50	121.70
13	L	42	ARG	CG-CD-NE	6.08	124.57	111.80
5	B	850	LEU	O-C-N	6.08	132.43	122.70
7	E	212	ARG	NH1-CZ-NH2	6.08	126.09	119.40
5	B	369	GLY	CA-C-O	6.08	131.54	120.60
5	B	1193	GLN	CB-CG-CD	6.08	127.41	111.60
6	C	245	VAL	CB-CA-C	-6.08	99.85	111.40
7	E	46	TYR	CB-CG-CD1	6.08	124.65	121.00
5	B	1176	ASN	CB-CA-C	-6.08	98.25	110.40
4	A	6	TYR	CB-CA-C	-6.08	98.25	110.40
4	A	735	VAL	N-CA-CB	6.08	124.87	111.50
4	A	947	PHE	CB-CG-CD2	6.07	125.05	120.80
4	A	1303	GLU	N-CA-CB	-6.07	99.67	110.60
5	B	938	SER	CA-CB-OG	6.07	127.59	111.20
4	A	41	MET	CB-CG-SD	-6.07	94.19	112.40
4	A	1042	PHE	CB-CG-CD1	-6.07	116.55	120.80
4	A	1262	LYS	CB-CA-C	6.07	122.54	110.40
5	B	485	ARG	NE-CZ-NH2	-6.07	117.27	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	667	GLN	N-CA-CB	6.07	121.53	110.60
8	F	124	GLU	OE1-CD-OE2	6.07	130.58	123.30
10	I	78	CYS	CA-C-O	-6.07	107.35	120.10
13	L	51	CYS	CA-CB-SG	-6.07	103.07	114.00
5	B	468	GLU	N-CA-C	6.07	127.39	111.00
4	A	424	ILE	CA-C-N	-6.07	103.85	117.20
4	A	632	VAL	CB-CA-C	-6.07	99.87	111.40
4	A	857	ARG	CG-CD-NE	-6.07	99.06	111.80
5	B	1060	ARG	NE-CZ-NH2	-6.07	117.27	120.30
4	A	203	SER	N-CA-C	-6.07	94.62	111.00
9	H	6	PHE	C-N-CA	-6.07	106.54	121.70
4	A	516	SER	CB-CA-C	6.06	121.62	110.10
5	B	38	PHE	N-CA-C	6.06	127.36	111.00
7	E	90	VAL	CB-CA-C	6.06	122.92	111.40
4	A	716	ASP	OD1-CG-OD2	6.06	134.81	123.30
4	A	913	LEU	CB-CA-C	-6.06	98.69	110.20
4	A	1300	LYS	CG-CD-CE	6.06	130.08	111.90
4	A	1315	GLU	N-CA-CB	6.06	121.51	110.60
5	B	459	TYR	C-N-CA	-6.06	106.55	121.70
5	B	175	ARG	CG-CD-NE	-6.06	99.08	111.80
5	B	481	GLN	C-N-CA	-6.06	106.56	121.70
4	A	721	PHE	CB-CG-CD1	-6.06	116.56	120.80
5	B	511	PRO	C-N-CA	-6.06	106.56	121.70
4	A	1405	THR	CA-CB-CG2	-6.05	103.92	112.40
4	A	907	THR	CA-C-N	-6.05	103.88	117.20
13	L	42	ARG	CB-CG-CD	6.05	127.34	111.60
4	A	551	TYR	CD1-CE1-CZ	6.05	125.25	119.80
5	B	36	ALA	CB-CA-C	-6.05	101.02	110.10
5	B	1018	PRO	CB-CA-C	-6.05	96.87	112.00
5	B	1217	TYR	CA-C-N	-6.05	103.89	117.20
4	A	15	LYS	CB-CG-CD	6.05	127.33	111.60
4	A	383	TYR	CE1-CZ-OH	6.05	136.43	120.10
4	A	505	CYS	N-CA-CB	-6.05	99.71	110.60
4	A	538	ASP	C-N-CA	-6.05	106.58	121.70
4	A	1337	GLU	N-CA-CB	6.05	121.49	110.60
5	B	433	GLN	CB-CG-CD	6.05	127.33	111.60
5	B	698	GLU	OE1-CD-OE2	-6.05	116.04	123.30
7	E	195	VAL	CG1-CB-CG2	6.05	120.58	110.90
5	B	231	PRO	CA-C-N	-6.04	103.90	117.20
9	H	76	THR	CA-CB-CG2	6.04	120.86	112.40
9	H	121	LEU	N-CA-C	-6.04	94.69	111.00
4	A	1110	ASN	CA-CB-CG	6.04	126.69	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	801	LYS	N-CA-C	-6.04	94.69	111.00
4	A	1319	VAL	CB-CA-C	-6.04	99.93	111.40
6	C	10	ILE	CA-CB-CG1	-6.04	99.53	111.00
6	C	222	LYS	CG-CD-CE	6.04	130.02	111.90
10	I	58	VAL	CG1-CB-CG2	6.04	120.56	110.90
5	B	698	GLU	C-N-CA	-6.04	106.61	121.70
5	B	945	GLU	OE1-CD-OE2	6.04	130.54	123.30
6	C	130	GLY	C-N-CA	-6.04	106.61	121.70
4	A	898	ARG	C-N-CA	-6.04	106.61	121.70
4	A	11	LEU	CD1-CG-CD2	6.03	128.60	110.50
4	A	994	GLN	C-N-CA	-6.03	106.62	121.70
6	C	108	GLU	OE1-CD-OE2	-6.03	116.06	123.30
4	A	34	LYS	N-CA-C	-6.03	94.72	111.00
5	B	933	SER	N-CA-CB	6.03	119.55	110.50
4	A	337	ARG	CA-CB-CG	-6.03	100.14	113.40
5	B	190	TYR	N-CA-C	-6.03	94.72	111.00
8	F	99	LEU	C-N-CA	-6.03	106.63	121.70
4	A	1206	ASP	O-C-N	6.03	132.34	122.70
5	B	473	MET	CB-CG-SD	6.03	130.48	112.40
5	B	1180	PHE	N-CA-C	6.03	127.28	111.00
7	E	189	GLY	C-N-CA	-6.03	106.63	121.70
4	A	1098	VAL	N-CA-C	6.03	127.27	111.00
4	A	1327	ILE	O-C-N	6.03	132.34	122.70
5	B	115	GLN	CB-CG-CD	6.03	127.27	111.60
5	B	325	GLN	CB-CG-CD	6.03	127.27	111.60
5	B	1214	PRO	N-CA-C	-6.03	96.43	112.10
7	E	152	LYS	CA-C-N	-6.03	103.94	117.20
10	I	27	PHE	CB-CA-C	-6.03	98.35	110.40
5	B	464	GLY	CA-C-O	-6.02	109.76	120.60
11	J	48	ARG	NH1-CZ-NH2	-6.02	112.77	119.40
4	A	1230	GLU	CB-CA-C	6.02	122.45	110.40
5	B	264	SER	N-CA-C	-6.02	94.74	111.00
5	B	518	HIS	C-N-CA	-6.02	106.64	121.70
6	C	50	GLU	CA-CB-CG	6.02	126.65	113.40
12	K	16	GLU	C-N-CA	-6.02	106.64	121.70
4	A	65	LEU	CB-CA-C	6.02	121.64	110.20
5	B	770	GLN	CB-CA-C	-6.02	98.36	110.40
4	A	524	VAL	CG1-CB-CG2	6.02	120.53	110.90
4	A	545	GLN	N-CA-C	6.02	127.25	111.00
5	B	372	SER	C-N-CA	-6.02	106.65	121.70
10	I	91	ARG	CA-C-O	6.02	132.74	120.10
4	A	152	VAL	O-C-N	6.02	132.53	121.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	480	ALA	C-N-CA	-6.02	106.66	121.70
8	F	78	GLN	CA-C-O	6.02	132.74	120.10
4	A	664	THR	O-C-N	6.02	133.43	123.20
5	B	1168	LEU	N-CA-C	6.02	127.24	111.00
5	B	487	THR	CB-CA-C	-6.01	95.36	111.60
4	A	239	LEU	CB-CA-C	6.01	121.62	110.20
4	A	256	GLN	N-CA-CB	-6.01	99.78	110.60
5	B	248	SER	C-N-CA	6.01	136.73	121.70
5	B	703	ILE	CG1-CB-CG2	6.01	124.63	111.40
7	E	4	GLU	CG-CD-OE1	6.01	130.32	118.30
12	K	53	ASP	C-N-CA	-6.01	106.67	121.70
7	E	2	ASP	CB-CG-OD2	-6.01	112.89	118.30
10	I	5	ARG	CD-NE-CZ	6.01	132.01	123.60
12	K	32	VAL	CA-CB-CG2	-6.01	101.89	110.90
5	B	466	TRP	N-CA-C	6.01	127.22	111.00
4	A	895	LYS	CG-CD-CE	6.01	129.92	111.90
5	B	108	VAL	CA-CB-CG1	6.01	119.91	110.90
13	L	33	GLU	CA-CB-CG	6.01	126.61	113.40
5	B	276	ILE	CA-C-O	6.00	132.71	120.10
12	K	22	ASP	CB-CG-OD2	-6.00	112.89	118.30
4	A	98	LYS	CA-C-N	6.00	130.41	117.20
4	A	878	ILE	CB-CA-C	-6.00	99.59	111.60
5	B	296	GLU	N-CA-C	-6.00	94.80	111.00
10	I	17	ARG	CG-CD-NE	-6.00	99.20	111.80
5	B	126	SER	N-CA-CB	-6.00	101.50	110.50
4	A	262	LEU	C-N-CA	-6.00	106.71	121.70
5	B	303	TYR	CB-CG-CD2	-6.00	117.40	121.00
6	C	255	VAL	CA-CB-CG1	-6.00	101.90	110.90
7	E	142	VAL	CG1-CB-CG2	-6.00	101.30	110.90
9	H	107	VAL	O-C-N	6.00	132.29	122.70
4	A	997	LEU	N-CA-CB	6.00	122.39	110.40
4	A	768	GLN	C-N-CA	-5.99	106.72	121.70
4	A	978	PRO	CA-CB-CG	-5.99	92.61	104.00
5	B	1100	ASP	N-CA-CB	-5.99	99.81	110.60
4	A	255	SER	CA-CB-OG	5.99	127.37	111.20
4	A	1365	TYR	CD1-CE1-CZ	5.99	125.19	119.80
5	B	275	TYR	CE1-CZ-OH	5.99	136.28	120.10
6	C	146	LYS	CD-CE-NZ	5.99	125.48	111.70
5	B	588	GLY	C-N-CA	-5.99	106.73	121.70
10	I	47	GLU	N-CA-CB	5.99	121.38	110.60
7	E	30	ILE	CB-CA-C	-5.99	99.63	111.60
12	K	1	MET	CA-C-N	-5.99	104.03	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1057	VAL	CB-CA-C	-5.99	100.03	111.40
7	E	162	ARG	CB-CG-CD	5.99	127.16	111.60
10	I	30	ARG	CA-C-O	5.99	132.67	120.10
5	B	307	ASP	CA-C-N	-5.98	104.03	117.20
5	B	1217	TYR	CB-CG-CD2	5.98	124.59	121.00
4	A	468	PHE	C-N-CA	-5.98	106.74	121.70
9	H	126	GLU	CA-CB-CG	5.98	126.56	113.40
11	J	42	LYS	N-CA-CB	-5.98	99.84	110.60
4	A	1130	GLN	CA-CB-CG	5.98	126.55	113.40
4	A	1300	LYS	N-CA-CB	-5.98	99.84	110.60
4	A	1381	LEU	CB-CG-CD1	5.98	121.16	111.00
5	B	558	LEU	CB-CG-CD2	5.98	121.16	111.00
7	E	150	VAL	CB-CA-C	-5.98	100.04	111.40
12	K	15	GLY	CA-C-N	-5.98	104.05	117.20
9	H	128	ASN	N-CA-C	5.98	127.14	111.00
4	A	253	ASN	CA-CB-CG	5.97	126.54	113.40
4	A	423	ASP	C-N-CA	-5.97	106.77	121.70
4	A	533	LYS	CB-CA-C	-5.97	98.45	110.40
4	A	1298	TYR	CE1-CZ-OH	5.97	136.23	120.10
5	B	458	LYS	CD-CE-NZ	-5.97	97.96	111.70
6	C	35	ARG	CB-CG-CD	5.97	127.13	111.60
5	B	408	LEU	CB-CG-CD2	5.97	121.15	111.00
5	B	942	ARG	NH1-CZ-NH2	5.97	125.97	119.40
4	A	151	ASP	C-N-CA	-5.97	106.78	121.70
4	A	1093	LYS	CA-CB-CG	5.97	126.53	113.40
5	B	212	LEU	C-N-CA	-5.97	106.78	121.70
5	B	471	LYS	CA-C-O	-5.97	107.56	120.10
6	C	125	MET	CB-CA-C	-5.97	98.46	110.40
4	A	1369	ALA	N-CA-C	5.97	127.11	111.00
5	B	646	LEU	CB-CA-C	5.97	121.54	110.20
4	A	75	ASN	CA-C-N	-5.97	104.07	117.20
4	A	931	GLU	O-C-N	5.97	132.25	122.70
4	A	1442	ASP	CB-CG-OD2	5.97	123.67	118.30
6	C	199	LYS	N-CA-C	-5.97	94.89	111.00
2	T	24	DT	C2-N1-C1'	-5.96	108.66	118.20
4	A	544	ASP	CB-CG-OD2	5.96	123.67	118.30
4	A	982	THR	CA-CB-CG2	5.96	120.75	112.40
5	B	291	ILE	CG1-CB-CG2	-5.96	98.28	111.40
5	B	882	THR	N-CA-CB	5.96	121.63	110.30
9	H	108	SER	N-CA-CB	5.96	119.45	110.50
4	A	360	GLU	CA-CB-CG	5.96	126.51	113.40
4	A	496	GLU	CG-CD-OE2	5.96	130.22	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	876	LYS	CB-CG-CD	5.96	127.10	111.60
10	I	31	THR	CB-CA-C	-5.96	95.50	111.60
13	L	50	ASP	CA-C-N	-5.96	104.08	117.20
13	L	56	LEU	CB-CA-C	-5.96	98.87	110.20
5	B	1017	ILE	O-C-N	5.96	132.42	121.10
4	A	946	VAL	N-CA-C	5.96	127.08	111.00
8	F	148	VAL	CB-CA-C	5.96	122.72	111.40
5	B	25	ILE	C-N-CA	-5.95	106.82	121.70
5	B	895	ASP	CA-C-N	-5.95	104.10	117.20
5	B	980	PHE	N-CA-C	5.95	127.07	111.00
5	B	1087	PHE	CB-CG-CD1	5.95	124.97	120.80
4	A	417	TYR	N-CA-C	-5.95	94.93	111.00
4	A	1348	LEU	CA-CB-CG	-5.95	101.61	115.30
10	I	110	PHE	C-N-CA	-5.95	106.82	121.70
10	I	110	PHE	CB-CG-CD2	-5.95	116.63	120.80
4	A	1265	ASN	CA-C-N	-5.95	104.11	117.20
7	E	16	PHE	CD1-CE1-CZ	-5.95	112.96	120.10
4	A	1113	THR	N-CA-C	5.95	127.05	111.00
8	F	79	ARG	CB-CG-CD	-5.95	96.14	111.60
9	H	12	VAL	C-N-CA	5.95	136.56	121.70
9	H	19	ARG	CB-CA-C	5.95	122.29	110.40
5	B	903	VAL	CG1-CB-CG2	5.94	120.41	110.90
6	C	122	SER	CA-CB-OG	5.94	127.25	111.20
9	H	106	GLU	CB-CG-CD	5.94	130.25	114.20
4	A	212	LYS	CA-CB-CG	5.94	126.47	113.40
4	A	735	VAL	N-CA-C	5.94	127.04	111.00
8	F	145	ASP	CB-CG-OD2	-5.94	112.95	118.30
5	B	793	ALA	N-CA-C	-5.94	94.96	111.00
6	C	48	SER	CA-CB-OG	-5.94	95.17	111.20
1	R	10	A	N9-C1'-C2'	5.94	121.72	114.00
4	A	600	PRO	N-CD-CG	-5.94	94.30	103.20
6	C	67	LEU	CB-CG-CD1	-5.94	100.91	111.00
6	C	153	LEU	CB-CG-CD1	5.94	121.09	111.00
7	E	201	LYS	CD-CE-NZ	5.94	125.36	111.70
12	K	73	LEU	CB-CG-CD1	-5.94	100.91	111.00
13	L	36	SER	C-N-CA	-5.94	106.86	121.70
7	E	131	THR	N-CA-CB	5.94	121.58	110.30
5	B	389	ALA	N-CA-CB	5.93	118.41	110.10
5	B	666	TYR	CB-CG-CD1	5.93	124.56	121.00
4	A	582	ILE	CA-CB-CG2	-5.93	99.03	110.90
4	A	1222	ASN	N-CA-CB	5.93	121.28	110.60
5	B	490	SER	C-N-CA	-5.93	106.87	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1143	ALA	O-C-N	-5.93	113.21	122.70
4	A	1311	VAL	CA-CB-CG1	5.93	119.80	110.90
6	C	8	VAL	N-CA-CB	-5.93	98.45	111.50
6	C	183	TRP	CA-CB-CG	-5.93	102.43	113.70
8	F	123	LYS	CD-CE-NZ	5.93	125.34	111.70
13	L	44	ASP	CB-CG-OD2	5.93	123.64	118.30
5	B	381	MET	CA-C-N	-5.93	104.16	117.20
5	B	696	GLU	OE1-CD-OE2	5.93	130.41	123.30
5	B	1034	VAL	CB-CA-C	-5.93	100.14	111.40
8	F	143	PHE	N-CA-CB	-5.93	99.93	110.60
4	A	273	ASN	C-N-CA	-5.92	106.89	121.70
4	A	1111	MET	CA-CB-CG	5.92	123.37	113.30
4	A	297	GLN	N-CA-CB	5.92	121.25	110.60
4	A	830	LYS	CB-CA-C	-5.92	98.56	110.40
6	C	65	HIS	C-N-CA	-5.92	106.90	121.70
12	K	49	GLU	C-N-CA	-5.92	106.90	121.70
4	A	507	VAL	N-CA-C	5.92	126.98	111.00
5	B	1006	ILE	C-N-CA	-5.92	106.91	121.70
4	A	765	VAL	CB-CA-C	-5.91	100.16	111.40
5	B	852	ARG	NE-CZ-NH2	5.91	123.26	120.30
7	E	15	ALA	CB-CA-C	-5.91	101.23	110.10
5	B	972	LYS	C-N-CA	-5.91	106.92	121.70
5	B	1033	LYS	CG-CD-CE	5.91	129.63	111.90
5	B	1050	ILE	CG1-CB-CG2	5.91	124.41	111.40
4	A	1115	SER	N-CA-CB	5.91	119.36	110.50
5	B	132	VAL	CA-CB-CG1	5.91	119.77	110.90
5	B	1020	ARG	CG-CD-NE	-5.91	99.39	111.80
4	A	555	ASP	O-C-N	5.91	132.16	122.70
6	C	115	SER	C-N-CA	-5.91	106.93	121.70
7	E	155	ARG	NE-CZ-NH2	-5.91	117.35	120.30
12	K	57	LEU	CB-CG-CD1	5.91	121.04	111.00
4	A	1283	VAL	N-CA-C	5.91	126.94	111.00
9	H	25	ARG	CA-C-N	-5.91	104.21	117.20
4	A	1438	THR	N-CA-CB	-5.90	99.08	110.30
4	A	142	CYS	CB-CA-C	-5.90	98.59	110.40
6	C	113	VAL	C-N-CA	-5.90	106.94	121.70
6	C	261	ALA	CB-CA-C	5.90	118.95	110.10
6	C	263	THR	CA-C-N	5.90	130.19	117.20
9	H	13	SER	CB-CA-C	-5.90	98.89	110.10
4	A	323	LYS	CD-CE-NZ	5.90	125.27	111.70
5	B	903	VAL	CA-CB-CG2	-5.90	102.05	110.90
9	H	103	LYS	N-CA-CB	5.90	121.22	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	I	84	VAL	N-CA-C	-5.90	95.07	111.00
4	A	13	THR	N-CA-C	-5.89	95.08	111.00
5	B	617	ARG	N-CA-C	-5.89	95.08	111.00
8	F	140	ASP	C-N-CA	-5.89	109.92	122.30
4	A	390	GLN	CB-CG-CD	5.89	126.92	111.60
5	B	244	LEU	N-CA-C	5.89	126.91	111.00
5	B	277	LYS	CB-CA-C	5.89	122.19	110.40
4	A	1167	GLU	CB-CA-C	5.89	122.18	110.40
5	B	40	GLU	CG-CD-OE2	5.89	130.08	118.30
5	B	113	TYR	OH-CZ-CE2	-5.89	104.20	120.10
7	E	48	ASP	CB-CG-OD2	5.89	123.60	118.30
10	I	48	LEU	CB-CG-CD2	-5.89	100.99	111.00
4	A	708	MET	N-CA-CB	5.89	121.20	110.60
2	T	13	DA	C4'-C3'-O3'	5.88	124.41	109.70
5	B	22	SER	N-CA-C	-5.88	95.11	111.00
5	B	730	ARG	CB-CG-CD	5.88	126.90	111.60
4	A	965	GLN	CA-CB-CG	5.88	126.34	113.40
5	B	523	CYS	CA-CB-SG	5.88	124.59	114.00
5	B	653	VAL	CB-CA-C	-5.88	100.22	111.40
6	C	133	ILE	CG1-CB-CG2	5.88	124.34	111.40
7	E	183	PRO	N-CA-C	5.88	127.39	112.10
4	A	79	GLY	CA-C-N	5.88	130.14	117.20
4	A	782	ARG	NE-CZ-NH1	-5.88	117.36	120.30
4	A	1353	TYR	OH-CZ-CE2	-5.88	104.22	120.10
5	B	1194	ILE	CB-CA-C	-5.88	99.84	111.60
8	F	88	TYR	OH-CZ-CE2	5.88	135.98	120.10
8	F	134	ILE	CG1-CB-CG2	5.88	124.34	111.40
10	I	44	TYR	CB-CG-CD1	-5.88	117.47	121.00
4	A	69	THR	OG1-CB-CG2	-5.88	96.48	110.00
5	B	870	ILE	CA-CB-CG1	-5.88	99.83	111.00
4	A	539	THR	O-C-N	5.88	132.10	122.70
7	E	82	PHE	CA-C-O	5.88	132.44	120.10
4	A	918	GLU	OE1-CD-OE2	5.88	130.35	123.30
4	A	260	ASP	CB-CA-C	-5.87	98.65	110.40
4	A	759	ALA	N-CA-CB	-5.87	101.88	110.10
4	A	870	GLU	CG-CD-OE2	-5.87	106.55	118.30
5	B	294	ASP	O-C-N	-5.87	113.22	123.20
9	H	52	GLN	CB-CG-CD	5.87	126.87	111.60
10	I	15	TYR	C-N-CD	5.87	140.74	128.40
4	A	844	ALA	C-N-CA	-5.87	107.02	121.70
7	E	90	VAL	CG1-CB-CG2	5.87	120.30	110.90
7	E	128	PRO	N-CA-CB	-5.87	96.14	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1048	THR	N-CA-C	5.87	126.85	111.00
5	B	1098	MET	CB-CA-C	5.87	122.14	110.40
6	C	152	GLU	CB-CA-C	-5.87	98.66	110.40
11	J	43	ARG	NH1-CZ-NH2	5.87	125.86	119.40
4	A	1006	ILE	CA-C-O	5.87	132.42	120.10
4	A	1345	ARG	N-CA-C	-5.87	95.16	111.00
4	A	536	LEU	CB-CA-C	-5.87	99.05	110.20
4	A	981	LEU	CA-C-O	5.87	132.42	120.10
4	A	1271	ILE	N-CA-C	5.87	126.84	111.00
5	B	533	CYS	C-N-CA	-5.87	109.98	122.30
5	B	727	LYS	CD-CE-NZ	5.87	125.19	111.70
5	B	892	LYS	CB-CG-CD	5.87	126.85	111.60
11	J	25	LEU	CB-CA-C	-5.87	99.06	110.20
1	R	6	G	N3-C4-N9	5.86	129.52	126.00
5	B	713	ALA	N-CA-CB	-5.86	101.89	110.10
5	B	991	GLY	CA-C-N	-5.86	104.30	117.20
12	K	14	GLU	N-CA-C	5.86	126.83	111.00
5	B	787	VAL	C-N-CA	-5.86	107.05	121.70
6	C	125	MET	N-CA-CB	5.86	121.15	110.60
5	B	134	LYS	CA-CB-CG	5.86	126.30	113.40
4	A	656	TRP	CA-C-O	5.86	132.40	120.10
9	H	85	GLY	CA-C-O	-5.86	110.05	120.60
4	A	848	ILE	CG1-CB-CG2	-5.86	98.51	111.40
4	A	1285	MET	O-C-N	5.86	132.07	122.70
4	A	237	THR	CB-CA-C	-5.86	95.79	111.60
4	A	551	TYR	OH-CZ-CE2	5.86	135.91	120.10
4	A	297	GLN	CB-CA-C	-5.85	98.70	110.40
5	B	232	SER	CB-CA-C	-5.85	98.98	110.10
5	B	109	THR	C-N-CA	-5.85	107.07	121.70
5	B	634	TYR	N-CA-CB	-5.85	100.07	110.60
6	C	40	GLU	N-CA-CB	-5.85	100.07	110.60
2	T	22	DT	O3'-P-O5'	-5.85	92.89	104.00
5	B	959	ASP	CB-CA-C	-5.85	98.70	110.40
10	I	80	SER	N-CA-C	5.85	126.79	111.00
4	A	481	ASP	N-CA-CB	5.85	121.13	110.60
4	A	1128	GLN	CA-CB-CG	5.85	126.27	113.40
4	A	1403	GLU	CG-CD-OE1	5.85	129.99	118.30
8	F	83	PRO	O-C-N	5.85	132.05	122.70
5	B	963	PHE	CB-CG-CD2	-5.84	116.71	120.80
4	A	68	GLN	N-CA-CB	-5.84	100.08	110.60
4	A	595	THR	C-N-CA	-5.84	107.09	121.70
5	B	970	THR	CB-CA-C	-5.84	95.82	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1022	THR	CA-CB-OG1	-5.84	96.73	109.00
5	B	260	GLY	N-CA-C	5.84	127.70	113.10
6	C	62	PHE	CB-CG-CD1	-5.84	116.71	120.80
5	B	936	ASP	N-CA-C	-5.84	95.23	111.00
12	K	85	ASP	CB-CG-OD2	5.84	123.56	118.30
4	A	461	LYS	C-N-CA	-5.84	107.11	121.70
5	B	47	GLN	CA-CB-CG	5.84	126.24	113.40
5	B	609	ILE	N-CA-C	-5.84	95.24	111.00
7	E	123	LEU	CA-C-N	-5.84	104.36	117.20
4	A	383	TYR	OH-CZ-CE2	-5.83	104.34	120.10
5	B	420	LEU	CB-CG-CD1	-5.83	101.08	111.00
4	A	181	LEU	CB-CG-CD2	-5.83	101.08	111.00
5	B	223	VAL	CA-CB-CG2	-5.83	102.15	110.90
5	B	248	SER	O-C-N	5.83	132.03	122.70
5	B	861	ASP	CB-CG-OD1	-5.83	113.05	118.30
7	E	31	THR	CA-C-N	-5.83	104.37	117.20
4	A	339	ASN	C-N-CA	-5.83	107.12	121.70
4	A	890	ASP	N-CA-C	-5.83	95.26	111.00
9	H	38	LEU	N-CA-C	5.83	126.74	111.00
1	R	5	A	P-O3'-C3'	5.83	126.70	119.70
4	A	31	SER	O-C-N	5.83	132.03	122.70
4	A	336	ILE	O-C-N	5.83	132.03	122.70
4	A	1289	ARG	CA-C-N	-5.83	104.37	117.20
6	C	244	VAL	CB-CA-C	-5.83	100.32	111.40
12	K	99	GLY	C-N-CA	-5.83	107.13	121.70
4	A	54	ASN	CB-CA-C	5.83	122.06	110.40
5	B	993	THR	OG1-CB-CG2	-5.83	96.60	110.00
9	H	15	VAL	CB-CA-C	5.83	122.47	111.40
4	A	1107	VAL	CA-CB-CG2	5.83	119.64	110.90
5	B	114	PRO	C-N-CA	-5.83	107.14	121.70
4	A	221	SER	CA-CB-OG	-5.82	95.47	111.20
4	A	257	ARG	CA-CB-CG	5.82	126.21	113.40
4	A	1350	LYS	CA-C-N	-5.82	104.39	117.20
7	E	209	ALA	N-CA-CB	-5.82	101.95	110.10
4	A	491	VAL	CB-CA-C	-5.82	100.34	111.40
4	A	532	ARG	CA-C-O	-5.82	107.88	120.10
7	E	75	MET	CB-CA-C	-5.82	98.76	110.40
7	E	199	ILE	N-CA-CB	-5.82	97.41	110.80
4	A	5	GLN	N-CA-CB	-5.82	100.12	110.60
4	A	345	VAL	CA-CB-CG2	-5.82	102.17	110.90
4	A	508	PRO	N-CD-CG	-5.82	94.47	103.20
5	B	227	LYS	CB-CG-CD	5.82	126.73	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1022	THR	N-CA-CB	-5.82	99.24	110.30
8	F	111	LEU	O-C-N	5.82	132.01	122.70
4	A	781	ASP	OD1-CG-OD2	-5.82	112.25	123.30
5	B	517	THR	CA-CB-CG2	-5.82	104.26	112.40
4	A	551	TYR	CE1-CZ-CE2	-5.82	110.50	119.80
4	A	1208	THR	CA-CB-CG2	-5.82	104.26	112.40
4	A	1369	ALA	N-CA-CB	-5.82	101.96	110.10
5	B	221	ASN	O-C-N	5.82	132.00	122.70
7	E	80	VAL	CA-C-O	-5.82	107.89	120.10
7	E	111	VAL	CG1-CB-CG2	5.82	120.20	110.90
8	F	155	LEU	CB-CA-C	5.82	121.25	110.20
4	A	881	GLN	CA-CB-CG	-5.81	100.61	113.40
7	E	171	LYS	CB-CG-CD	5.81	126.71	111.60
10	I	60	GLN	C-N-CA	-5.81	107.17	121.70
5	B	181	LEU	CA-CB-CG	-5.81	101.94	115.30
6	C	3	GLU	CA-C-O	-5.81	107.90	120.10
4	A	1206	ASP	CB-CA-C	5.81	122.02	110.40
4	A	1295	THR	O-C-N	5.81	133.08	123.20
12	K	106	GLU	OE1-CD-OE2	5.81	130.27	123.30
12	K	114	LEU	N-CA-CB	5.81	122.02	110.40
4	A	685	GLU	OE1-CD-OE2	-5.81	116.33	123.30
5	B	1165	ILE	O-C-N	5.81	131.99	122.70
6	C	149	LYS	CB-CA-C	-5.81	98.79	110.40
4	A	1355	VAL	N-CA-C	-5.80	95.33	111.00
5	B	902	GLY	C-N-CA	-5.80	107.19	121.70
5	B	1076	HIS	CB-CA-C	-5.80	98.79	110.40
6	C	233	GLU	N-CA-C	-5.80	95.33	111.00
7	E	84	ASP	CB-CA-C	-5.80	98.79	110.40
5	B	662	MET	C-N-CA	-5.80	107.19	121.70
7	E	22	MET	CB-CA-C	-5.80	98.80	110.40
4	A	925	LEU	C-N-CA	-5.80	107.20	121.70
6	C	45	ALA	N-CA-CB	5.80	118.22	110.10
10	I	34	TYR	CB-CG-CD2	5.80	124.48	121.00
10	I	82	GLU	CA-CB-CG	-5.80	100.64	113.40
11	J	63	TYR	N-CA-C	-5.80	95.34	111.00
4	A	976	THR	CA-CB-CG2	5.80	120.51	112.40
5	B	741	CYS	CA-CB-SG	-5.80	103.57	114.00
10	I	82	GLU	N-CA-C	5.80	126.65	111.00
11	J	57	ILE	CB-CA-C	-5.79	100.01	111.60
4	A	955	PRO	CB-CA-C	-5.79	97.52	112.00
5	B	166	PHE	CB-CG-CD2	5.79	124.86	120.80
5	B	812	LEU	CA-CB-CG	5.79	128.62	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C	44	LEU	CB-CA-C	-5.79	99.19	110.20
7	E	205	SER	C-N-CA	-5.79	110.13	122.30
9	H	13	SER	C-N-CA	5.79	136.18	121.70
4	A	1387	HIS	CB-CA-C	5.79	121.98	110.40
5	B	324	ILE	CG1-CB-CG2	5.79	124.14	111.40
5	B	520	GLY	O-C-N	-5.79	113.43	122.70
5	B	539	LEU	CB-CG-CD2	5.79	120.84	111.00
4	A	123	ARG	NH1-CZ-NH2	-5.79	113.03	119.40
4	A	28	ARG	CA-CB-CG	5.79	126.14	113.40
4	A	1393	ASN	CA-CB-CG	5.79	126.14	113.40
5	B	938	SER	N-CA-CB	-5.79	101.82	110.50
7	E	212	ARG	CB-CA-C	-5.79	98.82	110.40
4	A	1422	ARG	CA-C-N	-5.79	104.63	116.20
7	E	66	GLU	C-N-CA	5.79	136.16	121.70
7	E	214	CYS	C-N-CA	-5.79	107.24	121.70
4	A	376	TYR	CZ-CE2-CD2	5.78	125.01	119.80
4	A	906	HIS	C-N-CA	-5.78	107.24	121.70
7	E	66	GLU	CB-CA-C	5.78	121.96	110.40
4	A	594	GLY	N-CA-C	5.78	127.55	113.10
5	B	121	ASN	CA-C-O	5.78	132.24	120.10
4	A	42	ASP	CB-CG-OD2	5.78	123.50	118.30
5	B	1141	HIS	C-N-CA	-5.78	110.17	122.30
10	I	4	PHE	CB-CA-C	5.78	121.96	110.40
4	A	980	ASP	CB-CA-C	5.78	121.96	110.40
6	C	209	TYR	CG-CD1-CE1	5.78	125.92	121.30
6	C	226	ASP	N-CA-C	-5.78	95.40	111.00
3	N	10	DG	O3'-P-O5'	5.78	114.97	104.00
7	E	15	ALA	CA-C-N	-5.78	104.50	117.20
9	H	116	TYR	CD1-CE1-CZ	-5.78	114.60	119.80
10	I	91	ARG	CB-CG-CD	5.77	126.61	111.60
4	A	16	GLU	N-CA-CB	5.77	120.99	110.60
4	A	998	LEU	CA-C-N	-5.77	104.50	117.20
5	B	853	SER	CB-CA-C	-5.77	99.13	110.10
6	C	84	ARG	NH1-CZ-NH2	5.77	125.75	119.40
8	F	88	TYR	CD1-CE1-CZ	5.77	125.00	119.80
12	K	109	TRP	CB-CA-C	-5.77	98.85	110.40
4	A	884	ASP	CB-CG-OD1	-5.77	113.11	118.30
5	B	722	ASP	N-CA-C	5.77	126.58	111.00
5	B	795	ILE	N-CA-CB	5.77	124.07	110.80
4	A	363	GLN	CA-CB-CG	-5.77	100.71	113.40
4	A	375	THR	CA-CB-CG2	5.77	120.48	112.40
13	L	62	LYS	CG-CD-CE	5.77	129.21	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	217	LYS	CB-CG-CD	5.77	126.60	111.60
4	A	1124	HIS	CA-C-N	-5.77	104.51	117.20
6	C	172	PRO	CB-CA-C	-5.77	97.58	112.00
11	J	15	GLY	C-N-CA	-5.77	107.28	121.70
4	A	688	LYS	CA-C-O	-5.77	107.99	120.10
6	C	136	ASP	O-C-N	-5.77	113.47	122.70
5	B	1216	LEU	CA-CB-CG	-5.76	102.04	115.30
9	H	138	GLU	CA-C-N	-5.76	104.52	117.20
4	A	129	LYS	CD-CE-NZ	5.76	124.96	111.70
5	B	894	ASP	CB-CG-OD1	5.76	123.49	118.30
6	C	9	LYS	N-CA-C	-5.76	95.44	111.00
4	A	1117	THR	CA-C-N	-5.76	104.53	117.20
6	C	200	GLU	CB-CA-C	5.76	121.92	110.40
7	E	191	LYS	CB-CG-CD	5.76	126.58	111.60
4	A	468	PHE	CB-CG-CD2	-5.76	116.77	120.80
4	A	1139	GLU	N-CA-CB	-5.76	100.24	110.60
4	A	98	LYS	CB-CA-C	5.76	121.91	110.40
8	F	135	ARG	NE-CZ-NH2	-5.76	117.42	120.30
11	J	44	TYR	CZ-CE2-CD2	5.76	124.98	119.80
12	K	54	ARG	NE-CZ-NH2	-5.76	117.42	120.30
4	A	317	LYS	O-C-N	5.75	131.91	122.70
5	B	176	SER	CB-CA-C	-5.75	99.17	110.10
5	B	693	ILE	CA-C-N	5.75	129.85	117.20
4	A	1329	THR	O-C-N	5.75	131.90	122.70
5	B	280	ILE	CB-CA-C	-5.75	100.10	111.60
1	R	4	G	OP1-P-OP2	-5.75	110.98	119.60
4	A	1169	ILE	CA-C-N	-5.75	104.55	117.20
4	A	1391	ARG	CB-CG-CD	5.75	126.54	111.60
4	A	57	ARG	CG-CD-NE	5.75	123.87	111.80
4	A	115	LEU	CB-CG-CD1	-5.75	101.23	111.00
4	A	221	SER	N-CA-C	-5.75	95.49	111.00
4	A	963	ILE	C-N-CA	-5.75	107.33	121.70
5	B	321	GLY	N-CA-C	5.75	127.47	113.10
7	E	30	ILE	N-CA-C	5.75	126.52	111.00
7	E	201	LYS	CB-CG-CD	5.75	126.54	111.60
4	A	532	ARG	O-C-N	-5.74	113.51	122.70
4	A	533	LYS	CA-CB-CG	5.74	126.04	113.40
4	A	1054	LEU	CA-C-N	-5.74	104.56	117.20
4	A	1284	MET	CA-C-N	-5.74	104.56	117.20
5	B	105	SER	CB-CA-C	-5.74	99.19	110.10
5	B	395	GLN	CA-CB-CG	-5.74	100.77	113.40
5	B	1032	SER	CB-CA-C	5.74	121.02	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	I	11	ASN	CB-CA-C	-5.74	98.92	110.40
4	A	782	ARG	CG-CD-NE	5.74	123.86	111.80
5	B	42	GLY	C-N-CA	-5.74	107.35	121.70
7	E	163	GLU	CG-CD-OE1	-5.74	106.82	118.30
4	A	685	GLU	N-CA-C	-5.74	95.51	111.00
5	B	799	PRO	N-CA-C	-5.74	97.18	112.10
5	B	1147	LEU	C-N-CA	-5.74	107.36	121.70
6	C	32	SER	CA-CB-OG	-5.74	95.70	111.20
6	C	128	ASN	C-N-CA	-5.74	107.36	121.70
4	A	341	MET	CB-CA-C	5.74	121.88	110.40
5	B	177	LYS	CD-CE-NZ	5.74	124.89	111.70
1	R	6	G	OP1-P-O3'	5.74	117.82	105.20
4	A	513	SER	CB-CA-C	-5.74	99.20	110.10
4	A	608	ILE	CA-CB-CG2	-5.74	99.43	110.90
6	C	89	GLU	CA-CB-CG	5.74	126.02	113.40
6	C	235	VAL	N-CA-CB	-5.74	98.88	111.50
9	H	92	ASP	N-CA-C	-5.74	95.51	111.00
4	A	837	ILE	CB-CA-C	-5.73	100.13	111.60
4	A	1361	SER	CB-CA-C	5.73	121.00	110.10
4	A	1382	THR	CA-C-N	-5.73	104.58	117.20
7	E	106	GLN	N-CA-CB	5.73	120.92	110.60
11	J	37	SER	C-N-CA	-5.73	107.36	121.70
11	J	43	ARG	N-CA-C	5.73	126.48	111.00
5	B	755	ILE	CG1-CB-CG2	-5.73	98.79	111.40
5	B	791	THR	CA-C-N	5.73	129.81	117.20
4	A	398	GLU	CA-CB-CG	5.73	126.01	113.40
4	A	545	GLN	N-CA-CB	-5.73	100.28	110.60
4	A	967	ALA	C-N-CA	-5.73	107.37	121.70
5	B	313	MET	CG-SD-CE	5.73	109.37	100.20
4	A	1232	ASN	CA-C-N	-5.73	104.60	117.20
5	B	658	ILE	C-N-CA	-5.73	107.38	121.70
6	C	164	ALA	CB-CA-C	-5.73	101.51	110.10
12	K	35	PHE	CB-CG-CD1	-5.73	116.79	120.80
13	L	67	PHE	CB-CG-CD2	-5.73	116.79	120.80
4	A	974	ASP	C-N-CA	5.73	136.02	121.70
4	A	1026	LEU	CB-CA-C	-5.73	99.32	110.20
5	B	694	ASP	OD1-CG-OD2	-5.73	112.42	123.30
5	B	393	LYS	N-CA-C	5.72	126.46	111.00
3	N	9	DC	O3'-P-O5'	-5.72	93.13	104.00
5	B	755	ILE	CB-CA-C	-5.72	100.15	111.60
6	C	139	GLY	N-CA-C	5.72	127.41	113.10
7	E	34	GLU	CG-CD-OE1	5.72	129.75	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1143	ALA	C-N-CA	-5.72	107.40	121.70
4	A	788	SER	CA-CB-OG	-5.72	95.76	111.20
5	B	482	VAL	N-CA-CB	-5.72	98.92	111.50
5	B	881	ASN	CA-C-O	-5.72	108.09	120.10
8	F	129	LYS	CA-CB-CG	5.72	125.98	113.40
5	B	907	GLY	C-N-CA	-5.72	107.40	121.70
2	T	19	DT	P-O5'-C5'	-5.72	111.75	120.90
4	A	586	ILE	C-N-CA	-5.72	107.41	121.70
4	A	601	LYS	CA-CB-CG	-5.72	100.83	113.40
4	A	867	ILE	C-N-CA	-5.72	107.41	121.70
4	A	1400	CYS	CB-CA-C	-5.72	98.97	110.40
5	B	128	LEU	CB-CG-CD2	-5.72	101.28	111.00
5	B	861	ASP	C-N-CA	5.72	135.99	121.70
5	B	246	LYS	CD-CE-NZ	5.71	124.84	111.70
5	B	431	TYR	N-CA-CB	5.71	120.89	110.60
12	K	76	GLN	O-C-N	5.71	131.84	122.70
5	B	167	ILE	N-CA-C	-5.71	95.58	111.00
5	B	949	VAL	C-N-CA	-5.71	107.42	121.70
4	A	793	SER	N-CA-CB	5.71	119.06	110.50
12	K	26	LYS	CD-CE-NZ	-5.71	98.57	111.70
4	A	286	HIS	O-C-N	-5.71	113.57	122.70
4	A	599	SER	CB-CA-C	-5.71	99.26	110.10
8	F	75	PRO	N-CA-C	5.71	126.94	112.10
9	H	31	THR	N-CA-C	-5.71	95.59	111.00
4	A	1325	THR	OG1-CB-CG2	5.70	123.12	110.00
9	H	124	ARG	CB-CA-C	-5.70	99.00	110.40
4	A	285	PRO	CA-N-CD	-5.70	103.52	111.50
4	A	43	GLU	CA-CB-CG	5.70	125.94	113.40
4	A	146	MET	N-CA-C	5.70	126.39	111.00
5	B	649	LYS	CD-CE-NZ	5.70	124.81	111.70
6	C	119	VAL	C-N-CA	-5.70	107.45	121.70
4	A	741	ASN	N-CA-C	-5.70	95.61	111.00
4	A	1298	TYR	CE1-CZ-CE2	-5.70	110.68	119.80
5	B	21	GLU	CB-CA-C	-5.70	99.00	110.40
13	L	45	ALA	C-N-CA	5.70	135.94	121.70
7	E	165	LEU	N-CA-C	5.70	126.38	111.00
4	A	387	ARG	CG-CD-NE	5.70	123.76	111.80
4	A	530	GLY	C-N-CA	-5.70	107.46	121.70
12	K	4	PRO	CA-CB-CG	-5.70	93.18	104.00
7	E	44	ALA	CB-CA-C	5.69	118.64	110.10
4	A	50	ILE	N-CA-CB	5.69	123.89	110.80
4	A	356	ASP	CB-CG-OD2	5.69	123.42	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	498	ARG	NE-CZ-NH1	-5.69	117.45	120.30
4	A	1010	ALA	CB-CA-C	-5.69	101.56	110.10
5	B	864	LYS	CA-CB-CG	5.69	125.92	113.40
7	E	89	GLY	CA-C-N	-5.69	104.67	117.20
9	H	108	SER	CB-CA-C	5.69	120.92	110.10
7	E	152	LYS	N-CA-CB	5.69	120.84	110.60
4	A	459	ARG	N-CA-CB	-5.69	100.36	110.60
4	A	610	GLY	N-CA-C	5.69	127.32	113.10
5	B	991	GLY	CA-C-O	5.69	130.84	120.60
7	E	50	MET	CG-SD-CE	5.69	109.30	100.20
10	I	112	SER	CA-C-N	-5.69	104.69	117.20
4	A	442	VAL	CA-CB-CG2	-5.69	102.37	110.90
5	B	109	THR	N-CA-CB	-5.69	99.49	110.30
6	C	256	ALA	CA-C-N	-5.69	104.69	117.20
5	B	54	PHE	N-CA-C	-5.69	95.65	111.00
5	B	734	HIS	CA-CB-CG	5.69	123.27	113.60
7	E	72	PHE	O-C-N	5.69	131.90	121.10
4	A	792	TYR	CG-CD2-CE2	5.68	125.85	121.30
4	A	1198	ASP	CB-CA-C	-5.68	99.03	110.40
5	B	522	VAL	C-N-CA	-5.68	107.49	121.70
6	C	226	ASP	N-CA-CB	5.68	120.83	110.60
4	A	351	THR	CB-CA-C	-5.68	96.26	111.60
4	A	360	GLU	OE1-CD-OE2	-5.68	116.48	123.30
4	A	884	ASP	N-CA-C	5.68	126.34	111.00
4	A	1270	ASN	N-CA-C	-5.68	95.66	111.00
4	A	720	ARG	NE-CZ-NH2	-5.68	117.46	120.30
4	A	1356	ILE	CG1-CB-CG2	5.68	123.90	111.40
5	B	539	LEU	O-C-N	5.68	131.79	122.70
5	B	1008	PRO	CB-CA-C	-5.68	97.80	112.00
4	A	841	LEU	N-CA-C	-5.68	95.67	111.00
4	A	1419	ASP	O-C-N	5.68	131.79	122.70
6	C	96	SER	N-CA-CB	-5.68	101.98	110.50
9	H	49	VAL	CG1-CB-CG2	5.68	119.99	110.90
12	K	77	THR	O-C-N	5.68	131.79	122.70
4	A	451	HIS	N-CA-C	-5.68	95.67	111.00
5	B	860	MET	O-C-N	5.68	131.78	122.70
6	C	201	TRP	C-N-CA	-5.68	98.16	122.00
4	A	1073	GLY	CA-C-N	-5.67	104.72	117.20
5	B	731	VAL	CG1-CB-CG2	5.67	119.98	110.90
5	B	858	SER	N-CA-CB	5.67	119.01	110.50
4	A	361	LEU	C-N-CA	-5.67	107.52	121.70
5	B	1060	ARG	CB-CA-C	-5.67	99.05	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	525	GLN	N-CA-C	5.67	126.31	111.00
4	A	905	ASP	OD1-CG-OD2	-5.67	112.52	123.30
4	A	1295	THR	C-N-CA	5.67	134.21	122.30
4	A	1298	TYR	CG-CD2-CE2	5.67	125.84	121.30
5	B	131	ASP	N-CA-C	-5.67	95.69	111.00
5	B	1180	PHE	CB-CA-C	5.67	121.74	110.40
4	A	477	PRO	C-N-CA	-5.67	107.53	121.70
4	A	1434	ALA	C-N-CA	-5.67	98.19	122.00
5	B	1215	ARG	N-CA-CB	-5.67	100.39	110.60
6	C	229	TYR	CG-CD1-CE1	5.67	125.84	121.30
4	A	940	ARG	NE-CZ-NH2	5.67	123.14	120.30
5	B	634	TYR	CA-C-O	-5.67	108.19	120.10
6	C	202	PRO	O-C-N	5.67	131.77	122.70
7	E	72	PHE	N-CA-CB	5.67	120.80	110.60
8	F	98	ALA	CA-C-N	-5.67	104.73	117.20
5	B	983	ARG	CA-CB-CG	5.67	125.87	113.40
6	C	136	ASP	N-CA-CB	-5.67	100.40	110.60
12	K	100	ALA	N-CA-C	5.67	126.30	111.00
5	B	182	SER	C-N-CA	-5.67	107.54	121.70
5	B	500	THR	N-CA-C	-5.67	95.70	111.00
5	B	602	THR	CA-CB-CG2	-5.67	104.47	112.40
5	B	172	ILE	N-CA-C	5.66	126.29	111.00
6	C	21	ILE	C-N-CA	-5.66	107.54	121.70
4	A	24	PRO	N-CA-CB	-5.66	96.37	102.60
4	A	982	THR	C-N-CA	-5.66	107.55	121.70
7	E	203	GLU	CB-CA-C	-5.66	99.08	110.40
4	A	703	THR	C-N-CA	-5.66	107.56	121.70
4	A	728	LYS	CB-CA-C	5.66	121.72	110.40
5	B	130	VAL	CA-C-N	5.66	129.65	117.20
5	B	891	ASP	CB-CG-OD2	-5.66	113.21	118.30
8	F	148	VAL	CA-C-N	-5.66	104.75	117.20
9	H	12	VAL	CA-CB-CG1	-5.66	102.41	110.90
10	I	24	ARG	C-N-CA	-5.66	107.56	121.70
4	A	1227	ILE	CG1-CB-CG2	5.66	123.85	111.40
4	A	1290	LYS	CG-CD-CE	5.66	128.87	111.90
4	A	1315	GLU	CA-C-N	5.66	129.64	117.20
5	B	67	SER	CA-CB-OG	5.66	126.47	111.20
5	B	1096	ARG	CA-C-N	5.66	129.64	117.20
5	B	1166	CYS	CA-C-N	-5.66	104.89	116.20
9	H	2	SER	O-C-N	-5.66	113.65	122.70
4	A	357	PRO	N-CA-C	5.65	126.79	112.10
4	A	991	LYS	CG-CD-CE	5.65	128.86	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	849	GLY	C-N-CA	-5.65	107.57	121.70
5	B	1079	LYS	C-N-CA	-5.65	107.57	121.70
10	I	111	THR	OG1-CB-CG2	-5.65	97.00	110.00
4	A	1126	ALA	N-CA-C	5.65	126.26	111.00
6	C	181	ASP	OD1-CG-OD2	5.65	134.03	123.30
5	B	1127	GLY	N-CA-C	-5.65	98.98	113.10
4	A	66	LYS	CB-CG-CD	5.65	126.29	111.60
5	B	328	GLU	OE1-CD-OE2	-5.65	116.52	123.30
7	E	136	ASN	N-CA-C	5.65	126.25	111.00
9	H	57	VAL	CG1-CB-CG2	5.65	119.94	110.90
5	B	365	THR	CA-CB-CG2	-5.65	104.50	112.40
4	A	313	GLN	CB-CA-C	-5.64	99.11	110.40
4	A	1357	ALA	N-CA-C	5.64	126.24	111.00
5	B	639	ILE	CG1-CB-CG2	5.64	123.82	111.40
5	B	1158	PHE	C-N-CA	-5.64	107.59	121.70
6	C	256	ALA	O-C-N	5.64	131.73	122.70
7	E	25	ASP	CB-CG-OD2	5.64	123.38	118.30
4	A	1224	LEU	N-CA-C	-5.64	95.76	111.00
4	A	1231	ASP	CB-CG-OD2	5.64	123.38	118.30
7	E	119	SER	N-CA-C	-5.64	95.77	111.00
4	A	352	VAL	CG1-CB-CG2	-5.64	101.88	110.90
4	A	637	LYS	CA-C-N	5.64	127.48	116.20
5	B	165	VAL	CB-CA-C	-5.64	100.69	111.40
5	B	510	LYS	CG-CD-CE	5.64	128.82	111.90
4	A	734	GLU	C-N-CA	-5.64	107.61	121.70
4	A	219	PHE	CB-CA-C	-5.64	99.13	110.40
6	C	20	PHE	CB-CG-CD2	-5.64	116.85	120.80
6	C	115	SER	N-CA-C	-5.64	95.78	111.00
5	B	604	ARG	O-C-N	-5.63	113.68	122.70
7	E	14	ARG	NE-CZ-NH1	5.63	123.12	120.30
5	B	1174	LYS	CD-CE-NZ	5.63	124.66	111.70
4	A	1274	ARG	O-C-N	-5.63	113.63	123.20
9	H	123	MET	CG-SD-CE	-5.63	91.19	100.20
10	I	16	PRO	N-CA-CB	-5.63	96.41	102.60
4	A	1095	THR	CA-C-N	-5.63	104.82	117.20
10	I	46	HIS	CB-CA-C	-5.63	99.14	110.40
4	A	201	VAL	C-N-CA	-5.63	107.63	121.70
4	A	322	VAL	C-N-CA	-5.63	107.63	121.70
5	B	307	ASP	CA-C-O	5.63	131.92	120.10
5	B	872	GLU	OE1-CD-OE2	5.63	130.05	123.30
5	B	958	GLN	CB-CA-C	5.63	121.66	110.40
4	A	1043	ASP	CB-CG-OD2	5.62	123.36	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	923	LEU	N-CA-CB	5.62	121.65	110.40
5	B	643	ASP	CB-CG-OD1	-5.62	113.24	118.30
5	B	240	ILE	CG1-CB-CG2	5.62	123.77	111.40
5	B	448	ILE	N-CA-CB	-5.62	97.87	110.80
5	B	709	ASP	CA-CB-CG	5.62	125.77	113.40
10	I	116	ASN	N-CA-CB	5.62	120.72	110.60
4	A	453	MET	N-CA-C	5.62	126.17	111.00
4	A	529	CYS	CA-CB-SG	5.62	124.12	114.00
4	A	1035	TYR	CZ-CE2-CD2	-5.62	114.74	119.80
5	B	802	PRO	CA-C-N	-5.62	104.84	117.20
5	B	1108	ARG	NH1-CZ-NH2	5.62	125.58	119.40
6	C	187	LYS	CA-C-O	5.62	131.90	120.10
4	A	316	GLN	CB-CG-CD	5.62	126.20	111.60
5	B	766	ARG	CG-CD-NE	-5.62	100.00	111.80
9	H	25	ARG	O-C-N	5.62	131.69	122.70
4	A	1015	VAL	N-CA-CB	-5.62	99.14	111.50
4	A	3	GLY	N-CA-C	5.61	127.14	113.10
4	A	238	CYS	CA-C-N	-5.61	104.85	117.20
5	B	575	PRO	C-N-CA	5.61	135.73	121.70
5	B	1059	LEU	CB-CG-CD1	5.61	120.54	111.00
7	E	159	ASP	CB-CG-OD2	5.61	123.35	118.30
10	I	73	ARG	NE-CZ-NH2	-5.61	117.49	120.30
5	B	782	LEU	CB-CG-CD2	-5.61	101.46	111.00
4	A	651	LYS	N-CA-C	5.61	126.15	111.00
6	C	239	PRO	CA-C-N	-5.61	104.86	117.20
4	A	450	LEU	CA-CB-CG	5.61	128.20	115.30
4	A	1219	THR	O-C-N	5.61	131.67	122.70
4	A	1324	PRO	C-N-CA	-5.61	107.68	121.70
5	B	489	SER	C-N-CA	-5.61	107.68	121.70
10	I	99	LEU	CB-CA-C	-5.61	99.55	110.20
11	J	38	ARG	CA-C-N	5.61	129.53	117.20
12	K	22	ASP	N-CA-CB	5.61	120.69	110.60
2	T	17	DG	C4'-C3'-O3'	5.61	123.71	109.70
4	A	402	ALA	N-CA-CB	5.61	117.95	110.10
4	A	593	GLU	OE1-CD-OE2	-5.61	116.57	123.30
6	C	201	TRP	CB-CA-C	5.61	121.61	110.40
9	H	98	TYR	CZ-CE2-CD2	5.61	124.84	119.80
11	J	29	GLU	N-CA-CB	-5.61	100.51	110.60
2	T	24	DT	O4'-C1'-N1	5.60	111.92	108.00
4	A	60	SER	N-CA-C	5.60	126.13	111.00
4	A	267	ALA	N-CA-CB	5.60	117.94	110.10
9	H	145	ARG	CD-NE-CZ	5.60	131.44	123.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	R	1	A	OP1-P-O3'	5.60	117.52	105.20
4	A	966	ASN	C-N-CA	-5.60	107.70	121.70
4	A	1172	LEU	CA-CB-CG	5.60	128.18	115.30
4	A	1341	ILE	CG1-CB-CG2	-5.60	99.08	111.40
5	B	39	ARG	C-N-CA	-5.60	107.70	121.70
5	B	569	TYR	CZ-CE2-CD2	5.60	124.84	119.80
5	B	815	ARG	CB-CA-C	-5.60	99.20	110.40
11	J	4	PRO	CA-C-N	-5.60	104.88	117.20
4	A	528	LEU	CA-CB-CG	-5.60	102.42	115.30
5	B	167	ILE	CA-C-O	-5.60	108.35	120.10
5	B	175	ARG	NH1-CZ-NH2	-5.60	113.24	119.40
5	B	332	ASP	N-CA-C	-5.60	95.89	111.00
5	B	738	PHE	C-N-CA	-5.60	107.71	121.70
6	C	251	LEU	CB-CG-CD2	5.60	120.52	111.00
7	E	135	PHE	CB-CA-C	-5.60	99.21	110.40
4	A	278	THR	CA-CB-CG2	5.60	120.23	112.40
4	A	780	VAL	CG1-CB-CG2	-5.59	101.95	110.90
4	A	1257	ASP	CA-C-N	-5.59	104.89	117.20
5	B	69	LEU	CB-CG-CD1	5.59	120.51	111.00
5	B	497	ARG	CA-CB-CG	5.59	125.71	113.40
5	B	783	THR	CA-CB-CG2	-5.59	104.57	112.40
7	E	82	PHE	N-CA-C	5.59	126.10	111.00
13	L	64	LEU	CD1-CG-CD2	5.59	127.28	110.50
4	A	938	LYS	CA-C-N	-5.59	104.90	117.20
4	A	1328	TYR	CA-C-O	5.59	131.84	120.10
5	B	882	THR	N-CA-C	5.59	126.10	111.00
4	A	1278	ASN	CA-CB-CG	5.59	125.70	113.40
5	B	49	ASP	CB-CA-C	5.59	121.58	110.40
5	B	434	ARG	CG-CD-NE	5.59	123.54	111.80
4	A	833	GLU	CB-CA-C	5.59	121.58	110.40
5	B	114	PRO	N-CD-CG	-5.59	94.81	103.20
5	B	628	THR	C-N-CA	-5.59	107.73	121.70
5	B	1185	CYS	CB-CA-C	5.59	121.58	110.40
6	C	182	PRO	CA-C-O	-5.59	106.79	120.20
4	A	553	VAL	CG1-CB-CG2	5.59	119.84	110.90
5	B	304	ASP	CB-CG-OD1	-5.59	113.27	118.30
5	B	243	ALA	O-C-N	5.58	131.63	122.70
5	B	346	GLU	N-CA-C	5.58	126.08	111.00
5	B	794	ASN	CB-CA-C	-5.58	99.23	110.40
4	A	238	CYS	N-CA-CB	-5.58	100.56	110.60
4	A	392	VAL	CG1-CB-CG2	-5.58	101.97	110.90
5	B	797	TYR	N-CA-CB	5.58	120.65	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1214	PRO	CA-C-O	5.58	133.59	120.20
5	B	305	VAL	CA-C-N	-5.58	104.92	117.20
5	B	1132	GLU	N-CA-CB	-5.58	100.56	110.60
6	C	23	SER	N-CA-CB	-5.58	102.13	110.50
5	B	119	LEU	CA-CB-CG	-5.58	102.47	115.30
5	B	194	GLU	CB-CA-C	5.58	121.55	110.40
7	E	113	GLN	N-CA-CB	5.58	120.64	110.60
9	H	137	GLN	CA-C-N	-5.58	104.94	117.20
4	A	541	ILE	CA-CB-CG2	5.57	122.05	110.90
4	A	1214	GLU	OE1-CD-OE2	-5.57	116.61	123.30
5	B	942	ARG	C-N-CA	-5.57	107.77	121.70
8	F	118	LEU	CB-CG-CD1	-5.57	101.53	111.00
4	A	602	ASP	N-CA-CB	5.57	120.63	110.60
5	B	736	THR	C-N-CA	-5.57	107.77	121.70
5	B	1043	ASP	N-CA-CB	5.57	120.63	110.60
9	H	109	LYS	CA-C-N	-5.57	104.94	117.20
4	A	850	VAL	CA-CB-CG2	5.57	119.26	110.90
7	E	54	GLN	CA-C-O	5.57	131.80	120.10
11	J	49	MET	CB-CG-SD	5.57	129.11	112.40
4	A	736	ASN	N-CA-CB	5.57	120.62	110.60
5	B	499	ASN	N-CA-C	-5.57	95.97	111.00
5	B	762	ASN	N-CA-CB	-5.57	100.58	110.60
8	F	88	TYR	CE1-CZ-OH	-5.57	105.06	120.10
11	J	26	GLN	CA-C-N	-5.57	104.95	117.20
4	A	902	LEU	N-CA-CB	-5.57	99.27	110.40
5	B	241	ARG	CB-CA-C	5.57	121.53	110.40
5	B	553	PRO	N-CA-C	-5.57	97.63	112.10
4	A	828	ALA	CB-CA-C	5.56	118.45	110.10
4	A	1374	VAL	O-C-N	5.56	131.60	122.70
7	E	36	GLU	C-N-CA	5.56	135.61	121.70
5	B	235	SER	CA-CB-OG	-5.56	96.18	111.20
5	B	242	SER	CB-CA-C	-5.56	99.53	110.10
5	B	333	PHE	CD1-CE1-CZ	-5.56	113.43	120.10
7	E	115	ASN	N-CA-CB	5.56	120.61	110.60
7	E	213	ILE	CG1-CB-CG2	-5.56	99.16	111.40
6	C	247	GLY	CA-C-N	-5.56	104.97	117.20
7	E	158	SER	O-C-N	5.56	131.60	122.70
4	A	412	ARG	CD-NE-CZ	5.56	131.38	123.60
4	A	666	ILE	N-CA-C	-5.56	95.99	111.00
4	A	1443	VAL	CB-CA-C	-5.56	100.84	111.40
6	C	156	THR	C-N-CA	-5.56	107.80	121.70
10	I	72	ASP	CB-CG-OD1	5.56	123.30	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1042	PHE	CB-CG-CD2	-5.56	116.91	120.80
4	A	1281	ARG	NE-CZ-NH2	-5.56	117.52	120.30
5	B	303	TYR	CB-CG-CD1	5.56	124.33	121.00
4	A	911	SER	CA-CB-OG	5.56	126.20	111.20
5	B	655	LYS	CG-CD-CE	5.56	128.57	111.90
7	E	57	MET	CB-CA-C	-5.56	99.29	110.40
4	A	451	HIS	N-CA-CB	5.55	120.60	110.60
5	B	127	GLY	CA-C-O	5.55	130.60	120.60
5	B	403	LYS	N-CA-C	-5.55	96.00	111.00
10	I	28	GLU	CG-CD-OE1	-5.55	107.19	118.30
4	A	682	THR	OG1-CB-CG2	-5.55	97.23	110.00
4	A	1333	ILE	CG1-CB-CG2	5.55	123.61	111.40
5	B	237	VAL	CB-CA-C	-5.55	100.85	111.40
5	B	759	PRO	N-CA-CB	-5.55	96.49	102.60
7	E	53	PRO	CA-C-O	-5.55	106.88	120.20
4	A	1373	ASP	N-CA-CB	-5.55	100.61	110.60
5	B	261	ARG	CA-C-N	5.55	129.41	117.20
10	I	118	ARG	C-N-CA	-5.55	107.83	121.70
4	A	944	ARG	N-CA-CB	5.55	120.58	110.60
4	A	1150	SER	O-C-N	5.55	131.57	122.70
7	E	170	LEU	CA-C-N	-5.55	105.00	117.20
11	J	46	CYS	CA-CB-SG	-5.55	104.02	114.00
9	H	59	ILE	CG1-CB-CG2	5.54	123.60	111.40
6	C	264	GLN	N-CA-C	5.54	125.97	111.00
7	E	80	VAL	N-CA-C	-5.54	96.03	111.00
4	A	338	GLY	C-N-CA	-5.54	107.85	121.70
4	A	410	GLY	C-N-CA	5.54	135.55	121.70
4	A	706	HIS	CB-CA-C	5.54	121.48	110.40
4	A	1287	TYR	CD1-CE1-CZ	5.54	124.79	119.80
5	B	1069	PHE	CA-C-O	5.54	131.74	120.10
6	C	97	VAL	CB-CA-C	5.54	121.93	111.40
11	J	25	LEU	O-C-N	5.54	131.57	122.70
4	A	136	ALA	CA-C-N	-5.54	105.01	117.20
4	A	998	LEU	N-CA-CB	-5.54	99.32	110.40
5	B	466	TRP	CG-CD2-CE3	-5.54	128.91	133.90
5	B	413	LEU	N-CA-C	-5.54	96.04	111.00
5	B	1103	ILE	CA-CB-CG2	5.54	121.98	110.90
10	I	112	SER	O-C-N	5.54	131.56	122.70
5	B	292	ILE	N-CA-C	5.54	125.95	111.00
4	A	828	ALA	CA-C-N	-5.53	105.03	117.20
5	B	164	LYS	N-CA-C	5.53	125.94	111.00
5	B	248	SER	N-CA-C	5.53	125.94	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	378	LEU	N-CA-CB	-5.53	99.33	110.40
5	B	819	ALA	N-CA-CB	5.53	117.85	110.10
4	A	824	LEU	CA-CB-CG	-5.53	102.58	115.30
5	B	64	CYS	N-CA-C	-5.53	96.06	111.00
8	F	103	MET	O-C-N	5.53	131.55	122.70
4	A	294	SER	O-C-N	5.53	131.55	122.70
5	B	652	LYS	CB-CG-CD	5.53	125.98	111.60
5	B	790	ASP	CB-CG-OD1	-5.53	113.32	118.30
2	T	27	DA	O3'-P-O5'	5.53	114.50	104.00
4	A	372	LYS	CG-CD-CE	5.53	128.48	111.90
4	A	797	LYS	CB-CA-C	5.53	121.45	110.40
4	A	1017	LEU	N-CA-C	-5.53	96.08	111.00
10	I	66	PRO	N-CD-CG	-5.53	94.91	103.20
4	A	248	PRO	C-N-CA	5.53	135.51	121.70
4	A	359	LEU	N-CA-CB	-5.53	99.35	110.40
4	A	590	ARG	CA-C-O	-5.53	108.50	120.10
4	A	714	PHE	CB-CA-C	-5.53	99.35	110.40
5	B	209	GLU	N-CA-CB	-5.53	100.65	110.60
5	B	332	ASP	CA-C-N	-5.53	105.04	117.20
5	B	798	TYR	CA-CB-CG	5.53	123.90	113.40
6	C	230	MET	CB-CG-SD	-5.53	95.83	112.40
12	K	67	PHE	CB-CG-CD2	-5.53	116.93	120.80
4	A	578	LEU	CA-C-N	-5.52	105.05	117.20
4	A	934	LYS	O-C-N	5.52	131.54	122.70
6	C	11	ARG	CG-CD-NE	5.52	123.40	111.80
4	A	222	LEU	C-N-CA	-5.52	110.70	122.30
5	B	429	PHE	CB-CG-CD2	5.52	124.67	120.80
5	B	465	ASN	N-CA-C	5.52	125.91	111.00
6	C	222	LYS	CB-CA-C	5.52	121.44	110.40
7	E	182	ASP	CB-CG-OD1	5.52	123.27	118.30
7	E	185	ALA	C-N-CA	-5.52	107.89	121.70
10	I	66	PRO	C-N-CA	-5.52	107.89	121.70
4	A	286	HIS	CA-C-N	5.52	129.35	117.20
4	A	581	ALA	CA-C-N	-5.52	105.06	117.20
4	A	972	HIS	CA-C-O	5.52	131.69	120.10
4	A	1314	SER	C-N-CA	5.52	135.50	121.70
5	B	312	GLU	CG-CD-OE2	-5.52	107.26	118.30
5	B	698	GLU	CB-CA-C	5.52	121.44	110.40
6	C	89	GLU	OE1-CD-OE2	5.52	129.92	123.30
6	C	199	LYS	C-N-CA	-5.52	107.90	121.70
9	H	39	THR	N-CA-CB	-5.52	99.81	110.30
9	H	93	TYR	C-N-CA	-5.52	107.90	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	L	27	LEU	N-CA-C	5.52	125.90	111.00
5	B	953	LEU	CB-CA-C	5.52	120.68	110.20
4	A	322	VAL	CA-C-N	5.51	129.33	117.20
4	A	1014	ALA	CA-C-O	5.51	131.68	120.10
4	A	737	LEU	CA-C-N	-5.51	105.07	117.20
4	A	569	LYS	C-N-CD	5.51	139.97	128.40
4	A	711	ARG	N-CA-C	-5.51	96.12	111.00
4	A	912	LEU	C-N-CA	-5.51	107.92	121.70
4	A	1115	SER	CA-C-N	-5.51	105.08	117.20
4	A	1358	SER	CA-C-N	-5.51	105.08	117.20
5	B	493	SER	C-N-CA	-5.51	107.92	121.70
5	B	893	LEU	N-CA-C	-5.51	96.12	111.00
4	A	1317	MET	CG-SD-CE	5.51	109.02	100.20
5	B	601	ARG	CA-C-N	5.51	129.32	117.20
8	F	145	ASP	N-CA-C	5.51	125.87	111.00
4	A	321	PRO	N-CA-CB	-5.51	96.54	102.60
4	A	1267	MET	CG-SD-CE	5.51	109.01	100.20
9	H	7	ASP	N-CA-CB	-5.51	100.69	110.60
4	A	419	LYS	CA-C-N	-5.51	105.08	117.20
4	A	786	HIS	CB-CA-C	-5.51	99.39	110.40
4	A	842	VAL	N-CA-C	5.51	125.87	111.00
4	A	315	LEU	CB-CG-CD1	5.50	120.36	111.00
5	B	1080	LYS	CA-C-N	-5.50	105.09	117.20
7	E	43	LYS	O-C-N	5.50	131.51	122.70
8	F	109	VAL	O-C-N	5.50	131.51	122.70
9	H	113	ALA	CB-CA-C	-5.50	101.85	110.10
10	I	109	ILE	O-C-N	5.50	131.50	122.70
4	A	220	THR	CA-CB-CG2	5.50	120.10	112.40
5	B	192	LEU	CB-CA-C	-5.50	99.75	110.20
6	C	259	LEU	CA-C-N	-5.50	105.10	117.20
7	E	72	PHE	CB-CA-C	-5.50	99.40	110.40
12	K	81	TYR	CB-CA-C	-5.50	99.39	110.40
4	A	387	ARG	N-CA-CB	5.50	120.50	110.60
4	A	685	GLU	CB-CG-CD	5.50	129.05	114.20
5	B	634	TYR	CB-CG-CD2	5.50	124.30	121.00
7	E	172	GLU	CB-CA-C	5.50	121.40	110.40
4	A	1140	HIS	CB-CA-C	5.50	121.40	110.40
5	B	316	PRO	CA-N-CD	-5.50	103.80	111.50
5	B	1073	TYR	C-N-CA	-5.50	107.95	121.70
6	C	196	ASP	CB-CG-OD1	-5.50	113.35	118.30
7	E	53	PRO	O-C-N	-5.50	113.90	122.70
4	A	1425	SER	CB-CA-C	5.50	120.54	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	612	GLU	CA-CB-CG	-5.50	101.31	113.40
6	C	221	TYR	CB-CG-CD2	5.50	124.30	121.00
5	B	350	GLN	N-CA-CB	5.50	120.49	110.60
5	B	1021	MET	CA-C-O	5.50	131.64	120.10
8	F	79	ARG	CA-CB-CG	5.50	125.49	113.40
4	A	555	ASP	C-N-CA	5.49	135.44	121.70
5	B	47	GLN	N-CA-CB	5.49	120.49	110.60
5	B	117	ALA	O-C-N	5.49	131.49	122.70
5	B	871	THR	N-CA-C	5.49	125.83	111.00
5	B	1006	ILE	N-CA-C	5.49	125.83	111.00
6	C	264	GLN	CB-CG-CD	5.49	125.88	111.60
7	E	176	PRO	CB-CA-C	-5.49	98.27	112.00
12	K	74	ARG	O-C-N	5.49	131.49	122.70
5	B	696	GLU	CG-CD-OE1	5.49	129.28	118.30
4	A	702	LEU	CA-CB-CG	5.49	127.93	115.30
5	B	1212	ILE	N-CA-C	5.49	125.82	111.00
6	C	243	VAL	CA-C-N	5.49	129.28	117.20
5	B	390	LEU	CB-CG-CD2	5.49	120.33	111.00
7	E	9	ILE	CB-CA-C	5.49	122.58	111.60
9	H	17	PRO	CA-C-O	5.49	133.37	120.20
4	A	846	GLU	CG-CD-OE2	5.49	129.27	118.30
4	A	507	VAL	CG1-CB-CG2	5.48	119.67	110.90
5	B	198	ASP	N-CA-C	-5.48	96.19	111.00
2	T	21	DC	N1-C2-O2	-5.48	115.61	118.90
4	A	53	LEU	N-CA-CB	5.48	121.36	110.40
4	A	471	ASN	C-N-CA	-5.48	107.99	121.70
4	A	809	THR	CB-CA-C	-5.48	96.80	111.60
4	A	1067	LEU	C-N-CA	-5.48	108.00	121.70
4	A	1162	VAL	C-N-CA	-5.48	107.99	121.70
5	B	1066	SER	N-CA-C	5.48	125.80	111.00
4	A	1240	CYS	CA-CB-SG	-5.48	104.13	114.00
5	B	865	LYS	CB-CG-CD	5.48	125.85	111.60
5	B	1214	PRO	CA-C-N	-5.48	105.14	117.20
7	E	5	ASN	N-CA-C	-5.48	96.20	111.00
10	I	6	PHE	CB-CA-C	-5.48	99.44	110.40
4	A	560	ILE	CB-CA-C	-5.48	100.64	111.60
2	T	23	DC	C6-N1-C1'	5.48	127.37	120.80
4	A	90	VAL	CG1-CB-CG2	-5.48	102.14	110.90
4	A	440	ASP	CB-CG-OD2	5.48	123.23	118.30
4	A	624	SER	N-CA-C	-5.48	96.21	111.00
4	A	1146	VAL	CB-CA-C	-5.48	100.99	111.40
4	A	1160	SER	C-N-CA	-5.48	108.01	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1287	TYR	CG-CD1-CE1	5.48	125.68	121.30
5	B	200	GLY	C-N-CA	-5.48	110.80	122.30
5	B	446	LEU	CB-CG-CD1	5.48	120.31	111.00
5	B	731	VAL	CB-CA-C	5.48	121.81	111.40
5	B	895	ASP	O-C-N	5.48	131.46	122.70
5	B	1131	GLY	O-C-N	5.48	131.47	122.70
5	B	1156	ASP	CA-C-N	5.48	129.25	117.20
10	I	41	PRO	O-C-N	5.48	131.46	122.70
13	L	51	CYS	N-CA-CB	-5.48	100.74	110.60
5	B	1223	ASP	O-C-N	-5.47	113.94	122.70
6	C	212	PRO	CA-CB-CG	-5.47	93.60	104.00
13	L	70	ARG	NE-CZ-NH1	5.47	123.04	120.30
4	A	411	ASP	CB-CA-C	-5.47	99.45	110.40
4	A	1156	PRO	CA-CB-CG	-5.47	93.60	104.00
5	B	202	TYR	N-CA-C	5.47	125.77	111.00
5	B	628	THR	N-CA-CB	-5.47	99.90	110.30
7	E	34	GLU	CA-C-N	-5.47	105.16	117.20
4	A	113	LEU	CB-CA-C	-5.47	99.81	110.20
5	B	488	TYR	CB-CG-CD1	-5.47	117.72	121.00
5	B	1099	VAL	CA-C-O	5.47	131.59	120.10
4	A	85	ASP	CB-CA-C	5.47	121.34	110.40
9	H	19	ARG	NE-CZ-NH2	5.47	123.03	120.30
4	A	999	VAL	CG1-CB-CG2	5.47	119.65	110.90
9	H	104	PHE	N-CA-C	-5.47	96.24	111.00
4	A	1362	TYR	CB-CG-CD2	5.46	124.28	121.00
5	B	360	PHE	CB-CG-CD1	-5.46	116.97	120.80
5	B	429	PHE	CG-CD1-CE1	5.46	126.81	120.80
6	C	86	CYS	CB-CA-C	-5.46	99.47	110.40
5	B	955	THR	N-CA-CB	5.46	120.67	110.30
6	C	35	ARG	NE-CZ-NH1	-5.46	117.57	120.30
12	K	54	ARG	N-CA-CB	5.46	120.43	110.60
4	A	736	ASN	CA-C-N	5.46	129.21	117.20
4	A	1055	ARG	NE-CZ-NH2	5.46	123.03	120.30
5	B	1161	HIS	CB-CA-C	-5.46	99.48	110.40
7	E	211	TYR	OH-CZ-CE2	5.46	134.83	120.10
4	A	674	PRO	N-CA-C	-5.46	97.92	112.10
5	B	661	LEU	CB-CG-CD1	-5.46	101.73	111.00
5	B	1141	HIS	CA-C-N	-5.46	105.29	116.20
8	F	87	LYS	CD-CE-NZ	5.46	124.25	111.70
4	A	1273	LEU	CB-CG-CD2	5.45	120.27	111.00
5	B	831	SER	N-CA-CB	-5.45	102.32	110.50
8	F	117	PRO	N-CA-CB	-5.45	96.60	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	593	GLU	CA-C-N	5.45	127.10	116.20
4	A	659	HIS	N-CA-C	5.45	125.72	111.00
5	B	785	TYR	C-N-CA	-5.45	108.07	121.70
5	B	983	ARG	CD-NE-CZ	5.45	131.23	123.60
5	B	1159	ARG	CG-CD-NE	-5.45	100.35	111.80
6	C	24	ASN	N-CA-C	5.45	125.72	111.00
4	A	880	LYS	CA-CB-CG	5.45	125.39	113.40
5	B	694	ASP	N-CA-CB	5.45	120.41	110.60
5	B	759	PRO	N-CA-C	5.45	126.27	112.10
5	B	1140	ALA	CA-C-N	-5.45	105.22	117.20
9	H	101	ALA	CA-C-N	-5.45	105.21	117.20
12	K	9	LEU	CA-CB-CG	-5.45	102.77	115.30
12	K	47	ARG	NH1-CZ-NH2	-5.45	113.41	119.40
13	L	61	THR	N-CA-CB	5.45	120.65	110.30
4	A	264	PHE	CB-CG-CD1	-5.45	116.99	120.80
4	A	602	ASP	N-CA-C	-5.45	96.29	111.00
5	B	784	ASN	CB-CA-C	-5.45	99.51	110.40
13	L	57	LEU	C-N-CA	-5.45	108.08	121.70
4	A	375	THR	CA-CB-OG1	-5.45	97.56	109.00
4	A	593	GLU	O-C-N	-5.45	113.94	123.20
6	C	168	ALA	CA-C-N	-5.44	105.22	117.20
4	A	565	ILE	O-C-N	5.44	131.41	122.70
4	A	650	GLN	CA-CB-CG	5.44	125.37	113.40
4	A	1329	THR	N-CA-CB	5.44	120.64	110.30
5	B	208	SER	CA-C-N	-5.44	105.23	117.20
11	J	21	TYR	OH-CZ-CE2	-5.44	105.41	120.10
13	L	66	GLN	CA-CB-CG	5.44	125.37	113.40
4	A	1012	ARG	NE-CZ-NH1	5.44	123.02	120.30
4	A	1052	GLN	CA-CB-CG	5.44	125.37	113.40
6	C	172	PRO	N-CD-CG	-5.44	95.04	103.20
12	K	74	ARG	CA-CB-CG	-5.44	101.43	113.40
4	A	1336	MET	N-CA-C	5.44	125.68	111.00
13	L	54	ARG	NE-CZ-NH1	-5.44	117.58	120.30
4	A	437	MET	N-CA-C	5.44	125.68	111.00
4	A	1407	GLU	CB-CA-C	-5.44	99.52	110.40
5	B	37	PHE	O-C-N	-5.44	114.00	122.70
5	B	219	ALA	N-CA-CB	5.44	117.71	110.10
7	E	96	PHE	O-C-N	-5.44	114.00	122.70
8	F	112	GLU	CA-CB-CG	5.44	125.36	113.40
5	B	557	PHE	CB-CG-CD2	-5.44	117.00	120.80
5	B	956	THR	CB-CA-C	-5.44	96.92	111.60
4	A	418	SER	N-CA-CB	5.43	118.65	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C	244	VAL	CG1-CB-CG2	5.43	119.60	110.90
4	A	367	PRO	N-CA-C	-5.43	97.98	112.10
4	A	409	SER	N-CA-C	5.43	125.67	111.00
4	A	792	TYR	CG-CD1-CE1	-5.43	116.95	121.30
5	B	310	MET	CA-C-N	-5.43	105.25	117.20
4	A	129	LYS	CG-CD-CE	5.43	128.19	111.90
4	A	929	LEU	CD1-CG-CD2	5.43	126.79	110.50
4	A	55	ASP	CB-CG-OD1	5.43	123.19	118.30
4	A	479	ASN	CB-CG-OD1	5.43	132.46	121.60
4	A	1127	ASP	CB-CG-OD2	-5.43	113.41	118.30
5	B	483	LEU	CB-CG-CD1	5.43	120.23	111.00
5	B	738	PHE	N-CA-CB	-5.43	100.83	110.60
5	B	1047	PHE	CB-CA-C	5.43	121.26	110.40
5	B	1095	LEU	C-N-CA	-5.43	108.12	121.70
9	H	2	SER	CA-C-N	5.43	129.15	117.20
10	I	38	ALA	N-CA-C	5.43	125.66	111.00
4	A	7	SER	N-CA-C	-5.43	96.35	111.00
4	A	721	PHE	CB-CG-CD2	5.43	124.60	120.80
5	B	970	THR	CA-CB-CG2	-5.43	104.80	112.40
6	C	26	ASP	N-CA-CB	-5.43	100.83	110.60
7	E	133	GLU	N-CA-CB	-5.43	100.83	110.60
11	J	17	LYS	CD-CE-NZ	5.43	124.18	111.70
6	C	101	LEU	CB-CA-C	-5.42	99.89	110.20
6	C	199	LYS	CB-CA-C	-5.42	99.55	110.40
7	E	153	HIS	N-CA-C	-5.42	96.36	111.00
9	H	137	GLN	C-N-CA	5.42	135.26	121.70
10	I	119	THR	N-CA-C	5.42	125.65	111.00
5	B	194	GLU	CG-CD-OE2	-5.42	107.45	118.30
4	A	324	SER	CA-C-N	-5.42	105.27	117.20
4	A	565	ILE	N-CA-C	-5.42	96.36	111.00
4	A	1051	ALA	CA-C-N	-5.42	105.27	117.20
4	A	1092	LYS	CD-CE-NZ	5.42	124.17	111.70
4	A	1197	LEU	CA-CB-CG	-5.42	102.83	115.30
5	B	284	ILE	CB-CA-C	-5.42	100.76	111.60
11	J	22	LEU	CB-CA-C	-5.42	99.90	110.20
4	A	672	ASP	OD1-CG-OD2	-5.42	113.00	123.30
4	A	958	VAL	CB-CA-C	-5.42	101.10	111.40
4	A	1309	ASP	CA-C-N	5.42	127.04	116.20
5	B	37	PHE	N-CA-C	-5.42	96.37	111.00
6	C	114	TYR	CA-CB-CG	5.42	123.69	113.40
7	E	170	LEU	CB-CG-CD2	-5.42	101.79	111.00
4	A	1391	ARG	CA-CB-CG	5.42	125.32	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1428	VAL	CG1-CB-CG2	5.42	119.57	110.90
9	H	146	ARG	CB-CA-C	5.42	121.23	110.40
10	I	108	HIS	C-N-CA	-5.42	108.16	121.70
4	A	345	VAL	N-CA-C	5.41	125.62	111.00
4	A	547	LEU	CB-CG-CD1	5.41	120.20	111.00
4	A	562	THR	CA-CB-CG2	-5.41	104.82	112.40
4	A	923	LEU	CB-CA-C	-5.41	99.92	110.20
4	A	1346	ALA	O-C-N	-5.41	114.04	122.70
5	B	570	VAL	N-CA-CB	-5.41	99.59	111.50
6	C	60	ASP	N-CA-CB	-5.41	100.86	110.60
4	A	257	ARG	CA-C-N	-5.41	105.38	116.20
4	A	794	PRO	C-N-CA	5.41	135.23	121.70
4	A	74	MET	N-CA-CB	-5.41	100.86	110.60
4	A	532	ARG	CG-CD-NE	5.41	123.16	111.80
4	A	991	LYS	CA-CB-CG	5.41	125.30	113.40
5	B	95	ILE	CA-CB-CG1	-5.41	100.72	111.00
5	B	528	PRO	CA-CB-CG	-5.41	93.72	104.00
13	L	55	ILE	CA-C-N	5.41	129.10	117.20
4	A	161	LEU	CB-CG-CD1	-5.41	101.81	111.00
13	L	42	ARG	CD-NE-CZ	5.41	131.17	123.60
4	A	637	LYS	CA-C-O	-5.41	108.75	120.10
4	A	1426	GLU	CA-CB-CG	-5.41	101.50	113.40
5	B	327	ARG	N-CA-CB	-5.41	100.87	110.60
5	B	1057	LYS	CB-CG-CD	5.41	125.66	111.60
4	A	357	PRO	C-N-CA	-5.41	108.19	121.70
4	A	632	VAL	CA-CB-CG2	5.41	119.01	110.90
4	A	1125	ALA	CB-CA-C	5.41	118.21	110.10
7	E	177	ARG	NE-CZ-NH1	-5.41	117.60	120.30
5	B	935	ARG	CA-C-N	-5.40	105.31	117.20
5	B	195	CYS	N-CA-CB	5.40	120.32	110.60
5	B	869	SER	N-CA-C	5.40	125.59	111.00
4	A	296	LEU	CB-CA-C	-5.40	99.94	110.20
4	A	438	ASP	CA-C-N	-5.40	105.32	117.20
4	A	524	VAL	CA-CB-CG2	-5.40	102.80	110.90
5	B	955	THR	O-C-N	5.40	131.34	122.70
5	B	1046	PRO	CA-C-N	-5.40	105.32	117.20
4	A	496	GLU	CG-CD-OE1	-5.40	107.50	118.30
12	K	9	LEU	CB-CA-C	-5.40	99.94	110.20
5	B	354	ASP	O-C-N	5.40	131.34	122.70
7	E	175	LEU	CB-CA-C	-5.40	99.95	110.20
5	B	316	PRO	C-N-CA	-5.39	108.21	121.70
8	F	79	ARG	N-CA-CB	-5.39	100.89	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	619	LYS	C-N-CA	-5.39	108.22	121.70
4	A	1025	ARG	CA-CB-CG	5.39	125.27	113.40
5	B	190	TYR	CB-CG-CD1	5.39	124.23	121.00
5	B	1096	ARG	NE-CZ-NH1	5.39	123.00	120.30
10	I	34	TYR	C-N-CA	-5.39	108.22	121.70
12	K	83	PRO	N-CD-CG	5.39	111.29	103.20
4	A	40	THR	N-CA-CB	-5.39	100.06	110.30
4	A	1115	SER	C-N-CA	5.39	135.18	121.70
5	B	345	LYS	CA-CB-CG	5.39	125.26	113.40
8	F	142	SER	N-CA-C	5.39	125.55	111.00
4	A	956	LEU	CA-CB-CG	-5.39	102.91	115.30
8	F	98	ALA	O-C-N	5.39	131.32	122.70
4	A	1331	SER	CB-CA-C	-5.39	99.87	110.10
5	B	370	PHE	C-N-CA	5.39	135.17	121.70
5	B	1211	ASN	C-N-CA	-5.39	108.23	121.70
4	A	459	ARG	CD-NE-CZ	5.38	131.14	123.60
9	H	33	GLN	N-CA-CB	-5.38	100.91	110.60
7	E	109	ILE	CB-CA-C	-5.38	100.83	111.60
4	A	1057	VAL	CA-CB-CG1	5.38	118.97	110.90
5	B	169	ARG	NE-CZ-NH1	-5.38	117.61	120.30
5	B	203	PHE	CG-CD1-CE1	5.38	126.72	120.80
5	B	476	ARG	C-N-CA	-5.38	108.25	121.70
5	B	690	VAL	N-CA-CB	-5.38	99.66	111.50
5	B	955	THR	CA-C-N	-5.38	105.36	117.20
6	C	84	ARG	NE-CZ-NH2	5.38	122.99	120.30
5	B	823	ALA	N-CA-C	5.38	125.53	111.00
5	B	1140	ALA	N-CA-C	5.38	125.53	111.00
4	A	54	ASN	N-CA-C	5.38	125.52	111.00
4	A	1141	THR	CA-CB-CG2	-5.38	104.87	112.40
5	B	132	VAL	CA-C-N	5.38	129.03	117.20
11	J	59	LYS	CB-CG-CD	5.38	125.58	111.60
5	B	560	GLU	CA-CB-CG	5.38	125.23	113.40
4	A	736	ASN	C-N-CA	-5.37	108.27	121.70
4	A	1174	PHE	CB-CA-C	-5.37	99.66	110.40
5	B	839	MET	CA-C-N	-5.37	105.38	117.20
5	B	1054	GLY	C-N-CA	5.37	135.13	121.70
9	H	17	PRO	CA-CB-CG	-5.37	93.79	104.00
4	A	130	ASP	CB-CG-OD2	5.37	123.13	118.30
5	B	1022	THR	CA-C-O	5.37	131.38	120.10
6	C	56	THR	CB-CA-C	-5.37	97.10	111.60
7	E	15	ALA	N-CA-CB	-5.37	102.58	110.10
9	H	125	LEU	CB-CG-CD2	-5.37	101.87	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C	147	LEU	CB-CG-CD2	5.37	120.13	111.00
9	H	44	VAL	CG1-CB-CG2	5.37	119.49	110.90
10	I	86	PHE	CB-CG-CD2	5.37	124.56	120.80
5	B	641	GLU	C-N-CA	5.37	135.12	121.70
7	E	12	LEU	CB-CG-CD1	5.37	120.12	111.00
11	J	21	TYR	CB-CG-CD2	-5.37	117.78	121.00
4	A	251	SER	N-CA-CB	-5.37	102.45	110.50
4	A	1196	GLU	CA-CB-CG	5.37	125.21	113.40
5	B	567	GLU	CG-CD-OE1	5.37	129.03	118.30
4	A	110	CYS	CA-CB-SG	5.37	123.66	114.00
6	C	15	LYS	CB-CA-C	5.37	121.13	110.40
7	E	60	PHE	CA-C-O	5.37	131.37	120.10
7	E	145	THR	C-N-CA	-5.37	108.29	121.70
10	I	18	GLU	OE1-CD-OE2	5.37	129.74	123.30
4	A	280	GLU	N-CA-C	5.36	125.48	111.00
4	A	740	LEU	CA-CB-CG	-5.36	102.97	115.30
4	A	1027	ALA	N-CA-CB	-5.36	102.60	110.10
4	A	1072	ILE	C-N-CA	5.36	133.56	122.30
5	B	604	ARG	CG-CD-NE	-5.36	100.54	111.80
5	B	765	PRO	C-N-CA	-5.36	108.30	121.70
4	A	98	LYS	CG-CD-CE	5.36	127.98	111.90
5	B	450	ALA	C-N-CA	5.36	135.10	121.70
11	J	54	VAL	CG1-CB-CG2	-5.36	102.33	110.90
12	K	105	PHE	CA-C-N	-5.36	105.41	117.20
5	B	414	ALA	O-C-N	-5.36	114.13	122.70
5	B	561	TRP	CA-CB-CG	5.36	123.88	113.70
4	A	737	LEU	C-N-CA	5.35	135.08	121.70
5	B	248	SER	CA-C-N	-5.35	105.42	117.20
5	B	1220	ARG	N-CA-C	-5.35	96.55	111.00
5	B	579	ARG	CG-CD-NE	-5.35	100.56	111.80
9	H	115	TYR	CA-C-O	5.35	131.34	120.10
10	I	65	ASP	N-CA-C	-5.35	96.55	111.00
5	B	736	THR	CA-C-O	5.35	131.34	120.10
12	K	33	ILE	CB-CA-C	-5.35	100.90	111.60
4	A	550	LEU	CB-CA-C	-5.35	100.03	110.20
4	A	732	LEU	CA-CB-CG	-5.35	103.00	115.30
4	A	752	LYS	CD-CE-NZ	-5.35	99.40	111.70
4	A	925	LEU	CD1-CG-CD2	5.35	126.55	110.50
4	A	1407	GLU	C-N-CA	-5.35	108.33	121.70
3	N	10	DG	OP1-P-OP2	-5.35	111.58	119.60
5	B	300	HIS	CA-CB-CG	-5.35	104.51	113.60
10	I	90	GLN	N-CA-C	-5.35	96.56	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	578	LEU	CB-CG-CD2	-5.35	101.91	111.00
2	T	28	DT	N1-C1'-C2'	5.34	122.75	112.60
4	A	1416	ALA	C-N-CA	-5.34	108.34	121.70
5	B	265	SER	N-CA-CB	5.34	118.52	110.50
12	K	30	ALA	CA-C-N	-5.34	105.44	117.20
4	A	580	VAL	C-N-CA	-5.34	108.34	121.70
13	L	65	VAL	N-CA-C	5.34	125.43	111.00
4	A	1418	LEU	N-CA-C	-5.34	96.58	111.00
5	B	275	TYR	OH-CZ-CE2	-5.34	105.68	120.10
5	B	708	GLU	O-C-N	5.34	131.25	122.70
7	E	122	LYS	CB-CG-CD	5.34	125.49	111.60
4	A	274	ILE	CA-C-O	-5.34	108.89	120.10
4	A	388	LEU	N-CA-C	5.34	125.42	111.00
4	A	745	GLN	CA-CB-CG	5.34	125.15	113.40
4	A	1422	ARG	CA-C-O	5.34	131.31	120.10
9	H	15	VAL	O-C-N	-5.34	114.16	122.70
5	B	1085	ILE	CG1-CB-CG2	5.34	123.14	111.40
5	B	193	LYS	CG-CD-CE	5.34	127.91	111.90
5	B	384	ARG	NH1-CZ-NH2	-5.34	113.53	119.40
4	A	841	LEU	C-N-CA	-5.33	108.36	121.70
6	C	122	SER	CB-CA-C	5.33	120.24	110.10
4	A	1046	LEU	O-C-N	-5.33	114.17	122.70
4	A	1288	ASP	C-N-CA	-5.33	108.37	121.70
5	B	489	SER	CA-CB-OG	5.33	125.59	111.20
5	B	893	LEU	CA-C-O	-5.33	108.90	120.10
5	B	1115	THR	N-CA-C	5.33	125.39	111.00
4	A	1335	ILE	N-CA-C	-5.33	96.61	111.00
5	B	41	LYS	CA-CB-CG	5.33	125.13	113.40
5	B	345	LYS	CB-CG-CD	5.33	125.46	111.60
6	C	123	ASN	N-CA-C	-5.33	96.61	111.00
4	A	552	TRP	N-CA-C	5.33	125.39	111.00
4	A	1014	ALA	CA-C-N	-5.33	105.48	117.20
6	C	168	ALA	C-N-CA	-5.33	108.38	121.70
4	A	123	ARG	CA-CB-CG	5.33	125.12	113.40
4	A	556	TRP	CA-CB-CG	-5.33	103.58	113.70
5	B	1205	GLN	CB-CG-CD	5.33	125.45	111.60
10	I	8	ARG	CB-CG-CD	5.33	125.45	111.60
4	A	935	GLN	C-N-CA	-5.32	108.39	121.70
4	A	963	ILE	CB-CA-C	-5.32	100.95	111.60
5	B	812	LEU	O-C-N	5.32	131.22	122.70
6	C	233	GLU	N-CA-CB	5.32	120.18	110.60
4	A	171	GLN	CA-CB-CG	5.32	125.11	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	825	ILE	C-N-CA	-5.32	108.39	121.70
5	B	90	ILE	CB-CA-C	-5.32	100.96	111.60
5	B	97	VAL	CB-CA-C	-5.32	101.29	111.40
5	B	1013	ASN	C-N-CD	5.32	139.57	128.40
6	C	166	GLU	CG-CD-OE1	-5.32	107.66	118.30
9	H	56	THR	N-CA-CB	-5.32	100.19	110.30
4	A	99	ILE	N-CA-C	5.32	125.36	111.00
4	A	644	LYS	CD-CE-NZ	5.32	123.93	111.70
4	A	1367	HIS	N-CA-CB	-5.32	101.03	110.60
5	B	488	TYR	CB-CA-C	-5.32	99.76	110.40
7	E	212	ARG	N-CA-CB	5.32	120.17	110.60
4	A	145	LYS	CD-CE-NZ	5.32	123.93	111.70
5	B	620	ARG	CB-CG-CD	5.32	125.43	111.60
4	A	692	ASP	CB-CG-OD2	-5.32	113.52	118.30
4	A	1105	LEU	CA-C-O	5.32	131.26	120.10
4	A	1419	ASP	C-N-CA	5.32	134.99	121.70
6	C	174	ALA	CB-CA-C	-5.32	102.13	110.10
8	F	105	ALA	N-CA-CB	5.32	117.54	110.10
4	A	900	ASP	O-C-N	5.31	131.20	122.70
4	A	1396	ALA	N-CA-CB	-5.31	102.66	110.10
5	B	226	PHE	CA-C-O	-5.31	108.94	120.10
4	A	637	LYS	CD-CE-NZ	5.31	123.92	111.70
4	A	847	ASP	C-N-CA	-5.31	108.42	121.70
4	A	1048	ASN	CB-CA-C	5.31	121.03	110.40
5	B	1093	GLN	O-C-N	-5.31	114.20	122.70
4	A	539	THR	CA-C-N	-5.31	105.52	117.20
5	B	608	ASP	OD1-CG-OD2	-5.31	113.21	123.30
5	B	1016	ALA	CA-C-N	-5.31	105.52	117.20
6	C	69	LEU	N-CA-C	5.31	125.34	111.00
4	A	345	VAL	CG1-CB-CG2	5.31	119.39	110.90
4	A	1013	ASP	CB-CG-OD1	5.31	123.08	118.30
4	A	1378	GLN	C-N-CA	-5.31	111.15	122.30
4	A	975	HIS	N-CA-CB	-5.31	101.05	110.60
4	A	1345	ARG	CB-CG-CD	5.31	125.40	111.60
7	E	168	TYR	CE1-CZ-OH	5.31	134.43	120.10
12	K	19	LEU	CA-C-N	-5.31	105.52	117.20
12	K	45	LEU	CB-CG-CD2	-5.31	101.98	111.00
12	K	94	ILE	CA-C-N	-5.31	105.52	117.20
13	L	32	ALA	CA-C-N	-5.31	105.53	117.20
4	A	804	TYR	CG-CD2-CE2	5.31	125.55	121.30
10	I	115	LYS	N-CA-C	-5.31	96.67	111.00
5	B	877	PRO	CB-CA-C	-5.30	98.74	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1398	MET	N-CA-CB	5.30	120.14	110.60
5	B	391	ASP	CB-CG-OD2	5.30	123.07	118.30
7	E	112	TYR	CA-CB-CG	5.30	123.47	113.40
7	E	180	ARG	CA-C-N	-5.30	105.54	117.20
9	H	102	TYR	N-CA-CB	-5.30	101.06	110.60
9	H	135	LEU	CB-CA-C	5.30	120.27	110.20
4	A	145	LYS	N-CA-CB	5.30	120.14	110.60
4	A	332	LYS	N-CA-C	-5.30	96.69	111.00
4	A	1168	GLU	CA-C-N	-5.30	105.54	117.20
4	A	1202	MET	CB-CA-C	5.30	121.00	110.40
4	A	1221	LYS	C-N-CA	5.30	134.95	121.70
5	B	773	MET	CB-CA-C	5.30	121.00	110.40
5	B	1148	LYS	CD-CE-NZ	5.30	123.89	111.70
4	A	893	PHE	CZ-CE2-CD2	5.30	126.45	120.10
4	A	1362	TYR	CE1-CZ-OH	-5.30	105.80	120.10
5	B	501	PRO	CA-C-O	-5.30	107.49	120.20
9	H	11	GLN	CA-C-N	-5.30	105.55	117.20
13	L	63	ARG	CA-C-O	5.30	131.22	120.10
4	A	359	LEU	O-C-N	-5.29	114.23	122.70
4	A	362	ASP	CA-C-N	-5.29	105.55	117.20
4	A	552	TRP	CB-CA-C	5.29	120.99	110.40
4	A	1377	THR	N-CA-C	5.29	125.30	111.00
5	B	649	LYS	CA-CB-CG	5.29	125.05	113.40
6	C	221	TYR	CE1-CZ-CE2	5.29	128.27	119.80
7	E	180	ARG	CG-CD-NE	5.29	122.92	111.80
5	B	229	ALA	C-N-CA	-5.29	108.47	121.70
7	E	169	ARG	CA-C-N	-5.29	105.56	117.20
5	B	62	ILE	CG1-CB-CG2	-5.29	99.76	111.40
5	B	636	PRO	CB-CG-CD	-5.29	85.87	106.50
5	B	1074	ASN	N-CA-C	-5.29	96.71	111.00
6	C	104	PHE	N-CA-C	-5.29	96.72	111.00
5	B	379	GLY	N-CA-C	-5.29	99.88	113.10
5	B	539	LEU	C-N-CA	5.29	134.92	121.70
5	B	873	THR	N-CA-C	-5.29	96.72	111.00
6	C	138	GLU	CG-CD-OE2	-5.29	107.72	118.30
4	A	1391	ARG	O-C-N	-5.29	114.24	122.70
5	B	423	LYS	C-N-CA	-5.29	108.48	121.70
5	B	1136	ASP	CB-CA-C	5.29	120.98	110.40
6	C	135	GLN	CB-CA-C	-5.29	99.82	110.40
4	A	478	TYR	CA-C-N	-5.29	105.57	117.20
4	A	713	SER	CA-CB-OG	-5.29	96.92	111.20
4	A	1004	ASN	N-CA-C	5.29	125.28	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	E	176	PRO	N-CD-CG	-5.29	95.27	103.20
11	J	26	GLN	N-CA-C	5.29	125.28	111.00
4	A	80	HIS	N-CA-CB	5.29	120.11	110.60
4	A	293	GLU	N-CA-C	-5.29	96.73	111.00
4	A	315	LEU	CB-CG-CD2	5.29	119.98	111.00
4	A	1000	LEU	O-C-N	5.29	131.16	122.70
4	A	1322	ILE	N-CA-C	-5.29	96.73	111.00
5	B	780	VAL	CB-CA-C	-5.29	101.36	111.40
8	F	155	LEU	N-CA-C	5.29	125.27	111.00
4	A	735	VAL	O-C-N	-5.28	114.25	122.70
4	A	885	THR	CB-CA-C	-5.28	97.34	111.60
4	A	1441	PHE	CB-CG-CD1	-5.28	117.10	120.80
5	B	227	LYS	CA-CB-CG	5.28	125.02	113.40
6	C	97	VAL	N-CA-C	-5.28	96.74	111.00
12	K	76	GLN	C-N-CA	5.28	134.91	121.70
12	K	102	LYS	CB-CG-CD	5.28	125.34	111.60
4	A	1199	ARG	NE-CZ-NH1	5.28	122.94	120.30
4	A	1218	GLN	CB-CA-C	-5.28	99.84	110.40
4	A	1371	LEU	C-N-CA	5.28	134.90	121.70
4	A	688	LYS	C-N-CA	-5.28	108.50	121.70
5	B	585	VAL	CA-CB-CG1	5.28	118.82	110.90
5	B	830	TYR	CB-CA-C	-5.28	99.85	110.40
4	A	175	ARG	CA-CB-CG	5.28	125.01	113.40
4	A	326	ARG	CA-C-N	5.28	128.81	117.20
5	B	488	TYR	CE1-CZ-CE2	5.28	128.24	119.80
5	B	658	ILE	CA-CB-CG1	-5.28	100.98	111.00
7	E	36	GLU	CG-CD-OE1	-5.28	107.75	118.30
9	H	20	TYR	CA-CB-CG	5.28	123.42	113.40
11	J	9	SER	CA-CB-OG	-5.28	96.96	111.20
4	A	783	THR	C-N-CA	5.27	134.88	121.70
8	F	144	GLU	N-CA-CB	-5.27	101.11	110.60
9	H	20	TYR	O-C-N	-5.27	114.26	122.70
4	A	360	GLU	CB-CA-C	-5.27	99.85	110.40
4	A	318	SER	O-C-N	-5.27	114.24	123.20
5	B	113	TYR	N-CA-CB	-5.27	101.11	110.60
7	E	192	ARG	CA-CB-CG	5.27	125.00	113.40
6	C	77	ILE	CB-CA-C	-5.27	101.06	111.60
6	C	89	GLU	CG-CD-OE1	-5.27	107.76	118.30
4	A	326	ARG	N-CA-CB	5.27	120.08	110.60
4	A	364	VAL	CB-CA-C	-5.27	101.39	111.40
5	B	415	GLN	C-N-CA	-5.27	108.53	121.70
4	A	529	CYS	O-C-N	5.27	132.15	123.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	838	SER	CA-C-N	-5.27	105.61	117.20
4	A	220	THR	C-N-CA	-5.26	108.54	121.70
4	A	543	LEU	CB-CG-CD1	5.26	119.95	111.00
4	A	731	ARG	NE-CZ-NH1	-5.26	117.67	120.30
4	A	906	HIS	O-C-N	-5.26	114.28	122.70
4	A	1030	ARG	NH1-CZ-NH2	5.26	125.19	119.40
5	B	845	SER	O-C-N	-5.26	114.28	122.70
5	B	979	LYS	N-CA-CB	-5.26	101.12	110.60
8	F	124	GLU	CA-C-N	-5.26	105.62	117.20
7	E	53	PRO	N-CA-C	5.26	125.78	112.10
4	A	622	VAL	CG1-CB-CG2	-5.26	102.48	110.90
4	A	1383	SER	CA-C-N	-5.26	105.62	117.20
5	B	1067	ARG	O-C-N	5.26	132.14	123.20
4	A	108	MET	N-CA-C	5.26	125.20	111.00
4	A	233	TRP	N-CA-CB	-5.26	101.14	110.60
4	A	393	ARG	CD-NE-CZ	5.26	130.96	123.60
4	A	1408	ILE	CA-C-N	-5.26	105.63	117.20
5	B	283	VAL	CB-CA-C	5.26	121.39	111.40
5	B	512	ARG	NE-CZ-NH2	-5.26	117.67	120.30
5	B	1131	GLY	N-CA-C	5.26	126.25	113.10
12	K	8	GLU	CA-CB-CG	5.26	124.97	113.40
4	A	856	THR	C-N-CA	-5.26	108.56	121.70
4	A	1095	THR	C-N-CA	5.26	134.84	121.70
4	A	186	LYS	CD-CE-NZ	5.25	123.79	111.70
4	A	1348	LEU	CB-CA-C	5.25	120.18	110.20
5	B	538	ASN	C-N-CA	-5.25	108.56	121.70
6	C	123	ASN	CA-C-N	-5.25	105.64	117.20
4	A	890	ASP	O-C-N	5.25	131.10	122.70
4	A	1125	ALA	O-C-N	-5.25	114.30	122.70
5	B	226	PHE	CG-CD2-CE2	5.25	126.58	120.80
5	B	347	LYS	CA-CB-CG	5.25	124.96	113.40
5	B	501	PRO	CA-C-N	5.25	128.76	117.20
5	B	1099	VAL	O-C-N	5.25	131.11	122.70
6	C	25	VAL	CA-C-N	-5.25	105.64	117.20
9	H	20	TYR	CA-C-N	5.25	128.76	117.20
11	J	39	LEU	CB-CG-CD1	-5.25	102.07	111.00
4	A	210	ILE	N-CA-CB	-5.25	98.72	110.80
4	A	679	ILE	CB-CA-C	-5.25	101.10	111.60
4	A	693	VAL	CA-CB-CG1	-5.25	103.02	110.90
4	A	884	ASP	N-CA-CB	5.25	120.05	110.60
5	B	544	CYS	N-CA-CB	-5.25	101.15	110.60
5	B	642	ASP	O-C-N	5.25	131.10	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	875	GLU	CA-CB-CG	5.25	124.95	113.40
6	C	50	GLU	C-N-CA	-5.25	108.57	121.70
7	E	61	GLN	C-N-CA	-5.25	108.57	121.70
4	A	1124	HIS	CA-C-O	5.25	131.12	120.10
5	B	692	TYR	C-N-CA	-5.25	108.58	121.70
9	H	25	ARG	N-CA-C	-5.25	96.83	111.00
4	A	696	GLU	CA-CB-CG	5.25	124.95	113.40
4	A	885	THR	CA-C-N	5.25	128.75	117.20
5	B	1044	ALA	C-N-CA	-5.25	108.58	121.70
9	H	116	TYR	O-C-N	5.25	131.10	122.70
4	A	84	ILE	C-N-CA	5.25	134.82	121.70
4	A	792	TYR	CZ-CE2-CD2	-5.25	115.08	119.80
6	C	233	GLU	CB-CG-CD	5.25	128.37	114.20
7	E	55	ARG	CA-C-N	5.25	128.74	117.20
7	E	83	CYS	CA-C-O	5.25	131.12	120.10
5	B	532	ALA	CA-C-N	-5.25	105.66	117.20
5	B	833	TYR	CA-C-N	5.25	128.74	117.20
5	B	1079	LYS	CB-CA-C	-5.25	99.91	110.40
6	C	24	ASN	CB-CA-C	-5.25	99.91	110.40
4	A	47	ARG	CA-C-O	5.24	131.11	120.10
4	A	681	GLU	CB-CA-C	5.24	120.89	110.40
8	F	139	PRO	N-CA-CB	-5.24	96.83	102.60
9	H	114	VAL	CG1-CB-CG2	5.24	119.29	110.90
10	I	18	GLU	C-N-CA	-5.24	108.59	121.70
4	A	84	ILE	CA-C-N	-5.24	105.67	117.20
5	B	1091	TYR	CB-CG-CD1	5.24	124.14	121.00
10	I	45	ARG	CD-NE-CZ	5.24	130.94	123.60
5	B	681	TRP	CA-CB-CG	5.24	123.66	113.70
4	A	316	GLN	O-C-N	5.24	131.08	122.70
5	B	766	ARG	CA-CB-CG	5.24	124.92	113.40
4	A	498	ARG	CA-CB-CG	5.24	124.92	113.40
4	A	975	HIS	O-C-N	5.24	131.08	122.70
6	C	268	ASP	CB-CG-OD2	-5.24	113.59	118.30
4	A	884	ASP	CA-C-N	-5.24	105.68	117.20
4	A	982	THR	CA-CB-OG1	-5.24	98.01	109.00
5	B	422	LYS	N-CA-CB	5.24	120.03	110.60
7	E	3	GLN	CB-CA-C	5.24	120.87	110.40
7	E	120	ALA	N-CA-C	5.24	125.14	111.00
12	K	58	PHE	CB-CG-CD1	-5.24	117.14	120.80
5	B	896	ASP	N-CA-CB	5.23	120.02	110.60
5	B	976	ILE	CA-CB-CG2	-5.23	100.43	110.90
10	I	81	ARG	CB-CA-C	5.23	120.87	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	236	LEU	C-N-CA	5.23	134.78	121.70
4	A	1433	MET	O-C-N	-5.23	114.33	122.70
5	B	1188	LYS	CD-CE-NZ	5.23	123.73	111.70
5	B	203	PHE	CG-CD2-CE2	-5.23	115.05	120.80
9	H	26	ILE	CA-C-N	-5.23	105.69	117.20
5	B	38	PHE	C-N-CA	-5.23	108.63	121.70
6	C	104	PHE	C-N-CA	-5.23	111.32	122.30
4	A	447	GLN	CB-CG-CD	-5.23	98.01	111.60
5	B	392	ARG	N-CA-CB	5.23	120.01	110.60
5	B	961	LEU	CB-CA-C	-5.23	100.27	110.20
4	A	897	TYR	CA-C-N	-5.23	105.70	117.20
5	B	696	GLU	C-N-CA	-5.23	108.64	121.70
6	C	18	VAL	N-CA-C	-5.23	96.89	111.00
4	A	186	LYS	CB-CG-CD	5.22	125.18	111.60
4	A	522	GLY	N-CA-C	-5.22	100.04	113.10
4	A	933	TYR	CB-CG-CD1	5.22	124.13	121.00
4	A	1196	GLU	OE1-CD-OE2	-5.22	117.03	123.30
5	B	1064	TYR	OH-CZ-CE2	5.22	134.21	120.10
5	B	1186	ASP	N-CA-CB	5.22	120.00	110.60
4	A	679	ILE	C-N-CA	-5.22	108.64	121.70
4	A	1308	THR	N-CA-CB	-5.22	100.38	110.30
5	B	1014	PRO	N-CD-CG	-5.22	95.37	103.20
6	C	83	SER	N-CA-CB	-5.22	102.67	110.50
4	A	984	LYS	CB-CA-C	-5.22	99.96	110.40
5	B	945	GLU	CG-CD-OE2	-5.22	107.86	118.30
4	A	317	LYS	CA-CB-CG	5.22	124.89	113.40
5	B	306	ASN	N-CA-CB	-5.22	101.21	110.60
5	B	1009	ASP	CA-C-O	5.22	131.06	120.10
6	C	98	VAL	N-CA-C	5.22	125.09	111.00
4	A	1326	ARG	CG-CD-NE	5.22	122.76	111.80
7	E	156	LEU	CB-CA-C	-5.22	100.29	110.20
4	A	1152	ILE	N-CA-C	5.22	125.08	111.00
5	B	432	MET	CB-CA-C	-5.21	99.97	110.40
5	B	469	GLN	O-C-N	5.21	131.04	122.70
8	F	110	ASP	CB-CG-OD2	-5.21	113.61	118.30
10	I	65	ASP	CA-C-N	-5.21	102.50	117.10
4	A	1013	ASP	O-C-N	-5.21	114.36	122.70
6	C	33	LEU	C-N-CA	-5.21	108.67	121.70
5	B	177	LYS	C-N-CA	-5.21	108.68	121.70
5	B	210	LYS	O-C-N	5.21	131.04	122.70
5	B	461	LEU	CA-C-O	5.21	131.04	120.10
2	T	16	DC	OP1-P-OP2	-5.21	111.79	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	302	THR	OG1-CB-CG2	5.21	121.98	110.00
4	A	918	GLU	CB-CA-C	5.21	120.82	110.40
4	A	971	PHE	O-C-N	5.21	131.03	122.70
4	A	1132	LYS	CG-CD-CE	5.21	127.52	111.90
5	B	55	VAL	C-N-CA	-5.21	108.68	121.70
5	B	642	ASP	CA-C-N	-5.21	105.74	117.20
7	E	154	ILE	CG1-CB-CG2	5.21	122.86	111.40
7	E	215	MET	CG-SD-CE	5.21	108.53	100.20
4	A	590	ARG	N-CA-CB	5.21	119.97	110.60
4	A	708	MET	CA-CB-CG	5.21	122.15	113.30
4	A	912	LEU	CB-CG-CD1	5.21	119.85	111.00
5	B	526	GLU	C-N-CA	-5.21	108.68	121.70
4	A	353	ILE	CB-CA-C	-5.21	101.19	111.60
4	A	534	LEU	N-CA-C	-5.21	96.95	111.00
5	B	70	ILE	N-CA-CB	-5.21	98.83	110.80
7	E	85	GLU	OE1-CD-OE2	-5.21	117.05	123.30
7	E	151	PRO	CA-C-N	-5.21	105.75	117.20
2	T	22	DT	OP1-P-OP2	-5.20	111.80	119.60
4	A	696	GLU	CG-CD-OE1	5.20	128.71	118.30
4	A	942	PHE	C-N-CA	-5.20	108.69	121.70
4	A	1224	LEU	CD1-CG-CD2	-5.20	94.89	110.50
4	A	1345	ARG	C-N-CA	-5.20	108.69	121.70
5	B	1009	ASP	CA-C-N	-5.20	105.75	117.20
7	E	168	TYR	CE1-CZ-CE2	-5.20	111.47	119.80
5	B	355	ILE	CA-C-N	5.20	128.64	117.20
9	H	57	VAL	C-N-CA	-5.20	108.69	121.70
4	A	863	VAL	CA-CB-CG2	-5.20	103.10	110.90
4	A	944	ARG	O-C-N	5.20	131.02	122.70
4	A	1122	PRO	N-CA-CB	-5.20	96.88	102.60
4	A	1327	ILE	N-CA-C	5.20	125.04	111.00
5	B	123	THR	N-CA-CB	-5.20	100.42	110.30
8	F	78	GLN	CA-CB-CG	5.20	124.84	113.40
4	A	69	THR	CA-CB-OG1	5.20	119.92	109.00
4	A	476	SER	C-N-CA	-5.20	100.17	122.00
4	A	1050	GLU	CG-CD-OE1	-5.20	107.90	118.30
4	A	1160	SER	N-CA-C	5.20	125.03	111.00
5	B	478	GLY	CA-C-O	5.20	129.96	120.60
5	B	229	ALA	N-CA-C	5.20	125.03	111.00
5	B	565	PRO	N-CD-CG	-5.20	95.41	103.20
7	E	181	ALA	N-CA-C	5.20	125.03	111.00
8	F	148	VAL	C-N-CA	-5.20	108.71	121.70
11	J	50	ILE	CB-CA-C	-5.20	101.21	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	709	THR	C-N-CA	-5.20	108.71	121.70
4	A	900	ASP	CA-C-N	-5.20	105.77	117.20
5	B	1071	VAL	C-N-CA	-5.20	108.71	121.70
7	E	187	TYR	CG-CD1-CE1	5.20	125.46	121.30
9	H	115	TYR	CA-C-N	-5.20	105.77	117.20
11	J	24	LEU	CA-CB-CG	-5.20	103.35	115.30
4	A	380	VAL	C-N-CA	-5.19	108.72	121.70
4	A	425	GLN	O-C-N	5.19	131.01	122.70
7	E	12	LEU	C-N-CA	-5.19	108.72	121.70
10	I	46	HIS	CA-C-N	5.19	128.62	117.20
4	A	1029	ARG	NH1-CZ-NH2	5.19	125.11	119.40
4	A	1111	MET	CB-CA-C	-5.19	100.02	110.40
8	F	140	ASP	N-CA-CB	5.19	119.94	110.60
9	H	41	ASP	CB-CG-OD2	-5.19	113.63	118.30
4	A	645	LEU	CA-CB-CG	-5.19	103.36	115.30
5	B	327	ARG	NE-CZ-NH1	5.19	122.89	120.30
4	A	797	LYS	CA-C-N	-5.19	105.83	116.20
5	B	177	LYS	CA-CB-CG	-5.19	101.99	113.40
5	B	185	THR	CA-CB-CG2	-5.19	105.14	112.40
13	L	29	TYR	N-CA-C	-5.19	97.00	111.00
4	A	262	LEU	CB-CG-CD1	-5.19	102.18	111.00
5	B	488	TYR	CA-C-O	-5.19	109.21	120.10
2	T	17	DG	OP2-P-O3'	5.18	116.61	105.20
4	A	406	ILE	O-C-N	5.18	131.00	122.70
4	A	853	ASP	CB-CG-OD1	-5.18	113.64	118.30
4	A	975	HIS	C-N-CA	5.18	134.66	121.70
5	B	476	ARG	CB-CG-CD	5.18	125.08	111.60
5	B	496	ARG	NE-CZ-NH2	5.18	122.89	120.30
5	B	876	LYS	CD-CE-NZ	5.18	123.62	111.70
6	C	32	SER	C-N-CA	-5.18	108.74	121.70
6	C	189	THR	N-CA-C	-5.18	97.00	111.00
11	J	21	TYR	CG-CD1-CE1	-5.18	117.15	121.30
5	B	1025	HIS	CB-CA-C	-5.18	100.03	110.40
5	B	857	ARG	CA-CB-CG	5.18	124.79	113.40
9	H	129	TYR	CB-CA-C	5.18	120.76	110.40
11	J	59	LYS	CA-C-N	5.18	128.59	117.20
4	A	1277	GLU	CG-CD-OE1	5.18	128.66	118.30
7	E	192	ARG	CA-C-N	-5.18	105.85	116.20
10	I	96	SER	N-CA-C	5.18	124.98	111.00
13	L	69	ALA	CA-C-N	-5.18	105.81	117.20
4	A	1390	ASN	N-CA-CB	5.17	119.91	110.60
10	I	96	SER	C-N-CA	-5.17	108.77	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1278	ASN	O-C-N	-5.17	114.42	122.70
4	A	1375	MET	CB-CA-C	-5.17	100.05	110.40
5	B	834	ASN	N-CA-C	-5.17	97.03	111.00
6	C	223	ALA	CB-CA-C	-5.17	102.34	110.10
4	A	1053	PHE	O-C-N	-5.17	114.42	122.70
4	A	1300	LYS	CB-CA-C	5.17	120.74	110.40
4	A	1328	TYR	N-CA-C	5.17	124.97	111.00
5	B	1083	ALA	CB-CA-C	-5.17	102.34	110.10
7	E	59	SER	O-C-N	5.17	130.97	122.70
13	L	47	ARG	NE-CZ-NH1	5.17	122.89	120.30
5	B	975	GLN	C-N-CA	-5.17	108.78	121.70
5	B	984	HIS	CB-CA-C	5.17	120.74	110.40
4	A	934	LYS	CA-C-O	5.17	130.95	120.10
7	E	28	TYR	CA-CB-CG	5.17	123.22	113.40
4	A	404	TYR	CD1-CE1-CZ	5.17	124.45	119.80
4	A	526	ASP	CA-C-N	-5.17	105.84	117.20
4	A	758	ILE	CA-C-N	-5.17	105.83	117.20
4	A	936	LEU	C-N-CA	-5.17	108.78	121.70
5	B	622	LYS	CG-CD-CE	5.17	127.40	111.90
9	H	30	SER	CA-C-N	5.17	128.57	117.20
13	L	64	LEU	CA-CB-CG	5.17	127.19	115.30
5	B	271	ALA	CB-CA-C	5.17	117.85	110.10
6	C	108	GLU	CG-CD-OE2	5.17	128.63	118.30
2	T	23	DC	C5-C6-N1	-5.16	118.42	121.00
4	A	930	ASP	CB-CA-C	5.16	120.73	110.40
4	A	1156	PRO	CA-C-N	-5.16	105.84	117.20
4	A	1387	HIS	O-C-N	5.16	131.98	123.20
9	H	79	TRP	N-CA-CB	-5.16	101.31	110.60
4	A	962	ARG	CB-CG-CD	5.16	125.02	111.60
5	B	213	ILE	CB-CA-C	-5.16	101.28	111.60
4	A	57	ARG	CA-C-N	5.16	128.55	117.20
4	A	715	GLU	OE1-CD-OE2	5.16	129.49	123.30
12	K	77	THR	C-N-CA	5.16	134.60	121.70
4	A	379	VAL	CA-CB-CG2	-5.16	103.16	110.90
5	B	589	VAL	C-N-CA	-5.16	108.81	121.70
5	B	888	GLY	N-CA-C	5.16	126.00	113.10
6	C	36	VAL	N-CA-CB	-5.16	100.15	111.50
4	A	521	MET	N-CA-C	-5.16	97.08	111.00
4	A	541	ILE	C-N-CA	-5.16	108.81	121.70
4	A	1254	ALA	C-N-CA	5.16	134.59	121.70
12	K	57	LEU	CA-CB-CG	-5.16	103.44	115.30
4	A	416	ARG	C-N-CA	-5.16	108.81	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	174	LEU	O-C-N	5.16	130.95	122.70
4	A	537	ARG	NH1-CZ-NH2	5.15	125.07	119.40
4	A	431	LYS	N-CA-C	5.15	124.91	111.00
4	A	781	ASP	CB-CA-C	5.15	120.70	110.40
4	A	1204	ASP	OD1-CG-OD2	-5.15	113.51	123.30
6	C	211	ASP	CB-CG-OD2	5.15	122.94	118.30
4	A	200	ARG	CD-NE-CZ	5.15	130.81	123.60
4	A	1187	GLN	N-CA-C	5.15	124.91	111.00
5	B	394	ASP	CB-CG-OD2	-5.15	113.66	118.30
5	B	791	THR	C-N-CA	-5.15	108.82	121.70
9	H	48	PRO	CA-CB-CG	-5.15	94.22	104.00
13	L	53	HIS	CA-C-N	-5.15	105.87	117.20
4	A	52	GLY	CA-C-N	5.15	128.53	117.20
5	B	117	ALA	CA-C-N	-5.15	105.87	117.20
5	B	346	GLU	CA-CB-CG	5.15	124.73	113.40
5	B	699	GLU	N-CA-C	5.15	124.90	111.00
6	C	196	ASP	N-CA-C	5.15	124.90	111.00
4	A	960	ILE	CB-CA-C	-5.15	101.30	111.60
4	A	1004	ASN	CA-C-O	5.15	130.91	120.10
5	B	93	GLY	O-C-N	5.15	130.94	122.70
4	A	244	PRO	N-CD-CG	-5.15	95.48	103.20
5	B	628	THR	CB-CA-C	-5.15	97.71	111.60
5	B	1096	ARG	N-CA-C	-5.15	97.11	111.00
6	C	28	ALA	N-CA-C	5.15	124.89	111.00
4	A	291	GLU	CB-CG-CD	5.14	128.09	114.20
5	B	1002	THR	OG1-CB-CG2	-5.14	98.17	110.00
7	E	154	ILE	N-CA-CB	-5.14	98.97	110.80
9	H	144	ILE	N-CA-CB	-5.14	98.97	110.80
10	I	35	VAL	O-C-N	-5.14	114.47	122.70
4	A	256	GLN	CA-C-O	-5.14	109.30	120.10
5	B	122	LEU	CB-CG-CD2	-5.14	102.26	111.00
5	B	530	GLY	N-CA-C	5.14	125.96	113.10
12	K	17	SER	C-N-CA	-5.14	108.84	121.70
4	A	4	GLN	CB-CA-C	-5.14	100.12	110.40
4	A	737	LEU	O-C-N	5.14	130.92	122.70
4	A	745	GLN	CB-CG-CD	-5.14	98.24	111.60
5	B	312	GLU	N-CA-CB	-5.14	101.35	110.60
7	E	184	VAL	CB-CA-C	5.14	121.17	111.40
4	A	644	LYS	CB-CG-CD	5.14	124.96	111.60
5	B	951	GLN	CA-CB-CG	5.14	124.70	113.40
4	A	370	ILE	CB-CA-C	-5.14	101.33	111.60
4	A	525	GLN	C-N-CA	-5.14	108.86	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	720	ARG	NH1-CZ-NH2	5.14	125.05	119.40
5	B	722	ASP	CA-C-N	5.14	128.50	117.20
10	I	104	LEU	N-CA-C	5.14	124.87	111.00
5	B	1094	ARG	CD-NE-CZ	-5.13	116.41	123.60
11	J	51	LEU	CB-CG-CD2	5.13	119.73	111.00
4	A	843	LYS	CA-C-O	5.13	130.88	120.10
5	B	1043	ASP	C-N-CA	-5.13	108.87	121.70
9	H	84	ALA	N-CA-C	5.13	124.86	111.00
9	H	86	ASP	OD1-CG-OD2	-5.13	113.55	123.30
12	K	18	LYS	CA-CB-CG	-5.13	102.11	113.40
4	A	306	ASN	O-C-N	5.13	130.91	122.70
4	A	956	LEU	CB-CG-CD2	-5.13	102.28	111.00
4	A	1280	GLU	CB-CA-C	5.13	120.66	110.40
5	B	739	THR	OG1-CB-CG2	-5.13	98.19	110.00
7	E	38	PRO	N-CA-CB	5.13	109.46	103.30
9	H	79	TRP	CA-CB-CG	-5.13	103.95	113.70
12	K	26	LYS	CG-CD-CE	5.13	127.29	111.90
12	K	98	LEU	O-C-N	5.13	131.93	123.20
4	A	491	VAL	CA-C-N	-5.13	102.74	117.10
4	A	98	LYS	N-CA-CB	5.13	119.83	110.60
4	A	1345	ARG	CG-CD-NE	5.13	122.57	111.80
5	B	753	ALA	C-N-CA	-5.13	108.88	121.70
5	B	1003	ALA	CB-CA-C	-5.13	102.41	110.10
5	B	1074	ASN	C-N-CA	-5.13	111.53	122.30
8	F	137	TYR	CD1-CE1-CZ	5.13	124.42	119.80
9	H	116	TYR	N-CA-CB	-5.13	101.37	110.60
4	A	1356	ILE	CB-CA-C	-5.13	101.35	111.60
6	C	163	ILE	N-CA-C	5.13	124.84	111.00
10	I	45	ARG	O-C-N	5.13	130.90	122.70
4	A	1386	ARG	NE-CZ-NH2	-5.12	117.74	120.30
5	B	421	PHE	CB-CG-CD1	-5.12	117.21	120.80
5	B	497	ARG	CB-CG-CD	5.12	124.92	111.60
5	B	531	GLN	CA-C-N	-5.12	105.93	117.20
5	B	756	ILE	N-CA-CB	-5.12	99.02	110.80
6	C	52	GLU	CA-CB-CG	5.12	124.67	113.40
4	A	627	GLY	O-C-N	5.12	131.91	123.20
4	A	902	LEU	N-CA-C	-5.12	97.17	111.00
4	A	1359	ASP	CA-C-O	-5.12	109.35	120.10
5	B	279	ASP	N-CA-CB	5.12	119.82	110.60
5	B	422	LYS	CB-CG-CD	5.12	124.91	111.60
5	B	424	LEU	C-N-CA	-5.12	108.90	121.70
9	H	3	ASN	N-CA-C	5.12	124.83	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	759	ALA	CA-C-N	-5.12	105.94	117.20
5	B	1003	ALA	C-N-CA	-5.12	108.90	121.70
4	A	1068	ALA	CB-CA-C	5.12	117.78	110.10
5	B	1072	MET	CB-CG-SD	-5.12	97.04	112.40
11	J	64	ASN	CB-CA-C	-5.12	100.16	110.40
4	A	937	VAL	CA-C-O	-5.12	109.35	120.10
4	A	107	CYS	CB-CA-C	-5.12	100.17	110.40
4	A	563	PRO	CA-N-CD	-5.12	104.34	111.50
4	A	811	GLN	CA-CB-CG	5.12	124.65	113.40
4	A	1138	ILE	C-N-CA	5.12	134.49	121.70
5	B	354	ASP	CB-CA-C	5.12	120.63	110.40
6	C	9	LYS	CA-CB-CG	5.12	124.66	113.40
10	I	5	ARG	CB-CG-CD	5.12	124.90	111.60
4	A	144	THR	CA-C-N	5.11	128.45	117.20
4	A	176	LYS	CA-CB-CG	5.11	124.65	113.40
4	A	477	PRO	CA-C-N	5.11	128.45	117.20
4	A	1079	MET	CG-SD-CE	-5.11	92.02	100.20
5	B	650	GLU	OE1-CD-OE2	5.11	129.44	123.30
6	C	194	GLU	CA-CB-CG	5.11	124.65	113.40
9	H	146	ARG	NE-CZ-NH2	5.11	122.86	120.30
4	A	398	GLU	C-N-CA	-5.11	108.92	121.70
4	A	528	LEU	O-C-N	-5.11	114.52	122.70
4	A	828	ALA	N-CA-CB	-5.11	102.94	110.10
4	A	1372	VAL	CG1-CB-CG2	-5.11	102.72	110.90
5	B	20	ASP	N-CA-C	5.11	124.80	111.00
5	B	531	GLN	N-CA-C	5.11	124.80	111.00
12	K	27	ALA	N-CA-C	-5.11	97.20	111.00
5	B	621	GLU	CA-CB-CG	5.11	124.64	113.40
5	B	1220	ARG	CA-CB-CG	5.11	124.64	113.40
7	E	7	ARG	CA-C-N	5.11	128.44	117.20
4	A	78	PRO	CB-CG-CD	-5.11	86.57	106.50
12	K	78	THR	C-N-CA	-5.11	108.93	121.70
4	A	121	LEU	CB-CG-CD2	5.11	119.68	111.00
5	B	118	ARG	CB-CG-CD	5.11	124.88	111.60
5	B	1202	LEU	CA-C-N	-5.11	105.97	117.20
7	E	206	GLY	N-CA-C	5.11	125.87	113.10
4	A	1024	SER	CB-CA-C	-5.11	100.40	110.10
13	L	49	LYS	CG-CD-CE	5.11	127.22	111.90
5	B	234	ILE	C-N-CA	-5.10	108.94	121.70
5	B	535	LEU	CB-CA-C	-5.10	100.50	110.20
5	B	567	GLU	CB-CA-C	5.10	120.61	110.40
6	C	265	MET	CB-CA-C	5.10	120.61	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	101	LYS	CG-CD-CE	5.10	127.21	111.90
4	A	466	SER	N-CA-C	5.10	124.78	111.00
4	A	504	LEU	CB-CG-CD1	-5.10	102.33	111.00
4	A	743	VAL	CB-CA-C	-5.10	101.70	111.40
4	A	906	HIS	N-CA-C	5.10	124.78	111.00
4	A	1102	LYS	CA-CB-CG	5.10	124.63	113.40
5	B	959	ASP	CA-C-N	5.10	126.41	116.20
5	B	1172	ILE	CB-CA-C	5.10	121.80	111.60
6	C	16	ASP	OD1-CG-OD2	5.10	133.00	123.30
6	C	41	ILE	N-CA-C	-5.10	97.23	111.00
6	C	254	LYS	N-CA-CB	5.10	119.78	110.60
11	J	47	ARG	NE-CZ-NH2	-5.10	117.75	120.30
5	B	113	TYR	CE1-CZ-OH	5.10	133.87	120.10
4	A	1015	VAL	O-C-N	5.10	130.86	122.70
5	B	1152	MET	C-N-CA	-5.10	108.95	121.70
6	C	78	GLU	N-CA-CB	-5.10	101.42	110.60
4	A	420	ARG	CA-C-N	-5.10	105.98	117.20
4	A	1166	ASP	CA-C-N	5.10	128.41	117.20
5	B	576	ASP	CB-CG-OD1	-5.10	113.71	118.30
6	C	127	ARG	CG-CD-NE	-5.10	101.09	111.80
13	L	61	THR	OG1-CB-CG2	5.10	121.72	110.00
5	B	635	ARG	O-C-N	5.10	130.78	121.10
5	B	1114	LEU	CA-CB-CG	-5.10	103.58	115.30
7	E	168	TYR	N-CA-C	-5.10	97.24	111.00
4	A	135	PHE	CB-CA-C	5.09	120.59	110.40
5	B	456	GLY	N-CA-C	-5.09	100.36	113.10
9	H	78	SER	CA-CB-OG	5.09	124.95	111.20
13	L	30	ILE	N-CA-C	-5.09	97.25	111.00
5	B	488	TYR	CZ-CE2-CD2	-5.09	115.22	119.80
5	B	733	HIS	CA-C-O	-5.09	109.41	120.10
4	A	874	ASP	CA-C-O	5.09	130.79	120.10
5	B	798	TYR	O-C-N	-5.09	111.43	121.10
7	E	134	THR	N-CA-CB	-5.09	100.63	110.30
4	A	135	PHE	CG-CD2-CE2	5.09	126.40	120.80
11	J	46	CYS	O-C-N	-5.09	114.56	122.70
4	A	1368	MET	N-CA-CB	-5.09	101.44	110.60
4	A	304	MET	CA-CB-CG	-5.09	104.65	113.30
4	A	753	GLY	CA-C-O	-5.09	111.44	120.60
4	A	861	GLY	N-CA-C	-5.09	100.39	113.10
4	A	971	PHE	CA-C-N	-5.09	106.01	117.20
4	A	1067	LEU	CB-CA-C	5.09	119.86	110.20
5	B	1031	LEU	CB-CG-CD2	5.09	119.65	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1073	TYR	CD1-CE1-CZ	5.09	124.38	119.80
6	C	60	ASP	OD1-CG-OD2	-5.09	113.64	123.30
8	F	155	LEU	CB-CG-CD2	5.09	119.64	111.00
4	A	68	GLN	O-C-N	5.08	130.84	122.70
4	A	741	ASN	C-N-CA	-5.08	108.99	121.70
6	C	49	VAL	CB-CA-C	-5.08	101.74	111.40
9	H	44	VAL	N-CA-CB	-5.08	100.31	111.50
13	L	70	ARG	N-CA-CB	-5.08	101.45	110.60
4	A	538	ASP	CB-CA-C	-5.08	100.23	110.40
4	A	1411	GLU	OE1-CD-OE2	5.08	129.40	123.30
4	A	1428	VAL	CA-C-N	-5.08	106.02	117.20
5	B	600	LEU	CB-CG-CD1	5.08	119.64	111.00
4	A	689	LYS	CB-CA-C	-5.08	100.23	110.40
4	A	715	GLU	C-N-CA	-5.08	109.00	121.70
4	A	833	GLU	CB-CG-CD	5.08	127.92	114.20
4	A	973	ILE	N-CA-C	5.08	124.72	111.00
4	A	1107	VAL	N-CA-CB	5.08	122.68	111.50
4	A	1198	ASP	CB-CG-OD1	5.08	122.87	118.30
5	B	732	SER	N-CA-CB	5.08	118.12	110.50
7	E	68	SER	N-CA-CB	5.08	118.12	110.50
4	A	1107	VAL	C-N-CA	5.08	134.40	121.70
4	A	1141	THR	CB-CA-C	-5.08	97.88	111.60
5	B	476	ARG	N-CA-CB	5.08	119.74	110.60
5	B	915	THR	CB-CA-C	-5.08	97.88	111.60
4	A	77	CYS	CA-CB-SG	5.08	123.14	114.00
4	A	162	VAL	CA-CB-CG2	5.08	118.52	110.90
5	B	285	ILE	C-N-CA	-5.08	109.00	121.70
5	B	397	ASP	CA-C-N	5.08	128.38	117.20
10	I	58	VAL	N-CA-C	-5.08	97.29	111.00
4	A	736	ASN	CB-CG-OD1	-5.08	111.45	121.60
5	B	905	VAL	CG1-CB-CG2	-5.08	102.78	110.90
6	C	76	ASP	CB-CA-C	5.08	120.56	110.40
11	J	62	ARG	O-C-N	-5.08	114.58	122.70
2	T	21	DC	C1'-O4'-C4'	5.08	115.18	110.10
4	A	650	GLN	CG-CD-OE1	-5.08	111.45	121.60
4	A	1030	ARG	CA-C-N	-5.08	106.03	117.20
4	A	1045	VAL	N-CA-C	-5.08	97.30	111.00
4	A	1378	GLN	CA-C-O	5.08	130.76	120.10
5	B	429	PHE	CD1-CG-CD2	-5.08	111.70	118.30
5	B	867	GLY	CA-C-N	-5.08	106.04	117.20
7	E	141	VAL	C-N-CA	-5.07	109.02	121.70
9	H	23	VAL	CG1-CB-CG2	-5.07	102.78	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	236	LEU	CD1-CG-CD2	5.07	125.72	110.50
5	B	825	VAL	CA-C-O	5.07	130.75	120.10
4	A	1323	ASP	C-N-CD	-5.07	109.45	120.60
5	B	891	ASP	CB-CG-OD1	5.07	122.86	118.30
4	A	1283	VAL	CB-CA-C	-5.07	101.77	111.40
5	B	233	PRO	N-CA-CB	-5.07	97.03	102.60
5	B	758	PHE	CB-CG-CD1	5.07	124.35	120.80
7	E	21	GLU	N-CA-CB	5.07	119.72	110.60
12	K	70	ARG	CB-CG-CD	5.07	124.78	111.60
4	A	1281	ARG	CB-CA-C	-5.07	100.26	110.40
5	B	134	LYS	CB-CG-CD	5.07	124.77	111.60
5	B	1097	HIS	CB-CA-C	-5.07	100.27	110.40
5	B	1133	MET	N-CA-CB	-5.07	101.48	110.60
13	L	40	LEU	CA-C-N	-5.07	106.05	117.20
5	B	116	GLU	N-CA-C	5.07	124.68	111.00
4	A	226	GLU	OE1-CD-OE2	-5.06	117.22	123.30
4	A	355	GLY	O-C-N	5.06	130.80	122.70
6	C	153	LEU	CB-CA-C	-5.06	100.58	110.20
10	I	22	ASN	C-N-CA	5.06	134.36	121.70
4	A	23	SER	N-CA-C	-5.06	97.33	111.00
5	B	1046	PRO	N-CD-CG	-5.06	95.61	103.20
10	I	85	PHE	CB-CG-CD1	-5.06	117.26	120.80
4	A	829	VAL	CB-CA-C	5.06	121.02	111.40
4	A	1028	THR	N-CA-C	5.06	124.67	111.00
4	A	142	CYS	N-CA-C	-5.06	97.34	111.00
4	A	1012	ARG	CA-C-O	5.06	130.73	120.10
5	B	525	ALA	C-N-CA	-5.06	109.05	121.70
5	B	934	LYS	N-CA-C	5.06	124.66	111.00
7	E	42	PHE	CB-CA-C	-5.06	100.28	110.40
4	A	752	LYS	C-N-CA	-5.06	111.68	122.30
5	B	395	GLN	CB-CG-CD	5.06	124.75	111.60
5	B	431	TYR	CE1-CZ-OH	5.06	133.75	120.10
6	C	229	TYR	CB-CG-CD1	-5.06	117.97	121.00
8	F	78	GLN	N-CA-CB	-5.06	101.50	110.60
12	K	89	ASN	CA-C-O	5.06	130.72	120.10
4	A	931	GLU	CB-CA-C	-5.06	100.29	110.40
4	A	1195	LEU	CB-CA-C	-5.06	100.59	110.20
4	A	1346	ALA	N-CA-C	5.06	124.65	111.00
5	B	396	ASP	CB-CG-OD1	-5.05	113.75	118.30
5	B	964	VAL	C-N-CA	-5.05	109.06	121.70
7	E	199	ILE	CA-CB-CG1	-5.05	101.40	111.00
12	K	50	LEU	CA-C-N	5.05	128.32	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	54	ASN	CA-C-N	-5.05	106.08	117.20
6	C	40	GLU	OE1-CD-OE2	5.05	129.36	123.30
8	F	106	PRO	CB-CA-C	5.05	124.63	112.00
4	A	446	ARG	CG-CD-NE	5.05	122.40	111.80
4	A	1353	TYR	CZ-CE2-CD2	5.05	124.34	119.80
5	B	535	LEU	CB-CG-CD2	-5.05	102.42	111.00
6	C	164	ALA	N-CA-C	5.05	124.64	111.00
8	F	126	ALA	N-CA-CB	5.05	117.17	110.10
4	A	112	LYS	CA-C-N	-5.05	106.09	117.20
4	A	907	THR	C-N-CA	5.05	134.32	121.70
4	A	1022	LEU	C-N-CA	-5.05	109.08	121.70
4	A	171	GLN	CB-CG-CD	5.05	124.72	111.60
4	A	283	GLY	CA-C-N	5.05	128.30	117.20
4	A	553	VAL	CA-CB-CG1	-5.05	103.33	110.90
4	A	588	LEU	CA-C-N	-5.05	106.10	117.20
5	B	838	SER	CB-CA-C	5.05	119.69	110.10
5	B	854	LEU	CB-CG-CD2	-5.05	102.42	111.00
7	E	16	PHE	CG-CD1-CE1	5.05	126.35	120.80
7	E	97	VAL	CG1-CB-CG2	-5.05	102.83	110.90
12	K	96	ASN	CA-C-N	-5.05	106.10	117.20
5	B	853	SER	N-CA-C	5.04	124.62	111.00
10	I	117	LYS	CA-CB-CG	5.04	124.50	113.40
12	K	100	ALA	CA-C-N	-5.04	106.10	117.20
4	A	169	ASN	N-CA-C	-5.04	97.38	111.00
4	A	595	THR	CA-C-O	-5.04	109.51	120.10
4	A	759	ALA	CA-C-O	5.04	130.69	120.10
4	A	890	ASP	CA-C-N	-5.04	106.10	117.20
5	B	362	PRO	C-N-CA	-5.04	109.09	121.70
5	B	398	ARG	N-CA-C	5.04	124.61	111.00
5	B	666	TYR	O-C-N	-5.04	114.63	122.70
5	B	949	VAL	O-C-N	-5.04	114.63	122.70
6	C	95	CYS	N-CA-CB	-5.04	101.52	110.60
7	E	74	ASP	C-N-CA	5.04	134.31	121.70
9	H	52	GLN	CA-C-N	-5.04	106.11	117.20
12	K	41	THR	CB-CA-C	-5.04	97.98	111.60
4	A	1402	PHE	CZ-CE2-CD2	5.04	126.15	120.10
5	B	1223	ASP	OD1-CG-OD2	-5.04	113.72	123.30
6	C	80	LEU	CB-CA-C	5.04	119.78	110.20
6	C	198	ALA	C-N-CA	-5.04	109.10	121.70
8	F	109	VAL	C-N-CA	5.04	134.31	121.70
9	H	134	ASN	C-N-CA	-5.04	109.09	121.70
10	I	85	PHE	CB-CG-CD2	5.04	124.33	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	784	LEU	C-N-CD	-5.04	109.52	120.60
4	A	1194	ARG	NE-CZ-NH2	-5.04	117.78	120.30
5	B	92	PHE	N-CA-CB	-5.04	101.53	110.60
5	B	792	MET	CB-CA-C	-5.04	100.32	110.40
9	H	38	LEU	C-N-CA	5.04	134.30	121.70
4	A	383	TYR	CG-CD2-CE2	5.04	125.33	121.30
4	A	947	PHE	N-CA-C	-5.04	97.40	111.00
4	A	1120	LEU	CA-CB-CG	-5.04	103.72	115.30
4	A	1315	GLU	O-C-N	-5.04	114.64	122.70
5	B	541	LEU	C-N-CA	-5.04	109.11	121.70
6	C	232	VAL	N-CA-C	-5.04	97.41	111.00
10	I	42	LEU	CB-CG-CD2	5.04	119.56	111.00
11	J	39	LEU	C-N-CA	-5.04	111.73	122.30
2	T	18	DA	C4'-C3'-C2'	5.03	107.63	103.10
4	A	477	PRO	CB-CA-C	-5.03	99.42	112.00
4	A	1190	PRO	N-CA-CB	-5.03	97.06	102.60
5	B	802	PRO	CA-C-O	5.03	132.28	120.20
5	B	836	GLU	CA-CB-CG	5.03	124.48	113.40
5	B	881	ASN	O-C-N	5.03	130.75	122.70
13	L	30	ILE	CA-C-N	5.03	128.28	117.20
4	A	83	HIS	C-N-CA	-5.03	109.12	121.70
4	A	286	HIS	N-CA-CB	-5.03	101.54	110.60
4	A	376	TYR	CB-CA-C	-5.03	100.34	110.40
4	A	677	ARG	CD-NE-CZ	5.03	130.64	123.60
5	B	547	VAL	CA-C-N	-5.03	106.14	116.20
5	B	870	ILE	CA-C-N	-5.03	106.13	117.20
5	B	1195	HIS	CB-CA-C	5.03	120.46	110.40
5	B	1205	GLN	N-CA-CB	5.03	119.66	110.60
4	A	740	LEU	CD1-CG-CD2	5.03	125.59	110.50
4	A	1031	VAL	O-C-N	5.03	130.75	122.70
4	A	1272	THR	CA-CB-CG2	-5.03	105.36	112.40
5	B	998	ASP	CB-CG-OD2	-5.03	113.77	118.30
6	C	47	ASP	O-C-N	5.03	130.75	122.70
4	A	401	GLY	N-CA-C	5.03	125.67	113.10
4	A	1422	ARG	CD-NE-CZ	5.03	130.64	123.60
5	B	640	VAL	CA-CB-CG1	-5.03	103.36	110.90
6	C	143	LEU	N-CA-CB	-5.03	100.35	110.40
9	H	78	SER	CA-C-N	-5.03	106.14	117.20
10	I	12	ASN	CB-CA-C	-5.03	100.35	110.40
12	K	98	LEU	C-N-CA	5.03	132.86	122.30
4	A	779	PHE	CB-CG-CD2	-5.03	117.28	120.80
4	A	1143	LEU	CB-CG-CD1	-5.03	102.46	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	615	MET	O-C-N	5.03	130.74	122.70
9	H	45	GLU	CG-CD-OE2	-5.03	108.25	118.30
10	I	13	MET	CG-SD-CE	5.03	108.24	100.20
4	A	88	LYS	CG-CD-CE	5.02	126.97	111.90
5	B	682	SER	N-CA-CB	5.02	118.04	110.50
10	I	66	PRO	CB-CA-C	5.02	124.56	112.00
5	B	591	ARG	NE-CZ-NH2	-5.02	117.79	120.30
7	E	13	TRP	N-CA-CB	-5.02	101.56	110.60
7	E	161	LYS	CA-CB-CG	5.02	124.45	113.40
8	F	130	ILE	O-C-N	5.02	130.64	121.10
13	L	65	VAL	CA-C-N	-5.02	106.15	117.20
13	L	68	GLU	N-CA-C	-5.02	97.44	111.00
5	B	949	VAL	N-CA-C	5.02	124.56	111.00
4	A	49	LYS	CB-CG-CD	5.02	124.65	111.60
5	B	424	LEU	N-CA-C	-5.02	97.45	111.00
5	B	781	PHE	CG-CD2-CE2	5.02	126.32	120.80
6	C	152	GLU	OE1-CD-OE2	5.02	129.32	123.30
8	F	152	ILE	CG1-CB-CG2	5.02	122.44	111.40
6	C	225	ALA	CB-CA-C	-5.02	102.58	110.10
6	C	242	GLN	CA-CB-CG	5.02	124.44	113.40
10	I	81	ARG	O-C-N	-5.02	114.67	122.70
4	A	1402	PHE	N-CA-C	-5.02	97.46	111.00
5	B	752	ALA	N-CA-C	5.02	124.54	111.00
4	A	518	LYS	CB-CG-CD	5.01	124.64	111.60
4	A	1153	TYR	CE1-CZ-CE2	-5.01	111.78	119.80
5	B	469	GLN	N-CA-CB	5.01	119.63	110.60
5	B	1181	GLU	CB-CA-C	-5.01	100.37	110.40
7	E	82	PHE	CB-CG-CD1	5.01	124.31	120.80
9	H	145	ARG	CA-C-O	5.01	130.63	120.10
9	H	43	ASN	CB-CA-C	-5.01	100.37	110.40
4	A	437	MET	CB-CG-SD	5.01	127.44	112.40
5	B	194	GLU	OE1-CD-OE2	5.01	129.31	123.30
5	B	775	LYS	N-CA-CB	-5.01	101.58	110.60
6	C	31	ASN	C-N-CA	-5.01	109.17	121.70
7	E	55	ARG	NE-CZ-NH2	5.01	122.81	120.30
4	A	813	PHE	C-N-CA	-5.01	109.17	121.70
4	A	946	VAL	CA-C-O	5.01	130.62	120.10
6	C	134	ILE	CB-CA-C	-5.01	101.58	111.60
7	E	107	THR	OG1-CB-CG2	5.01	121.52	110.00
12	K	63	VAL	CA-C-O	5.01	130.62	120.10
4	A	1116	LEU	CA-CB-CG	5.01	126.82	115.30
6	C	104	PHE	CB-CG-CD2	5.01	124.31	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	177	ASP	N-CA-CB	5.01	119.61	110.60
4	A	1367	HIS	CA-C-N	-5.01	106.19	117.20
5	B	167	ILE	CA-C-N	5.01	126.22	116.20
5	B	206	ASN	O-C-N	5.01	131.71	123.20
7	E	12	LEU	CB-CA-C	-5.01	100.69	110.20
7	E	125	PRO	N-CA-C	5.00	125.11	112.10
4	A	431	LYS	CB-CG-CD	5.00	124.61	111.60
5	B	798	TYR	N-CA-C	5.00	124.51	111.00
6	C	25	VAL	O-C-N	5.00	130.70	122.70
9	H	82	PRO	N-CA-C	5.00	125.11	112.10
9	H	91	ASP	CB-CG-OD1	5.00	122.80	118.30
4	A	249	SER	O-C-N	-5.00	114.70	122.70
4	A	1202	MET	CA-CB-CG	5.00	121.80	113.30
5	B	131	ASP	CA-CB-CG	5.00	124.40	113.40
5	B	264	SER	CA-CB-OG	5.00	124.70	111.20
5	B	709	ASP	OD1-CG-OD2	-5.00	113.80	123.30
5	B	1026	LEU	CA-CB-CG	5.00	126.80	115.30
9	H	80	ARG	CA-CB-CG	5.00	124.40	113.40

All (9) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	T	21	DC	C3'
4	A	317	LYS	CA
4	A	324	SER	CA
5	B	636	PRO	CA
5	B	637	LEU	CA
5	B	880	THR	CA
5	B	984	HIS	CA
6	C	41	ILE	CB
10	I	119	THR	CA

All (321) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
4	A	10	PRO	Peptide
4	A	1035	TYR	Peptide
4	A	1038	THR	Mainchain
4	A	1042	PHE	Sidechain
4	A	1054	LEU	Mainchain
4	A	107	CYS	Mainchain,Peptide
4	A	1107	VAL	Mainchain

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Mol	Chain	Res	Type	Group
4	A	1109	LYS	Mainchain
4	A	1113	THR	Mainchain
4	A	1140	HIS	Sidechain
4	A	1153	TYR	Mainchain
4	A	1172	LEU	Mainchain
4	A	1222	ASN	Peptide
4	A	1227	ILE	Mainchain
4	A	1237	ILE	Mainchain
4	A	1279	ILE	Mainchain
4	A	1282	VAL	Mainchain
4	A	1284	MET	Mainchain
4	A	1287	TYR	Peptide
4	A	1293	SER	Mainchain
4	A	1302	PRO	Peptide
4	A	1313	LEU	Peptide
4	A	1320	PRO	Mainchain
4	A	1324	PRO	Mainchain
4	A	1331	SER	Mainchain
4	A	135	PHE	Sidechain
4	A	1365	TYR	Sidechain
4	A	1367	HIS	Sidechain
4	A	1384	VAL	Mainchain
4	A	1391	ARG	Mainchain
4	A	1394	THR	Peptide
4	A	1418	LEU	Mainchain
4	A	1441	PHE	Mainchain
4	A	172	PRO	Mainchain
4	A	203	SER	Mainchain,Peptide
4	A	23	SER	Mainchain
4	A	230	ARG	Mainchain
4	A	249	SER	Mainchain,Peptide
4	A	252	PHE	Peptide
4	A	253	ASN	Mainchain
4	A	254	GLU	Mainchain,Peptide
4	A	256	GLN	Mainchain,Peptide
4	A	257	ARG	Mainchain,Peptide
4	A	258	GLY	Mainchain,Peptide
4	A	260	ASP	Mainchain
4	A	3	GLY	Mainchain
4	A	301	ALA	Mainchain
4	A	303	TYR	Sidechain
4	A	308	ILE	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
4	A	315	LEU	Mainchain,Peptide
4	A	317	LYS	Mainchain,Peptide
4	A	319	GLY	Mainchain,Peptide
4	A	321	PRO	Peptide
4	A	322	VAL	Mainchain
4	A	323	LYS	Mainchain,Peptide
4	A	324	SER	Mainchain,Peptide
4	A	33	ALA	Peptide
4	A	349	ALA	Mainchain
4	A	404	TYR	Sidechain
4	A	406	ILE	Mainchain
4	A	42	ASP	Mainchain
4	A	420	ARG	Mainchain
4	A	434	ARG	Mainchain
4	A	482	PHE	Mainchain
4	A	49	LYS	Mainchain,Peptide
4	A	520	CYS	Mainchain
4	A	531	ILE	Mainchain
4	A	537	ARG	Mainchain
4	A	54	ASN	Peptide
4	A	56	PRO	Mainchain,Peptide
4	A	562	THR	Mainchain
4	A	564	ALA	Mainchain
4	A	568	PRO	Mainchain
4	A	594	GLY	Mainchain,Peptide
4	A	595	THR	Mainchain,Peptide
4	A	6	TYR	Peptide
4	A	601	LYS	Mainchain
4	A	613	ILE	Mainchain
4	A	614	PHE	Sidechain
4	A	627	GLY	Mainchain,Peptide
4	A	661	GLY	Mainchain
4	A	667	GLY	Mainchain
4	A	68	GLN	Mainchain,Peptide
4	A	690	VAL	Mainchain
4	A	753	GLY	Mainchain,Peptide
4	A	776	ALA	Mainchain
4	A	793	SER	Mainchain
4	A	806	ARG	Mainchain
4	A	877	HIS	Mainchain
4	A	884	ASP	Peptide
4	A	895	LYS	Mainchain

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Mol	Chain	Res	Type	Group
4	A	903	ASN	Peptide
4	A	914	GLU	Mainchain
4	A	923	LEU	Mainchain
4	A	933	TYR	Sidechain
4	A	942	PHE	Mainchain
4	A	949	ASP	Mainchain
4	A	978	PRO	Mainchain
4	A	986	ILE	Mainchain
4	A	988	LEU	Mainchain
4	A	997	LEU	Mainchain
5	B	1001	PHE	Sidechain
5	B	1007	VAL	Mainchain
5	B	1017	ILE	Mainchain
5	B	102	VAL	Mainchain
5	B	1038	SER	Mainchain
5	B	1048	THR	Mainchain
5	B	1049	ASP	Mainchain
5	B	1050	ILE	Mainchain
5	B	1060	ARG	Mainchain
5	B	1076	HIS	Sidechain
5	B	1086	PHE	Sidechain
5	B	1088	GLY	Mainchain
5	B	1092	TYR	Mainchain
5	B	110	HIS	Sidechain,Mainchain
5	B	1103	ILE	Mainchain
5	B	1114	LEU	Mainchain
5	B	1131	GLY	Mainchain
5	B	1140	ALA	Mainchain
5	B	1166	CYS	Peptide
5	B	1217	TYR	Mainchain
5	B	122	LEU	Mainchain
5	B	130	VAL	Mainchain
5	B	169	ARG	Mainchain
5	B	180	TYR	Sidechain
5	B	20	ASP	Mainchain
5	B	200	GLY	Mainchain
5	B	203	PHE	Mainchain
5	B	222	ILE	Mainchain,Peptide
5	B	228	LYS	Mainchain
5	B	23	ALA	Mainchain
5	B	230	ALA	Mainchain
5	B	235	SER	Mainchain

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Mol	Chain	Res	Type	Group
5	B	251	ILE	Peptide
5	B	273	LEU	Mainchain
5	B	274	PRO	Mainchain,Peptide
5	B	300	HIS	Sidechain
5	B	303	TYR	Sidechain
5	B	305	VAL	Mainchain
5	B	315	LYS	Mainchain
5	B	322	PHE	Sidechain,Mainchain,Peptide
5	B	326	ASP	Peptide
5	B	330	ALA	Mainchain
5	B	332	ASP	Mainchain
5	B	334	ILE	Mainchain,Peptide
5	B	348	ARG	Mainchain
5	B	360	PHE	Sidechain
5	B	392	ARG	Mainchain
5	B	409	ALA	Mainchain
5	B	447	ALA	Mainchain,Peptide
5	B	462	ALA	Mainchain
5	B	466	TRP	Mainchain
5	B	470	LYS	Mainchain
5	B	471	LYS	Mainchain,Peptide
5	B	472	ALA	Peptide
5	B	473	MET	Mainchain
5	B	477	ALA	Mainchain
5	B	483	LEU	Mainchain,Peptide
5	B	494	HIS	Sidechain
5	B	497	ARG	Sidechain,Mainchain
5	B	498	THR	Mainchain
5	B	51	PHE	Sidechain
5	B	517	THR	Mainchain
5	B	565	PRO	Mainchain
5	B	576	ASP	Peptide
5	B	580	VAL	Mainchain
5	B	642	ASP	Peptide
5	B	643	ASP	Peptide
5	B	644	GLU	Peptide
5	B	65	GLU	Mainchain
5	B	662	MET	Peptide
5	B	706	GLN	Mainchain
5	B	708	GLU	Peptide
5	B	731	VAL	Mainchain,Peptide
5	B	740	HIS	Sidechain,Mainchain

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Mol	Chain	Res	Type	Group
5	B	756	ILE	Mainchain
5	B	758	PHE	Mainchain
5	B	761	HIS	Sidechain
5	B	797	TYR	Sidechain
5	B	798	TYR	Mainchain,Peptide
5	B	799	PRO	Mainchain
5	B	818	PRO	Mainchain
5	B	819	ALA	Mainchain
5	B	823	ALA	Mainchain
5	B	850	LEU	Mainchain
5	B	856	PHE	Mainchain
5	B	858	SER	Mainchain
5	B	864	LYS	Mainchain
5	B	866	TYR	Peptide
5	B	877	PRO	Peptide
5	B	879	ARG	Mainchain,Peptide
5	B	882	THR	Mainchain
5	B	883	LEU	Mainchain,Peptide
5	B	884	ARG	Peptide
5	B	899	ILE	Mainchain
5	B	92	PHE	Sidechain
5	B	944	THR	Mainchain
5	B	981	ALA	Mainchain
5	B	982	SER	Mainchain
5	B	984	HIS	Sidechain
6	C	134	ILE	Mainchain
6	C	155	LEU	Mainchain
6	C	159	ALA	Mainchain
6	C	191	TYR	Sidechain
6	C	201	TRP	Mainchain
6	C	212	PRO	Mainchain
6	C	267	GLN	Mainchain,Peptide
6	C	41	ILE	Mainchain
6	C	42	PRO	Mainchain
6	C	7	GLN	Mainchain
7	E	117	THR	Mainchain
7	E	127	ILE	Mainchain
7	E	131	THR	Mainchain,Peptide
7	E	132	ILE	Mainchain,Peptide
7	E	137	GLU	Mainchain
7	E	158	SER	Mainchain
7	E	177	ARG	Mainchain

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Mol	Chain	Res	Type	Group
7	E	187	TYR	Sidechain
7	E	198	ILE	Mainchain
7	E	211	TYR	Sidechain
7	E	214	CYS	Peptide
7	E	26	ARG	Mainchain
7	E	72	PHE	Mainchain
7	E	80	VAL	Mainchain
7	E	85	GLU	Mainchain
8	F	130	ILE	Mainchain
8	F	138	LEU	Mainchain
8	F	142	SER	Peptide
8	F	143	PHE	Sidechain
8	F	75	PRO	Mainchain
9	H	100	THR	Mainchain
9	H	109	LYS	Mainchain,Peptide
9	H	129	TYR	Mainchain,Peptide
9	H	135	LEU	Mainchain
9	H	139	ASN	Mainchain,Peptide
9	H	20	TYR	Mainchain
9	H	37	LYS	Peptide
9	H	62	SER	Peptide
9	H	80	ARG	Mainchain
9	H	81	PRO	Mainchain
9	H	84	ALA	Peptide
9	H	85	GLY	Mainchain,Peptide
10	I	109	ILE	Mainchain
10	I	110	PHE	Sidechain
10	I	119	THR	Peptide
10	I	16	PRO	Mainchain,Peptide
10	I	20	LYS	Peptide
10	I	32	CYS	Mainchain,Peptide
10	I	4	PHE	Sidechain,Mainchain,Peptide
10	I	41	PRO	Mainchain
10	I	61	ASP	Mainchain
10	I	77	LYS	Mainchain,Peptide
10	I	78	CYS	Mainchain,Peptide
10	I	80	SER	Mainchain
11	J	53	HIS	Mainchain
11	J	54	VAL	Peptide
12	K	10	PHE	Sidechain
12	K	109	TRP	Mainchain
12	K	15	GLY	Peptide

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Mol	Chain	Res	Type	Group
12	K	16	GLU	Mainchain,Peptide
12	K	4	PRO	Peptide
12	K	60	ALA	Mainchain
12	K	80	GLY	Mainchain
12	K	99	GLY	Mainchain
13	L	50	ASP	Peptide
13	L	56	LEU	Mainchain
13	L	57	LEU	Mainchain
13	L	64	LEU	Peptide
13	L	65	VAL	Peptide
1	R	10	A	Sidechain
2	T	21	DC	Sidechain
2	T	23	DC	Sidechain

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	R	217	0	110	34	0
2	T	566	0	314	82	4
3	N	284	0	162	44	0
4	A	10969	0	11061	3443	0
5	B	8792	0	8821	2369	0
6	C	2095	0	2051	490	0
7	E	1752	0	1776	523	0
8	F	679	0	701	194	0
9	H	1068	0	1040	377	0
10	I	971	0	929	310	0
11	J	532	0	543	160	0
12	K	919	0	929	259	0
13	L	363	0	387	98	0
14	A	2	0	0	0	0
14	B	1	0	0	0	0
14	C	1	0	0	0	0
14	I	2	0	0	0	0
14	J	1	0	0	0	0
14	L	1	0	0	0	0
15	A	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
16	B	31	0	12	7	0
All	All	29248	0	28836	7970	4

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 137.

All (7970) 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)
3:N:12:DT:P	7:E:117:THR:HG21	1.32	1.67
4:A:128:ILE:CB	4:A:128:ILE:CA	1.74	1.66
5:B:422:LYS:CB	5:B:422:LYS:CG	1.74	1.65
5:B:866:TYR:CB	5:B:866:TYR:CG	1.80	1.65
4:A:37:PHE:CG	4:A:37:PHE:CB	1.74	1.65
7:E:45:LYS:CE	7:E:45:LYS:CD	1.75	1.65
5:B:1098:MET:CB	5:B:1098:MET:CG	1.75	1.65
4:A:42:ASP:CB	4:A:42:ASP:CA	1.75	1.64
11:J:55:ASP:CB	11:J:55:ASP:CA	1.75	1.64
4:A:461:LYS:CE	4:A:461:LYS:CD	1.75	1.64
4:A:1161:THR:CB	4:A:1161:THR:CA	1.75	1.64
4:A:315:LEU:CA	4:A:315:LEU:CB	1.76	1.64
7:E:52:ARG:CB	7:E:52:ARG:CA	1.75	1.64
4:A:929:LEU:CD2	4:A:929:LEU:CG	1.75	1.64
4:A:1350:LYS:CB	4:A:1350:LYS:CG	1.76	1.64
5:B:1223:ASP:CA	5:B:1223:ASP:CB	1.74	1.64
4:A:546:VAL:CB	4:A:546:VAL:CG1	1.75	1.64
4:A:593:GLU:CG	4:A:593:GLU:CB	1.76	1.64
9:H:84:ALA:CA	9:H:84:ALA:CB	1.76	1.64
5:B:1120:GLU:CB	5:B:1120:GLU:CG	1.76	1.64
4:A:1125:ALA:CA	4:A:1125:ALA:CB	1.75	1.63
5:B:1036:ALA:CA	5:B:1036:ALA:CB	1.76	1.63
4:A:257:ARG:CB	4:A:257:ARG:CA	1.74	1.63
5:B:241:ARG:CG	5:B:241:ARG:CB	1.75	1.63
5:B:825:VAL:CB	5:B:825:VAL:CG1	1.76	1.63
7:E:90:VAL:CB	7:E:90:VAL:CG1	1.77	1.63
12:K:57:LEU:CD2	12:K:57:LEU:CG	1.75	1.63
4:A:212:LYS:CD	4:A:212:LYS:CG	1.75	1.63
7:E:81:GLU:CB	7:E:81:GLU:CG	1.75	1.63
10:I:29:CYS:CB	10:I:29:CYS:CA	1.77	1.63
5:B:471:LYS:CD	5:B:471:LYS:CE	1.77	1.63
5:B:667:GLN:CB	5:B:667:GLN:CA	1.77	1.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:315:LEU:CG	4:A:315:LEU:CB	1.75	1.63
4:A:470:LEU:CG	4:A:470:LEU:CD2	1.75	1.63
9:H:89:LEU:CG	9:H:89:LEU:CD1	1.76	1.62
4:A:162:VAL:CG1	4:A:162:VAL:CB	1.74	1.62
4:A:65:LEU:CB	4:A:65:LEU:CG	1.74	1.62
5:B:261:ARG:CD	5:B:261:ARG:CG	1.76	1.62
5:B:28:GLU:CG	5:B:28:GLU:CB	1.74	1.62
4:A:1026:LEU:CD2	4:A:1026:LEU:CG	1.75	1.62
4:A:1438:THR:CG2	4:A:1438:THR:CB	1.75	1.62
4:A:133:LYS:CD	4:A:133:LYS:CE	1.76	1.62
6:C:205:LYS:CE	6:C:205:LYS:CD	1.76	1.62
10:I:36:GLU:CB	10:I:36:GLU:CG	1.77	1.62
4:A:724:GLU:CB	4:A:724:GLU:CG	1.74	1.62
7:E:191:LYS:CB	7:E:191:LYS:CG	1.75	1.62
8:F:155:LEU:CG	8:F:155:LEU:CD2	1.78	1.62
6:C:9:LYS:CD	6:C:9:LYS:CG	1.75	1.62
4:A:524:VAL:CB	4:A:524:VAL:CG1	1.76	1.61
12:K:47:ARG:CG	12:K:47:ARG:CD	1.75	1.61
7:E:201:LYS:CD	7:E:201:LYS:CE	1.76	1.61
9:H:135:LEU:CG	9:H:135:LEU:CD2	1.75	1.61
4:A:317:LYS:CA	4:A:317:LYS:CB	1.75	1.61
4:A:1445:ILE:CB	4:A:1445:ILE:CA	1.76	1.61
9:H:34:ASP:CA	9:H:34:ASP:CB	1.76	1.61
4:A:150:THR:CB	4:A:150:THR:CG2	1.75	1.61
4:A:368:LYS:CD	4:A:368:LYS:CE	1.79	1.61
5:B:249:ARG:CB	5:B:249:ARG:CG	1.74	1.61
5:B:733:HIS:CA	5:B:733:HIS:CB	1.76	1.61
9:H:132:LEU:CB	9:H:132:LEU:CG	1.75	1.61
11:J:57:ILE:CG2	11:J:57:ILE:CB	1.77	1.61
4:A:1221:LYS:CG	4:A:1221:LYS:CD	1.78	1.61
4:A:274:ILE:CB	4:A:274:ILE:CG2	1.74	1.61
4:A:403:LYS:CD	4:A:403:LYS:CE	1.75	1.61
7:E:98:ILE:CA	7:E:98:ILE:CB	1.75	1.61
4:A:1130:GLN:CG	4:A:1130:GLN:CB	1.77	1.61
4:A:176:LYS:CG	4:A:176:LYS:CD	1.74	1.61
4:A:607:ILE:CB	4:A:607:ILE:CG2	1.76	1.61
4:A:905:ASP:CB	4:A:905:ASP:CA	1.78	1.61
4:A:962:ARG:CD	4:A:962:ARG:CG	1.77	1.61
5:B:261:ARG:CG	5:B:261:ARG:CB	1.76	1.61
5:B:532:ALA:CA	5:B:532:ALA:CB	1.78	1.61
10:I:116:ASN:CB	10:I:116:ASN:CA	1.77	1.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:337:ARG:CD	4:A:337:ARG:CG	1.79	1.60
5:B:305:VAL:CB	5:B:305:VAL:CG1	1.79	1.60
7:E:162:ARG:CB	7:E:162:ARG:CG	1.78	1.60
4:A:393:ARG:CG	4:A:393:ARG:CD	1.75	1.60
4:A:664:THR:CB	4:A:664:THR:CG2	1.80	1.60
4:A:877:HIS:CA	4:A:877:HIS:CB	1.77	1.60
10:I:115:LYS:CD	10:I:115:LYS:CE	1.76	1.60
10:I:77:LYS:CD	10:I:77:LYS:CE	1.76	1.60
5:B:193:LYS:CD	5:B:193:LYS:CE	1.76	1.60
12:K:34:THR:CB	12:K:34:THR:CG2	1.77	1.60
4:A:317:LYS:CB	4:A:317:LYS:CG	1.77	1.60
5:B:94:LYS:CG	5:B:94:LYS:CD	1.74	1.60
4:A:98:LYS:CD	4:A:98:LYS:CG	1.78	1.60
4:A:250:ILE:CA	4:A:250:ILE:CB	1.78	1.60
4:A:284:ALA:CB	4:A:284:ALA:CA	1.77	1.60
6:C:9:LYS:CD	6:C:9:LYS:CE	1.74	1.60
8:F:129:LYS:CG	8:F:129:LYS:CB	1.76	1.60
9:H:109:LYS:CD	9:H:109:LYS:CE	1.78	1.60
5:B:1188:LYS:CG	5:B:1188:LYS:CD	1.77	1.60
5:B:219:ALA:CA	5:B:219:ALA:CB	1.77	1.60
5:B:715:ALA:CB	5:B:715:ALA:CA	1.74	1.60
4:A:596:THR:CB	4:A:596:THR:CA	1.77	1.59
4:A:65:LEU:CB	4:A:65:LEU:CA	1.76	1.59
5:B:241:ARG:CG	5:B:241:ARG:CD	1.80	1.59
7:E:191:LYS:CG	7:E:191:LYS:CD	1.75	1.59
4:A:387:ARG:CD	4:A:387:ARG:CG	1.79	1.59
4:A:658:LEU:CG	4:A:658:LEU:CD1	1.77	1.59
4:A:720:ARG:CG	4:A:720:ARG:CB	1.76	1.59
6:C:78:GLU:CG	6:C:78:GLU:CB	1.77	1.59
6:C:84:ARG:CB	6:C:84:ARG:CG	1.74	1.59
9:H:125:LEU:CG	9:H:125:LEU:CD1	1.78	1.59
9:H:132:LEU:CD1	9:H:132:LEU:CG	1.76	1.59
13:L:64:LEU:CG	13:L:64:LEU:CD2	1.76	1.59
4:A:962:ARG:CB	4:A:962:ARG:CG	1.78	1.59
5:B:734:HIS:CB	5:B:734:HIS:CA	1.75	1.59
7:E:190:LEU:CD2	7:E:190:LEU:CG	1.79	1.59
4:A:1205:LYS:CG	4:A:1205:LYS:CB	1.75	1.59
5:B:1189:ILE:CB	5:B:1189:ILE:CG2	1.80	1.59
4:A:101:LYS:CG	4:A:101:LYS:CD	1.79	1.59
4:A:1350:LYS:CD	4:A:1350:LYS:CG	1.80	1.59
5:B:646:LEU:CG	5:B:646:LEU:CD2	1.77	1.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:I:77:LYS:CB	10:I:77:LYS:CA	1.80	1.59
5:B:622:LYS:CE	5:B:622:LYS:CD	1.81	1.59
4:A:945:GLU:CB	4:A:945:GLU:CG	1.79	1.59
4:A:981:LEU:CG	4:A:981:LEU:CD1	1.76	1.59
5:B:59:LEU:CD2	5:B:59:LEU:CG	1.76	1.59
7:E:159:ASP:CA	7:E:159:ASP:CB	1.75	1.59
13:L:37:LYS:CD	13:L:37:LYS:CE	1.78	1.59
5:B:368:GLU:CG	5:B:368:GLU:CB	1.75	1.59
8:F:101:ILE:CB	8:F:101:ILE:CG2	1.77	1.59
4:A:36:ARG:CB	4:A:36:ARG:CG	1.78	1.58
6:C:137:LYS:CG	6:C:137:LYS:CD	1.75	1.58
4:A:34:LYS:CG	4:A:34:LYS:CB	1.76	1.58
4:A:934:LYS:CG	4:A:934:LYS:CD	1.81	1.58
4:A:217:LYS:CG	4:A:217:LYS:CB	1.80	1.58
5:B:868:MET:CG	5:B:868:MET:CB	1.80	1.58
5:B:883:LEU:CA	5:B:883:LEU:CB	1.81	1.58
4:A:1385:THR:CG2	4:A:1385:THR:CB	1.74	1.58
4:A:65:LEU:CG	4:A:65:LEU:CD2	1.81	1.58
9:H:146:ARG:CG	9:H:146:ARG:CB	1.78	1.58
4:A:66:LYS:CD	4:A:66:LYS:CG	1.78	1.58
4:A:66:LYS:CD	4:A:66:LYS:CE	1.78	1.58
5:B:426:LYS:CD	5:B:426:LYS:CE	1.80	1.58
5:B:910:VAL:CG1	5:B:910:VAL:CB	1.74	1.58
4:A:1118:VAL:CB	4:A:1118:VAL:CG1	1.75	1.58
9:H:51:ALA:CA	9:H:51:ALA:CB	1.75	1.58
13:L:42:ARG:CG	13:L:42:ARG:CB	1.76	1.58
4:A:833:GLU:CB	4:A:833:GLU:CG	1.76	1.58
5:B:622:LYS:CD	5:B:622:LYS:CG	1.80	1.58
5:B:892:LYS:CG	5:B:892:LYS:CD	1.74	1.58
12:K:57:LEU:CD1	12:K:57:LEU:CG	1.81	1.58
7:E:158:SER:CA	7:E:158:SER:CB	1.75	1.58
13:L:49:LYS:CE	13:L:49:LYS:CD	1.75	1.58
5:B:1222:ARG:CG	5:B:1222:ARG:CD	1.79	1.58
4:A:372:LYS:CD	4:A:372:LYS:CG	1.81	1.58
5:B:655:LYS:CE	5:B:655:LYS:CD	1.79	1.58
4:A:1093:LYS:CG	4:A:1093:LYS:CB	1.75	1.57
4:A:327:ALA:CB	4:A:327:ALA:CA	1.81	1.57
4:A:880:LYS:CB	4:A:880:LYS:CG	1.76	1.57
4:A:1300:LYS:CG	4:A:1300:LYS:CD	1.76	1.57
4:A:644:LYS:CE	4:A:644:LYS:CD	1.81	1.57
4:A:838:GLN:CG	4:A:838:GLN:CB	1.78	1.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:938:LYS:CE	4:A:938:LYS:CD	1.76	1.57
5:B:315:LYS:CB	5:B:315:LYS:CA	1.76	1.57
4:A:1300:LYS:CE	4:A:1300:LYS:CD	1.79	1.57
5:B:883:LEU:CG	5:B:883:LEU:CD2	1.78	1.57
6:C:205:LYS:CE	6:C:205:LYS:NZ	1.67	1.57
4:A:1102:LYS:CG	4:A:1102:LYS:CD	1.76	1.57
10:I:52:ILE:CB	10:I:52:ILE:CA	1.78	1.57
13:L:42:ARG:CD	13:L:42:ARG:CG	1.80	1.57
5:B:275:TYR:CB	5:B:275:TYR:CG	1.82	1.57
9:H:114:VAL:CB	9:H:114:VAL:CG1	1.77	1.57
6:C:154:LYS:CD	6:C:154:LYS:CG	1.82	1.57
6:C:205:LYS:CD	6:C:205:LYS:CG	1.81	1.57
13:L:61:THR:CG2	13:L:61:THR:CB	1.77	1.57
4:A:220:THR:CB	4:A:220:THR:CG2	1.79	1.57
4:A:57:ARG:CG	4:A:57:ARG:CB	1.78	1.57
4:A:977:LYS:CD	4:A:977:LYS:CG	1.82	1.57
5:B:709:ASP:CB	5:B:709:ASP:CA	1.82	1.57
5:B:918:ILE:CG2	5:B:918:ILE:CB	1.78	1.57
7:E:119:SER:CA	7:E:119:SER:CB	1.77	1.57
7:E:66:GLU:CG	7:E:66:GLU:CB	1.74	1.57
4:A:1355:VAL:CA	4:A:1355:VAL:CB	1.76	1.57
4:A:1361:SER:CA	4:A:1361:SER:CB	1.74	1.57
5:B:509:ALA:CA	5:B:509:ALA:CB	1.82	1.57
5:B:880:THR:CA	5:B:880:THR:CB	1.82	1.57
7:E:186:LEU:CG	7:E:186:LEU:CD2	1.82	1.57
9:H:80:ARG:CB	9:H:80:ARG:CG	1.75	1.57
8:F:127:GLU:CG	8:F:127:GLU:CB	1.78	1.57
4:A:49:LYS:CB	4:A:49:LYS:CG	1.75	1.57
4:A:688:LYS:CD	4:A:688:LYS:CE	1.75	1.57
5:B:327:ARG:CG	5:B:327:ARG:CB	1.80	1.57
5:B:345:LYS:CG	5:B:345:LYS:CD	1.82	1.57
5:B:914:LYS:CG	5:B:914:LYS:CD	1.78	1.57
7:E:71:LYS:CB	7:E:71:LYS:CG	1.75	1.57
4:A:101:LYS:CG	4:A:101:LYS:CB	1.77	1.56
5:B:502:ILE:CA	5:B:502:ILE:CB	1.78	1.56
8:F:76:LYS:CB	8:F:76:LYS:CA	1.75	1.56
4:A:237:THR:CB	4:A:237:THR:CA	1.80	1.56
4:A:323:LYS:CE	4:A:323:LYS:CD	1.77	1.56
4:A:929:LEU:CD1	4:A:929:LEU:CG	1.82	1.56
4:A:934:LYS:CE	4:A:934:LYS:CD	1.81	1.56
5:B:133:LYS:CD	5:B:133:LYS:CG	1.80	1.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:111:VAL:CG1	7:E:111:VAL:CB	1.79	1.56
11:J:3:VAL:CG2	11:J:3:VAL:CB	1.76	1.56
4:A:880:LYS:CD	4:A:880:LYS:CE	1.81	1.56
5:B:606:LYS:CD	5:B:606:LYS:CE	1.82	1.56
7:E:152:LYS:CD	7:E:152:LYS:CG	1.79	1.56
4:A:1290:LYS:CG	4:A:1290:LYS:CD	1.83	1.56
4:A:278:THR:CB	4:A:278:THR:CG2	1.75	1.56
4:A:372:LYS:CG	4:A:372:LYS:CB	1.82	1.56
8:F:153:VAL:CB	8:F:153:VAL:CG1	1.78	1.56
9:H:37:LYS:CE	9:H:37:LYS:CD	1.83	1.56
4:A:991:LYS:CE	4:A:991:LYS:CD	1.80	1.56
4:A:991:LYS:CB	4:A:991:LYS:CG	1.80	1.56
5:B:796:LEU:CD2	5:B:796:LEU:CG	1.75	1.56
5:B:866:TYR:CB	5:B:866:TYR:CA	1.81	1.56
9:H:146:ARG:CG	9:H:146:ARG:CD	1.78	1.56
10:I:91:ARG:CG	10:I:91:ARG:CB	1.82	1.56
5:B:244:LEU:CD2	5:B:244:LEU:CG	1.75	1.56
13:L:37:LYS:CG	13:L:37:LYS:CD	1.83	1.56
4:A:277:GLU:CG	4:A:277:GLU:CB	1.76	1.56
4:A:87:ALA:CA	4:A:87:ALA:CB	1.78	1.56
6:C:260:LEU:CD2	6:C:260:LEU:CG	1.75	1.56
4:A:1081:LEU:CD2	4:A:1081:LEU:CG	1.77	1.56
4:A:249:SER:C	4:A:249:SER:CA	1.74	1.56
2:T:28:DT:C2'	4:A:317:LYS:HG2	1.19	1.56
7:E:171:LYS:CB	7:E:171:LYS:CG	1.81	1.56
9:H:132:LEU:CA	9:H:132:LEU:CB	1.78	1.56
9:H:144:ILE:CB	9:H:144:ILE:CG2	1.75	1.56
4:A:1003:LYS:CD	4:A:1003:LYS:CG	1.84	1.56
5:B:275:TYR:CB	5:B:275:TYR:CA	1.82	1.56
5:B:510:LYS:CG	5:B:510:LYS:CD	1.77	1.56
6:C:222:LYS:CD	6:C:222:LYS:CE	1.78	1.56
9:H:80:ARG:CD	9:H:80:ARG:CG	1.81	1.56
4:A:1022:LEU:CG	4:A:1022:LEU:CD2	1.76	1.56
4:A:152:VAL:CB	4:A:152:VAL:CA	1.78	1.56
9:H:15:VAL:CA	9:H:15:VAL:CB	1.82	1.56
10:I:48:LEU:CD1	10:I:48:LEU:CG	1.77	1.56
12:K:53:ASP:CG	12:K:53:ASP:CB	1.74	1.56
7:E:152:LYS:CB	7:E:152:LYS:CG	1.74	1.55
9:H:38:LEU:CG	9:H:38:LEU:CD1	1.78	1.55
4:A:925:LEU:CD2	4:A:925:LEU:CG	1.83	1.55
5:B:347:LYS:CG	5:B:347:LYS:CD	1.77	1.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:635:ARG:CD	5:B:635:ARG:CG	1.77	1.55
7:E:122:LYS:CE	7:E:122:LYS:CD	1.76	1.55
7:E:52:ARG:CD	7:E:52:ARG:CG	1.80	1.55
9:H:52:GLN:CB	9:H:52:GLN:CA	1.77	1.55
12:K:54:ARG:CD	12:K:54:ARG:CG	1.83	1.55
13:L:68:GLU:CG	13:L:68:GLU:CB	1.79	1.55
4:A:461:LYS:CG	4:A:461:LYS:CB	1.78	1.55
5:B:227:LYS:CD	5:B:227:LYS:CG	1.83	1.55
5:B:620:ARG:CG	5:B:620:ARG:CD	1.75	1.55
7:E:20:LYS:CG	7:E:20:LYS:CB	1.75	1.55
8:F:125:LEU:CD2	8:F:125:LEU:CG	1.78	1.55
5:B:1221:SER:CA	5:B:1221:SER:C	1.74	1.55
5:B:133:LYS:CD	5:B:133:LYS:CE	1.74	1.55
6:C:222:LYS:CG	6:C:222:LYS:CB	1.81	1.55
4:A:311:GLN:CA	4:A:311:GLN:CB	1.82	1.55
4:A:88:LYS:C	4:A:88:LYS:CA	1.75	1.55
4:A:977:LYS:CD	4:A:977:LYS:CE	1.75	1.55
5:B:353:LYS:CD	5:B:353:LYS:CG	1.84	1.55
7:E:35:VAL:CA	7:E:35:VAL:CB	1.80	1.55
7:E:35:VAL:CG2	7:E:35:VAL:CB	1.78	1.55
11:J:42:LYS:CD	11:J:42:LYS:CG	1.74	1.55
13:L:37:LYS:CB	13:L:37:LYS:CG	1.81	1.55
5:B:353:LYS:CG	5:B:353:LYS:CB	1.83	1.55
5:B:727:LYS:CE	5:B:727:LYS:NZ	1.70	1.55
5:B:882:THR:CB	5:B:882:THR:CG2	1.79	1.55
4:A:1102:LYS:CD	4:A:1102:LYS:CE	1.78	1.55
4:A:1142:THR:CG2	4:A:1142:THR:CB	1.85	1.55
4:A:1391:ARG:CG	4:A:1391:ARG:CD	1.79	1.55
5:B:164:LYS:CD	5:B:164:LYS:CG	1.77	1.55
5:B:695:ALA:CB	5:B:695:ALA:CA	1.80	1.55
5:B:812:LEU:CG	5:B:812:LEU:CD1	1.76	1.55
4:A:321:PRO:CA	4:A:321:PRO:C	1.75	1.55
4:A:590:ARG:CD	4:A:590:ARG:CG	1.80	1.55
5:B:468:GLU:CD	5:B:468:GLU:CG	1.74	1.55
6:C:208:GLU:CB	6:C:208:GLU:CG	1.78	1.55
9:H:60:ALA:CA	9:H:60:ALA:CB	1.77	1.55
4:A:1003:LYS:CD	4:A:1003:LYS:CE	1.81	1.55
4:A:1217:LYS:CG	4:A:1217:LYS:CB	1.81	1.55
4:A:1256:GLU:CB	4:A:1256:GLU:CA	1.79	1.55
4:A:286:HIS:CB	4:A:286:HIS:CA	1.83	1.55
5:B:41:LYS:CE	5:B:41:LYS:NZ	1.69	1.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:866:TYR:CA	5:B:866:TYR:C	1.74	1.55
7:E:201:LYS:CB	7:E:201:LYS:CG	1.83	1.55
7:E:3:GLN:CB	7:E:3:GLN:CG	1.79	1.55
4:A:368:LYS:CE	4:A:368:LYS:NZ	1.67	1.55
4:A:49:LYS:CE	4:A:49:LYS:CD	1.79	1.55
5:B:1151:LEU:CG	5:B:1151:LEU:CD1	1.74	1.55
5:B:345:LYS:CE	5:B:345:LYS:CD	1.83	1.55
6:C:137:LYS:CE	6:C:137:LYS:CD	1.80	1.55
4:A:11:LEU:CG	4:A:11:LEU:CD2	1.82	1.54
4:A:57:ARG:CG	4:A:57:ARG:CD	1.85	1.54
5:B:164:LYS:C	5:B:164:LYS:CA	1.75	1.54
5:B:354:ASP:CG	5:B:354:ASP:CB	1.74	1.54
5:B:436:VAL:CA	5:B:436:VAL:C	1.76	1.54
7:E:52:ARG:CG	7:E:52:ARG:CB	1.82	1.54
10:I:8:ARG:CB	10:I:8:ARG:CG	1.78	1.54
4:A:1173:HIS:CA	4:A:1173:HIS:C	1.75	1.54
4:A:934:LYS:CB	4:A:934:LYS:CG	1.82	1.54
5:B:227:LYS:CD	5:B:227:LYS:CE	1.82	1.54
5:B:419:THR:CG2	5:B:419:THR:CB	1.79	1.54
5:B:426:LYS:CE	5:B:426:LYS:NZ	1.70	1.54
5:B:622:LYS:CB	5:B:622:LYS:CG	1.82	1.54
6:C:102:GLN:CG	6:C:102:GLN:CB	1.81	1.54
5:B:1220:ARG:CG	5:B:1220:ARG:CD	1.79	1.54
11:J:59:LYS:CE	11:J:59:LYS:CD	1.79	1.54
12:K:55:LYS:CG	12:K:55:LYS:CD	1.83	1.54
4:A:927:VAL:CG1	4:A:927:VAL:CB	1.74	1.54
5:B:620:ARG:CB	5:B:620:ARG:CG	1.79	1.54
6:C:4:GLU:CG	6:C:4:GLU:CD	1.74	1.54
7:E:207:ARG:CD	7:E:207:ARG:CG	1.84	1.54
4:A:1231:ASP:CB	4:A:1231:ASP:CG	1.75	1.54
4:A:1299:VAL:CG1	4:A:1299:VAL:CB	1.83	1.54
4:A:129:LYS:CD	4:A:129:LYS:CG	1.84	1.54
5:B:415:GLN:CG	5:B:415:GLN:CB	1.83	1.54
5:B:709:ASP:CA	5:B:709:ASP:C	1.75	1.54
5:B:951:GLN:CD	5:B:951:GLN:CG	1.74	1.54
6:C:149:LYS:CG	6:C:149:LYS:CD	1.83	1.54
9:H:136:LYS:CB	9:H:136:LYS:CG	1.80	1.54
13:L:50:ASP:CA	13:L:50:ASP:C	1.75	1.54
4:A:571:LEU:CD2	4:A:571:LEU:CG	1.78	1.54
5:B:570:VAL:CB	5:B:570:VAL:CG2	1.83	1.54
12:K:26:LYS:CG	12:K:26:LYS:CD	1.83	1.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:15:LYS:CE	4:A:15:LYS:CD	1.85	1.54
4:A:593:GLU:CG	4:A:593:GLU:CD	1.75	1.54
4:A:895:LYS:CB	4:A:895:LYS:CA	1.78	1.54
5:B:327:ARG:CD	5:B:327:ARG:CG	1.78	1.54
5:B:393:LYS:CG	5:B:393:LYS:CD	1.78	1.54
5:B:429:PHE:CG	5:B:429:PHE:CB	1.85	1.54
5:B:595:ARG:CD	5:B:595:ARG:NE	1.68	1.54
12:K:20:LYS:CB	12:K:20:LYS:CG	1.84	1.54
4:A:1144:LYS:CD	4:A:1144:LYS:CE	1.78	1.54
5:B:108:VAL:CB	5:B:108:VAL:CG1	1.81	1.54
5:B:134:LYS:CG	5:B:134:LYS:CB	1.85	1.54
5:B:305:VAL:CB	5:B:305:VAL:CG2	1.80	1.54
5:B:397:ASP:CB	5:B:397:ASP:CG	1.74	1.54
5:B:706:GLN:CG	5:B:706:GLN:CD	1.74	1.54
6:C:208:GLU:CD	6:C:208:GLU:CG	1.75	1.54
4:A:1013:ASP:CG	4:A:1013:ASP:CB	1.77	1.54
4:A:518:LYS:CE	4:A:518:LYS:CD	1.84	1.53
9:H:109:LYS:C	9:H:109:LYS:CA	1.76	1.53
9:H:86:ASP:N	9:H:86:ASP:CA	1.68	1.53
4:A:17:VAL:CG1	4:A:17:VAL:CB	1.82	1.53
4:A:898:ARG:CD	4:A:898:ARG:CG	1.78	1.53
5:B:423:LYS:CE	5:B:423:LYS:NZ	1.69	1.53
5:B:567:GLU:CD	5:B:567:GLU:CG	1.75	1.53
6:C:205:LYS:CB	6:C:205:LYS:CG	1.84	1.53
9:H:86:ASP:C	9:H:86:ASP:CA	1.76	1.53
10:I:3:THR:CG2	10:I:3:THR:CB	1.83	1.53
4:A:125:ALA:CA	4:A:125:ALA:C	1.75	1.53
4:A:1278:ASN:CA	4:A:1278:ASN:CB	1.84	1.53
4:A:590:ARG:CG	4:A:590:ARG:CB	1.79	1.53
4:A:880:LYS:NZ	4:A:880:LYS:CE	1.70	1.53
6:C:154:LYS:CB	6:C:154:LYS:CG	1.84	1.53
4:A:1003:LYS:CB	4:A:1003:LYS:CG	1.82	1.53
4:A:764:CYS:CA	4:A:764:CYS:C	1.75	1.53
5:B:1057:LYS:CB	5:B:1057:LYS:CG	1.83	1.53
5:B:188:ASP:CB	5:B:188:ASP:CG	1.76	1.53
5:B:883:LEU:CG	5:B:883:LEU:CB	1.76	1.53
11:J:12:LYS:CE	11:J:12:LYS:NZ	1.67	1.53
12:K:55:LYS:CE	12:K:55:LYS:NZ	1.69	1.53
4:A:1121:GLU:CB	4:A:1121:GLU:CA	1.77	1.53
4:A:637:LYS:CE	4:A:637:LYS:NZ	1.68	1.53
4:A:712:GLU:CD	4:A:712:GLU:CG	1.74	1.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:305:VAL:CA	5:B:305:VAL:CB	1.81	1.53
9:H:110:ASP:CA	9:H:110:ASP:CB	1.80	1.53
9:H:45:GLU:CD	9:H:45:GLU:CG	1.77	1.53
4:A:1290:LYS:CE	4:A:1290:LYS:CD	1.77	1.53
4:A:977:LYS:CB	4:A:977:LYS:CG	1.80	1.53
5:B:294:ASP:CB	5:B:294:ASP:CG	1.77	1.53
5:B:881:ASN:CG	5:B:881:ASN:CB	1.75	1.53
6:C:136:ASP:CA	6:C:136:ASP:C	1.75	1.53
7:E:4:GLU:CD	7:E:4:GLU:CG	1.76	1.53
9:H:57:VAL:CG1	9:H:57:VAL:CB	1.78	1.53
10:I:107:SER:CA	10:I:107:SER:CB	1.79	1.53
6:C:161:LYS:NZ	6:C:161:LYS:CE	1.69	1.53
9:H:82:PRO:CG	9:H:82:PRO:CB	1.77	1.53
10:I:115:LYS:NZ	10:I:115:LYS:CE	1.68	1.53
10:I:93:LYS:CG	10:I:93:LYS:CB	1.80	1.53
4:A:316:GLN:CA	4:A:316:GLN:C	1.76	1.53
4:A:976:THR:CG2	4:A:976:THR:CB	1.83	1.53
5:B:733:HIS:CA	5:B:733:HIS:C	1.75	1.53
6:C:154:LYS:CD	6:C:154:LYS:CE	1.83	1.53
13:L:68:GLU:CD	13:L:68:GLU:CG	1.76	1.53
4:A:237:THR:CB	4:A:237:THR:CG2	1.81	1.53
5:B:1136:ASP:CG	5:B:1136:ASP:CB	1.76	1.53
5:B:94:LYS:CB	5:B:94:LYS:CG	1.81	1.53
4:A:1057:VAL:CB	4:A:1057:VAL:CG1	1.83	1.53
5:B:730:ARG:CD	5:B:730:ARG:CG	1.79	1.53
4:A:1337:GLU:CD	4:A:1337:GLU:CG	1.74	1.52
4:A:171:GLN:CB	4:A:171:GLN:CG	1.83	1.52
4:A:898:ARG:CB	4:A:898:ARG:CG	1.79	1.52
5:B:1193:GLN:CD	5:B:1193:GLN:CG	1.75	1.52
7:E:31:THR:CA	7:E:31:THR:CB	1.79	1.52
10:I:107:SER:CA	10:I:107:SER:C	1.78	1.52
4:A:408:ASP:CB	4:A:408:ASP:CG	1.75	1.52
7:E:45:LYS:CB	7:E:45:LYS:CA	1.79	1.52
8:F:78:GLN:CG	8:F:78:GLN:CB	1.84	1.52
13:L:44:ASP:CG	13:L:44:ASP:CB	1.78	1.52
4:A:49:LYS:CD	4:A:49:LYS:CG	1.83	1.52
4:A:532:ARG:CB	4:A:532:ARG:CG	1.83	1.52
5:B:368:GLU:CG	5:B:368:GLU:CD	1.75	1.52
5:B:568:ASP:CB	5:B:568:ASP:CG	1.75	1.52
4:A:1146:VAL:CB	4:A:1146:VAL:CG2	1.87	1.52
4:A:900:ASP:CG	4:A:900:ASP:CB	1.78	1.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:950:ASP:CG	5:B:950:ASP:CB	1.75	1.52
6:C:222:LYS:CG	6:C:222:LYS:CD	1.85	1.52
9:H:37:LYS:CD	9:H:37:LYS:CG	1.81	1.52
4:A:175:ARG:CD	4:A:175:ARG:CG	1.74	1.52
4:A:598:LEU:CD1	4:A:598:LEU:CG	1.78	1.52
5:B:249:ARG:CA	5:B:249:ARG:C	1.78	1.52
5:B:987:LYS:CD	5:B:987:LYS:CE	1.85	1.52
10:I:36:GLU:CD	10:I:36:GLU:CG	1.78	1.52
7:E:54:GLN:CG	7:E:54:GLN:CB	1.87	1.52
12:K:37:LYS:CE	12:K:37:LYS:NZ	1.69	1.52
5:B:1057:LYS:CG	5:B:1057:LYS:CD	1.80	1.52
5:B:865:LYS:N	5:B:865:LYS:CA	1.73	1.52
9:H:109:LYS:CD	9:H:109:LYS:CG	1.81	1.52
13:L:50:ASP:CG	13:L:50:ASP:CB	1.76	1.52
5:B:531:GLN:CB	5:B:531:GLN:CG	1.82	1.52
5:B:882:THR:CB	5:B:882:THR:CA	1.78	1.52
9:H:63:LEU:CG	9:H:63:LEU:CD1	1.86	1.52
4:A:1144:LYS:CE	4:A:1144:LYS:NZ	1.67	1.52
4:A:531:ILE:CB	4:A:531:ILE:CG2	1.87	1.52
5:B:786:ASN:CG	5:B:786:ASN:CB	1.78	1.52
7:E:201:LYS:CD	7:E:201:LYS:CG	1.85	1.52
9:H:110:ASP:CB	9:H:110:ASP:CG	1.77	1.52
4:A:1109:LYS:CD	4:A:1109:LYS:CE	1.87	1.52
5:B:635:ARG:CG	5:B:636:PRO:HD3	1.32	1.52
5:B:881:ASN:CA	5:B:881:ASN:C	1.75	1.52
12:K:55:LYS:CG	12:K:55:LYS:CB	1.87	1.52
4:A:227:VAL:CB	4:A:227:VAL:CA	1.87	1.51
4:A:265:LYS:NZ	4:A:265:LYS:CE	1.72	1.51
4:A:323:LYS:CG	4:A:323:LYS:CD	1.85	1.51
4:A:431:LYS:CD	4:A:431:LYS:CG	1.88	1.51
4:A:486:GLU:CG	4:A:486:GLU:CD	1.76	1.51
4:A:991:LYS:CG	4:A:991:LYS:CD	1.81	1.51
5:B:99:LYS:CE	5:B:99:LYS:NZ	1.73	1.51
9:H:3:ASN:N	9:H:3:ASN:CA	1.68	1.51
11:J:55:ASP:CG	11:J:55:ASP:CB	1.78	1.51
4:A:1112:LYS:CG	4:A:1112:LYS:CB	1.83	1.51
4:A:601:LYS:CE	4:A:601:LYS:NZ	1.68	1.51
4:A:85:ASP:CB	4:A:85:ASP:CG	1.78	1.51
5:B:1201:LYS:NZ	5:B:1201:LYS:CE	1.69	1.51
5:B:636:PRO:CG	5:B:636:PRO:CD	1.85	1.51
9:H:89:LEU:CG	9:H:89:LEU:CD2	1.83	1.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:I:93:LYS:CG	10:I:93:LYS:CD	1.82	1.51
4:A:644:LYS:NZ	4:A:644:LYS:CE	1.72	1.51
4:A:739:ASP:CG	4:A:739:ASP:CB	1.78	1.51
10:I:9:ASP:C	10:I:9:ASP:CA	1.78	1.51
5:B:1221:SER:CA	5:B:1221:SER:CB	1.80	1.51
5:B:345:LYS:CG	5:B:345:LYS:CB	1.82	1.51
8:F:87:LYS:CE	8:F:87:LYS:NZ	1.70	1.51
5:B:315:LYS:CD	5:B:315:LYS:CE	1.86	1.51
8:F:76:LYS:CG	8:F:76:LYS:CB	1.88	1.51
12:K:20:LYS:CD	12:K:20:LYS:CG	1.84	1.51
4:A:44:THR:CA	4:A:44:THR:CB	1.87	1.51
5:B:622:LYS:CE	5:B:622:LYS:NZ	1.73	1.51
6:C:121:VAL:CG1	6:C:121:VAL:CB	1.83	1.51
6:C:50:GLU:CG	6:C:50:GLU:CD	1.79	1.51
7:E:45:LYS:CD	7:E:45:LYS:CG	1.86	1.51
5:B:131:ASP:CB	5:B:131:ASP:CG	1.75	1.51
5:B:646:LEU:C	5:B:646:LEU:CA	1.76	1.51
7:E:172:GLU:CG	7:E:172:GLU:CD	1.78	1.51
9:H:52:GLN:CG	9:H:52:GLN:CD	1.78	1.51
4:A:984:LYS:CE	4:A:984:LYS:CD	1.83	1.51
4:A:98:LYS:CB	4:A:98:LYS:CG	1.81	1.51
4:A:1109:LYS:CG	4:A:1109:LYS:CD	1.88	1.51
4:A:66:LYS:CB	4:A:66:LYS:CG	1.82	1.51
5:B:115:GLN:CG	5:B:115:GLN:CD	1.76	1.51
5:B:497:ARG:CG	5:B:497:ARG:CD	1.87	1.51
5:B:606:LYS:NZ	5:B:606:LYS:CE	1.70	1.51
5:B:646:LEU:CB	5:B:646:LEU:CG	1.86	1.51
4:A:1004:ASN:ND2	7:E:167:ARG:HD2	1.24	1.51
9:H:132:LEU:CA	9:H:132:LEU:C	1.75	1.51
12:K:85:ASP:CB	12:K:85:ASP:CG	1.75	1.51
4:A:277:GLU:C	4:A:277:GLU:CA	1.77	1.51
4:A:941:LYS:CD	4:A:941:LYS:CE	1.85	1.51
5:B:433:GLN:CB	5:B:433:GLN:CG	1.82	1.51
6:C:266:ASP:C	6:C:266:ASP:CA	1.75	1.51
9:H:3:ASN:CG	9:H:3:ASN:CB	1.78	1.51
4:A:934:LYS:CE	4:A:934:LYS:NZ	1.70	1.50
5:B:277:LYS:CB	5:B:277:LYS:CG	1.87	1.50
5:B:347:LYS:CG	5:B:347:LYS:CB	1.85	1.50
5:B:122:LEU:CD1	5:B:122:LEU:CG	1.88	1.50
5:B:250:PHE:CA	5:B:250:PHE:C	1.77	1.50
4:A:812:GLU:CD	4:A:812:GLU:CG	1.76	1.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:28:DT:H2"	4:A:317:LYS:CG	1.33	1.50
4:A:1174:PHE:C	4:A:1174:PHE:CA	1.79	1.50
4:A:286:HIS:CA	4:A:286:HIS:C	1.78	1.50
5:B:315:LYS:NZ	5:B:315:LYS:CE	1.72	1.50
4:A:1277:GLU:CA	4:A:1277:GLU:CB	1.85	1.50
4:A:863:VAL:CB	4:A:863:VAL:CG1	1.83	1.50
7:E:117:THR:CA	7:E:117:THR:C	1.80	1.50
9:H:52:GLN:CB	9:H:52:GLN:CG	1.89	1.50
11:J:52:THR:CA	11:J:52:THR:C	1.77	1.50
4:A:724:GLU:CD	4:A:724:GLU:CG	1.78	1.50
5:B:133:LYS:C	5:B:133:LYS:CA	1.77	1.50
5:B:266:ALA:C	5:B:266:ALA:CA	1.74	1.50
5:B:345:LYS:NZ	5:B:345:LYS:CE	1.69	1.50
5:B:865:LYS:C	5:B:865:LYS:CA	1.77	1.50
4:A:1174:PHE:N	4:A:1174:PHE:CA	1.69	1.50
11:J:17:LYS:CE	11:J:17:LYS:NZ	1.73	1.50
4:A:212:LYS:CB	4:A:212:LYS:CG	1.82	1.50
8:F:76:LYS:CD	8:F:76:LYS:CE	1.85	1.50
4:A:941:LYS:NZ	4:A:941:LYS:CE	1.74	1.50
5:B:447:ALA:CA	5:B:447:ALA:C	1.77	1.50
7:E:4:GLU:CB	7:E:4:GLU:CG	1.84	1.50
5:B:706:GLN:CG	5:B:706:GLN:CB	1.87	1.49
9:H:131:ASN:CG	9:H:131:ASN:CB	1.75	1.49
9:H:63:LEU:C	9:H:63:LEU:CA	1.74	1.49
12:K:55:LYS:CE	12:K:55:LYS:CD	1.84	1.49
4:A:1127:ASP:CG	4:A:1127:ASP:CB	1.79	1.49
4:A:1242:VAL:CG1	4:A:1242:VAL:CB	1.89	1.49
4:A:1361:SER:CA	4:A:1361:SER:C	1.75	1.49
4:A:42:ASP:CB	4:A:42:ASP:CG	1.79	1.49
4:A:592:ASP:CG	4:A:592:ASP:CB	1.76	1.49
13:L:49:LYS:CG	13:L:49:LYS:CD	1.86	1.49
13:L:50:ASP:N	13:L:50:ASP:CA	1.74	1.49
4:A:403:LYS:NZ	4:A:403:LYS:CE	1.73	1.49
4:A:941:LYS:CG	4:A:941:LYS:CB	1.88	1.49
5:B:367:LEU:CG	5:B:367:LEU:CD2	1.87	1.49
5:B:476:ARG:CG	5:B:476:ARG:CD	1.87	1.49
6:C:102:GLN:CG	6:C:102:GLN:CD	1.76	1.49
6:C:78:GLU:CD	6:C:78:GLU:CG	1.78	1.49
4:A:640:GLN:CD	4:A:640:GLN:CG	1.78	1.49
5:B:730:ARG:CB	5:B:730:ARG:CG	1.86	1.49
4:A:1092:LYS:CB	4:A:1092:LYS:CG	1.87	1.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1223:ASP:CG	5:B:1223:ASP:CB	1.81	1.49
4:A:789:LYS:NZ	4:A:789:LYS:CE	1.67	1.49
7:E:172:GLU:CG	7:E:172:GLU:CB	1.90	1.49
8:F:94:LEU:CD1	8:F:94:LEU:CG	1.83	1.49
13:L:43:THR:CA	13:L:43:THR:CB	1.85	1.49
4:A:1444:MET:C	4:A:1444:MET:CA	1.77	1.49
4:A:1173:HIS:CA	4:A:1173:HIS:N	1.71	1.49
5:B:1220:ARG:CG	5:B:1220:ARG:CB	1.87	1.49
5:B:880:THR:CA	5:B:880:THR:C	1.81	1.49
8:F:155:LEU:C	8:F:155:LEU:CA	1.76	1.49
4:A:1256:GLU:CB	4:A:1256:GLU:CG	1.87	1.48
4:A:278:THR:CB	4:A:278:THR:CA	1.87	1.48
6:C:217:ASP:CG	6:C:217:ASP:CB	1.80	1.48
12:K:54:ARG:CB	12:K:54:ARG:CG	1.86	1.48
4:A:218:ASP:CB	4:A:218:ASP:CG	1.79	1.48
4:A:905:ASP:CA	4:A:905:ASP:C	1.79	1.48
5:B:595:ARG:CB	5:B:595:ARG:CG	1.91	1.48
6:C:149:LYS:CG	6:C:149:LYS:CB	1.88	1.48
4:A:1121:GLU:CD	4:A:1121:GLU:CG	1.78	1.48
4:A:325:ILE:CB	4:A:325:ILE:CG2	1.87	1.48
5:B:510:LYS:N	5:B:510:LYS:CA	1.72	1.48
9:H:81:PRO:C	9:H:81:PRO:CA	1.81	1.48
4:A:107:CYS:SG	4:A:107:CYS:CB	2.02	1.48
4:A:1221:LYS:CB	4:A:1221:LYS:CG	1.89	1.48
9:H:109:LYS:CG	9:H:109:LYS:CB	1.92	1.48
12:K:20:LYS:CE	12:K:20:LYS:CD	1.89	1.48
5:B:68:THR:CA	5:B:68:THR:CB	1.88	1.48
6:C:214:ASN:CG	6:C:214:ASN:CB	1.79	1.48
9:H:139:ASN:CB	9:H:139:ASN:CG	1.81	1.48
4:A:274:ILE:CB	4:A:274:ILE:CA	1.89	1.48
5:B:655:LYS:CD	5:B:655:LYS:CG	1.88	1.48
4:A:1204:ASP:CG	4:A:1204:ASP:CB	1.83	1.47
4:A:681:GLU:CG	4:A:681:GLU:CD	1.83	1.47
4:A:685:GLU:CG	4:A:685:GLU:CD	1.80	1.47
5:B:470:LYS:CE	5:B:470:LYS:NZ	1.76	1.47
5:B:870:ILE:CB	5:B:870:ILE:CG2	1.90	1.47
7:E:162:ARG:CD	7:E:162:ARG:CG	1.92	1.47
8:F:112:GLU:CG	8:F:112:GLU:CD	1.83	1.47
10:I:116:ASN:CG	10:I:116:ASN:CB	1.81	1.47
4:A:456:MET:SD	4:A:456:MET:CG	2.02	1.47
4:A:1111:MET:CE	4:A:1111:MET:SD	2.02	1.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:646:LEU:CB	5:B:646:LEU:CA	1.91	1.47
5:B:865:LYS:CG	5:B:865:LYS:CB	1.88	1.47
4:A:1277:GLU:CG	4:A:1277:GLU:CB	1.89	1.47
4:A:588:LEU:CG	4:A:588:LEU:CD1	1.90	1.47
5:B:509:ALA:CA	5:B:509:ALA:C	1.84	1.47
10:I:60:GLN:CG	10:I:60:GLN:CD	1.82	1.47
4:A:129:LYS:CB	4:A:129:LYS:CG	1.93	1.47
7:E:159:ASP:CB	7:E:159:ASP:CG	1.80	1.47
10:I:8:ARG:CD	10:I:8:ARG:CG	1.92	1.47
5:B:813:LYS:CE	5:B:813:LYS:NZ	1.74	1.46
4:A:790:ASP:CB	4:A:790:ASP:CG	1.83	1.46
7:E:33:GLU:CA	7:E:33:GLU:C	1.81	1.46
8:F:122:MET:CE	8:F:122:MET:SD	2.03	1.46
9:H:63:LEU:CG	9:H:63:LEU:CD2	1.92	1.46
13:L:49:LYS:CG	13:L:49:LYS:CB	1.90	1.46
4:A:620:LYS:CD	4:A:620:LYS:CE	1.92	1.46
5:B:918:ILE:CA	5:B:918:ILE:CB	1.92	1.46
7:E:75:MET:CG	7:E:75:MET:SD	2.02	1.46
5:B:472:ALA:N	5:B:472:ALA:CA	1.79	1.46
10:I:77:LYS:CG	10:I:77:LYS:CB	1.93	1.46
4:A:984:LYS:CE	4:A:984:LYS:NZ	1.76	1.46
4:A:265:LYS:CD	4:A:265:LYS:CE	1.92	1.46
10:I:13:MET:SD	10:I:13:MET:CE	2.04	1.46
9:H:19:ARG:CD	9:H:19:ARG:CG	1.94	1.45
7:E:83:CYS:CA	7:E:83:CYS:C	1.81	1.45
8:F:112:GLU:CB	8:F:112:GLU:CG	1.91	1.45
4:A:976:THR:CA	4:A:976:THR:CB	1.91	1.45
5:B:315:LYS:CB	5:B:315:LYS:CG	1.93	1.45
10:I:77:LYS:CD	10:I:77:LYS:CG	1.95	1.45
6:C:154:LYS:CE	6:C:154:LYS:NZ	1.79	1.45
5:B:892:LYS:CE	5:B:892:LYS:NZ	1.79	1.45
13:L:26:THR:CA	13:L:26:THR:C	1.82	1.45
4:A:1277:GLU:CG	4:A:1277:GLU:CD	1.85	1.45
4:A:316:GLN:CB	4:A:316:GLN:CG	1.93	1.45
4:A:1393:ASN:CG	4:A:1393:ASN:CB	1.83	1.45
4:A:620:LYS:CD	4:A:620:LYS:CG	1.91	1.45
5:B:164:LYS:CG	5:B:164:LYS:CB	1.94	1.45
9:H:2:SER:CA	9:H:2:SER:C	1.84	1.45
9:H:76:THR:CA	9:H:76:THR:CB	1.94	1.45
12:K:20:LYS:CE	12:K:20:LYS:NZ	1.80	1.45
4:A:1121:GLU:CB	4:A:1121:GLU:CG	1.95	1.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:318:SER:CA	4:A:318:SER:C	1.80	1.45
4:A:941:LYS:CD	4:A:941:LYS:CG	1.92	1.45
5:B:133:LYS:CB	5:B:133:LYS:CG	1.91	1.45
10:I:42:LEU:CG	10:I:42:LEU:CD2	1.92	1.45
4:A:15:LYS:NZ	4:A:15:LYS:CE	1.79	1.44
5:B:608:ASP:CG	5:B:608:ASP:CB	1.85	1.44
5:B:709:ASP:CB	5:B:709:ASP:CG	1.85	1.44
8:F:76:LYS:CD	8:F:76:LYS:CG	1.94	1.44
10:I:16:PRO:CG	10:I:16:PRO:CB	1.77	1.44
5:B:655:LYS:CG	5:B:655:LYS:CB	1.91	1.44
5:B:667:GLN:CD	5:B:667:GLN:CG	1.85	1.44
5:B:892:LYS:CE	5:B:892:LYS:CD	1.94	1.44
4:A:761:MET:CE	4:A:761:MET:SD	2.05	1.44
5:B:49:ASP:CG	5:B:49:ASP:CB	1.84	1.44
9:H:82:PRO:C	9:H:82:PRO:CA	1.84	1.44
4:A:1294:PRO:CG	4:A:1294:PRO:CB	1.94	1.44
4:A:518:LYS:NZ	4:A:518:LYS:CE	1.80	1.44
5:B:986:GLN:CG	5:B:986:GLN:CD	1.84	1.44
5:B:987:LYS:NZ	5:B:987:LYS:CE	1.79	1.44
5:B:882:THR:CA	5:B:882:THR:N	1.81	1.44
2:T:12:DC:O3'	2:T:12:DC:C3'	1.65	1.44
5:B:1223:ASP:C	5:B:1223:ASP:CA	1.83	1.44
4:A:895:LYS:CD	4:A:895:LYS:CG	1.96	1.43
6:C:137:LYS:CE	6:C:137:LYS:NZ	1.79	1.43
4:A:162:VAL:CA	4:A:162:VAL:CB	1.95	1.43
4:A:781:ASP:CG	4:A:781:ASP:CB	1.86	1.43
4:A:1110:ASN:CB	4:A:1110:ASN:CA	1.95	1.43
10:I:60:GLN:CG	10:I:60:GLN:CB	1.97	1.43
4:A:797:LYS:CE	4:A:797:LYS:NZ	1.79	1.43
9:H:86:ASP:CG	9:H:86:ASP:CB	1.83	1.43
4:A:1444:MET:SD	4:A:1444:MET:CE	2.06	1.43
4:A:153:PRO:CG	4:A:153:PRO:CB	1.79	1.43
4:A:998:LEU:CG	4:A:998:LEU:CD2	1.94	1.43
5:B:1021:MET:SD	5:B:1021:MET:CE	2.06	1.43
5:B:1072:MET:SD	5:B:1072:MET:CG	2.07	1.43
4:A:400:PRO:CB	4:A:400:PRO:CG	1.78	1.43
11:J:10:CYS:CB	11:J:10:CYS:SG	2.07	1.43
13:L:26:THR:CA	13:L:26:THR:CB	1.97	1.43
4:A:531:ILE:CA	4:A:531:ILE:CB	1.97	1.43
4:A:153:PRO:C	4:A:153:PRO:CA	1.86	1.42
7:E:58:MET:SD	7:E:58:MET:CG	2.07	1.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:605:MET:SD	4:A:605:MET:CG	2.07	1.42
4:A:820:GLY:C	4:A:821:ARG:N	1.68	1.42
9:H:19:ARG:CG	9:H:19:ARG:CB	1.97	1.42
4:A:322:VAL:CG2	4:A:322:VAL:CB	1.95	1.42
5:B:432:MET:SD	5:B:432:MET:CE	2.09	1.41
3:N:12:DT:OP1	7:E:117:THR:CG2	1.64	1.41
4:A:1004:ASN:HD22	7:E:167:ARG:CD	1.34	1.41
13:L:64:LEU:CG	13:L:64:LEU:CD1	1.97	1.40
5:B:315:LYS:CD	5:B:315:LYS:CG	1.95	1.40
7:E:45:LYS:CB	7:E:45:LYS:CG	1.99	1.40
4:A:146:MET:SD	4:A:146:MET:CE	2.09	1.40
4:A:320:ARG:C	4:A:321:PRO:N	1.75	1.40
4:A:311:GLN:CD	4:A:311:GLN:CG	1.88	1.40
12:K:23:PRO:CB	12:K:23:PRO:CG	1.74	1.40
5:B:667:GLN:CB	5:B:667:GLN:CG	2.00	1.40
4:A:321:PRO:N	4:A:322:VAL:HG13	1.24	1.39
4:A:1209:MET:CG	4:A:1209:MET:SD	2.10	1.39
9:H:34:ASP:CB	9:H:34:ASP:CG	1.90	1.39
4:A:1080:THR:CB	4:A:1080:THR:CA	1.99	1.39
4:A:895:LYS:CG	4:A:895:LYS:CB	2.01	1.39
5:B:1189:ILE:CA	5:B:1189:ILE:CB	2.00	1.38
7:E:53:PRO:CG	7:E:53:PRO:CB	1.75	1.38
4:A:905:ASP:CB	4:A:905:ASP:CG	1.92	1.38
5:B:712:PRO:CB	5:B:712:PRO:CG	2.02	1.38
4:A:590:ARG:HH11	4:A:590:ARG:CG	1.35	1.38
4:A:620:LYS:NZ	4:A:620:LYS:CE	1.84	1.38
4:A:492:PRO:CB	4:A:492:PRO:CG	1.77	1.38
4:A:972:HIS:CB	4:A:972:HIS:CA	1.99	1.37
10:I:10:CYS:SG	10:I:10:CYS:CB	2.12	1.37
11:J:2:ILE:C	11:J:53:HIS:NE2	1.75	1.37
4:A:620:LYS:CB	4:A:620:LYS:CG	2.00	1.37
4:A:899:VAL:HG12	4:A:929:LEU:CD1	1.53	1.37
4:A:1435:PRO:CG	4:A:1435:PRO:CB	1.77	1.37
10:I:9:ASP:CB	10:I:9:ASP:CG	1.92	1.37
5:B:1185:CYS:SG	5:B:1185:CYS:CB	2.12	1.37
5:B:293:PRO:CB	5:B:293:PRO:CG	1.76	1.37
5:B:549:THR:CG2	5:B:549:THR:CB	2.03	1.36
4:A:67:CYS:SG	4:A:67:CYS:CB	2.12	1.36
4:A:987:VAL:CB	4:A:987:VAL:CG2	2.02	1.36
9:H:97:MET:SD	9:H:97:MET:CE	2.14	1.36
4:A:672:ASP:CG	4:A:672:ASP:CB	1.94	1.36

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:20:DC:H2''	2:T:21:DC:C5'	1.54	1.36
5:B:868:MET:CG	5:B:868:MET:SD	2.12	1.36
5:B:69:LEU:C	5:B:69:LEU:CA	1.94	1.35
4:A:321:PRO:N	4:A:322:VAL:CG1	1.88	1.35
4:A:708:MET:SD	4:A:708:MET:CE	2.14	1.35
9:H:123:MET:CE	9:H:123:MET:SD	2.13	1.35
3:N:12:DT:P	7:E:117:THR:CG2	2.13	1.35
4:A:91:PHE:N	4:A:297:GLN:HE22	1.23	1.35
2:T:13:DA:N6	3:N:2:DT:C4	1.93	1.35
5:B:310:MET:SD	5:B:310:MET:CE	2.13	1.34
4:A:746:MET:SD	4:A:746:MET:CE	2.15	1.34
4:A:590:ARG:HG3	4:A:590:ARG:NH1	1.39	1.34
5:B:880:THR:HA	5:B:880:THR:C	0.97	1.34
12:K:28:PRO:CB	12:K:28:PRO:CG	1.91	1.33
5:B:108:VAL:CB	5:B:108:VAL:CA	2.05	1.33
5:B:636:PRO:CG	5:B:636:PRO:CB	2.07	1.33
5:B:1202:LEU:HD13	5:B:1206:GLU:OE2	1.21	1.33
4:A:1156:PRO:CG	4:A:1156:PRO:CB	1.80	1.33
4:A:351:THR:CG2	5:B:1103:ILE:HD12	1.57	1.33
4:A:1368:MET:CE	4:A:1368:MET:SD	2.16	1.32
5:B:411:PRO:CG	5:B:411:PRO:CB	1.78	1.32
5:B:635:ARG:CD	5:B:636:PRO:HD3	1.58	1.32
4:A:901:LEU:HD23	4:A:907:THR:CG2	1.58	1.32
5:B:860:MET:CE	5:B:860:MET:SD	2.17	1.32
6:C:98:VAL:C	6:C:99:LEU:HD23	1.49	1.31
9:H:5:LEU:CD2	9:H:133:ASN:O	1.78	1.31
4:A:853:ASP:OD1	4:A:855:THR:HB	1.18	1.31
4:A:90:VAL:HG12	4:A:297:GLN:NE2	1.01	1.31
4:A:91:PHE:HD2	4:A:297:GLN:OE1	1.09	1.31
3:N:2:DT:OP2	4:A:1110:ASN:HB2	1.24	1.31
4:A:341:MET:HB3	4:A:341:MET:CE	1.61	1.30
4:A:1278:ASN:CG	4:A:1278:ASN:CB	1.98	1.30
4:A:67:CYS:O	4:A:70:CYS:HB3	1.31	1.30
5:B:1138:MET:SD	5:B:1138:MET:CE	2.19	1.30
4:A:69:THR:CA	4:A:69:THR:CB	2.08	1.30
2:T:21:DC:C5'	2:T:21:DC:O5'	1.78	1.30
4:A:453:MET:SD	4:A:453:MET:CE	2.19	1.30
5:B:901:PRO:CB	5:B:901:PRO:CG	1.93	1.30
9:H:32:THR:HG22	9:H:33:GLN:CG	1.59	1.29
4:A:849:MET:CE	4:A:1061:GLY:HA2	1.60	1.29
5:B:68:THR:C	5:B:69:LEU:HD23	1.51	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:129:PHE:CE2	5:B:166:PHE:HB3	1.66	1.29
6:C:75:MET:SD	6:C:75:MET:CE	2.19	1.29
10:I:29:CYS:CB	10:I:29:CYS:SG	2.21	1.28
4:A:1331:SER:OG	4:A:1333:ILE:HG22	1.30	1.28
4:A:1161:THR:HG22	4:A:1163:ILE:N	1.44	1.28
7:E:162:ARG:NH2	7:E:166:LYS:HZ3	1.28	1.28
11:J:46:CYS:CB	11:J:46:CYS:SG	2.21	1.28
4:A:1336:MET:SD	4:A:1336:MET:CE	2.21	1.28
5:B:595:ARG:CD	5:B:595:ARG:CG	2.10	1.28
4:A:1161:THR:CG2	4:A:1163:ILE:H	1.47	1.27
5:B:473:MET:SD	5:B:473:MET:CG	2.23	1.27
4:A:90:VAL:CG1	4:A:297:GLN:NE2	1.97	1.27
12:K:97:LYS:O	12:K:100:ALA:HB3	1.30	1.27
4:A:146:MET:O	4:A:170:THR:HG22	1.18	1.27
4:A:311:GLN:CG	4:A:311:GLN:CB	2.11	1.26
2:T:21:DC:OP1	5:B:1129:ARG:HB3	1.35	1.26
5:B:550:ASP:OD1	5:B:551:PRO:HD2	1.29	1.26
5:B:615:MET:SD	5:B:615:MET:CE	2.23	1.25
5:B:642:ASP:O	5:B:644:GLU:N	1.67	1.25
5:B:712:PRO:O	5:B:712:PRO:CD	1.78	1.25
5:B:321:GLY:C	5:B:323:VAL:H	1.27	1.25
5:B:1133:MET:CE	5:B:1133:MET:SD	2.24	1.25
3:N:2:DT:O2	3:N:3:DG:C5	1.88	1.25
5:B:199:MET:CE	5:B:199:MET:SD	2.24	1.25
5:B:476:ARG:O	5:B:478:GLY:N	1.70	1.25
7:E:117:THR:O	7:E:120:ALA:HB3	1.30	1.25
9:H:100:THR:CB	9:H:100:THR:CA	2.14	1.25
12:K:22:ASP:HB3	12:K:23:PRO:CD	1.67	1.24
5:B:1115:THR:CG2	5:B:1117:GLN:HG3	1.67	1.24
11:J:65:PRO:CB	11:J:65:PRO:CG	2.11	1.24
7:E:43:LYS:O	7:E:47:CYS:HB2	1.35	1.24
4:A:103:CYS:O	4:A:105:CYS:N	1.71	1.24
5:B:129:PHE:CE2	5:B:166:PHE:CB	2.19	1.24
4:A:1042:PHE:CE2	4:A:1046:LEU:HD12	1.71	1.24
5:B:1152:MET:CE	5:B:1152:MET:SD	2.25	1.23
12:K:12:LEU:N	12:K:12:LEU:HD12	1.39	1.23
8:F:106:PRO:CB	8:F:106:PRO:CG	2.10	1.23
5:B:550:ASP:OD1	5:B:551:PRO:CD	1.86	1.23
7:E:57:MET:CE	7:E:57:MET:SD	2.27	1.23
7:E:60:PHE:CE2	7:E:80:VAL:HG21	1.72	1.23
4:A:528:LEU:O	4:A:528:LEU:HD12	1.36	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:903:ASN:O	4:A:904:THR:O	1.53	1.22
4:A:91:PHE:CD2	4:A:297:GLN:OE1	1.92	1.22
4:A:18:GLN:NE2	4:A:1418:LEU:HB2	1.56	1.21
5:B:635:ARG:CG	5:B:636:PRO:CD	2.16	1.21
12:K:1:MET:CE	12:K:1:MET:SD	2.29	1.21
5:B:274:PRO:O	5:B:276:ILE:HG13	1.36	1.21
5:B:662:MET:SD	5:B:662:MET:CE	2.28	1.21
4:A:900:ASP:HA	4:A:926:GLN:NE2	1.55	1.21
5:B:65:GLU:CG	5:B:66:ASP:H	1.51	1.21
9:H:5:LEU:HD22	9:H:133:ASN:O	1.08	1.21
5:B:114:PRO:HD3	5:B:124:TYR:CE1	1.75	1.20
4:A:278:THR:O	4:A:279:LEU:HD23	1.03	1.20
4:A:996:ASN:O	4:A:998:LEU:HB2	1.39	1.20
7:E:162:ARG:NH2	7:E:166:LYS:NZ	1.89	1.20
4:A:944:ARG:HG2	4:A:1298:TYR:OH	1.41	1.20
4:A:1063:MET:SD	4:A:1063:MET:CE	2.31	1.19
5:B:68:THR:O	5:B:69:LEU:HD23	1.37	1.19
5:B:1076:HIS:ND1	12:K:40:HIS:HD2	1.39	1.19
4:A:1237:ILE:CG2	4:A:1238:ILE:N	1.99	1.19
4:A:1390:ASN:ND2	4:A:1399:ARG:HB3	1.58	1.19
4:A:41:MET:SD	4:A:41:MET:CE	2.31	1.19
4:A:1206:ASP:O	4:A:1274:ARG:NH1	1.76	1.19
4:A:925:LEU:O	4:A:927:VAL:N	1.75	1.19
5:B:167:ILE:HG23	5:B:424:LEU:HD13	1.19	1.19
6:C:3:GLU:HG3	6:C:4:GLU:N	1.33	1.18
4:A:1284:MET:CE	4:A:1284:MET:SD	2.32	1.18
4:A:496:GLU:O	4:A:499:ALA:N	1.73	1.18
5:B:1016:ALA:C	5:B:1017:ILE:HG12	1.60	1.18
9:H:134:ASN:O	9:H:135:LEU:O	1.61	1.18
4:A:265:LYS:CE	4:A:323:LYS:HG2	1.74	1.18
4:A:1134:ILE:O	4:A:1138:ILE:HG12	1.44	1.18
4:A:1189:SER:OG	4:A:1256:GLU:OE2	1.56	1.18
5:B:1077:THR:CG2	5:B:1079:LYS:H	1.54	1.18
5:B:868:MET:CE	5:B:868:MET:SD	2.31	1.18
5:B:1099:VAL:HG12	5:B:1103:ILE:HD11	1.25	1.17
5:B:1175:LEU:O	5:B:1176:ASN:CB	1.90	1.17
5:B:955:THR:HG23	13:L:54:ARG:O	1.44	1.17
10:I:42:LEU:HD12	10:I:43:VAL:N	1.60	1.17
4:A:1299:VAL:HG12	4:A:1300:LYS:H	1.09	1.17
5:B:760:ASP:N	5:B:760:ASP:OD1	1.62	1.17
4:A:528:LEU:HD12	4:A:528:LEU:C	1.54	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1202:LEU:CD1	5:B:1206:GLU:OE2	1.93	1.16
7:E:113:GLN:HA	7:E:137:GLU:HG3	1.20	1.16
4:A:320:ARG:N	4:A:320:ARG:HD2	1.56	1.16
4:A:58:LEU:HD21	4:A:80:HIS:O	1.42	1.16
7:E:124:VAL:HG22	7:E:132:ILE:CG2	1.76	1.16
12:K:87:LEU:O	12:K:90:ALA:HB3	1.45	1.16
4:A:1364:ASN:HD21	4:A:1366:ARG:HG2	1.10	1.15
10:I:81:ARG:C	10:I:82:GLU:HG2	1.44	1.15
5:B:477:ALA:HB3	5:B:479:VAL:CG2	1.76	1.15
4:A:1214:GLU:O	4:A:1218:GLN:HG2	1.43	1.15
4:A:306:ASN:N	4:A:306:ASN:ND2	1.91	1.15
4:A:873:MET:SD	4:A:873:MET:CE	2.33	1.15
4:A:341:MET:CE	4:A:341:MET:SD	2.34	1.15
2:T:20:DC:C2'	2:T:21:DC:H5'	1.75	1.15
6:C:229:TYR:HD1	6:C:229:TYR:N	1.39	1.15
5:B:862:GLN:O	5:B:914:LYS:NZ	1.78	1.14
4:A:1209:MET:SD	4:A:1236:LEU:HD22	1.85	1.14
4:A:672:ASP:HB2	4:A:736:ASN:OD1	1.47	1.14
5:B:25:ILE:HD12	5:B:651:LEU:HD12	1.26	1.14
4:A:67:CYS:O	4:A:70:CYS:CB	1.95	1.14
5:B:1051:THR:HG22	5:B:1053:GLU:N	1.63	1.14
12:K:12:LEU:N	12:K:12:LEU:CD1	2.09	1.14
4:A:401:GLY:C	4:A:435:HIS:CD2	2.21	1.14
12:K:83:PRO:CG	12:K:83:PRO:CB	2.24	1.14
5:B:349:ILE:O	5:B:350:GLN:O	1.66	1.14
5:B:918:ILE:O	5:B:933:SER:N	1.81	1.14
4:A:868:TYR:HE1	4:A:1064:VAL:HG11	1.03	1.14
4:A:274:ILE:CB	4:A:274:ILE:HA	1.62	1.13
5:B:1076:HIS:ND1	12:K:40:HIS:CD2	2.14	1.13
5:B:1115:THR:HG22	5:B:1117:GLN:HG3	1.15	1.13
5:B:1184:GLY:O	5:B:1186:ASP:N	1.81	1.13
6:C:99:LEU:HD23	6:C:99:LEU:N	1.57	1.13
4:A:927:VAL:CG1	4:A:927:VAL:CG2	2.25	1.13
4:A:921:GLY:O	4:A:922:ASP:O	1.67	1.13
4:A:1325:THR:O	7:E:147:HIS:ND1	1.81	1.13
4:A:91:PHE:N	4:A:297:GLN:NE2	1.95	1.13
4:A:886:ILE:HG12	4:A:943:LEU:HD12	1.30	1.13
4:A:1441:PHE:CZ	8:F:89:GLU:HA	1.83	1.13
4:A:444:PHE:CE2	4:A:470:LEU:HD23	1.83	1.13
5:B:235:SER:O	5:B:236:HIS:ND1	1.82	1.13
5:B:236:HIS:CD2	5:B:389:ALA:HB2	1.82	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:109:ILE:O	7:E:109:ILE:CG2	1.86	1.12
3:N:2:DT:OP2	4:A:1110:ASN:CB	1.95	1.12
4:A:1127:ASP:HB2	4:A:1130:GLN:HB3	1.30	1.12
4:A:455:MET:O	4:A:456:MET:HG2	1.46	1.12
4:A:135:PHE:O	4:A:135:PHE:CD2	2.01	1.12
5:B:355:ILE:C	5:B:356:LEU:HD23	1.70	1.12
4:A:225:ASN:O	4:A:226:GLU:C	1.88	1.12
5:B:1210:MET:SD	5:B:1210:MET:CE	2.37	1.12
4:A:902:LEU:O	4:A:903:ASN:HB2	1.43	1.12
4:A:888:GLY:O	4:A:940:ARG:NH2	1.83	1.12
5:B:96:TYR:N	5:B:129:PHE:O	1.81	1.12
3:N:2:DT:O2	3:N:3:DG:C6	2.02	1.12
5:B:324:ILE:HG22	5:B:324:ILE:O	1.49	1.12
7:E:85:GLU:OE2	7:E:92:THR:HG21	1.47	1.12
4:A:649:ILE:O	4:A:653:VAL:CG2	1.97	1.12
4:A:847:ASP:OD2	4:A:859:SER:OG	1.65	1.12
4:A:1362:TYR:HD1	4:A:1363:VAL:N	1.47	1.12
4:A:151:ASP:OD1	4:A:163:SER:HA	1.48	1.12
4:A:532:ARG:O	4:A:532:ARG:HG3	1.47	1.11
4:A:120:GLU:HG2	4:A:120:GLU:O	1.41	1.11
4:A:1320:PRO:O	4:A:1320:PRO:HG2	1.42	1.11
4:A:321:PRO:N	4:A:321:PRO:C	1.95	1.11
12:K:12:LEU:H	12:K:12:LEU:CD1	1.61	1.11
4:A:649:ILE:O	4:A:653:VAL:HG23	1.45	1.11
4:A:946:VAL:HG12	4:A:947:PHE:CD1	1.83	1.11
4:A:321:PRO:O	4:A:322:VAL:CG2	1.95	1.11
4:A:265:LYS:HZ1	4:A:322:VAL:HB	1.11	1.11
4:A:897:TYR:CD2	4:A:936:LEU:HD13	1.85	1.11
5:B:757:PRO:HD2	5:B:757:PRO:O	1.43	1.11
5:B:788:ARG:CB	5:B:788:ARG:HH11	1.63	1.11
5:B:788:ARG:HB3	5:B:788:ARG:NH1	1.66	1.11
7:E:161:LYS:O	7:E:163:GLU:N	1.84	1.11
4:A:213:HIS:O	4:A:214:ILE:O	1.66	1.11
4:A:596:THR:HB	4:A:596:THR:O	1.50	1.11
4:A:676:MET:CE	4:A:676:MET:SD	2.39	1.11
4:A:900:ASP:CA	4:A:926:GLN:NE2	2.12	1.11
9:H:58:THR:HG22	9:H:59:ILE:N	1.58	1.11
5:B:789:MET:SD	5:B:789:MET:CE	2.39	1.11
4:A:322:VAL:CG2	4:A:322:VAL:CA	2.29	1.10
3:N:11:DG:O3'	7:E:117:THR:CG2	1.98	1.10
4:A:1308:THR:HG22	4:A:1310:GLY:N	1.64	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:278:THR:O	4:A:279:LEU:CD2	1.97	1.10
4:A:899:VAL:HG12	4:A:929:LEU:HD12	1.25	1.10
5:B:227:LYS:N	5:B:395:GLN:OE1	1.84	1.10
4:A:24:PRO:CB	4:A:237:THR:HG21	1.80	1.10
4:A:528:LEU:HB2	4:A:531:ILE:HG22	1.31	1.10
4:A:849:MET:HE1	4:A:1061:GLY:HA2	1.10	1.10
4:A:1143:LEU:O	4:A:1146:VAL:HG23	1.52	1.10
7:E:37:LEU:HG	7:E:37:LEU:O	1.47	1.10
4:A:90:VAL:CG1	4:A:297:GLN:HE21	1.55	1.10
4:A:820:GLY:HA2	4:A:823:GLY:H	1.13	1.10
10:I:17:ARG:HG2	10:I:18:GLU:H	1.08	1.10
4:A:908:LEU:HD11	4:A:983:ILE:HD11	1.33	1.09
5:B:254:LEU:HD22	5:B:361:LEU:HD11	1.30	1.09
5:B:658:ILE:HA	5:B:661:LEU:HD12	1.29	1.09
7:E:178:ILE:HG23	7:E:214:CYS:HB2	1.31	1.09
5:B:980:PHE:O	5:B:981:ALA:HB3	1.45	1.09
9:H:41:ASP:O	9:H:42:ILE:HD13	1.53	1.09
4:A:265:LYS:HE3	4:A:323:LYS:HG2	1.18	1.09
6:C:73:GLN:HG3	6:C:74:SER:N	1.54	1.09
4:A:1189:SER:OG	4:A:1190:PRO:HD2	1.53	1.09
5:B:527:THR:OG1	5:B:528:PRO:HD2	1.50	1.09
5:B:321:GLY:C	5:B:323:VAL:N	2.06	1.09
5:B:431:TYR:CE1	5:B:447:ALA:HB2	1.86	1.09
10:I:103:CYS:C	10:I:104:LEU:HD23	1.72	1.09
5:B:860:MET:HG2	5:B:861:ASP:N	1.66	1.09
10:I:75:CYS:SG	10:I:78:CYS:HB2	1.93	1.09
4:A:1195:LEU:HD11	4:A:1267:MET:HE3	1.11	1.08
5:B:477:ALA:HB3	5:B:479:VAL:HG22	1.32	1.08
9:H:32:THR:HG22	9:H:33:GLN:HG3	1.26	1.08
4:A:364:VAL:HG22	4:A:364:VAL:O	1.48	1.08
4:A:380:VAL:HG21	4:A:430:TRP:H	1.09	1.08
4:A:531:ILE:HD13	4:A:622:VAL:HG21	1.10	1.08
5:B:356:LEU:HD23	5:B:356:LEU:N	1.57	1.08
4:A:351:THR:HG23	5:B:1103:ILE:HD12	1.26	1.08
10:I:42:LEU:C	10:I:43:VAL:HG23	1.69	1.08
4:A:858:ASN:C	4:A:858:ASN:HD22	1.47	1.08
5:B:449:ASN:O	5:B:449:ASN:OD1	1.71	1.08
4:A:1237:ILE:HG22	4:A:1238:ILE:N	1.67	1.08
5:B:65:GLU:HG3	5:B:66:ASP:H	1.18	1.08
4:A:701:LEU:N	4:A:701:LEU:HD23	1.63	1.08
6:C:44:LEU:HD12	6:C:160:LYS:O	1.54	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:129:PHE:HE2	5:B:166:PHE:HB3	0.94	1.08
5:B:174:LEU:HD22	5:B:204:ILE:HD11	1.31	1.08
5:B:427:ASP:HA	5:B:430:ARG:HH11	1.15	1.08
4:A:902:LEU:O	4:A:903:ASN:CB	2.01	1.07
5:B:628:THR:HG22	5:B:628:THR:O	1.38	1.07
4:A:1209:MET:HB2	4:A:1231:ASP:OD2	1.53	1.07
5:B:1165:ILE:HG22	5:B:1166:CYS:HB3	1.13	1.07
5:B:1203:LEU:HD12	5:B:1203:LEU:C	1.70	1.07
4:A:1259:MET:CE	4:A:1259:MET:SD	2.43	1.07
5:B:323:VAL:HG12	5:B:323:VAL:O	1.31	1.07
5:B:880:THR:HA	5:B:881:ASN:N	1.67	1.07
7:E:29:PHE:O	7:E:30:ILE:HG13	1.55	1.07
4:A:1317:MET:SD	4:A:1317:MET:CE	2.42	1.07
5:B:103:ASN:OD1	5:B:109:THR:OG1	1.71	1.07
4:A:92:HIS:O	4:A:95:PHE:HB2	1.54	1.07
5:B:287:ARG:HG2	5:B:292:ILE:HD13	1.31	1.07
5:B:635:ARG:CD	5:B:636:PRO:CD	2.33	1.07
5:B:860:MET:CG	5:B:861:ASP:N	2.12	1.07
10:I:42:LEU:HD12	10:I:43:VAL:H	0.96	1.07
4:A:1362:TYR:CD1	4:A:1363:VAL:N	2.22	1.07
4:A:265:LYS:HZ2	4:A:322:VAL:CG2	1.68	1.07
4:A:868:TYR:CE1	4:A:1064:VAL:HG11	1.88	1.07
5:B:53:GLN:HG3	5:B:53:GLN:O	1.42	1.07
9:H:101:ALA:HB2	9:H:116:TYR:CD2	1.90	1.07
10:I:26:LEU:CD2	10:I:36:GLU:O	2.03	1.07
5:B:128:LEU:HB2	5:B:168:GLY:O	1.55	1.06
12:K:9:LEU:HD23	12:K:9:LEU:N	1.67	1.06
5:B:1184:GLY:O	5:B:1185:CYS:C	1.91	1.06
7:E:121:MET:CE	7:E:121:MET:SD	2.42	1.06
9:H:142:LEU:HD12	9:H:143:LEU:N	1.68	1.06
1:R:8:G:O2'	1:R:9:G:H5'	1.55	1.06
5:B:1106:ARG:HD2	5:B:1126:GLY:O	1.52	1.06
5:B:744:HIS:CG	5:B:745:PRO:HD3	1.90	1.06
7:E:178:ILE:CG1	7:E:179:GLN:H	1.66	1.06
4:A:134:ARG:HD3	4:A:221:SER:O	1.54	1.06
4:A:970:THR:HG22	4:A:970:THR:O	1.29	1.06
5:B:778:MET:O	5:B:819:ALA:HB1	1.55	1.06
7:E:164:LEU:HD13	7:E:211:TYR:CE2	1.90	1.06
4:A:1051:ALA:O	4:A:1054:LEU:HB2	1.56	1.06
5:B:957:ASN:HD21	5:B:958:GLN:HB2	1.18	1.06
7:E:97:VAL:HG13	7:E:127:ILE:HG21	1.37	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:399:HIS:HB3	4:A:400:PRO:CD	1.85	1.06
2:T:23:DC:OP1	5:B:1123:SER:HB3	1.56	1.06
4:A:1195:LEU:HD11	4:A:1267:MET:CE	1.85	1.06
4:A:90:VAL:HG11	4:A:297:GLN:HA	1.33	1.06
5:B:199:MET:O	5:B:200:GLY:O	1.73	1.06
9:H:116:TYR:HB2	9:H:123:MET:HB3	1.12	1.06
10:I:16:PRO:HD2	10:I:16:PRO:O	1.56	1.06
4:A:444:PHE:HE2	4:A:470:LEU:CD2	1.69	1.05
5:B:1077:THR:HG22	5:B:1079:LYS:H	1.21	1.05
9:H:58:THR:CG2	9:H:59:ILE:N	2.18	1.05
5:B:800:GLN:HG2	11:J:52:THR:HG21	1.38	1.05
4:A:352:VAL:HG12	4:A:353:ILE:N	1.69	1.05
5:B:826:ALA:O	5:B:1011:ILE:HG23	1.56	1.05
6:C:226:ASP:O	6:C:227:THR:HB	1.55	1.05
7:E:178:ILE:HG12	7:E:179:GLN:H	0.88	1.05
4:A:1067:LEU:HD21	4:A:1367:HIS:HE1	1.16	1.05
6:C:3:GLU:CG	6:C:4:GLU:H	1.69	1.05
10:I:42:LEU:CD1	10:I:43:VAL:H	1.68	1.05
6:C:125:MET:CE	6:C:125:MET:SD	2.44	1.05
4:A:254:GLU:C	5:B:918:ILE:HG13	1.75	1.05
4:A:37:PHE:H	4:A:52:GLY:HA2	1.16	1.05
4:A:531:ILE:HD12	4:A:649:ILE:HG21	1.38	1.05
4:A:1193:LEU:HD12	4:A:1193:LEU:C	1.70	1.05
12:K:97:LYS:O	12:K:100:ALA:CB	2.03	1.05
4:A:57:ARG:HB3	4:A:68:GLN:HB3	1.39	1.05
4:A:1290:LYS:C	4:A:1291:VAL:HG23	1.72	1.05
4:A:901:LEU:CD2	4:A:907:THR:CG2	2.35	1.05
7:E:30:ILE:O	7:E:30:ILE:HG22	1.50	1.05
4:A:341:MET:CB	4:A:341:MET:CE	2.34	1.05
4:A:1279:ILE:O	4:A:1279:ILE:HG22	1.47	1.04
4:A:970:THR:O	4:A:970:THR:CG2	1.98	1.04
8:F:155:LEU:H	8:F:155:LEU:HD23	1.21	1.04
5:B:944:THR:HG22	5:B:944:THR:O	1.53	1.04
7:E:153:HIS:O	7:E:154:ILE:HG12	1.56	1.04
4:A:114:LEU:O	4:A:115:LEU:HD23	1.57	1.04
4:A:909:ASP:CG	4:A:910:PRO:HD3	1.77	1.04
4:A:108:MET:N	4:A:108:MET:SD	2.23	1.04
4:A:265:LYS:NZ	4:A:322:VAL:HB	1.73	1.04
4:A:276:LEU:HD11	4:A:292:ALA:O	1.57	1.04
4:A:179:LEU:CD1	4:A:297:GLN:HG2	1.87	1.04
4:A:1224:LEU:HD11	4:A:1240:CYS:HB3	1.40	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:897:TYR:HD2	4:A:936:LEU:HD13	0.93	1.04
6:C:71:PRO:HB2	6:C:133:ILE:HD12	1.35	1.04
5:B:129:PHE:CE2	5:B:166:PHE:HB2	1.93	1.03
5:B:482:VAL:O	5:B:483:LEU:C	1.97	1.03
7:E:187:TYR:HD2	7:E:188:LEU:HD23	1.22	1.03
10:I:75:CYS:SG	10:I:78:CYS:CB	2.46	1.03
3:N:10:DG:H2''	3:N:11:DG:OP2	1.52	1.03
4:A:901:LEU:O	4:A:902:LEU:C	1.95	1.03
7:E:113:GLN:HB3	7:E:137:GLU:CD	1.79	1.03
4:A:756:ILE:O	4:A:759:ALA:HB3	1.58	1.03
5:B:65:GLU:HG2	5:B:66:ASP:N	1.66	1.03
7:E:37:LEU:O	7:E:38:PRO:O	1.76	1.03
4:A:1436:ILE:O	4:A:1439:GLY:N	1.91	1.03
4:A:541:ILE:HG22	4:A:546:VAL:HG22	1.37	1.03
4:A:741:ASN:ND2	4:A:743:VAL:H	1.56	1.03
5:B:477:ALA:CB	5:B:479:VAL:HG22	1.87	1.03
4:A:1025:ARG:HG2	4:A:1025:ARG:HH11	1.18	1.03
10:I:2:THR:CG2	10:I:2:THR:O	2.04	1.03
4:A:1208:THR:HB	4:A:1211:GLN:HB2	1.40	1.03
4:A:244:PRO:HG2	4:A:245:PRO:HD2	1.37	1.03
10:I:17:ARG:CG	10:I:18:GLU:H	1.63	1.03
4:A:1227:ILE:HG22	4:A:1228:TRP:N	1.71	1.03
5:B:20:ASP:N	5:B:655:LYS:NZ	2.07	1.03
5:B:477:ALA:HB3	5:B:479:VAL:N	1.72	1.03
8:F:109:VAL:HG12	8:F:110:ASP:H	1.22	1.03
4:A:146:MET:O	4:A:170:THR:CG2	2.06	1.02
4:A:527:THR:HG22	4:A:527:THR:O	1.59	1.02
5:B:1196:ILE:HB	5:B:1197:PRO:HD2	1.41	1.02
5:B:957:ASN:HB3	5:B:961:LEU:HD12	1.39	1.02
5:B:27:ALA:O	5:B:30:SER:OG	1.77	1.02
2:T:28:DT:H2'	4:A:317:LYS:HG2	1.39	1.02
5:B:430:ARG:C	5:B:431:TYR:O	1.79	1.02
10:I:29:CYS:SG	10:I:32:CYS:N	2.33	1.02
12:K:57:LEU:HB2	12:K:76:GLN:HG2	1.41	1.02
5:B:970:THR:HG22	5:B:971:THR:N	1.71	1.02
4:A:431:LYS:C	4:A:432:VAL:HG23	1.76	1.02
6:C:121:VAL:CG1	6:C:121:VAL:C	2.28	1.02
6:C:229:TYR:CD1	6:C:229:TYR:N	2.23	1.02
4:A:379:VAL:HG13	4:A:380:VAL:HG23	1.41	1.02
5:B:65:GLU:CG	5:B:66:ASP:N	2.13	1.02
7:E:46:TYR:HE2	7:E:58:MET:HA	1.22	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:491:VAL:CG1	4:A:492:PRO:HD2	1.89	1.02
4:A:901:LEU:HD23	4:A:907:THR:HG21	1.39	1.02
5:B:635:ARG:CB	5:B:636:PRO:CD	2.37	1.02
5:B:646:LEU:HG	5:B:646:LEU:CB	1.87	1.02
5:B:744:HIS:CD2	5:B:746:SER:OG	2.13	1.02
6:C:133:ILE:HG22	6:C:134:ILE:N	1.70	1.02
7:E:162:ARG:HH21	7:E:166:LYS:NZ	1.50	1.02
9:H:128:ASN:OD1	9:H:131:ASN:ND2	1.91	1.02
4:A:1433:MET:CE	4:A:1433:MET:SD	2.48	1.01
4:A:401:GLY:CA	4:A:435:HIS:HD2	1.73	1.01
4:A:588:LEU:HD12	4:A:589:GLN:H	1.23	1.01
4:A:901:LEU:CD2	4:A:907:THR:HG21	1.89	1.01
4:A:1299:VAL:CG1	4:A:1300:LYS:H	1.73	1.01
9:H:32:THR:HG22	9:H:33:GLN:HG2	1.39	1.01
5:B:326:ASP:O	5:B:328:GLU:N	1.93	1.01
7:E:187:TYR:O	7:E:187:TYR:CD2	2.12	1.01
9:H:5:LEU:HD22	9:H:133:ASN:C	1.79	1.01
5:B:957:ASN:ND2	5:B:958:GLN:HB2	1.75	1.01
7:E:112:TYR:CE1	7:E:136:ASN:HB2	1.94	1.01
10:I:107:SER:HA	10:I:107:SER:CB	1.88	1.01
4:A:26:GLU:HA	4:A:29:ALA:HB3	1.43	1.01
4:A:351:THR:HG22	5:B:1103:ILE:HD12	1.39	1.01
4:A:691:LEU:HD12	4:A:691:LEU:C	1.77	1.01
5:B:300:HIS:HE1	5:B:376:PHE:CZ	1.77	1.01
7:E:178:ILE:HG12	7:E:179:GLN:N	1.68	1.01
4:A:1140:HIS:HB2	4:A:1276:VAL:O	1.60	1.01
4:A:925:LEU:C	4:A:927:VAL:N	2.04	1.01
9:H:116:TYR:HB2	9:H:123:MET:CB	1.90	1.01
5:B:112:LEU:HD12	5:B:113:TYR:H	1.22	1.01
5:B:1177:HIS:O	5:B:1179:GLN:N	1.93	1.01
4:A:35:ILE:HG22	4:A:270:LEU:HD13	1.38	1.01
4:A:981:LEU:HG	4:A:981:LEU:CD1	1.89	1.01
5:B:349:ILE:O	5:B:350:GLN:C	1.99	1.01
5:B:788:ARG:HB3	5:B:788:ARG:HH11	1.16	1.01
6:C:58:LEU:N	6:C:58:LEU:HD23	1.72	1.01
8:F:132:LEU:O	8:F:148:VAL:HG23	1.60	1.01
4:A:122:MET:O	4:A:123:ARG:O	1.77	1.01
4:A:514:PRO:HG2	4:A:515:GLN:N	1.74	1.01
10:I:103:CYS:O	10:I:104:LEU:HD23	1.57	1.01
3:N:2:DT:O2	3:N:3:DG:N7	1.94	1.01
7:E:40:GLU:O	7:E:43:LYS:HB3	1.58	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1422:ARG:HH21	5:B:1220:ARG:HD3	1.24	1.00
4:A:30:ILE:HG13	5:B:1183:LYS:HZ1	1.26	1.00
4:A:399:HIS:HB3	4:A:400:PRO:HD3	1.40	1.00
10:I:2:THR:HG22	10:I:2:THR:O	1.58	1.00
9:H:32:THR:CG2	9:H:33:GLN:HG3	1.90	1.00
5:B:69:LEU:N	5:B:69:LEU:HD23	1.72	1.00
7:E:113:GLN:CA	7:E:137:GLU:HG3	1.91	1.00
5:B:331:LEU:O	5:B:332:ASP:O	1.77	1.00
5:B:882:THR:C	5:B:882:THR:CB	2.30	1.00
4:A:830:LYS:HE3	4:A:1098:VAL:HG21	1.43	1.00
5:B:101:MET:SD	5:B:101:MET:CE	2.49	1.00
5:B:1051:THR:HG22	5:B:1053:GLU:H	1.22	1.00
9:H:76:THR:O	9:H:77:ARG:O	1.80	1.00
4:A:262:LEU:O	4:A:266:LEU:HB2	1.62	1.00
4:A:893:PHE:CD2	4:A:893:PHE:O	2.14	1.00
4:A:793:SER:HB2	4:A:794:PRO:HD2	1.42	1.00
5:B:955:THR:HG22	5:B:956:THR:N	1.75	1.00
4:A:759:ALA:O	4:A:763:ALA:HB3	1.62	1.00
5:B:280:ILE:HG21	5:B:285:ILE:HG12	1.43	1.00
5:B:68:THR:O	5:B:69:LEU:CD2	2.10	1.00
12:K:22:ASP:CB	12:K:23:PRO:CD	2.34	1.00
12:K:33:ILE:HD12	12:K:73:LEU:HD23	1.44	1.00
4:A:1329:THR:HG22	4:A:1331:SER:H	1.21	0.99
5:B:132:VAL:HG12	5:B:132:VAL:O	1.59	0.99
5:B:755:ILE:HG22	5:B:755:ILE:O	1.59	0.99
6:C:243:VAL:O	6:C:244:VAL:C	1.97	0.99
2:T:13:DA:N6	3:N:2:DT:O4	1.93	0.99
4:A:1131:ALA:O	4:A:1134:ILE:HG13	1.62	0.99
5:B:1104:HIS:HB2	5:B:1122:ARG:HD2	1.44	0.99
5:B:646:LEU:CD2	5:B:646:LEU:CD1	2.40	0.99
4:A:532:ARG:O	4:A:532:ARG:CG	2.11	0.99
4:A:606:LEU:HB2	4:A:614:PHE:CZ	1.98	0.99
2:T:20:DC:H4'	4:A:447:GLN:NE2	1.76	0.99
4:A:1283:VAL:HG12	4:A:1284:MET:N	1.77	0.99
12:K:22:ASP:CB	12:K:23:PRO:HD3	1.92	0.99
4:A:341:MET:HB3	4:A:341:MET:HE3	0.99	0.99
4:A:842:VAL:HG12	4:A:842:VAL:O	1.61	0.99
4:A:853:ASP:OD1	4:A:855:THR:CB	2.11	0.99
5:B:864:LYS:N	5:B:872:GLU:OE1	1.95	0.99
12:K:32:VAL:HG23	12:K:74:ARG:HG3	1.40	0.99
4:A:756:ILE:HG22	4:A:757:ASN:N	1.75	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1116:LEU:HD22	4:A:1311:VAL:HG22	1.45	0.99
4:A:888:GLY:O	4:A:889:SER:O	1.81	0.99
4:A:1364:ASN:ND2	4:A:1366:ARG:HG2	1.78	0.99
5:B:169:ARG:N	5:B:454:THR:OG1	1.96	0.99
7:E:78:LEU:HB2	7:E:107:THR:HG22	1.44	0.99
7:E:69:ILE:O	7:E:73:PRO:HD3	1.61	0.99
4:A:897:TYR:HD2	4:A:936:LEU:CD1	1.76	0.98
4:A:151:ASP:OD1	4:A:163:SER:CA	2.09	0.98
4:A:901:LEU:HD23	4:A:907:THR:HG23	1.43	0.98
5:B:1106:ARG:NH2	5:B:1109:GLY:C	2.16	0.98
5:B:284:ILE:HD12	5:B:324:ILE:HD12	1.44	0.98
5:B:214:ALA:HB3	5:B:498:THR:HA	1.45	0.98
9:H:108:SER:O	9:H:109:LYS:CB	2.10	0.98
4:A:306:ASN:N	4:A:306:ASN:HD22	1.62	0.98
4:A:341:MET:CB	4:A:341:MET:HE3	1.93	0.98
4:A:899:VAL:CG1	4:A:929:LEU:CD1	2.42	0.98
9:H:26:ILE:O	9:H:39:THR:HA	1.64	0.98
12:K:22:ASP:HB3	12:K:23:PRO:HD3	1.00	0.98
4:A:242:PRO:O	4:A:247:ARG:NH2	1.94	0.98
5:B:175:ARG:HH11	5:B:175:ARG:HG2	1.24	0.98
5:B:179:CYS:O	5:B:181:LEU:N	1.97	0.98
4:A:530:GLY:HA2	4:A:533:LYS:H	1.25	0.98
4:A:87:ALA:CB	4:A:88:LYS:H	1.77	0.98
5:B:431:TYR:CD1	5:B:447:ALA:HB2	1.98	0.98
4:A:329:LEU:N	4:A:329:LEU:HD23	1.76	0.98
5:B:426:LYS:O	5:B:426:LYS:CG	2.11	0.98
5:B:647:GLY:O	5:B:648:HIS:CG	2.15	0.98
4:A:635:ARG:NH2	4:A:877:HIS:ND1	2.12	0.98
5:B:509:ALA:HA	5:B:509:ALA:C	1.83	0.98
4:A:1195:LEU:N	4:A:1195:LEU:HD23	1.79	0.98
4:A:820:GLY:C	4:A:821:ARG:CA	2.32	0.98
13:L:55:ILE:O	13:L:56:LEU:HB2	1.64	0.98
7:E:78:LEU:CB	7:E:107:THR:HG22	1.92	0.98
8:F:147:SER:O	8:F:151:LEU:HD12	1.63	0.98
4:A:215:SER:HB3	4:A:218:ASP:OD2	1.64	0.97
4:A:261:ASP:HB3	4:A:323:LYS:CD	1.94	0.97
4:A:83:HIS:CG	4:A:83:HIS:O	2.16	0.97
5:B:956:THR:O	5:B:956:THR:CG2	2.10	0.97
7:E:109:ILE:HG22	7:E:109:ILE:O	1.17	0.97
4:A:1298:TYR:O	4:A:1299:VAL:HG22	1.62	0.97
5:B:1066:SER:O	5:B:1067:ARG:HD3	1.61	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:778:MET:HE3	5:B:853:SER:HB3	1.45	0.97
5:B:99:LYS:HB3	5:B:180:TYR:CE2	1.99	0.97
12:K:57:LEU:HD12	12:K:76:GLN:HG3	1.46	0.97
4:A:1322:ILE:O	4:A:1324:PRO:HD3	1.63	0.97
4:A:24:PRO:HB2	4:A:237:THR:HG21	1.42	0.97
2:T:28:DT:C2'	4:A:317:LYS:CG	2.12	0.97
9:H:126:GLU:C	9:H:130:ARG:NH1	2.17	0.97
12:K:92:ASN:HA	12:K:95:ILE:HD12	1.45	0.97
4:A:1282:VAL:HG12	4:A:1282:VAL:O	1.64	0.97
4:A:676:MET:SD	4:A:679:ILE:HD12	2.04	0.97
3:N:12:DT:OP1	7:E:117:THR:HG21	0.81	0.97
10:I:17:ARG:O	10:I:25:LEU:HD12	1.62	0.97
10:I:40:SER:HB2	10:I:41:PRO:HD3	1.46	0.97
4:A:331:GLY:O	4:A:332:LYS:HB3	1.64	0.97
4:A:898:ARG:NH2	4:A:930:ASP:OD1	1.96	0.97
6:C:3:GLU:CG	6:C:4:GLU:N	2.27	0.97
10:I:96:SER:O	10:I:98:VAL:N	1.96	0.97
4:A:981:LEU:HD21	4:A:1039:LYS:HA	1.44	0.97
5:B:1072:MET:CE	5:B:1085:ILE:HG21	1.95	0.97
4:A:1339:LEU:HD13	7:E:147:HIS:CD2	1.99	0.97
4:A:1154:TYR:CE2	4:A:1156:PRO:HB3	2.00	0.97
5:B:757:PRO:CD	5:B:757:PRO:O	2.08	0.97
4:A:547:LEU:HD22	12:K:58:PHE:HD1	1.26	0.97
4:A:432:VAL:O	4:A:433:GLU:C	1.95	0.97
4:A:666:ILE:HA	5:B:1026:LEU:HD13	1.45	0.97
7:E:117:THR:O	7:E:120:ALA:CB	2.12	0.97
4:A:1339:LEU:HD13	7:E:147:HIS:HD2	1.25	0.97
5:B:1072:MET:HE3	5:B:1085:ILE:HG21	1.44	0.97
5:B:485:ARG:HH11	5:B:485:ARG:CG	1.78	0.97
7:E:29:PHE:C	7:E:30:ILE:HG13	1.83	0.97
4:A:567:LYS:HB3	9:H:96:VAL:N	1.80	0.96
7:E:117:THR:CA	7:E:117:THR:CB	2.43	0.96
1:R:5:A:C2	1:R:6:G:C5	2.52	0.96
4:A:257:ARG:C	4:A:257:ARG:CB	2.32	0.96
4:A:541:ILE:HG22	4:A:546:VAL:CG2	1.94	0.96
5:B:1099:VAL:CG1	5:B:1103:ILE:HD11	1.95	0.96
5:B:37:PHE:O	5:B:39:ARG:N	1.97	0.96
5:B:580:VAL:CG1	5:B:581:PHE:N	2.25	0.96
5:B:634:TYR:HE1	5:B:692:TYR:CD1	1.83	0.96
5:B:710:LEU:C	5:B:711:GLU:HG2	1.84	0.96
4:A:1389:PHE:O	4:A:1389:PHE:HD1	1.45	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:74:MET:SD	4:A:74:MET:CE	2.53	0.96
5:B:635:ARG:CB	5:B:636:PRO:HD3	1.95	0.96
6:C:41:ILE:HD13	6:C:172:PRO:HG3	1.46	0.96
4:A:1279:ILE:O	4:A:1279:ILE:CG2	2.07	0.96
4:A:320:ARG:HD2	4:A:320:ARG:H	1.28	0.96
7:E:199:ILE:O	7:E:199:ILE:HG22	1.64	0.96
8:F:125:LEU:HB2	8:F:130:ILE:HD12	1.46	0.96
4:A:1322:ILE:HG12	4:A:1322:ILE:O	1.65	0.96
4:A:1437:GLY:HA3	8:F:88:TYR:CD2	1.99	0.96
5:B:882:THR:HG22	5:B:883:LEU:N	1.79	0.96
10:I:58:VAL:C	10:I:59:VAL:HG23	1.85	0.96
4:A:380:VAL:CG2	4:A:430:TRP:H	1.77	0.96
5:B:112:LEU:HD12	5:B:113:TYR:N	1.80	0.96
5:B:211:VAL:HG12	5:B:212:LEU:N	1.76	0.96
8:F:147:SER:O	8:F:151:LEU:CD1	2.13	0.96
4:A:849:MET:CE	4:A:1061:GLY:CA	2.43	0.96
5:B:731:VAL:HG12	5:B:732:SER:H	1.30	0.96
1:R:9:G:OP1	5:B:776:GLN:NE2	1.98	0.96
4:A:14:VAL:H	4:A:1432:GLN:NE2	1.63	0.96
4:A:452:LYS:HB2	5:B:1141:HIS:CE1	2.01	0.96
4:A:58:LEU:CD2	4:A:80:HIS:O	2.12	0.96
4:A:919:ILE:CG2	4:A:922:ASP:HB2	1.95	0.96
6:C:194:GLU:O	6:C:195:GLN:HG3	1.65	0.96
9:H:109:LYS:HB3	9:H:110:ASP:CG	1.85	0.96
4:A:431:LYS:C	4:A:432:VAL:CG2	2.34	0.96
5:B:522:VAL:HG12	5:B:523:CYS:N	1.80	0.96
9:H:108:SER:O	9:H:109:LYS:HB2	1.65	0.96
4:A:314:ALA:O	4:A:315:LEU:O	1.84	0.95
4:A:419:LYS:HG3	4:A:420:ARG:HG3	1.47	0.95
4:A:567:LYS:HB2	4:A:568:PRO:HD2	1.46	0.95
10:I:31:THR:O	10:I:31:THR:HG23	1.63	0.95
4:A:129:LYS:O	4:A:130:ASP:HB2	1.61	0.95
9:H:7:ASP:O	9:H:8:ASP:HB2	1.66	0.95
10:I:26:LEU:HD22	10:I:36:GLU:O	1.65	0.95
12:K:87:LEU:O	12:K:90:ALA:CB	2.15	0.95
4:A:543:LEU:CD1	4:A:547:LEU:HD11	1.96	0.95
4:A:736:ASN:HD22	4:A:736:ASN:H	0.99	0.95
5:B:1060:ARG:O	5:B:1062:HIS:N	2.00	0.95
5:B:236:HIS:HD2	5:B:389:ALA:HB2	1.20	0.95
5:B:744:HIS:CD2	5:B:746:SER:HG	1.84	0.95
5:B:917:PRO:HA	5:B:933:SER:O	1.66	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1237:ILE:HG22	4:A:1238:ILE:CA	1.96	0.95
6:C:44:LEU:HB2	6:C:77:ILE:HD11	1.47	0.95
11:J:45:CYS:O	11:J:48:ARG:HG3	1.65	0.95
4:A:89:PRO:O	4:A:204:THR:CG2	2.15	0.95
4:A:261:ASP:CG	4:A:323:LYS:HD2	1.87	0.95
4:A:576:GLN:O	4:A:579:SER:HB2	1.67	0.95
5:B:883:LEU:HG	5:B:883:LEU:CB	1.93	0.95
6:C:99:LEU:CD2	6:C:99:LEU:N	2.24	0.95
8:F:135:ARG:O	8:F:135:ARG:HG2	1.62	0.95
5:B:800:GLN:CG	11:J:52:THR:HG21	1.97	0.95
4:A:1053:PHE:O	4:A:1055:ARG:N	1.98	0.95
4:A:1161:THR:HG22	4:A:1163:ILE:H	0.80	0.95
4:A:452:LYS:HB2	5:B:1141:HIS:HE1	1.27	0.95
5:B:1210:MET:CB	5:B:1210:MET:CE	2.44	0.95
6:C:98:VAL:C	6:C:99:LEU:CD2	2.35	0.95
4:A:7:SER:HB3	5:B:1193:GLN:NE2	1.81	0.95
5:B:628:THR:CG2	5:B:628:THR:O	2.13	0.95
4:A:219:PHE:O	4:A:222:LEU:HD12	1.66	0.95
4:A:353:ILE:HD13	4:A:487:MET:HE3	1.49	0.95
4:A:886:ILE:HD11	4:A:943:LEU:HB2	1.47	0.95
5:B:1051:THR:HG22	5:B:1052:VAL:N	1.79	0.95
4:A:1138:ILE:O	4:A:1276:VAL:HG23	1.67	0.94
4:A:1143:LEU:O	4:A:1146:VAL:CG2	2.13	0.94
4:A:321:PRO:C	4:A:322:VAL:CG2	2.34	0.94
5:B:560:GLU:O	5:B:561:TRP:CD1	2.20	0.94
5:B:899:ILE:HG22	5:B:900:ALA:H	1.31	0.94
4:A:1033:GLN:O	4:A:1033:GLN:HG2	1.64	0.94
5:B:973:ILE:HG23	5:B:974:PRO:HD2	1.47	0.94
4:A:899:VAL:HG12	4:A:929:LEU:HD13	1.48	0.94
4:A:380:VAL:HG22	4:A:430:TRP:O	1.67	0.94
5:B:292:ILE:HD11	5:B:327:ARG:H	1.30	0.94
5:B:34:ILE:HD12	5:B:542:MET:HE1	1.48	0.94
5:B:168:GLY:HA2	5:B:454:THR:OG1	1.66	0.94
5:B:593:PRO:HD2	5:B:594:ALA:H	1.32	0.94
10:I:31:THR:HG22	10:I:32:CYS:N	1.80	0.94
4:A:401:GLY:C	4:A:435:HIS:HD2	1.61	0.94
5:B:168:GLY:CA	5:B:454:THR:OG1	2.15	0.94
5:B:708:GLU:O	5:B:710:LEU:N	2.01	0.94
10:I:95:THR:HG22	10:I:96:SER:N	1.80	0.94
4:A:14:VAL:N	4:A:1432:GLN:HE22	1.65	0.94
5:B:95:ILE:O	5:B:95:ILE:HG23	1.66	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:242:GLN:O	6:C:246:ARG:HG3	1.67	0.94
4:A:423:ASP:C	4:A:424:ILE:HG13	1.86	0.94
5:B:68:THR:C	5:B:69:LEU:CD2	2.36	0.94
5:B:755:ILE:O	5:B:755:ILE:CG2	2.13	0.94
7:E:53:PRO:O	7:E:55:ARG:N	2.00	0.94
4:A:1331:SER:HG	4:A:1333:ILE:HG22	1.26	0.94
4:A:313:GLN:O	4:A:314:ALA:HB2	1.66	0.94
5:B:271:ALA:O	5:B:279:ASP:HB3	1.68	0.94
5:B:477:ALA:HB3	5:B:479:VAL:CA	1.96	0.94
9:H:144:ILE:CG2	9:H:144:ILE:HB	1.96	0.94
4:A:1105:LEU:HB3	4:A:1384:VAL:CG2	1.98	0.94
4:A:1208:THR:OG1	4:A:1211:GLN:OE1	1.84	0.94
5:B:316:PRO:HA	5:B:319:GLU:HG3	1.49	0.94
5:B:751:VAL:HG12	5:B:752:ALA:N	1.80	0.94
8:F:73:ALA:O	8:F:74:ILE:HG12	1.68	0.94
12:K:58:PHE:HE2	12:K:74:ARG:HE	1.13	0.94
4:A:276:LEU:CD1	4:A:292:ALA:O	2.16	0.93
4:A:889:SER:HB3	4:A:891:ALA:HB3	1.48	0.93
7:E:135:PHE:HB3	7:E:140:LEU:HD11	1.47	0.93
8:F:101:ILE:HD13	8:F:120:ILE:HG22	1.48	0.93
4:A:261:ASP:HB3	4:A:323:LYS:CG	1.98	0.93
4:A:35:ILE:HG22	4:A:270:LEU:CD1	1.98	0.93
4:A:571:LEU:CD2	4:A:571:LEU:HG	1.99	0.93
4:A:705:LYS:HG3	4:A:713:SER:HB3	1.48	0.93
6:C:96:SER:O	6:C:97:VAL:HG23	1.68	0.93
10:I:25:LEU:HD12	10:I:26:LEU:H	1.32	0.93
7:E:98:ILE:O	7:E:99:HIS:C	2.07	0.93
4:A:903:ASN:O	4:A:904:THR:C	2.06	0.93
4:A:4:GLN:HE22	5:B:1159:ARG:H	1.07	0.93
4:A:1189:SER:OG	4:A:1190:PRO:CD	2.16	0.93
4:A:547:LEU:HD22	12:K:58:PHE:CD1	2.04	0.93
4:A:341:MET:HE1	4:A:843:LYS:HZ3	1.32	0.93
6:C:202:PRO:O	6:C:202:PRO:HD2	1.68	0.93
6:C:51:VAL:HG22	6:C:155:LEU:CD2	1.97	0.93
5:B:639:ILE:CG2	5:B:640:VAL:N	2.31	0.93
7:E:187:TYR:CD2	7:E:188:LEU:HD23	2.02	0.93
4:A:1308:THR:HG22	4:A:1310:GLY:H	1.28	0.93
4:A:35:ILE:O	4:A:270:LEU:HD11	1.68	0.93
5:B:55:VAL:O	5:B:56:ASP:C	2.06	0.93
7:E:65:THR:OG1	7:E:67:GLU:HB3	1.68	0.93
4:A:849:MET:HE1	4:A:1061:GLY:CA	1.99	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:18:VAL:HG23	6:C:240:VAL:HG11	1.49	0.93
4:A:18:GLN:HE22	4:A:1418:LEU:HB2	1.18	0.93
4:A:868:TYR:HE1	4:A:1064:VAL:CG1	1.81	0.93
5:B:129:PHE:CD2	5:B:166:PHE:HB2	2.02	0.93
5:B:25:ILE:HG22	5:B:26:THR:N	1.82	0.93
6:C:163:ILE:HD12	6:C:166:GLU:HB2	1.49	0.93
9:H:134:ASN:C	9:H:135:LEU:O	2.05	0.93
9:H:42:ILE:O	9:H:44:VAL:HG23	1.69	0.93
4:A:92:HIS:HB2	4:A:236:LEU:HD11	1.50	0.92
5:B:635:ARG:HD2	5:B:636:PRO:HD3	1.50	0.92
7:E:131:THR:HG22	7:E:132:ILE:HB	1.48	0.92
4:A:1280:GLU:O	4:A:1281:ARG:O	1.87	0.92
5:B:1051:THR:CG2	5:B:1053:GLU:H	1.81	0.92
7:E:96:PHE:O	7:E:98:ILE:N	2.03	0.92
8:F:155:LEU:C	8:F:155:LEU:HA	1.88	0.92
4:A:925:LEU:O	4:A:926:GLN:C	1.95	0.92
5:B:727:LYS:HD3	5:B:1049:ASP:OD1	1.69	0.92
5:B:273:LEU:CD2	5:B:360:PHE:HD1	1.83	0.92
5:B:323:VAL:CG1	5:B:323:VAL:O	2.17	0.92
5:B:384:ARG:HH22	5:B:621:GLU:HG3	1.32	0.92
10:I:17:ARG:HG2	10:I:18:GLU:N	1.84	0.92
4:A:11:LEU:CD2	4:A:11:LEU:HG	2.00	0.92
4:A:492:PRO:C	4:A:493:GLN:HE21	1.71	0.92
4:A:401:GLY:O	4:A:435:HIS:HB2	1.67	0.92
4:A:565:ILE:HG23	4:A:567:LYS:HE3	1.51	0.92
5:B:1072:MET:O	5:B:1081:LEU:HB2	1.70	0.92
2:T:23:DC:OP1	5:B:1123:SER:CB	2.16	0.92
5:B:580:VAL:HG12	5:B:581:PHE:N	1.82	0.92
6:C:43:THR:CG2	6:C:44:LEU:N	2.30	0.92
4:A:179:LEU:HD12	4:A:297:GLN:HG2	1.50	0.92
5:B:1215:ARG:O	5:B:1216:LEU:HD23	1.69	0.92
11:J:31:ASP:O	11:J:34:THR:N	2.02	0.92
6:C:243:VAL:O	6:C:245:VAL:N	2.02	0.92
9:H:114:VAL:N	9:H:125:LEU:O	2.03	0.92
9:H:11:GLN:N	9:H:29:ALA:O	2.02	0.92
4:A:709:THR:HG22	4:A:711:ARG:H	1.32	0.92
4:A:820:GLY:O	4:A:820:GLY:N	2.02	0.92
5:B:233:PRO:HG2	5:B:234:ILE:HD13	1.52	0.92
5:B:784:ASN:O	5:B:788:ARG:HG3	1.69	0.92
5:B:957:ASN:HB3	5:B:961:LEU:CD1	2.00	0.92
4:A:65:LEU:CB	4:A:65:LEU:HG	1.98	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:925:LEU:CD2	4:A:925:LEU:HG	1.99	0.92
7:E:116:ILE:O	7:E:118:PRO:CD	2.18	0.92
7:E:194:GLU:O	7:E:213:ILE:HD12	1.70	0.92
11:J:3:VAL:N	11:J:53:HIS:CE1	2.37	0.92
4:A:777:PHE:CE2	4:A:782:ARG:HA	2.04	0.91
5:B:778:MET:CE	5:B:853:SER:HB3	2.00	0.91
4:A:1422:ARG:NH2	5:B:1220:ARG:HD3	1.85	0.91
4:A:265:LYS:CE	4:A:323:LYS:CG	2.48	0.91
9:H:132:LEU:CB	9:H:132:LEU:HG	1.98	0.91
4:A:1320:PRO:CG	4:A:1320:PRO:O	2.16	0.91
4:A:321:PRO:CA	4:A:322:VAL:HG13	1.72	0.91
4:A:531:ILE:CD1	4:A:622:VAL:HG21	1.99	0.91
5:B:682:SER:O	5:B:686:ASN:ND2	2.03	0.91
4:A:1290:LYS:C	4:A:1291:VAL:CG2	2.38	0.91
4:A:523:ILE:HD13	4:A:622:VAL:HG22	1.52	0.91
5:B:167:ILE:HD12	5:B:424:LEU:HD11	1.52	0.91
10:I:15:TYR:HB3	10:I:16:PRO:HD3	1.50	0.91
13:L:58:LYS:HG2	13:L:58:LYS:O	1.68	0.91
4:A:1152:ILE:HG22	4:A:1152:ILE:O	1.68	0.91
4:A:809:THR:HG23	4:A:812:GLU:OE1	1.71	0.91
5:B:847:ASP:HB3	6:C:167:HIS:CD2	2.06	0.91
7:E:102:GLU:O	7:E:104:ASN:N	2.02	0.91
4:A:567:LYS:HB3	9:H:96:VAL:H	1.34	0.91
4:A:820:GLY:O	4:A:820:GLY:CA	2.18	0.91
4:A:908:LEU:O	4:A:909:ASP:O	1.89	0.91
4:A:919:ILE:HG23	4:A:922:ASP:HB2	1.52	0.91
6:C:134:ILE:CD1	6:C:141:GLY:HA3	2.01	0.91
7:E:115:ASN:O	7:E:116:ILE:HG12	1.71	0.91
4:A:225:ASN:O	4:A:227:VAL:N	2.02	0.91
5:B:770:GLN:HG3	5:B:770:GLN:O	1.69	0.91
5:B:957:ASN:ND2	5:B:958:GLN:N	2.18	0.91
4:A:901:LEU:HG	4:A:926:GLN:HG2	1.52	0.91
4:A:929:LEU:CD1	4:A:929:LEU:HG	2.00	0.91
5:B:1210:MET:HB3	5:B:1210:MET:CE	2.01	0.91
5:B:827:ILE:O	5:B:828:ALA:HB2	1.71	0.91
6:C:226:ASP:O	6:C:227:THR:CB	2.19	0.91
4:A:249:SER:C	4:A:249:SER:HA	1.89	0.90
4:A:858:ASN:ND2	4:A:858:ASN:C	2.15	0.90
5:B:1074:ASN:C	5:B:1074:ASN:OD1	2.08	0.90
11:J:2:ILE:C	11:J:53:HIS:CE1	2.44	0.90
4:A:531:ILE:HD12	4:A:649:ILE:CG2	2.01	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:102:VAL:CG2	5:B:112:LEU:HB2	2.02	0.90
5:B:299:GLU:OE1	5:B:572:HIS:HB3	1.71	0.90
9:H:126:GLU:O	9:H:130:ARG:NH1	2.04	0.90
12:K:53:ASP:O	12:K:56:VAL:HG23	1.71	0.90
4:A:1025:ARG:CG	4:A:1025:ARG:HH11	1.83	0.90
4:A:35:ILE:O	4:A:270:LEU:CD1	2.19	0.90
4:A:834:THR:HG21	4:A:1077:THR:HG23	1.50	0.90
5:B:780:VAL:HG21	11:J:56:LEU:HD11	1.53	0.90
6:C:18:VAL:CG2	6:C:240:VAL:HG11	2.00	0.90
12:K:90:ALA:O	12:K:94:ILE:HD13	1.69	0.90
4:A:455:MET:O	4:A:456:MET:CG	2.19	0.90
5:B:1076:HIS:CE1	12:K:40:HIS:CD2	2.58	0.90
5:B:284:ILE:O	5:B:287:ARG:N	2.04	0.90
11:J:3:VAL:N	11:J:53:HIS:NE2	2.18	0.90
5:B:321:GLY:O	5:B:323:VAL:N	2.00	0.90
5:B:1098:MET:SD	5:B:1098:MET:CE	2.60	0.90
5:B:113:TYR:O	5:B:114:PRO:C	1.91	0.90
5:B:642:ASP:C	5:B:644:GLU:H	1.75	0.90
9:H:125:LEU:HG	9:H:125:LEU:CD1	2.01	0.90
12:K:32:VAL:CG2	12:K:74:ARG:HG3	2.01	0.90
4:A:1193:LEU:HD12	4:A:1194:ARG:N	1.85	0.90
5:B:562:GLY:HA3	5:B:590:HIS:CE1	2.06	0.90
4:A:1283:VAL:CG1	4:A:1284:MET:H	1.84	0.90
4:A:265:LYS:NZ	4:A:322:VAL:CB	2.34	0.90
4:A:575:LYS:HD3	4:A:612:ILE:HD11	1.53	0.90
4:A:531:ILE:HG12	4:A:622:VAL:HG11	1.52	0.90
12:K:9:LEU:CD2	12:K:9:LEU:N	2.34	0.90
4:A:1067:LEU:HD21	4:A:1367:HIS:CE1	2.07	0.90
4:A:544:ASP:OD1	4:A:545:GLN:N	2.03	0.90
5:B:1077:THR:HG23	5:B:1079:LYS:H	1.35	0.90
5:B:882:THR:CB	5:B:934:LYS:O	2.19	0.90
4:A:1364:ASN:ND2	4:A:1366:ARG:H	1.69	0.90
4:A:874:ASP:OD1	4:A:876:ALA:N	2.05	0.90
4:A:90:VAL:HG12	4:A:297:GLN:CD	1.92	0.90
6:C:167:HIS:CD2	6:C:168:ALA:H	1.90	0.90
4:A:129:LYS:O	4:A:130:ASP:CB	2.20	0.89
5:B:293:PRO:O	5:B:295:GLY:N	2.04	0.89
7:E:46:TYR:CE2	7:E:58:MET:HA	2.06	0.89
7:E:60:PHE:HE2	7:E:80:VAL:HG21	1.37	0.89
4:A:315:LEU:HG	4:A:315:LEU:CB	1.99	0.89
4:A:322:VAL:CG2	4:A:322:VAL:N	2.35	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1151:LEU:HG	5:B:1151:LEU:CD1	2.01	0.89
7:E:116:ILE:O	7:E:118:PRO:HD3	1.71	0.89
5:B:230:ALA:O	5:B:261:ARG:HD2	1.72	0.89
4:A:946:VAL:CG1	4:A:947:PHE:CE1	2.55	0.89
5:B:798:TYR:N	5:B:799:PRO:CD	2.27	0.89
5:B:93:GLY:O	5:B:94:LYS:O	1.90	0.89
6:C:241:ASP:O	6:C:245:VAL:HG23	1.71	0.89
10:I:103:CYS:SG	10:I:104:LEU:N	2.44	0.89
4:A:598:LEU:HD13	9:H:25:ARG:NH1	1.88	0.89
4:A:1283:VAL:CG1	4:A:1284:MET:N	2.36	0.89
5:B:363:HIS:O	5:B:364:ILE:HB	1.72	0.89
6:C:133:ILE:CG2	6:C:134:ILE:N	2.32	0.89
8:F:88:TYR:O	8:F:91:ALA:HB3	1.73	0.89
4:A:1438:THR:CG2	4:A:1438:THR:HB	2.01	0.89
4:A:609:ASP:O	4:A:611:GLN:N	2.06	0.89
4:A:339:ASN:HB3	5:B:1117:GLN:NE2	1.88	0.89
5:B:650:GLU:HG3	5:B:651:LEU:H	1.36	0.89
5:B:796:LEU:CD2	5:B:796:LEU:HG	2.01	0.89
4:A:14:VAL:H	4:A:1432:GLN:HE22	0.92	0.89
4:A:596:THR:CB	4:A:596:THR:C	2.40	0.89
5:B:1111:MET:SD	5:B:1111:MET:CE	2.61	0.89
5:B:449:ASN:CG	5:B:449:ASN:O	2.01	0.89
2:T:16:DC:H2'	2:T:17:DG:C8	2.07	0.89
4:A:899:VAL:CG1	4:A:929:LEU:HD12	2.02	0.89
5:B:1182:CYS:O	5:B:1183:LYS:O	1.91	0.89
5:B:129:PHE:CD2	5:B:166:PHE:CB	2.56	0.89
5:B:882:THR:HB	5:B:934:LYS:O	1.73	0.89
4:A:1410:PHE:O	4:A:1413:GLY:N	2.05	0.88
4:A:313:GLN:O	4:A:314:ALA:CB	2.21	0.88
4:A:934:LYS:O	4:A:937:VAL:N	2.06	0.88
4:A:567:LYS:NZ	9:H:95:TYR:CZ	2.41	0.88
4:A:1057:VAL:HG12	4:A:1058:VAL:O	1.73	0.88
4:A:996:ASN:C	4:A:998:LEU:HB2	1.91	0.88
5:B:1077:THR:HG22	5:B:1079:LYS:N	1.88	0.88
6:C:134:ILE:HD12	6:C:141:GLY:HA3	1.55	0.88
4:A:622:VAL:HA	4:A:630:ILE:HD11	1.55	0.88
5:B:128:LEU:CB	5:B:168:GLY:O	2.22	0.88
5:B:708:GLU:C	5:B:710:LEU:H	1.77	0.88
10:I:15:TYR:HB3	10:I:16:PRO:CD	2.02	0.88
4:A:1026:LEU:CD2	4:A:1026:LEU:HG	2.01	0.88
4:A:1237:ILE:HG23	4:A:1238:ILE:N	1.87	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:247:ARG:HG3	4:A:247:ARG:O	1.72	0.88
4:A:89:PRO:O	4:A:204:THR:HG21	1.73	0.88
4:A:964:ILE:O	4:A:967:ALA:N	2.05	0.88
4:A:381:THR:N	4:A:384:ASN:OD1	2.07	0.88
4:A:764:CYS:C	4:A:764:CYS:SG	2.51	0.88
4:A:899:VAL:CG2	4:A:1029:ARG:NH1	2.37	0.88
4:A:978:PRO:O	4:A:978:PRO:HG2	1.73	0.88
4:A:998:LEU:HG	4:A:998:LEU:CD2	2.04	0.88
5:B:1165:ILE:HG22	5:B:1166:CYS:CB	2.01	0.88
4:A:1110:ASN:CB	4:A:1110:ASN:CG	2.42	0.88
4:A:929:LEU:CB	4:A:929:LEU:CD2	2.51	0.88
5:B:1165:ILE:HG22	5:B:1166:CYS:N	1.88	0.88
6:C:119:VAL:O	6:C:119:VAL:CG1	2.21	0.88
7:E:111:VAL:O	7:E:111:VAL:CG1	2.22	0.88
4:A:68:GLN:O	4:A:68:GLN:OE1	1.90	0.88
4:A:743:VAL:O	4:A:747:VAL:HG23	1.73	0.88
5:B:69:LEU:HA	5:B:69:LEU:C	1.89	0.88
3:N:11:DG:O3'	7:E:117:THR:HG22	1.72	0.88
4:A:1389:PHE:C	4:A:1389:PHE:CD1	2.45	0.88
4:A:114:LEU:HD13	4:A:171:GLN:NE2	1.88	0.88
4:A:26:GLU:O	4:A:29:ALA:N	2.07	0.88
5:B:882:THR:HG21	5:B:935:ARG:HA	1.55	0.88
4:A:1342:GLU:HG2	7:E:212:ARG:HH12	1.38	0.88
4:A:531:ILE:CD1	4:A:649:ILE:HG21	2.04	0.88
5:B:369:GLY:O	5:B:370:PHE:CD1	2.26	0.88
5:B:635:ARG:HD2	5:B:636:PRO:CD	2.03	0.88
4:A:1284:MET:HG2	4:A:1306:LEU:HD21	1.53	0.88
4:A:1319:VAL:HB	4:A:1322:ILE:HD12	1.54	0.88
4:A:893:PHE:CD2	4:A:893:PHE:C	2.43	0.88
5:B:124:TYR:OH	5:B:179:CYS:HA	1.73	0.88
5:B:815:ARG:HH11	5:B:815:ARG:CG	1.86	0.88
4:A:1105:LEU:HB3	4:A:1384:VAL:HG23	1.56	0.87
4:A:839:ARG:O	4:A:843:LYS:HB2	1.73	0.87
5:B:451:LYS:O	5:B:452:THR:C	2.12	0.87
6:C:196:ASP:O	6:C:200:GLU:HB2	1.74	0.87
6:C:260:LEU:CB	6:C:260:LEU:CD2	2.52	0.87
7:E:136:ASN:C	7:E:136:ASN:OD1	2.11	0.87
9:H:142:LEU:HD12	9:H:143:LEU:H	1.29	0.87
9:H:89:LEU:O	9:H:91:ASP:N	2.07	0.87
4:A:858:ASN:ND2	4:A:858:ASN:O	2.04	0.87
8:F:111:LEU:C	8:F:113:GLY:H	1.71	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:F:125:LEU:CD2	8:F:125:LEU:HG	2.02	0.87
9:H:116:TYR:CB	9:H:123:MET:HB3	2.03	0.87
9:H:93:TYR:CD1	9:H:143:LEU:HB2	2.09	0.87
12:K:78:THR:HG22	12:K:78:THR:O	1.74	0.87
4:A:106:VAL:HG12	4:A:107:CYS:N	1.88	0.87
4:A:265:LYS:HE3	4:A:323:LYS:CG	2.04	0.87
4:A:523:ILE:HD13	4:A:622:VAL:CG2	2.04	0.87
4:A:531:ILE:HB	4:A:531:ILE:CG2	2.04	0.87
4:A:583:PRO:O	4:A:610:GLY:HA3	1.75	0.87
4:A:1042:PHE:CE2	4:A:1046:LEU:CD1	2.57	0.87
4:A:929:LEU:CD2	4:A:929:LEU:CA	2.53	0.87
5:B:911:ILE:HG22	5:B:912:ILE:HG13	1.57	0.87
2:T:22:DT:H2''	2:T:23:DC:O5'	1.74	0.87
5:B:1099:VAL:O	5:B:1103:ILE:HD11	1.74	0.87
5:B:1106:ARG:HH21	5:B:1109:GLY:N	1.71	0.87
5:B:660:LYS:O	5:B:663:ALA:CB	2.22	0.87
5:B:882:THR:OG1	5:B:935:ARG:N	2.07	0.87
8:F:155:LEU:H	8:F:155:LEU:CD2	1.86	0.87
10:I:42:LEU:C	10:I:43:VAL:CG2	2.35	0.87
4:A:590:ARG:NH2	4:A:620:LYS:O	2.06	0.87
9:H:40:LEU:HD11	9:H:123:MET:HE3	1.56	0.87
4:A:1326:ARG:O	4:A:1327:ILE:C	2.11	0.87
4:A:73:GLY:O	4:A:75:ASN:N	2.08	0.87
4:A:997:LEU:N	4:A:997:LEU:HD23	1.90	0.87
13:L:63:ARG:O	13:L:64:LEU:O	1.92	0.87
4:A:1004:ASN:ND2	7:E:167:ARG:CD	2.10	0.87
4:A:352:VAL:CG1	4:A:353:ILE:N	2.31	0.87
4:A:736:ASN:O	4:A:737:LEU:C	2.11	0.87
5:B:351:TYR:O	5:B:354:ASP:HB2	1.73	0.87
4:A:705:LYS:O	4:A:706:HIS:C	2.12	0.87
5:B:1099:VAL:O	5:B:1103:ILE:CD1	2.22	0.87
5:B:114:PRO:CD	5:B:124:TYR:CE1	2.57	0.87
7:E:162:ARG:HH21	7:E:166:LYS:HZ3	0.94	0.87
11:J:2:ILE:O	11:J:2:ILE:HG22	1.74	0.87
4:A:1170:ILE:O	4:A:1171:GLN:C	2.14	0.86
4:A:744:LYS:HE2	4:A:748:MET:HE2	1.58	0.86
5:B:1103:ILE:HD13	5:B:1103:ILE:N	1.89	0.86
5:B:1175:LEU:O	5:B:1176:ASN:HB2	1.00	0.86
5:B:705:MET:H	5:B:710:LEU:CD1	1.87	0.86
5:B:882:THR:C	5:B:882:THR:CG2	2.44	0.86
5:B:912:ILE:HD11	5:B:966:VAL:HG23	1.57	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:29:PHE:O	7:E:30:ILE:CG1	2.22	0.86
4:A:1200:ALA:O	4:A:1203:ASN:N	2.08	0.86
4:A:1313:LEU:O	4:A:1316:VAL:N	2.08	0.86
5:B:633:VAL:O	5:B:634:TYR:HB3	1.74	0.86
12:K:61:TYR:CD1	12:K:61:TYR:C	2.49	0.86
4:A:83:HIS:O	4:A:83:HIS:CD2	2.27	0.86
4:A:933:TYR:O	4:A:933:TYR:CD2	2.27	0.86
5:B:201:GLY:H	5:B:202:TYR:HD2	1.23	0.86
5:B:46:GLN:HG3	5:B:47:GLN:N	1.89	0.86
9:H:93:TYR:CD1	9:H:143:LEU:CB	2.59	0.86
9:H:2:SER:C	9:H:2:SER:HA	1.95	0.86
9:H:42:ILE:HD12	9:H:95:TYR:CZ	2.10	0.86
10:I:16:PRO:CD	10:I:16:PRO:O	2.23	0.86
4:A:1385:THR:CG2	4:A:1385:THR:CA	2.53	0.86
4:A:91:PHE:CA	4:A:297:GLN:HE22	1.88	0.86
4:A:351:THR:CG2	5:B:1103:ILE:CD1	2.51	0.86
4:A:541:ILE:CG2	4:A:546:VAL:HG22	2.05	0.86
5:B:65:GLU:H	5:B:67:SER:HB3	1.40	0.86
12:K:12:LEU:H	12:K:12:LEU:HD12	1.19	0.86
4:A:1390:ASN:ND2	4:A:1399:ARG:CB	2.38	0.86
4:A:889:SER:HB2	4:A:892:ALA:H	1.40	0.86
5:B:639:ILE:HG22	5:B:640:VAL:N	1.88	0.86
10:I:35:VAL:CG1	10:I:36:GLU:N	2.38	0.86
4:A:279:LEU:O	4:A:282:ASN:O	1.93	0.86
4:A:91:PHE:H	4:A:297:GLN:NE2	1.69	0.86
4:A:736:ASN:HD22	4:A:736:ASN:N	1.70	0.86
11:J:2:ILE:O	11:J:53:HIS:NE2	2.06	0.86
2:T:25:DC:H2''	2:T:26:DG:H5'	1.56	0.86
4:A:820:GLY:CA	4:A:821:ARG:N	2.39	0.86
5:B:122:LEU:CB	5:B:122:LEU:CD1	2.54	0.86
5:B:274:PRO:O	5:B:276:ILE:CG1	2.21	0.86
4:A:929:LEU:H	4:A:929:LEU:HD23	1.39	0.86
7:E:173:SER:HB2	7:E:177:ARG:NH2	1.89	0.86
10:I:48:LEU:HG	10:I:48:LEU:CD1	2.05	0.86
4:A:1193:LEU:CD1	4:A:1193:LEU:C	2.44	0.86
6:C:43:THR:HG23	6:C:44:LEU:H	1.39	0.86
4:A:543:LEU:HD11	4:A:547:LEU:HD11	1.57	0.86
5:B:1060:ARG:C	5:B:1062:HIS:H	1.79	0.86
6:C:22:LEU:CD2	6:C:25:VAL:HG21	2.06	0.86
6:C:40:GLU:OE1	6:C:254:LYS:NZ	2.09	0.86
10:I:42:LEU:O	10:I:43:VAL:CG2	2.23	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1161:THR:CG2	4:A:1163:ILE:HG13	2.06	0.85
4:A:1189:SER:O	4:A:1241:ARG:HD3	1.76	0.85
4:A:528:LEU:CD1	4:A:528:LEU:O	2.23	0.85
4:A:658:LEU:HG	4:A:658:LEU:CD1	2.03	0.85
5:B:784:ASN:ND2	5:B:788:ARG:HD2	1.91	0.85
5:B:986:GLN:OE1	5:B:986:GLN:HA	1.74	0.85
10:I:96:SER:HB2	10:I:98:VAL:HG23	1.58	0.85
2:T:28:DT:H2"	4:A:317:LYS:HG3	1.54	0.85
4:A:946:VAL:CG1	4:A:947:PHE:CD1	2.60	0.85
5:B:912:ILE:HD11	5:B:966:VAL:CG2	2.06	0.85
6:C:100:THR:HB	6:C:119:VAL:CG1	2.06	0.85
5:B:266:ALA:CA	5:B:267:ARG:N	2.39	0.85
5:B:485:ARG:HH11	5:B:485:ARG:HG2	1.38	0.85
5:B:597:MET:O	5:B:600:LEU:HB2	1.75	0.85
5:B:756:ILE:HG21	5:B:759:PRO:HB3	1.57	0.85
5:B:953:LEU:C	5:B:953:LEU:HD23	1.95	0.85
4:A:55:ASP:O	4:A:58:LEU:N	2.09	0.85
4:A:622:VAL:HG22	4:A:622:VAL:O	1.75	0.85
5:B:984:HIS:HD2	5:B:1024:ALA:HB3	1.40	0.85
5:B:633:VAL:HG12	5:B:634:TYR:N	1.88	0.85
5:B:977:GLY:HA3	5:B:1099:VAL:HG21	1.57	0.85
13:L:50:ASP:HA	13:L:50:ASP:C	1.94	0.85
4:A:899:VAL:HG23	4:A:1029:ARG:NH1	1.92	0.85
5:B:647:GLY:O	5:B:648:HIS:CD2	2.29	0.85
5:B:955:THR:CG2	5:B:956:THR:N	2.32	0.85
7:E:7:ARG:O	7:E:9:ILE:N	2.10	0.85
4:A:1004:ASN:C	4:A:1004:ASN:OD1	2.15	0.85
4:A:1132:LYS:O	4:A:1133:LEU:C	2.14	0.85
4:A:1209:MET:O	4:A:1212:VAL:HB	1.75	0.85
5:B:1074:ASN:OD1	5:B:1074:ASN:O	1.94	0.85
5:B:752:ALA:O	5:B:753:ALA:C	2.09	0.85
5:B:69:LEU:HB2	5:B:90:ILE:HB	1.59	0.85
7:E:153:HIS:C	7:E:154:ILE:HG12	1.96	0.85
10:I:75:CYS:SG	10:I:78:CYS:HB3	2.16	0.85
4:A:1048:ASN:O	4:A:1051:ALA:HB3	1.76	0.85
4:A:401:GLY:O	4:A:435:HIS:CD2	2.27	0.85
4:A:736:ASN:ND2	4:A:736:ASN:H	1.74	0.85
4:A:775:ILE:O	4:A:775:ILE:HG22	1.77	0.85
5:B:132:VAL:CG1	5:B:132:VAL:O	2.12	0.85
5:B:527:THR:OG1	5:B:528:PRO:CD	2.25	0.85
6:C:242:GLN:HE21	6:C:246:ARG:HE	1.21	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:124:VAL:HG22	7:E:132:ILE:HG22	1.58	0.85
9:H:19:ARG:O	9:H:20:TYR:CG	2.30	0.85
4:A:1208:THR:O	4:A:1211:GLN:N	2.08	0.85
4:A:321:PRO:N	4:A:322:VAL:HG12	1.91	0.85
5:B:1077:THR:CG2	5:B:1079:LYS:N	2.38	0.85
5:B:167:ILE:HG23	5:B:424:LEU:CD1	2.04	0.85
5:B:55:VAL:HG12	5:B:56:ASP:N	1.90	0.85
6:C:11:ARG:HE	6:C:21:ILE:HD11	1.42	0.85
9:H:104:PHE:CZ	9:H:136:LYS:HA	2.12	0.85
11:J:3:VAL:CG2	11:J:3:VAL:HB	2.05	0.85
5:B:1099:VAL:HG12	5:B:1103:ILE:CD1	2.06	0.85
5:B:466:TRP:C	5:B:475:SER:HB2	1.97	0.85
5:B:798:TYR:C	5:B:799:PRO:O	2.13	0.85
5:B:815:ARG:HH11	5:B:815:ARG:HG3	1.40	0.85
10:I:42:LEU:CD1	10:I:43:VAL:N	2.35	0.85
4:A:134:ARG:O	4:A:138:ILE:N	2.09	0.85
4:A:601:LYS:HB3	4:A:603:ASN:OD1	1.77	0.85
4:A:650:GLN:O	4:A:654:ASN:HB2	1.77	0.85
4:A:779:PHE:CE1	4:A:785:PRO:CD	2.60	0.85
5:B:1221:SER:CA	5:B:1222:ARG:N	2.39	0.85
5:B:174:LEU:HD12	5:B:179:CYS:SG	2.16	0.85
5:B:476:ARG:O	5:B:477:ALA:C	2.12	0.85
5:B:830:TYR:CE1	5:B:1000:PRO:HB3	2.11	0.85
8:F:111:LEU:HD13	8:F:111:LEU:H	1.40	0.85
5:B:297:ILE:O	5:B:299:GLU:N	2.09	0.84
5:B:326:ASP:N	5:B:326:ASP:OD1	2.07	0.84
5:B:477:ALA:CB	5:B:479:VAL:N	2.39	0.84
5:B:712:PRO:O	5:B:712:PRO:HD2	1.00	0.84
1:R:5:A:N1	1:R:6:G:C6	2.44	0.84
4:A:265:LYS:HZ2	4:A:322:VAL:HG21	1.41	0.84
4:A:414:ASP:O	4:A:416:ARG:N	2.09	0.84
4:A:49:LYS:HZ2	4:A:60:SER:HA	1.40	0.84
7:E:195:VAL:HG22	7:E:213:ILE:HD13	1.57	0.84
9:H:47:PHE:HB3	9:H:95:TYR:HD1	1.42	0.84
4:A:1166:ASP:OD2	4:A:1239:ARG:NE	2.08	0.84
5:B:641:GLU:O	5:B:643:ASP:HB2	1.77	0.84
5:B:955:THR:CG2	5:B:956:THR:H	1.86	0.84
5:B:956:THR:O	5:B:956:THR:HG22	1.77	0.84
4:A:119:ASN:O	4:A:122:MET:HB3	1.76	0.84
4:A:237:THR:HB	4:A:238:CYS:HB3	1.56	0.84
7:E:50:MET:CE	7:E:50:MET:SD	2.65	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:I:106:CYS:SG	10:I:108:HIS:HB2	2.17	0.84
10:I:96:SER:C	10:I:98:VAL:H	1.80	0.84
4:A:1023:ARG:O	4:A:1024:SER:C	2.05	0.84
4:A:43:GLU:O	4:A:46:THR:HB	1.78	0.84
6:C:73:GLN:CG	6:C:74:SER:N	2.40	0.84
4:A:1028:THR:O	4:A:1029:ARG:C	2.10	0.84
4:A:1282:VAL:HG13	4:A:1283:VAL:N	1.93	0.84
4:A:1372:VAL:O	4:A:1375:MET:HB2	1.75	0.84
4:A:261:ASP:CB	4:A:323:LYS:HD2	2.07	0.84
4:A:332:LYS:HG3	4:A:333:GLU:HG2	1.60	0.84
5:B:426:LYS:O	5:B:426:LYS:HG2	1.77	0.84
5:B:640:VAL:HG23	5:B:740:HIS:N	1.92	0.84
6:C:33:LEU:HD12	6:C:37:MET:HE2	1.57	0.84
7:E:90:VAL:HB	7:E:90:VAL:CG1	2.07	0.84
4:A:779:PHE:CE1	4:A:785:PRO:HD3	2.13	0.84
5:B:1051:THR:CG2	5:B:1052:VAL:N	2.39	0.84
5:B:63:ILE:HG12	5:B:421:PHE:CZ	2.12	0.84
5:B:634:TYR:CE1	5:B:692:TYR:CD1	2.65	0.84
6:C:51:VAL:HG22	6:C:155:LEU:HD22	1.60	0.84
6:C:98:VAL:CA	6:C:99:LEU:HD23	2.06	0.84
8:F:101:ILE:HD11	8:F:121:ALA:HB2	1.58	0.84
4:A:1172:LEU:H	4:A:1172:LEU:HD23	1.41	0.84
4:A:419:LYS:NZ	4:A:419:LYS:HB3	1.91	0.84
5:B:63:ILE:HA	5:B:421:PHE:CE2	2.12	0.84
5:B:986:GLN:HA	5:B:986:GLN:CD	1.98	0.84
4:A:1155:ASP:OD2	4:A:1162:VAL:HG23	1.78	0.84
4:A:1198:ASP:OD1	4:A:1199:ARG:N	2.10	0.84
4:A:1389:PHE:O	4:A:1389:PHE:CD1	2.30	0.84
4:A:273:ASN:N	4:A:296:LEU:HD11	1.93	0.84
4:A:464:PRO:O	4:A:464:PRO:HG2	1.77	0.84
4:A:901:LEU:CG	4:A:926:GLN:HG2	2.06	0.84
5:B:843:GLN:O	5:B:843:GLN:HG3	1.77	0.84
4:A:1053:PHE:HD2	4:A:1054:LEU:H	1.23	0.84
5:B:1115:THR:CG2	5:B:1117:GLN:CG	2.55	0.84
5:B:166:PHE:CD2	5:B:166:PHE:C	2.49	0.84
7:E:178:ILE:CG2	7:E:214:CYS:HB2	2.07	0.84
5:B:1076:HIS:CE1	12:K:40:HIS:NE2	2.46	0.84
4:A:1212:VAL:O	4:A:1216:ILE:HG13	1.78	0.83
4:A:666:ILE:HA	5:B:1026:LEU:CD1	2.07	0.83
5:B:498:THR:HG22	5:B:498:THR:O	1.77	0.83
5:B:882:THR:CG2	5:B:934:LYS:O	2.25	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:847:ASP:HB3	6:C:167:HIS:HD2	1.41	0.83
4:A:1366:ARG:HG2	4:A:1366:ARG:HH11	1.43	0.83
4:A:239:LEU:HD12	4:A:240:PRO:O	1.77	0.83
4:A:318:SER:C	4:A:319:GLY:O	2.09	0.83
4:A:399:HIS:CB	4:A:400:PRO:CD	2.56	0.83
4:A:978:PRO:O	4:A:979:SER:O	1.95	0.83
5:B:236:HIS:CD2	5:B:389:ALA:CB	2.60	0.83
5:B:447:ALA:C	5:B:447:ALA:HA	1.99	0.83
7:E:168:TYR:C	7:E:169:ARG:HG2	1.96	0.83
4:A:470:LEU:HG	4:A:470:LEU:CD2	2.04	0.83
9:H:110:ASP:N	9:H:110:ASP:CB	2.42	0.83
4:A:1118:VAL:HB	4:A:1118:VAL:CG1	2.07	0.83
4:A:440:ASP:HB3	4:A:441:PRO:HD2	1.60	0.83
4:A:989:GLY:O	4:A:992:ASP:N	2.10	0.83
5:B:846:ILE:HG23	5:B:974:PRO:HG2	1.60	0.83
4:A:135:PHE:C	4:A:135:PHE:CD2	2.51	0.83
4:A:316:GLN:CA	4:A:317:LYS:N	2.40	0.83
4:A:421:ALA:HA	4:A:424:ILE:HD11	1.60	0.83
5:B:1162:ILE:HD13	5:B:1168:LEU:C	1.97	0.83
5:B:497:ARG:NE	5:B:497:ARG:CG	2.41	0.83
8:F:153:VAL:HB	8:F:153:VAL:CG1	2.06	0.83
8:F:81:THR:HG22	8:F:136:ARG:HH11	1.43	0.83
4:A:135:PHE:HD1	4:A:222:LEU:HB2	1.44	0.83
4:A:247:ARG:O	4:A:247:ARG:CG	2.27	0.83
4:A:526:ASP:CG	5:B:829:CYS:SG	2.57	0.83
5:B:356:LEU:O	5:B:357:GLN:HG3	1.79	0.83
5:B:866:TYR:CB	5:B:866:TYR:HA	2.08	0.83
5:B:95:ILE:CG2	5:B:95:ILE:O	2.27	0.83
6:C:43:THR:HG23	6:C:44:LEU:N	1.93	0.83
8:F:97:ARG:HD3	8:F:100:GLN:OE1	1.78	0.83
4:A:351:THR:HG23	5:B:1103:ILE:CD1	2.07	0.83
4:A:405:VAL:HG12	4:A:406:ILE:N	1.91	0.83
4:A:573:SER:HG	4:A:575:LYS:HB2	1.43	0.83
5:B:101:MET:C	5:B:102:VAL:CG2	2.46	0.83
5:B:364:ILE:HD13	5:B:585:VAL:HG22	1.60	0.83
7:E:43:LYS:O	7:E:47:CYS:CB	2.25	0.83
13:L:64:LEU:CB	13:L:64:LEU:CD2	2.57	0.83
4:A:1015:VAL:O	4:A:1018:PHE:N	2.12	0.83
4:A:1339:LEU:CD1	7:E:147:HIS:CD2	2.61	0.83
4:A:401:GLY:O	4:A:435:HIS:CB	2.26	0.83
4:A:820:GLY:C	4:A:820:GLY:O	0.63	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:112:LEU:CD1	5:B:113:TYR:H	1.90	0.83
5:B:175:ARG:NH1	5:B:175:ARG:HG2	1.90	0.83
5:B:352:ALA:O	5:B:354:ASP:N	2.10	0.83
5:B:653:VAL:HG12	5:B:654:ARG:H	1.43	0.83
5:B:882:THR:CG2	5:B:935:ARG:HA	2.08	0.83
6:C:63:ILE:O	6:C:66:ARG:N	2.11	0.83
10:I:19:ASP:O	10:I:23:ASN:HA	1.78	0.83
12:K:43:GLY:HA2	12:K:71:PHE:CZ	2.13	0.83
12:K:70:ARG:O	12:K:71:PHE:HB3	1.78	0.83
4:A:224:PHE:CZ	4:A:231:PRO:HG3	2.14	0.83
4:A:58:LEU:CD2	4:A:243:PRO:HB3	2.08	0.83
5:B:321:GLY:O	5:B:324:ILE:N	2.11	0.83
7:E:190:LEU:CD2	7:E:190:LEU:CA	2.57	0.83
7:E:98:ILE:O	7:E:100:ILE:N	2.12	0.83
9:H:135:LEU:HD22	9:H:136:LYS:HD3	1.61	0.83
12:K:10:PHE:CE1	12:K:11:LEU:HD13	2.14	0.83
4:A:1007:ILE:O	4:A:1010:ALA:CB	2.26	0.83
4:A:590:ARG:NH1	4:A:590:ARG:CG	2.12	0.83
5:B:487:THR:HG22	5:B:489:SER:N	1.93	0.83
7:E:85:GLU:OE2	7:E:92:THR:CG2	2.26	0.83
9:H:3:ASN:N	9:H:3:ASN:HA	1.93	0.83
4:A:1026:LEU:CD2	4:A:1026:LEU:HA	2.09	0.82
4:A:1282:VAL:O	4:A:1282:VAL:CG1	2.27	0.82
4:A:1329:THR:CG2	4:A:1331:SER:H	1.91	0.82
4:A:265:LYS:O	4:A:267:ALA:N	2.12	0.82
5:B:984:HIS:CD2	5:B:1024:ALA:HB3	2.13	0.82
5:B:426:LYS:O	5:B:430:ARG:NH1	2.12	0.82
5:B:557:PHE:CD2	5:B:557:PHE:C	2.50	0.82
6:C:115:SER:HB3	6:C:141:GLY:O	1.79	0.82
9:H:59:ILE:O	9:H:60:ALA:HB3	1.77	0.82
4:A:1227:ILE:CG2	4:A:1228:TRP:N	2.41	0.82
4:A:905:ASP:CB	4:A:905:ASP:HA	2.06	0.82
5:B:653:VAL:HG12	5:B:654:ARG:N	1.94	0.82
5:B:882:THR:CG2	5:B:883:LEU:N	2.42	0.82
6:C:146:LYS:NZ	11:J:58:GLU:OE2	2.13	0.82
4:A:11:LEU:O	4:A:12:ARG:HG3	1.78	0.82
4:A:152:VAL:CB	4:A:152:VAL:C	2.48	0.82
5:B:1016:ALA:O	5:B:1017:ILE:HG12	1.79	0.82
5:B:1171:VAL:HG12	5:B:1172:ILE:H	1.45	0.82
7:E:12:LEU:HD21	7:E:58:MET:SD	2.19	0.82
4:A:90:VAL:HG11	4:A:297:GLN:CA	2.10	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:175:ARG:HH11	5:B:175:ARG:CG	1.92	0.82
4:A:1283:VAL:HG12	4:A:1284:MET:H	1.41	0.82
5:B:1191:ILE:HG23	5:B:1192:TYR:N	1.94	0.82
6:C:86:CYS:HB3	6:C:88:CYS:H	1.45	0.82
7:E:157:SER:O	7:E:159:ASP:N	2.12	0.82
8:F:120:ILE:HG22	8:F:121:ALA:N	1.95	0.82
9:H:58:THR:HG22	9:H:59:ILE:CA	2.09	0.82
4:A:1397:LEU:O	4:A:1400:CYS:HB2	1.79	0.82
5:B:133:LYS:HA	5:B:133:LYS:C	1.96	0.82
5:B:449:ASN:HD21	5:B:451:LYS:HD2	1.43	0.82
5:B:870:ILE:HB	5:B:870:ILE:CG2	2.05	0.82
5:B:882:THR:CB	5:B:934:LYS:C	2.48	0.82
4:A:657:LEU:O	4:A:658:LEU:C	2.15	0.82
5:B:640:VAL:HG23	5:B:740:HIS:CA	2.09	0.82
5:B:492:LEU:HB3	5:B:751:VAL:HG21	1.61	0.82
7:E:39:LEU:O	7:E:42:PHE:N	2.13	0.82
13:L:64:LEU:HG	13:L:64:LEU:CD1	2.08	0.82
4:A:130:ASP:O	4:A:131:SER:C	2.18	0.82
4:A:237:THR:HB	4:A:238:CYS:N	1.95	0.82
4:A:179:LEU:HD13	4:A:297:GLN:HG2	1.60	0.82
4:A:842:VAL:CG1	4:A:842:VAL:O	2.26	0.82
5:B:474:SER:O	5:B:476:ARG:N	2.13	0.82
9:H:42:ILE:O	9:H:42:ILE:HG22	1.79	0.82
12:K:49:GLU:O	12:K:51:LEU:N	2.12	0.82
13:L:27:LEU:O	13:L:28:LYS:HG2	1.79	0.82
4:A:380:VAL:CG2	4:A:430:TRP:O	2.27	0.82
4:A:495:GLU:O	4:A:498:ARG:HG3	1.80	0.82
4:A:805:LEU:O	4:A:805:LEU:HD12	1.80	0.82
4:A:900:ASP:HA	4:A:926:GLN:CD	1.99	0.82
5:B:1165:ILE:CG2	5:B:1166:CYS:HB3	2.04	0.82
5:B:223:VAL:O	5:B:223:VAL:CG1	2.27	0.82
5:B:956:THR:OG1	5:B:961:LEU:O	1.96	0.82
4:A:1242:VAL:HG12	4:A:1243:VAL:H	1.43	0.82
4:A:219:PHE:O	4:A:222:LEU:O	1.97	0.82
4:A:367:PRO:HG2	4:A:370:ILE:HD12	1.62	0.82
4:A:523:ILE:HG22	4:A:528:LEU:HB2	1.60	0.82
4:A:588:LEU:O	4:A:607:ILE:N	2.12	0.82
5:B:234:ILE:H	5:B:234:ILE:HD13	1.44	0.82
5:B:640:VAL:HG23	5:B:739:THR:C	2.00	0.82
6:C:206:ASN:ND2	6:C:229:TYR:CD2	2.47	0.82
4:A:1284:MET:HG2	4:A:1306:LEU:CD2	2.09	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1325:THR:HG22	4:A:1326:ARG:HG3	1.61	0.81
4:A:476:SER:O	4:A:477:PRO:C	2.06	0.81
4:A:573:SER:OG	4:A:575:LYS:HB2	1.80	0.81
4:A:886:ILE:HG12	4:A:943:LEU:CD1	2.10	0.81
7:E:118:PRO:O	7:E:122:LYS:HD2	1.79	0.81
7:E:199:ILE:CG2	7:E:199:ILE:O	2.25	0.81
4:A:900:ASP:O	4:A:907:THR:HA	1.80	0.81
5:B:744:HIS:HD2	5:B:746:SER:OG	1.62	0.81
5:B:788:ARG:NH1	5:B:790:ASP:OD1	2.13	0.81
10:I:62:ILE:CG2	10:I:63:GLY:N	2.43	0.81
4:A:519:PRO:O	4:A:519:PRO:HG2	1.80	0.81
5:B:431:TYR:CD1	5:B:447:ALA:CB	2.62	0.81
5:B:805:THR:HA	5:B:809:MET:CE	2.10	0.81
7:E:20:LYS:O	7:E:23:VAL:N	2.12	0.81
8:F:83:PRO:CD	8:F:84:TYR:H	1.90	0.81
4:A:1389:PHE:CE1	4:A:1390:ASN:OD1	2.32	0.81
4:A:218:ASP:O	4:A:222:LEU:HD12	1.80	0.81
4:A:316:GLN:N	4:A:317:LYS:H	1.78	0.81
5:B:63:ILE:CG1	5:B:421:PHE:CZ	2.63	0.81
8:F:98:ALA:HA	8:F:101:ILE:HD12	1.61	0.81
4:A:1445:ILE:CB	4:A:1445:ILE:N	2.44	0.81
4:A:182:VAL:HG12	4:A:182:VAL:O	1.81	0.81
4:A:58:LEU:HD22	4:A:243:PRO:CB	2.10	0.81
5:B:1210:MET:HE2	5:B:1210:MET:HB2	1.60	0.81
5:B:723:VAL:O	5:B:724:ASP:C	2.17	0.81
8:F:81:THR:HG22	8:F:136:ARG:NH1	1.94	0.81
13:L:50:ASP:CA	13:L:51:CYS:N	2.44	0.81
4:A:139:TRP:O	4:A:141:LEU:N	2.13	0.81
4:A:230:ARG:O	4:A:233:TRP:HB2	1.80	0.81
4:A:414:ASP:C	4:A:414:ASP:OD1	2.18	0.81
4:A:635:ARG:HH21	4:A:877:HIS:HA	1.45	0.81
4:A:946:VAL:HG11	4:A:947:PHE:CE1	2.14	0.81
5:B:863:GLU:OE2	5:B:872:GLU:O	1.99	0.81
6:C:52:GLU:OE2	6:C:154:LYS:HG2	1.80	0.81
4:A:1036:ARG:O	4:A:1037:LEU:O	1.96	0.81
4:A:103:CYS:O	4:A:104:GLU:C	2.19	0.81
4:A:1159:ARG:O	4:A:1160:SER:HB3	1.78	0.81
4:A:1170:ILE:O	4:A:1171:GLN:O	1.99	0.81
4:A:138:ILE:HG22	4:A:139:TRP:N	1.93	0.81
4:A:608:ILE:C	4:A:609:ASP:O	2.16	0.81
4:A:70:CYS:O	4:A:71:GLN:OE1	1.98	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1036:ARG:HG3	4:A:1036:ARG:HH11	1.46	0.81
4:A:1100:ARG:O	4:A:1101:LEU:C	2.17	0.81
4:A:302:THR:HA	4:A:305:ASP:O	1.81	0.81
4:A:57:ARG:HB3	4:A:68:GLN:CB	2.10	0.81
4:A:993:LEU:HD11	4:A:997:LEU:HD21	1.63	0.81
5:B:550:ASP:OD1	5:B:551:PRO:HD3	1.78	0.81
5:B:860:MET:CG	5:B:861:ASP:H	1.94	0.81
5:B:980:PHE:O	5:B:981:ALA:CB	2.19	0.81
6:C:205:LYS:HG3	6:C:208:GLU:OE1	1.80	0.81
6:C:46:ILE:HG21	6:C:157:CYS:HB3	1.62	0.81
7:E:168:TYR:C	7:E:169:ARG:CG	2.49	0.81
4:A:325:ILE:CG2	4:A:325:ILE:O	2.29	0.81
4:A:125:ALA:HA	4:A:125:ALA:C	1.99	0.81
4:A:1438:THR:CG2	4:A:1438:THR:CA	2.58	0.81
4:A:244:PRO:CG	4:A:245:PRO:HD2	2.11	0.81
4:A:404:TYR:N	4:A:404:TYR:CD1	2.45	0.81
4:A:527:THR:CG2	4:A:527:THR:O	2.27	0.81
12:K:83:PRO:HA	12:K:86:ALA:HB3	1.63	0.81
4:A:58:LEU:HD22	4:A:243:PRO:HB3	1.63	0.81
4:A:460:VAL:HG12	4:A:461:LYS:N	1.93	0.81
8:F:90:ARG:O	8:F:94:LEU:HB2	1.81	0.81
10:I:47:GLU:OE1	10:I:50:THR:HG23	1.80	0.81
13:L:29:TYR:HB3	13:L:56:LEU:HD22	1.63	0.81
4:A:116:ASP:O	4:A:119:ASN:N	2.14	0.80
5:B:244:LEU:HG	5:B:244:LEU:CD2	2.09	0.80
5:B:42:GLY:C	5:B:43:LEU:HD23	2.00	0.80
5:B:45:SER:O	5:B:46:GLN:C	2.19	0.80
5:B:882:THR:N	5:B:882:THR:HA	1.95	0.80
5:B:976:ILE:HG22	5:B:977:GLY:N	1.94	0.80
4:A:218:ASP:O	4:A:219:PHE:O	2.00	0.80
4:A:463:ILE:HB	4:A:464:PRO:HD2	1.62	0.80
4:A:483:ASP:OD2	4:A:483:ASP:N	2.13	0.80
4:A:528:LEU:HD13	4:A:531:ILE:HG23	1.63	0.80
5:B:179:CYS:SG	5:B:181:LEU:HD12	2.21	0.80
7:E:35:VAL:O	7:E:37:LEU:N	2.13	0.80
9:H:144:ILE:CA	9:H:144:ILE:CG2	2.59	0.80
6:C:58:LEU:HD21	11:J:57:ILE:HD13	1.62	0.80
12:K:82:ASP:OD1	12:K:83:PRO:HG2	1.80	0.80
4:A:1364:ASN:HD21	4:A:1366:ARG:H	1.29	0.80
4:A:339:ASN:HB3	5:B:1117:GLN:HE22	1.46	0.80
5:B:175:ARG:NH1	5:B:175:ARG:CG	2.45	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:532:ALA:N	5:B:532:ALA:CB	2.44	0.80
8:F:101:ILE:HB	8:F:101:ILE:CG2	2.08	0.80
10:I:25:LEU:O	10:I:26:LEU:HD23	1.81	0.80
12:K:1:MET:O	12:K:1:MET:CG	2.30	0.80
12:K:70:ARG:O	12:K:71:PHE:CB	2.23	0.80
12:K:93:SER:O	12:K:97:LYS:HG3	1.81	0.80
4:A:1015:VAL:CG1	4:A:1019:CYS:SG	2.70	0.80
4:A:399:HIS:O	4:A:401:GLY:N	2.14	0.80
4:A:40:THR:HG21	4:A:259:GLU:OE2	1.81	0.80
4:A:946:VAL:HG12	4:A:947:PHE:CE1	2.14	0.80
5:B:1007:VAL:HG13	5:B:1008:PRO:N	1.93	0.80
5:B:1184:GLY:O	5:B:1186:ASP:OD2	1.98	0.80
5:B:476:ARG:C	5:B:478:GLY:N	2.34	0.80
5:B:634:TYR:C	5:B:635:ARG:HG2	2.00	0.80
7:E:47:CYS:HA	7:E:52:ARG:O	1.81	0.80
9:H:36:CYS:SG	9:H:130:ARG:NH2	2.54	0.80
5:B:325:GLN:NE2	10:I:12:ASN:OD1	2.14	0.80
4:A:1026:LEU:HD23	4:A:1026:LEU:HA	1.63	0.80
4:A:318:SER:O	4:A:319:GLY:O	2.00	0.80
7:E:116:ILE:HG21	7:E:121:MET:HG2	1.62	0.80
4:A:1009:ASN:O	4:A:1013:ASP:OD2	1.97	0.80
4:A:1029:ARG:O	4:A:1033:GLN:N	2.12	0.80
4:A:1099:PRO:HG2	4:A:1100:ARG:H	1.47	0.80
4:A:114:LEU:O	4:A:115:LEU:CD2	2.30	0.80
4:A:754:SER:OG	4:A:757:ASN:ND2	2.13	0.80
5:B:185:THR:HG21	5:B:188:ASP:OD2	1.82	0.80
5:B:781:PHE:O	5:B:782:LEU:HG	1.80	0.80
6:C:129:ILE:O	6:C:129:ILE:HG22	1.81	0.80
11:J:7:CYS:HB2	11:J:49:MET:HE3	1.63	0.80
4:A:532:ARG:C	4:A:532:ARG:CG	2.50	0.80
5:B:377:PHE:O	5:B:379:GLY:N	2.15	0.80
5:B:536:VAL:HG12	5:B:537:LYS:N	1.93	0.80
5:B:642:ASP:C	5:B:644:GLU:N	2.34	0.80
5:B:701:ILE:HG12	5:B:702:LEU:N	1.97	0.80
6:C:18:VAL:HG21	6:C:240:VAL:CG1	2.11	0.80
10:I:35:VAL:HG13	10:I:36:GLU:N	1.96	0.80
4:A:1366:ARG:O	4:A:1369:ALA:HB3	1.80	0.80
4:A:599:SER:O	4:A:601:LYS:N	2.14	0.80
4:A:645:LEU:O	4:A:649:ILE:HG13	1.81	0.80
6:C:121:VAL:CG1	6:C:121:VAL:CA	2.56	0.80
10:I:19:ASP:HB3	10:I:24:ARG:HG2	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:20:DC:C2'	2:T:21:DC:C5'	2.45	0.80
4:A:103:CYS:C	4:A:105:CYS:H	1.86	0.80
4:A:1282:VAL:C	4:A:1283:VAL:CG2	2.47	0.80
4:A:315:LEU:HA	4:A:315:LEU:CB	2.07	0.80
4:A:553:VAL:HG13	4:A:648:ASN:HB3	1.63	0.80
5:B:710:LEU:O	5:B:711:GLU:HG2	1.82	0.80
6:C:33:LEU:CD1	6:C:37:MET:CE	2.60	0.80
4:A:1102:LYS:O	4:A:1106:ASN:ND2	2.13	0.80
4:A:967:ALA:HB2	4:A:1044:TRP:CZ3	2.16	0.80
5:B:166:PHE:HD2	5:B:166:PHE:C	1.83	0.80
5:B:515:HIS:CD2	5:B:517:THR:H	2.00	0.80
5:B:946:ASN:OD1	5:B:946:ASN:N	2.08	0.80
10:I:6:PHE:HB3	10:I:12:ASN:O	1.80	0.80
10:I:4:PHE:CD1	10:I:5:ARG:N	2.48	0.80
6:C:57:VAL:HG21	11:J:57:ILE:HD11	1.64	0.80
4:A:1389:PHE:C	4:A:1389:PHE:HD1	1.81	0.79
4:A:1423:GLY:O	4:A:1424:VAL:O	2.00	0.79
4:A:401:GLY:O	4:A:435:HIS:CG	2.35	0.79
4:A:664:THR:CA	4:A:664:THR:CG2	2.61	0.79
4:A:921:GLY:C	4:A:922:ASP:O	2.17	0.79
5:B:59:LEU:HG	5:B:59:LEU:CD2	2.10	0.79
6:C:164:ALA:O	6:C:166:GLU:N	2.16	0.79
7:E:187:TYR:HD2	7:E:188:LEU:CD2	1.94	0.79
9:H:101:ALA:HB2	9:H:116:TYR:HD2	1.48	0.79
9:H:34:ASP:HA	9:H:34:ASP:CB	2.09	0.79
12:K:57:LEU:CB	12:K:76:GLN:HG2	2.12	0.79
4:A:1044:TRP:O	4:A:1047:SER:N	2.15	0.79
4:A:92:HIS:HB2	4:A:236:LEU:CD1	2.13	0.79
4:A:261:ASP:HB3	4:A:323:LYS:HD2	1.63	0.79
5:B:552:MET:N	5:B:553:PRO:HD2	1.96	0.79
5:B:817:LEU:N	5:B:818:PRO:CD	2.44	0.79
7:E:204:THR:HG22	7:E:205:SER:N	1.96	0.79
7:E:36:GLU:O	7:E:38:PRO:HD3	1.83	0.79
1:R:5:A:H2'	1:R:6:G:C8	2.18	0.79
4:A:1173:HIS:N	4:A:1173:HIS:HA	1.93	0.79
4:A:741:ASN:ND2	4:A:743:VAL:N	2.30	0.79
6:C:141:GLY:O	6:C:142:VAL:HB	1.80	0.79
6:C:5:GLY:O	6:C:7:GLN:HG2	1.82	0.79
7:E:190:LEU:HD23	7:E:190:LEU:N	1.96	0.79
7:E:39:LEU:O	7:E:40:GLU:C	2.20	0.79
5:B:955:THR:CG2	13:L:54:ARG:O	2.29	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1191:TRP:CZ2	4:A:1257:ASP:OD1	2.36	0.79
4:A:265:LYS:C	4:A:267:ALA:H	1.85	0.79
4:A:26:GLU:O	4:A:28:ARG:N	2.15	0.79
4:A:321:PRO:C	4:A:322:VAL:HG22	2.02	0.79
5:B:101:MET:C	5:B:102:VAL:HG23	2.01	0.79
5:B:300:HIS:CE1	5:B:376:PHE:CZ	2.67	0.79
7:E:189:GLY:C	7:E:190:LEU:HD23	2.02	0.79
9:H:126:GLU:C	9:H:130:ARG:HH11	1.84	0.79
4:A:1299:VAL:HG12	4:A:1300:LYS:HB2	1.65	0.79
4:A:262:LEU:N	4:A:262:LEU:HD23	1.94	0.79
5:B:1084:GLN:OE1	5:B:1084:GLN:N	2.16	0.79
5:B:211:VAL:CG1	5:B:212:LEU:N	2.44	0.79
5:B:865:LYS:HA	5:B:865:LYS:N	1.93	0.79
4:A:1339:LEU:CD1	7:E:147:HIS:HD2	1.96	0.79
7:E:157:SER:OG	7:E:160:GLU:HB2	1.83	0.79
4:A:1042:PHE:CZ	4:A:1046:LEU:HD12	2.16	0.79
4:A:596:THR:C	4:A:596:THR:HB	2.01	0.79
5:B:1115:THR:HG21	5:B:1117:GLN:HG3	1.62	0.79
5:B:276:ILE:HG22	5:B:277:LYS:H	1.47	0.79
5:B:736:THR:O	5:B:736:THR:HG22	1.80	0.79
4:A:254:GLU:O	5:B:918:ILE:HG13	1.82	0.79
10:I:25:LEU:HD12	10:I:26:LEU:N	1.96	0.79
4:A:1138:ILE:O	4:A:1276:VAL:N	2.16	0.79
4:A:942:PHE:O	4:A:942:PHE:CD2	2.36	0.79
5:B:1156:ASP:HB3	5:B:1198:TYR:H	1.46	0.79
5:B:737:THR:HG23	10:I:66:PRO:HB2	1.65	0.79
6:C:119:VAL:O	6:C:119:VAL:HG12	1.80	0.79
6:C:143:LEU:C	6:C:143:LEU:HD12	2.03	0.79
7:E:215:MET:SD	7:E:215:MET:CE	2.71	0.79
11:J:57:ILE:CG2	11:J:57:ILE:CA	2.60	0.79
4:A:1189:SER:CB	4:A:1190:PRO:CD	2.61	0.79
4:A:59:GLY:HA2	4:A:67:CYS:SG	2.23	0.79
5:B:266:ALA:C	5:B:266:ALA:HA	2.02	0.79
5:B:356:LEU:CD2	5:B:356:LEU:N	2.25	0.79
5:B:449:ASN:C	5:B:449:ASN:OD1	2.18	0.79
6:C:229:TYR:HD1	6:C:229:TYR:H	1.28	0.79
7:E:55:ARG:O	7:E:58:MET:HB2	1.82	0.79
7:E:78:LEU:HB2	7:E:107:THR:CG2	2.13	0.79
12:K:21:ILE:HG22	12:K:21:ILE:O	1.80	0.79
4:A:834:THR:CG2	4:A:1077:THR:HG23	2.13	0.79
4:A:1308:THR:CG2	4:A:1310:GLY:N	2.44	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:139:TRP:O	4:A:140:THR:C	2.17	0.79
4:A:247:ARG:HH11	4:A:263:THR:HG23	1.46	0.79
4:A:741:ASN:HD22	4:A:743:VAL:H	1.29	0.79
4:A:87:ALA:CB	4:A:88:LYS:N	2.44	0.79
5:B:1072:MET:CB	5:B:1072:MET:SD	2.71	0.79
5:B:114:PRO:O	5:B:115:GLN:C	2.18	0.79
5:B:329:THR:HG22	5:B:332:ASP:OD2	1.82	0.79
5:B:430:ARG:O	5:B:431:TYR:O	2.01	0.79
5:B:477:ALA:CB	5:B:479:VAL:CA	2.60	0.79
5:B:25:ILE:HD11	5:B:653:VAL:HB	1.65	0.79
6:C:18:VAL:CG2	6:C:240:VAL:CG1	2.61	0.79
7:E:186:LEU:HG	7:E:186:LEU:CD2	2.11	0.79
4:A:1025:ARG:HG2	4:A:1025:ARG:NH1	1.98	0.79
4:A:1042:PHE:HE2	4:A:1046:LEU:HD12	1.41	0.79
4:A:76:GLU:OE1	5:B:1159:ARG:NH1	2.14	0.79
5:B:1060:ARG:C	5:B:1062:HIS:N	2.37	0.79
5:B:1170:THR:CG2	5:B:1183:LYS:NZ	2.46	0.79
5:B:120:ARG:HD2	5:B:955:THR:HG21	1.63	0.79
4:A:1161:THR:CA	4:A:1161:THR:CG2	2.62	0.78
4:A:179:LEU:HD13	4:A:297:GLN:CG	2.12	0.78
4:A:605:MET:SD	4:A:605:MET:CB	2.72	0.78
6:C:242:GLN:O	6:C:246:ARG:CG	2.31	0.78
7:E:113:GLN:HA	7:E:137:GLU:CG	2.10	0.78
10:I:41:PRO:HD2	10:I:42:LEU:H	1.46	0.78
4:A:407:ARG:HD3	4:A:413:ILE:HD13	1.63	0.78
4:A:709:THR:HG22	4:A:711:ARG:N	1.98	0.78
4:A:635:ARG:CZ	4:A:877:HIS:ND1	2.46	0.78
4:A:18:GLN:CB	5:B:1215:ARG:HB2	2.14	0.78
4:A:320:ARG:NH2	5:B:471:LYS:HA	1.98	0.78
5:B:856:PHE:N	5:B:856:PHE:CD1	2.50	0.78
10:I:81:ARG:C	10:I:82:GLU:CG	2.36	0.78
11:J:57:ILE:HA	11:J:60:PHE:CD2	2.18	0.78
4:A:14:VAL:HG23	4:A:1432:GLN:NE2	1.98	0.78
4:A:237:THR:CB	4:A:238:CYS:N	2.46	0.78
4:A:61:ILE:O	4:A:63:ARG:N	2.15	0.78
6:C:44:LEU:CD1	6:C:160:LYS:O	2.32	0.78
4:A:1280:GLU:C	4:A:1281:ARG:O	2.19	0.78
4:A:1338:VAL:HG12	4:A:1339:LEU:N	1.98	0.78
4:A:1390:ASN:HD22	4:A:1399:ARG:HB3	1.48	0.78
4:A:267:ALA:O	4:A:271:LYS:N	2.16	0.78
5:B:1106:ARG:NH2	5:B:1109:GLY:O	2.16	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1202:LEU:O	5:B:1203:LEU:C	2.22	0.78
5:B:256:VAL:HG11	5:B:382:ILE:HD11	1.65	0.78
12:K:10:PHE:CD1	12:K:11:LEU:HD13	2.17	0.78
4:A:1299:VAL:HG12	4:A:1300:LYS:N	1.94	0.78
5:B:46:GLN:HG3	5:B:47:GLN:H	1.47	0.78
5:B:667:GLN:HA	5:B:667:GLN:CB	2.10	0.78
6:C:253:LYS:O	6:C:256:ALA:CB	2.30	0.78
6:C:45:ALA:HA	6:C:72:LEU:HD12	1.65	0.78
10:I:62:ILE:HG22	10:I:63:GLY:N	1.97	0.78
11:J:22:LEU:N	11:J:22:LEU:CD1	2.46	0.78
12:K:5:ASP:O	12:K:6:ARG:C	2.14	0.78
13:L:61:THR:CG2	13:L:61:THR:HB	2.12	0.78
4:A:614:PHE:CD1	4:A:614:PHE:C	2.55	0.78
4:A:900:ASP:CA	4:A:926:GLN:HE22	1.91	0.78
5:B:200:GLY:HA2	5:B:202:TYR:CE2	2.17	0.78
5:B:278:GLN:HG2	5:B:279:ASP:H	1.46	0.78
7:E:118:PRO:O	7:E:122:LYS:CD	2.31	0.78
7:E:135:PHE:HB3	7:E:140:LEU:CD1	2.13	0.78
4:A:133:LYS:O	4:A:137:ALA:HB2	1.84	0.78
4:A:181:LEU:O	4:A:202:LEU:HD12	1.84	0.78
4:A:312:PRO:O	4:A:313:GLN:CG	2.31	0.78
4:A:596:THR:HB	4:A:596:THR:CA	2.12	0.78
4:A:741:ASN:HD22	4:A:743:VAL:N	1.80	0.78
4:A:996:ASN:O	4:A:998:LEU:CB	2.28	0.78
5:B:168:GLY:C	5:B:454:THR:OG1	2.22	0.78
5:B:423:LYS:O	5:B:424:LEU:C	2.16	0.78
5:B:585:VAL:HG12	5:B:587:HIS:CD2	2.18	0.78
5:B:800:GLN:HG3	11:J:52:THR:CG2	2.13	0.78
6:C:121:VAL:O	6:C:121:VAL:HG13	1.84	0.78
6:C:164:ALA:C	6:C:166:GLU:H	1.87	0.78
4:A:34:LYS:H	4:A:35:ILE:HG12	1.46	0.78
4:A:680:THR:HG22	4:A:681:GLU:N	1.98	0.78
4:A:993:LEU:O	4:A:995:GLU:N	2.17	0.78
7:E:113:GLN:HB3	7:E:137:GLU:OE1	1.83	0.78
12:K:83:PRO:O	12:K:86:ALA:HB3	1.84	0.78
4:A:1402:PHE:CD2	4:A:1403:GLU:N	2.52	0.78
4:A:49:LYS:HZ2	4:A:60:SER:CA	1.97	0.78
4:A:559:VAL:O	4:A:560:ILE:C	2.10	0.78
4:A:582:ILE:HG23	4:A:583:PRO:HD2	1.65	0.78
4:A:777:PHE:HE2	4:A:782:ARG:HA	1.47	0.78
4:A:929:LEU:N	4:A:929:LEU:CD2	2.47	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:98:LYS:O	4:A:100:LYS:N	2.17	0.78
5:B:1077:THR:HG21	5:B:1079:LYS:HB2	1.66	0.78
5:B:195:CYS:CB	5:B:782:LEU:HD22	2.14	0.78
5:B:69:LEU:CA	5:B:70:ILE:N	2.47	0.78
6:C:58:LEU:N	6:C:58:LEU:CD2	2.47	0.78
7:E:60:PHE:CE2	7:E:80:VAL:CG2	2.62	0.78
12:K:61:TYR:HD1	12:K:62:LYS:N	1.82	0.78
12:K:92:ASN:O	12:K:96:ASN:ND2	2.16	0.78
13:L:58:LYS:CG	13:L:58:LYS:O	2.30	0.78
4:A:1259:MET:O	4:A:1261:LYS:N	2.17	0.78
4:A:179:LEU:CD1	4:A:297:GLN:CG	2.61	0.78
4:A:305:ASP:C	4:A:306:ASN:ND2	2.38	0.78
4:A:321:PRO:C	4:A:321:PRO:CD	2.53	0.78
4:A:380:VAL:HG21	4:A:430:TRP:N	1.94	0.78
4:A:382:PRO:HD3	4:A:428:TYR:CE2	2.18	0.78
4:A:491:VAL:HG13	4:A:492:PRO:HD2	1.65	0.78
4:A:505:CYS:SG	5:B:1141:HIS:HD2	2.07	0.78
5:B:1106:ARG:HH21	5:B:1109:GLY:CA	1.97	0.78
5:B:866:TYR:CA	5:B:867:GLY:N	2.46	0.78
5:B:899:ILE:HG22	5:B:900:ALA:N	1.98	0.78
7:E:59:SER:O	7:E:79:TRP:CH2	2.36	0.78
4:A:1074:GLU:HB3	4:A:1075:PRO:HD3	1.66	0.77
4:A:1355:VAL:CA	4:A:1355:VAL:HB	2.09	0.77
4:A:381:THR:O	4:A:384:ASN:N	2.16	0.77
4:A:901:LEU:HB2	4:A:926:GLN:HG3	1.65	0.77
4:A:971:PHE:HB2	4:A:973:ILE:HD13	1.65	0.77
7:E:13:TRP:O	7:E:16:PHE:HB3	1.84	0.77
4:A:573:SER:O	4:A:576:GLN:HB2	1.85	0.77
4:A:794:PRO:HG2	4:A:795:GLU:HG2	1.67	0.77
5:B:26:THR:O	5:B:29:ASP:HB2	1.84	0.77
10:I:50:THR:HG22	10:I:52:ILE:H	1.47	0.77
12:K:83:PRO:HA	12:K:86:ALA:CB	2.14	0.77
4:A:1203:ASN:O	4:A:1204:ASP:C	2.22	0.77
4:A:1208:THR:HA	4:A:1231:ASP:OD1	1.84	0.77
4:A:526:ASP:OD1	5:B:829:CYS:SG	2.42	0.77
4:A:705:LYS:O	4:A:706:HIS:O	2.01	0.77
4:A:820:GLY:HA2	4:A:823:GLY:N	1.97	0.77
4:A:901:LEU:HB2	4:A:926:GLN:CG	2.15	0.77
5:B:273:LEU:C	5:B:274:PRO:O	2.19	0.77
5:B:273:LEU:CD2	5:B:360:PHE:CD1	2.67	0.77
5:B:756:ILE:O	5:B:756:ILE:HG22	1.82	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:69:LEU:HB3	11:J:5:VAL:HG11	1.64	0.77
7:E:64:PRO:CG	7:E:76:GLY:HA2	2.14	0.77
4:A:894:GLU:HG3	4:A:898:ARG:HB2	1.64	0.77
5:B:1106:ARG:HG3	5:B:1107:ALA:N	1.99	0.77
5:B:1196:ILE:HB	5:B:1197:PRO:CD	2.13	0.77
5:B:367:LEU:CD1	5:B:367:LEU:CD2	2.62	0.77
4:A:465:TYR:CD2	5:B:976:ILE:HD12	2.19	0.77
6:C:33:LEU:HD11	6:C:37:MET:HE1	1.66	0.77
12:K:84:LYS:O	12:K:87:LEU:HB3	1.84	0.77
4:A:1355:VAL:O	4:A:1358:SER:OG	2.01	0.77
4:A:443:LEU:HD21	4:A:456:MET:H	1.49	0.77
5:B:957:ASN:ND2	5:B:958:GLN:CB	2.47	0.77
6:C:47:ASP:O	6:C:48:SER:HB2	1.84	0.77
4:A:1073:GLY:O	4:A:1076:ALA:HB3	1.85	0.77
4:A:1444:MET:C	4:A:1444:MET:HA	2.02	0.77
4:A:316:GLN:N	4:A:317:LYS:N	2.33	0.77
4:A:522:GLY:C	4:A:523:ILE:HD12	2.03	0.77
4:A:582:ILE:HG22	4:A:583:PRO:N	1.99	0.77
5:B:1106:ARG:NH2	5:B:1109:GLY:CA	2.48	0.77
5:B:800:GLN:CG	11:J:52:THR:CG2	2.62	0.77
5:B:806:THR:HG22	5:B:808:ALA:H	1.50	0.77
6:C:253:LYS:O	6:C:256:ALA:HB3	1.85	0.77
13:L:32:ALA:HB3	13:L:55:ILE:HD12	1.66	0.77
4:A:1256:GLU:O	4:A:1259:MET:N	2.18	0.77
4:A:273:ASN:OD1	4:A:296:LEU:HD21	1.85	0.77
4:A:265:LYS:NZ	4:A:322:VAL:CG2	2.47	0.77
4:A:540:PHE:HD2	4:A:572:TRP:O	1.68	0.77
5:B:273:LEU:HD21	5:B:360:PHE:CD1	2.20	0.77
5:B:731:VAL:HG12	5:B:732:SER:N	1.99	0.77
5:B:770:GLN:CG	5:B:770:GLN:O	2.32	0.77
5:B:848:ARG:HD2	11:J:7:CYS:O	1.85	0.77
6:C:265:MET:SD	6:C:265:MET:CE	2.73	0.77
7:E:111:VAL:HB	7:E:111:VAL:CG1	2.10	0.77
10:I:14:LEU:HA	10:I:15:TYR:HD1	1.47	0.77
11:J:36:LEU:HD12	11:J:47:ARG:HG2	1.67	0.77
11:J:52:THR:C	11:J:52:THR:HA	2.02	0.77
4:A:381:THR:HG23	4:A:382:PRO:HG2	1.67	0.77
4:A:399:HIS:CG	4:A:400:PRO:N	2.49	0.77
5:B:1166:CYS:O	5:B:1168:LEU:HB2	1.84	0.77
4:A:944:ARG:CG	4:A:1298:TYR:OH	2.28	0.77
4:A:353:ILE:HG13	4:A:353:ILE:O	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:828:ALA:HB1	5:B:530:GLY:HA2	1.67	0.77
5:B:557:PHE:O	5:B:557:PHE:CD2	2.38	0.77
5:B:617:ARG:NE	5:B:619:ILE:HD13	1.99	0.77
5:B:705:MET:H	5:B:710:LEU:HD12	1.46	0.77
8:F:122:MET:CE	8:F:122:MET:HB3	2.14	0.77
4:A:378:GLU:OE1	4:A:434:ARG:NH1	2.18	0.77
5:B:1197:PRO:O	5:B:1200:ALA:HB3	1.85	0.77
5:B:860:MET:HG3	5:B:861:ASP:N	2.00	0.77
4:A:1291:VAL:HG13	4:A:1292:PRO:HD2	1.65	0.76
4:A:220:THR:O	4:A:221:SER:C	2.15	0.76
5:B:295:GLY:HA2	5:B:298:LEU:HG	1.66	0.76
5:B:650:GLU:HG3	5:B:651:LEU:N	1.98	0.76
6:C:129:ILE:CG2	6:C:129:ILE:O	2.30	0.76
7:E:15:ALA:O	7:E:19:VAL:HG23	1.84	0.76
7:E:54:GLN:O	7:E:57:MET:HB3	1.85	0.76
9:H:109:LYS:CB	9:H:110:ASP:CG	2.53	0.76
9:H:138:GLU:C	9:H:139:ASN:O	2.22	0.76
11:J:22:LEU:HD12	11:J:22:LEU:N	1.95	0.76
11:J:51:LEU:O	11:J:51:LEU:HD12	1.84	0.76
4:A:1015:VAL:HG12	4:A:1019:CYS:SG	2.24	0.76
4:A:1057:VAL:HB	4:A:1057:VAL:CG1	2.13	0.76
4:A:1117:THR:N	4:A:1328:TYR:O	2.18	0.76
4:A:1322:ILE:HD13	4:A:1322:ILE:H	1.50	0.76
4:A:1441:PHE:CZ	8:F:89:GLU:CA	2.67	0.76
4:A:26:GLU:O	4:A:27:VAL:C	2.22	0.76
4:A:34:LYS:NZ	4:A:57:ARG:NH2	2.33	0.76
4:A:709:THR:CG2	4:A:711:ARG:H	1.99	0.76
4:A:922:ASP:OD1	4:A:923:LEU:N	2.18	0.76
5:B:1060:ARG:HG3	5:B:1061:GLU:N	2.00	0.76
9:H:51:ALA:O	9:H:52:GLN:O	2.04	0.76
9:H:57:VAL:CG1	9:H:57:VAL:HB	2.11	0.76
4:A:106:VAL:CG1	4:A:107:CYS:N	2.48	0.76
4:A:1336:MET:HE3	4:A:1381:LEU:HG	1.67	0.76
4:A:286:HIS:HA	4:A:286:HIS:C	2.00	0.76
5:B:195:CYS:HB2	5:B:782:LEU:HD22	1.67	0.76
9:H:109:LYS:CA	9:H:110:ASP:N	2.47	0.76
4:A:103:CYS:C	4:A:105:CYS:N	2.39	0.76
4:A:1076:ALA:C	4:A:1078:GLN:H	1.88	0.76
4:A:1150:SER:OG	4:A:1264:GLU:OE1	2.01	0.76
4:A:944:ARG:HG2	4:A:1298:TYR:CZ	2.20	0.76
4:A:491:VAL:HG12	4:A:492:PRO:HD2	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:546:VAL:CG2	4:A:546:VAL:CG1	2.62	0.76
4:A:820:GLY:O	4:A:821:ARG:N	2.18	0.76
5:B:1203:LEU:HD12	5:B:1203:LEU:O	1.85	0.76
5:B:26:THR:O	5:B:27:ALA:C	2.22	0.76
5:B:287:ARG:HA	5:B:291:ILE:O	1.84	0.76
5:B:69:LEU:HA	5:B:70:ILE:N	2.00	0.76
5:B:883:LEU:CD1	5:B:883:LEU:CD2	2.63	0.76
5:B:957:ASN:HD22	5:B:958:GLN:N	1.80	0.76
7:E:116:ILE:HG21	7:E:121:MET:CG	2.15	0.76
4:A:112:LYS:O	4:A:114:LEU:CD2	2.34	0.76
4:A:1445:ILE:N	4:A:1445:ILE:CG1	2.48	0.76
4:A:898:ARG:O	4:A:899:VAL:HG23	1.85	0.76
5:B:1106:ARG:CG	5:B:1107:ALA:N	2.49	0.76
5:B:225:VAL:HG13	5:B:238:ALA:HB2	1.67	0.76
5:B:167:ILE:CG2	5:B:424:LEU:HD13	2.09	0.76
5:B:744:HIS:CD2	5:B:745:PRO:HD3	2.20	0.76
8:F:111:LEU:CD1	8:F:111:LEU:N	2.49	0.76
10:I:32:CYS:SG	10:I:34:TYR:N	2.55	0.76
4:A:1033:GLN:O	4:A:1033:GLN:CG	2.34	0.76
4:A:1294:PRO:HB2	4:A:1295:THR:HG22	1.67	0.76
4:A:1329:THR:HG22	4:A:1331:SER:N	1.98	0.76
4:A:151:ASP:OD1	4:A:162:VAL:O	2.04	0.76
4:A:315:LEU:CA	4:A:315:LEU:HB2	2.13	0.76
4:A:49:LYS:O	4:A:50:ILE:HG12	1.85	0.76
4:A:546:VAL:O	4:A:550:LEU:HD22	1.85	0.76
5:B:211:VAL:HG12	5:B:212:LEU:H	1.46	0.76
5:B:223:VAL:HG12	5:B:223:VAL:O	1.85	0.76
5:B:474:SER:C	5:B:476:ARG:N	2.33	0.76
6:C:134:ILE:HD12	6:C:141:GLY:CA	2.15	0.76
3:N:12:DT:OP1	7:E:117:THR:CB	2.34	0.76
4:A:805:LEU:C	4:A:805:LEU:HD12	2.06	0.76
5:B:1002:THR:HG21	5:B:1006:ILE:HB	1.66	0.76
5:B:369:GLY:O	5:B:370:PHE:HD1	1.68	0.76
5:B:528:PRO:HG2	5:B:528:PRO:O	1.85	0.76
5:B:562:GLY:HA3	5:B:590:HIS:HE1	1.48	0.76
7:E:127:ILE:HD11	7:E:132:ILE:HD12	1.67	0.76
7:E:187:TYR:O	7:E:187:TYR:HD2	1.67	0.76
4:A:414:ASP:O	4:A:414:ASP:OD1	2.02	0.76
4:A:341:MET:HE1	4:A:843:LYS:NZ	1.99	0.76
7:E:31:THR:C	7:E:31:THR:CB	2.54	0.76
9:H:132:LEU:CD2	9:H:132:LEU:CD1	2.64	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:58:LEU:HD11	11:J:2:ILE:HD12	1.68	0.76
2:T:20:DC:H2"	2:T:21:DC:H5'	0.79	0.76
4:A:1323:ASP:OD1	4:A:1325:THR:HG22	1.85	0.76
4:A:1423:GLY:O	4:A:1424:VAL:C	2.22	0.76
4:A:237:THR:CB	4:A:237:THR:C	2.53	0.76
4:A:375:THR:HA	4:A:434:ARG:O	1.85	0.76
4:A:491:VAL:O	4:A:493:GLN:NE2	2.19	0.76
4:A:836:TYR:O	4:A:839:ARG:N	2.16	0.76
4:A:868:TYR:CE2	4:A:1366:ARG:HD3	2.20	0.76
4:A:996:ASN:H	4:A:996:ASN:ND2	1.82	0.76
4:A:665:GLY:HA2	5:B:1086:PHE:CD1	2.21	0.76
4:A:18:GLN:HB3	5:B:1215:ARG:HB2	1.67	0.76
5:B:185:THR:CG2	5:B:188:ASP:OD2	2.33	0.76
7:E:151:PRO:O	7:E:153:HIS:ND1	2.18	0.76
9:H:142:LEU:C	9:H:143:LEU:HG	2.04	0.76
4:A:1146:VAL:HB	4:A:1146:VAL:CG2	2.13	0.76
4:A:40:THR:HG22	4:A:41:MET:HE3	1.66	0.76
5:B:317:CYS:O	5:B:319:GLU:N	2.18	0.76
5:B:666:TYR:O	5:B:668:ASP:N	2.18	0.76
8:F:132:LEU:O	8:F:148:VAL:CG2	2.33	0.76
9:H:5:LEU:HD23	9:H:133:ASN:O	1.84	0.76
10:I:101:PHE:N	10:I:101:PHE:CD1	2.50	0.76
4:A:167:CYS:SG	4:A:167:CYS:O	2.43	0.75
4:A:929:LEU:N	4:A:929:LEU:HD23	2.00	0.75
5:B:482:VAL:C	5:B:483:LEU:O	2.14	0.75
6:C:164:ALA:C	6:C:166:GLU:N	2.36	0.75
7:E:159:ASP:N	7:E:159:ASP:CB	2.49	0.75
7:E:9:ILE:HD11	7:E:53:PRO:HD3	1.66	0.75
12:K:9:LEU:HD23	12:K:9:LEU:H	1.46	0.75
4:A:1236:LEU:C	4:A:1237:ILE:HG13	2.05	0.75
4:A:492:PRO:C	4:A:493:GLN:NE2	2.40	0.75
4:A:582:ILE:CG2	4:A:583:PRO:N	2.49	0.75
5:B:69:LEU:N	5:B:69:LEU:CD2	2.41	0.75
7:E:23:VAL:HG13	7:E:28:TYR:HD1	1.51	0.75
4:A:1291:VAL:CG1	4:A:1292:PRO:HD2	2.16	0.75
4:A:268:ASP:HB3	4:A:299:HIS:CD2	2.21	0.75
4:A:590:ARG:HD3	4:A:592:ASP:OD1	1.86	0.75
4:A:808:LEU:HD21	4:A:816:HIS:HD2	1.50	0.75
5:B:59:LEU:HD11	5:B:417:PHE:CE2	2.21	0.75
5:B:708:GLU:C	5:B:710:LEU:N	2.38	0.75
7:E:164:LEU:CD1	7:E:211:TYR:CE2	2.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:F:125:LEU:HB2	8:F:130:ILE:CD1	2.15	0.75
4:A:852:TYR:CE1	8:F:136:ARG:HG2	2.21	0.75
4:A:312:PRO:O	4:A:313:GLN:HG2	1.86	0.75
4:A:524:VAL:HB	4:A:524:VAL:CG1	2.12	0.75
4:A:596:THR:O	4:A:598:LEU:N	2.20	0.75
5:B:397:ASP:O	5:B:399:ASP:N	2.19	0.75
6:C:22:LEU:HD21	6:C:25:VAL:HG21	1.68	0.75
4:A:1336:MET:CE	4:A:1381:LEU:HG	2.17	0.75
4:A:35:ILE:O	4:A:35:ILE:HG22	1.86	0.75
4:A:828:ALA:CB	5:B:530:GLY:HA2	2.15	0.75
5:B:610:ASN:OD1	5:B:611:PRO:CD	2.34	0.75
5:B:970:THR:CG2	5:B:971:THR:N	2.49	0.75
6:C:260:LEU:O	6:C:264:GLN:HG3	1.87	0.75
7:E:35:VAL:N	7:E:35:VAL:CB	2.49	0.75
4:A:1209:MET:CB	4:A:1231:ASP:OD2	2.34	0.75
4:A:1436:ILE:O	4:A:1437:GLY:C	2.24	0.75
4:A:598:LEU:O	4:A:600:PRO:N	2.20	0.75
4:A:714:PHE:O	4:A:718:VAL:HG23	1.86	0.75
5:B:1084:GLN:NE2	6:C:191:TYR:HA	2.02	0.75
5:B:1102:LYS:HB2	5:B:1103:ILE:HD13	1.69	0.75
6:C:198:ALA:C	6:C:200:GLU:H	1.90	0.75
11:J:42:LYS:CD	11:J:42:LYS:CB	2.64	0.75
2:T:21:DC:OP1	5:B:1129:ARG:CB	2.27	0.75
4:A:122:MET:O	4:A:123:ARG:C	2.25	0.75
4:A:1242:VAL:CG1	4:A:1243:VAL:H	2.00	0.75
4:A:1195:LEU:CD1	4:A:1267:MET:HE3	2.06	0.75
4:A:219:PHE:CZ	4:A:230:ARG:HG2	2.21	0.75
4:A:367:PRO:O	4:A:370:ILE:HB	1.86	0.75
4:A:645:LEU:O	4:A:645:LEU:HD12	1.86	0.75
4:A:658:LEU:CD2	4:A:658:LEU:CD1	2.63	0.75
5:B:1106:ARG:HH21	5:B:1109:GLY:C	1.89	0.75
5:B:333:PHE:O	5:B:333:PHE:CD1	2.40	0.75
5:B:412:LEU:HB3	5:B:466:TRP:NE1	2.02	0.75
7:E:113:GLN:O	7:E:114:ASN:ND2	2.20	0.75
10:I:55:THR:HG23	10:I:58:VAL:CG2	2.17	0.75
12:K:51:LEU:CD1	12:K:59:ALA:HB3	2.17	0.75
13:L:61:THR:HG22	13:L:62:LYS:H	1.50	0.75
4:A:208:LEU:HD23	4:A:232:GLU:HB2	1.67	0.75
5:B:710:LEU:C	5:B:711:GLU:CG	2.54	0.75
6:C:121:VAL:CG1	6:C:121:VAL:HB	2.09	0.75
8:F:131:PRO:HD2	8:F:132:LEU:HG	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:H:103:LYS:H	9:H:115:TYR:HB2	1.51	0.75
4:A:1072:ILE:C	4:A:1075:PRO:HD2	2.07	0.75
4:A:278:THR:C	4:A:279:LEU:HD23	2.06	0.75
4:A:320:ARG:CD	4:A:320:ARG:N	2.40	0.75
4:A:261:ASP:CB	4:A:323:LYS:CD	2.64	0.75
4:A:571:LEU:CD2	4:A:571:LEU:CD1	2.64	0.75
5:B:34:ILE:HD13	5:B:34:ILE:N	2.02	0.75
5:B:792:MET:H	5:B:857:ARG:HA	1.51	0.75
7:E:64:PRO:HG3	7:E:76:GLY:HA2	1.69	0.75
7:E:28:TYR:HE1	7:E:78:LEU:HD13	1.51	0.75
9:H:114:VAL:HB	9:H:114:VAL:CG1	2.11	0.75
11:J:57:ILE:CG2	11:J:57:ILE:HB	2.10	0.75
4:A:1132:LYS:O	4:A:1135:ARG:HB2	1.87	0.74
4:A:1284:MET:CG	4:A:1306:LEU:CD2	2.65	0.74
5:B:361:LEU:N	5:B:362:PRO:HD2	2.02	0.74
4:A:785:PRO:HB2	5:B:701:ILE:HD11	1.68	0.74
6:C:41:ILE:CD1	6:C:172:PRO:HG3	2.15	0.74
12:K:34:THR:CG2	12:K:34:THR:HB	2.12	0.74
4:A:298:PHE:CD2	4:A:299:HIS:N	2.55	0.74
4:A:322:VAL:HG22	4:A:322:VAL:N	2.02	0.74
4:A:494:SER:O	4:A:498:ARG:HG2	1.86	0.74
4:A:499:ALA:O	4:A:503:GLN:HB2	1.87	0.74
4:A:59:GLY:CA	4:A:67:CYS:SG	2.75	0.74
10:I:96:SER:CB	10:I:98:VAL:HG23	2.16	0.74
12:K:12:LEU:HD13	12:K:12:LEU:H	1.53	0.74
4:A:24:PRO:CB	4:A:237:THR:CG2	2.63	0.74
5:B:1156:ASP:HB3	5:B:1198:TYR:N	2.02	0.74
5:B:1210:MET:CB	5:B:1210:MET:HE2	2.14	0.74
5:B:1215:ARG:C	5:B:1216:LEU:HD23	2.07	0.74
10:I:116:ASN:HA	10:I:116:ASN:CB	2.13	0.74
4:A:1200:ALA:O	4:A:1202:MET:N	2.19	0.74
4:A:464:PRO:CG	4:A:465:TYR:HD1	2.01	0.74
4:A:863:VAL:HG11	4:A:866:PHE:CD2	2.22	0.74
4:A:902:LEU:HD21	4:A:926:GLN:HB2	1.68	0.74
4:A:934:LYS:O	4:A:937:VAL:CA	2.36	0.74
5:B:509:ALA:CB	5:B:509:ALA:N	2.50	0.74
5:B:560:GLU:O	5:B:561:TRP:HD1	1.68	0.74
5:B:610:ASN:OD1	5:B:611:PRO:HD2	1.86	0.74
5:B:701:ILE:HB	5:B:740:HIS:CE1	2.23	0.74
7:E:173:SER:HB2	7:E:177:ARG:HH21	1.52	0.74
8:F:83:PRO:HD2	8:F:84:TYR:H	1.51	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:H:31:THR:O	9:H:32:THR:CB	2.36	0.74
13:L:59:ALA:HB3	13:L:60:ARG:O	1.87	0.74
4:A:81:PHE:HZ	5:B:1209:ALA:HB2	1.52	0.74
5:B:287:ARG:CG	5:B:292:ILE:HD13	2.16	0.74
7:E:83:CYS:HA	7:E:83:CYS:C	2.02	0.74
9:H:59:ILE:O	9:H:60:ALA:CB	2.36	0.74
4:A:877:HIS:HB3	4:A:1056:SER:HB3	1.70	0.74
4:A:1115:SER:O	4:A:1329:THR:HG23	1.87	0.74
4:A:71:GLN:O	4:A:73:GLY:N	2.20	0.74
4:A:779:PHE:CE1	4:A:785:PRO:HD2	2.21	0.74
7:E:162:ARG:NH2	7:E:166:LYS:HZ2	1.85	0.74
4:A:107:CYS:SG	4:A:148:CYS:HB2	2.27	0.74
4:A:460:VAL:CG1	4:A:461:LYS:N	2.49	0.74
5:B:1190:ASP:O	5:B:1191:ILE:HG13	1.87	0.74
5:B:164:LYS:C	5:B:164:LYS:HA	2.03	0.74
5:B:827:ILE:O	5:B:828:ALA:CB	2.30	0.74
7:E:13:TRP:CE3	7:E:39:LEU:HD13	2.23	0.74
8:F:111:LEU:HD13	8:F:111:LEU:N	2.03	0.74
12:K:51:LEU:HD13	12:K:59:ALA:HB3	1.70	0.74
4:A:1007:ILE:O	4:A:1010:ALA:HB3	1.86	0.74
4:A:1156:PRO:CD	4:A:1157:ASP:H	1.98	0.74
4:A:1227:ILE:HG22	4:A:1228:TRP:H	1.51	0.74
4:A:13:THR:HB	4:A:15:LYS:NZ	2.02	0.74
4:A:257:ARG:HB2	4:A:257:ARG:C	2.07	0.74
4:A:507:VAL:N	4:A:508:PRO:HD3	2.02	0.74
5:B:1106:ARG:NH1	5:B:1118:PRO:HB3	2.03	0.74
5:B:28:GLU:O	5:B:30:SER:N	2.21	0.74
5:B:473:MET:SD	5:B:473:MET:CE	2.76	0.74
5:B:464:GLY:HA2	5:B:478:GLY:HA2	1.69	0.74
5:B:593:PRO:CD	5:B:594:ALA:H	1.99	0.74
5:B:744:HIS:ND1	5:B:745:PRO:HD3	2.02	0.74
6:C:158:VAL:O	6:C:158:VAL:HG12	1.85	0.74
1:R:9:G:H4'	5:B:1097:HIS:NE2	2.02	0.74
4:A:314:ALA:C	4:A:315:LEU:O	2.22	0.74
4:A:929:LEU:HD22	4:A:929:LEU:HA	1.69	0.74
6:C:202:PRO:O	6:C:202:PRO:CD	2.26	0.74
6:C:33:LEU:CD1	6:C:37:MET:HE2	2.17	0.74
11:J:52:THR:O	11:J:54:VAL:HG23	1.87	0.74
13:L:34:CYS:SG	13:L:35:SER:N	2.61	0.74
13:L:61:THR:HG22	13:L:62:LYS:N	2.02	0.74
4:A:107:CYS:O	4:A:111:GLY:HA2	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:315:LEU:CG	4:A:315:LEU:HB2	2.12	0.74
4:A:809:THR:CG2	4:A:812:GLU:OE1	2.35	0.74
4:A:900:ASP:O	4:A:907:THR:HG23	1.87	0.74
6:C:133:ILE:O	6:C:134:ILE:HD13	1.87	0.74
6:C:5:GLY:O	6:C:6:PRO:C	2.24	0.74
9:H:134:ASN:O	9:H:135:LEU:C	2.25	0.74
9:H:51:ALA:O	9:H:52:GLN:C	2.26	0.73
4:A:316:GLN:C	4:A:316:GLN:N	2.41	0.73
4:A:396:PRO:HG2	4:A:397:ASN:OD1	1.86	0.73
5:B:1095:LEU:O	5:B:1096:ARG:O	2.06	0.73
5:B:1177:HIS:O	5:B:1179:GLN:CB	2.36	0.73
5:B:555:ILE:HD11	5:B:582:VAL:HG11	1.70	0.73
5:B:969:ARG:HG2	5:B:970:THR:N	2.04	0.73
4:A:738:LYS:NZ	6:C:194:GLU:HA	2.03	0.73
4:A:1239:ARG:C	4:A:1240:CYS:SG	2.67	0.73
4:A:1242:VAL:CG1	4:A:1242:VAL:HB	2.15	0.73
4:A:668:ASP:OD2	4:A:742:ASN:ND2	2.21	0.73
4:A:783:THR:O	5:B:516:ASN:OD1	2.06	0.73
5:B:423:LYS:C	5:B:425:THR:N	2.36	0.73
5:B:724:ASP:C	5:B:724:ASP:OD1	2.25	0.73
6:C:114:TYR:CD2	6:C:140:ASN:HB2	2.22	0.73
9:H:12:VAL:HG13	9:H:28:ALA:HB2	1.69	0.73
12:K:91:CYS:O	12:K:94:ILE:HB	1.88	0.73
13:L:60:ARG:HG3	13:L:61:THR:N	2.03	0.73
4:A:1067:LEU:O	4:A:1071:SER:OG	2.06	0.73
4:A:168:GLY:C	4:A:169:ASN:O	2.25	0.73
4:A:274:ILE:CG2	4:A:274:ILE:CG1	2.66	0.73
4:A:321:PRO:HG2	4:A:322:VAL:N	2.03	0.73
4:A:664:THR:C	4:A:664:THR:CG2	2.57	0.73
4:A:935:GLN:HG3	4:A:935:GLN:O	1.71	0.73
5:B:589:VAL:HG12	5:B:590:HIS:N	1.99	0.73
5:B:640:VAL:CG2	5:B:740:HIS:N	2.50	0.73
5:B:744:HIS:CD2	5:B:745:PRO:CD	2.71	0.73
5:B:868:MET:O	5:B:869:SER:OG	2.05	0.73
6:C:10:ILE:HD13	6:C:20:PHE:HB3	1.70	0.73
7:E:171:LYS:CB	7:E:174:GLN:HG3	2.18	0.73
7:E:202:SER:O	7:E:204:THR:N	2.22	0.73
7:E:39:LEU:O	7:E:41:ASP:N	2.21	0.73
3:N:2:DT:P	4:A:1110:ASN:CB	2.77	0.73
4:A:618:GLU:OE1	4:A:619:LYS:N	2.21	0.73
4:A:786:HIS:CD2	4:A:786:HIS:N	2.55	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:960:ILE:O	4:A:961:ARG:C	2.20	0.73
5:B:1165:ILE:CG2	5:B:1166:CYS:N	2.51	0.73
4:A:10:PRO:O	5:B:1193:GLN:HB3	1.89	0.73
5:B:179:CYS:O	5:B:180:TYR:C	2.24	0.73
7:E:179:GLN:HA	7:E:179:GLN:OE1	1.88	0.73
8:F:111:LEU:C	8:F:113:GLY:N	2.40	0.73
4:A:711:ARG:HH12	10:I:95:THR:HB	1.53	0.73
4:A:1075:PRO:O	4:A:1078:GLN:HB2	1.89	0.73
4:A:1225:PHE:C	4:A:1226:VAL:CG2	2.57	0.73
4:A:1286:LYS:O	4:A:1286:LYS:HG2	1.88	0.73
4:A:18:GLN:NE2	4:A:1418:LEU:CB	2.45	0.73
4:A:325:ILE:CA	4:A:325:ILE:CG2	2.67	0.73
4:A:765:VAL:HG21	4:A:800:VAL:HG11	1.69	0.73
6:C:80:LEU:HD12	6:C:81:GLU:H	1.52	0.73
9:H:32:THR:CG2	9:H:33:GLN:CG	2.48	0.73
4:A:1111:MET:CE	4:A:1111:MET:CG	2.65	0.73
4:A:1189:SER:CB	4:A:1190:PRO:HD3	2.19	0.73
4:A:1105:LEU:HB3	4:A:1384:VAL:HG21	1.69	0.73
4:A:151:ASP:HB3	4:A:162:VAL:O	1.87	0.73
4:A:331:GLY:O	4:A:332:LYS:CB	2.36	0.73
4:A:855:THR:HG21	4:A:857:ARG:HE	1.54	0.73
4:A:8:SER:HG	5:B:1180:PHE:HE1	1.37	0.73
5:B:709:ASP:O	5:B:710:LEU:HD23	1.89	0.73
5:B:877:PRO:O	5:B:878:GLN:CG	2.36	0.73
5:B:880:THR:CB	5:B:880:THR:N	2.51	0.73
5:B:970:THR:HG22	5:B:971:THR:H	1.53	0.73
6:C:128:ASN:O	6:C:129:ILE:HB	1.83	0.73
10:I:99:LEU:HB2	10:I:112:SER:HB3	1.71	0.73
4:A:128:ILE:CG1	4:A:128:ILE:CA	2.67	0.73
4:A:1389:PHE:HE1	4:A:1390:ASN:OD1	1.70	0.73
4:A:343:LYS:HE3	5:B:1151:LEU:O	1.88	0.73
5:B:310:MET:O	5:B:313:MET:HB2	1.89	0.73
5:B:354:ASP:OD1	5:B:354:ASP:CB	2.34	0.73
5:B:893:LEU:HD21	5:B:913:GLY:N	2.04	0.73
7:E:195:VAL:CG2	7:E:213:ILE:HD13	2.19	0.73
12:K:37:LYS:O	12:K:38:GLU:HG2	1.88	0.73
4:A:1225:PHE:C	4:A:1226:VAL:HG23	2.09	0.73
4:A:1237:ILE:HG22	4:A:1238:ILE:C	2.08	0.73
4:A:1224:LEU:HD11	4:A:1240:CYS:CB	2.18	0.73
4:A:1366:ARG:HG2	4:A:1366:ARG:NH1	2.03	0.73
4:A:315:LEU:CA	4:A:315:LEU:HB3	2.13	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:564:ALA:O	9:H:97:MET:HB3	1.89	0.73
5:B:620:ARG:NE	5:B:620:ARG:CG	2.51	0.73
5:B:976:ILE:O	5:B:990:ILE:HG22	1.87	0.73
6:C:27:LEU:O	6:C:29:MET:N	2.20	0.73
7:E:168:TYR:O	7:E:169:ARG:CG	2.37	0.73
7:E:171:LYS:HB2	7:E:174:GLN:HG3	1.70	0.73
7:E:20:LYS:HE2	7:E:60:PHE:CE1	2.24	0.73
5:B:798:TYR:CD2	11:J:4:PRO:HG3	2.23	0.73
4:A:1068:ALA:O	4:A:1069:ALA:C	2.26	0.73
4:A:793:SER:CB	4:A:794:PRO:HD2	2.19	0.73
4:A:904:THR:O	4:A:905:ASP:C	2.27	0.73
4:A:925:LEU:C	4:A:927:VAL:H	1.91	0.73
5:B:1067:ARG:O	5:B:1086:PHE:HE1	1.71	0.73
5:B:1131:GLY:O	5:B:1134:GLU:N	2.21	0.73
6:C:100:THR:HB	6:C:119:VAL:HG12	1.70	0.73
9:H:109:LYS:HB2	9:H:111:LEU:H	1.53	0.73
12:K:53:ASP:O	12:K:56:VAL:CG2	2.37	0.73
2:T:28:DT:C1'	4:A:317:LYS:HG2	2.14	0.72
4:A:679:ILE:HG23	4:A:729:ALA:HB1	1.70	0.72
5:B:282:ILE:HD12	5:B:283:VAL:HG13	1.70	0.72
5:B:297:ILE:O	5:B:298:LEU:C	2.26	0.72
5:B:638:PHE:CD1	5:B:743:ILE:HD13	2.24	0.72
12:K:7:PHE:HA	12:K:10:PHE:CZ	2.24	0.72
4:A:120:GLU:CG	4:A:120:GLU:O	2.24	0.72
4:A:65:LEU:CB	4:A:65:LEU:N	2.53	0.72
4:A:779:PHE:CZ	4:A:785:PRO:HD3	2.24	0.72
5:B:1084:GLN:HE21	6:C:201:TRP:HZ2	1.36	0.72
5:B:1106:ARG:HH21	5:B:1109:GLY:H	1.37	0.72
5:B:276:ILE:CG2	5:B:277:LYS:H	2.02	0.72
7:E:187:TYR:O	7:E:187:TYR:CG	2.42	0.72
8:F:107:VAL:HG11	8:F:111:LEU:HD11	1.71	0.72
10:I:31:THR:CG2	10:I:32:CYS:HB3	2.18	0.72
4:A:875:ALA:HA	4:A:878:ILE:HD12	1.71	0.72
5:B:256:VAL:HG11	5:B:382:ILE:CD1	2.19	0.72
5:B:169:ARG:HD2	5:B:454:THR:HG21	1.70	0.72
6:C:17:ASN:C	6:C:18:VAL:HG23	2.10	0.72
10:I:55:THR:HG23	10:I:58:VAL:HG21	1.71	0.72
12:K:24:ASP:CG	12:K:74:ARG:HH11	1.91	0.72
4:A:137:ALA:O	4:A:138:ILE:O	2.06	0.72
4:A:1410:PHE:CD2	5:B:1212:ILE:HD11	2.24	0.72
4:A:1434:ALA:HB1	4:A:1436:ILE:HD12	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:218:ASP:O	4:A:222:LEU:CD1	2.37	0.72
4:A:919:ILE:HG22	4:A:922:ASP:HB2	1.71	0.72
7:E:135:PHE:CB	7:E:140:LEU:HD11	2.19	0.72
7:E:190:LEU:CD2	7:E:190:LEU:N	2.51	0.72
5:B:42:GLY:O	5:B:43:LEU:HD23	1.87	0.72
5:B:479:VAL:O	5:B:480:SER:HB3	1.89	0.72
5:B:542:MET:HG3	5:B:747:MET:HE2	1.72	0.72
5:B:751:VAL:CG1	5:B:752:ALA:N	2.52	0.72
5:B:840:ILE:HG12	5:B:992:ILE:HG22	1.71	0.72
7:E:97:VAL:CG1	7:E:127:ILE:HG21	2.17	0.72
1:R:4:G:H1	2:T:25:DC:H42	1.37	0.72
4:A:220:THR:HB	4:A:220:THR:CG2	2.13	0.72
4:A:531:ILE:O	4:A:531:ILE:HG13	1.89	0.72
4:A:942:PHE:C	4:A:942:PHE:CD2	2.60	0.72
5:B:1106:ARG:HG3	5:B:1107:ALA:H	1.53	0.72
5:B:273:LEU:HD21	5:B:360:PHE:HD1	1.54	0.72
7:E:42:PHE:CZ	7:E:58:MET:HE1	2.24	0.72
11:J:32:GLU:CD	11:J:32:GLU:H	1.92	0.72
12:K:65:HIS:CD2	12:K:66:PRO:HD2	2.25	0.72
4:A:1019:CYS:HA	4:A:1022:LEU:HB3	1.71	0.72
4:A:265:LYS:HE2	4:A:323:LYS:CG	2.19	0.72
4:A:672:ASP:CB	4:A:736:ASN:OD1	2.35	0.72
5:B:422:LYS:CA	5:B:422:LYS:CG	2.67	0.72
5:B:885:MET:HA	5:B:936:ASP:HB2	1.71	0.72
7:E:151:PRO:O	7:E:153:HIS:CE1	2.42	0.72
12:K:65:HIS:CD2	12:K:67:PHE:H	2.08	0.72
13:L:61:THR:CG2	13:L:61:THR:CA	2.66	0.72
2:T:16:DC:H2'	2:T:17:DG:H8	1.55	0.72
4:A:315:LEU:HA	4:A:319:GLY:O	1.90	0.72
4:A:695:LYS:O	4:A:696:GLU:C	2.25	0.72
4:A:909:ASP:CG	4:A:910:PRO:CD	2.57	0.72
4:A:909:ASP:OD2	4:A:910:PRO:HD3	1.89	0.72
5:B:313:MET:HG3	5:B:390:LEU:HD21	1.70	0.72
5:B:593:PRO:CD	5:B:594:ALA:N	2.51	0.72
5:B:882:THR:HG23	5:B:882:THR:O	1.89	0.72
9:H:44:VAL:HG12	9:H:44:VAL:O	1.87	0.72
4:A:744:LYS:HE2	4:A:748:MET:CE	2.19	0.72
4:A:868:TYR:CZ	4:A:1366:ARG:HD3	2.24	0.72
4:A:901:LEU:O	4:A:902:LEU:O	2.08	0.72
5:B:1120:GLU:O	5:B:1124:ARG:NH1	2.22	0.72
6:C:80:LEU:HD11	6:C:95:CYS:HA	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:187:TYR:CD2	7:E:188:LEU:CD2	2.71	0.72
7:E:46:TYR:O	7:E:54:GLN:N	2.23	0.72
4:A:1230:GLU:N	4:A:1233:ASP:OD2	2.23	0.72
4:A:518:LYS:CB	4:A:519:PRO:HD2	2.20	0.72
5:B:362:PRO:C	5:B:363:HIS:O	2.22	0.72
5:B:52:ASN:O	5:B:56:ASP:HB2	1.90	0.72
5:B:384:ARG:NH2	5:B:621:GLU:HG3	2.04	0.72
5:B:492:LEU:CB	5:B:751:VAL:HG21	2.18	0.72
7:E:164:LEU:HD22	7:E:211:TYR:CD2	2.25	0.72
9:H:47:PHE:HD2	9:H:95:TYR:CD1	2.08	0.72
9:H:63:LEU:HG	9:H:63:LEU:CD2	2.16	0.72
11:J:3:VAL:HA	11:J:53:HIS:CD2	2.23	0.72
13:L:46:VAL:O	13:L:47:ARG:HB2	1.89	0.72
4:A:1007:ILE:O	4:A:1010:ALA:N	2.22	0.71
4:A:1026:LEU:CD2	4:A:1026:LEU:CA	2.67	0.71
4:A:14:VAL:HG23	4:A:1432:GLN:HE22	1.51	0.71
4:A:321:PRO:CD	4:A:322:VAL:HG13	2.17	0.71
4:A:98:LYS:O	4:A:99:ILE:C	2.26	0.71
5:B:554:ILE:O	5:B:555:ILE:C	2.28	0.71
5:B:877:PRO:O	5:B:878:GLN:HG2	1.90	0.71
4:A:1021:LEU:O	4:A:1024:SER:N	2.23	0.71
4:A:1215:ARG:O	4:A:1219:THR:OG1	2.06	0.71
4:A:401:GLY:CA	4:A:435:HIS:CD2	2.64	0.71
4:A:743:VAL:HG11	4:A:758:ILE:HD11	1.70	0.71
4:A:900:ASP:HA	4:A:926:GLN:HE22	1.48	0.71
4:A:897:TYR:CD2	4:A:936:LEU:CD1	2.62	0.71
6:C:69:LEU:N	6:C:69:LEU:HD13	2.03	0.71
9:H:101:ALA:HB2	9:H:116:TYR:CE2	2.24	0.71
12:K:83:PRO:O	12:K:87:LEU:N	2.20	0.71
4:A:1000:LEU:HD23	4:A:1001:ARG:H	1.53	0.71
4:A:820:GLY:CA	4:A:823:GLY:H	1.99	0.71
4:A:832:ALA:O	4:A:833:GLU:C	2.28	0.71
5:B:660:LYS:C	5:B:663:ALA:HB2	2.09	0.71
5:B:910:VAL:CA	5:B:910:VAL:CG1	2.67	0.71
7:E:111:VAL:O	7:E:111:VAL:HG12	1.90	0.71
7:E:124:VAL:HG22	7:E:132:ILE:HG21	1.72	0.71
7:E:173:SER:O	7:E:175:LEU:N	2.24	0.71
4:A:1219:THR:HG23	4:A:1271:ILE:HD11	1.72	0.71
4:A:68:GLN:NE2	4:A:70:CYS:HB2	2.03	0.71
4:A:868:TYR:CD1	4:A:1064:VAL:HG21	2.25	0.71
5:B:1056:SER:HB3	5:B:1066:SER:O	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1221:SER:C	5:B:1221:SER:HA	2.04	0.71
6:C:245:VAL:HA	6:C:248:ILE:HD12	1.72	0.71
6:C:260:LEU:HA	6:C:263:THR:HB	1.71	0.71
7:E:100:ILE:HG22	7:E:101:GLN:N	2.06	0.71
8:F:109:VAL:HG12	8:F:110:ASP:N	2.01	0.71
4:A:32:VAL:HG23	4:A:81:PHE:O	1.90	0.71
4:A:90:VAL:O	4:A:235:ILE:HG22	1.90	0.71
5:B:112:LEU:CD1	5:B:113:TYR:N	2.51	0.71
5:B:1204:PHE:O	5:B:1207:LEU:HB2	1.90	0.71
5:B:332:ASP:O	5:B:334:ILE:N	2.24	0.71
5:B:744:HIS:CG	5:B:745:PRO:CD	2.72	0.71
6:C:57:VAL:HB	6:C:58:LEU:HD23	1.71	0.71
4:A:1125:ALA:CB	4:A:1125:ALA:HA	2.12	0.71
4:A:1299:VAL:CG1	4:A:1299:VAL:HB	2.15	0.71
4:A:265:LYS:HZ1	4:A:322:VAL:CB	1.90	0.71
4:A:364:VAL:HG12	4:A:458:HIS:HB2	1.71	0.71
4:A:736:ASN:ND2	4:A:736:ASN:N	2.32	0.71
5:B:250:PHE:CB	5:B:250:PHE:C	2.58	0.71
5:B:686:ASN:HD22	5:B:686:ASN:H	1.36	0.71
5:B:815:ARG:HG3	5:B:815:ARG:NH1	2.05	0.71
12:K:23:PRO:O	12:K:23:PRO:CD	2.38	0.71
12:K:65:HIS:CD2	12:K:66:PRO:N	2.58	0.71
13:L:58:LYS:O	13:L:59:ALA:CB	2.38	0.71
4:A:834:THR:HG21	4:A:1077:THR:CG2	2.21	0.71
4:A:1156:PRO:HD2	4:A:1157:ASP:H	1.56	0.71
4:A:298:PHE:C	4:A:298:PHE:CD2	2.64	0.71
4:A:315:LEU:CG	4:A:315:LEU:HB3	2.12	0.71
4:A:78:PRO:O	4:A:79:GLY:C	2.21	0.71
5:B:1193:GLN:NE2	5:B:1193:GLN:CG	2.53	0.71
4:A:688:LYS:O	4:A:689:LYS:C	2.28	0.71
4:A:958:VAL:O	4:A:958:VAL:HG12	1.78	0.71
5:B:113:TYR:O	5:B:114:PRO:O	2.07	0.71
5:B:449:ASN:O	5:B:451:LYS:HB3	1.90	0.71
5:B:737:THR:HG23	10:I:66:PRO:CB	2.21	0.71
5:B:882:THR:CG2	5:B:882:THR:O	2.38	0.71
12:K:40:HIS:O	12:K:41:THR:C	2.29	0.71
4:A:1256:GLU:O	4:A:1258:HIS:N	2.24	0.71
4:A:1368:MET:O	4:A:1369:ALA:C	2.27	0.71
4:A:616:VAL:HG12	4:A:617:VAL:N	2.03	0.71
4:A:834:THR:CB	4:A:1077:THR:HG23	2.21	0.71
4:A:901:LEU:O	4:A:903:ASN:N	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:907:THR:HG22	4:A:908:LEU:H	1.55	0.71
5:B:352:ALA:C	5:B:354:ASP:H	1.94	0.71
10:I:95:THR:CG2	10:I:96:SER:N	2.54	0.71
4:A:115:LEU:HD12	4:A:122:MET:CE	2.20	0.71
4:A:1232:ASN:C	4:A:1233:ASP:O	2.19	0.71
4:A:1285:MET:O	4:A:1305:VAL:N	2.23	0.71
4:A:230:ARG:HB2	4:A:233:TRP:CE3	2.26	0.71
4:A:396:PRO:C	4:A:397:ASN:OD1	2.30	0.71
4:A:67:CYS:HB3	4:A:70:CYS:HB3	1.73	0.71
5:B:1008:PRO:HG3	5:B:1011:ILE:HD11	1.73	0.71
5:B:1110:PRO:O	5:B:1111:MET:HG2	1.90	0.71
5:B:557:PHE:HD2	5:B:557:PHE:C	1.91	0.71
5:B:805:THR:HA	5:B:809:MET:HE3	1.72	0.71
4:A:1325:THR:O	7:E:147:HIS:CE1	2.43	0.71
11:J:2:ILE:CA	11:J:53:HIS:NE2	2.54	0.71
12:K:63:VAL:O	12:K:63:VAL:CG2	2.38	0.71
2:T:20:DC:H4'	4:A:447:GLN:CD	2.11	0.71
4:A:1009:ASN:ND2	4:A:1012:ARG:HH12	1.89	0.70
4:A:1387:HIS:N	4:A:1387:HIS:ND1	2.36	0.70
4:A:528:LEU:CB	4:A:531:ILE:HG22	2.16	0.70
5:B:977:GLY:CA	5:B:1099:VAL:HG21	2.21	0.70
5:B:428:ILE:HD11	5:B:448:ILE:N	2.05	0.70
5:B:477:ALA:HB3	5:B:479:VAL:CB	2.21	0.70
5:B:646:LEU:CB	5:B:646:LEU:HA	2.14	0.70
7:E:102:GLU:C	7:E:104:ASN:H	1.94	0.70
7:E:78:LEU:HD23	7:E:78:LEU:C	2.11	0.70
8:F:81:THR:CG2	8:F:136:ARG:HD3	2.21	0.70
9:H:109:LYS:HB2	9:H:111:LEU:N	2.06	0.70
4:A:1325:THR:CG2	4:A:1326:ARG:HG3	2.20	0.70
4:A:605:MET:HE2	4:A:606:LEU:H	1.56	0.70
4:A:808:LEU:O	5:B:728:ARG:NH1	2.24	0.70
5:B:367:LEU:HG	5:B:367:LEU:CD2	2.15	0.70
5:B:449:ASN:OD1	5:B:451:LYS:HB3	1.91	0.70
7:E:170:LEU:HD13	7:E:175:LEU:CD2	2.21	0.70
8:F:94:LEU:CD1	8:F:94:LEU:HG	2.13	0.70
1:R:5:A:C2	1:R:6:G:C6	2.79	0.70
4:A:1052:GLN:O	4:A:1053:PHE:O	2.07	0.70
4:A:1319:VAL:O	4:A:1322:ILE:HD11	1.91	0.70
4:A:1388:GLY:O	4:A:1390:ASN:N	2.24	0.70
4:A:298:PHE:HD2	4:A:299:HIS:N	1.88	0.70
4:A:858:ASN:ND2	4:A:860:LEU:H	1.88	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:901:LEU:HG	4:A:926:GLN:CG	2.21	0.70
4:A:982:THR:OG1	4:A:985:ASP:OD2	2.08	0.70
5:B:235:SER:O	5:B:236:HIS:CE1	2.44	0.70
5:B:329:THR:HA	5:B:332:ASP:HB2	1.70	0.70
6:C:22:LEU:HD23	6:C:22:LEU:C	2.12	0.70
9:H:109:LYS:HB3	9:H:110:ASP:OD2	1.91	0.70
9:H:135:LEU:HD22	9:H:136:LYS:CD	2.20	0.70
11:J:57:ILE:HG23	11:J:58:GLU:N	2.05	0.70
4:A:852:TYR:CE2	4:A:1060:PRO:HB2	2.27	0.70
5:B:322:PHE:CD1	5:B:322:PHE:O	2.44	0.70
5:B:843:GLN:HA	5:B:846:ILE:HD12	1.73	0.70
8:F:86:THR:OG1	8:F:89:GLU:HG3	1.92	0.70
4:A:444:PHE:CE2	4:A:470:LEU:CD2	2.55	0.70
4:A:764:CYS:C	4:A:764:CYS:CB	2.57	0.70
5:B:1051:THR:CG2	5:B:1053:GLU:N	2.43	0.70
5:B:115:GLN:O	5:B:119:LEU:HD12	1.91	0.70
5:B:1177:HIS:O	5:B:1179:GLN:HB2	1.92	0.70
6:C:37:MET:SD	6:C:232:VAL:HG21	2.32	0.70
7:E:190:LEU:CD2	7:E:190:LEU:HA	2.21	0.70
10:I:28:GLU:HG3	10:I:28:GLU:O	1.91	0.70
10:I:4:PHE:CE1	10:I:13:MET:HE3	2.26	0.70
11:J:59:LYS:CE	11:J:59:LYS:CG	2.68	0.70
4:A:304:MET:CG	5:B:1210:MET:HG3	2.22	0.70
4:A:327:ALA:HA	4:A:327:ALA:CB	2.13	0.70
4:A:78:PRO:C	4:A:79:GLY:O	2.23	0.70
5:B:1115:THR:HG21	5:B:1117:GLN:CG	2.20	0.70
5:B:293:PRO:O	5:B:294:ASP:C	2.27	0.70
5:B:329:THR:CA	5:B:332:ASP:HB2	2.21	0.70
5:B:169:ARG:HB2	5:B:454:THR:HG23	1.72	0.70
6:C:80:LEU:HD11	6:C:95:CYS:CA	2.21	0.70
8:F:143:PHE:O	8:F:143:PHE:CG	2.43	0.70
4:A:1161:THR:HG22	4:A:1162:VAL:N	2.05	0.70
4:A:1280:GLU:O	4:A:1281:ARG:C	2.26	0.70
4:A:1293:SER:OG	4:A:1295:THR:HG23	1.92	0.70
4:A:18:GLN:HE21	4:A:1418:LEU:HB2	1.51	0.70
4:A:518:LYS:HB2	4:A:519:PRO:HD2	1.73	0.70
4:A:886:ILE:CD1	4:A:943:LEU:HB2	2.21	0.70
4:A:982:THR:HG1	4:A:985:ASP:CG	1.94	0.70
5:B:872:GLU:HG3	5:B:916:THR:OG1	1.91	0.70
6:C:148:ARG:H	6:C:151:GLN:HG3	1.57	0.70
6:C:93:ASP:O	6:C:127:ARG:NH2	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:567:LYS:CB	9:H:96:VAL:H	2.04	0.70
10:I:59:VAL:O	10:I:60:GLN:C	2.30	0.70
10:I:7:CYS:N	10:I:14:LEU:HD21	2.05	0.70
4:A:1042:PHE:C	4:A:1042:PHE:CD2	2.65	0.70
4:A:1282:VAL:C	4:A:1283:VAL:HG22	2.11	0.70
4:A:249:SER:CA	4:A:249:SER:O	2.38	0.70
5:B:863:GLU:OE2	5:B:873:THR:HA	1.92	0.70
4:A:1025:ARG:HA	4:A:1030:ARG:NH1	2.07	0.70
4:A:1192:LEU:HD11	4:A:1239:ARG:HB3	1.74	0.70
4:A:668:ASP:CG	4:A:742:ASN:HD22	1.94	0.70
4:A:878:ILE:C	4:A:879:GLU:CG	2.59	0.70
4:A:930:ASP:O	4:A:931:GLU:C	2.30	0.70
4:A:941:LYS:O	4:A:944:ARG:N	2.24	0.70
5:B:502:ILE:CB	5:B:502:ILE:C	2.60	0.70
6:C:31:ASN:C	6:C:33:LEU:N	2.41	0.70
6:C:3:GLU:HG3	6:C:4:GLU:H	0.89	0.70
7:E:195:VAL:HG22	7:E:213:ILE:CD1	2.21	0.70
9:H:51:ALA:CB	9:H:51:ALA:N	2.54	0.70
10:I:81:ARG:O	10:I:82:GLU:HG2	1.92	0.70
12:K:29:ASN:HB3	12:K:77:THR:O	1.92	0.70
4:A:1042:PHE:HE2	4:A:1046:LEU:CD1	1.99	0.70
4:A:1097:GLY:O	4:A:1098:VAL:C	2.26	0.70
4:A:338:GLY:HA2	5:B:1129:ARG:HH22	1.57	0.70
4:A:955:PRO:O	4:A:956:LEU:HG	1.91	0.70
5:B:1016:ALA:C	5:B:1017:ILE:CG1	2.46	0.70
5:B:1031:LEU:HD13	5:B:1055:ILE:HD12	1.74	0.70
5:B:354:ASP:O	5:B:357:GLN:N	2.25	0.70
5:B:361:LEU:HD12	5:B:361:LEU:N	2.06	0.70
5:B:745:PRO:HD2	5:B:746:SER:H	1.54	0.70
6:C:60:ASP:HB3	13:L:67:PHE:CE1	2.27	0.70
7:E:83:CYS:CA	7:E:84:ASP:N	2.55	0.70
8:F:98:ALA:O	8:F:117:PRO:HB2	1.90	0.70
9:H:47:PHE:CD1	9:H:47:PHE:C	2.65	0.70
9:H:95:TYR:HE2	9:H:97:MET:SD	2.15	0.70
10:I:83:ASN:O	10:I:84:VAL:CB	2.26	0.70
4:A:1292:PRO:HD3	4:A:1298:TYR:CE2	2.26	0.69
4:A:135:PHE:HD1	4:A:222:LEU:CB	2.05	0.69
4:A:388:LEU:HD21	4:A:432:VAL:HG11	1.74	0.69
5:B:205:ILE:HG22	5:B:206:ASN:ND2	2.06	0.69
5:B:815:ARG:N	5:B:816:GLU:OE1	2.25	0.69
5:B:973:ILE:HG23	5:B:974:PRO:CD	2.19	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:18:VAL:HG21	6:C:240:VAL:HG12	1.73	0.69
7:E:43:LYS:C	7:E:47:CYS:HB2	2.12	0.69
10:I:4:PHE:CD2	10:I:4:PHE:N	2.60	0.69
4:A:1349:TYR:O	4:A:1352:VAL:N	2.26	0.69
4:A:381:THR:O	4:A:382:PRO:C	2.29	0.69
4:A:532:ARG:HB2	4:A:617:VAL:O	1.92	0.69
4:A:607:ILE:HB	4:A:607:ILE:CG2	2.16	0.69
4:A:918:GLU:O	4:A:919:ILE:HD13	1.92	0.69
5:B:1008:PRO:O	5:B:1008:PRO:HG2	1.92	0.69
5:B:260:GLY:O	5:B:267:ARG:HD3	1.92	0.69
5:B:354:ASP:O	5:B:358:LYS:N	2.22	0.69
5:B:374:LYS:O	5:B:375:ALA:C	2.29	0.69
9:H:108:SER:O	9:H:109:LYS:CG	2.40	0.69
9:H:132:LEU:N	9:H:132:LEU:CB	2.54	0.69
10:I:99:LEU:HB2	10:I:112:SER:CB	2.23	0.69
12:K:97:LYS:C	12:K:100:ALA:HB3	2.12	0.69
6:C:36:VAL:HG23	12:K:41:THR:HG21	1.74	0.69
2:T:18:DA:H2'	2:T:19:DT:C5	2.26	0.69
2:T:22:DT:C2'	2:T:23:DC:O5'	2.39	0.69
4:A:1298:TYR:C	4:A:1299:VAL:HG22	2.10	0.69
4:A:24:PRO:CG	4:A:237:THR:HG21	2.22	0.69
4:A:606:LEU:HB3	4:A:614:PHE:H	1.56	0.69
4:A:648:ASN:O	4:A:652:VAL:HG23	1.90	0.69
4:A:821:ARG:O	4:A:822:GLU:C	2.30	0.69
4:A:954:TRP:N	4:A:954:TRP:CD1	2.57	0.69
4:A:981:LEU:CD2	4:A:1039:LYS:HA	2.20	0.69
5:B:802:PRO:HB3	5:B:1091:TYR:CE1	2.27	0.69
4:A:455:MET:HE1	5:B:1134:GLU:HB3	1.74	0.69
5:B:570:VAL:HB	5:B:570:VAL:CG2	2.17	0.69
5:B:63:ILE:HG13	5:B:421:PHE:CZ	2.27	0.69
5:B:976:ILE:HD11	5:B:992:ILE:HD12	1.74	0.69
9:H:24:CYS:HB2	9:H:44:VAL:HG21	1.72	0.69
10:I:29:CYS:SG	10:I:31:THR:C	2.66	0.69
12:K:46:ILE:HG23	12:K:50:LEU:HD12	1.73	0.69
4:A:514:PRO:CG	4:A:515:GLN:N	2.51	0.69
4:A:571:LEU:HD22	9:H:46:LEU:HD11	1.73	0.69
4:A:737:LEU:H	4:A:737:LEU:HD23	1.57	0.69
5:B:1170:THR:CG2	5:B:1183:LYS:HZ3	2.03	0.69
4:A:22:PHE:CB	5:B:1211:ASN:OD1	2.41	0.69
6:C:131:HIS:O	6:C:132:PRO:C	2.26	0.69
10:I:59:VAL:O	10:I:61:ASP:N	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:J:21:TYR:HB2	11:J:39:LEU:HD11	1.73	0.69
11:J:57:ILE:HA	11:J:60:PHE:HD2	1.56	0.69
4:A:1081:LEU:CD2	4:A:1081:LEU:HG	2.14	0.69
4:A:1364:ASN:ND2	4:A:1366:ARG:CG	2.55	0.69
4:A:30:ILE:HG13	5:B:1183:LYS:NZ	2.06	0.69
4:A:476:SER:O	4:A:478:TYR:N	2.25	0.69
4:A:779:PHE:CZ	4:A:785:PRO:CD	2.75	0.69
4:A:87:ALA:HB3	4:A:88:LYS:H	1.56	0.69
4:A:886:ILE:CD1	4:A:944:ARG:HG3	2.23	0.69
4:A:8:SER:OG	5:B:1180:PHE:HE1	1.75	0.69
5:B:1043:ASP:OD1	5:B:1043:ASP:C	2.24	0.69
5:B:63:ILE:HG13	5:B:421:PHE:CE2	2.28	0.69
5:B:899:ILE:CG2	5:B:900:ALA:H	1.98	0.69
10:I:85:PHE:C	10:I:85:PHE:CD1	2.65	0.69
4:A:282:ASN:O	4:A:284:ALA:N	2.25	0.69
4:A:857:ARG:HB3	4:A:863:VAL:HA	1.74	0.69
4:A:943:LEU:O	4:A:944:ARG:C	2.28	0.69
5:B:1002:THR:CG2	5:B:1006:ILE:HB	2.22	0.69
9:H:16:ASP:N	9:H:25:ARG:O	2.22	0.69
9:H:81:PRO:CA	9:H:82:PRO:N	2.55	0.69
10:I:31:THR:HG22	10:I:32:CYS:HB3	1.73	0.69
10:I:41:PRO:CD	10:I:42:LEU:H	2.05	0.69
11:J:10:CYS:SG	11:J:43:ARG:HD2	2.32	0.69
4:A:268:ASP:O	4:A:271:LYS:HB3	1.93	0.69
4:A:873:MET:HG2	4:A:957:PRO:HG3	1.75	0.69
4:A:913:LEU:HD12	4:A:915:SER:H	1.56	0.69
5:B:978:ASP:OD1	5:B:1098:MET:HB3	1.92	0.69
6:C:35:ARG:HD3	12:K:41:THR:HA	1.73	0.69
9:H:52:GLN:CB	9:H:52:GLN:N	2.56	0.69
11:J:60:PHE:H	11:J:60:PHE:HD2	1.41	0.69
5:B:992:ILE:CD1	12:K:67:PHE:HE2	2.06	0.69
4:A:551:TYR:CE2	12:K:74:ARG:HB2	2.27	0.69
4:A:1412:ALA:HA	4:A:1417:GLU:HG3	1.75	0.69
4:A:901:LEU:HG	4:A:926:GLN:HE21	1.58	0.69
5:B:474:SER:O	5:B:475:SER:C	2.30	0.69
6:C:100:THR:HB	6:C:119:VAL:HG11	1.73	0.69
6:C:70:ILE:HG22	6:C:70:ILE:O	1.93	0.69
7:E:164:LEU:HD13	7:E:211:TYR:CD2	2.27	0.69
11:J:44:TYR:HA	11:J:47:ARG:HB2	1.73	0.69
12:K:46:ILE:HG23	12:K:50:LEU:CD1	2.23	0.69
13:L:26:THR:HA	13:L:26:THR:CB	2.15	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1408:ILE:HG22	4:A:1408:ILE:O	1.91	0.69
5:B:1210:MET:HB2	5:B:1210:MET:CE	2.16	0.69
5:B:488:TYR:O	5:B:490:SER:N	2.25	0.69
5:B:69:LEU:HA	5:B:70:ILE:H	1.57	0.69
9:H:41:ASP:O	9:H:42:ILE:CD1	2.38	0.69
4:A:1134:ILE:HG22	4:A:1138:ILE:HD11	1.74	0.69
4:A:528:LEU:HD13	4:A:531:ILE:CG2	2.23	0.69
4:A:667:GLY:O	4:A:669:THR:N	2.26	0.69
5:B:34:ILE:CD1	5:B:542:MET:HE1	2.20	0.69
5:B:883:LEU:N	5:B:883:LEU:CB	2.55	0.69
5:B:964:VAL:O	5:B:964:VAL:HG12	1.63	0.69
6:C:255:VAL:O	6:C:258:ILE:HB	1.93	0.69
8:F:120:ILE:HG22	8:F:121:ALA:H	1.55	0.69
10:I:96:SER:C	10:I:98:VAL:N	2.38	0.69
12:K:91:CYS:O	12:K:95:ILE:HG13	1.92	0.69
4:A:321:PRO:O	4:A:322:VAL:HG21	1.92	0.69
4:A:362:ASP:N	4:A:362:ASP:OD2	2.20	0.69
4:A:599:SER:HB3	4:A:603:ASN:H	1.58	0.69
4:A:987:VAL:CG2	4:A:987:VAL:HB	2.18	0.69
5:B:263:GLY:O	5:B:264:SER:O	2.10	0.69
6:C:196:ASP:O	6:C:200:GLU:CB	2.40	0.69
10:I:58:VAL:C	10:I:59:VAL:CG2	2.56	0.69
4:A:1066:VAL:HG12	4:A:1066:VAL:O	1.93	0.68
4:A:123:ARG:O	4:A:124:GLN:C	2.31	0.68
4:A:1319:VAL:HB	4:A:1322:ILE:CD1	2.23	0.68
4:A:1342:GLU:HG2	7:E:212:ARG:NH1	2.05	0.68
4:A:463:ILE:CB	4:A:464:PRO:HD2	2.20	0.68
4:A:814:PHE:CZ	5:B:514:LEU:HD21	2.27	0.68
4:A:88:LYS:CA	4:A:89:PRO:N	2.54	0.68
5:B:256:VAL:HG13	5:B:271:ALA:HB2	1.75	0.68
5:B:20:ASP:N	5:B:655:LYS:HZ3	1.90	0.68
7:E:115:ASN:O	7:E:116:ILE:CG1	2.40	0.68
7:E:198:ILE:C	7:E:199:ILE:HG13	2.14	0.68
8:F:124:GLU:O	8:F:130:ILE:HG13	1.93	0.68
8:F:143:PHE:O	8:F:143:PHE:CD1	2.45	0.68
10:I:54:GLU:C	10:I:55:THR:O	2.25	0.68
4:A:606:LEU:HB2	4:A:614:PHE:CE1	2.27	0.68
4:A:609:ASP:O	4:A:611:GLN:HB2	1.94	0.68
5:B:634:TYR:CE1	5:B:692:TYR:HD1	2.11	0.68
6:C:80:LEU:CD1	6:C:95:CYS:HA	2.24	0.68
7:E:204:THR:CG2	7:E:205:SER:N	2.54	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:I:28:GLU:CG	10:I:28:GLU:O	2.42	0.68
11:J:43:ARG:O	11:J:47:ARG:N	2.25	0.68
12:K:65:HIS:HD2	12:K:67:PHE:H	1.40	0.68
4:A:1101:LEU:HD13	4:A:1355:VAL:HG11	1.76	0.68
4:A:598:LEU:HG	4:A:598:LEU:CD1	2.15	0.68
4:A:832:ALA:O	4:A:833:GLU:O	2.11	0.68
4:A:929:LEU:HD22	4:A:929:LEU:CA	2.20	0.68
4:A:982:THR:O	4:A:985:ASP:N	2.25	0.68
4:A:245:PRO:HB3	5:B:1201:LYS:NZ	2.08	0.68
5:B:310:MET:CG	5:B:310:MET:CE	2.71	0.68
6:C:121:VAL:O	6:C:121:VAL:CG1	2.40	0.68
4:A:265:LYS:NZ	4:A:323:LYS:HD3	2.08	0.68
4:A:26:GLU:HA	4:A:29:ALA:CB	2.19	0.68
4:A:312:PRO:O	4:A:313:GLN:HG3	1.94	0.68
4:A:377:PRO:O	4:A:377:PRO:HG2	1.94	0.68
4:A:877:HIS:N	4:A:877:HIS:CB	2.54	0.68
5:B:104:GLU:O	5:B:105:SER:C	2.30	0.68
5:B:408:LEU:O	5:B:412:LEU:HD12	1.94	0.68
5:B:447:ALA:CA	5:B:448:ILE:N	2.56	0.68
5:B:900:ALA:O	5:B:903:VAL:HG23	1.94	0.68
6:C:116:LYS:O	6:C:116:LYS:HG2	1.92	0.68
8:F:116:ASP:O	8:F:117:PRO:C	2.26	0.68
4:A:1264:GLU:O	4:A:1264:GLU:HG3	1.90	0.68
4:A:1327:ILE:HG23	4:A:1327:ILE:O	1.92	0.68
4:A:37:PHE:N	4:A:52:GLY:HA2	2.00	0.68
4:A:800:VAL:HG12	4:A:801:GLU:N	2.08	0.68
5:B:1212:ILE:HG22	5:B:1213:THR:N	2.08	0.68
5:B:1221:SER:HA	5:B:1222:ARG:N	2.07	0.68
5:B:326:ASP:O	5:B:327:ARG:C	2.32	0.68
5:B:388:CYS:O	5:B:388:CYS:SG	2.51	0.68
5:B:778:MET:HE3	5:B:853:SER:CB	2.20	0.68
6:C:33:LEU:CD1	6:C:37:MET:HE1	2.22	0.68
10:I:40:SER:CB	10:I:41:PRO:HD3	2.16	0.68
12:K:11:LEU:C	12:K:12:LEU:HD12	2.13	0.68
12:K:43:GLY:CA	12:K:71:PHE:CZ	2.76	0.68
3:N:2:DT:C2	3:N:3:DG:C6	2.80	0.68
4:A:1041:ALA:O	4:A:1042:PHE:C	2.30	0.68
4:A:844:ALA:HB2	4:A:1389:PHE:CD2	2.29	0.68
4:A:445:ASN:HB2	4:A:455:MET:HG2	1.76	0.68
4:A:590:ARG:HG3	4:A:590:ARG:HH11	0.54	0.68
4:A:614:PHE:CD1	4:A:614:PHE:O	2.46	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:81:PHE:CZ	5:B:1209:ALA:HB2	2.28	0.68
5:B:640:VAL:CG2	5:B:740:HIS:CA	2.72	0.68
5:B:882:THR:O	5:B:884:ARG:N	2.26	0.68
10:I:52:ILE:C	10:I:52:ILE:CB	2.60	0.68
5:B:798:TYR:HD2	11:J:4:PRO:HG3	1.57	0.68
4:A:183:GLY:C	4:A:184:SER:O	2.31	0.68
4:A:445:ASN:HB2	4:A:454:SER:O	1.94	0.68
4:A:567:LYS:HE2	9:H:97:MET:HG2	1.74	0.68
4:A:599:SER:C	4:A:601:LYS:H	1.97	0.68
4:A:60:SER:OG	4:A:64:ASN:O	2.12	0.68
5:B:597:MET:O	5:B:600:LEU:N	2.26	0.68
5:B:770:GLN:OE1	5:B:983:ARG:HA	1.93	0.68
12:K:107:THR:O	12:K:111:LEU:HD23	1.93	0.68
4:A:1161:THR:HG22	4:A:1163:ILE:HG13	1.73	0.68
4:A:135:PHE:O	4:A:135:PHE:CE2	2.46	0.68
4:A:588:LEU:CD1	4:A:589:GLN:H	2.05	0.68
4:A:89:PRO:O	4:A:204:THR:HG23	1.92	0.68
4:A:96:ILE:CG2	4:A:97:ALA:N	2.57	0.68
4:A:987:VAL:HG12	4:A:988:LEU:N	2.08	0.68
5:B:1024:ALA:O	5:B:1025:HIS:C	2.32	0.68
5:B:286:PHE:HB3	5:B:297:ILE:HD11	1.76	0.68
5:B:33:VAL:O	5:B:36:ALA:HB3	1.94	0.68
5:B:701:ILE:HB	5:B:740:HIS:HE1	1.58	0.68
5:B:949:VAL:HG12	5:B:950:ASP:N	2.07	0.68
9:H:38:LEU:HD13	9:H:125:LEU:HD13	1.75	0.68
10:I:42:LEU:O	10:I:43:VAL:HG22	1.94	0.68
13:L:30:ILE:HG22	13:L:31:CYS:O	1.94	0.68
4:A:1139:GLU:O	4:A:1139:GLU:HG2	1.94	0.68
4:A:336:ILE:HG22	4:A:337:ARG:N	2.09	0.68
4:A:401:GLY:N	4:A:435:HIS:HD2	1.92	0.68
4:A:679:ILE:CG2	4:A:729:ALA:HB1	2.23	0.68
5:B:363:HIS:O	5:B:364:ILE:CB	2.36	0.68
5:B:169:ARG:HB2	5:B:454:THR:CG2	2.24	0.68
5:B:498:THR:HB	5:B:537:LYS:O	1.93	0.68
5:B:737:THR:CG2	10:I:66:PRO:HB2	2.23	0.68
5:B:882:THR:HB	5:B:934:LYS:C	2.13	0.68
6:C:69:LEU:N	6:C:69:LEU:CD1	2.53	0.68
4:A:1342:GLU:CG	7:E:212:ARG:HH12	2.05	0.68
9:H:5:LEU:CD2	9:H:133:ASN:C	2.50	0.68
9:H:81:PRO:C	9:H:81:PRO:N	2.48	0.68
9:H:84:ALA:N	9:H:84:ALA:CB	2.56	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:252:PHE:H	4:A:253:ASN:HB3	1.59	0.68
4:A:628:GLY:C	4:A:630:ILE:H	1.95	0.68
4:A:715:GLU:O	4:A:716:ASP:C	2.30	0.68
4:A:850:VAL:HG21	4:A:1058:VAL:HG11	1.76	0.68
5:B:643:ASP:O	5:B:644:GLU:HG2	1.92	0.68
5:B:90:ILE:HG22	5:B:91:SER:N	2.07	0.68
7:E:161:LYS:HD2	7:E:195:VAL:HG23	1.76	0.68
13:L:63:ARG:O	13:L:64:LEU:C	2.31	0.68
3:N:2:DT:P	4:A:1110:ASN:HB2	2.34	0.67
4:A:630:ILE:HD12	4:A:630:ILE:N	2.09	0.67
4:A:664:THR:HG22	4:A:665:GLY:N	2.09	0.67
5:B:1077:THR:CG2	5:B:1079:LYS:HB2	2.24	0.67
5:B:461:LEU:N	5:B:461:LEU:HD12	1.83	0.67
5:B:686:ASN:H	5:B:686:ASN:ND2	1.93	0.67
11:J:34:THR:O	11:J:35:ALA:C	2.27	0.67
12:K:109:TRP:CG	12:K:109:TRP:O	2.47	0.67
4:A:607:ILE:HG12	4:A:612:ILE:HA	1.76	0.67
4:A:900:ASP:O	4:A:906:HIS:O	2.11	0.67
4:A:904:THR:O	4:A:906:HIS:N	2.27	0.67
5:B:114:PRO:HD3	5:B:124:TYR:CD1	2.28	0.67
5:B:869:SER:C	5:B:870:ILE:HG13	2.12	0.67
5:B:882:THR:OG1	5:B:934:LYS:C	2.33	0.67
7:E:204:THR:HG22	7:E:205:SER:CB	2.24	0.67
9:H:100:THR:CB	9:H:100:THR:HA	2.23	0.67
9:H:143:LEU:C	9:H:144:ILE:CG1	2.56	0.67
11:J:3:VAL:CG2	11:J:3:VAL:CA	2.65	0.67
6:C:66:ARG:NH2	11:J:3:VAL:O	2.27	0.67
4:A:1362:TYR:CE1	4:A:1364:ASN:HA	2.29	0.67
4:A:250:ILE:N	4:A:250:ILE:CB	2.55	0.67
4:A:40:THR:CG2	4:A:259:GLU:OE2	2.41	0.67
4:A:50:ILE:O	4:A:52:GLY:N	2.28	0.67
4:A:740:LEU:CD2	4:A:740:LEU:H	2.07	0.67
4:A:893:PHE:HD2	4:A:893:PHE:C	1.94	0.67
5:B:1095:LEU:C	5:B:1096:ARG:O	2.21	0.67
5:B:993:THR:O	5:B:994:TYR:HD2	1.77	0.67
3:N:2:DT:H2"	3:N:3:DG:N7	2.08	0.67
4:A:1214:GLU:O	4:A:1218:GLN:CG	2.34	0.67
4:A:1335:ILE:HG22	4:A:1336:MET:N	2.02	0.67
4:A:30:ILE:HD11	5:B:1170:THR:OG1	1.94	0.67
4:A:351:THR:CG2	4:A:352:VAL:H	2.07	0.67
4:A:49:LYS:HZ1	4:A:60:SER:C	1.98	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:598:LEU:CD1	4:A:598:LEU:CB	2.71	0.67
4:A:605:MET:CE	4:A:605:MET:HA	2.23	0.67
4:A:863:VAL:C	4:A:864:ILE:HG12	2.14	0.67
5:B:1196:ILE:CB	5:B:1197:PRO:HD2	2.21	0.67
5:B:219:ALA:C	5:B:219:ALA:CB	2.62	0.67
5:B:355:ILE:HG22	5:B:356:LEU:CD2	2.24	0.67
5:B:639:ILE:HG23	5:B:640:VAL:N	2.08	0.67
5:B:1081:LEU:O	6:C:189:THR:HG23	1.95	0.67
7:E:158:SER:C	7:E:158:SER:CB	2.62	0.67
9:H:97:MET:HB2	9:H:118:PHE:CD2	2.29	0.67
10:I:60:GLN:NE2	10:I:107:SER:HB2	2.09	0.67
10:I:19:ASP:HB2	10:I:24:ARG:HG3	1.76	0.67
10:I:86:PHE:CD1	10:I:86:PHE:O	2.47	0.67
4:A:1316:VAL:HG12	4:A:1316:VAL:O	1.93	0.67
4:A:1364:ASN:HD21	4:A:1366:ARG:HH11	1.43	0.67
4:A:351:THR:HG22	4:A:352:VAL:H	1.58	0.67
4:A:405:VAL:CG1	4:A:406:ILE:N	2.55	0.67
4:A:530:GLY:HA2	4:A:533:LYS:N	2.04	0.67
4:A:755:PHE:O	4:A:758:ILE:N	2.26	0.67
4:A:971:PHE:O	4:A:973:ILE:HD12	1.94	0.67
5:B:1033:LYS:HB2	5:B:1089:PRO:HD2	1.76	0.67
5:B:273:LEU:HB2	5:B:276:ILE:HD12	1.77	0.67
5:B:426:LYS:O	5:B:426:LYS:HG3	1.94	0.67
5:B:516:ASN:H	5:B:516:ASN:HD22	1.42	0.67
5:B:882:THR:HG21	5:B:935:ARG:CA	2.23	0.67
5:B:984:HIS:ND1	5:B:984:HIS:N	2.36	0.67
6:C:57:VAL:CG2	11:J:57:ILE:HD11	2.24	0.67
9:H:7:ASP:O	9:H:8:ASP:CB	2.42	0.67
11:J:7:CYS:HA	11:J:49:MET:HE3	1.75	0.67
13:L:52:GLY:O	13:L:54:ARG:N	2.28	0.67
4:A:241:VAL:HG13	4:A:266:LEU:CD1	2.25	0.67
4:A:244:PRO:O	4:A:247:ARG:N	2.26	0.67
4:A:535:THR:HG21	4:A:617:VAL:H	1.60	0.67
5:B:179:CYS:C	5:B:181:LEU:N	2.48	0.67
5:B:298:LEU:O	5:B:302:CYS:N	2.26	0.67
5:B:363:HIS:N	5:B:363:HIS:ND1	2.32	0.67
5:B:428:ILE:C	5:B:430:ARG:N	2.41	0.67
5:B:686:ASN:N	5:B:686:ASN:ND2	2.43	0.67
9:H:31:THR:O	9:H:32:THR:HB	1.95	0.67
13:L:59:ALA:CB	13:L:60:ARG:O	2.41	0.67
4:A:289:ILE:HG22	4:A:290:GLU:N	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:294:SER:O	4:A:298:PHE:HB3	1.95	0.67
5:B:1170:THR:O	5:B:1170:THR:HG22	1.95	0.67
5:B:381:MET:O	5:B:385:LEU:N	2.22	0.67
5:B:46:GLN:HE22	5:B:496:ARG:HA	1.60	0.67
5:B:880:THR:O	5:B:933:SER:OG	2.12	0.67
4:A:1325:THR:C	7:E:147:HIS:HD1	1.97	0.67
13:L:53:HIS:O	13:L:55:ILE:HG12	1.94	0.67
4:A:1042:PHE:O	4:A:1046:LEU:HB2	1.95	0.67
4:A:1142:THR:CG2	4:A:1142:THR:HB	2.17	0.67
4:A:1161:THR:CG2	4:A:1162:VAL:N	2.58	0.67
4:A:1345:ARG:HD2	4:A:1373:ASP:OD1	1.93	0.67
4:A:209:ASN:O	4:A:212:LYS:N	2.27	0.67
4:A:630:ILE:H	4:A:630:ILE:HD12	1.58	0.67
5:B:1073:TYR:N	5:B:1073:TYR:CD1	2.62	0.67
5:B:1074:ASN:CG	5:B:1074:ASN:O	2.27	0.67
5:B:1135:ARG:NH2	5:B:1136:ASP:OD1	2.24	0.67
5:B:1171:VAL:HG12	5:B:1172:ILE:N	2.10	0.67
5:B:475:SER:C	5:B:477:ALA:H	1.96	0.67
10:I:115:LYS:O	10:I:116:ASN:O	2.12	0.67
10:I:83:ASN:O	10:I:84:VAL:HB	1.94	0.67
12:K:23:PRO:O	12:K:23:PRO:HD2	1.94	0.67
4:A:1322:ILE:C	4:A:1324:PRO:HD3	2.15	0.67
4:A:526:ASP:O	4:A:529:CYS:N	2.28	0.67
4:A:343:LYS:HD3	5:B:1155:SER:OG	1.95	0.67
5:B:1192:TYR:CE2	5:B:1218:THR:HG21	2.29	0.67
5:B:168:GLY:HA2	5:B:454:THR:HG1	1.59	0.67
5:B:300:HIS:CE1	5:B:376:PHE:CE2	2.83	0.67
5:B:392:ARG:O	5:B:393:LYS:HE3	1.95	0.67
5:B:744:HIS:O	5:B:747:MET:HG2	1.95	0.67
5:B:992:ILE:HD11	12:K:67:PHE:HE2	1.59	0.67
7:E:115:ASN:C	7:E:116:ILE:HG12	2.15	0.67
4:A:1169:ILE:HD12	4:A:1169:ILE:H	1.60	0.67
4:A:1209:MET:SD	4:A:1236:LEU:CD2	2.76	0.67
4:A:308:ILE:HB	4:A:309:ALA:HB3	1.77	0.67
4:A:523:ILE:HG22	4:A:528:LEU:CB	2.23	0.67
5:B:108:VAL:CG1	5:B:108:VAL:CG2	2.72	0.67
5:B:258:LEU:HD12	5:B:258:LEU:C	2.08	0.67
5:B:698:GLU:O	5:B:701:ILE:HD12	1.95	0.67
5:B:979:LYS:C	5:B:980:PHE:CD1	2.68	0.67
7:E:190:LEU:HA	7:E:190:LEU:HD22	1.77	0.67
4:A:325:ILE:C	4:A:325:ILE:CG2	2.63	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:34:LYS:HZ1	4:A:57:ARG:NH2	1.91	0.66
4:A:418:SER:O	4:A:421:ALA:CB	2.43	0.66
4:A:354:SER:HA	4:A:482:PHE:CD2	2.30	0.66
4:A:900:ASP:N	4:A:926:GLN:HE22	1.93	0.66
4:A:913:LEU:HD12	4:A:914:GLU:N	2.10	0.66
5:B:1191:ILE:CG2	5:B:1192:TYR:N	2.58	0.66
7:E:112:TYR:CE1	7:E:136:ASN:CB	2.75	0.66
8:F:103:MET:CE	8:F:103:MET:SD	2.84	0.66
8:F:147:SER:O	8:F:151:LEU:HD11	1.95	0.66
12:K:65:HIS:CD2	12:K:66:PRO:CD	2.78	0.66
2:T:12:DC:O3'	2:T:12:DC:C2'	2.40	0.66
4:A:1290:LYS:O	4:A:1291:VAL:HG22	1.95	0.66
4:A:1348:LEU:HD21	4:A:1375:MET:SD	2.35	0.66
4:A:344:ARG:HG2	5:B:1128:LEU:O	1.95	0.66
5:B:910:VAL:CG2	5:B:910:VAL:CG1	2.69	0.66
5:B:951:GLN:NE2	5:B:951:GLN:CG	2.55	0.66
12:K:6:ARG:O	12:K:8:GLU:N	2.28	0.66
4:A:1394:THR:HG23	4:A:1398:MET:CE	2.26	0.66
4:A:590:ARG:CG	4:A:590:ARG:CZ	2.73	0.66
4:A:858:ASN:ND2	4:A:860:LEU:N	2.43	0.66
5:B:1067:ARG:O	5:B:1086:PHE:CE1	2.48	0.66
5:B:427:ASP:HA	5:B:430:ARG:NH1	2.01	0.66
5:B:477:ALA:HB1	5:B:478:GLY:O	1.95	0.66
7:E:178:ILE:HG23	7:E:214:CYS:CB	2.19	0.66
7:E:23:VAL:HG13	7:E:28:TYR:CD1	2.30	0.66
7:E:80:VAL:HA	7:E:109:ILE:HG21	1.77	0.66
8:F:75:PRO:O	8:F:77:ASP:N	2.27	0.66
4:A:567:LYS:HB2	4:A:568:PRO:CD	2.23	0.66
4:A:664:THR:C	4:A:664:THR:HG22	2.16	0.66
6:C:31:ASN:O	6:C:33:LEU:N	2.29	0.66
7:E:42:PHE:HZ	7:E:58:MET:HE1	1.61	0.66
4:A:1004:ASN:ND2	7:E:167:ARG:CG	2.58	0.66
4:A:1193:LEU:CD1	4:A:1194:ARG:N	2.58	0.66
4:A:315:LEU:HD12	4:A:319:GLY:HA2	1.75	0.66
4:A:464:PRO:HG2	4:A:465:TYR:HD1	1.60	0.66
4:A:524:VAL:CA	4:A:524:VAL:CG1	2.70	0.66
4:A:606:LEU:O	4:A:607:ILE:HG13	1.96	0.66
4:A:765:VAL:HG22	4:A:802:ASN:O	1.95	0.66
4:A:809:THR:HB	4:A:810:PRO:HD2	1.77	0.66
4:A:99:ILE:HA	4:A:102:VAL:CG2	2.24	0.66
5:B:125:SER:HB2	5:B:171:PRO:N	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:185:THR:HG23	5:B:188:ASP:CG	2.15	0.66
5:B:759:PRO:HD3	5:B:1046:PRO:HG3	1.77	0.66
5:B:956:THR:HG23	5:B:956:THR:O	1.88	0.66
7:E:168:TYR:O	7:E:169:ARG:HG3	1.95	0.66
8:F:120:ILE:O	8:F:121:ALA:C	2.31	0.66
4:A:1224:LEU:HG	4:A:1226:VAL:CG2	2.25	0.66
4:A:441:PRO:O	4:A:442:VAL:CG1	2.44	0.66
4:A:756:ILE:HG22	4:A:757:ASN:H	1.58	0.66
4:A:990:VAL:HG21	4:A:1026:LEU:O	1.96	0.66
5:B:1006:ILE:HG21	5:B:1087:PHE:HE2	1.61	0.66
5:B:1152:MET:CE	5:B:1196:ILE:HA	2.26	0.66
5:B:219:ALA:HB3	5:B:222:ILE:HD11	1.77	0.66
5:B:627:PHE:O	5:B:632:ARG:NH1	2.29	0.66
5:B:739:THR:OG1	5:B:740:HIS:CE1	2.49	0.66
6:C:227:THR:HG22	6:C:229:TYR:HE1	1.61	0.66
8:F:135:ARG:CZ	8:F:143:PHE:CZ	2.79	0.66
9:H:84:ALA:CA	9:H:86:ASP:H	2.08	0.66
10:I:85:PHE:HD1	10:I:86:PHE:N	1.94	0.66
4:A:1006:ILE:HD11	7:E:163:GLU:OE2	1.96	0.66
4:A:1017:LEU:CB	7:E:205:SER:CA	2.74	0.66
4:A:113:LEU:C	4:A:114:LEU:HD23	2.15	0.66
4:A:1208:THR:O	4:A:1211:GLN:CB	2.44	0.66
4:A:207:ILE:HA	4:A:210:ILE:HG13	1.76	0.66
4:A:273:ASN:OD1	4:A:296:LEU:CD2	2.44	0.66
4:A:629:LEU:N	4:A:630:ILE:HD12	2.11	0.66
4:A:768:GLN:HB2	4:A:798:GLY:O	1.96	0.66
4:A:919:ILE:O	4:A:922:ASP:N	2.29	0.66
4:A:939:ASP:O	4:A:940:ARG:C	2.31	0.66
5:B:266:ALA:HA	5:B:267:ARG:N	2.09	0.66
5:B:610:ASN:OD1	5:B:611:PRO:N	2.28	0.66
9:H:108:SER:O	9:H:109:LYS:HG3	1.95	0.66
10:I:28:GLU:OE2	10:I:28:GLU:C	2.33	0.66
12:K:73:LEU:HG	12:K:74:ARG:N	2.10	0.66
4:A:1429:ILE:O	5:B:1197:PRO:HG2	1.95	0.66
4:A:385:ILE:O	4:A:386:ASP:C	2.31	0.66
4:A:531:ILE:CG1	4:A:622:VAL:HG11	2.26	0.66
4:A:777:PHE:CE2	4:A:782:ARG:CA	2.79	0.66
5:B:238:ALA:O	5:B:256:VAL:N	2.25	0.66
5:B:476:ARG:NE	5:B:476:ARG:CG	2.58	0.66
5:B:899:ILE:HD11	5:B:911:ILE:HG12	1.76	0.66
9:H:135:LEU:CD2	9:H:135:LEU:HG	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:I:17:ARG:CG	10:I:18:GLU:N	2.49	0.66
2:T:20:DC:C4	2:T:21:DC:C5	2.84	0.66
4:A:1277:GLU:CB	4:A:1277:GLU:HA	2.17	0.66
4:A:1362:TYR:HD1	4:A:1363:VAL:H	0.75	0.66
4:A:397:ASN:N	4:A:397:ASN:OD1	2.28	0.66
4:A:868:TYR:CE1	4:A:1064:VAL:CG1	2.66	0.66
4:A:964:ILE:HG22	4:A:965:GLN:N	2.10	0.66
4:A:929:LEU:HD21	4:A:983:ILE:CG2	2.25	0.66
4:A:746:MET:HG2	5:B:1015:HIS:CE1	2.31	0.66
5:B:796:LEU:HB3	5:B:799:PRO:HG3	1.78	0.66
9:H:15:VAL:HG21	9:H:50:ALA:HA	1.78	0.66
4:A:1445:ILE:CA	4:A:1445:ILE:HB	2.16	0.66
4:A:431:LYS:O	4:A:432:VAL:HG22	1.95	0.66
4:A:491:VAL:HG12	4:A:492:PRO:CD	2.26	0.66
4:A:628:GLY:C	4:A:630:ILE:N	2.41	0.66
4:A:953:ASN:C	4:A:954:TRP:CD1	2.70	0.66
4:A:982:THR:O	4:A:983:ILE:C	2.32	0.66
5:B:313:MET:CG	5:B:390:LEU:HD21	2.25	0.66
5:B:589:VAL:CG1	5:B:590:HIS:N	2.56	0.66
5:B:830:TYR:HE1	5:B:1000:PRO:HB3	1.61	0.66
4:A:868:TYR:CE1	4:A:1064:VAL:HG21	2.31	0.65
4:A:1147:THR:HG22	10:I:48:LEU:CD1	2.26	0.65
4:A:1299:VAL:CG1	4:A:1300:LYS:N	2.55	0.65
4:A:1361:SER:N	4:A:1361:SER:CB	2.58	0.65
4:A:337:ARG:NH1	4:A:839:ARG:NH1	2.44	0.65
4:A:718:VAL:O	4:A:722:LEU:HD12	1.96	0.65
4:A:767:GLN:HG3	4:A:768:GLN:N	2.10	0.65
4:A:777:PHE:HD2	4:A:782:ARG:C	2.00	0.65
4:A:912:LEU:O	4:A:978:PRO:HB2	1.95	0.65
5:B:189:LEU:C	5:B:191:LYS:N	2.36	0.65
5:B:234:ILE:CD1	5:B:234:ILE:H	2.06	0.65
5:B:806:THR:N	5:B:809:MET:HE3	2.11	0.65
5:B:860:MET:HG3	5:B:861:ASP:H	1.57	0.65
7:E:213:ILE:HG13	7:E:214:CYS:N	2.10	0.65
8:F:75:PRO:O	8:F:77:ASP:O	2.13	0.65
4:A:23:SER:HB3	4:A:233:TRP:CZ2	2.31	0.65
2:T:28:DT:H2"	4:A:317:LYS:HG2	0.66	0.65
4:A:618:GLU:CD	4:A:620:LYS:H	2.00	0.65
4:A:68:GLN:NE2	4:A:80:HIS:NE2	2.45	0.65
4:A:966:ASN:O	4:A:1044:TRP:CH2	2.49	0.65
5:B:802:PRO:HB3	5:B:1091:TYR:CD1	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:500:GLU:HG2	5:B:1143:ALA:CB	2.26	0.65
5:B:256:VAL:O	5:B:385:LEU:HD13	1.95	0.65
5:B:635:ARG:HG3	5:B:636:PRO:CD	2.23	0.65
6:C:70:ILE:CD1	6:C:144:ILE:HD11	2.25	0.65
7:E:35:VAL:HA	7:E:35:VAL:CB	2.14	0.65
4:A:403:LYS:HB2	4:A:404:TYR:CD1	2.30	0.65
4:A:68:GLN:NE2	4:A:70:CYS:CB	2.60	0.65
4:A:7:SER:OG	4:A:9:ALA:N	2.29	0.65
5:B:1059:LEU:HD11	5:B:1064:TYR:HB2	1.78	0.65
5:B:65:GLU:N	5:B:67:SER:HB3	2.11	0.65
5:B:882:THR:CG2	5:B:884:ARG:H	2.10	0.65
6:C:145:CYS:SG	6:C:146:LYS:N	2.69	0.65
8:F:81:THR:O	8:F:82:THR:C	2.34	0.65
12:K:103:THR:HG22	12:K:104:ASN:N	2.10	0.65
12:K:6:ARG:O	12:K:7:PHE:C	2.32	0.65
13:L:34:CYS:O	13:L:35:SER:HB2	1.97	0.65
5:B:955:THR:OG1	13:L:55:ILE:HA	1.97	0.65
4:A:1057:VAL:CG1	4:A:1058:VAL:N	2.60	0.65
4:A:1172:LEU:H	4:A:1172:LEU:CD2	2.10	0.65
4:A:599:SER:C	4:A:601:LYS:N	2.50	0.65
4:A:689:LYS:HB3	4:A:721:PHE:CE1	2.31	0.65
4:A:737:LEU:N	4:A:737:LEU:HD23	2.11	0.65
4:A:808:LEU:CD2	4:A:816:HIS:HD2	2.09	0.65
5:B:739:THR:HG1	5:B:740:HIS:CE1	2.13	0.65
5:B:878:GLN:O	5:B:879:ARG:CB	2.45	0.65
5:B:882:THR:HG23	5:B:884:ARG:H	1.60	0.65
5:B:882:THR:HG21	5:B:934:LYS:O	1.97	0.65
6:C:163:ILE:O	6:C:164:ALA:C	2.33	0.65
7:E:52:ARG:CB	7:E:52:ARG:N	2.56	0.65
9:H:115:TYR:HA	9:H:123:MET:O	1.97	0.65
4:A:167:CYS:O	4:A:169:ASN:ND2	2.29	0.65
4:A:567:LYS:NZ	9:H:95:TYR:CE2	2.64	0.65
4:A:898:ARG:HA	4:A:933:TYR:CE1	2.32	0.65
4:A:986:ILE:HD11	4:A:1032:LEU:HD21	1.77	0.65
5:B:32:ALA:O	5:B:35:SER:HB2	1.97	0.65
6:C:198:ALA:C	6:C:200:GLU:N	2.48	0.65
7:E:124:VAL:HA	7:E:132:ILE:HG21	1.76	0.65
7:E:35:VAL:CG2	7:E:35:VAL:CG1	2.71	0.65
9:H:143:LEU:C	9:H:144:ILE:HG13	2.00	0.65
11:J:7:CYS:CB	11:J:49:MET:HE3	2.26	0.65
1:R:8:G:N2	2:T:22:DT:N3	2.45	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1015:VAL:HG13	4:A:1019:CYS:SG	2.35	0.65
4:A:237:THR:HB	4:A:238:CYS:CB	2.25	0.65
5:B:1104:HIS:ND1	5:B:1105:ALA:N	2.44	0.65
5:B:273:LEU:HD11	5:B:285:ILE:HD11	1.78	0.65
5:B:383:ASN:ND2	5:B:384:ARG:HH11	1.95	0.65
5:B:991:GLY:O	5:B:992:ILE:HB	1.95	0.65
6:C:266:ASP:C	6:C:266:ASP:CB	2.64	0.65
6:C:92:CYS:N	6:C:95:CYS:SG	2.66	0.65
10:I:16:PRO:C	10:I:16:PRO:CG	2.62	0.65
4:A:1116:LEU:C	4:A:1117:THR:OG1	2.30	0.65
4:A:1237:ILE:HG23	4:A:1238:ILE:H	1.60	0.65
4:A:1308:THR:HG22	4:A:1309:ASP:C	2.16	0.65
4:A:1390:ASN:HD22	4:A:1399:ARG:CB	2.05	0.65
4:A:321:PRO:CG	4:A:321:PRO:C	2.64	0.65
4:A:341:MET:CE	4:A:341:MET:CG	2.75	0.65
4:A:403:LYS:HB2	4:A:404:TYR:HD1	1.61	0.65
4:A:443:LEU:CD2	4:A:456:MET:H	2.08	0.65
4:A:493:GLN:HE21	4:A:493:GLN:N	1.94	0.65
4:A:720:ARG:NE	4:A:720:ARG:CB	2.60	0.65
4:A:889:SER:O	4:A:940:ARG:NH2	2.29	0.65
5:B:1060:ARG:O	5:B:1063:GLY:N	2.29	0.65
5:B:166:PHE:HD2	5:B:166:PHE:O	1.80	0.65
5:B:530:GLY:O	5:B:532:ALA:N	2.29	0.65
6:C:120:ILE:HD11	6:C:130:GLY:O	1.96	0.65
7:E:10:SER:O	7:E:14:ARG:HG3	1.96	0.65
7:E:42:PHE:CZ	7:E:58:MET:CE	2.79	0.65
10:I:17:ARG:O	10:I:26:LEU:CA	2.45	0.65
4:A:1099:PRO:O	4:A:1102:LYS:HB3	1.97	0.65
4:A:1127:ASP:CB	4:A:1130:GLN:HB3	2.19	0.65
4:A:1174:PHE:C	4:A:1174:PHE:CB	2.65	0.65
4:A:1191:TRP:CH2	4:A:1257:ASP:OD1	2.49	0.65
4:A:1118:VAL:O	4:A:1305:VAL:HG13	1.97	0.65
4:A:1364:ASN:C	4:A:1364:ASN:ND2	2.50	0.65
4:A:78:PRO:O	4:A:79:GLY:O	2.14	0.65
4:A:84:ILE:O	4:A:84:ILE:HD13	1.97	0.65
4:A:993:LEU:CD1	4:A:997:LEU:HD21	2.26	0.65
5:B:804:GLY:HA2	5:B:1042:GLY:O	1.96	0.65
5:B:1072:MET:HE2	5:B:1085:ILE:HG21	1.77	0.65
5:B:1191:ILE:C	5:B:1192:TYR:CD1	2.71	0.65
5:B:1196:ILE:CB	5:B:1197:PRO:CD	2.74	0.65
5:B:1223:ASP:C	5:B:1223:ASP:HA	2.08	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:20:ASP:N	5:B:655:LYS:HZ2	1.94	0.65
5:B:665:GLU:O	5:B:666:TYR:C	2.34	0.65
5:B:859:TYR:OH	5:B:941:LEU:HD22	1.95	0.65
7:E:26:ARG:HD3	7:E:188:LEU:O	1.96	0.65
7:E:58:MET:O	7:E:60:PHE:HB3	1.97	0.65
10:I:74:GLU:HB3	10:I:75:CYS:O	1.97	0.65
12:K:34:THR:CG2	12:K:34:THR:CA	2.72	0.65
12:K:49:GLU:HG3	12:K:94:ILE:HD11	1.79	0.65
4:A:445:ASN:ND2	4:A:446:ARG:N	2.45	0.65
4:A:508:PRO:HD2	4:A:509:LEU:H	1.61	0.65
4:A:582:ILE:HG23	4:A:583:PRO:CD	2.26	0.65
4:A:608:ILE:O	4:A:609:ASP:O	2.15	0.65
4:A:622:VAL:CG2	4:A:622:VAL:O	2.44	0.65
4:A:84:ILE:HG22	4:A:241:VAL:CG2	2.26	0.65
5:B:385:LEU:O	5:B:385:LEU:HG	1.97	0.65
5:B:473:MET:HA	5:B:475:SER:H	1.62	0.65
9:H:12:VAL:HA	9:H:28:ALA:CB	2.27	0.65
13:L:54:ARG:HH11	13:L:54:ARG:CG	2.10	0.65
4:A:1229:SER:HB3	4:A:1233:ASP:OD2	1.96	0.65
4:A:1237:ILE:CG2	4:A:1238:ILE:C	2.66	0.65
4:A:529:CYS:SG	4:A:662:PHE:CE2	2.89	0.65
4:A:830:LYS:O	4:A:834:THR:OG1	2.11	0.65
4:A:346:ASP:HB2	5:B:1154:ALA:HB1	1.78	0.65
5:B:1171:VAL:CG1	5:B:1172:ILE:H	2.05	0.65
5:B:419:THR:CG2	5:B:419:THR:HB	2.13	0.65
8:F:109:VAL:CG1	8:F:110:ASP:N	2.59	0.65
9:H:40:LEU:CD1	9:H:123:MET:HE3	2.27	0.65
12:K:57:LEU:HD12	12:K:76:GLN:CG	2.25	0.65
4:A:1222:ASN:O	4:A:1223:ASP:HB3	1.96	0.64
4:A:1140:HIS:CB	4:A:1276:VAL:O	2.43	0.64
4:A:1290:LYS:O	4:A:1291:VAL:CG2	2.45	0.64
4:A:982:THR:HB	4:A:985:ASP:H	1.62	0.64
5:B:1065:GLN:HE21	5:B:1066:SER:N	1.95	0.64
5:B:1160:VAL:O	5:B:1194:ILE:HD13	1.96	0.64
4:A:22:PHE:HB2	5:B:1211:ASN:OD1	1.97	0.64
12:K:1:MET:O	12:K:1:MET:HG3	1.97	0.64
12:K:47:ARG:HG3	12:K:60:ALA:HA	1.79	0.64
3:N:11:DG:H2"	3:N:12:DT:OP2	1.97	0.64
4:A:427:GLN:O	4:A:428:TYR:O	2.15	0.64
4:A:743:VAL:HG12	4:A:743:VAL:O	1.88	0.64
4:A:785:PRO:HG3	5:B:698:GLU:HG2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1056:SER:O	5:B:1066:SER:HB2	1.97	0.64
5:B:170:LEU:HD12	5:B:171:PRO:HG2	1.80	0.64
5:B:287:ARG:NH2	5:B:294:ASP:OD2	2.30	0.64
5:B:446:LEU:O	5:B:447:ALA:HB3	1.95	0.64
5:B:449:ASN:ND2	5:B:451:LYS:HD2	2.12	0.64
5:B:515:HIS:HD2	5:B:517:THR:OG1	1.79	0.64
5:B:635:ARG:HD2	5:B:636:PRO:CG	2.27	0.64
6:C:35:ARG:O	6:C:38:ILE:HB	1.98	0.64
7:E:79:TRP:CE3	7:E:79:TRP:HA	2.33	0.64
9:H:135:LEU:CD2	9:H:136:LYS:CD	2.76	0.64
9:H:95:TYR:CE2	9:H:97:MET:SD	2.90	0.64
10:I:42:LEU:O	10:I:43:VAL:HG23	1.92	0.64
10:I:52:ILE:CA	10:I:52:ILE:CG1	2.71	0.64
2:T:18:DA:H2'	2:T:19:DT:C7	2.28	0.64
4:A:1210:GLY:O	4:A:1214:GLU:N	2.26	0.64
4:A:1236:LEU:O	4:A:1237:ILE:HG13	1.97	0.64
4:A:356:ASP:HB2	4:A:469:ARG:NH1	2.12	0.64
4:A:432:VAL:O	4:A:433:GLU:O	2.14	0.64
4:A:364:VAL:HG12	4:A:458:HIS:CB	2.27	0.64
5:B:815:ARG:NH2	5:B:1041:GLU:OE1	2.30	0.64
5:B:580:VAL:HG13	5:B:581:PHE:N	2.13	0.64
5:B:601:ARG:O	5:B:603:LEU:N	2.30	0.64
5:B:769:TYR:O	5:B:771:SER:N	2.31	0.64
4:A:668:ASP:H	6:C:192:TRP:HZ2	1.44	0.64
9:H:38:LEU:CD1	9:H:125:LEU:HD13	2.28	0.64
9:H:58:THR:HB	9:H:143:LEU:HD12	1.79	0.64
11:J:43:ARG:HG3	11:J:46:CYS:HB2	1.80	0.64
4:A:548:ASN:OD1	12:K:60:ALA:HB1	1.97	0.64
3:N:6:DT:H2''	3:N:7:DA:OP2	1.97	0.64
4:A:269:ILE:C	4:A:271:LYS:N	2.47	0.64
4:A:95:PHE:O	4:A:96:ILE:C	2.32	0.64
5:B:485:ARG:HG2	5:B:485:ARG:NH1	2.06	0.64
5:B:515:HIS:O	5:B:517:THR:N	2.30	0.64
10:I:3:THR:HG22	10:I:4:PHE:O	1.98	0.64
13:L:58:LYS:O	13:L:59:ALA:HB2	1.96	0.64
2:T:13:DA:N6	3:N:2:DT:C5	2.46	0.64
2:T:5:DC:H2''	2:T:6:DG:OP2	1.97	0.64
4:A:1004:ASN:HD22	7:E:167:ARG:HD2	0.52	0.64
4:A:1364:ASN:ND2	4:A:1366:ARG:N	2.43	0.64
4:A:169:ASN:HD22	4:A:169:ASN:N	1.95	0.64
4:A:419:LYS:HB3	4:A:419:LYS:HZ2	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:779:GLY:HA2	5:B:796:LEU:HB2	1.79	0.64
5:B:798:TYR:N	5:B:799:PRO:HD3	2.09	0.64
10:I:29:CYS:SG	10:I:31:THR:CA	2.77	0.64
4:A:1018:PHE:O	4:A:1021:LEU:HB3	1.97	0.64
4:A:1101:LEU:O	4:A:1105:LEU:HD12	1.97	0.64
4:A:1124:HIS:ND1	4:A:1127:ASP:OD2	2.31	0.64
4:A:1152:ILE:CG2	4:A:1152:ILE:O	2.40	0.64
4:A:909:ASP:OD1	4:A:910:PRO:HD3	1.97	0.64
5:B:102:VAL:HG21	5:B:112:LEU:HB2	1.79	0.64
5:B:857:ARG:HD3	5:B:945:GLU:OE1	1.97	0.64
5:B:877:PRO:C	5:B:878:GLN:CG	2.66	0.64
5:B:916:THR:O	5:B:916:THR:CG2	2.46	0.64
5:B:953:LEU:CD2	5:B:953:LEU:C	2.65	0.64
6:C:39:ALA:HA	6:C:164:ALA:CB	2.27	0.64
6:C:167:HIS:CD2	6:C:168:ALA:N	2.64	0.64
7:E:80:VAL:HA	7:E:109:ILE:CG2	2.27	0.64
11:J:14:VAL:O	11:J:17:LYS:HB2	1.97	0.64
2:T:7:DA:H2"	2:T:8:DT:OP2	1.98	0.64
4:A:1111:MET:HB2	4:A:1111:MET:CE	2.26	0.64
4:A:1132:LYS:O	4:A:1133:LEU:O	2.15	0.64
4:A:1161:THR:CB	4:A:1161:THR:C	2.61	0.64
4:A:239:LEU:HD13	4:A:240:PRO:HD2	1.79	0.64
4:A:608:ILE:HG22	4:A:609:ASP:N	2.12	0.64
4:A:765:VAL:CG2	4:A:800:VAL:HG11	2.28	0.64
4:A:844:ALA:HB2	4:A:1389:PHE:CE2	2.32	0.64
4:A:857:ARG:HG2	4:A:863:VAL:HG22	1.78	0.64
4:A:964:ILE:HD12	4:A:1037:LEU:HD21	1.79	0.64
5:B:660:LYS:C	5:B:663:ALA:CB	2.66	0.64
5:B:698:GLU:O	5:B:699:GLU:C	2.33	0.64
7:E:182:ASP:O	7:E:184:VAL:N	2.31	0.64
9:H:109:LYS:CB	9:H:111:LEU:N	2.60	0.64
9:H:109:LYS:CB	9:H:111:LEU:H	2.11	0.64
2:T:4:DC:H2"	2:T:5:DC:OP2	1.98	0.64
4:A:1361:SER:HA	4:A:1361:SER:C	2.06	0.64
4:A:1362:TYR:HE1	4:A:1364:ASN:HA	1.62	0.64
4:A:216:VAL:O	4:A:219:PHE:HB2	1.97	0.64
4:A:963:ILE:HG22	4:A:963:ILE:O	1.97	0.64
4:A:983:ILE:HG22	4:A:983:ILE:O	1.95	0.64
5:B:1066:SER:C	5:B:1067:ARG:HD3	2.16	0.64
5:B:788:ARG:HB2	5:B:788:ARG:HH11	1.61	0.64
5:B:893:LEU:HD23	5:B:897:GLY:C	2.18	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:947:GLY:C	5:B:948:ILE:HG13	2.18	0.64
6:C:46:ILE:HD13	6:C:159:ALA:HB2	1.80	0.64
4:A:668:ASP:N	6:C:192:TRP:HZ2	1.95	0.64
7:E:126:SER:OG	7:E:127:ILE:HG23	1.98	0.64
3:N:4:DC:H2"	3:N:5:DT:OP2	1.98	0.64
4:A:1041:ALA:O	4:A:1044:TRP:N	2.27	0.64
4:A:1048:ASN:O	4:A:1049:ILE:C	2.34	0.64
4:A:445:ASN:HB3	4:A:455:MET:HE2	1.79	0.64
5:B:274:PRO:O	5:B:276:ILE:N	2.31	0.64
5:B:316:PRO:HA	5:B:319:GLU:CG	2.27	0.64
5:B:461:LEU:HD11	5:B:466:TRP:HH2	1.63	0.64
5:B:796:LEU:HB3	5:B:799:PRO:CG	2.27	0.64
4:A:568:PRO:HB3	6:C:221:TYR:CE1	2.33	0.64
6:C:33:LEU:HD11	6:C:37:MET:CE	2.27	0.64
7:E:158:SER:CB	7:E:159:ASP:N	2.60	0.64
4:A:1017:LEU:CB	7:E:205:SER:HA	2.27	0.64
10:I:17:ARG:HG2	10:I:18:GLU:CB	2.28	0.64
10:I:41:PRO:HD2	10:I:42:LEU:N	2.12	0.64
10:I:77:LYS:CB	10:I:77:LYS:C	2.65	0.64
5:B:104:GLU:HG3	13:L:54:ARG:CZ	2.28	0.64
2:T:2:DT:H2"	2:T:3:DA:OP2	1.98	0.64
4:A:101:LYS:HG2	4:A:139:TRP:CZ2	2.32	0.64
4:A:99:ILE:HA	4:A:102:VAL:HG23	1.80	0.64
4:A:1308:THR:CG2	4:A:1310:GLY:H	2.07	0.64
4:A:1361:SER:CA	4:A:1361:SER:HB3	2.17	0.64
4:A:17:VAL:CG1	4:A:17:VAL:CG2	2.72	0.64
4:A:58:LEU:HD22	4:A:243:PRO:HB2	1.79	0.64
4:A:250:ILE:CA	4:A:250:ILE:CG1	2.75	0.64
4:A:54:ASN:OD1	4:A:54:ASN:O	2.16	0.64
4:A:635:ARG:NH2	4:A:877:HIS:HA	2.13	0.64
5:B:773:MET:O	5:B:775:LYS:N	2.31	0.64
6:C:67:LEU:C	6:C:69:LEU:N	2.49	0.64
7:E:164:LEU:HD22	7:E:211:TYR:HD2	1.59	0.64
4:A:1441:PHE:HZ	8:F:88:TYR:O	1.81	0.64
9:H:138:GLU:O	9:H:139:ASN:C	2.35	0.64
4:A:1113:THR:HG22	4:A:1113:THR:O	1.97	0.63
4:A:12:ARG:HD3	5:B:1192:TYR:HE2	1.63	0.63
4:A:1365:TYR:O	4:A:1366:ARG:C	2.34	0.63
4:A:93:VAL:C	4:A:95:PHE:H	2.01	0.63
5:B:1124:ARG:O	5:B:1125:ASP:HB3	1.97	0.63
5:B:305:VAL:CB	5:B:305:VAL:N	2.60	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:474:SER:HA	5:B:476:ARG:HG3	1.79	0.63
5:B:515:HIS:O	5:B:516:ASN:C	2.34	0.63
5:B:604:ARG:NH2	5:B:614:SER:HA	2.12	0.63
5:B:835:GLN:O	5:B:836:GLU:C	2.35	0.63
5:B:898:LEU:O	5:B:899:ILE:C	2.33	0.63
6:C:116:LYS:HE2	6:C:117:ASP:OD1	1.98	0.63
6:C:182:PRO:HB2	6:C:207:CYS:SG	2.38	0.63
7:E:79:TRP:N	7:E:107:THR:O	2.31	0.63
7:E:14:ARG:NH2	7:E:141:VAL:HG12	2.13	0.63
10:I:10:CYS:CB	10:I:31:THR:HG21	2.18	0.63
3:N:5:DT:H2''	3:N:6:DT:OP2	1.97	0.63
1:R:5:A:H2'	1:R:6:G:O4'	1.98	0.63
4:A:1022:LEU:CD2	4:A:1022:LEU:HG	2.14	0.63
4:A:1074:GLU:HB3	4:A:1075:PRO:CD	2.27	0.63
4:A:532:ARG:HH12	4:A:745:GLN:NE2	1.97	0.63
4:A:929:LEU:HD21	4:A:983:ILE:HG21	1.80	0.63
5:B:1074:ASN:OD1	5:B:1076:HIS:N	2.25	0.63
5:B:117:ALA:HB1	5:B:122:LEU:O	1.98	0.63
5:B:600:LEU:C	5:B:615:MET:HE1	2.18	0.63
5:B:881:ASN:N	5:B:881:ASN:C	2.51	0.63
8:F:134:ILE:CG2	8:F:135:ARG:N	2.61	0.63
9:H:135:LEU:HD13	9:H:137:GLN:NE2	2.14	0.63
9:H:51:ALA:CB	9:H:51:ALA:C	2.65	0.63
9:H:5:LEU:O	9:H:6:PHE:HB2	1.98	0.63
3:N:8:DT:H2''	3:N:9:DC:OP2	1.97	0.63
4:A:670:ILE:HG22	4:A:670:ILE:O	1.95	0.63
4:A:902:LEU:HD23	4:A:921:GLY:O	1.98	0.63
5:B:1024:ALA:HA	5:B:1027:ILE:CD1	2.28	0.63
5:B:236:HIS:C	5:B:237:VAL:HG23	2.18	0.63
5:B:421:PHE:O	5:B:421:PHE:CG	2.51	0.63
5:B:420:LEU:CD2	5:B:468:GLU:OE2	2.46	0.63
5:B:740:HIS:N	5:B:740:HIS:ND1	2.45	0.63
6:C:33:LEU:O	6:C:34:ARG:C	2.34	0.63
6:C:43:THR:HG22	6:C:44:LEU:N	2.10	0.63
6:C:68:GLY:C	6:C:69:LEU:CD1	2.67	0.63
7:E:87:SER:C	7:E:88:VAL:CG2	2.66	0.63
2:T:18:DA:H2'	2:T:19:DT:H72	1.80	0.63
4:A:1394:THR:HG23	4:A:1398:MET:HE3	1.80	0.63
5:B:639:ILE:HG23	5:B:640:VAL:H	1.63	0.63
8:F:81:THR:HG23	8:F:136:ARG:HD3	1.80	0.63
12:K:63:VAL:O	12:K:63:VAL:HG23	1.96	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:2:DT:O2	3:N:3:DG:O6	2.13	0.63
4:A:325:ILE:HG23	4:A:325:ILE:O	1.97	0.63
4:A:370:ILE:O	4:A:370:ILE:HG22	1.97	0.63
4:A:455:MET:O	4:A:456:MET:CB	2.45	0.63
4:A:562:THR:CG2	4:A:563:PRO:CD	2.76	0.63
5:B:530:GLY:O	5:B:533:CYS:HB2	1.99	0.63
5:B:705:MET:H	5:B:710:LEU:HD11	1.62	0.63
5:B:778:MET:CE	5:B:853:SER:CB	2.73	0.63
5:B:778:MET:HB3	5:B:796:LEU:HD13	1.81	0.63
5:B:883:LEU:CG	5:B:883:LEU:HB2	2.15	0.63
5:B:996:ARG:NH2	6:C:38:ILE:HD12	2.14	0.63
8:F:101:ILE:HG21	8:F:120:ILE:HG21	1.79	0.63
8:F:122:MET:HB3	8:F:122:MET:HE3	1.80	0.63
9:H:42:ILE:HD12	9:H:95:TYR:OH	1.99	0.63
11:J:8:PHE:H	11:J:49:MET:HE1	1.62	0.63
12:K:103:THR:O	12:K:106:GLU:HB2	1.99	0.63
3:N:2:DT:H2''	3:N:3:DG:C8	2.33	0.63
1:R:8:G:O3'	5:B:776:GLN:NE2	2.30	0.63
4:A:1208:THR:O	4:A:1212:VAL:HG23	1.98	0.63
4:A:227:VAL:CA	4:A:227:VAL:CG2	2.75	0.63
5:B:1197:PRO:O	5:B:1200:ALA:CB	2.47	0.63
5:B:554:ILE:HG22	5:B:555:ILE:N	2.11	0.63
5:B:601:ARG:O	5:B:602:THR:C	2.36	0.63
6:C:41:ILE:O	6:C:41:ILE:HG12	1.97	0.63
10:I:101:PHE:N	10:I:101:PHE:HD1	1.97	0.63
12:K:34:THR:CG2	12:K:34:THR:C	2.67	0.63
3:N:7:DA:H2''	3:N:8:DT:OP2	1.98	0.63
4:A:265:LYS:C	4:A:267:ALA:N	2.48	0.63
4:A:24:PRO:O	4:A:27:VAL:HB	1.98	0.63
4:A:419:LYS:HZ3	4:A:419:LYS:HB3	1.64	0.63
4:A:546:VAL:HG12	4:A:550:LEU:CD2	2.28	0.63
4:A:777:PHE:CD2	4:A:782:ARG:C	2.72	0.63
4:A:901:LEU:HA	4:A:907:THR:HG23	1.80	0.63
4:A:921:GLY:O	4:A:922:ASP:C	2.37	0.63
5:B:114:PRO:HG3	5:B:181:LEU:CD1	2.28	0.63
7:E:98:ILE:CA	7:E:98:ILE:CG1	2.75	0.63
4:A:289:ILE:HG22	4:A:290:GLU:H	1.62	0.63
4:A:391:LEU:HD13	4:A:400:PRO:O	1.98	0.63
4:A:446:ARG:HB2	4:A:487:MET:HG2	1.80	0.63
4:A:518:LYS:HG3	4:A:519:PRO:HD2	1.81	0.63
4:A:68:GLN:CD	4:A:70:CYS:HB2	2.19	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:96:ILE:HG22	4:A:97:ALA:N	2.13	0.63
4:A:99:ILE:HG12	4:A:234:MET:SD	2.39	0.63
5:B:477:ALA:CB	5:B:478:GLY:C	2.66	0.63
5:B:488:TYR:HE2	5:B:813:LYS:HB2	1.63	0.63
5:B:842:ASN:O	5:B:846:ILE:HG13	1.98	0.63
5:B:957:ASN:O	5:B:958:GLN:C	2.36	0.63
9:H:58:THR:CG2	9:H:59:ILE:H	2.10	0.63
10:I:19:ASP:O	10:I:23:ASN:CA	2.46	0.63
13:L:29:TYR:O	13:L:30:ILE:HG13	1.98	0.63
3:N:13:DA:H2''	3:N:14:DG:OP2	1.98	0.63
4:A:1200:ALA:C	4:A:1202:MET:N	2.51	0.63
4:A:139:TRP:C	4:A:141:LEU:N	2.49	0.63
4:A:20:GLY:O	4:A:21:LEU:HD23	1.98	0.63
4:A:423:ASP:C	4:A:424:ILE:CG1	2.58	0.63
4:A:590:ARG:HB3	4:A:605:MET:N	2.14	0.63
4:A:709:THR:O	4:A:712:GLU:N	2.32	0.63
4:A:70:CYS:C	4:A:71:GLN:HG3	2.18	0.63
4:A:867:ILE:HG22	4:A:872:GLY:N	2.14	0.63
4:A:873:MET:HG2	4:A:957:PRO:CG	2.29	0.63
5:B:121:ASN:O	5:B:206:ASN:HA	1.99	0.63
5:B:189:LEU:O	5:B:190:TYR:C	2.35	0.63
5:B:593:PRO:HD2	5:B:594:ALA:N	2.07	0.63
7:E:135:PHE:CB	7:E:140:LEU:CD1	2.77	0.63
9:H:41:ASP:HB2	9:H:122:LEU:N	2.14	0.63
9:H:89:LEU:O	9:H:90:ALA:C	2.31	0.63
10:I:34:TYR:CD2	10:I:35:VAL:N	2.67	0.63
5:B:737:THR:HG21	10:I:66:PRO:O	1.99	0.63
1:R:5:A:C4	1:R:6:G:N7	2.67	0.63
2:T:3:DA:H2''	2:T:4:DC:OP2	1.98	0.63
4:A:1053:PHE:CD2	4:A:1054:LEU:N	2.67	0.62
4:A:239:LEU:CD1	4:A:240:PRO:HD2	2.29	0.62
4:A:588:LEU:N	4:A:607:ILE:O	2.19	0.62
5:B:1104:HIS:HB2	5:B:1122:ARG:CD	2.25	0.62
5:B:882:THR:O	5:B:883:LEU:C	2.37	0.62
4:A:1017:LEU:HB2	7:E:205:SER:CA	2.29	0.62
9:H:30:SER:HB2	9:H:36:CYS:O	1.99	0.62
10:I:25:LEU:CD1	10:I:26:LEU:H	2.08	0.62
13:L:28:LYS:HB2	13:L:39:SER:HA	1.81	0.62
3:N:3:DG:H2''	3:N:4:DC:OP2	1.98	0.62
2:T:25:DC:H2'	2:T:26:DG:C8	2.34	0.62
2:T:6:DG:H2''	2:T:7:DA:OP2	1.97	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:849:MET:HE2	4:A:1061:GLY:HA2	1.76	0.62
4:A:1077:THR:C	4:A:1078:GLN:HG2	2.19	0.62
4:A:360:GLU:O	4:A:361:LEU:C	2.33	0.62
4:A:346:ASP:HB2	5:B:1154:ALA:CB	2.29	0.62
5:B:1210:MET:HE3	5:B:1210:MET:HB3	1.78	0.62
5:B:229:ALA:HB1	5:B:231:PRO:CD	2.29	0.62
5:B:316:PRO:HG2	5:B:317:CYS:N	2.09	0.62
5:B:477:ALA:HB2	5:B:479:VAL:HG22	1.74	0.62
6:C:96:SER:O	6:C:97:VAL:CG2	2.43	0.62
3:N:12:DT:H2"	3:N:13:DA:OP2	1.98	0.62
4:A:427:GLN:O	4:A:428:TYR:C	2.38	0.62
4:A:852:TYR:CD2	4:A:1060:PRO:CB	2.82	0.62
4:A:955:PRO:C	4:A:956:LEU:HG	2.19	0.62
5:B:121:ASN:N	5:B:121:ASN:HD22	1.97	0.62
5:B:1219:ASP:O	5:B:1220:ARG:C	2.36	0.62
5:B:773:MET:O	5:B:776:GLN:N	2.32	0.62
6:C:180:TYR:O	6:C:181:ASP:HB3	1.98	0.62
12:K:101:LEU:C	12:K:101:LEU:HD22	2.20	0.62
4:A:1293:SER:OG	4:A:1294:PRO:HG2	1.98	0.62
4:A:135:PHE:HD2	4:A:135:PHE:C	2.02	0.62
4:A:152:VAL:CG2	4:A:152:VAL:CA	2.73	0.62
4:A:24:PRO:HB2	4:A:237:THR:CG2	2.26	0.62
4:A:681:GLU:O	4:A:682:THR:C	2.37	0.62
4:A:927:VAL:HG21	4:A:927:VAL:CG1	2.27	0.62
5:B:1077:THR:HG22	5:B:1078:GLY:N	2.14	0.62
4:A:1436:ILE:HD13	5:B:1139:ILE:HG23	1.82	0.62
5:B:1177:HIS:O	5:B:1178:ASN:C	2.37	0.62
5:B:282:ILE:CD1	5:B:283:VAL:HG13	2.30	0.62
5:B:355:ILE:HG22	5:B:356:LEU:HD21	1.80	0.62
5:B:563:MET:O	5:B:564:GLU:C	2.37	0.62
5:B:660:LYS:O	5:B:663:ALA:HB3	1.97	0.62
5:B:787:VAL:HG12	5:B:787:VAL:O	1.99	0.62
6:C:46:ILE:CD1	6:C:72:LEU:HD11	2.29	0.62
7:E:11:ARG:O	7:E:12:LEU:C	2.36	0.62
7:E:113:GLN:HB3	7:E:137:GLU:CG	2.28	0.62
7:E:113:GLN:CB	7:E:137:GLU:HG3	2.28	0.62
8:F:101:ILE:CA	8:F:101:ILE:CG2	2.71	0.62
8:F:122:MET:CE	8:F:122:MET:CB	2.78	0.62
4:A:1441:PHE:CE1	8:F:89:GLU:HA	2.34	0.62
9:H:42:ILE:HG23	9:H:95:TYR:CE1	2.34	0.62
10:I:31:THR:HG22	10:I:32:CYS:CB	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1101:LEU:HG	4:A:1105:LEU:CD1	2.29	0.62
4:A:148:CYS:O	4:A:149:GLU:O	2.16	0.62
4:A:337:ARG:HD3	5:B:1132:GLU:OE1	1.98	0.62
4:A:495:GLU:HA	4:A:498:ARG:HG3	1.82	0.62
4:A:542:GLU:O	4:A:546:VAL:HG23	1.99	0.62
4:A:761:MET:CE	4:A:761:MET:CG	2.76	0.62
5:B:1006:ILE:CG2	5:B:1007:VAL:N	2.58	0.62
16:B:1308:ATP:C4'	16:B:1308:ATP:O1B	2.47	0.62
5:B:331:LEU:C	5:B:332:ASP:O	2.37	0.62
5:B:502:ILE:CA	5:B:502:ILE:CG2	2.74	0.62
5:B:795:ILE:HG22	5:B:796:LEU:H	1.62	0.62
5:B:805:THR:C	5:B:809:MET:HE3	2.20	0.62
5:B:825:VAL:C	5:B:825:VAL:CG1	2.68	0.62
6:C:31:ASN:C	6:C:33:LEU:H	2.02	0.62
2:T:9:DA:H2"	2:T:10:DA:OP2	1.98	0.62
4:A:265:LYS:NZ	4:A:323:LYS:HG2	2.14	0.62
4:A:41:MET:HG2	4:A:48:ALA:O	2.00	0.62
4:A:562:THR:HG22	4:A:563:PRO:CD	2.29	0.62
5:B:123:THR:HG22	5:B:123:THR:O	1.98	0.62
5:B:286:PHE:HB3	5:B:297:ILE:CD1	2.29	0.62
12:K:101:LEU:C	12:K:101:LEU:CD2	2.67	0.62
5:B:954:VAL:O	13:L:55:ILE:O	2.18	0.62
4:A:1355:VAL:CB	4:A:1355:VAL:C	2.62	0.62
4:A:878:ILE:HG22	4:A:879:GLU:N	2.11	0.62
4:A:897:TYR:HD1	4:A:897:TYR:N	1.97	0.62
4:A:995:GLU:O	4:A:998:LEU:HD23	2.00	0.62
5:B:1077:THR:CG2	5:B:1078:GLY:N	2.60	0.62
5:B:1182:CYS:O	5:B:1182:CYS:SG	2.56	0.62
5:B:332:ASP:C	5:B:334:ILE:H	2.00	0.62
5:B:473:MET:O	5:B:475:SER:HB3	1.99	0.62
5:B:633:VAL:O	5:B:634:TYR:CB	2.32	0.62
5:B:896:ASP:OD2	13:L:58:LYS:HE3	1.99	0.62
9:H:104:PHE:CD2	9:H:114:VAL:HG12	2.35	0.62
9:H:60:ALA:HB1	9:H:62:SER:OG	2.00	0.62
10:I:99:LEU:N	10:I:112:SER:OG	2.32	0.62
10:I:86:PHE:CD1	10:I:86:PHE:C	2.71	0.62
3:N:12:DT:OP1	7:E:117:THR:OG1	2.18	0.62
4:A:1161:THR:HG22	4:A:1162:VAL:C	2.15	0.62
4:A:1227:ILE:C	4:A:1228:TRP:CE3	2.73	0.62
4:A:577:ILE:O	4:A:578:LEU:C	2.37	0.62
5:B:466:TRP:N	5:B:475:SER:OG	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:882:THR:CA	5:B:882:THR:HB	2.14	0.62
7:E:142:VAL:CG1	7:E:143:ASN:N	2.62	0.62
8:F:80:ALA:O	8:F:81:THR:C	2.37	0.62
11:J:60:PHE:CD2	11:J:60:PHE:N	2.66	0.62
2:T:1:DC:H2"	2:T:2:DT:OP2	1.97	0.62
2:T:23:DC:P	5:B:1123:SER:OG	2.57	0.62
4:A:1150:SER:OG	4:A:1150:SER:O	2.16	0.62
4:A:1116:LEU:CD2	4:A:1310:GLY:O	2.47	0.62
4:A:320:ARG:C	4:A:322:VAL:CG1	2.68	0.62
4:A:401:GLY:N	4:A:435:HIS:CD2	2.68	0.62
4:A:967:ALA:O	4:A:969:GLN:N	2.33	0.62
5:B:1084:GLN:HE22	6:C:191:TYR:C	2.03	0.62
7:E:136:ASN:OD1	7:E:137:GLU:N	2.31	0.62
7:E:153:HIS:O	7:E:154:ILE:CG1	2.42	0.62
7:E:158:SER:N	7:E:158:SER:CB	2.61	0.62
9:H:109:LYS:N	9:H:109:LYS:C	2.50	0.62
9:H:113:ALA:HA	9:H:125:LEU:O	2.00	0.62
13:L:53:HIS:O	13:L:55:ILE:N	2.33	0.62
2:T:25:DC:H2"	2:T:26:DG:C5'	2.29	0.62
4:A:451:HIS:CE1	4:A:1074:GLU:HG3	2.35	0.62
4:A:1289:ARG:H	4:A:1300:LYS:HZ3	1.47	0.62
4:A:20:GLY:HA2	4:A:1413:GLY:O	1.99	0.62
4:A:266:LEU:HD23	4:A:303:TYR:CD1	2.34	0.62
4:A:379:VAL:CG1	4:A:380:VAL:N	2.63	0.62
4:A:423:ASP:O	4:A:424:ILE:CB	2.42	0.62
4:A:406:ILE:HD13	4:A:431:LYS:CB	2.30	0.62
4:A:456:MET:CG	4:A:456:MET:CE	2.77	0.62
4:A:509:LEU:HD23	4:A:509:LEU:N	2.14	0.62
4:A:660:ASN:ND2	5:B:1082:MET:HB3	2.15	0.62
4:A:984:LYS:O	4:A:988:LEU:HB2	2.00	0.62
5:B:214:ALA:C	5:B:215:GLN:HG2	2.19	0.62
5:B:357:GLN:HA	5:B:374:LYS:NZ	2.15	0.62
5:B:383:ASN:HD22	5:B:384:ARG:HH11	1.48	0.62
5:B:421:PHE:O	5:B:425:THR:HB	2.00	0.62
5:B:552:MET:SD	5:B:552:MET:CE	2.87	0.62
5:B:745:PRO:HD2	5:B:746:SER:N	2.15	0.62
5:B:952:VAL:HB	13:L:58:LYS:HB2	1.81	0.62
7:E:28:TYR:CE1	7:E:78:LEU:HD13	2.32	0.62
7:E:79:TRP:HE3	7:E:79:TRP:HA	1.65	0.62
4:A:1127:ASP:HB2	4:A:1130:GLN:CB	2.18	0.61
4:A:1319:VAL:O	4:A:1322:ILE:CD1	2.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:352:VAL:CG1	4:A:353:ILE:H	2.13	0.61
4:A:523:ILE:C	4:A:524:VAL:HG22	2.19	0.61
4:A:680:THR:CG2	4:A:681:GLU:N	2.63	0.61
4:A:740:LEU:HD23	4:A:740:LEU:H	1.65	0.61
4:A:794:PRO:HG2	4:A:795:GLU:H	1.65	0.61
4:A:913:LEU:HD12	4:A:915:SER:N	2.14	0.61
5:B:502:ILE:CG2	5:B:502:ILE:C	2.68	0.61
8:F:83:PRO:CD	8:F:84:TYR:N	2.63	0.61
10:I:78:CYS:SG	10:I:106:CYS:N	2.73	0.61
13:L:47:ARG:HG3	13:L:52:GLY:O	1.99	0.61
2:T:8:DT:H2''	2:T:9:DA:OP2	1.98	0.61
4:A:1410:PHE:O	4:A:1411:GLU:C	2.36	0.61
4:A:32:VAL:CG2	4:A:81:PHE:O	2.48	0.61
4:A:49:LYS:NZ	4:A:60:SER:C	2.53	0.61
4:A:820:GLY:O	4:A:821:ARG:CA	2.48	0.61
4:A:901:LEU:CB	4:A:926:GLN:HG2	2.29	0.61
5:B:372:SER:O	5:B:373:ARG:C	2.34	0.61
5:B:575:PRO:HD2	5:B:576:ASP:OD2	1.99	0.61
5:B:856:PHE:H	5:B:856:PHE:HD1	1.48	0.61
5:B:878:GLN:O	5:B:879:ARG:HG2	1.99	0.61
6:C:115:SER:OG	6:C:134:ILE:HD11	2.00	0.61
6:C:93:ASP:OD1	6:C:122:SER:HB2	2.00	0.61
11:J:55:ASP:N	11:J:55:ASP:CB	2.62	0.61
12:K:100:ALA:O	12:K:103:THR:HB	2.00	0.61
2:T:11:DG:H2''	2:T:12:DC:OP2	1.98	0.61
2:T:18:DA:H2'	2:T:19:DT:C6	2.35	0.61
4:A:138:ILE:O	4:A:139:TRP:C	2.33	0.61
4:A:264:PHE:HE1	4:A:317:LYS:CA	2.13	0.61
4:A:491:VAL:CG1	4:A:492:PRO:CD	2.73	0.61
5:B:640:VAL:O	5:B:650:GLU:O	2.19	0.61
5:B:883:LEU:CG	5:B:883:LEU:HB3	2.15	0.61
6:C:128:ASN:O	6:C:129:ILE:CB	2.38	0.61
7:E:9:ILE:CD1	7:E:53:PRO:HD3	2.30	0.61
10:I:107:SER:CA	10:I:108:HIS:N	2.61	0.61
11:J:21:TYR:CE1	11:J:25:LEU:HD21	2.35	0.61
11:J:3:VAL:H	11:J:3:VAL:HG23	1.64	0.61
4:A:1118:VAL:HG23	4:A:1118:VAL:O	1.98	0.61
4:A:1364:ASN:ND2	4:A:1366:ARG:HH11	1.99	0.61
4:A:1444:MET:O	8:F:133:VAL:N	2.28	0.61
5:B:1013:ASN:OD1	5:B:1014:PRO:HD2	2.00	0.61
5:B:263:GLY:O	5:B:264:SER:C	2.38	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:419:THR:CG2	5:B:419:THR:CA	2.74	0.61
5:B:487:THR:O	5:B:488:TYR:C	2.38	0.61
5:B:54:PHE:CG	5:B:55:VAL:N	2.67	0.61
5:B:751:VAL:HG12	5:B:752:ALA:H	1.62	0.61
7:E:52:ARG:HB3	7:E:53:PRO:HD2	1.83	0.61
7:E:61:GLN:HG2	7:E:62:ALA:HA	1.81	0.61
7:E:81:GLU:HB3	7:E:96:PHE:HE1	1.65	0.61
10:I:17:ARG:O	10:I:26:LEU:CB	2.48	0.61
10:I:28:GLU:OE2	10:I:28:GLU:O	2.18	0.61
12:K:41:THR:O	12:K:41:THR:HG22	2.00	0.61
4:A:1172:LEU:N	4:A:1172:LEU:HD23	2.15	0.61
4:A:402:ALA:HB1	4:A:433:GLU:O	2.00	0.61
4:A:403:LYS:CD	4:A:403:LYS:HE3	2.16	0.61
4:A:67:CYS:O	4:A:70:CYS:HB2	1.98	0.61
4:A:996:ASN:ND2	4:A:996:ASN:N	2.46	0.61
5:B:1200:ALA:O	5:B:1203:LEU:HB3	2.00	0.61
5:B:237:VAL:HG12	5:B:238:ALA:N	2.15	0.61
5:B:332:ASP:C	5:B:334:ILE:N	2.54	0.61
5:B:432:MET:HB3	5:B:432:MET:HE2	1.81	0.61
5:B:510:LYS:N	5:B:510:LYS:CB	2.63	0.61
5:B:695:ALA:C	5:B:695:ALA:CB	2.64	0.61
5:B:780:VAL:HG21	11:J:56:LEU:CD1	2.30	0.61
5:B:995:ARG:O	5:B:996:ARG:C	2.36	0.61
7:E:157:SER:OG	7:E:160:GLU:N	2.28	0.61
9:H:47:PHE:CD2	9:H:95:TYR:CB	2.83	0.61
5:B:801:LYS:H	11:J:52:THR:CG2	2.13	0.61
13:L:32:ALA:HB3	13:L:55:ILE:CD1	2.30	0.61
2:T:10:DA:H2''	2:T:11:DG:OP2	1.98	0.61
4:A:1066:VAL:CG1	4:A:1066:VAL:O	2.49	0.61
4:A:1097:GLY:C	4:A:1099:PRO:HD2	2.20	0.61
4:A:445:ASN:HD22	4:A:446:ARG:N	1.98	0.61
4:A:537:ARG:HG3	9:H:20:TYR:OH	2.00	0.61
4:A:7:SER:OG	4:A:8:SER:N	2.32	0.61
4:A:947:PHE:HE2	4:A:954:TRP:CD2	2.18	0.61
5:B:834:ASN:O	5:B:1013:ASN:HB2	2.00	0.61
16:B:1308:ATP:C5'	16:B:1308:ATP:O1B	2.48	0.61
5:B:188:ASP:CB	5:B:188:ASP:OD1	2.47	0.61
8:F:101:ILE:HD13	8:F:120:ILE:CG2	2.24	0.61
8:F:135:ARG:CZ	8:F:143:PHE:CE1	2.84	0.61
9:H:52:GLN:CB	9:H:52:GLN:HA	2.15	0.61
4:A:101:LYS:HA	4:A:139:TRP:HE1	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1445:ILE:HD12	4:A:1445:ILE:H	1.66	0.61
4:A:562:THR:HG23	4:A:563:PRO:HD3	1.82	0.61
4:A:588:LEU:HG	4:A:588:LEU:CD1	2.16	0.61
4:A:793:SER:HB2	4:A:794:PRO:CD	2.26	0.61
5:B:1170:THR:CG2	5:B:1183:LYS:HZ1	2.13	0.61
5:B:552:MET:HB2	5:B:552:MET:CE	2.31	0.61
5:B:600:LEU:HD23	5:B:600:LEU:N	1.81	0.61
9:H:127:GLY:N	9:H:130:ARG:NH1	2.48	0.61
12:K:61:TYR:CD1	12:K:62:LYS:N	2.63	0.61
13:L:61:THR:CG2	13:L:62:LYS:N	2.64	0.61
4:A:1209:MET:N	4:A:1231:ASP:OD2	2.32	0.61
4:A:379:VAL:O	4:A:384:ASN:ND2	2.32	0.61
4:A:565:ILE:HG23	4:A:567:LYS:CE	2.28	0.61
4:A:741:ASN:ND2	4:A:743:VAL:HB	2.15	0.61
4:A:836:TYR:CE1	4:A:1403:GLU:OE2	2.53	0.61
4:A:901:LEU:CB	4:A:926:GLN:CG	2.78	0.61
4:A:90:VAL:HG12	4:A:297:GLN:HE21	0.78	0.61
4:A:933:TYR:O	4:A:933:TYR:CG	2.50	0.61
4:A:948:VAL:C	4:A:950:GLY:H	2.02	0.61
4:A:569:LYS:CD	6:C:221:TYR:O	2.48	0.61
7:E:35:VAL:CA	7:E:35:VAL:CG1	2.73	0.61
10:I:9:ASP:C	10:I:9:ASP:HA	2.09	0.61
4:A:1004:ASN:O	4:A:1008:GLN:HB2	2.00	0.61
4:A:1148:ILE:HG22	4:A:1149:ALA:HB2	1.83	0.61
4:A:1353:TYR:O	4:A:1354:ASN:C	2.35	0.61
4:A:13:THR:HB	4:A:15:LYS:HZ2	1.65	0.61
4:A:50:ILE:HG22	4:A:51:GLY:N	2.15	0.61
4:A:779:PHE:CE1	4:A:784:LEU:HA	2.36	0.61
4:A:898:ARG:HA	4:A:933:TYR:CD1	2.36	0.61
4:A:944:ARG:HG2	4:A:1298:TYR:HH	1.61	0.61
5:B:1026:LEU:O	5:B:1027:ILE:C	2.33	0.61
5:B:1191:ILE:C	5:B:1192:TYR:CG	2.71	0.61
5:B:329:THR:C	5:B:332:ASP:HB2	2.21	0.61
5:B:724:ASP:O	5:B:724:ASP:OD1	2.18	0.61
5:B:120:ARG:CD	5:B:955:THR:HG21	2.31	0.61
5:B:986:GLN:C	5:B:986:GLN:OE1	2.39	0.61
9:H:141:TYR:N	9:H:141:TYR:HD1	1.98	0.61
13:L:46:VAL:O	13:L:47:ARG:CB	2.48	0.61
2:T:12:DC:H2"	2:T:13:DA:P	2.39	0.61
4:A:913:LEU:HD22	4:A:1032:LEU:HD22	1.80	0.61
4:A:598:LEU:O	4:A:599:SER:C	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:808:LEU:HD21	4:A:816:HIS:CD2	2.33	0.61
4:A:33:ALA:C	4:A:83:HIS:HD2	2.03	0.61
5:B:229:ALA:HB1	5:B:231:PRO:HD3	1.82	0.61
5:B:384:ARG:HH22	5:B:621:GLU:CG	2.09	0.61
5:B:431:TYR:CG	5:B:447:ALA:HB1	2.35	0.61
5:B:624:LEU:C	5:B:624:LEU:HD12	2.21	0.61
5:B:646:LEU:HD11	5:B:646:LEU:CD2	2.31	0.61
5:B:882:THR:CB	5:B:883:LEU:N	2.63	0.61
6:C:136:ASP:N	6:C:136:ASP:C	2.49	0.61
9:H:116:TYR:HD1	9:H:123:MET:SD	2.23	0.61
9:H:42:ILE:O	9:H:42:ILE:CG2	2.41	0.61
10:I:107:SER:HA	10:I:107:SER:C	2.11	0.61
11:J:2:ILE:HA	11:J:53:HIS:CE1	2.36	0.61
12:K:1:MET:HG2	12:K:1:MET:O	1.91	0.61
4:A:1121:GLU:CB	4:A:1121:GLU:HA	2.16	0.60
4:A:1168:GLU:C	4:A:1170:ILE:H	2.05	0.60
4:A:735:VAL:HG12	4:A:735:VAL:O	2.01	0.60
4:A:751:SER:HB2	5:B:1015:HIS:HE1	1.66	0.60
5:B:1160:VAL:HG12	5:B:1161:HIS:N	2.14	0.60
5:B:317:CYS:O	5:B:318:VAL:C	2.39	0.60
5:B:619:ILE:HG13	10:I:65:ASP:HB2	1.83	0.60
5:B:701:ILE:CB	5:B:740:HIS:HE1	2.12	0.60
5:B:712:PRO:O	5:B:713:ALA:C	2.40	0.60
5:B:750:GLY:O	5:B:751:VAL:C	2.39	0.60
5:B:976:ILE:O	5:B:990:ILE:CG2	2.48	0.60
5:B:1076:HIS:O	6:C:31:ASN:ND2	2.33	0.60
7:E:124:VAL:HG12	7:E:125:PRO:N	2.15	0.60
12:K:83:PRO:O	12:K:86:ALA:N	2.34	0.60
4:A:1022:LEU:O	4:A:1022:LEU:HD12	2.01	0.60
4:A:1434:ALA:O	4:A:1436:ILE:N	2.33	0.60
4:A:24:PRO:HB3	4:A:237:THR:CB	2.31	0.60
4:A:321:PRO:CA	4:A:322:VAL:CG1	2.64	0.60
4:A:396:PRO:C	4:A:397:ASN:CG	2.59	0.60
4:A:364:VAL:CG1	4:A:458:HIS:HB2	2.31	0.60
4:A:546:VAL:O	4:A:550:LEU:CD2	2.49	0.60
4:A:681:GLU:O	4:A:684:ALA:N	2.34	0.60
5:B:827:ILE:HG12	5:B:1012:ILE:HD11	1.83	0.60
5:B:805:THR:N	5:B:1042:GLY:O	2.31	0.60
4:A:449:SER:OG	5:B:1134:GLU:OE2	2.08	0.60
5:B:304:ASP:OD1	5:B:305:VAL:N	2.34	0.60
5:B:662:MET:O	5:B:665:GLU:N	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:686:ASN:C	5:B:688:GLY:H	2.04	0.60
5:B:812:LEU:CD1	5:B:812:LEU:HG	2.17	0.60
8:F:120:ILE:O	8:F:122:MET:N	2.34	0.60
11:J:8:PHE:N	11:J:49:MET:HE1	2.16	0.60
4:A:1045:VAL:O	4:A:1049:ILE:HG13	2.01	0.60
4:A:1067:LEU:CD2	4:A:1367:HIS:HE1	2.04	0.60
4:A:323:LYS:CA	4:A:324:SER:HB3	2.25	0.60
4:A:622:VAL:CA	4:A:630:ILE:HD11	2.30	0.60
4:A:878:ILE:C	4:A:879:GLU:HG3	2.22	0.60
4:A:933:TYR:O	4:A:933:TYR:HD2	1.81	0.60
4:A:9:ALA:HB3	5:B:1193:GLN:HB2	1.83	0.60
5:B:1033:LYS:HE3	5:B:1087:PHE:O	2.01	0.60
4:A:337:ARG:HD3	5:B:1132:GLU:CD	2.21	0.60
5:B:224:GLN:O	5:B:238:ALA:HA	2.00	0.60
5:B:817:LEU:N	5:B:818:PRO:HD3	2.16	0.60
5:B:843:GLN:HA	5:B:846:ILE:CD1	2.31	0.60
6:C:77:ILE:HD13	6:C:129:ILE:HD11	1.82	0.60
7:E:142:VAL:HG13	7:E:143:ASN:N	2.16	0.60
11:J:31:ASP:O	11:J:33:GLY:N	2.34	0.60
12:K:102:LYS:O	12:K:106:GLU:HG3	2.01	0.60
12:K:23:PRO:O	12:K:23:PRO:CG	2.49	0.60
4:A:1134:ILE:CG2	4:A:1138:ILE:HD11	2.31	0.60
4:A:112:LYS:O	4:A:114:LEU:HD23	2.01	0.60
4:A:1350:LYS:CA	4:A:1350:LYS:CG	2.72	0.60
4:A:91:PHE:O	4:A:236:LEU:HD12	2.01	0.60
4:A:267:ALA:C	4:A:269:ILE:N	2.54	0.60
4:A:362:ASP:O	4:A:459:ARG:HB2	2.02	0.60
4:A:778:GLY:HA3	5:B:516:ASN:HB2	1.84	0.60
5:B:124:TYR:CB	5:B:204:ILE:HD13	2.31	0.60
5:B:278:GLN:HG2	5:B:279:ASP:N	2.16	0.60
5:B:451:LYS:O	5:B:454:THR:N	2.34	0.60
6:C:258:ILE:HD11	12:K:42:LEU:HD21	1.83	0.60
7:E:157:SER:OG	7:E:160:GLU:CB	2.49	0.60
7:E:54:GLN:O	7:E:57:MET:CB	2.48	0.60
8:F:127:GLU:O	8:F:129:LYS:N	2.34	0.60
12:K:73:LEU:HD21	12:K:75:ILE:HD11	1.82	0.60
4:A:1074:GLU:O	4:A:1077:THR:N	2.31	0.60
4:A:1139:GLU:CG	4:A:1139:GLU:O	2.47	0.60
5:B:174:LEU:CD1	5:B:179:CYS:SG	2.90	0.60
5:B:461:LEU:CD1	5:B:461:LEU:N	2.53	0.60
5:B:610:ASN:O	5:B:613:VAL:HG23	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:62:ILE:HD12	5:B:418:LYS:HG2	1.83	0.60
5:B:652:LYS:O	5:B:653:VAL:O	2.18	0.60
5:B:855:PHE:CG	5:B:855:PHE:O	2.50	0.60
6:C:133:ILE:HD11	6:C:237:SER:HA	1.82	0.60
6:C:70:ILE:CG2	6:C:70:ILE:O	2.46	0.60
7:E:127:ILE:CD1	7:E:132:ILE:HD12	2.31	0.60
7:E:162:ARG:HH22	7:E:166:LYS:NZ	1.97	0.60
9:H:59:ILE:HD13	9:H:142:LEU:HB2	1.84	0.60
12:K:44:ASN:N	12:K:61:TYR:CE2	2.69	0.60
4:A:1396:ALA:O	4:A:1400:CYS:N	2.33	0.60
4:A:1398:MET:CE	4:A:1398:MET:SD	2.90	0.60
4:A:780:VAL:O	4:A:782:ARG:HG2	2.02	0.60
4:A:989:GLY:O	4:A:990:VAL:C	2.40	0.60
5:B:1170:THR:HG23	5:B:1183:LYS:NZ	2.16	0.60
5:B:1184:GLY:C	5:B:1186:ASP:N	2.53	0.60
5:B:1202:LEU:HD12	5:B:1206:GLU:OE2	1.99	0.60
5:B:842:ASN:HB3	5:B:845:SER:OG	2.02	0.60
6:C:237:SER:C	6:C:238:ILE:HG13	2.21	0.60
6:C:16:ASP:HA	6:C:240:VAL:HG22	1.82	0.60
6:C:54:ASN:OD1	6:C:56:THR:OG1	2.13	0.60
4:A:100:LYS:NZ	4:A:100:LYS:HB3	2.16	0.60
4:A:112:LYS:O	4:A:114:LEU:HD21	2.01	0.60
4:A:92:HIS:CB	4:A:236:LEU:HD11	2.28	0.60
4:A:265:LYS:HE2	4:A:323:LYS:CD	2.32	0.60
4:A:528:LEU:CD1	4:A:528:LEU:C	2.43	0.60
4:A:49:LYS:NZ	4:A:60:SER:CA	2.65	0.60
4:A:634:THR:HG1	4:A:642:CYS:HG	1.50	0.60
4:A:720:ARG:HE	4:A:720:ARG:CB	2.14	0.60
5:B:840:ILE:O	5:B:1010:LEU:HD12	2.01	0.60
5:B:1102:LYS:O	5:B:1104:HIS:N	2.33	0.60
5:B:123:THR:O	5:B:125:SER:N	2.35	0.60
5:B:263:GLY:C	5:B:264:SER:O	2.37	0.60
5:B:300:HIS:HE1	5:B:376:PHE:CE1	2.18	0.60
5:B:36:ALA:C	5:B:37:PHE:O	2.38	0.60
5:B:384:ARG:O	5:B:385:LEU:C	2.34	0.60
5:B:522:VAL:CG1	5:B:523:CYS:N	2.53	0.60
5:B:570:VAL:N	5:B:570:VAL:CG2	2.64	0.60
5:B:566:LEU:HD11	5:B:586:TRP:CD2	2.36	0.60
6:C:148:ARG:NH1	11:J:64:ASN:HA	2.16	0.60
7:E:164:LEU:HD13	7:E:211:TYR:HE2	1.57	0.60
7:E:189:GLY:C	7:E:190:LEU:CD2	2.70	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:F:89:GLU:O	8:F:93:ILE:HD13	2.02	0.60
11:J:3:VAL:H	11:J:3:VAL:CG2	2.15	0.60
4:A:1022:LEU:HD12	4:A:1022:LEU:C	2.20	0.60
4:A:1058:VAL:HG12	4:A:1059:HIS:N	2.16	0.60
4:A:1101:LEU:H	4:A:1355:VAL:CG2	2.14	0.60
4:A:1197:LEU:HB2	4:A:1236:LEU:HB3	1.83	0.60
4:A:1229:SER:CB	4:A:1233:ASP:OD2	2.49	0.60
4:A:302:THR:OG1	4:A:313:GLN:NE2	2.34	0.60
4:A:407:ARG:HD3	4:A:413:ILE:CD1	2.32	0.60
4:A:50:ILE:C	4:A:52:GLY:H	2.05	0.60
5:B:803:LEU:O	5:B:1042:GLY:HA3	2.01	0.60
5:B:284:ILE:O	5:B:285:ILE:C	2.40	0.60
5:B:422:LYS:HA	5:B:422:LYS:CG	2.31	0.60
5:B:640:VAL:O	5:B:641:GLU:C	2.38	0.60
5:B:402:GLY:CA	5:B:695:ALA:HB1	2.31	0.60
5:B:782:LEU:O	5:B:783:THR:C	2.40	0.60
5:B:794:ASN:HD22	5:B:794:ASN:N	2.00	0.60
5:B:859:TYR:CZ	5:B:941:LEU:HD22	2.36	0.60
6:C:121:VAL:C	6:C:121:VAL:HG12	2.18	0.60
6:C:158:VAL:O	6:C:158:VAL:CG1	2.31	0.60
7:E:108:GLY:N	7:E:131:THR:O	2.34	0.60
7:E:171:LYS:HB2	7:E:174:GLN:CG	2.32	0.60
7:E:65:THR:OG1	7:E:68:SER:N	2.35	0.60
4:A:42:ASP:HA	4:A:42:ASP:CB	2.15	0.60
4:A:58:LEU:HD21	4:A:243:PRO:HB3	1.82	0.60
4:A:809:THR:HB	4:A:810:PRO:CD	2.32	0.60
5:B:644:GLU:HG3	5:B:654:ARG:HH22	1.66	0.60
5:B:22:SER:O	5:B:654:ARG:HD2	2.01	0.60
5:B:696:GLU:HA	5:B:696:GLU:OE2	2.02	0.60
10:I:56:ALA:O	10:I:58:VAL:HG23	2.02	0.60
4:A:587:HIS:CE1	4:A:969:GLN:HG3	2.36	0.60
4:A:837:ILE:C	4:A:839:ARG:N	2.52	0.60
4:A:963:ILE:O	4:A:963:ILE:CG2	2.50	0.60
6:C:184:ASN:ND2	6:C:189:THR:O	2.34	0.60
6:C:74:SER:HB3	6:C:77:ILE:HG13	1.84	0.60
7:E:211:TYR:HD1	7:E:211:TYR:N	2.00	0.60
9:H:50:ALA:O	9:H:53:ASP:HB2	2.02	0.60
10:I:5:ARG:HD3	10:I:36:GLU:OE2	2.02	0.60
4:A:1076:ALA:O	4:A:1078:GLN:N	2.35	0.59
4:A:1219:THR:CG2	4:A:1271:ILE:HD11	2.31	0.59
4:A:182:VAL:CG1	4:A:182:VAL:O	2.49	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:492:PRO:HB2	4:A:497:THR:HG22	1.84	0.59
4:A:577:ILE:C	4:A:579:SER:N	2.50	0.59
4:A:765:VAL:CG2	4:A:800:VAL:CG1	2.80	0.59
4:A:818:MET:O	4:A:819:GLY:O	2.20	0.59
4:A:837:ILE:C	4:A:839:ARG:H	2.05	0.59
4:A:895:LYS:C	4:A:895:LYS:CB	2.69	0.59
4:A:966:ASN:O	4:A:1044:TRP:CZ3	2.55	0.59
5:B:377:PHE:O	5:B:378:LEU:C	2.40	0.59
5:B:705:MET:N	5:B:710:LEU:HD12	2.16	0.59
7:E:134:THR:O	7:E:134:THR:OG1	2.19	0.59
9:H:49:VAL:CG1	9:H:50:ALA:N	2.63	0.59
9:H:57:VAL:CG1	9:H:57:VAL:C	2.70	0.59
10:I:95:THR:HG22	10:I:96:SER:H	1.64	0.59
6:C:248:ILE:HG21	12:K:102:LYS:HB2	1.84	0.59
4:A:1097:GLY:O	4:A:1099:PRO:CD	2.50	0.59
4:A:1430:LEU:O	5:B:1196:ILE:HG22	2.01	0.59
4:A:816:HIS:O	4:A:816:HIS:ND1	2.35	0.59
5:B:1142:GLY:HA3	8:F:88:TYR:HE2	1.66	0.59
5:B:222:ILE:HG22	5:B:223:VAL:HB	1.84	0.59
5:B:496:ARG:O	5:B:539:LEU:HG	2.01	0.59
6:C:36:VAL:O	6:C:37:MET:C	2.36	0.59
6:C:46:ILE:HD11	6:C:72:LEU:HD11	1.84	0.59
7:E:71:LYS:HD3	7:E:160:GLU:OE2	2.01	0.59
7:E:96:PHE:O	7:E:97:VAL:C	2.40	0.59
8:F:133:VAL:O	8:F:133:VAL:CG1	2.51	0.59
9:H:141:TYR:CD1	9:H:141:TYR:N	2.71	0.59
2:T:25:DC:H2'	2:T:26:DG:H8	1.66	0.59
4:A:1284:MET:CG	4:A:1306:LEU:HD21	2.29	0.59
4:A:262:LEU:O	4:A:266:LEU:CB	2.45	0.59
4:A:418:SER:O	4:A:421:ALA:HB2	2.03	0.59
4:A:431:LYS:O	4:A:432:VAL:CG2	2.49	0.59
4:A:738:LYS:HZ1	6:C:194:GLU:HA	1.67	0.59
4:A:867:ILE:HG22	4:A:872:GLY:CA	2.32	0.59
5:B:1006:ILE:HD11	11:J:45:CYS:SG	2.42	0.59
5:B:1033:LYS:O	5:B:1034:VAL:C	2.39	0.59
5:B:1098:MET:CB	5:B:1098:MET:SD	2.90	0.59
5:B:1122:ARG:O	5:B:1125:ASP:N	2.32	0.59
4:A:4:GLN:NE2	5:B:1159:ARG:H	1.90	0.59
4:A:8:SER:OG	5:B:1180:PHE:CE1	2.56	0.59
5:B:1223:ASP:N	5:B:1223:ASP:CB	2.64	0.59
6:C:135:GLN:C	6:C:136:ASP:O	2.41	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:F:155:LEU:CA	8:F:155:LEU:O	2.47	0.59
9:H:40:LEU:CD1	9:H:123:MET:CE	2.80	0.59
10:I:19:ASP:CB	10:I:24:ARG:HG2	2.32	0.59
4:A:1076:ALA:C	4:A:1078:GLN:N	2.52	0.59
4:A:1173:HIS:CA	4:A:1174:PHE:N	2.65	0.59
4:A:1284:MET:HA	4:A:1306:LEU:HD23	1.85	0.59
4:A:306:ASN:H	4:A:306:ASN:HD22	1.48	0.59
5:B:1191:ILE:HG23	5:B:1192:TYR:H	1.67	0.59
5:B:546:SER:OG	5:B:632:ARG:N	2.33	0.59
5:B:55:VAL:HG12	5:B:56:ASP:CA	2.32	0.59
5:B:636:PRO:CA	5:B:637:LEU:HB3	2.32	0.59
5:B:780:VAL:HG12	5:B:780:VAL:O	1.99	0.59
6:C:244:VAL:CG2	6:C:245:VAL:N	2.63	0.59
4:A:967:ALA:HB2	4:A:1044:TRP:HZ3	1.67	0.59
4:A:1332:PHE:CE1	4:A:1348:LEU:HD13	2.37	0.59
4:A:18:GLN:HG3	4:A:228:PHE:CE1	2.38	0.59
4:A:616:VAL:CG1	4:A:617:VAL:N	2.64	0.59
4:A:618:GLU:CD	4:A:619:LYS:N	2.56	0.59
4:A:523:ILE:HD13	4:A:622:VAL:O	2.02	0.59
4:A:863:VAL:HG11	4:A:866:PHE:CE2	2.37	0.59
4:A:892:ALA:HB2	4:A:895:LYS:HD3	1.85	0.59
5:B:1035:ALA:O	5:B:1039:GLY:N	2.33	0.59
5:B:173:MET:HB2	5:B:203:PHE:CZ	2.37	0.59
5:B:211:VAL:CG1	5:B:212:LEU:H	2.10	0.59
5:B:761:HIS:H	5:B:761:HIS:CD2	2.19	0.59
5:B:97:VAL:HG12	5:B:98:THR:N	2.18	0.59
9:H:25:ARG:HA	9:H:40:LEU:O	2.02	0.59
9:H:44:VAL:O	9:H:44:VAL:CG1	2.50	0.59
12:K:57:LEU:CD1	12:K:76:GLN:HG3	2.28	0.59
4:A:1405:THR:O	4:A:1405:THR:HG22	2.02	0.59
4:A:1445:ILE:HG13	4:A:1445:ILE:N	2.17	0.59
4:A:241:VAL:HG13	4:A:266:LEU:HD12	1.83	0.59
4:A:276:LEU:HD21	4:A:292:ALA:O	2.03	0.59
4:A:379:VAL:CG1	4:A:380:VAL:HG23	2.26	0.59
4:A:535:THR:HG22	4:A:616:VAL:HG13	1.84	0.59
4:A:618:GLU:O	4:A:622:VAL:HG12	2.03	0.59
4:A:742:ASN:HA	4:A:745:GLN:HB2	1.85	0.59
4:A:925:LEU:O	4:A:927:VAL:CA	2.49	0.59
4:A:337:ARG:CD	5:B:1132:GLU:OE1	2.50	0.59
5:B:603:LEU:O	5:B:609:ILE:N	2.35	0.59
5:B:806:THR:HG22	5:B:808:ALA:N	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:H:116:TYR:CD1	9:H:123:MET:SD	2.95	0.59
9:H:15:VAL:N	9:H:15:VAL:CB	2.65	0.59
9:H:19:ARG:O	9:H:20:TYR:CB	2.50	0.59
9:H:77:ARG:O	9:H:78:SER:C	2.38	0.59
10:I:33:SER:O	10:I:35:VAL:HG23	2.02	0.59
4:A:1099:PRO:CG	4:A:1100:ARG:H	2.14	0.59
4:A:897:TYR:CD1	4:A:897:TYR:N	2.68	0.59
4:A:8:SER:O	4:A:9:ALA:O	2.21	0.59
5:B:166:PHE:CD2	5:B:167:ILE:N	2.70	0.59
5:B:986:GLN:CA	5:B:986:GLN:CD	2.69	0.59
6:C:142:VAL:HG12	6:C:144:ILE:N	2.17	0.59
6:C:44:LEU:O	6:C:45:ALA:HB2	2.03	0.59
8:F:135:ARG:NE	8:F:143:PHE:CE1	2.71	0.59
4:A:1437:GLY:CA	8:F:88:TYR:CD2	2.80	0.59
9:H:93:TYR:CD1	9:H:143:LEU:HB3	2.36	0.59
9:H:47:PHE:HD2	9:H:95:TYR:CG	2.21	0.59
10:I:16:PRO:O	10:I:16:PRO:CG	2.50	0.59
10:I:85:PHE:CD1	10:I:86:PHE:N	2.71	0.59
11:J:2:ILE:CA	11:J:53:HIS:CE1	2.85	0.59
13:L:60:ARG:HG3	13:L:61:THR:H	1.65	0.59
4:A:1282:VAL:C	4:A:1283:VAL:HG23	2.16	0.59
4:A:1284:MET:CE	4:A:1284:MET:HB3	2.33	0.59
4:A:272:ALA:HB3	4:A:296:LEU:HD12	1.85	0.59
4:A:507:VAL:N	4:A:508:PRO:CD	2.65	0.59
4:A:782:ARG:NH1	4:A:785:PRO:HA	2.18	0.59
5:B:1149:GLU:HA	5:B:1153:GLU:OE2	2.03	0.59
5:B:461:LEU:O	5:B:480:SER:OG	2.19	0.59
5:B:806:THR:HB	5:B:809:MET:HE3	1.85	0.59
6:C:68:GLY:C	6:C:69:LEU:HD12	2.23	0.59
9:H:132:LEU:N	9:H:132:LEU:C	2.54	0.59
10:I:19:ASP:CB	10:I:24:ARG:CG	2.80	0.59
11:J:3:VAL:HG12	11:J:4:PRO:N	2.16	0.59
4:A:1155:ASP:CG	4:A:1162:VAL:HG23	2.23	0.59
4:A:1326:ARG:O	4:A:1327:ILE:O	2.21	0.59
4:A:1347:ALA:O	4:A:1348:LEU:C	2.40	0.59
4:A:162:VAL:CG1	4:A:162:VAL:CG2	2.80	0.59
4:A:557:ASP:OD2	4:A:559:VAL:CG2	2.51	0.59
4:A:746:MET:HB2	4:A:746:MET:CE	2.33	0.59
4:A:964:ILE:CD1	4:A:1037:LEU:HD21	2.33	0.59
5:B:199:MET:C	5:B:200:GLY:O	2.39	0.59
8:F:97:ARG:O	8:F:100:GLN:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1141:THR:CG2	4:A:1205:LYS:HD2	2.33	0.59
4:A:1308:THR:CG2	4:A:1309:ASP:N	2.66	0.59
4:A:1434:ALA:CB	4:A:1436:ILE:HD12	2.33	0.59
4:A:302:THR:CG2	4:A:313:GLN:HE22	2.16	0.59
4:A:590:ARG:HB3	4:A:605:MET:H	1.67	0.59
4:A:688:LYS:CG	4:A:688:LYS:CE	2.77	0.59
4:A:857:ARG:HB3	4:A:862:ASN:O	2.02	0.59
5:B:115:GLN:HE21	5:B:119:LEU:HD11	1.68	0.59
5:B:432:MET:CE	5:B:432:MET:CB	2.81	0.59
5:B:639:ILE:HA	5:B:740:HIS:HB3	1.84	0.59
5:B:877:PRO:C	5:B:878:GLN:HG3	2.17	0.59
5:B:878:GLN:O	5:B:879:ARG:HB2	2.03	0.59
7:E:79:TRP:CB	7:E:107:THR:O	2.51	0.59
9:H:15:VAL:HA	9:H:26:ILE:HD11	1.85	0.59
11:J:7:CYS:CA	11:J:49:MET:HE3	2.32	0.59
6:C:36:VAL:CG2	12:K:41:THR:HG21	2.33	0.59
12:K:56:VAL:HA	12:K:77:THR:HG22	1.84	0.59
4:A:320:ARG:HH21	5:B:471:LYS:HA	1.64	0.58
4:A:898:ARG:O	4:A:899:VAL:CG2	2.51	0.58
4:A:908:LEU:HD11	4:A:983:ILE:CD1	2.21	0.58
4:A:943:LEU:O	4:A:946:VAL:N	2.36	0.58
5:B:384:ARG:NH2	5:B:621:GLU:CG	2.65	0.58
5:B:745:PRO:CD	5:B:746:SER:H	2.16	0.58
5:B:803:LEU:H	5:B:822:ASN:HD21	1.50	0.58
5:B:893:LEU:HD23	5:B:897:GLY:O	2.03	0.58
7:E:161:LYS:HD2	7:E:195:VAL:CG2	2.33	0.58
8:F:144:GLU:O	8:F:146:TRP:CD1	2.55	0.58
10:I:15:TYR:CD1	10:I:15:TYR:N	2.71	0.58
4:A:115:LEU:HD12	4:A:122:MET:HE2	1.84	0.58
4:A:1310:GLY:C	4:A:1311:VAL:HG23	2.23	0.58
4:A:24:PRO:CD	4:A:25:GLU:H	2.15	0.58
4:A:642:CYS:O	4:A:645:LEU:HB3	2.03	0.58
4:A:899:VAL:O	4:A:929:LEU:HD12	2.03	0.58
5:B:1060:ARG:CG	5:B:1061:GLU:N	2.65	0.58
5:B:1143:ALA:O	5:B:1144:ALA:C	2.39	0.58
5:B:202:TYR:HD1	5:B:203:PHE:O	1.86	0.58
5:B:365:THR:HG23	5:B:366:GLN:N	2.17	0.58
5:B:769:TYR:C	5:B:771:SER:H	2.04	0.58
6:C:56:THR:HG22	6:C:57:VAL:H	1.68	0.58
7:E:20:LYS:HB3	7:E:35:VAL:CG2	2.32	0.58
7:E:43:LYS:O	7:E:44:ALA:O	2.20	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:H:38:LEU:HG	9:H:38:LEU:CD1	2.19	0.58
10:I:7:CYS:CA	10:I:14:LEU:HD21	2.33	0.58
12:K:49:GLU:C	12:K:51:LEU:N	2.55	0.58
12:K:78:THR:HG22	12:K:79:GLU:C	2.22	0.58
13:L:46:VAL:HG12	13:L:47:ARG:N	2.18	0.58
4:A:1289:ARG:N	4:A:1300:LYS:HZ3	2.01	0.58
4:A:1345:ARG:HG3	4:A:1376:THR:HG21	1.84	0.58
4:A:305:ASP:OD1	4:A:306:ASN:N	2.36	0.58
4:A:319:GLY:HA3	4:A:320:ARG:HH11	1.68	0.58
4:A:463:ILE:O	4:A:463:ILE:HD12	2.03	0.58
4:A:50:ILE:C	4:A:52:GLY:N	2.57	0.58
4:A:540:PHE:CD2	4:A:572:TRP:O	2.53	0.58
4:A:65:LEU:CD2	4:A:65:LEU:CD1	2.79	0.58
4:A:709:THR:HB	4:A:712:GLU:HG3	1.86	0.58
5:B:727:LYS:CD	5:B:1049:ASP:OD1	2.47	0.58
5:B:377:PHE:C	5:B:379:GLY:H	2.07	0.58
7:E:12:LEU:HD23	7:E:42:PHE:CZ	2.38	0.58
10:I:17:ARG:HG2	10:I:18:GLU:CA	2.32	0.58
4:A:320:ARG:HH21	5:B:471:LYS:CA	2.17	0.58
4:A:376:TYR:CD2	4:A:376:TYR:C	2.77	0.58
4:A:855:THR:CG2	4:A:857:ARG:HE	2.16	0.58
4:A:960:ILE:O	4:A:962:ARG:N	2.36	0.58
5:B:1021:MET:CG	5:B:1021:MET:CE	2.80	0.58
5:B:1144:ALA:O	5:B:1147:LEU:HB2	2.03	0.58
5:B:955:THR:HG22	5:B:956:THR:CA	2.32	0.58
6:C:58:LEU:HD21	11:J:57:ILE:CD1	2.31	0.58
7:E:30:ILE:HG23	7:E:34:GLU:OE1	2.03	0.58
10:I:108:HIS:ND1	10:I:109:ILE:N	2.51	0.58
10:I:62:ILE:HG22	10:I:63:GLY:H	1.67	0.58
11:J:10:CYS:HB3	11:J:45:CYS:SG	2.43	0.58
4:A:1129:GLU:O	4:A:1130:GLN:C	2.41	0.58
4:A:1399:ARG:O	4:A:1400:CYS:C	2.40	0.58
4:A:361:LEU:N	4:A:471:ASN:ND2	2.50	0.58
4:A:49:LYS:HZ1	4:A:61:ILE:N	1.99	0.58
4:A:655:PHE:CE2	4:A:659:HIS:HD2	2.21	0.58
4:A:791:ASP:C	4:A:791:ASP:OD1	2.41	0.58
5:B:1051:THR:HG21	5:B:1053:GLU:HB2	1.85	0.58
5:B:1066:SER:O	5:B:1067:ARG:CD	2.46	0.58
5:B:98:THR:O	5:B:126:SER:HB2	2.02	0.58
5:B:326:ASP:CG	5:B:329:THR:OG1	2.42	0.58
5:B:660:LYS:HE2	5:B:679:TYR:CE2	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:857:ARG:NH2	5:B:942:ARG:NH1	2.51	0.58
7:E:28:TYR:HE1	7:E:78:LEU:CD1	2.16	0.58
8:F:134:ILE:HG22	8:F:135:ARG:N	2.18	0.58
4:A:1189:SER:HB2	4:A:1190:PRO:HD3	1.86	0.58
4:A:1364:ASN:HD21	4:A:1366:ARG:NH1	1.99	0.58
4:A:1400:CYS:O	4:A:1402:PHE:N	2.36	0.58
4:A:34:LYS:HZ3	4:A:57:ARG:NH2	2.00	0.58
4:A:497:THR:HG23	5:B:1146:PHE:HD1	1.69	0.58
4:A:683:ILE:HD13	4:A:725:ALA:HB1	1.84	0.58
4:A:938:LYS:HE3	4:A:938:LYS:CD	2.18	0.58
4:A:971:PHE:CB	4:A:973:ILE:HD13	2.33	0.58
5:B:1180:PHE:O	5:B:1181:GLU:O	2.21	0.58
5:B:1203:LEU:CD1	5:B:1203:LEU:C	2.50	0.58
5:B:292:ILE:HD11	5:B:327:ARG:N	2.11	0.58
5:B:606:LYS:HB2	5:B:606:LYS:HE3	1.85	0.58
5:B:662:MET:C	5:B:664:THR:N	2.57	0.58
5:B:834:ASN:HB3	5:B:840:ILE:CD1	2.34	0.58
6:C:205:LYS:O	6:C:207:CYS:N	2.37	0.58
6:C:227:THR:C	6:C:228:PHE:CD1	2.77	0.58
6:C:45:ALA:HA	6:C:72:LEU:CD1	2.32	0.58
7:E:110:PHE:HB3	7:E:134:THR:HA	1.85	0.58
8:F:117:PRO:HG2	8:F:118:LEU:H	1.69	0.58
12:K:71:PHE:C	12:K:71:PHE:CD1	2.77	0.58
4:A:1284:MET:CE	4:A:1284:MET:CB	2.81	0.58
4:A:805:LEU:C	4:A:805:LEU:CD1	2.72	0.58
5:B:287:ARG:CA	5:B:291:ILE:O	2.52	0.58
5:B:361:LEU:CD1	5:B:361:LEU:N	2.65	0.58
5:B:369:GLY:HA2	5:B:371:GLU:OE1	2.04	0.58
5:B:521:LEU:C	5:B:540:SER:OG	2.42	0.58
5:B:769:TYR:C	5:B:771:SER:N	2.56	0.58
6:C:242:GLN:HE21	6:C:246:ARG:NE	1.95	0.58
7:E:78:LEU:HG	7:E:107:THR:CG2	2.34	0.58
9:H:56:THR:HG22	9:H:57:VAL:N	2.19	0.58
10:I:35:VAL:HG12	10:I:36:GLU:N	2.08	0.58
11:J:14:VAL:C	11:J:16:ASP:H	2.07	0.58
4:A:1168:GLU:O	4:A:1171:GLN:N	2.36	0.58
4:A:1394:THR:HG22	4:A:1395:GLY:O	2.04	0.58
4:A:295:LEU:O	4:A:297:GLN:N	2.37	0.58
4:A:546:VAL:HG12	4:A:550:LEU:HD21	1.84	0.58
4:A:848:ILE:HG22	4:A:849:MET:N	2.18	0.58
4:A:889:SER:CB	4:A:892:ALA:H	2.14	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:232:SER:OG	5:B:232:SER:O	2.19	0.58
6:C:148:ARG:HG2	6:C:149:LYS:N	2.16	0.58
7:E:118:PRO:O	7:E:122:LYS:CE	2.52	0.58
7:E:124:VAL:HG22	7:E:132:ILE:HG23	1.82	0.58
8:F:81:THR:O	8:F:82:THR:O	2.21	0.58
13:L:29:TYR:C	13:L:30:ILE:HG13	2.24	0.58
4:A:128:ILE:HA	4:A:128:ILE:CB	2.16	0.58
4:A:1402:PHE:CG	4:A:1403:GLU:N	2.68	0.58
4:A:1426:GLU:HA	4:A:1429:ILE:HD12	1.85	0.58
4:A:344:ARG:C	4:A:345:VAL:HG13	2.23	0.58
4:A:50:ILE:O	4:A:51:GLY:C	2.42	0.58
4:A:873:MET:CG	4:A:957:PRO:HG3	2.34	0.58
5:B:368:GLU:CG	5:B:368:GLU:HB3	2.19	0.58
5:B:549:THR:CG2	5:B:549:THR:HB	2.23	0.58
5:B:709:ASP:CA	5:B:710:LEU:N	2.62	0.58
5:B:979:LYS:O	5:B:980:PHE:CD1	2.56	0.58
5:B:294:ASP:H	10:I:12:ASN:ND2	2.02	0.58
12:K:70:ARG:HG3	12:K:71:PHE:N	2.17	0.58
4:A:348:SER:HA	4:A:489:LEU:O	2.04	0.58
4:A:451:HIS:CB	4:A:453:MET:HB2	2.34	0.58
4:A:491:VAL:H	5:B:1150:ARG:NH2	2.01	0.58
4:A:628:GLY:O	4:A:630:ILE:N	2.35	0.58
4:A:793:SER:CB	4:A:794:PRO:CD	2.82	0.58
4:A:807:GLY:O	5:B:728:ARG:HD3	2.04	0.58
4:A:904:THR:H	4:A:920:LEU:HD21	1.69	0.58
4:A:897:TYR:CB	4:A:936:LEU:HD12	2.34	0.58
5:B:308:TRP:O	5:B:311:LEU:HB2	2.03	0.58
5:B:789:MET:CE	5:B:965:LYS:HB2	2.34	0.58
5:B:881:ASN:O	5:B:881:ASN:CA	2.46	0.58
5:B:953:LEU:O	5:B:953:LEU:HD23	2.03	0.58
7:E:83:CYS:HA	7:E:84:ASP:N	2.19	0.58
7:E:7:ARG:O	7:E:8:ASN:C	2.41	0.58
8:F:109:VAL:CG2	8:F:124:GLU:CG	2.82	0.58
8:F:125:LEU:O	8:F:127:GLU:N	2.37	0.58
10:I:106:CYS:SG	10:I:108:HIS:CB	2.91	0.58
11:J:21:TYR:HB2	11:J:39:LEU:CD1	2.34	0.58
12:K:32:VAL:HG22	12:K:73:LEU:O	2.04	0.58
4:A:1035:TYR:O	4:A:1037:LEU:N	2.37	0.57
4:A:1068:ALA:O	4:A:1071:SER:N	2.37	0.57
4:A:1135:ARG:HB3	4:A:1136:SER:HB3	1.85	0.57
4:A:1224:LEU:HG	4:A:1226:VAL:HG22	1.84	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1444:MET:O	8:F:132:LEU:HA	2.03	0.57
4:A:381:THR:HG22	4:A:383:TYR:HB2	1.85	0.57
4:A:50:ILE:HG22	4:A:51:GLY:H	1.68	0.57
4:A:518:LYS:HG3	4:A:519:PRO:CD	2.34	0.57
4:A:582:ILE:HD11	4:A:629:LEU:HD11	1.85	0.57
4:A:715:GLU:OE2	4:A:774:ARG:NH1	2.37	0.57
5:B:291:ILE:CG2	5:B:297:ILE:HD13	2.34	0.57
5:B:410:GLY:C	5:B:412:LEU:N	2.55	0.57
5:B:519:TRP:CD1	5:B:519:TRP:C	2.77	0.57
5:B:64:CYS:O	5:B:65:GLU:HB3	2.04	0.57
6:C:92:CYS:SG	6:C:94:LYS:HB2	2.44	0.57
12:K:77:THR:OG1	12:K:83:PRO:HD3	2.04	0.57
4:A:382:PRO:CD	4:A:428:TYR:CE2	2.87	0.57
4:A:549:MET:O	4:A:550:LEU:C	2.38	0.57
4:A:563:PRO:O	4:A:563:PRO:HD2	2.03	0.57
4:A:962:ARG:O	4:A:964:ILE:N	2.38	0.57
16:B:1308:ATP:H4'	16:B:1308:ATP:O1B	2.03	0.57
6:C:169:LYS:NZ	13:L:69:ALA:O	2.37	0.57
7:E:121:MET:C	7:E:123:LEU:H	2.08	0.57
7:E:36:GLU:O	7:E:38:PRO:CD	2.52	0.57
7:E:65:THR:HG1	7:E:67:GLU:HB3	1.70	0.57
7:E:9:ILE:O	7:E:13:TRP:N	2.35	0.57
9:H:15:VAL:HA	9:H:26:ILE:CD1	2.34	0.57
4:A:1049:ILE:O	4:A:1050:GLU:C	2.42	0.57
4:A:1077:THR:C	4:A:1078:GLN:CG	2.72	0.57
4:A:495:GLU:C	4:A:498:ARG:HG3	2.25	0.57
4:A:947:PHE:HD2	4:A:954:TRP:CZ2	2.23	0.57
5:B:883:LEU:CA	5:B:883:LEU:HB2	2.20	0.57
5:B:60:GLN:OE1	5:B:94:LYS:HA	2.03	0.57
6:C:241:ASP:CG	6:C:242:GLN:N	2.57	0.57
8:F:147:SER:OG	8:F:150:GLU:HG3	2.04	0.57
8:F:155:LEU:N	8:F:155:LEU:HD23	2.05	0.57
11:J:3:VAL:HA	11:J:53:HIS:CG	2.38	0.57
12:K:65:HIS:HD2	12:K:66:PRO:N	2.02	0.57
4:A:1344:GLY:O	4:A:1348:LEU:N	2.36	0.57
4:A:1365:TYR:O	4:A:1367:HIS:N	2.37	0.57
4:A:526:ASP:C	4:A:528:LEU:N	2.52	0.57
4:A:546:VAL:CG1	4:A:546:VAL:CA	2.77	0.57
4:A:577:ILE:O	4:A:579:SER:N	2.38	0.57
4:A:664:THR:HA	4:A:668:ASP:OD2	2.05	0.57
4:A:744:LYS:HG2	4:A:748:MET:CE	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1051:THR:HG22	5:B:1052:VAL:C	2.21	0.57
5:B:1115:THR:HB	5:B:1117:GLN:H	1.68	0.57
5:B:130:VAL:HG12	5:B:132:VAL:HG23	1.87	0.57
5:B:472:ALA:N	5:B:472:ALA:C	2.55	0.57
5:B:597:MET:O	5:B:600:LEU:CB	2.51	0.57
5:B:780:VAL:CG1	5:B:817:LEU:HD23	2.34	0.57
6:C:183:TRP:CD1	6:C:183:TRP:N	2.72	0.57
7:E:197:LYS:C	7:E:198:ILE:HG13	2.25	0.57
4:A:1017:LEU:HB2	7:E:206:GLY:N	2.18	0.57
9:H:131:ASN:C	9:H:133:ASN:H	2.07	0.57
10:I:4:PHE:CE1	10:I:13:MET:CE	2.87	0.57
12:K:78:THR:HG22	12:K:79:GLU:O	2.04	0.57
12:K:86:ALA:O	12:K:90:ALA:HB2	2.05	0.57
4:A:1053:PHE:HD2	4:A:1054:LEU:N	1.98	0.57
4:A:1116:LEU:H	4:A:1308:THR:HB	1.70	0.57
4:A:253:ASN:HD22	4:A:256:GLN:C	2.06	0.57
4:A:440:ASP:HB3	4:A:441:PRO:CD	2.33	0.57
4:A:743:VAL:HG11	4:A:758:ILE:CD1	2.34	0.57
4:A:794:PRO:HG2	4:A:795:GLU:CG	2.35	0.57
4:A:90:VAL:CG1	4:A:297:GLN:CD	2.61	0.57
4:A:897:TYR:HB3	4:A:936:LEU:HD12	1.87	0.57
5:B:165:VAL:CG1	5:B:166:PHE:N	2.68	0.57
5:B:410:GLY:O	5:B:412:LEU:N	2.38	0.57
5:B:487:THR:O	5:B:490:SER:N	2.29	0.57
5:B:949:VAL:HG12	5:B:950:ASP:H	1.68	0.57
10:I:41:PRO:CD	10:I:42:LEU:N	2.64	0.57
11:J:9:SER:OG	11:J:45:CYS:HB2	2.05	0.57
4:A:723:ASN:O	4:A:724:GLU:C	2.41	0.57
5:B:640:VAL:CG2	5:B:739:THR:C	2.70	0.57
5:B:701:ILE:CB	5:B:740:HIS:CE1	2.87	0.57
6:C:242:GLN:NE2	6:C:246:ARG:HE	1.96	0.57
10:I:51:ASN:O	10:I:54:GLU:HG3	2.05	0.57
13:L:27:LEU:O	13:L:28:LYS:CG	2.50	0.57
4:A:967:ALA:HB2	4:A:1044:TRP:CE3	2.40	0.57
4:A:266:LEU:CD2	4:A:303:TYR:CE1	2.88	0.57
4:A:441:PRO:O	4:A:442:VAL:HG13	2.05	0.57
4:A:356:ASP:HB2	4:A:469:ARG:HH11	1.68	0.57
4:A:805:LEU:HD12	4:A:806:ARG:HA	1.85	0.57
4:A:809:THR:CB	4:A:810:PRO:CD	2.81	0.57
4:A:886:ILE:HD13	4:A:944:ARG:HG3	1.85	0.57
5:B:482:VAL:O	5:B:482:VAL:HG23	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:536:VAL:CG1	5:B:537:LYS:N	2.65	0.57
6:C:163:ILE:CD1	6:C:166:GLU:HB2	2.30	0.57
6:C:69:LEU:O	11:J:6:ARG:HD2	2.04	0.57
7:E:152:LYS:HE2	7:E:199:ILE:HG21	1.85	0.57
9:H:58:THR:HB	9:H:143:LEU:CD1	2.35	0.57
12:K:64:GLU:OE1	12:K:72:LYS:HE3	2.04	0.57
4:A:1022:LEU:CD1	4:A:1022:LEU:CD2	2.79	0.57
4:A:1393:ASN:O	4:A:1394:THR:C	2.43	0.57
4:A:23:SER:O	4:A:24:PRO:C	2.37	0.57
4:A:265:LYS:HZ1	4:A:323:LYS:HD3	1.69	0.57
4:A:90:VAL:CG1	4:A:297:GLN:HA	2.21	0.57
5:B:173:MET:HB2	5:B:203:PHE:CE2	2.39	0.57
5:B:330:ALA:O	5:B:332:ASP:N	2.37	0.57
5:B:377:PHE:C	5:B:379:GLY:N	2.56	0.57
5:B:786:ASN:ND2	5:B:786:ASN:CB	2.66	0.57
6:C:57:VAL:CG1	11:J:60:PHE:HB2	2.35	0.57
7:E:157:SER:C	7:E:159:ASP:H	2.07	0.57
7:E:158:SER:HB3	7:E:159:ASP:N	2.20	0.57
11:J:57:ILE:CG2	11:J:58:GLU:N	2.68	0.57
11:J:7:CYS:HB2	11:J:49:MET:CE	2.33	0.57
1:R:9:G:H2'	1:R:10:A:OP2	2.03	0.57
4:A:1076:ALA:HA	4:A:1079:MET:CE	2.35	0.57
4:A:399:HIS:C	4:A:401:GLY:H	2.04	0.57
4:A:402:ALA:HB2	4:A:434:ARG:HB3	1.87	0.57
4:A:692:ASP:O	4:A:693:VAL:C	2.38	0.57
4:A:928:LEU:O	4:A:929:LEU:C	2.43	0.57
5:B:286:PHE:CG	5:B:297:ILE:HD12	2.40	0.57
5:B:59:LEU:CD1	5:B:417:PHE:CE2	2.88	0.57
5:B:785:TYR:CD1	5:B:786:ASN:HA	2.39	0.57
5:B:817:LEU:N	5:B:818:PRO:HD2	2.17	0.57
5:B:918:ILE:CG2	5:B:918:ILE:CG1	2.78	0.57
6:C:134:ILE:HD11	6:C:141:GLY:HA3	1.85	0.57
6:C:261:ALA:HA	6:C:264:GLN:HG3	1.87	0.57
7:E:161:LYS:O	7:E:162:ARG:C	2.41	0.57
9:H:109:LYS:HB2	9:H:111:LEU:HB2	1.87	0.57
1:R:5:A:C4	1:R:6:G:C8	2.93	0.57
4:A:1057:VAL:HG12	4:A:1058:VAL:N	2.20	0.57
4:A:114:LEU:CD1	4:A:171:GLN:NE2	2.66	0.57
4:A:1299:VAL:CG1	4:A:1299:VAL:CA	2.79	0.57
4:A:1300:LYS:O	4:A:1302:PRO:HD3	2.05	0.57
4:A:1336:MET:CG	4:A:1336:MET:CE	2.82	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:230:ARG:O	4:A:232:GLU:N	2.38	0.57
4:A:381:THR:O	4:A:383:TYR:N	2.38	0.57
4:A:462:VAL:HG12	4:A:463:ILE:H	1.70	0.57
4:A:602:ASP:OD1	4:A:615:GLY:HA2	2.04	0.57
4:A:901:LEU:HB2	4:A:926:GLN:HG2	1.87	0.57
5:B:1014:PRO:C	5:B:1016:ALA:N	2.56	0.57
5:B:1084:GLN:CD	5:B:1084:GLN:N	2.56	0.57
5:B:133:LYS:CD	5:B:133:LYS:HE3	2.17	0.57
5:B:233:PRO:CG	5:B:234:ILE:HD13	2.31	0.57
5:B:215:GLN:O	5:B:406:LEU:HA	2.05	0.57
5:B:412:LEU:HB3	5:B:466:TRP:HE1	1.66	0.57
5:B:825:VAL:CA	5:B:825:VAL:CG1	2.77	0.57
5:B:881:ASN:O	5:B:883:LEU:CD2	2.53	0.57
6:C:46:ILE:CG2	6:C:157:CYS:HB3	2.34	0.57
6:C:67:LEU:O	6:C:69:LEU:N	2.37	0.57
4:A:857:ARG:CZ	8:F:139:PRO:HG2	2.35	0.57
8:F:95:GLY:O	8:F:98:ALA:HB3	2.05	0.57
12:K:92:ASN:O	12:K:94:ILE:N	2.38	0.57
2:T:20:DC:C5	2:T:21:DC:C5	2.93	0.57
4:A:1410:PHE:HD2	5:B:1212:ILE:HD11	1.70	0.56
4:A:445:ASN:ND2	4:A:446:ARG:C	2.58	0.56
4:A:590:ARG:HH21	4:A:620:LYS:C	2.07	0.56
4:A:601:LYS:HB3	4:A:603:ASN:CG	2.24	0.56
4:A:602:ASP:OD1	4:A:615:GLY:N	2.38	0.56
4:A:878:ILE:CG2	4:A:879:GLU:N	2.67	0.56
5:B:1060:ARG:O	5:B:1061:GLU:C	2.42	0.56
5:B:1101:ASP:O	5:B:1122:ARG:CZ	2.53	0.56
5:B:461:LEU:CD1	5:B:466:TRP:HH2	2.17	0.56
5:B:743:ILE:O	5:B:743:ILE:HG22	2.05	0.56
6:C:190:ASP:C	6:C:190:ASP:OD1	2.41	0.56
6:C:22:LEU:CD2	6:C:22:LEU:C	2.73	0.56
7:E:112:TYR:CD1	7:E:136:ASN:HB2	2.40	0.56
4:A:1256:GLU:CB	4:A:1256:GLU:C	2.71	0.56
4:A:1313:LEU:C	4:A:1316:VAL:H	2.05	0.56
4:A:332:LYS:O	4:A:334:GLY:N	2.37	0.56
4:A:444:PHE:CZ	4:A:470:LEU:HD23	2.36	0.56
4:A:523:ILE:HD13	4:A:622:VAL:HG23	1.87	0.56
4:A:567:LYS:HE2	9:H:95:TYR:CD2	2.40	0.56
4:A:853:ASP:C	4:A:855:THR:H	2.08	0.56
4:A:997:LEU:HB3	4:A:1053:PHE:CG	2.40	0.56
4:A:343:LYS:CE	5:B:1151:LEU:O	2.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:203:PHE:N	5:B:210:LYS:O	2.30	0.56
5:B:350:GLN:O	5:B:353:LYS:N	2.39	0.56
5:B:37:PHE:CD2	5:B:38:PHE:N	2.72	0.56
5:B:486:TYR:CE2	5:B:778:MET:HG3	2.40	0.56
8:F:101:ILE:CD1	8:F:121:ALA:HB2	2.31	0.56
8:F:125:LEU:O	8:F:126:ALA:C	2.24	0.56
8:F:143:PHE:C	8:F:143:PHE:CD1	2.78	0.56
10:I:111:THR:HG23	10:I:112:SER:H	1.69	0.56
12:K:24:ASP:CG	12:K:74:ARG:NH1	2.57	0.56
4:A:1171:GLN:O	4:A:1174:PHE:CZ	2.58	0.56
4:A:1438:THR:CG2	4:A:1438:THR:C	2.73	0.56
4:A:152:VAL:CB	4:A:152:VAL:N	2.64	0.56
4:A:512:VAL:CG1	4:A:512:VAL:O	2.53	0.56
4:A:602:ASP:OD1	4:A:615:GLY:CA	2.53	0.56
4:A:696:GLU:HG2	4:A:702:LEU:HD23	1.88	0.56
5:B:555:ILE:HD11	5:B:582:VAL:CG1	2.35	0.56
5:B:733:HIS:CA	5:B:733:HIS:O	2.49	0.56
5:B:704:ALA:HB2	5:B:738:PHE:CE2	2.40	0.56
5:B:944:THR:CG2	5:B:944:THR:O	2.31	0.56
5:B:986:GLN:OE1	5:B:987:LYS:N	2.38	0.56
6:C:166:GLU:O	6:C:167:HIS:HB2	2.06	0.56
9:H:125:LEU:HA	9:H:125:LEU:CD1	2.34	0.56
5:B:190:TYR:CE1	11:J:62:ARG:HG2	2.40	0.56
4:A:1028:THR:O	4:A:1030:ARG:N	2.38	0.56
4:A:1030:ARG:HA	4:A:1034:GLU:HG3	1.87	0.56
4:A:1438:THR:CG2	4:A:1438:THR:O	2.53	0.56
4:A:150:THR:CG2	4:A:150:THR:HA	2.35	0.56
4:A:315:LEU:CA	4:A:319:GLY:O	2.54	0.56
4:A:353:ILE:HD12	4:A:482:PHE:HE2	1.70	0.56
4:A:452:LYS:HG3	4:A:453:MET:SD	2.45	0.56
4:A:621:THR:O	4:A:629:LEU:HB2	2.05	0.56
4:A:764:CYS:CA	4:A:765:VAL:N	2.62	0.56
4:A:855:THR:HG23	4:A:856:THR:N	2.20	0.56
5:B:294:ASP:N	10:I:12:ASN:ND2	2.54	0.56
5:B:324:ILE:HD13	5:B:329:THR:O	2.06	0.56
5:B:715:ALA:CB	5:B:715:ALA:N	2.63	0.56
5:B:899:ILE:HD11	5:B:911:ILE:HG23	1.86	0.56
9:H:112:ILE:O	9:H:126:GLU:HA	2.04	0.56
10:I:25:LEU:CD1	10:I:26:LEU:N	2.67	0.56
11:J:3:VAL:CG2	11:J:3:VAL:N	2.68	0.56
12:K:36:GLU:O	12:K:37:LYS:C	2.44	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:5:A:C2	1:R:6:G:C4	2.93	0.56
4:A:335:ARG:HD3	4:A:339:ASN:HD22	1.70	0.56
4:A:399:HIS:CB	4:A:400:PRO:HD3	2.15	0.56
4:A:456:MET:HG3	4:A:478:TYR:OH	2.05	0.56
4:A:918:GLU:O	4:A:918:GLU:OE1	2.23	0.56
4:A:913:LEU:HD11	4:A:981:LEU:O	2.05	0.56
5:B:124:TYR:HB3	5:B:204:ILE:HD13	1.86	0.56
5:B:957:ASN:O	5:B:959:ASP:N	2.38	0.56
6:C:70:ILE:HD12	6:C:144:ILE:HD11	1.87	0.56
6:C:56:THR:HG22	6:C:57:VAL:N	2.20	0.56
4:A:866:PHE:HB2	7:E:208:TYR:HE1	1.71	0.56
9:H:102:TYR:CD2	9:H:115:TYR:O	2.57	0.56
9:H:101:ALA:CB	9:H:116:TYR:CD2	2.79	0.56
9:H:11:GLN:HG3	9:H:53:ASP:O	2.05	0.56
10:I:33:SER:O	10:I:34:TYR:O	2.22	0.56
2:T:23:DC:OP1	5:B:1123:SER:OG	2.22	0.56
4:A:1009:ASN:O	4:A:1013:ASP:CG	2.43	0.56
4:A:1063:MET:SD	4:A:1436:ILE:HG12	2.45	0.56
4:A:1156:PRO:CD	4:A:1157:ASP:N	2.67	0.56
4:A:406:ILE:N	4:A:406:ILE:HD12	2.21	0.56
4:A:456:MET:SD	4:A:507:VAL:HG22	2.46	0.56
4:A:519:PRO:O	4:A:519:PRO:CG	2.51	0.56
4:A:68:GLN:NE2	4:A:80:HIS:CE1	2.74	0.56
4:A:777:PHE:CD2	4:A:782:ARG:CA	2.88	0.56
4:A:960:ILE:C	4:A:962:ARG:N	2.56	0.56
5:B:292:ILE:CD1	5:B:327:ARG:H	2.13	0.56
5:B:635:ARG:NH1	5:B:636:PRO:HG2	2.20	0.56
6:C:5:GLY:O	6:C:7:GLN:CG	2.51	0.56
10:I:85:PHE:O	10:I:86:PHE:HB3	2.04	0.56
6:C:258:ILE:CD1	12:K:42:LEU:HD21	2.34	0.56
4:A:1113:THR:C	4:A:1114:PRO:O	2.44	0.56
4:A:1366:ARG:HH11	4:A:1366:ARG:CG	2.09	0.56
4:A:265:LYS:HZ2	4:A:322:VAL:CB	2.19	0.56
4:A:690:VAL:CG2	4:A:718:VAL:HG13	2.36	0.56
4:A:743:VAL:CG1	4:A:743:VAL:O	2.50	0.56
4:A:94:GLY:O	4:A:95:PHE:HD2	1.89	0.56
5:B:1006:ILE:HG21	5:B:1087:PHE:CE2	2.41	0.56
4:A:343:LYS:HZ1	5:B:1197:PRO:HB3	1.71	0.56
5:B:133:LYS:CD	5:B:133:LYS:HE2	2.17	0.56
5:B:277:LYS:HD3	5:B:335:GLY:O	2.04	0.56
5:B:600:LEU:HB3	5:B:615:MET:CE	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:754:SER:O	5:B:806:THR:HG21	2.04	0.56
6:C:167:HIS:CG	6:C:168:ALA:N	2.74	0.56
6:C:74:SER:N	6:C:237:SER:O	2.37	0.56
7:E:202:SER:C	7:E:204:THR:H	2.09	0.56
9:H:89:LEU:HB2	9:H:91:ASP:OD1	2.06	0.56
10:I:29:CYS:CB	10:I:29:CYS:C	2.72	0.56
4:A:1282:VAL:CG1	4:A:1283:VAL:N	2.53	0.56
4:A:246:VAL:HG12	4:A:246:VAL:O	2.06	0.56
4:A:337:ARG:NE	4:A:337:ARG:CG	2.65	0.56
4:A:464:PRO:CG	4:A:465:TYR:CD1	2.86	0.56
4:A:500:GLU:HG2	5:B:1143:ALA:HB1	1.87	0.56
4:A:588:LEU:HD12	4:A:589:GLN:N	2.08	0.56
4:A:640:GLN:O	4:A:643:ALA:HB3	2.05	0.56
4:A:901:LEU:HA	4:A:907:THR:CG2	2.36	0.56
4:A:886:ILE:HD11	4:A:944:ARG:N	2.21	0.56
4:A:967:ALA:O	4:A:968:GLN:C	2.38	0.56
5:B:827:ILE:HD12	5:B:1086:PHE:CD2	2.41	0.56
5:B:275:TYR:CG	5:B:275:TYR:HB3	2.25	0.56
5:B:25:ILE:CD1	5:B:651:LEU:HD12	2.18	0.56
6:C:181:ASP:N	6:C:182:PRO:CD	2.68	0.56
6:C:196:ASP:O	6:C:198:ALA:N	2.38	0.56
6:C:262:LEU:O	6:C:263:THR:O	2.23	0.56
7:E:173:SER:CB	7:E:177:ARG:NH2	2.65	0.56
8:F:97:ARG:O	8:F:101:ILE:HG13	2.06	0.56
8:F:109:VAL:CG2	8:F:124:GLU:HG3	2.36	0.56
4:A:567:LYS:CE	9:H:97:MET:HG2	2.35	0.56
12:K:83:PRO:CA	12:K:86:ALA:HB3	2.33	0.56
13:L:27:LEU:HD23	13:L:62:LYS:HE2	1.88	0.56
4:A:181:LEU:O	4:A:202:LEU:CD1	2.53	0.56
4:A:27:VAL:O	4:A:30:ILE:HG22	2.04	0.56
4:A:380:VAL:CG2	4:A:430:TRP:N	2.61	0.56
4:A:406:ILE:O	4:A:431:LYS:N	2.33	0.56
4:A:650:GLN:O	4:A:651:LYS:C	2.41	0.56
4:A:759:ALA:O	4:A:763:ALA:CB	2.45	0.56
4:A:947:PHE:CD2	4:A:954:TRP:CE2	2.94	0.56
5:B:1036:ALA:O	5:B:1037:LEU:C	2.42	0.56
5:B:766:ARG:O	5:B:769:TYR:N	2.28	0.56
6:C:164:ALA:O	6:C:165:LYS:C	2.40	0.56
8:F:81:THR:CG2	8:F:136:ARG:HH11	2.17	0.56
4:A:1116:LEU:HD22	4:A:1311:VAL:CG2	2.29	0.56
4:A:1132:LYS:O	4:A:1135:ARG:CB	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1392:SER:O	4:A:1393:ASN:ND2	2.39	0.56
4:A:325:ILE:CG1	4:A:325:ILE:CG2	2.81	0.56
4:A:32:VAL:HA	4:A:57:ARG:HH11	1.70	0.56
4:A:596:THR:CB	4:A:596:THR:O	2.32	0.56
4:A:849:MET:HB2	4:A:1062:GLU:O	2.05	0.56
4:A:913:LEU:CD1	4:A:914:GLU:N	2.69	0.56
4:A:92:HIS:CD2	4:A:92:HIS:O	2.59	0.56
5:B:205:ILE:CG2	5:B:206:ASN:ND2	2.69	0.56
5:B:216:GLU:OE1	5:B:500:THR:OG1	2.24	0.56
5:B:814:PHE:O	5:B:818:PRO:HD3	2.06	0.56
5:B:983:ARG:C	5:B:984:HIS:ND1	2.58	0.56
6:C:80:LEU:HD12	6:C:81:GLU:N	2.19	0.56
7:E:119:SER:CB	7:E:119:SER:C	2.70	0.56
7:E:21:GLU:O	7:E:22:MET:C	2.40	0.56
7:E:57:MET:O	7:E:57:MET:HG2	2.06	0.56
10:I:60:GLN:O	10:I:61:ASP:C	2.43	0.56
12:K:65:HIS:CD2	12:K:65:HIS:C	2.76	0.56
12:K:78:THR:O	12:K:79:GLU:C	2.41	0.56
4:A:1290:LYS:HA	4:A:1299:VAL:O	2.06	0.56
4:A:1334:ASP:O	4:A:1337:GLU:N	2.39	0.56
4:A:495:GLU:CA	4:A:498:ARG:HG3	2.35	0.56
4:A:567:LYS:O	4:A:569:LYS:N	2.36	0.56
4:A:660:ASN:HD22	4:A:660:ASN:C	2.09	0.56
5:B:249:ARG:CA	5:B:250:PHE:N	2.64	0.56
6:C:70:ILE:HD11	6:C:144:ILE:HD11	1.87	0.56
6:C:145:CYS:HA	11:J:2:ILE:HD11	1.87	0.56
6:C:98:VAL:HA	6:C:99:LEU:HD23	1.87	0.56
7:E:178:ILE:O	7:E:215:MET:HB2	2.06	0.56
7:E:23:VAL:CG1	7:E:28:TYR:HB2	2.36	0.56
7:E:97:VAL:HG13	7:E:127:ILE:CG2	2.23	0.56
9:H:142:LEU:HD21	9:H:144:ILE:HD11	1.87	0.56
10:I:35:VAL:O	10:I:36:GLU:HB3	2.06	0.56
1:R:8:G:N2	2:T:22:DT:C4	2.74	0.56
4:A:1046:LEU:O	4:A:1047:SER:C	2.43	0.55
4:A:239:LEU:HD12	4:A:239:LEU:C	2.25	0.55
4:A:304:MET:HG3	5:B:1210:MET:HG3	1.87	0.55
4:A:506:ALA:O	4:A:508:PRO:CD	2.54	0.55
4:A:848:ILE:HG22	4:A:849:MET:H	1.71	0.55
4:A:852:TYR:CD2	4:A:1060:PRO:HB2	2.41	0.55
4:A:860:LEU:HB3	4:A:862:ASN:OD1	2.06	0.55
4:A:751:SER:HB2	5:B:1015:HIS:CE1	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:233:PRO:HG2	5:B:234:ILE:H	1.71	0.55
5:B:288:ALA:HB2	5:B:330:ALA:CB	2.36	0.55
5:B:420:LEU:HD21	5:B:468:GLU:OE2	2.06	0.55
5:B:875:GLU:OE2	5:B:934:LYS:HD3	2.05	0.55
6:C:32:SER:HA	6:C:35:ARG:HG3	1.88	0.55
7:E:98:ILE:C	7:E:98:ILE:CB	2.72	0.55
8:F:76:LYS:N	8:F:76:LYS:CB	2.67	0.55
12:K:32:VAL:HG23	12:K:74:ARG:HA	1.88	0.55
4:A:1016:THR:O	4:A:1017:LEU:C	2.42	0.55
4:A:1193:LEU:HB2	4:A:1260:LEU:HD11	1.87	0.55
4:A:108:MET:HG3	4:A:170:THR:O	2.06	0.55
4:A:209:ASN:O	4:A:210:ILE:C	2.42	0.55
4:A:210:ILE:HG22	4:A:211:PHE:N	2.20	0.55
4:A:598:LEU:HD13	9:H:25:ARG:HH12	1.66	0.55
4:A:605:MET:HE2	4:A:605:MET:HA	1.87	0.55
4:A:791:ASP:O	4:A:791:ASP:OD1	2.24	0.55
5:B:1071:VAL:HG12	5:B:1072:MET:N	2.20	0.55
5:B:251:ILE:HD13	5:B:252:SER:H	1.70	0.55
5:B:590:HIS:CD2	5:B:596:LEU:HD22	2.42	0.55
5:B:604:ARG:HA	5:B:609:ILE:O	2.06	0.55
5:B:890:TYR:O	5:B:893:LEU:HD12	2.06	0.55
6:C:82:TYR:O	6:C:85:ASP:N	2.37	0.55
4:A:1079:MET:HA	4:A:1359:ASP:OD1	2.06	0.55
4:A:133:LYS:O	4:A:137:ALA:CB	2.55	0.55
4:A:1361:SER:HB2	4:A:1361:SER:CA	2.17	0.55
4:A:151:ASP:CB	4:A:162:VAL:O	2.54	0.55
4:A:531:ILE:HD13	4:A:622:VAL:CG2	2.06	0.55
4:A:588:LEU:HA	4:A:588:LEU:CD1	2.37	0.55
5:B:1034:VAL:HG12	5:B:1035:ALA:N	2.20	0.55
5:B:454:THR:HG22	5:B:454:THR:O	2.05	0.55
5:B:549:THR:CG2	5:B:550:ASP:H	2.20	0.55
5:B:562:GLY:O	5:B:563:MET:C	2.44	0.55
7:E:152:LYS:CG	7:E:152:LYS:HB2	2.19	0.55
7:E:143:ASN:OD1	7:E:187:TYR:HE1	1.89	0.55
7:E:46:TYR:CD2	7:E:58:MET:HE3	2.41	0.55
9:H:123:MET:CE	9:H:123:MET:CG	2.85	0.55
9:H:41:ASP:HB2	9:H:122:LEU:H	1.71	0.55
9:H:42:ILE:HD12	9:H:95:TYR:CE2	2.41	0.55
12:K:46:ILE:HD12	12:K:46:ILE:H	1.70	0.55
4:A:1134:ILE:O	4:A:1135:ARG:C	2.45	0.55
4:A:1224:LEU:HD12	4:A:1241:ARG:O	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:210:ILE:HG22	4:A:211:PHE:CD1	2.42	0.55
4:A:315:LEU:N	4:A:315:LEU:CB	2.64	0.55
4:A:320:ARG:NH2	5:B:471:LYS:CA	2.69	0.55
4:A:464:PRO:CB	4:A:465:TYR:HD1	2.20	0.55
4:A:590:ARG:NE	4:A:590:ARG:CG	2.65	0.55
4:A:618:GLU:CD	4:A:618:GLU:C	2.65	0.55
4:A:805:LEU:O	4:A:805:LEU:CD1	2.52	0.55
5:B:1014:PRO:C	5:B:1016:ALA:H	2.09	0.55
5:B:1072:MET:SD	5:B:1072:MET:HB3	2.44	0.55
5:B:1106:ARG:CD	5:B:1126:GLY:O	2.43	0.55
5:B:987:LYS:NZ	16:B:1308:ATP:O3G	2.38	0.55
5:B:426:LYS:O	5:B:430:ARG:CZ	2.54	0.55
5:B:432:MET:CB	5:B:432:MET:HE2	2.36	0.55
5:B:518:HIS:O	5:B:519:TRP:C	2.41	0.55
5:B:712:PRO:O	5:B:713:ALA:O	2.24	0.55
5:B:805:THR:CA	5:B:809:MET:HE3	2.36	0.55
5:B:792:MET:HA	5:B:856:PHE:O	2.07	0.55
5:B:984:HIS:CD2	5:B:1025:HIS:H	2.25	0.55
6:C:135:GLN:O	6:C:136:ASP:O	2.25	0.55
9:H:104:PHE:CD2	9:H:114:VAL:CG1	2.90	0.55
10:I:56:ALA:O	10:I:57:GLY:C	2.45	0.55
11:J:14:VAL:O	11:J:17:LYS:N	2.39	0.55
4:A:1224:LEU:HD21	4:A:1240:CYS:HB3	1.89	0.55
4:A:311:GLN:N	4:A:311:GLN:CB	2.68	0.55
4:A:321:PRO:CG	4:A:322:VAL:N	2.69	0.55
4:A:557:ASP:OD2	4:A:559:VAL:HG21	2.07	0.55
4:A:845:LEU:HB2	4:A:1065:GLY:O	2.07	0.55
5:B:178:ASN:O	5:B:179:CYS:C	2.45	0.55
5:B:199:MET:CG	5:B:199:MET:CE	2.85	0.55
5:B:580:VAL:O	5:B:580:VAL:HG12	1.93	0.55
5:B:635:ARG:NH2	5:B:698:GLU:OE2	2.39	0.55
5:B:723:VAL:O	5:B:725:PRO:N	2.39	0.55
6:C:256:ALA:O	6:C:260:LEU:HB3	2.06	0.55
6:C:67:LEU:O	6:C:68:GLY:C	2.43	0.55
2:T:12:DC:C3'	2:T:13:DA:P	2.89	0.55
4:A:208:LEU:CD2	4:A:232:GLU:HB2	2.37	0.55
4:A:24:PRO:HD2	4:A:25:GLU:H	1.70	0.55
4:A:405:VAL:O	4:A:413:ILE:HB	2.07	0.55
4:A:442:VAL:O	4:A:457:ALA:HA	2.06	0.55
5:B:34:ILE:CD1	5:B:743:ILE:HG21	2.36	0.55
5:B:48:LEU:O	5:B:49:ASP:C	2.44	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:190:LEU:CD2	7:E:190:LEU:HG	2.19	0.55
5:B:309:GLN:HG3	10:I:52:ILE:HG21	1.87	0.55
12:K:92:ASN:O	12:K:93:SER:C	2.45	0.55
4:A:987:VAL:CG2	4:A:1028:THR:OG1	2.55	0.55
4:A:1126:ALA:O	4:A:1128:GLN:N	2.39	0.55
4:A:1364:ASN:C	4:A:1364:ASN:HD22	2.09	0.55
4:A:215:SER:HB3	4:A:218:ASP:CG	2.27	0.55
4:A:91:PHE:C	4:A:297:GLN:HE22	2.10	0.55
4:A:534:LEU:O	4:A:539:THR:HG21	2.07	0.55
4:A:908:LEU:O	4:A:909:ASP:C	2.45	0.55
4:A:909:ASP:OD1	4:A:910:PRO:CD	2.55	0.55
5:B:112:LEU:HD21	5:B:122:LEU:HD12	1.88	0.55
5:B:361:LEU:N	5:B:362:PRO:CD	2.69	0.55
4:A:814:PHE:CE1	5:B:514:LEU:HD21	2.42	0.55
5:B:690:VAL:O	5:B:690:VAL:HG12	2.01	0.55
5:B:704:ALA:HB2	5:B:738:PHE:CD2	2.42	0.55
5:B:955:THR:HG22	5:B:956:THR:CB	2.36	0.55
7:E:78:LEU:CG	7:E:107:THR:HG22	2.36	0.55
9:H:138:GLU:O	9:H:139:ASN:O	2.23	0.55
9:H:58:THR:HG22	9:H:59:ILE:C	2.26	0.55
11:J:37:SER:O	11:J:38:ARG:C	2.42	0.55
12:K:32:VAL:HG23	12:K:74:ARG:CG	2.26	0.55
12:K:40:HIS:O	12:K:42:LEU:N	2.40	0.55
4:A:1134:ILE:HG22	4:A:1138:ILE:CG1	2.37	0.55
4:A:1334:ASP:O	4:A:1335:ILE:C	2.46	0.55
4:A:1442:ASP:HB3	8:F:135:ARG:HB3	1.89	0.55
4:A:95:PHE:CD1	4:A:234:MET:HG2	2.41	0.55
4:A:321:PRO:CB	4:A:321:PRO:C	2.70	0.55
4:A:403:LYS:CD	4:A:403:LYS:HE2	2.16	0.55
4:A:522:GLY:C	4:A:523:ILE:CD1	2.74	0.55
4:A:522:GLY:O	4:A:523:ILE:HG13	2.06	0.55
4:A:537:ARG:C	4:A:539:THR:H	2.09	0.55
4:A:628:GLY:O	4:A:629:LEU:C	2.41	0.55
4:A:947:PHE:CE2	4:A:954:TRP:CE2	2.94	0.55
4:A:948:VAL:C	4:A:950:GLY:N	2.59	0.55
4:A:971:PHE:O	4:A:973:ILE:CD1	2.55	0.55
4:A:977:LYS:CD	4:A:977:LYS:HE3	2.19	0.55
5:B:758:PHE:CE2	5:B:1044:ALA:HA	2.41	0.55
4:A:357:PRO:HD2	5:B:833:TYR:CZ	2.42	0.55
6:C:194:GLU:O	6:C:195:GLN:CG	2.47	0.55
9:H:23:VAL:HG12	9:H:24:CYS:N	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:I:15:TYR:O	10:I:27:PHE:HD2	1.89	0.55
10:I:83:ASN:N	10:I:83:ASN:ND2	2.54	0.55
12:K:107:THR:O	12:K:111:LEU:CD2	2.55	0.55
4:A:1445:ILE:CA	4:A:1445:ILE:CG2	2.78	0.55
4:A:18:GLN:HB3	5:B:1215:ARG:CB	2.35	0.55
4:A:209:ASN:C	4:A:210:ILE:HG12	2.24	0.55
4:A:211:PHE:O	4:A:213:HIS:N	2.39	0.55
4:A:250:ILE:O	4:A:251:SER:HB3	2.05	0.55
4:A:35:ILE:O	4:A:270:LEU:HD13	2.06	0.55
4:A:962:ARG:O	4:A:963:ILE:C	2.41	0.55
5:B:34:ILE:CD1	5:B:34:ILE:N	2.64	0.55
5:B:357:GLN:HA	5:B:374:LYS:HZ2	1.72	0.55
5:B:724:ASP:O	5:B:726:ALA:N	2.40	0.55
6:C:123:ASN:HD22	6:C:125:MET:HG2	1.72	0.55
6:C:80:LEU:HD11	6:C:95:CYS:C	2.27	0.55
7:E:102:GLU:C	7:E:104:ASN:N	2.58	0.55
8:F:133:VAL:HG12	8:F:133:VAL:O	2.06	0.55
4:A:1111:MET:CE	4:A:1111:MET:CB	2.85	0.55
4:A:114:LEU:N	4:A:114:LEU:CD2	2.57	0.55
4:A:1157:ASP:OD2	4:A:1160:SER:N	2.39	0.55
4:A:494:SER:HB2	4:A:496:GLU:HG3	1.89	0.55
4:A:642:CYS:O	4:A:643:ALA:C	2.43	0.55
4:A:855:THR:HG21	4:A:857:ARG:NE	2.22	0.55
4:A:88:LYS:C	4:A:88:LYS:CB	2.72	0.55
4:A:587:HIS:HE1	4:A:969:GLN:CG	2.19	0.55
5:B:266:ALA:HA	5:B:267:ARG:H	1.72	0.55
5:B:681:TRP:O	5:B:684:LEU:HB2	2.07	0.55
5:B:707:PRO:HG2	5:B:708:GLU:N	2.21	0.55
6:C:214:ASN:O	6:C:216:GLY:N	2.40	0.55
7:E:45:LYS:HA	7:E:45:LYS:CB	2.18	0.55
8:F:136:ARG:O	8:F:143:PHE:HA	2.07	0.55
12:K:53:ASP:OD1	12:K:56:VAL:HG22	2.07	0.55
4:A:11:LEU:HA	5:B:1193:GLN:O	2.07	0.54
4:A:1331:SER:O	4:A:1334:ASP:N	2.39	0.54
4:A:179:LEU:HD13	4:A:297:GLN:HG3	1.87	0.54
4:A:406:ILE:HD12	4:A:406:ILE:H	1.70	0.54
4:A:464:PRO:HB2	4:A:465:TYR:CD1	2.42	0.54
4:A:522:GLY:C	4:A:523:ILE:CG1	2.75	0.54
4:A:670:ILE:HG22	4:A:671:ALA:HA	1.87	0.54
4:A:770:VAL:HG13	4:A:822:GLU:OE1	2.07	0.54
4:A:901:LEU:N	4:A:926:GLN:NE2	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:978:ASP:CG	5:B:1098:MET:HB3	2.28	0.54
5:B:1104:HIS:CG	5:B:1105:ALA:N	2.75	0.54
5:B:1212:ILE:CG2	5:B:1213:THR:N	2.67	0.54
5:B:485:ARG:HH11	5:B:485:ARG:HG3	1.69	0.54
6:C:173:ALA:O	6:C:233:GLU:O	2.25	0.54
9:H:38:LEU:HA	9:H:124:ARG:O	2.07	0.54
9:H:15:VAL:CG2	9:H:49:VAL:HG12	2.37	0.54
9:H:6:PHE:CG	9:H:7:ASP:N	2.74	0.54
4:A:1167:GLU:O	4:A:1168:GLU:C	2.44	0.54
4:A:1354:ASN:O	4:A:1358:SER:OG	2.19	0.54
4:A:492:PRO:HB2	4:A:497:THR:CG2	2.38	0.54
4:A:543:LEU:HG	4:A:547:LEU:HD12	1.90	0.54
4:A:567:LYS:CB	4:A:568:PRO:HD2	2.29	0.54
4:A:570:PRO:O	4:A:570:PRO:HD2	2.07	0.54
4:A:691:LEU:C	4:A:691:LEU:CD1	2.51	0.54
4:A:728:LYS:O	4:A:732:LEU:N	2.37	0.54
5:B:461:LEU:HD11	5:B:466:TRP:CH2	2.41	0.54
5:B:956:THR:HG23	5:B:957:ASN:N	2.13	0.54
5:B:99:LYS:HB3	5:B:180:TYR:HE2	1.67	0.54
6:C:62:PHE:O	6:C:63:ILE:C	2.45	0.54
7:E:128:PRO:HD2	7:E:128:PRO:O	2.07	0.54
9:H:60:ALA:C	9:H:60:ALA:CB	2.73	0.54
12:K:83:PRO:C	12:K:86:ALA:HB3	2.27	0.54
4:A:233:TRP:C	4:A:235:ILE:N	2.61	0.54
4:A:523:ILE:HG21	4:A:531:ILE:CG2	2.37	0.54
4:A:543:LEU:HG	4:A:547:LEU:CD1	2.38	0.54
4:A:814:PHE:O	4:A:817:ALA:HB3	2.06	0.54
4:A:962:ARG:HA	4:A:965:GLN:HE21	1.72	0.54
4:A:343:LYS:NZ	5:B:1197:PRO:HB3	2.21	0.54
5:B:421:PHE:CD1	5:B:424:LEU:CD2	2.91	0.54
5:B:471:LYS:CG	5:B:471:LYS:CE	2.80	0.54
5:B:477:ALA:HB1	5:B:479:VAL:HA	1.88	0.54
5:B:695:ALA:CB	5:B:696:GLU:N	2.69	0.54
5:B:698:GLU:O	5:B:701:ILE:CD1	2.56	0.54
6:C:15:LYS:O	6:C:240:VAL:CG2	2.55	0.54
6:C:247:GLY:C	6:C:249:ASP:N	2.58	0.54
7:E:78:LEU:HG	7:E:107:THR:HG22	1.89	0.54
7:E:81:GLU:HB3	7:E:96:PHE:CE1	2.43	0.54
8:F:111:LEU:CD1	8:F:111:LEU:H	2.10	0.54
8:F:120:ILE:CG2	8:F:121:ALA:N	2.68	0.54
9:H:19:ARG:O	9:H:20:TYR:CD2	2.61	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:H:3:ASN:CB	9:H:3:ASN:ND2	2.63	0.54
4:A:1076:ALA:HA	4:A:1079:MET:HE2	1.90	0.54
4:A:1341:ILE:N	7:E:182:ASP:OD2	2.39	0.54
4:A:1354:ASN:HA	4:A:1357:ALA:HB3	1.90	0.54
4:A:1362:TYR:CE1	4:A:1363:VAL:C	2.81	0.54
4:A:1409:LEU:O	4:A:1412:ALA:HB3	2.07	0.54
4:A:17:VAL:HB	4:A:17:VAL:CG1	2.18	0.54
4:A:209:ASN:O	4:A:211:PHE:N	2.41	0.54
4:A:273:ASN:CA	4:A:296:LEU:HD11	2.36	0.54
4:A:91:PHE:CG	4:A:297:GLN:OE1	2.56	0.54
4:A:492:PRO:O	4:A:493:GLN:NE2	2.41	0.54
4:A:520:CYS:C	4:A:521:MET:HG2	2.28	0.54
4:A:587:HIS:CE1	4:A:969:GLN:CG	2.91	0.54
5:B:1162:ILE:HA	5:B:1171:VAL:HG23	1.90	0.54
5:B:1116:ARG:HG3	5:B:1198:TYR:CD2	2.43	0.54
5:B:1199:ALA:O	5:B:1202:LEU:HB2	2.06	0.54
5:B:273:LEU:HB2	5:B:276:ILE:CD1	2.37	0.54
5:B:315:LYS:C	5:B:315:LYS:CB	2.74	0.54
5:B:609:ILE:HG22	5:B:610:ASN:N	2.21	0.54
5:B:638:PHE:CD2	5:B:653:VAL:HG21	2.43	0.54
5:B:788:ARG:CB	5:B:788:ARG:NH1	2.39	0.54
7:E:124:VAL:CG2	7:E:132:ILE:HG22	2.35	0.54
7:E:171:LYS:O	7:E:174:GLN:N	2.40	0.54
4:A:1172:LEU:N	4:A:1172:LEU:CD2	2.71	0.54
4:A:33:ALA:O	4:A:83:HIS:HD2	1.89	0.54
4:A:780:VAL:C	4:A:782:ARG:H	2.05	0.54
4:A:898:ARG:HD2	4:A:898:ARG:CG	2.21	0.54
4:A:901:LEU:HG	4:A:926:GLN:NE2	2.22	0.54
4:A:897:TYR:HB3	4:A:936:LEU:CD1	2.38	0.54
5:B:1033:LYS:HG2	5:B:1034:VAL:N	2.22	0.54
5:B:166:PHE:HE2	5:B:450:ALA:HB2	1.73	0.54
5:B:707:PRO:CD	5:B:708:GLU:H	2.20	0.54
6:C:142:VAL:HG12	6:C:143:LEU:C	2.28	0.54
7:E:171:LYS:HB2	7:E:174:GLN:CD	2.26	0.54
7:E:180:ARG:O	7:E:186:LEU:HD21	2.08	0.54
7:E:20:LYS:HB3	7:E:35:VAL:HG23	1.88	0.54
7:E:37:LEU:CG	7:E:37:LEU:O	2.35	0.54
9:H:142:LEU:HD11	9:H:144:ILE:HD11	1.90	0.54
11:J:31:ASP:C	11:J:33:GLY:N	2.61	0.54
2:T:17:DG:H5'	4:A:836:TYR:CD1	2.43	0.54
4:A:1161:THR:CG2	4:A:1163:ILE:N	2.28	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1172:LEU:C	4:A:1173:HIS:CA	2.71	0.54
4:A:1267:MET:O	4:A:1271:ILE:HB	2.07	0.54
4:A:99:ILE:CG1	4:A:234:MET:SD	2.95	0.54
4:A:267:ALA:O	4:A:269:ILE:N	2.39	0.54
4:A:295:LEU:O	4:A:296:LEU:C	2.42	0.54
4:A:335:ARG:O	4:A:336:ILE:C	2.41	0.54
4:A:388:LEU:CD2	4:A:432:VAL:HG11	2.37	0.54
4:A:451:HIS:O	5:B:1137:CYS:SG	2.63	0.54
5:B:308:TRP:CG	5:B:309:GLN:N	2.75	0.54
5:B:942:ARG:O	5:B:944:THR:N	2.40	0.54
5:B:948:ILE:O	5:B:949:VAL:C	2.42	0.54
5:B:98:THR:O	5:B:126:SER:CB	2.56	0.54
6:C:143:LEU:C	6:C:143:LEU:CD1	2.72	0.54
7:E:214:CYS:SG	7:E:215:MET:N	2.80	0.54
11:J:3:VAL:HG21	11:J:18:TRP:CB	2.38	0.54
12:K:49:GLU:O	12:K:50:LEU:C	2.37	0.54
4:A:230:ARG:HB2	4:A:233:TRP:CD2	2.43	0.54
4:A:359:LEU:HD23	4:A:360:GLU:N	2.23	0.54
4:A:563:PRO:HB2	4:A:565:ILE:O	2.08	0.54
4:A:927:VAL:HG13	4:A:927:VAL:CG2	2.31	0.54
5:B:170:LEU:O	5:B:172:ILE:HG12	2.07	0.54
5:B:545:ILE:O	5:B:546:SER:C	2.44	0.54
5:B:566:LEU:O	5:B:569:TYR:HB2	2.07	0.54
5:B:62:ILE:HD12	5:B:418:LYS:HE2	1.90	0.54
6:C:206:ASN:CG	6:C:229:TYR:CD2	2.81	0.54
4:A:1017:LEU:HB2	7:E:205:SER:C	2.27	0.54
4:A:1298:TYR:C	4:A:1299:VAL:CG2	2.72	0.54
4:A:274:ILE:CG1	4:A:274:ILE:HA	2.36	0.54
4:A:740:LEU:N	4:A:740:LEU:HD23	2.22	0.54
5:B:1013:ASN:OD1	5:B:1015:HIS:N	2.30	0.54
5:B:1077:THR:HG23	5:B:1079:LYS:N	2.16	0.54
5:B:1205:GLN:O	5:B:1206:GLU:C	2.46	0.54
5:B:276:ILE:HG22	5:B:277:LYS:N	2.19	0.54
5:B:280:ILE:CG2	5:B:285:ILE:HG12	2.26	0.54
5:B:486:TYR:HE2	5:B:778:MET:HG3	1.73	0.54
5:B:986:GLN:NE2	5:B:986:GLN:CG	2.67	0.54
6:C:181:ASP:OD1	6:C:183:TRP:O	2.26	0.54
4:A:568:PRO:CB	6:C:221:TYR:CE1	2.91	0.54
7:E:170:LEU:HD13	7:E:175:LEU:HD22	1.90	0.54
7:E:6:GLU:O	7:E:9:ILE:HG22	2.08	0.54
8:F:107:VAL:CG1	8:F:111:LEU:HD11	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:I:17:ARG:HG2	10:I:18:GLU:HB2	1.90	0.54
6:C:69:LEU:O	11:J:6:ARG:NH1	2.39	0.54
12:K:44:ASN:CA	12:K:61:TYR:HE2	2.21	0.54
4:A:1369:ALA:O	4:A:1370:LEU:C	2.44	0.54
4:A:254:GLU:O	5:B:918:ILE:CG1	2.56	0.54
4:A:506:ALA:C	4:A:508:PRO:CD	2.76	0.54
4:A:579:SER:OG	4:A:612:ILE:HG23	2.07	0.54
4:A:826:ASP:O	4:A:830:LYS:N	2.39	0.54
4:A:341:MET:CE	4:A:843:LYS:NZ	2.71	0.54
4:A:947:PHE:CE2	4:A:954:TRP:CD2	2.96	0.54
5:B:260:GLY:O	5:B:267:ARG:CD	2.55	0.54
5:B:273:LEU:O	5:B:274:PRO:O	2.26	0.54
5:B:355:ILE:CG2	5:B:356:LEU:HD21	2.36	0.54
8:F:134:ILE:HG22	8:F:136:ARG:N	2.23	0.54
5:B:104:GLU:HG3	13:L:54:ARG:NE	2.22	0.54
1:R:8:G:C2'	1:R:9:G:H5'	2.36	0.54
4:A:849:MET:HE3	4:A:1061:GLY:CA	2.36	0.54
4:A:1189:SER:OG	4:A:1256:GLU:CD	2.43	0.54
4:A:1141:THR:HG23	4:A:1205:LYS:CD	2.37	0.54
4:A:131:SER:O	4:A:134:ARG:HB2	2.08	0.54
4:A:1436:ILE:CD1	5:B:1139:ILE:HG23	2.38	0.54
4:A:206:GLU:O	4:A:209:ASN:HB2	2.07	0.54
4:A:210:ILE:O	4:A:213:HIS:N	2.38	0.54
4:A:257:ARG:HB2	4:A:258:GLY:CA	2.38	0.54
4:A:349:ALA:N	5:B:1128:LEU:CD1	2.71	0.54
4:A:690:VAL:HG21	4:A:718:VAL:HG13	1.89	0.54
4:A:91:PHE:HB2	4:A:297:GLN:OE1	2.07	0.54
4:A:983:ILE:CG2	4:A:983:ILE:O	2.56	0.54
5:B:1056:SER:HB3	5:B:1066:SER:HB2	1.89	0.54
5:B:179:CYS:C	5:B:181:LEU:H	2.11	0.54
5:B:365:THR:HG23	5:B:367:LEU:H	1.73	0.54
5:B:906:SER:HB3	5:B:946:ASN:HB2	1.89	0.54
6:C:117:ASP:N	6:C:117:ASP:OD1	2.41	0.54
5:B:1080:LYS:HG3	6:C:180:TYR:CE2	2.43	0.54
6:C:186:LEU:HB3	6:C:188:HIS:HD2	1.72	0.54
10:I:6:PHE:CB	10:I:12:ASN:O	2.52	0.54
13:L:29:TYR:CB	13:L:56:LEU:HD22	2.37	0.54
4:A:418:SER:O	4:A:421:ALA:HB3	2.07	0.53
4:A:513:SER:CB	4:A:514:PRO:HD2	2.37	0.53
4:A:783:THR:C	4:A:784:LEU:HD23	2.29	0.53
5:B:124:TYR:OH	5:B:179:CYS:CA	2.53	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:30:SER:O	5:B:34:ILE:HD13	2.08	0.53
5:B:46:GLN:NE2	5:B:496:ARG:HG2	2.23	0.53
7:E:156:LEU:HD21	7:E:197:LYS:HB2	1.89	0.53
9:H:27:GLU:CD	9:H:39:THR:HG23	2.28	0.53
12:K:49:GLU:CG	12:K:94:ILE:HD11	2.38	0.53
4:A:1004:ASN:OD1	4:A:1004:ASN:O	2.26	0.53
4:A:1026:LEU:CB	4:A:1026:LEU:CD2	2.79	0.53
4:A:1237:ILE:CG2	4:A:1238:ILE:CA	2.69	0.53
4:A:124:GLN:O	4:A:125:ALA:C	2.46	0.53
4:A:150:THR:CG2	4:A:150:THR:CA	2.81	0.53
4:A:179:LEU:HD12	4:A:297:GLN:CG	2.28	0.53
4:A:20:GLY:C	4:A:21:LEU:HD23	2.28	0.53
4:A:531:ILE:C	4:A:531:ILE:CB	2.74	0.53
4:A:688:LYS:O	4:A:691:LEU:HB3	2.09	0.53
4:A:826:ASP:O	4:A:829:VAL:N	2.37	0.53
5:B:420:LEU:O	5:B:423:LYS:N	2.42	0.53
5:B:796:LEU:O	5:B:797:TYR:C	2.41	0.53
6:C:116:LYS:H	6:C:141:GLY:H	1.55	0.53
7:E:73:PRO:O	7:E:74:ASP:C	2.47	0.53
9:H:135:LEU:CD1	9:H:135:LEU:CD2	2.83	0.53
9:H:47:PHE:CD2	9:H:95:TYR:CD1	2.94	0.53
4:A:202:LEU:N	4:A:202:LEU:HD12	2.23	0.53
4:A:349:ALA:O	4:A:350:ARG:CB	2.46	0.53
4:A:65:LEU:CG	4:A:65:LEU:HB3	2.19	0.53
4:A:7:SER:HB3	5:B:1193:GLN:HE21	1.65	0.53
4:A:947:PHE:CD2	4:A:954:TRP:CZ2	2.97	0.53
5:B:1036:ALA:N	5:B:1036:ALA:CB	2.63	0.53
5:B:409:ALA:HA	5:B:412:LEU:HD12	1.89	0.53
5:B:916:THR:HG22	5:B:916:THR:O	2.08	0.53
6:C:68:GLY:C	6:C:69:LEU:HD13	2.28	0.53
7:E:94:LYS:NZ	7:E:98:ILE:HD13	2.24	0.53
12:K:92:ASN:C	12:K:94:ILE:N	2.56	0.53
4:A:1239:ARG:HH22	4:A:1241:ARG:HH22	1.56	0.53
4:A:1295:THR:OG1	4:A:1297:GLU:OE1	2.24	0.53
4:A:1279:ILE:HD11	4:A:1312:ASN:H	1.72	0.53
4:A:376:TYR:CE2	4:A:377:PRO:O	2.61	0.53
4:A:381:THR:CG2	4:A:383:TYR:HB2	2.39	0.53
4:A:718:VAL:O	4:A:722:LEU:CD1	2.57	0.53
4:A:892:ALA:HB2	4:A:895:LYS:CD	2.39	0.53
4:A:92:HIS:C	4:A:92:HIS:CD2	2.82	0.53
5:B:1006:ILE:CD1	11:J:45:CYS:SG	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1171:VAL:CG1	5:B:1172:ILE:N	2.71	0.53
5:B:170:LEU:HD12	5:B:171:PRO:CG	2.38	0.53
5:B:233:PRO:HG2	5:B:234:ILE:N	2.23	0.53
5:B:266:ALA:O	5:B:268:THR:HG22	2.08	0.53
5:B:293:PRO:HG2	5:B:296:GLU:CB	2.39	0.53
5:B:452:THR:HG22	5:B:453:ILE:N	2.23	0.53
5:B:744:HIS:CE1	5:B:745:PRO:HD3	2.42	0.53
5:B:752:ALA:O	5:B:754:SER:N	2.40	0.53
6:C:134:ILE:HG22	6:C:134:ILE:O	2.08	0.53
7:E:197:LYS:C	7:E:198:ILE:CG1	2.77	0.53
8:F:135:ARG:CG	8:F:135:ARG:O	2.37	0.53
4:A:1286:LYS:C	4:A:1287:TYR:O	2.46	0.53
4:A:1312:ASN:O	4:A:1316:VAL:HG23	2.08	0.53
4:A:237:THR:CB	4:A:237:THR:N	2.64	0.53
4:A:286:HIS:N	4:A:286:HIS:CB	2.67	0.53
4:A:414:ASP:OD1	4:A:416:ARG:N	2.35	0.53
4:A:681:GLU:HA	4:A:684:ALA:HB3	1.91	0.53
4:A:775:ILE:HB	4:A:797:LYS:O	2.08	0.53
4:A:867:ILE:O	4:A:868:TYR:C	2.40	0.53
5:B:1138:MET:O	5:B:1141:HIS:HB2	2.08	0.53
5:B:1158:PHE:CD1	5:B:1159:ARG:N	2.77	0.53
5:B:1159:ARG:HG2	5:B:1160:VAL:N	2.23	0.53
5:B:1165:ILE:HG22	5:B:1166:CYS:H	1.71	0.53
5:B:1202:LEU:O	5:B:1205:GLN:N	2.41	0.53
5:B:314:LEU:O	5:B:315:LYS:C	2.46	0.53
5:B:555:ILE:HD12	5:B:587:HIS:CE1	2.44	0.53
5:B:568:ASP:OD2	5:B:568:ASP:CB	2.53	0.53
5:B:640:VAL:HG23	5:B:740:HIS:HA	1.90	0.53
5:B:759:PRO:HD2	5:B:760:ASP:N	2.23	0.53
6:C:17:ASN:C	6:C:18:VAL:CG2	2.76	0.53
7:E:14:ARG:NH2	7:E:141:VAL:CG1	2.72	0.53
7:E:170:LEU:HD13	7:E:175:LEU:HD23	1.91	0.53
10:I:36:GLU:CG	10:I:36:GLU:HB2	2.19	0.53
11:J:14:VAL:C	11:J:16:ASP:N	2.59	0.53
3:N:2:DT:C2	3:N:3:DG:O6	2.62	0.53
4:A:899:VAL:CG2	4:A:1029:ARG:CZ	2.87	0.53
4:A:1136:SER:CB	4:A:1206:ASP:OD2	2.57	0.53
4:A:531:ILE:C	4:A:531:ILE:HG13	2.28	0.53
4:A:68:GLN:HE22	4:A:70:CYS:CB	2.21	0.53
4:A:714:PHE:HB2	10:I:97:MET:HE3	1.90	0.53
4:A:800:VAL:CG1	4:A:801:GLU:N	2.70	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:488:TYR:CE2	5:B:813:LYS:HB2	2.43	0.53
6:C:11:ARG:HE	6:C:21:ILE:CD1	2.18	0.53
6:C:196:ASP:C	6:C:198:ALA:N	2.59	0.53
7:E:42:PHE:HZ	7:E:58:MET:CE	2.19	0.53
9:H:33:GLN:O	9:H:35:GLN:N	2.42	0.53
12:K:30:ALA:HB2	12:K:76:GLN:HB2	1.89	0.53
12:K:29:ASN:CB	12:K:77:THR:O	2.56	0.53
4:A:1100:ARG:CZ	4:A:1104:ILE:HD11	2.39	0.53
4:A:1144:LYS:HD2	4:A:1269:GLU:OE2	2.08	0.53
4:A:1100:ARG:NH2	4:A:1351:GLU:HG2	2.23	0.53
4:A:1412:ALA:HA	4:A:1417:GLU:OE2	2.09	0.53
4:A:248:PRO:O	4:A:260:ASP:OD2	2.26	0.53
4:A:262:LEU:O	4:A:266:LEU:N	2.40	0.53
4:A:340:LEU:HD22	4:A:1429:ILE:HG23	1.91	0.53
5:B:1016:ALA:O	5:B:1017:ILE:CG1	2.52	0.53
5:B:1024:ALA:O	5:B:1027:ILE:N	2.42	0.53
5:B:1152:MET:HE2	5:B:1196:ILE:HA	1.90	0.53
5:B:474:SER:C	5:B:476:ARG:H	2.10	0.53
5:B:695:ALA:CB	5:B:696:GLU:H	2.21	0.53
6:C:34:ARG:HA	6:C:37:MET:HE3	1.89	0.53
7:E:196:VAL:N	7:E:212:ARG:O	2.42	0.53
7:E:24:LYS:HG2	7:E:25:ASP:N	2.23	0.53
8:F:81:THR:C	8:F:82:THR:O	2.45	0.53
9:H:145:ARG:HD2	9:H:146:ARG:HE	1.73	0.53
12:K:37:LYS:HA	12:K:69:ALA:O	2.09	0.53
4:A:1139:GLU:O	4:A:1140:HIS:O	2.27	0.53
4:A:1300:LYS:HE2	4:A:1300:LYS:CD	2.20	0.53
4:A:444:PHE:HE2	4:A:470:LEU:HD22	1.68	0.53
4:A:493:GLN:NE2	4:A:493:GLN:CA	2.72	0.53
4:A:562:THR:CG2	4:A:563:PRO:HD3	2.38	0.53
5:B:1030:LEU:HD23	5:B:1055:ILE:HG22	1.91	0.53
5:B:1096:ARG:HH11	5:B:1096:ARG:CG	2.21	0.53
5:B:1191:ILE:O	5:B:1192:TYR:CG	2.62	0.53
5:B:956:THR:HA	5:B:963:PHE:HB2	1.90	0.53
6:C:135:GLN:C	6:C:136:ASP:C	2.68	0.53
7:E:211:TYR:CD1	7:E:211:TYR:N	2.76	0.53
10:I:116:ASN:HD22	10:I:118:ARG:NH2	2.07	0.53
10:I:20:LYS:HB2	10:I:21:GLU:HG3	1.89	0.53
10:I:85:PHE:C	10:I:86:PHE:CD2	2.82	0.53
5:B:800:GLN:HG3	11:J:52:THR:HG22	1.89	0.53
4:A:199:LEU:O	4:A:201:VAL:HG22	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:630:ILE:N	4:A:630:ILE:CD1	2.71	0.53
4:A:829:VAL:C	4:A:831:THR:H	2.12	0.53
5:B:1106:ARG:HH22	5:B:1109:GLY:C	2.10	0.53
4:A:17:VAL:HG22	5:B:1216:LEU:CD2	2.39	0.53
5:B:205:ILE:O	5:B:205:ILE:HG22	2.08	0.53
5:B:423:LYS:NZ	5:B:423:LYS:HG3	2.23	0.53
5:B:431:TYR:CE1	5:B:447:ALA:CB	2.78	0.53
5:B:34:ILE:HD11	5:B:743:ILE:CG2	2.39	0.53
6:C:206:ASN:ND2	6:C:229:TYR:CG	2.76	0.53
6:C:249:ASP:O	6:C:253:LYS:N	2.42	0.53
7:E:14:ARG:CZ	7:E:141:VAL:HG12	2.38	0.53
7:E:204:THR:CG2	7:E:205:SER:CB	2.87	0.53
7:E:82:PHE:N	7:E:82:PHE:CD1	2.77	0.53
11:J:3:VAL:CA	11:J:53:HIS:NE2	2.71	0.53
4:A:1191:TRP:CZ2	4:A:1257:ASP:CG	2.81	0.53
4:A:1237:ILE:C	4:A:1238:ILE:HG12	2.25	0.53
4:A:1273:LEU:O	4:A:1274:ARG:HB3	2.09	0.53
4:A:130:ASP:O	4:A:132:LYS:N	2.41	0.53
4:A:1412:ALA:HA	4:A:1417:GLU:CG	2.40	0.53
4:A:269:ILE:C	4:A:271:LYS:H	2.11	0.53
4:A:415:LEU:HD23	4:A:415:LEU:N	2.24	0.53
4:A:565:ILE:HG23	4:A:567:LYS:HG2	1.91	0.53
4:A:549:MET:SD	4:A:577:ILE:HD13	2.48	0.53
4:A:731:ARG:C	4:A:733:ALA:N	2.61	0.53
4:A:868:TYR:CE2	4:A:1366:ARG:CD	2.91	0.53
5:B:1199:ALA:O	5:B:1200:ALA:C	2.44	0.53
5:B:186:GLU:O	5:B:189:LEU:N	2.37	0.53
5:B:265:SER:O	5:B:266:ALA:HB3	2.08	0.53
5:B:705:MET:C	5:B:706:GLN:O	2.43	0.53
6:C:38:ILE:HG22	6:C:38:ILE:O	2.02	0.53
7:E:116:ILE:O	7:E:118:PRO:HD2	2.07	0.53
10:I:29:CYS:CA	10:I:29:CYS:HB2	2.20	0.53
4:A:714:PHE:CB	10:I:97:MET:HE3	2.39	0.53
11:J:44:TYR:O	11:J:48:ARG:HB3	2.08	0.53
12:K:97:LYS:C	12:K:100:ALA:CB	2.75	0.53
12:K:7:PHE:CA	12:K:10:PHE:CZ	2.91	0.53
4:A:964:ILE:HD11	4:A:1037:LEU:HD11	1.91	0.52
4:A:1131:ALA:HA	4:A:1134:ILE:HD11	1.91	0.52
4:A:1362:TYR:CE1	4:A:1363:VAL:O	2.62	0.52
4:A:207:ILE:O	4:A:210:ILE:HG13	2.09	0.52
4:A:376:TYR:O	4:A:376:TYR:CD2	2.63	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:57:ARG:O	4:A:68:GLN:HG3	2.09	0.52
4:A:84:ILE:CG2	4:A:241:VAL:CG2	2.87	0.52
4:A:993:LEU:C	4:A:995:GLU:H	2.12	0.52
5:B:1153:GLU:C	5:B:1154:ALA:O	2.42	0.52
5:B:447:ALA:CB	5:B:447:ALA:C	2.64	0.52
5:B:477:ALA:CB	5:B:479:VAL:HA	2.36	0.52
5:B:519:TRP:CZ2	5:B:705:MET:HE1	2.44	0.52
7:E:162:ARG:HH22	7:E:166:LYS:HZ2	1.56	0.52
7:E:204:THR:CG2	7:E:205:SER:HB3	2.39	0.52
7:E:85:GLU:HB3	7:E:87:SER:O	2.09	0.52
9:H:45:GLU:OE2	9:H:45:GLU:CG	2.52	0.52
10:I:70:ARG:HG2	10:I:84:VAL:HG23	1.91	0.52
11:J:1:MET:H1	11:J:56:LEU:HB2	1.75	0.52
4:A:1331:SER:OG	4:A:1331:SER:O	2.25	0.52
4:A:1362:TYR:HE1	4:A:1363:VAL:O	1.93	0.52
4:A:1370:LEU:O	4:A:1374:VAL:HG23	2.09	0.52
4:A:276:LEU:HD13	4:A:292:ALA:O	2.07	0.52
4:A:726:ARG:HG2	4:A:727:ASP:OD1	2.10	0.52
5:B:1084:GLN:HG2	6:C:201:TRP:CH2	2.43	0.52
5:B:1103:ILE:CD1	5:B:1103:ILE:N	2.59	0.52
5:B:1130:PHE:HZ	5:B:1138:MET:HG2	1.75	0.52
5:B:431:TYR:CG	5:B:447:ALA:CB	2.93	0.52
6:C:227:THR:HG22	6:C:229:TYR:CE1	2.44	0.52
2:T:18:DA:C2'	2:T:19:DT:C6	2.93	0.52
4:A:1072:ILE:O	4:A:1075:PRO:HD2	2.08	0.52
4:A:1134:ILE:HG22	4:A:1138:ILE:CD1	2.38	0.52
4:A:1345:ARG:O	4:A:1346:ALA:C	2.47	0.52
4:A:1377:THR:C	4:A:1379:GLY:H	2.13	0.52
4:A:137:ALA:O	4:A:138:ILE:C	2.44	0.52
4:A:287:HIS:O	4:A:288:ALA:HB2	2.09	0.52
4:A:518:LYS:CG	4:A:519:PRO:HD2	2.39	0.52
4:A:51:GLY:HA2	4:A:56:PRO:CG	2.39	0.52
4:A:95:PHE:O	4:A:96:ILE:O	2.27	0.52
5:B:1035:ALA:O	5:B:1036:ALA:C	2.48	0.52
5:B:114:PRO:CG	5:B:181:LEU:HD11	2.38	0.52
5:B:658:ILE:CA	5:B:661:LEU:HD12	2.21	0.52
7:E:15:ALA:O	7:E:19:VAL:CG2	2.57	0.52
12:K:57:LEU:CB	12:K:57:LEU:CD2	2.84	0.52
12:K:7:PHE:HA	12:K:10:PHE:CE2	2.44	0.52
1:R:5:A:H2'	1:R:6:G:H8	1.70	0.52
4:A:1353:TYR:O	4:A:1355:VAL:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1353:TYR:O	4:A:1356:ILE:N	2.43	0.52
4:A:321:PRO:CD	4:A:322:VAL:CG1	2.79	0.52
4:A:639:PRO:O	4:A:640:GLN:C	2.47	0.52
4:A:783:THR:HG22	4:A:784:LEU:HG	1.90	0.52
4:A:800:VAL:HA	4:A:812:GLU:HG2	1.92	0.52
5:B:1006:ILE:HG23	5:B:1007:VAL:N	2.25	0.52
5:B:1084:GLN:C	5:B:1085:ILE:HG13	2.25	0.52
5:B:1096:ARG:HG3	5:B:1097:HIS:N	2.18	0.52
4:A:1409:LEU:HD13	5:B:1207:LEU:HD21	1.89	0.52
5:B:987:LYS:HE3	16:B:1308:ATP:O3G	2.10	0.52
5:B:555:ILE:O	5:B:558:LEU:HB2	2.10	0.52
5:B:759:PRO:HD2	5:B:760:ASP:H	1.73	0.52
7:E:147:HIS:O	7:E:149:LEU:N	2.43	0.52
8:F:155:LEU:CD1	8:F:155:LEU:CD2	2.85	0.52
9:H:49:VAL:HG13	9:H:50:ALA:N	2.24	0.52
10:I:85:PHE:C	10:I:86:PHE:CG	2.78	0.52
12:K:47:ARG:C	12:K:47:ARG:HH11	2.12	0.52
12:K:83:PRO:O	12:K:86:ALA:CB	2.57	0.52
4:A:893:PHE:CZ	4:A:937:VAL:HG22	2.43	0.52
5:B:1102:LYS:HB2	5:B:1103:ILE:CD1	2.38	0.52
5:B:1135:ARG:HG2	5:B:1139:ILE:HD11	1.92	0.52
5:B:315:LYS:HB2	5:B:315:LYS:CA	2.19	0.52
5:B:597:MET:O	5:B:598:GLU:C	2.48	0.52
5:B:947:GLY:C	5:B:948:ILE:CG1	2.78	0.52
6:C:66:ARG:HB3	11:J:5:VAL:HG21	1.92	0.52
10:I:35:VAL:O	10:I:36:GLU:CB	2.58	0.52
10:I:59:VAL:O	10:I:62:ILE:N	2.34	0.52
13:L:60:ARG:CG	13:L:61:THR:N	2.72	0.52
4:A:1079:MET:HB3	4:A:1359:ASP:OD2	2.10	0.52
4:A:1137:ALA:HB3	4:A:1138:ILE:HD13	1.92	0.52
4:A:1305:VAL:HG12	4:A:1306:LEU:N	2.23	0.52
4:A:239:LEU:O	4:A:240:PRO:O	2.27	0.52
4:A:780:VAL:C	4:A:782:ARG:N	2.57	0.52
4:A:855:THR:HG23	4:A:857:ARG:HG3	1.91	0.52
4:A:87:ALA:CB	4:A:87:ALA:N	2.69	0.52
5:B:315:LYS:HB3	5:B:315:LYS:CA	2.19	0.52
8:F:109:VAL:CG2	8:F:124:GLU:HG2	2.39	0.52
9:H:95:TYR:OH	9:H:97:MET:SD	2.57	0.52
12:K:32:VAL:O	12:K:32:VAL:CG1	2.57	0.52
4:A:1156:PRO:CG	4:A:1157:ASP:N	2.72	0.52
4:A:496:GLU:O	4:A:497:THR:C	2.46	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:70:CYS:C	4:A:71:GLN:CG	2.78	0.52
4:A:718:VAL:O	4:A:721:PHE:N	2.43	0.52
4:A:850:VAL:HG22	4:A:868:TYR:HB2	1.92	0.52
4:A:900:ASP:C	4:A:926:GLN:NE2	2.63	0.52
5:B:24:PRO:HG2	5:B:24:PRO:O	2.08	0.52
5:B:330:ALA:C	5:B:332:ASP:N	2.62	0.52
6:C:191:TYR:HB3	6:C:201:TRP:HE1	1.74	0.52
7:E:23:VAL:CG1	7:E:28:TYR:HD1	2.22	0.52
9:H:38:LEU:CB	9:H:38:LEU:CD1	2.83	0.52
9:H:95:TYR:HE2	9:H:97:MET:CG	2.21	0.52
10:I:60:GLN:HE22	10:I:107:SER:HB2	1.75	0.52
10:I:109:ILE:CG2	10:I:110:PHE:N	2.72	0.52
10:I:27:PHE:O	10:I:28:GLU:CB	2.50	0.52
12:K:71:PHE:C	12:K:71:PHE:HD1	2.13	0.52
3:N:2:DT:O3'	3:N:3:DG:P	2.67	0.52
4:A:1159:ARG:O	4:A:1160:SER:CB	2.50	0.52
4:A:241:VAL:CG1	4:A:242:PRO:HD2	2.40	0.52
4:A:512:VAL:HA	4:A:519:PRO:HA	1.92	0.52
5:B:112:LEU:O	5:B:180:TYR:HE1	1.93	0.52
5:B:245:GLU:OE1	5:B:551:PRO:HG2	2.10	0.52
5:B:556:THR:HG22	5:B:557:PHE:H	1.75	0.52
5:B:646:LEU:HD11	5:B:646:LEU:HD21	1.90	0.52
5:B:660:LYS:O	5:B:663:ALA:HB2	2.01	0.52
5:B:773:MET:O	5:B:774:GLY:C	2.47	0.52
5:B:853:SER:O	5:B:854:LEU:HD23	2.10	0.52
6:C:196:ASP:HB3	6:C:199:LYS:H	1.74	0.52
6:C:260:LEU:HD12	6:C:264:GLN:HG2	1.92	0.52
7:E:179:GLN:HB3	7:E:182:ASP:HB2	1.92	0.52
7:E:181:ALA:O	7:E:186:LEU:HD11	2.10	0.52
8:F:144:GLU:O	8:F:146:TRP:HD1	1.91	0.52
9:H:84:ALA:HA	9:H:86:ASP:C	2.30	0.52
10:I:55:THR:HG23	10:I:58:VAL:HG23	1.89	0.52
4:A:1325:THR:CG2	4:A:1326:ARG:CG	2.88	0.52
4:A:135:PHE:CD1	4:A:222:LEU:CB	2.89	0.52
4:A:18:GLN:O	4:A:19:PHE:O	2.27	0.52
4:A:348:SER:O	4:A:349:ALA:HB2	2.09	0.52
4:A:382:PRO:O	4:A:383:TYR:C	2.47	0.52
4:A:550:LEU:HB3	4:A:556:TRP:CE2	2.45	0.52
4:A:557:ASP:HA	12:K:26:LYS:HE3	1.90	0.52
4:A:634:THR:O	4:A:634:THR:HG22	2.08	0.52
4:A:938:LYS:HE2	4:A:938:LYS:CD	2.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1147:LEU:HD22	5:B:1151:LEU:HD22	1.92	0.52
5:B:200:GLY:HA2	5:B:202:TYR:HE2	1.72	0.52
5:B:521:LEU:HD23	5:B:635:ARG:HD3	1.92	0.52
5:B:704:ALA:HB1	5:B:710:LEU:HD12	1.91	0.52
5:B:893:LEU:HD22	5:B:897:GLY:HA2	1.92	0.52
7:E:157:SER:O	7:E:160:GLU:N	2.43	0.52
7:E:165:LEU:CD2	7:E:165:LEU:N	2.67	0.52
10:I:104:LEU:HD23	10:I:104:LEU:N	2.01	0.52
6:C:57:VAL:HB	11:J:57:ILE:HD11	1.92	0.52
11:J:64:ASN:HB3	11:J:65:PRO:CD	2.40	0.52
12:K:59:ALA:HA	12:K:74:ARG:O	2.10	0.52
12:K:78:THR:HG23	12:K:79:GLU:N	2.24	0.52
4:A:1127:ASP:CB	4:A:1130:GLN:H	2.23	0.52
4:A:1209:MET:O	4:A:1212:VAL:CB	2.53	0.52
4:A:1213:GLY:HA2	4:A:1216:ILE:HD12	1.92	0.52
4:A:1385:THR:HB	4:A:1385:THR:CG2	2.18	0.52
4:A:670:ILE:O	4:A:671:ALA:HB2	2.10	0.52
4:A:744:LYS:HG2	4:A:748:MET:HE2	1.92	0.52
4:A:889:SER:HB2	4:A:892:ALA:N	2.19	0.52
5:B:310:MET:CB	5:B:310:MET:CE	2.88	0.52
5:B:34:ILE:H	5:B:34:ILE:HD13	1.72	0.52
5:B:642:ASP:N	5:B:642:ASP:OD1	2.43	0.52
5:B:658:ILE:HA	5:B:661:LEU:CD1	2.22	0.52
8:F:128:LYS:HD2	8:F:148:VAL:O	2.09	0.52
9:H:22:LYS:O	9:H:23:VAL:HG23	2.10	0.52
9:H:34:ASP:CB	9:H:34:ASP:N	2.64	0.52
9:H:76:THR:HG23	9:H:77:ARG:HH22	1.75	0.52
10:I:29:CYS:CB	10:I:29:CYS:N	2.70	0.52
10:I:34:TYR:HE2	10:I:36:GLU:HG2	1.75	0.52
5:B:308:TRP:CZ3	10:I:45:ARG:HB3	2.45	0.52
4:A:1148:ILE:HD11	4:A:1198:ASP:HB2	1.92	0.51
4:A:1225:PHE:O	4:A:1226:VAL:CG2	2.57	0.51
4:A:1305:VAL:CG1	4:A:1306:LEU:N	2.72	0.51
4:A:1386:ARG:C	4:A:1387:HIS:ND1	2.63	0.51
4:A:247:ARG:HH11	4:A:263:THR:CG2	2.18	0.51
4:A:500:GLU:OE1	5:B:1145:SER:N	2.42	0.51
4:A:68:GLN:OE1	4:A:70:CYS:HB2	2.10	0.51
4:A:901:LEU:HD22	4:A:907:THR:HG21	1.84	0.51
4:A:91:PHE:CB	4:A:297:GLN:OE1	2.58	0.51
5:B:1106:ARG:NH2	5:B:1109:GLY:N	2.51	0.51
5:B:588:GLY:C	5:B:589:VAL:HG23	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:652:LYS:C	5:B:653:VAL:O	2.47	0.51
6:C:180:TYR:O	6:C:181:ASP:CB	2.55	0.51
6:C:79:GLN:HE21	6:C:127:ARG:HB3	1.75	0.51
9:H:104:PHE:CE2	9:H:136:LYS:HA	2.44	0.51
9:H:109:LYS:HB3	9:H:110:ASP:CB	2.40	0.51
10:I:26:LEU:HD21	10:I:36:GLU:O	2.04	0.51
12:K:99:GLY:O	12:K:100:ALA:C	2.46	0.51
4:A:1094:VAL:HG12	4:A:1095:THR:N	2.26	0.51
4:A:1146:VAL:CG1	4:A:1201:ALA:HB3	2.41	0.51
4:A:13:THR:CG2	4:A:15:LYS:HE3	2.40	0.51
4:A:18:GLN:C	4:A:19:PHE:O	2.47	0.51
5:B:565:PRO:O	5:B:565:PRO:CD	2.54	0.51
5:B:59:LEU:HD21	5:B:95:ILE:HD13	1.91	0.51
5:B:707:PRO:CG	5:B:708:GLU:N	2.72	0.51
5:B:34:ILE:HD12	5:B:743:ILE:HG21	1.92	0.51
5:B:806:THR:HB	5:B:809:MET:CE	2.39	0.51
6:C:240:VAL:O	6:C:243:VAL:N	2.43	0.51
8:F:96:THR:O	8:F:96:THR:HG22	2.09	0.51
9:H:103:LYS:N	9:H:115:TYR:HB2	2.20	0.51
10:I:17:ARG:O	10:I:26:LEU:N	2.43	0.51
11:J:5:VAL:HG12	11:J:6:ARG:N	2.24	0.51
12:K:105:PHE:C	12:K:107:THR:H	2.12	0.51
13:L:60:ARG:CG	13:L:61:THR:H	2.23	0.51
2:T:20:DC:H4'	4:A:447:GLN:HE22	1.68	0.51
4:A:1195:LEU:CD1	4:A:1267:MET:CE	2.76	0.51
4:A:1331:SER:HG	4:A:1333:ILE:CG2	2.10	0.51
4:A:1067:LEU:CD2	4:A:1367:HIS:CE1	2.86	0.51
4:A:1397:LEU:O	4:A:1398:MET:C	2.44	0.51
4:A:235:ILE:N	4:A:235:ILE:HD12	2.25	0.51
4:A:391:LEU:O	4:A:394:ASN:N	2.43	0.51
4:A:607:ILE:CG1	4:A:607:ILE:CG2	2.78	0.51
4:A:645:LEU:HD12	4:A:645:LEU:C	2.29	0.51
4:A:849:MET:HG3	4:A:849:MET:O	2.10	0.51
4:A:899:VAL:C	4:A:926:GLN:HE22	2.13	0.51
5:B:541:LEU:HB2	5:B:747:MET:HE3	1.92	0.51
5:B:600:LEU:HB3	5:B:615:MET:HE3	1.91	0.51
5:B:644:GLU:O	5:B:645:SER:O	2.28	0.51
5:B:866:TYR:HB3	5:B:866:TYR:CG	2.24	0.51
5:B:953:LEU:O	5:B:964:VAL:HA	2.11	0.51
6:C:205:LYS:CD	6:C:205:LYS:HE2	2.17	0.51
6:C:244:VAL:O	6:C:248:ILE:HG13	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1017:LEU:HB3	7:E:205:SER:HA	1.93	0.51
7:E:87:SER:C	7:E:88:VAL:HG23	2.30	0.51
8:F:93:ILE:HD11	8:F:134:ILE:HD11	1.92	0.51
10:I:17:ARG:O	10:I:25:LEU:CD1	2.48	0.51
10:I:77:LYS:HE2	10:I:77:LYS:CD	2.18	0.51
1:R:5:A:N1	1:R:6:G:C5	2.74	0.51
4:A:100:LYS:NZ	4:A:100:LYS:CB	2.72	0.51
4:A:1013:ASP:OD2	4:A:1013:ASP:CB	2.54	0.51
4:A:1074:GLU:CB	4:A:1075:PRO:CD	2.85	0.51
4:A:1074:GLU:O	4:A:1078:GLN:HG2	2.09	0.51
4:A:1228:TRP:HA	4:A:1237:ILE:O	2.10	0.51
4:A:1399:ARG:NH2	4:A:1417:GLU:OE1	2.43	0.51
4:A:284:ALA:CB	4:A:284:ALA:C	2.73	0.51
4:A:326:ARG:HE	4:A:1406:VAL:HG11	1.75	0.51
4:A:670:ILE:HD13	4:A:805:LEU:HD21	1.92	0.51
4:A:815:PHE:O	4:A:818:MET:N	2.43	0.51
4:A:896:ARG:C	4:A:897:TYR:HD1	2.14	0.51
5:B:45:SER:O	5:B:47:GLN:N	2.43	0.51
5:B:620:ARG:NH2	10:I:89:GLN:NE2	2.59	0.51
5:B:738:PHE:C	5:B:739:THR:CG2	2.72	0.51
5:B:984:HIS:CD2	5:B:1025:HIS:N	2.78	0.51
6:C:239:PRO:O	6:C:240:VAL:C	2.47	0.51
4:A:783:THR:O	4:A:784:LEU:HD23	2.10	0.51
4:A:942:PHE:C	4:A:942:PHE:HD2	2.14	0.51
5:B:101:MET:C	5:B:102:VAL:HG22	2.27	0.51
5:B:195:CYS:SG	5:B:196:PRO:HD2	2.50	0.51
5:B:247:GLY:O	5:B:248:SER:CB	2.58	0.51
5:B:275:TYR:HB2	5:B:275:TYR:CG	2.25	0.51
5:B:333:PHE:O	5:B:333:PHE:HD1	1.91	0.51
5:B:878:GLN:O	5:B:879:ARG:CG	2.58	0.51
7:E:7:ARG:C	7:E:9:ILE:H	2.14	0.51
8:F:101:ILE:CG2	8:F:120:ILE:HG21	2.39	0.51
8:F:109:VAL:HG22	8:F:124:GLU:HG2	1.92	0.51
10:I:15:TYR:CB	10:I:16:PRO:CD	2.84	0.51
11:J:5:VAL:HG12	11:J:6:ARG:HG3	1.91	0.51
4:A:1019:CYS:O	4:A:1020:CYS:C	2.48	0.51
4:A:1327:ILE:O	4:A:1327:ILE:CG2	2.59	0.51
4:A:1338:VAL:HG12	4:A:1339:LEU:HD23	1.92	0.51
4:A:1383:SER:OG	4:A:1388:GLY:HA3	2.11	0.51
4:A:218:ASP:O	4:A:219:PHE:C	2.48	0.51
4:A:302:THR:CB	4:A:313:GLN:HE22	2.23	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:474:VAL:HG22	4:A:474:VAL:O	2.09	0.51
4:A:606:LEU:HD22	4:A:614:PHE:CE2	2.46	0.51
4:A:648:ASN:OD1	4:A:648:ASN:N	2.42	0.51
4:A:928:LEU:O	4:A:930:ASP:N	2.44	0.51
5:B:174:LEU:HD22	5:B:204:ILE:CD1	2.22	0.51
5:B:247:GLY:O	5:B:248:SER:HB2	2.11	0.51
5:B:254:LEU:HD22	5:B:361:LEU:CD1	2.22	0.51
5:B:258:LEU:O	5:B:259:TYR:C	2.48	0.51
9:H:56:THR:CG2	9:H:57:VAL:N	2.73	0.51
12:K:87:LEU:C	12:K:90:ALA:HB3	2.25	0.51
4:A:23:SER:HB2	4:A:25:GLU:HB2	1.91	0.51
4:A:250:ILE:CA	4:A:250:ILE:CG2	2.83	0.51
2:T:20:DC:C4'	4:A:447:GLN:NE2	2.64	0.51
4:A:513:SER:O	4:A:513:SER:OG	2.23	0.51
4:A:694:THR:O	4:A:695:LYS:C	2.46	0.51
4:A:893:PHE:CG	4:A:893:PHE:O	2.61	0.51
4:A:985:ASP:O	4:A:986:ILE:C	2.48	0.51
5:B:329:THR:O	5:B:332:ASP:HB2	2.11	0.51
5:B:258:LEU:HB2	5:B:385:LEU:HD21	1.92	0.51
6:C:46:ILE:HA	6:C:159:ALA:HA	1.92	0.51
7:E:13:TRP:O	7:E:16:PHE:CB	2.57	0.51
7:E:54:GLN:O	7:E:55:ARG:C	2.48	0.51
8:F:100:GLN:O	8:F:101:ILE:C	2.46	0.51
9:H:47:PHE:CE1	9:H:48:PRO:O	2.64	0.51
9:H:93:TYR:CE1	9:H:143:LEU:HD13	2.46	0.51
4:A:1020:CYS:O	4:A:1021:LEU:C	2.43	0.51
4:A:1081:LEU:CD1	4:A:1081:LEU:CD2	2.85	0.51
4:A:1151:GLU:C	4:A:1152:ILE:HD12	2.31	0.51
4:A:1285:MET:SD	4:A:1285:MET:CE	2.99	0.51
4:A:35:ILE:O	4:A:35:ILE:CG2	2.57	0.51
4:A:506:ALA:O	4:A:508:PRO:HD2	2.10	0.51
4:A:889:SER:HB3	4:A:891:ALA:CB	2.32	0.51
5:B:1158:PHE:CE2	5:B:1160:VAL:HG22	2.46	0.51
5:B:660:LYS:CA	5:B:663:ALA:HB2	2.41	0.51
5:B:402:GLY:HA2	5:B:695:ALA:CB	2.41	0.51
5:B:816:GLU:N	5:B:818:PRO:HD3	2.26	0.51
5:B:910:VAL:HB	5:B:910:VAL:CG1	2.20	0.51
6:C:174:ALA:O	6:C:175:ALA:CB	2.54	0.51
6:C:174:ALA:O	6:C:175:ALA:HB2	2.10	0.51
9:H:79:TRP:C	9:H:80:ARG:O	2.44	0.51
10:I:98:VAL:HG12	10:I:99:LEU:N	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1116:LEU:CD2	4:A:1311:VAL:HA	2.41	0.51
4:A:1134:ILE:O	4:A:1138:ILE:CG1	2.36	0.51
4:A:139:TRP:O	4:A:142:CYS:N	2.43	0.51
4:A:237:THR:CG2	4:A:237:THR:HB	2.21	0.51
4:A:268:ASP:HB3	4:A:299:HIS:CG	2.46	0.51
4:A:528:LEU:HB2	4:A:531:ILE:CG2	2.22	0.51
4:A:526:ASP:O	4:A:528:LEU:N	2.44	0.51
4:A:84:ILE:HG22	4:A:241:VAL:HG23	1.93	0.51
4:A:896:ARG:HD2	4:A:897:TYR:HE1	1.76	0.51
5:B:1170:THR:HG22	5:B:1183:LYS:HZ3	1.72	0.51
5:B:1180:PHE:O	5:B:1181:GLU:C	2.49	0.51
5:B:227:LYS:CA	5:B:395:GLN:OE1	2.57	0.51
5:B:485:ARG:NH1	5:B:485:ARG:CG	2.52	0.51
5:B:730:ARG:C	5:B:731:VAL:HG23	2.29	0.51
5:B:973:ILE:CG2	5:B:974:PRO:CD	2.87	0.51
10:I:113:ASP:OD1	10:I:113:ASP:C	2.49	0.51
12:K:34:THR:CG2	12:K:35:PHE:N	2.74	0.51
12:K:32:VAL:HG21	12:K:74:ARG:HG3	1.92	0.51
4:A:1111:MET:HB2	4:A:1111:MET:HE3	1.93	0.51
4:A:1127:ASP:O	4:A:1130:GLN:N	2.43	0.51
4:A:315:LEU:CD1	4:A:319:GLY:HA2	2.41	0.51
4:A:451:HIS:HB3	4:A:453:MET:HB2	1.92	0.51
4:A:464:PRO:HG2	4:A:465:TYR:CD1	2.44	0.51
4:A:496:GLU:O	4:A:499:ALA:CA	2.55	0.51
4:A:714:PHE:CG	10:I:97:MET:CE	2.94	0.51
4:A:972:HIS:HA	4:A:972:HIS:CB	2.24	0.51
5:B:1001:PHE:CE2	6:C:34:ARG:CZ	2.94	0.51
5:B:1017:ILE:HB	5:B:1018:PRO:CD	2.40	0.51
5:B:1131:GLY:C	5:B:1133:MET:N	2.65	0.51
5:B:236:HIS:C	5:B:237:VAL:CG2	2.79	0.51
5:B:292:ILE:HD12	5:B:326:ASP:HA	1.92	0.51
5:B:431:TYR:CD1	5:B:447:ALA:HB1	2.46	0.51
5:B:640:VAL:HG12	5:B:640:VAL:O	2.10	0.51
5:B:753:ALA:O	5:B:755:ILE:N	2.44	0.51
5:B:957:ASN:C	5:B:957:ASN:HD22	2.13	0.51
5:B:770:GLN:CD	5:B:983:ARG:HA	2.30	0.51
7:E:13:TRP:CD2	7:E:39:LEU:HD13	2.45	0.51
9:H:125:LEU:HA	9:H:125:LEU:HD12	1.91	0.51
9:H:145:ARG:O	9:H:146:ARG:HB2	2.11	0.51
10:I:56:ALA:O	10:I:58:VAL:CG2	2.58	0.51
10:I:85:PHE:O	10:I:86:PHE:CB	2.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:J:64:ASN:HB3	11:J:65:PRO:CG	2.41	0.51
12:K:37:LYS:C	12:K:38:GLU:HG2	2.31	0.51
12:K:63:VAL:O	12:K:64:GLU:C	2.48	0.51
2:T:22:DT:H73	2:T:22:DT:OP2	2.10	0.51
4:A:1193:LEU:HD11	4:A:1195:LEU:HD21	1.92	0.50
4:A:144:THR:O	4:A:146:MET:CE	2.59	0.50
4:A:336:ILE:CG2	4:A:337:ARG:N	2.68	0.50
4:A:545:GLN:O	4:A:549:MET:HG3	2.11	0.50
4:A:566:ILE:HG22	4:A:566:ILE:O	2.11	0.50
4:A:845:LEU:O	4:A:847:ASP:N	2.44	0.50
4:A:666:ILE:CA	5:B:1026:LEU:HD13	2.30	0.50
5:B:38:PHE:CE2	5:B:43:LEU:HD21	2.47	0.50
5:B:458:LYS:O	5:B:462:ALA:HB2	2.10	0.50
5:B:491:THR:O	5:B:492:LEU:C	2.44	0.50
5:B:706:GLN:CG	5:B:706:GLN:NE2	2.65	0.50
5:B:781:PHE:CE1	5:B:782:LEU:HD12	2.46	0.50
6:C:251:LEU:O	6:C:252:GLN:C	2.50	0.50
8:F:117:PRO:HG2	8:F:118:LEU:N	2.26	0.50
4:A:567:LYS:HE2	9:H:95:TYR:CE2	2.46	0.50
5:B:322:PHE:CZ	10:I:30:ARG:HD3	2.45	0.50
6:C:57:VAL:HG11	11:J:60:PHE:HB2	1.92	0.50
4:A:1227:ILE:HD12	4:A:1239:ARG:HB2	1.92	0.50
4:A:464:PRO:O	4:A:464:PRO:CG	2.53	0.50
4:A:675:THR:O	4:A:679:ILE:N	2.42	0.50
4:A:733:ALA:O	4:A:734:GLU:C	2.49	0.50
4:A:863:VAL:HB	4:A:863:VAL:CG1	2.22	0.50
5:B:423:LYS:C	5:B:425:THR:H	2.14	0.50
5:B:792:MET:O	5:B:793:ALA:HB2	2.10	0.50
5:B:959:ASP:HB2	5:B:961:LEU:HG	1.93	0.50
5:B:994:TYR:HB2	5:B:999:MET:CE	2.41	0.50
6:C:240:VAL:O	6:C:241:ASP:C	2.49	0.50
6:C:73:GLN:HG3	6:C:75:MET:H	1.76	0.50
7:E:117:THR:C	7:E:117:THR:N	2.63	0.50
7:E:12:LEU:HD23	7:E:42:PHE:HZ	1.76	0.50
7:E:106:GLN:O	7:E:130:ALA:HB1	2.11	0.50
7:E:197:LYS:HG2	7:E:198:ILE:N	2.25	0.50
7:E:29:PHE:N	7:E:63:ASN:O	2.41	0.50
1:R:5:A:C2'	1:R:6:G:O4'	2.60	0.50
4:A:211:PHE:C	4:A:213:HIS:H	2.14	0.50
4:A:276:LEU:CD2	4:A:292:ALA:O	2.59	0.50
4:A:356:ASP:CB	4:A:469:ARG:HH11	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:522:GLY:CA	4:A:523:ILE:HD12	2.42	0.50
4:A:685:GLU:O	4:A:686:ALA:C	2.49	0.50
4:A:754:SER:CB	4:A:757:ASN:HD22	2.24	0.50
5:B:1146:PHE:C	5:B:1146:PHE:CD2	2.84	0.50
4:A:304:MET:HG2	5:B:1210:MET:CG	2.41	0.50
5:B:368:GLU:CG	5:B:368:GLU:HB2	2.19	0.50
5:B:63:ILE:CG1	5:B:421:PHE:CE2	2.93	0.50
5:B:795:ILE:HG22	5:B:796:LEU:N	2.25	0.50
6:C:16:ASP:HA	6:C:240:VAL:CG2	2.41	0.50
6:C:77:ILE:HA	6:C:129:ILE:HD11	1.93	0.50
12:K:46:ILE:O	12:K:50:LEU:HD12	2.12	0.50
4:A:834:THR:HB	4:A:1077:THR:HG23	1.93	0.50
4:A:1131:ALA:HA	4:A:1134:ILE:CD1	2.42	0.50
4:A:1141:THR:HG23	4:A:1205:LYS:HD2	1.93	0.50
4:A:265:LYS:NZ	4:A:323:LYS:CD	2.73	0.50
4:A:423:ASP:O	4:A:424:ILE:O	2.29	0.50
4:A:493:GLN:HE21	4:A:493:GLN:CA	2.24	0.50
4:A:546:VAL:HB	4:A:546:VAL:CG1	2.16	0.50
4:A:878:ILE:O	4:A:879:GLU:CB	2.54	0.50
4:A:898:ARG:CA	4:A:898:ARG:CG	2.78	0.50
4:A:902:LEU:HD21	4:A:926:GLN:CB	2.39	0.50
4:A:997:LEU:HD13	4:A:1053:PHE:CD1	2.47	0.50
5:B:784:ASN:C	5:B:786:ASN:N	2.56	0.50
6:C:167:HIS:CG	6:C:168:ALA:H	2.28	0.50
6:C:33:LEU:O	6:C:35:ARG:N	2.44	0.50
9:H:99:GLY:O	9:H:138:GLU:O	2.29	0.50
10:I:13:MET:O	10:I:15:TYR:HE1	1.94	0.50
13:L:36:SER:OG	13:L:38:LEU:CD1	2.59	0.50
4:A:1061:GLY:O	4:A:1062:GLU:C	2.48	0.50
4:A:10:PRO:O	5:B:1193:GLN:CB	2.59	0.50
4:A:1394:THR:CG2	4:A:1395:GLY:O	2.60	0.50
4:A:550:LEU:O	4:A:551:TYR:C	2.49	0.50
4:A:834:THR:O	4:A:837:ILE:HB	2.11	0.50
4:A:873:MET:CG	4:A:873:MET:CE	2.90	0.50
5:B:265:SER:O	5:B:266:ALA:C	2.50	0.50
5:B:491:THR:O	5:B:492:LEU:O	2.29	0.50
5:B:636:PRO:HB2	5:B:743:ILE:HG12	1.94	0.50
6:C:266:ASP:CA	6:C:267:GLN:N	2.65	0.50
4:A:789:LYS:HD2	10:I:67:THR:OG1	2.12	0.50
4:A:1067:LEU:O	4:A:1067:LEU:HG	1.76	0.50
4:A:1286:LYS:O	4:A:1286:LYS:CG	2.52	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1441:PHE:HZ	8:F:88:TYR:C	2.14	0.50
4:A:151:ASP:OD1	4:A:163:SER:CB	2.59	0.50
4:A:276:LEU:CD1	4:A:292:ALA:HB1	2.42	0.50
4:A:391:LEU:C	4:A:393:ARG:N	2.63	0.50
4:A:475:THR:O	4:A:478:TYR:N	2.36	0.50
4:A:91:PHE:H	4:A:297:GLN:CD	2.13	0.50
5:B:733:HIS:C	5:B:733:HIS:N	2.57	0.50
7:E:78:LEU:CB	7:E:107:THR:CG2	2.78	0.50
8:F:147:SER:OG	8:F:150:GLU:CG	2.60	0.50
9:H:129:TYR:C	9:H:131:ASN:N	2.64	0.50
9:H:47:PHE:CD2	9:H:95:TYR:HB2	2.47	0.50
12:K:83:PRO:HA	12:K:86:ALA:HB2	1.91	0.50
4:A:1141:THR:CG2	4:A:1205:LYS:CD	2.89	0.50
4:A:1394:THR:HG22	4:A:1395:GLY:N	2.27	0.50
4:A:175:ARG:O	4:A:181:LEU:HA	2.12	0.50
4:A:20:GLY:O	5:B:1213:THR:HG23	2.11	0.50
4:A:274:ILE:CA	4:A:274:ILE:CG1	2.87	0.50
4:A:406:ILE:HD13	4:A:431:LYS:HB2	1.92	0.50
4:A:482:PHE:O	5:B:837:ASP:O	2.29	0.50
4:A:614:PHE:HD1	4:A:614:PHE:C	2.12	0.50
5:B:640:VAL:HG12	5:B:650:GLU:O	2.11	0.50
7:E:59:SER:HB3	7:E:81:GLU:CB	2.42	0.50
7:E:82:PHE:N	7:E:82:PHE:HD1	2.09	0.50
8:F:83:PRO:HG2	8:F:84:TYR:HD1	1.77	0.50
11:J:36:LEU:O	11:J:39:LEU:N	2.45	0.50
4:A:1340:GLY:CA	7:E:183:PRO:HG2	2.41	0.50
4:A:1397:LEU:O	4:A:1398:MET:O	2.30	0.50
4:A:1420:ASP:O	4:A:1421:CYS:CB	2.57	0.50
4:A:169:ASN:H	4:A:169:ASN:ND2	2.10	0.50
4:A:679:ILE:O	4:A:680:THR:C	2.45	0.50
4:A:740:LEU:N	4:A:740:LEU:CD2	2.75	0.50
5:B:102:VAL:HG21	5:B:112:LEU:HD22	1.94	0.50
5:B:195:CYS:CB	5:B:782:LEU:CD2	2.89	0.50
5:B:361:LEU:O	5:B:363:HIS:O	2.29	0.50
5:B:497:ARG:CG	5:B:497:ARG:HE	2.22	0.50
5:B:739:THR:OG1	5:B:740:HIS:ND1	2.35	0.50
5:B:93:GLY:O	5:B:94:LYS:C	2.51	0.50
5:B:957:ASN:CB	5:B:961:LEU:HD12	2.25	0.50
6:C:166:GLU:O	6:C:167:HIS:CB	2.59	0.50
6:C:62:PHE:CD2	6:C:62:PHE:C	2.83	0.50
7:E:111:VAL:O	7:E:111:VAL:HG13	2.09	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:124:VAL:HG12	7:E:125:PRO:CD	2.42	0.50
7:E:16:PHE:O	7:E:19:VAL:HG23	2.12	0.50
7:E:69:ILE:C	7:E:73:PRO:HD3	2.27	0.50
7:E:98:ILE:CA	7:E:98:ILE:CG2	2.84	0.50
9:H:63:LEU:CB	9:H:63:LEU:CD1	2.86	0.50
10:I:8:ARG:O	10:I:9:ASP:C	2.50	0.50
1:R:8:G:C2	2:T:22:DT:N3	2.79	0.50
4:A:1025:ARG:CG	4:A:1025:ARG:NH1	2.60	0.50
4:A:1277:GLU:HG3	4:A:1278:ASN:HD22	1.75	0.50
4:A:1372:VAL:O	4:A:1373:ASP:C	2.46	0.50
4:A:1372:VAL:HG12	4:A:1373:ASP:N	2.27	0.50
4:A:262:LEU:HG	4:A:328:ARG:NH2	2.26	0.50
4:A:41:MET:HA	4:A:49:LYS:O	2.11	0.50
4:A:664:THR:CG2	4:A:665:GLY:N	2.75	0.50
4:A:743:VAL:O	4:A:747:VAL:CG2	2.53	0.50
4:A:90:VAL:HG12	4:A:91:PHE:N	2.26	0.50
4:A:964:ILE:CG2	4:A:965:GLN:N	2.75	0.50
4:A:908:LEU:CD1	4:A:983:ILE:HD11	2.23	0.50
5:B:174:LEU:HD12	5:B:179:CYS:HG	1.77	0.50
5:B:222:ILE:O	5:B:240:ILE:HA	2.11	0.50
5:B:270:LYS:HE3	5:B:281:PRO:HG3	1.93	0.50
5:B:512:ARG:HB3	5:B:533:CYS:O	2.11	0.50
5:B:865:LYS:C	5:B:865:LYS:CB	2.75	0.50
6:C:67:LEU:C	6:C:69:LEU:H	2.15	0.50
7:E:157:SER:C	7:E:159:ASP:N	2.66	0.50
7:E:60:PHE:CZ	7:E:80:VAL:HG21	2.40	0.50
9:H:25:ARG:O	9:H:26:ILE:HD12	2.11	0.50
4:A:1153:TYR:CE1	10:I:42:LEU:HD22	2.46	0.50
4:A:1035:TYR:O	4:A:1037:LEU:HD23	2.12	0.49
4:A:1064:VAL:O	4:A:1067:LEU:N	2.45	0.49
4:A:1173:HIS:C	4:A:1173:HIS:CB	2.71	0.49
4:A:1209:MET:O	4:A:1213:GLY:N	2.41	0.49
4:A:1221:LYS:CG	4:A:1221:LYS:CE	2.80	0.49
4:A:1261:LYS:H	4:A:1263:ILE:H	1.60	0.49
4:A:135:PHE:HD2	4:A:135:PHE:O	1.83	0.49
4:A:360:GLU:O	4:A:362:ASP:N	2.44	0.49
4:A:471:ASN:O	4:A:472:LEU:C	2.43	0.49
4:A:537:ARG:C	4:A:539:THR:N	2.65	0.49
4:A:608:ILE:HG12	4:A:613:ILE:HG13	1.94	0.49
4:A:709:THR:O	4:A:713:SER:OG	2.30	0.49
4:A:818:MET:O	4:A:819:GLY:C	2.50	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1033:LYS:CE	5:B:1087:PHE:O	2.59	0.49
5:B:1144:ALA:C	5:B:1146:PHE:N	2.63	0.49
5:B:1177:HIS:O	5:B:1179:GLN:CA	2.58	0.49
5:B:133:LYS:CA	5:B:134:LYS:N	2.68	0.49
5:B:364:ILE:O	5:B:365:THR:HB	2.12	0.49
5:B:635:ARG:HH11	5:B:636:PRO:HG2	1.76	0.49
5:B:688:GLY:C	5:B:689:LEU:HG	2.23	0.49
6:C:196:ASP:O	6:C:197:SER:C	2.50	0.49
9:H:101:ALA:CB	9:H:116:TYR:CE2	2.93	0.49
10:I:16:PRO:O	10:I:16:PRO:HG2	2.11	0.49
11:J:10:CYS:SG	11:J:43:ARG:CD	3.00	0.49
12:K:49:GLU:C	12:K:51:LEU:H	2.13	0.49
4:A:451:HIS:CG	4:A:453:MET:HB2	2.47	0.49
4:A:691:LEU:HD12	4:A:692:ASP:N	2.23	0.49
4:A:691:LEU:O	4:A:692:ASP:C	2.49	0.49
4:A:833:GLU:O	4:A:834:THR:C	2.49	0.49
4:A:982:THR:O	4:A:984:LYS:N	2.45	0.49
4:A:996:ASN:HA	4:A:998:LEU:HG	1.94	0.49
5:B:276:ILE:O	5:B:277:LYS:C	2.50	0.49
5:B:418:LYS:O	5:B:420:LEU:N	2.46	0.49
5:B:466:TRP:O	5:B:466:TRP:CG	2.64	0.49
5:B:903:VAL:O	5:B:949:VAL:HG23	2.12	0.49
5:B:843:GLN:HB2	5:B:993:THR:HB	1.92	0.49
6:C:133:ILE:CG2	6:C:134:ILE:H	2.23	0.49
6:C:184:ASN:O	6:C:185:LYS:C	2.49	0.49
7:E:187:TYR:C	7:E:187:TYR:CD2	2.82	0.49
7:E:52:ARG:CB	7:E:53:PRO:HD2	2.42	0.49
11:J:45:CYS:SG	11:J:46:CYS:N	2.83	0.49
12:K:31:VAL:HG12	12:K:31:VAL:O	2.12	0.49
12:K:83:PRO:O	12:K:84:LYS:C	2.49	0.49
4:A:849:MET:HE3	4:A:1061:GLY:C	2.33	0.49
4:A:1127:ASP:C	4:A:1129:GLU:N	2.64	0.49
4:A:1332:PHE:CE1	4:A:1381:LEU:HD13	2.47	0.49
4:A:1424:VAL:HG22	4:A:1436:ILE:HD11	1.94	0.49
4:A:265:LYS:HD3	4:A:302:THR:HG23	1.93	0.49
4:A:304:MET:CG	5:B:1210:MET:CG	2.90	0.49
4:A:845:LEU:CD2	4:A:845:LEU:N	2.67	0.49
4:A:856:THR:CG2	4:A:865:GLN:HB2	2.42	0.49
5:B:1095:LEU:O	5:B:1096:ARG:C	2.49	0.49
5:B:525:ALA:O	5:B:527:THR:HG22	2.11	0.49
6:C:141:GLY:O	6:C:142:VAL:O	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:J:43:ARG:O	11:J:46:CYS:HB2	2.13	0.49
4:A:986:ILE:CD1	4:A:1032:LEU:HD21	2.43	0.49
4:A:1044:TRP:O	4:A:1046:LEU:C	2.50	0.49
4:A:1288:ASP:HA	4:A:1300:LYS:NZ	2.27	0.49
4:A:1301:GLU:HG2	4:A:1301:GLU:O	2.10	0.49
4:A:1355:VAL:HG12	4:A:1356:ILE:N	2.28	0.49
4:A:271:LYS:O	4:A:274:ILE:N	2.43	0.49
4:A:302:THR:HG23	4:A:313:GLN:HE22	1.77	0.49
4:A:335:ARG:CD	4:A:339:ASN:HD22	2.26	0.49
4:A:345:VAL:HG23	4:A:345:VAL:O	2.11	0.49
4:A:476:SER:HB2	4:A:477:PRO:CD	2.42	0.49
4:A:590:ARG:HB2	4:A:605:MET:HB3	1.94	0.49
4:A:941:LYS:O	4:A:943:LEU:N	2.45	0.49
5:B:1023:VAL:O	5:B:1027:ILE:HG13	2.11	0.49
5:B:185:THR:CG2	5:B:188:ASP:CG	2.81	0.49
5:B:463:THR:HB	5:B:465:ASN:H	1.78	0.49
5:B:704:ALA:H	5:B:741:CYS:HA	1.77	0.49
5:B:973:ILE:CG2	5:B:974:PRO:N	2.75	0.49
6:C:15:LYS:O	6:C:240:VAL:HG23	2.12	0.49
6:C:176:ILE:HG22	6:C:176:ILE:O	2.00	0.49
8:F:87:LYS:O	8:F:91:ALA:HB2	2.12	0.49
9:H:60:ALA:C	9:H:61:SER:OG	2.41	0.49
10:I:88:SER:HA	10:I:100:PHE:HE1	1.75	0.49
12:K:82:ASP:OD2	12:K:84:LYS:HD2	2.13	0.49
13:L:28:LYS:HB2	13:L:39:SER:CB	2.43	0.49
4:A:1148:ILE:O	10:I:48:LEU:HD12	2.13	0.49
4:A:1332:PHE:CD1	4:A:1348:LEU:HD13	2.47	0.49
4:A:211:PHE:C	4:A:213:HIS:N	2.66	0.49
4:A:384:ASN:O	4:A:388:LEU:N	2.39	0.49
4:A:492:PRO:HG2	4:A:492:PRO:O	2.12	0.49
4:A:764:CYS:HB2	4:A:801:GLU:O	2.12	0.49
4:A:93:VAL:O	4:A:93:VAL:HG12	2.13	0.49
4:A:978:PRO:C	4:A:979:SER:O	2.46	0.49
4:A:985:ASP:O	4:A:986:ILE:O	2.30	0.49
5:B:114:PRO:CD	5:B:124:TYR:HE1	2.21	0.49
5:B:115:GLN:CG	5:B:115:GLN:NE2	2.68	0.49
5:B:1168:LEU:HB3	5:B:1170:THR:OG1	2.13	0.49
5:B:255:GLN:O	5:B:271:ALA:HB1	2.12	0.49
5:B:911:ILE:CD1	5:B:941:LEU:HD23	2.42	0.49
6:C:181:ASP:OD2	6:C:186:LEU:CD1	2.61	0.49
7:E:117:THR:CA	7:E:118:PRO:N	2.69	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:16:PHE:O	7:E:19:VAL:N	2.46	0.49
7:E:144:ILE:HD11	7:E:184:VAL:HG22	1.94	0.49
8:F:155:LEU:N	8:F:155:LEU:CD2	2.68	0.49
9:H:84:ALA:HB1	9:H:87:ARG:HB2	1.95	0.49
11:J:57:ILE:CG2	11:J:57:ILE:C	2.79	0.49
4:A:1205:LYS:O	4:A:1207:LEU:N	2.45	0.49
4:A:275:SER:O	4:A:279:LEU:HG	2.13	0.49
4:A:552:TRP:NE1	4:A:655:PHE:CD1	2.80	0.49
4:A:68:GLN:HE22	4:A:70:CYS:HB2	1.74	0.49
4:A:845:LEU:HD23	4:A:845:LEU:N	2.27	0.49
4:A:967:ALA:C	4:A:969:GLN:N	2.65	0.49
5:B:297:ILE:C	5:B:299:GLU:N	2.59	0.49
5:B:55:VAL:CG1	5:B:56:ASP:N	2.52	0.49
5:B:825:VAL:HG13	5:B:826:ALA:N	2.27	0.49
6:C:116:LYS:HB2	6:C:140:ASN:HA	1.93	0.49
6:C:246:ARG:O	6:C:247:GLY:C	2.48	0.49
4:A:1341:ILE:HB	7:E:182:ASP:OD2	2.13	0.49
9:H:25:ARG:C	9:H:26:ILE:HD12	2.33	0.49
10:I:115:LYS:CD	10:I:115:LYS:HE3	2.19	0.49
10:I:19:ASP:CB	10:I:24:ARG:HG3	2.40	0.49
10:I:36:GLU:CG	10:I:36:GLU:HB3	2.19	0.49
4:A:210:ILE:O	4:A:213:HIS:CA	2.61	0.49
4:A:276:LEU:HD11	4:A:292:ALA:CB	2.42	0.49
4:A:321:PRO:O	4:A:321:PRO:CA	2.57	0.49
4:A:349:ALA:O	4:A:350:ARG:HB2	2.13	0.49
4:A:363:GLN:HA	4:A:459:ARG:O	2.13	0.49
4:A:525:GLN:O	4:A:526:ASP:C	2.47	0.49
5:B:1198:TYR:CE1	5:B:1201:LYS:HD2	2.47	0.49
5:B:190:TYR:O	5:B:191:LYS:C	2.46	0.49
5:B:841:MET:O	5:B:993:THR:HA	2.13	0.49
6:C:73:GLN:HG3	6:C:74:SER:H	1.62	0.49
7:E:117:THR:C	7:E:119:SER:H	2.15	0.49
9:H:128:ASN:O	9:H:131:ASN:ND2	2.42	0.49
10:I:83:ASN:O	10:I:84:VAL:CG2	2.61	0.49
10:I:83:ASN:O	10:I:84:VAL:HG23	2.12	0.49
11:J:31:ASP:C	11:J:33:GLY:H	2.14	0.49
12:K:92:ASN:C	12:K:94:ILE:H	2.16	0.49
13:L:54:ARG:HG3	13:L:54:ARG:HH11	1.77	0.49
4:A:11:LEU:CB	4:A:11:LEU:CD2	2.76	0.49
4:A:1238:ILE:HG22	4:A:1240:CYS:SG	2.53	0.49
4:A:125:ALA:HA	4:A:128:ILE:HB	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1276:VAL:HB	4:A:1279:ILE:HD13	1.94	0.49
4:A:1398:MET:N	4:A:1426:GLU:OE2	2.45	0.49
4:A:225:ASN:O	4:A:226:GLU:O	2.27	0.49
4:A:836:TYR:O	4:A:837:ILE:C	2.50	0.49
4:A:941:LYS:O	4:A:942:PHE:C	2.50	0.49
5:B:802:PRO:CB	5:B:1091:TYR:CD1	2.96	0.49
5:B:416:LEU:O	5:B:417:PHE:C	2.45	0.49
5:B:524:PRO:HG2	5:B:525:ALA:N	2.28	0.49
7:E:20:LYS:HB2	7:E:35:VAL:HG22	1.94	0.49
7:E:93:MET:HG3	7:E:123:LEU:O	2.12	0.49
8:F:83:PRO:CG	8:F:84:TYR:N	2.75	0.49
10:I:40:SER:CB	10:I:41:PRO:CD	2.88	0.49
11:J:22:LEU:HD13	11:J:22:LEU:N	2.25	0.49
11:J:43:ARG:HG3	11:J:46:CYS:CB	2.41	0.49
11:J:46:CYS:CA	11:J:46:CYS:SG	2.98	0.49
1:R:10:A:C2	2:T:19:DT:N3	2.72	0.49
2:T:19:DT:H2''	2:T:20:DC:H5'	1.95	0.49
4:A:1195:LEU:O	4:A:1237:ILE:HG23	2.12	0.49
4:A:1291:VAL:CG1	4:A:1292:PRO:CD	2.90	0.49
4:A:1394:THR:CG2	4:A:1398:MET:CE	2.90	0.49
4:A:4:GLN:HE22	5:B:1159:ARG:N	1.90	0.49
4:A:665:GLY:O	4:A:666:ILE:C	2.46	0.49
4:A:76:GLU:O	4:A:76:GLU:HG3	2.11	0.49
4:A:893:PHE:HD2	4:A:893:PHE:O	1.85	0.49
4:A:901:LEU:CD1	4:A:926:GLN:HG2	2.43	0.49
4:A:970:THR:HB	4:A:971:PHE:CD1	2.47	0.49
5:B:1172:ILE:O	5:B:1174:LYS:N	2.46	0.49
5:B:288:ALA:HB2	5:B:330:ALA:HB3	1.95	0.49
5:B:834:ASN:HB3	5:B:840:ILE:HD12	1.94	0.49
5:B:896:ASP:OD2	13:L:58:LYS:CE	2.61	0.49
5:B:900:ALA:O	5:B:903:VAL:CG2	2.59	0.49
4:A:569:LYS:HD2	6:C:221:TYR:O	2.13	0.49
7:E:175:LEU:HB3	7:E:176:PRO:HD2	1.93	0.49
7:E:17:ARG:O	7:E:18:THR:C	2.51	0.49
10:I:25:LEU:CG	10:I:26:LEU:N	2.75	0.49
11:J:3:VAL:CA	11:J:53:HIS:CE1	2.96	0.49
1:R:2:U:C4	1:R:3:C:C4	3.01	0.49
2:T:24:DT:H2''	2:T:25:DC:H5'	1.93	0.49
4:A:1265:ASN:C	4:A:1267:MET:N	2.62	0.49
4:A:108:MET:CG	4:A:170:THR:O	2.61	0.49
4:A:240:PRO:HG2	5:B:1209:ALA:HA	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:300:VAL:O	4:A:300:VAL:HG12	2.12	0.49
4:A:322:VAL:O	4:A:323:LYS:CG	2.61	0.49
4:A:406:ILE:HD12	4:A:431:LYS:O	2.13	0.49
4:A:351:THR:HG21	4:A:466:SER:O	2.13	0.49
4:A:574:GLY:O	4:A:577:ILE:HG13	2.13	0.49
4:A:867:ILE:CG2	4:A:872:GLY:N	2.75	0.49
4:A:874:ASP:OD1	4:A:876:ALA:CB	2.61	0.49
4:A:913:LEU:CD1	4:A:915:SER:H	2.22	0.49
4:A:934:LYS:C	4:A:937:VAL:H	2.15	0.49
4:A:339:ASN:CB	5:B:1117:GLN:HE22	2.22	0.49
5:B:229:ALA:HB1	5:B:231:PRO:HD2	1.95	0.49
5:B:379:GLY:O	5:B:380:TYR:C	2.49	0.49
5:B:205:ILE:HG13	5:B:461:LEU:HB3	1.94	0.49
5:B:461:LEU:CD1	5:B:466:TRP:CH2	2.95	0.49
5:B:834:ASN:HB2	5:B:839:MET:HA	1.95	0.49
7:E:165:LEU:H	7:E:165:LEU:HD23	1.78	0.49
9:H:84:ALA:C	9:H:86:ASP:H	2.15	0.49
10:I:25:LEU:C	10:I:26:LEU:HD23	2.33	0.49
10:I:31:THR:O	10:I:31:THR:CG2	2.25	0.49
5:B:308:TRP:CH2	10:I:45:ARG:HB3	2.47	0.49
12:K:33:ILE:HD13	12:K:87:LEU:HD22	1.94	0.49
4:A:126:LEU:N	4:A:126:LEU:HD23	2.28	0.48
4:A:33:ALA:HB1	4:A:35:ILE:HG12	1.95	0.48
4:A:808:LEU:CD2	4:A:816:HIS:CD2	2.93	0.48
4:A:902:LEU:HD11	4:A:926:GLN:CB	2.42	0.48
4:A:927:VAL:C	4:A:927:VAL:CG1	2.80	0.48
5:B:565:PRO:HD2	5:B:565:PRO:O	2.13	0.48
5:B:646:LEU:HB3	5:B:646:LEU:CG	2.23	0.48
9:H:110:ASP:N	9:H:110:ASP:HB3	2.27	0.48
12:K:18:LYS:HE3	12:K:38:GLU:OE2	2.14	0.48
1:R:5:A:N1	2:T:24:DT:O4	2.46	0.48
4:A:987:VAL:HG23	4:A:1028:THR:OG1	2.13	0.48
4:A:18:GLN:HE21	4:A:1418:LEU:CD1	2.26	0.48
4:A:183:GLY:O	4:A:184:SER:O	2.31	0.48
4:A:246:VAL:O	4:A:246:VAL:CG1	2.60	0.48
4:A:398:GLU:O	4:A:399:HIS:C	2.51	0.48
4:A:596:THR:CB	4:A:596:THR:N	2.68	0.48
4:A:49:LYS:NZ	4:A:60:SER:HA	2.20	0.48
4:A:783:THR:HB	4:A:787:PHE:CD1	2.47	0.48
5:B:27:ALA:O	5:B:30:SER:N	2.39	0.48
5:B:435:THR:HG22	5:B:437:GLU:C	2.33	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:485:ARG:HG3	5:B:491:THR:OG1	2.12	0.48
5:B:751:VAL:HG22	5:B:812:LEU:HD11	1.94	0.48
6:C:27:LEU:O	6:C:28:ALA:C	2.50	0.48
6:C:60:ASP:HB3	13:L:67:PHE:HE1	1.75	0.48
9:H:40:LEU:HD13	9:H:123:MET:HE2	1.94	0.48
9:H:95:TYR:CE2	9:H:97:MET:CG	2.96	0.48
10:I:6:PHE:HD2	10:I:12:ASN:O	1.97	0.48
10:I:96:SER:HB2	10:I:98:VAL:CG2	2.35	0.48
12:K:32:VAL:HG12	12:K:32:VAL:O	2.13	0.48
12:K:57:LEU:CD1	12:K:57:LEU:HG	2.20	0.48
13:L:61:THR:CG2	13:L:62:LYS:H	2.22	0.48
4:A:1436:ILE:O	4:A:1437:GLY:O	2.30	0.48
4:A:169:ASN:HD22	4:A:169:ASN:H	1.61	0.48
4:A:209:ASN:CA	4:A:210:ILE:HG12	2.42	0.48
4:A:559:VAL:O	4:A:561:PRO:N	2.47	0.48
4:A:730:GLY:O	4:A:733:ALA:N	2.40	0.48
4:A:825:ILE:HD13	5:B:533:CYS:SG	2.53	0.48
5:B:1221:SER:HA	5:B:1222:ARG:H	1.77	0.48
5:B:475:SER:C	5:B:477:ALA:N	2.67	0.48
5:B:863:GLU:O	5:B:864:LYS:HB3	2.12	0.48
5:B:882:THR:OG1	5:B:935:ARG:CA	2.61	0.48
5:B:982:SER:HB2	5:B:984:HIS:H	1.78	0.48
6:C:100:THR:H	6:C:119:VAL:HG12	1.78	0.48
5:B:1080:LYS:H	6:C:180:TYR:HE2	1.61	0.48
6:C:206:ASN:ND2	6:C:229:TYR:HD2	2.07	0.48
7:E:32:GLN:O	7:E:33:GLU:C	2.51	0.48
8:F:128:LYS:CD	8:F:148:VAL:O	2.61	0.48
10:I:111:THR:HG22	10:I:113:ASP:HB3	1.95	0.48
10:I:77:LYS:CD	10:I:77:LYS:HE3	2.18	0.48
11:J:56:LEU:O	11:J:60:PHE:CD2	2.67	0.48
11:J:5:VAL:HG12	11:J:6:ARG:CG	2.43	0.48
3:N:11:DG:O3'	7:E:117:THR:HG23	2.04	0.48
1:R:5:A:N3	1:R:6:G:C8	2.81	0.48
3:N:1:DC:O3'	4:A:1110:ASN:HB3	2.13	0.48
4:A:1150:SER:O	10:I:46:HIS:HB2	2.13	0.48
4:A:1308:THR:HG21	4:A:1310:GLY:O	2.13	0.48
4:A:1325:THR:HG23	4:A:1326:ARG:CG	2.43	0.48
4:A:464:PRO:O	4:A:465:TYR:HB2	2.13	0.48
4:A:51:GLY:HA2	4:A:56:PRO:HG3	1.94	0.48
4:A:837:ILE:O	4:A:841:LEU:N	2.38	0.48
4:A:845:LEU:O	4:A:846:GLU:C	2.51	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:868:TYR:CE1	4:A:1064:VAL:CG2	2.95	0.48
5:B:1065:GLN:C	5:B:1065:GLN:HE21	2.16	0.48
5:B:1187:ASN:OD1	5:B:1190:ASP:O	2.31	0.48
5:B:524:PRO:HG2	5:B:525:ALA:H	1.79	0.48
5:B:698:GLU:O	5:B:700:SER:N	2.46	0.48
5:B:745:PRO:CD	5:B:746:SER:N	2.73	0.48
5:B:786:ASN:CA	5:B:786:ASN:CG	2.76	0.48
5:B:995:ARG:HB3	5:B:997:GLU:OE2	2.12	0.48
6:C:206:ASN:CG	6:C:229:TYR:HD2	2.16	0.48
7:E:171:LYS:HB3	7:E:174:GLN:HG3	1.93	0.48
8:F:97:ARG:HB3	8:F:121:ALA:CB	2.43	0.48
9:H:47:PHE:CD2	9:H:95:TYR:HB3	2.49	0.48
10:I:111:THR:CG2	10:I:112:SER:N	2.76	0.48
10:I:115:LYS:O	10:I:116:ASN:C	2.52	0.48
11:J:57:ILE:C	11:J:59:LYS:N	2.60	0.48
2:T:18:DA:OP1	2:T:19:DT:OP2	2.31	0.48
4:A:1167:GLU:O	4:A:1170:ILE:HG12	2.13	0.48
4:A:1208:THR:O	4:A:1211:GLN:CA	2.62	0.48
4:A:1391:ARG:O	4:A:1393:ASN:N	2.46	0.48
4:A:24:PRO:HB3	4:A:237:THR:OG1	2.14	0.48
4:A:367:PRO:HB3	4:A:465:TYR:O	2.14	0.48
4:A:496:GLU:O	4:A:498:ARG:N	2.47	0.48
4:A:55:ASP:OD2	4:A:55:ASP:C	2.45	0.48
4:A:667:GLY:C	4:A:669:THR:N	2.66	0.48
5:B:839:MET:HG3	5:B:1010:LEU:HD11	1.95	0.48
5:B:104:GLU:OE1	5:B:110:HIS:HB2	2.12	0.48
5:B:466:TRP:C	5:B:475:SER:CB	2.78	0.48
5:B:535:LEU:N	5:B:535:LEU:HD23	2.10	0.48
5:B:53:GLN:CG	5:B:53:GLN:O	2.36	0.48
5:B:582:VAL:CG2	5:B:626:ILE:HB	2.44	0.48
5:B:748:ILE:HG13	5:B:749:LEU:HG	1.94	0.48
5:B:821:GLN:HE22	5:B:851:PHE:H	1.62	0.48
5:B:852:ARG:HH11	5:B:852:ARG:HD3	1.41	0.48
5:B:863:GLU:O	5:B:864:LYS:CB	2.61	0.48
6:C:227:THR:O	6:C:228:PHE:CG	2.65	0.48
7:E:64:PRO:CD	7:E:76:GLY:HA2	2.42	0.48
9:H:47:PHE:N	9:H:48:PRO:HD3	2.28	0.48
9:H:86:ASP:N	9:H:86:ASP:C	2.66	0.48
10:I:50:THR:CG2	10:I:52:ILE:HG22	2.43	0.48
4:A:100:LYS:HB3	4:A:100:LYS:HZ3	1.77	0.48
4:A:1311:VAL:HG11	4:A:1334:ASP:OD2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:148:CYS:HB3	4:A:167:CYS:C	2.33	0.48
4:A:261:ASP:CG	4:A:323:LYS:CD	2.71	0.48
4:A:434:ARG:C	4:A:435:HIS:O	2.47	0.48
4:A:523:ILE:C	4:A:524:VAL:CG2	2.71	0.48
4:A:543:LEU:HD12	4:A:547:LEU:HD11	1.87	0.48
4:A:967:ALA:O	4:A:970:THR:N	2.45	0.48
5:B:1202:LEU:C	5:B:1204:PHE:N	2.62	0.48
5:B:616:ILE:HD12	5:B:616:ILE:N	2.28	0.48
5:B:759:PRO:HD3	5:B:1046:PRO:CG	2.44	0.48
5:B:812:LEU:CD1	5:B:812:LEU:CD2	2.82	0.48
5:B:912:ILE:HD11	5:B:966:VAL:HG21	1.92	0.48
6:C:92:CYS:SG	6:C:94:LYS:CB	3.01	0.48
7:E:12:LEU:CD2	7:E:42:PHE:HZ	2.25	0.48
8:F:117:PRO:O	8:F:118:LEU:C	2.51	0.48
8:F:155:LEU:HA	8:F:155:LEU:O	2.10	0.48
12:K:30:ALA:HA	12:K:75:ILE:O	2.13	0.48
4:A:1173:HIS:CA	4:A:1173:HIS:O	2.54	0.48
4:A:1101:LEU:CD1	4:A:1355:VAL:HG11	2.43	0.48
4:A:214:ILE:HG22	4:A:215:SER:N	2.29	0.48
4:A:320:ARG:NH2	5:B:471:LYS:N	2.62	0.48
4:A:560:ILE:HG22	4:A:561:PRO:O	2.13	0.48
4:A:82:GLY:O	4:A:83:HIS:CB	2.56	0.48
4:A:848:ILE:HB	4:A:1065:GLY:CA	2.44	0.48
4:A:864:ILE:HG22	4:A:864:ILE:O	2.14	0.48
5:B:1013:ASN:OD1	5:B:1014:PRO:CD	2.62	0.48
5:B:1221:SER:N	5:B:1221:SER:CB	2.70	0.48
5:B:34:ILE:HD11	5:B:743:ILE:HG22	1.95	0.48
5:B:372:SER:O	5:B:374:LYS:N	2.46	0.48
5:B:552:MET:O	5:B:556:THR:HB	2.14	0.48
5:B:773:MET:C	5:B:775:LYS:N	2.67	0.48
5:B:885:MET:HA	5:B:936:ASP:CB	2.40	0.48
5:B:893:LEU:CD2	5:B:897:GLY:O	2.62	0.48
6:C:100:THR:O	6:C:119:VAL:HB	2.13	0.48
7:E:177:ARG:HA	7:E:213:ILE:O	2.13	0.48
9:H:10:PHE:O	9:H:54:SER:HA	2.13	0.48
9:H:39:THR:OG1	9:H:124:ARG:HB3	2.14	0.48
9:H:47:PHE:CG	9:H:47:PHE:O	2.65	0.48
10:I:28:GLU:CD	10:I:28:GLU:O	2.50	0.48
6:C:66:ARG:CZ	11:J:2:ILE:HG21	2.44	0.48
1:R:5:A:N1	1:R:6:G:O6	2.46	0.48
4:A:1197:LEU:HD12	4:A:1209:MET:SD	2.54	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:115:LEU:HB2	4:A:122:MET:CE	2.44	0.48
4:A:1322:ILE:O	4:A:1322:ILE:CG1	2.47	0.48
4:A:385:ILE:HD11	4:A:428:TYR:CE2	2.49	0.48
4:A:582:ILE:CG2	4:A:583:PRO:CD	2.90	0.48
4:A:736:ASN:O	4:A:738:LYS:N	2.45	0.48
4:A:84:ILE:HG23	4:A:84:ILE:O	2.14	0.48
4:A:92:HIS:CG	4:A:92:HIS:O	2.62	0.48
4:A:979:SER:OG	4:A:980:ASP:N	2.42	0.48
5:B:1064:TYR:O	5:B:1065:GLN:C	2.50	0.48
4:A:81:PHE:CE1	5:B:1208:MET:HE1	2.49	0.48
5:B:640:VAL:HG21	5:B:740:HIS:N	2.28	0.48
5:B:696:GLU:OE2	5:B:696:GLU:CA	2.62	0.48
5:B:781:PHE:CD1	5:B:782:LEU:HD12	2.49	0.48
6:C:251:LEU:O	6:C:255:VAL:HG23	2.13	0.48
6:C:29:MET:O	6:C:33:LEU:HB3	2.14	0.48
6:C:73:GLN:HE21	6:C:75:MET:HB2	1.78	0.48
9:H:63:LEU:HD23	9:H:63:LEU:H	1.79	0.48
12:K:58:PHE:HE2	12:K:74:ARG:NE	1.95	0.48
12:K:65:HIS:HD2	12:K:67:PHE:N	2.09	0.48
4:A:1325:THR:HG23	4:A:1326:ARG:HG2	1.95	0.48
4:A:224:PHE:CE2	4:A:231:PRO:HG3	2.48	0.48
4:A:316:GLN:H	4:A:317:LYS:N	2.10	0.48
4:A:532:ARG:C	4:A:534:LEU:N	2.66	0.48
4:A:607:ILE:C	4:A:607:ILE:CG2	2.81	0.48
4:A:701:LEU:H	4:A:701:LEU:HD23	1.65	0.48
4:A:71:GLN:C	4:A:73:GLY:N	2.66	0.48
4:A:855:THR:HG23	4:A:857:ARG:CG	2.44	0.48
4:A:997:LEU:O	4:A:998:LEU:C	2.50	0.48
5:B:422:LYS:HA	5:B:422:LYS:HG2	1.95	0.48
5:B:473:MET:HA	5:B:475:SER:N	2.26	0.48
5:B:686:ASN:N	5:B:686:ASN:HD22	2.06	0.48
5:B:711:GLU:N	5:B:712:PRO:HD3	2.27	0.48
5:B:98:THR:HB	5:B:99:LYS:O	2.13	0.48
6:C:148:ARG:CG	6:C:149:LYS:N	2.75	0.48
6:C:36:VAL:HA	6:C:40:GLU:HB2	1.96	0.48
7:E:61:GLN:O	7:E:62:ALA:HB2	2.14	0.48
7:E:6:GLU:O	7:E:6:GLU:OE2	2.31	0.48
8:F:111:LEU:O	8:F:113:GLY:N	2.47	0.48
8:F:73:ALA:O	8:F:74:ILE:CG1	2.54	0.48
12:K:101:LEU:HD23	12:K:101:LEU:HA	1.56	0.48
12:K:22:ASP:HB2	12:K:23:PRO:CD	2.35	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:23:DC:O2	2:T:23:DC:C2'	2.56	0.48
4:A:1155:ASP:OD2	4:A:1161:THR:HG23	2.14	0.48
4:A:662:PHE:CE1	4:A:742:ASN:HB3	2.49	0.48
4:A:741:ASN:ND2	4:A:743:VAL:CB	2.77	0.48
4:A:898:ARG:HD3	4:A:898:ARG:CG	2.21	0.48
5:B:1043:ASP:OD1	5:B:1044:ALA:N	2.47	0.48
4:A:343:LYS:CD	5:B:1155:SER:OG	2.61	0.48
5:B:426:LYS:HG3	5:B:430:ARG:CZ	2.43	0.48
5:B:654:ARG:O	5:B:655:LYS:C	2.50	0.48
5:B:993:THR:H	5:B:993:THR:HG23	1.39	0.48
6:C:8:VAL:HA	6:C:21:ILE:O	2.13	0.48
6:C:263:THR:O	6:C:265:MET:N	2.47	0.48
4:A:1342:GLU:CG	7:E:212:ARG:NH1	2.73	0.48
12:K:23:PRO:HG2	12:K:23:PRO:O	2.13	0.48
12:K:57:LEU:CD1	12:K:76:GLN:CG	2.89	0.48
12:K:49:GLU:CB	12:K:94:ILE:HD11	2.44	0.48
4:A:1050:GLU:O	4:A:1051:ALA:C	2.52	0.47
4:A:1141:THR:HG23	4:A:1205:LYS:CE	2.43	0.47
4:A:1227:ILE:CG2	4:A:1228:TRP:H	2.15	0.47
4:A:1334:ASP:O	4:A:1335:ILE:O	2.32	0.47
4:A:404:TYR:HD2	4:A:412:ARG:HG2	1.77	0.47
4:A:744:LYS:O	4:A:747:VAL:HB	2.13	0.47
4:A:902:LEU:HD11	4:A:926:GLN:HB3	1.96	0.47
5:B:1202:LEU:O	5:B:1204:PHE:N	2.47	0.47
5:B:300:HIS:CE1	5:B:376:PHE:CE1	2.99	0.47
5:B:349:ILE:HD12	5:B:349:ILE:H	1.79	0.47
5:B:516:ASN:ND2	5:B:516:ASN:H	2.11	0.47
5:B:566:LEU:O	5:B:567:GLU:C	2.52	0.47
5:B:56:ASP:C	5:B:57:TYR:HD1	2.17	0.47
5:B:680:THR:HB	5:B:682:SER:H	1.78	0.47
5:B:755:ILE:O	5:B:755:ILE:HG23	2.07	0.47
5:B:992:ILE:HG13	5:B:993:THR:N	2.29	0.47
6:C:102:GLN:NE2	6:C:102:GLN:CG	2.70	0.47
6:C:171:GLY:C	6:C:173:ALA:H	2.16	0.47
6:C:246:ARG:O	6:C:250:THR:OG1	2.29	0.47
6:C:63:ILE:O	6:C:64:ALA:C	2.52	0.47
7:E:213:ILE:CG1	7:E:214:CYS:N	2.77	0.47
9:H:111:LEU:HD23	9:H:111:LEU:HA	1.38	0.47
9:H:41:ASP:CB	9:H:122:LEU:H	2.27	0.47
9:H:84:ALA:C	9:H:86:ASP:N	2.67	0.47
12:K:28:PRO:O	12:K:28:PRO:HD2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:12:DC:C2'	2:T:13:DA:P	3.00	0.47
4:A:997:LEU:HB3	4:A:1053:PHE:CD2	2.49	0.47
4:A:1058:VAL:CG1	4:A:1059:HIS:N	2.76	0.47
4:A:1141:THR:HG21	4:A:1205:LYS:HD2	1.96	0.47
4:A:1143:LEU:O	4:A:1146:VAL:HG22	2.04	0.47
4:A:1281:ARG:HB2	4:A:1282:VAL:H	1.37	0.47
4:A:11:LEU:C	4:A:12:ARG:HG3	2.34	0.47
4:A:1444:MET:C	4:A:1445:ILE:HG13	2.34	0.47
4:A:399:HIS:C	4:A:401:GLY:N	2.63	0.47
4:A:88:LYS:HA	4:A:89:PRO:HD2	1.96	0.47
4:A:993:LEU:C	4:A:995:GLU:N	2.66	0.47
4:A:346:ASP:CB	5:B:1154:ALA:HB1	2.43	0.47
5:B:763:GLN:HG2	5:B:765:PRO:HD2	1.95	0.47
5:B:806:THR:CB	5:B:809:MET:HE3	2.45	0.47
6:C:251:LEU:C	6:C:253:LYS:N	2.65	0.47
8:F:121:ALA:HA	8:F:124:GLU:OE1	2.14	0.47
8:F:154:ASP:HB3	8:F:155:LEU:HD23	1.96	0.47
9:H:117:SER:OG	9:H:120:GLY:HA2	2.14	0.47
9:H:76:THR:C	9:H:77:ARG:O	2.52	0.47
4:A:1015:VAL:O	4:A:1018:PHE:CA	2.61	0.47
4:A:1098:VAL:HB	4:A:1099:PRO:CD	2.44	0.47
4:A:1279:ILE:HD11	4:A:1312:ASN:N	2.29	0.47
4:A:169:ASN:ND2	4:A:169:ASN:N	2.60	0.47
4:A:35:ILE:HA	4:A:52:GLY:O	2.13	0.47
4:A:37:PHE:CG	4:A:37:PHE:CA	2.89	0.47
4:A:399:HIS:HB3	4:A:400:PRO:CG	2.43	0.47
4:A:472:LEU:O	4:A:475:THR:HB	2.13	0.47
4:A:523:ILE:CG2	4:A:528:LEU:HB2	2.36	0.47
4:A:566:ILE:O	4:A:567:LYS:O	2.32	0.47
4:A:719:VAL:O	4:A:719:VAL:HG12	2.14	0.47
4:A:803:SER:C	4:A:805:LEU:N	2.64	0.47
5:B:102:VAL:CG2	5:B:112:LEU:HD22	2.44	0.47
5:B:1081:LEU:HD23	5:B:1081:LEU:HA	1.43	0.47
5:B:1162:ILE:HA	5:B:1171:VAL:CG2	2.45	0.47
5:B:987:LYS:CE	16:B:1308:ATP:O3G	2.63	0.47
5:B:189:LEU:O	5:B:192:LEU:N	2.47	0.47
5:B:291:ILE:HG22	5:B:297:ILE:HD13	1.96	0.47
5:B:487:THR:HG22	5:B:489:SER:H	1.75	0.47
5:B:546:SER:HA	5:B:612:GLU:OE2	2.14	0.47
5:B:612:GLU:O	5:B:613:VAL:C	2.50	0.47
5:B:816:GLU:N	5:B:816:GLU:CD	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:107:THR:O	7:E:107:THR:CG2	2.60	0.47
9:H:50:ALA:N	9:H:53:ASP:OD2	2.40	0.47
9:H:82:PRO:CB	9:H:82:PRO:C	2.78	0.47
12:K:40:HIS:CE1	12:K:63:VAL:HG11	2.49	0.47
4:A:1054:LEU:HA	4:A:1054:LEU:HD23	1.48	0.47
4:A:1103:GLU:O	4:A:1108:ALA:HB2	2.14	0.47
4:A:1323:ASP:OD1	4:A:1325:THR:CG2	2.59	0.47
4:A:1352:VAL:O	4:A:1353:TYR:C	2.51	0.47
4:A:1393:ASN:O	4:A:1394:THR:O	2.33	0.47
4:A:1436:ILE:C	4:A:1439:GLY:H	2.07	0.47
4:A:267:ALA:O	4:A:268:ASP:C	2.52	0.47
4:A:334:GLY:O	4:A:335:ARG:C	2.53	0.47
4:A:353:ILE:HD13	4:A:487:MET:CE	2.33	0.47
4:A:440:ASP:CB	4:A:441:PRO:HD2	2.37	0.47
4:A:715:GLU:O	4:A:719:VAL:HG23	2.14	0.47
4:A:751:SER:CB	5:B:1015:HIS:HE1	2.27	0.47
4:A:836:TYR:CD2	4:A:840:ARG:HD2	2.49	0.47
4:A:927:VAL:CG1	4:A:927:VAL:HG22	2.35	0.47
4:A:947:PHE:HE2	4:A:954:TRP:CE3	2.32	0.47
5:B:366:GLN:O	5:B:367:LEU:O	2.31	0.47
5:B:634:TYR:C	5:B:634:TYR:CD1	2.88	0.47
5:B:662:MET:C	5:B:664:THR:H	2.18	0.47
5:B:784:ASN:C	5:B:786:ASN:H	2.15	0.47
5:B:957:ASN:O	5:B:960:GLY:N	2.47	0.47
6:C:178:PHE:C	6:C:178:PHE:CD2	2.86	0.47
7:E:75:MET:HA	7:E:106:GLN:OE1	2.14	0.47
7:E:79:TRP:C	7:E:80:VAL:O	2.41	0.47
8:F:98:ALA:O	8:F:102:SER:HB3	2.14	0.47
10:I:13:MET:O	10:I:15:TYR:CE1	2.67	0.47
11:J:32:GLU:CD	11:J:32:GLU:N	2.62	0.47
11:J:3:VAL:CA	11:J:53:HIS:CD2	2.96	0.47
4:A:997:LEU:O	4:A:1053:PHE:CE2	2.68	0.47
4:A:1063:MET:CE	4:A:1063:MET:CG	2.92	0.47
4:A:1097:GLY:O	4:A:1099:PRO:N	2.47	0.47
4:A:346:ASP:H	5:B:1154:ALA:HB1	1.79	0.47
4:A:376:TYR:O	4:A:376:TYR:HD2	1.98	0.47
4:A:588:LEU:CA	4:A:588:LEU:CD1	2.92	0.47
4:A:59:GLY:N	4:A:67:CYS:SG	2.87	0.47
4:A:641:VAL:O	4:A:641:VAL:HG12	2.15	0.47
4:A:685:GLU:O	4:A:687:LYS:N	2.47	0.47
4:A:746:MET:HE3	4:A:746:MET:HB2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1074:ASN:OD1	5:B:1075:GLY:N	2.48	0.47
5:B:1119:VAL:CG2	5:B:1119:VAL:O	2.51	0.47
5:B:114:PRO:HG3	5:B:181:LEU:HD11	1.94	0.47
5:B:202:TYR:N	5:B:202:TYR:CD2	2.82	0.47
5:B:22:SER:O	5:B:23:ALA:O	2.33	0.47
5:B:252:SER:O	5:B:252:SER:OG	2.32	0.47
5:B:549:THR:HG22	5:B:550:ASP:H	1.79	0.47
5:B:364:ILE:CD1	5:B:585:VAL:HG22	2.37	0.47
6:C:134:ILE:HG23	6:C:136:ASP:H	1.80	0.47
8:F:90:ARG:HG3	8:F:94:LEU:HD12	1.95	0.47
10:I:88:SER:HA	10:I:100:PHE:CE1	2.49	0.47
13:L:64:LEU:HB3	13:L:64:LEU:CD2	2.42	0.47
2:T:15:DA:N3	2:T:16:DC:C6	2.48	0.47
4:A:834:THR:HG21	4:A:1077:THR:CB	2.45	0.47
4:A:1200:ALA:C	4:A:1202:MET:H	2.15	0.47
4:A:1141:THR:O	4:A:1273:LEU:HB2	2.14	0.47
4:A:1284:MET:HB2	4:A:1284:MET:CE	2.44	0.47
4:A:1445:ILE:HD12	4:A:1445:ILE:N	2.30	0.47
4:A:215:SER:OG	4:A:217:LYS:N	2.47	0.47
4:A:441:PRO:C	4:A:442:VAL:HG13	2.35	0.47
4:A:443:LEU:HD23	4:A:444:PHE:N	2.29	0.47
4:A:729:ALA:O	4:A:730:GLY:C	2.53	0.47
4:A:779:PHE:HE1	4:A:784:LEU:HA	1.78	0.47
4:A:875:ALA:HA	4:A:878:ILE:CD1	2.40	0.47
4:A:954:TRP:HB3	4:A:955:PRO:HD2	1.95	0.47
5:B:203:PHE:HE1	5:B:212:LEU:HD12	1.80	0.47
5:B:610:ASN:HB3	5:B:613:VAL:HG23	1.97	0.47
5:B:760:ASP:O	5:B:762:ASN:N	2.47	0.47
5:B:893:LEU:HD21	5:B:913:GLY:H	1.80	0.47
7:E:156:LEU:HD21	7:E:197:LYS:CB	2.44	0.47
9:H:109:LYS:CB	9:H:110:ASP:OD2	2.61	0.47
9:H:56:THR:C	9:H:57:VAL:HG23	2.34	0.47
10:I:31:THR:HG22	10:I:32:CYS:CA	2.43	0.47
12:K:44:ASN:HA	12:K:61:TYR:HE2	1.80	0.47
3:N:10:DG:C2'	3:N:11:DG:OP2	2.39	0.47
4:A:1017:LEU:HB3	7:E:205:SER:CA	2.44	0.47
4:A:1053:PHE:O	4:A:1054:LEU:C	2.45	0.47
4:A:1098:VAL:N	4:A:1099:PRO:HD2	2.29	0.47
4:A:1132:LYS:O	4:A:1135:ARG:N	2.47	0.47
4:A:1203:ASN:O	4:A:1204:ASP:O	2.33	0.47
4:A:1207:LEU:HD11	4:A:1273:LEU:HD23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1398:MET:O	4:A:1399:ARG:C	2.52	0.47
4:A:181:LEU:O	4:A:202:LEU:N	2.48	0.47
4:A:650:GLN:O	4:A:652:VAL:N	2.47	0.47
4:A:690:VAL:CG1	4:A:718:VAL:HG13	2.45	0.47
4:A:709:THR:C	4:A:711:ARG:N	2.65	0.47
4:A:904:THR:HG22	4:A:905:ASP:H	1.80	0.47
5:B:1017:ILE:CB	5:B:1018:PRO:CD	2.91	0.47
5:B:1058:LEU:HD23	5:B:1058:LEU:HA	1.42	0.47
5:B:1162:ILE:HD13	5:B:1168:LEU:O	2.13	0.47
5:B:20:ASP:N	5:B:655:LYS:HZ1	2.05	0.47
5:B:317:CYS:O	5:B:320:ASP:N	2.42	0.47
5:B:883:LEU:HB3	5:B:883:LEU:CA	2.20	0.47
5:B:942:ARG:O	5:B:943:SER:C	2.51	0.47
5:B:976:ILE:HA	5:B:990:ILE:HG21	1.97	0.47
6:C:193:TYR:CD2	6:C:193:TYR:N	2.82	0.47
7:E:164:LEU:CD1	7:E:211:TYR:CD2	2.97	0.47
9:H:82:PRO:C	9:H:82:PRO:HA	2.15	0.47
9:H:89:LEU:HD22	9:H:91:ASP:OD2	2.14	0.47
4:A:1288:ASP:OD1	4:A:1300:LYS:HE3	2.15	0.47
4:A:1343:ALA:O	4:A:1344:GLY:C	2.50	0.47
4:A:207:ILE:CA	4:A:210:ILE:HG13	2.41	0.47
4:A:223:GLY:O	4:A:224:PHE:CD1	2.68	0.47
4:A:605:MET:CE	4:A:614:PHE:O	2.63	0.47
4:A:744:LYS:O	4:A:748:MET:HG3	2.15	0.47
5:B:365:THR:HG23	5:B:367:LEU:N	2.30	0.47
5:B:804:GLY:C	5:B:805:THR:CG2	2.79	0.47
6:C:67:LEU:HD23	6:C:144:ILE:HD12	1.96	0.47
7:E:30:ILE:O	7:E:30:ILE:CG2	2.23	0.47
7:E:20:LYS:CB	7:E:35:VAL:CG2	2.93	0.47
8:F:109:VAL:HG21	8:F:124:GLU:HG3	1.96	0.47
9:H:142:LEU:HD12	9:H:142:LEU:C	2.23	0.47
4:A:1016:THR:O	4:A:1017:LEU:O	2.33	0.47
4:A:1171:GLN:HB2	4:A:1172:LEU:CD2	2.44	0.47
4:A:269:ILE:O	4:A:270:LEU:C	2.42	0.47
4:A:475:THR:HG22	4:A:476:SER:N	2.30	0.47
4:A:494:SER:O	4:A:497:THR:HB	2.15	0.47
4:A:655:PHE:O	4:A:656:TRP:C	2.52	0.47
4:A:786:HIS:CD2	4:A:786:HIS:H	2.32	0.47
4:A:33:ALA:O	4:A:83:HIS:CD2	2.68	0.47
4:A:913:LEU:HD12	4:A:914:GLU:CA	2.45	0.47
4:A:948:VAL:O	4:A:950:GLY:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1007:VAL:HG22	5:B:1008:PRO:HD2	1.97	0.47
5:B:1102:LYS:C	5:B:1103:ILE:HD13	2.35	0.47
5:B:166:PHE:CD2	5:B:166:PHE:O	2.61	0.47
5:B:423:LYS:HA	5:B:426:LYS:HZ3	1.80	0.47
5:B:51:PHE:O	5:B:52:ASN:C	2.49	0.47
5:B:550:ASP:HA	5:B:551:PRO:HD3	1.47	0.47
5:B:544:CYS:HB3	5:B:634:TYR:CZ	2.50	0.47
5:B:707:PRO:HB3	5:B:741:CYS:SG	2.55	0.47
5:B:785:TYR:HD1	5:B:786:ASN:HA	1.79	0.47
5:B:999:MET:CB	5:B:1000:PRO:HD2	2.45	0.47
6:C:115:SER:CB	6:C:141:GLY:O	2.57	0.47
6:C:31:ASN:O	6:C:32:SER:C	2.47	0.47
7:E:164:LEU:CD2	7:E:211:TYR:CD2	2.96	0.47
8:F:97:ARG:NH1	8:F:100:GLN:OE1	2.39	0.47
9:H:4:THR:CG2	9:H:5:LEU:N	2.78	0.47
4:A:100:LYS:HD2	4:A:104:GLU:OE1	2.15	0.47
4:A:1120:LEU:HA	4:A:1120:LEU:HD12	1.64	0.47
4:A:1135:ARG:O	4:A:1139:GLU:HB2	2.15	0.47
4:A:1212:VAL:O	4:A:1215:ARG:CB	2.62	0.47
4:A:1300:LYS:HE3	4:A:1300:LYS:CD	2.20	0.47
4:A:167:CYS:C	4:A:169:ASN:ND2	2.68	0.47
4:A:470:LEU:HD12	4:A:470:LEU:C	2.36	0.47
4:A:523:ILE:HG21	4:A:531:ILE:HG22	1.96	0.47
4:A:65:LEU:CG	4:A:65:LEU:HB2	2.19	0.47
4:A:982:THR:OG1	4:A:985:ASP:CG	2.52	0.47
5:B:1029:CYS:O	5:B:1033:LYS:N	2.48	0.47
5:B:1055:ILE:O	5:B:1058:LEU:HB2	2.15	0.47
5:B:1084:GLN:NE2	6:C:192:TRP:N	2.62	0.47
5:B:582:VAL:C	5:B:584:GLY:N	2.68	0.47
5:B:633:VAL:CG1	5:B:634:TYR:N	2.69	0.47
5:B:844:SER:OG	5:B:996:ARG:N	2.42	0.47
5:B:938:SER:O	5:B:940:PRO:HD3	2.15	0.47
7:E:100:ILE:HD11	7:E:108:GLY:HA2	1.95	0.47
9:H:12:VAL:HA	9:H:28:ALA:HB2	1.95	0.47
12:K:101:LEU:O	12:K:101:LEU:HD22	2.14	0.47
4:A:1305:VAL:HG12	4:A:1306:LEU:O	2.15	0.47
4:A:1424:VAL:O	4:A:1426:GLU:N	2.49	0.47
4:A:388:LEU:C	4:A:388:LEU:CD2	2.82	0.47
4:A:699:ALA:C	4:A:701:LEU:H	2.19	0.47
4:A:88:LYS:CA	4:A:89:PRO:CD	2.93	0.47
4:A:899:VAL:O	4:A:929:LEU:CD1	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:919:ILE:CG2	4:A:922:ASP:CB	2.83	0.47
5:B:322:PHE:CE2	10:I:30:ARG:HD2	2.49	0.47
6:C:144:ILE:HG22	6:C:145:CYS:HB3	1.96	0.47
6:C:22:LEU:O	6:C:22:LEU:CD2	2.63	0.47
6:C:247:GLY:C	6:C:249:ASP:H	2.11	0.47
6:C:57:VAL:C	6:C:58:LEU:HD23	2.32	0.47
4:A:1335:ILE:O	4:A:1336:MET:C	2.50	0.46
4:A:434:ARG:O	4:A:435:HIS:C	2.50	0.46
4:A:591:PHE:CD2	4:A:595:THR:HG22	2.50	0.46
4:A:595:THR:CG2	4:A:596:THR:N	2.78	0.46
4:A:692:ASP:O	4:A:696:GLU:N	2.44	0.46
4:A:837:ILE:O	4:A:839:ARG:N	2.47	0.46
4:A:8:SER:C	4:A:9:ALA:O	2.52	0.46
5:B:1023:VAL:O	5:B:1024:ALA:C	2.49	0.46
5:B:104:GLU:HG3	13:L:54:ARG:NH2	2.29	0.46
5:B:1117:GLN:HE21	5:B:1199:ALA:HB2	1.80	0.46
2:T:23:DC:P	5:B:1123:SER:HG	2.38	0.46
5:B:1162:ILE:N	5:B:1192:TYR:O	2.47	0.46
5:B:502:ILE:HG22	5:B:502:ILE:C	2.35	0.46
5:B:702:LEU:HD22	5:B:737:THR:CG2	2.44	0.46
5:B:748:ILE:HG13	5:B:749:LEU:N	2.29	0.46
5:B:788:ARG:O	5:B:789:MET:HG2	2.15	0.46
6:C:260:LEU:HD12	6:C:264:GLN:CG	2.45	0.46
11:J:2:ILE:HG23	11:J:3:VAL:N	2.29	0.46
12:K:39:ASP:O	12:K:40:HIS:C	2.49	0.46
3:N:2:DT:N3	3:N:3:DG:O6	2.49	0.46
4:A:1135:ARG:O	4:A:1138:ILE:N	2.42	0.46
4:A:1161:THR:HG22	4:A:1162:VAL:CA	2.44	0.46
4:A:1119:TYR:CD2	4:A:1326:ARG:NH2	2.83	0.46
4:A:320:ARG:C	4:A:321:PRO:CD	2.72	0.46
4:A:31:SER:HA	4:A:32:VAL:HG22	1.97	0.46
4:A:494:SER:O	4:A:498:ARG:CG	2.60	0.46
4:A:556:TRP:CD1	4:A:556:TRP:C	2.79	0.46
4:A:563:PRO:O	4:A:563:PRO:CD	2.61	0.46
4:A:567:LYS:CE	9:H:95:TYR:CE2	2.98	0.46
4:A:784:LEU:HB2	4:A:786:HIS:HD2	1.79	0.46
4:A:830:LYS:HE3	4:A:1098:VAL:CG2	2.30	0.46
5:B:1096:ARG:HG2	5:B:1096:ARG:HH11	1.80	0.46
5:B:203:PHE:CD1	5:B:461:LEU:CD2	2.98	0.46
5:B:236:HIS:HD2	5:B:389:ALA:CB	2.04	0.46
5:B:377:PHE:O	5:B:380:TYR:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:451:LYS:O	5:B:453:ILE:N	2.49	0.46
5:B:55:VAL:HG12	5:B:56:ASP:HA	1.96	0.46
6:C:244:VAL:HG23	6:C:245:VAL:N	2.24	0.46
6:C:57:VAL:CB	11:J:57:ILE:HD11	2.45	0.46
7:E:161:LYS:O	7:E:164:LEU:N	2.48	0.46
7:E:170:LEU:HD22	7:E:174:GLN:HB2	1.96	0.46
4:A:1441:PHE:CZ	8:F:88:TYR:C	2.89	0.46
1:R:8:G:C2	2:T:22:DT:C4	3.04	0.46
4:A:990:VAL:CG2	4:A:1026:LEU:HB2	2.44	0.46
4:A:374:LEU:O	4:A:436:ILE:HG13	2.16	0.46
4:A:981:LEU:HD11	4:A:1038:THR:N	2.31	0.46
5:B:1159:ARG:HE	5:B:1193:GLN:CG	2.29	0.46
5:B:299:GLU:OE1	5:B:571:PRO:HG2	2.16	0.46
5:B:63:ILE:O	5:B:67:SER:HB2	2.15	0.46
7:E:182:ASP:HA	7:E:183:PRO:HD2	1.70	0.46
9:H:132:LEU:CB	9:H:132:LEU:CD2	2.85	0.46
10:I:17:ARG:CG	10:I:18:GLU:HB2	2.44	0.46
10:I:25:LEU:O	10:I:38:ALA:N	2.41	0.46
10:I:46:HIS:O	10:I:47:GLU:O	2.33	0.46
13:L:54:ARG:NH1	13:L:54:ARG:CG	2.73	0.46
4:A:1351:GLU:O	4:A:1352:VAL:C	2.53	0.46
4:A:1402:PHE:CE2	4:A:1403:GLU:HG3	2.50	0.46
4:A:230:ARG:O	4:A:231:PRO:C	2.52	0.46
4:A:345:VAL:HG12	5:B:1155:SER:HB3	1.96	0.46
4:A:358:ASN:ND2	5:B:833:TYR:OH	2.48	0.46
4:A:68:GLN:HE21	4:A:80:HIS:HE2	1.61	0.46
4:A:724:GLU:CG	4:A:724:GLU:CA	2.83	0.46
4:A:825:ILE:O	4:A:826:ASP:C	2.49	0.46
4:A:891:ALA:O	4:A:895:LYS:HG3	2.14	0.46
4:A:935:GLN:C	4:A:937:VAL:N	2.65	0.46
5:B:1084:GLN:NE2	6:C:191:TYR:C	2.69	0.46
5:B:1103:ILE:N	5:B:1122:ARG:NH1	2.63	0.46
5:B:1189:ILE:CG1	5:B:1189:ILE:CG2	2.87	0.46
5:B:285:ILE:O	5:B:286:PHE:C	2.52	0.46
5:B:291:ILE:HD12	5:B:291:ILE:N	2.31	0.46
5:B:839:MET:O	5:B:990:ILE:HA	2.16	0.46
7:E:202:SER:C	7:E:204:THR:N	2.67	0.46
8:F:138:LEU:HA	8:F:138:LEU:HD23	1.95	0.46
9:H:125:LEU:CA	9:H:125:LEU:CD1	2.93	0.46
9:H:139:ASN:CB	9:H:139:ASN:ND2	2.71	0.46
10:I:99:LEU:HD23	10:I:99:LEU:HA	1.60	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:J:64:ASN:HB3	11:J:65:PRO:HG3	1.97	0.46
12:K:46:ILE:HG22	12:K:47:ARG:N	2.28	0.46
4:A:1012:ARG:O	4:A:1013:ASP:C	2.53	0.46
4:A:1027:ALA:O	4:A:1028:THR:C	2.51	0.46
4:A:1161:THR:CB	4:A:1161:THR:N	2.64	0.46
4:A:1319:VAL:HG13	4:A:1320:PRO:HD2	1.97	0.46
4:A:1444:MET:HG2	4:A:1445:ILE:HD11	1.96	0.46
5:B:1012:ILE:HD12	5:B:1012:ILE:O	2.15	0.46
5:B:1071:VAL:CG1	5:B:1072:MET:N	2.77	0.46
5:B:1082:MET:HA	6:C:189:THR:HA	1.97	0.46
5:B:1189:ILE:CB	5:B:1189:ILE:HA	2.29	0.46
5:B:174:LEU:HD23	5:B:202:TYR:CE1	2.50	0.46
5:B:423:LYS:N	5:B:426:LYS:HZ3	2.12	0.46
5:B:474:SER:HA	5:B:476:ARG:CG	2.43	0.46
5:B:805:THR:HA	5:B:809:MET:HE1	1.95	0.46
5:B:90:ILE:HG22	5:B:91:SER:H	1.81	0.46
5:B:992:ILE:HD11	12:K:67:PHE:CE2	2.46	0.46
6:C:63:ILE:HG22	6:C:67:LEU:HD11	1.97	0.46
6:C:92:CYS:O	6:C:96:SER:HB3	2.16	0.46
7:E:173:SER:C	7:E:175:LEU:N	2.68	0.46
8:F:97:ARG:CD	8:F:100:GLN:OE1	2.57	0.46
8:F:136:ARG:HD2	8:F:146:TRP:CD1	2.50	0.46
9:H:93:TYR:HD1	9:H:143:LEU:CB	2.24	0.46
1:R:9:G:C2'	1:R:10:A:OP2	2.57	0.46
4:A:1019:CYS:O	4:A:1023:ARG:HG3	2.15	0.46
4:A:1095:THR:OG1	4:A:1113:THR:HB	2.16	0.46
4:A:125:ALA:CB	4:A:125:ALA:C	2.76	0.46
4:A:1265:ASN:O	4:A:1266:THR:C	2.49	0.46
4:A:128:ILE:HB	4:A:128:ILE:CA	2.18	0.46
4:A:206:GLU:HB2	4:A:207:ILE:CG1	2.46	0.46
4:A:244:PRO:CB	4:A:245:PRO:CD	2.93	0.46
4:A:523:ILE:CG2	4:A:531:ILE:HG22	2.46	0.46
4:A:567:LYS:CB	4:A:568:PRO:CD	2.92	0.46
4:A:667:GLY:O	4:A:670:ILE:N	2.49	0.46
4:A:728:LYS:O	4:A:729:ALA:C	2.54	0.46
4:A:783:THR:HB	4:A:787:PHE:HD1	1.81	0.46
4:A:948:VAL:H	4:A:948:VAL:HG23	1.46	0.46
5:B:1072:MET:CE	5:B:1072:MET:CG	2.85	0.46
5:B:1162:ILE:HB	5:B:1192:TYR:O	2.16	0.46
5:B:580:VAL:HG12	5:B:581:PHE:CA	2.43	0.46
5:B:662:MET:O	5:B:664:THR:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:69:LEU:HB2	5:B:90:ILE:CB	2.39	0.46
5:B:784:ASN:ND2	5:B:788:ARG:CD	2.71	0.46
6:C:123:ASN:ND2	6:C:125:MET:HG2	2.30	0.46
6:C:206:ASN:HD21	6:C:229:TYR:CB	2.28	0.46
7:E:165:LEU:HD23	7:E:165:LEU:N	2.30	0.46
7:E:65:THR:C	7:E:67:GLU:H	2.16	0.46
8:F:77:ASP:O	8:F:78:GLN:HB2	2.16	0.46
4:A:567:LYS:HD3	9:H:95:TYR:HA	1.98	0.46
10:I:32:CYS:SG	10:I:34:TYR:CB	3.04	0.46
11:J:57:ILE:CG2	11:J:57:ILE:N	2.79	0.46
4:A:1349:TYR:HD2	4:A:1350:LYS:N	2.13	0.46
4:A:174:ILE:HG22	4:A:175:ARG:N	2.31	0.46
4:A:90:VAL:CG1	4:A:297:GLN:CB	2.93	0.46
4:A:437:MET:N	4:A:440:ASP:OD2	2.42	0.46
4:A:483:ASP:OD2	4:A:483:ASP:C	2.49	0.46
4:A:453:MET:HE3	4:A:513:SER:CB	2.46	0.46
4:A:542:GLU:O	4:A:543:LEU:C	2.52	0.46
4:A:572:TRP:N	4:A:572:TRP:HE3	2.14	0.46
4:A:595:THR:HG22	4:A:596:THR:N	2.30	0.46
4:A:666:ILE:HD11	5:B:1030:LEU:HD13	1.97	0.46
4:A:671:ALA:HB1	4:A:672:ASP:H	1.31	0.46
5:B:1033:LYS:O	5:B:1035:ALA:N	2.49	0.46
5:B:1201:LYS:CE	5:B:1205:GLN:OE1	2.64	0.46
5:B:234:ILE:O	5:B:234:ILE:HG12	2.15	0.46
5:B:488:TYR:C	5:B:490:SER:N	2.69	0.46
5:B:546:SER:N	5:B:634:TYR:HE2	2.13	0.46
5:B:654:ARG:O	5:B:656:GLY:N	2.48	0.46
5:B:737:THR:O	5:B:738:PHE:C	2.53	0.46
5:B:861:ASP:O	5:B:963:PHE:HA	2.15	0.46
5:B:59:LEU:CD2	5:B:95:ILE:HD13	2.46	0.46
6:C:74:SER:CB	6:C:77:ILE:HG13	2.46	0.46
7:E:178:ILE:CG1	7:E:179:GLN:N	2.41	0.46
12:K:34:THR:HG23	12:K:35:PHE:N	2.31	0.46
4:A:114:LEU:O	4:A:115:LEU:CG	2.64	0.46
4:A:1386:ARG:H	4:A:1386:ARG:HG2	1.54	0.46
4:A:1428:VAL:HG13	5:B:1151:LEU:HD21	1.97	0.46
4:A:18:GLN:HE22	4:A:1418:LEU:CB	2.08	0.46
4:A:304:MET:O	4:A:326:ARG:HB2	2.15	0.46
4:A:441:PRO:HA	4:A:458:HIS:O	2.16	0.46
4:A:500:GLU:O	4:A:504:LEU:HB2	2.15	0.46
4:A:518:LYS:CB	4:A:519:PRO:CD	2.92	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:655:PHE:C	4:A:657:LEU:N	2.68	0.46
4:A:862:ASN:HA	7:E:174:GLN:HB3	1.97	0.46
5:B:1073:TYR:N	5:B:1073:TYR:HD1	2.08	0.46
5:B:345:LYS:O	5:B:347:LYS:N	2.49	0.46
5:B:457:LEU:HD23	5:B:457:LEU:HA	1.29	0.46
5:B:633:VAL:HG12	5:B:634:TYR:H	1.74	0.46
4:A:782:ARG:NH2	5:B:701:ILE:O	2.46	0.46
5:B:702:LEU:HD22	5:B:737:THR:HG22	1.98	0.46
5:B:519:TRP:CH2	5:B:705:MET:HE1	2.51	0.46
5:B:778:MET:HE1	5:B:853:SER:CB	2.46	0.46
5:B:869:SER:C	5:B:870:ILE:CG1	2.83	0.46
5:B:897:GLY:O	5:B:898:LEU:HD23	2.16	0.46
5:B:952:VAL:HG22	5:B:966:VAL:HG13	1.97	0.46
5:B:999:MET:HG3	5:B:1000:PRO:HD2	1.98	0.46
6:C:205:LYS:HE3	6:C:205:LYS:CD	2.17	0.46
6:C:41:ILE:O	6:C:41:ILE:CG1	2.53	0.46
7:E:168:TYR:O	7:E:169:ARG:C	2.48	0.46
7:E:79:TRP:CD1	7:E:100:ILE:HG13	2.50	0.46
8:F:137:TYR:HA	8:F:142:SER:O	2.16	0.46
9:H:113:ALA:HA	9:H:126:GLU:HA	1.98	0.46
9:H:135:LEU:CD2	9:H:136:LYS:HD2	2.45	0.46
12:K:29:ASN:CG	12:K:77:THR:O	2.53	0.46
4:A:1075:PRO:HA	4:A:1078:GLN:HG3	1.97	0.46
4:A:1283:VAL:O	4:A:1307:GLU:N	2.33	0.46
4:A:1285:MET:HG3	4:A:1307:GLU:OE2	2.16	0.46
4:A:1355:VAL:CG2	4:A:1355:VAL:CA	2.81	0.46
4:A:135:PHE:HB2	4:A:222:LEU:HA	1.97	0.46
4:A:335:ARG:O	4:A:339:ASN:N	2.36	0.46
4:A:538:ASP:OD1	9:H:22:LYS:HB2	2.16	0.46
4:A:583:PRO:O	4:A:610:GLY:CA	2.55	0.46
4:A:648:ASN:O	4:A:649:ILE:C	2.52	0.46
4:A:655:PHE:O	4:A:657:LEU:N	2.48	0.46
5:B:304:ASP:C	5:B:304:ASP:OD1	2.54	0.46
5:B:769:TYR:O	5:B:770:GLN:C	2.49	0.46
5:B:955:THR:HG22	5:B:956:THR:HB	1.98	0.46
7:E:117:THR:O	7:E:120:ALA:N	2.48	0.46
7:E:121:MET:C	7:E:123:LEU:N	2.68	0.46
8:F:81:THR:HG21	8:F:146:TRP:HE1	1.80	0.46
9:H:22:LYS:O	9:H:23:VAL:CG2	2.64	0.46
9:H:23:VAL:HG13	9:H:42:ILE:H	1.81	0.46
9:H:89:LEU:C	9:H:91:ASP:N	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:I:100:PHE:C	10:I:101:PHE:CD1	2.90	0.46
10:I:109:ILE:HG22	10:I:110:PHE:N	2.27	0.46
10:I:52:ILE:HG13	10:I:52:ILE:O	2.16	0.46
11:J:1:MET:HE2	11:J:56:LEU:HD12	1.97	0.46
4:A:1169:ILE:C	4:A:1170:ILE:HD13	2.37	0.46
4:A:1284:MET:CG	4:A:1306:LEU:HD23	2.46	0.46
4:A:1299:VAL:HG12	4:A:1300:LYS:CB	2.39	0.46
4:A:1409:LEU:HA	4:A:1409:LEU:HD23	1.57	0.46
4:A:1437:GLY:HA3	8:F:88:TYR:CE2	2.50	0.46
4:A:244:PRO:CB	4:A:245:PRO:HD2	2.42	0.46
4:A:404:TYR:N	4:A:404:TYR:HD1	2.11	0.46
5:B:758:PHE:CE2	5:B:1044:ALA:HB1	2.51	0.46
5:B:1135:ARG:O	5:B:1138:MET:N	2.49	0.46
5:B:1152:MET:HE1	5:B:1195:HIS:C	2.37	0.46
5:B:293:PRO:HG2	5:B:296:GLU:HB2	1.98	0.46
5:B:464:GLY:CA	5:B:478:GLY:HA2	2.41	0.46
5:B:22:SER:O	5:B:654:ARG:HG3	2.15	0.46
5:B:702:LEU:HA	5:B:702:LEU:HD12	1.63	0.46
5:B:957:ASN:C	5:B:957:ASN:ND2	2.68	0.46
6:C:20:PHE:N	6:C:20:PHE:CD2	2.83	0.46
7:E:118:PRO:C	7:E:120:ALA:H	2.05	0.46
9:H:131:ASN:ND2	9:H:131:ASN:CB	2.65	0.46
4:A:1294:PRO:HB2	4:A:1295:THR:CG2	2.42	0.45
4:A:1288:ASP:HA	4:A:1300:LYS:HZ1	1.81	0.45
4:A:1344:GLY:O	4:A:1345:ARG:C	2.54	0.45
4:A:267:ALA:O	4:A:270:LEU:N	2.49	0.45
4:A:321:PRO:C	4:A:321:PRO:HG2	2.36	0.45
4:A:389:THR:C	4:A:391:LEU:N	2.68	0.45
4:A:704:ALA:HB2	4:A:710:LEU:HA	1.98	0.45
4:A:885:THR:HG22	4:A:940:ARG:HG3	1.97	0.45
4:A:982:THR:CB	4:A:985:ASP:CG	2.84	0.45
5:B:999:MET:HG2	5:B:1008:PRO:HG2	1.97	0.45
5:B:1079:LYS:HG3	6:C:180:TYR:OH	2.15	0.45
4:A:347:PHE:HA	5:B:1107:ALA:HA	1.98	0.45
5:B:1168:LEU:C	5:B:1170:THR:H	2.18	0.45
5:B:1202:LEU:CD1	5:B:1206:GLU:CD	2.81	0.45
5:B:125:SER:HB2	5:B:171:PRO:CA	2.46	0.45
5:B:170:LEU:HD12	5:B:171:PRO:CD	2.45	0.45
5:B:213:ILE:H	5:B:479:VAL:HG12	1.80	0.45
5:B:466:TRP:O	5:B:466:TRP:CD1	2.69	0.45
5:B:597:MET:HG3	5:B:601:ARG:HD2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:635:ARG:HB2	5:B:636:PRO:CD	1.97	0.45
5:B:830:TYR:C	5:B:832:GLY:H	2.18	0.45
6:C:100:THR:N	6:C:119:VAL:HG12	2.30	0.45
7:E:147:HIS:O	7:E:148:GLU:C	2.53	0.45
7:E:167:ARG:O	7:E:168:TYR:CG	2.69	0.45
7:E:200:ARG:HH11	7:E:200:ARG:CG	2.29	0.45
9:H:103:LYS:CB	9:H:115:TYR:HD1	2.28	0.45
9:H:137:GLN:O	9:H:139:ASN:O	2.33	0.45
4:A:1273:LEU:O	4:A:1274:ARG:CB	2.64	0.45
4:A:1329:THR:HG22	4:A:1330:ASN:N	2.30	0.45
4:A:1338:VAL:HG12	4:A:1339:LEU:CD2	2.46	0.45
4:A:1355:VAL:HG12	4:A:1356:ILE:HG12	1.97	0.45
4:A:21:LEU:HA	5:B:1213:THR:HG23	1.97	0.45
4:A:53:LEU:CD1	4:A:263:THR:HG22	2.46	0.45
4:A:288:ALA:HA	4:A:291:GLU:CG	2.46	0.45
4:A:458:HIS:CE1	4:A:507:VAL:HG21	2.51	0.45
4:A:590:ARG:CD	4:A:592:ASP:OD1	2.62	0.45
4:A:718:VAL:C	4:A:720:ARG:N	2.68	0.45
4:A:829:VAL:C	4:A:831:THR:N	2.68	0.45
4:A:848:ILE:HD12	4:A:848:ILE:HG23	1.86	0.45
5:B:258:LEU:O	5:B:259:TYR:O	2.34	0.45
5:B:310:MET:HB2	5:B:310:MET:CE	2.46	0.45
5:B:545:ILE:C	5:B:634:TYR:HE2	2.19	0.45
5:B:578:THR:O	5:B:590:HIS:N	2.50	0.45
5:B:854:LEU:HD23	5:B:854:LEU:HA	1.19	0.45
7:E:79:TRP:O	7:E:80:VAL:C	2.51	0.45
9:H:39:THR:CB	9:H:124:ARG:HB3	2.47	0.45
13:L:53:HIS:C	13:L:55:ILE:H	2.19	0.45
4:A:1317:MET:O	4:A:1322:ILE:HD11	2.17	0.45
4:A:381:THR:HG23	4:A:382:PRO:CG	2.43	0.45
4:A:582:ILE:CG2	4:A:610:GLY:HA2	2.46	0.45
5:B:427:ASP:CA	5:B:430:ARG:HD2	2.46	0.45
5:B:426:LYS:HG2	5:B:430:ARG:NH1	2.31	0.45
5:B:973:ILE:CG2	5:B:974:PRO:HD2	2.31	0.45
6:C:21:ILE:CG2	6:C:22:LEU:N	2.79	0.45
7:E:168:TYR:O	7:E:169:ARG:CB	2.61	0.45
8:F:90:ARG:O	8:F:94:LEU:CB	2.57	0.45
9:H:4:THR:HG22	9:H:5:LEU:N	2.31	0.45
4:A:548:ASN:HD21	12:K:47:ARG:HE	1.63	0.45
12:K:58:PHE:O	12:K:59:ALA:HB2	2.16	0.45
13:L:55:ILE:HG12	13:L:55:ILE:H	1.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1116:LEU:HD23	4:A:1308:THR:HG21	1.98	0.45
4:A:135:PHE:CD1	4:A:222:LEU:HB3	2.51	0.45
4:A:495:GLU:HA	4:A:498:ARG:CG	2.45	0.45
4:A:784:LEU:N	4:A:784:LEU:HD23	2.14	0.45
4:A:827:THR:C	4:A:829:VAL:H	2.19	0.45
5:B:1000:PRO:O	5:B:1007:VAL:HG22	2.16	0.45
5:B:975:GLN:HE22	5:B:1100:ASP:HB2	1.81	0.45
5:B:205:ILE:CG2	5:B:206:ASN:HD21	2.28	0.45
5:B:535:LEU:HA	5:B:535:LEU:HD23	1.13	0.45
5:B:577:ALA:O	5:B:578:THR:C	2.47	0.45
5:B:780:VAL:HG12	5:B:817:LEU:HD23	1.97	0.45
5:B:801:LYS:HG2	11:J:52:THR:HG23	1.98	0.45
5:B:881:ASN:HA	5:B:881:ASN:C	2.13	0.45
6:C:107:SER:HB2	6:C:109:SER:H	1.81	0.45
6:C:80:LEU:HD12	6:C:94:LYS:O	2.16	0.45
9:H:109:LYS:CD	9:H:109:LYS:HE3	2.21	0.45
9:H:113:ALA:CA	9:H:125:LEU:O	2.64	0.45
10:I:75:CYS:HB3	10:I:103:CYS:HB2	1.98	0.45
11:J:36:LEU:O	11:J:37:SER:C	2.55	0.45
11:J:49:MET:HG3	11:J:49:MET:O	2.08	0.45
5:B:1039:GLY:HA2	11:J:51:LEU:CD2	2.47	0.45
4:A:547:LEU:CD2	12:K:58:PHE:CD1	2.89	0.45
4:A:1030:ARG:O	4:A:1031:VAL:C	2.55	0.45
4:A:1057:VAL:CG2	4:A:1057:VAL:CG1	2.80	0.45
4:A:1228:TRP:N	4:A:1228:TRP:CD2	2.83	0.45
4:A:1278:ASN:HA	4:A:1278:ASN:CB	2.22	0.45
4:A:40:THR:HG21	4:A:259:GLU:CD	2.36	0.45
4:A:324:SER:O	4:A:324:SER:OG	2.01	0.45
4:A:335:ARG:HH11	4:A:335:ARG:HD2	1.54	0.45
4:A:531:ILE:HG12	4:A:617:VAL:HG12	1.99	0.45
4:A:864:ILE:CG2	4:A:864:ILE:O	2.65	0.45
4:A:904:THR:CG2	4:A:905:ASP:H	2.30	0.45
5:B:1017:ILE:HB	5:B:1018:PRO:HD3	1.98	0.45
5:B:1151:LEU:CD2	5:B:1151:LEU:CD1	2.83	0.45
4:A:245:PRO:CB	5:B:1201:LYS:NZ	2.79	0.45
5:B:277:LYS:HD3	5:B:335:GLY:C	2.37	0.45
5:B:409:ALA:O	5:B:410:GLY:C	2.51	0.45
5:B:604:ARG:HH21	5:B:614:SER:HA	1.80	0.45
5:B:521:LEU:CD2	5:B:635:ARG:HD3	2.47	0.45
5:B:710:LEU:O	5:B:711:GLU:CG	2.61	0.45
5:B:780:VAL:HG12	5:B:817:LEU:CD2	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:254:LYS:HE2	12:K:38:GLU:OE2	2.16	0.45
7:E:9:ILE:HD11	7:E:53:PRO:CD	2.42	0.45
8:F:82:THR:HG22	8:F:83:PRO:HD2	1.99	0.45
8:F:83:PRO:HG2	8:F:84:TYR:N	2.31	0.45
10:I:116:ASN:ND2	10:I:116:ASN:CB	2.71	0.45
5:B:293:PRO:HA	10:I:12:ASN:HD21	1.81	0.45
4:A:999:VAL:HG12	4:A:1000:LEU:N	2.25	0.45
4:A:1097:GLY:O	4:A:1099:PRO:HD2	2.15	0.45
4:A:1118:VAL:O	4:A:1118:VAL:CG2	2.65	0.45
4:A:1193:LEU:HB3	4:A:1240:CYS:HB2	1.99	0.45
4:A:1289:ARG:O	4:A:1301:GLU:O	2.35	0.45
4:A:1394:THR:CG2	4:A:1398:MET:HE2	2.46	0.45
4:A:16:GLU:CD	4:A:1418:LEU:HD11	2.37	0.45
4:A:206:GLU:O	4:A:210:ILE:HD11	2.17	0.45
4:A:532:ARG:C	4:A:534:LEU:H	2.18	0.45
4:A:32:VAL:HG12	4:A:57:ARG:HD2	1.99	0.45
4:A:709:THR:O	4:A:711:ARG:N	2.49	0.45
4:A:714:PHE:CD2	10:I:97:MET:HE1	2.52	0.45
4:A:877:HIS:CG	4:A:877:HIS:CA	2.89	0.45
4:A:935:GLN:O	4:A:936:LEU:C	2.53	0.45
4:A:989:GLY:C	4:A:991:LYS:N	2.68	0.45
5:B:1158:PHE:CD2	5:B:1198:TYR:HD1	2.34	0.45
5:B:265:SER:O	5:B:266:ALA:CB	2.51	0.45
5:B:276:ILE:O	5:B:278:GLN:N	2.50	0.45
5:B:421:PHE:HA	5:B:453:ILE:HD11	1.99	0.45
5:B:457:LEU:O	5:B:461:LEU:HB2	2.16	0.45
6:C:136:ASP:OD2	6:C:140:ASN:O	2.33	0.45
6:C:142:VAL:CG1	6:C:143:LEU:N	2.78	0.45
7:E:112:TYR:CZ	7:E:136:ASN:CB	3.00	0.45
7:E:46:TYR:CE2	7:E:57:MET:O	2.69	0.45
8:F:83:PRO:O	8:F:151:LEU:HA	2.17	0.45
9:H:15:VAL:HG21	9:H:49:VAL:HG12	1.99	0.45
6:C:66:ARG:HH21	11:J:4:PRO:HA	1.82	0.45
12:K:7:PHE:CB	12:K:10:PHE:CZ	3.00	0.45
4:A:1228:TRP:HB2	4:A:1229:SER:O	2.17	0.45
4:A:13:THR:HB	4:A:15:LYS:HZ1	1.78	0.45
4:A:102:VAL:HG21	4:A:211:PHE:HZ	1.82	0.45
4:A:227:VAL:N	4:A:227:VAL:CB	2.72	0.45
4:A:47:ARG:HH21	4:A:255:SER:HB3	1.82	0.45
4:A:639:PRO:HG2	4:A:640:GLN:N	2.31	0.45
5:B:1051:THR:HB	5:B:1054:GLY:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1065:GLN:NE2	5:B:1066:SER:N	2.64	0.45
5:B:354:ASP:C	5:B:356:LEU:N	2.69	0.45
5:B:225:VAL:HG23	5:B:396:ASP:OD2	2.17	0.45
5:B:498:THR:HG21	5:B:537:LYS:HG2	1.99	0.45
5:B:617:ARG:CZ	5:B:619:ILE:HD13	2.46	0.45
5:B:662:MET:O	5:B:663:ALA:C	2.50	0.45
5:B:880:THR:H	5:B:880:THR:CB	2.29	0.45
5:B:953:LEU:HG	5:B:954:VAL:N	2.31	0.45
6:C:114:TYR:CD2	6:C:140:ASN:CB	2.97	0.45
6:C:120:ILE:H	6:C:120:ILE:HG12	1.58	0.45
6:C:144:ILE:O	6:C:145:CYS:CB	2.61	0.45
6:C:155:LEU:HB3	6:C:156:THR:H	1.47	0.45
6:C:10:ILE:CD1	6:C:20:PHE:HB3	2.45	0.45
7:E:12:LEU:O	7:E:13:TRP:C	2.54	0.45
7:E:175:LEU:HB3	7:E:176:PRO:CD	2.46	0.45
7:E:23:VAL:HG12	7:E:28:TYR:HB2	1.98	0.45
8:F:153:VAL:CA	8:F:153:VAL:CG1	2.80	0.45
8:F:93:ILE:CD1	8:F:134:ILE:HD11	2.46	0.45
10:I:20:LYS:O	10:I:21:GLU:O	2.35	0.45
10:I:4:PHE:CZ	10:I:13:MET:HE3	2.51	0.45
12:K:46:ILE:CG2	12:K:50:LEU:CD1	2.92	0.45
4:A:13:THR:HG21	4:A:15:LYS:HE3	1.99	0.45
4:A:325:ILE:C	4:A:325:ILE:HG22	2.37	0.45
4:A:387:ARG:O	4:A:388:LEU:C	2.55	0.45
4:A:577:ILE:O	4:A:580:VAL:N	2.26	0.45
4:A:707:GLY:O	4:A:708:MET:CB	2.63	0.45
5:B:837:ASP:OD1	5:B:1020:ARG:NH1	2.50	0.45
5:B:1065:GLN:O	5:B:1065:GLN:HG3	2.16	0.45
5:B:1152:MET:O	5:B:1157:ALA:HB2	2.16	0.45
4:A:30:ILE:HA	5:B:1183:LYS:NZ	2.31	0.45
5:B:92:PHE:HD2	5:B:132:VAL:HG22	1.81	0.45
5:B:250:PHE:N	5:B:250:PHE:C	2.66	0.45
5:B:276:ILE:CG2	5:B:277:LYS:N	2.76	0.45
5:B:36:ALA:O	5:B:37:PHE:O	2.34	0.45
5:B:413:LEU:HA	5:B:413:LEU:HD23	1.40	0.45
5:B:545:ILE:N	5:B:545:ILE:HD12	2.32	0.45
5:B:55:VAL:O	5:B:57:TYR:N	2.49	0.45
5:B:583:ASN:OD1	5:B:628:THR:HB	2.16	0.45
5:B:63:ILE:HA	5:B:421:PHE:HE2	1.74	0.45
5:B:789:MET:HE3	5:B:965:LYS:HB3	1.99	0.45
5:B:797:TYR:OH	5:B:971:THR:HG21	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:881:ASN:CB	5:B:881:ASN:ND2	2.70	0.45
5:B:913:GLY:HA2	5:B:938:SER:HB2	1.97	0.45
6:C:33:LEU:HG	6:C:37:MET:CE	2.47	0.45
7:E:124:VAL:CG2	7:E:132:ILE:CG2	2.70	0.45
7:E:157:SER:HB2	7:E:159:ASP:HB2	1.99	0.45
9:H:58:THR:C	9:H:59:ILE:HG12	2.36	0.45
4:A:1133:LEU:O	4:A:1136:SER:N	2.50	0.45
4:A:1147:THR:HA	4:A:1197:LEU:HD23	1.98	0.45
4:A:1161:THR:HG21	4:A:1163:ILE:HG13	1.96	0.45
4:A:1208:THR:O	4:A:1211:GLN:HB2	2.17	0.45
4:A:128:ILE:CG2	4:A:128:ILE:CA	2.84	0.45
4:A:141:LEU:HD23	4:A:141:LEU:HA	1.82	0.45
4:A:1437:GLY:O	4:A:1438:THR:C	2.53	0.45
4:A:359:LEU:HA	4:A:359:LEU:HD23	1.52	0.45
4:A:361:LEU:HA	4:A:471:ASN:ND2	2.31	0.45
4:A:443:LEU:HD12	5:B:1146:PHE:CZ	2.51	0.45
4:A:505:CYS:SG	5:B:1141:HIS:CD2	2.98	0.45
4:A:518:LYS:HA	4:A:631:HIS:CD2	2.52	0.45
5:B:26:THR:O	5:B:26:THR:OG1	2.27	0.45
5:B:660:LYS:HE2	5:B:679:TYR:CZ	2.52	0.45
5:B:542:MET:HE3	5:B:747:MET:HG3	1.99	0.45
5:B:795:ILE:N	5:B:795:ILE:HD12	2.32	0.45
5:B:789:MET:CE	5:B:965:LYS:CB	2.94	0.45
6:C:21:ILE:HG22	6:C:22:LEU:N	2.32	0.45
6:C:80:LEU:CD1	6:C:81:GLU:H	2.24	0.45
7:E:98:ILE:C	7:E:100:ILE:N	2.68	0.45
7:E:20:LYS:CB	7:E:35:VAL:HG22	2.46	0.45
7:E:46:TYR:CD2	7:E:57:MET:O	2.70	0.45
8:F:130:ILE:HA	8:F:131:PRO:HD3	1.53	0.45
9:H:132:LEU:CA	9:H:133:ASN:N	2.68	0.45
10:I:6:PHE:O	10:I:7:CYS:C	2.53	0.45
10:I:86:PHE:C	10:I:86:PHE:HD1	2.20	0.45
6:C:32:SER:HB3	12:K:41:THR:HG22	1.99	0.45
12:K:92:ASN:HA	12:K:95:ILE:CD1	2.33	0.45
2:T:13:DA:H2"	2:T:14:DG:H8	1.82	0.45
4:A:1066:VAL:O	4:A:1067:LEU:C	2.50	0.45
4:A:1227:ILE:C	4:A:1228:TRP:HE3	2.18	0.45
4:A:1308:THR:HG22	4:A:1309:ASP:N	2.31	0.45
4:A:1362:TYR:CD1	4:A:1363:VAL:C	2.91	0.45
4:A:1386:ARG:HA	4:A:1390:ASN:HB2	1.99	0.45
4:A:15:LYS:HE3	4:A:15:LYS:CD	2.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:289:ILE:CG2	4:A:290:GLU:N	2.80	0.45
4:A:298:PHE:HD2	4:A:299:HIS:H	1.64	0.45
4:A:423:ASP:HB3	4:A:424:ILE:H	1.48	0.45
4:A:88:LYS:HD2	4:A:293:GLU:OE2	2.17	0.45
5:B:1077:THR:CG2	5:B:1079:LYS:CB	2.95	0.45
4:A:9:ALA:CB	5:B:1193:GLN:HB2	2.47	0.45
5:B:195:CYS:HG	5:B:782:LEU:HD23	1.82	0.45
5:B:487:THR:O	5:B:487:THR:HG22	2.17	0.45
5:B:782:LEU:HB3	5:B:784:ASN:OD1	2.17	0.45
5:B:786:ASN:O	5:B:786:ASN:ND2	2.50	0.45
5:B:936:ASP:OD2	5:B:938:SER:OG	2.24	0.45
5:B:94:LYS:CG	5:B:94:LYS:CE	2.85	0.45
6:C:137:LYS:CD	6:C:137:LYS:HE2	2.21	0.45
6:C:196:ASP:C	6:C:198:ALA:H	2.20	0.45
6:C:250:THR:O	6:C:253:LYS:HB2	2.16	0.45
7:E:100:ILE:CG2	7:E:101:GLN:N	2.74	0.45
7:E:142:VAL:HG13	7:E:143:ASN:H	1.82	0.45
7:E:170:LEU:CD1	7:E:175:LEU:CD2	2.93	0.45
7:E:202:SER:HB3	7:E:205:SER:O	2.16	0.45
1:R:2:U:C5	1:R:3:C:C4	3.05	0.45
4:A:1438:THR:HG22	4:A:1438:THR:O	2.17	0.44
4:A:96:ILE:HG21	4:A:176:LYS:HE3	1.99	0.44
4:A:413:ILE:CD1	4:A:413:ILE:N	2.80	0.44
4:A:629:LEU:O	4:A:629:LEU:CD2	2.66	0.44
4:A:666:ILE:HD12	4:A:666:ILE:H	1.82	0.44
4:A:924:LYS:HE2	4:A:924:LYS:H	1.81	0.44
5:B:1170:THR:O	5:B:1170:THR:CG2	2.63	0.44
5:B:211:VAL:O	5:B:480:SER:HA	2.16	0.44
5:B:330:ALA:O	5:B:331:LEU:C	2.55	0.44
5:B:846:ILE:HG13	5:B:846:ILE:H	1.57	0.44
3:N:12:DT:C3'	7:E:119:SER:OG	2.65	0.44
8:F:109:VAL:HG11	8:F:123:LYS:HG2	1.98	0.44
12:K:24:ASP:OD1	12:K:26:LYS:HB2	2.17	0.44
4:A:986:ILE:HG21	4:A:1028:THR:HG23	1.99	0.44
4:A:1036:ARG:C	4:A:1037:LEU:O	2.48	0.44
4:A:1118:VAL:HG12	4:A:1327:ILE:CD1	2.46	0.44
4:A:113:LEU:C	4:A:114:LEU:CD2	2.83	0.44
4:A:152:VAL:HG12	4:A:153:PRO:N	2.32	0.44
4:A:199:LEU:O	4:A:201:VAL:CG2	2.65	0.44
4:A:560:ILE:HG22	4:A:561:PRO:N	2.31	0.44
4:A:571:LEU:HA	4:A:571:LEU:HD12	1.41	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:826:ASP:O	4:A:829:VAL:CA	2.65	0.44
4:A:836:TYR:CZ	4:A:1403:GLU:OE2	2.70	0.44
5:B:1182:CYS:O	5:B:1183:LYS:C	2.53	0.44
5:B:170:LEU:CD1	5:B:171:PRO:HG2	2.45	0.44
5:B:294:ASP:H	10:I:12:ASN:HD21	1.65	0.44
5:B:410:GLY:C	5:B:412:LEU:H	2.18	0.44
5:B:563:MET:HA	5:B:589:VAL:O	2.16	0.44
5:B:627:PHE:HB3	5:B:632:ARG:HH11	1.82	0.44
5:B:863:GLU:OE2	5:B:873:THR:CA	2.64	0.44
5:B:866:TYR:N	5:B:866:TYR:C	2.62	0.44
6:C:37:MET:HE2	6:C:37:MET:HB2	1.69	0.44
6:C:62:PHE:HD2	6:C:62:PHE:O	2.00	0.44
7:E:108:GLY:O	7:E:132:ILE:HA	2.17	0.44
7:E:173:SER:O	7:E:174:GLN:C	2.53	0.44
9:H:10:PHE:HB3	9:H:29:ALA:O	2.17	0.44
9:H:59:ILE:CD1	9:H:142:LEU:HB2	2.47	0.44
9:H:93:TYR:HD2	9:H:145:ARG:CG	2.29	0.44
10:I:85:PHE:HA	10:I:100:PHE:O	2.18	0.44
10:I:66:PRO:HD2	10:I:67:THR:HG23	1.98	0.44
13:L:46:VAL:HG13	13:L:56:LEU:HD12	1.99	0.44
4:A:107:CYS:HB2	4:A:108:MET:HG2	1.98	0.44
4:A:1133:LEU:O	4:A:1134:ILE:C	2.56	0.44
4:A:1394:THR:HG21	4:A:1398:MET:HB3	1.98	0.44
4:A:1402:PHE:CE2	4:A:1403:GLU:CG	3.01	0.44
4:A:144:THR:O	4:A:146:MET:HE3	2.16	0.44
4:A:423:ASP:O	4:A:424:ILE:CG1	2.65	0.44
4:A:423:ASP:O	4:A:424:ILE:HB	2.16	0.44
4:A:361:LEU:N	4:A:471:ASN:HD22	2.15	0.44
4:A:496:GLU:O	4:A:499:ALA:CB	2.65	0.44
4:A:49:LYS:CD	4:A:49:LYS:HE2	2.22	0.44
4:A:567:LYS:CD	9:H:96:VAL:H	2.30	0.44
4:A:582:ILE:HD11	4:A:629:LEU:CD1	2.46	0.44
4:A:954:TRP:CE3	4:A:955:PRO:HD2	2.52	0.44
5:B:314:LEU:C	5:B:316:PRO:HD2	2.37	0.44
5:B:408:LEU:HA	5:B:408:LEU:HD12	1.45	0.44
5:B:702:LEU:HB3	5:B:738:PHE:HA	2.00	0.44
5:B:957:ASN:HB3	5:B:961:LEU:HD13	1.94	0.44
6:C:115:SER:O	6:C:116:LYS:C	2.53	0.44
7:E:90:VAL:HB	7:E:119:SER:HB2	1.98	0.44
7:E:152:LYS:CG	7:E:152:LYS:HB3	2.19	0.44
7:E:75:MET:CG	7:E:76:GLY:N	2.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:F:86:THR:OG1	8:F:89:GLU:N	2.42	0.44
9:H:135:LEU:HD23	9:H:136:LYS:HD2	1.98	0.44
10:I:41:PRO:O	10:I:43:VAL:HG23	2.17	0.44
4:A:1052:GLN:C	4:A:1053:PHE:O	2.54	0.44
4:A:1154:TYR:HE1	10:I:18:GLU:CG	2.30	0.44
4:A:1277:GLU:HG3	4:A:1278:ASN:ND2	2.32	0.44
4:A:276:LEU:CD1	4:A:292:ALA:CB	2.95	0.44
4:A:266:LEU:CD2	4:A:303:TYR:CD1	2.99	0.44
4:A:320:ARG:C	4:A:322:VAL:HG12	2.38	0.44
4:A:553:VAL:HG12	4:A:554:PRO:HD2	2.00	0.44
4:A:660:ASN:ND2	5:B:1082:MET:CB	2.79	0.44
4:A:68:GLN:C	4:A:70:CYS:H	2.20	0.44
4:A:901:LEU:HD12	4:A:926:GLN:HG2	1.99	0.44
4:A:982:THR:C	4:A:984:LYS:N	2.70	0.44
4:A:1410:PHE:CE2	5:B:1212:ILE:HD11	2.52	0.44
5:B:492:LEU:HB2	5:B:751:VAL:HG21	1.97	0.44
6:C:84:ARG:CA	6:C:84:ARG:CG	2.83	0.44
7:E:170:LEU:HD23	7:E:170:LEU:HA	1.62	0.44
9:H:127:GLY:N	9:H:130:ARG:HH11	2.14	0.44
10:I:28:GLU:CD	10:I:28:GLU:C	2.76	0.44
12:K:7:PHE:CB	12:K:10:PHE:HZ	2.31	0.44
12:K:82:ASP:HA	12:K:83:PRO:HD2	1.30	0.44
2:T:13:DA:H1'	2:T:14:DG:C8	2.52	0.44
4:A:1039:LYS:O	4:A:1039:LYS:HD2	2.17	0.44
4:A:1154:TYR:HE2	4:A:1156:PRO:HB3	1.67	0.44
4:A:1284:MET:CA	4:A:1306:LEU:HD23	2.48	0.44
4:A:1444:MET:CA	4:A:1445:ILE:N	2.70	0.44
4:A:233:TRP:O	4:A:235:ILE:N	2.51	0.44
4:A:23:SER:HB3	4:A:233:TRP:CE2	2.52	0.44
4:A:311:GLN:C	4:A:311:GLN:CB	2.82	0.44
4:A:568:PRO:CB	6:C:221:TYR:HE1	2.30	0.44
4:A:60:SER:HB2	4:A:61:ILE:H	1.46	0.44
4:A:710:LEU:HD12	4:A:710:LEU:H	1.82	0.44
4:A:780:VAL:HG23	5:B:699:GLU:CD	2.38	0.44
4:A:990:VAL:CG2	4:A:1026:LEU:CB	2.95	0.44
5:B:1010:LEU:HD12	5:B:1011:ILE:N	2.32	0.44
5:B:114:PRO:HG3	5:B:181:LEU:HD12	1.99	0.44
5:B:322:PHE:HZ	10:I:30:ARG:HH11	1.64	0.44
5:B:210:LYS:HG3	5:B:461:LEU:O	2.18	0.44
5:B:469:GLN:CG	5:B:470:LYS:H	2.30	0.44
5:B:98:THR:O	5:B:126:SER:OG	2.29	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:26:ASP:O	6:C:27:LEU:C	2.56	0.44
7:E:32:GLN:C	7:E:33:GLU:C	2.76	0.44
8:F:135:ARG:NH1	8:F:143:PHE:CZ	2.85	0.44
9:H:82:PRO:CA	9:H:83:GLN:N	2.72	0.44
10:I:111:THR:HG23	10:I:112:SER:N	2.32	0.44
10:I:5:ARG:CD	10:I:36:GLU:OE2	2.64	0.44
10:I:98:VAL:CG1	10:I:99:LEU:N	2.80	0.44
13:L:45:ALA:C	13:L:46:VAL:HG23	2.38	0.44
4:A:1074:GLU:O	4:A:1076:ALA:N	2.50	0.44
4:A:206:GLU:HB2	4:A:207:ILE:HG13	2.00	0.44
4:A:598:LEU:O	4:A:600:PRO:CD	2.66	0.44
4:A:667:GLY:C	4:A:669:THR:H	2.21	0.44
4:A:720:ARG:HB3	4:A:720:ARG:HE	1.83	0.44
4:A:883:LEU:HA	4:A:883:LEU:HD23	1.41	0.44
5:B:1190:ASP:C	5:B:1191:ILE:HG13	2.37	0.44
5:B:258:LEU:C	5:B:259:TYR:O	2.53	0.44
5:B:521:LEU:O	5:B:540:SER:OG	2.36	0.44
5:B:582:VAL:HG22	5:B:626:ILE:HB	2.00	0.44
5:B:694:ASP:O	5:B:697:GLU:N	2.49	0.44
5:B:743:ILE:O	5:B:744:HIS:CB	2.66	0.44
5:B:814:PHE:O	5:B:818:PRO:CD	2.66	0.44
6:C:77:ILE:HA	6:C:129:ILE:CD1	2.46	0.44
6:C:204:SER:O	6:C:205:LYS:C	2.55	0.44
6:C:92:CYS:O	6:C:96:SER:CB	2.66	0.44
8:F:97:ARG:HB3	8:F:121:ALA:HB2	2.00	0.44
10:I:115:LYS:CD	10:I:115:LYS:HE2	2.19	0.44
10:I:60:GLN:NE2	10:I:107:SER:CB	2.77	0.44
12:K:87:LEU:C	12:K:90:ALA:CB	2.82	0.44
13:L:60:ARG:HD2	13:L:61:THR:H	1.82	0.44
4:A:1146:VAL:HG12	4:A:1201:ALA:HB3	1.99	0.44
4:A:117:GLU:O	4:A:123:ARG:HG3	2.18	0.44
4:A:219:PHE:C	4:A:222:LEU:HD12	2.36	0.44
4:A:297:GLN:O	4:A:297:GLN:HG3	2.18	0.44
4:A:320:ARG:NH2	5:B:470:LYS:C	2.71	0.44
4:A:351:THR:HG23	5:B:1103:ILE:CG1	2.47	0.44
4:A:352:VAL:HG12	4:A:353:ILE:CA	2.43	0.44
4:A:396:PRO:CA	4:A:397:ASN:OD1	2.66	0.44
4:A:508:PRO:CD	4:A:509:LEU:H	2.29	0.44
4:A:574:GLY:O	4:A:575:LYS:C	2.55	0.44
4:A:841:LEU:HA	4:A:841:LEU:HD23	1.27	0.44
4:A:943:LEU:O	4:A:945:GLU:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:981:LEU:HD11	4:A:1038:THR:CA	2.48	0.44
5:B:1159:ARG:HH21	5:B:1193:GLN:NE2	2.15	0.44
5:B:1207:LEU:HD23	5:B:1207:LEU:HA	1.62	0.44
5:B:198:ASP:OD1	5:B:485:ARG:NH2	2.44	0.44
5:B:288:ALA:HB2	5:B:330:ALA:HB1	2.00	0.44
5:B:436:VAL:C	5:B:436:VAL:N	2.64	0.44
5:B:703:ILE:HG22	5:B:704:ALA:N	2.33	0.44
5:B:763:GLN:HG2	5:B:764:SER:N	2.32	0.44
5:B:830:TYR:C	5:B:832:GLY:N	2.69	0.44
5:B:853:SER:C	5:B:854:LEU:HD23	2.38	0.44
5:B:94:LYS:HG2	5:B:94:LYS:CD	2.19	0.44
6:C:239:PRO:O	6:C:242:GLN:N	2.51	0.44
8:F:72:LYS:HB2	8:F:73:ALA:H	1.07	0.44
9:H:6:PHE:CD2	9:H:6:PHE:C	2.91	0.44
11:J:22:LEU:HD13	11:J:22:LEU:H	1.82	0.44
13:L:28:LYS:O	13:L:29:TYR:CD1	2.71	0.44
3:N:12:DT:C4'	7:E:119:SER:OG	2.66	0.44
4:A:1208:THR:C	4:A:1212:VAL:HG23	2.38	0.44
4:A:1388:GLY:C	4:A:1390:ASN:N	2.71	0.44
4:A:207:ILE:C	4:A:210:ILE:HG13	2.38	0.44
4:A:213:HIS:C	4:A:214:ILE:O	2.50	0.44
4:A:179:LEU:HD11	4:A:298:PHE:HA	1.99	0.44
4:A:265:LYS:HZ1	4:A:323:LYS:HG2	1.82	0.44
4:A:532:ARG:HH12	4:A:745:GLN:HE21	1.66	0.44
4:A:548:ASN:O	4:A:552:TRP:HB2	2.18	0.44
4:A:573:SER:O	4:A:576:GLN:CB	2.62	0.44
4:A:689:LYS:HD3	4:A:721:PHE:CG	2.53	0.44
4:A:901:LEU:O	4:A:903:ASN:CA	2.66	0.44
4:A:901:LEU:CA	4:A:907:THR:HG23	2.47	0.44
4:A:452:LYS:CB	5:B:1141:HIS:CE1	2.88	0.44
5:B:1219:ASP:O	5:B:1221:SER:N	2.51	0.44
5:B:125:SER:CB	5:B:171:PRO:HA	2.48	0.44
5:B:48:LEU:HA	5:B:48:LEU:HD23	1.31	0.44
5:B:546:SER:OG	5:B:631:GLY:N	2.51	0.44
5:B:708:GLU:O	5:B:711:GLU:N	2.51	0.44
5:B:848:ARG:NH2	5:B:996:ARG:NH1	2.66	0.44
5:B:957:ASN:ND2	5:B:958:GLN:CA	2.80	0.44
5:B:986:GLN:OE1	5:B:986:GLN:CA	2.55	0.44
6:C:107:SER:HB2	6:C:108:GLU:H	1.41	0.44
6:C:245:VAL:C	6:C:247:GLY:N	2.66	0.44
7:E:12:LEU:HG	7:E:12:LEU:O	2.14	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:164:LEU:O	7:E:165:LEU:C	2.57	0.44
8:F:97:ARG:NH2	8:F:108:PHE:CE1	2.85	0.44
12:K:10:PHE:CD1	12:K:11:LEU:CD1	2.95	0.44
1:R:10:A:H8	1:R:10:A:OP2	2.01	0.44
4:A:1134:ILE:O	4:A:1137:ALA:HB3	2.18	0.44
4:A:214:ILE:CG2	4:A:215:SER:N	2.81	0.44
4:A:223:GLY:O	4:A:224:PHE:CG	2.71	0.44
4:A:265:LYS:CE	4:A:323:LYS:CD	2.96	0.44
4:A:392:VAL:HG23	4:A:392:VAL:H	1.37	0.44
4:A:582:ILE:CD1	4:A:629:LEU:HD11	2.47	0.44
4:A:742:ASN:ND2	4:A:742:ASN:H	2.16	0.44
4:A:849:MET:CE	4:A:1061:GLY:C	2.86	0.44
5:B:1024:ALA:HA	5:B:1027:ILE:HD12	1.98	0.44
5:B:112:LEU:CG	5:B:113:TYR:N	2.80	0.44
5:B:1213:THR:HA	5:B:1214:PRO:HD3	1.67	0.44
5:B:624:LEU:HD12	5:B:625:LYS:N	2.33	0.44
5:B:68:THR:N	5:B:68:THR:CB	2.75	0.44
5:B:34:ILE:CD1	5:B:743:ILE:CG2	2.95	0.44
5:B:976:ILE:HD11	5:B:992:ILE:CD1	2.46	0.44
4:A:1004:ASN:CG	7:E:167:ARG:HD2	2.19	0.44
7:E:59:SER:HB3	7:E:81:GLU:HA	1.98	0.44
7:E:64:PRO:HD3	7:E:76:GLY:HA2	2.00	0.44
8:F:101:ILE:H	8:F:101:ILE:HG13	1.38	0.44
10:I:46:HIS:O	10:I:47:GLU:CB	2.66	0.44
11:J:57:ILE:O	11:J:61:LEU:HD12	2.17	0.44
12:K:17:SER:O	12:K:18:LYS:C	2.49	0.44
4:A:1101:LEU:HG	4:A:1105:LEU:HD12	2.00	0.43
4:A:1148:ILE:HG22	4:A:1149:ALA:CB	2.47	0.43
4:A:1209:MET:HA	4:A:1212:VAL:HG21	2.00	0.43
4:A:1212:VAL:C	4:A:1216:ILE:HG13	2.37	0.43
4:A:1191:TRP:CE2	4:A:1257:ASP:OD1	2.71	0.43
4:A:1397:LEU:HA	4:A:1397:LEU:HD23	1.46	0.43
4:A:209:ASN:O	4:A:212:LYS:HB2	2.17	0.43
4:A:353:ILE:HD12	4:A:482:PHE:CE2	2.53	0.43
4:A:725:ALA:C	4:A:727:ASP:N	2.65	0.43
4:A:783:THR:HG22	4:A:784:LEU:CG	2.48	0.43
4:A:860:LEU:CB	4:A:862:ASN:OD1	2.65	0.43
5:B:1160:VAL:CG1	5:B:1161:HIS:N	2.80	0.43
5:B:475:SER:OG	5:B:476:ARG:N	2.51	0.43
5:B:564:GLU:HA	5:B:565:PRO:HD3	1.82	0.43
5:B:570:VAL:CG1	5:B:570:VAL:CG2	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:801:LYS:HG2	5:B:801:LYS:O	2.16	0.43
5:B:857:ARG:CD	5:B:945:GLU:OE1	2.66	0.43
6:C:141:GLY:C	6:C:142:VAL:O	2.57	0.43
8:F:101:ILE:HD13	8:F:121:ALA:H	1.83	0.43
8:F:145:ASP:C	8:F:146:TRP:CD1	2.92	0.43
9:H:48:PRO:O	9:H:49:VAL:HG23	2.17	0.43
10:I:96:SER:OG	10:I:98:VAL:CG2	2.66	0.43
4:A:1052:GLN:O	4:A:1055:ARG:HB2	2.18	0.43
4:A:106:VAL:HG12	4:A:107:CYS:CA	2.47	0.43
4:A:1100:ARG:NH1	4:A:1104:ILE:HD11	2.33	0.43
4:A:1116:LEU:HD22	4:A:1310:GLY:O	2.17	0.43
4:A:1154:TYR:HE1	10:I:18:GLU:HG3	1.82	0.43
4:A:1166:ASP:O	4:A:1170:ILE:HG12	2.18	0.43
4:A:131:SER:O	4:A:134:ARG:CB	2.66	0.43
4:A:1355:VAL:N	4:A:1355:VAL:CB	2.68	0.43
4:A:1364:ASN:ND2	4:A:1366:ARG:NH1	2.63	0.43
4:A:18:GLN:CG	4:A:228:PHE:CE1	3.01	0.43
4:A:248:PRO:HB2	4:A:249:SER:H	1.46	0.43
4:A:312:PRO:C	4:A:313:GLN:HG3	2.36	0.43
4:A:33:ALA:CB	4:A:82:GLY:HA2	2.49	0.43
4:A:34:LYS:HZ1	4:A:57:ARG:HH21	1.62	0.43
4:A:432:VAL:O	4:A:434:ARG:N	2.48	0.43
4:A:463:ILE:CB	4:A:464:PRO:CD	2.95	0.43
4:A:535:THR:HG21	4:A:617:VAL:N	2.29	0.43
4:A:573:SER:O	4:A:574:GLY:C	2.56	0.43
4:A:601:LYS:CB	4:A:603:ASN:CG	2.86	0.43
5:B:1124:ARG:O	5:B:1125:ASP:CB	2.56	0.43
5:B:322:PHE:CZ	10:I:30:ARG:CD	3.01	0.43
5:B:954:VAL:HA	5:B:963:PHE:O	2.18	0.43
5:B:961:LEU:HD23	5:B:961:LEU:HA	1.71	0.43
5:B:976:ILE:HG22	5:B:977:GLY:CA	2.48	0.43
7:E:78:LEU:CA	7:E:107:THR:HG22	2.47	0.43
7:E:131:THR:CG2	7:E:132:ILE:HB	2.35	0.43
7:E:53:PRO:HB3	7:E:55:ARG:NH1	2.33	0.43
7:E:94:LYS:HE2	7:E:98:ILE:CD1	2.48	0.43
8:F:111:LEU:N	8:F:111:LEU:HD12	2.31	0.43
10:I:14:LEU:HA	10:I:15:TYR:CD1	2.38	0.43
1:R:2:U:H3'	1:R:3:C:C6	2.54	0.43
4:A:1426:GLU:H	4:A:1426:GLU:HG3	1.61	0.43
4:A:351:THR:HG22	5:B:1103:ILE:CD1	2.28	0.43
4:A:360:GLU:C	4:A:471:ASN:HD22	2.22	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:506:ALA:C	4:A:508:PRO:HD3	2.39	0.43
4:A:572:TRP:N	4:A:572:TRP:CE3	2.86	0.43
4:A:655:PHE:CD2	4:A:655:PHE:C	2.91	0.43
4:A:755:PHE:O	4:A:758:ILE:HB	2.18	0.43
4:A:913:LEU:HD12	4:A:914:GLU:CB	2.48	0.43
4:A:990:VAL:HG22	4:A:1026:LEU:HB2	2.00	0.43
5:B:1096:ARG:NH1	5:B:1096:ARG:HG2	2.32	0.43
5:B:165:VAL:HG12	5:B:166:PHE:N	2.32	0.43
5:B:235:SER:C	5:B:236:HIS:HD1	2.14	0.43
5:B:258:LEU:HD13	5:B:269:ILE:HG12	2.00	0.43
5:B:657:HIS:C	5:B:659:ALA:N	2.61	0.43
5:B:684:LEU:O	5:B:685:LEU:C	2.54	0.43
5:B:916:THR:O	5:B:935:ARG:HB2	2.19	0.43
5:B:973:ILE:HG22	5:B:974:PRO:N	2.30	0.43
6:C:241:ASP:CG	6:C:242:GLN:H	2.20	0.43
6:C:259:LEU:O	6:C:262:LEU:N	2.51	0.43
7:E:131:THR:HB	7:E:132:ILE:H	1.49	0.43
4:A:1365:TYR:CD1	7:E:203:GLU:CD	2.92	0.43
4:A:598:LEU:HB3	9:H:25:ARG:HH12	1.83	0.43
10:I:96:SER:OG	10:I:98:VAL:HG21	2.18	0.43
2:T:22:DT:H2'	2:T:23:DC:C6	2.53	0.43
4:A:1116:LEU:CD2	4:A:1311:VAL:HG22	2.32	0.43
4:A:1349:TYR:C	4:A:1351:GLU:N	2.71	0.43
4:A:261:ASP:C	4:A:262:LEU:HD23	2.37	0.43
4:A:269:ILE:HG13	4:A:299:HIS:HB3	1.99	0.43
4:A:352:VAL:C	4:A:353:ILE:CG2	2.87	0.43
4:A:382:PRO:HD3	4:A:428:TYR:CD2	2.52	0.43
4:A:391:LEU:O	4:A:392:VAL:C	2.53	0.43
4:A:493:GLN:HA	4:A:493:GLN:NE2	2.33	0.43
4:A:496:GLU:O	4:A:499:ALA:HB3	2.17	0.43
4:A:536:LEU:O	4:A:537:ARG:C	2.55	0.43
4:A:553:VAL:CG1	4:A:554:PRO:HD2	2.48	0.43
4:A:607:ILE:CG1	4:A:612:ILE:HA	2.46	0.43
4:A:65:LEU:CA	4:A:65:LEU:HB2	2.21	0.43
4:A:901:LEU:N	4:A:926:GLN:HE21	2.16	0.43
4:A:913:LEU:HD12	4:A:914:GLU:HB3	1.99	0.43
4:A:976:THR:N	4:A:976:THR:CB	2.75	0.43
5:B:1082:MET:O	6:C:189:THR:HG22	2.18	0.43
4:A:30:ILE:HG13	5:B:1170:THR:HG23	2.01	0.43
5:B:288:ALA:HB1	5:B:331:LEU:HD13	1.99	0.43
5:B:423:LYS:CG	5:B:423:LYS:NZ	2.80	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:515:HIS:C	5:B:517:THR:N	2.71	0.43
5:B:515:HIS:H	5:B:518:HIS:CD2	2.36	0.43
5:B:843:GLN:HB2	5:B:993:THR:CB	2.49	0.43
5:B:955:THR:HG23	13:L:54:ARG:C	2.29	0.43
6:C:73:GLN:H	6:C:131:HIS:H	1.65	0.43
8:F:87:LYS:O	8:F:88:TYR:C	2.55	0.43
9:H:40:LEU:HD13	9:H:123:MET:CE	2.46	0.43
9:H:47:PHE:N	9:H:48:PRO:CD	2.82	0.43
10:I:29:CYS:HB3	10:I:29:CYS:CA	2.20	0.43
4:A:1147:THR:CG2	10:I:48:LEU:CD1	2.96	0.43
12:K:9:LEU:O	12:K:37:LYS:HB3	2.18	0.43
4:A:1156:PRO:HG2	4:A:1157:ASP:N	2.32	0.43
4:A:1163:ILE:HA	4:A:1164:PRO:HD2	1.67	0.43
4:A:1211:GLN:O	4:A:1215:ARG:HB2	2.18	0.43
4:A:26:GLU:CA	4:A:29:ALA:HB3	2.31	0.43
4:A:329:LEU:HD22	4:A:329:LEU:HA	1.24	0.43
4:A:374:LEU:HD13	4:A:436:ILE:HD12	2.01	0.43
4:A:49:LYS:CD	4:A:49:LYS:HE3	2.22	0.43
4:A:501:LEU:O	4:A:505:CYS:HB2	2.18	0.43
4:A:526:ASP:O	4:A:527:THR:C	2.57	0.43
4:A:599:SER:O	4:A:600:PRO:C	2.48	0.43
4:A:590:ARG:HH21	4:A:621:THR:HA	1.83	0.43
4:A:79:GLY:HA3	4:A:245:PRO:HG2	2.00	0.43
5:B:1031:LEU:CD1	5:B:1055:ILE:HD12	2.45	0.43
5:B:1083:ALA:HA	5:B:1084:GLN:OE1	2.19	0.43
5:B:122:LEU:CD1	5:B:122:LEU:HB2	2.47	0.43
5:B:236:HIS:O	5:B:237:VAL:CG2	2.66	0.43
5:B:293:PRO:HG2	5:B:296:GLU:HB3	1.99	0.43
5:B:514:LEU:HD12	5:B:514:LEU:HA	1.84	0.43
5:B:602:THR:O	5:B:606:LYS:N	2.51	0.43
5:B:22:SER:O	5:B:654:ARG:CG	2.66	0.43
5:B:826:ALA:O	5:B:1011:ILE:CG2	2.48	0.43
5:B:984:HIS:NE2	5:B:1025:HIS:N	2.67	0.43
6:C:113:VAL:HB	6:C:145:CYS:H	1.83	0.43
6:C:163:ILE:O	6:C:165:LYS:N	2.52	0.43
6:C:5:GLY:O	6:C:6:PRO:O	2.35	0.43
7:E:147:HIS:O	7:E:150:VAL:N	2.30	0.43
7:E:158:SER:HB3	7:E:159:ASP:H	1.83	0.43
7:E:204:THR:HG22	7:E:205:SER:CA	2.48	0.43
7:E:94:LYS:HE2	7:E:98:ILE:HD11	2.00	0.43
8:F:94:LEU:HA	8:F:94:LEU:HD23	0.79	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:H:102:TYR:HD2	9:H:115:TYR:O	2.00	0.43
10:I:6:PHE:CD2	10:I:12:ASN:O	2.71	0.43
12:K:33:ILE:HG22	12:K:34:THR:O	2.18	0.43
12:K:45:LEU:HA	12:K:45:LEU:HD12	1.63	0.43
4:A:1097:GLY:O	4:A:1099:PRO:HG2	2.18	0.43
4:A:1106:ASN:O	4:A:1107:VAL:C	2.57	0.43
4:A:1444:MET:CB	4:A:1444:MET:HE3	2.48	0.43
4:A:322:VAL:HB	4:A:323:LYS:HD3	2.00	0.43
4:A:575:LYS:HD3	4:A:612:ILE:CD1	2.38	0.43
4:A:811:GLN:O	4:A:812:GLU:C	2.56	0.43
5:B:842:ASN:N	5:B:1009:ASP:O	2.46	0.43
5:B:22:SER:O	5:B:654:ARG:CD	2.66	0.43
5:B:281:PRO:C	5:B:283:VAL:N	2.69	0.43
5:B:291:ILE:HG22	5:B:297:ILE:CD1	2.49	0.43
5:B:62:ILE:CD1	5:B:418:LYS:HE2	2.48	0.43
5:B:43:LEU:HD13	5:B:812:LEU:CD2	2.49	0.43
5:B:871:THR:O	5:B:873:THR:OG1	2.37	0.43
5:B:991:GLY:O	5:B:992:ILE:CB	2.64	0.43
7:E:118:PRO:O	7:E:122:LYS:HE3	2.18	0.43
7:E:128:PRO:CD	7:E:128:PRO:O	2.66	0.43
9:H:42:ILE:HG22	9:H:44:VAL:CG2	2.48	0.43
10:I:19:ASP:HB2	10:I:24:ARG:CG	2.42	0.43
12:K:32:VAL:CG2	12:K:74:ARG:HA	2.47	0.43
1:R:6:G:H2'	1:R:7:A:O5'	2.19	0.43
4:A:131:SER:O	4:A:132:LYS:C	2.57	0.43
4:A:146:MET:HB2	4:A:146:MET:HE3	2.00	0.43
4:A:250:ILE:O	4:A:251:SER:CB	2.66	0.43
4:A:266:LEU:HD21	4:A:303:TYR:CE1	2.53	0.43
4:A:475:THR:O	4:A:476:SER:C	2.57	0.43
4:A:660:ASN:ND2	4:A:660:ASN:C	2.72	0.43
4:A:668:ASP:N	6:C:192:TRP:CZ2	2.82	0.43
4:A:771:GLU:OE2	5:B:510:LYS:HD3	2.19	0.43
4:A:815:PHE:C	4:A:817:ALA:N	2.71	0.43
4:A:886:ILE:CG1	4:A:943:LEU:HB2	2.48	0.43
5:B:100:PRO:HA	5:B:126:SER:HB2	2.01	0.43
5:B:1107:ALA:O	5:B:1108:ARG:HB3	2.18	0.43
5:B:1117:GLN:O	5:B:1118:PRO:C	2.54	0.43
5:B:1173:ALA:C	5:B:1175:LEU:H	2.22	0.43
4:A:22:PHE:CB	5:B:1211:ASN:CG	2.87	0.43
5:B:215:GLN:O	5:B:407:ASP:N	2.40	0.43
5:B:26:THR:O	5:B:28:GLU:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:626:ILE:HD12	5:B:626:ILE:N	2.34	0.43
5:B:65:GLU:HG2	5:B:66:ASP:H	1.33	0.43
5:B:685:LEU:HD12	5:B:685:LEU:HA	1.12	0.43
6:C:11:ARG:HG3	6:C:19:ASP:O	2.19	0.43
7:E:184:VAL:O	7:E:185:ALA:C	2.53	0.43
7:E:64:PRO:CG	7:E:76:GLY:CA	2.93	0.43
8:F:74:ILE:CG2	8:F:75:PRO:HG2	2.48	0.43
9:H:89:LEU:HG	9:H:89:LEU:CD2	2.23	0.43
4:A:884:ASP:OD2	4:A:1025:ARG:HD2	2.18	0.43
4:A:1096:SER:O	4:A:1099:PRO:CG	2.67	0.43
4:A:1118:VAL:CG2	4:A:1306:LEU:HB2	2.48	0.43
4:A:1150:SER:HB2	4:A:1195:LEU:HD22	2.01	0.43
4:A:266:LEU:HD22	4:A:266:LEU:HA	1.85	0.43
4:A:327:ALA:HA	4:A:330:LYS:HB2	2.01	0.43
4:A:43:GLU:O	4:A:46:THR:CB	2.59	0.43
4:A:494:SER:N	5:B:1149:GLU:OE2	2.52	0.43
4:A:503:GLN:O	4:A:509:LEU:CD1	2.67	0.43
4:A:547:LEU:HD22	12:K:58:PHE:CE1	2.49	0.43
4:A:553:VAL:O	4:A:556:TRP:HB2	2.18	0.43
4:A:605:MET:HE3	4:A:605:MET:HA	1.98	0.43
4:A:824:LEU:HD23	4:A:824:LEU:HA	1.14	0.43
5:B:1030:LEU:HD23	5:B:1055:ILE:CG2	2.48	0.43
5:B:1084:GLN:HE22	6:C:192:TRP:N	2.16	0.43
5:B:59:LEU:CD1	5:B:417:PHE:CD2	3.02	0.43
6:C:119:VAL:HG13	6:C:119:VAL:O	2.13	0.43
6:C:60:ASP:HB3	13:L:67:PHE:CZ	2.53	0.43
11:J:1:MET:HB2	11:J:1:MET:HE2	1.54	0.43
11:J:2:ILE:HA	11:J:53:HIS:HE1	1.82	0.43
12:K:78:THR:CG2	12:K:79:GLU:O	2.67	0.43
4:A:1007:ILE:O	4:A:1010:ALA:HB2	2.14	0.43
4:A:1166:ASP:OD1	4:A:1194:ARG:NH2	2.51	0.43
4:A:151:ASP:OD1	4:A:163:SER:HB3	2.19	0.43
4:A:232:GLU:HA	4:A:235:ILE:CD1	2.49	0.43
4:A:295:LEU:O	4:A:298:PHE:N	2.51	0.43
4:A:465:TYR:CD1	4:A:465:TYR:N	2.86	0.43
4:A:607:ILE:HG22	4:A:607:ILE:O	2.19	0.43
4:A:609:ASP:O	4:A:611:GLN:CB	2.64	0.43
4:A:782:ARG:HD2	4:A:782:ARG:HH11	1.47	0.43
4:A:33:ALA:HB3	4:A:82:GLY:HA2	2.00	0.43
4:A:666:ILE:HG13	5:B:1026:LEU:HB3	2.01	0.43
5:B:1137:CYS:O	5:B:1140:ALA:HB3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1162:ILE:HD13	5:B:1168:LEU:CA	2.48	0.43
5:B:410:GLY:HA3	5:B:411:PRO:HD3	1.40	0.43
5:B:914:LYS:H	5:B:938:SER:HB3	1.83	0.43
5:B:981:ALA:HA	5:B:1092:TYR:CD2	2.54	0.43
6:C:112:ASN:HB3	6:C:114:TYR:CE1	2.53	0.43
6:C:181:ASP:OD2	6:C:186:LEU:HD12	2.18	0.43
6:C:249:ASP:OD1	6:C:253:LYS:HE3	2.19	0.43
7:E:14:ARG:O	7:E:15:ALA:C	2.57	0.43
7:E:178:ILE:O	7:E:215:MET:CB	2.67	0.43
8:F:109:VAL:HG22	8:F:124:GLU:CG	2.49	0.43
4:A:853:ASP:HB3	8:F:138:LEU:CD2	2.48	0.43
8:F:133:VAL:HG22	8:F:146:TRP:C	2.39	0.43
9:H:81:PRO:C	9:H:81:PRO:CB	2.76	0.43
9:H:89:LEU:CB	9:H:89:LEU:CD1	2.88	0.43
10:I:42:LEU:HG	10:I:42:LEU:CD2	2.25	0.43
10:I:46:HIS:O	10:I:47:GLU:HB2	2.18	0.43
4:A:1225:PHE:CA	4:A:1226:VAL:HG23	2.49	0.43
4:A:1310:GLY:C	4:A:1311:VAL:CG2	2.86	0.43
4:A:14:VAL:CG2	4:A:1432:GLN:HE22	2.28	0.43
4:A:147:VAL:HA	4:A:170:THR:HG23	2.00	0.43
4:A:304:MET:HB2	4:A:304:MET:HE2	1.89	0.43
2:T:28:DT:H2'	4:A:317:LYS:CG	2.19	0.43
4:A:374:LEU:HD13	4:A:436:ILE:CD1	2.49	0.43
4:A:407:ARG:HB3	4:A:430:TRP:CZ2	2.54	0.43
4:A:566:ILE:C	4:A:567:LYS:O	2.58	0.43
4:A:619:LYS:C	4:A:621:THR:N	2.70	0.43
4:A:738:LYS:NZ	6:C:194:GLU:CA	2.80	0.43
4:A:958:VAL:CG1	4:A:959:ASN:N	2.69	0.43
5:B:1010:LEU:HA	5:B:1010:LEU:HD12	1.69	0.43
5:B:1219:ASP:C	5:B:1221:SER:N	2.69	0.43
5:B:284:ILE:HB	5:B:285:ILE:H	1.59	0.43
5:B:558:LEU:HB3	5:B:563:MET:HG2	2.01	0.43
5:B:554:ILE:HD11	5:B:609:ILE:CD1	2.49	0.43
5:B:788:ARG:C	5:B:789:MET:HG2	2.39	0.43
5:B:903:VAL:H	5:B:903:VAL:HG23	0.90	0.43
7:E:29:PHE:O	7:E:30:ILE:HG12	2.16	0.43
7:E:78:LEU:CG	7:E:107:THR:CG2	2.96	0.43
9:H:109:LYS:HB3	9:H:111:LEU:N	2.34	0.43
10:I:34:TYR:CG	10:I:35:VAL:N	2.87	0.43
11:J:52:THR:C	11:J:52:THR:CB	2.69	0.43
11:J:52:THR:O	11:J:54:VAL:CG2	2.63	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:K:5:ASP:O	12:K:6:ARG:O	2.37	0.43
13:L:34:CYS:O	13:L:35:SER:CB	2.65	0.43
4:A:1035:TYR:HD1	4:A:1035:TYR:O	2.02	0.42
4:A:1060:PRO:O	8:F:86:THR:HG21	2.19	0.42
4:A:128:ILE:CB	4:A:128:ILE:C	2.76	0.42
4:A:23:SER:O	4:A:27:VAL:HG23	2.19	0.42
4:A:288:ALA:HA	4:A:291:GLU:HG2	2.00	0.42
4:A:690:VAL:HG11	4:A:718:VAL:HG13	1.99	0.42
4:A:691:LEU:HB3	4:A:692:ASP:H	1.37	0.42
4:A:822:GLU:O	4:A:825:ILE:HB	2.19	0.42
4:A:893:PHE:HD2	4:A:894:GLU:N	2.16	0.42
4:A:901:LEU:CD2	4:A:907:THR:HG22	2.42	0.42
5:B:1025:HIS:HB3	5:B:1026:LEU:H	1.69	0.42
5:B:1165:ILE:HG22	5:B:1166:CYS:CA	2.50	0.42
5:B:1179:GLN:C	5:B:1180:PHE:CG	2.89	0.42
5:B:128:LEU:HB2	5:B:168:GLY:C	2.35	0.42
5:B:128:LEU:HB3	5:B:168:GLY:O	2.15	0.42
5:B:424:LEU:O	5:B:425:THR:C	2.56	0.42
5:B:724:ASP:HA	5:B:725:PRO:HD2	1.89	0.42
6:C:138:GLU:HG3	6:C:138:GLU:H	1.25	0.42
6:C:33:LEU:C	6:C:35:ARG:N	2.72	0.42
10:I:95:THR:CG2	10:I:96:SER:H	2.26	0.42
11:J:42:LYS:HG2	11:J:43:ARG:H	1.84	0.42
5:B:1087:PHE:HD2	11:J:44:TYR:OH	2.02	0.42
13:L:28:LYS:C	13:L:29:TYR:CD1	2.92	0.42
4:A:1074:GLU:CB	4:A:1075:PRO:HD3	2.39	0.42
4:A:326:ARG:O	4:A:329:LEU:HB2	2.18	0.42
4:A:388:LEU:HD23	4:A:388:LEU:O	2.19	0.42
4:A:619:LYS:O	4:A:623:GLY:N	2.49	0.42
4:A:742:ASN:HA	4:A:745:GLN:HG3	2.02	0.42
4:A:765:VAL:HG12	4:A:804:TYR:CE1	2.54	0.42
4:A:787:PHE:CZ	4:A:796:SER:HA	2.54	0.42
4:A:88:LYS:CA	4:A:89:PRO:HD2	2.49	0.42
4:A:953:ASN:N	4:A:954:TRP:CD1	2.87	0.42
4:A:964:ILE:O	4:A:968:GLN:N	2.49	0.42
5:B:1128:LEU:HA	5:B:1128:LEU:HD23	1.96	0.42
5:B:305:VAL:CA	5:B:305:VAL:CG1	2.92	0.42
5:B:345:LYS:N	5:B:347:LYS:HD2	2.34	0.42
5:B:418:LYS:O	5:B:419:THR:C	2.57	0.42
5:B:46:GLN:HE21	5:B:496:ARG:HG2	1.84	0.42
5:B:528:PRO:CG	5:B:528:PRO:O	2.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:563:MET:O	5:B:563:MET:HG3	2.18	0.42
5:B:765:PRO:O	5:B:766:ARG:C	2.56	0.42
5:B:864:LYS:C	5:B:865:LYS:CA	2.76	0.42
6:C:227:THR:C	6:C:228:PHE:CG	2.93	0.42
6:C:256:ALA:O	6:C:259:LEU:HB3	2.18	0.42
6:C:260:LEU:HD11	6:C:264:GLN:HE21	1.83	0.42
7:E:52:ARG:CB	7:E:52:ARG:C	2.78	0.42
7:E:52:ARG:HB3	7:E:53:PRO:CD	2.48	0.42
7:E:78:LEU:HD23	7:E:78:LEU:O	2.19	0.42
9:H:87:ARG:O	9:H:89:LEU:HD12	2.18	0.42
11:J:43:ARG:HD2	11:J:45:CYS:SG	2.59	0.42
12:K:5:ASP:CB	12:K:7:PHE:CE2	3.02	0.42
13:L:53:HIS:C	13:L:55:ILE:N	2.73	0.42
4:A:1063:MET:HB3	4:A:1063:MET:HE3	2.01	0.42
4:A:1344:GLY:O	4:A:1347:ALA:N	2.53	0.42
4:A:1365:TYR:C	4:A:1367:HIS:N	2.71	0.42
4:A:379:VAL:HG12	4:A:380:VAL:N	2.33	0.42
4:A:434:ARG:HB2	4:A:435:HIS:HB2	2.00	0.42
4:A:655:PHE:CE2	4:A:659:HIS:CD2	3.04	0.42
4:A:709:THR:HB	4:A:712:GLU:H	1.84	0.42
4:A:709:THR:O	4:A:710:LEU:C	2.52	0.42
4:A:878:ILE:O	4:A:879:GLU:CG	2.68	0.42
4:A:901:LEU:CB	4:A:926:GLN:HG3	2.39	0.42
4:A:990:VAL:HG12	4:A:991:LYS:H	1.84	0.42
5:B:1050:ILE:CG2	5:B:1051:THR:N	2.81	0.42
5:B:249:ARG:HA	5:B:249:ARG:CG	2.48	0.42
5:B:284:ILE:O	5:B:288:ALA:N	2.50	0.42
5:B:426:LYS:CD	5:B:426:LYS:HE3	2.22	0.42
5:B:681:TRP:O	5:B:684:LEU:N	2.53	0.42
5:B:734:HIS:O	5:B:735:ALA:HB2	2.18	0.42
5:B:893:LEU:CD2	5:B:897:GLY:C	2.85	0.42
6:C:11:ARG:HH21	6:C:229:TYR:HB3	1.84	0.42
6:C:245:VAL:O	6:C:248:ILE:N	2.52	0.42
7:E:190:LEU:CD2	7:E:190:LEU:CD1	2.86	0.42
9:H:131:ASN:O	9:H:133:ASN:N	2.51	0.42
9:H:10:PHE:CD2	9:H:30:SER:N	2.88	0.42
9:H:46:LEU:HD23	9:H:46:LEU:HA	1.70	0.42
10:I:88:SER:CA	10:I:100:PHE:HE1	2.32	0.42
11:J:36:LEU:HD22	11:J:36:LEU:HA	1.84	0.42
2:T:20:DC:C2'	2:T:21:DC:O5'	2.67	0.42
4:A:1266:THR:O	4:A:1267:MET:C	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1370:LEU:HA	4:A:1370:LEU:HD12	1.77	0.42
4:A:34:LYS:C	4:A:35:ILE:HG12	2.40	0.42
4:A:450:LEU:HA	4:A:838:GLN:NE2	2.35	0.42
4:A:537:ARG:HG2	4:A:537:ARG:HH11	1.85	0.42
4:A:68:GLN:O	4:A:68:GLN:CD	2.54	0.42
4:A:722:LEU:N	4:A:722:LEU:HD12	2.35	0.42
4:A:744:LYS:CE	4:A:748:MET:CE	2.95	0.42
4:A:784:LEU:HA	4:A:784:LEU:HD23	1.59	0.42
4:A:808:LEU:N	4:A:808:LEU:HD12	2.35	0.42
4:A:852:TYR:CD2	4:A:1060:PRO:HB3	2.54	0.42
4:A:968:GLN:HB3	4:A:968:GLN:HE21	1.21	0.42
5:B:1202:LEU:HD13	5:B:1206:GLU:CD	2.20	0.42
5:B:281:PRO:C	5:B:283:VAL:H	2.22	0.42
5:B:393:LYS:HE3	10:I:89:GLN:O	2.20	0.42
5:B:526:GLU:O	5:B:527:THR:HB	2.19	0.42
5:B:613:VAL:HG12	5:B:614:SER:N	2.35	0.42
5:B:640:VAL:CG1	5:B:650:GLU:O	2.67	0.42
5:B:781:PHE:HE2	5:B:793:ALA:HB1	1.84	0.42
5:B:942:ARG:HG3	5:B:945:GLU:HB2	2.02	0.42
6:C:57:VAL:HB	6:C:58:LEU:CD2	2.43	0.42
6:C:69:LEU:HA	6:C:69:LEU:HD12	1.39	0.42
7:E:136:ASN:OD1	7:E:138:ALA:HB3	2.19	0.42
7:E:168:TYR:CA	7:E:169:ARG:HG2	2.49	0.42
9:H:6:PHE:O	9:H:58:THR:HA	2.19	0.42
12:K:78:THR:CG2	12:K:79:GLU:N	2.66	0.42
4:A:1101:LEU:N	4:A:1355:VAL:CG2	2.79	0.42
4:A:1105:LEU:CB	4:A:1384:VAL:HG23	2.37	0.42
4:A:148:CYS:HB3	4:A:167:CYS:O	2.19	0.42
4:A:210:ILE:HB	4:A:211:PHE:H	0.88	0.42
4:A:239:LEU:C	4:A:240:PRO:O	2.58	0.42
4:A:321:PRO:CD	4:A:322:VAL:N	2.83	0.42
4:A:337:ARG:CZ	4:A:839:ARG:NH1	2.82	0.42
4:A:371:ALA:C	4:A:373:THR:H	2.21	0.42
4:A:381:THR:O	4:A:381:THR:HG22	2.19	0.42
4:A:437:MET:O	4:A:438:ASP:C	2.58	0.42
4:A:548:ASN:HD21	12:K:47:ARG:NE	2.18	0.42
4:A:578:LEU:O	4:A:581:ALA:N	2.42	0.42
4:A:648:ASN:C	4:A:650:GLN:N	2.70	0.42
5:B:215:GLN:OE1	5:B:479:VAL:HG13	2.20	0.42
5:B:28:GLU:C	5:B:30:SER:N	2.73	0.42
5:B:59:LEU:CD2	5:B:59:LEU:CB	2.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:614:SER:C	5:B:615:MET:HG2	2.39	0.42
5:B:701:ILE:CG1	5:B:740:HIS:HE1	2.32	0.42
5:B:864:LYS:HB2	5:B:871:THR:HA	2.00	0.42
6:C:142:VAL:HG12	6:C:143:LEU:N	2.34	0.42
6:C:181:ASP:N	6:C:182:PRO:HD2	2.33	0.42
6:C:87:PHE:CD1	6:C:87:PHE:N	2.88	0.42
7:E:12:LEU:CD2	7:E:42:PHE:CZ	3.01	0.42
10:I:17:ARG:HB3	10:I:17:ARG:CZ	2.10	0.42
4:A:1131:ALA:O	4:A:1132:LYS:C	2.58	0.42
4:A:1209:MET:H	4:A:1231:ASP:CG	2.22	0.42
4:A:1390:ASN:HD21	4:A:1399:ARG:HB3	1.71	0.42
4:A:1434:ALA:O	4:A:1439:GLY:HA3	2.19	0.42
4:A:151:ASP:O	4:A:152:VAL:HG22	2.19	0.42
4:A:220:THR:O	4:A:221:SER:O	2.37	0.42
4:A:946:VAL:O	4:A:948:VAL:HG23	2.20	0.42
4:A:970:THR:HB	4:A:971:PHE:CE1	2.54	0.42
5:B:1059:LEU:O	5:B:1059:LEU:HG	2.19	0.42
4:A:660:ASN:O	5:B:1081:LEU:HD22	2.20	0.42
4:A:30:ILE:CG1	5:B:1170:THR:HG23	2.49	0.42
5:B:214:ALA:O	5:B:215:GLN:HG2	2.18	0.42
5:B:357:GLN:CA	5:B:374:LYS:NZ	2.81	0.42
5:B:361:LEU:HD21	5:B:377:PHE:HD2	1.84	0.42
5:B:460:ALA:O	5:B:462:ALA:N	2.53	0.42
5:B:493:SER:OG	5:B:497:ARG:NH2	2.53	0.42
5:B:515:HIS:HD2	5:B:517:THR:H	1.60	0.42
5:B:752:ALA:C	5:B:754:SER:N	2.72	0.42
5:B:825:VAL:CG1	5:B:826:ALA:N	2.82	0.42
10:I:8:ARG:HB2	10:I:8:ARG:CG	2.22	0.42
11:J:43:ARG:CG	11:J:46:CYS:HB2	2.48	0.42
12:K:44:ASN:CA	12:K:61:TYR:CE2	3.01	0.42
12:K:3:ALA:HA	12:K:4:PRO:HD3	1.54	0.42
12:K:83:PRO:O	12:K:86:ALA:CA	2.68	0.42
13:L:57:LEU:HD23	13:L:57:LEU:HA	1.71	0.42
4:A:101:LYS:HG2	4:A:139:TRP:CE2	2.54	0.42
4:A:1398:MET:HB2	4:A:1426:GLU:OE2	2.20	0.42
4:A:433:GLU:H	4:A:433:GLU:HG2	1.40	0.42
4:A:624:SER:OG	4:A:624:SER:O	2.21	0.42
4:A:634:THR:O	4:A:634:THR:CG2	2.64	0.42
4:A:779:PHE:CD1	4:A:785:PRO:HD3	2.53	0.42
4:A:960:ILE:C	4:A:962:ARG:H	2.22	0.42
5:B:1007:VAL:HG13	5:B:1008:PRO:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1011:ILE:HG22	5:B:1012:ILE:N	2.21	0.42
5:B:1095:LEU:HA	5:B:1095:LEU:HD23	1.35	0.42
5:B:1096:ARG:CG	5:B:1097:HIS:N	2.80	0.42
5:B:110:HIS:CD2	5:B:111:ALA:N	2.87	0.42
16:B:1308:ATP:C8	16:B:1308:ATP:H5'2	2.54	0.42
5:B:170:LEU:HA	5:B:171:PRO:HD2	1.47	0.42
6:C:124:LEU:HA	6:C:124:LEU:HD23	1.54	0.42
6:C:60:ASP:O	6:C:63:ILE:HB	2.18	0.42
7:E:198:ILE:C	7:E:199:ILE:CG1	2.85	0.42
7:E:213:ILE:O	7:E:213:ILE:HG23	2.19	0.42
8:F:121:ALA:C	8:F:124:GLU:H	2.23	0.42
8:F:93:ILE:HD11	8:F:134:ILE:CD1	2.50	0.42
9:H:6:PHE:CD2	9:H:7:ASP:N	2.87	0.42
4:A:106:VAL:HA	4:A:114:LEU:HD21	2.02	0.42
4:A:1197:LEU:HD23	4:A:1197:LEU:HA	1.71	0.42
4:A:326:ARG:CG	4:A:1406:VAL:HG21	2.50	0.42
4:A:540:PHE:C	4:A:541:ILE:HG13	2.40	0.42
4:A:587:HIS:HE1	4:A:969:GLN:HG2	1.84	0.42
4:A:618:GLU:O	4:A:619:LYS:C	2.58	0.42
4:A:744:LYS:HG2	4:A:748:MET:HE3	2.01	0.42
4:A:756:ILE:HD13	4:A:756:ILE:HA	1.86	0.42
4:A:845:LEU:HG	4:A:845:LEU:H	1.20	0.42
5:B:1031:LEU:O	5:B:1032:SER:C	2.57	0.42
5:B:486:TYR:OH	5:B:1096:ARG:HB2	2.20	0.42
5:B:1099:VAL:O	5:B:1103:ILE:HD13	2.10	0.42
5:B:205:ILE:C	5:B:207:GLY:H	2.23	0.42
5:B:32:ALA:O	5:B:33:VAL:C	2.55	0.42
5:B:642:ASP:HA	5:B:649:LYS:HA	2.01	0.42
5:B:695:ALA:N	5:B:695:ALA:CB	2.72	0.42
5:B:825:VAL:HB	5:B:825:VAL:CG1	2.18	0.42
5:B:882:THR:OG1	5:B:882:THR:CG2	2.57	0.42
6:C:62:PHE:HD2	6:C:62:PHE:C	2.23	0.42
7:E:15:ALA:HB3	7:E:16:PHE:H	1.33	0.42
9:H:142:LEU:CD1	9:H:143:LEU:N	2.60	0.42
9:H:81:PRO:CB	9:H:82:PRO:N	2.83	0.42
12:K:1:MET:HG2	12:K:2:ASN:ND2	2.34	0.42
4:A:1048:ASN:O	4:A:1051:ALA:CB	2.58	0.42
4:A:1146:VAL:HG13	4:A:1201:ALA:CB	2.49	0.42
4:A:1373:ASP:HA	4:A:1376:THR:HG22	2.02	0.42
4:A:81:PHE:CE2	4:A:240:PRO:HB2	2.55	0.42
4:A:311:GLN:HB3	4:A:311:GLN:CA	2.24	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:380:VAL:HG21	4:A:429:GLY:N	2.35	0.42
4:A:396:PRO:CG	4:A:397:ASN:OD1	2.64	0.42
4:A:40:THR:HG22	4:A:41:MET:CE	2.44	0.42
4:A:58:LEU:HD23	4:A:58:LEU:HA	1.68	0.42
4:A:928:LEU:HA	4:A:928:LEU:HD23	1.31	0.42
4:A:929:LEU:H	4:A:929:LEU:CD2	2.10	0.42
5:B:1057:LYS:O	5:B:1058:LEU:C	2.56	0.42
5:B:1098:MET:O	5:B:1099:VAL:C	2.57	0.42
5:B:1134:GLU:O	5:B:1135:ARG:C	2.57	0.42
5:B:1204:PHE:CE1	5:B:1216:LEU:HD11	2.55	0.42
5:B:216:GLU:OE1	5:B:537:LYS:NZ	2.51	0.42
5:B:284:ILE:C	5:B:286:PHE:N	2.71	0.42
5:B:284:ILE:O	5:B:286:PHE:N	2.53	0.42
5:B:291:ILE:HD13	5:B:375:ALA:HB2	2.02	0.42
5:B:244:LEU:HD11	5:B:366:GLN:OE1	2.20	0.42
5:B:477:ALA:CB	5:B:478:GLY:O	2.64	0.42
5:B:488:TYR:O	5:B:491:THR:N	2.52	0.42
5:B:554:ILE:O	5:B:556:THR:N	2.53	0.42
5:B:610:ASN:HB3	5:B:613:VAL:CG2	2.50	0.42
5:B:632:ARG:HE	5:B:632:ARG:HB2	1.76	0.42
5:B:766:ARG:O	5:B:767:ASN:C	2.58	0.42
6:C:133:ILE:HD13	6:C:236:GLY:C	2.40	0.42
6:C:39:ALA:HA	6:C:164:ALA:HB3	2.01	0.42
6:C:67:LEU:HD23	6:C:144:ILE:CD1	2.48	0.42
8:F:83:PRO:CG	8:F:84:TYR:H	2.33	0.42
9:H:57:VAL:CG1	9:H:58:THR:N	2.83	0.42
9:H:84:ALA:HA	9:H:87:ARG:N	2.35	0.42
11:J:8:PHE:CD1	11:J:49:MET:SD	3.12	0.42
4:A:1075:PRO:HA	4:A:1078:GLN:CG	2.50	0.42
4:A:1151:GLU:O	4:A:1152:ILE:HD12	2.20	0.42
4:A:124:GLN:O	4:A:126:LEU:N	2.53	0.42
4:A:1287:TYR:CE2	4:A:1307:GLU:OE2	2.73	0.42
4:A:1348:LEU:HD12	4:A:1348:LEU:O	2.20	0.42
4:A:1352:VAL:O	4:A:1355:VAL:HB	2.20	0.42
4:A:1101:LEU:N	4:A:1355:VAL:HG21	2.34	0.42
4:A:241:VAL:HG13	4:A:242:PRO:HD2	2.02	0.42
4:A:415:LEU:HD23	4:A:415:LEU:H	1.85	0.42
4:A:399:HIS:O	4:A:435:HIS:CD2	2.73	0.42
4:A:508:PRO:HA	4:A:511:ILE:HG13	2.02	0.42
4:A:756:ILE:CG2	4:A:757:ASN:N	2.50	0.42
4:A:849:MET:HB3	4:A:1063:MET:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1119:VAL:HG23	5:B:1119:VAL:O	2.05	0.42
5:B:495:LEU:HA	5:B:495:LEU:HD23	1.36	0.42
5:B:564:GLU:HG3	5:B:564:GLU:H	1.66	0.42
5:B:640:VAL:CG2	5:B:740:HIS:HA	2.48	0.42
5:B:64:CYS:O	5:B:65:GLU:CB	2.67	0.42
5:B:984:HIS:C	5:B:986:GLN:N	2.73	0.42
6:C:131:HIS:O	6:C:132:PRO:O	2.36	0.42
6:C:227:THR:O	6:C:228:PHE:CD1	2.73	0.42
6:C:62:PHE:O	6:C:63:ILE:O	2.38	0.42
8:F:145:ASP:OD1	8:F:145:ASP:N	2.53	0.42
9:H:146:ARG:N	9:H:146:ARG:CG	2.83	0.42
9:H:76:THR:HG23	9:H:77:ARG:NH2	2.35	0.42
10:I:65:ASP:HA	10:I:66:PRO:HD3	1.31	0.42
12:K:101:LEU:O	12:K:101:LEU:CD2	2.68	0.42
4:A:1025:ARG:HA	4:A:1030:ARG:HH11	1.78	0.41
4:A:1146:VAL:O	4:A:1198:ASP:N	2.39	0.41
4:A:1443:VAL:CG1	4:A:1444:MET:N	2.76	0.41
4:A:1445:ILE:N	4:A:1445:ILE:CD1	2.82	0.41
4:A:375:THR:OG1	4:A:434:ARG:N	2.54	0.41
4:A:570:PRO:CD	4:A:570:PRO:O	2.68	0.41
4:A:606:LEU:HA	4:A:606:LEU:HD12	1.49	0.41
4:A:657:LEU:O	4:A:660:ASN:N	2.50	0.41
4:A:827:THR:O	4:A:831:THR:HB	2.20	0.41
4:A:889:SER:CB	4:A:891:ALA:HB3	2.36	0.41
5:B:1173:ALA:C	5:B:1175:LEU:N	2.72	0.41
5:B:237:VAL:CG1	5:B:238:ALA:N	2.79	0.41
5:B:254:LEU:CD2	5:B:361:LEU:HD11	2.21	0.41
5:B:569:TYR:HA	5:B:570:VAL:HG22	2.02	0.41
5:B:689:LEU:C	5:B:690:VAL:HG23	2.40	0.41
5:B:92:PHE:N	5:B:92:PHE:CD1	2.82	0.41
6:C:18:VAL:O	6:C:231:ASN:HA	2.20	0.41
6:C:70:ILE:H	6:C:70:ILE:HG22	1.55	0.41
7:E:110:PHE:C	7:E:110:PHE:CD1	2.94	0.41
7:E:173:SER:C	7:E:175:LEU:H	2.22	0.41
8:F:75:PRO:HB2	8:F:77:ASP:H	1.85	0.41
9:H:109:LYS:CB	9:H:111:LEU:HB2	2.49	0.41
9:H:77:ARG:O	9:H:78:SER:O	2.38	0.41
5:B:1064:TYR:CE2	11:J:44:TYR:HE2	2.38	0.41
12:K:32:VAL:CG2	12:K:74:ARG:CG	2.87	0.41
4:A:1135:ARG:O	4:A:1139:GLU:CB	2.68	0.41
4:A:1193:LEU:HD21	4:A:1267:MET:HE2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:260:ASP:HB3	4:A:261:ASP:H	1.56	0.41
4:A:315:LEU:HA	4:A:318:SER:O	2.20	0.41
4:A:352:VAL:HA	4:A:486:GLU:HA	2.01	0.41
4:A:517:ASN:OD1	4:A:517:ASN:O	2.38	0.41
4:A:549:MET:O	4:A:552:TRP:N	2.53	0.41
4:A:765:VAL:HG23	4:A:766:GLY:N	2.34	0.41
4:A:924:LYS:HE3	4:A:924:LYS:HB2	1.93	0.41
5:B:236:HIS:O	5:B:237:VAL:HG23	2.20	0.41
5:B:297:ILE:C	5:B:299:GLU:H	2.23	0.41
5:B:326:ASP:OD1	5:B:329:THR:OG1	2.37	0.41
5:B:509:ALA:HA	5:B:509:ALA:O	2.19	0.41
5:B:90:ILE:CG2	5:B:91:SER:N	2.80	0.41
5:B:992:ILE:HG13	5:B:993:THR:H	1.84	0.41
6:C:201:TRP:CD1	6:C:201:TRP:N	2.82	0.41
7:E:41:ASP:HA	7:E:44:ALA:HB3	2.01	0.41
4:A:1441:PHE:CD2	8:F:89:GLU:HG2	2.56	0.41
10:I:29:CYS:C	10:I:31:THR:H	2.23	0.41
10:I:3:THR:CG2	10:I:3:THR:HB	2.23	0.41
12:K:6:ARG:HH11	12:K:6:ARG:HD2	1.65	0.41
12:K:50:LEU:HD21	12:K:75:ILE:HD13	2.02	0.41
12:K:96:ASN:O	12:K:100:ALA:N	2.52	0.41
1:R:2:U:C4	1:R:3:C:N4	2.88	0.41
4:A:1366:ARG:H	4:A:1366:ARG:HG2	1.56	0.41
4:A:1377:THR:C	4:A:1379:GLY:N	2.73	0.41
4:A:206:GLU:O	4:A:210:ILE:CG1	2.68	0.41
4:A:273:ASN:N	4:A:296:LEU:CD1	2.74	0.41
4:A:33:ALA:HB1	4:A:35:ILE:CD1	2.51	0.41
4:A:504:LEU:HD12	4:A:504:LEU:N	2.35	0.41
4:A:53:LEU:HB3	4:A:54:ASN:HB3	2.02	0.41
4:A:567:LYS:HB2	9:H:95:TYR:HA	2.02	0.41
4:A:607:ILE:CA	4:A:607:ILE:CG2	2.87	0.41
4:A:602:ASP:HB3	4:A:616:VAL:HG23	2.01	0.41
4:A:693:VAL:O	4:A:696:GLU:HB3	2.20	0.41
4:A:833:GLU:O	4:A:836:TYR:N	2.51	0.41
4:A:900:ASP:N	4:A:926:GLN:NE2	2.59	0.41
4:A:974:ASP:N	4:A:974:ASP:OD1	2.53	0.41
5:B:203:PHE:CD1	5:B:461:LEU:HD21	2.55	0.41
5:B:430:ARG:HB3	5:B:434:ARG:NH1	2.35	0.41
5:B:460:ALA:C	5:B:462:ALA:H	2.22	0.41
5:B:567:GLU:O	5:B:569:TYR:N	2.44	0.41
5:B:648:HIS:NE2	5:B:650:GLU:OE1	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:798:TYR:H	5:B:799:PRO:HD3	1.84	0.41
6:C:221:TYR:N	6:C:221:TYR:CD2	2.88	0.41
6:C:34:ARG:HA	6:C:37:MET:CE	2.50	0.41
6:C:34:ARG:O	6:C:35:ARG:C	2.58	0.41
7:E:179:GLN:CB	7:E:182:ASP:HB2	2.50	0.41
7:E:182:ASP:O	7:E:185:ALA:N	2.54	0.41
7:E:59:SER:HB3	7:E:81:GLU:HB2	2.02	0.41
9:H:63:LEU:C	9:H:63:LEU:CB	2.81	0.41
10:I:77:LYS:HB2	10:I:77:LYS:CA	2.23	0.41
12:K:47:ARG:HB3	12:K:47:ARG:HH11	1.85	0.41
12:K:92:ASN:O	12:K:95:ILE:HB	2.21	0.41
4:A:1051:ALA:HB3	4:A:1052:GLN:H	1.43	0.41
4:A:1135:ARG:C	4:A:1138:ILE:H	2.22	0.41
4:A:1146:VAL:HG11	4:A:1202:MET:SD	2.61	0.41
4:A:1203:ASN:O	4:A:1205:LYS:N	2.53	0.41
4:A:140:THR:HG22	4:A:143:LYS:NZ	2.35	0.41
4:A:295:LEU:HD12	4:A:295:LEU:HA	1.80	0.41
4:A:346:ASP:O	4:A:347:PHE:C	2.56	0.41
4:A:379:VAL:HG13	4:A:380:VAL:N	2.33	0.41
4:A:567:LYS:CB	9:H:95:TYR:HA	2.50	0.41
4:A:691:LEU:HD13	4:A:691:LEU:HA	1.36	0.41
4:A:856:THR:HG21	4:A:865:GLN:HB2	2.03	0.41
4:A:932:GLU:OE1	4:A:987:VAL:HG22	2.19	0.41
4:A:943:LEU:C	4:A:945:GLU:N	2.73	0.41
4:A:500:GLU:OE2	5:B:1145:SER:HB2	2.20	0.41
5:B:132:VAL:H	5:B:132:VAL:HG23	1.54	0.41
5:B:269:ILE:HG22	5:B:270:LYS:N	2.35	0.41
5:B:287:ARG:NH1	5:B:324:ILE:O	2.54	0.41
5:B:422:LYS:C	5:B:426:LYS:HZ2	2.23	0.41
5:B:448:ILE:H	5:B:448:ILE:HG12	1.43	0.41
5:B:471:LYS:HD3	5:B:476:ARG:HH21	1.85	0.41
5:B:557:PHE:O	5:B:557:PHE:HD2	1.88	0.41
4:A:780:VAL:H	5:B:699:GLU:CD	2.23	0.41
7:E:12:LEU:HD12	7:E:12:LEU:HA	1.71	0.41
9:H:84:ALA:CB	9:H:87:ARG:HB2	2.50	0.41
10:I:12:ASN:HB3	10:I:13:MET:H	0.98	0.41
10:I:96:SER:CB	10:I:98:VAL:CG2	2.93	0.41
2:T:13:DA:H2"	2:T:14:DG:C8	2.56	0.41
2:T:28:DT:H2"	4:A:317:LYS:CB	2.41	0.41
4:A:1076:ALA:HA	4:A:1079:MET:HE3	2.03	0.41
4:A:1273:LEU:HA	4:A:1273:LEU:HD12	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1355:VAL:CG1	4:A:1355:VAL:CA	2.83	0.41
4:A:232:GLU:O	4:A:235:ILE:HD12	2.20	0.41
4:A:24:PRO:HB3	4:A:237:THR:CG2	2.48	0.41
4:A:35:ILE:CG2	4:A:270:LEU:HD13	2.29	0.41
4:A:314:ALA:HB1	4:A:320:ARG:HA	2.03	0.41
4:A:261:ASP:OD2	4:A:323:LYS:HD2	2.17	0.41
4:A:344:ARG:C	4:A:345:VAL:CG1	2.88	0.41
4:A:388:LEU:C	4:A:388:LEU:HD23	2.40	0.41
4:A:550:LEU:C	4:A:552:TRP:N	2.71	0.41
4:A:34:LYS:N	4:A:83:HIS:HD2	2.18	0.41
4:A:874:ASP:OD1	4:A:876:ALA:HB3	2.21	0.41
4:A:990:VAL:HG12	4:A:991:LYS:N	2.35	0.41
4:A:304:MET:SD	5:B:1210:MET:HG3	2.60	0.41
5:B:202:TYR:CD1	5:B:203:PHE:O	2.69	0.41
5:B:468:GLU:HG2	5:B:469:GLN:H	1.85	0.41
5:B:590:HIS:CD2	5:B:596:LEU:CD2	3.04	0.41
5:B:402:GLY:HA3	5:B:695:ALA:HB1	2.01	0.41
5:B:701:ILE:HG21	5:B:740:HIS:HE2	1.86	0.41
5:B:806:THR:CG2	5:B:807:ARG:N	2.83	0.41
5:B:839:MET:HB2	5:B:1010:LEU:HD11	2.01	0.41
5:B:868:MET:O	5:B:869:SER:CB	2.69	0.41
4:A:738:LYS:HZ2	6:C:194:GLU:HA	1.80	0.41
6:C:248:ILE:O	6:C:251:LEU:HB3	2.20	0.41
6:C:6:PRO:C	6:C:7:GLN:HG2	2.40	0.41
6:C:73:GLN:CG	6:C:75:MET:H	2.33	0.41
7:E:100:ILE:CD1	7:E:108:GLY:HA2	2.50	0.41
7:E:164:LEU:O	7:E:166:LYS:N	2.54	0.41
9:H:11:GLN:C	9:H:28:ALA:HB1	2.41	0.41
5:B:104:GLU:CG	13:L:54:ARG:CZ	2.98	0.41
4:A:1099:PRO:HG2	4:A:1100:ARG:N	2.26	0.41
4:A:1129:GLU:O	4:A:1132:LYS:N	2.54	0.41
4:A:1331:SER:O	4:A:1334:ASP:HB2	2.21	0.41
4:A:1339:LEU:HD23	4:A:1339:LEU:HA	1.79	0.41
4:A:18:GLN:HE21	4:A:1418:LEU:CB	2.24	0.41
4:A:243:PRO:O	4:A:244:PRO:C	2.59	0.41
4:A:32:VAL:HA	4:A:57:ARG:NH1	2.35	0.41
4:A:393:ARG:O	4:A:394:ASN:C	2.56	0.41
4:A:382:PRO:CD	4:A:428:TYR:CD2	3.04	0.41
4:A:445:ASN:HD22	4:A:446:ARG:C	2.22	0.41
4:A:463:ILE:HB	4:A:464:PRO:CD	2.39	0.41
4:A:569:LYS:HG2	4:A:571:LEU:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1051:THR:HG22	5:B:1052:VAL:CA	2.49	0.41
5:B:284:ILE:HG12	5:B:284:ILE:H	1.51	0.41
5:B:58:THR:HB	5:B:59:LEU:H	1.68	0.41
5:B:809:MET:O	5:B:810:GLU:C	2.58	0.41
6:C:237:SER:O	6:C:238:ILE:HG13	2.20	0.41
6:C:246:ARG:HA	6:C:249:ASP:HB3	2.03	0.41
7:E:75:MET:HG3	7:E:76:GLY:N	2.35	0.41
9:H:110:ASP:O	9:H:128:ASN:HB2	2.21	0.41
9:H:15:VAL:CG2	9:H:49:VAL:CG1	2.98	0.41
9:H:52:GLN:CG	9:H:52:GLN:NE2	2.71	0.41
9:H:81:PRO:HB2	9:H:82:PRO:N	2.35	0.41
11:J:43:ARG:HG3	11:J:45:CYS:SG	2.60	0.41
4:A:1217:LYS:O	4:A:1221:LYS:N	2.53	0.41
4:A:1261:LYS:C	4:A:1263:ILE:N	2.71	0.41
4:A:12:ARG:HD3	5:B:1192:TYR:CE2	2.48	0.41
4:A:1322:ILE:CD1	4:A:1322:ILE:H	2.29	0.41
4:A:139:TRP:C	4:A:141:LEU:H	2.24	0.41
4:A:274:ILE:HB	4:A:274:ILE:CA	2.27	0.41
4:A:294:SER:O	4:A:298:PHE:CB	2.67	0.41
4:A:326:ARG:HG2	4:A:1406:VAL:HG21	2.03	0.41
4:A:406:ILE:HG22	4:A:407:ARG:H	1.86	0.41
4:A:432:VAL:C	4:A:433:GLU:O	2.56	0.41
4:A:4:GLN:HG2	4:A:76:GLU:HB2	2.03	0.41
4:A:606:LEU:O	4:A:607:ILE:CG1	2.67	0.41
4:A:608:ILE:O	4:A:611:GLN:HB2	2.21	0.41
4:A:868:TYR:O	4:A:872:GLY:N	2.52	0.41
4:A:939:ASP:O	4:A:941:LYS:N	2.53	0.41
5:B:1110:PRO:C	5:B:1111:MET:HG2	2.39	0.41
5:B:1202:LEU:HB3	5:B:1203:LEU:H	0.95	0.41
5:B:128:LEU:HD12	5:B:128:LEU:HA	1.48	0.41
5:B:21:GLU:H	5:B:21:GLU:HG2	1.66	0.41
5:B:288:ALA:O	5:B:327:ARG:NH2	2.49	0.41
5:B:498:THR:CG2	5:B:499:ASN:N	2.72	0.41
5:B:955:THR:HG22	5:B:956:THR:H	1.53	0.41
6:C:138:GLU:OE1	6:C:140:ASN:ND2	2.54	0.41
5:B:1084:GLN:HE22	6:C:191:TYR:HA	1.84	0.41
6:C:83:SER:C	6:C:85:ASP:N	2.74	0.41
7:E:35:VAL:HB	7:E:35:VAL:N	2.35	0.41
9:H:93:TYR:CD2	9:H:145:ARG:CG	3.03	0.41
11:J:55:ASP:O	11:J:56:LEU:C	2.55	0.41
11:J:57:ILE:O	11:J:57:ILE:HG13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:J:7:CYS:O	11:J:8:PHE:C	2.57	0.41
4:A:1057:VAL:HG12	4:A:1058:VAL:C	2.41	0.41
4:A:1209:MET:HA	4:A:1212:VAL:CG2	2.50	0.41
4:A:1268:LEU:HD23	4:A:1268:LEU:HA	1.67	0.41
4:A:1276:VAL:O	4:A:1277:GLU:C	2.59	0.41
4:A:335:ARG:HE	4:A:335:ARG:H	1.67	0.41
4:A:359:LEU:C	4:A:359:LEU:HD23	2.31	0.41
4:A:368:LYS:C	4:A:370:ILE:N	2.74	0.41
4:A:464:PRO:HB2	4:A:465:TYR:HD1	1.80	0.41
4:A:476:SER:CB	4:A:477:PRO:CD	2.95	0.41
4:A:645:LEU:HD11	4:A:649:ILE:HG12	2.03	0.41
4:A:834:THR:HG21	4:A:1077:THR:CA	2.51	0.41
4:A:856:THR:HG21	4:A:865:GLN:CB	2.51	0.41
5:B:1030:LEU:HD11	5:B:1067:ARG:C	2.41	0.41
5:B:173:MET:O	5:B:176:SER:N	2.49	0.41
5:B:195:CYS:H	5:B:784:ASN:ND2	2.19	0.41
5:B:229:ALA:O	5:B:230:ALA:O	2.39	0.41
5:B:283:VAL:O	5:B:284:ILE:C	2.53	0.41
5:B:352:ALA:C	5:B:354:ASP:N	2.67	0.41
5:B:436:VAL:CA	5:B:437:GLU:N	2.68	0.41
5:B:646:LEU:HB2	5:B:646:LEU:CG	2.23	0.41
5:B:781:PHE:O	5:B:782:LEU:CG	2.61	0.41
6:C:163:ILE:O	6:C:166:GLU:N	2.42	0.41
6:C:3:GLU:HG2	12:K:104:ASN:HD21	1.86	0.41
7:E:198:ILE:HD11	7:E:212:ARG:HG3	2.02	0.41
8:F:128:LYS:CE	8:F:149:GLU:O	2.69	0.41
8:F:84:TYR:HA	8:F:152:ILE:HB	2.02	0.41
9:H:101:ALA:HB1	9:H:115:TYR:O	2.20	0.41
9:H:5:LEU:O	9:H:6:PHE:CB	2.59	0.41
12:K:34:THR:C	12:K:34:THR:HG22	2.41	0.41
4:A:1166:ASP:OD2	4:A:1239:ARG:CD	2.68	0.41
4:A:1322:ILE:HD13	4:A:1322:ILE:N	2.28	0.41
4:A:219:PHE:C	4:A:222:LEU:O	2.56	0.41
4:A:568:PRO:HB3	6:C:221:TYR:HE1	1.81	0.41
4:A:575:LYS:O	4:A:576:GLN:C	2.58	0.41
4:A:718:VAL:HG23	4:A:718:VAL:H	1.57	0.41
4:A:89:PRO:HB2	4:A:204:THR:HG22	2.02	0.41
4:A:900:ASP:C	4:A:907:THR:HG23	2.42	0.41
4:A:90:VAL:C	4:A:91:PHE:O	2.58	0.41
5:B:1175:LEU:HD23	5:B:1175:LEU:HA	1.66	0.41
5:B:114:PRO:HG2	5:B:181:LEU:HD11	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:356:LEU:HA	5:B:360:PHE:HB3	2.02	0.41
5:B:374:LYS:O	5:B:377:PHE:N	2.51	0.41
5:B:392:ARG:O	5:B:393:LYS:CE	2.66	0.41
5:B:758:PHE:CE2	5:B:1044:ALA:CA	3.03	0.41
5:B:821:GLN:HB2	5:B:851:PHE:CE2	2.56	0.41
6:C:74:SER:CA	6:C:77:ILE:HG12	2.50	0.41
6:C:80:LEU:HG	6:C:81:GLU:N	2.35	0.41
7:E:189:GLY:CA	7:E:190:LEU:HD23	2.50	0.41
7:E:42:PHE:CE1	7:E:58:MET:HE2	2.56	0.41
8:F:132:LEU:HD23	8:F:132:LEU:HA	1.75	0.41
10:I:81:ARG:HG3	10:I:81:ARG:HH11	1.86	0.41
12:K:93:SER:O	12:K:97:LYS:CG	2.63	0.41
3:N:4:DC:C6	3:N:5:DT:H72	2.56	0.41
4:A:1148:ILE:HG22	4:A:1149:ALA:N	2.35	0.41
4:A:1209:MET:CE	4:A:1238:ILE:HG12	2.51	0.41
4:A:1337:GLU:CG	4:A:1337:GLU:OE2	2.55	0.41
4:A:257:ARG:N	4:A:257:ARG:CB	2.72	0.41
4:A:265:LYS:HZ1	4:A:323:LYS:CD	2.33	0.41
4:A:284:ALA:N	4:A:284:ALA:CB	2.74	0.41
4:A:359:LEU:HD22	4:A:363:GLN:HB2	2.03	0.41
4:A:511:ILE:O	4:A:519:PRO:HA	2.21	0.41
4:A:605:MET:HB2	4:A:605:MET:SD	2.58	0.41
4:A:666:ILE:HA	5:B:1026:LEU:HD12	1.99	0.41
4:A:708:MET:HB2	4:A:712:GLU:HB2	2.02	0.41
4:A:901:LEU:HA	4:A:901:LEU:HD23	1.55	0.41
4:A:91:PHE:O	4:A:297:GLN:NE2	2.54	0.41
4:A:998:LEU:H	4:A:1011:GLN:HE22	1.68	0.41
5:B:1144:ALA:C	5:B:1146:PHE:H	2.20	0.41
5:B:1147:LEU:HD23	5:B:1147:LEU:HA	1.61	0.41
5:B:1159:ARG:NE	5:B:1193:GLN:HG3	2.36	0.41
5:B:195:CYS:HB3	5:B:198:ASP:HB2	2.03	0.41
5:B:292:ILE:HB	5:B:293:PRO:HD3	2.03	0.41
5:B:331:LEU:HD12	5:B:331:LEU:HA	1.49	0.41
5:B:378:LEU:HG	5:B:378:LEU:O	2.20	0.41
5:B:428:ILE:O	5:B:428:ILE:CG2	2.64	0.41
5:B:460:ALA:C	5:B:462:ALA:N	2.74	0.41
5:B:466:TRP:CA	5:B:475:SER:OG	2.68	0.41
5:B:529:GLU:H	5:B:529:GLU:HG3	1.76	0.41
5:B:547:VAL:N	5:B:612:GLU:OE2	2.54	0.41
5:B:738:PHE:C	5:B:739:THR:HG22	2.39	0.41
5:B:834:ASN:HB3	5:B:840:ILE:HG13	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:38:ILE:O	6:C:38:ILE:CG2	2.61	0.41
7:E:177:ARG:HD3	7:E:215:MET:SD	2.61	0.41
7:E:161:LYS:NZ	7:E:193:GLY:O	2.50	0.41
5:B:315:LYS:HG2	10:I:13:MET:HE1	2.03	0.41
10:I:52:ILE:C	10:I:52:ILE:CG1	2.88	0.41
12:K:105:PHE:C	12:K:107:THR:N	2.69	0.41
1:R:5:A:C5	1:R:6:G:N7	2.89	0.41
4:A:1037:LEU:N	4:A:1037:LEU:HD23	2.33	0.41
4:A:1194:ARG:C	4:A:1195:LEU:HD23	2.37	0.41
4:A:1350:LYS:CB	4:A:1350:LYS:HG3	2.19	0.41
4:A:1388:GLY:C	4:A:1390:ASN:H	2.24	0.41
4:A:1394:THR:HG22	4:A:1395:GLY:C	2.41	0.41
4:A:58:LEU:CD2	4:A:243:PRO:CB	2.80	0.41
4:A:25:GLU:HB3	4:A:26:GLU:H	1.70	0.41
4:A:451:HIS:N	4:A:1070:GLN:HG2	2.35	0.41
4:A:462:VAL:HG12	4:A:463:ILE:N	2.36	0.41
4:A:534:LEU:O	4:A:539:THR:CG2	2.68	0.41
4:A:578:LEU:C	4:A:578:LEU:HD12	2.41	0.41
4:A:607:ILE:HG12	4:A:612:ILE:CA	2.47	0.41
4:A:607:ILE:HD11	4:A:612:ILE:HB	2.03	0.41
4:A:613:ILE:O	4:A:613:ILE:HG22	2.21	0.41
4:A:622:VAL:C	4:A:623:GLY:O	2.58	0.41
4:A:690:VAL:O	4:A:691:LEU:C	2.57	0.41
4:A:697:ALA:HB2	4:A:702:LEU:HG	2.02	0.41
4:A:709:THR:C	4:A:711:ARG:H	2.23	0.41
4:A:892:ALA:CB	4:A:895:LYS:HD3	2.50	0.41
4:A:90:VAL:HG11	4:A:297:GLN:CB	2.51	0.41
4:A:913:LEU:CD1	4:A:914:GLU:H	2.33	0.41
5:B:1152:MET:CE	5:B:1195:HIS:O	2.69	0.41
5:B:219:ALA:HB2	5:B:405:ARG:CZ	2.51	0.41
5:B:513:GLN:O	5:B:514:LEU:C	2.53	0.41
5:B:731:VAL:CG1	5:B:732:SER:N	2.67	0.41
5:B:733:HIS:C	5:B:733:HIS:CB	2.84	0.41
5:B:801:LYS:H	11:J:52:THR:HG23	1.82	0.41
5:B:855:PHE:CD1	5:B:855:PHE:C	2.85	0.41
6:C:74:SER:CB	6:C:77:ILE:CG1	2.99	0.41
7:E:17:ARG:HD3	7:E:17:ARG:HH11	1.67	0.41
10:I:103:CYS:O	10:I:104:LEU:CD2	2.48	0.41
6:C:248:ILE:CG2	12:K:102:LYS:HB2	2.49	0.41
13:L:31:CYS:HA	13:L:56:LEU:HA	2.03	0.41
3:N:5:DT:C6	3:N:6:DT:H72	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1263:ILE:HG23	4:A:1267:MET:HG3	2.02	0.40
4:A:1332:PHE:HE1	4:A:1381:LEU:HD13	1.85	0.40
4:A:457:ALA:HB3	4:A:506:ALA:HB2	2.03	0.40
4:A:642:CYS:O	4:A:645:LEU:N	2.54	0.40
5:B:1083:ALA:C	5:B:1084:GLN:OE1	2.60	0.40
5:B:40:GLU:OE2	5:B:681:TRP:HB3	2.21	0.40
5:B:44:VAL:O	5:B:45:SER:C	2.59	0.40
5:B:638:PHE:O	5:B:740:HIS:HA	2.21	0.40
5:B:979:LYS:C	5:B:980:PHE:HD1	2.24	0.40
6:C:242:GLN:O	6:C:243:VAL:O	2.39	0.40
7:E:117:THR:C	7:E:119:SER:N	2.73	0.40
7:E:44:ALA:O	7:E:45:LYS:C	2.59	0.40
7:E:93:MET:CG	7:E:123:LEU:O	2.69	0.40
9:H:114:VAL:CG2	9:H:114:VAL:CG1	2.79	0.40
9:H:42:ILE:HG22	9:H:44:VAL:HG22	2.04	0.40
4:A:567:LYS:CE	9:H:95:TYR:CD2	3.04	0.40
5:B:737:THR:CG2	10:I:66:PRO:CB	2.93	0.40
11:J:58:GLU:HA	11:J:61:LEU:HD12	2.02	0.40
12:K:96:ASN:O	12:K:100:ALA:HB2	2.21	0.40
2:T:15:DA:OP2	2:T:15:DA:H3'	2.20	0.40
4:A:1349:TYR:O	4:A:1351:GLU:N	2.54	0.40
4:A:875:ALA:HB2	4:A:1366:ARG:HD2	2.03	0.40
4:A:1422:ARG:NH2	5:B:1220:ARG:CD	2.72	0.40
4:A:257:ARG:CB	4:A:258:GLY:CA	3.00	0.40
4:A:351:THR:HG23	5:B:1103:ILE:HG23	2.04	0.40
4:A:402:ALA:HB1	4:A:403:LYS:H	1.51	0.40
4:A:496:GLU:C	4:A:498:ARG:N	2.72	0.40
4:A:523:ILE:HG22	4:A:523:ILE:O	2.21	0.40
4:A:552:TRP:NE1	4:A:655:PHE:HD1	2.19	0.40
4:A:629:LEU:O	4:A:629:LEU:HD23	2.20	0.40
4:A:666:ILE:O	4:A:667:GLY:C	2.57	0.40
4:A:76:GLU:O	4:A:76:GLU:CG	2.69	0.40
4:A:889:SER:OG	4:A:892:ALA:HB3	2.22	0.40
4:A:897:TYR:CB	4:A:936:LEU:CD1	2.98	0.40
4:A:942:PHE:HD2	4:A:942:PHE:O	1.98	0.40
5:B:1024:ALA:HA	5:B:1027:ILE:HG13	2.03	0.40
5:B:282:ILE:O	5:B:285:ILE:HB	2.20	0.40
5:B:168:GLY:HA3	5:B:454:THR:OG1	2.14	0.40
5:B:68:THR:O	5:B:69:LEU:HD21	2.13	0.40
5:B:834:ASN:O	5:B:834:ASN:CG	2.60	0.40
5:B:840:ILE:O	5:B:1011:ILE:N	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:900:ALA:HA	5:B:901:PRO:HD3	1.61	0.40
6:C:29:MET:C	6:C:31:ASN:N	2.72	0.40
6:C:35:ARG:O	6:C:39:ALA:N	2.48	0.40
6:C:9:LYS:CD	6:C:9:LYS:CB	2.82	0.40
7:E:138:ALA:O	7:E:141:VAL:HG23	2.21	0.40
9:H:109:LYS:CG	9:H:110:ASP:OD2	2.69	0.40
9:H:135:LEU:HD23	9:H:136:LYS:CD	2.49	0.40
9:H:38:LEU:HD13	9:H:125:LEU:CD1	2.48	0.40
9:H:93:TYR:CD2	9:H:145:ARG:HG2	2.55	0.40
4:A:356:ASP:OD2	12:K:65:HIS:HE1	2.03	0.40
13:L:31:CYS:SG	13:L:32:ALA:N	2.94	0.40
3:N:13:DA:H1'	3:N:14:DG:H5'	2.03	0.40
2:T:21:DC:C5'	2:T:21:DC:P	3.05	0.40
4:A:1006:ILE:HD11	7:E:163:GLU:CG	2.51	0.40
4:A:1208:THR:CB	4:A:1211:GLN:HB2	2.28	0.40
4:A:181:LEU:HA	4:A:181:LEU:HD23	1.63	0.40
4:A:31:SER:CB	4:A:83:HIS:HB3	2.52	0.40
4:A:346:ASP:O	4:A:347:PHE:HB2	2.19	0.40
4:A:361:LEU:HD12	4:A:361:LEU:HA	1.51	0.40
4:A:475:THR:CG2	4:A:476:SER:N	2.84	0.40
4:A:645:LEU:HD11	4:A:649:ILE:CG1	2.51	0.40
4:A:645:LEU:HG	4:A:649:ILE:HD11	2.02	0.40
4:A:668:ASP:HA	4:A:741:ASN:OD1	2.21	0.40
5:B:1058:LEU:O	5:B:1059:LEU:C	2.57	0.40
5:B:279:ASP:C	5:B:280:ILE:HG12	2.42	0.40
5:B:305:VAL:CA	5:B:305:VAL:CG2	2.96	0.40
5:B:326:ASP:C	5:B:328:GLU:N	2.71	0.40
5:B:423:LYS:CA	5:B:426:LYS:HZ3	2.33	0.40
5:B:648:HIS:CD2	5:B:648:HIS:C	2.94	0.40
5:B:680:THR:O	5:B:681:TRP:C	2.57	0.40
5:B:802:PRO:HB3	5:B:1091:TYR:CZ	2.56	0.40
6:C:123:ASN:HD21	6:C:125:MET:HA	1.87	0.40
6:C:206:ASN:HD21	6:C:229:TYR:HB2	1.87	0.40
7:E:165:LEU:HA	7:E:165:LEU:HD22	1.53	0.40
9:H:40:LEU:HD12	9:H:40:LEU:HA	1.26	0.40
9:H:96:VAL:O	9:H:96:VAL:HG12	2.20	0.40
10:I:63:GLY:HA2	10:I:104:LEU:HD11	2.03	0.40
10:I:68:LEU:HA	10:I:68:LEU:HD23	1.70	0.40
4:A:711:ARG:NH1	10:I:95:THR:HB	2.30	0.40
11:J:10:CYS:CB	11:J:45:CYS:SG	3.09	0.40
12:K:40:HIS:C	12:K:42:LEU:N	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:2:DT:H1'	2:T:3:DA:H5'	2.03	0.40
4:A:1028:THR:C	4:A:1030:ARG:N	2.69	0.40
4:A:1137:ALA:HB3	4:A:1138:ILE:CD1	2.51	0.40
4:A:1146:VAL:HG13	4:A:1201:ALA:HB3	2.03	0.40
4:A:1215:ARG:NH1	4:A:1272:THR:O	2.54	0.40
4:A:1349:TYR:CD2	4:A:1350:LYS:N	2.89	0.40
4:A:140:THR:HG22	4:A:143:LYS:HZ2	1.86	0.40
2:T:27:DA:N1	4:A:252:PHE:CE2	2.90	0.40
4:A:332:LYS:O	4:A:333:GLU:C	2.60	0.40
4:A:351:THR:HB	4:A:352:VAL:O	2.21	0.40
4:A:886:ILE:HA	4:A:886:ILE:HD13	2.00	0.40
5:B:101:MET:CA	5:B:102:VAL:HG23	2.50	0.40
5:B:1159:ARG:HE	5:B:1193:GLN:HG3	1.85	0.40
5:B:185:THR:O	5:B:189:LEU:HD12	2.21	0.40
5:B:276:ILE:C	5:B:278:GLN:N	2.70	0.40
5:B:317:CYS:C	5:B:319:GLU:N	2.73	0.40
5:B:349:ILE:HD12	5:B:349:ILE:N	2.36	0.40
5:B:169:ARG:CB	5:B:454:THR:HG23	2.47	0.40
5:B:488:TYR:O	5:B:489:SER:C	2.57	0.40
5:B:48:LEU:H	5:B:48:LEU:HG	1.35	0.40
5:B:781:PHE:CD1	5:B:781:PHE:C	2.94	0.40
5:B:815:ARG:HB2	5:B:816:GLU:OE2	2.20	0.40
6:C:184:ASN:OD1	6:C:187:LYS:CA	2.69	0.40
6:C:24:ASN:C	6:C:25:VAL:HG22	2.38	0.40
7:E:161:LYS:C	7:E:163:GLU:H	2.16	0.40
7:E:17:ARG:O	7:E:21:GLU:N	2.45	0.40
8:F:120:ILE:O	8:F:123:LYS:N	2.55	0.40
9:H:84:ALA:HA	9:H:86:ASP:H	1.83	0.40
10:I:31:THR:CG2	10:I:32:CYS:CA	2.97	0.40
11:J:2:ILE:O	11:J:53:HIS:CD2	2.71	0.40
5:B:190:TYR:HD2	11:J:63:TYR:CZ	2.40	0.40
12:K:22:ASP:CB	12:K:23:PRO:HD2	2.43	0.40
12:K:44:ASN:HA	12:K:61:TYR:CE2	2.56	0.40
12:K:43:GLY:N	12:K:71:PHE:CE2	2.90	0.40
12:K:75:ILE:HG22	12:K:76:GLN:N	2.36	0.40
4:A:1073:GLY:O	4:A:1076:ALA:CB	2.64	0.40
4:A:1121:GLU:CA	4:A:1121:GLU:HB3	2.21	0.40
4:A:1155:ASP:HB3	4:A:1241:ARG:HH21	1.86	0.40
4:A:1224:LEU:CG	4:A:1226:VAL:HG22	2.50	0.40
4:A:101:LYS:CA	4:A:139:TRP:HE1	2.32	0.40
4:A:1408:ILE:O	4:A:1412:ALA:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:22:PHE:HB2	5:B:1211:ASN:CG	2.41	0.40
4:A:303:TYR:CG	4:A:303:TYR:O	2.71	0.40
4:A:41:MET:HG2	4:A:49:LYS:HA	2.04	0.40
4:A:571:LEU:N	4:A:571:LEU:CD1	2.78	0.40
4:A:71:GLN:O	4:A:73:GLY:CA	2.69	0.40
4:A:98:LYS:HA	4:A:98:LYS:CG	2.52	0.40
5:B:1034:VAL:O	5:B:1037:LEU:HB2	2.21	0.40
5:B:1135:ARG:O	5:B:1136:ASP:C	2.58	0.40
5:B:1202:LEU:O	5:B:1203:LEU:O	2.39	0.40
5:B:286:PHE:C	5:B:291:ILE:O	2.60	0.40
5:B:638:PHE:HB3	5:B:689:LEU:O	2.21	0.40
5:B:730:ARG:HA	5:B:731:VAL:HG23	2.02	0.40
5:B:830:TYR:HB3	5:B:831:SER:H	1.17	0.40
5:B:842:ASN:HB2	5:B:1008:PRO:O	2.22	0.40
5:B:866:TYR:HB2	5:B:866:TYR:CG	2.24	0.40
6:C:145:CYS:HA	11:J:2:ILE:CD1	2.51	0.40
6:C:77:ILE:HG22	6:C:78:GLU:N	2.28	0.40
7:E:111:VAL:CG1	7:E:111:VAL:C	2.89	0.40
7:E:50:MET:HB3	7:E:52:ARG:HG3	2.03	0.40
7:E:4:GLU:HG3	7:E:7:ARG:HH21	1.87	0.40
8:F:138:LEU:N	8:F:142:SER:O	2.51	0.40
9:H:16:ASP:HA	9:H:17:PRO:HD2	2.00	0.40
10:I:10:CYS:SG	10:I:32:CYS:HB3	2.62	0.40
10:I:89:GLN:HG2	10:I:89:GLN:H	1.47	0.40
3:N:6:DT:H1'	3:N:7:DA:H5'	2.03	0.40

All (4) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:1:DC:C4'	2:T:1:DC:C4'[2_656]	1.63	0.57
2:T:1:DC:C5'	2:T:1:DC:O4'[2_656]	1.69	0.51
2:T:1:DC:O4'	2:T:1:DC:O4'[2_656]	1.78	0.42
2:T:1:DC:C4'	2:T:1:DC:O4'[2_656]	1.80	0.40

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	A	1383/1733 (80%)	816 (59%)	306 (22%)	261 (19%)	0	2
5	B	1088/1224 (89%)	708 (65%)	199 (18%)	181 (17%)	0	2
6	C	264/318 (83%)	170 (64%)	58 (22%)	36 (14%)	0	4
7	E	212/215 (99%)	119 (56%)	47 (22%)	46 (22%)	0	1
8	F	82/155 (53%)	45 (55%)	22 (27%)	15 (18%)	0	2
9	H	129/146 (88%)	75 (58%)	28 (22%)	26 (20%)	0	1
10	I	117/122 (96%)	60 (51%)	32 (27%)	25 (21%)	0	1
11	J	63/70 (90%)	41 (65%)	10 (16%)	12 (19%)	0	2
12	K	112/120 (93%)	78 (70%)	18 (16%)	16 (14%)	0	3
13	L	44/70 (63%)	21 (48%)	11 (25%)	12 (27%)	0	0
All	All	3494/4173 (84%)	2133 (61%)	731 (21%)	630 (18%)	0	2

All (630) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	A	34	LYS
4	A	44	THR
4	A	48	ALA
4	A	51	GLY
4	A	55	ASP
4	A	56	PRO
4	A	59	GLY
4	A	62	ASP
4	A	63	ARG
4	A	68	GLN
4	A	69	THR
4	A	72	GLU
4	A	76	GLU
4	A	89	PRO

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Mol	Chain	Res	Type
4	A	93	VAL
4	A	99	ILE
4	A	104	GLU
4	A	108	MET
4	A	124	GLN
4	A	125	ALA
4	A	130	ASP
4	A	131	SER
4	A	132	LYS
4	A	138	ILE
4	A	149	GLU
4	A	167	CYS
4	A	169	ASN
4	A	178	GLY
4	A	184	SER
4	A	185	TRP
4	A	204	THR
4	A	209	ASN
4	A	212	LYS
4	A	214	ILE
4	A	219	PHE
4	A	220	THR
4	A	244	PRO
4	A	250	ILE
4	A	251	SER
4	A	253	ASN
4	A	268	ASP
4	A	275	SER
4	A	280	GLU
4	A	283	GLY
4	A	288	ALA
4	A	290	GLU
4	A	295	LEU
4	A	296	LEU
4	A	309	ALA
4	A	312	PRO
4	A	313	GLN
4	A	314	ALA
4	A	317	LYS
4	A	320	ARG
4	A	321	PRO
4	A	322	VAL

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Mol	Chain	Res	Type
4	A	324	SER
4	A	325	ILE
4	A	335	ARG
4	A	336	ILE
4	A	399	HIS
4	A	404	TYR
4	A	408	ASP
4	A	409	SER
4	A	415	LEU
4	A	428	TYR
4	A	456	MET
4	A	476	SER
4	A	537	ARG
4	A	538	ASP
4	A	556	TRP
4	A	567	LYS
4	A	568	PRO
4	A	569	LYS
4	A	596	THR
4	A	597	LEU
4	A	599	SER
4	A	600	PRO
4	A	610	GLY
4	A	662	PHE
4	A	668	ASP
4	A	691	LEU
4	A	776	ALA
4	A	846	GLU
4	A	852	TYR
4	A	854	ASN
4	A	888	GLY
4	A	889	SER
4	A	895	LYS
4	A	903	ASN
4	A	904	THR
4	A	905	ASP
4	A	909	ASP
4	A	920	LEU
4	A	922	ASP
4	A	942	PHE
4	A	949	ASP
4	A	994	GLN

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Mol	Chain	Res	Type
4	A	1002	GLY
4	A	1037	LEU
4	A	1041	ALA
4	A	1046	LEU
4	A	1051	ALA
4	A	1053	PHE
4	A	1054	LEU
4	A	1080	THR
4	A	1100	ARG
4	A	1115	SER
4	A	1139	GLU
4	A	1140	HIS
4	A	1174	PHE
4	A	1200	ALA
4	A	1255	GLU
4	A	1274	ARG
4	A	1281	ARG
4	A	1287	TYR
4	A	1327	ILE
4	A	1369	ALA
4	A	1386	ARG
4	A	1388	GLY
4	A	1393	ASN
4	A	1394	THR
4	A	1395	GLY
4	A	1400	CYS
4	A	1401	SER
5	B	21	GLU
5	B	23	ALA
5	B	27	ALA
5	B	28	GLU
5	B	29	ASP
5	B	38	PHE
5	B	45	SER
5	B	46	GLN
5	B	55	VAL
5	B	65	GLU
5	B	67	SER
5	B	94	LYS
5	B	168	GLY
5	B	175	ARG
5	B	180	TYR

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Mol	Chain	Res	Type
5	B	200	GLY
5	B	214	ALA
5	B	223	VAL
5	B	229	ALA
5	B	230	ALA
5	B	248	SER
5	B	249	ARG
5	B	274	PRO
5	B	284	ILE
5	B	294	ASP
5	B	300	HIS
5	B	318	VAL
5	B	327	ARG
5	B	332	ASP
5	B	333	PHE
5	B	346	GLU
5	B	353	LYS
5	B	367	LEU
5	B	418	LYS
5	B	419	THR
5	B	432	MET
5	B	450	ALA
5	B	451	LYS
5	B	452	THR
5	B	469	GLN
5	B	470	LYS
5	B	472	ALA
5	B	473	MET
5	B	475	SER
5	B	476	ARG
5	B	477	ALA
5	B	483	LEU
5	B	488	TYR
5	B	489	SER
5	B	531	GLN
5	B	546	SER
5	B	635	ARG
5	B	636	PRO
5	B	643	ASP
5	B	645	SER
5	B	646	LEU
5	B	653	VAL

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Mol	Chain	Res	Type
5	B	663	ALA
5	B	708	GLU
5	B	709	ASP
5	B	712	PRO
5	B	723	VAL
5	B	734	HIS
5	B	738	PHE
5	B	751	VAL
5	B	774	GLY
5	B	792	MET
5	B	799	PRO
5	B	872	GLU
5	B	879	ARG
5	B	899	ILE
5	B	943	SER
5	B	958	GLN
5	B	959	ASP
5	B	981	ALA
5	B	982	SER
5	B	1060	ARG
5	B	1061	GLU
5	B	1097	HIS
5	B	1115	THR
5	B	1132	GLU
5	B	1167	GLY
5	B	1176	ASN
5	B	1178	ASN
5	B	1181	GLU
5	B	1183	LYS
5	B	1185	CYS
5	B	1202	LEU
5	B	1203	LEU
5	B	1214	PRO
6	C	28	ALA
6	C	84	ARG
6	C	107	SER
6	C	129	ILE
6	C	164	ALA
6	C	195	GLN
6	C	202	PRO
6	C	206	ASN
6	C	215	GLU

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Mol	Chain	Res	Type
6	C	240	VAL
6	C	241	ASP
6	C	256	ALA
6	C	263	THR
7	E	3	GLN
7	E	31	THR
7	E	36	GLU
7	E	37	LEU
7	E	38	PRO
7	E	53	PRO
7	E	59	SER
7	E	77	SER
7	E	90	VAL
7	E	97	VAL
7	E	103	LYS
7	E	111	VAL
7	E	112	TYR
7	E	133	GLU
7	E	137	GLU
7	E	138	ALA
7	E	158	SER
7	E	161	LYS
7	E	162	ARG
7	E	165	LEU
7	E	183	PRO
7	E	203	GLU
8	F	74	ILE
8	F	76	LYS
8	F	91	ALA
8	F	102	SER
8	F	128	LYS
8	F	143	PHE
9	H	3	ASN
9	H	43	ASN
9	H	77	ARG
9	H	80	ARG
9	H	81	PRO
9	H	82	PRO
9	H	89	LEU
9	H	90	ALA
9	H	91	ASP
9	H	109	LYS

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Mol	Chain	Res	Type
9	H	110	ASP
9	H	130	ARG
9	H	135	LEU
10	I	10	CYS
10	I	11	ASN
10	I	16	PRO
10	I	20	LYS
10	I	21	GLU
10	I	54	GLU
10	I	57	GLY
10	I	79	HIS
10	I	89	GLN
10	I	107	SER
10	I	116	ASN
11	J	2	ILE
11	J	6	ARG
11	J	64	ASN
12	K	4	PRO
12	K	7	PHE
12	K	13	GLY
12	K	27	ALA
12	K	28	PRO
12	K	50	LEU
12	K	90	ALA
12	K	100	ALA
13	L	26	THR
13	L	35	SER
13	L	47	ARG
13	L	54	ARG
13	L	55	ILE
13	L	59	ALA
13	L	64	LEU
4	A	10	PRO
4	A	27	VAL
4	A	57	ARG
4	A	74	MET
4	A	129	LYS
4	A	139	TRP
4	A	153	PRO
4	A	210	ILE
4	A	234	MET
4	A	245	PRO

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Mol	Chain	Res	Type
4	A	254	GLU
4	A	271	LYS
4	A	286	HIS
4	A	332	LYS
4	A	369	SER
4	A	385	ILE
4	A	400	PRO
4	A	451	HIS
4	A	453	MET
4	A	477	PRO
4	A	531	ILE
4	A	591	PHE
4	A	609	ASP
4	A	628	GLY
4	A	651	LYS
4	A	667	GLY
4	A	730	GLY
4	A	737	LEU
4	A	756	ILE
4	A	819	GLY
4	A	837	ILE
4	A	902	LEU
4	A	929	LEU
4	A	931	GLU
4	A	958	VAL
4	A	972	HIS
4	A	979	SER
4	A	980	ASP
4	A	985	ASP
4	A	986	ILE
4	A	998	LEU
4	A	1028	THR
4	A	1042	PHE
4	A	1065	GLY
4	A	1098	VAL
4	A	1110	ASN
4	A	1141	THR
4	A	1201	ALA
4	A	1204	ASP
4	A	1242	VAL
4	A	1260	LEU
4	A	1330	ASN

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Mol	Chain	Res	Type
4	A	1357	ALA
4	A	1368	MET
4	A	1372	VAL
4	A	1383	SER
4	A	1437	GLY
5	B	105	SER
5	B	116	GLU
5	B	124	TYR
5	B	132	VAL
5	B	179	CYS
5	B	265	SER
5	B	275	TYR
5	B	355	ILE
5	B	375	ALA
5	B	378	LEU
5	B	410	GLY
5	B	436	VAL
5	B	457	LEU
5	B	466	TRP
5	B	471	LYS
5	B	478	GLY
5	B	555	ILE
5	B	595	ARG
5	B	602	THR
5	B	641	GLU
5	B	642	ASP
5	B	666	TYR
5	B	707	PRO
5	B	725	PRO
5	B	735	ALA
5	B	869	SER
5	B	870	ILE
5	B	880	THR
5	B	992	ILE
5	B	1028	GLU
5	B	1046	PRO
5	B	1114	LEU
5	B	1221	SER
6	C	5	GLY
6	C	18	VAL
6	C	60	ASP
6	C	136	ASP

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Mol	Chain	Res	Type
6	C	142	VAL
6	C	223	ALA
6	C	243	VAL
6	C	264	GLN
7	E	8	ASN
7	E	15	ALA
7	E	30	ILE
7	E	44	ALA
7	E	45	LYS
7	E	102	GLU
7	E	115	ASN
7	E	122	LYS
8	F	73	ALA
8	F	81	THR
8	F	112	GLU
8	F	120	ILE
9	H	20	TYR
9	H	32	THR
9	H	42	ILE
9	H	78	SER
9	H	83	GLN
9	H	108	SER
10	I	23	ASN
10	I	47	GLU
10	I	115	LYS
11	J	15	GLY
11	J	35	ALA
11	J	53	HIS
11	J	62	ARG
12	K	15	GLY
12	K	41	THR
12	K	43	GLY
12	K	81	TYR
13	L	50	ASP
4	A	123	ARG
4	A	140	THR
4	A	248	PRO
4	A	266	LEU
4	A	278	THR
4	A	306	ASN
4	A	361	LEU
4	A	364	VAL

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Mol	Chain	Res	Type
4	A	479	ASN
4	A	575	LYS
4	A	593	GLU
4	A	622	VAL
4	A	734	GLU
4	A	896	ARG
4	A	983	ILE
4	A	990	VAL
4	A	1036	ARG
4	A	1047	SER
4	A	1050	GLU
4	A	1101	LEU
4	A	1124	HIS
4	A	1257	ASP
4	A	1261	LYS
4	A	1350	LYS
4	A	1353	TYR
5	B	37	PHE
5	B	52	ASN
5	B	58	THR
5	B	171	PRO
5	B	398	ARG
5	B	431	TYR
5	B	594	ALA
5	B	601	ARG
5	B	695	ALA
5	B	753	ALA
5	B	770	GLN
5	B	818	PRO
5	B	881	ASN
5	B	942	ARG
5	B	961	LEU
5	B	1017	ILE
5	B	1140	ALA
5	B	1155	SER
5	B	1200	ALA
5	B	1223	ASP
6	C	6	PRO
6	C	48	SER
6	C	110	THR
6	C	212	PRO
6	C	214	ASN

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Mol	Chain	Res	Type
7	E	16	PHE
7	E	34	GLU
7	E	51	GLY
7	E	164	LEU
7	E	174	GLN
8	F	94	LEU
8	F	131	PRO
9	H	48	PRO
9	H	132	LEU
10	I	3	THR
10	I	8	ARG
10	I	34	TYR
10	I	86	PHE
11	J	8	PHE
11	J	32	GLU
12	K	8	GLU
12	K	71	PHE
12	K	99	GLY
13	L	39	SER
13	L	45	ALA
13	L	46	VAL
4	A	5	GLN
4	A	25	GLU
4	A	32	VAL
4	A	71	GLN
4	A	91	PHE
4	A	118	HIS
4	A	162	VAL
4	A	284	ALA
4	A	289	ILE
4	A	315	LEU
4	A	382	PRO
4	A	475	THR
4	A	701	LEU
4	A	702	LEU
4	A	788	SER
4	A	880	LYS
4	A	910	PRO
4	A	915	SER
4	A	926	GLN
4	A	938	LYS
4	A	1016	THR

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Mol	Chain	Res	Type
4	A	1392	SER
5	B	231	PRO
5	B	298	LEU
5	B	351	TYR
5	B	364	ILE
5	B	665	GLU
5	B	793	ALA
5	B	828	ALA
5	B	1144	ALA
5	B	1173	ALA
6	C	174	ALA
6	C	197	SER
6	C	213	PRO
6	C	227	THR
7	E	57	MET
7	E	99	HIS
7	E	109	ILE
7	E	118	PRO
7	E	124	VAL
7	E	189	GLY
7	E	205	SER
8	F	121	ALA
8	F	141	GLY
9	H	44	VAL
9	H	119	GLY
10	I	22	ASN
10	I	62	ILE
10	I	97	MET
11	J	36	LEU
4	A	61	ILE
4	A	285	PRO
4	A	424	ILE
4	A	497	THR
4	A	570	PRO
4	A	834	THR
4	A	916	GLY
4	A	963	ILE
4	A	1108	ALA
4	A	1135	ARG
4	A	1280	GLU
4	A	1389	PHE
5	B	60	GLN

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Mol	Chain	Res	Type
5	B	278	GLN
5	B	397	ASP
5	B	411	PRO
5	B	448	ILE
5	B	468	GLU
5	B	724	ASP
5	B	761	HIS
5	B	864	LYS
5	B	1030	LEU
5	B	1108	ARG
6	C	4	GLU
6	C	64	ALA
6	C	132	PRO
6	C	184	ASN
6	C	244	VAL
8	F	95	GLY
9	H	140	ALA
10	I	43	VAL
11	J	11	GLY
12	K	83	PRO
4	A	323	LYS
4	A	435	HIS
4	A	658	LEU
4	A	688	LYS
4	A	690	VAL
4	A	1049	ILE
4	A	1144	LYS
4	A	1169	ILE
4	A	1356	ILE
5	B	102	VAL
5	B	201	GLY
5	B	292	ILE
5	B	467	GLY
5	B	480	SER
5	B	667	GLN
5	B	1034	VAL
5	B	1037	LEU
6	C	172	PRO
7	E	86	PRO
7	E	154	ILE
10	I	15	TYR
13	L	56	LEU

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Mol	Chain	Res	Type
4	A	111	GLY
4	A	850	VAL
4	A	919	ILE
4	A	1045	VAL
4	A	1431	GLY
5	B	1054	GLY
5	B	1172	ILE
10	I	53	GLY
5	B	285	ILE
5	B	324	ILE
5	B	731	VAL
5	B	1184	GLY
9	H	23	VAL
11	J	13	VAL
4	A	1074	GLU
4	A	1097	GLY
4	A	1099	PRO
5	B	114	PRO
5	B	744	HIS
7	E	132	ILE
10	I	84	VAL
4	A	128	ILE
4	A	396	PRO
5	B	1042	GLY
7	E	117	THR
9	H	120	GLY
4	A	1294	PRO
5	B	1103	ILE

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	A	1218/1520 (80%)	759 (62%)	459 (38%)	0	1
5	B	960/1061 (90%)	614 (64%)	346 (36%)	0	1
6	C	234/274 (85%)	151 (64%)	83 (36%)	0	1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
7	E	196/197 (100%)	116 (59%)	80 (41%)	0	1
8	F	74/137 (54%)	47 (64%)	27 (36%)	0	1
9	H	117/128 (91%)	71 (61%)	46 (39%)	0	1
10	I	113/116 (97%)	70 (62%)	43 (38%)	0	1
11	J	60/65 (92%)	38 (63%)	22 (37%)	0	1
12	K	99/102 (97%)	63 (64%)	36 (36%)	0	1
13	L	40/57 (70%)	24 (60%)	16 (40%)	0	1
All	All	3111/3657 (85%)	1953 (63%)	1158 (37%)	0	1

All (1158) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	A	6	TYR
4	A	7	SER
4	A	13	THR
4	A	18	GLN
4	A	22	PHE
4	A	24	PRO
4	A	25	GLU
4	A	28	ARG
4	A	31	SER
4	A	32	VAL
4	A	37	PHE
4	A	41	MET
4	A	45	GLN
4	A	47	ARG
4	A	49	LYS
4	A	50	ILE
4	A	54	ASN
4	A	55	ASP
4	A	57	ARG
4	A	60	SER
4	A	62	ASP
4	A	63	ARG
4	A	64	ASN
4	A	65	LEU
4	A	67	CYS
4	A	68	GLN
4	A	69	THR
4	A	71	GLN

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Mol	Chain	Res	Type
4	A	80	HIS
4	A	81	PHE
4	A	83	HIS
4	A	84	ILE
4	A	89	PRO
4	A	93	VAL
4	A	95	PHE
4	A	96	ILE
4	A	98	LYS
4	A	99	ILE
4	A	100	LYS
4	A	102	VAL
4	A	107	CYS
4	A	108	MET
4	A	114	LEU
4	A	115	LEU
4	A	116	ASP
4	A	119	ASN
4	A	121	LEU
4	A	123	ARG
4	A	126	LEU
4	A	129	LYS
4	A	130	ASP
4	A	131	SER
4	A	132	LYS
4	A	133	LYS
4	A	134	ARG
4	A	135	PHE
4	A	140	THR
4	A	142	CYS
4	A	143	LYS
4	A	147	VAL
4	A	150	THR
4	A	151	ASP
4	A	154	SER
4	A	161	LEU
4	A	162	VAL
4	A	163	SER
4	A	164	ARG
4	A	167	CYS
4	A	169	ASN
4	A	170	THR

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Mol	Chain	Res	Type
4	A	171	GLN
4	A	177	ASP
4	A	179	LEU
4	A	180	LYS
4	A	184	SER
4	A	185	TRP
4	A	207	ILE
4	A	208	LEU
4	A	215	SER
4	A	217	LYS
4	A	219	PHE
4	A	221	SER
4	A	222	LEU
4	A	225	ASN
4	A	227	VAL
4	A	229	SER
4	A	234	MET
4	A	235	ILE
4	A	236	LEU
4	A	237	THR
4	A	239	LEU
4	A	240	PRO
4	A	247	ARG
4	A	249	SER
4	A	250	ILE
4	A	251	SER
4	A	252	PHE
4	A	253	ASN
4	A	254	GLU
4	A	255	SER
4	A	256	GLN
4	A	257	ARG
4	A	263	THR
4	A	265	LYS
4	A	266	LEU
4	A	271	LYS
4	A	277	GLU
4	A	285	PRO
4	A	287	HIS
4	A	290	GLU
4	A	291	GLU
4	A	295	LEU

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Mol	Chain	Res	Type
4	A	296	LEU
4	A	297	GLN
4	A	298	PHE
4	A	302	THR
4	A	303	TYR
4	A	304	MET
4	A	306	ASN
4	A	308	ILE
4	A	315	LEU
4	A	316	GLN
4	A	318	SER
4	A	321	PRO
4	A	323	LYS
4	A	324	SER
4	A	329	LEU
4	A	335	ARG
4	A	337	ARG
4	A	340	LEU
4	A	341	MET
4	A	344	ARG
4	A	350	ARG
4	A	356	ASP
4	A	359	LEU
4	A	364	VAL
4	A	380	VAL
4	A	381	THR
4	A	387	ARG
4	A	388	LEU
4	A	391	LEU
4	A	393	ARG
4	A	397	ASN
4	A	398	GLU
4	A	403	LYS
4	A	404	TYR
4	A	406	ILE
4	A	412	ARG
4	A	416	ARG
4	A	419	LYS
4	A	423	ASP
4	A	424	ILE
4	A	427	GLN
4	A	431	LYS

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Mol	Chain	Res	Type
4	A	433	GLU
4	A	434	ARG
4	A	435	HIS
4	A	436	ILE
4	A	437	MET
4	A	443	LEU
4	A	445	ASN
4	A	446	ARG
4	A	449	SER
4	A	450	LEU
4	A	452	LYS
4	A	453	MET
4	A	456	MET
4	A	461	LYS
4	A	462	VAL
4	A	464	PRO
4	A	466	SER
4	A	475	THR
4	A	476	SER
4	A	483	ASP
4	A	491	VAL
4	A	492	PRO
4	A	493	GLN
4	A	494	SER
4	A	495	GLU
4	A	496	GLU
4	A	498	ARG
4	A	500	GLU
4	A	501	LEU
4	A	502	SER
4	A	503	GLN
4	A	512	VAL
4	A	513	SER
4	A	514	PRO
4	A	515	GLN
4	A	516	SER
4	A	521	MET
4	A	524	VAL
4	A	525	GLN
4	A	528	LEU
4	A	531	ILE
4	A	533	LYS

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Mol	Chain	Res	Type
4	A	535	THR
4	A	536	LEU
4	A	538	ASP
4	A	539	THR
4	A	550	LEU
4	A	551	TYR
4	A	552	TRP
4	A	561	PRO
4	A	567	LYS
4	A	570	PRO
4	A	572	TRP
4	A	573	SER
4	A	577	ILE
4	A	584	ASN
4	A	588	LEU
4	A	589	GLN
4	A	590	ARG
4	A	596	THR
4	A	597	LEU
4	A	601	LYS
4	A	607	ILE
4	A	608	ILE
4	A	612	ILE
4	A	614	PHE
4	A	618	GLU
4	A	619	LYS
4	A	620	LYS
4	A	625	SER
4	A	629	LEU
4	A	630	ILE
4	A	635	ARG
4	A	644	LYS
4	A	648	ASN
4	A	653	VAL
4	A	660	ASN
4	A	674	PRO
4	A	677	ARG
4	A	680	THR
4	A	682	THR
4	A	685	GLU
4	A	687	LYS
4	A	691	LEU

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Mol	Chain	Res	Type
4	A	695	LYS
4	A	701	LEU
4	A	702	LEU
4	A	708	MET
4	A	710	LEU
4	A	711	ARG
4	A	713	SER
4	A	722	LEU
4	A	726	ARG
4	A	728	LYS
4	A	732	LEU
4	A	734	GLU
4	A	735	VAL
4	A	736	ASN
4	A	737	LEU
4	A	738	LYS
4	A	739	ASP
4	A	740	LEU
4	A	742	ASN
4	A	754	SER
4	A	756	ILE
4	A	764	CYS
4	A	765	VAL
4	A	768	GLN
4	A	773	LYS
4	A	774	ARG
4	A	780	VAL
4	A	784	LEU
4	A	788	SER
4	A	792	TYR
4	A	794	PRO
4	A	795	GLU
4	A	803	SER
4	A	805	LEU
4	A	806	ARG
4	A	816	HIS
4	A	818	MET
4	A	821	ARG
4	A	830	LYS
4	A	831	THR
4	A	839	ARG
4	A	840	ARG

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Mol	Chain	Res	Type
4	A	853	ASP
4	A	855	THR
4	A	856	THR
4	A	857	ARG
4	A	858	ASN
4	A	859	SER
4	A	865	GLN
4	A	867	ILE
4	A	873	MET
4	A	879	GLU
4	A	880	LYS
4	A	884	ASP
4	A	885	THR
4	A	886	ILE
4	A	890	ASP
4	A	893	PHE
4	A	895	LYS
4	A	896	ARG
4	A	898	ARG
4	A	899	VAL
4	A	902	LEU
4	A	904	THR
4	A	905	ASP
4	A	907	THR
4	A	911	SER
4	A	913	LEU
4	A	915	SER
4	A	918	GLU
4	A	924	LYS
4	A	929	LEU
4	A	934	LYS
4	A	940	ARG
4	A	941	LYS
4	A	943	LEU
4	A	945	GLU
4	A	962	ARG
4	A	964	ILE
4	A	968	GLN
4	A	969	GLN
4	A	976	THR
4	A	978	PRO
4	A	979	SER

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Mol	Chain	Res	Type
4	A	980	ASP
4	A	981	LEU
4	A	988	LEU
4	A	990	VAL
4	A	991	LYS
4	A	993	LEU
4	A	995	GLU
4	A	996	ASN
4	A	1000	LEU
4	A	1001	ARG
4	A	1003	LYS
4	A	1004	ASN
4	A	1022	LEU
4	A	1025	ARG
4	A	1028	THR
4	A	1029	ARG
4	A	1030	ARG
4	A	1032	LEU
4	A	1035	TYR
4	A	1036	ARG
4	A	1043	ASP
4	A	1046	LEU
4	A	1052	GLN
4	A	1060	PRO
4	A	1064	VAL
4	A	1067	LEU
4	A	1071	SER
4	A	1077	THR
4	A	1079	MET
4	A	1081	LEU
4	A	1092	LYS
4	A	1094	VAL
4	A	1095	THR
4	A	1098	VAL
4	A	1103	GLU
4	A	1107	VAL
4	A	1109	LYS
4	A	1112	LYS
4	A	1116	LEU
4	A	1120	LEU
4	A	1122	PRO
4	A	1128	GLN

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Mol	Chain	Res	Type
4	A	1132	LYS
4	A	1134	ILE
4	A	1135	ARG
4	A	1143	LEU
4	A	1145	SER
4	A	1146	VAL
4	A	1150	SER
4	A	1153	TYR
4	A	1156	PRO
4	A	1159	ARG
4	A	1162	VAL
4	A	1171	GLN
4	A	1172	LEU
4	A	1173	HIS
4	A	1176	LEU
4	A	1187	GLN
4	A	1189	SER
4	A	1190	PRO
4	A	1193	LEU
4	A	1199	ARG
4	A	1207	LEU
4	A	1208	THR
4	A	1215	ARG
4	A	1218	GLN
4	A	1221	LYS
4	A	1223	ASP
4	A	1228	TRP
4	A	1229	SER
4	A	1231	ASP
4	A	1234	GLU
4	A	1235	LYS
4	A	1239	ARG
4	A	1241	ARG
4	A	1243	VAL
4	A	1258	HIS
4	A	1259	MET
4	A	1261	LYS
4	A	1262	LYS
4	A	1264	GLU
4	A	1272	THR
4	A	1274	ARG
4	A	1280	GLU

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Mol	Chain	Res	Type
4	A	1281	ARG
4	A	1282	VAL
4	A	1285	MET
4	A	1288	ASP
4	A	1290	LYS
4	A	1295	THR
4	A	1299	VAL
4	A	1300	LYS
4	A	1303	GLU
4	A	1313	LEU
4	A	1315	GLU
4	A	1318	THR
4	A	1322	ILE
4	A	1324	PRO
4	A	1325	THR
4	A	1326	ARG
4	A	1327	ILE
4	A	1328	TYR
4	A	1333	ILE
4	A	1336	MET
4	A	1337	GLU
4	A	1342	GLU
4	A	1345	ARG
4	A	1355	VAL
4	A	1358	SER
4	A	1359	ASP
4	A	1362	TYR
4	A	1364	ASN
4	A	1366	ARG
4	A	1376	THR
4	A	1382	THR
4	A	1383	SER
4	A	1384	VAL
4	A	1385	THR
4	A	1387	HIS
4	A	1389	PHE
4	A	1391	ARG
4	A	1393	ASN
4	A	1398	MET
4	A	1399	ARG
4	A	1406	VAL
4	A	1407	GLU

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Mol	Chain	Res	Type
4	A	1411	GLU
4	A	1418	LEU
4	A	1420	ASP
4	A	1421	CYS
4	A	1422	ARG
4	A	1425	SER
4	A	1433	MET
4	A	1435	PRO
4	A	1441	PHE
4	A	1442	ASP
4	A	1445	ILE
5	B	20	ASP
5	B	21	GLU
5	B	22	SER
5	B	24	PRO
5	B	28	GLU
5	B	30	SER
5	B	34	ILE
5	B	37	PHE
5	B	41	LYS
5	B	49	ASP
5	B	50	SER
5	B	53	GLN
5	B	61	ASP
5	B	63	ILE
5	B	65	GLU
5	B	66	ASP
5	B	67	SER
5	B	68	THR
5	B	91	SER
5	B	92	PHE
5	B	94	LYS
5	B	97	VAL
5	B	98	THR
5	B	101	MET
5	B	104	GLU
5	B	109	THR
5	B	120	ARG
5	B	121	ASN
5	B	133	LYS
5	B	134	LYS
5	B	164	LYS

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Mol	Chain	Res	Type
5	B	166	PHE
5	B	174	LEU
5	B	175	ARG
5	B	176	SER
5	B	177	LYS
5	B	182	SER
5	B	185	THR
5	B	187	SER
5	B	188	ASP
5	B	189	LEU
5	B	192	LEU
5	B	194	GLU
5	B	205	ILE
5	B	206	ASN
5	B	215	GLN
5	B	217	ARG
5	B	218	SER
5	B	222	ILE
5	B	223	VAL
5	B	225	VAL
5	B	227	LYS
5	B	228	LYS
5	B	231	PRO
5	B	232	SER
5	B	233	PRO
5	B	234	ILE
5	B	241	ARG
5	B	245	GLU
5	B	246	LYS
5	B	249	ARG
5	B	251	ILE
5	B	253	THR
5	B	254	LEU
5	B	257	LYS
5	B	264	SER
5	B	265	SER
5	B	267	ARG
5	B	268	THR
5	B	275	TYR
5	B	276	ILE
5	B	277	LYS
5	B	279	ASP

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Mol	Chain	Res	Type
5	B	283	VAL
5	B	285	ILE
5	B	304	ASP
5	B	305	VAL
5	B	309	GLN
5	B	310	MET
5	B	316	PRO
5	B	319	GLU
5	B	322	PHE
5	B	324	ILE
5	B	325	GLN
5	B	327	ARG
5	B	329	THR
5	B	331	LEU
5	B	332	ASP
5	B	334	ILE
5	B	346	GLU
5	B	347	LYS
5	B	350	GLN
5	B	356	LEU
5	B	358	LYS
5	B	359	GLU
5	B	362	PRO
5	B	363	HIS
5	B	365	THR
5	B	367	LEU
5	B	372	SER
5	B	384	ARG
5	B	385	LEU
5	B	387	LEU
5	B	388	CYS
5	B	391	ASP
5	B	392	ARG
5	B	393	LYS
5	B	394	ASP
5	B	396	ASP
5	B	398	ARG
5	B	401	PHE
5	B	404	LYS
5	B	408	LEU
5	B	411	PRO
5	B	412	LEU

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Mol	Chain	Res	Type
5	B	415	GLN
5	B	416	LEU
5	B	418	LYS
5	B	419	THR
5	B	420	LEU
5	B	422	LYS
5	B	423	LYS
5	B	424	LEU
5	B	425	THR
5	B	426	LYS
5	B	430	ARG
5	B	431	TYR
5	B	432	MET
5	B	433	GLN
5	B	436	VAL
5	B	446	LEU
5	B	451	LYS
5	B	458	LYS
5	B	459	TYR
5	B	469	GLN
5	B	471	LYS
5	B	475	SER
5	B	482	VAL
5	B	483	LEU
5	B	485	ARG
5	B	498	THR
5	B	499	ASN
5	B	501	PRO
5	B	510	LYS
5	B	512	ARG
5	B	513	GLN
5	B	519	TRP
5	B	527	THR
5	B	528	PRO
5	B	529	GLU
5	B	537	LYS
5	B	538	ASN
5	B	539	LEU
5	B	547	VAL
5	B	552	MET
5	B	556	THR
5	B	563	MET

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Mol	Chain	Res	Type
5	B	567	GLU
5	B	570	VAL
5	B	572	HIS
5	B	573	GLN
5	B	574	SER
5	B	591	ARG
5	B	592	ASN
5	B	593	PRO
5	B	598	GLU
5	B	600	LEU
5	B	602	THR
5	B	604	ARG
5	B	606	LYS
5	B	613	VAL
5	B	615	MET
5	B	617	ARG
5	B	620	ARG
5	B	622	LYS
5	B	624	LEU
5	B	635	ARG
5	B	637	LEU
5	B	638	PHE
5	B	640	VAL
5	B	641	GLU
5	B	642	ASP
5	B	646	LEU
5	B	648	HIS
5	B	654	ARG
5	B	658	ILE
5	B	662	MET
5	B	667	GLN
5	B	679	TYR
5	B	682	SER
5	B	685	LEU
5	B	686	ASN
5	B	690	VAL
5	B	696	GLU
5	B	701	ILE
5	B	705	MET
5	B	710	LEU
5	B	711	GLU
5	B	712	PRO

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Mol	Chain	Res	Type
5	B	714	GLU
5	B	723	VAL
5	B	724	ASP
5	B	728	ARG
5	B	730	ARG
5	B	732	SER
5	B	734	HIS
5	B	736	THR
5	B	737	THR
5	B	740	HIS
5	B	741	CYS
5	B	742	GLU
5	B	746	SER
5	B	751	VAL
5	B	755	ILE
5	B	760	ASP
5	B	762	ASN
5	B	764	SER
5	B	766	ARG
5	B	773	MET
5	B	776	GLN
5	B	788	ARG
5	B	789	MET
5	B	790	ASP
5	B	794	ASN
5	B	795	ILE
5	B	802	PRO
5	B	806	THR
5	B	807	ARG
5	B	812	LEU
5	B	813	LYS
5	B	815	ARG
5	B	818	PRO
5	B	822	ASN
5	B	825	VAL
5	B	830	TYR
5	B	837	ASP
5	B	838	SER
5	B	844	SER
5	B	850	LEU
5	B	851	PHE
5	B	858	SER

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Mol	Chain	Res	Type
5	B	860	MET
5	B	861	ASP
5	B	864	LYS
5	B	865	LYS
5	B	871	THR
5	B	878	GLN
5	B	882	THR
5	B	883	LEU
5	B	884	ARG
5	B	886	LYS
5	B	889	THR
5	B	893	LEU
5	B	894	ASP
5	B	899	ILE
5	B	901	PRO
5	B	904	ARG
5	B	914	LYS
5	B	916	THR
5	B	933	SER
5	B	941	LEU
5	B	944	THR
5	B	949	VAL
5	B	953	LEU
5	B	956	THR
5	B	957	ASN
5	B	958	GLN
5	B	962	LYS
5	B	967	ARG
5	B	968	VAL
5	B	971	THR
5	B	975	GLN
5	B	976	ILE
5	B	982	SER
5	B	984	HIS
5	B	986	GLN
5	B	987	LYS
5	B	989	THR
5	B	995	ARG
5	B	996	ARG
5	B	997	GLU
5	B	999	MET
5	B	1000	PRO

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Mol	Chain	Res	Type
5	B	1007	VAL
5	B	1018	PRO
5	B	1020	ARG
5	B	1021	MET
5	B	1030	LEU
5	B	1031	LEU
5	B	1033	LYS
5	B	1046	PRO
5	B	1048	THR
5	B	1049	ASP
5	B	1057	LYS
5	B	1059	LEU
5	B	1061	GLU
5	B	1064	TYR
5	B	1065	GLN
5	B	1067	ARG
5	B	1074	ASN
5	B	1077	THR
5	B	1079	LYS
5	B	1082	MET
5	B	1084	GLN
5	B	1096	ARG
5	B	1098	MET
5	B	1106	ARG
5	B	1108	ARG
5	B	1113	VAL
5	B	1116	ARG
5	B	1119	VAL
5	B	1120	GLU
5	B	1123	SER
5	B	1124	ARG
5	B	1132	GLU
5	B	1141	HIS
5	B	1145	SER
5	B	1151	LEU
5	B	1152	MET
5	B	1153	GLU
5	B	1155	SER
5	B	1162	ILE
5	B	1165	ILE
5	B	1166	CYS
5	B	1171	VAL

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Mol	Chain	Res	Type
5	B	1174	LYS
5	B	1175	LEU
5	B	1181	GLU
5	B	1183	LYS
5	B	1185	CYS
5	B	1188	LYS
5	B	1189	ILE
5	B	1194	ILE
5	B	1195	HIS
5	B	1196	ILE
5	B	1201	LYS
5	B	1202	LEU
5	B	1203	LEU
5	B	1206	GLU
5	B	1208	MET
5	B	1210	MET
5	B	1218	THR
5	B	1219	ASP
5	B	1220	ARG
5	B	1221	SER
5	B	1222	ARG
6	C	7	GLN
6	C	9	LYS
6	C	11	ARG
6	C	14	SER
6	C	19	ASP
6	C	22	LEU
6	C	23	SER
6	C	25	VAL
6	C	26	ASP
6	C	27	LEU
6	C	29	MET
6	C	33	LEU
6	C	34	ARG
6	C	41	ILE
6	C	46	ILE
6	C	50	GLU
6	C	52	GLU
6	C	53	THR
6	C	55	THR
6	C	56	THR
6	C	62	PHE

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Mol	Chain	Res	Type
6	C	66	ARG
6	C	67	LEU
6	C	69	LEU
6	C	74	SER
6	C	77	ILE
6	C	79	GLN
6	C	86	CYS
6	C	89	GLU
6	C	96	SER
6	C	99	LEU
6	C	106	GLU
6	C	110	THR
6	C	111	THR
6	C	114	TYR
6	C	117	ASP
6	C	118	LEU
6	C	119	VAL
6	C	122	SER
6	C	123	ASN
6	C	124	LEU
6	C	125	MET
6	C	137	LYS
6	C	138	GLU
6	C	140	ASN
6	C	143	LEU
6	C	145	CYS
6	C	149	LYS
6	C	151	GLN
6	C	153	LEU
6	C	154	LYS
6	C	156	THR
6	C	163	ILE
6	C	166	GLU
6	C	178	PHE
6	C	183	TRP
6	C	189	THR
6	C	192	TRP
6	C	193	TYR
6	C	194	GLU
6	C	196	ASP
6	C	197	SER
6	C	199	LYS

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Mol	Chain	Res	Type
6	C	205	LYS
6	C	207	CYS
6	C	209	TYR
6	C	211	ASP
6	C	212	PRO
6	C	215	GLU
6	C	221	TYR
6	C	222	LYS
6	C	229	TYR
6	C	233	GLU
6	C	234	SER
6	C	240	VAL
6	C	246	ARG
6	C	250	THR
6	C	254	LYS
6	C	258	ILE
6	C	260	LEU
6	C	264	GLN
6	C	267	GLN
6	C	268	ASP
7	E	2	ASP
7	E	4	GLU
7	E	6	GLU
7	E	8	ASN
7	E	9	ILE
7	E	10	SER
7	E	17	ARG
7	E	21	GLU
7	E	24	LYS
7	E	31	THR
7	E	35	VAL
7	E	36	GLU
7	E	37	LEU
7	E	40	GLU
7	E	43	LYS
7	E	45	LYS
7	E	49	SER
7	E	50	MET
7	E	52	ARG
7	E	58	MET
7	E	59	SER
7	E	60	PHE

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Mol	Chain	Res	Type
7	E	61	GLN
7	E	64	PRO
7	E	65	THR
7	E	72	PHE
7	E	73	PRO
7	E	77	SER
7	E	78	LEU
7	E	79	TRP
7	E	82	PHE
7	E	86	PRO
7	E	92	THR
7	E	94	LYS
7	E	98	ILE
7	E	100	ILE
7	E	101	GLN
7	E	103	LYS
7	E	105	PHE
7	E	107	THR
7	E	109	ILE
7	E	110	PHE
7	E	117	THR
7	E	122	LYS
7	E	123	LEU
7	E	127	ILE
7	E	131	THR
7	E	132	ILE
7	E	133	GLU
7	E	134	THR
7	E	136	ASN
7	E	144	ILE
7	E	145	THR
7	E	146	HIS
7	E	151	PRO
7	E	152	LYS
7	E	153	HIS
7	E	156	LEU
7	E	162	ARG
7	E	167	ARG
7	E	169	ARG
7	E	171	LYS
7	E	172	GLU
7	E	176	PRO

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Mol	Chain	Res	Type
7	E	179	GLN
7	E	182	ASP
7	E	187	TYR
7	E	188	LEU
7	E	190	LEU
7	E	191	LYS
7	E	192	ARG
7	E	196	VAL
7	E	201	LYS
7	E	202	SER
7	E	204	THR
7	E	207	ARG
7	E	211	TYR
7	E	212	ARG
7	E	214	CYS
7	E	215	MET
8	F	76	LYS
8	F	79	ARG
8	F	82	THR
8	F	83	PRO
8	F	85	MET
8	F	87	LYS
8	F	90	ARG
8	F	92	ARG
8	F	97	ARG
8	F	99	LEU
8	F	100	GLN
8	F	102	SER
8	F	104	ASN
8	F	108	PHE
8	F	110	ASP
8	F	111	LEU
8	F	115	THR
8	F	117	PRO
8	F	119	ARG
8	F	125	LEU
8	F	128	LYS
8	F	131	PRO
8	F	133	VAL
8	F	137	TYR
8	F	143	PHE
8	F	148	VAL

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Mol	Chain	Res	Type
8	F	155	LEU
9	H	8	ASP
9	H	12	VAL
9	H	13	SER
9	H	14	GLU
9	H	15	VAL
9	H	17	PRO
9	H	19	ARG
9	H	21	ASN
9	H	25	ARG
9	H	27	GLU
9	H	31	THR
9	H	36	CYS
9	H	37	LYS
9	H	39	THR
9	H	40	LEU
9	H	42	ILE
9	H	43	ASN
9	H	47	PHE
9	H	48	PRO
9	H	52	GLN
9	H	61	SER
9	H	63	LEU
9	H	76	THR
9	H	77	ARG
9	H	82	PRO
9	H	86	ASP
9	H	88	SER
9	H	89	LEU
9	H	94	ASP
9	H	95	TYR
9	H	100	THR
9	H	105	GLU
9	H	110	ASP
9	H	112	ILE
9	H	117	SER
9	H	124	ARG
9	H	126	GLU
9	H	131	ASN
9	H	132	LEU
9	H	135	LEU
9	H	136	LYS

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Mol	Chain	Res	Type
9	H	138	GLU
9	H	141	TYR
9	H	142	LEU
9	H	143	LEU
9	H	145	ARG
10	I	3	THR
10	I	5	ARG
10	I	8	ARG
10	I	9	ASP
10	I	10	CYS
10	I	13	MET
10	I	14	LEU
10	I	16	PRO
10	I	17	ARG
10	I	18	GLU
10	I	19	ASP
10	I	22	ASN
10	I	26	LEU
10	I	28	GLU
10	I	29	CYS
10	I	30	ARG
10	I	31	THR
10	I	33	SER
10	I	34	TYR
10	I	37	GLU
10	I	42	LEU
10	I	45	ARG
10	I	46	HIS
10	I	49	ILE
10	I	55	THR
10	I	60	GLN
10	I	66	PRO
10	I	75	CYS
10	I	78	CYS
10	I	79	HIS
10	I	81	ARG
10	I	83	ASN
10	I	84	VAL
10	I	91	ARG
10	I	101	PHE
10	I	103	CYS
10	I	104	LEU

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Mol	Chain	Res	Type
10	I	105	SER
10	I	111	THR
10	I	116	ASN
10	I	117	LYS
10	I	118	ARG
10	I	120	GLN
11	J	1	MET
11	J	2	ILE
11	J	7	CYS
11	J	9	SER
11	J	10	CYS
11	J	13	VAL
11	J	14	VAL
11	J	19	GLU
11	J	27	GLU
11	J	28	ASP
11	J	31	ASP
11	J	32	GLU
11	J	36	LEU
11	J	38	ARG
11	J	39	LEU
11	J	43	ARG
11	J	45	CYS
11	J	48	ARG
11	J	49	MET
11	J	55	ASP
11	J	60	PHE
11	J	62	ARG
12	K	1	MET
12	K	8	GLU
12	K	9	LEU
12	K	12	LEU
12	K	16	GLU
12	K	17	SER
12	K	18	LYS
12	K	20	LYS
12	K	22	ASP
12	K	23	PRO
12	K	25	THR
12	K	34	THR
12	K	37	LYS
12	K	41	THR

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Mol	Chain	Res	Type
12	K	42	LEU
12	K	47	ARG
12	K	50	LEU
12	K	51	LEU
12	K	53	ASP
12	K	54	ARG
12	K	55	LYS
12	K	56	VAL
12	K	61	TYR
12	K	64	GLU
12	K	70	ARG
12	K	71	PHE
12	K	75	ILE
12	K	78	THR
12	K	81	TYR
12	K	101	LEU
12	K	102	LYS
12	K	107	THR
12	K	108	GLU
12	K	111	LEU
12	K	113	THR
12	K	114	LEU
13	L	26	THR
13	L	28	LYS
13	L	31	CYS
13	L	33	GLU
13	L	38	LEU
13	L	40	LEU
13	L	41	SER
13	L	50	ASP
13	L	51	CYS
13	L	54	ARG
13	L	55	ILE
13	L	60	ARG
13	L	63	ARG
13	L	64	LEU
13	L	65	VAL
13	L	68	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (93) such sidechains are listed below:

Mol	Chain	Res	Type
4	A	4	GLN
4	A	18	GLN
4	A	68	GLN
4	A	71	GLN
4	A	80	HIS
4	A	83	HIS
4	A	92	HIS
4	A	118	HIS
4	A	169	ASN
4	A	171	GLN
4	A	253	ASN
4	A	297	GLN
4	A	299	HIS
4	A	306	ASN
4	A	313	GLN
4	A	339	ASN
4	A	358	ASN
4	A	435	HIS
4	A	445	ASN
4	A	451	HIS
4	A	458	HIS
4	A	493	GLN
4	A	587	HIS
4	A	631	HIS
4	A	659	HIS
4	A	660	ASN
4	A	736	ASN
4	A	741	ASN
4	A	742	ASN
4	A	745	GLN
4	A	757	ASN
4	A	786	HIS
4	A	838	GLN
4	A	858	ASN
4	A	926	GLN
4	A	965	GLN
4	A	968	GLN
4	A	996	ASN
4	A	1009	ASN
4	A	1078	GLN
4	A	1130	GLN
4	A	1278	ASN
4	A	1364	ASN

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Mol	Chain	Res	Type
4	A	1390	ASN
4	A	1432	GLN
5	B	46	GLN
5	B	110	HIS
5	B	115	GLN
5	B	121	ASN
5	B	206	ASN
5	B	300	HIS
5	B	325	GLN
5	B	383	ASN
5	B	515	HIS
5	B	516	ASN
5	B	518	HIS
5	B	572	HIS
5	B	686	ASN
5	B	734	HIS
5	B	744	HIS
5	B	761	HIS
5	B	786	ASN
5	B	794	ASN
5	B	822	ASN
5	B	957	ASN
5	B	975	GLN
5	B	1015	HIS
5	B	1065	GLN
5	B	1097	HIS
5	B	1117	GLN
5	B	1141	HIS
5	B	1193	GLN
6	C	31	ASN
6	C	79	GLN
6	C	112	ASN
6	C	123	ASN
6	C	131	HIS
6	C	167	HIS
6	C	206	ASN
6	C	242	GLN
9	H	11	GLN
9	H	128	ASN
9	H	131	ASN
9	H	137	GLN
10	I	12	ASN

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Mol	Chain	Res	Type
10	I	60	GLN
10	I	83	ASN
10	I	89	GLN
10	I	116	ASN
12	K	40	HIS
12	K	65	HIS
12	K	96	ASN
13	L	53	HIS

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	R	9/10 (90%)	4 (44%)	0

All (4) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	R	2	U
1	R	5	A
1	R	6	G
1	R	10	A

There are no RNA pucker outliers to report.

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 11 ligands modelled in this entry, 10 are monoatomic - leaving 1 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
16	ATP	B	1308	-	27,33,33	2.26	7 (25%)	25,52,52	3.38	6 (24%)

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
16	ATP	B	1308	-	-	0/18/38/38	0/3/3/3

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	B	1308	ATP	O5'-C5'	-5.75	1.22	1.44
16	B	1308	ATP	PA-O5'	-4.46	1.40	1.59
16	B	1308	ATP	C5'-C4'	-2.76	1.42	1.51
16	B	1308	ATP	C2-N1	2.67	1.38	1.33
16	B	1308	ATP	C2-N3	3.97	1.38	1.32
16	B	1308	ATP	O4'-C1'	4.54	1.47	1.41
16	B	1308	ATP	C2'-C1'	4.96	1.61	1.53

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	B	1308	ATP	N3-C2-N1	-10.09	120.07	128.86
16	B	1308	ATP	C5'-C4'-C3'	-5.23	95.35	115.29
16	B	1308	ATP	C1'-N9-C4	-3.26	120.99	126.64
16	B	1308	ATP	O4'-C4'-C5'	-2.93	99.50	109.40
16	B	1308	ATP	O4'-C4'-C3'	4.02	113.16	105.17
16	B	1308	ATP	O5'-C5'-C4'	10.44	146.02	109.00

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 7 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
16	B	1308	ATP	7	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	R	10/10 (100%)	0.36	0 100 100	70, 83, 159, 164	0
2	T	28/28 (100%)	0.90	5 (17%) 2 2	84, 188, 200, 200	0
3	N	14/14 (100%)	1.69	5 (35%) 0 0	185, 198, 200, 200	0
4	A	1395/1733 (80%)	-0.71	11 (0%) 86 79	1, 51, 137, 186	0
5	B	1106/1224 (90%)	-0.73	8 (0%) 87 82	1, 43, 119, 194	0
6	C	266/318 (83%)	-0.83	0 100 100	6, 44, 95, 151	0
7	E	214/215 (99%)	-0.54	0 100 100	13, 79, 141, 165	0
8	F	84/155 (54%)	-0.62	0 100 100	17, 58, 105, 114	0
9	H	133/146 (91%)	-0.60	0 100 100	19, 74, 132, 154	0
10	I	119/122 (97%)	-0.72	0 100 100	4, 56, 105, 146	0
11	J	65/70 (92%)	-0.81	0 100 100	11, 40, 92, 116	0
12	K	114/120 (95%)	-0.74	0 100 100	8, 43, 88, 131	0
13	L	46/70 (65%)	-0.44	1 (2%) 62 53	17, 84, 143, 163	0
All	All	3594/4225 (85%)	-0.68	30 (0%) 86 79	1, 50, 133, 200	0

All (30) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
4	A	316	GLN	5.4
4	A	255	SER	4.0
4	A	44	THR	3.8
3	N	14	DG	3.6
5	B	866	TYR	3.5
4	A	149	GLU	3.5
5	B	1223	ASP	3.5
4	A	1176	LEU	3.4
3	N	1	DC	3.3

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Mol	Chain	Res	Type	RSRZ
4	A	286	HIS	3.0
2	T	11	DG	2.9
3	N	2	DT	2.9
2	T	10	DA	2.9
13	L	25	ALA	2.9
2	T	2	DT	2.8
5	B	643	ASP	2.7
5	B	1221	SER	2.6
4	A	317	LYS	2.6
4	A	69	THR	2.6
2	T	4	DC	2.5
2	T	3	DA	2.5
5	B	1224	PHE	2.4
3	N	12	DT	2.4
3	N	13	DA	2.4
4	A	256	GLN	2.1
4	A	311	GLN	2.1
5	B	1222	ARG	2.1
4	A	307	ASP	2.1
5	B	869	SER	2.0
5	B	432	MET	2.0

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

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

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
15	MG	A	2002	1/1	0.71	0.49	11.34	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
16	ATP	B	1308	31/31	0.75	0.35	6.10	64,71,77,78	0
14	ZN	A	1735	1/1	0.98	0.04	-1.42	75,75,75,75	0
14	ZN	I	203	1/1	0.98	0.05	-1.61	98,98,98,98	0
14	ZN	I	204	1/1	0.99	0.05	-1.69	31,31,31,31	0
14	ZN	J	101	1/1	0.97	0.10	-1.79	39,39,39,39	0
14	ZN	C	319	1/1	0.99	0.02	-1.89	31,31,31,31	0
14	ZN	B	1307	1/1	0.99	0.05	-2.32	80,80,80,80	0
14	ZN	A	1734	1/1	0.80	0.05	-2.73	115,115,115,115	0
14	ZN	L	105	1/1	0.98	0.04	-2.77	76,76,76,76	0
15	MG	A	2001	1/1	0.95	0.56	-	55,55,55,55	0

6.5 Other polymers [i](#)

There are no such residues in this entry.