



Full wwPDB NMR Structure Validation Report i

Jun 6, 2023 – 06:52 pm BST

PDB ID : 4AQZ
Title : B2 domain of Neisseria meningitidis Pilus assembly protein PilQ
Authors : Phelan, M.M.; Berry, J.L.; Derrick, J.P.; Lian, L.Y.
Deposited on : 2012-04-20

This is a Full wwPDB NMR Structure Validation Report for a publicly released PDB entry.

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

A user guide is available at

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

with specific help available everywhere you see the i symbol.

The types of validation reports are described at
<http://www.wwpdb.org/validation/2017/FAQs#types>.

The following versions of software and data (see [references](#) ①) were used in the production of this report:

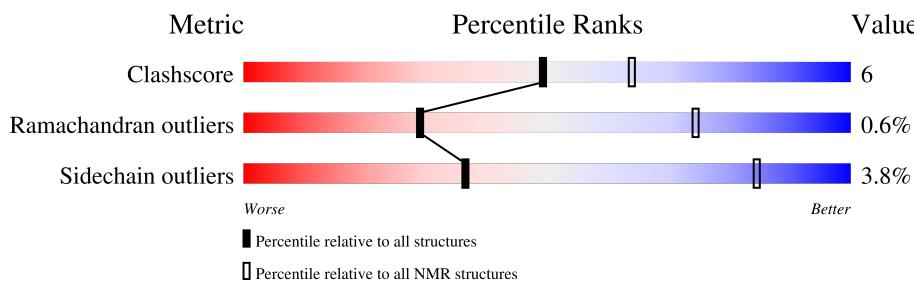
| | | |
|--------------------------------|---|--|
| MolProbity | : | 4.02b-467 |
| Percentile statistics | : | 20191225.v01 (using entries in the PDB archive December 25th 2019) |
| wwPDB-RCI | : | v_1n_11_5_13_A (Berjanski et al., 2005) |
| PANAV | : | Wang et al. (2010) |
| wwPDB-ShiftChecker | : | v1.2 |
| BMRB Restraints Analysis | : | v1.2 |
| Ideal geometry (proteins) | : | Engh & Huber (2001) |
| Ideal geometry (DNA, RNA) | : | Parkinson et al. (1996) |
| Validation Pipeline (wwPDB-VP) | : | 2.33 |

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
SOLUTION NMR

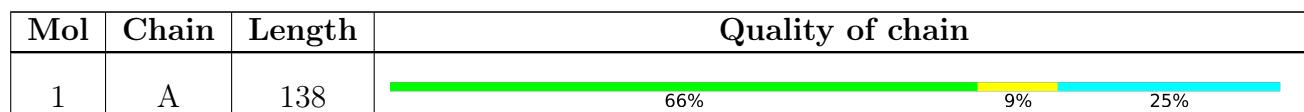
The overall completeness of chemical shifts assignment is 91%.

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) | NMR archive (#Entries) |
|-----------------------|--------------------------|------------------------|
| Clashscore | 158937 | 12864 |
| Ramachandran outliers | 154571 | 11451 |
| Sidechain outliers | 154315 | 11428 |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the experimental data. The red, orange, yellow and green segments indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A cyan segment indicates the fraction of residues that are not part of the well-defined cores, and 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 $\leq 5\%$.



2 Ensemble composition and analysis i

This entry contains 20 models. Model 15 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative.

The following residues are included in the computation of the global validation metrics.

| Well-defined (core) protein residues | | | |
|--------------------------------------|-----------------------|-------------------|--------------|
| Well-defined core | Residue range (total) | Backbone RMSD (Å) | Medoid model |
| 1 | A:225-A:327 (103) | 0.45 | 15 |

Ill-defined regions of proteins are excluded from the global statistics.

Ligands and non-protein polymers are included in the analysis.

The models can be grouped into 4 clusters and 2 single-model clusters were found.

| Cluster number | Models |
|-----------------------|---------------------------|
| 1 | 1, 2, 3, 4, 7, 14, 18, 20 |
| 2 | 8, 9, 15, 17, 19 |
| 3 | 5, 6, 11 |
| 4 | 12, 13 |
| Single-model clusters | 10; 16 |

3 Entry composition (i)

There is only 1 type of molecule in this entry. The entry contains 2073 atoms, of which 1005 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ.

| Mol | Chain | Residues | Atoms | | | | | | Trace |
|-----|-------|----------|-------|-----|------|-----|-----|---|-------|
| | | | Total | C | H | N | O | S | |
| 1 | A | 138 | 2073 | 666 | 1005 | 202 | 196 | 4 | 0 |

There are 32 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|------------|
| A | 192 | MET | - | expression tag | UNP Q70M91 |
| A | 193 | GLY | - | expression tag | UNP Q70M91 |
| A | 194 | SER | - | expression tag | UNP Q70M91 |
| A | 195 | SER | - | expression tag | UNP Q70M91 |
| A | 196 | HIS | - | expression tag | UNP Q70M91 |
| A | 197 | HIS | - | expression tag | UNP Q70M91 |
| A | 198 | HIS | - | expression tag | UNP Q70M91 |
| A | 199 | HIS | - | expression tag | UNP Q70M91 |
| A | 200 | HIS | - | expression tag | UNP Q70M91 |
| A | 201 | HIS | - | expression tag | UNP Q70M91 |
| A | 202 | GLY | - | expression tag | UNP Q70M91 |
| A | 203 | LEU | - | expression tag | UNP Q70M91 |
| A | 204 | VAL | - | expression tag | UNP Q70M91 |
| A | 205 | PRO | - | expression tag | UNP Q70M91 |
| A | 206 | ARG | - | expression tag | UNP Q70M91 |
| A | 207 | GLY | - | expression tag | UNP Q70M91 |
| A | 208 | SER | - | expression tag | UNP Q70M91 |
| A | 209 | HIS | - | expression tag | UNP Q70M91 |
| A | 210 | MET | - | expression tag | UNP Q70M91 |
| A | 211 | ALA | - | expression tag | UNP Q70M91 |
| A | 212 | SER | - | expression tag | UNP Q70M91 |
| A | 213 | MET | - | expression tag | UNP Q70M91 |
| A | 214 | THR | - | expression tag | UNP Q70M91 |
| A | 215 | GLY | - | expression tag | UNP Q70M91 |
| A | 216 | GLY | - | expression tag | UNP Q70M91 |
| A | 217 | GLN | - | expression tag | UNP Q70M91 |
| A | 218 | GLN | - | expression tag | UNP Q70M91 |
| A | 219 | MET | - | expression tag | UNP Q70M91 |
| A | 220 | GLY | - | expression tag | UNP Q70M91 |
| A | 221 | ARG | - | expression tag | UNP Q70M91 |

Continued on next page...

Continued from previous page...

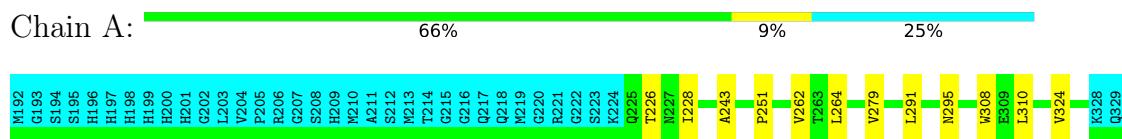
| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|------------|
| A | 222 | GLY | - | expression tag | UNP Q70M91 |
| A | 223 | SER | - | expression tag | UNP Q70M91 |

4 Residue-property plots

4.1 Average score per residue in the NMR ensemble

These plots are provided for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic is the same as shown in the summary in section 1 of this report. The second graphic shows the sequence where residues are colour-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outliers are shown as green connectors. Residues which are classified as ill-defined in the NMR ensemble, are shown in cyan with an underline colour-coded according to the previous scheme. Residues which were present in the experimental sample, but not modelled in the final structure are shown in grey.

- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ

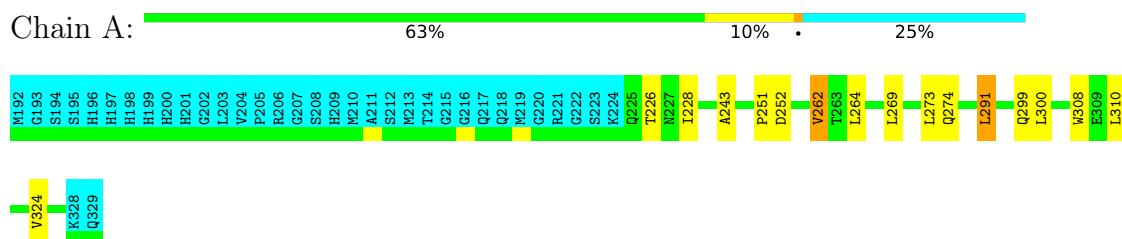


4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

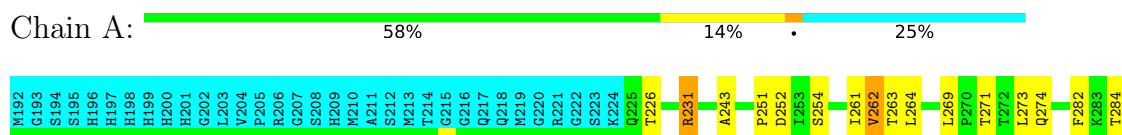
4.2.1 Score per residue for model 1

- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ



4.2.2 Score per residue for model 2

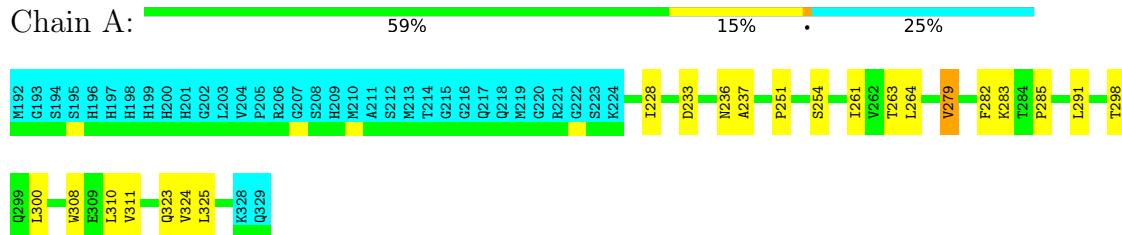
- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ





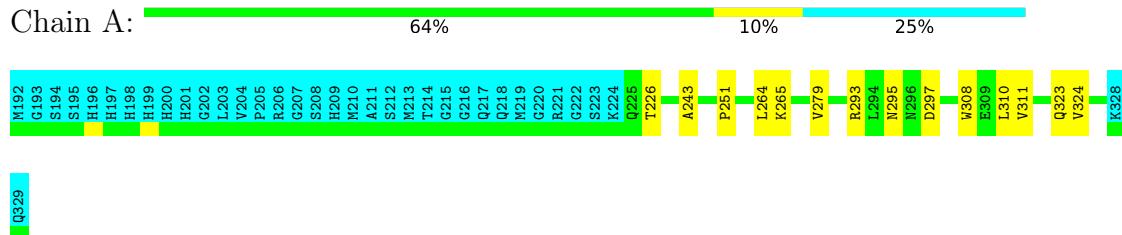
4.2.3 Score per residue for model 3

- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ



4.2.4 Score per residue for model 4

- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ



4.2.5 Score per residue for model 5

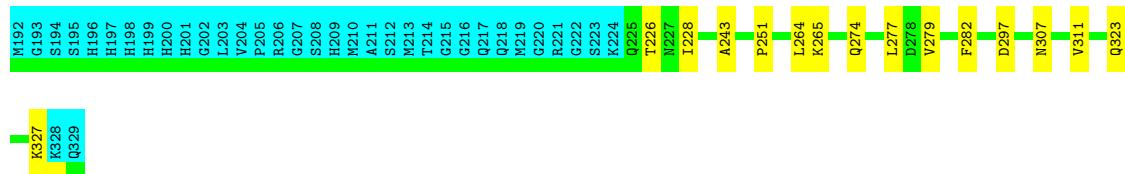
- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ



4.2.6 Score per residue for model 6

- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ

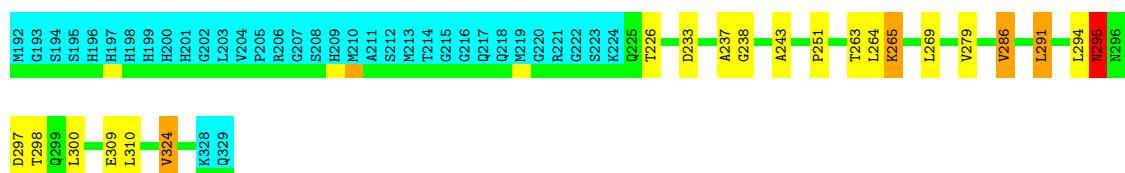




4.2.7 Score per residue for model 7

- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ

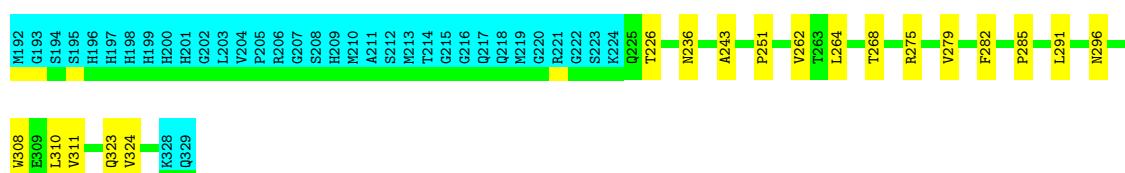
Chain A:



4.2.8 Score per residue for model 8

- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILO

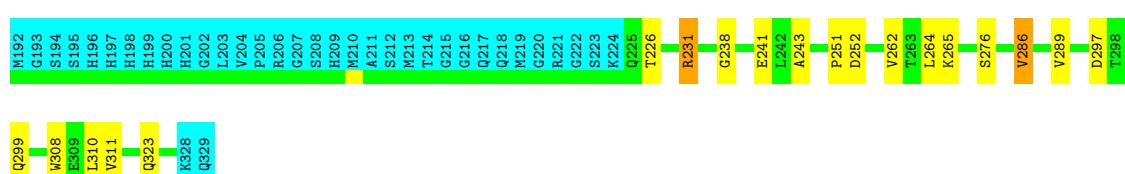
Chain A:



4.2.9 Score per residue for model 9

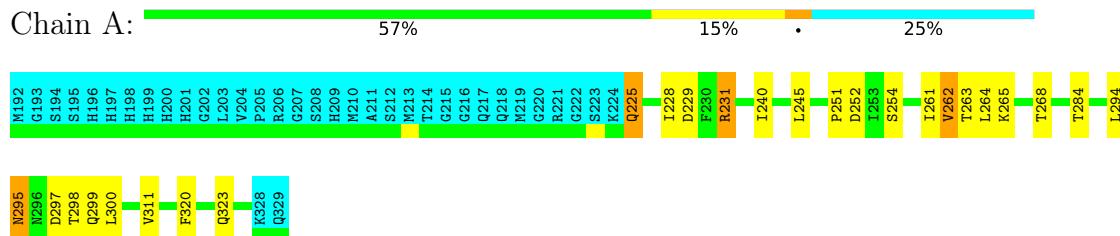
- #### • Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILO

Chain A



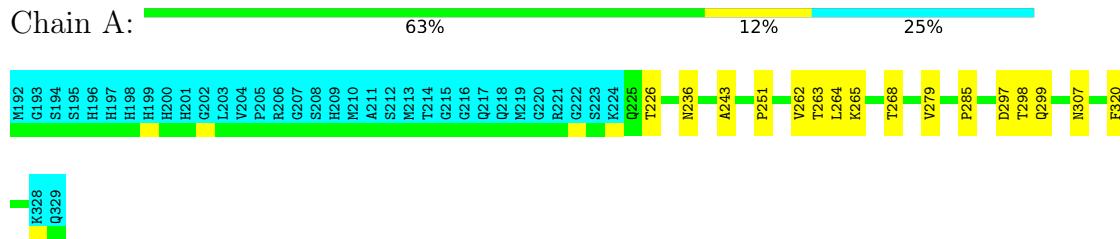
4.2.10 Score per residue for model 10

- ## • Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILO



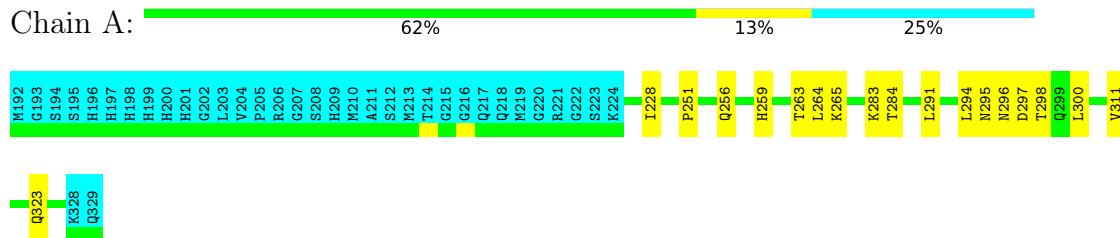
4.2.11 Score per residue for model 11

- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ



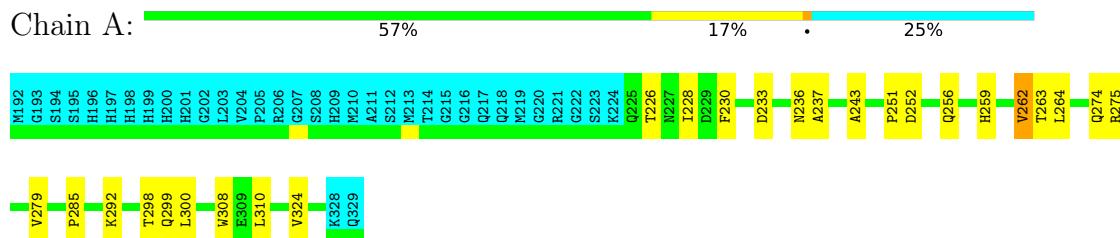
4.2.12 Score per residue for model 12

- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ



4.2.13 Score per residue for model 13

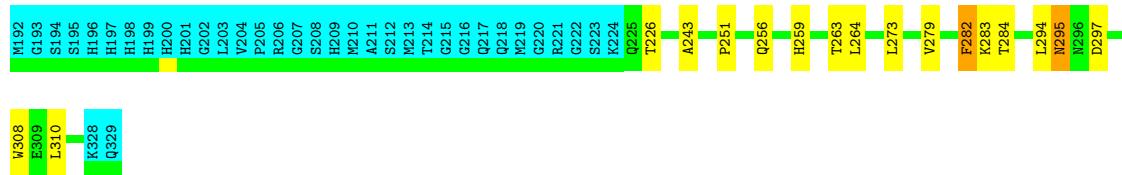
- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ



4.2.14 Score per residue for model 14

- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ

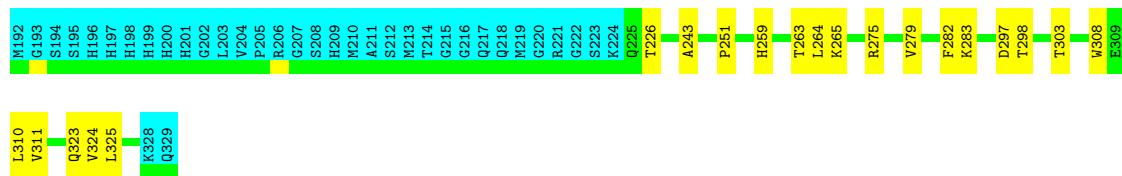
Chain A:



4.2.15 Score per residue for model 15 (medoid)

- ## • Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ

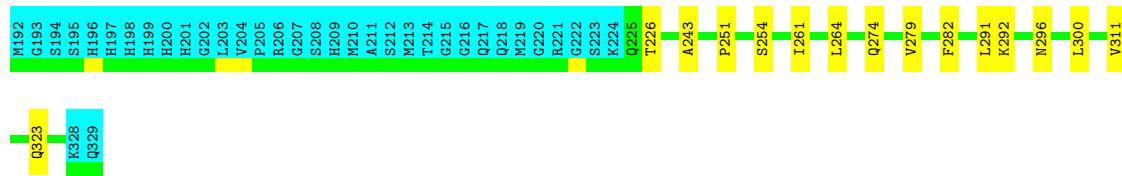
Chain A:



4.2.16 Score per residue for model 16

- ## • Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ

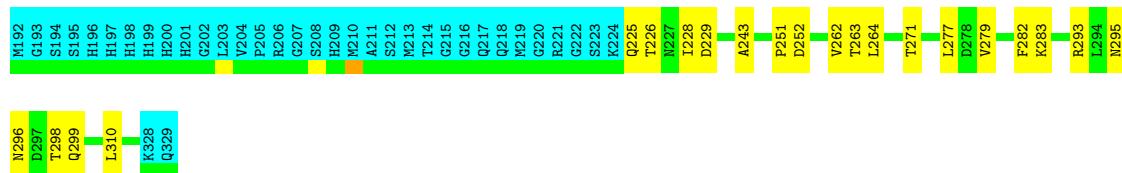
Chain A:



4.2.17 Score per residue for model 17

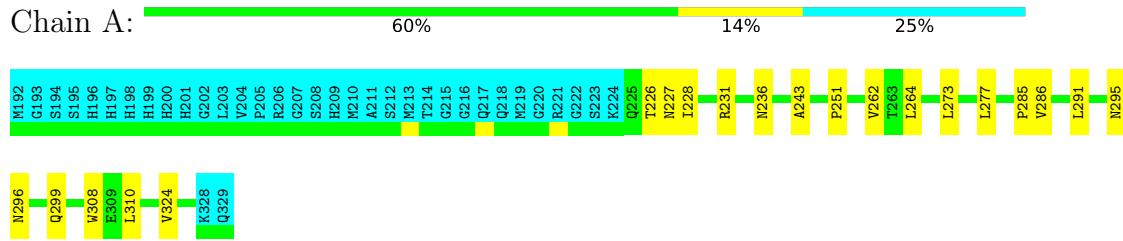
- ## • Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ

Chain A:



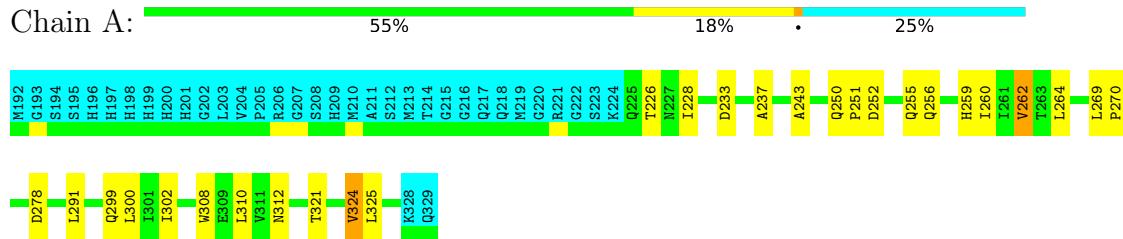
4.2.18 Score per residue for model 18

- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ



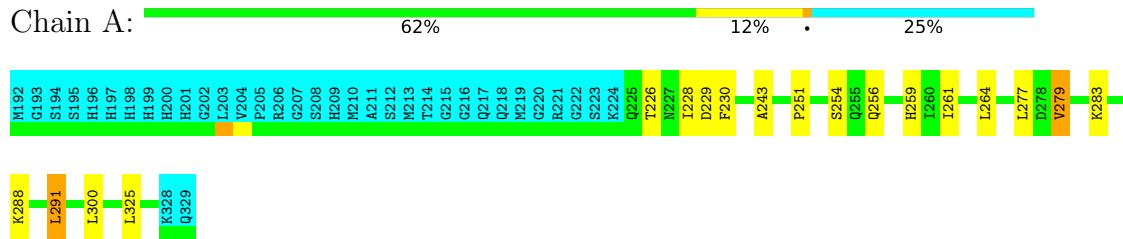
4.2.19 Score per residue for model 19

- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ



4.2.20 Score per residue for model 20

- Molecule 1: TYPE IV PILUS BIOGENESIS AND COMPETENCE PROTEIN PILQ



5 Refinement protocol and experimental data overview i

The models were refined using the following method: *CYANA2.1 AND CNS1.2 WATER REFinement*.

Of the 100 calculated structures, 20 were deposited, based on the following criterion: *LOWEST ENERGY*.

The following table shows the software used for structure solution, optimisation and refinement.

| Software name | Classification | Version |
|-----------------|--------------------|----------|
| CYANA | refinement | |
| TopSpin | structure solution | |
| CcpNmr Analysis | structure solution | ANALYSIS |
| CYANA | structure solution | |
| CNS | structure solution | |
| TALOS+ | structure solution | |

The following table shows chemical shift validation statistics as aggregates over all chemical shift files. Detailed validation can be found in section [7](#) of this report.

| | |
|--|----------------|
| Chemical shift file(s) | working_cs.cif |
| Number of chemical shift lists | 1 |
| Total number of shifts | 1626 |
| Number of shifts mapped to atoms | 1556 |
| Number of unparsed shifts | 0 |
| Number of shifts with mapping errors | 70 |
| Number of shifts with mapping warnings | 0 |
| Assignment completeness (well-defined parts) | 91% |

6 Model quality [\(i\)](#)

6.1 Standard geometry [\(i\)](#)

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 (average) root-mean-square of all Z scores of the bond lengths (or angles).

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|----------------------|-------------|-----------------------|
| | | RMSZ | #Z>5 | RMSZ | #Z>5 |
| 1 | A | 0.89±0.03 | 0±0/822 (0.0± 0.0%) | 0.71±0.03 | 0±0/1119 (0.0± 0.0%) |
| All | All | 0.89 | 0/16440 (0.0%) | 0.71 | 1/22380 (0.0%) |

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

| Mol | Chain | Chirality | Planarity |
|-----|-------|-----------|-----------|
| 1 | A | 0.0±0.0 | 0.1±0.4 |
| All | All | 0 | 3 |

There are no bond-length outliers.

All unique angle outliers are listed below.

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) | Models | |
|-----|-------|-----|------|-----------|-------|-------------|----------|--------|-------|
| | | | | | | | | Worst | Total |
| 1 | A | 231 | ARG | NE-CZ-NH2 | -5.09 | 117.75 | 120.30 | 10 | 1 |

There are no chirality outliers.

All unique planar outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Group | Models (Total) |
|-----|-------|-----|------|-----------|----------------|
| 1 | A | 231 | ARG | Sidechain | 2 |
| 1 | A | 293 | ARG | Sidechain | 1 |

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

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in each 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 averaged over the ensemble.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes |
|-----|-------|-------|----------|----------|---------|
| 1 | A | 806 | 755 | 822 | 10±2 |
| All | All | 16120 | 15100 | 16440 | 197 |

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 6.

All unique clashes are listed below, sorted by their clash magnitude.

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:251:PRO:HB3 | 1:A:264:LEU:HD13 | 0.65 | 1.68 | 3 | 12 |
| 1:A:308:TRP:CZ3 | 1:A:310:LEU:HB2 | 0.64 | 2.28 | 15 | 11 |
| 1:A:279:VAL:HA | 1:A:282:PHE:CD2 | 0.61 | 2.30 | 14 | 3 |
| 1:A:225:GLN:O | 1:A:245:LEU:HD23 | 0.60 | 1.96 | 10 | 1 |
| 1:A:226:THR:HA | 1:A:243:ALA:O | 0.60 | 1.97 | 18 | 17 |
| 1:A:256:GLN:HB3 | 1:A:259:HIS:O | 0.59 | 1.96 | 14 | 1 |
| 1:A:251:PRO:HB3 | 1:A:264:LEU:HD23 | 0.58 | 1.74 | 8 | 8 |
| 1:A:279:VAL:HA | 1:A:282:PHE:CD1 | 0.55 | 2.37 | 3 | 4 |
| 1:A:269:LEU:HD22 | 1:A:291:LEU:HD22 | 0.54 | 1.79 | 1 | 3 |
| 1:A:255:GLN:HE22 | 1:A:260:ILE:HG23 | 0.54 | 1.62 | 19 | 1 |
| 1:A:228:ILE:HG21 | 1:A:300:LEU:HD21 | 0.53 | 1.79 | 10 | 3 |
| 1:A:236:ASN:O | 1:A:285:PRO:HD3 | 0.53 | 2.02 | 8 | 6 |
| 1:A:252:ASP:O | 1:A:262:VAL:HA | 0.53 | 2.03 | 13 | 7 |
| 1:A:279:VAL:HA | 1:A:282:PHE:CE1 | 0.52 | 2.39 | 3 | 3 |
| 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 0.52 | 1.80 | 10 | 9 |
| 1:A:311:VAL:CG1 | 1:A:323:GLN:HB3 | 0.52 | 2.35 | 16 | 7 |
| 1:A:256:GLN:HB2 | 1:A:259:HIS:O | 0.52 | 2.04 | 13 | 4 |
| 1:A:262:VAL:O | 1:A:299:GLN:HA | 0.51 | 2.05 | 13 | 9 |
| 1:A:308:TRP:CE3 | 1:A:324:VAL:HG13 | 0.51 | 2.40 | 4 | 5 |
| 1:A:254:SER:HB2 | 1:A:261:ILE:HB | 0.51 | 1.81 | 20 | 6 |
| 1:A:294:LEU:HD13 | 1:A:295:ASN:N | 0.51 | 2.21 | 14 | 4 |
| 1:A:265:LYS:HA | 1:A:297:ASP:OD1 | 0.50 | 2.06 | 6 | 8 |
| 1:A:263:THR:HA | 1:A:298:THR:O | 0.50 | 2.06 | 3 | 9 |
| 1:A:271:THR:O | 1:A:274:GLN:HG2 | 0.49 | 2.07 | 2 | 1 |
| 1:A:231:ARG:HD3 | 1:A:241:GLU:OE2 | 0.49 | 2.08 | 9 | 1 |
| 1:A:312:ASN:HA | 1:A:321:THR:O | 0.48 | 2.09 | 19 | 1 |
| 1:A:255:GLN:NE2 | 1:A:260:ILE:HG23 | 0.47 | 2.23 | 19 | 1 |
| 1:A:265:LYS:HD3 | 1:A:297:ASP:OD1 | 0.47 | 2.09 | 4 | 1 |
| 1:A:276:SER:HA | 1:A:289:VAL:O | 0.46 | 2.09 | 9 | 1 |
| 1:A:251:PRO:HD3 | 1:A:320:PHE:CZ | 0.46 | 2.45 | 11 | 2 |
| 1:A:279:VAL:HA | 1:A:282:PHE:CE2 | 0.46 | 2.46 | 6 | 2 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:307:ASN:HB2 | 1:A:327:LYS:O | 0.46 | 2.09 | 6 | 1 |
| 1:A:226:THR:O | 1:A:273:LEU:HD13 | 0.45 | 2.11 | 18 | 4 |
| 1:A:230:PHE:CD2 | 1:A:279:VAL:HG11 | 0.45 | 2.47 | 20 | 2 |
| 1:A:309:GLU:O | 1:A:324:VAL:HA | 0.45 | 2.12 | 7 | 1 |
| 1:A:238:GLY:HA3 | 1:A:286:VAL:CG1 | 0.45 | 2.41 | 9 | 2 |
| 1:A:228:ILE:HG12 | 1:A:291:LEU:HB2 | 0.44 | 1.88 | 3 | 3 |
| 1:A:263:THR:HG22 | 1:A:297:ASP:OD2 | 0.44 | 2.13 | 14 | 1 |
| 1:A:230:PHE:CD1 | 1:A:279:VAL:HG11 | 0.44 | 2.47 | 13 | 1 |
| 1:A:233:ASP:O | 1:A:237:ALA:HB3 | 0.43 | 2.13 | 7 | 4 |
| 1:A:228:ILE:O | 1:A:275:ARG:HD2 | 0.43 | 2.12 | 13 | 1 |
| 1:A:228:ILE:HG21 | 1:A:300:LEU:HD13 | 0.43 | 1.91 | 12 | 1 |
| 1:A:277:LEU:O | 1:A:288:LYS:HG3 | 0.43 | 2.13 | 20 | 1 |
| 1:A:228:ILE:HD13 | 1:A:277:LEU:HD21 | 0.43 | 1.91 | 6 | 4 |
| 1:A:261:ILE:HA | 1:A:300:LEU:O | 0.42 | 2.14 | 2 | 1 |
| 1:A:259:HIS:CB | 1:A:303:THR:HA | 0.42 | 2.44 | 15 | 1 |
| 1:A:262:VAL:HG13 | 1:A:300:LEU:HB2 | 0.42 | 1.91 | 19 | 1 |
| 1:A:271:THR:HB | 1:A:293:ARG:HD3 | 0.42 | 1.89 | 17 | 1 |
| 1:A:274:GLN:HB2 | 1:A:291:LEU:O | 0.42 | 2.15 | 16 | 2 |
| 1:A:263:THR:HG22 | 1:A:297:ASP:OD1 | 0.42 | 2.14 | 14 | 1 |
| 1:A:308:TRP:CH2 | 1:A:310:LEU:HB2 | 0.42 | 2.49 | 4 | 2 |
| 1:A:263:THR:HG22 | 1:A:297:ASP:CG | 0.42 | 2.35 | 14 | 1 |
| 1:A:294:LEU:HB3 | 1:A:297:ASP:HB3 | 0.42 | 1.91 | 14 | 1 |
| 1:A:274:GLN:NE2 | 1:A:292:LYS:HA | 0.42 | 2.29 | 16 | 1 |
| 1:A:260:ILE:HB | 1:A:302:ILE:HB | 0.42 | 1.91 | 19 | 1 |
| 1:A:308:TRP:CE3 | 1:A:324:VAL:HG23 | 0.41 | 2.50 | 19 | 1 |
| 1:A:255:GLN:OE1 | 1:A:260:ILE:HG23 | 0.41 | 2.16 | 19 | 1 |
| 1:A:228:ILE:HD12 | 1:A:228:ILE:O | 0.41 | 2.15 | 6 | 1 |
| 1:A:323:GLN:HE21 | 1:A:325:LEU:HD21 | 0.41 | 1.76 | 5 | 1 |
| 1:A:269:LEU:HD12 | 1:A:270:PRO:HD2 | 0.40 | 1.93 | 19 | 1 |
| 1:A:274:GLN:HE21 | 1:A:292:LYS:HA | 0.40 | 1.77 | 13 | 1 |
| 1:A:229:ASP:O | 1:A:240:ILE:HA | 0.40 | 2.15 | 10 | 1 |

6.3 Torsion angles [\(i\)](#)

6.3.1 Protein backbone [\(i\)](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all NMR entries. The Analysed column shows the number of residues for which the backbone conformation was analysed and the total number of residues.

| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles |
|-----|-------|-----------------|--------------|------------|------------|-------------|
| 1 | A | 103/138 (75%) | 99±2 (96±2%) | 4±2 (4±2%) | 1±1 (1±1%) | 29 74 |
| All | All | 2060/2760 (75%) | 1971 (96%) | 77 (4%) | 12 (1%) | 29 74 |

All 3 unique Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1 | A | 295 | ASN | 6 |
| 1 | A | 279 | VAL | 5 |
| 1 | A | 225 | GLN | 1 |

6.3.2 Protein sidechains [\(i\)](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all NMR entries. The Analysed column shows the number of residues for which the sidechain conformation was analysed and the total number of residues.

| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles |
|-----|-------|-----------------|--------------|------------|-------------|
| 1 | A | 89/116 (77%) | 86±2 (96±2%) | 3±2 (4±2%) | 36 84 |
| All | All | 1780/2320 (77%) | 1712 (96%) | 68 (4%) | 36 84 |

All 24 unique residues with a non-rotameric sidechain are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1 | A | 291 | LEU | 7 |
| 1 | A | 262 | VAL | 6 |
| 1 | A | 283 | LYS | 6 |
| 1 | A | 324 | VAL | 5 |
| 1 | A | 296 | ASN | 5 |
| 1 | A | 284 | THR | 4 |
| 1 | A | 300 | LEU | 4 |
| 1 | A | 325 | LEU | 4 |
| 1 | A | 268 | THR | 4 |
| 1 | A | 231 | ARG | 3 |
| 1 | A | 286 | VAL | 3 |
| 1 | A | 282 | PHE | 2 |
| 1 | A | 310 | LEU | 2 |
| 1 | A | 275 | ARG | 2 |
| 1 | A | 229 | ASP | 2 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1 | A | 281 | ASP | 1 |
| 1 | A | 274 | GLN | 1 |
| 1 | A | 265 | LYS | 1 |
| 1 | A | 295 | ASN | 1 |
| 1 | A | 307 | ASN | 1 |
| 1 | A | 225 | GLN | 1 |
| 1 | A | 227 | ASN | 1 |
| 1 | A | 250 | GLN | 1 |
| 1 | A | 278 | ASP | 1 |

6.3.3 RNA [\(i\)](#)

There are no RNA molecules in this entry.

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

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

6.5 Carbohydrates [\(i\)](#)

There are no monosaccharides in this entry.

6.6 Ligand geometry [\(i\)](#)

There are no ligands in this entry.

6.7 Other polymers [\(i\)](#)

There are no such molecules in this entry.

6.8 Polymer linkage issues [\(i\)](#)

There are no chain breaks in this entry.

7 Chemical shift validation i

The completeness of assignment taking into account all chemical shift lists is 91% for the well-defined parts and 79% for the entire structure.

7.1 Chemical shift list 1

File name: working_cs.cif

Chemical shift list name: *assigned_chem_shift_list*

7.1.1 Bookkeeping i

The following table shows the results of parsing the chemical shift list and reports the number of nuclei with statistically unusual chemical shifts.

| | |
|---|------|
| Total number of shifts | 1626 |
| Number of shifts mapped to atoms | 1556 |
| Number of unparsed shifts | 0 |
| Number of shifts with mapping errors | 70 |
| Number of shifts with mapping warnings | 0 |
| Number of shift outliers (ShiftChecker) | 6 |

The following errors were found when reading this chemical shift list.

- Chemical shift has been reported more than once. All 142 occurrences are reported below.

| List ID | Chain | Res | Type | Atom | Shift Data | | |
|---------|-------|-----|------|------|------------|-------------|-----------|
| | | | | | Value | Uncertainty | Ambiguity |
| 1 | A | 211 | ALA | HB2 | 1.311 | 0.000 | 4 |
| 1 | A | 211 | ALA | HB3 | 1.311 | 0.000 | 4 |
| 1 | A | 214 | THR | HG22 | 1.112 | 0.001 | 4 |
| 1 | A | 214 | THR | HG23 | 1.112 | 0.001 | 4 |
| 1 | A | 226 | THR | HG22 | 1.071 | 0.000 | 4 |
| 1 | A | 226 | THR | HG23 | 1.071 | 0.000 | 4 |
| 1 | A | 228 | ILE | HD12 | 0.594 | 0.001 | 4 |
| 1 | A | 228 | ILE | HD13 | 0.594 | 0.001 | 4 |
| 1 | A | 228 | ILE | HG22 | 0.856 | 0.003 | 4 |
| 1 | A | 228 | ILE | HG23 | 0.856 | 0.003 | 4 |
| 1 | A | 237 | ALA | HB2 | 1.275 | 0.000 | 4 |
| 1 | A | 237 | ALA | HB3 | 1.275 | 0.000 | 4 |
| 1 | A | 239 | ILE | HD12 | 0.549 | 0.001 | 4 |
| 1 | A | 239 | ILE | HD13 | 0.549 | 0.001 | 4 |
| 1 | A | 239 | ILE | HG22 | 0.468 | 0.002 | 4 |

Continued on next page...

Continued from previous page...

| List ID | Chain | Res | Type | Atom | Shift Data | | |
|---------|-------|-----|------|------|------------|-------------|-----------|
| | | | | | Value | Uncertainty | Ambiguity |
| 1 | A | 239 | ILE | HG23 | 0.468 | 0.002 | 4 |
| 1 | A | 240 | ILE | HD12 | 1.017 | 0.001 | 4 |
| 1 | A | 240 | ILE | HD13 | 1.017 | 0.001 | 4 |
| 1 | A | 240 | ILE | HG22 | 0.923 | 0.003 | 4 |
| 1 | A | 240 | ILE | HG23 | 0.923 | 0.003 | 4 |
| 1 | A | 242 | LEU | HD12 | 0.722 | 0.005 | 2 |
| 1 | A | 242 | LEU | HD13 | 0.722 | 0.005 | 2 |
| 1 | A | 242 | LEU | HD22 | 0.733 | 0.000 | 2 |
| 1 | A | 242 | LEU | HD23 | 0.733 | 0.000 | 2 |
| 1 | A | 243 | ALA | HB2 | 1.106 | 0.000 | 4 |
| 1 | A | 243 | ALA | HB3 | 1.106 | 0.000 | 4 |
| 1 | A | 244 | ALA | HB2 | 0.598 | 0.000 | 4 |
| 1 | A | 244 | ALA | HB3 | 0.598 | 0.000 | 4 |
| 1 | A | 245 | LEU | HD12 | 0.687 | 0.007 | 2 |
| 1 | A | 245 | LEU | HD13 | 0.687 | 0.007 | 2 |
| 1 | A | 245 | LEU | HD22 | 0.806 | 0.002 | 2 |
| 1 | A | 245 | LEU | HD23 | 0.806 | 0.002 | 2 |
| 1 | A | 248 | ALA | HB2 | 1.179 | 0.000 | 4 |
| 1 | A | 248 | ALA | HB3 | 1.179 | 0.000 | 4 |
| 1 | A | 253 | ILE | HD12 | 0.845 | 0.002 | 4 |
| 1 | A | 253 | ILE | HD13 | 0.845 | 0.002 | 4 |
| 1 | A | 253 | ILE | HG22 | 0.601 | 0.004 | 4 |
| 1 | A | 253 | ILE | HG23 | 0.601 | 0.004 | 4 |
| 1 | A | 260 | ILE | HD12 | -0.011 | 0.001 | 4 |
| 1 | A | 260 | ILE | HD13 | -0.011 | 0.001 | 4 |
| 1 | A | 260 | ILE | HG22 | 0.502 | 0.001 | 4 |
| 1 | A | 260 | ILE | HG23 | 0.502 | 0.001 | 4 |
| 1 | A | 261 | ILE | HD12 | 0.725 | 0.001 | 4 |
| 1 | A | 261 | ILE | HD13 | 0.725 | 0.001 | 4 |
| 1 | A | 261 | ILE | HG22 | 0.610 | 0.007 | 4 |
| 1 | A | 261 | ILE | HG23 | 0.610 | 0.007 | 4 |
| 1 | A | 262 | VAL | HG12 | 0.048 | 0.001 | 2 |
| 1 | A | 262 | VAL | HG13 | 0.048 | 0.001 | 2 |
| 1 | A | 262 | VAL | HG22 | 0.375 | 0.001 | 2 |
| 1 | A | 262 | VAL | HG23 | 0.375 | 0.001 | 2 |
| 1 | A | 263 | THR | HG22 | 0.969 | 0.000 | 4 |
| 1 | A | 263 | THR | HG23 | 0.969 | 0.000 | 4 |
| 1 | A | 264 | LEU | HD12 | -0.345 | 0.001 | 2 |
| 1 | A | 264 | LEU | HD13 | -0.345 | 0.001 | 2 |
| 1 | A | 264 | LEU | HD22 | 0.061 | 0.001 | 2 |
| 1 | A | 264 | LEU | HD23 | 0.061 | 0.001 | 2 |

Continued on next page...

Continued from previous page...

| List ID | Chain | Res | Type | Atom | Shift Data | | |
|---------|-------|-----|------|------|------------|-------------|-----------|
| | | | | | Value | Uncertainty | Ambiguity |
| 1 | A | 268 | THR | HG22 | 0.938 | 0.001 | 4 |
| 1 | A | 268 | THR | HG23 | 0.938 | 0.001 | 4 |
| 1 | A | 269 | LEU | HD12 | 0.527 | 0.001 | 2 |
| 1 | A | 269 | LEU | HD13 | 0.527 | 0.001 | 2 |
| 1 | A | 269 | LEU | HD22 | 0.825 | 0.002 | 2 |
| 1 | A | 269 | LEU | HD23 | 0.825 | 0.002 | 2 |
| 1 | A | 271 | THR | HG22 | 1.233 | 0.002 | 4 |
| 1 | A | 271 | THR | HG23 | 1.233 | 0.002 | 4 |
| 1 | A | 272 | THR | HG22 | 1.225 | 0.000 | 4 |
| 1 | A | 272 | THR | HG23 | 1.225 | 0.000 | 4 |
| 1 | A | 273 | LEU | HD12 | 0.883 | 0.003 | 2 |
| 1 | A | 273 | LEU | HD13 | 0.883 | 0.003 | 2 |
| 1 | A | 273 | LEU | HD22 | 0.991 | 0.001 | 2 |
| 1 | A | 273 | LEU | HD23 | 0.991 | 0.001 | 2 |
| 1 | A | 277 | LEU | HD12 | 0.755 | 0.002 | 2 |
| 1 | A | 277 | LEU | HD13 | 0.755 | 0.002 | 2 |
| 1 | A | 277 | LEU | HD22 | 0.690 | 0.001 | 2 |
| 1 | A | 277 | LEU | HD23 | 0.690 | 0.001 | 2 |
| 1 | A | 279 | VAL | HG12 | -0.580 | 0.000 | 2 |
| 1 | A | 279 | VAL | HG13 | -0.580 | 0.000 | 2 |
| 1 | A | 279 | VAL | HG22 | 0.070 | 0.001 | 2 |
| 1 | A | 279 | VAL | HG23 | 0.070 | 0.001 | 2 |
| 1 | A | 280 | ALA | HB2 | 1.446 | 0.000 | 4 |
| 1 | A | 280 | ALA | HB3 | 1.446 | 0.000 | 4 |
| 1 | A | 284 | THR | HG22 | 1.001 | 0.002 | 4 |
| 1 | A | 284 | THR | HG23 | 1.001 | 0.002 | 4 |
| 1 | A | 286 | VAL | HG12 | 0.415 | 0.001 | 2 |
| 1 | A | 286 | VAL | HG13 | 0.415 | 0.001 | 2 |
| 1 | A | 286 | VAL | HG22 | 0.703 | 0.001 | 2 |
| 1 | A | 286 | VAL | HG23 | 0.703 | 0.001 | 2 |
| 1 | A | 289 | VAL | HG12 | 0.617 | 0.001 | 2 |
| 1 | A | 289 | VAL | HG13 | 0.617 | 0.001 | 2 |
| 1 | A | 289 | VAL | HG22 | 0.718 | 0.001 | 2 |
| 1 | A | 289 | VAL | HG23 | 0.718 | 0.001 | 2 |
| 1 | A | 290 | THR | HG22 | 1.061 | 0.001 | 4 |
| 1 | A | 290 | THR | HG23 | 1.061 | 0.001 | 4 |
| 1 | A | 291 | LEU | HD12 | 0.638 | 0.003 | 2 |
| 1 | A | 291 | LEU | HD13 | 0.638 | 0.003 | 2 |
| 1 | A | 291 | LEU | HD22 | 0.739 | 0.001 | 2 |
| 1 | A | 291 | LEU | HD23 | 0.739 | 0.001 | 2 |
| 1 | A | 294 | LEU | HD12 | 0.728 | 0.005 | 2 |

Continued on next page...

Continued from previous page...

| List ID | Chain | Res | Type | Atom | Shift Data | | |
|---------|-------|-----|------|------|------------|-------------|-----------|
| | | | | | Value | Uncertainty | Ambiguity |
| 1 | A | 294 | LEU | HD13 | 0.728 | 0.005 | 2 |
| 1 | A | 294 | LEU | HD22 | 0.730 | 0.000 | 2 |
| 1 | A | 294 | LEU | HD23 | 0.730 | 0.000 | 2 |
| 1 | A | 298 | THR | HG22 | 0.917 | 0.011 | 4 |
| 1 | A | 298 | THR | HG23 | 0.917 | 0.011 | 4 |
| 1 | A | 300 | LEU | HD12 | 0.483 | 0.004 | 2 |
| 1 | A | 300 | LEU | HD13 | 0.483 | 0.004 | 2 |
| 1 | A | 300 | LEU | HD22 | 0.663 | 0.001 | 2 |
| 1 | A | 300 | LEU | HD23 | 0.663 | 0.001 | 2 |
| 1 | A | 301 | ILE | HD12 | 0.660 | 0.002 | 4 |
| 1 | A | 301 | ILE | HD13 | 0.660 | 0.002 | 4 |
| 1 | A | 301 | ILE | HG22 | 0.658 | 0.002 | 4 |
| 1 | A | 301 | ILE | HG23 | 0.658 | 0.002 | 4 |
| 1 | A | 302 | ILE | HD12 | 0.343 | 0.001 | 4 |
| 1 | A | 302 | ILE | HD13 | 0.343 | 0.001 | 4 |
| 1 | A | 302 | ILE | HG22 | 0.540 | 0.001 | 4 |
| 1 | A | 302 | ILE | HG23 | 0.540 | 0.001 | 4 |
| 1 | A | 303 | THR | HG22 | 1.047 | 0.001 | 4 |
| 1 | A | 303 | THR | HG23 | 1.047 | 0.001 | 4 |
| 1 | A | 304 | THR | HG22 | -0.216 | 0.001 | 4 |
| 1 | A | 304 | THR | HG23 | -0.216 | 0.001 | 4 |
| 1 | A | 305 | ALA | HB2 | 1.218 | 0.000 | 4 |
| 1 | A | 305 | ALA | HB3 | 1.218 | 0.000 | 4 |
| 1 | A | 310 | LEU | HD12 | 0.901 | 0.001 | 2 |
| 1 | A | 310 | LEU | HD13 | 0.901 | 0.001 | 2 |
| 1 | A | 310 | LEU | HD22 | 0.901 | 0.001 | 2 |
| 1 | A | 310 | LEU | HD23 | 0.901 | 0.001 | 2 |
| 1 | A | 311 | VAL | HG12 | 0.840 | 0.005 | 2 |
| 1 | A | 311 | VAL | HG13 | 0.840 | 0.005 | 2 |
| 1 | A | 311 | VAL | HG22 | 0.871 | 0.000 | 2 |
| 1 | A | 311 | VAL | HG23 | 0.871 | 0.000 | 2 |
| 1 | A | 315 | ALA | HB2 | 1.152 | 0.000 | 4 |
| 1 | A | 315 | ALA | HB3 | 1.152 | 0.000 | 4 |
| 1 | A | 316 | ALA | HB2 | 1.167 | 0.000 | 4 |
| 1 | A | 316 | ALA | HB3 | 1.167 | 0.000 | 4 |
| 1 | A | 321 | THR | HG22 | 0.912 | 0.002 | 4 |
| 1 | A | 321 | THR | HG23 | 0.912 | 0.002 | 4 |
| 1 | A | 324 | VAL | HG12 | 0.431 | 0.004 | 2 |
| 1 | A | 324 | VAL | HG13 | 0.431 | 0.004 | 2 |
| 1 | A | 324 | VAL | HG22 | 0.460 | 0.000 | 2 |
| 1 | A | 324 | VAL | HG23 | 0.460 | 0.000 | 2 |

Continued on next page...

Continued from previous page...

| List ID | Chain | Res | Type | Atom | Shift Data | | |
|---------|-------|-----|------|------|------------|-------------|-----------|
| | | | | | Value | Uncertainty | Ambiguity |
| 1 | A | 325 | LEU | HD12 | 0.822 | 0.001 | 2 |
| 1 | A | 325 | LEU | HD13 | 0.822 | 0.001 | 2 |
| 1 | A | 325 | LEU | HD22 | 0.822 | 0.000 | 2 |
| 1 | A | 325 | LEU | HD23 | 0.822 | 0.000 | 2 |

The following assigned chemical shifts were not mapped to the molecules present in the coordinate file.

- No matching atom found in the structure. All 70 occurrences are reported below.

| List ID | Chain | Res | Type | Atom | Shift Data | | |
|---------|-------|-----|------|------|------------|-------------|-----------|
| | | | | | Value | Uncertainty | Ambiguity |
| 1 | A | 228 | ILE | HG12 | 1.465 | 0.001 | 2 |
| 1 | A | 228 | ILE | HG13 | 0.905 | 0.000 | 2 |
| 1 | A | 228 | ILE | HG21 | 0.856 | 0.003 | 4 |
| 1 | A | 228 | ILE | HG22 | 0.856 | 0.003 | 4 |
| 1 | A | 228 | ILE | HG23 | 0.856 | 0.003 | 4 |
| 1 | A | 239 | ILE | HG12 | 1.079 | 0.001 | 2 |
| 1 | A | 239 | ILE | HG13 | 0.688 | 0.002 | 2 |
| 1 | A | 239 | ILE | HG21 | 0.468 | 0.002 | 4 |
| 1 | A | 239 | ILE | HG22 | 0.468 | 0.002 | 4 |
| 1 | A | 239 | ILE | HG23 | 0.468 | 0.002 | 4 |
| 1 | A | 240 | ILE | HG12 | 1.641 | 0.001 | 2 |
| 1 | A | 240 | ILE | HG13 | 1.364 | 0.001 | 2 |
| 1 | A | 240 | ILE | HG21 | 0.923 | 0.003 | 4 |
| 1 | A | 240 | ILE | HG22 | 0.923 | 0.003 | 4 |
| 1 | A | 240 | ILE | HG23 | 0.923 | 0.003 | 4 |
| 1 | A | 253 | ILE | HG12 | 0.734 | 0.007 | 2 |
| 1 | A | 253 | ILE | HG13 | 1.446 | 0.009 | 2 |
| 1 | A | 253 | ILE | HG21 | 0.601 | 0.004 | 4 |
| 1 | A | 253 | ILE | HG22 | 0.601 | 0.004 | 4 |
| 1 | A | 253 | ILE | HG23 | 0.601 | 0.004 | 4 |
| 1 | A | 260 | ILE | HG12 | 0.655 | 0.000 | 2 |
| 1 | A | 260 | ILE | HG13 | 1.129 | 0.001 | 2 |
| 1 | A | 260 | ILE | HG21 | 0.502 | 0.001 | 4 |
| 1 | A | 260 | ILE | HG22 | 0.502 | 0.001 | 4 |
| 1 | A | 260 | ILE | HG23 | 0.502 | 0.001 | 4 |
| 1 | A | 261 | ILE | HG12 | 0.911 | 0.002 | 2 |
| 1 | A | 261 | ILE | HG13 | 1.424 | 0.003 | 2 |
| 1 | A | 261 | ILE | HG21 | 0.61 | 0.007 | 4 |
| 1 | A | 261 | ILE | HG22 | 0.61 | 0.007 | 4 |
| 1 | A | 261 | ILE | HG23 | 0.61 | 0.007 | 4 |

Continued on next page...

Continued from previous page...

| List ID | Chain | Res | Type | Atom | Shift Data | | |
|---------|-------|-----|------|------|------------|-------------|-----------|
| | | | | | Value | Uncertainty | Ambiguity |
| 1 | A | 262 | VAL | HG11 | 0.048 | 0.001 | 2 |
| 1 | A | 262 | VAL | HG12 | 0.048 | 0.001 | 2 |
| 1 | A | 262 | VAL | HG21 | 0.375 | 0.001 | 2 |
| 1 | A | 262 | VAL | HG22 | 0.375 | 0.001 | 2 |
| 1 | A | 262 | VAL | HG23 | 0.375 | 0.001 | 2 |
| 1 | A | 279 | VAL | HG11 | -0.58 | 0.000 | 2 |
| 1 | A | 279 | VAL | HG12 | -0.58 | 0.000 | 2 |
| 1 | A | 279 | VAL | HG21 | 0.07 | 0.001 | 2 |
| 1 | A | 279 | VAL | HG22 | 0.07 | 0.001 | 2 |
| 1 | A | 279 | VAL | HG23 | 0.07 | 0.001 | 2 |
| 1 | A | 286 | VAL | HG11 | 0.415 | 0.001 | 2 |
| 1 | A | 286 | VAL | HG12 | 0.415 | 0.001 | 2 |
| 1 | A | 286 | VAL | HG21 | 0.703 | 0.001 | 2 |
| 1 | A | 286 | VAL | HG22 | 0.703 | 0.001 | 2 |
| 1 | A | 286 | VAL | HG23 | 0.703 | 0.001 | 2 |
| 1 | A | 289 | VAL | HG11 | 0.617 | 0.001 | 2 |
| 1 | A | 289 | VAL | HG12 | 0.617 | 0.001 | 2 |
| 1 | A | 289 | VAL | HG21 | 0.718 | 0.001 | 2 |
| 1 | A | 289 | VAL | HG22 | 0.718 | 0.001 | 2 |
| 1 | A | 289 | VAL | HG23 | 0.718 | 0.001 | 2 |
| 1 | A | 301 | ILE | HG12 | 1.29 | 0.000 | 2 |
| 1 | A | 301 | ILE | HG13 | 0.865 | 0.002 | 2 |
| 1 | A | 301 | ILE | HG21 | 0.658 | 0.002 | 4 |
| 1 | A | 301 | ILE | HG22 | 0.658 | 0.002 | 4 |
| 1 | A | 301 | ILE | HG23 | 0.658 | 0.002 | 4 |
| 1 | A | 302 | ILE | HG12 | 0.611 | 0.002 | 2 |
| 1 | A | 302 | ILE | HG13 | 1.333 | 0.000 | 2 |
| 1 | A | 302 | ILE | HG21 | 0.54 | 0.001 | 4 |
| 1 | A | 302 | ILE | HG22 | 0.54 | 0.001 | 4 |
| 1 | A | 302 | ILE | HG23 | 0.54 | 0.001 | 4 |
| 1 | A | 311 | VAL | HG11 | 0.84 | 0.005 | 2 |
| 1 | A | 311 | VAL | HG12 | 0.84 | 0.005 | 2 |
| 1 | A | 311 | VAL | HG21 | 0.871 | 0.000 | 2 |
| 1 | A | 311 | VAL | HG22 | 0.871 | 0.000 | 2 |
| 1 | A | 311 | VAL | HG23 | 0.871 | 0.000 | 2 |
| 1 | A | 324 | VAL | HG11 | 0.431 | 0.004 | 2 |
| 1 | A | 324 | VAL | HG12 | 0.431 | 0.004 | 2 |
| 1 | A | 324 | VAL | HG21 | 0.46 | 0.000 | 2 |
| 1 | A | 324 | VAL | HG22 | 0.46 | 0.000 | 2 |
| 1 | A | 324 | VAL | HG23 | 0.46 | 0.000 | 2 |

7.1.2 Chemical shift referencing [\(i\)](#)

The following table shows the suggested chemical shift referencing corrections.

| Nucleus | # values | Correction ± precision, ppm | Suggested action |
|------------------------|----------|-----------------------------|-------------------------|
| $^{13}\text{C}_\alpha$ | 123 | -0.07 ± 0.10 | None needed (< 0.5 ppm) |
| $^{13}\text{C}_\beta$ | 113 | 0.08 ± 0.09 | None needed (< 0.5 ppm) |
| $^{13}\text{C}'$ | 123 | -1.80 ± 0.27 | Should be applied |
| ^{15}N | 116 | -0.83 ± 0.45 | None needed (imprecise) |

7.1.3 Completeness of resonance assignments [\(i\)](#)

The following table shows the completeness of the chemical shift assignments for the well-defined regions of the structure. The overall completeness is 91%, i.e. 1297 atoms were assigned a chemical shift out of a possible 1424. 0 out of 17 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

| | Total | ^1H | ^{13}C | ^{15}N |
|-----------|-----------------|----------------|-----------------|-----------------|
| Backbone | 511/511 (100%) | 207/207 (100%) | 206/206 (100%) | 98/98 (100%) |
| Sidechain | 722/818 (88%) | 492/532 (92%) | 225/254 (89%) | 5/32 (16%) |
| Aromatic | 64/95 (67%) | 32/47 (68%) | 31/41 (76%) | 1/7 (14%) |
| Overall | 1297/1424 (91%) | 731/786 (93%) | 462/501 (92%) | 104/137 (76%) |

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 79%, i.e. 1484 atoms were assigned a chemical shift out of a possible 1870. 0 out of 19 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

| | Total | ^1H | ^{13}C | ^{15}N |
|-----------|-----------------|----------------|-----------------|-----------------|
| Backbone | 611/691 (88%) | 249/283 (88%) | 246/276 (89%) | 116/132 (88%) |
| Sidechain | 809/1028 (79%) | 550/669 (82%) | 252/316 (80%) | 7/43 (16%) |
| Aromatic | 64/151 (42%) | 32/75 (43%) | 31/55 (56%) | 1/21 (5%) |
| Overall | 1484/1870 (79%) | 831/1027 (81%) | 529/647 (82%) | 124/196 (63%) |

7.1.4 Statistically unusual chemical shifts [\(i\)](#)

The following table lists the statistically unusual chemical shifts. These are statistical measures, and large deviations from the mean do not necessarily imply incorrect assignments. Molecules containing paramagnetic centres or hemes are expected to give rise to anomalous chemical shifts.

| List Id | Chain | Res | Type | Atom | Shift, ppm | Expected range, ppm | Z-score |
|---------|-------|-----|------|------|------------|---------------------|---------|
| 1 | A | 304 | THR | HG21 | -0.22 | 0.08 – 2.19 | -6.4 |
| 1 | A | 304 | THR | HG22 | -0.22 | 0.08 – 2.19 | -6.4 |
| 1 | A | 304 | THR | HG23 | -0.22 | 0.08 – 2.19 | -6.4 |

Continued on next page...

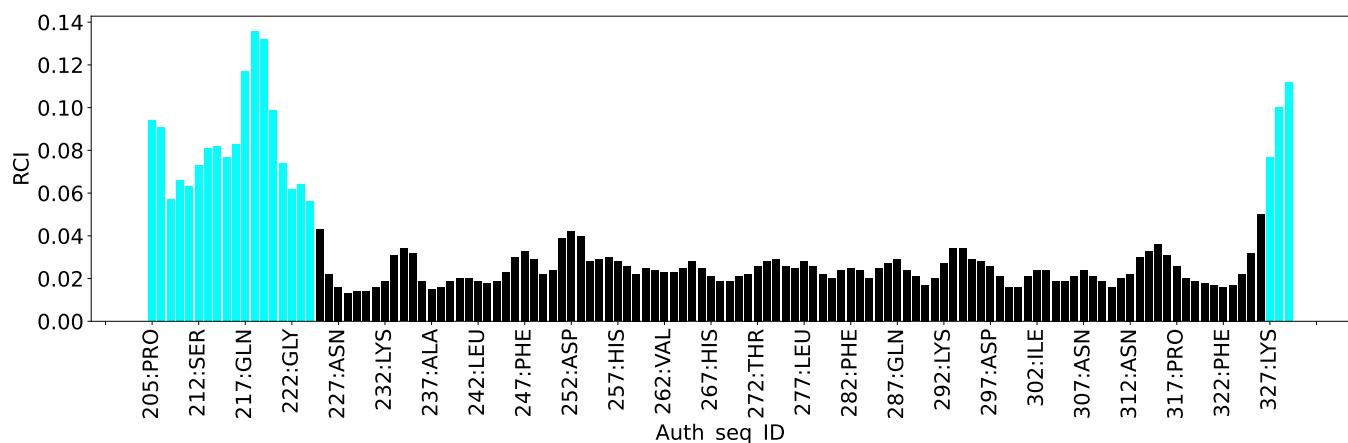
Continued from previous page...

| List Id | Chain | Res | Type | Atom | Shift, ppm | Expected range, ppm | Z-score |
|---------|-------|-----|------|------|------------|---------------------|---------|
| 1 | A | 279 | VAL | HG11 | -0.58 | -0.48 – 2.12 | -5.4 |
| 1 | A | 279 | VAL | HG12 | -0.58 | -0.48 – 2.12 | -5.4 |
| 1 | A | 279 | VAL | HG13 | -0.58 | -0.48 – 2.12 | -5.4 |

7.1.5 Random Coil Index (RCI) plots [\(i\)](#)

The image below reports *random coil index* values for the protein chains in the structure. The height of each bar gives a probability of a given residue to be disordered, as predicted from the available chemical shifts and the amino acid sequence. A value above 0.2 is an indication of significant predicted disorder. The colour of the bar shows whether the residue is in the well-defined core (black) or in the ill-defined residue ranges (cyan), as described in section 2 on ensemble composition. If well-defined core and ill-defined regions are not identified then it is shown as gray bars.

Random coil index (RCI) for chain A:



8 NMR restraints analysis (i)

8.1 Conformationally restricting restraints (i)

The following table provides the summary of experimentally observed NMR restraints in different categories. Restraints are classified into different categories based on the sequence separation of the atoms involved.

| Description | Value |
|--|-------|
| Total distance restraints | 2607 |
| Intra-residue ($ i-j =0$) | 523 |
| Sequential ($ i-j =1$) | 667 |
| Medium range ($ i-j >1$ and $ i-j <5$) | 274 |
| Long range ($ i-j \geq 5$) | 1143 |
| Inter-chain | 0 |
| Hydrogen bond restraints | 0 |
| Disulfide bond restraints | 0 |
| Total dihedral-angle restraints | 154 |
| Number of unmapped restraints | 331 |
| Number of restraints per residue | 20.0 |
| Number of long range restraints per residue ¹ | 8.3 |

¹Long range hydrogen bonds and disulfide bonds are counted as long range restraints while calculating the number of long range restraints per residue

8.2 Residual restraint violations (i)

This section provides the overview of the restraint violations analysis. The violations are binned as small, medium and large violations based on its absolute value. Average number of violations per model is calculated by dividing the total number of violations in each bin by the size of the ensemble.

8.2.1 Average number of distance violations per model (i)

Distance violations less than 0.1 Å are not included in the calculation.

| Bins (Å) | Average number of violations per model | Max (Å) |
|------------------|--|---------|
| 0.1-0.2 (Small) | 17.4 | 0.2 |
| 0.2-0.5 (Medium) | 21.4 | 0.5 |
| >0.5 (Large) | 110.0 | 6.47 |

8.2.2 Average number of dihedral-angle violations per model [\(i\)](#)

Dihedral-angle violations less than 1° are not included in the calculation.

| Bins (°) | Average number of violations per model | Max (°) |
|--------------------|--|---------|
| 1.0-10.0 (Small) | 5.5 | 3.1 |
| 10.0-20.0 (Medium) | None | None |
| >20.0 (Large) | None | None |

9 Distance violation analysis (i)

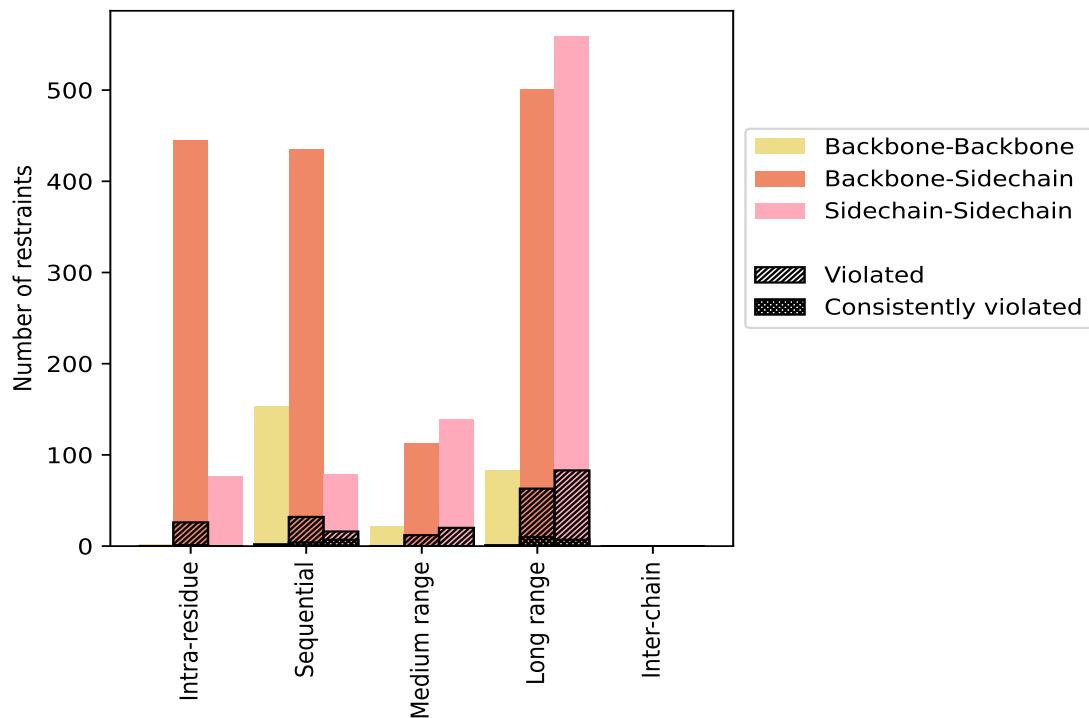
9.1 Summary of distance violations (i)

The following table shows the summary of distance violations in different restraint categories based on the sequence separation of the atoms involved. Each category is further sub-divided into three sub-categories based on the atoms involved. Violations less than 0.1 Å are not included in the statistics.

| Restraints type | Count | % ¹ | Violated ³ | | | Consistently Violated ⁴ | | |
|---|-------|----------------|-----------------------|----------------|----------------|------------------------------------|----------------|----------------|
| | | | Count | % ² | % ¹ | Count | % ² | % ¹ |
| Intra-residue ($ i-j =0$) | 523 | 20.1 | 26 | 5.0 | 1.0 | 1 | 0.2 | 0.0 |
| Backbone-Backbone | 2 | 0.1 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 445 | 17.1 | 26 | 5.8 | 1.0 | 1 | 0.2 | 0.0 |
| Sidechain-Sidechain | 76 | 2.9 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Sequential ($ i-j =1$) | 667 | 25.6 | 50 | 7.5 | 1.9 | 11 | 1.6 | 0.4 |
| Backbone-Backbone | 153 | 5.9 | 2 | 1.3 | 0.1 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 435 | 16.7 | 32 | 7.4 | 1.2 | 4 | 0.9 | 0.2 |
| Sidechain-Sidechain | 79 | 3.0 | 16 | 20.3 | 0.6 | 7 | 8.9 | 0.3 |
| Medium range ($ i-j >1 \text{ & } i-j <5$) | 274 | 10.5 | 32 | 11.7 | 1.2 | 0 | 0.0 | 0.0 |
| Backbone-Backbone | 22 | 0.8 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 113 | 4.3 | 12 | 10.6 | 0.5 | 0 | 0.0 | 0.0 |
| Sidechain-Sidechain | 139 | 5.3 | 20 | 14.4 | 0.8 | 0 | 0.0 | 0.0 |
| Long range ($ i-j \geq 5$) | 1143 | 43.8 | 147 | 12.9 | 5.6 | 17 | 1.5 | 0.7 |
| Backbone-Backbone | 83 | 3.2 | 1 | 1.2 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 501 | 19.2 | 63 | 12.6 | 2.4 | 10 | 2.0 | 0.4 |
| Sidechain-Sidechain | 559 | 21.4 | 83 | 14.8 | 3.2 | 7 | 1.3 | 0.3 |
| Inter-chain | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Backbone | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Sidechain-Sidechain | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Hydrogen bond | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Disulfide bond | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Total | 2607 | 100.0 | 255 | 9.8 | 9.8 | 29 | 1.1 | 1.1 |
| Backbone-Backbone | 260 | 10.0 | 3 | 1.2 | 0.1 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 1494 | 57.3 | 133 | 8.9 | 5.1 | 15 | 1.0 | 0.6 |
| Sidechain-Sidechain | 853 | 32.7 | 119 | 14.0 | 4.6 | 14 | 1.6 | 0.5 |

¹ percentage calculated with respect to the total number of distance restraints, ² percentage calculated with respect to the number of restraints in a particular restraint category, ³ violated in at least one model, ⁴ violated in all the models

9.1.1 Bar chart : Distribution of distance restraints and violations [\(i\)](#)



Violated and consistently violated restraints are shown using different hatch patterns in their respective categories. The hydrogen bonds and disulfied bonds are counted in their appropriate category on the x-axis

9.2 Distance violation statistics for each model [\(i\)](#)

The following table provides the distance violation statistics for each model in the ensemble. Violations less than 0.1 Å are not included in the statistics.

| Model ID | Number of violations | | | | | | Mean (Å) | Max (Å) | SD ⁶ (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
| | IR ¹ | SQ ² | MR ³ | LR ⁴ | IC ⁵ | Total | | | | |
| 1 | 14 | 31 | 16 | 79 | 0 | 140 | 1.35 | 3.91 | 0.99 | 1.02 |
| 2 | 12 | 35 | 23 | 92 | 0 | 162 | 1.35 | 4.23 | 1.06 | 1.09 |
| 3 | 10 | 32 | 23 | 77 | 0 | 142 | 1.2 | 4.15 | 0.95 | 0.94 |
| 4 | 17 | 33 | 21 | 75 | 0 | 146 | 1.31 | 3.44 | 0.9 | 1.1 |
| 5 | 14 | 34 | 20 | 81 | 0 | 149 | 1.36 | 4.95 | 0.98 | 1.19 |
| 6 | 15 | 26 | 22 | 82 | 0 | 145 | 1.12 | 3.85 | 0.88 | 1.02 |
| 7 | 9 | 30 | 18 | 82 | 0 | 139 | 1.32 | 6.23 | 1.14 | 1.0 |
| 8 | 14 | 30 | 23 | 85 | 0 | 152 | 1.4 | 4.02 | 0.98 | 1.27 |
| 9 | 6 | 34 | 19 | 88 | 0 | 147 | 1.48 | 6.47 | 1.23 | 1.21 |
| 10 | 14 | 36 | 19 | 90 | 0 | 159 | 1.37 | 4.0 | 1.05 | 1.21 |
| 11 | 15 | 31 | 20 | 82 | 0 | 148 | 1.31 | 4.12 | 0.94 | 1.07 |

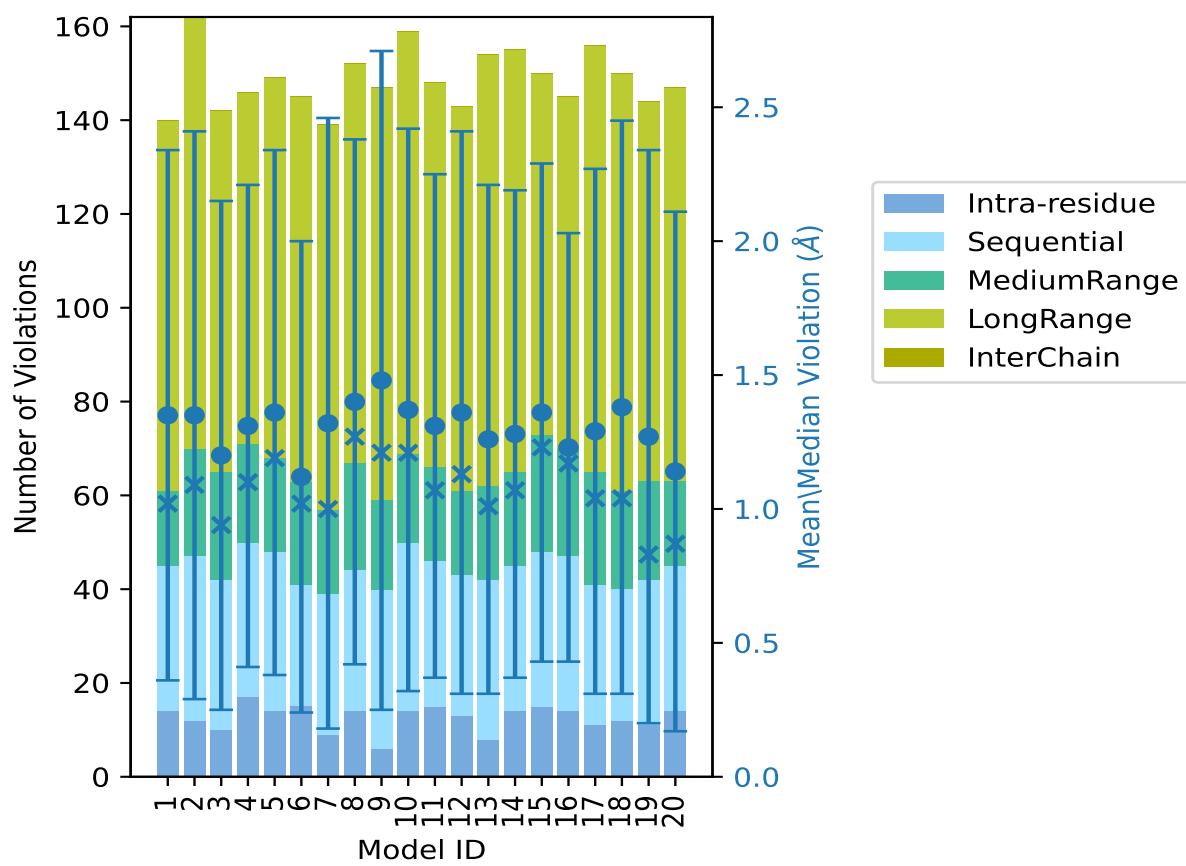
Continued on next page...

Continued from previous page...

| Model ID | Number of violations | | | | | | Mean (Å) | Max (Å) | SD ⁶ (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
| | IR ¹ | SQ ² | MR ³ | LR ⁴ | IC ⁵ | Total | | | | |
| 12 | 13 | 30 | 18 | 82 | 0 | 143 | 1.36 | 4.57 | 1.05 | 1.13 |
| 13 | 8 | 34 | 20 | 92 | 0 | 154 | 1.26 | 3.85 | 0.95 | 1.01 |
| 14 | 14 | 31 | 20 | 90 | 0 | 155 | 1.28 | 3.56 | 0.91 | 1.07 |
| 15 | 15 | 33 | 25 | 77 | 0 | 150 | 1.36 | 3.69 | 0.93 | 1.23 |
| 16 | 14 | 33 | 23 | 75 | 0 | 145 | 1.23 | 3.32 | 0.8 | 1.17 |
| 17 | 11 | 30 | 24 | 91 | 0 | 156 | 1.29 | 3.87 | 0.98 | 1.04 |
| 18 | 12 | 28 | 21 | 89 | 0 | 150 | 1.38 | 4.81 | 1.07 | 1.04 |
| 19 | 11 | 31 | 21 | 81 | 0 | 144 | 1.27 | 4.19 | 1.07 | 0.83 |
| 20 | 14 | 31 | 18 | 84 | 0 | 147 | 1.14 | 4.25 | 0.97 | 0.87 |

¹Intra-residue restraints, ²Sequential restraints, ³Medium range restraints, ⁴Long range restraints,
⁵Inter-chain restraints, ⁶Standard deviation

9.2.1 Bar graph : Distance Violation statistics for each model [\(i\)](#)



The mean(dot),median(x) and the standard deviation are shown in blue with respect to the y axis on the right

9.3 Distance violation statistics for the ensemble [\(i\)](#)

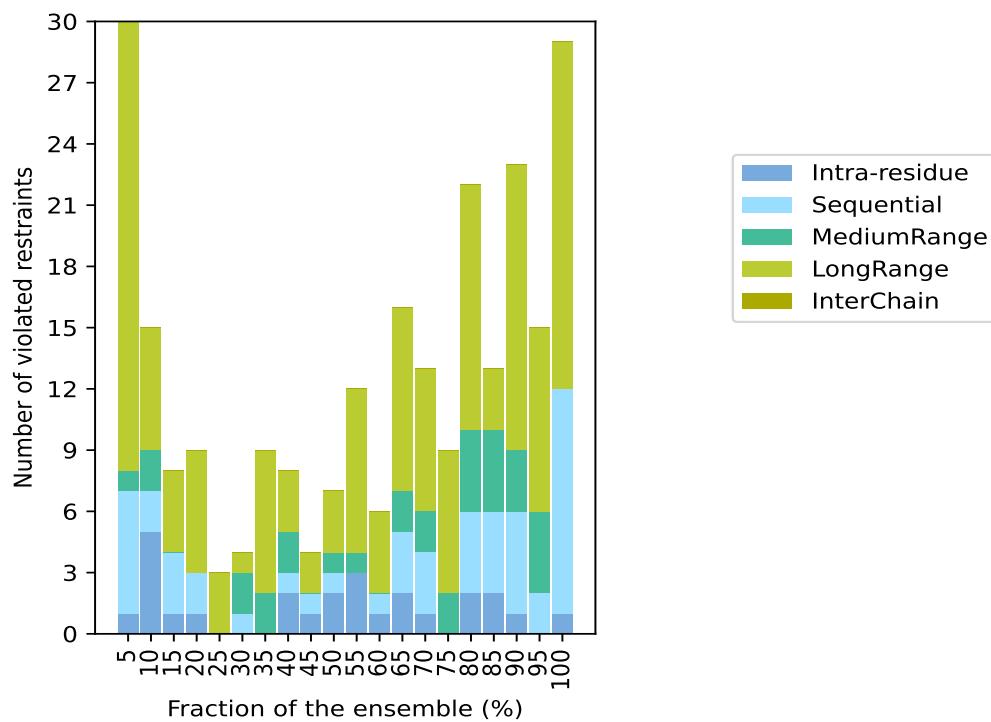
Violation analysis may find that some restraints are violated in few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of the ensemble. In total, 2352(IR:497, SQ:617, MR:242, LR:996, IC:0) restraints are not violated in the ensemble.

| IR ¹ | SQ ² | MR ³ | LR ⁴ | IC ⁵ | Total | Fraction of the ensemble | |
|-----------------|-----------------|-----------------|-----------------|-----------------|-------|--------------------------|-------|
| | | | | | | Count ⁶ | % |
| 1 | 6 | 1 | 22 | 0 | 30 | 1 | 5.0 |
| 5 | 2 | 2 | 6 | 0 | 15 | 2 | 10.0 |
| 1 | 3 | 0 | 4 | 0 | 8 | 3 | 15.0 |
| 1 | 2 | 0 | 6 | 0 | 9 | 4 | 20.0 |
| 0 | 0 | 0 | 3 | 0 | 3 | 5 | 25.0 |
| 0 | 1 | 2 | 1 | 0 | 4 | 6 | 30.0 |
| 0 | 0 | 2 | 7 | 0 | 9 | 7 | 35.0 |
| 2 | 1 | 2 | 3 | 0 | 8 | 8 | 40.0 |
| 1 | 1 | 0 | 2 | 0 | 4 | 9 | 45.0 |
| 2 | 1 | 1 | 3 | 0 | 7 | 10 | 50.0 |
| 3 | 0 | 1 | 8 | 0 | 12 | 11 | 55.0 |
| 1 | 1 | 0 | 4 | 0 | 6 | 12 | 60.0 |
| 2 | 3 | 2 | 9 | 0 | 16 | 13 | 65.0 |
| 1 | 3 | 2 | 7 | 0 | 13 | 14 | 70.0 |
| 0 | 0 | 2 | 7 | 0 | 9 | 15 | 75.0 |
| 2 | 4 | 4 | 12 | 0 | 22 | 16 | 80.0 |
| 2 | 4 | 4 | 3 | 0 | 13 | 17 | 85.0 |
| 1 | 5 | 3 | 14 | 0 | 23 | 18 | 90.0 |
| 0 | 2 | 4 | 9 | 0 | 15 | 19 | 95.0 |
| 1 | 11 | 0 | 17 | 0 | 29 | 20 | 100.0 |

¹Intra-residue restraints, ²Sequential restraints, ³Medium range restraints, ⁴Long range restraints,

⁵Inter-chain restraints, ⁶ Number of models with violations

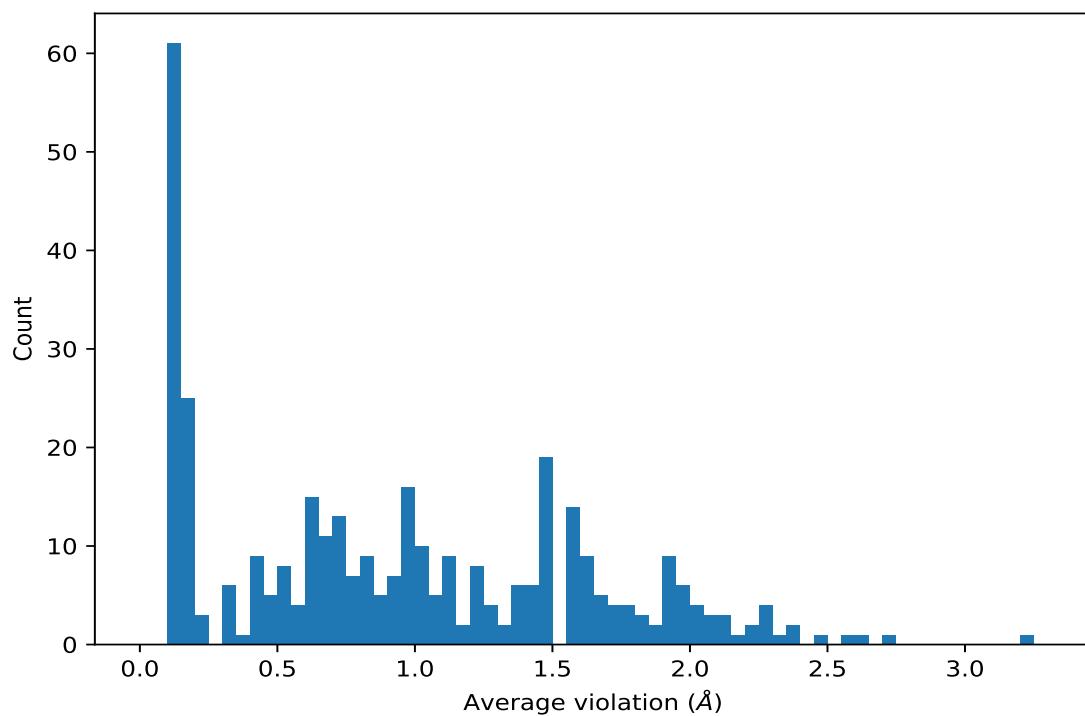
9.3.1 Bar graph : Distance violation statistics for the ensemble [\(i\)](#)



9.4 Most violated distance restraints in the ensemble [\(i\)](#)

9.4.1 Histogram : Distribution of mean distance violations [\(i\)](#)

The following histogram shows the distribution of the average value of the violation. The average is calculated for each restraint that is violated in more than one model over all the violated models in the ensemble



9.4.2 Table: Most violated distance restraints [\(i\)](#)

The following table provides the mean and the standard deviation of the violation for each restraint sorted by number of violated models and the mean value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint. Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 20 | 2.64 | 1.31 | 3.28 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 20 | 2.56 | 0.89 | 2.66 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 20 | 2.27 | 1.3 | 3.13 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 20 | 2.2 | 0.73 | 2.15 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 20 | 2.17 | 1.28 | 1.82 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 20 | 2.12 | 0.82 | 2.46 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 20 | 2.11 | 0.64 | 2.23 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 20 | 1.97 | 1.05 | 2.08 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 20 | 1.97 | 1.05 | 2.08 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 20 | 1.95 | 0.83 | 1.9 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 20 | 1.95 | 0.83 | 1.9 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 20 | 1.87 | 1.15 | 1.7 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 20 | 1.78 | 0.92 | 1.99 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 20 | 1.7 | 1.32 | 2.24 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 20 | 1.65 | 1.13 | 1.19 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 20 | 1.64 | 1.45 | 0.86 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 20 | 1.62 | 0.58 | 1.86 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 20 | 1.61 | 0.77 | 1.65 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 20 | 1.55 | 0.9 | 1.83 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 20 | 1.55 | 1.19 | 1.01 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 20 | 1.49 | 0.45 | 1.52 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 20 | 1.47 | 0.68 | 1.37 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 20 | 1.47 | 0.5 | 1.52 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 20 | 1.47 | 0.5 | 1.52 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 20 | 1.47 | 0.5 | 1.52 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 20 | 1.41 | 0.49 | 1.24 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 20 | 1.4 | 0.69 | 1.72 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 20 | 1.39 | 0.83 | 1.47 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 20 | 1.39 | 0.66 | 1.06 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 20 | 1.3 | 0.73 | 1.58 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 20 | 1.07 | 0.49 | 0.89 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 20 | 0.63 | 0.15 | 0.6 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 20 | 0.19 | 0.02 | 0.19 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 19 | 3.21 | 1.61 | 2.96 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 19 | 2.46 | 1.17 | 3.08 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 19 | 2.39 | 0.95 | 2.99 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 19 | 2.09 | 0.82 | 2.48 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 19 | 2.09 | 1.0 | 2.61 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 19 | 2.05 | 1.25 | 1.98 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 19 | 2.02 | 1.18 | 2.2 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 19 | 1.97 | 1.05 | 1.61 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 19 | 1.84 | 1.0 | 2.06 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 19 | 1.84 | 1.0 | 2.06 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 19 | 1.79 | 0.53 | 1.82 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 19 | 1.69 | 1.33 | 1.18 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 19 | 1.63 | 1.14 | 1.2 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 19 | 1.57 | 0.94 | 1.77 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 19 | 1.55 | 0.82 | 1.66 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 19 | 1.55 | 0.82 | 1.66 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 19 | 1.55 | 0.82 | 1.66 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 19 | 1.55 | 0.82 | 1.66 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 19 | 1.55 | 0.82 | 1.66 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 19 | 1.55 | 0.82 | 1.66 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 19 | 1.49 | 1.06 | 1.9 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 19 | 1.49 | 1.06 | 1.9 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 18 | 2.71 | 1.18 | 3.37 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 18 | 2.32 | 1.13 | 2.1 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 18 | 2.28 | 1.18 | 2.44 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 18 | 2.13 | 0.94 | 2.51 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 18 | 2.03 | 1.18 | 1.77 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 18 | 2.03 | 1.18 | 1.77 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 18 | 1.98 | 1.14 | 2.21 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 18 | 1.94 | 0.98 | 1.93 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 18 | 1.94 | 1.2 | 2.18 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 18 | 1.93 | 1.24 | 1.82 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 18 | 1.7 | 0.55 | 1.65 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 18 | 1.63 | 0.55 | 1.88 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 18 | 1.59 | 1.27 | 0.81 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 18 | 1.55 | 1.32 | 0.72 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 18 | 1.47 | 0.46 | 1.62 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 18 | 1.47 | 0.46 | 1.62 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 18 | 1.42 | 0.36 | 1.5 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 18 | 1.38 | 0.89 | 1.42 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 18 | 1.38 | 0.89 | 1.42 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 18 | 1.3 | 0.64 | 1.17 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 18 | 1.05 | 0.49 | 0.95 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 18 | 1.05 | 0.49 | 0.95 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 18 | 1.05 | 0.49 | 0.95 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 18 | 0.99 | 0.53 | 0.92 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 18 | 0.99 | 0.5 | 0.84 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 18 | 0.99 | 0.5 | 0.84 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 18 | 0.99 | 0.5 | 0.84 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 18 | 0.98 | 0.33 | 1.04 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 18 | 0.85 | 0.44 | 0.64 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 18 | 0.76 | 0.28 | 0.75 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 18 | 0.76 | 0.28 | 0.75 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 18 | 0.76 | 0.28 | 0.75 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 17 | 2.29 | 1.38 | 2.46 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 17 | 2.02 | 0.93 | 2.45 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 17 | 1.72 | 0.96 | 1.66 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 17 | 1.7 | 0.44 | 1.9 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 17 | 1.66 | 0.47 | 1.71 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 17 | 1.58 | 0.97 | 1.42 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 17 | 1.49 | 1.0 | 1.01 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 17 | 1.29 | 0.43 | 1.53 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 17 | 1.29 | 0.92 | 0.79 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 17 | 1.19 | 0.87 | 0.67 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 17 | 0.98 | 0.33 | 0.89 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 17 | 0.98 | 0.33 | 0.89 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 17 | 0.61 | 0.23 | 0.55 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 17 | 0.6 | 0.21 | 0.55 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 16 | 2.24 | 0.58 | 2.42 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 16 | 1.93 | 0.98 | 1.6 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 16 | 1.92 | 0.85 | 1.9 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 16 | 1.85 | 0.91 | 2.21 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 16 | 1.81 | 0.81 | 1.9 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 16 | 1.75 | 0.76 | 1.6 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 16 | 1.6 | 0.7 | 1.86 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 16 | 1.47 | 0.83 | 1.74 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 16 | 1.47 | 0.83 | 1.74 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 16 | 1.47 | 0.83 | 1.74 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 16 | 1.47 | 0.83 | 1.74 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 16 | 1.47 | 0.83 | 1.74 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 16 | 1.47 | 0.83 | 1.74 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 16 | 1.46 | 1.13 | 1.28 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 16 | 1.42 | 0.67 | 1.11 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 16 | 1.37 | 0.63 | 1.38 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 16 | 1.24 | 0.59 | 1.09 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 16 | 1.24 | 0.59 | 1.09 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 16 | 1.24 | 0.59 | 1.09 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 16 | 1.23 | 0.6 | 1.58 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 16 | 1.13 | 0.58 | 1.32 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 16 | 1.12 | 0.32 | 1.1 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 16 | 1.12 | 0.49 | 0.97 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 16 | 1.09 | 0.75 | 1.0 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 16 | 1.01 | 0.5 | 1.06 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 16 | 0.94 | 0.21 | 0.98 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 16 | 0.92 | 0.42 | 1.0 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 16 | 0.83 | 0.18 | 0.81 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 16 | 0.16 | 0.02 | 0.17 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 15 | 2.39 | 1.26 | 2.41 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 15 | 1.94 | 0.43 | 2.05 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 15 | 1.67 | 0.56 | 2.0 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 15 | 1.59 | 1.04 | 1.6 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 15 | 1.21 | 0.59 | 1.21 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 15 | 1.21 | 0.59 | 1.21 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 15 | 1.2 | 1.06 | 0.41 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 15 | 1.2 | 1.06 | 0.41 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 15 | 0.95 | 0.62 | 1.12 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 15 | 0.95 | 0.62 | 1.12 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 15 | 0.95 | 0.62 | 1.12 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 15 | 0.95 | 0.62 | 1.12 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 15 | 0.95 | 0.62 | 1.12 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 15 | 0.95 | 0.62 | 1.12 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 15 | 0.81 | 0.46 | 0.65 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 15 | 0.81 | 0.46 | 0.65 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 15 | 0.81 | 0.46 | 0.65 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 15 | 0.59 | 0.48 | 0.32 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 14 | 2.29 | 1.2 | 2.77 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 14 | 1.68 | 1.21 | 1.61 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 14 | 1.37 | 0.61 | 1.36 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 14 | 1.29 | 0.98 | 0.76 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 14 | 1.13 | 0.47 | 1.4 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 14 | 0.94 | 0.33 | 0.98 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 14 | 0.92 | 0.61 | 0.88 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 14 | 0.92 | 0.61 | 0.88 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 14 | 0.8 | 0.3 | 0.68 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 14 | 0.69 | 0.35 | 0.59 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 14 | 0.63 | 0.19 | 0.58 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 14 | 0.62 | 0.45 | 0.48 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 14 | 0.62 | 0.45 | 0.48 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 14 | 0.62 | 0.45 | 0.48 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 14 | 0.58 | 0.29 | 0.54 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 14 | 0.46 | 0.23 | 0.38 |
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 13 | 1.94 | 0.38 | 1.66 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 13 | 1.94 | 0.38 | 1.66 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 13 | 1.94 | 0.38 | 1.66 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 13 | 1.46 | 0.69 | 1.55 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 13 | 1.4 | 0.93 | 1.46 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 13 | 1.26 | 0.37 | 1.33 |
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 13 | 1.16 | 0.59 | 0.91 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 13 | 1.12 | 0.78 | 0.77 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 13 | 1.12 | 0.78 | 0.77 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 13 | 1.04 | 0.31 | 1.14 |
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 13 | 1.01 | 0.68 | 0.77 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 13 | 1.01 | 0.68 | 0.77 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 13 | 1.01 | 0.68 | 0.77 |
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 13 | 1.01 | 0.68 | 0.77 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 13 | 1.01 | 0.68 | 0.77 |
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 13 | 1.01 | 0.68 | 0.77 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 13 | 0.81 | 0.53 | 0.65 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 13 | 0.81 | 0.53 | 0.65 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 13 | 0.81 | 0.53 | 0.65 |
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 13 | 0.73 | 0.21 | 0.64 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 13 | 0.7 | 0.42 | 0.56 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 13 | 0.7 | 0.42 | 0.56 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 13 | 0.7 | 0.35 | 0.61 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 13 | 0.7 | 0.35 | 0.61 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 13 | 0.7 | 0.35 | 0.61 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 13 | 0.7 | 0.35 | 0.61 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 13 | 0.7 | 0.35 | 0.61 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 13 | 0.7 | 0.35 | 0.61 |
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 13 | 0.7 | 0.32 | 0.74 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 13 | 0.68 | 0.13 | 0.72 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 13 | 0.63 | 0.22 | 0.69 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 13 | 0.13 | 0.01 | 0.13 |
| (1,2055) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 12 | 1.11 | 0.29 | 1.04 |
| (1,2055) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 12 | 1.11 | 0.29 | 1.04 |
| (1,2055) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 12 | 1.11 | 0.29 | 1.04 |
| (1,2352) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 12 | 1.01 | 0.27 | 0.96 |
| (1,1965) | 1:A:230:PHE:HE1 | 1:A:279:VAL:HG13 | 12 | 0.92 | 0.75 | 0.46 |
| (1,1965) | 1:A:230:PHE:HE2 | 1:A:279:VAL:HG13 | 12 | 0.92 | 0.75 | 0.46 |
| (1,954) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 12 | 0.75 | 0.2 | 0.82 |
| (1,969) | 1:A:263:THR:HA | 1:A:264:LEU:HG | 12 | 0.16 | 0.02 | 0.16 |
| (1,745) | 1:A:251:PRO:HA | 1:A:264:LEU:HG | 12 | 0.16 | 0.03 | 0.15 |
| (1,2123) | 1:A:251:PRO:HG2 | 1:A:262:VAL:HG13 | 11 | 1.75 | 0.52 | 1.55 |
| (1,2401) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 11 | 1.4 | 0.48 | 1.62 |
| (1,2402) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 11 | 0.89 | 0.46 | 0.87 |
| (1,2545) | 1:A:311:VAL:H | 1:A:311:VAL:HG13 | 11 | 0.89 | 0.23 | 0.9 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 11 | 0.62 | 0.37 | 0.5 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 11 | 0.62 | 0.37 | 0.5 |
| (1,1157) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 11 | 0.53 | 0.24 | 0.47 |
| (1,1224) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 11 | 0.44 | 0.27 | 0.35 |
| (1,1224) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 11 | 0.44 | 0.27 | 0.35 |
| (1,1224) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 11 | 0.44 | 0.27 | 0.35 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB2 | 11 | 0.4 | 0.27 | 0.33 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB3 | 11 | 0.4 | 0.27 | 0.33 |
| (1,947) | 1:A:262:VAL:HB | 1:A:300:LEU:H | 11 | 0.19 | 0.04 | 0.18 |
| (1,948) | 1:A:262:VAL:HB | 1:A:300:LEU:HA | 11 | 0.15 | 0.02 | 0.15 |
| (1,484) | 1:A:237:ALA:HB1 | 1:A:325:LEU:HG | 11 | 0.14 | 0.01 | 0.14 |
| (1,484) | 1:A:237:ALA:HB2 | 1:A:325:LEU:HG | 11 | 0.14 | 0.01 | 0.14 |
| (1,484) | 1:A:237:ALA:HB3 | 1:A:325:LEU:HG | 11 | 0.14 | 0.01 | 0.14 |
| (1,1019) | 1:A:264:LEU:HD21 | 1:A:267:HIS:HB2 | 11 | 0.13 | 0.01 | 0.12 |
| (1,1019) | 1:A:264:LEU:HD22 | 1:A:267:HIS:HB2 | 11 | 0.13 | 0.01 | 0.12 |
| (1,1019) | 1:A:264:LEU:HD23 | 1:A:267:HIS:HB2 | 11 | 0.13 | 0.01 | 0.12 |
| (1,1264) | 1:A:289:VAL:HG13 | 1:A:290:THR:H | 10 | 1.01 | 0.41 | 1.16 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2198) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 10 | 0.96 | 0.38 | 0.88 |
| (1,2400) | 1:A:285:PRO:HD2 | 1:A:324:VAL:HG13 | 10 | 0.77 | 0.7 | 0.4 |
| (1,2400) | 1:A:285:PRO:HD3 | 1:A:324:VAL:HG13 | 10 | 0.77 | 0.7 | 0.4 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD11 | 10 | 0.67 | 0.44 | 0.54 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD12 | 10 | 0.67 | 0.44 | 0.54 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD13 | 10 | 0.67 | 0.44 | 0.54 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD21 | 10 | 0.67 | 0.44 | 0.54 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD22 | 10 | 0.67 | 0.44 | 0.54 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD23 | 10 | 0.67 | 0.44 | 0.54 |
| (1,953) | 1:A:262:VAL:HA | 1:A:262:VAL:HG13 | 10 | 0.64 | 0.19 | 0.57 |
| (1,135) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 10 | 0.41 | 0.21 | 0.5 |
| (1,1824) | 1:A:308:TRP:HH2 | 1:A:310:LEU:HG | 10 | 0.2 | 0.02 | 0.2 |
| (1,1961) | 1:A:230:PHE:HD1 | 1:A:279:VAL:HG13 | 9 | 0.98 | 0.66 | 0.89 |
| (1,1961) | 1:A:230:PHE:HD2 | 1:A:279:VAL:HG13 | 9 | 0.98 | 0.66 | 0.89 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG21 | 9 | 0.67 | 0.24 | 0.6 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG22 | 9 | 0.67 | 0.24 | 0.6 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG23 | 9 | 0.67 | 0.24 | 0.6 |
| (1,949) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 9 | 0.58 | 0.18 | 0.7 |
| (1,1622) | 1:A:311:VAL:HB | 1:A:312:ASN:HA | 9 | 0.17 | 0.02 | 0.17 |
| (1,2399) | 1:A:285:PRO:HD2 | 1:A:286:VAL:HG13 | 8 | 1.63 | 0.4 | 1.48 |
| (1,2399) | 1:A:285:PRO:HD3 | 1:A:286:VAL:HG13 | 8 | 1.63 | 0.4 | 1.48 |
| (1,2388) | 1:A:284:THR:HB | 1:A:286:VAL:HG13 | 8 | 1.59 | 0.35 | 1.5 |
| (1,2033) | 1:A:238:GLY:HA3 | 1:A:286:VAL:HG13 | 8 | 1.49 | 0.51 | 1.25 |
| (1,1219) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 8 | 0.77 | 0.12 | 0.84 |
| (1,1967) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 8 | 0.64 | 0.37 | 0.66 |
| (1,1967) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 8 | 0.64 | 0.37 | 0.66 |
| (1,1269) | 1:A:289:VAL:HA | 1:A:289:VAL:HG13 | 8 | 0.63 | 0.01 | 0.63 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB2 | 8 | 0.54 | 0.31 | 0.44 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB3 | 8 | 0.54 | 0.31 | 0.44 |
| (1,1616) | 1:A:311:VAL:HG13 | 1:A:323:GLN:H | 8 | 0.52 | 0.24 | 0.51 |
| (1,2393) | 1:A:285:PRO:HB2 | 1:A:324:VAL:HG13 | 7 | 1.61 | 0.46 | 1.37 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 7 | 0.87 | 0.48 | 1.13 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 7 | 0.87 | 0.48 | 1.13 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE1 | 7 | 0.72 | 0.3 | 0.85 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE2 | 7 | 0.72 | 0.3 | 0.85 |
| (1,1158) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 7 | 0.7 | 0.4 | 0.56 |
| (1,1740) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 7 | 0.58 | 0.41 | 0.33 |
| (1,2259) | 1:A:269:LEU:HD11 | 1:A:291:LEU:HG | 7 | 0.32 | 0.02 | 0.32 |
| (1,2259) | 1:A:269:LEU:HD12 | 1:A:291:LEU:HG | 7 | 0.32 | 0.02 | 0.32 |
| (1,2259) | 1:A:269:LEU:HD13 | 1:A:291:LEU:HG | 7 | 0.32 | 0.02 | 0.32 |
| (1,2259) | 1:A:269:LEU:HD21 | 1:A:291:LEU:HG | 7 | 0.32 | 0.02 | 0.32 |
| (1,2259) | 1:A:269:LEU:HD22 | 1:A:291:LEU:HG | 7 | 0.32 | 0.02 | 0.32 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2259) | 1:A:269:LEU:HD23 | 1:A:291:LEU:HG | 7 | 0.32 | 0.02 | 0.32 |
| (1,1182) | 1:A:279:VAL:HB | 1:A:282:PHE:HB3 | 7 | 0.15 | 0.02 | 0.15 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD11 | 7 | 0.14 | 0.01 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD12 | 7 | 0.14 | 0.01 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD13 | 7 | 0.14 | 0.01 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD21 | 7 | 0.14 | 0.01 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD22 | 7 | 0.14 | 0.01 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD23 | 7 | 0.14 | 0.01 | 0.14 |
| (1,749) | 1:A:251:PRO:HB3 | 1:A:264:LEU:HB3 | 7 | 0.12 | 0.01 | 0.11 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE1 | 6 | 0.19 | 0.01 | 0.2 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE2 | 6 | 0.19 | 0.01 | 0.2 |
| (1,1803) | 1:A:327:LYS:HB2 | 1:A:328:LYS:HA | 6 | 0.16 | 0.02 | 0.16 |
| (1,1214) | 1:A:284:THR:HG21 | 1:A:286:VAL:HB | 6 | 0.13 | 0.01 | 0.13 |
| (1,1214) | 1:A:284:THR:HG22 | 1:A:286:VAL:HB | 6 | 0.13 | 0.01 | 0.13 |
| (1,1214) | 1:A:284:THR:HG23 | 1:A:286:VAL:HB | 6 | 0.13 | 0.01 | 0.13 |
| (1,393) | 1:A:229:ASP:HB2 | 1:A:242:LEU:H | 6 | 0.12 | 0.01 | 0.12 |
| (1,952) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 5 | 0.46 | 0.27 | 0.54 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 5 | 0.42 | 0.1 | 0.41 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 5 | 0.42 | 0.1 | 0.41 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 5 | 0.42 | 0.1 | 0.41 |
| (1,2003) | 1:A:232:LYS:HE2 | 1:A:282:PHE:HA | 5 | 0.12 | 0.01 | 0.12 |
| (1,2003) | 1:A:232:LYS:HE3 | 1:A:282:PHE:HA | 5 | 0.12 | 0.01 | 0.12 |
| (1,2405) | 1:A:286:VAL:HB | 1:A:324:VAL:HG13 | 4 | 0.81 | 0.48 | 0.8 |
| (1,1762) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 4 | 0.61 | 0.25 | 0.72 |
| (1,1758) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 4 | 0.53 | 0.27 | 0.5 |
| (1,1220) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 4 | 0.46 | 0.15 | 0.53 |
| (1,1220) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 4 | 0.46 | 0.15 | 0.53 |
| (1,1643) | 1:A:312:ASN:HB2 | 1:A:313:LYS:HA | 4 | 0.36 | 0.01 | 0.36 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG21 | 4 | 0.17 | 0.02 | 0.17 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG22 | 4 | 0.17 | 0.02 | 0.17 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG23 | 4 | 0.17 | 0.02 | 0.17 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD21 | 4 | 0.14 | 0.03 | 0.14 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD22 | 4 | 0.14 | 0.03 | 0.14 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD23 | 4 | 0.14 | 0.03 | 0.14 |
| (1,210) | 1:A:300:LEU:HG | 1:A:301:ILE:H | 4 | 0.13 | 0.01 | 0.12 |
| (1,1359) | 1:A:264:LEU:H | 1:A:297:ASP:HA | 4 | 0.12 | 0.0 | 0.12 |
| (1,1754) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 3 | 0.53 | 0.23 | 0.6 |
| (1,1754) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 3 | 0.53 | 0.23 | 0.6 |
| (1,1754) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 3 | 0.53 | 0.23 | 0.6 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD11 | 3 | 0.14 | 0.02 | 0.14 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD12 | 3 | 0.14 | 0.02 | 0.14 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD13 | 3 | 0.14 | 0.02 | 0.14 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD21 | 3 | 0.14 | 0.02 | 0.14 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD22 | 3 | 0.14 | 0.02 | 0.14 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD23 | 3 | 0.14 | 0.02 | 0.14 |
| (1,407) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HB | 3 | 0.13 | 0.01 | 0.14 |
| (1,1200) | 1:A:283:LYS:HB3 | 1:A:284:THR:HG21 | 3 | 0.12 | 0.0 | 0.12 |
| (1,1200) | 1:A:283:LYS:HB3 | 1:A:284:THR:HG22 | 3 | 0.12 | 0.0 | 0.12 |
| (1,1200) | 1:A:283:LYS:HB3 | 1:A:284:THR:HG23 | 3 | 0.12 | 0.0 | 0.12 |
| (1,2226) | 1:A:265:LYS:HA | 1:A:265:LYS:HD2 | 3 | 0.12 | 0.01 | 0.12 |
| (1,2226) | 1:A:265:LYS:HA | 1:A:265:LYS:HD3 | 3 | 0.12 | 0.01 | 0.12 |
| (1,1389) | 1:A:299:GLN:HB3 | 1:A:300:LEU:H | 3 | 0.11 | 0.0 | 0.11 |
| (1,280) | 1:A:311:VAL:HB | 1:A:325:LEU:H | 3 | 0.11 | 0.0 | 0.11 |
| (1,1068) | 1:A:267:HIS:H | 1:A:268:THR:HG21 | 3 | 0.11 | 0.0 | 0.11 |
| (1,1068) | 1:A:267:HIS:H | 1:A:268:THR:HG22 | 3 | 0.11 | 0.0 | 0.11 |
| (1,1068) | 1:A:267:HIS:H | 1:A:268:THR:HG23 | 3 | 0.11 | 0.0 | 0.11 |
| (1,1742) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 2 | 0.47 | 0.03 | 0.47 |
| (1,2224) | 1:A:265:LYS:H | 1:A:265:LYS:HG2 | 2 | 0.2 | 0.02 | 0.2 |
| (1,2224) | 1:A:265:LYS:H | 1:A:265:LYS:HG3 | 2 | 0.2 | 0.02 | 0.2 |
| (1,494) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HB | 2 | 0.16 | 0.01 | 0.16 |
| (1,1345) | 1:A:294:LEU:HG | 1:A:295:ASN:HB2 | 2 | 0.15 | 0.01 | 0.15 |
| (1,1860) | 1:A:293:ARG:H | 1:A:293:ARG:HG3 | 2 | 0.15 | 0.0 | 0.15 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD11 | 2 | 0.15 | 0.03 | 0.15 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD12 | 2 | 0.15 | 0.03 | 0.15 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD13 | 2 | 0.15 | 0.03 | 0.15 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD21 | 2 | 0.15 | 0.03 | 0.15 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD22 | 2 | 0.15 | 0.03 | 0.15 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD23 | 2 | 0.15 | 0.03 | 0.15 |
| (1,2231) | 1:A:265:LYS:HG2 | 1:A:266:ASN:H | 2 | 0.15 | 0.0 | 0.15 |
| (1,2231) | 1:A:265:LYS:HG3 | 1:A:266:ASN:H | 2 | 0.15 | 0.0 | 0.15 |
| (1,1800) | 1:A:327:LYS:HA | 1:A:327:LYS:HE3 | 2 | 0.14 | 0.03 | 0.14 |
| (1,700) | 1:A:245:LEU:HD21 | 1:A:267:HIS:HE1 | 2 | 0.14 | 0.02 | 0.14 |
| (1,700) | 1:A:245:LEU:HD22 | 1:A:267:HIS:HE1 | 2 | 0.14 | 0.02 | 0.14 |
| (1,700) | 1:A:245:LEU:HD23 | 1:A:267:HIS:HE1 | 2 | 0.14 | 0.02 | 0.14 |
| (1,1938) | 1:A:227:ASN:HB2 | 1:A:273:LEU:HG | 2 | 0.13 | 0.0 | 0.13 |
| (1,1938) | 1:A:227:ASN:HB3 | 1:A:273:LEU:HG | 2 | 0.13 | 0.0 | 0.13 |
| (1,155) | 1:A:286:VAL:H | 1:A:286:VAL:HB | 2 | 0.12 | 0.01 | 0.12 |
| (1,1402) | 1:A:301:ILE:H | 1:A:301:ILE:HD11 | 2 | 0.12 | 0.01 | 0.12 |
| (1,1402) | 1:A:301:ILE:H | 1:A:301:ILE:HD12 | 2 | 0.12 | 0.01 | 0.12 |
| (1,1402) | 1:A:301:ILE:H | 1:A:301:ILE:HD13 | 2 | 0.12 | 0.01 | 0.12 |
| (1,1765) | 1:A:323:GLN:HA | 1:A:325:LEU:HD11 | 2 | 0.12 | 0.0 | 0.12 |
| (1,1765) | 1:A:323:GLN:HA | 1:A:325:LEU:HD12 | 2 | 0.12 | 0.0 | 0.12 |
| (1,1765) | 1:A:323:GLN:HA | 1:A:325:LEU:HD13 | 2 | 0.12 | 0.0 | 0.12 |
| (1,644) | 1:A:227:ASN:HD22 | 1:A:243:ALA:HB1 | 2 | 0.11 | 0.0 | 0.11 |

Continued on next page...

Continued from previous page...

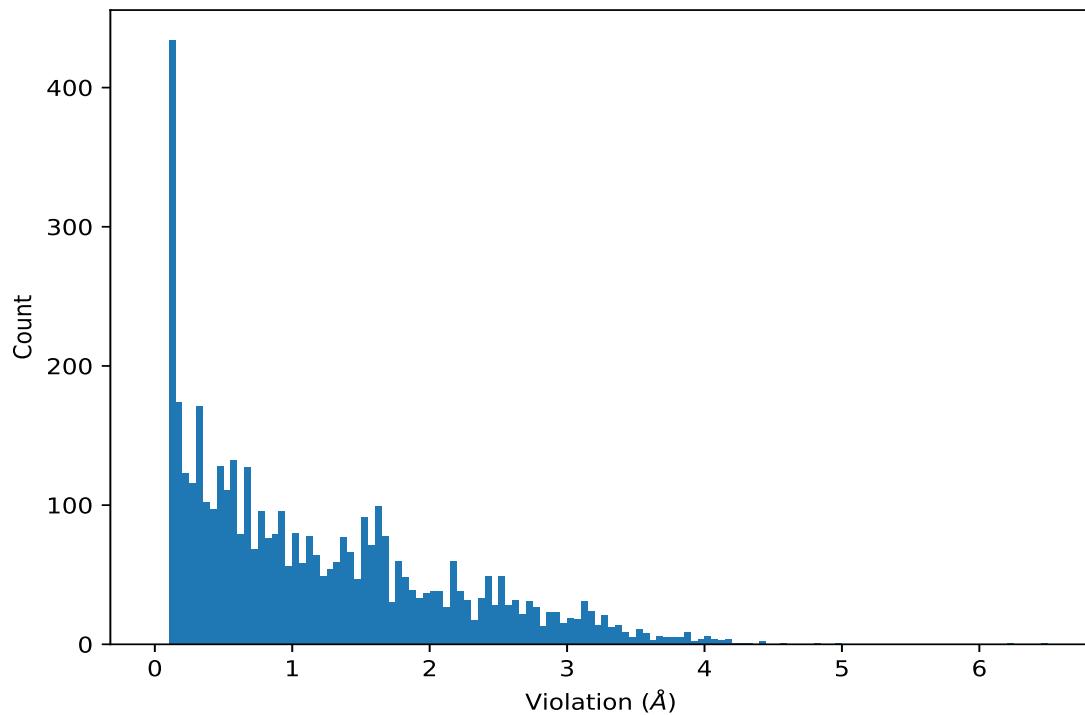
| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,644) | 1:A:227:ASN:HD22 | 1:A:243:ALA:HB2 | 2 | 0.11 | 0.0 | 0.11 |
| (1,644) | 1:A:227:ASN:HD22 | 1:A:243:ALA:HB3 | 2 | 0.11 | 0.0 | 0.11 |
| (1,1109) | 1:A:225:GLN:HA | 1:A:273:LEU:HD11 | 2 | 0.11 | 0.0 | 0.11 |
| (1,1109) | 1:A:225:GLN:HA | 1:A:273:LEU:HD12 | 2 | 0.11 | 0.0 | 0.11 |
| (1,1109) | 1:A:225:GLN:HA | 1:A:273:LEU:HD13 | 2 | 0.11 | 0.0 | 0.11 |

¹Number of violated models, ²Standard deviation

9.5 All violated distance restraints [\(i\)](#)

9.5.1 Histogram : Distribution of distance violations [\(i\)](#)

The following histogram shows the distribution of the absolute value of the violation for all violated restraints in the ensemble.



9.5.2 Table : All distance violations [\(i\)](#)

The following table lists the absolute value of the violation for each restraint in the ensemble sorted by its value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint. Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 9 | 6.47 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 7 | 6.23 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 5 | 4.95 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 18 | 4.81 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 12 | 4.57 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 7 | 4.4 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 5 | 4.4 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 9 | 4.34 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 20 | 4.25 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 2 | 4.23 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 19 | 4.19 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 9 | 4.18 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 2 | 4.17 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 3 | 4.15 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 5 | 4.12 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 11 | 4.12 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 12 | 4.11 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 12 | 4.1 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 7 | 4.06 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 9 | 4.05 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 18 | 4.05 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 19 | 4.03 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 8 | 4.02 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 19 | 4.02 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 2 | 4.01 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 9 | 4.0 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 10 | 4.0 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 12 | 3.99 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 2 | 3.96 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 2 | 3.96 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 18 | 3.96 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 9 | 3.94 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 1 | 3.91 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 2 | 3.9 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 9 | 3.89 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 17 | 3.87 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 9 | 3.86 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 10 | 3.86 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 9 | 3.85 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 6 | 3.85 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 5 | 3.85 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 13 | 3.85 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 10 | 3.84 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 8 | 3.84 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 7 | 3.83 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 10 | 3.83 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 6 | 3.82 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 3 | 3.8 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 7 | 3.8 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 7 | 3.79 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 2 | 3.76 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 12 | 3.75 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 5 | 3.74 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 17 | 3.74 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 12 | 3.73 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 11 | 3.71 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 20 | 3.7 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 7 | 3.69 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 7 | 3.69 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 15 | 3.69 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 19 | 3.68 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 18 | 3.68 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 19 | 3.67 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 19 | 3.65 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 18 | 3.62 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 19 | 3.61 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 19 | 3.59 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 10 | 3.58 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 2 | 3.57 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 2 | 3.57 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 14 | 3.56 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 14 | 3.56 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 18 | 3.56 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 9 | 3.56 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 8 | 3.54 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 1 | 3.54 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 5 | 3.53 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 5 | 3.53 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 3 | 3.51 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 17 | 3.51 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 20 | 3.51 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 20 | 3.51 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 7 | 3.5 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 11 | 3.5 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 18 | 3.5 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 8 | 3.48 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 9 | 3.47 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 14 | 3.47 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 10 | 3.46 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 6 | 3.45 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 13 | 3.44 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 18 | 3.44 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 19 | 3.44 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 18 | 3.44 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 2 | 3.44 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 2 | 3.44 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 4 | 3.44 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 9 | 3.42 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 9 | 3.41 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 9 | 3.4 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 1 | 3.39 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 10 | 3.39 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 3 | 3.38 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 9 | 3.38 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 20 | 3.38 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 1 | 3.38 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 18 | 3.37 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 8 | 3.37 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 12 | 3.36 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 14 | 3.36 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 19 | 3.36 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 13 | 3.35 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 15 | 3.35 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 13 | 3.34 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 18 | 3.34 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 2 | 3.34 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 4 | 3.33 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 7 | 3.33 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 17 | 3.33 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 12 | 3.32 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 12 | 3.32 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 8 | 3.32 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 16 | 3.32 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 20 | 3.31 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 1 | 3.31 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 11 | 3.3 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 2 | 3.3 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 2 | 3.3 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 19 | 3.29 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 14 | 3.28 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 2 | 3.28 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 11 | 3.28 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 12 | 3.28 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 12 | 3.27 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 15 | 3.27 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 19 | 3.27 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 14 | 3.27 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 17 | 3.27 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 3 | 3.26 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 12 | 3.26 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 9 | 3.26 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 8 | 3.26 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 8 | 3.26 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 14 | 3.26 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 10 | 3.26 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 18 | 3.25 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 2 | 3.24 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 3 | 3.23 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 12 | 3.23 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 2 | 3.22 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 14 | 3.22 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 18 | 3.22 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 4 | 3.22 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 1 | 3.21 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 1 | 3.21 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 15 | 3.21 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 9 | 3.21 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 18 | 3.21 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 13 | 3.21 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 1 | 3.2 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 9 | 3.19 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 9 | 3.19 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 6 | 3.19 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 6 | 3.19 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 7 | 3.18 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 4 | 3.18 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 16 | 3.18 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 17 | 3.18 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 16 | 3.17 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 10 | 3.17 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 10 | 3.17 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 1 | 3.17 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 1 | 3.17 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 8 | 3.16 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 14 | 3.16 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 13 | 3.16 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 10 | 3.16 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 10 | 3.16 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 18 | 3.16 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 18 | 3.16 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 8 | 3.16 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 15 | 3.16 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 5 | 3.16 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 11 | 3.16 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 8 | 3.15 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 18 | 3.15 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 4 | 3.15 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 17 | 3.15 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 8 | 3.15 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 10 | 3.14 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 11 | 3.14 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 15 | 3.14 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 5 | 3.14 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 19 | 3.14 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 9 | 3.13 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 12 | 3.13 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 10 | 3.12 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 8 | 3.12 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 19 | 3.12 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 12 | 3.12 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 3 | 3.12 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 4 | 3.12 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 9 | 3.12 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 1 | 3.12 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 4 | 3.11 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 20 | 3.11 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 7 | 3.11 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 20 | 3.11 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 17 | 3.11 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 9 | 3.11 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 18 | 3.11 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 15 | 3.1 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 7 | 3.1 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 15 | 3.1 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 15 | 3.1 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 16 | 3.09 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 10 | 3.09 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 20 | 3.09 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 8 | 3.09 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 8 | 3.09 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 6 | 3.09 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 6 | 3.09 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 6 | 3.08 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 1 | 3.08 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 17 | 3.08 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 15 | 3.07 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 17 | 3.06 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 11 | 3.06 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 11 | 3.06 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 10 | 3.06 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 10 | 3.06 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 8 | 3.06 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 17 | 3.06 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 4 | 3.05 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 15 | 3.05 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 11 | 3.05 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 20 | 3.05 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 14 | 3.04 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 8 | 3.04 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 17 | 3.03 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 10 | 3.03 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 13 | 3.02 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 9 | 3.01 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 11 | 3.01 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 5 | 3.01 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 11 | 3.0 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 13 | 3.0 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 13 | 3.0 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 20 | 3.0 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 8 | 3.0 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 10 | 3.0 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 12 | 3.0 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 5 | 2.99 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 12 | 2.99 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 10 | 2.99 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 10 | 2.99 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 15 | 2.99 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 18 | 2.98 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 6 | 2.98 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 13 | 2.97 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 13 | 2.96 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 10 | 2.95 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 7 | 2.95 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 6 | 2.95 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 20 | 2.95 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 10 | 2.95 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 2 | 2.95 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 5 | 2.94 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 7 | 2.94 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 7 | 2.94 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 7 | 2.94 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 20 | 2.94 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 14 | 2.94 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 11 | 2.94 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 18 | 2.94 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 9 | 2.93 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 16 | 2.93 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 4 | 2.93 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 3 | 2.93 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 3 | 2.93 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 10 | 2.93 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 13 | 2.93 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 15 | 2.92 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 5 | 2.92 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 20 | 2.92 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 1 | 2.92 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 7 | 2.91 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 3 | 2.91 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 10 | 2.91 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 8 | 2.91 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 17 | 2.9 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 7 | 2.9 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 14 | 2.9 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 4 | 2.9 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 4 | 2.9 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 19 | 2.89 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 20 | 2.89 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 20 | 2.89 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 13 | 2.89 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 1 | 2.89 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 17 | 2.89 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 17 | 2.89 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 17 | 2.88 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 15 | 2.88 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 13 | 2.88 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 16 | 2.88 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 1 | 2.87 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 1 | 2.87 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 4 | 2.87 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 18 | 2.87 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 3 | 2.86 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 4 | 2.85 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 11 | 2.85 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 16 | 2.84 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 11 | 2.84 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 13 | 2.83 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 11 | 2.83 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 14 | 2.83 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 7 | 2.82 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 15 | 2.82 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 1 | 2.81 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 3 | 2.81 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 4 | 2.81 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 4 | 2.81 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 20 | 2.81 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 1 | 2.81 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 6 | 2.8 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 2 | 2.8 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 3 | 2.8 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 18 | 2.79 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 2 | 2.79 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 7 | 2.79 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 7 | 2.79 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 13 | 2.79 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 4 | 2.79 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 9 | 2.79 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 2 | 2.79 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 1 | 2.78 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 5 | 2.78 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 3 | 2.78 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 15 | 2.78 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 16 | 2.77 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 13 | 2.77 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 14 | 2.77 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 15 | 2.77 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 13 | 2.77 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 18 | 2.76 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 15 | 2.76 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 11 | 2.76 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 10 | 2.76 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 16 | 2.75 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 7 | 2.75 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 14 | 2.75 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 10 | 2.74 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 10 | 2.74 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 10 | 2.74 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 10 | 2.74 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 10 | 2.74 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 10 | 2.74 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 18 | 2.74 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 17 | 2.74 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 8 | 2.74 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 8 | 2.73 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 17 | 2.73 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 9 | 2.73 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 9 | 2.73 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 5 | 2.73 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 17 | 2.73 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 15 | 2.72 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 14 | 2.72 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 1 | 2.72 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 19 | 2.72 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 14 | 2.71 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 20 | 2.71 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 9 | 2.71 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 9 | 2.71 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 16 | 2.71 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 16 | 2.71 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 4 | 2.7 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 8 | 2.7 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 11 | 2.7 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 10 | 2.7 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 2 | 2.7 |
| (1,2123) | 1:A:251:PRO:HG2 | 1:A:262:VAL:HG13 | 10 | 2.7 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 12 | 2.69 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 12 | 2.69 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 12 | 2.69 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 12 | 2.69 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 12 | 2.69 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 12 | 2.69 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 1 | 2.69 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 11 | 2.69 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 13 | 2.69 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 1 | 2.69 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 12 | 2.69 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 1 | 2.69 |
| (1,2123) | 1:A:251:PRO:HG2 | 1:A:262:VAL:HG13 | 18 | 2.69 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 8 | 2.69 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 3 | 2.68 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 14 | 2.68 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 5 | 2.67 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 5 | 2.67 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 9 | 2.66 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 14 | 2.66 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 10 | 2.66 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 19 | 2.66 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 16 | 2.65 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 2 | 2.65 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 15 | 2.65 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 11 | 2.65 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 12 | 2.65 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 12 | 2.65 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 18 | 2.64 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 12 | 2.64 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 16 | 2.64 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 15 | 2.64 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 8 | 2.64 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 17 | 2.64 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 9 | 2.64 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 17 | 2.64 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 17 | 2.63 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 19 | 2.63 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 17 | 2.63 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 13 | 2.63 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 9 | 2.63 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 9 | 2.63 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 13 | 2.63 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 8 | 2.62 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 13 | 2.62 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 19 | 2.62 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 5 | 2.61 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 11 | 2.61 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 15 | 2.61 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 7 | 2.61 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 15 | 2.6 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 18 | 2.6 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 20 | 2.6 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 18 | 2.6 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 4 | 2.59 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 4 | 2.59 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 10 | 2.59 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 18 | 2.59 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 18 | 2.59 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 12 | 2.59 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 15 | 2.59 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 4 | 2.59 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 11 | 2.58 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 11 | 2.58 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 3 | 2.58 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 6 | 2.58 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 17 | 2.58 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 2 | 2.57 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 20 | 2.57 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 6 | 2.57 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 6 | 2.57 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 2 | 2.57 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 12 | 2.57 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 12 | 2.57 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 12 | 2.57 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 9 | 2.57 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 20 | 2.56 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 4 | 2.56 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 10 | 2.56 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 19 | 2.56 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 3 | 2.56 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 3 | 2.56 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 1 | 2.55 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 12 | 2.55 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 10 | 2.54 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 19 | 2.54 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 19 | 2.54 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 14 | 2.54 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 4 | 2.53 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 14 | 2.53 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 14 | 2.53 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 9 | 2.53 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 13 | 2.53 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 4 | 2.53 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 17 | 2.53 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 1 | 2.52 |
| (1,2400) | 1:A:285:PRO:HD2 | 1:A:324:VAL:HG13 | 9 | 2.52 |
| (1,2400) | 1:A:285:PRO:HD3 | 1:A:324:VAL:HG13 | 9 | 2.52 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 1 | 2.52 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 19 | 2.51 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 15 | 2.51 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 9 | 2.51 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 14 | 2.51 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 3 | 2.51 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 18 | 2.51 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 20 | 2.51 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 20 | 2.51 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 13 | 2.51 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 18 | 2.51 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 18 | 2.51 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 19 | 2.51 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 19 | 2.51 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 19 | 2.51 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 19 | 2.51 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 19 | 2.51 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 19 | 2.51 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 17 | 2.51 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 2 | 2.5 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 3 | 2.5 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 3 | 2.5 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 8 | 2.5 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 17 | 2.5 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 17 | 2.5 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 17 | 2.5 |
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 17 | 2.5 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 17 | 2.5 |
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 17 | 2.5 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 14 | 2.5 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 13 | 2.5 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 4 | 2.5 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 2 | 2.5 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 14 | 2.49 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 13 | 2.49 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 6 | 2.48 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 1 | 2.48 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 17 | 2.48 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 17 | 2.48 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 19 | 2.48 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 2 | 2.48 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 2 | 2.48 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 2 | 2.48 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 9 | 2.47 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 2 | 2.47 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 10 | 2.47 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 10 | 2.47 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 16 | 2.47 |
| (1,2393) | 1:A:285:PRO:HB2 | 1:A:324:VAL:HG13 | 19 | 2.47 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 13 | 2.47 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 4 | 2.46 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 19 | 2.46 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 19 | 2.46 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 2 | 2.46 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 7 | 2.46 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 15 | 2.45 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 7 | 2.45 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 7 | 2.45 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 5 | 2.45 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 5 | 2.45 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 15 | 2.45 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 16 | 2.44 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 5 | 2.44 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 5 | 2.44 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 3 | 2.44 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 2 | 2.44 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 2 | 2.44 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 15 | 2.43 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 19 | 2.43 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 4 | 2.43 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 7 | 2.43 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 7 | 2.43 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 14 | 2.43 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 8 | 2.43 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 2 | 2.43 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 10 | 2.42 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 20 | 2.42 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 5 | 2.42 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 5 | 2.42 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 5 | 2.42 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 5 | 2.42 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 5 | 2.42 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 5 | 2.42 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 11 | 2.42 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 11 | 2.42 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 11 | 2.42 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 11 | 2.42 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 11 | 2.42 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 11 | 2.42 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 9 | 2.42 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 5 | 2.42 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 17 | 2.41 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 17 | 2.41 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 17 | 2.41 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 17 | 2.41 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 17 | 2.41 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 17 | 2.41 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 13 | 2.41 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 4 | 2.41 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 13 | 2.41 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 19 | 2.41 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 1 | 2.41 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 1 | 2.41 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 1 | 2.41 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 1 | 2.41 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 1 | 2.41 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 1 | 2.41 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 2 | 2.41 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 2 | 2.41 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 2 | 2.41 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 16 | 2.4 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 16 | 2.4 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 16 | 2.4 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 16 | 2.4 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 16 | 2.4 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 16 | 2.4 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 17 | 2.4 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 2 | 2.4 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 12 | 2.4 |
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 12 | 2.4 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 12 | 2.4 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 12 | 2.4 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 1 | 2.39 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 18 | 2.39 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 6 | 2.39 |
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 20 | 2.39 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 20 | 2.39 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 20 | 2.39 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 7 | 2.38 |
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 3 | 2.38 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 3 | 2.38 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 3 | 2.38 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 8 | 2.37 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 16 | 2.37 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 14 | 2.36 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 16 | 2.36 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 3 | 2.36 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 19 | 2.36 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 12 | 2.35 |
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 19 | 2.35 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 13 | 2.35 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 13 | 2.35 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 16 | 2.35 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 3 | 2.34 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 15 | 2.34 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 20 | 2.34 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 15 | 2.34 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 11 | 2.34 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 6 | 2.33 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 16 | 2.33 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 20 | 2.33 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 9 | 2.32 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 2 | 2.32 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 5 | 2.31 |
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 9 | 2.31 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 17 | 2.31 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 5 | 2.31 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 7 | 2.31 |
| (1,1965) | 1:A:230:PHE:HE1 | 1:A:279:VAL:HG13 | 18 | 2.31 |
| (1,1965) | 1:A:230:PHE:HE2 | 1:A:279:VAL:HG13 | 18 | 2.31 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 4 | 2.3 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 3 | 2.3 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 11 | 2.3 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 15 | 2.29 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 20 | 2.29 |
| (1,2399) | 1:A:285:PRO:HD2 | 1:A:286:VAL:HG13 | 14 | 2.29 |
| (1,2399) | 1:A:285:PRO:HD3 | 1:A:286:VAL:HG13 | 14 | 2.29 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 15 | 2.29 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 8 | 2.29 |
| (1,2399) | 1:A:285:PRO:HD2 | 1:A:286:VAL:HG13 | 2 | 2.28 |
| (1,2399) | 1:A:285:PRO:HD3 | 1:A:286:VAL:HG13 | 2 | 2.28 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 10 | 2.28 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 10 | 2.28 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 12 | 2.27 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 12 | 2.27 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 11 | 2.27 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 4 | 2.27 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 5 | 2.27 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 19 | 2.27 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 19 | 2.27 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 5 | 2.27 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 15 | 2.27 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 4 | 2.27 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 4 | 2.27 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 4 | 2.26 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 4 | 2.26 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 1 | 2.26 |
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 6 | 2.26 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 6 | 2.26 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 6 | 2.26 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 17 | 2.25 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 1 | 2.25 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 8 | 2.24 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 18 | 2.24 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 18 | 2.24 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 18 | 2.24 |
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 10 | 2.24 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 10 | 2.24 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 10 | 2.24 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 9 | 2.24 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 9 | 2.24 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 9 | 2.24 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 13 | 2.24 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 11 | 2.24 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 4 | 2.23 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 11 | 2.23 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 12 | 2.23 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 11 | 2.23 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 6 | 2.23 |
| (1,2033) | 1:A:238:GLY:HA3 | 1:A:286:VAL:HG13 | 12 | 2.23 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 11 | 2.23 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 14 | 2.22 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 17 | 2.22 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 14 | 2.22 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 15 | 2.22 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 13 | 2.22 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 17 | 2.21 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 5 | 2.21 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 13 | 2.21 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 7 | 2.2 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 6 | 2.2 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 15 | 2.2 |
| (1,2393) | 1:A:285:PRO:HB2 | 1:A:324:VAL:HG13 | 9 | 2.2 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 2 | 2.2 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 15 | 2.2 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 2 | 2.2 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 13 | 2.2 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 13 | 2.2 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 15 | 2.2 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 3 | 2.2 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 2 | 2.19 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 2 | 2.19 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 2 | 2.19 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 2 | 2.19 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 2 | 2.19 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 2 | 2.19 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 2 | 2.19 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 8 | 2.19 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 5 | 2.19 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 5 | 2.19 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 5 | 2.19 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 8 | 2.19 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 4 | 2.18 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 17 | 2.18 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 17 | 2.18 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 17 | 2.18 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 17 | 2.18 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 17 | 2.18 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 17 | 2.18 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 8 | 2.18 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 18 | 2.18 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 5 | 2.18 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 7 | 2.17 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 3 | 2.17 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 20 | 2.17 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 20 | 2.17 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 20 | 2.17 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 2 | 2.17 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 9 | 2.17 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 9 | 2.17 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 9 | 2.17 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 9 | 2.17 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 9 | 2.17 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 9 | 2.17 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 9 | 2.17 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 10 | 2.17 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 10 | 2.17 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 10 | 2.17 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 10 | 2.17 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 5 | 2.16 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 1 | 2.16 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 1 | 2.16 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 1 | 2.16 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 19 | 2.16 |
| (1,1965) | 1:A:230:PHE:HE1 | 1:A:279:VAL:HG13 | 11 | 2.16 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1965) | 1:A:230:PHE:HE2 | 1:A:279:VAL:HG13 | 11 | 2.16 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 3 | 2.16 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 18 | 2.15 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 15 | 2.15 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 10 | 2.15 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 10 | 2.15 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 10 | 2.15 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 6 | 2.15 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 3 | 2.15 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 1 | 2.15 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 16 | 2.15 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 12 | 2.15 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 1 | 2.15 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 19 | 2.15 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 20 | 2.15 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 12 | 2.14 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 11 | 2.14 |
| (1,2388) | 1:A:284:THR:HB | 1:A:286:VAL:HG13 | 2 | 2.14 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 19 | 2.14 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 4 | 2.14 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 8 | 2.13 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 10 | 2.13 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 4 | 2.13 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 4 | 2.13 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 4 | 2.13 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 17 | 2.13 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 12 | 2.13 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 13 | 2.12 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 18 | 2.12 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 9 | 2.12 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 7 | 2.12 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 5 | 2.12 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 12 | 2.11 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 3 | 2.11 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 14 | 2.11 |
| (1,2033) | 1:A:238:GLY:HA3 | 1:A:286:VAL:HG13 | 8 | 2.11 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 2 | 2.11 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 8 | 2.1 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 8 | 2.1 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 10 | 2.1 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 16 | 2.1 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 16 | 2.1 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 7 | 2.09 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 14 | 2.09 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 14 | 2.09 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 13 | 2.09 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 13 | 2.09 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 13 | 2.09 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 13 | 2.09 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 13 | 2.09 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 13 | 2.09 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 12 | 2.09 |
| (1,2123) | 1:A:251:PRO:HG2 | 1:A:262:VAL:HG13 | 9 | 2.09 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 1 | 2.09 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 9 | 2.08 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 1 | 2.08 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 9 | 2.08 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 12 | 2.08 |
| (1,2033) | 1:A:238:GLY:HA3 | 1:A:286:VAL:HG13 | 1 | 2.08 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 16 | 2.07 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 5 | 2.07 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 8 | 2.07 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 9 | 2.07 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 14 | 2.07 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 8 | 2.07 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 8 | 2.07 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 6 | 2.07 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 11 | 2.07 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 11 | 2.07 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 16 | 2.06 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 1 | 2.06 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 18 | 2.06 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 18 | 2.06 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 18 | 2.06 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 18 | 2.06 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 18 | 2.06 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 18 | 2.06 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 8 | 2.06 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 17 | 2.06 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 17 | 2.06 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 7 | 2.05 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 5 | 2.05 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 14 | 2.05 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 8 | 2.05 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 5 | 2.05 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 14 | 2.05 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 11 | 2.05 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 10 | 2.05 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 1 | 2.04 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 16 | 2.04 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 8 | 2.04 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 5 | 2.04 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 5 | 2.04 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 4 | 2.03 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 18 | 2.03 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 18 | 2.03 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 2 | 2.03 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 5 | 2.02 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 11 | 2.02 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 5 | 2.02 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 4 | 2.02 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 10 | 2.02 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 10 | 2.02 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 18 | 2.02 |
| (1,2388) | 1:A:284:THR:HB | 1:A:286:VAL:HG13 | 14 | 2.01 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 14 | 2.01 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 16 | 2.01 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 15 | 2.01 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 20 | 2.01 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 17 | 2.01 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 17 | 2.01 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 17 | 2.01 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 20 | 2.01 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 16 | 2.0 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 17 | 2.0 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 4 | 2.0 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 1 | 2.0 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 17 | 2.0 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 9 | 1.99 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 9 | 1.99 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 10 | 1.99 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 11 | 1.99 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 5 | 1.99 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 18 | 1.99 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 1 | 1.99 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 3 | 1.99 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 20 | 1.99 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 9 | 1.99 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 9 | 1.99 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 8 | 1.98 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 16 | 1.98 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 18 | 1.98 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 8 | 1.98 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 11 | 1.98 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 10 | 1.98 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 2 | 1.98 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 10 | 1.98 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 10 | 1.98 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 10 | 1.98 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 10 | 1.98 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 10 | 1.98 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 10 | 1.98 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 4 | 1.98 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 10 | 1.98 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 6 | 1.98 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 1 | 1.97 |
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 7 | 1.97 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 18 | 1.97 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 6 | 1.97 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 19 | 1.97 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 2 | 1.97 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 20 | 1.96 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 8 | 1.96 |
| (1,1961) | 1:A:230:PHE:HD1 | 1:A:279:VAL:HG13 | 18 | 1.96 |
| (1,1961) | 1:A:230:PHE:HD2 | 1:A:279:VAL:HG13 | 18 | 1.96 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 9 | 1.95 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 15 | 1.95 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 14 | 1.95 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 8 | 1.95 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 8 | 1.95 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 14 | 1.95 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 7 | 1.95 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 12 | 1.94 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 13 | 1.94 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 17 | 1.94 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 6 | 1.94 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 3 | 1.93 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 15 | 1.93 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 19 | 1.93 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 20 | 1.93 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 8 | 1.93 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 1 | 1.93 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 2 | 1.92 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 2 | 1.92 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 2 | 1.92 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 15 | 1.92 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 11 | 1.92 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 11 | 1.92 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 19 | 1.92 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 19 | 1.92 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 7 | 1.91 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 19 | 1.91 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 19 | 1.91 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 19 | 1.91 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 13 | 1.91 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 13 | 1.91 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 5 | 1.91 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 5 | 1.91 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 4 | 1.9 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 10 | 1.9 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 1 | 1.9 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 2 | 1.9 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 3 | 1.9 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 9 | 1.9 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 11 | 1.9 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 15 | 1.9 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 15 | 1.9 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 14 | 1.89 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 10 | 1.89 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 19 | 1.89 |
| (1,2388) | 1:A:284:THR:HB | 1:A:286:VAL:HG13 | 1 | 1.89 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 3 | 1.89 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 4 | 1.89 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 7 | 1.89 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 20 | 1.89 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 13 | 1.88 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 16 | 1.88 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 16 | 1.88 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 16 | 1.88 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 1 | 1.88 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 1 | 1.88 |
| (1,2123) | 1:A:251:PRO:HG2 | 1:A:262:VAL:HG13 | 17 | 1.88 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 15 | 1.87 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 16 | 1.87 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 5 | 1.87 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 7 | 1.87 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 1 | 1.87 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 1 | 1.87 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 8 | 1.87 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 8 | 1.87 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 10 | 1.86 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 9 | 1.86 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 14 | 1.86 |
| (1,1961) | 1:A:230:PHE:HD1 | 1:A:279:VAL:HG13 | 11 | 1.86 |
| (1,1961) | 1:A:230:PHE:HD2 | 1:A:279:VAL:HG13 | 11 | 1.86 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 13 | 1.85 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 13 | 1.85 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 12 | 1.84 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 3 | 1.84 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 11 | 1.84 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 17 | 1.84 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 17 | 1.84 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 18 | 1.84 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 2 | 1.84 |
| (1,2123) | 1:A:251:PRO:HG2 | 1:A:262:VAL:HG13 | 2 | 1.84 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 18 | 1.84 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 5 | 1.83 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 11 | 1.83 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 4 | 1.83 |
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 3 | 1.83 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 3 | 1.83 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 3 | 1.83 |
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 3 | 1.83 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 3 | 1.83 |
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 3 | 1.83 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 11 | 1.83 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 11 | 1.83 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 20 | 1.82 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 20 | 1.82 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 10 | 1.82 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 18 | 1.82 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 18 | 1.82 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 16 | 1.82 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 17 | 1.82 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 3 | 1.82 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 15 | 1.82 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 6 | 1.82 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 6 | 1.82 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 6 | 1.82 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 15 | 1.82 |
| (1,1965) | 1:A:230:PHE:HE1 | 1:A:279:VAL:HG13 | 12 | 1.82 |
| (1,1965) | 1:A:230:PHE:HE2 | 1:A:279:VAL:HG13 | 12 | 1.82 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 6 | 1.81 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 1 | 1.81 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 4 | 1.81 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 11 | 1.8 |
| (1,2401) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 14 | 1.8 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 17 | 1.8 |
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 6 | 1.8 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 6 | 1.8 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 6 | 1.8 |
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 6 | 1.8 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 6 | 1.8 |
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 6 | 1.8 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 5 | 1.8 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 16 | 1.79 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 17 | 1.79 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 6 | 1.79 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 6 | 1.79 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 20 | 1.79 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 17 | 1.79 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 17 | 1.79 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 8 | 1.79 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 8 | 1.79 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 8 | 1.79 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 12 | 1.79 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 12 | 1.79 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 5 | 1.78 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 3 | 1.78 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 3 | 1.78 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 3 | 1.78 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 3 | 1.78 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 3 | 1.78 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 3 | 1.78 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2401) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 2 | 1.78 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 6 | 1.78 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 6 | 1.78 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 6 | 1.78 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 4 | 1.78 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 2 | 1.77 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 13 | 1.77 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 18 | 1.77 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 11 | 1.77 |
| (1,2401) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 11 | 1.77 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 4 | 1.77 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 4 | 1.77 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 14 | 1.76 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 14 | 1.76 |
| (1,2401) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 10 | 1.76 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 15 | 1.76 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 7 | 1.76 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 5 | 1.76 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 17 | 1.76 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 17 | 1.76 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 1 | 1.76 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 12 | 1.76 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 16 | 1.76 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 14 | 1.76 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 19 | 1.76 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 7 | 1.75 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 7 | 1.75 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 7 | 1.75 |
| (1,2401) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 13 | 1.75 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 16 | 1.75 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 16 | 1.75 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 15 | 1.75 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 15 | 1.75 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 15 | 1.75 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 19 | 1.75 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 10 | 1.75 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 14 | 1.75 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 15 | 1.75 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 3 | 1.75 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 3 | 1.75 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 3 | 1.75 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 8 | 1.74 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 15 | 1.74 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 15 | 1.74 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 11 | 1.74 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 2 | 1.74 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 13 | 1.74 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 6 | 1.73 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 2 | 1.73 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 10 | 1.73 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 10 | 1.73 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 14 | 1.73 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 16 | 1.73 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 16 | 1.73 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 5 | 1.73 |
| (1,2055) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 12 | 1.73 |
| (1,2055) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 12 | 1.73 |
| (1,2055) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 12 | 1.73 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 14 | 1.73 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 8 | 1.73 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 15 | 1.72 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 16 | 1.72 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 4 | 1.72 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 16 | 1.72 |
| (1,2402) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 9 | 1.72 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 19 | 1.72 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 4 | 1.71 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 15 | 1.71 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 15 | 1.71 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 2 | 1.71 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 1 | 1.71 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 5 | 1.7 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 10 | 1.7 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 15 | 1.7 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 14 | 1.7 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 15 | 1.7 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 15 | 1.7 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 19 | 1.7 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 19 | 1.7 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 19 | 1.7 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 8 | 1.7 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 7 | 1.7 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 7 | 1.7 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 7 | 1.7 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 16 | 1.69 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 2 | 1.69 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 3 | 1.69 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 3 | 1.69 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 19 | 1.69 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 19 | 1.69 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 15 | 1.69 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 20 | 1.69 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 7 | 1.68 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 7 | 1.68 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 7 | 1.68 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 7 | 1.68 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 7 | 1.68 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 7 | 1.68 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 20 | 1.68 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 20 | 1.68 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 20 | 1.68 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 20 | 1.68 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 20 | 1.68 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 20 | 1.68 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 13 | 1.68 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 10 | 1.68 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 13 | 1.68 |
| (1,2198) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 18 | 1.68 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 12 | 1.68 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 16 | 1.68 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 13 | 1.68 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 18 | 1.67 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 12 | 1.67 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 13 | 1.67 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 13 | 1.67 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 8 | 1.67 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 9 | 1.67 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 9 | 1.67 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 9 | 1.67 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 9 | 1.67 |
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 9 | 1.67 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 9 | 1.67 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 18 | 1.66 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 18 | 1.66 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 18 | 1.66 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 4 | 1.66 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 4 | 1.66 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 4 | 1.66 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 4 | 1.66 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 4 | 1.66 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 4 | 1.66 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 14 | 1.66 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 6 | 1.66 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 5 | 1.66 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 7 | 1.66 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 2 | 1.66 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 2 | 1.66 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 2 | 1.66 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 11 | 1.66 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 2 | 1.66 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 2 | 1.66 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 2 | 1.66 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 2 | 1.66 |
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 2 | 1.66 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 2 | 1.66 |
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 4 | 1.66 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 4 | 1.66 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 4 | 1.66 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 9 | 1.66 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 13 | 1.65 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 2 | 1.65 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 3 | 1.65 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 3 | 1.65 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 19 | 1.65 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 10 | 1.65 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 10 | 1.65 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 10 | 1.65 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 6 | 1.65 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 16 | 1.65 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 5 | 1.64 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 5 | 1.64 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 5 | 1.64 |
| (1,2399) | 1:A:285:PRO:HD2 | 1:A:286:VAL:HG13 | 12 | 1.64 |
| (1,2399) | 1:A:285:PRO:HD3 | 1:A:286:VAL:HG13 | 12 | 1.64 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 6 | 1.64 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 6 | 1.64 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 9 | 1.64 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 9 | 1.64 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 20 | 1.64 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 20 | 1.64 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 12 | 1.64 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 16 | 1.64 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 16 | 1.64 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 16 | 1.64 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 17 | 1.64 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 17 | 1.64 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 17 | 1.64 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 17 | 1.64 |
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 17 | 1.64 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 17 | 1.64 |
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 16 | 1.64 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 16 | 1.64 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 16 | 1.64 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 5 | 1.64 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 16 | 1.63 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 19 | 1.63 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 8 | 1.63 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 11 | 1.63 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 4 | 1.63 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 4 | 1.63 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 6 | 1.63 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 6 | 1.63 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 6 | 1.63 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 6 | 1.63 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 6 | 1.63 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 6 | 1.63 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 15 | 1.63 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 1 | 1.63 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 10 | 1.63 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 1 | 1.63 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 1 | 1.63 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD11 | 6 | 1.63 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD12 | 6 | 1.63 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD13 | 6 | 1.63 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD21 | 6 | 1.63 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD22 | 6 | 1.63 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD23 | 6 | 1.63 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 8 | 1.63 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 16 | 1.62 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 17 | 1.62 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 10 | 1.62 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 17 | 1.62 |
| (1,2401) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 1 | 1.62 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 5 | 1.62 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 5 | 1.62 |
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 1 | 1.62 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 1 | 1.62 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 1 | 1.62 |
| (1,2055) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 8 | 1.62 |
| (1,2055) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 8 | 1.62 |
| (1,2055) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 8 | 1.62 |
| (1,1158) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 17 | 1.62 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 8 | 1.61 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 1 | 1.61 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 5 | 1.61 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 10 | 1.61 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 2 | 1.61 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 10 | 1.61 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 14 | 1.61 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 8 | 1.61 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 3 | 1.61 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 19 | 1.61 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 20 | 1.61 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 14 | 1.61 |
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 8 | 1.61 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 8 | 1.61 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 8 | 1.61 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 1 | 1.6 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 17 | 1.6 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 15 | 1.6 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 11 | 1.6 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 4 | 1.6 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 9 | 1.6 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 2 | 1.6 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 2 | 1.6 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 17 | 1.6 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 5 | 1.6 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 11 | 1.6 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 10 | 1.59 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 10 | 1.59 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 10 | 1.59 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 15 | 1.59 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 16 | 1.59 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 17 | 1.59 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 4 | 1.59 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 15 | 1.59 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 18 | 1.59 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 3 | 1.59 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 14 | 1.59 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 8 | 1.58 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 6 | 1.58 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 6 | 1.58 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 13 | 1.58 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 9 | 1.58 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 9 | 1.58 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 9 | 1.58 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 14 | 1.58 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 14 | 1.58 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 12 | 1.58 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 5 | 1.58 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 6 | 1.58 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 13 | 1.58 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 13 | 1.58 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 13 | 1.58 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 13 | 1.58 |
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 13 | 1.58 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 13 | 1.58 |
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 11 | 1.58 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 11 | 1.58 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 11 | 1.58 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 2 | 1.58 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 9 | 1.57 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 12 | 1.57 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 20 | 1.57 |
| (1,2388) | 1:A:284:THR:HB | 1:A:286:VAL:HG13 | 12 | 1.57 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 2 | 1.57 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 2 | 1.57 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 2 | 1.57 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 2 | 1.57 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 5 | 1.57 |
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 17 | 1.57 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 17 | 1.57 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 17 | 1.57 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 12 | 1.57 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 2 | 1.57 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 4 | 1.56 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 20 | 1.56 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 17 | 1.56 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 6 | 1.56 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 16 | 1.56 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 9 | 1.56 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 13 | 1.56 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 13 | 1.56 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 1 | 1.56 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 18 | 1.56 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 5 | 1.56 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 15 | 1.55 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 15 | 1.55 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 15 | 1.55 |
| (1,2402) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 19 | 1.55 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 9 | 1.55 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 20 | 1.55 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 20 | 1.55 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 14 | 1.55 |
| (1,2352) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 16 | 1.55 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 4 | 1.55 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 4 | 1.55 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 16 | 1.55 |
| (1,2123) | 1:A:251:PRO:HG2 | 1:A:262:VAL:HG13 | 13 | 1.55 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 20 | 1.54 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 16 | 1.54 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 14 | 1.54 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 17 | 1.54 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 15 | 1.54 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 14 | 1.54 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 11 | 1.54 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 3 | 1.54 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 3 | 1.54 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 8 | 1.54 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 8 | 1.54 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 8 | 1.54 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 18 | 1.54 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 1 | 1.54 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 1 | 1.54 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 1 | 1.54 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 1 | 1.54 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 1 | 1.54 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 1 | 1.54 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 3 | 1.54 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 6 | 1.53 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 13 | 1.53 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 6 | 1.53 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 4 | 1.53 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 4 | 1.53 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 13 | 1.53 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 13 | 1.53 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 14 | 1.53 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 5 | 1.53 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 5 | 1.53 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 5 | 1.53 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 12 | 1.53 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 13 | 1.53 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 7 | 1.53 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 3 | 1.53 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 7 | 1.53 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 6 | 1.53 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 16 | 1.53 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 10 | 1.53 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 2 | 1.52 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 1 | 1.52 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 1 | 1.52 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 1 | 1.52 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 1 | 1.52 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 1 | 1.52 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 1 | 1.52 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 12 | 1.52 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 16 | 1.52 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 1 | 1.52 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 1 | 1.52 |
| (1,2352) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 19 | 1.52 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 10 | 1.52 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 10 | 1.52 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 5 | 1.52 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 14 | 1.52 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 19 | 1.52 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 19 | 1.52 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 19 | 1.52 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 19 | 1.52 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 19 | 1.52 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 19 | 1.52 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 10 | 1.52 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 10 | 1.52 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 14 | 1.51 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 16 | 1.51 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 7 | 1.51 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 7 | 1.51 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 7 | 1.51 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 9 | 1.51 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 14 | 1.51 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 17 | 1.51 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 4 | 1.51 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 11 | 1.5 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 2 | 1.5 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 3 | 1.5 |
| (1,2405) | 1:A:286:VAL:HB | 1:A:324:VAL:HG13 | 2 | 1.5 |
| (1,2400) | 1:A:285:PRO:HD2 | 1:A:324:VAL:HG13 | 14 | 1.5 |
| (1,2400) | 1:A:285:PRO:HD3 | 1:A:324:VAL:HG13 | 14 | 1.5 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 8 | 1.5 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 8 | 1.5 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 8 | 1.5 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 8 | 1.5 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 8 | 1.5 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 8 | 1.5 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 16 | 1.5 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 5 | 1.5 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 20 | 1.5 |
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 6 | 1.5 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 6 | 1.5 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 20 | 1.5 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 2 | 1.5 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 13 | 1.49 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 13 | 1.49 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 17 | 1.49 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 17 | 1.49 |
| (1,2401) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 12 | 1.49 |
| (1,2399) | 1:A:285:PRO:HD2 | 1:A:286:VAL:HG13 | 8 | 1.49 |
| (1,2399) | 1:A:285:PRO:HD3 | 1:A:286:VAL:HG13 | 8 | 1.49 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 18 | 1.49 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 12 | 1.49 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 15 | 1.49 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 18 | 1.49 |
| (1,2057) | 1:A:240:ILE:HD11 | 1:A:324:VAL:HG13 | 5 | 1.49 |
| (1,2057) | 1:A:240:ILE:HD12 | 1:A:324:VAL:HG13 | 5 | 1.49 |
| (1,2057) | 1:A:240:ILE:HD13 | 1:A:324:VAL:HG13 | 5 | 1.49 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 7 | 1.48 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 18 | 1.48 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 16 | 1.48 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 16 | 1.48 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 11 | 1.48 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 18 | 1.48 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 19 | 1.48 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 19 | 1.48 |
| (1,2401) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 8 | 1.48 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 4 | 1.48 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 4 | 1.48 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 6 | 1.48 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 12 | 1.48 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 13 | 1.48 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 13 | 1.48 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 3 | 1.48 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 8 | 1.48 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 20 | 1.47 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 11 | 1.47 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 11 | 1.47 |
| (1,2399) | 1:A:285:PRO:HD2 | 1:A:286:VAL:HG13 | 10 | 1.47 |
| (1,2399) | 1:A:285:PRO:HD3 | 1:A:286:VAL:HG13 | 10 | 1.47 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 8 | 1.47 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 12 | 1.47 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 1 | 1.47 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 8 | 1.47 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 5 | 1.46 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 18 | 1.46 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 1 | 1.46 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 1 | 1.46 |
| (1,1961) | 1:A:230:PHE:HD1 | 1:A:279:VAL:HG13 | 17 | 1.46 |
| (1,1961) | 1:A:230:PHE:HD2 | 1:A:279:VAL:HG13 | 17 | 1.46 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 7 | 1.46 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 18 | 1.45 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 8 | 1.45 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 8 | 1.45 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 8 | 1.45 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 8 | 1.45 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 8 | 1.45 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 8 | 1.45 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 13 | 1.45 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 3 | 1.45 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 11 | 1.45 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 14 | 1.45 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 4 | 1.45 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 13 | 1.44 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 13 | 1.44 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 6 | 1.44 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 2 | 1.44 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 5 | 1.44 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 4 | 1.44 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 4 | 1.44 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 16 | 1.44 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 4 | 1.44 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 14 | 1.44 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 11 | 1.44 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 11 | 1.44 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 11 | 1.44 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 11 | 1.44 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 11 | 1.44 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 11 | 1.44 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 12 | 1.44 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 6 | 1.44 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 8 | 1.44 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 9 | 1.44 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 14 | 1.43 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 12 | 1.43 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 12 | 1.43 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 12 | 1.43 |
| (1,1264) | 1:A:289:VAL:HG13 | 1:A:290:THR:H | 8 | 1.43 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 3 | 1.42 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 16 | 1.42 |
| (1,2388) | 1:A:284:THR:HB | 1:A:286:VAL:HG13 | 8 | 1.42 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 7 | 1.42 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 17 | 1.42 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 17 | 1.42 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 10 | 1.42 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 2 | 1.42 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 16 | 1.42 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 7 | 1.42 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 5 | 1.41 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 4 | 1.41 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 7 | 1.41 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 15 | 1.41 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 7 | 1.41 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 6 | 1.41 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 6 | 1.41 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 16 | 1.41 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 16 | 1.41 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 16 | 1.41 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 16 | 1.41 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 12 | 1.41 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 12 | 1.41 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 12 | 1.41 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 5 | 1.41 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 10 | 1.41 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 16 | 1.41 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 6 | 1.41 |
| (1,1740) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 13 | 1.41 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 11 | 1.4 |
| (1,2399) | 1:A:285:PRO:HD2 | 1:A:286:VAL:HG13 | 1 | 1.4 |
| (1,2399) | 1:A:285:PRO:HD3 | 1:A:286:VAL:HG13 | 1 | 1.4 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 6 | 1.4 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 8 | 1.4 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 8 | 1.4 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 8 | 1.4 |
| (1,2123) | 1:A:251:PRO:HG2 | 1:A:262:VAL:HG13 | 8 | 1.4 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 19 | 1.39 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 9 | 1.39 |
| (1,2393) | 1:A:285:PRO:HB2 | 1:A:324:VAL:HG13 | 13 | 1.39 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 6 | 1.39 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 4 | 1.39 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 15 | 1.39 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 15 | 1.39 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 15 | 1.39 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 15 | 1.39 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 15 | 1.39 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 15 | 1.39 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 4 | 1.39 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 1 | 1.39 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 11 | 1.38 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 14 | 1.38 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 9 | 1.38 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 18 | 1.38 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 17 | 1.38 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 6 | 1.38 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 15 | 1.38 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 15 | 1.38 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 14 | 1.38 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 14 | 1.38 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 14 | 1.38 |
| (1,2198) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 9 | 1.38 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 16 | 1.38 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 18 | 1.38 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 9 | 1.38 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 9 | 1.38 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 19 | 1.37 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 9 | 1.37 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 9 | 1.37 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 9 | 1.37 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 17 | 1.37 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 6 | 1.37 |
| (1,2393) | 1:A:285:PRO:HB2 | 1:A:324:VAL:HG13 | 7 | 1.37 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 16 | 1.37 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 10 | 1.37 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 10 | 1.37 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 10 | 1.37 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 10 | 1.37 |
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 10 | 1.37 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 10 | 1.37 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 13 | 1.37 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 5 | 1.37 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 4 | 1.37 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 17 | 1.37 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 18 | 1.36 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 6 | 1.36 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 2 | 1.36 |
| (1,2388) | 1:A:284:THR:HB | 1:A:286:VAL:HG13 | 10 | 1.36 |
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 8 | 1.36 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 8 | 1.36 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 8 | 1.36 |
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 8 | 1.36 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 8 | 1.36 |
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 8 | 1.36 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 14 | 1.36 |
| (1,2123) | 1:A:251:PRO:HG2 | 1:A:262:VAL:HG13 | 11 | 1.36 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 13 | 1.35 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 14 | 1.35 |
| (1,2393) | 1:A:285:PRO:HB2 | 1:A:324:VAL:HG13 | 18 | 1.35 |
| (1,2198) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 10 | 1.35 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 20 | 1.35 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 13 | 1.35 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 13 | 1.35 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 13 | 1.35 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 15 | 1.35 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 15 | 1.35 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 11 | 1.34 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 4 | 1.34 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 16 | 1.34 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 20 | 1.34 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 10 | 1.33 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 9 | 1.33 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 3 | 1.33 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 15 | 1.33 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 15 | 1.33 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 15 | 1.33 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 4 | 1.33 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 5 | 1.33 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 10 | 1.33 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 5 | 1.32 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 12 | 1.32 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 3 | 1.32 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 3 | 1.32 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 3 | 1.32 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 3 | 1.32 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 3 | 1.32 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 3 | 1.32 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 14 | 1.32 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 8 | 1.32 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 8 | 1.32 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 8 | 1.32 |
| (1,1961) | 1:A:230:PHE:HD1 | 1:A:279:VAL:HG13 | 12 | 1.32 |
| (1,1961) | 1:A:230:PHE:HD2 | 1:A:279:VAL:HG13 | 12 | 1.32 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 4 | 1.32 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 17 | 1.32 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 5 | 1.32 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 19 | 1.32 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 12 | 1.31 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 7 | 1.31 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 16 | 1.31 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 3 | 1.31 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 3 | 1.31 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 3 | 1.31 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 14 | 1.31 |
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 14 | 1.31 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 14 | 1.31 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 14 | 1.31 |
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 14 | 1.31 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 14 | 1.31 |
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 14 | 1.31 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 9 | 1.31 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 16 | 1.31 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 12 | 1.31 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 12 | 1.31 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 1 | 1.31 |
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 15 | 1.31 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 15 | 1.31 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 11 | 1.3 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 4 | 1.3 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 20 | 1.3 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 6 | 1.3 |
| (1,2033) | 1:A:238:GLY:HA3 | 1:A:286:VAL:HG13 | 11 | 1.3 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 5 | 1.3 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 16 | 1.3 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 16 | 1.3 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 15 | 1.29 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 7 | 1.29 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 6 | 1.29 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 20 | 1.29 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 3 | 1.29 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 5 | 1.29 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 14 | 1.29 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 6 | 1.29 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 11 | 1.29 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 11 | 1.29 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 11 | 1.29 |
| (1,2123) | 1:A:251:PRO:HG2 | 1:A:262:VAL:HG13 | 15 | 1.29 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 4 | 1.29 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 5 | 1.29 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 10 | 1.29 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 10 | 1.29 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 10 | 1.29 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 11 | 1.29 |
| (1,1264) | 1:A:289:VAL:HG13 | 1:A:290:THR:H | 5 | 1.29 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 6 | 1.29 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 20 | 1.28 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 20 | 1.28 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 10 | 1.28 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 10 | 1.28 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 8 | 1.28 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 15 | 1.28 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 10 | 1.28 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 10 | 1.28 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 17 | 1.28 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 14 | 1.28 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 13 | 1.27 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 5 | 1.27 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 8 | 1.27 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 4 | 1.27 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 16 | 1.27 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 12 | 1.27 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 15 | 1.27 |
| (1,2393) | 1:A:285:PRO:HB2 | 1:A:324:VAL:HG13 | 14 | 1.26 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 8 | 1.26 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 2 | 1.26 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 2 | 1.26 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 9 | 1.26 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 10 | 1.26 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 16 | 1.26 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 15 | 1.25 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 18 | 1.25 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 14 | 1.25 |
| (1,2399) | 1:A:285:PRO:HD2 | 1:A:286:VAL:HG13 | 13 | 1.25 |
| (1,2399) | 1:A:285:PRO:HD3 | 1:A:286:VAL:HG13 | 13 | 1.25 |
| (1,2393) | 1:A:285:PRO:HB2 | 1:A:324:VAL:HG13 | 15 | 1.25 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 20 | 1.25 |
| (1,2123) | 1:A:251:PRO:HG2 | 1:A:262:VAL:HG13 | 19 | 1.25 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 6 | 1.25 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 9 | 1.25 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 3 | 1.24 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 14 | 1.24 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD11 | 20 | 1.24 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD12 | 20 | 1.24 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD13 | 20 | 1.24 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD21 | 20 | 1.24 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD22 | 20 | 1.24 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD23 | 20 | 1.24 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 16 | 1.24 |
| (1,2123) | 1:A:251:PRO:HG2 | 1:A:262:VAL:HG13 | 1 | 1.24 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 11 | 1.24 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 11 | 1.24 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 11 | 1.24 |
| (1,1264) | 1:A:289:VAL:HG13 | 1:A:290:THR:H | 10 | 1.24 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 7 | 1.24 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 2 | 1.23 |
| (1,2545) | 1:A:311:VAL:H | 1:A:311:VAL:HG13 | 18 | 1.23 |
| (1,2525) | 1:A:310:LEU:HA | 1:A:311:VAL:HG13 | 3 | 1.23 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 16 | 1.23 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 16 | 1.23 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 16 | 1.23 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 17 | 1.23 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 17 | 1.23 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 17 | 1.23 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 7 | 1.23 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 9 | 1.23 |
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 7 | 1.23 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 7 | 1.23 |
| (1,1264) | 1:A:289:VAL:HG13 | 1:A:290:THR:H | 20 | 1.23 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 10 | 1.22 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 6 | 1.22 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 13 | 1.22 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 13 | 1.22 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 13 | 1.22 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 3 | 1.22 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 12 | 1.22 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 10 | 1.22 |
| (1,2055) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 19 | 1.22 |
| (1,2055) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 19 | 1.22 |
| (1,2055) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 19 | 1.22 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 7 | 1.21 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 2 | 1.21 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 11 | 1.21 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 9 | 1.21 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 10 | 1.21 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 19 | 1.21 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 19 | 1.21 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 9 | 1.21 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 18 | 1.21 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 7 | 1.2 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 17 | 1.2 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 15 | 1.2 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 10 | 1.2 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 20 | 1.2 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 7 | 1.2 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 7 | 1.2 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 7 | 1.2 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 7 | 1.2 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 7 | 1.2 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 7 | 1.2 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 7 | 1.2 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 7 | 1.2 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 7 | 1.2 |
| (1,2055) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 6 | 1.2 |
| (1,2055) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 6 | 1.2 |
| (1,2055) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 6 | 1.2 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 5 | 1.2 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 20 | 1.19 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 3 | 1.19 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 2 | 1.19 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 5 | 1.19 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 3 | 1.19 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 19 | 1.19 |
| (1,2399) | 1:A:285:PRO:HD2 | 1:A:286:VAL:HG13 | 11 | 1.19 |
| (1,2399) | 1:A:285:PRO:HD3 | 1:A:286:VAL:HG13 | 11 | 1.19 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 16 | 1.19 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 11 | 1.19 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 15 | 1.19 |
| (1,2033) | 1:A:238:GLY:HA3 | 1:A:286:VAL:HG13 | 13 | 1.19 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 9 | 1.18 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 9 | 1.18 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 1 | 1.18 |
| (1,2388) | 1:A:284:THR:HB | 1:A:286:VAL:HG13 | 11 | 1.18 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 1 | 1.18 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 2 | 1.18 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 14 | 1.18 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 13 | 1.18 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 4 | 1.18 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB2 | 12 | 1.17 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB3 | 12 | 1.17 |
| (1,1965) | 1:A:230:PHE:HE1 | 1:A:279:VAL:HG13 | 16 | 1.17 |
| (1,1965) | 1:A:230:PHE:HE2 | 1:A:279:VAL:HG13 | 16 | 1.17 |
| (1,1264) | 1:A:289:VAL:HG13 | 1:A:290:THR:H | 1 | 1.17 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 11 | 1.17 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 11 | 1.17 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 16 | 1.17 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 2 | 1.16 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 11 | 1.16 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 6 | 1.16 |
| (1,2388) | 1:A:284:THR:HB | 1:A:286:VAL:HG13 | 13 | 1.16 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 6 | 1.16 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 7 | 1.16 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 18 | 1.16 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 12 | 1.16 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 17 | 1.16 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 17 | 1.16 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 17 | 1.16 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 7 | 1.16 |
| (1,1965) | 1:A:230:PHE:HE1 | 1:A:279:VAL:HG13 | 13 | 1.16 |
| (1,1965) | 1:A:230:PHE:HE2 | 1:A:279:VAL:HG13 | 13 | 1.16 |
| (1,1264) | 1:A:289:VAL:HG13 | 1:A:290:THR:H | 12 | 1.16 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 12 | 1.16 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 12 | 1.16 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 13 | 1.15 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 12 | 1.15 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 7 | 1.15 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 4 | 1.15 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 19 | 1.15 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 19 | 1.15 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 19 | 1.15 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 8 | 1.15 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 8 | 1.15 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 8 | 1.15 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 8 | 1.15 |
| (1,1264) | 1:A:289:VAL:HG13 | 1:A:290:THR:H | 19 | 1.15 |
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 15 | 1.15 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 18 | 1.14 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 17 | 1.14 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 5 | 1.14 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 4 | 1.14 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 16 | 1.14 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 3 | 1.14 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 3 | 1.14 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 3 | 1.14 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 9 | 1.14 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 9 | 1.14 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 9 | 1.14 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 20 | 1.14 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 6 | 1.14 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 3 | 1.14 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 20 | 1.13 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 6 | 1.13 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 6 | 1.13 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 6 | 1.13 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 2 | 1.13 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 2 | 1.13 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 15 | 1.13 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 5 | 1.13 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 15 | 1.13 |
| (1,2033) | 1:A:238:GLY:HA3 | 1:A:286:VAL:HG13 | 10 | 1.13 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 12 | 1.13 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 19 | 1.13 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 19 | 1.13 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 17 | 1.12 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 6 | 1.12 |
| (1,2545) | 1:A:311:VAL:H | 1:A:311:VAL:HG13 | 17 | 1.12 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 14 | 1.12 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 14 | 1.12 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 14 | 1.12 |
| (1,2402) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 6 | 1.12 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 17 | 1.12 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 8 | 1.12 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 18 | 1.12 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 18 | 1.12 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 18 | 1.12 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 18 | 1.12 |
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 18 | 1.12 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 18 | 1.12 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 2 | 1.11 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 6 | 1.11 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 18 | 1.11 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 4 | 1.11 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 19 | 1.11 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 19 | 1.11 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 10 | 1.11 |
| (1,2545) | 1:A:311:VAL:H | 1:A:311:VAL:HG13 | 2 | 1.1 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 16 | 1.1 |
| (1,2400) | 1:A:285:PRO:HD2 | 1:A:324:VAL:HG13 | 7 | 1.1 |
| (1,2400) | 1:A:285:PRO:HD3 | 1:A:324:VAL:HG13 | 7 | 1.1 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 6 | 1.1 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 6 | 1.1 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 12 | 1.1 |
| (1,2055) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 18 | 1.1 |
| (1,2055) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 18 | 1.1 |
| (1,2055) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 18 | 1.1 |
| (1,1967) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 1 | 1.1 |
| (1,1967) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 1 | 1.1 |
| (1,1967) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 12 | 1.1 |
| (1,1967) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 12 | 1.1 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 18 | 1.1 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 18 | 1.1 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 16 | 1.09 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 14 | 1.09 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 15 | 1.09 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 16 | 1.09 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 2 | 1.08 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 3 | 1.08 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 5 | 1.08 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 8 | 1.08 |
| (1,2545) | 1:A:311:VAL:H | 1:A:311:VAL:HG13 | 5 | 1.08 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 4 | 1.08 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 5 | 1.08 |
| (1,2402) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 20 | 1.08 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 5 | 1.08 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 16 | 1.08 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 14 | 1.07 |
| (1,2545) | 1:A:311:VAL:H | 1:A:311:VAL:HG13 | 11 | 1.07 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 11 | 1.07 |
| (1,2352) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 6 | 1.07 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 20 | 1.07 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 20 | 1.07 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 20 | 1.07 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 20 | 1.07 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 20 | 1.07 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 20 | 1.07 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 9 | 1.07 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 5 | 1.07 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 3 | 1.06 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 10 | 1.06 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 1 | 1.06 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 7 | 1.06 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 20 | 1.06 |
| (1,2055) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 17 | 1.06 |
| (1,2055) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 17 | 1.06 |
| (1,2055) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 17 | 1.06 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 14 | 1.06 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 13 | 1.06 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 8 | 1.06 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 4 | 1.06 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 5 | 1.06 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 10 | 1.06 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE1 | 6 | 1.05 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE2 | 6 | 1.05 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 13 | 1.05 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 13 | 1.05 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 18 | 1.05 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 11 | 1.05 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 14 | 1.05 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 1 | 1.05 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 11 | 1.05 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 4 | 1.05 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 18 | 1.05 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 18 | 1.05 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 3 | 1.05 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 2 | 1.05 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 4 | 1.05 |
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 11 | 1.05 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 11 | 1.05 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 13 | 1.05 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 17 | 1.04 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 15 | 1.04 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 20 | 1.04 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 3 | 1.04 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 17 | 1.04 |
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 15 | 1.04 |
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 18 | 1.04 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 11 | 1.04 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 2 | 1.04 |
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 4 | 1.04 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 6 | 1.03 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 18 | 1.03 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 18 | 1.03 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 18 | 1.03 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 6 | 1.03 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 14 | 1.03 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 17 | 1.03 |
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 13 | 1.03 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 16 | 1.03 |
| (1,1157) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 16 | 1.03 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 5 | 1.02 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 12 | 1.02 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 12 | 1.02 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 19 | 1.02 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 19 | 1.02 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 19 | 1.02 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 19 | 1.02 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 19 | 1.02 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 19 | 1.02 |
| (1,2055) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 3 | 1.02 |
| (1,2055) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 3 | 1.02 |
| (1,2055) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 3 | 1.02 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 6 | 1.02 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 16 | 1.02 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 13 | 1.02 |
| (1,1264) | 1:A:289:VAL:HG13 | 1:A:290:THR:H | 4 | 1.02 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 5 | 1.02 |
| (1,1224) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 12 | 1.02 |
| (1,1224) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 12 | 1.02 |
| (1,1224) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 12 | 1.02 |
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 5 | 1.02 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 17 | 1.01 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 16 | 1.01 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG21 | 18 | 1.01 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG22 | 18 | 1.01 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG23 | 18 | 1.01 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2352) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 11 | 1.01 |
| (1,2352) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 18 | 1.01 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 10 | 1.01 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 7 | 1.01 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 3 | 1.01 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 3 | 1.01 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 3 | 1.01 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 15 | 1.01 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 18 | 1.01 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 20 | 1.01 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 5 | 1.01 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE1 | 18 | 1.0 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE2 | 18 | 1.0 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 11 | 1.0 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 10 | 1.0 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 12 | 1.0 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 15 | 1.0 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 16 | 1.0 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 20 | 1.0 |
| (1,2198) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 2 | 1.0 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 3 | 1.0 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 7 | 1.0 |
| (1,2055) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 7 | 1.0 |
| (1,2055) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 7 | 1.0 |
| (1,2055) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 7 | 1.0 |
| (1,1967) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 8 | 1.0 |
| (1,1967) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 8 | 1.0 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 13 | 1.0 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 5 | 1.0 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 19 | 1.0 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 9 | 1.0 |
| (1,1157) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 19 | 1.0 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 14 | 1.0 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 10 | 1.0 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 15 | 0.99 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 9 | 0.99 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 16 | 0.99 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 1 | 0.99 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 17 | 0.99 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 11 | 0.99 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG21 | 11 | 0.99 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG22 | 11 | 0.99 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG23 | 11 | 0.99 |
| (1,2352) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 15 | 0.99 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 7 | 0.99 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 13 | 0.99 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 17 | 0.99 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 19 | 0.99 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 1 | 0.99 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 20 | 0.98 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 5 | 0.98 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 8 | 0.98 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 1 | 0.98 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 5 | 0.98 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 5 | 0.98 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 5 | 0.98 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 8 | 0.98 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 18 | 0.98 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 8 | 0.98 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 4 | 0.97 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 2 | 0.97 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 2 | 0.97 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 2 | 0.97 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 18 | 0.97 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 18 | 0.97 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 3 | 0.97 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 8 | 0.97 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 5 | 0.97 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 11 | 0.97 |
| (1,1740) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 20 | 0.97 |
| (1,954) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 4 | 0.96 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 8 | 0.96 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 12 | 0.96 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 12 | 0.96 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 8 | 0.96 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 1 | 0.96 |
| (1,2417) | 1:A:286:VAL:HG13 | 1:A:322:PHE:HB2 | 15 | 0.96 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 14 | 0.96 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 14 | 0.96 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 20 | 0.96 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 20 | 0.96 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 20 | 0.96 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 20 | 0.96 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 20 | 0.96 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2033) | 1:A:238:GLY:HA3 | 1:A:286:VAL:HG13 | 14 | 0.96 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 19 | 0.96 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 7 | 0.96 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 1 | 0.96 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 7 | 0.96 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 4 | 0.96 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 11 | 0.95 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 3 | 0.95 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 3 | 0.95 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 3 | 0.95 |
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 20 | 0.95 |
| (1,2406) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 13 | 0.95 |
| (1,2187) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HA | 3 | 0.95 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 7 | 0.95 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 2 | 0.95 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 2 | 0.95 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 2 | 0.95 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 14 | 0.95 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 14 | 0.95 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 14 | 0.95 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 18 | 0.95 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 7 | 0.95 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 1 | 0.95 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 6 | 0.94 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 18 | 0.94 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 18 | 0.94 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 15 | 0.94 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 12 | 0.94 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 12 | 0.94 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 12 | 0.94 |
| (1,2198) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 17 | 0.94 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB2 | 7 | 0.94 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB3 | 7 | 0.94 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 10 | 0.94 |
| (1,2055) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 16 | 0.94 |
| (1,2055) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 16 | 0.94 |
| (1,2055) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 16 | 0.94 |
| (1,2033) | 1:A:238:GLY:HA3 | 1:A:286:VAL:HG13 | 2 | 0.94 |
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 14 | 0.94 |
| (1,1616) | 1:A:311:VAL:HG13 | 1:A:323:GLN:H | 13 | 0.94 |
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 12 | 0.93 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 15 | 0.93 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 15 | 0.93 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 12 | 0.93 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG21 | 12 | 0.93 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG22 | 12 | 0.93 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG23 | 12 | 0.93 |
| (1,2352) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 4 | 0.93 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 9 | 0.93 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 9 | 0.93 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 1 | 0.93 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 12 | 0.93 |
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 7 | 0.93 |
| (1,953) | 1:A:262:VAL:HA | 1:A:262:VAL:HG13 | 11 | 0.92 |
| (1,953) | 1:A:262:VAL:HA | 1:A:262:VAL:HG13 | 15 | 0.92 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 8 | 0.92 |
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 3 | 0.92 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 20 | 0.92 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 20 | 0.92 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 6 | 0.92 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 6 | 0.92 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 6 | 0.92 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 6 | 0.92 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 6 | 0.92 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 6 | 0.92 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 7 | 0.92 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 13 | 0.92 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 13 | 0.92 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 13 | 0.92 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 4 | 0.92 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 15 | 0.92 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 7 | 0.92 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 3 | 0.92 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 13 | 0.91 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 4 | 0.91 |
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 13 | 0.91 |
| (1,2402) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 13 | 0.91 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 4 | 0.91 |
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 15 | 0.91 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 15 | 0.91 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 15 | 0.91 |
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 15 | 0.91 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 15 | 0.91 |
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 15 | 0.91 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 8 | 0.91 |
| (1,1224) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 8 | 0.91 |
| (1,1224) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 8 | 0.91 |
| (1,1224) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 8 | 0.91 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 17 | 0.9 |
| (1,2545) | 1:A:311:VAL:H | 1:A:311:VAL:HG13 | 20 | 0.9 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 11 | 0.9 |
| (1,2352) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 10 | 0.9 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 13 | 0.9 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB2 | 3 | 0.9 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB3 | 3 | 0.9 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 12 | 0.9 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 12 | 0.9 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 12 | 0.9 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 14 | 0.9 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 1 | 0.9 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 16 | 0.9 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 17 | 0.9 |
| (1,953) | 1:A:262:VAL:HA | 1:A:262:VAL:HG13 | 8 | 0.89 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 13 | 0.89 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 7 | 0.89 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 7 | 0.89 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 10 | 0.89 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 10 | 0.89 |
| (1,2352) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 1 | 0.89 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 1 | 0.89 |
| (1,2055) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 20 | 0.89 |
| (1,2055) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 20 | 0.89 |
| (1,2055) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 20 | 0.89 |
| (1,1961) | 1:A:230:PHE:HD1 | 1:A:279:VAL:HG13 | 16 | 0.89 |
| (1,1961) | 1:A:230:PHE:HD2 | 1:A:279:VAL:HG13 | 16 | 0.89 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 3 | 0.89 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 15 | 0.89 |
| (1,1219) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 14 | 0.89 |
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 9 | 0.89 |
| (1,1158) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 3 | 0.89 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 20 | 0.89 |
| (1,954) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 15 | 0.88 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE1 | 10 | 0.88 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE2 | 10 | 0.88 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 15 | 0.88 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 1 | 0.88 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 5 | 0.88 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 17 | 0.88 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 3 | 0.88 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD11 | 14 | 0.88 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD12 | 14 | 0.88 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD13 | 14 | 0.88 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD21 | 14 | 0.88 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD22 | 14 | 0.88 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD23 | 14 | 0.88 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 3 | 0.88 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 13 | 0.88 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 4 | 0.88 |
| (1,1758) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 9 | 0.88 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 2 | 0.88 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 2 | 0.88 |
| (1,954) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 12 | 0.87 |
| (1,954) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 16 | 0.87 |
| (1,952) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 18 | 0.87 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 18 | 0.87 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 8 | 0.87 |
| (1,2545) | 1:A:311:VAL:H | 1:A:311:VAL:HG13 | 13 | 0.87 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 8 | 0.87 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 11 | 0.87 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 11 | 0.87 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 19 | 0.87 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 19 | 0.87 |
| (1,2405) | 1:A:286:VAL:HB | 1:A:324:VAL:HG13 | 12 | 0.87 |
| (1,2402) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 2 | 0.87 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 20 | 0.87 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 4 | 0.87 |
| (1,2367) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 13 | 0.87 |
| (1,2352) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 12 | 0.87 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 1 | 0.87 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 3 | 0.87 |
| (1,2055) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 9 | 0.87 |
| (1,2055) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 9 | 0.87 |
| (1,2055) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 9 | 0.87 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 8 | 0.87 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 18 | 0.87 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 15 | 0.87 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 9 | 0.87 |
| (1,1219) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 2 | 0.87 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,954) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 8 | 0.86 |
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 15 | 0.86 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 20 | 0.86 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 16 | 0.86 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 4 | 0.86 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 6 | 0.86 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 6 | 0.86 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 5 | 0.86 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 15 | 0.86 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 19 | 0.86 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 4 | 0.86 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 1 | 0.86 |
| (1,1219) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 11 | 0.86 |
| (1,954) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 11 | 0.85 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE1 | 20 | 0.85 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE2 | 20 | 0.85 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 4 | 0.85 |
| (1,2420) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HG13 | 18 | 0.85 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 5 | 0.85 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 9 | 0.85 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 12 | 0.85 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 10 | 0.85 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 10 | 0.85 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 10 | 0.85 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 9 | 0.85 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 16 | 0.85 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 14 | 0.85 |
| (1,1219) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 10 | 0.85 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 8 | 0.84 |
| (1,2547) | 1:A:311:VAL:H | 1:A:324:VAL:HG13 | 19 | 0.84 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 18 | 0.84 |
| (1,2352) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 20 | 0.84 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 6 | 0.84 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 6 | 0.84 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 6 | 0.84 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 8 | 0.84 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 6 | 0.84 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 15 | 0.84 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 5 | 0.84 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 16 | 0.84 |
| (1,1219) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 13 | 0.84 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 1 | 0.83 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 6 | 0.83 |
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 10 | 0.83 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 17 | 0.83 |
| (1,2402) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 14 | 0.83 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 4 | 0.83 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 2 | 0.83 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 2 | 0.83 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 2 | 0.83 |
| (1,2133) | 1:A:252:ASP:HB2 | 1:A:262:VAL:HG13 | 20 | 0.83 |
| (1,1762) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 2 | 0.83 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 12 | 0.82 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 9 | 0.82 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 9 | 0.82 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 4 | 0.82 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 13 | 0.82 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 19 | 0.82 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 19 | 0.82 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 19 | 0.82 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 15 | 0.82 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 10 | 0.82 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 14 | 0.82 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 18 | 0.82 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 10 | 0.82 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 14 | 0.82 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 13 | 0.81 |
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 14 | 0.81 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 2 | 0.81 |
| (1,2198) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 13 | 0.81 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 3 | 0.81 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 3 | 0.81 |
| (1,954) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 14 | 0.8 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 18 | 0.8 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 18 | 0.8 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 18 | 0.8 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 4 | 0.8 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 13 | 0.8 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 13 | 0.8 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 6 | 0.8 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 11 | 0.8 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 11 | 0.8 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 11 | 0.8 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 11 | 0.8 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 18 | 0.8 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 18 | 0.8 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 18 | 0.8 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 5 | 0.8 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 5 | 0.8 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 18 | 0.79 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 10 | 0.79 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 19 | 0.79 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 12 | 0.79 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 12 | 0.79 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 12 | 0.79 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 5 | 0.79 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 5 | 0.79 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 5 | 0.79 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 10 | 0.79 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 10 | 0.79 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 10 | 0.79 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 17 | 0.79 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 17 | 0.79 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 1 | 0.79 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 1 | 0.79 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 1 | 0.79 |
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 9 | 0.79 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 5 | 0.79 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 8 | 0.79 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 11 | 0.79 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 19 | 0.79 |
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 18 | 0.79 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 20 | 0.78 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 3 | 0.78 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 10 | 0.78 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 1 | 0.78 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 7 | 0.78 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 16 | 0.78 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 17 | 0.78 |
| (1,1616) | 1:A:311:VAL:HG13 | 1:A:323:GLN:H | 20 | 0.78 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 20 | 0.78 |
| (1,954) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 5 | 0.77 |
| (1,954) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 6 | 0.77 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 5 | 0.77 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 5 | 0.77 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 18 | 0.77 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 13 | 0.77 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 13 | 0.77 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 13 | 0.77 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 3 | 0.77 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB2 | 11 | 0.77 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB3 | 11 | 0.77 |
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 19 | 0.77 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 19 | 0.77 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 19 | 0.77 |
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 19 | 0.77 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 19 | 0.77 |
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 19 | 0.77 |
| (1,2198) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 1 | 0.77 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 15 | 0.77 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 20 | 0.77 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 20 | 0.77 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 20 | 0.77 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 4 | 0.77 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 1 | 0.77 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 4 | 0.77 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 19 | 0.76 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 8 | 0.76 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 8 | 0.76 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 8 | 0.76 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 13 | 0.76 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB2 | 18 | 0.76 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB3 | 18 | 0.76 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 4 | 0.76 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 14 | 0.76 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 17 | 0.76 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 17 | 0.76 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 17 | 0.76 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 20 | 0.76 |
| (1,1754) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 19 | 0.76 |
| (1,1754) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 19 | 0.76 |
| (1,1754) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 19 | 0.76 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 16 | 0.76 |
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 9 | 0.76 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 9 | 0.76 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 10 | 0.75 |
| (1,949) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 4 | 0.75 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 15 | 0.75 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 15 | 0.75 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 15 | 0.75 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 2 | 0.75 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 15 | 0.75 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 2 | 0.75 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 2 | 0.75 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 2 | 0.75 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 2 | 0.75 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 2 | 0.75 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 2 | 0.75 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 8 | 0.75 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 14 | 0.75 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 17 | 0.75 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 17 | 0.75 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 5 | 0.75 |
| (1,1762) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 20 | 0.75 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 12 | 0.75 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 8 | 0.74 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 8 | 0.74 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 8 | 0.74 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 2 | 0.74 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 8 | 0.74 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 10 | 0.74 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 10 | 0.74 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 10 | 0.74 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 10 | 0.74 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 11 | 0.74 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 11 | 0.74 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 11 | 0.74 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 17 | 0.74 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 18 | 0.74 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 4 | 0.74 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 4 | 0.74 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 4 | 0.74 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 14 | 0.74 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 14 | 0.74 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 14 | 0.74 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 17 | 0.74 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 17 | 0.74 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 17 | 0.74 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 14 | 0.74 |
| (1,1967) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 7 | 0.74 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1967) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 7 | 0.74 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 12 | 0.74 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 9 | 0.74 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 18 | 0.74 |
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 19 | 0.74 |
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 20 | 0.74 |
| (1,954) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 18 | 0.73 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE1 | 9 | 0.73 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE2 | 9 | 0.73 |
| (1,949) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 12 | 0.73 |
| (1,949) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 16 | 0.73 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 10 | 0.73 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 3 | 0.73 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 10 | 0.73 |
| (1,2405) | 1:A:286:VAL:HB | 1:A:324:VAL:HG13 | 10 | 0.73 |
| (1,2402) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 18 | 0.73 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 4 | 0.73 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 8 | 0.73 |
| (1,949) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 14 | 0.72 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 20 | 0.72 |
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 2 | 0.72 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 2 | 0.72 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 3 | 0.72 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 3 | 0.72 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG21 | 9 | 0.72 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG22 | 9 | 0.72 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG23 | 9 | 0.72 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 19 | 0.72 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 3 | 0.72 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 10 | 0.72 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 12 | 0.72 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 4 | 0.72 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 11 | 0.71 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 11 | 0.71 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 11 | 0.71 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 12 | 0.71 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 2 | 0.71 |
| (1,2401) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 5 | 0.71 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 14 | 0.71 |
| (1,1758) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 19 | 0.71 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 13 | 0.71 |
| (1,1219) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 1 | 0.71 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 3 | 0.71 |
| (1,949) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 5 | 0.7 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 13 | 0.7 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 15 | 0.7 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 10 | 0.7 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 17 | 0.7 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 12 | 0.7 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 16 | 0.7 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 16 | 0.7 |
| (1,2407) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 6 | 0.7 |
| (1,2401) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 4 | 0.7 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 11 | 0.7 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 11 | 0.7 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 11 | 0.7 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 2 | 0.7 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 20 | 0.7 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 17 | 0.7 |
| (1,2402) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 15 | 0.69 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 1 | 0.69 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 16 | 0.69 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 10 | 0.69 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 1 | 0.69 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 1 | 0.69 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 1 | 0.69 |
| (1,1762) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 6 | 0.69 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 16 | 0.69 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 19 | 0.69 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 6 | 0.69 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 3 | 0.69 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 15 | 0.69 |
| (1,2555) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HB2 | 3 | 0.68 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 5 | 0.68 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 15 | 0.68 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 15 | 0.68 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 15 | 0.68 |
| (1,2400) | 1:A:285:PRO:HD2 | 1:A:324:VAL:HG13 | 19 | 0.68 |
| (1,2400) | 1:A:285:PRO:HD3 | 1:A:324:VAL:HG13 | 19 | 0.68 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 8 | 0.68 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 19 | 0.68 |
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 16 | 0.68 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 16 | 0.68 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 16 | 0.68 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 16 | 0.68 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 16 | 0.68 |
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 16 | 0.68 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 9 | 0.68 |
| (1,2055) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 1 | 0.68 |
| (1,2055) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 1 | 0.68 |
| (1,2055) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 1 | 0.68 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 2 | 0.68 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 9 | 0.67 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 13 | 0.67 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 9 | 0.67 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 12 | 0.67 |
| (1,2505) | 1:A:304:THR:HA | 1:A:324:VAL:HG13 | 18 | 0.67 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 14 | 0.67 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 19 | 0.67 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 19 | 0.67 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 2 | 0.67 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 18 | 0.67 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 8 | 0.67 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 8 | 0.67 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 8 | 0.67 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 7 | 0.67 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 7 | 0.67 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 7 | 0.67 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 7 | 0.67 |
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 7 | 0.67 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 7 | 0.67 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 7 | 0.67 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 2 | 0.67 |
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 4 | 0.67 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 8 | 0.67 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 18 | 0.67 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 15 | 0.67 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 20 | 0.67 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 6 | 0.66 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 7 | 0.66 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 4 | 0.66 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 4 | 0.66 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 4 | 0.66 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 14 | 0.66 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 11 | 0.66 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 14 | 0.66 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 14 | 0.66 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 14 | 0.66 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 17 | 0.66 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 10 | 0.66 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 1 | 0.66 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 17 | 0.66 |
| (1,135) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 15 | 0.66 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 11 | 0.66 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 12 | 0.66 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 14 | 0.66 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 11 | 0.65 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 11 | 0.65 |
| (1,2545) | 1:A:311:VAL:H | 1:A:311:VAL:HG13 | 1 | 0.65 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 8 | 0.65 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 16 | 0.65 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 15 | 0.65 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 15 | 0.65 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 15 | 0.65 |
| (1,2410) | 1:A:286:VAL:HG13 | 1:A:288:LYS:H | 11 | 0.65 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 11 | 0.65 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 8 | 0.65 |
| (1,2198) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 6 | 0.65 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 2 | 0.65 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 2 | 0.65 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 2 | 0.65 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 2 | 0.65 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 2 | 0.65 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 2 | 0.65 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 8 | 0.65 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 1 | 0.65 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 11 | 0.65 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 11 | 0.65 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 11 | 0.65 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 12 | 0.65 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 12 | 0.65 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 12 | 0.65 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 6 | 0.65 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 14 | 0.65 |
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 8 | 0.65 |
| (1,1269) | 1:A:289:VAL:HA | 1:A:289:VAL:HG13 | 12 | 0.65 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 6 | 0.65 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 16 | 0.65 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 17 | 0.65 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 15 | 0.65 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 13 | 0.64 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 14 | 0.64 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 17 | 0.64 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 17 | 0.64 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 13 | 0.64 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 13 | 0.64 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 13 | 0.64 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 13 | 0.64 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 13 | 0.64 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 13 | 0.64 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 4 | 0.64 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 4 | 0.64 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 4 | 0.64 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 19 | 0.64 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD11 | 4 | 0.64 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD12 | 4 | 0.64 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD13 | 4 | 0.64 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD21 | 4 | 0.64 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD22 | 4 | 0.64 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD23 | 4 | 0.64 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 2 | 0.64 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 2 | 0.64 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 2 | 0.64 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 3 | 0.64 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 15 | 0.64 |
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 1 | 0.64 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 13 | 0.64 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 19 | 0.64 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 18 | 0.63 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 18 | 0.63 |
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 5 | 0.63 |
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 11 | 0.63 |
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 16 | 0.63 |
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 17 | 0.63 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 9 | 0.63 |
| (1,135) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 6 | 0.63 |
| (1,1269) | 1:A:289:VAL:HA | 1:A:289:VAL:HG13 | 1 | 0.63 |
| (1,1269) | 1:A:289:VAL:HA | 1:A:289:VAL:HG13 | 8 | 0.63 |
| (1,1269) | 1:A:289:VAL:HA | 1:A:289:VAL:HG13 | 10 | 0.63 |
| (1,1269) | 1:A:289:VAL:HA | 1:A:289:VAL:HG13 | 20 | 0.63 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 14 | 0.63 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 14 | 0.63 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 7 | 0.62 |
| (1,2545) | 1:A:311:VAL:H | 1:A:311:VAL:HG13 | 7 | 0.62 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 12 | 0.62 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 1 | 0.62 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 1 | 0.62 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 9 | 0.62 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 17 | 0.62 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 6 | 0.62 |
| (1,1269) | 1:A:289:VAL:HA | 1:A:289:VAL:HG13 | 4 | 0.62 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 6 | 0.62 |
| (1,2554) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HA | 20 | 0.61 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 1 | 0.61 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 13 | 0.61 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 13 | 0.61 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 13 | 0.61 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 17 | 0.61 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 17 | 0.61 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 17 | 0.61 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 18 | 0.61 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 18 | 0.61 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 18 | 0.61 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 9 | 0.61 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 8 | 0.61 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 1 | 0.61 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 1 | 0.61 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 1 | 0.61 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 1 | 0.61 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 1 | 0.61 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 1 | 0.61 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 18 | 0.61 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 14 | 0.61 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 10 | 0.61 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 18 | 0.61 |
| (1,1269) | 1:A:289:VAL:HA | 1:A:289:VAL:HG13 | 5 | 0.61 |
| (1,1269) | 1:A:289:VAL:HA | 1:A:289:VAL:HG13 | 19 | 0.61 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 2 | 0.61 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 8 | 0.61 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 15 | 0.6 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 15 | 0.6 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 15 | 0.6 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 15 | 0.6 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 15 | 0.6 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 15 | 0.6 |
| (1,2419) | 1:A:286:VAL:HG13 | 1:A:324:VAL:HB | 9 | 0.6 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 19 | 0.6 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 19 | 0.6 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 19 | 0.6 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 8 | 0.6 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 1 | 0.6 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 5 | 0.6 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG21 | 2 | 0.6 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG22 | 2 | 0.6 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG23 | 2 | 0.6 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 4 | 0.6 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 18 | 0.6 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 18 | 0.6 |
| (1,1754) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 7 | 0.6 |
| (1,1754) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 7 | 0.6 |
| (1,1754) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 7 | 0.6 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 9 | 0.6 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 9 | 0.6 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 14 | 0.6 |
| (1,953) | 1:A:262:VAL:HA | 1:A:262:VAL:HG13 | 5 | 0.59 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 17 | 0.59 |
| (1,2545) | 1:A:311:VAL:H | 1:A:311:VAL:HG13 | 14 | 0.59 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 16 | 0.59 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 19 | 0.59 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 2 | 0.59 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 2 | 0.59 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 7 | 0.59 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 14 | 0.59 |
| (1,1961) | 1:A:230:PHE:HD1 | 1:A:279:VAL:HG13 | 13 | 0.59 |
| (1,1961) | 1:A:230:PHE:HD2 | 1:A:279:VAL:HG13 | 13 | 0.59 |
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 7 | 0.59 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 14 | 0.59 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 18 | 0.59 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 16 | 0.59 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 6 | 0.59 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 17 | 0.58 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 17 | 0.58 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 17 | 0.58 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 2 | 0.58 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 2 | 0.58 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 1 | 0.58 |
| (1,2545) | 1:A:311:VAL:H | 1:A:311:VAL:HG13 | 19 | 0.58 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 3 | 0.58 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 12 | 0.58 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 19 | 0.58 |
| (1,2185) | 1:A:262:VAL:HG13 | 1:A:263:THR:HA | 3 | 0.58 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 19 | 0.58 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 19 | 0.58 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 19 | 0.58 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 2 | 0.58 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 3 | 0.58 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 5 | 0.58 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 8 | 0.58 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 16 | 0.58 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 10 | 0.58 |
| (1,1220) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 1 | 0.58 |
| (1,1220) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 1 | 0.58 |
| (1,1220) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 12 | 0.58 |
| (1,1220) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 12 | 0.58 |
| (1,1219) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 12 | 0.58 |
| (1,953) | 1:A:262:VAL:HA | 1:A:262:VAL:HG13 | 12 | 0.57 |
| (1,953) | 1:A:262:VAL:HA | 1:A:262:VAL:HG13 | 14 | 0.57 |
| (1,953) | 1:A:262:VAL:HA | 1:A:262:VAL:HG13 | 16 | 0.57 |
| (1,952) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 9 | 0.57 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 14 | 0.57 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 5 | 0.57 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 11 | 0.57 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 12 | 0.57 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 12 | 0.57 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 12 | 0.57 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 11 | 0.57 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 11 | 0.57 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 1 | 0.57 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 7 | 0.57 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 7 | 0.57 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 6 | 0.57 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 12 | 0.57 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 6 | 0.57 |
| (1,1967) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 9 | 0.57 |
| (1,1967) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 9 | 0.57 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 6 | 0.57 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 3 | 0.57 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 11 | 0.57 |
| (1,1219) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 8 | 0.57 |
| (1,1158) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 18 | 0.57 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 3 | 0.57 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 9 | 0.56 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 9 | 0.56 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 9 | 0.56 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 18 | 0.56 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 8 | 0.56 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 8 | 0.56 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 15 | 0.56 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 15 | 0.56 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 13 | 0.56 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 13 | 0.56 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 13 | 0.56 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 16 | 0.56 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 19 | 0.56 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 20 | 0.56 |
| (1,1616) | 1:A:311:VAL:HG13 | 1:A:323:GLN:H | 2 | 0.56 |
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 3 | 0.56 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 3 | 0.56 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 13 | 0.56 |
| (1,1158) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 11 | 0.56 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 9 | 0.56 |
| (1,953) | 1:A:262:VAL:HA | 1:A:262:VAL:HG13 | 4 | 0.55 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 14 | 0.55 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 2 | 0.55 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 1 | 0.55 |
| (1,2352) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 17 | 0.55 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 5 | 0.55 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 5 | 0.55 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 5 | 0.55 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 20 | 0.55 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 11 | 0.55 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 11 | 0.55 |
| (1,135) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 3 | 0.55 |
| (1,135) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 8 | 0.55 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 17 | 0.55 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 6 | 0.55 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 2 | 0.55 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 14 | 0.55 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 17 | 0.55 |
| (1,1157) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 6 | 0.55 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 1 | 0.55 |
| (1,952) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 10 | 0.54 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 15 | 0.54 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 5 | 0.54 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 5 | 0.54 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 18 | 0.54 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 18 | 0.54 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 18 | 0.54 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 14 | 0.54 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 5 | 0.54 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 11 | 0.54 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG21 | 13 | 0.54 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG22 | 13 | 0.54 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG23 | 13 | 0.54 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 5 | 0.54 |
| (1,2198) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 19 | 0.54 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD11 | 3 | 0.54 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD12 | 3 | 0.54 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD13 | 3 | 0.54 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD21 | 3 | 0.54 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD22 | 3 | 0.54 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD23 | 3 | 0.54 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 1 | 0.54 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 1 | 0.54 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 1 | 0.54 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 14 | 0.54 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 14 | 0.54 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 7 | 0.54 |
| (1,1740) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 17 | 0.54 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 17 | 0.54 |
| (1,1268) | 1:A:289:VAL:HG13 | 1:A:290:THR:HA | 2 | 0.54 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 10 | 0.54 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 20 | 0.54 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 2 | 0.53 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 2 | 0.53 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 10 | 0.53 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD11 | 18 | 0.53 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD12 | 18 | 0.53 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD13 | 18 | 0.53 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD21 | 18 | 0.53 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD22 | 18 | 0.53 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD23 | 18 | 0.53 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 13 | 0.53 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 13 | 0.53 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 13 | 0.53 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 13 | 0.53 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 13 | 0.53 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 13 | 0.53 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 5 | 0.53 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 5 | 0.53 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 5 | 0.53 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 16 | 0.53 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 16 | 0.53 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 5 | 0.53 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 7 | 0.53 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 7 | 0.53 |
| (1,1759) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 19 | 0.53 |
| (1,1616) | 1:A:311:VAL:HG13 | 1:A:323:GLN:H | 17 | 0.53 |
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 17 | 0.53 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 17 | 0.53 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 15 | 0.53 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 13 | 0.53 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 4 | 0.53 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 2 | 0.53 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 13 | 0.52 |
| (1,2551) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HA | 20 | 0.52 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 10 | 0.52 |
| (1,2355) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 11 | 0.52 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 20 | 0.52 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 12 | 0.52 |
| (1,2121) | 1:A:251:PRO:HB2 | 1:A:262:VAL:HG13 | 4 | 0.52 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 9 | 0.52 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 19 | 0.51 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 9 | 0.51 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 20 | 0.51 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 6 | 0.51 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 4 | 0.51 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 1 | 0.51 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 17 | 0.51 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 17 | 0.51 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 17 | 0.51 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG21 | 7 | 0.51 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG22 | 7 | 0.51 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG23 | 7 | 0.51 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 1 | 0.51 |
| (1,1965) | 1:A:230:PHE:HE1 | 1:A:279:VAL:HG13 | 9 | 0.51 |
| (1,1965) | 1:A:230:PHE:HE2 | 1:A:279:VAL:HG13 | 9 | 0.51 |
| (1,135) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 16 | 0.51 |
| (1,1224) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 19 | 0.51 |
| (1,1224) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 19 | 0.51 |
| (1,1224) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 19 | 0.51 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 16 | 0.51 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 16 | 0.51 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 16 | 0.51 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 17 | 0.51 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 17 | 0.51 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 17 | 0.51 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 12 | 0.51 |
| (1,949) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 3 | 0.5 |
| (1,949) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 7 | 0.5 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 1 | 0.5 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 1 | 0.5 |
| (1,2401) | 1:A:286:VAL:H | 1:A:286:VAL:HG13 | 15 | 0.5 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 2 | 0.5 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 4 | 0.5 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 4 | 0.5 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 4 | 0.5 |
| (1,1742) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 13 | 0.5 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 10 | 0.5 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 12 | 0.5 |
| (1,135) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 14 | 0.5 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 7 | 0.5 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 19 | 0.49 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 6 | 0.49 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 11 | 0.49 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 11 | 0.49 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 8 | 0.49 |
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 18 | 0.49 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 18 | 0.49 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 18 | 0.49 |
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 18 | 0.49 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 18 | 0.49 |
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 18 | 0.49 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 7 | 0.49 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 7 | 0.49 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 19 | 0.49 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 19 | 0.49 |
| (1,1829) | 1:A:289:VAL:HG13 | 1:A:290:THR:HB | 15 | 0.49 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 10 | 0.49 |
| (1,1616) | 1:A:311:VAL:HG13 | 1:A:323:GLN:H | 5 | 0.49 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 9 | 0.49 |
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 16 | 0.49 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 16 | 0.49 |
| (1,1224) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 6 | 0.49 |
| (1,1224) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 6 | 0.49 |
| (1,1224) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 6 | 0.49 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 13 | 0.49 |
| (1,1157) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 11 | 0.49 |
| (1,1157) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 18 | 0.49 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 17 | 0.49 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 5 | 0.49 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 1 | 0.48 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 3 | 0.48 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 12 | 0.48 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 17 | 0.48 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 3 | 0.48 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 20 | 0.48 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 3 | 0.48 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 3 | 0.48 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 3 | 0.48 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG2 | 6 | 0.48 |
| (1,2409) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HG3 | 6 | 0.48 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 6 | 0.48 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 5 | 0.48 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 16 | 0.48 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 19 | 0.48 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 16 | 0.48 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 16 | 0.48 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 16 | 0.48 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 16 | 0.48 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 18 | 0.48 |
| (1,1220) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 8 | 0.48 |
| (1,1220) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 8 | 0.48 |
| (1,2589) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 13 | 0.47 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 16 | 0.47 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 16 | 0.47 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 11 | 0.47 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 11 | 0.47 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 11 | 0.47 |
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 11 | 0.47 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 11 | 0.47 |
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 11 | 0.47 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 13 | 0.47 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 19 | 0.47 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 13 | 0.47 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 6 | 0.47 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 6 | 0.47 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 7 | 0.47 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 5 | 0.47 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 12 | 0.47 |
| (1,1616) | 1:A:311:VAL:HG13 | 1:A:323:GLN:H | 11 | 0.47 |
| (1,1611) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 4 | 0.47 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 3 | 0.47 |
| (1,1158) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 2 | 0.47 |
| (1,1157) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 15 | 0.47 |
| (1,953) | 1:A:262:VAL:HA | 1:A:262:VAL:HG13 | 18 | 0.46 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 14 | 0.46 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 14 | 0.46 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 8 | 0.46 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 8 | 0.46 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 19 | 0.46 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 14 | 0.46 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 14 | 0.46 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 14 | 0.46 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 20 | 0.46 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 20 | 0.46 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 20 | 0.46 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 10 | 0.46 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 7 | 0.46 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 7 | 0.46 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 16 | 0.46 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB2 | 4 | 0.46 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB3 | 4 | 0.46 |
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 5 | 0.46 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 5 | 0.46 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 5 | 0.46 |
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 5 | 0.46 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 5 | 0.46 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 5 | 0.46 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 7 | 0.46 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD11 | 12 | 0.46 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD12 | 12 | 0.46 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD13 | 12 | 0.46 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD21 | 12 | 0.46 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD22 | 12 | 0.46 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD23 | 12 | 0.46 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 19 | 0.46 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 10 | 0.46 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 16 | 0.46 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 16 | 0.46 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 16 | 0.46 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 15 | 0.46 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 15 | 0.46 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 3 | 0.46 |
| (1,1158) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 14 | 0.46 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 7 | 0.45 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 7 | 0.45 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 11 | 0.45 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 18 | 0.45 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 18 | 0.45 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 18 | 0.45 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 10 | 0.45 |
| (1,2400) | 1:A:285:PRO:HD2 | 1:A:324:VAL:HG13 | 13 | 0.45 |
| (1,2400) | 1:A:285:PRO:HD3 | 1:A:324:VAL:HG13 | 13 | 0.45 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB2 | 16 | 0.45 |
| (1,2366) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HB3 | 16 | 0.45 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 16 | 0.45 |
| (1,2198) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 20 | 0.45 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 17 | 0.45 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 1 | 0.45 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 13 | 0.44 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 14 | 0.44 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 10 | 0.44 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 12 | 0.44 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 19 | 0.44 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 7 | 0.44 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 19 | 0.44 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB2 | 12 | 0.44 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB3 | 12 | 0.44 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 10 | 0.44 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2047) | 1:A:240:ILE:HB | 1:A:324:VAL:HG13 | 19 | 0.44 |
| (1,1756) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 11 | 0.44 |
| (1,1742) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 20 | 0.44 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 19 | 0.44 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 3 | 0.44 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 19 | 0.44 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 2 | 0.43 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 7 | 0.43 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 11 | 0.43 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 1 | 0.43 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 4 | 0.43 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 4 | 0.43 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 4 | 0.43 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 3 | 0.43 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 20 | 0.43 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 20 | 0.43 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 14 | 0.42 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 18 | 0.42 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 18 | 0.42 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 18 | 0.42 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 18 | 0.42 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 18 | 0.42 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 18 | 0.42 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 7 | 0.42 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 9 | 0.42 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 9 | 0.42 |
| (1,2368) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 13 | 0.42 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB1 | 11 | 0.42 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB2 | 11 | 0.42 |
| (1,2357) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HB3 | 11 | 0.42 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 16 | 0.42 |
| (1,2197) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HB3 | 15 | 0.42 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 19 | 0.42 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB2 | 4 | 0.42 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB3 | 4 | 0.42 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 13 | 0.42 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 16 | 0.42 |
| (1,1965) | 1:A:230:PHE:HE1 | 1:A:279:VAL:HG13 | 19 | 0.42 |
| (1,1965) | 1:A:230:PHE:HE2 | 1:A:279:VAL:HG13 | 19 | 0.42 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 11 | 0.42 |
| (1,954) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 10 | 0.41 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 3 | 0.41 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 3 | 0.41 |
| (1,2548) | 1:A:311:VAL:HA | 1:A:311:VAL:HG13 | 1 | 0.41 |
| (1,2526) | 1:A:310:LEU:HA | 1:A:324:VAL:HG13 | 6 | 0.41 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 5 | 0.41 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 6 | 0.41 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 6 | 0.41 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 7 | 0.41 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 6 | 0.41 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB2 | 19 | 0.41 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB3 | 19 | 0.41 |
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 2 | 0.41 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 2 | 0.41 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 2 | 0.41 |
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 2 | 0.41 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 2 | 0.41 |
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 2 | 0.41 |
| (1,2177) | 1:A:261:ILE:HB | 1:A:262:VAL:HG13 | 9 | 0.41 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 16 | 0.41 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 13 | 0.41 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 6 | 0.41 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 15 | 0.41 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 6 | 0.41 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 6 | 0.41 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 6 | 0.41 |
| (1,1157) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 4 | 0.41 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 5 | 0.4 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 5 | 0.4 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 5 | 0.4 |
| (1,2552) | 1:A:311:VAL:HG13 | 1:A:312:ASN:HB3 | 19 | 0.4 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 7 | 0.4 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 8 | 0.4 |
| (1,2414) | 1:A:286:VAL:HG13 | 1:A:302:ILE:HA | 13 | 0.4 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 2 | 0.4 |
| (1,2365) | 1:A:279:VAL:HG13 | 1:A:287:GLN:HA | 16 | 0.4 |
| (1,2363) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HG13 | 17 | 0.4 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 1 | 0.4 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 16 | 0.4 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 3 | 0.4 |
| (1,1965) | 1:A:230:PHE:HE1 | 1:A:279:VAL:HG13 | 17 | 0.4 |
| (1,1965) | 1:A:230:PHE:HE2 | 1:A:279:VAL:HG13 | 17 | 0.4 |
| (1,1755) | 1:A:324:VAL:H | 1:A:324:VAL:HG13 | 3 | 0.4 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 18 | 0.4 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 14 | 0.4 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 14 | 0.4 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 14 | 0.4 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 17 | 0.39 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 2 | 0.39 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 2 | 0.39 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG21 | 5 | 0.39 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG22 | 5 | 0.39 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG23 | 5 | 0.39 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB2 | 14 | 0.39 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB3 | 14 | 0.39 |
| (1,2035) | 1:A:239:ILE:H | 1:A:286:VAL:HG13 | 20 | 0.39 |
| (1,1601) | 1:A:310:LEU:HB2 | 1:A:324:VAL:HG13 | 14 | 0.39 |
| (1,1362) | 1:A:265:LYS:HB3 | 1:A:297:ASP:HB3 | 14 | 0.39 |
| (1,1224) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 18 | 0.39 |
| (1,1224) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 18 | 0.39 |
| (1,1224) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 18 | 0.39 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 6 | 0.38 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 6 | 0.38 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG21 | 4 | 0.38 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG22 | 4 | 0.38 |
| (1,2360) | 1:A:279:VAL:HG13 | 1:A:284:THR:HG23 | 4 | 0.38 |
| (1,2356) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 17 | 0.38 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 18 | 0.38 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 4 | 0.38 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 4 | 0.38 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 4 | 0.38 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 4 | 0.38 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 4 | 0.38 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 4 | 0.38 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 12 | 0.38 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 12 | 0.38 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 12 | 0.38 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 12 | 0.38 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 12 | 0.38 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 12 | 0.38 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 14 | 0.38 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 14 | 0.38 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 14 | 0.38 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 14 | 0.38 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 14 | 0.38 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 14 | 0.38 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 6 | 0.38 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 9 | 0.38 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 9 | 0.38 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 9 | 0.38 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 20 | 0.38 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 20 | 0.38 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 20 | 0.38 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 20 | 0.38 |
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 20 | 0.38 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 20 | 0.38 |
| (1,2054) | 1:A:240:ILE:HD11 | 1:A:279:VAL:HG13 | 4 | 0.38 |
| (1,2054) | 1:A:240:ILE:HD12 | 1:A:279:VAL:HG13 | 4 | 0.38 |
| (1,2054) | 1:A:240:ILE:HD13 | 1:A:279:VAL:HG13 | 4 | 0.38 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 17 | 0.38 |
| (1,1157) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 10 | 0.38 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 2 | 0.37 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 2 | 0.37 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 2 | 0.37 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 14 | 0.37 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 14 | 0.37 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 14 | 0.37 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 6 | 0.37 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 6 | 0.37 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 16 | 0.37 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 6 | 0.37 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 20 | 0.37 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 11 | 0.37 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 16 | 0.37 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 16 | 0.37 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 16 | 0.37 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 16 | 0.37 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 16 | 0.37 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 16 | 0.37 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 12 | 0.37 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 12 | 0.37 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 16 | 0.37 |
| (1,1965) | 1:A:230:PHE:HE1 | 1:A:279:VAL:HG13 | 2 | 0.37 |
| (1,1965) | 1:A:230:PHE:HE2 | 1:A:279:VAL:HG13 | 2 | 0.37 |
| (1,1643) | 1:A:312:ASN:HB2 | 1:A:313:LYS:HA | 10 | 0.37 |
| (1,1643) | 1:A:312:ASN:HB2 | 1:A:313:LYS:HA | 13 | 0.37 |
| (1,1265) | 1:A:289:VAL:H | 1:A:289:VAL:HG13 | 7 | 0.37 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 9 | 0.37 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 7 | 0.37 |
| (1,1157) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 1 | 0.37 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 14 | 0.36 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 5 | 0.36 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 5 | 0.36 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 19 | 0.36 |
| (1,2259) | 1:A:269:LEU:HD11 | 1:A:291:LEU:HG | 12 | 0.36 |
| (1,2259) | 1:A:269:LEU:HD12 | 1:A:291:LEU:HG | 12 | 0.36 |
| (1,2259) | 1:A:269:LEU:HD13 | 1:A:291:LEU:HG | 12 | 0.36 |
| (1,2259) | 1:A:269:LEU:HD21 | 1:A:291:LEU:HG | 12 | 0.36 |
| (1,2259) | 1:A:269:LEU:HD22 | 1:A:291:LEU:HG | 12 | 0.36 |
| (1,2259) | 1:A:269:LEU:HD23 | 1:A:291:LEU:HG | 12 | 0.36 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 13 | 0.36 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 6 | 0.36 |
| (1,1643) | 1:A:312:ASN:HB2 | 1:A:313:LYS:HA | 19 | 0.36 |
| (1,1223) | 1:A:286:VAL:HA | 1:A:286:VAL:HG13 | 7 | 0.36 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 2 | 0.36 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 10 | 0.36 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 14 | 0.36 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 11 | 0.36 |
| (1,1158) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 8 | 0.36 |
| (1,953) | 1:A:262:VAL:HA | 1:A:262:VAL:HG13 | 10 | 0.35 |
| (1,2581) | 1:A:322:PHE:HB3 | 1:A:324:VAL:HG13 | 19 | 0.35 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 11 | 0.35 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 2 | 0.35 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 12 | 0.35 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 11 | 0.35 |
| (1,2391) | 1:A:285:PRO:HA | 1:A:324:VAL:HG13 | 3 | 0.35 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 9 | 0.35 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 2 | 0.35 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 2 | 0.35 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD11 | 16 | 0.35 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD12 | 16 | 0.35 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD13 | 16 | 0.35 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD21 | 16 | 0.35 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD22 | 16 | 0.35 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD23 | 16 | 0.35 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 19 | 0.35 |
| (1,135) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 17 | 0.35 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 7 | 0.35 |
| (1,1224) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 17 | 0.35 |
| (1,1224) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 17 | 0.35 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1224) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 17 | 0.35 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 11 | 0.35 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 9 | 0.35 |
| (1,1157) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 12 | 0.35 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 13 | 0.34 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 13 | 0.34 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 13 | 0.34 |
| (1,2580) | 1:A:322:PHE:HB2 | 1:A:324:VAL:HG13 | 19 | 0.34 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 1 | 0.34 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 14 | 0.34 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 14 | 0.34 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 14 | 0.34 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 14 | 0.34 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 14 | 0.34 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 14 | 0.34 |
| (1,2400) | 1:A:285:PRO:HD2 | 1:A:324:VAL:HG13 | 15 | 0.34 |
| (1,2400) | 1:A:285:PRO:HD3 | 1:A:324:VAL:HG13 | 15 | 0.34 |
| (1,2400) | 1:A:285:PRO:HD2 | 1:A:324:VAL:HG13 | 18 | 0.34 |
| (1,2400) | 1:A:285:PRO:HD3 | 1:A:324:VAL:HG13 | 18 | 0.34 |
| (1,2361) | 1:A:279:VAL:HG13 | 1:A:286:VAL:H | 15 | 0.34 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 17 | 0.34 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 17 | 0.34 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 4 | 0.34 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 9 | 0.34 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 9 | 0.34 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 9 | 0.34 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 9 | 0.34 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 9 | 0.34 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 9 | 0.34 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 7 | 0.34 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 7 | 0.34 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 7 | 0.34 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 7 | 0.34 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 7 | 0.34 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 7 | 0.34 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 13 | 0.34 |
| (1,1643) | 1:A:312:ASN:HB2 | 1:A:313:LYS:HA | 3 | 0.34 |
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 18 | 0.34 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 18 | 0.34 |
| (1,1221) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 18 | 0.34 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 2 | 0.33 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 3 | 0.33 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 20 | 0.33 |
| (1,2513) | 1:A:308:TRP:HB2 | 1:A:324:VAL:HG13 | 17 | 0.33 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 20 | 0.33 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 20 | 0.33 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 20 | 0.33 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 17 | 0.33 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 7 | 0.33 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 7 | 0.33 |
| (1,2259) | 1:A:269:LEU:HD11 | 1:A:291:LEU:HG | 1 | 0.33 |
| (1,2259) | 1:A:269:LEU:HD12 | 1:A:291:LEU:HG | 1 | 0.33 |
| (1,2259) | 1:A:269:LEU:HD13 | 1:A:291:LEU:HG | 1 | 0.33 |
| (1,2259) | 1:A:269:LEU:HD21 | 1:A:291:LEU:HG | 1 | 0.33 |
| (1,2259) | 1:A:269:LEU:HD22 | 1:A:291:LEU:HG | 1 | 0.33 |
| (1,2259) | 1:A:269:LEU:HD23 | 1:A:291:LEU:HG | 1 | 0.33 |
| (1,2259) | 1:A:269:LEU:HD11 | 1:A:291:LEU:HG | 7 | 0.33 |
| (1,2259) | 1:A:269:LEU:HD12 | 1:A:291:LEU:HG | 7 | 0.33 |
| (1,2259) | 1:A:269:LEU:HD13 | 1:A:291:LEU:HG | 7 | 0.33 |
| (1,2259) | 1:A:269:LEU:HD21 | 1:A:291:LEU:HG | 7 | 0.33 |
| (1,2259) | 1:A:269:LEU:HD22 | 1:A:291:LEU:HG | 7 | 0.33 |
| (1,2259) | 1:A:269:LEU:HD23 | 1:A:291:LEU:HG | 7 | 0.33 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 17 | 0.33 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 17 | 0.33 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 17 | 0.33 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 17 | 0.33 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 17 | 0.33 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 17 | 0.33 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB2 | 5 | 0.33 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB3 | 5 | 0.33 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 6 | 0.33 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 6 | 0.33 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 6 | 0.33 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 3 | 0.33 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 3 | 0.33 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 3 | 0.33 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 3 | 0.33 |
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 3 | 0.33 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 3 | 0.33 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 5 | 0.33 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 11 | 0.33 |
| (1,1740) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 11 | 0.33 |
| (1,1222) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HA | 13 | 0.33 |
| (1,949) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 20 | 0.32 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,706) | 1:A:223:SER:HA | 1:A:245:LEU:HD21 | 10 | 0.32 |
| (1,706) | 1:A:223:SER:HA | 1:A:245:LEU:HD22 | 10 | 0.32 |
| (1,706) | 1:A:223:SER:HA | 1:A:245:LEU:HD23 | 10 | 0.32 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 7 | 0.32 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 7 | 0.32 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 19 | 0.32 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 19 | 0.32 |
| (1,2550) | 1:A:311:VAL:HG13 | 1:A:312:ASN:H | 20 | 0.32 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 5 | 0.32 |
| (1,2503) | 1:A:302:ILE:HB | 1:A:324:VAL:HG13 | 9 | 0.32 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 8 | 0.32 |
| (1,2400) | 1:A:285:PRO:HD2 | 1:A:324:VAL:HG13 | 2 | 0.32 |
| (1,2400) | 1:A:285:PRO:HD3 | 1:A:324:VAL:HG13 | 2 | 0.32 |
| (1,2400) | 1:A:285:PRO:HD2 | 1:A:324:VAL:HG13 | 6 | 0.32 |
| (1,2400) | 1:A:285:PRO:HD3 | 1:A:324:VAL:HG13 | 6 | 0.32 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 3 | 0.32 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 3 | 0.32 |
| (1,2362) | 1:A:279:VAL:HG13 | 1:A:286:VAL:HA | 17 | 0.32 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB2 | 13 | 0.32 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB3 | 13 | 0.32 |
| (1,2337) | 1:A:277:LEU:HA | 1:A:279:VAL:HG13 | 12 | 0.32 |
| (1,2259) | 1:A:269:LEU:HD11 | 1:A:291:LEU:HG | 8 | 0.32 |
| (1,2259) | 1:A:269:LEU:HD12 | 1:A:291:LEU:HG | 8 | 0.32 |
| (1,2259) | 1:A:269:LEU:HD13 | 1:A:291:LEU:HG | 8 | 0.32 |
| (1,2259) | 1:A:269:LEU:HD21 | 1:A:291:LEU:HG | 8 | 0.32 |
| (1,2259) | 1:A:269:LEU:HD22 | 1:A:291:LEU:HG | 8 | 0.32 |
| (1,2259) | 1:A:269:LEU:HD23 | 1:A:291:LEU:HG | 8 | 0.32 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD11 | 14 | 0.32 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD12 | 14 | 0.32 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD13 | 14 | 0.32 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD21 | 14 | 0.32 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD22 | 14 | 0.32 |
| (1,2193) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HD23 | 14 | 0.32 |
| (1,2186) | 1:A:262:VAL:HG13 | 1:A:263:THR:HB | 20 | 0.32 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 2 | 0.32 |
| (1,2144) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 20 | 0.32 |
| (1,2144) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 20 | 0.32 |
| (1,2144) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 20 | 0.32 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 4 | 0.32 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 11 | 0.32 |
| (1,1965) | 1:A:230:PHE:HE1 | 1:A:279:VAL:HG13 | 7 | 0.32 |
| (1,1965) | 1:A:230:PHE:HE2 | 1:A:279:VAL:HG13 | 7 | 0.32 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1760) | 1:A:324:VAL:HA | 1:A:324:VAL:HG13 | 19 | 0.32 |
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 16 | 0.32 |
| (1,1157) | 1:A:279:VAL:HA | 1:A:279:VAL:HG13 | 20 | 0.32 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 2 | 0.31 |
| (1,2259) | 1:A:269:LEU:HD11 | 1:A:291:LEU:HG | 2 | 0.31 |
| (1,2259) | 1:A:269:LEU:HD12 | 1:A:291:LEU:HG | 2 | 0.31 |
| (1,2259) | 1:A:269:LEU:HD13 | 1:A:291:LEU:HG | 2 | 0.31 |
| (1,2259) | 1:A:269:LEU:HD21 | 1:A:291:LEU:HG | 2 | 0.31 |
| (1,2259) | 1:A:269:LEU:HD22 | 1:A:291:LEU:HG | 2 | 0.31 |
| (1,2259) | 1:A:269:LEU:HD23 | 1:A:291:LEU:HG | 2 | 0.31 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD11 | 5 | 0.31 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD12 | 5 | 0.31 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD13 | 5 | 0.31 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD21 | 5 | 0.31 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD22 | 5 | 0.31 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD23 | 5 | 0.31 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB2 | 20 | 0.31 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB3 | 20 | 0.31 |
| (1,2179) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 1 | 0.31 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 17 | 0.31 |
| (1,1224) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 3 | 0.31 |
| (1,1224) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 3 | 0.31 |
| (1,1224) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 3 | 0.31 |
| (1,1156) | 1:A:279:VAL:HG13 | 1:A:288:LYS:HA | 6 | 0.31 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE1 | 2 | 0.3 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE2 | 2 | 0.3 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 20 | 0.3 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 15 | 0.3 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 15 | 0.3 |
| (1,2518) | 1:A:309:GLU:H | 1:A:324:VAL:HG13 | 20 | 0.3 |
| (1,2259) | 1:A:269:LEU:HD11 | 1:A:291:LEU:HG | 20 | 0.3 |
| (1,2259) | 1:A:269:LEU:HD12 | 1:A:291:LEU:HG | 20 | 0.3 |
| (1,2259) | 1:A:269:LEU:HD13 | 1:A:291:LEU:HG | 20 | 0.3 |
| (1,2259) | 1:A:269:LEU:HD21 | 1:A:291:LEU:HG | 20 | 0.3 |
| (1,2259) | 1:A:269:LEU:HD22 | 1:A:291:LEU:HG | 20 | 0.3 |
| (1,2259) | 1:A:269:LEU:HD23 | 1:A:291:LEU:HG | 20 | 0.3 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 12 | 0.3 |
| (1,2032) | 1:A:238:GLY:HA3 | 1:A:279:VAL:HG13 | 17 | 0.3 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 17 | 0.3 |
| (1,1961) | 1:A:230:PHE:HD1 | 1:A:279:VAL:HG13 | 3 | 0.3 |
| (1,1961) | 1:A:230:PHE:HD2 | 1:A:279:VAL:HG13 | 3 | 0.3 |
| (1,1264) | 1:A:289:VAL:HG13 | 1:A:290:THR:H | 9 | 0.3 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 17 | 0.3 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 16 | 0.29 |
| (1,2411) | 1:A:286:VAL:HG13 | 1:A:288:LYS:HA | 13 | 0.29 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 16 | 0.29 |
| (1,2259) | 1:A:269:LEU:HD11 | 1:A:291:LEU:HG | 18 | 0.29 |
| (1,2259) | 1:A:269:LEU:HD12 | 1:A:291:LEU:HG | 18 | 0.29 |
| (1,2259) | 1:A:269:LEU:HD13 | 1:A:291:LEU:HG | 18 | 0.29 |
| (1,2259) | 1:A:269:LEU:HD21 | 1:A:291:LEU:HG | 18 | 0.29 |
| (1,2259) | 1:A:269:LEU:HD22 | 1:A:291:LEU:HG | 18 | 0.29 |
| (1,2259) | 1:A:269:LEU:HD23 | 1:A:291:LEU:HG | 18 | 0.29 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 4 | 0.29 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 4 | 0.29 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 4 | 0.29 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 4 | 0.29 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 4 | 0.29 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 4 | 0.29 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 17 | 0.29 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 4 | 0.29 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 4 | 0.29 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 5 | 0.29 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 5 | 0.29 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 14 | 0.29 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 14 | 0.29 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 1 | 0.29 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 10 | 0.29 |
| (1,1740) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 2 | 0.29 |
| (1,1740) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 5 | 0.29 |
| (1,1224) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 7 | 0.29 |
| (1,1224) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 7 | 0.29 |
| (1,1224) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 7 | 0.29 |
| (1,691) | 1:A:224:LYS:HA | 1:A:245:LEU:HD11 | 10 | 0.28 |
| (1,691) | 1:A:224:LYS:HA | 1:A:245:LEU:HD12 | 10 | 0.28 |
| (1,691) | 1:A:224:LYS:HA | 1:A:245:LEU:HD13 | 10 | 0.28 |
| (1,2529) | 1:A:310:LEU:HG | 1:A:324:VAL:HG13 | 16 | 0.28 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 3 | 0.28 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 6 | 0.28 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 6 | 0.28 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 6 | 0.28 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 2 | 0.28 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 5 | 0.28 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 5 | 0.28 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 9 | 0.28 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 9 | 0.28 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 9 | 0.28 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 17 | 0.28 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 9 | 0.28 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 3 | 0.28 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 15 | 0.28 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 18 | 0.28 |
| (1,1758) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 6 | 0.28 |
| (1,1267) | 1:A:289:VAL:HG13 | 1:A:300:LEU:HA | 6 | 0.28 |
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 13 | 0.28 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 13 | 0.28 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 8 | 0.28 |
| (1,2579) | 1:A:322:PHE:HA | 1:A:324:VAL:HG13 | 19 | 0.27 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 12 | 0.27 |
| (1,2412) | 1:A:286:VAL:HG13 | 1:A:289:VAL:H | 2 | 0.27 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 3 | 0.27 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 8 | 0.27 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 5 | 0.27 |
| (1,1967) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 18 | 0.27 |
| (1,1967) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 18 | 0.27 |
| (1,949) | 1:A:262:VAL:H | 1:A:262:VAL:HG13 | 6 | 0.26 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 6 | 0.26 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 6 | 0.26 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 6 | 0.26 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 9 | 0.26 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 19 | 0.26 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 19 | 0.26 |
| (1,2515) | 1:A:308:TRP:HD1 | 1:A:324:VAL:HG13 | 6 | 0.26 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB2 | 3 | 0.26 |
| (1,2196) | 1:A:262:VAL:HG13 | 1:A:320:PHE:HB3 | 3 | 0.26 |
| (1,2034) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 14 | 0.26 |
| (1,1961) | 1:A:230:PHE:HD1 | 1:A:279:VAL:HG13 | 19 | 0.26 |
| (1,1961) | 1:A:230:PHE:HD2 | 1:A:279:VAL:HG13 | 19 | 0.26 |
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 2 | 0.26 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 2 | 0.26 |
| (1,954) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 20 | 0.25 |
| (1,947) | 1:A:262:VAL:HB | 1:A:300:LEU:H | 11 | 0.25 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 12 | 0.25 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 3 | 0.25 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB2 | 16 | 0.25 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB3 | 16 | 0.25 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD11 | 3 | 0.25 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD12 | 3 | 0.25 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD13 | 3 | 0.25 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD21 | 3 | 0.25 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD22 | 3 | 0.25 |
| (1,2188) | 1:A:262:VAL:HG13 | 1:A:264:LEU:HD23 | 3 | 0.25 |
| (1,2184) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 7 | 0.25 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 13 | 0.25 |
| (1,2146) | 1:A:254:SER:H | 1:A:262:VAL:HG13 | 9 | 0.25 |
| (1,1957) | 1:A:230:PHE:HA | 1:A:279:VAL:HG13 | 4 | 0.25 |
| (1,1740) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 14 | 0.25 |
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 2 | 0.25 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 2 | 0.25 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 2 | 0.25 |
| (1,1217) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 2 | 0.25 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE1 | 1 | 0.24 |
| (1,951) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HE2 | 1 | 0.24 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 3 | 0.24 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE2 | 14 | 0.24 |
| (1,2557) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HE3 | 14 | 0.24 |
| (1,2506) | 1:A:304:THR:HB | 1:A:324:VAL:HG13 | 2 | 0.24 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 12 | 0.24 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 12 | 0.24 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 17 | 0.24 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 17 | 0.24 |
| (1,2395) | 1:A:285:PRO:HG2 | 1:A:286:VAL:HG13 | 20 | 0.24 |
| (1,2395) | 1:A:285:PRO:HG3 | 1:A:286:VAL:HG13 | 20 | 0.24 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 3 | 0.24 |
| (1,2369) | 1:A:279:VAL:HG13 | 1:A:289:VAL:HB | 13 | 0.24 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 12 | 0.24 |
| (1,2190) | 1:A:262:VAL:HG13 | 1:A:300:LEU:H | 9 | 0.24 |
| (1,2189) | 1:A:262:VAL:HG13 | 1:A:299:GLN:HA | 18 | 0.24 |
| (1,2174) | 1:A:261:ILE:H | 1:A:262:VAL:HG13 | 2 | 0.24 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 12 | 0.24 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 20 | 0.24 |
| (1,1824) | 1:A:308:TRP:HH2 | 1:A:310:LEU:HG | 8 | 0.24 |
| (1,1824) | 1:A:308:TRP:HH2 | 1:A:310:LEU:HG | 19 | 0.24 |
| (1,1758) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 20 | 0.24 |
| (1,1153) | 1:A:279:VAL:HG13 | 1:A:289:VAL:H | 4 | 0.24 |
| (1,947) | 1:A:262:VAL:HB | 1:A:300:LEU:H | 17 | 0.23 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 6 | 0.23 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 20 | 0.23 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 20 | 0.23 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 11 | 0.23 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB2 | 16 | 0.23 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB3 | 16 | 0.23 |
| (1,2173) | 1:A:260:ILE:HD11 | 1:A:324:VAL:HG13 | 20 | 0.23 |
| (1,2173) | 1:A:260:ILE:HD12 | 1:A:324:VAL:HG13 | 20 | 0.23 |
| (1,2173) | 1:A:260:ILE:HD13 | 1:A:324:VAL:HG13 | 20 | 0.23 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 8 | 0.23 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 8 | 0.23 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 8 | 0.23 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 8 | 0.23 |
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 8 | 0.23 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 8 | 0.23 |
| (1,1224) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 16 | 0.23 |
| (1,1224) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 16 | 0.23 |
| (1,1224) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 16 | 0.23 |
| (1,947) | 1:A:262:VAL:HB | 1:A:300:LEU:H | 8 | 0.22 |
| (1,947) | 1:A:262:VAL:HB | 1:A:300:LEU:H | 9 | 0.22 |
| (1,947) | 1:A:262:VAL:HB | 1:A:300:LEU:H | 15 | 0.22 |
| (1,2591) | 1:A:324:VAL:HG13 | 1:A:325:LEU:HB2 | 10 | 0.22 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 8 | 0.22 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 19 | 0.22 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB2 | 18 | 0.22 |
| (1,2558) | 1:A:311:VAL:HG13 | 1:A:323:GLN:HB3 | 18 | 0.22 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 2 | 0.22 |
| (1,2415) | 1:A:286:VAL:HG13 | 1:A:304:THR:HA | 1 | 0.22 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 20 | 0.22 |
| (1,2224) | 1:A:265:LYS:H | 1:A:265:LYS:HG2 | 7 | 0.22 |
| (1,2224) | 1:A:265:LYS:H | 1:A:265:LYS:HG3 | 7 | 0.22 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 15 | 0.22 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 15 | 0.22 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 15 | 0.22 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 15 | 0.22 |
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 15 | 0.22 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 15 | 0.22 |
| (1,2028) | 1:A:238:GLY:H | 1:A:286:VAL:HG13 | 15 | 0.22 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 9 | 0.22 |
| (1,1824) | 1:A:308:TRP:HH2 | 1:A:310:LEU:HG | 13 | 0.22 |
| (1,1754) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 9 | 0.22 |
| (1,1754) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 9 | 0.22 |
| (1,1754) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 9 | 0.22 |
| (1,1220) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 7 | 0.22 |
| (1,1220) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 7 | 0.22 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,969) | 1:A:263:THR:HA | 1:A:264:LEU:HG | 20 | 0.21 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 12 | 0.21 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 1 | 0.21 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 1 | 0.21 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 1 | 0.21 |
| (1,745) | 1:A:251:PRO:HA | 1:A:264:LEU:HG | 13 | 0.21 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 10 | 0.21 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 13 | 0.21 |
| (1,2507) | 1:A:304:THR:HG21 | 1:A:324:VAL:HG13 | 2 | 0.21 |
| (1,2507) | 1:A:304:THR:HG22 | 1:A:324:VAL:HG13 | 2 | 0.21 |
| (1,2507) | 1:A:304:THR:HG23 | 1:A:324:VAL:HG13 | 2 | 0.21 |
| (1,2418) | 1:A:286:VAL:HG13 | 1:A:324:VAL:H | 15 | 0.21 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB2 | 1 | 0.21 |
| (1,2358) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HB3 | 1 | 0.21 |
| (1,2338) | 1:A:277:LEU:HB2 | 1:A:279:VAL:HG13 | 13 | 0.21 |
| (1,2170) | 1:A:260:ILE:HD11 | 1:A:286:VAL:HG13 | 7 | 0.21 |
| (1,2170) | 1:A:260:ILE:HD12 | 1:A:286:VAL:HG13 | 7 | 0.21 |
| (1,2170) | 1:A:260:ILE:HD13 | 1:A:286:VAL:HG13 | 7 | 0.21 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 14 | 0.21 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 5 | 0.21 |
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 19 | 0.21 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 1 | 0.21 |
| (1,1967) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 20 | 0.21 |
| (1,1967) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 20 | 0.21 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 7 | 0.21 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 7 | 0.21 |
| (1,1824) | 1:A:308:TRP:HH2 | 1:A:310:LEU:HG | 9 | 0.21 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE1 | 8 | 0.21 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE2 | 8 | 0.21 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 4 | 0.2 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 7 | 0.2 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 9 | 0.2 |
| (1,2514) | 1:A:308:TRP:HB3 | 1:A:324:VAL:HG13 | 10 | 0.2 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 6 | 0.2 |
| (1,2364) | 1:A:279:VAL:HG13 | 1:A:287:GLN:H | 19 | 0.2 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 7 | 0.2 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 7 | 0.2 |
| (1,1965) | 1:A:230:PHE:HE1 | 1:A:279:VAL:HG13 | 4 | 0.2 |
| (1,1965) | 1:A:230:PHE:HE2 | 1:A:279:VAL:HG13 | 4 | 0.2 |
| (1,1965) | 1:A:230:PHE:HE1 | 1:A:279:VAL:HG13 | 5 | 0.2 |
| (1,1965) | 1:A:230:PHE:HE2 | 1:A:279:VAL:HG13 | 5 | 0.2 |
| (1,1953) | 1:A:229:ASP:HB2 | 1:A:277:LEU:HD11 | 20 | 0.2 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1953) | 1:A:229:ASP:HB2 | 1:A:277:LEU:HD12 | 20 | 0.2 |
| (1,1953) | 1:A:229:ASP:HB2 | 1:A:277:LEU:HD13 | 20 | 0.2 |
| (1,1953) | 1:A:229:ASP:HB2 | 1:A:277:LEU:HD21 | 20 | 0.2 |
| (1,1953) | 1:A:229:ASP:HB2 | 1:A:277:LEU:HD22 | 20 | 0.2 |
| (1,1953) | 1:A:229:ASP:HB2 | 1:A:277:LEU:HD23 | 20 | 0.2 |
| (1,1824) | 1:A:308:TRP:HH2 | 1:A:310:LEU:HG | 15 | 0.2 |
| (1,1622) | 1:A:311:VAL:HB | 1:A:312:ASN:HA | 16 | 0.2 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE1 | 15 | 0.2 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE2 | 15 | 0.2 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE1 | 17 | 0.2 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE2 | 17 | 0.2 |
| (1,969) | 1:A:263:THR:HA | 1:A:264:LEU:HG | 7 | 0.19 |
| (1,969) | 1:A:263:THR:HA | 1:A:264:LEU:HG | 10 | 0.19 |
| (1,952) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 2 | 0.19 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 4 | 0.19 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 6 | 0.19 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 12 | 0.19 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 15 | 0.19 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 18 | 0.19 |
| (1,2402) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 12 | 0.19 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 18 | 0.19 |
| (1,2340) | 1:A:277:LEU:HB3 | 1:A:279:VAL:HG13 | 18 | 0.19 |
| (1,2224) | 1:A:265:LYS:H | 1:A:265:LYS:HG2 | 20 | 0.19 |
| (1,2224) | 1:A:265:LYS:H | 1:A:265:LYS:HG3 | 20 | 0.19 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 3 | 0.19 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 4 | 0.19 |
| (1,1824) | 1:A:308:TRP:HH2 | 1:A:310:LEU:HG | 2 | 0.19 |
| (1,1824) | 1:A:308:TRP:HH2 | 1:A:310:LEU:HG | 3 | 0.19 |
| (1,1824) | 1:A:308:TRP:HH2 | 1:A:310:LEU:HG | 14 | 0.19 |
| (1,1803) | 1:A:327:LYS:HB2 | 1:A:328:LYS:HA | 3 | 0.19 |
| (1,1622) | 1:A:311:VAL:HB | 1:A:312:ASN:HA | 15 | 0.19 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE1 | 3 | 0.19 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE2 | 3 | 0.19 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE1 | 6 | 0.19 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE2 | 6 | 0.19 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG21 | 7 | 0.19 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG22 | 7 | 0.19 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG23 | 7 | 0.19 |
| (1,969) | 1:A:263:THR:HA | 1:A:264:LEU:HG | 17 | 0.18 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 16 | 0.18 |
| (1,947) | 1:A:262:VAL:HB | 1:A:300:LEU:H | 10 | 0.18 |
| (1,947) | 1:A:262:VAL:HB | 1:A:300:LEU:H | 18 | 0.18 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,745) | 1:A:251:PRO:HA | 1:A:264:LEU:HG | 3 | 0.18 |
| (1,745) | 1:A:251:PRO:HA | 1:A:264:LEU:HG | 5 | 0.18 |
| (1,745) | 1:A:251:PRO:HA | 1:A:264:LEU:HG | 10 | 0.18 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 1 | 0.18 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 8 | 0.18 |
| (1,315) | 1:A:210:MET:HA | 1:A:211:ALA:H | 9 | 0.18 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 2 | 0.18 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 5 | 0.18 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 14 | 0.18 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 16 | 0.18 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 17 | 0.18 |
| (1,2351) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 2 | 0.18 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 3 | 0.18 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 6 | 0.18 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 6 | 0.18 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 6 | 0.18 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 6 | 0.18 |
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 6 | 0.18 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 6 | 0.18 |
| (1,1824) | 1:A:308:TRP:HH2 | 1:A:310:LEU:HG | 1 | 0.18 |
| (1,1824) | 1:A:308:TRP:HH2 | 1:A:310:LEU:HG | 4 | 0.18 |
| (1,1800) | 1:A:327:LYS:HA | 1:A:327:LYS:HE3 | 6 | 0.18 |
| (1,1762) | 1:A:238:GLY:HA3 | 1:A:324:VAL:HG13 | 9 | 0.18 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 15 | 0.18 |
| (1,1761) | 1:A:238:GLY:HA2 | 1:A:324:VAL:HG13 | 18 | 0.18 |
| (1,1622) | 1:A:311:VAL:HB | 1:A:312:ASN:HA | 6 | 0.18 |
| (1,1622) | 1:A:311:VAL:HB | 1:A:312:ASN:HA | 10 | 0.18 |
| (1,1616) | 1:A:311:VAL:HG13 | 1:A:323:GLN:H | 15 | 0.18 |
| (1,1616) | 1:A:311:VAL:HG13 | 1:A:323:GLN:H | 18 | 0.18 |
| (1,1224) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 20 | 0.18 |
| (1,1224) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 20 | 0.18 |
| (1,1224) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 20 | 0.18 |
| (1,1218) | 1:A:286:VAL:HG13 | 1:A:287:GLN:H | 6 | 0.18 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG21 | 9 | 0.18 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG22 | 9 | 0.18 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG23 | 9 | 0.18 |
| (1,1182) | 1:A:279:VAL:HB | 1:A:282:PHE:HB3 | 17 | 0.18 |
| (1,969) | 1:A:263:THR:HA | 1:A:264:LEU:HG | 9 | 0.17 |
| (1,948) | 1:A:262:VAL:HB | 1:A:300:LEU:HA | 11 | 0.17 |
| (1,948) | 1:A:262:VAL:HB | 1:A:300:LEU:HA | 15 | 0.17 |
| (1,745) | 1:A:251:PRO:HA | 1:A:264:LEU:HG | 20 | 0.17 |
| (1,494) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HB | 7 | 0.17 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD21 | 20 | 0.17 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD22 | 20 | 0.17 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD23 | 20 | 0.17 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 3 | 0.17 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 11 | 0.17 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 13 | 0.17 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 15 | 0.17 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 17 | 0.17 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 20 | 0.17 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 10 | 0.17 |
| (1,2590) | 1:A:324:VAL:HG13 | 1:A:325:LEU:H | 12 | 0.17 |
| (1,2584) | 1:A:323:GLN:HA | 1:A:324:VAL:HG13 | 7 | 0.17 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 11 | 0.17 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 8 | 0.17 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 8 | 0.17 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD2 | 17 | 0.17 |
| (1,2556) | 1:A:311:VAL:HG13 | 1:A:313:LYS:HD3 | 17 | 0.17 |
| (1,2544) | 1:A:310:LEU:HD11 | 1:A:324:VAL:HG13 | 19 | 0.17 |
| (1,2544) | 1:A:310:LEU:HD12 | 1:A:324:VAL:HG13 | 19 | 0.17 |
| (1,2544) | 1:A:310:LEU:HD13 | 1:A:324:VAL:HG13 | 19 | 0.17 |
| (1,2544) | 1:A:310:LEU:HD21 | 1:A:324:VAL:HG13 | 19 | 0.17 |
| (1,2544) | 1:A:310:LEU:HD22 | 1:A:324:VAL:HG13 | 19 | 0.17 |
| (1,2544) | 1:A:310:LEU:HD23 | 1:A:324:VAL:HG13 | 19 | 0.17 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 16 | 0.17 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 16 | 0.17 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD11 | 19 | 0.17 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD12 | 19 | 0.17 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD13 | 19 | 0.17 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD21 | 19 | 0.17 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD22 | 19 | 0.17 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD23 | 19 | 0.17 |
| (1,2154) | 1:A:255:GLN:HG2 | 1:A:260:ILE:HD11 | 19 | 0.17 |
| (1,2154) | 1:A:255:GLN:HG2 | 1:A:260:ILE:HD12 | 19 | 0.17 |
| (1,2154) | 1:A:255:GLN:HG2 | 1:A:260:ILE:HD13 | 19 | 0.17 |
| (1,2154) | 1:A:255:GLN:HG3 | 1:A:260:ILE:HD11 | 19 | 0.17 |
| (1,2154) | 1:A:255:GLN:HG3 | 1:A:260:ILE:HD12 | 19 | 0.17 |
| (1,2154) | 1:A:255:GLN:HG3 | 1:A:260:ILE:HD13 | 19 | 0.17 |
| (1,1967) | 1:A:230:PHE:HE1 | 1:A:286:VAL:HG13 | 19 | 0.17 |
| (1,1967) | 1:A:230:PHE:HE2 | 1:A:286:VAL:HG13 | 19 | 0.17 |
| (1,1962) | 1:A:230:PHE:HD1 | 1:A:324:VAL:HG13 | 13 | 0.17 |
| (1,1962) | 1:A:230:PHE:HD2 | 1:A:324:VAL:HG13 | 13 | 0.17 |
| (1,1958) | 1:A:230:PHE:HB2 | 1:A:279:VAL:HG13 | 20 | 0.17 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1622) | 1:A:311:VAL:HB | 1:A:312:ASN:HA | 12 | 0.17 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE1 | 14 | 0.17 |
| (1,1322) | 1:A:279:VAL:HB | 1:A:282:PHE:HE2 | 14 | 0.17 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 13 | 0.17 |
| (1,969) | 1:A:263:THR:HA | 1:A:264:LEU:HG | 11 | 0.16 |
| (1,948) | 1:A:262:VAL:HB | 1:A:300:LEU:HA | 17 | 0.16 |
| (1,947) | 1:A:262:VAL:HB | 1:A:300:LEU:H | 2 | 0.16 |
| (1,791) | 1:A:253:ILE:HD11 | 1:A:262:VAL:HG13 | 4 | 0.16 |
| (1,791) | 1:A:253:ILE:HD12 | 1:A:262:VAL:HG13 | 4 | 0.16 |
| (1,791) | 1:A:253:ILE:HD13 | 1:A:262:VAL:HG13 | 4 | 0.16 |
| (1,494) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HB | 9 | 0.16 |
| (1,484) | 1:A:237:ALA:HB1 | 1:A:325:LEU:HG | 16 | 0.16 |
| (1,484) | 1:A:237:ALA:HB2 | 1:A:325:LEU:HG | 16 | 0.16 |
| (1,484) | 1:A:237:ALA:HB3 | 1:A:325:LEU:HG | 16 | 0.16 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD21 | 12 | 0.16 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD22 | 12 | 0.16 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD23 | 12 | 0.16 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 5 | 0.16 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 18 | 0.16 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 1 | 0.16 |
| (1,258) | 1:A:242:LEU:HG | 1:A:321:THR:H | 20 | 0.16 |
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 12 | 0.16 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD11 | 16 | 0.16 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD12 | 16 | 0.16 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD13 | 16 | 0.16 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD21 | 16 | 0.16 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD22 | 16 | 0.16 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD23 | 16 | 0.16 |
| (1,2400) | 1:A:285:PRO:HD2 | 1:A:324:VAL:HG13 | 20 | 0.16 |
| (1,2400) | 1:A:285:PRO:HD3 | 1:A:324:VAL:HG13 | 20 | 0.16 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 1 | 0.16 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 1 | 0.16 |
| (1,2397) | 1:A:285:PRO:HG2 | 1:A:324:VAL:HG13 | 11 | 0.16 |
| (1,2397) | 1:A:285:PRO:HG3 | 1:A:324:VAL:HG13 | 11 | 0.16 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB2 | 17 | 0.16 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB3 | 17 | 0.16 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD11 | 19 | 0.16 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD12 | 19 | 0.16 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD13 | 19 | 0.16 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD21 | 19 | 0.16 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD22 | 19 | 0.16 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD23 | 19 | 0.16 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2031) | 1:A:238:GLY:HA2 | 1:A:286:VAL:HG13 | 4 | 0.16 |
| (1,2029) | 1:A:238:GLY:H | 1:A:324:VAL:HG13 | 8 | 0.16 |
| (1,1961) | 1:A:230:PHE:HD1 | 1:A:279:VAL:HG13 | 6 | 0.16 |
| (1,1961) | 1:A:230:PHE:HD2 | 1:A:279:VAL:HG13 | 6 | 0.16 |
| (1,1804) | 1:A:328:LYS:HA | 1:A:329:GLN:H | 13 | 0.16 |
| (1,1803) | 1:A:327:LYS:HB2 | 1:A:328:LYS:HA | 1 | 0.16 |
| (1,1803) | 1:A:327:LYS:HB2 | 1:A:328:LYS:HA | 5 | 0.16 |
| (1,1778) | 1:A:307:ASN:HB2 | 1:A:327:LYS:HA | 2 | 0.16 |
| (1,1622) | 1:A:311:VAL:HB | 1:A:312:ASN:HA | 4 | 0.16 |
| (1,1622) | 1:A:311:VAL:HB | 1:A:312:ASN:HA | 8 | 0.16 |
| (1,1345) | 1:A:294:LEU:HG | 1:A:295:ASN:HB2 | 12 | 0.16 |
| (1,1224) | 1:A:240:ILE:HD11 | 1:A:286:VAL:HG13 | 9 | 0.16 |
| (1,1224) | 1:A:240:ILE:HD12 | 1:A:286:VAL:HG13 | 9 | 0.16 |
| (1,1224) | 1:A:240:ILE:HD13 | 1:A:286:VAL:HG13 | 9 | 0.16 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG21 | 14 | 0.16 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG22 | 14 | 0.16 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG23 | 14 | 0.16 |
| (1,969) | 1:A:263:THR:HA | 1:A:264:LEU:HG | 2 | 0.15 |
| (1,969) | 1:A:263:THR:HA | 1:A:264:LEU:HG | 13 | 0.15 |
| (1,969) | 1:A:263:THR:HA | 1:A:264:LEU:HG | 15 | 0.15 |
| (1,948) | 1:A:262:VAL:HB | 1:A:300:LEU:HA | 2 | 0.15 |
| (1,948) | 1:A:262:VAL:HB | 1:A:300:LEU:HA | 8 | 0.15 |
| (1,948) | 1:A:262:VAL:HB | 1:A:300:LEU:HA | 9 | 0.15 |
| (1,948) | 1:A:262:VAL:HB | 1:A:300:LEU:HA | 18 | 0.15 |
| (1,947) | 1:A:262:VAL:HB | 1:A:300:LEU:H | 1 | 0.15 |
| (1,745) | 1:A:251:PRO:HA | 1:A:264:LEU:HG | 7 | 0.15 |
| (1,745) | 1:A:251:PRO:HA | 1:A:264:LEU:HG | 17 | 0.15 |
| (1,700) | 1:A:245:LEU:HD21 | 1:A:267:HIS:HE1 | 10 | 0.15 |
| (1,700) | 1:A:245:LEU:HD22 | 1:A:267:HIS:HE1 | 10 | 0.15 |
| (1,700) | 1:A:245:LEU:HD23 | 1:A:267:HIS:HE1 | 10 | 0.15 |
| (1,484) | 1:A:237:ALA:HB1 | 1:A:325:LEU:HG | 1 | 0.15 |
| (1,484) | 1:A:237:ALA:HB2 | 1:A:325:LEU:HG | 1 | 0.15 |
| (1,484) | 1:A:237:ALA:HB3 | 1:A:325:LEU:HG | 1 | 0.15 |
| (1,484) | 1:A:237:ALA:HB1 | 1:A:325:LEU:HG | 2 | 0.15 |
| (1,484) | 1:A:237:ALA:HB2 | 1:A:325:LEU:HG | 2 | 0.15 |
| (1,484) | 1:A:237:ALA:HB3 | 1:A:325:LEU:HG | 2 | 0.15 |
| (1,484) | 1:A:237:ALA:HB1 | 1:A:325:LEU:HG | 8 | 0.15 |
| (1,484) | 1:A:237:ALA:HB2 | 1:A:325:LEU:HG | 8 | 0.15 |
| (1,484) | 1:A:237:ALA:HB3 | 1:A:325:LEU:HG | 8 | 0.15 |
| (1,450) | 1:A:232:LYS:HG3 | 1:A:238:GLY:HA2 | 14 | 0.15 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 6 | 0.15 |
| (1,2517) | 1:A:308:TRP:HH2 | 1:A:324:VAL:HG13 | 14 | 0.15 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2512) | 1:A:308:TRP:HA | 1:A:324:VAL:HG13 | 20 | 0.15 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB2 | 8 | 0.15 |
| (1,2408) | 1:A:286:VAL:HG13 | 1:A:287:GLN:HB3 | 8 | 0.15 |
| (1,2405) | 1:A:286:VAL:HB | 1:A:324:VAL:HG13 | 14 | 0.15 |
| (1,2394) | 1:A:285:PRO:HB3 | 1:A:324:VAL:HG13 | 10 | 0.15 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 8 | 0.15 |
| (1,2359) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 8 | 0.15 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 18 | 0.15 |
| (1,2231) | 1:A:265:LYS:HG2 | 1:A:266:ASN:H | 11 | 0.15 |
| (1,2231) | 1:A:265:LYS:HG3 | 1:A:266:ASN:H | 11 | 0.15 |
| (1,2192) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HG | 10 | 0.15 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD11 | 9 | 0.15 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD12 | 9 | 0.15 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD13 | 9 | 0.15 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD21 | 9 | 0.15 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD22 | 9 | 0.15 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD23 | 9 | 0.15 |
| (1,2134) | 1:A:253:ILE:HA | 1:A:262:VAL:HG13 | 7 | 0.15 |
| (1,210) | 1:A:300:LEU:HG | 1:A:301:ILE:H | 19 | 0.15 |
| (1,2080) | 1:A:242:LEU:HD11 | 1:A:262:VAL:HG13 | 11 | 0.15 |
| (1,2080) | 1:A:242:LEU:HD12 | 1:A:262:VAL:HG13 | 11 | 0.15 |
| (1,2080) | 1:A:242:LEU:HD13 | 1:A:262:VAL:HG13 | 11 | 0.15 |
| (1,2080) | 1:A:242:LEU:HD21 | 1:A:262:VAL:HG13 | 11 | 0.15 |
| (1,2080) | 1:A:242:LEU:HD22 | 1:A:262:VAL:HG13 | 11 | 0.15 |
| (1,2080) | 1:A:242:LEU:HD23 | 1:A:262:VAL:HG13 | 11 | 0.15 |
| (1,1972) | 1:A:231:ARG:HA | 1:A:279:VAL:HG13 | 10 | 0.15 |
| (1,1860) | 1:A:293:ARG:H | 1:A:293:ARG:HG3 | 4 | 0.15 |
| (1,1803) | 1:A:327:LYS:HB2 | 1:A:328:LYS:HA | 2 | 0.15 |
| (1,1803) | 1:A:327:LYS:HB2 | 1:A:328:LYS:HA | 8 | 0.15 |
| (1,1622) | 1:A:311:VAL:HB | 1:A:312:ASN:HA | 3 | 0.15 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG21 | 2 | 0.15 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG22 | 2 | 0.15 |
| (1,1194) | 1:A:284:THR:HA | 1:A:284:THR:HG23 | 2 | 0.15 |
| (1,1182) | 1:A:279:VAL:HB | 1:A:282:PHE:HB3 | 6 | 0.15 |
| (1,1182) | 1:A:279:VAL:HB | 1:A:282:PHE:HB3 | 8 | 0.15 |
| (1,1182) | 1:A:279:VAL:HB | 1:A:282:PHE:HB3 | 14 | 0.15 |
| (1,1145) | 1:A:277:LEU:HG | 1:A:289:VAL:HA | 13 | 0.15 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 3 | 0.15 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 9 | 0.15 |
| (1,1019) | 1:A:264:LEU:HD21 | 1:A:267:HIS:HB2 | 20 | 0.15 |
| (1,1019) | 1:A:264:LEU:HD22 | 1:A:267:HIS:HB2 | 20 | 0.15 |
| (1,1019) | 1:A:264:LEU:HD23 | 1:A:267:HIS:HB2 | 20 | 0.15 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,969) | 1:A:263:THR:HA | 1:A:264:LEU:HG | 5 | 0.14 |
| (1,969) | 1:A:263:THR:HA | 1:A:264:LEU:HG | 12 | 0.14 |
| (1,948) | 1:A:262:VAL:HB | 1:A:300:LEU:HA | 19 | 0.14 |
| (1,947) | 1:A:262:VAL:HB | 1:A:300:LEU:H | 13 | 0.14 |
| (1,749) | 1:A:251:PRO:HB3 | 1:A:264:LEU:HB3 | 7 | 0.14 |
| (1,745) | 1:A:251:PRO:HA | 1:A:264:LEU:HG | 9 | 0.14 |
| (1,745) | 1:A:251:PRO:HA | 1:A:264:LEU:HG | 11 | 0.14 |
| (1,484) | 1:A:237:ALA:HB1 | 1:A:325:LEU:HG | 4 | 0.14 |
| (1,484) | 1:A:237:ALA:HB2 | 1:A:325:LEU:HG | 4 | 0.14 |
| (1,484) | 1:A:237:ALA:HB3 | 1:A:325:LEU:HG | 4 | 0.14 |
| (1,484) | 1:A:237:ALA:HB1 | 1:A:325:LEU:HG | 9 | 0.14 |
| (1,484) | 1:A:237:ALA:HB2 | 1:A:325:LEU:HG | 9 | 0.14 |
| (1,484) | 1:A:237:ALA:HB3 | 1:A:325:LEU:HG | 9 | 0.14 |
| (1,484) | 1:A:237:ALA:HB1 | 1:A:325:LEU:HG | 14 | 0.14 |
| (1,484) | 1:A:237:ALA:HB2 | 1:A:325:LEU:HG | 14 | 0.14 |
| (1,484) | 1:A:237:ALA:HB3 | 1:A:325:LEU:HG | 14 | 0.14 |
| (1,484) | 1:A:237:ALA:HB1 | 1:A:325:LEU:HG | 17 | 0.14 |
| (1,484) | 1:A:237:ALA:HB2 | 1:A:325:LEU:HG | 17 | 0.14 |
| (1,484) | 1:A:237:ALA:HB3 | 1:A:325:LEU:HG | 17 | 0.14 |
| (1,407) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HB | 3 | 0.14 |
| (1,407) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HB | 17 | 0.14 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 19 | 0.14 |
| (1,2553) | 1:A:311:VAL:HG13 | 1:A:313:LYS:H | 3 | 0.14 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD11 | 3 | 0.14 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD12 | 3 | 0.14 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD13 | 3 | 0.14 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD21 | 3 | 0.14 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD22 | 3 | 0.14 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD23 | 3 | 0.14 |
| (1,2347) | 1:A:278:ASP:H | 1:A:279:VAL:HG13 | 12 | 0.14 |
| (1,2231) | 1:A:265:LYS:HG2 | 1:A:266:ASN:H | 3 | 0.14 |
| (1,2231) | 1:A:265:LYS:HG3 | 1:A:266:ASN:H | 3 | 0.14 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB2 | 6 | 0.14 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB3 | 6 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD11 | 8 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD12 | 8 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD13 | 8 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD21 | 8 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD22 | 8 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD23 | 8 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD11 | 15 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD12 | 15 | 0.14 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD13 | 15 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD21 | 15 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD22 | 15 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD23 | 15 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD11 | 17 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD12 | 17 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD13 | 17 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD21 | 17 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD22 | 17 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD23 | 17 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD11 | 18 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD12 | 18 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD13 | 18 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD21 | 18 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD22 | 18 | 0.14 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD23 | 18 | 0.14 |
| (1,2131) | 1:A:252:ASP:H | 1:A:262:VAL:HG13 | 7 | 0.14 |
| (1,2128) | 1:A:251:PRO:HD2 | 1:A:262:VAL:HG13 | 20 | 0.14 |
| (1,2128) | 1:A:251:PRO:HD3 | 1:A:262:VAL:HG13 | 20 | 0.14 |
| (1,2125) | 1:A:251:PRO:HG3 | 1:A:262:VAL:HG13 | 5 | 0.14 |
| (1,1860) | 1:A:293:ARG:H | 1:A:293:ARG:HG3 | 15 | 0.14 |
| (1,1400) | 1:A:291:LEU:HB2 | 1:A:300:LEU:HG | 18 | 0.14 |
| (1,1345) | 1:A:294:LEU:HG | 1:A:295:ASN:HB2 | 14 | 0.14 |
| (1,1266) | 1:A:230:PHE:HD1 | 1:A:289:VAL:HG13 | 10 | 0.14 |
| (1,1266) | 1:A:230:PHE:HD2 | 1:A:289:VAL:HG13 | 10 | 0.14 |
| (1,1264) | 1:A:289:VAL:HG13 | 1:A:290:THR:H | 16 | 0.14 |
| (1,1214) | 1:A:284:THR:HG21 | 1:A:286:VAL:HB | 16 | 0.14 |
| (1,1214) | 1:A:284:THR:HG22 | 1:A:286:VAL:HB | 16 | 0.14 |
| (1,1214) | 1:A:284:THR:HG23 | 1:A:286:VAL:HB | 16 | 0.14 |
| (1,1182) | 1:A:279:VAL:HB | 1:A:282:PHE:HB3 | 3 | 0.14 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 20 | 0.14 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 20 | 0.14 |
| (1,1154) | 1:A:279:VAL:HG13 | 1:A:280:ALA:H | 17 | 0.14 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 12 | 0.14 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 15 | 0.14 |
| (1,1019) | 1:A:264:LEU:HD21 | 1:A:267:HIS:HB2 | 7 | 0.14 |
| (1,1019) | 1:A:264:LEU:HD22 | 1:A:267:HIS:HB2 | 7 | 0.14 |
| (1,1019) | 1:A:264:LEU:HD23 | 1:A:267:HIS:HB2 | 7 | 0.14 |
| (1,1019) | 1:A:264:LEU:HD21 | 1:A:267:HIS:HB2 | 15 | 0.14 |
| (1,1019) | 1:A:264:LEU:HD22 | 1:A:267:HIS:HB2 | 15 | 0.14 |
| (1,1019) | 1:A:264:LEU:HD23 | 1:A:267:HIS:HB2 | 15 | 0.14 |
| (1,969) | 1:A:263:THR:HA | 1:A:264:LEU:HG | 3 | 0.13 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,952) | 1:A:262:VAL:HG13 | 1:A:322:PHE:HZ | 17 | 0.13 |
| (1,948) | 1:A:262:VAL:HB | 1:A:300:LEU:HA | 10 | 0.13 |
| (1,745) | 1:A:251:PRO:HA | 1:A:264:LEU:HG | 12 | 0.13 |
| (1,393) | 1:A:229:ASP:HB2 | 1:A:242:LEU:H | 10 | 0.13 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG21 | 7 | 0.13 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG22 | 7 | 0.13 |
| (1,2416) | 1:A:286:VAL:HG13 | 1:A:304:THR:HG23 | 7 | 0.13 |
| (1,2392) | 1:A:285:PRO:HB2 | 1:A:286:VAL:HG13 | 19 | 0.13 |
| (1,2390) | 1:A:285:PRO:HA | 1:A:286:VAL:HG13 | 19 | 0.13 |
| (1,2321) | 1:A:275:ARG:HD2 | 1:A:277:LEU:HA | 8 | 0.13 |
| (1,2321) | 1:A:275:ARG:HD3 | 1:A:277:LEU:HA | 8 | 0.13 |
| (1,2299) | 1:A:274:GLN:HA | 1:A:293:ARG:HB2 | 6 | 0.13 |
| (1,2299) | 1:A:274:GLN:HA | 1:A:293:ARG:HB3 | 6 | 0.13 |
| (1,2226) | 1:A:265:LYS:HA | 1:A:265:LYS:HD2 | 5 | 0.13 |
| (1,2226) | 1:A:265:LYS:HA | 1:A:265:LYS:HD3 | 5 | 0.13 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB2 | 9 | 0.13 |
| (1,2191) | 1:A:262:VAL:HG13 | 1:A:300:LEU:HB3 | 9 | 0.13 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD11 | 11 | 0.13 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD12 | 11 | 0.13 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD13 | 11 | 0.13 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD21 | 11 | 0.13 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD22 | 11 | 0.13 |
| (1,2183) | 1:A:262:VAL:HB | 1:A:300:LEU:HD23 | 11 | 0.13 |
| (1,2166) | 1:A:256:GLN:HE21 | 1:A:261:ILE:HD11 | 14 | 0.13 |
| (1,2166) | 1:A:256:GLN:HE21 | 1:A:261:ILE:HD12 | 14 | 0.13 |
| (1,2166) | 1:A:256:GLN:HE21 | 1:A:261:ILE:HD13 | 14 | 0.13 |
| (1,2166) | 1:A:256:GLN:HE22 | 1:A:261:ILE:HD11 | 14 | 0.13 |
| (1,2166) | 1:A:256:GLN:HE22 | 1:A:261:ILE:HD12 | 14 | 0.13 |
| (1,2166) | 1:A:256:GLN:HE22 | 1:A:261:ILE:HD13 | 14 | 0.13 |
| (1,210) | 1:A:300:LEU:HG | 1:A:301:ILE:H | 20 | 0.13 |
| (1,2003) | 1:A:232:LYS:HE2 | 1:A:282:PHE:HA | 4 | 0.13 |
| (1,2003) | 1:A:232:LYS:HE3 | 1:A:282:PHE:HA | 4 | 0.13 |
| (1,2003) | 1:A:232:LYS:HE2 | 1:A:282:PHE:HA | 10 | 0.13 |
| (1,2003) | 1:A:232:LYS:HE3 | 1:A:282:PHE:HA | 10 | 0.13 |
| (1,1938) | 1:A:227:ASN:HB2 | 1:A:273:LEU:HG | 1 | 0.13 |
| (1,1938) | 1:A:227:ASN:HB3 | 1:A:273:LEU:HG | 1 | 0.13 |
| (1,1938) | 1:A:227:ASN:HB2 | 1:A:273:LEU:HG | 14 | 0.13 |
| (1,1938) | 1:A:227:ASN:HB3 | 1:A:273:LEU:HG | 14 | 0.13 |
| (1,1916) | 1:A:226:THR:H | 1:A:273:LEU:HD11 | 12 | 0.13 |
| (1,1916) | 1:A:226:THR:H | 1:A:273:LEU:HD12 | 12 | 0.13 |
| (1,1916) | 1:A:226:THR:H | 1:A:273:LEU:HD13 | 12 | 0.13 |
| (1,1916) | 1:A:226:THR:H | 1:A:273:LEU:HD21 | 12 | 0.13 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1916) | 1:A:226:THR:H | 1:A:273:LEU:HD22 | 12 | 0.13 |
| (1,1916) | 1:A:226:THR:H | 1:A:273:LEU:HD23 | 12 | 0.13 |
| (1,1827) | 1:A:310:LEU:HG | 1:A:311:VAL:H | 18 | 0.13 |
| (1,1622) | 1:A:311:VAL:HB | 1:A:312:ASN:HA | 9 | 0.13 |
| (1,155) | 1:A:286:VAL:H | 1:A:286:VAL:HB | 18 | 0.13 |
| (1,1402) | 1:A:301:ILE:H | 1:A:301:ILE:HD11 | 19 | 0.13 |
| (1,1402) | 1:A:301:ILE:H | 1:A:301:ILE:HD12 | 19 | 0.13 |
| (1,1402) | 1:A:301:ILE:H | 1:A:301:ILE:HD13 | 19 | 0.13 |
| (1,135) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 1 | 0.13 |
| (1,1231) | 1:A:279:VAL:HG13 | 1:A:280:ALA:HA | 14 | 0.13 |
| (1,1214) | 1:A:284:THR:HG21 | 1:A:286:VAL:HB | 3 | 0.13 |
| (1,1214) | 1:A:284:THR:HG22 | 1:A:286:VAL:HB | 3 | 0.13 |
| (1,1214) | 1:A:284:THR:HG23 | 1:A:286:VAL:HB | 3 | 0.13 |
| (1,1214) | 1:A:284:THR:HG21 | 1:A:286:VAL:HB | 19 | 0.13 |
| (1,1214) | 1:A:284:THR:HG22 | 1:A:286:VAL:HB | 19 | 0.13 |
| (1,1214) | 1:A:284:THR:HG23 | 1:A:286:VAL:HB | 19 | 0.13 |
| (1,1214) | 1:A:284:THR:HG21 | 1:A:286:VAL:HB | 20 | 0.13 |
| (1,1214) | 1:A:284:THR:HG22 | 1:A:286:VAL:HB | 20 | 0.13 |
| (1,1214) | 1:A:284:THR:HG23 | 1:A:286:VAL:HB | 20 | 0.13 |
| (1,1182) | 1:A:279:VAL:HB | 1:A:282:PHE:HB3 | 15 | 0.13 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 4 | 0.13 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 5 | 0.13 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 10 | 0.13 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 13 | 0.13 |
| (1,1019) | 1:A:264:LEU:HD21 | 1:A:267:HIS:HB2 | 11 | 0.13 |
| (1,1019) | 1:A:264:LEU:HD22 | 1:A:267:HIS:HB2 | 11 | 0.13 |
| (1,1019) | 1:A:264:LEU:HD23 | 1:A:267:HIS:HB2 | 11 | 0.13 |
| (1,1019) | 1:A:264:LEU:HD21 | 1:A:267:HIS:HB2 | 13 | 0.13 |
| (1,1019) | 1:A:264:LEU:HD22 | 1:A:267:HIS:HB2 | 13 | 0.13 |
| (1,1019) | 1:A:264:LEU:HD23 | 1:A:267:HIS:HB2 | 13 | 0.13 |
| (1,948) | 1:A:262:VAL:HB | 1:A:300:LEU:HA | 1 | 0.12 |
| (1,948) | 1:A:262:VAL:HB | 1:A:300:LEU:HA | 13 | 0.12 |
| (1,749) | 1:A:251:PRO:HB3 | 1:A:264:LEU:HB3 | 10 | 0.12 |
| (1,749) | 1:A:251:PRO:HB3 | 1:A:264:LEU:HB3 | 15 | 0.12 |
| (1,745) | 1:A:251:PRO:HA | 1:A:264:LEU:HG | 2 | 0.12 |
| (1,745) | 1:A:251:PRO:HA | 1:A:264:LEU:HG | 15 | 0.12 |
| (1,700) | 1:A:245:LEU:HD21 | 1:A:267:HIS:HE1 | 4 | 0.12 |
| (1,700) | 1:A:245:LEU:HD22 | 1:A:267:HIS:HE1 | 4 | 0.12 |
| (1,700) | 1:A:245:LEU:HD23 | 1:A:267:HIS:HE1 | 4 | 0.12 |
| (1,484) | 1:A:237:ALA:HB1 | 1:A:325:LEU:HG | 3 | 0.12 |
| (1,484) | 1:A:237:ALA:HB2 | 1:A:325:LEU:HG | 3 | 0.12 |
| (1,484) | 1:A:237:ALA:HB3 | 1:A:325:LEU:HG | 3 | 0.12 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,484) | 1:A:237:ALA:HB1 | 1:A:325:LEU:HG | 15 | 0.12 |
| (1,484) | 1:A:237:ALA:HB2 | 1:A:325:LEU:HG | 15 | 0.12 |
| (1,484) | 1:A:237:ALA:HB3 | 1:A:325:LEU:HG | 15 | 0.12 |
| (1,484) | 1:A:237:ALA:HB1 | 1:A:325:LEU:HG | 20 | 0.12 |
| (1,484) | 1:A:237:ALA:HB2 | 1:A:325:LEU:HG | 20 | 0.12 |
| (1,484) | 1:A:237:ALA:HB3 | 1:A:325:LEU:HG | 20 | 0.12 |
| (1,407) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HB | 6 | 0.12 |
| (1,393) | 1:A:229:ASP:HB2 | 1:A:242:LEU:H | 15 | 0.12 |
| (1,393) | 1:A:229:ASP:HB2 | 1:A:242:LEU:H | 19 | 0.12 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD21 | 8 | 0.12 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD22 | 8 | 0.12 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD23 | 8 | 0.12 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 12 | 0.12 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 16 | 0.12 |
| (1,2402) | 1:A:286:VAL:H | 1:A:324:VAL:HG13 | 7 | 0.12 |
| (1,2329) | 1:A:276:SER:HB2 | 1:A:289:VAL:HG13 | 6 | 0.12 |
| (1,2329) | 1:A:276:SER:HB3 | 1:A:289:VAL:HG13 | 6 | 0.12 |
| (1,2226) | 1:A:265:LYS:HA | 1:A:265:LYS:HD2 | 6 | 0.12 |
| (1,2226) | 1:A:265:LYS:HA | 1:A:265:LYS:HD3 | 6 | 0.12 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD11 | 18 | 0.12 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD12 | 18 | 0.12 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD13 | 18 | 0.12 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD21 | 18 | 0.12 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD22 | 18 | 0.12 |
| (1,2181) | 1:A:262:VAL:HB | 1:A:264:LEU:HD23 | 18 | 0.12 |
| (1,210) | 1:A:300:LEU:HG | 1:A:301:ILE:H | 2 | 0.12 |
| (1,210) | 1:A:300:LEU:HG | 1:A:301:ILE:H | 10 | 0.12 |
| (1,2003) | 1:A:232:LYS:HE2 | 1:A:282:PHE:HA | 11 | 0.12 |
| (1,2003) | 1:A:232:LYS:HE3 | 1:A:282:PHE:HA | 11 | 0.12 |
| (1,2003) | 1:A:232:LYS:HE2 | 1:A:282:PHE:HA | 13 | 0.12 |
| (1,2003) | 1:A:232:LYS:HE3 | 1:A:282:PHE:HA | 13 | 0.12 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 5 | 0.12 |
| (1,1803) | 1:A:327:LYS:HB2 | 1:A:328:LYS:HA | 20 | 0.12 |
| (1,1765) | 1:A:323:GLN:HA | 1:A:325:LEU:HD11 | 6 | 0.12 |
| (1,1765) | 1:A:323:GLN:HA | 1:A:325:LEU:HD12 | 6 | 0.12 |
| (1,1765) | 1:A:323:GLN:HA | 1:A:325:LEU:HD13 | 6 | 0.12 |
| (1,1765) | 1:A:323:GLN:HA | 1:A:325:LEU:HD11 | 10 | 0.12 |
| (1,1765) | 1:A:323:GLN:HA | 1:A:325:LEU:HD12 | 10 | 0.12 |
| (1,1765) | 1:A:323:GLN:HA | 1:A:325:LEU:HD13 | 10 | 0.12 |
| (1,1635) | 1:A:312:ASN:HB3 | 1:A:322:PHE:HA | 13 | 0.12 |
| (1,1446) | 1:A:262:VAL:HB | 1:A:302:ILE:HD11 | 19 | 0.12 |
| (1,1446) | 1:A:262:VAL:HB | 1:A:302:ILE:HD12 | 19 | 0.12 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1446) | 1:A:262:VAL:HB | 1:A:302:ILE:HD13 | 19 | 0.12 |
| (1,1389) | 1:A:299:GLN:HB3 | 1:A:300:LEU:H | 11 | 0.12 |
| (1,1359) | 1:A:264:LEU:H | 1:A:297:ASP:HA | 5 | 0.12 |
| (1,1359) | 1:A:264:LEU:H | 1:A:297:ASP:HA | 6 | 0.12 |
| (1,135) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 4 | 0.12 |
| (1,1214) | 1:A:284:THR:HG21 | 1:A:286:VAL:HB | 6 | 0.12 |
| (1,1214) | 1:A:284:THR:HG22 | 1:A:286:VAL:HB | 6 | 0.12 |
| (1,1214) | 1:A:284:THR:HG23 | 1:A:286:VAL:HB | 6 | 0.12 |
| (1,1200) | 1:A:283:LYS:HB3 | 1:A:284:THR:HG21 | 9 | 0.12 |
| (1,1200) | 1:A:283:LYS:HB3 | 1:A:284:THR:HG22 | 9 | 0.12 |
| (1,1200) | 1:A:283:LYS:HB3 | 1:A:284:THR:HG23 | 9 | 0.12 |
| (1,1200) | 1:A:283:LYS:HB3 | 1:A:284:THR:HG21 | 10 | 0.12 |
| (1,1200) | 1:A:283:LYS:HB3 | 1:A:284:THR:HG22 | 10 | 0.12 |
| (1,1200) | 1:A:283:LYS:HB3 | 1:A:284:THR:HG23 | 10 | 0.12 |
| (1,1200) | 1:A:283:LYS:HB3 | 1:A:284:THR:HG21 | 18 | 0.12 |
| (1,1200) | 1:A:283:LYS:HB3 | 1:A:284:THR:HG22 | 18 | 0.12 |
| (1,1200) | 1:A:283:LYS:HB3 | 1:A:284:THR:HG23 | 18 | 0.12 |
| (1,1182) | 1:A:279:VAL:HB | 1:A:282:PHE:HB3 | 11 | 0.12 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 1 | 0.12 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 6 | 0.12 |
| (1,1019) | 1:A:264:LEU:HD21 | 1:A:267:HIS:HB2 | 2 | 0.12 |
| (1,1019) | 1:A:264:LEU:HD22 | 1:A:267:HIS:HB2 | 2 | 0.12 |
| (1,1019) | 1:A:264:LEU:HD23 | 1:A:267:HIS:HB2 | 2 | 0.12 |
| (1,1019) | 1:A:264:LEU:HD21 | 1:A:267:HIS:HB2 | 9 | 0.12 |
| (1,1019) | 1:A:264:LEU:HD22 | 1:A:267:HIS:HB2 | 9 | 0.12 |
| (1,1019) | 1:A:264:LEU:HD23 | 1:A:267:HIS:HB2 | 9 | 0.12 |
| (1,1019) | 1:A:264:LEU:HD21 | 1:A:267:HIS:HB2 | 17 | 0.12 |
| (1,1019) | 1:A:264:LEU:HD22 | 1:A:267:HIS:HB2 | 17 | 0.12 |
| (1,1019) | 1:A:264:LEU:HD23 | 1:A:267:HIS:HB2 | 17 | 0.12 |
| (1,950) | 1:A:262:VAL:HG13 | 1:A:263:THR:H | 4 | 0.11 |
| (1,947) | 1:A:262:VAL:HB | 1:A:300:LEU:H | 19 | 0.11 |
| (1,946) | 1:A:262:VAL:HB | 1:A:300:LEU:HG | 13 | 0.11 |
| (1,749) | 1:A:251:PRO:HB3 | 1:A:264:LEU:HB3 | 3 | 0.11 |
| (1,749) | 1:A:251:PRO:HB3 | 1:A:264:LEU:HB3 | 5 | 0.11 |
| (1,749) | 1:A:251:PRO:HB3 | 1:A:264:LEU:HB3 | 12 | 0.11 |
| (1,749) | 1:A:251:PRO:HB3 | 1:A:264:LEU:HB3 | 13 | 0.11 |
| (1,718) | 1:A:246:GLY:HA2 | 1:A:267:HIS:HE1 | 13 | 0.11 |
| (1,710) | 1:A:226:THR:H | 1:A:245:LEU:HG | 10 | 0.11 |
| (1,644) | 1:A:227:ASN:HD22 | 1:A:243:ALA:HB1 | 4 | 0.11 |
| (1,644) | 1:A:227:ASN:HD22 | 1:A:243:ALA:HB2 | 4 | 0.11 |
| (1,644) | 1:A:227:ASN:HD22 | 1:A:243:ALA:HB3 | 4 | 0.11 |
| (1,644) | 1:A:227:ASN:HD22 | 1:A:243:ALA:HB1 | 13 | 0.11 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,644) | 1:A:227:ASN:HD22 | 1:A:243:ALA:HB2 | 13 | 0.11 |
| (1,644) | 1:A:227:ASN:HD22 | 1:A:243:ALA:HB3 | 13 | 0.11 |
| (1,393) | 1:A:229:ASP:HB2 | 1:A:242:LEU:H | 1 | 0.11 |
| (1,393) | 1:A:229:ASP:HB2 | 1:A:242:LEU:H | 17 | 0.11 |
| (1,393) | 1:A:229:ASP:HB2 | 1:A:242:LEU:H | 20 | 0.11 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD21 | 18 | 0.11 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD22 | 18 | 0.11 |
| (1,357) | 1:A:228:ILE:HA | 1:A:291:LEU:HD23 | 18 | 0.11 |
| (1,325) | 1:A:232:LYS:HD3 | 1:A:284:THR:HB | 10 | 0.11 |
| (1,280) | 1:A:311:VAL:HB | 1:A:325:LEU:H | 8 | 0.11 |
| (1,280) | 1:A:311:VAL:HB | 1:A:325:LEU:H | 9 | 0.11 |
| (1,280) | 1:A:311:VAL:HB | 1:A:325:LEU:H | 16 | 0.11 |
| (1,2478) | 1:A:294:LEU:HB3 | 1:A:299:GLN:HG2 | 14 | 0.11 |
| (1,2478) | 1:A:294:LEU:HB3 | 1:A:299:GLN:HG3 | 14 | 0.11 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD11 | 6 | 0.11 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD12 | 6 | 0.11 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD13 | 6 | 0.11 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD21 | 6 | 0.11 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD22 | 6 | 0.11 |
| (1,2457) | 1:A:291:LEU:HG | 1:A:300:LEU:HD23 | 6 | 0.11 |
| (1,2413) | 1:A:286:VAL:HG13 | 1:A:289:VAL:HA | 13 | 0.11 |
| (1,2345) | 1:A:277:LEU:HD11 | 1:A:279:VAL:HG13 | 7 | 0.11 |
| (1,2345) | 1:A:277:LEU:HD12 | 1:A:279:VAL:HG13 | 7 | 0.11 |
| (1,2345) | 1:A:277:LEU:HD13 | 1:A:279:VAL:HG13 | 7 | 0.11 |
| (1,2345) | 1:A:277:LEU:HD21 | 1:A:279:VAL:HG13 | 7 | 0.11 |
| (1,2345) | 1:A:277:LEU:HD22 | 1:A:279:VAL:HG13 | 7 | 0.11 |
| (1,2345) | 1:A:277:LEU:HD23 | 1:A:279:VAL:HG13 | 7 | 0.11 |
| (1,2341) | 1:A:277:LEU:HG | 1:A:279:VAL:HG13 | 11 | 0.11 |
| (1,2334) | 1:A:277:LEU:H | 1:A:279:VAL:HG13 | 13 | 0.11 |
| (1,2328) | 1:A:276:SER:HB2 | 1:A:288:LYS:HE2 | 5 | 0.11 |
| (1,2328) | 1:A:276:SER:HB2 | 1:A:288:LYS:HE3 | 5 | 0.11 |
| (1,2328) | 1:A:276:SER:HB3 | 1:A:288:LYS:HE2 | 5 | 0.11 |
| (1,2328) | 1:A:276:SER:HB3 | 1:A:288:LYS:HE3 | 5 | 0.11 |
| (1,2233) | 1:A:265:LYS:HE2 | 1:A:266:ASN:H | 20 | 0.11 |
| (1,2233) | 1:A:265:LYS:HE3 | 1:A:266:ASN:H | 20 | 0.11 |
| (1,2226) | 1:A:265:LYS:HA | 1:A:265:LYS:HD2 | 10 | 0.11 |
| (1,2226) | 1:A:265:LYS:HA | 1:A:265:LYS:HD3 | 10 | 0.11 |
| (1,2211) | 1:A:264:LEU:HD11 | 1:A:265:LYS:HB2 | 14 | 0.11 |
| (1,2211) | 1:A:264:LEU:HD12 | 1:A:265:LYS:HB2 | 14 | 0.11 |
| (1,2211) | 1:A:264:LEU:HD13 | 1:A:265:LYS:HB2 | 14 | 0.11 |
| (1,2211) | 1:A:264:LEU:HD21 | 1:A:265:LYS:HB2 | 14 | 0.11 |
| (1,2211) | 1:A:264:LEU:HD22 | 1:A:265:LYS:HB2 | 14 | 0.11 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2211) | 1:A:264:LEU:HD23 | 1:A:265:LYS:HB2 | 14 | 0.11 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD11 | 10 | 0.11 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD12 | 10 | 0.11 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD13 | 10 | 0.11 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD21 | 10 | 0.11 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD22 | 10 | 0.11 |
| (1,2195) | 1:A:262:VAL:HG13 | 1:A:310:LEU:HD23 | 10 | 0.11 |
| (1,2175) | 1:A:261:ILE:H | 1:A:310:LEU:HD11 | 18 | 0.11 |
| (1,2175) | 1:A:261:ILE:H | 1:A:310:LEU:HD12 | 18 | 0.11 |
| (1,2175) | 1:A:261:ILE:H | 1:A:310:LEU:HD13 | 18 | 0.11 |
| (1,2175) | 1:A:261:ILE:H | 1:A:310:LEU:HD21 | 18 | 0.11 |
| (1,2175) | 1:A:261:ILE:H | 1:A:310:LEU:HD22 | 18 | 0.11 |
| (1,2175) | 1:A:261:ILE:H | 1:A:310:LEU:HD23 | 18 | 0.11 |
| (1,2135) | 1:A:253:ILE:HB | 1:A:262:VAL:HG13 | 9 | 0.11 |
| (1,2119) | 1:A:251:PRO:HA | 1:A:262:VAL:HG13 | 20 | 0.11 |
| (1,2003) | 1:A:232:LYS:HE2 | 1:A:282:PHE:HA | 1 | 0.11 |
| (1,2003) | 1:A:232:LYS:HE3 | 1:A:282:PHE:HA | 1 | 0.11 |
| (1,1959) | 1:A:230:PHE:HB3 | 1:A:279:VAL:HG13 | 7 | 0.11 |
| (1,1909) | 1:A:225:GLN:HA | 1:A:273:LEU:HD11 | 4 | 0.11 |
| (1,1909) | 1:A:225:GLN:HA | 1:A:273:LEU:HD12 | 4 | 0.11 |
| (1,1909) | 1:A:225:GLN:HA | 1:A:273:LEU:HD13 | 4 | 0.11 |
| (1,1909) | 1:A:225:GLN:HA | 1:A:273:LEU:HD21 | 4 | 0.11 |
| (1,1909) | 1:A:225:GLN:HA | 1:A:273:LEU:HD22 | 4 | 0.11 |
| (1,1909) | 1:A:225:GLN:HA | 1:A:273:LEU:HD23 | 4 | 0.11 |
| (1,1800) | 1:A:327:LYS:HA | 1:A:327:LYS:HE3 | 8 | 0.11 |
| (1,155) | 1:A:286:VAL:H | 1:A:286:VAL:HB | 15 | 0.11 |
| (1,1402) | 1:A:301:ILE:H | 1:A:301:ILE:HD11 | 20 | 0.11 |
| (1,1402) | 1:A:301:ILE:H | 1:A:301:ILE:HD12 | 20 | 0.11 |
| (1,1402) | 1:A:301:ILE:H | 1:A:301:ILE:HD13 | 20 | 0.11 |
| (1,1389) | 1:A:299:GLN:HB3 | 1:A:300:LEU:H | 8 | 0.11 |
| (1,1389) | 1:A:299:GLN:HB3 | 1:A:300:LEU:H | 17 | 0.11 |
| (1,1359) | 1:A:264:LEU:H | 1:A:297:ASP:HA | 2 | 0.11 |
| (1,1359) | 1:A:264:LEU:H | 1:A:297:ASP:HA | 10 | 0.11 |
| (1,135) | 1:A:279:VAL:H | 1:A:279:VAL:HG13 | 20 | 0.11 |
| (1,1214) | 1:A:284:THR:HG21 | 1:A:286:VAL:HB | 17 | 0.11 |
| (1,1214) | 1:A:284:THR:HG22 | 1:A:286:VAL:HB | 17 | 0.11 |
| (1,1214) | 1:A:284:THR:HG23 | 1:A:286:VAL:HB | 17 | 0.11 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD1 | 1 | 0.11 |
| (1,1155) | 1:A:279:VAL:HG13 | 1:A:282:PHE:HD2 | 1 | 0.11 |
| (1,1151) | 1:A:271:THR:HG21 | 1:A:293:ARG:HB2 | 8 | 0.11 |
| (1,1151) | 1:A:271:THR:HG22 | 1:A:293:ARG:HB2 | 8 | 0.11 |
| (1,1151) | 1:A:271:THR:HG23 | 1:A:293:ARG:HB2 | 8 | 0.11 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1114) | 1:A:274:GLN:HA | 1:A:274:GLN:HG2 | 6 | 0.11 |
| (1,1109) | 1:A:225:GLN:HA | 1:A:273:LEU:HD11 | 11 | 0.11 |
| (1,1109) | 1:A:225:GLN:HA | 1:A:273:LEU:HD12 | 11 | 0.11 |
| (1,1109) | 1:A:225:GLN:HA | 1:A:273:LEU:HD13 | 11 | 0.11 |
| (1,1109) | 1:A:225:GLN:HA | 1:A:273:LEU:HD11 | 19 | 0.11 |
| (1,1109) | 1:A:225:GLN:HA | 1:A:273:LEU:HD12 | 19 | 0.11 |
| (1,1109) | 1:A:225:GLN:HA | 1:A:273:LEU:HD13 | 19 | 0.11 |
| (1,1096) | 1:A:270:PRO:HB2 | 1:A:271:THR:HG21 | 7 | 0.11 |
| (1,1096) | 1:A:270:PRO:HB2 | 1:A:271:THR:HG22 | 7 | 0.11 |
| (1,1096) | 1:A:270:PRO:HB2 | 1:A:271:THR:HG23 | 7 | 0.11 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 7 | 0.11 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 11 | 0.11 |
| (1,1078) | 1:A:269:LEU:HG | 1:A:270:PRO:HB3 | 18 | 0.11 |
| (1,1068) | 1:A:267:HIS:H | 1:A:268:THR:HG21 | 1 | 0.11 |
| (1,1068) | 1:A:267:HIS:H | 1:A:268:THR:HG22 | 1 | 0.11 |
| (1,1068) | 1:A:267:HIS:H | 1:A:268:THR:HG23 | 1 | 0.11 |
| (1,1068) | 1:A:267:HIS:H | 1:A:268:THR:HG21 | 2 | 0.11 |
| (1,1068) | 1:A:267:HIS:H | 1:A:268:THR:HG22 | 2 | 0.11 |
| (1,1068) | 1:A:267:HIS:H | 1:A:268:THR:HG23 | 2 | 0.11 |
| (1,1068) | 1:A:267:HIS:H | 1:A:268:THR:HG21 | 16 | 0.11 |
| (1,1068) | 1:A:267:HIS:H | 1:A:268:THR:HG22 | 16 | 0.11 |
| (1,1068) | 1:A:267:HIS:H | 1:A:268:THR:HG23 | 16 | 0.11 |
| (1,1019) | 1:A:264:LEU:HD21 | 1:A:267:HIS:HB2 | 5 | 0.11 |
| (1,1019) | 1:A:264:LEU:HD22 | 1:A:267:HIS:HB2 | 5 | 0.11 |
| (1,1019) | 1:A:264:LEU:HD23 | 1:A:267:HIS:HB2 | 5 | 0.11 |
| (1,1019) | 1:A:264:LEU:HD21 | 1:A:267:HIS:HB2 | 10 | 0.11 |
| (1,1019) | 1:A:264:LEU:HD22 | 1:A:267:HIS:HB2 | 10 | 0.11 |
| (1,1019) | 1:A:264:LEU:HD23 | 1:A:267:HIS:HB2 | 10 | 0.11 |
| (1,1019) | 1:A:264:LEU:HD21 | 1:A:267:HIS:HB2 | 12 | 0.11 |
| (1,1019) | 1:A:264:LEU:HD22 | 1:A:267:HIS:HB2 | 12 | 0.11 |
| (1,1019) | 1:A:264:LEU:HD23 | 1:A:267:HIS:HB2 | 12 | 0.11 |

10 Dihedral-angle violation analysis [\(i\)](#)

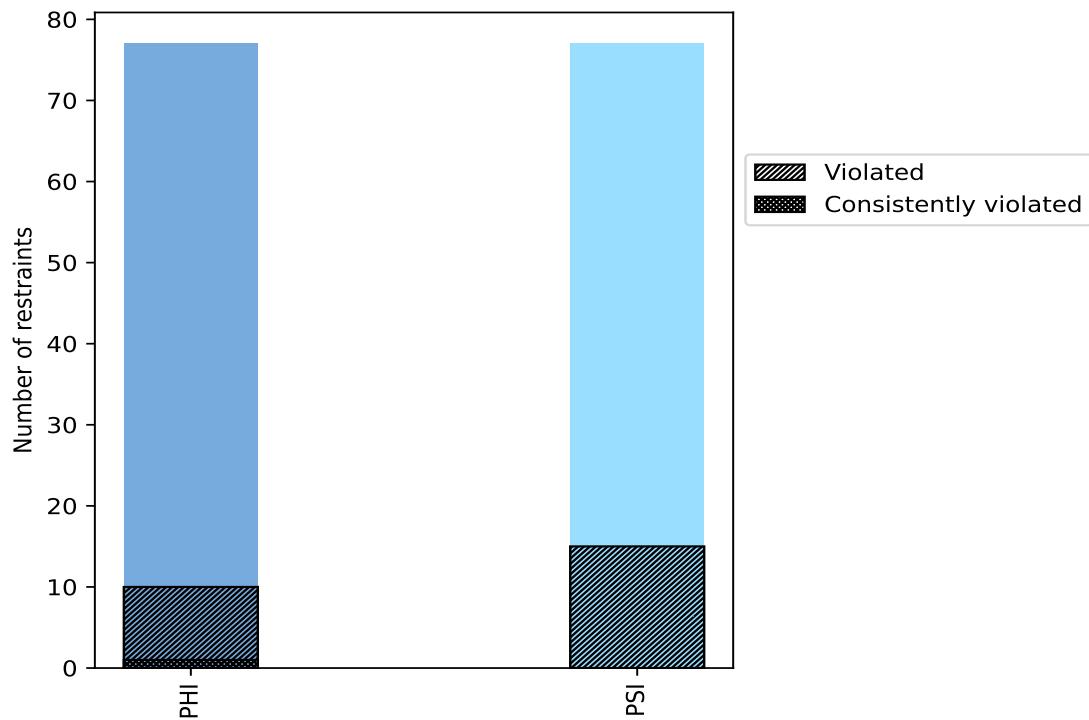
10.1 Summary of dihedral-angle violations [\(i\)](#)

The following table provides the summary of dihedral-angle violations in different dihedral-angle types. Violations less than 1° are not included in the calculation.

| Angle type | Count | % ¹ | Violated ³ | | | Consistently Violated ⁴ | | |
|------------|-------|----------------|-----------------------|----------------|----------------|------------------------------------|----------------|----------------|
| | | | Count | % ² | % ¹ | Count | % ² | % ¹ |
| PHI | 77 | 50.0 | 10 | 13.0 | 6.5 | 1 | 1.3 | 0.6 |
| PSI | 77 | 50.0 | 15 | 19.5 | 9.7 | 0 | 0.0 | 0.0 |
| Total | 154 | 100.0 | 25 | 16.2 | 16.2 | 1 | 0.6 | 0.6 |

¹ percentage calculated with respect to total number of dihedral-angle restraints, ² percentage calculated with respect to number of restraints in a particular dihedral-angle type, ³ violated in at least one model, ⁴ violated in all the models

10.1.1 Bar chart : Distribution of dihedral-angles and violations [\(i\)](#)



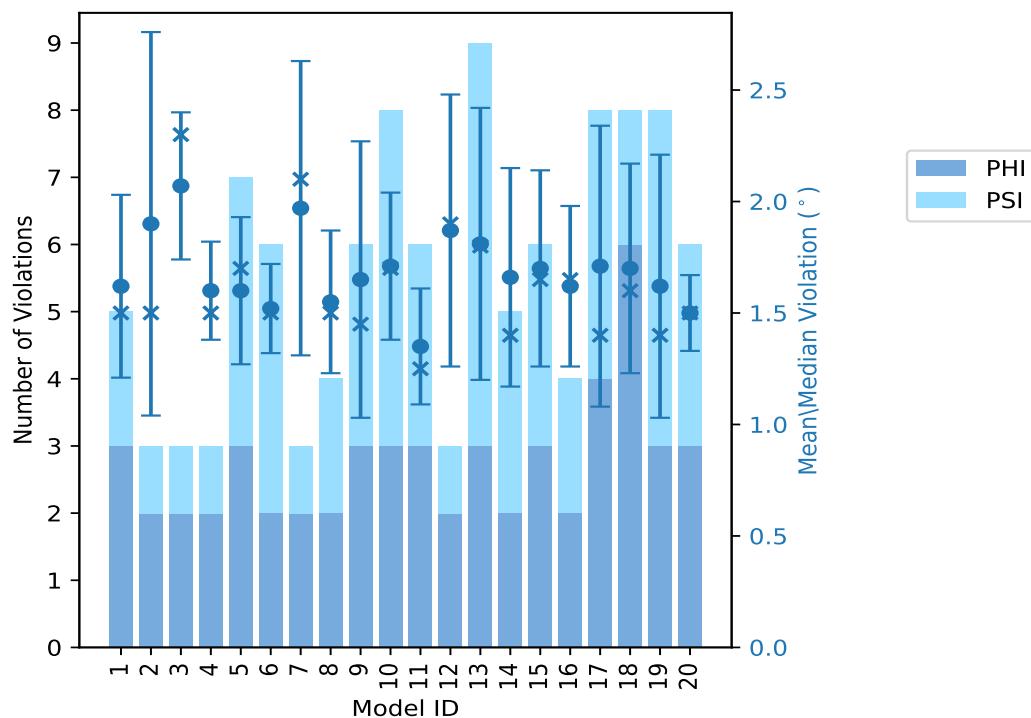
Violated and consistently violated restraints are shown using different hatch patterns in their respective categories

10.2 Dihedral-angle violation statistics for each model [\(i\)](#)

The following table provides the dihedral-angle violation statistics for each model in the ensemble. Violations less than 1° are not included in the statistics.

| Model ID | Number of violations | | | Mean (°) | Max (°) | SD (°) | Median (°) |
|----------|----------------------|-----|-------|----------|---------|--------|------------|
| | PHI | PSI | Total | | | | |
| 1 | 3 | 2 | 5 | 1.62 | 2.4 | 0.41 | 1.5 |
| 2 | 2 | 1 | 3 | 1.9 | 3.1 | 0.86 | 1.5 |
| 3 | 2 | 1 | 3 | 2.07 | 2.3 | 0.33 | 2.3 |
| 4 | 2 | 1 | 3 | 1.6 | 1.9 | 0.22 | 1.5 |
| 5 | 3 | 4 | 7 | 1.6 | 2.0 | 0.33 | 1.7 |
| 6 | 2 | 4 | 6 | 1.52 | 1.8 | 0.2 | 1.5 |
| 7 | 2 | 1 | 3 | 1.97 | 2.7 | 0.66 | 2.1 |
| 8 | 2 | 2 | 4 | 1.55 | 2.0 | 0.32 | 1.5 |
| 9 | 3 | 3 | 6 | 1.65 | 3.0 | 0.62 | 1.45 |
| 10 | 3 | 5 | 8 | 1.71 | 2.1 | 0.33 | 1.7 |
| 11 | 3 | 3 | 6 | 1.35 | 1.8 | 0.26 | 1.25 |
| 12 | 2 | 1 | 3 | 1.87 | 2.6 | 0.61 | 1.9 |
| 13 | 3 | 6 | 9 | 1.81 | 2.7 | 0.61 | 1.8 |
| 14 | 2 | 3 | 5 | 1.66 | 2.3 | 0.49 | 1.4 |
| 15 | 3 | 3 | 6 | 1.7 | 2.4 | 0.44 | 1.65 |
| 16 | 2 | 2 | 4 | 1.62 | 2.1 | 0.36 | 1.65 |
| 17 | 4 | 4 | 8 | 1.71 | 2.9 | 0.63 | 1.4 |
| 18 | 6 | 2 | 8 | 1.7 | 2.6 | 0.47 | 1.6 |
| 19 | 3 | 5 | 8 | 1.62 | 2.8 | 0.59 | 1.4 |
| 20 | 3 | 3 | 6 | 1.5 | 1.7 | 0.17 | 1.5 |

10.2.1 Bar graph : Dihedral violation statistics for each model [\(i\)](#)



The mean(dot),median(x) and the standard deviation are shown in blue with respect to the y axis on the right

10.3 Dihedral-angle violation statistics for the ensemble [\(i\)](#)

Violation analysis may find that some restraints are violated in very few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of ensemble.

| PHI | PSI | Total | Fraction of the ensemble | |
|-----|-----|-------|--------------------------|------|
| | | | Count ¹ | % |
| 2 | 6 | 8 | 1 | 5.0 |
| 2 | 2 | 4 | 2 | 10.0 |
| 4 | 1 | 5 | 3 | 15.0 |
| 0 | 2 | 2 | 4 | 20.0 |
| 0 | 0 | 0 | 5 | 25.0 |
| 0 | 2 | 2 | 6 | 30.0 |
| 0 | 0 | 0 | 7 | 35.0 |
| 0 | 1 | 1 | 8 | 40.0 |
| 0 | 0 | 0 | 9 | 45.0 |
| 0 | 0 | 0 | 10 | 50.0 |
| 0 | 0 | 0 | 11 | 55.0 |

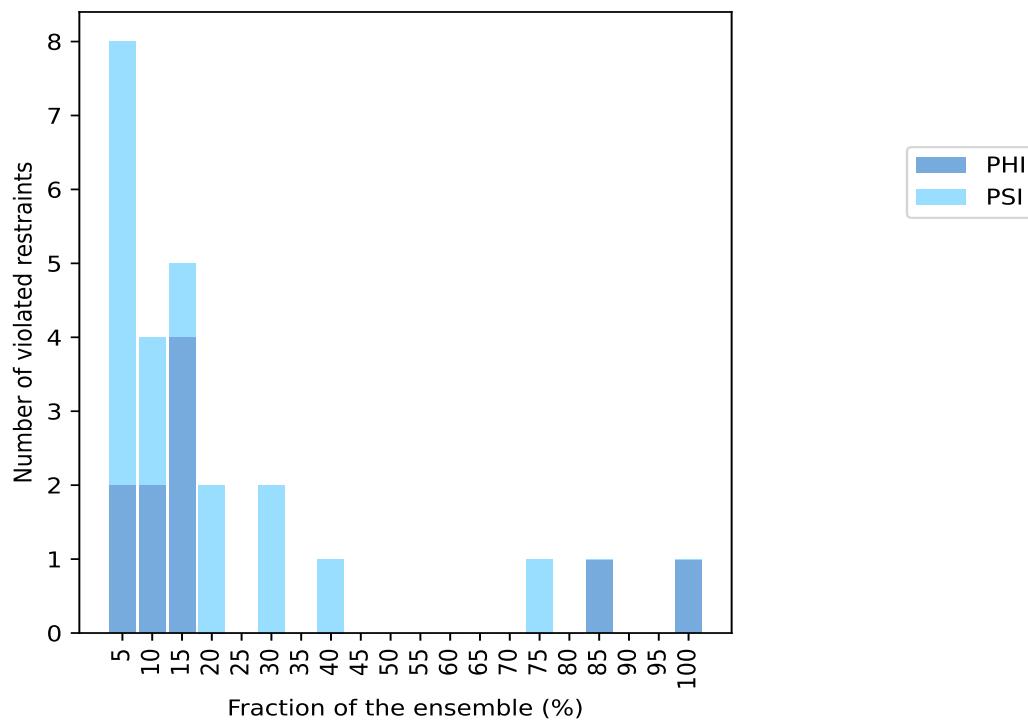
Continued on next page...

Continued from previous page...

| Number of violated restraints | | | Fraction of the ensemble | |
|-------------------------------|-----|-------|--------------------------|-------|
| PHI | PSI | Total | Count ¹ | % |
| 0 | 0 | 0 | 12 | 60.0 |
| 0 | 0 | 0 | 13 | 65.0 |
| 0 | 0 | 0 | 14 | 70.0 |
| 0 | 1 | 1 | 15 | 75.0 |
| 0 | 0 | 0 | 16 | 80.0 |
| 1 | 0 | 1 | 17 | 85.0 |
| 0 | 0 | 0 | 18 | 90.0 |
| 0 | 0 | 0 | 19 | 95.0 |
| 1 | 0 | 1 | 20 | 100.0 |

¹ Number of models with violations

10.3.1 Bar graph : Dihedral-angle Violation statistics for the ensemble [\(i\)](#)

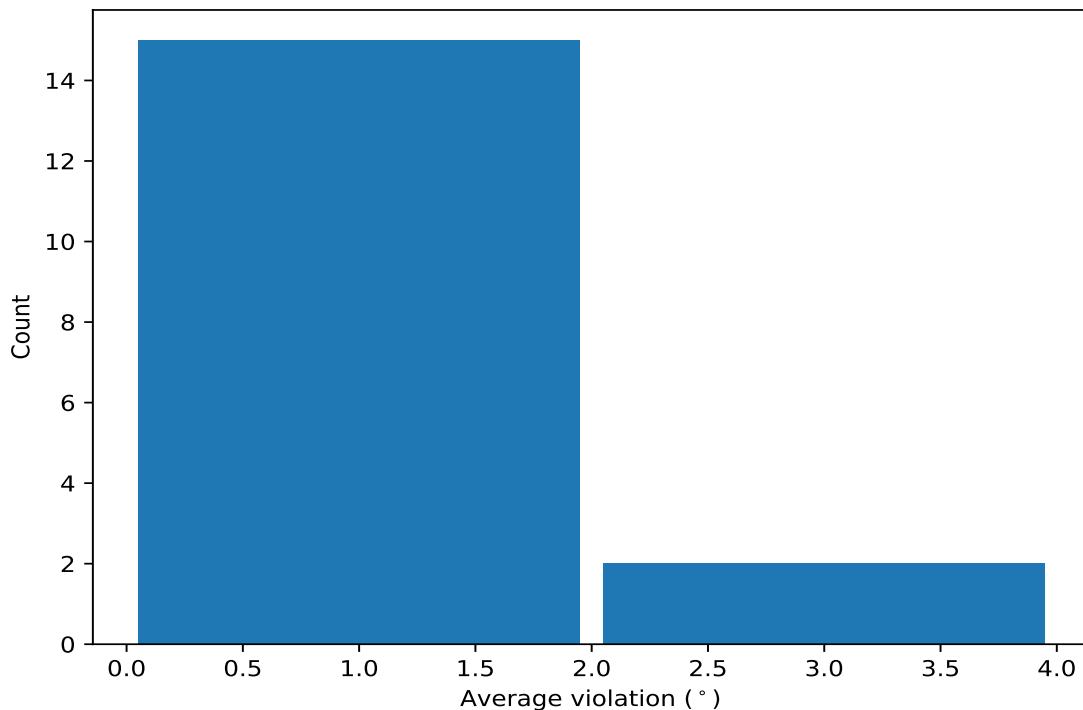


10.4 Most violated dihedral-angle restraints in the ensemble [\(i\)](#)

10.4.1 Histogram : Distribution of mean dihedral-angle violations [\(i\)](#)

The following histogram shows the distribution of the average value of the violation. The average is calculated for each restraint that is violated in more than one model over all the violated models

in the ensemble



10.4.2 Table: Most violated dihedral-angle restraints [\(i\)](#)

The following table provides the mean and the standard deviation of the violation for each restraint sorted by number of violated models and the mean value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint.

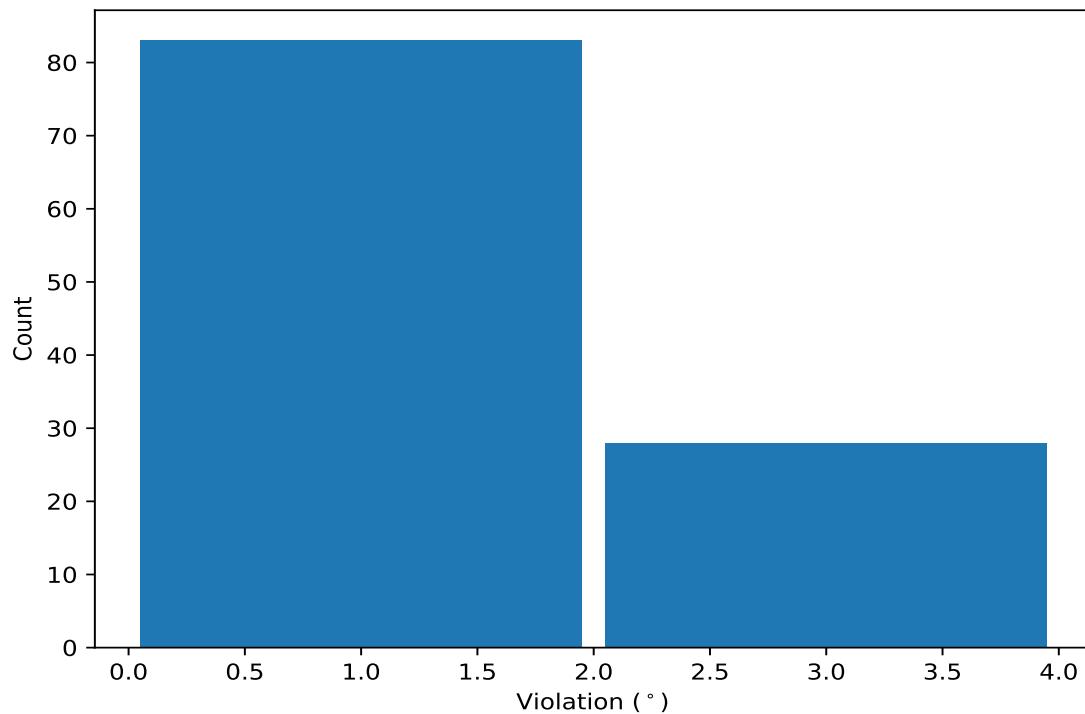
| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Models ¹ | Mean | SD ² | Median |
|---------|---------------|----------------|----------------|---------------|---------------------|------|-----------------|--------|
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 20 | 2.16 | 0.52 | 2.2 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 17 | 1.62 | 0.41 | 1.5 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 15 | 1.62 | 0.33 | 1.6 |
| (1,105) | 1:A:296:ASN:N | 1:A:296:ASN:CA | 1:A:296:ASN:C | 1:A:297:ASP:N | 8 | 2.11 | 0.45 | 2.05 |
| (1,83) | 1:A:283:LYS:N | 1:A:283:LYS:CA | 1:A:283:LYS:C | 1:A:284:THR:N | 6 | 1.47 | 0.31 | 1.3 |
| (1,5) | 1:A:229:ASP:N | 1:A:229:ASP:CA | 1:A:229:ASP:C | 1:A:230:PHE:N | 6 | 1.37 | 0.2 | 1.35 |
| (1,113) | 1:A:301:ILE:N | 1:A:301:ILE:CA | 1:A:301:ILE:C | 1:A:302:ILE:N | 4 | 1.78 | 0.23 | 1.8 |
| (1,91) | 1:A:288:LYS:N | 1:A:288:LYS:CA | 1:A:288:LYS:C | 1:A:289:VAL:N | 4 | 1.68 | 0.68 | 1.4 |
| (1,129) | 1:A:311:VAL:N | 1:A:311:VAL:CA | 1:A:311:VAL:C | 1:A:312:ASN:N | 3 | 1.8 | 0.59 | 1.6 |
| (1,6) | 1:A:228:ILE:C | 1:A:229:ASP:N | 1:A:229:ASP:CA | 1:A:229:ASP:C | 3 | 1.5 | 0.22 | 1.6 |
| (1,57) | 1:A:262:VAL:C | 1:A:263:THR:N | 1:A:263:THR:CA | 1:A:263:THR:C | 3 | 1.3 | 0.14 | 1.2 |
| (1,80) | 1:A:280:ALA:C | 1:A:281:ASP:N | 1:A:281:ASP:CA | 1:A:281:ASP:C | 3 | 1.27 | 0.05 | 1.3 |
| (1,32) | 1:A:246:GLY:C | 1:A:247:PHE:N | 1:A:247:PHE:CA | 1:A:247:PHE:C | 3 | 1.13 | 0.05 | 1.1 |
| (1,153) | 1:A:327:LYS:N | 1:A:327:LYS:CA | 1:A:327:LYS:C | 1:A:328:LYS:N | 2 | 1.4 | 0.1 | 1.4 |
| (1,103) | 1:A:294:LEU:N | 1:A:294:LEU:CA | 1:A:294:LEU:C | 1:A:295:ASN:N | 2 | 1.25 | 0.15 | 1.25 |
| (1,28) | 1:A:243:ALA:C | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 2 | 1.2 | 0.0 | 1.2 |
| (1,44) | 1:A:255:GLN:C | 1:A:256:GLN:N | 1:A:256:GLN:CA | 1:A:256:GLN:C | 2 | 1.15 | 0.05 | 1.15 |

¹ Number of violated models, ²Standard deviation, All angle values are in degree (°)

10.5 All violated dihedral-angle restraints [\(i\)](#)

10.5.1 Histogram : Distribution of violations [\(i\)](#)

The following histogram shows the distribution of the absolute value of the violation for all violated restraints in the ensemble.



10.5.2 Table: All violated dihedral-angle restraints [\(i\)](#)

The following table lists the absolute value of the violation for each restraint in the ensemble sorted by its value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint.

| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 2 | 3.1 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 9 | 3.0 |
| (1,105) | 1:A:296:ASN:N | 1:A:296:ASN:CA | 1:A:296:ASN:C | 1:A:297:ASP:N | 17 | 2.9 |
| (1,91) | 1:A:288:LYS:N | 1:A:288:LYS:CA | 1:A:288:LYS:C | 1:A:289:VAL:N | 19 | 2.8 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 7 | 2.7 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 13 | 2.7 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 12 | 2.6 |
| (1,129) | 1:A:311:VAL:N | 1:A:311:VAL:CA | 1:A:311:VAL:C | 1:A:312:ASN:N | 13 | 2.6 |
| (1,105) | 1:A:296:ASN:N | 1:A:296:ASN:CA | 1:A:296:ASN:C | 1:A:297:ASP:N | 18 | 2.6 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 17 | 2.5 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 1 | 2.4 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 15 | 2.4 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 13 | 2.4 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 3 | 2.3 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 14 | 2.3 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 3 | 2.3 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 14 | 2.2 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 18 | 2.2 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 19 | 2.2 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 16 | 2.1 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 10 | 2.1 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 10 | 2.1 |
| (1,105) | 1:A:296:ASN:N | 1:A:296:ASN:CA | 1:A:296:ASN:C | 1:A:297:ASP:N | 7 | 2.1 |
| (1,105) | 1:A:296:ASN:N | 1:A:296:ASN:CA | 1:A:296:ASN:C | 1:A:297:ASP:N | 15 | 2.1 |
| (1,113) | 1:A:301:ILE:N | 1:A:301:ILE:CA | 1:A:301:ILE:C | 1:A:302:ILE:N | 10 | 2.0 |
| (1,113) | 1:A:301:ILE:N | 1:A:301:ILE:CA | 1:A:301:ILE:C | 1:A:302:ILE:N | 13 | 2.0 |
| (1,105) | 1:A:296:ASN:N | 1:A:296:ASN:CA | 1:A:296:ASN:C | 1:A:297:ASP:N | 5 | 2.0 |
| (1,105) | 1:A:296:ASN:N | 1:A:296:ASN:CA | 1:A:296:ASN:C | 1:A:297:ASP:N | 8 | 2.0 |
| (1,83) | 1:A:283:LYS:N | 1:A:283:LYS:CA | 1:A:283:LYS:C | 1:A:284:THR:N | 5 | 1.9 |
| (1,83) | 1:A:283:LYS:N | 1:A:283:LYS:CA | 1:A:283:LYS:C | 1:A:284:THR:N | 19 | 1.9 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 4 | 1.9 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 5 | 1.9 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 17 | 1.9 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 12 | 1.9 |
| (1,105) | 1:A:296:ASN:N | 1:A:296:ASN:CA | 1:A:296:ASN:C | 1:A:297:ASP:N | 10 | 1.9 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 6 | 1.8 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 13 | 1.8 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 18 | 1.8 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 11 | 1.8 |
| (1,6) | 1:A:228:ILE:C | 1:A:229:ASP:N | 1:A:229:ASP:CA | 1:A:229:ASP:C | 20 | 1.7 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 8 | 1.7 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 20 | 1.7 |
| (1,5) | 1:A:229:ASP:N | 1:A:229:ASP:CA | 1:A:229:ASP:C | 1:A:230:PHE:N | 16 | 1.7 |
| (1,35) | 1:A:251:PRO:N | 1:A:251:PRO:CA | 1:A:251:PRO:C | 1:A:252:ASP:N | 6 | 1.7 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 5 | 1.7 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 15 | 1.7 |
| (1,91) | 1:A:288:LYS:N | 1:A:288:LYS:CA | 1:A:288:LYS:C | 1:A:289:VAL:N | 15 | 1.6 |
| (1,6) | 1:A:228:ILE:C | 1:A:229:ASP:N | 1:A:229:ASP:CA | 1:A:229:ASP:C | 18 | 1.6 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 11 | 1.6 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 3 | 1.6 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 16 | 1.6 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 20 | 1.6 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 1 | 1.6 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 9 | 1.6 |
| (1,129) | 1:A:311:VAL:N | 1:A:311:VAL:CA | 1:A:311:VAL:C | 1:A:312:ASN:N | 17 | 1.6 |
| (1,113) | 1:A:301:ILE:N | 1:A:301:ILE:CA | 1:A:301:ILE:C | 1:A:302:ILE:N | 19 | 1.6 |
| (1,106) | 1:A:295:ASN:C | 1:A:296:ASN:N | 1:A:296:ASN:CA | 1:A:296:ASN:C | 18 | 1.6 |
| (1,62) | 1:A:266:ASN:C | 1:A:267:HIS:N | 1:A:267:HIS:CA | 1:A:267:HIS:C | 1 | 1.5 |
| (1,57) | 1:A:262:VAL:C | 1:A:263:THR:N | 1:A:263:THR:CA | 1:A:263:THR:C | 10 | 1.5 |
| (1,5) | 1:A:229:ASP:N | 1:A:229:ASP:CA | 1:A:229:ASP:C | 1:A:230:PHE:N | 10 | 1.5 |
| (1,153) | 1:A:327:LYS:N | 1:A:327:LYS:CA | 1:A:327:LYS:C | 1:A:328:LYS:N | 9 | 1.5 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 4 | 1.5 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 18 | 1.5 |
| (1,137) | 1:A:319:TYR:N | 1:A:319:TYR:CA | 1:A:319:TYR:C | 1:A:320:PHE:N | 6 | 1.5 |
| (1,113) | 1:A:301:ILE:N | 1:A:301:ILE:CA | 1:A:301:ILE:C | 1:A:302:ILE:N | 2 | 1.5 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,101) | 1:A:293:ARG:N | 1:A:293:ARG:CA | 1:A:293:ARG:C | 1:A:294:LEU:N | 6 | 1.5 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 10 | 1.4 |
| (1,5) | 1:A:229:ASP:N | 1:A:229:ASP:CA | 1:A:229:ASP:C | 1:A:230:PHE:N | 20 | 1.4 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 4 | 1.4 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 9 | 1.4 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 6 | 1.4 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 14 | 1.4 |
| (1,103) | 1:A:294:LEU:N | 1:A:294:LEU:CA | 1:A:294:LEU:C | 1:A:295:ASN:N | 1 | 1.4 |
| (1,83) | 1:A:283:LYS:N | 1:A:283:LYS:CA | 1:A:283:LYS:C | 1:A:284:THR:N | 14 | 1.3 |
| (1,83) | 1:A:283:LYS:N | 1:A:283:LYS:CA | 1:A:283:LYS:C | 1:A:284:THR:N | 20 | 1.3 |
| (1,80) | 1:A:280:ALA:C | 1:A:281:ASP:N | 1:A:281:ASP:CA | 1:A:281:ASP:C | 13 | 1.3 |
| (1,80) | 1:A:280:ALA:C | 1:A:281:ASP:N | 1:A:281:ASP:CA | 1:A:281:ASP:C | 20 | 1.3 |
| (1,5) | 1:A:229:ASP:N | 1:A:229:ASP:CA | 1:A:229:ASP:C | 1:A:230:PHE:N | 13 | 1.3 |
| (1,153) | 1:A:327:LYS:N | 1:A:327:LYS:CA | 1:A:327:LYS:C | 1:A:328:LYS:N | 8 | 1.3 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 5 | 1.3 |
| (1,105) | 1:A:296:ASN:N | 1:A:296:ASN:CA | 1:A:296:ASN:C | 1:A:297:ASP:N | 11 | 1.3 |
| (1,91) | 1:A:288:LYS:N | 1:A:288:LYS:CA | 1:A:288:LYS:C | 1:A:289:VAL:N | 17 | 1.2 |
| (1,83) | 1:A:283:LYS:N | 1:A:283:LYS:CA | 1:A:283:LYS:C | 1:A:284:THR:N | 9 | 1.2 |
| (1,83) | 1:A:283:LYS:N | 1:A:283:LYS:CA | 1:A:283:LYS:C | 1:A:284:THR:N | 10 | 1.2 |
| (1,80) | 1:A:280:ALA:C | 1:A:281:ASP:N | 1:A:281:ASP:CA | 1:A:281:ASP:C | 5 | 1.2 |
| (1,6) | 1:A:228:ILE:C | 1:A:229:ASP:N | 1:A:229:ASP:CA | 1:A:229:ASP:C | 17 | 1.2 |
| (1,57) | 1:A:262:VAL:C | 1:A:263:THR:N | 1:A:263:THR:CA | 1:A:263:THR:C | 15 | 1.2 |
| (1,57) | 1:A:262:VAL:C | 1:A:263:THR:N | 1:A:263:THR:CA | 1:A:263:THR:C | 17 | 1.2 |
| (1,5) | 1:A:229:ASP:N | 1:A:229:ASP:CA | 1:A:229:ASP:C | 1:A:230:PHE:N | 6 | 1.2 |
| (1,44) | 1:A:255:GLN:C | 1:A:256:GLN:N | 1:A:256:GLN:CA | 1:A:256:GLN:C | 9 | 1.2 |
| (1,37) | 1:A:252:ASP:N | 1:A:252:ASP:CA | 1:A:252:ASP:C | 1:A:253:ILE:N | 19 | 1.2 |
| (1,32) | 1:A:246:GLY:C | 1:A:247:PHE:N | 1:A:247:PHE:CA | 1:A:247:PHE:C | 11 | 1.2 |
| (1,28) | 1:A:243:ALA:C | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 8 | 1.2 |
| (1,28) | 1:A:243:ALA:C | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 18 | 1.2 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 1 | 1.2 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 15 | 1.2 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 17 | 1.2 |
| (1,129) | 1:A:311:VAL:N | 1:A:311:VAL:CA | 1:A:311:VAL:C | 1:A:312:ASN:N | 5 | 1.2 |
| (1,91) | 1:A:288:LYS:N | 1:A:288:LYS:CA | 1:A:288:LYS:C | 1:A:289:VAL:N | 12 | 1.1 |
| (1,79) | 1:A:281:ASP:N | 1:A:281:ASP:CA | 1:A:281:ASP:C | 1:A:282:PHE:N | 13 | 1.1 |
| (1,58) | 1:A:264:LEU:N | 1:A:264:LEU:CA | 1:A:264:LEU:C | 1:A:265:LYS:N | 14 | 1.1 |
| (1,51) | 1:A:259:HIS:C | 1:A:260:ILE:N | 1:A:260:ILE:CA | 1:A:260:ILE:C | 19 | 1.1 |
| (1,5) | 1:A:229:ASP:N | 1:A:229:ASP:CA | 1:A:229:ASP:C | 1:A:230:PHE:N | 11 | 1.1 |
| (1,44) | 1:A:255:GLN:C | 1:A:256:GLN:N | 1:A:256:GLN:CA | 1:A:256:GLN:C | 7 | 1.1 |
| (1,32) | 1:A:246:GLY:C | 1:A:247:PHE:N | 1:A:247:PHE:CA | 1:A:247:PHE:C | 18 | 1.1 |
| (1,32) | 1:A:246:GLY:C | 1:A:247:PHE:N | 1:A:247:PHE:CA | 1:A:247:PHE:C | 19 | 1.1 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 11 | 1.1 |
| (1,27) | 1:A:244:ALA:N | 1:A:244:ALA:CA | 1:A:244:ALA:C | 1:A:245:LEU:N | 19 | 1.1 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 2 | 1.1 |
| (1,142) | 1:A:320:PHE:C | 1:A:321:THR:N | 1:A:321:THR:CA | 1:A:321:THR:C | 16 | 1.1 |
| (1,103) | 1:A:294:LEU:N | 1:A:294:LEU:CA | 1:A:294:LEU:C | 1:A:295:ASN:N | 13 | 1.1 |