Full wwPDB X-ray Structure Validation Report

Mar 8, 2018 – 07:45 pm GMT

PDB ID : 4V8S
Title : Archaeal RNAP-DNA binary complex at 4.32Ång
Authors : Wojtas, M.N.; Mogni, M.; Millet, O.; Bell, S.D.; Abrescia, N.G.A.
Deposited on : 2012-07-12
Resolution : 4.32 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
with specific help available everywhere you see the symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7.3 (157068), CSD as539be (2018)
Xtriage (Phenix) : 1.13
EDS : trunk30967
Percentile statistics : 20171227.v01 (using entries in the PDB archive December 27th 2017)
Refmac : 5.8.0158
CCP4 : 7.0 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk30967
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

**X-RAY DIFFRACTION**

The reported resolution of this entry is 4.32 Å.

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

<table>
<thead>
<tr>
<th>Metric</th>
<th>Whole archive (#Entries)</th>
<th>Similar resolution (#Entries, resolution range (Å))</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R_{free}$</td>
<td>111664</td>
<td>1034 (4.92-3.70)</td>
</tr>
<tr>
<td>Clashscore</td>
<td>122126</td>
<td>1104 (4.92-3.70)</td>
</tr>
<tr>
<td>Ramachandran outliers</td>
<td>120053</td>
<td>1053 (4.92-3.70)</td>
</tr>
<tr>
<td>Sidechain outliers</td>
<td>120020</td>
<td>1037 (4.92-3.70)</td>
</tr>
<tr>
<td>RSRZ outliers</td>
<td>108989</td>
<td>1197 (5.04-3.60)</td>
</tr>
</tbody>
</table>

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

The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Length</th>
<th>Quality of chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AC</td>
<td>14</td>
<td><img src="image" alt="Quality of chain" /></td>
</tr>
<tr>
<td>1</td>
<td>BR</td>
<td>14</td>
<td><img src="image" alt="Quality of chain" /></td>
</tr>
<tr>
<td>2</td>
<td>AD</td>
<td>16</td>
<td><img src="image" alt="Quality of chain" /></td>
</tr>
<tr>
<td>2</td>
<td>BS</td>
<td>16</td>
<td><img src="image" alt="Quality of chain" /></td>
</tr>
<tr>
<td>3</td>
<td>AI</td>
<td>95</td>
<td><img src="image" alt="Quality of chain" /></td>
</tr>
<tr>
<td>3</td>
<td>BK</td>
<td>95</td>
<td><img src="image" alt="Quality of chain" /></td>
</tr>
</tbody>
</table>

*Continued on next page...*
The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit crite-
ria:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Chirality</th>
<th>Geometry</th>
<th>Clashes</th>
<th>Electron density</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>SF4</td>
<td>AS</td>
<td>1001</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>17</td>
<td>SF4</td>
<td>BD</td>
<td>1001</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
</tbody>
</table>
2  Entry composition

There are 18 unique types of molecules in this entry. The entry contains 111598 atoms, of which 56187 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a DNA chain called 5'-D(*TP*CP*TP*TP*AP*TP*AP*CP*TP*CP*TP*AP*TP*CP)-3'.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AC</td>
<td>13</td>
<td>Total</td>
<td>C</td>
<td>H</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>411</td>
<td>127</td>
<td>151</td>
<td>38</td>
</tr>
<tr>
<td>1</td>
<td>BR</td>
<td>14</td>
<td>Total</td>
<td>C</td>
<td>H</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>441</td>
<td>136</td>
<td>162</td>
<td>41</td>
</tr>
</tbody>
</table>

- Molecule 2 is a DNA chain called 5'-D(*AP*TP*AP*GP*AP*GP*TP*AP*TP*AP*AP*GP*AP*TP*G-AP*TP*G)-3'.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>AD</td>
<td>15</td>
<td>Total</td>
<td>C</td>
<td>H</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>485</td>
<td>150</td>
<td>170</td>
<td>63</td>
</tr>
<tr>
<td>2</td>
<td>BS</td>
<td>16</td>
<td>Total</td>
<td>C</td>
<td>H</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>517</td>
<td>160</td>
<td>181</td>
<td>68</td>
</tr>
</tbody>
</table>

- Molecule 3 is a protein called DNA-DIRECTED RNA POLYMERASE SUBUNIT K.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>AI</td>
<td>84</td>
<td>Total</td>
<td>C</td>
<td>H</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1390</td>
<td>431</td>
<td>717</td>
<td>123</td>
</tr>
<tr>
<td>3</td>
<td>BK</td>
<td>84</td>
<td>Total</td>
<td>C</td>
<td>H</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1390</td>
<td>431</td>
<td>717</td>
<td>123</td>
</tr>
</tbody>
</table>

- Molecule 4 is a protein called RNA POLYMERASE SUBUNIT 13.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>AJ</td>
<td>49</td>
<td>Total</td>
<td>C</td>
<td>H</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>830</td>
<td>264</td>
<td>413</td>
<td>70</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>50</td>
<td>Total</td>
<td>C</td>
<td>H</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>845</td>
<td>269</td>
<td>419</td>
<td>71</td>
</tr>
</tbody>
</table>

- Molecule 5 is a protein called DNA-DIRECTED RNA POLYMERASE SUBUNIT L.
<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>AM</td>
<td>91</td>
<td>Total C H N O S</td>
<td>1449 454 742 114 137 2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>BL</td>
<td>91</td>
<td>Total C H N O S</td>
<td>1449 454 742 114 137 2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 6 is a protein called DNA-DIRECTED RNA POLYMERASE SUBUNIT N.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>AO</td>
<td>65</td>
<td>Total C H N O S</td>
<td>1058 332 537 94 88 7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>BN</td>
<td>65</td>
<td>Total C H N O S</td>
<td>1058 332 537 94 88 7</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 7 is a protein called DNA-DIRECTED RNA POLYMERASE.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>AR</td>
<td>1103</td>
<td>Total C H N O S</td>
<td>17665 5548 8909 1552 1627 29</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1103</td>
<td>Total C H N O S</td>
<td>17665 5548 8909 1552 1627 29</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 8 is a protein called DNA-DIRECTED RNA POLYMERASE SUBUNIT D.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>AS</td>
<td>262</td>
<td>Total C H N O S</td>
<td>4215 1339 2128 337 398 13</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>262</td>
<td>Total C H N O S</td>
<td>4215 1339 2128 337 398 13</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 9 is a protein called RNA POLYMERASE SUBUNIT 7.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>AT</td>
<td>171</td>
<td>Total C H N O S</td>
<td>2772 874 1413 229 251 5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>171</td>
<td>Total C H N O S</td>
<td>2771 874 1412 229 251 5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 10 is a protein called RNA POLYMERASE SUBUNIT 4.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>AU</td>
<td>105</td>
<td>Total C H N O S</td>
<td>1667 519 840 134 171 3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>BF</td>
<td>105</td>
<td>Total C H N O S</td>
<td>1667 519 840 134 171 3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 11 is a protein called RNA POLYMERASE SUBUNIT 8.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>AV</td>
<td>113</td>
<td>Total C H N O S</td>
<td>1816 572 915 152 173 4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>113</td>
<td>Total C H N O S</td>
<td>1816 572 915 152 173 4</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 12 is a protein called DNA-DIRECTED RNA POLYMERASE.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>AW</td>
<td>872</td>
<td>Total C H N O S</td>
<td>13987 4424 7030 1225 1282 26</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>872</td>
<td>Total C H N O S</td>
<td>13987 4424 7030 1225 1282 26</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 13 is a protein called DNA-DIRECTED RNA POLYMERASE SUBUNIT P.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>AX</td>
<td>44</td>
<td>Total C H N O S</td>
<td>744 236 387 62 54 5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>BP</td>
<td>44</td>
<td>Total C H N O S</td>
<td>744 236 387 62 54 5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 14 is a protein called DNA-DIRECTED RNA POLYMERASE SUBUNIT A”.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>AY</td>
<td>376</td>
<td>Total C H N O S</td>
<td>5974 1840 3068 493 564 9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>376</td>
<td>Total C H N O S</td>
<td>5974 1840 3068 493 564 9</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 15 is a protein called DNA-DIRECTED RNA POLYMERASE SUBUNIT H.
• Molecule 16 is ZINC ION (three-letter code: ZN) (formula: Zn).

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>BB</td>
<td>1</td>
<td>Total</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Zn</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>BA</td>
<td>3</td>
<td>Total</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Zn</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>BN</td>
<td>1</td>
<td>Total</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Zn</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>AW</td>
<td>3</td>
<td>Total</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Zn</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>BP</td>
<td>1</td>
<td>Total</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Zn</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>AX</td>
<td>1</td>
<td>Total</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Zn</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>AO</td>
<td>1</td>
<td>Total</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Zn</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>AR</td>
<td>1</td>
<td>Total</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Zn</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

• Molecule 17 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe₄S₄).

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>AS</td>
<td>1</td>
<td>Total</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fe</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>S</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>BD</td>
<td>1</td>
<td>Total</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fe</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>S</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

• Molecule 18 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).
<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>AW</td>
<td>1</td>
<td>Total</td>
<td>Mg 1</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>BA</td>
<td>1</td>
<td>Total</td>
<td>Mg 1</td>
<td>0</td>
</tr>
</tbody>
</table>
3  Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: 5’-D(*TP*CP*TP*TP*AP*TP*AP*CP*TP*CP*TP*AP*TP*CP)-3’
  
  Chain AC:

- Molecule 1: 5’-D(*TP*CP*TP*TP*AP*TP*AP*CP*TP*CP*TP*AP*TP*CP)-3’
  
  Chain BR:

- Molecule 2: 5’-D(*AP*TP*AP*GP*AP*GP*TP*AP*TP*AP*AP*GP*AP*TP*AP*G)-3’
  
  Chain AD:

- Molecule 2: 5’-D(*AP*TP*AP*GP*AP*GP*TP*AP*TP*AP*AP*GP*AP*TP*AP*G)-3’
  
  Chain BS:

- Molecule 3: DNA-DIRECTED RNA POLYMERASE SUBUNIT K
  
  Chain A1:

- Molecule 3: DNA-DIRECTED RNA POLYMERASE SUBUNIT K
Chain BK:

Molecule 4: RNA POLYMERASE SUBUNIT 13

Chain AJ:

Molecule 4: RNA POLYMERASE SUBUNIT 13

Chain BQ:

Molecule 5: DNA-DIRECTED RNA POLYMERASE SUBUNIT L

Chain AM:

Molecule 5: DNA-DIRECTED RNA POLYMERASE SUBUNIT L

Chain BL:

Molecule 6: DNA-DIRECTED RNA POLYMERASE SUBUNIT N

Chain AO:

Molecule 6: DNA-DIRECTED RNA POLYMERASE SUBUNIT N

Chain BN:
• Molecule 7: DNA-DIRECTED RNA POLYMERASE

Chain AR:

• Molecule 7: DNA-DIRECTED RNA POLYMERASE

Chain BB:
• Molecule 8: DNA-DIRECTED RNA POLYMERASE SUBUNIT D

Chain AS:

• Molecule 8: DNA-DIRECTED RNA POLYMERASE SUBUNIT D

Chain BD:
- Molecule 9: RNA POLYMERASE SUBUNIT 7
  Chain AT:

- Molecule 9: RNA POLYMERASE SUBUNIT 7
  Chain BE:

- Molecule 10: RNA POLYMERASE SUBUNIT 4
  Chain AU:

- Molecule 10: RNA POLYMERASE SUBUNIT 4
  Chain BF:

- Molecule 11: RNA POLYMERASE SUBUNIT 8
  Chain AV:
• Molecule 11: RNA POLYMERASE SUBUNIT 8

Chain BG:

• Molecule 12: DNA-DIRECTED RNA POLYMERASE

Chain AW:

• Molecule 12: DNA-DIRECTED RNA POLYMERASE
• Molecule 13: DNA-DIRECTED RNA POLYMERASE SUBUNIT P

Chain AX:

• Molecule 13: DNA-DIRECTED RNA POLYMERASE SUBUNIT P

Chain BP:

• Molecule 14: DNA-DIRECTED RNA POLYMERASE SUBUNIT A’’

Chain AY:
**Molecule 15: DNA-DIRECTED RNA POLYMERASE SUBUNIT H**

Chain BC:

<table>
<thead>
<tr>
<th>Residue</th>
<th>Atom</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>L258</td>
<td>MET</td>
<td>56%</td>
</tr>
<tr>
<td>T180</td>
<td>MET</td>
<td>33%</td>
</tr>
<tr>
<td>V349</td>
<td>MET</td>
<td>5%</td>
</tr>
<tr>
<td>L104</td>
<td>ARG</td>
<td>56%</td>
</tr>
<tr>
<td>V349</td>
<td>ARG</td>
<td>33%</td>
</tr>
<tr>
<td>T350</td>
<td>ARG</td>
<td>5%</td>
</tr>
<tr>
<td>L262</td>
<td>GLY</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>GLY</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>GLY</td>
<td>5%</td>
</tr>
<tr>
<td>L107</td>
<td>GLY</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>GLY</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>GLY</td>
<td>5%</td>
</tr>
<tr>
<td>L262</td>
<td>GLY</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>GLY</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>GLY</td>
<td>5%</td>
</tr>
<tr>
<td>L262</td>
<td>GLY</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>GLY</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>GLY</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Molecule 15: DNA-DIRECTED RNA POLYMERASE SUBUNIT H**

Chain AZ:

<table>
<thead>
<tr>
<th>Residue</th>
<th>Atom</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>L262</td>
<td>MET</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>MET</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>MET</td>
<td>5%</td>
</tr>
<tr>
<td>L262</td>
<td>ARG</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>ARG</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>ARG</td>
<td>5%</td>
</tr>
<tr>
<td>L262</td>
<td>GLY</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>GLY</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>GLY</td>
<td>5%</td>
</tr>
<tr>
<td>L262</td>
<td>GLY</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>GLY</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>GLY</td>
<td>5%</td>
</tr>
<tr>
<td>L262</td>
<td>GLY</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>GLY</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>GLY</td>
<td>5%</td>
</tr>
<tr>
<td>L262</td>
<td>GLY</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>GLY</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>GLY</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Molecule 15: DNA-DIRECTED RNA POLYMERASE SUBUNIT H**

Chain BH:

<table>
<thead>
<tr>
<th>Residue</th>
<th>Atom</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>L262</td>
<td>MET</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>MET</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>MET</td>
<td>5%</td>
</tr>
<tr>
<td>L262</td>
<td>ARG</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>ARG</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>ARG</td>
<td>5%</td>
</tr>
<tr>
<td>L262</td>
<td>GLY</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>GLY</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>GLY</td>
<td>5%</td>
</tr>
<tr>
<td>L262</td>
<td>GLY</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>GLY</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>GLY</td>
<td>5%</td>
</tr>
<tr>
<td>L262</td>
<td>GLY</td>
<td>56%</td>
</tr>
<tr>
<td>V351</td>
<td>GLY</td>
<td>33%</td>
</tr>
<tr>
<td>R106</td>
<td>GLY</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Molecule 15: DNA-DIRECTED RNA POLYMERASE SUBUNIT H**
## 4 Data and refinement statistics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space group</td>
<td>P 1 21 1</td>
<td>Depositor</td>
</tr>
<tr>
<td>Cell constants</td>
<td>134.13Å 199.42Å 214.25Å</td>
<td>Depositor</td>
</tr>
<tr>
<td>a, b, c, α, β, γ</td>
<td>90.00° 103.54° 90.00°</td>
<td>Depositor</td>
</tr>
<tr>
<td>Resolution (Å)</td>
<td>50.42 – 4.32</td>
<td>Depositor</td>
</tr>
<tr>
<td>% Data completeness</td>
<td>88.6 (50.42-4.32)</td>
<td>Depositor</td>
</tr>
<tr>
<td>(in resolution range)</td>
<td>88.6 (50.42-4.32)</td>
<td>Depositor</td>
</tr>
<tr>
<td>Rmerge</td>
<td>0.21</td>
<td>Depositor</td>
</tr>
<tr>
<td>Rsym</td>
<td>(Not available)</td>
<td>Depositor</td>
</tr>
<tr>
<td>&lt; I/σ(I) &gt; ¹</td>
<td>4.42 (at 4.29Å)</td>
<td>Xtriage</td>
</tr>
<tr>
<td>Refinement program</td>
<td>PHENIX (PHENIX.REFINE)</td>
<td>Depositor</td>
</tr>
<tr>
<td>R, R_free</td>
<td>0.292 , 0.310</td>
<td>Depositor</td>
</tr>
<tr>
<td>R_free test set</td>
<td>3309 reflections (5.09%)</td>
<td>wwPDB-VP</td>
</tr>
<tr>
<td>Wilson B-factor (Å²)</td>
<td>105.4</td>
<td>Xtriage</td>
</tr>
<tr>
<td>Anisotropy</td>
<td>0.633</td>
<td>Xtriage</td>
</tr>
<tr>
<td>Bulk solvent k_sol(e/Å³), B_sol(Å²)</td>
<td>0.32 , 125.2</td>
<td>EDS</td>
</tr>
<tr>
<td>L-test for twinning²</td>
<td>&lt;</td>
<td>L</td>
</tr>
<tr>
<td>Estimated twinning fraction</td>
<td>No twinning to report.</td>
<td>Xtriage</td>
</tr>
<tr>
<td>Fα,Fc correlation</td>
<td>0.81</td>
<td>EDS</td>
</tr>
<tr>
<td>Total number of atoms</td>
<td>111598</td>
<td>wwPDB-VP</td>
</tr>
<tr>
<td>Average B, all atoms (Å²)</td>
<td>171.0</td>
<td>wwPDB-VP</td>
</tr>
</tbody>
</table>

Xtriage’s analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 9.90% of the height of the origin peak. No significant pseudotranslation is detected.*

---

¹Intensities estimated from amplitudes.
²Theoretical values of < |L| >, < L² > for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.
5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: MG, ZN, SF4

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

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Bond lengths</th>
<th>Bond angles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>RMSZ</td>
<td>#</td>
</tr>
<tr>
<td>1</td>
<td>AC</td>
<td>0.42</td>
<td>0/288</td>
</tr>
<tr>
<td>1</td>
<td>BR</td>
<td>0.43</td>
<td>0/309</td>
</tr>
<tr>
<td>2</td>
<td>AD</td>
<td>0.47</td>
<td>0/355</td>
</tr>
<tr>
<td>2</td>
<td>BS</td>
<td>0.46</td>
<td>0/379</td>
</tr>
<tr>
<td>3</td>
<td>AI</td>
<td>0.21</td>
<td>0/682</td>
</tr>
<tr>
<td>3</td>
<td>BK</td>
<td>0.22</td>
<td>0/682</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>0.28</td>
<td>0/423</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>0.29</td>
<td>0/432</td>
</tr>
<tr>
<td>5</td>
<td>AM</td>
<td>0.21</td>
<td>0/717</td>
</tr>
<tr>
<td>5</td>
<td>BL</td>
<td>0.23</td>
<td>0/717</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>0.22</td>
<td>0/532</td>
</tr>
<tr>
<td>6</td>
<td>BN</td>
<td>0.23</td>
<td>0/532</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>0.21</td>
<td>0/8923</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>0.21</td>
<td>0/8923</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>0.21</td>
<td>0/2123</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>0.21</td>
<td>0/2123</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>0.21</td>
<td>0/1379</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>0.21</td>
<td>0/1379</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>0.21</td>
<td>0/836</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>0.21</td>
<td>0/836</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>0.22</td>
<td>0/913</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>0.23</td>
<td>0/913</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>0.23</td>
<td>0/7108</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>0.23</td>
<td>0/7108</td>
</tr>
<tr>
<td>13</td>
<td>AX</td>
<td>0.23</td>
<td>0/365</td>
</tr>
<tr>
<td>13</td>
<td>BP</td>
<td>0.23</td>
<td>0/365</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>0.22</td>
<td>0/2930</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>0.21</td>
<td>0/2930</td>
</tr>
<tr>
<td>15</td>
<td>AZ</td>
<td>0.20</td>
<td>0/638</td>
</tr>
<tr>
<td>15</td>
<td>BH</td>
<td>0.21</td>
<td>0/638</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>0.23</td>
<td>0/56478</td>
</tr>
</tbody>
</table>
There are no bond length outliers.

All (13) bond angle outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(°)</th>
<th>Ideal(°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>AD</td>
<td>13</td>
<td>DG</td>
<td>O4'-C1'-N9</td>
<td>7.03</td>
<td>112.92</td>
<td>108.00</td>
</tr>
<tr>
<td>2</td>
<td>BS</td>
<td>13</td>
<td>DG</td>
<td>O4'-C1'-N9</td>
<td>6.96</td>
<td>112.87</td>
<td>108.00</td>
</tr>
<tr>
<td>2</td>
<td>BS</td>
<td>15</td>
<td>DT</td>
<td>O4'-C1'-N1</td>
<td>6.27</td>
<td>112.39</td>
<td>108.00</td>
</tr>
<tr>
<td>2</td>
<td>AD</td>
<td>15</td>
<td>DT</td>
<td>O4'-C1'-N1</td>
<td>6.18</td>
<td>112.32</td>
<td>108.00</td>
</tr>
<tr>
<td>2</td>
<td>BS</td>
<td>13</td>
<td>DG</td>
<td>C1'-O4'-C4'</td>
<td>-5.78</td>
<td>104.32</td>
<td>110.10</td>
</tr>
<tr>
<td>2</td>
<td>AD</td>
<td>13</td>
<td>DG</td>
<td>C1'-O4'-C4'</td>
<td>-5.60</td>
<td>104.50</td>
<td>110.10</td>
</tr>
<tr>
<td>2</td>
<td>BS</td>
<td>13</td>
<td>DG</td>
<td>C1'-O4'-C4'</td>
<td>-5.51</td>
<td>101.50</td>
<td>105.90</td>
</tr>
<tr>
<td>2</td>
<td>BS</td>
<td>12</td>
<td>DA</td>
<td>O4'-C1'-N9</td>
<td>5.24</td>
<td>111.67</td>
<td>108.00</td>
</tr>
<tr>
<td>2</td>
<td>AD</td>
<td>12</td>
<td>DA</td>
<td>O4'-C1'-N9</td>
<td>5.12</td>
<td>111.58</td>
<td>108.00</td>
</tr>
<tr>
<td>2</td>
<td>AD</td>
<td>13</td>
<td>DG</td>
<td>C3'-C2'-C1'</td>
<td>-5.09</td>
<td>96.39</td>
<td>102.50</td>
</tr>
</tbody>
</table>

There are no chirality outliers.

There are no planarity outliers.

### 5.2 Too-close contacts

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

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Non-H</th>
<th>H(model)</th>
<th>H(added)</th>
<th>Clashes</th>
<th>Symm-Clashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AC</td>
<td>260</td>
<td>151</td>
<td>151</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>BR</td>
<td>279</td>
<td>162</td>
<td>162</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>AD</td>
<td>315</td>
<td>170</td>
<td>170</td>
<td>36</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>BS</td>
<td>336</td>
<td>181</td>
<td>181</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>AI</td>
<td>673</td>
<td>717</td>
<td>716</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>BK</td>
<td>673</td>
<td>717</td>
<td>716</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>417</td>
<td>413</td>
<td>413</td>
<td>38</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>426</td>
<td>419</td>
<td>419</td>
<td>37</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>AM</td>
<td>707</td>
<td>742</td>
<td>739</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>BL</td>
<td>707</td>
<td>742</td>
<td>739</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>521</td>
<td>537</td>
<td>535</td>
<td>29</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>BN</td>
<td>521</td>
<td>537</td>
<td>535</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>8756</td>
<td>8909</td>
<td>8888</td>
<td>285</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>8756</td>
<td>8909</td>
<td>8888</td>
<td>290</td>
<td>0</td>
</tr>
</tbody>
</table>

Continued on next page...
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 20.

All (2178) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:AD:14:DA:OP1</td>
<td>14:AY:348:GLU:HG2</td>
<td>1.54</td>
<td>1.05</td>
</tr>
<tr>
<td>7:AR:221:PRO:HB2</td>
<td>7:AR:222:GLY:HA2</td>
<td>1.37</td>
<td>1.05</td>
</tr>
<tr>
<td>7:BB:221:PRO:HB2</td>
<td>7:BB:222:GLY:HA2</td>
<td>1.38</td>
<td>1.01</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:AY:42:LEU:HA</td>
<td>14:AY:43:VAL:HB</td>
<td>1.47</td>
<td>0.96</td>
</tr>
<tr>
<td>7:AR:52:ILE:HB</td>
<td>7:AR:53:PRO:HD3</td>
<td>1.54</td>
<td>0.89</td>
</tr>
<tr>
<td>14:AY:42:LEU:HA</td>
<td>14:AY:43:VAL:CB</td>
<td>2.03</td>
<td>0.89</td>
</tr>
<tr>
<td>14:BC:42:LEU:HA</td>
<td>14:BC:43:VAL:CB</td>
<td>2.03</td>
<td>0.88</td>
</tr>
<tr>
<td>10:BF:93:ARG:HB3</td>
<td>10:BF:94:THR:HA</td>
<td>1.54</td>
<td>0.88</td>
</tr>
<tr>
<td>10:AU:93:ARG:HB3</td>
<td>10:AU:94:THR:HA</td>
<td>1.55</td>
<td>0.87</td>
</tr>
<tr>
<td>7:AR:833:GLN:N</td>
<td>7:AR:834:ALA:HB3</td>
<td>1.93</td>
<td>0.84</td>
</tr>
<tr>
<td>2:AD:14:DA:H4'</td>
<td>12:AW:818:TYR:CZ</td>
<td>2.12</td>
<td>0.84</td>
</tr>
<tr>
<td>7:BB:833:GLN:N</td>
<td>7:BB:834:ALA:HB3</td>
<td>1.93</td>
<td>0.83</td>
</tr>
<tr>
<td>12:BA:36:ASP:N</td>
<td>12:BA:37:GLY:HA2</td>
<td>1.94</td>
<td>0.81</td>
</tr>
<tr>
<td>12:AW:36:ASP:N</td>
<td>12:AW:37:GLY:HA2</td>
<td>1.94</td>
<td>0.81</td>
</tr>
<tr>
<td>4:BQ:56:ASN:N</td>
<td>4:BQ:57:GLY:HA2</td>
<td>1.96</td>
<td>0.81</td>
</tr>
<tr>
<td>7:BB:53:PRO:HB2</td>
<td>7:BB:54:THR:HB</td>
<td>1.63</td>
<td>0.81</td>
</tr>
<tr>
<td>7:AR:53:PRO:HB2</td>
<td>7:AR:54:THR:HB</td>
<td>1.62</td>
<td>0.81</td>
</tr>
<tr>
<td>7:AR:1067:CYS:SG</td>
<td>7:AR:1085:HIS:CE1</td>
<td>2.74</td>
<td>0.80</td>
</tr>
<tr>
<td>7:BB:53:PRO:HB2</td>
<td>7:BB:54:THR:CA</td>
<td>2.13</td>
<td>0.79</td>
</tr>
<tr>
<td>7:AR:53:PRO:HB2</td>
<td>7:AR:54:THR:CA</td>
<td>2.13</td>
<td>0.79</td>
</tr>
<tr>
<td>7:BB:406:TRP:HA</td>
<td>7:BB:407:VAL:HB</td>
<td>1.64</td>
<td>0.79</td>
</tr>
<tr>
<td>7:BB:53:PRO:HB2</td>
<td>7:BB:54:THR:HA</td>
<td>1.65</td>
<td>0.79</td>
</tr>
<tr>
<td>7:AR:406:TRP:HA</td>
<td>7:AR:407:VAL:HB</td>
<td>1.64</td>
<td>0.78</td>
</tr>
<tr>
<td>6:BN:64:ARG:CB</td>
<td>6:BN:65:PRO:HD3</td>
<td>2.12</td>
<td>0.78</td>
</tr>
<tr>
<td>7:AR:53:PRO:HB2</td>
<td>7:AR:54:THR:HA</td>
<td>1.65</td>
<td>0.78</td>
</tr>
<tr>
<td>7:AR:833:GLN:HB2</td>
<td>7:AR:834:ALA:HB3</td>
<td>1.66</td>
<td>0.77</td>
</tr>
<tr>
<td>6:BN:64:ARG:HB3</td>
<td>6:BN:65:PRO:HD3</td>
<td>1.65</td>
<td>0.76</td>
</tr>
<tr>
<td>2:AD:14:DA:H4'</td>
<td>12:AW:818:TYR:CE1</td>
<td>2.21</td>
<td>0.76</td>
</tr>
<tr>
<td>8:AS:203:CYS:HA</td>
<td>17:AS:1001:SF4:S1</td>
<td>2.26</td>
<td>0.76</td>
</tr>
<tr>
<td>2:AD:14:DA:P</td>
<td>14:AY:348:GLU:HG2</td>
<td>2.25</td>
<td>0.75</td>
</tr>
<tr>
<td>4:BQ:32:GLU:O</td>
<td>4:BQ:33:PHE:HB2</td>
<td>1.84</td>
<td>0.75</td>
</tr>
<tr>
<td>7:BB:833:GLN:HB2</td>
<td>7:BB:834:ALA:HB3</td>
<td>1.66</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Continued on next page...
### Interatomic Distance and Clash Overlap

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:BA:372:TRP:HB3</td>
<td>12:BA:373:PRO:HD3</td>
<td>1.68</td>
<td>0.74</td>
</tr>
<tr>
<td>11:AV:29:ILE:HB</td>
<td>11:AV:40:PHE:HB3</td>
<td>1.70</td>
<td>0.74</td>
</tr>
<tr>
<td>11:BG:29:ILE:HB</td>
<td>11:BG:40:PHE:HB3</td>
<td>1.70</td>
<td>0.73</td>
</tr>
<tr>
<td>11:AV:64:LEU:HG</td>
<td>11:AV:114:LYS:HG3</td>
<td>1.69</td>
<td>0.73</td>
</tr>
<tr>
<td>11:BG:64:LEU:HG</td>
<td>11:BG:114:LYS:HG3</td>
<td>1.69</td>
<td>0.73</td>
</tr>
<tr>
<td>12:BA:541:ALA:HB3</td>
<td>12:BA:542:PRO:CD</td>
<td>2.18</td>
<td>0.72</td>
</tr>
<tr>
<td>11:AV:79:THR:HB</td>
<td>11:AV:80:GLU:HB2</td>
<td>1.69</td>
<td>0.72</td>
</tr>
<tr>
<td>10:AU:93:ARG:CB</td>
<td>10:AU:94:THR:CA</td>
<td>2.67</td>
<td>0.72</td>
</tr>
<tr>
<td>10:BF:91:SER:HB2</td>
<td>10:BF:92:ASN:HA</td>
<td>1.72</td>
<td>0.72</td>
</tr>
<tr>
<td>14:AY:42:LEU:HA</td>
<td>14:AY:43:VAL:CG2</td>
<td>2.19</td>
<td>0.72</td>
</tr>
<tr>
<td>7:BB:52:ILE:CB</td>
<td>7:BB:53:PRO:HD3</td>
<td>2.20</td>
<td>0.72</td>
</tr>
<tr>
<td>11:BG:79:THR:HB</td>
<td>11:BG:80:GLU:HB2</td>
<td>1.70</td>
<td>0.72</td>
</tr>
<tr>
<td>12:BA:283:GLY:HA3</td>
<td>12:BA:284:LEU:CG</td>
<td>2.20</td>
<td>0.72</td>
</tr>
<tr>
<td>10:AU:91:SER:HB2</td>
<td>10:AU:92:ASN:HA</td>
<td>1.72</td>
<td>0.70</td>
</tr>
<tr>
<td>14:AY:211:ALA:HB1</td>
<td>14:AY:212:ASN:C</td>
<td>2.12</td>
<td>0.70</td>
</tr>
<tr>
<td>7:BB:734:GLY:HA3</td>
<td>7:BB:735:TYR:CG</td>
<td>2.26</td>
<td>0.70</td>
</tr>
<tr>
<td>7:AR:52:ILE:CB</td>
<td>7:AR:53:PRO:HD3</td>
<td>2.20</td>
<td>0.70</td>
</tr>
<tr>
<td>14:BC:211:ALA:HB1</td>
<td>14:BC:212:ASN:C</td>
<td>2.12</td>
<td>0.70</td>
</tr>
<tr>
<td>7:AR:734:GLY:HA3</td>
<td>7:AR:735:TYR:CG</td>
<td>2.26</td>
<td>0.70</td>
</tr>
<tr>
<td>12:BA:796:PHE:HZ</td>
<td>7:BB:448:LEU:HD22</td>
<td>2.26</td>
<td>0.70</td>
</tr>
<tr>
<td>12:AW:283:GLY:HA3</td>
<td>12:AW:284:LEU:HG</td>
<td>1.75</td>
<td>0.69</td>
</tr>
<tr>
<td>7:AR:53:PRO:HB2</td>
<td>7:AR:54:THR:CB</td>
<td>2.21</td>
<td>0.69</td>
</tr>
<tr>
<td>14:AY:211:ALA:HA</td>
<td>14:AY:212:ASN:HB2</td>
<td>1.75</td>
<td>0.69</td>
</tr>
<tr>
<td>14:BC:211:ALA:HA</td>
<td>14:BC:212:ASN:HB2</td>
<td>1.75</td>
<td>0.69</td>
</tr>
<tr>
<td>2:AD:17:DG:CT1</td>
<td>12:AW:423:PRO:HB3</td>
<td>2.21</td>
<td>0.69</td>
</tr>
<tr>
<td>12:BA:283:GLY:HA3</td>
<td>12:BA:284:LEU:HG</td>
<td>1.75</td>
<td>0.69</td>
</tr>
<tr>
<td>7:BB:380:ARG:HB3</td>
<td>7:BB:381:LYS:HA</td>
<td>1.75</td>
<td>0.68</td>
</tr>
<tr>
<td>12:BA:283:GLY:HA3</td>
<td>12:BA:284:LEU:CB</td>
<td>2.22</td>
<td>0.68</td>
</tr>
<tr>
<td>7:BB:53:PRO:HB2</td>
<td>7:BB:54:THR:CB</td>
<td>2.22</td>
<td>0.68</td>
</tr>
</tbody>
</table>

*Continued on next page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:AR:380:ARG:HB3</td>
<td>7:AR:381:LYS:HA</td>
<td>1.75</td>
<td>0.68</td>
</tr>
<tr>
<td>2:AD:14:DA:C4'</td>
<td>12:AW:818:TYR:CZ</td>
<td>2.78</td>
<td>0.67</td>
</tr>
<tr>
<td>12:BA:105:LYS:HZ2</td>
<td>12:BA:140:ALA:HB3</td>
<td>1.58</td>
<td>0.67</td>
</tr>
<tr>
<td>2:AD:3:DT:H2''</td>
<td>2:AD:4:DA:C5</td>
<td>2.29</td>
<td>0.67</td>
</tr>
<tr>
<td>14:BC:176:ASP:HB2</td>
<td>14:BC:177:LYS:HB2</td>
<td>2.24</td>
<td>0.66</td>
</tr>
<tr>
<td>2:BS:3:DT:H2''</td>
<td>2:BS:4:DA:C5</td>
<td>2.29</td>
<td>0.67</td>
</tr>
<tr>
<td>7:BB:221:PRO:HB2</td>
<td>7:BB:222:GLY:CA</td>
<td>2.21</td>
<td>0.67</td>
</tr>
<tr>
<td>10:AU:78:ILE:HG23</td>
<td>10:AU:104:ILE:HG22</td>
<td>2.27</td>
<td>0.67</td>
</tr>
<tr>
<td>14:BC:211:ALA:CA</td>
<td>14:BC:212:ASN:HB2</td>
<td>2.25</td>
<td>0.66</td>
</tr>
<tr>
<td>15:BH:59:PRO:HB3</td>
<td>4:BQ:44:LEU:HD21</td>
<td>2.27</td>
<td>0.66</td>
</tr>
<tr>
<td>12:BA:541:ALA:CB</td>
<td>12:BA:542:PRO:CD</td>
<td>2.72</td>
<td>0.66</td>
</tr>
<tr>
<td>7:BB:734:GLY:CA</td>
<td>7:BB:735:TYR:HB2</td>
<td>2.26</td>
<td>0.66</td>
</tr>
<tr>
<td>7:AR:734:GLY:CA</td>
<td>7:AR:735:TYR:HB2</td>
<td>2.26</td>
<td>0.66</td>
</tr>
<tr>
<td>14:AY:176:ASP:HB2</td>
<td>14:AY:177:LYS:HB2</td>
<td>2.26</td>
<td>0.66</td>
</tr>
<tr>
<td>10:BF:78:ILE:HG23</td>
<td>10:BF:104:ILE:HG22</td>
<td>2.27</td>
<td>0.66</td>
</tr>
<tr>
<td>14:BC:211:ALA:HB3</td>
<td>14:BC:213:ILE:HG12</td>
<td>2.45</td>
<td>0.65</td>
</tr>
<tr>
<td>12:AW:33:TYR:H</td>
<td>12:AW:34:ASP:HB2</td>
<td>2.45</td>
<td>0.65</td>
</tr>
<tr>
<td>7:BB:833:GLN:HB2</td>
<td>7:BB:834:ALA:CB</td>
<td>2.26</td>
<td>0.65</td>
</tr>
<tr>
<td>8:BD:203:CYS:HA</td>
<td>17:BD:1001:SF4:S1</td>
<td>2.37</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:BA:33:TYR:H</td>
<td>12:BA:34:ASP:HB2</td>
<td>1.61</td>
<td>0.65</td>
</tr>
<tr>
<td>12:BA:450:CYS:HB2</td>
<td>12:BA:451:PRO:HD3</td>
<td>1.79</td>
<td>0.64</td>
</tr>
<tr>
<td>12:BA:346:THR:HG22</td>
<td>7:BB:1008:ALA:HB2</td>
<td>1.77</td>
<td>0.64</td>
</tr>
<tr>
<td>10:AU:88:ILE:O</td>
<td>10:AU:88:ILE:HG23</td>
<td>1.97</td>
<td>0.64</td>
</tr>
<tr>
<td>12:BA:103:ARG:HB2</td>
<td>12:BA:186:LYS:HB2</td>
<td>1.78</td>
<td>0.64</td>
</tr>
<tr>
<td>10:BF:88:ILE:O</td>
<td>10:BF:88:ILE:HG23</td>
<td>1.97</td>
<td>0.64</td>
</tr>
<tr>
<td>12:BA:131:ARG:CZ</td>
<td>4:BQ:36:LEU:HD21</td>
<td>2.27</td>
<td>0.64</td>
</tr>
<tr>
<td>7:AR:833:GLN:HB2</td>
<td>7:AR:834:ALA:CB</td>
<td>2.26</td>
<td>0.64</td>
</tr>
<tr>
<td>14:BC:211:ALA:HB1</td>
<td>14:BC:212:ASN:HB2</td>
<td>1.80</td>
<td>0.64</td>
</tr>
<tr>
<td>8:BD:184:PRO:HD2</td>
<td>17:BD:1001:SF4:S3</td>
<td>2.37</td>
<td>0.64</td>
</tr>
<tr>
<td>10:BF:79:THR:OG1</td>
<td>10:BF:80:PRO:HD3</td>
<td>1.98</td>
<td>0.64</td>
</tr>
<tr>
<td>2:AD:17:DG:H1'</td>
<td>12:AW:423:PRO:HB3</td>
<td>1.80</td>
<td>0.64</td>
</tr>
<tr>
<td>12:AW:541:ALA:CB</td>
<td>12:AW:542:PRO:HD3</td>
<td>2.28</td>
<td>0.64</td>
</tr>
<tr>
<td>12:AW:668:ALA:HB1</td>
<td>12:AW:707:LEU:HD13</td>
<td>1.79</td>
<td>0.64</td>
</tr>
<tr>
<td>14:AY:211:ALA:CB</td>
<td>14:AY:212:ASN:HB2</td>
<td>1.80</td>
<td>0.64</td>
</tr>
<tr>
<td>7:BB:1066:GLN:HG3</td>
<td>7:BB:1085:HIS:CE1</td>
<td>2.32</td>
<td>0.63</td>
</tr>
<tr>
<td>14:AY:211:ALA:CB</td>
<td>14:AY:212:ASN:HB2</td>
<td>2.28</td>
<td>0.63</td>
</tr>
<tr>
<td>7:AR:1014:ILE:O</td>
<td>7:AR:1015:LEU:CB</td>
<td>2.46</td>
<td>0.63</td>
</tr>
<tr>
<td>7:BB:833:GLN:CB</td>
<td>7:BB:834:ALA:HB3</td>
<td>2.29</td>
<td>0.63</td>
</tr>
<tr>
<td>7:AR:833:GLN:CB</td>
<td>7:AR:834:ALA:HB3</td>
<td>2.29</td>
<td>0.63</td>
</tr>
<tr>
<td>7:AR:833:GLN:CA</td>
<td>7:AR:834:ALA:HB3</td>
<td>2.29</td>
<td>0.63</td>
</tr>
<tr>
<td>7:BB:833:GLN:CA</td>
<td>7:BB:834:ALA:HB3</td>
<td>2.29</td>
<td>0.63</td>
</tr>
<tr>
<td>14:BC:211:ALA:CB</td>
<td>14:BC:212:ASN:HB2</td>
<td>2.28</td>
<td>0.63</td>
</tr>
<tr>
<td>7:AR:52:ILE:HB</td>
<td>7:AR:53:PRO:CD</td>
<td>2.28</td>
<td>0.63</td>
</tr>
<tr>
<td>7:BB:256:PHE:N</td>
<td>7:BB:257:PRO:HD2</td>
<td>2.13</td>
<td>0.62</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:BQ:36:LEU:O</td>
<td>4:BQ:37:SER:CB</td>
<td>2.46</td>
<td>0.62</td>
</tr>
<tr>
<td>7:AR:256:PHE:N</td>
<td>7:AR:257:PRO:HD2</td>
<td>2.13</td>
<td>0.62</td>
</tr>
<tr>
<td>7:BB:112:ALA:O</td>
<td>7:BB:113:GLU:HB2</td>
<td>2.00</td>
<td>0.62</td>
</tr>
<tr>
<td>12:BA:33:TYR:HB3</td>
<td>12:BA:34:ASP:HA</td>
<td>1.82</td>
<td>0.62</td>
</tr>
<tr>
<td>7:AR:112:ALA:O</td>
<td>7:AR:113:GLU:CB</td>
<td>2.47</td>
<td>0.61</td>
</tr>
<tr>
<td>12:BA:29:THR:OG1</td>
<td>12:BA:30:PRO:HD3</td>
<td>2.00</td>
<td>0.61</td>
</tr>
<tr>
<td>7:BB:52:ILE:HB</td>
<td>7:BB:53:PRO:CD</td>
<td>2.28</td>
<td>0.61</td>
</tr>
<tr>
<td>12:BA:103:ARG:CB</td>
<td>12:BA:186:LYS:HB2</td>
<td>2.30</td>
<td>0.61</td>
</tr>
<tr>
<td>12:BA:541:ALA:CB</td>
<td>12:BA:542:PRO:HD3</td>
<td>2.29</td>
<td>0.61</td>
</tr>
<tr>
<td>4:BQ:57:GLY:O</td>
<td>4:BQ:59:ILE:N</td>
<td>2.33</td>
<td>0.61</td>
</tr>
<tr>
<td>12:AW:29:THR:OG1</td>
<td>12:AW:30:PRO:HD3</td>
<td>2.00</td>
<td>0.61</td>
</tr>
<tr>
<td>14:BC:176:ASP:CB</td>
<td>14:BC:177:LYS:HB2</td>
<td>2.31</td>
<td>0.61</td>
</tr>
<tr>
<td>14:BC:176:ASP:N</td>
<td>14:BC:177:LYS:O</td>
<td>2.34</td>
<td>0.61</td>
</tr>
<tr>
<td>14:AY:176:ASP:N</td>
<td>14:AY:177:LYS:O</td>
<td>2.34</td>
<td>0.61</td>
</tr>
<tr>
<td>10:BF:76:CYS:CB</td>
<td>10:BF:104:ILE:HG23</td>
<td>2.31</td>
<td>0.61</td>
</tr>
<tr>
<td>7:AR:112:ALA:O</td>
<td>7:AR:113:GLU:HB2</td>
<td>2.00</td>
<td>0.61</td>
</tr>
<tr>
<td>7:AR:245:VAL:HA</td>
<td>7:AR:319:ALA:HB1</td>
<td>1.82</td>
<td>0.61</td>
</tr>
<tr>
<td>12:BA:864:LYS:HA</td>
<td>12:BA:865:THR:HB</td>
<td>1.82</td>
<td>0.61</td>
</tr>
<tr>
<td>15:BH:43:PRO:O</td>
<td>15:BH:44:TRP:CB</td>
<td>2.49</td>
<td>0.61</td>
</tr>
<tr>
<td>2:AD:14:DA:C8</td>
<td>2:AD:15:DT:H73</td>
<td>2.36</td>
<td>0.61</td>
</tr>
<tr>
<td>7:AR:196:THR:O</td>
<td>7:AR:197:ALA:HB3</td>
<td>2.01</td>
<td>0.61</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:AY:176:ASP:CB</td>
<td>14:AY:177:LYS:HB2</td>
<td>2.30</td>
<td>0.61</td>
</tr>
<tr>
<td>6:BN:2:MET:O</td>
<td>6:BN:3:ILE:O</td>
<td>2.18</td>
<td>0.61</td>
</tr>
<tr>
<td>2:BS:2:DA:H2'</td>
<td>2:BS:3:DT:H5'</td>
<td>1.83</td>
<td>0.61</td>
</tr>
<tr>
<td>14:AY:76:GLN:O</td>
<td>14:AY:80:GLU:N</td>
<td>2.34</td>
<td>0.60</td>
</tr>
<tr>
<td>12:BA:860:SER:HB2</td>
<td>12:BA:864:LYS:O</td>
<td>2.01</td>
<td>0.60</td>
</tr>
<tr>
<td>6:AO:2:MET:O</td>
<td>6:AO:3:ILE:O</td>
<td>2.19</td>
<td>0.60</td>
</tr>
<tr>
<td>8:AS:184:PRO:HD2</td>
<td>17:AS:1001:SF4:S2</td>
<td>2.40</td>
<td>0.60</td>
</tr>
<tr>
<td>10:AU:76:CYR:CB</td>
<td>10:AU:104:ILE:HG23</td>
<td>2.31</td>
<td>0.60</td>
</tr>
<tr>
<td>4:AJ:44:LEU:HD21</td>
<td>15:AZ:59:PRO:HB3</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>7:AR:786:TYR:CE2</td>
<td>7:AR:788:GLY:HA2</td>
<td>2.36</td>
<td>0.60</td>
</tr>
<tr>
<td>12:BA:97:THR:HG22</td>
<td>12:BA:99:ARG:H</td>
<td>1.65</td>
<td>0.60</td>
</tr>
<tr>
<td>7:BB:196:THR:O</td>
<td>7:BB:197:ALA:HB3</td>
<td>2.01</td>
<td>0.60</td>
</tr>
<tr>
<td>7:BB:786:TYR:CE2</td>
<td>7:BB:788:GLY:HA2</td>
<td>2.36</td>
<td>0.60</td>
</tr>
<tr>
<td>14:BC:42:LEU:HA</td>
<td>14:BC:43:VAL:HG23</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>9:AT:2:TYR:HB2</td>
<td>10:AU:12:ILE:HB</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>14:BC:24:LEU:HB3</td>
<td>14:BC:25:PRO:HD2</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>8:AS:51:SER:HB2</td>
<td>8:AS:52:PRO:HD2</td>
<td>1.84</td>
<td>0.60</td>
</tr>
<tr>
<td>12:AW:864:LYS:HA</td>
<td>12:AW:865:THR:HB</td>
<td>1.82</td>
<td>0.60</td>
</tr>
<tr>
<td>12:BA:146:CYR:SG</td>
<td>12:BA:154:PHE:CB</td>
<td>2.95</td>
<td>0.60</td>
</tr>
<tr>
<td>12:AW:33:TYR:HB3</td>
<td>12:AW:34:ASP:HA</td>
<td>1.82</td>
<td>0.60</td>
</tr>
<tr>
<td>12:BA:127:SER:O</td>
<td>12:BA:131:ARG:HD2</td>
<td>2.00</td>
<td>0.60</td>
</tr>
<tr>
<td>2:BS:14:DA:C8</td>
<td>2:BS:15:DT:H73</td>
<td>2.36</td>
<td>0.60</td>
</tr>
<tr>
<td>15:AZ:43:PRO:O</td>
<td>15:AZ:44:TRP:CB</td>
<td>2.49</td>
<td>0.60</td>
</tr>
<tr>
<td>7:BB:221:PRO:CB</td>
<td>7:BB:222:GLY:HA2</td>
<td>2.23</td>
<td>0.60</td>
</tr>
<tr>
<td>7:BB:245:VAL:HA</td>
<td>7:BB:319:ALA:HB1</td>
<td>1.82</td>
<td>0.60</td>
</tr>
<tr>
<td>14:BC:76:GLN:O</td>
<td>14:BC:80:GLU:N</td>
<td>2.35</td>
<td>0.60</td>
</tr>
<tr>
<td>7:AR:781:PRO:HA</td>
<td>7:AR:786:TYR:CE2</td>
<td>2.37</td>
<td>0.60</td>
</tr>
<tr>
<td>4:BQ:78:ARG:C</td>
<td>4:BQ:78:ARG:HD3</td>
<td>2.22</td>
<td>0.60</td>
</tr>
<tr>
<td>12:AW:860:SER:HB2</td>
<td>12:AW:864:LYS:O</td>
<td>2.02</td>
<td>0.60</td>
</tr>
<tr>
<td>12:BA:47:PRO:HB2</td>
<td>12:BA:59:PRO:HG2</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>12:BA:683:GLU:HA</td>
<td>12:BA:684:LEU:CB</td>
<td>2.32</td>
<td>0.60</td>
</tr>
<tr>
<td>11:BG:65:SER:OG</td>
<td>11:BG:66:TYR:HA</td>
<td>2.00</td>
<td>0.60</td>
</tr>
<tr>
<td>7:BB:600:LEU:HD11</td>
<td>7:BB:610:LEU:HD11</td>
<td>1.82</td>
<td>0.59</td>
</tr>
<tr>
<td>7:AR:660:TYR:N</td>
<td>7:AR:661:PRO:HD3</td>
<td>2.17</td>
<td>0.59</td>
</tr>
<tr>
<td>7:AR:221:PRO:CB</td>
<td>7:AR:222:GLY:HA2</td>
<td>2.22</td>
<td>0.59</td>
</tr>
<tr>
<td>7:AR:808:LYS:HD2</td>
<td>7:AR:809:GLY:N</td>
<td>2.17</td>
<td>0.59</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:BN:64:ARG:CB</td>
<td>6:BN:65:PRO:CD</td>
<td>2.77</td>
<td>0.59</td>
</tr>
<tr>
<td>7:AR:1082:CYS:HB2</td>
<td>7:AR:1083:PRO:HD2</td>
<td>1.84</td>
<td>0.59</td>
</tr>
<tr>
<td>12:AW:33:TYR:HB3</td>
<td>12:AW:34:ASP:HB2</td>
<td>1.84</td>
<td>0.59</td>
</tr>
<tr>
<td>12:BA:33:TYR:HB3</td>
<td>12:BA:34:ASP:HB2</td>
<td>1.84</td>
<td>0.59</td>
</tr>
<tr>
<td>7:AR:732:PHE:O</td>
<td>7:AR:733:THR:HG22</td>
<td>2.03</td>
<td>0.59</td>
</tr>
<tr>
<td>4:BQ:46:LYS:HA</td>
<td>4:BQ:46:LYS:HE2</td>
<td>1.85</td>
<td>0.59</td>
</tr>
<tr>
<td>14:AY:211:ALA:CB</td>
<td>14:AY:213:ILE:HG12</td>
<td>2.33</td>
<td>0.59</td>
</tr>
<tr>
<td>15:BH:43:PRO:O</td>
<td>15:BH:44:TRP:CG</td>
<td>2.56</td>
<td>0.59</td>
</tr>
<tr>
<td>12:BA:42:GLY:O</td>
<td>12:BA:43:SER:CB</td>
<td>2.50</td>
<td>0.59</td>
</tr>
<tr>
<td>7:BB:781:PRO:HA</td>
<td>7:BB:786:TYR:CE2</td>
<td>2.37</td>
<td>0.59</td>
</tr>
<tr>
<td>8:BD:51:SER:HB2</td>
<td>8:BD:52:PRO:HD2</td>
<td>1.83</td>
<td>0.59</td>
</tr>
<tr>
<td>12:BA:33:TYR:HB3</td>
<td>12:BA:34:ASP:CA</td>
<td>2.33</td>
<td>0.58</td>
</tr>
<tr>
<td>2:AD:14:DA:OP1</td>
<td>14:AY:331:ARG:NH1</td>
<td>2.36</td>
<td>0.58</td>
</tr>
<tr>
<td>15:AZ:43:PRO:O</td>
<td>15:AZ:44:TRP:CG</td>
<td>2.56</td>
<td>0.58</td>
</tr>
<tr>
<td>12:BA:33:TYR:CB</td>
<td>12:BA:34:ASP:HB2</td>
<td>2.33</td>
<td>0.58</td>
</tr>
<tr>
<td>7:BB:56:ILE:HG23</td>
<td>7:BB:59:LEU:HB2</td>
<td>1.85</td>
<td>0.58</td>
</tr>
<tr>
<td>14:BC:211:ALA:HB1</td>
<td>14:BC:212:ASN:CA</td>
<td>2.33</td>
<td>0.58</td>
</tr>
<tr>
<td>14:AY:24:LEU:HB3</td>
<td>14:AY:25:PRO:HD2</td>
<td>1.84</td>
<td>0.58</td>
</tr>
<tr>
<td>7:BB:808:LYS:HD2</td>
<td>7:BB:809:GLY:N</td>
<td>2.18</td>
<td>0.58</td>
</tr>
<tr>
<td>7:AR:56:ILE:HG23</td>
<td>7:AR:59:LEU:HB2</td>
<td>1.85</td>
<td>0.58</td>
</tr>
<tr>
<td>7:BB:660:TYR:N</td>
<td>7:BB:661:PRO:HD3</td>
<td>2.17</td>
<td>0.58</td>
</tr>
<tr>
<td>14:AY:42:LEU:HA</td>
<td>14:AY:43:VAL:HG23</td>
<td>1.84</td>
<td>0.58</td>
</tr>
<tr>
<td>2:BS:2:DA:C2&quot;</td>
<td>2:BS:3:DT:H5&quot;</td>
<td>2.34</td>
<td>0.58</td>
</tr>
<tr>
<td>7:BB:732:PHE:O</td>
<td>7:BB:733:THR:HG22</td>
<td>2.02</td>
<td>0.58</td>
</tr>
<tr>
<td>5:AM:90:LEU:HD21</td>
<td>8:AS:5:LEU:HG</td>
<td>1.86</td>
<td>0.58</td>
</tr>
<tr>
<td>Atom-1</td>
<td>Atom-2</td>
<td>Interatomic distance (Å)</td>
<td>Clash overlap (Å)</td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
<td>--------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>14:AY:126:LEU:HB3</td>
<td>14:AY:130:TYR:HB2</td>
<td>1.86</td>
<td>0.58</td>
</tr>
<tr>
<td>14:AY:192:LYS:CB</td>
<td>14:AY:193:LEU:HB2</td>
<td>2.34</td>
<td>0.57</td>
</tr>
<tr>
<td>12:AW:33:TYR:CB</td>
<td>12:AW:34:ASP:HB2</td>
<td>2.33</td>
<td>0.57</td>
</tr>
<tr>
<td>11:AV:72:CYS:O</td>
<td>12:AW:541:ALA:HB2</td>
<td>2.03</td>
<td>0.57</td>
</tr>
<tr>
<td>14:AY:211:ALA:HB1</td>
<td>14:AY:212:ASN:CA</td>
<td>2.33</td>
<td>0.57</td>
</tr>
<tr>
<td>11:BG:64:LEU:HG</td>
<td>11:BG:114:LYS:CG</td>
<td>2.34</td>
<td>0.57</td>
</tr>
<tr>
<td>14:BC:192:LYS:CB</td>
<td>14:BC:193:LEU:HB2</td>
<td>2.34</td>
<td>0.57</td>
</tr>
<tr>
<td>6:BN:14:ILE:HD11</td>
<td>6:BN:45:CYS:HB3</td>
<td>1.86</td>
<td>0.57</td>
</tr>
<tr>
<td>7:AR:1014:ILE:O</td>
<td>7:AR:1015:LEU:HB3</td>
<td>2.05</td>
<td>0.57</td>
</tr>
<tr>
<td>14:AY:277:ILE:O</td>
<td>14:AY:278:ARG:HB3</td>
<td>2.04</td>
<td>0.57</td>
</tr>
<tr>
<td>7:AR:196:THR:O</td>
<td>7:AR:197:ALA:CB</td>
<td>2.53</td>
<td>0.57</td>
</tr>
<tr>
<td>12:BA:838:VAL:HB</td>
<td>12:BA:847:GLN:HB2</td>
<td>1.87</td>
<td>0.57</td>
</tr>
<tr>
<td>12:BA:79:ARG:HB3</td>
<td>12:BA:266:TRP:CZ3</td>
<td>2.40</td>
<td>0.56</td>
</tr>
<tr>
<td>7:BB:1082:CYS:HB2</td>
<td>7:BB:1083:PRO:HD2</td>
<td>1.86</td>
<td>0.56</td>
</tr>
</tbody>
</table>

Continued on next page...
### Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:BB:734:GLY:CA</td>
<td>7:BB:735:TYR:CB</td>
<td>2.83</td>
<td>0.56</td>
</tr>
<tr>
<td>12:BA:372:TRP:CB</td>
<td>12:BA:373:PRO:HD3</td>
<td>2.32</td>
<td>0.56</td>
</tr>
<tr>
<td>12:BA:683:GLU:CA</td>
<td>12:BA:684:LEU:HB3</td>
<td>2.34</td>
<td>0.56</td>
</tr>
<tr>
<td>12:BA:70:GLY:O</td>
<td>12:BA:71:HIS:HB2</td>
<td>2.05</td>
<td>0.56</td>
</tr>
<tr>
<td>14:BC:211:ALA:HB1</td>
<td>14:BC:212:ASN:CB</td>
<td>2.35</td>
<td>0.56</td>
</tr>
<tr>
<td>14:BC:277:ILE:O</td>
<td>14:BC:278:ARG:HB3</td>
<td>2.04</td>
<td>0.56</td>
</tr>
<tr>
<td>10:AU:58:GLU:HB3</td>
<td>10:AU:103:ILE:HG21</td>
<td>1.86</td>
<td>0.56</td>
</tr>
<tr>
<td>14:AY:149:ILE:HD13</td>
<td>14:AY:230:LYS:HB2</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>10:BF:58:GLU:HB3</td>
<td>10:BF:103:ILE:HG21</td>
<td>1.86</td>
<td>0.56</td>
</tr>
<tr>
<td>10:AU:91:SER:CB</td>
<td>10:AU:92:ASN:CA</td>
<td>2.83</td>
<td>0.56</td>
</tr>
<tr>
<td>10:BF:91:SER:CB</td>
<td>10:BF:92:ASN:CA</td>
<td>2.83</td>
<td>0.56</td>
</tr>
<tr>
<td>7:BB:227:VAL:CG1</td>
<td>7:BB:262:ALA:HB3</td>
<td>2.36</td>
<td>0.56</td>
</tr>
<tr>
<td>14:BC:126:LEU:HB3</td>
<td>14:BC:130:TYR:HB2</td>
<td>1.86</td>
<td>0.56</td>
</tr>
<tr>
<td>6:BN:8:PHE:O</td>
<td>6:BN:9:THR:HB</td>
<td>2.05</td>
<td>0.56</td>
</tr>
<tr>
<td>7:AR:227:VAL:CG1</td>
<td>7:AR:262:ALA:HB3</td>
<td>2.36</td>
<td>0.56</td>
</tr>
<tr>
<td>14:AY:211:ALA:HB1</td>
<td>14:AY:212:ASN:CB</td>
<td>2.35</td>
<td>0.56</td>
</tr>
<tr>
<td>12:BA:33:TYR:N</td>
<td>12:BA:34:ASP:HB2</td>
<td>2.21</td>
<td>0.56</td>
</tr>
<tr>
<td>7:BB:833:GLN:N</td>
<td>7:BB:834:ALA:CB</td>
<td>2.69</td>
<td>0.56</td>
</tr>
<tr>
<td>14:BC:126:LEU:HB3</td>
<td>14:BC:130:TYR:HB2</td>
<td>1.86</td>
<td>0.56</td>
</tr>
<tr>
<td>10:BF:91:SER:CB</td>
<td>10:BF:92:ASN:CA</td>
<td>2.83</td>
<td>0.56</td>
</tr>
</tbody>
</table>

*Continued on next page...*
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:BD:257:GLU:HB2</td>
<td>5:BL:73:ILE:HG21</td>
<td>1.88</td>
<td>0.56</td>
</tr>
<tr>
<td>12:AW:79:ARG:HB3</td>
<td>12:AW:266:TRP:CG</td>
<td>2.41</td>
<td>0.56</td>
</tr>
<tr>
<td>15:AZ:43:PRO:O</td>
<td>15:AZ:44:TRP:HB2</td>
<td>2.06</td>
<td>0.56</td>
</tr>
<tr>
<td>12:BA:525:LEU:HD21</td>
<td>12:BA:551:VAL:HG23</td>
<td>1.86</td>
<td>0.56</td>
</tr>
<tr>
<td>7:AR:734:GLY:CA</td>
<td>7:AR:735:TYR:CB</td>
<td>2.83</td>
<td>0.55</td>
</tr>
<tr>
<td>7:BB:41:LYS:O</td>
<td>7:BB:42:LEU:HB3</td>
<td>2.05</td>
<td>0.55</td>
</tr>
<tr>
<td>11:BG:78:VAL:O</td>
<td>11:BG:79:THR:HG23</td>
<td>2.06</td>
<td>0.55</td>
</tr>
<tr>
<td>15:BH:43:PRO:O</td>
<td>15:BH:44:TRP:HB2</td>
<td>2.06</td>
<td>0.55</td>
</tr>
<tr>
<td>6:BN:8:PHE:O</td>
<td>6:BN:9:THR:CB</td>
<td>2.54</td>
<td>0.55</td>
</tr>
<tr>
<td>12:AW:70:GLY:O</td>
<td>12:AW:71:HIS:HB2</td>
<td>2.05</td>
<td>0.55</td>
</tr>
<tr>
<td>2:BS:2:DA:C2'</td>
<td>2:BS:3:DT:C5'</td>
<td>2.85</td>
<td>0.55</td>
</tr>
<tr>
<td>12:BA:99:ARG:O</td>
<td>12:BA:100:ARG:HB3</td>
<td>2.05</td>
<td>0.55</td>
</tr>
<tr>
<td>12:BA:146:CYS:HB2</td>
<td>12:BA:151:GLU:HA</td>
<td>1.87</td>
<td>0.55</td>
</tr>
<tr>
<td>7:BB:596:ASP:HA</td>
<td>7:BB:599:LYS:HG2</td>
<td>1.88</td>
<td>0.55</td>
</tr>
<tr>
<td>11:BG:34:ASN:O</td>
<td>11:BG:35:ASP:HB2</td>
<td>2.07</td>
<td>0.55</td>
</tr>
<tr>
<td>11:AV:34:ASN:O</td>
<td>11:AV:35:ASP:HB2</td>
<td>2.07</td>
<td>0.55</td>
</tr>
<tr>
<td>14:AY:146:TYR:HA</td>
<td>14:AY:233:GLY:HA3</td>
<td>1.88</td>
<td>0.55</td>
</tr>
</tbody>
</table>
### Interatomic distances and clash overlap

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:AO:8:PHE:O</td>
<td>6:AO:9:THR:CB</td>
<td>2.54</td>
<td>0.55</td>
</tr>
<tr>
<td>7:AR:596:ASP:HA</td>
<td>7:AR:599:LYS:HG2</td>
<td>1.88</td>
<td>0.55</td>
</tr>
<tr>
<td>7:BB:1014:ILE:O</td>
<td>7:BB:1015:LEU:HB3</td>
<td>2.05</td>
<td>0.55</td>
</tr>
<tr>
<td>7:BB:734:GLY:HA3</td>
<td>7:BB:735:TYR:CD2</td>
<td>2.42</td>
<td>0.55</td>
</tr>
<tr>
<td>7:BB:874:ILE:HG23</td>
<td>7:BB:875:PRO:HD2</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>7:AR:1066:GLN:HG3</td>
<td>7:AR:1085:HIS:CE1</td>
<td>2.41</td>
<td>0.54</td>
</tr>
<tr>
<td>10:AU:78:ILE:H</td>
<td>10:AU:78:ILE:HD13</td>
<td>1.72</td>
<td>0.54</td>
</tr>
<tr>
<td>14:AY:176:ASP:HB2</td>
<td>14:AY:177:LYS:HD2</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>7:BB:196:THR:O</td>
<td>7:BB:197:ALA:CB</td>
<td>2.54</td>
<td>0.54</td>
</tr>
<tr>
<td>7:BB:732:PHE:CD1</td>
<td>7:BB:733:THR:HB</td>
<td>2.43</td>
<td>0.54</td>
</tr>
<tr>
<td>7:AR:196:THR:HG21</td>
<td>7:AR:302:PRO:HB2</td>
<td>1.88</td>
<td>0.54</td>
</tr>
<tr>
<td>7:AR:39:ARG:HG3</td>
<td>7:AR:40:ASN:N</td>
<td>2.22</td>
<td>0.54</td>
</tr>
<tr>
<td>14:AY:140:VAL:O</td>
<td>14:AY:144:LEU:HG</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>8:BD:180:ALA:HA</td>
<td>8:BD:188:PHE:HB2</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>7:AR:41:LYS:O</td>
<td>7:AR:42:LEU:HB3</td>
<td>2.06</td>
<td>0.54</td>
</tr>
<tr>
<td>7:AR:935:TYR:CD2</td>
<td>7:AR:956:LEU:HD22</td>
<td>2.43</td>
<td>0.54</td>
</tr>
<tr>
<td>8:AS:250:ILE:O</td>
<td>8:AS:253:ILE:HG22</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>10:AU:76:CYS:HB2</td>
<td>10:AU:104:ILE:HG23</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>12:BA:441:LEU:HD22</td>
<td>7:BB:1004:ILE:HD13</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>9:BE:164:MET:HB3</td>
<td>9:BE:170:GLY:HA2</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>4:BQ:36:LEU:O</td>
<td>4:BQ:37:SER:HB2</td>
<td>2.06</td>
<td>0.54</td>
</tr>
<tr>
<td>11:AV:88:ASN:HB2</td>
<td>12:AW:538:ALA:HB1</td>
<td>1.88</td>
<td>0.54</td>
</tr>
<tr>
<td>12:BA:574:LEU:HD23</td>
<td>12:BA:575:CYS:N</td>
<td>2.23</td>
<td>0.54</td>
</tr>
<tr>
<td>7:BB:852:LEU:HB3</td>
<td>7:BB:868:ARG:HG2</td>
<td>1.88</td>
<td>0.54</td>
</tr>
</tbody>
</table>

*Continued on next page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:BB:935:TYR:CD2</td>
<td>7:BB:956:LEU:HD22</td>
<td>2.43</td>
<td>0.54</td>
</tr>
<tr>
<td>7:BB:906:GLY:HA2</td>
<td>8:BD:163:ILE:HD11</td>
<td>1.88</td>
<td>0.54</td>
</tr>
<tr>
<td>9:BE:102:GLY:O</td>
<td>10:BF:36:ARG:HD3</td>
<td>2.06</td>
<td>0.54</td>
</tr>
<tr>
<td>12:BA:238:LYS:HE2</td>
<td>12:BA:275:THR:HB</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>14:BC:176:ASP:HB2</td>
<td>14:BC:177:LYS:HD2</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>11:BG:16:ASN:O</td>
<td>11:BG:17:SER:CB</td>
<td>2.56</td>
<td>0.54</td>
</tr>
<tr>
<td>7:AR:380:ARG:CB</td>
<td>7:AR:381:LYS:HA</td>
<td>2.36</td>
<td>0.54</td>
</tr>
<tr>
<td>7:AR:406:TRP:CA</td>
<td>7:AR:407:VAL:CB</td>
<td>2.85</td>
<td>0.54</td>
</tr>
<tr>
<td>8:AS:180:ALA:HA</td>
<td>8:AS:188:PHE:HB2</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>12:AW:823:LEU:CD1</td>
<td>14:AY:75:ALA:HB1</td>
<td>2.37</td>
<td>0.54</td>
</tr>
<tr>
<td>10:BF:76:CYS:HB2</td>
<td>10:BF:104:ILE:HG23</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>5:AM:79:MET:SD</td>
<td>8:AS:21:PRO:HD2</td>
<td>2.48</td>
<td>0.54</td>
</tr>
<tr>
<td>7:AR:1061:ILE:HG23</td>
<td>7:AR:1070:ILE:HD13</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>7:AR:1040:ILE:HD11</td>
<td>14:AY:373:ILE:CD1</td>
<td>2.38</td>
<td>0.54</td>
</tr>
<tr>
<td>14:BC:140:VAL:O</td>
<td>14:BC:144:LEU:HG</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>8:BD:250:ILE:O</td>
<td>8:BD:253:ILE:HG22</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>9:AT:56:GLU:HG2</td>
<td>14:AY:391:ARG:CG</td>
<td>2.38</td>
<td>0.54</td>
</tr>
<tr>
<td>11:AV:16:ASN:O</td>
<td>11:AV:17:SER:CB</td>
<td>2.56</td>
<td>0.54</td>
</tr>
<tr>
<td>12:AW:283:GLY:CA</td>
<td>12:AW:284:LEU:HB2</td>
<td>2.38</td>
<td>0.54</td>
</tr>
<tr>
<td>7:AR:833:GLN:N</td>
<td>7:AR:834:ALA:CB</td>
<td>2.69</td>
<td>0.54</td>
</tr>
<tr>
<td>7:AR:953:ILE:HD13</td>
<td>7:AR:953:ILE:N</td>
<td>2.23</td>
<td>0.54</td>
</tr>
<tr>
<td>12:AW:547:THR:HG23</td>
<td>12:AW:550:GLN:HB2</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>14:AY:120:PRO:HG2</td>
<td>14:AY:255:GLY:HA2</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>15:AZ:42:LEU:HB3</td>
<td>15:AZ:43:PRO:HD2</td>
<td>1.88</td>
<td>0.54</td>
</tr>
<tr>
<td>7:AR:734:GLY:HA3</td>
<td>7:AR:735:TYR:CD2</td>
<td>2.42</td>
<td>0.53</td>
</tr>
<tr>
<td>14:AY:322:ARG:O</td>
<td>14:AY:323:THR:HB</td>
<td>2.08</td>
<td>0.53</td>
</tr>
<tr>
<td>11:BG:72:CYS:SG</td>
<td>11:BG:114:LYS:HD2</td>
<td>2.49</td>
<td>0.53</td>
</tr>
<tr>
<td>3:AI:91:SER:O</td>
<td>3:AI:92:LEU:HB2</td>
<td>2.09</td>
<td>0.53</td>
</tr>
<tr>
<td>12:BA:106:ILE:CG2</td>
<td>12:BA:143:ALA:HB3</td>
<td>2.37</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:AR:732:PHE:CD1</td>
<td>7:AR:733:THR:HB</td>
<td>2.43</td>
<td>0.53</td>
</tr>
<tr>
<td>8:AS:197:VAL:HG11</td>
<td>8:AS:200:GLU:HB2</td>
<td>1.91</td>
<td>0.53</td>
</tr>
<tr>
<td>2:AD:15:DT:H1'</td>
<td>2:AD:16:DA:P</td>
<td>2.48</td>
<td>0.53</td>
</tr>
<tr>
<td>7:AR:852:LEU:HB3</td>
<td>7:AR:868:ARG:HG2</td>
<td>1.89</td>
<td>0.53</td>
</tr>
<tr>
<td>12:BA:27:ILE:HG22</td>
<td>12:BA:74:His:CE1</td>
<td>2.44</td>
<td>0.53</td>
</tr>
<tr>
<td>12:BA:547:THR:HG23</td>
<td>12:BA:550:GLN:HB2</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>12:BA:283:GLY:CA</td>
<td>12:BA:284:LEU:CB</td>
<td>2.86</td>
<td>0.53</td>
</tr>
<tr>
<td>12:BA:851:GLY:O</td>
<td>12:BA:852:ASP:HB2</td>
<td>2.09</td>
<td>0.53</td>
</tr>
<tr>
<td>8:BD:197:VAL:HG11</td>
<td>8:BD:200:GLU:HB2</td>
<td>1.91</td>
<td>0.53</td>
</tr>
<tr>
<td>12:BA:283:GLY:CA</td>
<td>12:BA:284:LEU:HB2</td>
<td>2.39</td>
<td>0.53</td>
</tr>
<tr>
<td>5:BL:83:TYR:CZ</td>
<td>5:BL:87:ILE:HD11</td>
<td>2.43</td>
<td>0.53</td>
</tr>
<tr>
<td>7:AR:190:ALA:HB2</td>
<td>7:AR:325:VAL:HG22</td>
<td>1.91</td>
<td>0.53</td>
</tr>
<tr>
<td>2:BS:15:DT:H1'</td>
<td>2:BS:16:DA:P</td>
<td>2.49</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:BR:13:DT:H1'</td>
<td>1:BR:14:DC:P</td>
<td>2.49</td>
<td>0.53</td>
</tr>
<tr>
<td>7:AR:133:ILE:HD13</td>
<td>7:AR:136:TYR:CE2</td>
<td>2.44</td>
<td>0.53</td>
</tr>
<tr>
<td>7:AR:874:ILE:HG23</td>
<td>7:AR:875:PRO:HD2</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>14:BC:154:SER:HB3</td>
<td>14:BC:170:ASP:HB2</td>
<td>1.91</td>
<td>0.53</td>
</tr>
<tr>
<td>2:BS:2:DA:H2''</td>
<td>2:BS:3:DT:H5''</td>
<td>1.89</td>
<td>0.53</td>
</tr>
<tr>
<td>5:AM:83:TYR:CEZ</td>
<td>5:AM:87:ILE:HD11</td>
<td>2.44</td>
<td>0.52</td>
</tr>
<tr>
<td>7:AR:1064:CYS:HA</td>
<td>7:AR:1091:LEU:CD2</td>
<td>2.39</td>
<td>0.52</td>
</tr>
<tr>
<td>6:AO:47:ARG:NH1</td>
<td>7:AR:726:ILE:CD1</td>
<td>2.72</td>
<td>0.52</td>
</tr>
<tr>
<td>7:AR:734:GLY:N</td>
<td>7:AR:735:TYR:HB2</td>
<td>2.24</td>
<td>0.52</td>
</tr>
<tr>
<td>12:BA:549:LYS:HD2</td>
<td>12:BA:593:LEU:HD22</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>7:BB:1064:CYS:SG</td>
<td>7:BB:1067:CYS:HB2</td>
<td>2.48</td>
<td>0.52</td>
</tr>
<tr>
<td>7:AR:52:ILE:CB</td>
<td>7:AR:53:PRO:CD</td>
<td>2.86</td>
<td>0.52</td>
</tr>
<tr>
<td>12:BA:101:CYS:SG</td>
<td>12:BA:152:LYS:HG3</td>
<td>2.49</td>
<td>0.52</td>
</tr>
<tr>
<td>7:BB:918:LEU:HE</td>
<td>7:BB:919:PRO:HD2</td>
<td>1.74</td>
<td>0.52</td>
</tr>
<tr>
<td>14:BC:70:ILE:HA</td>
<td>14:BC:73:VAL:HG22</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>15:AZ:45:ILE:HG13</td>
<td>15:AZ:79:ARG:CB</td>
<td>2.40</td>
<td>0.52</td>
</tr>
<tr>
<td>7:BB:1064:CYS:HA</td>
<td>7:BB:1091:LEU:CD2</td>
<td>2.39</td>
<td>0.52</td>
</tr>
<tr>
<td>7:BB:545:GLU:HG3</td>
<td>7:BB:546:ARG:N</td>
<td>2.24</td>
<td>0.52</td>
</tr>
<tr>
<td>7:BB:665:GLN:HG2</td>
<td>7:BB:667:PRO:HD2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>14:BC:104:LEU:N</td>
<td>14:BC:105:PRO:CD</td>
<td>2.73</td>
<td>0.52</td>
</tr>
<tr>
<td>8:AS:78:TRP:HB3</td>
<td>8:AS:79:PRO:HD2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>14:AY:322:ARG:O</td>
<td>14:AY:323:THR:CB</td>
<td>2.57</td>
<td>0.52</td>
</tr>
<tr>
<td>7:BB:133:ILE:HD13</td>
<td>7:BB:136:TYR:CE2</td>
<td>2.45</td>
<td>0.52</td>
</tr>
<tr>
<td>7:BB:190:ALA:HB2</td>
<td>7:BB:325:VAL:HG22</td>
<td>1.90</td>
<td>0.52</td>
</tr>
<tr>
<td>7:BB:52:ILE:CB</td>
<td>7:BB:53:PRO:CD</td>
<td>2.86</td>
<td>0.52</td>
</tr>
<tr>
<td>7:BB:52:ILE:CG2</td>
<td>7:BB:53:PRO:HD3</td>
<td>2.39</td>
<td>0.52</td>
</tr>
<tr>
<td>15:BI:45:ILE:HG13</td>
<td>15:BI:79:ARG:CB</td>
<td>2.39</td>
<td>0.52</td>
</tr>
<tr>
<td>15:BI:59:PRO:CB</td>
<td>4:BQ:44:LEU:HD21</td>
<td>2.39</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Continued on next page...
### Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:AR:1064:CYS:SG</td>
<td>7:AR:1067:CYS:HB2</td>
<td>2.49</td>
<td>0.52</td>
</tr>
<tr>
<td>7:BB:170:LEU:HD23</td>
<td>7:BB:171:ALA:N</td>
<td>2.25</td>
<td>0.52</td>
</tr>
<tr>
<td>11:BG:36:PHE:CD1</td>
<td>11:BG:96:ILE:HD13</td>
<td>2.44</td>
<td>0.52</td>
</tr>
<tr>
<td>7:AR:1080:TYR:HB3</td>
<td>7:AR:1091:LEU:HD12</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>11:AV:36:PHE:CD1</td>
<td>11:AV:96:ILE:HD13</td>
<td>2.45</td>
<td>0.52</td>
</tr>
<tr>
<td>12:AW:283:GLY:CA</td>
<td>12:AW:284:LEU:CB</td>
<td>2.86</td>
<td>0.52</td>
</tr>
<tr>
<td>12:BA:282:PRO:O</td>
<td>12:BA:284:LEU:HG</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>8:BD:93:TYR:CE1</td>
<td>8:BD:146:ARG:HG2</td>
<td>2.45</td>
<td>0.52</td>
</tr>
<tr>
<td>7:AR:170:LEU:HD23</td>
<td>7:AR:171:ALA:N</td>
<td>2.25</td>
<td>0.52</td>
</tr>
<tr>
<td>14:AY:154:SER:HB3</td>
<td>14:AY:170:ASP:HB2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>12:BA:606:GLN:O</td>
<td>12:BA:608:PRO:HD3</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>12:BA:687:ILE:HG13</td>
<td>12:BA:688:PRO:HD2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>8:AS:93:TYR:CE1</td>
<td>8:AS:146:ARG:HG2</td>
<td>2.45</td>
<td>0.51</td>
</tr>
<tr>
<td>12:BA:36:ASP:N</td>
<td>12:BA:37:GLY:CA</td>
<td>2.71</td>
<td>0.51</td>
</tr>
<tr>
<td>12:BA:45:ILE:HG22</td>
<td>12:BA:41:GLU:N</td>
<td>2.24</td>
<td>0.51</td>
</tr>
<tr>
<td>7:BB:736:ASN:HB3</td>
<td>7:BB:742:ILE:HG13</td>
<td>1.92</td>
<td>0.51</td>
</tr>
</tbody>
</table>

*Continued on next page...*
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:AR:736:ASN:HB3</td>
<td>7:AR:742:ILE:HG13</td>
<td>1.92</td>
<td>0.51</td>
</tr>
<tr>
<td>14:AY:104:LEU:N</td>
<td>14:AY:105:PRO:CD</td>
<td>2.73</td>
<td>0.51</td>
</tr>
<tr>
<td>12:BA:848:VAL:O</td>
<td>12:BA:849:ALA:CB</td>
<td>2.58</td>
<td>0.51</td>
</tr>
<tr>
<td>7:BB:72:ARG:HB3</td>
<td>7:BB:82:GLU:HA</td>
<td>1.91</td>
<td>0.51</td>
</tr>
<tr>
<td>7:BB:974:TYR:CE2</td>
<td>7:BB:981:LYS:HB3</td>
<td>2.46</td>
<td>0.51</td>
</tr>
<tr>
<td>12:BA:830:TYR:CE2</td>
<td></td>
<td>2.41</td>
<td>0.51</td>
</tr>
<tr>
<td>7:BB:628:TYR:CE2</td>
<td>7:BB:640:HIS:CE1</td>
<td>2.98</td>
<td>0.51</td>
</tr>
<tr>
<td>11:BG:79:THR:O</td>
<td>11:BG:84:SER:HB2</td>
<td>2.11</td>
<td>0.51</td>
</tr>
<tr>
<td>7:AR:52:ILE:HG22</td>
<td>7:AR:53:PRO:N</td>
<td>2.26</td>
<td>0.51</td>
</tr>
<tr>
<td>7:AR:545:GLU:HG3</td>
<td>7:AR:546:ARG:N</td>
<td>2.24</td>
<td>0.51</td>
</tr>
<tr>
<td>12:BA:665:ILE:O</td>
<td>12:BA:668:ALA:HB3</td>
<td>2.11</td>
<td>0.51</td>
</tr>
<tr>
<td>7:AR:918:LEU:H</td>
<td>7:AR:919:PRO:HD2</td>
<td>1.74</td>
<td>0.51</td>
</tr>
<tr>
<td>14:AY:348:GLU:CG</td>
<td>14:AY:349:VAL:N</td>
<td>2.74</td>
<td>0.51</td>
</tr>
<tr>
<td>7:AR:628:TYR:CE2</td>
<td>7:AR:640:HIS:CE1</td>
<td>2.98</td>
<td>0.51</td>
</tr>
<tr>
<td>7:AR:974:TYR:CE2</td>
<td>7:AR:981:LYS:HB3</td>
<td>2.46</td>
<td>0.51</td>
</tr>
<tr>
<td>11:AV:16:ASN:O</td>
<td>11:AV:17:SER:HB3</td>
<td>2.10</td>
<td>0.51</td>
</tr>
<tr>
<td>14:AY:301:LEU:HD13</td>
<td>14:AY:308:VAL:CG1</td>
<td>2.41</td>
<td>0.51</td>
</tr>
<tr>
<td>14:AY:70:ILE:HA</td>
<td>14:AY:73:VAL:HG22</td>
<td>1.91</td>
<td>0.51</td>
</tr>
<tr>
<td>7:BB:1080:TYR:HB3</td>
<td>7:BB:1091:LEU:HD12</td>
<td>1.92</td>
<td>0.51</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:AR:24:2:VAL:CG1</td>
<td>7:AR:25:2:GLN:HG3</td>
<td>2.41</td>
<td>0.51</td>
</tr>
<tr>
<td>11:AV:79:THR:O</td>
<td>11:AV:84:SER:HB2</td>
<td>2.11</td>
<td>0.51</td>
</tr>
<tr>
<td>12:BA:14:7:PRO:O</td>
<td>12:BA:14:8:HIS:HB2</td>
<td>2.10</td>
<td>0.51</td>
</tr>
<tr>
<td>8:BD:78:TRP:HB3</td>
<td>8:BD:79:PRO:HD2</td>
<td>1.91</td>
<td>0.51</td>
</tr>
<tr>
<td>11:BE:16:ASN:O</td>
<td>11:BE:17:SER:HB3</td>
<td>2.10</td>
<td>0.51</td>
</tr>
<tr>
<td>7:BB:24:2:VAL:CG1</td>
<td>7:BB:25:2:GLN:HG3</td>
<td>2.41</td>
<td>0.51</td>
</tr>
<tr>
<td>4:BQ:77:LYS:O</td>
<td>4:BQ:81:ARG:HG2</td>
<td>2.11</td>
<td>0.51</td>
</tr>
<tr>
<td>2:AD:14:DA:C5</td>
<td>2:AD:15:DT:C7</td>
<td>2.94</td>
<td>0.51</td>
</tr>
<tr>
<td>7:AR:36:4:GLU:CE1</td>
<td>7:AR:38:8:VAL:HG13</td>
<td>2.46</td>
<td>0.51</td>
</tr>
<tr>
<td>12:BA:50:2:TYR:CD1</td>
<td>12:BA:63:2:PH:HEB3</td>
<td>2.46</td>
<td>0.51</td>
</tr>
<tr>
<td>8:AS:153:HH:O</td>
<td>8:AS:154:ALA:HB3</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>12:AW:17:ASP:HA</td>
<td>12:AW:20:ARG:HG2</td>
<td>1.93</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:BQ:54:LEU:HA</td>
<td>4:BQ:59:ILE:HG22</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>7:AR:1053:LEU:HD23</td>
<td>7:AR:1053:LEU:C</td>
<td>2.31</td>
<td>0.50</td>
</tr>
<tr>
<td>8:AS:41:ILE:HG3</td>
<td>8:AS:63:ALA:HA</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>10:AU:78:ILE:HG12</td>
<td>10:AU:79:THR:N</td>
<td>2.27</td>
<td>0.50</td>
</tr>
<tr>
<td>7:AR:631:LEU:CD2</td>
<td>12:AW:76:HIS:CD2</td>
<td>2.95</td>
<td>0.50</td>
</tr>
<tr>
<td>12:BA:17:ASP:HA</td>
<td>12:BA:20:ARG:HG2</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>6:AO:35:LEU:HD13</td>
<td>6:AO:46:ARG:HG3</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>10:AU:60:SER:HA</td>
<td>10:AU:69:ARG:CZ</td>
<td>2.41</td>
<td>0.50</td>
</tr>
<tr>
<td>12:AW:600:LYS:O</td>
<td>12:AW:600:LYS:HG2</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>12:BA:703:THR:HG22</td>
<td>12:BA:707:LEU:CD1</td>
<td>2.41</td>
<td>0.50</td>
</tr>
<tr>
<td>6:BN:35:LEU:HD13</td>
<td>6:BN:46:ARG:HG3</td>
<td>1.94</td>
<td>0.50</td>
</tr>
<tr>
<td>14:AY:216:ILE:O</td>
<td>14:AY:217:ALA:HB2</td>
<td>2.12</td>
<td>0.50</td>
</tr>
<tr>
<td>12:BA:84:VAL:HG11</td>
<td>12:BA:274:ALA:HB1</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>7:AR:209:LYS:O</td>
<td>7:AR:210:ASP:CB</td>
<td>2.60</td>
<td>0.50</td>
</tr>
<tr>
<td>7:AR:658:ILE:HG12</td>
<td>7:AR:672:GLN:HG2</td>
<td>1.94</td>
<td>0.50</td>
</tr>
<tr>
<td>7:AR:774:ASP:O</td>
<td>7:AR:775:LYS:HB3</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>8:BD:41:ILE:HB</td>
<td>8:BD:63:ALA:HA</td>
<td>1.93</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:AR:406:TRP:HA</td>
<td>7:AR:407:VAL:HG23</td>
<td>1.94</td>
<td>0.50</td>
</tr>
<tr>
<td>7:AR:592:VAL:HG23</td>
<td>7:AR:615:LYS:HD3</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>10:AU:60:SER:HA</td>
<td>10:AU:69:ARG:NE</td>
<td>2.27</td>
<td>0.50</td>
</tr>
<tr>
<td>7:BB:364:PHE:CE1</td>
<td>7:BB:388:VAL:HG13</td>
<td>2.46</td>
<td>0.50</td>
</tr>
<tr>
<td>7:BB:900:MET:SD</td>
<td>7:BB:912:ILE:HD11</td>
<td>2.52</td>
<td>0.50</td>
</tr>
<tr>
<td>15:BH:45:ILE:HG13</td>
<td>15:BH:79:ARG:HB3</td>
<td>1.94</td>
<td>0.50</td>
</tr>
<tr>
<td>7:AR:228:ILE:HG23</td>
<td>7:AR:271:ALA:HB1</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>12:AW:91:TYR:CE1</td>
<td>12:AW:95:LYS:HD2</td>
<td>2.47</td>
<td>0.50</td>
</tr>
<tr>
<td>12:BA:402:ALA:HB1</td>
<td>12:BA:403:PRO:HD2</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>7:BB:54:THR:OG1</td>
<td>7:BB:55:GLU:N</td>
<td>2.45</td>
<td>0.50</td>
</tr>
<tr>
<td>8:BD:153:HIS:O</td>
<td>8:BD:154:ALA:HB3</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>2:BS:14:DA:C5</td>
<td>2:BS:15:DT:C7</td>
<td>2.94</td>
<td>0.50</td>
</tr>
<tr>
<td>7:AR:448:LEU:HD22</td>
<td>12:AW:796:PHE:CZ</td>
<td>2.46</td>
<td>0.50</td>
</tr>
<tr>
<td>5:AM:23:THR:HG23</td>
<td>8:AS:27:ALA:HA</td>
<td>1.94</td>
<td>0.50</td>
</tr>
<tr>
<td>7:BB:226:PHE:HZ</td>
<td>7:BB:230:MET:HG3</td>
<td>2.47</td>
<td>0.50</td>
</tr>
<tr>
<td>14:BC:244:LYS:HB3</td>
<td>14:BC:249:TYR:CD1</td>
<td>2.46</td>
<td>0.50</td>
</tr>
<tr>
<td>9:AT:82:GLN:OE1</td>
<td>10:AU:89:MET:SD</td>
<td>2.70</td>
<td>0.49</td>
</tr>
<tr>
<td>15:AZ:38:ARG:HB3</td>
<td>15:AZ:39:PRO:HD2</td>
<td>1.93</td>
<td>0.49</td>
</tr>
<tr>
<td>15:AZ:45:ILE:HG13</td>
<td>15:AZ:79:ARG:HB3</td>
<td>1.93</td>
<td>0.49</td>
</tr>
<tr>
<td>12:BA:33:TYR:H</td>
<td>12:BA:34:ASP:CB</td>
<td>2.25</td>
<td>0.49</td>
</tr>
<tr>
<td>7:BB:774:ASP:O</td>
<td>7:BB:775:LYS:HB3</td>
<td>2.12</td>
<td>0.49</td>
</tr>
<tr>
<td>14:BC:80:GLU:N</td>
<td>14:BC:81:PRO:HD3</td>
<td>2.27</td>
<td>0.49</td>
</tr>
<tr>
<td>10:BF:60:SER:HA</td>
<td>10:BF:69:ARG:NE</td>
<td>2.27</td>
<td>0.49</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:AR:900:MET:SD</td>
<td>7:AR:912:ILE:HD11</td>
<td>2.52</td>
<td>0.49</td>
</tr>
<tr>
<td>9:AT:166:GLN:HB3</td>
<td>9:AT:167:PRO:HD2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>12:AW:440:GLY:HA3</td>
<td>12:AW:444:ARG:NH2</td>
<td>2.27</td>
<td>0.49</td>
</tr>
<tr>
<td>13:BP:7:GLY:HA3</td>
<td>13:BP:34:ILE:HD11</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>7:AR:138:LEU:HG</td>
<td>7:AR:148:PRO:HB3</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>9:AT:15:PRO:HD3</td>
<td>9:AT:65:ALA:HB2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>14:AY:102:LEU:HB2</td>
<td>14:AY:106:ARG:HB2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>12:BA:600:LYS:HG2</td>
<td>12:BA:600:LYS:O</td>
<td>2.11</td>
<td>0.49</td>
</tr>
<tr>
<td>7:BB:592:VAL:HG23</td>
<td>7:BB:615:LYS:HD3</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>7:BB:968:ASP:O</td>
<td>7:BB:969:ALA:HB3</td>
<td>2.12</td>
<td>0.49</td>
</tr>
<tr>
<td>15:BH:38:ARG:HB3</td>
<td>15:BH:39:PRO:HD2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>7:AR:733:THR:HG23</td>
<td>7:AR:735:TYR:HD2</td>
<td>1.76</td>
<td>0.49</td>
</tr>
<tr>
<td>7:AR:743:MET:HE1</td>
<td>7:AR:891:ILE:HD11</td>
<td>1.93</td>
<td>0.49</td>
</tr>
<tr>
<td>13:AX:7:GLY:HA3</td>
<td>13:AX:34:ILE:HD11</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>7:BB:201:VAL:HG23</td>
<td>7:BB:218:PRO:HG2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>7:BB:658:ILE:HG12</td>
<td>7:BB:672:GLN:HG2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>11:BG:93:ILE:HG22</td>
<td>11:BG:94:THR:N</td>
<td>2.27</td>
<td>0.49</td>
</tr>
<tr>
<td>12:BA:440:GLY:HA3</td>
<td>12:BA:444:ARG:NH2</td>
<td>2.27</td>
<td>0.49</td>
</tr>
<tr>
<td>12:BA:77:LEU:CD2</td>
<td>12:BA:77:LEU:N</td>
<td>2.76</td>
<td>0.49</td>
</tr>
<tr>
<td>7:BB:228:ILE:HG23</td>
<td>7:BB:271:ALA:HB1</td>
<td>1.94</td>
<td>0.49</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:BB:647:SER:N</td>
<td>7:BB:648:PRO:CD</td>
<td>2.75</td>
<td>0.49</td>
</tr>
<tr>
<td>7:AR:201:VAL:HG23</td>
<td>7:AR:218:PRO:HG2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>7:AR:226:PHE:CZ</td>
<td>7:AR:230:MET:HG3</td>
<td>2.48</td>
<td>0.49</td>
</tr>
<tr>
<td>10:AU:88:ILE:O</td>
<td>10:AU:88:ILE:CG2</td>
<td>2.60</td>
<td>0.49</td>
</tr>
<tr>
<td>14:AY:176:ASP:CA</td>
<td>14:AY:177:LYS:HB2</td>
<td>2.42</td>
<td>0.49</td>
</tr>
<tr>
<td>12:BA:131:ARG:NH1</td>
<td>4:BQ:36:LEU:HD21</td>
<td>2.26</td>
<td>0.49</td>
</tr>
<tr>
<td>7:BB:380:ARG:CB</td>
<td>7:BB:381:LYS:HA</td>
<td>2.36</td>
<td>0.49</td>
</tr>
<tr>
<td>7:BB:733:THR:HG23</td>
<td>7:BB:735:TYR:HD2</td>
<td>1.77</td>
<td>0.49</td>
</tr>
<tr>
<td>1:AC:1:DT:H2&quot;</td>
<td>1:AC:2:DC:C6</td>
<td>2.48</td>
<td>0.49</td>
</tr>
<tr>
<td>7:AR:647:SER:N</td>
<td>7:AR:648:PRO:CD</td>
<td>2.76</td>
<td>0.49</td>
</tr>
<tr>
<td>14:AY:385:MET:SD</td>
<td>14:AY:304:GLN:HG3</td>
<td>2.53</td>
<td>0.49</td>
</tr>
<tr>
<td>14:AY:393:ASP:O</td>
<td>12:BA:394:ARG:HB3</td>
<td>2.13</td>
<td>0.49</td>
</tr>
<tr>
<td>12:BA:91:TYR:CE1</td>
<td>12:BA:95:LYS:HD2</td>
<td>2.47</td>
<td>0.49</td>
</tr>
<tr>
<td>7:BB:904:VAL:HG23</td>
<td>7:BB:972:VAL:HG13</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>14:BC:176:ASP:CA</td>
<td>14:BC:177:LYS:HB2</td>
<td>2.42</td>
<td>0.49</td>
</tr>
<tr>
<td>14:BC:185:LYS:HA</td>
<td>14:BC:188:ILE:HD12</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>1:BR:1:DT:H2&quot;</td>
<td>1:BR:2:DC:C6</td>
<td>2.48</td>
<td>0.49</td>
</tr>
<tr>
<td>7:AR:968:ASP:O</td>
<td>7:AR:969:ALA:HB3</td>
<td>2.13</td>
<td>0.49</td>
</tr>
<tr>
<td>7:BB:874:ILE:CG2</td>
<td>7:BB:875:PRO:HD2</td>
<td>2.43</td>
<td>0.49</td>
</tr>
<tr>
<td>10:BF:88:ILE:O</td>
<td>10:BF:88:ILE:CG2</td>
<td>2.60</td>
<td>0.49</td>
</tr>
<tr>
<td>7:AR:242:VAL:HG13</td>
<td>7:AR:252:GLN:HG3</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>7:AR:556:ILE:HD13</td>
<td>7:AR:568:GLU:CD</td>
<td>2.34</td>
<td>0.48</td>
</tr>
<tr>
<td>7:AR:666:SER:N</td>
<td>7:AR:667:PRO:HD2</td>
<td>2.28</td>
<td>0.48</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:AR:874:ILE:CG2</td>
<td>7:AR:875:PRO:HD2</td>
<td>2.43</td>
<td>0.48</td>
</tr>
<tr>
<td>7:AR:748:VAL:HG13</td>
<td>7:AR:875:PRO:HG2</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>9:AT:30:LEU:HD22</td>
<td>9:AT:72:PHE:CE2</td>
<td>2.47</td>
<td>0.48</td>
</tr>
<tr>
<td>10:AU:100:ILE:O</td>
<td>10:AU:104:ILE:HG13</td>
<td>2.13</td>
<td>0.48</td>
</tr>
<tr>
<td>11:AV:43:ILE:HG22</td>
<td>11:AV:44:ASP:N</td>
<td>2.28</td>
<td>0.48</td>
</tr>
<tr>
<td>11:AV:93:ILE:HG22</td>
<td>11:AV:94:THR:N</td>
<td>2.27</td>
<td>0.48</td>
</tr>
<tr>
<td>7:BB:209:LYS:O</td>
<td>7:BB:210:ASP:CB</td>
<td>2.60</td>
<td>0.48</td>
</tr>
<tr>
<td>7:BB:748:VAL:HG13</td>
<td>7:BB:875:PRO:HG2</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>11:BG:79:THR:CB</td>
<td>11:BG:80:GLU:HB2</td>
<td>2.38</td>
<td>0.48</td>
</tr>
<tr>
<td>11:BG:39:SER:HB3</td>
<td>11:BG:93:ILE:HB</td>
<td>1.94</td>
<td>0.48</td>
</tr>
<tr>
<td>7:AR:54:THR:OG1</td>
<td>7:AR:55:GLU:N</td>
<td>2.45</td>
<td>0.48</td>
</tr>
<tr>
<td>12:BA:281:ILE:CD1</td>
<td>12:BA:284:LEU:HD12</td>
<td>2.43</td>
<td>0.48</td>
</tr>
<tr>
<td>12:BA:747:LEU:HD22</td>
<td>12:BA:786:PHE:CE2</td>
<td>2.48</td>
<td>0.48</td>
</tr>
<tr>
<td>7:BB:666:SER:N</td>
<td>7:BB:667:PRO:HD2</td>
<td>2.27</td>
<td>0.48</td>
</tr>
<tr>
<td>12:BA:743:MET:SD</td>
<td>7:BB:922:MET:HG2</td>
<td>2.53</td>
<td>0.48</td>
</tr>
<tr>
<td>11:BG:43:ILE:HG22</td>
<td>11:BG:44:ASP:N</td>
<td>2.28</td>
<td>0.48</td>
</tr>
<tr>
<td>5:BL:82:HIS:CE1</td>
<td>5:BL:86:GLU:OE2</td>
<td>2.66</td>
<td>0.48</td>
</tr>
<tr>
<td>7:AR:136:TYR:HB2</td>
<td>7:AR:141:LEU:CD1</td>
<td>2.43</td>
<td>0.48</td>
</tr>
<tr>
<td>7:AR:52:ILE:HG22</td>
<td>7:AR:53:PRO:CD</td>
<td>2.43</td>
<td>0.48</td>
</tr>
<tr>
<td>8:BD:96:ILE:HG12</td>
<td>8:BD:145:LEU:HD11</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>9:BE:30:LEU:HD22</td>
<td>9:BE:72:PHE:CE2</td>
<td>2.47</td>
<td>0.48</td>
</tr>
</tbody>
</table>

Continued on next page...
### Interatomic Distances and Overlap

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:AR:1112:ILE:O</td>
<td>7:AR:1114:PRO:HD3</td>
<td>2.13</td>
<td>0.48</td>
</tr>
<tr>
<td>7:AR:35:ASN:O</td>
<td>7:AR:38:VAL:HG12</td>
<td>2.13</td>
<td>0.48</td>
</tr>
<tr>
<td>7:BB:733:THR:CG2</td>
<td>7:BB:734:GLY:N</td>
<td>2.76</td>
<td>0.48</td>
</tr>
<tr>
<td>14:BC:85:MET:SD</td>
<td>14:BC:304:GLN:HG3</td>
<td>2.54</td>
<td>0.48</td>
</tr>
<tr>
<td>7:AR:1096:VAL:HG12</td>
<td>7:AR:1097:SER:N</td>
<td>2.28</td>
<td>0.48</td>
</tr>
<tr>
<td>7:AR:733:THR:CG2</td>
<td>7:AR:734:GLY:N</td>
<td>2.76</td>
<td>0.48</td>
</tr>
<tr>
<td>7:AR:904:VAL:HG23</td>
<td>7:AR:972:VAL:HG13</td>
<td>1.94</td>
<td>0.48</td>
</tr>
<tr>
<td>9:AT:134:LYS:HE3</td>
<td>9:AT:171:LYS:HB3</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>9:AT:8:ARG:HG2</td>
<td>9:AT:71:GLU:HG2</td>
<td>1.94</td>
<td>0.48</td>
</tr>
<tr>
<td>12:BA:203:ARG:HB2</td>
<td>12:BA:206:TRP:CD2</td>
<td>2.48</td>
<td>0.48</td>
</tr>
<tr>
<td>12:BA:505:GLY:CA</td>
<td>12:BA:639:VAL:CG2</td>
<td>2.91</td>
<td>0.48</td>
</tr>
<tr>
<td>14:BC:348:GLU:HG3</td>
<td>14:BC:349:VAL:N</td>
<td>2.28</td>
<td>0.48</td>
</tr>
<tr>
<td>1:AC:11:DT:H2&quot;</td>
<td>1:AC:12:DA:C5'</td>
<td>2.44</td>
<td>0.48</td>
</tr>
<tr>
<td>14:AY:185:LYS:HA</td>
<td>14:AY:188:ILE:HD12</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>7:BB:1096:VAL:HG12</td>
<td>7:BB:1097:SER:N</td>
<td>2.28</td>
<td>0.48</td>
</tr>
<tr>
<td>7:BB:242:VAL:HG13</td>
<td>7:BB:252:GLN:HG3</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>2:AD:14:DA:C5</td>
<td>2:AD:15:DT:H3</td>
<td>2.49</td>
<td>0.48</td>
</tr>
</tbody>
</table>

*Continued on next page...*
## Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å)
--- | --- | --- | ---
12:AW:33:TYR:CA | 12:AW:34:ASP:HB2 | 2.44 | 0.48
7:BB:605:ILE:HG22 | 7:BB:609:ASP:HB2 | 1.96 | 0.48
7:BB:781:PRO:HA | 7:BB:786:TYR:CZ | 2.49 | 0.48
5:BL:11:ASN:HB3 | 5:BL:59:THR:HG23 | 1.96 | 0.48
7:BB:422:TRP:CZ3 | 7:BB:426:LEU:HD11 | 2.49 | 0.48
12:BA:541:ALA:HB3 | 12:BA:542:PRO:HD2 | 1.96 | 0.48
7:AR:422:TRP:CZ3 | 7:AR:426:LEU:HD11 | 2.49 | 0.47
7:AR:605:ILE:HG22 | 7:AR:609:ASP:HB2 | 1.96 | 0.47
7:AR:781:PRO:HA | 7:AR:786:TYR:CZ | 2.49 | 0.47
7:BB:403:THR:HG23 | 7:BB:405:ASN:N | 2.29 | 0.47
7:BB:53:PRO:CB | 7:BB:54:THR:HB | 2.39 | 0.47
14:BC:102:LEU:HB2 | 14:BC:106:ARG:HB2 | 1.94 | 0.47
12:BA:185:GLU:HA | 12:BA:205:GLU:HG2 | 1.95 | 0.47

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:BA:78:VAL:HG21</td>
<td>12:BA:249:LEU:HB3</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>12:BA:33:TYR:HB3</td>
<td>12:BA:34:ASP:CB</td>
<td>2.44</td>
<td>0.47</td>
</tr>
<tr>
<td>7:BB:1064:CYS:HB3</td>
<td>7:BB:1067:CYS:HB2</td>
<td>1.95</td>
<td>0.47</td>
</tr>
<tr>
<td>7:BB:52:ILE:HG22</td>
<td>7:BB:53:PRO:CD</td>
<td>2.43</td>
<td>0.47</td>
</tr>
<tr>
<td>8:BD:237:LYS:HA</td>
<td>8:BD:237:LYS:HE2</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>5:AM:3:ILE:N</td>
<td>5:AM:3:ILE:HD12</td>
<td>2.29</td>
<td>0.47</td>
</tr>
<tr>
<td>12:BA:40:ILE:HD13</td>
<td>12:BA:47:PRO:CG</td>
<td>2.43</td>
<td>0.47</td>
</tr>
<tr>
<td>2:BS:14:DA:H1'</td>
<td>2:BS:15:DT:H5'</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>2:BS:14:DA:N7</td>
<td>2:BS:15:DT:H73</td>
<td>2.30</td>
<td>0.47</td>
</tr>
<tr>
<td>12:BA:102:GLY:O</td>
<td>12:BA:103:ARG:C</td>
<td>2.52</td>
<td>0.47</td>
</tr>
<tr>
<td>12:BA:33:TYR:N</td>
<td>12:BA:34:ASP:CB</td>
<td>2.78</td>
<td>0.47</td>
</tr>
<tr>
<td>2:AD:14:DA:H1'</td>
<td>2:AD:15:DT:H5'</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>7:AR:1104:ILE:HG23</td>
<td>7:AR:1114:PRO:HG2</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>10:AU:95:TYR:CE1</td>
<td>10:AU:97:SER:HB2</td>
<td>2.50</td>
<td>0.47</td>
</tr>
<tr>
<td>12:BA:33:TYR:CA</td>
<td>12:BA:34:ASP:HB2</td>
<td>2.44</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:BB:53:PRO:CB</td>
<td>7:BB:54:THR:CA</td>
<td>2.89</td>
<td>0.47</td>
</tr>
<tr>
<td>11:BG:72:CYS:HB3</td>
<td>11:BG:114:LYS:HD2</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>7:AR:220:VAL:O</td>
<td>7:AR:221:PRO:C</td>
<td>2.53</td>
<td>0.47</td>
</tr>
<tr>
<td>7:AR:457:CYS:HB3</td>
<td>7:AR:460:GLU:HB2</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>14:AY:130:TYR:CD2</td>
<td>14:AY:136:LYS:HB3</td>
<td>2.50</td>
<td>0.47</td>
</tr>
<tr>
<td>14:BC:130:TYR:CD2</td>
<td>14:BC:136:LYS:HB3</td>
<td>2.50</td>
<td>0.47</td>
</tr>
<tr>
<td>6:BN:19:GLN:HB3</td>
<td>6:BN:20:PRO:HD3</td>
<td>1.97</td>
<td>0.47</td>
</tr>
<tr>
<td>7:AR:403:THR:HG23</td>
<td>7:AR:405:ASN:N</td>
<td>2.29</td>
<td>0.47</td>
</tr>
<tr>
<td>7:AR:734:GLY:HA3</td>
<td>7:AR:735:TYR:HB2</td>
<td>1.91</td>
<td>0.47</td>
</tr>
<tr>
<td>12:AW:146:CYS:HB3</td>
<td>12:AW:149:CYS:HB2</td>
<td>1.81</td>
<td>0.47</td>
</tr>
<tr>
<td>12:BA:70:GLY:HA2</td>
<td>12:BA:216:PRO:CB</td>
<td>2.44</td>
<td>0.47</td>
</tr>
<tr>
<td>8:BD:150:GLY:HA2</td>
<td>8:BD:156:PHE:HB2</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>1:BR:11:DT:H2''</td>
<td>1:BR:12:DA:C5''</td>
<td>2.44</td>
<td>0.47</td>
</tr>
<tr>
<td>5:AM:11:ASN:HB3</td>
<td>5:AM:59:THR:HG23</td>
<td>1.96</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:BS:14:DA:C5</td>
<td>2:BS:15:DT:H73</td>
<td>2.49</td>
<td>0.47</td>
</tr>
<tr>
<td>2:AD:14:DA:N7</td>
<td>2:AD:15:DT:H73</td>
<td>2.29</td>
<td>0.47</td>
</tr>
<tr>
<td>7:AR:953:ILE:HG12</td>
<td>7:AR:954:GLU:H</td>
<td>1.80</td>
<td>0.47</td>
</tr>
<tr>
<td>8:AS:133:LEU:HD21</td>
<td>8:AS:139:ILE:HG12</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>14:AY:85:MET:HE3</td>
<td>14:AY:104:LEU:HD12</td>
<td>1.95</td>
<td>0.47</td>
</tr>
<tr>
<td>7:BB:905:LYS:HG3</td>
<td>7:BB:965:TYR:CE2</td>
<td>2.50</td>
<td>0.47</td>
</tr>
<tr>
<td>5:BL:3:ILE:HD12</td>
<td>5:BL:3:ILE:N</td>
<td>2.30</td>
<td>0.47</td>
</tr>
<tr>
<td>7:AR:208:LEU:HD11</td>
<td>7:AR:214:HIS:CD2</td>
<td>2.50</td>
<td>0.47</td>
</tr>
<tr>
<td>7:AR:421:ASN:C</td>
<td>7:AR:421:ASN:OD1</td>
<td>2.54</td>
<td>0.47</td>
</tr>
<tr>
<td>12:BA:111:ILE:HG22</td>
<td>12:BA:112:GLU:N</td>
<td>2.30</td>
<td>0.47</td>
</tr>
<tr>
<td>12:BA:864:LYS:CD</td>
<td>12:BA:867:ASP:HA</td>
<td>2.45</td>
<td>0.47</td>
</tr>
<tr>
<td>12:BA:475:GLU:OE1</td>
<td>7:BB:1046:MET:HB2</td>
<td>2.15</td>
<td>0.47</td>
</tr>
<tr>
<td>7:BB:421:ASN:OD1</td>
<td>7:BB:421:ASN:C</td>
<td>2.54</td>
<td>0.47</td>
</tr>
<tr>
<td>7:AR:1096:VAL:CG1</td>
<td>7:AR:1097:SER:N</td>
<td>2.78</td>
<td>0.46</td>
</tr>
<tr>
<td>2:AD:14:DA:OP2</td>
<td>14:AY:348:GLU:OE2</td>
<td>2.34</td>
<td>0.46</td>
</tr>
<tr>
<td>1:BR:11:DT:H22′</td>
<td>1:BR:12:DA:O5′</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>4:AJ:45:MET:HB2</td>
<td>12:AW:122:LYS:HE2</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>7:AR:8:LEU:N</td>
<td>7:AR:8:LEU:HD22</td>
<td>2.31</td>
<td>0.46</td>
</tr>
<tr>
<td>7:AR:905:LYS:HG3</td>
<td>7:AR:965:TYR:CE2</td>
<td>2.50</td>
<td>0.46</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:AW:818:TYR:CE1</td>
<td>12:AW:822:ARG:HG3</td>
<td>2.50</td>
<td>0.46</td>
</tr>
<tr>
<td>12:BA:38:THR:N</td>
<td>12:BA:39:PRO:HD2</td>
<td>2.30</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:1096:VAL:CG1</td>
<td>7:BB:1097:SER:N</td>
<td>2.78</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:1104:ILE:HG23</td>
<td>7:BB:1114:PRO:HG2</td>
<td>1.96</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:88:ALA:HA</td>
<td>7:BB:93:LEU:HB2</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:961:LEU:HG</td>
<td>7:BB:967:PRO:HD3</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>11:BG:78:VAL:HG</td>
<td>7:AR:379:GLY:O</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>7:AR:380:GLY:O</td>
<td>7:AR:844:HIS:CD2</td>
<td>2.50</td>
<td>0.46</td>
</tr>
<tr>
<td>7:AR:918:LEU:HD13</td>
<td>7:AR:927:ILE:HD11</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>10:AU:64:SER:HB2</td>
<td>10:AU:69:ARG:CZ</td>
<td>2.46</td>
<td>0.46</td>
</tr>
<tr>
<td>12:BA:105:LYS:H22</td>
<td>12:BA:140:ALA:CB</td>
<td>2.27</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:208:LEU:HD11</td>
<td>7:BB:214:HIS:CD2</td>
<td>2.50</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:457:CYSH3</td>
<td>7:BB:460:GLU:HB2</td>
<td>1.96</td>
<td>0.46</td>
</tr>
<tr>
<td>7:AR:483:ILE:HG13</td>
<td>7:AR:555:GLU:HB2</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:17:ILE:O</td>
<td>7:BB:20:TYR:HB3</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>10:BF:76:CYS:HB2</td>
<td>10:BF:104:ILE:CG2</td>
<td>2.45</td>
<td>0.46</td>
</tr>
<tr>
<td>15:BH:83:SER:HB3</td>
<td>4:BQ:44:LEU:HD11</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>1:BR:7:DA:C2</td>
<td>2:BS:9:DA:C2</td>
<td>3.03</td>
<td>0.46</td>
</tr>
<tr>
<td>8:AS:145:LEU:N</td>
<td>8:AS:145:LEU:HD12</td>
<td>2.31</td>
<td>0.46</td>
</tr>
<tr>
<td>8:AS:150:GLY:HA2</td>
<td>8:AS:156:PHE:HB2</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>12:BA:145:VAL:HG13</td>
<td>12:BA:146:CYS:N</td>
<td>2.29</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:844:HIS:CD2</td>
<td>7:BB:1026:GLU:HG2</td>
<td>2.51</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:8:LEU:N</td>
<td>7:BB:8:LEU:HD22</td>
<td>2.30</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:953:ILE:HG12</td>
<td>7:BB:954:GLU:H</td>
<td>1.80</td>
<td>0.46</td>
</tr>
<tr>
<td>Atom-1</td>
<td>Atom-2</td>
<td>Interatomic distance (Å)</td>
<td>Clash overlap (Å)</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------</td>
<td>--------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>4:BQ:39:GLN:HG2</td>
<td>4:BQ:40:ASP:H</td>
<td>1.81</td>
<td>0.46</td>
</tr>
<tr>
<td>7:AR:1044:THR:O</td>
<td>7:AR:1044:THR:HG23</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>7:AR:922:MET:SD</td>
<td>12:AW:739:ASN:HB2</td>
<td>2.55</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:256:PHE:N</td>
<td>7:BB:257:PRO:CD</td>
<td>2.78</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:483:ILE:HG13</td>
<td>7:BB:555:GLU:HB2</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>8:BD:133:ILE:HD21</td>
<td>8:BD:139:ILE:HG12</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>2:BS:5:DG:C2</td>
<td>2:BS:6:DA:C2</td>
<td>3.03</td>
<td>0.46</td>
</tr>
<tr>
<td>7:AR:17:ILE:O</td>
<td>7:AR:20:TYR:HB3</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>10:AU:76:CYS:HB2</td>
<td>10:AU:104:ILE:CG2</td>
<td>2.45</td>
<td>0.46</td>
</tr>
<tr>
<td>14:AY:41:VAL:HG22</td>
<td>14:AY:41:VAL:O</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>12:BA:372:TRP:CB</td>
<td>12:BA:373:PRO:CD</td>
<td>2.94</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:1044:THR:O</td>
<td>7:BB:1044:THR:HG23</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>8:BD:98:ILE:HB</td>
<td>8:BD:141:ILE:HG</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>14:AY:192:LYS:CA</td>
<td>14:AY:193:ILE:HB2</td>
<td>2.46</td>
<td>0.46</td>
</tr>
<tr>
<td>7:BB:379:GLY:O</td>
<td>7:BB:380:ARG:HB2</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>1:AC:7:DA:C2</td>
<td>2:AD:9:DA:C2</td>
<td>3.03</td>
<td>0.46</td>
</tr>
<tr>
<td>12:BA:105:LYS:CE</td>
<td>12:BA:136:VAL:HG12</td>
<td>2.46</td>
<td>0.46</td>
</tr>
<tr>
<td>12:BA:775:SER:HB2</td>
<td>12:BA:776:PRO:HD2</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>14:BC:104:LEU:HB3</td>
<td>14:BC:105:PRO:HD3</td>
<td>1.98</td>
<td>0.46</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:BF:95:TYR:CE1</td>
<td>10:BF:97:SER:HB2</td>
<td>2.50</td>
<td>0.46</td>
</tr>
<tr>
<td>7:AR:88:ALA:HA</td>
<td>7:AR:93:LEU:HB2</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>12:AW:51:LYS:HE3</td>
<td>12:AW:583:ASP:HB2</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>12:BA:29:THR:OG1</td>
<td>12:BA:30:PRO:CD</td>
<td>2.63</td>
<td>0.46</td>
</tr>
<tr>
<td>14:BC:41:VAL:O</td>
<td>14:BC:41:VAL:HG22</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>8:AS:98:ILE:HB</td>
<td>8:AS:141:LEU:HG</td>
<td>1.97</td>
<td>0.45</td>
</tr>
<tr>
<td>11:AV:72:CYS:HB3</td>
<td>11:AV:114:LYS:HD2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>9:BE:10:ILE:N</td>
<td>9:BE:10:ILE:HD12</td>
<td>2.32</td>
<td>0.45</td>
</tr>
<tr>
<td>6:BN:3:ILE:CG2</td>
<td>6:BN:52:HIS:CD2</td>
<td>3.00</td>
<td>0.45</td>
</tr>
<tr>
<td>13:BP:10:TRP:CE3</td>
<td>13:BP:11:LYS:HB3</td>
<td>2.51</td>
<td>0.45</td>
</tr>
<tr>
<td>4:BQ:35:LYS:HD3</td>
<td>4:BQ:35:LYS:HA</td>
<td>1.71</td>
<td>0.45</td>
</tr>
<tr>
<td>7:AR:1115:ARG:HB2</td>
<td>12:AW:10:LYS:HB2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>7:AR:256:PHE:N</td>
<td>7:AR:257:PRO:CD</td>
<td>2.79</td>
<td>0.45</td>
</tr>
<tr>
<td>7:AR:680:LEU:HD22</td>
<td>7:AR:696:HIS:CB</td>
<td>2.46</td>
<td>0.45</td>
</tr>
<tr>
<td>14:AY:81:PRO:HB3</td>
<td>14:AY:306:LEU:HG</td>
<td>1.96</td>
<td>0.45</td>
</tr>
<tr>
<td>12:BA:127:SER:O</td>
<td>12:BA:131:ARG:HG3</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>12:BA:691:THR:HG22</td>
<td>12:BA:692:LEU:H</td>
<td>1.80</td>
<td>0.45</td>
</tr>
<tr>
<td>11:BG:96:ILE:HG22</td>
<td>11:BG:97:SER:N</td>
<td>2.32</td>
<td>0.45</td>
</tr>
<tr>
<td>6:BN:19:GLN:HB3</td>
<td>6:BN:20:PRO:CD</td>
<td>2.47</td>
<td>0.45</td>
</tr>
<tr>
<td>15:BH:83:SER:CB</td>
<td>4:BQ:44:LEU:HD11</td>
<td>2.46</td>
<td>0.45</td>
</tr>
</tbody>
</table>

**Continued on next page...**
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:AS:41:ILE:HA</td>
<td>8:AS:145:LEU:HG</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>13:AX:10:TRP:CE3</td>
<td>13:AX:11:LYS:HB3</td>
<td>2.51</td>
<td>0.45</td>
</tr>
<tr>
<td>12:BA:77:LEU:HD23</td>
<td>12:BA:77:LEU:N</td>
<td>2.32</td>
<td>0.45</td>
</tr>
<tr>
<td>12:BA:864:LYS:CA</td>
<td>12:BA:865:THR:CB</td>
<td>2.93</td>
<td>0.45</td>
</tr>
<tr>
<td>14:BC:348:GLU:HG2</td>
<td>2:BS:14:DA:H5&quot;</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>8:BD:145:LEU:HD12</td>
<td>8:BD:145:LEU:N</td>
<td>2.31</td>
<td>0.45</td>
</tr>
<tr>
<td>8:BD:79:PRO:HG3</td>
<td>8:BD:148:GLY:HA2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>6:AO:3:ILE:CG2</td>
<td>6:AO:52:HIS:CD2</td>
<td>3.00</td>
<td>0.45</td>
</tr>
<tr>
<td>7:AR:961:LEU:HG</td>
<td>7:AR:967:PRO:HD3</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>9:AT:84:VAL:HG21</td>
<td>10:AU:84:ARG:NH1</td>
<td>2.31</td>
<td>0.45</td>
</tr>
<tr>
<td>14:AY:26:GLN:O</td>
<td>14:AY:29:VAL:HG12</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>12:BA:238:LYS:HG2</td>
<td>12:BA:276:TYR:HA</td>
<td>1.97</td>
<td>0.45</td>
</tr>
<tr>
<td>7:BB:1015:LEU:HD12</td>
<td>7:BB:1016:THR:HG23</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>14:BC:182:ASP:HA</td>
<td>14:BC:185:LYS:HB2</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>14:BC:192:LYS:CA</td>
<td>14:BC:193:LEU:HB2</td>
<td>2.46</td>
<td>0.45</td>
</tr>
<tr>
<td>4:AJ:45:MET:CB</td>
<td>12:AW:122:LYS:HE2</td>
<td>2.46</td>
<td>0.45</td>
</tr>
<tr>
<td>12:BA:97:THR:HG23</td>
<td>12:BA:103:ARG:HD3</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>14:BC:100:VAL:HG12</td>
<td>14:BC:100:VAL:O</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>14:BC:277:ILE:HG22</td>
<td>14:BC:278:ARG:N</td>
<td>2.32</td>
<td>0.45</td>
</tr>
<tr>
<td>11:BG:18:ILE:CG2</td>
<td>11:BG:29:ILE:HG12</td>
<td>2.46</td>
<td>0.45</td>
</tr>
<tr>
<td>12:AW:419:PHE:CE2</td>
<td>12:AW:462:MET:CE</td>
<td>3.00</td>
<td>0.45</td>
</tr>
<tr>
<td>8:BD:153:HIS:O</td>
<td>8:BD:153:HIS:CG</td>
<td>2.70</td>
<td>0.45</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:BQ:78:ARG:HD3</td>
<td>4:BQ:79:ASP:N</td>
<td>2.32</td>
<td>0.45</td>
</tr>
<tr>
<td>7:AR:647:SER:HB2</td>
<td>7:AR:654:THR:N</td>
<td>2.31</td>
<td>0.45</td>
</tr>
<tr>
<td>7:AR:783:VAL:HB</td>
<td>7:AR:784:ARG:HA</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>8:AS:236:LEU:HD12</td>
<td>8:AS:236:LEU:N</td>
<td>2.31</td>
<td>0.45</td>
</tr>
<tr>
<td>8:AS:59:ALA:HB1</td>
<td>13:AX:47:ALA:HB2</td>
<td>1.97</td>
<td>0.45</td>
</tr>
<tr>
<td>12:BA:393:ASP:O</td>
<td>12:BA:394:ARG:CB</td>
<td>2.65</td>
<td>0.45</td>
</tr>
<tr>
<td>12:BA:492:GLY:HA3</td>
<td>12:BA:862:HIS:HA</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>12:BA:131:ARG:NE</td>
<td>4:BQ:36:LEU:HD11</td>
<td>2.32</td>
<td>0.45</td>
</tr>
<tr>
<td>7:AR:516:GLU:O</td>
<td>7:AR:517:TYR:HB2</td>
<td>2.17</td>
<td>0.45</td>
</tr>
<tr>
<td>8:AS:79:PRO:HG3</td>
<td>8:AS:148:GLY:HA2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>7:BB:1081:VAL:C</td>
<td>7:BB:1091:LEU:HD11</td>
<td>2.36</td>
<td>0.45</td>
</tr>
<tr>
<td>7:BB:197:ALA:HA</td>
<td>7:BB:198:GLY:HA2</td>
<td>1.72</td>
<td>0.45</td>
</tr>
<tr>
<td>7:BB:226:PHE:CE1</td>
<td>7:BB:230:MET:CG</td>
<td>3.00</td>
<td>0.45</td>
</tr>
<tr>
<td>14:BC:104:LEU:N</td>
<td>14:BC:105:PRO:HD2</td>
<td>2.32</td>
<td>0.45</td>
</tr>
<tr>
<td>14:BC:173:MET:HA</td>
<td>14:BC:177:LYS:HD2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
</tbody>
</table>

Continued on next page...
### Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: BR:13: DT: CT'</td>
<td>1: BR:14: DC: P</td>
<td>3.05</td>
<td>0.45</td>
</tr>
<tr>
<td>7: AR:8: LEU: HD11</td>
<td>7: AR:593: THR: HA</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>12: AW:45: CYS: C</td>
<td>12: AW:452: PRO: HD2</td>
<td>2.37</td>
<td>0.45</td>
</tr>
<tr>
<td>12: AW:44: VAL: HG13</td>
<td>12: AW:45: MET: N</td>
<td>2.32</td>
<td>0.45</td>
</tr>
<tr>
<td>14: AY:277: ILE: HG22</td>
<td>14: AY:278: ARG: N</td>
<td>2.32</td>
<td>0.45</td>
</tr>
<tr>
<td>7: AR:1081: VAL: C</td>
<td>7: AR:1091: LEU: HD11</td>
<td>2.37</td>
<td>0.45</td>
</tr>
<tr>
<td>7: AR:683: TYR: CZ</td>
<td>7: AR:687: TYR: HB2</td>
<td>2.52</td>
<td>0.45</td>
</tr>
<tr>
<td>11: AV:92: TYR: CE2</td>
<td>11: AV:113: LEU: CD2</td>
<td>3.00</td>
<td>0.45</td>
</tr>
<tr>
<td>12: BA:450: CYS: C</td>
<td>12: BA:452: PRO: HD2</td>
<td>2.37</td>
<td>0.45</td>
</tr>
<tr>
<td>12: BA:512: LYS: HE3</td>
<td>12: BA:583: ASP: HB2</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>12: BA:646: MET: HE2</td>
<td>12: BA:725: ALA: HB2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>12: BA:864: LYS: HA</td>
<td>12: BA:865: THR: OG1</td>
<td>2.17</td>
<td>0.45</td>
</tr>
<tr>
<td>14: BC:25: PRO: O</td>
<td>14: BC:26: GLN: CB</td>
<td>2.65</td>
<td>0.45</td>
</tr>
<tr>
<td>8: BD:254: GLU: OE1</td>
<td>5: BL:77: ARG: HD3</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>5: BL:15: LEU: HB3</td>
<td>5: BL:55: VAL: CG2</td>
<td>2.47</td>
<td>0.45</td>
</tr>
<tr>
<td>2: BS:16: DA: C5'</td>
<td>2: BS:17: DG: OP1</td>
<td>2.65</td>
<td>0.45</td>
</tr>
<tr>
<td>13: AX:17: GLN: HG3</td>
<td>13: AX:18: LEU: N</td>
<td>2.32</td>
<td>0.44</td>
</tr>
<tr>
<td>12: BA:342: ILE: CG2</td>
<td>12: BA:343: ILE: N</td>
<td>2.80</td>
<td>0.44</td>
</tr>
<tr>
<td>12: BA:423: PRO: HB2</td>
<td>12: BA:425: LEU: CD1</td>
<td>2.47</td>
<td>0.44</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:BB:209:Lys:O</td>
<td>7:BB:210:Asp:HB2</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:898:Val:HG12</td>
<td>8:BD:30:Arg:NH2</td>
<td>2.32</td>
<td>0.44</td>
</tr>
<tr>
<td>11:BG:92:Tyr:CE2</td>
<td>11:BG:113:Leu:HD21</td>
<td>2.52</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:209:Lys:O</td>
<td>7:AR:210:Asp:HB2</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:855:Leu:HD12</td>
<td>7:AR:855:Leu:N</td>
<td>2.33</td>
<td>0.44</td>
</tr>
<tr>
<td>12:BA:419:Phe:CE2</td>
<td>12:BA:462:Met:CE</td>
<td>3.00</td>
<td>0.44</td>
</tr>
<tr>
<td>6:BN:2:Met:HG2</td>
<td>6:BN:56:Leu:HD12</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:683:Tyr:CZ</td>
<td>7:BB:687:Tyr:HB2</td>
<td>2.52</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:856:Thr:HG23</td>
<td>7:BB:857:Glu:N</td>
<td>2.33</td>
<td>0.44</td>
</tr>
<tr>
<td>4:BQ:70:Asp:O</td>
<td>4:BQ:73:Lys:HG2</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>2:AD:3:DT:H2&quot;</td>
<td>2:AD:4:Da:N7</td>
<td>2.32</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:1086:Gly:O</td>
<td>7:AR:1087:Asp:HB2</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:774:Asp:O</td>
<td>7:AR:775:Lys:CB</td>
<td>2.65</td>
<td>0.44</td>
</tr>
<tr>
<td>12:AW:228:Gly:O</td>
<td>12:AW:229:Leu:HG12</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>12:AW:77:Leu:HD23</td>
<td>12:AW:77:Leu:N</td>
<td>2.32</td>
<td>0.44</td>
</tr>
<tr>
<td>14:AY:104:Leu:N</td>
<td>14:AY:105:Pro:HD2</td>
<td>2.32</td>
<td>0.44</td>
</tr>
<tr>
<td>14:AY:113:Ala:O</td>
<td>14:AY:114:Lys:HB3</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>14:AY:211:Ala:HB1</td>
<td>14:AY:213:Leu:N</td>
<td>2.32</td>
<td>0.44</td>
</tr>
<tr>
<td>12:BA:708:Arg:CD</td>
<td>12:BA:748:Gly:HA3</td>
<td>2.48</td>
<td>0.44</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:BB:647:SER:HB2</td>
<td>7:BB:648:PRO:HD3</td>
<td>1.98</td>
<td>0.44</td>
</tr>
<tr>
<td>8:BD:236:LEU:N</td>
<td>8:BD:236:LEU:HD12</td>
<td>2.31</td>
<td>0.44</td>
</tr>
<tr>
<td>11:BG:92:TYR:CE2</td>
<td>11:BG:113:LEU:CD2</td>
<td>3.01</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:322:ILE:O</td>
<td>7:AR:326:ILE:HG12</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:981:LYS:HE2</td>
<td>8:AS:205:LEU:HD13</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>14:AY:351:VAL:HG23</td>
<td>14:AY:352:LYS:H</td>
<td>1.82</td>
<td>0.44</td>
</tr>
<tr>
<td>12:AW:823:LEU:HD13</td>
<td>14:AY:75:ALA:HB1</td>
<td>1.98</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:1110:MET:HG2</td>
<td>7:BB:1110:MET:O</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:8:LEU:HD11</td>
<td>7:BB:593:THR:HA</td>
<td>1.98</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:952:PRO:O</td>
<td>7:BB:953:ILE:C</td>
<td>2.56</td>
<td>0.44</td>
</tr>
<tr>
<td>14:BC:122:MET:HE1</td>
<td>14:BC:124:ILE:HD11</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>8:BD:41:ILE:HA</td>
<td>8:BD:145:LEU:HG</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>15:BH:45:ILE:HG22</td>
<td>15:BH:46:ARG:H</td>
<td>1.83</td>
<td>0.44</td>
</tr>
<tr>
<td>2:BS:3:DT:H2</td>
<td>2:BS:4:DA:N7</td>
<td>2.32</td>
<td>0.44</td>
</tr>
<tr>
<td>5:AM:15:LEU:HB3</td>
<td>5:AM:55:VAL:CG2</td>
<td>2.48</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:592:VAL:CG2</td>
<td>7:AR:615:LYS:HD3</td>
<td>2.48</td>
<td>0.44</td>
</tr>
<tr>
<td>8:AS:13:ILE:HG21</td>
<td>8:AS:238:PRO:HB2</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>11:AV:46:ILE:HG12</td>
<td>12:AW:542:PRO:HG2</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>14:AY:333:GLY:O</td>
<td>14:AY:337:GLU:HG2</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>15:AZ:45:ILE:HG22</td>
<td>15:AZ:46:ARG:H</td>
<td>1.83</td>
<td>0.44</td>
</tr>
<tr>
<td>12:BA:4:LYS:HG3</td>
<td>7:BB:1092:PHE:CD2</td>
<td>2.52</td>
<td>0.44</td>
</tr>
<tr>
<td>12:BA:614:TRP:O</td>
<td>12:BA:618:GLU:HG2</td>
<td>2.16</td>
<td>0.44</td>
</tr>
<tr>
<td>12:BA:818:TYR:CE1</td>
<td>12:BA:822:ARG:HG3</td>
<td>2.51</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:212:THR:HG21</td>
<td>7:BB:214:HIS:NE2</td>
<td>2.33</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:572:ASN:HB3</td>
<td>7:BB:577:ARG:HD3</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:774:ASP:O</td>
<td>7:BB:775:LYS:CB</td>
<td>2.66</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:745:ARG:HB2</td>
<td>7:BB:894:LEU:HB3</td>
<td>2.00</td>
<td>0.44</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:BC:258:LEU:HD22</td>
<td>14:BC:280:ILE:HD13</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>8:BD:154:ALA:HA</td>
<td>8:BD:157:ILE:HG13</td>
<td>1.98</td>
<td>0.44</td>
</tr>
<tr>
<td>8:BD:96:ILE:HG13</td>
<td>8:BD:143:ALA:HB3</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>2:AD:16:DA:C5'</td>
<td>2:AD:17:DG:OP1</td>
<td>2.66</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:333:ARG:O</td>
<td>7:AR:334:GLU:HB3</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:399:HIS:O</td>
<td>7:AR:403:THR:HG22</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:952:PRO:O</td>
<td>7:AR:953:ILE:C</td>
<td>2.56</td>
<td>0.44</td>
</tr>
<tr>
<td>9:AT:10:ILE:N</td>
<td>9:AT:10:ILE:HD12</td>
<td>2.32</td>
<td>0.44</td>
</tr>
<tr>
<td>9:AT:30:LEU:HD22</td>
<td>9:AT:72:PHE:CZ</td>
<td>2.52</td>
<td>0.44</td>
</tr>
<tr>
<td>14:A Y:100:VAL:HG12</td>
<td>14:A Y:100:VAL:O</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>14:AY:176:ASP:HB3</td>
<td>14:AY:177:LYS:HG3</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>12:BA:30:PRO:O</td>
<td>12:BA:243:VAL:HG11</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>12:BA:495:ILE:O</td>
<td>12:BA:605:ASN:HB2</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:399:HIS:O</td>
<td>7:BB:403:THR:HG22</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>14:BC:113:ALA:O</td>
<td>14:BC:114:LYS:HB3</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>14:BC:372:ASN:HA</td>
<td>14:BC:375:ILE:HG22</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>8:BD:73:LEU:HD11</td>
<td>8:BD:236:LEU:CD2</td>
<td>2.48</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:1064:CYS:CB</td>
<td>7:AR:1067:CYS:HB2</td>
<td>2.47</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:89:ARG:NH1</td>
<td>7:AR:156:ILE:HD11</td>
<td>2.33</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:212:THR:HG21</td>
<td>7:AR:214:HIS:NE2</td>
<td>2.33</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:520:TRP:N</td>
<td>7:AR:520:TRP:CD1</td>
<td>2.85</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:591:LEU:O</td>
<td>7:AR:592:VAL:HG12</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:742:ILE:HB</td>
<td>7:AR:912:ILE:HB</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>9:AT:146:VAL:HG11</td>
<td>9:AT:149:VAL:CG2</td>
<td>2.48</td>
<td>0.44</td>
</tr>
<tr>
<td>14:AY:25:PRO:O</td>
<td>14:AY:26:GLN:CB</td>
<td>2.65</td>
<td>0.44</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:BG:72:CYS:CB</td>
<td>11:BG:114:LYS:HD2</td>
<td>2.48</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:323:SER:HA</td>
<td>7:AR:326:ILE:CD1</td>
<td>2.48</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:583:ILE:HD13</td>
<td>7:AR:616:ILE:HG12</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>14:AY:369:VAL:HG23</td>
<td>14:AY:370:VAL:N</td>
<td>2.33</td>
<td>0.44</td>
</tr>
<tr>
<td>12:BA:105:LYS:NZ</td>
<td>12:BA:140:ALA:HB3</td>
<td>2.31</td>
<td>0.44</td>
</tr>
<tr>
<td>12:BA:324:THR:HG22</td>
<td>12:BA:443:PHE:CE2</td>
<td>2.53</td>
<td>0.44</td>
</tr>
<tr>
<td>12:BA:548:GLY:O</td>
<td>12:BA:551:VAL:HG12</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>12:BA:592:ILE:O</td>
<td>12:BA:594:LEU:HD22</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>12:BA:818:TYR:CE1</td>
<td>12:BA:822:ARG:CG</td>
<td>3.01</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:323:SER:HA</td>
<td>7:BB:326:ILE:CD1</td>
<td>2.48</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:743:MET:HE1</td>
<td>7:BB:891:ILE:HD11</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>7:BB:675:MET:HE1</td>
<td>7:BB:888:LYS:HD3</td>
<td>1.98</td>
<td>0.44</td>
</tr>
<tr>
<td>9:BE:30:LEU:HD22</td>
<td>9:BE:72:PHE:CZ</td>
<td>2.52</td>
<td>0.44</td>
</tr>
<tr>
<td>7:AR:1111:ILE:HG22</td>
<td>7:AR:1111:ILE:O</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:524:ILE:HD12</td>
<td>7:AR:524:ILE:N</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>6:AO:5:ILE:CD1</td>
<td>8:AS:61:ARG:CG</td>
<td>2.96</td>
<td>0.43</td>
</tr>
<tr>
<td>12:AW:159:GLU:HG2</td>
<td>12:AW:160:LYS:O</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>14:AY:226:ILE:HG23</td>
<td>14:AY:230:LYS:NZ</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>12:AW:842:TYR:CE1</td>
<td>14:AY:367:LYS:HB2</td>
<td>2.53</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:160:LYS:HD3</td>
<td>12:BA:165:TYR:CE2</td>
<td>2.53</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:509:LEU:HA</td>
<td>12:BA:638:PHE:CE2</td>
<td>2.53</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:516:LEU:HD12</td>
<td>12:BA:516:LEU:N</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:541:ALA:HB2</td>
<td>11:BG:72:CYS:HB2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:769:PHE:CE2</td>
<td>12:BA:778:ALA:HA</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:79:ARG:HB3</td>
<td>12:BA:80:PRO:HD2</td>
<td>1.99</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:361:PHE:O</td>
<td>7:BB:364:PHE:HB3</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>11:BG:8:GLU:HB2</td>
<td>11:BG:60:SER:HB2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>3:BK:68:GLU:HG3</td>
<td>3:BK:74:LEU:HD21</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>3:AI:59:THR:CG2</td>
<td>3:AI:63:SER:HB3</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:10:ILE:HA</td>
<td>7:AR:13:ARG:HD3</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:646:TRP:CE2</td>
<td>7:AR:648:PRO:HG2</td>
<td>2.53</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:961:LEU:O</td>
<td>7:AR:961:LEU:HD23</td>
<td>2.18</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:AV:72:CYS:CB</td>
<td>11:AV:114:LYS:HD2</td>
<td>2.49</td>
<td>0.43</td>
</tr>
<tr>
<td>14:AY:182:ASP:HA</td>
<td>14:AY:185:LYS:HB2</td>
<td>1.99</td>
<td>0.43</td>
</tr>
<tr>
<td>14:AY:196:PHE:HD2</td>
<td>14:AY:209:SER:OG</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:105:LYS:HE3</td>
<td>12:BA:140:ALA:HB2</td>
<td>1.99</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:44:VAL:HG13</td>
<td>12:BA:45:MET:N</td>
<td>2.32</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:3:GLU:HG3</td>
<td>7:BB:1093:PRO:HD2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:903:THR:HG22</td>
<td>7:BB:904:VAL:N</td>
<td>2.32</td>
<td>0.43</td>
</tr>
<tr>
<td>14:BC:196:PHE:HD2</td>
<td>14:BC:209:SER:OG</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>4:BQ:35:LYS:O</td>
<td>4:BQ:35:LYS:HD2</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>2:AD:14:DA:C5</td>
<td>2:AD:15:DT:H72</td>
<td>2.53</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:197:ALA:HA</td>
<td>7:AR:198:GLY:HA2</td>
<td>1.72</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:857:GLU:HG3</td>
<td>13:AX:24:VAL:CG1</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>9:AT:108:VAL:HG22</td>
<td>9:AT:162:LEU:HB2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>10:AU:106:ILE:O</td>
<td>10:AU:107:ILE:C</td>
<td>2.56</td>
<td>0.43</td>
</tr>
<tr>
<td>11:AV:8:GLU:HB2</td>
<td>11:AV:60:SER:HB2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:517:THR:O</td>
<td>12:BA:518:LYS:C</td>
<td>2.55</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:812:ARG:HG3</td>
<td>14:BC:86:THR:HG22</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:592:VAL:CG2</td>
<td>7:BB:615:LYS:HD3</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:1110:MET:HG2</td>
<td>7:AR:1110:MET:O</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:226:PHE:CE1</td>
<td>7:AR:230:MET:CG</td>
<td>3.01</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:833:GLN:CA</td>
<td>7:AR:834:ALA:CB</td>
<td>2.97</td>
<td>0.43</td>
</tr>
<tr>
<td>11:AV:8:GLU:CB</td>
<td>11:AV:60:SER:HB2</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>14:AY:104:LEU:C</td>
<td>14:AY:104:LEU:HD23</td>
<td>2.38</td>
<td>0.43</td>
</tr>
<tr>
<td>12:AW:823:LEU:HD13</td>
<td>14:AY:75:ALA:CB</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:10:ILE:HA</td>
<td>7:BB:13:ARG:HD3</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:271:ALA:O</td>
<td>7:BB:274:PHE:HB3</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:768:TYR:HB3</td>
<td>7:BB:769:PRO:HD2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:BC:211:ALA:HB1</td>
<td>14:BC:213:ILE:N</td>
<td>2.32</td>
<td>0.43</td>
</tr>
<tr>
<td>14:BC:274:THR:HG22</td>
<td>14:BC:276:ASN:H</td>
<td>1.84</td>
<td>0.43</td>
</tr>
<tr>
<td>14:BC:340:SER:O</td>
<td>14:BC:344:ARG:HD3</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>11:BG:10:ILE:CD1</td>
<td>11:BG:58:PHE:CD2</td>
<td>3.02</td>
<td>0.43</td>
</tr>
<tr>
<td>11:BG:8:GLU:CB</td>
<td>11:BG:60:SER:HB2</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>3:AI:53:ILE:O</td>
<td>3:AI:54:ASN:C</td>
<td>2.57</td>
<td>0.43</td>
</tr>
<tr>
<td>4:AJ:42:GLU:O</td>
<td>4:AJ:45:MET:HB3</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:903:THR:HG22</td>
<td>7:AR:904:VAL:N</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>2:AD:14:DA:OP2</td>
<td>14:AY:348:GLU:CD</td>
<td>2.57</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:159:GLU:HG2</td>
<td>12:BA:160:LYS:O</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:95:LYS:HE2</td>
<td>12:BA:141:MET:HE2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:1086:GLY:O</td>
<td>7:BB:1087:ASP:HB2</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:1111:ILE:O</td>
<td>7:BB:1111:ILE:HG22</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:520:TRP:CD1</td>
<td>7:BB:520:TRP:N</td>
<td>2.85</td>
<td>0.43</td>
</tr>
<tr>
<td>9:BE:94:ASN:HB3</td>
<td>9:BE:120:TYR:CD2</td>
<td>2.54</td>
<td>0.43</td>
</tr>
<tr>
<td>10:BF:101:GLN:O</td>
<td>10:BF:105:ASP:N</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>3:BK:53:ILE:O</td>
<td>3:BK:54:ASN:C</td>
<td>2.56</td>
<td>0.43</td>
</tr>
<tr>
<td>6:AO:1:MET:O</td>
<td>6:AO:2:MET:HB2</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>10:AU:72:LEU:HG</td>
<td>10:AU:84:ARG:NH2</td>
<td>2.34</td>
<td>0.43</td>
</tr>
<tr>
<td>12:AW:259:GLN:HA</td>
<td>12:AW:262:ILE:HG22</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>12:AW:443:PHE:CE2</td>
<td>12:AW:464:LEU:HB2</td>
<td>2.54</td>
<td>0.43</td>
</tr>
<tr>
<td>11:AV:72:CYS:H</td>
<td>12:AW:541:ALA:CB</td>
<td>2.31</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:259:GLN:HA</td>
<td>12:BA:262:ILE:HG22</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:738:LEU:HD12</td>
<td>12:BA:738:LEU:C</td>
<td>2.38</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:752:VAL:O</td>
<td>12:BA:752:VAL:HG23</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:524:ILE:HD12</td>
<td>7:BB:524:ILE:N</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>8:BD:141:LEU:HD12</td>
<td>8:BD:141:LEU:C</td>
<td>2.39</td>
<td>0.43</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:BD:41:ILE:HD13</td>
<td>8:BD:145:LEU:HG</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>2:BS:14:DA:C5</td>
<td>2:BS:15:DT:H72</td>
<td>2.53</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:856:THR:HG23</td>
<td>7:AR:857:GLU:N</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>11:AV:79:THR:CG2</td>
<td>11:AV:80:GLU:HB2</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>12:AW:165:TYR:CE1</td>
<td>12:AW:174:LYS:HB2</td>
<td>2.54</td>
<td>0.43</td>
</tr>
<tr>
<td>14:AY:119:THR:HG22</td>
<td>14:AY:121:MET:HE2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:165:TYR:CE1</td>
<td>12:BA:174:LYS:HB2</td>
<td>2.54</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:238:LYS:HA</td>
<td>12:BA:238:LYS:HD2</td>
<td>1.90</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:27:ILE:HG22</td>
<td>12:BA:74:HIS:NE2</td>
<td>2.34</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:26:LEU:H</td>
<td>7:BB:26:LEU:HD23</td>
<td>1.84</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:516:GLU:O</td>
<td>7:BB:517:TYR:HB2</td>
<td>2.17</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:833:GLN:N</td>
<td>7:BB:834:ALA:CA</td>
<td>2.82</td>
<td>0.43</td>
</tr>
<tr>
<td>14:BC:226:ILE:HG23</td>
<td>14:BC:230:LYS:NZ</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>14:BC:369:VAL:HG23</td>
<td>14:BC:370:VAL:N</td>
<td>2.34</td>
<td>0.43</td>
</tr>
<tr>
<td>11:BG:79:THR:CG2</td>
<td>11:BG:80:GLU:HB2</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:271:ALA:O</td>
<td>7:AR:274:PHE:HB3</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:768:TYR:HB3</td>
<td>7:AR:769:PRO:HD2</td>
<td>1.99</td>
<td>0.43</td>
</tr>
<tr>
<td>4:AJ:45:MET:HG3</td>
<td>12:AW:122:LYS:HE2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>12:AW:30:PRO:O</td>
<td>12:AW:24:3:VAL:HG11</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>13:AX:38:ARG:HG2</td>
<td>13:AX:39:LYS:N</td>
<td>2.34</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:456:ASP:OD1</td>
<td>12:BA:460:ASP:CG</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>8:BD:13:ILE:HG21</td>
<td>8:BD:238:PRO:HB2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>13:BP:38:ARG:HG2</td>
<td>13:BP:39:LYS:N</td>
<td>2.34</td>
<td>0.43</td>
</tr>
<tr>
<td>4:BQ:54:LEU:HA</td>
<td>4:BQ:59:ILE:CG2</td>
<td>2.49</td>
<td>0.43</td>
</tr>
<tr>
<td>4:AJ:45:MET:HB2</td>
<td>12:AW:122:LYS:CE</td>
<td>2.47</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:592:VAL:HG22</td>
<td>7:AR:596:ASP:HB2</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:942:ILE:O</td>
<td>7:AR:943:VAL:HB</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>8:AS:73:LEU:HD11</td>
<td>8:AS:236:LEU:CD2</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>8:AS:96:ILE:HG13</td>
<td>8:AS:238:PRO:HB2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>11:AV:100:GLY:O</td>
<td>11:AV:104:LYS:HB2</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:618:GLU:CD</td>
<td>12:BA:874:ARG:HD3</td>
<td>2.40</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:67:ASN:C</td>
<td>12:BA:69:PRO:HD3</td>
<td>2.38</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:864:LYS:HB3</td>
<td>12:BA:865:THR:C</td>
<td>2.39</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:89:ARG:NH1</td>
<td>7:BB:15:6:ILE:HD11</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>7:BB:547:ARG:HA</td>
<td>7:BB:552:ILE:CG2</td>
<td>2.49</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:BC:333:GLY:O</td>
<td>14:BC:337:GLU:HG2</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>13:BP:17:GLN:HG3</td>
<td>13:BP:18:LEU:N</td>
<td>2.32</td>
<td>0.43</td>
</tr>
<tr>
<td>3:AI:50:LEU:HD12</td>
<td>3:AI:73:VAL:HG23</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:235:ILE:HG22</td>
<td>7:AR:241:ILE:HG13</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:298:LYS:HG3</td>
<td>7:AR:299:TYR:CD2</td>
<td>2.54</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:361:PHE:O</td>
<td>7:AR:364:PHE:HB3</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:403:THR:HG23</td>
<td>7:AR:405:ASN:H</td>
<td>1.84</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:733:THR:HG23</td>
<td>7:AR:735:TYR:CD2</td>
<td>2.53</td>
<td>0.43</td>
</tr>
<tr>
<td>8:AS:41:ILE:HD13</td>
<td>8:AS:145:LEU:HG</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>12:AW:728:MET:HA</td>
<td>12:AW:731:THR:HG22</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:134:GLU:O</td>
<td>12:BA:138:LYS:HG2</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:228:GLY:O</td>
<td>12:BA:229:ILE:HG12</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:586:VAL:HG11</td>
<td>12:BA:611:ILE:HD11</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:728:MET:HA</td>
<td>12:BA:731:THR:HG22</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>12:BA:747:LEU:HD21</td>
<td>12:BA:786:PHE:CD2</td>
<td>2.54</td>
<td>0.43</td>
</tr>
<tr>
<td>9:BE:60:VAL:HG22</td>
<td>9:BE:61:PHE:N</td>
<td>2.34</td>
<td>0.43</td>
</tr>
<tr>
<td>7:AR:1118:LEU:HD23</td>
<td>7:AR:1118:LEU:H</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:572:ASN:HB3</td>
<td>7:AR:577:ARG:HD3</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>11:AV:64:LEU:HD21</td>
<td>11:AV:112:PHE:HB2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>12:BA:358:ILE:HG23</td>
<td>12:BA:359:GLU:N</td>
<td>2.34</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:646:TRP:CE2</td>
<td>7:BB:648:PRO:HG2</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>14:BC:348:GLU:CG</td>
<td>14:BC:349:VAL:N</td>
<td>2.82</td>
<td>0.42</td>
</tr>
<tr>
<td>8:BD:66:PRO:HG2</td>
<td>8:BD:124:ILE:HG12</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>2:AD:15:DT:HD2</td>
<td>2:AD:16:DA:OP1</td>
<td>2.18</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:217:PHE:CB</td>
<td>7:AR:221:PRO:O</td>
<td>2.67</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:226:PHE:CE1</td>
<td>7:AR:318:LEU:HD22</td>
<td>2.54</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:AR:745:ARG:HB2</td>
<td>7:AR:894:LEU:HB3</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:217:PHE:CB</td>
<td>7:BB:221:PRO:O</td>
<td>2.68</td>
<td>0.42</td>
</tr>
<tr>
<td>14:BC:119:THR:HG22</td>
<td>14:BC:121:MET:HE2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>9:BE:9:SER:HB3</td>
<td>10:BF:4:VAL:HA</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>10:BF:72:LEU:HG</td>
<td>10:BF:84:ARG:NH2</td>
<td>2.34</td>
<td>0.42</td>
</tr>
<tr>
<td>11:BG:64:LEU:HD21</td>
<td>11:BG:112:PHE:HB2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>3:AI:93:ARG:O</td>
<td>3:AI:94:LYS:HB2</td>
<td>2.18</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:521:SER:HB3</td>
<td>7:AR:567:ASN:ND2</td>
<td>2.34</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:841:VAL:HG12</td>
<td>7:AR:842:THR:N</td>
<td>2.34</td>
<td>0.42</td>
</tr>
<tr>
<td>9:AT:94:ASN:HB3</td>
<td>9:AT:120:TYR:CD2</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>14:AY:211:ALA:CA</td>
<td>14:AY:212:ASN:CB</td>
<td>2.93</td>
<td>0.42</td>
</tr>
<tr>
<td>14:AY:257:ASN:O</td>
<td>14:AY:261:VAL:HG23</td>
<td>2.18</td>
<td>0.42</td>
</tr>
<tr>
<td>14:AY:311:ARG:HA</td>
<td>14:AY:314:LEU:HD12</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>12:BA:505:GLY:HA3</td>
<td>12:BA:639:VAL:HG23</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:298:LYS:HG3</td>
<td>7:BB:299:TYR:CD2</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:403:THR:HG23</td>
<td>7:BB:405:ASN:H</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:833:GLN:CA</td>
<td>7:BB:834:ALA:CB</td>
<td>2.97</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:898:VAL:HG12</td>
<td>8:BD:30:ARG:HZ</td>
<td>2.50</td>
<td>0.42</td>
</tr>
<tr>
<td>2:AD:16:DA:OP1</td>
<td>2:AD:16:DA:O2</td>
<td>2.72</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:217:PHE:HZ</td>
<td>7:AR:300:PHE:CA</td>
<td>2.32</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:233:LEU:CD1</td>
<td>7:AR:315:ALA:HD2</td>
<td>2.49</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:547:ARG:HA</td>
<td>7:AR:552:ILE:CG2</td>
<td>2.49</td>
<td>0.42</td>
</tr>
<tr>
<td>8:AS:141:LEU:C</td>
<td>8:AS:141:LEU:HD12</td>
<td>2.39</td>
<td>0.42</td>
</tr>
<tr>
<td>14:AY:235:LYS:HE2</td>
<td>14:AY:261:VAL:HA</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>12:BA:40:ILE:HD13</td>
<td>12:BA:47:PRO:HG3</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>12:BA:53:GLU:HA</td>
<td>12:BA:54:PRO:HD3</td>
<td>1.93</td>
<td>0.42</td>
</tr>
<tr>
<td>12:BA:79:ARG:CB</td>
<td>12:BA:266:TRP:CG3</td>
<td>3.02</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:226:PHE:CE1</td>
<td>7:BB:318:LEU:HD22</td>
<td>2.54</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Continued from previous page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:BB:233:LEU:CD1</td>
<td>7:BB:315:ALA:HB2</td>
<td>2.49</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:592:VAL:HG22</td>
<td>7:BB:596:ASP:HB2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>8:BD:172:ILE:HD11</td>
<td>8:BD:188:PHE:CE1</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>15:BH:45:ILE:HG22</td>
<td>15:BH:46:ARG:N</td>
<td>2.35</td>
<td>0.42</td>
</tr>
<tr>
<td>6:BN:3:ILE:HG22</td>
<td>6:BN:52:HIS:CD2</td>
<td>2.55</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:259:LEU:O</td>
<td>7:AR:263:SER:HB3</td>
<td>2.20</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:76:SER:HA</td>
<td>7:AR:77:ASP:HA</td>
<td>1.73</td>
<td>0.42</td>
</tr>
<tr>
<td>11:AV:64:LEU:CD2</td>
<td>11:AV:64:LEU:N</td>
<td>2.82</td>
<td>0.42</td>
</tr>
<tr>
<td>12:AW:103:ARG:HB3</td>
<td>12:AW:186:LYS:HB2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:841:VAL:HG12</td>
<td>7:BB:842:THR:N</td>
<td>2.34</td>
<td>0.42</td>
</tr>
<tr>
<td>11:BG:100:GLY:O</td>
<td>11:BG:104:LYS:HB2</td>
<td>2.20</td>
<td>0.42</td>
</tr>
<tr>
<td>6:BN:1:MET:O</td>
<td>6:BN:2:MET:HB2</td>
<td>2.19</td>
<td>0.42</td>
</tr>
<tr>
<td>2:BS:15:DT:2O</td>
<td>2:BS:16:DA:OP1</td>
<td>2.18</td>
<td>0.42</td>
</tr>
<tr>
<td>4:AJ:70:ASP:O</td>
<td>4:AJ:73:LYS:HG2</td>
<td>2.18</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:633:PRO:HA</td>
<td>7:AR:636:LEU:HD23</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:918:LEU:N</td>
<td>7:AR:919:PRO:HD2</td>
<td>2.34</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:94:THR:O</td>
<td>7:AR:96:ALA:N</td>
<td>2.53</td>
<td>0.42</td>
</tr>
<tr>
<td>9:AT:126:ILE:HG22</td>
<td>9:AT:137:GLN:HG2</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>9:AT:30:LEU:HD13</td>
<td>9:AT:72:PHE:CZ</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>11:AV:10:ILE:CD1</td>
<td>11:AV:58:PHE:CD2</td>
<td>3.02</td>
<td>0.42</td>
</tr>
<tr>
<td>11:AV:23:LEU:HD12</td>
<td>12:AW:512:LYS:HB2</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>14:AY:152:VAL:HA</td>
<td>14:AY:173:MET:HB3</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:259:LEU:O</td>
<td>7:BB:263:SER:HB3</td>
<td>2.20</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:BB:733:THR:HG23</td>
<td>7:BB:735:TYR:CD2</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:872:LEU:HD23</td>
<td>7:BB:873:ARG:N</td>
<td>2.34</td>
<td>0.42</td>
</tr>
<tr>
<td>14:BC:173:MET:HA</td>
<td>14:BC:177:LYS:CD</td>
<td>2.50</td>
<td>0.42</td>
</tr>
<tr>
<td>9:BE:30:LEU:HD13</td>
<td>9:BE:72:PHE:CZ</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>3:BK:93:ARG:O</td>
<td>3:BK:94:LYS:HB2</td>
<td>2.18</td>
<td>0.42</td>
</tr>
<tr>
<td>2:AD:3:DT:O'</td>
<td>2:AD:4:DA:C8</td>
<td>2.73</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:840:ILE:HD12</td>
<td>7:AR:840:ILE:N</td>
<td>2.35</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:1008:ALA:HB2</td>
<td>12:AW:346:THR:HG22</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:450:GLY:HA3</td>
<td>12:AW:760:GLY:HA2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:94:THR:O</td>
<td>7:BB:96:ALA:N</td>
<td>2.53</td>
<td>0.42</td>
</tr>
<tr>
<td>8:BD:78:TRP:HB3</td>
<td>8:BD:79:PRO:CD</td>
<td>2.49</td>
<td>0.42</td>
</tr>
<tr>
<td>10:BF:7:VAL:HG12</td>
<td>10:BF:8:GLU:HG2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:56:ILE:CG2</td>
<td>7:AR:59:LEU:HB2</td>
<td>2.49</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:833:GLN:N</td>
<td>7:AR:834:ALA:CA</td>
<td>2.82</td>
<td>0.42</td>
</tr>
<tr>
<td>9:AT:171:LYS:HG3</td>
<td>9:AT:172:LEU:N</td>
<td>2.35</td>
<td>0.42</td>
</tr>
<tr>
<td>9:AT:60:VAL:HG22</td>
<td>9:AT:61:PHE:N</td>
<td>2.34</td>
<td>0.42</td>
</tr>
<tr>
<td>12:BA:35:GLU:O</td>
<td>12:BA:39:PRO:HD2</td>
<td>2.20</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:217:PHE:HZ</td>
<td>7:BB:300:PHE:CA</td>
<td>2.32</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:521:SER:HB3</td>
<td>7:BB:567:ASN:ND2</td>
<td>2.34</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:706:VAL:HG11</td>
<td>7:BB:929:GLU:HG2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:AR:478:GLN:HG2</td>
<td>7:AR:479:ILE:N</td>
<td>2.34</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:591:LEU:O</td>
<td>7:AR:592:VAL:CB</td>
<td>2.68</td>
<td>0.42</td>
</tr>
<tr>
<td>14:AY:211:ALA:HA</td>
<td>14:AY:212:ASN:CB</td>
<td>2.48</td>
<td>0.42</td>
</tr>
<tr>
<td>12:BA:510:THR:CG2</td>
<td>12:BA:552:VAL:HG21</td>
<td>2.50</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:478:GLN:HG2</td>
<td>7:BB:479:ILE:N</td>
<td>2.35</td>
<td>0.42</td>
</tr>
<tr>
<td>7:BB:918:LEU:N</td>
<td>7:BB:919:PRO:HD2</td>
<td>2.34</td>
<td>0.42</td>
</tr>
<tr>
<td>8:BD:61:ARG:CZ</td>
<td>6:BN:5:ILE:HD11</td>
<td>2.49</td>
<td>0.42</td>
</tr>
<tr>
<td>3:BK:50:LEU:HD12</td>
<td>3:BK:73:VAL:HG23</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:592:VAL:CG2</td>
<td>7:AR:596:ASP:CG</td>
<td>2.88</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:872:LEU:HD23</td>
<td>7:AR:873:ARG:N</td>
<td>2.35</td>
<td>0.42</td>
</tr>
<tr>
<td>14:AY:268:ASP:O</td>
<td>14:AY:272:VAL:HG23</td>
<td>2.20</td>
<td>0.42</td>
</tr>
<tr>
<td>12:BA:431:MET:CE</td>
<td>12:BA:482:VAL:HA</td>
<td>2.50</td>
<td>0.42</td>
</tr>
<tr>
<td>6:BN:3:ILE:HD13</td>
<td>6:BN:18:TRP:CB</td>
<td>2.50</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:BS:3:DT:O3'</td>
<td>2:BS:4:DA:C8</td>
<td>2.73</td>
<td>0.42</td>
</tr>
<tr>
<td>7:AR:1059:THR:HG2</td>
<td>7:AR:1060:THR:N</td>
<td>2.35</td>
<td>0.41</td>
</tr>
<tr>
<td>7:AR:300:PHE:O</td>
<td>7:AR:301:LEU:C</td>
<td>2.58</td>
<td>0.41</td>
</tr>
<tr>
<td>7:AR:480:ALA:HB2</td>
<td>7:AR:579:ARG:HD3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>7:AR:632:GLU:HB3</td>
<td>7:AR:633:PRO:HD2</td>
<td>2.01</td>
<td>0.41</td>
</tr>
<tr>
<td>8:AS:66:PRO:HG2</td>
<td>8:AS:124:ILE:HG12</td>
<td>2.01</td>
<td>0.41</td>
</tr>
<tr>
<td>12:AW:106:ILE:HG22</td>
<td>12:AW:143:ALA:HB3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>12:AW:79:ARG:CB</td>
<td>12:AW:266:TRP:CZ3</td>
<td>3.03</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:372:TRP:C</td>
<td>12:BA:372:TRP:CD1</td>
<td>2.93</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:519:GLU:O</td>
<td>12:BA:523:GLN:HB2</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:217:PHE:O</td>
<td>7:BB:221:PRO:HA</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:73:VAL:HG13</td>
<td>7:BB:83:ILE:HD13</td>
<td>2.00</td>
<td>0.41</td>
</tr>
<tr>
<td>11:BG:64:LEU:N</td>
<td>11:BG:64:LEU:CD2</td>
<td>2.82</td>
<td>0.41</td>
</tr>
<tr>
<td>7:AR:691:THR:HG23</td>
<td>7:AR:691:THR:O</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>8:AS:172:ILE:HD11</td>
<td>8:AS:188:PHE:CE1</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>14:AY:8:LYS:N</td>
<td>14:AY:8:LYS:HD2</td>
<td>2.35</td>
<td>0.41</td>
</tr>
<tr>
<td>15:AZ:45:ILE:HG22</td>
<td>15:AZ:46:ARG:N</td>
<td>2.35</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:146:CYS:HB3</td>
<td>12:BA:149:CYS:HB2</td>
<td>1.72</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:103:ARG:HB3</td>
<td>12:BA:186:LYS:CB</td>
<td>2.49</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:1118:LEU:HD23</td>
<td>7:BB:1118:LEU:H</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:300:PHE:O</td>
<td>7:BB:301:LEU:C</td>
<td>2.59</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:632:GLU:HB3</td>
<td>7:BB:633:PRO:HD2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:633:PRO:HA</td>
<td>7:BB:636:LEU:HD23</td>
<td>2.01</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:741:ILE:HG23</td>
<td>7:BB:911:VAL:HG13</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>14:BC:211:ALA:CB</td>
<td>14:BC:213:ILE:N</td>
<td>2.84</td>
<td>0.41</td>
</tr>
<tr>
<td>8:BD:121:ILE:N</td>
<td>8:BD:121:ILE:HD12</td>
<td>2.36</td>
<td>0.41</td>
</tr>
<tr>
<td>4:AJ:35:LYS:O</td>
<td>4:AJ:35:LYS:HD3</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>10:AU:91:SER:HB2</td>
<td>10:AU:92:ASN:CA</td>
<td>2.41</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:AY:262:LEU:HD11</td>
<td>14:AY:283:VAL:HG11</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:687:ILE:HD12</td>
<td>12:BA:688:PRO:HD2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:1064:CYS:CB</td>
<td>7:BB:1067:CYS:HB2</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>11:BG:10:ILE:C</td>
<td>11:BG:11:LEU:HD12</td>
<td>2.41</td>
<td>0.41</td>
</tr>
<tr>
<td>6:AO:3:ILE:HG22</td>
<td>6:AO:52:HIS:CD2</td>
<td>2.55</td>
<td>0.41</td>
</tr>
<tr>
<td>7:AR:706:VAL:HG11</td>
<td>7:AR:929:GLU:HG2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>8:AS:115:LYS:O</td>
<td>8:AS:116:SER:HB2</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>10:AU:75:ILE:C</td>
<td>10:AU:76:CYS:SG</td>
<td>2.98</td>
<td>0.41</td>
</tr>
<tr>
<td>10:AU:89:MET:HB3</td>
<td>10:AU:89:MET:HE2</td>
<td>1.87</td>
<td>0.41</td>
</tr>
<tr>
<td>12:AW:417:VAL:CG1</td>
<td>12:AW:418:LEU:N</td>
<td>2.84</td>
<td>0.41</td>
</tr>
<tr>
<td>12:AW:95:LYS:HE2</td>
<td>12:AW:141:MET:HE2</td>
<td>2.00</td>
<td>0.41</td>
</tr>
<tr>
<td>14:AY:173:MET:HA</td>
<td>14:AY:177:LYS:CD</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>14:BC:8:LYS:N</td>
<td>14:BC:8:LYS:HD2</td>
<td>2.35</td>
<td>0.41</td>
</tr>
<tr>
<td>8:BD:115:LYS:O</td>
<td>8:BD:116:SER:HB2</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>4:BQ:42:GLU:O</td>
<td>4:BQ:45:MET:HB3</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>8:AS:121:ILE:HD12</td>
<td>8:AS:121:ILE:N</td>
<td>2.36</td>
<td>0.41</td>
</tr>
<tr>
<td>8:AS:38:VAL:HG12</td>
<td>8:AS:39:MET:N</td>
<td>2.36</td>
<td>0.41</td>
</tr>
<tr>
<td>10:AU:87:LEU:CD2</td>
<td>10:AU:87:LEU:O</td>
<td>2.69</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Continued from previous page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:BB:591:LEU:O</td>
<td>7:BB:592:VAL:CB</td>
<td>2.67</td>
<td>0.41</td>
</tr>
<tr>
<td>14:BC:24:LYS:HE3</td>
<td>14:BC:24:TYR:HD1</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>8:BD:189:GLU:HG2</td>
<td>8:BD:198:LYS:HE3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>4:BQ:34:PRO:O</td>
<td>4:BQ:35:LYS:CB</td>
<td>2.67</td>
<td>0.41</td>
</tr>
<tr>
<td>2:BS:16:DA:C8</td>
<td>2:BS:16:DA:OP1</td>
<td>2.73</td>
<td>0.41</td>
</tr>
<tr>
<td>2:BS:4:DA:H2&quot;</td>
<td>2:BS:5:DG:OP2</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>2:BS:6:DA:C2</td>
<td>2:BS:7:DG:C2</td>
<td>3.08</td>
<td>0.41</td>
</tr>
<tr>
<td>6:AO:3:ILE:HD13</td>
<td>6:AO:18:TRP:CB</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>6:AO:40:VAL:O</td>
<td>6:AO:41:LYS:HB2</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>9:AT:80:VAL:HG12</td>
<td>9:AT:81:VAL:N</td>
<td>2.34</td>
<td>0.41</td>
</tr>
<tr>
<td>10:AU:88:ILE:C</td>
<td>10:AU:90:ASP:N</td>
<td>2.74</td>
<td>0.41</td>
</tr>
<tr>
<td>15:AZ:45:ILE:HG12</td>
<td>15:AZ:79:ARG:CD</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:370:ASP:O</td>
<td>12:BA:371:LYS:HB3</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:749:GLN:NE2</td>
<td>12:BA:756:ARG:HG2</td>
<td>2.35</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:56:ILE:CG2</td>
<td>7:BB:59:LEU:HB2</td>
<td>2.49</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:691:THR:HG23</td>
<td>7:BB:691:THR:O</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>10:BF:41:LEU:HA</td>
<td>10:BF:44:VAL:HG12</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>10:BF:76:CYS:N</td>
<td>10:BF:77:PRO:HD3</td>
<td>2.36</td>
<td>0.41</td>
</tr>
<tr>
<td>15:BH:45:ILE:HG13</td>
<td>15:BH:79:ARG:HB2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:BS:15:DT:C1'</td>
<td>2:BS:16:DA:P</td>
<td>3.08</td>
<td>0.41</td>
</tr>
<tr>
<td>7:AR:743:MET:HE1</td>
<td>7:AR:891:ILE:CD1</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>8:AS:15:LEU:HD11</td>
<td>8:AS:242:LEU:HD13</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>9:AT:132:SER:O</td>
<td>9:AT:133:LYS:HG2</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>10:AU:7:VAL:HG12</td>
<td>10:AU:8:GLU:HG2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>14:AY:277:ILE:HD13</td>
<td>14:AY:293:ILE:HD13</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:684:LEU:HD12</td>
<td>12:BA:685:GLU:N</td>
<td>2.36</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:692:LEU:CD1</td>
<td>12:BA:692:LEU:N</td>
<td>2.83</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:201:VAL:HG23</td>
<td>7:BB:202:PRO:HD2</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:462:PRO:CG</td>
<td>7:BB:470:VAL:HG13</td>
<td>2.51</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:592:VAL:CG2</td>
<td>7:BB:596:ASP:CG</td>
<td>2.89</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:840:ILE:HD12</td>
<td>7:BB:840:ILE:N</td>
<td>2.35</td>
<td>0.41</td>
</tr>
<tr>
<td>5:BL:18:GLU:HA</td>
<td>5:BL:52:LYS:HG2</td>
<td>2.03</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:AR:283:GLN:HG3</td>
<td>7:AR:283:GLN:O</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>7:AR:1117:ILE:HD11</td>
<td>12:AW:10:LYS:HE3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>14:AY:211:ALA:CB</td>
<td>14:AY:213:ILE:N</td>
<td>2.83</td>
<td>0.41</td>
</tr>
<tr>
<td>14:AY:226:ILE:HG23</td>
<td>14:AY:230:LYS:HE3</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:192:VAL:CG2</td>
<td>12:BA:199:PRO:HB3</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:263:GLU:O</td>
<td>12:BA:266:TRP:HB3</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:33:TYR:CA</td>
<td>12:BA:34:ASP:CB</td>
<td>2.99</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:33:TYR:O</td>
<td>12:BA:41:GLU:CB</td>
<td>2.68</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:938:LEU:HD23</td>
<td>6:BN:43:TYR:HB3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:AD:15:DT:CT'</td>
<td>2:AD:16:DA:P</td>
<td>3.07</td>
<td>0.41</td>
</tr>
<tr>
<td>7:AR:1020:THR:HG22</td>
<td>7:AR:1021:GLU:H</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>8:AS:78:TRP:HB3</td>
<td>8:AS:79:PRO:CD</td>
<td>2.49</td>
<td>0.41</td>
</tr>
<tr>
<td>14:AY:199:ASP:HB2</td>
<td>14:AY:206:LEU:HD23</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>14:AY:265:LYS:N</td>
<td>14:AY:265:LYS:HD2</td>
<td>2.36</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:77:LEU:HB2</td>
<td>12:BA:210:THR:O</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:870:ARG:HD2</td>
<td>12:BA:870:ARG:HA</td>
<td>1.91</td>
<td>0.41</td>
</tr>
<tr>
<td>14:BC:199:ASP:HB2</td>
<td>14:BC:206:LEU:HD23</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>4:BQ:57:GLY:O</td>
<td>4:BQ:58:LYS:C</td>
<td>2.58</td>
<td>0.41</td>
</tr>
<tr>
<td>4:BQ:72:TYR:CE1</td>
<td>4:BQ:76:GLU:HG2</td>
<td>2.56</td>
<td>0.41</td>
</tr>
<tr>
<td>2:AD:4:DA:H2''</td>
<td>2:AD:5:DG:OP2</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>3:AI:23:TRP:CZ3</td>
<td>3:AI:26:LYS:HE3</td>
<td>2.56</td>
<td>0.41</td>
</tr>
<tr>
<td>7:AR:26:LEU:H</td>
<td>7:AR:26:LEU:HD23</td>
<td>1.84</td>
<td>0.41</td>
</tr>
<tr>
<td>7:AR:748:VAL:CG1</td>
<td>7:AR:875:PRO:HG2</td>
<td>2.50</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:AW:687:ILE:HG22</td>
<td>12:AW:695:SER:HB2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>12:AW:827:LEU:HB3</td>
<td>14:AY:71:GLY:CA</td>
<td>2.51</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:107:SER:HB2</td>
<td>12:BA:108:GLU:HB2</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:249:LEU:HD21</td>
<td>12:BA:265:LEU:HB2</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:687:ILE:HG22</td>
<td>12:BA:695:SER:HB2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:359:VAL:HG13</td>
<td>7:BB:360:ALA:N</td>
<td>2.36</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:748:VAL:CG1</td>
<td>7:BB:875:PRO:HG2</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:823:LEU:HD13</td>
<td>14:BC:75:ALA:HA</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>8:BD:79:PRO:HG2</td>
<td>8:BD:149:TYR:CD2</td>
<td>2.56</td>
<td>0.41</td>
</tr>
<tr>
<td>10:BF:87:LEU:O</td>
<td>10:BF:87:LEU:CD2</td>
<td>2.68</td>
<td>0.41</td>
</tr>
<tr>
<td>11:BG:64:LEU:HD23</td>
<td>11:BG:114:LYS:HE3</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:AD:15:DT:H1'</td>
<td>2:AD:16:DA:OP2</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>4:AJ:35:LYS:HA</td>
<td>4:AJ:35:LYS:HD3</td>
<td>1.79</td>
<td>0.41</td>
</tr>
<tr>
<td>7:AR:217:PHE:O</td>
<td>7:AR:221:PRO:HA</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>8:AS:189:GLU:HG2</td>
<td>8:AS:198:LYS:HE3</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>8:AS:17:PHE:O</td>
<td>8:AS:225:LYS:HA</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>3:AI:34:ARG:NE</td>
<td>9:AT:61:PHE:CE1</td>
<td>2.89</td>
<td>0.41</td>
</tr>
<tr>
<td>10:AU:88:ILE:CG2</td>
<td>10:AU:92:ASN:OD1</td>
<td>2.69</td>
<td>0.41</td>
</tr>
<tr>
<td>12:AW:263:GLU:O</td>
<td>12:AW:266:TRP:HB3</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>7:AR:737:MET:SD</td>
<td>12:AW:447:LEU:HD13</td>
<td>2.61</td>
<td>0.41</td>
</tr>
<tr>
<td>12:AW:687:ILE:CD1</td>
<td>12:AW:688:PRO:HD2</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>12:AW:879:LYS:HE3</td>
<td>14:AY:40:GLU:O</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:107:SER:OG</td>
<td>12:BA:140:ALA:HB2</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:162:TYR:CG</td>
<td>12:BA:162:TYR:O</td>
<td>2.73</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:103:ARG:HB3</td>
<td>12:BA:186:LYS:HB2</td>
<td>2.01</td>
<td>0.41</td>
</tr>
<tr>
<td>12:BA:417:VAL:CG1</td>
<td>12:BA:418:LEU:N</td>
<td>2.84</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:1061:ILE:HD11</td>
<td>7:BB:1101:LYS:HD2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>7:BB:273:ASP:O</td>
<td>7:BB:277:SER:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:BB:705:LEU:O</td>
<td>7:BB:706:VAL:CG1</td>
<td>2.69</td>
<td>0.41</td>
</tr>
<tr>
<td>8:BD:38:VAL:HG12</td>
<td>8:BD:39:MET:N</td>
<td>2.36</td>
<td>0.41</td>
</tr>
<tr>
<td>15:BH:45:ILE:HG12</td>
<td>15:BH:79:ARG:CD</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>5:BL:5:ILE:HG13</td>
<td>5:BL:5:ILE:O</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>13:BP:10:TRP:HB2</td>
<td>13:BP:31:TYR:CE2</td>
<td>2.56</td>
<td>0.41</td>
</tr>
<tr>
<td>7:AR:1061:ILE:HD11</td>
<td>7:AR:1101:LYS:HD2</td>
<td>2.02</td>
<td>0.40</td>
</tr>
<tr>
<td>7:AR:668:ARG:HA</td>
<td>7:AR:668:ARG:HD3</td>
<td>1.94</td>
<td>0.40</td>
</tr>
<tr>
<td>7:BB:283:GLN:HG3</td>
<td>7:BB:283:GLN:O</td>
<td>2.21</td>
<td>0.40</td>
</tr>
<tr>
<td>7:BB:480:ALA:HB2</td>
<td>7:BB:579:ARG:HD3</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>14:BC:226:ILE:HG23</td>
<td>14:BC:230:LYS:HE3</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>8:BD:93:TYR:HA</td>
<td>8:BD:145:LEU:O</td>
<td>2.20</td>
<td>0.40</td>
</tr>
<tr>
<td>6:BN:40:VAL:O</td>
<td>6:BN:41:LYS:HB2</td>
<td>2.21</td>
<td>0.40</td>
</tr>
<tr>
<td>7:AR:273:ASP:O</td>
<td>7:AR:277:SER:N</td>
<td>2.54</td>
<td>0.40</td>
</tr>
<tr>
<td>7:AR:778:MET:HE3</td>
<td>7:AR:779:PRO:HE3</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>12:AW:40:ILE:CG2</td>
<td>12:AW:41:GLU:N</td>
<td>2.84</td>
<td>0.40</td>
</tr>
<tr>
<td>12:BA:106:ILE:HG22</td>
<td>12:BA:143:ALA:HE3</td>
<td>2.02</td>
<td>0.40</td>
</tr>
<tr>
<td>12:BA:541:ALA:HB2</td>
<td>11:BG:72:CYS:N</td>
<td>2.36</td>
<td>0.40</td>
</tr>
<tr>
<td>12:BA:687:ILE:CD1</td>
<td>12:BA:688:PRO:HD2</td>
<td>2.50</td>
<td>0.40</td>
</tr>
<tr>
<td>12:BA:95:LYS:HD3</td>
<td>12:BA:141:MET:CE</td>
<td>2.51</td>
<td>0.40</td>
</tr>
<tr>
<td>7:BB:996:LEU:N</td>
<td>7:BB:996:LEU:HD12</td>
<td>2.37</td>
<td>0.40</td>
</tr>
<tr>
<td>8:BD:134:GLY:N</td>
<td>6:BN:60:ILE:HD11</td>
<td>2.36</td>
<td>0.40</td>
</tr>
<tr>
<td>8:BD:17:PHE:O</td>
<td>8:BD:225:LYS:HA</td>
<td>2.21</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued on previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:AD:14:DA:H2'</td>
<td>2:AD:15:DT:O5'</td>
<td>2.21</td>
<td>0.40</td>
</tr>
<tr>
<td>5:AM:86:GLU:OE1</td>
<td>8:AS:256:LEU:HB2</td>
<td>2.61</td>
<td>0.40</td>
</tr>
<tr>
<td>7:AR:56:ILE:HA</td>
<td>7:AR:57:PRO:HD3</td>
<td>1.98</td>
<td>0.40</td>
</tr>
<tr>
<td>10:AU:44:VAL:HG12</td>
<td>10:AU:41:LEU:HA</td>
<td>2.02</td>
<td>0.40</td>
</tr>
<tr>
<td>14:AY:244:LYS:HB3</td>
<td>14:AY:249:TYR:HD1</td>
<td>1.85</td>
<td>0.40</td>
</tr>
<tr>
<td>14:AY:29:VAL:HG23</td>
<td>14:AY:52:PHE:HE1</td>
<td>1.86</td>
<td>0.40</td>
</tr>
<tr>
<td>12:BA:108:GLU:HG3</td>
<td>12:BA:147:PRO:HG2</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>12:BA:505:GLY:CA</td>
<td>12:BA:639:VAL:HG23</td>
<td>2.51</td>
<td>0.40</td>
</tr>
<tr>
<td>7:BB:952:PRO:O</td>
<td>7:BB:954:GLU:N</td>
<td>2.54</td>
<td>0.40</td>
</tr>
<tr>
<td>14:BC:265:LYS:N</td>
<td>14:BC:265:LYS:HD2</td>
<td>2.36</td>
<td>0.40</td>
</tr>
<tr>
<td>8:BD:15:LEU:HD11</td>
<td>8:BD:242:LEU:HD13</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>6:BN:19:GLN:N</td>
<td>6:BN:20:PRO:HD2</td>
<td>2.37</td>
<td>0.40</td>
</tr>
<tr>
<td>4:BQ:59:ILE:HG12</td>
<td>4:BQ:60:SER:N</td>
<td>2.36</td>
<td>0.40</td>
</tr>
<tr>
<td>4:BQ:74:ASP:N</td>
<td>4:BQ:73:LYS:HG3</td>
<td>2.36</td>
<td>0.40</td>
</tr>
<tr>
<td>7:AR:201:VAL:HG23</td>
<td>7:AR:202:PRO:HD2</td>
<td>2.04</td>
<td>0.40</td>
</tr>
<tr>
<td>7:AR:359:VAL:HG13</td>
<td>7:AR:360:ALA:N</td>
<td>2.36</td>
<td>0.40</td>
</tr>
<tr>
<td>7:AR:462:PRO:CG</td>
<td>7:AR:470:VAL:HG13</td>
<td>2.51</td>
<td>0.40</td>
</tr>
<tr>
<td>7:AR:705:LEU:O</td>
<td>7:AR:706:VAL:CG1</td>
<td>2.69</td>
<td>0.40</td>
</tr>
<tr>
<td>12:BA:41:GLU:N</td>
<td>12:BA:40:ILE:CG2</td>
<td>2.84</td>
<td>0.40</td>
</tr>
<tr>
<td>7:BB:1036:ARG:HB3</td>
<td>7:BB:1033:GLU:O</td>
<td>2.21</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:BB:500:VAL:O</td>
<td>7:BB:504:ILE:HG12</td>
<td>2.21</td>
<td>0.40</td>
</tr>
<tr>
<td>12:BA:728:MET:CE</td>
<td>7:BB:919:PRO:HG3</td>
<td>2.51</td>
<td>0.40</td>
</tr>
<tr>
<td>14:BC:42:LEU:CA</td>
<td>14:BC:43:VAL:HG23</td>
<td>2.50</td>
<td>0.40</td>
</tr>
<tr>
<td>2:BS:14:DA:H2&quot;</td>
<td>2:BS:15:DT:O5&quot;</td>
<td>2.21</td>
<td>0.40</td>
</tr>
<tr>
<td>5:AM:18:GLU:HA</td>
<td>5:AM:52:LYS:HG2</td>
<td>2.04</td>
<td>0.40</td>
</tr>
<tr>
<td>7:AR:364:PHE:HB2</td>
<td>7:AR:393:VAL:HG22</td>
<td>2.04</td>
<td>0.40</td>
</tr>
<tr>
<td>7:AR:637:THR:HB</td>
<td>7:AR:638:PRO:HD2</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>7:AR:741:ILE:HG23</td>
<td>7:AR:911:VAL:HG13</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>12:BA:333:SER:OG</td>
<td>12:BA:625:LYS:HE3</td>
<td>2.20</td>
<td>0.40</td>
</tr>
<tr>
<td>12:BA:864:LYS:HD2</td>
<td>12:BA:867:ASP:CA</td>
<td>2.52</td>
<td>0.40</td>
</tr>
<tr>
<td>7:BB:808:LYS:HD2</td>
<td>7:BB:808:LYS:C</td>
<td>2.42</td>
<td>0.40</td>
</tr>
<tr>
<td>14:BC:29:VAL:HG23</td>
<td>14:BC:52:PHE:HE1</td>
<td>1.86</td>
<td>0.40</td>
</tr>
<tr>
<td>8:BD:205:LEU:O</td>
<td>8:BD:207:GLU:N</td>
<td>2.55</td>
<td>0.40</td>
</tr>
<tr>
<td>8:BD:230:LEU:HD12</td>
<td>8:BD:242:LEU:CD2</td>
<td>2.52</td>
<td>0.40</td>
</tr>
<tr>
<td>10:BF:88:ILE:C</td>
<td>10:BF:90:ASP:N</td>
<td>2.74</td>
<td>0.40</td>
</tr>
<tr>
<td>5:BL:3:ILE:CG2</td>
<td>5:BL:15:LEU:HD11</td>
<td>2.52</td>
<td>0.40</td>
</tr>
</tbody>
</table>
There are no symmetry-related clashes.

### 5.3 Torsion angles

#### 5.3.1 Protein backbone

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

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

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>Favoured</th>
<th>Allowed</th>
<th>Outliers</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>AI</td>
<td>82/95 (86%)</td>
<td>68 (83%)</td>
<td>9 (11%)</td>
<td>5 (6%)</td>
<td>1 21</td>
</tr>
<tr>
<td>3</td>
<td>BK</td>
<td>82/95 (86%)</td>
<td>68 (83%)</td>
<td>9 (11%)</td>
<td>5 (6%)</td>
<td>1 21</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>47/104 (45%)</td>
<td>39 (83%)</td>
<td>4 (8%)</td>
<td>4 (8%)</td>
<td>1 14</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>48/104 (46%)</td>
<td>39 (81%)</td>
<td>4 (8%)</td>
<td>5 (10%)</td>
<td>0 10</td>
</tr>
<tr>
<td>5</td>
<td>AM</td>
<td>89/92 (97%)</td>
<td>82 (92%)</td>
<td>5 (6%)</td>
<td>2 (2%)</td>
<td>7 43</td>
</tr>
<tr>
<td>5</td>
<td>BL</td>
<td>89/92 (97%)</td>
<td>81 (91%)</td>
<td>6 (7%)</td>
<td>2 (2%)</td>
<td>7 43</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>63/66 (96%)</td>
<td>47 (75%)</td>
<td>9 (14%)</td>
<td>7 (11%)</td>
<td>0 09</td>
</tr>
<tr>
<td>6</td>
<td>BN</td>
<td>63/66 (96%)</td>
<td>47 (75%)</td>
<td>9 (14%)</td>
<td>7 (11%)</td>
<td>0 09</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1097/1131 (97%)</td>
<td>925 (84%)</td>
<td>129 (12%)</td>
<td>43 (4%)</td>
<td>3 30</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1097/1131 (97%)</td>
<td>925 (84%)</td>
<td>130 (12%)</td>
<td>42 (4%)</td>
<td>3 31</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>260/265 (98%)</td>
<td>218 (84%)</td>
<td>36 (14%)</td>
<td>6 (2%)</td>
<td>7 42</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>260/265 (98%)</td>
<td>218 (84%)</td>
<td>36 (14%)</td>
<td>6 (2%)</td>
<td>7 42</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>167/180 (93%)</td>
<td>150 (90%)</td>
<td>15 (9%)</td>
<td>2 (1%)</td>
<td>14 55</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>167/180 (93%)</td>
<td>150 (90%)</td>
<td>15 (9%)</td>
<td>2 (1%)</td>
<td>14 55</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>103/113 (91%)</td>
<td>79 (77%)</td>
<td>18 (18%)</td>
<td>6 (6%)</td>
<td>2 22</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>103/113 (91%)</td>
<td>79 (77%)</td>
<td>18 (18%)</td>
<td>6 (6%)</td>
<td>2 22</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>111/132 (84%)</td>
<td>80 (72%)</td>
<td>25 (22%)</td>
<td>6 (5%)</td>
<td>2 24</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>111/132 (84%)</td>
<td>80 (72%)</td>
<td>25 (22%)</td>
<td>6 (5%)</td>
<td>2 24</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>868/880 (99%)</td>
<td>716 (82%)</td>
<td>121 (14%)</td>
<td>31 (4%)</td>
<td>4 33</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>868/880 (99%)</td>
<td>717 (83%)</td>
<td>121 (14%)</td>
<td>30 (4%)</td>
<td>4 33</td>
</tr>
<tr>
<td>13</td>
<td>AX</td>
<td>42/48 (88%)</td>
<td>29 (69%)</td>
<td>10 (24%)</td>
<td>3 (7%)</td>
<td>1 18</td>
</tr>
<tr>
<td>13</td>
<td>BP</td>
<td>42/48 (88%)</td>
<td>29 (69%)</td>
<td>10 (24%)</td>
<td>3 (7%)</td>
<td>1 18</td>
</tr>
</tbody>
</table>

*Continued on next page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>Favoured</th>
<th>Allowed</th>
<th>Outliers</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>AY</td>
<td>372/395 (94%)</td>
<td>303 (82%)</td>
<td>50 (13%)</td>
<td>19 (5%)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>372/395 (94%)</td>
<td>303 (82%)</td>
<td>50 (13%)</td>
<td>19 (5%)</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>AZ</td>
<td>74/84 (88%)</td>
<td>64 (86%)</td>
<td>6 (8%)</td>
<td>4 (5%)</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>BH</td>
<td>74/84 (88%)</td>
<td>64 (86%)</td>
<td>6 (8%)</td>
<td>4 (5%)</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>6751/7170 (94%)</td>
<td>5600 (83%)</td>
<td>876 (13%)</td>
<td>275 (4%)</td>
<td>3 29</td>
</tr>
</tbody>
</table>

All (275) Ramachandran outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>AI</td>
<td>55</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>37</td>
<td>SER</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>58</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>59</td>
<td>ILE</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>3</td>
<td>ILE</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>9</td>
<td>THR</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>64</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>52</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>113</td>
<td>GLU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>221</td>
<td>PRO</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>285</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>953</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1015</td>
<td>LEU</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>126</td>
<td>ILE</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>17</td>
<td>SER</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>107</td>
<td>SER</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>34</td>
<td>ASP</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>43</td>
<td>SER</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>44</td>
<td>VAL</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>229</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>291</td>
<td>SER</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>541</td>
<td>ALA</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>684</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>764</td>
<td>ARG</td>
</tr>
<tr>
<td>13</td>
<td>AX</td>
<td>17</td>
<td>GLN</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>41</td>
<td>VAL</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>43</td>
<td>VAL</td>
</tr>
<tr>
<td>15</td>
<td>AZ</td>
<td>13</td>
<td>ILE</td>
</tr>
<tr>
<td>15</td>
<td>AZ</td>
<td>44</td>
<td>TRP</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>34</td>
<td>ASP</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>43</td>
<td>SER</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>44</td>
<td>VAL</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>BA</td>
<td>229</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>291</td>
<td>SER</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>541</td>
<td>ALA</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>684</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>764</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>52</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>113</td>
<td>GLU</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>221</td>
<td>PRO</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>285</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>953</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1015</td>
<td>LEU</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>41</td>
<td>VAL</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>43</td>
<td>VAL</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>126</td>
<td>ILE</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>17</td>
<td>SER</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>107</td>
<td>SER</td>
</tr>
<tr>
<td>15</td>
<td>BH</td>
<td>13</td>
<td>ILE</td>
</tr>
<tr>
<td>15</td>
<td>BH</td>
<td>44</td>
<td>TRP</td>
</tr>
<tr>
<td>3</td>
<td>BK</td>
<td>55</td>
<td>ASN</td>
</tr>
<tr>
<td>6</td>
<td>BN</td>
<td>3</td>
<td>ILE</td>
</tr>
<tr>
<td>6</td>
<td>BN</td>
<td>9</td>
<td>THR</td>
</tr>
<tr>
<td>6</td>
<td>BN</td>
<td>64</td>
<td>ARG</td>
</tr>
<tr>
<td>13</td>
<td>BP</td>
<td>17</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>37</td>
<td>SER</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>58</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>59</td>
<td>ILE</td>
</tr>
<tr>
<td>3</td>
<td>AI</td>
<td>61</td>
<td>VAL</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>39</td>
<td>GLY</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>40</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>95</td>
<td>TYR</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>197</td>
<td>ALA</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>407</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>592</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>735</td>
<td>TYR</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>836</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>943</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1009</td>
<td>ARG</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>87</td>
<td>GLU</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>4</td>
<td>VAL</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>71</td>
<td>HIS</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>372</td>
<td>TRP</td>
</tr>
<tr>
<td>13</td>
<td>AX</td>
<td>8</td>
<td>LYS</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>AY</td>
<td>127</td>
<td>THR</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>163</td>
<td>MET</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>193</td>
<td>LEU</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>210</td>
<td>PHE</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>349</td>
<td>VAL</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>71</td>
<td>HIS</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>372</td>
<td>TRP</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>95</td>
<td>TYR</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>197</td>
<td>ALA</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>407</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>592</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>735</td>
<td>TYR</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>836</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>943</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1009</td>
<td>ARG</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>127</td>
<td>THR</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>163</td>
<td>MET</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>193</td>
<td>LEU</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>210</td>
<td>PHE</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>349</td>
<td>VAL</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>87</td>
<td>GLU</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>4</td>
<td>VAL</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>79</td>
<td>THR</td>
</tr>
<tr>
<td>3</td>
<td>BK</td>
<td>61</td>
<td>VAL</td>
</tr>
<tr>
<td>6</td>
<td>BN</td>
<td>39</td>
<td>GLY</td>
</tr>
<tr>
<td>6</td>
<td>BN</td>
<td>40</td>
<td>VAL</td>
</tr>
<tr>
<td>13</td>
<td>BP</td>
<td>8</td>
<td>LYS</td>
</tr>
<tr>
<td>3</td>
<td>AI</td>
<td>47</td>
<td>ALA</td>
</tr>
<tr>
<td>3</td>
<td>AI</td>
<td>54</td>
<td>ASN</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>41</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>267</td>
<td>ASN</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>283</td>
<td>GLN</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>706</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>844</td>
<td>HIS</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1056</td>
<td>SER</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1078</td>
<td>ASN</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>206</td>
<td>CYS</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>51</td>
<td>GLN</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>79</td>
<td>THR</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>29</td>
<td>THR</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>161</td>
<td>PRO</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>734</td>
<td>ARG</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>AW</td>
<td>814</td>
<td>SER</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>849</td>
<td>ALA</td>
</tr>
<tr>
<td>13</td>
<td>AX</td>
<td>9</td>
<td>CYS</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>101</td>
<td>THR</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>113</td>
<td>ALA</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>129</td>
<td>GLU</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>146</td>
<td>TYR</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>180</td>
<td>THR</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>29</td>
<td>THR</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>161</td>
<td>PRO</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>734</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>814</td>
<td>SER</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>849</td>
<td>ALA</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>41</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>267</td>
<td>ASN</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>283</td>
<td>GLN</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>706</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>844</td>
<td>HIS</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1056</td>
<td>SER</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1078</td>
<td>ASN</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>101</td>
<td>THR</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>113</td>
<td>ALA</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>129</td>
<td>GLU</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>146</td>
<td>TYR</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>180</td>
<td>THR</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>206</td>
<td>CYS</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>51</td>
<td>GLN</td>
</tr>
<tr>
<td>3</td>
<td>BK</td>
<td>47</td>
<td>ALA</td>
</tr>
<tr>
<td>3</td>
<td>BK</td>
<td>54</td>
<td>ASN</td>
</tr>
<tr>
<td>13</td>
<td>BP</td>
<td>9</td>
<td>CYS</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>36</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>36</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>24</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>53</td>
<td>PRO</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>187</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>334</td>
<td>GLU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>460</td>
<td>GLU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1076</td>
<td>ASN</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>90</td>
<td>GLU</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>130</td>
<td>ILE</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>205</td>
<td>LEU</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>63</td>
<td>ILE</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>AU</td>
<td>83</td>
<td>VAL</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>257</td>
<td>ALA</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>308</td>
<td>ARG</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>211</td>
<td>ALA</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>217</td>
<td>ALA</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>331</td>
<td>ARG</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>350</td>
<td>THR</td>
</tr>
<tr>
<td>15</td>
<td>AZ</td>
<td>12</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>151</td>
<td>GLU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>257</td>
<td>ALA</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>308</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>24</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>53</td>
<td>PRO</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>187</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>334</td>
<td>GLU</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>460</td>
<td>GLU</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1076</td>
<td>ASN</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>211</td>
<td>ALA</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>217</td>
<td>ALA</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>331</td>
<td>ARG</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>350</td>
<td>THR</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>90</td>
<td>GLU</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>130</td>
<td>ILE</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>205</td>
<td>LEU</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>63</td>
<td>ILE</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>83</td>
<td>VAL</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>106</td>
<td>ILE</td>
</tr>
<tr>
<td>15</td>
<td>BH</td>
<td>12</td>
<td>ARG</td>
</tr>
<tr>
<td>3</td>
<td>AI</td>
<td>50</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>AM</td>
<td>39</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>AM</td>
<td>62</td>
<td>SER</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>41</td>
<td>LYS</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>63</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>213</td>
<td>PHE</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>223</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>281</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>563</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>733</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>775</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>952</td>
<td>PRO</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1053</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1075</td>
<td>LYS</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>AT</td>
<td>50</td>
<td>ASN</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>31</td>
<td>SER</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>93</td>
<td>ARG</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>47</td>
<td>ASN</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>106</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>103</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>108</td>
<td>GLU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>126</td>
<td>PRO</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>151</td>
<td>GLU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>393</td>
<td>ASP</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>599</td>
<td>ASP</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>866</td>
<td>VAL</td>
</tr>
<tr>
<td>14</td>
<td>AV</td>
<td>237</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>103</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>108</td>
<td>GLU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>126</td>
<td>PRO</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>393</td>
<td>ASP</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>599</td>
<td>ASP</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>866</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>213</td>
<td>PHE</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>223</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>281</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>563</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>733</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>775</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>952</td>
<td>PRO</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1053</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1075</td>
<td>LYS</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>237</td>
<td>ILE</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>50</td>
<td>ASN</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>31</td>
<td>SER</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>93</td>
<td>ARG</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>47</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>BK</td>
<td>50</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>BL</td>
<td>39</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>BL</td>
<td>62</td>
<td>SER</td>
</tr>
<tr>
<td>6</td>
<td>BN</td>
<td>41</td>
<td>LYS</td>
</tr>
<tr>
<td>6</td>
<td>BN</td>
<td>63</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>33</td>
<td>PHE</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>690</td>
<td>ARG</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>68</td>
<td>VAL</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>39</td>
<td>PRO</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>AW</td>
<td>255</td>
<td>ALA</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>812</td>
<td>ARG</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>328</td>
<td>GLN</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>39</td>
<td>PRO</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>255</td>
<td>ALA</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>812</td>
<td>ARG</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>328</td>
<td>GLN</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>68</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>27</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>918</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1114</td>
<td>PRO</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>284</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>688</td>
<td>PRO</td>
</tr>
<tr>
<td>15</td>
<td>AZ</td>
<td>43</td>
<td>PRO</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>284</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>688</td>
<td>PRO</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>27</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>918</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1114</td>
<td>PRO</td>
</tr>
<tr>
<td>15</td>
<td>BH</td>
<td>43</td>
<td>PRO</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>203</td>
<td>VAL</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>83</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>203</td>
<td>VAL</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>83</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>234</td>
<td>GLY</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>216</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>234</td>
<td>GLY</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>216</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>350</td>
<td>GLY</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>876</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>350</td>
<td>GLY</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>437</td>
<td>VAL</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>876</td>
<td>VAL</td>
</tr>
</tbody>
</table>

5.3.2 Protein sidechains

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

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.
<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>Rotameric</th>
<th>Outliers</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>74/83 (89%)</td>
<td>74 (100%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>3</td>
<td>AI</td>
<td>74/83 (89%)</td>
<td>74 (100%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>47/96 (49%)</td>
<td>43 (92%)</td>
<td>4 (8%)</td>
<td>12  42</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>48/96 (50%)</td>
<td>44 (92%)</td>
<td>4 (8%)</td>
<td>12  42</td>
</tr>
<tr>
<td>5</td>
<td>AM</td>
<td>79/80 (99%)</td>
<td>79 (100%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>5</td>
<td>BL</td>
<td>79/80 (99%)</td>
<td>79 (100%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>59/60 (98%)</td>
<td>57 (97%)</td>
<td>2 (3%)</td>
<td>40  68</td>
</tr>
<tr>
<td>6</td>
<td>BN</td>
<td>59/60 (98%)</td>
<td>57 (97%)</td>
<td>2 (3%)</td>
<td>40  68</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>951/975 (98%)</td>
<td>915 (96%)</td>
<td>36 (4%)</td>
<td>36  65</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>951/975 (98%)</td>
<td>915 (96%)</td>
<td>36 (4%)</td>
<td>36  65</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>235/238 (99%)</td>
<td>234 (100%)</td>
<td>1 (0%)</td>
<td>92  95</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>235/238 (99%)</td>
<td>234 (100%)</td>
<td>1 (0%)</td>
<td>92  95</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>150/158 (95%)</td>
<td>143 (95%)</td>
<td>7 (5%)</td>
<td>29  60</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>150/158 (95%)</td>
<td>143 (95%)</td>
<td>7 (5%)</td>
<td>29  60</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>99/107 (92%)</td>
<td>92 (93%)</td>
<td>7 (7%)</td>
<td>16  48</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>99/107 (92%)</td>
<td>92 (93%)</td>
<td>7 (7%)</td>
<td>16  48</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>106/125 (85%)</td>
<td>102 (96%)</td>
<td>4 (4%)</td>
<td>36  65</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>106/125 (85%)</td>
<td>102 (96%)</td>
<td>4 (4%)</td>
<td>36  65</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>758/766 (99%)</td>
<td>717 (95%)</td>
<td>41 (5%)</td>
<td>24  57</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>758/766 (99%)</td>
<td>717 (95%)</td>
<td>41 (5%)</td>
<td>24  57</td>
</tr>
<tr>
<td>13</td>
<td>AX</td>
<td>40/43 (93%)</td>
<td>40 (100%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>13</td>
<td>BP</td>
<td>40/43 (93%)</td>
<td>40 (100%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>324/341 (95%)</td>
<td>306 (94%)</td>
<td>18 (6%)</td>
<td>23  56</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>324/341 (95%)</td>
<td>306 (94%)</td>
<td>18 (6%)</td>
<td>23  56</td>
</tr>
<tr>
<td>15</td>
<td>AZ</td>
<td>69/75 (92%)</td>
<td>68 (99%)</td>
<td>1 (1%)</td>
<td>69  85</td>
</tr>
<tr>
<td>15</td>
<td>BH</td>
<td>69/75 (92%)</td>
<td>68 (99%)</td>
<td>1 (1%)</td>
<td>69  85</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>5983/6294 (95%)</td>
<td>5741 (96%)</td>
<td>242 (4%)</td>
<td>34  63</td>
</tr>
</tbody>
</table>

All (242) residues with a non-rotameric sidechain are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>AJ</td>
<td>33</td>
<td>PHE</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>35</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>46</td>
<td>LYS</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>AJ</td>
<td>78</td>
<td>ARG</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>7</td>
<td>CYS</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>61</td>
<td>HIS</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>54</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>72</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>93</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>110</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>166</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>207</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>217</td>
<td>PHE</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>224</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>233</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>318</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>330</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>353</td>
<td>PHE</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>374</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>376</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>406</td>
<td>TRP</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>421</td>
<td>ASN</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>422</td>
<td>TRP</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>592</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>651</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>686</td>
<td>ASN</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>711</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>730</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>733</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>735</td>
<td>TYR</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>808</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>899</td>
<td>ASP</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>908</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>913</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>929</td>
<td>GLU</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>950</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>953</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1020</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1023</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1025</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1077</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1118</td>
<td>LEU</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>209</td>
<td>CYS</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>16</td>
<td>ASN</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>27</td>
<td>LEU</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>AT</td>
<td>61</td>
<td>PHE</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>90</td>
<td>LEU</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>93</td>
<td>ASP</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>120</td>
<td>TYR</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>126</td>
<td>ILE</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>36</td>
<td>ARG</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>76</td>
<td>CYS</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>78</td>
<td>ILE</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>86</td>
<td>ILE</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>87</td>
<td>LEU</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>88</td>
<td>ILE</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>95</td>
<td>TYR</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>7</td>
<td>GLN</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>65</td>
<td>SER</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>79</td>
<td>THR</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>101</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>3</td>
<td>GLU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>32</td>
<td>VAL</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>52</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>68</td>
<td>CYS</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>77</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>93</td>
<td>PHE</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>99</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>100</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>101</td>
<td>CYS</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>111</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>116</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>124</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>145</td>
<td>VAL</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>159</td>
<td>GLU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>162</td>
<td>TYR</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>169</td>
<td>LYS</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>187</td>
<td>VAL</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>229</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>232</td>
<td>GLU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>233</td>
<td>ASP</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>284</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>289</td>
<td>HIS</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>342</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>357</td>
<td>ASN</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>366</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>390</td>
<td>TYR</td>
</tr>
</tbody>
</table>

Continued on next page...
### Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>AW</td>
<td>415</td>
<td>ASP</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>426</td>
<td>HIS</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>464</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>478</td>
<td>GLU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>500</td>
<td>GLN</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>534</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>540</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>547</td>
<td>THR</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>606</td>
<td>GLN</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>647</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>648</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>726</td>
<td>TYR</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>803</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>809</td>
<td>THR</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>865</td>
<td>THR</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>70</td>
<td>ILE</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>159</td>
<td>ASP</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>176</td>
<td>ASP</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>180</td>
<td>THR</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>190</td>
<td>ARG</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>196</td>
<td>PHE</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>199</td>
<td>ASP</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>210</td>
<td>PHE</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>216</td>
<td>ILE</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>219</td>
<td>LEU</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>232</td>
<td>LYS</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>237</td>
<td>ILE</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>244</td>
<td>LYS</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>247</td>
<td>ASP</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>306</td>
<td>LEU</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>307</td>
<td>ASP</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>315</td>
<td>LEU</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>319</td>
<td>VAL</td>
</tr>
<tr>
<td>15</td>
<td>AZ</td>
<td>14</td>
<td>HIS</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>3</td>
<td>GLU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>32</td>
<td>VAL</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>52</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>68</td>
<td>CYS</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>77</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>93</td>
<td>PHE</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>99</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>100</td>
<td>ARG</td>
</tr>
</tbody>
</table>

*Continued on next page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>BA</td>
<td>101</td>
<td>CYS</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>111</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>116</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>124</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>145</td>
<td>VAL</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>159</td>
<td>GLU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>162</td>
<td>TYR</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>169</td>
<td>LYS</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>187</td>
<td>VAL</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>229</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>232</td>
<td>GLU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>233</td>
<td>ASP</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>284</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>289</td>
<td>HIS</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>342</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>357</td>
<td>ASN</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>366</td>
<td>ILE</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>390</td>
<td>TYR</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>415</td>
<td>ASP</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>426</td>
<td>HIS</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>464</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>478</td>
<td>GLU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>500</td>
<td>GLN</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>534</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>540</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>547</td>
<td>THR</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>606</td>
<td>GLN</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>647</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>648</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>726</td>
<td>TYR</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>803</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>809</td>
<td>THR</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>865</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>54</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>72</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>93</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>110</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>166</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>207</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>217</td>
<td>PHE</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>224</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>233</td>
<td>LEU</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>BB</td>
<td>318</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>330</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>353</td>
<td>PHE</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>374</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>376</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>406</td>
<td>TRP</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>421</td>
<td>ASN</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>422</td>
<td>TRP</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>592</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>651</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>686</td>
<td>ASN</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>711</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>730</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>733</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>735</td>
<td>TYR</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>808</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>899</td>
<td>ASP</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>908</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>913</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>929</td>
<td>GLU</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>950</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>953</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1020</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1023</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1025</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1077</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1118</td>
<td>LEU</td>
</tr>
</tbody>
</table>

Continued on next page...
Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (13) such sidechains are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>AM</td>
<td>82</td>
<td>HIS</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1018</td>
<td>GLN</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>26</td>
<td>ASN</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>82</td>
<td>GLN</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>237</td>
<td>HIS</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>357</td>
<td>ASN</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>485</td>
<td>ASN</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>500</td>
<td>GLN</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>357</td>
<td>ASN</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>BA</td>
<td>485</td>
<td>ASN</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>500</td>
<td>GLN</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1018</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>BL</td>
<td>82</td>
<td>HIS</td>
</tr>
</tbody>
</table>

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 16 ligands modelled in this entry, 14 are monoatomic - leaving 2 for Mogul analysis.

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

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Link</th>
<th>Bond lengths</th>
<th>Bond angles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Counts</td>
<td>RMSZ</td>
</tr>
<tr>
<td>17</td>
<td>SF4</td>
<td>AS</td>
<td>1001</td>
<td>8</td>
<td>0,9,12</td>
<td>0.00</td>
</tr>
<tr>
<td>17</td>
<td>SF4</td>
<td>BD</td>
<td>1001</td>
<td>8</td>
<td>0,9,12</td>
<td>0.00</td>
</tr>
</tbody>
</table>

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

2 monomers are involved in 4 short contacts:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Clashes</th>
<th>Symm-Clashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>AS</td>
<td>1001</td>
<td>SF4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>BD</td>
<td>1001</td>
<td>SF4</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.
6  Fit of model and data

6.1  Protein, DNA and RNA chains

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

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>&lt;RSRZ&gt;</th>
<th>#RSRZ&gt;2</th>
<th>OWAB(Å²)</th>
<th>Q&lt;0.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AC</td>
<td>13/14 (92%)</td>
<td>1.16</td>
<td>3 (23%)</td>
<td>0 0 263, 280, 311, 312</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>BR</td>
<td>14/14 (100%)</td>
<td>0.91</td>
<td>2 (14%)</td>
<td>2 2 228, 239, 287, 301</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>AD</td>
<td>15/16 (93%)</td>
<td>1.00</td>
<td>2 (13%)</td>
<td>3 3 264, 278, 302, 313</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>BS</td>
<td>16/16 (100%)</td>
<td>0.62</td>
<td>2 (12%)</td>
<td>4 4 216, 237, 276, 283</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>AI</td>
<td>84/95 (88%)</td>
<td>-0.05</td>
<td>0 100 100</td>
<td>139, 154, 175, 183</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>BK</td>
<td>84/95 (88%)</td>
<td>-0.08</td>
<td>0 100 100</td>
<td>122, 150, 173, 184</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>49/104 (47%)</td>
<td>0.72</td>
<td>3 (6%)</td>
<td>21 15 219, 247, 277, 291</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>50/104 (48%)</td>
<td>0.62</td>
<td>3 (6%)</td>
<td>22 16 216, 237, 255, 263</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>AM</td>
<td>91/92 (98%)</td>
<td>0.03</td>
<td>3 (3%)</td>
<td>46 35 159, 184, 196, 200</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>BL</td>
<td>91/92 (98%)</td>
<td>0.04</td>
<td>2 (2%)</td>
<td>62 51 139, 164, 177, 179</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>AO</td>
<td>65/66 (98%)</td>
<td>-0.03</td>
<td>0 100 100</td>
<td>178, 193, 215, 220</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>BN</td>
<td>65/66 (98%)</td>
<td>-0.06</td>
<td>0 100 100</td>
<td>137, 167, 202, 206</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1103/1131 (97%)</td>
<td>0.04</td>
<td>10 (0%)</td>
<td>84 76 132, 158, 195, 219</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1103/1131 (97%)</td>
<td>-0.00</td>
<td>9 (0%)</td>
<td>86 79 117, 146, 186, 210</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>262/265 (98%)</td>
<td>0.24</td>
<td>8 (3%)</td>
<td>49 37 166, 202, 222, 228</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>262/265 (98%)</td>
<td>0.20</td>
<td>7 (2%)</td>
<td>54 43 138, 170, 213, 245</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>171/180 (95%)</td>
<td>0.53</td>
<td>13 (7%)</td>
<td>14 10 161, 232, 291, 312</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>171/180 (95%)</td>
<td>0.78</td>
<td>23 (13%)</td>
<td>3 3 160, 222, 294, 312</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>105/113 (92%)</td>
<td>0.31</td>
<td>7 (6%)</td>
<td>18 12 194, 285, 328, 341</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>105/113 (92%)</td>
<td>0.39</td>
<td>9 (8%)</td>
<td>10 8 182, 261, 303, 318</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>113/132 (85%)</td>
<td>0.20</td>
<td>3 (2%)</td>
<td>54 43 164, 199, 234, 246</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>113/132 (85%)</td>
<td>0.31</td>
<td>5 (4%)</td>
<td>34 26 140, 182, 218, 230</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>872/880 (99%)</td>
<td>0.12</td>
<td>19 (2%)</td>
<td>62 51 131, 162, 230, 265</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>872/880 (99%)</td>
<td>0.02</td>
<td>13 (1%)</td>
<td>73 63 116, 145, 198, 227</td>
<td>0</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>&lt;RSRZ&gt;</th>
<th>#RSRZ&gt;2</th>
<th>OWAB(Å²)</th>
<th>Q&lt;0.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>AX</td>
<td>44/48 (91%)</td>
<td>-0.04</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>13</td>
<td>BP</td>
<td>44/48 (91%)</td>
<td>-0.14</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>376/395 (95%)</td>
<td>0.12</td>
<td>6 (1%)</td>
<td>72</td>
<td>61</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>376/395 (95%)</td>
<td>0.11</td>
<td>7 (1%)</td>
<td>66</td>
<td>56</td>
</tr>
<tr>
<td>15</td>
<td>AZ</td>
<td>76/84 (90%)</td>
<td>-0.05</td>
<td>2 (2%)</td>
<td>56</td>
<td>44</td>
</tr>
<tr>
<td>15</td>
<td>BH</td>
<td>76/84 (90%)</td>
<td>-0.21</td>
<td>2 (2%)</td>
<td>56</td>
<td>44</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>6881/7230 (95%)</td>
<td>0.12</td>
<td>163 (2%)</td>
<td>59</td>
<td>47</td>
</tr>
</tbody>
</table>

All (163) RSRZ outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>RSRZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>BE</td>
<td>132</td>
<td>SER</td>
<td>6.1</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>212</td>
<td>ASN</td>
<td>5.6</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>29</td>
<td>THR</td>
<td>5.3</td>
</tr>
<tr>
<td>15</td>
<td>AZ</td>
<td>8</td>
<td>LYS</td>
<td>5.2</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>92</td>
<td>ASN</td>
<td>4.7</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>143</td>
<td>ARG</td>
<td>4.6</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>103</td>
<td>ARG</td>
<td>4.5</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>808</td>
<td>ASP</td>
<td>4.4</td>
</tr>
<tr>
<td>2</td>
<td>AD</td>
<td>3</td>
<td>ASP</td>
<td>4.3</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>133</td>
<td>LYS</td>
<td>4.1</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>117</td>
<td>GLN</td>
<td>4.1</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>116</td>
<td>ASP</td>
<td>4.0</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>131</td>
<td>LYS</td>
<td>4.0</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>92</td>
<td>ASN</td>
<td>4.0</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>80</td>
<td>PRO</td>
<td>4.0</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>133</td>
<td>LYS</td>
<td>4.0</td>
</tr>
<tr>
<td>1</td>
<td>AC</td>
<td>13</td>
<td>DT</td>
<td>3.9</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>115</td>
<td>ASP</td>
<td>3.9</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>136</td>
<td>ILE</td>
<td>3.8</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>53</td>
<td>GLN</td>
<td>3.8</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>2</td>
<td>TYR</td>
<td>3.7</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>114</td>
<td>THR</td>
<td>3.7</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>30</td>
<td>SER</td>
<td>3.6</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>117</td>
<td>GLN</td>
<td>3.6</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>134</td>
<td>LYS</td>
<td>3.4</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>105</td>
<td>LYS</td>
<td>3.4</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>93</td>
<td>ARG</td>
<td>3.3</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>102</td>
<td>GLY</td>
<td>3.3</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>192</td>
<td>LYS</td>
<td>3.3</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>RSRZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>BC</td>
<td>137</td>
<td>ALA</td>
<td>3.3</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>168</td>
<td>PRO</td>
<td>3.2</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>81</td>
<td>VAL</td>
<td>3.2</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>117</td>
<td>THR</td>
<td>3.2</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>206</td>
<td>GLU</td>
<td>3.1</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>77</td>
<td>PRO</td>
<td>3.1</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>105</td>
<td>LYS</td>
<td>3.1</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>339</td>
<td>ASN</td>
<td>3.1</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>257</td>
<td>ALA</td>
<td>3.1</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>812</td>
<td>VAL</td>
<td>3.0</td>
</tr>
<tr>
<td>7</td>
<td>BE</td>
<td>136</td>
<td>ILE</td>
<td>3.0</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>295</td>
<td>LEU</td>
<td>3.0</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>116</td>
<td>SER</td>
<td>3.0</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>243</td>
<td>GLN</td>
<td>3.0</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>3</td>
<td>LYS</td>
<td>3.0</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1118</td>
<td>LEU</td>
<td>3.0</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>1</td>
<td>MET</td>
<td>3.0</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>80</td>
<td>PRO</td>
<td>3.0</td>
</tr>
<tr>
<td>15</td>
<td>AZ</td>
<td>57</td>
<td>ALA</td>
<td>2.9</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>69</td>
<td>GLU</td>
<td>2.9</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>162</td>
<td>LEU</td>
<td>2.9</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>17</td>
<td>GLU</td>
<td>2.9</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>103</td>
<td>ARG</td>
<td>2.9</td>
</tr>
<tr>
<td>5</td>
<td>BL</td>
<td>57</td>
<td>ILE</td>
<td>2.8</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>28</td>
<td>ILE</td>
<td>2.8</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>56</td>
<td>GLN</td>
<td>2.8</td>
</tr>
<tr>
<td>5</td>
<td>AM</td>
<td>57</td>
<td>ILE</td>
<td>2.8</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>274</td>
<td>THR</td>
<td>2.8</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>134</td>
<td>LYS</td>
<td>2.7</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>42</td>
<td>LEU</td>
<td>2.7</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>835</td>
<td>LYS</td>
<td>2.7</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>42</td>
<td>LEU</td>
<td>2.7</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>28</td>
<td>ILE</td>
<td>2.7</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>779</td>
<td>PRO</td>
<td>2.7</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>47</td>
<td>ASN</td>
<td>2.7</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>1080</td>
<td>TYR</td>
<td>2.7</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>17</td>
<td>PHE</td>
<td>2.7</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>213</td>
<td>ILE</td>
<td>2.7</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>73</td>
<td>LEU</td>
<td>2.7</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>176</td>
<td>CYS</td>
<td>2.6</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>49</td>
<td>PHE</td>
<td>2.6</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>531</td>
<td>LYS</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>RSRZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>BA</td>
<td>56</td>
<td>GLN</td>
<td>2.6</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>212</td>
<td>ASN</td>
<td>2.6</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>53</td>
<td>GLN</td>
<td>2.6</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>1010</td>
<td>GLY</td>
<td>2.6</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>87</td>
<td>GLY</td>
<td>2.6</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>95</td>
<td>LYS</td>
<td>2.6</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>125</td>
<td>SER</td>
<td>2.6</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>252</td>
<td>LEU</td>
<td>2.6</td>
</tr>
<tr>
<td>1</td>
<td>BR</td>
<td>13</td>
<td>DT</td>
<td>2.6</td>
</tr>
<tr>
<td>2</td>
<td>BS</td>
<td>2</td>
<td>DA</td>
<td>2.6</td>
</tr>
<tr>
<td>15</td>
<td>BH</td>
<td>8</td>
<td>LYS</td>
<td>2.6</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>80</td>
<td>VAL</td>
<td>2.5</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>49</td>
<td>PHE</td>
<td>2.5</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>81</td>
<td>VAL</td>
<td>2.5</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>81</td>
<td>ARG</td>
<td>2.5</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>102</td>
<td>GLY</td>
<td>2.5</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>54</td>
<td>THR</td>
<td>2.5</td>
</tr>
<tr>
<td>9</td>
<td>AT</td>
<td>143</td>
<td>ARG</td>
<td>2.5</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>295</td>
<td>LEU</td>
<td>2.5</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>29</td>
<td>SER</td>
<td>2.5</td>
</tr>
<tr>
<td>14</td>
<td>BC</td>
<td>153</td>
<td>VAL</td>
<td>2.4</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>68</td>
<td>VAL</td>
<td>2.4</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>104</td>
<td>ILE</td>
<td>2.4</td>
</tr>
<tr>
<td>1</td>
<td>AC</td>
<td>12</td>
<td>DA</td>
<td>2.4</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>107</td>
<td>LEU</td>
<td>2.4</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>206</td>
<td>GLU</td>
<td>2.4</td>
</tr>
<tr>
<td>2</td>
<td>AD</td>
<td>17</td>
<td>DG</td>
<td>2.4</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>67</td>
<td>PHE</td>
<td>2.4</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>809</td>
<td>THR</td>
<td>2.4</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>86</td>
<td>GLU</td>
<td>2.4</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>95</td>
<td>LYS</td>
<td>2.4</td>
</tr>
<tr>
<td>5</td>
<td>AM</td>
<td>17</td>
<td>ILE</td>
<td>2.4</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>104</td>
<td>ILE</td>
<td>2.4</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>79</td>
<td>ARG</td>
<td>2.4</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>4</td>
<td>LYS</td>
<td>2.3</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>81</td>
<td>ARG</td>
<td>2.3</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>121</td>
<td>ILE</td>
<td>2.3</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>238</td>
<td>LYS</td>
<td>2.3</td>
</tr>
<tr>
<td>5</td>
<td>AM</td>
<td>3</td>
<td>ILE</td>
<td>2.3</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>178</td>
<td>ASP</td>
<td>2.3</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>200</td>
<td>ARG</td>
<td>2.3</td>
</tr>
<tr>
<td>1</td>
<td>BR</td>
<td>12</td>
<td>DA</td>
<td>2.3</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>RSRZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>AT</td>
<td>132</td>
<td>SER</td>
<td>2.3</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>192</td>
<td>ASP</td>
<td>2.3</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>812</td>
<td>VAL</td>
<td>2.3</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>234</td>
<td>ASP</td>
<td>2.3</td>
</tr>
<tr>
<td>8</td>
<td>BD</td>
<td>3</td>
<td>ILE</td>
<td>2.2</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>93</td>
<td>ARG</td>
<td>2.2</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>80</td>
<td>VAL</td>
<td>2.2</td>
</tr>
<tr>
<td>4</td>
<td>AJ</td>
<td>77</td>
<td>LYS</td>
<td>2.2</td>
</tr>
<tr>
<td>7</td>
<td>AR</td>
<td>380</td>
<td>ARG</td>
<td>2.2</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>123</td>
<td>PRO</td>
<td>2.2</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>124</td>
<td>ILE</td>
<td>2.2</td>
</tr>
<tr>
<td>11</td>
<td>AV</td>
<td>50</td>
<td>SER</td>
<td>2.2</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>653</td>
<td>LEU</td>
<td>2.2</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>787</td>
<td>LYS</td>
<td>2.2</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>94</td>
<td>THR</td>
<td>2.2</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>69</td>
<td>GLU</td>
<td>2.2</td>
</tr>
<tr>
<td>8</td>
<td>AS</td>
<td>179</td>
<td>GLY</td>
<td>2.2</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>26</td>
<td>ALA</td>
<td>2.2</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>71</td>
<td>PHE</td>
<td>2.2</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>75</td>
<td>TYR</td>
<td>2.2</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>119</td>
<td>LYS</td>
<td>2.2</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>30</td>
<td>SER</td>
<td>2.2</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>779</td>
<td>PRO</td>
<td>2.2</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>811</td>
<td>ASP</td>
<td>2.2</td>
</tr>
<tr>
<td>1</td>
<td>AC</td>
<td>11</td>
<td>DT</td>
<td>2.2</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>194</td>
<td>ILE</td>
<td>2.1</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>175</td>
<td>VAL</td>
<td>2.1</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>75</td>
<td>ILE</td>
<td>2.1</td>
</tr>
<tr>
<td>10</td>
<td>AU</td>
<td>90</td>
<td>ASP</td>
<td>2.1</td>
</tr>
<tr>
<td>7</td>
<td>BB</td>
<td>784</td>
<td>ARG</td>
<td>2.1</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>101</td>
<td>LEU</td>
<td>2.1</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>116</td>
<td>HIS</td>
<td>2.1</td>
</tr>
<tr>
<td>2</td>
<td>BS</td>
<td>17</td>
<td>DG</td>
<td>2.1</td>
</tr>
<tr>
<td>11</td>
<td>BG</td>
<td>48</td>
<td>ILE</td>
<td>2.1</td>
</tr>
<tr>
<td>12</td>
<td>BA</td>
<td>119</td>
<td>ASN</td>
<td>2.1</td>
</tr>
<tr>
<td>15</td>
<td>BH</td>
<td>60</td>
<td>GLY</td>
<td>2.1</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>339</td>
<td>ASN</td>
<td>2.1</td>
</tr>
<tr>
<td>4</td>
<td>BQ</td>
<td>73</td>
<td>LYS</td>
<td>2.1</td>
</tr>
<tr>
<td>9</td>
<td>BE</td>
<td>162</td>
<td>LEU</td>
<td>2.1</td>
</tr>
<tr>
<td>12</td>
<td>AW</td>
<td>288</td>
<td>LYS</td>
<td>2.1</td>
</tr>
<tr>
<td>10</td>
<td>BF</td>
<td>78</td>
<td>ILE</td>
<td>2.1</td>
</tr>
<tr>
<td>14</td>
<td>AY</td>
<td>235</td>
<td>LYS</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Continued on next page...
### 6.2 Non-standard residues in protein, DNA, RNA chains

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

### 6.3 Carbohydrates

There are no carbohydrates in this entry.

### 6.4 Ligands

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

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Atoms</th>
<th>RSCC</th>
<th>RSR</th>
<th>B-factors(Å²)</th>
<th>Q&lt;0.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>ZN</td>
<td>BN</td>
<td>100</td>
<td>1/1</td>
<td>0.78</td>
<td>0.23</td>
<td>153,153,153,153</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>ZN</td>
<td>AX</td>
<td>101</td>
<td>1/1</td>
<td>0.82</td>
<td>0.10</td>
<td>204,204,204,204</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>ZN</td>
<td>AW</td>
<td>901</td>
<td>1/1</td>
<td>0.83</td>
<td>0.07</td>
<td>183,183,183,183</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>ZN</td>
<td>BP</td>
<td>101</td>
<td>1/1</td>
<td>0.85</td>
<td>0.09</td>
<td>200,200,200,200</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>ZN</td>
<td>BA</td>
<td>901</td>
<td>1/1</td>
<td>0.88</td>
<td>0.08</td>
<td>161,161,161,161</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>MG</td>
<td>BA</td>
<td>904</td>
<td>1/1</td>
<td>0.88</td>
<td>0.37</td>
<td>117,117,117,117</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>ZN</td>
<td>AO</td>
<td>100</td>
<td>1/1</td>
<td>0.92</td>
<td>0.25</td>
<td>188,188,188,188</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>MG</td>
<td>AW</td>
<td>904</td>
<td>1/1</td>
<td>0.92</td>
<td>0.29</td>
<td>132,132,132,132</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>ZN</td>
<td>AW</td>
<td>903</td>
<td>1/1</td>
<td>0.93</td>
<td>0.11</td>
<td>134,134,134,134</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>ZN</td>
<td>BA</td>
<td>902</td>
<td>1/1</td>
<td>0.94</td>
<td>0.17</td>
<td>209,209,209,209</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>SF4</td>
<td>BD</td>
<td>1001</td>
<td>7/8</td>
<td>0.96</td>
<td>0.23</td>
<td>149,150,154,157</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>ZN</td>
<td>AR</td>
<td>1300</td>
<td>1/1</td>
<td>0.96</td>
<td>0.12</td>
<td>193,193,193,193</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>ZN</td>
<td>AW</td>
<td>902</td>
<td>1/1</td>
<td>0.96</td>
<td>0.28</td>
<td>245,245,245,245</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>SF4</td>
<td>AS</td>
<td>1001</td>
<td>7/8</td>
<td>0.97</td>
<td>0.24</td>
<td>186,189,193,194</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>ZN</td>
<td>BA</td>
<td>903</td>
<td>1/1</td>
<td>0.97</td>
<td>0.10</td>
<td>118,118,118,118</td>
<td>0</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Atoms</th>
<th>RCC</th>
<th>RSR</th>
<th>B-factors(Å²)</th>
<th>Q&lt;0.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>ZN</td>
<td>BB</td>
<td>1300</td>
<td>1/1</td>
<td>0.97</td>
<td>0.10</td>
<td>177,177,177,177</td>
<td>0</td>
</tr>
</tbody>
</table>

6.5 Other polymers

There are no such residues in this entry.