Erratum: Strong-interaction effects in antiprotonic atoms

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On checking our computer program for further calculations, we discovered an error in the placement of a do loop. The effect of this is that the potentials used in our calculations are wrong. The corrected potentials are:

\[ V_p = (162.9 + i222.0) \text{ MeV}, \quad V_n = (68.19 + i246.5) \text{ MeV} \text{ for } \beta = 0.6 \text{ fm}, \]

\[ V_p = (59.41 + i186.1) \text{ MeV}, \quad V_n = (0.5997 + i159.2) \text{ MeV} \text{ for } \beta = 0.7 \text{ fm}. \]

The corrected table for the level shifts and widths is given below where we have also taken this opportunity to correct some of the data. The conclusions are unaltered.

<table>
<thead>
<tr>
<th>Transition</th>
<th>( \epsilon ) (eV)</th>
<th>( \Gamma_{\text{el}} ) (eV)</th>
<th>( \Gamma_{\text{up}} ) (eV)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Theory ( \beta = 0.6 \text{ fm} )</td>
<td>Theory ( \beta = 0.7 \text{ fm} )</td>
<td>Theory ( \beta = 0.6 \text{ fm} )</td>
</tr>
<tr>
<td>N 4 ( \rightarrow ) 3</td>
<td>39 ( \pm ) 51</td>
<td>31</td>
<td>48</td>
</tr>
<tr>
<td>O 4 ( \rightarrow ) 3</td>
<td>60 ( \pm ) 72</td>
<td>134</td>
<td>188</td>
</tr>
<tr>
<td>P 5 ( \rightarrow ) 4</td>
<td>80 ( \pm ) 40</td>
<td>120</td>
<td>210</td>
</tr>
<tr>
<td>Cl 5 ( \rightarrow ) 4</td>
<td>26.8 ( \pm ) 2.4</td>
<td>24.6</td>
<td>87.3</td>
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<tr>
<td>K 5 ( \rightarrow ) 4</td>
<td>3.04 ( \pm ) 0.20</td>
<td>3.10</td>
<td>13.1</td>
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<tr>
<td>Sn 8 ( \rightarrow ) 7</td>
<td>8.00 ( \pm ) 0.15</td>
<td>23.0</td>
<td>7.50</td>
</tr>
<tr>
<td>I 8 ( \rightarrow ) 7</td>
<td>9.3 ( \pm ) 0.6</td>
<td>14.4</td>
<td>15.6</td>
</tr>
<tr>
<td>Pr 8 ( \rightarrow ) 7</td>
<td>24.7 ( \pm ) 2.4</td>
<td>76.4</td>
<td>79.0</td>
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</tbody>
</table>