
Erik Abrahamsson,\(^1\) Gerrit C. Groenenboom,\(^2\) and Roman V. Krems\(^1,\(^a\))

\(^1\)Department of Chemistry, University of British Columbia, Vancouver, B.C. V6T 1Z3, Canada
\(^2\)Theoretical Chemistry, Institute for Molecules and Materials, Radboud University Nijmegen, Heyendaalseweg 135, 6525 AJ Nijmegen, The Netherlands

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We have found that the factor \(g(j')\) in the denominator of Eq. 9 in Ref. 1 was erroneously omitted in the numerical calculations. This error affected the results presented in the first line of Table VI of Ref. 1. Here, we reproduce the part of Table VI of Ref. 1 with the corrected values of the rate coefficients (Table I). The different experimental measurements of the rate coefficient for Cl\(^{2}\)P\(_{1/2}\) quenching in H\(_{2}\) cited in Ref. 1 differ from each other by a factor of 3. The incorrectly computed rate coefficient was in agreement with the measurement of Ref. 63 and disagreed with the data of Refs. 62, 64, and 65. The corrected value of the rate coefficient is in good agreement with the measurements of Refs. 62 and 65.

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\(^a\)Electronic mail: rkrems@chem.ubc.ca.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Cl+H(_{2})</th>
<th>Cl+D(_{2})</th>
<th>F+H(_{2})</th>
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</thead>
<tbody>
<tr>
<td>This work</td>
<td>5.386</td>
<td>0.5434</td>
<td>11.40</td>
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</table>

TABLE I. Room temperature rate coefficients (in units of \(10^{-11}\) cm\(^3\) s\(^{-1}\)) for the \(X^{2}\)P\(_{1/2}\) \(\rightarrow\) \(X^{2}\)P\(_{3/2}\) (\(X=\text{F, Cl}\)) relaxation in a thermal gas of H\(_{2}\) and D\(_{2}\).