

Errata

Erratum: Collision-induced rotovibrational spectra of H₂-He pairs from first principles [Phys. Rev. A 35, 632 (1987)]

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In this paper, Tables I and II of the *ab initio* radial matrix elements of the induced dipole moment of H₂-He pairs were recently found to contain errors in the order of 10% or 15% that we correct in the enclosed tables. The errors are due to a sign error in one of the matrix elements $\langle 00|\rho^n|10\rangle$ used to derive the data from Table III of Ref. 1.

This unfortunate fact renders the comparisons of the computed rotovibrational collision-induced absorption spectra obsolete. New computations of these spectra at a variety of temperatures, which also reflect a new accounting for the rotation dependence of these matrix elements, will be given in Ref. 2. These differ from our previous computation mostly in the *Q* branch.

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TABLE I. Induced dipole components $B_{\lambda L}^{01}$ in 10^{-6} a.u.

| <i>R</i> | $\lambda L=01$ | 23 | 21 | 45 |
|----------|----------------|------|---------|------|
| 3 | 25 987 | 8284 | -11 067 | 2370 |
| 4 | 7310 | 2306 | -2429 | 526 |
| 5 | 1821 | 678 | -500 | 109 |
| 6 | 381 | 231 | -92 | 23 |
| 7 | 63 | 99 | -16 | 6 |
| 8 | 5 | 52 | -2 | 2 |
| 10 | -2 | 21 | 0 | 0 |

TABLE II. Coefficients of Eq. (4), with $R_0=5.80$ bohrs.

| λL | <i>N</i> | C_N | c_2 | c_3 | c_4 |
|-------------|----------|-------|-------------|--------|--------|
| 01 | 7 | -80.9 | 0.002 46 | -1.677 | -0.045 |
| 23 | 4 | 1.17 | 0.000 217 | -1.656 | -0.062 |
| 21 | 7 | -11.8 | -0.000 277 | -1.813 | -0.051 |
| 45 | 6 | 1.19 | 0.000 027 3 | -1.884 | -0.099 |

¹W. Meyer and L. Frommhold, Phys. Rev. A **34**, 2771 (1986).

²A. Borysow, L. Frommhold, and W. Meyer, Phys. Rev. A (to be published).