Erratum: Simplified model to treat the electron attachment of complex molecules: Application to H₂CN and the quest for the CN[−] formation mechanism [Phys. Rev. A **99, 032701 (2019)]**

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In Eq. (18) of the original paper, the spin statistics factor g should be $1/4$ instead of $1/2$ because the total spin multiplicity of the resonant state (1A_1) is 1, the total spin multiplicity of H₂CN (2B_2), and the scattering electron is 4. In addition, we realized there was a mistake in the procedure we used to compute the capture cross section in which a conversion factor of 27.211 was missing. Therefore, the results in Fig. 5 and 6 of the paper should be multiplied by a factor of 13.6. The updated capture cross section and thermally averaged rate coefficient are shown in Fig. 1. The updated formula for the rate coefficient (in cm³/s) is $k(T) = a_1(T/300)^{a_2}e^{a_3T^{a_4}}$ with $a_1 = 3.31 \times 10^{-11}$, $a_2 = 0.97025$, $a_3 = -9.20 \times 10^{-3}$, and $a_4 = 0.677$.

Although the result is about 13.6 times larger, it does not change the conclusion of the article. Assuming that the rate coefficient for electron capture is equal to the rate coefficient to form CN[−] by dissociative electron attachment and the ratio of H₂CN to CN densities is 1000, we have

$$\frac{[e^-][\text{CN}]k_{\text{REA}}}{[e^-][\text{H}_2\text{CN}]k_{\text{DEA}}} \approx 1,$$

at 30 K such that dissociative electron attachment to H₂CN is still not efficient in producing CN[−].

FIG. 1. Top: Updated cross section for electron capture by H₂CN (solid line) and the result, published in the original article (dotted line). Bottom: Updated thermally averaged rate coefficient for electron capture by H₂CN (solid line) and the previous result (dotted line).