Erratum: On non-RRKM unimolecular kinetics: Molecules in general, and CH3NC in particular

William L. Hase

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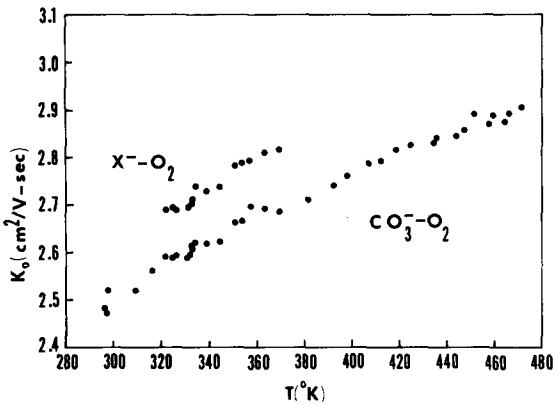

FIG. 3. The zero-field reduced mobility of CO_3^- ions in oxygen gas and of the ion X^-, whose mass is 51 amu and whose identity is not positively known. The data are presented as a function of the gas temperature.

the measurements was the determination of the gas temperature. The drift tube was operated under continuous gas flow. The temperature was controlled by heating the drift tube at three places along its length, the tube having been wrapped with several layers of $\frac{1}{2}$ in. thick insulation. The incoming gas line was wrapped several times around the drift tube, inside the insulation, and the flow rate was low enough to permit the gas to reach approximate thermal equilibrium before entering the drift tube. The temperature was measured by a small (No. 30 gauge wire) thermocouple suspended in the gas, but outside the cylindrical electrodes establishing the electric field. We believe that our accuracy in measuring the temperature is ±0.5% at temperatures near 300 °K, but perhaps is no better than ± 2% at 470 °K.

Additional uncertainty resulted from weak ion signals at particular temperatures. We believe that our total experimental error does not exceed ± 2% at temperatures below 400 °K and ± 3% for higher temperatures. Our value of K_0 for CO_3^- in O_2 at 297 °K agrees with the zero-field value of Elford and Rees[3] at 293 °K to within 1%.

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[b]Present address: Eckerd College, St. Petersburg, FL 33733.

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William L. Hase

Department of Chemistry, Wayne State University, Detroit, Michigan 48202

Equation (A14) is printed incorrectly. The correct expression is

$$x_{n-1} = \left(1 - \sum_{j=2}^{n-2} x_j^2\right)^{1/2} \sin(\tfrac{1}{2}\pi R).$$

The above expression was used in the calculations reported in this paper.

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