ADDITIONS AND CORRECTIONS

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Françoise Lepoint-Mullie, Damien De Pauw, Thierry Lepoint,* Philippe Supiot, and Rudi Avni: Nature of the "Extreme Conditions" in Single Sonoluminescing Bubbles

Page 12140. In this paper, eq 5 extracted from ref 12 is incorrect. We recalculated it according to Lochte−Holtgreven[1] and checked its validity with respect to an equivalent (though more sophisticated) equation obtained by Griem.[2]

Consequently, eq 5 must be substituted by

$$\frac{I_{\text{line}}}{I_{\text{C}}} = \frac{\epsilon_{\text{line}}}{\epsilon_{\text{C}}} = \frac{h^4\nu}{8\pi\Delta\nu}\frac{A_{\text{ul}}g_{\text{u}}}{U_1(T_{\text{e}})}\frac{\exp\left(\frac{\chi_{\text{ion}} - \chi_{\text{u}} - \Delta\chi}{kT_{\text{e}}}\right)}{T_{\text{e}}(2\pi m_{\text{e}}k)^{3/2}5.8 \times 10^{-52}} \times \frac{1}{\left[G(\nu,T_{\text{e}})\exp\left(-\frac{h\nu}{kT_{\text{e}}}\right) + \xi(\nu,T_{\text{e}})\left(1 - \exp\left(-\frac{h\nu}{kT_{\text{e}}}\right)\right)\right]} \quad (1)$$

The additional parameter $\Delta\nu = \Delta\lambda c/\lambda^2$ is the frequency band centered at a line (with $\Delta\lambda$ the wavelength band centered at a line and c the speed of light in a vacuum). The value of this parameter depends only on the width of the spectrograph and the linear dispersion of the grating.

As a consequence, Figure 4 describing the dependence of the ratio I_ν/I [intensity of the Li line (^{2}P−^{2}S transition at 670 nm)/intensity of the adjacent continuum] as a function of the electronic temperature must be replaced by the Figure 1 of the present erratum. As emphasized by Griem,[2] I_ν and I represent surfaces so that eq 1 of the present erratum is applicable only to the line profile and the underlying continuum determined by extrapolation of the line wings. Figure 1 (the case of lithium) corresponds to $\Delta\lambda = 10$ nm, $\nu = 670.8$ nm, $A_{\text{ul}} = 0.372 \times 10^8$ s^{-1}, $g_{\text{u}} = 4$, $U_1(T_{\text{e}}) = 1$, $\chi_{\text{i}} = 5.362$ eV, $\chi_{\text{u}} = 1.852$ eV, and $\xi(\nu,T) = 0.9$.

The conclusions of the Letter remain unchanged. However, a shade of meaning concerning the comment related to a possible nondetection of lines (associated with nonvolatile solutes likely to penetrate in a collapsing bubble) because of an increase in intracavity temperature must be mentionned; i.e., the role of the intracavity temperature cannot totally explain the damping of lines in single bubble sonoluminescence.[3]

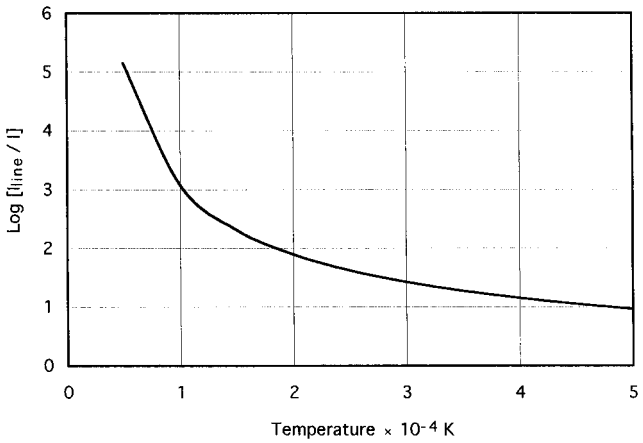

Figure 1. Semilogarithmic representation of the dependence of the ratio I_ν/I. I_ν is the intensity of the Li line (^{2}P−^{2}S transition at 670 nm); I is the intensity of the adjacent continuum ($\Delta\lambda = 10$ nm).

References and Notes

(1) Lochte-Holtgreven, W., Ed. *Plasma Diagnostics*; North-Holland Co.: Amsterdam, 1968.

(2) Griem, H. R., Ed. *Plasma Spectroscopy*; McGraw-Hill: New York, 1964.

(3) Lepoint, T.; Lepoint-Mullie, F.; Voglet, N.; Avni, R. *J. Phys. Chem. A*, submitted.

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