Theoret. Chim. Acta (Berl.) 54, 261 (1980)

THEORETICA CHIMICA ACTA

Erratum

Collisionally Damped Ion Motion in ICR Spectrometry

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Theoret. Chim. Acta (Berl.) **53**, 203–214 (1979)

Unfortunately, the above paper contained some misprints.
Equation (21) on page 207 should read:

$$\Psi_{\parallel}(z, t) = \varphi_{\parallel}(z, t) + \exp\left(iK_{\parallel}z - \frac{i}{\hbar} E_{\parallel}^{0} t\right) \cdot \sum_{i} \langle \tilde{g}_{\parallel} | \varphi_{\parallel i} \rangle \langle \varphi_{\parallel i} | T_{\parallel} | \varphi_{\parallel} \rangle .$$

The weight function in Eq. (27) on page 209 should read:

$$p_n = (2^n \sqrt{n!})^{-1} \cdot \exp\left(-\frac{\alpha^2}{8} a_z^2\right) \cdot (\alpha a_z)^n$$

In the last paragraph of Sect. 5 it should read:

Replacing the abbreviations by the full terms and expressing the occurring quantities by determinable ones, we finally can write the total cross section in the form

$$\sigma = \left\{ g_1 \left[\frac{1}{E_D B^2} + \frac{mc^2}{k_B T} \frac{E_D}{B^4} \right] + g_2 \left[\frac{\sqrt{k_B T}}{E_D} \right] \right\} \cdot \Gamma^4 \tag{48}$$

where

$$g_1 = \frac{36\pi c^2 \sqrt{V_t}}{\omega_t} \left(\frac{m}{e}\right)^{5/2}; \qquad g_2 = \frac{\pi^3 \exp(-\pi/4)}{2\sqrt{e}\omega_t^4};$$

V_t = trapping potential; ω_t = trapping frequency; E_D = electric field strength in the direction $\boldsymbol{B} \times \boldsymbol{W}$, which resembles the Rayleigh law of scattering [15].

Received November 23, 1979

0040-5744/80/0054/0261/$01.00