Erratum: Infrared Detection of the Formyl Radical HCO

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Erratum: Distribution Functions of a Fluid in an External Potential Field. Application to Physical Adsorption

[J. Chem. Phys. **33**, 464 (1960)]

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A FACTOR of $\frac{1}{2}$ was omitted from one of the terms in Eq. (5.2). This equation should read

$$A_c - A_0 = \omega_1 - \omega_2/2kT + 0/(kT)^2. \qquad (5.2)$$

This error was carried over into several following equations. In particular, the last terms on the right-hand sides of Eqs. (5.9), (6.9), and (6.10) should be multiplied by $\frac{1}{2}$, and Eq. (6.11) should be altered to read

$$\mu_{ac} - \mu_{lc} = \bar{u}_s(L_z)[1 + \rho_0 \kappa_0 \bar{u}_s(L_z)/2 + \cdots]. \qquad (6.11)$$

This error thus invalidates the conclusion that the effect of the first-order change in the density of an adsorbed film in a weak external field upon the chemical potential is cancelled by the second-order change in the configurational free energy.

Erratum: Optical and Other Electronic Properties of Polymers

[J. Chem. Phys. **33**, 1332 (1960)]

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PROFESSOR R. Feynman, California Institute of Technology, has pointed out that Eq. (24) of this paper cannot be substituted into Eqs. (22) or (23) to give the correct oscillator strength or polarizability for a polymer. Instead of an expression for $\mathfrak{y}_{0A} \cdot \mathfrak{y}_{A0}$ we need one for $\nu_{0A}\mathfrak{y}_{0A}\frac{1}{2}\mathfrak{y}_{A0}$. The new equation is given below, together with some corrected typographical errors. An analogous correction in a previous paper (J. Am. Chem. Soc. **1960**, 4785) leads to the deletion of the second term in Eqs. (1) and Eq. (A11) of that paper.

The last term in Eq. (4) should be

$$\cdots \sum_{j \neq i} [(V_{ia;j0})\psi_0^0/h\nu_{0a}]. \qquad (4)$$

Equation (5) should read

$$(V)_{ia;ja'} = \int \psi_{ia}{}^0 V_{si,tj} \psi_{ja'}{}^0 d\tau. \qquad (5)$$

The third term in Eq. (14) should have a prime on the subscript of (V); it should read

$$(V)_{ia;ja'}{}^2. \qquad (14)$$

The first sum in Eq. (20) is over capital K; the second to the last term in Eq. (20) should have

$$\mathbf{q}_{i0a'} \quad \text{replace} \quad \mathbf{q}_{j0a'}.$$

Equation (24) should read

$$\sum_K \nu_{OAK}\mathfrak{y}_{OAK} \cdot \mathfrak{y}_{AOK} = \nu_{OA}\mathfrak{y}_{OA} \cdot \mathfrak{y}_{AO} = N\mu_{0a} \cdot \mu_{a0}\nu_{0a}$$

$$- \sum_{i=1}^{N} \sum_{j \neq i} \sum_{a' \neq a} \frac{4(V)_{ia;ja'}\mathfrak{y}_{i0a} \cdot \mathfrak{y}_{j0a'}\nu_{j0a'}\nu_{0a}}{h(\nu_{j0a'}{}^2 - \nu_{0a}{}^2)}$$

$$- 2\sum_{i=1}^{N} \sum_{j \neq i} (V)_{ia;j0}\mathfrak{y}_{i0a} \cdot (\mathfrak{y}_{iaa} - \mathfrak{y}_{i0})/h$$

$$- 2\sum_{i=1}^{N} \sum_{j \neq i} \sum_{a' \neq a} \frac{(V)_{iaa';j0}\mathfrak{y}_{i0a} \cdot \mathfrak{y}_{i0a'}\nu_{0a}}{h(\nu_{0a'} - \nu_{0a})}$$

$$+ \sum_{i=1}^{N} \sum_{j \neq i} [(V)_{iaa;j0} - (V)_{i00;j0}]\mathfrak{y}_{i0a} \cdot \mathfrak{y}_{i0a}/h. \qquad (24)$$

Erratum: Infrared Detection of the Formyl Radical HCO

[J. Chem. Phys. **32**, 927 (1960)]

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AN error in our calculations of the thermodynamic functions of HCO has been brought to our attention.[1] We have omitted the statistical weight factor associated with the doublet character of the ground electronic state of this free radical. A temperature independent term of $R \ln 2 = +1.38$ cal/deg mole must be added to every number in the columns headed $-(F^\circ - H_0^\circ)/T$ and S° in Table IX. The enthalpy function and heat capacity computations are unchanged.

[1] Dr. J. Gordon, private communication.