Additions and Corrections

Pearson's Chemical Hardness, Heterolytic Dissociative Version of Pauling's Bond-energy Equation and A Novel Approach towards Understanding Pearson's Hard–Soft Acid–Base Principle

(1991, 1541)

Dipankar Datta and S. Nabakishwar Singh

Page 1545. The equation used to calculate the $|\Delta\gamma|$ values in Table 5 was $D(A^+B^-) - \frac{1}{2}[D(A^+A^-) + D(B^+B^-)] = -\delta = -2|\Delta\gamma|^2$ and not equation (8) as printed.

Page 1549. The derivation of equation (11) from equation (8) (see above) should, therefore, read as follows.

$$D(A^+B^-) = (A–B) + \text{i.p. (A)} - \text{e.a. (B)} \tag{9}$$

$$-2|\Delta\gamma|^2 = D(A–B) - \frac{1}{2}[D(A–A) + D(B–B)] + 23.06 \text{ [i.p. (A) + e.a. (A)]}/2 - 23.06 \text{ [i.p. (B) + e.a. (B)]}/2 \tag{A1}$$

$$\chi = 0.336 (\chi^M - 0.615) \tag{A2}$$

$$-2|\Delta\gamma|^2 = D(A–B) - \frac{1}{2}[D(A–A) + D(B–B)] + 68.63 (\chi_A - \chi_B) \tag{A3}$$

$$-2|\Delta\gamma|^2 = 23 (\Delta\chi_G)^2 + 68.63 (\chi_A - \chi_B) \tag{A4}$$

$$|\Delta\gamma|^2 = 34.31 (\chi_B - \chi_A) - 11.50 (\Delta\chi_G)^2 \tag{11}$$

Pearson's Hard–Soft Acid–Base Principle and the Heterolytic Dissociative Version of Pauling's Bond-energy Equation

(1992, 1855)

Dipankar Datta

Page 1855. Consequent upon the above, a minus sign was also omitted from equation (1) which should read $D(A^+B^-) = [D(A^+A^-) + D(B^+B^-)]/2 - 2(\gamma_{A^+} - \gamma_{B^-})^2$. This does not affect the conclusions drawn in this paper.

Chemical Hardness of Metal Ions in the Gas Phase: A Thermochemical Approach

(1994, 2177)

Sanchita Hati and Dipankar Datta

Page 2177. It should be noted that equation (2), $D(A^{n+}B^-{}_n)/n = \frac{1}{2}[D(A^+A^-) + D(B^+B^-)] + 2(\gamma_{A^{n+}} - \gamma_{B^-})^2$, is valid for molecules with multivalent class (2) cations and monovalent anions, whereas $D(A^+B^-) = \frac{1}{2}[D(A^+A^-) + D(B^+B^-)] - 2(\gamma_{A^+} - \gamma_{B^-})^2$ (*J. Chem. Soc., Dalton Trans.*, 1991, 1541; 1992, 1855) is valid for monovalent class (1) cations and monovalent anions.