

Erratum to: Calculations of Freezing Point Depression, Boiling Point Elevation, Vapor Pressure and Enthalpies of Vaporization of Electrolyte Solutions by a Modified Three-Characteristic Parameter Correlation Model

Xinlei Ge · Xidong Wang

Published online: 17 April 2013
© Springer Science+Business Media New York 2013

Erratum to: J Solution Chem (2009) 38:1097–1117
DOI 10.1007/s10953-009-9433-0

Our attention has recently been drawn to a few typographical errors in the above paper.

On page 1099, Eq. 9, the temperature T should not be in the left-hand side, and the negative sign in the square brackets in its right-hand-side should be a positive sign. Thus the correct equation is:

$$R \ln a_{\text{liq}} = \Delta H_{0,T_F}^{\text{fus}} \left(\frac{1}{T_F} - \frac{1}{T_F - \theta_F} \right) + \Delta C_p^{\text{fus}} \left[\ln \left(\frac{T_F - \theta_F}{T_F} \right) + \frac{\theta_F}{T_F - \theta_F} \right] \quad (9)$$

On page 1099, Eq. 11, T should not be in the last term of Eq. 11, and the correct equation is:

$$\Delta H_{0,T_F}^{\text{fus}} \left(\frac{1}{T_F} - \frac{1}{T_F - \theta_F} \right) + \frac{\Delta C_p^{\text{fus}}}{2} \left(\frac{\theta_F}{T_F - \theta_F} \right)^2 - R \ln a_{\text{liq}} = 0 \quad (11)$$

On page 1099, Eq. 12, the gas constant R was missing in the first term under the radical sign, and the correct equation is:

$$\theta_F = \frac{\Delta H_{0,T_F}^{\text{fus}} - 2RT_F \ln a_{\text{liq}} - \sqrt{2\Delta C_p^{\text{fus}} T_F^2 R \ln a_{\text{liq}} + \left(\Delta H_{0,T_F}^{\text{fus}} \right)^2}}{2 \left(\Delta H_{0,T_F}^{\text{fus}} / T_F + 0.5 \Delta C_p^{\text{fus}} - R \ln a_{\text{liq}} \right)} \quad (12)$$

The online version of the original article can be found under doi:[10.1007/s10953-009-9433-0](https://doi.org/10.1007/s10953-009-9433-0).

X. Ge (✉)
Department of Materials Science and Engineering, Royal Institute of Technology, 10044 Stockholm, Sweden
e-mail: xinleige@yahoo.com.cn

X. Wang
College of Engineering, Peking University, Beijing 100871, China

On page 1100, Eq. 16, T should not be in the left-hand-side and negative sign was missing in the first term of right-hand-side, and the correct equation is:

$$-R \ln a_{\text{liq}} = -\Delta H_{0,T_B}^{\text{vap}} \left(\frac{1}{T_B} - \frac{1}{T_B + \theta_B} \right) + \Delta C_p^{\text{vap}} \left[\ln \left(\frac{T_B + \theta_B}{T_B} \right) - \frac{\theta_B}{T_B + \theta_B} \right] \quad (16)$$

On page 1100, Eq. 17, R is missing in the second term under the radical sign, and the correct equation is:

$$\theta_B = \frac{-\Delta H_{0,T_B}^{\text{vap}} - 2RT_B \ln a_{\text{liq}} + \sqrt{\left(\Delta H_{0,T_B}^{\text{vap}} \right)^2 - 2\Delta C_p^{\text{vap}} T_B^2 R \ln a_{\text{liq}}}}{2(\Delta H_{0,T_B}^{\text{vap}}/T_B + 0.5\Delta C_p^{\text{vap}} - R \ln a_{\text{liq}})} \quad (17)$$

In all instances, the subsequent calculations in the paper used the correct equations as listed above and not the original equations with errors. Thus the results presented there are unchanged.