

6-1-2005

Erratum: "Environmental Swap Energy and Role of Configurational Entropy in Transfer of Small Molecules from Water into Alkanes"

Pavel Smejtek
Portland State University

Robert Campbell Word
Portland State University

Let us know how access to this document benefits you.

Follow this and additional works at: http://pdxscholar.library.pdx.edu/phy_fac

 Part of the [Physics Commons](#)

Citation Details

Smejtek, P., & Word, R. C. (2005). Erratum: "Environmental swap energy and role of configurational entropy in transfer of small molecules from water into alkanes" [J. Chem. Phys. 120, 1383 (2004)]. *Journal Of Chemical Physics*, 122(22), 229902.

This Article is brought to you for free and open access. It has been accepted for inclusion in Physics Faculty Publications and Presentations by an authorized administrator of PDXScholar. For more information, please contact pdxscholar@pdx.edu.

Erratum: "Environmental swap energy and role of configurational entropy in transfer of small molecules from water into alkanes" [J. Chem. Phys. 120, 1383 (2004)]

Pavel Smejtek^{a)} and Robert C. Word^{b)}

Department of Physics, Portland State University, Portland, Oregon 97207

(Published online 14 June 2005)

[DOI: 10.1063/1.1924552]

In the abstract, a sentence containing a list of temperatures should read: For these alkanes we measured partition coefficients of benzene, 3-methylindole (3MI), 2,3,4,6-tetrachlorophenol (TeCP), and 2,4,6-tribromophenol (TriBP) at 3, 11, 20, 33, and 47 °C. The temperature 33 °C read previously as 3 °C.

There is a missing factor, the number of segments in alkane, in published Eqs. (13) and (14).

Equations (13) and (14) should read

$$\Delta S_{\text{tot}} = -R \left[n_s \ln \left(\frac{n_s}{n_s + \nu n_{\text{alk}}} \right) + n_{\text{alk}} \ln \left(\frac{\nu n_{\text{alk}}}{n_s + \nu n_{\text{alk}}} \right) \right] + R(\nu - 1)n_{\text{alk}}[\ln(Z - 1) - 1] - Rn_{\text{alk}} \ln 2 = \Delta S_{\text{mix}} + \Delta S_{\text{disor}} \quad (13)$$

and

$$\Delta S_{\text{mix}} = -R \left[n_s \ln \left(\frac{n_s}{n_s + \nu n_{\text{alk}}} \right) + n_{\text{alk}} \ln \left(\frac{\nu n_{\text{alk}}}{n_s + \nu n_{\text{alk}}} \right) \right]. \quad (14)$$

Correct expressions were used in the theoretical development so other results are correct.

^{a)}Electronic mail: smejtekp@pdx.edu

^{b)}Electronic mail: wordr@pdx.edu