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

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

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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

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

and

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

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

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