Errata

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Notations

Symbols

\( c \)  Heat capacity (kJ/mol K)
\( n \)  Number of moles (mol)

List of publications


Chapter 1.2.1, page 5

Figure 1.1.
2-amino-2-methyl-1-propanol (AMP)
N-methyldiethanolamine (MDEA)

Chapter 2.1., page 12 and 13

The Poynting pressure correction is:

\[
POY = \exp \left( \frac{1}{RT} \int_{\mu_{\text{sat}}}^{\mu} V_{\text{m}} dP \right) \tag{2.6}
\]
The expression in Equation 2.7 is used when the $\gamma - \phi$ method is used:

$$y_i \phi_i^\gamma P = x_i \gamma_i P_{\psi}^{\phi} \phi_i^{\text{L,Sat}} \exp \left( \frac{1}{RT} \int_{P_{\psi}}^P V_m dP \right)$$  \hspace{1cm} (2.7)

Chapter 2.2., page 14

$$y_i \phi_i^\gamma P = x_i \gamma_i^* H_{i,S} \exp \left( \frac{1}{RT} \int_{P_{\psi}}^P V_m dP \right)$$  \hspace{1cm} (2.11)

Chapter 2.4.1, page 16

$$V_m = \frac{Z RT}{P}$$  \hspace{1cm} (2.18)

$$(\alpha \text{SRK}_{,i})^{0.5} = 1 + \left(0.480 + 1.574 \omega \text{SRK}_{,i} - 0.176 \omega^2 \text{SRK}_{,i} \right)(1 - T^{0.5} \text{SRK}_{,i})$$  \hspace{1cm} (2.21)

Chapter 2.5.1, page 18

$$L_k = \frac{1}{k} \left[ (2k - 1)(2x_i - 1)L_{k-1} - (k - 1)L_{k-2} \right]$$  \hspace{1cm} (2.28)

Chapter 3.6, page 29 and 30

$$dx_i = \frac{n_i}{n_i + n_2 + n_3} = \frac{m_i}{M_1} \frac{M_1}{M_1 + M_2 + M_3}$$  \hspace{1cm} (3.1)

$$\Delta x_i = \frac{1}{M_1} \frac{(n_i + n_2 + n_3) - m_i}{(n_i + n_2 + n_3)^2} \Delta m_i$$  \hspace{1cm} (3.2)

$$dw_i = \frac{m_i}{m_i + m_2}$$  \hspace{1cm} (3.3)
\[ \Delta w_i = \left( \frac{(m_1 + m_2) - m_i}{(m_1 + m_2)^2} \right) \Delta m_i \] (3.4)

Chapter 3.6, page 31

Table 3.1

\( w_i \) Mass fraction

Chapter 4.3, page 36 and 38

\[ \rho_{1,2} \text{ g cm}^{-3} = \sum_{i} x_i \rho_i + a_0 \left( x_1 x_2 \right)^{0.5} \left( \frac{T}{K} \right)^{-3} \exp \left( -a_1 x_2 \right) \] (4.1)

\[ \rho \text{ kg m}^{-3} = a_0 + a_1 \left( \frac{T}{K} \right) \] (4.2)

\[ \rho_{1,2} \text{ kg m}^{-3} = \sum_{i} w_i \rho_i + w_1 w_2 \sum_{k=0}^{N} a_k \left( w_1 - w_2 \right)^k \] (4.3)