the liquid phase has been made in contrast to earlier derivations.^{1,4} Moreover Eqs. [4] and [5], linking the thermodynamic properties of the liquid and solid ought to always be considered along with Eq. [6] in any application. An approximate, but more readily solved liquidus equation can be obtained if $\Delta G_f(c)$ can be well represented as a linear function of T ,

$$\Delta G_f(c) = \Delta \bar{H}_f - T \Delta \bar{S}_f + \delta(T) \quad [7]$$

where the temperature dependent term, $\delta(T)$, is some small percentage of $\Delta G_f(c)$. If the average enthalpy of formation of the compound is related to the actual value at T_{mn} by:

$$\Delta \bar{H}_f = \Delta H_f(T_{mn}) + \Delta, \quad [8]$$

then the average entropy must be given by:

$$\Delta \bar{S}_f = \Delta S_f(T_{mn}) + \Delta/T_{mn} + \delta(T_{mn})/T_{mn}. \quad [9]$$

Proceeding as before but using Eqs. [8] and [9] instead of Eqs. [2] and [3] one obtains

$$T = \frac{H_{mn} - \Delta - \delta(T) + m(h_A - h_A^*) + n(h_B - h_B^*)}{\frac{H_{mn} - \Delta - \delta(T_{mn})}{T_{mn}} + m(s_A^e - s_A^{*,e}) + n(s_B^e - s_B^{*,e}) + R \ln \left[\left(\frac{1-x^*}{1-x} \right)^m \left(\frac{x^*}{x} \right)^n \right]}. \quad [10]$$

the magnitude of the remainder of the numerator plus the entire right hand side of Eq. [11] to assess the error. Alternatively Eq. [6] can be used directly to provide a check.

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The approximate equation is obtained by neglecting $\delta(T)$ and $\delta(T_{mn})$ which is then an explicit equation for T . (Actually it may be possible in particular cases that $\delta(T_{mn})$ is zero.) The approximate equation is then similar to earlier equations (Eq. [11] of Ref. 1; Eq. [4] of Ref. 4 with $\Delta C_p = 0$) except for a modified heat-of-fusion term, $H_{mn} - \Delta$. However it is derived on different basic assumptions. It is not possible to give a precise, simple statement of when the neglect of the δ terms in Eq. [10] is valid for the general case. The answer of course depends in part on the range of T and required accuracy of calculation. In practice a check can be made by rearranging Eq. [10] so that it is similar in form to Eq. [6] but with the α and β terms of the numerator of Eq. [6] replaced using

$$\begin{aligned} & \alpha(T - T_{mn}) - \alpha \ln(T/T_{mn}) - \frac{1}{2}\beta(T - T_{mn})^2 \\ & = \Delta(1 - T/T_{mn}) + \delta(T) - T\delta(T_{mn})/T_{mn}. \end{aligned} \quad [11]$$

The magnitude of the remainder of the numerator in Eq. [6] plus $\Delta(1 - T/T_{mn})$ can then be compared to

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Correction to *Met. Trans. A*, 1976, vol. 7A

A Transmission Electron Microscopy Investigation of the Early Stages of Precipitation in an Al-Zn-Mg Alloy, by C. E. Lyman and J. B. Vander Sande

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The figure captions for Figures 4 and 5 are reversed. The caption for Figure 4 belongs with Figure 5 and vice versa.

Page 1215, Column 1, line 3 from bottom

ξ_g^e should read ξ_g^m .