

As – In (Arsenic – Indium)

Phase diagram

On the basis of an associated solution model Yamaguchi et al. [96 Yam] have optimized phase equilibria and thermodynamic data. The optimized phase diagram given in Fig. 1 agrees with experimental values published by Yamaguchi et al. [88 Yam] and with Ansara's database values [94 Ans].

Thermodynamics

Optimized enthalpies of mixing of liquid alloys obtained by Yamaguchi et al. [96 Yam] are given in Fig. 2. The results are in agreement with experimental values [88 Yam] and with Ansara's database values [94 Ans].

By dissolution calorimetry Yamaguchi et al. [94 Yam] have determined the enthalpy of formation of AsIn. Its value is

$$\Delta H^S = 60 \pm 1 \text{ kJ mol}^{-1}.$$

Figures

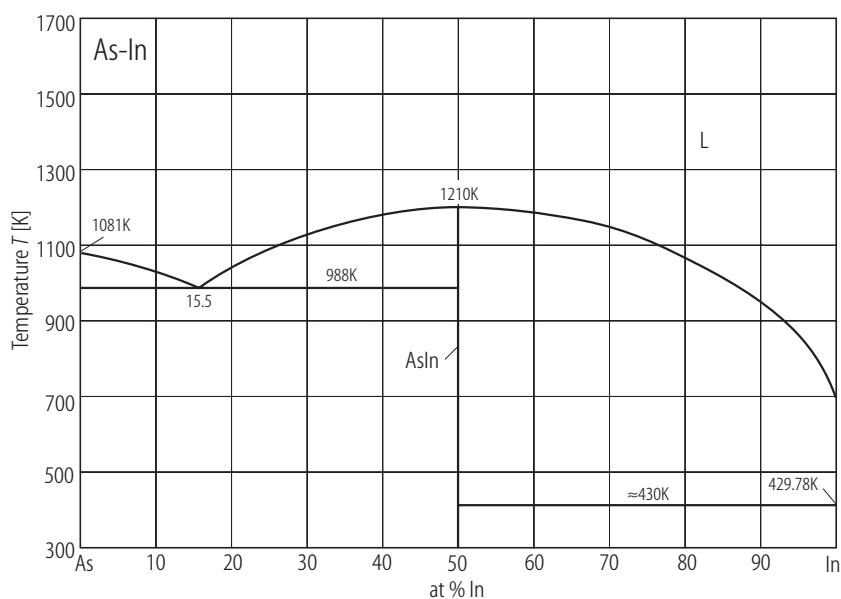


Fig. 1. As–In. Phase diagram optimized by [96 Yam].

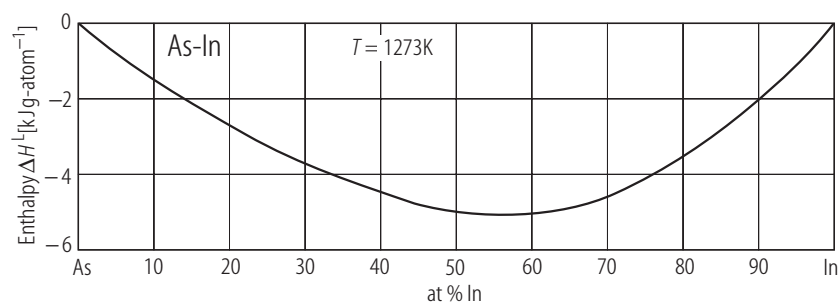


Fig. 2. As–In. Enthalpies of mixing of liquid alloys optimized by [96 Yam].

References

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