

Al – Nb (Aluminum – Niobium)

Thermodynamics

Using the direct reaction calorimetry Mahdouk et al. [98 Mah] have determined experimentally the enthalpy of mixing of liquid alloys. The results are given in Table 1.

Table 1. Al–Nb. Enthalpies of mixing of liquid Al-Nb alloys taken from Mahdouk et al. [98 Mah].

Phase	ΔH^L [kJ g-atom ⁻¹]
Al ₂₀ Nb ₈₀	19.7
AlNb ₃	2.3
Al ₃₃ Nb ₆₆	- 29.8
Al ₇₅ Nb ₂₅	- 49.4
Al ₃ Nb	(1.5)

Reference

[98 Mah] Mahdouk, K., Gachon, J.-C., Bouirden, L.: J. Alloys and Comp. **268** (1998) 118