

Er-Mg (Erbium-Magnesium)

H. Okamoto

The Er-Mg phase diagram determined by [1992Sac] was reported in [1992Oka] with a slight modification to eliminate thermodynamically improbable features (dashed lines in Fig. 1).

Solid lines in Fig. 1 shows the Er-Mg phase diagram of [2002Cac] obtained by thermodynamic modeling based on essentially the same experimental data as [1992Oka]. Although the diagrams of [1992Oka] and [2002Cac] are topologically the same, they are substantially different in detail along the liquidus and solidus of the (Er) phase and the solvus boundaries of the (β Er) and ErMg phases, as shown

in Fig. 1. Because experimental data are not available along these boundaries [except the (Er) liquidus], the true equilibrium is still unknown.

References

- 1992Oka:** H. Okamoto: *J. Phase Equilibria*, 1992, 13(6), 677-78.
1992Sac: A. Saccone, S. Delfio, D. Maccio, and R. Ferro: *Metall. Trans. A*, 1992, 23(3), 1005-12.
2002Cac: G. Cacciamani, A. Saccone, S. De Negri, and R. Ferro: *J. Phase Equilibria*, 2002, 23(1), pp. 38-50.

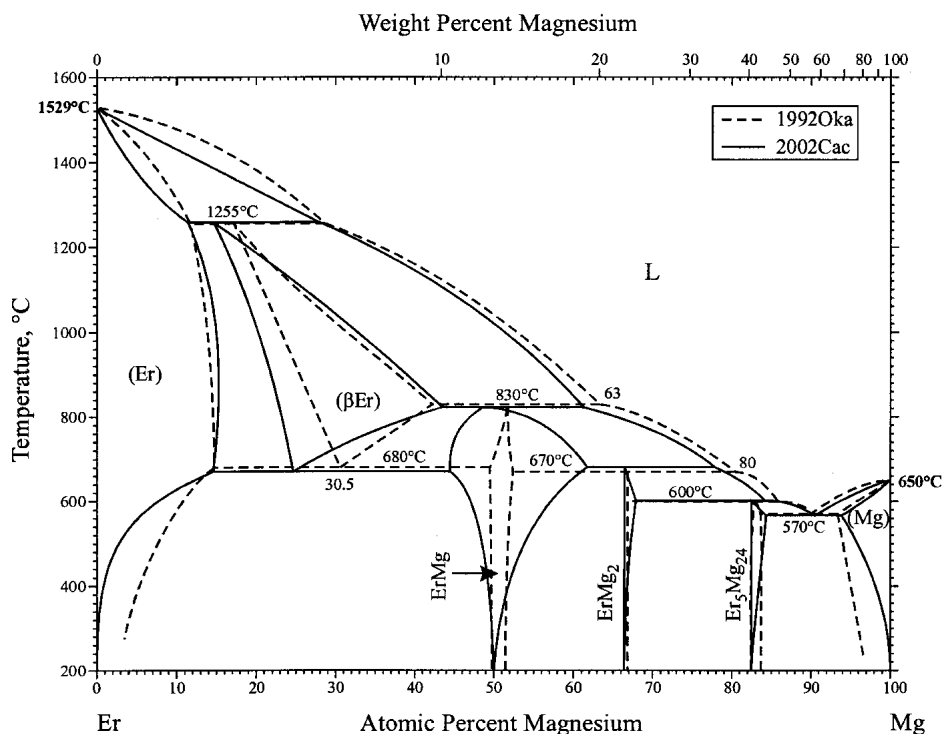


Fig. 1 Er-Mg phase diagram