

# Mg-Zr (Magnesium-Zirconium)

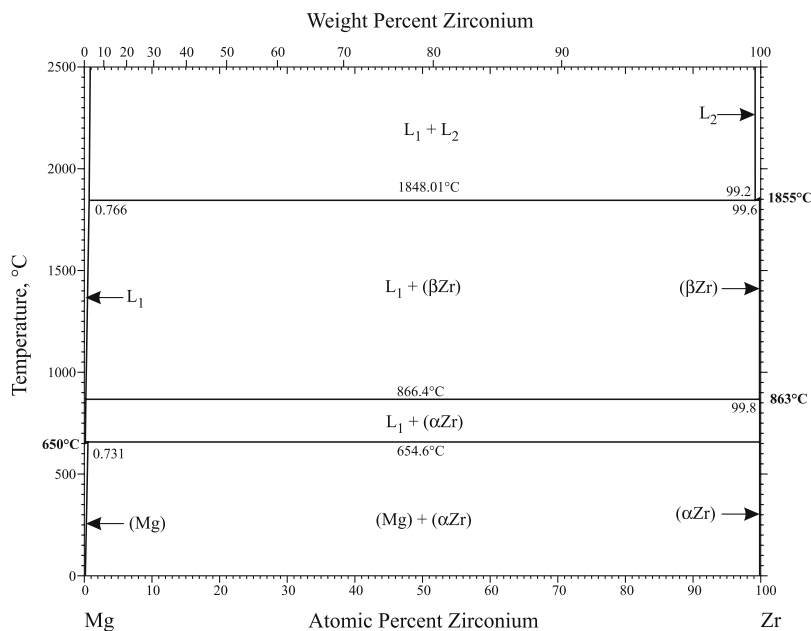
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The partial Mg-Zr phase diagram (0-2 at.% Zr) in [Massalski2] was adopted from [1985Nay]. [1998Ham] obtained a complete Mg-Zr phase diagram by thermodynamic calculation (see [2002Oka]).

[2005Arr] improved the thermodynamic model by incorporating new information derived from first-principles calculations. The result is shown in Fig. 1. Figure 2 is an enlargement of Fig. 1 on the Mg-rich side. In [2005Arr], some invariant points given in a numerical form do not agree with the phase diagram. This evaluator has modified them for consistency with the phase diagram.

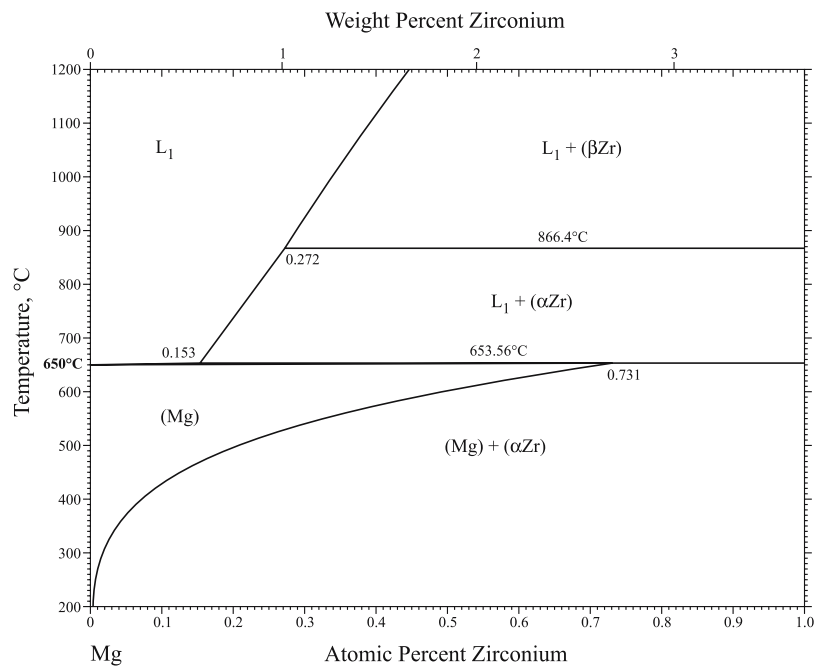
## Cited References

- 1985Nay:** A.A. Nayeb-Hashemi and J.B. Clark, The Mg-Zr (Magnesium-Zirconium) System, *Bull. Alloy Phase Diagrams*, 1985, **6**(3), p 246-250
- 1998Ham:** M. Härmäläinen and K. Zeng, Thermodynamic Evaluation of the Mg-Zr System, *Calphad*, 1998, **22**(3), p 375-380
- 2002Oka:** H. Okamoto, Mg-Zr (Magnesium-Zirconium), *J. Phase Equilibria*, 2002, **23**(2), p 198-199
- 2005Arr:** R. Arroyave, D. Shin, and Z.K. Liu, Modification of the Thermodynamic Model for the Mg-Zr system, *Calphad*, 2005, **29**(3), p 230-238



**Fig. 1** Mg-Zr phase diagram [2005Arr]

### Section III: Supplemental Literature Review



**Fig. 2** Mg-rich region of the Mg-Zr phase diagram [2005Arr]