

U-Zr (Uranium-Zirconium)

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The U-Zr phase diagram in [Massalski2] has been updated twice by [1992Oka] and [1993Oka].

[2004Che] thermodynamically evaluated the U-Zr system including the gas phase. Figure 1 shows the calculated phase diagram. Figure 2 is an enlargement of Fig. 1 at low temperatures indicating solid phase reactions. Minor disagreements are observed among reported phase diagrams, but experimental phase boundary data are insufficient to the correct version of the phase diagram.

References

- 1992Oka: H. Okamoto, U-Zr (Uranium-Zirconium), *J. Phase Equilibria*, 1992, **13**(1), p 109-110
- 1993Oka: H. Okamoto, U-Zr (Uranium-Zirconium), *J. Phase Equilibria*, 1993, **14**(2), p 267-268
- 2004Che: P.Y. Chevalier, E. Fischer, and B. Cheynet, Progress in the Thermodynamic Modeling of the O-U-Zr Ternary System, *Calphad*, 2004, **28**(1), p 15-40

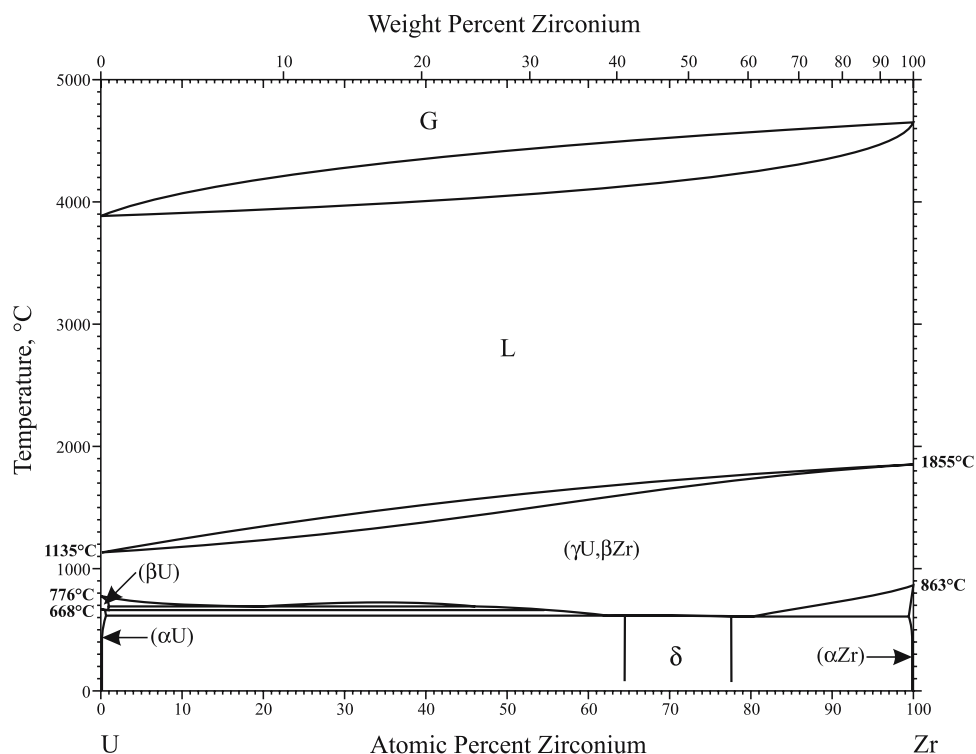


Fig. 1 U-Zr phase diagram

Section III: Supplemental Literature Review

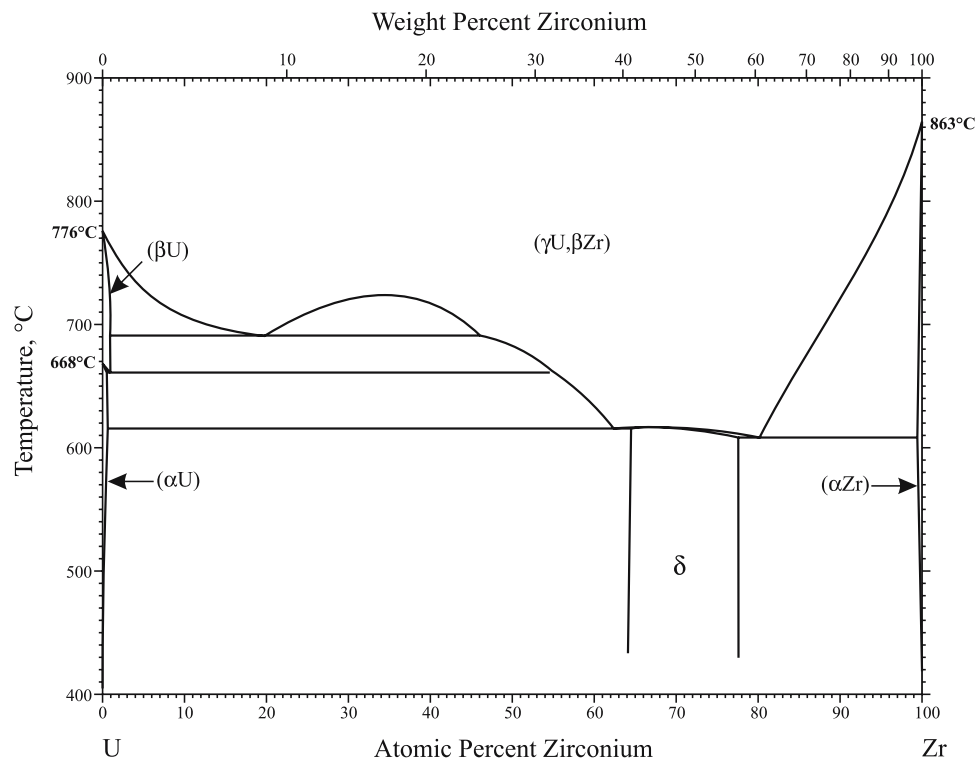


Fig. 2 Enlargement of Fig. 1 in the solid phase region