

# Mn-U (Manganese-Uranium)

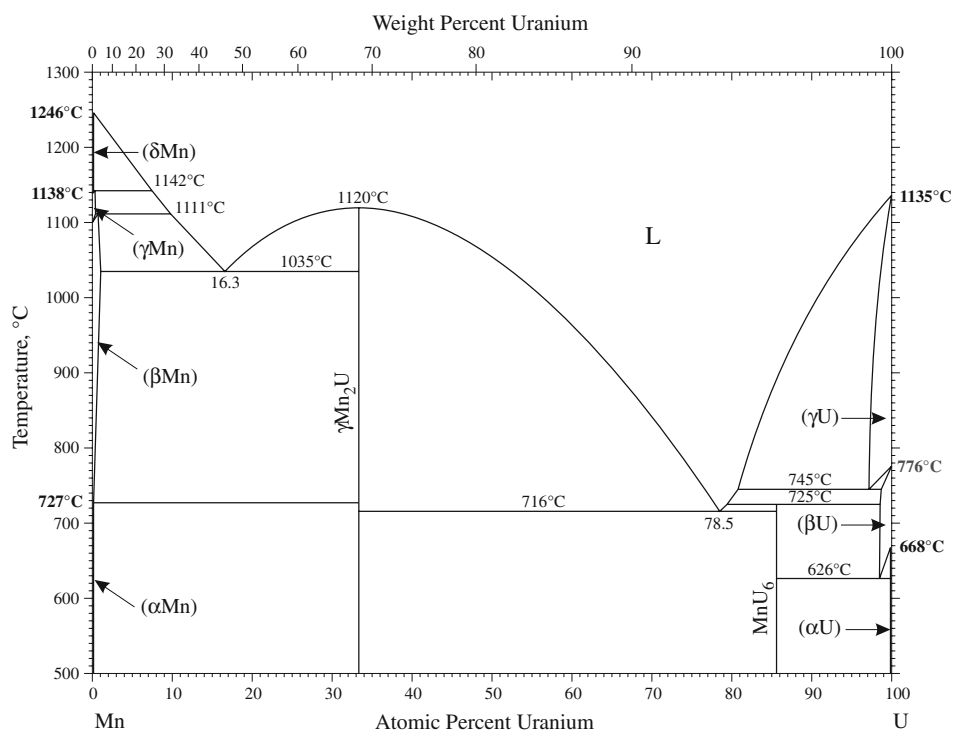
H. Okamoto

The Mn-U phase diagram in [Massalski2] was redrawn from [1950Wil]. Phase boundaries among four allotropic forms of Mn were not shown in this phase diagram.

[2008Liu] calculated the Mn-U phase diagram by adopting the experimental phase boundary data of [1950Wil]. Phase relationships among Mn allotropes were proposed as shown in Fig. 1, but experimental corroboration is needed. (The  $\beta$  to  $\alpha$  transformation temperature of Mn was adjusted in Fig. 1 to agree with [Massalski2].)

## References

- 1950Wil:** H.A. Wilhelm and O.N. Carlson, The Uranium-Manganese and Uranium-Copper Alloy Systems, *Trans. ASM*, 1950, **42**, p 1311-1325
- 2008Liu:** X.J. Liu, Z.S. Li, J. Wang, and C.P. Wang, Thermodynamic Modeling of the U-Mn and U-Nb Systems, *J. Nucl. Mater.*, 2008, **308**, p 99-104



**Fig. 1** Mn-U phase diagram