

Nb-U (Niobium-Uranium)

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The Nb-U phase diagram in [Massalski2] was drawn based on [1958Rog] with modification from $(\gamma\text{U}) \rightarrow (\text{Nb}) + (\alpha\text{U})$ reaction to $(\gamma\text{U}) \rightarrow (\text{Nb}) + (\beta\text{U})$ reaction according to [1982Ter].

This system was evaluated by [1995Koi]. Based with more experimental data, the change made in [Massalski2] was not adopted in the diagram of [1995Koi].

Figure 1 shows the Nb-U phase diagram obtained by [2008Liu] by thermodynamic modeling taking into account the phase diagram of [1995Koi].

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1995Koi: J. Koike, M.E. Kassner, and R.E. Tate, Nb-U (Niobium-Uranium), *Phase Diagrams of Binary Actinide Alloys*, M.E. Kassner and D.E. Peterson, Ed., ASM International, Materials Park, OH, 1995, p 188-194

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

References

1958Rog: B.A. Rogers, D.F. Atkins, E.J. Manthos, and M.E. Kirkpatrick, Uranium-Columbium Alloy Diagram, *Trans. Metall. Soc. AIME*, 1958, **212**, p 387-393

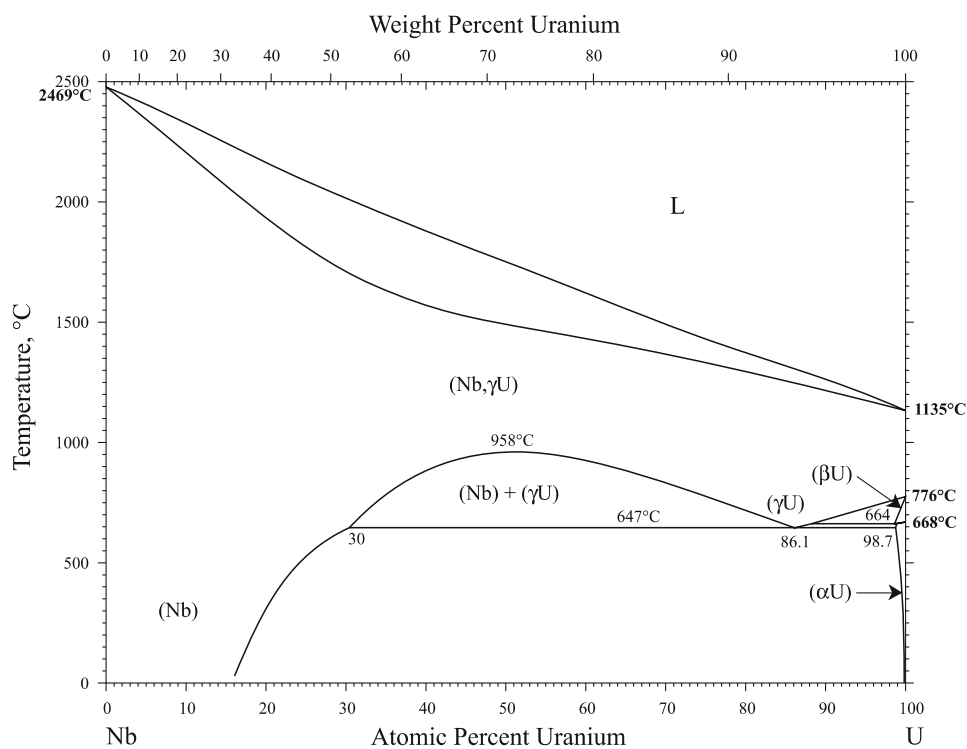


Fig. 1 Nb-U phase diagram