

C-Ti (Carbon-Titanium)

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The C-Ti phase diagram in [Massalski2] was updated twice in this section ([1995Oka], [1998Oka]). The C-Ti phase diagram calculated by [1996Sei] (dashed lines in Fig. 1) was shown in [1998Oka]. Since then, the thermodynamic modeling was improved by [1999Dum] and refined by [2003Fri]. [1999Dum] and [2003Fri] are in good agreement. The result obtained by [2003Fri] is shown with solid lines in Fig. 1. The calculated solubilities of C in (β Ti) and (α Ti) are shown in Fig. 2 and 3, respectively.

References

- 1995Oka:** H. Okamoto, Comment on C-Ti (Carbon-Titanium), *J. Phase Equilibria*, 1995, **16**(6), p 532-533
- 1996Sei:** H.J. Seiferet, H.L. Lukas, and G. Petzow, Thermodynamic Optimization of the Ti-C System, *J. Phase Equilib.*, 1996, **17**(1), p 24-35
- 1998Oka:** H. Okamoto, C-Ti (Carbon-Titanium), *J. Phase Equilib.*, 1998, **19**(1), p 89
- 1999Dum:** L. Dumitrescu, M. Hillert, and B. Sundman, *Z. Metallk.*, 1999, **90**, p 534, as quoted in [2003Fri]
- 2003Fri:** K. Frisk, A Revised Thermodynamic Description of the Ti-C System, *Calphad*, 2003, **27**, p 367-373

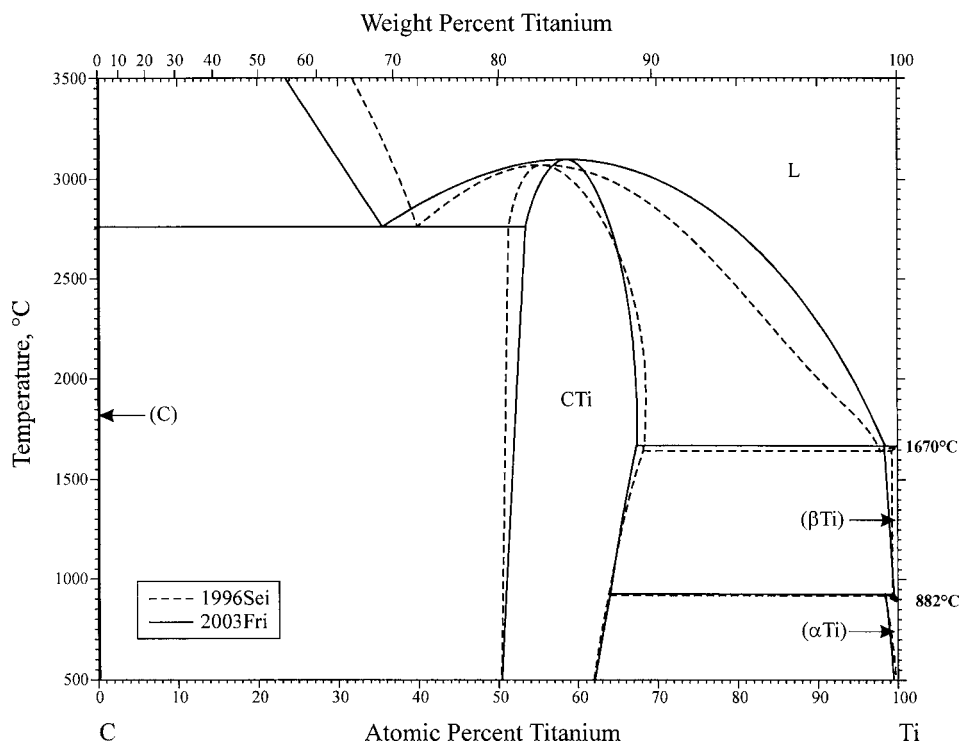


Fig. 1 C-Ti phase diagram

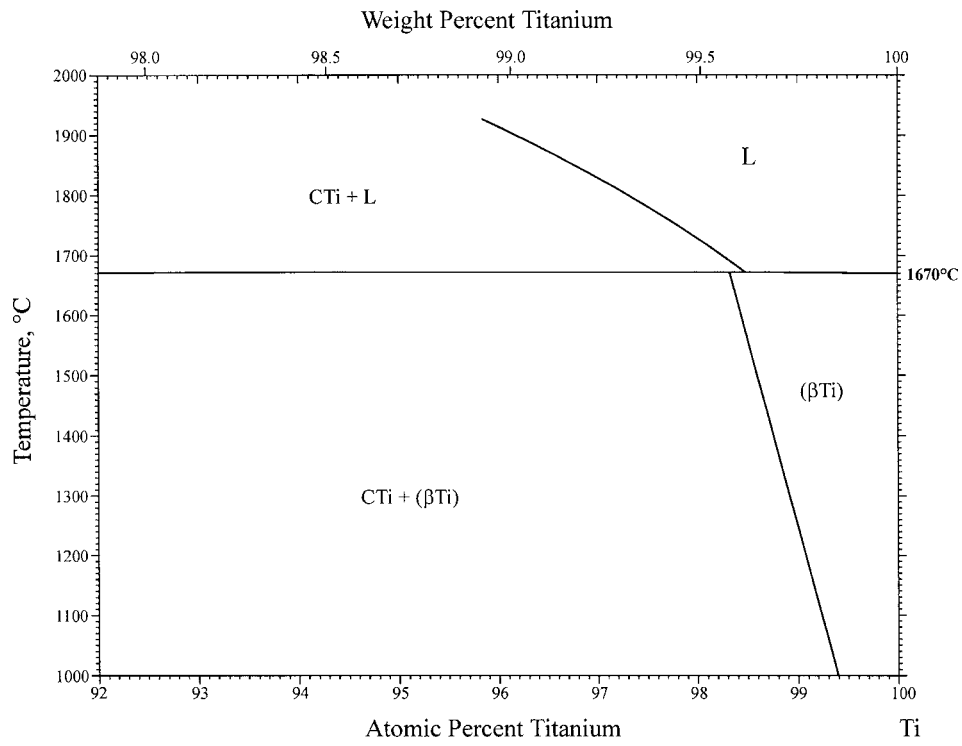


Fig. 2 Solubility of C in (βTi) calculated by [2003Fri]

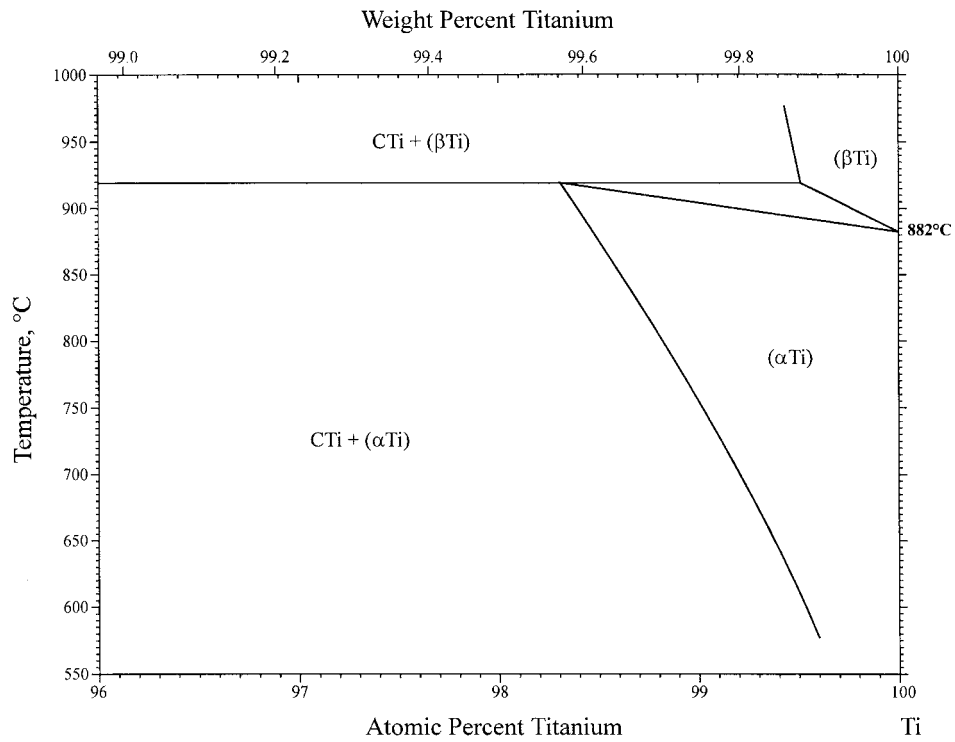


Fig. 3 Solubility of C in (αTi) calculated by [2003Fri]