

# B-Ti (Boron-Titanium)

H. Okamoto

The B-Ti phase diagram in [Massalski2] was redrawn from [1987Mur] (dashed lines in Fig. 1).

This system was evaluated thermodynamically by [2004Ma]. B<sub>2</sub>Ti, (βTi), and (αTi) phases were assumed to have no solubility range in [1987Mur], but some range was taken into account by [2004Ma] based on experimental data. The result is shown with solid lines in Fig. 1.

This editor feels that the shape of the B<sub>2</sub>Ti liquidus is unusual on the B side because its curvature is large only in a limited temperature range at around 2400 °C. In this

range, the diagram shown by [1987Mur] seems to be more normal.

## References

- 1987Mur:** J. Murray, P.K. Liao, and K.E. Spear, B-Ti (Boron-Titanium), *Phase Diagrams of Binary Titanium Alloys*, J. Murray, Ed., ASM international, 1987, p 33-38
- 2004Ma:** X. Ma, C. Li, Z. Du, and W. Zhang, Thermodynamic Assessment of the Ti-B System, *J. Alloys Compd.*, 2004, **370**, p 149-158

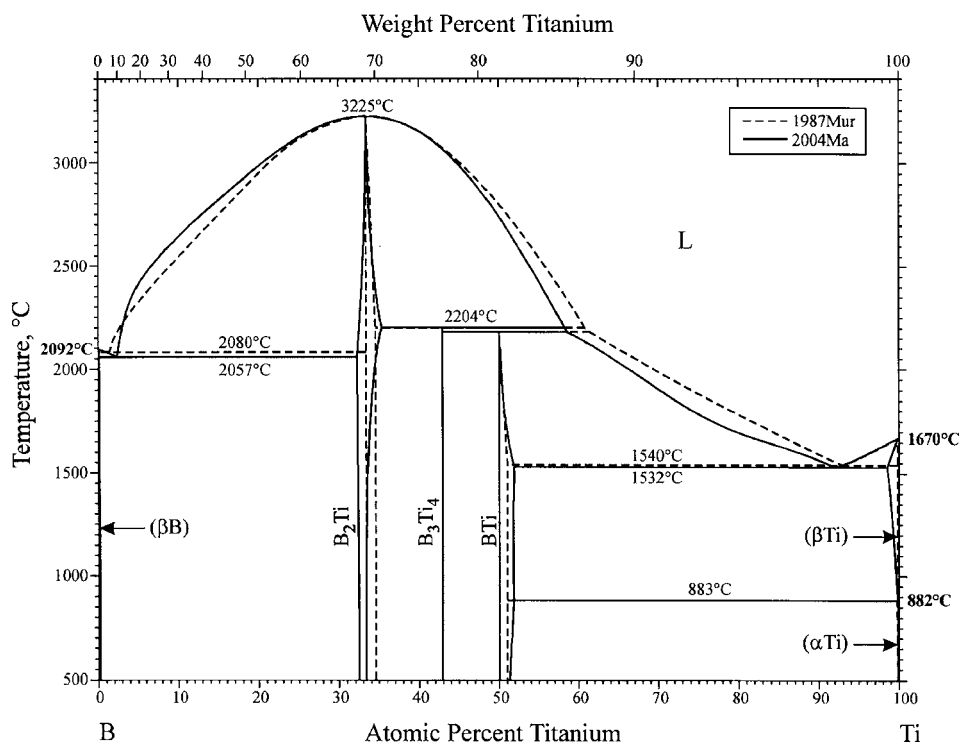


Fig. 1 B-Ti phase diagram