

# B-Si (Boron-Silicon)

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The B-Si phase diagram in [Massalski2] was redrawn from [1984Ole] (dashed lines in Fig. 1).

[2001Zai] studied the thermodynamic properties of B-Si alloys and obtained the B-Si phase diagram by thermodynamic modeling. The result is shown with solid lines in Fig. 1. The difference between [1984Ole] and [2001Zai] is most noticeable for the  $L \rightarrow B_6Si + (Si)$  eutectic reaction.  $B_nSi$  was shown to have about 4 at.% solid solubility in [1984Ole], but a line compound was assumed in [2001Zai]. The  $B_nSi$  phase has not been clearly identified.

## References

**1984Ole:** R.W. Olesinski and G.J. Abbaschian, The B-Si (Boron-Silicon) System, *Bull. Alloy Phase Diagrams*, Vol 5 (No. 5), 1984, p 478-484

**2001Zai:** A.I. Zaitsev and A.A. Kodentsov, Thermodynamic Properties and Phase Equilibria in the Si-B System, *J. Phase Equilib.*, Vol 22 (No. 2), 2001, p 126-135

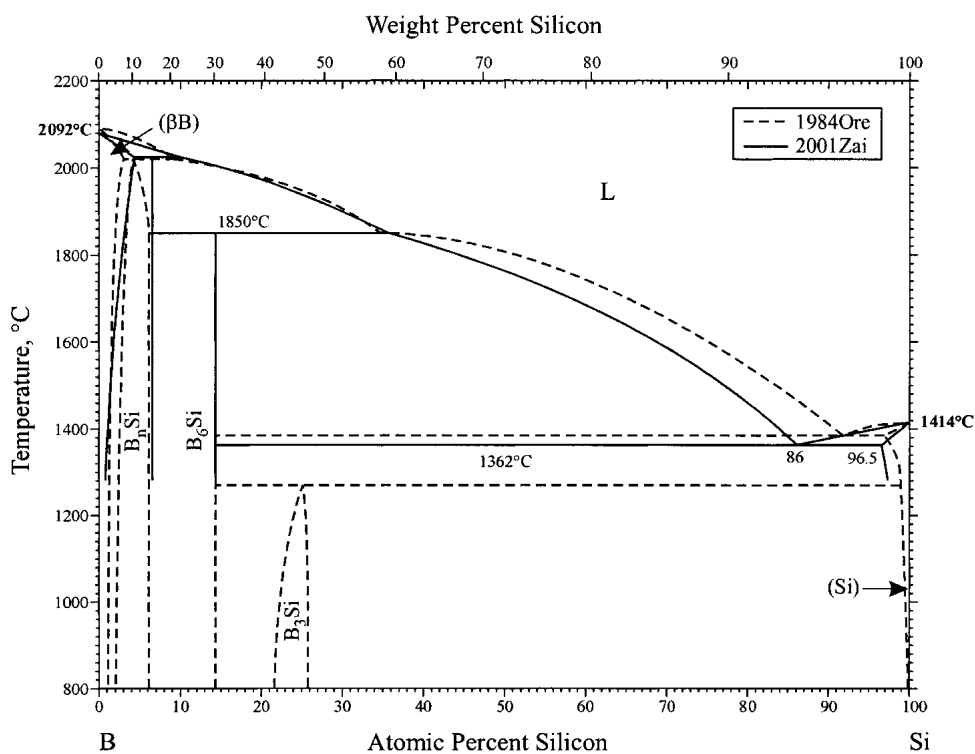


Fig. 1 B-Si phase diagram