

Bi-Lu (Bismuth-Lutetium)

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Figure 1 shows the Bi-Lu phase diagram proposed by [95Abu] from DTA, XRD, and metallographic studies. The solubility of Bi in (Lu) is indicated to be less than 1 at.% because a 1 at.% Bi alloy was found to be two phase. The existence of Bi_2Lu was speculated from micrographic evidence in 15 to 40 at.% Lu alloys. However, this phase could not be isolated. [95Abu] further speculated that Bi_2Lu may be stable at high temperatures only.

The Bi-Lu phase diagram in [Massalski2] is that of [Moffatt], who based the diagram on systematic trends in the Bi-RE sys-

tems reported by [75Yos]. This diagram is schematic and is apparently superseded by the more quantitative work of [95Abu].

Cited References

75Yos: K. Yoshihara, J.B. Taylor, L.D. Calvert, and J.G. Despault, *J. Less-Common Met.*, 41, 329-337 (1975).

95Abu: V.D. Abulkhaev and I.N. Ganiev, *Izv. Ross Akad. Nauk. Met.*, (2), 157-160 (1995) in Russian; TR: *Russ. Metall.*, (2), 142-145 (1995).

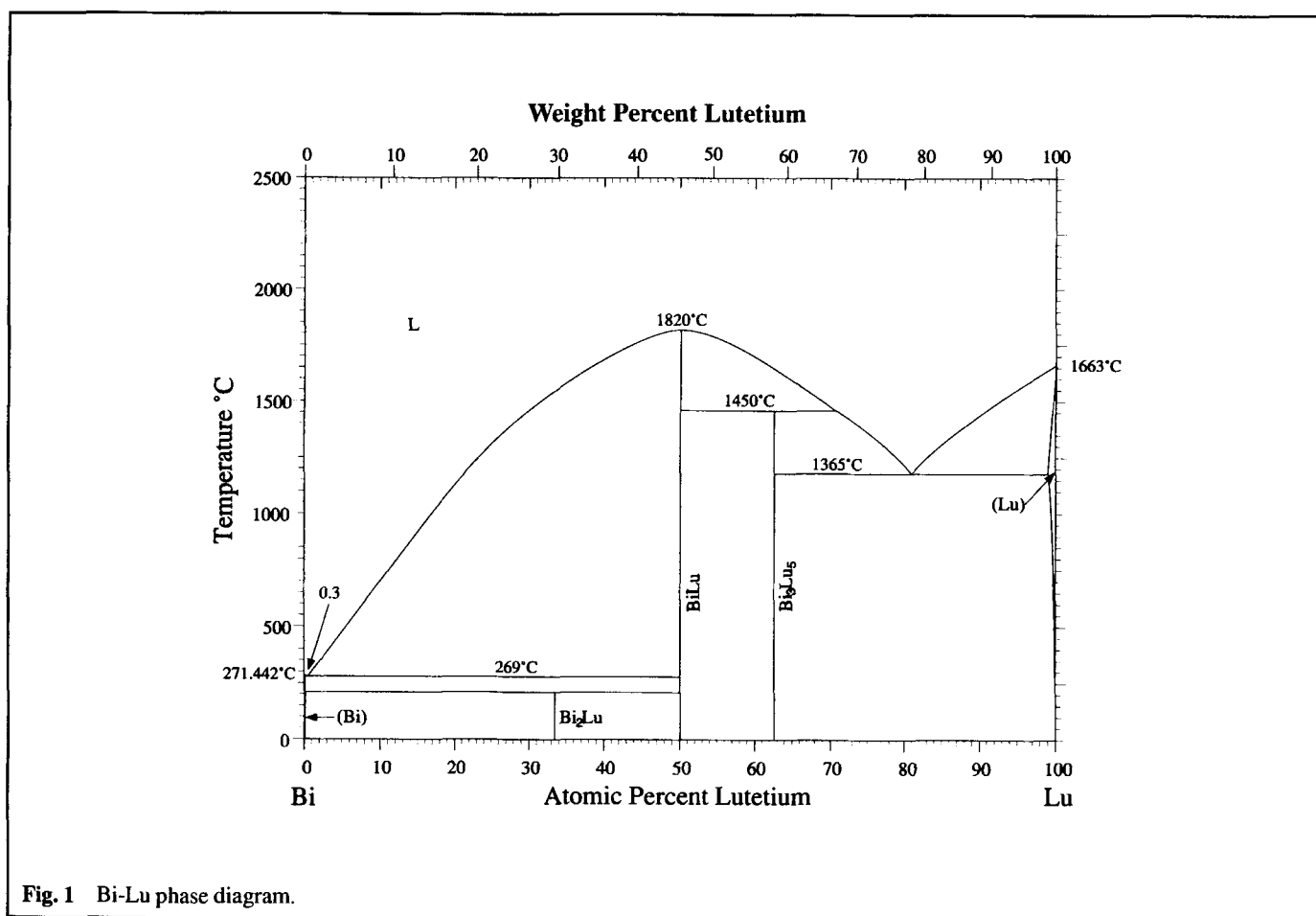


Fig. 1 Bi-Lu phase diagram.