

C-Zr (Carbon-Zirconium)

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Figure 1 shows the Zr-C phase diagram calculated by [95Fer], who claimed that the metallographic observations of [65Sar] and most of the phase boundary data observed by [69Rud] and [75Zot] were reasonably well accounted for by his calculated phase diagram.

The Zr-C phase diagram in [Massalski2] is that of [86Bar] and is almost identical to the diagram of [75Zot]. According to [95Fer], a solidus temperature of ZrC reported by [75Zot] is inconsistently high in comparison with other data points. Accordingly, the melting point of ZrC (3540 °C) in [Massalski2] is also too high.

Cited References

- 65Sar:** R. V. Sara, *J. Am. Ceram. Soc.*, 48, 243-247 (1965).
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75Zot: Yu. P. Zotov and R. V. Kotelnikov, *Izv. Akad. Nauk SSSR, Met.*, (1), 179-181 (1975).
86Bar: O.M. Barabash and Yu.N. Koval, *Crystal Structure of Metals and Alloys*, Naukova Dumka, Kiev, USSR, 215-216 (1986) in Russian.
95Fer: A. Fernandez Guilermet, *J. Alloy. Compd.*, 217, 69-89 (1995).

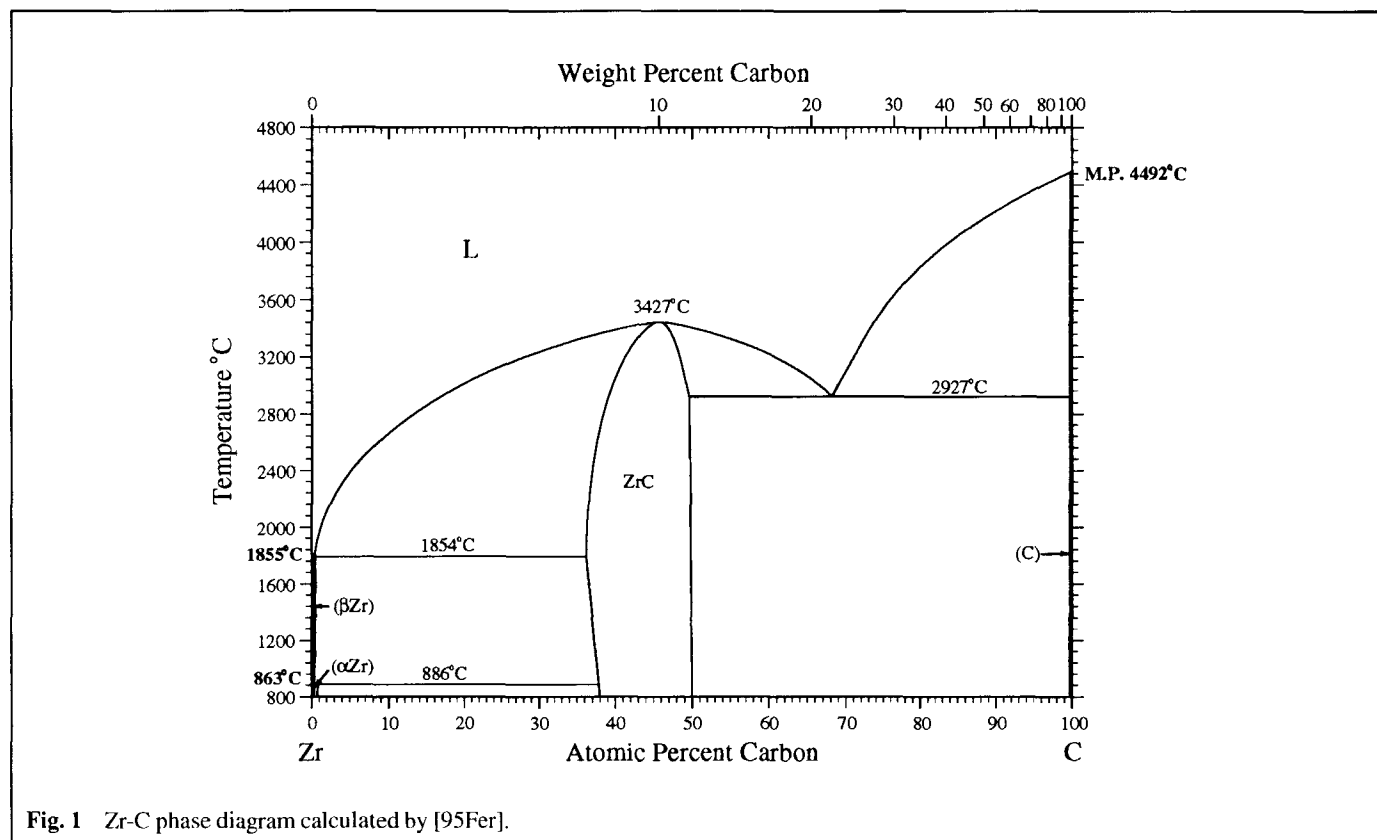


Fig. 1 Zr-C phase diagram calculated by [95Fer].