

As-Pt (Arsenic-Platinum)

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The As-Pt phase diagram in [Massalski2] was redrawn from [90Oka], who assumed that As_2Pt was the only intermediate compound and omitted As_3Pt_2 , which was shown in the [Hansen] diagram.

[93Ric] reinvestigated the As-Pt phase diagram (Fig. 1) by DTA. The result was in good agreement with [08Fri], on which [90Oka] relied. The absence of As_3Pt_2 was confirmed. The $\text{L} \leftrightarrow \text{As}_2\text{Pt} + (\text{Pt})$ eutectic temperature was found at 600 °C, rather than at 597 °C [08Fri].

Figure 1 also shows the As_2Pt liquidus (dotted line) on the As-rich side under a constrained condition. This is based on the absence of any compound between (As) and As_2Pt [93Ric], the

symmetry requirement [93Oka], and the melting point of pure As at 817 °C [89Gok].

Cited References

08Fri: K. Friedrich and A. Leroux, *Metallurgie*, 5(5), 148-149 (1908) in German.

89Gok: N.A. Gokcen, *Bull. Alloy Phase Diagrams*, 10(1), 11-22 (1989).

90Oka: H. Okamoto, *Bull. Alloy Phase Diagrams*, 11(5), 508-510 (1990).

93Oka: H. Okamoto and T.B. Massalski, *J. Phase Equilibria*, 14(3), 316-335 (1993).

93Ric: K.W. Richter and H. Ipser, *Experimental Methods of Phase Diagram Determination*, J.E. Morral, R.S. Schifman, and S.M. Merchant, Ed., TMS, 195-200 (1993).

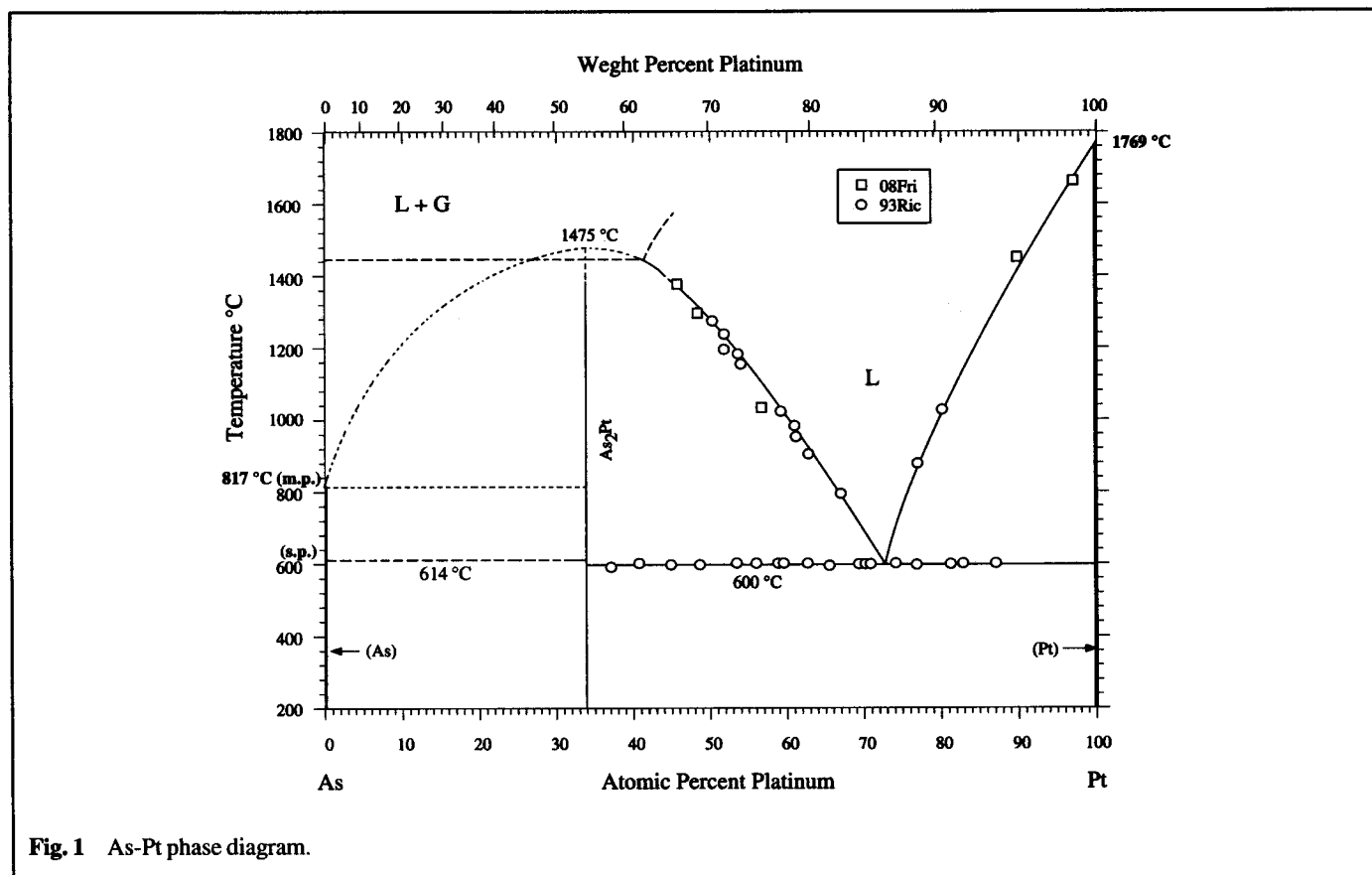


Fig. 1 As-Pt phase diagram.