Editor's Note: Whereas the JPE editorial and production staff make every effort to preserve the integrity of each author's work, the occasional error occurs. In Vol. 16, No. 3, p.284-287 of the Supplemental Literature Review "Hf-Pd (Hafnium-Palladium)," "Ir-Sc (Iridium-Scandium)," and Pt-Si (Platinum-Silicon), the diagrams were incorrectly placed due to a printer error. The full text and correct diagrams are printed below.

Hf-Pd (Hafnium-Palladium)

H. Okamoto

The Hf-Pd phase diagram in [Massalski2] was redrawn from [72Shu]. Five compounds were reported: Hf_2Pd , HfPd , and HfPd_3 , which form peritectically at 1415, 1610, and 1965 °C, respectively; Hf_3Pd_4 , which forms peritectoidally at 1560 °C; and HfPd_2 , which forms congruently at 2075 °C and decomposes eutectoidally at 1370 °C.

This configuration was questioned by [94Sel] on the basis of enthalpy of formation measurements of the five compounds and an x-ray diffraction analysis of an alloy containing 75 at.% Pd. The reactions observed by [94Sel] indicated that HfPd_2 forms peritectically while HfPd_3 forms congruently. A possible shape of the phase diagram in the range of 40 to 75 at.% Pd was illustrated by [94Sel] (Fig. 1). The temperature scale is unknown. Furthermore, the enthalpy of formation values observed [94Sel] indicated that Hf_3Pd_4 and HfPd , instead of HfPd_2 , may be unstable at low temperatures

[94Oka] questioned the slope of the $(\beta\text{Hf})/(\beta\text{Hf}) + (\alpha\text{Hf})$ phase boundary and the liquidus and solidus trends of (Pd) in the Hf-Pd phase diagram in [Massalski2]. In addition, the schematic configuration shown in Fig. 1 inevitably induces an unlikely asymmetric liquidus (see [93Oka]) for HfPd_3 if the other part of the Hf-Pd diagram in [Massalski2] is assumed to be correct. Apparently, the entire phase diagram should be reinvestigated.

Cited References

- 72Shu:** A.K. Shurin and V.V. Pet'kov, *Russ. Metall*, (2), 122-144 (1972).
93Oka: H. Okamoto and T.B. Massalski, *J. Phase Equilibria*, 14(3), 316-335 (1993).
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Fig. 1 Hf-Pd phase diagram.