

Am – Pt (Americium – Platinum)

An estimated phase diagram has been constructed by Peterson (see [Massalski], [Moffatt]). It is reproduced in Fig. 1.

The compounds Am_7Pt_3 , Am_3Pt_2 , AmPt and Am_3Pt_4 are predicted by analogy, whereas AmPt_2 and AmPt_5 are observed experimentally. Crystallographic data of the last mentioned intermediate phases are given in Table 1.

Table 1. Am–Pt. Crystallographic properties of intermediate phases.

Phase	Structure	Prototype	Lattice parameters [nm]	
			<i>a</i>	<i>c</i>
AmPt_2	cub	Cu_2Mg	0.766	
AmPt_5	hex	CoCu_5	0.5312	0.4411

Figure

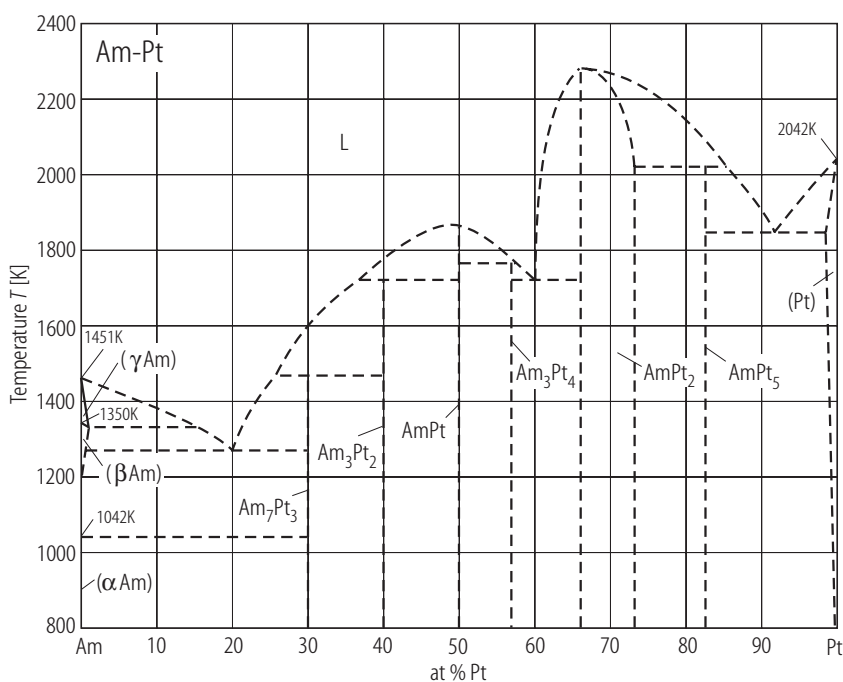


Fig. 1. Am–Pt. Estimated phase diagram taken from [Massalski].

References

- [Massalski] Massalski, T.B., (ed.): “Binary Alloy Phase Diagrams”, Second Edition, The Materials Information Society, ASM International, Materials Park, Ohio (1992)
- [Moffatt] Moffatt, W.G., (ed.): “Handbook of Binary Phase Diagrams”, Business Growth Services, General Electric Co., Schenectady, New York (1976)