

Pr-Yb (Praseodymium-Ytterbium)

H. Okamoto

The Pr-Yb phase diagram was unknown in [Massalski2]. A schematic Pr-Yb phase diagram shown in Fig. 1 was proposed by [1999Gio] by assuming close similarity of this system to the Nd-Yb system.

Pr-Yb crystal structure data are shown in Table 1.

Reference

1999Gio: M. Giovannini, A. Saccone, and R. Ferro, The Isothermal Section at 450°C of the Yb-Pr-Mg System, *Intermetallics*, 1999, 7, p 909-916

Table 1 Pr-Yb crystal structure data

Phase	Composition, at.% Yb	Pearson symbol	Space group	Strukturbericht designation	Prototype
(βPr)	0-?	<i>cI2</i>	<i>Im</i> $\bar{3}m$	<i>A2</i>	W
(αPr)	0-?	<i>hP4</i>	<i>P6</i> $_3/mmc$	<i>A3'</i>	αLa
(γYb)	?-100	<i>cI2</i>	<i>Im</i> $\bar{3}m$	<i>A2</i>	W
(βYb)	?-100	<i>cF4</i>	<i>Fm</i> $\bar{3}m$	<i>A1</i>	Cu

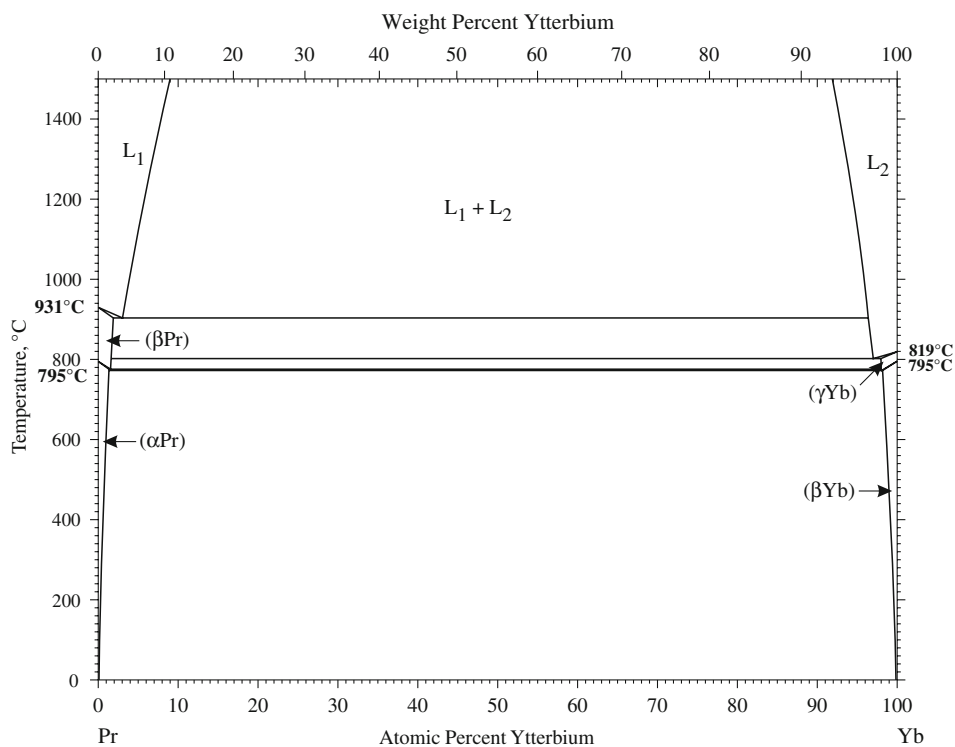


Fig. 1 Pr-Yb phase diagram