O-Y (Oxygen-Yttrium)

H. Okamoto

The Y-O phase diagram in [Massalski2] was drawn based on the assessment of [1990Car]. This system was assessed again by [1996Bou, 1996Gro], as reported by [1998Oka]. A similar result was obtained by [1996Lys] also. The composition range of the phase diagrams reported above were all 0 to ~70 at.% O. The temperature range was also limited up to ~2600°C.

The complete Y-O phase diagram was obtained by thermodynamic modeling by [2007Dju], as shown in Fig. 1. No supporting data are available for the expanded range. Nevertheless this phase diagram will serve as a good guideline in determining the phase boundaries experimentally.

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Fig. 1 Y-O phase diagram