I-Sb (Iodine-Antimony)

H. Okamoto

The Sb-I phase diagram was unknown in [Massalski2].

Figure 1 shows the Sb-I phase diagram determined by [2010Ali] by means of DTA measurements.

Sb-I crystal structure data are given in Table 1. [2007Vil] reported two different crystal structures for SbI_3 .

References

2007Vil: P. Villars and K. Canzual, *Pearson's Crystal Data CD-ROM*, ASM International, Materials Park, OH, 2007

2010Ali: Z.S. Aliev, S.S. Musaeva, D.M. Babanly, A.V. Shevelkov, and M.B. Babanly, Phase Diagrams of the Sb-Se-I System and Thermodynamic Properties of SbSeI , *J. Alloys Compd.*, 2010, **505**, p 450-455

Table 1 Tab1 Sb-I crystal structure data

Phase	Composition, at.% I	Pearson symbol	Space group	Strukturbericht designation	Prototype
(Sb)	0	<i>hR2</i>	$R\bar{3}m$	<i>A7</i>	αAs
SbI_3	75	<i>mP16</i>	$P12_1/c1$	...	BiBr_3
		<i>hR24</i>	$R\bar{3}h$	...	BiI_3
(I)	100	<i>oC8</i>	<i>Cmca</i>	<i>A14</i>	I

Fig. 1 Sb-I phase diagram