

Hf-I (Hafnium-Iodine)

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

Figure 1 shows a partial Hf-I phase diagram reported by [1969Str]. The phase boundaries were determined by measuring the compositions of equilibrated samples. HfI₃ is in equilibrium with (αHf) [1969Str].

Hf-I crystal structure data given in Table 1 were adopted from [2007Vil].

References

- 1969Str:** A.W. Struss and J.D. Corbett, The Lower Halides of Hafnium. A Nonstoichiometric Hafnium Triiodide Phase, *Inorg. Chem.*, 1969, **8**(2), p 227-232
- 2007Vil:** P. Villars and K. Cenzual, *Pearson's Crystal Data CD-ROM*, ASM International, OH, 2007

Table 1 Hf-I crystal structure data

Phase	Composition, at.% I	Pearson symbol	Space group	Strukturbericht designation	Prototype
(βHf)	0	<i>cI2</i>	<i>Im</i> $\bar{3}m$	A2	W
(αHf)	0	<i>hP2</i>	<i>P6</i> ₃ / <i>mmc</i>	A3	Mg
HfI ₃	75 to ?	<i>hP8</i>	<i>P6</i> ₃ / <i>mcm</i>
HfI ₄	80	<i>mC40</i>	<i>C12/c1</i>
(I)	100	<i>oC8</i>	<i>Cmca</i>	A14	I

Only HfI₃ is shown in Fig. 1

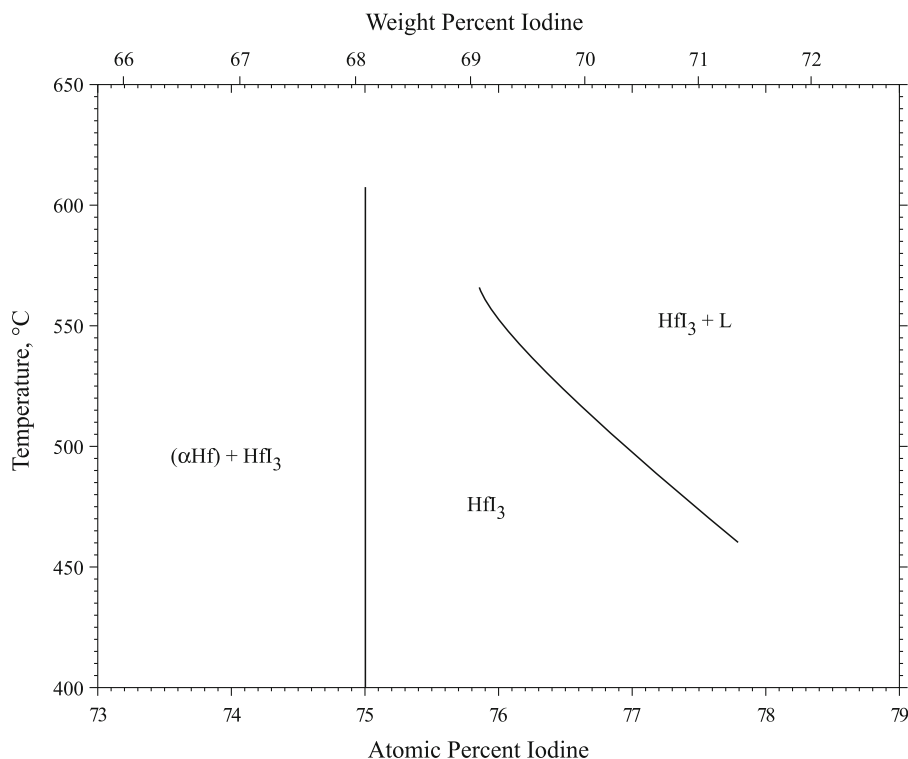


Fig. 1 Hf-I phase diagram