

Hg-Sc (Mercury-Scandium)

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[1993Gum] reviewed the Hg-Sc system, but no phase diagram was reported.

The Hg-Sc phase diagram shown in Fig. 1 is based on a schematic figure given by [2004Gum]. According to [1993Gum], Hg_3Sc and HgSc decompose at 450 ± 100 and 600 ± 100 °C, respectively, on heating under 0.1 MPa pressure. This information has been added to the diagram of [2004Gum].

Crystal structure data in Table 1 are as reported by [1963Lau].

References

- 1963Lau:** E. Laube and H. Nowotny, Crystal Structures of ScHg , ScHg_3 , YCd , YHg , and YHg_3 , *Monatsh. Chem.*, 1963, **94**, p 851-858, in German
- 1993Gum:** C. Guminski, The Hg-Sc (Mercury-Scandium) System, *J. Phase Equilib.*, 1993, **14**(3), p 391-392
- 2004Gum:** C. Guminski, Contribution of Electrochemistry to the Knowledge on Structure and Properties of Amalgams, *Pol. J. Chem.*, 2004, **78**, p 1733-1751

Table 1 Hg-Sc crystal structure data

Phase	Composition, at.% Hg	Pearson symbol	Space group	Strukturbericht designation	Prototype
(Hg)	0	<i>hR1</i>	$R\bar{3}m$	A10	αHg
Hg_3Sc	25	<i>hP8</i>	$P6_3/mmc$	$D0_{19}$	Ni_3Sn
HgSc	50	<i>cP2</i>	$Pm\bar{3}m$	B2	CsCl
(αSc)	100	<i>hP2</i>	$P6_3/mmc$	A3	Mg

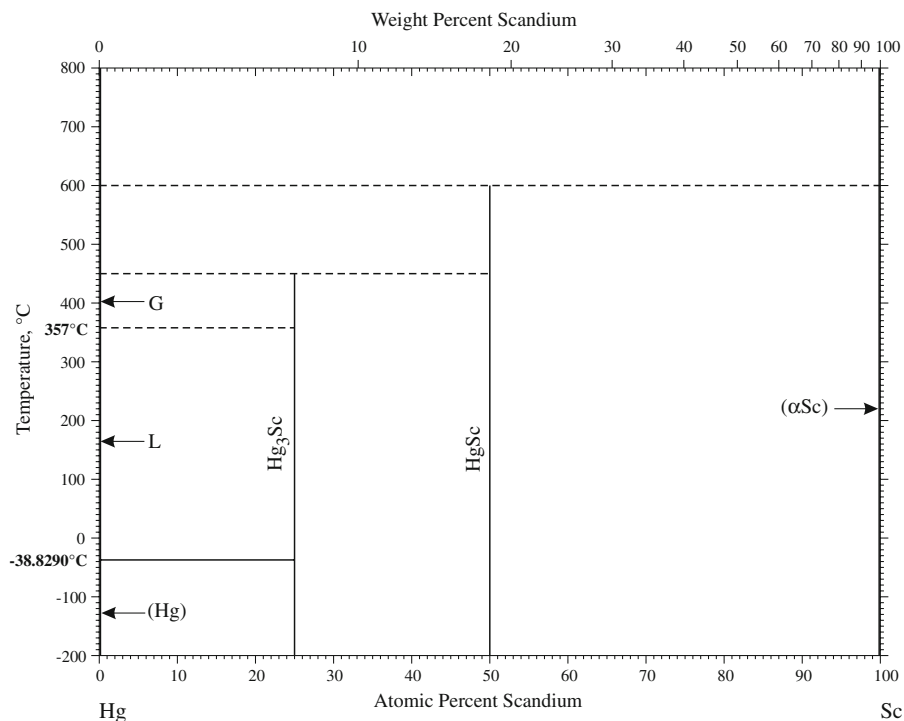


Fig. 1 Hg-Sc phase diagram