



>>Entry Name: Holmium sulfides

Molecular Formula: [HoS]

>>Variant: Holmium sulfide (Ho₂S₃)

Synonym(s): Diholmium trisulfide

CAS Registry Number: 12162-59-3

Molecular Formula: Ho₂S₃

Molecular Weight: 426.059

Accurate Mass: 425.776848

Percentage Composition: Ho 77.42%; S 22.58%

>>Derivative: Monoclinic-form

Synonym(s): δ-form

Physical Description: Yellow-orange or yellow-green cryst.

Other Data: Struct. has ½Ho 6-coordinate, ½ 7-coordinate, 2/3 of S atoms 4-coordinate and 1/3 5-coordinate

>>Derivative: Cubic-form

Synonym(s): γ-form

Source/Synthesis: Obt. at 2000°, 75000 atm.

>>Derivative: Orthorhombic-form

Synonym(s): High pressure-form

Source/Synthesis: Obt. at 900°, 10000 atm.

Physical Description: Metastable at r.t.

References:

White, J.G. *et al.*, *Inorg. Chem.*, 1967, **6**, 1872, (*synth, struct*)

Sleight, A.W. *et al.*, *Inorg. Chem.*, 1968, **7**, 2282, (*struct*)

Eatough, N.L. *et al.*, *Inorg. Chem.*, 1969, **8**, 2069, (*synth, struct*)

Range, K.J. *et al.*, *Z. Naturforsch., B*, 1975, **30**, 889, (*struct*)

Gmelin Handbook Inorg. Chem., Syst. No. 39, 1983, C7, 69; 531, (rev)