>>**Entry Name: Holmium sulfides**

Molecular Formula: [HoS]

>>**Variant: Holmium sulfide (Ho_2S_3)**
Synonym(s): Diholmium trisulfide

CAS Registry Number: 12162-59-3
Molecular Formula: Ho_2S_3
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)*