



>>Entry Name: Ytterbium sulfides

Molecular Formula: [SYb]

>>Variant: Ytterbium(II) sulfide (YbS)

CAS Registry Number: 23344-43-6

Molecular Formula: SYb

Molecular Weight: 205.106

Accurate Mass: 203.907448

Percentage Composition: S 15.63%; Yb 84.37%

Source/Synthesis: Conveniently synth. from S and solns. of Yb in liq. NH₃ at r.t.

Physical Description: Black solid, dark green film (golden yellow at high pressure)

Melting Point: Mp 2130°

Other Data: Non-conductor - becomes *p*-type conductor on doping with S

>>Variant: Ytterbium sulfide (Yb₂S₃)

CAS Registry Number: 12039-20-2

Physical Description: Yellow (brown-green) solid

Other Data: τ form obtd. from elements in silica at 850°; has Bixbyite struct. with 6-coord. Yb

>>Variant: Ytterbium sulfide (YbS₂)

CAS Registry Number: 12504-44-8

Molecular Formula: S₂Yb

Molecular Weight: 237.172

Accurate Mass: 235.879518

Percentage Composition: S 27.04%; Yb 72.96%

Other Data: Tends to be substoichiometric

References:

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