



>>Entry Name: Erbium(III) bromide (ErBr<sub>3</sub>)

Synonym(s): Erbium tribromide

CAS Registry Number: 13536-73-7

ErBr<sub>3</sub>

Molecular Formula: Br<sub>3</sub>Er

Molecular Weight: 406.972

Accurate Mass: 402.745298

Percentage Composition: Br 58.90%; Er 41.10%

Physical Description: Violet rose solid

Melting Point: Mp 950°

Boiling Point: Bp 0° 1460°

Solubility: Sol. H<sub>2</sub>O, THF

Aldrich: 44978-4

>>Derivative: Hexahydrate

Synonym(s): Hexaaquadibromoerbium(1+) bromide

CAS Registry Number: 14890-44-9

Molecular Formula: Br<sub>3</sub>ErH<sub>12</sub>O<sub>6</sub>

Molecular Weight: 515.063

Accurate Mass: 510.808688

Percentage Composition: Br 46.54%; Er 32.47%; H 2.35%; O 18.64%

Physical Description: Pink cryst.

Solubility: Sol. H<sub>2</sub>O

Other Data: Loses H<sub>2</sub>O on controlled heating *in vacuo*. Formulated as [ErBr<sub>2</sub>(OH<sub>2</sub>)<sub>6</sub>]<sup>(+)</sup>Br<sup>(-)</sup>

References:

- Mayer, I. *et al.*, *J. Inorg. Nucl. Chem.*, 1965, **27**, 1905, (*hexahydrate, synth, tga*)  
Brown, D., *Halides of the Lanthanides and Actinides*, Wiley-Interscience, 1968, 194, (*rev*)  
Brown, D. *et al.*, *J.C.S.(A)*, 1968, 1889, (*hexahydrate, synth, cryst struct*)  
Basile, L.J. *et al.*, *J. Chem. Phys.*, 1971, **55**, 3729, (*ir*)  
*Gmelin Handbook Inorg. Chem., Syst. No. 39*, 1978, **C6**, (*rev*)  
Legendziewicz, L.Z., *Bull. Pol. Acad. Sci., Chem.*, 1985, **33**, 147, (*uv-vis*)  
Uwamino, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1986, **59**, 2263, (*pe*)  
Meyer, G. *et al.*, *J. Less-Common Met.*, 1987, **127**, 155, (*synth*)