



>>Entry Name: Erbium(III) oxide (Er₂O₃)

Synonym(s): Erbia

CAS Registry Number: 12061-16-4

Related CAS Registry Numbers(s): 12645-29-3

Er₂O₃

Molecular Formula: Er₂O₃

Molecular Weight: 382.518

Accurate Mass: 379.845325

Percentage Composition: Er 87.45%; O 12.55%

General Statement: Rare earth sesquioxide C struct. (B struct. only under pressure)

Source/Synthesis: Obtd. on thermal dec. of Er salts

Physical Description: Pink solid

Melting Point: Mp 2344°

Boiling Point: Bp 3920°

Solubility: Insol. H₂O, sol. acid

Other Data: μ_{eff} = 9.5μ_B

Aldrich: 28924-8

Fluka: 45410

Sigma: E5250

References:

Hoekstra, H.R., *Inorg. Chem.*, 1966, **5**, 754, (*struct*)

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Lejus, A.M. *et al.*, *Phys. Status Solidi B*, 1977, **84**, K105, (*Raman*)

Orchard, A.F. *et al.*, *J. Electron Spectrosc. Relat. Phenom.*, 1978, **13**, 27, (*pe*)

Dole, S.L. *et al.*, *Mater. Sci. Eng.*, 1978, **32**, 277, (*synth*)

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McPherson, R., *J. Mater. Sci.*, 1983, **18**, 1341, (*synth*)

Gruber, J.B. *et al.*, *J. Chem. Phys.*, 1985, **82**, 5373, (*uv-vis*)

Saiki, A. *et al.*, *Yogyo Kyokaishi*, 1985, **93**, 649; *CA*, 1985, **103**, 204127, (*cryst struct*)