



>>Entry Name: Lutetium(III) oxide (Lu₂O₃)

Synonym(s): Lutetia

CAS Registry Number: 12032-20-1

Related CAS Registry Numbers(s): 39455-67-9

Lu₂O₃

Molecular Formula: Lu₂O₃

Molecular Weight: 397.932

Accurate Mass: 397.866285

Percentage Composition: Lu 87.94%; O 12.06%

Source/Synthesis: Synth. on thermal dec. of Lu salts

Physical Description: White solid

Melting Point: Mp 2427°

Boiling Point: Bp 3980°

Aldrich: 28919-1

Fluka: 62700

Sigma: L5126

References:

Coutures, J.P. *et al.*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1972, **275**, 1203, (*synth, struct*)

Bloor, D. *et al.*, *J. Phys. Chem.*, 1972, **5**, 1237, (*ir*)

Faithful, D.B. *et al.*, *Rev. Chim. Miner.*, 1973, **10**, 291, (*ir*)

Gmelin Handbook Inorg. Chem., Syst. No. 39, 1974, **C1**, 434, (*rev, bibl*)

Eyring, L., *Handbook on the Physics and Chemistry of Rare Earths*, 1979, **3**, 337, (*rev*)

Sarma, D.D. *et al.*, *J. Electron Spectrosc. Relat. Phenom.*, 1980, **20**, 25, (*pe*)

Michiels, E. *et al.*, *Anal. Chem.*, 1984, **56**, 1115, (*ms*)

Porotnikov, N.V. *et al.*, *Zh. Neorg. Khim.*, 1985, **30**, 1635, (*ir*)