



>>Entry Name: Lanthanum(III) iodide (LaI₃)

Synonym(s): Lanthanum triiodide

CAS Registry Number: 13813-22-4

LaI₃

Molecular Formula: I₃La

Molecular Weight: 519.619

Accurate Mass: 519.619766

Percentage Composition: I 73.27%; La 26.73%

Physical Description: Air-sensitive, hygroscopic, light yellow solid (grey, light brown)

Melting Point: Mp 778-779° (761°, 772°)

Solubility: Sol. H₂O, Me₂CO, DMF; sl. sol. THF

Aldrich: 46609-3

Fluka: 61515

>>Derivative: Nonahydrate

CAS Registry Number: 53340-60-6

Molecular Formula: H₁₈I₃LaO₉

Molecular Weight: 681.756

Accurate Mass: 681.714851

Percentage Composition: H 2.66%; I 55.84%; La 20.37%; O 21.12%

Physical Description: Hygroscopic transparent needles

Other Data: Forms hexahydrate *in vacuo*. Forms LaOI + La₂O₃ on thermal dec.

References:

Asprey, L.B. *et al.*, *Inorg. Chem.*, 1964, **3**, 1137, (*struct*)

Brown, D., *Halides of the Lanthanides and Actinides*, Wiley-Interscience, 1968, 219, (*rev*)

Carter, F.L. *et al.*, *Mater. Res. Bull.*, 1972, **7**, 519

Alikberova, L.Yu. *et al.*, *Zh. Neorg. Khim.*, 1974, **19**, 284; *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1974, **19**, 155, (*nonahydrate, synth*)

Kwestroo, W. *et al.*, *J. Inorg. Nucl. Chem.*, 1976, **38**, 1019, (*nonahydrate, synth*)

Hirayama, C. *et al.*, *J. Less-Common Met.*, 1976, **45**, 293, (*ms*)

Gmelin Handbook Inorg. Chem., Syst. No. 39, 1978, **C6**, 183, (*rev*)

Heinio, O. *et al.*, *Acta Chem. Scand., Ser. A*, 1980, **34**, 207, (*nonahydrate, synth, struct, tga*)

Inorg. Synth., 1983, **22**, 31, (*synth*)

Ruscic, B. *et al.*, *Ann. Isr. Phys. Soc.*, 1984, **6**, 173, (*pe*)

Uwamino, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1986, **59**, 2263, (*pe*)