



>>Entry Name: Dysprosium(III) nitrate

Synonym(s): Trinitratodysprosium(III)

CAS Registry Number: 10143-38-1

Related CAS Registry Numbers(s): 39675-75-7 81201-48-1

Dy(NO₃)₃

Molecular Formula: DyN₃O₉

Molecular Weight: 348.515

Accurate Mass: 349.892628

Percentage Composition: Dy 46.63%; N 12.06%; O 41.32%

Physical Description: Hygroscopic yellow solid

Solubility: Sol. H₂O, EtOH

>>Derivative: Trihydrate

CAS Registry Number: 76567-54-9

>>Derivative: Pentahydrate

CAS Registry Number: 10031-49-9

Physical Description: Yellow cryst.

Melting Point: Mp 88.6°

Solubility: Sol. H₂O, EtOH, Me₂CO

Other Data: Most common hydrate. Probably contains 9-coordinate Dy(NO₃)₃(H₂O)₃ molecules

Aldrich: 29815-8

References:

Urbain, G. *et al.*, *C. R. Hebd. Seances Acad. Sci.*, 1908, **146**, 127, (*synth*)

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Wendlandt, W.W. *et al.*, *J. Inorg. Nucl. Chem.*, 1960, **12**, 276, (*synth, dta*)

Walker, A. *et al.*, *J. Chem. Phys.*, 1965, **43**, 2689, (*ir*)

Ivanov-Emin, B.N. *et al.*, *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1972, **17**, 1517, (*synth, ir*)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **2**, 1109, (*synth*)

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