



>>Entry Name: Terbium(III) carbonate ($\text{Tb}_2(\text{CO}_3)_3$)

Synonym(s): Carbonic acid terbium(3+) salt (3:2)

CAS Registry Number: 6067-34-1

Related CAS Registry Numbers(s): 100587-96-0

$\text{Tb}_2(\text{CO}_3)_3$

Molecular Formula: $\text{C}_3\text{O}_9\text{Tb}_2$

Molecular Weight: 497.878

Accurate Mass: 497.804919

Percentage Composition: C 7.24%; O 28.92%; Tb 63.84%

Source/Synthesis: Synth. by heating TbCl_3 and $[\text{Cl}_3\text{CCOO}]\text{NH}_4$ in aq. soln., or from $\text{Tb}(\text{NO}_3)_3$ and NaCO_3

Other Data: Dec. on heating to $\text{Tb}_2\text{O}_2\text{CO}_3$, or at 500-900° to give Tb_2O_3

>>Derivative: Tetrahydrate

CAS Registry Number: 37081-35-9

References:

Charles, R.G., *J. Inorg. Nucl. Chem.*, 1965, **27**, 1489, (*synth*)

Head, E.L., *Inorg. Nucl. Chem. Lett.*, 1966, **2**, 33, (*synth*)

Woolum, J.C. *et al.*, *Phys. Rev.*, 1966, **142**, 143, (*Tb-159 nmr, Mössbauer*)

Khramov, V.P. *et al.*, *Issled. Mat., Fiz., Khim.*, 1973, 174; *CA*, **82**, 24718j, (*powder struct*)

Foser, K. *et al.*, *J. Mater. Sci.*, 1992, **27**, 77, (*synth*)

Shah, G. *et al.*, *Physica B: (Amsterdam)*, 1995, **208-209**, 173, (*exafs*)