



>>Entry Name: Lithium titanium oxide (Li_2TiO_3), 9CI

Synonym(s): Lithium titanate (Li_2TiO_3), 10CI. Lithium metatitanate. Dilithium titanate (Li_2TiO_3)

CAS Registry Number: 12031-82-2

Li_2TiO_3

Molecular Formula: $\text{Li}_2\text{O}_3\text{Ti}$

Molecular Weight: 109.76

Accurate Mass: 109.964698

Percentage Composition: Li 12.65%; O 43.73%; Ti 43.62%

Source/Synthesis: Prepd. by sintering equimolar mixts. of Li_2CO_3 and TiO_2

Physical Description: White powder

Melting Point: Mp 1325°

Solubility: Insol. H_2O

Other Data: $\Delta H_f^\circ -1590 \text{ kJ mol}^{-1}$

Aldrich: 40093-9

References:

Kutolin, S.A. *et al.*, *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1965, **10**, 74, (*synth*)

Dorrian, J.F. *et al.*, *Mater. Res. Bull.*, 1969, **4**, 179, (*cryst struct*)

Porotnikov, N.V. *et al.*, *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1983, **28**, 1402, (*ir, Raman*)

Vashman, A.A. *et al.*, *Zh. Neorg. Khim.*, 1987, **32**, 1315, (*Li-7 nmr*)