



>>Entry Name: Lithium hexafluorosilicate(IV)

Synonym(s): Hexafluorosilicate(2-), dilithium salt, 8Cl. Lithium fluosilicate

CAS Registry Number: 17347-95-4

Related CAS Registry Numbers(s): 17084-08-1

Li_2SiF_6

Molecular Formula: $\text{F}_6\text{Li}_2\text{Si}$

Molecular Weight: 155.958

Accurate Mass: 155.999351

Percentage Composition: F 73.09%; Li 8.90%; Si 18.01%

Source/Synthesis: Obt. either by reaction of LiF and SiF_4 or by treatment of $\text{SiO}_2 + \text{Li}_2\text{CO}_3$ mixtures with HF

Use/Importance: Used in heat storage materials (with $\text{NaOAc} \cdot x\text{H}_2\text{O}$). Luminescence activator

Physical Description: Colourless hexagonal cryst.

Solubility: Spar. sol. Me_2CO

Other Data: Dec. at 350° to form LiF and SiF_4

References:

Mille, M.M., *CA*, 1950, **44**, 3336g, (*soly*, Me_2CO)

Cox, B., *J.C.S.*, 1954, 3251, (*synth*, *cryst struct*)

Gens, T.A. *et al.*, *J. Phys. Chem.*, 1958, **62**, 1593, (*synth*)

Deadmore, D.L., *J. Am. Ceram. Soc.*, 1962, **45**, 120, (*thermal dec*)

Badachhape, R.B. *et al.*, *Inorg. Chem.*, 1966, **5**, 929, (*Raman*)

Lobanov, B.D. *et al.*, *Lyumin. Spekt. Anal.*, 1974, **3**, 11; 107; *CA*, 1976, **85**, 133214; 183819, (*luminescence*)

Sergienko, V.I. *et al.*, *Koord. Khim.*, 1977, **3**, 480, (*ir*)

Moskvich, Yu.N. *et al.*, *Zh. Neorg. Khim.*, 1982, **27**, 1972, (*F-19 nmr*)

Vieillard, P. *et al.*, *C. R. Hebd. Seances Acad. Sci. Ser. 2*, 1984, **299**, 103, (*thermodyn*)

Japan. Pat., 1986, 61 155 488; *CA*, **105**, 194676, (*heat storage*)