



>>Entry Name: Hafnium(IV) iodide (HfI₄), 11Cl

Synonym(s): Hafnium tetraiodide

CAS Registry Number: 13777-23-6

HfI₄

Molecular Formula: HfI₄

Molecular Weight: 686.108

Accurate Mass: 687.564437

Percentage Composition: Hf 26.01%; I 73.99%

General Statement: Infinite chains of HfI₆ octahedra share edges to give folded chains repeating after 4 octahedra. No sharing of *trans*-edges occurs. Tetrahedral in gas phase

Source/Synthesis: Synth. by heating Hf and I₂ in a sealed system or by halogen exchange between HfCl₄ and AlI₃ at 330°

Use/Importance: Can be used in synth. of phases LiMI for use in battery electrolytes and electrodes

Physical Description: Yellow-orange solid

Melting Point: Mp 449°

Aldrich: 45843-0

References:

Krause, B. *et al.*, *Anal. Chem.*, 1960, **32**, 1210, (*synth*)

Nisel'son, L.A. *et al.*, *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1962, **7**, 502, (*synth*)

Ger. Pat., 1979, 2 801 912; *CA*, **91**, 178133n, (*use*)

Krebs, D. *et al.*, *J. Less-Common Met.*, 1980, **76**, 17, (*synth, cryst struct, ir, Raman*)