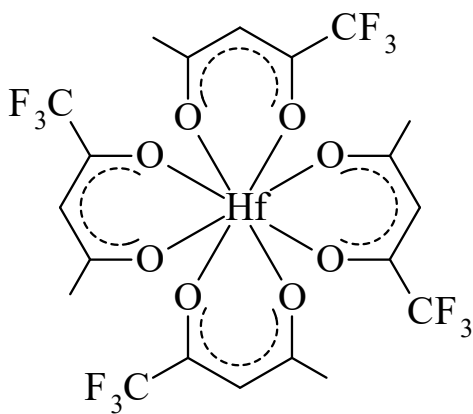




>>Entry Name: Tetrakis(1,1,1-trifluoro-2,4-pentanedionato-*O,O'*)hafnium(IV), 11Cl

Synonym(s): Hafnium(IV) trifluoroacetylacetonate



CAS Registry Number: 17475-68-2

Molecular Formula: $C_{20}H_{16}F_{12}HfO_8$

Molecular Weight: 790.812

Accurate Mass: 792.011901

Percentage Composition: C 30.38%; H 2.04%; F 28.83%; Hf 22.57%; O 16.19%

Source/Synthesis: Synth. by addition of the ligand to $HfCl_4$ slurry in CCl_4

Use/Importance: Used to prepare thin films of HfO_2 by oxidation above 400°

Physical Description: White solid

Melting Point: Mp 128-129°

Boiling Point: Subl._{0.05} 115°

Solubility: Sol. C_6H_6 , cyclohexane, CCl_4 ; insol. H_2O

Other: Gelest AKH350

References:

- Adams, A.C. *et al.*, *Inorg. Chem.*, 1966, **5**, 228; 814, (*ligand exch, pmr*)
Pinnavaia, T.J. *et al.*, *Inorg. Chem.*, 1966, **5**, 233, (*ligand exch, F-19 nmr*)
Inorg. Synth., 1967, **9**, 50, (*synth*)
Balog, M. *et al.*, *J. Electrochem. Soc.*, 1979, **126**, 1203, (*use*)
Matsubara, N. *et al.*, *Inorg. Chem.*, 1985, **24**, 2697, (*vap press*)