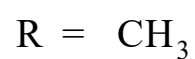
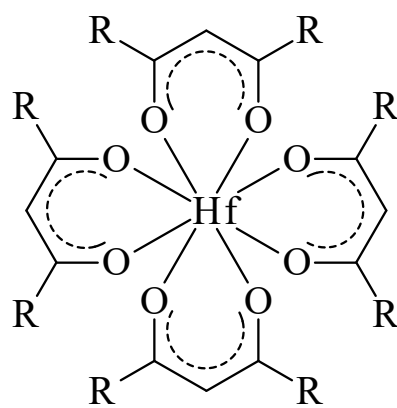




>>Entry Name: Tetrakis(2,4-pentanedionato-*O,O'*)hafnium(IV), ¹¹Cl

Synonym(s): Tetrakis(acetylacetonato)hafnium(IV). Hafnium(IV) acetylacetonate



CAS Registry Number: 17475-67-1

Molecular Formula: C₂₀H₂₈HfO₈

Molecular Weight: 574.926

Accurate Mass: 576.124965

Percentage Composition: C 41.78%; H 4.91%; Hf 31.05%; O 22.26%

Source/Synthesis: Synth. e.g. from HfCl₄ and 2,4-pentanedione in Et₂O

Use/Importance: Used to produce thin films of HfO₂ by dec. in oxygen above 400°. It also dec. when irradiated at 488 nm whereas the Zr analogue is stable, providing a means of separating Zr from Hf

Physical Description: White solid

Melting Point: Mp 193°

Boiling Point: Subl._{0.001} 82°

Solubility: Sol. C₆H₆, CCl₄

Other: Gelest AKH335

References:

- Allard, B., *J. Inorg. Nucl. Chem.*, 1976, **38**, 2109, (*synth, ir, struct*)
Balog, M. *et al.*, *Thin Solid Films*, 1977, **41**, 247, (*dec. to HfO₂*)
Habeeb, J.J. *et al.*, *J. Coord. Chem.*, 1978, **8**, 27, (*electrochem synth*)
Wilkie, C.A. *et al.*, *J. Inorg. Nucl. Chem.*, 1978, **40**, 195, (*cmr*)
Rubtsov, E.M. *et al.*, *Radiokhimiya*, 1981, **23**, 567, (*struct*)
Eur. Pat., 1985, 142 291; *CA*, **103**, 57197u, (*photolysis, use*)