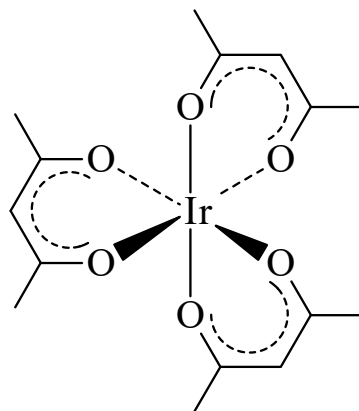




>>Entry Name: Tris(2,4-pentanedionato-*O,O'*)iridium, ¹³Cl

Synonym(s): Tris(acetylacetonato)iridium. Iridium(III) acetylacetonate. Ir(acac)₃



CAS Registry Number: 15635-87-7

Molecular Formula: C₁₅H₂₁IrO₆

Molecular Weight: 489.547

Accurate Mass: 490.096732

Percentage Composition: C 36.80%; H 4.32%; Ir 39.26%; O 19.61%

Source/Synthesis: May be synth. from aq. IrCl₃·3H₂O + Hacac at pH 4-5 under reflux for 30 min.

Use/Importance: Commercially available. Catalyst for hydrogenation of aromatic sulfur compds.

Physical Description: Air-stable orange-yellow cryst. (hot MeOH)

Melting Point: Mp 269-271°

Boiling Point: Subl. 260° *in vacuo*

Solubility: Sol. toluene, CHCl₃, Me₂CO, MeCN, MeOH, EtOAc; spar. sol. H₂O

Aldrich: 33335-2

Other: Gelest AKI380

>>Variant: Δ-form

CAS Registry Number: 86496-23-3

Molecular Formula: C₁₅H₂₁IrO₆

Molecular Weight: 489.547

Accurate Mass: 490.096732

Percentage Composition: C 36.80%; H 4.32%; Ir 39.26%; O 19.61%

>>Variant: Λ-form

CAS Registry Number: 60133-04-2

Molecular Formula: C₁₅H₂₁IrO₆

Molecular Weight: 489.547

Accurate Mass: 490.096732

Percentage Composition: C 36.80%; H 4.32%; Ir 39.26%; O 19.61%

References:

- MacDonald, C.G. *et al.*, *Aust. J. Chem.*, 1966, **19**, 1545, (*ms*)
De Armond, M.K. *et al.*, *J. Chem. Phys.*, 1968, **49**, 466, (*uv*)
Davignon, L. *et al.*, *J. Less-Common Met.*, 1970, **21**, 345, (*cryst struct*)
Gmelin Handbook Inorg. Chem., Syst. No. 67, 1978, **B2**, 36, (*rev, bibl*)
Drake, A.F. *et al.*, *Polyhedron*, 1983, **2**, 537, (*resoln, cd*)
Tocher, J.H. *et al.*, *Inorg. Chim. Acta*, 1985, **102**, 211, (*electrochem*)
Oglezneva, I.M. *et al.*, *Koord. Khim.*, 1986, **12**, 674, (*ir*)
Kradenov, K.V. *et al.*, *Zh. Strukt. Khim.*, 1990, **31**, 56, (*Raman*)
Collins, J.E. *et al.*, *Organometallics*, 1995, **14**, 1232, (*synth, reactions*)