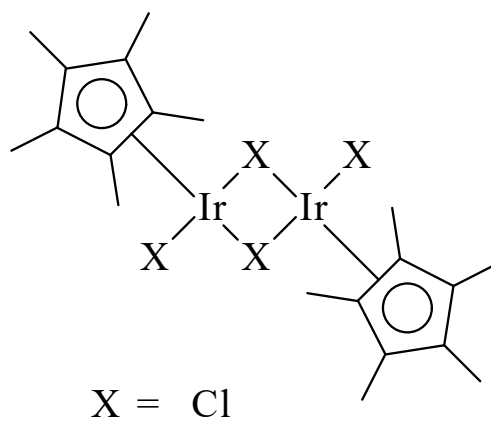




>>Entry Name: Di- μ -chlorodichlorobis[(1,2,3,4,5- η)-1,2,3,4,5-pentamethyl-2,4-cyclopentadien-1-yl]diiridium, 12Cl, 11Cl, 9Cl

Synonym(s): Tetrachlorobis(η^5 -pentamethylcyclopentadienyl)diiridium



CAS Registry Number: 12354-84-6

Related CAS Registry Numbers(s): 80581-61-9

Molecular Formula: $C_{20}H_{30}Cl_4Ir_2$

Molecular Weight: 796.708

Accurate Mass: 796.035992

Percentage Composition: C 30.15%; H 3.80%; Cl 17.80%; Ir 48.25%

Source/Synthesis: Synth. from $IrCl_3 \cdot xH_2O$ + C_5Me_5H in MeOH under reflux for 48h

Use/Importance: Starting material for $(C_5Me_5)Ir$ compds. Catalyst for homogeneous hydrogenation of alkenes, alkynes, dienes; bromo analogue behaves similarly. Catalyses oxidn. of THF to butyrolactone; catalyses Cannizzaro reaction of aldehydes

Physical Description: Air-stable orange cryst. ($CHCl_3/C_6H_6$)

Solubility: Sol. chlorinated solv.; spar. sol. Me_2CO , MeOH

NMR Spectra: Pmr 1.73 (C_5Me_5) ppm (in $CDCl_3$).

Other Data: Mp $>230^\circ$. X = Br or I also reported

Aldrich: 35753-7

References:

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Churchill, M.R. *et al.*, *Inorg. Chem.*, 1977, **16**, 1488; 1979, **18**, 1215, (cryst struct, use, hydrogenation of alkenes)

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