

# Copper Complexes with the Ligand [Cp<sub>2</sub>MoH<sub>2</sub>]

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The reaction of CuCl with [Cp<sub>2</sub>MoH<sub>2</sub>] yields the complex [Cu(Cp<sub>2</sub>MoH<sub>2</sub>)<sub>2</sub>Cl]. An X-ray structure analysis shows that the coordination of the copper(I) ion by two [Cp<sub>2</sub>MoH<sub>2</sub>] ligands and the chloride ion is pseudo-trigonal planar. The hydride ligands were located by using difference Fourier methods. A manifold of reactions took place when an aqueous solution of CuSO<sub>4</sub> was treated with a solution of [Cp<sub>2</sub>MoH<sub>2</sub>] in dichloromethane in a 1:2 molar ratio. The X-ray structure analysis established a polymeric structure of the complex [Cu(Cp<sub>2</sub>MoH<sub>2</sub>)<sub>2</sub>Cu(Cp<sub>2</sub>MoH<sub>2</sub>)SO<sub>4</sub>]<sub>n</sub> with two different copper centers.

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