

Umsetzung von Cyclopentadienylmetallcarbonylen mit Thionylhalogeniden

– Neue Synthese halogenoverbrückter Cp*Co-Komplexe

Reaction of Cyclopentadienyl Metal Carbonyles with Thionylhalides

– New Synthesis of Halogeno-Bridged Cp*Co Complexes

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The reaction of Cp*Co(CO)₂ with thionylchloride in hexane affords the doubly bridged dimer (Cp*CoCl₂)₂. Whereas the same reaction in more polar solvents such as CH₂Cl₂ or thf gives the triply bridged dinuclear cations in the salt [(Cp*Co)₂(μ-Cl)₃]₂ [Co₂Cl₆], no influence of the solvent is observed in the reaction of Cp*Co(CO)₂ with thionylbromide, which results in the formation of the neutral dimer (Cp*CoBr₂)₂. The X-ray structure analysis of (Cp*CoBr₂)₂ shows two edge-sharing octahedra, while that of [(Cp*Co)₂(μ-Cl)₃]₂[Co₂Cl₆] shows two face-sharing octahedra in the cation and two edge-sharing tetrahedra in the anion.

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