

Cp-Ligand Displacement Reactions of Cp Complexes;  
A New Route to Manganese-Containing Heterometallic Compounds

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Postdoctoral Seminar

October 13, 1988

The metallocenes  $\text{MCp}_2$  ( $\text{M} = \text{Fe}, \text{Co}, \text{Ni}$ ) react with alkali metals in the presence of olefins to form low-valent olefin complexes, while manganocene undergoes Cp-group metathesis with alkyl or aryllithium reagents [1]. I will present an introduction to this chemistry, and will show how this type of reaction can be used to synthesize heterometallic compounds containing Mn-Co or Mn-Fe bonds. These heterometallic compounds apparently react mainly by cleavage of the manganese-metal bond; however, some of these complexes do undergo substitution reactions with butadiene or CO.

Reference

1. Jonas, K. Angew. Chem., Int. Ed. Engl. 1985, 24, 295.