

Process for the Preparation of Bis(pentadienyl)-Complexes of Iron Group Metals

ABSTRACT

A method for preparing organometallic complexes of the general formula (I):



in which M may be iron, ruthenium, or osmium, R is hydrogen or an alkyl group having about 1 to 4 carbon atoms, and PD is a cyclic or open chain dienyl system that is known to form a sandwich type complex is provided. The complexes having formula (I) have a metal purity of at least about 99.99%. The method involves reacting a M(III) trichloride hydrate with an HRPD compound and at least one reducing metal, such as aluminum, in an alcohol solvent.