International conference "Organometallic and Coordination Chemistry: Fundamental and Applied Aspects"
September 1-6, 2013, N. Novgorod, Russia

Synthesis & Reactivities of Divalent and Trivalent Nickel Complexes Based on Pincer Ligands

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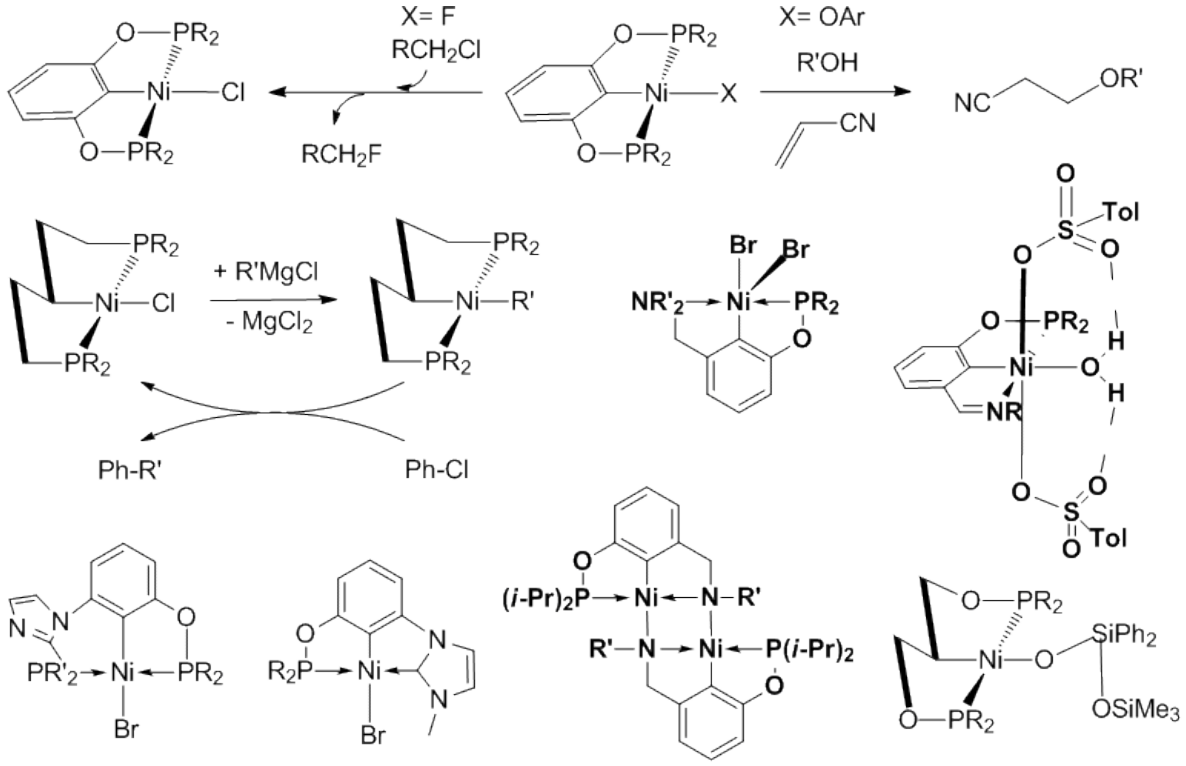
Many pincer complexes have found applications in catalysis thanks to their enhanced thermal stabilities and the novel reactivities they promote. Our group has introduced a variety of pincer-type nickel complexes based on symmetrical or unsymmetrical ligands featuring amine, imine, phosphine, phosphinite, imidazolophosphine, imidazoliophosphine, or NHC-carbene donor moieties. Some of these complexes show good thermal stabilities and promote interesting reactivities, including Kumada coupling, alcoholysis and amination of acrylonitrile, fluorination of alkyl chlorides, and hydrosilylation of olefins, alkynes, and carbonyl substrates. This presentation will describe the synthesis, structures, and reactivities of divalent and trivalent pincer complexes of Ni.



Selected references :

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