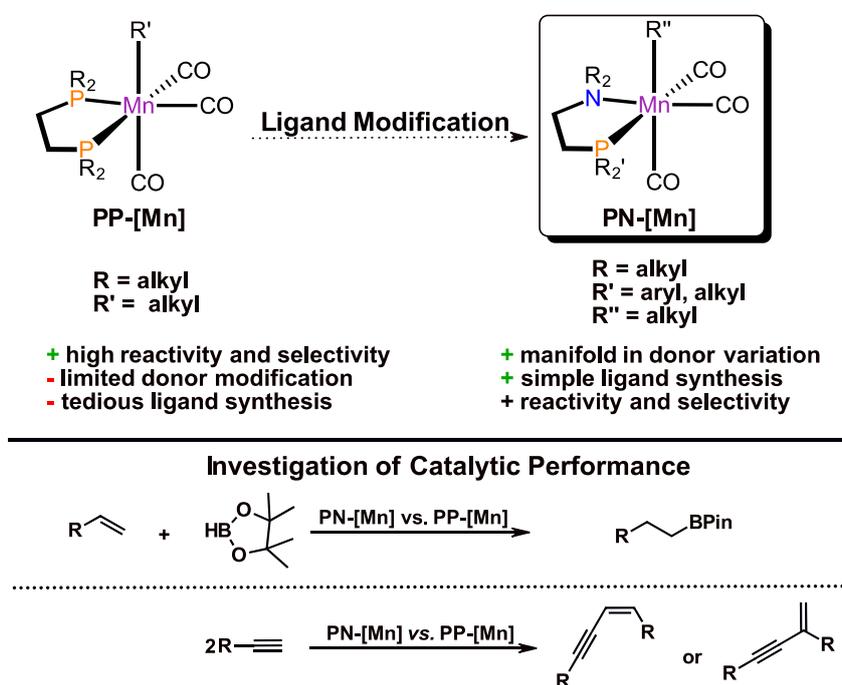


SYNTHESIS AND APPLICATION OF AMINOPHOSPHINE-SUPPORTED MANGANESE(I) CARBONYL ALKYL COMPLEXES

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In the last few years bisphosphine (PP)-supported Mn(I) carbonyl alkyl complexes were successfully employed in (hydro)boration of alkenes and alkynes,^[1] dehydrogenative silylation of alkenes^[2] and the (cross-) dimerization of terminal alkynes.^[3] Since aminophosphine-bidentate (PN) ligands can be easily synthesized and exhibit novel properties due to hard and soft characteristics of the nitrogen and phosphorus atoms, respectively, they may outperform PP-based systems.^[4]



Scheme 1. Development of PN-based Mn(I) alkyl complexes for catalytic reactions.

Thus, PN-based Mn(I) carbonyl alkyl complexes were targeted in order to compare them with PP-supported systems in regard to electronic and steric parameters (Scheme 1). This contribution will cover the synthesis and characterization of novel PN-based Mn(I) alkyl complexes and selected findings on their application in hydrofunctionalization reactions.

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