

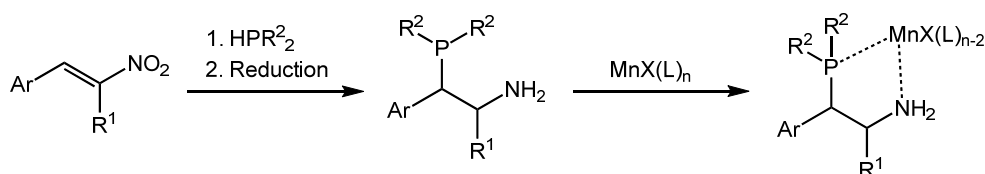
Manganese Complexes with β -Aminophosphine Ligands

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Chiral P,N ligands are valuable synthons for synthesizing chiral transition metal complexes, which in turn are still highly sought-after catalysts for asymmetric synthesis. Therefore, currently corresponding manganese complexes are interesting targets using different P,N ligands. For the development of potential new ligands, secondary phosphines are conjugated directly to nitroalkenes to obtain optically active nitrophosphines, which are subsequently reduced to the aminophosphines (Scheme 1). Such ligands play a significant role in coordination chemistry [1]. For providing enantioselective additions of secondary phosphines to nitroalkenes, a bifunctional *Cinchona* alkaloid catalyst will be investigated as organocatalyst [2].



Scheme 1.

[1] G. Bartoli, M. Bosco, A. Carlone, M. Locatelli, A. Mazzanti, L. Sambri, P. Melchiorre, *Chem. Commun.* **2007**, 722 - 724.

[2] J. Feng, M. Huang, Z. Lin, and W. Duana, *Adv. Synth. Catal.* **2012**, 354, 3122 - 3126.