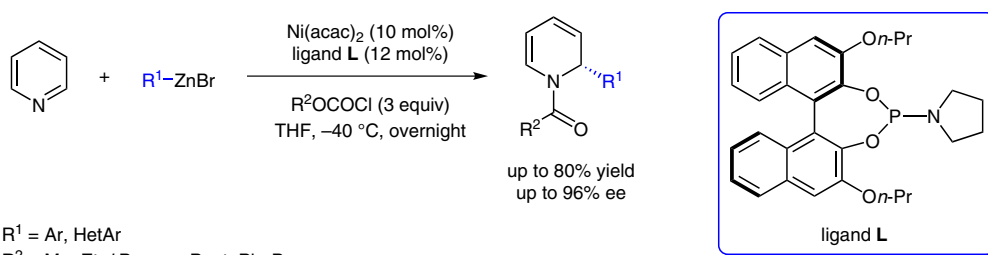


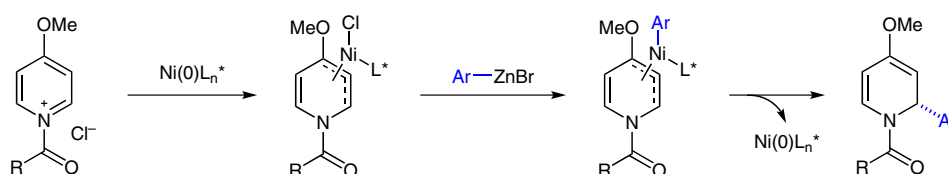
Enantioselective Arylation of Pyridine



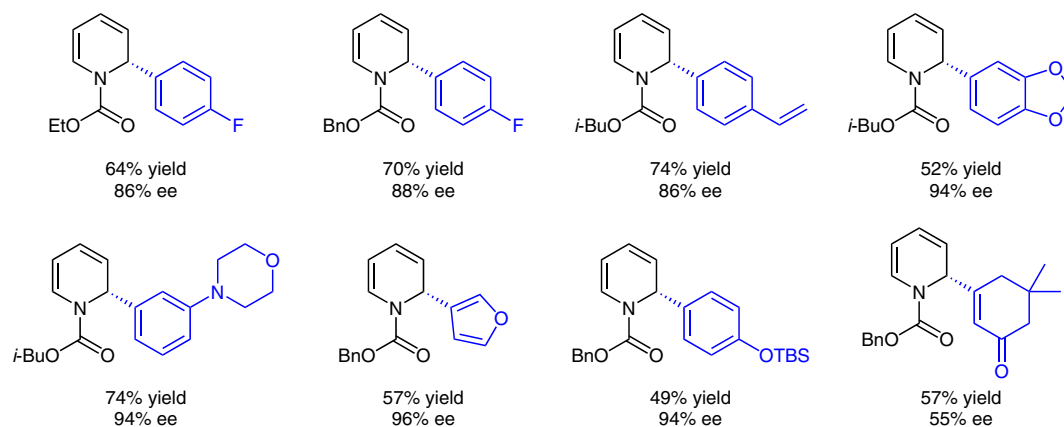
R¹ = Ar, HetAr

R² = Me, Et, *i*-Bu, *neo*-Pent, Ph, Bn

Proposed mechanism:



Selected examples:



Significance: Doyle and co-workers report the enantioselective nickel-catalyzed arylation of pyridine by cross-coupling of various arylzinc reagents with pyridinium ions generated in situ. The reaction proceeds under mild conditions and the corresponding products are afforded in good yields and with very high enantioselectivity.

Comment: Additionally, various transformations of the 2-aryl-1,2-dihydropyridines with little or no loss of ee are shown, demonstrating that this method is a valuable tool for the synthesis of chiral building blocks.