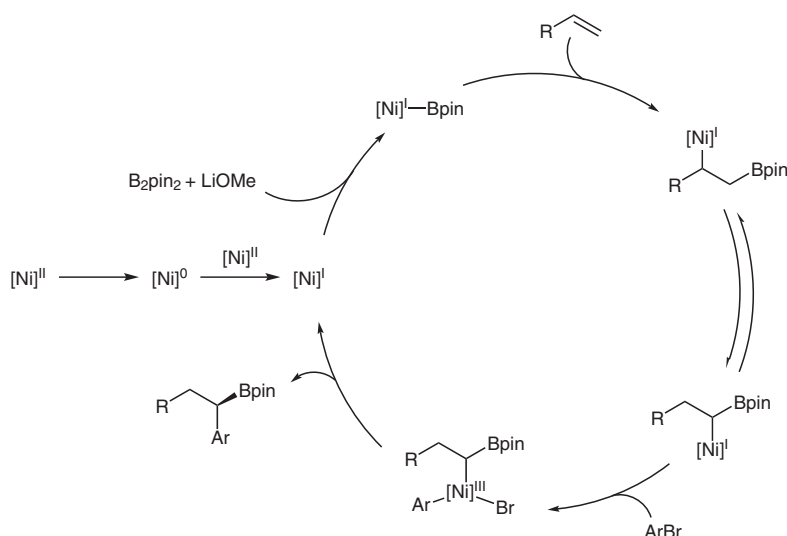
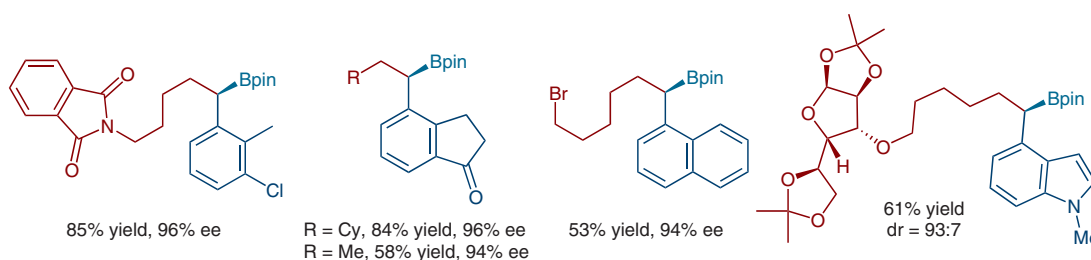
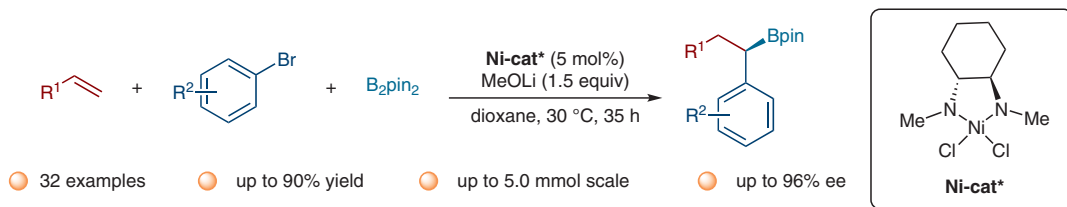


Nickel-Catalyzed Enantioselective 1,1-Arylboration of Unactivated Olefins



Significance: An enantioselective method for the 1,1-arylboration of unactivated olefins using a simple nickel-diamine catalyst is reported. A range of olefins were employed from ethylene and propylene to olefins containing tethered Lewis basic heteroatoms or reactive 1° alkyl halides.

Comment: The regioselectivity of the reaction was demonstrated to be catalyst controlled. A mechanism involving an initial 1,2-insertion of a Ni–Bpin species is reported. The proposed catalytic cycle was supported by a variety of mechanistic studies including a deuterium labeling study.