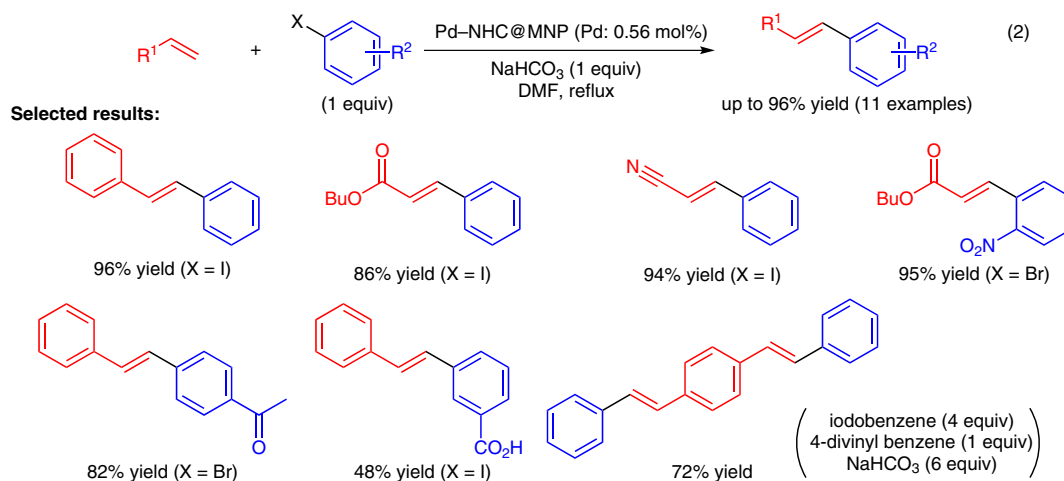
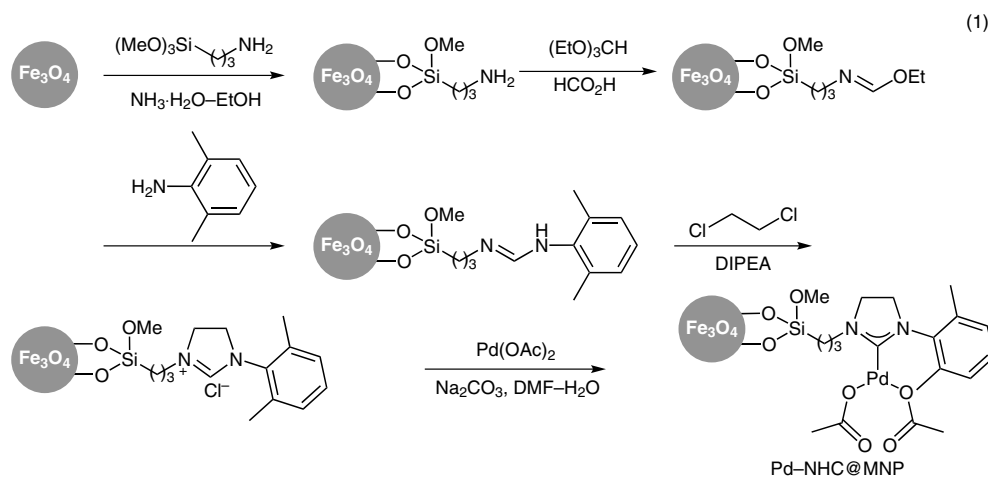


The Mizoroki–Heck Reaction Using a Palladium–NHC Complex Supported on MNP



Significance: A palladium–NHC complex was immobilized on magnetic nanoparticles (Pd–NHC@MNP) according to the sequences shown above. Pd–NHC@MNP catalyzed the Mizoroki–Heck reaction of terminal alkenes with aryl halides to afford the corresponding internal alkenes in up to 96% yield (eq. 2).

Comment: The characterization of Pd–NHC@MNP was performed by TEM, EDX, IR, TGA, DSC, ¹H NMR spectroscopy, and ETAAS analyses. In the Mizoroki–Heck reaction of butyl acrylate with iodobenzene, the catalyst was re-covered magnetically and reused four times without loss of its catalytic activity (1st run: 85% yield, 3rd run: 87% yield, 5th run: 85% yield).