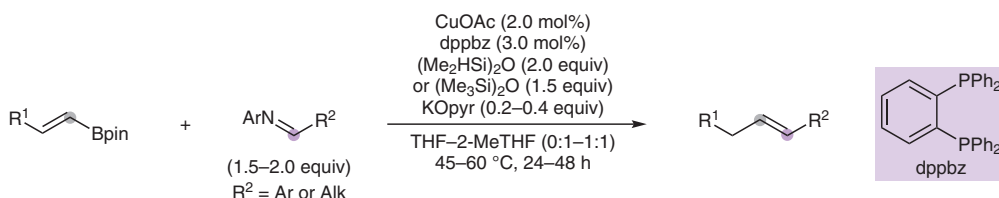
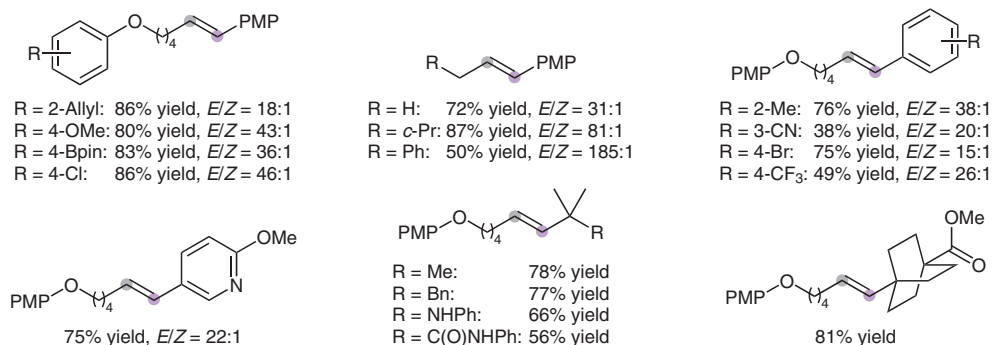


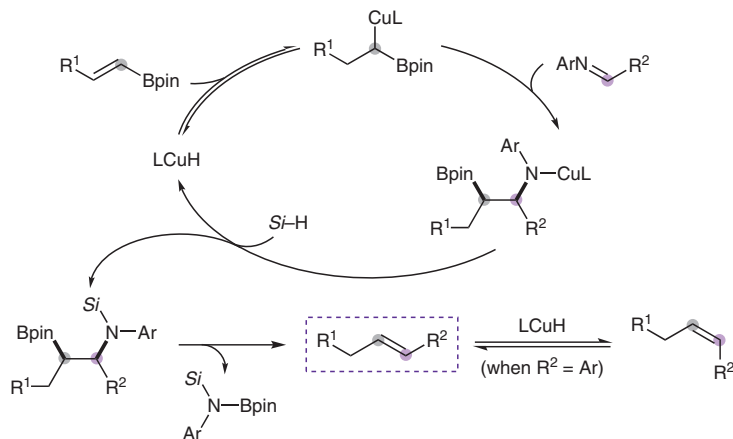
Wittig-Type *E*-Selective Olefination of Imines with Vinyl Boronate Esters Under Copper Hydride Catalysis



Selected examples:



Proposed mechanism:



Significance: Lalic and co-workers report a novel copper hydride-catalyzed protocol for the stereoselective Wittig-type olefination of imines with vinyl boronate esters. This versatile strategy features broad functional-group compatibility and tolerates both aryl and alkyl imines, providing the corresponding alkenes with high *E*-selectivities.

Comment: Mechanistic investigations including control experiments and NMR studies support the shown catalytic cycle. The reaction's success relies on the heterobimetallic intermediate, which serves as an ylide equivalent. The high *E*-selectivity is based on the stereoselective addition of that intermediate to the imine, followed by a stereospecific *anti*-elimination.