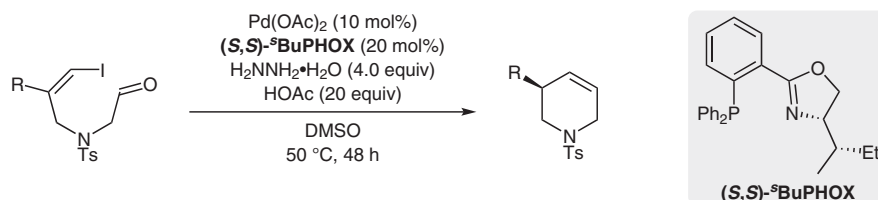
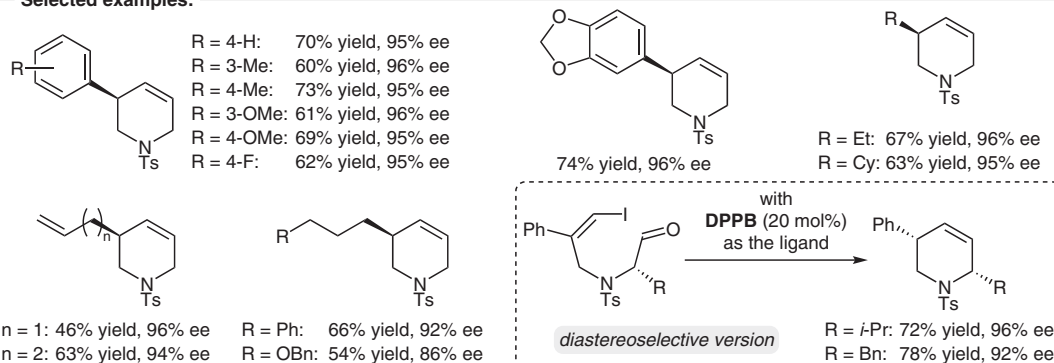


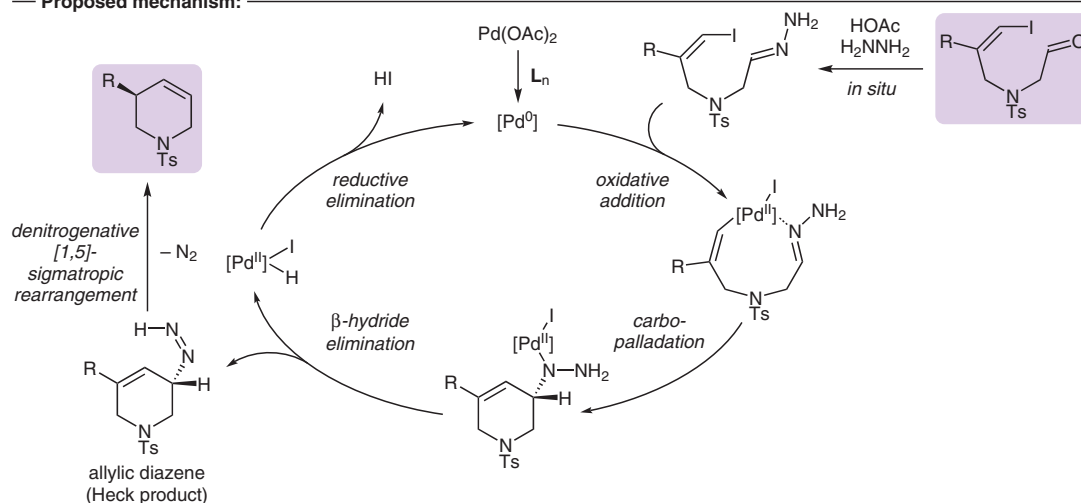
An Asymmetric Intramolecular Heck-Type Reaction of in situ Generated Hydrazones



Selected examples:



Proposed mechanism:



Significance: Tong and co-workers have disclosed a domino sequence of a hydrazone-type Heck reaction followed by a stereospecific denitrogenative [1,5]-sigmatropic rearrangement to access 3-substituted tetrahydropyridines in good yields and excellent enantioselectivities.

Comment: Using chiral substrates derived from amino alcohols, high diastereoselectivities were obtained using DPPB [1,4-bis(diphenylphosphino)-butane] as the ligand (see dashed box). Mechanistic studies such as deuterium-labeling experiments support the shown mechanism.