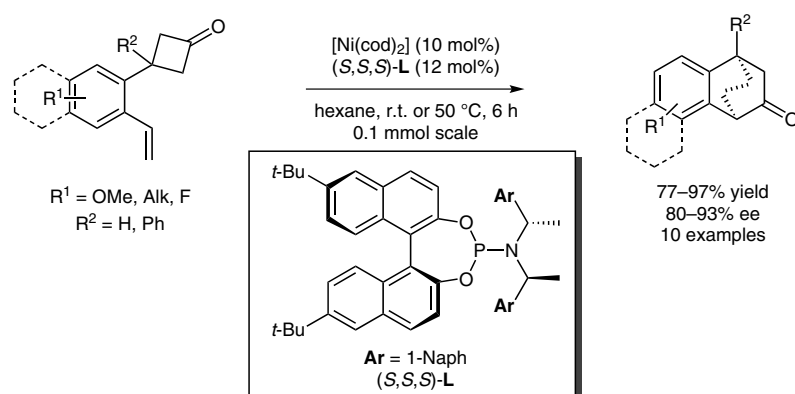
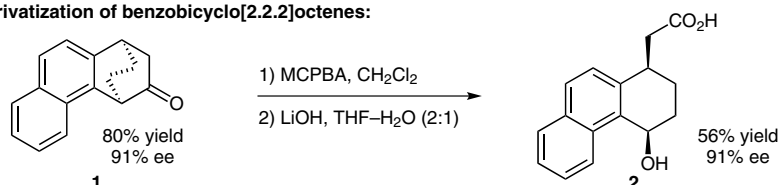


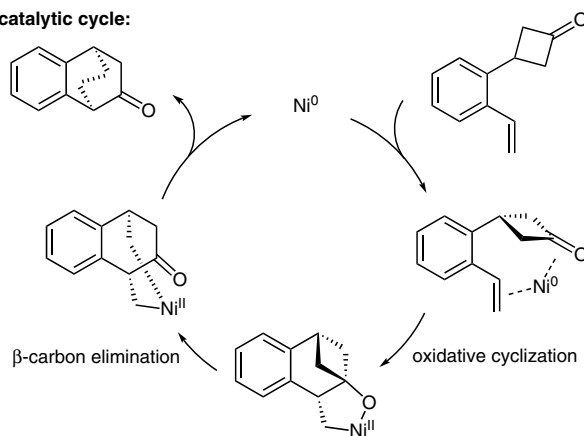
Nickel-Catalyzed Enantioselective Synthesis of Benzobicyclo[2.2.2]octenes



Derivatization of benzobicyclo[2.2.2]octenes:



Proposed catalytic cycle:



Significance: The first catalytic asymmetric strategy toward the synthesis of benzobicyclo[2.2.2]octenes from achiral substrates is reported. Derivatives of these products are known to exhibit biological activities. Alternatively, the benzobicyclo[2.2.2]octene **1** could undergo Bayer–Villiger oxidation and saponification to afford *cis*-substituted hydroxycarboxylic acid **2**.

Comment: Following the authors' initial report on the achiral variant of this reaction (*Chem. Commun.* 2006, 4599), the notable switch of Cy_3P to a chiral phosphoramidite ligand **L** in this report conferred high enantioselectivities. The proposed catalytic cycle involves an enantiodiscriminating oxidative cyclization step followed by β -carbon elimination.

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