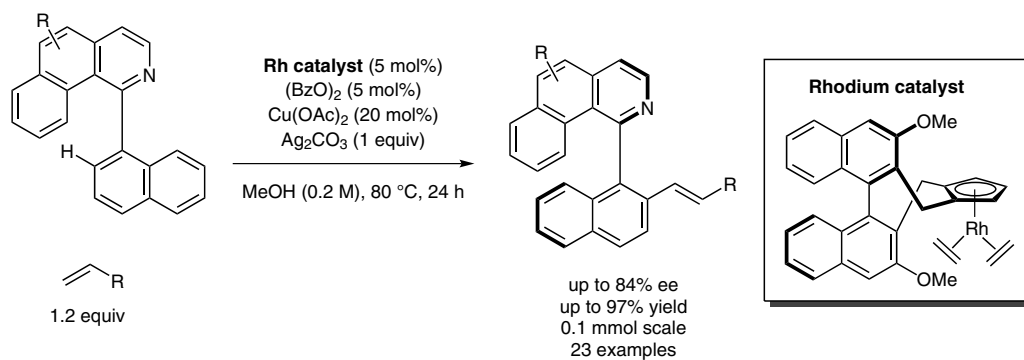
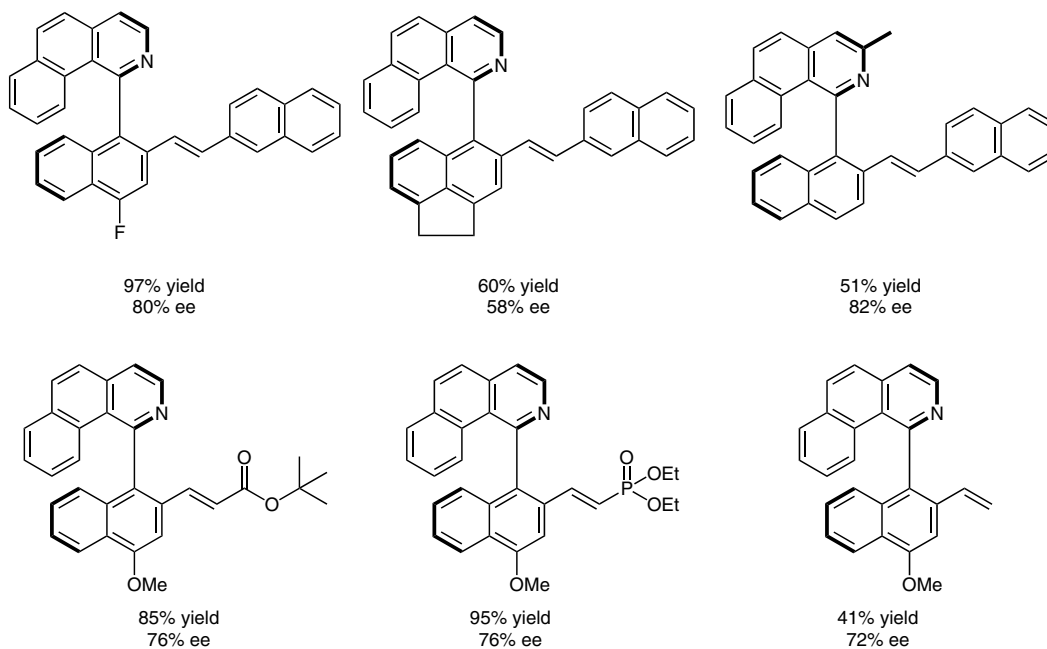


J. ZHENG, S.-L. YOU* (SHANGHAI INSTITUTE OF ORGANIC CHEMISTRY, P. R. OF CHINA)
Construction of Axial Chirality by Rhodium-Catalyzed Asymmetric Dehydrogenative Heck Coupling of Biaryl
Compounds with Alkenes
Angew. Chem. Int. Ed. **2014**, *53*, 13244–13247.

Enantioselective Rhodium-Catalyzed Synthesis of Axially Chiral Biaryls



Selected examples:



Significance: Several bioactive molecules contain an axially chiral biaryl subunit. Although several methods exist for their synthesis, the use of direct C–H functionalization is less well studied. The authors present a rhodium-catalyzed dehydrogenative Heck coupling to produce axially chiral biaryls using the Cramer complex.

Comment: The substrate scope showed variability in the aza biaryl starting material and the olefin coupling partner. The products were shown to be competent in rhodium-catalyzed 1,4-additions to cyclohexenone with phenylboronic acid, producing the adduct in up to 77% yield and with 68% ee.

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