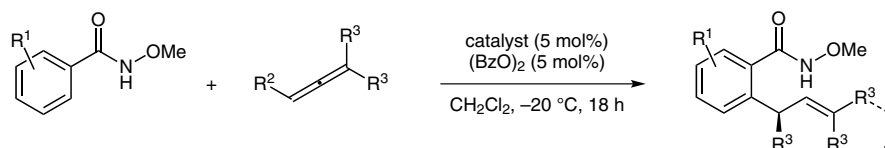


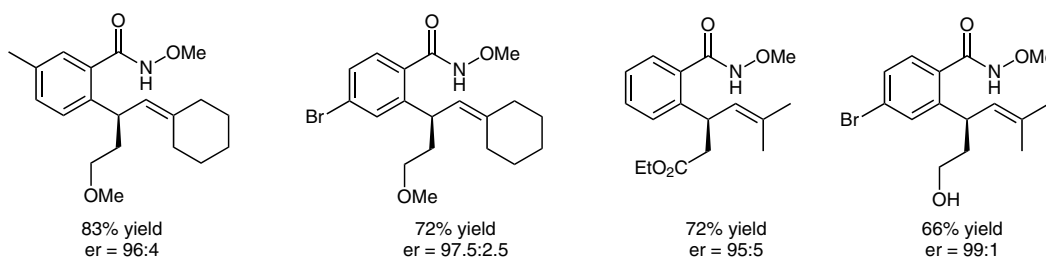
Chiral Cyclopentadiene Ligands for the Asymmetric Allylation of Benzamides



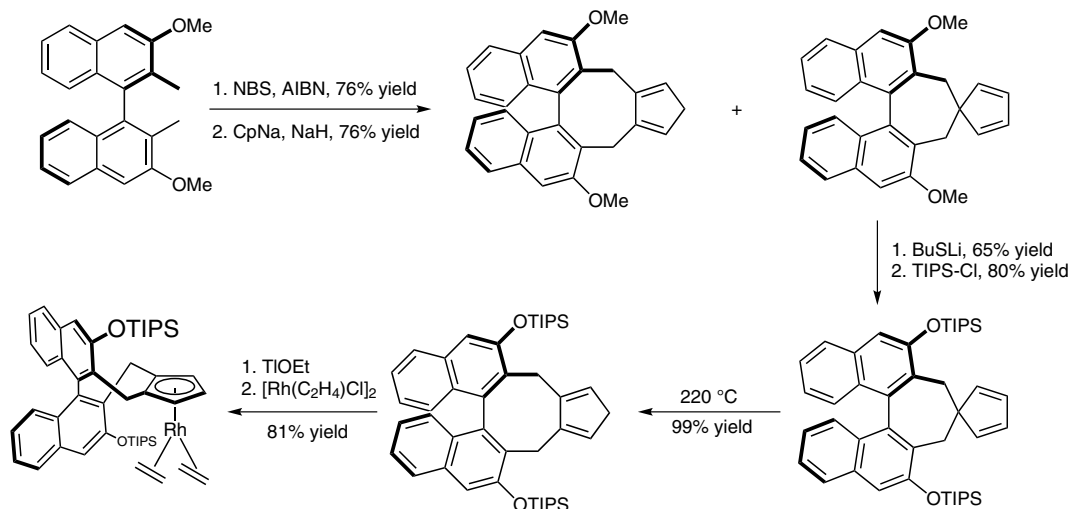
R¹ = H, Me, CF₃, Cl, Br, OMe
R² = CH₂CH₂OMe, CH₂CH₂OH, CH₂OTIPS, CH₂CO₂Et, Ph, Bu
R³ = Me, Cy

16 examples
up to 91% yield
er up to 99:1
0.1 mmol scale

Selected examples:



Synthesis of the catalyst:



Significance: A class of chiral Cp ligands with tunable steric parameters is reported and used in the Rh(III)-catalyzed allylation of *N*-methoxybenzamides. The obtained yields are good and the enantioselectivities excellent.

Comment: Cyclopentadienyl (Cp) ligands are among the most versatile and frequently used ligands to access robust and highly catalytically active transition-metal complexes. However, there are only a few chiral Cp ligands reported so far.

SYNFACTS Contributors: Mark Lautens, Harald Weinstabl
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