

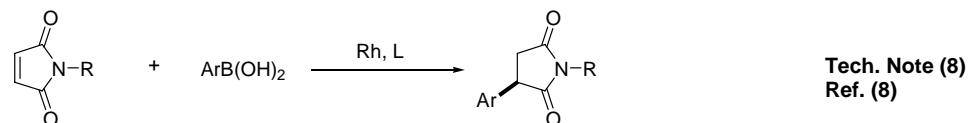
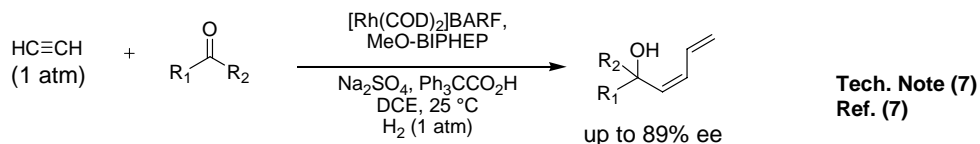
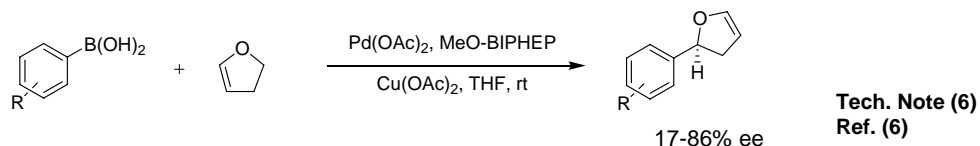
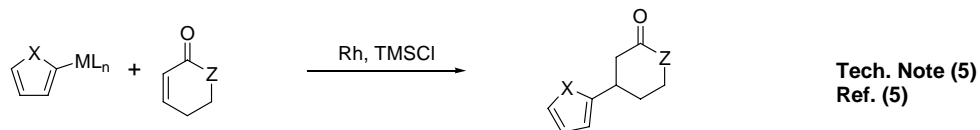
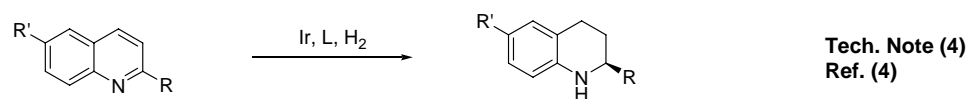
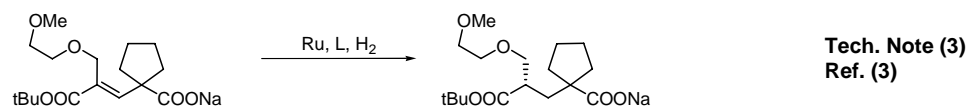
Catalog # 15-0159 (S)-(-)-2,2'-Bis[di(3,4,5-trimethoxyphenyl)phosphino]-6,6'-dimethoxy-1,1'-biphenyl, min. 97%

Note: Sold in collaboration with Solvias for research purposes only. Solvias (S)-MeO-BIPHEP Ligand Kit component.

#### Technical Notes:

In many respects the catalytic profile of the MeOBIPHEP ligands is similar to that of other atropisomeric diphosphines such as binap and its many analogs. The nature of the PR<sub>2</sub> group strongly influences the catalytic performance of the metal complexes. The rhodium and ruthenium MeO-BIPHEP catalysts are highly effective for the hydrogenation of various C=O, C=C and C=N bonds and several synthetically useful C-C coupling reactions.

1. See [15-0042](#).
2. Ru and Ir catalyzed dynamic kinetic resolution for the synthesis of hydroxy, amino acid derivatives.
3. Ru-catalyzed asymmetric hydrogenation of ketones and alkenes.
4. Ir catalyzed enantioselective hydrogenation of heteroaromatic compounds.
5. Conjugate addition using 2-heteroaryl titanates and zinc reagents.
6. Enantio- and regioselective heck-type reaction of aryl boronic acids with 2,3-dihydrofuran
7. Rhodium-catalyzed carbonyl Z-dienylation.
8. Rhodium-catalyzed asymmetric 1,4 addition of arylboronic acids to maleimides and enones.



#### References:

1. *Adv. Synth. Catal.*, **2004**, 346, 842.
2. *Org. Lett.*, **2006**, 8, 4573.
3. *Org. Process Res. Devel.*, **2001**, 5, 438.
4. *J. Am. Chem. Soc.*, **2003**, 125, 10536.
5. *Org. Lett.*, **2009**, 11, 4200.
6. *J. Org. Chem.*, **2007**, 72, 3875.
7. *J. Am. Chem. Soc.*, **2006**, 128, 16040.
8. *J. Org. Chem.*, **2011**, 76, 6925.

