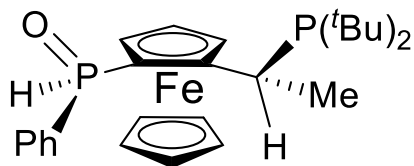
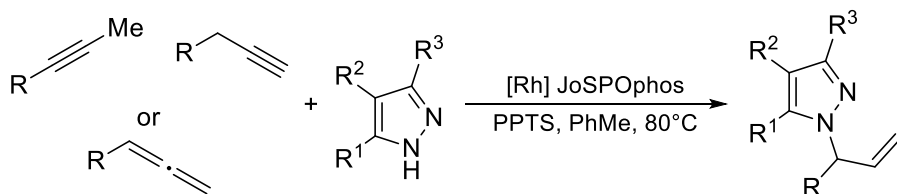
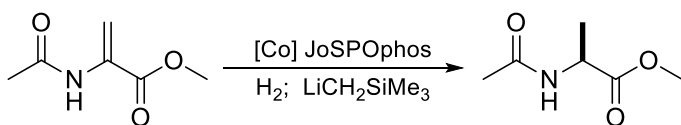
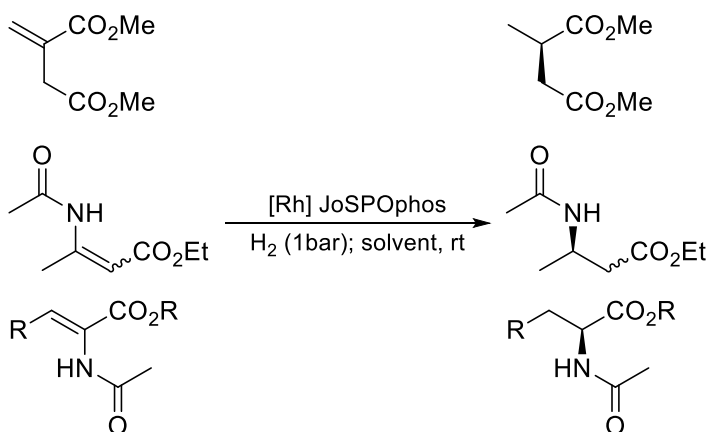


Catalog # 26-1268 (R,S(p), R(SPO)-1-Phenylphosphinoyl)-2-[1-(di-t-butylphosphino)ethyl]ferrocene, min. 97%  
JoSPOphos

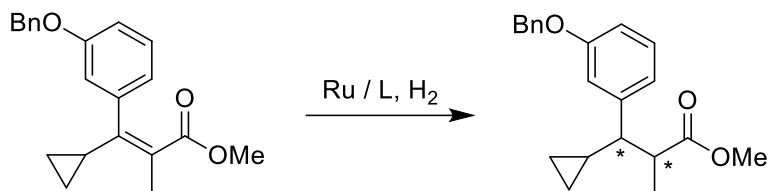


Technical Notes:

1. Chiral mixed secondary phosphine-oxide–phosphines: High-performing and easily accessible ligands for asymmetric hydrogenation.
2. Cobalt precursors for high-throughput discovery of base metal asymmetric alkene hydrogenation catalysts.
3. Regioconvergent and enantioselective rhodium-catalyzed hydroamination of internal and terminal alkynes: A highly flexible access to chiral pyrazoles.
4. Ligand for Ru-catalyzed Asymmetric Hydrogenation of Tetrasubstituted Acrylates.



R = FG-aryl, naphthyl, FG-alkenyl, alkyl  
R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> = FG, alkyl, (het)aryl



**Tech. Note (4)**  
**Ref. (4)**

References:

1. *Angew. Chem. Int. Ed.*, **2010**, 49, 6873.
2. *Science*, **2013**, 342, 1076.
3. *Chem. Eur. J.*, **2016**, 22, 6547.
4. *J. Org. Chem.* **2016**, 81, 824–830.