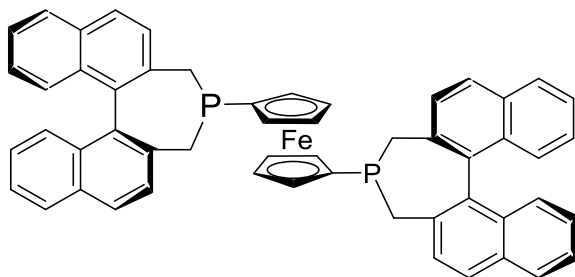
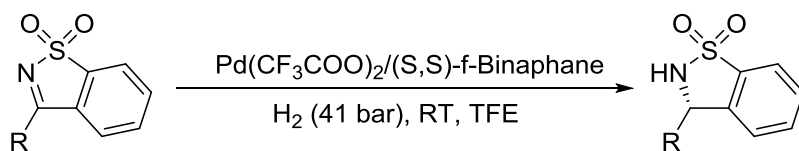


Catalog # 26-0243 1,1'-Bis((S)-4,5-dihydro-3H-binaphtho[1,2-c:2',1'-e]phosphino)ferrocene, min. 98%
(S,S)-f-Binaphane

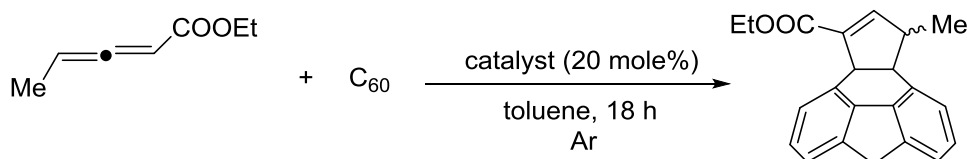


Technical Notes:

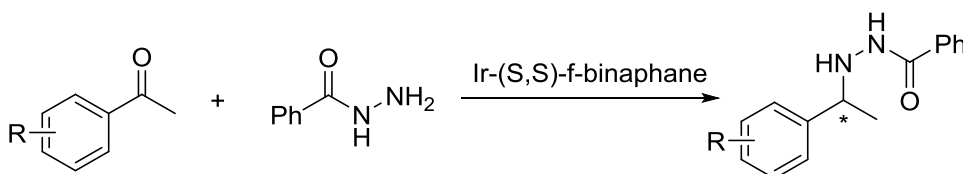
1. Ligand for enantioselective Pd-catalyzed hydrogenation of enesulfonamides [5] and cyclic N-sulfonylimines [6]
2. Enantioselective, asymmetric organocatalyst for [3+2] cycloaddition of allenates to C60 fullerene (conversion >90%, ee up to 90%)
3. Ligand for Iridium-mediated direct asymmetric reductive amination of acetophenone with phenylhydrazide (conversion >99%; yield >94%; ee >94%)
4. Ligand used for the palladium-catalyzed, asymmetric, decarboxylative generation and asymmetric allylation of α -imino anions.
5. Ligand used in iridium-catalyzed, asymmetric hydrogenation of 6-substituted 3-hydroxypyridinium salts to trans 6-substituted piperidin-3-ols with high enantioselectivities (up to 95% ee).



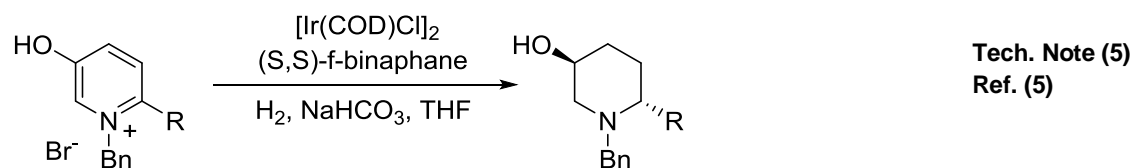
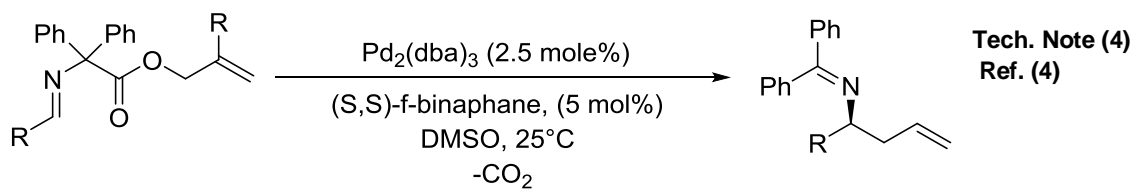
Tech. Note(1)
Ref. (1)



Tech. Note(2)
Ref. (2)



Tech. Note (3)
Ref. (3)



References:

1. *J. Org. Chem.*, **2009**, 74, 5633.
2. *Angew. Chem. Int. Ed.*, **2013**, 52, 5115.
3. *Org. Lett.*, **2013**, 15, 4354.
4. *Org. Lett.*, **2014**, 16, 5228.
5. *ACS Catal.*, **2016**, 6, 2368.