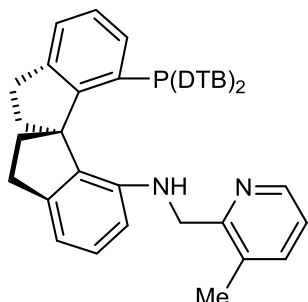
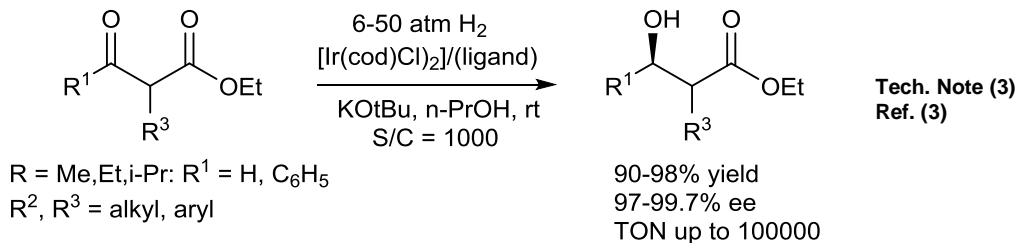
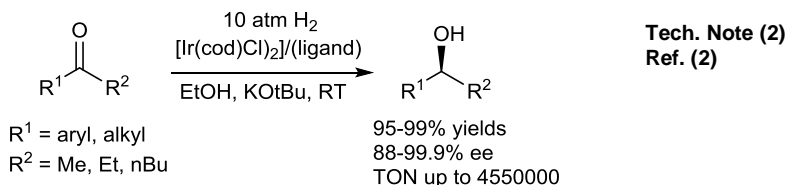
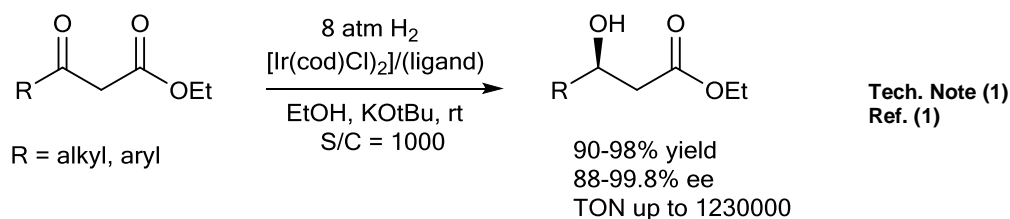


Catalog # 15-5159 (S)-(-)-7-Bis(3,5-di-*t*-butylphenyl)phosphino-7'-[(3-methylpyridine-2-ylmethyl)amino]-2,2',3,3'-tetrahydro-1,1'-spirobiindane, min. 98% (>99% ee) (R)-DTB-SpiroPAP-3-Me



Technical Notes:

1. Iridium/ligand catalyst for the highly efficient, asymmetric hydrogenation of β -aryl and β -ketoesters.
2. Extremely efficient chiral iridium catalyst used for the asymmetric hydrogenation of ketones.
3. Iridium/ligand catalyst for the highly efficient, asymmetric hydrogenation of β -aryl and β -ketoesters.



References:

1. *Angew. Chem Int. Ed.*, **2011**, *50*, 7329.
2. *Angew. Chem Int. Ed.*, **2012**, *51*, 201.
3. *Org. Lett.*, **2012**, *14*, 6158.