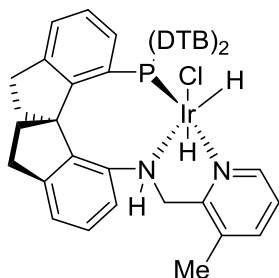


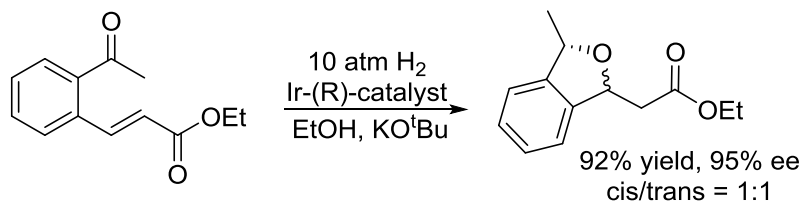
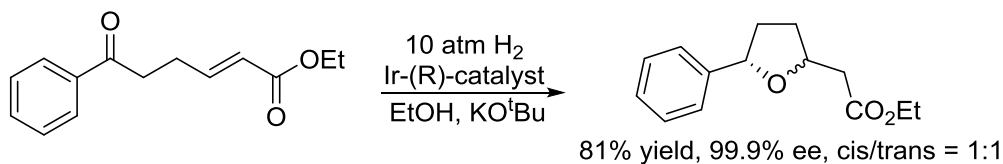
Catalog # 77-4036 Chlorodihydro((S)-(+)-7-Bis(3,5-di-t-butylphenyl)phosphino-7'-[(3-methylpyridine-2-ylmethyl)amino]-2,2',3,3'-tetrahydro-1,1'-spirobiindane)iridium(III), >97% (>99% ee) Ir-(R)-DTB-SpiroPAP-3-Me



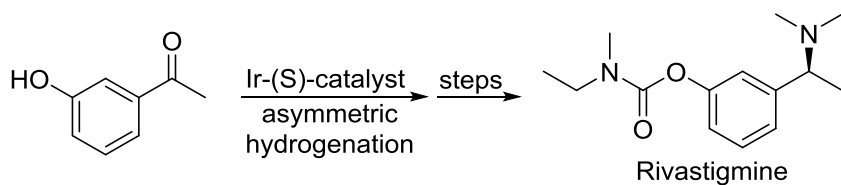
This tech note is for both enantiomers 77-4035 [Ir-(R)-DTB-SpiroPAP-3-Me] and 77-4036 [Ir-(S)-DTB-SpiroPAP-3-Me]

Technical Notes:

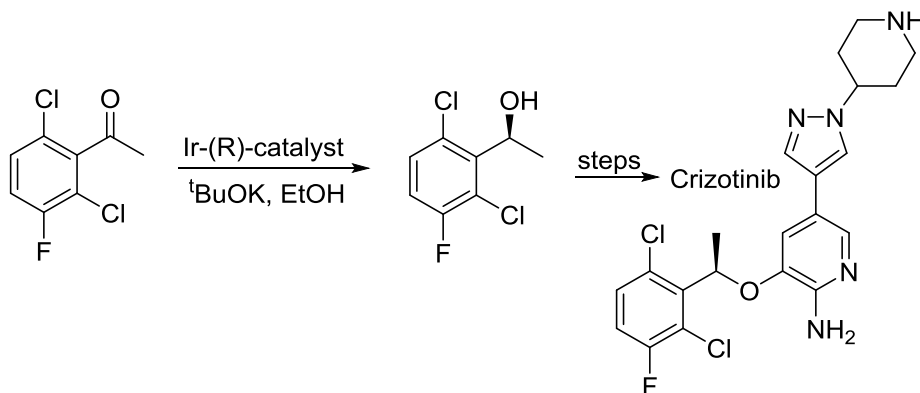
1. Catalyst for the enantioselective synthesis of chiral disubstituted oxa-cyclic ethers
2. Catalyst for the enantioselective hydrogenation for the asymmetric synthesis of Rivastigmine
3. Catalyst for the asymmetric hydrogenation for the synthesis of Crizotinib
4. Catalyst for the asymmetric hydrogenation of  $\alpha$ -keto acids
5. Catalyst for the kinetic resolution of racemic aliphatic alcohols via selective asymmetric hydrogenation



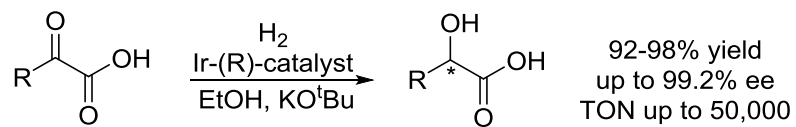
Tech. Note (1)  
Ref. (1)



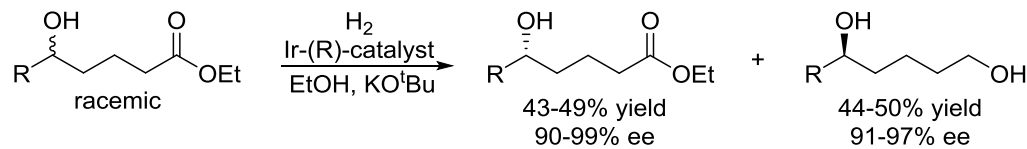
Tech. Note (2)  
Ref. (2)



Tech. Note (3)  
Ref. (3)



Tech. Note (4)  
Ref. (4)



Tech. Note (5)  
Ref. (5)

References:

1. *Org. Lett.*, **2012**, *14*, 4758.
2. *Org. Process. Res. Dev.*, **2013**, *17*, 307.
3. *Tetrahedron Lett.*, **2014**, *55*, 1528.
4. *Chem. Commun.*, **2014**, *50*, 15987.
5. *J. Am. Chem. Soc.*, **2014**, *136*, 17426.