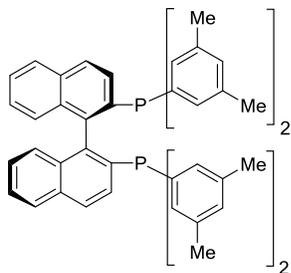


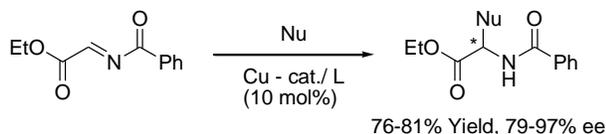
Catalog # R115620 (R)-(+)-2,2'-Bis[di(3,5-xylyl)phosphino]-1,1'-binaphthyl, 98% (R)-(+)-XylylBINAP



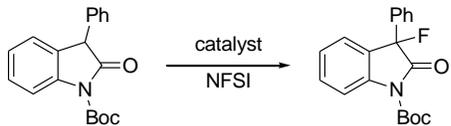
Note: Takasago BINAP Ligand Kit component.

Technical Notes:

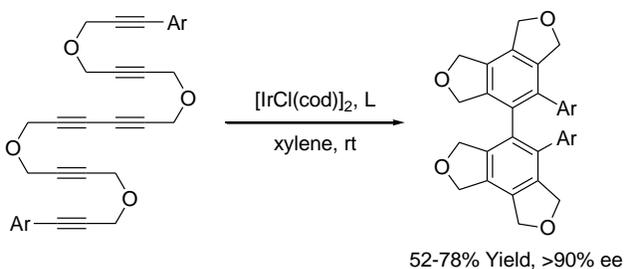
1. See [15-0150](#).
2. See [15-0477](#).
3. Ligand used in copper-catalyzed asymmetric Mannich-type reactions of N-acylimino esters.
4. Ligand used in the enantioselective fluorination of oxindoles.
5. Ligand used in [2+2+2] cycloaddition of tetraynes and hexaynes.
6. Ligand used in the asymmetric reduction of ketone *via* ruthenium-catalyzed asymmetric hydrogenation.
7. Asymmetric hydroboration of unsaturated imines.



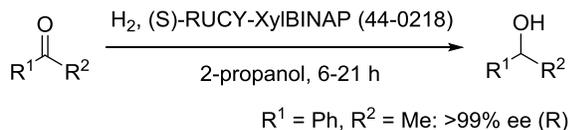
**Tech. Note (3)**  
**Ref. (1)**



**Tech. Note (4)**  
**Ref. (2)**



**Tech. Note (5)**  
**Ref. (3)**



**Tech. Note (6)**  
**Ref. (4)**



**Tech. Note (7)**  
**Ref. (5)**

References:

1. *J. Am. Chem. Soc.*, **2003**, 125, 2507.
2. *J. Am. Chem. Soc.*, **2005**, 127, 10164.
3. *Tetrahedron*, **2008**, 64, 821.
4. *J. Am. Chem. Soc.*, **2011**, 133, 10696.
5. *Org. Lett.*, **2013**, 15, 4810.