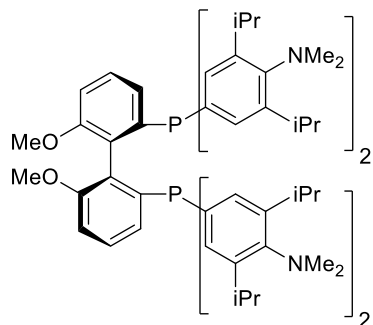
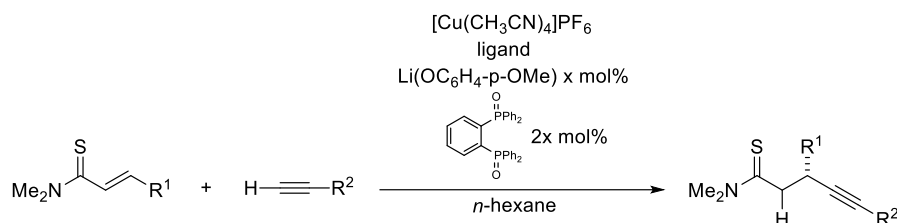


Catalog # 15-0652 (R)-(-)-2,2'-Bis[di(3,5-di-*i*-propyl-4-dimethylaminophenyl)phosphino]-6,6'-dimethoxy-1,1'-biphenyl, min. 97%

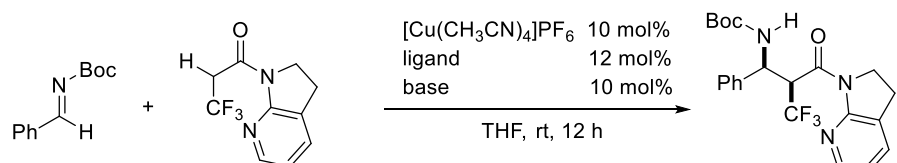


### Technical Notes:

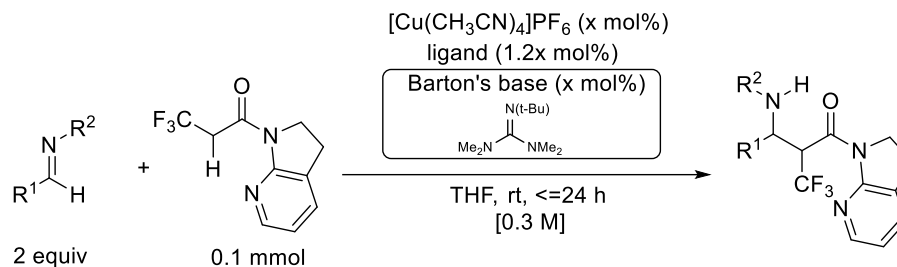
1. Direct catalytic asymmetric conjugate addition of terminal alkynes to  $\alpha,\beta$ -unsaturated thioamides.
2. Catalytic generation of  $\alpha$ -CF<sub>3</sub> enolate: Direct catalytic asymmetric Mannich-Type reaction of  $\alpha$ -CF<sub>3</sub> amide.
3. Direct catalytic asymmetric Mannich-Type reaction of  $\alpha$ - and  $\beta$ -fluorinated amides.
4. Direct catalytic asymmetric conjugate addition of saturated and unsaturated thioamides.
5. Palladium-Catalyzed enantioselective alkoxycarbonylation of propargylic carbonates with (R)- or (S)-3,4,5-(MeO)<sub>3</sub>-MeOBIPHEP.
6. Ligand for the Chemo-, Regio-, and Enantioselective Rhodium-Catalyzed Allylation of Pyrida-zinones with Terminal Allenes.



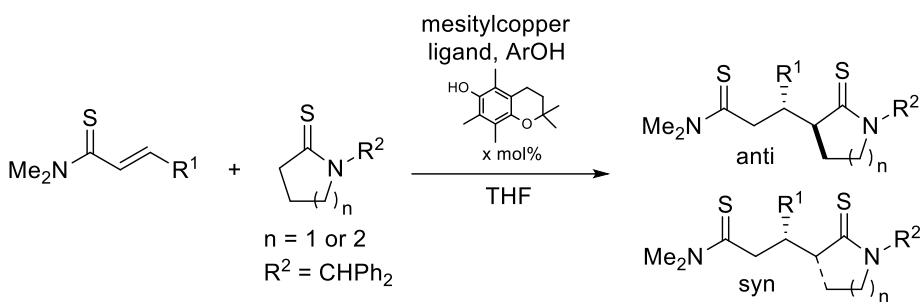
**Tech. Note (1)**  
**Ref. (1)**



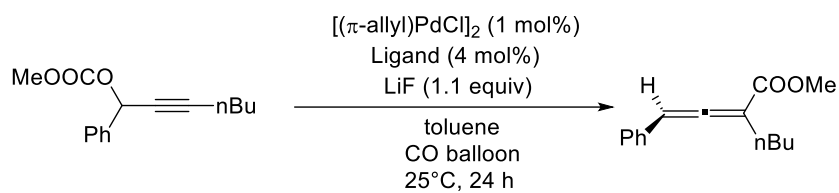
**Tech. Note (2)**  
**Ref. (2)**



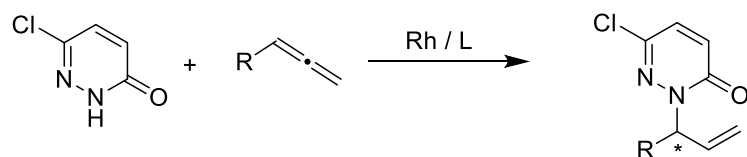
**Tech. Note (3)**  
**Ref. (3)**



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



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



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

References:

1. *J. Am. Chem. Soc.*, **2010**, *132*, 10275.
2. *J. Am. Chem. Soc.*, **2014**, *136*, 17958.
3. *J. Am. Chem. Soc.*, **2015**, *137*, 15929.
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6. *Org. Lett.* **2017**, *19*, 2326–2329.