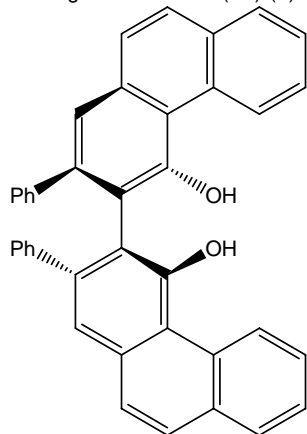
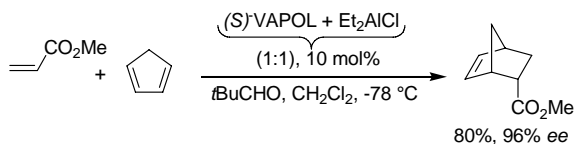


Catalog # 08-1706 (3S)-(+)-2,2'-Diphenyl-[3,3'-biphenanthrene]-4,4'-diol dichloromethane adduct, min. 98% (S)-VAPOL

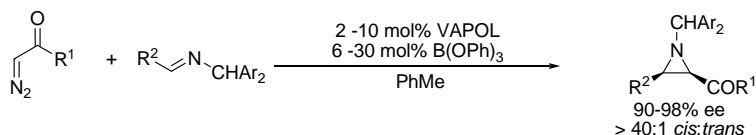


## Technical Notes:

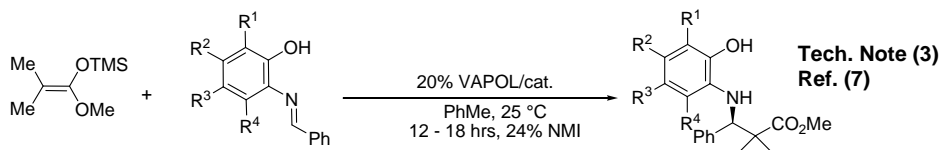
1. Chiral ligand in asymmetric autoinduction of Diels-Alder reactions.
2. Chiral ligand used in catalytic asymmetric aziridination.
3. Chiral ligand used in catalytic asymmetric imino aldol reaction.
4. Chiral ligand used in catalytic asymmetric Petasis reaction.



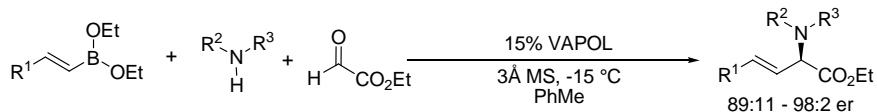
**Tech. Note (1)**  
**Ref. (1,2)**



**Tech. Note (2)**  
**Ref. (3-6)**



**Tech. Note (3)**  
**Ref. (7)**



**Tech. Note (4)**  
**Ref. (8)**

## References:

1. *J. Am. Chem. Soc.*, **1997**, *119*, 10551.
2. *J. Am. Chem. Soc.*, **2007**, *129*, 7216.
3. *J. Am. Chem. Soc.*, **1999**, *121*, 5099.
4. *Angew. Chem. Int. Ed.*, **2000**, *39*, 4518.
5. *J. Am. Chem. Soc.*, **2007**, *129*, 7185.
6. *J. Am. Chem. Soc.*, **2009**, *131*, 15615.
7. *Angew. Chem. Int. Ed.*, **2001**, *40*, 2271.
8. *J. Am. Chem. Soc.*, **2008**, *130*, 6922.