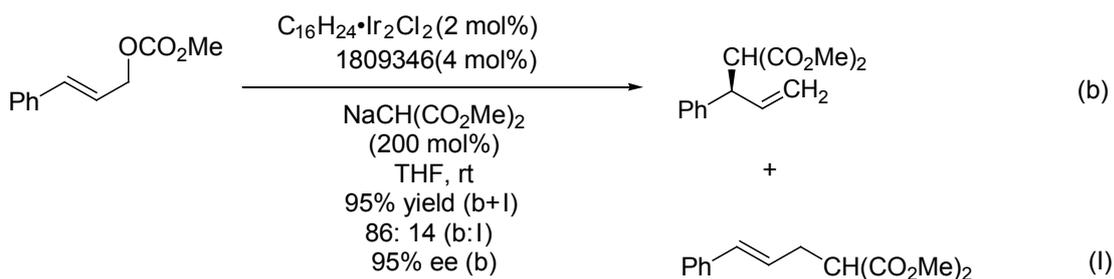


Recent years, enantioselective synthesis becomes more popular in organic synthesis fields, and several mature reactions have been developed, such as chiral catalytic hydrogenation and oxidation. But there are not very efficient catalysts used in C-C bond forming reactions of chiral catalysis.

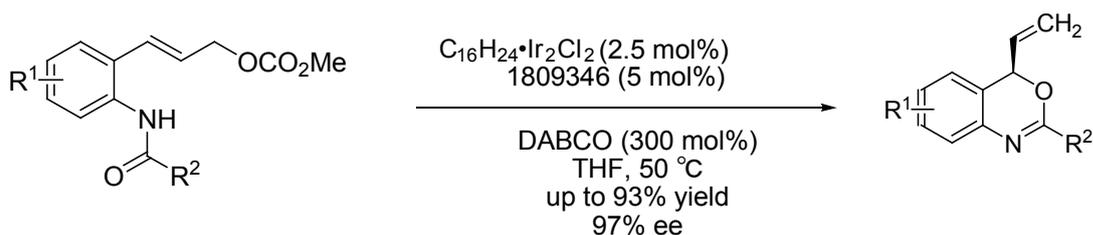
Due to the chiral phosphoramidite ligand are with simple synthesis, stable structures and easy to modify and control, they are widely used in asymmetric hydrogenation, asymmetric hydroformylation, asymmetric hydrogen phosphine acylation, asymmetric bisamination, asymmetric [3+2]-cycloaddition, asymmetric 1,4-addition, etc. And such type of ligands are also able to coordinate with the transition metal Iridium, that the complexes catalysts can be used in asymmetric allylic alkylation with excellent performance.

e.g.



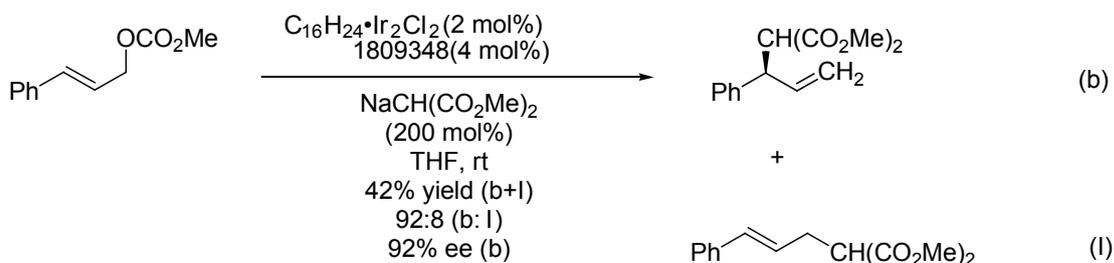
References

Liu, W. B.; Zheng, C.; Zhou, C. X.; et al. *J. Am. Chem. Soc.* **2012**, 134, 4812-4621.



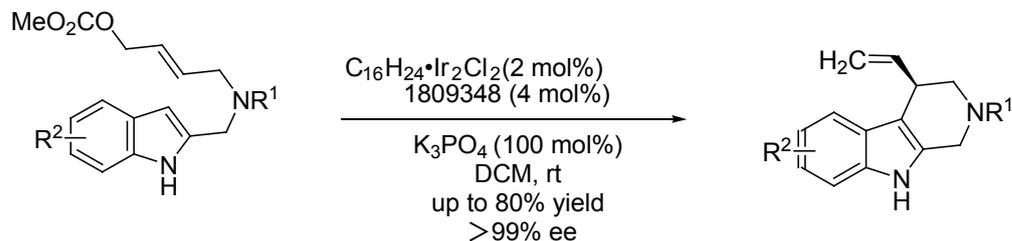
References

Zhao, D. P.; Fananas, M.; Chang, M. C.; et al. *Chem. Sci.* **2014**, 5,4216-4220.



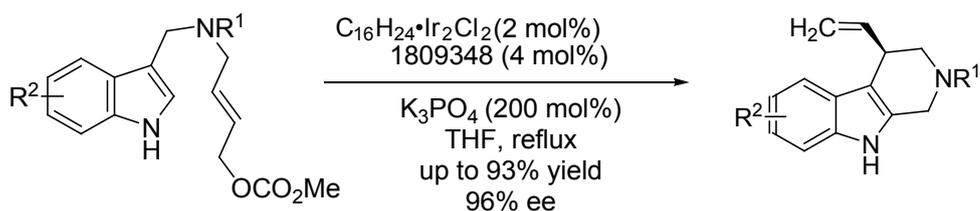
References

Liu, W. B.; Zheng, C.; Zhou, C. X.; et al. *J. Am. Chem. Soc.* **2012**, 134, 4812-4821.



References

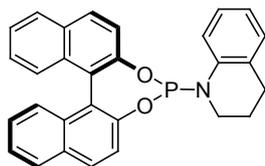
Xu, Q. L.; Zhou, C. X.; Dai, L. X.; et al. *Org. Lett.* **2013**, 15, 5909-5911.



References

Zhou, C. X.; Wu, Q. F.; Zhao, Q.; et al. *J. Am. Chem. Soc.* **2013**, 135, 8169-8172.

1809346

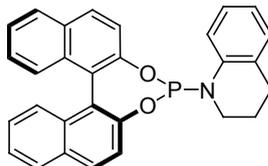


1360145-09-0

(R)-THQphos

1-[(11bR)-Dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin-4-yl]-1,2,3,4-tetrahydroquinoline, 98%

1809347

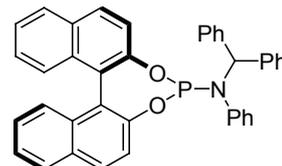


N/A

(S)-THQphos

1-[(11bS)-Dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin-4-yl]-1,2,3,4-tetrahydroquinoline, 98%

1809348

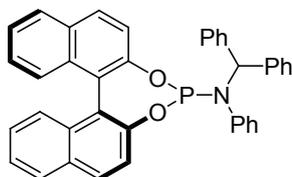


1360145-10-3

(R)-BHPphos

(11bR)-N-Benzhydryl-N-phenyldinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin-4-amine, 98%

1809349



1435947-11-7

(S)-BHPphos

(11bS)-N-Benzhydryl-N-phenyldinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin-4-amine, 98%