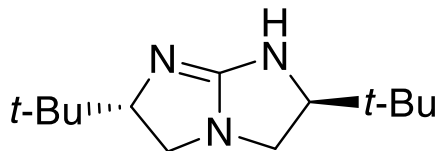
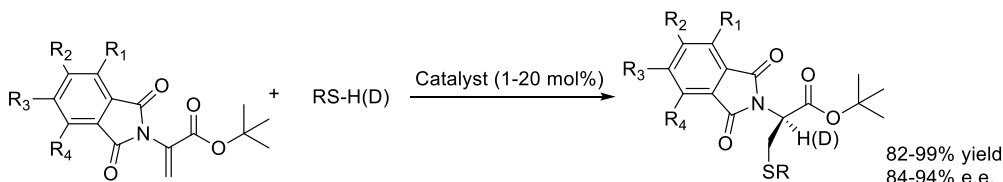


Catalog # 07-6372 (2S,6S)-2,6-Bis(1,1-dimethylethyl)-2,3,5,6-tetrahydro-1H-imidazo[1,2-a]imidazole, 98%

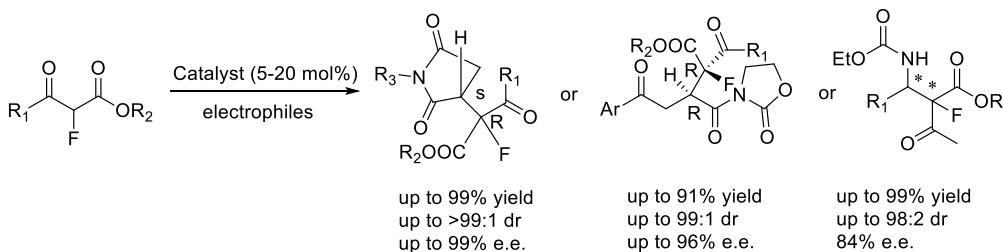


Technical Notes:

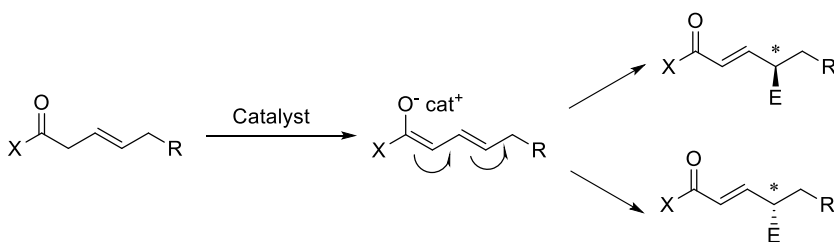
1. Protonation- The guanidine derivative catalyzes a tandem conjugate addition-enantioselective protonation reaction of phthalimidoacrylates with thiols and itaconimides with phosphine oxides.
2. Addition of Fluorocarbon Nucleophiles- Synthesis of a chiral quaternary carbon center bearing a fluorine atom: enantio- and diastereoselective guanidine-catalyzed addition of fluorocarbon nucleophiles. The title reaction provides adducts having quaternary carbon centers bearing a fluorine atom with high ee and d.r. values.
3. Allylic Amination- The title reaction-enantiodivergent and γ -selective asymmetric allylic amination using the guanidine catalyst can deliver both enantiomers of the product with excellent enantioselectivity by judicious choice of the double bond geometry of the the β,γ -unsaturated carbonyl compound.
4. Isomerization- We report that chiral bicyclic guanidine is found to catalyze the isomerization of alkynes to chiral allenes with high enantioselectivities. This Bronsted base catalyzed 1,3-proton shift reaction, an efficient and atom economical reaction, proceeds through deprotonation and protonation sequences.



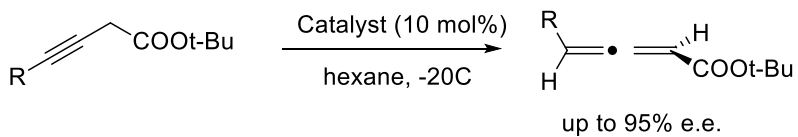
Tech Note (1)
Ref. (1)



Tech Note (2)
Ref. (2)



Tech Note (3)
Ref. (3)



Tech Note (4)
Ref. (4)

References:

1. *Angew. Chem. Int. Ed.*, **2008**, 47, 5641-5645.
2. *Angew. Chem. Int. Ed.*, **2009**, 48, 3627-3631.
3. *Angew. Chem. Int. Ed.*, **2012**, 51, 2382-2386.
4. *J. Am. Chem. Soc.*, **2009**, 131, 7212-7213.