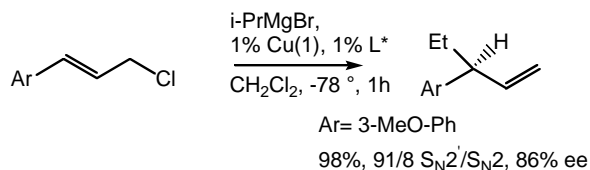
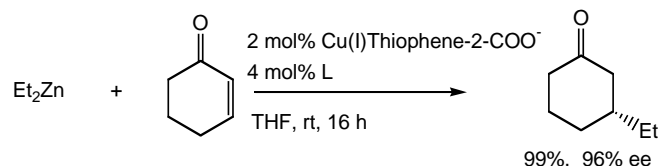


Technical Notes:

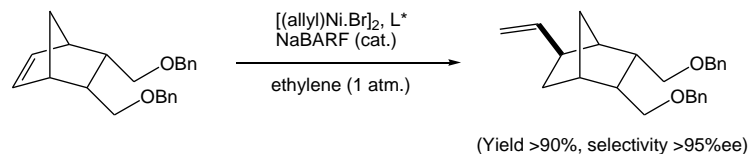
1. Ligand for the copper catalyzed, highly regioselective substitution reactions of a wide variety of aromatic substituted allylic halides to form branched chiral products from diverse Grignard reagents.
2. Ligand for the copper catalyzed, highly enantioselective conjugate addition of diethylzinc to enones and nitro olefins.
3. Ligand for the nickel catalyzed, highly enantioselective hydrovinylation of alkenes.
4. Ligand for the rhodium catalyzed, highly enantioselective hydroformylation of vinylarenes.
5. Ligand for gold catalyzed asymmetric intramolecular hydroamination of allenes



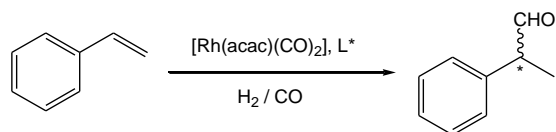
Tech. Note (1)
Ref. (1,2)



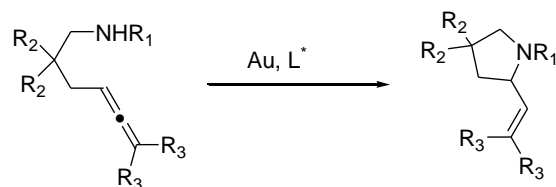
Tech. Note (2)
Ref. (3,4)



Tech. Note (3)
Ref. (5)



Tech. Note (4)
Ref. (6)



Tech. Note (5)
Ref. (7)

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